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

W 7b

ADDENDUM

DATE: January 7, 2008

TO: Commissioners and Interested Parties

FROM: South Central Coast District Staff

SUBJECT: Agenda Item W 7b, Wednesday, January 9, 2008, Coastal Development Permit Applications 4-05-162 (Pas Project LLC)

The purpose of this addendum is to modify two special conditions and an exhibit to the December 21, 2007 staff report. *Note: ~~Strikethrough~~ indicates text deleted from the December 21, 2007 staff report pursuant to this addendum and underline indicates text added to the December 21, 2007 staff report pursuant to this addendum.*

1. Special Condition Eleven (11) on Page 10 of the December 21, 2007 staff report shall be revised as follows to clarify the permitted uses allowed in the open space area include the proposed restoration and any future restoration of native habitats if approved by the Commission:

11. Open Space Conservation Easement

A. No development, as defined in Section 30106 of the Coastal Act, grazing, or agricultural activities shall occur outside of the approved development area, within the portion of the property identified as the "open space conservation easement area", as shown in **Exhibit 3** except for:

1. Fuel modification required by the Los Angeles County Fire Department undertaken in accordance with the final approved fuel modification plan approved pursuant to Special Condition Three (3), paragraph A.2, or other fuel modification plans required and approved by the Commission pursuant to a different CDP(s) issued by the Commission;

2. Drainage and polluted runoff control activities required and approved pursuant to
   a. The Landscaping and Erosion Control Plans approved pursuant to Special Condition Three (3) of this permit; and
   b. The drainage and runoff control plans approved pursuant to Special Condition Two (2) of this permit,

3. If approved by the Commission as an amendment to this coastal development permit or a new coastal development permit:
   a. Construction and maintenance of public hiking trails; and

b. Construction and maintenance of roads, trails, and utilities consistent with existing easements.

4. Maintenance of the existing gravel road and trails across the property.

5. Restoration of disturbed areas to native habitats pursuant to this permit, any approved future amendment to this coastal development permit, or a new coastal development permit.

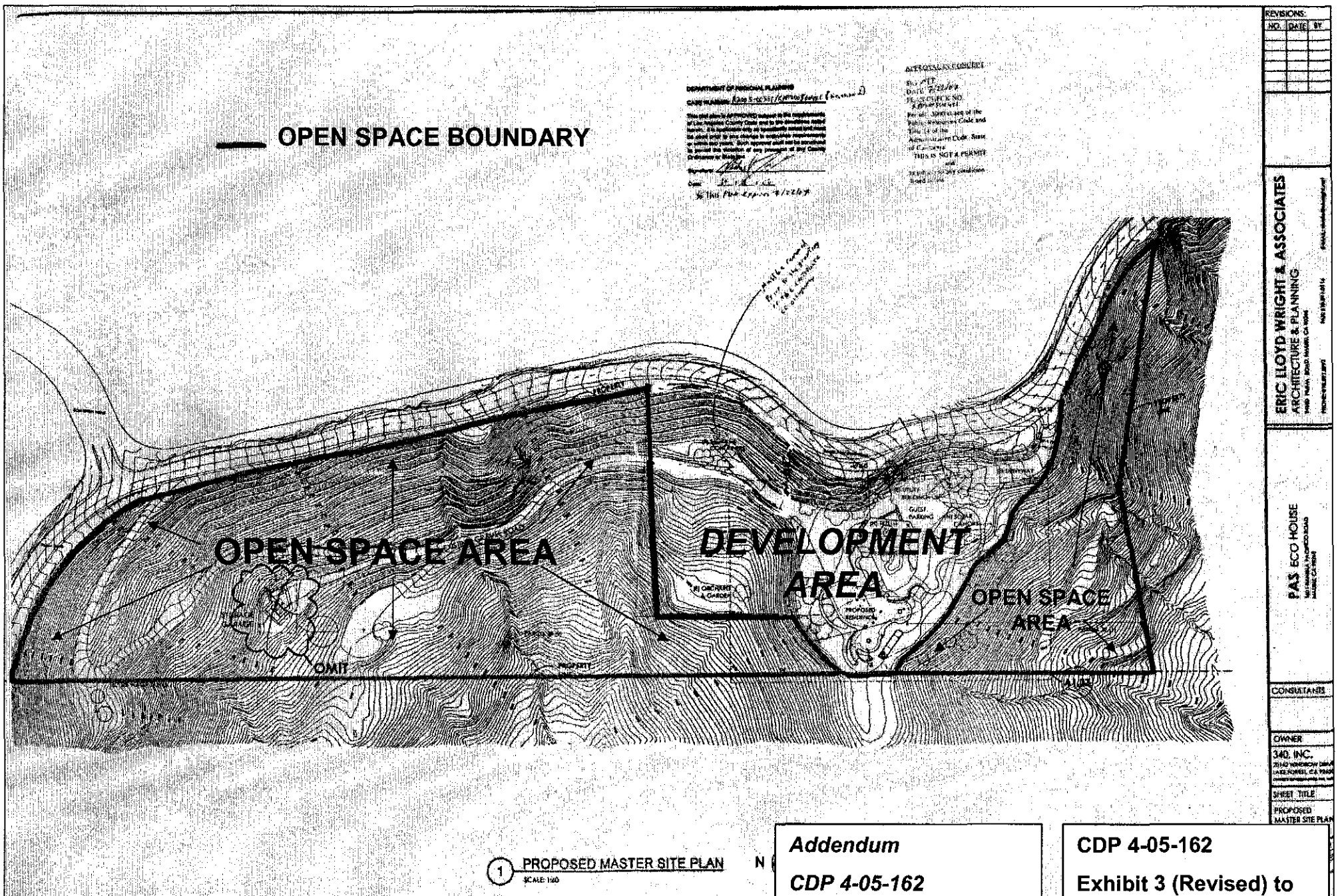
B. ***Prior to issuance of the Coastal Development Permit***, the applicant shall execute and record a document in a form and content acceptable to the Executive Director, granting to the Mountains Recreation and Conservation Authority ("MRCA") on behalf of the people of the State of California an open space conservation easement over the "open space conservation easement area" described above, for the purpose of habitat protection. The recorded easement document shall include a formal legal description of the entire property; and a metes and bounds legal description and graphic depiction, prepared by a licensed surveyor, of the open space conservation easement area, as generally shown on **Exhibit 3.** The recorded document shall reflect that no development shall occur within the open space conservation easement area except as otherwise set forth in this permit condition. The grant of easement shall be recorded free of prior liens and encumbrances (other than existing easements for roads, trails, and utilities) that the Executive Director determines may affect the interest being conveyed, and shall run with the land in favor of the MRCA on behalf of the people of the State of California, binding all successors and assigns.

2. Exhibit 3 of the December 21, 2007 staff report shall be revised to exclude 50 additional feet of an existing orchard from the "open space conservation easement area" as shown in the attached Exhibit A to this addendum.

3. Subsection A of Special Condition Thirteen (13) on Page 11 of the December 21, 2007 staff report shall be revised as follows to permit the applicant additional time to obtain a new assessor's parcel number for the property:

13. Lot Description

A. ***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 submitted a request to the Los Angeles County Assessor's Office to acquire a single new assessor's parcel number that will apply to the entire subject property as described in **Exhibit 6**.. Prior to issuance of the certificate of occupancy for the residence, the applicant shall submit to the Executive Director for review and approval ~~The submitted documentation shall include~~ a notice from the Assessor's office that confirms that the request noted above has been received and that provides the new assessor's parcel number for the property.



Addendum

CDP 4-05-162

Exhibit A

Open Space Area

CDP 4-05-162

Exhibit 3 (Revised) to December 21, 2007 Staff Report

Open Space Area

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

W 7b

Filed:	5/21/07
180th Day:	11/17/07
Staff:	Melissa Hetrick
Staff Report:	12/21/07
Hearing Date:	1/09/07

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 4-05-162

APPLICANT: PAS Project, LLC

AGENT: Kevin Parkhurst

PROJECT LOCATION: 1601 Rambla Pacifico, Malibu (Los Angeles County; Assessor's Parcel Number 4453-025-003)

PROJECT DESCRIPTION: The applicant proposes to construct a 3,573 sq. ft., 22 foot high, single family residence and attached 1,404 sq. ft. workshop, 734 sq. ft. garage, 165 sq. ft. greenhouse; carport, decks, 30' high viewing tower, pool, spa, water tanks; septic system; driveway; temporary construction trailer; and 492 cu. yds of grading (263 cu. yds cut and 229 cu. yds. fill). The project also includes removal of driveways, walls, and slabs from previous residence and removal of non-native invasive vegetation and revegetation of disturbed areas onsite with native plant species.

LOCAL APPROVALS RECEIVED: County of Los Angeles Fire Department Preliminary Fuel Modification Plan Approval; County of Los Angeles Regional Planning Approval in Concept; Los Angeles County Department of Health Services approval of septic system; County of Los Angeles Fire Department approval of driveway, access road, and turnaround; Los Angeles County Geotechnical and Materials Engineering Division Geologic and Soils Engineering Review Sheets recommendations for approval.

SUBSTANTIVE FILE DOCUMENTS: "The Rambla Pacifico at Malibu Oak Tree Report" and "Rambla at Malibu Site Biological Study" prepared by Impact Sciences, Inc, February 2006; "Percolation Memo, 1601 Rambla Pacifico" prepared by Lawrence Young, March 6, 2006; "Preliminary Geologic and Soils Engineering Investigation", prepared by SubSurface Designs Inc. on May 25, 2004; "Additional Site Exploration and Updated Recommendations" prepared by SubSurface Designs Inc. on October 7, 2005; Addendum I, II and III, Responses to County of Los Angeles Review Sheets prepared by SubSurface Designs Inc. on August 21, 2006, December 18, 2006, and February 14, Los Angeles County Certificate of Compliance 96-0195 recorded October 17, 2006 as Document 96-1686794; Los Angeles County Certificate of Compliance 96-0196 recorded October 17, 1996 as Document 96-1686795; Los Angeles County Rescission

of Certificate of Compliances 96-0195 and 96-0196 recorded June 3, 2005 as Document 05-1302750; Los Angeles County Rescission of Certificate of Compliances 96-0195 and 96-0196 recorded June 30, 2005 as Document 05-1548939; Los Angeles County Certificate of Compliance 96-0195A recorded June 17, 2005 as Document 05-1428606; Quitclaim Deed for ownership of Pas Project LLC of parcel with APN 4453-003-037 and 4453-003-038 executed December 29, 2006; .

SUMMARY OF STAFF RECOMMENDATION

Staff recommends **APPROVAL** of the proposed project with **Fourteen (14) SPECIAL CONDITIONS** regarding 1) plans conforming to geologic recommendation, 2) drainage and polluted runoff control plans, 3) landscaping and erosion control, 4) assumption of risk, 5) structural appearance, 6) lighting, 7) removal of excess excavated material, 8) removal of natural vegetation, 9) future development restriction, 10) deed restriction, 11) open space conservation easement, 12) pool and spa drainage and maintenance, 13) lot description and 14) agricultural operation and delineation plan.

The project site is a single 13.55-acre lot (APN 4453-003-037 and 038) located along the west side of Rambla Pacifico Road in the Santa Monica Mountains in Los Angeles County. Prior to 1977, the property was developed with an extensive single family residential estate that subsequently burned down in 1993. The property is characterized by chaparral and oak woodland environmentally sensitive habitat area, with the exception of an existing 50,000 sq. ft. main building pad, gravel road, 32,000 sq. ft. orchard, and a 3,600 sq. ft. secondary building pad on the site. These existing developed areas are not considered environmentally sensitive habitat areas (ESHA).

The applicant proposes to construct a 3,573 sq. ft., 22 foot high, single family residence and attached 1,404 sq. ft. workshop, 734 sq. ft. garage, and 165 sq. ft. greenhouse; carport; decks; 30’ high, 374 sq. ft. hexagonal viewing tower; pool; spa; two water tanks; septic system; driveway; temporary construction trailer; and 492 cu. yds of grading (263 cu. yds cut and 229 cu. yds. fill). The project also includes removal of driveways, walls, and slabs from a previous residence on the lot; removal of non-native invasive vegetation; and planting of native vegetation in disturbed areas onsite. All new development, including fuel modification, would be located on existing disturbed areas on the property not considered ESHA. The applicant is also planning on retaining 15,000 sq. ft. of an existing 32,000 sq. ft. orchard adjacent to the house that is not considered ESHA. Finally, the applicant is proposing an open space conversation easement on the remaining undeveloped portions of the property in order to preserve and enhance the native chaparral and oak woodland habitat on the site.

The standard of review for the proposed permit application is the Chapter Three policies of the Coastal Act. As conditioned, the proposed project is consistent with all applicable Chapter Three policies of the Coastal Act.

STAFF RECOMMENDATION:

I. Approval with Conditions

The staff recommends that the Commission adopt the following resolution:

MOTION: ***I move that the Commission approve Coastal Development Permit No. 4-05-162 pursuant to the staff recommendation.***

STAFF RECOMMENDATION OF APPROVAL:

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

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies 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 permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. Standard Conditions

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

2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permitee to bind all future owners and possessors of the subject property to the terms and conditions.

III. Special Conditions

1. Plans Conforming to Geologic Recommendations

By acceptance of this permit, the applicant agrees to comply with the recommendations contained in the "Percolation Memo, 1601 Rambla Pacifico" prepared by Lawrence Young, March 6, 2006; "Additional Site Exploration and Updated Recommendations" prepared by SubSurface Designs Inc. on October 7, 2005; and Addendum I, II and III, Responses to County of Los Angeles Review Sheets prepared by SubSurface Designs Inc. on August 21, 2006, December 18, 2006, and February 14, 2007 respectively. These recommendations, including recommendations concerning foundations, grading, septic system, and drainage, shall be incorporated into all final design and construction plans, which must be reviewed and approved by the consultant prior to commencement of development.

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

2. Drainage and Polluted Runoff Control Plans

A. ***Prior to issuance of a coastal development permit***, 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 the amount of stormwater runoff produced by all storms 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 (i.e., 2 or greater), 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 an amendment or new coastal development permit is required to authorize such work.

B. The permitee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

3. Landscaping and Erosion Control Plans

Prior to issuance of a coastal development permit, the applicant shall submit landscaping and erosion control plans, prepared by a licensed landscape architect or a qualified resource specialist, for review and approval by the Executive Director. The plans shall incorporate the criteria set forth below. All development shall conform to the approved landscaping and erosion control plans:

A) <u>Landscaping Plan</u>

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 <u>Recommended List of Plants for Landscaping in the Santa Monica Mountains</u>, dated 2007. All native plant species shall be of local genetic stock. No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Invasive Plant Council, or 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 or maintained within the property.

2) All cut and fill slopes shall be stabilized with planting at the completion of final grading. Planting shall be primarily of native plant species indigenous to the Santa Monica Mountains using accepted planting procedures, consistent with fire

safety requirements. All native plant species shall be of local genetic stock. Such planting shall be adequate to provide 90 percent coverage within two (2) years, and this requirement shall apply to all disturbed soils;

3) Plantings will be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with applicable landscape requirements;

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

5) Rodenticides containing any anticoagulant compounds (including, but not limited to, Warfarin, Brodifacoum, Bromadiolone or Diphacinone) shall not be used.

6) Fencing of the entire property is prohibited. Fencing shall extend no further than Zone A of the final fuel modification plan approved by the Los Angeles County Fire Department pursuant to subsection (5) 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 Five (5) below.

7) No permanent irrigation is permitted within the protected zone (defined as a five foot radius outside the dripline, or 15 feet from the trunk, whichever is greater) of any oak tree on or adjacent to the project site, and landscaping within the oak tree protected zones shall be limited to native oak tree understory plant species.

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.

B) <u>Interim Erosion Control Plan</u>

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 grading shall take place only during the dry season (April 1 – October 31). This period may be extended for a limited period of time if the situation warrants such a limited extension, if approved by the Executive Director. The applicant shall install or construct temporary sediment basins (including debris basins, desilting basins, or silt traps), temporary drains and swales, sand bag barriers, silt fencing, and shall stabilize any stockpiled fill with geofabric covers or other appropriate cover, install geotextiles or mats on all cut or fill slopes, and close and stabilize open trenches as soon as possible. These erosion control measures shall be required on the project site prior to or concurrent with the initial grading operations and maintained throughout the development process to minimize erosion and sediment from runoff waters during construction. All sediment should be retained on-site, unless removed to an appropriate, approved dumping location either outside of the coastal zone or within the coastal zone to a site permitted to receive fill.

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 geotextiles and/or mats, sand bag barriers, silt fencing; temporary drains and swales and sediment basins. The plans shall also specify that all disturbed areas shall be seeded with native grass species and include the technical specifications for seeding the disturbed areas. These temporary erosion control measures shall be monitored and maintained until grading or construction operations resume.

4) To ensure that on-site oak trees are protected during grading and construction activities, protective barrier fencing shall be installed around the drip line of all oak trees within 100 feet of the proposed development during construction operations.

5) 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.

C) <u>Monitoring.</u>

(1) Five years from the date of the receipt of the Certificate of Occupancy for the residence 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 certifies whether the on-site landscaping is in conformance with the landscape plan approved pursuant to this

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

(2) 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 this permit, the applicant, or successors in interest, shall submit a revised or supplemental landscape plan for the review and approval of the Executive Director. The revised landscaping plan must be prepared by a licensed Landscape Architect or a 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 applicant, or successors in interest, shall implement the approved version of the revised or supplemental landscape plan.

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, erosion, and landslide; (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. 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 authorized by the approval of Coastal Development Permit No. 4-05-162. The palette samples shall be presented in a format not to exceed 8½" x 11" x ½" in size. The palette shall include the colors proposed for the roofs, trims, exterior surfaces, driveways, retaining walls, and other structures authorized by this permit. Acceptable colors shall be limited to colors compatible with the surrounding environment (earth tones) including shades of green, brown and gray with no white or light shades and no bright tones. All windows shall be comprised of non-glare glass.

The approved structures shall be colored and constructed 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 No. 4-05-162 if such changes are

specifically authorized by the Executive Director as complying with this special condition.

6. Lighting Restriction

A. The only outdoor night lighting allowed on the subject parcel is limited to the following:

1. The minimum necessary to light walkways used for entry and exit to the structures, including parking areas on the site. This lighting shall be limited to fixtures that do not exceed two feet in height above finished grade, are directed downward and generate the same or less lumens equivalent to those generated by a 60 watt incandescent bulb, unless a greater number of lumens is authorized by the Executive Director.

2. Security lighting attached to the residence and garage shall be controlled by motion detectors and is limited to same or less lumens equivalent to those generated by a 60 watt incandescent bulb.

3. The minimum necessary to light the entry area to the driveway with the same or less lumens equivalent to those generated by a 60 watt incandescent bulb.

B. No lighting around the perimeter of the site and no lighting for aesthetic purposes is allowed.

7. Removal of Excess Excavated Material

Prior to the issuance of the coastal development permit, the applicant shall provide evidence to the Executive Director of the location of the disposal site for all excess excavated material from the site. If the disposal site is located in the Coastal Zone, the disposal site must have a valid coastal development permit for the disposal of fill material. If the disposal site does not have a coastal permit, such a permit will be required prior to the disposal of material.

8. Removal of Natural Vegetation

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

9. Future Development Restriction

This permit is only for the development described in Coastal Development Permit No. 4-05-162. 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 any future development on any portion of the parcel. Accordingly, any future improvements to any portion of the property, including but not limited to the residence, garage, water tank, septic system, landscaping, and removal of vegetation or grading other than as provided for in the approved fuel modification/landscape plan prepared pursuant to Special Condition Three (3), shall require an amendment to Coastal Development Permit No. 4-05-162 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.

10. Deed Restriction

Prior to issuance of the coastal development permit, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

11. Open Space Conservation Easement

A. No development, as defined in Section 30106 of the Coastal Act, grazing, or agricultural activities shall occur outside of the approved development area, within the portion of the property identified as the “open space conservation easement area”, as shown in **Exhibit 3** except for:

1. Fuel modification required by the Los Angeles County Fire Department undertaken in accordance with the final approved fuel modification plan approved pursuant to Special Condition Three (3), paragraph A.2, or other fuel modification plans required and approved by the Commission pursuant to a different CDP(s) issued by the Commission;

2. Drainage and polluted runoff control activities required and approved pursuant to

a. The Landscaping and Erosion Control Plans approved pursuant to Special Condition Three (3) of this permit; and
b. The drainage and runoff control plans approved pursuant to Special Condition Two (2) of this permit,

3. If approved by the Commission as an amendment to this coastal development permit or a new coastal development permit:
   a. Construction and maintenance of public hiking trails; and
   b. Construction and maintenance of roads, trails, and utilities consistent with existing easements.

4. Maintenance of the existing gravel road across the property.

B. Prior to issuance of the Coastal Development Permit, the applicant shall execute and record a document in a form and content acceptable to the Executive Director, granting to the Mountains Recreation and Conservation Authority ("MRCA") on behalf of the people of the State of California an open space conservation easement over the "open space conservation easement area" described above, for the purpose of habitat protection. The recorded easement document shall include a formal legal description of the entire property; and a metes and bounds legal description and graphic depiction, prepared by a licensed surveyor, of the open space conservation easement area, as generally shown on **Exhibit 3.** The recorded document shall reflect that no development shall occur within the open space conservation easement area except as otherwise set forth in this permit condition. The grant of easement shall be recorded free of prior liens and encumbrances (other than existing easements for roads, trails, and utilities) that the Executive Director determines may affect the interest being conveyed, and shall run with the land in favor of the MRCA on behalf of the people of the State of California, binding all successors and assigns.

12. Pool and Spa Drainage and Maintenance

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

13. Lot Description

A. ***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 submitted a request to the Los Angeles County Assessor's Office to acquire a single new assessor's parcel number that will apply to the entire subject property as described in **Exhibit 6**.. The submitted documentation shall include a

notice from the Assessor's office that confirms that the request has been received and provides the new assessor's parcel number for the property.

B. ***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 quitclaim deed so that the lot description on the most recent deed for the subject property matches the lot description listed in Certificate of Compliance 96-0195A approved by Los Angeles County on June 16, 2005 for the subject property and as shown in **Exhibit 6** to this report. The new deed shall state that it is being recorded "in compliance with Certificate of Compliance 96-0195A recorded on June 17, 2005 as Instrument No. 05 1428606" and shall also reference the new assessor's parcel number for the property acquired by the applicant pursuant to Subsection A of this condition above.

C. ***Prior to issuance of the coastal development permit***, the applicant shall submit to the Executive Director for review and approval, a preliminary title report for the property that describes the subject property as one legal parcel. Specifically, the title report shall use the same lot description listed in Certificate of Compliance 96-0195A approved by Los Angeles County on June 16, 2005 for the subject property (as shown in **Exhibit 6**) and the new single assessor's parcel number obtained for the property pursuant to Subsection A of this condition above.

D. The applicant and all successors and assigns with respect to the subject property shall henceforth consider and treat the entire subject property as a single parcel of land for all purposes, including but not limited to sale, conveyance, lease, development, taxation or encumbrance, unless the property is subdivided in compliance with all applicable state and local laws, including the securing of a coastal development permit for such subdivision.

14. Agricultural Operation and Delineation Plan

Prior to issuance of a coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, an Agricultural Operation and Delineation Plan for agricultural plantings and operations on the project site. The Plan, including a site plan depicting the size and extent of the orchid on the subject property, shall be prepared by a qualified biologist, botanist, or landscape architect with agricultural resource conservation and native plant species expertise and shall include, but not be limited to, the following requirements:

1) Agricultural planting shall be limited to the orchard planting area currently existing on the property.
2) Agricultural practices shall be designed and implemented to minimize erosion and prevent excessive sediment and pollutants from adversely impacting water quality by incorporating BMPs such as:
    - Diversions

- Grassed waterways
- Sediment basins
- Terraces
- Critical area planting
- Crop residue use
- Conservation cover
- Filter strips

3) Agricultural practices shall minimize the release of pesticides into the environment by implementing Integrated Pest Management (IPM) strategies that apply pesticides only when other means of pest management have been tried without success or are not feasible. Any pesticide runoff shall be carefully managed in a comprehensive manner, including evaluating past and current pest problems and cropping history, evaluating the physical characteristics of the site, selecting pesticides that are the most environmentally benign, using anti-backflow devices on hoses used for filling tank mixtures, and providing suitable mixing, loading and storage areas.

4) Agricultural practices shall minimize nutrient loss by developing and implementing comprehensive nutrient management plans based on crop nutrient budgets, identification of the types, amounts and timing of nutrients necessary to produce a crop based on realistic crop yield expectations and identification of onsite environmental hazards.

5) Agricultural practices shall reduce water loss to evaporation, deep percolation and runoff, remove leachate efficiently, and minimize erosion from applied water by implementing a managed irrigation system that includes the following components:

    - Irrigation scheduling
    - Efficient application of irrigation water
    - Efficient transport of irrigation water
    - Use of runoff or tailwater
    - Management of drainage water

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.

IV. Findings and Declarations

The Commission hereby finds and declares:

A. Project Description and Background

The applicant proposes to construct a 3,573 sq. ft., 22 foot high, single family residence and attached 1,404 sq. ft. workshop, 734 sq. ft. garage, and 165 sq. ft. greenhouse; carport; decks; 30' high, 374 sq. ft. hexagonal viewing tower; pool; spa; two water tanks; septic system; driveway; temporary construction trailer; and 492 cu. yds of grading (263 cu. yds cut and 229 cu. yds. fill). The project also includes removal of driveways, walls, and slabs from a previous residence on the lot and removal of non-native invasive vegetation in disturbed areas onsite.

The project site is a 13.55-acre parcel (APN 4453-003-037 and 038) located along the west side of Rambla Pacifico Road, just south of its intersection with Schueren Road in the Santa Monica Mountains in Los Angeles County (**Exhibits 1, 2, and 7**). The proposed building area is situated on a relatively level pad along the crest of a westerly trending ridge directly west of Rambla Pacifico Road. The parcel drops down an approximately 30-degree north slope to a small west-east drainage feeding Carbon Canyon to the west. Undeveloped hillside terrain vegetated with oak trees and chaparral vegetation surrounds the parcel to the south, west, and northwest. The surrounding properties to the southeast, east, and northeast are densely developed with single family residences.

Prior to the effective date of the Coastal Act in 1977, the subject parcel was developed with an extensive single family residential estate. The lot included a driveway to an expansive flat pad/main house area that included a residence with four wings, 30 foot high hexagonal viewing tower, several pools, spa, accessory structure, and landscaping over an approximately 50,000 sq. ft. development area. The areas surrounding the structure to the east and south were cleared and thinned of vegetation. An approximately 32,000 sq. ft. garden and orchard also existed directly north of the main house. Additionally, a road ran from the main house to the north side of the parcel. Two secondary structures on an approximately 3,600 sq. ft. building pad area were also located 750 feet north of the main residence along this road. This residential development existed on the parcel until 1993 when the entire property burned and destroyed all the structures onsite. Currently, the main building pad area still contains much of the hardscape (foundations, slabs, pools, etc. from the old structure and is surrounded by non-native and invasive vegetation. The orchard area still supports fruit and other non-native trees. The building foundations for the northern building area still remains and is surrounded by non-native vegetation. The remaining portions of the property, particularly to the north and far south, are vegetated with undisturbed oak woodland and chaparral vegetation. Several large oak trees are located within 200 feet of the developed portion of the parcel.

The proposed residence and associated development will be clustered within a 12,000 sq. ft. area of the existing 50,000 sq. ft. main flat building pad and will utilize the existing driveway. Further, although the undeveloped portions of the site are primarily vegetated with chaparral and oak tree habitats which consititute environmentally sensitive habitat (ESHA), all proposed development, including all vegetation clearance for fuel

modification requirements, will be located within existing disturbed areas and will not result in any loss of ESHA.

The building pad area would be surrounded by retaining walls and soldier piles necessary for geologic stability. In addition to the new development, the applicant proposed to remove the remaining hardscape areas, remove non-native vegetation, and plant native vegetation along the remaining disturbed areas surrounding the main building pad to the south and west. This restoration will extend from the hardscape proposed into and beyond proposed fuel modification zones B and C required by the Fire Department. The applicant, however, will maintain 15,000 sq. ft. of the existing 32,000 sq. ft. orchard and garden area north of the residence and restore the rest of the existing orchard area to native plant species. The majority of the orchard area proposed for retention is within zones B and C of the fuel modification area required by the Fire Department for the proposed residence. However, a portion of the proposed orchard area is outside the fuel modification area for the residence. No new structures are proposed in conjunction with the orchard that will require fuel modification for fire protection purposes. No new development is planned on the northern portion of the property or within the protected zone (5 feet from edge of canopy) of any existing oak trees on the property. The septic system would be located over 100 feet from oaks and drainages onsite.

B. Lot History

As noted above, the subject 13.55 acre parcel has two assessor's parcel numbers (4453-003-037 and 038). APN 4453-003-037 covers the southern 7.09 acres of the parcel, while APN 4453-003-038 covers the northern 6.46 acres of the parcel. According to Los Angeles County the 13.55-acre lot (previous APN 4453-003-015) was created on February 18, 1959 by grant deed (recorded February 18, 1959 as Document No. 977) pursuant to the laws in effect at the time. In 1996 a staff member from Los Angeles County approved subdivision of the 13.55-acre lot into two lots with 7.09-acres and 6.46 acres respectively (lots with APN 4453-003-037 and -038 respectively) through issuance of two Certificate of Compliances (96-0195 and 96-0196). This 1996 subdivision was later found by Los Angeles County and several courts to have been conducted illegally. In addition to the County's determination of the illegality of the action, the purported subdivision was also effectuated without the required coastal development permit and constituted a violation of the Coastal Act. Los Angeles County, therefore, executed and recorded a rescission of Certificate of Compliances 96-0195 and 96-0196 (recorded June 3, 2005 as Document 05-1302750 and with a Corrected version recorded on June 30, 2005 as Document 05-1548939).

Following recordation of the Rescission of Certificate of Compliances 96-0195 and 96-0196, the County issued a new Certificate of Compliance 96-0195A (recorded June 17, 2005 as Document 05-1428606), for the full 13.55-acre lot as originally described following the original 1959 subdivision that created the lot. The legal description of the subject 13.55 acre lot included as Exhibit A to Certificate of Compliance 96-0195A is the same description recorded on February 18, 1959 for the lot and is shown in **Exhibit 6**.

The subject 13.55-acre lot, however, continues to have two assessor's parcel numbers (4453-003-037 and-038 as shown in **Exhibit 4**). Additionally, the applicants Quitclaim Deed (**Exhibit 5**) for the 13.55 parcel executed on December 29, 2006 contains a legal description for the property that describes the property as two separate parcels. This legal description, therefore, does not match the legal description for the lot contained in Certificate of Compliance 96-0195A **(Exhibit 6**).

In order to rectify these discrepancies in the description and numbering of the property and to clarify that the property is only one legal parcel, the Commission requires **Special Condition Thirteen (13).** This condition requires the applicant to acquire a new single assessor's parcel number for the 13.55-acre parcel prior to issuance of permit. Additionally, the condition requires the applicant to ensure that the deed and title for the property show the legal description of the 13.55 acre lot approved by Los Angeles County through Certificate of Compliance 96-0195A. Finally, the condition restricts the applicant or future landowners of the property from subdividing or selling off portions of the lot without securing a coastal development permit for such an action.

C. Geologic and Wildfire Hazard

The proposed development is located in the Santa Monica Mountains, 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.***

Geology

Section 30253 of the Coastal Act mandates that new development be sited and designed to provide geologic stability and structural integrity, and minimize risks to life and property in areas of high geologic, flood, and fire hazard. "Percolation Memo, 1601 Rambla Pacifico" prepared by Lawrence Young, March 6, 2006; "Preliminary Geologic

and Soils Engineering Investigation", prepared by SubSurface Designs Inc. on May 25, 2004; "Additional Site Exploration and Updated Recommendations" prepared by SubSurface Designs Inc. on October 7, 2005; Addendum I, II and III, Responses to County of Los Angeles Review Sheets prepared by SubSurface Designs Inc. on August 21, 2006, December 18, 2006, and February 14,. These reports address the geologic conditions on the site, including drainage, subsurface conditions, groundwater, landslides, faulting, and seismicity.

The property is located along the crest of a westerly trending ridge along Rambla Pacifico Road. A flat building pad is located in the south-central portion of the property. Slopes ascend from the existing building pad east to Rambla Pacifico road at slope ratios ranging from 1:1 to 1.5:1 (H:V, Horizontal, Vertical). Slopes descend from the pad at a ratio of 2:1 (H:V) west to several drainage ravines leading to Carbon Canyon Creek. The existing building pad on the subject site is underlain by earth fill and natural soil ranging from one to nine feet in depth. Sedimentary bedrock of the Sespe Formation underlies this soil on the building pad. Ancient landslide debris underlie large portions of the rest of the property and adjacent areas. Therefore, the proposed area of residential construction is flanked on the north, northwest, and southwest by ancient landsides. Portions of the landslides have recently reactivated during periods of heavy rainfall. However, the geologic consultant has found that future movement of the landslides will not adversely impact the proposed residence as the residence is topographically isolated form the slide and is located a sufficient distance from the slide. In addition the geologic consultant and applicant have worked with the Geotechnical and Materials Engineering Division of Los Angeles County to obtain recommendations of approval for the proposed development. Based on this consultation and their review of the project, the geologic and geotechnical engineering consultants, in their geologic and engineering report, state that:

> *It is the finding of this firm, based upon the subsurface data, that the proposed residence and studio {no longer proposed} will not be affected by settlement, landsliding, or slippage. Further, the proposed development and grading will not have an adverse effect on off-site property.*

The geologic and geotechnical reports for the residence and septic system contain several recommendations to be incorporated into project construction, design, drainage, foundations, and sewage disposal to ensure the stability and geologic safety for the proposed project site and adjacent properties. These recommendations include the placement of soldier piles into bedrock around the north, west, and south sides of the building pad. To ensure that the recommendations of the consultant have been incorporated into all proposed development, the Commission, as specified in **Special Condition One (1),** requires the applicant to comply with and incorporate the recommendations contained in the submitted geologic reports into all final design and construction, and to obtain the approval of the geotechnical consultants prior to commencement of construction. However, the Commission finds that by incorporating the recommendations of the applicant's geotechnical consultants into final approved plans will serve to minimize potential hazards from landslides, it is not possible to

eliminate all risk associated with development on a site where landslides are located. For this reason, the Commission can only approve the project if the applicant assumes the liability from these associated risks. Thus, **Special Condition Four (4)** requires the applicant to assume these risks by acknowledging the nature of the land slide hazard which exists on the site and which may affect the safety of the proposed development. Moreover, through acceptance of Special Condition Four (4), the applicants also agree 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 project.

The Commission finds that controlling and diverting run-off in a non-erosive manner from the proposed structures, impervious surfaces, and building pad will also add to the geologic stability of the project site. Therefore, in order to minimize erosion and ensure stability of the project site, and to ensure that adequate drainage and erosion control is included in the proposed development, the Commission requires the applicants to submit drainage and erosion control plans certified by the geotechnical engineer, as specified in **Special Conditions Two (2)** and **Three (3)**.

Further, the Commission finds that landscaping of graded and disturbed areas on the subject site will serve to stabilize disturbed soils, reduce erosion and thus enhance and maintain the geologic stability of the site. Therefore, **Special Condition Three (3)** requires the applicant to submit landscaping plans certified by the consulting geotechnical engineer as in conformance with their recommendations for landscaping of the project site. **Special Condition Three (3)** also requires the applicant to utilize and maintain native and noninvasive plant species compatible with the surrounding area for landscaping the project site.

Invasive and non-native plant species are generally characterized as having a shallow root structure in comparison with their high surface/foliage weight. The Commission notes that non-native and invasive plant species with high surface/foliage 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. Therefore, the Commission finds that in order to ensure site stability, all slopes and disturbed and graded areas of the site shall be landscaped with appropriate native plant species, as specified in **Special Condition Three (3)**.

In addition, to ensure that excess excavated material is moved off site so as not to contribute to unnecessary landform alteration, the Commission finds it necessary to require the applicant to dispose of the material at an appropriate disposal site or to a site that has been approved to accept material, as specified in **Special Condition Seven (7).**

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 Eight (8)**. 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 Eight (8)** 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.

Finally, 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 Nine (9)**. Special Condition Eleven (10)** requires the applicant to record a deed restriction that imposes the terms and conditions of this permit as a restriction on the use and enjoyment of the property and provides any prospective purchaser of the site with recorded notice that the restriction are imposed on the subject property.

The Commission finds that the proposed project, as conditioned, will minimize potential geologic hazards on the project site and adjacent properties, as required by §30253 of the Coastal Act.

Wildfire

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 project is located in an area subject to an extraordinary potential for damage or destruction from wild fire, erosion, or landslide, the Commission can only approve the project if the applicant assumes the liability from these associated risks. Through **Special Condition Four (4)**, assumption of risk, the applicants acknowledge 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 Four (4), the applicants also agree 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 project.

For the reasons set forth above, the Commission finds that, as conditioned, the proposed project is consistent with §30253 of the Coastal Act.

D. Environmentally Sensitive Habitat Areas

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.***

In addition, the Malibu/Santa Monica Mountains LUP provides policy guidance regarding the protection of environmentally sensitive habitats. The Coastal Commission, as guidance in the review of development proposals in the Santa Monica Mountains, has applied these policies.

P57 Designate the following areas as Environmentally Sensitive Habitat Areas (ESHAs): (a) those shown on the Sensitive Environmental Resources Map (Figure 6), and (b) any undesignated areas which meet the criteria and which are identified through the biotic review process or other means, including those oak woodlands and other areas identified by the Department of Fish and Game as being appropriate for ESHA designation.

P63 Uses shall be permitted in ESHAs, DSRs, Significant Watersheds, and Significant Oak Woodlands, and Wildlife Corridors in accordance with Table l and all other policies of this LCP.

P 68 Environmentally sensitive habitat areas (ESHAs) shall be protected against significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas. Residential use shall not be considered a resource dependent use.

P69 Development in areas adjacent to environmentally sensitive habitat areas (ESHAs) shall be subject to the review of the Environmental Review Board, shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.

P71 The clustering of buildings shall be required in Significant Watersheds to minimize impacts unless it can be demonstrated that other environmental mitigation methods would be effective.

P72 Open space or conservation easements or equivalent measures may be required in order to protect undisturbed watershed cover and riparian areas located on parcels proposed for development. Where new development is proposed adjacent to Environmentally Sensitive Habitat Areas, open space or conservation easements shall be required in order to protect resources within the ESHA.

P73 The use of insecticides, herbicides, or any toxic chemical substance (with the exception of non-regulated home pesticides considered necessary for maintenance of households) shall be prohibited in designated environmentally sensitive habitats, except in an emergency which threatens the habitat itself.

P74 New development shall be located as close as feasible to existing roadways, services, and existing development to minimize the effects on sensitive environmental resources.

P80 The following setback requirements shall be applied to new septic systems: (a) at least 50 feet from the outer edge of the existing riparian or oak canopy for leachfields, and (b) at least 100 feet from the outer edge of the existing riparian or oak canopy for seepage pits. A larger setback shall be required if necessary to prevent lateral seepage from the disposal beds into stream waters.

P81 To control runoff into coastal waters, wetlands and riparian areas, as required by Section 3023l of the Coastal Act, the maximum rate of storm water runoff into such areas from new development should not exceed the peak level that existed prior to development.

P82 Grading shall be minimized for all new development to ensure the potential negative effects of runoff and erosion on these resources are minimized.

P84 In disturbed areas, landscape plans shall balance long-term stability and minimization of fuel load. For instance, a combination of taller, deep-rooted plants and low-growing ground covers to reduce heat output may be used. Within ESHAs and Significant Watersheds, native plant species shall be used, consistent with fire safety requirements.

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, Section 30240 of the Coastal Act states that environmentally sensitive habitat areas must be protected against disruption of habitat values. Pursuant to Section 30107.5, in order to determine whether an area constitutes an ESHA, and is therefore subject to the protections of Section 30240, the Commission must ask four questions:

1) What is the area of analysis?
2) Is there a rare habitat or species in the subject area?
3) Is there an especially valuable habitat or species in the area, based on:
    a) Does any habitat or species present have a special nature?
    b) Does any habitat or species present have a special role in the ecosystem?
4) Is any habitat or species that has met test 2 or 3 (i.e., that is rare or especially valuable) easily disturbed or degraded by human activities and developments?

The Coastal Commission has found that the Mediterranean Ecosystem in the Santa 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 **Exhibit 8**, 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 LCP[1].

Woodlands that are native to the Santa Monica Mountains, such as oak woodlands, are also important coastal resources. Native trees prevent the erosion of hillsides and stream banks, moderate water temperatures in streams through shading, provide food and habitat, including nesting, roosting, and burrowing to a wide variety of wildlife species, contribute nutrients to watersheds, and are important scenic elements in the landscape. In the Santa Monica Mountains, 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 tolerant of salt-laden fog than other oaks and is generally found nearer the coast[2]. 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 recognized[3]. These habitats support a high diversity of birds[4], and provide refuge for many species of sensitive bats[5]. Typical wildlife in this habitat includes acorn woodpeckers, scrub jays, plain titmice, northern flickers, cooper's hawks, western

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

[2] NPS 2000. op. cit.

[3] 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.

[4] 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

[5] 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.

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, the Commission has consistently found in past permit decisions that oak woodlands and savanna within the Santa Monica Mountains meet the definition of ESHA under the Coastal Act.

In past permit actions in the Santa Monica Mountains, the Commission has found that native oak trees are an important coastal resource, even if the overall woodland is disturbed or fragmented and would not be considered ESHA. Native trees prevent the erosion of hillsides and stream banks, moderate water temperatures in streams through shading, provide food and habitat, including nesting, roosting, and burrowing to a wide variety of wildlife. Native trees that are not part of a larger, intact habitat may nonetheless provide nesting or roosting habitat for raptors and other birds that are rare, threatened, endangered, fully protected, or species of special concern. Furthermore, individual oak trees provide some habitat for a wide variety of wildlife species and are considered to be an important part of the character and scenic quality of the area.

Oaks are easily damaged and are very sensitive to disturbances that occur to the tree or the surrounding environment. Their root system is extensive, but surprisingly shallow, radiating out as much as 50 feet beyond the spread of the tree leaves, or canopy. The ground area at the outside edge of the canopy, referred to as the dripline, is especially important: the tree obtains most of its surface water and nutrients here, as well as conducts an important exchange of air and other gases (Los Angeles County Regional Planning Oak Tree Ordinance). Improper watering, especially during the hot summer months when the tree is dormant and disturbance to root areas are the most common causes of tree loss.

For any specific property within the Santa Monica Mountains, it is necessary to satisfy two tests in order to assign the ESHA designation. The first question is whether there is a species or habitat in the subject area that is either rare or especially valuable. This requires that the existing habitat is properly identified, for example as coastal sage scrub or oak woodland, and it generally requires that any habitat at issue be relatively pristine and that it be part of a large, contiguous block of relatively pristine native vegetation. The second test is whether the habitat or species is easily disturbed or degraded by human activities and developments.

The project site is a 13.55-acre parcel (APN 4453-003-037 and 038) located along the west side of Rambla Pacifico Road, just south of its intersection with Schueren Road in the Santa Monica Mountains in Los Angeles County. Undeveloped hillside terrain vegetated with oak trees and chaparral vegetation surrounds the parcel to the south, west, and northwest. The properties surrounding the project site to the southeast, east, and northeast are densely developed with single family residences. Prior to the effective date of the Coastal Act in 1977, the subject parcel was developed with an extensive single family residential estate. The lot included a driveway to an expansive main house area that included a, 50,000 sq. ft. residence with four wings, 30 foot high hexagonal viewing tower, several pools, spa, accessory structure, and landscaping over

an approximately 50,000 sq. ft. flat pad area. In addition, the areas surrounding the structure to the east and south were cleared and thinned of vegetation. An approximately 32,000 sq. ft. garden and orchard also existed directly north of the main house. Additionally, a road ran from the main house to the north side of the parcel. Two secondary structures on an approximately 3,600 separate building pad area were located 750 feet north of the main residence along this road. This residential development existed on the parcel until 1993 when the entire property burned and destroyed all the structures onsite. Currently, the main building pad area still contains much of the hardscape (foundations, slabs, pools, etc. from the old structure and is surrounded by non-native and invasive vegetation. The orchard area still supports fruit and other non-native trees. The building foundations for the northern building area still remains and is surrounded by non-native vegetation. The remaining portions of the property, particularly to the north and far south, are vegetated with undisturbed oak woodland and chaparral vegetation. Several large oak trees area located within 200 feet of the developed portion of the parcel.

Due to the important ecosystem role of chaparral habitat and oak woodland in the Santa Monica Mountains (detailed in **Exhibit 8**), the Commission finds that the chaparral and oak woodland habitat on and surrounding the subject site meets the definition of ESHA under Section 30107.5 of the Coastal Act. However, the existing building pads, fuel modification areas on the parcel, orchard, and existing roads on the site that were disturbed prior to the effective date of the Coastal Act, however, do not meet the definition of ESHA***.***

The proposed residence and associated development will be clustered within a 12,000 sq. ft. area of the existing 50,000 sq. ft. main flat building pad and will utilize the existing driveway. Further, although the undeveloped portions of the site are primarily vegetated with chaparral and oak tree habitats which consititute environmentally sensitive habitat (ESHA), all proposed development, including all vegetation clearance for fuel modification requirements, will be located within existing disturbed areas and will not result in any loss of ESHA.

The building pad area would be surrounded by retaining walls and soldier piles necessary for geologic stability. In addition to the new development, the applicant proposes to remove the remaining hardscape areas, remove non-native vegetation, and plant native vegetation along several of the remaining disturbed areas. These restoration activities will include the existing disturbed areas west and south of the proposed residence and extending from Zone A (20 feet from residence) of the fuel modification area for the proposed residence to the property line. The applicant, however, will maintain approximately 15,000 sq. ft. of the existing 32,000 sq. ft. orchard and garden area north of the residence and will restore the remaining orchard area to native habitats. The majority of this orchard is located within the required 200 foot fuel modification area required by the Fire Department for the proposed residence. As previously discussed, the orchard/garden was planted prior to the effective date of the Coastal Act and constitutes existing development on the subject site. Thus, the existing disturbed area where the orchard is located does not constitute ESHA. In addition, no

vegetation clearance for fuel modification is necessary to protect the existing orchard/garden and no new structures are proposed in the orchard that will require fuel modification for fire protection purposes. Therefore, retention of the existing orchard/garden will not result in any loss of ESHA. No new development is planned on the northern portion of the property or within the protected zone (5 feet from edge of canopy) of any existing oak trees on the property. The septic system would be located over 100 feet from oaks and drainages onsite. Fuel modification for the residence will extend into areas containing individual oak trees. However, no thinning or removal of oak trees is required for any required fuel modification.

In past permit actions, the Commission has limited development within chaparral and oak woodland ESHA to a continuous 10,000 sq. ft. development area, excluding driveways and fire turn around areas, in order to minimize the loss of ESHA resulting from the construction of new development and the associated vegetation clearance from fuel modification requirements. In addition, the Commission has typically required any agricultural activities, including orchards, associated with single family residences located within or adjacent to ESHA to be located completely within the boundary of Zone B of the fuel modification area required for the main residence. In this case, the applicant is proposing a 12,000 sq. ft. development area, excluding driveways and fire turn around areas. In addition, the applicant is proposing to maintain an e15,000 of an existing 32,000 sq. ft. orchard and garden adjacent to the house that is partially located outside the fuel modification area for the proposed residence. However, as discussed above, this property presents a unique circumstance due to the existing and previous development on the lot. This lot has been previously developed with a 50,000 sq. ft. development area and the existing orchard since before the effective date of the Coastal Act. All development proposed on the site, including fuel modification and the orchard, are within the confines of this existing development area that is not considered ESHA. Thus, in this case, the Commission finds that the proposed 12,000 sq. ft. development area and approximately 15,000 sq. ft. orchard/garden will not result in any adverse impacts to ESHA. Additionally, the applicant is, in fact, proposing to restore the areas south and west of the proposed residence back to native chaparral and oak woodland habitat. The project, therefore, will actually serve to enhance and restore ESHA on the property.

The cumulative impacts of development on legal lots containing ESHA in the Santa Monica Mountains, including fuel modification and/or brushing is substantial. As discussed in Section B. Lot History, the subject site is one 13.55-acre legal parcel that in the past has been illegally subdivided into two parcels 7-acres in size. The applicant is currently proposing to keep the 13.55-acre lot whole and to only build one residence on this legal lot. As described in Section B. Lot History, however, there still remain two assessor's parcel numbers and legal descriptions for two parcels on the deed for the property. Should future owners of the property or agencies mistakenly assume that the subject 13.55-acre property is two legal parcels instead of one legal parcel, ESHA and other sensitive resources on and surrounding the property could be cumulatively impacted from additional development of the site. In order to rectify these discrepancies in the description and numbering of the property and to clarify that the property is only

one legal parcel, the Commission requires **Special Condition Thirteen (13).** This condition requires the applicant to acquire a new single assessor's parcel number for the 13.55-acre parcel prior to issuance of permit. Additionally, the condition requires the applicant to ensure that the deed and title for the property show the legal description of the 13.55 acre lot approved by Los Angeles County through Certificate of Compliance 96-0195A. Finally, the condition restricts the applicant or future landowners of the property from subdividing or selling off portions of the lot without securing a coastal development permit for such an action.

In addition to clarifying the legality of the subject parcel, the most effective way to protect the remaining ESHA on the site is through an open space conservation easement held by the Mountains Recreation and Conservation Authority that prohibits development on the remainder of the site now and in the future. In this case, the applicants have proposed, as part of the project, to dedicate an open space conservation easement over all portions of the subject property not including the existing roads, proposed development area and all areas within Zone B, as shown on **Exhibit 3** as described in their fuel modification plan approved by the Los Angeles Fire Department. In order to implement this proposal, the Commission requires **Special Condition Eleven (11).** Under the terms of Special Condition Eleven**,** an open space and conservation easement would be required over the open space area (shown in **Exhibit 3**), and the easement will be granted by the applicants to the Mountains Recreation and Conservation Authority, a joint powers authority. The MRCA is a partnership between the Santa Monica Mountains Conservancy, the Conejo Recreation and Park District, and the Rancho Simi Recreation and Park District. The MRCA is dedicated to the preservation and management of open space, parkland, watershed lands, trails, and wildlife habitat. The MRCA manages and provides ranger services for almost 50,000 acres of public lands and parks that it owns or are owned by the Santa Monica Mountains Conservancy. The governing board of the Mountains Recreation and Conservation Authority (MRCA) has agreed to accept all open space easements required by the Commission for properties within the Santa Monica Mountains National Recreation Area.

The Commission finds that the intention of requiring the easement to be granted to the MRCA is to have a public agency that has park rangers and other staff active in the Santa Monica Mountains area monitor open space areas to ensure that the restrictions are followed. The MRCA acquires and manages properties for recreation and conservation purposes in the Santa Monica Mountains. MRCA staff and park rangers routinely monitor properties under MRCA management in the Santa Monica Mountains and enforce State law and local ordinances. Therefore, the MRCA is better able to monitor open space and conservation easements than Commission staff. As such, the Commission finds that the requirement of an open space and conservation easement is the most effective method of ensuring that the open space area on the project site will be conserved in the future. Further, the easement will be recorded against the title of the property and thus provide notice to future owners of the limitations that apply to the open space conservation area. The terms of the easement do not provide for use of the

open space conservation area on the site by the public or any other individual or group for any purpose.

As detailed in **Special Condition Eleven (11)**, the Open Space Conservation Easement will prohibit all development, with the exception of fuel modification and drainage control activities carried out in accordance with **Special Condition Two (2)** and **Special Condition Three (3)**. **Special Condition Twelve (11)** also allows planting of native vegetation and other restoration activities, and construction and maintenance of public hiking trails, if approved by the Commission as an amendment to this coastal development permit, or as a new coastal development permit. **Special Condition Eleven (11)** also makes an exception for construction/maintenance of access roads or utilities within previously recorded road/utility easements only, if approved by the Commission.

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 that is located on the subject property and neighboring properties Therefore, in order to avoid adverse impacts to sensitive predator species, **Special Condition Three (3)**, disallows the use of rodenticides containing any anticoagulant compounds on the subject property.

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 Three (3)** requires that all landscaping consist primarily of native plant species and that invasive plant species shall not be used.

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 Eight (8).** 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 Eight (8) 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 notes that streams and drainages, such as Carbon Canyon Creek and its tributaries that are located downslope of the proposed building pad, provide important habitat for 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 or upslope of 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.

The Commission finds that potential adverse effects of the proposed development on riparian and aquatic habitats of these streams 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 Two (2)**, the Drainage and Polluted Runoff Control Plan, which requires the applicants 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 offsite in a non-erosive manner and is treated/filtered to reduce pollutant load before it reaches coastal waterways. Special Condition Two (2) will ensure implementation of these and other BMPs to reduce polluted runoff. Additionally, **Special Condition Three (3)** requires all graded areas to be replanted with native vegetation so as to reduce erosion and sediment laden runoff into coastal waterways.

In addition, the Commission has found that night lighting of areas in the Malibu/Santa Monica Mountains creates a visual impact to nearby 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 Six (6)** 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 rural and relatively undisturbed area at night. Thus, the lighting restrictions will attenuate the impacts of unnatural light sources and reduce impacts to sensitive wildlife species.

Additionally, the applicant proposes to maintain a 15,000 sq. ft. orchard north of the proposed residence (**Exhibit 2**). Due to the steep slopes in the area of this orchard, any overwatering or use of pesticides or herbicides in the orchard could negatively impact

ESHA and drainages leading to Carbon Canyon Creek located downslope from the orchard. Therefore, the Commission finds that **Special Condition Fourteen (14)** is necessary to ensure the proposed orchard area will not adversely impact water quality or coastal resources. Special Condition 14 requires the applicant to submit, for the review and approval of the Executive Director, an Agricultural Operation and Delineation Plan for orchard operations on the project site. The Agricultural Plan must limit orchard planting to within the existing orchard planting area indicated on **Exhibit 2**. The Commission recognizes that agricultural activities have the potential to cause adverse impacts to water quality resulting from erosion and sedimentation, irrigation practices, and the use of pesticides, fertilizers, and nutrients. With the implementation of proper design and management practices for agricultural activities these impacts can be minimized. As such, Special Condition 14 requires that the Agricultural Plan include measures designed to minimize erosion, sedimentation, and polluted runoff from reaching coastal waterways.

Furthermore, fencing of the site would adversely impact the movement of wildlife through the chaparral and oak woodland ESHA on this parcel. Therefore, the Commission finds it is necessary to limit fencing to the development area as required in **Special Condition Three (3)**.

Finally, 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 Nine (9)**, the future development restriction, has been required. **Special Condition Ten (10)** requires the applicants to record a deed restriction that imposes the terms and conditions of this permit as restrictions on use and enjoyment of the property and provides any prospective purchaser of the site with recorded notice that the restrictions are imposed on the subject property.

For the reasons set forth above, the Commission finds that the proposed project, as conditioned, is consistent with Sections 30230, 30231, 30240, and 30107.5 of the Coastal Act.

E. 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.***

The project site is located in the Carbon Canyon watershed. While no development is proposed in drainages onsite, the proposed development will result in an increase in impervious surface, which in turn decreases the infiltrative function and capacity of existing permeable land on site. The reduction in permeable space 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 development 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 site. 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.

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. Two (2)**, and finds this will ensure the proposed development will be designed to minimize adverse impacts to coastal resources, in a manner consistent with the water and marine policies of the Coastal Act.

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 Three (3)** is necessary to ensure the proposed development will not adversely impact water quality or coastal resources.

However, the Commission also notes that both leakage and periodic maintenance drainage of the proposed swimming pool and/or spa, if not monitored and/or conducted in a controlled manner, may result in excess runoff and erosion potentially causing the instability of the site and adjacent properties and potential impacts from pool chemicals (i.e. pool water algaecides, chemical pH balancing, and other water conditioning chemicals) on the designated ESHA and significant watershed. Therefore, the commission imposes **Special Condition Twelve (12)** on the subject application, which requires the applicant to use a non-chemical water purification system and to maintain proper pH, calcium and alkalinity balance in a manner that any runoff or drainage from the pool and spa will not include excessive chemicals that may adversely affect the environmentally sensitive habitat areas.

Finally, the proposed development includes the installation of an on-site septic system to serve the residence. The applicants' geologic consultants performed percolation tests and evaluated the proposed septic system. The report concludes that the site is suitable for the septic system and there would be no adverse impact to the site or surrounding areas from the use of a septic system. Finally, the County of Los Angeles Environmental Health Department has given in-concept approval of the proposed septic system, determining that the system meets the requirements of the plumbing code. The Commission has found that conformance with the provisions of the plumbing code is protective of resources

In conclusion, the Commission finds that the project, as conditioned, will maintain the biological productivity and quality of coastal waters by minimizing adverse effects of waste water, controlling runoff, and minimizing erosion. Therefore, the Commission finds that, as conditioned, the project is consistent with Section 30231 of the Coastal Act.

F. 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.

The subject site is located within a rural area characterized by expansive, naturally vegetated mountains and hillsides. The area south sand west of the site is undeveloped. However, the area west, northwest, and southwest of the site are densely developed with single family residences. In general, these residences range from 1,800 to 6,000 sq. ft. in size and up to 35 feet in height. The property is located along the crest of a westerly trending ridge along Rambla Pacifico Road.

The applicant proposes to construct a 3,573 sq. ft., 22 foot high, single family residence and attached 1,404 sq. ft. workshop, 734 sq. ft. garage, and 165 sq. ft. greenhouse; carport; decks; 30’ high, 374 sq. ft. hexagonal viewing tower; pool; spa; two water tanks; septic system; driveway; temporary construction trailer; and 492 cu. yds of grading (263 cu. yds cut and 229 cu. yds. fill). The project also includes removal of driveways, walls, and slabs from a previous residence on the lot and removal of non-native invasive vegetation in disturbed areas onsite. The project will not be visible from public trails, highway one, or Malibu Canyon Road. The structures will not block public views of the ocean or mountains, though due to the siting of the structures. The structure will be visible from Rambla Pacifico Road.

The visual impact of the proposed structures can be minimized by requiring these structures be finished in a color consistent with the surrounding natural landscape and, further, by requiring that windows on the proposed residence be made of non-reflective glass. To ensure visual impacts associated with the colors of the structure and the potential glare of the window glass are minimized, the Commission requires the applicant to use colors compatible with the surrounding environment and non-glare glass, as detailed in **Special Condition Five (5).**

Visual impacts associated with proposed grading, and the structures themselves, can be further reduced by the use of appropriate and adequate landscaping. Therefore, **Special Condition Three (3)** requires the applicant to ensure that the vegetation on site remains visually compatible with the native flora of surrounding areas. Implementation of Special Condition Three (3) will soften the visual impact of the development from public view areas. To ensure that the final approved landscaping plans are successfully implemented, Special Condition Three (3) 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.

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. The subject site contains environmentally sensitive habitat. Therefore, **Special Condition Six (6)** 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 nighttime rural character of this portion of the Santa Monica Mountains consistent with the scenic and visual qualities of this coastal area.

Finally, regarding future developments or improvements, certain types of development on the property, normally associated with a single-family residence, 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 Nine (9)**, the Future Development Restriction, will ensure that the Commission will have the opportunity to review future projects for compliance with the Coastal Act. Further, **Special Condition Ten (10)** 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 property and provides any prospective purchaser with recorded notice that the restrictions are imposed on the subject property.

Therefore, the Commission finds that the project, as conditioned, minimizes adverse effects to public views to and along the coast and minimizes the alternation of natural landforms. Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Section 30251 of the Coastal Act.

G. Local Coastal Program

Section 30604 of the Coastal Act states:

> ***a) Prior to certification of the local coastal program, a coastal development permit shall be issued if the issuing agency, or the commission on appeal, finds that the proposed development is in***

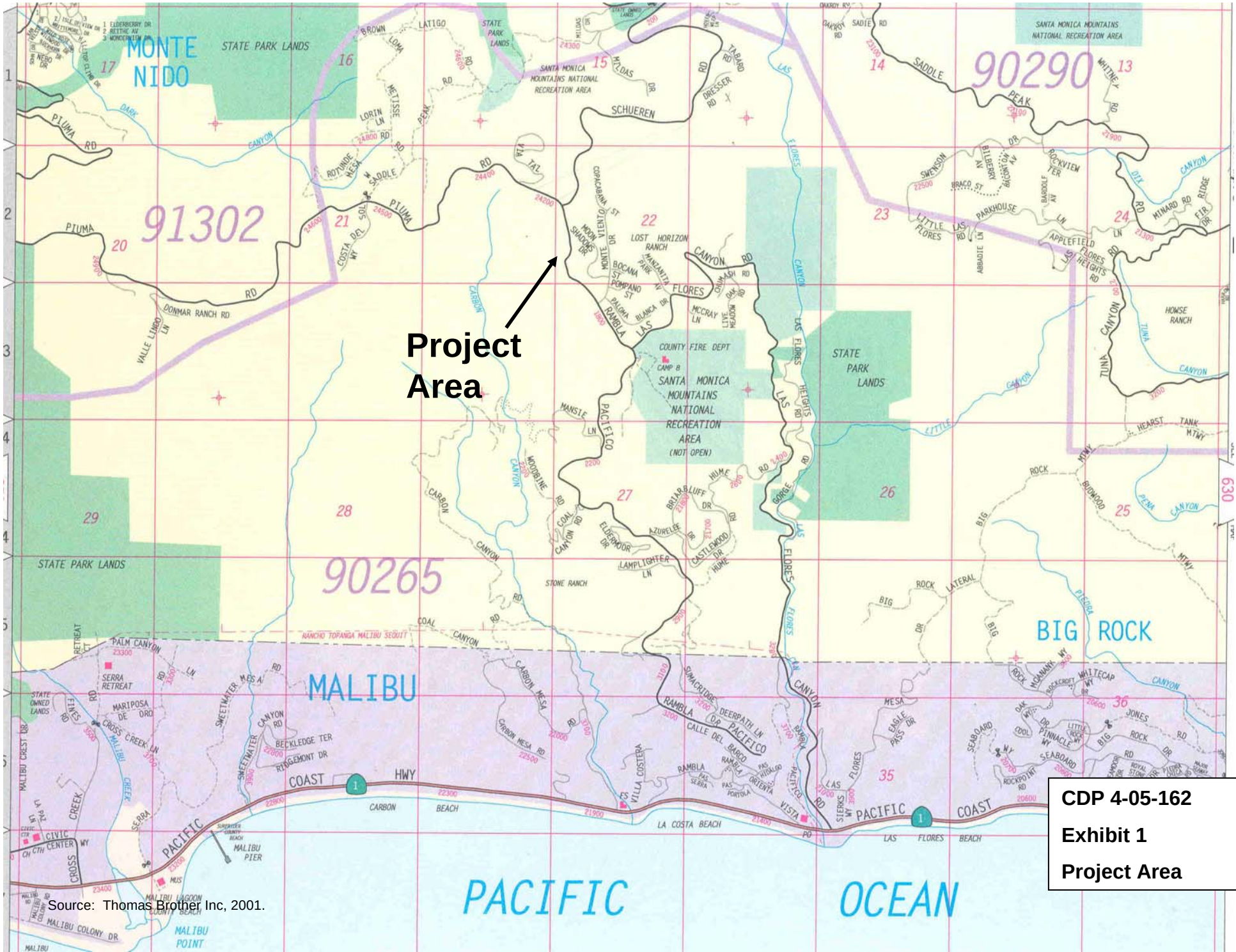
> ***conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that the permitted development will not prejudice the ability of the local government to prepare a local program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200).***

Section 30604(a) of the Coastal Act provides that the Commission shall issue a Coastal Development Permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program that conforms with Chapter 3 policies of the Coastal Act. The preceding sections provide findings that the proposed project will be in conformity with the provisions of Chapter 3 if certain conditions are incorporated into the projects and are accepted by the applicants. As conditioned, the proposed development 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 development, 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. California Environmental Quality Act

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

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. As discussed in detail above, project alternatives and mitigation measures have been considered and incorporated into the project. Five types of mitigation actions include those that are intended to avoid, minimize, rectify, reduce, or compensate for significant impacts of development. Mitigation measures required to minimize impacts include requiring revegetation of disturbed soils (water quality and geologic stability), and implementation of erosion control measures (water quality and geologic stability). As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the amended project, as conditioned to mitigate the identified impacts, can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.



CDP 4-05-162

Exhibit 1

Project Area

Source: Thomas Brother Inc, 2001.

CDP 4-05-162

Exhibit 2

Project Plans

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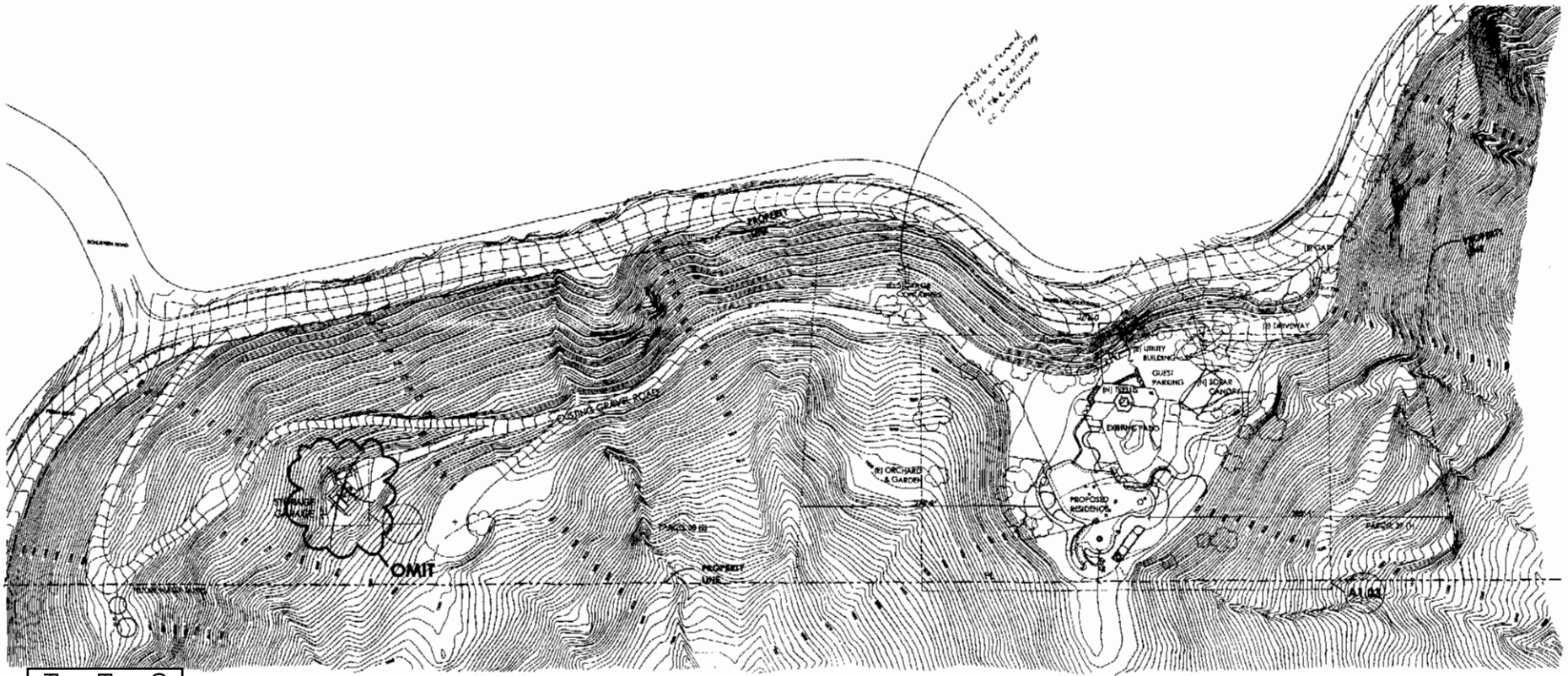

1 PROPOSED MASTER SITE PLAN
SCALE: 1:60

N

DEPARTMENT OF REGIONAL PLANNING

CASE NUMBER: R2005-00511/RP2005 Exhibit C (Revision 2)

This plot plan is APPROVED subject to the requirements of Los Angeles County Code and to the conditions noted herein. It is applicable only as specifically noted and must be used prior to any change in ordinances except revocants or within two years. Such approval shall not be construed to permit the violation of any provision of any County Ordinance or State law.

Signature:

Date: 10-18-07

*If this Plot Expires 7/22/09

APPROVAL IN CONCEPT

SIGNATURE

DATE 7/22/08

PLAN CHECK NO.

APPROVED

Per sec. 3000 et seq of the Public Resources Code and Title 14 of the Administrative Code, State of California

THIS IS NOT A PERMIT

and

is subject to any condition listed below

REVISIONS:

NO.	DATE	BY

ERIC LLOYD WRIGHT & ASSOCIATES
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CONSULTANTS

OWNER

340, INC.
20162 WINDROW DRIVE
LAKE FOREST, CA 92630

SHEET TITLE

PROPOSED MASTER SITE PLAN

PROJ. NO: 0302
DRAWN BY: KP/CM/DA
DATE: 09/06

A1.02
SHEET OF

CDP 4-05-162
Exhibit 2
Project Plans

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REVISIONS:
NO. DATE BY
ERIC LLOYD WRIGHT & ASSOCIATES
ARCHITECTURE & PLANNING
PAS ECO HOUSE
CONSULTANTS
OWNER
340, INC.
SHEET TITLE
PROPOSED RESIDENCE & PATIO
PROJ. NO: 0302
DRAWN BY:
DATE: 09/06
A1.03
SHEET OF
PROPOSED RESIDENCE & PATIO
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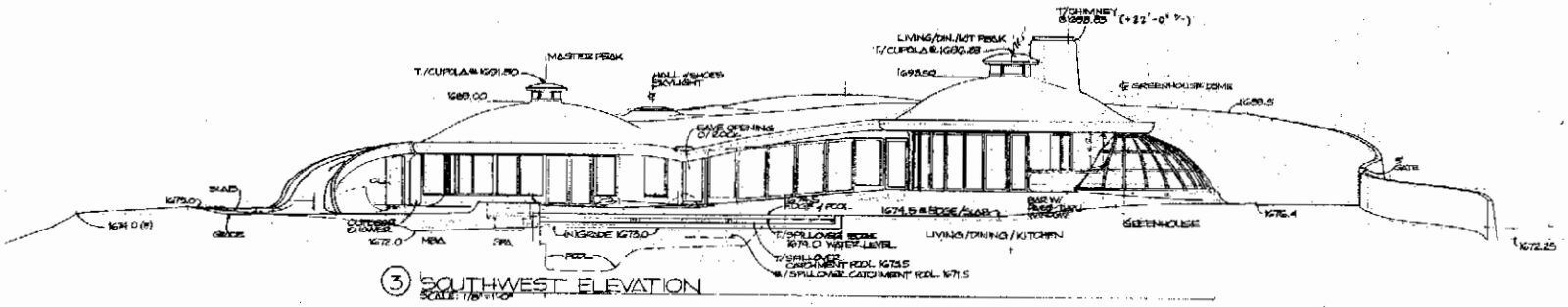
CDP 4-05-162
Exhibit 2
Project Plans

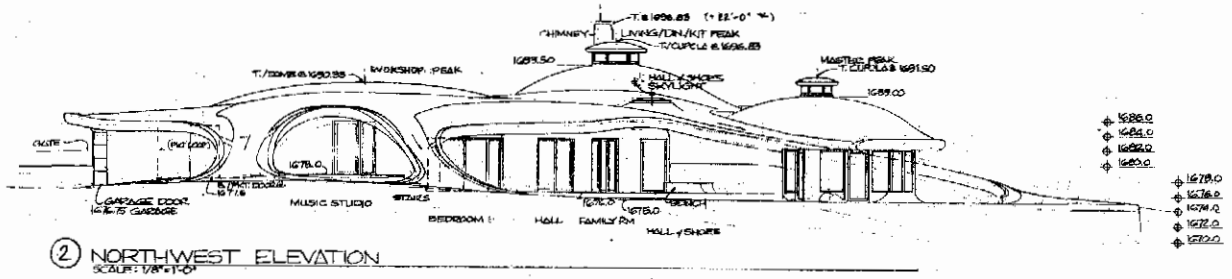
CDP 4-05-162

Exhibit 2

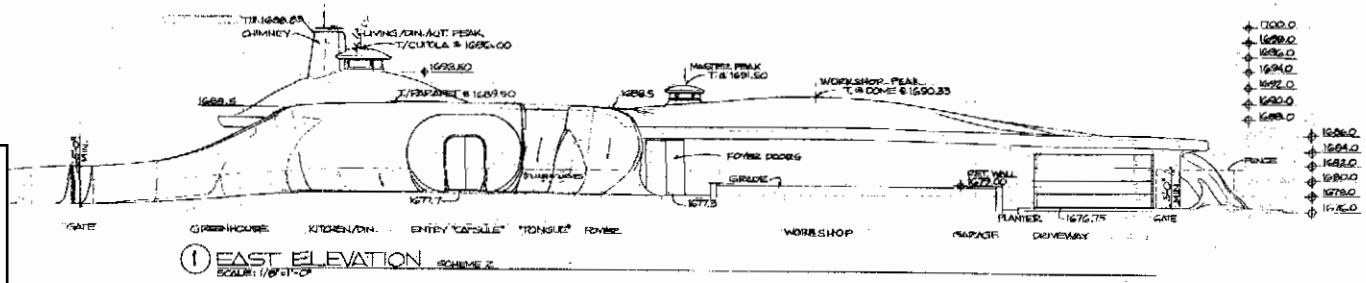
Project Plans



3 SOUTHWEST ELEVATION
SCALE: 1/8"=1'-0"



2 NORTHWEST ELEVATION
SCALE: 1/8"=1'-0"



1 EAST ELEVATION (SCHEME 2)
SCALE: 1/8"=1'-0"

ELEVATIONS RESIDENCE
SCALE: 1/8"=1'-0"

CDP 4-05-162
Exhibit 2
Project Plans

REVISIONS:

NO.	DATE	BY
Drwng		JJH
Bldng		JJH

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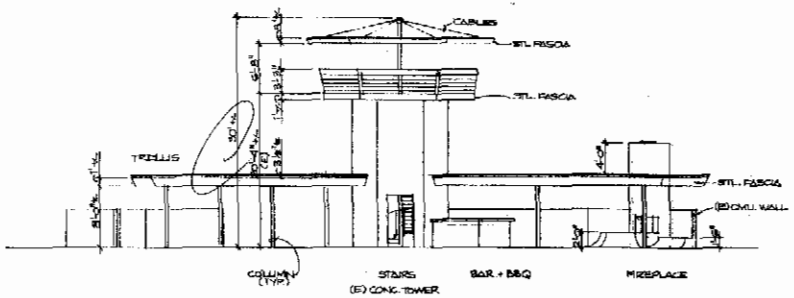
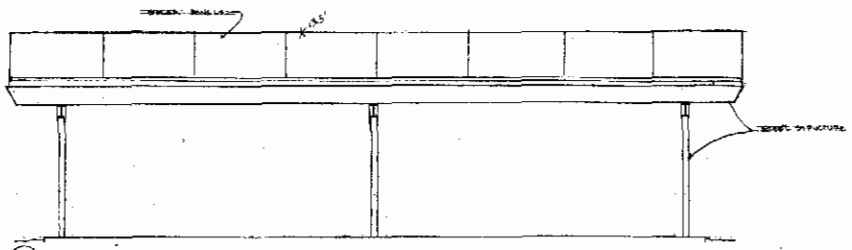
SHEET TITLE
ELEVATIONS - RESIDENCE

PROJ. NO: 0302
DRAWN BY: KP/JJH/DA
DATE: 12/1/2006

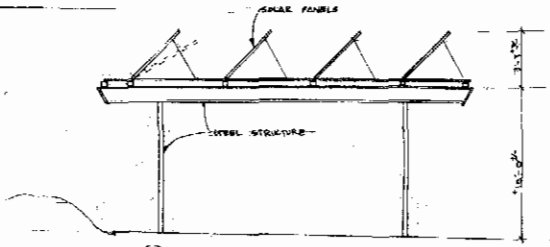
A3.01
SHEET
OF



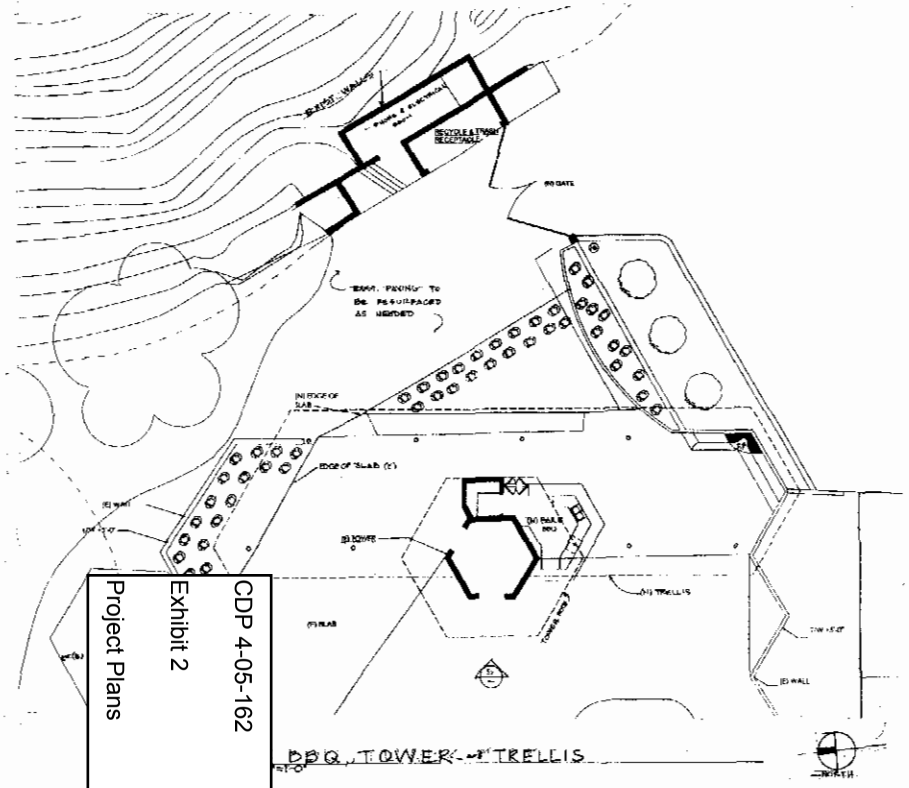
⑤ WEST ELEVATION TOWER - TRELLIS
SCALE: 1/8" = 1'-0"



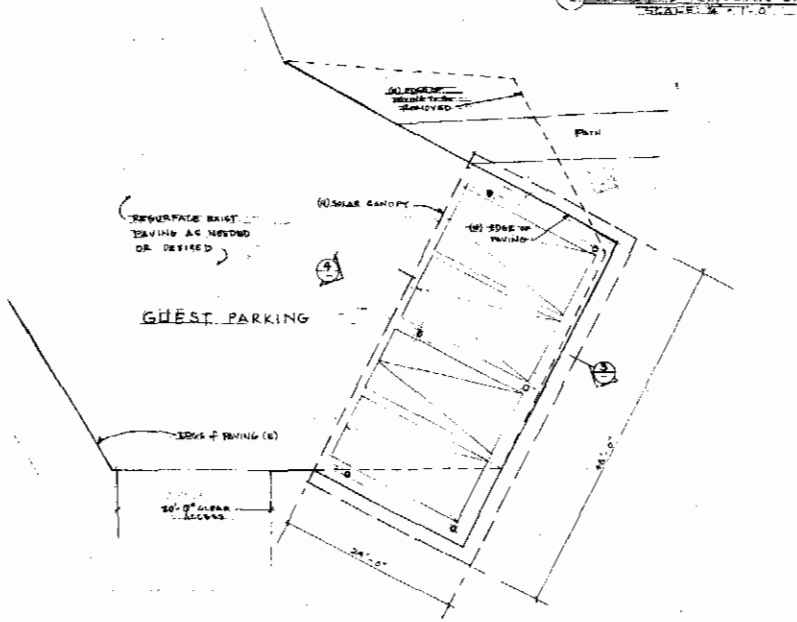
④ ELEVATION: SOLAR CANOPY
SCALE: 1/4" = 1'-0"



③ SECTION: SOLAR CANOPY
SCALE: 1/4" = 1'-0"



DBQ. TOWER - & TRELLIS
SCALE: 1/8" = 1'-0"



① PLAN: SOLAR CANOPY
SCALE: 1/8" = 1'-0"

NORTH

CDP 4-05-162
Exhibit 2
Project Plans

REVISIONS:

NO.	DATE	BY

ERIC LLOYD WRIGHT & ASSOCIATES
ARCHITECTURE & PLANNING
24680 PRIMA ROAD, MALIBU, CA 90265
PHONE: 818.591.3772 FAX: 818.591.3116 EMAIL: studio@ericwright.net

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CONSULTANTS

OWNER
340, INC.
20162 WINDROW DRIVE
LAKE FOREST, CA 92630

SHEET TITLE
ROOF & FLOOR PLAN, SECTIONS & ELEVS. PATIO TRELLIS & BBQ, SOLAR CANOPY

PROJ. NO: 0302
DRAWN BY: KT/AWM
DATE: Aug. 2006

A2.03
SHEET
OF

CDP 4-05-162

Exhibit 2

Project Plans

CDP 4-05-162

Exhibit 2

Project Plans

340, INC. RESIDENCE
MALIBU, CA

GRADING/DRAINAGE PLAN

TRACT PARCEL MAP: _____
LOT/PARCEL NO. _____
PROPERTY OWNER: 340, INC.
PLOT PLAN NO: R2005-00596

GRADING PLAN CHECK NO. _____
GRADING PERMIT NO. _____
DATE _____
W.D.I.D. NO. N/A
TOTAL DISTURBED AREA: ACRES
PRE-DEVELOPMENT IMPERVIOUS AREA: 1.31 (ACRES)
POST-DEVELOPMENT IMPERVIOUS AREA: 1.09 (ACRES)
LANDSCAPE AREA:
JOB ADDRESS 1601 RAMBLA PACIFICO ROAD MALIBU, CA 90265
ASSESSORS ID NUMBER 4453-003-037
PROPERTY ZONING R-1
INTENDED LAND USE SINGLE FAMILY RESIDENCE
COMMUNITY STANDARD DISTRICT: _____

COUNTY OF LOS ANGELES GENERAL GRADING NOTES

1. ALL GRADING TO BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF APPENDIX CHAPTER 33 OF THE COUNTY BUILDING CODE.
2. FILL SLOPE SURFACES SHALL BE 2:1 UNLESS OTHERWISE SPECIFIED.
3. CUT SLOPE SURFACES SHALL BE 2:1 UNLESS OTHERWISE SPECIFIED.

GENERAL NOTES:

1. ALL GRADING AND CONSTRUCTION SHALL CONFORM TO APPENDIX CHAPTER 33 AND CHAPTER 71 (LATEST EDITION) OF THE LOS ANGELES COUNTY BUILDING CODE UNLESS SPECIFICALLY NOTED ON THESE PLANS.
2. ANY MODIFICATIONS OF OR CHANGES TO APPROVED GRADING PLANS MUST BE APPROVED BY THE BUILDING OFFICIAL.
3. NO GRADING SHALL BE STARTED WITHOUT FIRST NOTIFYING THE BUILDING OFFICIAL A PRE-GRADING MEETING AT THE SITE IS REQUIRED BEFORE THE START OF THE GRADING WITH THE FOLLOWING PEOPLE PRESENT: OWNER, GRADING CONTRACTOR, DESIGN CIVIL ENGINEER, SOILS ENGINEER, GEOLOGIST, COUNTY GRADING INSPECTOR(S) OR THEIR REPRESENTATIVES, AND WHEN REQUIRED, THE ARCHEOLOGIST OR OTHER JURISDICTIONAL AGENCIES. PERMITTEE OR HIS AGENT ARE RESPONSIBLE FOR ARRANGING PRE-GRADE MEETING AND MUST NOTIFY THE BUILDING OFFICIAL AT LEAST TWO BUSINESS DAYS PRIOR TO PROPOSED PRE-GRADE MEETING.
4. APPROVAL OF THESE PLANS REFLECT SOLELY THE REVIEW OF PLANS IN ACCORDANCE WITH THE LOS ANGELES COUNTY BUILDING CODE AND DOES NOT REFLECT ANY POSITION BY THE COUNTY OF LOS ANGELES ON THE DEPARTMENT OF PUBLIC WORKS REGARDING THE STATUS OF ANY TITLE ISSUES RELATING TO THE LAND ON WHICH THE IMPROVEMENTS MAY BE CONSTRUCTED. ANY DISPUTES RELATING TO TITLE ARE SOLELY A PRIVATE MATTER NOT INVOLVING THE COUNTY OF LOS ANGELES OR THE DEPARTMENT OF PUBLIC WORKS.
5. ALL GRADING AND CONSTRUCTION ACTIVITIES SHALL COMPLY WITH LOS ANGELES COUNTY CODE, TITLE 12, SECTION 12.08.440 THAT CONTROLS AND RESTRICTS NOISE FROM THE USE OF CONSTRUCTION AND GRADING EQUIPMENT DURING THE HOURS OF 8:00 PM TO 6:30 AM, AND ON SUNDAYS AND HOLIDAYS. (MORE RESTRICTIVE CONSTRUCTION ACTIVITY TIMES MAY GOVERN, AS REQUIRED BY THE DEPARTMENT OF REGIONAL PLANNING AND SHOULD BE SHOWN ON THE GRADING PLANS WHEN APPLICABLE.)
6. CALIFORNIA PUBLIC RESOURCES CODE (SECTION 5097.98) AND HEALTH AND SAFETY CODE (SECTION 7050.5) ADDRESS THE DISCOVERY AND DISPOSITION OF HUMAN REMAINS IN THE EVENT OF DISCOVERY OR RECOGNITION OF ANY HUMAN REMAINS IN ANY LOCATION OTHER THAN A DEDICATED CEMETERY. THE LAW REQUIRES THAT GRADING IMMEDIATELY STOPS AND NO FURTHER EXCAVATION OR DISTURBANCE OF THE SITE, OR ANY NEARBY AREA WHERE HUMAN REMAINS MAY BE LOCATED, OCCUR UNTIL THE FOLLOWING REQUIREMENTS HAVE BEEN TAKEN:
   A. THE COUNTY CORONER HAS BEEN INFORMED AND HAS DETERMINED THAT NO INVESTIGATION OF THE CAUSE OF DEATH IS REQUIRED, AND
   B. IF THE REMAINS ARE OF NATIVE AMERICAN ORIGIN, THE DESCENDANTS FROM THE DECEASED HAVE APPROPRIATELY HAVE MADE A RECOMMENDATION FOR THE MEANS OF TREATING OR DISPOSING, WITH APPROPRIATE DIGNITY, OF THE HUMAN REMAINS AND ANY ASSOCIATED GRAVE GOODS.
7. THE LOCATION AND PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE PERMITTEE.
8. ALL EXPORT OF MATERIAL FROM THE SITE MUST GO TO A PERMITTED SITE, APPROVED BY THE BUILDING OFFICIAL OR A LEGAL DUMPSITE. RECEIPTS FOR ACCEPTANCE OF EXCESS FILL MATERIAL BY A DUMPSITE ARE REQUIRED AND MUST BE PROVIDED TO THE BUILDING OFFICIAL UPON REQUEST.
9. A COPY OF THE GRADING PERMIT AND APPROVED GRADING PLANS MUST BE IN THE POSSESSION OF A RESPONSIBLE PERSON AND AVAILABLE AT THE SITE AT ALL TIMES.
10. SITE BOUNDARIES, EASEMENTS, DRAINAGE DEVICES, RESTRICTED USE AREAS SHALL BE LOCATED FOR CONSTRUCTION STAKING BY FIELD ENGINEER OR LICENSED SURVEYOR, PRIOR TO GRADING, AS REQUESTED BY THE BUILDING OFFICIAL. ALL PROPERTY LINES, EASEMENTS, AND RESTRICTED USE AREAS SHALL BE STAKED.
11. NO GRADING OR CONSTRUCTION SHALL OCCUR WITHIN THE PROTECTED ZONE OF ANY OAK TREE AS REQUIRED PER TITLE CHAPTER 22.56 OF THE LOS ANGELES COUNTY ZONING CODE. THE PROTECTED ZONE SHALL MEAN THAT AREA WITHIN THE DRIPLINE OF AN OAK TREE EXTENDING THERE FROM A POINT AT LEAST FIVE FEET OUTSIDE THE DRIPLINE, OR 15 FEET FROM THE TRUNK(S) OF A TREE, WHICH EVER IS GREATER.

   IF AN OAK TREE PERMIT IS OBTAINED: (ADD THIS FOLLOWING NOTE.)

   ALL GRADING AND CONSTRUCTION WITHIN THE PROTECTED ZONE OF ALL OAK TREES SHALL BE PER OAK TREE PERMIT NO. _____. ALL RECOMMENDATIONS IN THE PERMIT AND ASSOCIATED OAK TREE REPORT MUST BE COMPLIED WITH AND ARE A PART OF THE GRADING PLAN. A COPY OF THE OAK TREE PERMIT AND APPROVED REPORTS SHALL BE MAINTAINED IN THE POSSESSION OF A RESPONSIBLE PERSON AND AVAILABLE AT THE SITE AT ALL TIMES.
12. THE STANDARD RETAINING WALL DETAILS SHOWN ON THE GRADING PLANS ARE FOR REFERENCE ONLY. STANDARD RETAINING WALLS ARE NOT CHECKED UNDER, PERMITTED OR INSPECTED PER THE GRADING PERMIT. A SEPARATE RETAINING WALL PERMIT IS REQUIRED FOR ALL STANDARD RETAINING WALLS.

   NOTE: THIS NOTE ONLY APPLIES TO STANDARD RETAINING WALLS DESIGNS. FABRIC AND GEOGRID RETAINING WALLS DO NOT REQUIRE A SEPARATE RETAINING WALL PERMIT. DETAILS AND CONSTRUCTION NOTES FOR ALL DESIGNED WALLS MUST BE ON THE GRADING PLAN.
13. A PREVENTIVE PROGRAM TO PROTECT THE SLOPES FROM POTENTIAL DAMAGE FROM BURROWING RODENTS IS REQUIRED PER SECTION 3307.9 OF THE LOS ANGELES COUNTY BUILDING CODE.
14. IF [illegible] APRIL 15 OF [illegible] EROSION [illegible] SECTION [illegible].
15. IN [illegible] SOILS ENGINEER, [illegible] WORKED DURING GRADING, [illegible] HAVE HAS AGREED IN [illegible] THE AREA OF TECHNICAL [illegible] THE WORK. IT SHALL [illegible] BUILDING OFFICIAL IN [illegible] MOVEMENT OF SUCH [illegible].

INSPECTION NOTES:

16. THE PERMITTEE OR HIS AGENT SHALL NOTIFY THE BUILDING OFFICIAL AT LEAST ONE WORKING DAY IN ADVANCE OF REQUIRED INSPECTIONS AT FOLLOWING STAGES OF THE WORK: (SECTION 3317 OF THE BUILDING CODE.)
   (A) INITIAL WHEN THE SITE HAS BEEN CLEARED OF VEGETATION AND UNAPPROVED FILL HAS BEEN SCARIFIED, BENCHED OR OTHERWISE PREPARED FOR FILL. FILL SHALL NOT BE PLACED PRIOR TO THIS INSPECTION. NOTE: PRIOR TO ANY CONSTRUCTION ACTIVITIES, INCLUDING GRADING, ALL STORM WATER POLLUTION PREVENTION MEASURES INCLUDING EROSION CONTROL DEVICES WHICH CONTAIN SEDIMENT MUST BE INSTALLED.
   (B) ROUGH WHEN APPROXIMATE FINAL ELEVATIONS HAVE BEEN ESTABLISHED; DRAINAGE TERRACES, SWALES AND BERMS INSTALLED AT THE TOP OF THE SLOPE; AND THE STATEMENTS REQUIRED IN THIS SECTION HAVE BEEN RECEIVED.
   (C) FINAL WHEN GRADING HAS BEEN COMPLETED; ALL DRAINAGE DEVICES, SLOPE PROTECTION AND PLANTING ESTABLISHED, IRRIGATION SYSTEMS INSTALLED AND THE AS-BUILT PLANS, REQUIRED STATEMENTS, AND REPORTS HAVE BEEN SUBMITTED AND APPROVED.
17. IN ADDITION TO THE INSPECTION REQUIRED OF THE BUILDING OFFICIAL FOR REGULAR GRADING, REPORTS AND STATEMENTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL IN ACCORDANCE WITH SECTIONS 3317 AND 3318 OF THE LOS ANGELES COUNTY CODE.
18. ALL GRADED SITES MUST HAVE DRAINAGE SWALES, BERMS AND OTHER DRAINAGE DEVICES INSTALLED PRIOR TO ROUGH GRADING APPROVAL. (PER SECTION 3317.6 OF LOS ANGELES COUNTY BUILDING CODE.)
19. THE GRADING CONTRACTOR SHALL SUBMIT THE STATEMENT TO THE GRADING INSPECTOR AS REQUIRED BY SECTION 3318.1 OF THE LOS ANGELES COUNTY BUILDING CODE AT THE COMPLETION OF ROUGH GRADING.
20. FINAL GRADING MUST BE APPROVED BEFORE OCCUPANCY OF BUILDINGS WILL BE ALLOWED PER SECTION 3318 OF THE LOS ANGELES COUNTY BUILDING CODE.

DRAINAGE NOTES

21. ROOF DRAINAGE MUST BE DIVERTED FROM GRADED SLOPES.
22. PROVISIONS SHALL BE MADE FOR CONTRIBUTORY DRAINAGE AT ALL TIMES.
23. ALL CONSTRUCTION AND GRADING WITHIN A STORM DRAIN EASEMENT ARE TO BE DONE PER PRIVATE DRAIN PD NO. _____ OR MISCELLANEOUS TRANSFER DRAIN MTD NO. _____.
24. ALL STORM DRAIN WORK IS TO BE DONE UNDER CONTINUOUS INSPECTION BY THE FIELD ENGINEER. WEEKLY STATUS REPORTS SHALL BE SUBMITTED BY THE FIELD ENGINEER TO THE LOCAL BUILDING AND SAFETY DISTRICT OFFICE.

AGENCY NOTES (ADD– APPLICABLE NOTES)

25. AN ENCROACHMENT PERMIT FROM (LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS)(CALTRANS)(CITY OF _____) IS REQUIRED FOR ALL WORK WITHIN OR AFFECTING ROAD RIGHT OF WAY. ALL WORK WITHIN ROAD RIGHT OF WAY SHALL CONFORM TO (LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS)(CALTRANS)(CITY OF _____) STANDARDS.
26. AN ENCROACHMENT PERMIT/CONSTRUCTION PERMIT IS REQUIRED FROM THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT FOR ALL WORK WITHIN THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT RIGHT OF WAY. ALL WORK SHALL BE CONFORMED PER THE CONDITIONS SET BY THE PERMIT.
27. PERMISSION TO OPERATE IN FIRE ZONE 4 MUST BE OBTAINED FROM THE FIRE PREVENTION BUREAU OR THE LOCAL FIRE STATION PRIOR TO COMMENCING WORK.
28. ALL WORK WITHIN THE STREAMBED AND AREAS OUTLINED ON GRADING PLANS SHALL CONFORM TO:
   ARMY CORPS 404 PERMIT NUMBER: _____
   CALIFORNIA FISH & GAME PERMIT NO. _____

GENERAL GEOTECHNICAL NOTES

29. ALL WORK MUST BE IN COMPLIANCE WITH THE RECOMMENDATIONS INCLUDED IN THE GEOTECHNICAL CONSULTANT'S REPORT(S) AND ANY APPROVED ADDENDUM(S) AND APPENDICES(S).
30. GRADING OPERATIONS MUST BE CONDUCTED UNDER PERIODIC INSPECTIONS BY THE GEOTECHNICAL CONSULTANTS WITH MONTHLY INSPECTION REPORTS TO BE SUBMITTED TO THE GEOLOGY AND SOILS SECTION.
31. THE SOIL ENGINEER SHALL PROVIDE SUFFICIENT INSPECTIONS DURING THE PREPARATION OF THE NATURAL GROUND AND THE PLACEMENT AND COMPACTION OF THE FILL TO BE SATISFIED THAT THE WORK IS BEING PERFORMED IN ACCORDANCE WITH THE PLAN AND APPLICABLE CODE REQUIREMENTS.
32. ROUGH GRADING MUST BE APPROVED BY A FINAL ENGINEERING GEOLOGY AND SOILS ENGINEERING REPORT. AN AS-BUILT GEOLOGIC MAP MUST BE INCLUDED IN THE FINAL GEOLOGY REPORT. PRIOR TO FINAL INSPECTION, A FINAL REPORT VERIFYING WORK HAS BEEN DONE IN ACCORDANCE WITH REPORT RECOMMENDATIONS AND CODE PROVISIONS (SECTION 3318.1 OF THE LOS ANGELES COUNTY BUILDING CODE). THE FINAL REPORT(S) MUST BE SUBMITTED TO THE GEOTECHNICAL AND MATERIALS ENGINEERING DIVISION FOR REVIEW AND APPROVAL.
33. FOUNDATION, SWALE AND POOL EXCAVATIONS MUST BE INSPECTED AND APPROVED BY THE CONSULTING GEOLOGIST AND SOILS ENGINEER, PRIOR TO THE PLACING OF STEEL OR CONCRETE.
34. BUILDING PADS LOCATED IN CUT/FILL TRANSITION AREAS SHALL BE OVER-EXCAVATED A MINIMUM OF THREE (3) FEET BELOW THE PROPOSED BOTTOM OF FOOTING.

FILL NOTES

35. ALL FILL SHALL BE COMPACTED TO THE FOLLOWING MINIMUM RELATIVE COMPACTION CRITERIA:
   A. 90 PERCENT OF MAXIMUM DRY DENSITY WITHIN 40 FEET BELOW FINISH GRADE.
   B. 93 PERCENT OF MAXIMUM DRY DENSITY DEEPER THAN 40 FEET BELOW FINISH GRADE, UNLESS A LOWER RELATIVE COMPACTION (NOT LESS THAN 90 PERCENT OF MAXIMUM DRY DENSITY) IS JUSTIFIED BY THE GEOTECHNICAL ENGINEER.

   THE RELATIVE COMPACTION SHALL BE DETERMINED BY A.S.T.M. SOIL COMPACTION TEST D1557-91 WHERE APPLICABLE. WHERE NOT APPLICABLE, A TEST ACCEPTABLE TO THE BUILDING OFFICIAL SHALL BE USED. (SECTION 3313.4 OF THE LOS ANGELES COUNTY BUILDING CODE.)
36. FIELD DENSITY SHALL BE DETERMINED BY A METHOD ACCEPTABLE TO THE BUILDING OFFICIAL. (SECTION 3313.4 OF THE LOS ANGELES COUNTY BUILDING CODE.) HOWEVER, NOT LESS THAN 10% OF THE REQUIRED DENSITY TEST, UNIFORMLY DISTRIBUTED, AND SHALL BE OBTAINED BY THE SAND CONE METHOD.
37. SUFFICIENT TESTS OF THE FILL SOILS SHALL BE MADE TO DETERMINE THE RELATIVE COMPACTION OF THE FILL IN ACCORDANCE WITH THE FOLLOWING MINIMUM GUIDELINES:
   A. ONE TEST FOR EACH TWO-FOOT VERTICAL LIFT.
   B. ONE TEST FOR EACH 1,000 CUBIC YARDS OF MATERIAL PLACED.
   C. ONE TEST AT THE LOCATION OF THE FINAL FILL SLOPE FOR EACH BUILDING SITE (LOT) IN EACH FOUR-FOOT VERTICAL LIFT OR PORTION THEREOF.
   D. ONE TEST IN THE VICINITY OF EACH BUILDING PAD FOR EACH FOUR-FOOT VERTICAL LIFT OR PORTION THEREOF.
38. SUFFICIENT TESTS OF FILL SOILS SHALL BE MADE TO VERIFY THAT THE SOIL PROPERTIES COMPLY WITH THE DESIGN REQUIREMENTS, AS DETERMINED BY THE SOIL ENGINEER INCLUDING SOIL TYPES, SHEAR STRENGTHS PARAMETERS AND CORRESPONDING UNIT WEIGHTS IN ACCORDANCE WITH THE FOLLOWING GUIDELINES:
   A. PRIOR AND SUBSEQUENT TO PLACEMENT OF ANY FILL, SHEAR TESTS SHALL BE TAKEN ON EACH TYPE OF SOIL OR SOIL MIXTURE TO BE USED FOR FILL ALL SLOPES STEEPER THAN THREE (3) HORIZONTAL TO ONE VERTICAL.
   B. SHEAR TEST RESULTS FOR THE PROPOSED FILL MATERIAL MUST MEET OR EXCEED THE DESIGN VALUES USED IN THE GEOTECHNICAL REPORT TO DETERMINE SLOPE STABILITY REQUIREMENTS. OTHERWISE, THE SLOPE MUST BE RECALCULATED USING THE ACTUAL SHEAR TEST VALUE OF THE FILL MATERIAL THAT IS IN PLACE.
   C. FILL SOILS SHALL BE FREE OF DELETERIOUS MATERIALS.
39. FILL SHALL NOT BE PLACED UNTIL STRIPPING OF VEGETATION, REMOVAL OF UNSUITABLE SOILS, AND INSTALLATION OF SUBDRAIN (IF ANY) HAVE BEEN INSPECTED AND APPROVED BY THE SOIL ENGINEER. THE BUILDING OFFICIAL MAY REQUIRE A "STANDARD TEST METHOD FOR MOISTURE, ASH, ORGANIC MATTER, PEAT OR OTHER ORGANIC SOILS" ASTM D-2974-87 ON ANY SUSPECT MATERIAL. DETRIMENTAL AMOUNTS OF ORGANIC MATERIAL SHALL NOT BE PERMITTED IN FILLS. SOIL CONTAINING SMALL AMOUNTS OF ROOTS MAY BE ALLOWED PROVIDED THAT THE ROOTS ARE IN A QUANTITY AND DISTRIBUTED IN A MANNER THAT WILL NOT BE DETRIMENTAL TO THE FUTURE USE OF THE SITE AND THE SOILS ENGINEER AGREES TO THE USE OF SUCH MATERIAL.
40. ROCK OR SIMILAR MATERIAL GREATER THAN 12 INCHES IN DIAMETER SHALL NOT BE PLACED IN THE FILL UNLESS RECOMMENDATIONS FOR SUCH PLACEMENT HAVE BEEN SUBMITTED BY THE SOIL ENGINEER AND APPROVED IN ADVANCE BY THE BUILDING OFFICIAL. LOCATION, EXTENT, AND ELEVATION OF ROCK DISPOSAL AREAS MUST BE SHOWN ON AN "AS-BUILT" GRADING PLAN.
41. CONTINUOUS INSPECTION BY THE SOIL ENGINEER, OR A RESPONSIBLE REPRESENTATIVE, SHALL BE PROVIDED DURING ALL FILL PLACEMENT AND COMPACTION WHERE FILLS HAVE A DEPTH GREATER THAN 30 FEET OR SLOPE SURFACE STEEPER THAN 2:1 (SECTION 3313.7 OF THE LOS ANGELES COUNTY BUILDING CODE.)
42. CONTINUOUS INSPECTION BY THE SOIL ENGINEER, OR A RESPONSIBLE REPRESENTATIVE, SHALL BE PROVIDED DURING ALL SUBDRAIN INSTALLATIONS. (SECTION 3313.2 OF THE LOS ANGELES COUNTY BUILDING CODE.)
43. ALL SUBDRAIN OUTLETS ARE TO BE SURVEYED FOR LINE AND ELEVATION. SUBDRAIN INFORMATION MUST SHOWN ON AN "AS-BUILT" GRADING PLAN.
44. FILL SLOPES IN EXCESS OF 2:1 STEEPNESS RATIO ARE TO BE CONSTRUCTED BY THE PLACEMENT OF SOIL AT SUFFICIENT DISTANCE BEYOND THE PROPOSED FINISH SLOPE TO ALLOW COMPACTION EQUIPMENT TO BE OPERATED AT THE OUTER LIMITS OF THE FINISH SLOPE SURFACE. THE EXCESS FILL IS TO BE REMOVED PRIOR TO COMPLETION OF ROUGH GRADING. OTHER CONSTRUCTION PROCEDURES MAY BE USED WHEN IT IS DEMONSTRATED TO THE SATISFACTION OF THE BUILDING OFFICIAL THAT THE SLOPE COMPACTION METHOD AND OTHER FACTORS WILL HAVE EQUIVALENT EFFECT. (SECTION 3313.6 OF THE LOS ANGELES COUNTY BUILDING CODE.)

PLANTING AND IRRIGATION NOTES:

45. ALL CUT SLOPES OVER FIVE (5) FEET AND FILL SLOPES OVER THREE (3) FEET SHALL BE PLANTED WITH AN APPROVED GROUND COVER AND PROVIDED WITH AN IRRIGATION SYSTEM AS SOON AS PRACTICAL AFTER ROUGH GRADING. (SECTIONS 3316.3 & 3316.4 OF THE LOS ANGELES COUNTY BUILDING CODE.)
46. PLANTING AND IRRIGATION ON GRADED SLOPES MUST COMPLY WITH THE FOLLOWING MINIMUM GUIDLINES:
   A. THE SURFACE OF ALL CUT SLOPES MORE THAN 5 FEET IN HEIGHT AND FILL SLOPES MORE THAN 3 FEET IN HEIGHT SHALL BE PROTECTED AGAINST DAMAGE BY EROSION BY PLANTING WITH GRASS OR GROUNDCOVER PLANTS. SLOPES EXCEEDING 15 FEET IN VERTICAL HEIGHT SHALL ALSO BE PLANTED WITH SHRUBS OR VINES, SPACED AT NOT TO EXCEED 10 FEET ON CENTERS, OR TREES SPACED AT NOT TO EXCEED 20 FEET ON CENTERS, OR A COMBINATION OF SHRUBS AND TREES AT EQUIVALENT SPACING, IN ADDITION TO THE GRASS OR GROUNDCOVER PLANTS. THE PLANTS SELECTED AND PLANTING METHODS USED SHALL BE SUITABLE FOR THE SOIL AND CLIMATIC CONDITIONS OF THE SITE. PLANT MATERIALS SHALL BE SELECTED WHICH WILL PROVIDE A COVERAGE OF PERMANENT PLANTING EFFECTIVELY CONTROLLING EROSION. CONSIDERATION SHALL BE GIVEN TO DEEP-ROOTED PLANTING MATERIAL NEEDING LIMITED WATERING, MAINTENANCE, ALL WITH DUE REGARD TO SHORT AND LONG SUSCEPTIBILITY AND FIRE-RETARDENT CHARACTERISTICS. ALL PLANT MATERIALS MUST BE APPROVED BY THE BUILDING OFFICIAL. (SECTION 3316.5 OF THE COUNTY OF LOS ANGELES BUILDING CODE.)

      NOTE: PLANTING NEED NOT BE PROVIDED FOR CUT SLOPES IN CHARACTER AND NOT SUBJECT TO DAMAGE BY EROSION AND ANY SLOPES PROTECTED AGAINST EROSION DAMAGE BY OTHER METHODS WHEN SUCH METHODS HAVE BEEN SPECIFICALLY RECOMMENDED BY A SOIL ENGINEER, ENGINEERING GEOLOGIST, OR EQUIVALENT AUTHORITY AND FOUND TO OFFER EROSION PROTECTION EQUAL TO THAT PROVIDED BY THE PLANTING SPECIFIED ABOVE.
   B. SLOPES REQUIRED TO BE PLANTED BY SECTION 3316.3 SHALL BE PROVIDED WITH AN APPROVED SYSTEM OF IRRIGATION THAT IS DESIGNED TO COVER ALL PORTIONS OF THE SLOPE. IRRIGATION SYSTEM PLANS SHALL BE SUBMITTED AND APPROVED PRIOR TO INSTALLATION. A FUNCTIONAL TEST OF THE SYSTEM MAY BE REQUIRED. FOR SLOPES LESS THAN 20 FEET IN HEIGHT, HOSE BIBS TO PERMIT HAND WATERING WILL BE ACCEPTABLE IF SUCH HOSE BIBS ARE INSTALLED AT CONVENIENTLY ACCESSIBLE LOCATIONS WHERE A HOSE NO LONGER THAN 50 FEET IS NECESSARY FOR IRRIGATION. THE REQUIREMENTS FOR PERMANENT IRRIGATION SYSTEMS MAY BE MODIFIED UPON SPECIFIC RECOMMENDATION OF LANDSCAPE ARCHITECT OR EQUIVALENT AUTHORITY WHO, BECAUSE OF THE TYPE OF PLANTS SELECTED, THE PLANTING METHODS USED AND THE SOIL AND CLIMATIC CONDITIONS AT THE SITE, IRRIGATION WILL NOT BE NECESSARY FOR THE MAINTENANCE OF THE SLOPE PLANTING. (SECTION 3316.4 OF THE COUNTY OF LOS ANGELES BUILDING CODE).
   C. OTHER GOVERNMENTAL AGENCIES MAY HAVE ADDITIONAL REQUIREMENTS FOR LANDSCAPE AND IRRIGATION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE WITH OTHER AGENCIES TO MEET THEIR REQUIREMENTS WHILE MAINTAINING COMPLIANCE WITH THE COUNTY OF LOS ANGELES BUILDING CODE.
   46. THE PLANTING AND IRRIGATION SYSTEMS SHALL BE INSTALLED AS SOON AS PRACTICAL AFTER ROUGH GRADING. PRIOR TO FINAL GRADING APPROVAL ALL REQUIRED SLOPE PLANTING MUST BE WELL ESTABLISHED. (SECTION 3316.7 OF THE COUNTY OF LOS ANGELES BUILDING CODE).
48. RHE PLANTING AND IRRIGATION SYSTEMS SHALL BE INSTALLED AS SOON AS PRACTICAL AFTER ROUGH GRADING. PRIOR TO FINAL GRADING APPROVAL ALL REQUIRED SLOPE PLANTING MUST BE WELL ESTABLISHED. (SECTION 3316.7 OF THE COUNTY OF LOS ANGELES BUILDING CODE). EROSION CONTROL
47. THIS PROJECT REQUIRES A LANDSCAPE PLAN PER CHAPTER 71 OF THE LOS ANGELES THE LOS ANGELES COUNTY BUILDING CODE. PRIOR TO ROUGH GRADE APPROVAL LANDSCAPE PLANS MUST BE SUBMITTED AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS, LAND DEVELOPMENT DIVISION. (900 S. FREMONT AVE., ALHAMBRA--3RD FLOOR, CA 91803 (626) 458--4921).

SOILS ENGINEER STATEMENT

THE OFFICE OF SUBSURFACE DESIGN HAS REVIEWED THE GRADING PLAN PREPARED BY PACIFIC COAST CIVIL, INC.

WE FIND THE PROPOSED CONSTRUCTION TO BE FEASIBLE FROM A GEOTECHNICAL ENGINEERING AND GEOLOGIC VIEWPOINT.

THE SOILS INFORMATION PROVIDED TO PACIFIC COAST CIVIL, INC. BY SUBSURFACE DESIGN IS DEPICTED CORRECTLY ON THIS GRADING PLAN.

SOIL REPORT: PROPOSED 340, INC. RESIDENCE
DATED _____

ENGINEERS EASEMENT STATEMENT:

AS THE ENGINEER OF THE PROJECT, I HAVE REVIEWED THE EASEMENTS SHOWN ON THIS PLAN, INCLUDING THEIR ACCURACY, AND THAT THE PROPOSED WORK WITHIN THESE EASEMENTS FALLS WITHIN THE RIGHTS GRANTED BY SAID EASEMENTS.

SIGNATURE-ENGINEER OF RECORD — DATE 1.09.06

FOR ADDITIONAL NOTES AND SUSMP NOTES PLEASE SEE SHEET 2

LEGEND

SYMBOLS

GARDEN WALL
EXISTING CONTOUR (1070)
FINISHED/PROPOSED CONTOUR 1070
EXISTING SLOPE
FILL OR CUT SLOPE TOP OF SLOPE / TOE OF SLOPE
SHEET FLOW 2% MIN.-20% MAX.
FINISHED PAVEMENT ELEVATION
FINISHED GRADE ELEVATION
RETAINING WALL PER SEPARATE PERMIT

DAYLIGHT CUT/FILL LINE C / F
DAYLIGHT LINE
PROPERTY BOUNDARY
RIDGE LINE
DRAIN PIPE OR POOL SUB DRAIN
VELOCITY REDUCER / RIP-RAP
CATCH BASIN
CONC. SWALE / DOWN DRAIN
DOWNSPOUT
DRAINAGE DEVICE FLOW

ABBREVIATIONS

T.C.	TOP OF CURB	L.P.	LOW POINT
G.B.	GRADE BREAK	P	PROPERTY LINE
F.L.	FLOW LINE	R.C.	RADIUS OF CURVE
C.F.	CURB FACE	E.C.	END OF CURVE
T.G.	TOP OF GRATE	B.V.C.	BEGIN VERTICAL CURVE
INV.	INVERT	E.V.C.	END VERTICAL CURVE
D.O.	DOWN-OUT	R/W	RIGHT-OF-WAY
C.B.	CATCH BASIN	R.C.P.	REINFORCED CONCRETE PIPE
F.S.	FINISHED SURFACE	R.C.B.	REINFORCED CONCRETE BOX
L.D.	LOCAL DEPRESSION	S.D.	STORM DRAIN
F.F.	FINISHED FLOOR	C.M.P.	CORRUGATED METAL PIPE
T.E.	TOP OF WALL	P.V.C.	POLYVINYL CHLORIDE PIPE
N.T.S.	NOT TO SCALE	H.D.P.E.	HIGH DENSITY POLYETHYLENE PIPE
P.A.	PLANTER AREA	E.P.	EDGE OF PAVEMENT
M.H.	MANHOLE	F.G.	FINISHED GRADE
E.G.	EDGE OF GUTTER	H.P.	HIGH POINT
P.I.	POINT OF INTERSECTION	E.D.F.	EXTRA DEPTH FOOTING
W.D.	WALL DRAIN	℄	CENTER LINE
T.S.	TOP OF SLAB	S.G.	SUB GRADE

BENCHMARK:

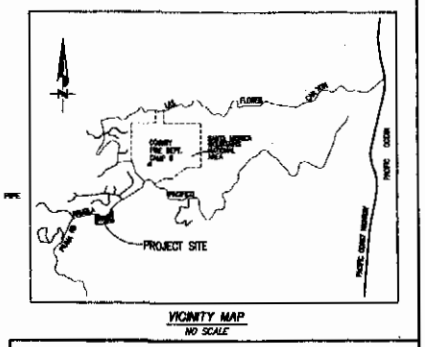
ELEVATIONS SHOWN ARE BASED ON L.A. CO. RD. DEPT. BM DY 6437 = EL. 1421.27, N.G.V.D.'29.

NOTICE TO CONTRACTOR

CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING STORM DRAIN, SEWER LINE, AND WATER LINE. REPORT ANY DISCREPANCY TO DESIGN ENGINEER.

INDEX TO PROJECT DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	NOTES
3	DETAILS
4	GRADING PLAN



VICINITY MAP
NO SCALE

EARTHWORK QUANTITIES

QUANTITIES ARE FOR PLAN CHECK PURPOSES AND ARE NOT TO BE USED FOR BID PURPOSES

CUT:	FILL:	EXPORT:
300 CY.	300 CY.	N/A

OVER EXCAVATION/ ALLUVIAL REMOVAL & COMPACTION N/A
EXPORT: N/A
ASSUME 15% SHRINKAGE
EXPORT SITE:
APPROXIMATE STARTING DATE:
APPROXIMATE COMPLETION DATE:

PLANS PREPARED BY:
PACIFIC COAST CIVIL, INC.
29141 Agoura Road, Suite 300
Agoura Hills, CA 91301
PH: (818) 889-4160
FAX: (818) 889-4186

PLANS PREPARED UNDER THE DIRECTION OF:
RICHARD E. DOSS R.C.E. 24094 — DATE 8-01-06

NO.	DATE	REVISIONS	BY	APPD

COUNTY OF LOS ANGELES

1601 RAMBLA PACIFICO ROAD
MALIBU, CA 90265

TITLE SHEET

OWNER/DEVELOPER:
340, INC.
C/O PHIL TARIN
20102 WINDROW DRIVE
LAKE FOREST, CA 92630

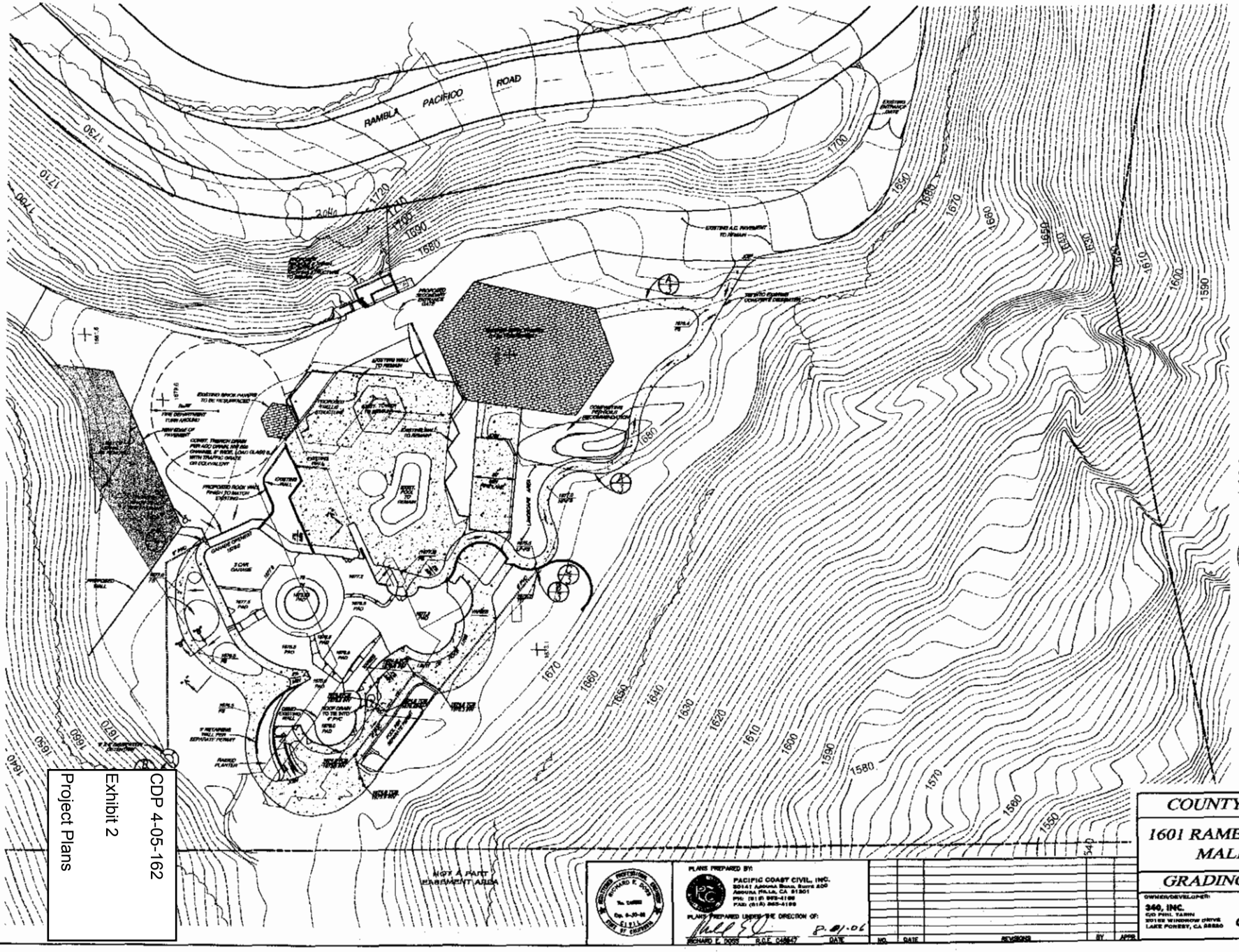
C1

SHEET 1 OF 4 SHEETS

AUG 1 8 2006

340, INC. RESIDENCE

CDP 4-05-162
Exhibit 2
Project Plans



CDP 4-05-162

Exhibit 2

Project Plans

COUNTY OF LOS ANGELES

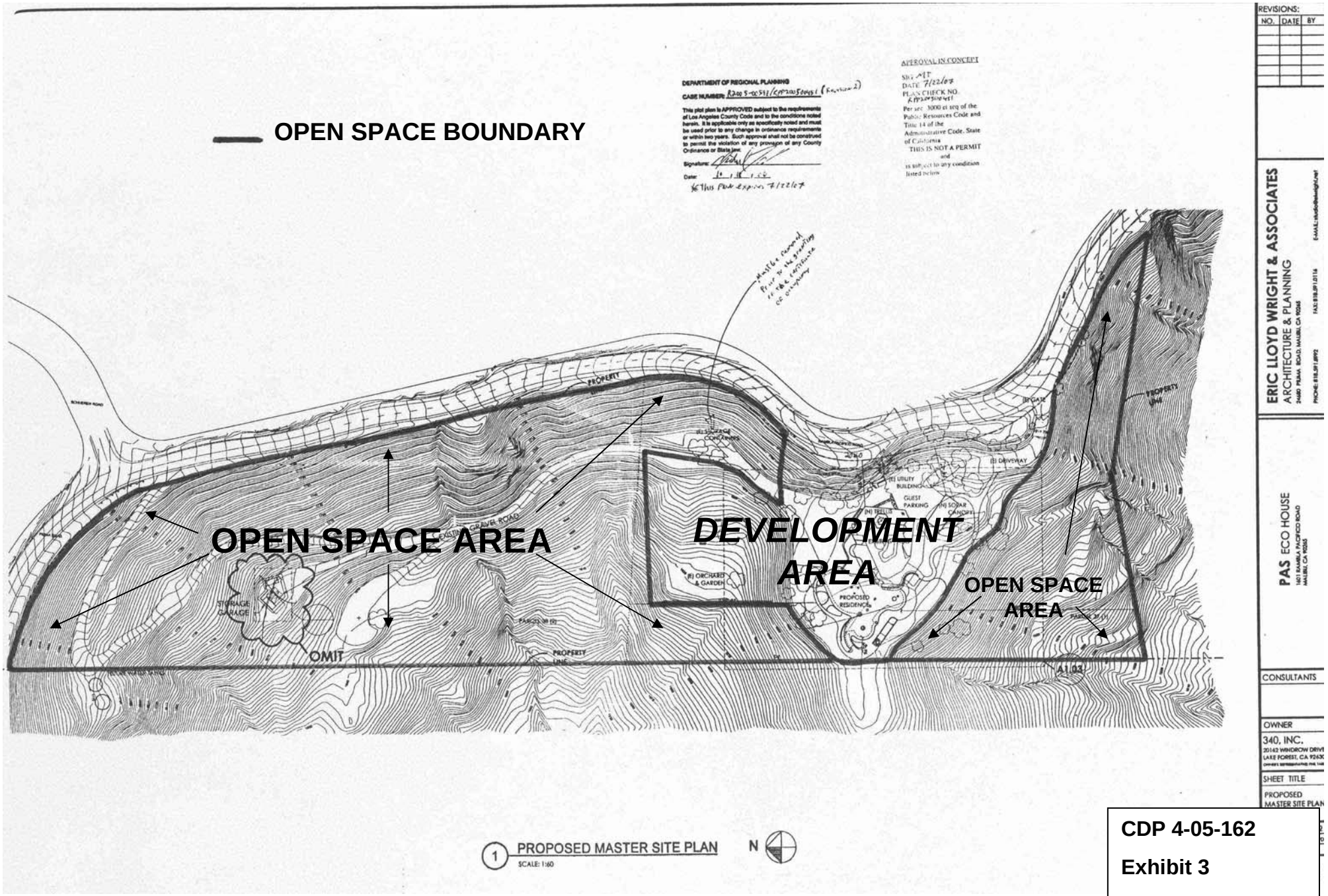
1601 RAMBLA PACIFICO ROAD
MALIBU, CA 90265

GRADING/DRAINAGE PLAN

PLANS PREPARED BY:
PACIFIC COAST CIVIL, INC.
PLANS PREPARED UNDER THE DIRECTION OF:
RICHARD E. DOSS R.C.E. 24847 DATE 8-01-06

OWNER/DEVELOPER:
340, INC.
C4
SHEET 4 OF 4 SHEETS

340, INC. RESIDENCE



CDP 4-05-162

Exhibit 3

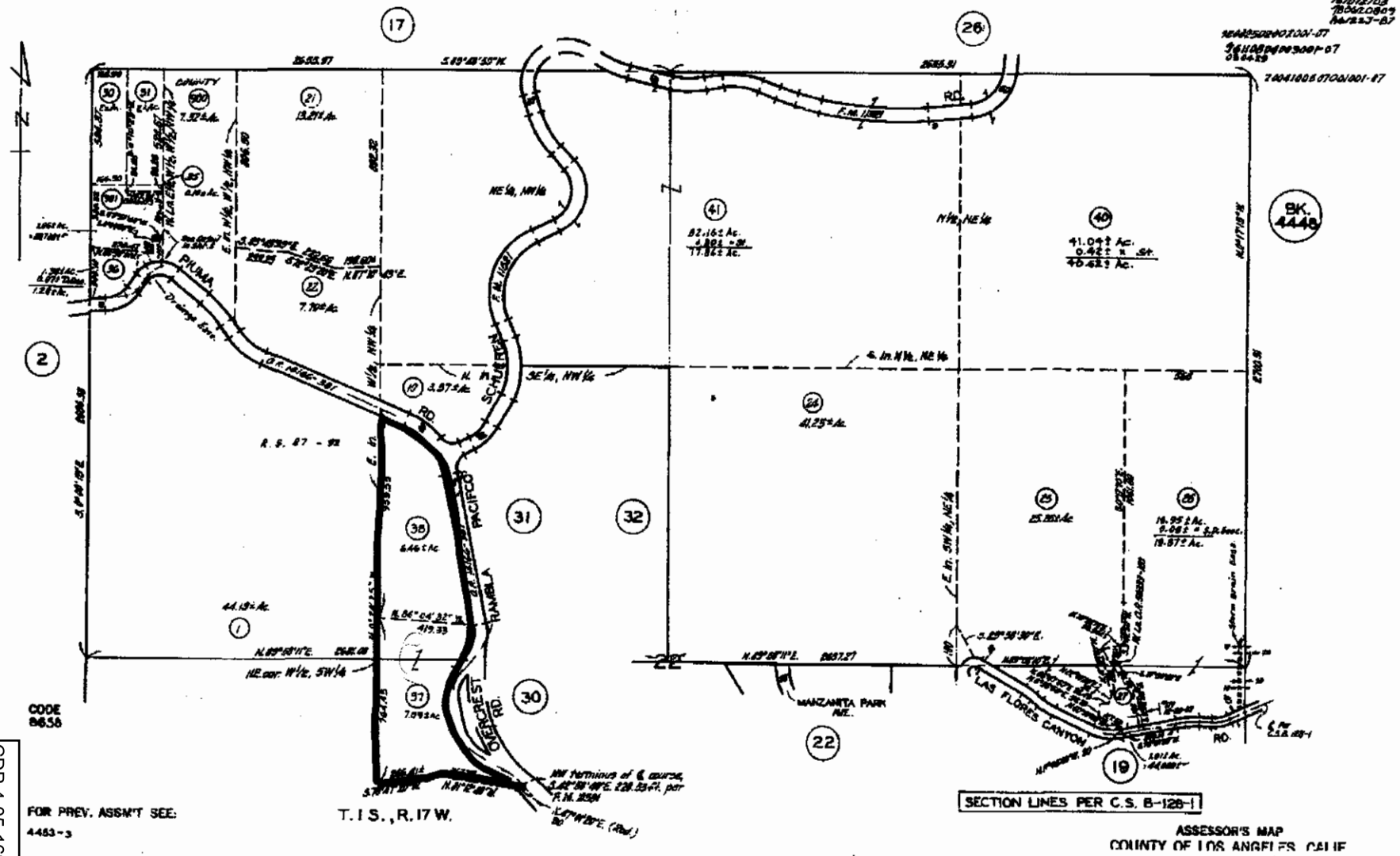
Open Space Area

County of Los Angeles: Rick Auerbach, Assessor

RECEIVED
MAY 22 2006
CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

4453 | 3
SHEET 1
SCALE 1" = 400'

2005



CDP 4-05-162
Exhibit 4
Parcel Map

RECORDING REQUESTED BY
WHEN RECORDED MAIL TO
~~Stephanie Bramer~~ Mary Tran
2912 Lafayette Road
Newport Beach, CA 92663

MAIL TAX STATEMENTS TO
Stephanie Bramer
2912 Lafayette Road
Newport Beach, CA 92663

05/29/07
20071292414

APN: 4453-003-037 & 4453-003-038

DOCUMENTARY TRANSFER TAX $ 0

By S Bramer, 340 Inc.
(Signature of Declarant)

QUITCLAIM DEED

FOR NO CONSIDERATION, which is hereby acknowledged,

340 INC., a California corporation,

does hereby REMISE, RELEASE, and FOREVER QUITCLAIM to

PAS PROJECT, LLC, a California limited liability company,

all right, title and interest in and to the real property in the City of Malibu, County of Los Angeles SB State of California, as more fully described in Exhibit "A" attached hereto and made a part thereof.

Dated: 12/29/2006

340 INC., a California corporation

BY: ~~Pierre~~ Andre Senizergues
ITS: CEO

Note to Assessor: Transfer to limited liability company owned 100% by Grantor (R&T Code §§ 62(a) and 11925(d))

The grantors and the grantees in this conveyance are comprised of the same parties who continue to hold the same proportionate interest in the property. R&T 11925(d).

CDP 4-05-162

Exhibit 5

Current Deed for Property

STATE OF CALIFORNIA

COUNTY OF Orange

On _____ before me, Mary Tran, Notary Public, personally appeared Pierre-Andre Sertizerques

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Mary Tran (Seal)

MARY TRAN
COMMISSION # 1657802
Notary Public - California
ORANGE COUNTY
My Comm. Expires Apr. 11, 2010

CDP 4-05-162

Exhibit 5

Current Deed for Property

4

EXHIBIT "A"

PARCEL 1: -4453-3-37

A PORTION IN LOS ANGELES COUNTY, STATE OF CALIFORNIA, BEING A PORTION OF SECTION 22, TOWNSHIP 1 SOUTH, RANGE 17 WEST, SAN BERNARDINO MERIDIAN, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE WEST LINE OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 22 THAT IS DISTANT SOUTH 00° 24' 25" EAST 953.53 FEET FROM THE INTERSECTION OF SAID WEST LINE WITH THE CENTER LINE OF THE 60 FOOT WIDE STRIP DESCRIBED IN DEED TO THE COUNTY OF LOS ANGELES RECORDED IN BOOK 14166, PAGE 381, OF OFFICIAL RECORDS OF SAID COUNTY; THENCE SOUTH 86° 04' 32" EAST 419.33 FEET, MORE OR LESS, TO A POINT DISTANT SOUTH 77° 48' 40" WEST 30.00 FEET FROM THE SOUTHERLY EXTREMITY OF THE CENTER LINE COURSE DESCRIBED AS SOUTH 12° 11' 20" EAST 700.98 FEET IN SAID DEED TO THE COUNTY OF LOS ANGELES; THENCE NORTH 77° 48' 40" EAST 30.00 FEET TO SAID SOUTHERLY EXTREMITY OF SAID CENTER LINE COURSE; THENCE SOUTHERLY ALONG SAID CENTERLINE ALONG A CURVE TANGENT TO THE CENTERLINE COURSE DESCRIBED AS SOUTH 12° 11' 20" EAST 700.98 FEET, SAID CURVE IS CONCAVE TO THE WEST HAVING A RADIUS OF 200 FEET, AN ARC DISTANCE OF 185.72 FEET; THENCE SOUTHWESTERLY ALONG SAID CENTERLINE TANGENT TO SAID CURVE SOUTH 41° 31' 50" WEST 62.55 FEET; THENCE SOUTHERLY ALONG SAID CENTERLINE ALONG A TANGENT CURVE CONCAVE TO THE EAST HAVING A RADIUS OF 140.00 FEET, AN ARC DISTANCE OF 129.71 FEET; THENCE SOUTHERLY ALONG SAID CENTERLINE TANGENT TO SAID CURVE SOUTH 11° 33' 20" EAST 134.26 FEET; THENCE SOUTHEASTERLY ALONG SAID CENTERLINE ALONG A TANGENT CURVE CONCAVE TO THE NORTHEAST HAVING A RADIUS OF 200.00 FEET AN ARC DISTANCE OF 197.24 FEET; THENCE ALONG SAID CENTERLINE TANGENT TO SAID CURVE SOUTH 68° 03' 40" EAST 54.61 FEET; THENCE SOUTHEASTERLY ALONG SAID CENTERLINE ALONG A TANGENT CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 350.00 FEET AN ARC DISTANCE OF 153.73 FEET; THENCE LEAVING SAID CENTERLINE, SOUTH 47° 01' 20" WEST 30.00 FEET; THENCE NORTH 81° 12' 40" WEST 367.75 FEET; THENCE SOUTH 78° 47' 20" WEST 266.41 FEET MORE OR LESS TO THE WEST LINE OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 22; THENCE ALONG SAID WEST LINE AND THE WEST LINE OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 22, NORTH 00° 24' 25" WEST 764.43 FEET TO THE POINT OF BEGINNING, AS DESCRIBED IN THE CERTIFICATE OF COMPLIANCE RECORDED OCTOBER 17, 1996, AS INSTRUMENT NO. 96-1686795, OF OFFICIAL RECORDS.

PARCEL 2: -4453-3-38

THAT PORTION OF SECTION 22, TOWNSHIP 1 SOUTH, RANGE 17 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND FILED IN THE DISTRICT LAND OFFICE ON AUGUST 31, 1996, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE WEST LINE OF SAID SECTION WHICH IS SOUTH 00° 08' 20" EAST THEREON 1068.03 FEET FROM THE NORTHWEST CORNER OF SAID SECTION, SAID POINT BEING ON THE CENTERLINE OF THE 60 FOOT WIDE STRIP DESCRIBED IN THE DEED TO THE COUNTY OF LOS ANGELES RECORDED IN BOOK 14166, PAGE 381, OF OFFICIAL

LEGAL DESCRIPTION CONTINUED

03 198

CDP 4-05-162

Exhibit 5

Current Deed for Property

5

RECORDS, OF SAID COUNTY; THENCE ALONG SAID CENTERLINE NORTH 85° 40' 40" EAST 70.53 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 150 FEET; THENCE NORTHEASTERLY ALONG SAID CURVE AND CENTERLINE 135.74 FEET; THENCE TANGENT TO SAID CURVE AND ALONG SAID CENTERLINE NORTH 33° 49' 40" EAST 71.40 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTH HAVING A RADIUS OF 100 FEET; THENCE EASTERLY ALONG SAID CURVE AND CENTERLINE 166.95 FEET; THENCE TANGENT TO SAID CURVE AND ALONG SAID CENTERLINE SOUTH 50° 31' 10" EAST 183.02 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 500 FEET; THENCE SOUTHEASTERLY ALONG SAID CURVE AND CENTERLINE 145.66 FEET; THENCE TANGENT TO SAID CURVE AND ALONG SAID CENTERLINE SOUTH 33° 49' 40" EAST 66.57 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE NORTHEAST HAVING A RADIUS OF 300 FEET; THENCE SOUTHEASTERLY ALONG SAID CURVE AND SAID CENTERLINE 174.50 FEET; THENCE TANGENT TO SAID CURVE AND ALONG SAID CENTERLINE SOUTH 67° 13' 50" EAST 713.56 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 350 FEET, SAID BEGINNING OF CURVE BEING THE TRUE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE SOUTHEASTERLY ALONG SAID CURVE AND SAID CENTERLINE 336.29 FEET; THENCE TANGENT TO SAID CURVE AND ALONG SAID CENTERLINE, SOUTH 12° 11' 20" EAST 700.98 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE WEST HAVING A RADIUS OF 200 FEET; THENCE SOUTH 77° 48' 40" WEST 30.00 FEET; THENCE NORTH 86° 04' 32" WEST 419.33 FEET MORE OR LESS TO A POINT ON THE WEST LINE OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 22 THAT IS DISTANT SOUTH 00° 24' 25" EAST 953.53 FEET FROM THE INTERSECTION OF SAID WEST LINE WITH SAID CENTERLINE, MORE PARTICULARLY WITH THE INTERSECTION WITH THE HEREINBEFORE DESCRIBED COURSE BEARING SOUTH 67° 13' 50" EAST 713.56 FEET; THENCE ALONG SAID WEST LINE NORTH 00° 24' 25" 953.53 FEET TO SAID CENTERLINE; THENCE ALONG THE BEFORE SAID COURSE OF SOUTH 67° 13' 50", 108.21 FEET, MORE OR LESS, TO THE TRUE POINT OF BEGINNING, AS DESCRIBED IN THE CERTIFICATE OF COMPLIANCE RECORDED OCTOBER 17, 1996, AS INSTRUMENT NO. 96-1686794, OF OFFICIAL RECORDS.

03 19

CDP 4-05-162

Exhibit 5

Current Deed for Property

JUN 17 2005

RDING REQUEST BY

RECORDED MAIL TO

Name: McCarthy

Mailing Address: 320 West Temple Street, 13th Floor

City, State Zip Code: Los Angeles, CA 90012

COPY of Document Recorded
05 1428606
Has not been compared with original.
Original will be returned when
processing has been completed.
LOS ANGELES COUNTY REGISTRAR-RECORDER

SPACE ABOVE THIS LINE FOR RECORDER'S USE

TITLE(S)

RECEIVED
OCT 03 2005
CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

Certificate of Compliance

96-0195A

CDP 4-05-162

Exhibit 6

Certificate of Compliance 96-0195A

OWNER (S): **Pierre Andre Senizergues**

CERTIFICATE OF COMPLIANCE
CONTINUATION

CERTIFICATE OF COMPLIANCE NO.: 96-0195A

APN: 4453-003-038, 037

NOTES:
THIS CERTIFICATE DOES NOT CONSTITUTE A BUILDING PERMIT
Prior to authorization to build on this property, the applicant will be required to conform to the County Building regulations. Such regulations include, but are not limited to; programs for appropriate sanitary sewage disposal, water supply for domestic use and fire suppression.

GEOLOGIC, soils and/or Drainage Conditions may exist on the subject property, which could limit development or necessitate that remedial measures be taken in order to obtain a Building Permit.

DETERMINATION OF COMPLIANCE

NOTE:
This determination DOES NOT GUARANTEE that the subject property meets current design and improvement standards for subdivided parcels. Prospective purchasers should check site conditions and applicable development codes to determine whether the property is suitable for their intended use.

CERTIFICATE OF COMPLIANCE

Pursuant to the provisions of the Subdivisions Map Act (Sec. 66410 et. Seq., Government Code, State of California) and the County Subdivision Ordinance (Title 21 of the Los Angeles County Code). I hereby certify that I have reviewed the above-described division of real property and have found it to be in conformance with all requirements of the Subdivision Map Act and of the County Subdivision Ordinance.

DEPARTMENT OF REGIONAL PLANNING

By: _____

DEPARTMENT OF REGIONAL PLANNING
County of Los Angeles
James E. Hartl, AICP
Director of Planning

Title Administrator, Current Planning Division

Date June 16, 2005

CDP 4-05-162

Exhibit 6

Certificate of Compliance 96-0195A

That portion of Section 22, Township 1 South, Range 17 West, San Bernardino Meridian, in the County of Los Angeles, State of California, according to the official plat of said land filed in the District Land Office on August 31, 1896, described as follows:

BEGINNING at a point in the West line of said Section which is South 0° 08' 20" East thereon 1068.03 feet from the Northwest corner of said Section; thence North 85° 40' 40" East 70.53 feet to the beginning of a tangent curve concave to the Northwest having a radius of 150.00 feet; thence Northeasterly along said curve 135.74 feet; thence tangent to said curve North 33° 49' 40" East 71.40 feet to the beginning of a tangent curve concave to the South having a radius of 100.00 feet; thence Easterly along said curve 166.95 feet; thence tangent to said curve South 50° 31' 10" East 182.02 feet to the beginning of a tangent curve concave to the Southwest having a radius of 500.00 feet; thence Southeasterly along said curve 145.66 feet; thence tangent to said curve South 33° 49' 40" East 66.57 feet to the beginning of a tangent curve concave to the Northeast having a radius of 300.00 feet; thence Southeasterly along said curve 174.90 feet; thence tangent to said curve South 67° 13' 50" East 713.56 feet to the beginning of a tangent curve concave to the Southwest having a radius of 350.00 feet, said beginning of curve being the true point of beginning of this description; thence Southeasterly along said curve 336.23 feet; thence tangent to said curve, South 12° 11' 20" East 700.98 feet to the beginning of a tangent curve concave to the West having a radius of 200.00 feet; thence Southerly along said curve 185.72 feet; thence tangent to said curve South 41° 31' 50" West 62.55 feet to the beginning of a tangent curve concave to the East having a radius of 140.00 feet; thence Southerly along said last mentioned curve 129.71 feet; thence tangent to said curve South 11° 33' 20" East 134.26 feet to the beginning of a tangent curve concave to the Northeast having a radius of 200.00 feet; thence Southeasterly along said last mentioned curve 197.24 feet; thence tangent to said curve South 68° 03' 40" East 54.61 feet to the beginning of a tangent curve concave to the Southwest having a radius of 350.00 feet; thence Southeasterly along said curve 153.73 feet; thence along a radial line of said curve South 47° 01' 20" West 30.00 feet; thence North 81° 12' 40" West 367.75 feet; thence South 78° 47' 20" West 266.41 feet, more or less, to the West line of the Northeast Quarter of the Southwest Quarter of said Section 22; thence along said West line and the West line of the Southeast Quarter of the Northwest Quarter of said Section 22 North 0° 24' 25" West 1717.96 feet, more or less, to an intersection with the hereinbefore described course bearing South 67° 13' 50" East 713.56 feet; thence along said course South 67° 13' 50" East 108.21 feet, more or less, to the true point of beginning.

mc

CDP 4-05-162

Exhibit 6

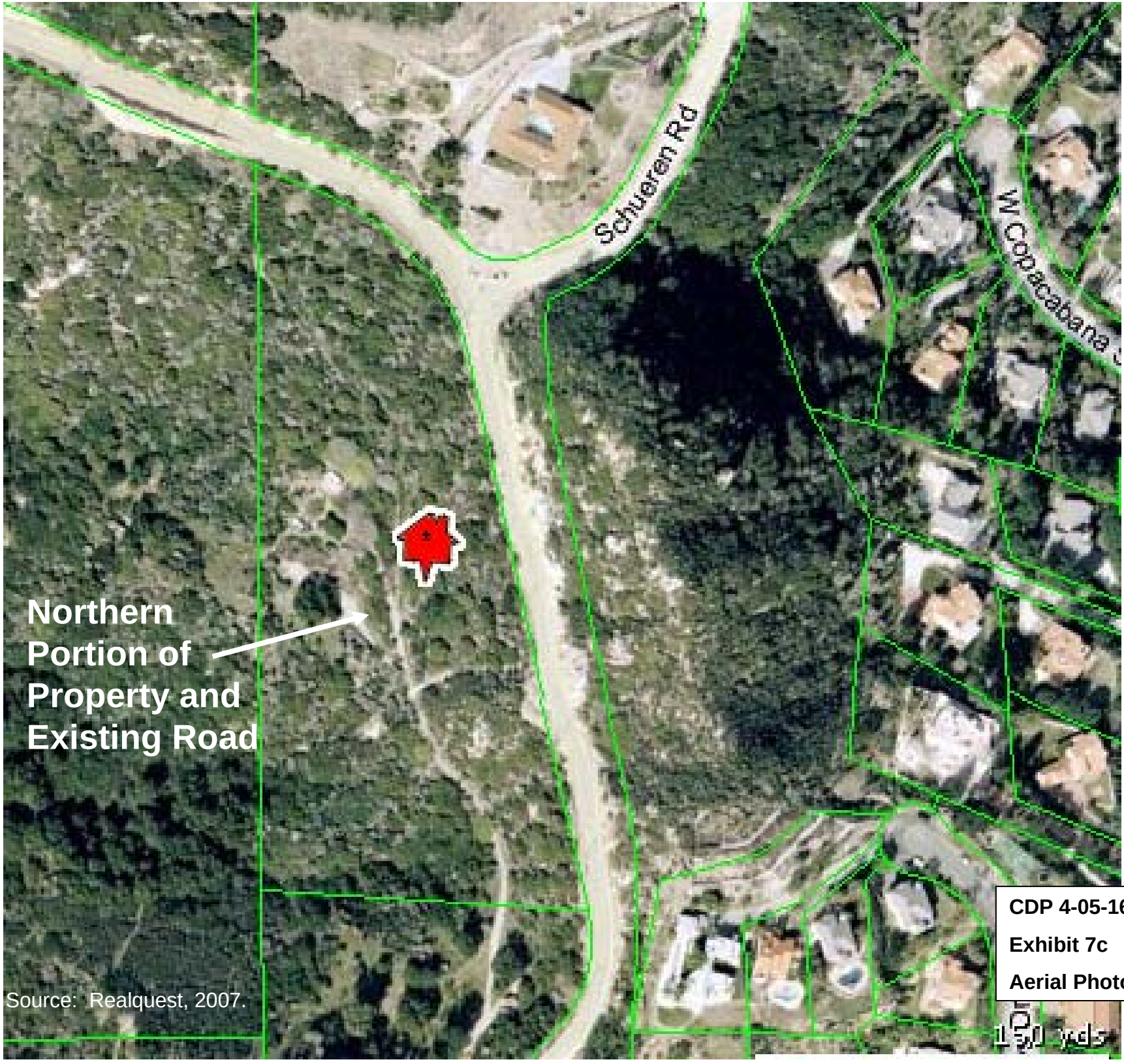
Certificate of Compliance 96-0195A

Source: Realquest, 2007.

CDP 4-05-162

Exhibit 7b

Aerial Photo


Schueren Rd
W Copacabana
Northern Portion of Property and Existing Road
Source: Realquest, 2007.
CDP 4-05-162
Exhibit 7c
Aerial Photo

STATE OF CALIFORNIA – THE RESOURCES AGENCY GRAY DAVIS, GOVERNOR

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 8

CDP 4-05-162

ESHA Findings

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 undisturbed[1]. 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 2000[2]. Therefore, this relatively pristine area is both large and mostly unfragmented, which fulfills a fundamental tenet of conservation biology[3]. The need for large contiguous areas of natural habitat in order to maintain critical ecological processes has been emphasized by many conservation biologists[4].

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 ecosystems[5]. Connectivity among habitats within an ecosystem and connectivity among ecosystems is very important for the preservation of species and ecosystem integrity. In a recent statewide report, the California Resources Agency[6] 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. 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. 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 report[7]. 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 important[8].

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 deer[9]. Large terrestrial predators are particularly good indicators of habitat connectivity and of the general health of the ecosystem[10]. 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 bobcat[11]. Sightings of cougars in both inland and coastal areas of the Santa Monica Mountains[12] 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 structure[13]. Beyond simply destabilizing the ecosystem, fragmentation and disturbance

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[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. Conerv. 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 C. 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. Balitmore, 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 outlets[15]. 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 types[16] 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 protection[17].

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,

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[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 review[18]. 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 Holland[19]. 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 Mountains[20] 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 area[21]. 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 lifecycles[22]. 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 listing[23], 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 work[24] 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 habitat[25]. 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 streambed[26]. 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 lost[27]. 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 disturbances[29]. 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 crayfish[31]. These introduced predators have eliminated the newts from streams where they previously occurred by both direct predation and suppression of breeding.

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[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 process[33]. 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 saturated[36]. New growth of chaparral evergreen shrubs takes place about four months later than coastal sage scrub plants and it continues later into the summer[37]. For example, in coastal sage scrub, California sagebrush flowers and grows from August to February and coyote bush flowers from August to November[38]. 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 spring[39]. The insects in turn are followed by insectivorous birds such as the blue-gray gnatcatcher[40], 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 Mountains[41]. Five species of hummingbirds also follow the flowering cycle[42].

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 type[43].

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 students[44]."

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

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[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 lakes[45].

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, Stralberg[46] 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. Soule[47] 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 subtypes[48]. 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.

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[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 lizards[49], 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 effects[50], 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 the 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 Mexico[51]. 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 species[53], many of which are also endemic to limited geographic regions[54]. In the Santa Monica Mountains, rare animals that inhabit coastal sage scrub[55] 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 chaparral[56]. Rare plants found in coastal sage scrub in the Santa Monica Mountains include Santa Susana tarplant, Coulter's saltbush, Blockman's dudleya, Braunton's milkvetch, Parry's spineflower, and Plummer's mariposa lily[57]. 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

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[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 plants[61]. 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 chaparral[62]. 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 sugarbush[63]. 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 bush[64].

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 checkerbloom[65]. 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 specialist[67]. 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 below[68], 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 time[70]. Thus, the erosion from a 2-inch rain-day event drops from 5 yd^3/acre of soil one year after a fire to 1 yd^3/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 coast[72]. 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 recognized[73]. These habitats support a high diversity of birds[74], and provide refuge for many species of sensitive bats[75]. 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 factors[76]. Mixed with these native needlegrasses are many non-native annual species that are characteristic of California annual grassland[77]. Native perennial grasslands are now exceedingly rare[78]. In California, native grasslands once covered nearly 20 percent of the land area, but today are reduced to less than 0.1 percent[79]. 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 falcon[80].

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 habitats[81], 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 ownership[82], and computer simulation studies of the development patterns over the next 25 years predict a serious increase in habitat fragmentation[83]. 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 activities[84]. 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 stated[85] "*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 carriers[87]. 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 zone[88] around the home. The combination of insurance incentives and regulation assures that the 200-foot clearance zone will be applied universally[89]. 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 vegetation[90]. 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 chaparral[92].

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 area[93]. The Argentine ant competes with native harvester ants and carpenter ants displacing them from the habitat[94]. These native ants are the primary food resource for the native coast horned lizard, a California "Species of Special Concern." As a result of Argentine ant invasion, the coast horned lizard and its native ant food resources are diminished in areas near landscaped and irrigated developments[95]. 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 mutualisms[96]. 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 habitats[97].

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 seeds[99].

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 organisms[100]. 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 Rich[101].

Summary

In a past action, the Coastal Commission found[102] 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 Game[103]. 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 chapparal (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.