CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST AREA 89 SOUTH CALIFORNIA ST., SUITE 200 VENTURA, CA 93001 (805) 585-1800

Th16a through f



4-10-040, 4-10-041, 4-10-042, 4-10-044: Original versions filed: 11/17/10

Original Commission action (denial): 6/16/11

Current/revised versions (after remand) filed: 8/27/14

4-14-0598, 4-14-1094: Filed 8/27/14

180th day for all: 2/23/15 Extension executed: 12/2/14

Revised deadline (270th day): 5/24/15

Staff: J. Blaugrund Staff Report: 5/1/15 Hearing Date: 5/14/15

STAFF REPORT: REGULAR CALENDAR

Application Numbers: 4-10-040, 4-10-041, 4-10-042, 4-10-044, 4-14-0598, 4-14-1094

Applicants: Lunch Properties LLLP, Vera Properties LLLP, Mulryan

Properties LLLP, Ronan Properties LLLP, Morleigh Properties LLLP, and ED West Coast Properties, LLLP

Agents: April Winecki and Alison Evans, Dudek

Jim Vandenberg, EQ Properties

Richard Volpert, Glaser, Weil, Fink, Jacobs, Howard, Avchen

& Shapiro, LLP

Susan McCabe and Anne Blemker, McCabe & Company Fiona Hutton and Vanessa Rodriguez, Fiona Hutton &

Associates, Inc.

Stanley Lamport, Cox, Castle& Nicholson, LLP

Moses Hacmon

Project Location: North of Sweetwater Mesa Road, Santa Monica Mountains,

Los Angeles County

Project Description: These applications are for: (1) five new single family residences

ranging from 10,159 sq. ft. to 14,366 sq. ft. in size (including garages and non-habitable storage space) on five adjoining lots; (2) 27,540 cu. yds. of grading (21,430 cu. yds. cut; 6,110 cu. yds. fill) for the five residence development areas and private driveways; (3) 14,620 cu. yds. of grading (3,030 cu. yds. cut and 11,590 cu. yds. fill) for the 1,980 li. ft. long, 20 ft. wide

shared access road extending across the project sites

(connecting to Sweetwater Mesa Road in Malibu through the construction of a road segment to be considered in a CDP by the City of Malibu); (4) 4,650 cu. yds. of grading (4,650 cu. yds.

fill) for one fire department turnout along the shared access road; (5) 7,270 cu. yds. of excavation required for structural piles for the five residences' foundations; (6) 315 li. ft. rock fall stabilization device; (7) 7,800 linear ft. long waterline extension to the sites from Costa Del Sol Road with 3,240 li. ft. of a 2 ft. wide water line maintenance pathway; (8) recordation of an open space conservation easement granted to MRCA over 138 acres, including portions of the five project sites and the entirety of a sixth contiguous parcel (APN 4453-005-013); (8) offer-to-dedicate a trail easement for the Coastal Slope Trail; (9) lot line adjustment and lot tie (including APNs 4453-005-092, 4453-005-091, 4453-005-018, 4453-005-038, 4453-005-013) resulting in a decrease in the number of parcels from 5 to 4; (10) implementation of a Habitat Mitigation and Monitoring Plan for project impacts to 0.35 acres of Purple Needlegrass, revegetation of areas temporarily impacted (0.2 acres) by installation of the proposed water line extension, and restoration/revegetation of the existing dirt access road; (11) implementation of construction traffic mitigation measures. Due to the related nature of the six coastal development permit ("CDP") applications, all of the proposed development will be addressed in one staff report. Detailed project descriptions for each separate application are provided below. ¹

CDP Application 4-10-042 (Mulryan Properties, LLLP) (APN 4453-005-092)

The applicant is proposing to construct a 18-ft. high (as measured from existing grade), stepped two-level with basement, 7,606 sq. ft. single-family residence on a 20-acre lot, with an attached 1,052 sq. ft. garage and 1,576 sq. ft. non-habitable space. The development proposal includes a swimming pool, onsite septic system, 450 li. ft. water line extension and 760 li. ft. access road extension, a Fire Department hammerhead turnaround, and a portion of a proposed rock fall stabilization system (the other portion will be located on the adjacent Vera site) along the shared access road. The shared access road, driveway and Fire Department turnaround and turnout would require 13,810 cu. yds. (670 cu. yds. cut; 13,140 cu. yds. fill) of grading. In total, the proposed project requires 16,390 cu. yds. of grading (3,130 cu. yds. cut; 13,260 cu. yds. fill), and 1,700 cu. yds. of excavation required for structural piles for the residence foundation. The proposed development would be located on a newly configured parcel proposed pursuant to CDP 4-14-1094, to facilitate clustered development, which would result in a reduced lot size from 42.7 acres to 20.1 acres. The project also includes implementation of a proposed Habitat Mitigation and Monitoring Plan (HMMP). The proposed project also includes an offer to dedicate a conservation easement area over 17.6-acres of the 20.1-acre newly reconfigured parcel. The applicant is proposing a 9,883 sq. ft. development area for the residential

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¹ The applications are being considered together pursuant to section 13058 of the Commission's regulations (14 CCR § 13058), which states, in part, that "[w]here two or more applications are legally or factually related, the executive director may prepare a consolidated staff report. Either the commission or the executive director may consolidate a public hearing where such consolidation would facilitate or enhance the commission's ability to review the developments for consistency with the requirements of the Coastal Act."

development. Of the total proposed site grading, the proposed development area would require 2,580 cu. yds. of grading (2,460 cu. yds. cut; 120 cu. yds. fill).

CDP Application 4-14-0598 (Morleigh Properties, LLLP) (APN 4453-005-091)

The applicant is proposing to construct a 18-ft. high (as measured from existing grade), two-level, 9,170 sq. ft. single-family residence on a 20.1-acre lot, with an attached 989 sq. ft. garage and 1,231 sq. ft. non-habitable space, swimming pool, onsite septic system, 105 li. ft. water line extension and 450 li. ft. shared access road extension, and a Fire Department hammerhead turnaround. The proposed shared access road, driveway and Fire Department turnaround would involve 7,840 cu. yds. of grading (4,700 cu. yds. cut; 3,140 cu. yds. fill). In total, the proposed project requires 10,360 cu. yds. of grading (7,070 cu. yds. cut; 3,290 cu. yds. fill), and 1,590 cu. yds. of excavation required for structural piles for the residence foundation. The proposed development would be located on a newly configured parcel proposed pursuant to CDP 4-14-1094, to facilitate clustered development, which would result in a reduced lot size from 43.9 acres to 20.1 acres. The project also includes implementation of a proposed HMMP. The proposed project also includes an offer to dedicate a conservation easement area over 18.3-acres of the 20.1-acre newly reconfigured parcel. The applicant is proposing a 9,719 sq. ft. development area for the residential development. Of the total site grading, the development area would require 2,520 cu. yds. of grading (2,370 cu. yds. cut; 150 cu. yds. fill).

CDP Application 4-10-041 (Vera Properties, LLLP) (APN 4453-005-018)

The applicant is proposing to construct an 18 ft. high (as measured from the existing grade), stepped three-level, 13,060 sq. ft. single-family residence with an attached 882 sq. ft. garage and 424 sq. ft. non-habitable space on a 41.1-acre lot. The development proposal includes a swimming pool, onsite septic system, 260 li. ft. of water line extension, 105 li. ft. of shared access road extension, Fire Department hammerhead turnaround, a Fire Department access turnout, and a 250 li. ft., 4 ft. high berm, with a 10 ft. high barrier fence, rock fall stabilization device. Construction of the proposed shared access road, driveway and Fire Department turnaround and turnout would involve 7,230 cu. yds. (3,120 cu. yds. cut; 4,110 cu. yds. fill) of the total grading amount. In total, the proposed project would require 12,120 cu. yds. of total grading (7,990 cu. yds. cut; 4,130 cu. yds. fill), and 150 cu. yds. of excavation required for structural piles for the residence foundation. The proposed development would be located on a newly configured parcel proposed pursuant to CDP 4-14-1094, to facilitate clustered development, which would result in an increased lot size from 20-acres to 40.1-acres. The project also includes implementation of a proposed HMMP. The proposed project also includes an offer to dedicate a public hiking and trail easement and a conservation easement area over 34.7-acres of the 41.1-acre newly reconfigured parcel. The applicant is proposing a 9,853 sq. ft. development area for the residential development. Of the total site grading, the development area would require 4,890 cu. yds. (4,870 cu. yds. cut; 20 cu. yds. fill).

CDP Application 4-10-040 (Lunch Properties, LLLP) (APN 4453-005-037)

The applicant is proposing to construct an 18-ft. high (as measured from existing grade), three-level, 9,9798 sq. ft. single-family residence on an approximately 14 acre lot, with an attached 1,901 sq. ft. garage and 920 sq. ft. non-habitable space. The development proposal includes a swimming pool, onsite septic system, 250 li. ft. water line extension and 260 li. ft. shared access road extension, and Fire Department hammerhead turnaround. The shared access road, driveway

and Fire Department turnaround would require 1,200 cu. yds. grading (1,170 cu. yds. cut; 30 cu. yds. fill). In total, the proposed project requires 3,510 cu. yds. of grading (3,110 cu. yds. cut; 400 cu. yds. fill), and 1,660 cu. yds. of excavation required for structural piles for the residence foundation. The project also includes implementation of a proposed HMMP. The proposed project includes an offer to dedicate a conservation easement area over 12.5-acres of the 14 acre parcel. The applicant is proposing a development area that is 9,911 sq. ft. in size, which would require 2,310 cu. yds. of grading amount (1,940 cu. yds. cut; 370 cu. yds. fill).

CDP Application 4-10-044 (Ronan Properties, LLLP) (APN 4453-005-038)

The applicant is proposing to construct an 18-ft. high (as measured from existing grade), two-level, 9,907 sq. ft. single-family residence on a 46.7-acre lot, with an attached 634 sq. ft. garage. The development proposal includes a swimming pool, onsite septic system, 6,500 li. ft. water line extension and 420 li. ft. shared access road extension, and Fire Department hammerhead turnaround. The shared access road, driveway, and Fire Department turnaround on the subject property would require 2,130 cu. yds. of grading (920 cu. yds. cut; 1,210 cu. yds. fill) of the total grading amount. In total, the proposed project would require 4,430 cu. yds. of grading (3,160 cu. yds. cut; 1,270 cu. yds. fill) and 2,170 cu. yds. of excavation required for structural piles for the residence foundation. The proposed development would be located on a newly configured parcel proposed pursuant to CDP 4-14-1094, to facilitate clustered development, which would result in an increased lot size from 21.4-acres to 46.7-acres. The project also includes implementation of a proposed HMMP. The proposed project also includes an offer to dedicate a conservation easement area over 53.7-acres of the 56.6-acre newly reconfigured parcel. The applicant is proposing a 9,992 sq. ft. development area that would require 2,300 cu. yds. of grading (2,240 cu. yds. cut; 60 cu. yds. fill).

<u>CDP Application 4-14-1094 (Vera Properties, LLLP, Mulryan Properties, LLLP, Ronan Properties, LLLP, Morleigh Properties, LLLP, and E.D. West Coast Properties, LLLP)</u>

The applicants of CDP applications 4-10-041 (Vera Properties LLLP), 4-10-042 (Mulryan Properties, LLLP), 4-10-044 (Ronan Properties, LLLP), and 4-14-0598 (Morleigh Properties, LLLP), along with the owner of a fifth contiguous parcel (E.D. West Coast Properties) propose a lot line adjustment in order to situate the subject residential development in a clustered configuration located on a mesa at the southernmost extent of the project area, and the combination of the Ronan parcel with the E.D. West Coast parcel, as depicted on Exhibit 10. The proposed lot line adjustment and lot tie will result in a reduction in the number of existing legally-created parcels from five to four. As described in the table below, the size of each lot would change as a result of the proposed reconfiguration.

		Existing		CDP for
		Lot	Proposed Lot	Residential
Owner	APN	Acreage	Acreage	Development
Mulryan	4453-005-092	42.7	20.1	4-10-042
Properties, LLLP				
Morleigh	4453-005-091	43.9	20.1	4-14-0598
Properties, LLLP				
Vera Properties,	4453-005-018	20	41.1	4-10-041
LLLP				
Ronan Properties,	4453-005-038	21.4	56.6	4-10-044
LLLP				
ED West	4453-005-013	9.2	0	NA
Properties, LLLP				

Summary

APN	Owner ²	Application Number	Reconfiguration Proposed?	Residential Development?	Easement(s)
4453-005- 037	Lunch	4-10-040	No		Open Space/ Conservation
4453-005- 018	Vera	4-10-041 and 4-14-1094	Yes- Lot Line	Yes	Open Space/ Conservation and Trail
4453-005- 091	Morleigh	4-14-0598 and 4-14-1094	Adjustment		
4453-005- 092	Mulryan	4-10-042 and 4-14-1094			Open Space/ Conservation
4453-005- 038	Ronan	4-10-044 and 4-14-1094	Yes- Lot Tie		
4453-005- 013	E.D. West	4-14-1094		No	

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 $^{^{2}}$ All names below are shorthand. The formal names are followed by "Properties, LLLP" in each case.

SUMMARY OF STAFF RECOMMENDATION

Staff recommends **approval** of the proposed development with conditions. The Commission previously considered five CDP applications, each one proposing residential development on the one of the subject sites other than APN 4453-005-13 (E.D. West Coast Properties). At the June 16, 2011 hearing, Morleigh Properties LLLP withdrew its CDP application and the other four applications were denied by the Commission. The applicants (except for the applicant associated with the Morleigh proposal) filed a separate petition for a writ of mandate seeking to vacate the Commission's denial of their respective applications. On October 11, 2011, all of the lawsuits were consolidated for all further proceedings. In March 2013, the original applicants and the Commission entered into a Settlement and Mutual Release Agreement, to remand the Mulryan (4-10-042), Lunch (4-10-040), Vera (4-10-041), and Ronan (4-10-044) applications back to the Commission and for Morleigh to submit a new application to allow the applicants to modify their respective applications to propose a more clustered development scheme for the Commission's consideration (Exhibit 13). However, the Commission expressly retained its discretion to take whatever action it deems appropriate when considering the modified applications.

In August 2014, the new applications were filed as complete. In October 2014, the Commission effectively certified a Local Coastal Program ("LCP") for the subject area (the "Santa Monica Mountains LCP"), establishing a new standard of review for the pending applications. However, pursuant to agreement of the parties, and consistent with the Commission's regulations and the LCP (Los Angeles County Code § 22.44.910), the Commission retained jurisdiction over the applications.

The subject properties are contiguous and located on the southern flank of the Santa Monica Mountains, about a mile inland from Pacific Coast Highway, east of Malibu Canyon Road, and west of Las Flores Canyon Road. The Malibu Civic Center area, Malibu Pier, Malibu Creek, and Malibu Lagoon State Park are located about a mile away to the southwest. The six properties, totaling 151 acres, are situated along an approximately 3,000-ft. long stretch of a prominent ridgeline separating the Sweetwater Canyon and Carbon Canyon watersheds. This ridgeline extends inland approximately 2.18 miles from the narrow coastal terrace traversed by Pacific Coast Highway to the backbone crest of the Santa Monica Mountain Range. The certified Los Angeles County Santa Monica Mountains Land Use Plan (LUP) Map 3: Scenic Resources designates this ridge as a "Significant Ridgeline".

The Santa Monica Mountains LCP uses the phrase "Sensitive Environmental Resource Area" (or "SERA") to refer to areas of particular biological significance, and it divides SERAs into several categories, including H1, H2, and H2-High Scrutiny, depending on how biologically significant they are considered to be. The project area is undeveloped and comprised of steep, rugged mountain terrain that is blanketed by various natural rock outcroppings and primarily undisturbed native chaparral habitat that is part of a large contiguous area of undisturbed native vegetation that is designated as H1, H2, and H2-High Scrutiny SERA on Santa Monica Mountains LUP Map 2: Biological Resources, all of which equates to ESHA in Coastal Act parlance. A large area of public parkland that is part of Malibu Creek State Park is located on the adjacent parcels to the west. The Santa Monica Mountains LCP requires that all development in SERAs conform to a building site area that is no more than 10,000 square feet in size and are sited and designed to avoid and minimize any adverse impacts to H1, H2 and H2-High Scrutiny habitats. As such, the proposed structures and associated development are sited and designed to

avoid or minimize significant disruption of habitat values and the development areas conform to 10,000 square feet. Furthermore, the project is conditioned to implement the applicants' proposal to grant an open space easement in order to ensure that the remaining ESHA on the sites will be preserved, and mitigation is required for the impacts to H1 and H2 habitats due to the development and the required fuel modification around structures. Additionally, the applicants have proposed implementation of a Habitat Impact Mitigation and Monitoring Plan to address certain impacts of the proposed development on native habitat, which includes 3:1 mitigation for impacts to purple needlegrass. Furthermore, Special Conditions Five (5) and Seven (7) minimize impacts to H1 and H2 habitat onsite by requiring planting of only native/drought tolerant species and by minimizing night lighting.

The subject ridgeline is a prominent landscape feature along a significant stretch of the Malibu coast. The ridge is visible from several significant public vantages along Pacific Coast Highway, including: Malibu Bluffs Park (2.5 miles west); Pacific Coast Highway and Malibu's Civic Center and Colony Plaza areas (2 miles west); Malibu Lagoon State Park and Surfrider Beach areas (1.2 miles southwest); and Malibu Pier (1 mile southwest). The ridge is also highly visible from Malibu Creek State Park land, portions of Malibu Canyon Road, and the Saddle Peak Trail about a quarter mile to the west, portions of Piuma Road approximately a mile to the north, and several LUP-mapped Vista Points along Rambla Pacifico Road a mile to the east.

The proposed structures will be visible from the above mentioned public viewing areas and have the potential to adversely impact visual resources. The proposed structures are sited and designed in a clustered configuration to minimize visual impacts. Consistent with the certified Santa Monica Mountains LCP, the maximum height of all proposed residences is 18 feet, from both existing and proposed grade, in order to ensure that visual impacts are minimized. The project is conditioned to utilize exterior colors consistent with the surrounding natural landscape; that windows on the development be made of non-glare glass; implement appropriate, adequate, and timely planting of native landscaping to soften the visual impact of the development from public view areas; and incorporate a limit on night lighting of the site to protect the nighttime rural character of this portion of the Santa Monica Mountains.

Additionally, the project site is located in an area historically subject to significant natural hazards including, but not limited to, landslides, erosion, flooding and wild fire. Specifically, the project site contains complex geology, soils, and significant geologic hazards, including landslides. In order to minimize fire hazard, the applicants have submitted a fire protection plan which includes measures to protect the subject development from wildfire; however the Fire Department has not reviewed this Plan. As such, Special Condition Twenty (20) requires that the applicants submit a final fire protection plan that has been reviewed by the Fire Department. Furthermore, to ensure stability and structural integrity and to protect the site and the surrounding sites, Special Condition One (1) requires the applicants to comply with the recommendations contained in the applicable geotechnical reports, and to incorporate those recommendations into all final design and construction plans.

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I. MOTIONS AND RESOLUTIONS

The staff recommends that the Commission adopt the following resolutions:

A. APPROVAL OF CDP NUMBER 4-10-040

Motion:

I move that the Commission approve Coastal Development Permit Number 4-10-040 pursuant to the staff recommendation.

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

Resolution:

The Commission hereby approves a coastal development permit 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 and provisions of the Santa Monica Mountains Local Coastal Program. 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.

B. APPROVAL OF CDP NUMBER 4-10-041

Motion:

I move that the Commission approve Coastal Development Permit Number 4-10-041 pursuant to the staff recommendation.

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

Resolution:

The Commission hereby approves a coastal development permit 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 and provisions of the Santa Monica Mountains Local Coastal Program. 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.

C. APPROVAL OF CDP NUMBER 4-10-042

Motion:

I move that the Commission **approve** Coastal Development Permit Number 4-10-042 pursuant to the staff recommendation.

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

Resolution:

The Commission hereby approves a coastal development permit 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 and provisions of the Santa Monica Mountains Local Coastal Program. 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.

D. APPROVAL OF CDP NUMBER 4-10-044

Motion:

I move that the Commission approve Coastal Development Permit Number 4-10-044 pursuant to the staff recommendation.

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

Resolution:

The Commission hereby approves a coastal development permit 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 and provisions of the Santa Monica Mountains Local Coastal Program.

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.

E. APPROVAL OF CDP NUMBER 4-14-0598

Motion:

I move that the Commission **approve** Coastal Development Permit Number 4-14-0598 pursuant to the staff recommendation.

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

Resolution:

The Commission hereby approves a coastal development permit 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 and provisions of the Santa Monica Mountains Local Coastal Program. 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.

F. APPROVAL OF CDP NUMBER 4-14-1094

Motion:

I move that the Commission **approve** Coastal Development Permit Number 4-14-1094 pursuant to the staff recommendation.

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

Resolution:

The Commission hereby approves a coastal development permit 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 and provisions of the Santa Monica Mountains Local Coastal Program. 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

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

III. SPECIAL CONDITIONS

Special Conditions One (1) through Twenty-two (22) shall apply to CDPs 4-10-040, 4-10-041, 4-10-042, 4-10-044, and 4-14-0598.

1. Plans Conforming to Geotechnical Engineer's Recommendations

By acceptance of this permit, the applicant agrees to comply with the recommendations contained in all of the geology, geotechnical, and/or soils reports referenced as Substantive File Documents. These recommendations, including recommendations concerning foundations, sewage disposal, and drainage, shall be incorporated into all final design and construction plans, which must be reviewed and approved by the consultant prior to commencement of development.

The final plans approved by the consultant shall be in substantial conformance with the plans approved by the Commission relative to construction, grading, and drainage. Any substantial changes in the proposed development approved by the Commission that may be required by the consultant shall require amendment(s) to the permit(s) or new Coastal Development Permit(s).

2. Assumption of Risk, Waiver of Liability and Indemnity

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

3. Permanent Drainage and Polluted Runoff Control Plan

- A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director, two (2) copies of a final Drainage and Runoff Control Plan for the post-construction project site, prepared by a qualified licensed professional. The Plan shall include detailed drainage and runoff control plans with supporting calculations. The plans shall incorporate long-term post-construction Best Management Practices (BMPs) that protect water quality and minimize increases in runoff volume and rate in the project design of developments in the following order of priority:
- a. Site Design BMPs: Project design features that reduce the creation or severity of potential pollutant sources, or reduce the alteration of the project site's natural stormwater flow regime. Examples are minimizing impervious surfaces, preserving native vegetation, and minimizing grading.
- b. Source Control BMPs: Methods that reduce potential pollutants at their sources and/or avoid entrainment of pollutants in runoff, including schedules of activities, prohibitions of practices, maintenance procedures, managerial practices, or operational practices. Examples are covering outdoor storage areas, use of efficient irrigation, and minimizing the use of landscaping chemicals.
- c. Treatment Control BMPs: Systems designed to remove pollutants from stormwater, by gravity settling of particulate pollutants, filtration, biological uptake, media adsorption, or any other physical, biological, or chemical process. Examples are vegetated swales, detention basins, and storm drain inlet filters. Where post-construction treatment of stormwater runoff is required, treatment control BMPs (or suites of BMPs) shall, at a minimum, be sized and designed to treat, infiltrate, or filter stormwater runoff from each storm event, up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, or the 85th percentile, 1-hour storm event (with an appropriate safety factor of 2 or greater) for flow-based BMPs.

The qualified licensed professional shall certify in writing that the final Drainage and Runoff Control Plan is in substantial conformance with the following minimum requirements:

- (1) Projects shall incorporate Low Impact Development (LID) techniques in order to minimize stormwater quality and quantity impacts from development, unless a credible and compelling explanation is provided as to why such features are not feasible and/or appropriate. LID strategies use small-scale integrated and distributed management practices, including minimizing impervious surfaces, infiltrating stormwater close to its source, and preservation of permeable soils and native vegetation.
- (2) Post-development runoff rates from the site shall be maintained at levels similar to predevelopment conditions.
- (3) Selected BMPs shall consist, or primarily consist, of site design elements and/or landscape based systems or features that serve to maintain site permeability, avoid directly connected impervious area and/or retain, infiltrate, or filter runoff from rooftops, driveways and other hardscape areas, where feasible. Examples of such features include but are not limited to porous pavement, pavers, rain gardens, vegetated swales, infiltration trenches, cisterns.
- (4) Landscape plants shall have low water and chemical treatment demands and be consistent with **Special Condition 5**, **Landscaping and Fuel Modification Plans**. An efficient irrigation system designed based on hydrozones and utilizing only drip or micro spray systems shall be utilized for any landscaping requiring water application.
- (5) All slopes shall be stabilized in accordance with provisions contained in the Landscaping and/or Interim Erosion and Sediment Control Condition for this Coastal Development Permit and, if applicable, in accordance with engineered plans prepared by a qualified licensed professional.
- (6) Runoff shall be discharged from the developed site in a non-erosive manner. Energy dissipating measures shall be installed where needed to prevent erosion. Plan details and cross sections for any rock rip-rap and/or other energy dissipating devices or structures associated with the drainage system shall be prepared by a qualified licensed professional. The drainage plans shall specify, the location, dimensions, cubic yards of rock, etc. for the any velocity reducing structure with the supporting calculations showing the sizing requirements and how the device meets those sizing requirements. The qualified, licensed professional shall ensure that all energy dissipaters use the minimum amount of rock and/or other hardscape necessary to protect the site from erosion.
- (7) All BMPs shall be operated, monitored, and maintained in accordance with manufacturer's specifications where applicable, or in accordance with well recognized technical specifications appropriate to the BMP for the life of the project and at a minimum, all structural BMPs shall be inspected, cleaned-out, and where necessary, repaired prior to the onset of the storm season (October 15th each year) and at regular intervals as necessary between October 15th and April 15th of each year. Debris and other water pollutants removed from structural BMP(s) during clean-out shall be contained and disposed of in a proper manner.
- (9) For projects located on a hillside, slope, or which may otherwise be prone to geologic instability, site drainage and BMP selection shall be developed concurrent with the preliminary development design and grading plan, and final drainage plans shall be approved by a licensed geotechnical engineer or engineering geologist.
- (10) Should any of the project's surface or subsurface drainage/filtration structures or other BMPs fail or result in increased erosion, the applicant/landowner or successor-in-interest shall be responsible for any necessary repairs to the drainage/filtration system or BMPs and restoration of the affected area. Should repairs or restoration become

necessary, prior to the commencement of such repair or restoration work, the applicant shall submit a repair and restoration plan to the Executive Director to determine if an amendment or new coastal development permit is required to authorize such work.

B. The final Drainage and Runoff Control Plan shall be in conformance with the site/development plans approved by the Coastal Commission. Any necessary changes to the Coastal Commission approved site/development plans required by a qualified, licensed professional shall be reported to the Executive Director. No changes to the Coastal Commission approved final site/development plans shall occur without an amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

4. Interim Erosion Control Plans and Construction Responsibilities

A. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director an Interim Erosion Control and Construction Best Management Practices Plan, prepared by a qualified, licensed professional. The qualified, licensed professional shall certify in writing that the Interim Erosion Control and Construction Best Management Practices (BMPs) plan are in conformance with the following requirements:

1. Erosion Control Plan

- (a) The plan shall delineate the areas to be disturbed by grading or construction activities and shall include any temporary access roads, staging areas and stockpile areas. The natural areas on the site shall be clearly delineated on the plan and on-site with fencing or survey flags.
- (b) Include a narrative report describing all temporary run-off and erosion control measures to be used during construction.
- (c) The plan shall identify and delineate on a site or grading plan the locations of all temporary erosion control measures.
- (d) The plan shall specify that grading shall take place only during the dry season (April 1 October 31). This period may be extended for a limited period of time if the situation warrants such a limited extension, if approved by the Executive Director. The applicant shall install or construct temporary sediment basins (including debris basins, desilting basins, or silt traps), temporary drains and swales, sand bag barriers, silt fencing, and shall stabilize any stockpiled fill with geofabric covers or other appropriate cover, install geotextiles or mats on all cut or fill slopes, and close and stabilize open trenches as soon as possible. Basins shall be sized to handle not less than a 10 year, 6 hour duration rainfall intensity event.
- (e) The erosion control measures shall be required on the project site prior to or concurrent with the initial grading operations and maintained throughout the development process to minimize erosion and sediment from runoff waters during construction. All sediment should be retained on-site, unless removed to an appropriate, approved dumping location either outside of the coastal zone or within the coastal zone to a site permitted to receive fill.

- (f) The plan shall also include temporary erosion control measures should grading or site preparation cease for a period of more than 30 days, including but not limited to: stabilization of all stockpiled fill, access roads, disturbed soils and cut and fill slopes with geotextiles and/or mats, sand bag barriers, silt fencing; temporary drains and swales and sediment basins. The plans shall also specify that all disturbed areas shall be seeded with native grass species and include the technical specifications for seeding the disturbed areas. These temporary erosion control measures shall be monitored and maintained until grading or construction operations resume.
- (g) All temporary, construction related erosion control materials shall be comprised of biodegradable materials (natural fiber, not photo-degradable plastics) and must be removed when permanent erosion control measures are in place. Bio-degradable erosion control materials may be left in place if they have been incorporated into the permanent landscaping design.

2. Construction Best Management Practices

- (a) No demolition or construction materials, debris, or waste shall be placed or stored where it may enter sensitive habitat, receiving waters or a storm drain, or be subject to wave, wind, rain, or tidal erosion and dispersion.
- (b) No demolition or construction equipment, materials, or activity shall be placed in or occur in any location that would result in impacts to environmentally sensitive habitat areas, streams, wetlands or their buffers.
- (c) Any and all debris resulting from demolition or construction activities shall be removed from the project site within 24 hours of completion of the project.
- (d) Demolition or construction debris and sediment shall be removed from work areas each day that demolition or construction occurs to prevent the accumulation of sediment and other debris that may be discharged into coastal waters.
- (e) All trash and debris shall be disposed in the proper trash and recycling receptacles at the end of every construction day.
- (f) The applicant shall provide adequate disposal facilities for solid waste, including excess concrete, produced during demolition or construction.
- (g) Debris shall be disposed of at a permitted disposal site or recycled at a permitted recycling facility. If the disposal site is located in the coastal zone, a coastal development permit or an amendment to this permit shall be required before disposal can take place unless the Executive Director determines that no amendment or new permit is legally required.
- (h) All stock piles and construction materials shall be covered, enclosed on all sides, shall be located as far away as possible from drain inlets and any waterway, and shall not be stored in contact with the soil.
- (i) Machinery and equipment shall be maintained and washed in confined areas specifically designed to control runoff. Thinners or solvents shall not be discharged into sanitary or storm sewer systems.
- (j) The discharge of any hazardous materials into any receiving waters shall be prohibited.

- (k) Spill prevention and control measures shall be implemented to ensure the proper handling and storage of petroleum products and other construction materials. Measures shall include a designated fueling and vehicle maintenance area with appropriate berms and protection to prevent any spillage of gasoline or related petroleum products or contact with runoff. The area shall be located as far away from the receiving waters and storm drain inlets as possible.
- (l) Best Management Practices (BMPs) and Good Housekeeping Practices (GHPs) designed to prevent spillage and/or runoff of demolition or construction-related materials, and to contain sediment or contaminants associated with demolition or construction activity, shall be implemented prior to the on-set of such activity
- (m) All BMPs shall be maintained in a functional condition throughout the duration of construction activity.
- B. The final Interim Erosion Control and Construction Best Management Practices Plan shall be in conformance with the site/ development plans approved by the Coastal Commission. Any necessary changes to the Coastal Commission approved site/development plans required by a qualified, licensed professional shall be reported to the Executive Director. No changes to the Coastal Commission approved final site/development plans shall occur without an amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

5. Landscaping and Fuel Modification Plans

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit two sets of landscaping and fuel modification plans, prepared by a licensed landscape architect or a qualified resource specialist. The landscaping and erosion control plans shall be reviewed and approved by the consulting engineering geologist to ensure that the plans are in conformance with the consultants' recommendations. The consulting landscape architect or qualified landscape professional shall certify in writing that the final Landscape and Fuel Modification plans are in conformance with the following requirements:

A) Landscaping Plan

(1) All graded & disturbed areas on the subject site shall be planted and maintained for erosion control purposes within thirty (30) days of receipt of the certificate of occupancy for the residence. To minimize the need for irrigation all landscaping shall consist of native/drought resistant plants, as listed by the California Native Plant Society, Santa Monica Mountains Chapter, in their document entitled Recommended List of Plants for Landscaping in the Santa Monica Mountains, dated February 5, 1996. All native plant species shall be of local genetic stock. No plant species listed as problematic and/or invasive by the California Native Plant Society (http://www.CNPS.org/), the California Invasive Plant Council (formerly the California Exotic Pest Plant Council) (http://www.cal-ipc.org/), or as may be identified from time to time by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as a "noxious weed" by the State of California or the U.S. Federal Government shall be utilized within the property.

- (2) All cut and fill slopes shall be stabilized with planting at the completion of final grading. Planting should be of native plant species indigenous to the Santa Monica Mountains using accepted planting procedures, consistent with fire safety requirements. All native plant species shall be of local genetic stock. Such planting shall be adequate to provide 90 percent coverage within two (2) years, and this requirement shall apply to all disturbed soils;
- (3) Plantings will be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with applicable landscape requirements;
- (4) Rodenticides containing any anticoagulant compounds (including, but not limited to, Warfarin, Brodifacoum, Bromadiolone or Diphacinone) shall not be used.
- (5) Rainwater catchment systems shall be installed to supplement landscape irrigation systems, and only drip or micro spray systems shall be used for irrigation.
- (6) Fencing of the entire property is prohibited. Fencing shall extend no further than the approved development area. The fencing type and location shall be illustrated on the landscape plan. Fencing shall also be subject to the color requirements outlined in **Special Condition 6, Structural Appearance**, below.

B) Fuel Modification Plans

Vegetation within 20 feet of the proposed house may be removed to mineral earth, vegetation within a 200-foot radius of the main structure may be selectively thinned in order to reduce fire hazard. However, such thinning shall only occur in accordance with an approved long-term fuel modification plan submitted pursuant to this special condition. The fuel modification plan shall include details regarding the types, sizes and location of plant materials to be removed, and how often thinning is to occur. In addition, the applicant shall submit evidence that the fuel modification plan has been reviewed and approved by the Forestry Department of Los Angeles County. Irrigated lawn, turf and ground cover planted within the twenty foot radius of the proposed house shall be selected from the most drought tolerant species or subspecies, or varieties suited to the Mediterranean climate of the Santa Monica Mountains.

C) Conformance with Commission Approved Site/Development Plans

The Permittees shall undertake development in accordance with the final Landscape and Fuel Modification Plans. The final Landscape and Fuel Modification Plans shall be in conformance with the site/development plans approved by the Coastal Commission. Any changes to the Coastal Commission approved site/development plans shall be reported to the Executive Director. No changes to the Coastal Commission approved final site/development plans shall occur without an amendment to the coastal development permit, unless the Executive Director determines that no amendment is legally required.

D) Monitoring

Three years from the date of the receipt of the Certificate of Occupancy for the residence the applicants shall submit to the Executive Director, a landscape monitoring report, prepared by a licensed Landscape Architect or qualified Resource Specialist, that certifies the on-site landscaping is in conformance with the landscape plan approved pursuant to this Special

Condition. The monitoring report shall include photographic documentation of plant species and plant coverage.

If the landscape monitoring report indicates the landscaping is not in conformance with or has failed to meet the requirements specified in this condition, the applicant, or successors in interest, shall submit, within 30 days of the date of the monitoring report, a revised or supplemental landscape plan, certified by a licensed Landscape Architect or a qualified Resource Specialist, that specifies additional or supplemental landscaping measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan. This remedial landscaping plan shall be implemented within 30 days of the date of the final supplemental landscaping plan and remedial measures shall be repeated as necessary to meet the requirements of this condition.

6. Structural Appearance

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit for the review and approval of the Executive Director, a color palette and material specifications for the outer surface of all structures authorized by the approval of this Coastal Development Permit. The palette samples shall be presented in a format not to exceed 8½" x 11" x ½" in size. The palette shall include the colors proposed for the roofs, trims, exterior surfaces, driveways, retaining walls, and other structures authorized by this permit. Acceptable colors shall be limited to colors compatible with the surrounding environment (earth tones) including shades of green, brown and gray with no white or light shades and no bright tones. All windows shall be comprised of non-glare glass.

The approved structures shall be colored with only the colors and window materials authorized pursuant to this special condition. Alternative colors or materials for future repainting or resurfacing or new windows may only be applied to the structures authorized by this Coastal Development Permit if such changes are specifically authorized by the Executive Director as complying with this special condition.

7. Lighting Restriction

A. All allowed night lighting shall utilize the best available dark skies technology. The only outdoor night lighting allowed on the subject parcel is limited to the following:

- (1) The minimum necessary to light walkways used for entry and exit to the structures, including parking areas on the site. This lighting shall be limited to fixtures that do not exceed two feet in height above finished grade, are shielded and directed downward, and generate the same or less lumens equivalent to those generated by a 60 watt incandescent bulb, unless a greater number of lumens is authorized by the Executive Director.
- (2) Security lighting attached to the residence and garage shall be controlled by motion detectors and is limited to same or less lumens equivalent to those generated by a 60 watt incandescent bulb.
- (3) The minimum necessary to light the entry area to the driveway with the same or less lumens equivalent to those generated by a 60 watt incandescent bulb. This lighting shall be shielded and directed downward.

- (4) All windows shall be comprised of glass treated to minimize transmission of indoor lighting to outdoor areas.
- B. No lighting around the perimeter of the site and no lighting for aesthetic purposes is allowed.

8. Future Development Restriction

This permit is only for the development described in this Coastal Development Permit. Pursuant to Title 14 California Code of Regulations section 13250(b)(6), the exemptions otherwise provided in Public Resources Code section 30610(a) shall not apply to the development governed by this Coastal Development Permit. Accordingly, any future structures, future improvements, or change of use to the permitted structures authorized by this permit, including but not limited to, any grading, clearing or other disturbance of vegetation other than as provided for in the approved landscape plan prepared pursuant to **Special Condition 5**, **Landscaping and Fuel Modification Plans**, shall require an amendment to this Coastal Development Permit from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.

9. Deed Restriction

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, 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 permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. 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 permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

None of the applicants other than Lunch Properties, LLLP, shall generate any of the deed restrictions required by the prior paragraph until the reconfiguration of the lots proposed in Coastal Development Permit application number 4-14-1094 has been completed consistent with the Commission's conditional approval of that permit.

10. Habitat Impact Mitigation

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and approval of the Executive Director, a map delineating all areas of H1, H2-High Scrutiny, and H2 SERAs (ESHA), as well as all H1 buffer areas, that will be disturbed by the proposed development, including fuel modification and brush clearance requirements on the project site and adjacent property. The ESHA areas on the site and adjacent property shall be

delineated on a detailed map, to scale, illustrating the subject parcel boundaries and, if the fuel modification/brush clearance zones extend onto adjacent property, adjacent parcel boundaries. The delineation map shall indicate the total acreage for all ESHA, both on and offsite, that will be impacted by the proposed development, including the fuel modification/brush clearance areas. A 200-foot clearance zone from the proposed structures shall be used to determine the extent of off-site brush clearance for fire protection purposes. The delineation shall be prepared by a qualified resource specialist or biologist familiar with the ecology of the Santa Monica Mountains.

Mitigation shall be provided for impacts to the chaparral and coastal sage scrub ESHA from the proposed development and fuel modification/brush clearance requirements by <u>one</u> of the three following habitat mitigation methods:

A. Habitat Restoration

1) Habitat Restoration Plan

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit a habitat restoration plan, for the review and approval of the Executive Director, for an area of degraded H1 and H2 habitat equivalent to the area of use H1 and H2 habitat impacted by the proposed development and fuel modification/brush clearance area. The habitat restoration area may either be onsite or offsite within the coastal zone either in the City of Malibu or elsewhere in the Santa Monica Mountains. The habitat restoration area shall be delineated on a detailed site plan, to scale, that illustrates the parcel boundaries and topographic contours of the site. The habitat restoration plan shall be prepared by a qualified resource specialist or biologist familiar with the ecology of the Santa Monica Mountains and shall be designed to restore the area in question for habitat function, species diversity and vegetation cover. The restoration plan shall include a statement of goals and performance standards, revegetation and restoration methodology, and maintenance and monitoring provisions. If the restoration site is offsite, the applicant shall submit written evidence to the Executive Director that the property owner has irrevocably agreed to allow the restoration work, maintenance and monitoring required by this condition and not to disturb any native vegetation in the restoration area.

The applicants shall submit, on an annual basis for five years, a written report, for the review and approval of the Executive Director, prepared by a qualified resource specialist, evaluating compliance with the performance standards outlined in the restoration plan and describing the revegetation, maintenance and monitoring that was conducted during the prior year. The annual report shall include recommendations for mid-course corrective measures. At the end of the five-year period, a final detailed report shall be submitted for the review and approval of the Executive Director. If this report indicates that the restoration project has been, in part or in whole, unsuccessful, based on the approved goals and performance standards, the applicant shall submit a revised or supplemental restoration plan with maintenance and monitoring provisions, for the review and approval of the Executive Director, to compensate for those portions of the original restoration plan that were not successful. Should supplemental restoration be required, the applicant shall submit, on an annual basis for five years, a written report, for the review and approval of the Executive Director, prepared by a qualified resource specialist, evaluating the

supplemental restoration areas. At the end of the five-year period, a final report shall be submitted evaluating whether the supplemental restoration plan has achieved compliance with the goals and performance standards for the restoration area. If the goals and performance standards are not met within 10 years, the applicant shall submit an application for an amendment to the coastal development permit for an alternative mitigation program and shall implement whatever alternative mitigation program the Commission approves, as approved.

The habitat restoration work approved in the restoration plan shall be carried out prior to occupancy of the residence.

2) Open Space Deed Restriction

No development, as defined in section 30106 of the Coastal Act, shall occur in the habitat restoration area, as shown on the habitat restoration site plan required pursuant to (A)(1) above.

PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall submit evidence that the applicant has executed and recorded a deed restriction (if the applicant is not the owner, then the applicant shall submit evidence that the owner has executed and recorded the deed restriction), in a form and content acceptable to the Executive Director, reflecting the above restriction on development and designating the habitat restoration area as open space. The deed restriction shall include a formal metes and bounds legal description and graphic depiction, prepared by a licensed surveyor, of both the parcel on which the restoration area lies and the open space area/habitat restoration area. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

3) Performance Bond

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall post performance bonds to guarantee implementation of the restoration plan as follows: a) one equal to the value of the labor and materials; and b) one equal to the value of the maintenance and monitoring for a period of 5 years. Each performance bond shall be released upon satisfactory completion of items (a) and (b) above. If the applicants fail to either restore or maintain and monitor according to the approved plans, the Coastal Commission may collect the security and complete the work on the property.

B. Habitat Conservation

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall (or, if the applicant is not the owner of the habitat conservation site, then the owner of the habitat conservation site shall) execute and record an open space deed restriction in a form and content acceptable to the Executive Director, over the entirety of a legal parcel or parcels containing chaparral and/or coastal sage scrub H1 and H2 habitat. The H1 and H2 habitat located on the mitigation parcel or parcels must be of equal or greater area than the

H1 and H2 habitat area impacted by the proposed development, including the fuel modification/brush clearance areas. No development, as defined in section 30106 of the Coastal Act, shall occur on the mitigation parcel(s) and the parcel(s) shall be preserved as permanent open space. The deed restriction shall include a graphic depiction and narrative legal descriptions of the parcel or parcels. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction.

Prior to occupancy of the residence, the applicant shall submit evidence, for the review and approval of the Executive Director, that the recorded documents have been reflected in the Los Angeles County Tax Assessor Records.

If the mitigation parcel(s) is/are larger in size than the impacted habitat area, the excess acreage may be used to provide habitat impact mitigation for other development projects that impact like H1 and H2 habitat.

C. Habitat Impact Mitigation Fund

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit evidence, for the review and approval of the Executive Director, that payment for compensatory mitigation has been provided to the Mountains Recreation and Conservation Authority to mitigate adverse impacts to H1 and H2 habitat. The payment shall be calculated as follows:

1. Development Area, Irrigated Fuel Modification Zones, Off-site Brush Clearance, and H1 Habitat Buffer Encroachment

The payment for these areas shall be \$15,500 per acre within the development area, any required irrigated fuel modification zones, required off-site brush clearance areas (assuming a 200-foot radius from all structures), and H1 habitat buffer encroachment. The total acreage shall be based on the map delineating these areas required by this condition.

2. Non-irrigated Fuel Modification Zones

The payment for non-irrigated fuel modification areas (on-site) shall be \$3,900 per acre. The total acreage shall be based on the map delineating these areas required by this condition.

Prior to the payment for mitigation to the Mountains Recreation and Conservation Authority, the applicants shall submit, for the review and approval of the Executive Director, the calculation of the payment required to mitigate adverse impacts to H1 and H2 habitat, in accordance with this condition. After review and approval of the payment calculation, the payment shall be made to the Mountains Recreation and Conservation Authority's Coastal Habitat Impact Mitigation Fund for the acquisition, permanent preservation or restoration of habitat in the Santa Monica Mountains coastal zone, with priority given to the acquisition of or extinguishment of all development potential on properties containing environmentally sensitive habitat areas and properties adjacent to

public parklands. The payment may not be used to restore areas where development occurred in violation of the Coastal Act's permit requirements.

11. Site Inspection

- A. By acceptance of this permit, the applicant irrevocably authorizes, on behalf of the applicant and all successors-in-interest with respect to the subject property, Coastal Commission staff and its designated agents to enter onto the property to undertake site inspections for the purpose of monitoring compliance with the permit, including the special conditions set forth herein, and to document their findings (including, but not limited to, by taking notes, photographs, or video), subject to Commission staff providing 24 hours advanced notice to the contact person indicated pursuant to paragraph B prior to entering the property, unless there is an imminent threat to coastal resources, in which case such notice is not required. If two attempts to reach the contact person by telephone are unsuccessful, the requirement to provide 24 hour notice can be satisfied by voicemail, email, or facsimile sent 24 hours in advance or by a letter mailed three business days prior to the inspection. Consistent with this authorization, the applicant and his successors: (1) shall not interfere with such inspection/monitoring activities and (2) shall provide any documents requested by the Commission staff or its designated agents that are relevant to the determination of compliance with the terms of this permit.
- B. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to Commission staff the email address and fax number, if available, and the address and phone number of a contact person authorized to receive the Commission's notice of the site inspections allowed by this special condition. The applicant is responsible for updating this contact information, and the Commission is entitled to rely on the last contact information provided to it by the applicant.

12. Removal of Natural Vegetation

Removal of natural vegetation for the purpose of fuel modification within the 50 foot zone surrounding the proposed structure(s) shall not commence until the local government has issued a building or grading permit for the development approved pursuant to this permit. Vegetation thinning within the 50-200 foot fuel modification zone shall not occur until commencement of construction of the structure(s) approved pursuant to this permit.

13. Pool and Spa Drainage and Maintenance

By acceptance of this permit, the applicant agrees to install a no chlorine or low chlorine purification system and agrees to maintain proper pool water pH, calcium and alkalinity balance to ensure any runoff or drainage from the pool or spa will not include excessive amounts of chemicals that may adversely affect water quality or environmentally sensitive habitat areas. In addition, the applicant agrees not to discharge chlorinated or non-chlorinated pool water into a street, storm drain, creek, canyon drainage channel, or other location where it could enter receiving waters.

14. City of Malibu Approval

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall provide evidence of City of Malibu approval of a CDP for the portion of the access road connecting Sweetwater Mesa Road to the subject properties.

15. Indemnification by Applicants

Liability for Costs and Attorneys Fees: By acceptance of this permit, the Applicant/Permittee agrees to reimburse the Coastal Commission in full for all Coastal Commission costs and attorneys fees including (1) those charged by the Office of the Attorney General, and (2) any court costs and attorneys fees that the Coastal Commission may be required by a court to pay that the Coastal Commission incurs in connection with the defense of any action brought by a party other than the Applicant/Permittee against the Coastal Commission, its officers, employees, agents, successors and assigns challenging the approval and/or issuance of this permit. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission.

16. Open Space Conservation Easement

- A. No development, as defined in Section 30106 of the Coastal Act, grazing, or agricultural activities shall occur outside of the approved development area, within the portion of the property identified as the "open space conservation easement area", as shown in **Exhibit 14** except for:
- (1) Construction and (upon securing any necessary coastal development permit) maintenance of the access road and rock fall stabilization device, driveways, utilities, septic systems, and habitat restoration, approved by the Commission in this coastal development permit and as generally shown on Exhibit 14.
- (2) Fuel modification required by the Los Angeles County Fire Department undertaken in accordance with the final approved fuel modification plan approved pursuant to **Special Condition 5, Landscaping and Fuel Modification Plans**, or other fuel modification plans required and approved by the Commission pursuant to a different CDP(s) issued by the Commission;
- (3) Drainage and polluted runoff control activities required and approved pursuant to:
 - a. The drainage and runoff control plans approved pursuant to **Special Condition 3**, **Permanent Drainage and Runoff Control Plan**, of this permit; and
 - b. The landscaping and erosion control plans approved pursuant to Special Condition 4, Interim Erosion Control & Construction Best Management Practices Plan, and Special Condition 5, Landscaping and Fuel Modification Plans, of this permit;
- (4) Planting of native vegetation and other restoration activities, if approved by the Commission as an amendment to this coastal development permit or a new coastal development permit;
- (5) If approved by the Commission as an amendment to this coastal development permit or a new coastal development permit,
 - a. construction and maintenance of public hiking trails; and
 - b. maintenance of roads, trails, and utilities consistent with existing easements.

B. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall execute and record a document in a form and content acceptable to the Executive Director for its respective property, granting to the Mountains Recreation and Conservation Authority ("MRCA") on behalf of the people of the State of California an open space conservation easement over the "open space conservation easement area" described above, for the purpose of habitat protection. The recorded easement document shall include a formal legal description of the entire property; and a metes and bounds legal description and graphic depiction, prepared by a licensed surveyor, of the portion of the open space conservation easement area on the property held by the applicant, as generally shown on **Exhibit 14**. The recorded document shall reflect the restrictions listed in paragraph A, including that no development shall occur within the open space conservation easement area except as otherwise set forth in this permit condition. The grant of easement shall be recorded free of prior liens and encumbrances (other than existing easements for roads, trails, and utilities) which the Executive Director determines may affect the interest being conveyed, and shall run with the land in favor of the MRCA on behalf of the people of the State of California, binding all successors and assigns.

17. Coastal Development Permit 4-14-1094

PRIOR TO ISSUANCE OF THESE COASTAL DEVELOPEMNT PERMIT, the applicant shall provide evidence that Coastal Development Permit 4-14-1094 has been issued and implemented, that all special conditions of that permit have been satisfied, and that all appropriate steps to finalize and memorialize the reconfiguration of the lots (including recordation of a certificate of compliance and/or other appropriate record of the lot line adjustment and any grant deeds) have occurred.

18. Habitat Mitigation and Monitoring Plan

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and approval of the Executive Director, two (2) sets of a revised Habitat Mitigation and Monitoring Plan (HMMP) for the purple needlegrass herbaceous alliance mitigation and revegetation areas, restoration of dirt road areas north of the residential sites(APNs 4453-005-038, 4453-005-091, and 4453-005-092), restoration of native vegetation areas temporarily impacted by waterline installation, and restoration of the unauthorized dirt access road along the waterline route, extending south from the paved Costa del Sol Way. The revised HMMP shall also include measures for transplanting Plummer's mariposa lily and Catalina mariposa lily that are located within the development area, as well as measures for implementing 3:1 mitigation for impacts. The HMMP shall include, but not be limited to, the following criteria:

(a) A restoration program, prepared by a qualified habitat restoration consultant, that utilizes only native plant species of local genetic stock that are consistent with the surrounding native plant community. The plan shall specify the preferable time of year to carry out the restoration and describe the supplemental watering requirements that will be necessary, including a detailed irrigation plan. The plan shall also specify performance standards to judge the success of the restoration effort, including standards for purple needlegrass, coastal sage scrub, and chaparral areas. The restoration plan shall identify the species, location, and extent of all plant materials and shall use a mixture of seeds and

container plants to increase the potential for successful restoration. The plan shall include a description of technical and performance standards to ensure successful restoration. A temporary irrigation system may be used until the plants are established, but in no case shall the irrigation system be in place longer than two (2) years. Restoration areas within Fuel Modification Zone C (the thinning zone) shall be planted with plant species consistent with the surrounding habitat and with spacing and flammability requirements of the Forestry Department of Los Angeles County.

- (b) A detailed restorative grading plan, including grading cross-sections, prepared by a licensed professional civil engineer in consultation with a licensed engineering geologist, that illustrates remedial grading to recontour all road restoration areas to appropriately blend in with the surrounding natural topography. The plan shall include temporary erosion control measures such as geofabrics, silt fencing, sandbag barriers, or other measures to control erosion until revegetation of the restored areas is completed. These erosion control measures shall be required on the project site prior to and concurrent with the initial grading operations and shall be maintained throughout the process to minimize erosion and sediment to runoff waters during construction.
- (c) The restoration plan for dirt road areas north of the residential sites (APNs 4453-005-038, 4453-005-091, and 4453-005-092), restoration of native areas temporarily impacted by waterline installation, and restoration of the dirt access road along the waterline route extending south from the paved Costa del Sol Way may include the retention of a dirt walking path no more than two feet in width for waterline maintenance purposes.
- (d) The applicant shall provide, for the review and approval of the Executive Director, evidence that demonstrates that it maintains a legal interest or authorization for the implementation, monitoring, and maintenance of all HMMP components from the property owner(s) for the area(s) where all mitigation outlined within the HMMP will occur. Additionally, if the applicants' existing easement agreements do not allow for restoration activities, they shall obtain the authorization to do so, and submit evidence to the Executive Director. If the applicants are unable to obtain authorization for the activities described above, an amendment to this coastal development permit may be submitted to revise Subpart d of this condition. Such amendment application shall include a complete analysis of alternative strategies to avoid and/or minimize impacts to sensitive habitat areas from the water line, including additional revegetation/restoration, use of wells/water tanks, etc. The applicant shall be responsible to ensure that implementation of the entire HMMP has been completed prior to receipt of the certificate of occupancy for its residence.
- (e) The restoration plan for the native areas temporarily impacted by waterline installation, and the restoration of the dirt access road extending south from the paved Costa del Sol Way shall be implemented within 30 days of completion of installation of the water line improvements. All other components of the HMMP shall be completed prior to receipt of the certificate of occupancy for the first residence.
- (f) Restoration shall meet the performance standards for the appropriate habitat type, as detailed in Section (a) above within five (5) years and shall be repeated, if necessary, to meet the performance standards. The Executive Director may extend this time period

- for good cause. Plantings shall be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the restoration requirements.
- (g) A monitoring program, prepared by a qualified environmental resource specialist. The monitoring program shall demonstrate how the approved restoration performance standards prepared pursuant to section (b) above shall be implemented and evaluated for compliance with this Special Condition. The program shall require the applicant to submit, on an annual basis for a period of five years (no later than December 31st each year), a written report, for the review and approval of the Executive Director, prepared by an environmental resource specialist, indicating the success or failure of the restoration project. The annual reports shall include further recommendations and requirements for additional restoration activities in order for the project to meet the criteria and performance standards listed in the restoration plan. These reports shall also include photographs taken from pre-designated locations (annotated to a copy of the site plans) indicating the progress of recovery. During the monitoring period, all artificial inputs shall be removed except for the purposes of providing mid-course corrections or maintenance to ensure the long-term survival of the plantings. If these inputs are required beyond the first four (4) years, then the monitoring program shall be extended for a sufficient length of time so that the success and sustainability of the project is ensured. Successful site restoration shall be determined if the restoration of native plant species on-site is adequate to meet the performance standards appropriate for chaparral habitat, as detailed in Section (a) above by the end of the five (5) year monitoring period and is able to survive without additional outside inputs, such as supplemental irrigation.
- (h) At the end of the five year period, a final detailed report shall be submitted, for the review and approval of the Executive Director, that indicates whether the on-site restoration is in conformance with the restoration plan approved pursuant to this Special Condition. The final report shall include photographic documentation of plant species and plant coverage. If this report indicates that the restoration project has in part, or in whole, been unsuccessful, based on the approved performance standards, the applicant shall be required to submit a revised or supplemental restoration program to compensate for those portions of the original plan that were not successful. The revised, or supplemental, restoration program shall be processed as an amendment to this Coastal Development Permit.

19. Archaeological Resources

By acceptance of this permit the applicant agrees to have a qualified archaeologist(s) and appropriate Native American consultant(s) present on-site during all grading, excavation and site preparation that involve earth moving operations. The number of monitors shall be adequate to observe the activities of each piece of active earth moving equipment. Specifically, the earth moving operations on the project site shall be controlled and monitored by an archaeologist(s) for the purpose of locating, recording, and collecting any archaeological materials. In the event that an area of intact buried cultural deposits are discovered during operations, grading work in this area shall be halted and an appropriate data recovery strategy shall be developed by the applicant's archaeologist and the Native American consultant and implemented subject to the review and approval of the Executive Director.

20. Fire Protection Plan

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit a final Fire Protection Plan (FPP) for the project, prepared by a qualified fire protection specialist, which has been reviewed and approved by Los Angeles County Fire Department (or the applicant shall provide evidence that such approval is not required), for the review and approval by the Executive Director. The FPP shall analyze and incorporate, where feasible, innovative measures for wildfire protection such as fire-resistant building materials (emberresistant attic vents), enhanced fire sprinkler system coverage (attics, under stairways, closet space, windows, eaves), automatic door and garage door closures, exterior landscape irrigation systems, exterior fire suppression systems which utilize fire retardants, and provisions to ensure that structures are built to meet the latest California Building Code ignition resistant standards. The Fire Protection Plan shall not include any additional vegetation clearance beyond that required pursuant to the approved Fuel Modification Plan. The FPP shall require third-party inspection during and after construction and a written determination to be provided to Los Angeles County Fire Department and the Executive Director documenting whether specifications outlined in the FPP have been met. The written determination shall be submitted for the review and approval of the Executive Director no later than the issuance of the certificate of occupancy for each residence. If this determination indicates that the specifications of the FPP have not been met in part, or in whole, the applicant shall be required to submit a revised or supplemental FPP to address those portions of the original plan that were not met. The Executive Director will determine if such FPP revisions require an amendment to the CDP.

21. Construction Traffic Mitigation Measures

BY ACCEPTANCE OF THIS PERMIT THE APPLICANT AGREES THAT:

Construction traffic mitigation measures shall be implemented pursuant to the Traffic Impact Analysis for the Construction Phase of the Sweetwater Mesa Project, completed by Associated Transportation Engineers, dated March 26, 2015.

22. Revised Waterline Plans

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPEMNT, the applicant shall submit, for the Executive Director's review and approval, two (2) full size sets of final revised project plans, which avoid all direct impacts to H1 rock outcrop habitat located within the waterline construction footprint, as depicted on Figure 5a of the Sweetwater Mesa Biological Assessment and Impact Analysis, completed by Envicom, dated April 20, 2015, and as depicted on Exhibit 23 of this staff report. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

Special Condition Twenty-three (23) shall apply to CDPs 4-10-041, 4-10-042, and 4-14-0598.

23. Oak Tree Monitoring

To ensure that all other oak trees located on the subject parcels and along the proposed access road are protected during construction activities, temporary protective barrier fencing shall be installed around the protected zones (5 feet beyond dripline or 15 feet from the trunk, whichever is greater) of all oak trees and retained during all construction operations. If required construction operations cannot feasibly be carried out in any location with the protective barrier fencing in place, then flagging shall be installed on trees to be protected. The permittee shall also follow the oak tree preservation recommendations that are enumerated in the Oak Tree Report referenced in the Substantive File Documents.

The applicant shall retain the services of a biological consultant or arborist with appropriate qualifications acceptable to the Executive Director. The biological consultant or arborist shall be present on site during all excavation, foundation construction, framing construction, and grading within 50 feet of any oak tree. The consultant shall immediately notify the Executive Director if unpermitted activities occur or if habitat is removed or impacted beyond the scope of the work allowed by this Coastal Development Permit. This monitor shall have the authority to require the applicant to cease work should any breach in permit compliance occur, or if any unforeseen sensitive habitat issues arise.

The applicant shall retain the services of a biological consultant or arborist with appropriate qualifications acceptable to the Executive Director to monitor all oak trees that will be encroached upon, to determine if the trees are adversely impacted by the encroachment. An annual monitoring report shall be submitted for the review and approval of the Executive Director for each of the ten years. Should any of these trees be lost or suffer worsened health or vigor as a result of this project, the applicant shall plant replacement trees on the site at a rate of 10:1. If replacement plantings are required, the applicant shall submit, for the review and approval of the Executive Director, an oak tree replacement planting program, prepared by a qualified biologist, arborist, or other qualified resource specialist, which specifies replacement tree locations, planting specifications, and a ten-year monitoring program with specific performance standards to ensure that the replacement planting program is successful. An annual monitoring report on the oak tree replacement area shall be submitted for the review and approval of the Executive Director for each of the 10 years. Upon submittal of the replacement planting program, the Executive Director shall determine if an amendment to this coastal development permit, or an additional coastal development permit is required.

Special Condition Twenty-four (24) shall apply only to CDP 4-10-041

24. Offer-to-Dedicate Public Hiking and Equestrian Trail Easement

In order to implement the applicant's proposal of an offer to dedicate a twenty-five foot (25') wide public access hiking and equestrian trail easement for passive recreational use as part of this project, PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant as landowner 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 association approved by the Executive Director a twenty-five foot (25') wide public access hiking and

equestrian trail easement in the general location and configuration depicted in **Exhibit 14.** The document shall provide that the offer of dedication shall not be used or construed to allow anyone, prior to acceptance of the offer, to interfere with any rights of public access acquired through use that may exist on the property. The document shall also provide that there shall be no gate(s) at the entrance to or exit from the easement.

The offer shall provide the public the right to pass, re-pass, and passive recreation over the dedicated route. The document shall be recorded free of prior liens and encumbrances except for tax liens, which the Executive Director determines may affect the interest being conveyed. The offer shall run with the land in favor of the People of the State of California, binding all successors and assignees, and shall be irrevocable. The recording document shall include legal descriptions of both the applicant's entire parcel and the trail easement area and a graphic representation prepared by a licensed surveyor showing the area identified in the legal description of the easement area.

The following Special Condition One (1) and Two (2) shall apply only to CDP 4-14-1094.

1. Los Angeles County Approval of Lot Line Adjustment

- A. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall provide evidence of County of Los Angeles approval of the final lot configuration approved by the Commission, as depicted on Exhibit 10.
- B. The applicants shall submit evidence acceptable to the Executive Director that the lot line adjustment has received final approval and processing by the County of Los Angeles and has been effectuated through the recordation of a conveyance deed for each reconfigured parcel that contains a legal description and corresponding graphic depiction matching the final lot configuration approved by the Commission, as depicted on Exhibit 10, in addition to the recorded Certificate of Compliance for each reconfigured parcel.

2. Lot Combination of APNs 4453-005-013 and 4453-005-038

- A. By acceptance of this permit, the applicants who are also the landowners of the properties currently identified as Assessor Parcel Numbers 4453-005-013 and 4453-005-038 acknowledge and agree, on behalf of themselves and all successors and assigns with respect to the aforementioned properties, that: (1) All portions of the two parcels known as APNs 4453-005-013 and 4453-005-038 shall be recombined and unified for all purposes (including the Subdivision Map Act, as well as the Coastal Act), and shall henceforth be considered and treated as a single parcel of land for all purposes, including but not limited to sale, conveyance, lease, development, taxation or encumbrance; and (2) the single parcel created thereby shall not be divided, and neither of the two parcels existing at the time of this permit approval that are to be combined pursuant to this condition shall be alienated from each other or from any portion of the combined and unified parcel hereby created.
- B. PRIOR TO RECORDATION OF THE DEED RESTRICTION PURSUANT TO PART C BELOW, the applicant shall provide evidence satisfactory to the Executive Director that the parcels meet all legal requirements for recombination, including proof of common ownership.

C. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall execute and record a deed restriction against the properties described above, in a form acceptable to the Executive Director, reflecting the restrictions set forth above. The deed restriction shall include a legal description and graphic depiction of the two parcels being recombined and unified. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens, including tax liens, and encumbrances that the Executive Director determines may affect the enforceability of the restriction.

IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

A. PROJECT DESCRIPTIONS

Five of the six subject permit applications (4-10-040, 4-10-041, 4-10-042, 4-10-044, and 4-14-0598) seek authorization to construct a single family residence on a legal lot owned by a separate limited liability limited partnership ("LLLP"), within a block of five contiguous lots in the Sweetwater Mesa area of the Santa Monica Mountains. In addition, the above mentioned applications seek authorization to construct a common access road, and a municipal water line that would supply water to all five residences. The sixth application (4-14-1094) was filed by four of these five entities and the owner of a sixth contiguous parcel jointly, and seeks authorization for a lot line adjustment and lot tie between the five respective lots.

The subject contiguous properties are located on the southern flank of the Santa Monica Mountains, about a mile inland from Pacific Coast Highway, east of Malibu Canyon Road, and west of Las Flores Canyon Road. The Malibu Civic Center area, Malibu Pier, Malibu Creek, and Malibu Lagoon State Park are located about a mile away to the southwest (Exhibit 1). The six properties, totaling 151 acres, are situated along an approximately 3,000-ft. long stretch of a prominent ridgeline separating the Sweetwater Canyon and Carbon Canyon watersheds. This ridgeline extends inland approximately 2.18 miles from the narrow coastal terrace traversed by Pacific Coast Highway to the backbone crest of the Santa Monica Mountain Range. The certified Santa Monica Mountains LCP designates this ridge as a "Significant Ridgeline".

The project area is undeveloped and comprised of steep, rugged mountainous terrain that is blanketed by various natural rock outcroppings and primarily undisturbed native chaparral habitat that is part of a large contiguous area of undisturbed native vegetation. To the west of the ridge is a prominent south-trending canyon that contains a USGS-designated blue-line stream. Another blue-line stream exists in a canyon bottom downslope to the east. The nearest development in the vicinity is the residential enclave of Serra Retreat located within the municipal limits of the City of Malibu approximately a half mile to the southwest.

A large area of public parkland that is part of Malibu Creek State Park is located on the adjacent parcels to the west. In addition, the adjacent parcel to the south of the subject block of parcels is owned by the Mountains Recreation and Conservation Authority (MRCA) and restricted as open space (Exhibit 14). The Saddle Peak Trail (an LUP-mapped public trail) is situated on the adjacent ridgeline to the west, within Malibu Creek State Park. The planned Coastal Slope Trail has been slated by the National Park Service and the MRCA to pass through, in an east-west direction, an MRCA-owned property to the south of the subject sites.

The subject applications are for: (1) five new single family residences ranging from 10,159 sq. ft. to 14,366 sq. ft. in size (including garages and non-habitable storage space) on five adjoining lots; (2) 27,540 cu. yds. of grading (21,430 cu. yds. cut; 6,110 cu. yds. fill) for the five residence development areas and private driveways; (3) 14,620 cu. yds. of grading (3,030 cu. yds. cut and 11,590 cu. yds. fill) for the 1,980 li. ft. long, 20 ft. wide shared access road extending across the project sites (connecting to Sweetwater Mesa Road in Malibu through the construction of a road segment to be considered in a CDP by the City of Malibu); (4) 4,650 cu. yds. of grading (4,650 cu. yds. fill) for one fire department turnout along the shared access road; (5) 4,272 cu. yds. of excavation required for structural piles for the five residences' foundations; (6) 315 li. ft. rock fall stabilization device; (7) 7,800 linear ft. long waterline extension to the sites from Costa Del Sol Road with 3,240 li. ft. of a 2 ft. wide water line maintenance pathway; (8) recordation of an open space conservation easement granted to MRCA over 138 acres, including portions of the five project sites and the entirety of a sixth contiguous parcel (APN 4453-005-013); (8) offer-todedicate a trail easement for the Coastal Slope Trail; (9) lot line adjustment and lot tie (including APNs 4453-005-092, 4453-005-091, 4453-005-018, 4453-005-038, 4453-005-013) resulting in a decrease in the number of parcels from 5 to 4; (10) implementation of a Habitat Mitigation and Monitoring Plan for project impacts to 0.35 acres of Purple Needlegrass, revegetation of areas temporarily impacted (0.2 acres) by installation of the proposed water line extension, and restoration/revegetation of the existing dirt access road; (11) implementation of construction traffic mitigation measures.

To clearly address what is proposed on each lot, the project descriptions are provided below for each separate application that is proposing residential development. Additionally, a description of the proposed lot line adjustment is also provided below. For clarity and ease of reference in differentiating between the five proposed residential developments throughout this report, each of the five proposed residences will be referred to as follows:

Designation	Owner	CDP App. No.	APN
Residence 1	Mulryan Properties LLLP	4-10-042	4453-005-092
Residence 2	Morleigh Properties LLLP	4-14-0598	4453-005-091
Residence 3	Vera Properties LLLP	4-10-041	4453-005-018
Residence 4	Lunch Properties LLLP	4-10-040	4453-005-037
Residence 5	Ronan Properties LLLP	4-10-044	4453-005-038
Lot Line			4453-005-092,
Adjustment	Residences 1, 2, 3, 5,		4453-005-091,
and Lot Tie	and ED West	4-14-1094	4453-005-018,
	Properties LLLP		4453-005-038,
			4453-005-013

Residence 1 (Mulryan)

CDP Application No. 4-10-042 (Mulryan Properties LLLP) (APN 4453-005-092)

The applicant is proposing to construct a 18-ft. high (as measured from existing grade), stepped two-level with basement, 7,606 sq. ft. single-family residence on a 20-acre lot, with an attached 1,052 sq. ft. garage and 1,576 sq. ft. non-habitable space. The development proposal includes a swimming pool, onsite septic system, 450 li. ft. water line extension and 760 li. ft. access road extension, a Fire Department hammerhead turnaround, and a portion of a proposed rock fall stabilization system (the other portion will be located on the adjacent Vera site) along the shared access road. The shared access road, driveway and Fire Department turnaround and turnout would require 13,810 cu. yds. (670 cu. yds. cut; 13,140 cu. yds. fill). In total, the proposed project requires 16,390 cu. yds. of grading (3,130 cu. yds. cut; 13,260 cu. yds. fill), and 1,700 cu. yds. of excavation required for structural piles for the residence foundation. The proposed development would be located on a newly configured parcel proposed pursuant to CDP 4-14-1094, to facilitate clustered development, which would result in a reduced lot size from 42.7 acres to 20.1 acres. The project also includes implementation of a proposed Habitat Mitigation and Monitoring Plan (HMMP). The proposed project also includes an offer to dedicate a conservation easement area over 17.6-acres of the 20.1-acre newly reconfigured parcel. The applicant is proposing a 9,883 sq. ft. development area for the residential development. Of the total proposed site grading, the proposed development area would require 2,580 cu. yds. of grading (2,460 cu. yds. cut; 120 cu. yds. fill).

Lot Legality

As evidence of lot legality, the applicant submitted Certificate of Compliance No. 91-0086, issued by the County of Los Angeles on June 21, 1991 and corrected on March 9, 2006. The corrected Certificate of Compliance contains a "Determination of Compliance (E)", with the (E) indicating that it is an "exempt" Certificate of Compliance, or in other words, a Certificate of Compliance issued pursuant to the provisions of Section 66499.35(a) of the State Subdivision Map Act. The subject Certificate of Compliance certifies that the parcel complies with the applicable provisions of the State Subdivision Map Act and of the County Subdivision Ordinance, having been exempt from said act and ordinance at the time of its creation. At staff's request, the applicant also submitted a chain of title for the property that demonstrated that the subject parcel took its current form in 1990, when a portion of the parent parcel was deeded to the State of California for use as public parkland, which is a type of division that is exempt from the Subdivision Map Act and, in that case, was also exempt from the Coastal Act. Prior to that, the history indicates that the parcel had existed in its pre-1990 form since a 1959 grant deed had transferred a portion of its parent lot, thus fixing its eastern boundary. This method of creation was in conformance with the laws at the time and therefore, the lot is legal.

Residence 2 (Morleigh)

CDP Application No. 4-14-0598 (Morleigh Properties LLLP) (APN 4453-005-091)

The applicant is proposing to construct a 18-ft. high (as measured from existing grade), two-level, 9,170 sq. ft. single-family residence on a 20.1-acre lot, with an attached 989 sq. ft. garage and 1,231 sq. ft. non-habitable space, swimming pool, onsite septic system, 105 li. ft. water line extension and 450 li. ft. shared access road extension, and a Fire Department hammerhead

turnaround. The proposed shared access road, driveway and Fire Department turnaround would involve 7,840 cu. yds. of grading (4,700 cu. yds. cut; 3,140 cu. yds. fill). In total, the proposed project requires 10,360 cu. yds. of grading (7,070 cu. yds. cut; 3,290 cu. yds. fill), and 1,590 cu. yds. of excavation required for structural piles for the residence foundation. The proposed development would be located on a newly configured parcel proposed pursuant to CDP 4-14-1094, to facilitate clustered development, which would result in a reduced lot size from 43.9 acres to 20.1 acres. The project also includes implementation of a proposed HMMP. The proposed project also includes an offer to dedicate a conservation easement area over 18.3-acres of the 20.1-acre newly reconfigured parcel. The applicant is proposing a 9,719 sq. ft. development area for the residential development. Of the total site grading, the development area would require 2,520 cu. yds. of grading (2,370 cu. yds. cut; 150 cu. yds. fill).

Lot Legality

As evidence of lot legality, the applicant submitted Certificate of Compliance No. 01-151, issued by the County of Los Angeles on November 29, 2001. This Certificate of Compliance contains a "Determination of Compliance (E)", with the (E) indicating that it is an "exempt" Certificate of Compliance, or in other words, a Certificate of Compliance issued pursuant to the provisions of Section 66499.35(a) of the State Subdivision Map Act. The subject Certificate of Compliance certifies that the parcel complies with the applicable provisions of the State Subdivision Map Act and of the County Subdivision Ordinance, having been exempt from said act and ordinance at the time of its creation. At staff's request, the applicant also submitted a chain of title for the property that demonstrated that the subject parcel took its current form in 1990, when a portion of the parent parcel was deeded to the State of California for use as public parkland, which is a type of division that is exempt from the Subdivision Map Act and, in that case, was also exempt from the Coastal Act. Prior to that, the history indicates that the parcel had existed in its pre-1990 form since a 1959 grant deed had transferred a portion of its parent lot, thus fixing its eastern boundary. This method of creation was in conformance with the laws at the time and therefore, the lot is legal.

Residence 3 (Vera)

CDP Application No. 4-10-041 (Vera Properties LLLP) (APN 4453-005-018)

The applicant is proposing to construct an 18 ft. high (as measured from the existing grade), stepped three-level, 13,060 sq. ft. single-family residence with an attached 882 sq. ft. garage and 424 sq. ft. non-habitable space on a 41.1-acre lot. The development proposal includes a swimming pool, onsite septic system, 260 li. ft. of water line extension, 105 li. ft. of shared access road extension, Fire Department hammerhead turnaround, a Fire Department access turnout, and a 250 li. ft., 4 ft. high berm, with a 10 ft. high barrier fence, rock fall stabilization device. Construction of the proposed shared access road, driveway and Fire Department turnaround and turnout would involve 7,230 cu. yds. (3,120 cu. yds. cut; 4,110 cu. yds. fill) of the total grading amount. In total, the proposed project would require 12,120 cu. yds. of total grading (7,990 cu. yds. cut; 4,130 cu. yds. fill), and 150 cu. yds. of excavation required for structural piles for the residence foundation. The proposed development would be located on a newly configured parcel proposed pursuant to CDP 4-14-1094, to facilitate clustered development, which would result in an increased lot size from 20-acres to 40.1-acres. The project also includes implementation of a proposed HMMP. The proposed project also includes an offer to dedicate a public hiking and trail easement and a conservation easement area over

34.7-acres of the 41.1-acre newly reconfigured parcel. The applicant is proposing a 9,853 sq. ft. development area for the residential development. Of the total site grading, the development area would require 4,890 cu. yds. (4,870 cu. yds. cut; 20 cu. yds. fill).

Lot Legality

As evidence of lot legality, the applicant submitted Certificate of Compliance No. 01-421, issued by the County of Los Angeles on November 7, 2002. This Certificate of Compliance contains a "Determination of Compliance (E)", with the (E) indicating that it is an "exempt" Certificate of Compliance, or in other words, a Certificate of Compliance issued pursuant to the provisions of Section 66499.35(a) of the State Subdivision Map Act. The subject Certificate of Compliance certifies that the parcel complies with the applicable provisions of the State Subdivision Map Act and of the County Subdivision Ordinance, having been exempt from said act and ordinance at the time of its creation. At staff's request, the applicant also submitted a chain of title for the property that demonstrated that the subject parcel was first created in 1900 by U.S. patent. This method of creation was in conformance with the laws at the time and therefore, the lot is legal.

Residence 4 (Lunch)

CDP Application No. 4-10-040 (Lunch Properties LLLP) (APN 4453-005-037)

The applicant is proposing to construct an 18-ft. high (as measured from existing grade), three-level, 9,9798 sq. ft. single-family residence on an approximately 14 acre lot, with an attached 1,901 sq. ft. garage and 920 sq. ft. non-habitable space. The development proposal includes a swimming pool, onsite septic system, 250 li. ft. water line extension and 260 li. ft. shared access road extension, and Fire Department hammerhead turnaround. The shared access road, driveway and Fire Department turnaround would require 1,200 cu. yds. grading (1,170 cu. yds. cut; 30 cu. yds. fill). In total, the proposed project requires 3,510 cu. yds. of grading (3,110 cu. yds. cut; 400 cu. yds. fill), and 1,660 cu. yds. of excavation required for structural piles for the residence foundation. The project also includes implementation of a proposed HMMP. The proposed project includes an offer to dedicate a conservation easement area over 12.5-acres of the 14 acre parcel. The applicant is proposing a development area that is 9,911 sq. ft. in size, which would require 2,310 cu. yds. of grading amount (1,940 cu. yds. cut; 370 cu. yds. fill).

Lot Legality

As evidence of lot legality, the applicant submitted Certificate of Compliance No. 01-150, issued by the County of Los Angeles on November 29, 2001. This Certificate of Compliance contains a "Determination of Compliance (E)", with the (E) indicating that it is an "exempt" Certificate of Compliance, or in other words, a Certificate of Compliance issued pursuant to the provisions of Section 66499.35(a) of the State Subdivision Map Act. The subject Certificate of Compliance certifies that the parcel complies with the applicable provisions of the State Subdivision Map Act and of the County Subdivision Ordinance, having been exempt from said act and ordinance at the time of its creation. At staff's request, the applicant also submitted a chain of title for the property that demonstrated that the subject parcel took its current form in 1962, when a grant deed transferring a portion of the parent lot fixed the eastern boundary of the subject lot in its current location. This method of creation was in conformance with the laws at the time and therefore, the lot is legal.

Residence 5 (Ronan)

CDP Application No. 4-10-044 (Ronan Properties LLLP) (APN 4453-005-038)

The applicant is proposing to construct an 18-ft. high (as measured from existing grade), two-level, 9,907 sq. ft. single-family residence on a 46.7-acre lot, with an attached 634 sq. ft. garage. The development proposal includes a swimming pool, onsite septic system, 6,500 li. ft. water line extension and 420 li. ft. shared access road extension, and Fire Department hammerhead turnaround. The shared access road, driveway, and Fire Department turnaround on the subject property would require 2,130 cu. yds. of grading (920 cu. yds. cut; 1,210 cu. yds. fill) of the total grading amount. In total, the proposed project would require 4,430 cu. yds. of grading (3,160 cu. yds. cut; 1,270 cu. yds. fill) and 2,170 cu. yds. of excavation required for structural piles for the residence foundation. The proposed development would be located on a newly configured parcel proposed pursuant to CDP 4-14-1094, to facilitate clustered development, which would result in an increased lot size from 21.4-acres to 46.7-acres. The project also includes implementation of a proposed HMMP. The proposed project also includes an offer to dedicate a conservation easement area over 53.7-acres of the 56.6-acre newly reconfigured parcel. The applicant is proposing a 9,992 sq. ft. development area that would require 2,300 cu. yds. of grading (2,240 cu. yds. cut; 60 cu. yds. fill).

Lot Legality

As evidence of lot legality, the applicant submitted Certificate of Compliance No. 91-0460, issued by the County of Los Angeles on November 29, 2001, and corrected by the County of Los Angeles on March 11, 2004. The corrected Certificate of Compliance contains a "Determination of Compliance (E)", with the (E) indicating that it is an "exempt" Certificate of Compliance, or in other words, a Certificate of Compliance issued pursuant to the provisions of Section 66499.35(a) of the State Subdivision Map Act. The subject Certificate of Compliance certifies that the parcel complies with the applicable provisions of the State Subdivision Map Act and of the County Subdivision Ordinance, having been exempt from said act and ordinance at the time of its creation. At staff's request, the applicant also submitted a chain of title for the property that demonstrated that the subject parcel took its current form in 1962, when a grant deed transferring a portion of the parent lot fixed the eastern boundary of the subject lot in its current location. This method of creation was in conformance with the laws at the time and therefore, the lot is legal.

Proposed Access Road, Fire Department Turnout Area and Rock Fall Mitigation Device

To access the subject properties from Sweetwater Mesa Road in the City of Malibu, construction of an access road is required. A portion of this road is situated within the City of Malibu and the City will process a coastal development permit for that segment. Approximately 1,980-ft. of shared access road is proposed on the five properties considered herein. Approximately 14,620 cubic yards of grading (3,030 cubic yards cut, 11,590 cubic yards fill) is proposed in order to construct the entire length of the proposed shared access road. The proposed road crosses landslides. As such, sections of the road would be supported on caissons to provide safe access across these slide areas. Approximately 152 reinforced concrete caissons, ranging from 2 to 5 feet in diameter and 15 to 78 feet in length are proposed. Three retaining walls are also proposed, that are approximately 120, 205, and 230 linear feet in length, with a maximum height of 6 feet and an average height of approximately 5.5 feet.

Given the remoteness of the area and the length and steepness of the road, the proposed project includes construction of one Fire Department turnout area along the access road to accommodate safe emergency vehicle access and staging. The subject turnout area would 14,400 sq. ft. in size, and would be located within the boundary of a landslide area where the proposed access road begins within the unincorporated Los Angeles County jurisdiction. This turnout area would require 4,650 cu. yds. of grading (0 cu. yds. cut and 4,650 cu. yds. fill).

In addition, a section of the proposed road appears to be susceptible to rockfalls, although, the likelihood of permanent damage to the roadway from these hazards appears to be low. Rockfall mitigation recommendations have been provided by the applicants' consultants per the "Rockfall Hazard and Mitigation Study" (Kane Geotech, Inc.) to reduce the rockfall hazard potential to the road and road users. The recommendations call for a system that is a 315 linear foot, 10 foot high wire mesh barrier installed behind a 4 foot high vegetated berm located along the southeast shoulder of a portion of the shared access road.

Proposed Water Line

Each residential permit application (4-10-040, 4-10-041, 4-10-042, 4-10-044, 4-14-0598) includes the extension of an eight-inch diameter water line down to the subject parcels from an existing municipal water main beneath Costa Del Sol Way to the north (Exhibit 11). The applicants have obtained easements across all affected parcels associated with the proposed water line extension.

The total length of the proposed water line is approximately 7,800 feet, and construction would occur in five segments. The first approximately 1,200 linear feet would be installed by trenching within a paved portion of Costa Del Sol Way. The second approximately 1,400 linear feet would be installed by trenching within an existing unpermitted four to twelve foot wide dirt road. The third approximately 760 linear foot segment of the proposed water line would extend from the terminus of the existing dirt road into undisturbed native habitat. The fourth approximately 1,700 linear foot portion would be installed utilizing horizontal directional drilling (HDD) construction methods. HDD utilizes fluid jetting techniques, which is a trenchless method, rather than traditional trenching like that which is proposed to occur within other waterline construction segments. At the terminus of reach three, a 900 square foot exit pad would be created, and at the terminus of reach five a 3,000 square foot entry pad would also be created. Lastly, portion five of the water line construction would be approximately 1,700 linear feet in length, and construction within this area would be installed by trenching within an existing ten to fifteen foot wide dirt road. As depicted on Exhibit 11, upon completion of construction an approximately 3,200 linear foot, two foot wide, maintenance access pathway would remain. Upon installation of the pipeline, all of the trenches would be backfilled, and the disturbed areas would be recontoured and restored with native species pursuant to the proposed Habitat Mitigation and Monitoring Plan.

In 2004, the Commission approved CDP No. 4-01-108 to improve an existing, pre-Coastal Act, 1,750 ft. long, 10-ft. wide jeep trail up to the Lunch parcel to provide access for geologic testing purposes (Exhibit 19). The approved pilot access road (part of which was approved by the Commission and part of which was approved by the City of Malibu) traversed north from the terminus of Sweetwater Mesa Road in the City of Malibu, across three parcels within the jurisdiction of the City of Malibu, and across two of the subject parcels (Vera and Mulryan).

Although the special conditions of the Commission's permit approval related to revegetation of graded and disturbed slopes on either side of the existing 10-ft. wide jeep trail, the road was not revegetated. As such, the applicants have proposed, as a component of the Habitat Mitigation Monitoring Plan, to restore this area subsequent to construction of the waterline.

Proposed Habitat Mitigation and Monitoring Plan

The proposed Habitat Mitigation and Monitoring Plan (HMMP) was prepared to address certain impacts of the proposed development on native habitat. The residential permit applications each include implementation of the proposed HMMP to address: 1) purple needlegrass herbaceous alliance habitat creation to mitigate for impacts to purple needlegrass habitat (.35 acres) at a 3:1 ratio; 2) restoration of native chaparral and coastal sage scrub habitat areas temporarily impacted (0.2 acres) by installation of 760 feet of the proposed water line extension to the residential sites from Costa Del Sol Road; and 3) topographic restoration and revegetation with chaparral and coastal sage scrub species of an existing dirt access road that extends northerly of the proposed residential sites, generally along the ridgeline to the northernmost portion of the subject properties (in some locations, restoration and revegetation of the access road is coincident with areas that will be temporarily impacted by trenching for the waterline extension).

As mentioned above, each proposed residential permit application includes implementation of the subject HMMP. However, the proposed mitigation for impacts to purple needlegrass is located on the Ronan and Morleigh parcels, while the impacts would actually occur on the Lunch and Ronan parcels. Furthermore, impacts from the proposed water line would occur on the Ronan parcel, although all applicants are proposing to implement the proposed mitigation.

Lot Line Adjustment and Lot Tie

CDP Application No. 4-14-1094 (Mulryan Properties LLLP, Morleigh Properties LLLP, Vera Properties LLLP, Ronan Properties LLLP, ED West Properties LLLP) (APNs 4453-005-092 and -091)

The applicants of CDP applications 4-10-041 (Vera Properties LLLP), 4-10-042 (Mulryan Properties LLLP), 4-10-044 (Ronan Properties LLLP), and 4-14-0598 (Morleigh Properties LLLP), along with the owner of a fifth contiguous parcel (E.D. West Coast Properties) propose a lot line adjustment and lot tie between their respective lots in order to locate the proposed residential development in a clustered configuration located on a plateau at the southernmost extent of the project area, as depicted on Exhibit 10. The proposed lot line adjustment and lot tie will result in a reduction in the number of existing legally-created parcels from five to four. As described in the table below, the size of each lot would change as a result of the proposed reconfiguration.

		Existing Lot	Proposed	CDP No. for Residential
Owner	APN	Acreage	Lot Acreage	Development
Mulryan	4453-005-	42.7	20.1	4-10-042
Properties	092			
LLLP				
Morleigh	4453-005-	43.9	20.1	4-14-0598
Properties	091			
LLLP				
Vera Properties	4453-005-	20	41.1	4-10-041
LLLP	018			
Ronan	4453-005-	21.4	56.6	4-10-044
Properties,	038			
LLLP				
ED West	4453-005-	9.2	0	NA
Properties,	013			
LLLP				

B. PAST COMMISSION ACTION AND BACKGROUND

Original Submittals

The subject permit applications were originally submitted in 2007/2008. Since that time, the applications have been withdrawn and re-submitted numerous times by the applicants in order to allow more time to resolve outstanding issues that were identified during staff analysis of the proposed projects. Consistent with the Commission's record-keeping practices, when the permit applications were withdrawn, they were assigned new permit application numbers upon resubmittal, and when the applications were remanded back to the Commission, they kept their previously assigned application number. The table below is a summary of the various permit application numbers associated with the subject applications:

Applicant Name	Original Application No.	Re-submitted Application No.	Re-submitted Application No.	Current Application No.
Lunch Properties LLLP	4-07-067 (submitted July 16, 2007; filed Jan. 8, 2009; withdrawn Aug. 26, 2009)	4-09-056 (filed Aug. 26, 2009; withdrawn Apr. 22, 2010)	4-10-040 (filed Nov. 17, 2010)	4-10-040 (Remand)
Vera Properties LLLP	4-07-068 (submitted July 16, 2007; filed Jan. 8, 2009; withdrawn Aug. 26, 2009)	4-09-057 (filed Aug. 26, 2009; withdrawn Apr. 22, 2010)	4-10-041 (filed Nov. 17, 2010)	4-10-041 (Remand)
Mulryan Properties LLLP	4-07-146 (submitted Nov. 30, 2007; filed Jan. 8, 2009; withdrawn Aug. 26, 2009)	4-09-058 (filed Aug. 26, 2009; withdrawn Apr. 22, 2010)	4-10-042 (filed Nov. 17, 2010)	4-10-042 (Remand)
Morleigh Properties LLLP	4-07-147 (submitted Nov. 30, 2007; filed Jan. 8, 2009; withdrawn Aug. 26, 2009)	4-09-059 (filed Aug. 26, 2009; withdrawn Apr. 22, 2010)	4-10-043 (filed Nov. 17, 2010; Withdrawn June 16, 2011)	4-14-0598 (filed Aug. 27, 2014)
Mulryan/Morleigh LLLP Lot Line Adjustment	4-07-148 (submitted Nov. 30, 2007; filed Jan. 8, 2009; withdrawn Aug. 26, 2009)	4-09-061 (filed Aug. 26, 2009; withdrawn Apr. 22, 2010)	4-10-045 (filed Nov. 17, 2010)	Resubmitted as 4-14-1094 with additional applicants and modified project description (filed Aug. 27, 2014)
Ronan Properties LLLP	4-08-043 (submitted June 24, 2008; filed Jan. 8, 2009; withdrawn Aug. 26, 2009)	4-09-060 (filed Aug. 26, 2009; withdrawn Apr. 22, 2010)	4-10-044 (filed Nov. 17, 2010)	4-10-044 (Remand)

Five of the subject six applications were originally submitted in 2007. On July 16, 2007, the Commission received CDP Application Nos. 4-07-067 (Lunch Properties LLLP) and 4-07-068 (Vera Properties LLLP) for residential development on two adjacent vacant properties. On August 10, 2007, Commission staff sent a letter to the applicants' common agent, notifying them that the applications were incomplete and outlining the items that needed to be submitted in order for Commission staff to deem the applications complete. On November 30, 2007, the Commission received CDP Application Nos. 4-07-146 (Mulryan Properties LLLP), 4-07-147 (Morleigh Properties LLLP), and 4-07-148 (Mulryan Properties LLLP and Morleigh Properties LLLP) for development on two other adjacent properties (including a lot line adjustment

between the two lots and residential development on each lot) that are contiguous with the properties that are the subject of Application Nos. 4-07-067 and 4-07-068. The same agent, Schmitz & Associates, was the representative for each of the four applicants. On December 17, 2007, Commission staff sent a letter to the agent, notifying him that applications 4-07-146, 4-07-147, and 4-07-148 were incomplete and outlining the items needed in order to deem the applications complete.

Commission staff received additional information from the applicants' agent on January 30, 2008 (regarding applications 4-07-146, -147, and -148) and February 20, 2008 (regarding applications 4-07-067 and -068). Some of the information that staff had initially requested was provided at this time. However, several outstanding items remained, and additional information/clarification based upon the agent's submittals was needed. Commission staff sent a follow-up letter (dated February 29, 2008) to the applicants' agent regarding all five of the permit applications, noting the items still needed and requesting additional information and clarification based upon the new information provided by the agent.

Appeal of Incompleteness Determination

The applicants' agent submitted a letter in response to staff's February 29, 2008 letter for each application, dated March 24, 2008, stating that several of the staff's information requests were "irrelevant, onerous, or impossible to provide" and that the applicants wished to appeal the Executive Director's "incomplete" determination to the Commission pursuant to Section 13056(d) of Title 14 of the California Code of Regulations. As such, Permit Application Nos. 4-07-067, 4-07-068, 4-07-146, 4-07-147, and 4-07-148 were the subject of dispute resolution action by the Commission in May 2008 (Dispute Resolution Nos. A-4-07-067-EDD, A-4-07-068-EDD, A-4-07-146-EDD, A-4-07-147-EDD, and A-4-07-148-EDD). At the Commission hearing of May 7, 2008, Commission staff dropped some of its demands, and the Commission concurred with the Executive Director's determination that the subject coastal development permit applications were incomplete in the other respects alleged by Commission staff. The Commission concluded that three of the five disputed items were necessary for staff's analysis of the development proposals, and for the Commission's consideration of the CDP applications to determine whether the projects comply with all relevant policies of the Coastal Act.

Below is a summary of the incomplete items disputed by the applicants and how each item was resolved by the Commission's May 7, 2008 dispute resolution action:

- 1. An analysis of alternatives to the proposed water main line and feasibility of an on-site water well to supply the proposed development with potable water.
 - Commission staff decided to forego, as an application filing requirement, an analysis of alternative water sources prepared by the applicants. Staff concluded and the Commission found that the issue could be further analyzed by staff and considered by the Commission in its review of the applications.
- 2. A County-approved Geologic Review Sheet for all proposed development.

In an effort to address the applicants' concerns regarding the expense of preparing full working drawings for each residence to proceed with County geologic review, Commission staff had spoken with the County District Engineer, Soheila Kahlor, specifically regarding this issue and the subject projects. She indicated that the

County can proceed with geologic review of grading plans without more information (i.e., not require full working drawings for the residences), given the concern of the geologic and grading issues in this case. In fact, she noted that the applicants were already in process with the County for obtaining this review. Staff conveyed this to the applicants' agent. However, the applicants' agent still opposed the filing requirement. The Commission reviewed this disputed issue and upheld the Executive Director's determination, finding that the County-approved Geologic Review Sheet is information necessary for the Commission's consideration of the subject applications and their consistency with the Chapter 3 policies of the Coastal Act.

3. Evidence of the City of Malibu's approval of the proposed access road segment within the City's jurisdiction.

Upon further consideration, staff concluded that while it would be better to know the final configuration of the road that will be approved within the City of Malibu, the Commission could require evidence of the City of Malibu's approval of the proposed road segment within the City boundaries as a special condition of approval for the subject permit applications (should the applications be approved) thus alleviating the need to treat that information as a necessary filing requirement. If the City did require that the road be relocated, the corresponding relocation of the portion of the road in the Commission's jurisdiction could then be required to come back before the Commission for further review. Therefore, Commission staff concluded this information was no longer required for filing the applications, and the Commission concurred.

4. Analysis of alternative parcel configurations that would minimize grading, fuel modification, landform alteration, and serve to cluster all development to the maximum extent feasible, in order to minimize impacts to coastal resources.

Commission staff decided to forego, as an application filing requirement, an analysis of alternative lot configurations prepared by the applicants. Staff concluded and the Commission found that the issue could be further explored by staff (including the Commission's legal staff) and considered by the Commission in its review of the applications.

5. Los Angeles County approval-in-concept for the proposed water main line and maintenance road portion of the proposed development.

Commission staff concluded that County approval-in-concept was required for the grading work associated with installation of the proposed water line and maintenance road development. However, in the face of continued disagreement from the applicants' agent and allegations that the County had told him otherwise, staff also decided that, if the applicants could provide evidence from the County indicating that their review and approval was <u>not</u> needed for construction of the proposed water line and maintenance road, that would be adequate to satisfy the subject filing requirement. The Commission upheld the Executive Director's determination, finding that the applicants needed to provide either the County Approval-In-Concept of the water line extension development or evidence that it is not required.

In essence, upon further consideration of the five incomplete items that were the subject of the appeals, Commission staff concluded that three of the five incomplete items that they had requested could be adequately addressed after filing of the applications. Thus, staff did not

require that those items (Water Supply Alternatives Analysis, City of Malibu Approval and Alternative Parcel Configuration Analysis) be provided as a prerequisite to the filing of the applications. The remaining two disputed incomplete items were found to be necessary for staff's analysis of the development proposals, and for the Commission's consideration of the CDP applications, to determine whether the projects comply with all relevant policies of the Coastal Act.

On June 24, 2008, the same agent who had submitted the first five applications and had indicated that a sixth, related permit application for residential development on an adjacent parcel was forthcoming, submitted that sixth application (CDP Application No. 4-08-043 by Ronan Properties LLLP). On July 16, 2008, Commission staff sent a letter to the applicants' common agent, notifying him that the new application was incomplete and outlining the items that needed to be submitted in order for Commission staff to deem the application complete. In response to incomplete letters regarding each of the subject six applications, the applicants' agent submitted additional information to Commission staff on November 24, 2008. On December 4, 2008, Commission staff determined the applications incomplete and requested the additional information items necessary to file the applications.

Filing of Applications and Emergent Geologic Issues

On January 8, 2009, after receiving the requested incomplete items outlined in the Commission's December 4, 2008 incomplete letter, regarding all of the applications, Commission staff filed each of the subject applications as complete and tentatively scheduled them for the June 2009 Commission hearing. However, geologic issues on the project site remained (as discussed more thoroughly in Part C of this report), and in order to allow for more time to provide Commission staff with the information requested, the applicants extended the July 7, 2009 time limit for Commission action by 90 days, to October 5, 2009.

By August 2009, it became clear that the applicants had not provided enough information to demonstrate that the selected engineering design could attain the required factors of safety and assure stability for the economic life of the development. Understanding that there was not enough time to resolve these geology, geotechnical and engineering issues before the Commission's October 5, 2009 deadline for action, the applicants agreed to withdraw and resubmit the subject applications. The applications were formally withdrawn and resubmitted on August 26, 2009. Commission staff considered the re-submitted applications complete as of that date, waived any new permit application fees, assigned new permit application numbers, and tentatively scheduled the applications for the November 2009 hearing. However, the requested materials regarding the geotechnical engineering aspects were not provided in time for the November hearing. Materials were provided by the applicant in October 2009, but still not to the satisfaction of Commission staff. In November 2009, the applicants provided the complete civil/structural engineering plans for the access road as requested.

During Commission staff review of the project, three different structural engineering designs had been developed and proposed for the access road. The caisson road support was a rather complex structural engineering system. It was a type of system that Commission Staff Civil Engineer, Lesley Ewing, had never seen before. Given the complexity and uniqueness of the engineering design demonstrated in the submitted structural engineering plans, Commission technical staff found that review of the design was outside their field of expertise and requested that an experienced outside consultant be hired to assist staff with the technical review. The applicants

agreed to this approach and Cotton, Shires and Associates Inc. (CSA), a professional firm of consulting engineers and geologists based in California, was contracted to perform the civil and geotechnical engineering and engineering geologic peer review services in direct support of the Commission's review and analysis of the subject permit applications.

In order to allow additional time under the Permit Streamlining Act to respond and resolve the issues contained in the CSA report, the applicants again had to withdraw and re-submit the applications. The applications were formally withdrawn and resubmitted on April 22, 2010. Given that this was the second time that the applicants had withdrawn and re-submitted their applications, and since the County's Geologic Review Sheet had not contained the information Commission staff was anticipating, Commission staff found it necessary to request updated information prior to filing of the applications, including geological and engineering information addressing the concerns raised by CSA, updated application forms, mailing lists and envelopes, owner/agent authorizations, and filing fees. At this time, Commission staff also assigned the applications new permit application numbers. The applicants' final response to CSA review and final grading/structural engineering plans were received by Commission staff and CSA on November 17, 2010. In response, Commission staff issued letters on December 10, 2010 stating that the applications were filed as complete as of November 17, 2010.

June 16, 2011 and October 8, 2014 Commission Hearing

The previously proposed project, which was the subject of the Commission's action on June 16, 2011, was similar to the currently proposed project, however much larger in scope. It included: (1) five new single family residences ranging from 7,220 sq. ft. to 12,785 sq. ft. in size on five adjoining lots, each of which claims to be owned by a different LLLP; (2) 28,050 cu. yds. of grading (26,250 cu. yds. cut; 1,800 cu. yds. fill; 21,600 cu. yds. excess) for the residence development areas and private driveways; (3) a 6,010 linear ft., 20 ft. wide access road (includes residential driveways) extending from Sweetwater Mesa Road in Malibu to the development sites with 43,050 cu. yds. of grading (20,100 cu. yds. cut, 22,950 cu. yds. fill), 123 caisson piles up to 79 ft. deep and up to 5 ft. in diameter, and 960 linear ft. of retaining walls; (4) three Fire Department staging areas utilizing 10,000 cu. yds. of excess excavated material, (5) placement of 13,950 cu. yds. of excess excavated material upon a 1.88 acre grassland mesa area; (6) a new 7,800 linear ft. waterline with 900 linear ft., 10 ft. wide maintenance road; and (7) a lot line adjustment between two of the subject lots. Total project grading is approximately 95,050 cu. yds. (46,350 cu. yds. cut, 48,700 cu. yds. fill). As outlined in the staff report dated May 26, 2011, staff recommended denial of the proposed project and identified several alternatives to the proposed development. At the June 16, 2011 Commission hearing the Commission denied the project, however prior to that action the Morleigh application (4-14-043) was withdrawn. The applicants (except for the applicant associated with the Morleigh proposal) brought separate petitions for writs of mandate seeking to vacate the Commission's denial of their respective applications. On October 11, 2011, all of the lawsuits were consolidated for all further proceedings. In March 2013, the original applicants and the Commission entered into a Settlement and Mutual Release Agreement, to remand the Mulryan (4-10-042), Lunch (4-10-040), Vera (4-10-041), and Ronan (4-10-044) applications back to the Commission and for Morleigh to submit a new application to allow the applicants to modify their respective applications to proposed a modified, more clustered development scheme for the Commission's consideration (Exhibit 13). However, the Commission expressly retained its discretion to take whatever action it deems appropriate when considering the modified applications.

On April 4, 2014, the applicants submitted materials depicting the revised, clustered project described within the Settlement and Mutual Release Agreement. Also on April 4, 2014, the applicants submitted the revised Morleigh application (4-14-0598), and a joint application for the proposed lot line adjustment (4-14-1094). Application numbers 4-14-0598 and 4-14-1094 were subsequently determined to be complete and filed on August 27, 2014. Commission staff subsequently scheduled the six subject applications for the October 2014 hearing. However, due to a noticing deficiency, the hearing for the applications was postponed.

C. HAZARDS AND GEOLOGIC STABILITY

Policy SN-1 of the Santa Monica Mountains Land Use Plan states:

All new development shall be sized, designed and sited to minimize risks to life and property from geologic hazard.

Policy SN-2 of the Santa Monica Mountains Land Use Plan states:

On ancient landslides, unstable slopes and other geologic hazard areas, new development shall only be permitted where there is substantial evidence, provided by the applicant and confirmed by the Los Angeles County Department of Public Works, that the project provides an adequate factor of safety.

Policy SN-3 of the Santa Monica Mountains Land Use Plan states:

Prohibit new development in areas where it presents an extraordinary risk to life and property due to an existing or demonstrated potential public health and safety hazard.

Policy SN-4 of the Santa Monica Mountains Land Use Plan states:

In the placement of new development, emphasize avoiding areas susceptible to seismic and non-seismic geologic hazards, even when engineering solutions are available.

Policy SN-5 of the Santa Monica Mountains Land Use Plan states:

Prohibit grading and brushing in areas that have a slope of 50 percent or greater and limit grading in areas with a slope of over 25 percent.

Policy SN-6 of the Santa Monica Mountains Land Use Plan states:

Prohibit the construction of new structures for human occupation in unstable geologic areas.

Policy SN-7 of the Santa Monica Mountains Land Use Plan states:

Limit the discretion and authority of County inspectors to modify approved grading plans at project sites to that which is necessary to address unanticipated conditions and to protect public health and safety.

Policy SN-8 of the Santa Monica Mountains Land Use Plan states:

In-field grading modifications shall be subject to a coastal development permit amendment to ensure that modifications will not create adverse impacts that were not considered during a project's environmental review.

Policy SN-9 of the Santa Monica Mountains Land Use Plan states:

Allow the remediation or stabilization of landslides or other slope instability that affect existing structures or that threaten public health or safety. Analyze alternative remediation or stabilization techniques to determine the least-environmentally-damaging alternative. Maximum feasible mitigation shall be incorporated into the project to minimize adverse impacts to natural resources.

Policy SN-10 of the Santa Monica Mountains Land Use Plan states:

Prohibit land divisions, including lot line adjustments, unless all proposed parcels can be demonstrated to be safe from flooding, erosion, and geologic hazards and will provide a safe, legal, all weather access road(s), which can be constructed consistent with all policies of the LCP.

Policy SN-11 of the Santa Monica Mountains Land Use Plan states:

New development shall 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.

Policy SN-20 of the Santa Monica Mountains Land Use Plan states:

Ensure that all new development is sized, designed and sited to minimize risks to life and property from fire hazard.

Policy SN-21 of the Santa Monica Mountains Land Use Plan states:

Design and site new development in a manner that minimizes the threat of loss from wildland fires while avoiding the need for excessive vegetation clearance.

Policy SN-22 of the Santa Monica Mountains Land Use Plan states:

Landscaping shall not extend into utility lines or block access to roads, water supplies or other emergency facilities.

Policy SN-23 of the Santa Monica Mountains Land Use Plan states:

Require that development sites and structures: be located off ridgelines and other dangerous topographic features such as chimneys, steep draws, and saddles; be adjacent to existing development perimeters; be located close to public roads; and, avoid overlong driveways.

Policy SN-24 of the Santa Monica Mountains Land Use Plan states:

Structures shall be constructed with appropriate features and building materials, including but not limited to: fire-resistant exterior materials, windows and roofing; and eaves and vents that resist the intrusion of flame and burning embers.

Policy SN-25 of the Santa Monica Mountains Land Use Plan states:

Structures that require fuel modification shall be set back 200 feet from adjoining vacant lands, where feasible. If it is not feasible to provide a 200 foot setback, then structures shall be set back to the maximum extent possible. However, a lesser setback may be approved where it will serve to cluster development, minimize fire hazards, or minimize impacts to coastal resources.

Policy SN-26 of the Santa Monica Mountains Land Use Plan states:

New development adjacent to public parkland shall be sited at least 200 feet from all parkland, where feasible, and designed to ensure that all required fuel modification is located within the project site boundaries and no brush clearance is required within the public parkland. New development that requires unavoidable brush clearance in parklands shall only be approved to allow a reasonable economic use, brush clearance shall be minimized to the maximum extent feasible, and all resource impacts shall be fully mitigated.

Policy SN-27 of the Santa Monica Mountains Land Use Plan states:

Prohibit vegetation clearance where fuel modification or brush clearance has not been required by the County to minimize the risk of fire hazard on (1) existing development, or (2) new development with an approved coastal development permit and all other applicable permits. Vegetation shall not be removed or thinned for required fuel modification until all permits have been obtained and construction commences.

Policy SN-28 of the Santa Monica Mountains Land Use Plan states:

Avoid development where fuel modification or brush clearance requirements would affect SERA.

Policy SN-29 of the Santa Monica Mountains Land Use Plan states:

Limit fuel modification to the minimum area necessary and utilize those programs that are most appropriate to the development site, including such strategies as preserving fire-resistant locally-indigenous species instead of completely removing vegetation.

Policy SN-31 of the Santa Monica Mountains Land Use Plan states:

Prohibit development in areas with insufficient access, water pressure, fire flows, or other accepted means for adequate fire protection.

Policy SN-32 of the Santa Monica Mountains Land Use Plan states:

Maintain onsite, where feasible, alternative water resources for fire-fighting purposes. Water tanks shall be sized consistent with County minimum requirements, clustered with approved structures, and sited to minimize impacts to coastal resources.

Policy SN-33 of the Santa Monica Mountains Land Use Plan states:

Locate structures along a certified all-weather accessible road, which in some cases may consist of permeable surfaces, in a manner that provides firefighters adequate vehicle turnaround space on private properties. Where feasible, require that new development be accessed from existing roads.

Policy SN-34 of the Santa Monica Mountains Land Use Plan states:

Should the County of Los Angeles Fire Department policies regarding fuel management and fire protection conflict with the policies and provisions of the LUP, personnel from the Fire and Regional Planning Departments shall meet and agree on measures to balance the need for fire protection for structures with the need to protect environmental resources. If resolution of issues cannot be achieved and there are no feasible solutions that would permit meeting the provisions of the LCP, the Los Angeles County Fire Guidelines, and the State Fire Code, shall take precedence. Any such modification of LCP policies or provisions must be approved by the Coastal Commission through an LCP amendment.

Policy SN-36 of the Santa Monica Mountains Land Use Plan states:

Require that property owners adhere to the approved fuel modification plan for their property, and ensure that Fire Department personnel adhere to the approved fuel modification plan during annual field inspections for fuel modification or brush clearance.

Please see pages 20 through 22 of Appendix 2 for the applicable Santa Monica Mountains Implementation Plan provisions.

The Santa Monica Mountains LUP includes a number of policies related to hazards and geologic stability. Policies SN-1, SN-11, SN-12 and SN-20 require that new development be sited, sized and designed to minimize risks to life and property from different kinds of hazards. Additionally, Policies SN-16 and SN-17 require that new development shall provide adequate drainage and erosion control facilities that convey site drainage in a non-erosive manner in order to minimize hazards resulting from increased runoff, erosion and other hydrologic impacts to streams and new development shall not increase peak stormwater flows.

The proposed development is located in the Malibu/Santa Monica Mountains area, an area historically subject to significant natural hazards including, but not limited to, landslides, erosion, flooding and wild fire. Specifically, the project site contains complex geology, soils, and significant geologic hazards, including landslides. The following outlines the geologic and hazardous conditions at the project site:

Geology and Engineering

The topography and geology of the subject properties along the subject ridgeline is very complex. A significant portion of the subject properties is underlain by landslide debris, which in general, has been shed westward from the prominent north-south trending ridgeline. As such, a significant portion of the proposed access road to serve the subject properties bisect these mapped landslide areas. In addition, in order to achieve a clustered development configuration, a

portion of all proposed residences, except for the Vera residence, is sited atop a mapped landslide area. These conditions pose a significant constraint for development of, and access to, the properties.

The proposed access road traverses the western side of a north-south oriented, sharp-crested ridge. At the City limits, the proposed road is at an elevation of approximately 835 feet, roughly 100 feet below, and 300 feet west of, the crest of the ridge. To the east of the somewhat meandering ridgeline is a very steep slope, marked by vertical cliffs, dropping into Carbon Canyon. To the west, somewhat gentler (but still very steep) slopes descend to Sweetwater Canyon. Several drainages extending from both canyons modify these steep slopes.

The bedrock making up the subject ridge is primarily layered sedimentary rocks (conglomerates, volcanic breccias, sandstones, siltstones and shales) assigned to the Vaqueros Formation, underlain by sandstones of the Sespe Formation. These rocks are broadly folded and lie on the east limb of syncline, or downwarp, and so primarily dip to the west. The Vaqueros Formation makes up most of the western side of the ridge, and the underlying Sespe Formation makes up most of the eastern side of the ridge. This broad structure is interrupted by many minor folds and inactive faults. Isolated igneous rocks, known as the Conejo Volcanics, were intruded into the sedimentary rocks. Due to the fact that layered sedimentary rocks of diverse strengths broadly dip in the same direction as the slope on the western side of the ridge, this slope has been very susceptible to landsliding over recent geologic time. As mapped by Mountain Geology, Inc. (MGI), three large, ancient landslides, themselves cut by younger landslides, extend almost the entire distance from their headscarps at or near the ridge crest, to the canyon bottom. Evidence, such as the formation of soils on the surfaces of these landslides, indicates that they are likely of prehistoric origin. None show evidence of recent slope movement. The eastern side of the ridge also is susceptible to rockfall and landsliding, but since such slope movement would not threaten the proposed development it will not be discussed further.

Policy SN-1 of the Santa Monica Mountains LUP, requires that new development minimize risks to life and property in high hazard areas, as well as assure stability, structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area. Commission staff geologist, Dr. Mark Johnsson, and staff civil engineer, Dr. Lesley Ewing, provided staff with assistance in analyzing the subject projects for consistency with the policies and provisions of the Santa Monica Mountains LCP. In addition, in this case, Cotton, Shires and Associates Inc. (CSA), a professional firm of consulting engineers and geologists, was contracted to perform the civil and geotechnical engineering and engineering geologic review services in support of the Commission's review and analysis of the previously proposed development configuration. CSA submitted to staff and the applicant a March 8, 2010 Summary of Findings - Civil and Geotechnical Engineering and Engineering Geologic Peer Review Services in fulfillment of their initial contract on this project. When the application was previously resubmitted (prior to the Commission's 2011 action) with changes to the engineering design, CSA's contract was extended to allow them review of the revised project. In December 2010, CSA submitted a second Draft Summary of Findings of their engineering geologic, geotechnical, civil and structural engineering peer review services in support of Commission staff's analysis of the applications. Various changes were made to CSA's draft report after receiving additional information from the applicant's consultants. CSA's Final Summary of Findings was submitted on January 21, 2011. Dr. Lesley Ewing and Dr. Mark Johnsson each previously prepared memoranda (2011) for the Commission and Commission staff that

summarize the important issues related to their reviews of the parts of the proposed project under their respective fields of expertise. As the location of the proposed residences has been modified since the 2011 proposal, supplemental memoranda have been completed by both Dr. Lesley Ewing and Dr. Mark Johnsson (Exhibits 15 and 16). The Commission concurs with the findings of the CSA final report, as well as the findings contained in the memoranda prepared by Dr. Lesley Ewing dated January 24, 2011 and April 27, 2015 (Exhibit 16), and the memorandum prepared by Dr. Mark Johnsson dated January 25, 2011 and April 28, 2015 (Exhibit 15), which are hereby incorporated herein by reference. Although the currently proposed development configuration has been modified since the subject memoranda were written, the applicant's agents have indicated that the applicants would construct the currently proposed development utilizing the previously analyzed methods. Furthermore, as described below the applicants' engineers have indicated that the proposed development, located in its revised configuration, will be stable.

Proposed Single Family Residences

All of the proposed residences, except for the Vera residence, would be located atop a landslide area. However, in order to achieve the revised, clustered development configuration, there are no other feasible building sites within the bounds of each project site. Moreover, the submitted geology, geotechnical, and/or soils reports conclude that the residential development sites are suitable for the proposed project based on the evaluation of the site's geology in relation to the proposed development. The reports contain recommendations to be incorporated into the project plans to ensure the stability and geologic safety of the proposed project, the project site, and the adjacent properties. The submitted geology, geotechnical, and/or soils reports referenced as Substantive File Documents conclude that the project site is suitable for the proposed project based on the evaluation of the site's geology in relation to the proposed development.

Proposed Access Road, Fire Department Turnout Areas, and Rock Fall Mitigation Device

A 1,980 linear foot (excludes residential driveways) shared access road is proposed in the subject permit applications. Approximately 14,620 cubic yards of grading (3,030 cubic yards cut, 11,590 cubic yards fill) is proposed in order to construct the entire length of the proposed shared access road. The proposed road crosses landslides. As such, sections of the road would be supported on caissons to provide safe access across these slide areas. Approximately 152 reinforced concrete caissons, ranging from 2 to 5 feet in diameter and 15 to 78 feet in length are proposed. Three retaining walls are also proposed, that are approximately 120, 205, and 230 linear feet in length

Given the remoteness of the area and the length and steepness of the road, the proposed project includes construction of one Fire Department turnout area along the access road to accommodate safe emergency vehicle access and staging. The proposed turnout area is approximately 14,400 sq. ft. in size, and would be located where the proposed access road begins within the unincorporated Los Angeles County jurisdiction. This turnout area would require 4,650 cu. yds. of grading (0 cu. yds. cut and 4,650 cu. yds. fill), and would be located within the boundary of landslide areas. Placement of fill to construct the staging area has the potential to affect stability. Slope stability analyses were performed to evaluate the effect of fill placement on the landslides and it was found that the slope below the turnout areas would not be destabilized significantly as long as the fill slope is keyed and benched, compacted and stabilized to reduce susceptibility to debris flows and erosion.

The proposed road support system has been through three different design iterations. The initial design proposed involved a combination of cylindrical caissons and "dog bone" caissons. In early June 2010, Commission staff was provided with a revised road support design that relied upon traditional cylindrical caissons for the entire road support system and the "dog bone" caissons had been deleted. As with the initial design, the caissons would require careful field installation since reinforcing steel for each caisson was designed to be oriented with the direction of the slide. By refining the geologic landslide mapping and using the appropriate parameters during the CSA review process, the applicants' consultants were able to replace the previously proposed dog-bone caissons with cylindrical caissons and reduce the amount and size of the stabilization elements of the access road.

The applicant's structural engineer also examined the option of a tied-back wall rather than a caisson system because such a design was thought to have the potential to further reduce both the caisson diameter and necessary reinforcing steel. However, the assessment of that option found that the tie-back installation would require far more site disturbance than the caissons, since large trenches would need to be excavated downslope of the slide to install the tiebacks. Approximately 1,010 feet of roadway would require slot excavations at least 30 to 60 feet deep to install the tie-back system, extending the site disturbance well beyond the existing roadway footprint. Dr. Lesley Ewing has reviewed the alternative design analysis and concurs that a tie-back stabilization system at this site would cause greater site disturbance than the caissons.

Staff has determined that the site geologic hazards, limits of landslides, type of sliding, and depth of the slide planes in the access road corridor have been appropriately characterized and that the structural design of the road would be safe and stable as long as the recommendations provided in the relevant reports are followed. Staff also has determined that because of the steepness of the access road corridor, the ability to devise other designs that would reduce grading and wall heights is limited.

In addition, a section of the proposed road appears to be susceptible to rockfalls, although, the likelihood of permanent damage to the roadway from these hazards appears to be low. Rockfall mitigation recommendations have been provided by the applicants' consultants per the "Rockfall Hazard and Mitigation Study" (Kane Geotech, Inc.) to reduce the rockfall hazard potential to the road and road users. As such, the proposed project includes the construction of a rock fall stabilization device consisting of a 315 linear foot, 10 foot high wire mesh barrier installed behind a 4 foot high vegetated berm, and located along the southeast shoulder of a portion of the shared access road.

Proposed Waterline

The proposed project includes the extension of an 8-inch diameter water line down to the properties that are the subject of this staff report from an existing municipal water main beneath Costa Del Sol Way to the north. The total length of the proposed water line is approximately 7,800 feet and would be installed utilizing both trenching and horizontal directional drilling construction methods. A 2-ft. wide maintenance pathway to service the water line is proposed along a 3,240 foot long stretch of the water main alignment. The proposed alignment is on bedrock and free of large landslides and other geologic hazards. The applicants' agents have indicated that an alternative water source such as wells and water tanks, would be unlikely to

obtain County of Los Angeles Fire Department approval, as it would not provide sufficient volume to satisfy the fire flow requirement of 2,500 gpm for two hours.

Wild Fire

The subject five properties are contiguous and located along an approximately 3,000-ft. long stretch of a prominent ridgeline separating the Sweetwater Canyon and Carbon Canyon watersheds of the Santa Monica Mountains, about a mile inland from Pacific Coast Highway. The area is largely undeveloped and in a remote area of the Santa Monica Mountains where there is an extraordinary potential for damage or destruction from wildfire. In addition, the Santa Monica Mountains are classified a Very High Fire Hazard Severity Zone by the Los Angeles County Fire Department. There have been several wildfires in the area of the subject properties in recent history. The latest wildfire occurred on the subject sites in November 2007. Prior to that, significant wildfires occurred in 1942, 1956, 1970, 1985, 1993, and 1996. Fire is an inherent part of the indigenous chaparral community of the coastal mountains. Wildfires often denude hillsides in the Santa Monica Mountains of all existing vegetation, thereby contributing to an increased potential for erosion and landslides on property. Typical vegetation in the Santa Monica Mountains consists mostly of coastal sage scrub and chaparral. Many plant species common to these communities produce and store terpenes, which are highly flammable substances (Mooney in Barbour, Terrestrial Vegetation of California, 1988). Chaparral and sage scrub communities have evolved in concert with, and continue to produce the potential for, frequent wild fires. The typical warm, dry summer conditions of the Mediterranean climate combine with the natural characteristics of the native vegetation to pose a risk of wild fire damage to development that cannot be completely avoided or mitigated.

Policy SN-1 of the LCP requires that new development shall minimize risks to life and property in areas of high geologic, flood, and fire hazard. The applicants propose five new single family residences, ranging from 10,159 sq. ft. to 14,366 sq. ft. in size, on five adjoining parcels. In addition, a 1,980 foot long access road is proposed to reach the subject properties. Due to the steepness and length of the proposed access route, the properties would be difficult to reach and traverse for emergency vehicles. As such, the applicants are proposing one fire department turnout area along the access road to accommodate safe emergency vehicle access and staging. The proposed turnout area is 14,400 sq. ft. in size.

With slopes steeply descending from either side of the subject ridgeline to canyons below, the proposed home sites are situated in areas near or at the top of the ridge that are particularly vulnerable to fire hazard. Homes located in natural chimneys, such as narrow canyons and ridgetop saddles, are especially fire-prone because winds are swiftly funneled into these canyons and eddies are created. Homes located where a canyon meets a ridge are more likely to burn than other ridge-top homes because flames and convection heat hit the home directly rather than passing over. In this case, each of the proposed home sites is situated on or near the outer edges of the ridgeline or ridgeline saddles and in close proximity to natural chimney features. The fuel modification plan for each of the proposed residences utilizes the standard three zones of vegetation modification. Zones "A" (setback zone) and "B" (irrigation zone) are shown extending in a radius of approximately 100 feet from the proposed structures. A "C" Zone (thinning zone) is provided for a distance of 100 feet beyond the "A" and "B" zones. To minimize hazards resulting from wild fire the applicants have proposed to implement a Fire

Protection Plan which contains measures, such as sprinkler system, protect the subject development from wildfire.

Conclusion

As mentioned above, the submitted geology, geotechnical, and/or soils reports referenced as Substantive File Documents conclude that the project site is suitable for the proposed project, including the components discussed above, based on the evaluation of the site's geology in relation to the proposed development. The reports contain recommendations to be incorporated into the project plans to ensure the stability and geologic safety of the proposed project, the project site, and the adjacent properties. To ensure stability and structural integrity and to protect the site and the surrounding sites, the Commission requires **Special Condition One (1)** to require the applicants to comply with the recommendations contained in the applicable reports, to incorporate those recommendations into all final design and construction plans, and to obtain the geotechnical consultant's approval of those plans prior to the commencement of construction. Additionally, to ensure that the proposed road alignment remains as proposed, and is consistent with the portion with the City of Malibu's jurisdiction, **Special Condition Fourteen (14)** requires that prior to issuance of the coastal development permits, the applicants provide evidence of City of Malibu approval of the portion of the access road within City limits.

Additionally, to minimize erosion and ensure stability of the project site, the project must include adequate drainage and erosion control measures. In order to achieve these goals, **Special Condition Four (4)** requires the applicant to submit drainage and interim erosion control plans certified by the geotechnical engineer. Further, **Special Condition Five (5)**, is required to ensure stability and avoid contributing significantly to erosion, all slopes and disturbed areas of the subject site must be landscaped, primarily with native plants, to stabilize disturbed soils and reduce erosion resulting from the development.

As mentioned above, the project site is located in an area that is subject to damage from hazards including wildfire. The applicants have submitted a fire protection plan, which includes measures to protect the subject development from wildfire; however the Fire Department has not reviewed this Plan. As such, **Special Condition Twenty (20)** requires that the applicants submit a final fire protection plan that has been reviewed by the Fire Department, for the review and approval of the Executive Director.

Although the conditions described above render the project sufficiently stable to satisfy the requirements of Santa Monica Mountains Policy SN-1, no project is wholly without risks. Due to the fact that the proposed project is located in an area subject to an extraordinary potential for damage or destruction from natural hazards, including wildfire and erosion, those risks remain substantial here. If the applicant nevertheless chooses to proceed with the project, the Commission requires **Special Condition Two (2)**, which requires the applicant to assume the liability from these associated risks. Through the assumption of risk condition, the applicant acknowledges the nature of the fire and/or geologic hazard that exists on the site and that may affect the safety of the proposed development.

Further, Coastal Act section 30620(c)(1) authorizes the Commission to require applicants to reimburse the Commission for expenses incurred in processing CDP applications. *See also* 14 C.C.R. § 13055(e). Thus, the Commission is authorized to require reimbursement for expenses

incurred in defending its action on the pending CDP application. Therefore, consistent with Section 30620(c), the Commission imposes **Special Condition Fifteen (15)**, requiring reimbursement of any costs and attorneys fees the Commission incurs "in connection with the defense of any action brought by a party other than the Applicants/Permittees challenging the approval or issuance of this permit."

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with the applicable hazards policies of the Santa Monica Mountains LCP.

D. WATER QUALITY

Policy SN-16 of the Santa Monica Mountains Land Use Plan states:

New development shall provide adequate drainage and erosion control facilities that convey site drainage in a non-erosive manner in order to minimize hazards resulting from increased runoff, erosion and other hydrologic impacts to streams.

Policy CO-2 of the Santa Monica Mountains Land Use Plan states:

Site, design, and manage new development and improvements, including: but not limited to: landscaping, to protect coastal waters from non-point source pollution by minimizing the introduction of pollutants in runoff and minimizing increases in runoff rate and volume. Review new development and improvements for potential degradation of water quality, and ensure that they meet the requirements of the NPDES Municipal Stormwater Permit's Low Impact Development (LID) Requirement, included as part of the Local Implementation Program.

Policy CO-3 of the Santa Monica Mountains Land Use Plan states:

To reduce runoff and erosion and provide long-term, post-construction water quality protection in all physical development, prioritize the use of Best Management Practices (BMPs) in the following order: 1) site design BMPs, 2) source control BMPs, 3) treatment control BMPs. When the combination of site design and source control BMPs is not sufficient to protect water quality, require treatment control BMPs, in addition to site design and source control measures. Design, construct, and maintain any required treatment control BMPs (or suites of BMPs) so that they treat, infiltrate, of filter the amount of storm water runoff produced by all storms up to and including the 85ty percentile, 24-hour storm event for volume-based BMPs and/or the 85th percentile, 1-hour storm event (with an appropriate safety factor of 2 or greater) for flow-based BMPs. Prioritize the use of Low Impact Development in project design to preserve the natural hydrologic cycle and minimize increase in storm water or dry weather flows.

Policy CO-4 of the Santa Monica Mountains Land Use Plan states:

Minimize impervious surfaces in new development, especially directly-connected impervious areas. Require redevelopment projects to increase the area of pervious surfaces, where feasible.

Policy CO-5 of the Santa Monica Mountains Land Use Plan states:

Infiltrate development runoff on-site, where feasible, to preserve or restore the natural hydrologic cycle and minimize increases in stormwater or dry weather flows.

Policy CO-6 of the Santa Monica Mountains Land Use Plan states:

Require development to protect the absorption, purification, and retention functions of natural drainage systems that exist on the site. Where feasible, site and design development, including drainage, to complement and utilize existing drainage patterns and systems, conveying drainage from the developed area of the site in a non-erosive manner. Disturbed or degraded natural drainage systems should be restored where feasible.

Policy CO-7 of the Santa Monica Mountains Land Use Plan states:

Protect water quality by limiting maximum potential buildout in sensitive watersheds, including:

Arroyo Sequit;
Nicholas Canyon;
Trancas Canyon;
Zuma Canyon;
Ramirez Canyon;
Latigo Canyon;
Corral Canyon;
Malibu Creek;
Dark Canyon;
Cold Creek;
Peña Canyon;
Tuna Canyon; and

• Solstice Canyon; • Lower Topanga Canyon.

Policy CO-10 of the Santa Monica Mountains Land Use Plan states:

Limit grading, soil compaction and removal of locally-indigenous vegetation to the minimum footprint needed to create a building site, allow access, and provide fire protection for the proposed development. Monitor grading projects to ensure that grading conforms to approved plans.

Policy CO-17 of the Santa Monica Mountains Land Use Plan states:

Prohibit non-emergency earthmoving operations during the rainy season (extending from October 15 to April 15). Approved grading shall not be commenced unless there is sufficient time to complete grading operations before the rainy season. If grading operations are not completed before the rainy season begins, grading shall be halted and temporary erosion control measures shall be put into place to minimize erosion until grading resumes after April 15, unless the County determines that completion of grading would be more protective of sensitive environmental resources and would minimize erosion and sedimentation. Erosion control measures shall be required for any ongoing grading project or any completed grading project that is still undeveloped.

Policy CO-26 of the Santa Monica Mountains Land Use Plan states:

Prohibit construction of new small "package" wastewater treatment plants, except in areas where this is the desired long-term wastewater management solution and only if the "package" plants can be sited in locations that will be safe from coastal erosion, flooding and inundation, initially or as a result of sea level rise.

Policy CO-29 of the Santa Monica Mountains Land Use Plan states:

Require applications for land divisions (except lot mergers or lot line adjustments involving already-developed lots) or for any developments requiring grading of the

building site, where sewers will not be provided, to include a report prepared by a California Professional Geologist, a California Certified Engineering Geologist, a California Registered Engineer, California Certified Hydrogeologist, or a California Registered Environmental Health Specialist that addresses the ability of each proposed building site to accommodate an OWTS after the site has been graded.

Policy CO-30 of the Santa Monica Mountains Land Use Plan states:

Site new OWTS and require them to be designed so that impacts to sensitive environmental resources are minimized, including grading, site disturbance, and the introduction of increased amounts of water. Adequate setbacks and/or buffers shall be required to protect H1 habitat and surface waters from lateral seepage from the sewage effluent dispersal system and, on or adjacent to beaches, to preclude the need for bulkheads, seawalls or revetments to protect the OWTS from coastal erosion, flooding and inundation, initially or as a result of sea level rise.

Policy CO-54 of the Santa Monica Mountains Land Use Plan states:

Use primarily locally-indigenous plant species in landscape areas within Fuel Modification Zones A and B of structure(s) requiring fuel modification. Non-locally-indigenous plants and gardens that are not invasive may be allowed within the building site area and in Fuel Modification Zones A and B, with associated irrigation, provided that the species are consistent with Fire Department requirements and all efforts are made to conserve water. Invasive plants are strictly prohibited. The removal or trimming, thinning or other reduction of natural vegetation, including locally-indigenous vegetation, is prohibited except when required for construction of an approved development and/or for compliance with fuel modification requirements for approved or lawfully-existing development. Los Angeles County will work with organizations, homeowners, and park agencies on educational programs to reduce the spread of invasive plant species within the Coastal Zone.

Policy CO-76 of the Santa Monica Mountains Land Use Plan states:

All new development shall be sited and designed so as to minimize grading, alteration of physical features, and vegetation clearance in order to prevent soil erosion, stream siltation, reduced water percolation, increased runoff, and adverse impacts on plant and animal life and prevent net increases in baseline flows for any receiving water body.

Please see pages 1 through 11 of Appendix 2 for applicable Santa Monica Mountains Implementation Plan provisions.

The subject six properties, which total 151 acres, are situated along an approximately 3,000-ft. long stretch of a prominent ridgeline which extends inland approximately 2.18 miles from the narrow coastal terrace traversed by Pacific Coast Highway to the backbone crest of the Santa Monica Mountain Range. This ridgeline also separates the Sweetwater Canyon and Carbon Canyon watersheds. Both of these watersheds consist of foothills and mountains with steep slopes, and narrow north-to-south flowing intermittent creeks and ephemeral tributaries. Additionally, Malibu Creek, and Malibu Lagoon State Park are located about a mile away to the southwest of the project site (Exhibit 14).

The Commission recognizes that new development in the Santa Monica Mountains has the potential to adversely impact coastal water quality and aquatic resources because changes such as the removal of native vegetation, the increase in impervious surfaces, and the introduction of new residential uses cause increases in runoff, erosion, and sedimentation, reductions in groundwater recharge and the introduction of pollutants such as petroleum, cleaning products, pesticides, and other pollutants, as well as effluent from septic systems. LUP Policy CO-2 requires that development is sited and designed to minimize the introduction of pollutants in runoff and minimize increases in runoff rate and volume. To reduce runoff and erosion and provide long-term, post construction water quality protection in all physical development, CO-3 states that the use of Best Management Practices (BMPs) shall be employed to the maximum extent practicable to minimize polluted runoff. New development is required to minimize impervious surfaces, convey drainage in a non-erosive manner, and infiltrate runoff on-site, where feasible, to preserve or restore the natural hydrologic cycle and minimize increases in stormwater or dry weather flows.

The proposed development will result in an increase in impervious surfaces, which leads to an increase in the volume and velocity of stormwater runoff that can be expected to leave the site and eventually be discharged to coastal waters, including streams, wetlands, and estuaries. The pollutants commonly found in runoff associated with residential use can reduce the biological productivity and the quality of such waters and thereby reduce optimum populations of marine organisms and have adverse impacts on human health. In order to minimize the potential for such adverse impacts to water quality and aquatic resources resulting from runoff both during construction and during the post development stage, Special Condition Three (3) requires the applicants to submit final Drainage and Runoff Control Plans that incorporate long-term postconstruction Best Management Practices (BMPs) that protect water quality and minimize increases in runoff volume and rate in the project design. Additionally, the Commission requires Special Condition Four (4), which requires the incorporation of Best Management Practices designed to control the volume, velocity and pollutant load of stormwater and dry weather flows leaving the developed site, including: 1) site design, source control and/or treatment control measures; and 2) implementing erosion sediment control measures during construction and post construction. To further minimize construction impacts, the applicants have proposed to implement the traffic construction mitigation measures located within the submitted Traffic Impact Study. As such, Special Condition Twenty-one (21) is required to ensure implementation of these measures.

The applicant's geologic consultants have concluded that the site is suitable for the proposed septic systems and that there would be no adverse impact to the site or surrounding areas from the use of the septic systems. The applicant's geologic consultants have also concluded that the proposed septic systems meet the County of Los Angeles Environmental Health Department plumbing code requirements. The Commission has found that conformance with the provisions of the plumbing code is protective of water resources.

Additionally, both leakage and periodic maintenance drainage of the proposed swimming pools, if not monitored and/or conducted in a controlled manner, may result in excess runoff and erosion potentially causing the instability of the site and adjacent properties and potential impacts from pool chemicals (i.e. pool water algaecides, chemical pH balancing, and other water conditioning chemicals). The Commission therefore requires **Special Condition Thirteen (13)**, which requires the applicants to install a low chlorine or no chlorine purification system to

ensure any runoff or drainage from the pools or spas will not include excessive amounts of chemicals that may adversely affect water quality or environmentally sensitive habitat areas. Additionally Special Condition Thirteen (13) requires the applicants agree not to discharge chlorinated or non-chlorinated pool water into a street, storm drain, creek, canyon drainage channel, or other location where it could enter receiving waters.

Therefore, the Commission finds that the proposed project, as conditioned, consistent with the applicable water quality policies of the Santa Monica Mountains LCP.

E. ENVIRONMENTALLY SENSITIVE HABITAT

Policy CO-23 of the Santa Monica Mountains Land Use Plan states:

Permit construction of new water wells only where they will not have significant adverse individual or cumulative impacts on groundwater, streams, or natural resources. For a well location in close proximity of a stream, drainage courses, and similar surface water conveyance, a groundwater assessment must be performed by a qualified professional to ensure surface water will not adversely impact groundwater quality.

Policy CO-33 of the Santa Monica Mountains Land Use Plan states:

Sensitive Environmental Resource Areas (SERAs) are areas containing habitats of the highest biological significance, rarity, and sensitivity. SERAs are divided into two habitat categories – H1 habitat and H2 habitat – that are subject to strict land use protections and regulations.

- 1) H1 habitat consists of areas of highest biological significance, rarity, and sensitivity-alluvial scrub, coastal bluff scrub, dune, native grassland and scrub with a strong component of native grasses or forbs, riparian, native oak, sycamore, walnut and bay woodlands, and rock outcrop habitat types. Wetlands, including creeks, streams, marshes, seeps and springs, are also H1 habitat. Coast live and valley oak, sycamore, walnut, and bay woodlands are all included in H1 habitat. H1 habitat also includes populations of plant and animals species (1) listed by the State or Federal government as rare, threatened or endangered, listed by NatureServe as State or Global-ranked 1, 2, or 3, and identified as California Species of Special Concern, and/or (2) CNPS-listed 1B and 2 plant species, normally associated with H1 habitats, where they are found within H2 or H3 habitat areas.
- 2) H2 habitat consists of areas of high biological significance, rarity, and sensitivity that are important for the ecological vitality and diversity of the Santa Monica Mountains Mediterranean Ecosystem. H2 habitat includes large, contiguous areas of coastal sage scrub and chaparral-dominated habitats. A subcategory of H2 habitat is H2 "High Scrutiny" habitat, which comprises sensitive H2 habitat species/habitats that should be given avoidance priority over other H2 habitat. This habitat contains (1) CNDDB-identified rare natural communities; (2) plant and animal species listed by the State or Federal government as rare, threatened, or endangered; listed by NatureServe as State or Global-ranked 1, 2, or 3, and identified as California Species of Special Concern; and/or (3) CNPS-listed 1B and 2 plant species, normally associated with H2 habitats. H2 "High Scrutiny" habitat also includes (1) plant and

animals species listed by the State or Federal government as rare, threatened or endangered, listed by NatureServe as State or Global ranked 1, 2, or 3, and identified as California Species of Special Concern, and/or (2) CNPS-listed 1B and 2 plant species, normally associated with H1 habitats, where they are found as individuals (not a population) in H2 habitat.

Policy CO-34 of the Santa Monica Mountains Land Use Plan states:

H3 habitat consists of areas that would otherwise be designated as H2 habitat, but the native vegetation communities have been significantly disturbed or removed as part of lawfully-established development. This category also includes areas of native vegetation that are not significantly disturbed and would otherwise be categorized as H2 habitat, but have been substantially fragmented or isolated by existing, legal development and are no longer connected to large, contiguous areas of coastal sage scrub and/or chaparral-dominated habitats. This category includes lawfully-developed areas and lawfully-disturbed areas dominated by non-native plants such as disturbed roadside slopes, stands of non-native trees and grasses, and fuel modification areas around existing development (unless established illegally in an H2 or H1 area). This category further includes isolated and/or disturbed stands of native tree species (oak, sycamore, walnut, and bay) that do not form a larger woodland or savannah habitat. While H3 habitat does not constitute a SERA, these habitats provide important biological functions that warrant specific development standards for the siting and design of new development.

Policy CO-36 of the Santa Monica Mountains Land Use Plan states:

SERA habitat (H1 and H2) and H3 habitat categories are depicted on Map 2 Biological Resources of the Santa Monica Mountains LUP ("Biological Resources Map"). The precise boundaries of these habitat categories shall be determined on a site-specific basis, based on substantial evidence and a site-specific biological surveys inventory and/or assessment required by the LCP when a development proposal is submitted. This LCP contains a procedure, as enunciated in Policy CO-37, to both confirm the habitat types and locations depicted on the map and establish on the basis of substantial evidence the appropriate habitat category. Any area not designated as a habitat category on the Biological Resources Map that meets the criteria of a habitat category shall be accorded all the protection provided for that habitat category in the LCP.

Policy CO-40 of the Santa Monica Mountains Land Use Plan states:

Any area mapped as, or meeting the definition of, H1, H2, H2 High Scrutiny, or H3 habitat shall not be deprived of protection as that habitat category, as required by the policies and provisions of the LCP, on the basis that habitat has been damaged or eliminated by natural disaster (e.g. landslide, flooding, etc.), or impacted by illegal development or other illegal means, including removal, degradation, or elimination of species that are rare or especially valuable because of their nature or role in an ecosystem.

Policy CO-41 of the Santa Monica Mountains Land Use Plan states:

New non-resource-dependent development shall be prohibited in H1 habitat areas to protect these most sensitive environmental resource areas from disruption of habitat

values. The only exception is that two uses may be approved in H1 habitat other than wetlands in very limited circumstances, as follows: (1) public works projects required to repair or protect existing public roads when there is no feasible alternative, as long as impacts to H1 habitat are avoided to the maximum extent feasible, and unavoidable impacts are minimized and mitigated; and (2) an access road to a lawfully-permitted use outside H1 habitat when there is no other feasible alternative to provide access to public recreation areas or development on a legal parcel, as long as impacts to H1 habitat are avoided to the maximum extent feasible, and unavoidable impacts are minimized and mitigated. Any new development approved for one of these two uses within woodland or savannah habitat shall protect native trees in accordance with Policy CO-99.

The County shall not approve the development of any non-resource dependent use other than these two uses within H1 habitat, unless such use has first been considered in an LCP amendment that is certified by the Coastal Commission.

Policy CO-42 of the Santa Monica Mountains Land Use Plan states:

Resource-dependent uses are only allowed in H1 and H2 habitats where sited and designed to avoid significant disruption of habitat values, consistent with the policies of the LUP. Low-impact campgrounds, public accessways, and trails are considered resource-dependent uses. Resource-dependent uses shall be sited to avoid or minimize impacts to H1 and H2 habitat to the maximum extent feasible. Measures, including but not limited to, signage, placement of boardwalks, utilizing established trail corridors, following natural contours to minimize grading, and limited fencing shall be implemented as necessary to protect H1 and H2 habitat. Accessways to and along the shoreline shall be sited, designed, and managed to avoid and/or protect marine mammal hauling grounds, seabird nesting and roosting sites, sensitive rocky points and intertidal areas, and coastal dunes.

Policy CO-43 of the Santa Monica Mountains Land Use Plan states:

New development shall avoid H2 Habitat (including H2 High Scrutiny Habitat), where feasible, to protect these sensitive environmental resource areas from disruption of habitat values. H2 High Scrutiny Habitat is considered a rare and sensitive H2 Habitat subcategory that should be given protection priority over other H2 habitat and should be avoided to the maximum extent feasible. Where it is infeasible to avoid H2 habitat, new development shall be sited and designed to minimize impacts to H2 habitat. If there is no feasible alternative that can eliminate all impacts to H2 habitat, then the alternative that would result in the fewest or least significant impacts to H2 habitat shall be selected. Impacts to H2 habitat that cannot be avoided through the implementation of siting and design alternatives shall be fully mitigated.

Policy CO-44 of the Santa Monica Mountains Land Use Plan states:

New development shall be sited in a manner that avoids the most biologically-sensitive habitat onsite where feasible, while not conflicting with other LCP policies, in the following order of priority: H1, H2 High Scrutiny, H2, H3. Priority shall be given to siting development in H3 habitat, but outside of areas that contain undisturbed native vegetation that is not part of a larger contiguous habitat area. If infeasible, priority shall

be given to siting new development in such H3 habitat. If it is infeasible to site development in H3 habitat areas, development may be sited in H2 habitat if it is consistent with the specific limitations and standards for development in H2 habitat and all other provisions of the LCP. New development is prohibited in H1 habitat unless otherwise provided in Policy CO-41.

Policy CO-45 of the Santa Monica Mountains Land Use Plan states:

Emphasize the protection of habitat:

Preserve, protect, and enhance habitat linkages through limitations in the type and intensity of development and preservation of riparian corridors.

Place primary emphasis on preserving large, unbroken blocks of undisturbed natural open space and wildlife habitat areas. As part of this emphasis, all feasible strategies shall be explored to protect these areas from disturbance. Such strategies include, but are not limited to, purchasing open space lands, retiring development rights, clustering development to increase the amount of preserved open space, requiring the dedication of open space conservation easements in all CDPs that include approval of structures within H2 habitat, and minimizing grading and the removal of native vegetation.

Policy CO-46 of the Santa Monica Mountains Land Use Plan states:

Encourage the permanent preservation of steep lands (lands over 50 percent slope, as defined in this LCP) as open space, preferably through open space dedications to a public agency or a public land conservation agency which has the authority to manage, preserve, or enhance park and open space lands, or, secondarily, through effective easements.

Policy CO-47 of the Santa Monica Mountains Land Use Plan states:

Open space conservation easements and dedications shall be utilized, where required or offered, to ensure the preservation of habitats and habitat linkages. The receiving agency shall be a qualified public agency or land conservation agency with the ability to manage, preserve, or enhance park and open space lands. Financing for the long-term maintenance of such areas should be considered through endowments, assessments, or other public funding mechanisms.

Policy CO-49 of the Santa Monica Mountains Land Use Plan states:

Require development to be sited and designed to protect and preserve important, viable habitat areas and habitat linkages in their natural condition.

Policy CO-51 of the Santa Monica Mountains Land Use Plan states in relevant part:

Where new residential development is permitted in H3 habitat, the maximum allowable residential building site area shall be 10,000 square feet, or 25 percent of the parcel size, whichever is less.

Policy CO-54 of the Santa Monica Mountains Land Use Plan states in relevant part:

Use primarily locally-indigenous plant species in landscape areas within Fuel Modification Zones A and B of structure(s) requiring fuel modification. Non-locally-indigenous plants and gardens that are not invasive may be allowed within the building site area and in Fuel Modification Zones A and B, with associated irrigation, provided that the species are consistent with Fire Department requirements and all efforts are made to conserve water. Invasive plants are strictly prohibited. The removal or trimming, thinning or other reduction of natural vegetation, including locally-indigenous vegetation, is prohibited except when required for construction of an approved development and/or for compliance with fuel modification requirements for approved or lawfully-existing development. Los Angeles County will work with organizations, homeowners, and park agencies on educational programs to reduce the spread of invasive plant species within the Coastal Zone.

Policy CO-55 of the Santa Monica Mountains Land Use Plan states:

New development adjacent to H1 habitat shall provide native vegetation buffer areas to serve as transitional habitat and provide distance and physical barriers to human intrusion. Buffers shall be of a sufficient size to ensure the biological integrity and preservation of the H1 habitat areas they are designed to protect. New development shall provide a buffer of no less than 100 feet from H1 habitat. Variances or modifications to the required H1 habitat buffer width shall not be granted, except for a permitted use included in Policy CO-56. For streams and riparian habitat, the buffer shall be measured from the outer edge of the canopy of riparian vegetation. Where riparian vegetation is not present, the buffer shall be measured from the outer edge of the bank of the subject stream. For woodland habitat, the buffer shall be measured from the outer edge of the woodland tree canopy. For coastal bluff habitat, the buffer shall be measured from the bluff edge. For wetlands, the buffer shall be measured from the upland limit of the wetland. For all other H1 habitat, the buffer shall be measured from the outer extent of the vegetation that makes up the habitat.

Policy CO-56 of the Santa Monica Mountains Land Use Plan states:

New development, including but not limited to vegetation removal, vegetation thinning, or planting of non-native or invasive vegetation, shall not be permitted within the H1 habitat buffer with the exception of resource-dependent uses and the following uses in very limited circumstances: (1) public works projects required to repair or protect existing public roads when there is no feasible alternative, as long as impacts to H1 habitat are avoided to the maximum extent feasible, and unavoidable impacts are minimized and mitigated; (2) an access road to a proposed use which could be found consistent with the LCP when there is no other feasible alternative to provide access to public recreation areas or development on a legal parcel, as long as impacts to H1 habitat are avoided to the maximum extent feasible, and unavoidable impacts are minimized and mitigated; (3) a development on a lawfully-created parcel that is the minimum development necessary to provide a reasonable economic use of the property and where there is no feasible alternative, as long as impacts to H1 habitat are avoided to the maximum extent feasible, and unavoidable impacts are minimized and mitigated, and (4) continued use and maintenance of an existing, lawfully-established road or driveway to an existing, lawfully-established use.

Policy CO-57 of the Santa Monica Mountains Land Use Plan states in relevant part

New non-resource-dependent development shall also provide an additional 100-foot "Quiet Zone" from H1 habitat where feasible (measured from the outer edge of the 100foot H1 habitat buffer required above). New development is not permitted in the H1 habitat Quiet Zone except resource-dependent uses, non-irrigated fuel modification required by the Fire Department for lawfully-established structures, and the following other uses in very limited circumstances: (1) public works projects required to protect existing public roads when there is no feasible alternative, as long as impacts to H1 habitat and the H1 buffer are avoided to the maximum extent feasible, and unavoidable impacts are minimized and mitigated; (2) an access road to a lawfully-permitted use when there is no other feasible alternative to provide access to public recreation areas or development on a legal parcel, as long as impacts to H1 habitat and H1 buffer are avoided to the maximum extent feasible, and unavoidable impacts are minimized and mitigated; (3) a development on a lawfully-created parcel that is the minimum development necessary to provide a reasonable economic use of the property and where there is no feasible alternative, as long as impacts to H1 habitat and H1 buffer are avoided to the maximum extent feasible, and unavoidable impacts are minimized and mitigated...

Policy CO-63 of the Santa Monica Mountains Land Use Plan states:

New development adjoining parklands, where the purpose of the park is to protect the natural environment and SERAs, shall be sited and designed to minimize impacts to habitat and recreational opportunities to the maximum extent feasible. Natural vegetation buffer areas shall be provided around parklands. Buffers shall be of a sufficient size to prevent impacts to parkland resources, but in no case shall they be less than 100 feet in width. Variances or modifications to the required H1 habitat buffer width shall not be granted, except for a permitted use included in

Policy CO-56 of the Santa Monica Mountains Land Use Plan states:

New development permitted adjacent to parklands shall include open space conservation easements over the habitat areas outside the approved development site to ensure that impacts to the H1 and H2 habitat, H1 habitat buffer, or parkland buffer are avoided.

Policy CO-74 of the Santa Monica Mountains Land Use Plan states in relevant part:

New development shall be clustered to the maximum extent feasible and located as close as possible to existing roadways, services and other developments to minimize impacts to biological resources.

Policy CO-67 of the Santa Monica Mountains Land Use Plan states:

Coastal development permits for the development of uses allowed within or adjoining H1 and H2 habitat shall include an open space conservation easement over the remaining H1 habitat, H1 habitat buffer, or H2 habitat, in order to avoid and minimize impacts to biological resources.

Policy CO-77 of the Santa Monica Mountains Land Use Plan states:

New development in H2 and H3 habitat areas shall be sited and designed to minimize removal of native vegetation and required fuel modification and brushing to the maximum extent feasible in order to minimize habitat disturbance or destruction, removal or modification of natural vegetation, and irrigation of natural areas, while providing for fire safety. Where clearance to mineral soil is not required by the Fire Department, fuel load shall be reduced through thinning or mowing, rather than complete removal of vegetation. All vegetation removal, thinning and mowing required for new development must avoid disturbance of wildlife and special-status species, including nesting birds.

Policy CO-79 of the Santa Monica Mountains Land Use Plan states:

Access roads that are wholly new, incorporate any portion of an existing access road, or require the widening, improvement or modification of an existing, lawfully-constructed road in order to comply with County Fire Department access development standards shall comply with the following:

- a. No more than one access road or driveway with one hammerhead-type turnaround area providing access to the one approved building site area may be permitted as part of a development permitted in H2 habitat or H2 High Scrutiny habitat, unless a secondary means of access is specifically required by the Fire Department to protect public safety.
- b. An access road or driveway shall only be permitted concurrently with the use it is intended to serve, except for the approval of geologic testing roads.
- c. Grading, landform alteration, and vegetation removal for access roads and driveways shall be minimized to the greatest extent feasible. The length of the one access road or driveway shall be the minimum necessary to provide access to the one approved building site area on a legal parcel. The alignment and design of the access road or driveway shall avoid impacts to H1 and H2 habitat, or if avoidance is not feasible, shall minimize such impacts. In no case shall new on-site or off-site access roads, or driveways as measured from the nearest public road, exceed a maximum of 300 feet or one-third the parcel depth, whichever is less, unless the County finds, based on substantial evidence, that a variance of this standard is warranted.
- d. The width and grade of an access road or driveway and the size of the hammerhead turnaround approved shall be the minimum required by the Fire Department for that development project.

Policy CO-82 of the Santa Monica Mountains Land Use Plan states:

Fencing within H1 habitat, or within 100 feet of H1 habitat, is prohibited, except where necessary for public safety or habitat protection or restoration. Permitted fencing shall be wildlife-permeable, except where temporary fencing is required to keep wildlife from habitat restoration areas. Development permitted within H2 or H3 habitat may include fencing, if necessary for safety, limited to the immediate building site area, and extending no further than the outer extent of Fuel Modification Zone B (100 feet from structures

that require fuel modification). Fencing shall be wildlife-permeable. Perimeter fencing of a parcel, or barbed-wire or chainlink fencing, is prohibited.

Policy CO-86a of the Santa Monica Mountains Land Use Plan states in relevant part:

Unavoidable impacts to H1 habitat from the provision of less than a 100-foot H1 habitat buffer, and/or to H2 habitat from direct removal or modification, shall be compensated by the following, at a minimum.

- a. The County will administer a Resource Conservation Program ("RCP"), which shall consist of the expenditure of funds to be used for the acquisition and permanent preservation of land in the Santa Monica Mountains coastal zone containing substantial areas of H1 and/or H2 habitats. The County commits to expend no less than \$2,000,000 over a ten—year period. The RCP shall demonstrate that the lands preserved are, at a minimum, proportional to the habitats impacted from permitted development in area (acreage or partial acreage) and habitat value/function.
- b. For purposes of analyzing and implementing the RCP, and Policy CO-86b below, the County shall prepare a Habitat Fee Study within five years of certification of the LCP to determine the appropriate fees to adequately compensate for adverse impacts to H1 habitat from the provision of less than a 100 foot buffer, and to H2 habitat from direct removal or modification. The Habitat Fee shall be submitted to the Coastal Commission through an LCP amendment within five years of certification of the LCP. After the first five years following certification of the LCP, no CDPs that involve impacts to H1 habitat from the provision of less than a 100-foot H1 habitat buffer and/or to H2 habitat from direct removal or modification may be processed until the amount of the in-lieu fee pursuant to the study is incorporated into this LCP through an LCP amendment that is certified by the Coastal Commission.
- c. The County shall track and prepare an annual monitoring report at the end of each calendar year the RCP is in operation. The report for the calendar year shall itemize all acquisitions made that year, in addition to all of the following information:
 - An overview of each prospective year's acquisition priorities and approach;
 - A statement of the prior year's efforts in coordination with other agencies to enhance acquisition, preservation, protection, and connectivity of habitat and open space;
 - A summary of the land acquisitions made for that calendar year, including a breakdown of the location, area, habitat composition/classifications, and preservation mechanisms utilized for each acquisition;
 - The number of CDPs issued: a) in the previous year, and b) cumulatively since the starting date of the RCP;
 - The number of acres of each sensitive habitat classification allowed to be developed or otherwise impacted from issued CDPs: a) in the previous year, and b) cumulatively since the starting date of the RCP;

- The amount of the Habitat Impact fee determined appropriate for each CDP in accordance with the following:
 - 1. Current In-Lieu Fee: During the first five years following certification of the LCP, or u ntil an updated fee is certified through an LCP amendment, the County shall utilize the Coastal Commission's Habitat Impact Fee that was implemented through individual coastal development permit actions prior to certification of the LCP, adjusted for inflation. The current fee amounts are:
 - \$15,500 per acre for the approved building site area, driveway/access roads and turnarounds areas, any required irrigated fuel modification zones, and required off-site brush clearance areas (assuming a 200-foot radius from all structures). \$3,900 per acre for non-irrigated fuel modification areas (onsite).
 - 2. Updated In-Lieu Fee: The amount of the Habitat Impact Fee, approved through an amendment to the LCP pursuant to subsection b above, shall be used and adjusted for inflation annually.
- A table or tables depicting the cumulative acreage of impact from issued CDPs in relation to the acreage acquired and preserved pursuant to the RCP, the cumulative amount of the Habitat Impact Fee that would otherwise have been required for the issued CDPs, and monies spent and monies remaining under the RCP. All acres of habitat shall be categorized by the number of acres of each sensitive habitat classification impacted/acquired; and
- A summary of other restoration or enhancement efforts in the Santa Monica Mountains, such as TDCs, donation of other property, and grants for further funding of the RCP.

The County shall review each annual monitoring report to analyze progress achieved in relation to the habitat impacts of CDPs approved by the County. The County shall provide a copy of the annual monitoring report for the review of the Executive Director of the Coastal Commission.

- d. If, as a result of this annual review anytime during the ten-year period, the County determines that the RCP has not met the goals of providing adequate and proportional compensation for impacts to H1 and/or H2 habitat; that the cumulative amount of the Habitat Impact Fee required pursuant to issued CDPs exceeds the minimum \$2,000,000; or that the County has elected to discontinue the RCP, the County shall initiate an LCP amendment to modify this policy, in coordination with Coastal Commission staff.
- e. If, at the end of the ten year period, the County implements an extension of the RCP, or a similar program, the terms of such a program shall be incorporated into this section through an LCP amendment certified by the Coastal Commission. Any expenditures exceeding \$2,000,000 for the purchase and preservation of habitat over the ten-year period shall be credited proportionately to the new RCP term.

Policy CO-87 of the Santa Monica Mountains Land Use Plan states:

Mitigation for unavoidable permanent impacts to H1 habitat for one of the non-resource-dependent uses allowed by Policy CO-41 shall be provided, at a minimum, through the restoration and/or enhancement of like habitat type, at the ratio of 4:1 (acres of restored habitat to each acre of impacted H1 habitat) for wetland habitat, or the ratio of 3:1 (acres of restored habitat to each acre of impacted H1 habitat) for all other H1 habitat types. Priority shall be given to onsite restoration or enhancement, unless there is not sufficient area of disturbed habitat on the project site, in which case off-site mitigation may be allowed. The area of off-site habitat to be restored shall be permanently preserved through the recordation of an open space deed restriction or conservation easement. The County shall coordinate with other public agencies and/or qualified non-profit land preservation organizations to establish priorities for offsite restoration and enhancement efforts, where appropriate, for proposed development projects lacking adequate onsite mitigation opportunities.

Policy CO-94 of the Santa Monica Mountains Land Use Plan states:

Exterior lighting (except traffic lights, navigational lights, and other similar safety lighting) shall be minimized, restricted to low-intensity features, shielded, and cause no light to trespass into native habitat to minimize impacts on wildlife. Night lighting for development allowed in H2 or H3 habitat may be permitted when subject to the following standards.

- a. The minimum lighting necessary shall be used to light walkways used for entry and exit to the structures, including parking areas, on the site. This lighting shall be limited to fixtures that do not exceed two feet in height, that are directed downward, and use bulbs that do not exceed 60 watts, or the equivalent. All other lighting of driveways or access roads is prohibited.
- b. Security lighting shall be attached to the residence or permitted accessory structures that is controlled by motion detectors, and is limited to 60 watts, or the equivalent.
- c. Night lighting for sports courts or other private recreational facilities shall be prohibited except for minimal lighting for equestrian facilities as provided for in CO-103.
- d. Lighting is prohibited around the perimeter of the parcel or for aesthetic purposes.
- e. Prior to issuance of a CDP, the applicant shall be required to execute and record a deed restriction reflecting the above restrictions. Public agencies shall not be required to record a deed restriction, but may be required to submit a written statement agreeing to any applicable restrictions contained in this subsection.

Policy CO-117 of the Santa Monica Mountains Land Use Plan states:

Require open space easements or deed restrictions as part of development projects on sites containing SERAs in order to ensure that approved building site areas are limited and impacts to coastal habitat are minimized.

Policy CO-96 of the Santa Monica Mountains Land Use Plan states:

All new development shall be sited and designed to minimize required fuel modification and brushing to the maximum extent feasible in order to minimize habitat disturbance or destruction, removal or modification of natural vegetation, and irrigation of natural areas, while providing for fire safety. Development shall utilize fire-resistant materials. Alternative fuel modification measures, including but not limited to landscaping techniques to preserve and protect habitat areas, buffers, designated open space, or public parkland areas, may be approved by the Fire Department only where such measures are necessary to protect public safety. All development shall be subject to applicable federal, State and County fire protection requirements.

Policy CO-98 of the Santa Monica Mountains Land Use Plan states:

Applications for new development shall include the total acreage of natural vegetation that would be removed or made subject to thinning, irrigation, or other modification by the proposed project, including building pad and road/driveway areas, as well as required fuel modification on the project site and brush clearance on adjoining properties.

Policy CO-99 of the Santa Monica Mountains Land Use Plan states:

New development shall be sited and designed to preserve oak, walnut, sycamore, bay, or other native trees to the maximum extent feasible that are not otherwise protected as H1 or H2 habitat and that have at least one trunk measuring six inches or more in diameter, or a combination of any two trunks measuring a total of eight inches or more in diameter, measured at four and one-half feet above natural grade. Removal of native trees shall be prohibited except where no other feasible alternative exists. Development shall be sited to prevent any encroachment into the protected zone of individual native trees to the maximum extent feasible, as set forth below. Protected Zone means that area within the dripline of the tree and extending at least five feet beyond the dripline, or 15 feet from the trunk of the tree, whichever is greater. Removal of native trees or encroachment in the protected zone shall be prohibited for accessory uses or structures. If there is no feasible alternative that can prevent tree removal or encroachment, then the alternative that would result in the fewest or least-significant impacts shall be selected. Adverse impacts to native trees shall be fully mitigated, with priority given to on-site mitigation. Mitigation shall not substitute for implementation of the feasible project alternative that would avoid impacts to native trees and/or woodland habitat.

When unavoidable adverse impacts to native trees will result from permitted development, the impacts must be mitigated in accordance with the following standards and subject to a condition of approval requiring a native tree replacement planting program:

Table 1. Native Tree Mitigation

Impact	Mitigation Ratio (no. of replacement trees required for every 1 tree impacted/removed)	
Removal	10:1	
> 30% encroachment into protected zone	10:1	
Encroachment that extends within 3 ft. of tree trunk	10:1	
Trimming branch over 11 in. diameter without encroachment within 3 ft. of tree trunk	5:1	
10-30% encroachment into protected zone without encroachment within 3 ft. of tree trunk	5:1	
< 10% encroachment into protected zone and without encroachment within 3 ft. of tree trunk	None. Monitoring required.	

Where development encroaches into less than 30 percent of the protected zone of native trees, each affected tree shall be monitored annually for a period of not less than 10 years. An annual monitoring report shall be submitted for review by the County for each of the 10 years. Should any of these trees be lost or suffer worsened health or vigor as a result of the proposed development, the applicant shall mitigate the impacts at a 10:1 ratio with seedling-sized trees.

Policy CO-100 of the Santa Monica Mountains Land Use Plan states:

New development on sites containing oak, walnut, sycamore, bay, or other native trees shall incorporate the following native tree protection measures:

- d. Protective fencing shall be used around the outermost limits of the protected zones of the native trees within or adjacent to the construction area that may be disturbed during construction or grading activities. Before the commencement of any clearing, grading, or other construction activities, protective fencing shall be placed around each applicable tree. Fencing shall be maintained in place for the duration of all construction. No construction, grading, staging, or materials storage shall be allowed within the fenced exclusion areas, or within the protected zones of any onsite native trees.
- e. Any approved development, including grading or excavation, that encroaches into the protected zone of a native tree shall be undertaken using only hand-held tools.
- f. The applicants shall retain the services of a qualified independent biological consultant or arborist, approved by the Director, to monitor native trees that are within or adjacent to the construction area. Public agencies may utilize their own staff who have the appropriate classification. If any breach in the protective fencing occurs, all work shall be suspended until the fence is repaired or replaced.

Policy CO-117 of the Santa Monica Mountains Land Use Plan states:

Require open space easements or deed restrictions as part of development projects on sites containing SERAs in order to ensure that approved building site areas are limited and impacts to coastal habitat are minimized.

Policy CO-118 of the Santa Monica Mountains Land Use Plan states:

When development conditions of approval set aside lands for open space, clearly define the land's intended open space functions and ensure that the management and use of such lands are consistent with those intended open space functions.

Policy CO-120 of the Santa Monica Mountains Land Use Plan states:

Require that any new development or improvement is sited and designed so required fuel modification or brush clearance does not encroach into dedicated open space or parkland where feasible.

Policy CO-121 of the Santa Monica Mountains Land Use Plan states:

Pursue a variety of methods to preserve open space, including fee-simple acquisition, purchase of development rights, land swaps, regulations, or development density and lot retirement incentives. For County, State, and federal funds that may be earmarked for open space, assign high priority to acquiring properties designated on the National Park Service's Land Protection Plan, and to parcels within H1 and H2 habitat areas.

Policy CO-122 of the Santa Monica Mountains Land Use Plan states:

Implement legal protections, such as deed restrictions and dedication of open space easements, to ensure designated open space lands are preserved in perpetuity.

Policy CO-123 of the Santa Monica Mountains Land Use Plan states:

When accepting open space dedications, prioritize acquisitions to those lands that contain unique ecological features; protect undeveloped streams, watersheds, woodlands, and grasslands; prevent vegetation clearance or grading of steep areas; help reduce development-induced runoff; and protect existing and approved recreation areas.

Policy CO-139 of the Santa Monica Mountains Land Use Plan states:

Cut and fill slopes and other areas disturbed by construction activities shall be landscaped or revegetated prior to the beginning of the rainy season, unless the County Biologist determines that another time would be more advantageous for the long-term success of the vegetation included in the landscaping/revegetation project. All such landscaping/vegetation shall include only native, drought-tolerant plant species that blend with the existing natural vegetation.

Policy CO-146 of the Santa Monica Mountains Land Use Plan states:

Encourage the undergrounding of all existing and future utilities as funding is available.

Please see pages 1 through 11 of Appendix 2 for applicable Santa Monica Mountains Implementation Plan provisions.

1. Site Specific Biological Resource Information

The subject properties cover an approximately 151-acre area of undeveloped ridgeline mountain terrain located on the southern flank of the Santa Monica Mountains about a mile inland from Pacific Coast Highway and the coast. This ridgeline extends inland approximately 2.18 miles from the narrow coastal terrace traversed by Pacific Coast Highway to the backbone crest of the Santa Monica Mountain Range. The area is undeveloped and comprised of steep, rugged mountainous terrain that is blanketed by various natural rock outcroppings and primarily undisturbed native chaparral habitat that is part of a large contiguous area of undisturbed native vegetation. To the west of the ridge is a prominent south-trending canyon that contains a USGS-designated blue-line stream. Another blue-line stream exists in a canyon bottom downslope to the east. The nearest developments in the vicinity are residential enclaves of Serra Retreat located within the municipal limits of the City of Malibu approximately a half mile to the southwest.

The Santa Monica Mountains LCP requires sensitive environmental resource areas (SERAs) to be protected against significant disruption. Under the Coastal Act, sensitive habitat areas are designated as "Environmentally Sensitive Habitat Areas" (ESHA). The equivalent terminology for sensitive habitat areas within the Santa Monica Mountains LCP is "Sensitive Environmental Resource Areas" (SERAs). The LUP defines SERAs as "areas containing habitats of the highest biological significance, rarity, and sensitivity". SERAs are further divided into two habitat categories: H1 habitat and H2 habitat, depending on the characteristics of the underlying habitat. Both of these habitat types are considered to be ESHA under the Coastal Act. LUP Policy CO-33 and Section 22.44.1810(A) of the LIP provide the distinction between the two habitat categories, and also describes a subcategory of H2 Habitat, H2-High Scrutiny Habitat. LUP Policy CO-34 defines H3 habitat, which are areas that would otherwise be designated as H2, but the native vegetation communities have been significantly disturbed or removed as part of lawfully-established development.

Policy CO-37 and LIP Section 22.44.1830, defines the process for evaluating and designating on-site habitat categories and states "as part of the CDP process, the County shall determine the physical extent of habitats on the project site that meet the definition of any of the habitat categories of Section 22.44.1810, based on a site-specific biological inventory and/or biological assessment, available independent evidence, and review by the department biologist and ERB, as required in Section 22.44. 1830." Policy CO-70 requires applicants to submit a site specific biological assessment where the project site contains H1 or H2 habitat. Therefore staff has evaluated the on-site habitat categories as part of this CDP based on the biological reports provided by the applicant.

These biological reports, listed in the Substantive File Documents, address the habitats present on the project site. The reports identify vegetation/habitat communities on the project sites, including Mixed Chaparral, Coastal Scrub, Grassland, Rocky Outcrops, and Ruderal Vegetation. The reports also state that several widely-scattered coast live oak trees are present on several of the properties, but notes that they do not form woodland communities. Additionally, both the Catalina Mariposa Lily (*Calochortus catalinae*) and Plummer's Mariposa Lily (*Calochortus*

plummerae) are present at the project site (both of which are designated as CRPR 4 "special status" on the California Native Plant Society Inventory). A map of the habitats on the sites was also prepared by the biological consultant. The mapped ruderal and disturbed communities are primarily situated in the areas of the existing access route and the parts of the proposed development areas that have been traversed for site reconnaissance and geologic testing. In addition, areas on the Ronan and Lunch properties are identified as grassland, with purple needlegrass (*Stipa pulchra*) present, which constitutes H1 Habitat. Rock outcrops, which also constitute H1 habitat, are located throughout the subject properties. However, the majority of onsite vegetation is mapped as mixed chaparral, H2 Habitat.

2. Disturbed areas of the Project Sites

As described above, the project sites consist of primarily undisturbed native habitats. However, there are areas that have been disturbed in the past along a pilot access road on the project sites and along the water line alignment within the applicants' easement area.

a. Existing Pilot Access Road

In 2004, the Commission approved CDP No. 4-01-108 to improve an existing 1,750 ft. long jeep trail to provide access to the Lunch parcel for geologic testing purposes. The approved pilot access road (part of which was approved by the Commission and part of which was approved by the City of Malibu) traversed north from the terminus of Sweetwater Mesa Road in the City of Malibu, across three parcels within the jurisdiction of the City of Malibu, and across two of the subject parcels (Vera and Mulryan). Special conditions of the Commission's permit approval required revegetation of graded and disturbed slopes, erosion control and drainage measures, and City of Malibu approval of the improvements within their jurisdiction. The applicant performed the rough-grading of the pilot access road from July through September 2006. Due to the fact that the pilot road followed an old jeep trail that pre-dated the effective date of the Coastal Act, the Commission only required re-vegetation of the disturbed slopes on either side of the 10-ft. wide trail/road upon completion of final grading, and a 5 year monitoring report, as part of the CDP. It does not appear that the disturbed slopes of the pilot road were ever re-vegetated as required by the permit.

b. Water Line Alignment

The proposed water line alignment offsite and north of the subject properties is also situated in undisturbed native mixed chaparral habitat areas that are part of a large expanse of undisturbed, contiguous native mixed chaparral habitat, with rock outcrops. As such, the proposed waterline would be constructed in areas that have been designated as both H1 habitat buffer area and H2 habitat, with the exception of the northernmost approximately 1,200 ft. portion of the water line alignment, which follows Costa Del Sol Way. The existing dirt road that the water line follows just south of Costa Del Sol Way contains non-native ruderal species, but that road is unpermitted, and thus, the conditions associated with the presence of that road cannot be considered the baseline ecological condition for analyzing impacts. Prior to the unpermitted grading of the dirt road, the area had been undisturbed native chaparral vegetation, similar to that of the surrounding area. According to permit records and aerial photographs dating back to 1975, the existing unpaved dirt road that the proposed water line follows just south of Costa Del Sol Way is unpermitted. The road does not appear in aerial photos dating from 1975 through 1980. The dirt road appears in aerial photographs from 1983 to present, which indicates that it was rough-graded at some point between 1980 and 1983 (no known photos are available between

July 1980 and November 1983). However, there is no record of a coastal development permit being applied for or granted for this development. The dirt road traverses two parcels: APNs 4453-001-029 and 4453-001-030. In 1989, the Commission approved CDP No. 5-89-133 for construction of a single family residence on APN 4453-001-029, and CDP No. 5-89-260 for construction of a single family residence on APN 4453-001-030. The approvals included the extension of Costa Del Sol Way to provide access to each of the residences. However, the approved residential developments and access road are not located in the area of the existing dirt road where the water line is now proposed. Although the dirt road appears on topographic site plans for the approved developments, the applicants did not include the grading of the road as part of the project description for either of the two permit applications. Further, the dirt road was not discussed, labeled, or described in the Commission analysis and findings on those permits. Since the road was not specifically approved in the Commission actions (and in fact was not even recognized in the findings), it must be concluded that no determination was made by the Commission at that time regarding the road's legality.

As such, the Commission finds that the existing dirt road is unpermitted and cannot be considered the baseline ecological condition for analyzing impacts. Prior to the unpermitted grading of the road, the area had been undisturbed native chaparral vegetation, similar to that of the surrounding area. As mentioned above, in 1989, the Commission approved residential development on the parcels of land that the dirt road traverses. One of the residences has been built, but no portion of the development or required fuel modification extends into the area of the on-site dirt road. The other approved residence was never built and the permit has since expired, however, even if it had been built, the approved development does not extend into the area of the dirt road, except for a small portion of residence's fuel modification radius.

Prior to the unpermitted grading of the road, the area had been undisturbed native chaparral vegetation, similar to that of the surrounding area. Given the location of approved development on the properties that the road traverses, the road should have remained undisturbed native chaparral vegetation. As such, the proposal to utilize the existing dirt road to install the water line and access the line for maintenance must be considered a new impact for purposes of analyzing the biological impacts of the proposal.

In summary, with the exception of the 10 ft. wide jeep trail leading up to it, the entire 151 acres that make up the subject properties is comprised of relatively pristine native chaparral, sage scrub, grassland, habitat areas, which constitute H1, H2, and H2-High Scrutiny (ESHA). In addition, a large expanse of undisturbed, contiguous native chaparral, sage scrub, and oak woodland habitat surrounds the subject properties. Further, the proposed water line alignment north of the subject properties is also situated in undisturbed native mixed chaparral habitat areas with rock outcrops that are part of a large expanse of undisturbed, contiguous native mixed chaparral habitat, with the exception of the northernmost approximately 1,200 ft. portion of the water line alignment, which follows the paved Costa Del Sol Way.

3. Determination of Sensitive Environmental Resource Areas Designation

The LUP Biological Resources Map shows the SERAs designated on the project sites (Exhibit 19). H1, H2 High Scrutiny, and H2 habitats are designated. The H1 areas designated on the project site are primarily comprised of riparian, grassland, and rock outcrop habitats. There are large areas of H2 High Scrutiny habitat designated which are comprised of chaparral habitat that

contains rare plant or animal species. Finally, the project sites contain large areas of H2 chaparral habitat.

The Commission's ecologist, Dr. Jonna Engel has reviewed the LCP SERA map for the project site area, the applicants' biological reports, and has conducted site visits. Dr. Engel has prepared a memo update (Exhibit 17) and its findings are incorporated as though stated in full herein. Based on this review, Dr. Engel concludes that the LCP SERA Map accurately depicts the H1, H2, and H2 High Scrutiny habitats present on the site. Dr. Engel agrees with the consulting biologist's conclusions that the purple needlegrass present on the "mesa" area of the site meets the LCP definition and therefore constitutes H1 habitat (ESHA).

4. Project Impacts/Siting and Design Alternatives to Avoid and Minimize Impacts

The proposed residences have been sited and designed to avoid direct impacts to H1 purple needlegrass and rock outcrop habitat. However, there are several areas where neither the 100-foot H1 buffer nor the 100 foot H1 Quiet Zone required by LUP Policy CO-55 and 57 can feasibly be provided between development and H1 habitat areas. In particular, the Lunch and Ronan residences do not provide the required H1 buffer or Quiet Zone from the purple needlegrass H1 areas. H1 rock outcrop habitat is also located within in fuel modification zone of the proposed residences. As such, while the structures will not directly remove or impact H1 habitat, the fuel modification required by the Fire Department will extend into and impact H1 habitat.

Portions of the proposed access road and fire department staging area will also be located within H1 buffer areas. As proposed, portions of the proposed waterline will be located directly within H1 rock outcrop habitat within the applicants' easement area (north of the project site). The applicants have, however, indicated that it is feasible to avoid direct impacts to this H1 rock outcrop habitat by modifying the construction methodology. As such, **Special Condition Twenty-two (22)** requires the applicants to submit revised plans which avoid all direct impacts to H1 rock outcrop habitat located within the waterline construction footprint, as depicted on Exhibit 23 of this staff report. The waterline will also directly impact areas of H2 habitat, although the applicants propose to revegetate all such areas after construction.

In order to avoid and minimize impacts to SERA, the applicants considered siting and design alternatives. Such alternatives also had to consider geologic constraints as well as visual resource protection constraints. If the proposed residences were not located in a clustered configuration, impacts to SERA, visual, and scenic resources would greatly increase. In comparison to the previously proposed project (2011) the currently proposed development configuration reduces the amount of habitat impacts by 51% and reduces the amount of total grading by 43%.

5. Takings Analysis

a. Consistency Analysis

The LCP provisions for the protection of SERA Require Denial of at Least Some Aspects of the Permit Applications.

The proposal primarily involves residential development within H2 habitat. The LCP generally requires that such development be avoided, but it does allow for such development if (1) it is infeasible to avoid those impacts and still provide a reasonable economic use of the property (a

"takings" standard), and (2) the location and design of the development minimizes impacts to H2 (LUP Policy CO-43 / LIP § 22.44.1910.C). Similarly, some aspects of the proposal would involve development within the normally-required 100-foot buffer and 100-foot quiet zone for H1 habitat, and the former is inconsistent with H1 *buffer* protections *unless* (1) allowing such impacts is necessary to avoid a taking, (2) there is no feasible alternative, and (3) the impacts are avoided to the maximum extent feasible (LUP Policy CO-56 / LIP § 22.44.1890.D). Thus, assessing the permissibility of both types of impacts requires a takings analysis.

In addition, although the proposal does not involve placing any structures directly within H1 habitat, the two most northerly houses would require fuel modification, which is itself development, directly within H1 habitat. The LCP prohibits such development and does not include exceptions similar to those discussed in the prior paragraph. Thus, approving those houses in that location would conflict with the LCP. However, when a proposed project's inherent inconsistencies with the applicable standard of review would otherwise require the Commission to deny the project, the Commission must first consider Section 30010 of the Coastal Act, which prohibits the Commission from exercising its power to grant or deny a permit in a manner that will take or damage private property for public use without just compensation. Section 30010 is a statutory prohibition against unconstitutional takings, and does not provide additional property rights above and beyond the rights already afforded by the California and U.S. Constitutions. (Pub. Res. Code §30010.) It does, however, mandate that if the Commission concludes that a denial or a conditional approval would constitute a taking, it must approve some additional level of development, even if the development is otherwise inconsistent with the applicable standard of review. Thus, once again, the Commission must perform a takings analysis.

Specifically, the commission must attempt to determine how much development must be allowed in order to avoid a taking. The following general principles are instructive.

i. Takings Law

The California Constitution prohibits taking or damaging of private property for public use without first paying just compensation. (Cal. Const. Art. I §19(a).) The federal Constitution prohibits a taking of private property for public use without just compensation. (U.S. Const. 5th Amend.) Despite the slightly different wordings, the two "takings clauses" are construed congruently, and California courts have analyzed takings claims under decisions of both state and federal courts. (*San Remo Hotel v City and County of San Francisco* (2002) 27 Cal. 4th 643, 664.) The "damaging private property" clause in the California Constitution is generally not implicated by regulatory takings cases, and is not relevant to the current analysis.

Consequently, although the Commission is not a court and may not ultimately adjudicate whether its denial of an application would constitute a taking, the LCP requires the Commission to assess whether such a denial might constitute a taking so that the Commission may act in such a manner as to avoid that outcome. In conducting this assessment, the Commission finds the cases of *Lucas v. South Carolina Coastal Council* 505 U.S. 1003 (1992) [land use regulations denying all economic use of a parcel take the parcel] and *Penn Central Transportation Co. v. City of New York* 438 US 104 (1978) [in the absence of a denial of all economic use, ad hoc balancing test used to determine if a take of the property has occurred] to be especially important, and they are discussed in detail below.

However, as a threshold matter, before the takings issue can be analyzed, it is necessary to define the property interest against which any taking claim would be measured. In some cases, this is not an issue because there is a single, readily identifiable parcel of property on which development is proposed. The issue is complicated in cases where a landowner owns or controls multiple, adjacent or contiguous parcels all of which are related to the proposed development. In these circumstances, courts will analyze whether the lots are sufficiently related so that they can be aggregated as a single parcel for purposes of the takings analysis. As the U.S. Federal Circuit Court of Appeals put it, when a developer "treats legally separate parcels as a single economic unit, together they may constitute the relevant parcel." (Forest Properties, Inc. v. U.S., 177 F.3d 1360, 1365 (Fed. Cir. 1999)) This principle is therefore sometimes referred to as the "single economic parcel" principle. In determining whether lots should be aggregated, courts have looked to a number of factors such as unity of ownership, the degree of contiguity among the lots, the dates of acquisition, and the extent to which the area has been treated as a single unit (e.g., District Intown Properties, Ltd. v. District of Columbia (D.C.Cir.1999) 198 F.3d 874, 879-880 [nine individual lots treated as single parcel for takings purposes]; Ciampitti v. United States (Cl.Ct. 1991) 22 Cl.Ct. 310, 318). The Commission conducted such an analysis when development of the subject site was before it in 2011, and it concluded as follows:

there is substantial evidence of sufficient unity of ownership of at least three parcels, and with the other criteria for aggregation being satisfied, [the Commission] must treat the relevant area for its takings analysis as something less than the five separate parcels presented by the applicants.

May 26, 2011 Staff Report at 102. As the facts relevant to the factors listed above have not changed in any significant way in the intervening period, the Commission adopts the same conclusion and hereby incorporates the findings relative to this issue by reference. See Appendix 3.

Lucas v South Carolina Coastal Council

Lucas applies in a narrow set of circumstances when application of the challenged regulation would deprive the property owner of all economic value of a parcel. In Lucas, a property owner owned two parcels of beachfront land in an area already largely developed but prone to severe storm damage. Shortly after Lucas purchased the parcels in question, South Carolina enacted a state statute effectively prohibiting development of such parcels. The South Carolina Supreme Court reasoned that development in such high hazard areas would be tantamount to creation of a nuisance, and could thus be prohibited under state law. (Lucas, supra, 505 US at 1010.) The United States Supreme Court reversed, holding that in order to withstand a claim based on the federal takings clause, the regulation would have to be merely prohibiting a use that was already forbidden under "background principles of nuisance and property law" at the time the property was acquired—the state could not preemptively declare the prospective development in question a nuisance and then prohibit it. (Id. at 1030-1031)

While finding a taking had occurred under the facts presented in *Lucas*, the Supreme Court's reliance on "background principles" of nuisance and property law allows for affirmative defenses to a takings claim. An affirmative defense would arise if the state could demonstrate the proposed use was prohibited under the state's "background principles" when the owner took title to the property. If the owner lacked a right to develop the property in the manner proposed, then government prohibition of that development did not take any property rights from the owner-those rights never existed, so therefore could not be taken. The Court thus saw the discussion of

"background principles" as the "logically antecedent inquiry into the nature of the owner's estate." (*Lucas, supra*, 505 US at 1027.) Thus, prior to determining whether denying all non-resource dependent development under Section 30240 would result in the take of the Sweetwater Mesa project site and thus violate Section 30010, the Commission will undertake the "logically antecedent inquiry" as to whether any "background principles" would likely defeat a potential takings claim, in which case the Commission would be required to apply Section 30240 to its full effect and deny the permit application.

Background Principles of California Nuisance and Property Law

There is no evidence that construction of a residence on the project site would create a nuisance under California law. (See Civil Code Sections 3479-3486.) Other houses have been constructed in similar habitat areas in Los Angeles County, apparently without the creation of legal nuisances. Furthermore, the use that is proposed is residential, rather than, for example, industrial, which tends to have inherently less potential for the creation of a legal nuisance in a mountainous setting such as the project site.

Next the Commission turns to the question of "background principles" of state property law. Since the *Lucas* ruling, a number of federal and state courts have elaborated on the concept of "background principles" and have found that various common law and statutory "background principles" (arising under both federal and state law) provide affirmative defenses to takings claims. However, none of the common law or statutory "background principles" that have been used as successful affirmative defenses to a *Lucas* takings claim are applicable here. Therefore, to avoid a "*Lucas* taking," and consistent with past Commission actions in the Santa Monica Mountains, the Commission must allow enough development of the project site to ensure that it is not depriving the property owner of *all* of the economic value of the single or of any of the multiple parcels that form the appropriate unit of analysis, despite such development being inconsistent with the LCP.

However, simply authorizing the amount necessary to avoid a *Lucas* taking (enough to preserve some economic value) may not be adequate under other takings law, so that law must be analyzed as well.

Penn Central Transportation Co. v. City of New York

Penn Central Transportation Co. v. City of New York 438 US 104 (1978) ("Penn Central") applies when the government is proposing some restrictions on use of a property but is not denying all economic use of that property. Since the Commission is placing significant restrictions on the use of the subject Sweetwater Mesa site, but is allowing a level of development sufficient to avoid a Lucas claim, the Commission next considers the ad hoc takings test found in Penn Central. Penn Central requires an assessment of the owner's distinct (i.e., reasonable) investment backed expectations for the property; the nature of the government action; and the economic impact of the action. Under the current circumstances, the first question is by far the most important. Thus, the key question for purposes of the constitutional takings analysis centers on the reasonable investment backed expectations of the applicants.

Penn Central held that mere government denial of the most intensive or most profitable use of the property does not in itself constitute a taking of the property. (*Penn Central, supra* 438 US at 130-136.) Unlike the *Lucas* analysis, which determines whether government action denies all use

of the property, the focus of the *Penn Central* approach is whether the regulatory action, while preserving some economic use of a parcel, nonetheless "goes too far" and thereby crosses a constitutional line into a taking. (See *Pennsylvania Coal v. Mahon* 260 US 393, 416 (1922).) Courts have generally permitted a regulation or a regulatory action to cause a substantial amount of diminution in value without finding a taking under *Penn Central*. (See for example *William C. Haas v. City and County of San Francisco* (9th Cir. 1979) 605 F. 2d 1117 [95% diminution in value not a taking]; see also *Rith Energy v. United States* (Fed. Cir. 2001) 270 F. 3d 1347 [91% diminution in value not a taking].)

ii. What are the reasonable investment backed expectations of the applicants?

For purposes of the *Penn Central* analysis, courts typically look to existing laws and regulations governing use of the parcel at the time it was acquired to help determine the owner's reasonable investment backed expectations, essentially treating all existing law at the time of acquisition as background principles for the purpose of the *Penn Central* analysis. (See *Palazzolo v. Rhode Island* 533 US 606, 633 (2001)(O'Connor, J., concurring); see also *Guggenheim v. City of Goleta* 638 F. 3d 1111 (9th Cir. 2010) [distinct, investment-backed expectation necessarily implies the expectation is a reasonable probability given the state of the law at the time of acquisition.])

The applicants all purchased the properties at issue on the same day in 2005. At the time of purchase, the Coastal Act (including the strict provisions of Section 30240) had been in effect for decades, and the Commission had been using the certified Malibu Land Use Plan (LUP) as guidance for permit decisions in the Santa Monica Mountains since 1986. The Commission had routinely allowed development of a single family home on an all-ESHA parcel in the Santa Monica Mountains to avoid a taking, but had prohibited any more intensive development. Thus, since the applicants purchased six legally separate parcels, all six of which are all ESHA, the applicants could not logically have a reasonable investment backed expectation to anything more than six homes, one on each separate legal parcel.

However, simply adding up the number of legally created parcels is not dispositive for purposes of determining reasonable investment backed expectations in this case. For one thing, the physical realities of this site suggest that reasonable investment backed expectations for its development should be considerably lower than six estate homes spread out to the far corners of the project site, and lower than the sprawling five-unit subdivision originally proposed. The 2011 staff report details the challenges in developing the site. In addition to the 100% ESHA designation of the site and the fact that the proposed project would extend deep into and would bifurcate an even larger currently undisturbed ESHA, the site is generally extremely steep, prone to severe wildfires, contains a visually prominent ridgeline, and has several geologically unstable areas. The access road alone would cause significant environmental impacts as it traverses the steep terrain, especially on the northern half of the property. Given the steepness and prominence of the site above Malibu, the access road (including several large graded "staging areas" required for fire department access to the steep, fire-prone site) and any homes

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³ The project site appears as a visibly prominent notch in the ridge framing the skyline from numerous vantage points in the City of Malibu.

located on Sweetwater Mesa would be highly visible from public vantage points and would intrude upon a sweeping mountain vista, again especially so for the Morleigh and Ronan parcels. The Ronan parcel in particular is so ill-suited to development in its natural state that it would require a heavily engineered transformation of the "essential natural character" of the site as a steep, remote, inaccessible mountainside to permit its development. (See *Just v. Marinette County* (1972) 56 Wis. 2d 7, 17.)

In addition, although there are six separate legal lots involved in this application, as noted above, in 2011, when five of those lots were before the Commission, the Commission found that "the relevant area for its takings analysis [was] something less than the five separate parcels presented by the applicants." That conclusion was based on established law regarding the single economic parcel theory. At the same time, however, in 2005, the Commission had rarely relied on that theory to limit the allowable development of separate legal lots to less than a separate economically viable use on each lot.

Finally, although the applicants sued over the project denial in 2011, the settlement of the litigation and revised development proposal now under consideration reflect the evolution of both parties' thinking about the site, and what a "reasonable" development on such a challenging site would look like. As a general matter, the project has been revised in such a way as to greatly reduce the amount of grading (43%) as well as the impacts to biological resources and to visual resources. This is largely the result of two related features of the current (2015) proposal that stand out in comparison to the 2011 proposal. The first obvious difference is that proposed development has been virtually eliminated from the northern half of the site under the 2015 proposal. The 2011 staff report noted that elimination of then-proposed Morleigh and Ronan houses could "fundamentally transform" the nature of the project and dramatically reduce impacts even in the absence of any other project mitigation measures. (2011 staff report, p. 110). Relocation of the Morleigh and Ronan homes prevents bifurcation of the large ESHA (containing areas designated as H1, H2 High Scrutiny, and H2 habitat by the Santa Monica Mountains LCP) on the northern half of the project site and beyond. The other most noticeable difference about the 2015 proposal is the clustered nature of the development and its location on the site close to nearby development. Unlike the 2011 proposal, which would have resulted in disturbance to much of the large project site for access roads, homes, and non-overlapping fire clearance zones, the 2015 proposal clusters the five proposed homes together to take advantage of overlapping fire clearance zones and sites them in the southern portion of the site, minimizes new roadway construction, thus concentrating development in the relatively flat 13-acre "mesa" area and avoiding heavily engineered roads north of the mesa. Both of these major design changes are reflected in Exhibit B of the Settlement agreement (Exhibit 21), which shows a conceptually clustered development in the mesa area with overlapping fire clearance zones. The Commission finds this concentrated development on the mesa to be an environmentally superior alternative, because it avoids the large-scale disturbances of the northern half of the site compared to the original proposal, and concentrates development such that the ESHA impacts from the 5 houses proposed are roughly comparable to 3 houses with largely non-overlapping fire clearance zones. In addition, much less roadway and other infrastructure is required to service the houses in the clustered development, further reducing impacts. The Commission finds that development focused in this relatively flat 13-acre area of the site is reasonable given the ecological, geological, and legal constraints of developing the site.

The 13-acre "developable" portion of the site could support three "estate" type homes with largely non-overlapping fire clearance zones. The applicants are proposing a denser, 5-home subdivision using overlapping fire clearance zones. Since the critical factor for purposes of the protection of coastal resources is the development footprint, location, and design, the Commission finds the number of houses to be less important than the restriction of housing development to a clustered pattern within the 13-acre mesa area. It is the size of this developable area that drives the reasonable investment backed expectations of the applicants.

b. Impacts and Alternatives

In assessing the scope and nature of allowable development, the Commission must remain focused on its charge to protect coastal resources pursuant to the Coastal Act and the LCP and to select the alternative that has the least adverse environmental impacts generally, pursuant to the California Environmental Quality Act. The Commission is cognizant of the fact that the LCP establishes a hierarchy amongst different types of sensitive habitats, with H1 being the most highly protected. Although the current proposal would not include development directly within any H1 habitat, the Commission recognizes that the location of two of the homes would result in fuel modification within some H1 habitat. However, the Commission must assess that impact, in part, by considering the alternatives. The only geologically viable alternative location for those two houses would be deeper into the canyon in a manner that would extend the road significantly and recreate the bifurcation of the upper canyon habitat that the current, revised proposal was designed to avoid. Even under the LCP, the location and design of development is required to minimize impacts to H2 habitat (LUP Policy CO-43 / IP § 22.44.1910.C). In addition, more generally, the Commission finds those significant additional impacts to the habitat would result in greater adverse environmental impacts.

c. Conclusion

In sum, the Commission thus concludes that, by allowing development across the 13-acre mesa area, it is not interfering with the reasonable investment backed expectations of the applicants, since it is allowing development of houses on the one part of the site that could reasonably support such development. As for the nature and extent of the development that should be allowed in that area, this case presents myriad unusual, if not unique, factors that contribute the Commission's conclusion, including:

- The applicants' likely entitlement to multiple, independent, economically viable uses (though the precise number is unknown)
- The total redesign of the project site (1) to eliminate development from the northern portion of the site, avoiding the bifurcation of a large undisturbed ESHA/SERA to the north; and (2) to cluster development in the area of the property closest to existing development
- The fact that the difference in biological impacts between three, four, and five houses is relatively small
- The permanent protection of 138 out of 151 acres of the site as open space
- The fact that the current proposal represents the settlement of litigation where the outcomes inherently involve some uncertainty

Under the totality of these circumstances, the Commission finds the approval of five clustered houses to represents a reasonable approach.

The Commission finds that in this particular case, other allowable uses for the subject site, such as a low-impact recreational park or a nature preserve, are not feasible and would not provide the owner an economic return on the investment. There is currently no offer to purchase the property from any public agency. The Commission concludes there is no viable alternative use for the site other than residential development. The Commission finds that outright denial of all residential use on the project site or limiting the number of houses to too low a number would run afoul of *Lucas* and therefore be inconsistent with Section 30010. However, the development of the site as conditioned and permitted passes constitutional muster not only under *Lucas*, but also under *Penn Central*, and it therefore comports with Section 30010 as well. Conversely, the Commission finds that requiring further reductions in development could constitute a taking.

6. Open Space Conservation

In past permit actions, and consistent with the policies of the Santa Monica Mountains LCP, the Commission has found that the most effective way to assure ESHA preservation on the site is the granting of an open space conservation easement to the Mountains Recreation and Conservation Authority (a joint powers authority) that prohibits development on the remainder of the site now and in the future. In this case, the applicants have proposed to dedicate an open space easement as a component of the currently proposed project. Included within this open space easement area will be all areas of the property outside of fuel modification Zone B, which comprises approximately 129 acres. Additionally, the applicants have proposed to adjust the lot lines of four of the five existing parcels as well as an approximately 9 acre contiguous parcel, and to dedicate this 9-acre area as additional open space. As such, the total open space easement area on the project sites will be 138 acres, as depicted on Exhibit 14.

The Mountains Recreation and Conservation Authority (MRCA) is a public agency that represents a partnership between the Santa Monica Mountains Conservancy, the Conejo Recreation and Park District, and the Rancho Simi Recreation and Park District. The MRCA is dedicated to the preservation and management of open space, parkland, watershed lands, trails, and wildlife habitat. The MRCA manages and provides ranger services for almost 50,000 acres of public lands and parks that it owns or that are owned by the Santa Monica Mountains Conservancy. In the course of its normal duties, the MRCA park rangers and other staff are better able to monitor open space areas to ensure that the restrictions are followed than Commission staff. Further, an easement will be recorded against the title to the property and thus provide notice to future owners of the limitations that apply to the open space conservation area, reducing the risk of a future irreparable violation of the restriction. The governing board of the MRCA has agreed to accept all open space easements required by the Commission for properties within the Santa Monica Mountains National Recreation Area.

It is important that the property owner grant an easement to MRCA rather than simply record an open space deed restriction. Although a deed restriction should notify future owners of the restriction in the same manner that a recorded easement would, it would not be as effective in preserving the remaining ESHA for the following two reasons. First, a deed restriction is not as reliable because a property owner can record another document purporting to rescind the deed restriction. Although any attempt to rescind a deed restriction required by a coastal development permit ("CDP") without an amendment to that CDP authorizing such a rescission would constitute a violation of the CDP and the Coastal Act, the County Recorder's office is likely to allow recordation of a rescission without the required Coastal Commission authorization.

Indeed, the Commission has experienced the phenomenon of property owners recording documents purporting to modify deed restrictions recorded pursuant to CDP requirements. *See*, *e.g.*, Commission findings for CDP Amendment F7453-A2 (Stephenson), approved March 2005, and Violation File V-6-04-010 (Del Mar Estates). On the other hand, because an easement necessarily involves more than one person, the County Recorder would not likely record a document purporting to rescind an easement unless the easement holder was also to sign the document. Thus, a condition requiring a deed restriction is much easier to violate, and therefore much less protective, than a condition requiring an easement.

In addition, the Legislature has added provisions to the Government Code specifically sanctioning the use of conservation easements for the protection of open space / habitat and changing procedures to ensure that conservation easements appear prominently in title searches. In 2001, the Legislature adopted a new requirement that County Recorders keep a separate and "comprehensive index of conservation easements." See Cal. Gov't Code § 27255(a). As such, the Commission finds that the requirement of an open space and conservation easement is the most effective method of ensuring that the remaining ESHA on the project site will be conserved in the future. Finally, the Commission concludes that an open space easement that allows only the easement holder and no other entity to enter the property for inspection purposes does not interfere with the fee title owner's right to exclude the general public. It therefore does not constitute a significant invasion of the fee title owner's property interest.

In conclusion, the Commission finds that it is necessary to ensure that the applicants' proposal is implemented, and therefore requires **Special Condition Sixteen** (16), which requires each applicant to grant an open space easement to the MRCA over the open space area on each respective parcel located at the project site, depicted on Exhibit 14, in order to insure that the remaining ESHA will be preserved. Additionally, **Special Condition Seventeen** (17) is required to ensure that the proposed open space easement areas are recorded consistent with the final approved lot configuration approved by Los Angeles County. Furthermore, **Special Condition One** (1) of CDP 4-14-1094 is required to ensure the final lot configuration approved by Los Angeles County is consistent with the lot configuration approved in CDP 4-14-1094. Only as conditioned will the proposed project minimize impacts to ESHA, as required by the policies and provisions of the approved Santa Monica Mountains LCP.

7. Habitat Mitigation and Monitoring Plan

The proposed Habitat Mitigation and Monitoring Plan (HMMP) was prepared to address certain impacts of the proposed development on native habitat. The residential permit applications each include implementation of the proposed HMMP to address: 1) purple needlegrass herbaceous alliance habitat creation to mitigate for impacts to purple needlegrass habitat (.35 acres) at a 3:1 ratio; 2) restoration of native chaparral and coastal sage scrub habitat areas temporarily impacted (0.2 acres) by installation of 760 feet of the proposed water line extension to the residential sites from Costa Del Sol Road; and 3) topographic restoration and revegetation with chaparral and coastal sage scrub species of an existing dirt access road that extends northerly of the proposed residential sites, generally along the ridgeline to the northernmost portion of the subject properties (in some locations, restoration and revegetation of the access road is coincident with areas that will be temporarily impacted by trenching for the waterline extension).

As mentioned above, each proposed residential permit application includes implementation of the subject HMMP. However, the proposed mitigation for impacts to purple needlegrass is located on the Ronan and Morleigh parcels, while the impacts would actually occur on the Lunch and Ronan parcels. Furthermore, impacts from the proposed water line would occur on the Ronan parcel, although all applicants are proposing to implement the proposed mitigation. In order to ensure that the proposed restoration/mitigation is properly implemented and successful, **Special Condition Eighteen (18)** requires the applicants to submit evidence that each respective property owner maintains a legal interest or authorization for the implementation, monitoring, and maintenance of all HMMP components from the property owner(s) for the area(s) where all mitigation outlined within the HMMP will occur.

As discussed above, the applicants' proposed HMMP includes the revegetation of areas of native habitat removed for the waterline extension. However, the applicants have not proposed to restore the unpermitted dirt road area and their agent has stated that although the terms of the applicant's easement allows for construction of the waterline improvements, the terms do not allow for restoration. In order to ensure that the impacts to ESHA from installing the waterline extension are minimized to the maximum extent feasible, the Commission finds it necessary to require that this existing, unpermitted, dirt road is restored to its pre-disturbance condition, **Special Condition Eighteen (18)** requires that the applicants submit a revised HMMP that includes a restoration plan which indicates the methodology and monitoring measures that will be implemented to ensure that this area is restored. Additionally, because this disturbed area is located within the applicants' easement area, Special Condition Eighteen (18) also requires that if the applicants' existing easement agreements do not allow for restoration activities, that the applicants obtain the authorization to do so, and submit evidence of such authorization to the Executive Director.

8. Habitat Impact Mitigation

As described above, the applicants are proposing to provide mitigation for impacts to purple needlegrass H1 habitat through creation of new grassland habitat and to revegetate H2 areas temporarily impacted by construction of the proposed projects. There will still be permanent impacts to H2 habitat from the proposed structures as well as fuel modification required to protect development from fire. Impacts resulting from development within SERA can be reduced through siting and design alternatives for new development. In this case, the proposed residences have been sited to avoid direct impacts to H1 SERA (ESHA). However, as described above the proposed development would encroach into the 100 foot H1 buffer. ESHA on the project site will also be impacted due to the high fire risk in the Santa Monica Mountains, and the need to modify fuel sources to protect life and property from wildfire.

Fuel modification is the removal or modification of combustible native or ornamental vegetation. It may include replacement with drought tolerant, fire resistant plants. The amount and location of required fuel modification will vary according to the fire history of the area, the amount and type of plant species on the site, topography, weather patterns, construction design, and siting of structures. There are typically three fuel modification zones applied by the Los Angeles County Fire Department, which include a setback zone immediately adjacent to the structure (Zone A) where all native vegetation must be removed, an irrigated zone adjacent to Zone A (Zone B) where most native vegetation must be removed or widely spaced, and a thinning zone (Zone C) where native vegetation may be retained if thinned or widely spaced although particular highfuel plant species must be removed. The combined required fuel modification area around

structures can extend up to a maximum of 200 feet. If there is not adequate area on the project site to provide the required fuel modification for structures, then brush clearance may also be required on adjacent parcels. In this way, for a large area around any permitted structures, native vegetation will be cleared, selectively removed to provide wider spacing, and thinned.

The Commission has found in past permit actions, that a new residential development (with a 10,000 sq. ft. development area) within ESHA with a full 200 foot fuel modification radius will result in impact (either complete removal, irrigation, or thinning) to ESHA habitat of four to five acres. However, in this case, because the subject residential development will be located in a clustered configuration, it will allow for overlapping fuel modification zones for each of the proposed residences. This overlap is expected to reduce the total amount of vegetation clearance and adverse impacts to ESHA that would result if all residences were located in their previously proposed location. Thus, the project design and layout, including the applicant's proposal to cluster development, will serve to protect ESHA on site to the maximum extent feasible.

Obviously, native vegetation that is cleared and replaced with ornamental species or substantially removed and widely spaced will be lost as habitat and watershed cover. As discussed in the Dr. Dixon Memorandum⁴ and the Santa Monica Mountains LCP, the cumulative loss of habitat cover also reduces the value of the sensitive resource areas as a refuge for birds and animals, for example by making them—or their nests and burrows—more readily apparent to predators. Further, fuel modification can result in changes to the composition of native plant and wildlife communities, thereby reducing their habitat value. Although the impacts from habitat removal cannot be avoided, the Commission finds that the loss of ESHA resulting from the removal, conversion, or modification of natural habitat for new development including the building site area, and fuel modification can be mitigated in order to ensure that ESHA impacts are minimized to the extent feasible.

Policy CO-86a provides that unavoidable impacts to H2 habitat from direct removal or modification, shall be compensated by the provisions of the County's Resource Conservation Program (RCP), whereby the County commits to expend funds to be used for the acquisition and permanent preservation of land in the Santa Monica Mountains coastal zone containing substantial areas of H1 and/or H2 habitats. The proposed fuel modification for the proposed residences will be located within the required H1 habitat buffer. Additionally, the development areas and fuel modification have unavoidable impacts to H2 habitats. Therefore, consistent with Policy CO-86a, the applicants is required to mitigate such H2 habitat impacts. However, the Commission does not have the ability to require the applicants to participate in the RCP. As such, the Commission finds it necessary to require the applicants to provide mitigation for impacts to H2 habitat directly. The Commission has identified three appropriate methods for providing mitigation for the unavoidable loss of SERA resulting from both fuel modification activities and H1 buffer encroachment; namely, habitat restoration, habitat conservation, and payment for mitigation. The Commission finds that any of these measures is appropriate in this case to mitigate the loss of ESHA on the project site. The first method is to provide mitigation through the restoration of an area of degraded habitat (either on the project site, or at an off-site

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⁴ The March 25, 2003 Memorandum Regarding the Designation of ESHA in the Santa Monica Mountains, prepared by John Dixon, Ph. D, is available on the California Coastal Commission website at http://www.coastal.ca.gov/ventura/smm-esha-memo.pdf

location) that is equivalent in size to the area of habitat impacted by the development. A restoration plan must be prepared by a biologist or qualified resource specialist and must provide performance standards, and provisions for maintenance and monitoring. The restored habitat must be permanently preserved through the recordation of an open space easement.

The second habitat impact mitigation method is habitat conservation. This includes the conservation of an area of intact habitat of a similar type as that impacted equivalent to the area of the impacted habitat. The parcel containing the habitat conservation area must be restricted from future development and permanently preserved. If the mitigation parcel is larger in size than the impacted habitat area, the excess acreage could be used to provide habitat impact mitigation for other development projects that impact ESHA.

The third habitat impact mitigation option is the payment for mitigation of impacts to habitat. The payment is based on the habitat types in question, the cost per acre to restore or create comparable habitat types, and the acreage of habitat affected by the project. The Commission has, in past permit decisions, determined the appropriate payment for the restoration or creation of chaparral and coastal sage scrub habitat, based on research carried out by the Commission's biologist. A range of cost estimates was obtained that reflected differences in restoration site characteristics including topography (restoration of steeper sites is more difficult and expensive), proximity to the coast (minimal or no irrigation required at coastal sites), types of plants (some plants are rare or difficult to cultivate), density of planting, severity of weed problem, condition of soil, etc.

The appropriate mitigation for the loss of SERA/ESHA resulting from fuel modification, and impacts to H1 habitat resulting from an encroachment of development into its 100 foot buffer should be based on the actual installation of replacement plantings on a disturbed site, including the cost of acquiring the plants (seed mix and container stock) and installing them on the site (hydroseeding and planting). The Commission finds that it is appropriate to provide mitigation for the habitat impacts to ESHA areas where all native vegetation will be removed (building site, the "A" zone required for fuel modification, and off-site brush clearance areas), and where vegetation will be significantly removed and any remaining vegetation will be subjected to supplemental irrigation (the "B" zone or any other irrigated zone required for fuel modification) at a fee of \$15,500 per acre. Further, the Commission finds it necessary to require a payment of \$3,900 per acre for areas where the vegetation will be thinned, but not irrigated ("C" zone or other non-irrigated fuel modification zone).

The acreage of ESHA that is impacted must be determined based on the size of the development area, required fuel modification (as identified on the fuel modification plan approved by the Los Angeles County Fire Department) on the site, H1 buffer encroachment and required brush clearance off-site. As such, the Commission requires **Special Condition Ten** (10) to require the applicant to delineate the total acreage of ESHA on the site (and offsite brush clearance areas, if applicable) that will be impacted by the proposed development, and provide mitigation to compensate for this loss of habitat, through one of the three methods described above.

9. Protection of Oaks

The project site contains thirteen individual oak trees that are interspersed with the chaparral, coastal sage scrub, and grassland habitat on the site that is designated as H1, H2, and H2-high

scrutiny, all of which meet the definition of ESHA. Through past permit actions in the Santa Monica Mountains, the Commission has found that native oak trees are an important coastal resource, especially where they are part of a larger woodland or other habitat area that is ESHA. As required by the Santa Monica Mountains LCP, the proposed new development can be approved only where it will not have impacts on coastal resources. Additionally, oak trees are an important component of the visual character of the area and must be protected in order to ensure that the proposed development is visually compatible with this character, as required by the Santa Monica Mountains LCP. Policy CO-99 of the Santa Monica Mountains LUP states that new development must be sited and designed to preserve oak, walnut, sycamore, bay, or other native trees to the maximum extent feasible.

Furthermore, native trees prevent the erosion of hillsides and stream banks, moderate water temperatures in streams through shading, provide food and habitat, including nesting, roosting, and burrowing to a wide variety of wildlife. Individual oak trees such as those on or adjacent to the subject site do provide habitat for a wide variety of wildlife species and are considered to be an important part of the character and scenic quality of the area.

Oak trees are easily damaged. They are shallow-rooted and require air and water exchange near the surface. The oak tree root system is extensive, extending as much as 50 feet beyond the spread of the canopy, although the area within the "protected zone" (the area around an oak tree that is five feet outside the dripline or fifteen feet from the trunk, whichever is greater) is the most important. Oaks are therefore sensitive to surrounding land uses, grading or excavation at or near the roots and irrigation of the root area particularly during the summer dormancy. Improper watering (especially during the hot summer months when the tree is dormant) and disturbance to root areas are the most common causes of tree loss. Oak trees in residentially landscaped areas often suffer decline and early death due to conditions that are preventable. Damage can often take years to become evident and by the time the tree shows obvious signs of disease it is usually too late to restore the health of the tree.

Obviously, the removal of an oak tree results in the total loss of the habitat values of the tree. Encroachments into the protected zone of an oak tree can also result in significant adverse impacts. Changes in the level of soil around a tree can affect its health. Excavation can cut or severely damage roots and the addition of material affects the ability of the roots to obtain air or water. Soil compaction and/or pavement of areas within the protected zone will block the exchange of air and water through the soil to the roots and can have serious long term negative effects on the tree.

In order to ensure that oak trees are protected so that development does not have impacts on coastal resources and so that the development is compatible with the visual character of the area, the Commission has required, in past permit actions, that the removal of native trees, particularly oak trees, or encroachment of structures into the root zone be avoided unless there is no feasible alternative for the siting of development.

a. Project Impacts

The Oak Tree Reports, listed in the Substantive File Documents, indicates that thirteen oak trees are present on the project site, ten are located adjacent to the proposed residential development, and three are located in the immediate vicinity of the proposed waterline. The proposed project

does not include the removal of oak trees. However, eight oaks will be located in the fuel modification zones of the proposed residences, and 8% of one oak protected zone will be encroached upon due to proposed grading activities. However, there are no feasible siting alternatives that could avoid such encroachments.

b. Oak Tree Protection Measures and Monitoring

Finally, the Commission finds that impacts to oak trees on the project site will be minimized by employing protective measures during project construction. The applicant shall follow the oak tree preservation recommendations contained in the Oak Tree Report referenced in the substantive file documents. Additionally, the Commission requires **Special Condition Twenty-three (23)**, which requires the applicants to install temporary protective barrier fencing around the protected zones (5 feet beyond dripline or 15 feet from the trunk, whichever is greater) of all oak trees and retained during all construction operations. If required construction operations cannot feasibly be carried out in any location with the protective barrier fencing in place, then temporary flagging must be installed on all oak trees to ensure protection during construction. Further, the Commission requires that a biological consultant, arborist, or other resource specialist shall be present on-site during all construction operations on site and shall be directed to immediately notify the Executive Director if unpermitted activities occur or if any oak trees are damaged, removed, or impacted beyond the scope of the work allowed by this coastal development permit. This monitor will have the authority to require the applicant to cease work should any breach in permit compliance occur, or if any unforeseen sensitive habitat issues arise.

10. Additional Mitigation Measures to Address Additional SERA Impacts

The Commission finds that the use of non-native and/or invasive plant species for residential landscaping results in both direct and indirect adverse effects to native plants species indigenous to the Malibu/Santa Monica Mountains area. Direct adverse effects from such landscaping result from the direct occupation or displacement of native plant communities by new development and associated non-native landscaping, and mitigation for that effect was discussed in the previous section. Indirect adverse effects include offsite migration and colonization of native plant habitat by non-native/invasive plant species (which tend to outcompete native species) adjacent to new development. The Commission notes that the use of exotic plant species for residential landscaping has already resulted in significant adverse effects to native plant communities in the Malibu/Santa Monica Mountains area. This sort of impact was not addressed in the prior sections. Therefore, in order to minimize adverse effects to the indigenous plant communities of the Malibu/Santa Monica Mountains area that are not directly and immediately affected by the proposed development, the Commission requires Special Condition Five (5), consistent with LUP Policy CO-139, to ensure that all landscaping consist of native/drought tolerant plant species and that invasive plant species shall not be used. Furthermore, fencing of the property would adversely impact the movement of wildlife through the ESHA and wildlife migration corridor on this parcel. Therefore, Special Condition Five (5) also limits fencing to the perimeter of the approved development area, turnaround, and driveway. This is required to be shown on the landscaping plan.

In addition, the Commission has found that night lighting of SERA areas in the Malibu/Santa Monica Mountains may alter or disrupt feeding, nesting, and roosting activities of native wildlife species. Policies CO-94 and CO-141 of the LUP require that night lighting is minimized. Therefore, **Special Condition Seven** (7) is required to limit night lighting of the site in general;

limits lighting to the developed area of the site; and requires that lighting be shielded downward. Limiting security lighting to low intensity security lighting will assist in minimizing the disruption of wildlife that is commonly found in this rural and relatively undisturbed area and that traverses the area at night.

In order to ensure that vegetation clearance for fire protection purposes does not occur prior to commencement of grading or construction of the proposed structures, **Special Condition Twelve** (12) requires that natural vegetation shall not be removed until grading or building permits have been secured and construction of the permitted structures has commenced. This limitation avoids loss of natural vegetation coverage resulting in unnecessary erosion in the absence of adequately constructed drainage and run-off control devices and implementation of the landscape and interim erosion control plans.

The Commission also finds that the amount and location of any new development that could be built in the future on the subject site consistent with the resource protection policies of the Coastal Act is significantly limited by the unique nature of the site and the environmental constraints discussed above. Therefore, the permitting exemptions that apply by default under the Coastal Act for, among other things, improvements to existing single family homes and repair and maintenance activities may be inappropriate here. In recognition of that fact, and to ensure that any future structures, additions, change in landscaping or intensity of use at the project site that may otherwise be exempt from coastal permit requirements are reviewed by the Commission for consistency with the resource protection policies of the Coastal Act, **Special Condition Eight (8)** requires a future development restriction.

Further, **Special Condition Nine (9)** requires the applicant to record a deed restriction that imposes the terms and conditions of this permit as restrictions on use and enjoyment of the property and thereby provides any prospective purchaser of the site with recorded notice that the restrictions are imposed on the subject property. Finally, in order to ensure that the terms and conditions of this permit are adequately implemented, **Special Condition Eleven (11)** requires the applicants to allow staff to enter onto the property (subject to 24 hour notice to the property owner) to undertake site inspections for the purpose of monitoring compliance with the permit.

11. Conclusion

In conclusion, although portions of the proposed development extend into H2 habitat, those components of the proposed project are consistent with the policies and provisions of the Santa Monica Mountains LCP, because the clustered configuration of the residences minimizes impacts to H2 habitat, and it is infeasible to avoid those impacts and still provide a reasonable economic use of the property. Additionally, allowing portions of the proposed development to extend into H1 habitat 100 foot buffer areas is necessary to avoid a taking, there is no feasible alternative, and the impacts are avoided to the maximum extent feasible. Furthermore, allowing fuel modification within the designated H1 habitat is also necessary to avoid a taking.

For the reasons set forth above, the Commission finds that, with the one exception of the fuel modification required for the two most northerly houses, the proposed project, as conditioned, is consistent with the SERA policies of the certified Santa Monica Mountains LCP. With respect to the fuel modification that is inconsistent with the LCP, the Commission finds that allowing it

is necessary to avoid a taking, and section 30010 of the Coastal Act therefore requires the Commission to approve that as well.

F. CUMULATIVE IMPACTS

Policy CO-74 of the Santa Monica Mountains Land Us Plan States:

New development shall be clustered to the maximum extent feasible and located as close as possible to existing roadways, services and other developments to minimize impacts to biological resources. New development shall be sited and designed to minimize impacts to H2 and H3 habitat by: Limiting the maximum number of structures to one main residence, one second residential structure, and accessory structures such as stable, corral, pasture, workshop, gym, studio, pool cabana, office, or tennis court. Such accessory structures are to be located within the approved building site area except as set forth in Policies CO-103 to CO-105, and structures shall be clustered to minimize required fuel modification. The Director or Regional Planning Commission may determine that fewer structures are appropriate for a given site.

Policy CO-75a of the Santa Monica Mountains Land Use Plan states:

Land divisions, including but not limited to lot line adjustments, shall only be permitted in accordance with all applicable policies of the LCP, and where substantial evidence demonstrates that each new parcel being created through subdivision or being reconfigured through a lot line adjustment contains an identified, feasible building site, and any necessary access road thereto that are (1) located outside of H1 habitat, H1 habitat buffer, and H2 High Scrutiny habitat, and (2) capable of being developed consistent with other LCP policies and without requiring vegetation removal or thinning for fuel modification in H1 habitat, H1 habitat buffer, and H2 High Scrutiny habitat. In the case of subdivisions or lot line adjustments that include the creation of a parcel(s) that is dedicated or restricted to open space uses (through open space easement, deed restriction, or donation to a public agency for park purposes), no demonstration of building site or access road outside of H1 habitat, H1 habitat buffer, and H2 High Scrutiny habitat is required for the open space parcel(s).

Land divisions in H2 habitat shall only be permitted in accordance with all applicable policies of the LCP, and where substantial evidence demonstrates that each new parcel being created through subdivision or being reconfigured through a lot line adjustment contains an identified, feasible building site, and any necessary access road thereto that will cluster and concentrate development in areas able to accommodate the development consistent with all other policies of the LCP and in compliance with the following:

- The proposed parcels are configured and building sites are sited and designed to ensure that future structures will have overlapping fuel modification zones and in no case shall the proposed building sites be located more than 100 feet apart.
- The building site on each newly created parcel is located no more than 200 feet from an existing public roadway and is capable of being served by existing power and water service.

- Each building site is located only on slopes of 3:1 or less.
- The proposed newly created parcels shall be within 1/4 mile of existing developed parcels.
- Land divisions on parcels adjacent to public parklands or parcels restricted as permanent open space are prohibited.
- A Transfer of Development Credit (TDC) shall be required for the creation of any new parcel in H2 habitat in accordance with Policy LU-15.
- The County shall make a finding that the land division and associated TDC will result in the transfer and concentration of existing development rights to a location that results in the preservation of H2 habitat in a manner that is superior to the pre-land division lot configuration if developed.

In the case of subdivisions or lot line adjustments that include the creation of a parcel(s) in H2 habitat that is dedicated or restricted to open space uses (through an open space easement, deed restriction, or donation to a public agency for park purposes), no demonstration of the building site or access road meeting the requirements above is required for the open space parcel(s).

Policy CO-75b of the Santa Monica Mountains Land Use Plan states:

Lot line adjustments may be approved between existing, legally created parcels only where consistent with Policy CO-75a. If the existing, legally-created parcels do not meet the requirement of Policy CO-75a, then a lot line adjustment may only be approved where it is demonstrated that the reconfigured parcels: (1) can accommodate development that more closely conforms to LCP policies than development on the existing parcels could; (2) will not increase the amount of H2 habitat that would be removed or modified by development on each of the existing parcels (including necessary roads and fuel modification); and (3) will not increase the amount of landform alteration or have greater adverse impacts to scenic and visual resources than would have occurred from development on the existing parcels. Minor lot line adjustments between existing lawfully-developed parcels may be authorized provided the adjustment would not adversely impact H1 habitat, H1 habitat buffer, H2 habitat, or scenic resources. Lot line adjustments for the sole purpose of combining two or more parcels may also be authorized as a means of reversing a purported but illegal division of property.

Policy CO-154 of the Santa Monica Mountains Land Use Plan States:

Land divisions, including lot line adjustments, shall be designed to minimize impacts to visual resources by:

- a. Clustering the building sites to minimize site disturbance and maximize open space.
- b. Prohibiting building sites on ridgelines.
- c. Minimizing the length of access roads and driveways.
- d. Using shared driveways to access development on adjacent lots where feasible.

- e. Reducing the maximum allowable density in steeply sloping and visually sensitive areas.
- f. Minimizing grading and alteration of natural landforms.

Policy LU-1 of the Santa Monica Mountains Land Use Plan States:

New residential, commercial, or industrial development shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it, or where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.

Policy PF-2 of the Santa Monica Mountains Land Use Plan States:

Coordinate the land development review process with water purveyors to assure that adequate long-term water supplies and adequate water and sewer infrastructure are available to serve existing and planned development, without negatively impacting supplies and services for existing development.

Policy PF-3 of the Santa Monica Mountains Land Use Plan States:

Reduce potable water consumption and the need for new water supplies through required and active water conservation programs.

Policy PF-8 of the Santa Monica Mountains Land Use Plan States:

Require that proposed development projects gain approval of design and financial arrangements from the appropriate water purveyor for construction of water and sewer facilities prior to recordation of tract maps (or issuance of grading or building permits, if a tract map is not involved).

The policies of the Santa Monica Mountains LUP require that new development be clustered, and that land divisions minimize impacts to habitat areas and visual resources. Additionally, the policies of the LUP require that new development have adequate long-term water supply, and that potable water consumption is reduced.

Lot Line Adjustment and Lot Tie

As described above, the proposed project includes a lot line adjustment and lot tie in order to facilitate the proposed clustered development configuration. As depicted on Exhibit 10, the lot lines of four of the subject parcels are proposed to be adjusted (Vera Properties LLLP, Mulryan Properties, LLLP, Morleigh Properties, LLLP, Ronan Properties, LLLP), and the subject lot tie is proposed between the Ronan Properties, LLLP and E.D. West Coast Properties parcels. The proposed lot line adjustment and lot tie will result in a reduction in the number of existing legally-created parcels from five to four.

LUP Policy CO-75a outlines the required criteria that must be met in order to approve a lot line adjustment. This criteria includes requirements that each new parcel being created through a lot line adjustment contains an identified, feasible building site, and any necessary access road thereto that are (1) located outside of H1 habitat, H1 habitat buffer, and H2 High Scrutiny habitat, and (2) capable of being developed consistent with other LCP policies and without requiring vegetation removal or thinning for fuel modification in H1 habitat, H1 habitat buffer, and H2 High Scrutiny habitat. This policy also outlines requirements that must be met in order to permit a lot line adjustment in H2 habitat, which include that each new parcel contains an identified, feasible building site, and any necessary access road thereto that will cluster and concentrate development in areas able to accommodate the development consistent.

In this case, the project site contains both H1 and H2 habitat. The subject lot line adjustment and lot tie would not meet the requirements outlined in Policy CO-75a, as the proposed development would have direct impacts to H1 habitat, as well as to its buffer and quiet zone. However, Policy CO-75b allows for the approval of lot line adjustments and lot ties that do not meet the requirements of Policy CO-75a only when the reconfigured parcels (1) can accommodate development that more closely conforms to LCP policies than development on the existing parcels could; (2) will not increase the amount of H2 habitat that would be removed or modified by development on each of the existing parcels (including necessary roads and fuel modification); and (3) will not increase the amount of landform alteration or have greater adverse impacts to scenic and visual resources than would have occurred from development on the existing parcels.

The applicants have proposed the subject lot line adjustment and lot tie in order to cluster the subject development, which serves to reduce habitat impacts and landform alteration. In comparison to the previously proposed project (2011) the currently proposed development configuration reduces the amount of habitat impacts by 51% and reduces the amount of total grading by 43%. The currently proposed development configuration also greatly reduces impacts to scenic and visual resources by locating all proposed residences on one, lower portion of the subject property. Additionally, the proposed lot tie will serve to reduce the total number of legal parcels from six to five. Finally, by dedicating the remaining approximately 138 acres of land located on the subject six parcels that is located outside of the development area of the proposed five single family residences as open space, scenic and visual resources impacts are further minimized.

In order to ensure that the applicants' proposal to permanently combine the Ronan Properties, LLLP and E.D. West Coast Properties parcels through the proposed lot tie is effectively implemented, **Special Condition Two (2) of CDP 4-14-1094** requires the applicant to record a lot combination deed restriction that makes clear that the two parcels are permanently combined and held as such into the future, effectively merging APNs 4453-005-013 and 4453-005-038. Furthermore, **Special Condition One (1) of CDP 4-14-1094** is required to ensure the final lot configuration approved by Los Angeles County is consistent with the lot configuration approved in CDP 4-14-1094.

Water Line

The proposed project includes the extension of a 7,800 linear foot water line extension from Costa Del Sol Road to the site of the proposed residences. Construction would occur in five

segments. The first approximately 1,200 linear feet would be installed by trenching within a paved portion of Costa Del Sol Way. The second approximately 1,400 linear feet would be installed by trenching within an existing unpermitted four to twelve foot wide dirt road. The third approximately 760 linear foot segment of the proposed water line would extend from the terminus of the existing dirt road into undisturbed native habitat. The fourth approximately 1,700 linear foot portion would be installed utilizing horizontal directional drilling (HDD) construction methods. The applicants have coordinated with the Las Virgenes Municipal Water District (LVMWD) regarding installation of this waterline, consistent with the above mentioned LUP Policies.

The proposed waterline would cross eight parcels north of the project sites, only four of which are still vacant parcels. Although the proposed waterline has the potential to be utilized to serve new development on these four vacant parcels, new improvements, including the installation of significant lengths of new pipeline, would be required in order to connect to the subject waterline. Furthermore, the subject parcels that the proposed waterline would cross have a LCP land use designation of RL20, which allows for one dwelling unit per 20 acres. As such, although the four parcels that the water line crosses could potentially utilize the proposed waterline to serve new development, the waterline itself would not increase the density of these parcels as the maximum density has been established by the LCP. Lastly, any new development on these subject properties would require issuance of a coastal development permit from the County of Los Angeles.

As mentioned above, the policies of the LUP require that potable water consumption is reduced. As a requirement for a new water connection, the LVMWD has required the applicants pay a fee towards a conservation fund that it utilized to develop projects to offset new water demands. To further reduce the use of potable water at the project site, **Special Condition Five (5)** requires that rainwater catchment systems be installed and only drip or micro spray systems shall be used for irrigation.

For the reasons set forth above, the Commission finds that the proposed project, as conditioned, is consistent with the cumulative impact policies of the certified Santa Monica Mountains LCP.

G. VISUAL RESOURCES

Policy CO-110 of the Santa Monica Mountains Land Us Plan States:

The height of structures shall be limited to minimize impacts to scenic resources.

Policy CO-113 of the Santa Monica Mountains Land Us Plan States:

Restrict development on slopes of 50 percent or greater.

Policy CO-114 of the Santa Monica Mountains Land Us Plan States:

New development shall be sited and designed to minimize the height and length of manufactured cut and fill slopes, and minimize the height and length of retaining walls. Graded slopes shall blend with the natural contours of the land and shall utilize landform grading.

Policy CO-115 of the Santa Monica Mountains Land Us Plan States:

All structures on lots in hillside areas shall be clustered if clustering is shown to minimize site disturbance and grading. Development within a subdivision shall be clustered and utilize shared driveways.

Policy CO-116 of the Santa Monica Mountains Land Us Plan States:

Require all cut and fill slopes and other disturbed areas to be landscaped and revegetated prior to the beginning of the rainy season utilizing native, drought-tolerant plant species that blend with existing natural vegetation and natural habitats of the surrounding area.

Policy CO-124 of the Santa Monica Mountains Land Us Plan States:

The Santa Monica Mountains contain scenic resources of regional and national importance. The scenic and visual qualities of these resources shall be protected and, where feasible, enhanced.

Policy CO-125 of the Santa Monica Mountains Land Us Plan States:

Protect public views within Scenic Areas and throughout the Coastal Zone. Places on, along, within, or visible from Scenic Routes, public parklands, public trails, beaches, and state waters that offer scenic vistas of the mountains, canyons, coastline, beaches, and other unique natural features are considered Scenic Resource Areas. Scenic Resource Areas do not include areas that are largely developed such as existing, predominantly built-out residential subdivisions. Scenic Resource Areas also include the scenic resources identified on Map 3 and consist of Scenic Elements, Significant Ridgelines, and Scenic Routes. In addition to the resources identified on Map 3, the public parkland and recreation areas identified on Map 4 are also considered Scenic Resource Areas.

Policy CO-126 of the Santa Monica Mountains Land Us Plan States:

Maintain and enhance the quality of vistas along identified Scenic Routes. The following roadways are considered Scenic Routes:

- Mulholland Scenic Corridor and County Scenic Highway;
- *Pacific Coast Highway (SR-1);*
- Malibu Canyon/Las Virgenes Road County Scenic Highway;
- Kanan Dume Road;
- *Topanga Canyon Boulevard (SR-27);*
- Old Topanga Canyon Road;
- Saddle Peak Road/Schueren Road;
- Piuma Road:
- Encinal Canyon Road;
- Tuna Canyon Road;
- Rambla Pacifico Road;
- Las Flores Canyon Road;
- Corral Canyon Road;
- Latigo Canyon Road; and
- Little Sycamore Canyon Road

Policy CO-127 of the Santa Monica Mountains Land Us Plan States:

Protect public views of designated Scenic Elements and Significant Ridgelines, the ocean, and beaches. The viewshed and line-of-sight to these scenic resources shall also be preserved and protected.

Policy CO-128 of the Santa Monica Mountains Land Us Plan States:

New development shall be subordinate to the character of its setting.

Policy CO-129 of the Santa Monica Mountains Land Us Plan States:

Development shall not encroach into regionally- or locally-significant skylines and significant ridgelines.

Policy CO-130 of the Santa Monica Mountains Land Us Plan States:

Preserve large areas of natural open space of high scenic value by siting development in existing developed areas.

Policy CO-131 of the Santa Monica Mountains Land Us Plan States:

Site and design new development to minimize adverse impacts on scenic resources to the maximum extent feasible. If there is no feasible building site location on the proposed project site where development would not be visible, then the development shall be sited and designed to minimize impacts on scenic areas through measures that may include, but not be limited to, siting development in the least visible portion of the site, breaking up the mass of new structures, designing structures to blend into the natural hillside setting, restricting the building maximum size, reducing maximum height, clustering development, minimizing grading, incorporating landscape and building material screening elements, and where appropriate, berming.

Policy CO-132 of the Santa Monica Mountains Land Us Plan States:

Avoidance of impacts to scenic resources through site selection and design alternatives is the preferred method over landscape or building material screening. Landscape or building material screening shall not substitute for project alternatives including resiting or reducing the height or bulk of structures.

Policy CO-133 of the Santa Monica Mountains Land Us Plan States:

New development shall be sited and designed to minimize alteration of natural landforms by:

- a. Conforming to the natural topography.
- b. Preventing substantial grading or reconfiguration of the project site.
- c. Eliminating flat building pads on slopes. Building pads on sloping sites shall utilize split-level or stepped-pad designs.
- d. Requiring that manufactured contours mimic the natural contours.
- e. Ensuring that graded slopes blend with the existing terrain of the site and surrounding area.

- f. Minimizing grading permitted outside of the building footprint.
- g. Clustering structures to minimize site disturbance and to minimize development area.
- h. Minimizing height and length of cut and fill slopes.
- i. Minimizing the height and length of retaining walls.
- j. Cut and fill operations may be balanced on site, where the grading does not substantially alter the existing topography and blends with the surrounding area. Export of cut material may be required to preserve the natural topography.

Policy CO-134 of the Santa Monica Mountains Land Us Plan States:

The length of roads or driveways shall be minimized, except where a longer road or driveway would allow for an alternative building site location that would be more protective of scenic resources, H1 and H2 habitat areas, or other coastal resources. Driveway slopes shall be designed to follow the natural topography, unless otherwise required by the Fire Department. Driveways that are within or visible from a scenic resource shall be a neutral color that blends with the surrounding landforms and vegetation.

Policy CO-135 of the Santa Monica Mountains Land Us Plan States:

Preserve topographic features of high scenic value in their natural state, including canyon walls, geological formations, creeks, ridgelines, and waterfalls.

Policy CO-136 of the Santa Monica Mountains Land Us Plan States:

Prohibit development on designated Significant Ridgelines and require that structures be located sufficiently below such Ridgelines to preserve unobstructed views of a natural skyline. In addition, all ridgelines other than Significant Ridgelines that are visible from a Scenic Route, public parkland, public trails, or a beach shall be protecting by siting new development below the ridgeline to avoid intrusions into the skyline where feasible. Where there is no feasible alternative building site or where the only alternative building sites below the ridgeline would result in unavoidable impact to H1 or H2 habitat areas, structures shall be limited to one story (18 feet maximum from existing or finished grade, whichever is lower) in height to minimize visual impacts and preserve the quality of the scenic area.

Policy CO-137 of the Santa Monica Mountains Land Us Plan States:

Preserve and, where feasible, restore and enhance individual native trees and native tree communities in areas containing suitable native tree habitat – especially oak, walnut, and sycamore woodlands and savannas – as important elements of the area's scenic character.

Policy CO-141 of the Santa Monica Mountains Land Us Plan States:

Limit and design exterior lighting to preserve the visibility of the natural night sky and stars, to the extent feasible and consistent with public safety. Los Angeles County will periodically update the LIP's Dark Skies requirements to ensure that they are consistent

with the most current Dark Skies science, technology, and best practices in the field, beginning five years after the LCP's certification date.

Policy CO-142 of the Santa Monica Mountains Land Us Plan States:

Maintain dark skies in the Coastal Zone by reducing light pollution and requiring best available Dark Skies technology in all permitted lighting and compliance with Dark Skies principals and best practices to the maximum extent feasible. Only very limited night lighting for equestrian facilities shall be allowed and must be consistent with Policy CO-103. Night lighting for sport courts or other private recreational facilities shall be prohibited.

Policy CO-144 of the Santa Monica Mountains Land Us Plan States:

New development shall incorporate colors and exterior materials that are compatible with the surrounding landscape. The use of highly-reflective materials shall be prohibited, with the exception of solar panels.

Policy CO-147 of the Santa Monica Mountains Land Us Plan States:

Limit the height of structures above existing grade to minimize impacts to visual resources. Within scenic areas, the maximum allowable height shall be 18 feet above existing or finished grade, whichever is lower. Chimneys, rooftop solar equipment and non-visually-obstructing rooftop antennas may be permitted to extend above the allowable height of the structure, but shall not extend more than six feet above the maximum allowable height.

Policy CO-149 of the Santa Monica Mountains Land Us Plan States:

Fences, gates, and walls shall be designed to incorporate veneers, texturing, and/or colors that blend in with the surrounding natural landscape, and shall not present the appearance of a bare wall.

Policy CO-150 of the Santa Monica Mountains Land Us Plan States:

Fences, gates, walls, and landscaping shall minimize impacts to public views of scenic areas, and shall be compatible with the character of the area.

Policy CO-151 of the Santa Monica Mountains Land Us Plan States:

Limit height of retaining walls by using stepped or terraced retaining walls, with plantings in-between. Where feasible, long continuous walls shall be broken into sections or shall include undulations to provide visual relief.

Please see page 11 through 17 of Appendix 2 for applicable Santa Monica Mountains Implementation Plan provisions.

The policies of the Santa Monica Mountains LUP require that development is sited and designed to minimize the amount of landform alteration and natural vegetation removal. Furthermore, the policies require that the height of structures be limited to minimize impacts to scenic resources and structures in hillside areas are be clustered. More specifically, the LCP requires that

development is not located on designated Significant Ridgelines and that structures are located sufficiently below such ridgelines so as to preserve unobstructed views of a natural skyline. Where there is no feasible alternative building site or where the only alternative building sites below the ridgeline would result in unavoidable impacts to ESHA, structures must be limited in height to 18 feet maximum from existing or finished grade, whichever is lower, to minimize visual impacts and preserve the quality of the scenic area.

The subject properties comprise an approximately 151-acre area of almost entirely undeveloped ridgeline mountain terrain located on the southern flank of the Santa Monica Mountains about a mile inland from Pacific Coast Highway and the coast. The ridgeline located on the project site extends inland approximately 2.18 miles from the narrow coastal terrace traversed by Pacific Coast Highway to the backbone crest of the Santa Monica Mountain Range. The Santa Monica Mountains LUP designates this ridge as a "Significant Ridgeline". The subject area is comprised of steep, rugged mountain terrain that is blanketed by various natural rock outcroppings and primarily undisturbed native chaparral habitat that is part of a large contiguous area of undisturbed native vegetation. The nearest development in the vicinity is the residential enclave of Serra Retreat located within the municipal limits of the City of Malibu approximately a half mile to the southwest.

The subject ridgeline is a prominent landscape feature along a significant stretch of the Malibu coast. The ridge is visible from several significant public vantages along Pacific Coast Highway, including Malibu Bluffs Park (2.5 miles west), Malibu's Civic Center and Colony Plaza areas (2 miles west), Malibu Lagoon State Park and Surfrider Beach areas (1.2 miles southwest), and Malibu Pier (1 mile southwest). The ridge is also highly visible from Malibu Creek State Park land and the Saddle Peak Trail about a quarter mile to the west, portions of Piuma Road approximately a mile to the north, and several LUP-mapped scenic highways, as well as Vista Points along Rambla Pacifico Road a mile to the east.

As described above, the policies of the Santa Monica Mountains LUP require that scenic and visual qualities to be considered and preserved. The applicants staked the location of the proposed residences on the project site with visually prominent poles and orange flagging, and submitted visual analyses to assess potential visual impacts to the public. In analyzing the proposed projects, Commission staff visited the publicly accessible locations from which the proposed development would be visible after the applicants' staked the location of the proposed residences. Additionally, Commission staff visited the project site and examined the building sites, the size of the proposed structures, and alternatives to the size, bulk and scale of the structures.

As depicted on Exhibit 13, all proposed residences would be located in a clustered configuration on a mesa near the southernmost extent of the project area. All proposed residences are 18 feet in height from both existing and proposed grade, consistent with Santa Monica Mountains LUP Policy CO-147. Additionally, the proposed residences have been re-sited and redesigned significantly to reduce and minimize visual impacts. Santa Monica Mountains LIP provision 22.44.2040 (B.3) requires that in addition to limiting structures to 18 feet in height, the highest point of a structure shall be located at least 50 vertical feet and 50 horizontal feet from the significant ridgeline.

In this case, the proposed Lunch residence is located directly on the subject significant ridgeline, and the proposed Ronan and Vera residences are located within the 50 foot vertical setback. Part 4 of Santa Monica Mountains LIP Section 22.44.2040 (B), allows for the granting of a variance where structures on a parcel of land cannot meet the requirements of 22.44.20.40 (B.3) described above, and where the variance requirements of Santa Monica Mountains LIP provision 22.44.1150 (H) are met. The requirements of Section 22.44.1150 (H) state in relevant part:

- H. Application–Grant or denial–Findings required.
 - 1. The Hearing Officer or Commission shall approve an application for a variance where the information submitted by the applicant and/or presented at public hearing substantiates the following findings:
 - a. That because of special circumstances or exceptional characteristics applicable to the property, the strict application of the Code deprives such property of privileges enjoyed by other property in the vicinity and under identical zoning classification; and
 - b. That the adjustment authorized will not constitute a grant of special privilege inconsistent with the limitations upon other properties in the vicinity and zone in which the property is situated; and
 - c. That strict application of zoning regulations as they apply to such property will result in practical difficulties or unnecessary hardships inconsistent with the general purpose of such regulations and standards; and
 - d. That such adjustment will not be materially detrimental to the public health, safety or general welfare, or to the use, enjoyment or valuation of property of other persons located in the vicinity; and
 - e. That the granting of the variance will not be materially detrimental to coastal resources;

The project site is extremely constrained by topographic, geologic, and biological factors, all of which create special or exceptional circumstances where strict application of provision 22.44.20.40 (B.3) would deprive the Lunch, Vera, and Ronan properties of privileges enjoyed by other property owners in the vicinity. As depicted on Exhibit 22, the project site contains landslides, extremely steep slopes that are greater than 50%, as well as H1 and H2 habitat (ESHA). The Lunch parcel is bifurcated by the subject significant ridgeline, contains purple needlegrass H1 habitat and slopes that exceed 50%. Modifying the location of this residence off the subject ridgeline would increase landform alteration and habitat impacts. The proposed Vera residence is located within the 50 foot vertical setback from the significant ridgeline. However, modifying the location of this residence outside of this setback would result in the residence moving closer to, and possibly within a geologically unstable landslide area. Lastly, the proposed Ronan residence is also located within the 50 foot vertical setback from the subject significant ridgeline. Modifying the location of this residence outside of the setback area would result in the residence being sited further away from the other proposed residences, thereby increasing impacts to H2 habitat.

The subject variance would not grant special privilege inconsistent with the limitations upon other properties in the vicinity because the applicants have proposed five residences on six lots, and the five proposed residences, including those which are sited within the setback of the significant ridgeline, are proposed in a clustered configuration, which minimizes impacts to coastal resources. Additionally, the development areas of all proposed residences are less than the maximum of 10,000 square feet, consistent with the maximum size requirements of the LCP.

Furthermore, strict application of the zoning regulations will result in practical difficulties or unnecessary hardships inconsistent with the purpose of such regulations because requiring that the subject residences strictly conform to the significant ridgeline policies and provisions of the LCP would result in relocation of the residences to areas with unstable geology, where actual construction would not minimize risk to life and property from geologic hazard and may not be feasible from a geologic and engineering standpoint. Furthermore, as mentioned above, relocation of the subject residences would increase SERA impacts, including those to H1 habitat, inconsistent with policies and provisions of the LCP.

Siting the proposed residences within the setback of the significant ridgeline will not be materially detrimental to the public health, safety or general welfare, or to the use, enjoyment or valuation of property of other persons located in the vicinity as their location clusters all residences and therefore minimizes impacts to coastal resources, including scenic and visual resources.

The location of all proposed residences, including those which are located with the setback of the significant ridgeline, minimizes impacts to coastal resources, and therefore will not be materially detrimental to those resources. In comparison to the previously proposed development configuration (2011), the currently proposed project reduces overall site grading by 43%, reduces impacts to biological resources by 51%, and increases the proposed open space easement area by 40 acres.

In addition to the variance findings required pursuant to Section 22.44.1150 of the Santa Monica Mountains LIP, additional findings are required in Section 22.44.2040 (B.4):

4. Where structures on a lot or parcel of land cannot meet the standards prescribed by subsection B.3. above, a variance is required as provided in Section 22.44.1150. In addition to the variance requirements of Section 22.44.1150, findings shall be made that (1) alternative sites within the property or project have been considered and eliminated from consideration based on physical infeasibility or the potential for substantial habitat damage and destruction, and (2) the proposed development is limited to 18 feet in height above existing or finished grade (whichever is lower) and maintains the maximum view of the related Significant Ridgeline through the use of design features that include, but are not limited to reduced building footprint area, clustered structures, shape, materials, and color which allow the structure to blend in with the natural setting, minimized grading, and locally-indigenous vegetation to soften the view of development from the identified public viewing areas. The Director shall maintain a list of appropriate landscaping materials required to satisfy this provision. Avoidance of impacts to scenic resources through site selection and design alternatives is the preferred method over landscape or building material

screening. Landscape or building material screening shall not substitute for project alternatives including re-siting or reducing the height or bulk of structures.

As described in detail above, in order to achieve a clustered development configuration, which minimizes impacts to coastal resources, alternate development configurations have been eliminated from consideration. Furthermore, all proposed residences are 18 feet in height above both existing and proposed grade. Additionally, the residences have been designed to be notched into the topography, thereby reducing the total amount square footage located above grade. Lastly, as described in further detail below, as conditioned, visual impacts resulting from the proposed residences will be further minimized by both color, lighting, and planting restrictions.

The proposed access road will also be visible from public viewing areas, as it traverses difficult terrain (topographically and geologically) up the ridgeline to the subject properties. Three retaining walls, approximately 120, 205, and 230 linear feet in length, with a maximum height of 6' and an average height of approximately 5.5 feet, are proposed along the subject access road. Given the remoteness of the area and the length and steepness of the road, one Fire Department turnout area along the access road (14,400 sq. ft. in size) is proposed to accommodate safe emergency vehicle access and staging. The proposed project also includes the construction of a rock fall stabilization device consisting of a 250 linear foot, 4 ft. tall berm, with a 10 ft. tall wire mesh barrier, along the southeast shoulder of a portion of the shared access road. The subject rock fall mitigation device will not result in significant adverse impacts to visual resources, as there is intervening topography that shields it from public view points. In order to minimize visual impacts associated with this development, consistent with Policies CO-144 and CO-149 of the Santa Monica Mountains LUP, the applicants have proposed to construct the subject retaining walls with stone of the same coloration of that which is found at the project site. Additionally, the applicants have proposed planting around the subject walls and rock fall stabilization device to screen the proposed development.

As described above, the proposed development will be unavoidably visible from public viewing areas. The Commission has considered siting and design alternatives that would avoid or reduce any impacts to visual resources. There is no feasible alternative whereby the proposed development would not be visible from public viewing areas. To minimize the visual impacts associated with development of the project site, the Commission requires **Special Condition Six** (6), which ensures that the structure be finished in a color consistent with the surrounding natural landscape, and that windows on the development be made of non-glare glass. Additionally, **Special Condition Five** (5) requires that the applicants appropriately, adequately, and timely plant native landscaping to soften the visual impact of the development from public view areas. **Special Condition Seven** (7) also limits the night lighting of the site to protect the nighttime rural character of this portion of the Santa Monica Mountains.

In recognition that future development normally associated with a single-family residence, that might otherwise be exempt, has the potential to impact scenic and visual resources of the area, the Commission requires **Special Condition Eight (8)** to ensure that any future improvements on the subject property shall be reviewed by the Commission for consistency with the resource protection policies of the Coastal Act through a coastal development permit. Additionally, **Special Condition Nine (9)** requires the applicants to record a deed restriction that imposes the terms and conditions of this permit as restrictions on use and enjoyment of the property and

provides any prospective purchaser of the site with recorded notice that the restrictions are imposed on the subject property.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with the applicable visual resource policies of the Santa Monica Mountains LCP.

H. PUBLIC ACCESS

Policy CO-93 of the Santa Monica Mountains LUP states:

Public accessways, trails, and low-impact campgrounds shall be an allowed use in H1 and H2 habitat areas. Accessways to and along the shoreline shall be sited, designed, and managed to avoid and/or protect marine mammal hauling grounds, seabird nesting and roosting sites, sensitive rocky points and intertidal areas, and coastal dunes. Inland public trails and low-impact campgrounds shall be located, designed, and maintained to avoid or minimize impacts to H1 or H2 habitat areas and other coastal resources by utilizing established trail corridors, following natural contours to minimize grading, and avoiding naturally-vegetated areas with significant native plant species to the maximum extent feasible. Trails shall be constructed in a manner that minimizes grading and runoff.

Policy CO-155 of the Santa Monica Mountains Land Use Plan states:

The beaches, parklands and trails located within the Coastal Zone provide a wide range of recreational opportunities in natural settings which include hiking, equestrian activities, bicycling, camping, educational study, picnicking, and coastal access. These recreational opportunities shall be protected, and where feasible, expanded or enhanced as a resource of regional, State and national importance, and allowed to migrate when feasible with rising sea level.

Policy CO-156 of the Santa Monica Mountains Land Use Plan states:

Encourage a full range of recreational experiences to serve local, regional and national visitors with diverse backgrounds, interests, ages, and abilities, including the transit-dependent and the physically challenged.

Policy CO-157 of the Santa Monica Mountains Land Use Plan states:

In carrying out the requirements 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.

Policy CO-159 of the Santa Monica Mountains Land Use Plan states:

Lower-cost visitor-serving and recreational facilities, including overnight accommodations, shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. Priority shall be given to the development of visitor-serving commercial and/or recreational uses that complement public recreation areas or supply recreational opportunities not currently

available in public parks or beaches. Visitor-serving commercial and/or recreational uses may be located near public park and recreation areas only if the scale and intensity of the visitor-serving commercial recreational uses is compatible with the character of the nearby parkland and all applicable provisions of the LCP.

CO-160 of the Santa Monica Mountains Land Use Plan states:

These public access policies shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:

- a. Topographic and geologic site characteristics.
- b. The capacity of the site to sustain use and at what level of intensity.
- c. The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.
- d. The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic value of the area by providing for the collection of litter.

In carrying out the public access policies of this LUP, the County shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.

Policy CO-166 of the Santa Monica Mountains Land Use Plan states:

Establish procedures to acquire land or the use of land from willing owners for recreational and open space purposes.

Policy CO-167 of the Santa Monica Mountains Land Use Plan states:

Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.

Policy CO-168 of the Santa Monica Mountains Land Use Plan states:

Encourage the involvement of volunteers and use conservation or public service programs, where possible, to assist in the development, maintenance, and operation of recreational facilities.

Policy CO-177 of the Santa Monica Mountains Land Use Plan states:

Coordinate with federal, State, and County park agencies, and other qualified public and private land conservation agencies to insure that private land donations and/or public access dedications are accepted, developed, and managed for their intended use.

Policy CO-181 of the Santa Monica Mountains Land Use Plan states:

Protect and enhance the County's existing and proposed trails as shown on Map 4 Recreation. An extensive public trail system has been developed across the Santa Monica

Mountains that provides public coastal access and recreation opportunities. This system includes trails located within public parklands as well as those which cross private property.

- a. New development shall be reviewed to determine the most appropriate means to protect trails. Depending on the size, location, impacts, and intensity of the proposed development, one of the following may be imposed: a setback from the trail, a trail easement, or a trail dedication. If an easement or dedication is required, it shall preferably be made to a qualified public agency or land conservation organization operating outdoor recreation facilities in the Santa Monica Mountains.
- b. New development shall minimize and avoid whenever possible impacts to the use of or views from existing trails.
- c. As funding becomes available, and consistent with constitutional principles regarding property rights, develop the proposed trails as shown on Map 4 Recreation.
- d. Design a trail system to provide linkages between major regional trails and area recreational facilities. Proposed trail locations are not intended to be precise, and the best and most feasible route would be determined as a result of further study during any review of a coastal development permit (see Map 4 Recreation).
- e. Locate trails and trail facilities, including parking areas, in a manner that preserves natural resources, including scenic values, wildlife habitats and corridors, and water quality and that ensures maximum adaptive capacity to address sea level rise.
- f. Prohibit motorized off-road vehicle use on the area trails system; restrict mountain bike use to designated multi-use trails specifically designed and identified for bicycles and where conflict with equestrian and hiking uses would not occur.
- g. Preserve public rights when development is proposed, by obtaining trail easements where the public has acquired these rights through use, or where the trail is depicted on Map 4 Recreation to the maximum extent allowed by constitutional principles. Conduct a review of each development proposal to determine whether there is a nexus between the development's impacts and obtaining a trail easement, and to determine whether obtaining a trail easement is proportional mitigation for the impacts of the proposed development. Trail easements shall be dedicated to a public agency or land conservation organization operating outdoor recreation facilities in the Santa Monica Mountains.
- h. Public accessways and trails are resource-dependent and shall be an allowed use in all habitat categories. Where necessary (determined by consideration of supporting evidence), limited or controlled methods of access and/or mitigation designed to eliminate or minimize impacts to H1 and H2 habitat areas shall be utilized. Accessways to and along the shoreline shall be sited, designed, and managed to avoid and/or protect marine mammal hauling grounds, seabird nesting and roosting sites, sensitive rocky points and intertidal areas, and coastal dunes.
- i. Public accessways and trails to the shoreline and public parklands shall be a permitted use in all land use and zoning designations. Where there is an existing, but unaccepted and/or unopened public access offer-to-dedicate (OTD),

easement, or deed restriction for lateral, vertical or trail access or related support facilities (e.g., parking) construction of necessary access improvements shall be permitted to be constructed, opened and operated for its intended public use where it is consistent with all other provisions of the LCP.

Please see pages 22 through 23 of Appendix 2 for applicable Santa Monica Mountains Implementation Plan provisions.

The Santa Monica Mountains LCP mandates that maximum public access and recreational opportunities be provided and that development not interfere with the public's right to access the coast. Additionally, the LCP mandates that lower cost visitor and recreational facilities, such as public hiking and equestrian trails, shall be protected, encouraged, and provided, where feasible.

In the Santa Monica Mountains area, the existing system of heavily used historic trails located on private property has been adversely impacted by the conversion of open lands to housing. In permitting residential development in the Santa Monica Mountains, the Coastal Commission has found that in order to ensure that the public would continue to be able to use existing hiking and equestrian trails, adverse effects to those trails arising from such development would need to be minimized and, if necessary, mitigated. In its permit actions in the Santa Monica Mountains, and consistent with the Santa Monica Mountains LCP, the Commission has frequently required an offer-to-dedicate (OTD) an easement for public trail use when proposed development would adversely affect the public's ability to use one of the trails identified on the County's Trails Plan Map or a trail known to have been historically used by the public.

A large area of public parkland that is part of Malibu Creek State Park is located immediately west of the subject parcels. In addition, the adjacent parcel to the south of the subject parcels is owned by the Mountains Recreation and Conservation Authority (MRCA) and restricted as open space (Exhibit 14). The Saddle Peak Trail is situated on the adjacent ridgeline to the west, within Malibu Creek State Park. The planned Coastal Slope Trail has been slated by the National Park Service and the MRCA to pass through, in an east-west direction, the MRCA-owned property to the south of the subject sites. Both of these trails can be seen on the approved Santa Monica Mountains LUP Recreation Map.

Since a portion of both the Saddle Peak Trail and Coastal Slope Trail are located immediately adjacent to the subject parcel, the applicant of CDP 4-10-041 has proposed, as part of the project, an offer-to-dedicate a 10-ft. wide public trail easement across the southwest portion of the subject property, as depicted on Exhibit 14. Dedication of the subject OTD will serve to connect Saddle Peak Trail and Coastal Slope Trail with one another, thereby creating an important connection between the two trails. To ensure that public access is adequately protected on the subject property consistent with the applicant's voluntary offer-to-dedicate a public hiking and equestrian trail easement, the Commission requires **Special Condition Twenty-four (24)**, which ensures that the proposed offer-to-dedicate is accurately recorded prior to the issuance of the coastal development permit.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with the applicable public access policies of the Santa Monica Mountains LCP.

I. ARCHAEOLOGICAL RESOURCES

Policy CO-204 of the Santa Monica Mountains Land Use Plan states:

Protect and preserve archaeological, historical, and paleontological resources from destruction, and avoid impacts to such resources where feasible. Where avoidance is not feasible, minimize impacts to resources to the maximum extent feasible.

Policy CO-205 of the Santa Monica Mountains Land Use Plan states:

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required. Mitigation shall be designed to accord with guidelines of the State Office of Historic Preservation and the State of California Native American Heritage Commission.

Policy CO-206 of the Santa Monica Mountains Land Use Plan states:

Regulate landform alteration to ensure minimal disturbance of known archaeological and historic cultural sites. New development on sites identified as archaeologically sensitive shall include onsite monitoring of all grading, excavation, and site preparation that involve earthmoving operations by a qualified archaeologist(s) and appropriate Native American consultant(s).

Policy CO-208 of the Santa Monica Mountains Land Use Plan states:

New development within archaeologically-sensitive areas shall implement appropriate mitigation measures, designed in accord with guidelines of the State Office of Historic Preservation and the State of California Native American Heritage Commission.

Policy CO-209 of the Santa Monica Mountains Land Use Plan states:

Preserve and protect cultural resources and traditions that are of importance to Native Americans, including the Chumash and Gabrieliño/Tongva peoples.

Policy CO-211 of the Santa Monica Mountains Land Use Plan states:

Notify all appropriate agencies, including Native American tribes, and the Department of Regional Planning of archaeological or paleontological resources discovered during any phase of development construction to ensure proper surface and site recordation and treatment.

Please see pages 23 through 26 of Appendix 2 for applicable Santa Monica Mountains Implementation Plan provisions.

The greater province of the Santa Monica Mountains is the locus of one of the most important concentrations of archaeological sites in Southern California. Although most of the area has not been systematically surveyed to compile an inventory, the sites already recorded are sufficient in both numbers and diversity to predict the ultimate significance of these unique resources. As so many archaeological sites have been destroyed or damaged as a result of development activity or natural processes, the remaining sites, even if they are less rich in materials, have become increasingly valuable. As such, the above referenced LUP policies require the protection of

archaeological resources and the implementation of mitigation measures to avoid or minimize any impacts.

An archaeological survey was completed at the project site in October 2013 by Dudek, and found no evidence of prehistoric or historic cultural resources. On December 10, 2014, the applicants' representatives received an email from archaeologist Chester King, which stated that he had gone on a field visit to the project site and had found an archaeological site on the Lunch parcel, at the location of the proposed residence. In response to this email, and due to the fact that the locations of the proposed residences had been modified subsequent to the October 2013 survey, an additional archaeological survey was completed by Dudek in April 2015. On this survey Dudek located and analyzed five of the items identified by Mr. King as artifacts. Of the five artifacts identified, Dudek agreed that one found on the Lunch parcel was a prehistoric chipped stone artifact. As such, a potential exists for additional archaeological resources to be present on the site.

As described above, earthwork is proposed as a component of the subject CDP applications. New development on natural sites or additional development on natural areas of developed sites can damage or destroy archaeological resources. Site preparation can disturb and/or obliterate archaeological materials to such an extent that the information that could have been derived would be lost. If a project is not properly monitored and managed during construction activities, archaeological resources can be degraded or destroyed. Thus, consistent with LUP policy CO-206, **Special Condition Nineteen (19)** requires that all grading, excavation, and site preparation that involves earth-moving operations be monitored by a qualified archaeologist and appropriate Native American consultants, and that if cultural resources are identified on the project site, the development must protect or avoid such resources, consistent with the recommendations of the archaeologist and Native American consultant.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with the applicable archaeological resource policies of the Santa Monica Mountains LCP.

J. UNPERMITTED DEVELOPMENT

Development has occurred on the applicants' parcels without the required coastal development permit. Additionally, unpermitted development has occurred within the applicants' easement area on offsite parcels that will be utilized for extension of the waterline. The unpermitted development both on the subject parcels, and within their easement area, includes the removal of native vegetation and grading of access roads. No evidence could be found that this development received a coastal permit from this Commission. This application includes restoration and recontouring of the areas located on the applicants' property. In order to ensure that the areas located within the applicants' easement area are also restored; Special Condition Nineteen (19) is required, as discussed in Section E of this report.

Although development has taken place prior to submission of this permit application, consideration of the application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Approval of this permit does not constitute a waiver of any legal action with regard to any alleged violations nor does it constitute an admission as to the legality of any development undertaken on the subject site without a coastal permit. The Commission's enforcement division will evaluate further actions to address this matter.

K. CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096(a) of the Commission's administrative regulations requires Commission approval of a Coastal Development Permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect that the activity may have on the environment.

The Commission incorporates its findings on Local Coastal Program consistency at this point as if set forth in full. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. As discussed in detail above, project alternatives and mitigation measures have been considered and incorporated into the project. Five types of mitigation actions include those that are intended to avoid, minimize, rectify, reduce, or compensate for significant impacts of development. Mitigation measures required as part of this coastal development permit include the avoidance of impacts to ESHA through clustering structures, and by prohibiting development outside of the approved development area as required by the granting of an open space conservation easement. Mitigation measures required to minimize impacts include requiring drainage best management practices (water quality), interim erosion control (water quality and ESHA), limiting lighting (ESHA), restricting structure color (visual resources), and requiring future improvements to be considered through a CDP. Finally, the habitat impact mitigation condition is a measure required to compensate for impacts to ESHA.

Special Conditions One (1) through Twenty-four (24), One (1), and Two (2) are required to assure the project's consistency with Section 13096 of the California Code of Regulations. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.

APPENDIX 1

Substantive File Documents

Dispute Resolution Nos. A-4-07-067-EDD, A-4-07-068-EDD, A-4-07-146-EDD, A-4-07-147-EDD, and A-4-07-148-EDD; "Water System Design Report for Sweetwater Mesa Properties," by Boyle Engineering Corp., dated January 2007; "Biological Constraints Analysis" for each property, by Steven Nelson, dated July 2007; "Biological Constraints Analysis" for proposed water line, by Steven Nelson, dated January 2008; "Oak Tree Report for APN 4453-005-018," by Neighborhood Consulting Arborist, dated November 18, 2007; "Oak Tree Report for APN 4453-005-038, -091 and -092," by Neighborhood Consulting Arborist, dated December 31, 2007; "Percolation Test Report" for each property, by Lawrence Young, dated July 20, 2007; "Visual Assessment" report for each property, by Envicom Corporation, dated July 2009; "Comparative Impact Analysis of Potable Water Service Options," by Envicom Corporation, dated October 21, 2009; "Summary of Findings – Civil and Geotechnical Engineering and Engineering Geologic Peer Review Services," by Cotton, Shires, and Associates, dated March 8, 2010; "January 2011 Summary of Findings - Engineering Geologic, Geotechnical, Civil and Structural Engineering Peer Review Services," by Cotton, Shires, and Associates, dated January 21, 2011; Aerial Photographs of central Malibu area provided by I.K. Curtis Services Inc. (Photo Nos. 2-158: 5/5/75, 3-223: 3/22/76, 75: 7/27/77, 52:5/12/79, 133: 7/10/80, 384: 11/3/83, 677: 2/12/85, 242: 4/20/87, 215: 2/5/88, 1554: 4/4/89, 990: 1/31/92, 227: 4/6/93, 95-316: 2/19/95, 27: 12/20/96, 181: 8/23/98, 493: 11/4/00); Dept. of Water Resources 2001 Coastal Aerial Photographs Index CCC-BQK-C Photo No. 58A-12: 6/28/0; Aerial Imagery from Google EarthTM mapping service (©2011 Google, Map Data ©2011 Tele Atlas) dated 8/22/04, 12/30/03, 11/12/04, 3/15/06, and present 2011; CDP Nos. 4-04-012 through 4-04-016; CDP No. 5-89-133; CDP No. 5-89-260; Memo by Lesley Ewing, dated January 24, 2011; Geologic and Geotechnical Reports listed in the January 24, 2011 Lesley Ewing Memo; Memo by Mark Johnsson, dated January 25, 2011; Memo by Dr. Jonna Engel, dated January 25, 2011; Sweetwater Mesa -Horizontal Directional Drilling (Directional Boring) Feasibility Study, Dudek, dated November 4, 2013; Revised Sweetwater Mesa – Water Source Alternatives Analysis, Dudek, dated September 2014; Biological Assessment and Impact Analysis Sweetwater Mesa Residential Development, Envicom, dated March 31, 2014; Revised Biological Assessment and Impact Analysis, Envicom, dated June 2014; Supplemental Geotechnical Engineering Report, CalWest Geotechnical Consulting Engineers, dated July 17, 2103; Report of Supplemental Engineering Geologic Study, Land Phases, Inc., dated July 15, 2013; Engineering Geologic Update Letter, Land Phases, Inc., dated March 31, 2014; Update Geotechnical Engineering Letter, CalWest Geotechnical Consulting Engineers, dated April 1, 2014; Report of Update Engineering Geologic Study, Land Phases, Inc., dated June 5, 2014; Update Geotechnical Engineering Report, Including Structural Plans, CalWest Geotechnical Consulting Engineers, dated June 2014; Engineering Geologic Memorandum, Land Phases, Inc., dated August 6, 2014; Geotechnical Engineering Memorandum, CalWest Geotechnical Consulting Engineers, dated August 11, 2104; Phase 1 Archaeological Survey Report Sweetwater Mesa Residential Properties, Dudek, dated March 2014; Sweetwater Mesa Residential Properties Oak Tree Report, Dudek, dated March 2014; Residential Waste Water Disposal System Percolation Test and Site Evaluation, Barton Slutske, dated April 29, 2013; Preliminary Engineering Feasibility Report for a New Onsite Wastewater System, EPD Consultants, dated June 2014; Habitat Mitigation and Monitoring Plan for the Sweetwater Mesa Property, Dudek, dated March 2014; Sweetwater Mesa Rockfall Hazard and Mitigation Study, Kane GeoTech, Inc., dated October 2007; Sweetwater Mesa

Rockfall Hazard and Mitigation Study Updated Assessment and Construction Drawings, Kane GeoTech, Inc., dated June 2014; Sweetwater Mesa Rockfall Hazard Stabilization System Plans, Kane GeoTech, Inc., dated June 2014; Fire Protection Plan, Sweetwater Mesa Residential Properties, Dudek, April 2015; Sweetwater Mesa Residential Properties Oak Tree Report, Dudek, April 2015; Traffic Impact Analysis for the Construction Phase of the Sweetwater Mesa Project, Associated Transportation Engineers, March, 26, 2015; Update Geotechnical Engineering Report, CalWest Geotechnical Consulting Engineers, Mulryan Properties LLLP (January 29, 2015), Morleigh Properties LLLP (January 30, 2015), Vera Properties LLLP (January 28, 2015), Lunch Properties LLLP (February 2, 2015), Ronan Properties LLLP (February 3, 2015); Report of Update Engineering Geologic Study, Land Phases, Inc., Mulryan Properties LLLP (January 27, 2015), Morleigh Properties LLLP (January 27, 2015), Vera Properties LLLP (January 27, 2015), Lunch Properties LLLP (January 27, 2015), Ronan Properties LLLP (January 27, 2015); Biological Assessment and Impact Analysis, Envicom, April 20, 2015; Sweetwater Mesa Residential Properties Supplemental Archaeological Resources Survey Report, Dudek, April 21, 2015.

APPENDIX 2

Applicable ESHA and Water Quality IP Provisions:

22.44.1810 Description of Habitat Categories. Map 2 Biological Resources of the LUP depicts the general distribution of habitat categories as of [insert date of LCP certification]. However, the precise boundaries of the various habitat categories discussed below shall be determined on a site specific basis, based upon substantial evidence and a site specific biological inventory and/or assessment required by Sections 22.44.840 and/or 22.44.1870.

- A. The habitat categories are as follows:
- H1 Habitat This category consists of habitats of highest biological significance, rarity, and sensitivity--alluvial scrub, coastal bluff scrub, dunes, wetland, native grassland and scrub with a strong component of native grasses or forbs, riparian, native oak, sycamore, walnut and bay woodlands, and rock outcrop habitat types. In the Coastal Zone, alluvial scrub is dominated by scalebroom (Lepidospartum squmatum) and coastal bluff scrub is characterized by either giant coreopsis (Coreopsis gigantea) or bush sunflower (Encelia californica). Native grassland and scrub vegetation are those areas characterized by native grasses and native shrubs. Areas where native grasses are associated with trees or large shrubs (e.g., Toyon) are typically not considered native grasslands. An important exception is where native grasses are associated with coast live or valley oak which is indicative of oak savannah habitat. Native grassland often supports numerous native forbs and some areas of native grassland will include a large percent of non-native annual grasses. Riparian habitat includes all vegetation (canopy and understory species) associated with a creek or stream including, but not limited to, sycamore, coast live oak, black walnut, white alder, Fremont cottonwood, black cottonwood, mulefat, arroyo willow, red willow, blackberry, mugwort, and Mexican elderberry. In the Coastal Zone, where chaparral and/or coastal sage scrub occur within or adjacent to creeks or streams and function as riparian habitat, these areas are considered to be H1 riparian habitat. Wetlands, including creeks, streams, marshes, seeps and springs, are included as H1 habitat. Coast live and valley oak, sycamore, walnut, and bay woodlands are all included in H1 habitat. Rock outcrops comprised of either volcanic or sedimentary/sandstone rocks are frequently associated with a unique community of rare annual plants and lichens and are therefore H1 habitat. H1 habitat also includes populations of plant and animals species (1) listed by the State or Federal government as rare, threatened or endangered, assigned a Global or State conservation status rank of 1, 2, or 3 by CDFW, per the methodology developed by NatureServe, and identified as California Species of Special Concern, and/or (2) CNPS-listed 1B and 2 plant species, normally associated with H1 habitats, where they are found within H2 or H3 habitat areas. Areas where components of H1 are found in urbanized or otherwise disturbed areas, such as oak trees within or adjacent to developed parcels, will be protected where feasible, as set forth in this LIP.
- H2 Habitat This category consists of habitats of high biological significance, rarity, 2. and sensitivity that are important for the ecological vitality and diversity of the Santa Monica Mountains Mediterranean Ecosystem. Connectivity among habitats within an ecosystem and connectivity among ecosystems is important for the preservation of species and ecosystem integrity. Large contiguous blocks of relatively pristine habitat facilitate natural ecosystem patterns, processes and functions such as water filtration. nutrient cycling, predator/prey relationships, plant and animal dispersal and animal migration, habitat and species diversity and abundance, and population and community dynamics (e.g., birth/death rates, food web structure, succession patterns). H2 Habitat includes large, contiguous areas of coastal sage scrub and chaparraldominated habitats. Coastal sage scrub is dominated by soft-leaved, generally low-growing aromatic shrubs such as California sagebrush (Artemesia californica), purple sage (Salvia leucophylla), and black sage (Salvia apiana) and chaparral is dominated by taller, deeper-rooted evergreen shrubs with hard, waxy leaves such as manzanita (Arctostaphylos sp.) and ceanothus (Ceanothus sp.). H2 habitat also contains (1) CNDDB-identified rare natural communities; (2) plant and animal species listed by the State or Federal government as rare, threatened, or endangered; assigned a Global or State conservation status rank of 1, 2, or 3 by CDFW, per the methodology developed by NatureServe, and identified as California Species of Special Concern; and/or (3) CNPS-listed 1B and 2 plant species, normally associated with H2 habitats.

- Habitat, which comprises extra sensitive H2 Habitat species/habitats that should be given avoidance priority over other H2 habitat. H2 High Scrutiny Habitat also includes areas that support species listed by federal and state government as threatened or endangered, California Native Plant Society (CNPS) "1B" and "2" listed plant species, and California Species of Special Concern. H2 "High Scrutiny" habitat includes (1) plant and animals species listed by the State or Federal government as rare, threatened or endangered, assigned a Global or State conservation status rank of 1, 2, or 3 by CDFW, per the methodology developed by NatureServe, and identified as California Species of Special Concern, and/or (2) CNPS-listed 1B and 2 plant species, normally associated with H1 habitats, where they are found as individuals (not a population) in H2 habitat. The mapped "H2 High Scrutiny" habitat areas on the Biological Resource Map are intended to notify County staff, the public, and decision-makers of the general areas where there is a high likelihood of these species' occurrence so that more scrutiny can be paid to them with detailed site-specific inventories conducted to determine actual occurrence and extent. However, if the criteria listed above are satisfied in locations not identified on the Biological Resource Map, any such locations will also qualify for this designation.
- 4. H3 Habitat This category consists of areas that would otherwise be designated as H2 Habitat, but the native vegetation communities have been significantly disturbed or removed as part of lawfully-established development. This category also includes areas of native vegetation that are not significantly disturbed and would otherwise be categorized as H2 habitat, but have been substantially fragmented or isolated by existing, legal development and are no longer connected to large, contiguous areas of coastal sage scrub and/or chaparral-dominated habitats. This category includes lawfully developed areas and lawfully disturbed areas dominated by non-native plants such as disturbed roadside slopes, stands of non-native trees and grasses, and fuel modification areas around existing development (unless established illegally in an H2 or H1 area). This category further includes isolated and/or disturbed stands of native tree species (oak, sycamore, walnut, and bay) that do not form a larger woodland or savannah habitat. These habitat areas provide important biological functions that warrant specific development standards for the siting and design of new development.
- B. Effect of Fire. Fire is a natural and essential part of the life cycle of the plant communities of the Santa Monica Mountains. The plant communities are highly diverse as a result of the shifting mosaic of habitats created by repeated fires. Chaparral habitat impacted by fire is still present in the form of root crowns that will re-sprout and a fire-adapted seed bank (a number of chaparral species drop seeds that require fire for germination) that will generate new growth following the rainy seasons. Therefore, areas burned by wildfire where there is evidence that the areas consisted of a habitat meeting the definition of H1, H2, H2 "High Scrutiny," or H3 Habitat before the fire shall be afforded the protections of the applicable habitat category.
- C. Effect of Natural Disaster or Illegal Development. Any area mapped as H1, H2, H2 "High Scrutiny," or H3 Habitat shall not be deprived of protection as that habitat category, as required by the policies and provisions of the LCP, on the basis that habitat has been damaged or eliminated by natural disaster (e.g. landslide, flooding, etc.), or impacted by illegal development or other illegal means, including removal, degradation, or elimination of species that are rare or especially valuable because of their nature or role in an ecosystem.
- D. Any area not designated as a habitat category on the Biological Resources Map that meets the criteria of a habitat category shall be accorded all the protection provided for that habitat category in the LCP.
- E. The areas occupied by existing, legally established structures, agricultural uses, and confined animal facilities do not meet the criteria of the H1 or H2 Habitat categories. Additionally, the fuel modification areas required by the County Fire Department for existing, lawfully established structures do not meet the criteria of the H1 or H2 habitat categories, with the exception of the areas subject to the minimal fuel modification measures that are required in riparian or woodland habitats (e.g., removal of deadwood). In the latter areas, the habitat maintains its biological significance, rarity, and sensitivity and shall be accorded all the protection provided for the H1 habitat category in the LCP.

22.44.1830 Process for Evaluating and Designating On-site Habitat Categories.

A. The Habitat Categories as depicted on the Biological Resources Map may be adjusted based upon substantial biological evidence and independent review by the ERB as set forth in this section. Based on

substantial evidence, a resource on any site may be classified or reclassified from one category to a higher or lower category. Any area that meets the definition of a habitat category (H1, H2, H2 High Scrutiny, H3) described in Section 22.44.1810 shall be accorded all the protection provided for that habitat category in the LCP. As part of the CDP process, the County shall determine the physical extent of habitats on the project site that meet the definition of any of the habitat categories of Section 22.44.1810, based on a site-specific biological inventory and/or biological assessment, available independent evidence, and review by the department biologist and ERB, as required in Section 22.44.1830.

- B. Any area mapped as H1, H2, H2 High Scrutiny, or H3 Habitat shall not be deprived of protection as that habitat category, as required by the policies and provisions of the LCP, on the basis that habitat has been: damaged or eliminated by natural disaster; illegally removed; illegally degraded; and/or species that are rare or especially valuable because of their nature or role in an ecosystem have been eliminated by unpermitted development. Where the County finds that the physical extent of habitats on a project site are different than those indicated on the Biological Resources Map, the County shall make findings as part of the CDP regarding the physical extent of the habitat categories and detailed justification for any classification or reclassification of habitat categories at the project site based on substantial evidence.
- **22.44.1900** Buffers. New development adjacent to H1 habitat shall provide native vegetation buffer areas to serve as transitional habitat and provide distance and physical barriers to human intrusion. Buffers shall be of a sufficient size to ensure the biological integrity and preservation of the habitat they are designed to protect. Vegetation removal, vegetation thinning, or planting of non-native or invasive vegetation shall not be permitted within buffers.
- A. H1 Habitat Buffer. New non-resource dependent development shall provide a buffer of no less than 100 feet from H1 Habitat, unless otherwise provided in subsection D of Section 22.44.1890.
 - 1. Streams and riparian habitat.
- a. For streams and riparian habitat, the buffer shall be measured from the outer edge of the canopy of riparian vegetation.
- b. Where riparian vegetation is not present, the buffer shall be measured from the outer edge of the bank of the subject stream.
- c. Water quality improvement BMPs required for new development shall be located outside the 100-foot H1 habitat buffer, except for non-structural BMPs (e.g. vegetated berms/swales, bioengineered velocity reducers).
- d. Water quality BMPs proposed to improve the water quality of runoff from existing development without adequate BMPs shall be located outside the 100-foot buffer to the maximum extent feasible.
- e. Where an applicant proposes or is required to restore a stream that had been previously channelized or otherwise altered, existing legally-established development within the required 100-foot buffer of such a restored stream shall be considered a lawfully non-conforming use subject to the non-conforming development provisions of the LCP.
- 2. For woodland habitat, the buffer shall be measured from the outer edge of the woodland tree canopy.
 - 3. For coastal bluff habitat, the buffer shall be measured from the bluff edge.
 - 4. For wetlands, the buffer shall be measured from the upland limit of the wetland.
- 5. For all other H1 habitat, the buffer shall be measured from the outer extent of the vegetation that makes up the habitat.
- B. H1 Habitat Quiet Zone. New development shall also provide an additional 100-foot "Quiet Zone" from H1 Habitat where feasible (measured from the outer edge of the 100 feet H1 Habitat buffer required above), unless otherwise provided in subsection E of Section 22.44.18900.
- C. Parkland Buffer. New development adjoining parklands, where the purpose of the park is to protect the natural environment and SERAs, shall be sited and designed to minimize impacts to habitat and recreational opportunities to the maximum extent feasible. Natural vegetation buffer areas shall be provided around parklands. Buffers shall be of a sufficient size to prevent impacts to parkland resources, but in no case

shall they be less than 100 feet in width.

22.44.1910 Land Planning and Development Standards.

- A. New non-resource dependent development shall be prohibited in areas designated H1 Habitat to protect these most sensitive environmental resource areas from disruption of habitat values, unless otherwise provided in Section 22.44.1890 and subject to the standards of this section, Section 22.44.1920, and Section 22.44.1950.
- B. New development shall avoid H2 Habitat (including H2 High Scrutiny Habitat), where feasible, to protect these sensitive environmental resource areas from disruption of habitat values, subject to the standards of this section, Section 22.44.1920, and Section 22.44.1950. H2 High Scrutiny Habitat is considered a rare and extra sensitive H2 Habitat subcategory that shall be given protection priority over other H2 habitat and shall be avoided to the maximum extent feasible.
- C. New development shall be sited in a manner that avoids the most biologically-sensitive habitat on site where feasible, in the following order of priority--(H1, H2 High Scrutiny, H2, H3-- while not conflicting with other LCP policies. Priority shall be given to siting development in H3 Habitat, but outside of areas that contain undisturbed native vegetation that is not part of a larger contiguous habitat area. If infeasible, priority shall be given to siting new development in such H3 Habitat. If it is infeasible to site development in H3 habitat areas, development may be sited in H2 Habitat. New development shall only be allowed in H2 Habitat if it is demonstrated to be infeasible to avoid H2 Habitat to provide a reasonable economic use of the property, and if it is consistent with the development standards of this section and all other provisions of the LCP or to provide public access and/or necessary park management and park safety measures. New non-resource dependent development is prohibited in H1 habitat unless otherwise provided in Section 22.44.18901900, and subject to the requirements of Section 22.44.1890.
- D. Protection of H1 and H2 habitat and public access shall take priority over other development standards, and if there is any conflict between the biological resource and/or public access protection standards and other development standards, the standards that are most protective of H1 and H2 habitat and public access, as determined by the County, shall have precedence.
- E. Where it is infeasible to avoid H2 habitat, new development shall be sited and designed to minimize impacts to H2 Habitat. If there is no feasible alternative that can eliminate all impacts to H2 habitat, then the alternative that would result in the fewest or least significant impacts to H2 habitat shall be selected. Impacts to H2 habitat that cannot be avoided through the implementation of siting and design alternatives shall be fully mitigated through measures including, but not limited to the RCP, in accordance with Section 22.44.1950.
- F. New development shall be clustered on site to the maximum extent feasible and the building site shall be limited, as required by subsection I, to minimize impacts to H2 habitat areas. The maximum number of structures shall be limited to one main structure, one second residential structure, and accessory structures. All structures must be clustered within the approved building site area, except for confined animal facilities allowed consistent with Section 22.44.1940. The Director may determine that fewer structures are appropriate for a given site.
- G. New development shall be located as close as possible to existing roadways, services and other developments to minimize impacts to H2 habitat areas.
- H. New development shall minimize impacts to H3 habitat by clustering structures and limiting the building site area to that provided in subsection I below. The maximum number of structures shall be limited to one main structure, one second residential structure, and accessory structures. All structures must be clustered within the approved building site area, except for confined animal facilities allowed consistent with Section 22.44.1940. The Director may determine that fewer structures are appropriate for a given site.
- I. Where new development is approved in H2 habitat, the maximum allowable building site area (as defined in Section 22.44.630) shall be 10,000 square feet, or 25 percent of the parcel size, whichever is less. Where new residential development is permitted in H3 habitat, the maximum allowable residential building site area shall be 10,000 square feet, or 25 percent of the parcel size, whichever is less. The restriction of the building site area to less than the maximum may be required if the Director determines that a smaller building

site area would serve to avoid impacts to H1 habitat areas, substantially minimize grading associated with the project, reduce the need for manufactured slopes, or reduce the need for retaining features (e.g., walls) visible from scenic areas, public trails, and public lands. Other provisions of this LIP, including but not limited to the native tree protection requirements of subsection K of Section 22.44.1920 may also require a smaller building site area. The allowable building site area may be increased for projects that qualify for participation in the incentive program set forth in Section 22.44.1420. The allowable building site area may also be increased for projects that comprise two adjoining legal lots, if the existing lots are merged into one lot and one consolidated building site is provided with one access road or driveway. The allowable building site area shall not exceed the total of the building site areas allowed for each individual parcel.

22.44.1920(A) Grading and vegetation removal.

- New development in H2 and H3 habitat areas shall be sited and designed to minimize removal of native vegetation and required fuel modification and brushing to the maximum extent feasible to minimize habitat disturbance or destruction, removal or modification of natural vegetation, and irrigation of natural areas, while providing for fire safety, consistent with Section 22.44.1240. Where clearance to mineral soil is not required by the Fire Department, fuel load shall be reduced through thinning or mowing, rather than complete removal of vegetation. All vegetation removal, thinning and mowing required for new development must avoid disturbance of wildlife and special-status species, including nesting birds. Where vegetation removal and/or construction is proposed in potentially suitable habitat areas for nesting birds during bird nesting season (typically late February through August), nesting bird surveys shall be conducted 30 days prior to construction to detect any active bird nests in the vegetation to be removed and any other such habitat within 500 feet of the construction area to avoid take of a nesting bird, as required under State and federal law. The last survey shall be conducted three days prior to the initiation of clearance/construction. If an active songbird nest is located, clearing/construction within 300 feet shall be postponed until the nest(s) is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. If an active raptor, rare, threatened, endangered, or species of concern nest is found, clearing/construction within 500 feet shall be postponed until the nest(s) is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest shall be established in the field with flagging and stakes or construction fencing. Construction personnel shall be instructed on the sensitivity of the area. The project biologist shall record the results of the protective measures described above to document compliance with applicable State and federal laws pertaining to protection of nesting birds.
- 2. Alternative fuel modification measures, such as firewalls and landscaping techniques, to mitigate for fuel modification requirements in habitat areas, buffers, designated open space, or public parkland areas shall be prohibited.
- 3. New development shall be sited and designed to minimize the amount of grading, consistent with the standards of Section 22.44.1260. Cut and fill slopes shall be minimized by the use of retaining walls, when consistent with all other provisions of the LCP.

22.44.1920(B) Fencing.

- 1. Fencing within H1 habitat, or within 100 feet of H1 habitat, is prohibited, except where necessary for public safety or habitat protection or restoration. Permitted fencing shall be wildlife-permeable, except where temporary fencing is required to keep wildlife from habitat restoration areas. Barbed-wire and chainlink fencing are prohibited.
- 2. Development permitted within H2 or H3 habitat may include fencing, if necessary for safety, that is limited to the immediate building site area and shall extend no further than the outer extent of Fuel Modification Zone B (100 feet from structures that require fuel modification). Fencing shall be no more than six feet in height and shall be wildlife-permeable. Perimeter fencing of a parcel, and barbed-wire and chainlink fencing, are prohibited.
- 3. Where confined animal facilities are allowed pursuant to these Biological Resources provisions, fencing may be allowed for pasture, corrals, stables, and riding rings if such fencing is consistent with Sections 22.44.1310 and 22.44.1450.

22.44.1920(C) Access roads and trails.

- 1. These provisions apply to access roads that are wholly new, incorporate any portion of an existing access road, or require the widening, improvement or modification of an existing, lawfully constructed road to comply with County Fire Department access development standards.
- a. No more than one access road or driveway with one hammerhead-type turnaround area providing access to the one approved development area may be permitted as part of a development permitted in H2 Habitat or H2 "High Scrutiny" Habitat unless the Fire Department determines that a secondary means of access is necessary to protect public safety.
- b. An access road or driveway shall only be permitted concurrently with the use it is intended to serve, except for the approval of geologic testing roads pursuant to Section 22.44.1430.
- c. Grading, landform alteration, and vegetation removal for access roads and driveways shall be minimized to the greatest extent feasible. The length of the one access road or driveway shall be the minimum necessary to provide access to the one approved building site area on a legal parcel. The alignment and design of the access road or driveway shall avoid impacts to H1 and H2 habitat, or if avoidance is not feasible, shall minimize such impacts. In no case shall new on-site or off-site access roads or driveways exceed a maximum of 300 feet or one-third the parcel depth, whichever is less, unless the County finds, based on substantial evidence, that a variance of this standard is warranted, in accordance with the requirements of subsection D of Section 22.44.1150. In addition to the required findings set forth in subsection H of Section 22.44.1150, findings shall be made that alternative building sites/access road or driveway locations within the property or project have been considered and eliminated from consideration because each alternative was found to be physically infeasible, less protective of scenic resources, H1 and/or H2 habitat, areas or other coastal resources, or has the potential for substantial habitat destruction if any such alternative site or driveway location is used.
- d. The width and grade of an access road or driveway and the size of the hammerhead turnaround approved shall be the minimum required by the Fire Department for that development project.
- e. For all Habitat Categories, or any area of high potential erosion hazard as identified by ERB, a minor CDP is required if the access road for a development goes through at least one vacant parcel.
- 2. Public Accessways, Trails, and Campgrounds and other recreational facilities. Public accessways, trails, and low-impact campgrounds shall be an allowed use in H1 and H2 habitat areas. Accessways to and along the shoreline shall be sited, designed, and managed to avoid and/or protect marine mammal hauling grounds, seabird nesting and roosting sites, sensitive rocky points and intertidal areas, and coastal dunes. New recreational facilities or structures on beaches shall be designed and located to minimize avoid impacts to H1 habitat and marine resources. Inland public trails and low-impact campgrounds shall be located, designed, and maintained to avoid or minimize impacts to H1 or H2 Habitat areas and other coastal resources by utilizing established trail corridors, following natural contours to minimize grading, and avoiding naturally vegetated areas with significant native plant species to the maximum extent feasible. Trails shall be constructed in a manner that minimizes grading and runoff.
- **22.44.1920(D)** Leachfields shall be located at least 100 feet and seepage pits shall be located at least 150 feet from any stream, as measured from the outer edge of riparian canopy, or from the stream bank where no riparian vegetation is present, and at least 50 feet outside the dripline of existing oak, sycamore, walnut, bay, and other native trees.
- **22.44.1920(E)** Lighting. The lighting requirements of this section shall apply in addition to the standards of Section 22.44.1270. Exterior lighting (except traffic lights, navigational lights, and other similar safety lighting) shall be minimized, restricted to low-intensity features, shielded, and cause no light to trespass into native habitat to minimize impacts on wildlife. Night lighting for development allowed in H2 or H3 Habitat may be permitted when subject to the following standards.

- 1. The minimum lighting necessary shall be used to light walkways used for entry and exit to the structures, including parking areas, on the site. This lighting shall be limited to fixtures that do not exceed two feet in height, that are directed downward, and use bulbs that do not exceed 60 watts, or the equivalent. Lighting of driveways or access roads is prohibited.
- 2. Security lighting attached to the residence or permitted accessory structures that is controlled by motion detectors and is limited to 60 watts, or the equivalent is allowed.
- 3. Night lighting for confined animal facilities, shall be permitted if it can be demonstrated on the basis of substantial evidence that the lighting is shielded, directed downward, and confined to the immediate area of illumination, without upward glow or spillage, and limited to the following, consistent with all other LCP policies:
- a. Necessary security lighting attached to a barn or storage structure that is controlled by motion detectors and limited to 60 watts or equivalent.
- b. Arena or round pen lighting by bollards or lights affixed to the arena fence not to exceed four feet in height in either case, and that uses best available Dark Skies technology. Such lighting shall only be allowed where it is demonstrated, pursuant to a site-specific evaluation, that the lighting will avoid adverse impacts to scenic resources and avoid illumination of H1 and H2 habitat areas, including the H1 habitat buffer.
- 4. Night lighting for sports courts or other private recreational facilities shall be prohibited, with the exception of lighting for confined animal facilities allowed in subsection 3.
- 5. Lighting is prohibited around the perimeter of the parcel or and anywhere on the parcel for aesthetic purposes.
- 6. Prior to issuance of a CDP, the applicant shall be required to execute and record a deed restriction reflecting the above restrictions. Public agencies shall not be required to record a deed restriction, but may be required to submit a written statement agreeing to any applicable restrictions contained in this subsection.
- **22.44.1920(I)** Future Improvements. Any CDP that includes the approval of structures within 200 feet of H1, H2 "High Scrutiny," or H2 Habitat shall be conditioned to require that any future improvements to the approved development will require an amendment or new CDP. The CDP shall specify that the exemptions otherwise provided in subsections A.1 or A.2 of Section 22.44.820 shall not apply to the development approved therein. The condition shall require the applicant to provide evidence of the recordation of a deed restriction against the property, free of prior liens, including tax liens and encumbrances which the Director determines may affect the interest being conveyed, the text of which has been approved by the Director, reflecting the future improvements restriction. The deed restriction shall apply to the entirety of the project site, and shall insure that any future structures, future improvements, or change of use to the permitted structures authorized by the CDP, including but not limited to, any grading, clearing or other disturbance of vegetation shall require the approval of an amendment to the CDP or the approval of an additional CDP, and that the exemptions otherwise provided in subsections A.1 or A.2 of Section 22.44.820 shall not apply. The permittee shall provide evidence that the deed restriction appears on a preliminary report issued by a licensed title insurance company for the project site.
- **22.44.1920(J)** Open Space Requirement. All CDPs that include the approval of structures within H2 "High Scrutiny" Habitat or H2 Habitat, adjacent to H1 habitat, or adjacent to parklands, shall be conditioned to require the preservation in perpetuity of the remaining H1 habitat, H2 habitat, H1 habitat buffer, or parkland buffer onsite. -On a parcel that includes steep lands (lands over 50 percent slope), all CDPs that include the approval of structures shall be conditioned to require the permanent preservation of the steep lands onsite.
- 1. All portions of the project site outside of the Fire Department required irrigated fuel modification area (Zones A and B) shall be designated as an Open Space or Conservation Easement Area to be held by the County on behalf of the People of the State of California or another public entity acceptable to the Director. The permit condition and the easement shall indicate that no development, as defined in Section 22.44.630, grazing, or agricultural activities shall occur within the Open Space Conservation Easement Area, with the exception of the following:

- a. Fuel modification required by the County Fire Department undertaken in accordance with the final approved fuel modification plan for the permitted development and/or required brush clearance required by the County Fire Department for existing development on adjoining properties.
- b. Drainage and polluted runoff control activities required and approved by the County for the permitted development.
 - c. If approved by the County as an amendment to the CDP or a new CDP:
 - i. Planting of native vegetation and other restoration activities;
 - ii. Construction and maintenance of public hiking trails;
- iii. Construction and maintenance of roads, trails, and utilities consistent with easements in existence prior to approval of the permit;
 - iv. Confined animal facilities only where consistent with Section 22.44.1940.
- 2. The applicant shall provide evidence of the recordation of a valid dedication to the County (and acceptance by the County) or to another public entity acceptable to the Director, and acceptance by said public entity, of a permanent, irrevocable open space conservation easement in favor of the People of the State of California over the Open Space Conservation Easement Area for the purpose of habitat protection, the text of which has been approved by the Director. The recorded easement document shall include a formal legal description of the entire property and a metes and bounds legal description and graphic depiction, prepared by a licensed surveyor, of the open space conservation easement area; and it shall be recorded free of prior liens, including tax liens, and encumbrances. The recorded document shall reflect that no development shall occur within the open space conservation easement area except as otherwise set forth in the CDP condition, consistent with the exceptions detailed in this section. Recordation of said easement on the project site shall be permanent.
- 3. Open Space Deed Restriction and Transfer in Fee Title to a Public Entity. Where appropriate, the CDP open space condition may provide that, as an alternative to the recordation of an open space conservation easement, the applicant may record an open space deed restriction over the required open space conservation area and dedicate the lot or the open space portion of the lot in fee title to a public entity acceptable to the Director.
- a. The applicant shall provide evidence of the recordation of an open space deed restriction, free of prior liens, including tax liens and encumbrances which the Director determines may affect the interest being conveyed, that applies to the entirety of the open space conservation area, that insures that no development, as defined in Section 22.44.630, grazing, or agricultural activities shall occur within the Open Space Conservation Area and that restrictions are enforceable; and
- b. Evidence that fee title to the open space conservation site(s) has been successfully transferred to a public entity acceptable to the Director after the recordation of the deed restriction listed in subsection a above and that the document effectuating the conveyance has been recorded with the Los Angeles County Recorder. The permittee shall provide evidence that the ownership transfer and the open space deed restriction appear on a preliminary report issued by a licensed title insurance company for the site.
- 4. All of the procedures detailed in subsection J must be approved by County Counsel for form and legal sufficiency to assure that the purposes intended are accomplished.
- 5. Prior to recordation of the easement required in subsection 1 and 2 or the fee title dedication required in subsection 3, the applicant shall pay for and provide to the County a title report, no more than three months old, for any parcel containing an open space conservation area that will be protected through an open space conservation easement, or fee title dedication.

22.44.1950 Mitigation. New development shall be sited and designed to avoid any impacts to H1 Habitat, with the exception of uses permitted within H1 and H1 buffer, consistent with Section 22.44.1890. New development shall be sited and designed to avoid any impacts to H2 "High Scrutiny" Habitat and H2 Habitat, if feasible. If there is no feasible alternative that can avoid all impacts to H2 "High Scrutiny" Habitat and H2 Habitat, or if development is permitted within H1 or H1 buffer, then the alternative that would result in the fewest or least significant impacts shall be selected, consistent with Sections 22.44.1910 and 22.44.1920. The CDP shall include conditions that require implementation of all feasible mitigation measures that would significantly reduce adverse impacts of the development. Mitigation shall not substitute for the implementation of the project alternative that would avoid impacts. In addition to other mitigation measures required by the LCP, the following mitigation is required for unavoidable impacts to H1 and H2 Habitat.

- A. Resource Conservation Program. Unavoidable impacts to H1 habitat from the provision of less than a 100-foot H1 habitat buffer and/or to H2 habitat from direct removal or modification, shall be compensated by the following, at a minimum. At its sole election, the County may require restoration as mitigation instead of reliance on the Resource Conservation Program.
 - 1. The County will administer a Resource Conservation Program ("RCP"), which shall consist of the expenditure of funds to be used for the acquisition and permanent preservation of land in the Santa Monica Mountains coastal zone containing substantial areas of H1 and/or H2 habitats. The County commits to expend no less than \$2,000,000 over a ten—year period. The RCP shall demonstrate that the lands preserved are, at a minimum, proportional to the habitats impacted from permitted development in area (acreage or partial acreage) and habitat value/function.
 - 2. For purposes of analyzing and implementing the RCP, and Policy CO-86b below, the County shall prepare a Habitat Fee Study within five years of certification of the LCP to determine the appropriate fees to adequately compensate for adverse impacts to H1 habitat from the provision of less than a 100 foot buffer, and to H2 habitat from direct removal or modification. The Habitat Fee shall be submitted to the Coastal Commission through an LCP amendment within five years of certification of the LCP. After the first five years following certification of the LCP, no CDPs that involve impacts to H1 habitat from the provision of less than a 100-foot H1 habitat buffer and/or to H2 habitat from direct removal or modification may be processed until the amount of the in-lieu fee pursuant to the study is incorporated into this LCP through an LCP amendment that is certified by the Coastal Commission.
 - 3. The County shall track and prepare an annual monitoring report at the end of each calendar year the RCP is in operation. The report for the calendar year shall itemize all acquisitions made that year, in addition to all of the following information:
 - a. An overview of each prospective year's acquisition priorities and approach;
 - b. A statement of the prior year's efforts in coordination with other agencies to enhance acquisition, preservation, protection, and connectivity of habitat and open space;
 - c. A summary of the land acquisitions made for that calendar year, including a breakdown of the location, area, habitat composition/classifications, and preservation mechanisms utilized for each acquisition;
 - d. The number of CDPs issued: a) in the previous year, and b) cumulatively since the starting date of the RCP;
 - e. The number of acres of each sensitive habitat classification allowed to be developed or otherwise impacted from issued CDPs: a) in the previous year, and b) cumulatively since the starting date of the RCP;

- f. The amount of the Habitat Impact fee determined appropriate for each CDP in accordance with the following:
 - i. Current In-Lieu Fee: During the first five years following certification of the LCP, or until an updated fee is certified through an LCP amendment, the County shall utilize the Coastal Commission's Habitat Impact Fee that was implemented through individual coastal development permit actions prior to certification of the LCP, adjusted for inflation. The current fee amounts are:
 - (A) \$15,500 per acre for the approved building site area, driveway/access roads and turnarounds areas, any required irrigated fuel modification zones, and required off-site brush clearance areas (assuming a 200-foot radius from all structures).
 - (B) \$3,900 per acre for non-irrigated fuel modification areas (on-site).
 - ii. Updated In-Lieu Fee: The amount of the Habitat Impact Fee, approved through an amendment to the LCP pursuant to subsection B above, shall be used and adjusted for inflation annually.
- g. A table or tables depicting the cumulative acreage of impact from issued CDPs in relation to the acreage acquired and preserved pursuant to the RCP, the cumulative amount of the Habitat Impact Fee that would otherwise have been required for the issued CDPs, and monies spent and monies remaining under the RCP. All acres of habitat shall be categorized by the number of acres of each sensitive habitat classification impacted/acquired; and
- h. A summary of other restoration or enhancement efforts in the Santa Monica Mountains, such as TDCs, donation of other property, and grants for further funding of the RCP.
- 4. The County shall review each annual monitoring report to analyze progress achieved in relation to the habitat impacts of CDPs approved by the County. The County shall provide a copy of the annual monitoring report for the review of the Executive Director of the Coastal Commission.
- 5. If, as a result of this annual review anytime during the ten year period, the County determines that the RCP has not met the goals of providing adequate and proportional compensation for impacts to H1 and/or H2 habitat; that the cumulative amount of the Habitat Impact Fee required pursuant to issued CDPs exceeds the minimum \$2,000,000; or that the County has elected to discontinue the RCP, the County shall initiate an LCP amendment to modify this policy, in coordination with Coastal Commission staff.
- 6. If, at the end of the ten year period, the County implements an extension of the RCP, or a similar program, the terms of such a program shall be incorporated into this section through an LCP amendment certified by the Coastal Commission. Any expenditures exceeding \$2,000,000 for the purchase and preservation of habitat over the ten year period shall be credited proportionately to the new RCP term.
- B. Habitat Impact Fee. Unavoidable impacts to H1 Habitat from the provision of less than a 100-foot H1 habitat buffer and/or to H2 Habitat from direct removal or modification, shall be compensated by the provision of a required in-lieu habitat impact fee, as a condition of approval of individual projects (CDP's), in either of the following cases described in subsection 1 or 2:
 - 1. When the earliest of the following events occurs: a) the ten year period of the RCP ends; or b) the cumulative amount of the Habitat Impact Fee required for issued CDPs exceeds \$2,000,000; or c) at such time as the County elects to discontinue the RCP.

- 2. When approved confined animal facilities result in the expansion of the required fuel modification area of the principal permitted use and/or equestrian pasture is approved outside the required fuel modification area of the principal permitted use on a property, pursuant to subsection D or E of Section 22.44.1940.
- 3. The amount of the habitat impact fee, on a per-acre basis, will be determined by the in-lieu fee study required pursuant to subsection A2 of Section 22.44.1950. No CDPs that involve impacts to H1 habitat from the provision of less than a 100-foot H1 habitat buffer and/or to H2 habitat from direct removal or modification may be processed until the amount of the in-lieu fee is incorporated into this LCP through an LCP amendment, subject to the provisions of Section 22.44.700, that is certified by the Coastal Commission.
- 4. A determination of the total area of H1 and/or H2 Habitat impacted by a project and the total fee amount required (based on the fee per acre multiplied by the total area of habitat impacted) shall be included in the findings of every coastal development permit approved for development that is subject to the provisions of this policy. A condition of approval on each coastal development permit for development subject to the provisions of this subsection, shall require the payment of the in-lieu fee into the "Habitat Impact Fund" administered by the County. The proceeds of the "Habitat Impact Fund" shall be used by the County to purchase and permanently preserve properties that contain substantial areas of H1 and/or H2 habitat in the coastal zone of the Santa Monica Mountains.
- C. Mitigation for unavoidable permanent impacts to H1 habitat for one of the non-resource-dependent uses allowed by Policy CO-41 shall be provided, at a minimum, through the restoration and/or enhancement of like habitat type, at the ratio of 4:1 (acres of restored habitat to each acre of impacted H1 habitat) for wetland habitat, or the ratio of 3:1 (acres of restored habitat to each acre of impacted H1 habitat) for all other H1 habitat types. Priority shall be given to onsite restoration or enhancement, unless there is not sufficient area of disturbed habitat on the project site, in which case off-site mitigation may be allowed. The area of off-site habitat to be restored shall be permanently preserved through the recordation of an open space deed restriction or conservation easement. The County shall coordinate with other public agencies and/or qualified non-profit land preservation organizations to establish priorities for offsite restoration and enhancement efforts, where appropriate, for proposed development projects lacking adequate onsite mitigation opportunities.
- D. If the restoration site is offsite, written evidence that the property owner has irrevocably agreed to allow the restoration work, maintenance and monitoring required by this condition and not to disturb any native vegetation in the restoration area. The area of habitat to be restored shall be permanently preserved through the recordation of an open space deed restriction that applies to the entire restored area. The open space deed restriction shall be recorded free of prior encumbrances other than tax liens, prior to issuance of the CDP.
- E. The habitat restoration or enhancement shall be carried out prior to or concurrently with construction of the development project. In any case, installation of vegetation and irrigation for the restoration project shall be complete prior to the issuance of certificate(s) of occupancy for any structure(s) approved in the CDP.

Applicable Scenic/Visual Resource IP Provisions:

- **22.44.1320** Building construction and site design shall be subject to the following standards:
- A. Clustering of structures and lots shall be required to site new construction in areas of least visibility, unless to do so would cause substantial habitat damage and destruction.
- B. Minimize the apparent size of exterior wall surfaces visible from offsite by using landscaping and/or other means of horizontal and vertical articulation to create changing shadow lines and break up the appearance of massive forms. Avoidance of impacts to visual resources through site selection and design alternatives is the preferred method over landscape screening. Landscape screening, as mitigation of visual

impacts, shall not substitute for project alternatives including re-siting or reducing the height or bulk of structures.

- C. Reflective, glossy, polished, and/or roll-formed type metal siding shall be prohibited.
- D. Polished and/or roll-formed type metal roofing shall be prohibited.
- E. Colors and exterior materials used for new development shall be compatible with the surrounding landscape. Acceptable colors shall be limited to earth tones that blend with the surrounding environment, including shades of green, brown, and gray, and no white or light shades, and no bright tones.
- F. Structures shall conform to the natural topography. On hillsides having a natural slope of 15 percent or more:
- 1. Structures shall not extend more than six feet beyond (i.e., out from) the downslope edge of the natural slope or have an understory that exceeds a height of six feet from the bottom of the natural slope.
 - 2. Structures shall be set into the slope utilizing a stepped or split-level design.
- 3. Structures shall be sited so that their higher elements are located toward the center or uphill portions of the building site, to minimize the visual impact of the structure.
- G. The use of highly reflective materials is prohibited, except for solar energy devices which shall be placed to minimize adverse impacts to public views to the maximum extent feasible.
 - H. All windows shall be comprised of non-glare/non-reflective glass.
- I. The walking surface of a deck with underpinnings visible from outside the parcel shall not exceed a height of six feet above grade. Decks shall be integrated into the architecture of the house.
- J. The vertical distance between the lowest point where the foundation meets grade and the lowest floor line of the structure shall be the minimum necessary for safety purposes.
- **22.44.1250(B)** Except as listed in this subsection B, every residence and every other building or structure in the Coastal Zone shall have a height not to exceed 30 feet above natural or finished grade, whichever is lower, excluding wireless telecommunication facilities, chimneys, rooftop solar panels, and rooftop antennas. Where an applicant can demonstrate that a taller structure would result in a smaller building footprint with less land alteration and fewer impacts to environmental resources, for example on a downslope development, a building or structure shall not exceed 35 feet above natural or finished grade, whichever is lower.
- **22.44.1250**(C) Every residence and every other building or structure in a Scenic Resource Area, shall have a height not to exceed 18 feet above natural or finished grade, whichever is lower, excluding chimneys, rooftop solar panels and rooftop antennas.
- **22.44.1250(D)** Chimneys, rooftop solar panels and rooftop antennas may extend a maximum six feet above the permitted height of the structure.
- **22.44.1260**(C)(4) New development shall be sited and designed to minimize the amount of grading and the alteration of natural landforms.
- 22.44.1260(C)(5) All grading shall be performed in a manner that minimizes disturbance to the natural landscape and terrain through design features for the project such as, but not limited to, conforming to the natural topography, locating the building pad in the area of the project site with the least slope to minimize flat pads on slopes, utilizing split-level or stepped pad designs on slopes, clustering structures, locating the project close to a paved street traveled by the public, reducing building footprints, and minimizing hardscape, the height and length of cut and fill slopes and retaining walls. Grading shall also be accompanied by other project features that maximize preservation of visual quality and rural community character through design features such as, but not limited to, use of landform grading techniques so that graded slopes blend with the existing natural terrain of the site and surrounding area, and use of locally-indigenous vegetation for concealment of the project.

- **22.44.1260(D)** Cut and fill grading may be balanced on-site where the grading does not substantially alter the existing topography and blends with the surrounding area. Topsoil from graded areas may be utilized for site landscaping where it does not substantially alter the existing topography and blends with the surrounding area.
- **22.44.1270(E)** In addition to complying with the applicable provisions of the Building and Electrical Codes of the County and all other applicable provisions of the LCP, outdoor lighting within the Coastal Zone, other than street lights, shall be subject to the following requirements:
 - 1. Lighting allowance.
- a. Security lighting attached to the principally permitted structure and other permitted accessory structures that is controlled by motion detectors and shall have a manufacturer's maximum output rating of no greater than 60 watts (600 lumens), or the equivalent.
- b. The minimum lighting necessary shall be used to light walkways used for entry and exit to permitted structures, including parking areas, on the site. This lighting shall be limited to fixtures that do not exceed two feet in height, that are directed downward, and have a manufacturer's maximum output rating of no greater than 60 watts (600 lumens), or the equivalent.
- c. Lighting for permitted confined animal facilities shall be consistent with the requirements of Section 22.44.1920 and limited to:
- i. Necessary security lighting attached to a barn or storage structure that is controlled by motion detectors and has a manufacturer's maximum output rating of no greater than 60 watts (600 lumens), or the equivalent; and
- ii. Arena or round pen lighting by bollard or fence-mounted fixtures that do not exceed four feet in height and has the minimum output rating necessary to achieve the purpose while avoiding adverse impacts on scenic resources and illumination of H1 and H2 habitat (including H2 habitat buffer).
- d. For properties located in a R-C, R-1, R-3, R-R, O-S or OS-P zone, outdoor light fixtures installed more than 15 feet above finished grade shall have a manufacturer's maximum output rating of no greater than 40 watts (400 lumens).
- 2. Light trespass. Outdoor lighting shall be minimized, directed toward the targeted area(s) only, and avoid light trespass onto non-target areas, including but not limited to H1 and H2 habitat areas and the H1 habitat area buffer. Lighting of equestrian arenas or round pens may only be allowed where it is demonstrated, pursuant to a site-specific evaluation and photometric analysis, that the lighting will cause no light trespass into any adjacent H1 and H2 habitat areas, including the 100-foot H1 habitat buffer.
- 3. Shielding. Outdoor lighting shall be fully shielded, directed downward, and use best available dark skies technology.
 - 4. Maximum height.
- a. Outdoor light fixtures shall be the minimum height necessary to achieve the identified lighting design objective. The maximum height for an outdoor light fixture (whether attached to a structure or detached), as measured from the finished grade to the top of the fixture, shall be as follows:
 - i. Twenty feet for a property located in a R-C, R-1, R-3, R-R, O-S or OS-

P zone:

ii. Thirty-five feet for a property located in a commercial (C-1, C-2) or

institutional (IT) zone; and

- iii. Two feet for lighting of walkways used for entry and exit to permitted structures, including parking areas.
 - iv. Four feet for equestrian arenas and round pens.
- b. Maintenance. Outdoor lighting shall be maintained in good repair and function as designed, with shielding securely attached to the outdoor lighting at all times.
- **22.44.1310(I)** Fencing that is non-wildlife permeable may surround the immediate development and extend no further than the outer extent of Fuel Modification Zone A (typically 20 feet from structures that require fuel

modification), and shall be solely for safety purposes. Fencing shall be no more than six feet in height. Fencing that is wildlife permeable may extend no further than the outer extent of Fuel Modification Zone B (100 feet from structures that require fuel modification).

- **22.44.1310(K)** Perimeter fencing of a parcel is prohibited.
- **22.44.1310(L)** All fencing shall be sited and designed to not restrict wildlife movement, except where temporary fencing is required to keep wildlife away from habitat restoration areas.
- **22.44.1310(N)** Fences and walls shall not be constructed of or topped with spikes, wire, barbs, razors, or any other similar material. Barbed-wire and chainlink fencing is prohibited.
- **22.44.1310(O)** Fences, gates, and walls shall minimize impacts to public views of scenic areas and shall be compatible with the character of the area.
- **22.44.1310(U)** Gates must be wildlife-permeable, and shall only be allowed on roads or driveways that provide access to one property except where such gate is necessary to prohibit vehicular access to public parkland. **22.44.2000** Identification of Scenic Resource Areas. The Scenic Resource Areas consist of the following:
 - A. Any of the following features designated on the Scenic Resources map (Map 3) of the LUP as:
 - -- Scenic Elements;
 - -- Significant Ridgelines;
 - -- Scenic Routes, and all property within 200 feet of the edge of the right-of-way for Scenic

Routes.

- B. All places on, along, within or visible from Scenic Routes, public parklands, trails, beaches, or State waters that offer scenic vistas of the mountains, canyons, coastline, beaches, or other unique natural features.
 - C. Public parkland and recreation areas identified on the Recreation map (Map 4) of the LUP.
- **22.44.2040** Property in Scenic Resource Areas shall be subject to the following development standards:
 - A. All Scenic Resource Areas:
- 1. View protection. New development shall be sited and designed to protect public views within Scenic Resource Areas and to minimize adverse impacts on scenic resources to the maximum extent feasible. If there is no feasible building site location on the proposed project site where development would not be visible from a scenic resource area, then the development shall be sited and designed to minimize impacts on scenic areas through measures that may include, but not be limited to, siting development in the least visible portion of the site, breaking up the mass of new structures, designing structures to blend into the natural hillside setting, restricting the building maximum size, reducing maximum height, clustering development, minimizing grading, incorporating landscape and building material screening elements, and where appropriate, berming.
- 2. Avoidance of impacts to scenic resources through site selection and design alternatives is the preferred method over landscape or building material screening. Landscape or building material screening shall not substitute for project alternatives including re-siting or reducing the height or bulk of structures.
- 3. New development shall incorporate colors and exterior materials that are compatible with the surrounding landscape. The use of highly-reflective materials shall be prohibited, with the exception of solar panels. Solar energy devices/panels shall be sited on the rooftops of permitted structures, where feasible. If roof-mounted systems are infeasible, ground-mounted systems may be allowed only if sited within the building site area of permitted development. Wind energy systems are prohibited.
- 4. Public works projects, including but not limited to retaining walls, abutments, bridges, and culverts, shall be constructed of materials, textures, veneers, and colors compatible with the surrounding natural landscape and in keeping with a rural character;
 - 5. Utilities shall be constructed underground where feasible.
 - 6. All new access roads shall be paved with colored concrete to blend with the natural soil.

The length of roads or driveways shall be minimized, except where a longer road or driveway would allow for an alternative building site location that would be more protective of scenic resources, H1 and H2 habitat areas, or other coastal resources. Driveway slopes shall be designed to follow the natural topography, unless otherwise required by the Fire Department. Driveways that are within or visible from a scenic resource shall be a neutral color that blends with the surrounding landforms and vegetation.

- 7. Only wood, wire, or wrought-iron style or similar open-type fences shall be permitted.
- 8. Outdoor lighting shall preserve the visibility of the natural night sky and stars, to the extent feasible and consistent with public safety, consistent with the requirements of Section 22.44.1270.
- 9. Fences, gates, walls, and landscaping shall minimize impacts to public views of scenic areas, and shall be compatible with the character of the area. Fences, gates, and walls shall be designed to incorporate veneers, texturing, and/or colors that blend in with the surrounding natural landscape, and shall not present the appearance of a bare wall.
- 10. Signs shall be sited and designed to minimize impacts to scenic resources. The placement of signs (except traffic control signs), utilities, and accessory equipment that would adversely impact public views to the ocean, parks, and scenic resources are prohibited.
- 11. Grading. Alteration of natural landforms shall be minimized by conforming to natural topography and using contour grading, and shall comply with the following standards:
- a. The height and length of manufactured cut and fill slopes shall be minimized. A graded slope shall not exceed a height of 15 feet;
- b. Graded pads on hillsides having a natural slope of 15 percent or more shall be split-level or stepped pad designs. Cantilevers and understories shall be minimized and covered with materials that blend with the surrounding landscape;
- c. The height and length of retaining walls shall be minimized. Retaining walls shall not exceed six feet in height and shall be constructed of materials, textures, veneers, and colors that are compatible with the surrounding landscape. Where feasible, long contiguous walls shall be broken into sections or shall include undulations to provide visual relief. Where more than one retaining wall is necessary, they shall be separated by a minimum three-foot horizontal distance; the area in front of and separating retaining walls shall be landscaped to screen them, unless otherwise screened by buildings;
- d. Development located on the inland side of Pacific Coast Highway shall be designed to minimize cutting into the base of the bluff to avoid grading and the use of retaining walls;
- 12. Preserve and, where feasible, restore and enhance individual native trees and native tree communities in areas containing suitable native tree habitat especially oak, walnut, and sycamore woodlands and savannas as important elements of the area's scenic character.
- 13. Large areas of natural open space of high scenic value shall be preserved by clustering development and siting development in and near existing developed areas.
 - B. Significant Ridgelines and other ridgelines.
- 1. Significant Ridgelines are designated by the Director as those which in general are highly visible and dominate the landscape. New development is prohibited on Significant Ridgelines, as depicted on Map 3 Scenic Resources, of the Land Use Plan. Structures shall be located sufficiently below Significant Ridgelines pursuant to subsection B.3 below.
- 2. All ridgelines other than Significant Ridgelines that are visible from a Scenic Route, public parkland, trails, or a beach shall be protected by siting new development below the ridgeline to avoid intrusions into the skyline where feasible. Where there are no feasible alternative building sites below the ridgeline or where the only alternative building site would result in unavoidable adverse impacts to H1 or H2 habitat areas, structures shall be limited to 18 feet in height to minimize visual impacts and preserve the quality of the scenic area.
- 3. The highest point of a structure shall be located at least 50 vertical feet and 50 horizontal feet from a Significant Ridgeline.
- 4. Where structures on a lot or parcel of land cannot meet the standards prescribed by subsection B.3. above, a variance is required as provided in Section 22.44.1150. In addition to the variance

requirements of Section 22.44.1150, findings shall be made that (1) alternative sites within the property or project have been considered and eliminated from consideration based on physical infeasibility or the potential for substantial habitat damage and destruction, and (2) the proposed development is limited to 18 feet in height above existing or finished grade (whichever is lower) and maintains the maximum view of the related Significant Ridgeline through the use of design features that include, but are not limited to, reduced building footprint area, clustered structures, shape, materials, and color which allow the structure to blend in with the natural setting, minimized grading, and locally-indigenous vegetation to soften the view of development from the identified public viewing areas. The Director shall maintain a list of appropriate landscaping materials required to satisfy this provision. Avoidance of impacts to scenic resources through site selection and design alternatives is the preferred method over landscape or building material screening. Landscape or building material screening shall not substitute for project alternatives including re-siting or reducing the height or bulk of structures.

- 5. No part of a proposed structure shall block the view of a Significant Ridgeline from a Scenic Route.
- C. Scenic Routes. The following roadways are considered Scenic Routes, as indicated on Map 3 of the LUP:
 - Mulholland Scenic Corridor and County Scenic Highway;
 - Pacific Coast Highway (SR-1);
 - Malibu Canyon/Las Virgenes Road County Scenic Highway;
 - Kanan Dume Road;
 - Topanga Canyon Boulevard (SR-27);
 - Old Topanga Canyon Road;
 - Saddle Peak Road/Schueren Road;
 - Piuma Road;
 - Encinal Canyon Road;
 - Tuna Canyon Road;
 - Rambla Pacifico Road;
 - Las Flores Canyon Road;
 - Corral Canyon Road;
 - Latigo Canyon Road; and
 - Little Sycamore Canyon Road.
- 1. Structures shall not occupy more than 50 percent of the linear frontage of a parcel fronting on a Scenic Route.
- 2. Roof-mounted equipment shall not be visible from a Scenic Route, excluding solar energy devices. If there is no alternative location possible for the location of such equipment, such equipment shall be screened with materials that blend with the roof or background landscape.
- 3. Landscape screening shall be required for structures that will be unavoidably visible from a Scenic Route, to help diffuse the visual impact of the structure. However, landscape screening shall not substitute for project alternatives including re-siting or reducing the height or bulk of structures on properties visible from a Scenic Route.
- 4. Trees, shrubs, flowers, and other landscaping that form a hedge or similar barrier serving the purpose of a wall shall not be placed so that they obscure views from Scenic Routes and shall comply with the height restrictions applying to fences and walls in Section 22.44.1310.
- 5. Structures on the downslopes along Scenic Routes shall be set below road grade whenever feasible.
- 6. Structures located on the ocean side of Pacific Coast Highway shall occupy no more than 80 percent of the linear frontage of the parcel. The remaining 20 percent of the linear frontage of the parcel shall be maintained as one contiguous view corridor. If projects include more than one adjoining parcel, structures may occupy 100 percent of the linear frontage of any one parcel, even if the project crosses a parcel

line, provided that the development does not occupy more than 80 percent of the total lineal frontage of the overall project site and that the remaining 20 percent is maintained as one contiguous view corridor to allow unobstructed views of the ocean. Any structure built on bluffs on the ocean side of Pacific Coast Highway shall not impair views of the bluff from the beach.

- 7. Signs. The provisions of Section 22.44.1280 shall be modified as follows for signs along Scenic Routes: Notwithstanding any other provision of this Section, no pole sign may be replaced if it is removed, damaged, or destroyed for any reason. Prohibit placing new and phase out any existing offsite advertising signs and onsite pole signs upon change of use, along designated scenic routes.
 - 8. Fences and walls.
- a. Solid fences and walls, except for retaining walls, shall be prohibited along the frontage of a Scenic Route.
- b. Fences and walls located along the frontage of a Scenic Route shall comply with the provisions of Section 22.44.1310 with respect to height and with the provisions of subsections E.2 through E.4 of Section 22.44.2140.

Applicable Cumulative Impact IP Provisions:

22.44.640(A) A CDP shall be required to authorize that portion of any land division that lies within, in whole or in part, the boundaries of the Coastal Zone Any CDP for a land division shall include the consideration of the proposed building site (including a building pad if necessary), access road, and the driveway (if necessary) for each proposed parcel (other than a parcel that is dedicated or restricted to open space uses) as well as all grading, whether onsite or offsite, necessary to construct the building site and road/driveway improvements. The County shall only approve a CDP for a land division where substantial evidence demonstrates that the land division meets all of the following requirements:

- 1. All existing parcels proposed to be divided as part of a land division must be legal lots.
- 2. The land division shall be consistent with all applicable LCP policies.
- 3. The density proposed by the land division does not exceed the maximum density allowed for the property by the LIP zoning map and compliance with the other policies of the LCP which may further limit the maximum allowable density.
- 4. The land division does not create any parcels that are smaller than the average size of surrounding parcels.
- 5. The land division clusters building sites, including building pads, if any, to maximize open space and minimize site disturbance, erosion, sedimentation and required fuel modification.
- 6. The land division includes a safe, all-weather access road and driveway(s), if necessary, that comply with all applicable policies and provisions of the LCP and all applicable fire safety regulations, and does not locate the access road or driveway on slopes of 25 percent or more; and, does not result in grading on slopes of 25 percent or more.
- 7. The land division does not divide an existing lot entirely designated as H1 habitat, H1 habitat buffer, and/or H2 high scrutiny habitat as defined in Section 22.44.1810.
- 8. The land division does not create any lot the development of which would require construction of a road and/or driveway in H1 habitat area, in H1 habitat buffer, in H1 Quiet Zone, on a coastal bluff or on a beach.
- 9. The layout of the lots is designed to avoid or minimize impacts to visual resources consistent with all scenic and visual resources policies of the LUP, through measures which include, but are not limited to the following:
 - a. Clustering the building sites to minimize site disturbance and maximize open
 - b. Prohibiting building sites on ridgelines.
 - c Minimizing the length of access roads and driveways.
 - d. Using shared driveways to access development on adjacent lots.
 - e. Reducing the maximum allowable density in steeply sloping and visually

sensitive areas.

space.

- f. Minimizing grading and alteration of natural landforms.
- 10. Each lot proposed to be created meets the following minimum standards:
- a. Is dedicated or restricted to open space uses through open space easement, deed restriction, or donation to a public agency for park purposes; or
- b. Contains an approved building site that can be developed consistent with all policies and standards of the LCP, and satisfies all of the following criteria:
 - i. Is safe from flooding, erosion, geologic and extreme fire hazards;
 - ii. Will not result in grading on slopes over 25 percent;
- iii. Has the legal rights that are necessary to use, improve, and/or construct an all-weather access road to the parcel from an existing, improved public road;
- iv. Is located in an area where adequate public services are or will be available and construction of structures will not have significant effects, either individually or cumulatively, on coastal resources:
- v. Has the appropriate conditions on-site for a properly functioning onsite wastewater treatment system and an adequate water supply for domestic use;
- vi. The building site, and any necessary access road and/or driveway thereto, meets all of the following: 1) does not include any H1 habitat area, H1 habitat buffer, H1 habitat Quiet Zone, or H2 high scrutiny habitat; 2) would not require vegetation removal or thinning for fuel modification in an H1 habitat area, H1 habitat buffer, or H2 high scrutiny habitat; and 3) would not require irrigated fuel modification within an H1 Quiet Zone. Creation of a new Open Space parcel shall be allowed within any habitat category or buffer, as long as the entire parcel is used exclusively as Open Space in perpetuity and the construction rights over the entire parcel are dedicated to the County;
- vii. Is located where a shoreline protection structure or bluff stabilization structure will not be necessary to protect development on the parcel from wave action, erosion or other hazards at any time during the full 100-year life of any structures;
- viii. If located on the beachfront, has sufficient area to site a dwelling or other principal structure, onsite wastewater treatment system, if necessary, and any other necessary facilities without development on sandy beaches or bluffs;
- **22.44.640(B)** In addition to the requirements of subsection A, land divisions in H2 habitat (excluding H2 High Scrutiny habitat) shall also demonstrate, based on substantial evidence, compliance with the following:
- 1. The proposed parcels are configured and building sites are sited and designed to ensure that future structures will have overlapping fuel modification zones and in no case shall the proposed building sites be located more than 100 feet apart.
- 2. The building site on each newly created parcel is located no more than 200 feet from an existing public roadway and is capable of being served by existing power and water service.
 - 3. The building site on each newly created parcel is located only on slopes of 3:1 or less.
 - 4. The proposed newly created parcels shall be within 1/4 mile of existing developed
- 5. Land divisions on parcels adjacent to public parklands or parcels restricted as permanent open space are prohibited.

parcels.

- 6. The County can and does make a finding that the land division and associated transfer of development credit required pursuant to Subsection G will result in the transfer and concentration of existing development rights to a location that results in the preservation of H2 habitat in a manner that is superior to the pre-land division lot configuration if developed.
- 7. Where a lot proposed to be created in H2 habitat is dedicated or restricted to open space uses (through an open space easement, deed restriction, or donation to a public agency for park purposes), no demonstration of compliance with the building site or access road standards of subsections 1 through 3 is required.

- **22.44.680(B)** The proposed lot line adjustment complies with subsections A and B of Section 22.44.640 as well as all of the following:
- 1. The lot configuration is arranged to avoid traffic congestion, provide for the safety and convenience of bicyclists and pedestrians, including children, senior citizens, and persons with disabilities, insure the protection of public health, safety and general welfare, prevent adverse effects on neighboring property and conforms with good zoning practice.
 - 2. The lot design, frontage, and access shall be consistent with all applicable provisions contained in this LIP.
- 3. Any change in access, lot configuration or orientation of structures, easements or utilities to lot lines will not, in the opinion of the Director, result in any burden on public services or materially affect the property rights of any adjoining owners.
- **22.44.680(C)** If the existing, legally created parcels that are proposed to be reconfigured do not meet the requirements of subsection B and/or subsections A or B of Section 22.44.640, then the lot line adjustment may only be approved where it is demonstrated that the reconfigured parcels can accommodate development that more closely conforms with the LCP policies and standards than development on the existing parcels could.
- **22.44.680(D)** If H2 habitat area is present on any of the parcels involved in the lot line adjustment, the lot line adjustment may only be approved where it is demonstrated that the reconfigured parcels will not increase the amount of H2 habitat area that would be removed or modified by development on any of the parcels, including any necessary road extensions, driveways, and required fuel modification, from what would have been necessary for development on the existing parcels.
- **22.44.680(E)** As a result of the lot line adjustment, future development on the reconfigured parcels will not increase the amount of landform alteration (including from any necessary road extensions or driveways) from what would have been necessary for development on the existing parcels, unless the increase in landform alteration is minimal and the lot configuration would substantially reduce impacts to H2 habitat.
- **22.44.680(F)** As a result of the lot line adjustment, future development on the reconfigured parcels will not have greater adverse visual impacts from a scenic road, public trail or trail easement, or public beach than what would have occurred from development on the existing parcels, unless the increase in visual impacts is minimal and the lot configuration would substantially reduce impacts to H2 habitat.
- **22.44.680(G)** Minor lot line adjustments between existing lawfully-developed parcels may be authorized provided the adjustment would not adversely impact H1 habitat, H1 habitat buffer, H2 habitat, or scenic resources.
- **22.44.680(H)** Contiguous parcels under common ownership may be merged by filing a Request for Merger with the Department subject to standards and procedures for obtaining a lot line adjustment, including the required fees.
- **22.44.680(I)** Notwithstanding the requirements of Subsection A, lot line adjustments for the sole purpose of combining two or more parcels may also be authorized as a means of reversing a purported but illegal division of property.
- **22.44.680(J)** If the adjustment is approved, the Director shall record a certificate of compliance containing the descriptions of the parcels as they will exist after adjustment. If the request is denied, the Director shall report this in writing to the applicant, citing the reasons for denial.
- 22.44.680(K) If approved, the lot line adjustment shall be reflected in a deed or record of survey which shall

be recorded by the applicant.

22.44.1340(D) The proposed extension of water, sewer, or utility infrastructure to serve new development shall be located within legally existing roadways and road rights-of-way in a manner that avoids adverse impacts to coastal resources to the maximum extent feasible. Where adverse impacts cannot be avoided, alternatives shall be analyzed to ensure that the method for providing water, sewer, or utility service to a development avoids or minimizes adverse impacts to the maximum extent feasible. Such infrastructure shall be sized and otherwise designed to provide only for the approved development to avoid growth-inducing impacts. Proposed development projects shall obtain approval of design and financial arrangements from the local water purveyor for the construction of water and, if applicable, sewer facilities prior to issuance of a coastal development permit for new development. The use of hauled water as a source of potable water for new development shall be prohibited.

Applicable Hazard IP Provisions:

- **22.44.2102(A)** All new development shall be sized, sited, and designed to minimize risks to life and property from geologic, flood, and fire hazard, considering changes to inundation and flood zones caused by rising sea level.
- **22.44.2102(B)** New development shall 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.
- **22.44.2102(E)** New development proposed on landslides, steep slopes, unstable or weak soils or any other identified geologic hazard area, shall be permitted only where a factor of safety of 1.5 (static) and a factor of safety of 1.1 (pseudostatic) can be provided.
- **22.44.2102(F)** Measures to remediate or stabilize landslides or unstable slopes that endanger existing structures or threaten public health shall be designed to be the least environmentally damaging feasible alternative, to minimize landform alteration, and to be visually compatible with the surrounding natural environment to the maximum feasible extent. Maximum feasible mitigation measures shall be incorporated into the design and construction of slope stabilization projects to minimize adverse impacts to sensitive resources to the maximum feasible extent.
- **22.44.2102(G)** New development, including construction, grading, and landscaping shall be designed to incorporate drainage and erosion control measures prepared by a qualified licensed professional that incorporate structural and non-structural Best Management Practices (BMPs) to control the volume, velocity and pollutant load of stormwater runoff in compliance with the LID requirements of this LIP.
- 22.44.2102(J) In addition, all new development shall adhere to the following requirements:
- 1. All development that lies within, or partially within, a designated Earthquake Fault Zone as identified by the Alquist-Priolo Earthquake Fault Zoning Act for protection from fault rupture hazard shall demonstrate compliance with all requirements of the Act prior to issuance of any use permit, building permit, or other entitlement.
- 2. All development that lies within, or partially within, a zone of required investigation for liquefaction or earthquake-induced landslides as identified by the Seismic Hazard Zone Mapping Act for protection from liquefaction and earthquake induced-landslide hazard shall demonstrate compliance with all requirements of the Act prior to issuance of any use permit, building permit, or other entitlement.
- 3. Where feasible, development shall be sited outside of potential tsunami inundation zones. Tsunami inundation zones shall be defined as those areas identified as such on maps released by the California Geological Survey, as they become available. If no such map is available, a Registered Civil Engineer

with coastal experience shall make a determination whether the site may reasonably be expected to be subject to inundation during a tsunami. If it is not feasible to site development outside of a tsunami inundation zone, new development shall be in conformance with all of the provisions set forth in this chapter with regard to Flood Hazard Zones. In addition, development shall be constructed to resist lateral movement due to the effect of water loading from the maximum expected tsunami, to the greatest extent feasible.

- 4. All swimming pools shall contain double-wall construction with drains and leak detection systems capable of sensing a leak of the inner wall.
- 5. New development shall be required to utilize design and construction techniques and materials that minimize risks to life and property from fire hazard. Structures shall be constructed with appropriate features and building materials, including but not limited to: fire-resistant exterior materials, windows and roofing; and eaves and vents that resist the intrusion of flame and burning embers. Require that development sites and structures: be located off ridgelines and other dangerous topographic features such as chimneys, steep draws, and saddles; be adjacent to existing development perimeters; be located close to public roads; and, avoid over-long driveways.
- 6. New development shall incorporate fuel modification and brush clearance techniques and shall be designed and carried out to minimize clearance of natural vegetation and reduce impacts to sensitive natural habitat to the maximum feasible extent.
- 7. New development shall provide for emergency vehicle access and adequate fire-flow water supply in compliance with applicable fire safety regulations. Development in areas with insufficient access, water pressure, fire flows, or other accepted means for adequate fire protection shall be prohibited.
- 8. Prior to CDP approval, all new development shall demonstrate the availability of an adequate water supply for fire protection in compliance with applicable fire safety regulations. Where feasible, alternative water resources for fire-fighting purposes shall be maintained on development sites. Water tanks shall be sized consistent with County minimum requirements, clustered with approved structures, and sited to minimize impacts to coastal resources.
- 9. Residential structures shall be clustered to provide for more localized and effective fire protection measures such as consolidation of required fuel modification and brush clearance, fire break maintenance, firefighting equipment access, and water service. Structures shall also be located along a certified all-weather accessible road, which in some cases may consist of permeable surfaces, in a manner that provides firefighters adequate vehicle turnaround space on private properties. Where feasible, require that new development be accessed from existing roads.
 - 10. Reduce fire hazards by:
- Reviewing new development for adequate water supply and pressure, fire hydrants, and access to structures by firefighting equipment and personnel;
- Requiring, where appropriate, on-site fire suppression systems for all new residential and commercial development to reduce the dependence on Fire Department equipment and personnel;
- Limiting the length of private access roads to reduce the amount of time necessary for the Fire Department to reach residences and to minimize risk to firefighters;
- Requiring project design to provide clearly visible (during the day and night) address signs for easy identification during emergencies; and
 - Cooperating with the Fire Department to ensure compliance with the Fire Code.
- Facilitating the formation of volunteer Fire Departments and volunteer EMS providers such as the Malibu Search and Rescue Team.
- 11. Should the County of Los Angeles Fire Department policies regarding fuel management and fire protection conflict with the policies and provisions of the LUP, personnel from the Fire and Regional Planning Departments shall meet and agree on measures to balance the need for fire protection for structures with the need to protect environmental resources. If resolution of issues cannot be achieved and there are no feasible solutions that would permit meeting the provisions of the LCP, the Los Angeles County Fire Guidelines, and the State Fire Code, shall take precedence. Any such modification of LCP policies or provisions must be approved in an LCP amendment pursuant to the provisions of Section 22.44.700 and certified by the

Coastal Commission.

22.44.2102(K) As a condition of approval of new development within or adjacent to an area subject to flooding, land or mudslide, or other high geologic hazard, prior to issuance of the Coastal Development Permit, the property owner shall be required to execute and record a deed restriction which acknowledges and assumes said risks and waives any future claims of damage or liability against the County and agrees to indemnify the County against any liability, claims, damages, or expenses arising from any injury or damage due to such hazards.

22.44.2102(L) As a condition of approval of new development within or adjacent to an area subject to high wildfire hazards, prior to issuance of the Coastal Development Permit, the property owner shall be required to submit a signed document which shall indemnify and hold harmless the County, its officers, agents, and employees against any and all claims, demands, damages, costs, and expenses of liability arising out of the acquisition, design, construction, operation, maintenance, existence, or failure of the permitted project in an area where an extraordinary potential for damage or destruction from wildfire exists as an inherent risk to life and property.

Applicable Public Access IP Provisions:

- **22.44.1390(C)** Mapped Trails or Recorded Trail Easements. An extensive public trail system has been developed across the Santa Monica Mountains that provides public coastal access and recreation opportunities. This system includes trails located within public parklands as well as those which cross private property. Existing and proposed public trails are shown on Map 4 Recreation. New development shall be reviewed to determine the most appropriate means to protect, and enhance where appropriate, existing and proposed public trails. Depending on the size, location, impacts, and intensity of the proposed development with respect to trails depicted on Map 4 Recreation of the Land Use Plan, one of the following shall be required to avoid or minimize impacts to access and recreation:
- 1. The location of the trail may be revised if: the proposed project site contains H1 or H2 habitat, there is no feasible alternative siting location for the development that would avoid or minimize habitat impacts; and if the revised trail alignment offers equal or greater access and recreation opportunities and can feasibly be constructed. The County Department of Parks and Recreation and the easement holder (where there is an existing recorded trail easement) shall be consulted prior to any such revision.
- 2. The development is required by a condition of the CDP to provide an adequate set back from the trail to avoid any impact to public access or recreation opportunity.
- 3. A trail easement (offer-to-dedicate or grant of easement) is required, through a condition of the CDP, over the portion of the mapped trail located on the project site.
- **22.44.1390(D)** Trails and other Public Accessways. A condition to require public trail access or a lateral or vertical public accessway as a condition of approval of a CDP shall provide the public with the permanent right of access and active recreational use (or passive recreational use along the shoreline where applicable), (1) along a designated alignment of a coastal recreational path or trail in specific locations identified in the LUP for implementation of trail access (proposed trail alignments on LUP "Map 4 Recreation" are not intended to be precise and the best and most feasible route shall be determined based on physical or biological factors, parcel boundaries and offsite trail alignments during review of a CDP application), or (2) in locations where it has been determined that a trail or other accessway is required to provide public access along the shoreline, link recreational areas to the shoreline or provide alternative recreation and access opportunities pursuant to the access and recreation policies of the LUP and Coastal Act.
- **22.44.1390(E)** Legal description of a trail/accessway segment and recordation. A trail access dedication (offer to dedicate or grant of easement) required as a condition of a CDP shall be described, in the condition of approval of the permit in a manner that provides the public, the property owner, and the accepting agency with the maximum amount of certainty as to the location of the trail segment.

- 1. Prior to the issuance of the CDP, the landowner shall execute and record a document in a form and content acceptable to the Executive Director of the Coastal Commission [or the County if authorized pursuant to 14 California Code of Regulations Section 13574(b)], consistent with provisions of subsections E2 and E3 below, irrevocably offering to dedicate (or grant an easement), to a qualified public agency or land conservation organization operating outdoor recreation facilities in the Santa Monica Mountains, an easement for public hiking and equestrian access that is 25 feet in width along the length of the trail alignment located within the project site. Trail easements may be up to 50 feet in width where steep terrain or other constraints require more siting flexibility. The easement for lateral public access along the shore shall be along the entire width of the property from the mean high tide line landward to a point fixed at the most seaward extent of development (as applicable), such as the toe of the bluff, the intersection of sand with the toe of revetment, the vertical face of seawall, the ambulatory seaward-most limit of dune vegetation, or the dripline of a deck. The easement for vertical public access to the shore shall extend from the road to the mean high tide line (or bluff edge) and shall be a minimum of 10 feet wide whenever feasible.
- 2. The recorded document shall provide that: (1) the terms and conditions of the permit do not authorize any interference with prescriptive rights in the area subject to the easement prior to acceptance of the offer and; (2) development or obstruction in the trail/accessway prior to acceptance of the offer is prohibited.
- 3. The recorded document shall include legal descriptions and a map drawn to scale of both the applicant's entire parcel and the easement area. The offer or grant shall be recorded free of prior liens and any other encumbrances which the Executive Director of the Coastal Commission [or County if authorized by the Commission pursuant to 14 Cal. Admin. Code section 13574(b)] determines may affect the interest being conveyed. The offer to dedicate or grant of easement shall run with the land in favor of the People of the State of California, binding all successors and assignees, and the offer shall be irrevocable for a period of 21 years, such period running from the date of recording.

Applicable Archaeological Resource IP Provisions:

22.44.1570

- A. Purpose. The intent of these provisions is protect and preserve archaeological, historical, and paleontological resources from destruction, and avoid impacts to such resources where feasible. Where avoidance is not feasible, impacts to resources shall be minimized to the maximum extent feasible.
- B. Definitions. The following definitions shall only apply to this section:
- -- "CEQA" means the California Environmental Quality Act which shall be the statutory reference for those portions of this LIP drawn therefrom.
- -- "Important Cultural Resource" may include, but not be limited to, the following criteria:
 - 1. Has a special quality such as oldest, best example, largest, or last surviving example of its kind.
 - 2. Is at least 100 years old.
 - 3. Significant to Chumash prehistory or history.
 - 4. Contains burial or other significant artifacts.
 - 5. Is an archeologically undisturbed site.
 - 6. Has important archeological significance.
 - 7. Relates to significant events or persons.
 - 8. Of specific local importance.
 - 9. Contains traditional sacred ground (including traditional ceremonial material gathering site).
 - 10. Contains burials.
 - 11. Contains sacred and/or significant artifacts.
- 12. Where a property meets the terms of the definitions in section 21084.1 of the CEQA Statute and section 15064.5 of the CEQA Guidelines.
- -- "Project" means any earth moving requiring a planning clearance, development permit, geological/geotechnical exploratory excavation permit, sewer permit, building permit, or grading permit. The term shall include government-initiated or funded works except those projects necessary for emergency purposes.

- -- "Qualified Archaeologist" means a professional archaeologist included as a person qualified by or on the registry of Professional Archeologist of the Society for American Archeology who has a minimum of three years at the supervisory level, or a professional archaeologist whose qualifications exceed this level, as determined by the Director.
- -- "Qualified Chumash Cultural Resources Monitor" means a Native American of Chumash descent who:
- 1. Submits verifiable evidence, approved by the Director, that he/she is of Chumash descent or is a Native American member of the Chumash community. Being listed as Chumash "most likely descendent" by the California Native American Heritage Commission may satisfy these criteria.
- 2. Submits verifiable evidence, approved by the Director, indicating that he/she has a minimum of thirty (30) days of on site experience monitoring Chumash cultural resource sites.
- -- "Regional Historical Resources Information Center" shall mean the South Central Coastal Information Center, at the California State University, Fullerton.
- C. Applicability. A Cultural Resource Review pursuant to this section shall be required for all projects prior to the issuance of a planning approval, coastal development permit, geological/geotechnical exploratory excavation permit, sewer permit, building permit, grading permit, or prior to the commencement of government-initiated or funded works except those projects necessary for emergency purposes.
- D. Cultural Resource Review.
- 1. In each phase of the Cultural Resource Review required under subsections 2, 3, 4, and 5 of this subsection D below, the Director shall consult verbally and in writing with the Native American Heritage Commission (NAHC), State Historic Preservation Officer (SHPO), the County Native American Cultural Resources Advisory Committee (NACRAC), the County Native American Cultural Resource Manager (NACRM), and the Most Likely Descendent (MLD). In addition: (a) in each phase that requires the selection of an archaeologist, the archaeologist shall be selected from a list acceptable to the NAHC, NACRAC, NACRM, and MLD; and (b) in each phase that requires the selection of a monitor, the selection of that monitor shall be made in written and verbal consultation with the NACRAC, NACRM, MLD, and NAHC. Comments received shall be considered in the review of coastal development permits for new development. Furthermore, all reports and associated photographs, maps, and catalogs resulting from Phase I, Phase II, or Phase III shall be submitted, electronically and in hard copy, to the Regional Information Center.
- 2. Preliminary Review. The Director shall conduct a preliminary review of all projects to determine whether the project may have an adverse impact (or "substantial adverse change" as defined by CEQA) on an important cultural resource. The Director shall utilize the criteria contained in the definition of "Important Cultural Resource," found in subsection B above, in determining an important cultural resource. It shall be determined if the project will result in earth disturbance. Where the Director determines that the project will not have an adverse impact or result in a substantial
- adverse change to an important cultural resource, no further Cultural Resources Review shall be required.
- 3. Phase I Inventory. Where, following the Preliminary Review, the Director determines that the project may have an adverse impact on an important cultural resource, the Director shall require that a Phase I Inventory of cultural resources be prepared. The project applicant shall submit a Phase I Inventory conducted by a qualified archaeologist hired by the project applicant. All Phase I Inventories that involve any excavation or monitoring shall be conducted in consultation with a qualified Chumash Cultural Resources Monitor.
- a. Phase I Inventories shall include:
 - i. A records search through the regional historical resources information center;
 - ii. An archival search of historic records;
 - iii. A field survey; and
 - iv. A written report which describes how the survey was conducted and the result of the survey.
- b. If on the basis of the Phase I Inventory described above, one or more significant cultural resources is found, a Phase I Inventory may be required to include:
 - i. An evaluation of limited shovel test pits to determine whether a subsurface deposit is present and a negative declaration shall be prepared;

- ii. Recommendations for Phase II. Evaluations and a negative declaration, mitigated negative declaration, focused environmental impact report or an environmental impact report shall be prepared; or
- iii. Monitoring programs pursuant to subsection 5 of Section 22.44.1570 and a mitigated negative declaration shall be prepared.
- 4. Phase II Evaluation.
- a. Applicability. Where, as a result of the Phase I Inventory, the Director determines that the project may have an adverse impact on cultural resources, a Phase II Evaluation of cultural resources shall be required and a negative declaration, mitigated negative declaration, focused environmental impact report, or an environmental impact report shall be prepared. All Phase II Evaluations shall be conducted by a qualified archaeologist and, where the Phase I Inventory indicates the presence of prehistoric or ethnohistoric Chumash cultural resources, the evaluation shall also be conducted in consultation with a qualified Chumash cultural resources monitor.
- b. Definition. Phase II Evaluations are investigations intended to gather any additional data necessary to assess the importance of the cultural resources identified in Phase I Inventories, to define site boundaries of the cultural resources, to assess the site's integrity, to evaluate the project's potential adverse impacts on cultural resources, and to develop measures to mitigate potential adverse impacts. Phase II Evaluation proposals shall be designed on a project-specific basis and must be guided by a research design/work plan that clearly identifies the study goals and articulates the proposed methods of data collection and analysis with the goals. Data collection methods may include a number of subsurface exploration techniques, including excavation of auger holes, test pits, or trenches. All Phase II Evaluations shall be conducted in consultation with a qualified Chumash Cultural Resources Monitor.
- c. County Review and Approval. The Director shall review and approve all Phase II design/work plans prior to any testing or excavations. The Director shall also review and approve all reports resulting from Phase II Evaluations. Where, as a result of the Phase II Evaluation, the Director determines that the project will not have an adverse impact on important cultural resources, no further cultural resource review of the project shall be required.
- d. Notwithstanding the foregoing provisions, the Director may waive the preparation of a Phase II Evaluation and prepare a mitigated negative declaration where the Phase I Inventory indicates the following conditions:
- i. Based upon substantial evidence, the Director determines that there is the presence of prehistoric or ethnohistoric Chumash cultural resources and it appears unlikely that the project site will contain important cultural resources (as for example, where the site is in an area of low density of artifacts or other remains, the suspected amount of the site deposit to be disturbed is small, or where it appears the artifacts or other remains have been historically redeposited); and
- ii. Project applicant agrees to provide monitoring of all excavation or trenching by a qualified Chumash cultural resource monitor, chosen in consultation with the Native American Heritage Commission, State Historic Preservation Officer, and the County Native American Cultural Resources Advisory Committee, and the most likely descendent.
- e. In the event that any potentially important cultural resources are found in the course of excavation or trenching, work shall immediately cease until the qualified archaeologist can provide an evaluation of the nature and significance of the resources and until the Director can review this information. All artifacts found shall be curated. Where, as a result of this evaluation, the Director determines that the project may have an adverse impact on cultural resources, a Phase II Evaluation of cultural resources shall be required. The limitations on mitigation as described in subsection D.6 below shall not be applicable to monitoring programs described in subsection D.5 below.
- 5. Phase III Mitigation Programs.
- a. Applicability. Where, as a result of the Phase II Evaluation the Director determines that the project may adversely affect important cultural resources, a Phase III Mitigation Program shall be required. All Phase III Mitigation Programs shall be conducted by a qualified archaeologist and, where the Phase II Evaluation indicates the presence of important prehistoric cultural resources or ethnohistoric Chumash cultural resources, the evaluation shall also be conducted in consultation with a qualified Chumash cultural resource monitor.

- b. Purpose. Phase III Mitigation Programs are intended to mitigate adverse impacts upon important cultural resources. These programs shall be designed on a project-specific basis to meet the particular needs of each project and shall be guided by a research design/work plan that clearly articulates the scope of mitigation based on the recommendations developed in the prior Phase II Evaluation of the affected site.
- c. Cultural Resource Impact Mitigation. Measures to mitigate potential impacts may include, but shall not be limited to, the following:
- i. In-situ preservation of the important cultural resource site (This is the preferred mitigation measure where feasible).
 - ii. Avoiding damage to the important cultural resource site through the following approaches:
 - (A) Planning construction to miss important cultural resource sites.
 - (B) Planning parks or other open space to incorporate important cultural resource sites.
- (C) "Capping" or covering important cultural resource sites with a layer of soil before building tennis courts, parking lots, or similar facilities. Capping may be utilized if all the following conditions are satisfied:
 - (1) The soils to be covered will not suffer serious compaction;
 - (2) The covering materials are not chemically active;
 - (3) The site is one in which the natural processes of deterioration have been

effectively arrested; and

- (4) The site has been recorded.
- (D) Deeding important cultural resource sites into permanent conservation easements.
- (E) Scientific data recovery of an appropriate sample of the important cultural resource(s) via surface collection and archaeological excavation as provided for under this section, where in-situ preservation is not feasible.
 - iii. Curation of all recovered artifacts shall be required.
- 6. Limitations on Mitigation. The limitations on mitigating adverse impacts on important cultural resources shall apply as provided in the California Environmental Quality Act as may be amended from time to time.
- 7. Review and Approval. All Phase III Mitigation Programs shall be submitted to a qualified Chumash Cultural Resources Monitor for review and comment. The Director shall review and approve all design/work plans for Phase III Mitigation Programs and reports which detail the evaluative techniques and results.
- E. Cataloging and Filing of Information.
- 1. All reports resulting from the conduct of any cultural resource review described in this section shall be filed with the Regional Historical Resources Information Center.
- 2. All artifacts discovered in connection with any cultural resource review shall be curated and shall be recorded in the manner required by the State of California. All site records, field notes, maps, photographs, notes by Native American monitors, reports by consulting archaeologists, and other records resulting from the conduct of any cultural resource review described in this section shall be cataloged in accordance with the United States Department of the Interior Guidelines.
- F. Archaeological Discoveries. Any person who discovers important cultural resources during the course of construction for a project shall notify the Director of the discovery. Once important cultural resources are discovered, no further excavation shall be permitted without approval of the Director.

CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST AREA 89 SOUTH CALIFORNIA ST., SUITE 200 VENTURA, CA 93001 (805) 585 - 1800

Th 13c-h

Filed: 11/17/10 270th Day: 8/14/11 D. Christensen Staff:

6/16/11

Staff Report:

Hearing Date:



STAFF REPORT: REGULAR CALENDAR

APPLICATION NUMBERS: 4-10-040, 4-10-041, 4-10-042, 4-10-043, 4-10-044, 4-10-045

APPLICANTS: Lunch Properties LLLP, Vera Properties LLLP, Mulryan Properties LLLP,

Morleigh Properties LLLP, and Ronan Properties LLLP, respectively

Schmitz & Associates Inc. (Lunch Properties LLLP) AGENTS:

Jim Vanden Berg (Vera Properties LLLP)

Stanley Lamport of Cox, Castle, & Nicholson LLP (Mulryan Properties

LLLP)

Timi Hallem and Susan Hori of Manatt, Phelps & Phillips LLP (Morleigh

Properties LLLP)

Paul Weinberg (Ronan Properties LLLP)

PROJECT LOCATION: North of Sweetwater Mesa Road, Santa Monica Mountains, Los

Angeles County

APNs: 4453-005-037, 4453-005-018, 4453-005-092, 4453-005-091, 4453-005-038

PROJECT DESCRIPTIONS: These applications are for: (1) five new single family residences ranging from 7,220 sq. ft. to 12,785 sq. ft. in size on five adjoining lots, each of which claims to be owned by a different LLLP; (2) 28,050 cu. yds. of grading (26,250 cu. yds. cut; 1,800 cu. yds. fill: 21.600 cu. vds. excess) for the residence development areas and private driveways: (3) a 6,010 linear ft., 20 ft. wide access road (includes residential driveways) extending from Sweetwater Mesa Road in Malibu to the development sites with 43,050 cu. yds. of grading (20,100 cu. yds. cut, 22,950 cu. yds. fill), 123 caisson piles up to 79 ft. deep and up to 5 ft. in diameter, and 960 linear ft. of retaining walls; (4) three Fire Department staging areas utilizing 10,000 cu. yds. of excess excavated material, (5) placement of 13,950 cu. yds. of excess excavated material upon a 1.88 acre grassland mesa area; (6) a new 7,800 linear ft. waterline with 900 linear ft., 10 ft. wide maintenance road; and (7) a lot line adjustment between two of the subject lots. Total project grading is approximately 95,050 cu. yds. (46,350 cu. yds. cut, 48,700 cu. yds. fill). Due to the related nature of the six coastal development permit ("CDP") applications, all of the proposed development will be addressed in one staff report. The project descriptions for each separate application are provided below.

CDP Application No. 4-10-040 (Lunch Properties LLLP) (APN 4453-005-037)

The applicant is proposing to construct a 22-ft. high, three-level, 12,004 sq. ft. single-family residence with 629 sq. ft. storage space and an attached 2,128 sq. ft. garage on an approximately 20-acre lot, swimming pool, 200-ft. long driveway, septic system, and 4,800 cu.

CDP Applications 4-10-040, 4-10-041, 4-10-042, 4-10-043, 4-10-044, 4-10-045 Page 2

yds. grading (4,000 cu. yds. cut; 800 cu. yds. fill). The proposed development area is approximately 10,000 sq. ft. in size. The proposed project also includes an approximately 2,500 ft. long, 20 ft. wide shared access road to connect Sweetwater Mesa Road in the City of Malibu north to the subject property, involving 10,750 cu. yds. grading (4,800 cu. yds. cut; 5,950 cu. yds. fill), approximately 500 lineal feet of 5 to 17-ft. high retaining walls, drainage improvements, entry gate, and two Fire Department staging areas (2,800 sq. ft. and 6,200 sq. ft. in size) that would require 700 cu. yds. of grading (fill). The proposed access road would disturb an approximately 4-acre area. In addition, the water line extension proposed as part of CDP Application No. 4-10-041 below would also serve the proposed residential project.

CDP Application No. 4-10-041 (Vera Properties LLLP) (APN 4453-005-018)

The applicant is proposing to construct a 22-ft. high, two-level, 12,785 sq. ft. single-family residence with 2,116 sq. ft. storage space and 1,694 sq. ft. detached garage on an approximately 20-acre lot, swimming pool, 1,595 sq. ft. terraces, septic system, 292 ft. long, 20-ft. wide access drive, approximately 380 linear feet of 5 to 10-ft. high retaining walls, and 10,700 cu. yds. (cut) of total grading. The applicant is proposing a 10,000 sq. ft. development area that would require 5,400 cu. yds. (cut) of the total grading amount. Construction of the proposed 280-ft. long driveway would involve 5,300 cu. yds. (cut) of the total grading amount, and result in disturbance of an 14,000 sq. ft. (0.32 acres) area.

The proposed project also includes extension of an 8-inch diameter water line down to the subject property and the four other adjacent properties from an existing municipal water main beneath Costa Del Sol Way to the north. The total length of the proposed water line is approximately 7,800 feet. In addition, a 10-ft. wide maintenance road is proposed along a 900-ft. long portion of the proposed water main alignment. The proposed road would commence where the existing dirt road ends, but the proposed road would end about 1,000 feet shy of the northernmost proposed residential development due to the extreme steepness of that segment of the terrain. According to preliminary grading plans, the proposed 900-ft. long maintenance road would require a 60-ft. long, 2 to 6-ft. high retaining wall and approximately 1,145 cu. yds. grading (1,135 cu. yds. cut; 10 cu. yds. fill) on steep slopes. The gradient of the cut slopes would range from 1:1 to 0.5:1. Approximately 20,000 sq. ft. of vegetation removal would be associated with construction of the proposed water line maintenance road.

CDP Application No. 4-10-042 (Mulryan Properties LLLP) (APN 4453-005-092)

The applicant is proposing to construct a 28-ft. high, two-level, 7,220 sq. ft. single-family residence on an approximately 40-acre lot, with a 1,398 sq. ft. attached garage, 3,709 sq. ft. terraces, swimming pool, septic system, 850 linear foot shared access road, two Fire Department hammerhead turnarounds, and 5,950 cu. yds. of total grading (3,800 cu. yds. cut; 2,150 cu. yds. fill). The applicant is proposing a 10,000 sq. ft. development area that would require 2,000 cu. yds. (1,600 cu. yds. cut; 400 cu. yds. fill) of the total grading amount. The proposed access drive would involve 3,950 cu. yds. (2,200 cu. yds. cut, 1,750 cu. yds. fill) of the total grading amount and would disturb an approximately 1-acre area. The proposed project includes a 20,000 sq. ft. Fire Department staging area involving 9,400 cu. yds. grading (fill). Since there would be excess excavated material generated by the five residential development projects that are the subject of this staff report, the applicant is proposing to place and contour grade 13,950 cu. yds. of excess material upon a grassland

CDP Applications 4-10-040, 4-10-041, 4-10-042, 4-10-043, 4-10-044, 4-10-045 Page 3

mesa area surrounding the 20,000 sq. ft. Fire Department staging area. The applicant has also proposed to re-vegetate this fill area with a mix of native shrub species and oak trees. In addition, the water line extension proposed as part of CDP Application No. 4-10-041 above would also serve the proposed residential project.

CDP Application No. 4-10-043 (Morleigh Properties LLLP) (APN 4453-005-091)

The applicant is proposing to construct a 28-ft. high, three-level, 8,348 sq. ft. single-family residence on an approximately 40-acre lot, with a 753 sq. ft. attached garage, swimming pool, septic system, a 1,600-ft. long shared access road that extends from the road proposed as part of CDP Application 4-10-040 north to the proposed development area, two Fire Department hammerhead turnarounds, approximately 950 linear feet of 5 to 18-ft. high retaining walls, and 18,050 cu. yds. of total grading (14,350 cu. yds. cut; 3,700 cu. yds. fill). The applicant is proposing a 10,000 sq. ft. development area that would require 1,300 cu. yds. (cut) of grading. The proposed access road and driveway would involve 16,750 cu. yds. of grading (13,050 cu. yds. cut; 3,700 cu. yds. fill) and would disturb an approximately 2-acre area. In addition, the water line extension proposed as part of CDP Application No. 4-10-041 above would also serve the proposed residential project.

CDP Application No. 4-10-044 (Ronan Properties LLLP) (APN 4453-005-038)

The applicant is proposing to construct a 28-ft. high, three-level, 12,143 sq. ft. single-family residence, 2,232 sq. ft. storage space, 3,161 sq. ft. terraces, and 1,762 sq. ft. detached two-level garage on an approximately 27-acre lot, swimming pool, septic system, 35 linear ft. of 1 to 5.5-ft. high retaining wall, 780 linear ft. access drive, one Fire Department hammerhead turnaround, and 16,000 cu. yds. of total grading (3,850 cu. yds. cut; 12,150 cu. yds. fill). The applicant is proposing a 10,000 sq. ft. development area that would require 3,650 cu. yds. (cut) of the total grading amount. The proposed access drive would involve 12,350 cu. yds. of grading (200 cu. yds. cut; 12,150 cu. yds. fill) and disturb an approximately 1-acre area. In addition, the water line extension proposed as part of CDP Application No. 4-10-041 above would also serve the proposed residential project.

CDP Application No. 4-10-045 (Mulryan Properties LLLP and Morleigh Properties LLLP) (APNs 4453-005-092 and -091).

The applicants of this CDP application propose a lot line adjustment between their respective 40-acre lots in order to change the location of future residential development proposed in CDP applications 4-10-042 and 4-10-043 above in consideration of geologic and topographic site constraints. The size of each lot would not change as a result of the proposed reconfiguration.

SUMMARY OF STAFF RECOMMENDATION

Staff recommends <u>denial</u> of the proposed projects. The standard of review for the projects is the Chapter 3 policies of the Coastal Act. In addition, the policies of the certified Malibu–Santa Monica Mountains Land Use Plan (LUP) serve as guidance.

The subject permit applications are for: (1) five new single family residences ranging from 7,220 sq. ft. to 12,785 sq. ft. in size on five adjoining lots, each of which claims to be owned by a different LLLP; (2) 28,050 cu. yds. of grading (26,250 cu. yds. cut; 1,800 cu. yds. fill; 21,600 cu. yds. excess) for the residence development areas and private driveways; (3) a 6,010 linear ft., 20 ft. wide access road (includes residential driveways) extending from Sweetwater Mesa Road in Malibu to the development sites with 43,050 cu. yds. of grading (20,100 cu. yds. cut, 22,950 cu. yds. fill), 123 caisson piles up to 79 ft. deep and up to 5 ft. in diameter, and 960 linear ft. of retaining walls; (4) three Fire Department staging areas utilizing 10,000 cu. yds. of excess excavated material, (5) placement of 13,950 cu. yds. of excess excavated material upon a grassland mesa area; (6) a new 7,800 linear ft. waterline with 900 linear ft., 10 ft. wide maintenance road; and (7) a lot line adjustment between two of the subject lots. Total project grading is approximately 95,050 cu. yds. (46,350 cu. yds. cut, 48,700 cu. yds. fill). Due to the related nature of the six coastal development permit ("CDP") applications, all of the proposed development is analyzed in one staff report¹.

The subject contiguous properties are located on the southern flank of the Santa Monica Mountains, about a mile inland from Pacific Coast Highway, east of Malibu Canyon Road, and west of Las Flores Canyon Road. The Malibu Civic Center area, Malibu Pier, Malibu Creek, and Malibu Lagoon State Park are located about a mile away to the southwest. The five properties, totaling 156 acres, are situated along an approximately 3,000-ft, long stretch of a prominent ridgeline separating the Sweetwater Canyon and Carbon Canyon watersheds. This ridgeline extends inland approximately 2.18 miles from the narrow coastal terrace traversed by Pacific Coast Highway to the backbone crest of the Santa Monica Mountain Range. The Malibu/Santa Monica Mountains Land Use Plan (LUP) designates this ridge as a "Significant Ridgeline". The area is undeveloped and comprised of steep, rugged mountain terrain that is blanketed by various natural rock outcroppings and primarily undisturbed native chaparral habitat that is part of a large contiguous area of undisturbed native vegetation that constitutes an environmentally sensitive habitat area (ESHA). A large area of public parkland that is part of Malibu Creek State Park is located on the adjacent parcels to the west. The nearest development in the vicinity is the residential enclave of Serra Retreat located within the municipal limits of the City of Malibu approximately a half mile to the southwest.

¹ The applications are being considered together pursuant to section 13058 of the Commission's regulations (14 CCR § 13058), which states, in part, that "[w]here two or more applications are legally or factually related, the executive director may prepare a consolidated staff report. Either the commission or the executive director may consolidate a public hearing where such consolidation would facilitate or enhance the commission's ability to review the developments for consistency with the requirements of the Coastal Act."

CDP Applications 4-10-040, 4-10-041, 4-10-042, 4-10-043, 4-10-044, 4-10-045 Page 5

The subject ridgeline is a prominent landscape feature along a significant stretch of the Malibu coast. The ridge is visible from several significant public vantages along Pacific Coast Highway, including: Malibu Bluffs Park (2.5 miles west); Pacific Coast Highway and Malibu's Civic Center and Colony Plaza areas (2 miles west); Malibu Lagoon State Park and Surfrider Beach areas (1.2 miles southwest); and Malibu Pier (1 mile southwest). The ridge is also highly visible from Malibu Creek State Park land, portions of Malibu Canyon Road, and the Saddle Peak Trail about a quarter mile to the west, portions of Piuma Road approximately a mile to the north, and several LUP-mapped Vista Points along Rambla Pacifico Road a mile to the east.

The proposed construction of single family residences within ESHA is not consistent with Section 30240 of the Coastal Act or the guidance policies of the Malibu-Santa Monica Mountains LUP because residences are not resource-dependent uses and because the habitat removal associated with the proposed development does not protect ESHA against significant disruption of habitat values. In addition, the proposed development would not serve to protect public views, minimize landform alteration, or ensure compatibility with the character of the surrounding area. As such, the proposed development would result in significant impacts to visual resources, inconsistent with Section 30251 of the Coastal Act and the guidance policies of the Malibu-Santa Monica Mountains LUP. Furthermore, the proposed development would not avoid significant adverse effects, either individually or cumulatively, on coastal resources, which is in direct conflict with Section 30250 of the Coastal Act. Although the Commission does sometimes allow development that violates one or more of the policies in Chapter 3 of the Coastal Act (including residential development in ESHA) pursuant to Section 30010 of the Coastal Act, it can only do so where to do otherwise would result in a constitutional taking. As is explained in detail below, due to the specific facts of this case, the Commission can deny the present applications without committing such a taking. That is true, in part, because there are feasible alternatives to the proposed development that would avoid or substantially reduce the adverse environmental effects of the projects and the impacts that are inconsistent with the policies in Chapter 3 of the Coastal Act.

Staff's conclusion that the Commission can deny the present applications without committing a constitutional "taking" is also based on the conclusion that a court reviewing a takings claim here would not view each of the five lots at issue in isolation and perform an independent takings analysis on each one. Well-established case law requires courts to identify the area that is the subject of review for any takings analysis by looking at the "parcel as a whole," which, as described in detail in the body of this staff report, frequently includes more than one legal lot. The factors that are relevant to the identification of the relevant parcel, and the facts supporting the aggregation of at least some of the five lots at issue here, are:

Proximity or Contiguity of Separate Legal Lots

Fact: The five lots at issue are all contiguous.

❖ The Dates of Acquisition of the various lots

Fact: The five lots at issue were all purchased on the same day in 2005.

❖ The Extent to which the Parcel has been Treated as a Single Unit

Facts:

- For at least the last 50 years, the lots have been transferred multiple times, but all five lots have been owned by the same individual, pairs of individuals, or, more recently, one individual and three LLCs entirely controlled by that individual.
- Prior owners proposed a single development scheme for all five lots.
- The current owners are also proposing a unified development scheme, with a shared road and coordinated road and utility development.
- The current owners entered into a single, combined deal with the Santa Monica Mountains Conservancy (SMMC) and the Mountains Recreation and Conservation Authority (MRCA) for the express purpose of getting SMMC/MRCA to take a neutral position on the development presently before the Commission, which the agreement refers to collectively as "the Project".
- The current project has a single project manager, a single architect, a single landscape architect, a single web-site devoted to publicity for the project and, until recently, had a single agent before the Commission, who coordinated the filings of the coastal development permit applications (or a common group of agents).
- Project proponents regularly refer to it as a single, coordinated project.

Unity of Ownership

Facts:

- One or two parties appear to control this entire project, based on:
 - David Evans' statements to two sitting Commissioners.
 - David Evans' statements on his web-site for this development.
 - Statements in numerous news articles.
 - All five properties were purchased on the same day, with loans from the same bank.
 - The coordinated recordation of the deeds of trust and grant deeds with sequential recordation numbers at the Office of the County Recorder for Los Angeles County.
 - All five properties were purchased by LLCs that were created on the same day a week earlier.
 - The five LLCs all converted to LLLPs on the same day.

- The principals of the five LLCs (and the original principals of the five LLLPs) were: one individual, his wife, his business partner, the Director of that business partner's company, and the project manager. Three of those LLLPs changed their principals in 2010, soon after Commission staff informed the parties of staff's intention to assert related ownership. One of the new owners is the individual's sister.
- Even if the properties are separately owned and controlled, the owners are clearly functioning as a partnership, either through an express partnership agreement or by operation of law. If the purpose of that partnership is to develop and sell at least some of the subject lots for profit, those lots may become commonly owned by the partnership itself, by operation of law. In this regard, Staff is aware of the following facts:
 - Statements in news reports and by real estate agents that the plan was to sell some of the homes for a profit.
 - All of the facts listed above indicating that the subject property <u>has</u> been treated as a single unit, such as the coordinated design for all five homes and the common agents.
 - All of the facts listed above suggesting that a single entity (or two) owns or controls the entire project, such as the coordinated purchase and LLC creation.
 - The applicants have failed to provide ownership information to staff despite repeated requests.
 - The applicants have failed to provide information to rebut the inferences or conclusions to this effect presented in the February 26, 2011 staff report.

Therefore, for all of the above reasons and for the reasons more fully explained in the following sections of this report, staff recommends that the Commission deny these applications.

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- **Subject Parcels Aerial View** EXHIBIT 1. EXHIBIT 2. (a) Proposed Development and Lot Line Adjustment – Aerial View (b) Proposed Water Line – Aerial View (c) Proposed Development with Water Line – Aerial View EXHIBIT 3. **Historic Mesa Area** EXHIBIT 4. **Site Geology/Landslide Areas** EXHIBIT 5. Residential Siting/Clustering Alternatives **EXHIBIT 6.** Vicinity Map **EXHIBIT 7.** Parcel Map **EXHIBIT 8.** Residence 1 (Vera) Site/Grading Plans, Floor Plans, and Elevations EXHIBIT 9. Residence 2 (Lunch) Site/Grading Plans, Floor Plans, and Elevations EXHIBIT 10. Residence 3 (Morleigh) Site/Grading Plans, Floor Plans, and Elevations EXHIBIT 11. Residence 4 (Mulryan) Site/Grading Plans, Floor Plans, and Elevations EXHIBIT 12. Residence 5 (Ronan) Site/Grading Plans, Floor Plans, and Elevations **EXHIBIT 13. Residence 1-5 Fuel Modification Plans EXHIBIT 14.** Residence 1-5 Development Area Exhibits **EXHIBIT 15. Proposed Lot Line Adjustment EXHIBIT 16. Proposed Excess Fill Placement Area and Construction Staging Areas EXHIBIT 17. Proposed Access Road Plans EXHIBIT 18. Proposed Water Line Plans EXHIBIT 19. Approved Pilot Access Road (CDP 4-01-108) EXHIBIT 20.** Public View Areas and Site Visibility **EXHIBIT 21. L.A. County Fire Dept Correspondence EXHIBIT 22. Commissioner Ex Parte Communication Disclosure Forms** EXHIBIT 23. Santa Monica Mountains Conservancy 11/23/09 Comment Letter and **Public Benefit Program Agreement Documents**
- EXHIBIT 27. Dr. Jonna Engel Memorandum, dated January 25, 2011

EXHIBIT 26. Lesley Ewing Memorandum with Attachments, dated January 24, 2011

EXHIBIT 25. Mark Johnsson Memorandum, dated January 25, 2011

EXHIBIT 24. Correspondence Received

LOCAL APPROVALS RECEIVED: Los Angeles County Department of Regional Planning Approval-in-Concepts, dated December 12, 2006, June 26, 2007, September 20, 2007, October 11, 2007; Los Angeles County Fire Department approval of access and turnaround areas, dated October 13, 2009, October 20, 2009, and October 21, 2009; Los Angeles County Fire Department approval of Preliminary Fuel Modification Plans, dated June 27, 2007, July 9, 2007, March 5, 2008; Los Angeles County Department of Health Services, Conceptual Approvals for Private Septic Systems, dated February 13, 2008, September 17, 2007; October 1, 2007, May 20, 2008; Los Angeles County Department of Regional Planning letter dated November 20, 2008 stating that an approval-in-concept for the proposed water main extension and associated maintenance road and retaining wall will not be issued because the development is exempt from local zoning review; Las Virgenes Municipal Water District approval of Water System Design Report, dated January 23, 2007; Los Angeles County Department of Public Works Geotechnical and Materials Engineering Division review letter dated October 27, 2008.

SUBSTANTIVE FILE DOCUMENTS: Malibu/Santa Monica Mountains Land Use Plan (LUP): Dispute Resolution Nos. A-4-07-067-EDD. A-4-07-068-EDD. A-4-07-146-EDD. A-4-07-147-EDD, and A-4-07-148-EDD; "Water System Design Report for Sweetwater Mesa Properties," by Boyle Engineering Corp., dated January 2007; "Biological Constraints Analysis" for each property, by Steven Nelson, dated July 2007; "Biological Constraints Analysis" for proposed water line, by Steven Nelson, dated January 2008; "Oak Tree Report for APN 4453-005-018," by Neighborhood Consulting Arborist, dated November 18, 2007; "Oak Tree Report for APN 4453-005-038, -091 and -092," by Neighborhood Consulting Arborist, dated December 31, 2007; "Percolation Test Report" for each property, by Lawrence Young, dated July 20, 2007; "Visual Assessment" report for each property, by Envicom Corporation, dated July 2009; "Comparative Impact Analysis of Potable Water Service Options," by Envicom Corporation, dated October 21, 2009; "Summary of Findings – Civil and Geotechnical Engineering and Engineering Geologic Peer Review Services," by Cotton, Shires, and Associates, dated March 8, 2010; "January 2011 Summary of Findings - Engineering Geologic, Geotechnical, Civil and Structural Engineering Peer Review Services," by Cotton, Shires, and Associates, dated January 21, 2011; Aerial Photographs of central Malibu area provided by I.K. Curtis Services Inc. (Photo Nos. 2-158: 5/5/75, 3-223: 3/22/76, 75: 7/27/77, 52:5/12/79, 133: 7/10/80, 384: 11/3/83, 677: 2/12/85, 242: 4/20/87, 215: 2/5/88, 1554: 4/4/89, 990: 1/31/92, 227: 4/6/93, 95-316: 2/19/95, 27: 12/20/96, 181: 8/23/98, 493: 11/4/00); Dept. of Water Resources 2001 Coastal Aerial Photographs Index CCC-BQK-C Photo No. 58A-12: 6/28/0; Aerial Imagery from Google Earth™ mapping service (©2011 Google, Map Data ©2011 Tele Atlas) dated 8/22/04, 12/30/03, 11/12/04, 3/15/06, and present 2011; CDP Nos. 4-04-012 through 4-04-016; CDP No. 5-89-133; CDP No. 5-89-260; Memo by Lesley Ewing, dated January 24, 2011; Geologic and Geotechnical Reports listed in the January 24, 2011 Lesley Ewing Memo; Memo by Mark Johnsson, dated January 25, 2011; Memo by Dr. Jonna Engel, dated January 25, 2011.

I. STAFF RECOMMENDATION

The staff recommends that the Commission adopt the following resolutions:

A. Denial of CDP No. 4-10-040

MOTION I: I move that the Commission approve Coastal Development

Permit No. 4-10-040 for the development proposed by the

applicant.

STAFF RECOMMENDATION OF DENIAL:

Staff recommends a **NO** vote. Following the staff recommendation will result in denial of the permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO DENY THE PERMIT:

The Commission hereby denies the coastal development permit for the proposed development on the ground that the development will not conform with the policies of Chapter 3 of the Coastal Act and will prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit would not comply with the California Environmental Quality Act because there are feasible mitigation measures or alternatives that would substantially lessen the significant adverse impacts of the development on the environment.

B. Denial of CDP No. 4-10-041

MOTION II: I move that the Commission approve Coastal Development

Permit No. 4-10-041 for the development proposed by the

applicant.

STAFF RECOMMENDATION OF DENIAL:

Staff recommends a **NO** vote. Following the staff recommendation will result in denial of the permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO DENY THE PERMIT:

The Commission hereby denies the coastal development permit for the proposed development on the ground that the development will not conform with the policies of Chapter 3 of the Coastal Act and will prejudice the ability of the local government having

jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit would not comply with the California Environmental Quality Act because there are feasible mitigation measures or alternatives that would substantially lessen the significant adverse impacts of the development on the environment.

C. Denial of CDP No. 4-10-045

MOTION III: I move that the Commission approve Coastal Development

Permit No. 4-10-045 for the development proposed by the

applicant.

STAFF RECOMMENDATION OF DENIAL:

Staff recommends a **NO** vote. Following the staff recommendation will result in denial of the permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO DENY THE PERMIT:

The Commission hereby denies the coastal development permit for the proposed development on the ground that the development will not conform with the policies of Chapter 3 of the Coastal Act and will prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit would not comply with the California Environmental Quality Act because there are feasible mitigation measures or alternatives that would substantially lessen the significant adverse impacts of the development on the environment.

D. Denial of CDP No. 4-10-042

MOTION IV: I move that the Commission approve Coastal Development

Permit No. 4-10-042 for the development proposed by the

applicant.

STAFF RECOMMENDATION OF DENIAL:

Staff recommends a **NO** vote. Following the staff recommendation will result in denial of the permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO DENY THE PERMIT:

The Commission hereby denies the coastal development permit for the proposed development on the ground that the development will not conform with the policies of Chapter 3 of the Coastal Act and will prejudice the ability of the local government having

jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit would not comply with the California Environmental Quality Act because there are feasible mitigation measures or alternatives that would substantially lessen the significant adverse impacts of the development on the environment.

E. Denial of CDP No. 4-10-043

MOTION V: I move that the Commission approve Coastal Development

Permit No. 4-10-043 for the development proposed by the

applicant.

STAFF RECOMMENDATION OF DENIAL:

Staff recommends a **NO** vote. Following the staff recommendation will result in denial of the permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO DENY THE PERMIT:

The Commission hereby denies the coastal development permit for the proposed development on the ground that the development will not conform with the policies of Chapter 3 of the Coastal Act and will prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit would not comply with the California Environmental Quality Act because there are feasible mitigation measures or alternatives that would substantially lessen the significant adverse impacts of the development on the environment.

F. Denial of CDP No. 4-10-044

MOTION VI: I move that the Commission approve Coastal Development

Permit No. 4-10-044 for the development proposed by the

applicant.

STAFF RECOMMENDATION OF DENIAL:

Staff recommends a **NO** vote. Following the staff recommendation will result in denial of the permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO DENY THE PERMIT:

The Commission hereby denies the coastal development permit for the proposed development on the ground that the development will not conform with the policies of Chapter 3 of the Coastal Act and will prejudice the ability of the local government having

jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit would not comply with the California Environmental Quality Act because there are feasible mitigation measures or alternatives that would substantially lessen the significant adverse impacts of the development on the environment.

II. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

A. PROJECT DESCRIPTIONS AND ENVIRONMENTAL SETTING

Each of five of the six subject permit applications seeks authorization to construct a single family residence on a unique legal lot, owned by a separate limited liability company ("LLC") or a limited liability limited partnership ("LLLP")², within a block of five contiguous lots in the Sweetwater Mesa area of the Santa Monica Mountains. In addition, the applications collectively seek authorization to construct a common access road, and one is for a municipal water line that would supply water to all five residences. The sixth application was filed by two of the entities jointly and seeks authorization for a lot line adjustment between their two lots.

Each of the five applicants presents itself as a distinct Limited Liability Limited Partnership (LLLP) bearing the same name as its predecessor LLC and claims that the parcel on which it seeks authorization to construct a residence is now owned by the new LLLP; however, the recorded grant deeds provided by the applicants continue to indicate that each of the parcels is owned by the original LLC.³ The applicants have provided "Certificates of Conversion" filed with the California Secretary of State's Office in 2006 indicating that each LLC was converted to an LLLP. However, Commission staff has independently checked the public records, and as of May 19, 2011, there was no public record of any of the necessary documents⁴ having been recorded to reflect the ownership change. These findings will sometimes refer to the five entities by their proper names, without the subsequent description of the form of business organization.

The subject contiguous properties are located on the southern flank of the Santa Monica Mountains, about a mile inland from Pacific Coast Highway, east of Malibu Canyon Road, and west of Las Flores Canyon Road. The Malibu Civic Center area, Malibu Pier, Malibu Creek, and Malibu Lagoon State Park are located about a mile away to the southwest (Exhibits 6-7). The five properties, totaling 156 acres, are situated along an approximately 3,000-ft. long stretch of a prominent ridgeline

² As is explained in the next paragraph and beyond, each of the LLCs converted to an LLLP in 2006, but whether each LLLP took the appropriate steps to ensure that title to the land is vested in the new LLLPs is not clear.

³ Los Angeles County Recorder's Office as of May 19, 2011.

⁴ See Corporations Code § 17540.7(a) (requiring recordation, with the Office of the County Recorder, of the Certificate of Conversion or some other documentation in order to "evidence record ownership in the . . . converted entity of all interest of the converting limited liability company . . . in and to the real property")

separating the Sweetwater Canyon and Carbon Canyon watersheds. This ridgeline extends inland approximately 2.18 miles from the narrow coastal terrace traversed by Pacific Coast Highway to the backbone crest of the Santa Monica Mountain Range. The Malibu/Santa Monica Mountains Land Use Plan (LUP) designates this ridge as a "Significant Ridgeline". The area is undeveloped and comprised of steep, rugged mountain terrain that is blanketed by various natural rock outcroppings and primarily undisturbed native chaparral habitat that is part of a large contiguous area of undisturbed native vegetation. To the west of the ridge is a prominent south-trending canyon that contains a USGS-designated blue-line stream. Another blue-line stream exists in a canyon bottom downslope to the east. The nearest development in the vicinity is the residential enclave of Serra Retreat located within the municipal limits of the City of Malibu approximately a half mile to the southwest. A large area of public parkland that is part of Malibu Creek State Park is located on the adjacent parcels to the west. In addition, the adjacent parcel to the south of the subject block of parcels is owned by the Mountains Recreation and Conservation Authority (MRCA) and restricted as open space (Exhibit 2c). The Saddle Peak Trail (an LUP-mapped public trail) is situated on the adjacent ridgeline to the west, within Malibu Creek State Park. The planned Coastal Slope Trail has been slated by the National Park Service and the MRCA to pass through, in an east-west direction, an MRCA-owned property to the south of the subject sites. To connect to the Saddle Peak Trail, the planned Coastal Slope Trail has been proposed/mapped to bisect two of the subject parcels. However, the proposed developments would not be inconsistent with the proposed public trail route.

The subject ridgeline is a prominent landscape feature along a significant stretch of the Malibu coast. The ridge is visible from several significant public vantages along Pacific Coast Highway, including Malibu Bluffs Park (2.5 miles west), Pacific Coast Highway and Malibu's Civic Center and Colony Plaza areas (2 miles west), Malibu Lagoon State Park and Surfrider Beach areas (1.2 miles southwest), and Malibu Pier (1 mile southwest). The ridge is also highly visible from Malibu Creek State Park land, portions of Malibu Canyon Road, and the Saddle Peak Trail about a quarter mile to the west, portions of Piuma Road approximately a mile to the north, and several LUP-mapped Vista Points along Rambla Pacifico Road a mile to the east (Exhibit 20).

The subject applications propose: (1) five new single family residences ranging from 7,220 sq. ft. to 12,785 sq. ft. in size on five adjoining lots, each of which claims to be owned by a different LLLP; (2) 28,050 cu. yds. of grading (26,250 cu. yds. cut; 1,800 cu. yds. fill; 21,600 cu. yds. excess) for the residence development areas and private driveways; (3) a 6,010 linear ft., 20 ft. wide access road (includes residential driveways) extending from Sweetwater Mesa Road in Malibu to the development sites with 43,050 cu. yds. of grading (20,100 cu. yds. cut, 22,950 cu. yds. fill), 123 caisson piles up to 79 ft. deep and up to 5 ft. in diameter, and 960 linear ft. of retaining walls; (4) three Fire Department staging areas utilizing 10,000 cu. yds. of excess excavated material, (5) placement of 13,950 cu. yds. of excess excavated material upon a gradually sloping mesa area; (6) a new 7,800 linear ft. waterline with 900 linear ft., 10 ft. wide maintenance road; and (7) a lot line adjustment between two of the subject lots. Total

project grading is approximately 95,050 cu. yds. (46,350 cu. yds. cut, 48,700 cu. yds. fill). The applicants have stated that each of the proposed five residences will seek LEED Gold Certification by incorporating innovative green building elements to reduce greenhouse gas emissions, and water, energy, and natural resource use.

To clearly address what is proposed on each lot, the project descriptions and environmental setting are provided below for each separate application. For clarity and ease of reference in differentiating between the five proposed residential developments throughout this report, each of the five proposed residences will be referred to as follows, with Residence 1 being the southernmost (seaward-most) residence, and Residence 5 being the northernmost (inland-most) residence:

- Residence 1 (Vera)
- Residence 2 (Lunch)
- Residence 3 (Morleigh)
- Residence 4 (Mulryan)
- Residence 5 (Ronan)

Designation	Owner	CDP App. No.	APN	Location
Residence 1	Vera	4-10-041	4453-005-018	Bottom; Southern-most
Residence 2	Lunch	4-10-040	4453-005-037	Middle-right/East
Residence 3	Morleigh	4-10-043	4453-005-091	Top-left; Northwest corner
Residence 4	Mulryan	4-10-042	4453-005-092	Middle-left/West
Residence 5	Ronan	4-10-044	4453-005-038	Top-right; Northeast corner
Lot Line	Morleigh/ Mulryan	4-10-045	4453-005-091 &	Upper two lots on the west
Adjustment (LLA)			4453-005-092	side

Residence 1 (Vera)

CDP Application No. 4-10-041 (Vera Properties LLLP) (APN 4453-005-018)

The applicant is proposing to construct a 22-ft. high, two-level, 12,785 sq. ft. single-family residence with 2,116 sq. ft. storage space and 1,694 sq. ft. detached garage on an approximately 20-acre lot, swimming pool, 1,595 sq. ft. terraces, septic system, 280 ft. long, 20-ft. wide driveway, approximately 380 linear feet of 5 to 10-ft. high retaining walls, and 10,700 cu. yds. of total grading (cut). The applicant is proposing a 10,000 sq. ft. development area that would require 5,400 cu. yds. (cut) of the total grading amount. Construction of the proposed 280-ft. long driveway would involve 5,300 cu. yds. (cut) of the total grading amount, and result in disturbance of an 14,000 sq. ft. (0.32 acres) area (Exhibit 8). In addition, a municipal water line extension is proposed down to the subject property from Costa Del Sol Way to the north, as discussed in more detail later in this section (Exhibit 18).

The subject property is situated on the nose of the north/south-trending ridge. Site elevations range from approximately 1,050 feet above sea level at the ridge-top on the far eastern portion of the property, and the remainder of the property steeply descends in a western direction down to approximately 600 feet above sea level. The western half of the parcel is underlain by landslide debris. The majority of the site is vegetated with a mixed chaparral plant community, with the exception of the existing pilot access road and areas of disturbance adjacent to the road. A few scattered oak trees exist among the site vegetation (Exhibits 1-3). However, none of the existing oak trees would be impacted by the proposed project.

The residence has been proposed in the eastern portion of the lot, on the outer (seaward) face of the ridge crest and rises up in elevation jointly with the rise in elevation to the top of the ridge. The applicant had originally proposed the residence in a slightly different design configuration, in which the residence was wrapped farther around the western side of the ridge crest. In an effort to reduce the residence's visibility from public viewing areas to the west and southwest, the applicant made plan revisions in 2009 to reduce the overall height of the residential structure, from 28-ft. to 22-ft., and omitted the western-most approximately 40 feet of the structure.

Lot Legality

As evidence of lot legality, the applicant submitted Certificate of Compliance No. 01-421, issued by the County of Los Angeles on November 7, 2002. This Certificate of Compliance contains a "Determination of Compliance (E)", with the (E) indicating that it is an "exempt" Certificate of Compliance, or in other words, a Certificate of Compliance issued pursuant to the provisions of Section 66499.35(a) of the State Subdivision Map Act. The subject Certificate of Compliance certifies that the parcel complies with the applicable provisions of the State Subdivision Map Act and of the County Subdivision Ordinance, having been exempt from said act and ordinance at the time of its creation. At staff's request, the applicant also submitted a chain of title for the property that demonstrated that the subject parcel was first created in 1900 by U.S. patent. This method of creation was in conformance with the laws at the time and therefore, the lot is legal.

Residence 2 (Lunch)

CDP Application No. 4-10-040 (Lunch Properties LLLP) (APN 4453-005-037)

The applicant is proposing to construct a 22-ft. high, three-level, 12,004 sq. ft. single-family residence with 629 sq. ft. storage space and an attached 2,128 sq. ft. garage on an approximately 20-acre lot, swimming pool, 200-ft. long driveway, septic system, and 4,800 cu. yds. grading (4,000 cu. yds. cut; 800 cu. yds. fill). The proposed development area is 10,000 sq. ft. in size. The proposed project also includes an approximately 2,500 ft. long, 20 ft. wide access road to connect Sweetwater Mesa Road in the City of Malibu north to the subject property, involving 10,750 cu. yds. grading (4,800 cu. yds. cut; 5,950 cu. yds. fill), approximately 500 lineal feet of 5 to 17-ft. high retaining walls,

drainage improvements, entry gate, and two Fire Department staging areas (2,800 sq. ft. 6,200 sq. ft. in size) that would require 700 cu. yds. of grading (fill). The proposed access road would disturb an approximately 4-acre area. The proposed access road deviates from the existing pilot access road in several areas and the applicant proposes to re-contour and re-vegetate those abandoned access road areas. However, the applicant has not identified the total extent of the abandoned road areas and has not provided a plan for their re-grading and re-vegetation. In addition, the water line extension proposed as part of CDP Application No. 4-10-041 (Vera) above would also serve the proposed residential project (Exhibit 9).

The subject property is situated on the crest and east flank of a prominent north/south-trending ridge between Sweetwater Canyon to the west and Carbon Canyon to the east. The west-facing slopes of the property descend more gradually into Sweetwater Canyon and east-facing slopes descend more abruptly into Carbon Canyon. Site elevations range from approximately 1,070 feet above sea level at the ridge-top on the far western portion of the property, and descend in an eastern direction down to approximately 700 feet above sea level. Landslide debris underlies the gently-sloping western portion of the property where the residential development is proposed along the ridgeline. The remainder of the property consists of very steep east-facing slopes. The proposed building site and the majority of the proposed access road are proposed atop landslide material. However, there are no other feasible alternative locations for the building site or access road on the property that could avoid the landslide areas.

The majority of the property is vegetated with a mixed chaparral plant community, with the exception of a small portion of the property along the western parcel boundary that is dominated by non-native grasses and part of a larger, disturbed "mesa" area to the west (Exhibits 1, 2a).

The applicant had originally proposed the residence in a slightly different siting and design configuration, in which the residence was situated at the furthest edge of the ridge-top and just above two canyon "chimneys". Commission staff had expressed concerns with this original design given the residence's visual prominence from several viewing areas and its close proximity to the ridge-top edge and canyon chimneys that pose a high fire risk and increased potential for erosion.

The proposed residence was then revised and reconfigured by the applicant in 2009 to be sited farther away from the ridge-top edge and tiered into a natural saddle location of the site where the structure would step up in elevation in concert with the underlying rise in elevation along the top of the ridge in order to minimize grading of the site. The "tails" and the "nose" of the residence's wedge-shaped footprint were pulled back from the saddle's ridge-top. The north and south "tails" of the structure were moved 21 feet and 35 feet and the taller "nose" of the structure was moved back 53 feet from the slope edge. At its highest point the residential structure has been reduced from 28 to 22 feet above grade, with a roofline that resembles a gently sloping dome.

Lot Legality

As evidence of lot legality, the applicant submitted Certificate of Compliance No. 01-150, issued by the County of Los Angeles on November 29, 2001. This Certificate of Compliance contains a "Determination of Compliance (E)", with the (E) indicating that it is an "exempt" Certificate of Compliance, or in other words, a Certificate of Compliance issued pursuant to the provisions of Section 66499.35(a) of the State Subdivision Map Act. The subject Certificate of Compliance certifies that the parcel complies with the applicable provisions of the State Subdivision Map Act and of the County Subdivision Ordinance, having been exempt from said act and ordinance at the time of its creation. At staff's request, the applicant also submitted a chain of title for the property that demonstrated that the subject parcel took its current form in 1962, when a grant deed transferring a portion of the parent lot fixed the eastern boundary of the subject lot in its current location. This method of creation was in conformance with the laws at the time and therefore, the lot is legal.

Residence 3 (Morleigh)

CDP Application No. 4-10-043 (Morleigh Properties LLLP) (APN 4453-005-091)

The applicant is proposing to construct a 28-ft. high, three-level, 8,348 sq. ft. single-family residence on an approximately 40-acre lot, with a 753 sq. ft. attached garage, swimming pool, septic system, a 1,600-ft. long access road that extends from the road proposed as part of CDP Application 4-10-040 north to the proposed development area, two Fire Department hammerhead turnarounds, approximately 950 linear feet of 5 to 18-ft. high retaining walls, and 18,050 cu. yds. of total grading (14,350 cu. yds. cut; 3,700 cu. yds. fill). The applicant is proposing a 10,000 sq. ft. development area that would require 1,300 cu. yds. (cut) of grading of the total grading amount. The proposed access road and driveway would involve 16,750 cu. yds. of grading (13,050 cu. yds. cut; 3,700 cu. yds. fill) and would disturb an approximately 2-acre area. In addition, the water line extension proposed as part of CDP Application No. 4-10-041 above would also serve the proposed residential project (Exhibit 10).

The subject property is situated on the crest and west flank of the north/south-trending ridge. This western flank of the ridge consists of west-facing hillside slopes that descend to a north-south trending canyon. Site elevations range from approximately 1,400 feet above sea level at the ridge-top in the eastern portion of the property, and the remainder of the property steeply descends in a western direction down to approximately 900 feet above sea level. The northernmost portion of the parcel is underlain by landslide debris, however, no development is proposed in that area. The majority of the site is vegetated with a mixed chaparral plant community, with the exception of areas of disturbance along an existing access road (Exhibits 1, 2a). There is one mature oak tree in the northeast corner of the subject property, however, it would not be impacted by the proposed project.

The applicant had originally proposed the residence in a slightly different siting and design configuration, in which the residence was overhanging the furthest edge of the site's southwestern ridgeline slope and atop a large natural rock outcropping. Commission staff had expressed concerns with this original design given the residence's visual prominence from several viewing areas to the west/southwest and its close proximity to the ridge-top edge and steep canyon chimneys that pose a high fire risk and increased potential for erosion.

The proposed residence was then revised and reconfigured by the applicant in 2009 to be shifted to the north approximately 100 feet in order to avoid the rock outcropping and be set farther back from the edge of the site's southwestern ridgeline slope. The new location would be less visually prominent and require less grading and a shorter access driveway.

As discussed in detail later in this section, the subject property is involved in a proposed lot line adjustment with the adjacent parcel to the south in order to allow that property's residential development to be more optimally sited outside mapped landslide areas (Exhibits 2a, 15).

Lot Legality

As evidence of lot legality, the applicant submitted Certificate of Compliance No. 01-151, issued by the County of Los Angeles on November 29, 2001. This Certificate of Compliance contains a "Determination of Compliance (E)", with the (E) indicating that it is an "exempt" Certificate of Compliance, or in other words, a Certificate of Compliance issued pursuant to the provisions of Section 66499.35(a) of the State Subdivision Map Act. The subject Certificate of Compliance certifies that the parcel complies with the applicable provisions of the State Subdivision Map Act and of the County Subdivision Ordinance, having been exempt from said act and ordinance at the time of its creation. At staff's request, the applicant also submitted a chain of title for the property that demonstrated that the subject parcel took its current form in 1990, when a portion of the parent parcel was deeded to the State of California for use as public parkland, which is a type of division that is exempt from the Subdivision Map Act and, in that case, was also exempt from the Coastal Act. Prior to that, the history indicates that the parcel had existed in its pre-1990 form since a 1959 grant deed had transferred a portion of its parent lot, thus fixing its eastern boundary. This method of creation was in conformance with the laws at the time and therefore, the lot is legal.

Residence 4 (Mulryan)

CDP Application No. 4-10-042 (Mulryan Properties LLLP) (APN 4453-005-092)

The applicant is proposing to construct a 28-ft. high, two-level, 7,220 sq. ft. single-family residence on an approximately 40-acre lot, with a 1,398 sq. ft. attached garage, 3,709 sq. ft. terraces, swimming pool, septic system, 850 linear foot access drive, two Fire Department hammerhead turnarounds, and 5,950 cu. yds. of total grading (3,800 cu.

yds. cut; 2,150 cu. yds. fill). The applicant is proposing a 10,000 sq. ft. development area that would require 2,000 cu. yds. (1,600 cu. yds. cut; 400 cu. yds. fill) of the total grading amount. The proposed access drive would involve 3,950 cu. yds. (2,200 cu. yds. cut, 1,750 cu. yds. fill) of the total grading amount and would disturb an approximately 1-acre area. The proposed project includes a 20,000 sq. ft. Fire Department staging area involving 9,400 cu. yds. grading (fill). Since there would be excess excavated material generated by the five residential development projects that are the subject of this staff report, the applicant is proposing to place and contour grade 13,950 cu. yds. of excess material upon a grassland mesa area surrounding the 20,000 sq. ft. Fire Department staging area. The applicant has specified that approximately 13,950 cu. yds. of excess material, to a maximum depth of 5 feet and a maximum slope of 3:1 (H:V), would be placed upon an approximately 81,750 sq. ft. (1.88 acres) of the mesa, immediately adjacent to the proposed access road and Fire Department staging area,. The applicant has also proposed to re-vegetate this fill area with a mix of native shrub species and oak trees. In addition, the water line extension proposed as part of CDP Application No. 4-10-041 above would also serve the proposed residential project (Exhibits 11, 16).

The subject property is situated on the crest and west flank of the north/south-trending ridge. This western flank of the ridge consists of west-facing hillside slopes that descend to a north-south trending canyon. Site elevations range from approximately 1,050 feet above sea level at the ridge-top in the eastern portion of the property, and the remainder of the property steeply descends in a western direction down to approximately 600 feet above sea level. The eastern portion of the property is the crest of the ridge that contains a large, gently-sloping grassland mesa area. A large landslide underlies a significant portion of the property, including the gently-sloping mesa area. The landslide poses a significant constraint for residential development of the property, which is why the applicant is proposing a lot line adjustment with the adjacent property to the north in order to site residential development in an area that is now the Morleigh parcel and outside mapped landslide areas.

The majority of the site is vegetated with a mixed chaparral plant community, with the exception of an existing access road up the eastern edge of the property and a disturbed mesa area in the southeastern portion of the property that is dominated by non-native grasses. There is one mature oak tree in the southern portion of the subject property, however, it would not be impacted by the proposed project (Exhibits 1, 2a).

The applicant had originally proposed the development envelope in a slightly different configuration, in which the residence and hammerhead turnaround driveway were more fanned out within that gently-sloping portion of the ridgeline. Commission staff had expressed concerns that the original design was too close to the ridgetop edge that steeply descends into Carbon Canyon and had exceeded the maximum square footage development area allowed for residential projects that would have unavoidable impacts to ESHA. The proposed development envelope was then revised by the applicant in 2009 to shift the development farther away from the ridge edge by 25 to 40 feet in a westerly direction, and to condense the development area into a tighter circular form to

comply with the 10,000 sq. ft. development area maximum. The east side of the residence was also notched into the hillside more to lower its profile when viewed from public viewing areas to the east. The height of the west side of the structure is 28 feet above grade, while the height of the east side of the structure is much less, 21.5 feet above grade.

Lot Legality

As evidence of lot legality, the applicant submitted Certificate of Compliance No. 91-0086, issued by the County of Los Angeles on June 21, 1991 and corrected on March 9, 2006. The corrected Certificate of Compliance contains a "Determination of Compliance (E)", with the (E) indicating that it is an "exempt" Certificate of Compliance, or in other words, a Certificate of Compliance issued pursuant to the provisions of Section 66499.35(a) of the State Subdivision Map Act. The subject Certificate of Compliance certifies that the parcel complies with the applicable provisions of the State Subdivision Map Act and of the County Subdivision Ordinance, having been exempt from said act and ordinance at the time of its creation. At staff's request, the applicant also submitted a chain of title for the property that demonstrated that the subject parcel took its current form in 1990, when a portion of the parent parcel was deeded to the State of California for use as public parkland, which is a type of division that is exempt from the Subdivision Map Act and, in that case, was also exempt from the Coastal Act. Prior to that, the history indicates that the parcel had existed in its pre-1990 form since a 1959 grant deed had transferred a portion of its parent lot, thus fixing its eastern boundary. This method of creation was in conformance with the laws at the time and therefore, the lot is legal.

Residence 5 (Ronan)

CDP Application No. 4-10-044 (Ronan Properties LLLP) (APNs 4453-005-038)

The applicant is proposing to construct a 28-ft. high, three-level, 12,143 sq. ft. single-family residence, 2,232 sq. ft. storage space, 3,161 sq. ft. terraces, and 1,762 sq. ft. detached two-level garage on an approximately 27-acre lot, swimming pool, septic system, 35 linear ft. of 1 to 5.5-ft. high retaining wall, 780 linear ft. access drive, one Fire Department hammerhead turnaround, and 16,000 cu. yds. of total grading (3,850 cu. yds. cut; 12,150 cu. yds. fill). The applicant is proposing a 10,000 sq. ft. development area that would require 3,650 cu. yds. (cut) of the total grading amount. The proposed access drive would involve 12,350 cu. yds. of grading (200 cu. yds. cut; 12,150 cu. yds. fill) and disturb an approximately 1-acre area. In addition, the water line extension proposed as part of CDP Application No. 4-10-041 above would also serve the proposed residential project (Exhibit 12).

The subject property is situated on the crest and east flank of the north/south-trending ridge. The east, south, and southeast flanks of the ridge descend to a north-south trending canyon below. Site elevations range from approximately 1,500 feet above sea level at the ridge-top in the northwest corner of the property, and the remainder of the

property steeply descends in an eastern direction down to approximately 900 feet above sea level. Landslide debris is not present on the subject property. The majority of the site is vegetated with a mixed chaparral plant community, with the exception of areas of disturbance associated with an existing access road. Approximately 20 small oak trees are located on the northeast-facing slopes of the northern portion of the subject property. Proposed development would not impact any of these on-site trees (Exhibits 1, 2a).

The proposed residential envelope is situated in the far western portion of the lot and notched into the south-facing slope of the ridgetop. The applicant had originally proposed the residence in a different siting and design configuration that was approximately 90 feet to the north, at a higher elevation on the ridge (approximately 50 feet higher in elevation). Due to Commission staff concerns about the development's visual prominence from public viewing areas to the east and southeast, the development was shifted to the south and notched into the south-facing hillside terrain. Given the relocated residence, the proposed access road had to be reconfigured. While the length of road was reduced by approximately 200 feet and retaining walls eliminated, the amount of grading required (fill) increased substantially in order to achieve the necessary elevation up to the proposed development area and to comply with Fire Department access requirements.

Lot Legality

As evidence of lot legality, the applicant submitted Certificate of Compliance No. 91-0460, issued by the County of Los Angeles on November 29, 2001, and corrected by the County of Los Angeles on March 11, 2004. The corrected Certificate of Compliance contains a "Determination of Compliance (E)", with the (E) indicating that it is an "exempt" Certificate of Compliance, or in other words, a Certificate of Compliance issued pursuant to the provisions of Section 66499.35(a) of the State Subdivision Map Act. The subject Certificate of Compliance certifies that the parcel complies with the applicable provisions of the State Subdivision Map Act and of the County Subdivision Ordinance, having been exempt from said act and ordinance at the time of its creation. At staff's request, the applicant also submitted a chain of title for the property that demonstrated that the subject parcel took its current form in 1962, when a grant deed transferring a portion of the parent lot fixed the eastern boundary of the subject lot in its current location. This method of creation was in conformance with the laws at the time and therefore, the lot is legal.

Lot Line Adjustment

CDP Application No. 4-10-045 (Mulryan Properties LLLP and Morleigh Properties LLLP) (APNs 4453-005-092 and -091)

The applicants of this CDP application propose a lot line adjustment between their two vacant 40-acre lots in order to change the siting of future residential development proposed in CDP applications 4-10-042 and 4-10-043 above, in consideration of

geologic stability, grading, and clustering of development (Exhibits 15, 2a). As discussed above, landslide debris underlies the majority of the Mulryan property (APN 4453-005-092). By adjusting the lot lines between the two parcels, residential development of both parcels could be located outside mapped landslide areas. The size of each lot would not change as a result of the proposed lot reconfiguration.

Proposed Access Road

To access the subject properties from Sweetwater Mesa Road in the City of Malibu, an approximately 7,600-ft. long access road is required. A portion of this total length (1,669 feet) is situated within the City of Malibu and the City is processing a coastal development permit (No. 05-053) for that segment. On September 2, 2008, the City Planning Commission approved the coastal development permit. However, the project was appealed to the City Council and the City Council decided at its January 12, 2009 meeting to postpone action on the CDP until after the Coastal Commission's hearing on the subject permit applications.

The remainder of the proposed access road (approximately 6,010 foot long) is situated within unincorporated Los Angeles County and is included as part of the subject permit applications (Exhibits 2a, 17). Of the proposed 6,010 foot length of roadway construction, 4,883 feet (0.9 mile) is the main stem of the access road and the remaining 1,127 feet of roadway is for the construction of five driveways coming off the main stem, one to each of the proposed residences. The Lunch application (CDP No. 4-10-040) proposes the most significant portion of the access road length (2.485 feet). The Morleigh application (CDP No. 4-10-043) proposes to extend the road from the Lunch property up 1.615 feet to their proposed development area. The Mulryan application (CDP No. 4-10-042) continues the road 850 feet up to their proposed development area, and the Ronan application (CDP No. 4-10-044) takes it another 780 feet from that point up to the northernmost proposed development area. Approximately 43,050 cu. yds. of grading (20,100 cu. yds. cut, 22,950 cu. yds. fill) is proposed to construct the entire length of the proposed access road. The estimated area of disturbance is approximately 6.75 acres. The proposed road crosses two large landslides. As such, two sections of the road, one 590 feet long and one 905 feet long, would be supported on caissons to provide for safe access across these slide areas. Approximately 123 large diameter reinforced concrete caissons, ranging from 2 to 5 feet in diameter and up to 79 feet in length are proposed. An additional fourteen (14), 5-foot diameter caissons for rock fall protection are also proposed at the southern portion of the road, close to the City of Malibu boundary. Of the 20,100 cu. yds. of cut that is proposed for the road, almost 25%, or 4,850 cu. yds., would be cut material excavated for installation of the caissons. In addition to the 1,495 feet of caisson-supported roadway, there would be several retaining walls and a significant amount of cut and fill to provide for a level road surface. In total, there are five retaining walls proposed. ranging from 90 feet to 390 feet in length, and totaling 955 feet of wall length. The proposed retaining walls range in height from averages of 5 to 11 feet and maximum

heights of 7.5 to 18 feet. The longest retaining wall, along the right side (or upslope side) of the northern portion of the road, would be 390 feet long and would have an average height of 11 feet and a maximum height of 18 feet.

Several sections of the proposed road would be quite steep. There are sections approximately 998 feet long, 1,085 feet long, and 535 feet long that would have a grade of 18.95%. There is one additional 285 foot long section that would have a grade of 17.25%. These steep grade sections do not connect; each section would be separated by stretches of road that are at a much gentler grade. Construction of the stabilized sections of the proposed access road would require large temporary construction staging pads. The applicants have identified those construction staging areas, which are within areas proposed for development, such as the Fire Department staging areas and proposed residential development pads.

In 2004, the Commission approved CDP No. 4-01-108 to improve an existing, pre-Coastal Act, 1,750 ft. long, 10-ft. wide jeep trail up to the Lunch parcel to provide access for geologic testing purposes (Exhibit 19). The approved pilot access road (part of which was approved by the Commission and part of which was approved by the City of Malibu) traversed north from the terminus of Sweetwater Mesa Road in the City of Malibu, across three parcels within the jurisdiction of the City of Malibu, and across two of the subject parcels (Vera and Mulryan). Special conditions of the Commission's permit approval related to revegetation of graded and disturbed slopes on either side of the existing 10-ft. wide jeep trail, erosion control and drainage, and City of Malibu approval of the improvements within their jurisdiction.

Fire Department Staging Areas

On October 21, 2009 the applicants submitted modified plans for the shared access road that depicted a new element: three Fire Department staging areas. Given the remoteness of the area and the length and steepness of the road, the Fire Department had decided to require the three Fire Department staging areas along the access road to accommodate safe emergency vehicle access and staging. According to Captain James Bailey of the Los Angeles County Fire Department Fire Protection Engineering Division (phone conversation on Dec. 9, 2009), the applicants had previously taken advantage of a loop-hole in the County road grade requirement (no more than 150 ft. at 20% grade) by proposing over 1,000 ft. at 19.95% grade. Thereafter, higher level staff took a closer look at the proposal in 2009 and worked with the applicant to reduce those steep portions of the road to 18.95% grade and to add staging areas as a way to allow fire trucks to stop and to cool down truck brakes, etc.

The Fire Protection Engineering Division of the Los Angeles County Fire Department approved the modified access road plans on October 20, 2009. Two of the staging areas (approximately 2,800 sq. ft. and 6,200 sq. ft. in size) are adjacent to one another and located where the proposed access road begins within the unincorporated Los Angeles County jurisdiction on the Vera parcel. These two staging areas would require 700 cu. yds. of grading (fill) and are being proposed as part of the access road

improvements associated with the Lunch permit application. The third staging area, which is 20,000 sq. ft. in size, is situated farther up the road, upon the mesa area of the Mulryan parcel. The third staging area would involve 9,400 cu. yds. of grading (fill) and is being proposed as part of the Mulryan permit application. In addition, it is estimated that the three Fire Department staging areas would disturb approximately 1.19 acres (Exhibit 2a).

Excess Excavated Material

All of the proposed development of the subject applications would consist of a total of approximately 95,050 cu. yds. of grading (46,350 cu. yds. cut, 48,700 cu. yds. fill). Of that amount, the 6,010 linear ft. shared access road extending up from Sweetwater Mesa Road in Malibu would require 43,050 cu. yds. of grading (20,100 cu. yds. cut, 22,950 cu. yds. fill). The three proposed fire department staging areas along the access road would involve 10,000 cu. yds. of grading (fill). The five residential development areas and private driveways would require 28,050 cu. vds. of grading (26,250 cu. vds. cut; 1,800 cu. yds. fill; 21,600 cu. yds. excess). Taken together, the total project would generate approximately 8,750 cu. yds. of net excess excavated material. As discussed above as part of the Residence 4 (Mulryan) application, it is proposed that excess excavated material generated by the five residential development projects would be balanced on-site by the placement and contour grading of excess material upon the disturbed mesa area surrounding the Fire Department staging area proposed on the Mulryan parcel. Although it appears that the total project among all applications would generate 8,750 cu. yds. of excess material, the applicant has specified that a maximum of approximately 13,950 cu. yds. of excess material, to a maximum depth of 5 feet and a maximum slope of 3:1 (H:V), would be placed upon an approximately 81,750 sq. ft. (1.88 acres) area of the mesa, immediately adjacent to the proposed access road and a Fire Department staging area (Exhibits 2a, 16). The applicant has also proposed to revegetate this fill area with a mix of native shrub species and oak trees.

Proposed Water Line

The Vera permit application includes extension of an 8-inch diameter water line down to the subject property and the four other adjacent properties which are the subject of this staff report from an existing municipal water main beneath Costa Del Sol Way to the north (Exhibits 2b, 2c, 18). The applicant has obtained easements across all affected parcels associated with the proposed water line extension. The total length of the proposed water line is approximately 7,800 feet. The line would be installed by trenching along the existing paved roadway of Costa del Sol Way for approximately 1,200 linear feet, and then beneath an existing unnamed dirt road for approximately 1,400 linear feet. Installation of the water line extension within this northern section would involve excavation of a four foot wide trench that would occur entirely within an existing paved road and an existing unpaved dirt road. When the existing dirt road ends, the proposed water line would continue for another approximately 1,800 feet through rugged, undeveloped mountain terrain, down to the driveway of the proposed Ronan residence. This section of the water line would also involve construction of an unpaved

maintenance road for approximately 990 linear feet just west of the ridgeline that separates the Sweetwater and Carbon Canyons. The 10-ft. wide maintenance road to service the water line would end approximately 1,000 feet shy of the northernmost proposed residential development due to the extreme steepness of that segment of the terrain in that area. According to preliminary grading plans, the proposed 990-ft. long maintenance road would require a 60-ft. long, 2 to 6-ft. high retaining wall and approximately 1,145 cu. yds. grading (1,135 cu. yds. cut; 10 cu. yds. fill) on steep slopes. The gradient of the cut slopes range from 1:1 to 0.5:1. Approximately 20,000 sq. ft. of vegetation removal would be associated with construction of the proposed water line maintenance road. The applicant has stated that the proposed maintenance road is being required by the Las Virgenes Municipal Water District for regular meter reading, maintenance, and repairs. But due to the extreme steepness of the topography, LVMWD is not requiring the maintenance road to extend the entire length of the proposed water line.

From where the proposed maintenance road ends, the water line is proposed to continue for another approximately 900 feet across rugged, undeveloped mountain terrain down to the Ronan residence. In order to operate the machinery to dig a four foot wide trench and install the water line, the applicant has stated that a disturbance area of 10 ft. wide would be required along this section of the line. Upon installation of the pipeline, the trench would be backfilled and the disturbance area would be restored with native species. From the Ronan residence, the proposed water line would then follow the proposed shared access road down to the southern-most proposed residence, Vera Properties, LLLP (approximately 3,300 feet).

B. BACKGROUND

Original Submittals

The subject permit applications were originally submitted in 2007/2008. Since that time, the applications have been withdrawn and re-submitted twice by the applicants in order to allow more time to resolve outstanding issues that were identified during staff analysis of the proposed projects. Consistent with the Commission's record-keeping practices, when the permit applications were withdrawn, they were assigned new permit application numbers upon re-submittal. The table below is a summary of the various permit application numbers associated with the subject applications:

Applicant Name	Original Application No.	Re-submitted Application No.	Re-submitted Application No.
Lunch Properties LLLP	4-07-067 (submitted July 16, 2007; filed Jan. 8, 2009; withdrawn Aug. 26, 2009)	4-09-056 (filed Aug. 26, 2009; withdrawn Apr. 22, 2010)	4-10-040 (filed Nov. 17, 2010)
Vera Properties LLLP	4-07-068 (submitted July 16, 2007; filed Jan. 8, 2009; withdrawn Aug. 26, 2009)	4-09-057 (filed Aug. 26, 2009; withdrawn Apr. 22, 2010)	4-10-041 (filed Nov. 17, 2010)
Mulryan Properties LLLP	4-07-146 (submitted Nov. 30, 2007; filed Jan. 8, 2009; withdrawn Aug. 26, 2009)	4-09-058 (filed Aug. 26, 2009; withdrawn Apr. 22, 2010)	4-10-042 (filed Nov. 17, 2010)
Morleigh Properties LLLP	4-07-147 (submitted Nov. 30, 2007; filed Jan. 8, 2009; withdrawn Aug. 26, 2009)	4-09-059 (filed Aug. 26, 2009; withdrawn Apr. 22, 2010)	4-10-043 (filed Nov. 17, 2010)
Mulryan/Morleigh LLLP Lot Line Adjustment	4-07-148 (submitted Nov. 30, 2007; filed Jan. 8, 2009; withdrawn Aug. 26, 2009)	4-09-061 (filed Aug. 26, 2009; withdrawn Apr. 22, 2010)	4-10-045 (filed Nov. 17, 2010)
Ronan Properties LLLP	4-08-043 (submitted June 24, 2008; filed Jan. 8, 2009; withdrawn Aug. 26, 2009)	4-09-060 (filed Aug. 26, 2009; withdrawn Apr. 22, 2010)	4-10-044 (filed Nov. 17, 2010)

Five of the subject six applications were originally submitted in 2007. On July 16, 2007, the Commission received CDP Application Nos. 4-07-067 (Lunch Properties LLLP) and 4-07-068 (Vera Properties LLLP) for residential development on two adjacent vacant properties. On August 10, 2007, Commission staff sent a letter to the applicants' common agent, notifying them that the applications were incomplete and outlining the items that needed to be submitted in order for Commission staff to deem the applications complete. On November 30, 2007, the Commission received CDP Application Nos. 4-07-146 (Mulryan Properties LLLP), 4-07-147 (Morleigh Properties LLLP), and 4-07-148 (Mulryan Properties LLLP and Morleigh Properties LLLP) for development on two other adjacent properties (including a lot line adjustment between the two lots and residential development on each lot) that are contiguous with the properties that are the subject of Application Nos. 4-07-067 and 4-07-068. The same agent, Schmitz & Associates, was the representative for each of the four applicants. On December 17, 2007, Commission staff sent a letter to the agent, notifying him that applications 4-07-146, 4-07-147, and 4-07-148 were incomplete and outlining the items needed in order to deem the applications complete.

Commission staff received additional information from the applicants' agent on January 30, 2008 (regarding applications 4-07-146, -147, and -148) and February 20, 2008

(regarding applications 4-07-067 and -068). Some of the information that staff had initially requested was provided at this time. However, several outstanding items remained, and additional information/clarification based upon the agent's submittals was needed. Commission staff sent a follow-up letter (dated February 29, 2008) to the applicants' agent regarding all five of the permit applications, noting the items still needed and requesting additional information and clarification based upon the new information provided by the agent.

Appeal of Incompleteness Determination

The applicants' agent submitted a letter in response to staff's February 29, 2008 letter for each application, dated March 24, 2008, stating that several of the staff's information requests were "irrelevant, onerous, or impossible to provide" and that the applicants wished to appeal the Executive Director's "incomplete" determination to the Commission pursuant to Section 13056(d) of Title 14 of the California Code of Regulations. As such, Permit Application Nos. 4-07-067, 4-07-068, 4-07-146, 4-07-147, and 4-07-148 were the subject of dispute resolution action by the Commission in May 2008 (Dispute Resolution Nos. A-4-07-067-EDD, A-4-07-068-EDD, A-4-07-146-EDD, A-4-07-147-EDD, and A-4-07-148-EDD). At the Commission hearing of May 7, 2008, Commission staff dropped some of its demands, and the Commission concurred with the Executive Director's determination that the subject coastal development permit applications were incomplete in the other respects alleged by Commission staff. The Commission concluded that three of the five disputed items were necessary for staff's analysis of the development proposals, and for the Commission's consideration of the CDP applications to determine whether the projects comply with all relevant policies of the Coastal Act.

Below is a summary of the incomplete items disputed by the applicants and how each item was resolved by the Commission's May 7, 2008 dispute resolution action:

- 1. An analysis of alternatives to the proposed water main line and feasibility of an on-site water well to supply the proposed development with potable water.
 - Commission staff decided to forego, as an application filing requirement, an analysis of alternative water sources prepared by the applicants. Staff concluded and the Commission found that the issue could be further analyzed by staff and considered by the Commission in its review of the applications.
- 2. A County-approved Geologic Review Sheet for all proposed development.
 - In an effort to address the applicants' concerns regarding the expense of preparing full working drawings for each residence to proceed with County geologic review, Commission staff had spoken with the County District Engineer, Soheila Kahlor, specifically regarding this issue and the subject projects. She indicated that the County can proceed with geologic review of grading plans without more information (i.e., not require full working drawings for the residences), given the concern of the geologic and grading issues in this case. In fact, she noted that the applicants were already in process with the County for obtaining this review. Staff conveyed this to the applicants' agent. However, the applicants' agent still opposed the filing requirement. The

Commission reviewed this disputed issue and upheld the Executive Director's determination, finding that the County-approved Geologic Review Sheet is information necessary for the Commission's consideration of the subject applications and their consistency with the Chapter 3 policies of the Coastal Act.

3. Evidence of the City of Malibu's approval of the proposed access road segment within the City's jurisdiction.

Upon further consideration, staff concluded that while it would be better to know the final configuration of the road that will be approved within the City of Malibu, the Commission could require evidence of the City of Malibu's approval of the proposed road segment within the City boundaries as a special condition of approval for the subject permit applications (should the applications be approved) thus alleviating the need to treat that information as a necessary filing requirement. If the City did require that the road be relocated, the corresponding relocation of the portion of the road in the Commission's jurisdiction could then be required to come back before the Commission for further review. Therefore, Commission staff concluded this information was no longer required for filing the applications, and the Commission concurred.

4. Analysis of alternative parcel configurations that would minimize grading, fuel modification, landform alteration, and serve to cluster all development to the maximum extent feasible, in order to minimize impacts to coastal resources.

Commission staff decided to forego, as an application filing requirement, an analysis of alternative lot configurations prepared by the applicants. Staff concluded and the Commission found that the issue could be further explored by staff (including the Commission's legal staff) and considered by the Commission in its review of the applications.

5. Los Angeles County approval-in-concept for the proposed water main line and maintenance road portion of the proposed development.

Commission staff concluded that County approval-in-concept was required for the grading work associated with installation of the proposed water line and maintenance road development. However, in the face of continued disagreement from the applicants' agent and allegations that the County had told him otherwise, staff also decided that, if the applicants could provide evidence from the County indicating that their review and approval was not needed for construction of the proposed water line and maintenance road, that would be adequate to satisfy the subject filing requirement. The Commission upheld the Executive Director's determination, finding that the applicants needed to provide either the County Approval-In-Concept of the water line extension development or evidence that it is not required.

In essence, upon further consideration of the five incomplete items that were the subject of the appeals, Commission staff concluded that three of the five incomplete items that they had requested could be adequately addressed after filing of the applications. Thus, staff did not require that those items (Water Supply Alternatives Analysis, City of Malibu

Approval and Alternative Parcel Configuration Analysis) be provided as a prerequisite to the filing of the applications. The remaining two disputed incomplete items were found to be necessary for staff's analysis of the development proposals, and for the Commission's consideration of the CDP applications, to determine whether the projects comply with all relevant policies of the Coastal Act.

On June 24, 2008, the same agent who had submitted the first five applications and had indicated that a sixth, related permit application for residential development on an adjacent parcel was forthcoming, submitted that sixth application (CDP Application No. 4-08-043 by Ronan Properties LLLP). On July 16, 2008, Commission staff sent a letter to the applicants' common agent, notifying him that the new application was incomplete and outlining the items that needed to be submitted in order for Commission staff to deem the application complete.

In response to incomplete letters regarding each of the subject six applications, the applicants' agent submitted additional information to Commission staff on November 24, 2008. On December 4, 2008, Commission staff determined the applications incomplete and requested the additional information items necessary to file the applications.

Filing of Applications and Emergent Geological Issues

On January 8, 2009, after receiving the requested incomplete items outlined in the Commission's December 4, 2008 incomplete letter, regarding all of the applications, Commission staff filed each of the subject applications as complete and tentatively scheduled them for the June 2009 Commission hearing. However, regarding the County-approved Geologic Review Sheet incomplete item, rather than proceeding through County geotechnical review per what was agreed upon by the County and Commission staff and noted in the Commission's findings on the dispute resolution action, the applicants had submitted County Geotechnical and Materials Engineering Division review sheets for each application that stated the following:

"A visual inspection of the proposed building site and a cursory review of the submitted geotechnical reports indicate there are no apparent adverse geotechnical conditions that would preclude the development of the identified building site as long as the geotechnical consultants' recommendations are followed. However, additional data may become available in the future, which may supercede this finding. Specific development plans must be submitted for review during the building/grading permit process. At that time, a comprehensive geotechnical review will be conducted, which may require addendum geology and soils reports."

Such remarks on a County Geotechnical and Materials Engineering review sheet are atypical. Usually County review sheets either indicate that the grading plans are recommended for approval or they are not recommended for approval and additional information is requested (as had been the case for previous review sheets issued by the County for the subject projects). The County geologic review process requires an applicant to provide a significant amount of information to the County regarding the geology and engineering of a proposed project. For this reason, Commission staff only

requires such review prior to filing in cases with complex geology or soils, or where there are significant geologic hazards present. The process ensures that the geologic, soils and geotechnical reports provide the necessary information and, more importantly, ensures that a project will meet the County standards regarding such issues as maximum slope angle for cut and fill slopes, remedial grading, siting of roads and pads, foundation design, etc. It has been the Commission's experience that for projects on sites with complex geologic issues, including landslides, the County geologic review process often results in significant project redesign that can greatly alter the area of the site that will be impacted, as well as the significance of impacts. Given the County Geotechnical and Materials Engineering Division's change of approach in dealing with their geologic review of the subject projects, and the fact that the applicants did submit the County document that Commission staff had requested, Commission staff proceeded to accept the County's letter for purposes of filing the applications complete and proceeded with its own geologic/engineering analysis of the proposed developments.

The proposed access road crosses several landslides and the geologic conditions pose significant engineering challenges to provide safe development, especially for the access road. During Commission staff analysis of the project's geology, geotechnical, and structural engineering elements, it was found that no structural calculations or design parameters had been provided to demonstrate that a particular engineering design could attain the required factors of safety and assure stability for the economic life of the development. Commission staff geologist, Mark Johnsson, and Commission staff civil engineer, Lesley Ewing, provide staff with technical assistance in analyzing projects that have significant geologic issues and/or complex engineering for consistency with Section 30253 of the Coastal Act. Commission technical staff began conversations with the applicants' representatives and consultants to obtain the engineering design details that were required to make the appropriate findings regarding consistency with the hazard and stability policies of the Coastal Act.

Visual Issues and Reconfiguration

Due to potential visibility from public viewing areas, Commission staff also requested that the mass of the proposed structures be physically depicted by staking the sites, i.e. story poles & flagging. Commission staff conducted a site visit on April 23, 2009 to view the staked sites. After touring the staked sites, Commission staff expressed concerns regarding the siting and design of each of the proposed residences and their visual prominence from public viewing areas, as well as their close proximity to the ridge-top edge and canyon chimneys that pose a high fire risk and increased potential for erosion. Each residence, with the exception of the Mulryan residence, had been placed at the furthest edge of the ridge-top and just above canyon "chimneys". There appeared to be alternatives to minimize the visibility of the residences and to pull them off the outermost edge of the ridge. In order to address staff concerns, the applicants worked to reconfigure the siting and design of each of the proposed residences to reduce their visibility.

In May 2009, the applicants made modifications to the proposed residences in an effort to reduce their visibility. For the Vera residence, the applicant reduced the overall height of the residential structure, from 28-ft. to 22-ft., and omitted the western-most approximately 40 feet of the structure. For the Lunch residence, it was revised and reconfigured to be sited further away from the ridge-top edge and tiered into a natural saddle location of the site where the structure would step up in elevation in concert with the underlying rise in elevation along the top of the ridge in order to minimize grading of the site. The north and south "tails" of the structure were moved 21 feet and 35 feet and the taller "nose" of the structure was moved back 53 feet from the slope edge. At its highest point the residential structure has been reduced from 28 to 22 feet above grade, with a roofline that resembles a gently sloping dome. Regarding the Morleigh residence, it shifted to the north approximately 100 feet in order to avoid the rock outcropping and to be set further back from the edge of the site's southwestern ridgeline slope. The new location would be less visually prominent and require less grading and a shorter access driveway. The development envelope of the Mulryan residence was shifted farther away from the ridge edge by 25 to 40 feet in a westerly direction, and the development area was condensed into a tighter circular form to comply with the 10,000 sq. ft. development area maximum. The east side of the residence was also notched into the hillside more to lower its profile when viewed from public viewing areas to the east. The height of the west side of the structure is 28 feet above grade, while the height of the east side of the structure is much less, 21.5 feet above grade. The Ronan residence was reconfigured and shifted to the south to be notched into the south-facing hillside terrain. This change required that the access driveway configuration be modified between the shared access road and the residence. In addition, a new project element was proposed by the applicants, consisting of placing approximately 36,000 cu. yds. of excess fill generated from the overall project upon the mesa area that is underlain by landslide debris.

Continuing Geologic Issues and Withdrawal and Re-Submittal of Applications

On May 12, 2009, Commission staff met with the applicants' agent to convey what additional information was needed in order to analyze the revised project and make the necessary findings regarding hazards and stability. In order to allow more time to provide Commission staff with the information requested, the applicants extended the July 7, 2009 time limit for Commission action by 90 days, to October 5, 2009. Given the constraining geology and topography of the area, the engineering design of the shared access road is complex and unique. By August 2009, it became clear that the applicants had not provided enough information to demonstrate that the selected engineering design could attain the required factors of safety and assure stability for the economic life of the development. Commission Staff Civil Engineer, Lesley Ewing, and Commission Staff Geologist, Mark Johnsson, were not satisfied with the level of detail and analysis provided given the complex geology and engineering constraints of these sites. Structural engineering designs and calculations of the pile/caisson systems were needed to demonstrate that the projects can be designed with the amount of grading being proposed and that it will support the forces the geotechnical engineer indicates is necessary. Without the structural engineering calculations, it cannot be found that the conceptual designs will be sufficient to assure stability for the economic life of the

development. Commission staff had asked that the applicants provide structural plans merged with the grading plan set, structural calculations, and design parameters. Understanding that there was not enough time to resolve these geology, geotechnical and engineering issues before the Commission's October 5, 2009 deadline for action, the applicants agreed to withdraw and re-submit the subject applications. The applications were formally withdrawn and re-submitted on August 26, 2009. Commission staff considered the re-submitted applications complete as of that date, waived any new permit application fees, assigned new permit application numbers, and tentatively scheduled the applications for the November 2009 hearing. However, the requested materials regarding the geotechnical engineering aspects were not provided in time for the November hearing. Materials were provided by the applicant in October 2009, but still not to the satisfaction of Commission staff. In November 2009, the applicants provided the complete civil/structural engineering plans for the access road as requested.

Engineering Geologic, Geotechnical, Civil and Structural Engineering Peer Review and Second Withdrawal and Re-Submittal of Applications

During Commission staff review of the project, three different structural engineering designs had been developed and proposed for the access road. The initial engineering design proposed to place the road on a combination of deep caissons and "dog bone" or double-barreled caissons. There were approximately a dozen different caisson templates that would be used for different segments of the road. The depth was specified for each caisson and reinforcing steel for each caisson would be carefully oriented to the main direction of the slide at each caisson site. The caisson road support was a rather complex structural engineering system. It was a type of system that Commission Staff Civil Engineer, Lesley Ewing, had never seen before. Given the complexity and uniqueness of the engineering design demonstrated in the submitted structural engineering plans, Commission technical staff found that review of the design was outside their field of expertise and requested that an experienced outside consultant be hired to assist staff with the technical review. The applicants agreed to this approach and Cotton, Shires and Associates Inc. (CSA), a professional firm of consulting engineers and geologists based in California, was contracted to perform the civil and geotechnical engineering and engineering geologic peer review services in direct support of the Commission's review and analysis of the subject permit applications.

The funding arrangements for the outside consultant were completed on February 22, 2010 and on March 8, 2010, CSA provided staff and the applicant with their review findings on the project. CSA had found that the information provided up to that point was insufficient to justify approval of the proposed project design. The geologic characterization did not provide sufficient accuracy, detail, or aerial coverage for design level analyses. Additional geologic mapping and subsurface exploration were recommended by CSA to refine the consultant's geologic characterization. CSA found there was the possibility of an additional large landslide in the area, which either needed to be disproved or taken into consideration in the design. In addition, various aspects of

the investigation, analysis, and design were not in conformance with typical investigations for a project of this magnitude and complexity. CSA recommended additional investigation, laboratory testing, and analysis to better quantify key geotechnical design criteria parameters and landslide loading scenarios.

In order to allow additional time under the Permit Streamlining Act to respond and resolve the issues contained in the CSA report, the applicants again had to withdraw and re-submit the applications. The applications were formally withdrawn and resubmitted on April 22, 2010. Given that this was the second time that the applicants had withdrawn and re-submitted their applications, and since the County's Geologic Review Sheet had not contained the information Commission staff was anticipating, Commission staff found it necessary to request updated information prior to filing of the applications, including geological and engineering information addressing the concerns raised by CSA, updated application forms, mailing lists and envelopes, owner/agent authorizations, and filing fees. At this time, Commission staff also assigned the applications new permit application numbers.

In response to the March 8, 2010 CSA report, the applicants' consultants proceeded to address the detailed comments it contained. Commission staff, CSA staff, and the applicants' consultants worked closely and expeditiously toward that goal. In response to the review comments, the applicants' consultants performed additional geologic mapping, geomorphic analysis, subsurface exploration, refinement of their geologic cross-sections, geotechnical engineering analysis, and modifications to the structural engineering design of the access road. After receiving additional information from the applicants' consultants, CSA and the Commission's geologist remained concerned about the soil strength parameters being used and the justification for using them. This was an important element to resolve because the soil strength parameters are the basis for design of the road stabilization measures. CSA provided a memo to the applicants' consultants, dated October 26, 2010, outlining their concerns. The applicants' consultants, CSA staff, and Commission technical staff then worked closely to resolve that issue and arrive at parameters that were appropriate and justifiable. By refining the geologic landslide mapping and using the appropriate parameters, the applicants' consultant were able to replace the previously proposed dog-bone caissons with cylindrical caissons and reduce the amount and size of the stabilization elements of the access road. The applicants' final response to CSA review and final grading/structural engineering plans were received by Commission staff and CSA on November 17, 2010. In response, Commission staff issued letters on December 10, 2010 stating that the applications were filed as complete as of November 17, 2010.

In December 2010, CSA prepared their Draft Summary of Findings of their engineering geologic, geotechnical, civil and structural engineering peer review services in support of Commission staff's analysis of the applications. Commission technical staff reviewed the CSA Draft Findings and concurred with the facts and conclusions. The CSA Draft Findings were then transmitted to the applicants, who provided several comments and suggested edits. CSA was willing to accept many of the suggested edits, but there remained disagreements in the way the applicants' consultants had calculated and

applied seismic forces to the structural design. After a series of exchanges in December 2010 and January 2011 between CSA, the applicants' consultants, and Commission staff, these differences were finally resolved in mid-January with the applicant's January 20, 2011 Supplemental Geotechnical Engineering Letter #8 (revised). Although the applicants' consultant felt that checking the structural calculations against the California Building Code would result in an overly conservative design, the applicant's consultant finally agreed to perform this check as part of the final project design. On January 21, 2011, CSA submitted to staff their Final Summary of Findings.

CSA technical review of the project has proven valuable for Commission analysis of the project. Staff also believes that the process was valuable for the applicants. The process resulted in a simplification of the structural engineering design of the access road, which would be less complex and less costly to construct. In addition, the constraints of the complex geology and topography of the sites has been thoroughly analyzed and understood. While the process was much more arduous and timeconsuming than is typical in Commission review of residential development applications, in this case, it was required given the significance and complexities of the proposed development. Specifically, the evaluation of the structural engineering required for this development fell outside the field of expertise of the Commission's technical staff. The technical consultants were hired to address this aspect of the proposed development, but they had to evaluate the underlying geologic and geologic engineering aspects in order to meet their professional responsibilities. When CSA found concerns with these aspects of the development, the scope of their review had to be increased. The size and extent of stabilization elements could be reduced due to the refined landslide mapping. Ultimately, the structural engineering aspects of the development were substantially redesigned as a result of this review.

Correspondence Received

Commissioner reports of ex parte communications received to-date are attached as Exhibit 22 of this staff report.

Commission staff has also received correspondence regarding the proposed projects from various interested parties, as summarized below:

- Mary Ann Webster, Chair of the Angeles Chapter of the Sierra Club, submitted a letter on November 18, 2010 and February 4, 2011, in opposition to the proposed projects. These letters are attached as Exhibit 24 of the staff report.
- Gina Natoli, Supervising Regional Planner for Los Angeles County Department of Regional Planning, submitted a letter dated November 18, 2010 outlining how the proposed plot plans for the subject projects would be evaluated against the policies and provisions of the Los Angeles County Draft Local Coastal Program (LCP). The letter states that the proposed development, as proposed, would require a Major CDP, CEQA review, and several variances, and that the development would be inconsistent with policies of the Draft LCP related to

habitat protection, grading, significant ridgeline protection, scenic resource protection, access, safety, and preservation of natural topography. The purpose of the County letter appears to be to demonstrate the resource protection policies of the County Draft LCP by using the subject projects as an example. However, it bears noting that the County Draft LCP has not been certified by the Commission or even submitted to Commission staff. As such, it does not establish standards that the Commission can use in reviewing the proposed project. This letter is attached as Exhibit 24.

- Adam Keats, Urban Wildlands Program Director of the Center for Biological Diversity, submitted a letter dated August 17, 2010, in opposition to the proposed development. This letter is attached as Exhibit 24.
- Timm and Julie Woolley, residents at 3021 Rambla Pacifico Road in Malibu, submitted a letter dated June 30, 2009, expressing opposition to the proposed development for the stated reason that it would have an adverse impact on the scenic quality of the natural area. This letter is attached as Exhibit 24.
- Ron and Sally Munro, residents at 3085 Rambla Pacifico Road in Malibu, submitted letters dated June 23, 2009 and February 2, 2011, expressing opposition to the development for the stated reason that it would adversely impact views of the undeveloped ridgeline. These letters are attached as Exhibit 24.
- Jeff Divine of The Surfer's Journal submitted a letter dated April 20, 2009, expressing support for the proposed development. This letter is attached as Exhibit 24.
- George Toberman, resident at 3539 Cross Creek Lane in Malibu, submitted a letter dated March 21, 2009, expressing support for the proposed development. This letter is attached as Exhibit 24.
- Fran Gibson, a member of the public, emailed Commission staff a link to an anonymous blog post that discusses the various personal and business relationships among the subject applicants in this case. A response on the same site listed as coming from Hardy Buck on February 3, 2011, states "I understand Tim Delaney is the Edge's brother in law." This correspondence and blog post is attached as Exhibit 24. Gillian and Tim Delaney are listed as the principals of Mulryan Properties, LLLP. Additional internet research shows that David Evans (the Edge) has a sister named Gillian.
- Woody Smeck, National Park Service Superintendent for the Santa Monica Mountains National Recreation Area, submitted a letter received by Commission staff on February 1, 2011, that addresses the potential adverse impacts the proposed developments would have on the habitat, visual, and recreational resources of the Santa Monica Mountains National Recreation Area. Mr. Smeck

submitted a follow-up letter received on March 21, 2011 stating that the proposed LEED certification of the homes does not accurately reflect the significant environmental impacts of the proposed project. These letters are attached as Exhibit 24.

- The Malibu Coalition for Slow Growth submitted a letter, received by Commission staff on February 7, 2011, in support of the staff recommendation. This letter is attached as Exhibit 24.
- Jim Smith, a resident of Sweetwater Mesa Road in Malibu, submitted a letter received by Commission staff on February 4, 2011, expressing concern regarding the visual impact of the proposed home sites along the ridgeline. This letter is attached as Exhibit 24.
- Carol Leacock, President of the Temescal Canyon Association, submitted a letter received by Commission staff on February 7, 2011, in opposition to the proposed projects and in support of the staff recommendation to deny them. This letter is attached as Exhibit 24.
- Heal the Bay submitted a letter received by Commission staff on February 7, 2011, in opposition to the proposed projects and in support of the staff recommendation to deny them. This letter is attached as Exhibit 24.
- Adam Keats of the Center for Biological Diversity submitted a letter received by Commission staff on February 7, 2011 in opposition to the proposed projects and in support of the staff recommendation to deny them. This letter is attached as Exhibit 24.
- Lucile Keller of Malibu Township Council submitted a letter received by Commission staff on February 7, 2011, in opposition to the proposed projects and in support of the staff recommendation to deny them. This letter is attached as Exhibit 24.
- Una Glass, Executive Director of Coastwalk California, submitted a letter received on February 8, 2011, in opposition to the proposed projects and in support of the staff recommendation to deny them. This letter is attached as Exhibit 24.
- Don Schmitz, on behalf of Lunch Properties LLLP (one of the subject permit applicants and the one that proposes the main segment of the proposed access road up from the City of Malibu) submitted a letter received by Commission staff on February 4, 2011, that asserts that the proposed access road to the Lunch property is no more significant than other access roads to residential projects that the Commission has approved in the Santa Monica Mountains in the past. Don Schmitz, on behalf of Lunch Properties LLLP, also submitted two letters received

by Commission staff on February 7, 2011 that discuss the geologic and fire safety elements of the proposed project. These letters are attached as Exhibit 24.

- Don Schmitz, on behalf of Mulryan Properties LLLP, submitted a letter received by Commission staff on February 7, 2011 that asserts the staff recommendation of denial is flawed and unfounded. This correspondence is attached as Exhibit 24.
- Don Schmitz, on behalf of Lunch Properties LLLP, submitted a letter received by Commission staff on February 8, 2011 that asserts the proposed development minimizes impacts to ESHA and that the staff-identified alternative of a 5,000 – 8,000 sq. ft. development area is unprecedented. This letter is attached as Exhibit 24.
- Carl Ermert, property owner of APN 4453-005-054 that is north of the subject properties, submitted a letter dated February 7, 2011 asserting that the existing jeep road through all of the subject properties has existed since prior to 1977. This letter is attached as Exhibit 24. Mr. Ermert, however, did not provide any conclusive evidence to support his assertion. Staff analysis of the legality of all existing development on the properties is addressed in Section C.1 of the staff report.
- Commission staff has also received correspondence from three of the applicants'
 attorneys (Mulryan, Morleigh, and Ronan) indicating that the Commission has no
 basis to inquire as to the ownership of each entity, nor any basis to assert "unity
 of ownership" among the five applicants and deny the applications. These letters
 are attached as Exhibit 24. The issues raised by these letters are addressed in
 Section D of this staff report.

<u>Public Benefit Program Agreement Between Santa Monica Mountains Conservancy/Mountains Recreation and Conservation Authority and the Project Applicants</u>

The Santa Monica Mountains Conservancy (SMMC) submitted a letter dated November 23, 2009, expressing opposition to the development for the stated reason that it would have significant adverse impacts to visual and ecological resources. This letter is attached as part of Exhibit 23. Representatives for the applicants then negotiated with the SMMC to formulate a public benefits program, and an agreement to implement the program. On April 25, 2011, the Santa Monica Mountains Conservancy voted to support the public benefit program that was offered by the project applicants should the Commission approve the residential development that the applicant's have proposed. On May 4, 2011, the Mountains Restoration and Conservation Authority (MRCA) also voted to support the public benefits program. According to the agreement documents provided by the SMMC/MRCA, attached as part of Exhibit 23, the approved public benefits program includes the following elements:

- Dedication of approximately 97 acres of Conservation Easements across the subject properties;
- Dedication of approximately 36 acres of Deed Restriction areas around the proposed homes of the subject properties;
- Offers-to-Dedicate of public trail easements for the regionally-significant Coastal Slope Trail over three Carbon Mesa parcels to the east;
- Grant of \$750,000 to acquire and improve additional segments of the Coastal Slope Trail;
- Grant of up to \$250,000 to assist in securing agreements to acquire title or easements to complete additional segments of the Coastal Slope Trail between the Carbon Mesa parcels and Tuna Canyon Park in Malibu.

As part of the agreement and in exchange for the public benefits offered by the applicants, the SMMC agreed to (1) take a neutral position on the project but may ask the Commission to consider its 2009 comment letter, (2) support the Public Benefits Program before the agencies from which approvals are required to develop the proposed projects, both in writing and verbally at public hearings, and (3) to not oppose development of a residence on identified pads at each of the three Carbon Mesa parcels listed in the bullet points above.

The public benefits program agreement also indicates that the public benefit elements would not vest until final approval of the projects, which is defined as "Final Approval is obtained to construct five new single family residences ...as proposed in California Coastal Commission coastal development permit applications 4-10-040, 4-10-041, 4-10-042, 4-10-043, 4-10-044, and 4-10-045 (Sweetwater Mesa Projects). Final approval of the Sweetwater Mesa Projects means that the project, as conditioned by the California Coastal Commission or other administrative or regulatory body and as accepted by the applicants has received approvals from all government agencies... which is: i) final and not appealable; ii) all judicial challenges or administrative appeals are resolved in favor of the Projects; and, iii) the statute of limitations for challenging any approvals of the Projects has run. Notwithstanding the foregoing, if one or more the project applicant's does not seek to obtain final approval of that applicant's Sweetwater Mesa Project, this offer to dedicate shall vest if all the remaining applicants receive Final Approval...."

The Commission notes that the Public Benefits Program discussed above has <u>not</u> been proposed by the applicants as part of the proposed project description for the subject applications. As such, the Commission's analysis of the subject projects does not include the Public Benefits Program. Nonetheless, the Commission has considered the SMMC staff report regarding the proposal and additional information provided by SMMC staff (Exhibit 23) that detail the proposal as approved by the SMMC and MRCA Boards.

The Commission finds that the program would <u>not</u> serve to avoid, lessen, or mitigate the ESHA, visual resource, or cumulative impacts of the projects, identified below. As such, it would not bring the proposed projects any closer to conformity with the Chapter 3 policies of the Coastal Act. The Public Benefits Program includes open space deed restrictions and conservation easements around the proposed development areas, off-

site trail dedications, and money for future trail planning and acquisition. However, none of the identified public benefits would serve to provide compensatory mitigation for any significant adverse impacts to coastal resources that are identified in this staff report.

With regard to the conservation easements and open space deed restrictions that are part of the Public Benefits Program, these measures, if effectuated, would assure preservation of certain of the remaining sensitive resources on each site that would not be impacted by the proposed development. Additionally, the applicants' proposal would result in a conservation easement over a portion of a sixth contiguous parcel to the north (the remainder of this parcel would be subject to the impacts of installing the proposed waterline). The easements and deed restrictions agreed upon by the applicants and the SMMC would preserve less area and allow for more development outside each defined development area than what the Commission has permitted for similar developments located within ESHA when the Commission approved development to avoid a taking. In such cases, the Commission has required the area of the property outside the irrigated fuel modification zone (approximately 100 feet from approved structures) to be restricted to open space (through an open space easement or deed restriction), in order to ensure that the approved development will constitute the maximum amount of ESHA destruction on the site, thus limiting the impacts. Such open space easements or restrictions do not avoid or reduce impacts to ESHA within the development area however. Further, they do not provide compensatory mitigation for the loss of sensitive habitat resulting from development.

With regard to the trail easements and funding for trail acquisition and/or improvement agreed upon by the applicants and the SMMC, these measures, if effectuated, would serve to increase public access and recreational opportunities in the area. However, these measures would not in any way avoid or reduce the projects' ESHA impacts, visual resource impacts, or cumulative effects on coastal resources. Further, they do not provide compensatory mitigation for the loss of sensitive habitat or adverse visual impacts. Furthermore, the proposed developments would not impact any public trails, therefore, the trail elements of the public benefits program would not be related to any project-related impact.

C. CONSISTENCY ANALYSIS

1. Environmentally Sensitive Habitat

Section **30240** of the Coastal Act protects environmentally sensitive habitat areas (ESHA) by restricting development in and adjacent to ESHA. Section **30240** states:

- (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.
- (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 such areas, and shall be compatible with the continuance of such habitat areas.

Section **30107.5** of the Coastal Act, defines an environmentally sensitive area as:

"Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

In addition, the Malibu/Santa Monica Mountains LUP provides policy guidance regarding the protection of environmentally sensitive habitats. The Coastal Commission has applied the following relevant policies as guidance in the review of development proposals in the Santa Monica Mountains.

- P57 Designate the following areas as Environmentally Sensitive Habitat Areas (ESHAs): (a) those shown on the Sensitive Environmental Resources Map (Figure 6), and (b) any undesignated areas which meet the criteria and which are identified through the biotic review process or other means, including those oak woodlands and other areas identified by the Department of Fish and Game as being appropriate for ESHA designation.
- Uses shall be permitted in ESHAs, DSRs, Significant Watersheds, and Significant Oak Woodlands, and Wildlife Corridors in accordance with Table I and all other policies of this LCP.
- P68 Environmentally sensitive habitat areas (ESHAs) shall be protected against significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas. Residential use shall not be considered a resource dependent use.
- P69 Development in areas adjacent to environmentally sensitive habitat areas (ESHAs) shall be subject to the review of the Environmental Review Board, shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.
- P74 New development shall be located as close as feasible to existing roadways, services, and existing development to minimize the effects on sensitive environmental resources.
- P82 Grading shall be minimized for all new development to ensure the potential negative effects of runoff and erosion on these resources are minimized.
- P84 In disturbed areas, landscape plans shall balance long-term stability and minimization of fuel load. For instance, a combination of taller, deep-rooted plants and low-growing ground covers to reduce heat output may be used. Within ESHAs and Significant Watersheds, native plant species shall be used, consistent with fire safety requirements.

The five subject properties cover an approximately 156-acre area of undeveloped ridgeline mountain terrain located on the southern flank of the Santa Monica Mountains about a mile inland from Pacific Coast Highway and the coast. This ridgeline extends inland approximately 2.18 miles from the narrow coastal terrace traversed by Pacific Coast Highway to the backbone crest of the Santa Monica Mountain Range (Exhibit 2c). The Malibu/Santa Monica Mountains Land Use Plan (LUP) designates this ridge as a "Significant Ridgeline". The area is undeveloped and comprised of steep, rugged mountain terrain that is blanketed by various natural rock outcroppings and primarily undisturbed native chaparral habitat that is part of a large contiguous area of undisturbed native vegetation. To the west of the ridge is a prominent south-trending

canyon that contains a USGS-designated blue-line stream. Another blue-line stream exists in a canyon bottom downslope to the east. The nearest developments in the vicinity are residential enclaves of Serra Retreat located within the municipal limits of the City of Malibu approximately a half mile to the southwest.

Site-Specific Biological Information

applicants have submitted Biological Assessments for their respective developments, listed in the Substantive File Documents, which address the habitats present on each project site. The reports identify three vegetation/habitat communities on the project sites: Mixed Chaparral, Non-native Grassland, and Ruderal Vegetation. The reports also state that several widely-scattered coast live oak trees are present on several of the properties, but note that they do not form woodland communities. A map of the habitats on the sites was also prepared by the biological consultant. The mapped ruderal and non-native grassland communities are primarily situated in the areas of the existing access route and the parts of the proposed development areas that have been traversed for site reconnaissance and geologic testing. In addition, a large area on the Mulryan and Lunch properties is identified as non-native grassland and is characterized as a mesa. The biological consultant delineates the disturbed non-native grassland mesa as a large approximately 245,000 sq. ft. (5.6 acre) area on the Mulryan and Lunch properties. The remainder (and majority) of on-site vegetation is mapped as mixed chaparral. The proposed off-site water line alignment is identified as consisting of a mix of mixed chaparral, ruderal, and non-native plant communities. No sensitive species were detected on the two survey dates cited in the Biological Assessments (May 10. 2001 and June 1, 2007). In the submitted biological reports, the biological consultant makes the determination that the sites do not support Environmentally Sensitive Habitat Areas (ESHA) for the following reasons: 1) neither mixed chaparral nor non-native grassland is considered rare, and 2) neither mixed chaparral nor non-native grassland on the sites are considered especially valuable because the mixed chaparral is fairly uniformly spread over the properties and broken only in limited areas by previous disturbance. The biological consultant also states that in the strictest sense of the ESHA definition, the mixed chaparral would have to be considered ESHA, but that the Commission's ESHA test is flawed and impractical.

Commission Staff Ecologist, Dr. Jonna Engel, has reviewed all available biological information, visited the subject properties on April 23, 2009, and prepared a memo regarding the biological resources of the subject properties, dated January 25, 2011, which is hereby incorporated herein, and which is attached as Exhibit 27. The Commission concurs with the following conclusions reached by Dr. Engel regarding the biological resources on the subject sites.

Vera Property

The subject 20-acre property is situated on the nose of the north/south-trending ridge between Sweetwater Canyon to the west and Carbon Canyon to the east. The majority of the site is vegetated with a mixed chaparral plant community (laurel sumac shrubland

is the dominant chaparral alliance), with the exception of areas of disturbance associated with the existing pilot access road and geologic testing. A few scattered oak trees exist among the site vegetation. Dr. Engel has concluded that this entire property is nearly pristine to pristine native habitat.

Lunch Property

The subject 20-acre property is situated on the crest and east flank of the north/south-trending ridge between Sweetwater Canyon to the west and Carbon Canyon to the east. The west-facing slopes of the property descend more gradually into Sweetwater Canyon and east-facing slopes descend more steeply into Carbon Canyon. The majority of the property is vegetated with a mixed chaparral plant community (greenbark ceanothus, bigpod ceanothus, mountain mahogany shrubland superalliance, chamise shrubland, and mountain mahogany shrubland), with the exception of a small portion of the property along the western parcel boundary that is dominated by non-native grasses and part of a larger, grassland "mesa" area to the west (on the Mulryan parcel). The mesa area is described in more detail below. Dr. Engel has concluded that this entire property is nearly pristine to pristine native habitat, with the exception of the historic mesa area described below.

Mulryan Property

The subject 40-acre property is also situated on the crest and west flank of the north/south-trending ridge. This western flank of the ridge consists of west-facing hillside slopes that descend to a north-south trending canyon. The majority of the site is vegetated with a mixed chaparral plant community (laurel sumac shrubland and fingers of greenbark ceanothus shrubland), with the exception of an existing access road up the eastern edge of the property and a large, gently-sloping grassland mesa area in the southeastern portion of the property that is dominated by non-native grasses (mesa described in more detail below). However, review of permit records and aerial photographs dating from 1975 to present, indicate that the access road and disturbed areas north of the mesa were not existing prior to the effective date of the Coastal Act (1977), the road and the disturbance were not permitted, and they were not a part of CDP No. 4-01-108, which authorized a road to reach areas of the site to allow geologic testing. The road first appears in aerial photos from 2001, and through to the present. Prior to that, that area had been undisturbed and part of the larger undisturbed block of native chaparral vegetation. No road or trail is evident in the area north of the historic mesa from 1975 through 2000. As such, the existing road and adjacent disturbed areas north of the mesa are unpermitted, and the Commission must treat them as if the unpermitted development had not occurred for the purpose of assessing the impacts of the proposed development.

A large landslide underlies a significant portion of the property, including the gently-sloping mesa area. As such, a lot line adjustment is proposed with the adjacent property to the north (Morleigh) in order to site residential development in an area that is now the Morleigh parcel and outside mapped landslide areas. The area of the proposed Mulryan

residence is flat plateau that supports a nearly pure stand of chamise chaparral, surrounded by laurel sumac chaparral. As such, with the exception of the grassland mesa area described below, the proposed Mulryan parcel contains nearly pristine to pristine native habitat.

Mesa Area on the Lunch and Mulryan Properties

The "mesa" area on the Lunch and Mulryan lots is dominated by non-native annual European grasses. In addition, the highly invasive Geraldton Spurge (*Euphorbia terracina*) that has become a serious problem in southern California coastal habitats was observed. While the mesa supports scattered native species, non-natives currently dominate the area. The applicants assert that the mesa area has been disturbed consistently since the late 1920's and was likely used for grazing livestock. However, there is no evidence available to confirm that. It is also possible that the distinct grassland character of the mesa is due to the underlying landslide geology, rather than human disturbance. Given that the history of this area is a mystery and that determining the species character of the area from aerial photos is difficult, it is not possible to ascertain if the distinct pattern visible in photos of the mesa area is attributable to pristine native grassland, non-native grassland, or a mix of the two habitat types.

Upon review of aerial photographs dating from 1975 to present, the mesa area appears consistently as grassland habitat that is distinct from the surrounding mixed chaparral. However, the size of the mesa area had historically been smaller than is presently delineated by the applicant's biological consultant. Aerial photos from 1975 through 2003 indicate that the mesa area had been relatively constant in size, occupying the south half of the area the applicant's consultant has delineated. The historic mesa area that pre-dates the effective date of the Coastal Act is estimated to be approximately 3.0 acres in size (Exhibit 3). Starting in 2004, aerial photographs show additional disturbance in the mesa area in which chaparral vegetation cover was cleared by mechanized equipment (vehicle tracks are evident) and replaced by non-native grassland vegetation cover. However, there is no record of that disturbance being authorized through a coastal development permit. Coastal Development Permit No. 4-01-108, associated with the pilot access road, did not permit development beyond the historic mesa area. As such, the additional disturbance that occurred in the mesa area beginning in 2004 is considered unpermitted. Therefore, for purposes of determining ESHA and analyzing impacts, the Commission treats the mesa area as being approximately 3.0 acres in size, and it is treated as being surrounded by undisturbed native chaparral vegetation.

Morleigh Property

The subject 40-acre property is situated on the crest and west flank of the north/south-trending ridge. This western flank of the ridge consists of west-facing hillside slopes that descend to a north-south trending canyon. The majority of the site is vegetated with a mixed chaparral plant community (California sage brush, ashyleaf buckwheat, bush

mallow, sawtooth goldenbush, chamise, big pod ceanothus, and laurel sumac), with the exception of areas of disturbance associated with an existing access road and geologic testing. However, as discussed previously, review of permit records and aerial photographs dating from 1975 to present, indicate that the existing access road and disturbed areas adjacent to the road were not existing prior to the effective date of the Coastal Act (1977), were not permitted, and were not a part of CDP No. 4-01-108. The road first appears in aerial photos from 2001, and through to the present. Prior to that, that area had been undisturbed and part of the larger undisturbed block of native chaparral vegetation. No road or trail is evident in the area north of the historic mesa from 1975 through 2000. As such, the existing road and disturbed areas north of the mesa are unpermitted. As such, the entirety of the proposed Morleigh lot is treated as containing nearly pristine to pristine native habitat.

Ronan Property

The subject 27-acre property is situated on the crest and east flank of the north/south-trending ridge. The east, south, and southeast flanks of the ridge descend to a north-south trending canyon below. The majority of the site is vegetated with a mixed chaparral plant community (laurel sumac, chamise and greenbark ceanothus chaparral), with the exception of unpermitted areas of disturbance associated with an existing access road and geologic testing. A pocket of coast live oak trees are located on the northeast-facing slopes of the northern portion of the subject property. As such, the entirety of the lot contains nearly pristine to pristine native habitat.

Existing Pilot Access Road

In 2004, the Commission approved CDP No. 4-01-108 to improve an existing 1,750 ft. long jeep trail to provide access to the Lunch parcel for geologic testing purposes. The approved pilot access road (part of which was approved by the Commission and part of which was approved by the City of Malibu) traversed north from the terminus of Sweetwater Mesa Road in the City of Malibu, across three parcels within the jurisdiction of the City of Malibu, and across two of the subject parcels (Vera and Mulryan). Special conditions of the Commission's permit approval required revegetation of graded and disturbed slopes, erosion control and drainage measures, and City of Malibu approval of the improvements within their jurisdiction. The applicant performed the rough-grading of the pilot access road from July through September 2006. Due to the fact that the pilot road followed an old jeep trail that pre-dated the effective date of the Coastal Act, the Commission only required re-vegetation of the disturbed slopes on either side of the 10ft. wide trail/road upon completion of final grading, and a 5 year monitoring report, as part of the CDP. It does not appear that the disturbed slopes of the pilot road were ever re-vegetated as required by the permit. A revegetation monitoring report is due to be submitted in the summer of 2011 that would provide an assessment of whether site revegetation occurred and if it is in conformance with the approved revegetation plan.

Water Line Alignment

The proposed water line alignment north of the subject properties is also situated in undisturbed native mixed chaparral habitat areas that are part of a large expanse of undisturbed, contiguous native mixed chaparral habitat, with the exception of the northernmost approximately 1,200 ft. portion of the water line alignment, which follows Costa Del Sol Way. The existing 1,400 ft. long dirt road that the water line follows just south of Costa Del Sol Way contains non-native ornamental and ruderal species, but that road is unpermitted, and thus, the conditions associated with the presence of that road cannot be considered the baseline ecological condition for analyzing impacts. Prior to the unpermitted grading of the dirt road, the area had been undisturbed native chaparral vegetation, similar to that of the surrounding area. According to permit records and aerial photographs dating back to 1975, the existing unpaved dirt road that the proposed water line follows for 1,400 feet just south of Costa Del Sol Way is unpermitted. The road does not appear in aerial photos dating from 1975 through 1980. The dirt road appears in aerial photographs from 1983 to present, which indicates that it was rough-graded at some point between 1980 and 1983 (no known photos are available between July 1980 and November 1983). However, there is no record of a coastal development permit being applied for or granted for this development. The 1,400 ft. long dirt road traverses two parcels: APNs 4453-001-029 and 4453-001-030. In 1989, the Commission approved CDP No. 5-89-133 for construction of a single family residence on APN 4453-001-029, and CDP No. 5-89-260 for construction of a single family residence on APN 4453-001-030. The approvals included the extension of Costa Del Sol Way to provide access to each of the residences. However, the approved residential developments and access road are not located in the area of the existing dirt road that the water line is now proposed within. Although the dirt road appears on topographic site plans for the approved developments, the applicants did not include the grading of the road as part of the project description for either of the two permit applications. Further, the dirt road was not discussed, labeled, or described in the Commission analysis and findings on those permits. Since the road was not specifically approved in the Commission actions (and in fact was not even recognized in the findings), it must be concluded that no determination was made by the Commission at that time regarding the road's legality.

The applicant's agent has provided staff with a copy of an aerial photograph, asserted to be from 1968, that shows the subject dirt road. Commission staff cannot confirm the date of the photograph copy provided. Even if it could be confirmed that the dirt road existed in 1968, the road had evidently grown over with vegetation and ceased to exist by 1975 because it is clear from aerial photographs from 1975 through 1980 that the road was not there. As such, it must be concluded that the existing 1,400 ft. long dirt road is unpermitted and cannot be considered the baseline ecological condition for analyzing impacts. Prior to the unpermitted grading of the road, the area had been undisturbed native chaparral vegetation, similar to that of the surrounding area. In 1989, the Commission approved residential development on the parcels of land that the dirt road traverses. One of the residences has been built, but no portion of the development or required fuel modification extends into the area of the on-site dirt road. The other approved residence was never built and the permit has since expired, however, even if

it had been built, the approved development does not extend into the area of the dirt road, except for a small portion of residence's fuel modification radius.

Prior to the unpermitted grading of the road, the area had been undisturbed native chaparral vegetation, similar to that of the surrounding area. Given the location of approved development on the properties that the road traverses, the road should have remained undisturbed native chaparral vegetation. As such, the proposal to utilize the existing 1,400 ft. dirt road to install the water line and access the line for maintenance must be considered a new impact for purposes of analyzing the biological impacts of the proposal. It is estimated that this stretch of the water line would result in approximately 0.31 acres of permanent impacts to native chaparral vegetation.

In summary, Dr. Engel has confirmed that, with the exception of an approximately 3acre non-native grassland mesa area located on the Mulryan and Lunch properties and the 10 ft. wide jeep trail leading up to it, the entire 156 acres that make up the subject properties is comprised of relatively pristine native chaparral, sage scrub, and oak woodland habitat areas. In addition, a large expanse of undisturbed, contiguous native chaparral, sage scrub, and oak woodland habitat surrounds the subject properties. Further, the proposed water line alignment north of the subject properties is also situated in undisturbed native mixed chaparral habitat areas that are part of a large expanse of undisturbed, contiguous native mixed chaparral habitat, with the exception of the northernmost approximately 1,200 ft. portion of the water line alignment, which follows the paved Costa Del Sol Way. The proposed project area is situated within a largely undisturbed block of wilderness approximately 2,800 acres in size; the area has no paved roads and a minimal amount of dirt roads. About half of this larger area is public parkland: Malibu Creek State Park (State-owned public parkland) and Piuma Ridge Park (Santa Monica Mountains Conservancy-owned public parkland) are located on the adjacent properties to the west of the Vera, Mulryan, and Morleigh properties. The subject properties are located within a habitat linkage area, identified in the National Park Service's "Santa Monica Mountains National Area Land Protection Plan" that connects Malibu Creek State Park with Cold Creek Canyon Preserve and surroundings to the northeast.

ESHA Determination

Pursuant to Section **30107.5**, in order to determine whether an area constitutes an ESHA, and is therefore subject to the protections of Section 30240, the Commission must answer three questions:

- 1) Is there a rare species or habitat in the subject area?
- 2) Is there an especially valuable species or habitat in the area, which is determined based on:
 - a) whether any species or habitat that is present has a special nature, OR
 - b) whether any species or habitat that is present has a special role in the ecosystem;

3) Is any habitat or species that has met either test 1 or test 2 (i.e., that is rare or especially valuable) easily disturbed or degraded by human activities and developments?

If the answers to questions one or two and question three are "yes", the area is ESHA.

The project sites are located within the Mediterranean Ecosystem of the Santa Monica Mountains. The Coastal Commission has found that the Mediterranean Ecosystem in the Santa Mountains is rare, and that it is valuable because of its relatively pristine character, physical complexity, and resultant biological diversity. Large, contiguous, relatively pristine areas of native habitats, such as coastal sage scrub, chaparral, oak woodland, and riparian woodland have many special roles in the Mediterranean Ecosystem, including the provision of critical linkages between riparian corridors, the provision of essential habitat for species that require several habitat types during the course of their life histories, the provision of essential habitat for local endemics, the support of rare species, and the reduction of erosion, thereby protecting the water quality of coastal streams. Additional discussion of the special roles of these habitats in the Santa Monica Mountains ecosystem are discussed in the March 25, 2003 memorandum prepared by the Commission's Ecologist, Dr. John Dixon⁵ (hereinafter "Dr. Dixon Memorandum"), which is incorporated as if set forth in full herein.

Unfortunately, the native habitats of the Santa Monica Mountains, such as coastal sage scrub, chaparral, oak woodland and riparian woodlands are easily disturbed by human activities. As discussed in the Dr. Dixon Memorandum, development has many welldocumented deleterious effects on natural communities of this sort. environmental impacts may be both direct and indirect and include, but certainly are not limited to, the effects of increased fire frequency, of fuel modification, including vegetation clearance, of introduction of exotic species, and of night lighting. Increased fire frequency alters plant communities by creating conditions that select for some species over others. The removal of native vegetation for fire protection results in the direct removal or thinning of habitat area. Artificial night lighting of development affects plants, aquatic and terrestrial invertebrates, amphibians, fish, birds and mammals. Thus, large, contiguous, relatively pristine areas of native habitats, such as coastal sage scrub, chaparral, oak woodland, and riparian woodlands are especially valuable because of their special roles in the Santa Monica Mountains ecosystem and are easily disturbed by human activity. Accordingly, these habitat types meet the definition of ESHA. This is consistent with the Commission's past findings in support of its actions on many permit applications and in adopting the Malibu LCP⁶.

As described above, the project sites contain pristine native chaparral, sage scrub, and oak woodland habitat areas that are part of a large, contiguous block of pristine native chaparral, sage scrub, and oak woodland habitat. The exceptions are the approximately

⁵ The March 25, 2003 Memorandum Regarding the Designation of ESHA in the Santa Monica Mountains, prepared by John Dixon, Ph. D, is available on the California Coastal Commission website at http://www.coastal.ca.gov/ventura/smm-esha-memo.pdf

⁶ Revised Findings for the City of Malibu Local Coastal Program (as adopted on September 13, 2002) adopted on February 6, 2003.

3-acre mesa area on the Mulryan and Lunch lots and the 10-ft wide jeep trail leading up to it, and the northernmost approximately 1,200 ft. section of the water line alignment that is within an existing disturbed roadway of Costa Del Sol Way. As discussed above and in the Dr. Dixon Memorandum, this habitat is especially valuable because of its special role in the ecosystem of the Santa Monica Mountains and it is easily disturbed by human activity. Accordingly, the Commission finds that the chaparral, sage scrub, and oak woodland habitat on the project sites meet the definition of ESHA in the Coastal Act.

The Commission finds that the project sites and the surrounding area (with the exception of the approximately 3-acre mesa area on the Mulryan and Lunch lots, the 10-ft wide jeep trail leading up to it, and the northernmost approximately 1,200 ft. section of the water line alignment that is within an existing roadway) constitute environmentally sensitive habitat areas (ESHAs). Section 30240(a) of the Coastal Act restricts development within ESHA to only those uses that are dependent on the resource and prohibits significant disruption of the habitat values of such areas.

Impact Analysis

Residences and Fuel Management

The applicants propose to construct a single family residence on each of their respective lots, along with a common access road and municipal water line. Given that the vast majority of the subject properties and the surrounding area is ESHA, every element of the proposed projects would result in impacts to ESHA. As single-family residences, roads, and water lines do not have to be located within ESHA to function, these are not uses dependent on ESHA resources. Section 30240 also requires that ESHA be protected against significant disruption of habitat values. Obviously, the construction of residential development, including vegetation removal for both the development area as well as required fuel modification, grading, construction of a residence, and the use of the development by residents would result in unavoidable loss of ESHA. Notwithstanding the need to protect structures from the risk of wildfire, fuel modification results in significant adverse impacts that are in excess of those directly related to the development itself.

Fuel modification is the removal or modification of combustible native or ornamental vegetation. It may include replacement with drought tolerant, fire resistant plants. The amount and location of required fuel modification will vary according to the fire history of the area, the amount and type of plant species on the site, topography, weather patterns, construction design, and siting of structures. There are typically three fuel modification zones required by the Los Angeles County Fire Department, which include a setback zone immediately adjacent to the structure (Zone A) where all native vegetation must be removed, an irrigated zone adjacent to Zone A (Zone B) where most native vegetation must be removed or widely spaced, and a thinning zone (Zone C) where native vegetation may be retained if thinned or widely spaced although particular high-fuel plant species must be removed. The combined required fuel modification area

around structures can extend up to a maximum of 200 feet. If there is not adequate area on the project site to provide the required fuel modification for structures, then brush clearance may also be required on adjacent parcels. In this way, for a large area around any permitted structures, native vegetation will be cleared, selectively removed to provide wider spacing, and thinned. The Commission has found in past permit actions, that a new residential development (with a 10,000 sq. ft. development area) within ESHA with a full 200 foot fuel modification radius will result in impact (either complete removal, irrigation, or thinning) to ESHA habitat of four to five acres (Exhibits 2a,13).

Obviously, native vegetation that is cleared and replaced with ornamental species, or substantially removed and widely spaced will be lost as habitat and watershed cover. Additionally, thinned areas will be greatly reduced in habitat value. Even where complete clearance of vegetation is not required, the natural habitat can be significantly impacted, and ultimately lost. For instance, in coastal sage scrub and chaparral habitat, the natural soil coverage of the canopies of individual plants provides shading and reduced soil temperatures. When these plants are thinned, the microclimate of the area will be affected, increasing soil temperatures, which can lead to loss of individual plants and the eventual conversion of the area to a dominance of different non-native plant species. The areas created by thinning between shrubs can be invaded by non-native grasses that will over time out-compete native species.

For example, undisturbed coastal sage scrub and chaparral vegetation typical of coastal canyon slopes, and the downslope riparian corridors of the canyon bottoms, ordinarily contains a variety of tree and shrub species with established root systems. Depending on the canopy coverage, these species may be accompanied by understory species of lower profile. The established vegetative cover, including the leaf detritus and other mulch contributed by the native plants, slows rainfall runoff from canyon slopes and staunches silt flows that result from ordinary erosional processes. The native vegetation thereby limits the intrusion of sediments into downslope creeks. Accordingly, disturbed slopes where vegetation is either cleared or thinned are more directly exposed to rainfall runoff that can therefore wash canyon soils into down-gradient creeks. The resultant erosion reduces topsoil and steepens slopes, making revegetation increasingly difficult or creating ideal conditions for colonization by invasive, non-native species that supplant the native populations.

The cumulative loss of habitat cover also reduces the value of the sensitive resource areas as a refuge for birds and animals, for example by making them—or their nests and burrows—more readily apparent to predators. The impacts of fuel clearance on bird communities was studied by Stralberg who identified three ecological categories of birds in the Santa Monica Mountains: 1) local and long distance migrators (ash-throated flycatcher, Pacific-slope flycatcher, phainopepla, black-headed grosbeak), 2) chaparral-associated species (Bewick's wren, wrentit, blue-gray gnatcatcher, California thrasher, orange-crowned warbler, rufous-crowned sparrow, spotted towhee, California towhee) and 3) urban-associated species (mourning dove, American crow, Western scrub-jay,

Northern mockingbird)⁷. It was found in this study that the number of migrators and chaparral-associated species decreased due to habitat fragmentation while the abundance of urban-associated species increased. The impact of fuel clearance is to greatly increase this edge-effect of fragmentation by expanding the amount of cleared area and "edge" many-fold. Similar results of decreases in fragmentation-sensitive bird species are reported from the work of Bolger et al. in southern California chaparral⁸.

Fuel clearance and habitat modification may also disrupt native arthropod communities, and this can have surprising effects far beyond the cleared area on species seemingly unrelated to the direct impacts. A particularly interesting and well-documented example with ants and lizards illustrates this point. When non-native landscaping with intensive irrigation is introduced, the area becomes favorable for the invasive and non-native Argentine ant. This ant forms "super colonies" that can forage more than 650 feet out into the surrounding native chaparral or coastal sage scrub around the landscaped area⁹. The Argentine ant competes with native harvester ants and carpenter ants displacing them from the habitat 10. These native ants are the primary food resource for the native coast horned lizard, a California "Species of Special Concern." As a result of Argentine ant invasion, the coast horned lizard and its native ant food resources are diminished in areas near landscaped and irrigated developments". In addition to specific effects on the coast horned lizard, there are other Mediterranean habitat ecosystem processes that are impacted by Argentine ant invasion through impacts on long-evolved native ant-plant mutualisms¹². The composition of the whole arthropod community changes and biodiversity decreases when habitats are subjected to fuel modification. In coastal sage scrub disturbed by fuel modification, fewer arthropod predator species are seen and more exotic arthropod species are present than in undisturbed habitats¹³.

Studies in the Mediterranean vegetation of South Africa (equivalent to California shrubland with similar plant species) have shown how the invasive Argentine ant can disrupt the whole ecosystem.¹⁴ In South Africa the Argentine ant displaces native ants

⁷ Stralberg, D. 2000. Landscape-level urbanization effects on chaparral birds: a Santa Monica Mountains case study. Pp. 125–136 *in* Keeley, J.E., M. Baer-Keeley, and C.J. Fotheringham (eds.). *2nd interface between ecology and land development in California*. U.S. Geological Survey, Sacramento, California.

⁸ Bolger, D. T., T. A. Scott and J. T. Rotenberry. 1997. Breeding bird abundance in an urbanizing landscape in coastal Southern California. Conserv. Biol. 11:406-421.

⁹ Suarez, A.V., D.T. Bolger and T.J. Case. 1998. Effects of fragmentation and invasion on native ant communities in coastal southern California. Ecology 79(6):2041-2056.

¹⁰ Holway, D.A. 1995. The distribution of the Argentine ant (*Linepithema humile*) in central California: a twenty-year record of invasion. Conservation Biology 9:1634-1637. Human, K.G. and D.M. Gordon. 1996. Exploitation and interference competition between the invasive Argentine ant, (*Linepithema humile*), and native ant species. Oecologia 105:405-412.

Fisher, R.N., A.V. Suarez and T.J. Case. 2002. Spatial patterns in the abundance of the coastal horned lizard. Conservation Biology 16(1):205-215. Suarez, A.V. J.Q. Richmond and T.J. Case. 2000. Prey selection in horned lizards following the invasion of Argentine ants in southern California. Ecological Applications 10(3):711-725.
 Suarez, A.V., D.T. Bolger and T.J. Case. 1998. Effects of fragmentation and invasion on native ant communities in coastal southern California. Ecology 79(6):2041-2056. Bond, W. and P. Slingsby. Collapse of an Ant-Plant Mutualism: The Argentine Ant (*Iridomyrmex humilis*) and Myrmecochorous Proteaceae. Ecology 65(4):1031-1037.
 Longcore, T.R. 1999. Terrestrial arthropods as indicators of restoration success in coastal sage scrub. Ph.D. Dissertation, University of California, Los Angeles.

¹⁴ Christian, C. 2001. Consequences of a biological invasion reveal the importance of mutualism for plant communities. Nature 413:635-639.

as they do in California. Because the native ants are no longer present to collect and bury seeds, the seeds of the native plants are exposed to predation, and consumed by seed eating insects, birds and mammals. When this habitat burns after Argentine ant invasion the large-seeded plants that were protected by the native ants all but disappear. So the invasion of a non-native ant species drives out native ants, and this can cause a dramatic change in the species composition of the plant community by disrupting long-established seed dispersal mutualisms. In California, some insect eggs are adapted to being buried by native ants in a manner similar to plant seeds¹⁵.

As the construction of a residence on each property will require both the complete removal of ESHA from the home development area and fuel modification for fire protection purposes around it, the proposed projects would significantly disrupt the habitat value in those locations. In addition, the proposed projects do not allow for clustering of building sites such that any significant overlap of fuel modification for structures could occur (although the applicants have stated that the proposed Residences 3 (Morleigh), 4 (Mulryan), and 5 (Ronan) would be clustered and would have overlapping fuel modification areas, the overlap is not substantial as shown on Exhibits 5, 13). The proposed development would thus result in significant removal of vegetation for fuel modification and brush clearance around the five building areas. The proposed project therefore does not minimize potential vegetation clearance and associated impacts to ESHA. In addition, the value of the area as a wildlife migration corridor would be drastically reduced because the large expanse of proposed development along the ridgeline would significantly fragment the habitats between the western and eastern slopes and their respective watersheds within an otherwise pristine 2,800 acre block of Mediterranean ecosystem habitats. Thus, the construction of the proposed residences would be inconsistent with the ESHA protection policies listed above.

Lot Line Adjustment among the Morleigh and Mulryan Properties

In CDP application No 4-10-045, Morleigh and Mulryan jointly propose a lot line adjustment between their respective 40-acre lots so that both of their proposed residences can be located outside mapped landslide areas since the majority of the Mulryan property is underlain by landslide debris. The size of each lot would not change as a result of the proposed lot reconfiguration. Given the geologic constraints of the Mulryan lot, the proposed lot line adjustment would enable the Mulryan residential development to be sited in a gently-sloping area of the existing Morleigh parcel to the north. The proposed Morleigh residential development would then be situated in another gently-sloping portion of the Morleigh lot approximately 350 feet to the southwest of the proposed Mulryan development.

The applicants have stated that siting a residence on the Mulryan lot as that lot is currently configured would subject the structure to potential geologic hazards and would

¹⁵ Hughes, L. and M. Westoby. 1992. Capitula on stick insect eggs and elaiosomes on seeds: convergent adaptations for burial by ants. Functional Ecology 6:642-648.

require large quantities of grading and landform alteration (removal/recompaction and slide remediation) and large retaining walls to construct. The applicants assert that, in addition to minimizing impacts from geologic hazards, the lot line adjustment and proposed buildings sites would allow the homes to be more clustered in order to minimize impacts to biological and visual resources. However, the Commission finds that residential development on the existing Mulryan lot would not necessarily increase hazards and impacts. While the existing Mulryan lot possesses geologic constraints, the site's geologic information demonstrates that it is feasible from an engineering and geologic perspective to construct residential development in the far eastern portion of the property where the landslide material is most shallow, as shown on Exhibits 4 and 5. Residential development in that area of the lot could be sited and designed to minimize grading, landform alteration, and ESHA and visual impacts. In addition, the result of the proposed lot line adjustment is to place a third home farther north along the pristine ridgeline, requiring additional road length and resulting in significant impacts to ESHA. As is explained below, in section II.D.2, the applicants may not be entitled to more than three houses on the site as a whole (if that many), and any houses could be clustered farther down (near the seaward edge of the overall subject property). Thus, allowing a third house significantly farther up the ridgeline could involve a significant increase in impacts.

In addition, the proposed lot reconfiguration would allow for the development of a much larger house on the proposed Mulryan lot than could be potentially accommodated on the Mulryan lot in its existing configuration. While the minor overlap of fuel modification zones for two proposed residences on the proposed lots would result in less vegetation removal than if each of the two residences was sited in sufficient isolation to avoid any overlap of fuel modification, even without a lot line adjustment, the Commission would seek to ensure similar overlap and significant reduction in vegetation removal between residences on the existing Mulryan lot and one of the adjacent vacant lots that is to be developed. Additionally, given the fact that the adjacent vacant lots within the subject site may be able to be developed with one or more residences, the reduction in impacts to ESHA that the applicant asserts will result from the proposed lot line adjustment will not be realized because the fuel modification required for development on one or more of the adjacent lots would be much the same as that required for development of the Mulryan lot. As such, the proposed lot line adjustment would position future development and its associated impacts further north into undeveloped native habitat areas and would not result in any significant reduction in ESHA impacts. Therefore, the proposed lot line adjustment would be inconsistent with the ESHA protection policies listed above.

Access Road and Staging Area Siting and Design

The proposed 6,010-ft. long access road design up the ridgeline to each of the subject properties is extensive and would have a significant footprint. Approximately 43,050 cu. yds. of grading (20,100 cu. yds. cut, 22,950 cu. yds. fill), 123 caisson piles (up to 79 ft. long and up to 5 ft. in diameter), and approximately 955 linear feet of 5 to 18 ft. high retaining walls are proposed to construct the entire length of the proposed access road.

The estimated area of disturbance associated with the access road is approximately 6.75 acres. In addition, there is an area of the proposed access road (Sta. 55+60 to 63+30) that would require 1.5:1 (H:V) cut slopes. If Los Angeles County requires that the 1.5:1 slopes be modified to 2:1, the additional area of disturbance would be approximately 0.5 acre. In addition, the applicants are proposing three Fire Department staging areas along the access road (totaling 29,000 sq. ft.) to accommodate safe emergency vehicle access and staging. It is estimated that the three Fire Department staging areas would disturb approximately 1.19 acres.

The proposed access road and Fire Department staging areas would be located in ESHA, with the exception of the small portions of the proposed road and Fire Department staging areas that are situated within the existing disturbed 10-ft. wide pilot access road and approximately 3-acre historic mesa area. Given that the proposed developments are spread across such a large area, the proposed road and staging areas must traverse a significant and topographically and geologically complex stretch of the ridgeline terrain. As such, the construction of the road to provide access to each of the proposed single-family residences would require the complete removal of over 6 acres of ESHA, and the habitat value in those locations would be significantly disrupted as a result of the proposed projects, as discussed above, inconsistent with Section 30240 and the LUP ESHA protection policies listed above. In addition, the value of the area as a wildlife migration corridor would be drastically reduced because the large expanse of proposed development along the ridgeline would significantly fragment the habitats between the western and eastern slopes and their respective watersheds within an otherwise pristine 2,800 acre block of Mediterranean ecosystem habitats.

Excess Excavated Material

A maximum of 13,950 cu. yds. of excess excavated material is proposed to be placed upon an approximately 81,750 sq. ft. (1.88 acres) area of the mesa, immediately adjacent to the proposed access road and a Fire Department staging area. The fill material would be contour graded to a 3:1 slope and re-vegetated with a mix of native shrub species and oak trees. The southern half of the proposed fill placement area would be situated within the historic grassland mesa area that Dr. Engel has determined does not constitute ESHA. However, the northern half of the fill placement area would be located in an area that Dr. Engel has determined is ESHA. The fill placement would significantly disrupt the habitat value in that area, inconsistent with the ESHA protection policies listed above. With regard to the mesa area that has traditionally been disturbed and is not considered ESHA, the applicants have proposed to revegetate this area after the fill placement. The applicants have provided a proposed revegetation plan that includes native shrubs and coast live oak trees. While these plantings would serve to stabilize the proposed fill areas and minimize soil erosion, they will not restore the mesa area to full habitat value, given the human intrusion that would continue in the area. It is more likely that the filled and revegetated mesa area would serve as private park for the residents.

Water Supply

The proposed water line would traverse steep, rugged, mostly undeveloped mountain terrain for a significant distance. Approximately 3,300 feet of the proposed 7,800 foot water line alignment would traverse undeveloped areas to the north of the subject properties that contain undisturbed native chaparral vegetation. Machinery would be used to dig the 4 ft. wide trenches, which are estimated to disturb a 10 ft. wide area along the undeveloped areas of the proposed alignment. With the exception of the northernmost approximately 1,200-ft. portion of the proposed water line alignment, which follows Costa Del Sol Way, and the southern-most 3,300 feet of the water line alignment, which follows the proposed shared access road to each proposed residence, the remainder of the water line alignment (3,300 feet) and the area of the proposed 2,300 ft., 10-ft. wide maintenance road are considered ESHA. It is estimated that the water line and associated maintenance road would result in permanent impacts to at least 0.74 acres of ESHA and temporary impacts to at least 0.21 acres of ESHA. The applicants characterize the lower impact area, where a permanent maintenance road is not proposed, as a temporary impact area because they propose to revegetate this area with native vegetation after construction is complete. However, this area is remote and very steep. It would be very difficult to carry out a full revegetation of the area, particularly to provide ongoing maintenance such as weeding, replacement planting, and midcourse corrections that are necessary to ensure successful revegetation. As such, the proposed water line would have significant and unavoidable permanent impacts to ESHA along an extensive stretch of pristine and undisturbed mountain terrain.

Conclusion

The proposed projects are located in an area of undeveloped, unfragmented, relatively pristine native chaparral and coastal sage scrub habitat that is imbedded in a larger block of undeveloped land (2,800 acres) that also supports unfragmented, pristine native habitat. The Commission finds that the project sites and the surrounding area (with the exception of the approximately 3-acre mesa area on the Mulryan and Lunch lots, the 10-ft wide jeep trail leading up to it, and the northernmost approximately 1,200 ft. section of the water line alignment that is within an existing roadway) constitutes In addition, the subject properties are uniquely sited and suited for linking habitats and providing corridors for wildlife movement. The proposed projects, which include construction of five large single-family residences, associated fuel modification, a 6,010 ft. long access road with 29,000 sq. ft. of Fire Department staging areas, a 7,800 ft. long water line with maintenance road, and placement/contour grading of excess excavated material, would disrupt an uninterrupted mile-long stretch of undeveloped mountain terrain that is considered ESHA. Section 30240 of the Coastal Act restricts development within ESHA to only those uses that are dependent on the resource. Application of Section 30240, by itself, would therefore require denial of the projects, because each element of the proposed projects, as discussed above, would result in significant disruption of habitat values and is not a use dependent on those sensitive habitat resources.

2. Visual Resources

Section 30251 of the Coastal Act states:

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.

In addition, the Malibu/Santa Monica Mountains LUP provides policy guidance regarding the protection of visual resources. The Coastal Commission has applied the following relevant policies as guidance in the review of development proposals in the Santa Monica Mountains.

- P91 All new development shall be designed to minimize impacts and alterations of physical features, such as ravines and hillsides, and processes of the site (i.e., geological, soils, hydrological, water percolation and runoff) to the maximum extent feasible.
- P125 New development shall be sited and designed to protect public views from LCP-designated highways to and along the shoreline and to scenic coastal areas, including public parklands. Where physically and economically feasible, development on a sloped terrain should be set below road grade.
- P129 Structures should be designed and located so as to create an attractive appearance and harmonious relationship with the surrounding environment.
- P130 In highly scenic areas and along scenic highways, new development (including buildings, fences, paved areas, signs, and landscaping) shall:
 - Be sited and designed to protect views to and along the ocean and to and along other scenic features, as defined and identified in the Malibu LUP.
 - Minimize the alteration of natural landforms
 - Be landscaped to conceal raw cut slopes
 - Be visually compatible with and subordinate to the character of its setting.
 - Be sited so as to not significantly intrude into the skyline as seen from public viewing places.
- P131 Where feasible, prohibit placement of structures that will break the ridgeline views, as seen from public places.
- P134 Structures shall be sited to conform to the natural topography, as feasible. Massive grading and reconfiguration of the site shall be discouraged.
- P135 Ensure that any alteration of the natural landscape from earthmoving activity blends with the existing terrain of the site and the surroundings.

The five subject properties comprise an approximately 156-acre area of almost entirely undeveloped ridgeline mountain terrain located on the southern flank of the Santa Monica Mountains about a mile inland from Pacific Coast Highway and the coast. The Malibu/Santa Monica Mountains Land Use Plan (LUP) designates this ridge as a "Significant Ridgeline". The area is undeveloped and comprised of steep, rugged mountain terrain that is blanketed by various natural rock outcroppings and primarily undisturbed native chaparral habitat that is part of a large contiguous area of undisturbed native vegetation. The nearest development in the vicinity is the residential enclave of Serra Retreat located within the municipal limits of the City of Malibu approximately a half mile to the southwest.

The subject ridgeline is a prominent landscape feature along a significant stretch of the Malibu coast. The ridge is visible from several significant public vantages along Pacific Coast Highway, including Malibu Bluffs Park (2.5 miles west), Malibu's Civic Center and Colony Plaza areas (2 miles west), Malibu Lagoon State Park and Surfrider Beach areas (1.2 miles southwest), and Malibu Pier (1 mile southwest). The ridge is also highly visible from Malibu Creek State Park land and the Saddle Peak Trail about a quarter mile to the west, portions of Piuma Road approximately a mile to the north, and several LUP-mapped Vista Points along Rambla Pacifico Road a mile to the east.

Section 30251 of the Coastal Act requires scenic and visual qualities to be considered and preserved. In reviewing the proposed projects, Commission staff analyzed the publicly accessible locations from which the proposed development would be visible and the applicant's submitted visual analyses to assess potential visual impacts to the public. Staff examined the building sites, the size of the proposed structures, and alternatives to the size, bulk and scale of the structure. The development of the residences raises the issue of whether or not views from public viewing areas will be adversely affected (Exhibit 20).

Residence 1 (Vera)

The applicant is proposing to construct a 22-ft. high, two-level, 12,785 sq. ft. single-family residence with 2,116 sq. ft. storage space and 1,694 sq. ft. detached garage. The residence has been proposed in the eastern portion of the lot, on the outer (seaward) face of the ridge crest and rises up in elevation jointly with the rise in elevation to the top of the ridge. The development will effectively appear to cascade down and around the nose of the ridge. The applicant had originally proposed the residence in a slightly different design configuration, in which the residence was wrapped farther around the western side of the ridge crest. In an effort to reduce the residence's visibility from significant public viewing areas to the west and southwest, the applicant made revisions to the development plans in 2009 to reduce the overall height of the residential structure, from 28-ft. to 22-ft., and omitted the western-most approximately 40 feet of the structure.

However, while visual impacts have been somewhat reduced by the applicant's unique architectural design and the configuration changes that were made, the residence and

its associated fuel modification requirements will still be highly visible from multiple public viewing areas, including Pacific Coast Highway (a Scenic Highway) to the southwest and south of the subject ridge (eastbound lanes beginning at the top of the coastal terrace south of Pepperdine University and down to Malibu Creek/Lagoon); Malibu Bluffs Park, Malibu Lagoon State Beach, Surfrider Beach, and the Malibu Pier that are situated to the southwest and south of the subject ridge. In addition, the proposed residence will be visible from the following Scenic Roads: portions of Malibu Canyon Road to the west, portions of Piuma Road to the north, and portions of Rambla Pacifico to the east. With the proposed residence wrapped around the outer (seaward) face of the ridge crest, ridgeline views from all of these significant public viewing areas in the heart of Malibu's coastline would be broken and appear incompatible with the character of surrounding undeveloped natural area. The proposed residence is large in size (12,785 sq. ft. with 2,116 sq. ft. storage space and 1,694 sq. ft. detached garage), two stories (22 ft. high), and spread approximately 250 linear feet around the face of the ridge crest. Although the design of the residence strives to blend with the surrounding topography and be visually appealing, the siting, scale, and vast size of the residence make it so prominent that it would instead alter the natural landscape rather than blend with it. As such, the proposed residence fails to minimize alteration of natural landforms or protect the scenic and visual qualities or views of this famously scenic coastal area. The proposed project, therefore, has not been sited and designed to protect public views of the pristine coastal ridgeline terrain from public viewing areas and would result in significant impacts to scenic vistas in the area, inconsistent with the visual resource policies of the Coastal Act and Malibu-Santa Monica Mountains LUP listed above.

Residence 2 (Lunch)

The applicant is proposing to construct a 22-ft. high, three-level, 12,004 sq. ft. single-family residence with 629 sq. ft. storage space and an attached 2,128 sq. ft. garage. The applicant had originally proposed the residence in a slightly different siting and design configuration, in which the residence was situated at the furthest edge of the ridge-top and just above two canyon areas that could serve as "chimneys" that would funnel a wildfire toward the structure. Commission staff had expressed concerns with this original design given the residence's visual prominence from several viewing areas and its close proximity to the ridge-top edge and canyon chimneys that pose a high fire risk and increased potential for erosion. The proposed residence was then revised and reconfigured by the applicant in 2009 to be sited further away from the ridge-top edge and tiered into a natural saddle location of the site where the structure would step up in elevation in concert with the underlying rise in elevation along the top of the ridge in order to minimize grading of the site. At its highest point, the residential structure was reduced from 28 to 22 feet above grade, with a roofline that resembles a gently sloping dome.

However, while visual impacts were reduced by the applicant's re-design, the residence and its associated fuel modification requirements will still be highly visible from various public viewing areas, including Pacific Coast Highway to the southwest and south of the subject ridge (eastbound lanes beginning at the top of the coastal terrace south of

Pepperdine University and down to Malibu Creek/Lagoon); Malibu Bluffs Park, Malibu Lagoon State Beach, and Surfrider Beach, that are situated to the southwest and south of the subject ridge; and the following Scenic Roads, portions of Malibu Canyon Road to the west, portions of Piuma Road to the north, and portions of Rambla Pacifico to the east.

The proposed residence is large in size (12,004 sq. ft. with 629 sq. ft. storage space and 2,128 sq. ft. attached garage) and 22 ft. high. The structure is proposed to be tiered into a natural saddle location along the top of the ridge and the roofline would be domeshaped to lower its visual profile. However, the residence would still break ridgeline views from several public viewing areas and appear incompatible with the character of surrounding undeveloped natural area. In addition, the size and scale of the development is large and would not serve to be visually subordinate to the surrounding natural landscape. The proposed project, therefore, has not been sited and designed to protect public views of the pristine coastal ridgeline terrain from public viewing areas and would result in significant impacts to scenic vistas in the area, inconsistent with the visual resource policies of the Coastal Act and Malibu-Santa Monica Mountains LUP listed above.

Lot Line Adjustment among the Morleigh and Mulryan Properties

In CDP application No 4-10-045, Morleigh and Mulryan jointly propose a lot line adjustment between their respective 40-acre lots so that both of their proposed residences can be located outside mapped landslide areas since the majority of the Mulryan property is underlain by landslide debris. The size of each lot would not change as a result of the proposed lot reconfiguration. Given the geologic constraints of the Mulryan lot, the proposed lot line adjustment would enable the Mulryan residential development to be sited in a gently-sloping area of the existing Morleigh parcel to the north. The proposed Morleigh residential development would then be situated in another gently-sloping portion of the Morleigh lot approximately 350 feet to the southwest of the proposed Mulryan development.

The applicants have stated that siting a residence on the Mulryan lot as that lot is currently configured would subject the structure to potential geologic hazards and would require large quantities of grading and landform alteration (removal/recompaction and slide remediation) and large retaining walls to construct. The applicants assert that, in addition to minimizing impacts from geologic hazards, the lot line adjustment and proposed buildings sites would allow the homes to be more clustered in order to minimize impacts to biological and visual resources.

However, the Commission finds that residential development on the existing Mulryan lot would not necessarily increase hazards and impacts. While the existing Mulryan lot possesses geologic constraints, the site's geologic information demonstrates that it is feasible from an engineering and geologic perspective to construct residential development in the far eastern portion of the property where the landslide material is most shallow, as shown on Exhibits 4 and 5. Residential development in that area of the

parcel could be sited and designed to minimize grading, landform alteration, and ESHA and visual impacts. In addition, the result of the proposed lot line adjustment is to place a third home farther north and higher up along the pristine ridgeline. As is explained below, in section II.D.2, the applicants may not be entitled to more than three houses on the site as a whole (if that many). Thus, allowing a third house significantly farther up the ridgeline could involve a significant increase in impacts. In addition, the proposed building sites on the reconfigured parcels would be significantly more visible from various public viewing areas, including Pacific Coast Highway to the southwest and south of the subject ridge, Malibu Bluffs Park, Malibu Lagoon State Beach, Surfrider Beach, Malibu Creek State Park, and portions of Malibu Canyon Road to the west.

Residence 3 (Morleigh)

The applicant is proposing to construct a 28-ft. high, three-level, 8,348 sq. ft. single-family residence with a 753 sq. ft. attached garage. The applicant had originally proposed the residence in a slightly different siting and design configuration, in which the residence was overhanging the furthest edge of the site's southwestern ridgeline slope and atop a large natural rock outcropping. Commission staff had expressed concerns with this original design given the residence's visual prominence from several viewing areas to the west/southwest and its close proximity to the ridge-top edge and steep canyon chimneys that pose a high fire risk and increased potential for erosion. The proposed residence was then revised and reconfigured by the applicant in 2009 to be shifted to the north approximately 100 feet in order to avoid the rock outcropping and be set further back from the edge of the site's southwestern ridgeline slope. The new location is less visually prominent than it was originally proposed and requires less grading and a shorter access driveway.

However, while visual impacts were reduced by the applicant's re-design, the residence and its associated fuel modification requirements, will still be significantly visible from various public viewing areas, including Pacific Coast Highway to the southwest and south of the subject ridge (eastbound lanes beginning at the top of the coastal terrace south of Pepperdine University and down to Malibu Creek/Lagoon); Malibu Bluffs Park, Malibu Lagoon State Beach, and Surfrider Beach, that are situated to the southwest and south of the subject ridge; and Malibu Creek State Park to the west. In addition, the development will be visible from portions of Malibu Canyon Road to the west.

The proposed residence is large in size (8,348 sq. ft. with 753 sq. ft. attached garage) and 28 ft. high. The façade and roofline of the structure are proposed to be curved in order to lower its visual profile. In addition, the structure is proposed to be notched into the prevailing slope and step up in elevation in concert with the underlying slope. Although the development envelope would not break the background ridgeline and would not result in significant landform alteration, the size and scale of the proposed residence is large and would appear incompatible and insubordinate with the character of surrounding undeveloped natural area. The proposed project, therefore, has not been sited and designed to protect public views of the pristine coastal ridgeline terrain from public viewing areas and would result in significant impacts to scenic vistas in the area,

inconsistent with the visual resource policies of the Coastal Act and Malibu-Santa Monica Mountains LUP listed above.

Residence 4 (Mulryan)

The applicant is proposing to construct a 28-ft. high, two-level, 7,220 sq. ft. single-family residence with a 1,398 sq. ft. attached garage and 3,709 sq. ft. of terraces. The applicant had originally proposed the development envelope in a slightly different configuration, in which the residence and hammerhead turnaround driveway were more fanned out within that gently-sloping portion of the ridgeline. Commission staff had expressed concerns that the original design was too close to the ridgetop edge that steeply descends into Carbon Canyon and had exceeded the maximum square footage development area allowed for residential projects that would have unavoidable impacts to ESHA. The proposed development envelope was then revised by the applicant in 2009 to shift the development further away from the ridge edge by 25 to 40 feet in a westerly direction, and to condense the development area into a tighter circular form to comply with the 10,000 sq. ft. development area maximum. The east side of the residence was also notched into the hillside more to lower its profile when viewed from public viewing areas to the east. The height of the west side of the structure is 28 feet above grade, while the height of the east side of the structure is much less, 21.5 feet above grade.

However, while visual impacts were reduced by the applicant's re-design, the residence and its associated fuel modification requirements, will still be significantly visible from several Scenic Roads that include portions of Malibu Canyon Road to the west, portions of Piuma Road to the north, and portions of Rambla Pacifico to the east. In addition, the development will be visible from Pacific Coast Highway to the southwest and south of the subject ridge (eastbound lanes beginning at the top of the coastal terrace south of Pepperdine University and down to Malibu Creek/Lagoon); Malibu Bluffs Park, Malibu Lagoon State Beach and Surfrider Beach that are situated to the southwest and south of the subject ridge; and Malibu Creek State Park to the west.

The proposed residence is large in size (7,220 sq. ft. with 1,398 sq. ft. attached garage, and 3,709 sq. ft. terraces) and 28 ft. high. The development envelope is proposed to be notched into the hillside slopes west of the ridge crest in order to reduce its profile and skyline intrusion when viewed from the east. However, the development would still break the ridgeline by approximately 7 feet when viewed from the east. In addition, the size and scale of the proposed residence is large and would appear incompatible and insubordinate with the character of surrounding undeveloped natural area. The proposed project, therefore, has not been sited and designed to protect public views of the pristine coastal ridgeline terrain from public viewing areas and would result in significant impacts to scenic vistas in the area, inconsistent with the visual resource policies of the Coastal Act and Malibu-Santa Monica Mountains LUP listed above.

Residence 5 (Ronan)

The applicant is proposing to construct a 28-ft. high, three-level, 12,143 sq. ft. single-family residence, 2,232 sq. ft. storage space, 3,161 sq. ft. terraces, and 1,762 sq. ft. detached two-level garage. The proposed residential envelope is situated in the far western portion of the lot and notched into the south-facing slope of the ridgetop. The applicant had originally proposed the residence in a different siting and design configuration that was approximately 90 feet to the north, at a higher elevation on the ridge (approximately 50 feet higher in elevation). Due to Commission staff concerns about the development's visual prominence from public viewing areas to the east and southeast, the development was shifted to the south and notched into the south-facing hillside terrain. Given the relocated residence, the proposed access road had to be reconfigured. While the length of road was reduced by approximately 200 feet and retaining walls eliminated, the amount of grading required (fill) increased substantially in order to achieve the necessary elevation up to the proposed development area and to comply with Fire Department access requirements.

However, while visual impacts were reduced by the applicant's re-design, the residence and its associated fuel modification requirements and access drive, will still be visible from several public viewing areas: Scenic Roads that include portions of Malibu Canyon Road to the west and portions of Rambla Pacifico to the east, Pacific Coast Highway to the southwest and south of the subject ridge (eastbound lanes beginning at the top of the coastal terrace south of Pepperdine University and down to Malibu Creek/Lagoon), Malibu Bluffs Park, Malibu Lagoon State Beach and Surfrider Beach that are situated to the southwest and south of the subject ridge; and Malibu Creek State Park to the west.

The proposed residence is quite large in size (12,143 sq. ft. with 2,232 sq. ft. storage space, 3,161 sq. ft. terraces, and 1,762 sq. ft. detached garage) and 28 ft. high. The structure is proposed to be notched into the south-facing slopes of the hillside terrain along the top of the ridge. However, the residence would still break ridgeline views from various public viewing areas and appear incompatible with the character of surrounding undeveloped natural area. In addition, the size and scale of the development is large and would not serve to be visually subordinate to the surrounding natural landscape. The proposed project, therefore, has not been sited and designed to protect public views of the pristine coastal ridgeline terrain from public viewing areas and would result in significant impacts to scenic vistas in the area, inconsistent with the visual resource policies of the Coastal Act and Malibu-Santa Monica Mountains LUP listed above.

Access Road

The proposed access road traverses difficult terrain (topographically and geologically) up the ridgeline to the subject properties. Given the remoteness of the area and the length and steepness of the road, the Fire Department has required three Fire Department staging areas along the access road (totaling 29,000 sq. ft.) to accommodate safe emergency vehicle access and staging. The proposed access road design is complex and would have a significant footprint. The road and its associated retaining walls and cut/fill slopes would be visible from several significant public viewing areas: Pacific Coast Highway to the southwest and south of the subject ridge

(eastbound lanes beginning at the top of the coastal terrace south of Pepperdine University and down to Malibu Creek/Lagoon); Malibu Bluffs Park, Malibu Lagoon State Beach, Surfrider Beach, and the Malibu Pier that are all situated to the southwest and south of the subject ridge; portions of Malibu Canyon Road to the west; portions of Piuma Road to the north; and portions of Rambla Pacifico to the east. In order to reduce the visual impacts associated with the road, the applicants have proposed to utilize onsite aggregate selected to blend with the colors of the landscape in order to mix into concrete for use on the road base and retaining walls. In addition, the applicants have proposed to re-vegetate all cut and fill slopes with plant species native to the Santa Monica Mountains and consistent with the surrounding native vegetation. While such measures may reduce visual impacts somewhat, they do not serve to protect public views or minimize alteration of the natural landscape/landforms. The proposed access road would traverse steep and varied terrain along its 6,010 ft. length and would require a significant amount of grading and large retaining walls and cut/fill slopes. As such, the significant length and footprint of the road would not be compatible with the character of surrounding undeveloped natural area or protect public views of this scenic area.

Conclusion

The applicants have made great strides to reduce the visual impact of the residences by consolidating each development within a single development area, making adjustments to the development area configuration, and by proposing unique architectural designs that attempt to blend and be complimentary with the underlying topography. In addition, the applicants have proposed to utilize on-site aggregate selected to blend with the colors of the landscape in order to mix into concrete for use on the road base and retaining walls. However, the proposed residences and access road would still result in significant impacts to visual resources and are inconsistent with Section 30251 of the Coastal Act. In addition, there are changes that could be made to each component of this project that would further reduce the visual impacts as required by Section 30251 (see Alternatives Section). Therefore, the proposed development is not consistent with the Section 30251 or the guidance policies of the Malibu-Santa Monica Mountains LUP, which require protection of public views, minimization of landform alteration, and compatibility with the character of the surrounding area.

3. Hazards and Geologic Stability

Section **30253** of the Coastal Act states, in pertinent part, that new development shall:

- (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
- (2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, 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.

In addition, the Malibu/Santa Monica Mountains LUP provides policy guidance regarding geologic and fire hazards. The Coastal Commission has applied the following relevant

policies as guidance in the review of development proposals in the Santa Monica Mountains.

- P147 Continue to evaluate all new development for impact on, and from, geologic hazard.
- P148 Continue to limit development and road grading on unstable slopes to assure that development does not contribute to slope failure.
- P156 Continue to evaluate all new development for impact on, and from, fire hazard.

The proposed developments are located in the Malibu/Santa Monica Mountains area, an area historically subject to significant natural hazards including, but not limited to, landslides, erosion, flooding and wild fire.

Geology and Engineering

The topography and geology of the subject properties along the subject ridgeline is very complex. A significant portion of the subject properties is underlain by landslide debris, which in general, has been shed westward from the prominent north-south trending ridgeline (Exhibit 4). As such, a significant portion of the proposed access road to serve the subject properties bisect these mapped landslide areas. In addition, one of the five proposed residences (CDP App. 4-10-040 (Lunch)), is proposed atop a mapped landslide area. These conditions pose a significant constraint for development of, and access to, the properties.

The proposed access road traverses the western side of a north-south oriented, sharp-crested ridge. At the City limits, the proposed road is at an elevation of approximately 835 feet, roughly 100 feet below, and 300 feet west of, the crest of the ridge. The proposed road and the ridgeline rise irregularly to a high point within the project area of approximately 1,500 feet over a straight-line distance of approximately 0.53 miles. To the east of the somewhat meandering ridgeline is a very steep slope, marked by vertical cliffs, dropping into Carbon Canyon. To the west, somewhat gentler (but still very steep) slopes descend to Sweetwater Canyon. Several drainages extending from both canyons modify these steep slopes.

The bedrock making up the subject ridge is primarily layered sedimentary rocks (conglomerates, volcanic breccias, sandstones, siltstones and shales) assigned to the Vaqueros Formation, underlain by sandstones of the Sespe Formation. These rocks are broadly folded and lie on the east limb of syncline, or downwarp, and so primarily dip to the west. The Vaqueros Formation makes up most of the western side of the ridge, and the underlying Sespe Formation makes up most of the eastern side of the ridge. This broad structure is interrupted by many minor folds and inactive faults. Isolated igneous rocks, known as the Conejo Volcanics, were intruded into the sedimentary rocks. Due to the fact that layered sedimentary rocks of diverse strengths broadly dip in the same direction as the slope on the western side of the ridge, this slope has been very susceptible to landsliding over recent geologic time. As mapped by Mountain Geology, Inc. (MGI), three large, ancient landslides, themselves cut by younger landslides,

extend almost the entire distance from their headscarps at or near the ridge crest, to the canyon bottom. Evidence, such as the formation of soils on the surfaces of these landslides, indicates that they are likely of prehistoric origin. None show evidence of recent slope movement. The eastern side of the ridge also is susceptible to rockfall and landsliding, but since such slope movement would not threaten the proposed development it will not be discussed further.

Section 30253 requires that new development minimize risks to life and property in high hazard areas, as well as assure stability, structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area. Commission staff geologist, Mark Johnsson, and staff civil engineer, Lesley Ewing, provided staff with assistance in analyzing the subject projects for consistency with Section 30253 of the Coastal Act. In addition, in this case, Cotton, Shires and Associates Inc. (CSA), a professional firm of consulting engineers and geologists, was contracted to perform the civil and geotechnical engineering and engineering geologic review services in support of the Commission's review and analysis of the subject permit applications. CSA submitted to staff and the applicant a March 8 2010 Summary of Findings - Civil and Geotechnical Engineering and Engineering Geologic Peer Review Services in fulfillment of their initial contract on this project. When the application was resubmitted with changes to the engineering design, CSA's contract was extended to allow them review of the revised project. In December 2010, CSA submitted a second Draft Summary of Findings of their engineering geologic, geotechnical, civil and structural engineering peer review services in support of Commission staff's analysis of the applications. Various changes were made to CSA's draft report after receiving additional information from the applicant's consultants. CSA's Final Summary of Findings was submitted on January 21, 2011 (Exhibit 26 attachment). Lesley Ewing and Mark Johnsson have each prepared memoranda for the Commission and Commission staff that summarizes the important issues related to their reviews of the parts of the proposed project under their respective fields of expertise. The Commission concurs with the findings of the CSA final report, as well as the findings contained in the memorandum prepared by Lesley Ewing dated January 24, 2011 (Exhibit 26), and the memorandum prepared by Mark Johnsson dated January 25. 2011 (Exhibit 25), which are hereby incorporated herein by reference.

Proposed Single Family Residences

Of the five proposed residences, only one (Residence 2 - Lunch) is proposed atop a landslide area. However, given the extremely steep topography across the remainder of the Lunch property, there are no other feasible building sites within the bounds of the parcel that are outside landslide areas. Moreover, the submitted geology, geotechnical, and/or soils reports conclude that the Lunch project site is suitable for the proposed project based on the evaluation of the site's geology in relation to the proposed development. The reports contain recommendations to be incorporated into the project plans to ensure the stability and geologic safety of the proposed project, the project site, and the adjacent properties. As discussed previously, landslide debris underlies the majority of the Mulryan property. As such, a lot line adjustment is proposed for the

Mulryan and Morleigh lots in order to site the Mulryan residential development outside landslide areas. The submitted geology, geotechnical, and/or soils reports conclude that the proposed Residence 1 - Vera, Residence 3 - Morleigh, Residence 4 - Mulryan, and Residence 5 - Ronan project sites are suitable for the proposed projects based on the evaluation of the site's geology in relation to the proposed development. The reports contain recommendations to be incorporated into the project plans to ensure the stability and geologic safety of the proposed project, the project site, and the adjacent properties.

However, each of the proposed home sites (Residences 1 - 5) is situated on or near the ridgeline, with slopes steeply descending to canyons below. The approved fuel modification plan for each of the proposed residences utilizes the standard three zones of vegetation modification, which extend a maximum of 200 feet from the proposed residences. As such, a significant portion of the fuel modification area of each residential structure would extend across steeply sloping terrain below the ridgeline, which has the potential to increase the site's susceptibility to erosion and geologic instability. In addition, the large size of each development area, coupled with the required access drive for each home site and Fire Department requirements for access and staging, would result in a significant area of impervious surfaces along the ridgeline that lies above steep slopes descending to pristine canyons and blue-line streams below. Impervious surfaces have the potential to increase runoff volumes and rates, thereby increasing a site's susceptibility to erosion and geologic instability. There are a number of measures that could be incorporated into the projects that would minimize erosion and ensure geologic stability, such as proper drainage, runoff, and erosion control measures and landscaping of disturbed and graded slopes. Although the proposed residences have been designed to be stable and safe, consistent with Section 30253 of the Coastal Act, all of the development that is required to provide safe access, services, and fire protection and ensure stability for each residence would have significant impacts to coastal resources, particularly ESHA and visual resources, as discussed in the preceding sections. Alternatives exist that would minimize impacts to coastal resources while also assuring safety and stability of residential development. There are discussed in the Alternatives section of this report.

Proposed Access Road

A 4,883 ft./0.9 mile (excludes residential driveways) access road along the ridgeline is proposed in the subject permit applications. Approximately 43,050 cu. yds. of grading (20,100 cu. yds. cut, 22,950 cu. yds. fill) and an approximately 6.75 acre disturbance area is proposed in order to construct the entire length of the proposed shared access road. The proposed road crosses two large landslides. As such, two sections of the road, one 590 feet long and one 905 feet long, would be supported on caissons to provide safe access across these slide areas. Approximately 123 large diameter reinforced concrete caissons, ranging from 2 to 5 feet in diameter and up to 79 feet in length are proposed. An additional fourteen (14) 5-foot diameter caissons for rock fall protection are also proposed at the southern portion of the road, close to the City of Malibu boundary. Of the 20,100 cu. yds. of cut that is proposed for the road, almost

25%, or 4,850 cu. yds., will be cut material excavated for installation of the caissons. In addition to the 1,495 feet of caisson-supported roadway, there would be several retaining walls and a significant amount of cut and fill to provide for a level road surface. In total, there are five retaining walls proposed, ranging from 90 feet to 390 feet in length, and totaling 955 feet. The proposed retaining walls range in height from averages of 5 to 11 feet and maximum heights of 7.5 to 18 feet. The longest retaining wall, along the right side (or upslope side) of the northern portion of the road, would be 390 feet long and would have an average height of 11 feet and a maximum height of 18 feet. In addition, a section of the road (Sta. 27+00 to 30+00) appears to be susceptible to rockfalls, however, the likelihood of permanent damage to the roadway from these hazards appears to be low. Rockfall mitigation recommendations have been provided by the applicants' consultants per the "Rockfall Hazard and Mitigation Study" (Kane Geotech, Inc., June 25, 2007) to reduce the rockfall hazard potential to the road and road users. The recommendations call for a system that is 140 ft. long, 10 ft. tall, and have the capacity to withstand an impact force of 1,500 ft-tons. The structural and civil plans include 14 caissons that would be part of the rockfall mitigation system; however, to date, the access road design plans have not incorporated the rockfall mitigation recommendations.

Several sections of the proposed road would be quite steep. There are sections approximately 998 feet long, 1,085 feet long, and 535 feet long that would have a grade of 18.95%. There is one additional 285 foot long section that would have a grade of 17.25%. These steep grade sections do not connect; each section would be separated by stretches of road that are at a much gentler grade. Construction of the stabilized sections of the proposed access road would require large temporary construction staging pads. The applicants have identified those construction staging areas, which are within areas proposed for development, such as the Fire Department staging areas and proposed residential development pads.

The proposed road support system has been through three different design iterations. The initial design proposed involved a combination of cylindrical caissons and "dog bone" caissons. In early June 2010, Commission staff was provided with a revised road support design that relied upon traditional cylindrical caissons for the entire road support system and the "dog bone" caissons had been deleted. As with the initial design, the caissons would require careful field installation since reinforcing steel for each caisson was designed to be oriented with the direction of the slide. By refining the geologic landslide mapping and using the appropriate parameters during the CSA review process, the applicants' consultants were able to replace the previously proposed dogbone caissons with cylindrical caissons and reduce the amount and size of the stabilization elements of the access road.

The applicant's structural engineer also examined the option of a tied-back wall rather than a caisson system because such a design was thought to have the potential to further reduce both the caisson diameter and necessary reinforcing steel. However, the assessment of that option found that the tie-back installation would require far more site disturbance than the caissons, since large trenches would need to be excavated

downslope of the slide to install the tiebacks. Approximately 1,010 feet of roadway would require slot excavations at least 30 to 60 feet deep to install the tie-back system, extending the site disturbance well beyond the existing roadway footprint. Lesley Ewing has reviewed the alternative design analysis and concurs that a tie-back stabilization system at this site would cause greater site disturbance than the caissons.

Staff has determined that the site geologic hazards, limits of landslides, type of sliding, and depth of the slide planes in the access road corridor have been appropriately characterized and that the structural design of the road would be safe and stable as long as the recommendations provided in the relevant reports are followed. Staff also has determined that because of the steepness of the access road corridor, the ability to devise other designs that would reduce grading and wall heights is limited. The Commission concurs with its staff's conclusions in these respects.

Although the proposed engineering design of the access road is simpler than what was previously proposed, it is still a relatively complex road design that would require a significant amount of grading, retaining walls, large cut/fill slopes, Fire Department staging areas, drainage devices, and an expansive overall footprint. Although the proposed access road has been designed to be stable and safe, consistent with Section 30253 of the Coastal Act, all of the development that is required to provide that safety and stability would have significant impacts to coastal resources, particularly ESHA and visual resources, as discussed in the preceding chapters. Alternatives exist that would minimize impacts to coastal resources while also assuring safety and stability of development. There are discussed in the Alternatives section of this report.

Fire Department Staging Areas and Placement of Excess Excavated Material

Given the remoteness of the area and the length and steepness of the road, the Fire Department has required construction of the three proposed Fire Department staging areas along the access road to accommodate safe emergency vehicle access and staging. Two of the staging areas (approximately 2,800 sq. ft. and 6,200 sq. ft. in size) are adjacent to one another and located where the proposed access road begins within the unincorporated Los Angeles County jurisdiction on the Vera parcel. These two staging areas would require 700 cu. yds. of grading (fill). The third staging area, which is 20,000 sq. ft. in size, is situated further up the road, upon the mesa area of the Mulryan parcel. Approximately 9,400 cu. yds. of grading (fill) would be required for construction of this staging area. All three staging areas are located within the boundary of landslide areas. Placement of fill to construct the staging areas has the potential to affect stability. Slope stability analyses were performed to evaluate the effect of fill placement on the landslides and it was found that the slope below the staging areas would not be destabilized significantly as long as the fill slope is keyed and benched, compacted and stabilized to reduce susceptibility to debris flows and erosion. The Commission concurs with its staff's conclusions in this respect.

In addition, construction of the proposed projects would generate a total of approximately 8,750 cu. yds. of net excess excavated material. As discussed

previously, it is proposed that excess excavated material generated by the five residential development projects would be balanced on-site by the placement and contour grading of excess material upon the gradually-sloping mesa area on the Mulryan parcel. Although it appears that the total project among all applications would generate 8,750 cu. yds. of excess material, the applicant has specified that a maximum of approximately 13,950 cu. yds. of excess material, to a maximum depth of 5 feet and a maximum slope of 3:1 (H:V), would be placed upon an approximately 81,750 sq. ft. (1.88 acres) area of the mesa adjacent to the proposed access road and upper Fire Department staging area. The applicant also has proposed to re-vegetate this fill area with a mix of native shrub species and oak trees. The proposed fill placement area is underlain by landslide. As such, slope stability analyses were performed to evaluate the effect of fill placement on the landslide. Based upon the results of the analysis, Commission staff has determined that the area designated to receive the excess material, 13,950 cu. yds. and 5 ft. depth, would not be destabilized significantly as long as the fill slope is keyed and benched, compacted and stabilized to reduce susceptibility to debris flows and erosion. The Commission concurs with its staff's conclusions in this respect.

However, the proposed Fire Department staging areas and placement of excess excavated material would encroach into areas that are considered ESHA. Although the proposed staging areas and fill placement may be stable and safe if certain recommendations are incorporated, consistent with Section 30253 of the Coastal Act, the proposed siting of these areas would have significant impacts to ESHA, as discussed in the preceding ESHA section of this report. Alternatives exist that would minimize impacts to ESHA while also assuring safety and stability of development. There are discussed in the Alternatives section of this report.

Proposed Waterline

The proposed project includes extension of an 8-inch diameter water line down to the properties that are the subject of this staff report from an existing municipal water main beneath Costa Del Sol Way to the north. The total length of the proposed water line is approximately 7,800 feet and would be installed by trenching. A 10-ft. wide maintenance road to service the water line is proposed along a 990-ft. long stretch of the water main alignment, where the existing dirt road ends in the northern section down to approximately 1,000 feet shy of the northernmost proposed residential development due to the extreme steepness of that segment of the terrain in that area. According to preliminary grading plans, the proposed 990-ft. long maintenance road would require a 60-ft. long, 2 to 6-ft. high retaining wall and approximately 1,145 cu. yds. grading (1,135 cu. yds. cut; 10 cu. yds. fill) on steep slopes. The proposed alignment is on bedrock and free of large landslides and other geologic hazards. However, the line would have significant adverse impacts to coastal resources, as discussed in previous sections. As discussed in the Alternatives section of this report, it is feasible to install water wells and water tanks to provide water service to each of the proposed residences.

Wild Fire

The subject five properties are contiguous and located along an approximately 3,000-ft. long stretch of a prominent ridgeline separating the Sweetwater Canyon and Carbon Canyon watersheds of the Santa Monica Mountains, about a mile inland from Pacific Coast Highway. The area is largely undeveloped and in a remote area of the Santa Monica Mountains where there is an extraordinary potential for damage or destruction from wildfire. In addition, the Santa Monica Mountains are classified a Very High Fire Hazard Severity Zone by the Los Angeles County Fire Department. There have been several wildfires in the area of the subject properties in recent history. The latest wildfire occurred on the subject sites in November 2007. Prior to that, significant wildfires occurred in 1942, 1956, 1970, 1985, 1993, and 1996. Fire is an inherent threat to the indigenous chaparral community of the coastal mountains. Wildfires often denude hillsides in the Santa Monica Mountains of all existing vegetation, thereby contributing to an increased potential for erosion and landslides on property. Typical vegetation in the Santa Monica Mountains consists mostly of coastal sage scrub and chaparral. Many plant species common to these communities produce and store terpenes, which are highly flammable substances (Mooney in Barbour, Terrestrial Vegetation of California, 1988). Chaparral and sage scrub communities have evolved in concert with, and continue to produce the potential for, frequent wild fires. The typical warm, dry summer conditions of the Mediterranean climate combine with the natural characteristics of the native vegetation to pose a risk of wild fire damage to development that cannot be completely avoided or mitigated.

Section 30253 of the Coastal Act requires that new development shall minimize risks to life and property in areas of high geologic, flood, and fire hazard. The applicants propose five new single family residences, ranging from 7,220 sq. ft. to 12,785 sq. ft. in size, on five adjoining parcels. In addition, a 6,010 ft. long access road is proposed to reach the subject properties. Due to the steepness and length of the proposed access route, the properties would be difficult to reach and traverse for emergency vehicles. As such, the Fire Department is requiring the three proposed Fire Department staging areas along the access road to accommodate safe emergency vehicle access and staging. The proposed staging areas total 29,000 sq. ft. in size and are distributed between particularly difficult sections of the road alignment.

With slopes steeply descending from either side of the subject ridgeline to canyons below, the proposed home sites are situated in areas near or at the top of the ridge that are particularly vulnerable to fire hazard. Homes located in natural chimneys, such as narrow canyons and ridgetop saddles, are especially fire-prone because winds are swiftly funneled into these canyons and eddies are created. Homes located where a canyon meets a ridge are more likely to burn than other ridge-top homes because flames and convection heat hit the home directly rather than passing over. In this case, each of the proposed home sites (Residences 1 - 5) is situated on or near the outer edges of the ridgeline or ridgeline saddles and in close proximity to natural chimney features. Further, the Residence 1 (Vera) development area, which is approximately 250 ft. wide, would overhang the front of the subject ridge crest. In addition, each of the

proposed home sites possesses a large development area (10,000 sq. ft.). The approved fuel modification plan for each of the proposed residences utilizes the standard three zones of vegetation modification. Zones "A" (setback zone) and "B" (irrigation zone) are shown extending in a radius of approximately 100 feet from the proposed structures. A "C" Zone (thinning zone) is provided for a distance of 100 feet beyond the "A" and "B" zones. In addition, each of the proposed residences are proposed to be equipped with exterior fire suppression sprinkler systems that would shower the residence and an additional 75 ft. radius within the irrigated fuel modification zone with water in case of wildfire. The applicants have asserted that in order to adequately defend the proposed structures in this Class 4 Fire zone, there must be an adequate volume and pressure of water to have the fire suppression sprinkler system shower each development area with water for a period of two to three hours at a rate of up to 127 gallons per minute in case of wildfire (Exhibits 13, 14). As such, the proposed project includes extension of an 8-inch diameter water line down to the subject properties from an existing municipal water main beneath Costa Del Sol Way to the north. The total length of the proposed water line is approximately 7,800 feet.

Captain James Bailey, Head Fire Prevention Engineer for Los Angeles County Fire Department, has provided Commission staff with two letters expressing support for the proposed water line extension, dated December 26, 2007 and April 6, 2010 (Exhibit 22). The most recent letter, dated April 6, 2010, not only expresses support for the water line extension, but indicates that it is a requirement to provide a reliable, sufficient fire flow in this Very High Fire Hazard Severity Zone. In support of this conclusion, Mr. Bailey states the following in his April 6, 2010 letter,

Pursuant to Section 508.1 of the 2008 Los Angeles County Fire Code, an applicant must provide "an approved water supply capable of supplying the required fire flow for fire protection..." Section 508.3 further explains that "fire flow requirements for buildings or portions of buildings and facilities shall be determined by the fire code official." Regulation #8 of the Los Angeles County Fire Department establishes the required fire flow for development projects. In accordance with Regulation #8, the proposed development requires a minimum of 2,000 gallons per minute of water flow for the duration of two hours. Due to the required fire flow, the proposed extension of the municipal water line is required to meet these standards.

Mr. Bailey also indicates that private water wells, tanks and sprinklers would not be acceptable in this case due to the size of the proposed residences, their location, and the fact that a finding of practical difficulty or unreasonable hardship in constructing the water line cannot be made. However, while the Fire Department may prefer and encourage the water line option for maximum fire protection in this case since it is being proposed by the applicants, it would appear to remain possible that the Fire Department could find the alternative, wells and tanks, consistent with the Fire Department's codes and regulations. In many remote locations in the Santa Monica Mountains the Fire Department has allowed water wells and tanks for proposed single family residences, finding that water line alignments that were shorter or required construction in less steep or remote areas than the proposed alignment to be infeasible.

Due to the fact that the proposed projects are located in an area subject to an extraordinary potential for damage or destruction from wildfire, the applicants have incorporated many fire protection and emergency access provisions to mitigate for the remoteness of the area and the extraordinary fire potential inherent to the area. Although the proposed projects' mitigation provisions may provide a high level of safety from the threat of wildfire, the proposed projects, including its fire hazard mitigation provisions such as the municipal water line and Fire Department staging area, would encroach into areas that are considered ESHA and significantly disrupt the habitat values in the those areas, as discussed in the preceding ESHA section of this report. Alternatives exist that would avoid and minimize impacts to ESHA while also minimizing damage or destruction from wild fire. These are discussed in the Alternatives section of this report.

4. Cumulative Impacts

Section 30250(a) of the Coastal Act states:

New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.

Section **30105.5** of the Coastal Act defines the term "cumulatively," as it is used in Section 30250(a), among others, to mean that:

[T]he incremental effects of an individual project shall be reviewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Section 30250(a) of the Coastal Act requires that new residential development shall be located within, contiguous with, or in close proximity to existing developed areas able to accommodate it, or in other areas with adequate public services, and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources.

In the case of the proposed projects, residential development is proposed along a prominent ridgeline in an undeveloped area of the Santa Monica Mountains that consists of primarily undisturbed native chaparral habitat that is part of a large, contiguous area of undisturbed native vegetation. The subject contiguous properties are located on the southern flank of the Santa Monica Mountains, about a mile inland from Pacific Coast Highway, east of Malibu Canyon Road, and west of Las Flores Canyon Road. A large area of public parkland that is part of Malibu Creek State Park is located on the adjacent parcels to the west. The nearest development in the vicinity is the residential enclave of Serra Retreat located approximately a half mile to the southwest.

The proposed development would introduce the first homes and improved roads into an otherwise pristine 2,800-acre block of undisturbed habitat (Exhibit 2c).

In past actions, the Commission has found the existing developed areas in the Malibu/Santa Monica Mountains area to all be on the "coastal terrace" that is generally seaward of the Rancho Topanga Malibu Sequit line and within the City of Malibu (the two exceptions are Pepperdine University which is on the terrace but outside the City boundary, and the Old Post Office Tract area in Topanga).

The Commission does not consider the subject project sites to be located within, contiguous with, or in close proximity to an existing developed area. This determination is based in part on their location north of the Rancho Topanga Malibu Sequit line and the City of Malibu boundary. Additionally, the proposed development sites are isolated from any other existing development by a distance of over a half mile and separated by very steep terrain and large contiguous areas of ESHA. Further, there is a lack of established roads or other public services as evidenced by the applicants' proposals to construct a road and water line long distances over extremely steep, geologically unstable, and environmentally sensitive hillsides.

As discussed in great detail in the preceding sections, the proposed density and large size and scale of the proposed developments, coupled with the geologic, topographic, and fire hazard constraints that exist within this undeveloped area, necessitate the construction of significant facilities (including a road and driveways of 6,010 ft. in length, installation of a 7,800 ft. long water line, and several fire truck staging areas) to provide basic amenities such as access, utilities and water, geologic stability, and fire safety for all of the residential developments. The developments increase the demands on road capacity, sewage, water and other services, and associated impacts to geologic stability and hazards, ESHA, scenic character, and contribution to fire hazards. The construction of the required facilities would have significant and unavoidable individual and cumulative impacts to ESHA and visual resources, as outlined in the preceding sections of this report. As such, the proposed projects are not within, contiguous with or in close proximity to an existing developed area, nor are they located in an area with public services or where they can be developed without significant adverse individual and cumulative impacts on coastal resources.

In conclusion, the Commission finds that the proposed projects will result in significant and unavoidable adverse individual and cumulative impacts to ESHA and visual resources as discussed in detail above. As such, the Commission concludes that the proposed developments will not avoid significant adverse effects, either individually or cumulatively, on coastal resources, which is in direct conflict with Section 30250 of the Coastal Act.

D. DETERMINATION OF COMMISSION ACTION

1. Options for Projects Inconsistent with Chapter 3 Policies

As discussed in the above findings, whether viewing the proposed project as a whole or looking at each component of it (as defined by the separate permit applications) separately, the project, as proposed, is inconsistent with three different Chapter 3 policies (those in sections 30240, 30251, and 30250). When the Commission reviews a proposed project that is inconsistent with the Coastal Act, there are several options available to the Commission. In many cases, the Commission will approve the project but impose reasonable terms and conditions to bring the project into conformance with the Coastal Act. In other cases, the range of possible changes is so significant as to make conditioned approval impractical. In that situation, the Commission will deny the project and provide guidance to the applicant on the type(s) of changes that must be made in order to generate a revised proposal that is consistent with the policies of the Coastal Act. These denials are without prejudice inasmuch as applicants are given direction on what they need to do to propose an alternative project that can meet Coastal Act policies. In rare cases, there are no feasible conditions that could bring the project into conformance with the Coastal Act, and there are no obvious feasible alternatives consistent with the Coastal Act that the Commission might suggest to an applicant. When this happens, the Commission will deny the project without further guidance to the applicant.

In this case, the proposed project is significantly out of conformance with the Coastal Act because the project site is located in the middle of significant ESHA habitat and much of the project would traverse a highly visible, undisturbed area of the Santa Monica Mountains, where the expanse of natural landscape and vegetation defines the appearance and much of the overall character of the area. As a result, the proposed project must be denied in its present form. Moreover, the Commission is unaware of any version of the proposed project that would not have impacts inconsistent with the ESHA and visual policies of the Coastal Act. Thus, the inherent Chapter 3 inconsistencies would normally require a complete denial.

However, because of a unique provision of the Coastal Act, this denial does not preclude the applicants from applying for some other development or use of the site, or a modified version of the current proposal. Due to the range of potential options for alternative development plans, the Commission cannot simply condition the proposal to make it approvable. However, an analysis of this unique provision will help to elucidate the types of alternatives that may be approvable.

2. Takings

a. Takings Law

i. Coastal Act Takings Provision

When a proposed project's inherent inconsistencies with the policies in Chapter 3 of the Coastal Act would normally require the Commission to deny the project, a question may arise whether such a denial would "take" or "damage" the applicant's private property for public use in violation of the California and/or United States Constitutions. This is because Coastal Act Section 30010 precludes such actions, stating as follows:

The Legislature hereby finds and declares that this division is not intended, and shall not be construed as authorizing the commission, port governing body, or local government acting pursuant to this division to exercise their power to grant or deny a permit in a manner which will take or damage private property for public use, without the payment of just compensation therefor. This section is not intended to increase or decrease the rights of any owner of property under the Constitution of the State of California or the United States.

Consequently, although the Commission is not a court and may not ultimately adjudicate whether its denial of an application would constitute a taking, the Coastal Act imposes on the Commission the duty to assess whether such a denial might constitute a taking so that the Commission may take steps to avoid that outcome. If the Commission concludes that a denial would not constitute a taking, then it may deny the project without violating Section 30010. If the Commission concludes that a denial might constitute a taking, then Section 30010 requires the Commission to approve some level of development, even if the development is otherwise inconsistent with Coastal Act policies. In this latter situation, the Commission must again decide whether to approve some version of the proposed project (to comply with Section 30010) subject to conditions to minimize the Chapter 3 inconsistencies, or if the range of possible approvable projects is so varied as to warrant a denial with guidance provided to the project applicant as to what sort of development would be approvable.

In the remainder of this section II.D.2, the Commission considers (a) whether, for purposes of compliance with Section 30010, its denial of the project would constitute a taking; (b) if so, what scale of development (at a general level) would likely provide sufficient use of the property to avoid such a taking while minimizing inconsistencies with Chapter 3 policies; and (c) whether there is enough variation in the type of development that would satisfy that standard to warrant a denial with guidance rather than a conditional approval.

ii. General Takings Principles

The Fifth Amendment of the United States Constitution provides that private property shall not "be taken for public use, without just compensation." Similarly, Article 1, section 19 of the California Constitution provides that "[p]rivate property may be taken or damaged for public use only when just compensation...has first been paid to, or into court for, the owner."

The idea that the Fifth Amendment proscribes more than the direct appropriation of property is usually traced to *Pennsylvania Coal Co. v. Mahon* (1922) 260 U.S. 393. Since *Pennsylvania Coal*, most of the takings cases in land use law have fallen into two categories (see Yee v. City of Escondido (1992) 503 U.S. 519, 522-523). First, there are the cases in which government authorizes a physical occupation of property (see, e.g.,

¹⁶ For example, in 2010, the Commission approved CDP 4-07-143 (Ketchum & Kaplan), conditionally authorizing residential development on a site even though it would adversely affect the on-site ESHA and was not resource dependent development and thus was inconsistent with Section 30240.

¹⁷ The Fifth Amendment was made applicable to the States by the Fourteenth Amendment (see *Chicago*, *B.* & Q. R. *Co. v. Chicago* (1897) 166 U.S. 226).

Loretto v. Teleprompter Manhattan CATV Corp. (1982) 458 U.S. 419). Second, there are the cases in which government merely regulates the use of property (Yee, supra, 503 U.S. at pp. 522-523). A taking is less likely to be found when the interference with property is an application of a regulatory program rather than a physical appropriation (see, e.g., Keystone Bituminous Coal Ass'n. v. DeBenedictis (1987) 480 U.S. 470, 488-489, fn. 18). However, as Justice Holmes put it in Mahon, "if regulation goes too far it will be recognized as a taking." 260 U.S. 393, 415. The Commission's actions here would be evaluated under the standards for a regulatory taking because, if the Commission were to deny these applications, it would not be physically occupying or otherwise taking ownership of the subject property.

The Supreme Court itself has recognized that case law offers little insight into when, and under what circumstances, a given regulation may be seen as going "too far" (Lucas v. South Carolina Coastal Council (1992) 505 U.S. 1003, 1014). In its recent takings cases, however, the Court has identified two circumstances in which a regulatory taking might occur. The first is the "categorical" formulation identified in Lucas, supra. In Lucas, the Court found that regulation that denied all economically viable use of property was a taking regardless of the outcome of a "case specific" inquiry into the public interest involved (Id. at p. 1014). The Lucas court emphasized, however, that this category is extremely narrow, applicable only "in the extraordinary circumstance when no productive or economically beneficial use of land is permitted" or the "relatively rare situations where the government has deprived a landowner of all economically beneficial uses" or rendered it "valueless" (Id. at pp. 1016-1017 [emphasis in original]) (see United States v. Riverside Bayview Homes, Inc. (1985) 474 U.S. 121, 126 [regulatory takings occur only under "extreme circumstances"]).

The second circumstance in which a regulatory taking might occur is under the three-part, ad hoc test identified in *Penn Central Transportation Co.* (*Penn Central*) v. *New York* (1978) 438 U.S. 104, 124. This test generally requires an examination into the character of the government action, its economic impact, and its interference with distinct, investment-backed expectations (*Id.* at p. 134; *Ruckelshaus v. Monsanto Co.* (1984) 467 U.S. 986, 1005). In *Palazzolo v. Rhode Island* (2001) 533 U.S. 606, the Court again acknowledged that the *Lucas* categorical test and the three-part *Penn Central* test were the two basic situations in which a regulatory taking might be found to occur (see *id.* [rejecting *Lucas* categorical test where property retained value following regulation but remanding for further consideration under *Penn Central*]). *See also, Lingle v. Chevron U.S.A., Inc.* (2005) 544 U.S. 528, 538.

iii. Identification of the Unit of Analysis

As a threshold matter, before a taking claim can be analyzed, it is necessary to define the property interest against which the taking claim will be measured. In most cases, this is not an issue because there is a single, readily identifiable parcel of property on

¹⁸ Even where the challenged regulatory act falls into this category, the government may not constitute a taking if the restriction inheres in the title of the property itself; that is, if background principles of state property and nuisance law would have allowed government to achieve the results sought by the regulation (Lucas, supra, 505 U.S. at pp. 1028-1036).

which development is proposed. The issue is complicated in cases where a landowner owns or controls multiple, adjacent or contiguous parcels all of which are related to the proposed development. In these circumstances, courts will analyze whether the lots are sufficiently related so that they can be aggregated as a single parcel for purposes of the takings analysis. As the U.S. Federal Circuit Court of Appeals put it, when a developer "treats legally separate parcels as a single economic unit, together they may constitute the relevant parcel." (Forest Properties, Inc. v. U.S., 177 F.3d 1360, 1365 (Fed. Cir. 1999)) This principle is therefore sometimes referred to as the "single economic parcel" principle. In determining whether lots should be aggregated, courts have looked to a number of factors such as unity of ownership, the degree of contiguity, the dates of acquisition and the extent to which the parcel has been treated as a single unit (e.g., District Intown Properties, Ltd. v. District of Columbia (D.C.Cir.1999) 198 F.3d 874, 879-880 [nine individual lots treated as single parcel for takings purposes]; Ciampitti v. United States (Cl.Ct. 1991) 22 Cl.Ct. 310, 318). In order to determine whether and how these principles apply in this case, a review of the facts is necessary.

b. Facts Relative to the Takings Analysis

The facts relative to this takings analysis require special attention. This section presents the facts to support the Commission's takings analysis. The first two subsections present the facts surrounding the acquisition of the subject property and the history of the five limited liability limited partnerships ("LLLPs") that claim separate ownership of the five parcels. The third subsection discusses the social and business relationships among each of the general partners of the LLLPs. The fourth discusses the nature of the transfer of the property since these applications were first submitted. The final subsection will lay out the applicants' unified development scheme for the subject property.

i. Property Acquisition – Indicia of Sole Ownership by David Evans

Two separate news reports directly state that David Evans (also referred to as "The Edge", his nickname in his band, U2) bought all five parcels in 2006 and has continued to own them all. Jim Vanden Berg, the project manager for the entire development was quoted in a news report saying "[t]he Edge will be building his home and these other houses." On May 1, 2009, Noaki Schwartz of the Associated Press reported that Mr. Evans and his wife bought all five parcels and they plan to build a house on each parcel. Vanden Berg is also cited as having told reporters that Evans will sell some of the homes and plans to pick his neighbors. Finally, Evans created a website dedicated to the project, www.leavesinthewind.com, in which he sometimes refers to his partners but much of the time writes in the first person and refers to the project as if it is solely that of himself and/or his family.

¹⁹ The Times (UK), "U2's Edge rattles Malibu peace," John Harlow, March 28, 2009.

²⁰ Associated Press, "The Edge's green pitch for Malibu riles residents," Naoki Schwartz, May 1, 2009.

²¹ http://www.foxnews.com/entertainment/2009/05/02/edges-mansion-acre-estate-mountains-riles-residents/.

Perhaps most significantly, though, Mr. Evans subsequently made direct statements to a sitting Commissioner confirming the suggestions in these news reports. On May 4, 2009, Commissioner Steve Blank met with David Evans and his agent, Jared Ficker of California Strategies, to discuss the pending application. Commissioner Blank subsequently submitted an *ex parte* communication disclosure form to Commission staff, as required by Section 30324. On that form, Commissioner Blank stated that "Mr. Evans shared his vision of why he and his wife bought the property and their vision of why they wanted to develop all five houses as an integrated development." Further, the form indicates that Mr. Evans presented his plan of each of the five homes in the development, pointing out "that by controlling the architecture and design of all five houses he was able to make each of the five houses unobtrusive and designed to blend into the hillside." All five homes are designed by the same architect and seem to be part of the same project.

<u>ii. The Formation of, and Interrelationship Among, the Relevant Business Entities</u>

In this matter, the Commission simultaneously received five CDP applications – one from each of five business entities, each one seeking authorization to construct a home on one of five separate parcels on Sweetwater Mesa. The five entities currently appear as Vera Properties LLLP, Mulryan Properties LLLP, Lunch Properties LLLP, Morleigh Properties LLLP, and Ronan Properties LLLP (collectively, the "Sweetwater Applications"). Each of the current LLLPs originated as a California limited liability company (LLC), created on November 14, 2005.

Each of the subject properties has a separate assessor's parcel number (APNs 4453-005-018 [Vera Properties, LLLP], 4453-005-092 [Mulryan Properties, LLLP], 4453-005-037 [Lunch Properties, LLLP], 4453-005-091 [Morleigh Properties, LLLP], 4453-005-038 [Ronan Properties, LLLP]), and the properties have existed with fixed boundaries for at least 20 years. Although the chains of title for the five parcels are not identical, for more than 50 years, the properties have followed almost identical conveyance patterns. Moreover, the same individual or group of between two and four individuals jointly owned all of the subject property until January 24, 2001, on which date Brian Sweeney, and three limited liability companies that he managed (Catherine Isabel LLC, Jean Ross LLC, Mika Heights LLC), acquired all of the properties. Brian Sweeney and the three LLCs he managed conveyed all of the properties to the current applicants (in their LLC incarnation) on November 22, 2005, eight days after those LLCs were all originally Subsequently, on April 28, 2006, all of the original California LLCs were converted to Delaware LLLPs. However, according to the records in the Los Angeles County Recorder's Office for each subject parcel as of January, 2011, title in each parcel is still held by the California LLCs. Corporations Code, section 17540.7(a) provides that an LLC that owns property in California can record a Certificate of Conversion, as filed with the Secretary of State when an LLC converts to a foreign entity like an LLLP, with a county recorder's office to evince record ownership of that property in the converted entity. The same section also requires the converting entity, the LLC in this case, owns any real property in California it must "provide substantially that the

conversion vests in the ...converted entity [the Delaware LLLP] all the real property of the converting limited liability company." In the instant case, to date, only one applicant, Mulryan Properties LLLP, has claimed that it has recorded its Certificate of Conversion from a California LLC to a Delaware LLLP with the Los Angeles County recorder's office, therefore, supporting its claim that it holds record ownership of its property. The Commission, however, has never received a document supporting this claim nor any supporting documentation that Mulryan Properties, LLC provided substantially that the conversion vests in Mulryan Properties, LLLP, all the real property of Mulryan Properties, LLC, as required by statute. Therefore, this provision does not alter the suggestion, within the record evidence, that each LLC still holds record ownership of the subject lots.

There are indicia of partnership activities throughout the LLLP formation, property acquisition and subsequent recordation of the deeds. First, all five LLLPs have the same agent for service of process (and did so as LLCs) —National Registered Agents. Second, each entity listed the same address—6400 Powers Ferry Rd., Suite 400, Atlanta, GA 30339—as the address to which Los Angeles County should send property tax statements. Third, the grant deed for each property acquisition was executed on the same date and then subsequently recorded on the same date, and they all have sequential document recordation numbers. Fourth, the deeds of trust for all of the subject properties were issued on the same day, by the same bank, and they have sequentially numbered mortgage document numbers. Fifth, there is one project manager for the development of all five parcels, James Vanden Berg.

Staff has also obtained evidence that Evans, alone, or with his partners, plans on selling some of the property for a profit. Project manager and Lunch Properties LLLP general partner Vanden Berg has told reporters that Evans will sell some of the homes and plans to pick his neighbors.²² Further, Gemma O'Doherty, of the Irish Independent, wrote that "three of the houses are being built for speculative purposes to fund the rest of the development. Evans' partner in the project, Dublin financier, Derek Quinlan, will live in the fourth."23 On May 10, 2009, however, Colin Coyle of The Sunday Times wrote an article entitled "€5M for my Malibu sunset, says Derek Quinlan," within which Coyle noted that Quinlan contracted with Pritchett-Rapf & Associates, a Malibu real estate agent, to unload his and three of the four remaining lots for \$7.5 million per lot.²⁴ In the same article, Coyle stated that The Sunday Times contacted Pritchett-Rapf & Associates which confirmed the accuracy of the report.²⁵ Subsequently, a project spokesman denied this confirmation and Pritchett-Rapf & Associates "subsequently said that it had not been authorized to speak to journalists when it made the original comments."²⁶ Thus, the partners appear to have incorporated a profit element in their real estate development venture.

 $^{^{22}\ \}text{http://www.foxnews.com/entertainment/2009/05/02/edges-mansion-acre-estate-mountains-riles-residents/}.$

 $[\]frac{23}{\text{http://www.independent.ie/entertainment/news-gossip/the-edge-tells-malibu-nimbys-im-going-to-build-my-dream-home--with-or-without-you-1719749.html}\\$

²⁴ http://www.timesonline.co.uk/tol/news/world/ireland/article6257424.ece.

²⁵ Ibid.

²⁶ Ibid.

The Commission has referred to the Sweetwater Applications as "interrelated permit applications," and the applicants did not object until after Commission staff informed the applicants' representative of staff's determination that the properties were owned in a unified manner. All five LLLPs are applying for CDPs at the same time and have authorized many of the same agents, including, among others,27 California Strategies and Don Schmitz and Associates, to represent them before the Commission. Although each LLLP now has multiple agents representing it before the Commission, and all but one has a unique agent (one that is not representing any of the other LLLPs), that has only been the case since last June, and all of those distinct agents were designated within the six-month period after senior Commission staff members informed the applicants that, absent sufficient evidence to the contrary, the Commission staff intended to assert that some or all of the subject parcels were effectively in common ownership for purposes of the takings analysis. For almost three years prior to the first of those agent changes - from the initial application submittals in 200728 until April of 2010 - each LLLP was represented by the same agent or the same two agents in its dealings with the Commission (first Schmitz & Associates, and then, as of May, 2009, California Strategies as well). In addition, a single party requested postponement of the Commission's scheduled June, 2009 hearing on the applications, on behalf of all five applicants. Because the Commission did not have that party listed as the registered agent for all five applicants at that time, all of the applicants had to submit a letter authorizing that party to act on their behalf. Subsequently, in response to the Commission's request, each LLLP submitted a letter that purported to authorize the party who had submitted the postponement request as the agent for that LLLP's parcel, but all of which were signed by the same person, purporting to authorize the agent for all five LLLPs, suggesting that one person was in control of all five LLLPs. In addition, news articles refer to David Evans as the principal proponent, and newspapers have claimed that David Evans retains sole discretion to select who will potentially reside in the development. See footnote 18. As one additional example, when Commission staff and the applicants disagreed about what information was necessary for Commission staff to be able to file the applications, in 2008, Commission staff took that dispute to the Commission for resolution as a single staff report, at times referring to it as a single project, and none of the applicants objected. See April 21, 2008 staff report for A-4-07-067-EDD, A-4-07-068-EDD, A-4-07-146-EDD, A-4-07-147-EDD, and A-4-07-148-EDD.

²⁷ Although most of the LLLPs authorized different attorneys to represent them in 2010, all of the LLLPs have authorized the following same agents to speak on their behalf at anytime before, during or after the Commission hears this item: (1) The Georgia Club (James Vanden Berg--project manager for the entire development of all five parcels); (2) Schmitz & Associates, Inc.; (3) California Strategies, LLC; (4) Mike Reilly; (5) Fabian Nuñez; (6) Creative Environmental Solutions; (7) Whitson Engineers; (8) LC Engineering Group; (9) Mountain Geology, Inc.; (10) Wallace Cunningham, Inc.; (11) Pamela Burton and Company; and (12) Consulting biologist, Steve Nelson.

Cunningham, Inc.; (11) Pamela Burton and Company; and (12) Consulting biologist, Steve Nelson.

28 All but one application was submitted in 2007 by Schmitz & Associates (two on July 16 and two on November 30), at which time the submitter indicated that a fifth, related application would be following shortly. The Commission did not receive the application from Ronen Properties, LLC, until June of 2008.

<u>iii. Social and Business Relationships between David Evans and the</u> General Partners of the LLLPs

Original General Partners of the Five LLLPs and Their Successors

Although there are different individuals associated with each of the five LLLPs, and most of the individuals have changed over time, creating a complicated history of management for the LLLPs, a careful analysis reveals that all of these individuals are closely related. To facilitate this analysis, each of the LLLPs, along with its principals, is presented in the following table:

CDP No.	APN	Owner	Principal ²⁹	
4-10 -040	4453-005- 037	Lunch James Vanden Berg (project		
		Properties, LLLP	manager)	
4-10- 041	4453-005- 018	Vera Properties, David Evans ("The Edge")		
		LLLP		
4-10- 042	4453-005- 092	Mulryan	Derek Quinlan (The Edge's partner ³⁰)	
		Properties, LLLP	→ Tim and Gillian Delaney ³¹ (7/2010)	
4 - 10 -043	4453-005 -091	Morleigh	Morleigh Steinberg (the Edge's wife)	
		Properties, LLLP	→ Chantal O'Sullivan (4/2010) & Lisa	
			Menichino ³²	
4-10- 044	4453-005- 038	Ronan	Jacqueline Cremin (Director of	
		Properties, LLLP	Quinlan Companies) → Dean	
		•	McKillen ³³ (4/2010)	

As the table above demonstrates, until the middle of 2010, David Evans, General Partner for Vera Properties, LLLP, had a close familial or business relationship with the principals of each LLLP, and even now, he retains a familial, business or social relationship with the successor general partners.³⁴ Moreover, the changes in management and control of the LLLPs in mid-2010 all occurred within a six month period (and most within a three month period) after Commission staff members had

³¹ Tim Delaney is listed as a General Partner and 50% owner of Mulryan Properties, LLLP, and as having authority to act for the company, and Gillian Delaney is listed as a 50% owner, each on an "Owner's Certificate" submitted under cover of an October 18, 2010 letter from Mulryan's agent, Stanley Lamport. Documents submitted to Commission staff show that Tim Delaney took on this role on June 1, 2010.

³² Chantal O'Sullivan is listed as a General Partner and 50% owner of Morleigh Properties, LLLP, and as having

²⁹ The Commission notes that the current Principals for the last three LLLPs are based on "Owner's Certificates" that state that the facts alleged therein are "true and correct as of the date below written," but none of them is dated. Nor are they signed under penalty of perjury.

³⁰ See http://www.timesonline.co.uk/tol/news/world/ireland/article6257424.ece.

³² Chantal O'Sullivan is listed as a General Partner and 50% owner of Morleigh Properties, LLLP, and as having authority to act for the company, and Lisa Menichino is listed as a 50% owner, each on an "Owner's Certificate" submitted under cover of a November 19, 2010 letter from Morleigh's agent Timi Hallem. Neither Ms. Menichino nor her agent have submitted documents indicating when she acquired 50% ownership interest in Morleigh Properties, LLLP.

LLLP. ³³ Dean McKillen is listed as a General Partner and 50% owner of Ronan Properties, LLLP, and as having authority to act for the company, in an "Owner's Certificate" submitted under cover of a November 11, 2010 letter from Ronan's agent, Paul Weinberg. According to other documents from Paul Weinberg, Dean McKillen took on this role on June 1, 2010.

³⁴ In March 2010, the applicants withdrew their application in its entirety. Subsequently, three out of the five LLLPs submitted documents evidencing that they have new general partners.

informed representatives of all five applicants, in a January 20, 2010 meeting, ³⁵ that they intended to recommend treating some combination of the parcels as a single parcel for purposes of their takings analysis, in part because of the interrelated ownerships.

Mulryan Properties, LLLP's general partner was Derek Quinlan until the recent application re-submittal. Quinlan has jointly invested in other real estate development projects with Evans, including investing in the purchase and renovation of an historic hotel in Dublin, the Clarence Hotel.³⁶ Further, news reports have indicated that Quinlan was a primary investor with Evans in purchasing the subject parcels.³⁷ In July 2010, Tim Delaney became the general partner for **Mulryan Properties, LLLP.** Tim Delaney was the vice-president for PolyGram Records for continental Europe between May 1997 and July 1999, responsible for "planning and co-ordinating the marketing and promotion of international releases in Continental Europe."³⁸ PolyGram Records produced albums for Evans' band, U2 during this time,³⁹ enabling Evans and Delaney to develop both a business and social relationship. In addition, Gillian Delaney appears to be David Evans' sister, making Tim Delaney and David Evans brothers-in-law.⁴⁰

Lunch Properties, LLLP's general partner is James Vanden Berg who is the project manager for the development of all the homes on the subject parcels. Vanden Berg retained his status as general partner even after the re-submittal of the applicants' applications.

Ronan Properties, LLLP's general manager was Jacqueline Cremin up until April 2010, when Paul Weinberg—attorney for Ronan Properties, LLLP—informed the Commission staff that Dean McKillen is now the principal of Ronan Properties. Nonetheless, both the former and current general partner of Ronan Properties, LLLP, have business ties to David Evans and Derek Quinlan. According to her LinkedIn profile, Jacqueline Cremin is the "Head of Private Office at Derek M. Quinlan...Ireland." Dean McKillen's father, Paddy McKillen, is also an investor in the Clarence Hotel project in Dublin, along with Evans and Quinlan.⁴¹

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³⁵ Present were, among other people, Don Schmitz, of Schmitz & Associates (the original agent for all five applicants, who is still authorized to speak for all the applicants), and Jared Ficker and Ted Harris, of California Strategies (who was subsequently authorized to speak for all of the applicants).

³⁶ http://www.usnews.com/science/articles/2009/05/01/the-edges-green-pitch-for-malibu-riles-residents.html
³⁷ http://www.independent.ie/entertainment/news-gossip/the-edge-tells-malibu-nimbys-im-going-to-build-my-dream-home--with-or-without-you-1719749.html. See http://articles.latimes.com/2009/apr/17/local/me-edge-malibu17; http://www.eonline.com/uberblog/b119279_U2_s_The_Edge__Malibu_s_Least_Wanted.html; http://www.timesonline.co.uk/tol/news/world/ireland/article6257424.ece; http://www.allbusiness.com/company-activities-management/company-structures-ownership/13130913-1 html

activities-management/company-structures-ownership/13130913-1.html. ³⁸http://www.linkedin.com/profile/view?id=4905162&authType=NAME_SEARCH&authToken=mxaF&locale=en_US&s rchid=04f4922d-f59d-428f-8191-c89a1adcaec2-

http://en.wikipedia.org/wiki/PolyGram; http://en.wikipedia.org/wiki/Island_Records; http://en.wikipedia.org/wiki/U2

The web site http://www.atu2.com/band/edge/ indicates that Evans has a sister named Gillian, and the Delaneys

have not denied this connection since it was asserted in the February 26, 2011 staff report. 41 http://articles.latimes.com/2008/feb/25/business/ft-bono25/2;

http://www.nytimes.com/2008/02/25/business/worldbusiness/25iht-hotel.4.10378289.html;

Finally, **Morleigh Properties, LLLP's** general partner is Chantal O'Sullivan⁴², a close friend to Evans and his wife, Morleigh Steinberg. And, of course, Morleigh Properties, LLLP, still bears the name of David Evans' wife, Morleigh Steinberg, who, until recently, was its principal.

iv. Legal Indicia of New Ownership--Lack of Market Value Reassessment of the Property and Transfer Tax Assessed upon Transfer of over 50 Percent of Partnership Interest

While three of the applicant LLLPs appeared to have undergone transfers of all or part of their ownership interest to new general partners and investors in the last year, the county records do not show a reassessment of the property held by the LLLP undergoing such a change and transfer tax paid after such a transfer of LLLP ownership. The owners have not taken the legal steps to record or otherwise document change in ownership. There are at least three forms of public documentation that indicates the change of ownership—recordation of a new deed, transfer tax payment and property reassessment. As of January 2011, none of these forms of documentation have taken place. Thus, from the lack of this documentary evidence, there has not been an actual change of ownership of the partnership property.

Based on submitted documents to the commission, in June 2010, Derek Quinlan appeared to own 100 percent of Mulryan Properties, LLLP, as well as serving as its general partner. Mr. Quinlan transferred his interest to the new general partners Tim Delaney (50%) and Gillian Delaney (50% owner-no indication of limited partner). Also in June 2010, Morleigh Steinberg appeared to own 100 percent of Morleigh Properties, LLLP and transferred all of that interest to new general partners Chantal O'Sullivan (50%) and Lisa Menichino (50%-no indication of limited partner). Sometime in April 2010, Jacqueline Cremin transferred 50 percent of her ownership interest in Ronan Properties, LLLP to general partner Dean McKillen (no indication of any other partnership interest transfer). Based on the submitted application documents, it is unclear whether Ms. Cremin retained the other 50 percent ownership as a limited partner or transferred that to another party as well.

http://www.independent.ie/opinion/analysis/the-rise-and-withdrawal-of-bubbles-leading-light-1818159.html; http://www.herald.ie/national-news/clarence-hotel-green-lighted--with-small-changes-1434871.html.

⁴² Chantal O'Sullivan is a famous antique/art dealer in Dublin, Ireland. (http://www.osullivanantiques.com/) She is noted to have been at the altar, holding the rings, for Evans and his wife during their wedding ceremony. (http://www.atu2.com/news/edge-wedding-is-a-french-connection.html.)

The Commission does not dispute Mulryan's representative's statement that, pursuant to Delaware law, a General Partner need not also be an owner. However, the evidence of Mr. Quinlan's ownership derives from other sources as well. See, e.g., the Sunday Times article entitled "€5M for my Malibu sunset, says Derek Quinlan," http://www.timesonline.co.uk/tol/news/world/ireland/article6257424.ece.

An attorney representing Mulryan Properties, LLLP, citing Delaware Code, Title 6, section 17-1401, has argued that the change of general partner in Mulryan Properties, LLLP did not represent a change in ownership because general partners, under the cited provision, do not have to be owners of the LLLP to qualify as a general partner. Staff, in researching the attorney's position, discovered that Title 6, section 17-1401 does not exist in the Delaware Code. Even if this section did exist, the applicant's attorney did not provide evidence to negate staff's conclusion that these transfers constituted a change in ownership of the respective parcels. Moreover, the other two LLLPs that appeared to have transferred ownership interest did not offer any evidence to contradict staff's conclusion. Therefore, staff finds that there is substantial evidence to support its position that three of the five LLLPs have transferred all or part of their ownership interest in 2010.

44 The Commission does not dispute Mulryan's representative's statement that, pursuant to Delaware

Pursuant to California Revenue and Taxation Code, section 64(d), if ownership interest representing cumulatively more than 50% of the total interest of a legal entity, like a foreign LLLP, is transferred by any of the original co-owners in one or more transactions, then these transactions constitute a change in ownership of the real property owned by that legal entity, requiring reassessment of the real property. This provision applies to the transfers of the ownership interest in Mulryan Properties, LLLP and Morleigh Properties, LLLP. As noted above, it is unclear if Ms. Cremin transferred over 50% of her ownership interest. Thus, based on our records, at least two of the ownership transfers—Mulryan Properties and Morleigh Properties—required recordation of a new deed to document the change in ownership and should have been reassessed by the County of Los Angeles Recorder's office. As of December 2010, six months after the transfer of ownership interest, Mulryan Properties, LLLP and Morleigh Properties, LLLP have not recorded new deeds with the County of Los Angeles and, thus, have not been reassessed nor charged a transfer tax for the transaction (Ronan Properties, LLLP has not recorded a new deed, either, with the County of L.A. as of December 2010).

v. <u>Unified Development Scheme</u>

The proposed five-house project is a coordinated development scheme. Historically, at least one previous owner of the subject property coordinated prior development schemes on the property as well. In 2004, Brian Sweeney, who owned and managed the five parcels before selling them to the current applicants, applied for coastal development permits in a coordinated manner to develop five homes on the subject property. The commission staff sent the applications back to Sweeney as incomplete, and soon thereafter, Sweeney decided to sell the parcels to the current applicants.

Currently, the present owners are coordinating a unified development scheme on the subject property. David in a website dedicated Evans, to the project. www.leavesinthewind.com, video and in released to the media. а http://www.kcet.org/socal/socal connected online/culture/the-edge-speaks.html, represents that he is in a partnership to develop the five homes and that he has presented an orchestrated development plan. The website is evidence, taken alone, that these five homes are part of a unified development scheme. Evans wrote a letter to the public on the "leaves in the wind" website. In this letter, Evans makes the following statements: (1)"I hope you will agree that my partners and I have worked diligently to design homes that meet the highest environmental standards"; (2) "Why did we go into so much effort? Because my family and I love Malibu"; and (3) "I hope the facts and background we've included on this site will reassure anyone who may have concerns about our project." In his website, Evans has a link to the design of the homes, which are all designed by the same architect, Wallace Cunningham. The designs for the homes have the same three architectural elements, including (1) integration into nature, (2) green building principles and (3) a blended road component, which will be shared by all five homes, that "is a key visual element of the landscape."

The project applicants are all seeking LEED Gold certification, as indicated on the website, in the link entitled "Sustainability." In the website, Evans represents that all five of the homes are incorporating the following design elements: (1) rainwater catchment systems; (2) "California-friendly Landscape" using native, drought tolerant plants and

integrated pest management practices; (3) "High-efficiency Water Fixtures"; (4) "Onsite Wastewater Treatment"; (5) "Passive Design"; (6) "Natural Daylighting"; (7) "High-efficiency lighting"; (8) "Radiant Floor Heating System"; (9) solar hot water and electricity; (10) electric vehicle charging stations; (11) "Rammed Earth Construction"; (12) "Forest Stewardship Council Certified Wood"; (13) "Formaldehyde Free Materials"; (14) "Low Volatile Organic Compound Paints and Finishes"; (15) "Natural Materials" including natural stone for walkways; and (16) "Construction Waste Recycling".

In the video, Evans makes claims consistent with those found on his website. In it, he says that "the first time [my wife, Morleigh, and I] saw the land, it was after searching for a site for us to build a home and almost as an afterthought this agent just handed me this document which was a proposal for five homes to be built on this land at Sweetwater Mesa....Morleigh and I decided just out of pure curiosity to go and see the land because at that point we figured it's far too big an undertaking for us—we are only interested in one house so why would we go to this trouble [to see the land].... the idea Ito develop the Sweetwater parcels was that we would find some partners to go in with us and hopefully people with the same sort of vision that we had of attempting to do something very unique and very special on the land, and that we'd all go in together and we'd do it as sort of partnership...I managed to get one of my friends interested.... and after a sort of fairly lengthy period of due diligence, we ended up putting in an offer and ended up buying the land....When we finally, myself and Morleigh and our other partners decided to go ahead and purchase the land, we wanted to do something that would be far superior to the designs that we saw in that [real estate sales] brochure." Further, Gemma O'Doherty, of the Irish Independent, wrote that "three of the houses are being built for speculative purposes to fund the rest of the development. Evans' partner in the project, Dublin financier, Derek Quinlan, will live in the fourth."45 Derek Quinlan later ran into financial problems and in an article entitled "€5M for My Malibu Sunset, says Derek Quinlan," the real estate firm of Pritchett-Rapf & Associates confirmed to the Times of London that four of the five parcels in the Sweetwater Mesa project were for sale.46 In sum, based on the this interview, Evans' intended to build only one home for himself and his family when he was looking for property in the Los Angeles area but decided to develop a partnership when the opportunity arose to develop his own home and four additional homes on Sweetwater Mesa.

c. <u>Application of Takings Law to Identify the Unit of Analysis in the Instant</u> Case

Applying the factors listed in section 2.a.iii to the facts of this case, as outlined in section 2.b, the Commission concludes that the relevant property to be analyzed for takings purpose is likely some combination of the five contiguous parcels on Sweetwater Mesa (APNs 4453-005-018, 4453-005-092, 4453-005-037, 4453-005-091, 4453-005-038). A detailed analysis of each factor follows.

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⁴⁵ http://www.independent.ie/entertainment/news-gossip/the-edge-tells-malibu-nimbys-im-going-to-build-my-dream-home--with-or-without-you-1719749.html

⁴⁶ http://www.timesonline.co.uk/tol/news/world/ireland/article6257424.ece

i. Unity of Ownership⁴⁷

The facts outlined above provide some evidence that multiple parcels, if not all of the parcels, are actually effectively owned and/or controlled by David Evans. If not, there is substantial evidence that at least some combination of them is owned by a single entity consisting of a partnership among some combination of the LLLPs, with David Evans perhaps functioning as the managing general partner.

(A) David Evans as Owner

As the Commission found in the context of a matter that came before us last December,

"ownership' for purposes of this factor of the test should not be based solely on the name on the property's title but on what entity has possession or control of the property. In a recent case, the Court of Appeal held that for purposes of merger statutes, local agencies may 'look past the paper title in determining whether properties are under common ownership' (Kalway v. City of Berkeley, (2007) 151 Cal.App.4th 827, 833). In that case, a property owner transferred title to one of two contiguous parcels that he had inherited into his wife's name, in order to avoid merger of his parcels (Id. at 831). The court upheld the City of Berkeley's conclusion that this transfer had no effect on its merger proceedings (Id. at 835-36). In a similar case, a court upheld a local government's authority to prevent applicants from circumventing the Subdivision Map Act through a scheme designed to avoid its effects (Pratt v. Adams (1964) 229 Cal.App.2d 602, 606 (holding that Santa Cruz County could deny a building permit to applicants 'where the permit is sought as the culmination of a plan to circumvent the law by one of the planners'))."

Findings in support of the Commission's December 17, 2010 action in A-3-SCO-09-001 through -003 (Frank). In addition, in one of the seminal cases establishing the single economic parcel principle (*Ciampitti v. United States* (Cl.Ct. 1991) 22 Cl.Ct. 310), in assessing just how many separate legal lots should be aggregated to serve as the relevant parcel for the takings analysis, the court looked beyond the formalistic distinctions between the owners of the subject property without even treating is as an issue worthy of discussion, simply noting it in a footnote. <u>Id.</u> at 311 n.1 (listing the fictional names and the corporation, along with the non-fictional individuals as the owners of the property without any analysis of why they nevertheless demonstrate unified ownership). Finally, even the Idaho Supreme Court recognized that "a rule that separate ownership is always conclusive against the government would be powerless to prevent landowners from merely dividing up ownership of their property so as to definitively influence the denominator analysis." *City of Coeur d'Alene v. Simpson* (2006), 142 Idaho 839, 849, 136 P.3d 310, 320. Thus, the court concluded, it could not "endorse a rule that turns a blind eye to all the relevant factual circumstances, including

⁴⁷ All articles in the "Unity of Ownership" section of the staff report were accessed online in January 2010.

the purpose, character and timing of any transfer, especially one made during the course of a takings case." <u>Id.</u>

Here, there is substantial evidence indicating that David Evans owns and/or controls all five parcels, notwithstanding the fact that title is held in five distinct limited liability limited partnerships (LLLPs). 48 Ex parte communication and several news reports indicate that David Evans bought all five parcels in 2005 (albeit through the five LLCs that were the predecessors of the current LLLP applicants). On May 4, 2009, Commissioner Steve Blank met with David Evans and his agent, Jared Ficker of California Strategies. Commissioner Blank disclosed that "Mr. Evans shared his vision of why he and his wife bought the property and their vision of why they wanted to develop all five houses as an integrated development." Further, Mr. Evans presented his plan of each of the five homes in the development, pointing out "that by controlling the architecture and design of all five houses he was able to make each of the five houses unobtrusive and designed to blend into the hillside." Similarly, on April 16, 2010, Evans and Ficker met with Commissioner Sara Wan, who then reported that Evans had told her he bought property where the "previous owner Sweeney had wanted to build 5 homes but he preferred to build homes that were environmentally friendly." They then discussed matters Evans would need to address for all five proposed homes. See Commissioner ex parte communication disclosure forms in Exhibit 22.

News reports also indicate that Mr. Evans may solely own the five parcels. Jim Vanden Berg, the project manager for the entire development was quoted in a news report⁴⁹, saying "[t]he Edge will be building his home and these other houses." In another case, he told reporters that Evans will sell some of the homes and plans to pick his neighbors. On May 1, 2009, Noaki Schwartz of the Associated Press reported that Mr. Evans and his wife bought all five parcels and plan to build a house on each parcel. Thus, from his own admissions and from news reports, it is highly plausible that Mr. Evans is, in fact, the owner and controlling the development on each parcel. ⁵²

(B) Partnership as Owner

Alternatively, there is ample evidence to sustain a finding that each of the five LLLPs is a partner in a partnership (whether an implied partnership or an express one), and that the singular purpose of the partnership is the development of these parcels, thereby creating a unity of ownership, in the name of the partnership, in at least some of the five parcels. Although the Commission has no partnership agreement or profit-sharing agreement to demonstrate the existence of any such partnership, the probative value of

The Commission recognizes that its analysis of this factor has generated the most controversy. The Commission also acknowledges that it has incomplete information with respect to this factor. Staff has compiled and presented as much information as it could obtain, and the Commission has assessed all of the information presented. The Commission can deny a project on the basis that an applicant has failed to supply adequate information to demonstrate that the project is consistent with the Coastal Act. In addition, it is worth emphasizing that this is a single factor and that the courts have not required absolute identity of ownership in every case.

⁴⁹ The Times (UK), "U2's Edge rattles Malibu peace," John Harlow, March 28, 2009.

http://www.foxnews.com/entertainment/2009/05/02/edges-mansion-acre-estate-mountains-riles-residents/.

⁵¹ Associated Press, "The Edge's green pitch for Malibu riles residents," Naoki Schwartz, May 1, 2009.

⁵² http://www.timesonline.co.uk/tol/news/world/ireland/article6257424.ece.

that absence is limited by the fact that the applicants have refused to provide business entity formation documents, agreements, or other records demonstrating the nature of their relationship. Again, though, even if there is no express partnership or profit-sharing agreement, the facts, as described below, support the existence of an implied partnership.

Evidence of Partnership or Joint Venture

General Partnership Principles Under California Law

Under the California Uniform Partnership Act of 1994 (UPA),⁵³ the association of two or more persons to carry on as co-owners [of] a business for profit forms a partnership, whether or not the persons intend to form a partnership." (Cal. Corp. Code, § 16202(a).) Similarly, a joint venture consists of two or more people jointly carrying out a single enterprise for profit. (*Weiner v. Fleischman* (1991) 54 Cal.3d 476, 482.) The UPA defines a person as "an individual...partnership, limited partnership, limited liability partnership, limited liability company... joint venture... or any other legal or commercial entity." (Cal. Corp. Code, § 16101(13).) From a legal standpoint, partnership law applies equally to joint ventures and partnerships since both relationships are virtually the same. (*Ibid.*) Considering the Edge's project is seemingly a single enterprise—joint and contemporaneous development of the Sweetwater Mesa parcels for profit— then it should be considered a joint venture. As such, even if there is no express partnership among the LLLPs, it is appropriate to apply partnership law to the facts surrounding the development project.

Partnership Formation and Purpose

Parties do not have to follow any particular formula to form a partnership. Parties may form a partnership in land ownership by parol agreement. (Perelli-Minetti v. Lawson (1928) 205 Cal. 642, 647.) Additionally, partnerships may be formed from the actions. transactions, conduct and understanding between parties. (Id. at p. 648.) Intent to form a partnership may be implied from the acts and conduct of parties. (Associated Piping & Engineering Co. v. Jones (1936) 17 Cal.App.2d 107, 110.) Courts have found a joint venture or partnership between parties who invest in property together and sell it for profit or build residential or commercial developments to sell or operate as a business. (See Arnold v. Loomis (1915) 170 Cal. 95, 97 [parol agreement to share profits conclusively indicated partnership between two parties, requiring partners to share future profits from selling remaining 8.66 acres from partnership's original 20-acre tract]; Adams v. Harrison (1939) 34 Cal.App.2d 288,297-298 [finding a partnership because 50-50 ownership of ranch property included shared costs of operating ranch and agreement to share profits of future sale of land]; Perelli-Minetti v. Lawson, supra, 205 Cal. at p. 648 [parties' acts converted tenants-in-common ownership of ranch property to partnership property because the owners farmed and operated it under a joint account].) Thus, it is immaterial that parties do not designate their relationship as a partnership or even that they may not know that they are partners because it can be

⁵³ Chapter 5 of Title 2 of the California Corporations Code (sections 16100 to 16962).

inferred notwithstanding evidence to the contrary. (Associated Piping & Engineering Co. v. Jones, supra, 17 Cal.App.2d at p. 110 [court concluded that the parties' profit sharing supported a finding of a partnership notwithstanding plausible evidence of a creditor-debtor relationship.].)

While there are no reported cases that factually parallel the underlying Sweetwater matter, "courts have not yet laid down any very certain or satisfactory definition of a joint adventure, nor have they established any very fixed or certain boundaries thereof." (*Martter v. Byers* (1946) 75 Cal.App.2d 375, 383-384.) Further, courts "have been content to determine merely whether the given or conceded facts in the particular case constituted the relationship of joint adventurers.[citation]" (*Id.* at p. 384.) Therefore, it is not fatal that there is no direct, factually identical precedent to guide our analysis in finding a partnership comprised of the Sweetwater LLLPs.

Notably, however, our Supreme Court did consider a case where individuals, not LLLPs, (though both are considered "persons" under UPA for purposes of creating a partnership) brought their individually owned parcels of land into a partnership. In Chapman v. Hughes (1894) 104 Cal. 302, 304, the court found that three parties to a syndicate agreement entered into a partnership even though they did not expressly intend to enter into such a relationship.54 The court reasoned that the parties created a partnership because the agreement "created an association of three persons for the purpose of carrying on together the business of selling the lands, and dividing the profits of that business among them. It contemplated united action in advertising and otherwise in promoting sales, and a joint expense to be incurred thereby, and further expressly provided for the payment to the syndicate of commissions on sales of other lands than those put into the syndicate." (Ibid.) Further, the court found that the partnership property consisted of the partners' respective parcels notwithstanding the fact that the partners retained title to each parcel. (Id. at pp. 304-305.) In such ownership situations, the court concluded that each partner holds legal title in trust for the partnership use. (*Id.* at p. 305.)

Typically, when parties create a partnership, each partner shares in the profits and losses of the business, contributes money, property or services and is entitled to some management and control of the business. (*Billups v. Tiernan* (1970) 11 Cal.App.3d 372, 379) (some degree of participation in management and control of business); *Mercado v. Hoefler* (1961) 190 Cal.App.2d 12, 16-17) (contribution of money, property or services); *Constans v. Ross*, 106 Cal.App.2d 386 (sharing in profits and losses of business). Partners, however, do not need to share profits and losses equally to be considered a partnership. (*Constans v. Ross, supra,* 106 Cal.App.2d 381, 389.) Further, a

⁵⁴ The plaintiffs were seeking to enforce the syndicate agreement, to reap profits, even though there was a subsequent agreement affecting the rights of each party. (*Chapman v. Hughes, supra,* 104 Cal. at p. 303-305.) Ultimately, the court held that the subsequent agreement superseded the syndicate agreement, thereby affecting the rights of each partner. (*Id.* at p. 305) This conclusion, however, was independent from its finding that the syndicate agreement constituted a partnership. Therefore, even though the subsequent contract eliminated the terms of the syndicate agreement, this finding did not affect the court's prior conclusion finding that the syndicate agreement constituted a partnership.

partnership may also exist even if there is an unequal apportionment of management duties. (*Id.* at p. 388-389; *Associated Piping & Engineering Co. v. Jones, supra*, at 111.)

Here, the five Sweetwater Mesa LLLPs appear to be operating as a joint venture in developing the five parcels. Again, a joint venture consists of two or more people jointly carrying out a single enterprise for profit. (Weiner v. Fleischman, supra, 54 Cal.3d at p. 482.) First, David Evans has created a website, www.leavesinthewind.com, devoted to educating the public about the Sweetwater Mesa development. In this website, he solely represents the project partners in statements about the project. Specifically, he writes: "Thanks for taking the time to look over the information on this website. I never thought I would have to resort to this form of communication, but because of recent inaccurate media coverage, I felt compelled to set the record straight." Further, he writes: "I hope you will agree that my partners and I have worked diligently to design homes that meet the highest environmental standards." Evans continues, saying: "I hope the facts and background we've included on this site will reassure anyone who may have concerns about our project. I know how quickly rumors can spread and misinformation can multiply. We've tried to address those as fully as possible. The California coast is a true national treasure, and I believe in responsible design that honors such a unique location. I am confident we have done just that." At the end, Evans electronically signs the bottom with "The Edge." In relation to joint venture attributes, these admissions from Mr. Evans indicate that he and the other four LLLPs are jointly developing the Sweetwater project as a single enterprise.

Relationships Among the Partners

Second, while the project applications give the appearance that there are five separate applicants, each owning its own parcel as an LLLP, there is ample evidence suggesting that the general partners of each LLLP are so interconnected with Evans that the Commission should conclude that each LLLP is a partner in a single project. There is ample evidence that shows that Evans, general partner of Vera Properties, LLLP, and Tim Delaney, general partner of Mulryan Properties, LLLP, were in business together during the 1990s when Tim Delaney was an executive for the record label that produced Evans' band, U2's albums, and generated vast profits for both parties. Moreover, Tim Delaney only assumed the role of general partner of Mulryan Properties, LLLP, or took any ownership in it, in June of last year, soon after Commission staff told the applicants that they intended to aggregate some of the subject parcels for purposes of their analysis because of the interrelated ownerships. Prior to that, the sole principal was Derek Quinlan, the Edge's business partner in other real estate developments. Further, Gemma O'Doherty, of the Irish Independent, wrote that "three of the houses are being built for speculative purposes to fund the rest of the development. Evans' partner in the project, Dublin financier, Derek Quinlan, will live in the fourth."55 While the documents that the applicants recently submitted to Commission staff don't demonstrate any continuing involvement by Quinlan, it is significant to note the original intent of the venture by way of citing these articles. Other news outlets have similarly reported that

⁵⁵http://www.independent.ie/entertainment/news-gossip/the-edge-tells-malibu-nimbys-im-going-to-build-my-dream-home--with-or-without-you-1719749.html.

Evans and Quinlan are partners in the project. Thus, if the news reports are truly accurate, Evans and Delaney (originally, Quinlan) should be considered the primary partners in a joint venture to develop the Sweetwater Mesa parcels because Delaney has acquired Quinlan's interest in the development and is now Evans' primary partner.

As noted above, the general partners of the three remaining LLLPs—Lunch Properties, Morleigh Properties and Ronan Properties—have social or business relationships with Evans, indicating a joint effort to develop their Sweetwater Mesa parcels. In fact, Lunch Property, LLLP's general partner, James Vanden Berg, is the project manager for the development of all the homes on Sweetwater Mesa; and until the disclosure of Commission staff's intent in early 2010, the principal of another (Morleigh Properties, LLLP) was Evans' wife. Vanden Berg has been quoted in news reports, which identify him as Evans' project manager, justifying the green design of the five homes and asserting that the road will not be used for any further development.⁵⁷ In another report, the press quoted "Vanden Berg, his project manager," as saying that "[t]he Edge will be building his home and these other houses to the highest environmental standards"58 (emphasis added). Vanden Berg also told reporters that Evans will sell some of the homes and plans to pick his neighbors. 59 The L.A. Times identified Vanden Berg as "a representative for Evans and his *partner* in the venture, Irish real estate investor Derek Quinlan."60 Further, in that article, Vanden Berg indicates that Evans has taken measures "to ensure that the development will 'create a sense of place that respects the environment [and] architecture that will stand the test of time." It is odd that Vanden Berg, a general partner of one of the LLLPs, which claims independent ownership of one of the lots, would make statements indicating that he does not have a say in how Evans will develop or sell these homes. Thus, from this evidence, it is apparent that Vanden Berg solely serves as the spokesperson and administrative assistant (aka project manager) for the development regardless of his status as a general partner of Lunch Properties, LLLP.

The only currently identified general partner of Ronan Properties, LLLP, is Dean McKillen (originally, Jacqueline Cremin^{62 63)} who is the son of one of the most successful

⁶²Notably, Olan Cremin is the CEO of Quinlan's development company, Quinlan Private. (http://www.quinlanprivate.com/;

http://business.timesonline.co.uk/tol/business/industry_sectors/construction_and_property/article6690105.ece.) While it is unclear how, or if, Jacqueline Cremin is related to Olan Cremin, it is worth mentioning because it tends to fortify the connection that Cremin may be merely a straw-woman for the Sweetwater Mesa project.

⁵⁶ See http://articles.latimes.com/2009/apr/17/local/me-edge-malibu17; http://www.eonline.com/uberblog/b119279_U2_s_The_Edge__Malibu_s_Least_Wanted.html; http://www.timesonline.co.uk/tol/news/world/ireland/article6257424.ece; http://www.allbusiness.com/company-activities-management/company-structures-ownership/13130913-1.html.

⁵⁷ http://www.foxnews.com/entertainment/2009/05/02/edges-mansion-acre-estate-mountains-riles-residents/.

http://www.timesonline.co.uk/tol/news/world/us_and_americas/article5992994.ece.

⁵⁹ http://www.foxnews.com/entertainment/2009/05/02/edges-mansion-acre-estate-mountains-riles-residents/.

http://articles.latimes.com/2009/apr/17/local/me-edge-malibu17.

⁶¹ Ibid.

⁶³ In a letter dated April 5, 2010, almost two years after staff completed Ronan Properties, LLLP's application which represented to the staff that Jacqueline Cremin is the general partner of that LLLP, Paul Weinberg, Esq. Represented that Dean McKillen is Ronan's general partners. Mr. Weinberg failed to provide any documentation from the Delaware Secretary of State (Ronan Properties, LLLP is a Delaware entity) that Mr. McKillen is now Ronan's general partner. Even if Mr. Weinberg is correct in alleging this fact, it does not change the conclusion that these five LLLPs

real estate developers in Ireland, Paddy McKillen. Paddy McKillen has invested in various real estate ventures with Evans and Quinlan in the past. Finally, Morleigh Properties, LLLP general partner is Chantal O'Sullivan who is Evans' and his wife's very close friend, so much so that she was on the altar with the couple, holding the rings at their wedding ceremony. (Originally, Morleigh Steinberg was the general partner, who is Evans' wife of seven years ⁶⁴). Thus, the past and current general partners of these LLLPs, while seeming to be independent applicants, are actually intricately related. Although this provides only circumstantial evidence of their partnership, it is, at a minimum, consistent with the conclusions reached in the prior section, regarding the partnership formation and the conclusion that the individuals involved are all acting in concert to jointly develop their respective parcels. As such, each LLLP should be considered a partner in this joint venture.

Suspect Management Modifications

Third, the lack of recordation of new deeds with the County of Los Angeles Recorder's office for the apparent transfer of 100 percent of the ownership of at least Mulryan Properties and Morleigh Properties (and possibly Ronan Properties) provides further evidence that the joint venture has attempted to bolster the façade of separate ownership and control even though the LLLPs are operating as partners in a joint venture. Both Morleigh Properties and Mulryan Properties submitted Owners' Certificates that appear to certify that each of those LLLPs' is owned in entirety by two individuals. The two Owner's Certificates for Morleigh Properties indicate that Lisa Menchino is "a 50% owner" and Chantal O'Sullivan is "the general partner and 50% owner" of that LLLP. The two Owner's Certificates for Mulryan Properties indicate that Gillian Delaney is "a 50% owner" and Tim Delaney is "the general partner and 50% owner" of that LLLP. Under California Revenue and Taxation Code, section 62(a)(2), a transfer of ownership

"that results solely in a change in the method of holding title to the real property and in which proportional ownership interests of the transferors and transferees . . . in each and every piece of real property transferred, remain the same after the transfer"

does not constitute a "change in ownership." (See Rev. & Tax. Code, § 62(a)(2).) However, under section 64(d),

"[w]henever shares or other ownership interests representing cumulatively more than 50 percent of the total interests in the entity are transferred by any of the original coowners in one or more transactions, a change in ownership of that real property owned by the legal entity shall have occurred, and the property that was previously excluded from change in ownership under [section 62(a)(2)] shall be reappraised."

are joint venture partners. Dean McKillen is even more connected with Quinlan and Evans in real estate joint ventures in Ireland than Ms. Cremin. Patrick "Paddy" McKillen, Dean's father, is mentioned in several UK media outlets as a partner with Evans and Quinlan in a real estate venture in Dublin. In a May 10, 2009 news article, Colin Coyle of the TimesOnline, a UK media outlet, stated that "The Edge and Quinlan are also partners in the redevelopment of the five-star Clarence hotel in Dublin, along with Bono and Paddy McKillen, a property developer." http://www.atu2.com/band/edge/; http://en.wikipedia.org/wiki/The_Edge#cite_note-edge-bio-6.

(See Rev. & Tax. Code, § 64(d).) Section 64(d) applies here because the applicants transferred their real property interests from a California limited partnership to a Delaware limited liability limited partnership with the same percentage ownership, which is why the newly formed LLLPs did not have to re-record new deeds and have their property reassessed. The most recent transfer of ownership, based on the documents submitted by Morleigh Properties and Mulryan Properties, indicates that there has been a cumulative transfer of 100 percent ownership interest in these respective LLLPs. However, if there were a transfer of 100 percent interest, then this would constitute a change in ownership, would require the county to reassess the property value for taxation purposes, and should require re-recordation of new deeds—none of which has occurred as of January 2011, seven months after the apparent transfer of these ownership interests.

In the absence of these two LLLPs—Morleigh and Mulryan—re-recording new deeds, there are two plausible arguments: (1) they mistakenly believed that re-recordation of the deeds was not necessary or (2) the Delaware Code provisions pertaining to limited partnerships enabled these two entities to create multiple layers of general partners, limited partners and partnership interests. (6 Del. Code, §17-218.) Given the applicants sophistication, the latter option appears to be the most plausible. Title 6 of the Delaware Code, section 17-218(a) provides:

"A partnership agreement may establish or provide for the establishment of 1 or more designated series of limited partners, general partners, partnership interests or assets. Any such series may have separate rights, powers or duties with respect to specified property or obligations of the limited partnership or profits and losses associated with specified property or obligations, and any such series may have a separate business purpose or investment objective."

The Commission does not have access to the various LLLPs' partnership agreements because the applicants have declined to provide them. ⁶⁵ We may, therefore, point to suspicious activities from the facts that we do have in our possession, namely, the fact that the apparent change in ownership of the real property held by Morleigh Properties and Mulryan Properties did not result in recordation of new deeds and subsequent reappraisal. From this fact, staff concludes that the applicants' submitted Owners' Certificates do not represent the actual ownership interest in those entities. Rather, staff concludes that the only way that this transfer of ownership interest could take place without triggering Revenue and Taxation Code, section 64(d) is if the applicants created more than 1 series of general partners and partnership interests. Thus, Chantal O'Sullivan and Tim Delaney are general partners in an additional series of general partners for a purpose described in their respective partnership agreements and Lisa Menichino and Gillian Delaney are owners of an additional series of partnership interests, both series designations being created to give the appearance that these four individuals are the sole owners of each LLLP.

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⁶⁵ The issue of the relationship between the applicants has been at the forefront of the issues in contention at least since the Commission's consideration of the dispute over the completeness of the initial applications in May, 2008. See pages 11-12 of April 21, 2008 staff report for A-4-07-067-EDD, A-4-07-068-EDD, A-4-07-146-EDD, A-4-07-147-EDD, and A-4-07-148-EDD.

Unified Development Scheme and Project and Property Management

Fourth, the Sweetwater Mesa project and the five LLLPs have engaged in a cohesive development plan, indicative of a joint venture. As noted above, there is a single website dedicated to the project, www.leavesinthewind.com. That project website lists two people in its "Design team" page: architect Wallace E. Cunningham, and landscape architect Pamela Burton. Further, on the website's "Project Design" page, the proposed homes are jointly described as being integrated into nature and consistent with green building principles. 66 Additionally, each of the five LLLPs acquired an easement for utilities, ingress and egress from Ed West Coast Properties, LLLP (James Vanden Berg is the principal of Ed West Coast). As a result, Lunch Properties LLLP filed an application with the Malibu Planning Commission to acquire a permit to construct a road consistent with the easement parameters.67 In September 2008, the Planning Commission granted the permit to construct the road, providing a condition that the approval of the application is to provide exclusive access to the five Sweetwater Mesa lots. 68 This road will be the only form of ingress and egress for all five homes. Further, James Vanden Berg manages the project and, notably, is responsible for paying the property taxes for all the Sweetwater Mesa parcels. Additionally, as noted above, all five LLLPs are using the exact same entities or people as agents to represent them during the entitlement process. The five LLLPs have also coordinated their permitting efforts with the Commission in the following ways: (1) the first application submittals for all five LLLPs were submitted as related applications and deemed filed on Jan. 8, 2009; (2) all five of the LLLPs' first applications were withdrawn at the same time on Aug. 26, 2009; (3) all five LLLPs filed their second round of applications on the same day, on Aug. 26, 2009; (4) all five LLLPs withdrew the second application on the same day, Apr. 22, 2010; and (5) all five LLLPs filed their third application for the project on the same day, Nov. 17, 2010. Finally, the five LLLP applicants intend to share the use of the utility lines necessary to develop the sites. Taken together, the five LLLPs are clearly acting in concert to coordinate home and landscape design, road construction and utility installation. Thus, the five LLLPs should be considered partners in a joint venture to develop the Sweetwater Mesa parcels.

Fifth, each of the parcels has its own recordation history, but the uniformity among those histories strongly suggests coordinated efforts by a single entity. There are six parcels involved in the development, including the parcel owned by Ed West Coast Properties, LLC (general partner--James Vanden Berg). The following provides the cohesive qualities of the recordation histories: (1) The Governor and Company of The Bank of Ireland is the lender-beneficiary and Fidelity National Title is the trustee for all

⁶⁶ http://www.leavesinthewind.com/PROJECT/tabid/59/Default.aspx;

http://www.leavesinthewind.com/PROJECT/HomePlans/tabid/70/Default.aspx.

⁶⁷ http://www.ci.malibu.ca.us/download/index.cfm/fuseaction/download/cid/12713/.

⁶⁸ http://www.ci.malibu.ca.us/download/index.cfm/fuseaction/download/cid/13411/; An appeal is currently pending on this permit issuance.

⁶⁹ All properties are still held in LLC entity formation, and none of the entities has transferred ownership to the LLLP entities. For the purposes of this recordation paragraph, we use the LLC designation for the properties as they exist on record.

six Deeds of Trust; (2) the six Deeds of Trust, all recorded on January 23, 2006, for the properties, have the same loan amount of \$1,750,000 each; (3) the six Deeds of Trust for the six properties were recorded sequentially as Mortgage Document Numbers 06-0151045, 046, 047, 048, 049 and 050; (4) in all six Grant Deeds, the recording was requested by one person, Derek M. Quinlan, who requested the property tax statements for all six parcels to be sent to Derek M. Quinlan C/O James Vanden Berg, The Georgia Club, 1050 Chancellors Drive, Statham, CA 30666; (5) instrument Number 06-0151044 was a Grant of Easement from Ed West Coast Properties, LLC to Vera, Mulryan, Lunch, Morleigh and Ronan Properties LLC, identifying the 5 subject properties as parcels 1 through 5 with the Ed West Coast Properties, LLC property as parcel 6; (6) in 2005, Grant Deeds with Instrument Numbers 2890957, 58, 60, 61, 62 and 63 transferred title for Parcels 6, 4, 5, 3, 2 and 1 to Ed West Coast Properties, Lunch Properties, Vera Properties, Ronan Properties, Mulryan Properties and Morleigh Properties, LLCs, respectively; (7) each LLC entity has the same address for their principal place of business; and (8) each Deed of Trust was returned to the same law firm in San Francisco, Paul, Hastings, Janofsky & Walker LLP. Taken together, it is overwhelmingly evident that there is a joint and simultaneous effort to manage the recordation of the subject properties, suggesting that these parcels are, in fact, operating under the control of one entity, a joint venture.

Profit Motive

Finally, the partners are engaging in the venture for a profit. As noted above, the partners intend to sell three of the five homes to, at least, pay for the entire project. Further, even if they did not build homes on the parcels, Evans, apparently in total control of the project, has had intentions to profit from merely owning the project parcels. In an Associated Press news report, Noaki Schwartz reported that "Evans recently listed the lots for \$7.5 million each." Even though Evans has not placed a potential price tag on the finished homes, it is evident that he would profit from the finished homes if the lots could potentially sell for over four times what the partners paid for each lot. Even though each LLLP holds title in their respective properties, court found that the partnership property consisted of the partners' respective parcels notwithstanding the fact that the partners retained title to each parcel. (*Chapman v. Hughes, supra*,104 Cal. at pp. 304-305.) In such ownership situations, the court concluded that each partner holds legal title in trust for the partnership use. (*Id.* at p. 305.) Thus, the Sweetwater Mesa project should be considered a joint venture, for profit, between the five LLLPs.

It is worth noting that it is not at all unusual for individuals to organize their business entities under Delaware partnership law and to use the flexibility provided by that law to limit the transparency of those entities. It is possible that the applicants here have done so to advance the impression that each LLLP is a distinct, independent entity.

 $^{^{70}\} http://www.independent.ie/entertainment/news-gossip/the-edge-tells-malibu-nimbys-im-going-to-build-my-dream-home--with-or-without-you-1719749.html.$

http://www.usnews.com/science/articles/2009/05/01/the-edges-green-pitch-for-malibu-riles-residents.html.

⁷² Realquest documents for each parcel reveal that each parcel is secured by a \$1.75million mortgage.

Delaware law provides LLLPs with adequate safeguards for project proponents to place title in a straw-entity while still ensuring that the primary investors have total control over management of the property and relevant project. Under Title 6 Delaware Code, section 17-403, subdivision (c), "a general partner of a limited partnership has the power and authority to delegate to 1 or more other persons the general partner's rights and powers to manage and control the business and affairs of the limited partnership, including to delegate to agents, officers and employees of the general partner or the limited partnership, and to delegate by a management agreement or another agreement with, or otherwise to, other person." This delegation by a general partner, however, "shall not cause the general partner to cease to be a general partner of the limited partnership or cause the person to whom any such rights and powers have been delegated to be a general partner of the limited partnership." (6 Del. Code, § 17-403(c).) While the applicant has not submitted any partnership operating agreements between the subject-applicant LLLPs to prove delegation, it is important to note that California partnership law does not provide a similar option for limited partnership management by general partners. (See Corp. Code, § 15904.02.) Rather, California law requires the general partners to manage the partnership without the ability to delegate these duties to another person. (See Corp. Code, §§ 15904.02, 15904.06.) Thus, it is possible that, by converting from a California LLC to a Delaware LLLP, Evans may be seeking to maintain the control of the development while giving the appearance that each parcel is owned by separate and independent LLLPs and their respective general partners. The Commission, however, may not base its section 30010 takings decision solely on this point. Rather, it can view this circumstantial evidence in light of the surrounding evidence provided throughout this report.

Evidence of Partnership/Joint Venture Ownership of the Subject Lots

Land standing in the name of an individual partner can become partnership property without actually formally transferring title to the partnership. In assessing whether that has occurred, a court turns to (1) Corporation Code, section 16204 and/or (2) the conduct and course of dealing between the partners to ascertain their intention to make a partner's separately-titled property a partnership asset. (*Perelli-Minetti v. Lawson, supra*, 205 Cal. at p. 648; *Esswein v. Rogers* (1963) 216 Cal.App.2d 91, 96.) Corporation code, section 16204(c) provides that:

"[p]roperty is presumed to be partnership property if purchased with partnership assets, even if not acquired in the name of the partnership or of one or more partners with an indication in the instrument transferring title to the property of the person's capacity as a partner or of the existence of the partnership."

Here, the following factors lend support to a finding that partnership assets were used to purchase the parcels for this development: (1) the six Deeds of Trust, all recorded on January 23, 2006, for the properties have the same loan amount of \$1,750,000; (2) each Deed of Trust was returned to the same law firm in San Francisco, Paul, Hastings, Janofsky & Walker LLP; (3) the six Deeds of Trust for the six properties were recorded as Instrument Numbers 06-0151045, 046, 047, 048, 049 and 050; (4) instrument Number 06-0151044 was a Grant of Easement from Ed West Coast Properties, LLC to

Vera, Mulryan, Lunch, Morleigh and Ronan Properties LLC, identifying the 5 subject properties as parcels 1 through 5 with the Ed West Coast Properties, LLC property as parcel 6; and (5) The Governor and Company of The Bank of Ireland is the lender-beneficiary and Fidelity National Title is the trustee for all six Deeds of Trust. The cohesive details of the deeds of trust are not happenstance. In fact, they indicate that each partner LLLP joined in a concerted effort, as a partnership, to secure loans to purchase their respective parcel for the partnership purpose of jointly developing the properties for profit. Furthermore, as noted in news reports above, Evans and Quinlan bought the subject property together as partners and planned to build the five homes as one cohesive development on Sweetwater Mesa. Thus, considering the partnership between Evans and Quinlan and the sequence of events to secure and transfer title of the property, the loans used to purchase the parcels should be considered a partnership asset, therefore satisfying the requirements in Corporations Code, section 16204(c).

Additionally, even if the assets used to purchase the property cannot be treated as partnership assets, so Section 16204(c) does not create the presumption that the property is partnership property, the contrary presumption can be overcome by the conduct and course of dealing between partners if it indicates their intention to make a partner's separately-titled property a partnership asset. For instance, a partner's separate real property may become partnership property if he or she devotes that property to partnership purposes, notwithstanding the fact that the partnership, as an entity, does not hold title to the property. (See Zanetti v. Zanetti (1947) 77 Cal.App.2d 553, 559.) As a result, the "joint venturer holding the property for the joint venture is a trustee for his coventurer and this is so though he purchased the property with his own funds." (Epstein v. Stahl, supra,176 Cal.App.2d at pp. 57-58.) The use of the property for partnership purposes is "the chief criterion in determining whether [the] property is or is not that of the firm." (Zanetti at 559, citing 40 Am.Jur. § 89, p. 191.) Here, there is substantial evidence of a partnership purpose to develop all five parcels to generate revenue to support the other two. Thus, the three parcels to be sold are inherently being used for the partnership purposes, and at a minimum, those three parcels appear to be partnership property.73 In these situations, "[a] partnership interest does not entitle a partner to any particular portion of the business assets, but merely gives the partner a right to an accounting." (*Ibid.*)

Our Supreme Court has issued one noteworthy opinion, cited above, that applies the principles governing the conversion of a partner's separately owned parcel into partnership property. In *Chapman v. Hughes*, the California Supreme Court found that three partners contributed their individually owned parcels for partnership purposes—selling the land and dividing the profit—and, thus, became partnership property, notwithstanding their agreement that each should maintain individual title to the parcels. (*Chapman v. Hughes, supra,* 104 Cal. at pp. 304-305.) The court also found that the partners could have even created this partnership structure even if they did "not expressly intend to create such a relationship." (*Id.* at p. 304.) While the court was brief

⁷³ As an aside, oral agreements to use a partner's property for a joint venture do not violate the statute of frauds "because creation of the joint venture ha[s] the effect of vesting title to the property in the [partnership] entity, making a formal conveyance unnecessary." (*Kaljian v. Menezes* (1995) 36 Cal.App.4th 573, 584.)

in its opinion, subsequent Supreme Court opinions or legislative authority have not superseded these basic principles governing partnership property.

Here, the course of dealing between the five LLLPs is such that the five LLLP parcels should be considered joint venture property. The partners have engaged in a manner consistent with a finding that each LLLP has devoted its property for partnership/joint venture purposes. In the original partnership structure, Quinlan and Evans were engaged in real estate ventures in Dublin and the facts noted above indicate the same in this case. There is no indication from the submitted materials that the addition of Tim Delaney to the partnership as general partner of Mulryan Properties, LLLP, would alter the finding of a venture in this matter. Furthermore, the venture is evident because the partnership anticipates selling three of the finished homes for a profit to pay for the entire project. Thus, but for the LLLPs conduct in devoting their respective parcels for this purpose, the joint venture would not be able to make a profit. Thus, the joint venturers, the five LLLPs, have each devoted their parcels for the benefit of the joint venture. Therefore, the LLLPs' parcels have effectively become joint venture property, subject to the goals of the venture, namely, to profit from the sale of three homes.

(C) Conclusion

Commission staff issued proposed findings (including this section regarding ownership of the subject property) in substantially the same form on January 27, four months prior to their re-release for the Commission's June meeting. Although representatives of at least three of the applicants (Mulryan, Morleigh, and Ronan) have denied any unity of ownership among themselves and objected to staff's contrary conclusions, in those intervening four months, only one of them submitted anything to staff suggesting a potential flaw in staff's analysis, 74 and none of them has presented any actual evidence to support their contrary positions. Thus, there remains substantial evidence of some sort of unified ownership; and whether the lots are, in reality, all controlled by David Evans, or whether there is a true partnership among distinct property owners, both Mr. Evans' ownership and/or control, and the evidence of the joint venture's ownership of at least some of the parcels, must be taken into account for purposes of identifying the relevant unit of analysis for the necessary takings review. 75 Under the Coastal Act, "any person, as defined in Section 21066, wishing to perform or undertake any development in the coastal zone...shall obtain a coastal development permit." (Pub. Res. Code, Public Resources Code, section 21066 defines person business...limited liability company...." person...partnership, Finding that the Sweetwater Mesa project's partners have been conducting business as a joint venture,

Mulryan's attorney, Stanley Lamport submitted a letter on March 4, 2011. However, even that was primarily focused on a single issue (whether ownership of the LLLPs, as opposed to control, had changed in 2010), and although it critiqued the analytic path staff used to come to its conclusion that there was a change in ownership, it did not provide any actual evidence rebutting that ultimate conclusion.
Again, the Commission has not been given access to the agreements or other documents explaining how the

⁷⁵ Again, the Commission has not been given access to the agreements or other documents explaining how the various business entities are managed and controlled. The Commission's position is subject to alteration if the applicants do eventually provide such documentation and, contrary to the weight of the evidence currently before the Commission, they establish true, separate ownership of the lots in question and the absence of a partnership or joint venture.

then, the "person", under the Coastal Act, that is performing or undertaking this development may be this partnership.

Finally, although the Commission is well aware of the fact that it does not have all of relevant information here, that is largely due to the applicants' unwillingness to share additional information. In that regard, it is worth noting that the Commission is legally authorized to (and often does) either decline to act on an application or deny an application on the basis that the applicant has failed to provide evidence demonstrating how the project can be deemed consistent with the Coastal Act. For the reasons indicated above, the commission considers Mr. Evans or the joint venture as the unified owner of at least three of the parcels.

ii. Degree of Contiguity

As indicated above, the unity of ownership issue discussed in the previous dozen pages is only one of several factors that the court consider when identifying the area to be treated as the relevant parcel for a takings analysis. Courts also consider whether parcels are physically adjacent when determining whether to aggregate the parcels in a takings analysis. Geographical contiguity of the parcels weighs in favor of aggregation. (Ciampitti v. United States, supra, 22 Cl. Ct. at 319; see also District Intown v. District of Columbia, supra, 198 F.3d at 880; Forest Properties, Inc. v. U.S. (1997) 39 Fed. Cl. 56, 73, affirmed, Forest Properties, Inc. v. U.S., 177 F.3d 1360, 1365 (Fed. Cir. 1999).) In this case, the subject Sweetwater Mesa parcels are all contiguous parcels.

iii. Dates of Acquisition

Courts also consider the dates of acquisition of the relevant parcels. If a single owner acquires parcels on the same day or even within two to five months apart, this weighs in favor of aggregation. (See *Walcek v. U.S.* (2001) 49 Fed.Cl. 248, 260.) In the present case, the owners of the parcels acquired each parcel on the same day, November 22, 2005.

iv. Extent to which the Parcels have been Treated as a Single Unit

Courts are inclined to aggregate parcels when they are treated as one income-producing unit or when they comprise a single, comprehensive development scheme. (Norman v. U.S. (Fed. Cl. 2004) 63 Fed.Cl. 231, 257-259, affirmed, Norman v. U.S. (Fed. Cir. 2005), 429 F.3d 1081.) Courts are also more likely to aggregate when a plaintiff finances and purchases property as a single parcel. (Ciampitti, 22 Cl. Ct. at 319.) Courts also consider whether a plaintiff has treated subdivided lots of a single parcel differently for accounting or management purposes. (District Intown, supra, 198 F.3d at 880.) In District Intown, the plaintiff purchased an apartment building and an adjacent landscaped lawn as a whole in 1961 and treated it as a single, indivisible property for more than 25 years. (Ibid.) Despite the eventual subdivision of the lawn parcel into 8 lots, the court found that the plaintiff did not treat the parcels differently for accounting or management purposes. In particular, the plaintiff's failure to distinguish

lawn maintenance fees from the overall apartment building maintenance fees warranted the court's decision to treat the lots as a single parcel. (*Ibid.*)

Historically, the parcels have been held together and managed as a unit. Based on the chain of title Commission staff reviewed, for at least the last 50 years, the Mulryan and Ronan parcels have followed identical paths, having the exact same owner or proportionate owners and being conveyed from one to the next at the same time. The Lunch and Morleigh parcels also followed identical paths, and with two minor exceptions, it was the exact same path followed by the Mulryan and Ronan parcels. Finally, the Vera parcel history is incomplete, but the data that is available shows it following the same path as well.

Previous owners of the subject property have also coordinated prior development schemes on the property. In 2004, Brian Sweeney, who managed the five parcels before selling them to Evans, applied for coastal development permits in a coordinated manner to develop five homes on the subject property. The commission staff sent the applications back to Sweeney as incomplete and soon thereafter Sweeney decided to sell the parcels to Evans subsequent to this incomplete application submittal.

Here, the five subject properties have been treated as a single unit because all of the parcels at issue in this development are: (1) controlled by a single, comprehensive development scheme; (2) funded with partnership assets; (3) project-managed by one person, James Vanden Berg; and (4) owned cohesively as one unit for the past 50 years. First, David Evans has created a website to catalog the current development project,78 which presents a unified residential development scheme for all of the parcels. In particular, one architectural firm has designed all of the homes, which, while not structurally identical, are aesthetically linked, and one landscape architect has designed a plan for the overall surrounding environment. Also, each of the five LLLPs acquired an easement for utilities, ingress and egress from Ed West Coast Properties, LLLP (James Vanden Berg is the principal of Ed West Coast). As a result, Lunch Properties LLLP filed an application with the Malibu Planning Commission to acquire a permit to construct a road consistent with the easement parameters.79 In September 2008, the Planning Commission granted the permit to construct the road, providing a condition that the approval of the application is to provide exclusive access to the five Sweetwater Mesa lots. 80 Further, there is a joint effort to install the required utilities for the entire development. Finally, all five applicants recently entered into a coordinated deal with the Santa Monica Mountains Conservancy and the Mountains Recreation and

⁷⁶ Both were held by jointly Edward Fischer (as to 50%) and Alfred Linke (as to 50%) in 1959, with Linke conveying his 50% interest in each to Stephen Vernon in 1973, Vernon's interest then going to Colleen Taylor in 1990 when she recorded an earlier quitclaim deed from him, Fischer conveying his 50% interest to James Biava in 1994, and Biava and Taylor both conveying their 50% interests to Brian Sweeney (in his individual capacity in the case of the Ronan parcel and as manager of an LLC in the case of the Mulryan parcel) in 2001.

⁷⁷ In the case of the Lunch and Morleigh parcels, Sweeney took title to both through LLCs in 2001, and Sweeney acquired his interest directly from Vernon (and Biava) without Colleen Taylor as an intermediary between Vernon and Sweeney.

⁷⁸ See http://www.leavesinthewind.com/.

http://www.ci.malibu.ca.us/download/index.cfm/fuseaction/download/cid/12713/.

⁸⁰ http://www.ci.malibu.ca.us/download/index.cfm/fuseaction/download/cid/13411/; An appeal is currently pending on this permit issuance.

Conservation Authority to secure those agencies' agreement not to oppose these applications, notwithstanding a critical letter that they had sent previously. The Public Benefits Agreement refers to all of the development at issue in these applications as "the Project." Taken together, the five LLLPs are clearly acting in concert to coordinate home and landscape design, road construction and utility installation. Second, Evans and his partners purchased the parcels at the same time with partnership assets —each LLC secured mortgages from the same bank, the Bank of Ireland on the same day, January 20, 2006 and recorded each parcel's mortgage on the same day, January 23, 2006, with all five mortgages (plus two associated documents) given sequential document numbers (151044 (road easement grant deed to all five LLCs), 151045 (Morleigh), 151046 (Ed West Coast Properties, Jim Vanden Berg as Co-Manager—road parcel), 151047 (Ronan), 151048 (Mulryan), 151049 (Vera), 151050 (Lunch). Third, there is only one project manager, James Vanden Berg, who is overseeing the development for all five homes. Finally, David Evans attested to the existence of a partnership in a relatively scripted monologue posted on KCET's website, a southern California media outlet.81 These factors, coupled together, indicate that the five parcels have been treated as a single unit.

v. Conclusion Regarding Unit of Analysis

As the Court of Claims has put it, "a taking can appear to emerge if the property is viewed too narrowly. The effort should be to identify the parcel as realistically and fairly as possible, given the entire factual and regulatory environment." (Ciampitti v. United States, supra, 22 Cl. Ct. at 319.) The four factors discussed above are the primary ones on which courts have focused in making aggregation determinations. The facts in the present case clearly support aggregation. With respect to the fourth factor (unity of ownership), the applicants argue strenuously that each is an independent entity, so that this one factor does not support aggregation. However, as noted above, this Commission has recently concluded that it can and should look beyond the surface transactions in cases where there is some evidence that ostensibly separate ownership is actually more complicated. See Commission findings for A-3-SCO-09-001 through -003 (Frank), December 17, 2010. After an extensive review of the information available regarding the fourth factor, ownership does not seem separate. The Commission finds that there is substantial evidence of sufficient unity of ownership of at least three parcels, and with the other criteria for aggregation being satisfied, it finds that it must treat the relevant area for its takings analysis as something less than the five separate parcels presented by the applicants. With that as its basis, the Commission's takings analysis follows.

d. Application of Takings Law to the Relevant Area in the Instant Case

i. The Denial of the Project Would Not Constitute a Categorical Taking

As discussed above, the first test for a takings analysis is whether there has been a

⁸¹ http://www.kcet.org/shows/socal_connected/content/culture/the-edge-speaks.html.

categorical taking of property under the *Lucas* standards. To constitute a categorical taking, the regulation must deny all economically viable use of property; in other words, it must render the property "valueless" (*Lucas, supra,* 505 U.S. at p. 1012). If the property retains any value following the Government's action, the *Lucas* categorical taking formulation is unavailable and the property owner must establish a taking under the three-part Penn Central test (see *Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg'l Planning Agency* (2002) 535 U.S. 302, 330; *Palazollo, supra,* 533 U.S. at pp. 630-632). Because permit decisions rarely render property "valueless," courts seldom find that permit decisions constitute takings under the *Lucas* standard.

In this case, the Commission will allow sufficient development – on each area that is appropriately treated as a separate parcel for takings purposes – to avoid rendering any such parcel valueless. However, as indicated above, in section II.D.2.c, it is unclear how many separate parcels should be treated as existing for takings purposes, in part because of the applicants' unwillingness to provide full disclosure of their LLLP structures. There appear to be fewer than five separate parcels for takings purposes, so it is not necessary to approve a separate house on each of the five parcels to avoid a taking. In addition, as indicated in section II.C., even the first house that would be reached by the new access road is not approvable in its current location, and there is too much variability in alternative locations and designs for the Commission to grant a conditional approval of that house. Thus, the applicant has the opportunity to resubmit an application to build on the relevant parcel(s) pursuant to the guidance provided above. That opportunity makes the property extremely valuable even after the denial of this project, and thus, there is no categorical taking.

Therefore, the Commission's denial of this residential development scheme leaves the applicants with an alternative significant use—the opportunity to develop the relevant parcel(s) on a smaller scale--which has economic value to the applicants. Therefore, under these circumstances, the Commission's denial did not render APNs 4453-005-018, 4453-005-092, 4453-005-037, 4453-005-091, or 4453-005-038 valueless and does not constitute a categorical taking under *Lucas*.

ii. <u>The Denial of the Permit is Not a Taking Under the Ad Hoc Penn Central</u> <u>Test</u>

If a regulatory decision does not constitute a taking under *Lucas*, a court may consider whether the permit decision would constitute a taking under the ad hoc inquiry stated in *Penn Central Transp. Co. v. New York City* (1978) 438 U.S. 104. This ad hoc inquiry generally requires an examination and balancing of the following factors: (1) the character of the government action (2) its economic impact and (3) its interference with distinct, investment-backed expectations. When applied to the facts of this case, each of these factors demonstrates that the Commission's denial is not a taking. <u>Id.</u> at 123-125.

Investment-Backed Expectations. The Supreme Court has clarified that for distinct, investment-backed expectations to be considered as a factor in the *Penn Central* test, those expectations must also have been "reasonable," and the absence of a reasonable investment-backed expectation is usually dispositive of a taking claim under the *Penn*

Central standards (Ruckelshaus v. Monsanto Co. (1984) 467 U.S. 986, 1005, 1008-1009).

As an initial matter, it is important to recognize that any restrictions on the applicants' abilities to develop this area based on the Coastal Act and takings case law discussed above were in effect already at the time the applicants purchased the subject properties. The Coastal Act had been in effect, and the Commission had been implementing it consistently in the Santa Monica Mountains, for decades prior to the applicants' purchases. In addition, with the exception of the *Kalway* case, every case discussed above had already been decided when the applicants purchased the subject property in late 2005. Thus, at the time of the purchases, the applicants could not have had a reasonable expectation that they would be entitled to more than the law, as articulated in those cases, allows. The idea of a distinct, investment-backed expectation necessarily implies that the expectations be a reasonable probability given the state of the law at the time of acquisition. *Guggenheim v. City of Goleta* (2010) WL 5174984 (Dec. 22, 2010).

It is also instructive to assess the likely actual return on the applicants' investment in this case. In order to determine that, it is necessary to assess what the applicants invested when they purchased the parcels. The five parcels, totaling 156 acres were purchased for approximately \$9,000,000. The current assessed value for all five parcels is \$9,263,560, with each parcel assessed at \$1,852,712.82 The evidence suggests that these assessed values fairly reflected the relative values of the property.

While the Commission cannot analyze, with absolute certainty, the potential investment returns from building one or more homes on the subject property, we can use recent sales of homes in the area as a guidepost to show that the applicant should be able to realize a reasonable return from building one or more homes on the site. In an attempt to better understand the going rate for mesa-top, ocean/mountain view real estate in Malibu, staff examined the single-family home sales prices within the City of Malibu over the last 2-3 years. See table that follows:

SFD sales ¹		Property Details					
Sales date	Sales price	Price per square foot	Address	Home Square Footage and parcel acreage	Bdrms	Bthrm	
05/24/11	\$11.495,000 ⁸³	\$1768	3270 Serra Road	6500sq. ft/ 2.66 accres	6	6	
10/07/10	\$11,500,000	\$2524	3510 Sweetwater Mesa Road	4555 sq. ft./ 1.11 acre	4	6	

⁸² Source: Los Angeles County Assessor's Office, accessed online on May 24, 2011.

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Sale is pending. See http://www.redfin.com/CA/Malibu/3270-Serra-Rd-90265/home/6853405.

04/03/09	\$8,500,085	\$2283	22355 Carbon Mesa Road	3723sq. ft./ .53 acre	2	3
07/15/08	\$11,500,115	\$1748	22313 Carbon Mesa Road	6578sq. ft./ 5.55 acres	4	4
Average:	\$10,748,800	\$2080	N/A	5339 sq. ft./ 2.46acres	4	4.75

1. Source: Los Angeles County Assessor's Office Transaction Database; www.redfin.com.

While the Commission acknowledges that there are only three sales and one pending sale in this comparison, these recent/pending sales, coupled with the rising appreciation in the greater Los Angeles Metropolitan area since the bottoming out of the real estate market in 2008, indicate that the applicants will likely recoup any reasonable investment-backed expectation from building even one home on the subject property. When 22355 Carbon Mesa Road, sold in April 2009, the Case-Schiller index, a universally-respected authority on real estate market data, level for the Los Angeles Metropolitan Area, which includes Malibu, was at 159.37.84 In its April 26, 2011 press release for February 2011 home prices, the Standard and Poor Case-Shiller Index, reported that the Los Angeles Metropolitan area's index is at 168.25—a 5.5 percent increase in the index as compared to April 2009.85 Considering this upward trend in real estate prices as indicated in these indices between April 2009 and February 2011 in conjunction with Malibu being a highly desirable area in which to live in the greater Los Angeles Metro area, it is evident that a home similar in features as the home at 22355 Carbon Mesa Road would be valued at between 5.5% and 6% higher than its April 2009 price, or between \$8,967,500 and \$9,010,000. This upward trend is evident, also, in the most recent comparable home sale at 3510 Sweetwater Mesa Road⁸⁶, located in the same vicinity as the subject properties—a home that is 1/5 the size of the largest of the five currently proposed homes and sits on nearly 1/156 the property size as compared to the subject property. Moreover, compared to the small acreage and relatively small homes in the three comparable sales listed in the table, the applicants will likely recoup their investment since they could potentially build a larger home on its 156-acre property. For example, if the Commission approved an 8,000 square-foot home on the subject property, and using the average price per square foot in the table, above, (notwithstanding the fact that the subject property consists of more acreage than the

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⁸⁴ http://www2.standardandpoors.com/spf/pdf/index/CSHomePrice_Release_063055.pdf, page 3. Accessed online on May 24, 2011.

http://www.standardandpoors.com/indices/sp-case-shiller-home-price-indices/en/us/?indexId=spusa-cashpidff-pus---at page 3. Accessed online on May 24, 2011.

The property at **3270 Serra Road**, while comparable in some respects as the subject property (mountain views, location, new development (2010 structure)), lacks expansive ocean views. Thus, the Sweetwater Mesa Road property most closely parallels the land and development features found on the subject property (newer construction (2007), architecturally appealing design, pool/spa, panoramic views, etc.),

comparable sales), then such a home would likely be valued at \$16,640,000—nearly double the amount of the purchase price of the bare land. Therefore, the denial of the applicants' proposal to build 5 separate homes will not result in a loss of their distinct investment-backed expectations.

Further, nearby, in the Serra Retreat development, the owners of 3314 Serra Road recently listed their home and property for sale, asking \$17,500,000 for their 4 bedroom, 3 bathroom 3,811 square-foot home, sitting on two parcels consisting of 6.5 acres. ⁸⁷ Unlike the subject property, this home does not have ocean views and sits on far less acreage. Thus, the applicants could potentially build a single home of similar size and features and likely recoup a significant return on their investment.

Additionally, the applicants should be able to recoup an investment-backed expectation if they choose to sell the entire 156 acre subject property. For example, on June 3, 2010, the property owner at 3200 Encinal Canyon Road, just up-coast from the subject property in Malibu, sold his 78.16-acre parcel of land (as listed) for \$8,878,886.88 While this property has inferior views relative to the subject property, is farther from the coast than the subject property, and is only 1/2 the size of the subject property, it has a sales price that is 98% of the purchase price of the subject property. Similar to the subject property, however, 3200 Encinal Canyon road also has a long unpaved access road to the property. The Commission acknowledges that the sales price of this property may not offer an exact comparison to the potential sales price for the subject property; nonetheless, this sale provides an approximate representation of a potential return should the applicants choose to sell the subject property. Furthermore, given the subject property's closer proximity to the City of Los Angeles and other prominent urban areas, thus providing a shorter commute to employment destinations, it is more likely than not that its location would add substantial value over and above that of the property at 3200 Encinal Canyon Road.

To determine whether an expectation is reasonable, one must assess, from an objective viewpoint, whether a reasonable person would have believed that the property could have been developed for the applicants' proposed use, taking into account all the legal, regulatory, economic, physical and other restraints that existed when the property was acquired. Viewed objectively, a reasonable person would not have had a reasonable expectation that the subject property could be developed with all of the proposed residential development.

A reasonable person also would have investigated the regulatory restraints that existed at the time of purchasing property within the coastal zone, including the relevant Coastal Act policies applicable to the site (e.g., geologic hazards, visual resources, ESHA, etc.). The findings cite the Coastal Act policies that limit development in this area, especially those that govern ESHA and geological hazards. Real estate agents and sellers familiar with the site likely would have informed a buyer that they did not believe it possible that

88http://www.trulia.com/for_sale/Malibu,CA/LOT|LAND_type/price;d_sort/fs:1,s:1_pt/#sold/Malibu,CA/LOT|LAND_type/price;d_sort/.

⁸⁷ http://www.redfin.com/CA/Malibu/3314-Serra-Rd-90265/home/6853400

the Coastal Commission would allow the proposed residential development because it is within significant ESHA resources and requires significant grading to build the road, utility lines and the homes, affecting the geological stability of the subject property.

In summary on this point, the applicants had neither a reasonable, nor an investment-backed, expectation that they could develop the subject property under the current development proposal in their CDP applications.

Economic Impact. The second prong of the *Penn Central* analysis requires an assessment of the economic impact of the regulatory action on the applicant's property. Although a landowner is not required to demonstrate that the regulatory action destroyed all of the property's value, the landowner must demonstrate that the value of the property has been very substantially diminished (see Tahoe-Sierra Pres. Council. Inc., supra, [citing William C. Haas v. City and County of San Francisco (9th Cir. 1979) 605 F.2d 1117 (diminution of property's value by 95% not a taking)]; Rith Energy v. United States (Fed.Cir. 2001) 270 F.3d 1347 [applying Penn Central, court finds that diminution of property's value by 91% not a taking]). Generally, courts have determined the diminution of property value by assessing the difference between the fair market value of the subject property caused by the regulatory imposition and the fair market value of the subject property without regulatory constraints. (Brace v. U.S. (2006) 72 Fed.Cl. 337, 349.) In other words, the economic impact analysis "is often expressed in the form of a fraction, the numerator of which is the value of the subject property encumbered by regulation and the denominator of which is the value of the same property not so encumbered." (Walcek v. U.S. (2001). 49 Fed.Cl. 248, 258.) The property owner, in a takings context, is entitled to have the fair market values for this economic impact fraction be derived from the "highest and best use" of the property. (Brace, supra, 72 Fed.Cl. at p. 350.) Understandably, however, the "highest and best use" of property is one where the use is a reasonably probable and legal use of property, is physically possible, appropriately supported, financially feasible and results in attaining the highest value. (Ibid.) In assessing the reasonably probable and legal use, the highest and best use is necessarily tempered by the realities of securing administrative approval for design, sewage, environmental, utility and road permits, to name a few, from various state and federal agencies. (Id. at p. 351.) In this case, the evidence demonstrates that the Commission's action would have little impact on the potential value of the applicants' property.

In this case, the highest and best use of the subject property, being subject to legal constraints contained in the Coastal Act, may well be the sort of residential development generally proposed by the applicants. Although the Commission cannot speculate as to the value of the land as developed consistent with the Coastal Act, based on the analysis of the value of the vacant land, above, the developed value would clearly be more than the purchase price. Thus, the regulation does not diminish the value of the land to a substantial enough degree to support a takings claim

It is likely that, even following denial, the value of the property would still exceed what the applicants paid for the bare land in 2005. Further, the potential value of building one home (which may very well constitute the legally permissible highest and best use of the property) on this property, as indicated in the sales figures above, would certainly far

exceed the applicant's initial purchase price and building costs given the recent sales and current for-sale homes in the surrounding area coupled with the rising home values in the greater Los Angeles Metropolitan area.

The Commission's action will have little, if any, economic impact. The applicants acquired the subject property for approximately \$9,000,000 and, even after the Commission's action, the applicants retain the opportunity to develop part of the property. Given this evidence, it is reasonable to conclude the Commission's action would not have an impact on the value of the subject property, and it is evident that this finding is consistent with other regulatory actions by other state or federal agencies for which the courts have rejected taking claims.

Ad-Hoc Takings: Character of the Commission's Action. The final prong of the *Penn Central* test requires a consideration of the character or nature of the regulatory action. A regulatory action that is an exercise of the police power designed to protect the public's health, safety and welfare is much less likely to effect a taking (*Keystone Bituminous Coal Ass'n, supra,* 480 U.S. at pp. 488-490; *Penn Central, supra,* 438 U.S. at p. 127), than, for example, a government action that is more like a physical appropriation of property (see *Loretto, supra,* 458 U.S. 419).

In this case, the Commission's denial of the applicants' proposal promotes important policies that protect the public's health, safety and welfare. Detailed earlier in this report, these policies include the preservation of scenic resources and the protection of ESHA. All of these policies are the type of exercises of the police power that have long been thought to promote important governmental interests. At the same time, the Commission's action involves no physical occupation or exactions of property interests and still allows the applicants the opportunity to develop the property. Consequently, application of the third prong of *Penn Central* strongly weighs against a finding that the denial of this project constitutes a taking.⁸⁹

Conclusion: For all of these reasons, the Commission's denial of this project would not constitute a taking under the ad hoc *Penn Central* standards.

e. <u>Before a Landowner May Establish a Taking, Government Must Have Made</u> a Final Determination Concerning the Use to Which the Property May Be Put

In addition to the analysis above, it is worth noting that, before a landowner may seek to establish a taking under either the Lucas or Penn Central formulations, it must demonstrate that the taking claim is "ripe" for review. This means that the takings claimant must show that government has made a "final and authoritative" decision about the use of the property (e.g., *Williamson County Regional Planning Com. v. Hamilton Bank* (1985) 473 U.S. 172; *MacDonald, Sommer & Frates v. County of Yolo* (1986) 477 U.S. 340, 348). Premature adjudication of a takings claim is highly disfavored, and the Supreme Court's cases "uniformly reflect an insistence on knowing the nature and extent of permitted development before adjudicating the constitutionality of the

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regulations that purport to limit it" (*Id.* at p. 351). Except in the rare instance where reapplication would be futile, the courts generally require that an applicant resubmit at least one application for a modified project before it will find that the taking claim is ripe for review (e.g., *McDonald*, *supra*).

In this case, although the Commission is denying the proposed residential development, the Commission's denial does not preclude the applicants from applying for some other use on the site. In fact, the Commission's analysis has provided as much guidance as possible, given the limitations on the evidence presented, regarding what sort of development would likely be approvable. In this circumstance, the Commission has not made a final and authoritative decision about the use of the project site and has certainly not indicated that no development is possible at the site. Therefore, the Commission's denial cannot be a taking because a taking claim is not "ripe."

3. Conclusion – Denial with Guidance

For all of the above reasons, the Commission concludes that its denial of the applicants' proposal would not constitute a taking and therefore is consistent with Coastal Act Section 30010.

Takings law and Coastal Act section 30010 require that the Commission allow some level of development at this site, notwithstanding all of the inconsistencies listed in section II.C., above. However, it is also true that Takings law almost certainly does not require approval of one single family residence on each of the existing legal lots, for the reasons discussed above. A smaller project may be approvable. However, on the current record, the Commission cannot determine the exact size of that development, and it would be inappropriate for this Commission to try to guess at that or to redesign the project to achieve that limit. If presented with a project scope that is arguably within the applicants' rights, the Commission will have to determine whether it must be approved. However, that is not the situation presented. On the current record, the Commission can only say that the scale of development that must be allowed to avoid a taking is unclear, but it is something less than the applicants currently seek. Moreover, even assuming that it were appropriate to view the site as a single lot for takings purposes (to minimize the variability in what type and amount of development must be allowed), there is still considerable variation in exactly where a single house could be located and how it could be designed. Consequently, it is appropriate for this Commission to deny with guidance.

E. ALTERNATIVES

Alternatives must be considered to determine if there is an approvable alternative project that would lessen or avoid significant environmental impacts to coastal resources, in this case primarily ESHA and visual resources. An alternative is a description of another activity or project that responds to the major environmental impacts of the project identified through the Commission's analysis. In this case, as discussed in great detail above, the proposed residences, access road, Fire Department staging areas, municipal water line, lot line adjustment, and excess fill placement would

result in significant disruption of habitat values within ESHA and are not uses that are dependent on the resource, which makes them inconsistent with Section 30240 of the Coastal Act and the applicable ESHA protection policies of the LUP, used by the Commission as guidance. In addition, the proposed residences, access road, fill, and lot line adjustment would not serve to protect public views, minimize landform alteration, or be compatible with the character of the surrounding area, inconsistent with Section 30251 of the Coastal Act and the LUP visual resource policies, used by the Commission as guidance.

Obviously, the construction of residential development, including vegetation removal for both the development area and the surrounding area (as fuel modification to protect the new development), grading, water source, construction of a residence, and the use of the development by residents will result in unavoidable loss of ESHA. In addition, given the visual prominence of the subject ridgeline, construction of residential development and its associated fuel modification requirements and access, impacts to visual resources will also be unavoidable. There are no potential development sites on the subject properties that could completely avoid impacts to ESHA or visual resources. However, development can be sited and designed to minimize ESHA impacts by measures that include but are not limited to: reducing the number of residences, limiting the number of accessory structures and uses, limiting the size of structures, clustering structures, siting development in any existing disturbed habitat areas rather than undisturbed habitat areas, locating development as close to existing roads and public services as feasible, and locating structures near other residences in order to minimize Similarly, development can be sited and designed to additional fuel modification. minimize impacts to public views and landform alteration by similar means. However, in this case, the proposals do not include such elements. There are potential design. siting, clustering, and water supply alternatives to the proposed projects that could significantly reduce the existing proposal's inconsistencies with the ESHA and visual resource policies of the Coastal Act, as described below.

Number of Residences

As indicated in section II.D, above, the current record is insufficient to allow the Commission to assess how many independently economically viable development sites the applicants are likely to be entitled to have within the overall 156 acre area. However, it appears that they are entitled to somewhat less than five. Reducing the number of distinct development sites down to two or three (for example with one on the Vera property, one on the Mulryan property, and one on the Lunch property representing the remaining three) could well transform the entire nature of the project by eliminating the entire northern half of the proposed development, which would dramatically reduce the ecological and visual impacts, as well as avoiding much of the geologic complexity associated with the upper parts of the proposed access road.

Design Alternatives

Each of the proposed residential development areas is large in scale, despite the significant biological, scenic, and fire hazard sensitivities of the area. In past permit actions, the Commission has limited development within or adjacent to ESHA on a parcel zoned for residential development in this area of the Santa Monica Mountains to a maximum 10,000 sq. ft. development area, excluding driveways and fire turnaround areas. Each of the proposed development areas of the subject applications conforms to the maximum development area of 10,000 sq. ft., however, development areas smaller than the maximum allowed in these cases would achieve a significant reduction in the area that would be cleared and disturbed for house sites and fuel modification, as well as the demand for water for the fire suppression systems. In addition, smaller development areas that are limited to a single story with a basement, perhaps 18 ft. tall, would significantly reduce the visual profile of the residences as seen from public viewing areas. The Commission finds that, in these cases, a residential development area of 5,000 to 8,000 sq. ft. and a residential structure that is limited to 18 ft. in height above finished grade would result in substantial reductions in impacts to ESHA and visual resources.

Regarding the proposed access road, given the topographic and geologic constraints of the area, Commission staff has determined that there are no other design alternatives for an access road to each of the properties that would reduce grading, footprint, length or height of retaining walls in order to achieve reductions in ESHA or visual resource impacts. However, again, if fewer sites were to be developed, the extent of the road could be significantly curtailed.

Siting Alternatives

One of the five proposed residences, Residence 1 (Vera), has not been sited to minimize impacts to ESHA and visual resources to the greatest extent feasible. If the residence were moved off of the face of the ridge crest and closer to the proposed access road to the north, and with a more compact design footprint as discussed above, the area of ESHA that would have to be removed or modified for fire protection purposes could be significantly reduced. A development site closer to the proposed access road would enable greater overlap of disturbed areas associated with the road and residential development on adjacent properties to the north. If the applicant were to notch the residence into the inland side of the ridge crest and closer to the proposed access road, it appears that the natural topography of the ridge crest would obscure the most significant views of the development from the south and southwest, thereby maximizing protection of public views of the natural ridgeline topography (Exhibit 5).

Regarding the proposed access road, given the topographic and geologic constraints of the area, Commission staff has determined that there are no other siting alternatives for an access road to each of the properties that would reduce grading, footprint, length or height of retaining walls in order to achieve reductions in ESHA or visual resource impacts. However, again, if fewer sites were to be developed, the extent of the road could be significantly curtailed. In addition, there appear to be alternatives to the siting of the three proposed Fire Department staging areas associated with the access road

(2,800 sq. ft., 6,200 sq. ft., and 20,000 sq. ft. in size). Although the Fire Department has stated that the staging areas are required, it is unclear if the Fire Department specified and justified the exact size that the staging areas were required to be, or if the applicant proposed the sizes and locations of the staging areas and the Fire Department found them to be satisfactory. Commission staff has been unable to confirm whether the staging areas are the minimum size necessary and configuration necessary for their intended use by the Fire Department. It appears that there is opportunity to consolidate and reduce the sizes of the staging areas while ensuring that they adequately function for their intended use. The upper, 20,000 sq. ft. staging area does not appear to be the minimum size and configuration necessary to function as a pull-out for emergency access vehicles. In addition, it appears that the lower two staging areas could be consolidated into one area and re-sized to be the minimum size necessary.

Clustering Alternatives

Clustering development is another important means of minimizing impacts to coastal resources. Clustering of building sites, such that the required fuel modification radii overlap, reduces the extent of required vegetation clearance and the associated impacts on ESHA. In addition, the pattern and placement of development is critical to the level of habitat fragmentation that would occur. Habitat is significantly less fragmented by a few isolated clusters of development rather than development scattered across a landscape. Clustering of building sites also reduces the overall area of development that may be visible from various public viewing areas. Concentration of development areas near existing roads also reduces grading and landform alteration.

The existing lot configuration among the subject parcels, as well as the proposed lot line adjustment among two of the subject parcels, does not allow for maximum clustering of building sites if a residence is to be built on each lot and thus does not minimize vegetation clearance, landform alteration, and the footprint of development and thus does not minimize the associated impacts on visual resources and ESHA.

A reduction in the number of potential residential building sites in an area is another way to cluster development. As indicated in section II.D.2, the available information suggests that the applicants are not entitled to five separate residential developments. As indicated above, even if the amount of development were only reduced from the proposed five residences down to three (one on each of the existing Vera, Lunch, and Mulryan parcels), if those three residences could all be clustered near the intersection of those three parcels, that would eliminate a large portion of the access road and avoid disruption of a large area of ESHA (Exhibit 5). If that location is not possible for all three lots, and particularly for the Mulryan lot, the applicants could consider the viability of siting one home in the meadow area of that lot. The Commission cannot determine, at this point, whether such an approach is possible, because these alternatives have not been considered, but the failure to consider those alternatives is the critical issue here.

In addition, alternative lot configurations can also serve to cluster and site development closest to existing roads, development, and disturbed areas to the maximum extent

feasible. As discussed in the preceding section, in this case, it is not necessary to approve a separate house on each of the five parcels in order to avoid a taking. However, the scale of the development that must be allowed is unclear. In order to present a range of alternatives that can lessen or avoid significant environmental impacts to coastal resources, staff has identified areas within the bounds of the subject properties that could accommodate clustering of residential development, regardless of how that is accomplished. Given that there is considerable variation in exactly where residence(s) could be located and designed, staff can only provide a general indication of where potential development could be accommodated based upon the available site information.

In consideration of geologic and topographic constraints of the area, it appears that up to three development areas could be situated in the lower portions of the subject sites to maximize clustering of development, particularly the northeast portion of the Vera parcel (identified in the siting alternatives above) and in the area of the historic mesa on the Mulryan and Lunch properties. This area is shown on Exhibit 5. Although the mesa area is underlain by landslide, the area of the proposed Lunch residence and proposed access road along the mesa appear to be feasible locations upon which to build residences due to the shallowness of the landslide material. Clustering of development in these areas would result in a much shorter access road; reduced grading; reduced landform alteration; maximum overlap of, and reduction in, required fuel modification areas; and reduced demand for water supply; all of which would reduce habitat destruction and fragmentation, reduce need for enhanced fire protection measures, and reduce impacts to visual resources.

Water Supply Alternatives

An alternative to the proposed water line would involve the installation of a water well and water storage tank associated with each residential development. According to the applicants' "Comparative Analysis of Potable Water Service Options" prepared by Envicom (October 2009), potable water demand for each residence (including sufficient storage capacity and pressure to support the proposed fire suppression systems) would require a storage capacity of approximately one hundred thousand (100,000) gallons for each residence, which, Envicom concludes, would have greater impacts to sensitive habitat areas than the proposed water line due to the difficulty of siting water tanks that large in size in consideration of all of the site's constraints.

The Commission disagrees with the conclusions of the Envicom analysis. Even in the most remote areas of the Santa Monica Mountains, the Commission has never considered any application that included water tanks with such a capacity, nor is the Commission aware of development that included a Fire Department requirement for a water tank even approaching that size for a single family residence. Typically, water tanks are required to be sized based upon square footage of the residence it is to serve – generally 1 gallon capacity for every square foot of the residence. Commission staff confirmed this in a conversation with the Calabasas office of the Los Angeles County Fire Prevention Division on December 7, 2009. For example, if a proposed residence is

10,000 sq. ft. in size, the Fire Department would find it appropriate to have a water tank that has a capacity of 10,000 gallons. The Commission has typically reviewed 10,000 gallon water tanks proposed for residences, even the largest of residences, in the Santa Monica Mountains. In cases where extra water capacity is desired for fire protection, it is common practice to have pumps that can utilize the water in residential swimming pools.

While the Fire Department may prefer and encourage the water line option for maximum fire protection in this case since it is being proposed by the applicants, it would appear to remain possible that the Fire Department could find the alternative, wells and tanks, consistent with the Fire Department's codes and regulations. In many remote locations in the Santa Monica Mountains the Fire Department has allowed water wells and tanks for proposed single family residences, finding that water line alignments that were shorter or required construction in less steep or remote areas than the proposed alignment to be infeasible.

As such, water wells and reasonably-sized water tanks (10,000 gal. capacity) are a feasible alternative to provide adequate water service and fire protection for residential development in this area. The water wells and tanks could be sited near each proposed development area in such a way that impacts to sensitive habitat and visual resources could be avoided, or substantially minimized.

Conclusion

In sum, feasible alternatives exist to accommodate residential development while minimizing impacts to ESHA and visual resources to such a degree as to make future residential development approvable. It seems entirely possible that the Commission could approve between one and three appropriately sized, sited, and designed homes on this site.

To conclude, the proposed developments do not protect ESHA from significant disruption of habitat values, nor protect significant public views of scenic areas, minimize landform alteration, nor ensure compatibility with the character of the surrounding area. There are project alternatives that could reduce adverse impacts. Therefore, approval of the proposed developments is not only inconsistent with Sections 30240, 30251, and 30250 of the Coastal Act, but must be denied.

F. UNPERMITTED DEVELOPMENT

Unpermitted development occurred on the subject parcels (and two off-site parcels) upon which the subject projects are proposed prior to submission of the subject permit applications including, but not limited to, non-compliance with the terms of CDP 4-01-108 regarding re-vegetating the disturbed/graded slopes of the approved 10-ft. wide pilot access road upon completion of final grading; grading and removal of major vegetation on the Vera, Mulryan, Morleigh, and Ronan properties to the north and south of the approximately 3-acre historic mesa area that is referenced in this report; and

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grading and vegetation removal along a 1,400 ft. long stretch of the proposed water line alignment on two parcels north of the subject properties (APNs 4453-001-029 and 4453-001-030). The Commission is denying the subject applications for the reasons discussed in full in the preceding sections of this report. Therefore, pursuant to the staff recommendation, the Commission's enforcement division will evaluate further actions to address this matter.

Although development has taken place prior to submission of the subject permit applications, consideration of the applications by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Review of these permits does not constitute a waiver of any legal action with regard to the alleged violation nor does it constitute an admission as to the legality of any development undertaken on the subject sites without a coastal permit.

G. LOCAL COASTAL PROGRAM

Section 30604 of the Coastal Act states:

a) Prior to certification of the local coastal program, a coastal development permit shall be issued if the issuing agency, or the commission on appeal, finds that the proposed development is in conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that the permitted development will not prejudice the ability of the local government to prepare a local program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200).

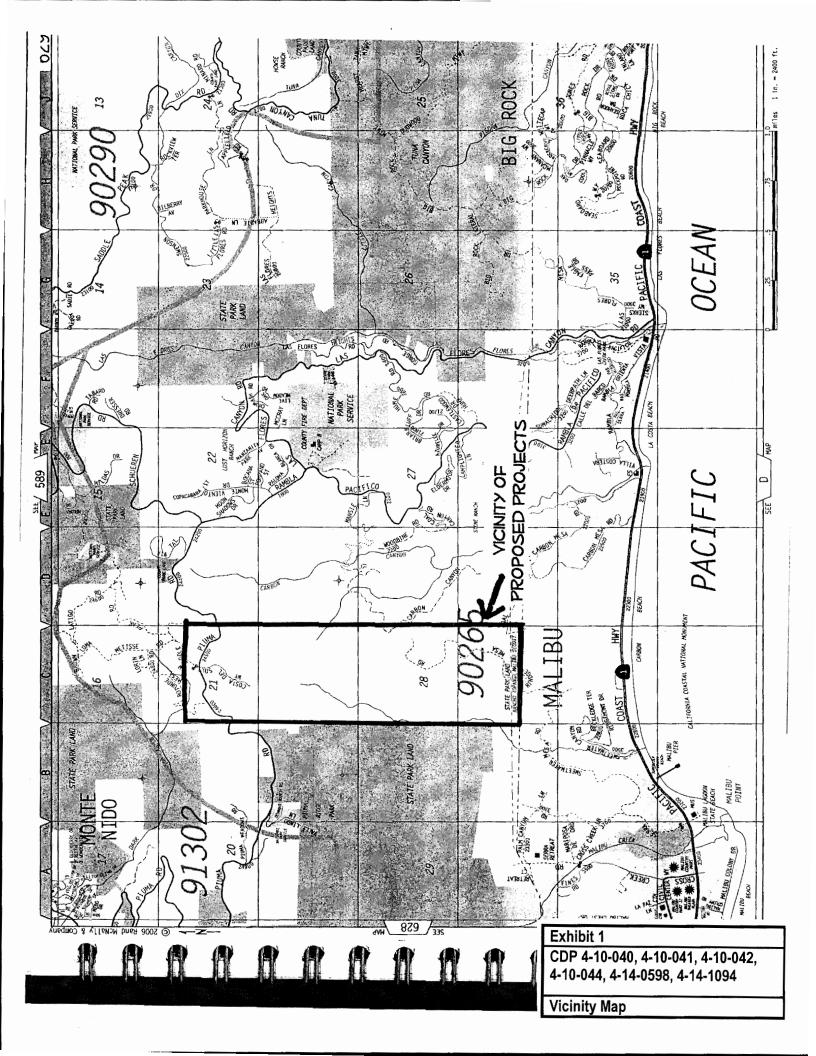
Section 30604(a) of the Coastal Act provides that the Commission shall issue a Coastal Development Permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program that conforms with Chapter 3 policies of the Coastal Act. The preceding sections provide findings that the proposed project will not be in conformity with the provisions of Chapter 3. The proposed development will create adverse impacts and is found to be inconsistent with the applicable policies contained in Chapter 3. Therefore, the Commission finds that approval of the proposed development would prejudice the County of Los Angeles' ability to prepare a Local Coastal Program for this area consistent with the policies of Chapter 3 of the Coastal Act, as required by Section 30604(a).

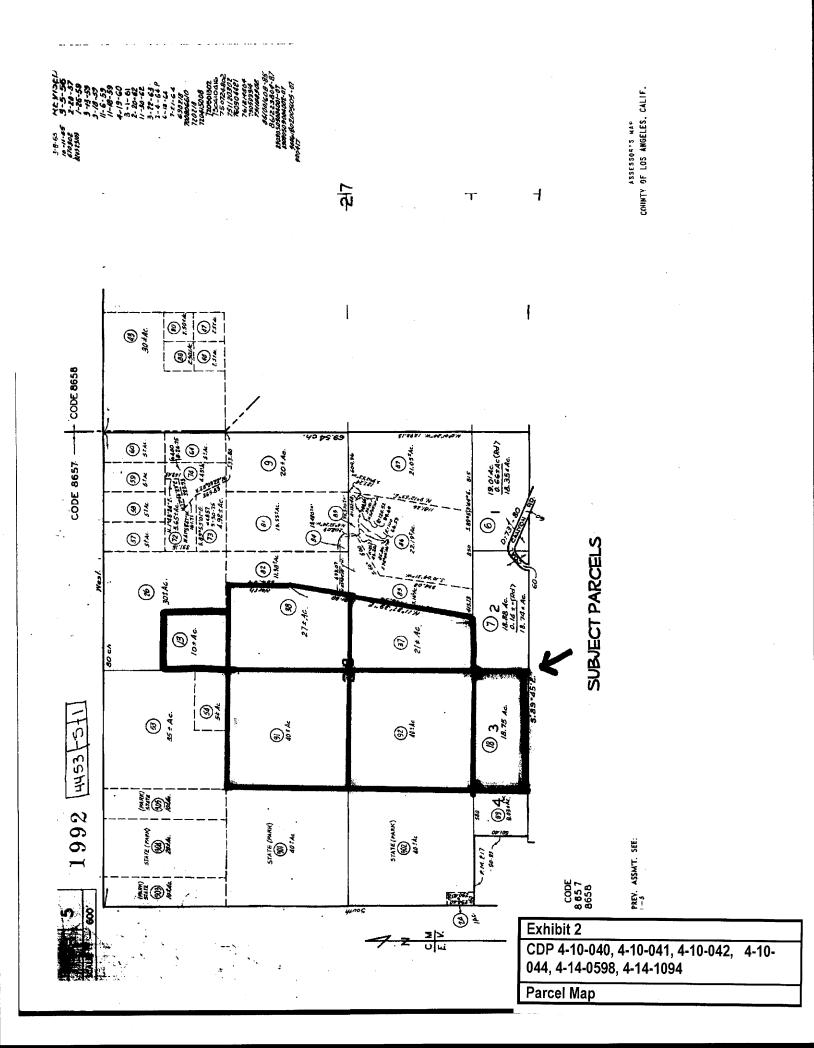
H. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

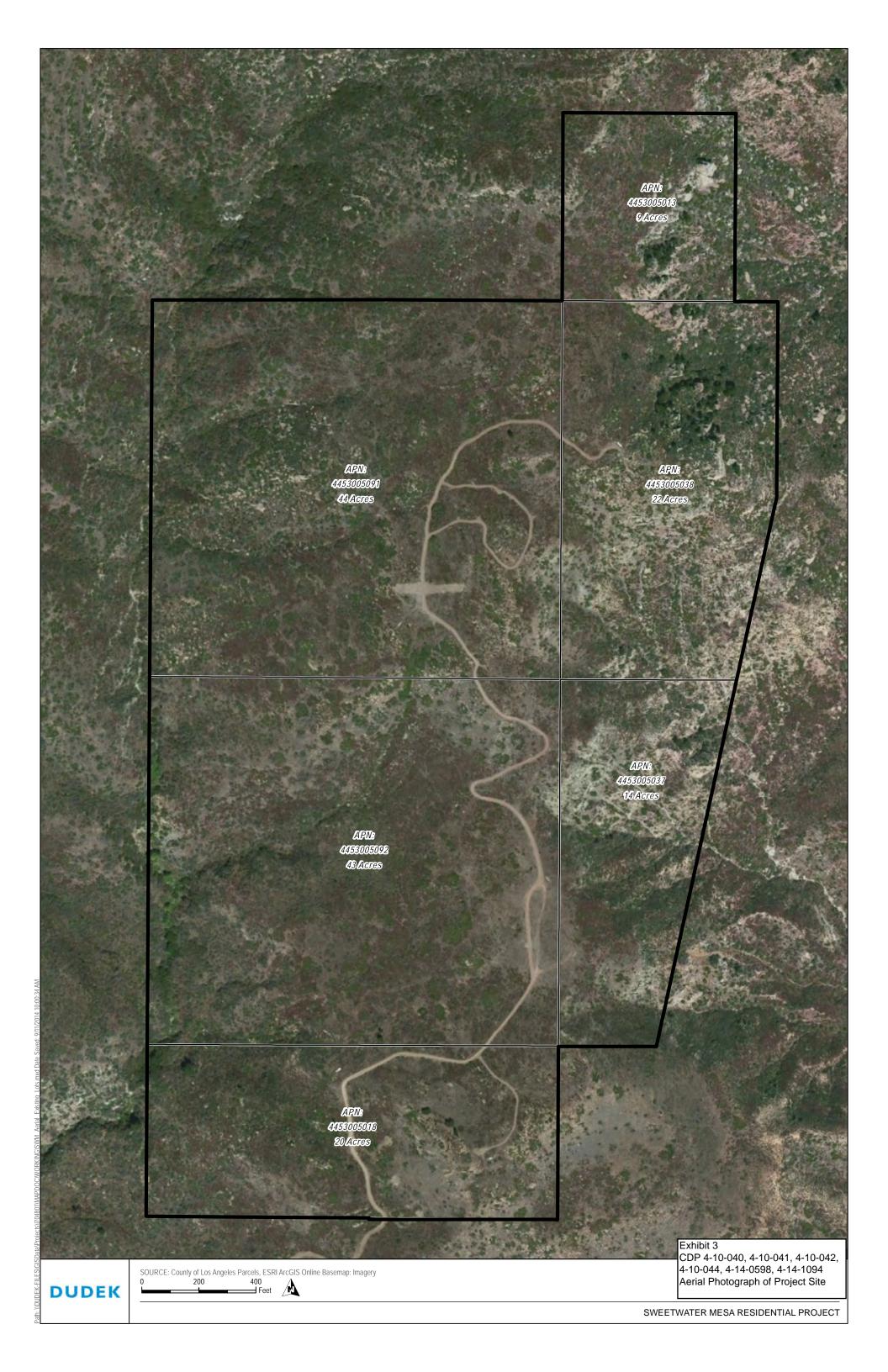
Section 13096(a) of the Commission's administrative regulations requires Commission approval of a Coastal Development Permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect that the activity may have on the environment.

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The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the projects that were received prior to preparation of the staff report. As discussed above, the proposed development is <u>not</u> consistent with the policies of the Coastal Act. There are feasible alternatives that would avoid the adverse environmental effects of the projects, for the reasons listed in this report. Therefore, the Commission finds that the proposed projects are not consistent with the requirements of the Coastal Act to conform to CEQA.







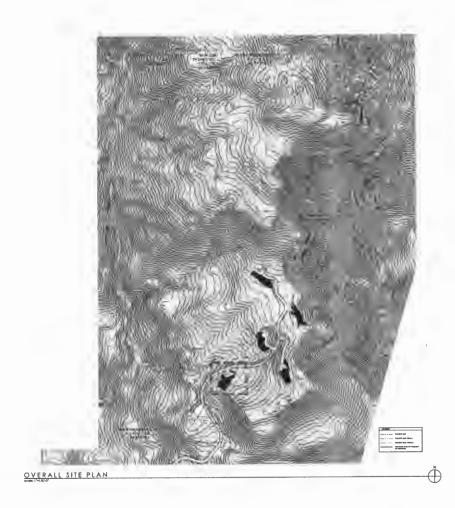


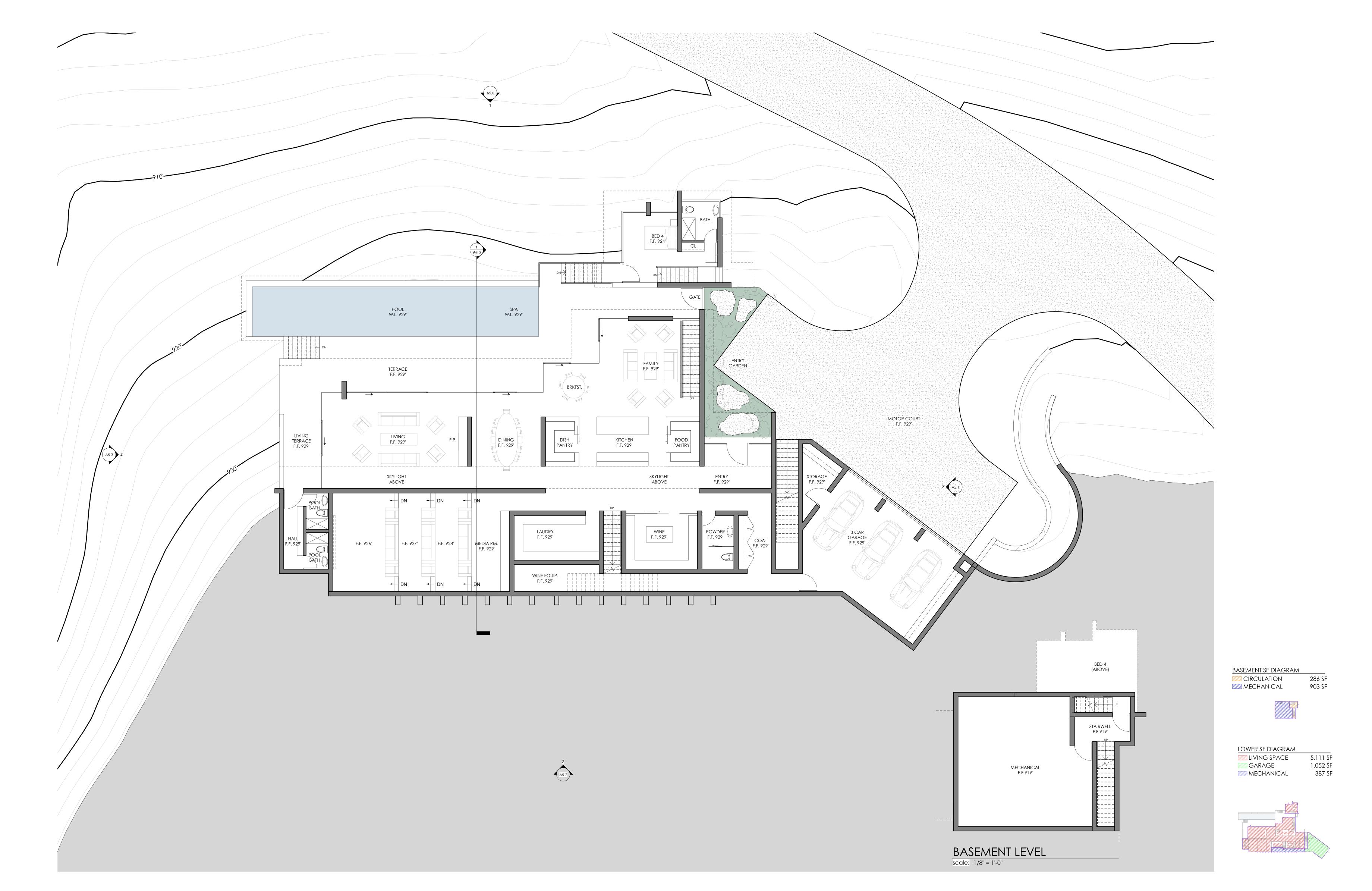


Exhibit 4

CDP 4-10-040, 4-10-041, 4-10-042, 4-10-044, 4-14-0598, 4-14-1094

Residence 1 (Mulryan) Project Plans

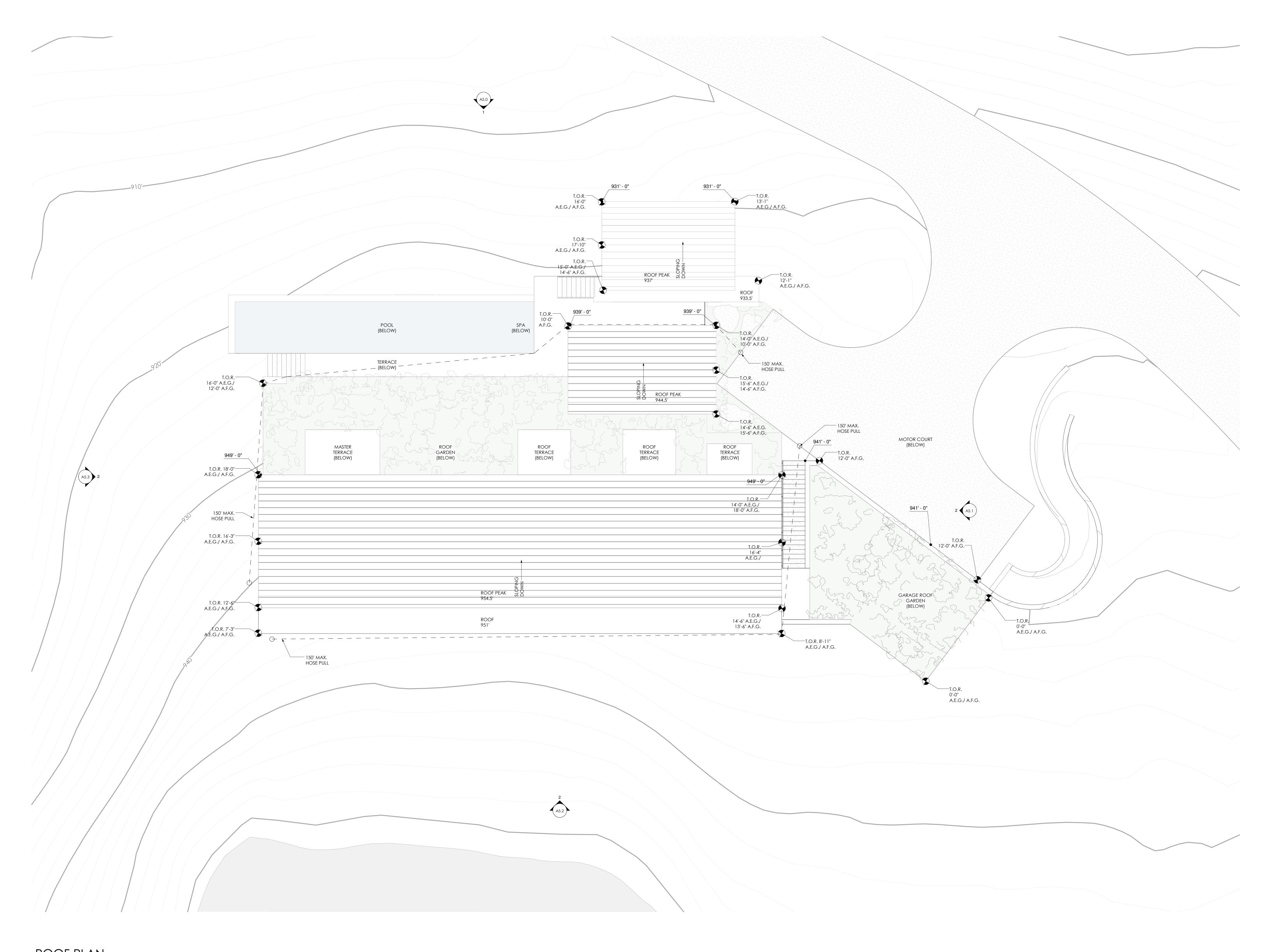
A2.0



LOWER LEVEL FLOOR PLAN
scale: 1/8" = 1'-0"



UPPER LEVEL FLOOR PLAN scale: 1/8" = 1'-0"



ROOF PLAN
scale: 1/8" = 1'-0"

NORTHWEST ELEVATION scale: 1/8" = 1'-0"

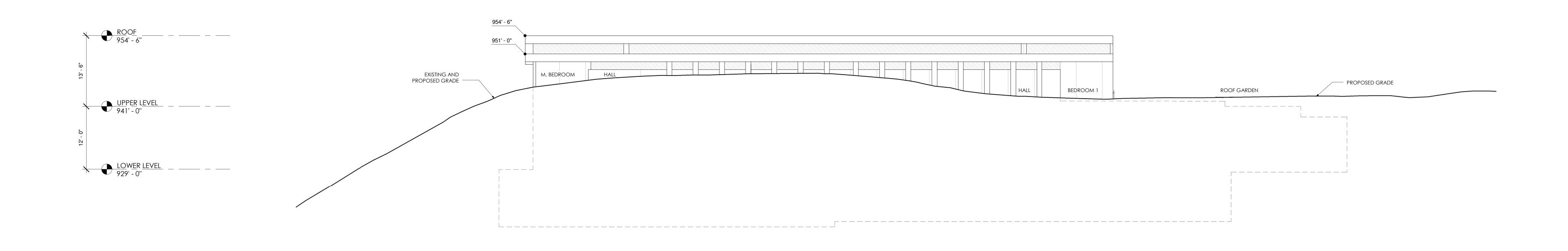


NORTHWEST ELEVATION RENDERING
scale: 1/8" = 1'-0"

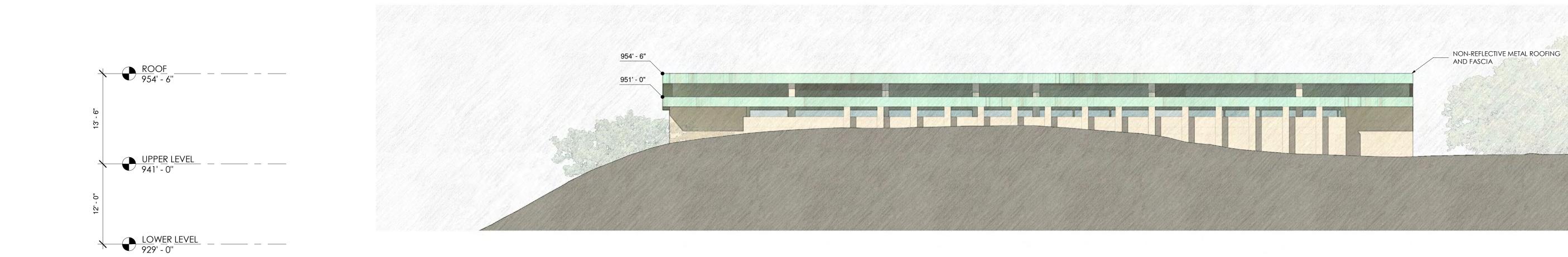
NORTHEAST ELEVATION scale: 1/8" = 1'-0"



NORTHEAST ELEVATION RENDERING scale: 1/8" = 1'-0"

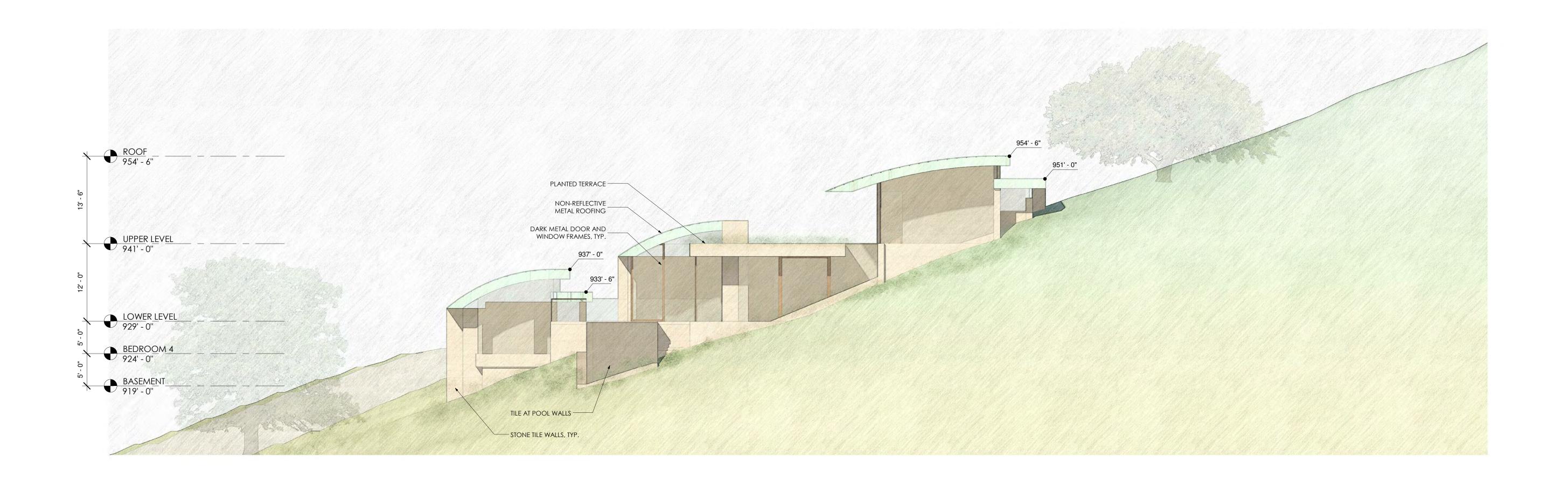


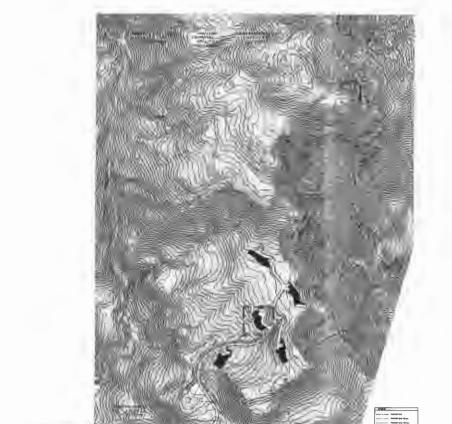
SOUTHEAST ELEVATION scale: 1/8" = 1'-0"



SOUTHEAST ELEVATION RENDERING scale: 1/8" = 1'-0"

SOUTHWEST ELEVATION scale: 1/8" = 1'-0"





OVERALL SITE PLAN



Exhibit 5

CDP 4-10-040, 4-10-041, 4-10-042, 4-10-044, 4-14-0598, 4-14-1094

Residence 2 (Morleigh) Project Plans



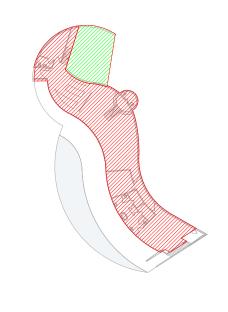
LOWER SF DIAGRAM

LIVING SPACE

4,234 SF



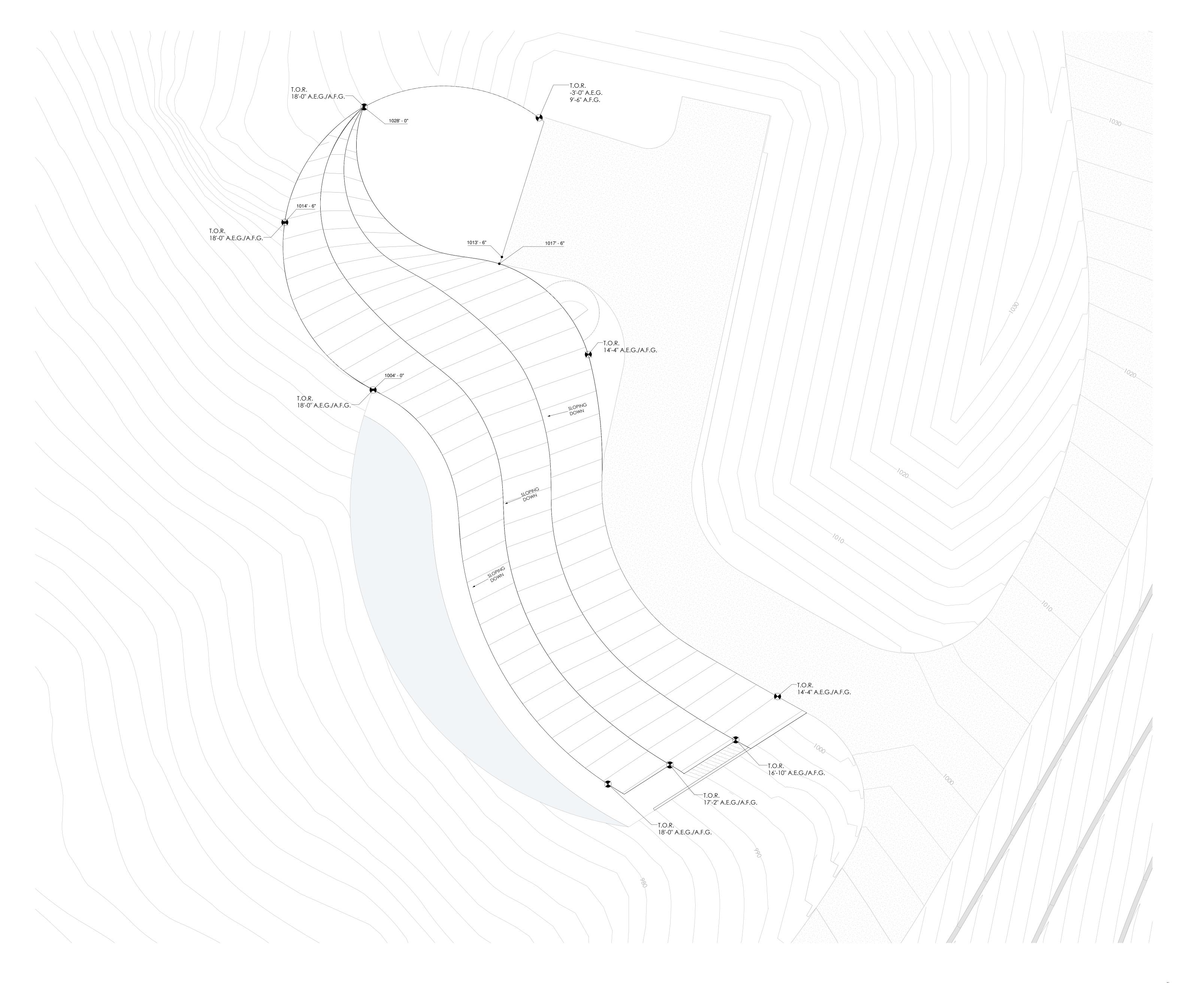
MEZZANINE SF DIAGRAM
LIVING SPACE 521 SF



UPPER SF DIAGRAM

LIVING SPACE

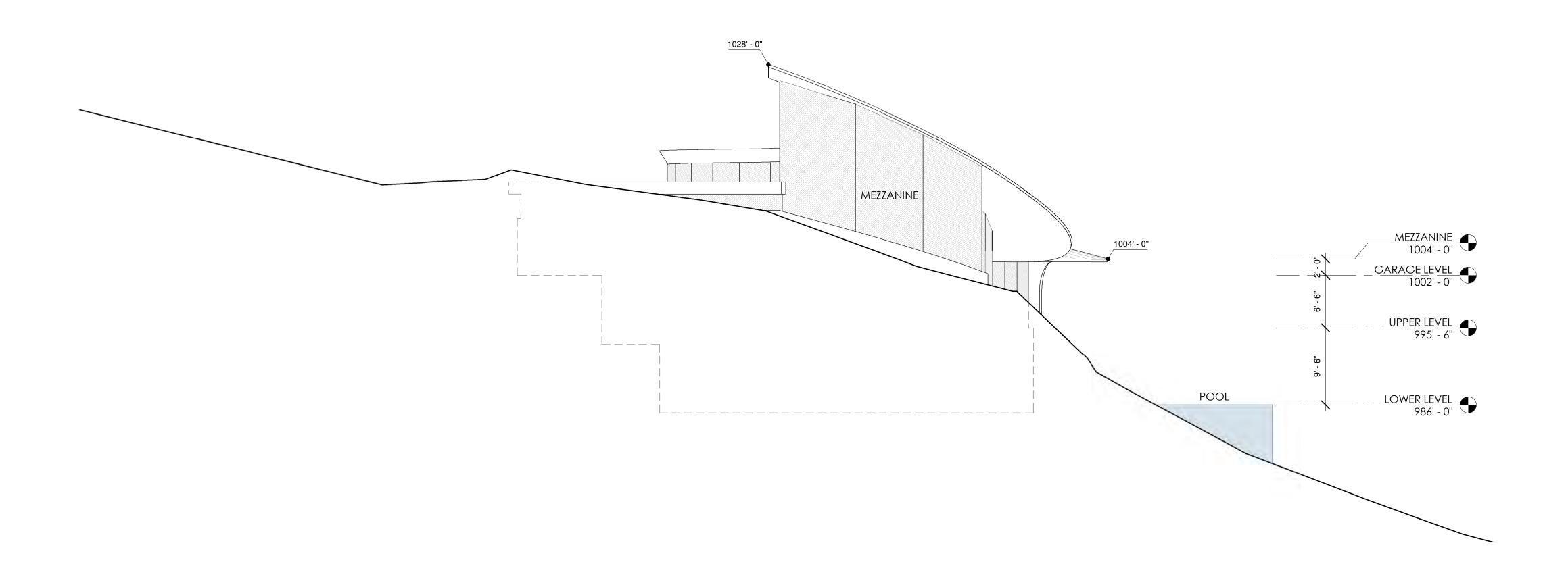
GARAGE 4,415 SF 989 SF



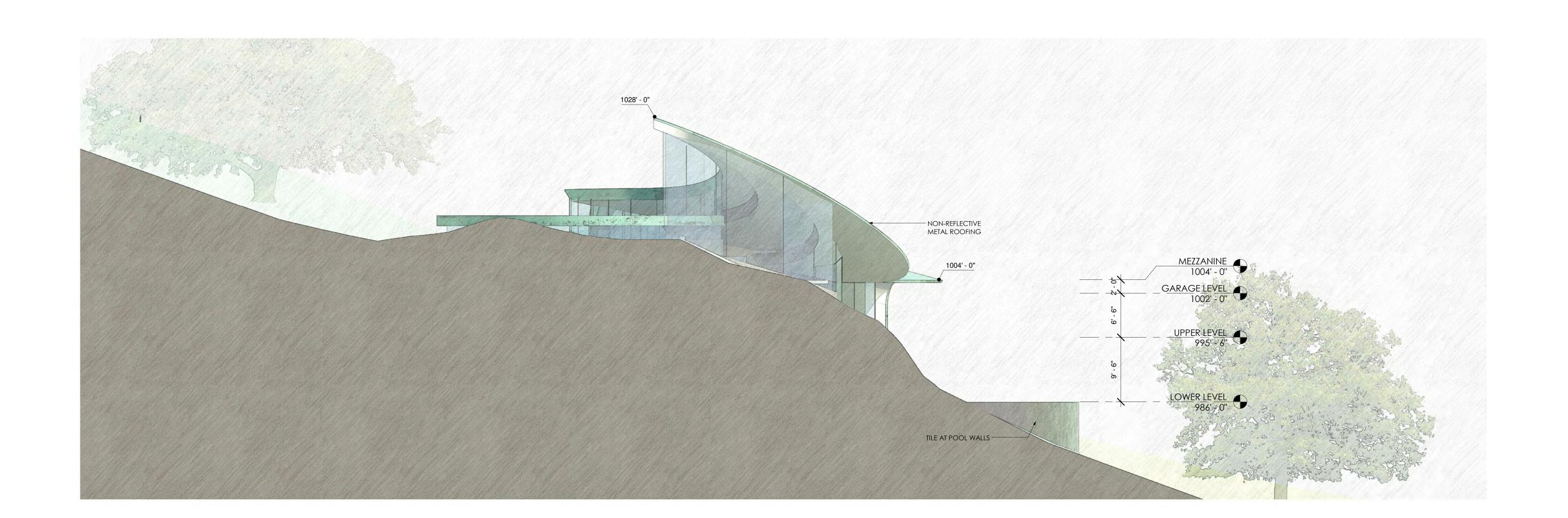
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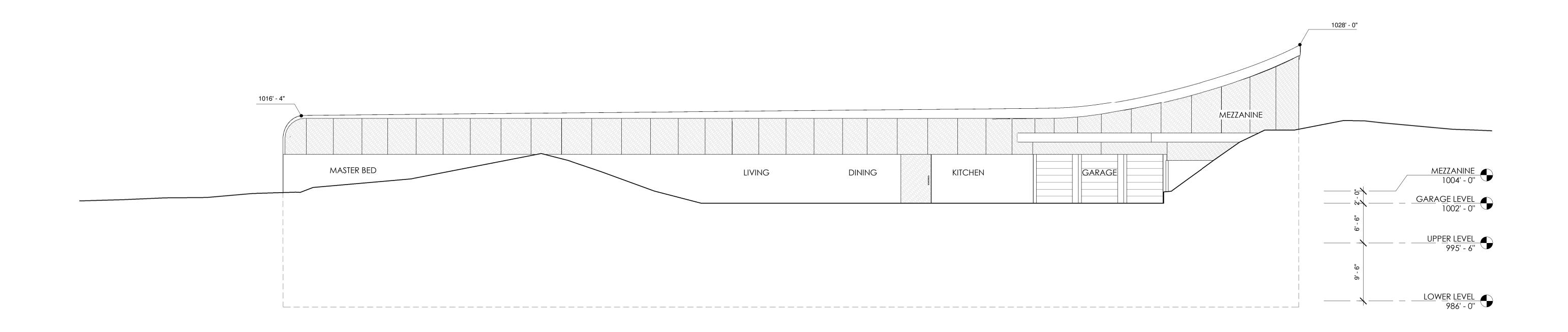


NORTH ELEVATION scale: 1/8" = 1'-0"



NORTH ELEVATION RENDERING

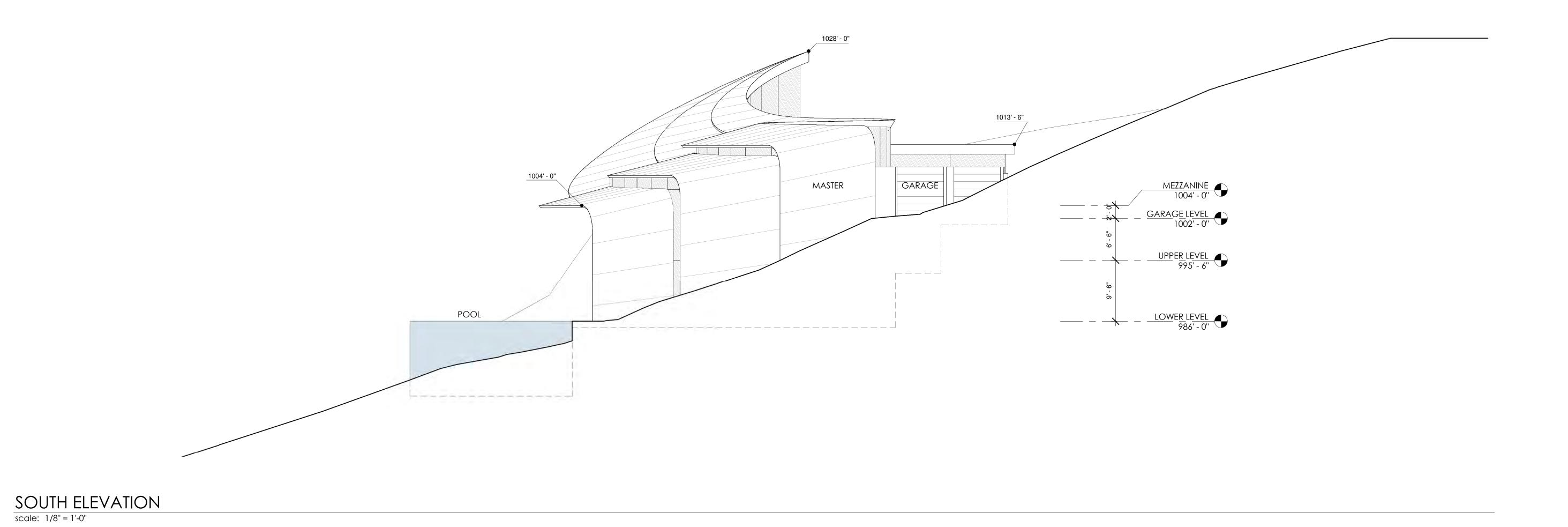
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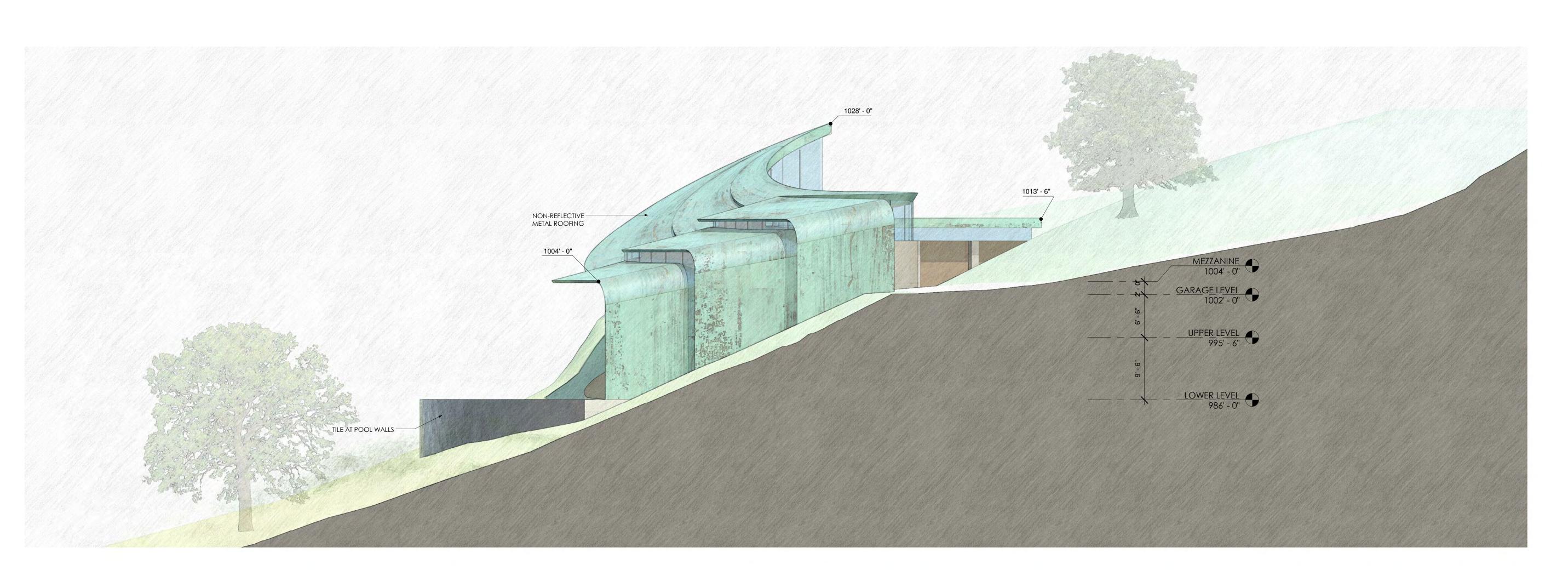




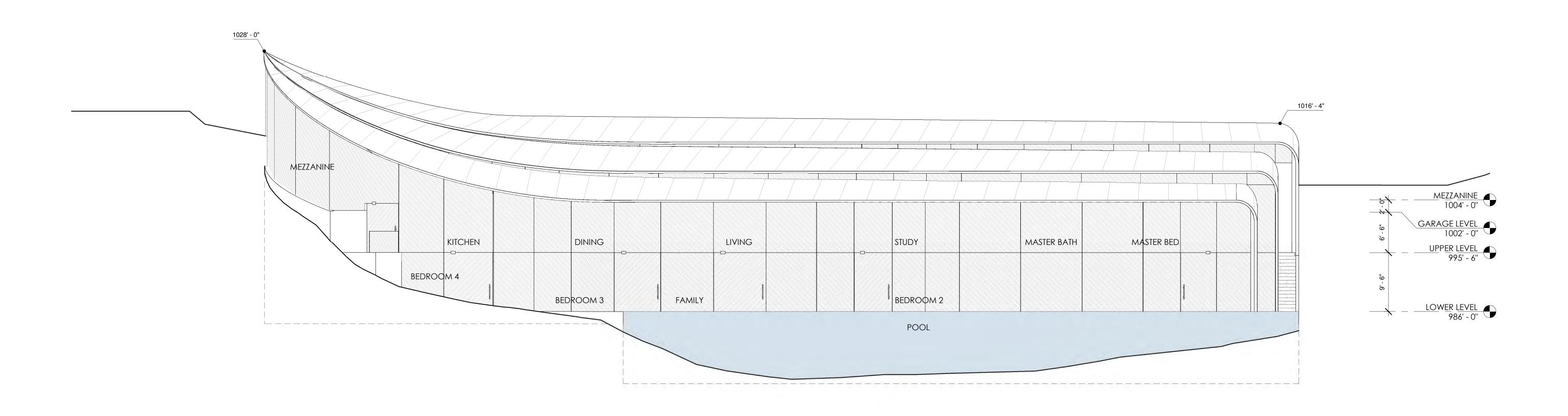
EAST ELEVATION RENDERING scale: 1/8" = 1'-0"

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

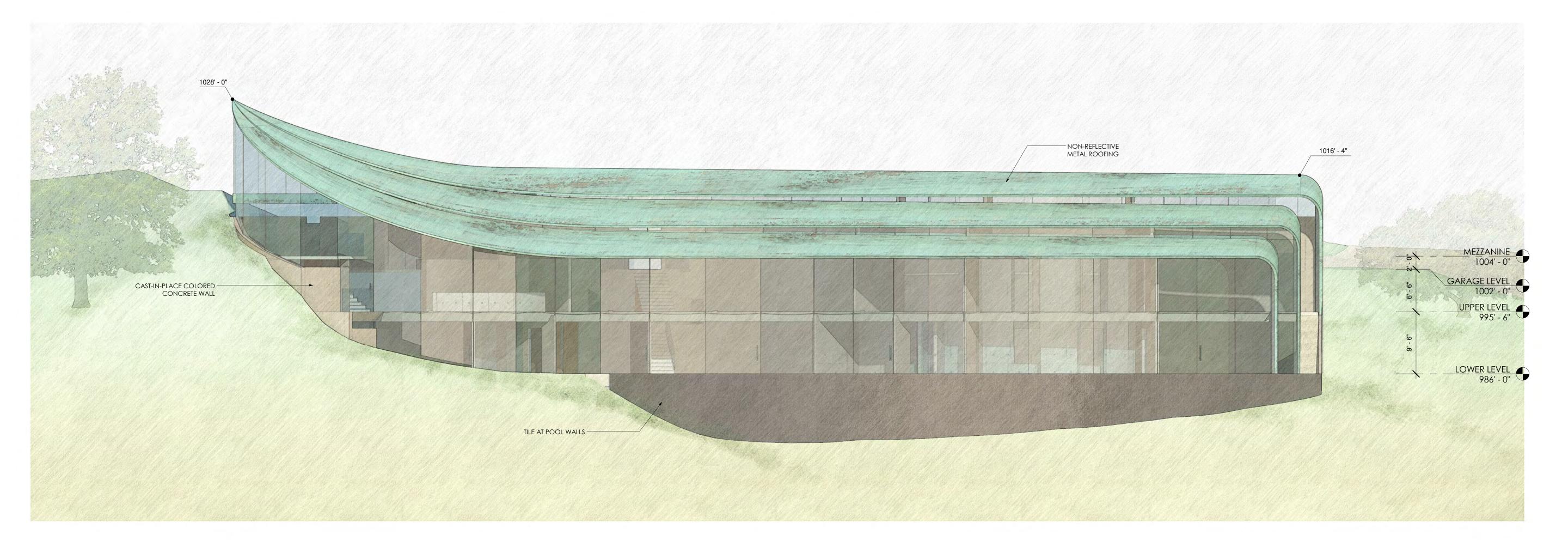




SOUTH ELEVATION RENDERING scale: 1/8" = 1'-0"







WEST ELEVATION RENDERING scale: 1/8" = 1'-0"

IGN ARRANGEMENTS, DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS PREPARED BY WALLACE E. CUNNINGHAM,
IGN ARRANGEMENTS, DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS PREPARED BY WALLACE E. CUNNINGHAM,
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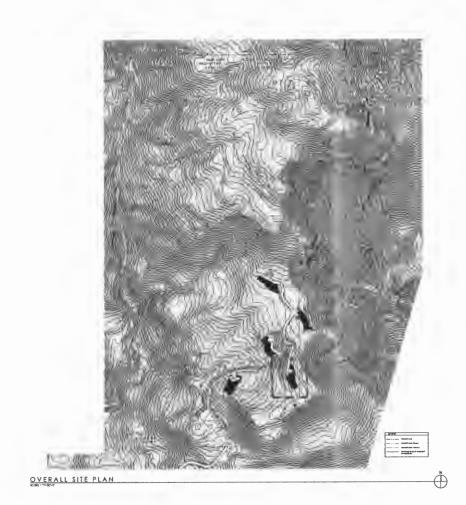
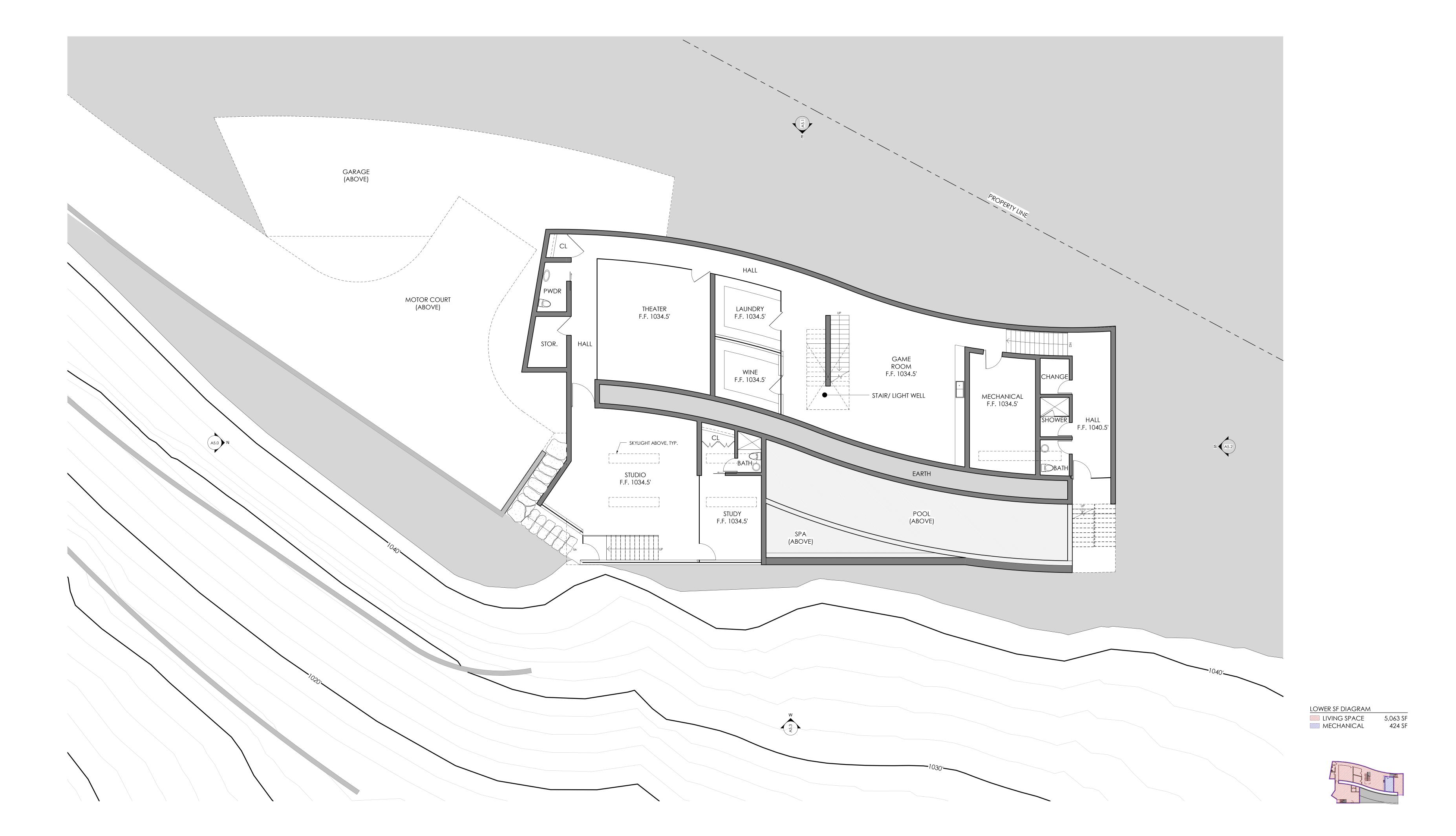


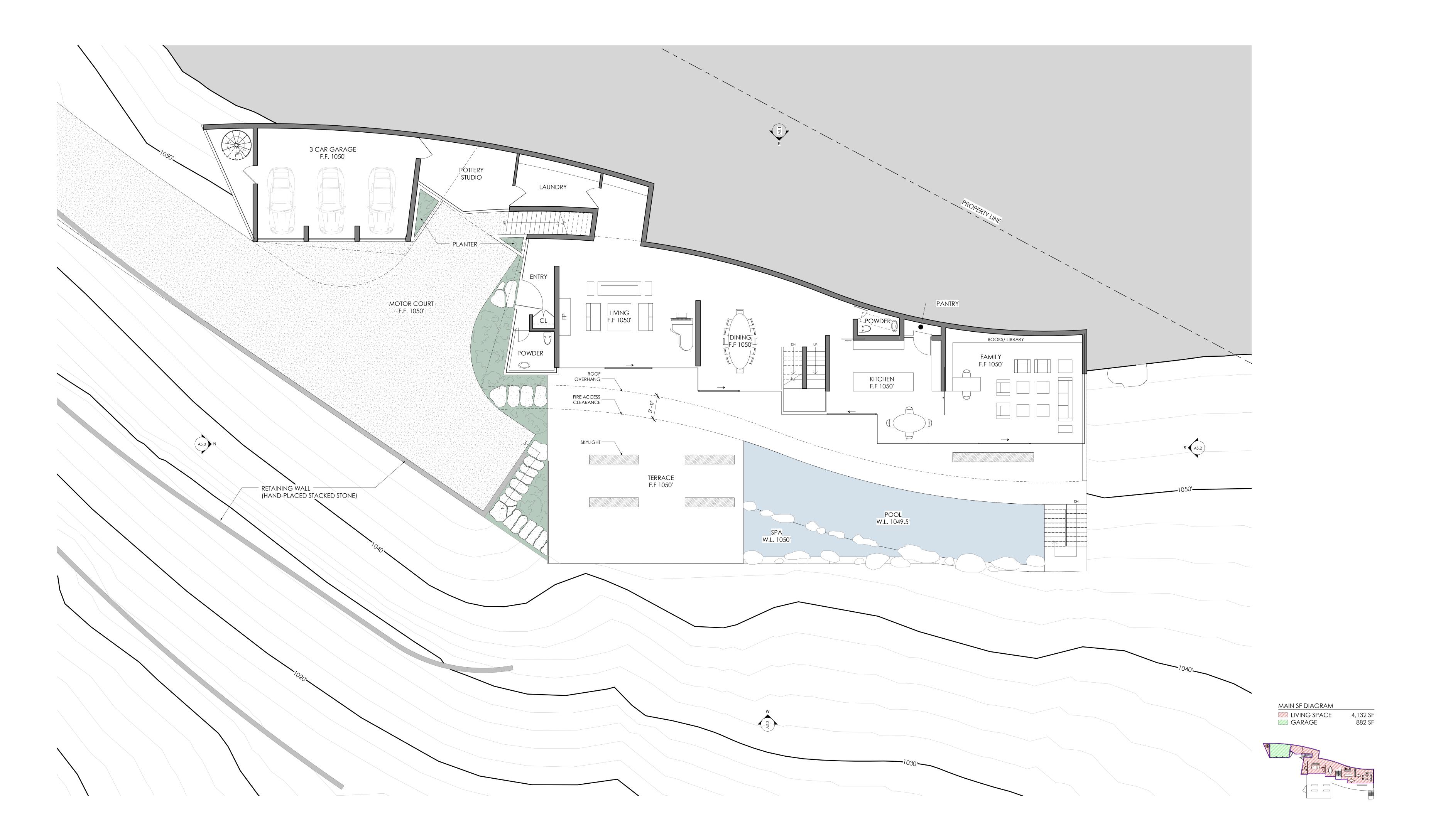
Exhibit 6

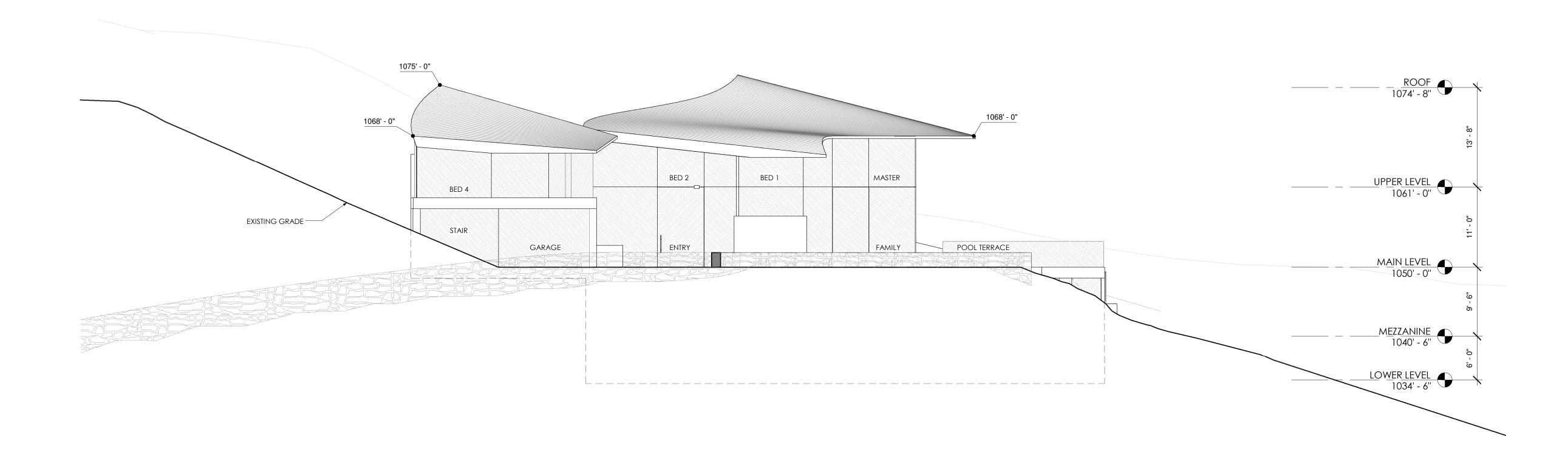
CDP 4-10-040, 4-10-041, 4-10-042, 4-10-044, 4-14-0598, 4-14-1094

Residence 3 (Vera) Project Plans

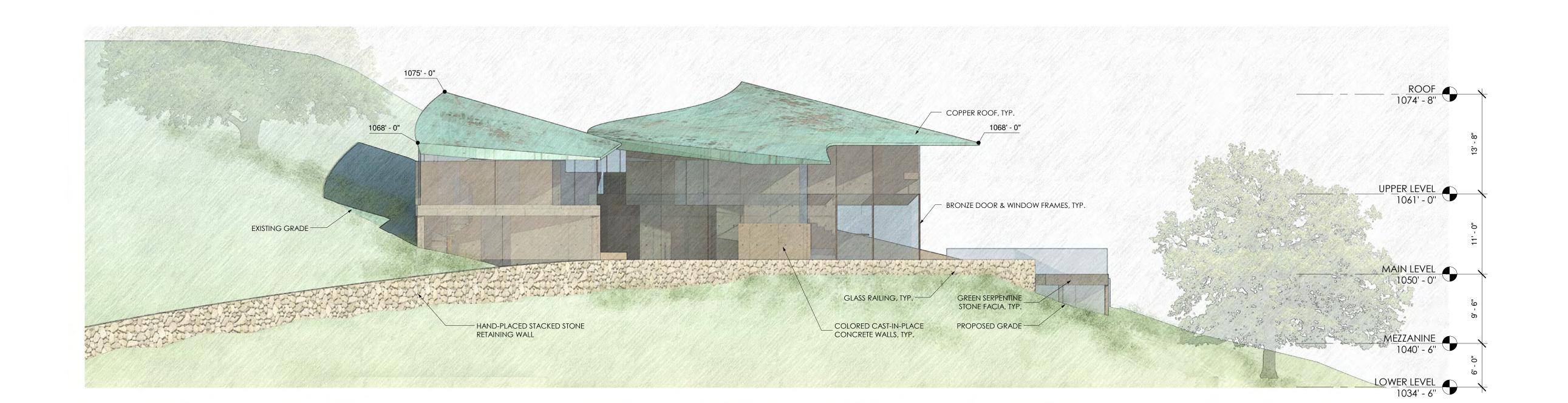


LOWER LEVEL FLOOR PLAN scale: 1/8" = 1'-0"



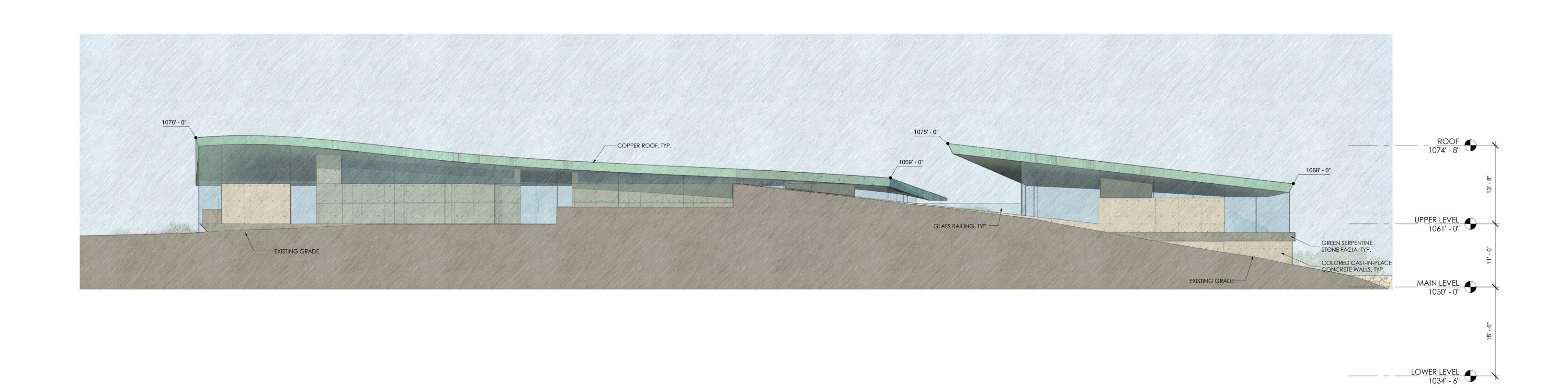


NORTH ELEVATION scale: 1/8" = 1'-0"

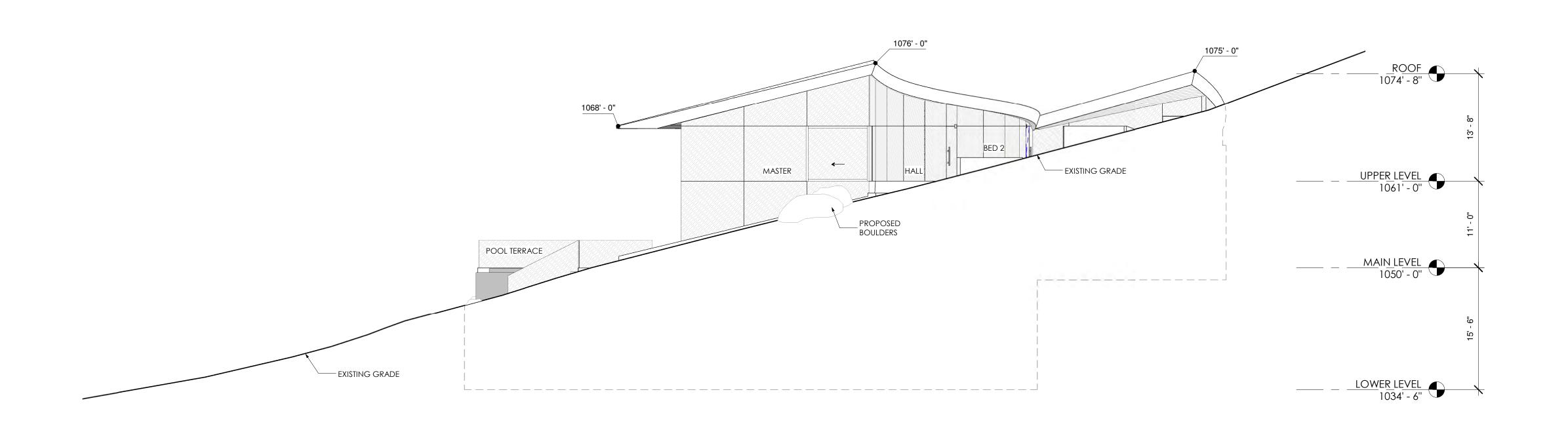


NORTH ELEVATION RENDERING scale: 1/8" = 1'-0"

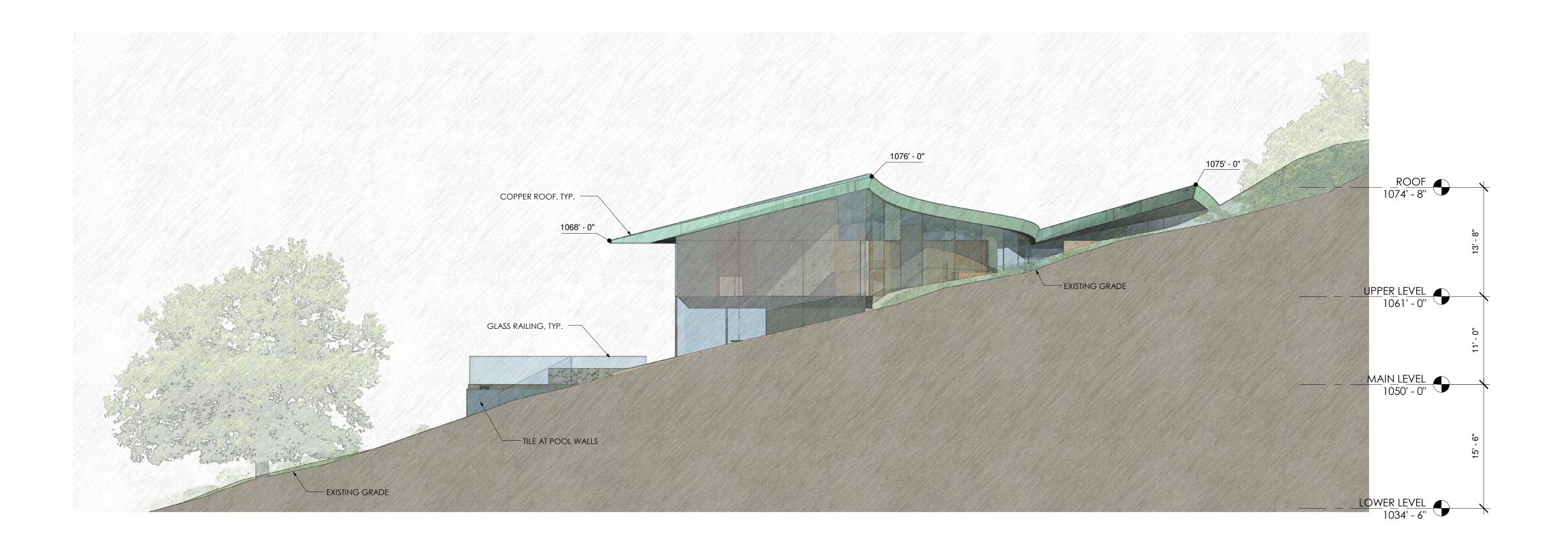
Scale: 1/8" = 1'-0"



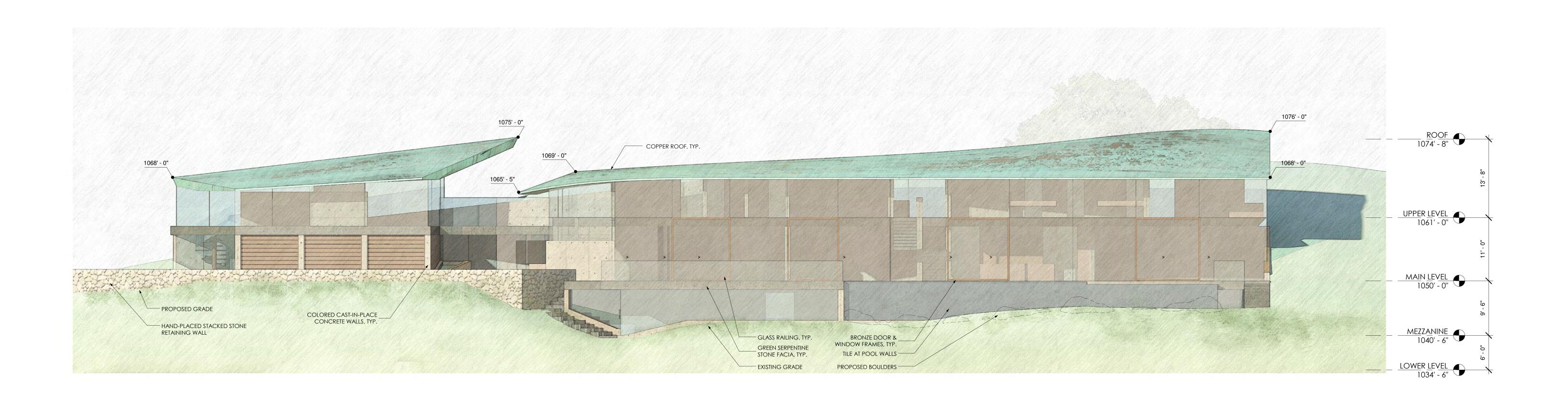
EAST ELEVATION RENDERING scale: 1/8" = 1'-0"



SOUTH ELEVATION scale: 1/8" = 1'-0"



WEST ELEVATION scale: 1/8" = 1'-0"



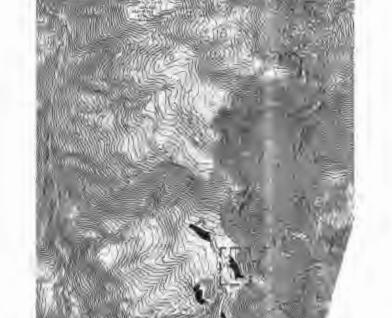




Exhibit 7

CDP 4-10-040, 4-10-041, 4-10-042, 4-10-044, 4-14-0598, 4-14-1094

Residence 4 (Lunch) Project Plans



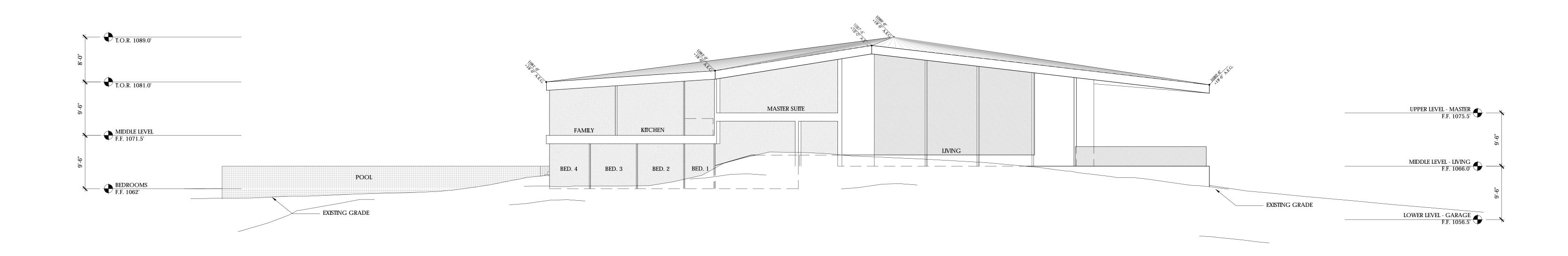












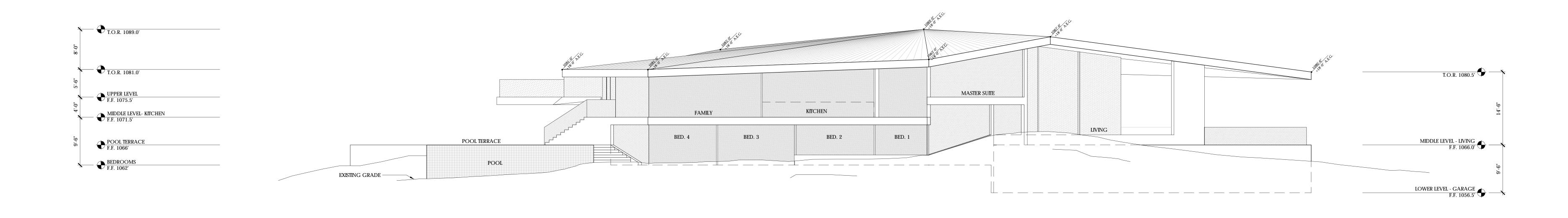
NORTH ELEVATION scale: 1/8"=1'-0"



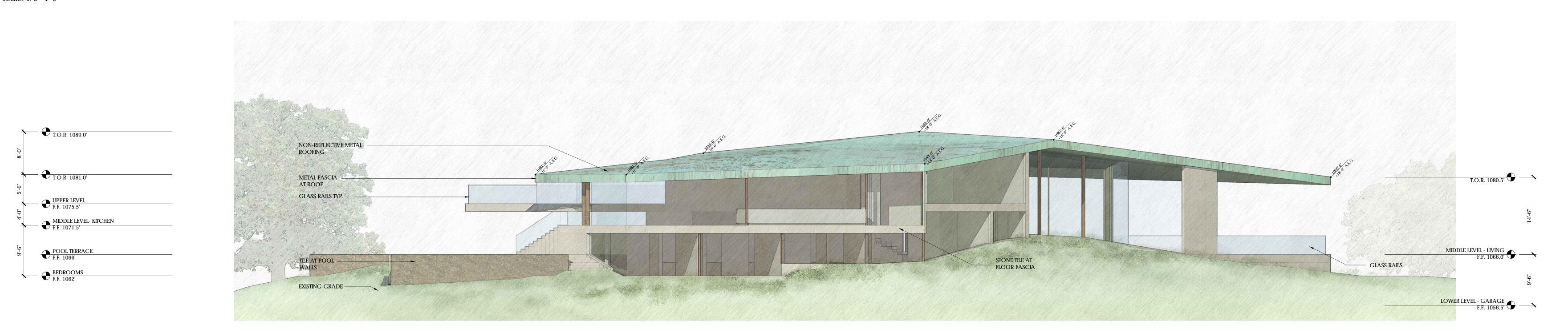
NORTH ELEVATION RENDEREDING scale: 1/8"=1'-0"

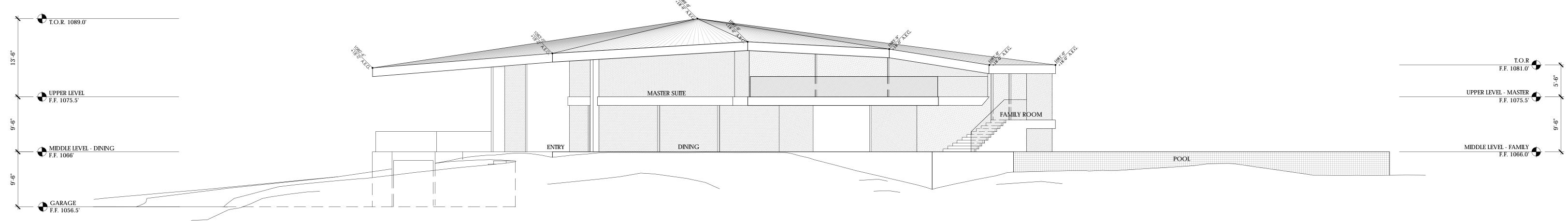
NOTE: TREES SHOWN FOR PRESENTATION ONLY.





EAST ELEVATION scale: 1/8"=1'-0"





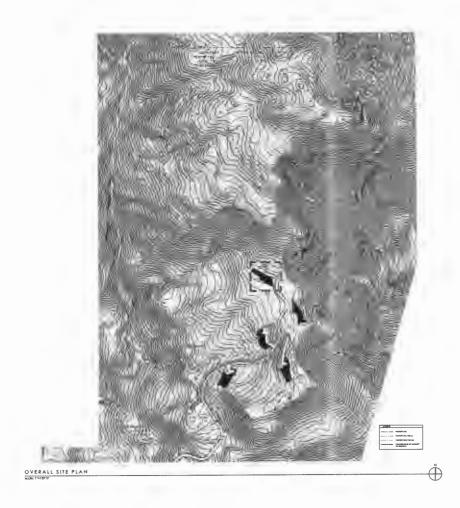
SOUTH ELEVATION scale: 1/8"=1'-0"



SOUTH ELEVATION RENDERING scale: 1/8"=1'-0"



WEST ELEVATION RENDERING scale: 1/8"=1'-0"



A1.0

Exhibit 8

CDP 4-10-040, 4-10-041, 4-10-042, 4-10-044, 4-14-0598, 4-14-1094

Residence 5 (Ronan) Project Plans



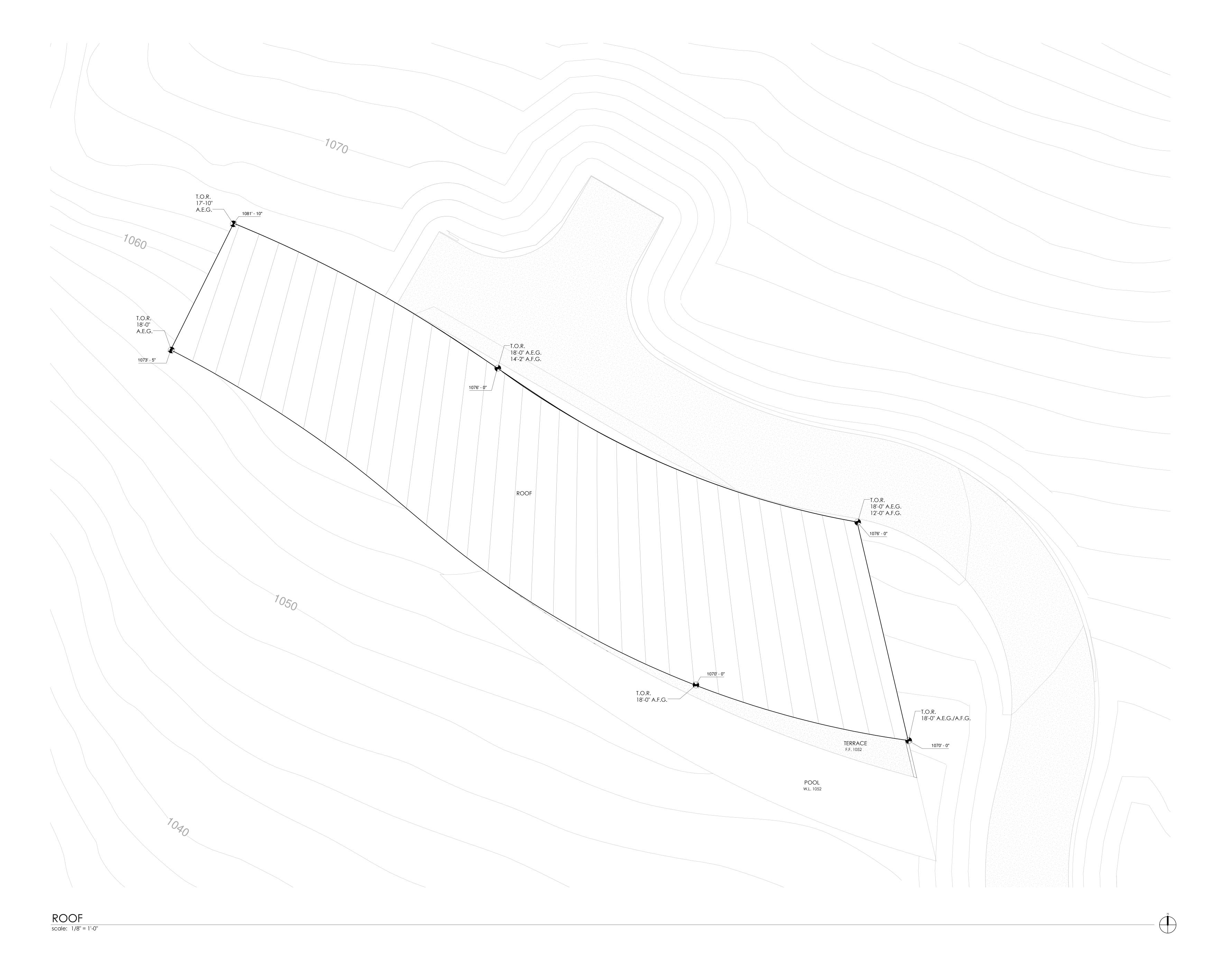
LOWER SF DIAGRAM

LIVING SPACE 5,645 SF

A2.0

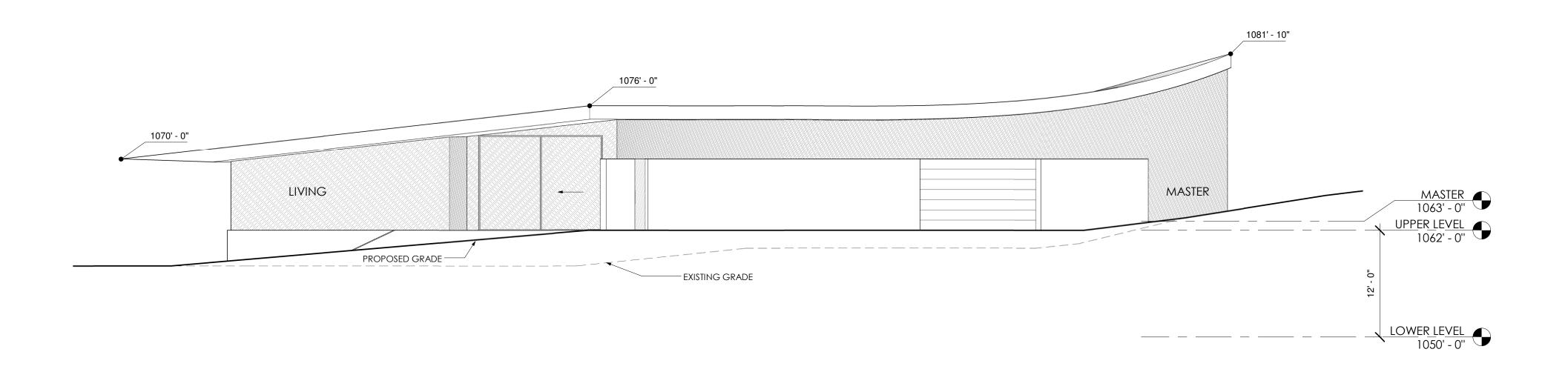


A2.1



NORTH ELEVATION scale: 1/8" = 1'-0"

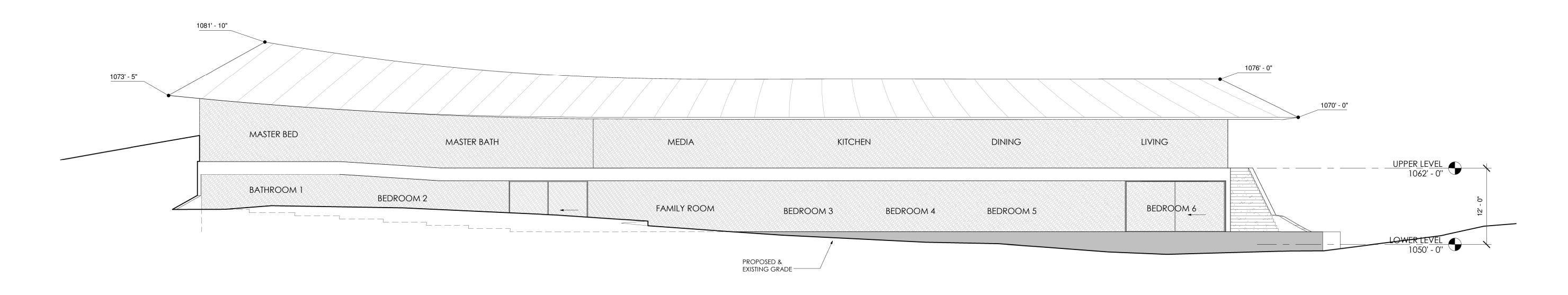




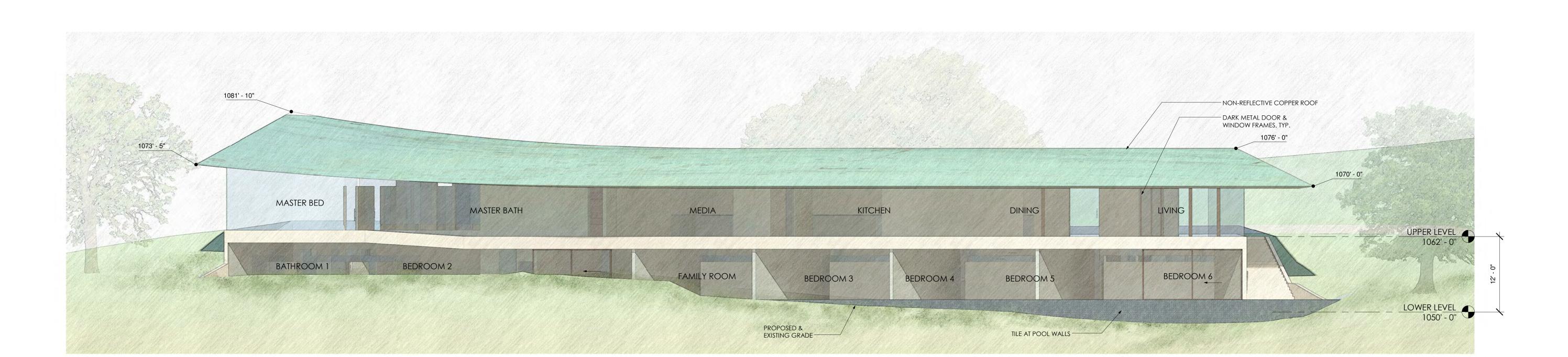
EAST ELEVATION scale: 1/8" = 1'-0"



EAST ELEVATION RENDERING scale: 1/8" = 1'-0"



SOUTH ELEVATION scale: 1/8" = 1'-0"



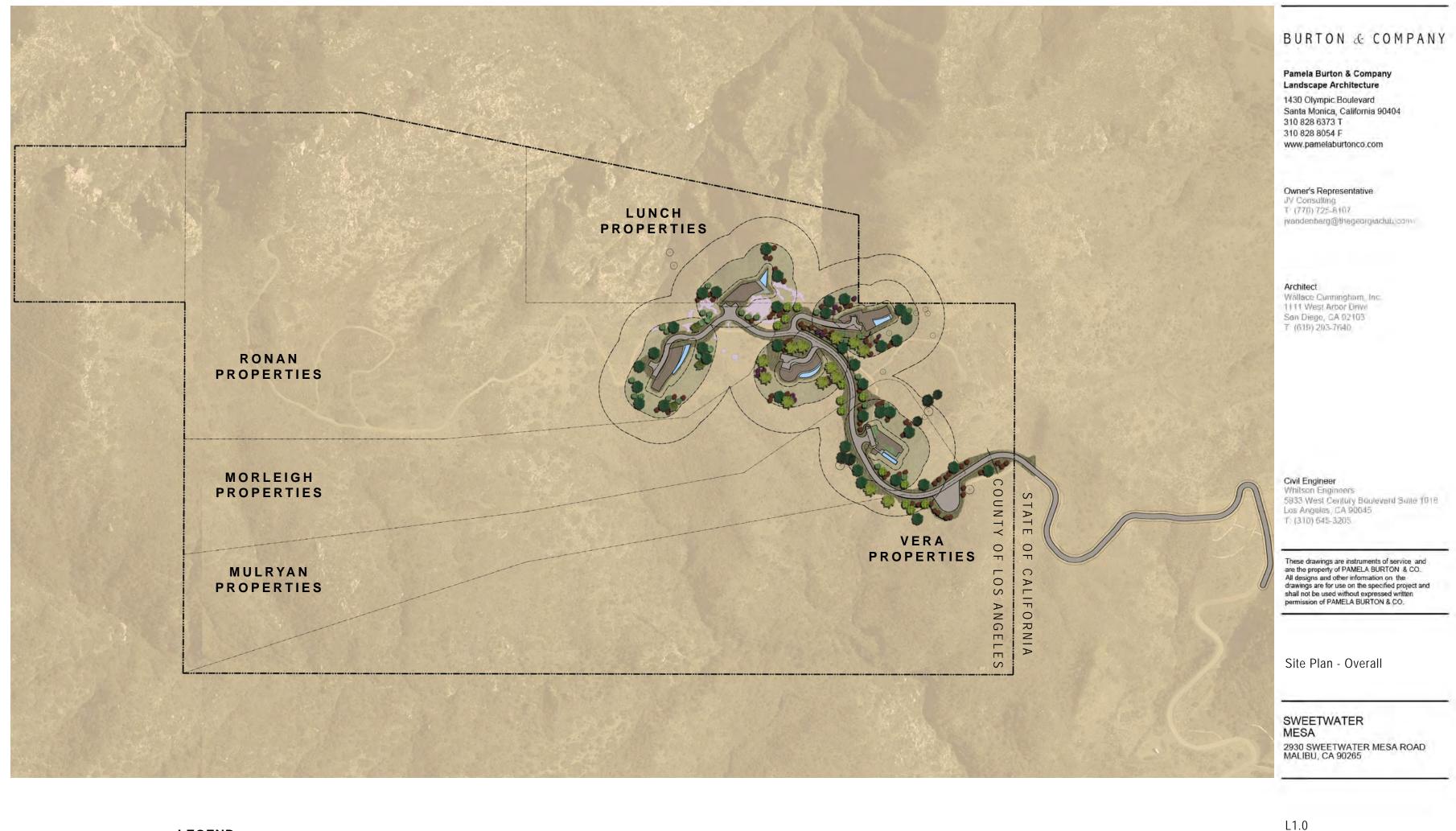
SOUTH ELEVATION RENDERING scale: 1/8" = 1'-0"

WEST ELEVATION
scale: 1/8" = 1'-0"



WEST ELEVATION RENDERING

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



LEGEND

— - — - Fuel Modification Zones

—--- Property Line Lot Lines

© ₹

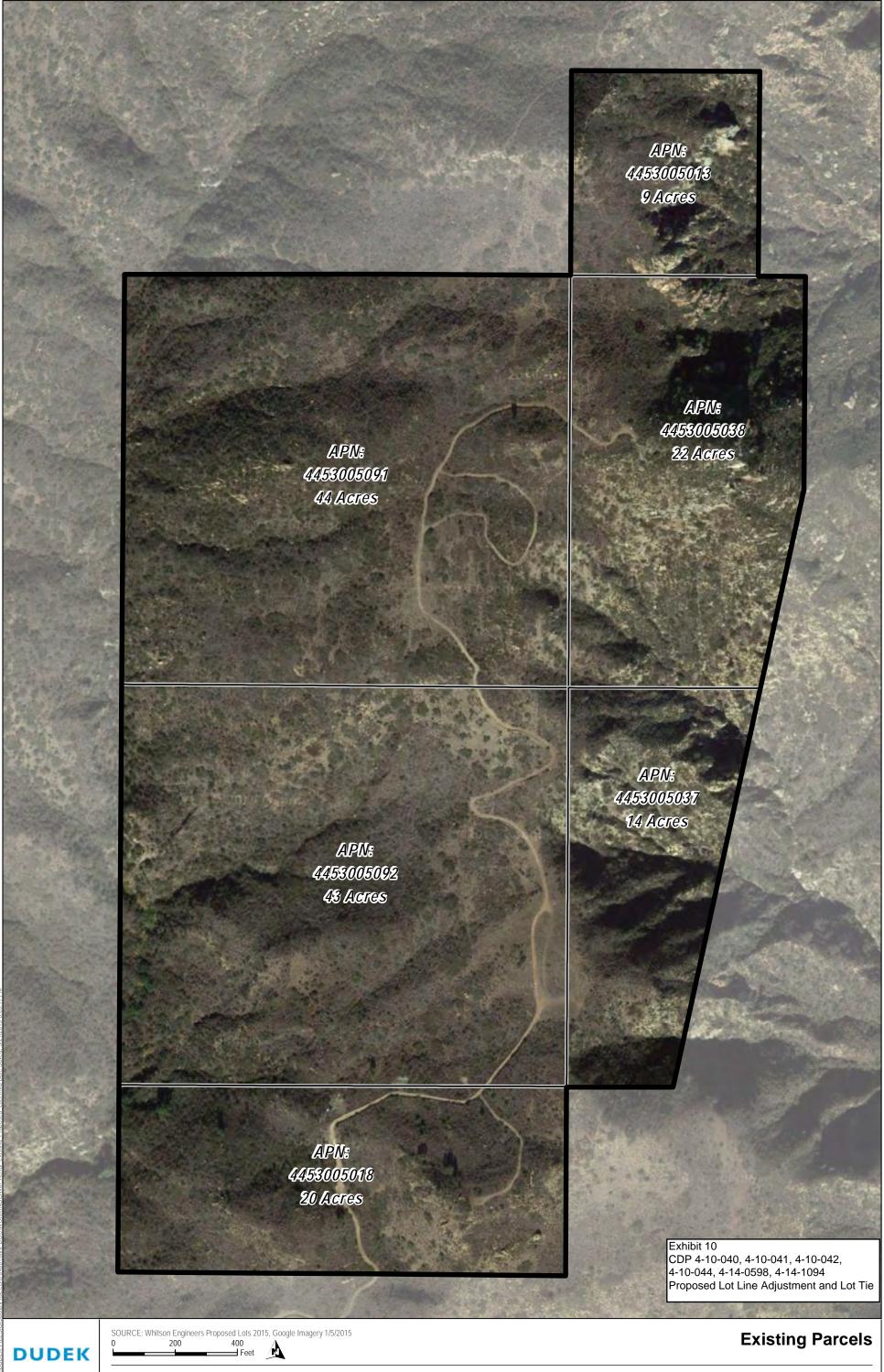
Existing Oak Purple Needlegrass area

Exhibit 9 CDP 4-10-040, 4-10-041, 4-10-042, 4-10-044, 4-14-0598, 4-14-1094 Fuel Modification Plans

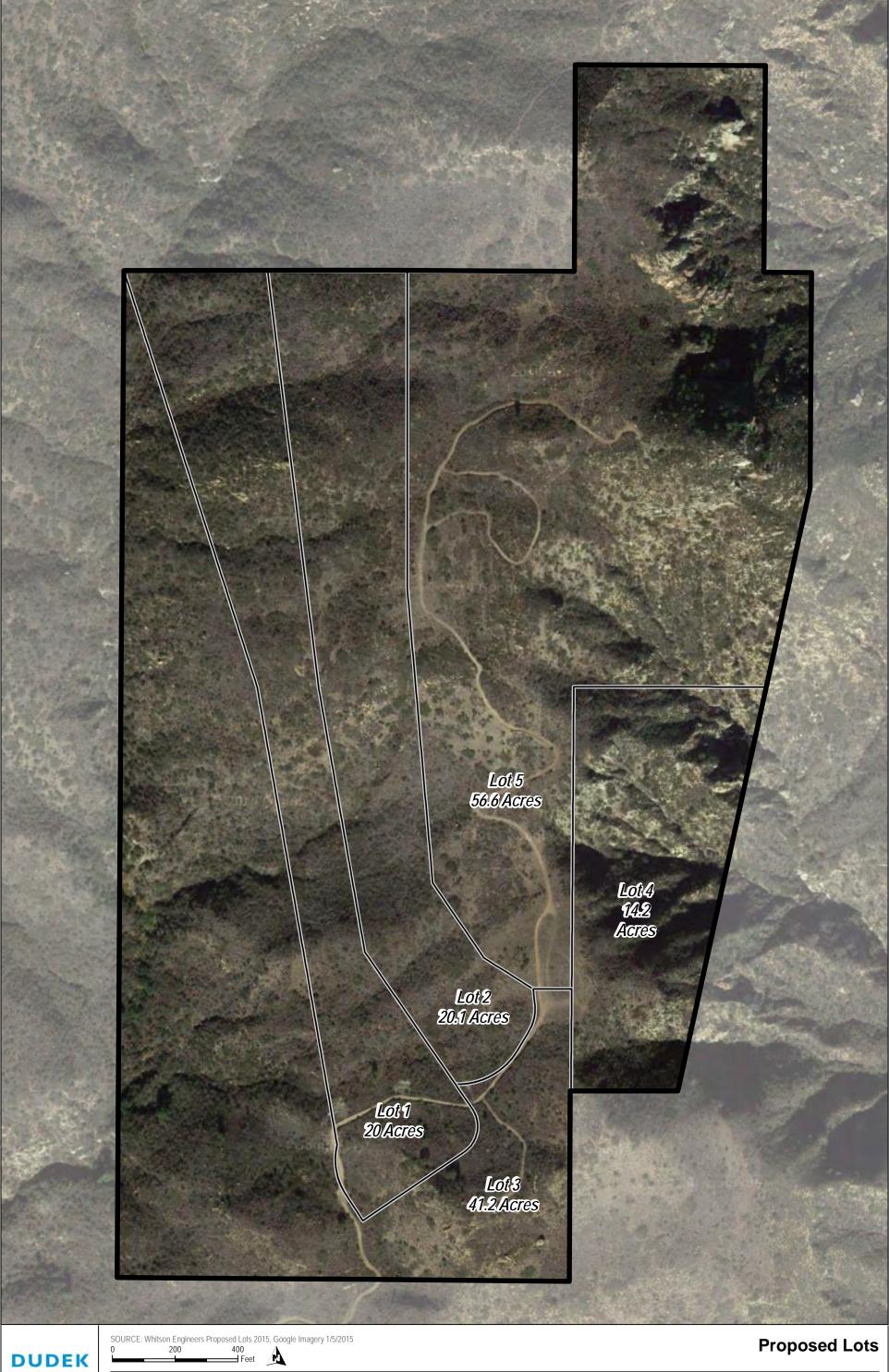


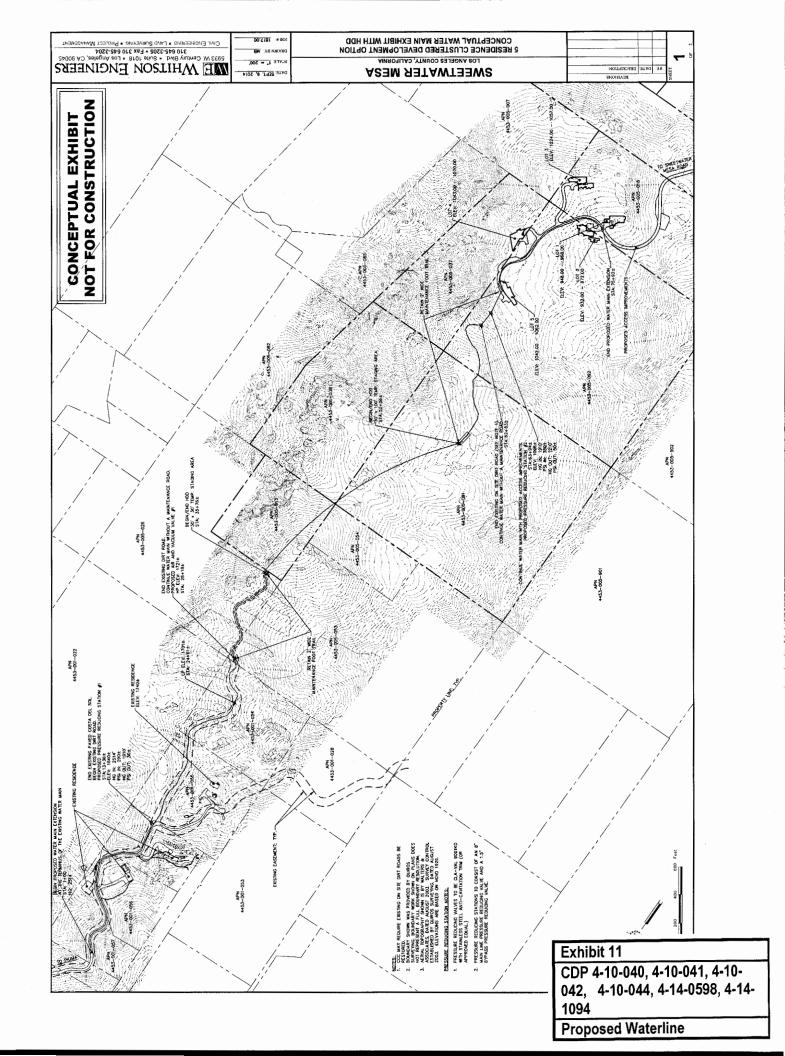
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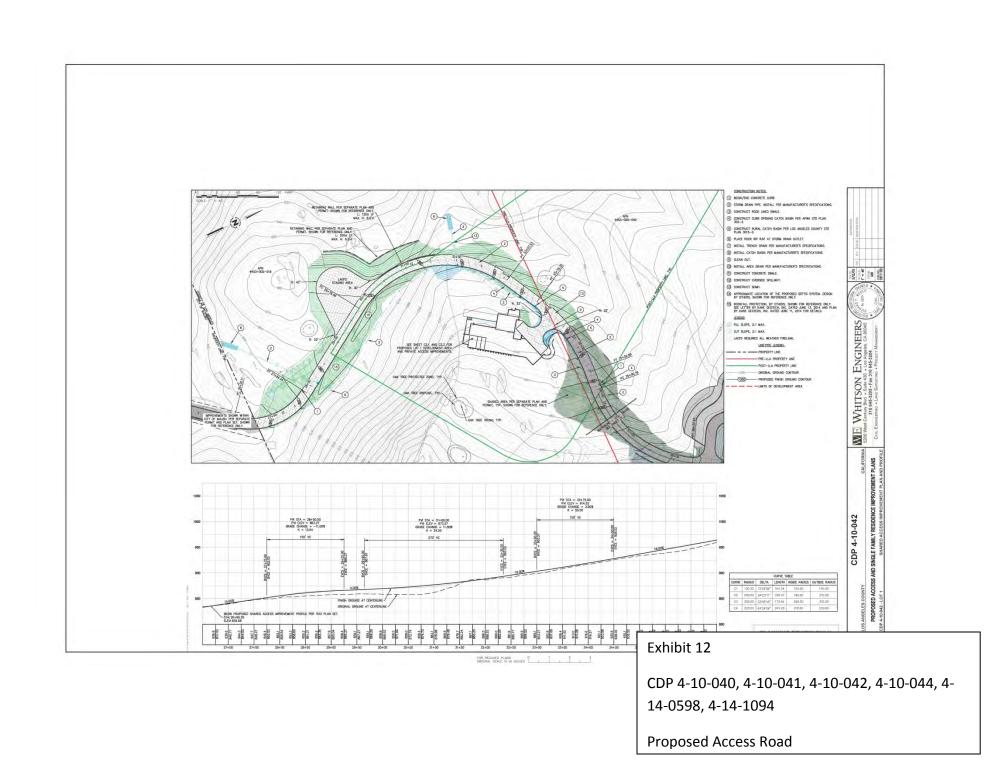
04.10.2015 SCALE: AS NOTED DRWN BY: RC CHKD BY: MSM

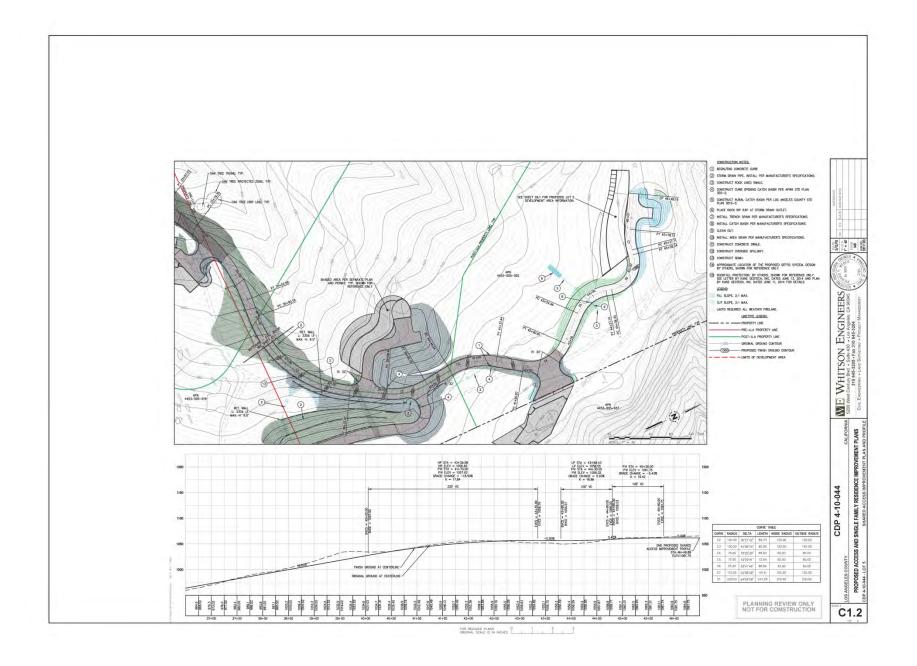


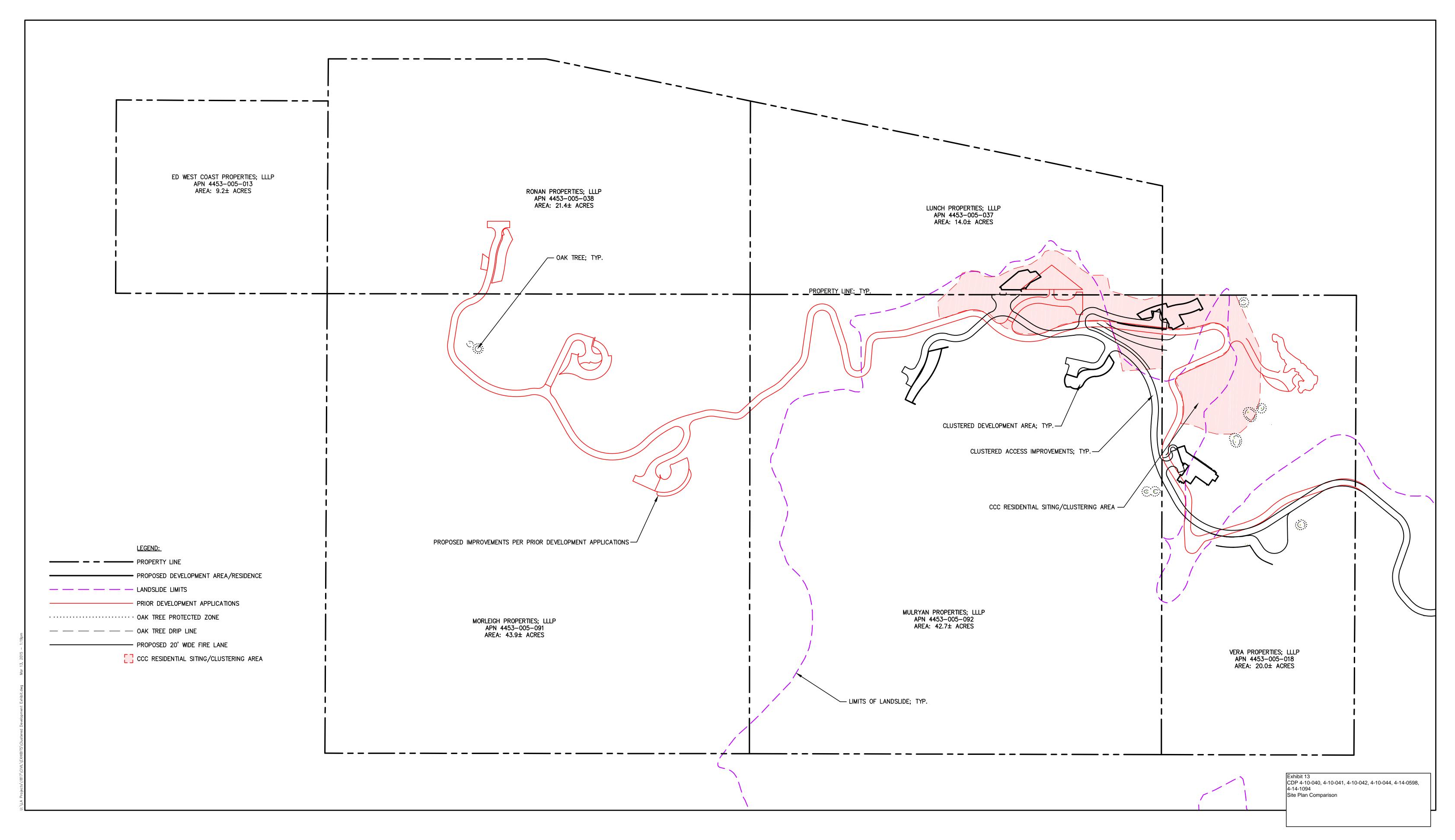
SWEETWATER MESA RESIDENTIAL PROJECT



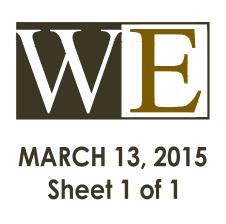




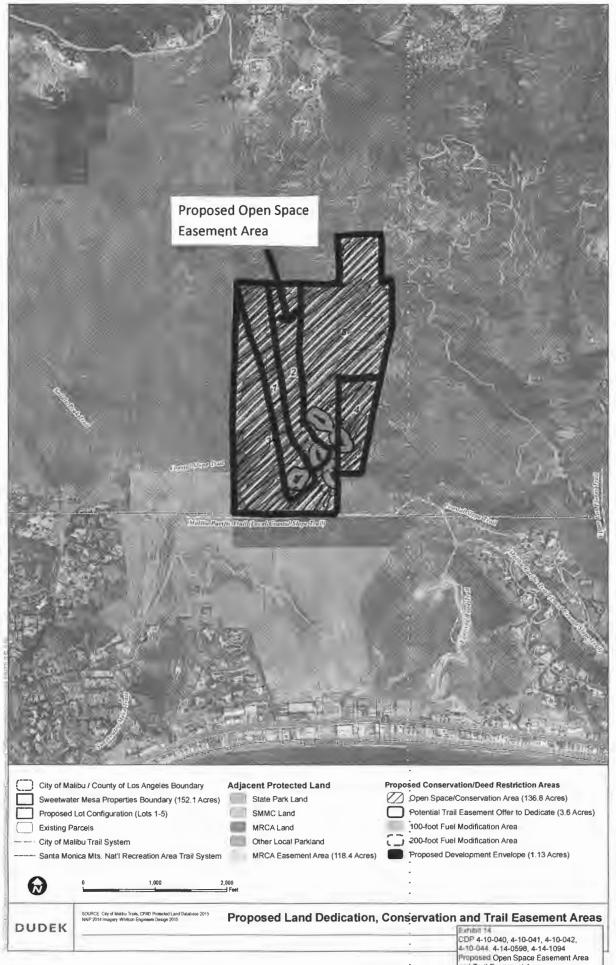




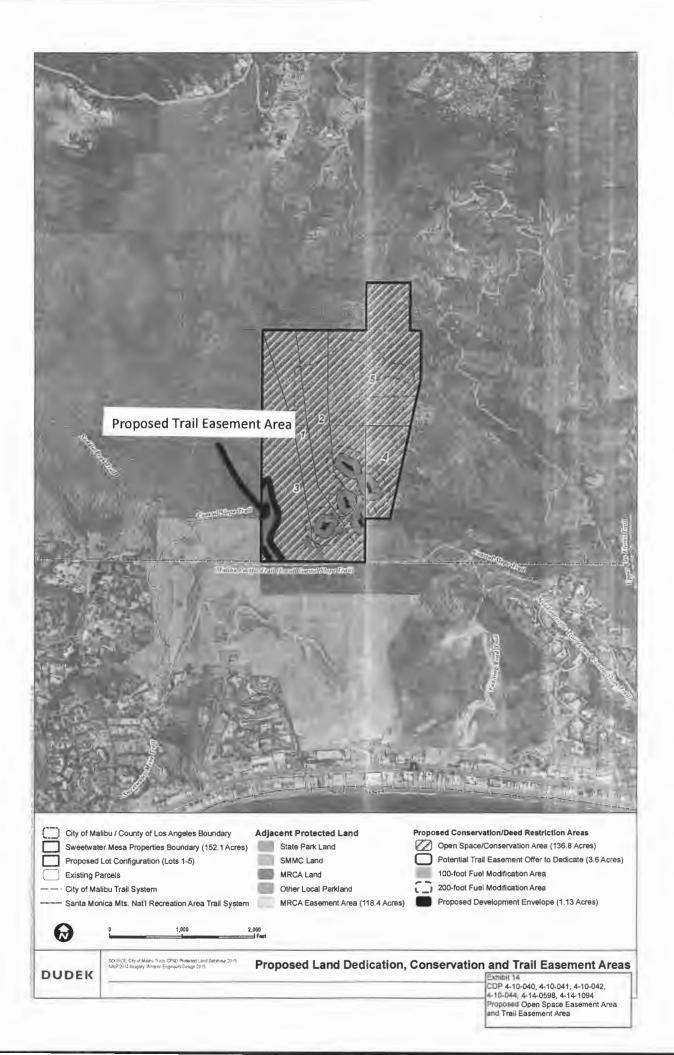




1" = 130'



CDP 4-10-040, 4-10-041, 4-10-042, 4-10-044, 4-14-0598, 4-14-1094 Proposed Open Space Easement Area and Trail Easement Area



CALIFORNIA COASTAL COMMISSION

45 FREMONT STREET, SUITE 2000 SAN FRANCISCO, CA 94105-2219 VOICE (415) 904-5200 FAX (415) 904-5400 TDD (415) 597-5885



28 April 2015

GEOTECHNICAL REVIEW MEMORANDUM

To: Jacqueline Blaugrund, Coastal Program Analyst

From: Mark Johnsson, Staff Geologist

Re: Sweetwater Mesa Project

On 25 January 2011 I provided a geotechnical review memorandum to Deanna Christensen, Coastal Program Analyst, reviewing an earlier version of this project. In conjunction with my analysis, I reviewed some 76 geotechnical reports and plans (see Appendix A), visited the site, and had numerous discussions with the applicants' technical consultants and the staff of Cotton, Shires and Associates, who served as additional technical consultants for the Commission staff. My memorandum was attached to the June 2011 staff report for this item, and reviewed issues related to local geology, slope stability, rockfall hazard, and stability of the proposed water line. The project has since been reconfigured, but the geologic issues remain relatively unchanged.

More recently, I have reviewed the following documents:

- Land Phases, 2014, "Report of update engineering geologic study, proposed lot line adjustment and custom single-family residential development, APN 4453-005-092, "Lot 1" Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California", 77 p. Engineering Geologic Report dated 5 June 2014 and signed by J. W. Holt (CEG 2282 CHG 816).
- Land Phases, 2014, "Report of update engineering geologic study, proposed custom single-family residential development, APN 4453-005-037, "Lot 4" Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California", 77 p. Engineering Geologic Report dated 5 June 2014 and signed by J. W. Holt (CEG 2282 CHG 816).
- Land Phases, 2014, "Report of update engineering geologic study, proposed lot line adjustment and custom single-family residential development, APN 4453-005-091, "Lot 2" Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California", 77 p. Engineering Geologic Report dated 5 June 2014 and signed by J. W. Holt (CEG 2282 CHG 816).
- Land Phases, 2014, "Report of update engineering geologic study, proposed lot line adjustment and custom single-family residential development, APN 4453-005-018, "Lot 3" Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California", 77 p. Engineering Geologic Report dated 5 June 2014 and signed by J. W. Holt (CEG 2282 CHG 816).
- Land Phases, 2014, "Report of update engineering geologic study, proposed lot line adjustment and custom single-family residential development, APN 4453-005-038, "Lot 5" Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California", 77 p. Engineering Geologic Report dated 5 June 2014 and signed by J. W. Holt (CEG 2282 CHG 816).
- Land Phases, 2014, "Engineering geologic memorandum, proposed custom single-family residential development, APN 4453-005-037, -018, -091, -092, and -038, Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California", 2 p. Engineering Geologic Memorandum dated 6 August 2014 and signed by J. W. Holt (CEG 2282 CHG 816).
- CalWest Geotechnical, 2014, "Geotechnical engineering memorandum, proposed custom single-family residential development, APN 4453-005-037, -018, -091, -092, and -038, Sweetwater Mesa Road, Malibu

Exhibit 15 CDP 4-10-040, 4-10-041, 4-10-042, 4-10-044, 4-14-0598, 4-14-1094 Dr. Mark Johnsson Memorandum

- Area, County of Los Angeles, California", 3 p. Geotechnical Engineering Memorandum dated 11 August 2014 and signed by L. Liston (CE 31902).
- Calwest Geotechnical, 2014, "Update geotechnical engineering report, proposed custom single-family residential development, APN 4453-005-092, "Lot 1" Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California", 25 p. Geotechnical Engineering Report dated 17 June 2014 and signed by L. Liston (CE 31902) and R. Haro (GE 2990).
- CalWest Geotechnical, 2014, "Update geotechnical engineering report, proposed custom single-family residential development, APN 4453-005-037, "Lot 4" Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California", 24 p. Geotechnical Engineering Report dated 17 June 2014 and signed by L. Liston (CE 31902) and R. Haro (GE 2990).
- CalWest Geotechnical, 2014, "Update geotechnical engineering report, proposed custom single-family residential development, APN 4453-005-091, "Lot 2" Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California", 26 p. Geotechnical Engineering Report dated 18 June 2014 and signed by L. Liston (CE 31902) and R. Haro (GE 2990).
- CalWest Geotechnical, 2014, "Update geotechnical engineering report, proposed custom single-family residential development, APN 4453-005-018, "Lot 3" Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California", 26 p. Geotechnical Engineering Report dated 16 June 2014 and signed by L. Liston (CE 31902) and R. Haro (GE 2990).
- CalWest Geotechnical, 2014, "Update geotechnical engineering report, proposed and custom single-family residential development, APN 4453-005-038, "Lot 5" Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California", 25 p. Geotechnical Engineering Report dated 19 June 2014 and signed by L. Liston (CE 31902) and R. Haro (GE 2990).

I also have reviewed site plans, pile plans, and grading plans for each of the homesites, plans for the proposed driveway, and plans for the proposed water lines.

After reviewing these items, I find all of my findings, conclusions, and recommendations from my 2011 memorandum to remain valid for the reconfigured project.

I hope that this review is helpful. Please do not hesitate to contact me with any further questions.

Sincerely,

Mark Johnsson, Ph.D., CEG, CHG

Mark for

Staff Geologist

APPENDIX A: Reviewed Documents and Drawings

- CalWest Geotechnical Engineering Consultants, May 25, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-037 (Lunch), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, May 25, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-018 (Vera), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, June 1, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-092 (Mulryan), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, June 4, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-091 (Morleigh), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, October 2, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-038 (Ronan), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 20, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-018 (Vera), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 27, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-037 (Lunch), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 28, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-091 (Morleigh), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 28, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-092 (Mulryan), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, July 14, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150005.
- CalWest Geotechnical Engineering Consultants, July 22, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150004.
- CalWest Geotechnical Engineering Consultants, July 23, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150004.
- CalWest Geotechnical Engineering Consultants, May 1, 2009, Geotechnical Sections and Geologic Map, APN 4453-005-018.
- CalWest Geotechnical Engineering Consultants, May 15, 2009, Geotechnical Engineering Supplemental Report, Proposed Compacted "Non-Structural" Fill Areas (Mulryan).
- CalWest Geotechnical Engineering Consultants, July 7, 2009, Geotechnical Engineering Letter II.
- CalWest Geotechnical Engineering Consultants, July 28, 2009, Geotechnical Engineering Letter, Preliminary Grading Plan Review, Proposed Single-Family Residential Development, Malibu Area, County of Los Angeles.

- CalWest Geotechnical Engineering Consultants, May 3, 2010, Supplemental Geotechnical Engineering Letter #1, Additional Clarification of Design Recommendations and Response to California Coastal Commission Review Prepared by Cotton, Shires and Associates, Inc., Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, September 13, 2010, Supplemental Geotechnical Engineering Letter #2, Clarification to E-Mail From David Schrier (dschrier@cottonshires.com) Sent Friday, September 10, 2010 5:54 PM on Behalf of The California Coastal Commission, Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, September 30, 2010, Supplemental Geotechnical Engineering Letter #3, Additional Comments, Clarification and Response to Items Discussed at the Meeting Held at The California Coastal Commission on September 15, 2010; Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, October 13, 2010, Addendum to Supplemental Geotechnical Engineering Letter #3 dated September 30,2010, Additional Comments, Clarification and Response to Items Discussed at the Meeting Held at The California Coastal Commission on September 15, 2010; Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 1, 2010, Supplemental Geotechnical Engineering Letter #4, Response to Items Discussed Within the Memorandum Prepared by Cotton, Shires and Associates, Dated October 26, 2010 (included in Appendix A), Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 8, 2010, Supplemental Geotechnical Engineering Letter #5, Response to Discussion Items at The California Coastal Commission Meeting in San Francisco on November 2, 2010 Regarding Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 11, 2010, Supplemental Geotechnical Engineering Letter #6, Proposed Staging Area, Compacted "Non-Structural" Fill, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 15, 2010, Supplemental Geotechnical Engineering Letter #7, Clarification of Design Loads for the Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 20, 2010, RE: Draft report by Cotton Shires & Associates, Inc. dated December 17, 2010.
- CalWest Geotechnical Engineering Consultants, December 27, 2010, Supplemental Geotechnical Engineering Letter #8, Additional Comments and Clarification of Stability Analysis and Geotechnical Design Load Criteria, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, January 17, 2011, Supplemental Geotechnical Engineering Letter #9, Additional Comments and Clarification of Stability Analysis and Geotechnical Design Load Criteria, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, January 20, 2011, Supplemental Geotechnical Engineering Letter #8 (Revised), Additional Comments and Clarification of Stability Analysis and Geotechnical Design Load Criteria, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- Czerniak, E. 1957. "Resistance to Overturning of Single, Short Piles, in the Journal of the Structural Division, Proceedings of the American Society of Civil Engineers, Paper 1188, 1188-1 1188-25.
- Cotton, Shires and Associates, Inc., March 8, 2010, Summary of Findings Civil and Geotechnical Engineering and Engineering Geologic Peer Review Services, Sweetwater Mesa Development Project, Malibu, California.

- Cotton, Shires and Associates, Inc., January 21, 2011, January 2011 Summary of Findings Civil and Geotechnical Engineering and Engineering Geologic Peer Review Services, Sweetwater Mesa Development Project, Malibu, California.
- County of Los Angeles, Dept of Public Works, Geotechnical and Materials Engineering Division, October 27, 2008, Soils Engineering Review Sheet, Review of Conceptual Design Pad for Single Family Residence and Access Road.
- Hohbach-Lewin, Inc. Structural Engineers, December 6, 2010, Memo: Sweetwater Mesa Development Project Civil and Geotechnical Engineering and Engineering Geological Peer Review.
- Hohbach-Lewin, Inc. Structural Engineers, January 10, 2011, Memo: Sweetwater Mesa Road Extension Subject: Supplemental Geotechnical Letter #8, Additional comments and clarifications of Stability Analysis and Geotechnical Design Load Criteria.
- Kane Geotechnical, October 15, 2007, Sweetwater Mesa Rockfall and Mitigation Study, Los Angeles County.
- LC Engineering Group, Inc., September 27, 2009, Engineering Comments on California Coastal Commission's Draft of Scope of Work for Third Party Review, Sweetwater Mesa Development Project.
- LC Engineering Group, Inc., October 20, 2009, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road, Parts 1 and 2.
- LC Engineering Group, Inc., January 27, 2010, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road.
- LC Engineering Group, Inc., May 3, 2010, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road.
- LC Engineering Group, Inc., May 28, 2010, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road.
- LC Engineering Group, Inc., November 16, 2010, Mesa Road Improvements From Sta: 26+70 to 75+53.34, Malibu, Los Angeles County, California (Sheets S-T to S-8).
- Mountain Geology, Inc., September 26, 2006, Report of Limited Engineering Geologic Study, Proposed Water Main, Costa del Sol Way to APN 4453-005-038, -091, -037, -092, and -018, County of Los Angeles, California.
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-092, Mulryan).
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-091, Morleigh).
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-018, Vera), Electronic Copy.
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-037, Lunch), Electronic Copy.
- Mountain Geology, Inc., August 28, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-038, Ronan).
- Mountain Geology, Inc., December 18, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-037, Lunch).
- Mountain Geology, Inc., December 19, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-092, Mulryan).
- Mountain Geology, Inc., December 19, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-018, Vera).
- Mountain Geology, Inc., December 20, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-091, Morleigh).
- Mountain Geology, Inc., July 7, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-018, Vera) Electronic Reference Copy.
- Mountain Geology, Inc., July 8, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-091, Morleigh).

- Mountain Geology, Inc., July 8, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-092, Mulryan).
- Mountain Geology, Inc., July 8, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-037, Lunch).
- Mountain Geology, Inc., May 18, 2009, Engineering Geologic Memorandum Proposed Minor Modifications of Grading Plan, Northerly Terminus of Sweetwater Mesa Road.
- Mountain Geology, Inc., April 23, 2010, Supplemental Engineering Geologic Report #1 Engineering Geologic Responses to California Coastal Commission Engineering Geologic, Geotechnical Engineering and Civil Engineering Peer Review, APN 4453-005-037, -018, -038, -092, -091 Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
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- Southern California Earthquake Center, June 2002, Recommended Procedures for Implementation of DMG Special Publication 117 for Analyzing and Mitigating Landslide Hazards in California.
- Whitson Engineering, January 1, 2008, Revised March 9, 2009, 20' Driveway to Proposed Single Family Residence Plans, Sweetwater Mesa Road, (APN 4453-005-018, Vera).
- Whitson Engineering, March 11, 2009, Driveway, Grading and Drainage Plans for a Single Family Residence (APN 4453-005-092, Mulryan).
- Whitson Engineering, March 25, 2009, Driveway, Grading and Drainage Plans for a Single Family Residence (APN 4453-005-091, Morleigh).
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- Whitson Engineering, August 5, 2009, 2851 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-091, Morleigh).
- Whitson Engineering, August 5, 2009, 2857 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-092, Mulryan).
- Whitson Engineering, August 5, 2009, 2863 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-018, Vera).
- Whitson Engineering, October 20, 2009, Sweetwater Mesa Project Summary Analysis Letter, Attn: Leslie Ewing of California Coastal Commission.
- Whitson Engineering, October 21, 2009, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43.
- Whitson Engineering, November 4, 2009 (Revised), Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43.
- Whitson Engineering, May 28, 2010, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43 (Site Plans)

- Whitson Engineering, June 2, 2010, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43 (LACFD/CDP Submittal; Not for Construction).
- Whitson Engineering, November 16, 2010 (revised), Plan Set, Sweetwater Mesa Road Improvements From STA: 26+70 to 75+53.43, Malibu, Los Angeles County, California.

CALIFORNIA COASTAL COMMISSION

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25 January 2011

GEOTECHNICAL REVIEW MEMORANDUM

To: Deanna Christensen, Coastal Program Analyst

From: Mark Johnsson, Staff Geologist

Re: Sweetwater Mesa Project

In connection with the above-referenced project, I have reviewed the documents listed in Appendix A. In addition, I have attended numerous meetings and teleconferences among the Commission staff, applicants' consultants, and consultants for the Commission over the past two years. I visited the site on 8 April 2009.

Introduction

To summarize very briefly, the project consists of a lot-line adjustment, the construction of five single-family residences, the installation of a water line, and the construction of an access road extending from within the City of Malibu, into unincorporated Los Angeles County, and through multiple lots to the five proposed residences. This review will include all the proposed project elements except the part of the road within the City of Malibu.

The proposed access road within unincorporated Los Angeles County traverses the western side of a north-south oriented, sharp-crested ridge. At the City Limits the proposed road is at an elevation of approximately 835 feet, roughly 100 feet below, and 300 feet west of, the crest of the ridge. The proposed road and the ridgeline rise irregularly to a high point within the project area of approximately 1500 feet over a straight-line distance of approximately 0.53 miles. To the east of the somewhat meandering ridgeline is a very steep slope, marked by vertical cliffs, dropping into Carbon Canyon. To the west, somewhat gentler (but still very steep) slopes descend to Sweetwater Canyon. Several drainages extending from both canyons modify these steep slopes.

The bedrock making up this ridge is primarily layered sedimentary rocks (conglomerates, volcanic breccias, sandstones, siltstones and shales) assigned to The Vaqueros Formation, underlain by sandstones of the Sespe Formation. These rocks are broadly folded and lie on the east limb of syncline, or downwarp, and so primarily dip to the west. The Vaqueros Formation makes up most of the western side of the ridge, and the underlying Sespe Formation makes up most of the eastern side of the ridge. This broad structure is interrupted by many minor folds and inactive faults. Isolated igneous rocks, known as the Conejo Volcanics, were intruded into the sedimentary rocks.

Due to the fact that layered sedimentary rocks of diverse strengths broadly dip in the same direction as the slope on the western side of the ridge, this slope has been very susceptible to landsliding over recent geologic time. As mapped by Mountain Geology, Inc. (MGI), three large, ancient landslides, themselves cut by younger landslides, extend almost the entire distance from their headscarps at or near the ridge crest, to the canyon bottom. Evidence, such as the formation of soils on the surfaces of these landslides, indicates that they are likely of prehistoric origin. None show evidence of recent slope movement. The eastern side of the ridge also is susceptible to rockfall and landsliding, but since such slope movement would not threaten the proposed development it will not be discussed further.

Following my site visit and review of the 2007-2008 MGI Geological reports, I was willing to accept MGI's interpretation of the bedrock and surficial geology at the site. In response to preliminary questions raised by the County of Los Angeles, Department of Public Works, Materials and Engineering Division (the County), MGI prepared two sets of addendum reports, clarifying details and demonstrating, to my satisfaction, that the proposed building sites for the residences can be made stable through appropriate foundation design.

I had concerns, however, with the assumptions and soil strength parameters that CalWest Geotechnical Engineers (CalWest) had used in the generation of their slope stability analyses. These slope stability analyses would be used to generate the design forces which would apply to the construction of a support system for the road. Indeed, even the forces that CalWest generated with the suspect soil strength parameters would require a very large engineering effort in the form of supporting piles, caissons, and retaining walls. Further, these analyses were performed on preliminary grading plans. Accordingly, I asked several times in early summer 2009 for a geotechnical review of final grading plans (review of which would allow further evaluation of the soil strength values) and for structural calculations and plans for the stabilization system that would support the road. The latter would be evaluated by the Commission's Civil Engineer.

From 7 August until 30 November 2009, I was away from the office on vacation and then medical leave. During my absence, additional materials, including the requested structural calculations and plans, were delivered to Commission staff. In my absence, review of all aspects of the project was assigned to the Commission's Civil Engineer, Ms. Lesley Ewing. The proposed road stabilization system was a complex structural engineering system of a type unfamiliar to Ms. Ewing. She concluded that review of such a system required structural engineering outside her area of expertise. To obtain the needed expertise for the review of this system, the consulting firm Cotton, Shires and Associates (CSA), was hired to assist Staff's review of this project.

CSA's professional responsibility in accepting this type of review was not simply to accept the load values derived by others and check the structural engineering, but also to verify that they could stand behind those values (derived through geotechnical engineering, handled in this project primarily by CalWest), and the geologic interpretation underlying the geotechnical engineering values. Accordingly, CSA essentially went back to the initial point of my review, the interpretation of the geology, and performed the review of the engineering geology (geotechnical review of final grading plans) that I had asked for before my leave of absence. Their initial report of findings was completed on 8 March 2010. Upon my return to duty, I resumed my role in

reviewing the applicant's response to CSA's review. In mid-January 2011 it was demonstrated to my satisfaction that the applicants had demonstrated that all aspects of the proposed project can adequately mitigate for the unavoidable geologic hazards at the site. CSA's 21 January 2011 report reaches the same conclusion.

In the remainder of this memo, I will concentrate on the two major issues that they identified as requiring further evaluation: 1) the interpretation of the extent and nature of the landslides, and 2) the appropriate soil strength parameters to be used in the slope stability analyses.

Nature and extent of landslides

Early in their review of the project, CSA examined aerial photographs and identified a large landform centered on the Morleigh parcel as a possible landslide not recognized by MGI. Numbering the landslides from south to north, they labeled this landform "Landslide 3." Landslides 1, 2, and 4 had been previously identified by MGI. CSA felt, however, that the limits of these slides were poorly constrained. CSA also took the position that, by including the headscarps of the landslides as part of the landslide to be avoided, MGI may have been recommending an overly conservative design; the headscarp areas have not, by definition, moved and may be more easily stabilized than the landslide mass itself. The 8 March 2010 CSA report concluded that, "By refining the geologic landslide mapping, it is our preliminary opinion that some reductions in the amount and size of the stabilization elements could be realized." In addition, the position of the slide plane for Landslide 2 was poorly constrained. Accordingly, CSA recommended additional subsurface exploration in their 8 March 2005 report, consisting of:

- "additional subsurface exploration ... along the roadway north of B-9 to characterize the subsurface materials along the steep slope"
- "exploratory trenching ...in the gently sloping area (possible graben) near the proposed Morleigh residence to help determine the presence or absences of landsliding"
- "subsurface exploration ... downslope of the proposed Lunch residential site ... to constrain the location of the slide plane in the vicinity of the roadway where mitigation elements are to be implemented"
- "additional boring exploration ... with the intent of obtaining hand samples of the slide plane materials for appropriate laboratory testing, and to further constrain the subsurface landslide geometries where only one positive pick on the basal shear surface has been obtained."

The additional trenching, excavation and exploratory boring work was undertaken, as recommended by CSA. An additional large diameter borehole (B-38) was logged and several test pits at the upper part of the road (near the border with the City of Malibu) and trenches (near the proposed Morleigh residence) were excavated and logged. Additional information on the site conditions and the slide plane were developed through these field efforts. This work improved the geologic site characterization. Most significantly, trenching across the putative graben at the head of CSA's Landslide 3 clearly demonstrated that this feature is not a landslide.

Since the terrain at and downslope of the proposed development area is very rugged, it would have been difficult for drilling equipment to access to the main portion of the slides. The upper slide masses could be well characterized but the rest of the slide mass was characterized only through surficial investigations. This would lead to some uncertainty in the slide geometries, leading to some issues (discussed in the next section) regarding development of the slope stability analyses.

The main focus of the geologic, geotechnical and engineering review has been on the roadway since the access road crosses two large landslides (Landslides 1 and 2). The geologic characterization of the road easement has provided the information necessary to develop slope stability analyses, which in turn will lead to the derivation of the design loads for the structural mitigation measures necessary to assure stability of the roadway.

The proposed building sites are placed at or near the ridgelines. Four of the building sites are outside the identified slide areas; however, the proposed Lunch residence site is on landslide debris associated with Landslide 2. This debris will be removed as part of the site development or mitigated by the foundation design for the house. The hummocky terrain identified by CSA as a possible landslide (Landslide 3) on the Morleigh site has been shown to be not related to slope movement; i.e., CSA's putative Landslide 3 does not exist. CSA's review has shown that the five proposed building envelopes will be or can be made structurally stable for the proposed development. There may be other locations on the property that would be able to support the proposed development; but, no analysis of alternative building sites was undertaken.

Soil shear strength parameters and slope stability analyses

As noted above, I was not satisfied that CalWest had adequately justified the soil shear strength parameters that they used for the ancient landslide slip surfaces in their slope stability analyses. The values of cohesion (210 psf) and friction angle (22°) they obtained through direct shear tests seemed more typical of landslide debris than for the slide plane itself. CSA came to the same conclusion in their review, and recommended that a relatively undisturbed sample of the material along the slide plane be obtained and subjected to a torsional ring test and Atterburg Limits testing to obtain correlations with shear strengths. From the 8 March 2011 report:

Grab samples should be obtained from the landslide basal shear plane of each landslide to be mitigated and Atterberg Limits tests performed on each grab sample to obtain correlations with residual shear strengths (Stark, et al., May 2005). According to the Southern California Earthquake Center, June 2002, Recommended Procedures for Implementation of DMG Special Publication 117 for Analyzing and Mitigating Landslide Hazards in California: "DS testing devices can be used to subject a sample to multiple cycles of shearing, which allows an estimation of residual strength. Unfortunately, the results may be unconservative ... and should always be checked against either correlations ... or results of ring shear testing ...". Consideration should be given to torsional ring shear strength testing (fully softened and residual shear strength) of representative basal landslide shear plane materials

Samples of the slide plane material were taken from boring B-38 and this sample was eventually tested The results were as expected by CSA; the torsional ring test yielded a cohesion of 0 psf and a friction angle of 9°. The Atterburg Limits correlation method (Stark et al. 2005) yielded a cohesion of 150 psf and a friction angle of 9°.

Numerous discussions ensued among CalWest, CSA, and Commission staff. CSA and I felt that the results of the torsional ring test and Atterburg Limits correlation were more reasonable values for the slide plane, and CalWest continued to feel that these values were too low. Ultimately, it was decided that disagreements about the appropriateness of various types of testing and the number and nature of samples to be tested could be avoided by using an alternative method to arrive at the soil shear strength parameters. After identifying the most critical cross section, CalWest would assume that the current landslide geometry had a factor of safety of 1.0, and calculate what combination of cohesion and friction angle would yield a factor of safety of 1.0. This is a method known as "back-calculation" of the shear strength parameters. Since the geometry of the landslide plane was poorly constrained, a range of geometries would be considered and the lowest shear strengths would be adopted for the calculation of load factors to carry through to the structural engineering phase of the project.

As summarized by CSA in their 21 January 2011 report:

...it was agreed that CalWest would circumvent concerns about the laboratory test results by conducting backcalculation analysis on a range of possible reasonable landslide geometries (since the downslope geometry was poorly constrained by subsurface exploration). A higher cohesion component was deemed acceptable for the overall potential failure plane because a landslide buttressed by the canyon would have to shear through landslide debris across bedding planes and not strictly on a previously sheared surface. For reasonable conservatism, a factor of safety of unity (1.0) was utilized for the backcalculation of shear strength parameters and CalWest determined a friction angle of 15 degrees with cohesion of 200 psf for this scenario. These shear strength parameters were then used for forward analyses and design of access road protection measures.

After much discussion CalWest agreed to adopt these shear strength parameters for both the static and pseudostatic (seismic) slope stability analyses. It was found that the same resisting forces that were needed to attain a factor of safety of 1.5 would yield a pseudostatic factor of safety of 1.1. These resisting forces are those that the structural support system must be designed to provide, and were carried forward to the structural engineering phase of the project. The Commission's Staff Civil Engineer has provided a review memorandum evaluating those aspects of the project

One final consideration regarding slope stability was the planned placement of excess fill on top of Landslide 2. This was desired in order to avoid numerous truck trips and attendant environmental, social, and economic impacts. This fill would be placed below the structural system stabilizing the road and would have no effect on the stability of the road. Placing fill on the upper portions of a landslide will, however, decrease overall stability. To be consistent with

section 30253 of the Coastal Act, the Commission must find that the development does not "...contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area..." CalWest performed slope stability analyses of the Landslide 2 in its current and configuration and with 14,000 cy of fill at the location planned for its placement. As summarized in CSA's 21 January 2011 report:

Placement of fill materials upon the upslope portion of an existing landslide could potentially have an adverse effect on global slope stability. Therefore, we recommended that CalWest perform appropriate slope stability analysis to evaluate the effect of fill placement on the landslide. CalWest has now analyzed the largest of the three areas and indicates that the stability of the slope below the protective measures will not be significantly adversely impacted (relative negative impact of on the order of 1 to 3 percent).

Rock Fall Hazard on Vera Parcel

MGI identified an area on the Vera parcel, below the residence and above a section of the access road, where a very steep slope presents a rock fall hazard to vehicles traversing the access road. This hazard was evaluated by Kane Geotech, Inc., in a report dated 15 October 2007. They provided three options to mitigate the hazard: 1) Roadway relocation, 2) A 1500 ft-ton mitigation system (essentially a barrier at the road edge), or 3) A slope stabilization system (wire mesh).

Stability of Proposed Water Line

Also proposed is a 7800 foot water line extension north of the project to tie into existing water main at Costa Del Sol Way to the north. The line and its access road would, like most of the building sites, lie on stable bedrock and should not be subject to slope instability. This was confirmed by CSA in the field.

Conclusion and Recommendations

During this review, no analysis was undertaken to determine if risks could be reduced through hazard avoidance through alternate road easements or building sites. Rather, the focus has been on the accurate determination of the forces needed to attain the desired factor of safety for the proposed development location given the site conditions. After an unusually thorough review, including the extensive use of outside consultants, I feel that I can recommend the adoption of the geologic interpretation summarized in CSA's 21 January 2011 report, as well as the resistant forces calculated through CalWest's final slope stability analyses. The Commission's Civil Engineer has provided an evaluation of whether these forces are appropriately used to fully mitigate the hazard through structural design. I have reviewed her memorandum, and I am in agreement with her recommendation regarding special conditions. In addition, I would

recommend a special condition that the rockfall hazard on the Vera parcel be mitigated by adopting one of the options in the Kane Geotechnical report dated 15 October 2007 and all recommendations associated with that option be implemented.

I hope that this review is helpful. Please do not hesitate to contact me with any further questions.

Sincerely,

Mark Johnsson, Ph.D., CEG, CHG

Staff Geologist

APPENDIX A: Reviewed Documents and Drawings

- CalWest Geotechnical Engineering Consultants, May 25, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-037 (Lunch), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, May 25, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-018 (Vera), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, June 1, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-092 (Mulryan), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, June 4, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-091 (Morleigh), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, October 2, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-038 (Ronan), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 20, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-018 (Vera), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 27, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-037 (Lunch), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 28, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-091 (Morleigh), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 28, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-092 (Mulryan), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, July 14, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150005.
- CalWest Geotechnical Engineering Consultants, July 22, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150004.
- CalWest Geotechnical Engineering Consultants, July 23, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150004.
- CalWest Geotechnical Engineering Consultants, May 1, 2009, Geotechnical Sections and Geologic Map, APN 4453-005-018.
- CalWest Geotechnical Engineering Consultants, May 15, 2009, Geotechnical Engineering Supplemental Report, Proposed Compacted "Non-Structural" Fill Areas (Mulryan).
- CalWest Geotechnical Engineering Consultants, July 7, 2009, Geotechnical Engineering Letter II.

- CalWest Geotechnical Engineering Consultants, July 28, 2009, Geotechnical Engineering Letter, Preliminary Grading Plan Review, Proposed Single-Family Residential Development, Malibu Area, County of Los Angeles.
- CalWest Geotechnical Engineering Consultants, May 3, 2010, Supplemental Geotechnical Engineering Letter #1, Additional Clarification of Design Recommendations and Response to California Coastal Commission Review Prepared by Cotton, Shires and Associates, Inc., Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, September 13, 2010, Supplemental Geotechnical Engineering Letter #2, Clarification to E-Mail From David Schrier (dschrier@cottonshires.com) Sent Friday, September 10, 2010 5:54 PM on Behalf of The California Coastal Commission, Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, September 30, 2010, Supplemental Geotechnical Engineering Letter #3, Additional Comments, Clarification and Response to Items Discussed at the Meeting Held at The California Coastal Commission on September 15, 2010; Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, October 13, 2010, Addendum to Supplemental Geotechnical Engineering Letter #3 dated September 30,2010, Additional Comments, Clarification and Response to Items Discussed at the Meeting Held at The California Coastal Commission on September 15, 2010; Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 1, 2010, Supplemental Geotechnical Engineering Letter #4, Response to Items Discussed Within the Memorandum Prepared by Cotton, Shires and Associates, Dated October 26, 2010 (included in Appendix A), Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 8, 2010, Supplemental Geotechnical Engineering Letter #5, Response to Discussion Items at The California Coastal Commission Meeting in San Francisco on November 2, 2010 Regarding Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 11, 2010, Supplemental Geotechnical Engineering Letter #6, Proposed Staging Area, Compacted "Non-Structural" Fill, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 15, 2010, Supplemental Geotechnical Engineering Letter #7, Clarification of Design Loads for the Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 20, 2010, RE: Draft report by Cotton Shires & Associates, Inc. dated December 17, 2010.
- CalWest Geotechnical Engineering Consultants, December 27, 2010, Supplemental Geotechnical Engineering Letter #8, Additional Comments and Clarification of Stability Analysis and Geotechnical Design Load Criteria, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, January 17, 2011, Supplemental Geotechnical Engineering Letter #9, Additional Comments and Clarification of Stability Analysis and Geotechnical Design Load Criteria, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, January 20, 2011, Supplemental Geotechnical Engineering Letter #8 (Revised), Additional Comments and Clarification of Stability Analysis

- and Geotechnical Design Load Criteria, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- Czerniak, E. 1957. "Resistance to Overturning of Single, Short Piles, in the Journal of the Structural Division, Proceedings of the American Society of Civil Engineers, Paper 1188, 1188-1 1188-25.
- Cotton, Shires and Associates, Inc., March 8, 2010, Summary of Findings Civil and Geotechnical Engineering and Engineering Geologic Peer Review Services, Sweetwater Mesa Development Project, Malibu, California.
- Cotton, Shires and Associates, Inc., January 21, 2011, January 2011 Summary of Findings Civil and Geotechnical Engineering and Engineering Geologic Peer Review Services, Sweetwater Mesa Development Project, Malibu, California.
- County of Los Angeles, Dept of Public Works, Geotechnical and Materials Engineering Division, October 27, 2008, Soils Engineering Review Sheet, Review of Conceptual Design Pad for Single Family Residence and Access Road.
- Hohbach-Lewin, Inc. Structural Engineers, December 6, 2010, Memo: Sweetwater Mesa Development Project Civil and Geotechnical Engineering and Engineering Geological Peer Review.
- Hohbach-Lewin, Inc. Structural Engineers, January 10, 2011, Memo: Sweetwater Mesa Road Extension Subject: Supplemental Geotechnical Letter #8, Additional comments and clarifications of Stability Analysis and Geotechnical Design Load Criteria.
- Kane Geotechnical, October 15, 2007, Sweetwater Mesa Rockfall and Mitigation Study, Los Angeles County.
- LC Engineering Group, Inc., September 27, 2009, Engineering Comments on California Coastal Commission's Draft of Scope of Work for Third Party Review, Sweetwater Mesa Development Project.
- LC Engineering Group, Inc., October 20, 2009, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road, Parts 1 and 2.
- LC Engineering Group, Inc., January 27, 2010, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road.
- LC Engineering Group, Inc., May 3, 2010, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road.
- LC Engineering Group, Inc., May 28, 2010, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road.
- LC Engineering Group, Inc., November 16, 2010, Mesa Road Improvements From Sta: 26+70 to 75+53.34, Malibu, Los Angeles County, California (Sheets S-T to S-8).
- Mountain Geology, Inc., September 26, 2006, Report of Limited Engineering Geologic Study, Proposed Water Main, Costa del Sol Way to APN 4453-005-038, -091, -037, -092, and -018, County of Los Angeles, California.
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-092, Mulryan).
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-091, Morleigh).
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-018, Vera), Electronic Copy.
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-037, Lunch), Electronic Copy.
- Mountain Geology, Inc., August 28, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-038, Ronan).

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- Mountain Geology, Inc., December 19, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-018, Vera).
- Mountain Geology, Inc., December 20, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-091, Morleigh).
- Mountain Geology, Inc., July 7, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-018, Vera) Electronic Reference Copy.
- Mountain Geology, Inc., July 8, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-091, Morleigh).
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- Mountain Geology, Inc., May 18, 2009, Engineering Geologic Memorandum Proposed Minor Modifications of Grading Plan, Northerly Terminus of Sweetwater Mesa Road.
- Mountain Geology, Inc., April 23, 2010, Supplemental Engineering Geologic Report #1 Engineering Geologic Responses to California Coastal Commission Engineering Geologic, Geotechnical Engineering and Civil Engineering Peer Review, APN 4453-005-037, -018, -038, -092, -091 Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- Mountain Geology, Inc., September 14, 2010, Supplemental Engineering Geologic Report #2 Engineering Geologic Responses to Email from David Schrier and Pat Shires Received on September 10, 2010, APN 4453-005-037, -018, -038, -092, -091 Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- Mountain Geology, Inc., September 30, 2010, Supplemental Engineering Geologic Report #3 Additional Responses to California Coastal Commission Engineering Geologic, Geotechnical Engineering and Civil Engineering Peer Review, APN 4453-005-037, -018, -038, -092, -091 Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- Mountain Geology, Inc., October 29, 2010, Supplemental Engineering Geologic Report #4 Additional Responses to California Coastal Commission Engineering Geologic, Geotechnical Engineering and Civil Engineering Peer Review, APN 4453-005-037, -018, -038, -092, -091 Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- Southern California Earthquake Center, June 2002, Recommended Procedures for Implementation of DMG Special Publication 117 for Analyzing and Mitigating Landslide Hazards in California.
- Whitson Engineering, January 1, 2008, Revised March 9, 2009, 20' Driveway to Proposed Single Family Residence Plans, Sweetwater Mesa Road, (APN 4453-005-018, Vera).
- Whitson Engineering, March 11, 2009, Driveway, Grading and Drainage Plans for a Single Family Residence (APN 4453-005-092, Mulryan).
- Whitson Engineering, March 25, 2009, Driveway, Grading and Drainage Plans for a Single Family Residence (APN 4453-005-091, Morleigh).
- Whitson Engineering, April 3, 2009, Driveway, Grading and Drainage Plans for a Single-Family Residence (CDP Submittal Not for Construction), (APN 4453-005-037, Lunch).
- Whitson Engineering, April 28, 2009, Contour Grading Exhibit 2839 Sweetwater Mesa Road (APN 4453-005-037).
- Whitson Engineering, August 5, 2009, Driveway, Grading and Drainage Plans for a Single-Family Residence (CDP Submittal Not for Construction), (APN 4453-005-037, Lunch).
- Whitson Engineering, August 5, 2009, 2851 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-091, Morleigh).

- Whitson Engineering, August 5, 2009, 2857 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-092, Mulryan).
- Whitson Engineering, August 5, 2009, 2863 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-018, Vera).
- Whitson Engineering, October 20, 2009, Sweetwater Mesa Project Summary Analysis Letter, Attn: Leslie Ewing of California Coastal Commission.
- Whitson Engineering, October 21, 2009, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43.
- Whitson Engineering, November 4, 2009 (Revised), Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43.
- Whitson Engineering, May 28, 2010, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43 (Site Plans)
- Whitson Engineering, June 2, 2010, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43 (LACFD/CDP Submittal; Not for Construction).
- Whitson Engineering, November 16, 2010 (revised), Plan Set, Sweetwater Mesa Road Improvements From STA: 26+70 to 75+53.43, Malibu, Los Angeles County, California.

CALIFORNIA COASTAL COMMISSION

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April 27, 2015

TO: Jacqueline Blaugrund, Coastal Program Analyst

FROM: Lesley Ewing, Sr. Coastal Engineer

SUBJECT: Updated Engineering Review of the Sweetwater Mesa Project

Through a multi-year review, between 2009 and 2015, I have gained familiarity with the engineering constraints associated with the property proposed for development through the most recent version of the "Sweetwater Mesa Project". The current design, as proposed, includes many of the same elements as the initial project (access road, driveways and building pads), although the layouts and configurations have been modified to concentrate the proposed development closer to the main access road. Attachment 1 includes the full list of documents that I have reviewed from 2009 to 2015. My review of the current proposal builds upon analyses of the previous permit application submittals, a site visit on 28 January 2010 and examination of the reports noted below, submitted in support of the current application.

In addition to reviewing the submitted materials, and visiting the site, I have participated in numerous conference calls and meetings with staff, technical consultants, and the applicants' consultants concerning this proposed project.

- Proposed Access and Single Family Residence Improvement Plans, Whitson Engineers Lot 1, (5 sheets, March 12, 2015); Lot 2 (6 sheets, March 12, 2015); Lot 3, (5 sheets, March 12, 2015); Lot 5 (4 sheets, March12, 2015); Overall Stats Sheets, Lots 1, 2, 3, 4, and 5 (2 sheets, March 12, 2015)
- Pile Exhibits, LC Engineers (12 sheets, February 13, 2015)
- Sweetwater Mesa Rockfall Hazard and Mitigation Study, Kane GeoTech, Inc., dated October 2007;
- Update Geotechnical Engineering Report, CalWest Geotechnical Consulting Engineers, Mulryan Properties LLLP (January 29, 2015), Morleigh Properties LLLP (January 30, 2015), Vera Properties LLLP (January 28, 2015), Lunch Properties LLLP (February 2, 2015), Ronan Properties LLLP (February 3, 2015);
- Report of Update Engineering Geologic Study, Land Phases, Inc., Mulryan Properties LLLP (January 27, 2015), Morleigh Properties LLLP (January 27, 2015), Vera Properties LLLP (January 27, 2015), Lunch Properties LLLP (January 27, 2015), Ronan Properties LLLP (January 27, 2015)

Exhibit 16 CDP 4-10-040, 4-10-041, 4-10-042, 4-10-044, 4-14-0598, 4-14-1094 Dr. Lesley Ewing Memorandum This property presents several inherent conditions that are considered hazardous to development. The property is in rugged terrain with steep slopes, rock fall situations and identified land slide areas. These hazards were fairly well identified during reviews of the previous development proposals. After an earlier evaluation of several significant project modifications, and detailed review of both conceptual and preliminary engineering plans for the project that was eventually brought forth as the preferred alternative, it was possible to conclude that these previously proposed design features could allow for then-proposed "development to be undertaken in a manner that would minimize risks from the identified hazards". (Memo: "Engineering Review of the Sweetwater Mesa Project", January 24, 2011, from Lesley Ewing to Deanna Christensen and Jack Ainsworth). This analysis was limited at the time by the inflexible lot line conditions that underpinned and restricted options for development. The currently provided lot lines allow for site development options that can avoid some of the more hazardous portions of this property. However, even with the modifications to the development envelop, total avoidance of hazardous areas is not possible.

The project proposed to achieve an industry-accepted level of safety through the use of cut and fill slopes, retaining walls, rock fall controls, berms and deep pile supported foundations. Aside from the berm, some versions of these design features were recommended for the earlier project submittals. The submitted material outlines the conceptual plans for the proposed development but no detailed engineering plans or supporting engineering calculations have been provided. Engineering review for purposes of a coastal development permit often can rely upon conceptual plans and preliminary engineering design. However, due to the level of hazard and the extra-ordinary measures that were being proposed to minimize site hazards, it was necessary, in the previous development review, for the applicant to provide engineering details for the piles, the fill slopes and some other stabilization measures to ensure that an acceptable level of site hazard minimization could achieved. With that detailed engineering design information, the previous engineering review was able to provide some targeted directions on the proposed design, such as recommendations that often are not provided to applicants until the plans undergo detailed review in the plan check phase of local government review.

The current proposal for development has been modified to avoid the areas of highest hazard concern that necessitated the previous detailed analysis of the engineering plans. With those modifications, the extra-ordinary engineering designs can be avoided and the engineering submittal does not need to include the level of detail that was provided earlier. The types of stabilization measures that are proposed for this development are used frequently for the hazards that are of concern for the currently proposed development area and they can be expected to provide an adequate level of site stability through routine design modifications such as pile length, diameter and density of reinforcing steel or through properly keyed and drained fill slopes, and properly embedded retaining walls. Attention to these design considerations is critical to the project, but these design details will not alter the coastal resource impacts from the proposed development.

With attention to engineering design and adherence to the LA County Building Code, the proposed project should be able to assure stability and structural integrity to a reasonable degree and to minimize risks to life and property, consistent with Coastal Act section 30253.

Attachment 1: Reviewed Documents and Drawings

Documents and Drawings:

- CalWest Geotechnical Engineering Consultants, May 25, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-037 (Lunch), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, May 25, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-018 (Vera), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, June 1, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-092 (Mulryan), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, June 4, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-091 (Morleigh), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, October 2, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-038 (Ronan), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 20, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-018 (Vera), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 27, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-037 (Lunch), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 28, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-091 (Morleigh), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 28, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-092 (Mulryan), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, July 14, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150005.
- CalWest Geotechnical Engineering Consultants, July 22, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150004.
- CalWest Geotechnical Engineering Consultants, July 23, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150004.
- CalWest Geotechnical Engineering Consultants, May 1, 2009, Geotechnical Sections and Geologic Map, APN 4453-005-018.
- CalWest Geotechnical Engineering Consultants, May 15, 2009, Geotechnical Engineering Supplemental Report, Proposed Compacted "Non-Structural" Fill Areas (Mulryan).
- CalWest Geotechnical Engineering Consultants, July 7, 2009, Geotechnical Engineering Letter II.

- CalWest Geotechnical Engineering Consultants, July 28, 2009, Geotechnical Engineering Letter, Preliminary Grading Plan Review, Proposed Single-Family Residential Development, Malibu Area, County of Los Angeles.
- CalWest Geotechnical Engineering Consultants, May 3, 2010, Supplemental Geotechnical Engineering Letter #1, Additional Clarification of Design Recommendations and Response to California Coastal Commission Review Prepared by Cotton, Shires and Associates, Inc., Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, September 13, 2010, Supplemental Geotechnical Engineering Letter #2, Clarification to E-Mail From David Schrier (dschrier@cottonshires.com) Sent Friday, September 10, 2010 5:54 PM on Behalf of The California Coastal Commission, Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, September 30, 2010, Supplemental Geotechnical Engineering Letter #3, Additional Comments, Clarification and Response to Items Discussed at the Meeting Held at The California Coastal Commission on September 15, 2010; Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, October 13, 2010, Addendum to Supplemental Geotechnical Engineering Letter #3 dated September 30,2010, Additional Comments, Clarification and Response to Items Discussed at the Meeting Held at The California Coastal Commission on September 15, 2010; Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 1, 2010, Supplemental Geotechnical Engineering Letter #4, Response to Items Discussed Within the Memorandum Prepared by Cotton, Shires and Associates, Dated October 26, 2010 (included in Appendix A), Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 8, 2010, Supplemental Geotechnical Engineering Letter #5, Response to Discussion Items at The California Coastal Commission Meeting in San Francisco on November 2, 2010 Regarding Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 11, 2010, Supplemental Geotechnical Engineering Letter #6, Proposed Staging Area, Compacted "Non-Structural" Fill, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 15, 2010, Supplemental Geotechnical Engineering Letter #7, Clarification of Design Loads for the Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 20, 2010, RE: Draft report by Cotton Shires & Associates, Inc. dated December 17, 2010.
- CalWest Geotechnical Engineering Consultants, December 27, 2010, Supplemental Geotechnical Engineering Letter #8, Additional Comments and Clarification of Stability Analysis and Geotechnical Design Load Criteria, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, January 17, 2011, Supplemental Geotechnical Engineering Letter #9, Additional Comments and Clarification of Stability Analysis and Geotechnical Design Load Criteria, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, January 20, 2011, Supplemental Geotechnical Engineering Letter #8 (Revised), Additional Comments and Clarification of Stability Analysis

- and Geotechnical Design Load Criteria, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- Czerniak, E. 1957. "Resistance to Overturning of Single, Short Piles, in the Journal of the Structural Division, Proceedings of the American Society of Civil Engineers, Paper 1188, 1188-1 1188-25.
- Cotton, Shires and Associates, Inc., March 8, 2010, Summary of Findings Civil and Geotechnical Engineering and Engineering Geologic Peer Review Services, Sweetwater Mesa Development Project, Malibu, California.
- Cotton, Shires and Associates, Inc., January 21, 2011, January 2011 Summary of Findings Civil and Geotechnical Engineering and Engineering Geologic Peer Review Services, Sweetwater Mesa Development Project, Malibu, California.
- County of Los Angeles, Dept of Public Works, Geotechnical and Materials Engineering Division, October 27, 2008, Soils Engineering Review Sheet, Review of Conceptual Design Pad for Single Family Residence and Access Road.
- Hohbach-Lewin, Inc. Structural Engineers, December 6, 2010, Memo: Sweetwater Mesa Development Project Civil and Geotechnical Engineering and Engineering Geological Peer Review.
- Hohbach-Lewin, Inc. Structural Engineers, January 10, 2011, Memo: Sweetwater Mesa Road Extension Subject: Supplemental Geotechnical Letter #8, Additional comments and clarifications of Stability Analysis and Geotechnical Design Load Criteria.
- Kane Geotechnical, October 15, 2007, Sweetwater Mesa Rockfall and Mitigation Study, Los Angeles County.
- LC Engineering Group, Inc., September 27, 2009, Engineering Comments on California Coastal Commission's Draft of Scope of Work for Third Party Review, Sweetwater Mesa Development Project.
- LC Engineering Group, Inc., October 20, 2009, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road, Parts 1 and 2.
- LC Engineering Group, Inc., January 27, 2010, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road.
- LC Engineering Group, Inc., May 3, 2010, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road.
- LC Engineering Group, Inc., May 28, 2010, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road.
- LC Engineering Group, Inc., November 16, 2010, Mesa Road Improvements from Sta: 26+70 to 75+53.34, Malibu, Los Angeles County, California (Sheets S-T to S-8).
- Mountain Geology, Inc., September 26, 2006, Report of Limited Engineering Geologic Study, Proposed Water Main, Costa del Sol Way to APN 4453-005-038, -091, -037, -092, and -018, County of Los Angeles, California.
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-092, Mulryan).
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-091, Morleigh).
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-018, Vera), Electronic Copy.
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-037, Lunch), Electronic Copv.
- Mountain Geology, Inc., August 28, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-038, Ronan).

- Mountain Geology, Inc., December 18, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-037, Lunch).
- Mountain Geology, Inc., December 19, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-092, Mulryan).
- Mountain Geology, Inc., December 19, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-018, Vera).
- Mountain Geology, Inc., December 20, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-091, Morleigh).
- Mountain Geology, Inc., July 7, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-018, Vera) Electronic Reference Copy.
- Mountain Geology, Inc., July 8, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-091, Morleigh).
- Mountain Geology, Inc., July 8, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-092, Mulryan).
- Mountain Geology, Inc., July 8, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-037, Lunch).
- Mountain Geology, Inc., May 18, 2009, Engineering Geologic Memorandum Proposed Minor Modifications of Grading Plan, Northerly Terminus of Sweetwater Mesa Road.
- Mountain Geology, Inc., April 23, 2010, Supplemental Engineering Geologic Report #1 Engineering Geologic Responses to California Coastal Commission Engineering Geologic, Geotechnical Engineering and Civil Engineering Peer Review, APN 4453-005-037, -018, -038, -092, -091 Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- Mountain Geology, Inc., September 14, 2010, Supplemental Engineering Geologic Report #2 Engineering Geologic Responses to Email from David Schrier and Pat Shires Received on September 10, 2010, APN 4453-005-037, -018, -038, -092, -091 Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- Mountain Geology, Inc., September 30, 2010, Supplemental Engineering Geologic Report #3 Additional Responses to California Coastal Commission Engineering Geologic, Geotechnical Engineering and Civil Engineering Peer Review, APN 4453-005-037, -018, -038, -092, -091 Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- Mountain Geology, Inc., October 29, 2010, Supplemental Engineering Geologic Report #4 Additional Responses to California Coastal Commission Engineering Geologic, Geotechnical Engineering and Civil Engineering Peer Review, APN 4453-005-037, -018, -038, -092, -091 Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- Southern California Earthquake Center, June 2002, Recommended Procedures for Implementation of DMG Special Publication 117 for Analyzing and Mitigating Landslide Hazards in California.
- Whitson Engineering, January 1, 2008, Revised March 9, 2009, 20' Driveway to Proposed Single Family Residence Plans, Sweetwater Mesa Road, (APN 4453-005-018, Vera).
- Whitson Engineering, March 11, 2009, Driveway, Grading and Drainage Plans for a Single Family Residence (APN 4453-005-092, Mulryan).
- Whitson Engineering, March 25, 2009, Driveway, Grading and Drainage Plans for a Single Family Residence (APN 4453-005-091, Morleigh).
- Whitson Engineering, April 3, 2009, Driveway, Grading and Drainage Plans for a Single-Family Residence (CDP Submittal Not for Construction), (APN 4453-005-037, Lunch).
- Whitson Engineering, April 28, 2009, Contour Grading Exhibit 2839 Sweetwater Mesa Road (APN 4453-005-037).
- Whitson Engineering, August 5, 2009, Driveway, Grading and Drainage Plans for a Single-Family Residence (CDP Submittal Not for Construction), (APN 4453-005-037, Lunch).
- Whitson Engineering, August 5, 2009, 2851 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-091, Morleigh).

- Whitson Engineering, August 5, 2009, 2857 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-092, Mulryan).
- Whitson Engineering, August 5, 2009, 2863 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-018, Vera).
- Whitson Engineering, October 20, 2009, Sweetwater Mesa Project Summary Analysis Letter, Attn: Leslie Ewing of California Coastal Commission.
- Whitson Engineering, October 21, 2009, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43.
- Whitson Engineering, November 4, 2009 (Revised), Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43.
- Whitson Engineering, May 28, 2010, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43 (Site Plans)
- Whitson Engineering, June 2, 2010, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43 (LACFD/CDP Submittal; Not for Construction).
- Whitson Engineering, November 16, 2010 (revised), Plan Set, Sweetwater Mesa Road Improvements from STA: 26+70 to 75+53.43, Malibu, Los Angeles County, California.

January 24, 2011

TO: Deanna Christensen

Jack Ainsworth

FROM: Lesley Ewing

July Corol Eury

SUBJECT: Engineering Review of the Sweetwater Mesa Project

I have been asked to review the engineering aspects of the proposed Sweetwater Mesa Project, including the access road, driveways and building pads. Attachment 1 includes the full list of documents that I have reviewed. In addition to reviewing the submitted materials, I visited the site on 28 January 2010 and have participated in numerous conference calls and meetings with staff, technical consultants, and the applicants' consultants concerning this proposed project.

The proposed project will be located in the Santa Monica Mountains and will include an access road, utilities, and building pads, drive ways, septic systems, and ancillary buildings for 5 separate home sites. The access road is an extension of Sweetwater Mesa Road; part of the road would be in the City of Malibu and part of the road would be in unincorporated Los Angeles County. My review only covers the portion of the road within unincorporated Los Angeles County. This area of the Santa Monica Mountains is quite rugged, and the current roadway is a dirt trail only easily accessible by four-wheel drive. To underscore the steepness of the terrain, during our site visit, the four-wheel drive vehicles could only drive safely on the lower part of the road, and we were only able to get to the steeper, northern (upper) part of the site on foot.

There are several large landslides on the site, and the geologic conditions pose significant engineering challenges to provide safe development, especially for the access road. In addition to the basic access requirements for a road (providing ingress and egress for construction equipment, building residents and guests, fire equipment, etc.), the County will require that, at a minimum, roadway be designed to remain stable in the event of landslide movement. And, it must stabilize the landslide material upslope of the road. During my review of this project, three different structural engineering designs have been developed and proposed for the roadway.

The portion of the access road within the unincorporated County will be 4,883 feet long or approximately 0.9 miles long. It will cross two large landslides, and two sections of the road, one 590 feet long and one 905 feet long, will be supported on caissons to provide for safe access across these slide areas. In addition to the 1,495 feet of caisson-supported roadway, there will be several retaining walls and a significant amount of cut and fill to provide for a level road surface. The civil engineering plans for stabilizing the road would include, in total 5 retaining walls ranging in length from 90 feet to 390 feet and totaling 955 feet of retaining wall. The retaining walls would range in height from averages of 5 to 11 feet and maximum heights of 7.5 to 18 feet. The longest retaining wall, along the right side (or upslope side) of the northern portion of the road, has been designed to be 390 feet long and to have an average height of 11 feet and a

maximum height of 18 feet. Due to the dimensions of the retaining walls, it is quite possible that they could be visible from public vantage points. If the project is approved, it is suggested that these walls should be colored, texturized and possibly vegetated so that they will blend in visually with the surrounding area.

The road will also require approximately 20,100 cubic yards of cut, 32,950 cubic yard of fill, and 294,150 square feet of disturbed land area (6.75 acres). There will be several sections of finished road that will be quite steep. There will be sections approximately 998 feet long, 1,085 feet long and 535 feet long that will have a grade of 18.95% and there will be one additional 285 foot long section that will have a grade of 17.25%. These steep grade sections do not connect; each section will be separated by stretches of road that are at a much gentler grade.

The initial engineering design proposed to place the road on a combination of deep caissons and "dog bone" or double-barreled caissons. The reinforcing steel for each caisson and each "dog bone" caisson was designed to be oriented to the main direction of the slide at each caisson site. The project design developed about a dozen main caisson template designs, and each installed caisson would use one of these dozen main templates, with careful individual fabrication and installation for the exact slide conditions at each caisson location. The main variations for the caisson designs related to diameter, length, extent of reinforcing throughout the caisson and orientation of the reinforcing frame. The caisson road support was a rather complex structural engineering system. It was a type of system that I had never seen before, and review of this system required structural engineering that was outside my area of expertise. To fill in this needed expertise, the consulting firm, Cotton, Shires and Associates (CSA), was hired to assist our review of this project. Attachments 2, 3, 4, and 5 provide the initial scope of work for CSA, their initial project review, the amended scope of work and the additional project review. In addition to providing technical review of the project. I served as the main contact between CSA, Commission staff and the applicants' technical consultants.

Engineering is one of the last steps in the project development process. The earlier steps are to characterize the site geology and soil strength parameters. The initial roadway engineering design was developed from soils information developed through the initial site characterization. As a result of the site visit and project review by CSA, an additional large diameter bore hole (B-38) was logged and several test pits at the upper part of the proposed road (near the border with the City of Malibu) and trenches (near the proposed home site for CDP 4-10-043) were excavated and logged. Additional information on the site conditions and the slide plane was developed through these field efforts. Samples of the slide plane material were taken from boring B-38; this sample was eventually tested and the test results added to the available information about the conditions of the site.

In addition to issues concerning the geologic and geotechnical characterization of the site, the review by CSA noted a number of corrections or clarifications that were needed for the structural engineering calculations and noted that "the Consultant has designed the piles without applying the code FOS [Factor of Safety], instead using a 'load factor' equal to 1.067 or the ratio of 1.6 (code structural FOS) over 1.5 (SSA [Slope Stability Analysis] FOS). This is not typically accepted design practice since these two factors of safety may not necessarily be redundant (one applies to uncertainties in strengths, distributions and behaviors of structural materials and the other applies to uncertainties

in subsurface conditions, soil parameters and limitation inherent in slope stability analyses, etc.)." (CSA 2010, page 16)

The March 8, 2010 CSA letter concluded that, "By refining the geologic landslide mapping, it is our preliminary opinion that some reductions in the amount and size of the stabilization elements could be realized. It also appears that with some modifications to the roadway alignment, some of the landslide crossings could be either eliminated or reduced, which would reduce the extent of subsurface stabilization elements needed." (CSA 2010, page 25) This Review Letter further recommended that the "geologic characterization of the site needed to be refined", and the geotechnical engineering consultant needed to "perform supplemental laboratory testing to better determine landslide-specific shear strengths" and the "civil and structural engineering consultants will then need to address the refined geologic characterization and geotechnical engineering analysis of that refined characterization utilizing approved design practices." (CSA 2010, page 26) Following extensive discussions on the site conditions and examination of soils tests and potential slide geometries, soil strength parameters of 15degree friction angle and 200-psf cohesion were calculated from back calculations and all parties agreed to use these parameters for design purposes. The currently-proposed road stabilization design uses these strength parameters.

The proposed road support system has been through three different design iterations. The initial design was the combination of cylindrical caissons and "dog bone" caissons. In early June 2010 we were provided with a second road support design, which relied upon traditional cylindrical caissons for the entire road support system, and the "dog bone" caissons had been deleted. As with the initial design, the caissons would require careful field installation since reinforcing steel for each caisson was designed to be oriented with the direction of the slide.

The third and currently proposed design was prepared in November 2010 (dated 11/16/2010). This road design is in the same road easement as the previous two designs and, like the June 2010 design option, it uses cylindrical piles for the roadway that crosses the landslide areas. In this design option, the road will be supported on 123 large diameter reinforced concrete caissons. An additional fourteen (14) 5-foot diameter caissons for rock fall protection will be installed at the southern portion of the road, close to the City of Malibu boundary. The main road support system will use caissons ranging in diameter from 2 to 5 feet, with lengths up to 79 feet. The reinforcing steel in each caisson has been designed to act along the main axis of the slide, thus, like the two earlier designs, the steel must be installed to orient in the direction of the slide plane. At present 8 caissons are shown as being less than 20 feet long; however, the applicants' structural engineering consultant has noted that for the final plans all caissons will be at least 20 feet long so these 8 caissons should be changed in the final plans to provide for this additional embedment length. Of the 20,100 cubic feet of cut that is needed for the roadway, almost 25% or 4,850 cubic yards will be cut material excavated for installation of the caissons.

For alternatives analysis, the applicants' structural engineer examined the option of a tied-back wall rather than a caisson support (LC Engineering, September 2, 2010). Such a design was considered since it was thought to have the potential to further reduce both the caisson diameter and necessary reinforcing steel. However, the assessment of this option found that the tie-back installation would require far more site disturbance than the caissons, since large trenches would need to be excavated

downslope of the slide to install the tiebacks. Approximately 1,010 feet of roadway would require slot excavations at least 30 to 60 feet deep to install the tie-back system, extending the site disturbance well beyond the existing roadway footprint. I have reviewed this analysis and concur that a tie-back stabilization system at this site would cause greater site disturbance than the caissons.

The roadway alignment has been closely constrained by the allowed road easement. No alternative alignments were examined due to the limitations posed by the allowable easement. In the second review letter by Cotton Shires, dated January 21, 2011, they stated that, "By refining the geologic landslide mapping, reductions in the amount and size of stabilization elements have been realized. It appears because of the steepness of the roadway corridor, the ability to devise alternative designs is limited." (CSA 2011, page 16)

The analysis of the currently-proposed caisson design is included in the January 21, 2011 report from CSA. This analysis concludes that the proposed road stabilization is "a reasonable approach to address these challenges [i.e. the site terrain and geology] given the site characterization and analyses performed. Consequently, it is our opinion that, with the exception of some of our more minor concerns and structural details, the applicant's consultants have satisfactorily addressed the comments of our previous report dated March 8, 2010 and have satisfactorily performed their work within the standard of care of their respective disciplines." (CSA 2011, page 16)

I have carefully reviewed the applicants' material as well as the CSA review, and I concur in CSA's engineering review of the most recent 5-foot diameter caisson design option. There remain some aspects of the caisson design that are itemized in the CSA letter, on pages 10 and 11. These design aspects need to be addressed by the applicants' structural engineer before the design can be approved. None of these concerns raises issues that would result in a fatal flaw to the design, but the design cannot be considered finished until these concerns are addressed. For example, quardrails are an important safety element for steep mountain roads; design details need to be included in the main design since the impact loads experienced by the quardrails can be high and should not be considered an after thought to the main design. The applicants' civil and structural engineers have been aware of the CSA design concerns for several months. However, since the County of Los Angeles may raise additional design details during its project review, the applicants' civil and structural engineers have indicated that they would prefer to address our design issues at the time they address those raised by the County. Since the changes required by the CSA review would not alter the coastal resource impacts from the proposed project, there is no reason to delay project review for these changes. However, if the project is approved, final approval cannot occur until these changes are made.

In addition to the design changes itemized on pages 10 and 11 of the January 21, 2011 report, CSA has provided 3 significant recommendations that should be met – (1) that the reinforcing steel be designed for 20 to 30 degrees of uncertainty in the main direction of the slide force (10 to 15 degrees on each side) (2) that the caisson designs be checked for compliance with the California Building Code (equation 9-7) and the American Concrete Institute (ACI) guidelines (Section 9.2.1), and (3) that a geologist be on-site to inspect the installation and verify proper orientation of each caisson. These recommendations will help insure that the proposed road support and slide mitigation will perform as intended. If the proposed project is recommended for approval, it should be

conditioned to include these three recommendations -- for the reinforcing steel to include a 30 degree uncertainty in the direction of the slide force, to check the caisson design for compliance with the California Building Code and recommendations of ACI, and to have a geologist on-site to inspect each caisson excavation and the orientation of each caisson during installation.

CSA examined and spot-checked the cut and fill volumes, lengths of retaining wall support and caisson supported roadways and determined that the applicants' consultants have correctly characterized these project aspects and necessary site disturbance. CSA has recommended that all the fill slopes be keyed and benched, even if they are not intended for future development, and this should be required for the final plan approval. With the additional design and construction recommendations from CSA and staff, the road mitigation, once completely designed, should be able to provide a safe and stable access road.

The main focus of the geologic, geotechnical and engineering review has been on the roadway since the access road crosses two large landslides. The purpose of the road is to provide access to five building sites (driveways, homes, pool areas, septic systems, etc.). The proposed home sites are placed at or near the ridgelines. Four of the home sites are outside the identified slide areas; however, the Lunch development area (CDP 4-10-040) is overlain by landslide debris that will be removed as part of the site development or mitigated by the foundation design for the house. The area proposed for development on CDP 4-10-043 (Morleigh) has a hummocky terrain and during the 28 January 2010 site visit and subsequent discussion, additional site testing was recommended for this area. Trenching across this site made clear that there was no underlying landslide mass at this site. The project has shown that the five proposed building envelopes will be or can be made structurally stable for the proposed development. There may be other locations on the property that would be able to support the proposed development; but, no analysis of alternative building sites was undertaken. A requirement of the applicants for their willingness to fund the CSA review was that the CSA analysis of alternatives should not examine alternative building sites (Attachment 2)

The five building sites will require an additional 26,250 cubic yards of cut, 1,800 cubic yards of fill and result in 2.5 acres of surface disturbance. Each home site will require between 0.22 and 0.23 acres for the residential unit and (except for the northernmost home) from 0.25 and 0.45 acres for site access from the main road. The northernmost home will have access directly off the main road and will not have additional impacts for access. There will be an additional 1.88 acres of site disturbance for contour grading of up to 13,950 cubic yards of excess fill from the project. (As noted earlier, this contour grading should be designed with a proper key, benching and drainage controls, even though it is not intended for use as a development area.) Table 1 provides a summary of the cut, fill and land disturbance attributable to each homesite and to the additional project needs, such as the LA County Fire Department turn-outs, the exceed fill and the road caissons.

In summary, the geologic hazards cannot be avoided or eliminated with the proposed development sites and identified road easement, and no analysis was undertaken to determine if hazards could be reduced through alternative easement alignments or development sites. However, treating the proposed road alignment and residential development areas as fixed, there are engineering options that will allow the proposed

development to be undertaken in a manner that will minimize the risks from the identified geologic hazards. If approved, there should be conditions on this project for the following:

- Any necessary retaining walls should be colored, texturized and possibly vegetated so that they will be visually compatible with the surrounding area
- Final engineering plans should incorporate all recommendations from the CSA letter of January 21, 2011, and outlined on pages 10 and 11
- All road stabilization caissons should be at least 20 feet long, or at the length identified by the structural engineering plans
- All fill slopes and contour grading areas, including the non-structural fill areas, should be properly keyed and benched and designed to control both sub-grade and surface drainage in a non-erosive manner.
- The reinforcing steel for the caissons in the road support system should include a 30 degree uncertainty in the direction of the slide force
- The caissons for the road support system should be checked to insure compliance with the California Building Code for structural loading (Equation 9-7) and guidance by the American Concrete Institute (Section 9.2.1)
- There shall be a geologist on-site during construction of the road support system to inspect each caisson excavation and the orientation of each caisson during installation.

With the above listed modifications, the proposed project should be able to assure stability and structural integrity to a reasonable degree and to minimize risks to life and property, consistent with Coastal Act section 30253.

Please contact me if there are other aspects of this project that you would like to discuss.

Table 1: Cut, fill and Site Disturbance Associated with Each Home Site

Property	Cut (CY)	Fill (CY)	Disturbance (sq ft)	Disturbance (acres)
VERA				
Access Road				
Private Access	5,300		14,000	0.32
Development area	5,400		9,695	0.22
VERA Sub-total	10,700		23,695	0.54
LUNCH				
Access Road	4,800	5,950	104,900	2.41
Private Access	650	800	19,500	0.45
Development area	3,350		9,950	0.23
LUNCH Sub-total	8,200	6,750	134,350	3.09
MORLEIGH				
Access Road	9,350	3,100	69,950	1.61
Private Access	3,700	600	15,250	0.35
Development area	1,300		9,950	0.23
MORLEIGH Sub-total	14,350	3,700	95,150	2.19
MULRYAN				
Access Road	900	1,750	24,600	0.56
Private Access	1,300		10,750	0.25
Development area	1,600	400	9,550	0.22
MULRYAN Sub-total	3,800	2,150	44,900	1.03
RONAN				
Access Road	200	12,500	43,000	0.99
Private Access				
Development area	3,650		9,880	0.23
RONAN Sub-total	3,850	12,500	52,880	1.22
PILES/CAISSONS	4,850			
LACFD Staging areas		10,000	51,700	1.19
Grading of excess fill		13,950	81,750	1.88
TOTALS (1 and 2)	46,350	48,700	484,425	11.12

⁽¹⁾ Cut and fill totals are not equal due to volume estimates and assumptions made for bulking.

⁽²⁾ Square feet of disturbance estimates sum; however, acreage values do not sum due to rounding.

Attachment 1: Reviewed Documents and Drawings

Documents and Drawings:

- CalWest Geotechnical Engineering Consultants, May 25, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-037 (Lunch), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, May 25, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-018 (Vera), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, June 1, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-092 (Mulryan), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, June 4, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-091 (Morleigh), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, October 2, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-038 (Ronan), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 20, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-018 (Vera), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 27, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-037 (Lunch), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 28, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-091 (Morleigh), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 28, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-092 (Mulryan), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, July 14, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150005.
- CalWest Geotechnical Engineering Consultants, July 22, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150004.
- CalWest Geotechnical Engineering Consultants, July 23, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150004.
- CalWest Geotechnical Engineering Consultants, May 1, 2009, Geotechnical Sections and Geologic Map, APN 4453-005-018.

- CalWest Geotechnical Engineering Consultants, May 15, 2009, Geotechnical Engineering Supplemental Report, Proposed Compacted "Non-Structural" Fill Areas (Mulryan).
- CalWest Geotechnical Engineering Consultants, July 7, 2009, Geotechnical Engineering Letter II.
- CalWest Geotechnical Engineering Consultants, July 28, 2009, Geotechnical Engineering Letter, Preliminary Grading Plan Review, Proposed Single-Family Residential Development, Malibu Area, County of Los Angeles.
- CalWest Geotechnical Engineering Consultants, May 3, 2010, Supplemental Geotechnical Engineering Letter #1, Additional Clarification of Design Recommendations and Response to California Coastal Commission Review Prepared by Cotton, Shires and Associates, Inc., Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, September 13, 2010, Supplemental Geotechnical Engineering Letter #2, Clarification to E-Mail From David Schrier (dschrier@cottonshires.com) Sent Friday, September 10, 2010 5:54 PM on Behalf of The California Coastal Commission, Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, September 30, 2010, Supplemental Geotechnical Engineering Letter #3, Additional Comments, Clarification and Response to Items Discussed at the Meeting Held at The California Coastal Commission on September 15, 2010; Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, October 13, 2010, Addendum to Supplemental Geotechnical Engineering Letter #3 dated September 30,2010, Additional Comments, Clarification and Response to Items Discussed at the Meeting Held at The California Coastal Commission on September 15, 2010; Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 1, 2010, Supplemental Geotechnical Engineering Letter #4, Response to Items Discussed Within the Memorandum Prepared by Cotton, Shires and Associates, Dated October 26, 2010 (included in Appendix A), Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 8, 2010, Supplemental Geotechnical Engineering Letter #5, Response to Discussion Items at The California Coastal Commission Meeting in San Francisco on November 2, 2010 Regarding Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 11, 2010, Supplemental Geotechnical Engineering Letter #6, Proposed Staging Area, Compacted "Non-Structural" Fill, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 15, 2010, Supplemental Geotechnical Engineering Letter #7, Clarification of Design Loads for the Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 20, 2010, RE: Draft report by Cotton Shires & Associates, Inc. dated December 17, 2010.
- CalWest Geotechnical Engineering Consultants, December 27, 2010, Supplemental Geotechnical Engineering Letter #8, Additional Comments and Clarification of Stability Analysis and Geotechnical Design Load Criteria, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.

- CalWest Geotechnical Engineering Consultants, January 17, 2011, Supplemental Geotechnical Engineering Letter #9, Additional Comments and Clarification of Stability Analysis and Geotechnical Design Load Criteria, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, January 20, 2011, Supplemental Geotechnical Engineering Letter #8 (Revised), Additional Comments and Clarification of Stability Analysis and Geotechnical Design Load Criteria, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- Czerniak, E. 1957. "Resistance to Overturning of Single, Short Piles, in the Journal of the Structural Division, Proceedings of the American Society of Civil Engineers, Paper 1188, 1188-1 1188-25.
- Cotton, Shires and Associates, Inc., March 8, 2010, Summary of Findings Civil and Geotechnical Engineering and Engineering Geologic Peer Review Services, Sweetwater Mesa Development Project, Malibu, California.
- Cotton, Shires and Associates, Inc., January 21, 2011, January 2011 Summary of Findings Civil and Geotechnical Engineering and Engineering Geologic Peer Review Services, Sweetwater Mesa Development Project, Malibu, California.
- County of Los Angeles, Dept of Public Works, Geotechnical and Materials Engineering Division, October 27, 2008, Soils Engineering Review Sheet, Review of Conceptual Design Pad for Single Family Residence and Access Road.
- Hohbach-Lewin, Inc. Structural Engineers, December 6, 2010, Memo: Sweetwater Mesa Development Project Civil and Geotechnical Engineering and Engineering Geological Peer Review.
- Hohbach-Lewin, Inc. Structural Engineers, January 10, 2011, Memo: Sweetwater Mesa Road Extension Subject: Supplemental Geotechnical Letter #8, Additional comments and clarifications of Stability Analysis and Geotechnical Design Load Criteria.
- Kane Geotechnical, October 15, 2007, Sweetwater Mesa Rockfall and Mitigation Study, Los Angeles County.
- LC Engineering Group, Inc., September 27, 2009, Engineering Comments on California Coastal Commission's Draft of Scope of Work for Third Party Review, Sweetwater Mesa Development Project.
- LC Engineering Group, Inc., October 20, 2009, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road, Parts 1 and 2.
- LC Engineering Group, Inc., January 27, 2010, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road.
- LC Engineering Group, Inc., May 3, 2010, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road.
- LC Engineering Group, Inc., May 28, 2010, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road.
- LC Engineering Group, Inc., November 16, 2010, Mesa Road Improvements from Sta: 26+70 to 75+53.34, Malibu, Los Angeles County, California (Sheets S-T to S-8).
- Mountain Geology, Inc., September 26, 2006, Report of Limited Engineering Geologic Study, Proposed Water Main, Costa del Sol Way to APN 4453-005-038, -091, -037, -092, and -018, County of Los Angeles, California.
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-092, Mulryan).

- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-091, Morleigh).
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-018, Vera), Electronic Copy.
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-037, Lunch), Electronic Copy.
- Mountain Geology, Inc., August 28, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-038, Ronan).
- Mountain Geology, Inc., December 18, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-037, Lunch).
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- Mountain Geology, Inc., December 19, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-018, Vera).
- Mountain Geology, Inc., December 20, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-091, Morleigh).
- Mountain Geology, Inc., July 7, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-018, Vera) Electronic Reference Copy.
- Mountain Geology, Inc., July 8, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-091, Morleigh).
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- Mountain Geology, Inc., May 18, 2009, Engineering Geologic Memorandum Proposed Minor Modifications of Grading Plan, Northerly Terminus of Sweetwater Mesa Road.
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- Mountain Geology, Inc., September 14, 2010, Supplemental Engineering Geologic Report #2 Engineering Geologic Responses to Email from David Schrier and Pat Shires Received on September 10, 2010, APN 4453-005-037, -018, -038, -092, -091 Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- Mountain Geology, Inc., September 30, 2010, Supplemental Engineering Geologic Report #3 Additional Responses to California Coastal Commission Engineering Geologic, Geotechnical Engineering and Civil Engineering Peer Review, APN 4453-005-037, -018, -038, -092, -091 Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- Mountain Geology, Inc., October 29, 2010, Supplemental Engineering Geologic Report #4 Additional Responses to California Coastal Commission Engineering Geologic, Geotechnical Engineering and Civil Engineering Peer Review, APN 4453-005-037, -018, -038, -092, -091 Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.

- Southern California Earthquake Center, June 2002, Recommended Procedures for Implementation of DMG Special Publication 117 for Analyzing and Mitigating Landslide Hazards in California.
- Whitson Engineering, January 1, 2008, Revised March 9, 2009, 20' Driveway to Proposed Single Family Residence Plans, Sweetwater Mesa Road, (APN 4453-005-018, Vera).
- Whitson Engineering, March 11, 2009, Driveway, Grading and Drainage Plans for a Single Family Residence (APN 4453-005-092, Mulryan).
- Whitson Engineering, March 25, 2009, Driveway, Grading and Drainage Plans for a Single Family Residence (APN 4453-005-091, Morleigh).
- Whitson Engineering, April 3, 2009, Driveway, Grading and Drainage Plans for a Single-Family Residence (CDP Submittal Not for Construction), (APN 4453-005-037, Lunch).
- Whitson Engineering, April 28, 2009, Contour Grading Exhibit 2839 Sweetwater Mesa Road (APN 4453-005-037).
- Whitson Engineering, August 5, 2009, Driveway, Grading and Drainage Plans for a Single-Family Residence (CDP Submittal Not for Construction), (APN 4453-005-037, Lunch).
- Whitson Engineering, August 5, 2009, 2851 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-091, Morleigh).
- Whitson Engineering, August 5, 2009, 2857 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-092, Mulryan).
- Whitson Engineering, August 5, 2009, 2863 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-018, Vera).
- Whitson Engineering, October 20, 2009, Sweetwater Mesa Project Summary Analysis Letter, Attn: Leslie Ewing of California Coastal Commission.
- Whitson Engineering, October 21, 2009, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43.
- Whitson Engineering, November 4, 2009 (Revised), Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43.
- Whitson Engineering, May 28, 2010, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43 (Site Plans)
- Whitson Engineering, June 2, 2010, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43 (LACFD/CDP Submittal; Not for Construction).
- Whitson Engineering, November 16, 2010 (revised), Plan Set, Sweetwater Mesa Road Improvements from STA: 26+70 to 75+53.43, Malibu, Los Angeles County, California.



January 21, 2010 P5020 **By Email (lewing@coastal.ca.gov)**

Ms. Lesley Ewing Senior Coastal Engineer CALIFORNIA COASTAL COMMISSION 45 Fremont Street, Suite 2000 San Francisco, California 94105-2219

SUBJECT: Proposal for Civil and Geotechnical Engineering and Engineering

Geological Peer Review Services

RE: Sweetwater Mesa Development Project

Malibu, California

Dear Ms. Ewing:

Coastal Commission (CCC) with this proposal for civil and geotechnical engineering and engineering geological peer review services in support of the CCC's review and analysis of the application for Coastal Development Permits 4-09-056 through 4-09-061. The project, as we understand it, consists of developing five residential lots along with a subdivision access road that would extend Sweetwater Mesa Road approximately one mile to the north of its present termination.

The new access road will be partially in the City of Malibu, but mostly in the County of Los Angeles, California. It is our understanding that the CCC is interested in having CSA review the engineering plans, geologic, engineering geologic, geotechnical, and supplemental reports for adequacy and compliance with the California Coastal Act policies that require the following: 1) new development in areas of high geologic, flood or fire hazard to be designed in such a way as to minimize risks to life and property; 2) new development must be designed to assure stability and structural integrity; and 3) new development shall consider scenic and visual qualities, protect views along the ocean and scenic coastal areas, minimize the alteration of natural landforms, be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.

The project-specific requirements include stability review of the portion of the main 5-lot access road that is located within the County of Los Angeles, the individual access roads to the five residential lots, the water line extension to the five properties, and each of the five development areas. The peer review work will culminate in a written report summarizing findings and providing discussions and recommendations that will specifically address the following:

- 1) Evaluate whether the provided material is adequate to determine the aforementioned stability issues and if not, what additional material should be provided;
- 2) Assess whether the proposed remediation measures are adequate to provide stability for both static and dynamic loading conditions;
- 3) Assess whether the structural design (including pile diameters, spacing, embedment, steel reinforcement and orientation, force application, conformity to standards of practice, and ability to adequately resist lateral loads) of proposed remediation structures are appropriate for their intended purposes;
- 4) Assess whether the proposed remediation measures will potentially adversely impact slope stability;
- 5) Assess the necessity of fill proposed to be placed between Station 44+60 and Station 52+80 for stability purposes, fire department access and staging, and to evaluate the volume of fill being placed to eliminate off-haul;
- 6) Assess the compatibility and appropriateness of each stabilizing structure/improvement (cuts, fills, retaining walls, drainage, interconnecting piles, and cylindrical piles) necessary for the construction of the 5-lot access road;
- 7) Estimate the extent of additional disturbed areas and volumes of cut and fill necessary if the 1.5:1 slopes must be modified to 2:1;
- 8) Evaluate possible repairs to the pile supported roadway section in the unlikely event of failure due to landslide movement;
- 9) Assess the potential consequences of an unlikely failure of the pile supported roadway section;
- 10) Assess the potential failure mechanisms and repair options of the elevated roadway sections;
- 11) Confirm that roadway grade does not exceed the indicated 18.95 percent, and discuss issues associated with roadways constructed at this inclination;
- 12) Conduct a thorough spot-checking of calculated quantities for the following using provided topographic information:
 - a) Volume and area of proposed cuts and fills [1.5:1 (H:V) slopes] of the roadway, residential access roadways, and building pad;

- b) Volume and area of cuts and fills inclined at 2:1 (H:V) instead of 1.5:1 for the roadway, residential access roadways, and building pads;
- c) Lengths and heights of retaining walls (roadway, residential access roadways, and building pads);
- d) Length of roadway to be stabilized by slab piles and cylinder piles; and
- e) Length and height of elevated roadway sections;
- 13) Evaluate the vulnerability of the roadway to geologic hazards;
- 14) Assess the constructability of the proposed roadway, residential access roadways and building pads;
- 15) Assess the long term effectiveness and appropriateness of the proposed stabilization elements; and
- 16) Identify conceptual level alternative designs and stabilization measures that would reduce grading and wall heights.

Upon the request of the applicant, and with concurrence with the CCC staff, we will participate in up to two meetings with the applicant's consultants and CCC staff. We will only participate in such meetings when CCC staff are present. County of Los Angeles staff will be invited and may attend these meetings at their discretion.

We further understand that the CCC needs the work completed in a timely manner so that they can prepare for a hearing on this matter to take place as soon as April of 2010. Assuming that authorization to proceed is granted in a reasonable time frame, a written report of our findings and recommendations would be needed on or before March 1, 2010. This report should provide detailed responses to the issues outlined above sufficient to develop evidence-based findings and with an explanation of how the above determinations and recommendations were made. Ongoing consultation with CCC staff and attendance and testimony at the CCC hearing for this project would also be required.

Consequently, we propose the following Scope of Work, Schedule, and Fee to perform the subject civil, geotechnical engineering and engineering geology peer review services.

SCOPE OF WORK

I. Initial Civil and Geotechnical Engineering and Geologic Evaluation

A. <u>Evaluation of Aerial Photographs</u> – Historical and relatively current aerial photographs will be obtained and analyzed with respect to slope stability considerations.

- B. Review of Available Data Published maps and site specific documents pertaining to the project and provided to us by the CCC, including reports, letters, memos and calculations, will be reviewed by engineering geologists, civil engineers, geotechnical engineers and structural engineers. We also request that the applicant's consultants provide us with the electronic versions of the drawings in AutoCAD-compatible format to assist us with our review. We will use AutoCAD Land Desktop and AutoCAD 2007 software to check quantities, etc.
- C. <u>Site Reconnaissances</u> Surficial inspections will be completed of the site and vicinity by an engineer and an engineering geologist and existing site conditions will be noted to formulate a preliminary understanding of the proposed project environment. Inspections of site earth materials and slopes will also be conducted, including preliminary engineering geologic mapping of site conditions using provided topographic base maps.

II. <u>Engineering Geologic, Geotechnical and Civil/Structural Engineering</u> Assessment and Evaluation of Site Conditions

A. <u>Preliminary Assessments and Evaluations</u> – Based on our review of the site conditions, aerial photographs, published maps and site specific documents (including electronic files of the drawings) provided to us, we will develop preliminary assessments and evaluations to address the CCC's questions, concerns and requests regarding the construction of the proposed roadway, residential access roadways and building pads.

III. <u>Consultation, Reporting and Meetings</u>

- A. <u>Consultation and Reporting</u> We will consult with CCC staff on a regular ongoing basis and we will prepare a peer review letter report which will contain our assessments and evaluations of the site conditions, reviewed documents, and address each of the CCC's above listed questions, concerns and requests. CCC staff will be included in all telephone/meeting contacts.
- B. <u>Meetings</u> In addition to the site inspection, we have budgeted for attending two meetings with CCC staff and the applicant's consultants at our Los Gatos office or during the field trip.
- C. <u>Coastal Commission Hearing</u> We have budgeted for preparing a PowerPoint presentation to summarize our peer review assessments and evaluations, and for attending a CCC hearing to present our findings.

SCHEDULE

Upon our receipt of a signed agreement, we will begin our peer review of provided documents and our evaluation of the site. At this time, we anticipate that the evaluation will take approximately five to six weeks to complete. Assuming timely authorization, we will endeavor to meet the CCC's expectation that the peer review report be provided by March 1, 2010, and we will be available to participate in the CCC hearing as early as April of this year.

FEE

We propose to invoice you for our services on a time-and-expenses basis in accordance with the attached Schedule of Charges. We estimate that our fees and expenses for Tasks I through III outlined above will be:

Task

Estimated Cost Range

I. – Initial Evaluation

\$24,000 to \$26,000

- A. Evaluation of Aerial Photos \$1,500 to \$2,000
- B. Review Available Data \$18,000 to \$19,000
- C. Site Reconnaissances \$4,500 to \$5,000

Senior Principal Engineer (32 hours x \$250 = \$8,000)

Principal Engineer/Geologist (32 hours x \$210 = \$6,720)

Senior Staff Engineer/Geologist (40 hours x \$130 = \$5,200)

Supervising Structural Engineer (20 hours x \$175 = \$3,500)

Travel Cost, Mileage, Aerial Photographs (\$1,750)

II. – Assessment and Evaluation of Site Conditions \$19,000 to \$20,500

Senior Principal Engineer (16 hours x \$250 = \$4,000)

Principal Engineer/Geologist (20 hours x \$210 = \$4,200)

Senior Staff Engineer/Geologist (20 hours x \$210 = \$4,200)

Supervising Structural Engineer (20 hours x \$175 = \$3,500)

III. – Consulting, Reporting and Meetings

\$27,500 to \$30,000

- A. Consultation and Reporting \$14,000 to \$14,500
- B. Meetings \$4,500 to \$5,500
- C. Coastal Commission Hearing \$9,000 to \$10,000

Senior Principal Engineer (50 hours x \$250 = \$12,500)

Principal Engineer/Geologist (50 hours x \$210 = \$10,500)

Senior Staff Engineer/Geologist (16 hours x \$130 = \$2,080)

Technical Illustrator (40 hours x \$85 = \$3,400)

Reproduction Costs and Admin/Accounting (\$1,250)

(If meetings are held at CCC's office in S.F., add \$1,500 per meeting)

We will invoice the CCC monthly on a time and expenses basis for Tasks I through III for an amount ranging from \$70,500 to \$76,500 and will not exceed \$76,500 without prior written authorization. Attendance at additional meetings or hearings (beyond the budgeted two meetings and one hearing) will be billed on a time-and-expense basis in accordance with our attached Schedule of Charges. If meetings are held in San Francisco, please add \$1,500 per meeting to the not-to-exceed amount.

AGREEMENT

If you agree with the Scope of Work, Schedule, and Fee outlined above, as well as the attached Schedule of Charges, Limitations, and Terms, please sign one copy of this proposal and return it to our office or incorporate it as an exhibit into a contract. Receipt of the signed proposal or contract will constitute authorization for us to proceed.

We look forward to providing you with the professional services discussed above. If you have any questions, or need additional information, please contact us.

Very truly yours,

COTTON, SHIRES AND ASSOCIATES, INC.

Patrick O. Shires

President and Senior Principal Geotechnical Engineer, GE 770



Approved and Authorized By Date

POS:DTS:TS:MP:st

Attachment: CSA Schedule of Charges, Limitations and Terms

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000 SAN FRANCISCO, CA 94105-2219 VOICE AND TDD (415) 904-5200 FAX (415) 904-5400



February 12, 2010

FROM:

Lesley Ewing

TO:

Patrick Shires, Cotton Shires and Assoc.

Dennis Long, Monterey Bay Sanctuary Foundation

Ted Harris, California Strategies

SUBJECT:

ADDENDUM to Cotton Shires and Assoc. Sweetwater Mesa Proposal 1.21.2010

This memo is to explicitly state that the scope of work for your third party review, as specified in Item 16 of the 21 January 2010 Sweetwater Mesa Proposal does not extent to examination of alternative building sites. As such, Item #16 should be modified to read:

"Identify conceptual level alternative designs and stabilization measures that would reduce grading and wall heights <u>The peer review does not include review or identification of alternative home site locations."</u>

The amended language is provided in underlined italics.

No other changes or modifications to the Scope of Work are proposed and all items in the scope of work shall be undertaken as previously specified.





March 8, 2010 E5050 By email (lewing@coastal.ca.gov)

Ms. Lesley Ewing Senior Coastal Engineer CALIFORNIA COASTAL COMMISSION 45 Fremont Street, Suite 2000 San Francisco, California 94105-2219

SUBJECT: Summary of Findings - Civil and Geotechnical Engineering and

Engineering Geologic Peer Review Services

RE: Sweetwater Mesa Development Project

Malibu, California

Dear Ms. Ewing:

Cotton, Shires and Associates, Inc. (CSA) is pleased to provide the California Coastal Commission (CCC) with this summary of our findings in regard to the civil and geotechnical engineering and engineering geologic peer review services we provided in support of the CCC's review and analysis of the application for Coastal Development Permits 4-09-056 through 4-09-061 for the Sweetwater Mesa Development Project in Malibu, California. The project consists of developing five residential lots along with a subdivision access road that would extend Sweetwater Mesa Road approximately one mile to the north of its present termination.

The new access road is proposed partially in the City of Malibu, but mostly in the County of Los Angeles, California. It is our understanding that our task was to review the engineering plans and calculations, geologic, engineering geologic, geotechnical, and supplemental reports pertaining to the portion of project within the County of Los Angeles for adequacy and compliance with the California Coastal Act policies that require the following: 1) new development in areas of high geologic, flood or fire hazard to be designed in such a way as to minimize risks to life and property; 2) new development must be designed to assure stability and structural integrity; and 3) new development shall consider scenic and visual qualities, protect views along the ocean and scenic coastal areas, minimize the alteration of natural landforms, be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.

The project-specific requirements include stability review of the portion of the main 5-lot access road that is located within the County of Los Angeles, the individual access roads to the five residential lots, the water line extension to the five properties, and each of the five development areas. The peer review work has culminated in this written report summarizing our findings and providing discussions and recommendations.

SCOPE OF WORK

I. <u>Initial Civil and Geotechnical Engineering and Geologic Evaluation</u>

- A. <u>Evaluation of Aerial Photographs</u> Historical and relatively current aerial photographs were obtained and analyzed with respect to slope stability considerations.
- B. Review of Available Data Published maps and site specific documents pertaining to the project and provided to us by the CCC, including reports, letters, memos and calculations, were reviewed by engineering geologists, civil engineers, geotechnical engineers and structural engineers. The applicant's consultants also provided us with the electronic versions of the drawings in AutoCAD-compatible format to assist us with our review. We used AutoCAD Land Desktop and AutoCAD software to check quantities, etc.
- C. <u>Site Reconnaissance</u> Surficial inspections were completed of the site and vicinity by an engineer and engineering geologists and existing site conditions were noted to formulate a preliminary understanding of the proposed project environment. Inspections of site earth materials and slopes were also conducted, including preliminary engineering geologic mapping of site conditions using provided topographic base maps.

II. <u>Engineering Geologic, Geotechnical and Civil/Structural Engineering</u> <u>Assessment and Evaluation of Site Conditions</u>

A. <u>Preliminary Assessments and Evaluations</u> – Based on our review of the site conditions, aerial photographs, published maps and site specific documents (including electronic files of the drawings) provided to us, we developed preliminary assessments and evaluations to address the CCC's questions, concerns and requests regarding the construction of the proposed roadway, residential access roadways and building pads.

III. Consultation, Reporting and Meetings

- A. <u>Consultation and Reporting</u> We consulted with CCC staff on a regular ongoing basis and we prepared this peer review letter-report containing our assessments and evaluations of the site conditions, reviewed documents, and addressed each of the CCC's questions, concerns and requests. CCC staff was included in all telephone/meeting/email contacts.
- B. <u>Meetings</u> In addition to the site inspection, we attended two meetings with CCC staff at our Los Gatos office and one meeting with the applicant's consultants during the initial field trip.
- C. <u>Coastal Commission Hearing</u> We will prepare a PowerPoint presentation to summarize our peer review assessments and evaluations, and attend a CCC hearing to present our findings.

E5050

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Engineering Geologic Evaluation Introduction – To provide a basis upon which to review the geotechnical and engineering aspects of the proposed development, we performed an engineering geologic evaluation of the project. This evaluation included review of historical stereo-pair aerial photographs (1929, 1952, 1993, and 2000) and historical oblique aerial photographs (1993, 2008, and 2009), and performance of limited engineering geologic field mapping. Our evaluation also included review of the submitted geologic reports, geologic maps, geologic cross sections, and exploratory borehole and trench logs by the Project Engineering Geologist, Mountain Geology, Inc. (MGI). The fundamental role of the engineering geologist is to first recognize the primary geologic hazards with the potential to impact the proposed development, and second to characterize these geologic hazards so that appropriate geotechnical engineering analyses can be performed. In this section of our letter-report, we summarize our evaluation of the engineering geologist's recognition and characterization of the site geologic conditions and geologic hazards.

Geologic Hazard Recognition – MGI has recognized that landsliding, seismic shaking, rockfalls, and bedrock shattering have the potential to adversely impact the proposed development. MGI has stated that landslide debris underlies the majority of the subject property, and has recommended that mitigation measures be implemented to provide the appropriate required factor of safety for the proposed access road and residences. CSA is in agreement that the majority of the site is underlain by landslide debris, which in general, has been shed westward from the prominent north-south trending ridgeline. Three of the proposed residential structures are located atop the prominent ridgeline on bedrock materials of the Vaqueros Formation (see Figure 1, Aerial Site View). Our review of the proposed development reveals that the Lunch residence is the only living space to be constructed atop landslide debris, as mapped by MGI; however, it is our opinion that a large portion of the Morleigh property, including the residence site, may also be underlain by a large landslide.

CSA's review of aerial photographs reveals the likely presence of four large landslides along the western flank of the ridgeline (which we will refer to as landslides 1 through 4 in the following text), with Landslide 1 on the Vera property (and property to the south of Vera), Landslide 2, a large, mostly evacuated landslide on the Mulryan and Lunch properties, Landslide 3 on the Morleigh property, and Landslide 4 north of the Morleigh property (see Figure 2, CSA Photo-Interpretive Landslides). MGI has mapped Landslides 1, 2 and 4, but does not map the Morleigh site as a landslide (CSA potential Landslide 3). The distribution of landslides as depicted on the MGI Geologic Map is very general in nature, and thus, it is difficult to differentiate large from small landslides, but in general, with the exception of CSA's Landslide 3, MGI appears to have recognized the majority of the landslides within the project area. In addition, MGI appears to have adequately recognized other geologic hazards with the potential to adversely impact the proposed site development.

In order to illustrate our peer review interpretation of the site geology based on our review of aerial photographs, limited field mapping and review of the MGI mapping and subsurface information, we prepared the attached Plate 1 - Peer Review Engineering Geologic Map.

Geologic Characterization – MGI has performed geologic field mapping, evaluated aerial photographs, performed subsurface exploration, and developed geologic cross sections to portray the site geologic conditions. CSA has reviewed the geologic maps, cross sections, and borehole data submitted by MGI, and has provided the following assessment of the site geologic characterization:

Geologic Mapping: On the MGI Geologic Map, MGI has identified landslide areas using gray shading and identified non-landslide areas as white. Within the gray landslide areas, MGI does not, in general, differentiate the various types of landslides or slope movements at the site (i.e., shallow landslide, deep landslide, slope wash, talus, etc.), nor do they differentiate the different parts of each landslide (i.e., headscarp, toe, lateral margin, internal slide, etc.). Additionally, the movement directions of the various landslides are not well constrained. It is our opinion that, for certain portions of the proposed development, this results in overly conservative design assumptions. One example of this is near the first switchback north of the proposed Lunch residence where in exploratory boring B-9, approximately 52 feet of landslide debris was encountered. This boring appears to be located along the northern margin of the large, mostly evacuated Landslide 2, which appears to have moved nearly due west (see Plate 1 – Peer Review Engineering Geologic Map). The slope above this boring is part of the old headscarp/sidescarp of the large landslide, and appears to be mantled with shallow slopewash, but should not have a basal shear surface contiguous with the large landslide (as shown on MGI Section E-E'). In boring B-9, MGI encountered approximately 12 feet of slopewash, which as one moves northward off the large landslide and onto the scarp, should thin upslope. Thus, planned mitigation elements along this section could be over-designed. We recommend that a well-placed boring along the road alignment above B-9 could provide valuable subsurface information to help refine, and hopefully reduce, the mitigation design.

Similar refinement of the landslide type and distribution may also have positive implications for Landslide 1, near Cross Section U-U' and V-V', where the obvious headscarp of the large landslide contains surficial slopewash and talus (see Plate 1 – Peer Review Engineering Geologic Map), and the basal shear surface of the large landslide should not extend upslope as shown on MGI's U-U' and V-V'.

<u>Mapping Recommendations</u> – We recommend that MGI incorporate landslide geomorphology into their geologic mapping to help refine the shape, depth interpretations, and direction of the landslides at the site.

Additional field mapping should be considered in the vicinity of CSA Landslide 3. The aerial photographs appear to show a pronounced headscarp graben with south-directed drainage leaving the graben area. Consideration should be given to mapping the toe region of the slope, and documenting the topographic conditions of the main body of the slope. Our field mapping revealed highly irregular topography in the main portion of the potential landslide, and the Cross Section M-M' surface profile through this slope is suggestive of landslide geomorphology. Additionally, projection of borehole information from borings B-17 and B-19 onto this cross section is suggestive of landslide shearing in this area.

Subsurface Exploration: A total of 36 large-diameter boreholes, 1 small-diameter borehole, and 16 backhoe test pits were excavated by MGI to explore the subsurface conditions at the site. The large-diameter boreholes were drilled to a

maximum depth of 70 feet. A total of 14 large-diameter boreholes were drilled within landslide debris, with the basal shear surface of the landslide identified by MGI in the boreholes; however, MGI did not identify striations (and their orientations) on any of the basal shear surfaces. All large-diameter borehole exploration performed within landslides was conducted near the head of these landslides. In general, the descriptions of the landslide basal shear surfaces are short, and are not unique from many other borehole material descriptions. The logs of the exploratory boreholes do not indicate that hand sampling was performed on any of the basal shear surfaces.

Subsurface Exploration Recommendations -

- We recommend that additional subsurface exploration be performed along the roadway north of B-9 to characterize the subsurface materials along the steep slope.
- We recommend that exploratory trenching be considered in the gently sloping area (possible graben) near the proposed Morleigh residence to help determine the presence or absence of landsliding. Additional borings may also be necessary to help constrain the geologic conditions in this area.
- Additional subsurface exploration should be performed downslope of the proposed Lunch residential site. Exploratory borings were performed in the vicinity of the proposed residence, but no exploration was performed downslope in the vicinity of the roadway. There are no other positive picks on the basal shear surface for this landslide, thus, there is nothing to constrain the location of the slide plane in the vicinity of the roadway where mitigation elements are to be implemented (see MGI Cross Section G-G').
- We recommend that additional borehole exploration be performed with the
 intent of obtaining hand samples of the slide plane materials for appropriate
 laboratory testing, and to further constrain the subsurface landslide geometries
 where only one positive pick on the basal shear surface has been obtained.

Geologic Cross Sections: Many of the geologic cross sections could be improved with more refined geologic and geomorphic landslide mapping and subsurface exploration. Along some of the cross sections, this re-interpretation may result in shallower mitigation elements, such as along Cross Sections B-B', E-E', F-F', U-U', and V-V'. Other geologic cross sections lack sufficient subsurface data to accurately interpret the subsurface conditions (i.e., G-G', K-K'). Since nearly all of the subsurface geologic data are from near the head of the landslides, the presented basal shear surface geometry is not likely accurate. Therefore, any back-calculated strengths, or forward analyses based upon these geometries are likely inappropriate. Several of the cross sections (such as U-U' and V-V') do not appear to have incorporated field data appropriately to the cross sections. In these areas, very steep basal shear surfaces (47 to 54 degrees) were documented in the boreholes, but the basal shear surface shown on the sections is much shallower. There may have been an attempt by MGI to depict the apparent dip of these features, thus the lower angle; however, this appears to present an inaccurate depiction of the actual site conditions.

<u>Cross Section Recommendations</u> - The geologic cross sections developed by MGI should be updated to more accurately reflect the landslide geomorphology at the site.

The geologic cross sections should be aligned to the most critical portion of the landslides parallel with the estimated movement direction.

<u>Summary of Geologic Characterization</u> – MGI has performed a geologic investigation where valuable surface and subsurface geologic information has been gathered, and specific geologic hazards have been identified. It is our opinion that the geologic characterization of the site to date is an excellent feasibility-level investigation that helps focus attention on specific areas that require further characterization. In our opinion, the geologic characterization to date does not appear to provide sufficient accuracy, detail, or aerial coverage for design level analyses.

<u>Summary of Geotechnical Engineering Evaluation</u> – During our review, we identified various aspects of the investigation, analysis and design that were not in conformance with typical investigations for a project of this magnitude and complexity. The following discussion summarizes some of these aspects, and provides a general recommendation for additional investigation (which can be combined with the additional engineering geologic investigation), laboratory testing and analysis that should be undertaken to better quantify key geotechnical design criteria parameters and landslide loading scenarios. Unfortunately, many of these points are repeated as part of our answering the Summary of Requested Scope of Work in an organized manner.

Geotechnical Subsurface Investigation – It appears that for the entire subsurface investigation program, only one small-diameter boring was utilized for this project. We further understand that this boring was a core-sample exploratory borehole. Consequently, it doesn't appear that undisturbed samples were available or used for laboratory testing. It appears that all of the samples used for laboratory testing were either disturbed samples obtained during downhole logging (also called "grab samples"), or were driven by the Kelly bar of the drill rig (although widespread in practice for sampling of large-diameter borings, this is not an ASTM-approved sampling method for relatively undisturbed samples). However, on many of the boring logs, there is not a description of the type or method of sampling. We recommend that a detailed description of the type and method of sampling be provided for all samples tested in the laboratory if not all samples collected during the subsurface investigation program.

Laboratory Testing – There doesn't appear to be a comprehensive discussion regarding the methodology of the laboratory testing, or an explanation regarding the laboratory test results, so some of our comments regarding the laboratory testing are based on inferences.

- Since it is not apparent how samples were obtained during the subsurface investigation, please explain how the Direct Shear (DS) test samples were obtained/prepared;
- Since it is not apparent how samples were obtained during the subsurface investigation, please explain how the unit weight values used in the slope stability analysis were determined;
- It appears that additional subsurface exploration should be considered to obtain relatively undisturbed samples of the landslide debris material for laboratory testing;

- A total of 38 Direct Shear (DS) tests were reported and described as: 1) "Along Bedding"; 2) "ULT" (ultimate?); 3) "RSHR" (residual shear?); and 4) "Remolded 90%". Please clarify how each sample of these four types of tests were prepared, and the intended future use during analysis;
- Of those 38 DS tests reported, three were described as Qls plane and three as Qls. Five of these tests were run as RSHR and the sixth one as ULT. Please clarify the intent and use (pertaining to slope stability analysis and design criteria) of these six tests;
- From laboratory test result tables, it appears that for the three DS tests on "Qls Plane" material, cohesions varied from 190 psf to 290 psf, and the ϕ varied from 24° to 31°. The Consultant should justify that sufficient laboratory testing on landslide plane material has been accomplished or consider additional testing;
- From test result tables, it appears that for the three DS tests on "Qls" material, cohesions varied from 230 psf to 540 psf and the ϕ varied from 23° to 34°. The Consultant should justify that sufficient laboratory testing on landslide debris material has been accomplished or consider additional testing;
- All of the slope stability analyses appear to be based on shear strength parameters from a DS test described as RSHR on Qls from boring B-12 at a depth of 28 feet. The Consultant should discuss the applicability of using only one residual shear strength for all of the site landslides, including landslide planes shearing along bedding and others shearing across bedding.
- The selected residual shear strength includes a significant cohesion component. Typically, cohesion is set to 0 for existing landslides/residual strength parameters. The Consultant should consider the use of 0 cohesion or at least minimal cohesion for the existing landslide basal shear strength or provide evidence supporting the use of significant cohesion in these slope stability analyses.
- Because of the inability to control drainage, the susceptibility to disturbance, the potential for minor disconformities skewing the results, and a forced direction of shearing in the thin sample, DS tests are generally considered less reliable for determining in situ shear strengths of landslides. It has been shown that Triaxial Compression tests (consolidated undrained) should provide more accurate shear strength parameters for the landslide debris material. For a project of this scope and complexity, it is our opinion that Triaxial Compression Consolidated Undrained tests on relatively undisturbed samples should be considered for the landslide debris material.
- Because of the difficulty in obtaining and shearing landslide plane material under in situ conditions, correlations with Atterberg limits and clay fractions have been shown to provide reasonable residual and fully-softened shear strength values. The Consultant has included a copy of the typical correlations between secant residual strength and liquid limits (in a response letter to the County of Los Angeles dated December 28, 2007). Unfortunately, only five Atterberg limits tests were performed for the entire project, and four of those

were in Qls material while the fifth (with the highest Liquid Limit) was performed on siltstone bedrock. Additional samples should be obtained along basal landslide shear planes, and tested, including Atterberg limits and clay fraction testing, and torsional ring shear strength testing should be considered.

Slope Stability Analysis and Structural Design – Following completion of the recommended additional laboratory testing, slope stability analyses should be repeated incorporating updated engineering geologic modifications (described above) and recommendations to the slope stability analysis provided in the following sections. If Landslide 3 is found to be present, then laboratory testing on landslide-specific samples, appropriate analysis and structural design measures will be necessary to address it. In addition, the stabilizing structures should be reanalyzed and redesigned in accordance with responses to the recommendations presented in the following sections.

SUMMARY OF REQUESTED SCOPE OF WORK

The following are the 16 itemized requests of the CCC in the order requested (in *italics*), with the corresponding CSA response following the requested scope.

- 1) Requested Scope Evaluate whether the provided material is adequate to determine the aforementioned stability issues and if not, what additional material should be provided.
- 1) Conclusions and Recommendations Based on our evaluation of the provided materials, there are several items that should be provided in order to allow an adequate basis for determining the project stability and other issues. Many of these items are apparent in the text responding to the remaining requested scope items and in the text of our general evaluation summary of the geology, geotechnical engineering, civil engineering and structural engineering work. Some of these materials include:
 - a) Engineering geologic mapping of individual landslide parts (i.e., headscarp regions differentiated from unit surfaces, grabens, etc.);
 - b) Engineering geologic indication of direction of landsliding;
 - c) More detailed description of landslide shear planes on boring logs (thickness of shear zone, orientation of shear zone, indication of striae and polishing on shear surfaces, etc.);
 - d) Engineering geologic cross sections that are more representative of critical slope stability with respect to the proposed access road (i.e., oriented in the direction of landsliding and through the critical portions of the access road);
 - e) Subsurface exploration evidence (such as trenching) to prove or disprove the presence of landsliding in the vicinity of the Morleigh residence (CSA Landslide 3) with an apparent graben area (based on evaluation of aerial photographs) and currently not mapped as a landslide;
 - f) Detailed description of sampling procedure and whether samples tested were remolded, disturbed, moderately disturbed or undisturbed;

- g) Detailed description of direct shear testing procedure and sample preparation if remolded (how appropriate unit weight and moisture content determined, etc.);
- h) A more comprehensive laboratory test program should be undertaken based on the understanding that each landslide should be analyzed separately, and this should include obtaining relatively undisturbed samples and performing Triaxial Compression tests (TX/CU) on landslide debris from each separate landslide to be mitigated. Furthermore, grab samples should be obtained from the landslide basal shear plane of each landslide to be mitigated and Atterberg Limits tests performed on each grab sample to obtain correlations with residual shear strengths (Stark, et al., May 2005). According to the Southern California Earthquake Center, June 2002, Recommended Procedures for Implementation of DMG Special Publication 117 for Analyzing and Mitigating Landslide Hazards in California: "DS testing devices can be used to subject a sample to multiple cycles of shearing, which allows an estimation of residual strength. Unfortunately, the results may be unconservative ... and should always be checked against either correlations ... or results of ring shear testing ...". Consideration should be given to torsional ring shear strength testing (fully softened and residual shear strength) of representative basal landslide shear plane materials;
- i) Detailed description of the basis for the active soil pressure of 30 pcf equivalent fluid used in design;
- j) Detailed description of the basis for 82% active load left over after seismic shaking;
- k) Slope stability calculations using a more rigorous Factor of Safety procedure that satisfies both moment and force equilibriums;
- l) Slope stability analysis of impact of fill prisms placed on landslides on slope stability; and
- m) Grading plans for individual residence house sites indicating balancing of cut and fill or how much additional fill will be generated and where it will be placed.
- 2) Requested Scope Assess whether the proposed remediation measures are adequate to provide stability for both static and dynamic loading conditions;
- 2) Conclusions and Recommendations For design purposes, the geotechnical engineering consultant (CalWest Geotechnical, Inc., referred to herein as "CalWest") divided the proposed access road into 6 regions where the road crosses over landslides. The regions are labeled A through F and the approximate access road stations that define the limits of each region are provided in the following table.

Region Identification	Start Station	End Station
A	26+50	28+45
В	28+45	29+75
C	29+75	31+25
D	43+80	48+00
E	48+00	51+00
F	51+00	57+00

Structural design loads within each of the regions were based on either lateral loads from static and pseudo-static slope stability analyses or lateral active pressure loads from localized retaining wall analysis, whichever was greater. Design loads from two-dimensional cross sections were then averaged along the length of the road for each region. Details of the analyses within each region are provided below. It should be noted that at the terminus of Regions C, D and F, the structural piers do not extend to the northern limits the mapped landslides. Explanation for the reasoning behind this design decision should be provided.

2.1 Region A

The design load within Region A was determined by CalWest to be 130 kips/ft. This load was an approximate "average" of required loads from analyses of Cross Sections U-U', V1-V1', and V2-V2'. The slope stability analysis (SSA) of Cross Section U-U' was performed in May 2007, with preliminary material strength parameters. Although CalWest subsequently updated their material strength parameters and increased the strength of the landslide debris, this preliminary analysis was considered when determining the structural design loads within this region.

Based on our review of the analyses performed along Cross Sections U-U', V1-V1', and V2-V2', we have the following comments and observations:

- For purposes of SSA, Cross Section U-U' is a global cross section from which the
 entire length of the landslide mass is analyzed. Cross Sections V1-V1' and V2V2' are local cross sections from which only the portion of the landslide mass
 upslope and underneath the proposed access road is analyzed;
- SSA was performed using the Simplified Bishop factor of safety (FOS) procedure. This procedure only satisfies moment equilibrium and is, therefore, less rigorous than FOS procedures which simultaneously satisfy both moment equilibrium and force equilibrium. Independent SSA performed by CSA indicate the required lateral loads calculated by CalWest using the Simplified Bishop FOS procedure along Cross Sections V1 and V2 result in safety factors which do not meet 1.5 compliance when evaluated with a FOS procedure which satisfies both moment and force equilibriums simultaneously. Based on our independent SSA, CSA estimates the required lateral loads to be roughly 44% and 59% higher for Cross Sections V1-V1' and V2-V2', respectively, when both force and moment equilibriums are satisfied. While the Simplified Bishop procedure is used in the industry, we recommend that, for a structural system of this magnitude, consideration be given to using a procedure which simultaneously satisfies both moment and force equilibriums;
- A surcharge load of 100 psf was applied by CalWest at the location of the proposed access road for the analysis of Cross Section U-U'. There were no surcharge loads applied for the CalWest analyses of Cross Sections V1-V1' and V2-V2'. The Consultant should re-analyze these cross sections using a surcharge load;
- The required lateral loads from SSA were then reduced to account for a "favorable active load" induced on the proposed piles by the adjacent landslide

debris downslope. The favorable active load appears to have been considered over 82% of the pile height in accordance with a Newmark seismic displacement analysis. It is not clear to us what active earth pressure coefficient was applied or how the 82% was determined. The Consultant should clarify how this was done and the basis for this assumption; and

• The "average" design load for Region A was based on nonlinear interpolation between required loads at Cross Sections U-U', V1-V1' and V2-V2'. The Consultant should justify the procedure of averaging required loads to develop a design load, based on the fact that by definition a significant portion (50 percent if linear average) of the structure will be under-designed.

Based on the comments and observations provided above, for the engineering geologic model analyzed, it appears that the design loads calculated for static and pseudo-static stabilization within Region A are inadequate. We recommend that CalWest consider re-analyzing Cross Sections U, V1, and V2 using a rigorous FOS procedure (i.e., a procedure which simultaneously satisfies both moment and force equilibriums). If cross sections are reconstructed based on the engineering geologic discussions provided above, then the updated and modified cross sections should be utilized. It is also our opinion that Cross Section U should be updated with the most recent material strength parameters and geometrically truncated to be consistent with the localized analyses performed along Cross Sections V1-V1' and V2-V2'. In addition, the "average" design loads appear to be lower than the calculated design loads at Cross Section U-U' and V1-V1', but much higher than the calculated design load at Cross Section V2-V2'. We are concerned that averaging the design loads in this manner could lead to parts of the road foundation which are overstressed and, consequently, lead to a progressive "unzipping" failure of the road foundation.

2.2 Region B

The design load within Region B was determined by CalWest to be 50.7 kips/ft. This load was determined using a procedure similar to the procedure applied within Region A. Within Region B, the calculated design loads along Cross Section V2-V2' and V-V' were considered.

Based on our review of the analyses performed along Cross Sections V2-V2' and V-V', we have the following comments and observations:

- For purposes of SSA, Cross Section V-V' is a global cross section from which the
 entire length of the landslide mass is analyzed. As mentioned above, Cross
 Section V2-V2' is a local cross section from which only the portion of the
 landslide mass upslope and underneath the proposed access road is analyzed;
- SSA was performed using the Simplified Bishop FOS procedure which only satisfies moment equilibrium. See above for recommendations regarding performing SSA using programs which simultaneously satisfy both moment equilibrium and force equilibriums;
- A surcharge load of 100 psf applied at the location of the proposed access road for the analysis of Cross Section V-V'. However, there was no surcharge load

- applied for the analysis of Cross Section V2-V2'. The Consultant should reanalyze this cross section using a surcharge load;
- It appears that the reported design load at Cross Section V-V' was based on an equivalent fluid pressure (EFP) of 30 pcf. The Consultant should clarify how an EFP of 30 pcf was derived; and
- The strength parameters of the slide surface are inconsistent between Cross Sections V-V' and V2-V2'. The Consultant should provide justification for inconsistencies is shear strength parameters for the same landslide.

Based on the comments and observations provided above, for the engineering geologic model analyzed, it appears that the design loads calculated for static and pseudo-static stabilization within Region B are inadequate. We recommend that CalWest re-analyze Cross Sections V2-V2' and V-V' using a rigorous FOS procedure. If cross sections are reconstructed based on the engineering geologic discussions provided above, then the updated and modified cross sections should be utilized. It is also our opinion that Cross Section V-V' should be geometrically truncated to be consistent with the localized analyses performed along Cross Sections V1-V1' and V2-V2'. Material strength parameters should be made consistent for each of the cross sections, when in the same landslide unless there is appropriate evidence presented to justify using differing parameters.

The use of an equivalent fluid pressure (EFP) of 30 pcf to represent earth pressures induced by a landslide should also be justified and an explanation provided as to how it was determined. In addition, the "average" design loads appear to be lower than the calculated design loads at Cross Section V2-V2', but higher than the calculated design load at Cross Section V-V'. Again, we are concerned that averaging the design loads in this manner could lead to parts of the road foundation that are overstressed and, consequently, lead to a progressive "unzipping" failure of the road foundation.

2.3 Region C

The design load within Region C was determined by CalWest to be 17.6 kips/ft. This load was determined using a procedure similar to the procedure applied within Regions A and B. Within Region C, the calculated design loads along Cross Section V-V' were considered. It was assumed that there would be a required design load of 0 kips/ft at STA31+25, which corresponds to the margin of the landslide.

Comments and observations related to the analysis of Cross Section V-V' were presented in Section 2.2, above. Based on these comments and observations, for the engineering geologic model analyzed, it appears that the design loads calculated for static and pseudo-static stabilization within Region C are inadequate. We recommend that CalWest consider re-analyzing cross section V using a rigorous FOS procedure. If cross sections are reconstructed based on the engineering geologic discussions provided above, then the updated and modified cross sections should be utilized. As discussed in Section 2.1, it is our opinion that Cross Section V-V' should be geometrically truncated to be consistent with the localized analyses performed along Cross Section V1-V1' and V2-V2'. Material strength parameters should be made consistent for each of the cross sections or evidence should be presented which justifies the use of differing parameters.

Again, the "average" design loads within this region appear to be lower than the calculated design load at Cross Section V-V'. Again, we are concerned that averaging the design loads in this manner could lead to parts of the road foundation becoming overstressed and consequently lead to a progressive "unzipping" failure of the road foundation.

It appears that the mitigation structures (piles) don't extend to the margins of the landslides and stop short by about 30 feet. The Consultant should confirm that the mitigation structures are positioned accurately across the landslide to provide the anticipated support.

2.4 Region D

The design load within Region D was determined by CalWest to be 53.0 kips/ft. This load appears to have been determined by taking the arithmetic average of the required loads along Cross Sections G1-G1' and G2-G2'. It appears that SSA of Cross Section G-G' was also considered in the analysis of this region, but was not found to be critical for design purposes.

Based on our review of the analyses performed along Cross Sections G-G', G1-G1' and G2-G2', we have the following comments and observations:

- For purposes of SSA, Cross Section G-G' is a global cross section from which the
 entire length of the landslide mass is analyzed. Cross Sections G1-G1' and G2G2' are local cross sections from which only the portion of the landslide mass
 upslope and underneath the proposed access road is analyzed;
- SSA was performed using the Corrected Janbu FOS procedure along Cross Section G-G' and Simplified Bishop FOS procedure along Cross Sections G1-G1' and G2-G2';
- Independent SSA performed by CSA indicate the required lateral loads calculated by CalWest using the Simplified Bishop FOS procedure along Cross Sections G1-G1' and G2-G2' result in safety factors which do not meet code compliance when evaluated with a FOS procedure which satisfies both moment and force equilibriums simultaneously. CSA estimates the required lateral loads to be roughly 41% and 38% higher for Cross Sections G1-G1' and G2-G2', respectively, when using the more rigorous procedure. See above for recommendations regarding performing SSA using programs which simultaneously satisfy both moment and force equilibriums;
- There was a surcharge load of 250 psf applied at the location of the proposed access road for the analysis of Cross Section G-G'. There was no surcharge load applied for the analyses of Cross Sections G1-G1' and G2-G2'. The Consultant should re-analyze this cross section using a surcharge load;
- It appears that the reported design loads along Cross Sections G1-G1' and G2-G2' were based on an EFP of 30pcf. The Consultant should clarify how an EFP of 30 pcf was derived; and

• The strength parameters of the slide surface are inconsistent between Cross Section G-G' and Cross Sections G1-G1' and G2-G2'. The Consultant should provide justification for inconsistencies is shear strength parameters for the same landslide.

Based on the comments and observations provided above, for the engineering geologic model analyzed, it appears that the design loads calculated for static and pseudo-static stabilization within Region D are inadequate. We recommend that CalWest consider re-analyzing cross sections G1 and G2 using a more rigorous FOS procedure. If cross sections are reconstructed based on the engineering geologic discussions provided above, then the updated and modified cross sections should be utilized. Material strength parameters and surcharge loads should be made consistent for each of the cross sections. If the design load within this region is still based on an EFP of 30 pcf, then its applicability should be justified, with an explanation regarding how it was determined.

It appears that the mitigation structures (piles) don't extend to the margins of the landslides and stop short by about 10 feet, the Consultant should confirm that the mitigation structures are positioned accurately across the landslide to provide the anticipated support.

2.5 Region E

The design load within Region E was determined by CalWest to be 20.0 kips/ft. This load appears to have been determined by taking the arithmetic average of the required loads along cross sections G3-G3' and G4-G4'.

Based on our review of the analyses performed along cross sections G3-G3'and G4-G4', we have the following comments and observations:

- For purposes of SSA, cross sections G3-G3'and G4-G4' are local cross sections from which only the portion of the landslide mass upslope and underneath the proposed access road is analyzed;
- SSA was performed using the Simplified Bishop FOS procedure along G3-G3'and G4-G4';
- Independent SSA performed by CSA indicate that the required lateral loads calculated by CalWest using the Simplified Bishop FOS procedure along sections G3 and G4 result in safety factors which do not meet code compliance when evaluated with a FOS procedure which satisfies both moment and force equilibriums simultaneously. CSA estimates the required lateral loads to be roughly 18% and 3% higher for sections G3 and G4, respectively, when both equilibriums are satisfied. See above for recommendations regarding performing SSA using programs which simultaneously satisfy both moment equilibrium and force equilibrium; and
- It appears that the reported design loads along cross sections G3-G3' and G4-G4' were based on an EFP of 30pcf. The Consultant should clarify how an EFP of 30 pcf was derived.

Based on the comments and observations provided above, for the engineering geologic model analyzed, it appears that the design loads calculated for static and pseudo-static stabilization within Region E are inadequate. We recommend that CalWest re-analyze Cross Sections G3 and G4 using a rigorous FOS procedure. If cross sections are reconstructed based on the engineering geologic discussions provided above, then the updated and modified cross sections should be utilized. If the design load within this region is still based on an EFP of 30 pcf, then its applicability should be justified, with an explanation regarding how it was determined.

2.6 Region F

The design load within Region F was determined by CalWest to be 7 kips/ft. This load appears to have been determined based on an analysis of a cross section perpendicular to Cross Section E-E'.

Based on our review of the analyses performed along Cross Section E-E' we have the following comments and observations:

- For purposes of SSA, Cross Section E-E' is a global cross section from which the entire length of the landslide mass is analyzed;
- SSA was performed using the Janbu Corrected FOS procedure along Cross Section E-E'.
- It appears that the proposed access road crosses section E-E' three times along
 the section. For purposes of SSA, CalWest has represented the combined effect
 of the piles located at each road crossing with a single point load at the inboard
 edge of the lowest road crossing and iteratively solved for the necessary
 magnitude of this point load to reach code compliant FOS for static and pseudostatic loading conditions;
- After performing SSA, CalWest determines that design of pile reinforcement in this region is governed by an EFP of 30 pcf;
- It appears that the total load on all the piles along the 600 feet of access road within this region is calculated by looking at a cross section perpendicular to Cross Section E-E' at a point where the landslide is roughly 53 feet deep at the center. It appears that CalWest assumes that the pile loads vary linearly along the width of the landslide and are based on the EFP of 30 pcf; and
- The resultant force calculated above is then distributed over the 600 feet of roadway for a design load of 7 kips/ft along the road.

Typical in two-dimensional (2D) SSA, uniform geometry is assumed into and out of the plane of analysis. For example, the 2D SSA performed by CalWest along Cross Section E-E' requires 21.5 kips per foot *into and out of the plane created by Section E-E'* in order to achieve code compliant FOS. The EFP analyses performed by CalWest appear to calculate the total load acting on a plane created by a cross section perpendicular to Cross Section E-E'. Like the SSA, this total force is distributed *into and out of the plane created by section E-E'*. For design purposes, however, the total load is distributed over the entire length of the roadway (600 feet), *along the length of road alignment*. This

methodology is not typical, and is based on assumptions that, if inaccurate, will potentially result in over-stressing of the mitigation structures, including: 1) assuming that the depth of landslide varies uniformly from a hypothesized maximum depth to the margins; and 2) assuming that the one analyzed cross section is the most critical for the entire 600 feet of roadway.

For the engineering geologic model analyzed, it appears that the design loads calculated for static and pseudo-static stabilization within Region F are inadequate. We recommend that CalWest provide results of typical SSA and localized retaining wall analyses at several locations along the road within Region F to justify the application of 7 kips per foot *along the road* as the design criteria. If cross sections are reconstructed based on the engineering geologic discussions provided above, then the updated and modified cross sections should be utilized. Again, if design is still governed by the use of 30 pcf EFP, then CalWest should provide justification for the application of this value.

It appears that the mitigation structures (piles) don't extend to the margins of the landslides and stop short by about 20 feet, the Consultant should confirm that the mitigation structures are positioned accurately across the landslide to provide the anticipated support.

- 3) Assess whether the structural design (including pile diameters, spacing, embedment, steel reinforcement and orientation, force application, conformity to standards of practice, and ability to adequately resist lateral loads) of proposed remediation structures are appropriate for their intended purposes;
- 3) Conclusions and Recommendations We have reviewed the structural calculations and structural drawings for the above referenced project, and have come up with the following questions that the Engineer of Record needs to clarify.

STRUCTURAL CALCULATIONS:

It appears that the Consultant has designed the piles without applying the code FOS, instead using a "load factor" equal to 1.067 or the ratio of 1.6 (code structural FOS) over 1.5 (SSA FOS). This is not a typically accepted design practice since these two factors of safety may not necessarily be redundant (one applies to uncertainties in strengths, distributions and behaviors of structural materials and the other applies to uncertainties in subsurface conditions, soil parameters and limitations inherent in slope stability analyses, etc.). The Consultant should redesign the piles applying the code FOS to the design load determined from the SSA that results in a FOS of 1.5.

With respect to the structural calculations, we recommend that the Consultant address the following items:

- 1. Page 5: Show calculation how L2 is determined and how the associated L2 maximum moment is determined; this applies to all piles.
- 2. Page 5: Show calculation how embedment is determined as noted by calculation on Page 115.

- 3. Page 5: Clarify why piles in the 47-51 foot depth range have smaller embedment, though larger moments, as compared to the piles in the 42-44 foot depth range that have smaller moments and deeper embedment; this applies to all piles.
- 4. Page 6: Clarify by hand calculation how this spreadsheet works.
- 5. Page 11: Revise PCACOL interaction diagram to include dead and live load from roadway with moment from landslide; revise reinforcing as necessary; typical all piles.
- 6. Page 11: It appears that the piles are over-reinforced as flexural members, verify and revise as necessary; typical all piles.
- 7. Page 26: Clarify why pile embedment calculation does not match structural drawings.
- 8. Page 26: Clarify why pile summary sheet on Page 4 indicates pile diameter to be 3'-6", while structural drawings indicate 3'0".
- 9. Page 68: Clarify why pile moment does not match PCACOL and Pile Summary on Page 4.
- 10. Page 93: Provide load combination 1.2D+1.6+1.6H, and 0.9D+1.0E+1.6H per ACI 318 in PCACOL.
- 11. Page 93: Show calculation that the shear wall pile meets ACI shear wall requirements §11.10 and §14, and boundary zone requirements §21.7.
- 12. Page 118: The sketch indicates four concrete beams that run parallel within the roadway deck that supports the roadway deck. It appears that there should be a transfer girder located perpendicular to the roadway at the piles to support these concrete beams; clarify and revise calculations and structural drawings as necessary.
- 13. Page 118-119: Clarify Case I and Case II and associated Enercalc calculations on pages 120 through 125.
- 14. Page 120: Clarify where the loads used in the program are from.
- 15. Page 122-123: Provide calculation for one-way shear, two-way shear, and punching shear for the roadway deck if transfer girder not added.
- 16. Page 128: Clarify where active pressure, passive pressure, and fire truck loadings are derived from.
- 17. Page 128: Provide calculation for design of grade beam for shear and torsion.
- 18. Page 128: Provide calculation how embedment was determined for these retaining walls on a downward slope.

- 19. Page 128: Clarify if there is any seismic loading for both uphill retaining walls and downward retaining walls.
- 20. Page 128: Provide calculation for shear transfer of retaining wall to grade beam and grade beam to piles.
- 21. Page 149: Clarify by hand calculation how spreadsheet works.
- 22. Page 170-171: Clarify why Enercal key reinforcing is indicated as #4 @ 12.5" while the structural drawings and calculation page 171 notes #4 @ 16".

STRUCTURAL DRAWINGS:

- 1. Sheet S-1: Provide structural drawing index.
- 2. Sheet S-1: Fill out County of Los Angeles Structural Observation checklist.
- 3. Sheet S-2: The enlarged site plan B references the incorrect sheet. Make reference to the appropriate sheet?
- 4. Sheet S-2: In the Symbol Legend, the detail referenced for the site retaining walls is incorrect. Make reference to the appropriate detail(s).
- 5. Sheet S-3: On Plan View "A", Detail 3/S9, clarify the spacing of the cast-in-place piles, either in plan or on detail 3/S9.
- 6. Sheet S-4: On Plan View "C", it indicates that piles 107 and 108 are to be spaced at 9'-0" while all others are to be spaced at 7'-6" or 15'-0". Provide moment, embedment, etc. calculations for 9'-0" center-to-center pile spacing.
- 7. Sheet S-6: Detail 1 indicates (12) #9 dowels equally spaced in the pile; provide calculations for shear transfer. It appears the roadway deck is not thick enough to develop the #9 reinforcing dowels from the piles; this applies to all piles, revise drawings as necessary.
- 8. Sheet S-6: Detail 2, indicates cantilever retaining wall supported of the roadway deck, provide calculations for the connection of the cantilever retaining wall to the cantilever roadway deck.
- 9. Sheet S-6: Detail 2 indicates the top reinforcing steel as #6 @ 8" o.c. which is different from Detail 7 which indicates #6 @ 6" o.c.; clarify and revise.
- 10. Sheet S-6: Detail 2 Table, indicates "A Slab" reinforcing steel as #5 @ 8" o.c., which is less than the reinforcing steel indicated in Detail 1 and Detail 7, clarify and revise.
- 11. Sheet S-6: Detail 2 Note references Detail 1/S5, which is incorrect. Make reference to the appropriate detail(s).
- 12. Sheet S-6: Detail 2 Table, 2:1 Backfill Angle, "t conc" indicates N/A, the structural calculations references 14", clarify and revise.

- 13. Sheet S-6: Detail 8; provide calculations for site retaining wall.
- 14. Sheet S-7: Provide calculations for shear transfer between roadway deck and the shear wall pile, also refer to question7.
- 15. Sheet S-8: Clarify how "L2" Zone values on the Pile Schedule were determined and provide calculations.
- 16. Sheet S-8: For piles 13 through 21 in the Pile Schedule, the shear reinforcement does not match the structural calculations; clarify and revise.
- 17. Sheet S-8: For piles 36 and 39, the shear demand indicated in the structural calculations on Page 4 is higher than the capacity; clarify and revise.
- 18. Sheet S-8: For piles 43 through 45 in the Pile Schedule, the shear reinforcing in "L1" Zone does not match the structural calculations summary as noted on Page 4.
- 19. Sheet S-8: For piles 108 through 183 in the Pile Schedule, the shear reinforcing for "L1" and "L2" Zone indicates #14. The structural calculations indicate #4; revise schedule to indicate the correct reinforcing steel.
- 20. Sheet S-8: Clarify if there is sufficient spacing between longitudinal reinforcing steel with the proposed concrete mix design; refer to ACI 318 §7.6.3 and §3.3.2.
- 21. Sheet S-9: Provide calculations for minimum reinforcing steel requirements per ACI 318 for both Detail 1 and Detail 3.
- 22. Sheet S-9: Detail 1, provide calculations for retaining wall footing/ key, i.e. flexural requirements and minimum steel requirements, etc.
- 23. Sheet S-9: Detail 1 Table, "Ak" reinforcing steel does not match structural calculations; revise drawings.
- 24. Sheet S-9: Detail 1 Table, "t conc" for 2:1 backfill angle indicates N/A, the structural calculations indicates 14"; revise drawings.
- 25. Sheet S-9: Detail 2; provide calculation per ACI Appendix "D" for curtain wall connection to concrete deck and pile; revise detail as required.
- 26. Sheet S-9: Detail 2; provide calculation for curtain wall and indicated gauge, revise detail as required.
- 27. Sheet S-9: Details 2 and 3, Provide detail of guardrail and connection, also provide calculations per 2007 CBC and per ACI Appendix "D".
- 28. Sheet S-9: Detail 3, Provide dimension for retaining wall tiebeam.
- 29. Sheet S-9: Detail 3, revise detail or show on plan the spacing of the cast-in-place piles.

- 30. Sheet S-9: Detail 3, Provide calculation (i.e., moment, torsion, etc.) for retaining wall tiebeam for reinforcing steel indicated in table.
- 31. Sheet S-9: Detail 3, provide calculation for dowels from pile to grade beam, revise drawings as required.
- 4) Assess whether the proposed remediation measures will potentially adversely impact slope stability;
- 4) Conclusions and Recommendations As discussed in Section 7.0, grading for the proposed access road, driveways, and building pads will generate approximately 5,000 cubic yards (cy) of net fill materials. Current plans consist of placing fill materials beneath the proposed access road and along the outboard edge of the proposed access road in several places. In addition, three staging areas for the Los Angeles County Fire Department (LACFD) will be constructed. All three staging areas are located within the boundaries of the landslide. The largest of the three staging areas is proposed along the outboard edge of the proposed access road between Station (STA) 46+00 and 50+00. The plans indicate that this staging area will consist of 9,500 cy of fill. The maximum thickness of the proposed staging pad is on the order of 13 feet. Placement of fill materials upon the upslope portion of an existing landslide could potentially have an adverse effect on global slope stability. Therefore, we recommend that CalWest perform appropriate SSA to evaluate the effect of fill placement on the landslide. In particular, the three staging areas should be individually evaluated. The SSA results should be discussed and CalWest should provide recommendations for appropriate mitigation measures if the stability of the slope is adversely impacted.

The Consultant should evaluate the potential for the "non-structural fill" to be susceptible to debris flows during periods of prolonged, and or, intense rainfall. The plans indicate that the non-structural fill will be approximately 16-inches thick; however, there is no indication whether this material will be keyed and benched into the intended slope. The Consultant should clarify how this non-structural fill will be placed, compacted and stabilized to reduce the potential for becoming susceptible to debris flows.

- 5) Assess the necessity of fill proposed to be placed between Station 44+60 and Station 52+80 for stability purposes, fire department access and staging, and to evaluate the volume of fill being placed to eliminate off-haul;
- 5) Conclusions and Recommendations Based on the electronic files provided to CSA, it is our opinion that the area designated for non-structural fill placement is not adequate for the volume of excess fill expected. Utilizing the grading contours and line work provided by Whitson Engineers on the AutoCad drawing "Proposed", CSA calculated a total surface area of 80,338 square feet designated for placement of non-structural fill containing a volume of 2,600 cubic yards of fill. The fill depicted on the AutoCAD drawing is on average 16 inches thick. According to the plan set "Sweetwater Mesa Road Improvements From STA: 26+70 to 75+53.43", dated November 4, 2009, the total volume of excess fill expected is 5,250 cubic yards. In addition, the proposed structural piers for the roadway will likely produce at least 6,250 cubic yards of additional spoils (excess fill). Plans for the residences were not provided to CSA; consequently, it is unknown what volume of additional fill may be produced in

conjunction with the foundation elements for the residences and whether that material will be placed/used on each residential site. Consequently, it appears that there could be a significant volume of material not accounted for on-site permanent stockpiling. Furthermore, the volume estimates don't appear to take into account swelling of excavated material and shrinkage of compacted material. Estimates of potential volume changes due to swelling and shrinkage should be provided by the geotechnical engineer based on appropriate laboratory testing and experience with similar materials.

- 6) Assess the compatibility and appropriateness of each stabilizing structure/improvement (cuts, fills, retaining walls, drainage, interconnecting piles, and cylindrical piles) necessary for the construction of the 5-lot access road;
- 6) **Conclusions and Recommendations** As discussed in Section 4.0, it appears that Los Angeles County requires three staging areas for the fire department along the proposed access road. It is our understanding that the largest of the three staging areas requires approximately 9,500 cy of fill materials to be placed along the outboard edge of the proposed access road between STA 46+00 and STA 50+00. It appears that the fill for all three staging areas will be placed on existing landslide debris near the upslope portion of the landslide. We did not find evidence of any geotechnical analyses related to this fill placement and are concerned about the possible adverse impact on slope stability.

In our experience, cylindrical piles (piers) can be effective in increasing slope stability if the subsurface has been accurately characterized and the geotechnical analyses have been performed appropriately. Based on our review of the structural design of the cylindrical piles, we understand that the piles have been designed to resist tensile forces primarily in one direction (tension side of steel reinforcement cage). In theory, we agree that such a design could be appropriate and applicable provided the direction of principal lateral earth (landslide) pressures is known within reason. However, in practice, this design requires precision. If the direction of landslide movement has not been adequately determined, or if the contractor installs the steel reinforcement cage at the wrong orientation, the principal tensile forces within the pile could occur in regions of the pile that were not designed to resist tension.

It is also our understanding that Piles 68 - 107 are embedded only 15 feet below the basal shear surface of the landslide and Piles 108 - 185 are embedded only 11 feet below the basal surface of the landslide. There is an element of engineering judgment associated with the design embedment lengths based on the assumed accuracy of the location of the landslide basal shear surface and the potential for landslide movement to transition below the pile reinforcements. In our experience, however, for landslides of this depth and complexity, the embedment depth is usually on the order of 20 feet or greater.

- 7) Estimate the extent of additional disturbed areas and volumes of cut and fill necessary if the 1.5:1 slopes must be modified to 2:1;
- 7) **Conclusions and Recommendations** The area of 1.5:1 (horizontal: vertical) cut slopes shown on the plan set "Sweetwater Mesa Road Improvements From STA: 26+70 to 75+53.43", dated November 4, 2009, is located on the inboard side of the proposed roadway from STA 55+60 to STA 61+30, as well as on the north and west side of the Morleigh private driveway and residence. If it is determined that these slopes must be cut to a maximum inclination of 2:1, the additional area disturbed would be 24,000

square feet in the area of the proposed roadway and 2,400 square feet in the area of the Morleigh private driveway and residence. This additional area of cut would produce 5,650 cubic yards of additional spoils in the roadway section and 450 cubic yards of additional spoils in the vicinity of the Morleigh private driveway and residence.

- 8) Evaluate possible repairs to the pile supported roadway section in the unlikely event of failure due to landslide movement;
- 8) Conclusions and Recommendations It appears that different landslides or parts of landslides could be moving in different directions, consequently, the reinforcing steel will need to be aligned in the direction of this potential movement. If a pile was oriented in the wrong direction due to installation error and/or the failure plane differs from what the Geotechnical Engineer has determined, the pile could have insufficient moment capacity due to the special reinforcing steel layout. While not a repair, but more in the line of prevention, it appears that there should be some tolerance (i.e., 15° from centerline each way, for example) in the reinforcing steel layout to provide some redundancy for installation error and/ or the failure plane differing from that determined by the Geotechnical Engineer. In the event of failure due to landslide movement, the existing access road supporting piers would either need to be abandoned or removed and replaced with new piers properly designed to resist additional landslide movement. If failure were caught early enough, then tieback anchors could be installed to support the failing section(s) of roadway. The consultants should recommend a monitoring system and protocol for early warning of potential problems so that they can be addressed early on should they occur.
- 9) Assess the potential consequences of an unlikely failure of the pile supported roadway section;
- 9) **Conclusions and Recommendations** The system currently designed has a factor of safety of 1.5. If a pile was to fail or, more likely, to deform excessively, the forces would then be distributed through the deck to the adjacent piles. As noted in previous structural review comments, punching shear and the method of transferring loads to decking was not provided. The Consultant should describe the mechanism of how these forces would be distributed through the deck, and explain what the remaining safety factor for the pile(s) affected would be.
- 10) Assess the potential failure mechanisms and repair options of the elevated roadway sections;
- 10) **Conclusions and Recommendations** The system currently designed has a factor of safety of 1.5. If a pile was to fail or, more likely, to deform excessively, the forces would then be distributed through the deck to the adjacent piles. As noted in previous structural review comments, punching shear and the method of transferring loads to decking was not provided. The Consultant should describe the mechanism of how these forces would be distributed through the deck, and explain what the remaining safety factor for the pile(s) affected would be.
- 11) Confirm that roadway grade does not exceed the indicated 18.95 percent, and discuss issues associated with roadways constructed at this inclination;
- 11) **Conclusions and Recommendations** The proposed roadway is inclined at 18.95% from STA 31+29.21 to STA 40+39.38, STA 49+15.66 to STA 61+30.26 and STA 67+83.4 to STA 73+04.69. After review of the design plans and electronic drawings, it does not

appear that this inclination is exceeded along the proposed roadway. The profile length of the three sections of roadway listed above are 925 feet, 1,235 feet and 530 feet, respectively. Construction of approximately one half mile of roadway at 18.95% could be difficult and without adequate supervision and inspection could result in a substandard finished product whose design life expectancy would be shortened. In addition to the difficulty in constructing a roadway at such a steep inclination, such a road would put an additional strain on the engines and braking systems of the vehicles that traveled the road frequently. Safety is another issue for steep roadways because the steeper the roadway, the more driving safety issues that could arise.

- 12) Conduct a thorough spot-checking of calculated quantities for the following using provided topographic information:
- a) Volume and area of proposed cuts and fills [1.5:1 (H:V) slopes] of the roadway, residential access roadways, and building pads;
- a) **Conclusions and Recommendations** As discussed above, the areas of 1.5:1 (horizontal: vertical) cut slopes shown on the plan set "Sweetwater Mesa Road Improvements From STA: 26+70 to 75+53.43", dated November 4, 2009, are located on the inboard side of the proposed roadway from STA 55+60 to STA 61+30 as well as on the north and west side of the Morleigh private driveway and residence. The surface area of the proposed 1.5:1 cut inboard of the roadway is 25,500 square feet and the volume of material to be removed is 3,900 cubic yards. The surface area of the proposed 1.5:1 cut located on Morleigh private driveway and residence is 5,200 square feet and the volume of material to be removed is 865 cubic yards.
- b) Volume and area of cuts and fills inclined at 2:1 (H:V) for the roadway, residential access roadways, and building pads;
- b) Conclusions and Recommendations The total disturbed area for the 2:1 cuts and fill slopes is approximately 357,500 square feet. Within the disturbed area, 40,000 cubic yards of fill will be placed and 32,500 cubic yards of cut excavated. These calculated quantities, combined with the excavation quantities for the 1.5:1 cut slopes, are in conflict with the calculated quantities on the plan set "Sweetwater Mesa Road Improvements From STA: 26+70 to 75+53.43", dated November 4, 2009. The quantities calculated by CSA account for 2,700 cubic yards less cut to be excavated and 4,550 cubic yards more fill to be placed. However, detailed grading plans for the subgrade at the residences were not provided to CSA and could account for minor differences. CSA utilized the finish floor elevations provided for the residential structures to calculate approximate grading quantities in the vicinity of the residences. In addition, since the plans provided to CSA were finished grade contours and not subgrade contours, it is likely that the concrete and structural elements of the roadway sections account for the disparity in fill quantities.
- c) Lengths and heights of retaining walls (roadway, residential access roadways, and building pads);
- c) Conclusions and Recommendations The retaining wall heights and lengths calculated by CSA were in conformance with those provided by Whitson Engineers. It should be noted that the retaining walls in the area of roadway from STA 51+90 to STA 55+25 on the civil plans dated November 4, 2009, are in conflict with the

structural plans dated January 28, 2010. The civil plan's retaining walls are longer than those depicted on the structural plans. The structural plans have additional fill placed on the inboard side of the road eliminating the necessity of a retaining wall. Also of note is that the design elements on the structural plan appear to be shifted 4.83 feet to the east with respect to the civil plans and underlying topographic base map.

- d) Length of roadway to be stabilized by slab piles and cylinder piles; and
- d) **Conclusions and Recommendations** The sections of roadway to be stabilized within the County of Los Angeles are located from STA 26+76 to STA 31+26 and STA 43+81 to STA 56+86. The profile length of these pier-supported roadway sections are 451.8 feet and 1,319.5 feet, respectively.
- e) Length and height of elevated roadway sections;
- e) Conclusions and Recommendations It is CSA's understanding that the elevated portions of the roadway are defined by those sections of roadway that refer to Detail 2 on Sheet S-9 of the structural plans dated January 28, 2010. The elevated roadway sections as defined above are located at STA 30+93 to 31+26, STA 51+92 to 52+64 and STA 53+43 to 54+42. The maximum heights for these elevated roadway sections are 4 feet, 18 feet and 10 feet, respectively. The profile lengths of the elevated roadway sections are: STA 30+93 to 31+26, 33 feet; STA51+92 to 52+64, 73.5 feet; and STA 53+43 to 54+42, 100.5 feet. The exact locations of the elevated roadway sections should be more clearly denoted on the design plans; in addition, details should be provided that illustrate how the various retaining walls transition from one to the other.
- 13) Evaluate the vulnerability of the roadway to geologic hazards;
- 13) Conclusions and Recommendations The proposed roadway alignment is most vulnerable to potential future reactivation of the existing landslides, seismically induced ground shaking, and rockfalls. As the design now stands, a potential landslide (Landslide 3 in our evaluation) has not been identified. If this landslide is found to be present, then the section of roadway in the vicinity of this feature could be vulnerable to slope instability unless mitigation measures are implemented to properly address this hazard (either avoidance or stabilization). In the event of future prolonged and/or intense rainfall or seismic activity, reactivation of existing landslides could be possible. Because the slope stability analyses did not take into account the possible future presence of groundwater (pore pressures) for any of the landslides, it is difficult to quantify the level of potential risk that the roadway could be exposed to. The consultants should comment on the potential for groundwater to perch and create pore pressures on the relatively impervious basal landslide rupture surface and if it is plausible, how this might affect slope stability. A section of the road from Sta. 27+00 to Sta. 30+00 appears to be susceptible to rockfalls; however, the likelihood of permanent damage to the roadway appears to be low. Mitigation recommendations have been provided to help reduce the risk of rockfalls from impacting the roadway and roadway users; however, to date, roadway design plans have not incorporated these mitigation recommendations.

- 14) Assess the constructability of the proposed roadway, residential access roadways and building pads;
- 14) **Conclusions and Recommendations** Due to the large size of some of the access road piles (up to 8-foot diameter), there are probably only three or four construction companies on the west coast that could construct these structures. However, it is unlikely that any west coast contractors have experience building the Interconnected Construction of either the deep large-diameter piles, or the interconnected pile, will likely require slurry to prevent the hole from caving during installation of the cages, multiple cranes to lift and connect cages, and an ample supply of readily available concrete. In order to construct the stabilized sections of roadway, large temporary construction pads will be required. The construction pads will be used for drill rig and crane maneuverability and material storage, and will likely be constructed by side-casting excavation spoils down the slope. residential access roadways and building pads are within the capabilities and expertise of many local Southern California contractors. The applicant should identify likely locations and sizes of construction staging areas (i.e., temporary construction pads, slurry drying ponds, etc.) and quantities (i.e., slurry and temporary fill pad volumes, etc.) thought to be needed to construct the project.
- 15) Assess the long term effectiveness and appropriateness of the proposed stabilization elements; and
- 15) Conclusions and Recommendations While the interconnected pile option in theory could prove effective since it appears to provide more overturning resistance than single piles, we are concerned that this option may not be feasible to construct in this geologic setting (remnant hard rock layers in landslide debris may prove difficult to excavate). Regarding the effectiveness of the cylindrical piles to resist landslide forces, while the concept is a proven concept for stabilizing landslides or portions of landslides, these piles may be insufficiently embedded into the underlying in-place material (in some cases only 11 or 15 feet of embedment). Furthermore, piles resisting 20 or more feet of lateral load (especially landslide loading) are typically braced with tensioned tieback or deadman anchors, although the piles that are very large in diameter may be capable of resisting greater lateral loads. Because many of the piles proposed for the access roadway are not very large in diameter, have shallow embedment depths and are not equipped with anchors, it appears that some of the proposed roadway stabilization piers could prove insufficient for the anticipated landslide or earthquake loadings, have a risk of being over-stressed, and thus may not prove effective in the long term. Satisfactory responses to the structural engineering comments contained in this letter-report would be necessary to provide a final assessment of the appropriateness of the proposed stabilization elements.
- 16) Identify conceptual level alternative designs and stabilization measures that would reduce grading and wall heights.
- 16. Conclusions and Recommendations By refining the geologic landslide mapping, it is our preliminary opinion that some reductions in the amount and size of stabilization elements could be realized. It also appears that with some modifications to the roadway alignment, some of the landslide crossings could be either eliminated or reduced, which would reduce the extent of subsurface stabilization elements needed.

17. Waterline Alignment

In general, the southern approximately 2,000 feet (from the end of the unimproved roadway, southward to the Ronan residential site) of the waterline alignment extends across relatively steep, west-facing topography that is relatively free of large landslides. In-place bedrock, with some minor, shallow, colluvium-filled swales, was observed for the majority of the alignment. This portion of the alignment is currently undeveloped. The northern approximately 1,500 feet has been partially graded across relatively stable bedrock materials. Some small fillslope failures are located along this alignment, but if the pipeline is located along the inboard edge of the unimproved roadway, these failures should not impact a future pipeline. The northernmost 1,200 feet of the alignment is located within an existing paved private roadway. A large bedrock landslide does appear to be located at the northern end of the alignment; however, two existing residences, utilities, and the roadway are already located atop this landslide. A small landslide is located directly across from the fire hydrant at the north end of the alignment, and has removed a small portion of the edge of the roadway at this location. This small landslide should be addressed prior to installation of the new water line.

SUMMARY

Based on our peer review of the documents and drawings provided, historical aerial photographs, site inspections and analyses, it is our opinion that the applicant's geologic, geotechnical engineering, civil engineering and structural engineering consultants have conducted a great deal of investigative and design work on this challenging project and have developed a reasonable conceptual approach to address these challenges given the site characterization and analyses currently available to them. However, we believe that the information provided to date is insufficient to justify final approval of the project design. The geologic characterization needs to be refined (potentially to the benefit of the scope of the project) and the possibility of an additional large landslide either disproved or taken into consideration in the design. geotechnical engineering consultant needs to address the refined geologic characterization, perform supplemental laboratory testing to better determine landslidespecific shear strengths and utilize an analysis methodology that satisfies both moment and force equilibriums. The civil and structural engineering consultants will then need to address the refined geologic characterization and geotechnical engineering analysis of that refined characterization utilizing approved design practices. Consequently, we recommend that the applicant's consultants review and satisfactorily address the detailed comments contained in this letter-report prior to the CCC approving the technical aspects of this application for Coastal Development Permits 4-09-056 through 4-09-061 for the Sweetwater Mesa Development Project in Malibu, California.

We trust that this provides the California Coastal Commission with the information that you need at this time. If you have any questions, or need additional information, please contact us.

Very truly yours,

COTTON, SHIRES AND ASSOCIATES, INC.

Patrick O. Shires

Senior Principal Civil and Geotechnical Engineer

PE 26397, GE 770

John M. Wallace

Principal Engineering Geologist

RG 6151, CEG 1923

David T. Schrier

Principal Civil and Geotechnical Engineer

PE 47816, GE 2334

POS:JW:DTS:JZ:AM:st

SENONAL OF

ENGINEERING

Attachments: References (Documents/Drawings/Electronic Files) Reviewed;

Figure 1 – Aerial Site View;

Figure 2 – CSA Photo-Interpretive Landslides;

Plate 1 – Peer Review Engineering Geologic Map; and

Hohbach-Lewin, Inc., Structural Engineering Peer Review Letter dated

February 22, 2010.

Exp. 3-31-12

NO. 2334 EXP. 12/31/11

REFERENCES (DOCUMENTS/DRAWINGS/ELECTRONIC FILES) REVIEWED

Documents and Drawings:

- CalWest Geotechnical Engineering Consultants, May 25, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-037 (Lunch), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, May 25, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-018 (Vera), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, June 1, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-092 (Mulryam), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, June 4, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-091 (Morleigh), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, October 2, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-038 (Ronan), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 20, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-018 (Vera), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 27, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-037 (Lunch), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 28, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-091 (Morleigh), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 28, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-092 (Mulryam), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, July 14, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150005.
- CalWest Geotechnical Engineering Consultants, July 22, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150004.
- CalWest Geotechnical Engineering Consultants, July 23, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150004.
- CalWest Geotechnical Engineering Consultants, May 1, 2009, Geotechnical Sections and Geologic Map, APN 4453-005-018.
- CalWest Geotechnical Engineering Consultants, May 15, 2009, Geotechnical Engineering Supplemental Report, Proposed Compacted "Non-Structural" Fill Areas (Mulyram).

- CalWest Geotechnical Engineering Consultants, July 7, 2009, Geotechnical Engineering Letter II.
- CalWest Geotechnical Engineering Consultants, July 28, 2009, Geotechnical Engineering Letter, Preliminary Grading Plan Review, Proposed Single-Family Residential Development, Malibu Area, County of Los Angeles.
- County of Los Angeles, Dept of Public Works, Geotechnical and Materials Engineering Division, October 27, 2008, Soils Engineering Review Sheet, Review of Conceptual Design Pad for Single Family Residence and Access Road.
- Kane Geotechnical, October 15, 2007, Sweetwater Mesa Rockfall and Mitigation Study, Los Angeles County.
- LC Engineering Group, Inc., October 20, 2009, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road, Parts 1 and 2.
- LC Engineering Group, Inc., January 27, 2010, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road.
- Mountain Geology, Inc., September 26, 2006, Report of Limited Engineering Geologic Study, Proposed Water Main, Costa del Sol Way to APN 4453-005-038, -091, -037, -092, and -018, County of Los Angeles, California.
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-092, Mulyram).
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-091, Morleigh).
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-018, Vera), Electronic Copy.
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-037, Lunch), Electronic Copy.
- Mountain Geology, Inc., August 28, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-038, Ronan).
- Mountain Geology, Inc., December 18, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-037, Lunch).
- Mountain Geology, Inc., December 19, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-092, Mulryan).
- Mountain Geology, Inc., December 19, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-018, Vera).
- Mountain Geology, Inc., December 20, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-091, Morleigh).
- Mountain Geology, Inc., July 7, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-018, Vera) Electronic Reference Copy.
- Mountain Geology, Inc., July 8, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-091, Morleigh).
- Mountain Geology, Inc., July 8, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-092, Mulryan).
- Mountain Geology, Inc., July 8, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-037, Lunch).
- Mountain Geology, Inc., May 18, 2009, Engineering Geologic Memorandum Proposed Minor Modifications of Grading Plan, Northerly Terminus of Sweetwater Mesa Road.

- Southern California Earthquake Center, June 2002, Recommended Procedures for Implementation of DMG Special Publication 117 for Analyzing and Mitigating Landslide Hazards in California.
- Whitson Engineering, January 1, 2008, Revised March 9, 2009, 20' Driveway to Proposed Single Family Residence Plans, Sweetwater Mesa Road, (APN 4453-005-018, Vera).
- Whitson Engineering, March 11, 2009, Driveway, Grading and Drainage Plans for a Single Family Residence (APN 4453-005-092, Mulryan).
- Whitson Engineering, March 25, 2009, Driveway, Grading and Drainage Plans for a Single Family Residence (APN 4453-005-091, Morleigh).
- Whitson Engineering, April 3, 2009, Driveway, Grading and Drainage Plans for a Single-Family Residence (CDP Submittal Not for Construction), (APN 4453-005-037, Lunch).
- Whitson Engineering, April 28, 2009, Contour Grading Exhibit 2839 Sweetwater Mesa Road (APN 4453-005-037).
- Whitson Engineering, August 5, 2009, Driveway, Grading and Drainage Plans for a Single-Family Residence (CDP Submittal Not for Construction), (APN 4453-005-037, Lunch).
- Whitson Engineering, August 5, 2009, 2851 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-091, Morleigh).
- Whitson Engineering, August 5, 2009, 2857 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-092, Mulryan).
- Whitson Engineering, August 5, 2009, 2863 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-018, Vera).
- Whitson Engineering, October 20, 2009, Sweetwater Mesa Project Summary Analysis Letter, Attn: Leslie Ewing of California Coastal Commission.
- Whitson Engineering, October 21, 2009, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43.
- Whitson Engineering, Revised November 4, 2009, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43.

Electronic Files (Provided by Whitson Engineering):

<u>Aerial.DWG</u> – Aerial survey in AutoCAD format;

Boundary.DWG – Boundary lines in AutoCAD format;

Proposed.DWG – Linework for the proposed improvements in AutoCAD format;

Lunch-7 Folder – The files within this folder are LDD alignment files for the Lunch Private Access;

Lunch -7-EW Folder – The files within in this folder are LDD surface model files for the Lunch rough grade conditions for the site and residence;

Lunch-7-FG Folder – The files within this folder are LDD surface model files for the Lunch Private Access finish ground condition;

Morleigh-6A-EW Folder - The files within in this folder are LDD surface model files for the Morleigh rough grade conditions for the residence;

Morleigh-6A-Site-EW Folder - The files within in this folder are LDD surface model files for the Morleigh rough grade conditions for the site;

Morleigh-6REV Folder - The files within this folder are LDD alignment files for the Morleigh Private Access;

Morleigh-6REV-FG Folder - The files within this folder are LDD surface model files for the Morleigh Private Access finish ground condition;

Mulryan-5 Folder - The files within this folder are LDD alignment files for the Mulryan Private Access;

Mulryan-5-EW Folder - The files within in this folder are LDD surface model files for the Mulryan rough grade conditions for the site and residence;

Mulryan-5-FG Folder - The files within this folder are LDD surface model files for the Mulryan Private Access finish ground condition;

Ronan-9-EW Folder - The files within this folder are LDD surface model files for the Ronan rough grade conditions for the site and residence;

SWM Aerial Folder – The files within this folder are LDD surface model files for the original ground conditions for the Sweetwater Mesa properties;

SWM Backbone Folder – The files within this folder are LDD surface model files for the Shared Access finish ground condition;

SWM Backbone-7 Folder – The files within this folder are LDD alignment files for the Shared Access;

Vera-(4)*a* – The files within this folder are LDD alignment files for the Vera Private Access;

Vera-3-FG – The files within this folder are LDD surface model files for the Vera Private Access finish ground condition; and

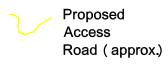
Vera-4-EW – The files within this folder are LDD surface model files for the Vera rough grade conditions for the site and residence.



Base Photo Source: Google Earth Professional 2008

EXPLANATION

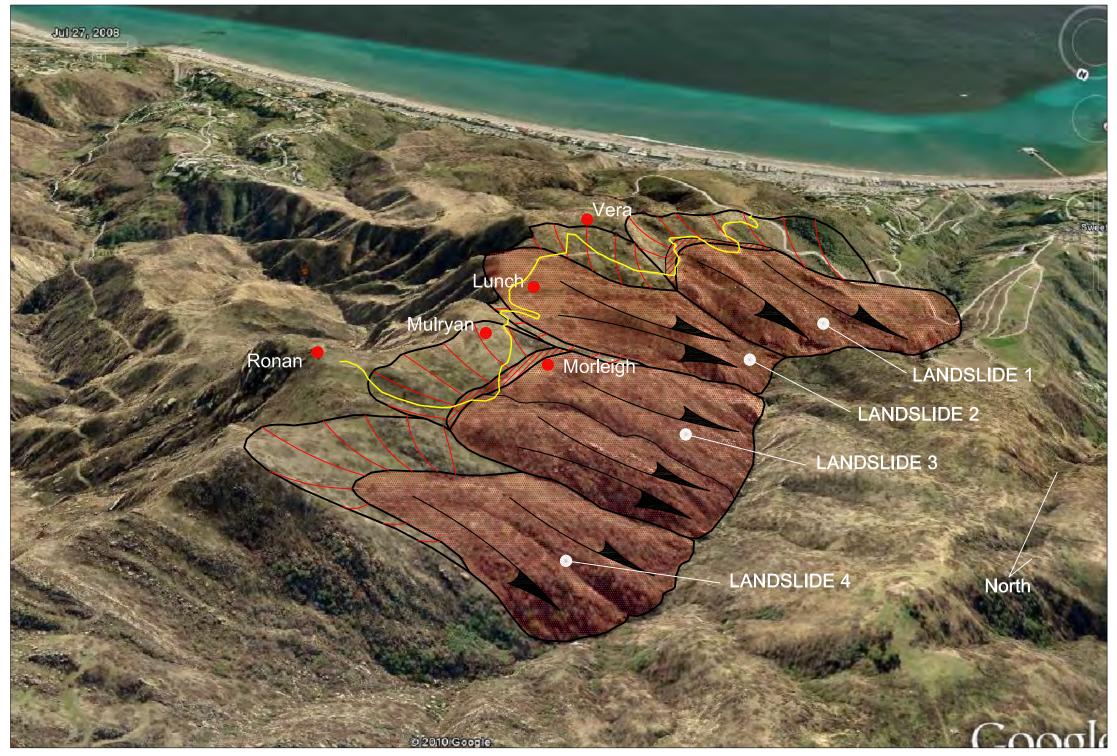
ProposedResidentialSite (approx.)





AERIAL SITE VIEW Sweetwater Mesa Development Project Malibu, California

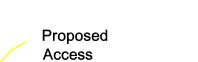
	,		
GEO/ENG BY	SCALE	PROJECT NO.	
JW	NA	E5050	
APPROVED BY	DATE	FIGURE NO.	
JW/POS	March 2010	1	



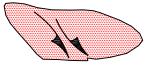
Base Photo Source: Google Earth Professional 2008

EXPLANATION

ProposedResidentialSite (approx.)



Road (approx.)



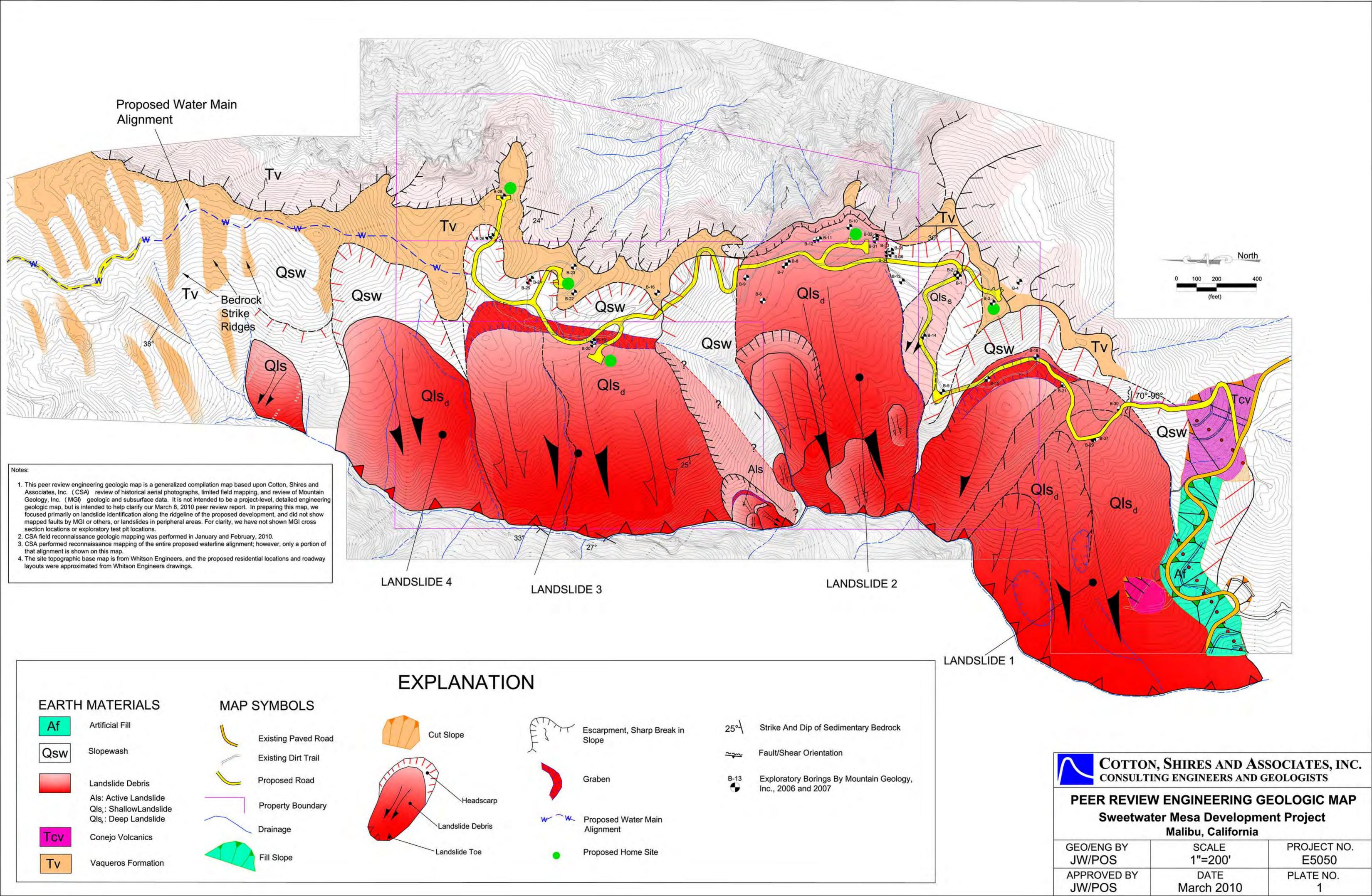
CSA Aerial Photo Landslide Limits





CSA PHOTO-INTERPRETIVE LANDSLIDES Sweetwater Mesa Development Project Malibu, California

GEO/ENG BY JW	SCALE NA	PROJECT NO. E5050
APPROVED BY JW/POS	DATE March 2010	FIGURE NO. 2





HOHBACH-LEWIN, INC. STRUCTURAL ENGINEERS

"Timely Solutions Based On Timeless Principles"

February 22, 2010

Ms. Lesley Ewing Senior Costal Engineer CALIFORNIA COASTAL COMMISSION 45 Fremont Street, Suite 2000 San Francisco, CA 94105-2219

Cotton, Shires and Associates, Inc. Attn: David Schrier 330 Village Lane Los Gatos, CA 95030-7128

Project: Sweetwater Mesa Development Project - Civil and Geotechnical Engineering

and Engineering Geological Peer Review

Malibu, California

Cotton, Shires and Associates Project No.: P5050

Hohbach-Lewin Project No.: 6890C

Dear Ms. Ewing:

Our office has reviewed the structural plans and calculations of the subject project for their conformance with the 2007 California Building Code (CBC), Structural Specialty Code (based on the 2006 IBC and ASCE 7-05). This review is for the Structural Piles, Elevated Roadway and Retaining Walls only. Comments generated from this review are attached.

This review was based on the following items received by Hohbach-Lewin, Inc.:

Drawings titled – Sweetwater Mesa Road Improvements From STA: 26+70 to 75+53.43, Los Angles County, CA.

Structural drawings: drawing nos. S-1, S-2, S-3, S-4, S-5, S-6, S-7, S-8, S-9, dated January 28, 2010; prepared by LC Engineering Group, Inc. and Whitson Engineers.

Structural calculations: Structural Analysis & Design, Sweetwater Mesa Rd. (Sta. 26+70 to 75+53.43) 2930 Sweetwater Mesa Road, Los Angeles County, CA, dated January 27, 2010, prepared by LC Engineering Group, Inc.

Sincerely,

Hohbach-Lewin, Inc.

PRINCIPALS

DOUGLAS HOHBACH S.E. DAN LEWIN JOAQUIM ROBERTS S.E. ANTHONY LEE S.E.

ASSOCIATE PRINCIPAL VIKKI BOURCIER

SENIOR ASSOCIATES BILL DALEY

S.E. GREG RODRIGUES VICKY RUNDORFF S.E.

ASSOCIATES BRYAN CORTNIK

S.E. MIKE DEIGERT S.E. S.E. EDDIE HUI S.E. STUART LOWE KEVIN MORTON S.E. SAM SHIOTANI S.E.

Bryan G. Cortnik, S.E. Associate

3) Assess whether the structural design (including pile diameters, spacing, embedment, steel reinforcement and orientation, force application, conformity to standards of practice, and ability to adequately resist lateral loads) of proposed remediation structures are appropriate for their intended purposes;

We have reviewed the structural calculations and structural drawings for the above referenced project, and have come up with the following questions that the Engineer of Record needs to clarify.

STRUCTURAL CALCULATIONS:

- 1. Page 5: Show calculation how L2 is determined and how the associated L2 maximum moment is determined; this applies to all piles.
- 2. Page 5: Show calculation how embedment is determined as noted by calculation on Page 115.
- 3. Page 5: Clarify why piles in the 47-51 foot depth range have smaller embedment, though larger moments, as compared to the piles in the 42-44 foot depth range that have smaller moments and deeper embedment; this applies to all piles.
- 4. Page 6: Clarify by hand calculation how this spreadsheet works.
- 5. Page 11: Revise PCACOL interaction diagram to include dead and live load from roadway with moment from landslide; revise reinforcing as necessary; typical all piles.
- 6. Page 11: It appears that the piles are over-reinforced as flexural members; verify and revise as necessary; typical all piles.
- 7. Page 26: Clarify why pile embedment calculation does not match structural drawings.
- 8. Page 26: Clarify why pile summary sheet on Page 4 indicates pile diameter to be 3'-6", while structural drawings indicate 3'0".
- Page 68: Clarify why pile moment does not match PCACOL and Pile Summary on Page
 4.
- 10. Page 93: Provide load combination 1.2D+1.6+1.6H, and 0.9D+1.0E+1.6H per ACI 318 in PCACOL.
- 11. Page 93: Show calculation that the shear wall pile meets ACI shear wall requirements §11.10 and §14, and boundary zone requirements §21.7.
- 12. Page 118: The sketch indicates four concrete beams that run parallel within the roadway deck that supports the roadway deck. It appears that there should be a transfer girder located perpendicular to the roadway at the piles to support these concrete beams; clarify and revise calculations and structural drawings as necessary.
- 13. Page 118-119: Clarify Case I and Case II and associated Enercalc calculations on pages 120 through 125.
- 14. Page 120: Clarify where the loads used in the program are from.



Sweetwater Mesa Development Project – Civil and Geotechnical Engineering and Engineering Geological Peer Review February 22, 2010 Page 3 of 5

- 15. Page 122-123: Provide calculation for one-way shear, two-way shear, and punching shear for the roadway deck if transfer girder not added.
- Page 128: Clarify where active pressure, passive pressure, and fire truck loadings are derived from.
- 17. Page 128: Provide calculation for design of grade beam for shear and torsion.
- 18. Page 128: Provide calculation how embedment was determined for these retaining walls on a downward slope.
- 19. Page 128: Clarify if there is any seismic loading for both uphill retaining walls and downward retaining walls.
- 20. Page 128: Provide calculation for shear transfer of retaining wall to grade beam and grade beam to piles.
- 21. Page 149: Clarify by hand calculation how spreadsheet works.
- 22. Page 170-171: Clarify why Enercal key reinforcing is indicated as #4 @ 12.5" while the structural drawings and calculation page 171 notes #4 @ 16".

STRUCTURAL DRAWINGS:

- 1. Sheet S-1: Provide structural drawing index.
- 2. Sheet S-1: Fill out County of Los Angeles Structural Observation checklist.
- 3. Sheet S-2: The enlarged site plan B references the incorrect sheet. Make reference to the appropriate sheet?
- 4. Sheet S-2: In the Symbol Legend, the detail referenced for the site retaining walls is incorrect. Make reference to the appropriate detail(s).
- 5. Sheet S-3: On Plan View "A", Detail 3/S9, clarify the spacing of the cast-in-place piles, either in plan or on detail 3/S9.
- 6. Sheet S-4: On Plan View "C", it indicates that piles 107 and 108 are to be spaced at 9'-0" while all others are to be spaced at 7'-6" or 15'-0". Provide moment, embedment, etc. calculations for 9'-0" center-to-center pile spacing.
- 7. Sheet S-6: Detail 1 indicates (12) #9 dowels equally spaced in the pile; provide calculations for shear transfer. It appears the roadway deck is not thick enough to develop the #9 reinforcing dowels from the piles; this applies to all piles, revise drawings as necessary.
- 8. Sheet S-6: Detail 2, indicates cantilever retaining wall supported of the roadway deck, provide calculations for the connection of the cantilever retaining wall to the cantilever roadway deck.
- 9. Sheet S-6: Detail 2 indicates the top reinforcing steel as #6 @ 8" o.c. which is different from Detail 7 which indicates #6 @ 6" o.c.; clarify and revise.



Sweetwater Mesa Development Project – Civil and Geotechnical Engineering and Engineering Geological Peer Review February 22, 2010 Page 4 of 5

- 10. Sheet S-6: Detail 2 Table, indicates "A Slab" reinforcing steel as #5 @ 8" o.c., which is less than the reinforcing steel indicated in Detail 1 and Detail 7, clarify and revise.
- 11. Sheet S-6: Detail 2 Note references Detail 1/S5, which is incorrect. Make reference to the appropriate detail(s).
- 12. Sheet S-6: Detail 2 Table, 2:1 Backfill Angle, "t conc" indicates N/A, the structural calculations references 14", clarify and revise.
- 13. Sheet S-6: Detail 8; provide calculations for site retaining wall.
- 14. Sheet S-7: Provide calculations for shear transfer between roadway deck and the shear wall pile, also refer to question7.
- 15. Sheet S-8: Clarify how "L2" Zone values on the Pile Schedule were determined and provide calculations.
- 16. Sheet S-8: For piles 13 through 21 in the Pile Schedule, the shear reinforcement does not match the structural calculations; clarify and revise.
- 17. Sheet S-8: For piles 36 and 39, the shear demand indicated in the structural calculations on Page 4 is higher than the capacity; clarify and revise.
- 18. Sheet S-8: For piles 43 through 45 in the Pile Schedule, the shear reinforcing in "L1" Zone does not match the structural calculations summary as noted on Page 4.
- 19. Sheet S-8: For piles 108 through 183 in the Pile Schedule, the shear reinforcing for "L1" and "L2" Zone indicates #14. The structural calculations indicate #4; revise schedule to indicate the correct reinforcing steel.
- 20. Sheet S-8: Clarify if there is sufficient spacing between longitudinal reinforcing steel with the proposed concrete mix design; refer to ACI 318 §7.6.3 and §3.3.2.
- 21. Sheet S-9: Provide calculations for minimum reinforcing steel requirements per ACI 318 for both Detail 1 and Detail 3.
- 22. Sheet S-9: Detail 1, provide calculations for retaining wall footing/ key, i.e. flexural requirements and minimum steel requirements, etc.
- 23. Sheet S-9: Detail 1 Table, "Ak" reinforcing steel does not match structural calculations; revise drawings.
- 24. Sheet S-9: Detail 1 Table, "t conc" for 2:1 backfill angle indicates N/A, the structural calculations indicates 14"; revise drawings.
- 25. Sheet S-9: Detail 2; provide calculation per ACI Appendix "D" for curtain wall connection to concrete deck and pile; revise detail as required.
- 26. Sheet S-9: Detail 2; provide calculation for curtain wall and indicated gauge, revise detail as required.
- 27. Sheet S-9: Details 2 and 3, Provide detail of guardrail and connection, also provide calculations per 2007 CBC and per ACI Appendix "D".



Sweetwater Mesa Development Project – Civil and Geotechnical Engineering and Engineering Geological Peer Review February 22, 2010 Page 5 of 5

- 28. Sheet S-9: Detail 3, Provide dimension for retaining wall tiebeam.
- 29. Sheet S-9: Detail 3, revise detail or show on plan the spacing of the cast-in-place piles.
- 30. Sheet S-9: Detail 3, Provide calculation (i.e., moment, torsion, etc.) for retaining wall tiebeam for reinforcing steel indicated in table.
- 31. Sheet S-9: Detail 3, provide calculation for dowels from pile to grade beam, revise drawings as required.

POSSIBLE FAILURE AND REPAIR OPTIONS:

8) Evaluate possible repairs to the pile supported roadway section in the unlikely event of failure due to landslide movement:

If a pile was oriented in the wrong direction due to installation error and/ or the failure plane differs from what the Geotechnical Engineer has determined, the pile could have insufficient moment capacity due to the special reinforcing steel layout. It appears that there should be some tolerance (i.e., 15° from centerline each way, for example) in the reinforcing steel layout to provide some redundancy for installation error and/ or the failure plane differing from that determined by the Geotechnical Engineer.

9) Assess the potential consequences of an unlikely failure of the pile supported roadway section;

The system currently designed has a factor of safety of 1.5. If a pile was to fail or, more likely deform excessively, the forces would then be distributed through the deck to the adjacent piles. Please describe the mechanism of how these forces would be distributed through the deck, and what would be the remaining safety factor for the pile(s) affected.

10) Assess the potential failure mechanisms and repair options of the elevated roadway sections;

The system currently designed has a factor of safety of 1.5. If a pile was to fail or, more likely deform excessively, the forces would then be distributed through the deck to the adjacent piles. Please describe the mechanism of how these forces would be distributed through the deck, and what would be the remaining safety factor for the pile(s) affected.

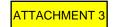
PLEASE SUBMIT AN ITEMIZED RESPONSE TO THESE ITEMS IN WRITING (IN LETTER FORM), WITH REVISED PLANS AND CALCULATIONS, AS REQUIRED. CLEARLY INDICATE ON THE PLANS AND THE CALCULATIONS ALL REVISIONS MADE BY BUBBLING OR OTHER MEANS.



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PALO ALTO SAN FRANCISCO EUGENE





March 26, 2010 P5020 By Email (lewing@coastal.ca.gov)

Ms. Lesley Ewing Senior Coastal Engineer CALIFORNIA COASTAL COMMISSION 45 Fremont Street, Suite 2000 San Francisco, California 94105-2219

SUBJECT: Proposal for Supplemental Civil and Geotechnical Engineering and

Engineering Geological Review Services

RE: Sweetwater Mesa Development Project

Malibu, California

Dear Ms. Ewing:

Cotton, Shires and Associates, Inc. (CSA) is pleased to provide the California Coastal Commission (CCC) with this proposal for supplemental civil and geotechnical engineering and engineering geological review services in support of the CCC's continued review and analysis of the application for Coastal Development Permits 4-09-056 through 4-09-061. This work will be performed as a supplement to the review services we provided under our proposal dated January 21, 2010. The conditions surrounding the project are described in that proposal and will not be repeated herein.

In fulfillment of our scope of work under our January 21, 2010 proposal, we prepared a review report entitled: Summary of Findings - Civil and Geotechnical Engineering and Engineering Geologic Peer Review Services, dated March 8, 2010. The applicant's consultants responded to our review comments in a meeting held at the CCC offices in San Francisco on March 17, 2010. During our meeting with the applicant and applicant's consultants, we were informed that the structural design of the access road support system is being changed from a cantilever pier system to a tied-back pier system. We also agreed that additional subsurface exploration in the form of a trenching, test pits and a large-diameter boring would be performed to clarify the geology in several areas of the project with peer review oversight by our office to observe the findings in the field. The applicant's team of consultants will be addressing the items presented in our March 8, 2010 review report and providing us with a response so we can prepare an updated review report for consideration by the CCC. Consequently, we are proposing the following supplemental scope of work and associated costs for your consideration.

SUPPLEMENTAL SCOPE OF WORK

I. <u>Field Review of Supplemental Subsurface Exploration</u>

A. <u>Subsurface Exploration Review</u> – We will be on site during the supplemental exploratory trenching, test pits and large-diameter drilling to conduct peer review observations of the applicant's consultant's subsurface exploration. We request that the consultant clean and log the exposures prior to calling us to the site to observe them.

II. <u>Engineering Geologic, Geotechnical and Civil/Structural Engineering</u> <u>Assessment and Evaluation of Review Responses</u>

A. <u>Assessments and Evaluations</u> – Based on our review of the supplemental subsurface exploration and responses by the applicant's consultants to our March 8, 2010 review comments, we will assess and evaluate these responses from engineering geologic, geotechnical and civil/structural engineering perspectives.

III. Supplemental Consultation, Reporting and Meetings

- A. Supplemental Consultation and Reporting We will consult with CCC staff on an ongoing basis and we will prepare an updated review letter report which will contain our original and supplemental assessments and evaluations of the consultant's original and supplemental subsurface exploration and review responses. It is intended that this report will be a "stand-alone" document that the CCC can use for its discretionary permit considerations. With some minor changes, our initial review report dated March 8, 2010 is now available also as a "stand-alone" document at the link: http://files.me.com/cottonshires/7thb02 with the password "Sweetwater" (case sensitive). In addition, we attended a meeting in San Francisco on March 17, 2010; consequently as set forth in our original proposal, there will be an add-on to our original budget of \$1,500. As with our initial scope of work, CCC staff will be included in all telephone/meeting contacts for this proposed supplemental work.
- B. <u>Meeting</u> In addition to the fieldwork, we have budgeted for attending one additional meeting with CCC staff and the applicant's consultants at our Los Gatos office or at the CCC San Francisco office.
- C. <u>Coastal Commission Hearing</u> Under our original proposal dated January 21, 2010, we already proposed and budgeted for preparing a PowerPoint presentation to summarize our review assessments and evaluations, and for attending a CCC hearing to present our findings. Consequently, there will be no supplemental charges for this task unless it is delayed until after June 2010, in which case there will be supplemental budget needed for reviewing the file and re-preparing for this hearing.

SCHEDULE

Upon our receipt of a signed agreement, we will begin our supplemental peer review services as described above. At this time, we anticipate that the supplemental evaluation and updated report preparation will take approximately two weeks to complete following the applicant's consultants supplemental subsurface exploration and submittal to us of their responses addressing our March 8, 2010 review report. Assuming timely authorization, exploration and response, we will endeavor to provide an updated review report within two weeks of our receipt of the applicant's consultants' responses to our report (possibly by the middle or end of April) and we will be available to participate in the CCC hearing as soon as either May or June of this year.

FEE

We propose to invoice you for our supplemental services on a time-and-expenses basis in accordance with the attached Schedule of Charges. It should be understood that an entirely new structural system is being designed to support the access roadway so that significant geotechnical and structural engineering review of this new design will be required. We estimate that our fees and expenses for Tasks I through III outlined above will be:

Task

Estimated Cost Range

I. - Field Review

\$4,600 to \$5,100

Principal Engineering Geologist (16 hours x \$210 = \$3,360) Senior Staff Engineer/Geologist (8 hours x \$130 = \$1,040) Travel Cost, Mileage, Reproduction, Administrative (\$200)

II. – Assessment and Evaluation of Review Responses Senior Principal Engineer (16 hours x \$250 = \$4,000) Principal Engineer/Geologist (16 hours x \$210 = \$3,360) Senior Staff Engineer/Geologist (32 hours x \$130 = \$4,160) Supervising Structural Engineer (20 hours x \$175 = \$3,500) Reproduction, Administrative (\$180)

\$15,200 to \$16,700

III. – Consulting, Reporting and Meetings

\$14,800 to \$17,300

A. Meeting in San Francisco 3-17-10 - \$1,500

A. Consultation and Reporting - \$10,100 to \$11,100

Senior Principal Engineer (8 hours x \$250 = \$2,000)

Principal Engineer/Geologist (10 hours x \$210 = \$2,100)

Supervising Structural Engineer (10 hours x \$175 = \$1,750)

Senior Staff Engineer/Geologist (16 hours x \$130 = \$2,080)

Technical Illustrator (16 hours x \$85 = \$1,360)

Reproduction Costs and Admin/Accounting (\$510)

B. Meeting (Prep. and Attendance) - \$3,200 to \$4,700

Senior Principal Engineer (5 hours x \$250 = 1,250)

Principal Engineer/Geologist (5 hours x \$210 = \$1,050)

Supervising Structural Engineer (5 hours x \$175 = \$875)

Travel Cost, Mileage – Los Gatos low, San Francisco high – (\$25 to \$1,525)

C. Hearing (Prep. and Attendance) – Already included if in May or June

We will invoice the CCC monthly on a time and expenses basis for Tasks I through III outlined above for an amount ranging from \$34,600 to \$39,100 and will not exceed \$39,100 without prior written authorization. Attendance at additional meetings or hearings or a delay of the hearing (beyond the budgeted two meetings and one hearing in May or June 2010) will be billed on a time-and-expense basis in accordance with our attached Schedule of Charges.

AGREEMENT

If you agree with the Scope of Work, Schedule, and Fee outlined above, as well as the attached Schedule of Charges, Limitations, and Terms, please sign one copy of this proposal and return it to our office or incorporate it as an exhibit into a contract. Receipt of the signed proposal or contract will constitute authorization for us to proceed.

We look forward to providing you with the professional services discussed above. If you have any questions, or need additional information, please contact us.

Very truly yours,

COTTON, SHIRES AND ASSOCIATES, INC.

Patrick O. Shires

President and Senior Principal Geotechnical Engineer, GE 770



Approved and Authorized By

Date

POS:JW:st

Attachment: CSA Schedule of Charges, Limitations and Terms

January 21, 2011 E5050 By email (lewing@coastal.ca.gov)

Ms. Lesley Ewing Senior Coastal Engineer CALIFORNIA COASTAL COMMISSION 45 Fremont Street, Suite 2000 San Francisco, California 94105-2219

SUBJECT: January 2011 Summary of Findings - Engineering Geologic,

Geotechnical, Civil and Structural Engineering Peer Review Services

RE: Sweetwater Mesa Development Project

Malibu, California

Dear Ms. Ewing:

Coastal Commission (CCC) with this January 2011 summary of our findings in regard to the engineering geologic, geotechnical, civil and structural engineering peer review services we provided in support of the CCC's review and analysis of the application for Coastal Development Permits 4-10-040 through 4-10-045 for the Sweetwater Mesa Development Project in Malibu, California. The project consists of developing five residential lots along with an access road that would extend Sweetwater Mesa Road approximately one mile to the north of its present termination. As you are aware, we previously provided you with a summary of findings dated March 8, 2010, based on submittals reviewed prior to that date. Since that time, we have met with and conducted several conference calls with the applicants' consultants and they have responded to the comments and questions raised in our March 8, 2010 review report, meetings and conference calls with additional submittals. This report represents our response to these submittals.

The new access road is proposed partially in the City of Malibu, but mostly in the County of Los Angeles, California. It is our understanding that our task was to review the geologic, engineering geologic, geotechnical, and supplemental reports and engineering plans and calculations pertaining to the portion of project within the County of Los Angeles for adequacy and compliance with the California Coastal Act policies that require the following: 1) new development in areas of high geologic, flood or fire hazard to be designed in such a way as to minimize risks to life and property; 2) new development must be designed to assure stability and structural integrity; and 3) new development shall consider scenic and visual qualities, protect views along the ocean and scenic coastal areas, minimize the alteration of natural landforms, be visually compatible with the character of surrounding areas, and, where feasible, restore and enhance visual quality in visually degraded areas.

The project-specific requirements include stability review of the portion of the main 5-lot access road that is located within the County of Los Angeles, the individual access roads to the five residential lots, the water line extension to the five properties, and each of the five development areas. Our peer review work has culminated in this

final written report summarizing our Scope of Work, Findings, Conclusions and Recommendations, Summary of CCC Requested Scope of Work, Structural Calculations Review, Structural Drawings Review, Limitations and Overall Summary. A list of References (Documents/Drawings/Electronic Files) Reviewed is provided at the back of this report.

SCOPE OF WORK

I. <u>Civil and Geotechnical Engineering and Geologic Evaluation</u>

- A. <u>Evaluation of Aerial Photographs</u> Historical and relatively current aerial photographs were obtained and analyzed with respect to slope stability considerations.
- B. Review of Available Data Published maps and site specific documents pertaining to the project and provided to us by the CCC, including reports, letters, memos and calculations, were reviewed by engineering geologists, civil engineers, geotechnical engineers and structural engineers. The applicant's consultants also provided us with the electronic versions of the drawings in AutoCAD-compatible format to assist us with our review. We used AutoCAD Land Desktop and AutoCAD software to check quantities, etc.
- C. <u>Site Reconnaissance</u> Surficial inspections were completed of the site and vicinity by an engineer and engineering geologists and existing site conditions were noted to formulate a preliminary understanding of the proposed project environment. Inspections of site earth materials and slopes were also conducted, including preliminary engineering geologic mapping of site conditions using provided topographic base maps.
- D. Inspection of Trenching and Downhole Logging of Large-Diameter Boring Our engineering geologist conducted an inspection of trenching performed in a suspected landslide graben area and downhole logging and sampling of an additional large-diameter boring drilled in the vicinity of a recognized deep-seated landslide.

II. <u>Engineering Geologic, Geotechnical and Civil/Structural Engineering</u> <u>Assessment and Evaluation of Site Conditions</u>

A. <u>Assessments and Evaluations</u> – Based on our review of the site conditions, aerial photographs, published maps and site specific documents (including electronic files of the drawings) provided to us, we developed assessments and evaluations to address the CCC's questions, concerns and requests regarding the construction of the proposed roadway, residential access roadways and building pads.

III. Consultation, Reporting and Meetings

A. <u>Consultation and Reporting</u> – We consulted with CCC staff on a regular ongoing basis and we prepared this and previous peer review letter-reports containing our assessments and evaluations of the site conditions, reviewed

- documents, and addressed each of the CCC's questions, concerns and requests. CCC staff was included in all telephone/meeting/email contacts.
- B. <u>Conference Calls</u> We participated in several conference calls with CCC staff, the applicant's representative and the applicant's consultants.
- C. <u>Meetings</u> In addition to the site inspections, we attended two meetings with CCC staff at our Los Gatos office, one meeting with the applicant's consultants during the initial field trip and two meetings with the applicant's consultants at the CCC offices in San Francisco.
- D. <u>Coastal Commission Hearing</u> We will prepare a PowerPoint presentation to summarize our peer review assessments and evaluations, and attend a CCC hearing to present our findings.

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Engineering Geologic Evaluation Introduction – To provide a basis upon which to review the geotechnical and engineering aspects of the proposed development, we performed an engineering geologic evaluation of the project. This evaluation included review of historical stereo-pair aerial photographs (1929, 1952, 1993, and 2000) and historical oblique aerial photographs (1993, 2008, and 2009), and performance of limited engineering geologic field mapping, inspection of trenching and down-hole logging and sampling of a large-diameter boring. Our evaluation also included review of the submitted geologic reports, geologic maps, geologic cross sections, and exploratory borehole and trench logs by the Project Engineering Geologist, Mountain Geology, Inc. (MGI). The fundamental role of the engineering geologist is to first recognize the primary geologic hazards with the potential to impact the proposed development, and second to characterize these geologic hazards so that appropriate geotechnical engineering analyses can be performed. We summarize our evaluation of the engineering geologist's recognition and characterization of the site geologic conditions and geologic hazards, as follows:

Geologic Hazard Recognition – MGI has recognized that landsliding, seismic shaking, rockfalls, and bedrock shattering have the potential to adversely impact the proposed development. MGI has stated that landslide debris underlies the majority of the subject property, and has recommended that mitigation measures be implemented to provide the appropriate required factor of safety for the proposed access road and residences. CSA is in agreement that the majority of the site is underlain by landslide debris, which in general, has been shed westward from the prominent north-south trending ridgeline. Three of the proposed residential structures are located atop the prominent ridgeline on bedrock materials of the Vaqueros Formation. Our review of the proposed development reveals that the Lunch residence is the only proposed living space to be constructed atop landslide debris.

CSA's review of aerial photographs revealed the likely presence of three large landslides and possible presence of a fourth large landslide along the western flank of the ridgeline (we referred to these features as landslides 1 through 4 in our March 8, 2010 "Summary of Findings..." letter), with Landslide 1 on the Vera property (and property to the south of Vera), Landslide 2, a large, mostly evacuated landslide on the Mulryan and Lunch properties, possible Landslide 3 on the Morleigh property, and Landslide 4 north of the

Morleigh property (see Figure 2, CSA Photo-Interpretive Landslides). MGI mapped Landslides 1, 2 and 4, but did not map the features on the Morleigh site as a landslide (CSA possible Landslide 3). Trenching of a possible graben area for Landslide 3 revealed that it was not a landslide, confirming the initial mapping by MGI. In addition to landslides, MGI appears to have adequately recognized other geologic hazards with the potential to adversely impact the proposed site development.

Ms. Lesley Ewing

Page 4

Geologic Characterization – In response to our initial review (CSA, 3/8/10), MGI performed additional geologic field mapping, aerial photograph evaluation, additional subsurface exploration, and refinement of geologic cross sections to portray the site geologic conditions. CSA has reviewed the revised geologic maps, cross sections, and borehole data submitted by MGI, and provides the following summary of the site geologic characterization issues:

Geologic Mapping: In the initial review (CSA, 3/8/10), we noted that MGI had not, in general, differentiated the various types of landslides or slope movements at the site (i.e., shallow landslide, deep landslide, slope wash, talus, etc.), nor had they differentiated the different parts of each landslide (i.e., headscarp, toe, lateral margin, internal slide, etc.). Additionally, the movement directions of the various landslides were not well constrained. We opined that, for certain portions of the proposed development (such as the area we identified as Landslide 2), this could result in overly conservative design assumptions and that planned mitigation elements in some areas could be over-designed. We recommended that MGI incorporate landslide geomorphology into their geologic mapping to help refine the shape, depth interpretations, and direction of the landslides at the site. In response to the review comments, MGI performed additional geologic mapping, geomorphic analysis, subsurface exploration, and refinement of their geologic cross-sections. recommended that a well-placed boring along the road alignment above B-9 could provide valuable subsurface information to help refine, and hopefully reduce, the mitigation design. MGI responded to this concern by performing additional geologic mapping and excavating two backhoe-dug test pits (TP-20 and TP-21). The additional data resulted in the re-interpretation of a landslide that had been mapped above boring B-9, refinement of the northern margin of Landslide 2, and refinements to two crosssections (E-E' and Y-Y').

We also noted that similar refinement of the landslide type and distribution may also have reduced the level of mitigation measures needed at Landslide 1, near Cross Section U-U' and V-V', where the obvious headscarp of the large landslide contained surficial slopewash and talus, and the basal shear surface of the large landslide need not have been extended upslope as initially shown on MGI's U-U' and V-V'. MGI addressed this concern by performing additional geomorphic interpretation, aerial photograph review, and excavation of two backhoe-dug test pits (TP-17 and TP-18) in the headscarp area of this landslide. These data resulted in refinement of the landslide configuration in the headscarp region on MGI's cross-sections through this area.

Subsurface Exploration: A total of 36 large-diameter boreholes, 1 small-diameter borehole, and 16 backhoe test pits were initially excavated by MGI to explore the subsurface conditions at the site. The large-diameter boreholes were drilled to a maximum depth of 70 feet. A total of 14 large-diameter boreholes were drilled within landslide debris, with the basal shear surface of the landslide identified by MGI in the

boreholes; however, MGI did not identify striations (and their orientations) on any of the basal shear surfaces.

One of the most pertinent concerns expressed in the initial review was that all large-diameter borehole exploration performed within landslides was conducted near the head of these landslides, which is generally atypical for landslide investigations. However, we also acknowledged the steep and rugged terrain of the site, the difficulty and environmental constraints involved with creating access to the mid and lower portions of the slides, coupled with the fact that the proposed improvements and mitigation elements were only located in the upper reaches of the landslides.

We also offered critique that the descriptions of the landslide basal shear surfaces were short, and were not unique from many other borehole material descriptions. The logs of the exploratory boreholes also did not indicate that hand sampling was performed on any of the basal shear surfaces. Our review of the exploration program revealed an ambitious schedule that resulted in the mobilization, set-up, drilling, sampling, cleaning of the borehole, logging, and backfilling in less than one day per borehole. In our experience, sufficiently detailed landslide logging, sampling, and identification of kinematic markers (i.e., slickensides, striations, etc.) for landslides of this depth typically takes more time. In the initial review, we provided several subsurface exploration recommendations, which are summarized as follows:

- We recommended that additional subsurface exploration be performed along the roadway north of B-9 to characterize the subsurface materials along the steep slope. As discussed above, this was addressed by MGI by two backhoe-dug test pits and additional geologic mapping.
- We recommended that exploratory trenching be considered in the gently sloping area (possible graben) near the proposed Morleigh residence to help determine the presence or absence of landsliding. MGI responded by excavating and logging a 245-foot long trench in this area. The trench exposed significantly faulted bedrock (which is to be expected considering the numerous faults mapped through the ridgeline on regional maps), but no evidence of a landslide graben. The geomorphic expression of the area we identified as Landslide 3 appears to be a function of bedrock orientation coupled with differential weathering and erosion of the underlying bedrock.
- We recommended that additional subsurface exploration be performed downslope of the proposed Lunch residential site. Exploratory borings had been performed in the vicinity of the proposed residence, but no exploration was performed downslope in the vicinity of the roadway; hence, there were no data to constrain the location of the slide plane in the immediate vicinity of the roadway where mitigation elements are to be implemented (e.g., MGI Cross Section G-G'). MGI addressed this concern by drilling, sampling, and downhole logging an additional large diameter boring (B-38) and preparing an additional geologic cross-section (AA-AA').
- We recommended that additional borehole exploration be performed with the intent of obtaining hand samples of the slide plane materials for appropriate laboratory testing, and to further constrain the subsurface landslide geometries

where only one positive pick on the basal shear surface has been obtained. MGI responded by drilling an additional borehole (B-38).

Geologic Cross Sections: In the initial review (CSA, 3/8/10), we noted that many of the geologic cross sections could be improved with more refined geologic and geomorphic landslide mapping and subsurface exploration. This was an important consideration because along some of the cross sections, this re-interpretation could result in shallower mitigation elements, such as along Cross Sections B-B', E-E', F-F', U-U', and V-V'. We noted that other geologic cross sections lacked sufficient subsurface data to accurately constrain the subsurface conditions (i.e., G-G', K-K').

The first significant review issue we raised was a recommendation that the geologic cross sections developed by MGI be updated to more accurately reflect the landslide geomorphology at the site. We also suggested that the geologic cross sections should be aligned to the most critical portion of the landslides parallel with the estimated movement direction. After obtaining additional data (mapping, geomorphic interpretation, and subsurface exploration), MGI made revisions to Cross Sections B-B', E-E', I-I', M-M', U-U', V-V' and Y-Y', and prepared an additional cross section (AA-AA'). MGI opined that even after "sufficiently thorough" logging and description of landslide planes was performed downhole, kinematic/directional data such as striations, polishing, and slickensides were not observed and therefore they concluded these features are not present. We experienced similar difficulties attempting to expose these types of features during the our review logging of MGI's B-38 and concluded that, while they should be present for a landslide that has moved as far as this one, exhuming evidence of them would be very time consuming and require specialized equipment.

A second significant review issue was centered on a lack of subsurface exploration of the landslides in areas other than the headscarp regions (i.e., central and lower portions of the landslides). We initially expressed concern that the interpreted landslide geometries (and underlying bedrock geometry beneath the landslides) on the geologic cross sections downslope of the area explored were poorly constrained, a factor which could significantly effect both back-calculated strengths and forward slope stability analyses. In response to this concern, the project geotechnical engineer, CalWest, indicated that potential variation of landslide geometry downslope of the proposed mitigation elements would not adversely impact the proposed mitigation design. With regard to the potential impact on back-calculated strengths, there was a coordinated effort between the Project Engineering Geologist (MGI) and project geotechnical engineer to model a reasonable range of potential variations in landslide geometry and toe exit points on a critical cross section, in order to address this concern.

<u>Summary of Geologic Characterization</u> – MGI has performed a geologic investigation where valuable surface and subsurface geologic information has been gathered, and specific geologic hazards critical to the performance of the proposed development improvements have been adequately identified. Given the site access constraints, as well as the location of the project improvements within only the upper reaches of landslides where full mitigation is proposed, it is our opinion that MGI has now completed a reasonable job of characterizing the site geologic hazards, limits of landslides, the type of sliding and the depth of the slide planes in the access road corridor where such characterization is most vital.

Geotechnical Engineering Evaluation - Geotechnical engineering aspects of the investigation were conducted by CalWest Geotechnical Consulting Engineers (referred to herein as CalWest). During our initial review, we identified various aspects of the investigation, analysis and design that we believed were not in conformance with typical investigations for a project of this magnitude and complexity. We raised several concerns in our March 8, 2010 report that CalWest responded to with additional testing, analyses and submittals. We expressed a particular concern regarding the basal landslide plane shear strength parameters selected by CalWest from engineering judgment and direct shear strength test results. In our opinion, the method of testing was inappropriate for landslide shear strength evaluation and the direct shear tests were performed on disturbed samples that were not representative of the actual basal shear surface. Furthermore, we felt that the cohesion component selected was too high for an existing landslide. Supplemental torsional ring shear strength testing on a sample of the basal landslide plane later obtained from large-diameter boring B-38 indicated a significantly lower frictional component. Consequently, it was agreed that CalWest would circumvent concerns about the laboratory test results by conducting backcalculation analysis on a range of possible reasonable landslide geometries (since the downslope geometry was poorly constrained by subsurface exploration). A higher cohesion component was deemed acceptable for the overall potential failure plane because a landslide buttressed by the canyon would have to shear through landslide debris across bedding planes and not strictly on a previously sheared surface. For reasonable conservatism, a factor of safety of unity (1.0) was utilized for the backcalculation of shear strength parameters and CalWest determined a friction angle of 15 degrees with cohesion of 200 psf for this scenario. These shear strength parameters were then used for forward analyses and design of access road protection measures.

Geotechnical Subsurface Investigation – It appears that for the entire subsurface investigation program, truly undisturbed samples were not available or used for laboratory testing. It appears that all of the samples used for laboratory testing were either disturbed samples obtained during downhole logging (also called "grab samples"), or were driven by the Kelly bar of the drill rig (although widespread in practice for sampling of large-diameter borings, this is not an ASTM-approved sampling method for obtaining relatively undisturbed samples). However, since the shear strength parameters derived for the basal rupture surface of Landslide 2 are now based on back-calculation as discussed above and not solely on laboratory test results, this is no longer a significant concern with respect to our review.

Laboratory Testing – While we raised several questions regarding the laboratory testing program in our March 8, 2010 report, these concerns were either addressed by additional submittals and laboratory testing or resolved by the reliance on back-calculation for deriving shear strength parameters for the basal rupture surface of Landslide 2.

Slope Stability Analysis and Structural Design – The stabilizing structures were reanalyzed and redesigned in accordance with responses to the recommendations presented in the following sections.

SUMMARY OF CCC REQUESTED SCOPE OF WORK

The following are the 16 itemized requests of the CCC in the order requested (in *italics*), with the corresponding CSA response following the requested scope.

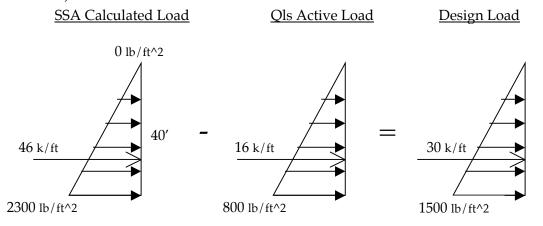
- 1) Requested Scope Evaluate whether the provided material is adequate to determine the aforementioned stability issues and if not, what additional material should be provided.
- 1) Conclusions and Recommendations Based on our initial evaluation of the provided materials, we requested several items be provided in order to allow an adequate basis for evaluating the project stability and other issues. These items were provided and we now concur that the provided material appears to be adequate to evaluate stability issues.
- 2) Requested Scope Assess whether the proposed remediation measures are adequate to provide stability for both static and dynamic loading conditions;
- 2) Conclusions and Recommendations Based on our initial evaluation of the provided materials, we requested several items be provided in order to allow an adequate basis for evaluating whether the proposed remediation measures would be sufficient for providing stability for both static and dynamic loading conditions. These items were provided and we now concur that in general, the provided material appears adequate to evaluate both static and dynamic slope stability issues. The following comments summarize our review of CalWest's slope stability analyses:

The methodology/organization of CalWest's Appendix E is as follows: the Appendix was divided into two sections, the first was titled Section 26+70 to 31+40 (Regions A and B from previous report, and Landslide 1 as designated by CSA); and the second was titled 43+70 to 52+80 (Regions D, E and F from previous report and Landslide 2 as designated by CSA). Appendix F contains two figures that illustrate how they determined design loads for the structural design of the shear pins. The Landslide 2 analysis was subsequently updated to utilize the lower shear strengths derived through back-calculation analyses.

Section 26+70 to 31+40 (Landslide 1): Sections U-U', B-B' and V-V' were analyzed with shear pins and the static and pseudostatic (i.e., dynamic loading with horizontal coefficient of 0.15) factors of safety were calculated. For all of the analyses, four methods of analysis were performed: Bishops, Morgenstern-Price, Janbu Corrected and Spencer. For each section, searches were performed for the critical surface using four scenarios: Circular Static, Circular Pseudostatic, Block Static and Block Pseudostatic. Since the access road in the area of Landslide 1 traverses the very upper portion of the landslide where graben formation and backspill of debris has created a basal shear plane with strength properties greater than residual values, higher strength values were utilized by CalWest for Landslide 1 than for Landslide 2.

Section 43+70 to 52+80 (Landslide 2): Sections K-K', AA-AA', G-G', AB-AB', F-F' were analyzed with shear pins and the static and pseudostatic (with horizontal coefficient of 0.15) factors of safety were calculated. For all of the analyses, four methods of analysis were performed: Bishops, Morgenstern-Price, Janbu Corrected and Spencer. For each section, searches were performed for the critical surface using four scenarios: Circular Static, Circular Pseudostatic, Block Static and Block Pseudostatic. For the pseudostatic slope stability analysis, CalWest confirmed that the designed stabilization structures result in an industry accepted standard pseudostatic factor of safety of 1.1 using the back-calculated shear strengths (friction angle of 15 degrees and cohesion of 200 psf) in the analysis of Cross Section G-G'.

Wall Active Forces: For all the analyses, each wall is represented by equivalent fluid pressure active force acting upward to resist the landslide. It appears that this distributed load was varied until the desired design factor of safety was achieved. After determining the required distributed load for stability, the active load from the landslide debris is subtracted leaving only the required resistance from the shear pins. It appears that an equivalent fluid pressure of 30 pcf was used for the landslide debris and applied over 82% of the height (CalWest assumed 3.26 feet of seismic displacement, resulting in a reduced height of 82% of original height). A diagram with example numbers (from Section K-K') is shown below:



The calculated design load was then used to make the figures shown in Appendix F where it was assumed that the required design load varies linearly between sections. This will require close inspection by the Project Geologist during construction to confirm that the subsurface geometry supports this assumption.

- 3) Assess whether the structural design (including pile diameters, spacing, embedment, steel reinforcement and orientation, force application, conformity to standards of practice, and ability to adequately resist lateral loads) of proposed remediation structures are appropriate for their intended purposes;
- 3) Conclusions and Recommendations We initially reviewed the structural calculations and structural drawings for the above referenced project, and raised several concerns that the Engineer of Record needed to clarify.

STRUCTURAL CALCULATIONS:

With respect to the structural calculations, the Consultant has satisfactorily addressed the items raised in our March 8, 2010 report.

STRUCTURAL DRAWINGS:

With respect to the structural drawings, the Consultant should satisfactorily address the following items that were raised in our March 8, 2010 report (without an "N" after them) and the following new items (those with an "N" after them). Once these items are addressed, the structures should be appropriate for their intended purpose.

- 8. Sheet S-6: Detail 2, indicates cantilever retaining wall supported of the roadway deck, provide calculations for the connection of the cantilever retaining wall to the cantilever roadway deck.
 - Sheet S-6: Detail 2, Table notes "A SLAB", though "A SLAB" is not indicated on in the detail, please clarify and or revise detail as necessary.
- 25. Sheet S-9: Detail 2; provide calculation per ACI Appendix "D" for curtain wall connection to concrete deck and pile; revise detail as required.
 - Sheet S-8: Detail 2; the calculation on page 293 assumes 20 PSF for wind loading. Per ASCE 7 t6.4.1.2 and t6.4.2.2, a wind load of 26 PSF is calculated for worse case condition, please clarify and or revise calculations as necessary.
- 26 Sheet S-9: Detail 2; provide calculation for curtain wall and indicated gauge, revise detail as required.
 - Sheet S-8: Detail 2; maximum height indicted in detail is 22 feet, where as the calculations indicate a maximum height of 18 feet, revised detail to match calculations or revise calculations to match detail.
- 27. Sheet S-9: Details 2 and 3, Provide detail of guardrail and connection, also provide calculations per 2007 CBC and per ACI Appendix "D".
 - Sheet S-8: Details 2 and 3, response indicates calculations to be provided by others at a later date (i.e. deferred submittal). Provide preliminary detail of guardrail connection in accordance with 2007 CBC t1607.7.3 and per ACI Appendix "D", also provide calculation that the roadway deck can resist the guardrail loading.
- 32N. Sheet S-7: Pile Schedule Cont., Based on the structural calculations P133 should be in the same group as P130 through P132, revised detail accordingly.
- 33N. Sheet S-7: Clarify how the contractor is to splice the reinforcing cage, revise detail accordingly.
- 34N. Sheet S-8: Detail 1, Provide calculation for minimum footing steel per ACI t10.5.1 through t10.5.4, for the key. Per the detail "AK" refers to the top steel of the footing and key and "A conc" refers to the bottom steel of the footing, please clarify what the continuous steel in the footing is to be (i.e. reinforcing steel coming out-of-the-plane).
- 35N. Sheet S-8: Detail 3, Plans indicate a stepped footing; please provide a detail to show how to step the footing of the retaining wall and grade beam.

- 36N. Sheet S-7: Pile Schedule Cont., Based on the revised structural calculations dated November 16, 2010, specifically calculation Page 5 "Pile Summary Sheet"; revise pile 118 "L2" which reads 11 feet, per the calculations "L2" should read 14 feet, revise schedule as required.
- 4) Assess whether the proposed remediation measures will potentially adversely impact slope stability;
- 4) Conclusions and Recommendations According to the design drawings "Sweetwater Mesa Road Improvements From STA: 26+70 to 75+53.43", dated November 16, 2010, grading for the proposed access road, driveways, and building pads will generate approximately 21,600 cubic yards (cy) of net fill materials. Current plans consist of placing surplus fill materials in the non-structural fill area located between STA 44+60 to STA 52+80, this area will accommodate up to 13,950 cy of material. In addition, three staging areas for the Los Angeles County Fire Department (LACFD) will be constructed utilizing 10,000 cy of surplus material. All three staging areas are located within the boundaries of the landslide. The largest of the three staging areas is proposed along the outboard edge of the proposed access road between Station (STA) 46+00 and 50+00. The plans indicate that this staging area will consist of 9,500 cy of fill. The maximum thickness of the proposed staging pad is on the order of 13 feet. Placement of fill materials upon the upslope portion of an existing landslide could potentially have an adverse effect on global slope stability. Therefore, we recommended that CalWest perform appropriate slope stability analysis to evaluate the effect of fill placement on the landslide. CalWest has now analyzed the largest of the three areas and indicates that the stability of the slope below the protective measures will not be significantly adversely impacted (relative negative impact of on the order of 1 to 3 percent).

The Consultant should evaluate the potential for the "non-structural fill" to be susceptible to debris flows during periods of prolonged, and or, intense rainfall. The plans indicate that the non-structural fill will be approximately 4.6 feet thick; however, it is not clear whether this material will be keyed and benched into the intended slope. The Consultant should clarify that the non-structural fill will be keyed and benched, compacted and stabilized to reduce the potential for becoming susceptible to debris flows.

- 5) Assess the necessity of fill proposed to be placed between Station 44+60 and Station 52+80 for stability purposes, fire department access and staging, and to evaluate the volume of fill being placed to eliminate off-haul;
- 5) **Conclusions and Recommendations** Based on the design drawings provided to CSA, it is our opinion that the area designated for non-structural fill placement will be adequate for the volume of excess fill expected (13,950 cubic yards), provided the typical section of non-structural fill is approximately 4.6 feet thick. However, if the non-structural fill is only two feet thick, as is stated in the "Supplemental Geotechnical Engineering Letter #6" prepared by CalWest dated November 11, 2010, then the area of non-structural fill will only accommodate approximately 6,050 cubic yards of excess fill. The fill depicted on the Design Drawings prepared by Whitson Engineers titled "Sweetwater Mesa Road Improvements From STA: 26+70 to 75+53.43", dated November 16, 2010 is on average 4.6 feet thick. It is our understanding that this non-structural fill will be placed on the existing scarified ground surface without the benefit of keyways or

benches. It should be understood that placing 4.6 feet of compacted fill on an inclined surface [steeper than 6:1 (H:V)] without the benefit of keyways and benches could result in shallow failures and/or mobilization of the fill. The geotechnical engineer should consider placing the non-structural fill in accordance with the standard fill detail on Sheet C0.3 of the design drawings prepared by Whitson Engineers titled "Sweetwater Mesa Road Improvements From STA: 26+70 to 75+53.43" dated November 16, 2010. If Geotechnical Engineer's intention is to have the non-structural fill placed in accordance with this detail, then this intent should be made clear on the design drawings.

- 6) Assess the compatibility and appropriateness of each stabilizing structure/improvement (cuts, fills, retaining walls, drainage, interconnecting piles, and cylindrical piles) necessary for the construction of the 5-lot access road;
- 6) Conclusions and Recommendations In our experience, cylindrical piles (piers) can be effective in increasing slope stability if the subsurface has been accurately characterized and the geotechnical analyses have been performed appropriately. Based on our review of the structural design of the cylindrical piles, we understand that the piles have been designed to resist tensile forces primarily in one direction (tension side of steel reinforcement cage). In theory, we agree that such a design could be appropriate and applicable provided the direction of principal lateral earth (landslide) pressures is known within reason. However, in practice, this design requires precision. If the direction of landslide movement has not been adequately determined, or if the contractor installs the steel reinforcement cage at the wrong orientation, the principal tensile forces within the pile could occur in regions of the pile that were not designed to resist tension. Consequently, it will be critical for the Project Geologist to assess landslide characteristics as the piers are constructed to assure that any perceived changes in landslide direction are brought to the attention of the design engineer and adjustments made accordingly to the steel placement. Alternatively, the design could be modified up front to incorporate a range of potential landslide directions, say within a 20- to 30-degree arc as discussed under Item 8 below.

The project plans show that some of the piles are to be embedded only 10 to 17 feet into in-place bedrock. There is an element of engineering judgment associated with the design embedment lengths based on the assumed accuracy of the location of the landslide basal shear surface and the potential for landslide movement to transition below the pile reinforcements. In our experience, however, for landslides of great depth and complexity, the embedment depth is usually on the order of 20 feet or greater.

- 7) Estimate the extent of additional disturbed areas and volumes of cut and fill necessary if the 1.5:1 slopes must be modified to 2:1;
- 7) **Conclusions and Recommendations** The area of 1.5:1 (H:V) cut slopes shown on the plan set "Sweetwater Mesa Road Improvements From STA: 26+70 to 75+53.43", dated November 16, 2010, is located on the inboard side of the proposed roadway from STA 55+60 to STA 63+30, as well as on the northern and western side of the Morleigh private driveway and residence. If it is determined that these slopes must be cut to a maximum inclination of 2:1, the additional area disturbed would be approximately 24,000 square feet in the area of the proposed roadway and approximately 2,400 square feet in the area of the Morleigh private driveway and residence. This additional area of cut would produce approximately 5,650 cubic yards of additional spoils in the roadway

section and approximately 450 cubic yards of additional spoils in the vicinity of the Morleigh private driveway and residence.

- 8) Evaluate possible repairs to the pile supported roadway section in the unlikely event of failure due to landslide movement;
- 8) Conclusions and Recommendations It appears that different landslides or parts of landslides could be moving in different directions, consequently, the reinforcing steel will need to be aligned in the direction of this potential movement. If a pile was oriented in the wrong direction due to installation error and/ or the failure plane differs from what the Geotechnical Engineer has determined, the pile could have insufficient moment capacity due to the special reinforcing steel layout. While not a repair, but more in the line of prevention, it appears that there should be some tolerance (i.e., 10 to 15° from centerline each way, for example) in the reinforcing steel layout to provide some redundancy for installation error and/ or the failure plane differing from that determined by the Geotechnical Engineer. In the event of failure due to landslide movement, the existing access road supporting piers would either need to be abandoned or removed and replaced with new piers properly designed to resist additional landslide movement. If failure were caught early enough, then tieback anchors could be installed to support the failing section(s) of roadway. The consultants should recommend a monitoring system and protocol for early warning of potential problems so that they can be addressed early on should they occur.
- 9) Assess the potential consequences of an unlikely failure of the pile supported roadway section;
- 9) **Conclusions and Recommendations** The system currently designed has a factor of safety of equal to or greater than 1.5. If a pile were to fail or, more likely, to deform excessively, the forces would then be distributed through the deck to the adjacent piles. As noted in previous structural review comments, the method of transferring loads to decking should be clarified. The Consultant should clarify the mechanism of how these forces would be distributed through the deck, and explain what the remaining safety factor for the pile(s) affected would be.
- 10) Assess the potential failure mechanisms and repair options of the elevated roadway sections;
- 10) **Conclusions and Recommendations** The system currently designed has a factor of safety equal to 1.5 or greater. If a pile were to fail or, more likely, to deform excessively, the forces would then be distributed through the deck to the adjacent piles. As noted in previous structural review comments, the method of transferring loads to decking should be clarified. The Consultant should clarify the mechanism of how these forces would be distributed through the deck, and explain what the remaining safety factor for the pile(s) affected would be.
- 11) Confirm that roadway grade does not exceed the indicated 18.95 percent, and discuss issues associated with roadways constructed at this inclination;
- 11) **Conclusions and Recommendations** The proposed roadway is inclined at 18.95% from STA 31+29.21 to STA 40+39.38, STA 49+15.66 to STA 61+30.26 and STA 67+83.4 to STA 73+04.69. After review of the design plans, it does not appear that this inclination is exceeded along the proposed roadway. The profile lengths of the three sections of roadway listed above are approximately 925 feet, 1,235 feet and 530 feet, respectively.

Construction of approximately one half mile of roadway at 18.95% could be difficult and without adequate supervision and inspection could result in a substandard finished product whose design life expectancy would be shortened. The applicant should confirm that this steep gradient and the distances of this gradient are in compliance with Fire Department and County of Los Angeles requirements for driveways.

- 12) Conduct a thorough spot-checking of calculated quantities for the following using provided topographic information:
- a) Volume and area of proposed cuts and fills [1.5:1 (H:V) slopes] of the roadway, residential access roadways, and building pads;
- a) Conclusions and Recommendations As discussed above, the areas of 1.5:1 (H:V) cut slopes shown on the plan set "Sweetwater Mesa Road Improvements From STA: 26+70 to 75+53.43", dated November 16, 2010, are located on the inboard side of the proposed roadway from STA 55+60 to STA 61+30 as well as on the north and west side of the Morleigh private driveway and residence. The surface area of the proposed 1.5:1 cut inboard of the roadway is approximately 25,500 square feet and the volume of material to be removed is approximately 3,900 cubic yards. The surface area of the proposed 1.5:1 cut located on Morleigh private driveway and residence is approximately 5,200 square feet and the volume of material to be removed is approximately 865 cubic yards. These volumes are in accordance with the volume calculations provided on the civil drawings "Sweetwater Mesa Road Improvements From STA: 26+70 to 75+53.43", dated November 16, 2010.
- b) Volume and area of cuts and fills inclined at 2:1 (H:V) for the roadway, residential access roadways, and building pads;
- b) **Conclusions and Recommendations** The total disturbed area for the 2:1 cuts and fill slopes is approximately 357,500 square feet. Within the disturbed area, approximately 40,000 cubic yards of fill will be placed and approximately 32,500 cubic yards of cut excavated. These calculated quantities, combined with the non-structural fill area, excavation quantities for the 1.5:1 cut slopes and the excavation quantities for the piers, are in accordance with the approximate calculated quantities on the plan set "Sweetwater Mesa Road Improvements From STA: 26+70 to 75+53.43", dated November 16, 2010.
- c) Lengths and heights of retaining walls (roadway, residential access roadways, and building pads);
- c) Conclusions and Recommendations The retaining wall heights and lengths calculated by CSA were in conformance with those provided by Whitson Engineers. It should be noted that the retaining walls in the area of roadway from STA 51+90 to STA 55+25 on the civil plans dated November 16, 2010, are in conflict with the structural plans dated November 16, 2010. The civil plan's retaining walls are longer than those depicted on the structural plans. The structural plans have additional fill placed on the inboard side of the road eliminating the necessity of a retaining wall. Also of note is that the design elements on the structural plan appear to be shifted approximately 4.83 feet to the east with respect to the civil plans and underlying topographic base map.

- d) Length of roadway to be stabilized by slab piles and cylinder piles; and
- d) **Conclusions and Recommendations** The sections of roadway to be stabilized within the County of Los Angeles are located from STA 26+70 to STA 31+40 and STA 43+70 to STA 52+80. The profile length of these pier-supported roadway sections are approximately 476 feet and 924 feet, respectively.
- e) Length and height of elevated roadway sections;
- e) Conclusions and Recommendations It is CSA's understanding that the elevated portions of the roadway are defined by those sections of roadway that refer to Detail 2 on Sheet S-8 of the structural plans dated November 16, 2010. The elevated roadway sections as defined above are located at STA 30+93 to 31+40 and STA 51+94 to 52+41. The maximum heights for these elevated roadway sections are 4 feet and 18 feet, respectively. The approximate profile lengths of the elevated roadway sections are: STA 30+93 to 31+40, 47.5 feet; and STA51+94 to 52+41, 47.5 feet. The exact locations of the elevated roadway sections should be more clearly denoted on the design plans; in addition, details should be provided that illustrate how the various retaining walls transition from one to the other.
- 13) Evaluate the vulnerability of the roadway to geologic hazards;
- 13) Conclusions and Recommendations The proposed roadway alignment is most vulnerable to potential future reactivation of the existing landslides, seismically induced ground shaking, and rockfalls. In the event of future prolonged and/or intense rainfall or seismic activity, reactivation of existing landslides could be possible; however, the roadway should be protected by the recommended system of reinforced concrete piers and once this system is appropriately constructed, it is our opinion that the likelihood of permanent damage to the roadway from these hazards should be low. A section of the road from Sta. 27+00 to Sta. 30+00 appears to be susceptible to rockfalls; however, the likelihood of permanent damage to the roadway appears to be low. Mitigation recommendations have been provided to help reduce the risk of rockfalls from impacting the roadway and roadway users Calwest has performed a seismic static slope stability analysis that demonstrates that the designed shear pins result in an industry accepted standard pseudostatic factor of safety of 1.1 with a seismic coefficient of 0.15.
- 14) Assess the constructability of the proposed roadway, residential access roadways and building pads;
- 14) Conclusions and Recommendations Due to the large size of some of the access road piles (up to 5-foot diameter), there are probably half a dozen construction companies on the west coast that could competently construct these structures. Construction of the deep large-diameter piers will likely require casing or slurry to prevent the holes from caving during installation of the cages, multiple cranes to lift and connect cages, and an ample supply of readily available concrete. In order to construct the stabilized sections of roadway, large temporary construction pads will be required. The construction pads will be used for drill rig and crane maneuverability and material storage, and will likely be constructed by side-casting excavation spoils down the slope. The residential access roadways and building pads are within the capabilities and expertise of many local Southern California

contractors. The applicant's consultants should identify likely locations and sizes of construction staging areas (i.e., temporary construction pads, slurry drying ponds, etc.) and quantities (i.e., slurry and temporary fill pad volumes, etc.) that will be needed to construct the project.

- 15) Assess the long term effectiveness and appropriateness of the proposed stabilization elements; and
- 15) **Conclusions and Recommendations** Regarding the long term effectiveness of the cylindrical piles to resist landslide forces, this concept is a proven concept for stabilizing landslides or portions of landslides as long as the piles are sufficiently embedded into the underlying in-place material and not overloaded.
- 16) Identify conceptual level alternative designs and stabilization measures that would reduce grading and wall heights.
- **16.** Conclusions and Recommendations By refining the geologic landslide mapping, reductions in the amount and size of stabilization elements have been realized. It appears that because of the steepness of the roadway corridor, the ability to devise alternative designs is limited.

17. Waterline Alignment

In general, the southern approximately 2,000 feet (from the end of the unimproved roadway, southward to the Ronan residential site) of the waterline alignment extends across relatively steep, west-facing topography that is relatively free of large landslides. In-place bedrock, with some minor, shallow, colluvium-filled swales, was observed for the majority of the alignment. This portion of the alignment is currently undeveloped. The northern approximately 1,500 feet has been partially graded across relatively stable bedrock materials. Some small fillslope failures are located along this alignment, but if the pipeline is located along the inboard edge of the unimproved roadway, these failures should not impact a future pipeline. The northernmost 1,200 feet of the alignment is located within an existing paved private roadway. A large bedrock landslide does appear to be located at the northern end of the alignment; however, two existing residences, utilities, and the roadway are already located atop this landslide.

SUMMARY

Based on our review of the documents and drawings provided, historical aerial photographs, site inspections, logging and analyses, it is our opinion that the applicant's geologic, geotechnical engineering, civil engineering and structural engineering consultants have conducted a great deal of investigative and design work on this challenging project and have developed a reasonable approach to address these challenges given the site characterization and analyses performed Consequently, it is our opinion that, with the exception of some of our more minor concerns and structural details, the applicant's consultants have satisfactorily addressed the comments of our previous report dated March 8, 2010 and satisfactorily performed their work within the standard of care of their respective disciplines. Through the review process and the improved understanding of the geologic conditions that came from the review

questions, the proposed structural mitigation plans have changed from using extremely large diameter caissons and the deep "barbell" caissons to the use of large diameter caissons that is now under review. The first design would have limited the work to only two or three teams in the western states that have the skills and competence to undertake this work, whereas there are likely at least half a dozen contractors in the same area that are competent to construct the current design.

We note that the design methodology for this project will rely heavily on field inspections by the Project Geologist during construction to assure that the design assumptions made with respect to landslide directions and depths are born out by the field conditions or that adjustments be made by the Project Geotechnical and Structural Engineers to the design and construction modified accordingly. We also note that there will likely be additional construction staging areas required that have yet to be identified. We conclude that the information provided by the applicant's consultants and itemized in the attached reference list adequately address the proposed project's technical aspects with respect to geology, geotechnical, civil and structural engineering of this application for Coastal Development Permits 4-09-056 through 4-09-061 for the Sweetwater Mesa Development Project in Malibu, California.

LIMITATIONS

Our services consist of professional opinions and conceptual recommendations made in accordance with generally accepted engineering geology, geotechnical, civil and structural engineering principles and practices. No warranty, expressed or implied, or merchantability or fitness, is made or intended in connection with our work, by the proposal for consulting or other services, or by the furnishing of oral or written reports or findings.

We trust that this provides the California Coastal Commission with the information that you need at this time. If you have any questions, or need additional information, please contact us.

Very truly yours,

COTTON, SHIRES AND ASSOCIATES, INC.

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POS:JW:DTS:JZ:AM:st

SBIONAL GEO

ENGINEERING

Attachments: References (Documents/Drawings/Electronic Files) Reviewed;

Hohbach-Lewin, Inc., Structural Engineering Peer Review Letter dated

December 6, 2010.

REFERENCES (DOCUMENTS/DRAWINGS/ELECTRONIC FILES) REVIEWED

Documents and Drawings:

- CalWest Geotechnical Engineering Consultants, May 25, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-037 (Lunch), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, May 25, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-018 (Vera), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, June 1, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-092 (Mulryan), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, June 4, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-091 (Morleigh), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, October 2, 2007, Geotechnical Engineering Report, Proposed Custom Single-Family Residential Development, APN 4453-005-038 (Ronan), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 20, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-018 (Vera), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 27, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-037 (Lunch), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 28, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-091 (Morleigh), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 28, 2007, Geotechnical Engineering Addendum Report, APN 4453-005-092 (Mulryan), Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, July 14, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150005.
- CalWest Geotechnical Engineering Consultants, July 22, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150004.
- CalWest Geotechnical Engineering Consultants, July 23, 2008, Addendum Geotechnical Engineering Report #2, Response to the County of Los Angeles Department of Public Works, Geotechnical and Material Engineering Division, Soils Engineering Review Sheet Miscellaneous Application No 0706150004.
- CalWest Geotechnical Engineering Consultants, May 1, 2009, Geotechnical Sections and Geologic Map, APN 4453-005-018.
- CalWest Geotechnical Engineering Consultants, May 15, 2009, Geotechnical Engineering Supplemental Report, Proposed Compacted "Non-Structural" Fill Areas (Mulryan).

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- CalWest Geotechnical Engineering Consultants, July 28, 2009, Geotechnical Engineering Letter, Preliminary Grading Plan Review, Proposed Single-Family Residential Development, Malibu Area, County of Los Angeles.
- CalWest Ĝeotechnical Engineering Consultants, May 3, 2010, Supplemental Geotechnical Engineering Letter #1, Additional Clarification of Design Recommendations and Response to California Coastal Commission Review Prepared by Cotton, Shires and Associates, Inc., Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, September 13, 2010, Supplemental Geotechnical Engineering Letter #2, Clarification to E-Mail From David Schrier (dschrier@cottonshires.com) Sent Friday, September 10, 2010 5:54 PM on Behalf of The California Coastal Commission, Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, September 30, 2010, Supplemental Geotechnical Engineering Letter #3, Additional Comments, Clarification and Response to Items Discussed at the Meeting Held at The California Coastal Commission on September 15, 2010; Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 1, 2010, Supplemental Geotechnical Engineering Letter #4, Response to Items Discussed Within the Memorandum Prepared by Cotton, Shires and Associates, Dated October 26, 2010 (included in Appendix A), Proposed Extension of Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 8, 2010, Supplemental Geotechnical Engineering Letter #5, Response to Discussion Items at The California Coastal Commission Meeting in San Francisco on November 2, 2010 Regarding Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 11, 2010, Supplemental Geotechnical Engineering Letter #6, Proposed Staging Area, Compacted "Non-Structural" Fill, Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, November 15, 2010, Supplemental Geotechnical Engineering Letter #7, Clarification of Design Loads for the Sweetwater Mesa Road Extension, Malibu Area, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, December 27, 2010, Supplemental Geotechnical Engineering Letter #8, Additional Comments and Clarifications of Stability Analysis and Geotechnical Design Load Criteria, Sweetwater Mesa Road Extension, Malibu, County of Los Angeles, California.
- CalWest Geotechnical Engineering Consultants, January 20, Supplemental Geotechnical Engineering Letter #8 (sic), Additional Comments and Clarifications of Stability Analysis and Geotechnical Design Load Criteria, Sweetwater Mesa Road Extension, Malibu, County of Los Angeles, California.
- Cotton, Shires and Associates, Inc., March 8, 2010, Summary of Findings Civil and Geotechnical Engineering and Engineering Geologic Peer Review Services, Sweetwater Mesa Development Project, Malibu, California.
- Cotton, Shires and Associates, Inc., October 26, 2010, Remaining Geologic and Geotechnical Concerns (memorandum), Proposed Sweetwater Mesa Development Project, Malibu, California.

- County of Los Angeles, Dept of Public Works, Geotechnical and Materials Engineering Division, October 27, 2008, Soils Engineering Review Sheet, Review of Conceptual Design Pad for Single Family Residence and Access Road.
- Hohbach-Lewin, Inc., February 22, 2010, Review of Structural Plans and Calculations, Sweetwater Mesa Development Project, Civil and Geotechnical Engineering and Engineering Geologic Peer Review, Malibu, California.
- Hohbach-Lewin, Inc., September 15, 2010, Structural Piles, Elevated Roadway and Retaining Walls only, Sweetwater Mesa Development Project, Civil and Geotechnical Engineering and Engineering Geologic Peer Review, Malibu, California.
- Hohbach-Lewin, Inc., September 28, 2010, Review of Structural Plans and Calculations, Sweetwater Mesa Development Project, Civil and Geotechnical Engineering and Engineering Geologic Peer Review, Malibu, California.
- Hohbach-Lewin, Inc., December 6, 2010, Review of Structural Plans and Calculations, Sweetwater Mesa Development Project, Civil and Geotechnical Engineering and Engineering Geologic Peer Review, Malibu, California, Malibu, California.
- Hohbach-Lewin, Inc., January 10, 2011, (Memo) Supplemental Geotechnical Engineering Letter #8, Additional Comments and Clarifications of Stability Analysis and Geotechnical Design Load Criteria, Sweetwater Mesa Road Extension, Malibu, California.
- Kane Geotechnical, October 15, 2007, Sweetwater Mesa Rockfall and Mitigation Study, Los Angeles County.
- LC Engineering Group, Inc., September 27, 2009, Engineering Comments on California Coastal Commission's Draft of Scope of Work for Third Party Review, Sweetwater Mesa Development Project.
- LC Engineering Group, Inc., October 20, 2009, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road, Parts 1 and 2
- LC Engineering Group, Inc., January 27, 2010, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road.
- LC Engineering Group, Inc., May 3, 2010, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road.
- LC Engineering Group, Inc., May 28, 2010, Structural Analysis and Design: Sweetwater Mesa Rd (Sta 26+70 to 75+52.43), 2930 Sweetwater Mesa Road.
- LC Engineering Group, Inc., November 16, 2010, Mesa Road Improvements From Sta: 26+70 to 75+53.34, Malibu, Los Angeles County, California (Sheets S-T to S-8).
- Mountain Geology, Inc., September 26, 2006, Report of Limited Engineering Geologic Study, Proposed Water Main, Costa del Sol Way to APN 4453-005-038, -091, -037, -092, and -018, County of Los Angeles, California.
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-092, Mulryan).
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-091, Morleigh).
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-018, Vera), Electronic Copy.
- Mountain Geology, Inc., May 11, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-037, Lunch), Electronic Copy.

- Mountain Geology, Inc., August 28, 2007, Report of Engineering Geologic Study Proposed Custom Single-Family Residential Development (APN 4453-005-038, Ronan).
- Mountain Geology, Inc., December 18, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-037, Lunch).
- Mountain Geology, Inc., December 19, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-092, Mulryan).
- Mountain Geology, Inc., December 19, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-018, Vera).
- Mountain Geology, Inc., December 20, 2007, Addendum Engineering Geologic Report #1 (APN 4453-005-091, Morleigh).
- Mountain Geology, Inc., July 7, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-018, Vera) Electronic Reference Copy.
- Mountain Geology, Inc., July 8, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-091, Morleigh).
- Mountain Geology, Inc., July 8, 2008, Addendum Engineering Geologic Report #2 (APN 4453-005-092, Mulryan).
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- Mountain Geology, Inc., May 18, 2009, Engineering Geologic Memorandum Proposed Minor Modifications of Grading Plan, Northerly Terminus of Sweetwater Mesa Road.
- Mountain Geology, Inc., April 23, 2010, Supplemental Engineering Geologic Report #1 Engineering Geologic Responses to California Coastal Commission Engineering Geologic, Geotechnical Engineering and Civil Engineering Peer Review, APN 4453-005-037, -018, -038, -092, -091 Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- Mountain Geology, Inc., September 14, 2010, Supplemental Engineering Geologic Report #2 Engineering Geologic Responses to Email from David Schrier and Pat Shires Received on September 10, 2010, APN 4453-005-037, -018, -038, -092, -091 Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- Mountain Geology, Inc., September 30, 2010, Supplemental Engineering Geologic Report #3 Additional Responses to California Coastal Commission Engineering Geologic, Geotechnical Engineering and Civil Engineering Peer Review, APN 4453-005-037, -018, -038, -092, -091 Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- Mountain Geology, Inc., October 29, 2010, Supplemental Engineering Geologic Report #4 Additional Responses to California Coastal Commission Engineering Geologic, Geotechnical Engineering and Civil Engineering Peer Review, APN 4453-005-037, 018, -038, -092, -091 Sweetwater Mesa Road, Malibu Area, County of Los Angeles, California.
- Southern California Earthquake Center, June 2002, Recommended Procedures for Implementation of DMG Special Publication 117 for Analyzing and Mitigating Landslide Hazards in California.
- Whitson Engineering, January 1, 2008, Revised March 9, 2009, 20' Driveway to Proposed Single Family Residence Plans, Sweetwater Mesa Road, (APN 4453-005-018, Vera).
- Whitson Engineering, March 11, 2009, Driveway, Grading and Drainage Plans for a Single Family Residence (APN 4453-005-092, Mulryan).
- Whitson Engineering, March 25, 2009, Driveway, Grading and Drainage Plans for a Single Family Residence (APN 4453-005-091, Morleigh).

- Whitson Engineering, April 3, 2009, Driveway, Grading and Drainage Plans for a Single-Family Residence (CDP Submittal Not for Construction), (APN 4453-005-037, Lunch).
- Whitson Engineering, April 28, 2009, Contour Grading Exhibit 2839 Sweetwater Mesa Road (APN 4453-005-037).
- Whitson Engineering, August 5, 2009, Driveway, Grading and Drainage Plans for a Single-Family Residence (CDP Submittal Not for Construction), (APN 4453-005-037, Lunch).
- Whitson Engineering, August 5, 2009, 2851 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-091, Morleigh).
- Whitson Engineering, August 5, 2009, 2857 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-092, Mulryan).
- Whitson Engineering, August 5, 2009, 2863 U Sweetwater Mesa Road: Driveway, Grading and Drainage Plans for a Single-Family Residence (APN 4453-005-018, Vera).
- Whitson Engineering, October 20, 2009, Sweetwater Mesa Project Summary Analysis Letter, Attn: Leslie Ewing of California Coastal Commission.
- Whitson Engineering, October 21, 2009, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43.
- Whitson Engineering, Revised November 4, 2009, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43.
- Whitson Engineering, May 28, 2010, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43 (Site Plans)
- Whitson Engineering, June 2, 2010, Sweetwater Mesa Road Improvement Plans from Sta: 26+70 to 75+53.43 (LACFD/CDP Submittal; Not for Construction).
- Whitson Engineering, Revised November 16, 2010, Plan Set, Sweetwater Mesa Road Improvements From STA: 26+70 to 75+53.43, Malibu, Los Angeles County, California.

Electronic Files (Provided by Whitson Engineering):

Aerial.DWG - Aerial survey in AutoCAD format, dated February 16, 2010;

Boundary.DWG – Boundary lines in AutoCAD format, dated February 16, 2010;

<u>Proposed.DWG</u> – Linework for the proposed improvements in AutoCAD format, dated February 16, 2010;

Lunch-7 Folder – The files within this folder are LDD alignment files for the Lunch Private Access;

Lunch -7-EW Folder – The files within in this folder are LDD surface model files for the Lunch rough grade conditions for the site and residence;

Lunch-7-FG Folder – The files within this folder are LDD surface model files for the Lunch Private Access finish ground condition;

Morleigh-6A-EW Folder - The files within in this folder are LDD surface model files for the Morleigh rough grade conditions for the residence;

Morleigh-6A-Site-EW Folder - The files within in this folder are LDD surface model files for the Morleigh rough grade conditions for the site;

Morleigh-6REV Folder - The files within this folder are LDD alignment files for the Morleigh Private Access;

Morleigh-6REV-FG Folder - The files within this folder are LDD surface model files for the Morleigh Private Access finish ground condition;

Mulryan-5 Folder - The files within this folder are LDD alignment files for the Mulryan Private Access;

Mulryan-5-EW Folder - The files within in this folder are LDD surface model files for the Mulryan rough grade conditions for the site and residence;

Mulryan-5-FG Folder - The files within this folder are LDD surface model files for the Mulryan Private Access finish ground condition;

Ronan-9-EW Folder - The files within this folder are LDD surface model files for the Ronan rough grade conditions for the site and residence;

SWM Aerial Folder – The files within this folder are LDD surface model files for the original ground conditions for the Sweetwater Mesa properties;

SWM Backbone Folder – The files within this folder are LDD surface model files for the Shared Access finish ground condition;

SWM Backbone-7 Folder – The files within this folder are LDD alignment files for the Shared Access:

Vera-(4)*a* – The files within this folder are LDD alignment files for the Vera Private Access;

Vera-3-FG – The files within this folder are LDD surface model files for the Vera Private Access finish ground condition; and

Vera-4-EW – The files within this folder are LDD surface model files for the Vera rough grade conditions for the site and residence.



HOHBACH-LEWIN, INC. STRUCTURAL ENGINEERS

"Timely Solutions Based On Timeless Principles"

December 6, 2010

Ms. Lesley Ewing Senior Costal Engineer CALIFORNIA COASTAL COMMISSION 45 Fremont Street, Suite 2000 San Francisco, CA 94105-2219

Cotton, Shires and Associates, Inc. Attn: David Schrier 330 Village Lane Los Gatos, CA 95030-7128

Project: Sweetwater Mesa Development Project – Civil and Geotechnical Engineering

and Engineering Geological Peer Review

Malibu, California

Cotton, Shires and Associates Project No.: P5050

Hohbach-Lewin Project No.: 6890C

Dear Ms. Ewing:

Our office has reviewed the revised structural calculations and structural drawings for the Sweetwater Mesa Development Project. The following are additional comments as a result of this revision. (The original comment is in italics.)

This review was based on the following items received by Hohbach-Lewin, Inc.:

Drawings titled – Sweetwater Mesa Road Improvements From STA: 26+70 to 75+53.43, Los Angles County, CA.

Structural drawings: drawing nos. S-T, S-1, S-2, S-3, S-4, S-5, S-6, S-7, S-8 dated November 16, 2010; prepared by LC Engineering Group, Inc. and Whitson Engineers.

Structural calculations: Structural Analysis & Design, Sweetwater Mesa Rd. (Sta. 26+70 to 75+53.43) 2930 Sweetwater Mesa Road, Los Angeles County, CA, dated November 16, 2010, prepared by LC Engineering Group, Inc.

PLAN REVIEW COMMENTS:

PRINCIPALS DOUGLAS HOHBACH S.E. DAN LEWIN S.E. JOAQUIM ROBERTS

ANTHONY LEE S.F.

ASSOCIATE PRINCIPAL VIKKI BOURCIER

SENIOR ASSOCIATES BILL DALEY S.E. GREG RODRIGUES VICKY RUNDORFF S.E.

ASSOCIATES BRYAN CORTNIK S.E. MIKE DEIGERT S.E. EDDIE HUI S.E. S.E. STUART LOWE KEVIN MORTON S.E.

S.E.

SAM SHIOTANI

STRUCTURAL CALCULATIONS:

23N. Structural calculation review is predicated on the approval of the Geotechnical criteria per Cotton Shires and Associates, Inc.

260 Sheridan Avenue, Suite 150, Palo Alto, CA 94306 • (650) 617-5930 • Fax (650) 617-5932

STRUCTURAL DRAWINGS:

- 8. Sheet S-6: Detail 2, indicates cantilever retaining wall supported of the roadway deck, provide calculations for the connection of the cantilever retaining wall to the cantilever roadway deck.
 - Sheet S-6: Detail 2, Table notes "A SLAB", though "A SLAB" is not indicated on in the detail, please clarify and or revise detail as necessary.
- 25. Sheet S-9: Detail 2; provide calculation per ACI Appendix "D" for curtain wall connection to concrete deck and pile; revise detail as required.
 - Sheet S-8: Detail 2; the calculation on page 293 assumes 20 PSF for wind loading. Per ASCE 7 $\S6.4.1.2$ and $\S6.4.2.2$, I calculate a wind load of 26 PSF for worse case condition, please clarify and or revise calculations as necessary.
- Sheet S-9: Detail 2; provide calculation for curtain wall and indicated gauge, revise detail as required.
 - Sheet S-8: Detail 2; maximum height indicted in detail is 22 feet, where as the calculations indicate a maximum height of 18 feet, revised detail to match calculations or revise calculations to match detail.
- Sheet S-9: Details 2 and 3, Provide detail of guardrail and connection, also provide calculations per 2007 CBC and per ACI Appendix "D".
 - Sheet S-8: Details 2 and 3, response indicates calculations to be provided by others at a later date (i.e. deferred submittal). Provide preliminary detail of guardrail connection in accordance with 2007 CBC §1607.7.3 and per ACI Appendix "D", also provide calculation that the roadway deck can resist the guardrail loading.
- 32N. Sheet S-7: Pile Schedule Cont., Based on the structural calculations P133 should be in the same group as P130 through P132, revised detail accordingly.
- 33N. Sheet S-7: Clarify how the contractor is to splice the reinforcing cage, revise detail accordingly.
- 34N. Sheet S-8: Detail 1, Provide calculation for minimum footing steel per ACI §10.5.1 through §10.5.4, for the key. Per the detail "AK" refers to the top steel of the footing and key and "A conc" refers to the bottom steel of the footing, please clarify what the continuous steel in the footing is to be (i.e. reinforcing steel coming out-of-the-plane).



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Sweetwater Mesa Development Project – Civil and Geotechnical Engineering and Engineering Geological Peer Review
December 6, 2010
Page 3 of 3

- 35N. Sheet S-8: Detail 3, Plans indicate a stepped footing; please provide a detail to show how to step the footing of the retaining wall and grade beam.
- 36N. Sheet S-7: Pile Schedule Cont., Based on the revised structural calculations dated November 16, 2010, specifically calculation page 5 "Pile Summary Sheet"; revise pile 118 "L2" which reads 11 feet, per the calculations "L2" should read 14 feet, revise schedule as required.

PLEASE SUBMIT AN ITEMIZED RESPONSE TO THESE ITEMS IN WRITING (IN LETTER FORM), WITH REVISED PLANS AND CALCULATIONS, AS REQUIRED. CLEARLY INDICATE ON THE PLANS AND THE CALCULATIONS ALL REVISIONS MADE BY BUBBLING OR OTHER MEANS.

Sincerely,

Hohbach-Lewin, Inc.

Bryan G. Cortnik, S.E.

Associate



CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST AREA 89 SOUTH CALIFORNIA ST., SUITE 200 VENTURA, CA 93001 (805) 585-1800



MEMORANDUM

FROM: Jonna D. Engel, Ph.D.

Ecologist

TO: Jacqueline Blaugrund

Coastal Program Analyst

SUBJECT: Sweetwater Mesa Biology Update Subsequent to Los Angeles County

Santa Monica Mountains LCP Certification, CDP Application Nos. 4-10-

040, 4-10-041, 4-10-042, 4-10-044, 4-14-0598, and 4-14-1094

DATE: April 30, 2015

Documents Reviewed:

- ENVICOM Corporation. April 20, 2015 (Updated from June 16, 2014). Biological Assessment and Impact Analysis; Sweetwater Mesa Residential Development, County of Los Angeles, California. Prepared for EQ Properties.
- ENVICOM Corporation. December 23, 2014. Draft SERA and H3 Habitat Mapping at Sweetwater Mesa Residential project Sites. Prepared for Jonna Engel, PhD, California Coastal Commission.
- ENVICOM Corporation. June 16, 2014. Biological Assessment and Impact Analysis; Sweetwater Mesa Residential Development, County of Los Angeles, California. Prepared for EQ Properties.
- Aerial Information Systems (AIS), Environmental Systems Research Institute (ESRI), California Department of Fish and Game, California Native Plant Society and National Park Service. 2007. Preliminary Spatial Vegetation Data of Santa Monica Mountains National Recreation Area and Environs. USGS-NATIONAL PARK SERVICE Vegetation Mapping Program, Santa Monica Mountains National Recreation Area, Thousand Oaks, CA.
- Engel, J. and E. Bender. January 25, 2011. *ESHA Evaluation and Biological Impacts Analysis Sweetwater Mesa Projects, CDP Application Nos. 4-10-040, 4-10-041, 4-10-042, 4-10-043, 4-10-044, and 4-10-045.* A memorandum to Deanna Christensen, CCC Coastal Analyst, South Central Coast District.
- California Department of Fish and Game (Todd Keeler-Wolf, Wildlife and Habitat Data Analysis Branch) and California Native Plant Society (Julie Evens, Vegetation Program). January 2006. Vegetation Classification of the Santa Monica

Exhibit 17 CDP 4-10-040, 4-10-041, 4-10-042, 4-10-044, 4-14-0598, 4-14-1094 Dr. Jonna Engel Memorandum Mountains National Recreation Area and Environs in Ventura and Los Angeles Counties, California. Report submitted to National Park Service.

Dixon, J. 2003. Designation of ESHA in the Santa Monica Mountains. A memorandum to CCC South Central Coast District staff dated March 25, 2003. This memorandum includes an edited version of the ESHA findings from the September 29, 2002 Coastal Commission staff report for the City of Malibu Local Coastal Program, which contained significant contributions by Dr. Jon Allen, Staff Ecologist.

In our memorandum dated January 25, 2011, Erin Bender (CCC Graduate Student Intern) and I reviewed the natural resources on the Sweetwater Mesa site and found the following:

Based on the rarity, ecosystem value, and vulnerability to disturbance and degradation, we conclude that the entire area comprising the subject properties, with the exception of the historic mesa area and the existing 10-ft. wide jeep trail up to it, rises to the level of ESHA. We also conclude that Sections 2, 3 and a portion of Section 1 of the proposed water line alignment rise to the level of ESHA.

In between our 2011 memo and the present time, the Commission certified a Local Coastal Program (LCP) for the portion of the Santa Monica Mountains (SMM) within Los Angeles County's Coastal Zone (LA County SMM LCP), which protects coastal habitat resources through a system of resource-based categories with development standards for each category. The LA County SMM LCP uses the term "SERA" or Sensitive Environmental Resource Area for areas containing habitats of the highest biological significance, rarity, and sensitivity. SERAs are separated into two categories: H1 habitat and H2 habitat. There is also a sub-category of H2 habitat called H2 High Scrutiny habitat, which is of greater sensitivity and is given avoidance priority over other H2 habitat. A third category, H3 habitat, includes areas dominated by non-native plants such as disturbed roadside slopes, stands of non-native trees and grasses, and fuel modification areas around existing permitted development, as well as isolated and/or disturbed stands of native tree species that do not form a larger woodland or savannah habitat, that provide some important biological functions but do not rise to a level of significance commensurate with H1 or H2 and therefore is not a SERA. Standards for development within or adjacent to SERAs require an additional level of review and a higher level of resource protection than the standards for development outside of SERAs. This updated memorandum provides a revised assessment of the habitat types on the site based on that new framework.

A biological resources map (BRM) that identifies H1, H2, H2 High Scrutiny, and H3 habitat boundaries was produced for the LA County SMM LCP based on the respective habitat category definitions (see below) using the National Park Service (NPS)

vegetation map for the Santa Monica Mountains¹. The LA County SMM LCP BRM shows the habitat categories at a relatively small scale and therefore is not adequate to determine the precise boundaries of the habitat categories. In addition, the map is based on 2001 vegetation survey data. Therefore, the LCP requires that precise boundaries of the respective habitat categories be determined based on a current site-specific biological assessment that is submitted along with an application for new development. Envicom performed site-specific biological assessments that included large scale mapping of the respective habitat categories (Envicom, June 2014 & April 2015, Biological Assessment and Impact Analysis).

H1 Habitat

H1 Habitats are defined in Policy CO-33 of the Land Use Plan (LUP) portion of the LA County SMM LCP as follows:

H1 habitat consists of areas of highest biological significance, rarity, and sensitivity. H1 habitats include: alluvial scrub; coastal bluff scrub; dune; native grassland and scrub with a strong component of native grasses or forbs; riparian; native oak, sycamore, walnut and bay woodlands; and rock outcrop habitat types. Wetlands, including creeks, streams, marshes, seeps and springs, are also H1 habitat. Coast live and valley oak, sycamore, walnut, and bay woodlands are all included in H1 habitat. H1 habitat also includes populations of plant and animal species (1) listed by the State or Federal government as rare, threatened or endangered, listed by NatureServe as State or Global-ranked 1, 2, or 3, and identified as California Species of Special Concern, and/or (2) CNPS-listed 1B and 2 plant species², normally associated with H1 habitats, where they are found within H2 or H3 habitat areas.

Policy CO-33 also states that "Development is prohibited in H1 habitat in order to protect these most sensitive environmental resource areas from disruption of habitat values"; and that "New development shall provide a buffer of no less than 100 feet from H1 habitat."

Envicom found that the H1 habitat types present on the site are native grassland and rock outcrops (Figures 3A and 3B, Envicom, April 2015, Biological Assessment and

¹ In 2001 the National Park Service undertook a high resolution vegetation mapping effort in the Santa Monica Mountains. The National Park Service mapping effort involved fine scale mapping of plant community species alliances. Their mapping methodology entailed the use of aerial imagery in combination with ground truthing. The citation for the NPS vegetation map is:

Aerial Information Systems (AIS), Environmental Systems Research Institute (ESRI), California Department of Fish and Game, California Native Plant Society and National Park Service. 2007. Preliminary Spatial Vegetation Data of Santa Monica Mountains National Recreation Area and Environs. USGS-NATIONAL PARK SERVICE Vegetation Mapping Program, Santa Monica Mountains National Recreation Area, Thousand Oaks, CA.

² All of these particular categories of listed species are maintained in the California Department of Fish and Wildlife ("CDFW")/California Natural Diversity Database ("CNDDB"), which is an information clearinghouse for lists of rare plant and animal species and rare natural communities.

Impact Analysis). Envicom, as required by the LCP, mapped the biological resources on the site and compared their habitat category boundaries to the LA County SMM LCP BRM. Envicom found that H1 native grassland habitat occurred in smaller discrete patches compared to the LA County SMM LCP BRM, which mapped the entire historic mesa as H1 native grassland habitat. Envicom also found that the LA County SMM LCP BRM greatly underestimated the area of H1 rock outcrops on the site (Figures 2A and 2B, Envicom, April 2015, Biological Assessment and Impact Analysis).

Envicom identified numerous patches of H1 native grassland on portions of the historic mesa area (Figure 3B Envicom, April 2015, Biological Assessment and Impact Analysis); as stated above the entire historic mesa was mapped as H1 native grassland by the LA County SMM LCP BRM. Conversely, we had described the historic mesa area as "disturbed, non-native annual grassland that supports scattered native species" in our 2011 memorandum, based on Steven G. Nelson's 2009 biological survey and our June 2009 site visit observations. The following is an excerpt from our memorandum describing the character of the approximately three acre historic mesa area in 2009:

The applicant's biological consultant and the National Park Service map the mesa area as non-native grassland and native and non-native herbaceous superalliance, respectively. During our site visit we found the mesa area to be dominated by non-native annual European grasses including ripgut brome, foxtail chess, and wild oat as well as the non-native black and Mediterannean mustards. In addition we observed the highly invasive Geraldton Spurge (Euphorbia terracina) that has become a serious problem in southern California coastal habitats. Native bunch grass (N. lepida) and giant rye-grass are interspersed among the non-natives and this area of the mesa also supports scattered sage scrub species including California sage brush, ashyleaf buckwheat, sawtooth golden bush, black sage, giant rye-grass, and deerweed. A spattering of native wildflowers including Catalina Mariposa lily, blue-eyed grass, white popcorn flower, and wild morning glory are found throughout the sage scrub species.

While the mesa does support scattered native species, we found that non-natives currently dominate the area. The applicants assert that the mesa area has been disturbed consistently since the late 1920's and was likely used for grazing livestock. However, there is no evidence available to confirm that. It is also possible that the distinct grassland character of the mesa is due to the underlying landslide geology. Given that the history of this area is a mystery and that determining the species character of the area from aerial photos is not possible, we cannot know whether it ever supported pristine native grassland. Based on available information (aerial photos and current conditions) we find that this area on the subject properties is characterized by a disturbed, non-native annual grassland that supports scattered native species.

In the intervening 13 years between the NPS vegetation mapping and Envicom's 2014 biological survey, and the five years between Steven G. Nelson's 2009 and Envicom's 2014 biological surveys, native grassland habitat area apparently vacillated in size; in

2014 Envicom identified patches of purple needlegrass grassland (PNG) on the site, ranging from 0.005 to 0.14 acres. The patches of native grassland consist of purple needlegrass (*Stipa pulchra*), a native bunch grass, as well as several associated forbs including golden star (*Bloomeria crocea*), blue dicks (*Dichelostemma capitatum*), Catalina mariposa lily (*Calochortus catalinae*, a CNPS 4.2 listed species), slender tarweed (*Deinandra fasciculata*), and narrow-leaf milkweed (*Asclepias fascicularis*). I concur with Envicom's H1 PNG habitat identification and boundaries. Native habitat boundaries are not static and expand and contract in response to both physical and biological factors. Habitat maps represents a snapshot in time that can become obsolete soon after they are produced. It is not surprising that native grassland habitat was mapped in 2001, was not present in 2009, and has again arisen in the last five years. I expect that the patches of H1 PNG habitat will continue to change (increase or decrease) through time.

The applicant has designed the development to avoid any grading or placement of any structures directly within the mapped boundaries of the H1 PNG patches. However, in order to cluster five homes onto the historic mesa³, to avoid habitat fragmentation to the greatest extent possible and to maximize open space, the development as proposed would be immediately adjacent to H1 PNG in some areas and there will be varying degrees of direct impacts to H1 PNG due to fuel modification. Fuel modification within the first 30 feet from development will be the most intensive because of fire department fuel load reduction requirements. Beyond 30 feet fuel modification may entail mowing or hand thinning which may or may not cause adverse impacts to H1 PNG depending on the timing, frequency, and intensity. The applicant has submitted a Habitat Mitigation and Monitoring Plan (HMMP) and Fire Protection Plan which includes measures to retain and preserve H1 PNG areas within the fuel modification zones. However, although these measures will preserve the H1 PNG, to the extent feasible, there will be direct impacts to the H1 PNG from fuel modification to varying degrees.

The applicant has estimated that the area of direct impacts to H1 PNG from fuel modification conducted to a distance of 200 feet from the proposed residences is 0.35 acres. The HMMP includes mitigation for these impacts. When terrestrial ESHA is impacted by a permitted development the Commission typically requires mitigation at a 3:1 ratio. Mitigation that is in-kind and most proximal to the area of impact is the Commission's preferred approach. The area identified for H1 PNG mitigation is three times the size of the direct impact area, is designed to create and restore H1 PNG, and is just north of the impact site. I support the HMMP for H1 PNG mitigation because it is consistent with the Commission's typical mitigation ratio requirement and is the preferred approach. In addition, reduction of the 100 foot H1 rock outcrop buffer will be mitigated as described below in section on H2 habitat.

Rock outcrops, made up of either volcanic or sedimentary (e.g. sandstone) rock, are also H1 habitat pursuant to LUP Policy CO-33 because they provide habitat for rare, regionally restricted, sensitive, and localized native plants and plant communities as well as special habitat for many species of animals. For example, sensitive flora

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³ The historic mesa was initially believed to be the only significant non-ESHA area on the site.

assemblages (e.g., spikemoss, lichens, mosses, and liverworts) and many of the rare plants found in the Santa Monica Mountains (e.g., threatened Dudleyas, CNPS 4.2 listed Plummer's mariposa lily) are associated with both small and large rock outcrops. And rock outcrops may support invertebrates, reptiles, birds, mammals, as well as nesting and/or roosting habitat for bats, raptors, and other cliff-dwelling birds (e.g., swifts, swallows). It is important to note, however, that the current or verified presence of these associated plants, animals, or plant communities is not necessary for the outcrop to be classified as H1 habitat. Rather, LUP Policy CO-33 defines H1 habitat such that all "rock outcrop habitat types" qualify as H1, presumably due to the potential for an outcrop to support these plants, animals, or plant communities in the future. While the LA County SMM LCP does not provide a specific definition of rock outcrops, Envicom defined H1 "rock outcrops" as those that "included any bedrock or accumulations of rocks of significant size that protrude from the ground's surface with some relief." Envicom found that "Rocks and boulders scattered over the ground as well as smaller, isolated boulders are not considered H1 habitat." I concur with Envicom's interpretation of what areas are H1 rock outcrop habitat and what areas are not H1 rock outcrop habitat.

Envicom found that the majority of H1 rock outcrops on the site are medium-sized with few to many small cavities and fissures, surrounded by native scrub vegetation, that likely provide residence and refuge for invertebrates, reptiles, birds, and/or small mammals; signs left by lizards, small rodents, and small birds were often seen on these outcrops, as were the nest structures of native woodrats (*Neotoma* sp.). Other H1 rock outcrops, less common on the site, have prominent hunting perches for raptors as well as day roosts. Signs left by birds such as guano and owl pellets revealed that several of these outcrops are routinely used for this purpose. The least common H1 rock outcrops that Envicom mapped are larger and steeper with ledges, fissures, and cavities that provide habitat for plants, plant communities, and invertebrates, reptiles, birds and small, medium, and large mammals.

The applicant has designed the development (see discussion of waterline below) to avoid grading or placement of any structures within the mapped boundaries of H1 rock outcrops on the historic lower mesa. As proposed, fuel modification would not impact the 1.07 acres of H1 rock outcrops that are within 200 feet of the proposed residences, as the project's Fuel Modification Plan avoids fuel modification at all H1 rock outcrops. The reduction to the 100 foot H1 rock outcrop buffer and the H2 and H2 High Scrutiny habitat surrounding the H1 rock outcrops that will be directly impacted from fuel modification out to 200 feet from development will be mitigated as described below in the section on H2 habitat.

Envicom also mapped H1 rock outcrops along Sections 1, 2, 3, and 4 of the waterline. The waterline development footprint along Section 1 and 2 avoids direct impacts to H1 rock outcrops, however, in many areas, the development occurs directly adjacent to H1 rock outcrops. Section 3 of the proposed waterline, as proposed, would intersect H1 rock outcrops at five locations impacting 0.3 acres of H1 rock outcrops over a linear distance of 148 feet. This is a direct adverse impact to H1 rock outcrop habitat. The

applicant has agreed to revise the proposed waterline design in Section 3 to avoid direct adverse impacts to H1 rock outcrop habitat in this section (pers. comm., April Winecki, Dudek, April 29, 2015). There are no impacts to H1 rock outcrops along Section 4 because the waterline will be installed using a subsurface horizontal directional drilling method.

H2 Habitat

H2 Habitats and H2 "High-Scrutiny" Habitats are defined in Policy CO-33 of the LUP portion of the LA County SMM LCP as follows:

H2 habitat consists of areas of high biological significance, rarity, and sensitivity that are important for the ecological vitality and diversity of the Santa Monica Mountains Mediterranean Ecosystem. H2 habitat includes large, contiquous areas of coastal sage scrub and chaparral-dominated habitats. A subcategory of H2 habitat is H2 "High Scrutiny" habitat, which comprises (1) CNDDB-identified rare natural communities; (2) plant and animal species listed by the State or Federal government as rare, threatened, or endangered; listed by NatureServe as State or Global-ranked 1, 2, or 3, and identified as California Species of Special Concern; and/or (3) CNPS-listed 1B and 2 plant species⁴, normally associated with H2 habitats. H2 "High Scrutiny" habitat also includes (1) plant and animals species listed by the State or Federal government as rare. threatened or endangered. listed by NatureServe as State or Global-ranked 1, 2. or 3, and identified as California Species of Special Concern, and/or (2) CNPSlisted 1B and 2 plant species, normally associated with H1 habitats, where they are found as individuals (not a population) in H2 habitat. New development shall avoid H2 habitat (including H2 High Scrutiny habitat), where feasible, in order to protect these sensitive environmental resource areas from disruption of habitat values. New development shall only be allowed in H2 habitat if it is consistent with the specific limitations and mitigation requirements for development permitted in H2 habitat. H2 High Scrutiny habitat is considered a rare H2 habitat subcategory that shall be given protection priority over other H2 habitat and shall be avoided to the maximum extent feasible.

Envicom found that H2 habitats are the most common SERAs on the site and consist of large, contiguous areas of coastal scrub and chaparral. Native plant communities with State and/or Global 1, 2, 3 rarity rankings⁵ were identified by Envicom as H2 High

⁴ All of these particular categories of listed species are maintained in the California Department of Fish and Wildlife ("CDFW")/California Natural Diversity Database ("CNDDB"), which is an information clearinghouse for lists of rare plant and animal species and rare natural communities.

⁵ Global and state level 1 communities or species are identified as "critically imperiled - at very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors". Global and state level 2 communities and species are identified as "imperiled – At high risk of extinction due to very restricted range, very few populations (often 20 or fewer) steep declines, or other factors". And Global and state level 3 communities and species are identified as "vulnerable – at moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors

Scrutiny habitat because they satisfy the "CNDDB-identified rare natural communities" criterion of LUP Policy CO-33. Envicom also cross-referenced the LCP Biological Resources Map with the NPS SMMs vegetation map to determine which natural communities correlate with the H2 High Scrutiny habitats shown the LCP Biological Resources Map. Envicom did not identify any species of plants or animals at the site that meet the H2 High Scrutiny criteria of LUP policy CO-33. I concur with Envicom's mapping of H2 and H2 High Scrutiny Habitat (see Figures 3A and 3B, ENVICOM April 2015 Biologicial Assessment and Impact Analysis).

The proposed project, including the waterline, would directly impact a total of 13.55 acres of H2 habitat and a total of 3.10 acres of H2 High Scrutiny habitat from reduction of the 100 foot H1 PNG and H1 rock outcrop buffer areas and from fuel modification required out to 200 feet from development. According to Envicom's April 2015 Biologicial Assessment and Impact Analysis:

The applicant shall compensate for the direct permanent loss or modification of H2 and H2 High Scrutiny habitats as well as the provision of less than 100-foot buffers by payment of an in-lieu fee to be used for the acquisition and permanent preservation of land in the Santa Monica Mountains coastal zone. The preserved land shall contain SERA habitats that are proportional to habitats impacted by the proposed Project in both acreage an in habitat value/function. The mitigation parcel(s) shall be restricted from future development and permanently preserved through the recordation of an open space deed restriction or conservation easement.

H3 Habitat

H3 Habitats are defined in Policy CO-34 of the Santa Monica Mountains LUP as follows:

H3 habitat consists of areas that would otherwise be designated as H2 habitat, but the native vegetation communities have been significantly disturbed or removed as part of lawfully established development. This category also includes areas of native vegetation that are not significantly disturbed and would otherwise be categorized as H2 habitat, but have been substantially fragmented or isolated by existing, legal development and are no longer connected to large, contiguous areas of coastal sage scrub and/or chaparral-dominated habitats. This category includes lawfully-developed areas and lawfully-disturbed areas dominated by non-native plants such as disturbed roadside slopes, stands of non-native trees and grasses, and fuel modification areas around existing development (unless established illegally in an H2 or H1 area). This category further includes isolated and/or disturbed stands of native tree species (oak, sycamore, walnut, and bay) that do not form a larger woodland or savannah habitat. While H3 habitat does not constitute a SERA, these habitats provide important biological functions that warrant specific development standards for the siting and design of new development.

The H3 habitat mapped by Envicom on the site consists of the disturbed areas dominated by non-native grasses and forbs, disturbed or fragmented scrub, fuel reduction zones, disturbed roadsides, landscaping and non-native trees, and other ruderal areas. Envicom did not determine whether the areas mapped as H3 habitat were formerly H1 or H2 habitat that was degraded as a result of lawfully established development. This analysis should be undertaken.

Conclusion

In order to cluster five homes onto the historic mesa area to avoid habitat fragmentation to the greatest extent possible and to maximize open space, the development as proposed will result in:

- Direct impacts to H1 PNG from fuel modification,
- Indirect impacts to H1 PNG and H1 rock outcrops from the reduction of 100 foot buffers,
- Direct and indirect impacts to H2 and H2 High Scrutiny habitat from displacement from development, fuel modification, and 100 foot H1 habitat buffer reduction.

However, locating the two northernmost houses farther up into the canyon would, in my professional judgement, result in more adverse environmental impacts, even if it could mean avoiding all impacts to H1 habitat, because of the greater overall habitat fragmentation, reduction in overall open space, significant increase in acreage of disturbed habitat resulting in greater disturbance to native wildlife and wildlife corridors, and increased potential for introduction of non-native species. Therefore, I find that clustering the homes on the historic mesa area in combination with the proposed H1, H2, and H2 High Scrutiny habitat mitigation, is the least environmentally damaging development alternative.

CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST AREA 89 SOUTH CALIFORNIA ST., SUITE 200 VENTURA, CA 93001 (805) 585-1800



MEMORANDUM

FROM: Jonna D. Engel, Ph.D.

Ecologist

Erin Bender

Graduate Student Intern

TO: Deanna Christensen

Coastal Program Analyst

SUBJECT: ESHA Evaluation and Biological Impacts Analysis – Sweetwater Mesa

Projects, CDP Application Nos. 4-10-040, 4-10-041, 4-10-042, 4-10-043,

4-10-044, and 4-10-045

DATE: January 25, 2011

Documents Reviewed:

Aerial Information Systems (AIS), Environmental Systems Research Institute (ESRI), California Department of Fish and Game, California Native Plant Society and National Park Service. 2007. Preliminary Spatial Vegetation Data of Santa Monica Mountains National Recreation Area and Environs. USGS-NATIONAL PARK SERVICE Vegetation Mapping Program, Santa Monica Mountains National Recreation Area, Thousand Oaks, CA.

Burton & Company Landscape Architecture. June 19, 2009. Letter from Stephen Billings of Burton & Company to Matt Jewett of Don Schmitz & Associates regarding the 'Landscape Design Approach for Sweetwater Mesa Homes'.

California Department of Fish and Game (Todd Keeler-Wolf, Wildlife and Habitat Data Analysis Branch) and California Native Plant Society (Julie Evens, Vegetation Program). January 2006. Vegetation Classification of the Santa Monica Mountains National Recreation Area and Environs in Ventura and Los Angeles Counties, California. Report submitted to National Park Service.

Dixon, J. 2003. Designation of ESHA in the Santa Monica Mountains. A memorandum to CCC South Central Coast District staff dated March 25, 2003. This memorandum includes an edited version of the ESHA findings from the September 29, 2002 Coastal Commission staff report for the City of Malibu Local Coastal Program, which contained significant contributions by Dr. Jon Allen, Staff Ecologist.

- ENVICOM Corporation. October 21, 2009. Comparative Impact Analysis of Potable Water Service Options, Sweet Water Mesa. Letter from Travis Cullen, Chief Operating Officer, ENVICOM Corporation to M. Deanna Christensen, California Coastal Commission.
- Nelson, Steven G. July 2007. Biological Constraints Analysis for APN 4453-005-018, Malibu, Unincorporated Los Angeles County, California.
- Nelson, Steven G. July 2007. Biological Constraints Analysis for APN 4453-005-037, Malibu, Unincorporated Los Angeles County, California.
- Nelson, Steven G. July 2007. Biological Constraints Analysis for APN 4453-005-038, Malibu, Unincorporated Los Angeles County, California.
- Nelson, Steven G. July 2007. Biological Constraints Analysis for APN 4453-005-091, Malibu, Unincorporated Los Angeles County, California.
- Nelson, Steven G. July 2007. Biological Constraints Analysis for APN 4453-005-092, Malibu, Unincorporated Los Angeles County, California.
- Nelson, Steven G. January 2008. Biological Resource Assessment for the Sweetwater Mesa Water Line, Malibu, California.

The proposed projects are located on the southern flank of the Santa Monica Mountains, bordering the Santa Monica Mountains National Recreation Area, in the central portion of the range. The proposed projects are located east of Malibu Canyon Road, west of Las Flores Canyon Road, and approximately one mile inland from Pacific Coast Highway near the terminus of Sweetwater Mesa Road. The project proposals are for five new single-family residences, ranging in size from 7,220 to 12,785 square feet, on five separate parcels - Vera (APN 4453-005-018), Lunch (APN 4453-005-037), Morleigh (APN 4453-005-091), Mulryan (APN 4453-005-092), and Ronan (APN 4453-005-038); a common 6,000 linear foot access road; three Fire Department staging areas; placement and contour grading of excess excavated material, and a municipal water line extending approximately 7,800 linear feet from Costa Del Sol Way to the north to the subject properties (Figure 1).

The five contiguous properties comprising the 'subject properties' total 156 acres and are situated along a significant ridgeline in the Santa Monica Mountains ranging in elevation from 600 to 1,050 feet. The five single-family residences are proposed to be placed more or less linearly along the ridgeline (Figure 1). The ridgeline separates the Sweetwater and Carbon Canyon watersheds, which empty into the ocean approximately one mile south of the project site. We describe the ridgeline as "significant" because it is an important biogeographic feature in the Santa Monica Mountains. The ridgeline separates two major watersheds that have unique physical and ecological attributes including distinct topographic characteristics, microclimates,

water budgets, and plant and animal communities. The ridgeline itself is characterized by thin topsoil, narrow benches, sheer cliffs, and rocky outcrops that limit the vegetation it can support to species adapted to this relatively harsh environment.

The subject properties occur within a largely undisturbed block of wilderness approximately 2,800 acres in size; the area has no paved roads and a minimal amount of dirt roads. About half of this 2,800 acre area is public parkland, most of which is located within the Malibu Creek State Park and the remainder of which consists of Piuma Ridge Park, which is owned by the Santa Monica Mountains Conservancy and Mountains Recreation and Conservation Authority. The subject properties are immediately adjacent to Malibu Creek State Park to the west, 0.25 miles from Piuma Ridge Park to the north-northwest, near the center of the 2,800 acre block of largely undisturbed wilderness (Figure 1).

The subject properties are located within a habitat linkage area, identified in the National Park Service's *Santa Monica Mountains National Area Land Protection Plan*¹, that connects Malibu Creek State Park with Cold Creek Canyon Preserve and surroundings to the northeast. The plan defines habitat linkages as "areas which serve to connect two or more core areas and are of sufficient habitat value such that they provide substantial native vegetation cover or, optimally, serve as foraging or breeding grounds for wildlife". As pointed out in the *Designation of ESHA in the Santa Monica Mountains* memorandum (Dixon 2003):

Connectivity among habitats within an ecosystem and connectivity among ecosystems is very important for the preservation of species and ecosystem integrity. In a recent statewide report, the California Resources Agency identified wildlife corridors and habitat connectivity as the top conservation priority².

The purpose of our memorandum is to discuss the setting of the subject properties within the Santa Monica Mountains; to identify and discuss the habitats, ecosystem functions (e.g. habitat linkages, wildlife corridors), and environmentally sensitive habitat areas (ESHAs) supported by the subject properties; and to analyze potential biological impacts of the proposed projects. To accomplish this we visited the subject properties on April 23, 2009, reviewed the documents listed above (see "Documents Reviewed"), peer reviewed literature, aerial photographs, and National Park Service vegetation mapping, and engaged in discussions with local experts in several fields, including botany and wildlife biology.

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¹ Kamradt, D. et. al. 1998. Santa Monica Mountains National Area Land Protection Plan. U.S. Department of Interior, National Park Service.

² Dixon, J. 2003. Designation of ESHA in the Santa Monica Mountains. A memorandum to CCC South Central Coast District staff dated March 25, 2003. This memorandum includes an edited version of the ESHA findings from the September 29, 2002 Coastal Commission staff report for the City of Malibu Local Coastal Program, which contained significant contributions by Dr. Jon Allen, Staff Ecologist.

Santa Monica Mountains

The Santa Monica Mountains are the westernmost and lowest of the transverse ranges in southern California; they are also the most accessible and largest piece of natural open space adjacent to the western Los Angeles Basin. They have the greatest geological diversity of all major mountain ranges within the transverse range province and, according to the National Park Service, the Santa Monica Mountains have 40 separate watersheds and over 170 major streams with 49 coastal outlets³. The Santa Monica Mountains are biologically and geologically significant as the crossroads between northern and southern California coastal vegetation⁴.

The Santa Monica Mountains comprise the largest, most pristine, and ecologically complex example of a Mediterranean ecosystem in coastal southern California. The National Park Service states that:

Mapping of global environments has shown that Mediterranean-type ecosystems are among the smallest and rarest on earth. Five such locations occur on the planet, and each has experienced intensive human occupation due to the comfortable climactic conditions. As a result, only about 18 percent of this ecosystem remains undisturbed, making it the world's least undisturbed and potentially rarest ecosystem type⁵.

And as pointed out in Dixon (2003):

.....within the Santa Monica Mountains, this ecosystem is remarkably intact despite the fact that it is closely surrounded by some 17 million people. For example, the 150,000 acres of the Santa Monica Mountains National Recreation Area, which encompasses most of the Santa Monica Mountains, was estimated to be 90 percent free of development in 2000. Therefore, this relatively pristine area is both large and mostly unfragmented, which fulfills a fundamental tenet of conservation biology. The need for large contiguous areas of natural habitat in order to maintain critical ecological processes has been emphasized by many conservation biologists⁶.

Fire history, soil differences, a variety of moisture regimes, and topography in the Santa Monica Mountains all combine to create complex patterns of chaparral, coastal sage scrub, woodland, and grassland vegetation. This mosaic of habitats supports over 1,000 plant species and provides habitat for approximately 500 bird, mammal, reptile, and amphibian species including large mammals like bobcats, mountain lions, mule

³ National Park Service. 2000. Draft general management plan & environmental impact statement. Santa Monica Mountains National Recreation Area – California.

⁴ CDFG (Keeler-Wolf, T.) and CNPS (Evens, J.). January 2006. Vegetation Classification of the Santa Monica Mountains National Recreation Area and Environs in Ventura and Los Angeles Counties, California. Report submitted to National Park Service.

⁵ Kamradt, D. et. al. (1998) op. cit.

⁶ Dixon, J. (2003) op. cit.

deer, and badgers, as well as populations of rare species like the southern steelhead trout and coastal California gnatcatcher⁷. The Santa Monica Mountains are located within the Southwest Eco-region of California that contains the highest number of endangered plant species in the United States except for Hawaii⁸.

The Santa Monica Mountains are characterized by numerous natural phenomena including floods, landslides, and fires. While floods and landslides pose serious threats to residents within the Santa Monica Mountains, wildfires are the most formidable and ominous. The Santa Monica Mountains have experienced many aggressive and devastating fires due to the unique relationship between climate, topography, habitat type, fuel load, and "Santa Ana" wind conditions endemic to Southern California. This region burns with relative frequency.

The site of the subject project itself has a daunting fire history that includes the following seven fires between 1925 and 2007; Las Flores (October 20, 1942), Hume (December 27, 1956), Wright (September 25, 1970), Piuma (October 14, 1985), Old Topanga (November 2, 1993), Calabasas (October 21, 1996), and Canyon (October 21, 2007) fires. In an effort to include consideration of natural processes important to ecosystem dynamics in land use planning efforts and development plans, the National Park Service has developed hazard zone maps⁹. The subject properties are located within a National Park Service hazard area that is designated as a "Very High Fire Hazard Severity Zone" (Figure 2). The most recent fire that impacted the subject properties was the fall 2007 Canyon Fire. The cause of this fire is attributed to the conditions just listed; Santa Ana winds, dry conditions, fuel load, and steep and rugged topography.

Biological Resources of the Subject Properties

During our site visit on April 23, 2009 we observed the habitat along the access road and visited each of the proposed home locations. In addition to our site visit we reviewed the applicant's biological assessments for each parcel, aerial photos of the subject properties, and the National Park Service vegetation map covering the subject properties.

The applicants submitted Biological Assessments (see Steven G. Nelson's "Biological Constraints Analysis" for each parcel under 'documents reviewed' above) for their respective developments that address the habitats present on each project site. The reports identify three vegetation communities on the project sites: mixed chaparral, non-native grassland, and ruderal vegetation. The reports also state that several widely-scattered coast live oak trees are present on several of the properties, but note that they do not form woodland communities. The mapped ruderal and non-native grassland communities are primarily situated in the areas of the existing access route and

⁷ National Park Service (<u>www.npa.gov</u>), Santa Monica Mountains. Last updated June 18, 2009. *Nature & Science*. U.S. Department of Interior.

Dobson, A. P., Rodriguez, J. P. Roberts, W. M. and Wilcove, D.S. 1997. Geographic distribution of endangered species in the United States. Science, Vol. 275: 550-553.

⁹ Kamradt, D. et. al. 1998. op. cit.

proposed development areas that have been traversed for site reconnaissance and geologic testing. In addition, a large area on the Mulryan and Lunch properties is identified as non-native grassland and is characterized as a mesa. The biological consultant delineates the disturbed non-native grassland mesa as a large approximately 245,000 square foot (5.6 acres) area on the Mulryan and Lunch properties. The remainder and vast majority of on-site vegetation is mapped as mixed chaparral. The proposed off-site water line alignment is identified as consisting of mixed chaparral, ruderal, and non-native plant communities.

In 2001 the National Park Service undertook a high resolution vegetation mapping effort in the Santa Monica Mountains¹⁰ (Figures 3a & 3b). The National Park Service mapping effort involved fine scale mapping of plant community species alliances. Their mapping methodology entailed the use of aerial imagery in combination with ground truthing¹¹. The National Park Service vegetation mapping was completed in 2007 and covers the entire subject properties. The National Park Service map of the subject properties shows the area to be dominated by native chaparral habitats intermixed with coastal sage scrub habitats and an oak woodland habitat.

Chaparral is characterized by tall, deep-rooted evergreen shrubs (over 100 species may be found in chaparral¹²) with hard, waxy leaves that minimize water loss during drought conditions. The root systems of chaparral plants extend far below the surface and may penetrate the bedrock below¹³, thus aiding in erosion control, especially on steep slopes¹⁴. In addition, soil erosion from precipitation is greatly reduced by interception of rain water by chaparral leaves and foliage and greater rain water soil infiltration under the chaparral canopy. Chaparral is a fire adapted habitat; fire serves to rejuvenate senescing chaparral communities and many chaparral species require fire in order to germinate. The subject properties support several locally common but regionally restricted chaparral species including greenbark (Ceanothus spinosus) and big pod ceanothus (Ceanothus megacarpus) 15. The National Park Service mapped the following chaparral community associations on the subject properties:

• laurel sumac (Malosma laurina) shrubland association

¹⁰ CDFG (Keeler-Wolf, T.) and CNPS (Evens, J.). January 2006. op. cit.

¹¹ Aerial Information Systems (AIS), Environmental Systems Research Institute (ESRI), California Department of Fish and Game, California Native Plant Society and National Park Service. 2007. Preliminary Spatial Vegetation Data of Santa Monica Mountains National Recreation Area and Environs, USGS-NPS Vegetation Mapping Program, Santa Monica Mountains National Recreation Area, Thousand Oaks, CA.

¹² Keely, J.E. and S.C. Keeley. *Chaparral*. Pp. 166-207 in M.G. Barbour and W.D. Billings, eds. North American Terrestrial Vegetation. New York, Cambridge University Press.

¹³ Helmers, H., J.S. Horton, G. Juhren and J. O'Keefe. 1955. Root systems of some chaparral plants in southern California. Ecology, Vol. 36, No. 4:667-678. Kummerow, J. and W. Jow. 1977. Root systems of chaparral shrubs. Oecologia, Vol. 29:163-177.

¹⁴ Radtke, K. 1983. *Living more safely in the chaparral-urban interface*. General Technical Report PSW-67. U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station, Berkeley, California, 51 pp.

¹⁵ CDFG (Keeler-Wolf, T.) and CNPS (Evens, J.). January 2006. op cit.

- greenbark ceanothus (Ceanothus spinosus) shrubland association
- big pod ceanothus (Ceanothus megacarpus) shrubland association
- chamise (Adenostoma fasciculatum) shrubland association
- mountain mahogany (Cercocarpus betuloides) shrubland association
- greenbark ceanothus, big pod ceanothus, mountain mahogany (Ceanothus spinosus, Ceanothus megacarpus, Cercocarpus betuloides) shrubland superalliance

Coastal sage scrub is a generic vegetation type that includes several subtypes¹⁶. It is dominated by soft-leaved, generally low-growing aromatic shrubs that die back and drop their leaves in response to drought. Stands of coastal sage scrub are much more open than chaparral and contain a greater admixture of herbaceous species. Coastal sage scrub is generally restricted to drier sites, such as low foothills, south-facing slopes, and shallow soils at higher elevations. The subject properties support patches of coastal sage scrub on the lower slopes of the ridgeline with fingers that penetrate larger chaparral areas. The National Park Service mapped the following coastal sage scrub community associations on the subject properties:

- bush mallow (Malacothamnus fasiculatus) shrubland
- purple sage (Salvia leucophylla) coastal sage scrub

Chaparral and coastal sage scrub habitats are often interspersed such that many of the same species are found in both habitats. Under some circumstances, coastal sage scrub is successional to chaparral, meaning that after disturbances such as landslides or fires, a site may first be covered by coastal sage scrub, which is then replaced with chaparral over long periods of time¹⁷.

Coast live oak woodland is a rare habitat type that occurs mostly on north slopes, shaded ravines, and canyon bottoms. Coast live oak woodland is more tolerant of salt-laden fog than other oaks and is generally found nearer the coast live oak also occurs as a riparian corridor species within the Santa Monica Mountains. The National Park Service mapped one patch of live oak woodland on the subject properties:

Coast live oak (Quercus agrifolia) woodland

In addition to native plant communities, the National Park Service mapped two areas on the subject properties as 'native and non-native herbaceous superalliance'. These include the mesa located on the Mulryan and Lunch parcels and a continuous area along and adjacent to the access road on the Morleigh parcel.

¹⁶ Dixon, J. (2003) op. cit.

¹⁷ Ibid

¹⁸ National Park Service. 2000. op. cit.

Access Road

In 2004, the Commission approved Coastal Development Permit No. 4-01-108, authorizing Jean Ross, LLC, to improve and expand an existing 1,750 foot long, 10 foot wide jeep trail from Sweetwater Mesa Road up to the Lunch parcel to provide access for geologic testing purposes. The approved pilot access road traversed across two of the subject parcels (Mulryan and Vera). A special condition of the Commission's permit approval required re-vegetation of the graded and disturbed slopes of the pilot road upon completion of final grading. The road was rough graded pursuant to the permit in 2006. However, it does not appear that the pilot road was ever re-vegetated to its 10 foot width as required by the permit.

When evaluating baseline conditions for a site, Commission staff must consider the condition of the site prior to any unpermitted development. Similarly, if authorization for development was expressly made temporary, with a requirement that, at some specified time, the site be returned to its pre-development natural state, and that time has passed, Commission staff must view the site as if it had been returned to that state. Upon review of historic aerial photographs, it is evident that the approved pilot access road generally followed an existing trail up to the mesa. That trail, traversing up to the mesa area across two of the subject parcels (Mulryan and Vera), appears relatively unchanged in aerial photos dating back to 1975, which is prior to the effective date of the Coastal Act. According to the historic aerial photographs, the baseline conditions appear to consist of a trail approximately 10 feet wide flanked on either side by undisturbed native chaparral vegetation.

Currently, there is an access road (a continuation of the access road described above) north of the mesa area, delineated by the applicant's biological consultant as non-native grassland. The National Park Service mapped a portion of this section of the road and area along the road, on the Morleigh parcel, as native and non-native herbaceous superalliance. However, review of permit records and aerial photographs dating from 1975 to present, indicate that the road is not permitted, and was not authorized by Coastal Development Permit No. 4-01-108. The road first appears in aerial photos from 2001, and through to the present. Prior to that, that area had been undisturbed and part of the larger area of native chaparral vegetation. No road or trail or associated disturbed areas are evident in the area north of the historic mesa from 1975 through 2000. Commission staff must consider the condition of the site prior to any unpermitted development as the baseline. As such, we consider the area of unpermitted disturbance north of the historic mesa to be undisturbed native chaparral vegetation. The remaining analysis treats those areas as such, except where expressly stated otherwise.

Figure 3a illustrates vegetation communities along the proposed access road as mapped by the National Park Service.

Vera Parcel

The first home proposed along the lower ridge is located within the Vera parcel. The home is sited along the edge of an overlook that is characterized by patches of vegetation interspersed with rocky outcrops. The vegetation in the area where the home is proposed consists of a mixture of both chaparral and coastal sage scrub species. A few coast live oaks are scattered around the home site. The dominant chaparral shrubs are laurel sumac and chamise. Both the laurel sumac and the chamise are growing up from root crowns of shrubs that were burned in the fall 2007 Canyon fire. Intermixed with these shrubs are coastal sage scrub plants including California sage brush (Artemisia californica), ashyleaf buckwheat (Eriogonum cinereum), white sage (Salvia apiana), black sage (Salvia mellifera), giant rye-grass (Leymus condensatus), deerweed (Lotus scoparius) and wild cucumber (Marah macrocarpus). Interspersed among the chaparral and sage scrub species are native wildflowers including Catalina mariposa lily (Calochortus catalinae), a California Native Plant Society List 4 species, wild hyacinth (Dichelostemma capitatum), wild morning glory (Calystegia macrostegia), Indian pink (Silene laciniata) and non-native European annual grass species including ripgut brome (Bromus diandrus), foxtail chess (Bromus madritensis), wild oat (Avena sp.) and black (Brassica nigra) and Mediterranean (Hirschfeldia incana) mustard.

The National Park Service vegetation map (Figure 3a) identifies laurel sumac shrubland as the dominant chaparral alliance on the Vera parcel. In fact, the National Park Service identifies laurel sumac shrubland along the entire length of the ridgeline and access road spanning the five parcels except for the mesa and a section between the Morleigh and Mulryan proposed home sites that are mapped as native and non-native herbaceous superalliance mapping unit. The proposed Vera home site, the fuel modification zone, and beyond are all mapped as laurel sumac shrubland. Although not a fire follower per se, laurel sumac benefits greatly from fire. It resprouts readily and quickly forms cover for wildlife (pers. comm., Tarja Sagar, National Park Service Botanist, January 6, 2011). Greenbark ceanothus and bush mallow shrubland are mapped west of the proposed home site. Bush mallow is a known fire follower (pers. comm., Tarja Sagar, National Park Service Botanist, January 6, 2011).

Based on our aerial photo analysis, site visit observations, and the National Park Service vegetation map, we conclude that the entire Vera parcel, including the areas mapped by the applicant's biologist as non-native grassland in the biological assessment¹⁹, are nearly pristine to pristine native habitats.

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¹⁹ The areas mapped as non-native grassland by the applicant's biological consultant are situated along the existing access road and near the proposed development area; these areas have been disturbed by traffic for site reconnaissance and geologic testing but historically consisted of undisturbed native habitat.

Lunch Parcel

The second proposed home along the ridge is sited on the eastern side of the access road on the Lunch parcel within the area referred to as the mesa. The proposed Lunch home development footprint straddles the Lunch and Mulryan parcel line, with the house located in the Lunch parcel and the fuel modification zone extending into the Mulryan parcel. The proposed house is sited close to the steep canyon walls that drop into Carbon Canyon. The vegetation in the development footprint for the home is dominated by non-native species including ripgut brome, foxtail chess, wild oat and black and Mediterranean mustard. Native bunch grass (Nassella lepida) and giant ryegrass are interspersed among the non-natives. In addition, this area of the mesa supports a number of coastal sage scrub species including California sage brush, ashyleaf buckwheat, sawtooth goldenbush (Hazardia squarrosa), sugar bush (Rhus ovata), black sage, giant rye-grass, deerweed, and wild morning glory. A spattering of native wildflowers including Catalina mariposa lily, blue-eyed grass (Sisyrinchium bellum), large flowered phacelia (Phacelia grandiflora), prickly popcorn flower (Cryptantha muricata) and wild hyacinth are found throughout the sage scrub species. Several laurel sumac shrubs are scattered around the perimeter of the home site. The vegetation on the eastern slopes bordering the home site is chaparral characterized by laurel sumac and chamise recruits and root-crown re-sprouts following the fall 2007 Canyon fire.

Based on the National Park Service vegetation map (Figure 3a), the proposed Lunch home development footprint is located within the native and non-native herbaceous superalliance mapping unit that corresponds with the mesa area. The habitat in the fuel modification zone is mapped as native and non-native herbaceous superalliance with a small pocket of laurel sumac shrubland west of the proposed home and greenbark ceanothus, bigpod ceanothus, mountain mahogony shrubland superalliance and laurel sumac shrubland east of the proposed home. North of the proposed home the parcel is mapped with three distinct vegetation alliances including greenbark ceanothus, bigpod ceanothus, mountain mahogany shrubland superalliance, chamise shrubland, and mountain mahogany shrubland.

Based on our aerial photo analysis, site visit observations, and the National Park Service vegetation map, we conclude that the Lunch parcel is characterized by nearly pristine to pristine native habitat except for the historic mesa area as described below.

Morleigh Parcel

The third home proposed along the ridgeline is sited on the western side of the access road on the Morleigh parcel half-way within a disturbed grassy bowl that supports scattered coastal sage scrub and chaparral species. The vegetation in the bowl is dominated by non-native species including ripgut brome, foxtail chess, wild oats, and mustard. Non-native annual grasses often get a jump start on native species after a fire if they have been present in an area. Non-natives are present along the access road and the proposed home sites, which have experienced a lot of traffic. Scattered among

the non-natives are two species of native bunch grass (*Nassella pulchra* and *N. lepida*) and giant rye-grass.

The coastal sage scrub and chaparral species scattered throughout the disturbed grassy bowl include; California sage brush, ashyleaf buckwheat, bush mallow, sawtooth goldenbush, chamise, big pod ceanothus, and laurel sumac. Catalina Mariposa lily and wild morning glory also occur at this site. Just south of the proposed home there is a large patch of chamise recruits and vegetative growth sprouting from the root crowns of chamise that burned in the fall 2007 Canyon fire. There is also a considerable amount of bush mallow, a known fire follower, in the area of the proposed home site.

The disturbed bowl area and access road first appear in aerial photos from 2001 to the present, as discussed above (see "Access Road" section). Prior to 2001, the areas that are currently occupied by the access road and the disturbed bowl had been undisturbed and part of the larger native vegetation. As indicated above, there has been no coastal permit authorization for disturbance to these areas. We therefore consider the baseline in this area to be undisturbed native habitat.

According to the National Park Service vegetation map (Figure 3a), the proposed Morleigh home is sited within laurel sumac shrubland and the native and non-native herbaceous superalliance mapping unit. The fuel modification zone is mapped as native and non-native herbaceous superalliance where it intercepts the access road area and laurel sumac shrubland west of the proposed home site. The remainder of the Morleigh parcel (west and south of the property footprint) is dominated by laurel sumac shrubland with pockets of greenbark ceanothus shrubland to the west and chamise shrubland to the east.

Based on our aerial photo analysis, site visit observations, and the National Park Service vegetation map, we conclude that the Morleigh parcel consists entirely of nearly pristine to pristine native habitat.

Mulryan Parcel

The fourth home proposed along the upper ridgeline is the Mulryan home, which is located between the proposed Morleigh and Ronan home sites within what is currently the Morleigh parcel. The applicant is proposing a lot line adjustment so that the Mulryan home site could be located within the existing Morleigh parcel and outside mapped landslide areas. The proposed Mulryan home site is located on a flat plateau that supports a nearly pure stand of chamise chaparral. The chamise on the plateau consists of 1 to 2 foot high recruits and vegetative growth from root crowns of chamise burned in the fall 2007 Canyon fire. Surrounding the plateau is laurel sumac chaparral; the laurel sumac consists almost entirely of vegetative growth springing from root crowns of laurel sumac that also burned in the fall 2007 Canyon fire. A number of coastal sage scrub and chaparral species are scattered throughout the chamise and laurel sumac including giant rye-grass, bush mallow, deerweed, sawtooth goldenbush, rock-rose (Helianthemum scoparium) and yucca (Yucca wipplei). Phacelia and wild

morning glory as well as non-native annual grasses and mustard are also growing amongst the chamise and laurel sumac.

According to the National Park Service vegetation map (Figure 3a) the proposed Mulryan home is located within laurel sumac shrubland. The fuel modification zone encompasses chamise shrubland to the southeast, native and non-native herbaceous superalliance to the west and southwest, and laurel sumac shrubland to the south and northwest. The dominant vegetation directly to the north of the proposed home development footprint is laurel sumac shrubland. The southern portion of the proposed home development footprint is bordered by pockets of chamise, mountain mahogany, and laurel sumac shrublands. The remainder of the parcel as it is proposed to be reconfigured (to the south and southwest) is dominated by laurel sumac shrubland and fingers of greenbark ceanothus shrubland that extend inward from the western border of the parcel.

Based on our aerial photo analysis, site visit observations, and the National Park Service vegetation map, we conclude that the proposed Mulryan parcel is entirely characterized by nearly pristine to pristine native habitat.

Ronan Parcel

The fifth and final home proposed along the upper ridgeline is located on the Ronan parcel on a knoll that supports a nearly pure stand of chamise chaparral. Surrounding the knoll are rocky slopes that support laurel sumac chaparral that exhibit signs of the fall 2007 Canyon fire such as vegetative growth sprouting from charred branches. Stands of both chamise and greenbark ceanothus chaparral are just north of the home site. In addition to laurel sumac, chamise and greenbark ceanothus, the slopes around the proposed home site includes toyon (*Heteromeles arbutifolia*), mountain mahogany, California brickkelbush (*Brickellia californica*), ashyleaf buckwheat, rye-grass, sawtooth goldenbush, canyon sunflower (*Venegasia carpesioides*) and bush monkey flower (*Mimulus aurantiacus*). Large flowered *phacelia* and prickly popcorn flower, both known fire followers, are scattered as well as forming occasional substantial patches amongst the coastal sage scrub and chaparral shrubs.

According to the National Park Service vegetation map (Figure 3a) the proposed Ronan home is located in laurel sumac shrubland. The fuel modification zone is located in a pocket of coast live oak woodland to the northeast, chamise shrubland to the southeast, and laurel sumac to the south-by-northwest border. The vegetation communities mapped in the fuel modification zone extend out to the parcel boundaries.

Based on our aerial photo analysis, site visit observations, and the National Park Service vegetation map, we conclude that the entire Ronan parcel is characterized by nearly pristine to pristine native habitat.

Historic Mesa

The existing grassland mesa area of the subject properties is located on the Mulryan and Lunch parcels. In addition to the proposed Lunch residence, the applicants propose to site a portion of the proposed access road and a 20,000 square foot Fire Department staging area in the mesa area. In addition, the applicants propose to place and contour grade 13,950 cubic yards of excess material, to a maximum depth of five feet and a maximum slope of 3:1 (H:V), upon a 1.88 acre area of the mesa west of the proposed access road.

Upon review of aerial photographs dating from 1975 to present, the mesa area appears consistently as grassland habitat that is distinct from the surrounding mixed chaparral. However, the size of the mesa area had historically been smaller than is presently delineated by the applicant's biological consultant. Aerial photos from 1975 through 2003 indicate that the mesa area had been relatively constant in size, occupying the south half of the area the applicant's consultant has delineated. The historic mesa area that pre-dates the effective date of the Coastal Act is estimated to be approximately 3.0 acres in size. Starting in 2004, aerial photographs show additional disturbance in the mesa area. However, there is no record of that disturbance being authorized through a coastal development permit. Coastal Development Permit No. 4-01-108, associated with the pilot access road, did not permit development within or beyond the historic mesa area. As such, the additional disturbance that occurred in the mesa area beginning in 2004 is considered unpermitted. Therefore, for purposes of determining ESHA and analyzing impacts, the mesa area is considered to be approximately 3.0 acres in size, and it is treated as surrounded by undisturbed native chaparral vegetation (Figure 4).

The applicant's biological consultant and the National Park Service map the mesa area as non-native grassland and native and non-native herbaceous superalliance, respectively. During our site visit we found the mesa area to be dominated by non-native annual European grasses including ripgut brome, foxtail chess, and wild oat as well as the non-native black and Mediterannean mustards. In addition we observed the highly invasive Geraldton Spurge (*Euphorbia terracina*) that has become a serious problem in southern California coastal habitats. Native bunch grass (*N. lepida*) and giant rye-grass are interspersed among the non-natives and this area of the mesa also supports scattered coastal sage scrub species including California sage brush, ashyleaf buckwheat, sawtooth golden bush, black sage, giant rye-grass, and deerweed. A spattering of native wildflowers including Catalina Mariposa lily, blue-eyed grass, white popcorn flower, and wild morning glory are found throughout the coastal sage scrub species.

While the mesa does support scattered native species, we found that non-natives currently dominate the area. The applicants assert that the mesa area has been disturbed consistently since the late 1920's and was likely used for grazing livestock. However, there is no evidence available to confirm that. It is also possible that the distinct grassland character of the mesa is due to the underlying landslide geology.

Given that the history of this area is a mystery and that determining the species character of the area from aerial photos is not possible, we can not know whether it ever supported pristine native grassland. Based on available information (aerial photos and current conditions) we find that this area on the subject properties is characterized by a disturbed, non-native annual grassland that supports scattered native species.

Water line

In addition to the access road and five single-family residences, the applicant's have proposed a water line that begins at Costa Del Sol Way in the north and extends south approximately 7,800 linear feet to its end point at the proposed Vera home site (Figure 4b). During our site visit we did not visit the proposed water line alignment. According to the water line Biological Assessment, vegetation along the proposed water line and associated maintenance road is dominated by mixed chaparral, with some non-native grassland and ruderal species present. For purposes of analysis, we relied more heavily on Envicom Corporation's report, "Comparative Impact Analysis of Potable Water Service Options; Sweet Water Mesa" because it provides higher resolution imagery and more detailed analysis of the plant communities along and adjacent to the proposed water line alignment. We also reviewed the National Park Service vegetation mapping along the water line alignment. To describe the proposed water line, it is divided into four parts.

Section 1 of the proposed water line runs for approximately 1,256 linear feet along the paved Costa Del Sol Way and approximately 1,416 linear feet along an unpaved, dirt roadway. Envicom describes the vegetation along these roadways as non-native ornamental and ruderal species with pockets of chaparral communities containing laurel sumac, greenbark ceanothus, and chamise shrubland. However, according to permit records and aerial photographs dating back to 1975, the existing unpaved dirt road that the proposed water line follows for 1,416 feet just south of Costa Del Sol Way is unpermitted and cannot be considered the baseline ecological condition for purposes of this analysis. Prior to the unpermitted grading of the road, the area had been undisturbed native chaparral vegetation, similar to that of the surrounding area, based on aerial photographs. As such, the proposal to utilize the existing 1,416 foot dirt road to install the water line and access the line for maintenance must be considered a new impact for purposes of analyzing the biological impacts of the proposal. We estimate that this stretch of the water line would result in approximately 0.31 acres of permanent impacts to native chaparral vegetation.

According to Envicom, Section 2 of the proposed water line is sited along west facing slopes that support native habitat dominated by laurel sumac and chamise shrubland. Envicom states that other species including mountain mahogany, ashy-leaf buckwheat and giant rye-grass are present at lower cover. They estimate that the chaparral in the area contains an average of 10 to 25% non-native grasses and ruderal species. This work proposed for this section of water line entails construction of a 10 foot wide unpaved maintenance road to support the water line. The road and water line will extend south approximately 990 feet. Envicom estimates that 0.43 acres of native vegetative will be permanently impacted in this section.

Envicom states that Section 3 of the proposed water line would "be aligned and buried beneath undeveloped, naturally vegetated terrain for 903 linear feet". Installation of the water line in this area would involve disturbance of a 10 foot wide swath of native vegetation similar to that found in Section 2. Envicom estimates that approximately 0.21 acres of native vegetation would be impacted. They describe the impact as temporary because the applicants are proposing to fully restore the vegetation in this section of water line.

Section 4 of the proposed water line would be installed entirely within the proposed access road and would terminate at the Vera property driveway.

We find that both the Biological Assessment and the Envicom water line alignment vegetation descriptions concur more of less with the National Park Service vegetation mapping of this area. In Section 1, the National Park Service maps areas along the paved and unpaved road as urban/disturbed or built-up surrounded by patches of laurel sumac, greenbark ceanothus, and mountain mahogany shrubland. The National Park Service map of the habitats within and along Section 2 and 3 of the water line alignment is dominated by laurel sumac shrubland that is interspersed with patches of chamise, greenbark ceanothus, and greenback ceanothus, big pod ceanothus and mountain mahogany superalliance shrublands.

Based on our aerial photo analysis, the Biological Assessment and the Envicom report, and the National Park Service vegetation map, we conclude that Section 4 and a portion of Section 1 of the water line alignment occurs within the disturbed footprint of paved roadways or in areas proposed to become paved roadways and that Sections 2, 3, and a portion of Section 1 occur in nearly pristine to pristine native habitat.

Sensitive Species

The chaparral, sage scrub, and oak woodland communities present at the subject properties provide important native habitat suitable to support sensitive species. For instance, we observed Catalina Mariposa Lily, a California Native Plant Society List 4 species at several of the home sites. Several other sensitive plant species are known to occur in the chaparral of the Santa Monica Mountains area including the Santa Susana tarplant (Hemizonia minthornii), Lyon's pentachaeta (Pentachaeta Iyonii), and Braunton's milk vetch (Astralagus brauntonii)²⁰. A number of sensitive animal species are also known to occur in chaparral in the area including the Santa Monica shieldback katydid (Neduba longipennis), western spadefoot toad (Scaphiopus hammondi), silvery legless lizard (Anniella pulchra pulchra). San Bernardino ring-neck snake (Diadophis punctatus modestus), San Diego mountain kingsnake (Lampropeltis zonata pulchra), coast patch-nosed snake (Salvadora hexalepis), sharp-shinned hawk (Accipiter striatus), southern California rufous-crowned sparrow (Aimophila ruficeps ruficeps),

²⁰ Biological Resources Assessment of the Proposed Santa Monica Mountains Significant Ecological Area. Nov. 2000. Los Angeles Co., Dept. of Regional Planning, 320 West Temple St., Rm. 1383, Los Angeles, CA 90012.

Bell's sage sparrow (*Amphispiza belli*), yellow warbler (*Dendroica petechia brewsteri*), pallid bat (*Antrozous pallidus*), long-legged myotis bat (*Myotis volans*), western mastiff bat (*Eumops perotis*), and San Diego desert woodrat (*Neotoma lepida intermedia*)²¹.

Biological surveys appropriate for detecting sensitive species have not been conducted to date. The biological information contained in the Biological Assessments is incomplete. We know that data collection for the Biological Assessments occurred on two days (May 10, 2001 and June 1, 2007) but the reports provide no information regarding survey methodology. In order to adequately examine the subject properties for sensitive plants and animals, surveys employing specified protocol standards are necessary.

Wildlife Corridors/ Habitat Linkages

Wildlife corridors facilitate wildlife movement and migration by creating links between isolated or fragmented habitats. Traditionally, ecologists have defined corridors as a "linear habitat, embedded in a dissimilar matrix, that connects two or more larger blocks of habitat and that is proposed for conservation on the grounds that it will enhance or maintain the viability of specific wildlife populations in the habitat blocks"²².

The value of a corridor is measured by the core habitats that it connects. In most urban areas, habitat is not connected and therefore, fragmented, making species more vulnerable to population size fluctuations (increases and declines), catastrophic events, introduced species, pathogenic outbreaks, and overall loss of genetic diversity. Wildlife corridors enable species to travel between habitats, or migrate to new habitats, thereby increasing the ability for populations to sustain themselves. A significant threat of urbanization is the reduction in the range of large predators; wildlife corridors can provide valuable linkages in large predator ranges.

The Santa Monica Mountains, which are surrounded by development, fall within the Santa Monica Mountains Conservancy zone, which covers an area from the edge of the Mojave Desert to the Pacific Ocean. In addition to the Santa Monica Mountains, the zone includes the Simi Hills, the Verdugo Mountains, and significant portions of the Santa Susana and San Gabriel Mountains. This rich ecosystem is supported by a tenuous network of cross-freeway habitat linkages and wildlife corridors that keep the various habitats and wildlife ranges biologically inter-connected. Population analyses show that without these movement corridors, all of the mountain ranges in the Santa Monica Mountains Conservancy zone, except the San Gabriel Mountains, contain insufficient habitat area to support larger mammals²³.

The subject properties are known to support wildlife corridors and a mapped habitat linkage area. For example, since 2002 the National Park Service has been studying the

^{&#}x27; Ibid.

²² Beier, P. and R. F. Noss. 1998. *Do Habitat Corridors Provide Connectivity?* Conservation Biology, Vol. 12, No. 6: 1241-1242.

²³ Santa Monica Mountains Conservancy. 2007. Plants & Wildlife. www.lamountains.com

behavior and ecology of mountain lions in the Santa Monica Mountains through the use of GPS radio-collars and they have produced mountain lion home range maps²⁴ (Figure 5). According to Jeff Sikich, National Park Service Wildlife Biologist, seven different mountain lions have been identified that use the proposed subject properties. The seven lions have all been located within 1500 feet of the five proposed single-family residences and some of them have been located within the fuel modification zones²⁵. In email correspondence, Mr. Sikich stated that "We documented our first lion (P01) passing through this area just 2 months after we captured him in July 2002. The latest lion to use this area was P14, he passed through just the other day on January 18th²⁶". Mr. Sikich believes it is likely that un-collared lions also use the area. The National Park Service recently began tracking bobcats and has radio-collared cats in the Point Mugu and Los Virgenes areas. Based on local knowledge about dietary needs, habitat preferences, and range, it is presumed that bobcats also frequent the subject properties²⁷. In addition, the subject properties fall between Malibu Canyon State Park (classified by National Park Service as a protected core habitat area) and Cold Creek Canyon Preserve in an important habitat linkage area identified by the National Park Service.

The subject properties are uniquely sited and suited for linking habitats and providing wildlife corridors. They comprise a 156 acre area of undeveloped, unfragmented, nearly pristine to pristine chaparral and coastal sage scrub habitat that itself is imbedded in a larger (2,800 acres) block of undeveloped land that also supports unfragmented, pristine habitat (Figure 1). The subject properties span a significant ridgeline that links the Sweetwater and Carbon Canyon watersheds. And the habitat on the properties undoubtedly serves as foraging and or breeding grounds for a wide variety of wildlife.

ESHA Definition

Coastal Act sections 30107.5 and 30240 are relevant to the review of Coastal Development Permit Application Nos. 4-10-040, 4-10-041, 4-10-042, 4-10-043, 4-10-044, and 4-10-045.

Section 30107.5 provides the following definition for environmentally sensitive habitat:

Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

Section 30240 requires protection of environmentally sensitive habitat and specifies allowable uses within environmentally sensitive habitat:

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²⁴ Personal communication, Jeff Sikich, National Park Service Wildlife Biologist and project lead for mountain lion tracking program, November 30, 2010.

²⁵ Email communication, Jeff Sikich, National Park Service Wildlife Biologist and project lead for mountain lion tracking program, January 20, 2011.
²⁶ Ibid

²⁷ Personal communication, Jeff Sikich, National Park Service Wildlife Biologist, November 30, 2010.

- (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
- (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.

In addition to the above Coastal Act policies, Los Angeles County's certified Malibu/Santa Monica Mountains Land Use Plan (LUP) provides additional guidance. The LUP ESHA policies include the following:

P57 Designate the following areas as Environmentally Sensitive Habitat Areas (ESHAs): (a) those shown on the Sensitive Environmental Resources Map (Figure 6), and (b) any undesignated areas which meet the criteria and which are identified through the biotic review process or other means, including those oak woodlands and other areas identified by the Department of Fish and Game as being appropriate for ESHA designation.

P68 Environmentally sensitive habitat areas (ESHAs) shall be protected against significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas. Residential use shall not be considered a resource dependent use.

Designation of ESHA in the Santa Monica Mountains (Dixon 2003) provides further guidance for determining what constitutes environmentally sensitive habitat in the Santa Monica Mountains:

....the Mediterranean Ecosystem in the Santa Mountains is rare, and especially valuable because of its relatively pristine character, physical complexity, and resultant biological diversity. Therefore, areas of undeveloped native habitat in the Santa Monica Mountains that are large and relatively unfragmented may meet the definition of ESHA by virtue of their valuable roles in that ecosystem, regardless of their relative rarity throughout the state.

The memorandum (Dixon 2003) continues:

For habitats in the Santa Monica Mountains, particularly coastal sage scrub and chaparral, there are three site-specific tests to determine whether an area is ESHA because of its especially valuable role in the ecosystem. First, is the habitat properly identified, for example as coastal sage scrub or chaparral? The requisite information for this test generally should be provided by a site-specific biological assessment. Second, is the habitat largely undeveloped and otherwise relatively pristine? Third, is the habitat part of a large, contiguous block of

relatively pristine native vegetation? This should be documented with an aerial photograph from our mapping unit (with the site delineated)

Therefore, areas of undeveloped native habitat in the Santa Monica Mountains that are large and relatively unfragmented meet the definition of an environmentally sensitive habitat area by virtue of their valuable roles in that ecosystem, regardless of their relative rarity throughout the state.

ESHA Determination

The applicant's biological consultant makes an environmentally sensitive habitat (ESHA) determination for the subject properties based on the Coastal Act definition and the aforementioned criteria from the Designation of ESHA in the Santa Monica Mountains memorandum (Dixon 2003). First, regarding rarity, he concludes that mixed chaparral and non-native grassland are not rare after consulting the California Department of Fish and Game's California Natural Diversity Database. As stated in Designation of ESHA in the Santa Monica Mountains (Dixon 2003), the Santa Monica Mountain's Mediterranean Ecosystem habitats, including chaparral and coastal sage scrub, that are relatively pristine, physically complex, and biologically diverse and that are large and relatively unfragmented are rare. The subject properties are comprised of an integrated mosaic of nearly pristine stands of chaparral, coastal sage scrub, and oak woodland that support hundreds of plant and animal species. The subject properties occur within a 2,800 acre block of unfragmented habitat; there are no paved roads or development in this area. For these reasons we disagree with the applicant's biological consultant and conclude that the subject properties support habitat that is rare. The site may also support sensitive plant and animal species that have not been identified because the appropriate surveys have not been performed.

Second, the applicant's consultant contends that the habitat on the subject properties is not especially valuable because it consists of mixed chaparral that is "fairly uniformly spread over the properties and broken only in limited areas by previous disturbance." We disagree with this conclusion for several reasons. When examined at a higher resolution such as that provided by the National Park Service vegetation mapping and confirmed during our site visit, the subject properties are observed to support a complex and diverse mosaic of numerous chaparral and coastal sage scrub community alliances, as well as an oak woodland habitat, that in turn support high species diversity. We found the habitats on site to be dominated by a diverse array of native species in nearly pristine condition. Finally, the subject properties support important habitat linkages and wildlife corridors that connect the diverse habitats and span the Sweetwater and Carbon Canyon watersheds. For these reasons, we determine that the habitat supported by the subject properties is especially valuable for its ecosystem services.

Lastly, in addition to rarity and ecosystem value, an area must also be easily disturbed or degraded by human activities and developments in order to qualify as an ESHA.

We find that the relatively pristine chaparral, coastal sage scrub, and oak woodland habitats supported by the subject properties could be easily disturbed or degraded by human activities. This is evidenced by the loss of native habitat and the disturbance and introduction of non-native species along the access road, within the mesa, at the proposed home sites, and where geologic testing has occurred.

Based on the rarity, ecosystem value, and vulnerability to disturbance and degradation, we conclude that the entire area comprising the subject properties, with the exception of the historic mesa area and the existing 10 foot wide jeep trail up to it, rises to the level of ESHA. We also conclude that Sections 2, 3 and a portion of Section 1 of the proposed water line alignment rise to the level of ESHA.

Potential Impacts Upon Environmentally Sensitive Habitat

The proposed projects have the potential to negatively impact the subject properties' sensitive habitat (ESHA). Factors that may contribute to the potential loss and degradation of ESHA include direct displacement of the habitat by physical development, fragmentation of the remaining habitat, creation of artificial barriers, introduction of non-native species, increased fire risk, and fuel modification.

Wilcove et al. (1986) state that "Habitat fragmentation has been recognized as the leading factor in species loss, on both a local and global level". Increasing the number of landscape pieces, decreasing interior habitat area, increasing the extent of habitat edges, and increasing habitat isolation all contribute to habitat fragmentation. Animals with relatively large ranges such as birds and large mammals are often the first to be affected by habitat fragmentation. And plant communities and individual plant species have specific threshold habitat size requirements below which the population will not persist through time (Schaffer 1981)³¹.

It is important to note (Dixon 2003):

The habitat integrity and connectivity that is still evident within the Santa Monica Mountains is extremely important to maintain, because both theory and experiments over 75 years in ecology confirm that large spatially connected habitats tend to be more stable and have less frequent extinctions than habitats without extended spatial structure. Beyond simply destabilizing the ecosystem, fragmentation and disturbance can even cause unexpected and irreversible

²⁹ Li, H., J. F. Franklin, Swanson, F. J. and Spies, T.A. 1993. *Developing alternative forest cutting patterns: A simulation approach.* Landscape Ecology, Vol. 8: 63-75.

³¹ Schaffer, M.L. 1981. Minimum Population Sizes for Species Conservation. BioScience, Vol. 31, No. 2: 131-134.

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Wilcove, D.S., C. H. McLellan, and Dobson, A. P. 1986. Habitat fragmentation in temperate zones. In Conservation Biology: The Science of Scarcity and Diversity. pp. 237-256. Edited by M. Soulé. Sinauer Associates, Sunderland, MA, USA.

³⁰ Beier, P. 1993. *Determining minimum habitat areas and habitat corridors for cougars*. Conservation Biology, Vol. 7:94-108.

changes to new and completely different kinds of ecosystems (habitat conversion)³².

Swenson and Franklin (2000) conducted a study using GIS modeling to project future urban development in the Santa Monica Mountains³³. They examined the effects that various development patterns could have on different vegetation communities and the spatial pattern and connectivity of the natural habitat. They determined that the pattern and placement of development was critical to the ultimate level of habitat fragmentation. When they simulated development of a few isolated clusters versus development scattered across a landscape, the habitat was significantly less fragmented³⁴.

The development proposed in the subject permit applications; access road, five single-family residences and their associated fuel modification, and water line; arranged in a more or less linear alignment, would significantly fragment the habitats between the western and eastern slopes and their respective watersheds. This development would introduce the first paved roads and homes into an otherwise pristine 2,800 acre block of Mediterranean ecosystem habitats thus bisecting the area into two discreet wilderness areas and fragmenting plant community alliances into smaller patches with a concomitant increase in habitat edges (Figure 1).

In addition to fragmenting habitat, the 20 foot wide asphalt access road (that includes Fire Department staging areas, hammerhead turnarounds, retaining walls, drainage improvements, and entry gates), the five single-family residences (including 200 foot radius, four acre, fuel modification zones), placement of excess fill, and water line (that includes a 10 foot maintenance road), along with their associated disturbances such as lighting, noise, human presence, maintenance, etc., may significantly impede plant and animal movement and dispersal. Plants with limited dispersal abilities may be functionally isolated by such barriers while small animals, such as reptiles and rodents, may be separated into distinct populations³⁵. Larger animals, while physically capable of crossing such barriers, may avoid doing so instinctively³⁶.

Introduction of non-native species is another significant threat posed by development in pristine habitats. New roads in pristine habitat can be an inroad for non-native species and air- and water-borne toxins and lead to increased run-off and general disturbance by human activities³⁷. Chaparral is especially vulnerable to edge effects created by roadways because it is slow to recover once disturbed. Even though some off-road

Swenson, J. & J. Franklin. 2000. The effects of future urban development on habitat fragmentation in the Santa Monica Mountains. Landscape Ecology, Vol., 15: 713-730.

³² Dixon, J. (2003) op. cit.

Bid.
 Quinn, R. D. 1990. Habitat preferences and distribution of mammals in California chaparral. Research paper PSW-202. Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture, Berkeley, CA, USA.

³⁶ Swenson, J. J. and J. Franklin. 2000. *The effects of future urban development on habitat fragmentation in the Santa Monica Mountains*. Landscape Ecology, Vol. 15: 713-730.

³⁷ Murphy, D. D. 1988. *Challenges to biological diversity in urban areas*. Pp. 71-76 in Biodiversity, edited by E. O. Wilson. National Academy of Press, Washington, DC, USA.

trails exist in the region, a research study evaluating the spread of invasive species showed that paved roads were far more likely to be invaded by non-native species than those along 4-wheel drive tracks:

Vehicles can transport non-native seeds into uninfested areas, and clearing land during road construction gives weed seeds a place to become established. Intuitively, it makes sense that improved roads would spread weeds more than primitive roads because the former have more traffic, more exposed soil and more maintenance such as mowing and herbicide treatments, all of which can favor invasive species. Overall, the cover of non-native plants was more than 50% greater in interior sites adjacent to paved roads than in those adjacent to 4-wheel drive tracks. In addition, road improvement changed the number of both exotic and of native species in the interior community study plots: the number of exotic species was more than 50% greater and the number of native species was 30% lower³⁸.

Even though every precaution may be undertaken, the risk of fire is inherently greater when development encroaches into otherwise pristine open space. Sparks from vehicles, careless disposal of cigarettes, unintended waste ignition, are just a few ways development can increase fire risk. Habitat, exposure, and setting are all important considerations for determining fire risk. Upon review of these factors as well as others, the National Park Service identified an area that includes the subject properties as a "Very High Fire Hazard Severity Zone".

Fuel modification, which can entail vegetation clearing, trimming, and laddering, is required by the California Department of Fire and will significantly impact habitat on the subject properties. The fuel modification necessary for defending homes located along a remote ridgeline characterized by fire prone habitats and sheer slopes exposed to Santa Ana winds is considerable. The fire department is requiring a 200 foot zone of modified habitat around each of the subject project's proposed homes in order to reduce the threat of fire. This amounts to approximately four acres of significant impacts to the chaparral and coastal sage scrub habitats surrounding each home. As pointed out in Dixon (2003):

Where native vegetation has been cleared for firebreaks around residences and along ridge tops in the Santa Monica Mountains, exotic grass species dominate. Naturally sparse Mediterranean scrub habitats, such as those in the Santa Monica Mountains, are especially vulnerable to edge effects and exotic invasions³⁹.

Studies have also shown that the effects of fuel modification extend beyond the recommended clearance area. For example, Stalberg (2000) looked at the impacts of fuel clearance on bird communities and found that the number of migrants and

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³⁸ Gelbard, J. 2003. Paving roads can increase weed invasions. Society for Conservation Biology. Published by The American Association for the Advancement of Science on www.eurekalert.org
³⁹ Dixon, J. (2003) op. cit.

chaparral-associated species decreased due to habitat fragmentation while the abundance of urban-associated species increased⁴⁰. Fuel clearance and habitat modification may also disrupt the local ecology in indirect ways. For example, nonnative landscaping and intensive irrigation favors the invasive and non-native Argentine ant. This ant forms "super colonies" that can forge more than 650 feet out into surrounding native habitats such as chaparral or coastal sage scrub⁴¹. The Argentine ant competes with native harvester and carpenter ants displacing them from the habitat. The effect of replacing native ants with Argentine ants reverberates up the food chain; for instance, the main prey of the coast horned lizard (*Phrynosoma coronatum*), a California species of special concern, is native harvester ants; coast horned lizards will not eat Argentine ants.

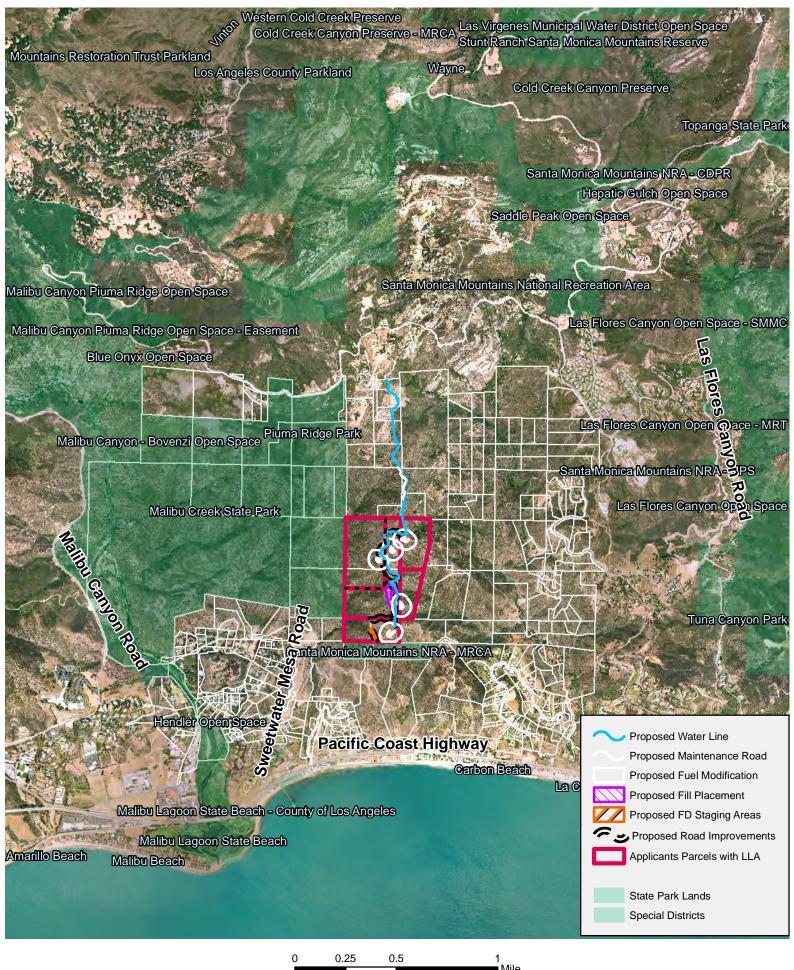
In summary, the subject properties and proposed water line are sited near the center of a 2,800 acre section of undeveloped and unfragmented land in the Mediterannean ecosystem of the Santa Monica Mountains. The subject properties and Section 2, 3, and a portion of Section 1 of the proposed water line alignment are dominated by nearly pristine to pristine chaparral and coastal sage scrub habitats arranged in a diverse mosaic of specific community alliances that support a diverse array of plant and animal species. Due to the pristine, physically complex, and biologically diverse nature of the habitats, we have determined that they are especially valuable. We have also found that these habitats are easily disturbed and degraded by human activities, and therefore, for these reasons, rise to the level of ESHA. The only areas on the subject properties that do not rise to the level of ESHA are the historic mesa area and existing 10-foot wide jeep trail up to it.

Construction of the access road, five single-family residences, excess fill placement area, and water line will directly eliminate approximately 7, 25, 2.6 and 1 acres of ESHA, respectively. In addition to the direct loss of ESHA, development of the subject property may impart significant impacts upon ESHA including habitat fragmentation, artificial barriers, introduction of non-native species, increased fire risk, and fuel modification.

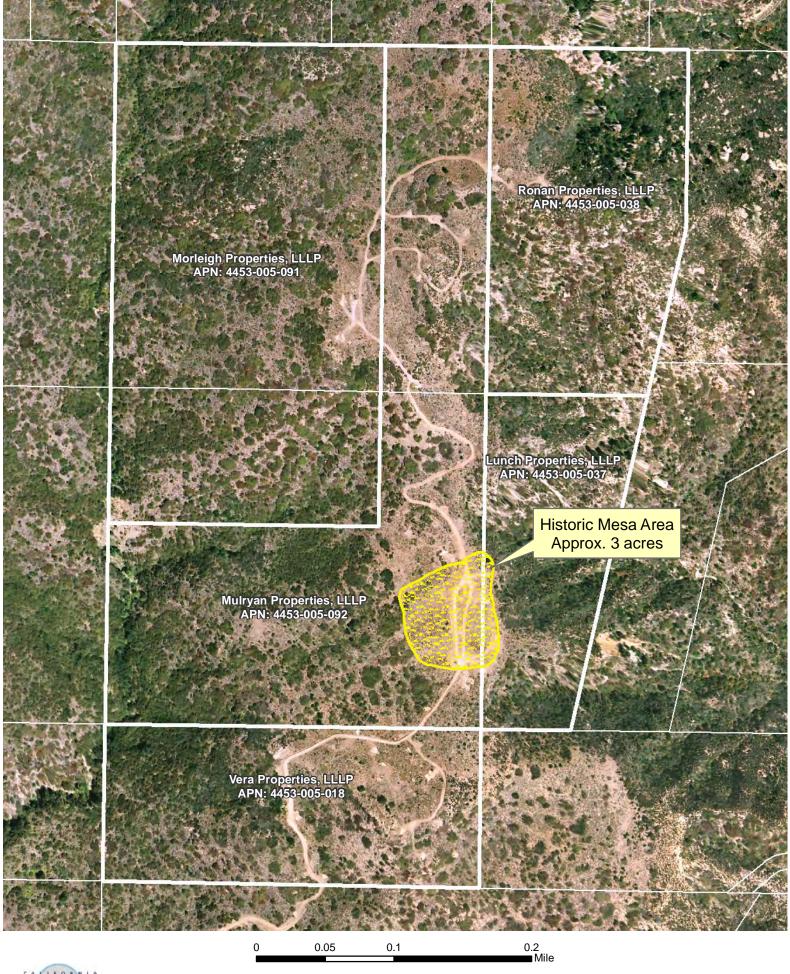
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⁴⁰ Stralberg, D. 2000. Landscape-level urbanization effects on chaparral birds: a Santa Monica Mountains case study. Pp. 125-136 in Keeley, J.E., M. Baer-Keeley, and C. J. Fotheringhand (eds.). 2nd interface between ecology and land development in California. U.S. Geological Survey, Sacramento, California.

⁴¹ Suarez, A. V., D. T. Bolger and T.J. Case. 1998. Effects of fragmentation and invasion on native ant communities in coastal Southern California. Ecology, Vol. 79 (6): 2041-2056.

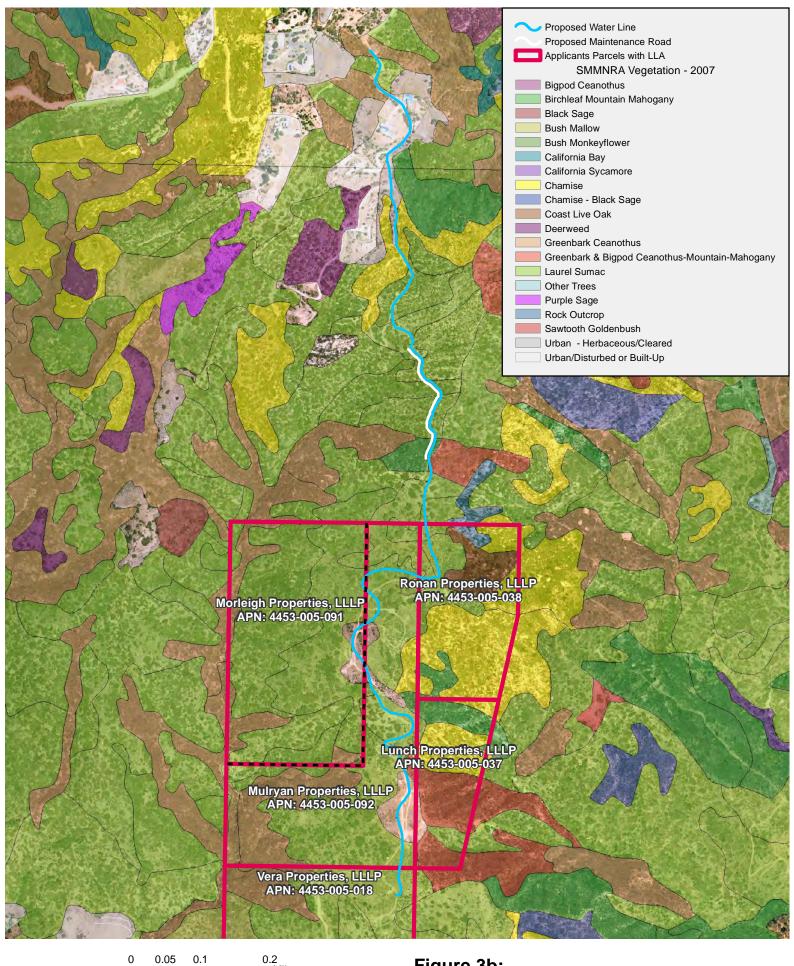








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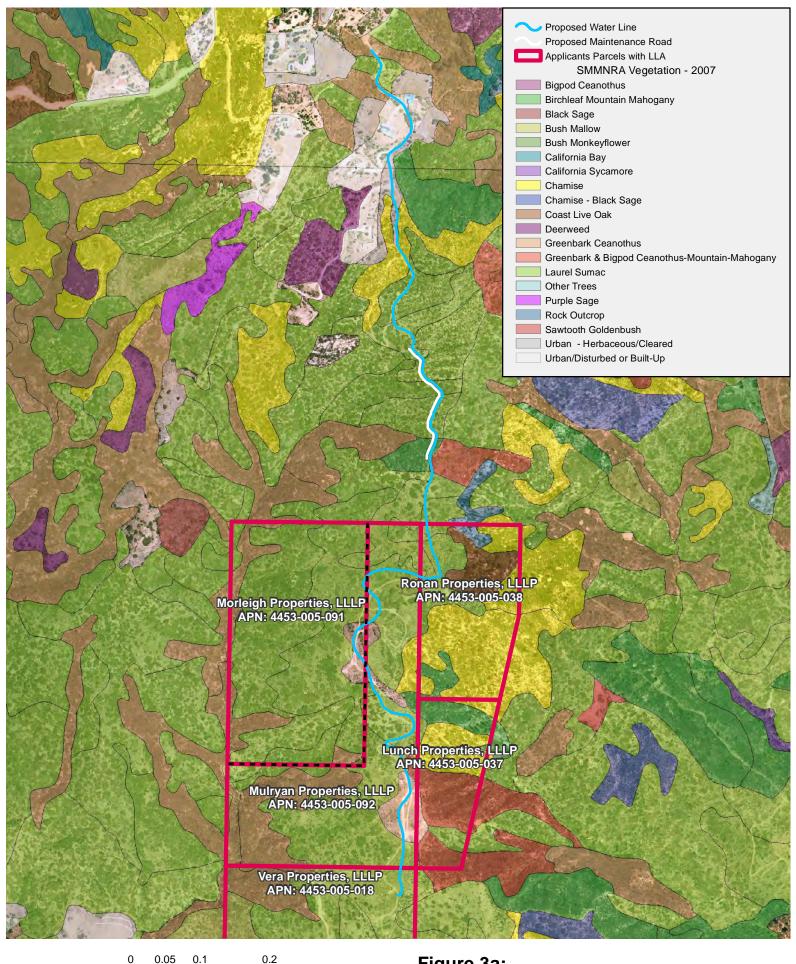




All Locations Approximate.
For Illustrative Purposes Only.
Sources: AirPhotoUSA, SMMNRA, County of L.A.

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Figure 3b: National Park Service Vegetation Mapping Proposed Project Water Line





0.05 0.1 0.2 Mile

All Locations Approximate.
For Illustrative Purposes Only.
Sources: AirPhotoUSA, SMMNRA, County of L.A.



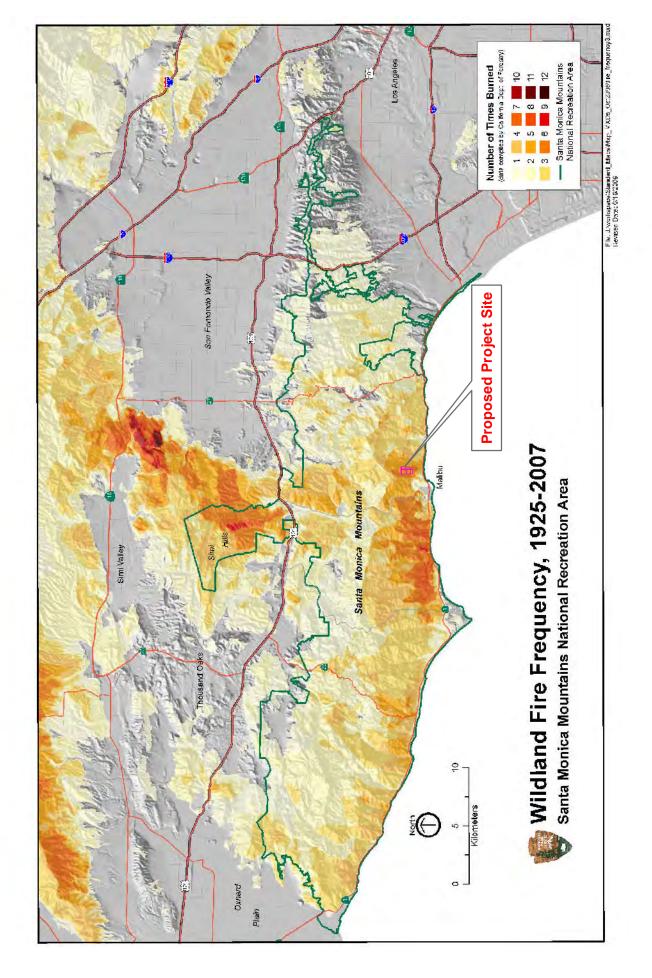




Figure 2: SMMNRA Fire Hazard Zone Map

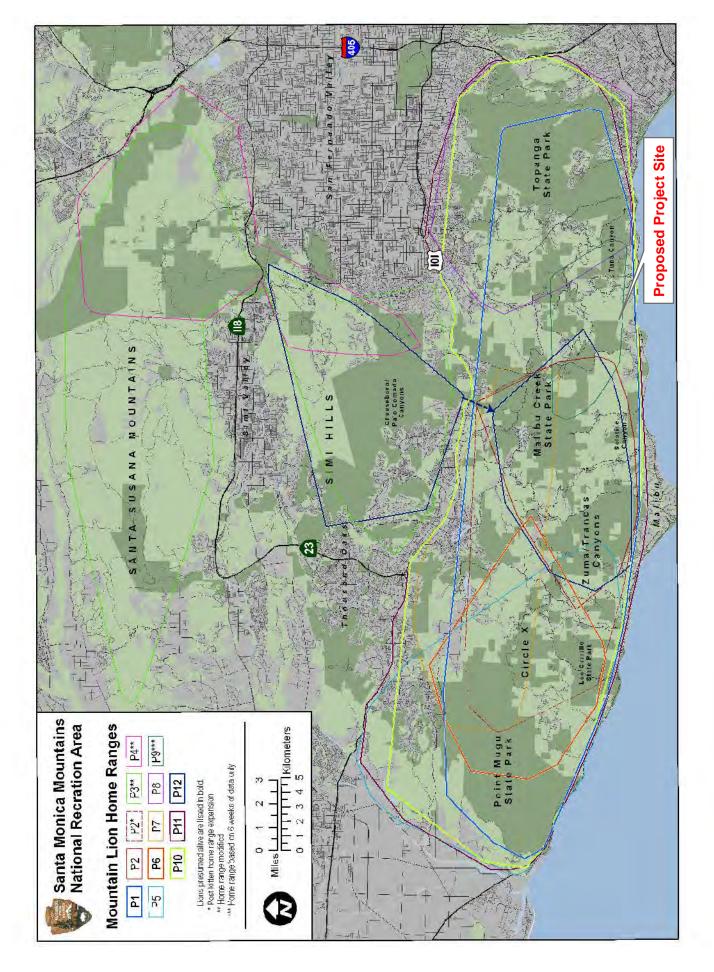
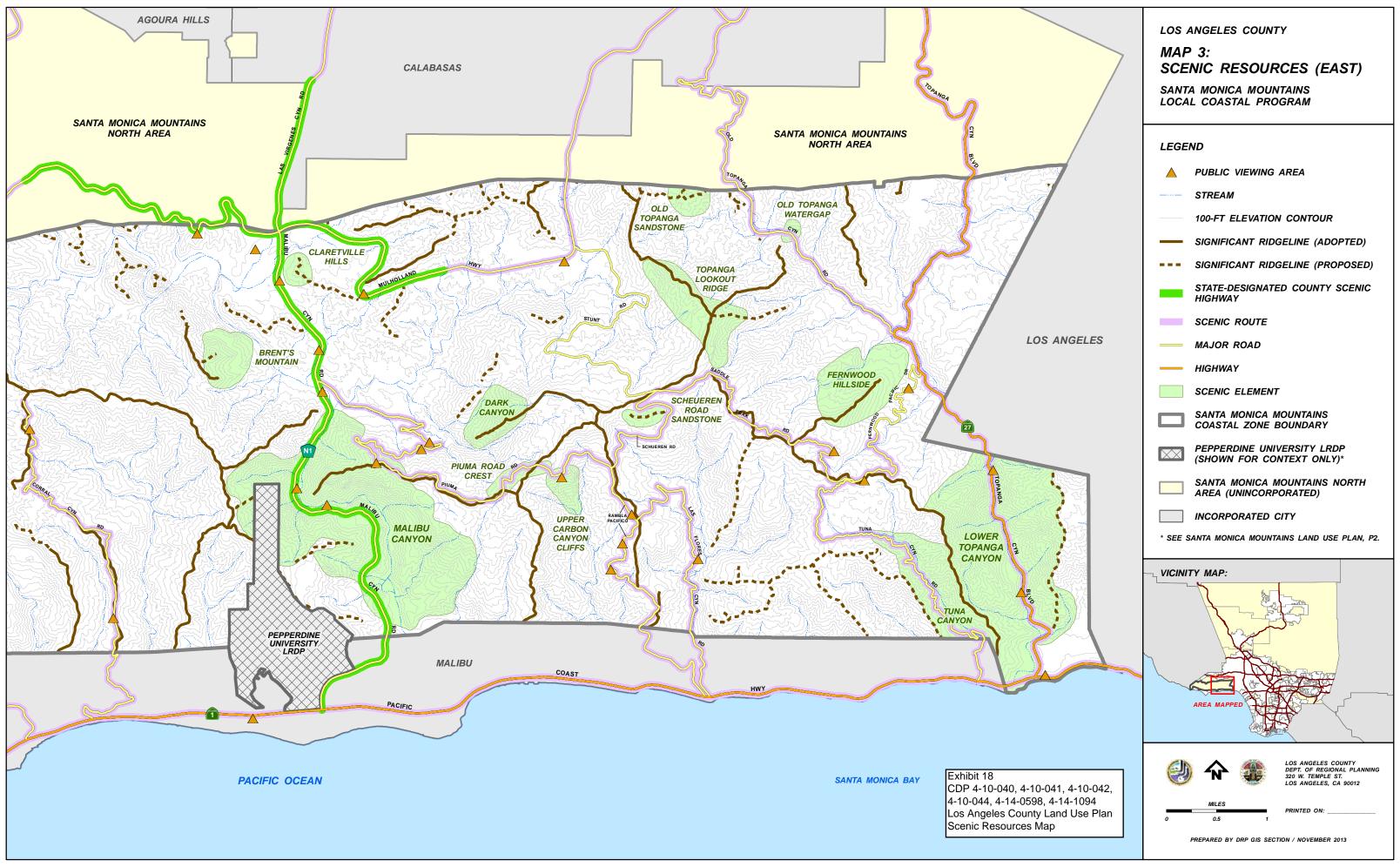
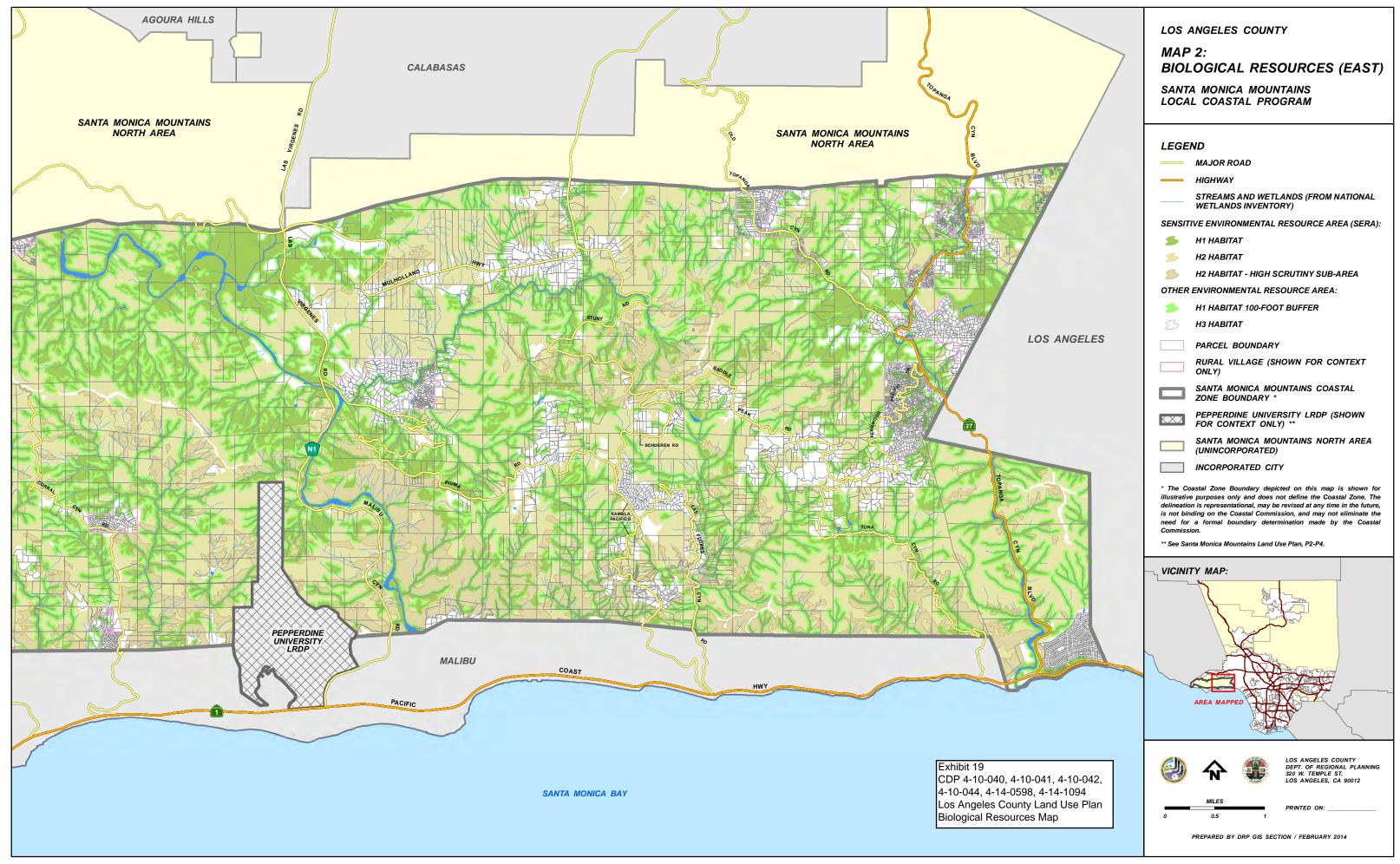




Figure 5: SMMNRA Mountain Lion Home Ranges Map





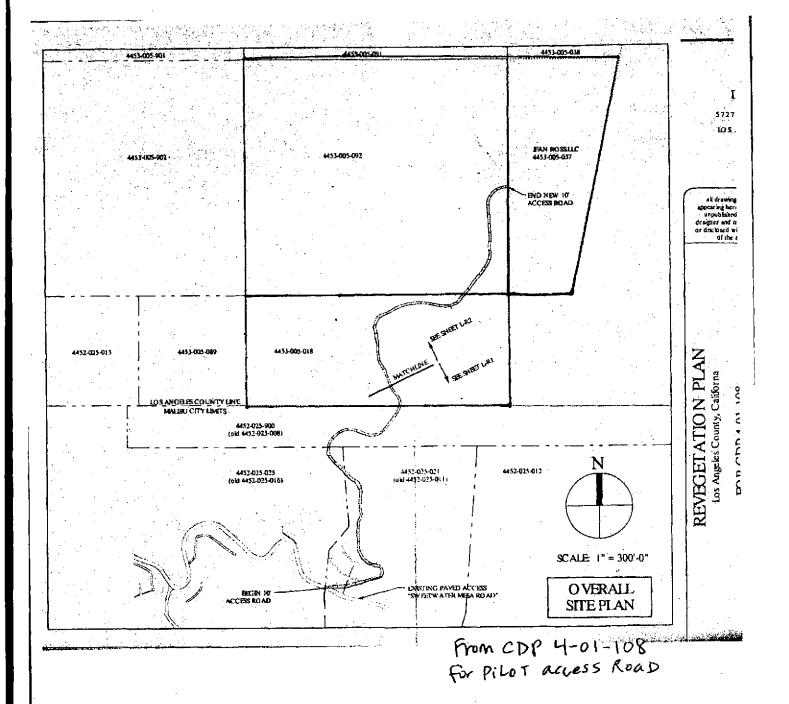


Exhibit 20

CDP 4-10-040, 4-10-041, 4-10-042, 4-10-044, 4-14-0598, 4-14-1094

Approved Pilot Access Road

SETTLEMENT AND MUTUAL RELEASE AGREEMENT

1. Parties

The Parties to this Settlement and Mutual Release Agreement ("Agreement") dated September 3, 2013, are Mulryan Properties LLLP ("Mulryan"), Lunch Properties LLLP ("Lunch"), Vera Properties LLLP ("Vera"), Ronan Properties LLLP ("Ronan"), Morleigh Properties LLLP ("Morleigh") and the California Coastal Commission ("Commission").

2. Recitals

This Agreement is made with reference to the following facts:

2.1 Mulryan, Lunch, Vera, Ronan and Morleigh maintain that they are the sole and separate owners of one of five legal lots on land commonly referred to as Sweetwater Mesa ("Sweetwater Mesa Parcels"), which are depicted on <a href="Exhibit "A." The Commission maintains that some or all of the Sweetwater Mesa Parcels are under common ownership or control. No Party is conceding its position regarding ownership or control of the Sweetwater Mesa Parcels in this Agreement.

2.2 Mulryan, Lunch, Vera, Ronan and Morleigh brought separate applications to construct single family residences and related improvements on the Sweetwater Mesa Parcels ("Prior Applications").

2.3 The Commission conducted a public hearing on the Prior Applications on June 16, 2011. At the conclusion of the hearing, the Commission voted to deny the Prior Applications of Mulryan, Lunch, Vera, and Ronan. Prior to the Commission's vote, Morleigh withdrew its Prior Application.

2.4 Mulryan, Lunch, Vera, and Ronan brought separate petitions for writ of mandate seeking to vacate the Commission's denial of their respective Prior Applications (the "Lawsuits"). On October 21, 2011, all of the Lawsuits were consolidated for all further proceedings.

2.5 The Commission findings in connection with its denial of the Prior Applications include a discussion of an alternative plan of development on a portion of the Sweetwater Mesa Parcels that is encompassed by the Prior Applications. Exhibit 21

Exhibit 21 CDP 4-10-040, 4-10-041, 4-10-042, 4-10-044, 4-14-0598, 4-14-1094 Settlement Agreement 2.6 The Parties desire to enter into this Agreement to remand the Mulryan, Lunch, Vera, and Ronan Prior Applications to the Commission, to allow Mulryan, Lunch, Vera, and Ronan to modify their respective Prior Applications and allow Morleigh to submit a new application in order to allow the Commission to consider a modified version of the alternative in which development will occur in the approximate locations depicted on Exhibit "B." ("Modified Alternative"). The Parties acknowledge that a remand to the Commission is appropriate because the impact upon coastal zone resources addressed by the Modified Alternative could be a major factor in the decision of other local agencies to approve, disapprove, or modify the Modified Alternative and further action would be required by such agencies if the Commission approves the changes in the location or design of the development as part of the Modified Alternative.

3. Consideration and Agreement

In consideration of the foregoing and the respective promises as set forth herein, the parties agree as follows:

- 3.1 Concurrently with the execution of this Agreement, Mulryan, Lunch, Vera, Ronan and the Commission shall execute and file the Stipulation and Order to Remand Applications and Stay Litigation ("Stipulation") attached hereto as <a href="Exhibit "C."
- 3.2 Following entry of the order on the Stipulation, (i) Mulryan, Lunch, Vera, and Ronan shall revise their respective Prior Applications to allow the Commission to consider approval of the Modified Alternative ("Modified Applications") and (ii) Morleigh shall submit a new application for the Commission to consider approval of the Modified Alternative. ("Morleigh Application").
- 3.3 The Parties shall reasonably cooperate to complete the Modified Applications and the Morleigh Application. The Commission shall process the Modified Applications and the Morleigh Application in accordance with the requirements of the Permit Streamlining Act and the Commission's rules and regulations for completing and processing applications for coastal development permits and shall waive the requirement for preliminary approval by other federal, state or local governmental agencies. Mulryan, Lunch, Vera, Ronan

and Morleigh shall pay such usual and customary fees which the Commission is permitted to charge for the submission and processing of coastal development permits.

3.4 The Commission shall schedule a hearing on the Modified Applications and Morleigh Application consistent with the Commission's legal authority and its other legal obligations, as expeditiously as reasonably possible, after the Modified Applications and the Morleigh Application are complete. Nothing in this Agreement shall, in any way, limit the Commission's exercise of its discretion when considering the Modified Applications and the Morleigh Application.

3.5 Mulryan, Lunch, Vera and Ronan collectively may terminate the stay set forth in the Stipulation if any of the following occur:

3.5.1 The Commission denies approval of any of the Modified Applications or the Morleigh Application.

or the Morleigh Application on terms or conditions that (i) do not conform either to (a) the Modified Alternative as depicted on Exhibit B, (b) the project descriptions in the Modified Applications or the Morleigh Application, or (c) the conditions specified in Exhibit D, and (ii) Mulryan, Lunch, Vera, Ronan, and Morleigh collectively inform the Commission's Executive Director in writing that the terms or conditions of the approval are not reasonably acceptable to that Party on or before 90-days following the date of the Commission's approval. The Parties acknowledge that as of the date of this Agreement there are unresolved issues with respect to the Modified Alternative that the Parties intend to address in connection with the Commission's consideration of the Modified Applications and the Morleigh Application, including, concerning (i) delivery of water to the Sweetwater Mesa Parcels, (ii) the height of certain structures proposed by Mulryan, Lunch, Vera, Ronan or Morleigh as part of the Modified Alternative, and (iii) the location of the development and development areas for the Modified Alternative. Mulryan, Lunch, Vera, Ronan and Morleigh are not required to accept any approval with respect to the foregoing issues on terms or conditions that have not been agreed to or proposed by Mulryan,

Lunch, Vera or Ronan in their respective Modified Applications or by Morleigh in the Morleigh Application. A rejection of an approval of a Modified Application by any one of Mulryan, Lunch, Vera or Ronan or Morleigh's rejection of an approval of the Morleigh Application shall constitute and shall be deemed a rejection of the approvals of all of Modified Applications and the Morleigh Application by Mulryan, Lunch, Vera, Ronan and Morleigh collectively. Mulryan, Lunch, Vera, Ronan and Morleigh may not decide to accept the Commission's approval of some of the Modified Applications, but not others. Mulryan, Lunch, Vera, Ronan and Morleigh shall accept the Commission's approval of all of the Modified Applications and the Morleigh Application if all of the approvals conform to the Modified Alternative as depicted on Exhibit B, the conditions specified in Exhibit D, and the project descriptions in the Modified Applications or the Morleigh Application.

3.5.3 The Commission's approval of the Modified Alternative is finally reversed or nullified by any legal or other third-party challenge to the approval and on remand the Commission fails to reapprove the Modified Alternative.

3.6 In the event the stay is not terminated pursuant to Section 3.5, Mulryan, Lunch, Vera and Ronan shall file requests for dismissal of their respective Lawsuits without prejudice on or before 30-days after all of the following have occurred: (i) the Commission has approved all of the Modified Applications and the Morleigh Application and (a) no Party has notified the Commission's Executive Director in writing that the conditions or terms of any such approval are not reasonably acceptable in accordance with the terms in Section 3.5.2 and (b) the approval is final and no longer subject to legal or other challenge, and (iii) no further approvals by the Commission are required. Within 30-days after the filing of the requests for dismissals, the Commission shall refund to Mulryan, Lunch, Vera and Ronan all unexpended amounts advanced for preparation of the administrative record in the Lawsuits. The dismissal of the Lawsuits shall not preclude any Party from raising any legal theory, claim or defense with respect to the Sweetwater Mesa Parcels or in any other context and shall not constitute res judicata, collateral

estoppel or waiver as to any Party or otherwise preclude any Party from asserting any legal theory, claim or defense with respect to the Sweetwater Mesa Parcels or in any other context.

3.7 Each Party shall take all reasonable actions to make, deliver, and/or sign any other documents and instruments that are necessary to carry out the provisions, intent and purpose of this Agreement.

4. Release of Claims

Subject to and for and in consideration of the agreements set forth in Section 3 above, and effective only after all of the Lawsuits have been dismissed in accordance with Section 3.6 above, the Parties agree as follows:

4.1 The Commission fully and forever releases and discharges Mulryan, Lunch, Vera, Ronan and Morleigh and their respective members, officers, employees, servants, agents, representatives, attorneys, successors in interest and assigns of and from any and all liability, claims, demands, fines, penalties, levies, exactions, fees, damages, punitive damages, choses in action, disputes, suits, actions, claims for relief and causes of action, in law or in equity, whether known or unknown, choate or inchoate, accruing or accrued, suspected or unsuspected, or foreseen or unforeseen, which relate to or are based on (i) any facts, circumstances and claims alleged in the Lawsuits, (ii) the Prior Applications or (iii) the filing or prosecution of the Lawsuits.

4.2 Mulryan, Lunch, Vera, Ronan and Morleigh fully and forever release and discharge the Commission and its commissioners, officers, staff, employees, agents, representatives, and attorneys of and from any and all liability, claims, demands, fines, penalties, levies, exactions, fees, damages, punitive damages, choses in action, disputes, suits, actions, claims for relief and causes of action, in law or in equity, whether known or unknown, choate or inchoate, accruing or accrued, suspected or unsuspected, or foreseen or unforeseen, which relate to or are based on (i) any facts or circumstances alleged in the Lawsuit, (ii) the Prior Applications, or (iii) the defense of the Lawsuits.

4.3 The Parties certify that they have read the provisions of California Civil Code Section 1542 and have consulted their own counsel regarding that Section. The Parties waive any and all rights under California Civil Code Section 1542, which states:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

- 4.4 Each Party has made an investigation of the facts pertaining to this Agreement as such party deems necessary.
- 4.5 The Parties are aware that they may hereafter discover claims or facts in addition to or different from those they now know or believe to be true with respect to the matters concerning this Agreement. Nevertheless, it is the intention of the Parties to settle and release fully, finally and forever all claims related to the subject matter of this Agreement which now exist, may exist or may have existed. In furtherance of the parties' intent, the release in this Agreement shall remain in full and complete effect notwithstanding the discovery or existence of any additional or different claims or facts.
- 4.6 The foregoing releases shall extend to every type of claim, whether based on a tort, contract, equity, statute, or other theory of recovery that exists now or may be discovered in the future.
- 4.7 The foregoing shall in no way be construed to limit or prevent any Party's ability to enforce the terms of this Agreement or preclude any Party from raising any legal theory, claim or defense with respect to the Sweetwater Mesa Parcels or in any other context In no event shall the foregoing releases apply to the Modified Applications or the Morleigh Application or to the processing, consideration or action taken by any Party with respect to the Modified Applications or the Morleigh Application.

5. Miscellaneous

5.1 This Agreement constitutes a settlement and compromise of claims asserted in the Lawsuit. Neither the offer nor the acceptance of the terms and conditions of this

Agreement nor any other aspect of this settlement represents an admission of liability on the part of any Party.

5.1.1 The submission and processing of the Modified Applications and the Morleigh Application shall not constitute an estoppel, waiver or laches or waiver of any other defense with respect to any legal rights the Parties may have now or in the future in the Lawsuits or otherwise operate to prejudice any Party in any manner. The Parties retain all present and future rights and claims that exist now or may arise in the future and all such rights and claims are reserved.

5.1.2 This Agreement, the processing of the Modified Applications and Morleigh Application and any information provided to the Commission by Mulryan, Lunch, Vera, Ronan or Morleigh in connection with the processing and consideration of the Modified Applications or the Morleigh Application shall not constitute or be cited either as evidence or as an admission (i) of any claim or defense by any Party in any of the Lawsuits, (ii) that Mulryan, Lunch, Vera, Ronan and Morleigh are not the sole and separate owners of their respective Sweetwater Mesa Parcels or are conducting themselves as a partnership with respect to the ownership of any of the Sweetwater Mesa Parcels or otherwise, or (iii) that any of the Sweetwater Mesa Parcels are owned by anyone other the holder of record title.

5.2 All of the Parties acknowledge that they are and have been represented by legal counsel of their own choice throughout all of the negotiations which preceded the execution of this Agreement. No court of law or equity shall construe any part or portion of this Agreement as against any of the Parties hereto by virtue of the identity of the drafters.

5.3 This Agreement contains the entire agreement of the Parties and supersedes all prior negotiations and proposed agreements, written and oral. The Parties acknowledge and warrant that neither they, nor their respective agents or attorneys, have made or implied any promise, representation or warranty whatsoever, expressed or implied, not contained in this Agreement to induce the execution of this Agreement. Each Party acknowledges and

warrants that he, she or it has not relied on any express or implied promise, representation, or warranty not contained in this Agreement.

5.4 No amendment, alteration or variation of the terms of this Agreement shall be valid unless made in writing and signed by all of the Parties.

5.5 This Agreement and all rights and obligations arising out of it shall be governed and construed in accordance with the laws of the State of California.

5.6 This Agreement shall be binding on each Party's successors, assigns, heirs, and beneficiaries.

5.7 Should any provision of this Agreement be declared or determined by any court of competent jurisdiction to be illegal, invalid or unenforceable, the legality, validity or enforceability of the remaining parts, terms or provisions, shall not be affected and the illegal, unenforceable or invalid part, term or provision shall be deemed not to be part of this Agreement.

5.8 This Agreement, consisting of thirty-eight (38) pages, including exhibits, shall be executed in six duplicate originals. One duplicate original of this Agreement, with executed counterpart signature pages, shall be retained by each of the Parties.

5.9 THE PARTIES CERTIFY THAT EACH HAS READ ALL OF THIS AGREEMENT AND FULLY UNDERSTANDS ITS TERMS.

IN WITNESS WHEREOF, the undersigned Parties have executed this Agreement as of the date set forth below.

Dated: May <u>24</u> , 2013	By: TIMOTHY DELANEM
Dated: May	LUNCH PROPERTIES LLLP
	By:

warrants that he, she or it has not relied on any express or implied promise, representation, or warranty not contained in this Agreement.

- 5.4 No amendment, alteration or variation of the terms of this Agreement shall be valid unless made in writing and signed by all of the Parties.
- 5.5 This Agreement and all rights and obligations arising out of it shall be governed and construed in accordance with the laws of the State of California.
- 5.6 This Agreement shall be binding on each Party's successors, assigns, beirs, and beneficiaries.
- 5.7 Should any provision of this Agreement be declared or determined by any court of competent jurisdiction to be illegal, involid or unenforceable, the legality, validity or enforceability of the remaining parts, terms or provisions, shall not be affected and the illegal, unenforceable or invalid part, term or provision shall be deemed not to be part of this Agreement.
- 5.8 This Agreement, consisting of thirty-eight (38) pages, including exhibits, shall be executed in six duplicate originals. One duplicate original of this Agreement, with executed counterpart signature pages, shall be retained by each of the Parties.

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IN WITNESS WHEREOF, the undersigned Parties have executed this Agreement as of the date set forth below.

Dated: May, 2013	MULRYAN PROPERTIES LLLP
	Ву:
Dated: May 28, 2013	LUNCH PROPERTIES LLLP Walkelduff By:

Dated: May 28, 2013	VERA PROPERTIES LLLP
	By: The War
Dated: May, 2013	RONAN PROPERTIES LLLP
	By:
Dated: May, 2013	MORLEIGH PROPERTIES LLLP
-1	By:
Dated: May, 2013	CALIFORNIA COASTAL COMMISSION
	By:

Dated: May, 2013	VERA PROPERTIES LLLP
	By: Its:
Dated: May 24, 2013	RONAN PROPERTIES LLLP
	By: Several Partner
Dated: May, 2013	MORLEIGH PROPERTIES LLLP
	By:
Dated: May, 2013	CALIFORNIA COASTAL COMMISSION
	By:

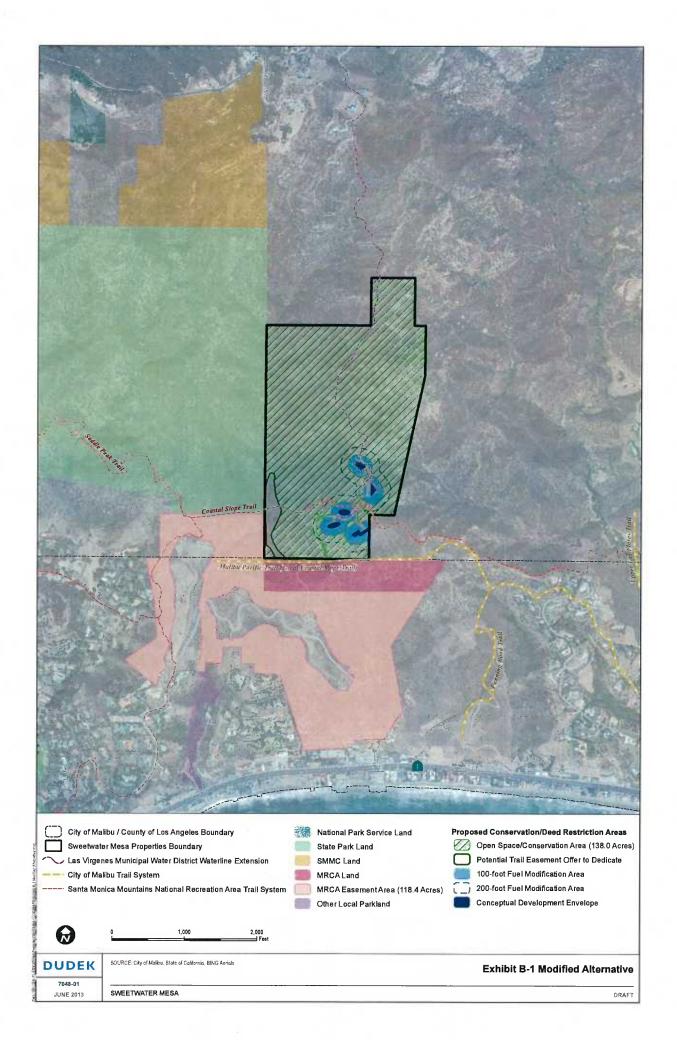
Dated: May, 2013	VERA PROPERTIES LLLP
	By:
Dated: May, 2013	RONAN PROPERTIES LLLP
	By:
Dated: May <u>04</u> , 2013	MORLEIGH PROPERTIES LILP By: Clarital Sullivair
Dated: May, 2013	CALIFORNIA COASTAL COMMISSION
	Bv:

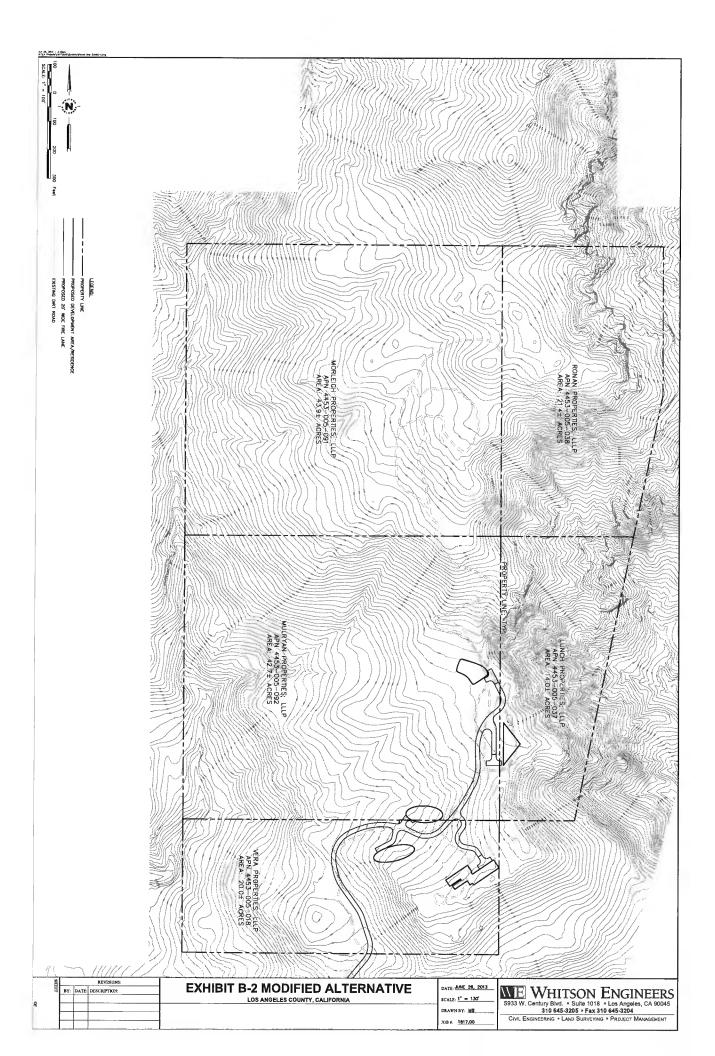
Its: _

Dated: May, 2013	VERA PROPERTIES LLLP
	By:
Dated: May, 2013	RONAN PROPERTIES LLLP
	By:
Dated: May, 2013	MORLEIGH PROPERTIES LLLP
	By:
Dated: May 3, 2013	By: Its: Exec. prector

Exhibit A







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4	Email: slamport@coxcastle.com	
5	Attorneys for Petitioner MULRYAN PROPERTIES, LLLP	
6	WOLKTANT KOT EKTIES, ELLI	
7		
8	SUPERIOR COURT OF TH	E STATE OF CALIFORNIA
9	FOR THE COUNTY	OF LOS ANGELES
10		
11	MULRYAN PROPERTIES, LLLP,	CASE NO. BS133269
12	Petitioner,	Related Cases: BS133270, BS133271, BS133272
13	VS.	Assigned for all Purposes to:
14	CALIFORNIA COASTAL COMMISSION, and	Hon. James C. Chalfant Department 85
15	DOES 1 through 50, inclusive,,	STIPULATION AND ORDER TO
16	Respondents.	REMAND APPLICATIONS AND STAY LITIGATION
17		
18		Action filed: August 12, 2011 Trial date: None set
19		
20	The Parties to this Stipulation and Order ("S	tipulation") are Petitioners Mulryan Properties
21	LLLP, Lunch Properties LLLP, Vera Properties LL	LP and Ronan Properties LLLP (collectively,
22	"Petitioners") and Respondent California Coastal C	ommission ("Commission"), individually referred
23	to as a "Party" and collectively referred to as "Partic	es." The Parties have entered into a written
24	Settlement and Mutual Release Agreement dated Se	eptember 3, 2013 ("Settlement Agreement") for the
25	Commission to consider an alternative to the projec	ts that are the subject of this litigation and that may
26	resolve this litigation if approved on terms that Petit	tioners accept. The Parties stipulate that the Court
27	remand the applications that are the subject of this l	itigation to the Commission for consideration of an

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alternative to the projects on the terms contained in this Stipulation and the Parties' written Settlement Agreement.

1 Recitals

This Stipulation is made with respect to the following facts:

- A. Petitioners maintain that they each own one of four separate legal lots on land commonly referred to as Sweetwater Mesa ("Sweetwater Mesa Parcels"). Each maintains that it is the sole and separate owner of one of the four Sweetwater Mesa Parcels. The Commission maintains that some or all of the Sweetwater Mesa Parcels are under common ownership or control. No Party is conceding its position regarding ownership or control of the Sweetwater Mesa Parcels in this Stipulation.
- B. Petitioners brought separate applications to construct single family residences and related improvements on the Sweetwater Mesa Parcels ("Applications"). The Commission conducted a public hearing on the Applications on June 16, 2011. At the conclusion of the hearing, the Commission voted to deny each of the Applications.
- C. Each Petitioner brought a separate petition for writ of mandate seeking to vacate the Commission's denial of the Petitioner's Application ("Lawsuits"). On October 21, 2011, all of the Lawsuits were consolidated for all further proceedings before the Court.
- D. The Commission findings in connection with its denial of the Applications include a discussion of an alternative plan of development on a portion of the Sweetwater Mesa land that is encompassed by the Applications. The Parties have agreed to this Stipulation to remand the Applications to the Commission in order to allow the Commission to consider a modified version of that alternative in accordance with parameters specified in a separate written Settlement Agreement among the Parties ("Modified Alternative").

2. Remand to Commission

The Parties stipulate that the Court may order the Applications remanded to the Commission for consideration of the Modified Alternative.

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3. Stay of Litigation

To facilitate the processing and the Commission's consideration of the Modified Applications and Modified Alternative, the Parties stipulate and request that the Court stay all proceedings in each of the Lawsuits from the date of the Court's order on the following terms:

- A. All statutory deadlines, statutes of limitation or other deadlines or times applicable to any of the Lawsuits (including, without limitation, the time limit within which to bring the Lawsuits to trial) are suspended, waived, extended and tolled while the stay is in effect.
- B. Neither the stay nor the submission or processing of the Modified Applications shall constitute an estoppel, waiver, laches or any other defense with respect to any legal rights the Parties may have in the Lawsuits, or otherwise operate to prejudice any Party in any manner. The Parties retain all present and future rights and claims that exist now or may arise in the future and all such rights and claims are reserved.
- C. Neither this Stipulation nor the processing of the Modified Applications or any information provided to the Commission in connection with the processing and consideration of the Modified Applications shall constitute or be cited as evidence or as an admission of any claim or defense by any Party in any of the Lawsuits, including, without limitation, any claim regarding ownership of the Sweetwater Mesa Parcels.

4. <u>Termination of the Stay</u>

- A. The stay may be terminated in accordance with the terms of the Settlement Agreement.
- B. Parties terminating the stay shall file and serve by email and by overnight delivery a Notice of Termination of Stay. The stay shall terminate 30 days after the Notice of Termination of Stay is filed with the Court and served on the Parties.
- C. In the event that the stay is terminated, Petitioners shall have the right to reactivate their respective Lawsuits and to pursue their claims in their respective Lawsuits against the Commission.

 The Commission shall make a copy of the administrative record available to each of the Parties within 30 days after the date the termination of the stay takes effect.
- D. In the event a Notice of Termination of Stay is filed and served, any Party may request the Court to set a case management conference or trial setting conference for the purpose of

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1 establishing a hearing date and briefing schedule or to seek any other relief from the Court with 2 respect to the conduct of the litigation. 3 5. **Dismissal of the Petitioner Lawsuits** In the event the stay is not terminated pursuant to Paragraph 4.A., Petitioners shall dismiss 4 their respective Lawsuits without prejudice in accordance with and subject to the terms of the Parties' 5 6 written Settlement Agreement, which are incorporated by reference. Notwithstanding the foregoing, 7 the dismissals of the Lawsuits shall not constitute res judicata, collateral estoppel or waiver as to any 8 Party or otherwise preclude any Party from asserting any legal theory, claim or defense with respect to 9 the Sweetwater Mesa Parcels or in any other context. 10 **Continuing Court Jurisdiction** 6. 11 A. The Court may schedule periodic case management conferences for the Parties to 12 report to the Court on the status of the stay. 13 В. The Court shall retain jurisdiction over the terms of this Stipulation for the purposes of 14 resolving disputes concerning the interpretation or implementation of this Stipulation. 15 C. This Stipulation may be executed in counterparts and facsimile transmission. 16 D. The Parties enter into this Stipulation without admitting any fault or liability or waiving 17 any claim or defense of any kind, but solely for the purpose of avoiding the costs and risks of litigation 18 and to resolve the Lawsuits in a mutually satisfactory manner. 19 DATED: August , 2013 COX, CASTLE & NICHOLSON LLP 20 21 By: Stanley W. Lamport 22 Attorneys for Petitioner MULRYAN PROPERTIES, LLLP 23 MANATT, PHELPS & PHILLIPS LLP DATED: August , 2013 24 25 By: 26 George M. Soneff Attorneys for Petitioner RONAN PROPERTIES, 27 LLLP 28

COX, CASTLE & NICHOLSON LLP LOS ANGELES, CA

1	DATED: August, 2013	HOLLISTER & BRACE
2		
3		By: Richard C. Monk
4		Marcus S. Bird Attorneys for Petitioner LUNCH PROPERTIES,
5		LLLP
6	DATED: August, 2013	RICHARDS, WATSON & GERSHON
7		
8		By: Steven H. Kaufmann
9		Attorneys for Petitioner VERA PROPERTIES, LLLP
10	DATED August, 2013	KAMALA D. HARRIS
11		ATTORNEY GENERAL OF CALIFORNIA
12		
13		By: Jamee Jordan Patterson, Supervising Deputy
14		Attorney General Attorneys for Respondent CALIFORNIA COASTAL COMMISSION
15		COASTAL COMMISSION
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COX, CASTLE &
NICHOLSON LLP
LOS ANGELES, CA

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ORDER

It is ordered that all proceedings in each of the Lawsuits in this consolidated proceeding are stayed on the terms set forth above in the Parties' Stipulation as of the date of this Order. A case management conference shall occur on May, 27, 2014 at 1:30 p.m. for the counsel for the Parties to report to the Court on the status of the stay. The Applications are remanded to the Commission for consideration of the Modified Alternative.

DATED: September ___, 2013

James C. Chalfant, Judge Presiding

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1		PROOF OF SERVICE AND CERTIFICATION
2		I am employed in the County of Los Angeles, State of California. I am over the age of 18 and not a party to the within action; my business address is 2049 Century Park East, 28th Floor, Los Angeles, California 90067-3284.
4		(FOR MESSENGER) My business address is Nationwide Legal, 1609 James M. Wood Blvd., 2nd Fl., Los Angeles CA 90015-1005.
5		On September 2013, I served the foregoing document(s) described as STIPULATION AND ORDER TO CONTINUE TRIAL SETTING CONFERENCE on ALL INTERESTED PARTIES in this action by
6		placing □ the original 図 a true copy thereof enclosed in a sealed envelope addressed as follows:
7		SEE ATTACHED MAILING LIST
8		On the above date:
9	×	(BY ☑ U.S. MAIL/BY ☐ EXPRESS MAIL) The sealed envelope with postage thereon fully prepaid was placed for collection and mailing following ordinary business practices. I am aware that on motion of the party served, service is presumed invalid if the postage cancellation date or postage meter date on the
10		envelope is more than one day after the date of deposit for mailing set forth in this declaration. I am readily familiar with Cox, Castle & Nicholson LLP's practice for collection and processing of documents
11		for mailing with the United States Postal Service and that the documents are deposited with the United States Postal Service the same day as the day of collection in the ordinary course of business.
12		(BY FEDERAL EXPRESS OR OTHER OVERNIGHT SERVICE) I deposited the sealed envelope in a
13		box or other facility regularly maintained by the express service carrier or delivered the sealed envelope to an authorized carrier or driver authorized by the express carrier to receive documents.
14		(BY FACSIMILE TRANSMISSION) On November, 2012, at a.m./p.m. at Los Angeles, California, I served the above-referenced document on the above-stated addressee by facsimile
15 16		transmission pursuant to Rule 2.306 of the California Rules of Court. The telephone number of the sending facsimile machine was (), and the telephone number of the receiving facsimile number was () A transmission report was properly issued by the sending facsimile machine, and the transmission was reported as complete and without error. Copies of the facsimile
17		transmission cover sheet and the transmission report are attached to this proof of service.
18		(BY E-MAIL OR ELECTRONIC TRANSMISSION) - On September, 2012, at p.m. at Los Angeles, California, I served the above-referenced document by electronic mail to the e-mail address of the addressee(s) pursuant to Rule 2.260 of the California Rules of Court. The transmission was
19		complete and without error and I did not receive, within a reasonable time after the transmission, any electronic message or other indication that the transmission was unsuccessful.
20		(BY PERSONAL DELIVERY) By causing a true copy of the within document(s) to be personally hand-delivered to the office(s) of the addressee(s) set forth above, on the date set forth above.
21		I hereby certify that the above document was printed on recycled paper.
22		I declare under penalty of perjury that the foregoing is true and correct.
23		Executed on September, 2013, at Los Angeles, California.
24		
25		RAMONA LEE
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LAW OFFICES OF COX, CASTLE & 063937\4235725v6 NICHOLSON LLP LOS ANGELES, CA

PROOF OF SERVICE – MAILING LIST

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SWEETWATER MESA SPECIAL CONDITIONS

1. Plans Conforming to Geotechnical Engineer's Recommendations

By acceptance of this permit, the applicant agrees to comply with the recommendations contained in all of the geology, geotechnical, and/or soils reports referenced as Substantive File Documents. These recommendations, including recommendations concerning foundations, sewage disposal, and drainage, shall be incorporated into all final design and construction plans, which must be reviewed and approved by the consultant prior to commencement of development.

The final plans approved by the consultant shall be in substantial conformance with the plans approved by the Commission relative to construction, grading, and drainage. Any substantial changes in the proposed development approved by the Commission that may be required by the consultant shall require amendment(s) to the permit(s) or new Coastal Development Permit(s).

2. Assumption of Risk, Waiver of Liability and Indemnity

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

3. Permanent Drainage and Polluted Runoff Control Plan

A. *Prior to issuance of the Coastal Development Permit*, the applicant shall submit to the Executive Director, two (2) copies of a final Drainage and Runoff Control Plan for the post-construction project site, prepared by a licensed civil engineer or qualified licensed professional. The Plan shall include detailed drainage and runoff control plans with supporting calculations. The plans shall incorporate Best Management Practices (BMPs) including site design, source control and treatment control measures designed to reduce, to the maximum extent practicable, the volume, velocity and pollutant load of stormwater and dry weather runoff leaving the developed site. The consulting licensed civil engineer or qualified licensed professional shall certify in writing that the final Drainage and Runoff Control Plan is in substantial conformance with the following minimum requirements:

- (1) The plan shall demonstrate the use of distributed small-scale controls or integrated Best Management Practices (BMPs) that serve to minimize alterations to the natural pre-development hydrologic characteristics and conditions of the site, and effectively address pollutants of concern.
- (2) Post-development peak runoff rate and average volume from the site shall be maintained at levels similar to pre-development conditions.
- (3) Selected BMPs shall consist, or primarily consist, of site design elements and/or landscape based systems or features that serve to maintain site permeability, avoid directly connected impervious area and/or retain, infiltrate, or filter runoff from rooftops, driveways and other hardscape areas, where feasible. Examples of such features include but are not limited to porous pavement, pavers, rain gardens, vegetated swales, infiltration trenches, cisterns.
- (4) Landscaping materials shall consist primarily of native or other low-maintenance plant selections which have low water and chemical treatment demands, consistent with Special Condition 5, Landscaping and Fuel Modification Plans. An efficient irrigation system designed based on hydrozones and utilizing drip emitters or micro-sprays or other efficient design shall be utilized for any landscaping requiring water application.
- (5) All slopes shall be stabilized in accordance with provisions contained in the Landscaping and/or Interim Erosion and Sediment Control Condition for this Coastal Development Permit.
- (6) Runoff shall be discharged from the developed site in a non-erosive manner. Energy dissipating measures shall be installed at the terminus of outflow drains where necessary. The consulting engineer shall provide plan details and cross sections for any rock rip-rap and/or other energy dissipating devices or structures associated with the drainage system. The drainage plans shall specify, the location, dimensions, cubic yards of rock, etc. for the any velocity reducing structure with the supporting calculations showing the sizing requirements and how the device meets those sizing requirements. The engineer shall certify that the design of the device minimizes the amount of rock and/or other hardscape necessary to meet the sizing requirements.
- (7) Post-construction structural BMPs (or suites of BMPs) shall be designed to treat, infiltrate or filter the amount of stormwater runoff produced by all storms up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, and/or the 85th percentile, 1-hour storm event, with an appropriate safety factor (i.e., 2 or greater), for flow-based BMPs.
- (8) All BMPs shall be operated, monitored, and maintained in accordance with manufacturer's specifications where applicable, or in accordance with well recognized technical specifications appropriate to the BMP for the life of the project and at a minimum, all structural BMPs shall be inspected, cleaned-out, and where necessary, repaired prior to the onset of the storm season (October 15th each year) and at regular intervals as necessary between October 15th and April 15th of each year. Debris and other water pollutants removed from

- structural BMP(s) during clean-out shall be contained and disposed of in a proper manner.
- (9) For projects located on a hillside, slope, or which may otherwise be prone to instability, final drainage plans shall be approved by the project consulting geotechnical engineer.
- (10) Should any of the project's surface or subsurface drainage/filtration structures or other BMPs fail or result in increased erosion, the applicant/landowner or successor-in-interest shall be responsible for any necessary repairs to the drainage/filtration system or BMPs and restoration of the eroded area. Should repairs or restoration become necessary, prior to the commencement of such repair or restoration work, the applicant shall submit a repair and restoration plan to the Executive Director to determine if an amendment or new coastal development permit is required to authorize such work.
- B. The final Drainage and Runoff Control Plan shall be in conformance with the site/development plans approved by the Coastal Commission. Any changes to the Coastal Commission approved site/development plans required by the consulting licensed civil engineer, or qualified licensed professional, or engineering geologist shall be reported to the Executive Director. No changes to the Coastal Commission approved final site/development plans shall occur without an amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

4. Interim Erosion Control Plans and Construction Responsibilities

A. **Prior to the issuance of the Coastal Development Permit**, the applicant shall submit to the Executive Director an Interim Erosion Control and Construction Best Management Practices plan, prepared by licensed civil engineer or qualified water quality professional. The consulting civil engineer/water quality professional shall certify in writing that the Interim Erosion Control and Construction Best Management Practices (BMPs) plan is in conformance with the following requirements:

1. Erosion Control Plan

- (a) The plan shall delineate the areas to be disturbed by grading or construction activities and shall include any temporary access roads, staging areas and stockpile areas. The natural areas on the site shall be clearly delineated on the plan and on-site with fencing or survey flags.
- (b) Include a narrative report describing all temporary run-off and erosion control measures to be used during construction.
- (c) The plan shall identify and delineate on a site or grading plan the locations of all temporary erosion control measures.
- (d) The plan shall specify that grading shall take place only during the dry season (April 1 October 31). This period may be extended for a limited period of time if the situation warrants such a limited extension, if approved by the Executive

Director. The applicant shall install or construct temporary sediment basins (including debris basins, desilting basins, or silt traps), temporary drains and swales, sand bag barriers, silt fencing, and shall stabilize any stockpiled fill with geofabric covers or other appropriate cover, install geotextiles or mats on all cut or fill slopes, and close and stabilize open trenches as soon as possible.

- (e) The erosion control measures shall be required on the project site prior to or concurrent with the initial grading operations and maintained throughout the development process to minimize erosion and sediment from runoff waters during construction. All sediment should be retained on-site, unless removed to an appropriate, approved dumping location either outside of the coastal zone or within the coastal zone to a site permitted to receive fill.
- (f) The plan shall also include temporary erosion control measures should grading or site preparation cease for a period of more than 30 days, including but not limited to: stabilization of all stockpiled fill, access roads, disturbed soils and cut and fill slopes with geotextiles and/or mats, sand bag barriers, silt fencing; temporary drains and swales and sediment basins. The plans shall also specify that all disturbed areas shall be seeded with native grass species and include the technical specifications for seeding the disturbed areas. These temporary erosion control measures shall be monitored and maintained until grading or construction operations resume.

2. Construction Best Management Practices

- (a) No demolition or construction materials, debris, or waste shall be placed or stored where it may enter sensitive habitat, receiving waters or a storm drain, or be subject to wave, wind, rain, or tidal erosion and dispersion.
- (b) No demolition or construction equipment, materials, or activity shall be placed in or occur in any location that would result in impacts to environmentally sensitive habitat areas, streams, wetlands or their buffers.
- (c) Any and all debris resulting from demolition or construction activities shall be removed from the project site within 24 hours of completion of the project.
- (d) Demolition or construction debris and sediment shall be removed from work areas each day that demolition or construction occurs to prevent the accumulation of sediment and other debris that may be discharged into coastal waters.
- (e) All trash and debris shall be disposed in the proper trash and recycling receptacles at the end of every construction day.
- (f) The applicant shall provide adequate disposal facilities for solid waste, including excess concrete, produced during demolition or construction.
- (g) Debris shall be disposed of at a legal disposal site or recycled at a recycling facility. If the disposal site is located in the coastal zone, a coastal development permit or an amendment to this permit shall be required before disposal can take

- place unless the Executive Director determines that no amendment or new permit is legally required.
- (h) All stock piles and construction materials shall be covered, enclosed on all sides, shall be located as far away as possible from drain inlets and any waterway, and shall not be stored in contact with the soil.
- (i) Machinery and equipment shall be maintained and washed in confined areas specifically designed to control runoff. Thinners or solvents shall not be discharged into sanitary or storm sewer systems.
- (j) The discharge of any hazardous materials into any receiving waters shall be prohibited.
- (k) Spill prevention and control measures shall be implemented to ensure the proper handling and storage of petroleum products and other construction materials. Measures shall include a designated fueling and vehicle maintenance area with appropriate berms and protection to prevent any spillage of gasoline or related petroleum products or contact with runoff. The area shall be located as far away from the receiving waters and storm drain inlets as possible.
- (I) Best Management Practices (BMPs) and Good Housekeeping Practices (GHPs) designed to prevent spillage and/or runoff of demolition or construction-related materials, and to contain sediment or contaminants associated with demolition or construction activity, shall be implemented prior to the on-set of such activity
- (m) All BMPs shall be maintained in a functional condition throughout the duration of construction activity.
- B. The final Interim Erosion Control and Construction Best Management Practices plan, shall be in conformance with the site/ development plans approved by the Coastal Commission. Any changes to the Coastal Commission approved site/development plans required by the consulting civil engineer/water quality professional shall be reported to the Executive Director. No changes to the Coastal Commission approved final site/development plans shall occur without an amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

5. Landscaping and Fuel Modification Plans

Prior to issuance of the Coastal Development Permit, the applicant shall submit two sets of landscaping and fuel modification plans, prepared by a licensed landscape architect or a qualified resource specialist. The landscaping and erosion control plans shall be reviewed and approved by the consulting engineering geologist to ensure that the plans are in conformance with the consultants' recommendations. The consulting landscape architect or qualified landscape professional shall certify in writing that the final Landscape and Fuel Modification plans are in conformance with the following requirements:

A) Landscaping Plan

- (1) All graded & disturbed areas on the subject site shall be planted and maintained for erosion control purposes within thirty (30) days of receipt of the certificate of occupancy for the residence. To minimize the need for irrigation all landscaping shall consist primarily of native/drought resistant plants, as listed by the California Native Plant Society, Santa Monica Mountains Chapter, in their document entitled Recommended List of Plants for Landscaping in the Santa Monica Mountains, dated February 5, 1996. All native plant species shall be of local genetic stock. No plant species listed as problematic and/or invasive by the California Native Plant Society (http://www.CNPS.org/), the California Invasive Plant Council (formerly the California Exotic Pest Plant Council) (http://www.calipc.org/), or as may be identified from time to time by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as a "noxious weed" by the State of California or the U.S. Federal Government shall be utilized within the property.
- (2) All cut and fill slopes shall be stabilized with planting at the completion of final grading. Planting should be of native plant species indigenous to the Santa Monica Mountains using accepted planting procedures, consistent with fire safety requirements. All native plant species shall be of local genetic stock. Such planting shall be adequate to provide 90 percent coverage within two (2) years, and this requirement shall apply to all disturbed soils;
- (3) Plantings will be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with applicable landscape requirements;
- (4) Rodenticides containing any anticoagulant compounds (including, but not limited to, Warfarin, Brodifacoum, Bromadiolone or Diphacinone) shall not be used.
- (5) Fencing of the entire property is prohibited. Fencing shall extend no further than the approved development area. The fencing type and location shall be illustrated on the landscape plan. Fencing shall also be subject to the color requirements outlined in **Special Condition 6, Structural Appearance**, below.

B) Fuel Modification Plans

Vegetation within 20 feet of the proposed house may be removed to mineral earth, vegetation within a 200-foot radius of the main structure may be selectively thinned in order to reduce fire hazard. However, such thinning shall only occur in accordance with an approved long-term fuel modification plan submitted pursuant to this special condition. The fuel modification plan shall include details regarding the types, sizes and location of plant materials to be removed, and how often thinning is to occur. In addition, the applicant shall submit evidence that the fuel modification plan has been reviewed and approved by the Forestry Department of Los Angeles County. Irrigated lawn, turf and ground cover planted within the twenty foot radius of the proposed house shall be selected from the most drought tolerant species or subspecies, or varieties suited to the Mediterranean climate of the Santa Monica Mountains.

C) Conformance with Commission Approved Site/Development Plans

The Permittee shall undertake development in accordance with the final Landscape and Fuel Modification Plans. The final Landscape and Fuel Modification Plans shall be in conformance with the site/development plans approved by the Coastal Commission. Any changes to the Coastal Commission approved site/development plans shall be reported to the Executive Director. No changes to the Coastal Commission approved final site/development plans shall occur without an amendment to the coastal development permit, unless the Executive Director determines that no amendment is legally required.

D) Monitoring

Three years from the date of the receipt of the Certificate of Occupancy for the residence the applicant shall submit to the Executive Director, a landscape monitoring report, prepared by a licensed Landscape Architect or qualified Resource Specialist, that certifies the on-site landscaping is in conformance with the landscape plan approved pursuant to this Special Condition. The monitoring report shall include photographic documentation of plant species and plant coverage.

If the landscape monitoring report indicates the landscaping is not in conformance with or has failed to meet the requirements specified in this condition, the applicant, or successors in interest, shall submit, within 30 days of the date of the monitoring report, a revised or supplemental landscape plan, certified by a licensed Landscape Architect or a qualified Resource Specialist, that specifies additional or supplemental landscaping measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan. This remedial landscaping plan shall be implemented within 30 days of the date of the final supplemental landscaping plan and remedial measures shall be repeated as necessary to meet the requirements of this condition.

6. Structural Appearance

Prior to issuance of the Coastal Development Permit, the applicant shall submit for the review and approval of the Executive Director, a color palette and material specifications for the outer surface of all structures authorized by the approval of this Coastal Development Permit. The palette samples shall be presented in a format not to exceed 8½" x 11" x ½" in size. The palette shall include the colors proposed for the roofs, trims, exterior surfaces, driveways, retaining walls, and other structures authorized by this permit. Acceptable colors shall be limited to colors compatible with the surrounding environment (earth tones) including shades of green, brown and gray with no white or light shades and no bright tones. All windows shall be comprised of non-glare glass.

The approved structures shall be colored with only the colors and window materials authorized pursuant to this special condition. Alternative colors or materials for future repainting or resurfacing or new windows may only be applied to the structures

authorized by this Coastal Development Permit if such changes are specifically authorized by the Executive Director as complying with this special condition.

7. Lighting Restriction

A. The only outdoor night lighting allowed on the subject parcel is limited to the following:

- (1) The minimum necessary to light walkways used for entry and exit to the structures, including parking areas on the site. This lighting shall be limited to fixtures that do not exceed two feet in height above finished grade, are directed downward and generate the same or less lumens equivalent to those generated by a 60 watt incandescent bulb, unless a greater number of lumens is authorized by the Executive Director.
- (2) Security lighting attached to the residence and garage shall be controlled by motion detectors and is limited to same or less lumens equivalent to those generated by a 60 watt incandescent bulb.
- (3) The minimum necessary to light the entry area to the driveway with the same or less lumens equivalent to those generated by a 60 watt incandescent bulb.
- B. No lighting around the perimeter of the site and no lighting for aesthetic purposes is allowed.

8. Future Development Restriction

This permit is only for the development described in this Coastal Development Permit. Pursuant to Title 14 California Code of Regulations section 13250(b)(6), the exemptions otherwise provided in Public Resources Code section 30610(a) shall not apply to the development governed by this Coastal Development Permit. Accordingly, any future structures, future improvements, or change of use to the permitted structures authorized by this permit, including but not limited to, any grading, clearing or other disturbance of vegetation other than as provided for in the approved landscape plan prepared pursuant to **Special Condition 5**, **Landscaping and Fuel Modification Plans**, shall require an amendment to this Coastal Development Permit from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.

9. Deed Restriction

Prior to issuance of the Coastal Development Permit, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, 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 permit as covenants, conditions and restrictions on the use and enjoyment of the

Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. 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 permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

10. Habitat Impact Mitigation

Prior to issuance of the Coastal Development Permit, the applicant shall submit, for the review and approval of the Executive Director, a map delineating all areas of chaparral and coastal sage scrub habitat (ESHA) that will be disturbed by the proposed development, including fuel modification and brush clearance requirements on the project site and adjacent property. The chaparral and coastal sage scrub ESHA areas on the site and adjacent property shall be delineated on a detailed map, to scale, illustrating the subject parcel boundaries and, if the fuel modification/brush clearance zones extend onto adjacent property, adjacent parcel boundaries. The delineation map shall indicate the total acreage for all chaparral and coastal sage scrub ESHA, both on and offsite, that will be impacted by the proposed development, including the fuel modification/brush clearance areas. A 200-foot clearance zone from the proposed structures shall be used to determine the extent of off-site brush clearance for fire protection purposes. The delineation shall be prepared by a qualified resource specialist or biologist familiar with the ecology of the Santa Monica Mountains.

Mitigation shall be provided for impacts to the chaparral and coastal sage scrub ESHA from the proposed development and fuel modification/brush clearance requirements by one of the three following habitat mitigation methods:

A. Habitat Restoration

1) Habitat Restoration Plan

Prior to issuance of the Coastal Development Permit, the applicant shall submit a habitat restoration plan, for the review and approval of the Executive Director, for an area of degraded chaparral and/or coastal sage scrub habitat equivalent to the area of chaparral and/or coastal sage scrub ESHA impacted by the proposed development and fuel modification/brush clearance area. The habitat restoration area may either be onsite or offsite within the coastal zone either in the City of Malibu or elsewhere in the Santa Monica Mountains. The habitat restoration area shall be delineated on a detailed site plan, to scale, that illustrates the parcel boundaries and topographic contours of the site. The habitat restoration plan shall be prepared by a qualified resource specialist or biologist familiar with the ecology of the Santa Monica Mountains and shall be designed to restore the area in question for habitat function, species diversity and vegetation cover. The restoration plan shall include a statement of goals and performance standards, revegetation and restoration methodology, and maintenance and monitoring

provisions. If the restoration site is offsite, the applicant shall submit written evidence to the Executive Director that the property owner has irrevocably agreed to allow the restoration work, maintenance and monitoring required by this condition and not to disturb any native vegetation in the restoration area.

The applicant shall submit, on an annual basis for five years, a written report, for the review and approval of the Executive Director, prepared by a qualified resource specialist, evaluating compliance with the performance standards outlined in the restoration plan and describing the revegetation, maintenance and monitoring that was conducted during the prior year. The annual report shall include recommendations for mid-course corrective measures. At the end of the five-year period, a final detailed report shall be submitted for the review and approval of the Executive Director. If this report indicates that the restoration project has been, in part or in whole, unsuccessful, based on the approved goals and performance standards, the applicant shall submit a revised or supplemental restoration plan with maintenance and monitoring provisions, for the review and approval of the Executive Director, to compensate for those portions of the original restoration plan that were not successful. Should supplemental restoration be required, the applicant shall submit, on an annual basis for five years, a written report, for the review and approval of the Executive Director, prepared by a qualified resource specialist, evaluating the supplemental restoration areas. At the end of the fiveyear period, a final report shall be submitted evaluating whether the supplemental restoration plan has achieved compliance with the goals and performance standards for the restoration area. If the goals and performance standards are not met within 10 years, the applicant shall submit an application for an amendment to the coastal development permit for an alternative mitigation program and shall implement whatever alternative mitigation program the Commission approves, as approved.

The habitat restoration work approved in the restoration plan shall be carried out prior to occupancy of the residence.

2) Open Space Deed Restriction

No development, as defined in section 30106 of the Coastal Act, shall occur in the habitat restoration area, as shown on the habitat restoration site plan required pursuant to (A)(1) above.

Prior to the issuance of the coastal development permit, the applicant shall submit evidence that the applicant has executed and recorded a deed restriction (if the applicant is not the owner, then the applicant shall submit evidence that the owner has executed and recorded the deed restriction), in a form and content acceptable to the Executive Director, reflecting the above restriction on development and designating the habitat restoration area as open space. The deed restriction shall include a graphic depiction and narrative legal descriptions of both the parcel on which the restoration area lies and the open space area/habitat restoration area.

The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

3) Performance Bond

Prior to issuance of the Coastal Development Permit, the applicant shall post performance bonds to guarantee implementation of the restoration plan as follows: a) one equal to the value of the labor and materials; and b) one equal to the value of the maintenance and monitoring for a period of 5 years. Each performance bond shall be released upon satisfactory completion of items (a) and (b) above. If the applicant fails to either restore or maintain and monitor according to the approved plans, the Coastal Commission may collect the security and complete the work on the property.

B. Habitat Conservation

Prior to issuance of the Coastal Development Permit, the applicant shall (or, if the applicant is not the owner of the habitat conservation site, then the owner of the habitat conservation site shall) execute and record an open space deed restriction in a form and content acceptable to the Executive Director, over the entirety of a legal parcel or parcels containing chaparral and/or coastal sage scrub ESHA. The chaparral and/or coastal sage scrub ESHA located on the mitigation parcel or parcels must be of equal or greater area than the ESHA area impacted by the proposed development, including the fuel modification/brush clearance areas. No development, as defined in section 30106 of the Coastal Act, shall occur on the mitigation parcel(s) and the parcel(s) shall be preserved as permanent open space. The deed restriction shall include a graphic depiction and narrative legal descriptions of the parcel or parcels. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction.

Prior to occupancy of the residence, the applicant shall submit evidence, for the review and approval of the Executive Director, that the recorded documents have been reflected in the Los Angeles County Tax Assessor Records.

If the mitigation parcel(s) is/are larger in size than the impacted habitat area, the excess acreage may be used to provide habitat impact mitigation for other development projects that impact like ESHA.

C. Habitat Impact Mitigation Fund

Prior to issuance of the Coastal Development Permit, the applicant shall submit evidence, for the review and approval of the Executive Director, that payment for compensatory mitigation has been provided to the Mountains Recreation and Conservation Authority to mitigate adverse impacts to chaparral and coastal sage scrub habitat ESHA. The payment shall be calculated as follows:

1. Development Area, Irrigated Fuel Modification Zones, Off-site Brush Clearance

The payment for these areas shall be \$12,000 per acre within the development area, any required irrigated fuel modification zones, and required off-site brush clearance areas (assuming a 200-foot radius from all structures). The total acreage shall be based on the map delineating these areas required by this condition.

2. Non-irrigated Fuel Modification Zones

The payment for non-irrigated fuel modification areas (on-site) shall be \$3,000 per acre. The total acreage shall be based on the map delineating these areas required by this condition.

Prior to the payment for mitigation to the Mountains Recreation and Conservation Authority, the applicant shall submit, for the review and approval of the Executive Director, the calculation of the payment required to mitigate adverse impacts to chaparral and/or coastal sage scrub habitat ESHA, in accordance with this condition. After review and approval of the payment calculation, the payment shall be made to the Mountains Recreation and Conservation Authority's Coastal Habitat Impact Mitigation Fund for the acquisition, permanent preservation or restoration of habitat in the Santa Monica Mountains coastal zone, with priority given to the acquisition of or extinguishment of all development potential on properties containing environmentally sensitive habitat areas and properties adjacent to public parklands.. The payment may not be used to restore areas where development occurred in violation of the Coastal Act's permit requirements.

11. Open Space Conservation Easement

A. No development, as defined in Section 30106 of the Coastal Act, grazing, or agricultural activities shall occur outside of the approved development area, including within the portion of the property identified as the "open space/ conservation area", as shown in Exhibit B-1 (including APN 4453-005 -013 owned by ED West Coast Properties LLLP) except for::

- (1) Construction and (upon securing any necessary coastal development permit) maintenance of the access road, driveway, utilities, septic system, habitat restoration, public hiking trail, approved by the Commission in this coastal development permit and as generally shown on Exhibit XX.
- (2) Fuel modification required by the Los Angeles County Fire Department undertaken in accordance with the final approved fuel modification plan approved pursuant to **Special Condition 5**, **Landscaping and Fuel**

- **Modification Plans**, or other fuel modification plans required and approved by the Commission pursuant to a different CDP(s) issued by the Commission;
- (3) Drainage and polluted runoff control activities required and approved pursuant to:
 - a. The drainage and runoff control plans approved pursuant to Special Condition
 3, Permanent Drainage and Runoff Control Plan, of this permit; and
 - b. The landscaping and erosion control plans approved pursuant to Special Condition 4, Interim Erosion Control & Construction Best Management Practices Plan, and Special Condition 5, Landscaping and Fuel Modification Plans, of this permit;
- (4) Planting of native vegetation and other restoration activities, if approved by the Commission as an amendment to this coastal development permit or a new coastal development permit;
- (5) If approved by the Commission as an amendment to this coastal development permit or a new coastal development permit,
 - a. construction and maintenance of public hiking trails; and
 - b. construction and maintenance of roads, trails, and utilities consistent with existing easements.
- (6) If approved by the Commission in this coastal development permit, or as an amendment to this coastal development permit or new coastal development permit, confined animal facilities or corrals located within Fuel Modification Zone C as defined on the final approved fuel modification plan approved pursuant to Special Condition 5, Landscaping and Fuel Modification Plans, or other fuel modification plans required and approved by the Commission, and meeting the following criteria:
 - a. Not located on slopes greater than 25%
 - b. Require no additional grading other than minimal grading for foundations
 - c. Constructed of non-flammable materials, and
 - d. Does not result in expansion of the required fuel modification area
- B. *Prior to issuance of the Coastal Development Permit*, the applicant shall execute and record a document in a form and content acceptable to the Executive Director, granting to the Mountains Recreation and Conservation Authority ("MRCA"), or another public entity or non-profit association acceptable to the Executive Director, on behalf of the people of the State of California an open space conservation easement over the "open space conservation easement area" described above, for the purpose of habitat protection. The recorded easement document shall include a formal legal description of the entire property; and a metes and bounds legal description and graphic depiction, prepared by a licensed surveyor, of the open space conservation easement area, as generally shown on **Exhibit XX**. The recorded document shall reflect that no development shall occur within the open space conservation easement area except as otherwise set forth in this permit condition. The grant of easement shall be recorded

free of prior liens and encumbrances (other than existing easements for roads, trails, and utilities) which the Executive Director determines may affect the interest being conveyed, and shall run with the land in favor of the MRCA on behalf of the people of the State of California, binding all successors and assigns.

12. Site Inspection

- A. By acceptance of this permit, the applicant irrevocably authorizes, on behalf of the applicant and all successors-in-interest with respect to the subject property. Coastal Commission staff and its designated agents to enter onto the property to undertake site inspections for the purpose of monitoring compliance with the permit, including the special conditions set forth herein, and to document their findings (including, but not limited to, by taking notes, photographs, or video), subject to Commission staff providing 24 hours advanced notice to the contact person indicated pursuant to paragraph B prior to entering the property, unless there is an imminent threat to coastal resources, in which case such notice is not required. If two attempts to reach the contact person by telephone are unsuccessful, the requirement to provide 24 hour notice can be satisfied by voicemail, email, or facsimile sent 24 hours in advance or by a letter mailed three business days prior to the inspection. Consistent with this authorization, the applicant and his successors: (1) shall not interfere with such inspection/monitoring activities and (2) shall provide any documents requested by the Commission staff or its designated agents that are relevant to the determination of compliance with the terms of this permit.
- B. **Prior to issuance of the Coastal Development Permit**, the applicant shall submit to Commission staff the email address and fax number, if available, and the address and phone number of a contact person authorized to receive the Commission's notice of the site inspections allowed by this special condition. The applicant is responsible for updating this contact information, and the Commission is entitled to rely on the last contact information provided to it by the applicant.

13. Removal of Natural Vegetation

Removal of natural vegetation for the purpose of fuel modification within the 50 foot zone surrounding the proposed structure(s) shall not commence until the local government has issued a building or grading permit for the development approved pursuant to this permit. Vegetation thinning within the 50-200 foot fuel modification zone shall not occur until commencement of construction of the structure(s) approved pursuant to this permit.

14. Oak Tree Monitoring

To ensure that all other oak trees located on the subject parcel and along the proposed access road are protected during construction activities, temporary protective barrier fencing shall be installed around the protected zones (5 feet beyond dripline or 15 feet from the trunk, whichever is greater) of all oak trees and retained during all construction

operations. If required construction operations cannot feasibly be carried out in any location with the protective barrier fencing in place, then flagging shall be installed on trees to be protected. The permittee shall also follow the oak tree preservation recommendations that are enumerated in the Oak Tree Report referenced in the Substantive File Documents.

The applicant shall retain the services of a biological consultant or arborist with appropriate qualifications acceptable to the Executive Director. The biological consultant or arborist shall be present on site during all excavation, foundation construction, framing construction, and grading within <u>XX</u> feet of any oak tree. The consultant shall immediately notify the Executive Director if unpermitted activities occur or if habitat is removed or impacted beyond the scope of the work allowed by this Coastal Development Permit. This monitor shall have the authority to require the applicant to cease work should any breach in permit compliance occur, or if any unforeseen sensitive habitat issues arise.

The applicant shall retain the services of a biological consultant or arborist with appropriate qualifications acceptable to the Executive Director to monitor all oak trees that will be encroached upon (Oak Trees No. XX), to determine if the trees are adversely impacted by the encroachment. An annual monitoring report shall be submitted for the review and approval of the Executive Director for each of the ten years. Should any of these trees be lost or suffer worsened health or vigor as a result of this project, the applicant shall plant replacement trees on the site at a rate of 10:1. If replacement plantings are required, the applicant shall submit, for the review and approval of the Executive Director, an oak tree replacement planting program, prepared by a qualified biologist, arborist, or other qualified resource specialist, which specifies replacement tree locations, planting specifications, and a ten-year monitoring program with specific performance standards to ensure that the replacement planting program is successful. An annual monitoring report on the oak tree replacement area shall be submitted for the review and approval of the Executive Director for each of the 10 years. Upon submittal of the replacement planting program, the Executive Director shall determine if an amendment to this coastal development permit, or an additional coastal development permit is required.

15. Condition Compliance

Within 180 days of approval of this project application by all governmental agencies with jurisdiction over the project including the access road and/or any utility extensions necessary to serve the project, or within such additional time as the Executive Director may grant for good cause, the applicant shall satisfy all requirements specified in the conditions hereto that the applicant is required to satisfy prior to issuance of this permit. Failure to comply with this requirement may result in the expiration of this coastal permit approval and the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.

16. Pool and Spa Drainage and Maintenance

By acceptance of this permit, the applicant agrees to install a no chlorine or low chlorine purification system and agrees to maintain proper pool water pH, calcium and alkalinity balance to ensure any runoff or drainage from the pool or spa will not include excessive amounts of chemicals that may adversely affect water quality or environmentally sensitive habitat areas. In addition, the applicant agrees not to discharge chlorinated or non-chlorinated pool water into a street, storm drain, creek, canyon drainage channel, or other location where it could enter receiving waters.

17. Restoration/Revegetation Plans and Implementation

Prior to issuance of the Coastal Development Permit, the applicant shall submit, for the review and approval of the Executive Director, two (2) sets of final restoration/revegetation plans for all existing disturbed areas of the site not to be retained as part of the approved access road alignment and residential development areas, and the proposed fill placement/contour grading restoration area, consistent with fuel modification requirements. The plan shall be implemented within 30 days of completion of final grading of the approved access road. The restoration and revegetation plan shall include, but not be limited to, the following criteria:

- (a) A revegetation program, prepared by a qualified habitat restoration consultant, that utilizes only native chaparral plant species that are consistent with the surrounding native plant community. The plan shall specify the preferable time of year to carry out the restoration and describe the supplemental watering requirements that will be necessary, including a detailed irrigation plan. The plan shall also specify performance standards to judge the success of the restoration effort, including standards for chaparral areas within the required fuel modification zone(s), and standards for areas not subject to fuel modification. The revegetation plan shall identify the species, location, and extent of all plant materials and shall use a mixture of seeds and container plants to increase the potential for successful The plan shall include a description of technical and performance standards to ensure the successful revegetation of the restored slope. A temporary irrigation system may be used until the plants are established, but in no case shall the irrigation system be in place longer than two (2) years. Restoration areas within Fuel Modification Zone C (the thinning zone) shall be planted with chaparral species consistent with the surrounding habitat and with spacing and flammability requirements of the Forestry Department of Los Angeles County.
- (b) A detailed restorative grading plan, including grading cross-sections, prepared by a licensed professional civil engineer in consultation with a licensed engineering geologist, that illustrates remedial grading to recontour the restoration areas to appropriately blend in with the surrounding natural topography. The plan shall include temporary erosion control measures such as geofabrics, silt fencing, sandbag barriers, or other measures to

control erosion until revegetation of the restored areas is completed. These erosion control measures shall be required on the project site prior to and concurrent with the initial grading operations and shall be maintained throughout the process to minimize erosion and sediment to runoff waters during construction.

- (b) The restoration plan shall be implemented within 30 days of completion of final grading of the approved access road. Revegetation shall meet the performance standards appropriate for chaparral habitat, as detailed in Section (a) above within five (5) years and shall be repeated, if necessary, to meet the performance standards. The Executive Director may extend this time period for good cause. Plantings shall be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the revegetation requirements.
- (c) A monitoring program, prepared by a qualified environmental resource specialist. The monitoring program shall demonstrate how the approved revegetation and restoration performance standards prepared pursuant to section (b) above shall be implemented and evaluated for compliance with this Special Condition. The program shall require the applicant to submit, on an annual basis for a period of five years (no later than December 31st each year), a written report, for the review and approval of the Executive Director, prepared by an environmental resource specialist, indicating the success or failure of the restoration project. The annual reports shall include further recommendations and requirements for additional restoration activities in order for the project to meet the criteria and performance standards listed in the restoration plan. These reports shall also include photographs taken from pre-designated locations (annotated to a copy of the site plans) indicating the progress of recovery. During the monitoring period, all artificial inputs shall be removed except for the purposes of providing midcourse corrections or maintenance to ensure the long-term survival of the plantings. If these inputs are required beyond the first four (4) years, then the monitoring program shall be extended for a sufficient length of time so that the success and sustainability of the project is ensured. Successful site restoration shall be determined if the revegetation of native plant species on-site is adequate to meet the performance standards appropriate for chaparral habitat, as detailed in Section (a) above by the end of the five (5) year monitoring period and is able to survive without additional outside inputs, such as supplemental irrigation.
- (d) At the end of the five year period, a final detailed report shall be submitted, for the review and approval of the Executive Director, that indicates whether the on-site landscaping is in conformance with the revegetation / restoration plan approved pursuant to this Special Condition. The final report shall include photographic documentation of plant species and plant coverage. If

this report indicates that the restoration project has in part, or in whole, been unsuccessful, based on the approved performance standards, the applicant shall be required to submit a revised or supplemental restoration program to compensate for those portions of the original plan that were not successful. The revised, or supplemental, restoration program shall be processed as an amendment to this Coastal Development Permit.

18. City of Malibu Approval

Prior to issuance of the permit, the applicant shall provide evidence of City of Malibu approval of the access road leading up to the subject properties.

Trail Easement -

In order to implement the applicant's proposal of an offer to dedicate a ten foot (10') wide public access hiking and equestrian trail easement for passive recreational use as part of this project, the applicant as landowner agrees to complete the following prior to issuance of the permit: the landowner 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 association approved by the Executive Director a ten foot (10') wide public access hiking and equestrian trail easement in the general location and configuration depicted in **Exhibit B-1 of the Settlement Agreement**. The document shall provide that the offer of dedication shall not be used or construed to allow anyone, prior to acceptance of the offer, to interfere with any rights of public access acquired through use that may exist on the property. The document shall also provide that there shall be no gate(s) at the entrance to or exit from the easement.

The offer shall provide the public the right to pass and re-pass over the dedicated route. The document shall be recorded free of prior encumbrances except for tax liens, which the Executive Director determines may affect the interest being conveyed. The offer shall run with the land in favor of the People of the State of California, binding all successors and assignees, and shall be irrevocable. Notwithstanding the foregoing, the offer shall be revoked and the easement terminated in the event that the Coastal Slope trail is built and opened outside of the dedication area. The recording document shall include legal descriptions of both the applicant's entire parcel and the trail easement area and a graphic representation prepared by a licensed surveyor showing the area identified in the legal description of the easement area.

20. Revised Final Project Plans – PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the Executive Director's review and approval, two (2) full size sets of final revised project plans. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

21 Los Angeles County Approval

Prior to issuance of the permit, the applicant shall provide evidence of County of Los Angeles approval of the final lot configuration approved by the Commission.

SWEETWATER MESA SPECIAL CONDITIONS

1. Plans Conforming to Geotechnical Engineer's Recommendations

By acceptance of this permit, the applicant agrees to comply with the recommendations contained in all of the geology, geotechnical, and/or soils reports referenced as Substantive File Documents. These recommendations, including recommendations concerning foundations, sewage disposal, and drainage, shall be incorporated into all final design and construction plans, which must be reviewed and approved by the consultant prior to commencement of development.

The final plans approved by the consultant shall be in substantial conformance with the plans approved by the Commission relative to construction, grading, and drainage. Any substantial changes in the proposed development approved by the Commission that may be required by the consultant shall require amendment(s) to the permit(s) or new Coastal Development Permit(s).

2. Assumption of Risk, Waiver of Liability and Indemnity

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

3. Permanent Drainage and Polluted Runoff Control Plan

A. *Prior to issuance of the Coastal Development Permit*, the applicant shall submit to the Executive Director, two (2) copies of a final Drainage and Runoff Control Plan for the post-construction project site, prepared by a licensed civil engineer or qualified licensed professional. The Plan shall include detailed drainage and runoff control plans with supporting calculations. The plans shall incorporate Best Management Practices (BMPs) including site design, source control and treatment control measures designed to reduce, to the maximum extent practicable, the volume, velocity and pollutant load of stormwater and dry weather runoff leaving the developed site. The consulting licensed civil engineer or qualified licensed professional shall certify in writing that the final Drainage and Runoff Control Plan is in substantial conformance with the following minimum requirements:

- (1) The plan shall demonstrate the use of distributed small-scale controls or integrated Best Management Practices (BMPs) that serve to minimize alterations to the natural pre-development hydrologic characteristics and conditions of the site, and effectively address pollutants of concern.
- (2) Post-development peak runoff rate and average volume from the site shall be maintained at levels similar to pre-development conditions.
- (3) Selected BMPs shall consist, or primarily consist, of site design elements and/or landscape based systems or features that serve to maintain site permeability, avoid directly connected impervious area and/or retain, infiltrate, or filter runoff from rooftops, driveways and other hardscape areas, where feasible. Examples of such features include but are not limited to porous pavement, pavers, rain gardens, vegetated swales, infiltration trenches, cisterns.
- (4) Landscaping materials shall consist primarily of native or other low-maintenance plant selections which have low water and chemical treatment demands, consistent with Special Condition 5, Landscaping and Fuel Modification Plans. An efficient irrigation system designed based on hydrozones and utilizing drip emitters or micro-sprays or other efficient design shall be utilized for any landscaping requiring water application.
- (5) All slopes shall be stabilized in accordance with provisions contained in the Landscaping and/or Interim Erosion and Sediment Control Condition for this Coastal Development Permit.
- (6) Runoff shall be discharged from the developed site in a non-erosive manner. Energy dissipating measures shall be installed at the terminus of outflow drains where necessary. The consulting engineer shall provide plan details and cross sections for any rock rip-rap and/or other energy dissipating devices or structures associated with the drainage system. The drainage plans shall specify, the location, dimensions, cubic yards of rock, etc. for the any velocity reducing structure with the supporting calculations showing the sizing requirements and how the device meets those sizing requirements. The engineer shall certify that the design of the device minimizes the amount of rock and/or other hardscape necessary to meet the sizing requirements.
- (7) Post-construction structural BMPs (or suites of BMPs) shall be designed to treat, infiltrate or filter the amount of stormwater runoff produced by all storms up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, and/or the 85th percentile, 1-hour storm event, with an appropriate safety factor (i.e., 2 or greater), for flow-based BMPs.
- (8) All BMPs shall be operated, monitored, and maintained in accordance with manufacturer's specifications where applicable, or in accordance with well recognized technical specifications appropriate to the BMP for the life of the project and at a minimum, all structural BMPs shall be inspected, cleaned-out, and where necessary, repaired prior to the onset of the storm season (October 15th each year) and at regular intervals as necessary between October 15th and April 15th of each year. Debris and other water pollutants removed from

- structural BMP(s) during clean-out shall be contained and disposed of in a proper manner.
- (9) For projects located on a hillside, slope, or which may otherwise be prone to instability, final drainage plans shall be approved by the project consulting geotechnical engineer.
- (10) Should any of the project's surface or subsurface drainage/filtration structures or other BMPs fail or result in increased erosion, the applicant/landowner or successor-in-interest shall be responsible for any necessary repairs to the drainage/filtration system or BMPs and restoration of the eroded area. Should repairs or restoration become necessary, prior to the commencement of such repair or restoration work, the applicant shall submit a repair and restoration plan to the Executive Director to determine if an amendment or new coastal development permit is required to authorize such work.
- B. The final Drainage and Runoff Control Plan shall be in conformance with the site/development plans approved by the Coastal Commission. Any changes to the Coastal Commission approved site/development plans required by the consulting licensed civil engineer, or qualified licensed professional, or engineering geologist shall be reported to the Executive Director. No changes to the Coastal Commission approved final site/development plans shall occur without an amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

4. Interim Erosion Control Plans and Construction Responsibilities

A. **Prior to the issuance of the Coastal Development Permit**, the applicant shall submit to the Executive Director an Interim Erosion Control and Construction Best Management Practices plan, prepared by licensed civil engineer or qualified water quality professional. The consulting civil engineer/water quality professional shall certify in writing that the Interim Erosion Control and Construction Best Management Practices (BMPs) plan is in conformance with the following requirements:

1. Erosion Control Plan

- (a) The plan shall delineate the areas to be disturbed by grading or construction activities and shall include any temporary access roads, staging areas and stockpile areas. The natural areas on the site shall be clearly delineated on the plan and on-site with fencing or survey flags.
- (b) Include a narrative report describing all temporary run-off and erosion control measures to be used during construction.
- (c) The plan shall identify and delineate on a site or grading plan the locations of all temporary erosion control measures.
- (d) The plan shall specify that grading shall take place only during the dry season (April 1 October 31). This period may be extended for a limited period of time if the situation warrants such a limited extension, if approved by the Executive

Director. The applicant shall install or construct temporary sediment basins (including debris basins, desilting basins, or silt traps), temporary drains and swales, sand bag barriers, silt fencing, and shall stabilize any stockpiled fill with geofabric covers or other appropriate cover, install geotextiles or mats on all cut or fill slopes, and close and stabilize open trenches as soon as possible.

- (e) The erosion control measures shall be required on the project site prior to or concurrent with the initial grading operations and maintained throughout the development process to minimize erosion and sediment from runoff waters during construction. All sediment should be retained on-site, unless removed to an appropriate, approved dumping location either outside of the coastal zone or within the coastal zone to a site permitted to receive fill.
- (f) The plan shall also include temporary erosion control measures should grading or site preparation cease for a period of more than 30 days, including but not limited to: stabilization of all stockpiled fill, access roads, disturbed soils and cut and fill slopes with geotextiles and/or mats, sand bag barriers, silt fencing; temporary drains and swales and sediment basins. The plans shall also specify that all disturbed areas shall be seeded with native grass species and include the technical specifications for seeding the disturbed areas. These temporary erosion control measures shall be monitored and maintained until grading or construction operations resume.

2. Construction Best Management Practices

- (a) No demolition or construction materials, debris, or waste shall be placed or stored where it may enter sensitive habitat, receiving waters or a storm drain, or be subject to wave, wind, rain, or tidal erosion and dispersion.
- (b) No demolition or construction equipment, materials, or activity shall be placed in or occur in any location that would result in impacts to environmentally sensitive habitat areas, streams, wetlands or their buffers.
- (c) Any and all debris resulting from demolition or construction activities shall be removed from the project site within 24 hours of completion of the project.
- (d) Demolition or construction debris and sediment shall be removed from work areas each day that demolition or construction occurs to prevent the accumulation of sediment and other debris that may be discharged into coastal waters.
- (e) All trash and debris shall be disposed in the proper trash and recycling receptacles at the end of every construction day.
- (f) The applicant shall provide adequate disposal facilities for solid waste, including excess concrete, produced during demolition or construction.
- (g) Debris shall be disposed of at a legal disposal site or recycled at a recycling facility. If the disposal site is located in the coastal zone, a coastal development permit or an amendment to this permit shall be required before disposal can take

- place unless the Executive Director determines that no amendment or new permit is legally required.
- (h) All stock piles and construction materials shall be covered, enclosed on all sides, shall be located as far away as possible from drain inlets and any waterway, and shall not be stored in contact with the soil.
- (i) Machinery and equipment shall be maintained and washed in confined areas specifically designed to control runoff. Thinners or solvents shall not be discharged into sanitary or storm sewer systems.
- (j) The discharge of any hazardous materials into any receiving waters shall be prohibited.
- (k) Spill prevention and control measures shall be implemented to ensure the proper handling and storage of petroleum products and other construction materials. Measures shall include a designated fueling and vehicle maintenance area with appropriate berms and protection to prevent any spillage of gasoline or related petroleum products or contact with runoff. The area shall be located as far away from the receiving waters and storm drain inlets as possible.
- (I) Best Management Practices (BMPs) and Good Housekeeping Practices (GHPs) designed to prevent spillage and/or runoff of demolition or construction-related materials, and to contain sediment or contaminants associated with demolition or construction activity, shall be implemented prior to the on-set of such activity
- (m) All BMPs shall be maintained in a functional condition throughout the duration of construction activity.
- B. The final Interim Erosion Control and Construction Best Management Practices plan, shall be in conformance with the site/ development plans approved by the Coastal Commission. Any changes to the Coastal Commission approved site/development plans required by the consulting civil engineer/water quality professional shall be reported to the Executive Director. No changes to the Coastal Commission approved final site/development plans shall occur without an amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

5. Landscaping and Fuel Modification Plans

Prior to issuance of the Coastal Development Permit, the applicant shall submit two sets of landscaping and fuel modification plans, prepared by a licensed landscape architect or a qualified resource specialist. The landscaping and erosion control plans shall be reviewed and approved by the consulting engineering geologist to ensure that the plans are in conformance with the consultants' recommendations. The consulting landscape architect or qualified landscape professional shall certify in writing that the final Landscape and Fuel Modification plans are in conformance with the following requirements:

A) Landscaping Plan

- (1) All graded & disturbed areas on the subject site shall be planted and maintained for erosion control purposes within thirty (30) days of receipt of the certificate of occupancy for the residence. To minimize the need for irrigation all landscaping shall consist primarily of native/drought resistant plants, as listed by the California Native Plant Society, Santa Monica Mountains Chapter, in their document entitled Recommended List of Plants for Landscaping in the Santa Monica Mountains, dated February 5, 1996. All native plant species shall be of local genetic stock. No plant species listed as problematic and/or invasive by the California Native Plant Society (http://www.CNPS.org/), the California Invasive Plant Council (formerly the California Exotic Pest Plant Council) (http://www.calipc.org/), or as may be identified from time to time by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as a "noxious weed" by the State of California or the U.S. Federal Government shall be utilized within the property.
- (2) All cut and fill slopes shall be stabilized with planting at the completion of final grading. Planting should be of native plant species indigenous to the Santa Monica Mountains using accepted planting procedures, consistent with fire safety requirements. All native plant species shall be of local genetic stock. Such planting shall be adequate to provide 90 percent coverage within two (2) years, and this requirement shall apply to all disturbed soils;
- (3) Plantings will be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with applicable landscape requirements;
- (4) Rodenticides containing any anticoagulant compounds (including, but not limited to, Warfarin, Brodifacoum, Bromadiolone or Diphacinone) shall not be used.
- (5) Fencing of the entire property is prohibited. Fencing shall extend no further than the approved development area. The fencing type and location shall be illustrated on the landscape plan. Fencing shall also be subject to the color requirements outlined in **Special Condition 6, Structural Appearance**, below.

B) Fuel Modification Plans

Vegetation within 20 feet of the proposed house may be removed to mineral earth, vegetation within a 200-foot radius of the main structure may be selectively thinned in order to reduce fire hazard. However, such thinning shall only occur in accordance with an approved long-term fuel modification plan submitted pursuant to this special condition. The fuel modification plan shall include details regarding the types, sizes and location of plant materials to be removed, and how often thinning is to occur. In addition, the applicant shall submit evidence that the fuel modification plan has been reviewed and approved by the Forestry Department of Los Angeles County. Irrigated lawn, turf and ground cover planted within the twenty foot radius of the proposed house shall be selected from the most drought tolerant species or subspecies, or varieties suited to the Mediterranean climate of the Santa Monica Mountains.

C) Conformance with Commission Approved Site/Development Plans

The Permittee shall undertake development in accordance with the final Landscape and Fuel Modification Plans. The final Landscape and Fuel Modification Plans shall be in conformance with the site/development plans approved by the Coastal Commission. Any changes to the Coastal Commission approved site/development plans shall be reported to the Executive Director. No changes to the Coastal Commission approved final site/development plans shall occur without an amendment to the coastal development permit, unless the Executive Director determines that no amendment is legally required.

D) Monitoring

Three years from the date of the receipt of the Certificate of Occupancy for the residence the applicant shall submit to the Executive Director, a landscape monitoring report, prepared by a licensed Landscape Architect or qualified Resource Specialist, that certifies the on-site landscaping is in conformance with the landscape plan approved pursuant to this Special Condition. The monitoring report shall include photographic documentation of plant species and plant coverage.

If the landscape monitoring report indicates the landscaping is not in conformance with or has failed to meet the requirements specified in this condition, the applicant, or successors in interest, shall submit, within 30 days of the date of the monitoring report, a revised or supplemental landscape plan, certified by a licensed Landscape Architect or a qualified Resource Specialist, that specifies additional or supplemental landscaping measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan. This remedial landscaping plan shall be implemented within 30 days of the date of the final supplemental landscaping plan and remedial measures shall be repeated as necessary to meet the requirements of this condition.

6. Structural Appearance

Prior to issuance of the Coastal Development Permit, the applicant shall submit for the review and approval of the Executive Director, a color palette and material specifications for the outer surface of all structures authorized by the approval of this Coastal Development Permit. The palette samples shall be presented in a format not to exceed 8½" x 11" x ½" in size. The palette shall include the colors proposed for the roofs, trims, exterior surfaces, driveways, retaining walls, and other structures authorized by this permit. Acceptable colors shall be limited to colors compatible with the surrounding environment (earth tones) including shades of green, brown and gray with no white or light shades and no bright tones. All windows shall be comprised of non-glare glass.

The approved structures shall be colored with only the colors and window materials authorized pursuant to this special condition. Alternative colors or materials for future repainting or resurfacing or new windows may only be applied to the structures

authorized by this Coastal Development Permit if such changes are specifically authorized by the Executive Director as complying with this special condition.

7. Lighting Restriction

- A. The only outdoor night lighting allowed on the subject parcel is limited to the following:
- (1) The minimum necessary to light walkways used for entry and exit to the structures, including parking areas on the site. This lighting shall be limited to fixtures that do not exceed two feet in height above finished grade, are directed downward and generate the same or less lumens equivalent to those generated by a 60 watt incandescent bulb, unless a greater number of lumens is authorized by the Executive Director.
- (2) Security lighting attached to the residence and garage shall be controlled by motion detectors and is limited to same or less lumens equivalent to those generated by a 60 watt incandescent bulb.
- (3) The minimum necessary to light the entry area to the driveway with the same or less lumens equivalent to those generated by a 60 watt incandescent bulb.
- B. No lighting around the perimeter of the site and no lighting for aesthetic purposes is allowed.

8. Future Development Restriction

This permit is only for the development described in this Coastal Development Permit. Pursuant to Title 14 California Code of Regulations section 13250(b)(6), the exemptions otherwise provided in Public Resources Code section 30610(a) shall not apply to the development governed by this Coastal Development Permit. Accordingly, any future structures, future improvements, or change of use to the permitted structures authorized by this permit, including but not limited to, any grading, clearing or other disturbance of vegetation other than as provided for in the approved landscape plan prepared pursuant to **Special Condition 5**, **Landscaping and Fuel Modification Plans**, shall require an amendment to this Coastal Development Permit from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.

9. Deed Restriction

Prior to issuance of the Coastal Development Permit, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, 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 permit as covenants, conditions and restrictions on the use and enjoyment of the

Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. 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 permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

10. Habitat Impact Mitigation

Prior to issuance of the Coastal Development Permit, the applicant shall submit, for the review and approval of the Executive Director, a map delineating all areas of chaparral and coastal sage scrub habitat (ESHA) that will be disturbed by the proposed development, including fuel modification and brush clearance requirements on the project site and adjacent property. The chaparral and coastal sage scrub ESHA areas on the site and adjacent property shall be delineated on a detailed map, to scale, illustrating the subject parcel boundaries and, if the fuel modification/brush clearance zones extend onto adjacent property, adjacent parcel boundaries. The delineation map shall indicate the total acreage for all chaparral and coastal sage scrub ESHA, both on and offsite, that will be impacted by the proposed development, including the fuel modification/brush clearance areas. A 200-foot clearance zone from the proposed structures shall be used to determine the extent of off-site brush clearance for fire protection purposes. The delineation shall be prepared by a qualified resource specialist or biologist familiar with the ecology of the Santa Monica Mountains.

Mitigation shall be provided for impacts to the chaparral and coastal sage scrub ESHA from the proposed development and fuel modification/brush clearance requirements by one of the three following habitat mitigation methods:

A. Habitat Restoration

1) Habitat Restoration Plan

Prior to issuance of the Coastal Development Permit, the applicant shall submit a habitat restoration plan, for the review and approval of the Executive Director, for an area of degraded chaparral and/or coastal sage scrub habitat equivalent to the area of chaparral and/or coastal sage scrub ESHA impacted by the proposed development and fuel modification/brush clearance area. The habitat restoration area may either be onsite or offsite within the coastal zone either in the City of Malibu or elsewhere in the Santa Monica Mountains. The habitat restoration area shall be delineated on a detailed site plan, to scale, that illustrates the parcel boundaries and topographic contours of the site. The habitat restoration plan shall be prepared by a qualified resource specialist or biologist familiar with the ecology of the Santa Monica Mountains and shall be designed to restore the area in question for habitat function, species diversity and vegetation cover. The restoration plan shall include a statement of goals and performance standards, revegetation and restoration methodology, and maintenance and monitoring

provisions. If the restoration site is offsite, the applicant shall submit written evidence to the Executive Director that the property owner has irrevocably agreed to allow the restoration work, maintenance and monitoring required by this condition and not to disturb any native vegetation in the restoration area.

The applicant shall submit, on an annual basis for five years, a written report, for the review and approval of the Executive Director, prepared by a qualified resource specialist, evaluating compliance with the performance standards outlined in the restoration plan and describing the revegetation, maintenance and monitoring that was conducted during the prior year. The annual report shall include recommendations for mid-course corrective measures. At the end of the five-year period, a final detailed report shall be submitted for the review and approval of the Executive Director. If this report indicates that the restoration project has been, in part or in whole, unsuccessful, based on the approved goals and performance standards, the applicant shall submit a revised or supplemental restoration plan with maintenance and monitoring provisions, for the review and approval of the Executive Director, to compensate for those portions of the original restoration plan that were not successful. Should supplemental restoration be required, the applicant shall submit, on an annual basis for five years, a written report, for the review and approval of the Executive Director, prepared by a qualified resource specialist, evaluating the supplemental restoration areas. At the end of the fiveyear period, a final report shall be submitted evaluating whether the supplemental restoration plan has achieved compliance with the goals and performance standards for the restoration area. If the goals and performance standards are not met within 10 years, the applicant shall submit an application for an amendment to the coastal development permit for an alternative mitigation program and shall implement whatever alternative mitigation program the Commission approves, as approved.

The habitat restoration work approved in the restoration plan shall be carried out prior to occupancy of the residence.

2) Open Space Deed Restriction

No development, as defined in section 30106 of the Coastal Act, shall occur in the habitat restoration area, as shown on the habitat restoration site plan required pursuant to (A)(1) above.

Prior to the issuance of the coastal development permit, the applicant shall submit evidence that the applicant has executed and recorded a deed restriction (if the applicant is not the owner, then the applicant shall submit evidence that the owner has executed and recorded the deed restriction), in a form and content acceptable to the Executive Director, reflecting the above restriction on development and designating the habitat restoration area as open space. The deed restriction shall include a graphic depiction and narrative legal descriptions of both the parcel on which the restoration area lies and the open space area/habitat restoration area.

The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

3) Performance Bond

Prior to issuance of the Coastal Development Permit, the applicant shall post performance bonds to guarantee implementation of the restoration plan as follows: a) one equal to the value of the labor and materials; and b) one equal to the value of the maintenance and monitoring for a period of 5 years. Each performance bond shall be released upon satisfactory completion of items (a) and (b) above. If the applicant fails to either restore or maintain and monitor according to the approved plans, the Coastal Commission may collect the security and complete the work on the property.

B. Habitat Conservation

Prior to issuance of the Coastal Development Permit, the applicant shall (or, if the applicant is not the owner of the habitat conservation site, then the owner of the habitat conservation site shall) execute and record an open space deed restriction in a form and content acceptable to the Executive Director, over the entirety of a legal parcel or parcels containing chaparral and/or coastal sage scrub ESHA. The chaparral and/or coastal sage scrub ESHA located on the mitigation parcel or parcels must be of equal or greater area than the ESHA area impacted by the proposed development, including the fuel modification/brush clearance areas. No development, as defined in section 30106 of the Coastal Act, shall occur on the mitigation parcel(s) and the parcel(s) shall be preserved as permanent open space. The deed restriction shall include a graphic depiction and narrative legal descriptions of the parcel or parcels. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction.

Prior to occupancy of the residence, the applicant shall submit evidence, for the review and approval of the Executive Director, that the recorded documents have been reflected in the Los Angeles County Tax Assessor Records.

If the mitigation parcel(s) is/are larger in size than the impacted habitat area, the excess acreage may be used to provide habitat impact mitigation for other development projects that impact like ESHA.

C. Habitat Impact Mitigation Fund

Prior to issuance of the Coastal Development Permit, the applicant shall submit evidence, for the review and approval of the Executive Director, that payment for compensatory mitigation has been provided to the Mountains Recreation and Conservation Authority to mitigate adverse impacts to chaparral and coastal sage scrub habitat ESHA. The payment shall be calculated as follows:

1. Development Area, Irrigated Fuel Modification Zones, Off-site Brush Clearance

The payment for these areas shall be \$12,000 per acre within the development area, any required irrigated fuel modification zones, and required off-site brush clearance areas (assuming a 200-foot radius from all structures). The total acreage shall be based on the map delineating these areas required by this condition.

2. Non-irrigated Fuel Modification Zones

The payment for non-irrigated fuel modification areas (on-site) shall be \$3,000 per acre. The total acreage shall be based on the map delineating these areas required by this condition.

Prior to the payment for mitigation to the Mountains Recreation and Conservation Authority, the applicant shall submit, for the review and approval of the Executive Director, the calculation of the payment required to mitigate adverse impacts to chaparral and/or coastal sage scrub habitat ESHA, in accordance with this condition. After review and approval of the payment calculation, the payment shall be made to the Mountains Recreation and Conservation Authority's Coastal Habitat Impact Mitigation Fund for the acquisition, permanent preservation or restoration of habitat in the Santa Monica Mountains coastal zone, with priority given to the acquisition of or extinguishment of all development potential on properties containing environmentally sensitive habitat areas and properties adjacent to public parklands. The payment may not be used to restore areas where development occurred in violation of the Coastal Act's permit requirements.

11. Open Space Conservation Easement

A. No development, as defined in Section 30106 of the Coastal Act, grazing, or agricultural activities shall occur outside of the approved development area, including within the portion of the property identified as the "open space/ conservation area", as shown in Exhibit B-1 (including APN 4453-005 -013 owned by ED West Coast Properties LLLP) except for::

- (1) Construction and (upon securing any necessary coastal development permit) maintenance of the access road, driveway, utilities, septic system, habitat restoration, public hiking trail, approved by the Commission in this coastal development permit and as generally shown on Exhibit XX.
- (2) Fuel modification required by the Los Angeles County Fire Department undertaken in accordance with the final approved fuel modification plan approved pursuant to **Special Condition 5**, **Landscaping and Fuel**

- **Modification Plans**, or other fuel modification plans required and approved by the Commission pursuant to a different CDP(s) issued by the Commission;
- (3) Drainage and polluted runoff control activities required and approved pursuant to:
 - a. The drainage and runoff control plans approved pursuant to Special Condition
 3, Permanent Drainage and Runoff Control Plan, of this permit; and
 - b. The landscaping and erosion control plans approved pursuant to Special Condition 4, Interim Erosion Control & Construction Best Management Practices Plan, and Special Condition 5, Landscaping and Fuel Modification Plans, of this permit;
- (4) Planting of native vegetation and other restoration activities, if approved by the Commission as an amendment to this coastal development permit or a new coastal development permit;
- (5) If approved by the Commission as an amendment to this coastal development permit or a new coastal development permit,
 - a. construction and maintenance of public hiking trails; and
 - b. construction and maintenance of roads, trails, and utilities consistent with existing easements.
- (6) If approved by the Commission in this coastal development permit, or as an amendment to this coastal development permit or new coastal development permit, confined animal facilities or corrals located within Fuel Modification Zone C as defined on the final approved fuel modification plan approved pursuant to Special Condition 5, Landscaping and Fuel Modification Plans, or other fuel modification plans required and approved by the Commission, and meeting the following criteria:
 - a. Not located on slopes greater than 25%
 - b. Require no additional grading other than minimal grading for foundations
 - c. Constructed of non-flammable materials, and
 - d. Does not result in expansion of the required fuel modification area
- B. *Prior to issuance of the Coastal Development Permit*, the applicant shall execute and record a document in a form and content acceptable to the Executive Director, granting to the Mountains Recreation and Conservation Authority ("MRCA"), or another public entity or non-profit association acceptable to the Executive Director, on behalf of the people of the State of California an open space conservation easement over the "open space conservation easement area" described above, for the purpose of habitat protection. The recorded easement document shall include a formal legal description of the entire property; and a metes and bounds legal description and graphic depiction, prepared by a licensed surveyor, of the open space conservation easement area, as generally shown on **Exhibit XX**. The recorded document shall reflect that no development shall occur within the open space conservation easement area except as otherwise set forth in this permit condition. The grant of easement shall be recorded

free of prior liens and encumbrances (other than existing easements for roads, trails, and utilities) which the Executive Director determines may affect the interest being conveyed, and shall run with the land in favor of the MRCA on behalf of the people of the State of California, binding all successors and assigns.

12. Site Inspection

- A. By acceptance of this permit, the applicant irrevocably authorizes, on behalf of the applicant and all successors-in-interest with respect to the subject property. Coastal Commission staff and its designated agents to enter onto the property to undertake site inspections for the purpose of monitoring compliance with the permit, including the special conditions set forth herein, and to document their findings (including, but not limited to, by taking notes, photographs, or video), subject to Commission staff providing 24 hours advanced notice to the contact person indicated pursuant to paragraph B prior to entering the property, unless there is an imminent threat to coastal resources, in which case such notice is not required. If two attempts to reach the contact person by telephone are unsuccessful, the requirement to provide 24 hour notice can be satisfied by voicemail, email, or facsimile sent 24 hours in advance or by a letter mailed three business days prior to the inspection. Consistent with this authorization, the applicant and his successors: (1) shall not interfere with such inspection/monitoring activities and (2) shall provide any documents requested by the Commission staff or its designated agents that are relevant to the determination of compliance with the terms of this permit.
- B. **Prior to issuance of the Coastal Development Permit**, the applicant shall submit to Commission staff the email address and fax number, if available, and the address and phone number of a contact person authorized to receive the Commission's notice of the site inspections allowed by this special condition. The applicant is responsible for updating this contact information, and the Commission is entitled to rely on the last contact information provided to it by the applicant.

13. Removal of Natural Vegetation

Removal of natural vegetation for the purpose of fuel modification within the 50 foot zone surrounding the proposed structure(s) shall not commence until the local government has issued a building or grading permit for the development approved pursuant to this permit. Vegetation thinning within the 50-200 foot fuel modification zone shall not occur until commencement of construction of the structure(s) approved pursuant to this permit.

14. Oak Tree Monitoring

To ensure that all other oak trees located on the subject parcel and along the proposed access road are protected during construction activities, temporary protective barrier fencing shall be installed around the protected zones (5 feet beyond dripline or 15 feet from the trunk, whichever is greater) of all oak trees and retained during all construction

operations. If required construction operations cannot feasibly be carried out in any location with the protective barrier fencing in place, then flagging shall be installed on trees to be protected. The permittee shall also follow the oak tree preservation recommendations that are enumerated in the Oak Tree Report referenced in the Substantive File Documents.

The applicant shall retain the services of a biological consultant or arborist with appropriate qualifications acceptable to the Executive Director. The biological consultant or arborist shall be present on site during all excavation, foundation construction, framing construction, and grading within XX feet of any oak tree. The consultant shall immediately notify the Executive Director if unpermitted activities occur or if habitat is removed or impacted beyond the scope of the work allowed by this Coastal Development Permit. This monitor shall have the authority to require the applicant to cease work should any breach in permit compliance occur, or if any unforeseen sensitive habitat issues arise.

The applicant shall retain the services of a biological consultant or arborist with appropriate qualifications acceptable to the Executive Director to monitor all oak trees that will be encroached upon (Oak Trees No. XX), to determine if the trees are adversely impacted by the encroachment. An annual monitoring report shall be submitted for the review and approval of the Executive Director for each of the ten years. Should any of these trees be lost or suffer worsened health or vigor as a result of this project, the applicant shall plant replacement trees on the site at a rate of 10:1. If replacement plantings are required, the applicant shall submit, for the review and approval of the Executive Director, an oak tree replacement planting program, prepared by a qualified biologist, arborist, or other qualified resource specialist, which specifies replacement tree locations, planting specifications, and a ten-year monitoring program with specific performance standards to ensure that the replacement planting program is successful. An annual monitoring report on the oak tree replacement area shall be submitted for the review and approval of the Executive Director for each of the 10 years. Upon submittal of the replacement planting program, the Executive Director shall determine if an amendment to this coastal development permit, or an additional coastal development permit is required.

15. Condition Compliance

Within 180 days of approval of this project application by all governmental agencies with jurisdiction over the project including the access road and/or any utility extensions necessary to serve the project, or within such additional time as the Executive Director may grant for good cause, the applicant shall satisfy all requirements specified in the conditions hereto that the applicant is required to satisfy prior to issuance of this permit. Failure to comply with this requirement may result in the expiration of this coastal permit approval and the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.

16. Pool and Spa Drainage and Maintenance

By acceptance of this permit, the applicant agrees to install a no chlorine or low chlorine purification system and agrees to maintain proper pool water pH, calcium and alkalinity balance to ensure any runoff or drainage from the pool or spa will not include excessive amounts of chemicals that may adversely affect water quality or environmentally sensitive habitat areas. In addition, the applicant agrees not to discharge chlorinated or non-chlorinated pool water into a street, storm drain, creek, canyon drainage channel, or other location where it could enter receiving waters.

17. Restoration/Revegetation Plans and Implementation

Prior to issuance of the Coastal Development Permit, the applicant shall submit, for the review and approval of the Executive Director, two (2) sets of final restoration/revegetation plans for all existing disturbed areas of the site not to be retained as part of the approved access road alignment and residential development areas, and the proposed fill placement/contour grading restoration area, consistent with fuel modification requirements. The plan shall be implemented within 30 days of completion of final grading of the approved access road. The restoration and revegetation plan shall include, but not be limited to, the following criteria:

- (a) A revegetation program, prepared by a qualified habitat restoration consultant, that utilizes only native chaparral plant species that are consistent with the surrounding native plant community. The plan shall specify the preferable time of year to carry out the restoration and describe the supplemental watering requirements that will be necessary, including a detailed irrigation plan. The plan shall also specify performance standards to judge the success of the restoration effort, including standards for chaparral areas within the required fuel modification zone(s), and standards for areas not subject to fuel modification. The revegetation plan shall identify the species, location, and extent of all plant materials and shall use a mixture of seeds and container plants to increase the potential for successful revegetation. The plan shall include a description of technical and performance standards to ensure the successful revegetation of the restored slope. A temporary irrigation system may be used until the plants are established, but in no case shall the irrigation system be in place longer than two (2) years. Restoration areas within Fuel Modification Zone C (the thinning zone) shall be planted with chaparral species consistent with the surrounding habitat and with spacing and flammability requirements of the Forestry Department of Los Angeles County.
- (b) A detailed restorative grading plan, including grading cross-sections, prepared by a licensed professional civil engineer in consultation with a licensed engineering geologist, that illustrates remedial grading to recontour the restoration areas to appropriately blend in with the surrounding natural topography. The plan shall include temporary erosion control measures such as geofabrics, silt fencing, sandbag barriers, or other measures to

control erosion until revegetation of the restored areas is completed. These erosion control measures shall be required on the project site prior to and concurrent with the initial grading operations and shall be maintained throughout the process to minimize erosion and sediment to runoff waters during construction.

- (b) The restoration plan shall be implemented within 30 days of completion of final grading of the approved access road. Revegetation shall meet the performance standards appropriate for chaparral habitat, as detailed in Section (a) above within five (5) years and shall be repeated, if necessary, to meet the performance standards. The Executive Director may extend this time period for good cause. Plantings shall be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the revegetation requirements.
- (c) A monitoring program, prepared by a qualified environmental resource specialist. The monitoring program shall demonstrate how the approved revegetation and restoration performance standards prepared pursuant to section (b) above shall be implemented and evaluated for compliance with this Special Condition. The program shall require the applicant to submit, on an annual basis for a period of five years (no later than December 31st each year), a written report, for the review and approval of the Executive Director, prepared by an environmental resource specialist, indicating the success or failure of the restoration project. The annual reports shall include further recommendations and requirements for additional restoration activities in order for the project to meet the criteria and performance standards listed in the restoration plan. These reports shall also include photographs taken from pre-designated locations (annotated to a copy of the site plans) indicating the progress of recovery. During the monitoring period, all artificial inputs shall be removed except for the purposes of providing midcourse corrections or maintenance to ensure the long-term survival of the plantings. If these inputs are required beyond the first four (4) years, then the monitoring program shall be extended for a sufficient length of time so that the success and sustainability of the project is ensured. Successful site restoration shall be determined if the revegetation of native plant species on-site is adequate to meet the performance standards appropriate for chaparral habitat, as detailed in Section (a) above by the end of the five (5) year monitoring period and is able to survive without additional outside inputs, such as supplemental irrigation.
- (d) At the end of the five year period, a final detailed report shall be submitted, for the review and approval of the Executive Director, that indicates whether the on-site landscaping is in conformance with the revegetation / restoration plan approved pursuant to this Special Condition. The final report shall include photographic documentation of plant species and plant coverage. If

this report indicates that the restoration project has in part, or in whole, been unsuccessful, based on the approved performance standards, the applicant shall be required to submit a revised or supplemental restoration program to compensate for those portions of the original plan that were not successful. The revised, or supplemental, restoration program shall be processed as an amendment to this Coastal Development Permit.

18. City of Malibu Approval

Prior to issuance of the permit, the applicant shall provide evidence of City of Malibu approval of the access road leading up to the subject properties.

Trail Easement -

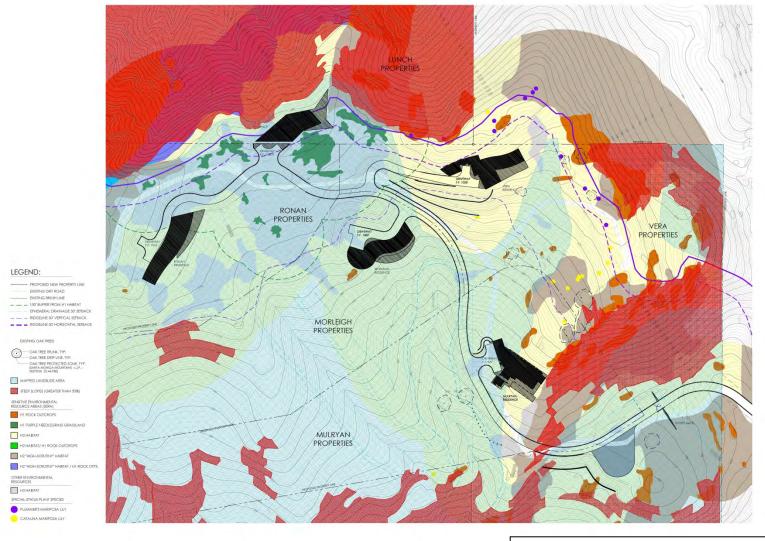
In order to implement the applicant's proposal of an offer to dedicate a ten foot (10') wide public access hiking and equestrian trail easement for passive recreational use as part of this project, the applicant as landowner agrees to complete the following prior to issuance of the permit: the landowner 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 association approved by the Executive Director a ten foot (10') wide public access hiking and equestrian trail easement in the general location and configuration depicted in **Exhibit B-1 of the Settlement Agreement**. The document shall provide that the offer of dedication shall not be used or construed to allow anyone, prior to acceptance of the offer, to interfere with any rights of public access acquired through use that may exist on the property. The document shall also provide that there shall be no gate(s) at the entrance to or exit from the easement.

The offer shall provide the public the right to pass and re-pass over the dedicated route. The document shall be recorded free of prior encumbrances except for tax liens, which the Executive Director determines may affect the interest being conveyed. The offer shall run with the land in favor of the People of the State of California, binding all successors and assignees, and shall be irrevocable. Notwithstanding the foregoing, the offer shall be revoked and the easement terminated in the event that the Coastal Slope trail is built and opened outside of the dedication area. The recording document shall include legal descriptions of both the applicant's entire parcel and the trail easement area and a graphic representation prepared by a licensed surveyor showing the area identified in the legal description of the easement area.

20. Revised Final Project Plans – PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the Executive Director's review and approval, two (2) full size sets of final revised project plans. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

21 Los Angeles County Approval

Prior to issuance of the permit, the applicant shall provide evidence of County of Los Angeles approval of the final lot configuration approved by the Commission.



SITE PLAN: NATURAL CONSTRAINTS OVERLAY WITH PROPOSED RESIDENCE LOCATIO

Exhibit 22

CDP 4-10-040, 4-10-041, 4-10-042, 4-10-044, 4-14-0598, 4-14-1094

Project Site Constraints

WALLACE E. CUNNINGHAM, INC.

A1.7

