

CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST AREA
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Application 4-04-026	Application 4-04-099
Filed: 2/02/05	10/22/04
180 th Day: 7/31/05	4/20/05
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Staff: J Johnson	<i>SMH</i>
Staff Report: 6/23/05	
Hearing Date: 7/13-15/05	
Commission Action:	

STAFF REPORT: REGULAR CALENDAR**APPLICATION NOs.:** 4-04-026 and 4-04-099**APPLICANTS:**

Application No. 4-04-026: Malibu Ocean Ranches, LLC, Stoney Heights, LLC, Creekside, LLC

Application No. 4-04-099: Malibu Ocean Ranches, LLC (4-04-099)

PROJECT LOCATIONS:

Application No. 4-04-026: 1744U Corral Canyon Road, Malibu, Los Angeles County (APNs: 4457-006-001, 005 and 006)

Application No. 4-04-099: 1744U Corral Canyon Road and vicinity of Idelwild Way and Newell Road, Malibu, Los Angeles County (APN: 4457-006-001)

PROJECT DESCRIPTIONS: These two separate applications are for related development on three separate contiguous parcels including a three-lot resubdivision and construction of a new single family residence on one of the resultant parcels more specifically described as follows:

Application No. 4-04-026: Resubdivide three parcels including an existing 40-acre parcel (APN: 4457-006-001), an existing 1-acre parcel (APN: 4457-006-005), and an existing ½ acre parcel (APN: 4457-006-006) totaling 41.5 acres into three reconfigured parcels 11.5 acres (APN 4457-006-001), 19.0 acres (APN 4457-006-005), and 11.0 acres (APN 4457-006-006) in size.

Application No. 4-04-099: Construct a two-story, 27 ft. high, 4,974 sq. ft. single family residence with attached three car, 659 sq. ft. garage, pool,

hot tub, retaining walls, water well and 10,000 gallon underground storage tank, septic system, improve 1,352 ft long access driveway, temporary construction trailer, and landscaping on an existing vacant parcel (APN: 4457-006-001) located east of Corral Canyon road and north of Malibu Bowl. The applicant also proposes 11,540 cubic yards of cut, 910 cubic yards of fill and export of 10,630 cubic yards of material to a disposal site located outside the coastal zone. In addition, the project includes the request for after-the-fact approval of unpermitted development consisting of 5,100 sq. ft. of vegetation removal and 24 cubic yards of cut and fill for geologic testing.

Lot area:	41.5 acres
Building coverage:	5,383 sq. ft.
Pavement coverage:	9,020 sq. ft.
Landscape coverage:	85,882 sq. ft.
Ht. abv. fin. grade:	27 ft.
Parking spaces:	3 spaces

LOCAL APPROVALS RECEIVED:

Application No. 4-04-026: Approval in Concept (LLA 102,095), Los Angeles County Regional Planning Department, dated 2/9/04.

Application No. 4-04-099: Approval in Concept (PP49537), Los Angeles County Regional Planning Department, dated 4/13/04; Septic Approval in Concept, Los Angeles County Health Department, dated 11/19/2004; and Preliminary Fuel Modification Plan, dated 3/9/04; Water Well Approval Los Angeles County Department of Health Services, dated 12/11/04.

SUBSTANTIVE FILE DOCUMENTS:

Application No. 4-04-026: Geologic/Geotechnical Engineering Report for Malibu Ocean Ranches, LLC, Creekside Ranch LLC, and Stoney Heights, LLC, by Gold Coast Geoservices, Inc., dated December 22, 2004; Biological Resources Assessment for Corral Canyon North/Malibu Ocean Ranches, LLC, Malibu, California, by Steven Nelson, dated December 2004; Coastal Permit Application No. 4-04-099, Malibu Ocean Ranches, LLC, Stoney Heights, LLC, Creekside, LLC.

Application No. 4-04-099: Biological Assessment for Corral Canyon North/Garnet Residence, Malibu, California, dated February 2004 by Steven Nelson; Coastal Permit No. 4-02-110, Khalsa, Coastal Permit No. 4-04-036, Ferrell, Coastal Permit No. 4-03-028, Buyink; Biological Resources Assessment for Corral Canyon North/Malibu Ocean Ranches, LLC, Malibu, California, by Steven Nelson, dated December 2004; Coastal Permit Application No. 4-04-026, Malibu Ocean Ranches, LLC.

SUMMARY OF STAFF RECOMMENDATION

Staff recommends **approval** of the proposed project in Application No. 4-04-026 with three Special Conditions addressing a restriction that no future subdivision of these parcels may occur, open space restriction, and the recordation of a deed restriction.

Staff recommends **approval** of the proposed project in Application No. 4-04-099 with 14 Special Conditions addressing 1) Plans Conforming to Geologic Recommendations, 2) Landscaping, Erosion Control and Fuel Modification Plans, 3) Removal of Natural Vegetation, 4) Assumption of Risk, Waiver of Liability and Indemnity, 5) Future Development Restriction, 6) Color Restriction, 7) Lighting Restriction, 8) Deed Restriction, 9) Drainage and Polluted Run-Off Control Plan, 10) Pool and Hot Tub Drainage and Maintenance, 11) Removal of Construction Trailer, 12) Habitat Impact Mitigation, Open Space Restriction, and 14) Condition Compliance.

The subject site is located in upper Corral Canyon area within the Santa Monica Mountains of Los Angeles County in an area north of the partially developed Malibu Bowl, located east of Corral Canyon Road. The standard of review for the proposed permit applications is the Chapter Three policies of the Coastal Act. In addition, the policies of the certified Malibu/Santa Monica Mountains Land Use Plan serve as guidance. The proposed projects, as conditioned, are consistent with all applicable policies of the Coastal Act.

I. STAFF RECOMMENDATIONS:**Application No. 4-04-026:**

MOTION: I move that the Commission approve Coastal Development Permit No. 4-04-026 pursuant to the staff recommendation.

STAFF RECOMMENDATION OF APPROVAL:

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

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby approves the 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 of Chapter 3 of the Coastal Act and will not

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 permits 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.

Application No. 4-04-099:

MOTION: I move that the Commission approve Coastal Development Permit No. 4-04-099 pursuant to the staff recommendation.

STAFF RECOMMENDATION OF APPROVAL:

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

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby approves the 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 of Chapter 3 of the Coastal Act and will not 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 permits 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: These Standard Conditions are applicable to both Coastal Development Permit No. 4-04-026 and 4-04-099.

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

2. Expiration. If development has not commenced, these permits 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(s) must be made prior to the expiration date.

3. **Interpretation.** Any questions of intent or interpretation of any term or condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permits may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permits.
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

Application No. 4-04-026:

1. NO FUTURE SUBDIVISION RESTRICTION

- A. The owners of parcels APN 4457-006-001, 4457-006-005 and 4457-006-006 agree, on behalf of themselves and all successors and assigns, that after the resubdivision of the above three parcels, as approved by Coastal Development Permit No. 4-04-026 and shown as described and depicted in an Exhibit attached to Notice Of Intent To Issue Permit (NOI) that the Executive Director issues for this permit that; no further subdivision of any of the three resulting lots shall occur, unless such further subdivision is solely for the express purpose of transferring property as open space to a public agency or nonprofit organization acceptable to the Executive Director.
- B. PRIOR TO THE ISSUANCE BY THE EXECUTIVE DIRECTOR OF THE NOI FOR THIS PERMIT, the applicant shall submit for the review and approval of the Executive Director, and upon such approval, for attachment as an Exhibit to the NOI, a formal legal description and graphic depiction, prepared by a licensed surveyor, of the portion of the subject properties affected by this condition, as generally described on Exhibit 21 attached to the findings in support of approval of this permit.

2. OPEN SPACE RESTRICTION

- A. No development as defined in Section 30106 of the Coastal Act, grazing, or agricultural activities shall occur in the Open Space Areas as described and depicted in an Exhibit attached to the Notice of Intent to Issue Permit (NOI) that the Executive Director issues for this permit except for:
 1. Fuel modification required by the Los Angeles County Fire Department undertaken in accordance with a Final Approved Fuel Modification Plan as required by Special Condition Two of CDP 4-04-099 or if approved by the Commission as an amendment to this coastal development permit or a new coastal development permit;
 2. Drainage and polluted runoff control activities; if approved by the Commission as an amendment to this coastal development permit, or a new coastal development permit;

3. Planting of native plant vegetation and other restoration activities, if approved by the Commission as an amendment to this coastal development permit, or a new coastal development permit;
4. Construction and maintenance of public hiking trails, if approved by the Commission as an amendment to this coastal development permit, or a new coastal development permit;
5. Existing easements for roads, trails and utilities.

B. PRIOR TO THE ISSUANCE BY THE EXECUTIVE DIRECTOR OF THE NOI FOR THIS PERMIT, the applicant shall submit for the review and approval of the Executive Director, and upon such approval, for attachment as an Exhibit to the NOI, a formal legal description and graphic depiction, prepared by a licensed surveyor, of the portion of the subject properties affected by this condition, as generally described on Exhibit 21 attached to the findings in support of approval of this permit.

3. 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 a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to these permits, 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 (hereinafter referred to as the "Standard and Special Conditions"); and (2) imposing all Standard and Special Conditions of these permits as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the applicant's entire parcel or parcels. 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.

Application No. 4-04-099:

1. PLANS CONFORMING TO GEOLOGIC RECOMMENDATION

By acceptance of this permit, the applicant agrees to comply with the recommendations contained in the Geologic/Geotechnical Engineering Report, dated September 20, 2004, by Gold Coast Geoservices. These recommendations to be incorporated into all final design and construction plans include recommendations concerning general grading, foundations, retaining walls, site drainage, pavement design, swimming pool, onsite sewage disposal, plan review, and observations and testing.

The final plans approved by the consultants 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. LANDSCAPE EROSION CONTROL AND FUEL MODIFICATION PLANS

PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit final landscaping, prepared by a licensed landscape architect or a qualified resource specialist, and erosion control/drainage plans prepared by a licensed engineer for review and approval by the Executive Director. The final landscaping and erosion control/drainage plans shall be reviewed and approved by the consulting engineering geologist to ensure that the plans are in conformance with the consultants' recommendations. The final plans shall incorporate the following criteria:

A) Landscaping and Erosion Control Plans

- 1) All graded & disturbed areas on the subject site shall be planted and maintained for erosion control purposes within (60) 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. No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Exotic Pest Plant Council, 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. Within the 20-foot radius of the fuel modification area surrounding the residence non-native orchards, gardens, and vineyards may be planted using agricultural production methods that do not use pesticides and minimizes the use of fertilizers.

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. Such planting shall be adequate to provide 90 percent coverage within two (2) years, and this requirement shall apply to all disturbed soils. Once the temporary construction trailer is removed from the site this area will be regraded to match the natural landform contour and revegetated with native plants within 30 days of the removal of this temporary structure.

- 2) 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.
- 3) The Permittee shall undertake development in accordance with the final approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a

Coastal Commission - approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required

- 4) Vegetation within 20 feet of the proposed residence and garage 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 final 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. Fuel modification and brush clearance shall be minimized to the maximum extent feasible consistent with minimum vegetation clearance requirements of the Forestry Department of Los Angeles County. In addition, the applicant shall submit evidence that the final fuel modification plan, as revised has been reviewed and approved by the Los Angeles County Fire Department, Forestry Division, Fire Prevention Bureau. Any irrigated lawn, turf and ground cover planted within the twenty foot radius of the proposed residence and garage shall be selected from the most drought tolerant species or subspecies, or varieties suited to the Mediterranean climate of the Santa Monica Mountains.
- 5) The final drainage/erosion control plan shall be implemented within 30 days of completion of final grading; By acceptance of this permit, the applicant agrees to maintain the drainage devices on a yearly basis in order to ensure that the system functions properly. Should the devices fail or any erosion result from the drainage from the project, the applicant or successor in interests shall be responsible for any necessary repairs and restoration.
6. Fencing of the entire property is prohibited. Fencing shall extend no further than Zone B of the final fuel modification plan approved by the Los Angeles County Fire Department pursuant to subsection Four (4) above. 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 No. Six (6) below.
7. The use of Rodenticides containing any anticoagulant compounds (including, but not limited to, Warfarin, Brodifacoum, Bromadiolone or Diphacinone) shall not be used.
8. The plan shall include vertical elements, such as trees and shrubs, which partially screen the appearance of the proposed structures as viewed from the Backbone Trail and Corral Canyon Road.

B) Interim Erosion Control Plan

- 1) 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 project site with fencing or survey flags.

- 2) The plan shall specify that should grading take place during the rainy season (November 1 - March 31) the applicant shall install or construct temporary sediment basins (including debris basins, de-silting basins or silt traps), temporary drains and swales, sand bag barriers, silt fencing, stabilize any stockpiled fill with geo-fabric covers or other appropriate cover, install geo-textiles or mats on all cut or fill slopes and close and stabilize open trenches as soon as possible. These erosion measures shall be required on the project site prior to or concurrent with the initial grading operations and maintained through out 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 the coastal zone or to a site within the coastal zone permitted to receive fill.
- 3) 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 geo-textiles 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.

C) Monitoring

Five (5) years from the date of completion of the proposed development, the applicant shall submit for the review and approval of the Executive Director a landscape monitoring report, prepared by a licensed Landscape Architect or qualified Resource Specialist, that assesses the on-site landscaping and certifies whether it 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 performance standards specified in the landscaping plan approved pursuant to these permits, the applicant, or successors in interest, shall submit a revised or supplemental landscape plan for the review and approval of the Executive Director. The supplemental landscaping plan must be prepared by a licensed landscape architect or qualified resource specialist and shall specify measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan. The permittee shall implement the remedial measures specified in the approved supplemental landscape plan.

3. REMOVAL OF NATURAL VEGETATION

Removal of natural vegetation for the purpose of fuel modification within the 100-foot zone surrounding the proposed structures 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 100-200 foot fuel modification zone shall not occur until commencement of construction of the structures approved pursuant to this permit.

4. 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; (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.

5. FUTURE DEVELOPMENT RESTRICTION

This permit is only for the development described in Coastal Development Permit No. 4-04-099. 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 entire resubdivided Parcel No. 1. Accordingly, any future improvements on the property, including but not limited to the residence, garage, landscaping, fencing, gates, or grading, and clearing of vegetation other than as provided for in the approved fuel modification landscape and erosion control plan prepared pursuant to Special Condition Number Two (2), shall require an amendment to Permit No. 4-04-099 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.

6. STRUCTURAL APPEARANCE

PRIOR TO THE 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, including the water tank authorized by the approval of coastal development, permit 4-04-099. The palette samples shall be presented in a format not to exceed 8 1/2" X 11" X 1/2" in size. The palette shall include the colors proposed for all of the roofs, trims, exterior surfaces, retaining walls, water tank, driveways, or 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, galvanized steel, 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 Coastal Development Permit 4-04-099 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 property are limited to the following to minimize night time intrusion of light and disruption of wildlife traversing this area at night within this rural area:

1. The minimum necessary to light walkways used for entry and exit to the structures, including parking areas and driveways, on the site. This lighting shall be limited to fixtures that do not exceed two feet in height, that are directed downward, and use incandescent bulbs that do not exceed 60 watts, or energy efficient bulbs such as compact florescent that do not exceed a 12 watt rating, or bulbs generating the equivalent amount of lumens, unless a higher wattage is authorized by the Executive Director.
 2. Security lighting attached to the residence, garage, studio, caretakers residence and gazebo that is controlled by motion detectors is limited to incandescent bulbs that do not exceed 60 watts, or energy efficient bulbs such as compact florescent that do not exceed a 12 watt rating, or bulbs generating the equivalent amount of Lumens, unless a higher wattage is authorized by the Executive Director.
 3. The minimum lighting necessary for safe vehicular use of the driveway. That lighting shall be limited to incandescent bulbs that do not exceed 60 wafts, or energy efficient bulbs such as compact florescent That do not exceed a 12-watt rating, or bulbs generating the equivalent amount of lumens, unless a higher wattage is authorized by the Executive Director.
- B. No lighting on the including the slopes and flat areas, and no lighting for aesthetic purposes is allowed.

8. 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 a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to these permits, 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 (hereinafter referred to as the "Standard and Special Conditions"); and (2) imposing all Standard and Special Conditions of these permits as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the applicant's entire parcel or parcels. 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.

9. DRAINAGE AND POLLUTED RUNOFF CONTROL PLAN

Prior to the issuance of the Coastal Development Permit No. 4-04-099, the applicant shall submit for the review and approval of the Executive Director, final drainage and runoff control plans, including supporting calculations. The plan shall be prepared by a licensed engineer and shall incorporate structural and non-structural Best Management Practices (BMPs) designed to control the volume, velocity, and pollutant load of stormwater leaving the developed site. The plan shall be reviewed and approved by the consulting engineering geologist to ensure the plan is in conformance with geologist's recommendations. In addition to the specifications above, the plan shall be in substantial conformance with the following requirements:

- (a) Selected BMPs (or suites of BMPs) shall be designed to treat, infiltrate or filter stormwater from each runoff event, up to and including the 85th percentile, 24-hour runoff event for volume-based BMPs, and/or the 85th percentile, 1-hour runoff event, with an appropriate safety factor, for flow-based BMPs.
- (b) Runoff shall be conveyed off site in a non-erosive manner.
- (c) Energy dissipating measures shall be installed at the terminus of outflow drains.
- (d) The plan shall include provisions for maintaining the drainage system, including structural BMPs, in a functional condition throughout the life of the approved development. Such maintenance shall include the following: (1) BMPs shall be inspected, cleaned and repaired when necessary prior to the onset of the storm season, no later than September 30th each year and (2) 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 amendment(s) or new Coastal Development Permit(s) are required to authorize such work.

10. POOL AND HOT TUB DRAINAGE AND MAINTENANCE

Prior to issuance of the Coastal Development Permit, the applicant shall submit, for review and approval of the Executive Director, a written pool and hot tub maintenance plan, that contains an agreement to install and use a no chlorine or low chlorine purification system and a program to maintain proper pH, calcium and alkalinity balance in a manner that any runoff or drainage from the pool or hot tub will not include excessive amounts of chemicals that may adversely affect water quality or environmentally sensitive habitat area. In addition, the plan shall, at a minimum: 1) prohibit discharge of chlorinated pool and hot tub water and 2) prohibit discharge of chlorinated or non-chlorinated pool water into a street, storm drain, creek, canyon, drainage channel, or other location where it could enter receiving waters. The Permittee shall undertake development and maintenance in compliance with this pool and hot tub maintenance agreement and program approved by the Executive Director. No changes shall be made to the agreement or plan unless they are approved by the Executive Director.

11. REMOVAL OF TEMPORARY CONSTRUCTION TRAILER

With the acceptance of this coastal permit, the applicants agree that the temporary construction trailer on the site shall be removed within two years of the issuance of this coastal development permit or within thirty (30) days of the applicants receipt of the Certificate of Occupancy for the proposed residence from the County of Los Angeles, whichever is less, to a site located outside the Coastal Zone or a site with a valid coastal development permit for the installation of a construction trailer.

12. HABITAT IMPACT MITIGATION

Prior to the 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 habitat (ESHA) that will be disturbed by the proposed development, including by fuel modification requirements on the project site (based on the final fuel modification plan approved by the Los Angeles County Fire Department). The chaparral areas on the site shall be delineated on a detailed map, to scale, illustrating the subject parcel boundaries. The delineation map shall indicate the total acreage for all chaparral onsite that will be impacted by the proposed development, including the fuel modification areas. The existing graded pad and driveway is excluded from the total acreage of ESHA impacted. 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 ESHA from the proposed development and fuel modification requirements by one of the three following habitat mitigation methods:

A. Habitat Restoration**1) Habitat Restoration Plan**

Prior to the 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 habitat equivalent to the area of chaparral ESHA impacted by the proposed development and fuel modification area. The habitat restoration area may either be onsite or offsite within the coastal zone in the City of Malibu or 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 agrees

to the restoration work, maintenance and monitoring required by this condition and agrees 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. A 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 amendment to the coastal development permit for an alternative mitigation program.

The habitat restoration plan shall be implemented 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 owner of the habitat restoration area shall execute and record a 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 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 the issuance of the 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 execute and record an open space deed restriction in a form and content acceptable to the Executive Director, over a parcel or parcels containing chaparral ESHA. The chaparral 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 is 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 the issuance of the coastal development permit, the applicant shall submit evidence, for the review and approval of the Executive Director, that compensatory mitigation, in the form of an in-lieu fee, has been paid to the Santa Monica Mountains Conservancy to mitigate adverse impacts to chaparral habitat ESHA. The fee shall be calculated as follows:

1. Development Area, Irrigated Fuel Modification Zones

The in-lieu fee for these areas shall be \$12,000 per acre within the development area and any required irrigated fuel modification zones. The total acreage shall be based on the map delineating these areas required by this condition.

2. Non-irrigated Fuel Modification Zones

The in-lieu fee for non-irrigated fuel modification areas 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 of any in-lieu fee to the Santa Monica Mountains Conservancy, the applicant shall submit, for the review and approval of the Executive Director, the calculation of the in-lieu fee required to mitigate adverse impacts to chaparral habitat ESHA, in accordance with this condition. After review and approval of the fee calculation, the fee shall be paid to the Santa Monica Mountains Conservancy. The fee shall be used for the acquisition or permanent preservation of chaparral habitat in the Santa Monica Mountains coastal zone.

13. OPEN SPACE RESTRICTION

B. No development as defined in Section 30106 of the Coastal Act, grazing, or agricultural activities shall occur in the Open Space Area as described and depicted in an Exhibit attached to the Notice of Intent to Issue Permit (NOI) that the Executive Director issues for this permit except for:

3. Fuel modification required by the Los Angeles County Fire Department undertaken in accordance with the Final Approved Fuel Modification Plan required by Special Condition No. Two of CDP 4-04-099 and as included in Exhibit 12;
4. Drainage and polluted runoff control activities pursuant to Special Condition No. Nine;
6. Planting of native plant vegetation and other restoration activities, if approved by the Commission as an amendment to this coastal development permit, or a new coastal development permit;
7. Construction and maintenance of public hiking trails, if approved by the Commission as an amendment to this coastal development permit, or a new coastal development permit;
8. Existing easements for roads, trails and utilities.

B. PRIOR TO THE ISSUANCE BY THE EXECUTIVE DIRECTOR OF THE NOI FOR THIS PERMIT, the applicant shall submit for the review and approval of the Executive Director, and upon such approval, for attachment as an Exhibit to the NOI, a formal legal description and graphic depiction, prepared by a licensed surveyor, of the portion of the subject property affected by this condition, as generally described on Exhibit 21 attached to the findings in support of approval of this permit.

14. CONDITION COMPLIANCE

Within 120 days of Commission action on this coastal development permit application, or within such additional time as the Executive Director may grant for good cause, the applicant shall satisfy all requirements specified in the conditions hereto that the applicant is required to satisfy prior to issuance of this permit. Failure to comply with this requirement may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.

IV. Findings and Declarations

The Commission hereby finds and declares:

A. Project Description and Background

Application No. 4-04-026:

This proposed project consists of the resubdivision of three existing parcels located northeast of Corral Canyon Road and north of the community of Malibu Bowl Small Lot Subdivision (Exhibits 1- 4). However, none of the subject parcels are located within the Malibu Bowl Small Lot Subdivision. The three existing subject parcels consist of one 40-acre parcel (APN 4457-006-001), one 1-acre parcel (APN 4457-006-005), and a ½ acre parcel (4457-006-006). The three parcels are proposed to be resubdivided into a 11.5 acre parcel (APN 4457-006-001), a 19 acre parcel (APN 006-005) and a 11.0 acre parcel (APN 4457-006-006). All three parcels, in their existing configurations, are vacant and covered with native vegetation consisting of relatively undisturbed mixed chaparral vegetation, oak trees. In addition, the largest of the three existing lots (APN 4457-006-001) contains an area of oak/riparian habitat which is located within the upper reaches of Corral Canyon Creek. The applicant has identified three future building pads and access driveway on the parcels; however, no grading or construction of any building pads is proposed as part of this application. The portion of the access driveway and a portion of the three future building pads were previously disturbed as part of an existing roadway on the property. The related Coastal Development Permit (CDP) Application 4-04-099, which has been included as part of this joint staff report, is only for the construction of a building pad, road, and structures on the westernmost 11.5 acre parcel (APN 4457-006-001) that will result from the proposed resubdivision. No grading or construction of pads or roads is proposed at this time by either of these permit applications on the two other parcels (APNs: 4457-006-005 & 006) that will result from the resubdivision.

The proposed resubdivision would allow for the future clustering of three residences along a single driveway leading from Corral Canyon Road to the western portion of the large 40-acre parcel (Exhibit 6 identifies the overlapping fuel modification zones). The applicant does not propose to extend the driveway to access proposed resubdivided parcels 2 and 3 in this application. As a result of the proposed resubdivision of the three parcels, no development would occur on the portions of the resultant lots where the two smaller parcels, which are vegetated with undisturbed coast live oak woodland with some mixed chaparral plant communities on an east facing slope, are currently located.

The three existing parcels have each received Certificates of Compliances in the past which were created and recorded in error. However, the County of Los Angeles has issued three revised Certificates of Compliance indicating that each parcel was created prior to the effective date of the Coastal Act in conformance with all requirements of the Subdivision Map Act and with the County Subdivision Ordinance at the time of their creation. The existing 40-acre parcel (APN 4457-006-001) received an unconditional certificate of compliance recorded as instrument number 01-0221208 on February 9, 2001 confirming that the subject

parcel was in conformance with all requirements of the Subdivision Map Act and County Subdivision Ordinance.

The existing one-acre parcel (APN 4457-006-005) received a "Certificate of Compliance No. 89-1039 (Correction)" recorded as instrument number 05-0435460 on February 25, 2005. The Certificate of Compliance includes a note that states:

Certificate of Compliance was recorded as a "waiver" in error. The subject property was not part of an illegal subdivision and therefore was "Exempt" from any conditions to be imposed on illegally subdivided parcels of land as per Government Code Sections 66499.35 and 66499.36 of the California Subdivision Map Act.

The existing one half-acre parcel (APN 4457-006-006) received a "Certificate of Compliance No. 89-1040 Correction" recorded as instrument number 04-34047250 on December 30, 2004. The Certificate of Compliance includes a note that states:

Certificate of Compliance is changed from Conditional to Unconditional. Subject property was created on February 14, 1931 by Grant Deed Book 10665, Page 133 of Official Records, in the Office of the County Recorder of Los Angeles County. Subject property was created prior to the implementation of the A-1-1 zoning which became effective on November 2, 1962. THEREFORE, THE ORIGINAL DETERMINATION THAT THIS CASE SHOULD BE ASSIGNED A CONDITIONAL STATUS WAS INCORRECT. CONDITIONS No. 1 THROUGH 4 ARE HEREBY ELIMINATED.

In this case, the subject three parcels were created prior to the Coastal Act and at the time of their creation were in compliance with all applicable state and local subdivision laws and are, therefore, considered to be legal lots.

Surrounding land uses include a mix of residentially developed and vacant lots in the Malibu Bowl small lot subdivision located to the south, residential development located to the west and east, four approximately 40 acre vacant parcels located to the north and northwest, State Park property located to the northeast, and other State and National Park Service lands located further to the west, north and east (Exhibits 1 and 2).

Application No. 4-04-099:

The applicant proposes to construct a two story, 27 ft. high, 4,974 sq. ft. single family residence with attached three car, 659 sq. ft., garage, pool, hot tub, retaining walls (ten walls ranging from 1 foot to 10 feet high and from 20 feet to 310 feet long), water well and 10,000 gallon underground storage tank, septic system, improve 1,352 ft long access driveway, install a temporary construction trailer, and landscaping (Exhibits 7 - 15). The project includes 11,540 cubic yards of cut, 910 cubic yards of fill and export of 10,630 cubic yards of material to a disposal site located outside the coastal zone. In addition, the project also includes the request for after-the-fact approval of unpermitted development consisting of 5,100 sq. ft. of vegetation removal and 24 cubic yards of cut and fill for geologic testing purposes, located where the house pad and permanent driveway are proposed to be constructed. The subject site is a vacant parcel located east of Corral Canyon road and

north of Malibu Bowl. The proposed development is located on the western portion of the existing 40-acre parcel which is proposed to be reconfigured as part of the three-lot subdivision subject to related CDP Application 4-04-026 as an 11.5 acre parcel. Although the construction of the proposed residence in its proposed location is not reliant upon the Commission's approval of the related subdivision proposed as part of CDP Application 4-04-026, the location of the residence is sited in a manner to allow for the clustering of development and use of a single common driveway for all three reconfigured parcels proposed as part of CDP Application 4-04-026.

The subject site will be accessed from Corral Canyon Road across an adjoining vacant parcel located to the west of the subject parcel. The site is located northeast of Corral Canyon Road and north of the Malibu Bowl Small Lot Subdivision. None of the parcels subject to either of the related applications addressed by this report are located within the Malibu Bowl Small Lot Subdivision. The subject site is vacant and covered with relatively undisturbed mixed chaparral vegetation, except for the disturbed area where the proposed three future building pads (as a result of the proposed resubdivision) and one access driveway are proposed to be located. The access driveway and one of these future building pads is the subject of this application (No. 4-04-099). The applicant proposes in the resubdivision to identify a future building pad on all three resultant parcels along the single driveway leading from Corral Canyon Road but not construct the extension of this access driveway to the two resubdivided parcels located to the east. The only residence that is proposed to be constructed at this time, will be located on the resulting 11.5 acre western most parcel resulting from the resubdivision (APN: 4457-006-001), is the subject of this application. No grading for building pads is proposed as part of either of these applications on the two other parcels (APNs: 4457-006-005 & 006)

Surrounding land uses include residentially developed and vacant lots in the Malibu Bowl small lot subdivision located to the south, residential development located to the west and east, four vacant approximately 40 acre parcels located to the north and northwest, State Park property located to the northeast, and other State and National Park Service lands located further to the west, north and east (Exhibits 1 and 2).

The subject site is situated on the westerly side of Corral Canyon and descends gently to moderately towards the canyon and away from Corral Canyon Road, which is located to the west. The highest elevation at the southwest portion of the property is about 1,375 feet above mean sea level (MSL) to the lowest portion of the property at the southeast portion of the property at about 900 feet MSL. At the extreme northeast corner of the property is a blue-line stream draining as a small tributary into Corral Canyon Creek.

The applicant submitted a biological assessment of the subject parcel proposed for development titled: "Biological Assessment for Corral Canyon North/Garnet Residence Malibu, California", dated February 2004 by Steven Nelson, Consulting Biologist. The majority of the subject site consists of mixed chaparral vegetation, with oak riparian woodlands dominated by coast live oak with a dense understory of riparian shrub species. This report provided a survey of the site and surrounding area conditions with a summary of constraints and recommendations discussed in the Environmental Sensitive Habitat Section

below. The site's mixed chaparral and oak riparian woodlands are considered environmentally sensitive habitat area (ESHA).

The related CDP Application 4-04-026 is for the redivision of the three separate parcels and would result in the creation of the 11.5 acre parcel where the single family residence proposed as part of this application would be located. Although the construction of the residence proposed as part of CDP Application 4-04-099, in its proposed location, is not reliant upon the Commission's approval of the related subdivision, the location of the residence is sited in a manner to allow for the clustering of development and use of a single common driveway for all three reconfigured parcels proposed as part of CDP Application 4-04-026. The applicant has submitted an alternatives analysis identifying three potential alternative building sites on each of the existing parcels if the proposed resubdivision is not approved. In this case, if each of the three existing parcels were to be developed with single family residences in their existing configurations, including the two smaller parcels approximately 1.0 and 0.5 acres in area which are both characterized as hillside lots with steeply sloping terrain with gradients as much as 67%, the construction of access roads and the improvement of an existing private road on site would require significantly more grading and landform alteration than currently proposed. In addition, this alternative would require the construction of several new retaining walls on the steep slopes. Development of any structures anywhere on either of the two small existing parcels would also require the removal of numerous oak trees and encroachment into the driplines of several other oak trees. The proposed reconfiguration of the subject parcels will allow for clustering of the development with overlapping fuel modification zones, will not require the removal of any oak trees or encroachment into the driplines of any oak trees, and will allow for the use of a single access for all three parcels. The applicant's geologist has also stated that this alternative building site is not feasible from an engineering geologic standpoint due steep slope condition, and landslide hazard potential.

B. 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 reservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

Section 30251 of the Coastal Act requires scenic and visual qualities to be considered and preserved. Section 30251 also requires that development be sited and designed to protect views of scenic areas, minimize alteration of landforms, and be visually compatible with the surrounding area. The Commission is required to review the publicly accessible locations where the proposed development is visible to assess potential visual impacts to the public. In this case, the proposed resubdivision (including the identification of two future building

pads on two of the lots) and the construction of the new residence, garage, retaining walls and driveway raises two issues regarding the siting and design of new development including: (1) whether or not public views from public roadways will be adversely effected; and, (2) whether or not public views from public trails will be effected.

The subject site is located in a partial residentially developed area, with residentially developed parcels located immediately to the east, south and southwest and additional residentially developed parcels under various stages of construction located further to the south of the subject site. Although the three proposed building sites are located along a gentle descending ridgeline, staff notes that they will be located well below the two significant ridgelines in the area including Castro Crest and a ridgeline located to the west between Corral Canyon and Latigo Canyons. Staff notes that the building locations will not be readily visible from public roadways located to the south, north, or east due to the substantial intervening distance and topography, however, the building sites will be visible from a portion of Corral Canyon Road to the west.

The proposed development will also be visible from the Backbone Trail, a popular public hiking trail, located approximately one mile to the north along Castro Crest. In addition, the site would be potentially visible from the northern portions of the Corral Canyon Trail, a planned public trail (although this trail does not exist at this time, it is identified in the Malibu/Santa Monica Mountains Trail System in the Los Angeles County Land Use Plan) located to the east as close as about two thousand feet (Exhibit 18). As a result, public views from these public trails may be adversely affected by the proposed development.

Within areas of the Santa Monica Mountains with chaparral and coastal sage scrub, which is considered ESHA, the Commission has required, through past permit actions, that development be clustered on a lot and the building pad size not exceed 10,000 sq. ft. as measured from the top of the cut slope to the bottom of the fill slope, excluding the size of the necessary fire truck hammerhead turnaround area, to minimize impacts on this sensitive habitat and the surrounding watershed. In this case, the proposed grading and landform alteration that will occur for the construction of the residence on APN 4457-006-001, as proposed in Application No. 4-04-099, would involve 11,540 cubic yards of cut, 910 cubic yards of fill and export of 10,630 cubic yards of material to a disposal site located outside the coastal zone. The majority of the proposed grading (7,240 cubic yards of cut and 510 cubic yards of fill) is for the proposed driveway which will serve all three reconfigured lots. The one proposed building pad on APN 4457-006-001 constitutes the remaining 4,300 cubic yards of cut and 420 cubic yards of fill. A significant portion of the 1,352 foot long driveway crosses an adjoining parcel west of the building site and is the minimum length necessary to access all three of the reconfigured parcels. The western edge of the subject site is about 850 feet easterly and downslope of Corral Canyon Road. To access the building site near the western boundary of the subject parcel, a semicircular route is necessary to maintain a slope gradient of less than 20% consistent with Los Angeles County Fire Department requirements. The proposed building pad on APN 4457-006-001 is located on the flattest portion of the reconfigured parcel. The proposed building pad would be cut into a small ridge on the southwest side of the site that is well below the grade of Corral Canyon Road. In addition, this building site is located on the opposite side of this ridge from the public lands located to the northwest, north and northeast of the building site

and would not be visible from those public viewing locations. The driveway is also cut into the flank of a down sloping area leading to the small ridge where the building site is located. In addition, the proposed driveway follows a portion of an existing driveway leading to the building site. As a result of the design which cuts the driveway into the slope and cuts the building site into a small ridge, the alteration of natural landforms and its view from public locations will be minimized. The total disturbed area of 63,130 sq. ft., including 5,100 sq. ft. of unpermitted vegetation disturbance which has already occurred and 24 cubic yards of cut and fill material for geologic testing. The vegetation disturbance resulted in creating a temporary road for the geologic testing, however, no grading was done to create a section of this roadway. The section of the roadway in the vicinity of the proposed building site and an area west of this site already exists. Additional grading is proposed to achieve the necessary gradient and widening to a 20 foot width as required by the Los Angeles County Fire Department. In addition, some unpermitted vegetation disturbance/clearance also occurred in the same area the proposed 9,985 sq. ft. building pad on the reconfigured APN 4457-006-001.

The related CDP Application 4-04-026 is for the redivision of the three separate parcels and would result in the creation of the 11.5 acre parcel where the single family residence proposed as part of this application would be located. Although the construction of the residence proposed as part of CDP Application 4-04-099, in its proposed location, is not reliant upon the Commission's approval of the related subdivision, the location of the residence is sited in a manner to allow for the clustering of development and use of a single common driveway for all three reconfigured parcels proposed as part of CDP Application 4-04-026. The applicant has submitted an alternatives analysis identifying three potential alternative building sites on each of the existing parcels if the proposed resubdivision is not approved. In this case, if each of the three existing parcels were to be developed with single family residences in their existing configurations, including the two smaller parcels approximately 1.0 and 0.5 acres in area which are both characterized as hillside lots with steeply sloping terrain with gradients as much as 67%, the construction of access roads and the improvement of an existing private road on site would require significantly more grading and landform alteration than currently proposed. In addition, this alternative would require the construction of several new retaining walls on the steep slopes. Development of any structures anywhere on either of the two small existing parcels would also require the removal of numerous oak trees and encroachment into the driplines of several other oak trees. The proposed reconfiguration of the subject parcels will allow for clustering of the development with overlapping fuel modification zones, will not require the removal of any oak trees or encroachment into the driplines of any oak trees, and will allow for the use of a single access for all three parcels. As such, the Commission notes that any residential development on the three subject parcels in their currently existing configurations would result in greater adverse impacts to sensitive habitat resources (including the unavoidable loss of several oak trees) and require significantly more grading for landform alteration than development of the subject parcels as proposed to be redivided and reconfigured. Therefore, the Commission finds that the proposed reconfiguration of the three subject lots will serve to minimize adverse impacts to public views to the maximum extent feasible.

Although the proposed resubdivision will serve to minimize adverse impacts to public views, the proposed construction of the access road on all three reconfigured parcels and the new

proposed residence on APN 4457-006-001 will still result in adverse impacts to views from public roads and trails, including the Backbone Trail and Corral Canyon Road. Visual impacts associated with proposed grading, and the structures themselves, can be reduced by the use of appropriate and adequate landscaping. In past permit actions in the Santa Monica Mountains, the Commission has found that the use of native plant materials in landscaping plans can soften the visual impact of construction in the Santa Monica Mountains. The use of native plant materials to revegetate graded areas and roads and cleared areas on the subject site and add adequate top soil fill to regrade graded areas, can reduce the adverse effects of erosion, which can degrade visual resources in addition to causing siltation pollution in ESHA's, and soften the appearance of development within areas of high scenic quality. Therefore, **Special Condition Two (2)** of CDP 4-04-099 requires the applicant to ensure that the vegetation on site remains visually compatible with the native flora of surrounding areas. Implementation of Special Condition Two (2) CDP 4-04-099 will soften the visual impact of the development from public view areas. In addition, Special Condition Number Two has been required to ensure that vertical elements, such as trees and shrubs, are planted on site which partially screen the appearance of the proposed structures as viewed from the Backbone Trail and Corral Canyon Road. To ensure that the final approved landscaping plans are successfully implemented, Special Condition Two (2) CDP 4-04-099 also requires the applicant to revegetate all disturbed areas in a timely manner and includes a monitoring component to ensure the successful establishment of all newly planted and landscaped areas over time.

The visual impact of the proposed structures and driveway can be further reduced by requiring these structures be finished in a color consistent with the surrounding natural landscape and, further, by requiring that windows and solar panels associated with the proposed development be of a non-reflective glass type. In order to ensure that the structural appearance, i.e. color of the main residence, garage, roofs, retaining walls, and driveway and the potential glare of the glass windows, will not create adverse visual impacts from the public trails, the Commission finds it necessary to require the applicant to use colors compatible with the colors found in the surrounding area for exterior materials of the proposed structures and driveway and non-glare glass for all proposed windows as required by **Special Condition Number Six** of CDP 4-04-099.

In addition, the Commission has found that night lighting of areas in the Malibu/Santa Monica Mountains area creates a visual impact to nearby scenic roads and trails. In addition, night lighting may alter or disrupt feeding, nesting, and roosting activities of native wildlife species. In this case, not only the subject site visible from public roads and trails but the subject site also contains environmentally sensitive habitat. Therefore, **Special Condition Number Seven** of CDP 4-04-099 requires that night lighting, if any, shall be the minimum necessary for lighting, directed downward, be of low intensity, at low height and shielded; security lighting, if any, shall be controlled by motion detector to avoid creating adverse night time visual impacts. The restriction on night lighting is necessary to protect the night time rural character of this portion of the Santa Monica Mountains consistent with the scenic and visual qualities of this coastal area. In addition, low intensity lighting and security lighting controlled by a motion detector will assist in minimizing the disruption of wildlife traversing this area at night that are commonly found in this rural and relatively undisturbed area.

Further, regarding future developments or improvements, certain types of development to the property, normally associated with a single-family residences, which might otherwise be exempt, have the potential to impact scenic and visual resources in this area. It is necessary to ensure that any future development or improvements normally associated with the entire property, which might otherwise be exempt, is reviewed by the Commission for compliance with the scenic resource policy, Section 30251 of the Coastal Act. **Special Condition Number Five** of CDP 4-04-099, the Future Development Restriction, will ensure that the Commission will have the opportunity to review future projects for compliance with the Coastal Act and that residential development will be limited to the identified building location identified by the applicant as part of the proposed resubdivision of land. In addition, **Special Condition Number Eight** of CDP 4-04-099 and **Special Condition Three** of CDP 4-04-026 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 subject properties and provides any prospective purchaser with recorded notice that the restrictions are imposed on the subject property. Finally, in order to permanently ensure that that residential development will be limited to the identified building location identified by the applicant on each of the three parcels resulting from the proposed resubdivision of land and that no further development occurs outside of the proposed development areas, the Commission finds it necessary to also require the applicant to record a deed restriction prohibiting all development outside of the proposed development areas as shown in Exhibit 21. As detailed in Special Condition Thirteen (13) of CDP 5-04-099 and Special Condition Two (2) of CDP 5-04-026, the deed restriction will run with the land, and will prohibit all development, with the exception of fuel modification and drainage control activities, construction or maintenance of public trails, or maintenance of existing trail, road, and utility easements.

Therefore, the Commission finds that the Application Nos. 4-04-026 and 4-04-099, as conditioned, minimize adverse effects to public views and minimizes the alternation of natural landforms. Therefore, the Commission finds that the proposed projects, as conditioned, are consistent with Section 30251 of the Coastal Act.

C. Hazards and Geologic Stability

In Application No. 4-04-099, the proposed development is located in the Malibu/Santa Monica Mountains area, an area that is generally considered to be subject to an unusually high amount of natural hazards. Geologic hazards common to the Santa Monica Mountains area include landslides, erosion, and flooding. In addition, 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.

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.**

1. Geology

The applicant proposes in Application No. 4-04-099 to construct a two story, 27 ft. high, 4,974 sq. ft. single family residence with attached three car, 659 sq. ft., garage, pool, hot tub, retaining walls (ten walls ranging from 1 foot to 10 feet high and from 20 feet to 310 feet long), water well and 10,000 gallon underground storage tank, septic system, improve 1,352 ft long access driveway, install a temporary construction trailer, and landscaping on a vacant parcel located east of Corral Canyon road and north of Malibu Bowl. The applicant also proposes 11,540 cubic yards of cut, 910 cubic yards of fill and export of 10,630 cubic yards of material to a disposal site located outside the coastal zone. In addition, the project includes the request for after-the-fact approval of 24 cubic yards of cut and fill material for geologic testing purposes and vegetation disturbance/clearance of about 5,100 sq. ft. to create a roadway and enlarge the proposed building pad areas to conduct the geologic testing along the roadway and at the three building sites. Some of unpermitted vegetation clearance occurred in the same area as the proposed 9,985 sq. ft. building pad on the reconfigured Parcel APN 4457-006-001.. The applicant has submitted a report entitled, Geologic/Geotechnical Engineering Report, by Gold Coast Geoservices, dated September 20, 2004. This report concludes that:

It is the opinion of the undersigned that the proposed grading and structures will be safe against hazard from landslide, settlement, or slippage, and that the proposed grading and construction will have no adverse geological effect on offsite properties. Assumptions critical to our opinion are that the design recommendations will be properly implemented during the proposed construction and that the property will be properly maintained to prevent excessive irrigation, blocked drainage devices, or other adverse conditions.

The geologic and engineering consultants conclude that the proposed developments are feasible and will be free from geologic hazard provided their recommendations are incorporated into the proposed development. These reports included several recommendations to be incorporated into project construction: placement of fill, cut slopes and excavations, fill slope construction, shrinkage and import material, erosion control, foundation recommendations, retaining walls, areas to receive pavement, swimming pool, on-site sewage disposal, plan review and observations and testing. To ensure that the recommendations of the consultant have been incorporated into all proposed development the Commission, as specified in **Special Condition Number One** of CDP 4-04-099, requires the applicant to comply with all the recommendations of the consulting geologist and engineer as conforming to all structural and site stability recommendations for the proposed projects. Final plans approved by the consultant shall be in substantial conformance with the plans approved by the Commission. Any substantial changes to the proposed developments, as approved by the Commission, which may be recommended by the consultant shall require an amendment to the permit or a new coastal development permit.

The Commission finds that controlling and diverting run-off in a non-erosive manner from the proposed structures, impervious surfaces, and building pad will minimize erosion and add to the geologic stability of the project sites. To ensure that adequate drainage and erosion control are included in the proposed developments the Commission requires the applicant to

submit drainage and interim erosion control plans certified by the consultants, as specified in **Special Condition Numbers Two and Nine** of CDP 4-04-099.

The Commission also finds that landscaping of graded and disturbed areas on the subject site will serve stabilize disturbed soils, reduce erosion and thus enhance and maintain the geologic stability of the site. **Special Condition Number Two** of CDP 4-04-099 also requires the applicant to utilize and maintain native and noninvasive plant species compatible with the surrounding area for landscaping the project sites.

Invasive and non-native plant species are generally characterized as having a shallow root structure in comparison with their high surface/foilage weight. The Commission notes that non-native and invasive plant species with high surface/foilage weight and shallow root structures do not serve to stabilize slopes and that such vegetation results in potential adverse effects to the stability of the project site. Native species, alternatively, tend to have a deeper root structure than non-native and invasive species, and once established aid in preventing erosion as required by **Special Condition Number Two** of CDP 4-04-099.

Furthermore, 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, the Commission finds that it is necessary to impose a restriction on the removal of natural vegetation as specified in **Special Condition No. Three** of CDP 4-04-099. This restriction specifies that natural vegetation shall not be removed until grading or building permits have been secured and construction of the permitted structures has commenced. The limitation imposed by **Special Condition No. Three** of CDP 4-04-099 avoids loss of natural vegetative 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 finds that the proposed projects, as conditioned, will serve to minimize potential hazards of the project site and adjacent properties.

2. Wild Fire

The proposed project is located in the Santa Monica Mountains, an area subject to an extraordinary potential for damage or destruction from wild fire. 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.

Due to the fact that the proposed projects are located in an area subject to an extraordinary potential for damage or destruction from wild fire, the Commission can only approve the project if the applicant assumes the liability from these associated risks. Through **Special**

Condition No. Four of CDP 4-04-099, the wildfire waiver of liability, the applicant acknowledges the nature of the fire hazard which exists on the site and which may affect the safety of the proposed development. Moreover, through acceptance of **Special Condition No. Four** of CDP 4-04-099, the applicant also agrees to indemnify the Commission, its officers, agents and employees against any and all expenses or liability arising out of the acquisition, design, construction, operation, maintenance, existence, or failure of the permitted projects.

For the reasons set forth above, the Commission finds that, as conditioned, the proposed projects are consistent with Section 30253 of the Coastal Act.

D. Environmentally Sensitive Resources

Section 30230 of the Coastal Act states that:

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

Section 30231 states:

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

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.

Section 30231 of the Coastal Act requires that the biological productivity and the quality of coastal waters and streams be maintained and, where feasible, restored through, among other means, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flows, maintaining natural buffer areas that protect riparian habitats, and minimizing alteration of natural streams. In addition, Sections 30107.5 and 30240 of the Coastal Act state that environmentally sensitive habitat areas must be protected against disruption of habitat values. Therefore, when considering any area, such as the Santa Monica Mountains, with regard to an ESHA determination one must focus on three main questions:

- 1) Is a habitat or species rare?
- 2) Is the habitat or species especially valuable because of its special nature or role in the ecosystem?
- 3) Is the habitat or species easily disturbed or degraded by human activities and developments?

The Coastal Commission has found that the Mediterranean Ecosystem in the Santa Monica Mountains is itself rare, and valuable because of its relatively pristine character, physical complexity, and resultant biological diversity. Therefore, habitat areas that provide important roles in that ecosystem are especially valuable and meet the second criterion for the ESHA designation. In the Santa Monica Mountains, coastal sage scrub and chaparral have many important roles in the 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. For these and other reasons discussed in the memo "Designation of ESHA in the Santa Monica Mountains, dated March 25, 2003 by John Dixon (Exhibit 19), which is incorporated herein, the Commission finds that large contiguous, relatively pristine stands of coastal sage scrub and chaparral in the Santa Monica Mountains meet the definition of ESHA. This is consistent with the Commission's past findings on the Malibu LCP¹.

For any specific property within the Santa Monica Mountains, it is necessary to meet three tests in order to assign the ESHA designation. First, is the habitat properly identified, for example as coastal sage scrub or chaparral? Second, is the habitat undeveloped and otherwise relatively pristine? Third, is the habitat part of a large, contiguous block of relatively pristine native vegetation?

Commission staff visited the subject property on September 16, 2004 and confirmed that the majority of this parcel consists primarily of chaparral vegetation with a small area of non-native grass in the vicinity of the building site on the reconfigured APN 4457-006-001. This

¹ Revised Findings for the City of Malibu Local Coastal Program (as adopted on September 13, 2002) adopted on February 6, 2003.

vegetation is part of a large contiguous area of chaparral habitat that extends relatively undisturbed to the north, west and south of the subject property and somewhat disturbed to the east and south on residentially developed sites as a result of recent development.

The applicant submitted a report titled: "Botanical Assessment for Corral Canyon North/Garnet Residence" dated February 2004, by Steven Nelson, Consulting Biologist. This report surveys the current site conditions and vegetation specifically identifying the plant species as mixed chaparral and oak riparian woodlands. The riparian vegetation and oak trees are located on the eastern portion of the parcel which is about 1,500 feet from the building site on reconfigured APN 4457-006-001. This oak and riparian vegetation is located along a blue line stream draining into Corral Canyon Creek, well beyond the direct impact area for the proposed project in Application No. 4-04-099 and for the proposed three building sites in the resubdivision in Application No. 4-04-026. There are also areas of oak trees south of the ridge where the proposed three building sites are located. The report notes that there are no state or federal listed threatened, endangered, or otherwise special-status wildlife species observed or detected during site surveys. Therefore, due to the important ecosystem roles of chaparral in the Santa Monica Mountains (detailed in Exhibit 15), and the fact that the subject site is relatively undisturbed and part of a large, unfragmented block of habitat, the Commission finds that the chaparral on the subject property meets the definition of ESHA under the Coastal Act.

The Commission has required through permit actions in the Cold Creek Significant Watershed Area and other chaparral ESHA in the Santa Monica Mountains, a building pad not to exceed 10,000 sq. ft. pad. Through past permit actions, the Commission has limited the development area for residential development in ESHA to a maximum development area of 10,000 square feet in order to cluster development and minimize the adverse impacts to ESHA from fuel modification requirements. In this case, the applicant proposes a building pad of 9,985 sq. ft. in size on reconfigured APN 4457-006-001 consistent with past Commission action.

As noted above, the majority of this parcel constitutes an environmentally sensitive habitat area (ESHA) pursuant to Section 30107.5. Section 30240 requires that "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." Section 30240 restricts development on the parcels to only those uses that are dependent on the resource. As part of the proposed CDP Application 4-04-099, the applicant proposes to construct a single family residence, garage, and pool on reconfigured APN 4457-006-001 which will require the removal of chaparral ESHA as a result of constructing the driveway and building pad and for fuel modification for fire protection purposes. In addition, the applicant is also proposing construct the driveway to provide access not only to the currently proposed residence on the reconfigured APN 4457-006-001 but also to provide access to the identified future building locations on the reconfigured Parcels APN 4457-006-005 and 006. As such residential development does not have to be located within ESHAs to function, the Commission does not consider residential related development to be a use dependent on ESHA resources. Application of Section 30240, by itself, would require denial of the project, because the project would result in significant disruption of habitat values and is not a use dependent on those sensitive habitat resources.

However, the Commission must also consider Section 30010, and the Supreme Court decision in *Lucas v. South Carolina Coastal Council* (1992) 505 U.S. 1003, 112 S.Ct. 2886. Section 30010 of the Coastal Act provides that the Coastal Act shall not be construed as authorizing the Commission to exercise its power to grant or deny a permit in a manner which will take private property for public use. Application of Section 30010 may overcome the presumption of denial in some instances. The subject of what government action results in a "taking" was addressed by the U.S. Supreme Court in *Lucas v. South Carolina Coastal Council*. In *Lucas*, the Court identified several factors that should be considered in determining whether a proposed government action would result in a taking. For instance, the Court held that where a permit applicant has demonstrated that he or she has a sufficient real property interest in the property to allow the proposed project, and that project denial would deprive his or her property of all economically viable use, then denial of the project by a regulatory agency might result in a taking of the property for public use unless the proposed project would constitute a nuisance under State law. Another factor that should be considered is the extent to which a project denial would interfere with reasonable investment-backed expectations.

The Commission interprets Section 30010, together with the *Lucas* decision, to mean that if Commission denial of the project would deprive an applicant's property of all reasonable economic use, the Commission may be required to allow some development even where a Coastal Act policy would otherwise prohibit it, unless the proposed project would constitute a nuisance under state law. In other words, Section 30240 of the Coastal Act cannot be read to deny all economically beneficial or productive use of land because Section 30240 cannot be interpreted to require the Commission to act in an unconstitutional manner.

In the subject case, the applicant purchased the 40-acre parcel in July 2000 for approximately \$130,000. The parcel was designated in the County's certified Land Use Plan in 1986 for residential use. Residential development has previously been approved on other parcels in the vicinity that generally contained the same type of habitat as the applicant's parcel. At the time the applicant purchased the parcel, the County's certified Land Use Plan did not designate the vegetation on the site as ESHA. Based on this fact, along with the presence of existing and approved residential development on nearby parcels, the applicant had reason to believe that they had purchased parcels on which they would be able to build a residence.

The Commission finds that in this particular case, other allowable uses for the subject property, such as a recreational park or a nature preserve, although possible are not feasible as they would not provide the owner an economic return on the investment. The subject 40-acre parcel is surrounded by other residentially developed parcels located to the west, south and east. Public parkland has been acquired by the Santa Monica Mountains Conservancy on lands adjoining to the northeast and acquired by the National Park Service and MCSP further to the west, north and northeast of this subject property. However, there is currently not an offer to purchase the property from any public park agency. The Commission thus concludes that in this particular case there is no viable alternative use for the site other than residential development. The Commission finds, therefore, that outright denial of all

residential use on the southern parcel would interfere with reasonable investment-backed expectations and deprive the property of all reasonable economic use.

Next the Commission turns to the question of nuisance. There is no evidence that construction of this residential development on this parcel would create a nuisance under California law. Other houses have been constructed in similar situations in chaparral habitat in Los Angeles County, apparently without the creation of nuisances. The County's Health Department has not reported evidence of septic system failures. In addition, the County has reviewed and approved the applicant's proposed septic system, ensuring that the system will not create public health problems. Furthermore, the use that is proposed is residential, rather than, for example, industrial, which might create noise or odors or otherwise create a public nuisance. In conclusion, the Commission finds that a residential project on the parcel can be allowed to permit the applicant a reasonable economic use of their property consistent with Section 30010 of the Coastal Act.

While the applicant is entitled under Section 30010 to an assurance that the Commission will not act in such a way as to take their property, this section does not authorize the Commission to avoid application of the policies of the Coastal Act, including Section 30240, altogether. Instead, the Commission is only directed to avoid construing these policies in a way that would take property. Aside from this instruction, the Commission is still otherwise directed to enforce the requirements of the Act. Therefore, in this situation, the Commission must still comply with Section 30240 by avoiding impacts that would disrupt and/or degrade environmentally sensitive habitat, to the extent this can be done without taking the property.

As discussed above, the proposed development will be approved within ESHA in order to provide an economically viable use. The related CDP Application 4-04-026 is for the resubdivision of the three separate parcels and would result in the creation of the 11.5 acre parcel where the single family residence proposed as part of this application would be located. Although the construction of the residence proposed as part of CDP Application 4-04-099, in its proposed location, is not reliant upon the Commission's approval of the related subdivision, the location of the residence is sited in a manner to allow for the clustering of development and use of a single common driveway for all three reconfigured parcels proposed as part of CDP Application 4-04-026. The applicant has submitted an alternatives analysis identifying three potential alternative building sites on each of the existing parcels if the proposed resubdivision is not approved. In this case, if each of the three existing parcels were to be developed with single family residences in their existing configurations, including the two smaller parcels approximately 1.0 and 0.5 acres in area which are both characterized as hillside lots with steeply sloping terrain with gradients as much as 67%, the construction of access roads and the improvement of an existing private road on site would require significantly more grading and landform alteration than currently proposed. In addition, this alternative would require the construction of several new retaining walls on the steep slopes. Development of any structures anywhere on either of the two small existing parcels would also require the removal of numerous oak trees and encroachment into the driplines of several other oak trees. The proposed reconfiguration of the subject parcels will allow for clustering of the development with overlapping fuel modification zones, will not require the removal of any oak trees or encroachment into the driplines of any oak trees, and will allow for the use of a single access for all three parcels. As such, the Commission notes that any

residential development on the three subject parcels in their currently existing configurations would result in greater adverse impacts to sensitive habitat resources (including the unavoidable loss of several oak trees) and require significantly more grading for landform alteration than development of the subject parcels as proposed to be resubdivided and reconfigured. Therefore, the Commission finds that the proposed reconfiguration of the three subject lots will serve to minimize adverse impacts to ESHA to the maximum extent feasible.

Thus, the Commission notes that siting and design alternatives have been considered in order to identify the alternative that can avoid and minimize impacts to ESHA to the greatest extent feasible while minimizing the alteration of natural landforms. However, given the location of ESHA on this parcel, there will still be significant impacts to ESHA resulting from both the construction of the proposed residence and building pad on APN 4457-006-001, the construction of the proposed access road/driveway, and the required fuel modification area around the approved development on this parcel. In addition, construction of any future residences in the identified building locations on the two remaining reconfigured parcels (APNs 4457-006-005 and 006) would also still result in the direct loss of ESHA as well as the loss of ESHA from vegetation clearance from the required fuel modification zones when these parcels are eventually developed as well. The following discussion of ESHA impacts from new development and fuel modification is based on the findings of the Malibu LCP².

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 would 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 Fire Department:

Zone A (Setback Zone) is required to be a minimum of 20 feet beyond the edge of protected structures. In this area native vegetation is cleared and only ground cover, green lawn, and a limited number of ornamental plant species are allowed. This zone must be irrigated to maintain a high moisture content.

Zone B (Irrigated Zone) is required to extend from the outermost edge of Zone A to a maximum of 100 feet. In this area ground covers may not extend over 18 inches in height. Some native vegetation may remain in this zone if they are adequately spaced, maintained free of dead wood and individual plants are thinned. This zone must be irrigated to maintain a high moisture content.

Zone C (Thinning Zone) is required to extend from the outermost edge of Zone B up to 200 feet. This zone would primarily retain existing native vegetation, with the exception of high fuel species such as chamise, red shank, California sagebrush, common buckwheat and sage. Dead or dying vegetation must be removed and the fuel in existing vegetation reduced by thinning individual plants.

² Revised Findings for the City of Malibu Local Coastal Program (as adopted on September 13, 2002) adopted on February 6, 2003.

Thus, 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 case, required fuel modification zone on this parcel will extend from the approved structures up to 200 feet into chaparral 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. Within the area next to approved structures (Zone A), all native vegetation must be removed and ornamental, low-fuel plants substituted. In Zone B, most native vegetation will be removed or widely spaced. Finally, in Zone C, native vegetation may be retained if thinned, although particular high-fuel plant species must be removed (Several of the high fuel species are important components of the coastal sage scrub community). In this way, for a large area around any permitted structures, native vegetation will be cleared, selectively removed to provide wider spacing, and thinned.

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 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 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)³. 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 chaparral⁴.

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 area⁵. The Argentine ant competes with native harvester ants and carpenter ants displacing them from the habitat⁶. 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 developments⁷. 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 mutualisms⁸. 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 habitats⁹.

³ 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.

⁴ 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.

⁵ 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.

⁶ 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.

⁷ 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.

⁸ 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.

⁹ Longcore, T.R. 1999. Terrestrial arthropods as indicators of restoration success in coastal sage scrub. Ph.D. Dissertation, University of California, Los Angeles.

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.¹⁰ In South Africa the Argentine ant displaces native ants 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 seeds¹¹.

While these impacts resulting from fuel modification can be reduced through siting and designing alternatives for new development, they cannot be completely avoided, given the high fire risk and the location of ESHA on the subject parcel. The Commission finds that the loss of chaparral ESHA resulting from the removal, conversion, or modification of natural habitat for new development including fuel modification and brush clearance must be mitigated. The acreage of habitat that is impacted must be determined based on the size of the required fuel modification on the subject parcel. In this case, the ESHA area affected by the proposed development including the areas impacted by fuel modification or brushing is estimated to be between 3 to 4 acres in size both on and offsite.

While these impacts resulting from fuel modification can be reduced through siting and designing alternatives for new development, they cannot be completely avoided, given the high fire risk and the location of ESHA on and around the project site. The Commission finds that the loss of chaparral ESHA resulting from the removal, conversion, or modification of natural habitat for new development including the building site area, and fuel modification must be mitigated. The acreage of habitat that is impacted must be determined based on the size of the required fuel modification area on the project area.

In this case, the ESHA area affected by the proposed development does not include the building pads or driveway since those areas were previously graded and denuded of ESHA prior to the effective date of the Coastal Act. As such, the ESHA areas that will be impacted by the proposed project are the required fuel modification areas on the slopes beyond the edges of the graded pad and driveway. The precise area of chaparral ESHA that will be impacted by the proposed development has not been calculated. However, based on the applicant's approved fuel modification plan, it appears to be between 3 and 4 acres. Therefore, the Commission finds that it is necessary to require the applicant to delineate the ESHA on the site that will be impacted by the proposed development including the areas affected by the construction of the driveway and building pad and their surrounding fuel modification and brushing activities (based on the final fuel modification plan approved by the Los Angeles County Fire Department), as required by **Special Condition No. 12** of CDP 4-04-099.

¹⁰ Christian, C. 2001. Consequences of a biological invasion reveal the importance of mutualism for plant communities. *Nature* 413:635-639.

¹¹ 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.

The Commission has identified three methods for providing mitigation for the unavoidable loss of ESHA resulting from development, including habitat restoration, habitat conservation, and an in-lieu fee for habitat conservation. The Commission finds that these measures are appropriate in this case to mitigate the loss of chaparral habitat on the project site. These three mitigation methods are provided as three available options for compliance with **Special Condition No. 12** of CDP 4-04-099. 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 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. This mitigation method is provided for in **Special Condition No. 10, subpart A** of CDP 4-04-099.

The second habitat impact mitigation method is habitat conservation. This includes the conservation of an area of intact habitat 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 chaparral ESHA. This mitigation method is provided for in **Special Condition No. 10, subpart B** of CDP 4-04-099.

The third habitat impact mitigation option is an in-lieu fee for habitat conservation. The fee is based on the habitat types in question, the cost per acre to restore or create the comparable habitat types, and the acreage of habitat affected by the project. In order to determine an appropriate fee for the restoration or creation of chaparral and coastal sage scrub habitat, the Commission's biologist contacted several consulting companies that have considerable experience carrying out restoration projects. Overall estimates varied widely among the companies, because of differences in the strategies employed in planning the restoration (for instance, determining the appropriate number of plants or amount of seeds used per acre) as well as whether all of the restoration planting, monitoring and maintenance was carried out by the consultant or portions are subcontracted. Additionally, the range of cost estimates reflect differences in restoration site characteristics including topography (steeper is harder), 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. Larger projects may realize some economy of scale.

Staff determined the appropriate mitigation for loss of coastal sage scrub or chaparral ESHA 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). Three cost estimates were obtained for the installation of plants and seeds for one-acre of restoration. These estimates were \$9,541, \$12,820, and \$13,907 per acre of plant installation. The Commission finds it appropriate to average the three estimates of plant installation to arrive at the reasonable in-lieu fee to mitigate for the loss of ESHA associated with the approval of development within an ESHA.

Based on this averaging, the required in-lieu fee for habitat mitigation is \$12,000 (rounded down from the average figure of \$12,089 to simplify administration) per acre of habitat.

The Commission finds that the in-lieu fee of \$12,000 per acre is appropriate to provide mitigation for the habitat impacts to ESHA areas where all native vegetation will be removed (building site and the "A" zone required for fuel modification), 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). In these areas, complete removal or significant removal of ESHA, along with irrigation completely alters the habitat and eliminates its value to the native plant and animal community.

ESHA modified for the "C" zone that is thinned but non-irrigated (required for fuel modification) is certainly diminished in habitat value, but unlike the building site, "A" zone, "B" zone, and any other irrigated zone, habitat values are not completely destroyed. Native vegetation in the "C" zone is typically required to be thinned, and shrubs must be maintained at a certain size to minimize the spread of fire between the individual plants. This area is not typically required to be irrigated. As such, the Commission finds that it is not appropriate to require the same level of in-lieu fee mitigation for impacts to ESHA within a non-irrigated "C" zone required for fuel modification. Although the habitat value in the "C" zone (or any other non-irrigated zone) is greatly reduced, it is not possible to precisely quantify the reduction. The Commission's biologist believes that the habitat value of non-irrigated fuel modification zones is reduced by at least 25 percent (and possibly more) due to the direct loss of vegetation, the increased risk of weed invasion, and the proximity of disturbance. The Commission finds that it is also less costly difficult to restore chaparral habitat when some of the native vegetation remains, rather than when all the native habitat is removed. Because of the uncertainty and the inability to precisely quantify the reduction in habitat value, the Commission concludes that it is warranted to impose a mitigation fee of \$3,000 per acre (one quarter of the cost of full restoration) for the "C" zone or other non-irrigated fuel modification zone.

In this case, the applicant's approved fuel modification plan (approved by the Los Angeles County Fire Department) shows the use of three zones of vegetation modification. Zones "A" (setback zone), extending 20 feet from the structures, and "B" (irrigation zone) are shown extending in a radius of 100 feet from the proposed structures. A "C" Zone (thinning zone) is provided for a distance of another 100 feet beyond the "A" and "B" zones. As discussed above, the ESHA area affected by the proposed development does not include the building pad or driveway since those areas were previously graded and denuded of ESHA prior to the effective date of the Coastal Act. As such, the ESHA areas that will be impacted by the proposed project are the required fuel modification areas on the slopes beyond the edges of the graded pad and driveway. The appropriate in-lieu fee calculation would then be based on \$12,000 per acre for any irrigated fuel modification area (the "A" and "B" Zones) and \$3,000 per acre of un-irrigated fuel modification area (zone "C").

Should the applicant choose the in-lieu fee mitigation method, the fee shall be provided to the Santa Monica Mountains Conservancy for the acquisition or permanent preservation of natural habitat areas within the coastal zone. This mitigation method is provided for in **Special Condition No.12, subpart C** of CDP 4-04-099.

The Commission has determined that in conjunction with siting new development to minimize impacts to ESHA, additional actions can be taken to minimize adverse impacts to ESHA. 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. Adverse effects from such landscaping result from the direct occupation or displacement of native plant communities by new development and associated non-native landscaping. 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. Therefore, in order to minimize adverse effects to the indigenous plant communities of the Malibu/Santa Monica Mountains area, **Special Condition No. Two** of CDP 4-04-099 requires that all landscaping consist primarily of native plant species and that invasive plant species shall not be used.

The Commission notes that streams and drainages, such as a tributary of Corral Canyon Creek located about 1,500 feet north east and east of the project site, provides important habitat for riparian plant and animal species. Section 30231 of the Coastal Act provides that the quality of coastal waters and streams shall be maintained and restored whenever feasible through means such as: controlling runoff, preventing interference with surface water flows and alteration of natural streams, and by maintaining natural vegetation buffer areas. In past permit actions the Commission has found that new development adjacent to coastal streams and natural drainages results in potential adverse impacts to riparian habitat and marine resources from increased erosion, contaminated storm runoff, introduction of non-native and invasive plant species, disturbance of wildlife, and loss of riparian plant and animal habitat. Sheet flow and minor drainages onsite transmits runoff directly beyond the subject parcel into Corral Canyon Creek located about 1,500 feet north east and east of the project site, as such, the Commission finds that potential adverse effects of the proposed development on riparian habitat of this stream may be further minimized through the implementation of a drainage and polluted runoff control plan, which will ensure that erosion is minimized and polluted run-off from the site is controlled and filtered before it reaches natural drainage courses within the watershed. Therefore, the Commission requires **Special Condition No. Nine** of CDP 4-04-099, the Drainage and Polluted Run-off Control Plan, which requires the applicant to incorporate appropriate drainage devices and Best Management Practices (BMPs) to ensure that run-off from the proposed structures, impervious surfaces, and building pad area is conveyed off-site in a non-erosive manner and is treated/filtered to reduce pollutant load before it reaches coastal waterways.

In addition, the Commission has found that night lighting of areas in the Malibu/Santa Monica Mountains area creates a visual impact to nearby scenic beaches, scenic roads, parks, and trails. In addition, night lighting may alter or disrupt feeding, nesting, and roosting activities of native wildlife species. The subject site contains environmentally sensitive habitat. Therefore, **Special Condition No. Seven** of CDP 4-04-099, Lighting Restriction, limits night lighting of the site in general; limits lighting to the developed area of the site; and specifies that lighting be shielded downward. The restriction on night lighting is necessary to protect

the night time rural character of this portion of the Santa Monica Mountains consistent with the scenic and visual qualities of this coastal area. In addition, low intensity security lighting will assist in minimizing the disruption of wildlife traversing this area at night that are commonly found in this rural and relatively undisturbed area. Thus, the proposed setback from the sensitive habitat area and natural topography in concert with the lighting restrictions will attenuate the impacts of unnatural light sources and will not impact sensitive wildlife species.

Furthermore, fencing of the subject parcel would adversely impact the movement of wildlife through the chaparral ESHA, except for fencing identified on the landscape plan immediately surrounding the proposed structural developments on the parcel and a gate at Corral Canyon Road. Therefore, the Commission finds it is necessary to limit fencing to within the perimeter of Zone B of the fuel modification plan as required in **Special Condition No. Two** of CDP 4-04-099.

In addition, the Commission notes that the use of rodenticides containing anticoagulant compounds have been linked to the death of sensitive predator species, including mountain lions and raptors, in the Santa Monica Mountains. These species are a key component of chaparral and coastal sage scrub communities in the Santa Monica Mountains considered ESHA. Therefore, in order to avoid adverse impacts to sensitive predator species, **Special Condition Two (2)**, disallows the use of rodenticides containing any anticoagulant compounds on the subject property.

In addition, the Commission finds that the amount and location of any new development that may be proposed in the future on the subject site is significantly limited by the unique nature of the site and the environmental constraints discussed above. Therefore, 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 No. Five** of CDP 4-04-099, the future development restriction, has been required. In addition, **Special Condition No. Eight** of CDP 4-04-099 and Special Condition No. Three of CDP 4-04-026 requires the applicant to record a deed restriction that imposes the terms and conditions of these 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. Finally, in order to permanently ensure that that residential development will be limited to the identified building location identified by the applicant on each of the three parcels resulting from the proposed resubdivision of land and that no further development occurs outside of the proposed development areas, the Commission finds it necessary to also require the applicant to record a deed restriction prohibiting all development outside of the proposed development areas as shown in Exhibit 21. As detailed in Special Condition Thirteen (13) of CDP 5-04-099 and Special Condition Two (2) of CDP 5-04-026, the deed restriction will run with the land, and will prohibit all development, with the exception of fuel modification and drainage control activities, construction or maintenance of public trails, or maintenance of existing trail, road, and utility easements.

For the reasons set forth above, the Commission finds that the proposed projects, as conditioned, are consistent with Sections 30230, 30231, and 30240 of the Coastal Act.

E. New Development/Land Use Densities and Cumulative Impacts

Section 30250 (a) of the Coastal Act provides that new development be located within or near existing developed areas able to accommodate it, with adequate public services, where it will not have significant adverse effects, either individually or cumulatively, on coastal resources:

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 applied in Section 30250(a) to mean that:

... the incremental effects of an individual project shall be reviewed in conjunction with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

In past permit actions, the Commission has found that for Malibu and the Santa Monica Mountains, the Commission has repeatedly emphasized the need to address the cumulative impacts of new development in the Malibu/Santa Monica Mountains Coastal Zone. The Commission has reviewed land division applications to ensure that newly created or reconfigured parcels are of sufficient size, have access to roads and other utilities, are geologically stable and contain an appropriate potential building pad area where future structures can be developed consistent with the resource protection policies of the Coastal Act. In particular, the Commission has ensured that future development on new or reconfigured lots can minimize landform alteration and other visual impacts, and impacts to environmentally sensitive habitat areas. Finally, the Commission has required that all new or reconfigured lots have adequate public services, including road, bridge, and driveway access that meets the requirements of the Fire Department.

The Commission has considered several projects which the applicants and the County of Los Angeles treated as "lot line adjustments" which actually resulted in major reconfiguration of lot lines amongst several lots [4-96-28 (Harberger, et. al.) 4-96-150 (Rein, et. al.), 4-96-189 (Flinkman), 4-96-187 (Sohal)]. In these cases, the Commission has considered the proposed projects to actually be "redivisions" or resubdivisions of land whereby existing property boundary lines are significantly modified to redivide the project site into the same number or fewer wholly reconfigured lots. The Commission has analyzed these proposals just as it analyzes a new subdivision of lots. The Commission has only permitted such redivisions where adequate fire access and other public services are available and where the resultant lots could be developed minimizing impacts to coastal resources.

As noted in the project description, the proposed project involves the resubdivision of three existing lots into three reconfigured lots. Therefore, the project does not increase the number of lots so there is no increase in density. The area where the proposed development is located has adequate public services and is able to accommodate new development consistent with the requirements of Section 30250 of the Coastal Act.

The certified 1986 Malibu Land Use Plan (LUP) designates the existing 40 acre parcel (4457-006-001) as Mountain Land which allows for a maximum building density of one dwelling unit/20 acres. The two smaller 0.5 and 1.0 acre parcels (APNs 4457-006-005 and 006) are designated as Rural Land III which would allow for a maximum building density of one dwelling unit/2 acres. The Certified Malibu Land Use Plan is used as guidance in the Commission's review of development projects to determine consistency with the Coastal Act. Currently only the existing 40 acre parcel is consistent with the LUP density designations. The two existing smaller parcels (APNs 4457-006-005 and 006) at only 1.0 and 0.5 acres in size are currently not in conformance with the density designation in the LUP. However, the proposed reconfigured lots will be in greater conformance with the LUP density designation than the existing lots. As discussed in detail below, the applicant has identified building sites on the three parcels that can be developed consistent with the Chapter Three policies of the Coastal Act and there are adequate services to accommodate the newly configured parcels.

The related CDP Application 4-04-026 is for the redivision of the three separate parcels and would result in the creation of the 11.5 acre parcel where the single family residence proposed as part of this application would be located. Although the construction of the residence proposed as part of CDP Application 4-04-099, in its proposed location, is not reliant upon the Commission's approval of the related subdivision, the location of the residence is sited in a manner to allow for the clustering of development and use of a single common driveway for all three reconfigured parcels proposed as part of CDP Application 4-04-026. The applicant has submitted an alternatives analysis identifying three potential alternative building sites on each of the existing parcels if the proposed resubdivision is not approved. In this case, if each of the three existing parcels were to be developed with single family residences in their existing configurations, including the two smaller parcels approximately 1.0 and 0.5 acres in area which are both characterized as hillside lots with steeply sloping terrain with gradients as much as 67%, the construction of access roads and the improvement of an existing private road on site would require significantly more grading and landform alteration than currently proposed. In addition, this alternative would require the construction of several new retaining walls on the steep slopes. Development of any structures anywhere on either of the two small existing parcels would also require the removal of numerous oak trees and encroachment into the driplines of several other oak trees. The proposed reconfiguration of the subject parcels will allow for clustering of the development with overlapping fuel modification zones, will not require the removal of any oak trees or encroachment into the driplines of any oak trees, and will allow for the use of a single access for all three parcels. As such, the Commission notes that any residential development on the three subject parcels in their currently existing configurations would result in greater adverse impacts to sensitive habitat resources (including the unavoidable loss of several oak trees) and require significantly more grading for landform alteration than development of the subject parcels as proposed to be redivided and reconfigured.

Therefore, the Commission finds that the proposed reconfiguration of the three subject lots will serve to minimize adverse impacts to both ESHA and visual resources to the maximum extent feasible that would otherwise result from the cumulative development of the subject parcels.

As discussed above, the reconfigured lots be primarily located with an area designated by the LUP that provides for maximum building densities of no more than one dwelling unit/20 acres. As such, the although the proposed reconfigured lots (which would be 11.5 acres, 19 acres, and 11 acres in respective sizes) will be in greater conformance with the LUP density designation than the existing lots, the reconfigured lots will still not be in conformance with the LUP density designations for the subject site. The Commission notes that any future subdivision of any of the reconfigured parcels would be further inconsistent with the building density designations of the LUP. In addition, the proposed development (including the proposed parcel redivision and building locations) has been sited and designed in a manner to minimize adverse impacts from the cumulative development of the three subject parcels to ESHA and visual resources. Any future additional subdivision to allow for development of the subject sites with more than three residences would result in significantly greater adverse cumulative impacts associated with increased runoff from impervious surfaces, water quality impacts from polluted runoff and additional septic effluent, landform alteration and visual impacts. Therefore, to ensure the subject properties will never be further subdivided, **Special Condition No. One** of CDP 4-04-026 requires the applicant agree that no future subdivisions of the three subject parcels may occur so there is no future increase in residential density on the three reconfigured parcels. The proposed deed restriction will limit residential development to three large lots which may each feasibly be developed with a single family residence.

In addition, the Commission finds that the amount and location of any new development that may be proposed in the future on the subject site is significantly limited by the unique nature of the site and the environmental constraints discussed above. Therefore, 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 No. Five** of CDP 4-04-099, the future development restriction, has been required. In addition, **Special Condition No. Eight** of CDP 4-04-099 and **Special Condition No. Three** of CDP 4-04-026 requires the applicant to record a deed restriction that imposes the terms and conditions of these 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. Finally, in order to permanently ensure that that residential development will be limited to the identified building location identified by the applicant on each of the three parcels resulting from the proposed resubdivision of land and that no further development occurs outside of the proposed development areas, the Commission finds it necessary to also require the applicant to record a deed restriction prohibiting all development outside of the proposed development areas as shown in Exhibit 21. As detailed in **Special Condition Thirteen (13)** of CDP 5-04-099 and **Special Condition Two (2)** of CDP 5-04-026, the deed restriction will run with the land, and will prohibit all development, with the exception of fuel modification and drainage control activities, construction or maintenance of public trails, or maintenance of existing trail, road, and utility easements.

Therefore, for the reasons set forth above, the Commission finds, that the proposed project, as conditioned, will not result in any significant individual or cumulative adverse impacts on coastal resources and consistent with Section 30250 of the Coastal Act.

F. Water Quality

The Commission recognizes that new development in the Santa Monica Mountains has the potential to adversely impact coastal water quality through the removal of native vegetation, increase of impervious surfaces, increase of runoff, erosion, and sedimentation, and introduction of pollutants such as petroleum, cleaning products, pesticides, and other pollutant sources, as well as effluent from septic systems.

Section 30231 of the Coastal Act states:

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

As described in detail in the previous sections, the applicant is proposing to develop the one of the subject parcels with a new single-family residence, garage, pool and hot tub. The proposed building pad is located upslope from a tributary leading to Corral Canyon Creek a stream that contains sensitive riparian habitat. The site is considered a "hillside" development, as it involves sloping hillside terrain with soils that are susceptible to erosion.

The proposed development will result in an increase in impervious surface at the subject sites, which in turn decreases the infiltrative function and capacity of existing permeable land on site. Reduction in permeable space therefore leads to an increase in the volume and velocity of stormwater runoff that can be expected to leave the site. Further, pollutants commonly found in runoff associated with residential use include petroleum hydrocarbons including oil and grease from vehicles; heavy metals; synthetic organic chemicals including paint and household cleaners; soap and dirt from washing vehicles; dirt and vegetation from yard maintenance; litter; fertilizers, herbicides, and pesticides; and bacteria and pathogens from animal waste. The discharge of these pollutants to coastal waters can cause cumulative impacts such as: eutrophication and anoxic conditions resulting in fish kills and diseases and the alteration of aquatic habitat, including adverse changes to species composition and size; excess nutrients causing algae blooms and sedimentation increasing turbidity which both reduce the penetration of sunlight needed by aquatic vegetation which provide food and cover for aquatic species; disruptions to the reproductive cycle of aquatic species; and acute and sublethal toxicity in marine organisms leading to adverse changes in reproduction and feeding behavior. These impacts reduce the biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes and reduce optimum populations of marine organisms and have adverse impacts on human health.

Therefore, in order to find the proposed developments consistent with the water and marine resource policies of the Coastal Act, the Commission finds it necessary to require the incorporation of Best Management Practices designed to control the volume, velocity and pollutant load of stormwater leaving the developed sites. Critical to the successful function of post-construction structural BMPs in removing pollutants in stormwater to the Maximum Extent Practicable (MEP), is the application of appropriate design standards for sizing BMPs. The majority of runoff is generated from small storms because most storms are small. Additionally, storm water runoff typically conveys a disproportionate amount of pollutants in the initial period that runoff is generated during a storm event. Designing BMPs for the small, more frequent storms, rather than for the large infrequent storms, results in improved BMP performance at lower cost.

For design purposes, with case-by-case considerations, post-construction structural BMPs (or suites of BMPs) should 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. The Commission finds that sizing post-construction structural BMPs to accommodate (infiltrate, filter or treat) the runoff from the 85th percentile storm runoff event, in this case, is equivalent to sizing BMPs based on the point of diminishing returns (i.e. the BMP capacity beyond which, insignificant increases in pollutants removal (and hence water quality protection) will occur, relative to the additional costs. Therefore, the Commission requires the selected post-construction structural BMPs be sized based on design criteria specified in **Special Condition No. Nine** of CDP 4-04-099, and finds this will ensure the proposed developments will be designed to minimize adverse impacts to coastal resources, in a manner consistent with the water and marine policies of the Coastal Act.

In addition, the proposed projects are conditioned to also implement a pool and hot tub drainage and maintenance plan to prevent uncontrolled drainage of the proposed swimming pools and spas such that drainage of pool water does not result in discharge of chemically treated water to coastal streams and drainages. The pool and hot tub drainage and maintenance plan, as detailed in **Special Condition No. Ten** of CDP 4-04-099 requires the applicant to submit a written pool and hot tub maintenance plan that contains an agreement to install and use a no chlorine or low chlorine purification system and a program to maintain proper pH, calcium and alkalinity balance in a manner such that any runoff or drainage from the pool or hot tub will not include excessive amounts of chemicals that may adversely affect water quality or environmentally sensitive habitat area. In addition, **Special Condition No. Ten** of CDP 4-04-099 prohibits discharge of pool and hot tub water into a street, storm drain, creek, canyon, drainage channel, or other location where it could enter receiving waters.

Furthermore, interim erosion control measures implemented during construction and post construction landscaping will serve to minimize the potential for adverse impacts to water quality resulting from drainage runoff during construction and in the post-development stage. Therefore, the Commission finds that **Special Condition No. Two** of CDP 4-04-099 is necessary to ensure the proposed developments will not adversely impact water quality or coastal resources.

Finally, the proposed development include the installation of an on-site private sewage disposal system to serve the residential structures. The applicant has submitted a Septic Approval in Concept from the Los Angeles County Health Department confirming that a sewage disposal system may be constructed on the subject parcel, determining that the systems meet the requirements of the plumbing code. The Commission has found that conformance with the provisions of the plumbing code is protective of coastal resources.

For the reasons set forth above, the Commission finds that the proposed projects, as conditioned to incorporate and maintain a drainage and polluted runoff control plan, are consistent with Section 30231 of the Coastal Act.

G. Violation

Development has occurred on the subject 40-acre parcel without the required coastal development permit including 5,100 sq. ft. of vegetation disturbance and removal to allow equipment access for geologic and soil testing purposes along the proposed driveway/roadway to the future three building sites and on each of the three building sites. About 24 cubic yards of cut and fill grading was done for the geologic and soil testing purposes (Exhibit 20). The disturbed area is located along the proposed driveway and at the proposed building sites. This CDP application no. 4-04-099 includes the request for the construction of a permanent access road in the same location with grading to achieve the required gradient and widening of the road to a 20 ft. width pursuant to fire department requirements and includes the request for after-the-fact approval for the above referenced unpermitted development in order to construct the proposed project. Approval of this application and issuance of the coastal permit would resolve the unpermitted aspect of the development on site. In order to ensure that the unpermitted development component of this application is resolved in a timely manner, the Commission finds it necessary to require the applicant to fulfill all of the Special Conditions as a prerequisite to the issuance of this permit, as required by **Special Condition No. Thirteen** within 120 days of Commission action.

Although construction 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.

H. 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

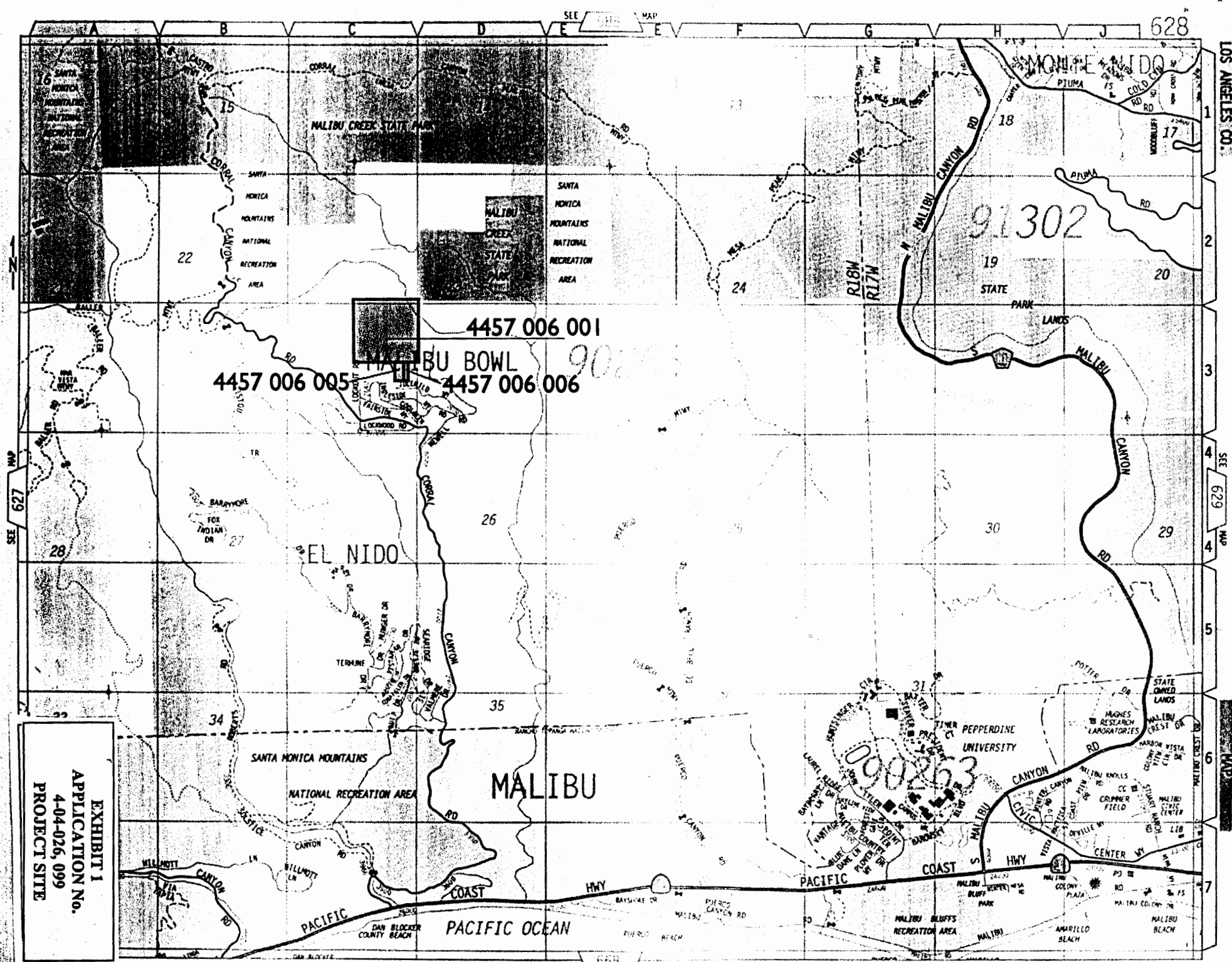
local program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200).

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 which conforms with Chapter 3 policies of the Coastal Act. The preceding sections provide findings that the proposed project will be in conformity with the provisions of Chapter 3 if certain conditions are incorporated into the projects and are accepted by the applicant. As conditioned, the proposed developments will not create adverse impacts and is found to be consistent with the applicable policies contained in Chapter 3. Therefore, the Commission finds that approval of the proposed developments, as conditioned, will not prejudice the County of Los Angeles' ability to prepare a Local Coastal Program for this area which is also consistent with the policies of Chapter 3 of the Coastal Act, as required by Section 30604(a).

H. 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.

The Commission finds that the proposed projects, as conditioned, will not have significant adverse effects on the environment within the meaning of the California Environmental Quality Act of 1970. Therefore, the proposed projects, as conditioned, has been adequately mitigated and is determined to be consistent with CEQA and the policies of the Coastal Act.

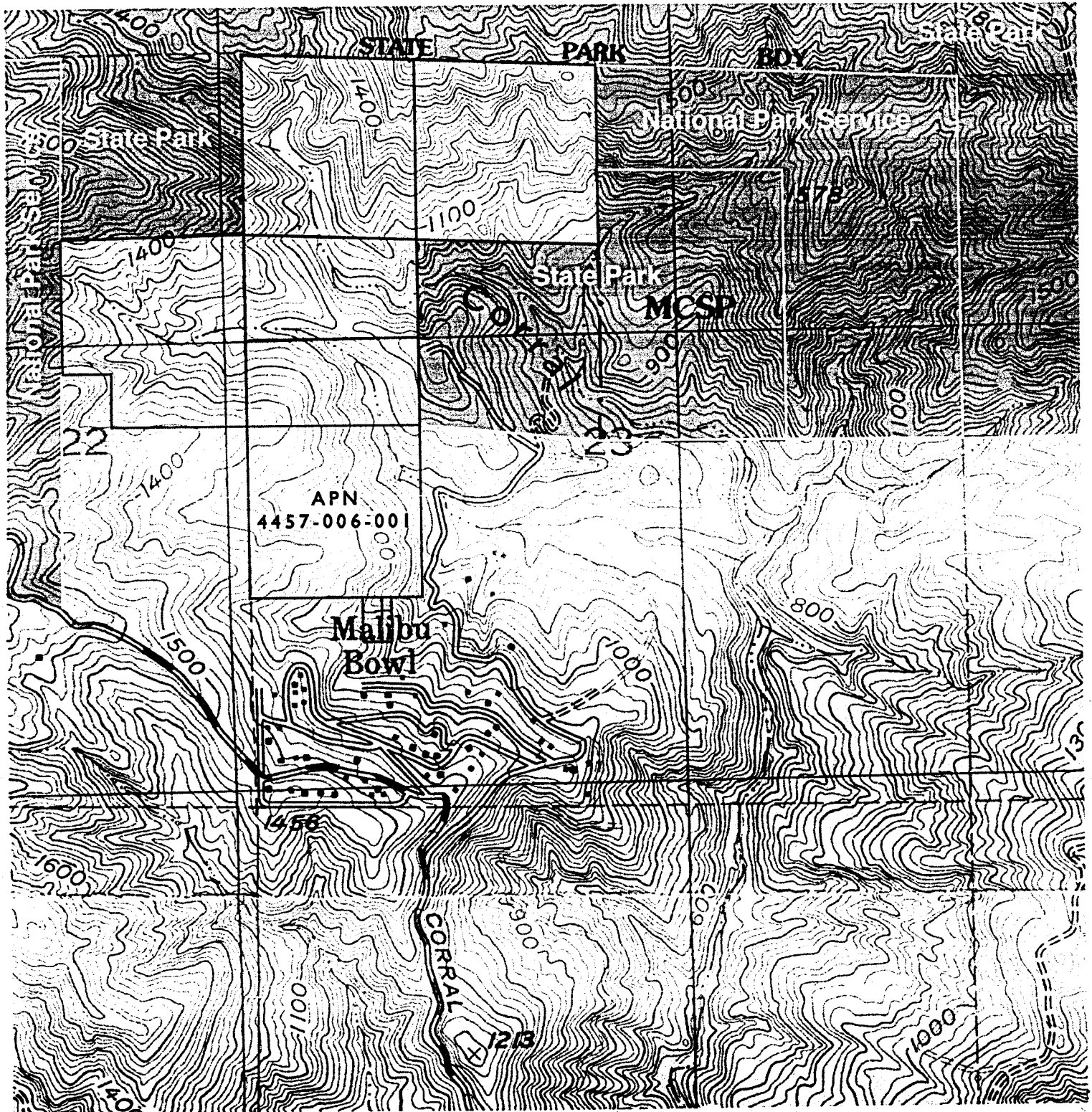


4457 006 001

MALIBU BOWL

4457 006 005

4457 006 006



20Ac.

USA

APN: 4457-006-001

①
40Ac.

APN:
4457-006-005

APN:
4457-006-006

⑩
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⑪
1.41±Ac.

⑫
2.0±Ac.

⑬
1.0±Ac.

⑭
1.0±Ac.

⑮
4.67±Ac.

⑯
1.0±Ac.

⑰
1.0±Ac.

⑱
0.73±Ac.

⑲
2.2±Ac.

⑳
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1.0±Ac.

㉗
1.0±Ac.

CORRAL CANYON NORTH
LOT LINE ADJUSTMENT
ADJACENT PROPERTIES WITHIN
100' OF THE PROPERTY BOUNDARY

A:
4457-006-014
Craven, Samuel and Laura F.
1700 Newell Road
Malibu, CA 90265-2975

M:
4457-006-017
Omelas, William and Carol TRS
26235 Lockwood Road
Malibu, CA 90265

B:
4457-006-013
Hart, Michael and Julie L.
2030 Wildfire Road
Malibu, CA 90265

N:
4461-004-021
Porter, Donna LTR ETAL
Taylor, Douglas and Alexandria
355 21st Place
Santa Monica, CA 90402

C:
4457-011-002
Ovando, Rere G.
741, N Avenue 63
Los Angeles, CA 90042

O:
4461-004-009
Furst, Ann and Sheldon Elfrida F.
1380 Beverly Estate Drive
Beverly Hills, CA 90210

D:
4457-006-007
Bares, Michael W.
1424 2nd Street
Santa Monica, CA 90401

P:
4461-004-007
Creekside Ranch, LLC
1490 Lafayette Street Suite 404
Denver, CO 80218

E:
4457-007-042
Wilson, David E. and Vickie TRS
Wilson Family Trust
2005 Calvert Avenue
Costa Mesa, CA 92626

Q:
4457-005-003
Meadowlands Ranch, LLC
1490 Lafayette Street Suite 404
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F:
4457-007-043
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26253 Idlewild Street
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R:
4457-005-905
USA

G:
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Malibu, CA 90265

S:
4457-006-015
Hart, Julie L.
1804 Newell Road
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4457-007-045
Davis, Ken
26253 Idlewild Street
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Davis, Ken
26253 Idlewild Street
Malibu, CA 90265

J:
4457-007-047
Davis, Ken
26253 Idlewild Street
Malibu, CA 90265

K:
4457-006-004
McCampbell, John
26665 Seagull Way #A202
Malibu, CA 90265

L:
4457-006-018
Pyle, Russell and Marion
4200 Via Arroyada #218
Los Angeles, CA 90042

PROJECT
4457-006-001
4457-006-005
4457-006-006

CORRAL CANYON ROAD
MALIBU, CALIFORNIA 90265

OWNER
MALIBU OCEAN RANCHES, LLC
STONEY HEIGHTS, LLC
CREEKSIDERANCH, LLC

1490 LAFAYETTE ST. suite 404
DENVER, CO 80218

DESIGN
bau10, LLC

4051 GLENCOE AVE. #12
MARINA DEL REY, CA 90292
PHONE: (310) 827-3500
FAX: (310) 827-3506

CONSULTANTS

SUBJECT PROPERTY

AREA WITHIN 100' OF
SUBJECT PROPERTY

VACANT

IMPROVED PROPERTY

STATE OWNED

REVISIONS

NO DATE REVISION

1. PREPARED FOR THE PROJECT BY THE ARCHITECT AND ENGINEER, THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF THE ARCHITECT AND ENGINEER AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT AND ENGINEER.

2. THE ARCHITECT AND ENGINEER HAS CONDUCTED A VISUAL INSPECTION OF THE SITE AND HAS FOUND THAT THE INFORMATION CONTAINED HEREIN IS CORRECT AND ACCURATE.

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EXHIBIT 3
APPLICATION No. 4-04-026, 099
THREE EXISTING PARCELS
PRE-PARCEL REDIVISION

⑳
10±Ac.

㉑
1.81±Ac.

㉒
1.0±Ac.

N

0' 20' 40'

1" = 100'-0"

DATE: 02-10-2004 DRAWN BY: [signature]

44

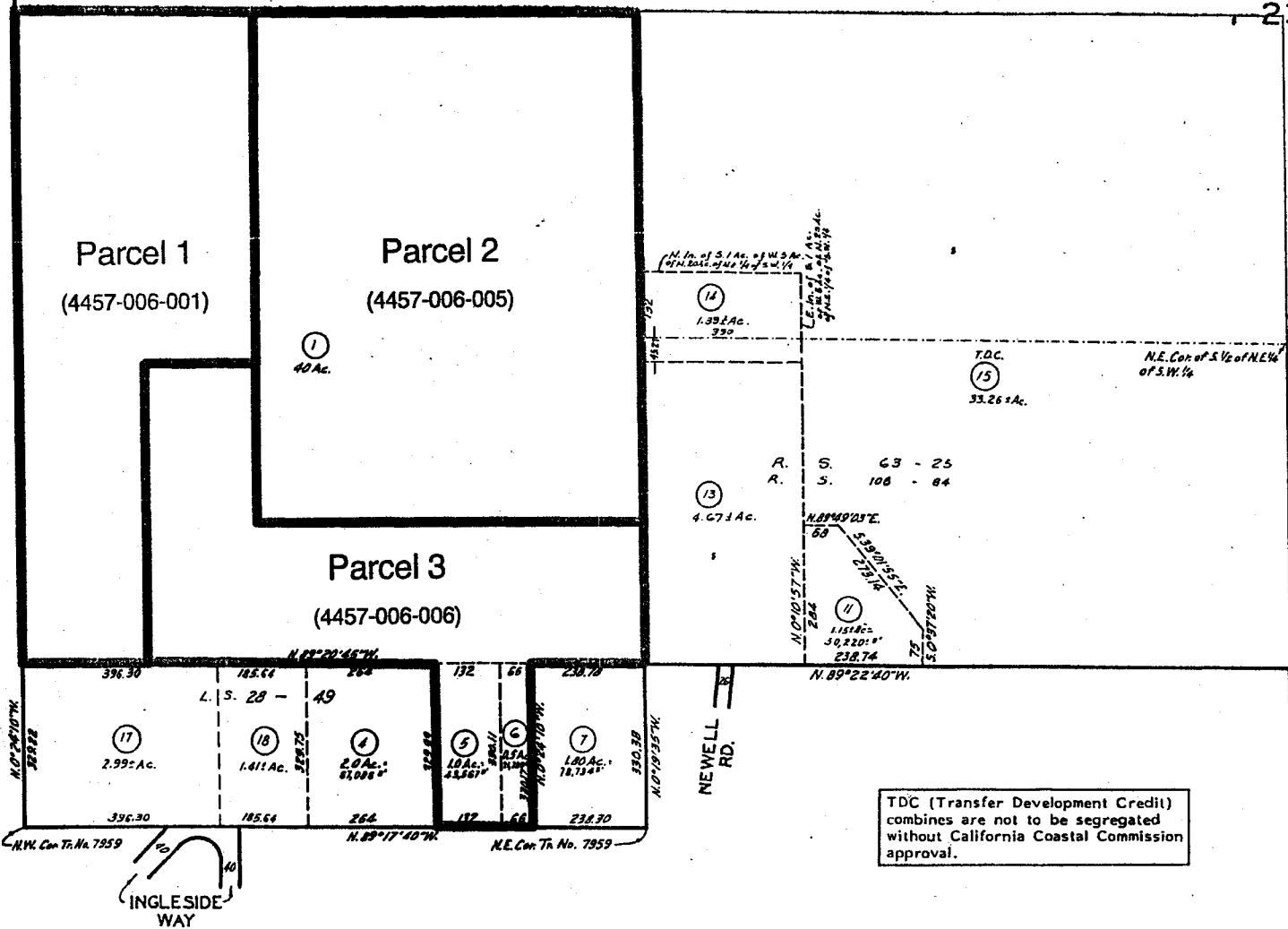
6

SCALE 1" = 200'

2000

23

REVISION
+0312201
170310
48301052001-01
109001080601001-01
10901060601001-01



CODE 8663

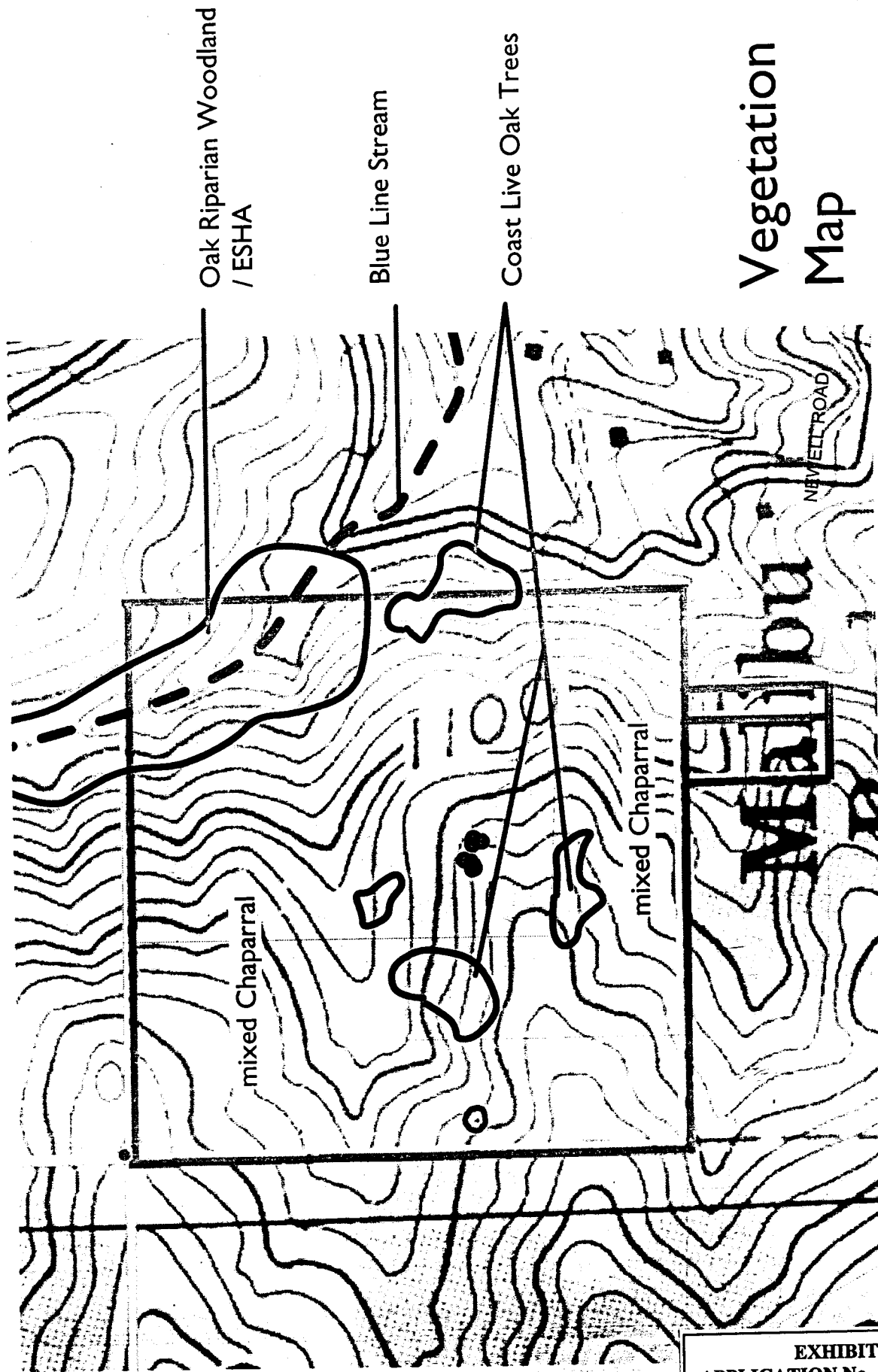
FOR PREV. ASSM'T. SEE: 482-5

T.1S., R.18W.

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

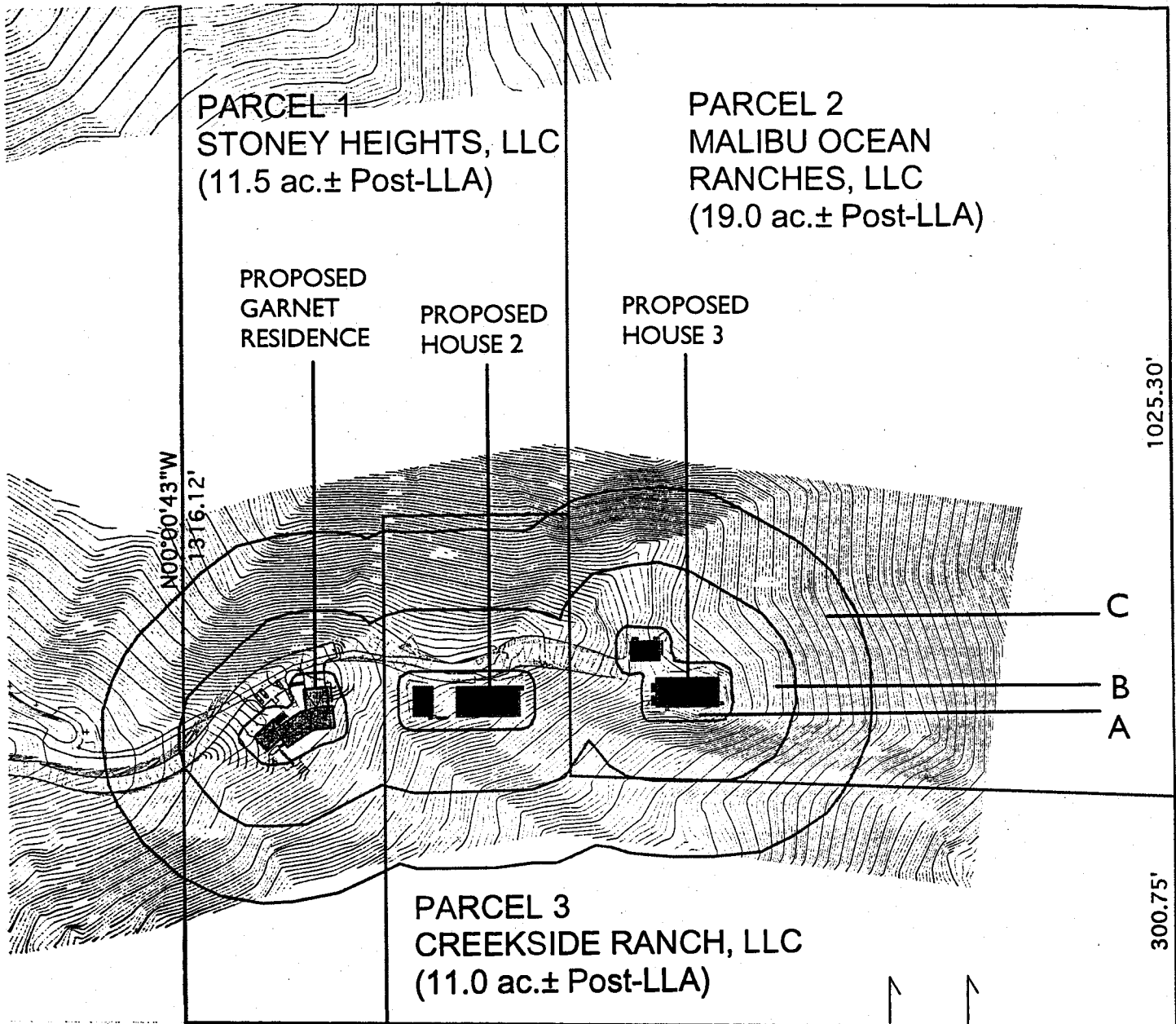
EXHIBIT 4
APPLICATION No. 4-04-026, 099
PROPOSED THREE REDIVIDED
PARCELS

Corral Canyon North Lot Line Adjustments APN: 4457-006-001, 4457-006-005, 4457-006-006
Parcel Configuration Post-Lot Line Adjustment



Vegetation Map

EXHIBIT 5
APPLICATION No. 4-04-026, 099
- CONCEPT ELEVATION
SECTION



**FUEL MODIFICATION
ZONES CALCULATION
FOR PROPOSED
DEVELOPMENT
POST LOT LINE ADJUSTMENT**

ZONE A GARNET RESIDENCE 6950 SQFT

ZONE A HOUSE 2 9150 SQFT

ZONE A HOUSE 3 8400 SQFT

ZONE B 3 HOUSES 148,000 SQFT

ZONE C 3 HOUSES 226,900 SQFT

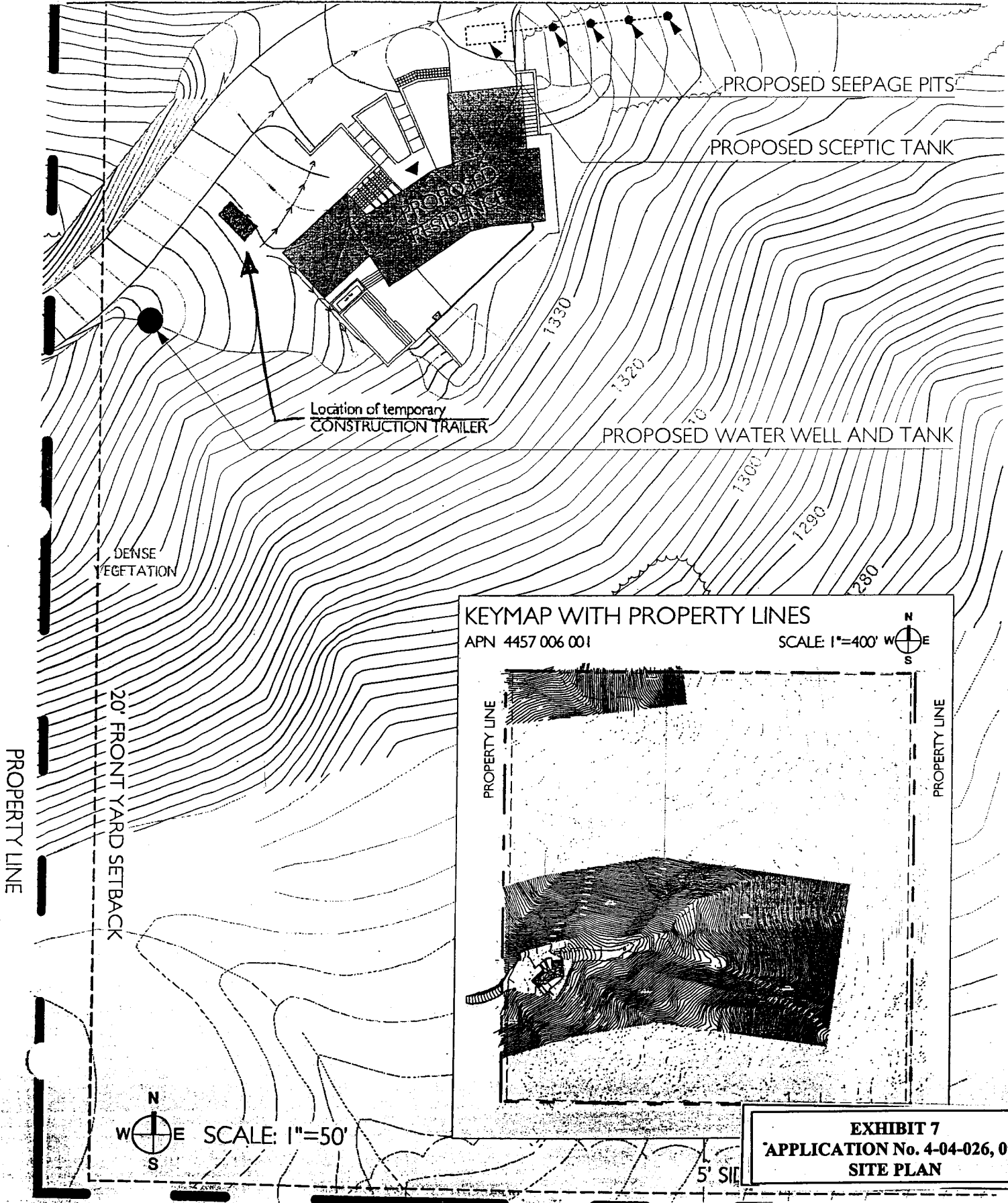
TOTAL ALL ZONES 399,400 SQFT

EXHIBIT 6
APPLICATION No. 4-04-026, 099
PROPOSED FUTURE RESIDENCES
AFTER RESUBDIVISION

WELL CONSTRUCTION LOCATION DETAILS

SITE ADDRESS or APN 1744U CORRAL CANYON ROAD (APN 4457-006-001)		CITY MALIBU	ZIP CODE 90265
Township 1 SOUTH	Range 18 WEST	Section 23	Map Book Page/ Grid 62B/C3

WELL LOCATION Provide a scaled drawing (1" = 50') indicating property lines, sewers, private sewage disposal systems within 200 feet of the well site along with labels and dimensions. Attach all documents that confirm that the well is located the required distance from the septic systems.



4457 _ 006 _ 001

GARNET RESIDENCE

MALIBU, CALIFORNIA 90265
NEW SINGLE FAMILY RESIDENCE

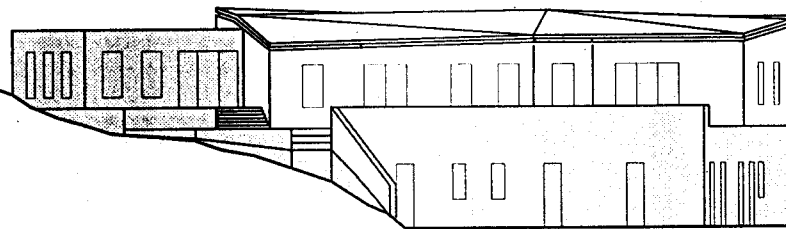


EXHIBIT 8
APPLICATION No. 4-04-026, 099
- CONCEPT ELEVATION
SECTION

810 OCEAN RANCHES
OWNER

GOLD COAST GEOSERVICES INC.
SOIL AND GEOLOGICAL ENGINEER

CCMR
SURVEYOR

WHITSON ENGINEERS
CIVIL ENGINEER

SUTNAR + SUTNAR
PLANNING CONSULTANT

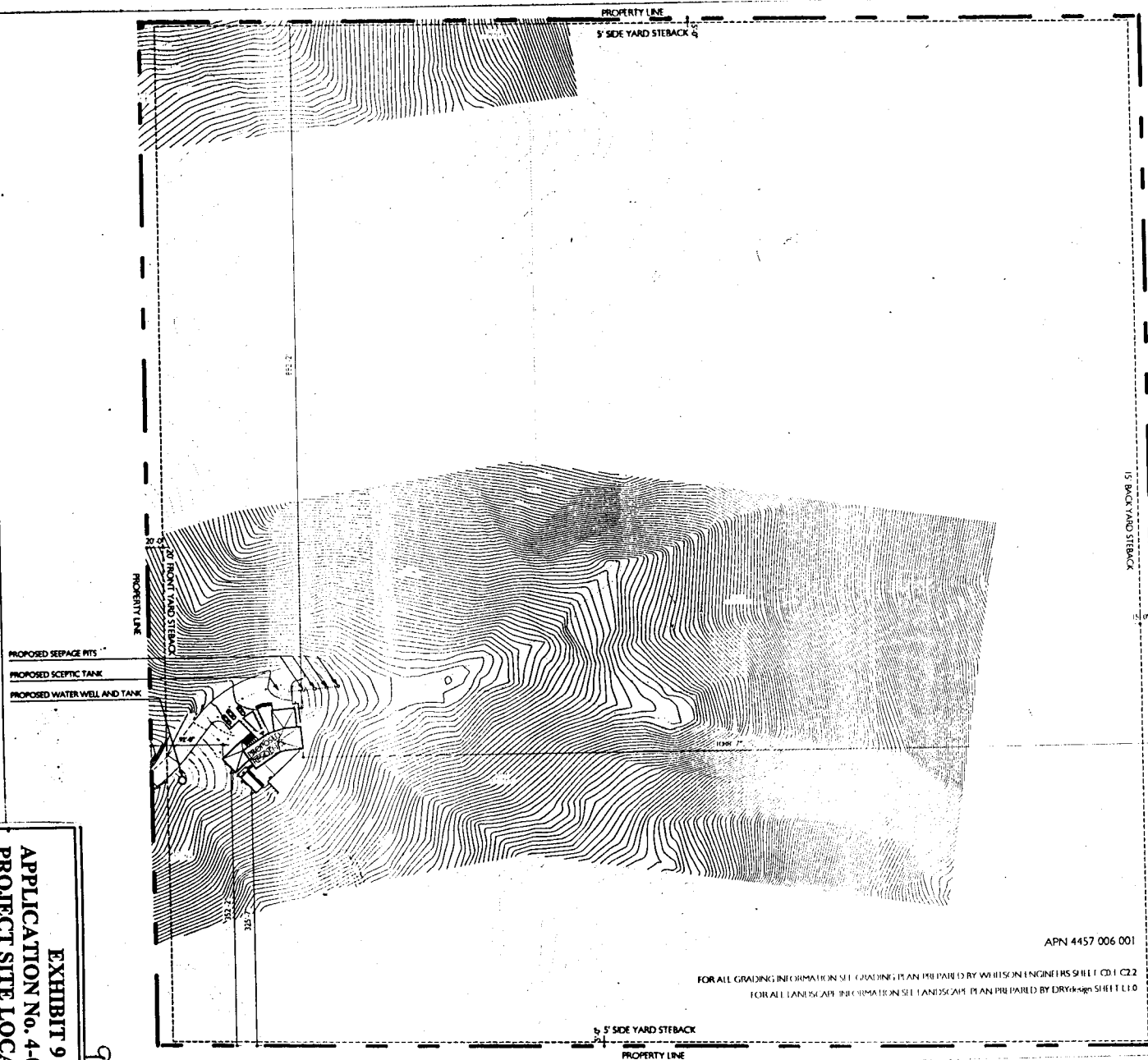
DRY design
LANDSCAPE ARCHITECT

STEVE NELSON
ARCHITECT

baio, LLC
DESIGNER

NOTED: ALL DIMENSIONS ARE IN FEET AND INCHES.
ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.

EXHIBIT 9
APPLICATION No. 4-04-026, 099
PROJECT SITE LOCATION ON
PRE-RE-DIVISION PARCEL



APN 4457 006 001

FOR ALL GRADING INFORMATION SEE GRADING PLAN PREPARED BY WHITSON ENGINEERS SHEET CD 1 C22
FOR ALL LANDSCAPE INFORMATION SEE LANDSCAPE PLAN PREPARED BY DRYDEN SHEET L10

LEGAL DESCRIPTION:

The northwest quarter of the southwest quarter, Section 23, Township 1 South, Range 18 West, San Bernardino base and meridian, in the County of Los Angeles, State of California.

ASSESSORS PARCEL NUMBER: 4457 006 001

PROPERTY DESIGNATION:

COUNTY OF LOS ANGELES GENERAL PLANNING ZONE: A-1-1
MALIBU COASTAL PLAN LAND USE: M2 - MOUNTAIN LAND: 1 DU/20AC

AREA: 40 ACRES

OCCUPATION: VACANT

BUILDING DATA:

NUMBER OF LEVELS OF BUILDING: 2
MAX BUILDING HEIGHT ABOVE EXISTING GRADE: 25' - 5"

AREA OF MAIN HOUSE:

• LOWER FLOOR: 2215 S.F.
• UPPER FLOOR: 2759 S.F.

TOTAL: 4974 S.F.

AREA OF GARAGE: 659 S.F.

APN 4457 006 001



PROJECT	4457-006-001
OWNER	CARNEY RESIDENCE CORRAL CANYON ROAD MALIBU, CALIFORNIA 90265
DESIGN	MALIBU OCEAN RANCHES 14901 LA JAYLITE ST. suite 404 DINWIDIE, CO 80218
DESIGNER	bau10, LLC 4051 GLENDALE AVE. #112 MALIBU, CALIF. 90265 PHONE: (310) 822 3000 FAX: (310) 822 5638
COMMENTS	
REVISIONS	
DATE	12/18/2003
DRAWN BY	CD
SHEET TITLE	PARCEL PLAN
SHEET NO.	3 of 6
SCALE	1" = 60'-0"

FOR ALL GRADING INFORMATION SEE GRADING PLAN PREPARED BY WILLIS TUCKER PARTNERSHIP 5/11/13 C22.
FOR ALL LANDSCAPE INFORMATION SEE LANDSCAPE PLAN PREPARED BY DRYDEN 5/11/13

PROJECT 4457-008-001	OWNER DANIEL REEDENCE CORRAL CANYON ROAD MALIBU, CALIFORNIA 90265	DESIGNER Malibu Ocean Ranches 1490 LA JAVITE ST. Suite 404 LA JAVITE, CO 80218	CLIENT bau10, LLC 1400 S. GARDEN ST. #100 MANASSAS, VA 20108 PHONE: (703) 822-3800 FAX: (703) 822-3338	CONSULTANTS ARCHITECT STRUCTURAL MECHANICAL ELECTRICAL PLUMBING FIRE LANDSCAPE GRADING TRAFFIC ENVIRONMENTAL HISTORIC GEOLOGICAL HYDROLOGICAL SOILS ARCHAEOLOGICAL PALEONTOLOGICAL CULTURAL RESOURCES OTHER	DATE 12/1/2012	SCALE 1/8" = 1'-0"	SHEET NO. 5 OF 6
--------------------------------	--	--	--	---	-------------------	-----------------------	---------------------

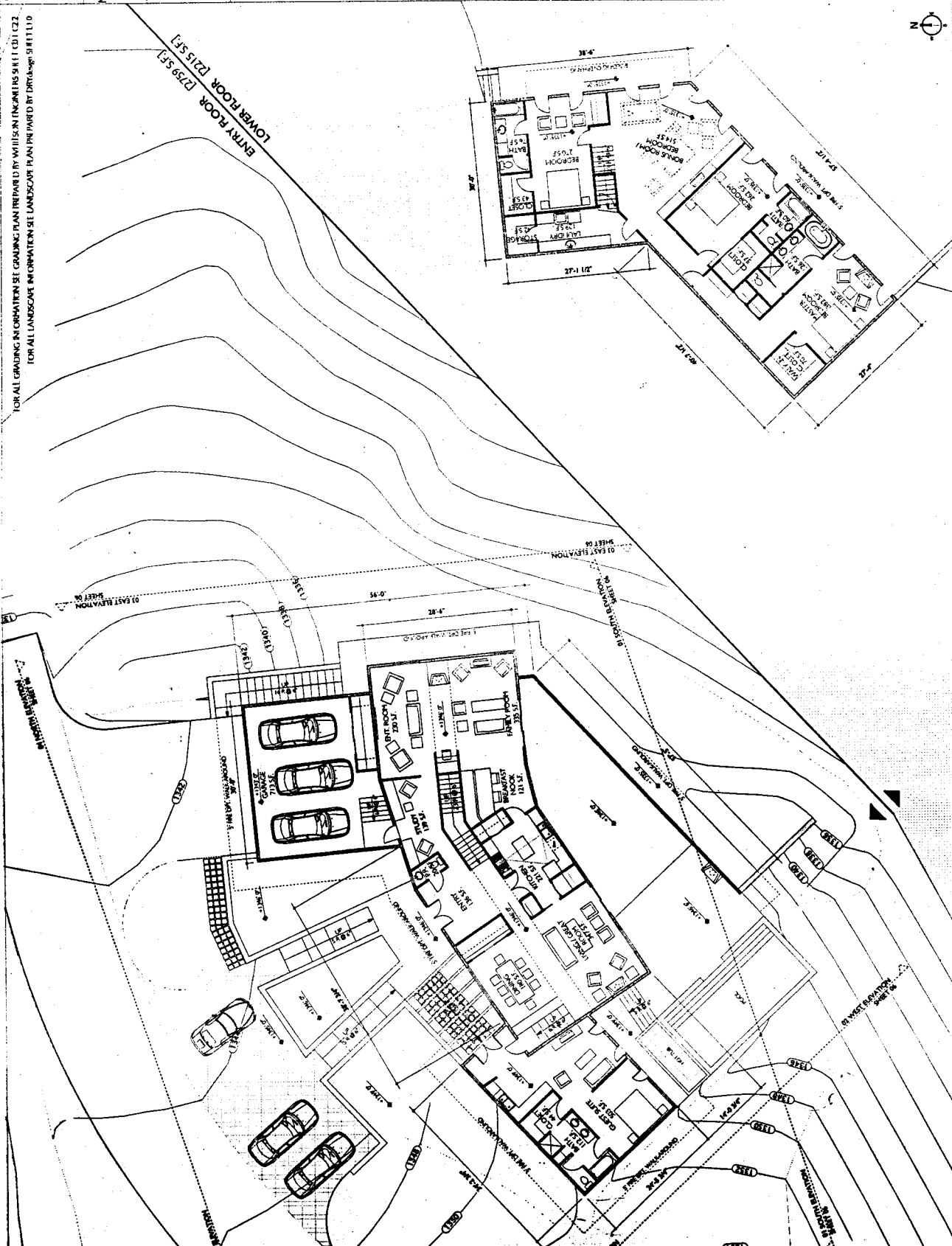


EXHIBIT 10
APPLICATION No. 4-04-026, 099
FLOOR PLANS

PROJECT 4457-006-001	OWNER CARNE RESERVE CORNELL UNIVERSITY MALIBU, CALIFORNIA 90263	DESIGN MALIBU OCEAN RANCHES 1980 AVALON BLVD. UNIT 404 UNION, CO 80218	DESIGN bau10, LLC 4001 OLIVIERO AVE. #10 MARIETTA, GA 30067 PHONE (770) 827-1800 FAX (770) 827-1800	CONTRACT 1980 AVALON BLVD. UNIT 404 UNION, CO 80218	REVISIONS	DATE 12-18-2004	SCALE 1/8" = 1' - 0"	DATE 12-18-2004	DESIGNED BY BAU10, LLC
ELEVATIONS MAY FOR CONSTRUCTION 6/16					SITE 				

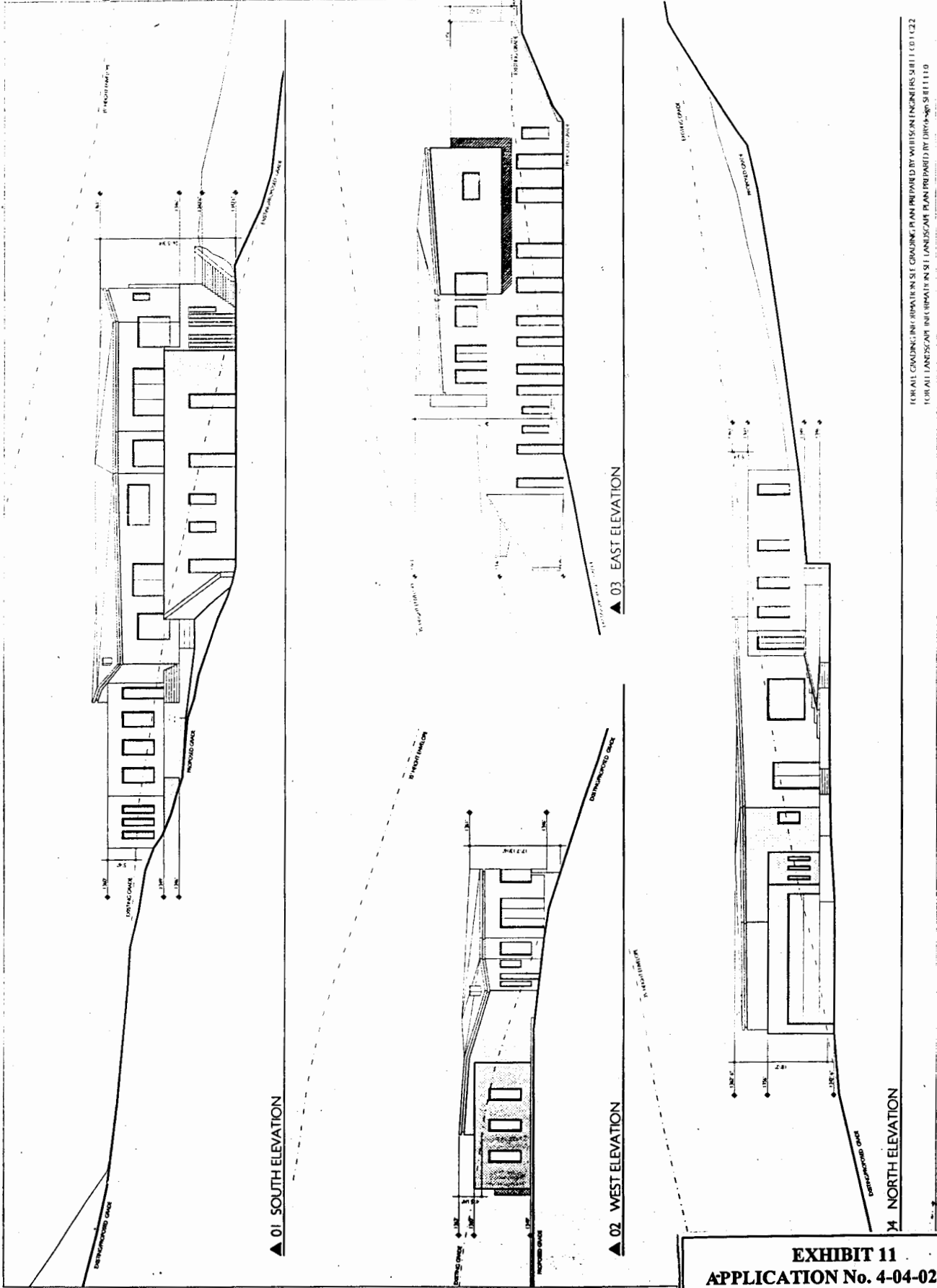


EXHIBIT 11
APPLICATION No. 4-04-026, 099
PROJECT ELEVATIONS

FOR ALL GRADING INFORMATION SEE GRADING PLAN PREPARED BY WILSON ENGINEERS SHEET C11-C22
 FOR ALL LANDSCAPE INFORMATION SEE LANDSCAPE PLAN PREPARED BY DRYDEN SHEET L11-L10

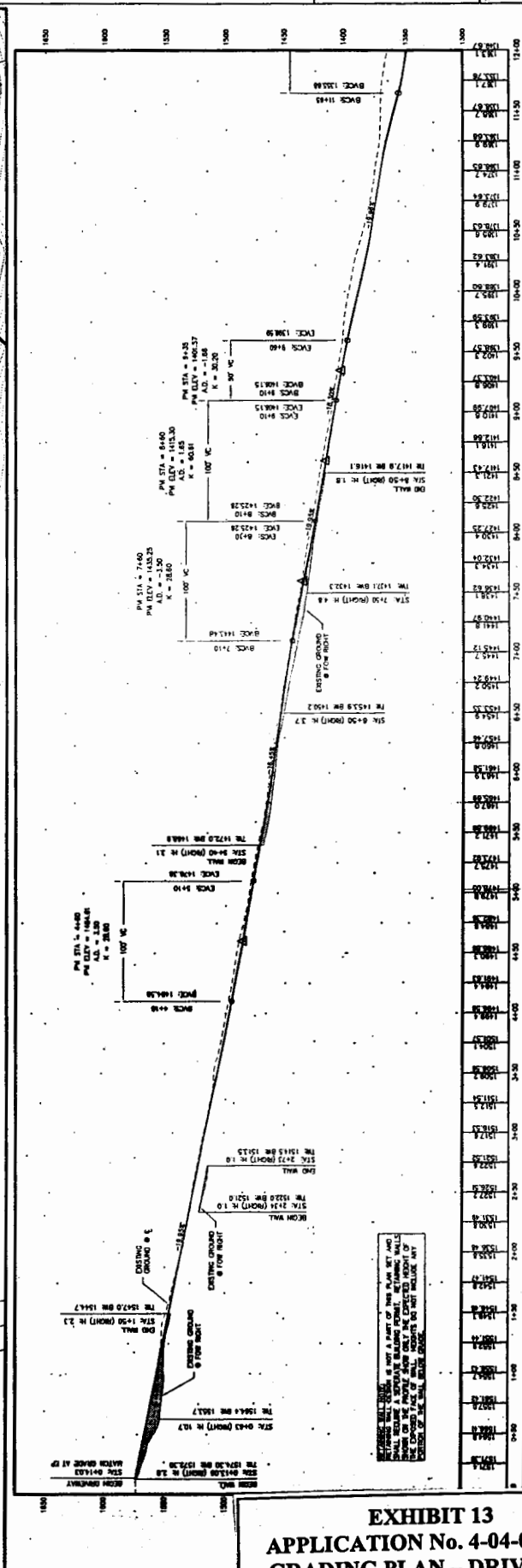


EXHIBIT 13
APPLICATION No. 4-04-026, 099
GRADING PLAN - DRIVEWAY

ME WHITSON ENGINEERS
 5895 Bala Linkspur Lane • Suite 105 • Monterey, CA 93940
 831 949-5225 • Fax 831 373-5065
 Civil Engineering • Land Surveying • Project Management

DATE: DEC. 15, 2003
 SCALE: 1"=40'
 DRAWN BY: J.M.
 JOB # 103022

APN 4457-006-001
 LOS ANGELES COUNTY, CALIFORNIA
 DRIVEWAY, GRADING AND DRAINAGE PLAN FOR SINGLE FAMILY RESIDENCE
 DRIVEWAY, GRADING AND PROFILE AND HORIZONTAL CONTROL

BY: DATE DESCRIPTION: REGION(S):
C1.2



**PRELIMINARY SUBMITTAL
 NOT FOR CONSTRUCTION**

HORIZONTAL CONTROL

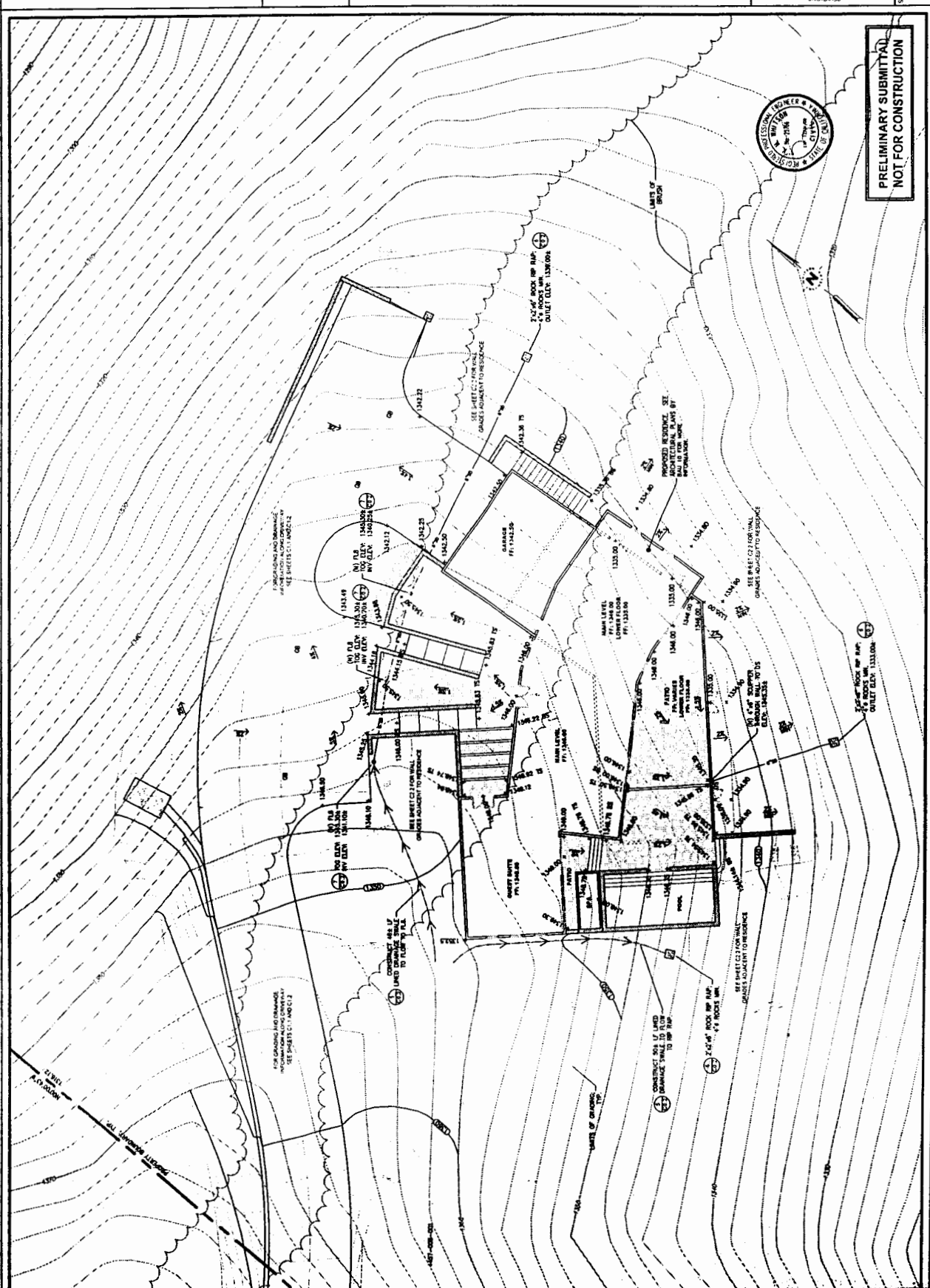
LINE	LENGTH	BEARING	START POINT	END POINT	DELTA
1	4.00	S 89° 29' 37" E	100.00	104.00	39.17°
2	10.00	S 89° 29' 37" E	104.00	114.00	39.17°
3	10.00	S 89° 29' 37" E	114.00	124.00	39.17°
4	10.00	S 89° 29' 37" E	124.00	134.00	39.17°
5	10.00	S 89° 29' 37" E	134.00	144.00	39.17°
6	10.00	S 89° 29' 37" E	144.00	154.00	39.17°
7	10.00	S 89° 29' 37" E	154.00	164.00	39.17°
8	10.00	S 89° 29' 37" E	164.00	174.00	39.17°
9	10.00	S 89° 29' 37" E	174.00	184.00	39.17°
10	10.00	S 89° 29' 37" E	184.00	194.00	39.17°
11	10.00	S 89° 29' 37" E	194.00	204.00	39.17°
12	10.00	S 89° 29' 37" E	204.00	214.00	39.17°
13	10.00	S 89° 29' 37" E	214.00	224.00	39.17°
14	10.00	S 89° 29' 37" E	224.00	234.00	39.17°
15	10.00	S 89° 29' 37" E	234.00	244.00	39.17°
16	10.00	S 89° 29' 37" E	244.00	254.00	39.17°
17	10.00	S 89° 29' 37" E	254.00	264.00	39.17°
18	10.00	S 89° 29' 37" E	264.00	274.00	39.17°
19	10.00	S 89° 29' 37" E	274.00	284.00	39.17°
20	10.00	S 89° 29' 37" E	284.00	294.00	39.17°
21	10.00	S 89° 29' 37" E	294.00	304.00	39.17°
22	10.00	S 89° 29' 37" E	304.00	314.00	39.17°
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30	10.00	S 89° 29' 37" E	384.00	394.00	39.17°
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33	10.00	S 89° 29' 37" E	414.00	424.00	39.17°
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35	10.00	S 89° 29' 37" E	434.00	444.00	39.17°
36	10.00	S 89° 29' 37" E	444.00	454.00	39.17°
37	10.00	S 89° 29' 37" E	454.00	464.00	39.17°
38	10.00	S 89° 29' 37" E	464.00	474.00	39.17°
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40	10.00	S 89° 29' 37" E	484.00	494.00	39.17°
41	10.00	S 89° 29' 37" E	494.00	504.00	39.17°
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43	10.00	S 89° 29' 37" E	514.00	524.00	39.17°
44	10.00	S 89° 29' 37" E	524.00	534.00	39.17°
45	10.00	S 89° 29' 37" E	534.00	544.00	39.17°
46	10.00	S 89° 29' 37" E	544.00	554.00	39.17°
47	10.00	S 89° 29' 37" E	554.00	564.00	39.17°
48	10.00	S 89° 29' 37" E	564.00	574.00	39.17°
49	10.00	S 89° 29' 37" E	574.00	584.00	39.17°
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65	10.00	S 89° 29' 37" E	734.00	744.00	39.17°
66	10.00	S 89° 29' 37" E	744.00	754.00	39.17°
67	10.00	S 89° 29' 37" E	754.00	764.00	39.17°
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70	10.00	S 89° 29' 37" E	784.00	794.00	39.17°
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75	10.00	S 89° 29' 37" E	834.00	844.00	39.17°
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78	10.00	S 89° 29' 37" E	864.00	874.00	39.17°
79	10.00	S 89° 29' 37" E	874.00	884.00	39.17°
80	10.00	S 89° 29' 37" E	884.00	894.00	39.17°
81	10.00	S 89° 29' 37" E	894.00	904.00	39.17°
82	10.00	S 89° 29' 37" E	904.00	914.00	39.17°
83	10.00	S 89° 29' 37" E	914.00	924.00	39.17°
84	10.00	S 89° 29' 37" E	924.00	934.00	39.17°
85	10.00	S 89° 29' 37" E	934.00	944.00	39.17°
86	10.00	S 89° 29' 37" E	944.00	954.00	39.17°
87	10.00	S 89° 29' 37" E	954.00	964.00	39.17°
88	10.00	S 89° 29' 37" E	964.00	974.00	39.17°
89	10.00	S 89° 29' 37" E	974.00	984.00	39.17°
90	10.00	S 89° 29' 37" E	984.00	994.00	39.17°
91	10.00	S 89° 29' 37" E	994.00	1004.00	39.17°
92	10.00	S 89° 29' 37" E	1004.00	1014.00	39.17°
93	10.00	S 89° 29' 37" E	1014.00	1024.00	39.17°
94	10.00	S 89° 29' 37" E	1024.00	1034.00	39.17°
95	10.00	S 89° 29' 37" E	1034.00	1044.00	39.17°
96	10.00	S 89° 29' 37" E	1044.00	1054.00	39.17°
97	10.00	S 89° 29' 37" E	1054.00	1064.00	39.17°
98	10.00	S 89° 29' 37" E	1064.00	1074.00	39.17°
99	10.00	S 89° 29' 37" E	1074.00	1084.00	39.17°
100	10.00	S 89° 29' 37" E	1084.00	1094.00	39.17°
101	10.00	S 89° 29' 37" E	1094.00	1104.00	39.17°
102	10.00	S 89° 29' 37" E	1104.00	1114.00	39.17°
103	10.00	S 89° 29' 37" E	1114.00	1124.00	39.17°
104	10.00	S 89° 29' 37" E	1124.00	1134.00	39.17°
105	10.00	S 89° 29' 37" E	1134.00	1144.00	39.17°
106	10.00	S 89° 29' 37" E	1144.00	1154.00	39.17°
107	10.00	S 89° 29' 37" E	1154.00	1164.00	39.17°
108	10.00	S 89° 29' 37" E	1164.00	1174.00	39.17°
109	10.00	S 89° 29' 37" E	1174.00	1184.00	39.17°
110	10.00	S 89° 29' 37" E	1184.00	1194.00	39.17°
111	10.00	S 89° 29' 37" E	1194.00	1204.00	39.17°
112	10.00	S 89° 29' 37" E	1204.00	1214.00	39.17°
113	10.00	S 89° 29' 37" E	1214.00	1224.00	39.17°
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115	10.00	S 89° 29' 37" E	1234.00	1244.00	39.17°
116	10.00	S 89° 29' 37" E	1244.00	1254.00	39.17°
117	10.00	S 89° 29' 37" E	1254.00	1264.00	39.17°
118	10.00	S 89° 29' 37" E	1264.00	1274.00	39.17°
119	10.00	S 89° 29' 37" E	1274.00	1284.00	39.17°
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121	10.00	S 89° 29' 37" E	1294.00	1304.00	39.17°
122	10.00	S 89° 29' 37" E	1304.00	1314.00	39.17°
123	10.00	S 89° 29' 37" E	1314.00	1324.00	39.17°
124	10.00	S 89° 29' 37" E	1324.00	1334.00	39.17°
125	10.00	S 89° 29' 37" E	1334.00	1344.00	39.17°
126	10.00	S 89° 29' 37" E	1344.00	1354.00	39.17°
127	10.00	S 89° 29' 37" E	1354.00	1364.00	39.17°
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129	10.00	S 89° 29' 37" E	1374.00	1384.00	39.17°
130	10.00	S 89° 29' 37" E	1384.00	1394.00	39.17°
131	10.00	S 89° 29' 37" E	1394.00	1404.00	39.17°
132	10.00	S 89° 29' 37" E	1404.00	1414.00	39.17°
133	10.00	S 89° 29' 37" E	1414.00	1424.00	39.17°
134	10.00	S 89° 29' 37" E	1424.00	1434.00	39.17°
135	10.00	S 89° 29' 37" E	1434.00	1444.00	39.17°
136	10.00	S 89° 29' 37" E	1444.00	1454.00	39.17°
137	10.00	S 89° 29' 37" E	1454.00	1464.00	39.17°
138	10.00	S 89° 29' 37" E	1464.00	1474.00	39.17°
139	10.00	S 89° 29' 37" E	1474.00	1484.00	39.17°
140	10.00	S 89° 29' 37" E	1484.00	1494.00	39.17°
141	10.00	S 89° 29' 37" E	1494.00	1504.00	39.17°
142	10.00	S 89° 29' 37" E	1504.00	1514.00	39.17°
143	10.00	S 89° 29' 37" E	1514.00	1524.00	39.17°
144	10.00	S 89° 29' 37" E	1524.00	1534.00	39.

ME WHITSON ENGINEERS
 9699 Blake Lakeside Lane • Suite 105 • Monterey, CA 93940
 831.649.4225 • Fax 831.373.5065
 CIVIL ENGINEERING • LAND SURVEYING • PROJECT MANAGEMENT

DATE DEC. 15, 2003
 SCALE 1"=10'
 DRAWN BY: D.M.
 JOB # 1028.22

APN 4457-006-001
 LOS ANGELES COUNTY, CALIFORNIA
DRIVEWAY, GRADING AND DRAINAGE PLAN FOR SINGLE FAMILY RESIDENCE

C2.1
 SHEET NO.
 DATE
 REVISIONS



**PRELIMINARY SUBMITTAL
 NOT FOR CONSTRUCTION**

EXHIBIT 15
APPLICATION No. 4-04-099
GRADING PLAN - SITE DETAIL

PROPOSED
GARNET
RESIDENCE

4457-006-001
MALIBU OCEAN
RANCHES, LLC
40.0 ac.± Post-LLA)

POSSIBLE
FUTURE
DEVELOPMENT

4457-006-005
STONEY HEIGHTS, LLC
(1.0 ac.± Post-LLA)

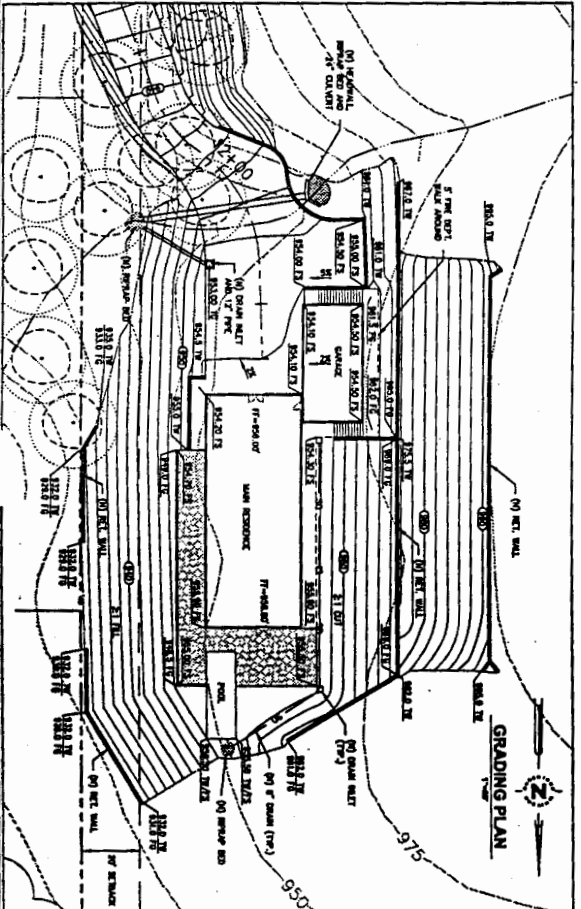
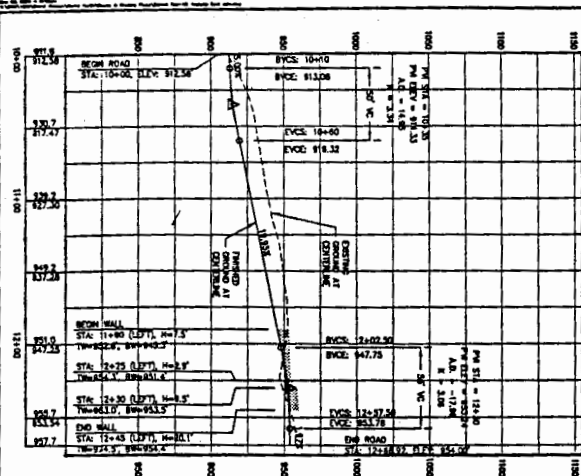
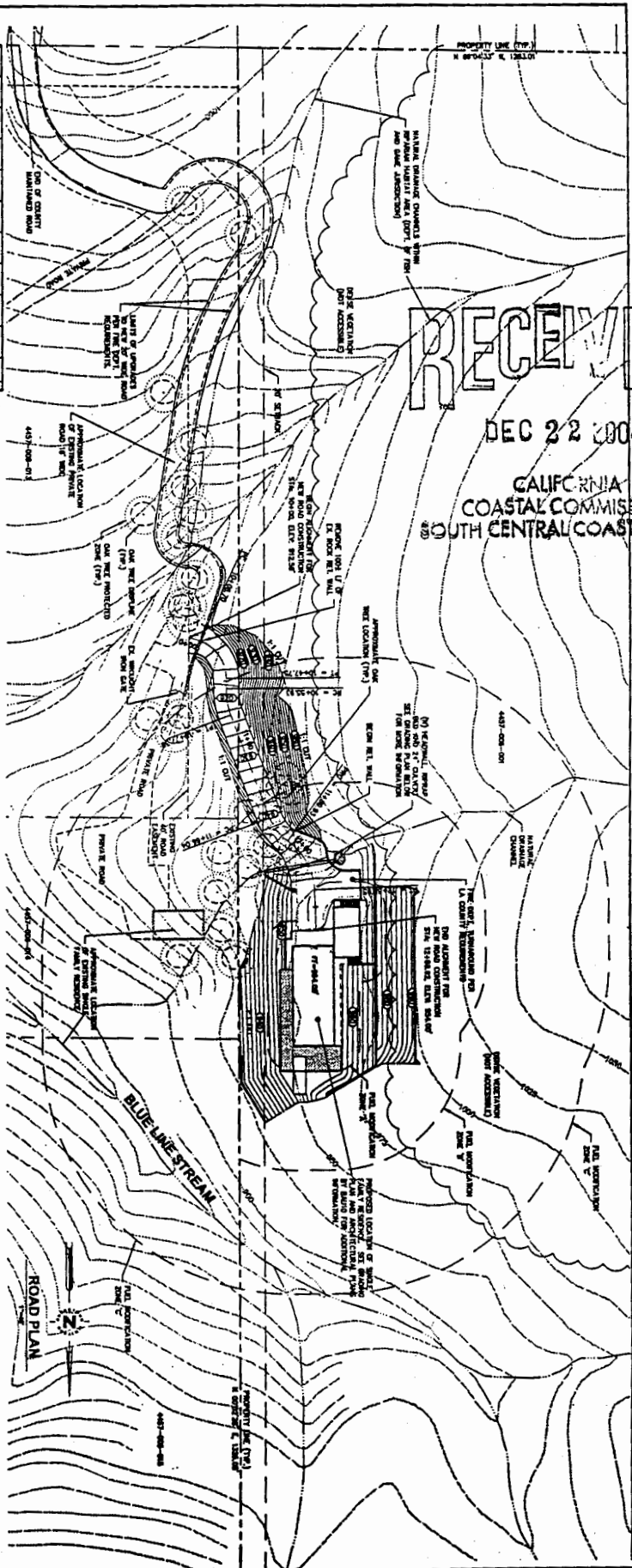
4457-006-006
CREEKSIDE F
(0.5 ac.± Post-

EXHIBIT 16
APPLICATION No. 4-04-026, 099
ALTERNATIVE: DEVELOP EACH
EXISTING PARCEL

RECEIVED

DEC 22 2004

CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT



NOTES:

- 1) APPROXIMATE BOUNDARY OF ONE TREE REMOVAL TO BE EXISTING ROAD TO BE - 1.
- 2) APPROXIMATE BOUNDARY OF ONE TREE REMOVAL TO BE EXISTING ROAD TO BE - 1.
- 3) APPROXIMATE BOUNDARY OF ONE TREE REMOVAL TO BE EXISTING ROAD TO BE - 1.
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- 11) APPROXIMATE BOUNDARY OF ONE TREE REMOVAL TO BE EXISTING ROAD TO BE - 1.
- 12) APPROXIMATE BOUNDARY OF ONE TREE REMOVAL TO BE EXISTING ROAD TO BE - 1.
- 13) APPROXIMATE BOUNDARY OF ONE TREE REMOVAL TO BE EXISTING ROAD TO BE - 1.
- 14) APPROXIMATE BOUNDARY OF ONE TREE REMOVAL TO BE EXISTING ROAD TO BE - 1.

EXHIBIT 17

APPLICATION No. 4-04-026, 099

ALTERNATIVE: DEVELOP

SOUTHEAST PORTION OF 40-ACRE PARCEL

DATE: DEC 22, 2004

SCALE: SEE PLAN

DRAWN BY: J.M.

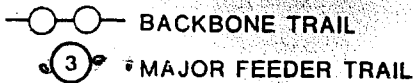
FOR: 1038.22

WE 4051 G

CVE. EN

malibu/santa monica

TRAIL SYSTEM



5 SOLSTICE CANYON TRAIL
6 MESA PEAK TRAIL

20 CORRAL CANYON TRAIL
21 COASTAL SLOPE TRAIL

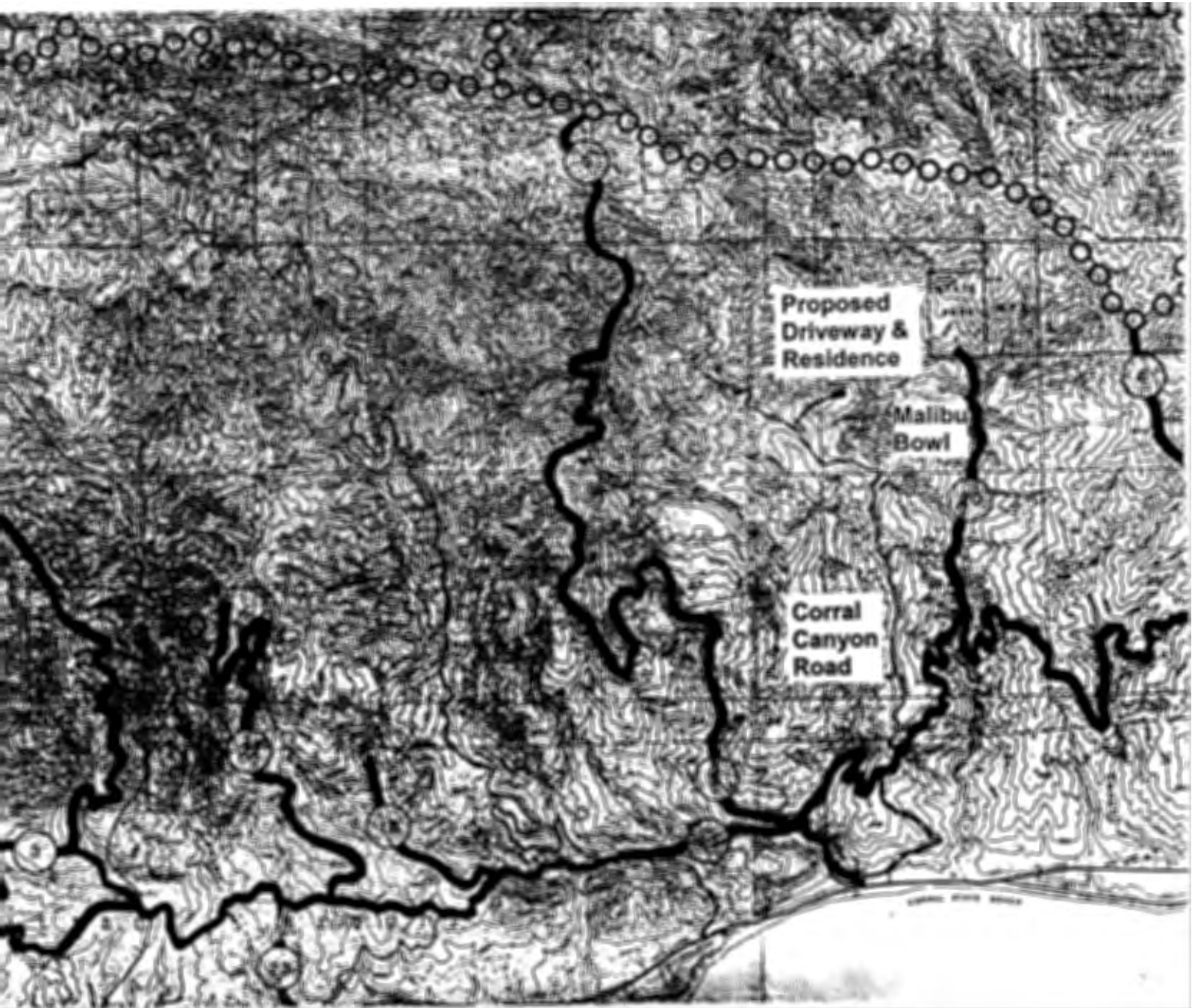


EXHIBIT 18
APPLICATION No. 4-04-026, 099
MALIBU/SANTA MONICA
MOUNTAINS TRAIL MAP

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200
FAX (415) 904-5400



MEMORANDUM

FROM: John Dixon, Ph.D.
Ecologist / Wetland Coordinator

TO: Ventura Staff

SUBJECT: Designation of ESHA in the Santa Monica Mountains

DATE: March 25, 2003

In the context of the Malibu LCP, the Commission found that 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. This is the only place in the coastal zone where the Commission has recognized chaparral as meeting the definition of ESHA. The scientific background presented herein for ESHA analysis in the Santa Monica Mountains is adapted from the Revised Findings for the Malibu LCP that the Commission adopted on February 6, 2003.

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) and should be attached as an exhibit to the staff report. For those habitats that are absolutely rare or that support individual rare species, it is not necessary to find that they are relatively pristine, and are neither isolated nor fragmented.

**Designation of Environmentally Sensitive Habitat in the
Santa Monica Mountains**

The Coastal Act provides a definition of "environmentally sensitive area" as: "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 30107.5).

EXHIBIT 19
APP NO. 4-04-099
ESHA Memo

There are three important elements to the definition of ESHA. First, a geographic area can be designated ESHA either because of the presence of individual species of plants or animals or because of the presence of a particular habitat. Second, in order for an area to be designated as ESHA, the species or habitat must be either rare or it must be especially valuable. Finally, the area must be easily disturbed or degraded by human activities.

The first test of ESHA is whether a habitat or species is rare. Rarity can take several forms, each of which is important. Within the Santa Monica Mountains, rare species and habitats often fall within one of two common categories. Many rare species or habitats are globally rare, but locally abundant. They have suffered severe historical declines in overall abundance and currently are reduced to a small fraction of their original range, but where present may occur in relatively large numbers or cover large local areas. This is probably the most common form of rarity for both species and habitats in California and is characteristic of coastal sage scrub, for example. Some other habitats are geographically widespread, but occur everywhere in low abundance. California's native perennial grasslands fall within this category.

A second test for ESHA is whether a habitat or species is especially valuable. Areas may be valuable because of their "special nature," such as being an unusually pristine example of a habitat type, containing an unusual mix of species, supporting species at the edge of their range, or containing species with extreme variation. For example, reproducing populations of valley oaks are not only increasingly rare, but their southernmost occurrence is in the Santa Monica Mountains. Generally, however, habitats or species are considered valuable because of their special "role in the ecosystem." For example, many areas within the Santa Monica Mountains may meet this test because they provide habitat for endangered species, protect water quality, provide essential corridors linking one sensitive habitat to another, or provide critical ecological linkages such as the provision of pollinators or crucial trophic connections. Of course, all species play a role in their ecosystem that is arguably "special." However, the Coastal Act requires that this role be "especially valuable." This test is met for relatively pristine areas that are integral parts of the Santa Monica Mountains Mediterranean ecosystem because of the demonstrably rare and extraordinarily special nature of that ecosystem as detailed below.

Finally, ESHAs are those areas that could be easily disturbed or degraded by human activities and developments. Within the Santa Monica Mountains, as in most areas of southern California affected by urbanization, all natural habitats are in grave danger of direct loss or significant degradation as a result of many factors related to anthropogenic changes.

Ecosystem Context of the Habitats of the Santa Monica Mountains

The Santa Monica Mountains comprise the largest, most pristine, and ecologically complex example of a Mediterranean ecosystem in coastal southern California.

California's coastal sage scrub, chaparral, oak woodlands, and associated riparian areas have analogues in just a few areas of the world with similar climate. Mediterranean ecosystems with their wet winters and warm dry summers are only found in five localities (the Mediterranean coast, California, Chile, South Africa, and south and southwest Australia). Throughout the world, this ecosystem with its specially adapted vegetation and wildlife has suffered severe loss and degradation from human development. Worldwide, only 18 percent of the Mediterranean community type remains undisturbed¹. However, 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 2000². Therefore, this relatively pristine area is both large and mostly unfragmented, which fulfills a fundamental tenet of conservation biology³. The need for large contiguous areas of natural habitat in order to maintain critical ecological processes has been emphasized by many conservation biologists⁴.

In addition to being a large single expanse of land, the Santa Monica Mountains ecosystem is still connected, albeit somewhat tenuously, to adjacent, more inland ecosystems⁵. 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 Agency⁶ identified wildlife corridors and habitat connectivity as the top conservation priority. In a letter to governor Gray Davis, sixty leading environmental scientists have endorsed the

¹ National Park Service. 2000. Draft general management plan & environmental impact statement. Santa Monica Mountains National Recreation Area - California.

² Ibid.

³ Harris, L. D. 1988. Edge effects and conservation of biotic diversity. *Conserv. Biol.* 330-332. Soule, M. E., D. T. Bolger, A. C. Albers, J. Wright, M. Sorice and S. Hill. 1988. Reconstructed dynamics of rapid extinctions of chaparral-requiring birds in urban habitat islands. *Conserv. Biol.* 2: 75-92. Yahner, R. H. 1988. Changes in wildlife communities near edges. *Conserv. Biol.* 2:333-339. Murphy, D. D. 1989. Conservation and confusion: Wrong species, wrong scale, wrong conclusions. *Conservation Biol.* 3:82-84.

⁴ Crooks, K. 2000. Mammalian carnivores as target species for conservation in Southern California. p. 105-112 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 Open-File Report 00-62. Sauvajot, R. M., E. C. York, T. K. Fuller, H. Sharon Kim, D. A. Kamradt and R. K. Wayne. 2000. Distribution and status of carnivores in the Santa Monica Mountains, California: Preliminary results from radio telemetry and remote camera surveys. p 113-123 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 Open-File Report 00-62. Beier, P. and R. F. Noss. 1998. Do habitat corridors provide connectivity? *Conserv. Biol.* 12:1241-1252. Beier, P. 1996. Metapopulation models, tenacious tracking and cougar conservation. In: *Metapopulations and Wildlife Conservation*, ed. D. R. McCullough. Island Press, Covelo, California, 429p.

⁵ The SMM area is linked to larger natural inland areas to the north through two narrow corridors: 1) the Conejo Grade connection at the west end of the Mountains and 2) the Simi Hills connection in the central region of the SMM (from Malibu Creek State Park to the Santa Susanna Mountains).

⁶ California Resources Agency. 2001. Missing Linkages: Restoring Connectivity to the California Landscape. California Wilderness Coalition, Calif. Dept of Parks & Recreation, USGS, San Diego Zoo and The Nature Conservancy. Available at: <http://www.calwild.org/pubs/reports/linkages/index.htm>

conclusions of that report⁷. The chief of natural resources at the California Department of Parks and Recreation has identified the Santa Monica Mountains as an area where maintaining connectivity is particularly important⁸.

The species most directly affected by large scale connectivity are those that require large areas or a variety of habitats, e.g., gray fox, cougar, bobcat, badger, steelhead trout, and mule deer⁹. Large terrestrial predators are particularly good indicators of habitat connectivity and of the general health of the ecosystem¹⁰. Recent studies show that the mountain lion, or cougar, is the most sensitive indicator species of habitat fragmentation, followed by the spotted skunk and the bobcat¹¹. Sightings of cougars in both inland and coastal areas of the Santa Monica Mountains¹² demonstrate their continued presence. Like the "canary in the mineshaft," an indicator species like this is good evidence that habitat connectivity and large scale ecological function remains in the Santa Monica Mountains ecosystem.

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 structure¹³. Beyond simply destabilizing the ecosystem, fragmentation and disturbance

⁷ Letters received and included in the September 2002 staff report for the Malibu LCP.

⁸ Schoch, D. 2001. Survey lists 300 pathways as vital to state wildlife. Los Angeles Times. August 7, 2001.

⁹ Martin, G. 2001. Linking habitat areas called vital for survival of state's wildlife Scientists map main migration corridors. San Francisco Chronicle, August 7, 2001.

¹⁰ Noss, R. F., H. B. Quigley, M. G. Hornocker, T. Merrill and P. C. Paquet. 1996. Conservation biology and carnivore conservation in the Rocky Mountains. *Conserv. Biol.* 10: 949-963. Noss, R. F. 1995. Maintaining ecological integrity in representative reserve networks. World Wildlife Fund Canada.

¹¹ Sauvajot, R. M., E. C. York, T. K. Fuller, H. Sharon Kim, D. A. Kamradt and R. K. Wayne. 2000. Distribution and status of carnivores in the Santa Monica Mountains, California: Preliminary results from radio telemetry and remote camera surveys. p 113-123 in: Keeley, J. E., M. Baer-Keeley and J. J. Fotheringham (eds), 2nd Interface Between Ecology and Land Development in California, U.S. Geological Survey Open-File Report 00-62. Beier, P. 1996. Metapopulation models, tenacious tracking and cougar conservation. In: Metapopulations and Wildlife Conservation, ed. D. R. McCullough. Island Press, Covelo, California, 429p.

¹² Recent sightings of mountain lions include: Temescal Canyon (pers. com., Peter Brown, Facilities Manager, Calvary Church), Topanga Canyon (pers. com., Marti Witter, NPS), Encinal and Trancas Canyons (pers. com., Pat Healy), Stump Ranch Research Center (pers. com., Dr. Robert Wayne, Dept. of Biology, UCLA). In May of 2002, the NPS photographed a mountain lion at a trip camera on the Back Bone Trail near Castro Crest - Seth Riley, Eric York and Dr. Ray Sauvajot, National Park Service, SMMNRA.

¹³ Gause, G. F. 1934. The struggle for existence. Baltimore, William and Wilkins 163 p. (also reprinted by Hafner, N.Y. 1964). Gause, G. F., N. P. Smaragdova and A. A. Witt. 1936. Further studies of interaction between predators and their prey. *J. Anim. Ecol.* 5:1-18. Huffaker, C. B. 1958. Experimental studies on predation: dispersion factors and predator-prey oscillations. *Hilgardia* 27:343-383. Luckinbill, L. S. 1973. Coexistence in laboratory populations of *Paramecium aurelia* and its predator *Didinium nasutum*. *Ecology* 54:1320-1327. Allen, J. C., C. C. Brewster and D. H. Slone. 2001. Spatially explicit ecological models: A spatial convolution approach. *Chaos, Solitons and Fractals*. 12:333-347.

can even cause unexpected and irreversible changes to new and completely different kinds of ecosystems (habitat conversion)¹⁴.

As a result of the pristine nature of large areas of the Santa Monica Mountains and the existence of large, unfragmented and interconnected blocks of habitat, this ecosystem continues to support an extremely diverse flora and fauna. The observed diversity is probably a function of the diversity of physical habitats. The Santa Monica Mountains have the greatest geological diversity of all major mountain ranges within the transverse range province. According to the National Park Service, the Santa Monica Mountains contain 40 separate watersheds and over 170 major streams with 49 coastal outlets¹⁵. These streams are somewhat unique along the California coast because of their topographic setting. As a "transverse" range, the Santa Monica Mountains are oriented in an east-west direction. As a result, the south-facing riparian habitats have more variable sun exposure than the east-west riparian corridors of other sections of the coast. This creates a more diverse moisture environment and contributes to the higher biodiversity of the region. The many different physical habitats of the Santa Monica Mountains support at least 17 native vegetation types¹⁶ including the following habitats considered sensitive by the California Department of Fish and Game: native perennial grassland, coastal sage scrub, red-shank chaparral, valley oak woodland, walnut woodland, southern willow scrub, southern cottonwood-willow riparian forest, sycamore-alder woodland, oak riparian forest, coastal salt marsh, and freshwater marsh. Over 400 species of birds, 35 species of reptiles and amphibians, and more than 40 species of mammals have been documented in this diverse ecosystem. More than 80 sensitive species of plants and animals (listed, proposed for listing, or species of concern) are known to occur or have the potential to occur within the Santa Monica Mountains Mediterranean ecosystem.

The Santa Monica Mountains are also important in a larger regional context. Several recent studies have concluded that the area of southern California that includes the Santa Monica Mountains is among the most sensitive in the world in terms of the number of rare endemic species, endangered species and habitat loss. These studies have designated the area to be a local hot-spot of endangerment in need of special protection¹⁷.

Therefore, the Commission finds that the Santa Monica Mountains ecosystem is itself rare and especially valuable because of its special nature as the largest, most pristine,

¹⁴ Scheffer, M., S. Carpenter, J. A. Foley, C. Folke and B. Walker. 2001. Catastrophic shifts in ecosystems. *Nature* 413:591-596.

¹⁵ NPS. 2000. op.cit.

¹⁶ From the NPS report (2000 op. cit.) that is based on the older Holland system of subjective classification. The data-driven system of Sawyer and Keeler-Wolf results in a much larger number of distinct "alliances" or vegetation types.

¹⁷ Myers, N. 1990. The biodiversity challenge: Expanded hot-spots analysis. *Environmentalist* 10:243-256. Myers, N., R. A. Mittermeier, C. G. Mittermeier, G. A. B. da Fonseca and J. A. Kent. 2000. Biodiversity hot-spots for conservation priorities. *Nature* 403:853-858. Dobson, A. P., J. P. Rodriguez, W. M. Roberts and D. S. Wilcove. 1997. Geographic distribution of endangered species in the United States. *Science* 275:550-553.

physically complex, and biologically diverse example of a Mediterranean ecosystem in coastal southern California. The Commission further finds that because of the rare and special nature of the Santa Monica Mountains ecosystem, the ecosystem roles of substantially intact areas of the constituent plant communities discussed below are "especially valuable" under the Coastal Act.

Major Habitats within the Santa Monica Mountains

The most recent vegetation map that is available for the Santa Monica Mountains is the map that was produced for the National Park Service in the mid-1990s using 1993 satellite imagery supplemented with color and color infrared aerial imagery from 1984, 1988, and 1994 and field review¹⁸. The minimum mapping unit was 5 acres. For that map, the vegetation was mapped in very broad categories, generally following a vegetation classification scheme developed by Holland¹⁹. Because of the mapping methods used the degree of plant community complexity in the landscape is not represented. For example, the various types of "ceanothus chaparral" that have been documented were lumped under one vegetation type referred to as "northern mixed chaparral." Dr. Todd Keeler-Wolf of the California Department of Fish and Game is currently conducting a more detailed, quantitative vegetation survey of the Santa Monica Mountains.

The National Park Service map can be used to characterize broadly the types of plant communities present. The main generic plant communities present in the Santa Monica Mountains²⁰ are: coastal sage scrub, chaparral, riparian woodland, coast live oak woodland, and grasslands.

Riparian Woodland

Some 49 streams connect inland areas with the coast, and there are many smaller drainages as well, many of which are "blue line." Riparian woodlands occur along both perennial and intermittent streams in nutrient-rich soils. Partly because of its multi-layered vegetation, the riparian community contains the greatest overall biodiversity of all the plant communities in the area²¹. At least four types of riparian communities are discernable in the Santa Monica Mountains: walnut riparian areas, mulefat-dominated riparian areas, willow riparian areas and sycamore riparian woodlands. Of these, the

¹⁸ Franklin, J. 1997. Forest Service Southern California Mapping Project, Santa Monica Mountains National Recreation Area, Task 11 Description and Results, Final Report. June 13, 1997, Dept. of Geography, San Diego State University, USFS Contract No. 53-91S8-3-TM45.

¹⁹ Holland R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California, The Resources Agency, Dept. of Fish and Game, Natural Heritage Division, Sacramento, CA. 95814.

²⁰ National Park Service. 2000. Draft: General Management Plan & Environmental Impact Statement, Santa Monica Mountains National Recreation Area, US Dept. of Interior, National Park Service, December 2000. (Fig. 11 in this document.)

²¹ *Ibid.*

sycamore riparian woodland is the most diverse riparian community in the area. In these habitats, the dominant plant species include arroyo willow, California black walnut, sycamore, coast live oak, Mexican elderberry, California bay laurel, and mule fat. Wildlife species that have been observed in this community include least Bell's vireo (a State and federally listed species), American goldfinches, black phoebes, warbling vireos, bank swallows (State listed threatened species), song sparrows, belted kingfishers, raccoons, and California and Pacific tree frogs.

Riparian communities are the most species-rich to be found in the Santa Monica Mountains. Because of their multi-layered vegetation, available water supply, vegetative cover and adjacency to shrubland habitats, they are attractive to many native wildlife species, and provide essential functions in their lifecycles²². During the long dry summers in this Mediterranean climate, these communities are an essential refuge and oasis for much of the areas' wildlife.

Riparian habitats and their associated streams form important connecting links in the Santa Monica Mountains. These habitats connect all of the biological communities from the highest elevation chaparral to the sea with a unidirectional flowing water system, one function of which is to carry nutrients through the ecosystem to the benefit of many different species along the way.

The streams themselves provide refuge for sensitive species including: the coast range newt, the Pacific pond turtle, and the steelhead trout. The coast range newt and the Pacific pond turtle are California Species of Special Concern and are proposed for federal listing²³, and the steelhead trout is federally endangered. The health of the streams is dependent on the ecological functions provided by the associated riparian woodlands. These functions include the provision of large woody debris for habitat, shading that controls water temperature, and input of leaves that provide the foundation of the stream-based trophic structure.

The importance of the connectivity between riparian areas and adjacent habitats is illustrated by the Pacific pond turtle and the coast range newt, both of which are sensitive and both of which require this connectivity for their survival. The life history of the Pacific pond turtle demonstrates the importance of riparian areas and their associated watersheds for this species. These turtles require the stream habitat during the wet season. However, recent radio tracking work²⁴ has found that although the Pacific pond turtle spends the wet season in streams, it also requires upland habitat for refuge during the dry season. Thus, in coastal southern California, the Pacific pond turtle requires both streams and intact adjacent upland habitats such as coastal sage

²² Walter, Hartmut. Bird use of Mediterranean habitats in the Santa Monica Mountains, Coastal Commission Workshop on the Significance of Native Habitats in the Santa Monica Mountains. CCC Hearing, June 13, 2002, Queen Mary Hotel.

²³ USFWS. 1989. Endangered and threatened wildlife and plants; animal notice of review. Fed. Reg. 54:554-579. USFWS. 1993. Endangered and threatened wildlife and plants; notice of 1-year petition finding on the western pond turtle. Fed. Reg. 58:42717-42718.

²⁴ Rathbun, G.B., N.J. Scott and T.G. Murphy. 2002. Terrestrial habitat use by Pacific pond turtle in a Mediterranean climate. *Southwestern Naturalist*. (in Press).

scrub, woodlands or chaparral as part of their normal life cycle. The turtles spend about four months of the year in upland refuge sites located an average distance of 50 m (but up to 280 m) from the edge of the creek bed. Similarly, nesting sites where the females lay eggs are also located in upland habitats an average of 30 m (but up to 170 m) from the creek. Occasionally, these turtles move up to 2 miles across upland habitat²⁵. Like many species, the pond turtle requires both stream habitats and the upland habitats of the watershed to complete its normal annual cycle of behavior. Similarly, the coast range newt has been observed to travel hundreds of meters into upland habitat and spend about ten months of the year far from the riparian streambed²⁶. They return to the stream to breed in the wet season, and they are therefore another species that requires both riparian habitat and adjacent uplands for their survival.

Riparian habitats in California have suffered serious losses and such habitats in southern California are currently very rare and seriously threatened. In 1989, Faber estimated that 95-97% of riparian habitat in southern California was already lost²⁷. Writing at the same time as Faber, Bowler asserted that, "[t]here is no question that riparian habitat in southern California is endangered."²⁸ In the intervening 13 years, there have been continuing losses of the small amount of riparian woodlands that remain. Today these habitats are, along with native grasslands and wetlands, among the most threatened in California.

In addition to direct habitat loss, streams and riparian areas have been degraded by the effects of development. For example, the coast range newt, a California Species of Special Concern has suffered a variety of impacts from human-related disturbances²⁹. Human-caused increased fire frequency has resulted in increased sedimentation rates, which exacerbates the cannibalistic predation of adult newts on the larval stages.³⁰ In addition impacts from non-native species of crayfish and mosquito fish have also been documented. When these non-native predators are introduced, native prey organisms are exposed to new mortality pressures for which they are not adapted. Coast range newts that breed in the Santa Monica Mountain streams do not appear to have adaptations that permit co-occurrence with introduced mosquito fish and crayfish³¹. These introduced predators have eliminated the newts from streams where they previously occurred by both direct predation and suppression of breeding.

²⁵ Testimony by R. Dagit, Resource Conservation District of the Santa Monica Mountains at the CCC Habitat Workshop on June 13, 2002.

²⁶ Dr. Lee Kats, Pepperdine University, personal communication to Dr J. Allen, CCC.

²⁷ Faber, P.A., E. Keller, A. Sands and B.M. Massey. 1989. The ecology of riparian habitats of the southern California coastal region: a community profile. U.S. Fish and Wildlife Service Biological Report 85(7.27) 152pp.

²⁸ Bowler, P.A. 1989. Riparian woodland: An endangered habitat in southern California. Pp 80-97 in Schoenherr, A.A. (ed.) Endangered plant communities of southern California. Botanists Special Publication No. 3.

²⁹ Gamradt, S.C., L.B. Kats and C.B. Anzalone. 1997. Aggression by non-native crayfish deters breeding in California newts. *Conservation Biology* 11(3):793-796.

³⁰ Kerby, L.J., and L.B. Kats. 1998. Modified interactions between salamander life stages caused by wildfire-induced sedimentation. *Ecology* 79(2):740-745.

³¹ Gamradt, S.C. and L.B. Kats. 1996. Effect of introduced crayfish and mosquitofish on California newts. *Conservation Biology* 10(4):1155-1162.

Therefore, because of the essential role that riparian plant communities play in maintaining the biodiversity of the Santa Monica Mountains, because of the historical losses and current rarity of these habitats in southern California, and because of their extreme sensitivity to disturbance, the native riparian habitats in the Santa Monica Mountains meet the definition of ESHA under the Coastal Act.

Coastal Sage Scrub and Chaparral

Coastal sage scrub and chaparral are often lumped together as "shrublands" because of their roughly similar appearance and occurrence in similar and often adjacent physical habitats. In earlier literature, these vegetation associations were often called soft chaparral and hard chaparral, respectively. "Soft" and "hard" refers to differences in their foliage associated with different adaptations to summer drought. Coastal sage scrub is dominated by soft-leaved, generally low-growing aromatic shrubs that die back and drop their leaves in response to drought. Chaparral is dominated by taller, deeper-rooted evergreen shrubs with hard, waxy leaves that minimize water loss during drought.

The two vegetation types are often found interspersed with each other. Under some circumstances, coastal sage scrub may even be successional to chaparral, meaning that after disturbance, a site may first be covered by coastal sage scrub, which is then replaced with chaparral over long periods of time.³² The existing mosaic of coastal sage scrub and chaparral is the result of a dynamic process that is a function of fire history, recent climatic conditions, soil differences, slope, aspect and moisture regime, and the two habitats should not be thought of as completely separate and unrelated entities but as different phases of the same process³³. The spatial pattern of these vegetation stands at any given time thus depends on both local site conditions and on history (e.g., fire), and is influenced by both natural and human factors.

In lower elevation areas with high fire frequency, chaparral and coastal sage scrub may be in a state of flux, leading one researcher to describe the mix as a "coastal sage-chaparral subclimax."³⁴ Several other researchers have noted the replacement of chaparral by coastal sage scrub, or coastal sage scrub by chaparral depending on fire history.³⁵ In transitional and other settings, the mosaic of chaparral and coastal sage

³² Cooper, W.S. 1922. The broad-sclerophyll vegetation of California. Carnegie Institution of Washington Publication 319. 124 pp.

³³ Longcore, T and C. Rich. 2002. Protection of environmentally sensitive habitat areas in proposed local coastal plan for the Santa Monica Mountains. The Urban Wildlands Group, Inc., P.O. Box 24020 Los Angeles, CA 90024. (See attached comment document in Appendix).

³⁴ Hanes, T.L. 1965. Ecological studies on two closely related chaparral shrubs in southern California. Ecological Monographs 41:27-52.

³⁵ Gray, K.L. 1983. Competition for light and dynamic boundary between chaparral and coastal sage scrub. Madrono 30(1):43-49. Zedler, P.H., C.R. Gautier and G.S. McMaster. 1983. Vegetation change in response to extreme events: The effect of a short interval between fires in California chaparral and coastal sage scrub. Ecology 64(4): 809-818.

scrub enriches the seasonal plant resource base and provides additional habitat variability and seasonality for the many species that inhabit the area.

Relationships Among Coastal Sage Scrub, Chaparral and Riparian Communities

Although the constituent communities of the Santa Monica Mountains Mediterranean ecosystem can be defined and distinguished based on species composition, growth habits, and the physical habitats they characteristically occupy, they are not independent entities ecologically. Many species of plants, such as black sage, and laurel sumac, occur in more than one plant community and many animals rely on the predictable mix of communities found in undisturbed Mediterranean ecosystems to sustain them through the seasons and during different portions of their life histories.

Strong evidence for the interconnectedness between chaparral, coastal scrub and other habitats is provided by "opportunistic foragers" (animals that follow the growth and flowering cycles across these habitats). Coastal scrub and chaparral flowering and growth cycles differ in a complimentary and sequential way that many animals have evolved to exploit. Whereas coastal sage scrub is shallow-rooted and responds quickly to seasonal rains, chaparral plants are typically deep-rooted having most of their flowering and growth later in the rainy season after the deeper soil layers have been saturated³⁶. New growth of chaparral evergreen shrubs takes place about four months later than coastal sage scrub plants and it continues later into the summer³⁷. For example, in coastal sage scrub, California sagebrush flowers and grows from August to February and coyote bush flowers from August to November³⁸. In contrast, chamise chaparral and bigpod ceanothus flower from April to June, buck brush ceanothus flowers from February to April, and hoaryleaf ceanothus flowers from March to April.

Many groups of animals exploit these seasonal differences in growth and blooming period. The opportunistic foraging insect community (e.g., honeybees, butterflies and moths) tends to follow these cycles of flowering and new growth, moving from coastal sage scrub in the early rainy season to chaparral in the spring³⁹. The insects in turn are followed by insectivorous birds such as the blue-gray gnatcatcher⁴⁰, bushtit, cactus wren, Bewick's wren and California towhee. At night bats take over the role of daytime insectivores. At least 12 species of bats (all of which are considered sensitive) occur in

³⁶ DeSimone, S. 2000. California's coastal sage scrub. *Fremontia* 23(4):3-8. Mooney, H.A. 1988. Southern coastal scrub. Chap. 13 in Barbour, M.G. and J. Majors; Eds. 1988. *Terrestrial vegetation of California*, 2nd Edition. Calif. Native Plant Soc. Spec. Publ. #9.

³⁷ Schoenherr, A. A. 1992. *A natural history of California*. University of California Press, Berkeley. 772p.

³⁸ Dale, N. 2000. Flowering plants of the Santa Monica Mountains. California Native Plant Society, 1722 J Street, Suite 17, Sacramento, CA 95814.

³⁹ Ballmer, G. R. 1995. What's bugging coastal sage scrub. *Fremontia* 23(4):17-26.

⁴⁰ Root, R. B. 1967. The niche exploitation pattern of the blue-gray gnatcatcher. *Ecol. Monog.* 37:317-350.

the Santa Monica Mountains⁴¹. Five species of hummingbirds also follow the flowering cycle⁴².

Many species of 'opportunistic foragers', which utilize several different community types, perform important ecological roles during their seasonal movements. The scrub jay is a good example of such a species. The scrub jay is an omnivore and forages in coastal sage scrub, chaparral, and oak woodlands for insects, berries and notably acorns. Its foraging behavior includes the habit of burying acorns, usually at sites away from the parent tree canopy. Buried acorns have a much better chance of successful germination (about two-fold) than exposed acorns because they are protected from desiccation and predators. One scrub jay will bury approximately 5000 acorns in a year. The scrub jay therefore performs the function of greatly increasing recruitment and regeneration of oak woodland, a valuable and sensitive habitat type⁴³.

Like the scrub jay, most of the species of birds that inhabit the Mediterranean ecosystem in the Santa Monica Mountains require more than one community type in order to flourish. Many species include several community types in their daily activities. Other species tend to move from one community to another seasonally. The importance of maintaining the integrity of the multi-community ecosystem is clear in the following observations of Dr. Hartmut Walter of the University of California at Los Angeles:

"Bird diversity is directly related to the habitat mosaic and topographic diversity of the Santa Monicas. Most bird species in this bio-landscape require more than one habitat for survival and reproduction." "A significant proportion of the avifauna breeds in the wooded canyons of the Santa Monicas. Most of the canyon breeders forage every day in the brush- and grass-covered slopes, ridges and mesas. They would not breed in the canyons in the absence of the surrounding shrublands. Hawks, owls, falcons, orioles, flycatchers, woodpeckers, warblers, hummingbirds, etc. belong to this group. Conversely, some of the characteristic chaparral birds such as thrashers, quails, and wrentits need the canyons for access to shelter, protection from fire, and water. The regular and massive movement of birds between riparian corridors and adjacent shrublands has been demonstrated by qualitative and quantitative observations by several UCLA students⁴⁴."

Thus, the Mediterranean ecosystem of the Santa Monica Mountains is a mosaic of vegetation types linked together ecologically. The high biodiversity of the area results

⁴¹ Letter from Dr. Marti Witter, NPS, dated Sept. 13, 2001, in letters received and included in the September 2002 staff report for the Malibu LCP.

⁴² National Park Service. 1993. A checklist of the birds of the Santa Monica Mountains National Recreation Area. Southwest Parks and Monuments Assoc., 221 N. Court, Tucson, AZ. 85701

⁴³ Borchert, M. I., F. W. Davis, J. Michaelsen and L. D. Oyler. 1989. Interactions of factors affecting seedling recruitment of blue oak (*Quercus douglasii*) in California. *Ecology* 70:389-404. Bossema, I. 1979. Jays and oaks: An eco-ethological study of a symbiosis. *Behavior* 70:1-118. Schoenherr, A. A. 1992. A natural history of California. University of California Press, Berkeley. 772p.

⁴⁴ Walter, Hartmut. Bird use of Mediterranean habitats in the Santa Monica Mountains, Coastal Commission Workshop on the Significance of Native Habitats in the Santa Monica Mountains. CCC Hearing, June 13, 2002, Queen Mary Hotel.

from both the diversity and the interconnected nature of this mosaic. Most raptor species, for example, require large areas and will often require different habitats for perching, nesting and foraging. Fourteen species of raptors (13 of which are considered sensitive) are reported from the Santa Monica Mountains. These species utilize a variety of habitats including rock outcrops, oak woodlands, riparian areas, grasslands, chaparral, coastal sage scrub, estuaries and freshwater lakes⁴⁵.

When the community mosaic is disrupted and fragmented by development, many chaparral-associated native bird species are impacted. In a study of landscape-level fragmentation in the Santa Monica Mountains, Stralberg⁴⁶ found that the ash-throated flycatcher, Bewick's wren, wrentit, blue-gray gnatcatcher, California thrasher, orange-crowned warbler, rufous-crowned sparrow, spotted towhee, and California towhee all decreased in numbers as a result of urbanization. Soule⁴⁷ observed similar effects of fragmentation on chaparral and coastal sage scrub birds in the San Diego area.

In summary, all of the vegetation types in this ecosystem are strongly linked by animal movement and foraging. Whereas classification and mapping of vegetation types may suggest a snapshot view of the system, the seasonal movements and foraging of animals across these habitats illustrates the dynamic nature and vital connections that are crucial to the survival of this ecosystem.

Coastal Sage Scrub

"Coastal sage scrub" is a generic vegetation type that is inclusive of several subtypes⁴⁸. In the Santa Monica Mountains, coastal sage scrub is mostly of the type termed "Venturan Coastal Sage Scrub." In general, coastal sage scrub is comprised of dominant species that are semi-woody and low-growing, with shallow, dense roots that enable them to respond quickly to rainfall. Under the moist conditions of winter and spring, they grow quickly, flower, and produce light, wind-dispersed seeds, making them good colonizers following disturbance. These species cope with summer drought by dying back, dropping their leaves or producing a smaller summer leaf in order to reduce water loss. 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.

⁴⁵ National Park Service. 1993. A checklist of the birds of the Santa Monica Mountains National Recreation Area. Southwest Parks and Monuments Assoc., 221 N. Court, Tucson, AZ. 85701. and Letter from Dr. Marti Witter, NPS, Dated Sept. 13, 2001, in letters received and included in the September 2002 staff report for the Malibu LCP.

⁴⁶ Stralberg, D. 2000. Landscape-level urbanization effects on chaparral birds: A Santa Monica Mountains case study. p 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 Open-File Report 00-62.

⁴⁷ Soule, M. E, D. T. Bolger, A. C. Alberts, J. Wright, M. Sorice and S. Hill. 1988. Reconstructed dynamics of rapid extinctions of chaparral-requiring birds in urban habitat islands. *Conserv. Biol.* 2: 75-92.

⁴⁸ Kirkpatrick, J.B. and C.F. Hutchinson. 1977. The community composition of Californian coastal sage scrub. *Vegetatio* 35:21-33; Holland, 1986. op.cit.; Sawyer and Keeler-Wolf, 1995, op.cit.

The species composition and structure of individual stands of coastal sage scrub depend on moisture conditions that derive from slope, aspect, elevation and soil type. Drier sites are dominated by more drought-resistant species (e.g., California sagebrush, coast buckwheat, and *Opuntia* cactus). Where more moisture is available (e.g., north-facing slopes), larger evergreen species such as toyon, laurel sumac, lemonade berry, and sugar bush are common. As a result, there is more cover for wildlife, and movement of large animals from chaparral into coastal sage scrub is facilitated in these areas. Characteristic wildlife in this community includes Anna's hummingbirds, rufous-sided towhees, California quail, greater roadrunners, Bewick's wrens, coyotes, and coast horned lizards⁴⁹, but most of these species move between coastal sage scrub and chaparral during their daily activities or on a seasonal basis.

Of the many important ecosystem roles performed by the coastal sage scrub community, five are particularly important in the Santa Monica Mountains. Coastal sage scrub provides critical linkages between riparian corridors, provides essential habitat for species that require several habitat types during the course of their life histories, provides essential habitat for local endemics, supports rare species that are in danger of extinction, and reduces erosion, thereby protecting the water quality of coastal streams.

Riparian woodlands are primary contributors to the high biodiversity of the Santa Monica Mountains. The ecological integrity of those riparian habitats not only requires wildlife dispersal along the streams, but also depends on the ability of animals to move from one riparian area to another. Such movement requires that the riparian corridors be connected by suitable habitat. In the Santa Monica Mountains, coastal sage scrub and chaparral provide that function. Significant development in coastal sage scrub would reduce the riparian corridors to linear islands of habitat with severe edge effects⁵⁰, reduced diversity, and lower productivity.

Most wildlife species and many species of plants utilize several types of habitat. Many species of animals endemic to Mediterranean habitats move among several plant communities during their daily activities and many are reliant on different communities either seasonally or during different stages of their life cycle. Without an intact mosaic of coastal sage scrub, chaparral, and riparian community types, many species will not thrive. Specific examples of the importance of interconnected communities, or habitats, were provided in the discussion above. This is an essential ecosystem role of coastal sage scrub.

A characteristic of the coastal sage scrub vegetation type is a high degree of endemism. This is consonant with Westman's observation that 44 percent of the species he sampled in coastal sage scrub occurred at only one of his 67 sites, which were

⁴⁹ National Park Service. 2000. Draft: General Management Plan & Environmental Impact Statement, Santa Monica Mountains National Recreation Area, US Dept. of Interior, National Park Service, December 2000.

⁵⁰ Environmental impacts are particularly severe at the interface between development and natural habitats. The greater the amount of this "edge" relative to the area of natural habitat, the worse the impact.

distributed from the San Francisco Bay area to Mexico⁵¹. Species with restricted distributions are by nature more susceptible to loss or degradation of their habitat. Westman said of this unique and local aspect of coastal sage scrub species in California:

"While there are about 50 widespread sage scrub species, more than half of the 375 species encountered in the present study of the sage scrub flora are rare in occurrence within the habitat range. In view of the reduction of the area of coastal sage scrub in California to 10-15% of its former extent and the limited extent of preserves, measures to conserve the diversity of the flora are needed."⁵²

Coastal sage scrub in southern California provides habitat for about 100 rare species⁵³, many of which are also endemic to limited geographic regions⁵⁴. In the Santa Monica Mountains, rare animals that inhabit coastal sage scrub⁵⁵ include the Santa Monica shieldback katydid, silvery legless lizard, coastal cactus wren, Bell's sparrow, San Diego desert woodrat, southern California rufous-crowned sparrow, coastal western whiptail, and San Diego horned lizard. Some of these species are also found in chaparral⁵⁶. Rare plants found in coastal sage scrub in the Santa Monica Mountains include Santa Susana tarplant, Coulter's saltbush, Blockman's dudleya, Branton's milkvetch, Parry's spineflower, and Plummer's mariposa lily⁵⁷. A total of 32 sensitive species of reptiles, birds and mammals have been identified in this community by the National Park Service.⁵⁸

One of the most important ecological functions of coastal sage scrub in the Santa Monica Mountains is to protect water quality in coastal streams by reducing erosion in the watershed. Although shallow rooted, the shrubs that define coastal sage scrub have dense root masses that hold the surface soils much more effectively than the exotic annual grasses and forbs that tend to dominate in disturbed areas. The native shrubs of this community are resistant not only to drought, as discussed above, but well adapted to fire. Most of the semi-woody shrubs have some ability to crown sprout after

⁵¹ Westman, W.E. 1981. Diversity relations and succession in Californian coastal sage scrub. *Ecology* 62:170-184.

⁵² Ibid.

⁵³ Atwood, J. L. 1993. California gnatcatchers and coastal sage scrub: The biological basis for endangered species listing. pp.149-166 *In: Interface Between Ecology and Land Development in California*. Ed. J. E. Keeley, So. Calif. Acad. of Sci., Los Angeles. California Department of Fish and Game (CDFG). 1993. The Southern California Coastal Sage Scrub (CSS) Natural Communities Conservation Plan (NCCP). CDFG and Calif. Resources Agency, 1416 9th St., Sacramento, CA 95814.

⁵⁴ Westman, W.E. 1981. op. cit.

⁵⁵ 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.

⁵⁶ O'Leary J.F., S.A. DeSimone, D.D. Murphy, P.F. Brussard, M.S. Gilpin, and R.F. Noss. 1994. Bibliographies on coastal sage scrub and related malacophyllous shrublands of other Mediterranean-type climates. *California Wildlife Conservation Bulletin* 10:1-51.

⁵⁷ 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.

⁵⁸ NPS, 2000, op cit.

fire. Several CSS species (e.g., *Eriogonum cinereum*) in the Santa Monica Mountains and adjacent areas resprout vigorously and other species growing near the coast demonstrate this characteristic more strongly than do individuals of the same species growing at inland sites in Riverside County.⁵⁹ These shrub species also tend to recolonize rapidly from seed following fire. As a result they provide persistent cover that reduces erosion.

In addition to performing extremely important roles in the Mediterranean ecosystem, the coastal sage scrub community type has been drastically reduced in area by habitat loss to development. In the early 1980's it was estimated that 85 to 90 percent of the original extent of coastal sage scrub in California had already been destroyed.⁶⁰ Losses since that time have been significant and particularly severe in the coastal zone.

Therefore, because of its increasing rarity, its important role in the functioning of the Santa Monica Mountains Mediterranean ecosystem, and its extreme vulnerability to development, coastal sage scrub within the Santa Monica Mountains meets the definition of ESHA under the Coastal Act.

Chaparral

Another shrub community in the Santa Monica Mountain Mediterranean ecosystem is chaparral. Like "coastal sage scrub," this is a generic category of vegetation. Chaparral species have deep roots (10s of ft) and hard waxy leaves, adaptations to drought that increase water supply and decrease water loss at the leaf surface. Some chaparral species cope more effectively with drought conditions than do desert plants⁶¹. Chaparral plants vary from about one to four meters tall and form dense, intertwining stands with nearly 100 percent ground cover. As a result, there are few herbaceous species present in mature stands. Chaparral is well adapted to fire. Many species regenerate mainly by crown sprouting; others rely on seeds which are stimulated to germinate by the heat and ash from fires. Over 100 evergreen shrubs may be found in chaparral⁶². On average, chaparral is found in wetter habitats than coastal sage scrub, being more common at higher elevations and on north facing slopes.

The broad category "northern mixed chaparral" is the major type of chaparral shown in the National Park Service map of the Santa Monica Mountains. However, northern mixed chaparral can be variously dominated by chamise, scrub oak or one of several species of manzanita or by ceanothus. In addition, it commonly contains woody vines and large shrubs such as mountain mahogany, toyon, hollyleaf redberry, and sugarbush⁶³. The rare red shank chaparral plant community also occurs in the Santa Monica Mountains. Although included within the category "northern mixed chaparral" in

⁵⁹ Dr. John O'Leary, SDSU, personal communication to Dr. John Dixon, CCC, July 2, 2002

⁶⁰ Westman, W.E. 1981. op. cit.

⁶¹ Dr. Stephen Davis, Pepperdine University. Presentation at the CCC workshop on the significance of native habitats in the Santa Monica Mountains. June 13, 2002.

⁶² Keely, J.E. and S.C. Keeley. Chaparral. Pages 166-207 in M.G. Barbour and W.D. Billings, eds. North American Terrestrial Vegetation. New York, Cambridge University Press.

⁶³ Ibid.

the vegetation map, several types of ceanothus chaparral are reported in the Santa Monica Mountains. Ceanothus chaparral occurs on stable slopes and ridges, and may be dominated by bigpod ceanothus, buck brush ceanothus, hoaryleaf ceanothus, or greenbark ceanothus. In addition to ceanothus, other species that are usually present in varying amounts are chamise, black sage, holly-leaf redberry, sugarbush, and coast golden bush⁶⁴.

Several sensitive plant species that occur in the chaparral of the Santa Monica Mountains area are: Santa Susana tarplant, Lyon's pentachaeta, marcescent dudleya, Santa Monica Mountains dudleya, Braunton's milk vetch and salt spring checkerbloom⁶⁵. Several occurring or potentially occurring sensitive animal species in chaparral from the area are: Santa Monica shieldback katydid, western spadefoot toad, silvery legless lizard, San Bernardino ring-neck snake, San Diego mountain kingsnake, coast patch-nosed snake, sharp-shinned hawk, southern California rufous-crowned sparrow, Bell's sparrow, yellow warbler, pallid bat, long-legged myotis bat, western mastiff bat, and San Diego desert woodrat.⁶⁶

Coastal sage scrub and chaparral are the predominant generic community types of the Santa Monica Mountains and provide the living matrix within which rarer habitats like riparian woodlands exist. These two shrub communities share many important ecosystem roles. Like coastal sage scrub, chaparral within the Santa Monica Mountains provides critical linkages among riparian corridors, provides essential habitat for species that require several habitat types during the course of their life histories, provides essential habitat for sensitive species, and stabilizes steep slopes and reduces erosion, thereby protecting the water quality of coastal streams.

Many species of animals in Mediterranean habitats characteristically move among several plant communities during their daily activities, and many are reliant on different communities either seasonally or during different stages of their life cycle. The importance of an intact mosaic of coastal sage scrub, chaparral, and riparian community types is perhaps most critical for birds. However, the same principles apply to other taxonomic groups. For example, whereas coastal sage scrub supports a higher diversity of native ant species than chaparral, chaparral habitat is necessary for the coast horned lizard, an ant specialist⁶⁷. Additional examples of the importance of an interconnected communities, or habitats, were provided in the discussion of coastal sage scrub above. This is an extremely important ecosystem role of chaparral in the Santa Monica Mountains.

Chaparral is also remarkably adapted to control erosion, especially on steep slopes. The root systems of chaparral plants are very deep, extending far below the surface and

⁶⁴ Ibid.

⁶⁵ 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.

⁶⁶ Ibid.

⁶⁷ A.V. Suarez. Ants and lizards in coastal sage scrub and chaparral. A presentation at the CCC workshop on the significance of native habitats in the Santa Monica Mountains. June 13, 2002.

penetrating the bedrock below⁶⁸, so chaparral literally holds the hillsides together and prevents slippage.⁶⁹ In addition, the direct soil erosion from precipitation is also greatly reduced by 1) water interception on the leaves and above ground foliage and plant structures, and 2) slowing the runoff of water across the soil surface and providing greater soil infiltration. Chaparral plants are extremely resistant to drought, which enables them to persist on steep slopes even during long periods of adverse conditions. Many other species die under such conditions, leaving the slopes unprotected when rains return. Since chaparral plants recover rapidly from fire, they quickly re-exert their ground stabilizing influence following burns. The effectiveness of chaparral for erosion control after fire increases rapidly with time⁷⁰. Thus, the erosion from a 2-inch rain-day event drops from 5 yd³/acre of soil one year after a fire to 1 yd³/acre after 4 years.⁷¹ The following table illustrates the strong protective effect of chaparral in preventing erosion.

Soil erosion as a function of 24-hour precipitation and chaparral age.

Years Since Fire	Erosion (yd ³ /acre) at Maximum 24-hr Precipitation of:		
	2 inches	5 inches	11 inches
1	5	20	180
4	1	12	140
17	0	1	28
50+	0	0	3

Therefore, because of its important roles in the functioning of the Santa Monica Mountains Mediterranean ecosystem, and its extreme vulnerability to development, chaparral within the Santa Monica Mountains meets the definition of ESHA under the Coastal Act.

Oak Woodland and Savanna

Coast live oak woodland occurs mostly on north slopes, shaded ravines and canyon bottoms. Besides the coast live oak, this plant community includes hollyleaf cherry, California bay laurel, coffeeberry, and poison oak. Coast live oak woodland is more

⁶⁸ Helmers, H., J.S. Horton, G. Juhren and J. O'Keefe. 1955. Root systems of some chaparral plants in southern California. *Ecology* 36(4):667-678. Kummerow, J. and W. Jow. 1977. Root systems of chaparral shrubs. *Oecologia* 29:163-177.

⁶⁹ 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.

⁷⁰ Kittredge, J. 1973. *Forest influences — the effects of woody vegetation on climate, water, and soil*. Dover Publications, New York. 394 pp. Longcore, T and C. Rich. 2002. Protection of environmentally sensitive habitat areas in proposed local coastal plan for the Santa Monica Mountains. (Table 1). The Urban Wildlands Group, Inc., P.O. Box 24020 Los Angeles, CA 90024. Vicars, M. (ed.) 1999. *FireSmart: protecting your community from wildfire*. Partners in Protection, Edmonton, Alberta.

⁷¹ Ibid.

tolerant of salt-laden fog than other oaks and is generally found nearer the coast⁷². Coast live oak also occurs as a riparian corridor species within the Santa Monica Mountains.

Valley oaks are endemic to California and reach their southern most extent in the Santa Monica Mountains. Valley oaks were once widely distributed throughout California's perennial grasslands in central and coastal valleys. Individuals of this species may survive 400-600 years. Over the past 150 years, valley oak savanna habitat has been drastically reduced and altered due to agricultural and residential development. The understory is now dominated by annual grasses and recruitment of seedlings is generally poor. This is a very threatened habitat.

The important ecosystem functions of oak woodlands and savanna are widely recognized⁷³. These habitats support a high diversity of birds⁷⁴, and provide refuge for many species of sensitive bats⁷⁵. Typical wildlife in this habitat includes acorn woodpeckers, scrub jays, plain titmice, northern flickers, cooper's hawks, western screech owls, mule deer, gray foxes, ground squirrels, jackrabbits and several species of sensitive bats.

Therefore, because of their important ecosystem functions and vulnerability to development, oak woodlands and savanna within the Santa Monica Mountains met the definition of ESHA under the Coastal Act.

Grasslands

Grasslands consist of low herbaceous vegetation that is dominated by grass species but may also harbor native or non-native forbs.

California Perennial Grassland

Native grassland within the Santa Monica Mountains consists of perennial native needlegrasses: purple needlegrass, (*Nassella pulchra*), foothills needlegrass, (*Nassella lepida*) and nodding needlegrass (*Nassella cernua*). These grasses may occur in the same general area but they do not typically mix, tending to segregate based on slope

⁷² NPS 2000. op. cit.

⁷³ Block, W.M., M.L. Morrison, and J. Verner. 1990. Wildlife and oak-woodland interdependency. *Fremontia* 18(3):72-76. Pavlik, B.M., P.C. Muick, S. Johnson, and M. Popper. 1991. *Oaks of California*. Cachuma Press and California Oak Foundation, Los Olivos, California. 184 pp.

⁷⁴ Cody, M.L. 1977. Birds. Pp. 223-231 in Thrower, N.J.W., and D.E. Bradbury (eds.). *Chile-California Mediterranean scrub atlas*. US/IBP Synthesis Series 2. Dowden, Hutchinson & Ross, Stroudsburg, Pennsylvania. National Park Service. 1993. A checklist of the birds of the Santa Monica Mountains National Recreation Area. Southwest Parks and Monuments Assoc., 221 N. Court, Tucson, AZ. 85701

⁷⁵ Miner, K.L., and D.C. Stokes. 2000. Status, conservation issues, and research needs for bats in the south coast bioregion. Paper presented at *Planning for biodiversity: bringing research and management together*, February 29, California State University, Pomona, California.

and substrate factors⁷⁶. Mixed with these native needlegrasses are many non-native annual species that are characteristic of California annual grassland⁷⁷. Native perennial grasslands are now exceedingly rare⁷⁸. In California, native grasslands once covered nearly 20 percent of the land area, but today are reduced to less than 0.1 percent⁷⁹. The California Natural Diversity Database (CNDDB) lists purple needlegrass habitat as a community needing priority monitoring and restoration. The CNDDB considers grasslands with 10 percent or more cover by purple needlegrass to be significant, and recommends that these be protected as remnants of original California prairie. Patches of this sensitive habitat occur throughout the Santa Monica Mountains where they are intermingled with coastal sage scrub, chaparral and oak woodlands.

Many of the raptors that inhabit the Santa Monica Mountains make use of grasslands for foraging because they provide essential habitat for small mammals and other prey. Grasslands adjacent to woodlands are particularly attractive to these birds of prey since they simultaneously offer perching and foraging habitat. Particularly noteworthy in this regard are the white-tailed kite, northern harrier, sharp-shinned hawk, Cooper's hawk, red-shouldered hawk, red-tailed hawk, golden eagle, American kestrel, merlin, and prairie falcon⁸⁰.

Therefore, because of their extreme rarity, important ecosystem functions, and vulnerability to development, California native perennial grasslands within the Santa Monica Mountains meet the definition of ESHA under the Coastal Act.

California Annual Grassland

The term "California annual grassland" has been proposed to recognize the fact that non-native annual grasses should now be considered naturalized and a permanent feature of the California landscape and should be acknowledged as providing important ecological functions. These habitats support large populations of small mammals and provide essential foraging habitat for many species of birds of prey. California annual grassland generally consists of dominant invasive annual grasses that are primarily of Mediterranean origin. The dominant species in this community include common wild oats (*Avena fatua*), slender oat (*Avena barbata*), red brome (*Bromus madritensis* ssp. *Rubens*), ripgut brome, (*Bromus diandrus*), and herbs such as black mustard (*Brassica nigra*), wild radish (*Raphanus sativus*) and sweet fennel (*Foeniculum vulgare*). Annual grasslands are located in patches throughout the Santa Monica Mountains in previously disturbed areas, cattle pastures, valley bottoms and along roadsides. While many of

⁷⁶ Sawyer, J. O. and T. Keeler-Wolf. 1995. A manual of California vegetation. California Native Plant Society, 1722 J St., Suite 17, Sacramento, CA 95814.

⁷⁷ 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.

⁷⁸ Noss, R.F., E.T. LaRoe III and J.M. Scott. 1995. Endangered ecosystems of the United States: a preliminary assessment of loss and degradation. Biological Report 28. National Biological Service, U.S. Dept. of Interior.

⁷⁹ NPS 2000. op. cit.

⁸⁰ NPS 2000. op. cit.

these patches are dominated by invasive non-native species, it would be premature to say that they are never sensitive or do not harbor valuable annual native species. A large number of native forbs also may be present in these habitats⁸¹, and many native wildflowers occur primarily in annual grasslands. In addition, annual grasslands are primary foraging areas for many sensitive raptor species in the area.

Inspection of California annual grasslands should be done prior to any impacts to determine if any rare native species are present or if any rare wildlife rely on the habitat and to determine if the site meets the Coastal Act ESHA criteria.

Effects of Human Activities and Development on Habitats within the Santa Monica Mountains

The natural habitats of the Santa Monica Mountains are highly threatened by current development pressure, fragmentation and impacts from the surrounding megalopolis. The developed portions of the Santa Monica Mountains represents the extension of this urbanization into natural areas. About 54% of the undeveloped Santa Monica Mountains are in private ownership⁸², and computer simulation studies of the development patterns over the next 25 years predict a serious increase in habitat fragmentation⁸³. Development and associated human activities have many well-documented deleterious effects on natural communities. These environmental impacts may be both direct and indirect and include the effects of increased fire frequency, of fire clearance, of introduction of exotic species, and of night lighting.

Increased Fire Frequency

Since 1925, all the major fires in the Santa Monica Mountains have been caused by human activities⁸⁴. Increased fire frequency alters plant communities by creating conditions that select for some species over others. Strong resprouting plant species such as laurel sumac, are favored while non-sprouters like bigpod ceanothus, are at a disadvantage. Frequent fire recurrence before the non-sprouters can develop and reestablish a seed bank is detrimental, so that with each fire their chances for propagation are further reduced. Resprouters can be sending up new shoots quickly, and so they are favored in an increased fire frequency regime. Also favored are weedy and invasive species. Dr. Steven Davis in his abstract for a Coastal Commission

⁸¹ Holstein, G. 2001. Pre-agricultural grassland in Central California. *Madrono* 48(4):253-264. Stromberg, M.R., P. Kephart and V. Yadon. 2001. Composition, invasibility and diversity of coastal California grasslands. *Madrono* 48(4):236-252.

⁸² National Park Service. 2000. Draft: General Management Plan & Environmental Impact Statement, Santa Monica Mountains National Recreation Area, US Dept. of Interior, National Park Service, December 2000.

⁸³ Swenson, J. J., and J. Franklin. 2000. The effects of future urban development on habitat fragmentation in the Santa Monica Mountains. *Landscape Ecol.* 15:713-730.

⁸⁴ NPS, 2000, op. cit.

Workshop stated⁸⁵ *"We have evidence that recent increases in fire frequency has eliminated drought-hardy non-sprouters from chaparral communities near Malibu, facilitating the invasion of exotic grasses and forbs that further exacerbate fire frequency."* Thus, simply increasing fire frequency from about once every 22 years (the historical frequency) to about once every 12 years (the current frequency) can completely change the vegetation community. This has cascading effects throughout the ecosystem.

Fuel Clearance

The removal of vegetation for fire protection in the Santa Monica Mountains is required by law in "Very High Fire Hazard Severity Zones"⁸⁶. Fuel removal is reinforced by insurance carriers⁸⁷. Generally, the Santa Monica Mountains are considered to be a high fire hazard severity zone. In such high fire hazard areas, homeowners must often resort to the California FAIR Plan to obtain insurance. Because of the high risk, all homes in "brush areas" are assessed an insurance surcharge if they have less than the recommended 200-foot fuel modification zone⁸⁸ around the home. The combination of insurance incentives and regulation assures that the 200-foot clearance zone will be applied universally⁸⁹. While it is not required that all of this zone be cleared of vegetation, the common practice is simply to disk this zone, essentially removing or highly modifying all native vegetation. For a new structure not adjacent to existing structures, this results in the removal or modification of a minimum of three acres of vegetation⁹⁰. While the directly impacted area is large, the effects of fuel modification extend beyond the 200-foot clearance area.

Effects of Fuel Clearance on Bird Communities

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

⁸⁵ Davis, Steven. Effects of fire and other factors on patterns of chaparral in the Santa Monica Mountains, Coastal Commission Workshop on the Significance of Native Habitats in the Santa Monica Mountains. CCC Hearing, June 13, 2002, Queen Mary Hotel.

⁸⁶ 1996 Los Angeles County Fire Code Section 1117.2.1

⁸⁷ Longcore, T and C. Rich. 2002. Protection of environmentally sensitive habitat areas in proposed local coastal plan for the Santa Monica Mountains. The Urban Wildlands Group, Inc., P.O. Box 24020 Los Angeles, CA 90024. Vicars, M. (ed.) 1999. FireSmart: protecting your community from wildfire. Partners in Protection, Edmonton, Alberta.

⁸⁸ Fuel Modification Plan Guidelines. Co. of Los Angeles Fire Department, Fuel Modification Unit, Prevention Bureau, Forestry Division, Brush Clearance Section, January 1998.

⁸⁹ Longcore, T and C. Rich. 2002. Protection of environmentally sensitive habitat areas in proposed local coastal plan for the Santa Monica Mountains. The Urban Wildlands Group, Inc., P.O. Box 24020 Los Angeles, CA 90024.

⁹⁰ Ibid.

(mourning dove, American crow, Western scrub-jay, Northern mockingbird)⁹¹. 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 chaparral⁹².

Effects of Fuel Clearance on Arthropod Communities

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 area⁹³. The Argentine ant competes with native harvester ants and carpenter ants displacing them from the habitat⁹⁴. 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 developments⁹⁵. 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 mutualisms⁹⁶. 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

⁹¹ 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.

⁹² 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.

⁹³ 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.

⁹⁴ 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.

⁹⁵ 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.

⁹⁶ 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.

predator species are seen and more exotic arthropod species are present than in undisturbed habitats⁹⁷.

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.⁹⁸ In South Africa the Argentine ant displaces native ants 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 seeds⁹⁹.

Artificial Night Lighting

One of the more recently recognized human impacts on ecosystem function is that of artificial night lighting as it effects the behavior and function of many different types of organisms¹⁰⁰. For literally billions of years the only nighttime sources of light were the moon and stars, and living things have adapted to this previously immutable standard and often depend upon it for their survival. A review of lighting impacts suggests that whereas some species are unaffected by artificial night lighting, many others are severely impacted. Overall, most impacts are negative ones or ones whose outcome is unknown. Research to date has found negative impacts to plants, aquatic and terrestrial invertebrates, amphibians, fish, birds and mammals, and a detailed literature review can be found in the report by Longcore and Rich¹⁰¹.

Summary

In a past action, the Coastal Commission found¹⁰² that the Santa Monica Mountains Mediterranean Ecosystem, which includes the undeveloped native habitats of the Santa Monica Mountains, is rare and especially valuable because of its relatively pristine

⁹⁷ Longcore, T.R. 1999. Terrestrial arthropods as indicators of restoration success in coastal sage scrub. Ph.D. Dissertation, University of California, Los Angeles.

⁹⁸ Christian, C. 2001. Consequences of a biological invasion reveal the importance of mutualism for plant communities. *Nature* 413:635-639.

⁹⁹ 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.

¹⁰⁰ Longcore, T and C. Rich. 2002. Protection of environmentally sensitive habitat areas in proposed local coastal plan for the Santa Monica Mountains. The Urban Wildlands Group, Inc., P.O. Box 24020 Los Angeles, CA 90024.

¹⁰¹ Ibid, and Ecological Consequences of Artificial Night Lighting, Conference, February 23-24, 2002, UCLA Los Angeles, California.

¹⁰² Revised Findings for the City of Malibu Local Coastal Program (as adopted on September 13, 2002) adopted on February 6, 2003.

character, physical complexity, and resultant biological diversity. The undeveloped native habitats within the Santa Monica Mountains that are discussed above are ESHA because of their valuable roles in that ecosystem, including providing a critical mosaic of habitats required by many species of birds, mammals and other groups of wildlife, providing the opportunity for unrestricted wildlife movement among habitats, supporting populations of rare species, and preventing the erosion of steep slopes and thereby protecting riparian corridors, streams and, ultimately, shallow marine waters.

The importance the native habitats in the Santa Monica Mountains was emphasized nearly 20 years ago by the California Department of Fish and Game¹⁰³. Commenting on a Draft Land Use Plan for the City of Malibu, the Regional Manager wrote that, "It is essential that large areas of land be reclassified to reflect their true status as ESHAs. One of the major needs of the Malibu LUP is that it should provide protection for entire drainages and not just stream bottoms." These conclusions were supported by the following observations:

"It is a fact that many of the wildlife species of the Santa Monica Mountains, such as mountain lion, deer, and raccoon, have established access routes through the mountains. They often travel to and from riparian zones and development such as high density residential may adversely affect a wildlife corridor.

Most animal species that exist in riparian areas will, as part of their life histories, also be found in other habitat types, including chaparral (sic) or grassland. For example, hawks nest and roost in riparian areas, but are dependent on large open areas for foraging. For the survival of many species, particularly those high on the food chain, survival will depend upon the presence of such areas. Such areas in the Santa Monica Mountains include grassland and coastal sage scrub communities, which have been documented in the SEA studies as supporting a wide diversity of plant and animal life."

This analysis by the Department of Fish and Game is consonant with the findings of the Commission in the case of the Malibu LCP, and with the conclusion that large contiguous areas of relatively pristine native habitat in the Santa Monica Mountains meet the definition of ESHA under the Coastal Act.

¹⁰³ Letter from F. A. Worthley, Jr. (CDFG) to N. Lucast (CCC) re Land Use Plan for Malibu dated March 22, 1983.

WE WHITSON ENGINEERS

4051 Glencoe Avenue • Unit 12 • Marina Del Rey, CA 90292
310 306-6549 • Fax 310 306-6550

March 17, 2005

Mr. James Johnson
California Coastal Commission
89 South California Street, Suite 200
Ventura, CA 93001

RECEIVED

MAR 21 2005

CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

**Re: Response to Letter from California Coastal Commission
Coastal Permit Application #4-04-099, Malibu Ocean Ranches**

Dear Mr. Johnson,

This letter is in response to your letter dated March 10, 2005 and addressed to Thomas Rainey at Schmitz and Associates. More particularly in regards to your request for the amount of disturbed area and grading that has already occurred on the Corral Canyon site.

Whitson Engineers analyzed the site after the Coastal Commission's January 20, 2005 site visit to estimate your requested amounts of grading and disturbed area. After speaking with the geotechnical testing company and walking the site it is determined that the amount of grading and disturbed area that has already occurred is approximately 12.2 cy and 5100 sf, respectively.

It should be noted that no grading has been performed in the traditional sense of site grading for a single family residence. What occurred on site was that the geologists drilled three boring holes using a geotechnical drilling rig. The 12.2 cy of grading mentioned above is the 12.2 cy of earth removed from the boring holes. Once a geological assessment was performed, the 12.2 cy of earth was replaced back in the boring holes. The holes drilled were two feet in diameter and ranged from 25' to 45' in depth.

As for the disturbed area, it has been determined that the 5100 sf of already disturbed area was created by the drilling rig getting from Corral Canyon Road to the proposed site. Although there is some minor site disturbance along the path of the drilling rig, it should not be considered grading since it was created by the wheels/tracks of the drilling rig. In addition, the already disturbed area is within the road easement that will eventually be disturbed once the road is constructed.

The values below have been updated from the original table shown on the Civil Engineering Title Sheet (C0.1).

Total Estimated Disturbed Area	= 63,130 sf
Estimated Amount of Already Disturbed Area	= 5,100 sf
Remaining Estimated Disturbed Area	= 58,030 sf

Page 1 of 2

CIVIL ENGINEERING • LAND SURVEYING • PROJECT MANAGEMENT

EXHIBIT 20
APPLICATION No. 4-04-026, 099
DISTURBED AREA AND
GRADING

WE WHITSON ENGINEERS

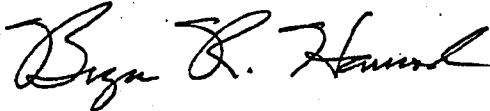
4051 Glencoe Avenue • Unit 12 • Marina Del Rey, CA 90292
310 306-6549 • Fax 310 306-6550

The estimated 12.2 cy of grading for the boring holes was not included in the original earthwork estimate and therefore can be added to the original earthwork values shown on the Civil Engineering Title Sheet (C0.1). The updated values are approximately:

Total Cut	=	11,552 cy	
Total Fill	=	920 cy	(Assumes shrinkage factor)

If you need any additional information please contact me at (310) 306-6549.

Sincerely,



Bryan R. Hancock, P.E.
Registered Civil Engineer #64557

page 2 of 2

PARCEL 1
STONE HEIGHTS, LLC
(11.5 ac.± Post-LLA)

PARCEL 2
MALIBU OCEAN
RANCHES, LLC
(19.0 ac.± Post-LLA)

PROPOSED
GARNET
RESIDENCE

PROPOSED
HOUSE 2

PROPOSED
HOUSE 3

OPEN SPACE

N00°00'43"W
1316.12'

1025.30'

PARCEL 3
CREEKSIDE RANCH, LLC
(11.0 ac.± Post-LLA)

OPEN

SPACE

300.75'

EXHIBIT 21
APPLICATION No. 4-04-026, 099
OPEN SPACE DEED
RESTRICTION AREA

Exhibit 22
Application No. 4-04-026, 099
2001 Aerial Photograph of
Project Site



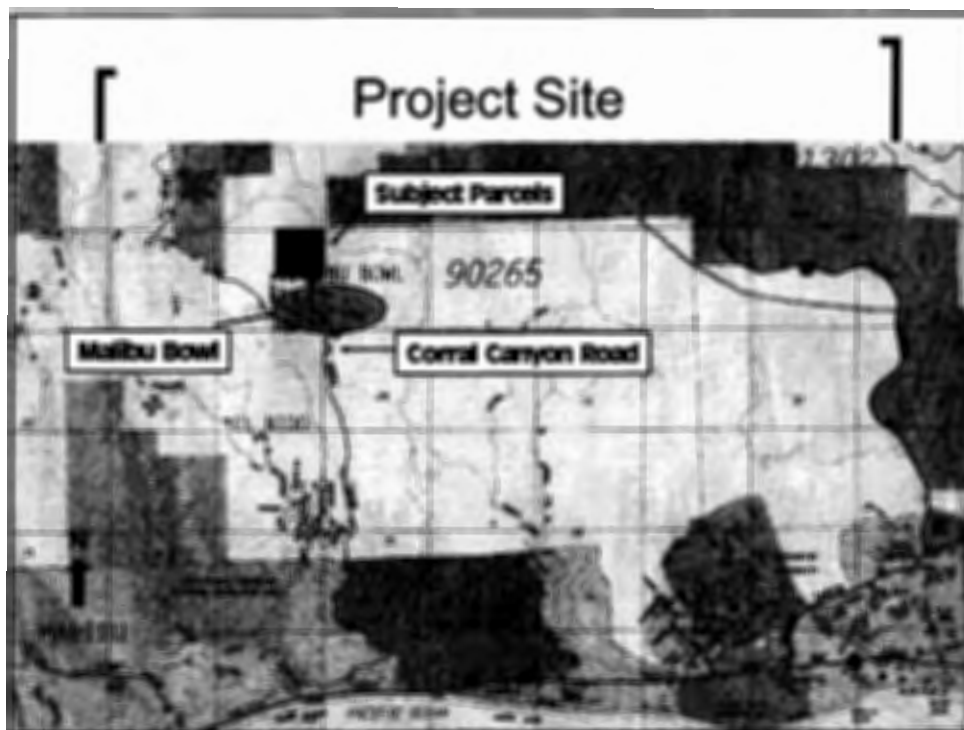
[Application No. 4-04-026 (Lot Line Adjustment)
Application No. 4-04-099 (Single-Family Residence)]

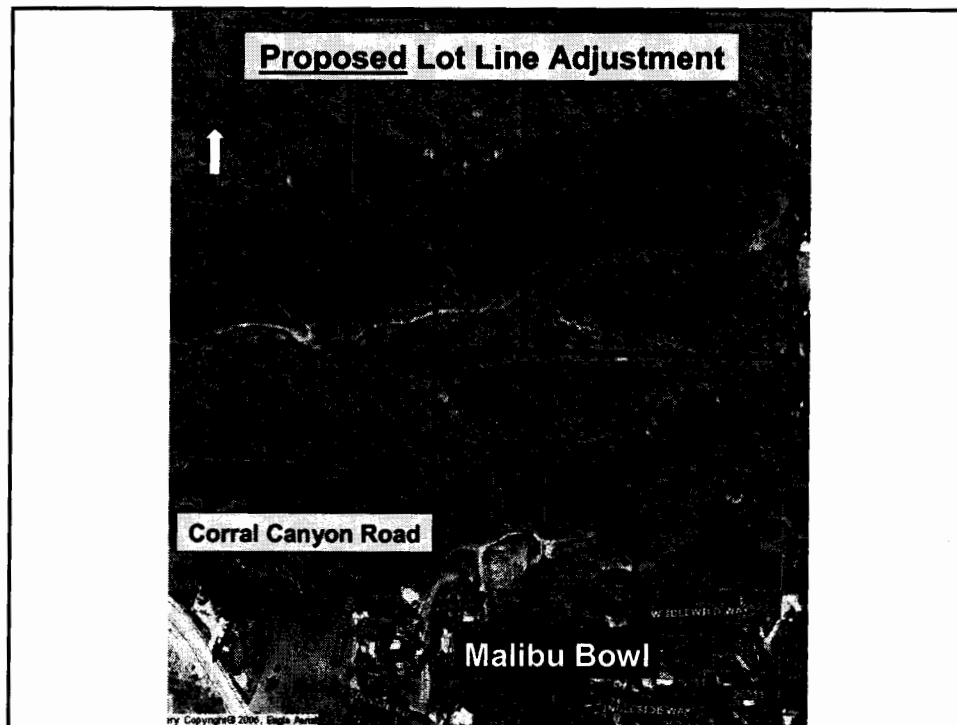
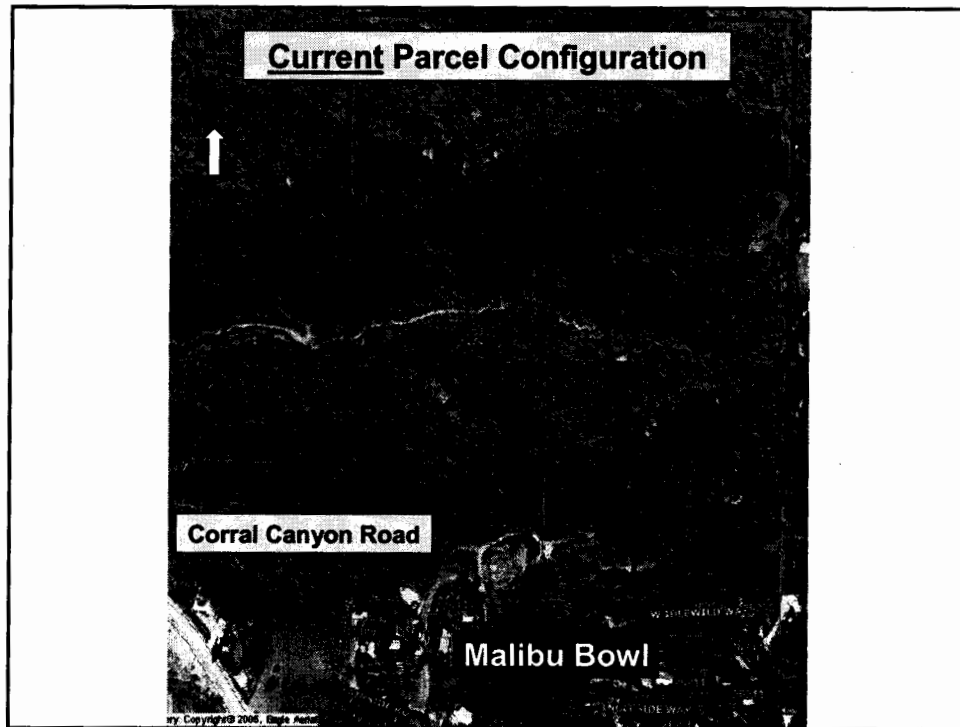
Item No: W 17 b & d (Wednesday, July 13, 2005)

Applicant: Malibu Ocean Ranches, LLC; Stoney Heights, LLC; Creekside Ranch, LLC

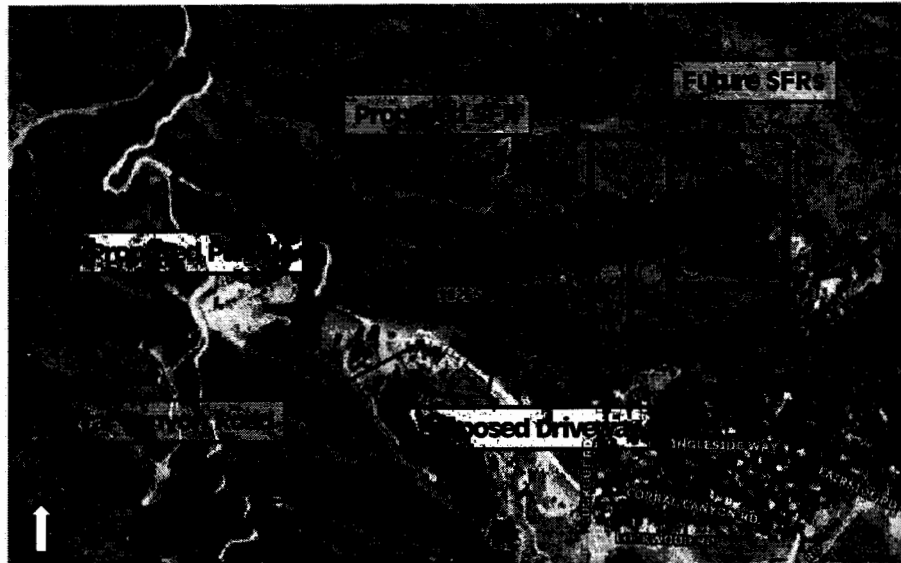
Agent: Schmitz & Associates, Inc.

Project Location: Malibu, Unincorporated LA County

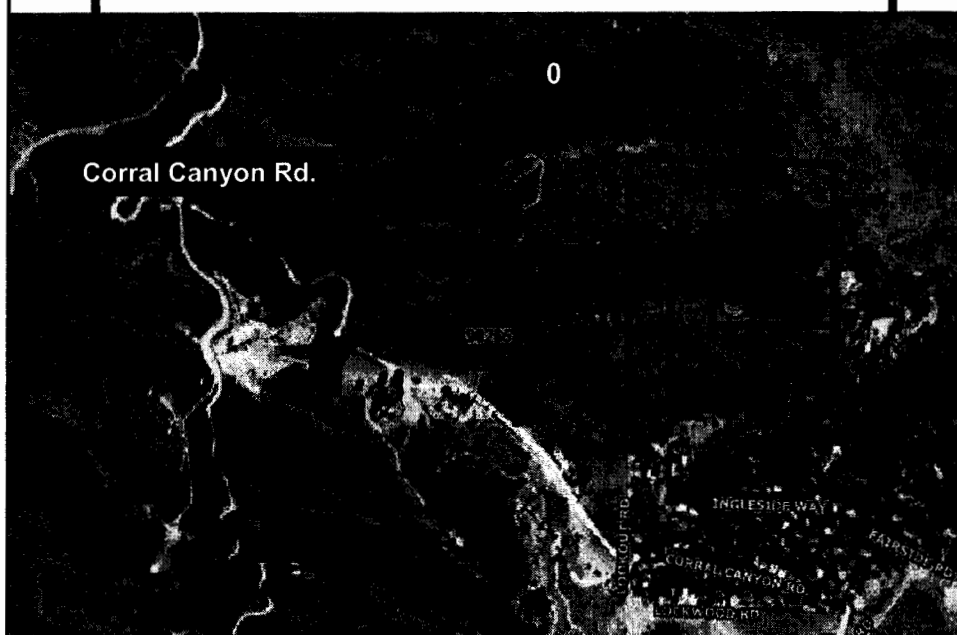




Aerial View

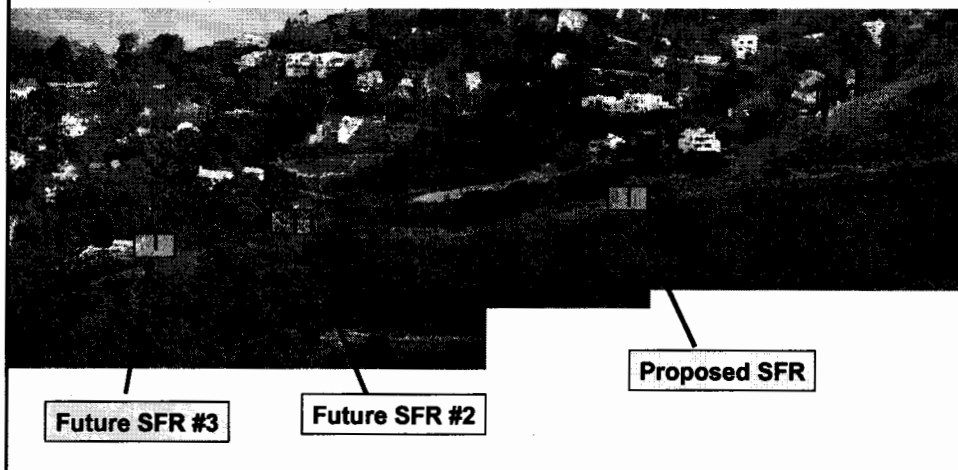


View South from Corral Canyon Rd. (off map)

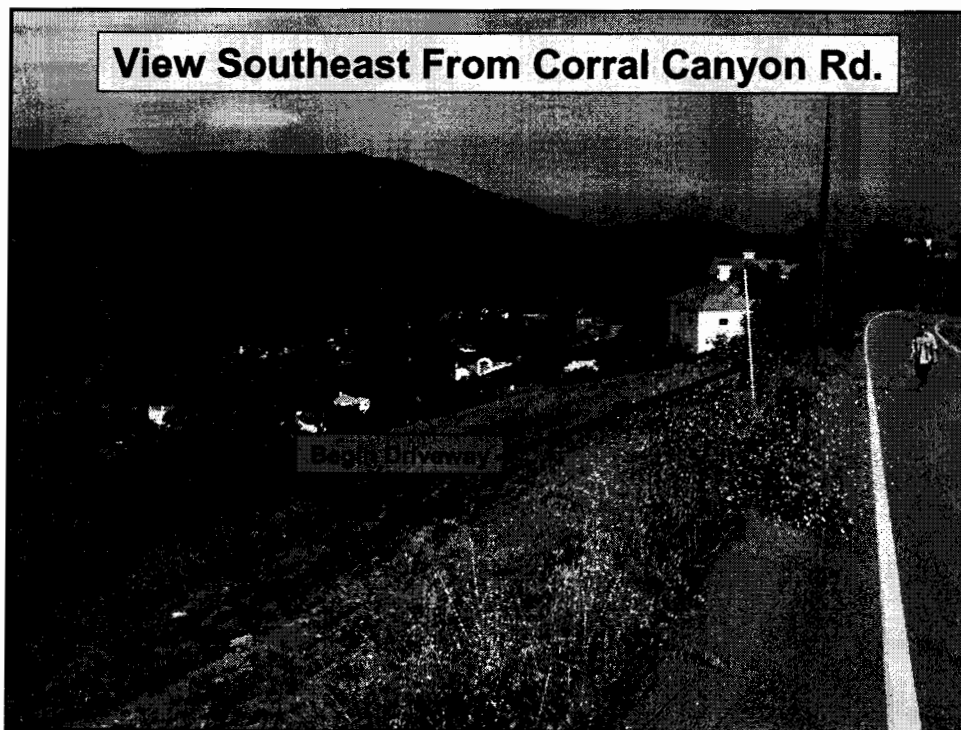


View South from Corral Canyon Rd. (Zoomed In)

Staff Report: 1) SFR sites will be located well below the two significant ridgelines in the area; 2) the SFR locations will not be readily visible from public roadways to the south, north, or east due to substantial intervening distance and topography (p. 21)



View Southeast From Corral Canyon Rd.







Proposed Driveway

Staff Report:

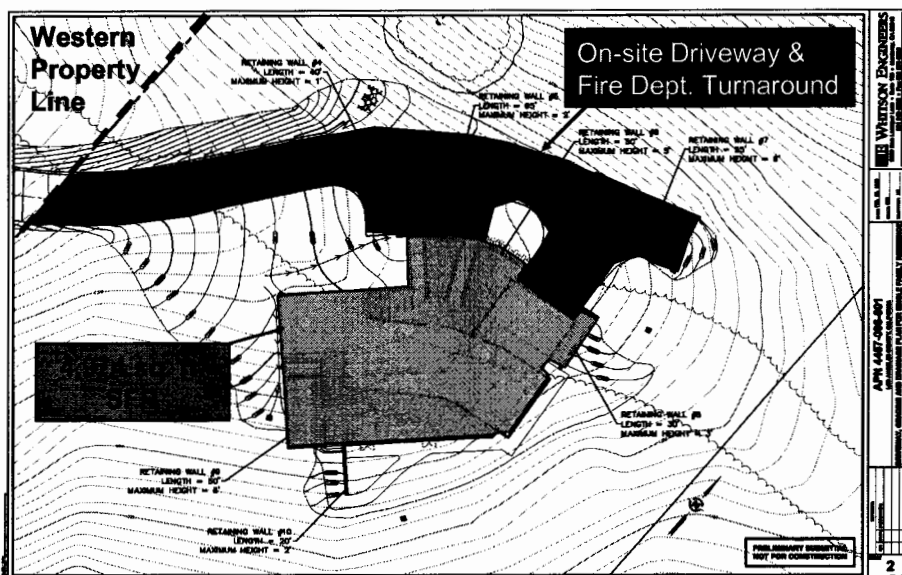
- ✓ "The location of the residence is sited in a manner to allow for the clustering of development and use of a single common driveway for all three reconfigured parcels..." (p. 19)
- ✓ "A significant portion of the 1,352 ft. long driveway crosses an adjoining parcel west of the building site and is the minimum length necessary..." (p. 21)

Proposed SFR Existing 40-Acre Lot

Staff Report:

- ✓ "The proposed building pad ... is located on the flattest portion of the ... parcel." (p. 21)
- ✓ "... oak and riparian vegetation is located along a blue line stream ... well beyond the direct impact area for the proposed project." (p. 29)

Proposed SFR & Short On-site Driveway



Proposed SFR Existing 40-Acre Lot

Staff Report:

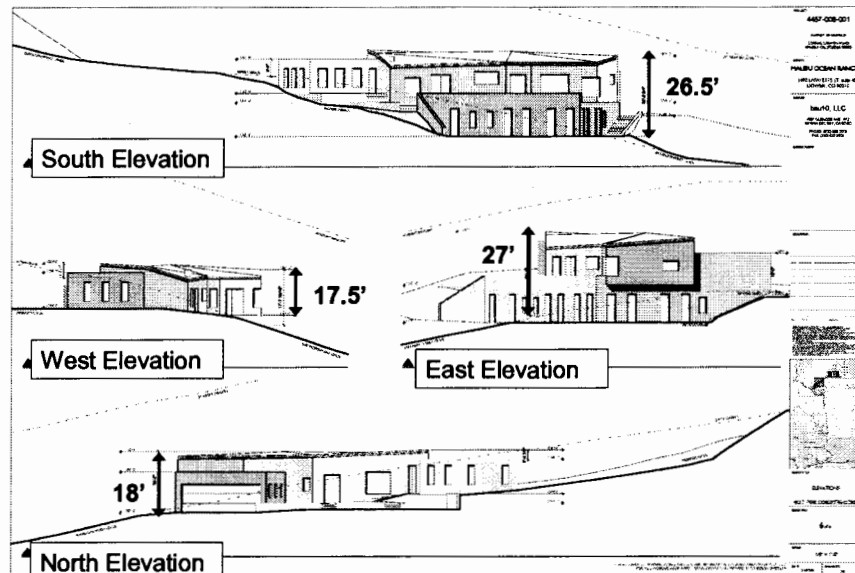
In the past, the CCC has limited the area of residential development in ESHA to a maximum of 10,000 sq ft. in order to cluster development and minimize adverse impacts from fuel modification.

- ✓ "The applicant proposes a building pad ... consistent with past Commission action." (p. 29)

Architectural & Site Design

- ✓ Proposed SFR stepped into hillside over 200 ft. in elevation below Corral Canyon Rd.
- ✓ SFR design reduces visual impacts from Corral Canyon Rd. and public trails

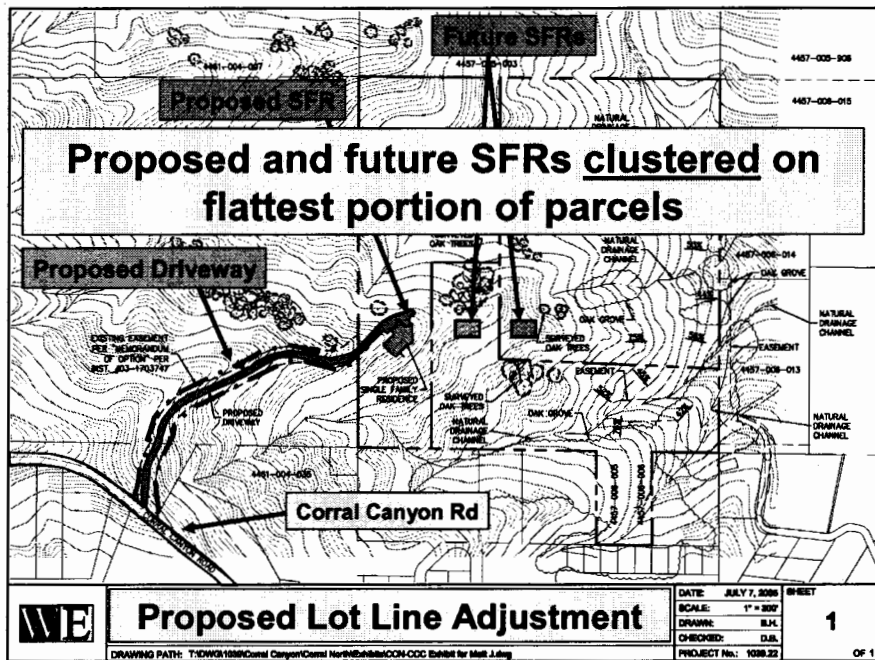
Elevations – Proposed SFR

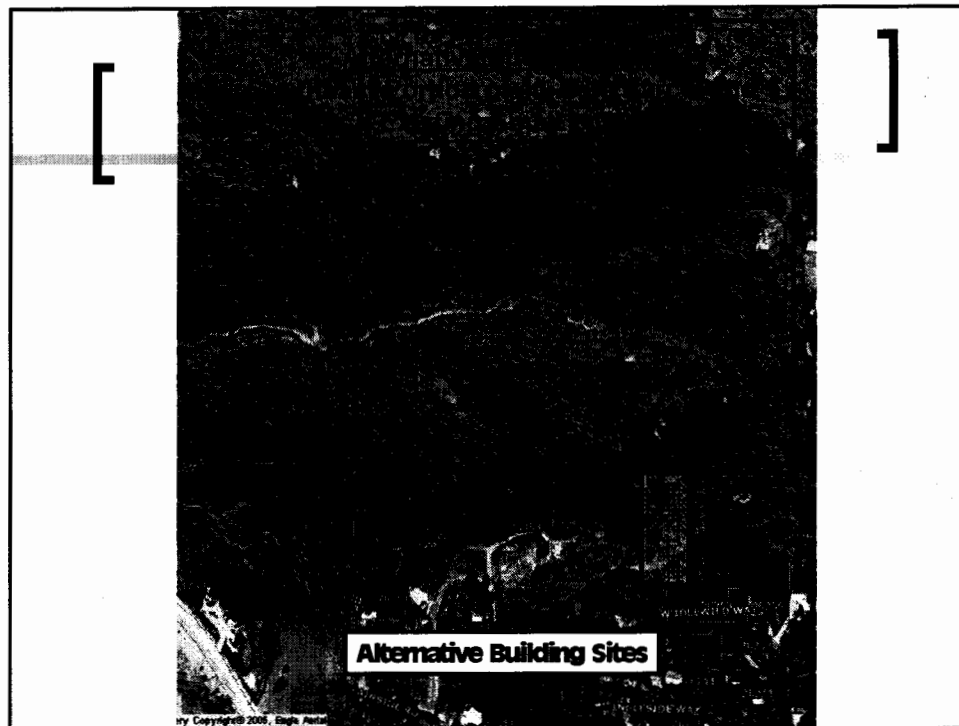


Architectural & Site Design

Staff Report:

"As a result of the design... the alteration of natural landforms and its view from public locations will be minimized." (p. 15)



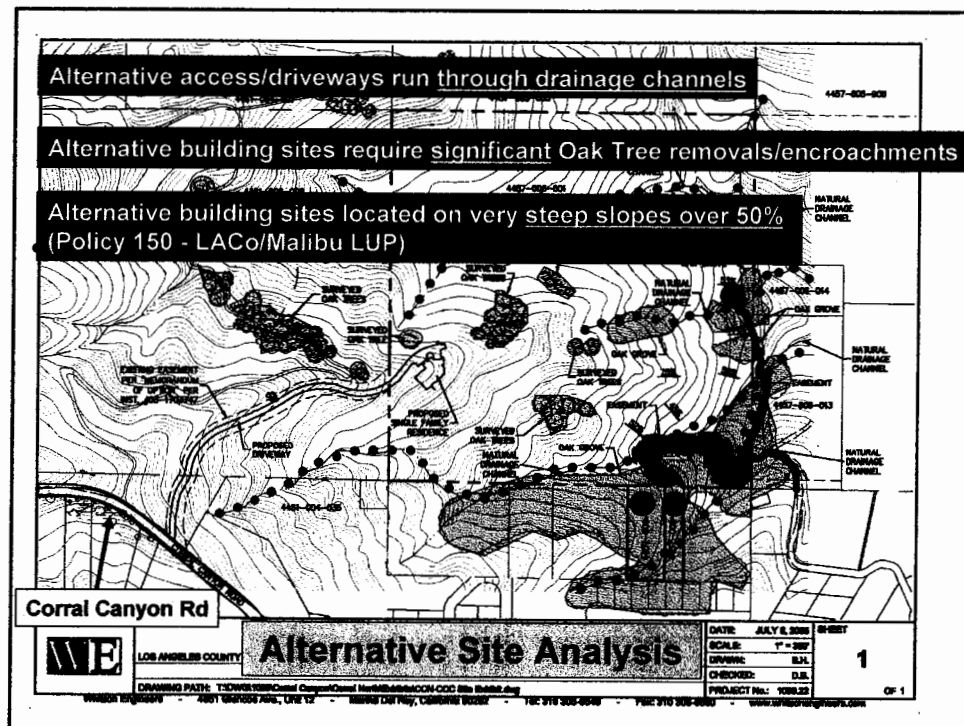
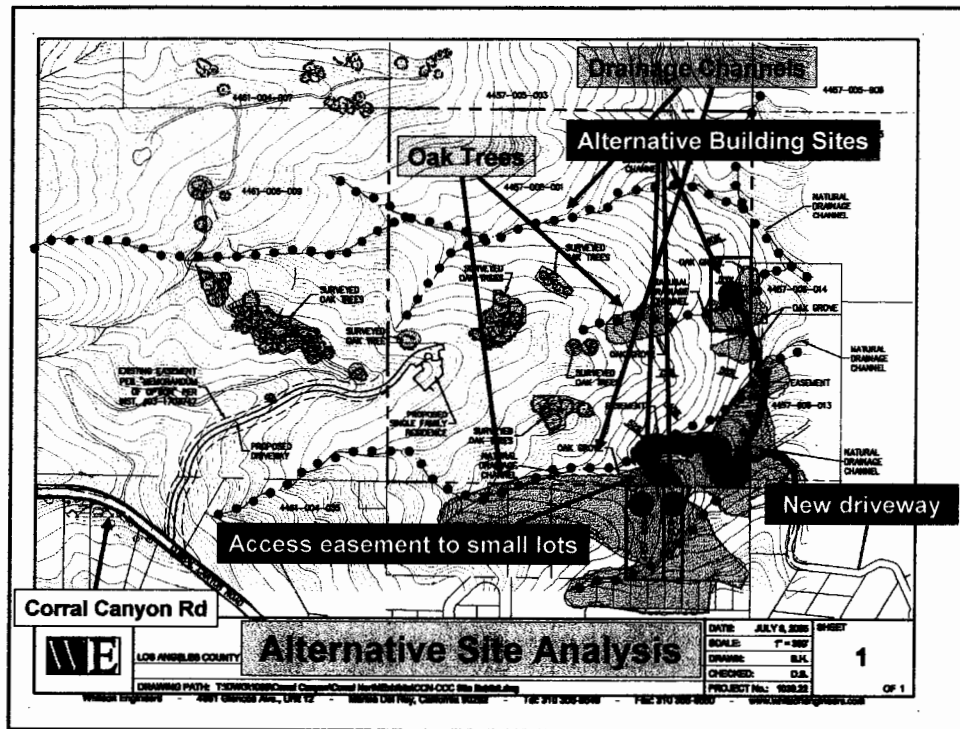


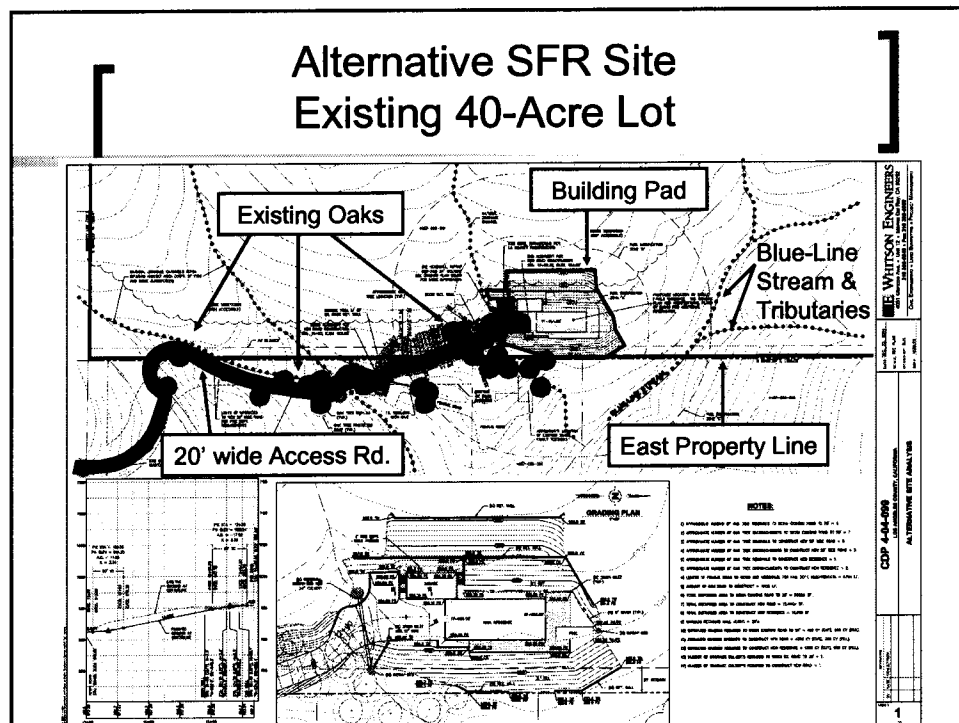
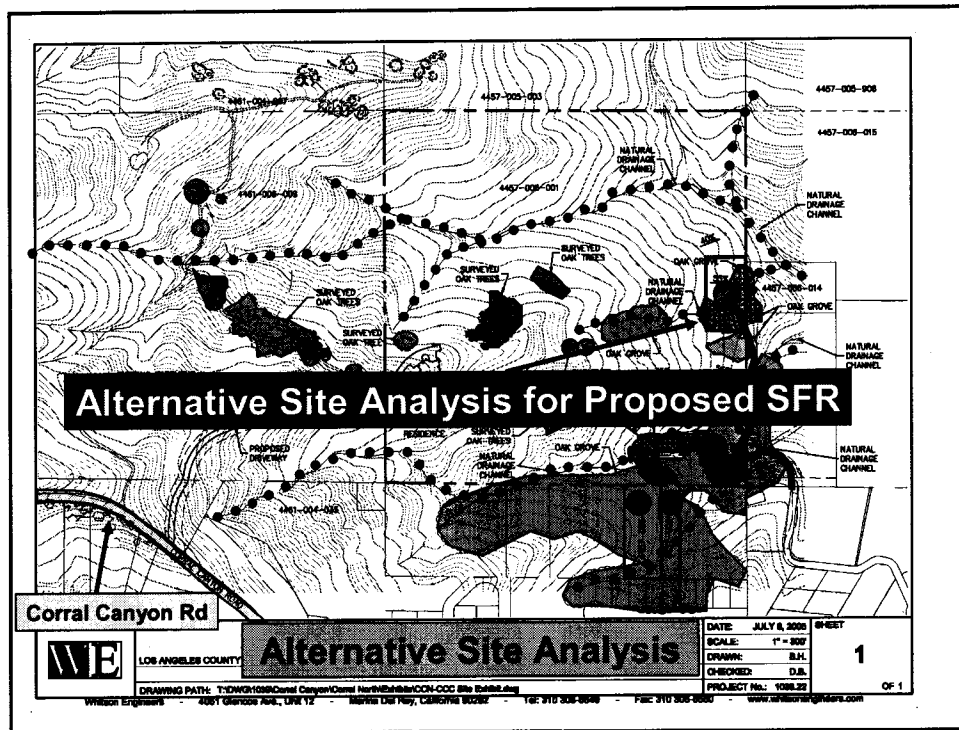
Alternative Site Analysis

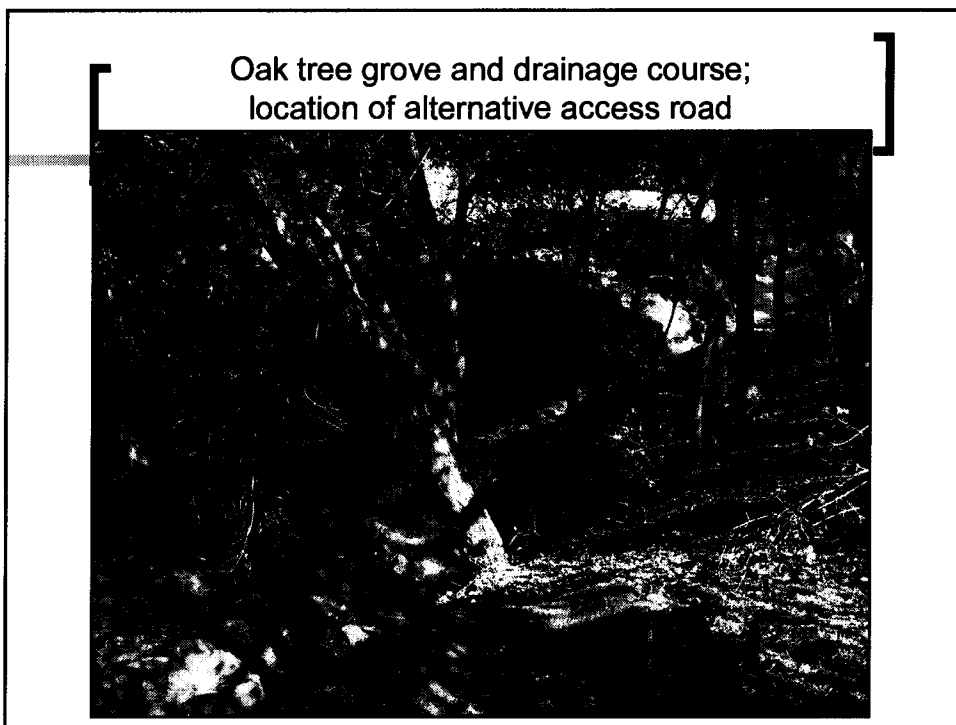
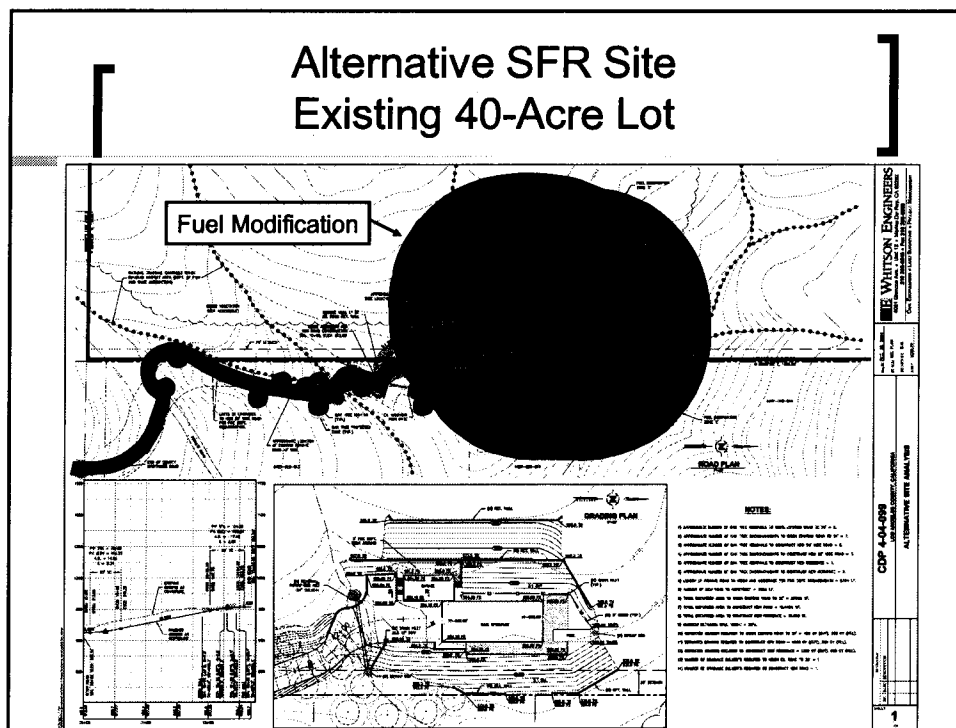
Staff Report (p. 22):

Alternative SFR sites would involve:

- ✓ "...steeply sloping terrain with gradients as much as 67%."
- ✓ "...significantly more grading and landform alteration than currently proposed."
- ✓ "...construction of several new retaining walls on the steep slopes."
- ✓ "...removal of numerous oak trees and encroachment into the driplines of several other oak trees."



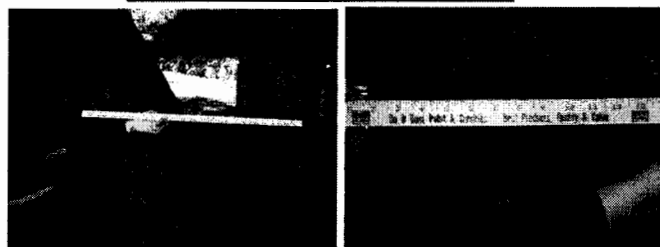




Oak tree grove and drainage course;
location of alternative access road



Large oak trees;
location of alternative access road



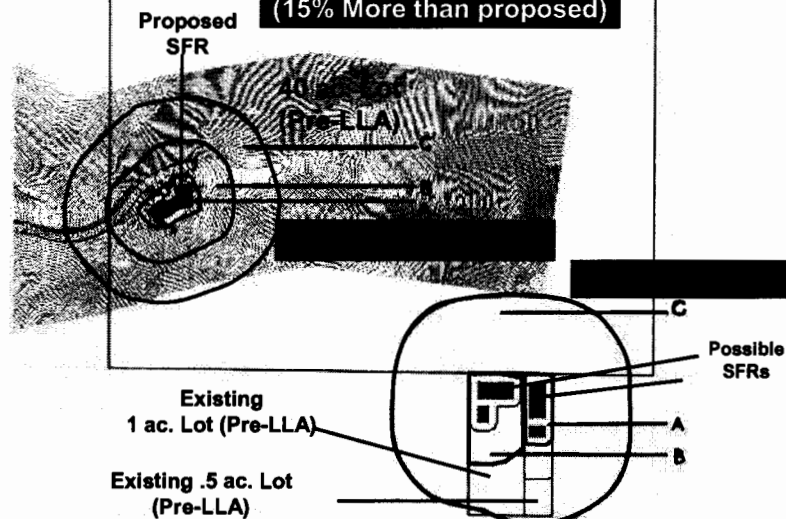
Proposed vs. Alternative Sites

Staff Report (p. 22):

"... the Commission notes that any development on the three subject parcels in their currently existing configurations would result in greater adverse impacts to sensitive habitat resources (including the unavoidable loss of several oak trees) and require significantly more grading for landform alteration than development of the subject parcels as proposed to be redivided and reconfigured."

Fuel Modification (Pre - Lot Line Adjustment)

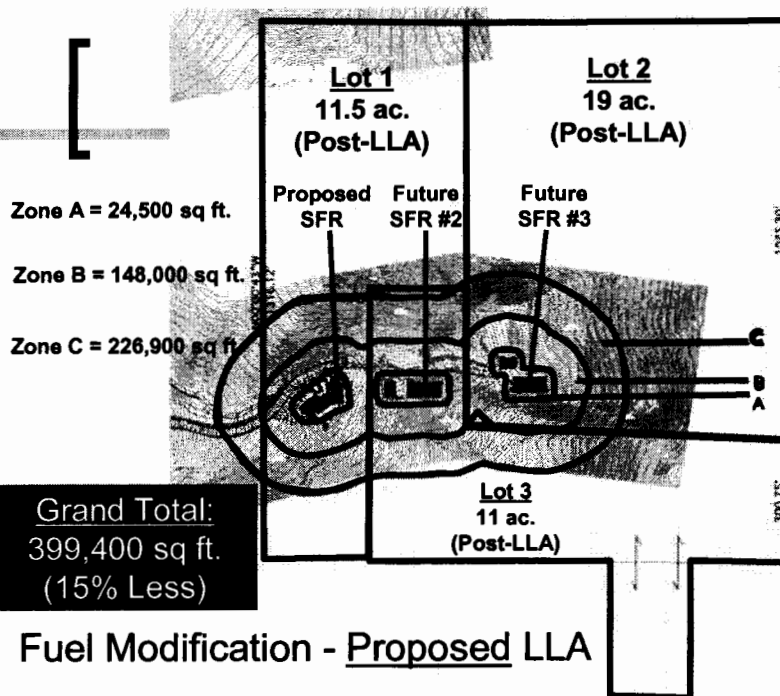
**Grand Total: 427,100 sq ft
(15% More than proposed)**

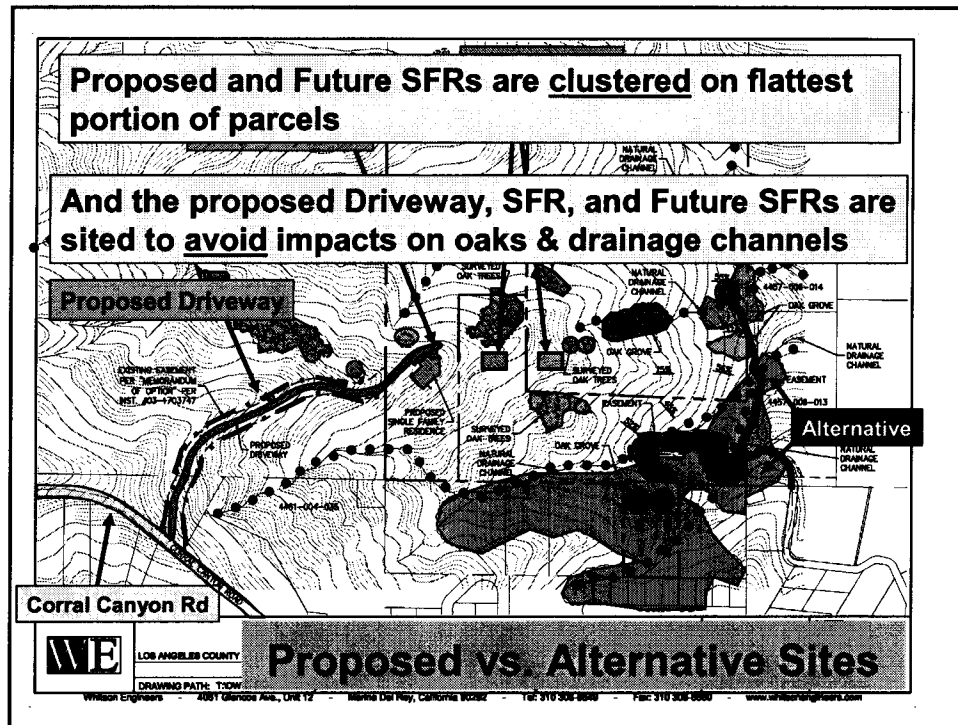


Proposed vs. Alternative Sites

Staff Report (p. 22):

"The proposed reconfiguration of the subject parcels will allow for clustering of the development with overlapping fuel modification zones, will not require the removal of any oak trees or encroachment into the driplines of any oak trees, and will allow for the use of a single access for all three parcels."





Conclusion

- ✓ There are no feasible project alternatives
- ✓ The projects are sited and designed to:
 - 1) minimize adverse effects to ESHA, oak trees, and streams
 - 2) minimize adverse effects to public views
 - 3) minimize landform alteration
- ✓ The projects are consistent with Ch. 3 policies of the Coastal Act
- ✓ Applicants agree to 17 special conditions of approval

CDP 4-04-026 (Lot Line Adjustment)
CDP 4-04-099 (Single-Family Residence)

We respectfully request approval,
as recommended by CCC Staff.

Thank You.