

CALIFORNIA COASTAL COMMISSION

NORTH CENTRAL COAST DISTRICT OFFICE
45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105
PHONE: (415) 904-5260
FAX: (415) 904-5400
WEB: WWW.COASTAL.CA.GOV



Th8a

Filed: 11/15/2018
Action Deadline: 8/12/2019
Staff: J. Manna/S.Rexing - SF
Staff Report: 6/21/2019
Hearing Date: 7/11/2019

STAFF REPORT: CDP HEARING

Application Number: 2-16-0784

Applicants: 2 Mirada Road Ownership Group and Casa Mira Homeowner's Association

Project Location: Along the bluff seaward of 2 Mirada Road and the California Coastal Trail near where Mirada Road intersects the shoreline at the bridge over Arroyo de en Medio Creek fronting on Half Moon Bay State Beach in the City of Half Moon Bay, San Mateo County (APN 048-051-090).

Project Description: Removal of a temporary riprap revetment (approximately 200 feet in length and 20 feet wide (depth) constructed under emergency CDPs G-2-16-0045 and G-2-17-0046), and construction of a tied-back shotcrete seawall 257 feet in length by 2.5 feet wide with a public access staircase along the bluff face.

Staff Recommendation: Approval with conditions.

SUMMARY OF STAFF RECOMMENDATION

The proposed project site is located along the bluff and beach (Half Moon Bay State Beach) seaward of a multi-family apartment building at 2 Mirada Road, a segment of the California Coastal Trail (CCT), and four condominium buildings in the Casa Mira condominium complex (just inland of the CCT) in the City of Half Moon Bay, San Mateo County. The project shoreline area, extending from the bridge over Arroyo de en Medio Creek some 390 linear feet downcoast past the apartment building, is currently armored with a riprap revetment. The downcoast portion of this riprap (extending from the south to a point approximately 30 feet from the southernmost

edge of the apartment building) was temporarily installed pursuant to two emergency CDPs (ECDPs) issued in 2016 and 2017. The upcoast portion of this riprap (i.e., from the bridge extending downcoast the same point some 30 feet south of the edge of the apartment building) was partially installed prior to implementation of the Coastal Act (i.e., roughly the 85 linear foot area directly fronting the apartment building) and partially (i.e., roughly 145 linear feet - a portion of which lies on State Parks sandy beach property) installed without required CDPs. Neither the pre-Coastal riprap nor the unpermitted riprap in this upcoast area are a part of the proposed project. Rather, the unpermitted riprap is the subject of an open enforcement investigation and will be addressed along with any issues with the pre-Coastal Act riprap separately at a later date. Only the downcoast portion of the riprap, installed temporarily via the recent ECDPs, is pertinent to this CDP application – including as the Applicants here propose to remove it and install a tied-back shotcrete seawall in its place.

The coastal bluff at the project location varies from about 24 to 32 feet in elevation above the beach level, and it is regularly subject to wave action, bluff sloughing, and ongoing erosion. In addition to the State Beach fronting the project area, blufftop State Parks land also extends directly south of the project site, currently preserved as open space with a component of the California Coastal Trail (CCT) winding through it. The adjacent and nearby shoreline area to the south is comprised of a mix of open and generally accessible beaches, unobstructed by shoreline armoring and with very little blufftop development. Across the bridge over Arroyo de en Medio Creek lies Mirada Road, which extends about a quarter-mile north and provides both vehicular and very popular CCT access (extending to the north to the Mirada Surf component of the CCT that extends to Pillar Point Harbor), which is fronted by riprap and Miramar Beach. While the CCT is extremely popular in this area, there is currently no formal vertical beach access available from the blufftop to sandy beach level until the stairway near Pillar Point Harbor at Surfer's Beach, almost a mile to the north of the project site.

A 1984 Coastal Commission CDP (CDP 3-83-351) subdivided the property that, at that time, contained the apartments and undeveloped inland land into two parcels, the apartment building site (originally constructed in the early 1970s) seaward of the CCT and land inland of the CCT. That CDP also allowed construction of the four condominium buildings comprising 10 townhouse units of what is now the Casa Mira condominium complex on the more inland parcel. CDP 3-83-351 also required a lateral public access easement over the CCT area running between the apartments and the condominium buildings, a vertical public access easement from Mirada Road to the beach including development of a beach access stairway, and a lateral public access easement covering the area from the bluff edge to the mean high tide line. A wood/cable beach access stairway was eventually (i.e., 15 years later) constructed in June 1999, not in the originally approved location, but rather 200 feet south of the apartment building on State Parks property. The stairs were eventually washed out and destroyed by wave action.

In the winter of 2015-2016, heavy wave action caused unexpected bluff failure of approximately 20 feet in the vicinity of the project area. Subsequently, a total of 4,000 tons of riprap was placed pursuant to ECDPs G-2-16-0045 and G-2-17-0046. The proposed project involves removal of the temporary riprap placed pursuant to the two ECDPs, followed by installation of a tied-back shotcrete seawall in the same location. The proposed seawall would armor the bluff just downcoast of the apartments and fronting the CCT, covering the bluffs in this area completely, and extending approximately 257 lateral feet along the bluff south from the end of the existing

apartment revetment along the bluff. The proposed armoring would be colored and contoured to mimic a natural bluff face.

Staff has reviewed the armoring proposal for this downcoast project area and concurs that the proposed vertical seawall is the preferable alternative under the Coastal Act to minimize significant adverse impacts to coastal resources while protecting the coastal-dependent CCT and the pre-Coastal Act apartments. The approximately 2.5-foot wide seawall will occupy much less public beach space than a riprap revetment would (including as evidenced by the current temporary revetment in that area), and can be designed to blend, as much as feasible, into the natural bluff environment through colorizing and contouring its surface to match natural bluff landforms. In addition, staff has worked closely with the Applicants on an appropriate mitigation package to offset coastal resource impacts from the proposed shoreline armoring. These measures include the Applicants providing for: (1) construction of a new beach access stairway, incorporated into the seawall design; (2) dedication of private blufftop land for public access to facilitate CCT connection to the new beach stairway; (3) construction of a portion of the realigned blufftop CCT segment (8 feet wide, approximately 300 lateral feet) above the proposed armoring and connecting to and running through State Parks' property directly south of the project site to minimize erosion risk; (4) landscaping improvements and installation of access amenities (i.e., public benches, bicycle racks, signage, etc.); (5) removal of all existing timber piles on the beach seaward of the proposed armoring to open up additional sandy beach area for public recreation; (6) a contribution in the amount of \$10,000 to help provide for potential public access stairway improvements to the beach to the north of the project site; and (7) ongoing maintenance of these public access areas, improvements, and amenities.

Thus, staff recommends that the Commission approve a CDP for the proposed project with conditions designed to: (1) ensure that the project is the minimum necessary to protect the endangered existing structure and the CCT; (2) provide enhanced public recreational access and amenities; (3) require other agency approvals; (4) require assumption of risk, waiver of liability and indemnity agreements against coastal hazards; (5) require monitoring and maintenance of the as-built project and access improvements; (6) provide for appropriate coastal bluff landscaping to help provide visual screening of the armoring; (7) include appropriate best management practices to protect water quality, public access, and other coastal resources during construction; (8) require installation of public access improvements including trail improvements, the beach stairway (as required by CDP 3-83-351), and a contribution towards future access stairways to the north of the project site; (9) record an offer to dedicate the public access areas and (10) record a general deed restriction against the property governed by this CDP. Again, issues associated with the unpermitted riprap upcoast of the project area are not addressed herein, and will be considered separately through other means including as an enforcement matter.

Therefore, as conditioned, the project can be found consistent with the Coastal Act, and staff recommends approval of the CDP. The motion is found on page 5 below.

TABLE OF CONTENTS

I. MOTION AND RESOLUTION	5
II. STANDARD CONDITIONS	5
III.SPECIAL CONDITIONS	5
IV.FINDINGS AND DECLARATIONS	22
A. PROJECT LOCATION AND BACKGROUND	22
B. PROJECT DESCRIPTION	24
C. STANDARD OF REVIEW	24
D. GEOLOGIC CONDITIONS AND HAZARDS	24
E. PUBLIC ACCESS AND RECREATION	44
F. PUBLIC VIEWS	47
G. MARINE RESOURCES.....	50
H. OTHER AGENCY APPROVALS	51
I. VIOLATION.....	52
J. OTHER	53
K. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)	54

APPENDICES

Appendix A – Substantive File Documents

Appendix B – Staff Contacts with Agencies and Groups

EXHIBITS

Exhibit 1: Project Location

Exhibit 2: Project Area Photos

Exhibit 3: Proposed Project Plans

Exhibit 4: Sewer Line Map

Exhibit 5: Emergency CDPs G-2-16-0045 and G-2-17-0046

Exhibit 6: Mirada Land Valuation

Exhibit 7: Sand Bids

Exhibit 8: Easement Map

Exhibit 9: Coastal Trail Realignment Map

Exhibit 10: Permitted vs. Unpermitted Riprap

CORRESPONDENCE

I. MOTION AND RESOLUTION

Staff recommends that the Commission, after public hearing, **approve** a CDP for the proposed development. To implement this recommendation, staff recommends a **YES** vote on the following motion. Passage of this motion will result in approval of the CDP as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

***Motion:** I move that the Commission **approve** Coastal Development Permit Number 2-16-0784 pursuant to the staff recommendation, and I recommend a **yes** vote.*

***Resolution to Approve CDP:** The Commission hereby approves Coastal Development Permit Number 2-16-0784 for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the Permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.*

II. STANDARD CONDITIONS

This permit is granted subject to the following standard conditions:

- 1. Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the Applicants or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
- 2. Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
- 3. Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
- 4. Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
- 5. Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the Applicants to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

- 1. Revised Final Plans.** PRIOR TO ISSUANCE OF THE CDP, the Permittees shall submit two full-size sets of Revised Final Plans to the Executive Director for review and written approval. The Plans shall be prepared by a licensed professional or professionals (i.e., geotechnical engineer, surveyor, etc.), shall be based on current professionally surveyed and certified topographic elevations for the entire site, and shall include a graphic scale. The Revised Final Plans shall be in substantial conformance with the proposed plans (by TerraCosta Consulting Group titled “BLUFF STABILIZATION PROJECT” dated June 3, 2019 on sheet 1, and received in the Coastal Commission’s North Central Coast District office on June 13, 2019 – **see Exhibit 3**), except that they shall be modified as required below:

- (a) Concrete Surfacing.** All seawall (including the seawall’s top edge) and stairway concrete surfaces shall be faced with a sculpted concrete surface that mimics natural undulating bluff landforms in the vicinity in terms of integral mottled color, texture, and undulation to the maximum extent feasible (except that stair treads may be contoured for safety while meeting all other requirements). Any protruding elements (e.g., corners, edges etc.) shall be contoured in a non-linear manner designed to evoke natural bluff undulations. All drainage and related elements within the sculpted concrete shall be camouflaged (e.g., randomly spaced, hidden with overhanging or otherwise protruding sculpted concrete, etc.) so as to be hidden from view and/or inconspicuous as seen from the top of the bluffs and the beach, including in terms of any expected drainage staining over time. The color, texture and undulations of the seawall and stairway surfaces shall be maintained throughout the life of the structure. AT LEAST 30 DAYS PRIOR TO COMMENCEMENT OF FINISH CONCRETE SURFACING, the Permittees shall submit to the Executive Director for review and approval the qualifications of the contractor who will perform the finish concrete work, including photos and identification of similar completed projects. Such finish concrete work shall not commence until the Executive Director has approved the finish concrete contractor.
- (b) Base of Stairway.** The stairway shall include a concrete base sufficient to ensure its continued function and utility.
- (c) Wave Deflector.** The proposed wave deflector on the seawall shall be eliminated, and this area shall instead meet the requirements of **Special Condition 1(a)** above. This area at the top of the seawall may have some seaward protrusion provided it meets the requirements of **Special Condition 1(a)**.
- (d) Riprap Transition.** Riprap located at the upcoast edge of the seawall shall be removed or restacked to provide an appropriate transition between the seawall and the upcoast riprap, while limiting the amount of riprap on the beach for this purpose to the maximum feasible extent. All such transition riprap is authorized only on a temporary basis and shall be removed as soon as is feasible, and in no event no later than three years from the date of CDP approval (i.e., by July 11, 2022) unless extended by the Executive Director on demonstration of good cause. The final disposition shall be determined through the enforcement and/or CDP processes as necessary to resolve permitting issues with the pre-CDP requirement riprap and unpermitted riprap in the area extending north from the northernmost end of the seawall.

- (e) **Blufftop Area Fencing/Barriers.** All existing wire fencing at the blufftop edge, both up and downcoast of the apartment building at 2 Mirada Road, shall be removed. Any wooden post and rope barriers along the blufftop upcoast of the apartment building may remain only if they are modified to match the existing wooden post and rope barrier along the edge of the Coastal Trail. The derelict wood fencing immediately adjacent to the upcoast corner of the apartment building shall be removed. Wooden post and rope barriers shall match the existing wooden post and rope barrier along the edge of the Coastal Trail, wooden split-rail fencing, or other safety fencing where required designed consistent with **Special Condition 1(f)**, and such barriers shall be limited to locations only where required for public safety. No double fencing shall be allowed in the project area.
- (f) **Railing.** The proposed railing atop the seawall itself shall be eliminated. Stairway railings shall be metal, capable of withstanding the rigors of the shoreline location, and shall be sited and designed to blend as much as possible into the seawall/stairway camouflaging (including limiting rail segments as much as possible, and using integral color to match the seawall/stairway's mottled color, corten steel, mottled or flat-black paint, etc.). A transition railing near the top of the stairway or safety fencing in the areas where the Coastal Trail is closest to the bluff edge may be allowed to address potential public safety concerns on the blufftop, provided the railing is the minimum configuration necessary for safety, it can be proven that the safety railing or fencing is necessary, and that it is sited and designed to minimize visual impacts as much as possible. Any fencing for safety purposes allowed will be limited to the locations and alignment (specifically, the configuration where the fence aligns with the seaward edge of the Coastal Trail) proposed in the submitted fencing plans (see **Exhibit 3**, page 7).
- (g) **Drainage.** All drainage and related elements within the sculpted concrete and any related energy dissipation measures shall be camouflaged (e.g., randomly spaced, hidden with overhanging or otherwise protruding sculpted concrete, etc.) so as to be hidden from view and/or inconspicuous as seen from the on top of the bluffs and the beach. All drainage elements shall be sited and designed to reduce the potential for drainage-caused erosion, and to be as inconspicuous as possible.
- (h) **Landscaping.** Non-native and invasive plant species in the area between the Coastal Trail and the seawall and extending north as far as the apartment building walkway entrance shall be removed and not be allowed to persist, and such area shall be landscaped with native and noninvasive plant species that are tolerant of salt air and salt spray, with a preference for species capable of trailing vegetation that can help screen the top of the seawall as seen from the trail and beach as much as possible. All such plants shall be kept in good growing condition and shall be replaced as necessary to maintain the approved vegetation over the life of the project, including to maintain some visual screening of the top of the seawall. Regular monitoring and provisions for remedial action (such as replanting as necessary) shall be identified to ensure landscaping success.
- (i) **Irrigation.** Irrigation shall be limited to that necessary to ensure landscaping success, and shall be sited and designed to avoid and reduce the potential for contributing to bluff erosion.

- (j) **Timber Piles.** All existing timber piles on the beach seaward of the proposed armoring (approximately 25 piles total, generally extending 3 to 9 feet above the sand) shall be removed from the beach area and properly disposed of outside the coastal zone. If unable to remove completely, the piles may be cut off below the typical winter beach elevation, provided they are cut off at least three feet below such elevation.
- (k) **Excavated Sand Berm.** The proposed excavated sand berm (see **Exhibit 3**, page 2) shall be modified as necessary to ensure continuous lateral accessway of at least 25 feet on the beach above the extent of tidal wash at all times.
- (l) **Drilled Piers.** Details regarding the drilled piers at the upcoast and downcoast ends of the seawall shall be provided, including expected depths and any grade beams or other connector components. Drilled piers and any connectors shall all be below grade, and plans shall provide for them to be buried as part of the project. Any drilled piers that become visible shall be required to meet the requirements of **Special Condition 1(a)** above, subject to Executive Director approval of all methods to achieve same prior to any such work being undertaken.
- (m) **Surveyed Benchmarks.** The Plans shall identify an appropriate number of surveyed benchmarks, including location and elevation, to be used for future monitoring evaluations (see also **Special Condition 7**).
- (n) **Private Development in Right-of-way/Dedication Area.** All private development associated with the driveway and the parking lot for the apartments, that is located in the public right-of-way or in the required public dedication area (i.e., pursuant to CDP 3-83-351) (see **Exhibit 8**) shall be removed and area restored to public purposes (e.g., landscaped area, public pathway, etc.). A low wooden rope and pole barrier can continue to be present at the demarcation point between private and public property interest provided it is designed to match the existing wooden post and rope barrier along the edge of the Coastal Trail.
- (o) **Other Public Access Improvements.** In addition to the beach stairway, the Plans shall provide for the following additional public access improvements, which shall be sited and designed to maximize coastal view protection and minimize visual intrusion, including through use of materials appropriate to the shoreline context that blend with the natural environment and existing improvements in the area:
 - i. **Trail Improvements.** A portion of the Coastal Trail shall be re-routed inland south of the stairway location as indicated on **Exhibit 9**, and the area seaward of it currently used as trail restored to a natural blufftop state similar to the surrounding natural blufftop area. The rerouted trail shall connect with the existing trail near the stairway and link back up with the Coastal Trail further to the south; shall be a minimum of 8 feet wide; shall be paved to match existing trail segments at either end; and shall meander in a curvilinear fashion and be roughly parallel to the shoreline orientation. The re-routed trail shall be sited and designed to eliminate the need for railings or other such safety barriers as much as possible (e.g., set back a sufficient distance from the blufftop edge), and any required safety barriers shall match the existing wooden

post and rope barrier along the edge of the Coastal Trail.

- ii. **Beach Stairway.** A new public access stairway from the blufftop to the sandy beach that is substantially consistent with the stairway described and shown on the proposed plans (see **Exhibit 3**) shall be provided. The stairway treads shall be at least 4 feet, 6 inches wide (as measured between any required railings, or as measured between the sculpted concrete where no such railings are present) and at least 12 inches deep, with a roughly 7 inch rise; any landings shall also be at least 4 feet, 6 inches in all directions; and the stairway shall extend to the base of the seawall, to which it shall be structurally connected, with a concrete base (see also **Special Condition 1(b)** above).
 - iii. **Public Access Amenities.** At least one public access bench shall be provided near the stairway seaward of the trail, and at least one bench shall be provided north of the 2 Mirada apartments on the existing public easement area seaward from the end of Mirada Road (see **Exhibit 8**). Such benches shall be constructed of natural materials designed to blend into the natural setting as much as possible, and shall be accessible from the CCT, either directly or through short pathway connector segments. For the bench area north of the 2 Mirada apartments, such area shall also be revegetated in the same way as described in **Special Condition 1(h)** above. In addition, the Plans shall provide for an adequate number (i.e., commensurate to the expected level of use) of bicycle racks distributed appropriately along the trail in the project area in a way that maximizes their public access utility and minimizes their impact on public views.
 - iv. **Signage.** The Plans shall provide for the installation of informational, directional, and safety signage at appropriate locations. The signs shall be designed so as to provide clear public use information without adversely impacting public views and site character, with directional signs where the trail meets Mirada Road and the stairway at a minimum. At a minimum, at least one public access interpretive sign (appropriate to Half Moon Bay shoreline issues, information, and/or history) shall be located at an appropriate location along the trail. Sign details showing the location, materials, design, and text of all public access signs shall be provided. Signs shall include the California Coastal Trail and California Coastal Commission emblems and recognition of the Coastal Commission's role in providing public access at this location.
- (p) **Easements.** All development shall be shown in relation to both existing public access easement/dedication areas from prior CDP authorizations (as shown in **Exhibit 8**) as well as the required public access easement/dedication areas associated with this CDP (see **Special Condition 4**), and all public access improvements shall be located within such areas entirely.

The Revised Final Plans shall be submitted with evidence of City of Half Moon Bay and California State Parks review and approval. All requirements above and all requirements of the approved Revised Final Plans shall be enforceable components of this CDP. The Permittee shall undertake development in accordance with this condition and the approved Revised Final Plans. Minor adjustments to these requirements may be allowed by the

Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources.

2. **Public Access Management Plan.** PRIOR TO ISSUANCE OF THE CDP, the Permittees shall submit two sets of a Public Access Management Plan (Plan) to the Executive Director for review and approval. The Plan shall clearly describe the manner in which public recreational access to the beach and along the Coastal Trail inland of the armoring is to be provided and managed, with the objective of maximizing public access and recreational use of all public access areas associated with the approved project (including the Coastal Trail, the beach stairway, and the beach) and all related areas and public access amenities (i.e., benches, picnic tables, etc.) as described in this special condition and **Special Condition 1**. All public access improvements shall be sited and designed to maximize coastal view protection and minimize visual intrusion, including through use of materials appropriate to the shoreline context that blend with the natural environment and existing improvements in the area. The Plan shall at a minimum include and provide for all of the following:
 - (a) **Public Access Areas and Amenities.** The Plan shall clearly identify and depict on a site plan all existing and required public access areas and amenities, including the Coastal Trail, beach access stairway, and other public access amenities and improvements described herein and in **Special Condition 1**, as well the existing public access easement/dedication areas (from prior CDP authorizations) and the required public access easement/dedication areas associated with this CDP (see **Special Condition 4**).
 - (b) **Public Access Use Parameters.** All parameters for use of the Coastal Trail area, the beach access stairway, and all other access areas, improvements and amenities shall be clearly identified. All such public access areas, improvements, and amenities shall be publicly available for general public pedestrian access and other public access consistent with the terms and conditions of this CDP.
 - (c) **No Public Access Disruption.** Development and uses within the Plan's public access areas that disrupt or degrade public access, including areas set aside for private uses, barriers to public access (such as planters, temporary structures, private use signs, fences, barriers, ropes, etc.) shall be prohibited. The public use areas, improvements, and amenities shall be maintained consistent with the approved Plan and in a manner that maximizes public use and enjoyment.
 - (d) **Public Access Use Hours.** All public access areas, improvements, and amenities shall be available to the general public 24 hours a day and shall be free of charge.
 - (e) **Public Access Construction.** All public access areas, improvements, and amenities associated with the approved project shall be constructed and available for public use as soon as possible, but no later than the Saturday of Memorial Day weekend 2021 (May 23, 2021). The Executive Director may extend this deadline on demonstration of good cause.
 - (f) **Public Access Areas and Amenities Maintained.** All of the public access areas, improvements, and amenities shall be constructed in a structurally sound manner and maintained in their approved state consistent with the terms and conditions of this CDP,

including through ongoing repair, maintenance, or relocation (if necessary to respond to shoreline erosion) of all public access improvements. Prior to any modification, movement, or replacement of access improvements, the Permittees shall obtain an amendment to this CDP to authorize such development, unless the Executive Director determines that an amendment is not legally necessary. Public use areas shall be maintained consistent with the approved Public Access Management Plan and in a manner that maximizes public use and enjoyment.

The Public Access Management Plan shall be submitted with evidence of City of Half Moon Bay and California State Parks review and approval. All requirements above and all requirements of the approved Public Access Management Plan shall be enforceable components of this CDP. The Permittees shall undertake development in accordance with this condition and the approved Public Access Management Plan. Minor adjustments to the above requirements, as well as to the Executive Director-approved Plan, which do not require a CDP amendment or new CDP (as determined by the Executive Director) may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources.

3. **Public Access Mitigation Fee.** PRIOR TO ISSUANCE OF THE CDP, the Permittees shall submit evidence, in a form and content acceptable to the Executive Director, that a fee in the amount of \$10,000 has been deposited into an interest bearing account designated by the Executive Director, and held by San Mateo County, the City of Half Moon Bay, the California Department of Parks and Recreation, the Coastal Conservancy, or another Executive Director-approved entity, for the purpose of helping to fund the future construction of a public beach stairway or stairways north of the proposed armoring (near where the pedestrian bridge spans the Arroyo de en Medio Creek) to connect the Coastal Trail to the beach. All interest earned on the fee will be payable to the account. The funds and accrued interest may also be used for provision, restoration and enhancement of public access and recreational opportunities along the shoreline in the City of Half Moon Bay, including but not limited to public access improvements, recreational amenities, and/or acquisition of privately-owned beach or beach-fronting property for such uses, with a preference for a beach access stairway north of the apartments at 2 Mirada Road, as the headland there blocks lateral beach access most of the time. All of the funds and any accrued interest shall be used for the above-stated purposes, in consultation with the Executive Director, within ten years of the funds being deposited into the account. Any funds and accrued interest not so used by that time may be directed to other projects and/or accounts at the Executive Director's discretion. The funds shall be released only upon approval of an appropriate project by the Executive Director, and subject to a Memorandum of Agreement (MOA) setting forth terms and conditions to ensure the funds will be expended in the manner intended by the Commission. If the MOA is terminated, the Executive Director may appoint an alternate entity to administer the funds consistent with the terms of this condition, via a revised/replacement MOU with the alternate entity.
4. **PUBLIC ACCESS EASEMENT- OFFER TO DEDICATE THREE AREAS.** WITHIN 180 DAYS OF APPROVAL OF THIS COASTAL DEVELOPMENT PERMIT, and in order to implement the applicant's proposal, the Permittees shall execute and record a document, in a form and content acceptable to the Executive Director, irrevocably offering to dedicate to a

public agency or private entity, approved by the Executive Director, a public access easement for public access and recreational uses in perpetuity. The easement shall consist of two lateral areas and a triangular area, each area available for beach access, pedestrian and hiking use, and passive recreational uses, including but not limited to picnicking, resting, nature observation, and photography. Such easement shall be located as shown in the red-colored areas of page 1 of **Exhibit 8**. The Commission's intent is that the newly-offered areas be contiguous with existing easements, as shown in **Exhibit 8**, in order to create a unified area for public access. The Executive Director may extend the deadline to record for good cause.

(a) No development, as defined in Section 30106 of the Coastal Act, shall occur within the easement area except for the following development authorized by this CDP:

- i. Public access improvements as identified in **Special Condition 1** and the approved the Public Access Management Plan (**Special Condition 2**) (including, but not limited to trail improvements, a beach access stairway, benches, bike racks and signage), and
- ii. Other project-related development as identified on the approved Revised Final Plans (**Special Condition 1**) including rope and pole barriers or other fencing, drainage and irrigation, native landscaping, and the portions of the seawall within the easement area that do not obstruct or detract from public access and recreational use of the easement area.

The recorded document(s) shall include a legal description and corresponding graphic depiction of the legal parcel(s) subject to this permit and a metes and bounds legal description and a corresponding graphic depiction, drawn to scale, of the perimeter of the easement area prepared by a licensed surveyor based on an on-site inspection of the easement area. The document shall also provide that access shall be uninterrupted at all times.

The public access easement shall be ambulatory, and the easement boundaries and amenities (e.g., path, trail, benches, etc.) shall move inland within the permittee's property, if relocation and/or reconstruction of access amenities in the easement area are necessary to retain their continuity and/or utility.

(c) The offer to dedicate shall be recorded free of prior liens and any other encumbrances that the Executive Director determines may affect the interest being conveyed. The document shall provide that the offer of dedication shall not be used or construed to allow anyone to interfere with any rights of public access acquired through use which may exist on the property.

(d) The offer to dedicate shall run with the land in favor of the People of the State of California, binding successors and assigns of the applicant or landowner in perpetuity, and shall be irrevocable for a period of 21 years, such period running from the date of recording, and indicate that the restrictions on the use of the land shall be in effect upon recording and remain as covenants, conditions and restrictions running with the land in perpetuity, notwithstanding any revocation of the offer.

5. Construction Plan. PRIOR TO ISSUANCE OF THE CDP, the Permittees shall submit two

copies of a Construction Plan to the Executive Director for review and written approval. The Construction Plan shall, at a minimum, include and provide for the following:

- (a) **Construction Areas.** The Construction Plan shall identify the specific location of all construction areas, all staging areas, and all construction access corridors in site plan view. All such areas within which construction activities and/or staging are to take place shall be minimized to the fullest extent feasible in order to have the least impact on public access and ocean resources, including by using, as feasible, inland areas for staging and storing construction equipment and materials. Special attention shall be given to siting and designing construction areas in order to minimize impacts on the ambiance and aesthetic values of the Coastal Trail area, including but not limited to public views across the site.
- (b) **Construction Methods.** The Construction Plan shall specify the construction methods to be used, including all methods to be used to keep the construction areas separate from public recreational use areas as much as possible (including using unobtrusive temporary fencing or equivalent measures to delineate construction areas), and including verification that equipment operation and equipment and material storage will not, to the maximum extent feasible, significantly degrade public views during construction. The Plan shall limit construction activities to avoid coastal resource impacts as much as possible including lighting of work areas.
- (c) **Construction Timing.** Construction is prohibited during weekends; from the Saturday of Memorial Day through Labor Day inclusive; and during non-daytime hours (i.e., from one-hour after sunset to one-hour before sunrise), unless due to extenuating circumstances the Executive Director authorizes such work. Lighting of the work area is prohibited.
- (d) **Construction BMPs.** The Construction Plan shall identify the type and location of all erosion control and water quality best management practices that will be implemented during construction to protect coastal water quality, including at a minimum all of the following:
 - i. **Runoff Protection.** Silt fences, straw wattles, or equivalent apparatus shall be installed at the perimeter of the blufftop portion of the construction site to prevent construction-related runoff and sediment from discharging from the construction area, or entering into storm drains or otherwise offsite or towards the beach and ocean. Similar apparatus shall be applied on the beach area for the same purpose when potential runoff is anticipated. Special attention shall be given to appropriate filtering and treating of all runoff, and all drainage points, including storm drains, shall be equipped with appropriate construction-related containment, filtration, and treatment equipment.
 - ii. **Equipment BMPs.** Equipment washing, refueling, and servicing shall take place at an appropriate off-site and inland location to help prevent leaks and spills of hazardous materials at the project site, at least 50 feet inland from the bluff edge and preferably on an existing hard surface area (e.g., a road) or an area where collection

of materials is facilitated. All construction equipment shall also be inspected and maintained at a similarly sited inland location to prevent leaks and spills of hazardous materials at the project site.

- iii. **Good Housekeeping BMPs.** The construction site shall maintain good construction housekeeping controls and procedures at all times (e.g., clean up all leaks, drips, and other spills immediately; keep materials covered and out of the rain, including covering exposed piles of soil and wastes; dispose of all wastes properly, place trash receptacles on site for that purpose, and cover open trash receptacles during wet weather; remove all construction debris from the site; etc.).
 - iv. **Erosion and Sediment Controls.** All erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each work day.
 - v. **No Intertidal Grading.** Grading of intertidal areas is prohibited, except removal of existing riprap and timber piles is allowed in these areas if required to allow their required removal.
 - vi. **Rubber-tired Construction Vehicles.** Only rubber-tired construction vehicles are allowed on the beach, except track vehicles may be used if the Executive Director determines that they are required to safely carry out construction. When transiting on the beach, all such vehicles shall remain as close to the bluff edge as possible and avoid contact with ocean waters.
 - vii. **Construction Material Storage.** All construction materials and equipment placed seaward of the bluff during daylight construction hours shall be stored beyond the reach of tidal waters. All construction materials and equipment shall be removed in their entirety from these areas by one-hour after sunset each day that work occurs, except for necessary erosion and sediment controls and construction area boundary fencing where such controls and fencing are placed as close to the toe of the armoring or exposed bluff as possible, and are minimized in their extent.
- (e) **Restoration.** All Coastal Trail area, beach area and other public recreational use areas and all beach access points impacted by construction activities shall be restored to their pre-construction condition or better within three days of completion of construction. Any native materials impacted shall be filtered as necessary to remove all construction debris.
- (f) **Construction Site Documents.** The Construction Plan shall provide that copies of the signed CDP and the approved Construction Plan be maintained in a conspicuous location at the construction job site at all times, and that such copies are available for public review on request. All persons involved with the construction shall be briefed on the content and meaning of the CDP and the approved Construction Plan, as well as the public review requirements applicable to them, prior to commencement of construction.
- (g) **Construction Coordinator.** The Construction Plan shall provide that a construction coordinator be designated to be contacted during construction should questions arise regarding the construction (in case of both regular inquiries and emergencies), and that the construction coordinator's contact information (i.e., address, phone numbers, email,

etc.), including, at a minimum, an email address and a telephone number that will be made available 24 hours a day for the duration of construction, is conspicuously posted at the job site where such contact information is readily visible from public viewing areas while still protecting public views as much as possible, along with indication that the construction coordinator should be contacted in the case of questions regarding the construction (in case of both regular inquiries and emergencies). The construction coordinator shall record the name and contact information (i.e., address, email, phone number, etc.) and nature of all complaints received regarding the construction, and shall investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the complaint or inquiry. All complaints and all actions taken in response shall be summarized and provided to the Executive Director on at least a weekly basis.

(h) Construction Specifications. The construction specifications and materials shall include appropriate control provisions that require remediation for any work done inconsistent with the terms and conditions of this CDP.

(i) Notification. The Permittee shall notify planning staff of the Coastal Commission's North Central Coast District Office at least three working days in advance of commencement of construction, and immediately upon completion of construction.

The Construction Plan shall be submitted with evidence of City of Half Moon Bay and California State Parks review and approval. All requirements above and all requirements of the approved Construction Plan shall be enforceable components of this CDP. The Permittees shall undertake development in accordance with this condition and the approved Construction Plan. Minor adjustments to the above requirements, as well as to the Executive Director-approved Plan, which do not require a CDP amendment or new CDP (as determined by the Executive Director) may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources.

6. Shoreline Armoring Terms. This CDP authorizes shoreline armoring pursuant to the following terms:

(a) Duration. This CDP authorizes the portion of the approved seawall protecting the Coastal Trail until the time when the Coastal Trail and related public access improvements inland of it are no longer present, or no longer require armoring, whichever occurs first, subject to subdivision (a)(i) of this **Special Condition**. This CDP authorizes the portion of the approved seawall protecting the apartments at 2 Mirada until these apartments are redeveloped as defined in subdivision (a)(ii) of this **Special Condition**, are no longer present, or no longer require shoreline armoring, whichever occurs first.

i. Public Access Improvements. If some portions of the public access improvements are removed and/or relocated, while some portions are retained, the armoring shall be reduced and/or modified as necessary at that time so that it is the minimum necessary to protect the public improvements that are relocated and/or retained. At such time, or at such time as the public access improvements are removed or no longer require armoring, the Permittees shall submit a complete CDP amendment application to the

Coastal Commission to remove and/or modify the approved armoring and to appropriately restore the affected area.

- ii. **2 Mirada Apartments.** Within three months of the anticipated termination of the authorization identified in subdivision (a) of this Special Condition and/or in conjunction with any proposed redevelopment of the apartments and related development on the property, the Permittees shall submit a complete CDP amendment application to the Coastal Commission to remove the approved armoring and to appropriately restore the affected area. The apartments shall be considered redeveloped if alteration (including demolition, renovation, replacement, and addition) of 50% or more of the major structural components, or alteration that leads a 50% or more increase in gross floor area, has occurred or is proposed, as measured from January 1, 1977 for purposes of this redevelopment determination. Major structural components mean exterior walls, floor structures, roof structures, and foundations,¹ and the 50% threshold applies to individual components only, and is not additive between differing components. The apartments shall also be considered redeveloped if the cost of any alterations to the apartments and related development equals or exceeds 50 percent of the market value of the apartment structure/related development at the start of construction, based on the documented construction bid costs and either an appraisal by a professional property appraiser or San Mateo County assessor data.

(b) Future Mitigation. If the CDP authorization has not expired via the terms of subdivision (a) of this Special Condition, and if the Permittees intend to keep the approved armoring

¹ An **exterior wall** is considered to be altered 50% or more when any of the following occur: (a) exterior cladding and/or framing systems are altered in a manner that requires removal and/or replacement of 50% or more of the elements of those cladding and framing systems, normally considered as linear length of wall; and/or (b) reinforcement is needed for any remaining portions of the wall to provide structural support in excess of 50% of existing support elements (e.g., addition of 50% or more of beams, shear walls, or studs whether alone or alongside the existing/retained elements, etc.).

A **floor or roof structure** is considered to be altered 50% or more when any of the following occur: (a) the roof or floor framing is altered in a manner that requires removal and/or replacement of structural elements (e.g., trusses, joists, shear components, rafters, roof/floor structural surface (e.g., plywood), etc.) supporting 50% or more of the square footage of the roof or floor; and/or (b) the roof or floor structural framing system requires additional reinforcement to any remaining portions of the roof or floor system to provide structural support (e.g., addition of 50% or more of beams, joists, shear components, rafters, roof/floor structural surface (e.g., plywood), etc., whether alone or alongside existing/retained system elements).

A **foundation** is considered to be altered 50% or more when any work is done on any of the following: (a) 50% or more of the horizontal surface area of a slab foundation; (b) 50% or more of the floor area of a structure supported by a pier/post and/or caisson/grade beam foundation; and/or (c) 50% or more of a perimeter foundation.

Major structural component alterations generally do not include changes to roof coverings; replacement of glass or doors in existing window or door openings; replacement of window or door framing when the size and location of the window/door remains unchanged; repair of roofs or foundations without any change to structural supporting elements; changes to exterior siding; repair, maintenance, and replacement of chimneys; and interior changes to non-structural interior walls and sheetrock, insulation, fixtures, and mechanical, electrical and plumbing elements.

in place beyond the end of the initial 20-year mitigation period (i.e., past July 10, 2039), the Permittees shall submit a complete CDP amendment application to the Coastal Commission that shall reassess mitigation for the ongoing impacts of the approved armoring, including an evaluation of actions to reduce or eliminate those impacts. The complete application shall be submitted no later than 6 months prior to the end of the original mitigation period (i.e. by January 10, 2039). The application shall include analysis of feasible alternatives to modify the shoreline armoring and the residential structures, the public access improvements, and related development that the approved armoring protects, in order to eliminate to the maximum extent feasible such armoring's impacts on coastal resources, and shall propose mitigation for unavoidable coastal resource impacts associated with the retention of the armoring and/or any modified armoring beyond the initial 20-year mitigation period. In addition, if the Permittees apply for a separate CDP or an amendment to this CDP to modify the approved armoring, or to perform repair work affecting 50 percent or more of the armoring, such Permittees shall be required to propose additional commensurate mitigation for the impacts of the enlarged or redeveloped armoring on public views, public recreational access, shoreline processes, and all other affected coastal resources that have not already been mitigated through this CDP, at that time.

- (c) **Provision of Information.** The Permittees shall submit information regarding the development sufficient to establish the presence or absence of the factors listed above upon Executive Director request.

- 7. **Monitoring and Reporting.** The Permittees shall ensure that the condition and performance of the approved as-built project is regularly monitored and maintained. Such monitoring evaluation shall, at a minimum, address whether any significant weathering or damage has occurred that would adversely impact future performance, and identify any structural or other damage or wear and tear requiring repair to maintain the seawall and the public access improvements in a structurally sound manner and its approved state, including at a minimum with regards to the following:

- (a) **Armoring.** The tied-back shotcrete seawall and stairway shall be monitored by a licensed civil engineer with experience in coastal structures and processes to ensure structural and cosmetic integrity, including at a minimum evaluation of concrete competence, spalling, cracks, movement, outflanking, and undercutting, and evaluation of all required surface treatments.
- (b) **Public Access Improvements and Amenities.** The public access improvements and amenities described in **Special Conditions 1 and 2** shall be regularly monitored to ensure that all required public access elements are appropriately maintained as required, including modifying access improvements as necessary as a result of shoreline erosion, sea level rise, or other shoreline events, in order to ensure continued public use and enjoyment.
- (c) **Photo Documentation.** All project elements shall be photographed annually from an adequate number of inland and seaward locations as to provide complete photographic coverage of the approved project. All photographs shall be documented on a site plan that

notes the location of each photographic viewpoint and the date and time of each photograph to allow naked eye comparison of the same views over time. Such photo documentation shall commence no later than the date of construction completion, and two copies of such initial photo documentation (including 8.5 x 11" color hard copy photos as well as electronic jpg copies) shall be submitted to the Executive Director for review and written approval no later than 30 days following completion of construction.

(d) Reporting. Monitoring reports covering the above-described evaluations shall be submitted to the Executive Director for review and approval at five year intervals by June 1st of each fifth year (with an initial as-built report due upon initial construction completion, and subsequent reports due June 1, 2024, June 1, 2029, June 1, 2034, and so on), for as long as the approved as-built project exists at this location. The reports shall identify the existing configuration and condition of the armoring and public access improvements/amenities, including vertical and horizontal reference distances from armoring structures to surveyed benchmarks for use in future monitoring efforts, and shall recommend any actions necessary to maintain these project elements in their approved and required state, and shall include photographs (in color hard copy and digital format) that clearly show all components of the as-built project from at least the same vantage points as the initial photo documentation as well as subsequent monitoring reports. Any proposed actions necessary to maintain the approved as-built project in a structurally sound manner and its approved state shall be implemented within 30 days of Executive Director approval, unless a different time frame for implementation is identified by the Executive Director. In addition to the every five year requirement, separate and additional monitoring reports shall be submitted within 30 days following either (1) an El Niño storm event comparable to a 20-year or larger storm, or (2) an earthquake of magnitude 5.5 or greater with an epicenter in San Mateo County or San Francisco County.

8. Future Maintenance/Repair. This CDP authorizes future maintenance and repair as described in this **Special Condition**. The Permittees acknowledge and agree on behalf of themselves and all successors and assigns that it is the Permittees' responsibility to: (1) maintain the approved project (including the seawall and all public access improvements (see **Special Conditions 1 and 2**)) and all related development in a structurally sound manner, visually compatible with the beach shoreline surroundings, and in their approved and required states, including that the surfacing of the seawall and integral stairway required by **Special Condition 1** shall be maintained throughout the life of the structure; (2) retrieve any failing portion of the permitted structures or related improvements that might otherwise substantially impair the use, aesthetic qualities, or environmental integrity of the beach and blufftop areas; and (3) annually or more often inspect the seawall for signs of failure. Any such maintenance-oriented development associated with the approved seawall, public access improvements, and related development shall be subject to the following:

(a) Maintenance/Repair. "Maintenance" and "repair" as understood in this Special Condition means development that would otherwise require a CDP whose purpose is to maintain in and/or repair to the approved state of the tied-back shotcrete seawall and all public access improvements and amenities.

- (b) **Other Agency Approvals.** The Permittees acknowledge that these maintenance and repair stipulations do not obviate the need to obtain permits and/or authorizations from other agencies for any future maintenance or repair.
- (c) **Maintenance/Repair Notification.** At least two weeks prior to commencing any maintenance and/or repair activity, the Permittees shall notify, in writing, planning staff of the Coastal Commission's North Central Coast District Office. The notification shall include: (1) a detailed description of the maintenance/repair proposed; (2) any plans, engineering, geology, or other reports describing the event; (3) a construction plan that clearly describes construction areas and methods consistent with the parameters of **Special Condition 5** above; (4) other agency authorizations; and (5) any other supporting documentation describing the maintenance/repair event. Maintenance or repair may not commence until the Permittees have been informed by planning staff of the Coastal Commission's North Central Coast District Office that the maintenance proposed complies with this CDP. If the Permittees have not been given a verbal response or sent a written response within 30 days of the notification being received in the North Central Coast District Office, the maintenance shall be authorized as if planning staff affirmatively indicated that the maintenance/repair complies with this CDP. The notification shall clearly indicate that maintenance/repair is proposed pursuant to this CDP, and that the lack of a response to the notification within 30 days constitutes approval of it as specified in the CDP. If the notification does not explicitly indicate same, then the automatic authorization provision does not apply. In the event of an emergency requiring immediate maintenance, the notification of such emergency shall be made as soon as possible, and shall (in addition to the foregoing information) clearly describe the nature of the emergency.
- (d) **Maintenance/Repair Coordination.** Maintenance/repair activity shall, to the degree feasible, be coordinated with other maintenance/repair activity proposed in the immediate vicinity with the goal being to limit coastal resource impacts, including the length of time that construction occurs in and around the beach and beach access points. As such, the Permittees shall make reasonable efforts to coordinate their maintenance/repair activity with other adjacent property maintenance/repair activities, including adjusting their maintenance/repair activity scheduling as directed by planning staff of the Coastal Commission's North Central Coast District Office.
- (e) **Restoration.** The Permittees shall restore all beach areas impacted by construction activities to their pre-construction condition or better within three days of completion of construction. Any beach sand impacted shall be filtered as necessary to remove all construction debris from the beach. The Permittees shall notify planning staff of the Coastal Commission's North Central Coast District Office upon completion of restoration activities to allow for a site visit to verify that all beach-area restoration activities are complete. If planning staff should identify additional reasonable measures necessary to restore beach areas, such measures shall be implemented as quickly as feasible.
- (f) **Noncompliance Provision.** If the Permittees are not in compliance with permitting requirements of the Coastal Act, including the terms and conditions of any Coastal Commission CDPs or other coastal authorizations that apply to the subject property, at

the time that a maintenance/repair event is proposed, then maintenance/repair that might otherwise be allowed by the terms of this future maintenance/repair condition may not be allowed by the Executive Director until the Permittees are in full compliance with the permitting requirements of the Coastal Act, including all terms and conditions of any outstanding CDPs and other coastal authorizations that apply to the subject properties.

(g) Emergency. Notwithstanding the emergency notifications set forth in subsection (c) of this Special Condition, nothing in this condition shall affect the emergency authority provided by Coastal Act Section 30611, Coastal Act Section 30624, and Subchapter 4 of Chapter 5 of Title 14, Division 5.5, of the California Code of Regulations (Permits for Approval of Emergency Work).

(h) Duration of Covered Maintenance/Repair. Future maintenance under this CDP is allowed subject to the above terms throughout the duration of the armoring authorization (see **Special Condition 6**) subject to Executive Director review and approval every 5 years (with the first approval due July 1, 2024, and subsequent approvals July 1, 2029, July 1, 2034, and so on) to verify that there are not changed circumstances associated with such allowance of maintenance/repair events that necessitate re-review. It is the Permittees' responsibility to request Executive Director approval prior to the end of each 5-year maintenance/repair period (i.e., with the first period culminating on July 1, 2024). Maintenance/repair can be carried out beyond July 1, 2024 (and beyond subsequent five-year periods) pursuant to these maintenance/repair provisions only if the Permittee requests an extension prior to the end of each 5-year maintenance/repair period and only if the Executive Director extends the maintenance/repair term in writing. The intent of this CDP is to allow for 5-year extensions of the maintenance/repair term for as long as the approved armoring, public access improvements, and related development remain authorized unless there are changed circumstances that may affect the consistency of this maintenance/repair authorization with the policies of Chapter 3 of the Coastal Act. The Permittees shall maintain the approved armoring structure, public access improvements, and all related development in their approved state.

9. Assumption of Risk, Waiver of Liability, and Indemnity. By acceptance of this CDP, the Permittees acknowledge and agree, on behalf of themselves and all successors and assigns: (a) that the project area is subject to extreme coastal hazards, including but not limited to episodic and long-term shoreline retreat and coastal erosion, high seas, ocean waves, tidal scour, storms, tsunamis, coastal flooding, landslide, earth movement, and the interaction of all of these, many of which will worsen with future sea level rise; (b) to assume the risks to the Permittees and the properties that are the subject of this CDP of injury and damage from such hazards in connection with this permitted development; (c) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; (d) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the CDP against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards; and (e) that any adverse effects to property caused by the permitted project shall be fully the responsibility of the Permittees.

- 10. Public Rights.** By acceptance of this CDP, the Permittees acknowledge and agree, on behalf of themselves and all successors and assigns that the Coastal Commission's approval of this CDP shall not constitute a waiver of any public rights that may exist on the properties involved. The Permittees shall not use this CDP as evidence of a waiver of any public rights that may exist on the properties now or in the future.
- 11. Real Estate Disclosure.** Disclosure documents related to any future marketing and/or sale of the subject Permittees' apartment and/or Casa Mira condominium properties (i.e., associated with 2, and 10 - 28 Mirada Road), including but not limited to specific marketing materials, sales contracts and similar documents, shall notify potential buyers of the terms and conditions of this CDP. A copy of this CDP shall be provided in all real estate disclosures.
- 12. Future Permitting.** All future proposed development related to this CDP shall require a new CDP or a CDP amendment that is processed through the Coastal Commission, unless the Executive Director determines a CDP or CDP amendment is not legally required.
- 13. Other Authorizations.** PRIOR TO CONSTRUCTION, the Permittees shall provide to the Executive Director written documentation of authorizations from the City of Half Moon Bay, California State Parks, the California State Lands Commission and the U.S. Army Corps of Engineers, or evidence that no such authorizations are required. The Permittees shall inform the Executive Director of any changes to the project required by any other such authorizations. Any such changes shall not be incorporated into the project until the Permittees obtain a Commission amendment to this CDP, unless the Executive Director determines that no amendment is legally required.
- 14. Liability for Costs and Attorneys' Fees.** The Permittees shall reimburse the Coastal Commission in full for all Coastal Commission costs and attorneys' fees (including but not limited to such costs/fees that are: (1) charged by the Office of the Attorney General; and/or (2) required by a court) that the Coastal Commission incurs in connection with the defense of any action brought by a party other than the Permittees against the Coastal Commission, its officers, employees, agents, successors and/or assigns challenging the approval or issuance of this CDP, the interpretation and/or enforcement of CDP terms and conditions, or any other matter related to this CDP. The Permittees shall reimburse the Coastal Commission within 60 days of being informed by the Executive Director of the amount of such costs/fees. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission, its officers, employees, agents, successors and/or assigns.
- 15. Deed Restriction.** WITHIN 180 DAYS OF APPROVAL OF THIS COASAL DEVELOPMENT PERMIT, the Permittees shall submit for Executive Director review and approval documentation demonstrating that the landowners have executed and recorded against the subject property governed by this CDP a deed restriction in a form and content acceptable to the Executive Director: (1) indicating that pursuant to this CDP, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the special conditions of this CDP as covenants, conditions and restrictions on the use and enjoyment of the property. The deed restriction shall include a legal description and graphic

depiction of the parcels governed by this CDP. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this CDP shall continue to restrict the use and enjoyment of the subject property so long as either this CDP or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property. The Executive Director may extend the deadline to record for good cause.

IV. FINDINGS AND DECLARATIONS

A. PROJECT LOCATION AND BACKGROUND

The proposed project site is located along the bluff and beach (Half Moon Bay State Beach) seaward of a multi-family apartment building at 2 Mirada Road, a segment of the California Coastal Trail (CCT), and four condominium buildings in the Casa Mira condominium complex (just inland of the CCT) in the City of Half Moon Bay, San Mateo County (see **Exhibit 1**). The project shoreline area extending from the bridge over Arroyo de en Medio Creek some 390 linear feet downcoast past the apartment building is currently armored with a riprap revetment. The southern portion of this riprap (extending from the south to a point approximately 30 feet from the southernmost edge of the apartment building) was temporarily installed pursuant to two emergency CDPs (ECDPs) in the past several years.² The northern portion of this riprap (i.e., from the bridge extending downcoast to the same point some 30 feet past the edge of the apartment building) was in part installed prior to coastal permitting requirements (i.e., roughly the 85 linear foot area directly fronting the apartment building) and partially (i.e., roughly 145 linear feet - a portion of which lies on State Parks sandy beach property) installed without required CDPs. Neither the pre-CDP requirement riprap nor the unpermitted riprap here are a part of the proposed project. Rather, the unpermitted riprap is the subject of an open enforcement investigation, and both will be addressed separately and at a later date. Only the portion of the riprap installed temporarily via the recent ECDPs is pertinent to this CDP application, including as the Applicants here propose to remove it and install a tied-back shotcrete seawall in its place.

Thus, the project area includes a multi-family 4-unit apartment structure at 2 Mirada Road originally constructed in 1972, an 8-foot wide paved segment of the California Coastal Trail, and four condominium buildings in the 10-unit Casa Mira condominium complex (just inland of the CCT) originally constructed in 1984, in the City of Half Moon Bay. The beach area seaward of the southern portion of the project site includes some 25 abandoned timber piles, generally extending 3 to 9 feet above the sand, the remnant of some prior shoreline armoring effort.³ The coastal bluff at this location varies from about 24 to 32 feet in elevation above the beach, and it is regularly subject to wave forces, bluff sloughing, and ongoing erosion. In addition to the State Beach fronting the project area, blufftop State Parks land also extends directly south of the project site, currently preserved as open space with a component of the CCT and related public

² ECDPs G-2-16-0045 and G-2-17-0046.

³ And not recognized by any CDPs.

trails winding through it. The adjacent and nearby shoreline area to the south is comprised of a mix of open and generally accessible beaches, unobstructed by shoreline armoring and with very little blufftop development. Across the bridge over Arroyo de en Medio Creek lies Mirada Road, which extends about a quarter-mile north and provides both vehicular and very popular CCT access (extending to the north to the Mirada Surf component of the CCT that extends to Pillar Point Harbor), which is fronted by riprap and Miramar Beach. While the CCT is extremely popular in this area, there is currently no formal vertical beach access available from the blufftop to sandy beach level in the immediate area until the stairway near Pillar Point Harbor at Surfer's Beach, almost a mile to the north.

A 1984 Coastal Commission CDP (CDP 3-83-351) subdivided the property that at that time contained the apartments and undeveloped inland land into two parts, the apartment building site seaward of the CCT and land inland of the CCT. That CDP also allowed construction of the condominium buildings housing 10 townhouse units of what is now the Casa Mira condominium complex on the more inland land. CDP 3-83-351 also required a lateral public access easement over the CCT area running between the apartments and the condominium buildings, a vertical public access easement from Mirada Road to the beach and development of a beach accessway, and it required an easement over the area seaward of the bluffs and armoring to the mean high tide line (see **Exhibit 8**). These easements were recorded October 1, 1984 and accepted by the City of Half Moon Bay July 22, 1999. A wood/cable beach access stairway was eventually (i.e., 15 years later) constructed in June 1999, 200 feet south of the apartment building on State Parks property, though the stairs were eventually washed out and destroyed by wave action, and have not been rebuilt since.

The bluffs and beach at this location were the subject of recent episodic erosion events during the winter of 2015-2016 when 20 feet of bluff eroded away, resulting in the placement of 4,000 tons of temporary riprap through emergency CDPs (ECDP) G-2-16-0045 and G-2-17-0046 (see **Exhibit 5**). Just upcoast of this temporary riprap lies the existing partially pre-coastal, partially unpermitted revetment to the north which directly fronts the remainder of the apartments at 2 Mirada Road. Over time, the blufftop area on which the apartments were constructed has formed a headland that juts further seaward than the up and downcoast blufftop properties, essentially because the riprap has forestalled natural erosion and created the headland. The CCT area to the south is now eroding to the point that sections of it are being undermined.

The apartments at 2 Mirada Road and the Casa Mira condominiums lie within the Miramar residential neighborhood at the north end of the City of Half Moon Bay. The seaward end of Mirada Road terminates at a pedestrian bridge that crosses the Arroyo de en Medio Creek which outlets to the Pacific Ocean at Miramar Beach. This bridge provides CCT public access, connecting again to the upcoast section of Mirada Road, which continues north parallel to the shore and across City limits into San Mateo County, and connecting with the Mirada Surf CCT component extending to Surfer's Beach near the outer breakwater of the Pillar Point Harbor. This entire stretch of Mirada Road north of the bridge is currently protected by a riprap revetment on its seaward side and is the subject of a separate San Mateo County CDP application to address coastal hazards and CCT issues.

See **Exhibits 1 and 2** for a location map and project area photos.

B. PROJECT DESCRIPTION

The proposed project constitutes the required follow-up CDP application for the Commission's two more recent emergency CDPs, which authorized development only on a temporary basis, and expressly stated that the emergency work was temporary and subject to removal unless and until a regular CDP authorizing the development was approved. Therefore, this report generally evaluates existing emergency development as if it was not there analytically, even though development is now physically in place, but does countenance it where needed (including in terms of its impacts to date). Again, as described above, neither the pre-CDP requirement riprap nor the unpermitted riprap here are a part of the proposed project. Rather, the unpermitted riprap is the subject of an open enforcement investigation, and both will be addressed separately and at a later date.

The proposed project involves removal of the temporary riprap placed pursuant to the two recent ECDPs, followed by installation of a tied-back shotcrete seawall in the same location. The proposed seawall would armor the bluff just downcoast of the apartments and fronting the CCT, covering the bluffs in this area completely, and extending approximately 257 lateral feet along the bluff south from near the southern end of the apartment building along the bluff. The armoring would be roughly 2.5 feet thick, and colored and contoured to mimic a natural bluff face. The seawall would include an integral beach access stairway with a connection to the inland CCT. The proposed project also includes a transition area with subsurface drilled piers nearest the apartments, a series of similar piers nearest the stairway, temporary use of excavated sand as a protective berm during construction, a railing atop the seawall, removal of timber piles on the beach, and related development (see **Exhibit 3** for proposed project plans).

C. STANDARD OF REVIEW

The proposed project is located in the Commission retained CDP jurisdiction area, and is the subject of prior Coastal Commission CDP decisions and requirements, including the requisite follow-up regular CDP application for the Commission-issued ECDPs for the temporary revetment, and thus the standard of review for this proposed project is the Coastal Act.

D. GEOLOGIC CONDITIONS AND HAZARDS

Applicable Policies

Coastal Act Section 30235 addresses the use of shoreline protective devices:

Section 30235. Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures

causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

Coastal Act Section 30253 addresses the need to ensure long-term structural integrity, minimize future risk, and to avoid landform altering protective measures. Section 30253 provides, in applicable part:

Section 30253. *New development shall do all of the following:*

- (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
- (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. ...*

Together, Coastal Act Sections 30235 and 30253 acknowledge that seawalls, revetments, retaining walls, groins and other such structural or “hard” methods designed to forestall erosion also alter natural landforms and natural shoreline processes. Accordingly, with the exception of new coastal dependent uses, Section 30235 limits the construction of shoreline protective works to those required to protect existing permitted structures or public beaches in danger from erosion. Furthermore, Section 30253 requires that new development be sited, designed, and built in a manner to not require construction of shoreline protective devices that would substantially alter natural landforms along the shoreline. The Coastal Act provides these limitations because shoreline protective structures can have a variety of negative impacts on coastal resources including adverse effects on sand supply, public access, coastal views, natural landforms, and overall shoreline and beach dynamics on and off site, including ultimately resulting in the loss of sandy beach.

In addition, the Commission has typically interpreted Section 30235 to allow shoreline protective works only to protect existing primary structures. The Commission has at times historically permitted at-grade structures proposed to be located within required coastal hazard setback areas, if such structures are expendable and capable of being removed or relocated rather than requiring a protective device that would alter natural landforms and processes along bluffs, cliffs, and beaches.

Under Coastal Act Section 30235, a shoreline protective structure is required to be permitted if: (1) there is an existing structure; (2) the existing structure is in danger from erosion; (3) shoreline altering construction is required to protect the existing threatened structure; and (4) the required protection is designed to eliminate or mitigate the adverse impacts on shoreline sand supply.⁴ The first three criteria pertaining to Section 30235 relate to whether the proposed armoring is necessary, while the fourth criterion applies to mitigation for some of the impacts of such armoring. Additional Coastal Act policies protect against other types of coastal resource

⁴ CDP approval also requires that projects be found consistent with the other policies of the Coastal Act in addition to these Section 30235 requirements.

problems, and here the questions presented are not in terms of those policies per se, but the Coastal Act Section 30235 analysis for allowing armoring in the first place. For example, even where a shoreline protective device is determined to be necessary and it was designed in a manner to be protective of shoreline sand supply pursuant to Section 30235, the structure will often result in significant adverse impacts to other protected resources, such as beach access and recreation and public views. There can often be considerable overlap, such as the ways in which shoreline sand supply issues translate into beach access issues, and this finding explores those overlaps as well.

Consistency Analysis

Existing Structures to be Protected

The first Section 30235 test is whether or not a structure for which a shoreline protective device is proposed is considered “existing.” In other words, the Coastal Act distinguishes between development that is allowed the protection offered by a shoreline protective device and development that is not pursuant to Section 30235. Under Coastal Act Section 30235, existing structures (meaning structures existing prior to the effective date of the Coastal Act on January 1, 1977)⁵ are potentially allowed a shoreline protective device if the remaining three criteria identified above are satisfied, and it can be found consistent otherwise with the Coastal Act. On the contrary, under Section 30253, *new* development (i.e., all development built on or after January 1, 1977, including redevelopment) is to be sited, designed, and built in a manner safe from coastal hazards without creating a need for a shoreline protective device and therefore is not entitled to consideration of such shoreline protection. However, coastal zone development that was approved and constructed prior to the Coastal Act going into effect was not subject to Section 30253 requirements (as such requirements didn’t exist prior to that time), even if it may have been subject to other similar local requirements. Thus, although some local coastal hazard-type policies may have been in effect prior to the Coastal Act, these pre-Coastal Act structures have not necessarily been built in such a way as to avoid the future need for shoreline armoring as is required for post-Coastal Act structures under Section 30253.

In this case, the 4-unit apartment building located at 2 Mirada Road in Half Moon Bay was originally constructed in 1972, predating the effective date of the Coastal Act by 5 years (and also predating the requirements of 1972’s Proposition 20 (The Coastal Initiative)).⁶ Based on an

⁵ As described in the Commission’s 2015 Sea Level Rise Policy Guidance, the Commission interprets the term “existing structures” in Section 30235 as meaning structures that were in existence on January 1, 1977, the effective date of the Coastal Act. In other words, Section 30235’s directive to permit shoreline armoring for structures in certain circumstances applies to development that lawfully existed as of January 1, 1977 and that was not subsequently redeveloped (see section on Improvements, Alterations and Additions to Existing Structures for a discussion of “redevelopment”). This interpretation is the most reasonable way to construe and harmonize Sections 30235 and 30253, which together evince a broad legislative intent to allow armoring for development that existed when the Coastal Act was passed, when such development is in danger from erosion, but avoid such armoring for new development now subject to the Act. This interpretation, which essentially “grandfathers” protection for development that predates the Coastal Act, is also supported by the Commission’s duty to protect public trust resources and interpret the Coastal Act in a liberal manner to accomplish its purposes.

⁶ Proposition 20, approved by California voters in November 1972, introduced coastal permitting requirements in February 1973. These were ultimately superseded by the Coastal Act in 1977.

analysis of CDPs, building permit records, and historic aerial photos, currently available information suggests that the apartment building has not been modified to such an extent as to be considered redeveloped in the time since January 1, 1977, and thus is still considered to be an existing structure as that term is understood in a Section 30235 context, and is eligible for consideration of shoreline armoring.⁷

In addition to fronting the downcoast (not seaward) side of the apartment building (i.e., because it is on a headland, the bluffs have been eroded just downcoast of the apartments and extend inland roughly perpendicular to the shore at the downcoast side; see photos in **Exhibit 2**), the proposed armoring stretches downcoast another approximately 257 feet. In this area, the structure that allows consideration of armoring is the Coastal Trail, a current component of the California Coastal Trail (CCT). The trail is coastal-dependent inasmuch as it requires a site adjacent to the sea to function for its intended public purpose, and Section 30235 allows for consideration of armoring to protect it for this purpose as well. There is also a sewer line that serves both the 2 Mirada building, as well as the Casa Mira condominium complex inland of the trail (see **Exhibit 4**). The sewer line and Casa Mira condominiums were constructed in 1984 and both post-date the Coastal Act, and thus do not constitute ‘existing structures’ for purposes of Section 30235 analysis, though the sewer line does at least in part serve a pre-coastal structure.

Thus, the 2 Mirada Road apartment building in this case is eligible for consideration of such armoring. In addition the CCT in this location is a coastal-dependent use that also allows for consideration of armoring; and therefore, the proposed project meets the first test of Section 30235 of the Coastal Act.

Danger from Erosion

The second Section 30235 test is whether the existing structure is in danger from erosion. The Coastal Act allows shoreline armoring to be installed to protect existing structures that are in danger from erosion, but it does not define the phrase “in danger.” There is a certain amount of risk involved in maintaining any development along the actively eroding California coastline that also can be directly subject to violent storms, wave attack, flooding, earthquakes, and other hazards. These risks can be exacerbated by such factors as sea level rise and localized geography that can focus storm energy at particular stretches of coastline. In a sense, all development along the immediate California coastline is in a certain amount of “danger.” It is a matter of the degree of threat that distinguishes between danger that represents an ordinary and acceptable risk, and danger that requires shoreline armoring per 30235. Lacking Coastal Act definition, the Commission has in the past evaluated the immediacy of any threat in order to make a determination as to whether an existing structure is “in danger” for the purposes of Section 30235 considerations. While each case is evaluated based upon its own particular set of facts, the Commission has previously interpreted “in danger” to mean that an existing structure would be unsafe to use or otherwise occupy within the next two or three storm season cycles (generally,

⁷ And note that when armoring was last considered at this location in 1999, the Commission also determined the apartment building at that time to be a pre-Coastal Act existing structure for purposes of Section 30235 analysis as well (CDP Amendment 1-97-022-A1).

the next few years) if nothing were to be done (i.e., in the “no project” alternative).⁸

The apartment building at 2 Mirada Road is located about 25 feet above the beach on the coastal blufftop, and partially above large riprap installed under previous actions as discussed above. The property extends north and south along the blufftop, and covers a relatively flat area moving inland from the edge of the blufftop. The Applicants’ geotechnical and engineering reports estimate average annualized bluff retreat rate in this area at 1.3 to 2 feet per year absent armoring,⁹ and the Commission’s Senior Coastal Engineer, Dr. Lesley Ewing, and its Geologist, Dr. Joseph Street, evaluated the Applicants’ geotechnical and engineering reports and concur that such rate is applicable at this site.

However, erosion does not typically occur in this area as small incremental amounts slowly over the course of a year, as such annualized estimates might suggest, but rather more often occurs sporadically as several feet to tens of feet of episodic retreat that can occur during a significant winter storm, combined with perhaps smaller amounts of retreat during other times. In any case, a retreat rate of up to 2 feet per year is a fairly aggressive retreat rate relatively speaking along the California coast, and coastal bluffs in this area are clearly subject to a high rate of erosion, particularly during winter storm conditions when high wave run-up and velocity, as well as heavy rains at times, are present. During these periods, erosion of the bluff typically occurs in the form of vertical columns of soil becoming undermined and eroding away from the bluff face in large sections.

As a case in point, the southern extent of the bluff at this site retreated over 20 feet in the winter of 2015-16, demonstrating that the bluffs in question are vulnerable to sudden and substantial episodic erosion and bluff loss. Therefore, without protection, it is fair to conclude that anything within about 20 feet of the present blufftop edge location is in danger of being undermined in such an event, and annual and ongoing erosion will continue to exacerbate this threat. Aerial photos show that the 2015-16 erosion episode not only resulted in bluff loss extending inland perpendicular to the shore, but it also outflanked the existing revetment fronting the apartments, cutting the bluff significantly closer to the downcoast side of the existing structure (see **Exhibit 2**). Comparison of California Coastal Records Project¹⁰ photos of this section of shoreline from 1979 and 1987 also show large losses of the bluff to the north of the 2 Mirada apartments including 2 large cypress trees lost to inland erosion. In addition, the 8-foot wide paved Coastal Trail is located about 3 to 4 feet inland from the blufftop edge in this location, and in one section is being actively undermined. The property line for the Casa Mira condominiums is located another 2 feet inland of the trail, with the Granada Sanitary District’s sewer line located along

⁸ See, for example, CDPs 3-07-019 (Pleasure Point seawall); 3-09-025 (Pebble Beach Company Beach Club seawall); 3-09-042 (O’Neill seawall); 2-10-039 (Land’s End seawall); 3-14-0488 (Iceplant LLC seawall); and 2-17-0702 (Sharp Park Golf Course).

⁹ See Applicant’s Geotechnical and Engineering Reports, as well as the *Sea Level Rise Vulnerability Assessment* (April 2016) document prepared for the City of Half Moon Bay by Noble Consultants and Dyett & Bhatia, Table 2-2.

¹⁰ See www.californiacoastline.org.

the property line.¹¹

Erosion continues to affect this area, and such impacts stand to get worse due to ongoing sea level rise and the predicted increase in extreme weather events. As recently as April 2017, the City of Half Moon Bay issued an emergency CDP for demolition of a condemned State Parks ranger house situated on the blufftop approximately 600 feet south of the project area that had become undermined by wave action.¹² Given the low degree of cohesion in the bluff materials, and as indicated by the multiple recent episodic erosion events, it is clear that the current setbacks for the existing apartments at 2 Mirada Road and the Coastal Trail are insufficient to protect these structures from erosion. Dr. Ewing and Dr. Street evaluated the relevant project materials and concur with the Applicants' geotechnical consultants that the apartment building and the Coastal Trail are both in immediate danger from erosion absent intervention here. Therefore, the existing apartment building and the Coastal Trail infrastructure are "in danger from erosion" as that term is understood in a Coastal Act context, and thus the project meets the second test of Section 30235 of the Coastal Act.

Feasible Protection Alternatives

The third test of Section 30235 that must be met is that the proposed armoring must be "required" to protect the existing structures in danger from erosion. In other words, shoreline armoring shall only be permitted if it is the only feasible alternative capable of protecting the existing endangered structures.¹³ Other alternatives to shoreline protective devices typically considered include the "no project" alternative, managed retreat (including abandonment and demolition of threatened structures), relocation of threatened structures and/or portions thereof, beach and sand replenishment programs, foundation underpinning, drainage and vegetation measures, and combinations of each. Additionally, if shoreline armoring is determined to be the only feasible alternative, this test also requires that the chosen structural design of the shoreline protective device be the least environmentally damaging option, including being the minimum necessary to protect the endangered structure in question (here the apartments and the Coastal Trail).

The Applicants prepared an alternatives analysis for the proposed project, and each of the possible alternatives evaluated is discussed briefly below. In this case, both non-armoring and armoring alternatives are analyzed in order to determine whether the proposed project is the least environmentally damaging feasible alternative.

¹¹ This sewer line serves several residential structures in the neighborhood, including the apartments at 2 Mirada Road and the Casa Mira complex, and crosses the Arroyo de en Medio Creek on the far side of the end of Mirada Road.

¹² Due to its deleterious effects on coastal resources, it is generally State Parks policy to avoid armoring to protect State Parks structures, and in this case State Parks chose to demolish the threatened structure rather than pursue armoring that would alter the natural landform and adversely affect their Half Moon Bay State Beach unit.

¹³ Coastal Act Section 30108 defines feasibility as follows: "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

Non-armoring Alternatives

Given that this application proposes to replace the existing, but only temporarily authorized, emergency riprap with a tied-back vertical concrete seawall, the “no project” alternative in this case would involve removal of all riprap armoring previously temporarily authorized, leaving the apartments and the CCT in their current location. As indicated above, there are existing, and coastal-dependent structures in danger from erosion (per Coastal Act Section 30235) at this site. Therefore, the “no-project” alternative would remove protection and cause the existing and coastal dependent structures, namely the apartments and the CCT, to be in danger again, thereby making it likely they would be severely damaged and/or destroyed by storms and erosion in the very short term, as soon as the next series of winter storms. Such damage to/destruction of these existing structures (and in the case of the CCT, a coastal-dependent use) would not protect these structures, would be expected to result in adverse impacts to coastal resources, and is not by itself a feasible alternative in this case for these reasons.

Relocation is another non-armoring alternative that is reasonable to consider, particularly when envisioned relocation is relatively minor in relation to the endangered structures and the site. In this case however, the apartment site is already fully developed with an apartment building, parking, and related infrastructure such as drainage, sewer and water lines, and the entirety of the parcel is subject to coastal hazards and fronted by shoreline armoring. Although it might be possible to move the apartment structure inland, it would be extremely difficult and costly, and it would still be in a hazardous location. Thus, there are no undeveloped areas on the property, outside of the coastal hazards zone, able to accommodate the existing apartment structure and allow for removal of the riprap. Further, the Applicants’ geotechnical report concludes that relocation of this multi-unit structure is infeasible, as moving the structure would not be possible given that areas that must be stable for lifting and rolling the structure’s foundation are occupied with large riprap, and removal of such riprap would further destabilize the areas needed for lifting or rolling.¹⁴

Similarly, relocation of the Coastal Trail would require significant additional costs and permitting time, which would be problematic given this infrastructure would be immediately threatened with no armoring present. Further, there is no viable location for the Coastal Trail to be rerouted in this location while maintaining its aesthetic and recreational value adjacent to the ocean and beach (i.e., it would need to loop inland of existing residential structures, such as the

¹⁴ Likewise, even if relocation of the apartments to an inland area was feasible, relocation of the sewer line and the northernmost two Casa Mira condominium buildings (at 10-12 and 14-16 Mirada Road), which would be the next structures at risk from erosion, would be difficult as well. For the sewer line, there would be significant capital outlay by the Granada Sanitary District for new sewer pipelines and connections (and pumps etc., as needed). For the condominiums themselves, they could only shift approximately 10 feet inland while still staying within their property line. Given that limitation, relocation would likely also need to include some demolition. In addition, the Applicants estimate that costs of such relocation at over \$2.6 million, including moving the structures, construction of new foundations and infrastructure, new building construction, and removal of the emergency riprap. Further, the condominiums would remain uninhabitable for this time, expected to last 18 months absent additional permitting or engineering obstacles. Thus, the no project scenario would lead to these sorts of potential problems. Granted, the sewer line and the condominiums are not pre-Coastal Act and thus not entitled to armoring under Section 30235, and thus the coastal hazard threat and response analysis is different for them, but it is clear that the no project alternative is not without significant consequences in the immediate area.

Casa Mira condominiums, if relocated). Due to the narrow pinch-point between the bluff and condominiums, any further erosion will force realignment of the trail far inland, east of the Casa Mira complex, thereby sacrificing coastal views and a consistent path along the shoreline for pedestrians. For all of these reasons, the relocation alternative was determined not to be feasible in this case.

The installation of improved drainage and additional landscaping atop the bluff is another option that is typically considered to address erosion threats. Appropriate drainage measures coupled with planting long-rooted native bluff species can help to stabilize some bluffs and extend the useful life of existing bluff setbacks. This option can be applied as a stand-alone alternative, but it is most often applied in tandem with other protective measures. In this case, the high level of estimated annual bluff retreat, the potential for large episodic erosion events, and the level of erosion that has already occurred indicate that the installation of improved drainage and landscaping alone is unlikely to adequately protect existing structures in danger at this site.

Beach nourishment is another option often considered to address erosion threats. Successful beach nourishment programs generally require large quantities of sand materials over a large area and are subject to very specific program parameters intended to maximize their efficacy and utility. Littoral cell sand drift in this area, and the area's exposure to violent wave and storm events, add to the challenge for a successful beach nourishment effort at the project site, and also argue against beach nourishment as a feasible alternative. Beach nourishment is a feasible option in many parts of the coast, especially locations between headlands or promontories that can help to retain sand, but it's not been demonstrated as yet that a nourishment project could maintain an effective beach buttress in this project area in a way that also ensures protection of the existing endangered structures. Therefore, beach nourishment is not a feasible alternative in this case.

Another option often considered is planned or managed retreat, which when not referring to relocation (discussed above) refers to the intentional abandonment and demolition of the threatened structures. This concept suggests that the shoreline should be allowed to retreat absent the installation of armoring, once the existing structures have been removed. Beach formation is partly assisted by the sand-generating material in the bluffs as they erode, but more importantly natural erosion provides space for the natural equilibrium between the shoreline and the ocean to re-establish itself and for beaches to form naturally. Over the longer run, a more comprehensive strategy to address shoreline erosion and the impacts of armoring may be developed (e.g. planned or managed retreat, relocation of structures inland, abandonment of structures, etc.), however, such options are not currently feasible at this location, given the inability to relocate the threatened structures, and the lack of a formalized managed retreat program that otherwise provides regulatory guidance and requirements.

Thus, there do not appear to be feasible non-armoring (or "soft") alternatives that could be applied in this case to protect the existing structures currently in danger from erosion, and therefore, hard armoring alternatives must be considered.

Armoring Alternatives

In terms of armoring alternatives, there are a variety of different armoring measures that could be used. One common option often considered is a riprap revetment, such as what has existed in one form or another at the project site since the early 1970's and has since been extended and or

augmented through various emergency permit actions including the two emergency CDPs in 2016 and 2017 (ECDPs G-2-16-0045 and G-2-17-0046; see **Exhibit 5**). Riprap has been successfully used to protect endangered structures for many decades. Rock riprap revetments have the advantage that they can be installed relatively quickly to protect the base of bluffs. However, such riprap occupies significant beach space (roughly 4,000 square feet for just the temporary emergency riprap at this location), and often is easily dispersed and difficult to maintain in its approved configuration. For example, the riprap at this location installed pursuant to the 2016/17 ECDPs has already required significant maintenance during the 3 years it has been present, and it ultimately failed to provide adequate safety for the structures on top of the bluff, thus necessitating a second ECDP for repair and placement of additional rock. The Applicants originally proposed to install a more thoroughly engineered revetment under this follow up CDP, including a keyway and vertical wood posts. While such a design may have helped to retain the rock in place, it still would have occupied a large area of sandy beach, and it presents ongoing issues with beach coverage, displacement, and maintenance. Given its impacts and limitations, riprap, even if feasible, would not be the least environmentally damaging alternative in this case.

The proposed project now includes a near-vertical tied-back concrete seawall extending across the full height of the bluff, without rock fronting the wall, for the portion of bluff extending south of the 2 Mirada apartment building. Construction of the approximately 257-foot-long, 2.5-foot wide, and roughly 48-foot tall¹⁵ seawall is the preferred alternative for this area because it achieves the desired project goals (e.g., prevents loss of the apartments and the public access pathway) and minimizes adverse impacts to coastal resources, including public access and recreation, as much as feasible given the circumstances. Inland of the blufftop edge subsurface piers are proposed for either end of the seawall to strengthen the armoring and prevent erosional edge effects without causing additional coastal resource impacts. The Applicants' geotechnical consultant indicates that the minimum beach elevation erosion associated with a 100-year return period storm event is at the marine terrace, and therefore, the seawall should be embedded in bedrock at the toe of the bluff. Ultimately, the seawall has been designed to limit its impacts on coastal resources by limiting the beach footprint and by contouring and surfacing the seawall to mimic the natural bluffs in appearance and shape, and as such it helps to reduce adverse impacts to coastal resources as much as feasible with a project like this and in this environment.

Therefore, the vertical seawall is the least impactful armoring alternative for the southern portion of the bluff, provided its impacts over time can be mitigated consistent with Coastal Act Section 30235 and other Coastal Act policies.

Beach and Shoreline Access and Sand Supply Impacts

The fourth test of Section 30235 that must be met in order to allow Commission approval of a shoreline armoring project is that such armoring must be designed to eliminate or mitigate adverse impacts to local shoreline sand supply.

Shoreline Processes

Some of the effects of engineered armoring structures on the beach (such as scour, end effects

¹⁵ To a height of +33 feet NAVD, with piles driven down below grade to -15 feet NAVD.

and modification to the beach profile) are often temporary or may be difficult to distinguish from all the other actions that modify the shoreline. In addition, there are effects that are more qualitative (e.g., impacts to the character of the shoreline and visual quality) that are imprecise proxies for understanding the total impact of an armoring structure to the coastline. However, some of the effects that a shoreline armoring structure may have on natural shoreline processes can be quantified, including: (1) the loss of the beach area on which the structure is located; (2) the long-term loss of beach that will result when the back-beach location is fixed on an eroding shoreline; and (3) the amount of material that would have been supplied to the beach if the bluff and back-beach were to erode naturally. The first two calculations affect beach and shoreline use areas, and the third is related to shoreline sand supply impacts, but all three impact public recreational access to the beach as it relates to sand supply and by extension beach and shoreline recreational areas.

Encroachment Area

Shoreline protective devices, regardless of their configuration, are all physical structures that occupy space that would otherwise be unencumbered. When a shoreline protective device is placed on a beach area, the underlying beach area cannot be used by the public. This generally results in a loss of public access and recreational opportunity as well as a loss of sand and areas from which sand generating materials can be derived. The area where the structure is placed will be altered from the time the protective device is constructed, and the extent or area occupied by the device will remain the same over time, until the structure is removed or moved from its initial location (or in the case of a revetment, as it spreads seaward over time). The beach area located beneath a shoreline protective device, referred to as the encroachment area, is the area of the structure's footprint.

In this case, the proposed seawall aspect of the project will cover approximately 958 square feet of shoreline and beach area that would otherwise be unencumbered.¹⁶ In addition, the latest emergency rock revetment that has been in place has covered approximately 4,000 square feet of sandy beach since it was first installed in 2016, some three years ago, and this coverage must also be considered for purposes of this follow-up CDP application. For analytic purposes, by proportionally translating the ECDP rock revetment and proposed seawall footprints over their respective contributions to the total 23-year time period results in a total encroachment impact value of approximately 1,355 square feet.¹⁷

Fixing the Back Beach (the "Coastal Squeeze")

On an eroding shoreline, a beach will typically continue to recreate itself between the waterline and the bluff as long as there is space to form a beach between the bluff and the ocean. As bluff erosion proceeds, the profile of the beach also retreats and the beach area migrates inland with the bluff. This process stops, however, when the backshore is fronted by a hardened, protective

¹⁶ The seawall is approximately 257 feet long and 2.5 feet thick, occupying 643 square feet, and the integral stairway extends approximately 70 linear bluff feet and is approximately an additional 4.5 feet in width, occupying an additional 315 square feet, for a total footprint of 958 square feet.

¹⁷ 958 square feet divided by 23 years multiplied by 20 years equals 833 square feet. 4,000 square feet divided by 23 years multiplied by 3 years equals 522 square feet. 833 square feet added to 522 square feet equals 1,355 square feet.

structure such as a revetment or a seawall. Experts generally agree that where the shoreline is eroding and armoring is installed, the armoring will eventually define the boundary between the sea and the upland.¹⁸ While the shoreline up and downcoast of the armoring continues to retreat and reform new beach areas, shoreline in front of the armoring eventually stops at the armoring. This effect is also known as passive erosion, or “coastal squeeze.” The sandy beach area will narrow, squeezed between the moving shoreline and the fixed backshore. This impact represents the loss of a beach as a direct result of the installed armoring. One need look no further for an example of this phenomenon than the project site, where the pre-Coastal Act apartments have been armored over time, and the apartment site now juts out onto the beach as an armored headland, whereas the bluffs on either side have eroded further inland and allowed creation of beach space (see photos in **Exhibit 2**).

The coastal squeeze phenomenon caused by armoring is exacerbated by climate change and sea-level rise. As climate change causes the seas to rise ever faster, beach and recreational shoreline areas will be lost at an increasingly rapid pace.¹⁹ If the inland area cannot also retreat, eventually, there will be no available dry beach area and the shoreline will be fixed at the base of the armoring structure. In the case of an eroding shoreline, this represents the loss of a beach and shoreline recreational area as a direct result of the armoring. Specifically, beach areas are diminished as the beach is compressed between the ocean migrating landward and the fixed backshore. Such passive erosion impacts can be calculated over the time the proposed armoring is expected to be in place. Consistent with past practice, including the Commission’s experience that shoreline armoring often needs to be reinforced, augmented, replaced, or substantially changed within twenty years of its original installation, and to provide for re-review on a regular basis to allow for consideration of possible changes in policy, law, and physical conditions associated with armoring, the Commission generally evaluates this impact for an initial twenty

¹⁸ See, for example: Kraus, Nicholas (1988) “Effects of Seawalls on the Beach: An Extended Literature Review”, *Journal of Coastal Research*, Special Issue No. 4: 1-28; Kraus, Nicholas (1996) “Effects of Seawalls on the Beach: Part I An Updated Literature Review”, *Journal of Coastal Research*, Vol.12: 691-701, pages 1-28; and Tait and Griggs (1990) “Beach Response to the Presence of a Seawall”, *Shore and Beach*, 58, 11-28.

¹⁹ Sea level has been rising for many years, and there is a growing body of evidence that there has been an increase in global temperature and that acceleration in the rate of sea level rise can be expected to accompany this increase in temperature. The Coastal Commission’s Sea Level Rise Policy Guidance (2015) recommends using best available science at the time of application to understand the risks associated with sea level rise over the life of development. In March 2018, the California Ocean Protection Council adopted updated State Sea Level Rise Guidance, which incorporates recent scientific information and is now considered the best available science on sea level rise for the State of California. According to this Guidance, updated most recently in November 2018, the estimated range of sea level rise for the project area (based on the San Francisco tide gauge) for 2070 is approximately 1.9 to 3.5 feet; and 2.9 to 5.6 feet for 2090. Additionally, recent scientific studies have analyzed the potential for rapid ice loss and suggest that there could be extreme sea level rise of as much as 10 feet by 2100 (or an additional 5.2 and 8.3 feet of sea level rise that would be added to those estimates for 2070 and 2090, respectively), though this extreme scenario is currently less well understood. The observed trend for global sea level has been a long-term, persistent rise. Mean water level affects shoreline erosion several ways, and an increase in the average sea level will exacerbate all these conditions. On the California coast the effect of a rise in sea level will be the landward migration of the intersection of the ocean with the shore. This, too, leads to loss of the beach as a direct result of the armor as the beach is squeezed between the landward migrating ocean and the fixed backshore (e.g., even without any armoring, a 1-foot rise in sea level generally translates into a 40-foot inland migration of the land/ocean interface for a roughly 40:1 beach slope, typical of average sandy beach profiles).

year period.²⁰ After this 20-year initial mitigation period, additional impact analysis will be needed (see **Special Condition 6**) to assess the appropriate mitigation necessary at that time and moving forward.

The Commission has established a methodology for calculating passive erosion, or the long-term loss of beach due to fixing the back beach. The area of beach lost due to long-term erosion is equal to the long-term average annual erosion rate multiplied by the number of years that the back beach or bluff will be fixed, multiplied by the width of the property that will be protected. The average annualized erosion rate at this location has been estimated to be approximately 1.3 to 2 feet per year, and 2 feet per year is conservatively used in this calculation to ensure that all potential impacts are appropriately captured. Applying the 2 feet per year average annual rate of erosion over the first 20 years of the 257-foot long seawall being present, and adding in the 3 years that 200-foot long bluff has been armored by the emergency revetment, 11,480 square feet of beach will have been lost through the next 20-year period due to armoring here.²¹ Thus, the armoring here leads to a total loss of 11,480 square feet of beach that would have been created naturally if the back beach had not been fixed by the armoring through the first 20-year assessment period.

Thus, the armoring project leads to beach and shoreline use area impacts of approximately 12,835 square feet (1,355 square feet associated with the seawall's footprint and the temporary 2016/2017 ECDP revetment's footprint, and 11,480 square feet associated with passive erosion due to fixing the back beach) through the first 20 year impact horizon. There is no doubt that such impacts represent a significant public recreational access impact, including a loss of the social-economic value of beach and shoreline recreational access, for which the Coastal Act requires mitigation.

The most obvious in-kind mitigation for these impacts would be to create a new 12,835 square-foot area of beach/shoreline to replace that which will be lost over the first 20 years with an identical area of beach/shoreline in close proximity to the lost beach/shoreline area. While in concept this would be the most direct mitigation approach, in reality, finding an area that can be turned into a beach and ensuring it does so appropriately over time is very difficult in practice. At the same time, the calculations of affected area do provide a means to identifying an appropriate relative scale for evaluating alternative mitigations. For example, in the past the Commission has looked at several ways to value such lost beach and shoreline areas in order to determine appropriate in-lieu mitigation fees, including evaluating the recreational value of the beach/shoreline in terms of the larger economy, as well as the real estate value of the land that would have otherwise gone to public beach/shoreline use.

In terms of the recreational beach/shoreline value, the Commission has recognized that in addition to the more qualitative social benefits of beaches and shoreline areas (e.g., recreational, aesthetic, habitat values, etc.), beaches and shoreline areas provide significant direct and indirect

²⁰ See for example, CDPs 2-10-039 (Land's End), 2-16-0684 (Aimco Armoring), and 3-12-030 (Pebble Beach Company).

²¹ That is, 257 feet multiplied by 2 feet per year multiplied by 20 years added to 200 feet multiplied by 2 feet per year multiplied by 3 years equals 11,480 square feet.

revenues to local economies, the state, and the nation. It is well known that the ocean and coastline of California contribute greatly to the state's economy through activities such as tourism, fishing, recreation, and other commercial activities.²² There is also value in just spending a day at the beach and having wildlife and clean water at that beach, and being able to walk along a stretch of beach and shoreline. There is also the societal benefit of beaches and shoreline areas, including the ways they contribute to local community and State social fabric and cultural identity, although it is difficult to put a price tag on either of these.

Thus, these recreational impacts are in many cases difficult to quantify, including at sites such as this where visitation data needed for certain economic impact models are lacking. In other cases (including cases where visitation data was also lacking), the Commission has found that using a real estate valuation method as a basis for identifying mitigation allows for objective quantification of the value of lost beach and shoreline area, and that this valuation is appropriate both in terms of the scope of the impacts and the rational basis for applying such methodology.²³ This method requires an evaluation of the cost of property that could be purchased and allowed to erode and turn into beach naturally to offset the area that will be lost due to the construction and continued placement of the proposed armoring over time.

Toward this end, the market values of representative blufftop properties near the project area supply a means to identify what it might cost to purchase such property and allow it to erode in this way to create offsetting beach/shoreline recreational space. Specifically, this review was conducted by looking at the sales of blufftop property in this specific area within the last three years. This value is then divided by the property square footage to arrive at a price per square-foot. The price per square-foot calculated value serves as a way to gauge the cost of acquiring an equivalent blufftop property area that could be allowed to erode to provide an equivalent amount of beach and shoreline area to that which will be lost over the first 20-year mitigation timeframe.

This evaluation focused on a total of six blufftop properties within the vicinity of the proposed project representing a range of properties for which sales information was available over the past three years (see **Exhibit 6**). The range of values starts at the high end for the property at 420 1st Avenue with a value of \$284.75 per square-foot, to the low end for the property at 65 San Pablo Avenue with a value of \$204.81 per square-foot, with an average of \$238.62 per square-foot.²⁴ This average per square-foot value represents a reasonable estimate of the market value of blufftop properties nearest the subject site based on actual sales data in the last three years.²⁵

²² See Coastal Commission's Adopted Sea Level Rise Policy Guidance at <https://www.coastal.ca.gov/climate/slrguidance.html>: "Just over 21 million people lived in California's coastal counties as of July 2014 (CDF 2014), and the state supports a \$40 billion coastal and ocean economy (NOEP 2010)."

²³ See, for example, CDPs 2-10-039 (Land's End Seawall), 2-11-009 (City of Pacifica Shoreline Protection), A-3-PSB-12-042 and A-3-PSB-12-043 (Pismo Seawalls), and 3-16-0345 (Honjo Seawall).

²⁴ The property sales used to derive the average price per square foot for blufftop properties in the immediate vicinity are for property sales at the following locations: 65 San Pablo Avenue (\$204.81/square-foot); 207 Washington Boulevard (\$250.26/square-foot); 420 1st Avenue (\$284.75/square-foot); 331 Mirada Road (\$208.91/square-foot); 440 2nd Avenue (\$205.60/square-foot); and 349 1st Avenue (\$277.39/square-foot).

²⁵ Source: Zillow.com and Trulia.com (December, 2018).

Given median sales prices have been rising in Half Moon Bay over the same timeframe, such a value may slightly underestimate current costs, but it is still a valid, if conservative, estimate for mitigation purposes.

Applying this land acquisition value to the 12,835 square-foot impact due to the proposed armoring would result in a mitigation fee of \$3,062,688 for the loss of beach and shoreline use areas based on the initial 20-year mitigation period (i.e., 12,835 square feet x \$238.62/square foot = \$3,062,688). The Commission finds that this potential mitigation fee amount is most closely tied to specific property values in the vicinity of the project, and is thus both reasonably related and roughly proportional to the anticipated impacts of the proposed armoring on beach and shoreline use areas through the first 20 years it is in place.

Retention of Potential Beach Material

The final impact calculation pertains to the loss of sand and sand generating materials due to the project, and the way that affects the larger sand supply system. Beach sand material comes to the shoreline from inland areas, carried by rivers and streams; from offshore deposits, carried by waves; and from coastal dunes and bluffs feeding the beach. Bluff retreat/shoreline erosion is one of several ways that sand and sand generating materials are added to the shoreline. Bluff retreat and erosion is a natural process resulting from many different factors such as erosion by wave action causing cave formation, enlargement and eventual collapse of caves; saturation of the bluff soil from groundwater causing the bluff to slough off; and natural bluff deterioration. For coastal dunes, the contribution to the system is typically more direct, with sand becoming part of the shoreline system during and as a result of climatic events, including wind, rain, and storms. When the bluff/shoreline is armored with a shoreline protective device, the natural exchange of material from the armored area to the beach and shoreline is interrupted, and, if the armored bluff area would have otherwise eroded, there will be a measurable loss of material provided to the beach and shoreline, contributing to a loss of sandy beach.

In bluff areas, if natural erosion were allowed to continue (absent of any shoreline armoring), bluff sediment would be added to the beach, as well as to the larger littoral cell sand supply system fronting the bluffs. The volume of total material that would have gone into the sand supply system over the life of the shoreline structure would be the volume of material between (a) the likely future bluff face location with shoreline protection; and (b) the likely future bluff face location without shoreline protection. Using the Commission's methodology²⁶ the amount of beach-quality sand that would be retained due to the proposed seawall would be equal to 251 cubic yards of sand per year. Dr. Ewing and Dr. Street reviewed all calculations and concurred on these estimates. Over the course of the initial 20-year mitigation horizon, and including the last three years that the emergency revetment has had the same effect, the proposed armoring

²⁶ Sand supply loss is calculated with a formula that utilizes factors such as the fraction of beach quality material in the bluff material; the length of time the back beach will be fixed; the predicted rate of erosion with no seawall; the height of the seawall; and the width of property to be armored. In this case, the fraction of beach quality material is 0.4, the height of the seawall from the top of the bluff to below the winter beach level at elevation 0 NAVD is 33 feet, the width of the property to be armored is 257 feet, the rate of retreat is 2 feet per year, and the time period the seawall is installed is 23 years accounting for the 20 year authorization period and the 3 years the emergency rock was in place.

would thus result in the loss of about 5,773 cubic yards of sand through the first 20-year mitigation horizon (i.e., 251 cubic yards/year x 23 years = 5,773 cubic yards).

To mitigate for this loss of sand, the Commission oftentimes requires payment of an in-lieu fee to contribute to ongoing sand replenishment or other appropriate mitigation programs. In such cases, the Commission has typically mitigated for such sand retention impacts with an in-lieu fee based on the cost of buying and delivering an equivalent volume of beach quality sand to the affected area. In this case, as discussed above, the seawall and riprap revetment would result in the retention of about 5,773 cubic yards of sandy material through the initial 20-year mitigation horizon. The Applicants submitted three bids for the cost of delivered sand for the Half Moon Bay area, and the average of the three bids came out to a cost of purchasing and delivering sand of approximately \$51.75 per cubic yard (see **Exhibit 7**).²⁷ Thus, an in-lieu fee to address this initial sand retention impact would be approximately \$298,753.²⁸

Approvable Mitigation Package

In total, through the first 20-year mitigation timeframe, sand supply and related beach/shoreline loss impacts associated with the armoring would result in a required mitigation fee of \$3,361,441 (i.e., \$3,062,688 + \$298,753 = \$3,361,441). Based on the above analysis, such a figure is both reasonably related and roughly proportional to the quantifiable impacts of the proposed armoring. However, rather than requiring a mitigation fee of \$3,361,441 to facilitate possible access improvements as a means of offsetting this identified impact, a series of immediate public access improvements nearby the project site, described in more detail below, can most effectively offset such impacts.

When viable, the Commission has historically offset identified impacts via in-kind public access improvement projects. While this option is generally only available with public agency applicants, in this case there is a unique opportunity for these Applicants to work with the California Department of Parks and Recreation (State Parks) on a series of projects that together can appropriately offset these beach and shoreline area recreational access impacts as part of an overall mitigation package. Such mitigation strategies can allow for bona fide improvements to public recreational access infrastructure and utility so that mitigation benefits can be realized in the near term and in the same area of the impacts, as opposed to fees that might not be spent for many years, and mitigation not timely realized as a result. The idea is typically to acknowledge that the value of a fee diminishes over time in terms of what it can provide, including as improvements only become more expensive to construct over time, and to place a premium on improvements that can be realized in the near term. The Applicants have been working with State Parks and Commission staff on such a strategy whereby the Applicants would fund and implement a series of public access improvements in the vicinity of the project to help offset project impacts. In addition, the Applicants are also willing to dedicate the 5,000 square-feet of

²⁷ Although the bids are unclear as to whether the sand actually constitutes delivered beach quality (as opposed to construction quality) sand, the \$51.75 average is similar to estimates in other projects for delivered beach-quality sand, albeit estimates from other areas, and thus the \$51.75 per cubic yard average in this case may be used as a proxy. In addition, note that the one bid described in terms of cost per ton was converted to cost per cubic yard by applying the conversion factor of 1.5 tons of sand per cubic yard.

²⁸ That is, \$51.75 per cubic yard multiplied by 5,773 cubic yards equals \$298,753.

blufftop area between the inland property line and the Coastal Trail, and from the edge of the Coastal Trail to the seaward edge of the seawall, as well as a triangular 2,430 square-foot section of their blufftop property seaward of the Casa Mira complex for public access and additional California Coastal Trail area as part of the mitigation package in order to ensure long term viability of the Coastal Trail in the area.

Thus, on this point the Applicants are proposing a mitigation package that includes an access dedication (see **Special Condition 4**) as well as a series of public access improvements on the beach and along the blufftop, all of which would be managed for the public's use and enjoyment via a comprehensive public access management plan (see **Special Conditions 1, 2, and 3**). Specifically, the Applicants have voluntarily agreed to pay for and implement the following:

- Construction of a new vertical beach access stairway, incorporated into the seawall design²⁹
- Dedication of 7,430 square feet of bluff area for public use and enjoyment,³⁰ including covering the area where the stairway would be constructed as well as to facilitate connection of the Coastal Trail to the new beach stairway. The area proposed for a public access easement is shown on page 1 in **Exhibit 8** in red. The area would include 1) all land seaward of the western edge of the Coastal Trail to the bluff top edge (where it would intersect existing public access easements), bounded at the north by the northern end of the proposed seawall and bounded at the south by the southern property boundary; and 2) the triangular area at the southern end of the property inland of the Coastal Trail.
- Construction of a newly realigned blufftop Coastal Trail (8 feet wide, approximately 300 lateral feet) above the proposed armoring, within the dedicated blufftop area and on State Parks' property directly south of the project site to provide a more inland route and minimize erosion risk (and removal of old trail and restoration to natural bluff of this area)
- A \$10,000 contribution to public access improvements in the area, with a preference for a beach access stairway north of the apartments at 2 Mirada Road if the headland there blocks lateral access beach access most of the time in the future
- Landscaping improvements and installation of access amenities (e.g., public benches, picnic tables, bicycle racks, signage, etc.)

²⁹ The Applicants were already required by CDP 3-83-351 to provide a beach access stairway in this area (which was installed but subsequently washed out by winter storms and not yet replaced, as described above), and thus are currently required to provide a replacement beach access stairway by virtue of that CDP. Even though it is already required as mitigation for that prior project, it is appropriate to give the Applicants credit for the stairway proposed here inasmuch as it is a much more stable and robust stairway liable to last much longer, and its design provides additional 'value' in this sense that can be countenanced as part of the mitigation package.

³⁰ Although owned by the Applicants, the 4,000 square-foot beach area has historically been used by the public for many years as if it were public, and thus the public may have established prescriptive rights to this area. The same applies to the 7,430 square-foot blufftop area. That said, although the public may already have certain rights here, the Applicants' agreement to affirmatively dedicate same perfects the public's rights without the need for prescriptive litigation of one form or another, so there is value to such an offer.

- Removal of all existing timber piles on the beach in the project area to provide additional sandy beach area for public recreation
- Landscaping, drainage, and fencing/barrier modifications to improve public access utility and public views
- Ongoing maintenance of public access areas, improvements, and amenities

These types of improvements will enhance public recreational access amenities and utility in the project area, appropriately offsetting the beach/shoreline area impacts identified above.

Thus, in this case, the Commission finds it reasonable to mitigate for the above-identified armoring impacts, as well as to enhance and maximize public access and recreational opportunities in the project area as required by the Coastal Act, to require the Applicants to improve and maintain public recreational access areas, improvements, and amenities, to dedicate beach and blufftop land for such purposes, and to submit a \$10,000 mitigation payment to State Parks or other appropriate entity for public access improvements here, all with the objective of maximizing and enhancing public recreational access and utility in this area. This mitigation package strategy and approach is similar to compensatory projects and mitigation packages required by the Commission in the past.³¹ In addition, this approach will allow public access improvements to be realized in the very near term, providing fairly immediate and tangible public benefits as opposed to an overall single fee approach that may not be used or applied for some time, reducing its effectiveness. In addition, the above-described recreational use and access improvement projects will likely be worth much more to users than the cost to develop these improvement projects, as they have an intrinsic value to the shoreline-visiting public, particularly given the significant popularity of the CCT and related public access features on this stretch of coast that is difficult to quantify. In short, the above-described access improvement project constitutes an appropriate and adequate compensatory mitigation package to offset the impacts identified above, and to be able to find the project consistent with Coastal Act Section 30235.

Duration of Armoring Authorization

The Coastal Act compels shoreline protection devices only necessary to serve a coastal-dependent use or protect an existing structure in danger of erosion, and therefore shoreline protective devices are no longer compelled after the existing structures or coastal-dependent uses they protect are no longer present or no longer require armoring. Although the purpose of the proposed development is to protect the Coastal Trail and a pre-Coastal Act apartment building, the shoreline armoring itself impedes public access to and along the shoreline, adversely impacts beaches and shoreline recreational areas, potentially increases erosion on adjacent properties, and visually impairs this coastal area. Although in this case it is likely that the public pathway (i.e., the structure being protected by the seawall) will be in place for many years, the long term status

³¹ See, for example, CDPs 2-17-0702 (Sharp Park Armoring), 3-02-107 (Podesto), 2-16-0684 (Aimco), A-3-SCO-06-006 (Willmott), 3-09-029 (Rusconi), 3-09-042 (O'Neill), 3-10-044 (Crest Apartments), 2-11-009 (Pacifica drainage armoring), A-3-PSB-12-0042 and -0043 (Pismo Beach Oceanview Boulevard Seawalls), A-3-SCO-07-015/3-07-019 (Pleasure Point Seawall and Parkway), and 3-14-0488 (Iceplant LLC).

of the apartments is less clear, including it is unclear how sea level rise and other coastal hazards may affect the shoreline in this area over time (and how ongoing riprap violations may be rectified), so it is still necessary to ensure that the shoreline protection as constructed is not allowed to outlast the structure/use it was designed and approved to protect, including the CCT.

Special Condition 6 thus limits the duration of this armoring approval to the time when the public accessway improvements inland of the augmented seawall are no longer present or no longer require armoring, whichever occurs first. If some portion of the public improvements are removed, while some portion are retained, the armoring is required to be reduced or modified so that it is the minimum necessary to protect the public improvements that are retained.

In addition, and as described above, the armoring meets the first test of Coastal Act Section 30235 for the apartments because the apartment building was originally constructed in 1972, predating the effective date of the Coastal Act by 5 years (and Proposition 20 coastal permitting requirements by 1 year) and the currently available information suggests that it has not been modified to such an extent as to be considered redeveloped in the time since January 1, 1977. As a result, it retains its ‘existing structure’ status as long as it does not tip the threshold of redevelopment. If, however, the apartment building were to be redeveloped, then it would constitute a new structure that needs to meet all Coastal Act and LCP requirements, including in terms of a blufftop coastal hazard setback without reliance on armoring. In such a case, the building would need to be sited and designed to ensure geologic and engineering stability without reliance on shoreline armoring, including the armoring authorized by this CDP. If such re-siting is not possible, the redeveloped building would then need to be removed in order to be consistent with the Coastal Act requirements, including removal of the armoring approved here (as it would any longer be necessary to protect an existing structure, at least related to the apartments).

Thus, redevelopment of the site is limited by **Special Condition 6**, which recognizes that the proposed seawall is primarily being approved under Section 30235 to protect the existing apartment structure in danger from erosion. The intent of **Special Condition 6** is to limit future impacts to public resources by restricting expansion of new development on site, and to allow for potential removal of the approved tied-back seawall when it is no longer necessary to protect development requiring shoreline protection. In other words, if the apartments and related development that the armoring fronts is redeveloped, then it must be redeveloped without armoring, including that the existing armoring needs to be removed or reauthorized with updated terms under a new CDP application or amendment to this CDP, either of which would be required to be consistent with the terms and conditions identified herein. The condition also puts the property owner on notice that redevelopment of the parcel cannot rely on existing or new armoring for stability, and alternatives must be considered in order to avoid the need for bluff or shoreline protective devices in this hazardous area, including removing seaward portion(s) of any proposed redeveloped structure, relocation inland, and/or reduction in size. Such options look to be feasible for new construction or redevelopment and would prevent development from being sited in hazardous locations that would eventually lead to complete armoring of the bluffs and long-term adverse impacts to the adjacent public beach and State tidelands. Any future redevelopment of the affected property will require re-evaluation of then current conditions and must position development safely on site, independent of any shoreline protection.

Under **Special Condition 6**, redevelopment is defined to include additions and expansions, or any demolition, renovation or replacement that would result in alteration or reconstruction of 50 percent or more of the apartment structure as measured cumulatively since January 1, 1977, the effective date of the Coastal Act. The condition indicates that the preferred alternative to shoreline or bluff protective devices includes such options as relocating all or portions of the apartment structure inland. The Applicants have chosen to pursue a tied-back wall at this time, rather than revise the blufftop development to decrease the risks over the remaining life of these structures. Additionally, redevelopment of this property that would rely on the existing approved armoring for protection would not be consistent with Section 30253. The condition acknowledges that future development on the site beyond repair and maintenance to the existing structures must meet the requirements of Section 30253 and not require bluff or shoreline protective devices that alter the natural landform of the bluffs. The condition also defines redevelopment to include additions and expansions, or any demolition, renovation or replacement which would result, cumulatively, in alteration or reconstruction of 50 percent or more of an existing structure. Thus, this condition requires that if an applicant submits an application to remodel 30% of the existing structure, then, for example, five years later seeks approval of an application to remodel an additional 30% of the structure, this would constitute redevelopment, triggering the requirement to ensure that the redeveloped structure is sited safely, independent of any shoreline protection. It also specifies that the apartments will also be considered redeveloped if the cost of any alterations to the apartments and related development equals or exceeds 50 percent of the market value of the apartment structure/related development before the start of construction, based on the documented construction bid costs and either an appraisal by a professional property appraiser or San Mateo County assessor data.

In terms of impact mitigation for the approved project, as discussed above, the mitigation for the Section 30235 impacts associated with the seawall is based on impacts through the initial 20-year time period. These impacts will continue to occur, though, for the full time that the approved armoring structure is in place, including beyond 20 years if it continues to be required to protect the public Coastal Trail and the apartments. Using an initial time period of 20 years for the mitigation calculations ensures that the mitigation will cover the likely initial impacts from the armoring, but future impacts beyond the initial mitigation period are far more uncertain to predict at this point in time due, among other factors, to possible changes in sea level, storm frequency and intensity and direction of wave attack. The public access mitigation improvements required under this approval may very well be sufficient to offset the continued impacts of retaining the seawall in the future, but an evaluation of ongoing project impacts to shoreline resources in the future may demonstrate that additional mitigation is necessary in order to maintain public access and recreation and to adequately mitigate for ongoing project impacts to these resources. **Special Condition 6** therefore requires the Applicants to reevaluate the impacts associated with the retention of armoring beyond the initial 20-year mitigation period and provide additional mitigation if deemed necessary to mitigate for additional impacts to coastal resources past the initial 20 years in the event that said impacts are not mitigated sufficiently under this approval.

Thus, as conditioned, the project satisfies the Coastal Act Section 30235 requirements regarding mitigation for sand supply impacts, and thus also meets all Section 30235 tests for requiring such armoring.

Long-Term Stability, Maintenance, and Risk

Coastal Act Section 30253 requires the project to assure long-term stability and structural integrity, minimize future risk, and avoid additional, more substantial protective measures in the future. This is particularly critical given the dynamic shoreline environment in this area. Also critical to the task of ensuring long-term stability, as required by Section 30253, is a formal long-term monitoring and maintenance program. If the subject armoring were damaged in the future (e.g., as a result of flooding, landsliding, wave action, storms, etc.), it could lead to a degraded public access condition. In addition, such damages could adversely affect nearby beaches and recreational use areas by resulting in debris on the beaches and/or creating a hazard to the public using the beaches and offshore areas. Therefore, in order to find the proposed project consistent with Coastal Act Section 30253, the project must be maintained in its approved state. Further, in order to ensure that the Applicants and the Commission know when repairs or maintenance are required, the Applicants must regularly monitor the condition of the subject armoring, particularly after major storm events. Such monitoring will ensure that the Applicants and the Commission are aware of any damage to or weathering of the armoring and other project components, and can determine whether repairs or other actions are necessary to maintain the armoring and the offsetting access improvements in their approved state before such repairs or actions are undertaken. To assist in such an effort, monitoring plans should provide vertical and horizontal reference distances from armoring structures to surveyed benchmarks for use in future monitoring efforts.

Thus, to provide long-term structural stability and ensure that the proposed project is properly maintained, **Special Condition 6** requires monitoring and related reporting at five-year intervals. Such monitoring provides for evaluation of the condition and performance of the proposed project and overall bluff stability, and allows for any necessary maintenance, repair, changes or modifications to be timely identified. **Special Conditions 7 and 8** require the Applicants to maintain the project in its approved state, subject to the terms and conditions identified herein. Future monitoring and maintenance activities must be understood in relation to the approved final project plans (see **Special Condition 1**).

In terms of recognizing and assuming the hazard risks for shoreline development, the Commission's experience in evaluating proposed developments in areas subject to hazards has been that development has continued to occur despite periodic episodes of heavy storm damage and other such occurrences. Development in such dynamic environments is susceptible to damage due to both long-term and episodic processes. Past occurrences statewide have resulted in public costs (through low interest loans, grants, subsidies, direct assistance, etc.) amounting to tens of millions of dollars. As a means of allowing continued private development in areas subject to these hazards while also avoiding placing the economic burden for possible future damages onto the people of the State of California, applicants are regularly required to acknowledge site hazards and agree to waive any claims of liability on the part of the Commission for allowing the development to proceed. Accordingly, this approval is conditioned for the Applicants to assume all risks for developing at this location (see **Special Condition 9**).

Coastal Hazards Conclusion

With regard to this specific site and facts, the Commission finds that the proposed project, as conditioned, can be found consistent with Coastal Act Sections 30235 and 30253 because it is

the least environmentally damaging feasible alternative required to protect an existing structure and a coastal-dependent use in relation to the CCT, and conditions are included to ensure that the project will appropriately mitigate for its sand supply and beach/shoreline recreational use area impact, and to ensure long term stability. Therefore, as conditioned, the proposed project is consistent with Coastal Act Sections 30235 and 30253.

E. PUBLIC ACCESS AND RECREATION

Applicable Policies

Coastal Act Section 30604(c) requires that every coastal development permit issued for any development between the nearest public road and the sea “shall include a specific finding that the development is in conformity with the public access and public recreation policies of [Coastal Act] Chapter 3.” The proposed project is located seaward of the first through public road (Highway 1). Coastal Act Sections 30210 through 30214 and 30220 through 30224 specifically protect public access and recreation. In particular:

***30210.** In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

***30211.** Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

***30212(a).** Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects...*

***30213.** Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. ...*

***30221.** Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

***30222.** The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry.*

***30223.** Upland areas necessary to support coastal recreational uses shall be reserved for*

such uses, where feasible.

Coastal Act Section 30240(b) also protects parks and recreation areas, such as the adjacent beach area. Section 30240(b) states:

30240(b). *Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

These overlapping Coastal Act policies clearly protect the blufftop public access area, the sandy beach (and access to and along it), and offshore waters for public access and recreation purposes, particularly free and low cost forms.

Consistency Analysis

Shoreline protective devices can have significant adverse impacts to public access and recreation. Section 30210 of the Coastal Act requires the Commission to provide the general public maximum access and recreational opportunities, while respecting the rights of private property owners. Section 30211 prohibits development from interfering with the public's right of access to the sea. In approving new development, Section 30212(a) requires new development to provide access from the nearest public roadway to the shoreline and along the coast, save certain limited exceptions, including existing adequate nearby access. Section 30213 protects lower cost forms of access, such as the free access available at the project site. Section 30220 protects coastal areas suited for ocean-oriented activities, such as the beach and offshore access available here, for such purposes. Sections 30221 and 30223 protect oceanfront and upland areas for public recreational uses, and Section 30222 prioritizes visitor-serving amenities providing for public recreational use. Section 30240(b) protects park facilities, such as Half Moon Bay State Beach and related inland recreational areas, from degradation.

Finally, the Coastal Act Section 30210 direction to maximize access represents a different threshold than to simply provide or protect such access. Namely, it is not enough to simply provide access to and along the coast, and not enough to simply protect access, rather such access must also be *maximized*. A constitutional mandate, maximizing access provides fundamental direction with respect to projects along the California coast that raise public access issues, like this one. In addition, the mean high tide line is predicted to move landward over time depending on the beach profile, seasonal tidal activity and continued sea level rise. As mentioned in the project description, this area (including both the greater Half Moon Bay State Beach area and the CCT along the Mirada area coast specifically) is heavily used by the public, and it provides significant coastal access and recreational opportunities for residents and visitors alike. Therefore, it is also critically important that the Commission assess whether the project, which if approved would be authorized until 2039, would impact public access and recreation over this period, and if so, provide measures to avoid or appropriately mitigate such impacts.

The proposed project would have identifiable impacts on public recreational access, including through loss of beach/shoreline recreational use area where it is sited, incremental loss of beach due to the "coastal squeeze," and cumulative impacts to beach and shoreline recreation in the

area. Critically, the proposed project would lead to a loss of available beach and shoreline recreation area for public access and recreation because the back of the beach/shoreline area will be fixed by the continued placement of the seawall, and the ocean interface will gradually move landward as sea level rises due to climate change. More specifically, sea level is expected to rise between 0.5 feet to 1.8 feet by 2040,³² and thus it is likely that the seawall will have discernible impacts on public access and recreation for as long as it is in place. In fact, with sea levels anticipated to rise between half-a-foot and nearly two feet within the next 20 years, less of the beach/shoreline area seaward of the seawall will be available and such availability will be for a shorter period of time each day. Further, these impacts are predicted to be exacerbated as the years go on.

Coastal Act Section 30212 requires new development projects, where appropriate, to provide public coastal access as part of the project. In this case, the proposed project includes **Special Conditions 1, 2, and 3**, which provide for a series of public access improvements, including a new stairway and a re-routed section of the CCT, a \$10,000 payment towards other access improvements, and a Public Access Management Plan. Specifically, and as described in the previous findings regarding coastal hazards, the project would be conditioned to provide offsetting public access improvements at the project site to mitigate for the projects impacts on coastal resources. As such and as conditioned, the proposed project would facilitate much-needed public access improvements at this location and would ensure the continued vitality of the coastal access trail area inland of the seawall. Accordingly, **Special Conditions 1 and 2** require the construction of a stairway to the beach, as well as aesthetic improvements (such as landscaping, fencing/barrier improvements, removal of approximately 25 timber piles from sandy beach areas, etc.) and additional public access features/amenities (e.g., interpretive signage, benches, picnic tables, etc.) to the area. Notably, the project will provide access to the beach in an area that has otherwise been difficult for even the nimblest member of the public to access. In addition, riprap at the upcoast end of the seawall will be removed and restacked, opening up more public beach/shoreline area, and creating a more inviting and aesthetically pleasing atmosphere for public access.

The requirements of **Special Conditions 1, 2, and 3** will help restore and substantially improve access, and ultimately the public's enjoyment of this particularly important public coastal access area. This will ensure that the impacts of this project to public recreational access in this stretch of coast will be adequately mitigated for, and these mitigations are also required for public recreational access as well as coastal hazard reasons. When the armoring structure is subject to reassessment in 2039, all impacts will need to be identified, and appropriate mitigation for any ongoing impacts provided if the armoring is to continue to remain in place.

Given that the proposed shoreline structure can have adverse effects on beaches and sand supply, which ultimately result in the loss of the beach and associated impacts to public access, the Applicants have agreed to provide for the dedication of 7,430 square feet of bluff area for public use and enjoyment. These dedications would include areas where the new beach access stairway would be constructed and would facilitate connection of the Coastal Trail to the new beach

³² State of California Sea-Level Rise Guidance (2018 Update); California Natural Resources Agency & Ocean Protection Council; Sacramento, California; March 14, 2018, 1-84.

stairway (see **Special Condition 4**). This type of mitigation can help offset public access and recreation impacts to the area of beach below the mean high tide line which would exist and continue to migrate inland but for the existence of the seawall.

The remaining public access and recreation impacts accrue due to project activities on the blufftop, and from construction overall. With respect to construction impacts, this project will: require the movement of large equipment, workers, materials, and supplies in and around the shoreline area and public access points; include large equipment operations in these areas; result in the loss of public access use areas to a construction zone; and generally intrude and negatively impact the aesthetics, ambiance, serenity, and safety of the recreational experience at these locations. These public recreational use impacts can be minimized through both Applicant's proposed best management practices and construction parameters that limit the area of construction, limit the times when work can take place (e.g., to avoid both weekends and peak summer use months when recreational use is highest), clearly fence off the minimum construction area necessary, keep equipment out of coastal waters, require off-beach equipment and material storage during non-construction times, clearly delineate and avoid to the maximum extent possible public use areas, and restore all affected public access areas at the conclusion of construction. A construction plan is required to implement these measures (see **Special Condition 5**). In addition, to provide maximum information to the beach-going public during all construction, the Applicants must maintain copies of the CDP and approved construction plans available for public review at the construction site, as well as provide a construction coordinator whose contact information is posted at the sites to respond to any problems and/or inquiries that might arise (see **Special Condition 5**). Also, the proposed excavated sand berm must be modified as necessary to ensure continuous lateral accessway of at least 25 feet on the beach above the extent of tidal wash at all times (see **Special Condition 1**). Finally, minimized such impacts that cannot be completely avoided can be offset by the public access mitigation package.

Public Access and Recreation Conclusion

The project will cause adverse impacts to public access and recreation, including impacts to local sand supply. However, project conditions avoid and minimize these impacts, including required payment of an in-lieu mitigation fee and implementation of a Public Access Management Plan to offset unavoidable impacts to beach area and sand supply, and recorded notice to future landowners regarding required reassessment in 2039 and potential proposed redevelopment of the property. As conditioned, the project can be found consistent with the Coastal Act access and recreation policies cited above.

F. PUBLIC VIEWS

Applicable Policies

Coastal Act Section 30251 states:

***30251.** The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to*

protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

Coastal Act Section 30240(b), previously cited, also protects the aesthetics of beach recreation areas such as those located directly adjacent to and at the project site.

30240(b). *Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

Consistency Analysis

The Coastal Act requires that development be sited and designed to protect public views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, and to be visually compatible with the character of surrounding areas. Although the proposed seawall introduces new massing into the viewshed as compared to the natural bluff face, the proposed project is the preferred alternative to any design that would incorporate a rock revetment, which would be more visually bulky and inevitably have a greater impact on visual resources. In addition, as proposed the wall will be sculpted and designed to approximate the look of natural bluffs in the vicinity. With this camouflaging, the project is designed to minimize to the extent possible visual impacts to the surrounding beach and coastal views.

At the same time, the seawall will result in an artificial concrete plane at the back of the beach/shoreline area that does not appear natural, and adversely impacts the public viewshed. Construction will also entail activities that will degrade the public view for its duration. Fortunately, the project area provides a rich palette for public view mitigation. Specifically, first, the camouflaging concrete surfacing must be applied and maintained, including up to current professional standards for same, for the seawall and the stairway. Second, the wave deflector needs to be eliminated, as it detracts from the camouflaging aesthetic, and any protruding aspects at the top edge of the seawall must instead be contoured and treated to conform to the concrete surfacing requirement. Third, and similarly, the proposed railing atop the seawall also emphasizes that this is an unnatural structure, and impedes through views otherwise. Therefore, the conditions require that the railing atop the seawall be removed, that any fencing allowed to demarcate more public trail areas from less safe, bluff areas, be designed to blend, that any allowed safety fencing be limited to areas that require it for safety purposes (where the bluff edge is at the Coastal Trail edge or at the top of the stairwell), that fencing of all types should hug the Coastal Trail as much as possible, and that no double fencing is permitted. Fourth, all drainage elements in the seawall need to be camouflaged (e.g., randomly spaced, hidden with overhanging or otherwise protruding sculpted concrete, etc.) so as to be hidden from view and/or inconspicuous as seen from the on top of the bluffs and the beach. Fifth, the riprap on the beach at the upcoast edge of the seawall shall be removed/restacked to provide an appropriate transition between the seawall and the upcoast riprap while limiting the amount of riprap on the beach for

this purpose to the maximum feasible extent. This will help reduce areal coverage, but will also reduce unnatural rock massing in the back beach area, improving views. Sixth, the timber piles on the beach seaward of the proposed armoring (approximately 25 piles total, generally extending 3 to 9 feet above the sand) need to be removed from the beach area and properly disposed of to enhance views. And seventh, the Commission typically requires native noninvasive landscaping designed to cascade over the top of armoring projects to partially screen the top of such projects from public view and to provide a more natural edge to blufftop areas and the top of the wall as seen from above and below. Thus, all non-native and/or invasive plants in the Coastal Trail area between the trail and the seawall need to be removed, and noninvasive drought-tolerant native shoreline species planted in the same area capable of providing screening of the armoring as well as enhanced viewshed associated with the trail and vertical accessway to ensure visual impacts are minimized. And the same applies to the new required overlook area north of the apartments. Such requirements are applied in this case to help soften the appearance of the approved armoring, ensuring that it blends more with surrounding areas, as well as to aid bluff stability and offset visual impacts otherwise. Provided such landscaping consists only of native, noninvasive blufftop plant species that are adapted to Half Moon Bay seaside locations and salt air, and provided all such landscaping is maintained in good growing conditions in such a way as to not block views from the Coastal Trail, landscape maintenance and other project requirements should help offset visual impacts and improve views of the project site as seen from the beach below and from the public access areas above. See **Special Condition 1** for incorporation of all project elements to avoid, lessen and mitigate for the aforementioned visual impacts.

In addition, a variety of fencing and barriers are present in the project area near the bluffs that detract from the public viewshed, and these can be modified to address visual impacts. For example, there is wire mesh fencing both up and downcoast of the apartments nearest the bluff, and a two-rope and wooden pole barrier just inland of that. Nearest the upcoast edge of the apartments is also some derelict wood fencing in the view. Then finally there is a lower wooden post and rope barrier along the edge of the Coastal Trail. All of the wire mesh fencing and the derelict wood fencing needs to be removed to improve views. Any remaining rope and wooden pole fencing shall be made consistent and to match the low existing wooden post and rope barrier along the edge of the Coastal Trail. Removal of such extraneous fencing in the public viewshed, and ensuring consistent rope and low wooden pole fencing, wooden split-rail or safety fencing as allowed, throughout the project area, will also help offset some of the project's public view impacts. Again, see **Special Condition 1** for requirements regarding fencing.

Further, there exist certain private development associated with the driveway and the parking lot for the apartments in the public right-of-way and in the required public dedication area (i.e., from CDP 3-83-351) that adversely impact public space and public views (see **Exhibit 8**). These include posts and barriers similar to those described above. In order to recapture public space and offset project visual impacts, the private development in this area needs to be removed, and relocated onto the Applicants' private property, and the area restored to public purposes (e.g., bench, landscaped area, public pathway, etc.). A low wooden rope and pole barrier can continue to be present at the demarcation point between private and public property interest, but the public area needs to be cleared of such development and restored. See **Special Condition 1**.

Finally, all public access improvements are required to be sited and designed to maximize

coastal view protection and minimize visual intrusion, including through use of materials appropriate to the shoreline context that blend with the natural environment and existing improvements in the area. In addition, all public access improvements and amenities described in **Special Conditions 1 and 2** are required to be regularly monitored to ensure that all elements are appropriately maintained in their approved state (see **Special Conditions 2, 7, and 8**).

As conditioned, the project can be found consistent with the above-cited Coastal Act visual resource policies.

G. MARINE RESOURCES

Applicable Policies

The Coastal Act protects the marine resources and habitat offshore of this site. Coastal Act Sections 30230 and 30231 provide:

***Section 30230.** Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

***Section 30231.** The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

Consistency Analysis

Section 30230 and 30231 of the Coastal Act require that marine resources “be maintained, enhanced, and where feasible, restored.” Further, uses of the marine environment must be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes. The Commission recognizes the marine and recreational resources involved with the proposed project as sensitive coastal resources that are of high state and federal importance.

Given the proposed project is located at the shoreline interface with the Pacific Ocean, there is the potential for impacts to marine resources. The project is conditioned to include construction methods typically required by the Commission to protect water quality and marine resources

during armoring construction, including construction site housekeeping controls and procedures, the use of appropriate erosion and sediment controls, and a prohibition on equipment washing, refueling, or servicing on the beach (see **Special Condition 5**). To further protect marine resources and offshore habitat, **Special Condition 5** requires construction documents to be kept at the site for inspection, and also requires a construction coordinator to be available to respond to any inquiries that arise during construction.

As conditioned, the project can be found consistent with Coastal Act Sections 30230 and 30231 regarding protection of marine resources and offshore habitat.

H. OTHER AGENCY APPROVALS

City of Half Moon Bay

The project includes components that will occur in the City of Half Moon Bay. Accordingly, this approval is conditioned to ensure that the project (as conditioned and approved by this CDP) has received all necessary authorizations (or evidence that none are necessary) from the City (see **Special Condition 13**).

State Parks

The project includes components that will occur on State Parks property, and otherwise affect State Park resources. Accordingly, this approval is conditioned to ensure that the project (as conditioned and approved by this CDP) has received all necessary authorizations (or evidence that none are necessary) from State Parks (see **Special Condition 13**).

California State Lands Commission

The California State Lands Commission (CSLC) may require a lease or some other type of approval for the underlying armoring, and thus this permit is conditioned to require written evidence either of CSLC approval of the project or evidence that such approval is not required (see **Special Condition 13**).

Army Corps of Engineers

The U.S. Army Corps of Engineers (ACOE) has regulatory authority over the proposed project under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 1344) and Section 404 of the Clean Water Act. Section 10 of the Rivers and Harbors Act regulates the diking, filling and placement of structures in navigable waterways. Section 404 of the Clean Water Act regulates fill or discharge of materials into waters and ocean waters. Portions of the project may be located within ACOE jurisdiction and the use of equipment and machinery on the beach up to the high tide line also has the potential to impact these areas. Accordingly, this approval is conditioned to ensure that the project (as conditioned and approved by this CDP) has received all necessary authorizations (or evidence that none are necessary) from ACOE (see **Special Condition 13**).

I. VIOLATION

Violations of the Coastal Act exist on the subject property including, but not limited to, the unpermitted extension and expansion of a pre-coastal revetment to the north, south, and west of the existing 2 Mirada apartment building. Specifically, the pre-coastal revetment was extended to the south from the southern edge of the apartments by 30 feet in 1977 and 1978 through two ECDPs (M-77-1 and M-78-17) that never received required follow-up CDPs, and extended to the north approximately 80 feet through a City emergency permit in December of 1983 without the benefit of any Coastal Commission CDPs or ECDPs (which were required because the project was/is located in the Commission's retained CDP jurisdiction, and the City also did not have a certified LCP at the time). There is also evidence of additional work performed to the revetment including addition of rock, concrete blocks, and piers along the bluff in 1988 and 1990 as far north as the southern wing wall associated with the bridge over Arroyo de en Medio Creek and approximately 80 feet to the south of the southern edge of the apartments. This work was also conducted without CDPs. Further, the original CDP for the subdivision (CDP 3-83-351) required a public access staircase from Mirada Road to the beach. This staircase was never built in the originally approved location, but rather it was eventually installed approximately 200 feet south of the apartments without a CDP by State Parks in June of 1999.³³ The revetment was further repaired and expanded in 1997 under Coastal Commission ECDP 1-97-069-G which also required a follow-up regular CDP.

An amendment to CDP 3-83-351 was approved in 1999 (CDP 1-97-022-A1) to formally authorize the repair and expansion of the revetment that occurred over the years, including the work conducted under ECDP 1-97-069-G and construction of the public access staircase. However, the Applicant failed to comply with prior-to-issuance conditions, the CDP was never issued, and ultimately authorization for the expanded revetment expired. Thus, all of the above-described expansion and extension of the pre-coastal riprap is currently unpermitted (see **Exhibit 10** for illustrations of permitted versus unpermitted riprap fronting and to the north of the 2 Mirada apartment building).

More recently, in 2016 and 2017, the owners of the 2 Mirada apartments and the Casa Mira Homeowners Association received two ECDPs (ECDPs G-2-16-0045 and G-2-17-0046) to extend the revetment to the south. The current application is the required follow-up CDP to those ECDPs, albeit after the deadline for submittal. It was during the final stages of reviewing the subject follow-up CDP application that Commission staff discovered that CDP 1-97-022-A1 was never formally issued and that large section riprap on the property is still unpermitted.

There is not enough information at this time to determine if the unpermitted armoring to the north of the proposed project armoring is the least environmentally damaging alternative necessary to protect the existing principle structure at 2 Mirada Road. Neither the pre-coastal riprap nor the unpermitted riprap additions/extensions here are a part of the proposed project.

³³ The staircase construction was paid for by the Applicant but was constructed by who at that time assumed responsibility to build and maintain the accessway. The staircase has since washed and eroded away and no longer exists.

Rather, the unpermitted riprap is the subject of an open enforcement investigation and both will be addressed separately and at a later date. Only the portion of the riprap installed temporarily via the recent ECDPs is pertinent to this CDP application, including as the Applicants here propose to remove it and install a tied-back shotcrete seawall in its place.

Although development has taken place prior to submission of this CDP application, consideration of this application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Commission review and action on this CDP does not constitute a waiver of any legal action with regard to the alleged violations, nor does it constitute an implied statement of the Commission's position regarding the legality of development, other than the development addressed herein, undertaken on the subject site without a CDP. Accordingly, the Applicants remains subject to enforcement action just as they were prior to this CDP approval for engaging in unpermitted development, unless and until they obtain CDP authorization for the unpermitted work to the rock revetment as discussed above.

J. OTHER

Public Rights

The area associated with this CDP application includes areas that are clearly public, as well as other areas historically used by the public, including the sandy beach and blufftop areas. Although the Commission has identified areas of public land and public use herein, the Commission here does not intend its action waive *any* public rights that may exist on the affected properties, including the area inland of the seawall and public access improvements. Thus, this approval is conditioned to make that clear, and to require the Applicants to agree and acknowledge same, including that these Applicants shall not use this CDP as evidence of a waiver of any public rights that may exist on these properties now or in the future (see **Special Condition 10**).

Future Permitting

The Commission herein fully expects to review any future proposed development at and/or directly related to this project and/or project area, including to ensure continued compliance with the terms and conditions of this CDP through such future proposals, but also to ensure that the any such future proposed development can be understood in terms of same. Thus, any and all future proposed development at and/or directly related to this project, this project area, and/or this CDP shall require a new CDP or a CDP amendment that is processed through the Coastal Commission, unless the Executive Director determines a CDP or CDP amendment is not legally required (see **Special Condition 12**).

Disclosure

The proposed project represents a unique set of facts, including with respect to the site's past history associated with prior CDPs. And this CDP includes important conditions reflecting the set of facts as they apply to this approval, including the required conditions of approval. In order to ensure that the terms and conditions of this approval are clear to these Applicants as well as any future owners, this approval requires that the CDP terms and conditions be recorded as

covenants, codes, and restrictions against use and enjoyment of the property, and for them to be explicitly disclosed in all real estate transactions (see **Special Conditions 11 and 15**).

Indemnification

Coastal Act Section 30620(c)(1) authorizes the Commission to require applicants to reimburse the Commission for expenses incurred in processing CDP applications. Thus, the Commission is authorized to require reimbursement for expenses incurred in defending its actions on the pending CDP applications in the event that the Commission's action is challenged by a party other than the Applicants. Therefore, consistent with Section 30620(c), the Commission imposes **Special Condition 14** requiring reimbursement for any costs and attorneys' fees that the Commission incurs in connection with the defense of any action brought by a party other than the Applicants challenging the approval or issuance of this CDP, or challenging any other aspect of its implementation, including with respect to condition compliance efforts (see **Special Condition 14**).

K. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with CDP applications showing the application to be consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect that the activity may have on the environment.

The City of Half Moon Bay, acting as lead agency, determined this project was exempt from discretionary approvals and would require only a ministerial building permit, therefore exempting it from CEQA requirements. The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of the Natural Resources Agency as being the functional equivalent of environmental review under CEQA. The preceding findings in this report have discussed the relevant coastal resource issues with the proposal, and the CDP conditions identify appropriate mitigations to avoid and/or lessen any potential for adverse impacts to said resources. Further, all public comments received to date have been addressed in the preceding findings, which are incorporated herein in their entirety by reference.

As such, there are no additional feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse environmental effects which approval of the proposed project, as conditioned, would have on the environment within the meaning of CEQA. Thus, if so conditioned, the proposed project will not result in any significant environmental effects for which feasible mitigation measures have not been employed consistent with CEQA Section 21080.5(d)(2)(A).

APPENDIX A – SUBSTANTIVE FILE DOCUMENTS

- CDP 3-83-351 (1984)
- CDP 1-97-022-A1 (1999)
- BAGG Geotechnical Engineering Investigation and Engineering Geologic Assessment (2017)
- Moffatt & Nichol Engineering Report (2017)
- Moffatt & Nichol Beach Sand Replenishment In-lieu Fee Estimate (2017)

APPENDIX B – STAFF CONTACT WITH AGENCIES AND GROUPS

- Applicants (2 Mirada Ownership Group and Casa Mira Homeowner's Association)
- City of Half Moon Bay Planning Department
- City of Half Moon Bay Building Department
- California Department of Parks and Recreation
- Surfrider Foundation