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

W 9 b

RECORD PACKET COPY

Filed:	9/2903
180th day	3/27/04
Staff:	J. Johnson
Staff Report:	2/26/04
Hearing Date:	3/17/04
Comm. Action	

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 4-03-028

APPLICANTS: Frank & Myrna Buyink

AGENTS: Dr. Leonard Malin
Terry Valente

PROJECT LOCATION: 25084 Mulholland Highway, Calabasas, Los Angeles County

PROJECT DESCRIPTION: Construct a two story 35 foot high, 5,784 sq. ft. single family residence with attached three car garage, 1,000 sq. ft. guest house/pool cabana, pool, retaining walls, septic system, grade 850 cubic yards of cut, 850 cubic yards of fill, and an overexcavation of 700 cubic yards of material for remedial grading.

Lot Area:	2.5 acres
Building Pad:	27,000 sq/ft
Building Coverage:	4,295 sq/ft
Paved Coverage:	6,800 sq/ft
Landscape Coverage:	½ acre
Parking Spaces:	3
Ht Above Finish Grade:	35 ft.

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends that the Commission determine that the proposed project with Special Conditions addressing a native vegetation restoration/revegetation plan, landscape, erosion control and fuel modification plans, removal of natural vegetation, lighting restriction, habitat impact mitigation, drainage and polluted runoff control plan, pool drainage and maintenance, plans conforming to geologic recommendation, assumption of risk, waiver of liability and indemnity, future development restriction, color restriction, deed restriction, revised plans, and condition compliance, is consistent with the requirements of the California Coastal Act. The project site is located within the Cold Canyon Significant Watershed, and includes native chaparral to the south and east that is considered environmentally sensitive habitat. The site will be accessed by a new driveway cut into the slope along the southern side of Mulholland Highway to an existing building pad that is visible from Mulholland Highway.

LOCAL APPROVALS RECEIVED: Approval in Concept: Los Angeles County Regional Planning Department dated 9/2/2003; Los Angeles County Department of Health Services, dated 3/20/2003; Coastal Commission Approval, Los Angeles County Fire Department, dated 5/5/2003; Preliminary Fuel Modification Plan, County of Los Angeles, Fire Department dated 3/17/2003.

SUBSTANTIVE FILE DOCUMENTS: Preliminary Geologic and Soils Engineering Investigation by GeoConcepts, Inc. dated January 16, 2003; Biological Assessment and Fuel Modification Plan by Rachel Tierney Consulting dated September 8, 2003; Coastal Permit No. 4-03-085, W F Trust.

STAFF RECOMMENDATION:

MOTION: **I move that the Commission approve Coastal Development Permit No. 4-03-028 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.

I. Resolution for Approval with Conditions

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 permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be

pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

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

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

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

III. Special Conditions

1. NATIVE VEGETATION RESTORATION / REVEGETATION PLAN

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and approval of the Executive Director, two (2) sets of restoration / revegetation plans. The plan shall include a grading plan, prepared by a licensed civil engineer to restore the area on the subject parcel where vegetation removal and grading occurred (about a half acre) to the contours existing prior to the vegetation removal and grading and including the removal of the dirt roadway leading south on the southern most portion of the parcel. The plan shall also include a landscaping and erosion control plan, including an irrigation plan, prepared by a qualified habitat restoration consultant. The landscaping and erosion control plan shall be reviewed and approved by the consulting civil engineer to ensure that the plan is in conformance with the applicable recommendations regarding slope stability. The restoration and revegetation plan shall include, but not be limited to, the following criteria:

(a) A detailed grading plan, prepared by a licensed professional civil engineer, that illustrates remedial grading to restore the slope to the contours existing prior to the removal of the vegetation and grading including the addition of topsoil. The plan shall include temporary erosion control measures such as geofabrics, silt fencing, sandbag barriers, or other measures to control erosion until revegetation of the restored slope is completed. These erosion control measures shall be required on the project site prior to and concurrent with the initial grading operations and shall be maintained throughout the process to minimize erosion and sediment to runoff waters during construction. All sediment shall be removed to an appropriate disposal site, approved by the Executive Director, either outside the coastal zone or to a site within the coastal zone permitted to receive fill.

(b) A revegetation program, prepared by a qualified habitat restoration consultant with credentials acceptable to the Executive Director, that utilizes only native

plant species that have been obtained from local Santa Monica Mountains genetic stock, and are consistent with the surrounding native plant community. Native seeds shall be collected from areas as close to the restoration site as possible. The plan shall specify the preferable time of year to carry out the restoration and describe the supplemental watering requirements that will be necessary, including a detailed irrigation plan. The plan shall also specify performance standards to judge the success of the restoration effort. The revegetation plan shall identify the species, location, and extent of all plant materials and shall use a mixture of seeds and container plants to increase the potential for successful revegetation. The plan shall include a description of technical and performance standards to ensure the successful revegetation of the restored slope. A temporary irrigation system may be used until the plants are established, as determined by the habitat restoration consultant, and as approved by the consulting civil engineer, but in no case shall the irrigation system be in place longer than two (2) years. The restored area shall be planted within thirty (30) days of completion of the remedial grading operations.

(c) The restoration plan shall be implemented within ninety (90) days of the issuance of this permit. Revegetation shall provide ninety percent (90%) coverage within five (5) years and shall be repeated, if necessary, to provide such coverage. The Executive Director may extend this time period for good cause. Plantings shall be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the revegetation requirements.

(d) A monitoring program, prepared by a qualified environmental resource specialist. The monitoring program shall demonstrate how the approved revegetation and restoration performance standards prepared pursuant to section (b) above shall be implemented and evaluated for compliance with this Special Condition. The program shall require the applicant to submit, on an annual basis for a period of five years (no later than December 31st each year), a written report, for the review and approval of the Executive Director, prepared by an environmental resource specialist, indicating the success or failure of the restoration project. The annual reports shall include further recommendations and requirements for additional restoration activities in order for the project to meet the criteria and performance standards listed in the restoration plan. These reports shall also include photographs taken from pre-designated locations (annotated to a copy of the site plans) indicating the progress of recovery. During the monitoring period, all artificial inputs shall be removed except for the purposes of providing mid-course corrections or maintenance to ensure the long-term survival of the plantings. If these inputs are required beyond the first four (4) years, then the monitoring program shall be extended for a sufficient length of time so that the success and sustainability of the project is ensured. Successful site restoration shall be determined if the revegetation of native plant species on-site is adequate to provide ninety percent (90%) coverage by the end of the five (5) year monitoring period, all

replacement/relocated oak trees are surviving, and all vegetation is able to survive without additional outside inputs, such as supplemental irrigation.

(e) At the end of the five year period, a final detailed report shall be submitted, for the review and approval of the Executive Director, that indicates whether the on-site landscaping is in conformance with the revegetation / restoration plan approved pursuant to this Special Condition. The final report shall include photographic documentation of plant species and plant coverage. If this report indicates that the restoration project has in part, or in whole, been unsuccessful, based on the approved performance standards, the applicants shall be required to submit a revised or supplemental restoration program to compensate for those portions of the original plan that were not successful. The revised, or supplemental, restoration program shall be processed by the applicant/landowner as an amendment to this Coastal Development Permit.

2. LANDSCAPE EROSION CONTROL AND FUEL MODIFICATION PLANS

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

A) Landscaping and Erosion Control Plans

1) All graded & disturbed areas on the subject site shall be planted and maintained for erosion control purposes within (60) days of receipt of the certificate of occupancy for the residence. To minimize the need for irrigation all landscaping shall consist primarily of native/drought resistant plants as listed by the California Native Plant Society, Santa. Monica Mountains Chapter, in their document entitled Recommended List of Plants for Landscaping in the Santa Monica Mountains, dated February 5, 1996. Invasive, non-indigenous plan species, which tend to supplant native species, shall not be used. Within the 20-foot radius of the fuel modification area surrounding the residence non-native orchards, gardens, and vineyards may be planted using agricultural production methods that do not use pesticides and minimizes the use of fertilizers. The plan shall also include the replacement of the two coast live oak tree saplings on a three to one basis with new coast live oak trees of one gallon size to be planted on the subject parcel. The removal and replanting of one or two of the existing oak saplings may be substituted for one or two of the replacement oak trees on site.

All cut and fill slopes shall be stabilized with planting at the completion of final grading. Planting should primarily be of native plant species indigenous to the Santa Monica Mountains using accepted planting procedures, consistent with fire safety requirements. Such planting shall be adequate to provide 90 percent coverage within two (2) years, and this requirement shall apply to all disturbed soils. The landscape plan shall be designed with vertical elements to partially screen and soften the visual impact of the structures with trees and shrubs as viewed from the public roads located to the west, north, south, and east and from the Calabasas – Cold Canyon Trail located to the west, south and east of the project site. The only fencing allowed on the property is within 50 feet of the structures and along the driveway and an entry gate from Mulholland Highway to access the building pad.

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

3) The Permittee shall undertake development in accordance with the final approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Coastal Commission - approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required

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

5) The final drainage/erosion control plan shall be implemented within 30 days of completion of final grading; by acceptance of this permit, the applicant agrees to maintain the drainage devices on a yearly basis in order to ensure that the system functions properly. Should the devices fail or any erosion result from the drainage from the project, the applicant or successor in interests shall be responsible for any necessary repairs and restoration.

B) Interim Erosion Control Plan

1) The plan shall delineate the areas to be disturbed by grading or construction activities and shall include any temporary access roads, staging areas and stockpile areas. The natural areas on the site shall be clearly delineated on the project site with fencing or survey flags.
2) The plan shall specify that should grading take place during the rainy season (November 1 - March 31) the applicant shall install or construct temporary sediment basins (including debris basins, de-silting basins or silt traps), temporary drains and swales, sand bag barriers, silt fencing, stabilize any stockpiled fill with geo-fabric covers or other appropriate cover, install geo-textiles or mats on all cut or fill slopes and close and stabilize open trenches as soon as possible. These erosion measures shall be required on the project site prior to or concurrent with the initial grading operations and maintained through out the development process to minimize erosion and sediment from runoff waters during construction. All sediment should be retained on-site unless removed to an appropriate approved dumping location either outside the coastal zone or to a site within the coastal zone permitted to receive fill.
3) The plan shall also include temporary erosion control measures should grading or site preparation cease for a period of more than 30 days, including but not limited to: stabilization of all stockpiled fill, access roads, disturbed soils and cut and fill slopes with geo-textiles and/or mats, sand bag barriers, silt fencing; temporary drains and swales and sediment basins. The plans shall also specify that all disturbed areas shall be seeded with native grass species and include the technical specifications for seeding the disturbed areas. These temporary erosion control measures shall be monitored and maintained until grading or construction operations resume.

C) Monitoring

Five (5) years from the date of completion of the proposed development, the applicant shall submit for the review and approval of the Executive Director a landscape monitoring report, prepared by a licensed Landscape Architect or qualified Resource Specialist, that assesses the on-site landscaping and certifies whether it is in conformance with the landscape plan approved pursuant to this special condition, including the oak trees. The monitoring report shall include photographic documentation of plant species and plant coverage.

If the landscape monitoring report indicates the landscaping is not in conformance with or has failed to meet the performance standards specified in the landscaping plan approved pursuant to these permits, the applicant, or successors in interest, shall submit a revised or supplemental landscape plan for the review and approval of the Executive Director. The supplemental landscaping plan must be prepared by a licensed landscape architect or qualified resource specialist and shall specify measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan. The permittee shall implement the remedial measures specified in the approved supplemental landscape plan.

3. REMOVAL OF NATURAL VEGETATION

Removal of natural vegetation for the purpose of fuel modification within the 20-foot zone surrounding the proposed structure 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 20-200 foot fuel modification zone shall not occur until commencement of construction of the structure approved pursuant to this permit.

4. LIGHTING RESTRICTION

A. The only outdoor night lighting allowed on the subject parcel are limited to the following to minimize night time intrusion of light and disruption of wildlife traversing this area at night within this rural area:

1. The minimum necessary to light walkways used for entry and exit to the structures, including parking areas and driveways, on the site. This lighting shall be limited to fixtures that do not exceed two feet in height, that are directed downward, and use incandescent bulbs that do not exceed 60 watts, or energy efficient bulbs such as compact florescent that do not exceed a 12 watt rating, or bulbs generating the equivalent amount of lumens, unless a higher wattage is authorized by the Executive Director.

2. Security lighting attached to the residence and garages that are controlled by motion detectors is limited to incandescent bulbs that do not exceed 60 watts, or energy efficient bulbs such as compact florescent that do not exceed a 12 watt rating, or bulbs generating the equivalent amount of lumens, unless a higher wattage is authorized by the Executive Director.

3. The minimum lighting necessary for safe vehicular use of the driveway. That lighting shall be limited to incandescent bulbs that do not exceed 60 wafts, or energy efficient bulbs such as compact florescent that do not exceed a 12-watt rating, or bulbs generating the equivalent amount of lumens, unless a higher wattage is authorized by the Executive Director.

B. No lighting on the remainder of the parcel, including the slopes and other areas, and no lighting for aesthetic purposes is allowed.

5. HABITAT IMPACT MITIGATION

Prior to the issuance of the coastal development permit, the applicant shall submit for the review and approval of the Executive Director, a map delineating all areas of chaparral habitat that are "environmentally sensitive habitat area" (ESHA), that will be disturbed by the proposed development, including by fuel modification and brush clearance requirements on the project site and adjacent property. The chaparral ESHA areas on the site and adjacent property shall be delineated on a detailed map, to scale, illustrating the subject parcel boundaries and adjacent parcel boundaries if the fuel

modification/brush clearance zones extend onto adjacent property. The delineation map shall indicate the total acreage for all chaparral ESHA both on and offsite, that will be impacted by the proposed development, including the fuel modification/brush clearance areas. The delineation shall be prepared by a qualified resource specialist or biologist familiar with the ecology of the Santa Monica Mountains.

Mitigation shall be provided for impacts to the chaparral ESHA from the proposed development and fuel modification requirements by one of the three following habitat mitigation methods:

A. Habitat Restoration

1) Habitat Restoration Plan

Prior to the issuance of the coastal development permit, the applicant shall submit a habitat restoration plan, for the review and approval of the Executive Director, for an area of degraded chaparral habitat equivalent to the area of chaparral ESHA impacted by the proposed development and fuel modification area. The habitat restoration area may either be onsite or offsite within the coastal zone in the City of Malibu or in the Santa Monica Mountains. The habitat restoration area shall be delineated on a detailed site plan, to scale, that illustrates the parcel boundaries and topographic contours of the site. The habitat restoration plan shall be prepared by a qualified resource specialist or biologist familiar with the ecology of the Santa Monica Mountains, and shall be designed to restore the area in question for habitat function, species diversity and vegetation cover. The restoration plan shall include a statement of goals and performance standards, revegetation and restoration methodology, and maintenance and monitoring provisions. If the restoration site is offsite the applicant shall submit written evidence to the Executive Director that the property owner agrees to the restoration work, maintenance and monitoring required by this condition and agrees not to disturb any native vegetation in the restoration area.

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

standards are not met within 10 years, the applicant shall submit an amendment to the coastal development permit for an alternative mitigation program.

The habitat restoration plan shall be implemented prior to occupancy of the residence.

2) Open Space Deed Restriction

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

Prior to the issuance of the coastal development permit, the owner of the habitat restoration area shall execute and record a deed restriction in a form and content acceptable to the Executive Director, reflecting the above restriction on development and designating the habitat restoration area as open space. The deed restriction shall include a graphic depiction and narrative legal descriptions of both the parcel and the open space area/habitat restoration area. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

3) Performance Bond

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

B. Habitat Conservation

Prior to issuance of the coastal development permit, the applicant shall execute and record an open space deed restriction in a form and content acceptable to the Executive Director, over a parcel or parcels containing chaparral ESHA. The chaparral ESHA located on the mitigation parcel or parcels must be of equal or greater area than the ESHA area impacted by the proposed development, including the fuel modification/brush clearance areas. No development, as defined in section 30106 of the Coastal Act, shall occur on the mitigation parcel(s) and the parcel(s) shall be preserved as permanent open space. The deed restriction shall include a graphic depiction and narrative legal descriptions of the parcel or parcels. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction.

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

If the mitigation parcel is larger in size than the impacted habitat area, the excess acreage may be used to provide habitat impact mitigation for other development projects that impact like ESHA.

C. Habitat Impact Mitigation Fund

Prior to the issuance of the coastal development permit, the applicant shall submit evidence, for the review and approval of the Executive Director, that compensatory mitigation, in the form of an in-lieu fee, has been paid to the Mountains Recreation and Conservation Authority to mitigate adverse impacts to chaparral habitat ESHA. The fee shall be calculated as follows:

1. Development Area, Irrigated Fuel Modification Zones

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

2. Non-irrigated Fuel Modification Zones

The in-lieu fee for non-irrigated fuel modification areas shall be $3,000 per acre. The total acreage shall be based on the map delineating these areas required by this condition.

Prior to the payment of any in-lieu fee to the Mountains Recreation and Conservation Authority, the applicant shall submit, for the review and approval of the Executive Director, the calculation of the in-lieu fee required to mitigate adverse impacts to chaparral habitat ESHA, in accordance with this condition. After review and approval of the fee calculation, the fee shall be paid to the Mountains Recreation and Conservation Authority. The fee shall be used for the acquisition, permanent preservation or restoration of chaparral habitat in the Santa Monica Mountains coastal zone. The fee may not be used to restore areas where development occurred in violation of the Coastal Act's permit requirements.

6. <u>DRAINAGE AND POLLUTED RUNOFF CONTROL PLAN</u>

Prior to the issuance of the Coastal Development Permit No. 4-03-028, the applicant shall submit for the review and approval of the Executive Director, final drainage and runoff control plans, including supporting calculations. The plan shall be prepared by a licensed engineer and shall incorporate structural and non-structural Best Management Practices (BMPs) designed to control the volume, velocity, and pollutant

load of stormwater leaving the developed site. The plan shall be reviewed and approved by the consulting engineering geologist to ensure the plan is in conformance with geologist's recommendations. In addition to the specifications above, the plan shall be in substantial conformance with the following requirements:

(a) Selected BMPs (or suites of BMPs) shall be designed to treat, infiltrate or filter stormwater from each runoff event, up to and including the 85th percentile, 24-hour runoff event for volume-based BMPs, and/or the 85th percentile, 1-hour runoff event, with an appropriate safety factor, for flow-based BMPs.

(b) Runoff shall be conveyed off site in a non-erosive manner.

(c) Energy dissipating measures shall be installed at the terminus of outflow drains.

(d) The plan shall include provisions for maintaining the drainage system, including structural BMPs, in a functional condition throughout the life of the approved development. Such maintenance shall include the following: (1) BMPs shall be inspected, cleaned and repaired when necessary prior to the onset of the storm season, no later than September 30th each year and (2) should any of the project's surface or subsurface drainage/filtration structures or other BMPs fail or result in increased erosion, the applicant/landowner or successor-in-interest shall be responsible for any necessary repairs to the drainage/filtration system or BMPs and restoration of the eroded area. Should repairs or restoration become necessary, prior to the commencement of such repair or restoration work, the applicant shall submit a repair and restoration plan to the Executive Director to determine if amendment(s) or new Coastal Development Permit(s) are required to authorize such work.

7. POOL AND SPA DRAINAGE AND MAINTENANCE

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

8. PLANS CONFORMING TO GEOLOGIC RECOMMENDATION

PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for review and approval by the Executive Director, evidence of the consultants review and approval of all project plans. All recommendations contained in the Preliminary Geologic and Soils Engineering Investigation by GeoConcepts, Inc. dated January 16, 2003, shall be incorporated into all final design and construction plans including drainage and maintenance, grading and earthwork, foundations, settlement, excavations, retaining walls, slabs on grade, and sewage. All plans must be reviewed and approved by the geologist and engineer consultants as conforming to these recommendations.

The final plans approved by the consultants shall be in substantial conformance with the plans approved by the Commission relative to construction, grading and drainage. Any substantial changes to the proposed development approved by the Commission, which may be recommended by the consultants shall require an amendment to the permit or a new coastal permit.

9. ASSUMPTION OF RISK, WAIVER OF LIABILITY AND INDEMNITY

By acceptance of this permit; the applicant acknowledges and agrees (i) That the site maybe subject to hazards from wildfire; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commissions 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.

10. FUTURE DEVELOPMENT RESTRICTION

This permit is only for the development described in Coastal Development Permit No.4-03-028. Pursuant to Title 14 California Code of Regulations Section 13250(b)(6), and 13253 (b) (6), the exemptions otherwise provided in Public Resources Code Section 30610 (a) and (b) shall **not** apply to the entire property. Accordingly, any future improvements to the entire property, including but not limited to the residence guest house/cabana, fencing, gates, grading, and clearing of vegetation, other than as provided for in the approved fuel modification landscape and erosion control plan prepared pursuant to Special Condition Number Two (2), shall require an amendment to Permit No. 4-03-028 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.

11. COLOR RESTRICTION

PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit for the review and approval of the Executive Director, a color

palette and material specifications for the outer surface of all structures, including the driveway pavement authorized by the approval of coastal development, permit 4-03-028. The palette samples shall be presented in a format not to exceed 8 1/2" X 11" X ½" in size. The palette shall include the colors proposed for the all of the roofs, trims, exterior surfaces, retaining walls, driveway, or other structures authorized by this permit. Acceptable colors shall be limited to colors compatible with the surrounding environment (earth tones). Including shades of green, brown and gray with no white or light shades, galvanized steel, and no bright tones. All windows shall be comprised of non-glare glass.

The approved structures shall be colored with only the colors and window materials authorized pursuant to this special condition. Alternative colors or materials for future repainting or resurfacing or new windows may only be applied to the structures authorized by Coastal Development Permit No. 4-03-028 if such changes are specifically authorized by the Executive Director as complying with this special condition.

12. DEED RESTRICTION

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

13. REVISED PLANS

The applicant shall submit revised plans, for the review and approval of the Executive Director, reducing the height of the main residence to a maximum of 26 feet above finished grade of 1,018 feet above sea level.

14. CONDITION COMPLIANCE

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

this requirement may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.

IV. Findings and Declarations

A. Project Description

The project site is located within the inland area of the Santa Monica Mountains about four and one half miles inland along the south side of Mulholland Highway east of the intersection with the southern portion of Cold Canyon Road (Exhibit 1). The applicant proposes to construct a 35 foot high, two story, 5,200 sq. ft. single family residence and attached three car 600 sq. ft. garage, 1,000 sq. ft. guest house/pool cabana (with an indoor jacuzzi), swimming pool, retaining walls, septic system, grade 850 cubic yards of cut, 850 cubic yards of fill and an overexcavation of 700 cubic yards of material for remedial grading (Exhibits 2 – 12).

The 2.5-acre project site is located on the top of a descending ridgeline that drains to the south into Cold Creek. Slopes on the site range from near vertical along Mulholland Highway to the southern slope with a general gradient of 1.5:1. The property includes a gently sloping graded pad near the top of the parcel at the 1,018-foot elevation.

The existing pad, about 27,000 sq. ft. in size, slopes gently to the south and west and appears to have been created prior to the effective date of the Coastal Act (Exhibit 9). This pad area was cleared as a result of the fuel modification area necessary to protect the existing residence and equestrian facilities on the adjoining property located to the west. The proposed grading is to partially level this existing building pad, create a road cut into a slope to access the site from Mulholland Highway, cut into a slope on eastern portion of parcel and fill a slope on the southern portion of the parcel. The applicant initially submitted a grading plan to increase the building pad to about 28,320 sq. ft. including the pad and cut and fill slopes. At the request of staff, the applicant revised the grading plan to reduce the pad to 27,000 sq. ft. in size (Exhibit 10), to its existing size with retaining walls (Exhibits 11 - 12).

The adjoining property was developed with a residence and a garage prior to the effective date of the Coastal Act. Subsequently, Coastal Permit No. A-12-16-77-2442, Doss, was approved by the Commission in 1978 for the construction of an unlighted tennis court, grading for a 7,200 sq. ft. area adjacent to the existing residence. In 1998, Coastal Permit Exemption No. 4-98-020-X was issued for the construction of a 942 sq. ft. second story over the existing garage, 400 sq. ft. carport, and 1600 sq. ft. storage building.

Since the subject site is located within the Cold Creek Significant Watershed, the County of Los Angeles Environmental Review Board (ERB) reviewed this project on April 21, 2003. The ERB meetings are working sessions where the County appointed ERB members serve in an advisory capacity to the Regional Planning Commission (or the County decision makers) providing recommendations on whether or not the project

conforms to the policies of the County LUP. The ERB evaluation and recommendation to the County decision makers (the Regional Planning staff in this case) concluded that the proposed project was consistent with the policies of the County LUP after modifications (Exhibit 14). The ERB recommended to the County decision makers that the proposed project was consistent after modification with project modifications addressing a fuel modification and landscape plan with certain plant species, clustering the residence, guest house/cabana and pool, restrict the lawn, use permeable walkways, and use earth tone colors for house exterior and low intensity night lighting. The proposed project also received a Preliminary Fuel Modification Plan Approval dated 3/17/03, by the Los Angeles County Fire Department. The site includes chaparral ESHA located beyond the existing graded building pad along the southern and eastern slopes. A portion of this chaparral ESHA is proposed to be thinned to accommodate the proposed development. At the request of staff, the applicant submitted a "Biological Assessment and Fuel Modification Plan" by Rachel Tierney Consulting, dated September 8, 2003, addressing the onsite biological resources.

The subject lot was granted a Certificate of Compliance (CC 03-287 recorded as document number 03-2530680) and was determined by the County to be exempt from the provisions of the Subdivision Map Act.

B. Environmentally Sensitive Resource Areas

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

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

Section 30105.5 of the Coastal Act defines the term "cumulatively," as it is used in Section 30250(a), to mean that:

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

Sections 30230 and 30231 of the Coastal Act are designed to protect and enhance, or restore where feasible, marine resources and the biologic productivity and quality of coastal waters, including streams.

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 of the Coastal Act states that:

> **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.**

In addition, Section 30240 of the Coastal Act states that environmentally sensitive habitat areas must be protected against disruption of habitat values:

> **(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.**

Sections 30230 and 30231 of the Coastal Act require that the biological productivity and the quality of coastal waters and streams be maintained and, where feasible, restored through among other means, minimizing adverse effects of waste water discharge and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flows, maintaining natural buffer areas that protect riparian habitats, and minimizing alteration of natural streams. In addition, Sections 30107.5 and 30240 of the Coastal Act state that environmentally sensitive habitat areas must be protected against disruption of habitat values. Therefore, when considering any area, such as the Santa Monica Mountains, with regard to an ESHA determination one must focus on three main questions:

1) Is a habitat or species rare or especially valuable?
2) Does the habitat or species have a special nature or role in the ecosystem?

3) Is the habitat or species easily disturbed or degraded by human activities and developments?

The Coastal Commission has found that the Mediterranean Ecosystem in the Santa 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 15, 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].

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

The project site is located within the Los Angeles County Land Use Plan designated Cold Canyon Significant Watershed, one of the Sensitive Environmental Resources (SEA). The Cold Canyon Significant Watershed is a relatively undisturbed watershed including year-round water flow supporting well-developed native vegetation and habitat. Undisturbed stands of chaparral, oak woodland, coastal sage scrub, riparian woodland and associated wildlife inhabit Cold Creek Canyon. The project site is located near the furthest inland portion of this Watershed within the Coastal Zone. The subject 2.5 acre parcel is located as close as about 500 feet to Cold Creek. The proposed building pad drains to the south into Cold Creek. The parcel is located on the crest of a northeast trending ridge with a gentle sloping pad sloping moderately steep to the south and east at a gradient of 1.5:1 or less (horizontal to vertical). Located along the southern side of Mulholland Highway is a near vertical cut slope rising from the Highway to the subject parcel. The graded pad located near the top of the parcel is at the 1,018-foot elevation. The parcel extends south into Cold Creek Canyon to about the 900-foot elevation.

The applicant proposes to construct a two story 35 foot high, 5,784 sq. ft. single family residence with attached three car garage, 1,000 sq. ft. guest house/pool cabana, pool, retaining walls, septic system. The proposed grading is to level the existing building pad and cut a driveway through the steep slope along Mulholland Highway to access the building pad. The size of the existing building pad is about 27,000 sq. ft. The

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

applicant proposes to re-grade this pad to maintain the size of the existing 27,000 sq. ft. pad with a cut of 850 cubic yards and 850 cubic yards of fill in addition to an overexcavation of 700 cubic yards of material for remedial purposes. Two retaining walls are located along the driveway on the northwest and north central portion of the building pad range from three to six feet high along ascending slopes to the north and the adjacent parcel to the west. A third retaining wall is located on the northeastern portion of the pad at the base of a cut slope. In addition, this project site includes after the fact grading and removal of about one half an acre of chaparral vegetation. No coastal permit was found for this additional grading and chaparral vegetation removal. This issue is discussed further below.

The subject parcel includes relatively undisturbed native chaparral on the southern slopes of the property. A portion of the property appears to have burned in the 1993 Malibu Fire. The applicant submitted a report titled: Biological Assessment and Fuel Modification Plan, by Rachel Tierney Consulting, dated September 8, 2003, describing the existing vegetation, removed vegetation, potential for sensitive species on the site, impact assessment resulting from development and fuel modification, and mitigation measures. This report describes the vegetation on the subject property as follows:

> The entire site, plus surrounding slopes, contains, or a few years ago did contain, chaparral vegetation. A portion of the vegetation on site was removed several years ago (see below). The steep south-facing slopes of the Cold Creek watershed are vegetated with the typical dense mantle of shrub species including: hairy-leave ceanothus (Ceanothus crassifolius), sugar bush (Rhus ovata), toyon (Heteromeles arbutifolia), laurel sumac (Rhus laurina) and our Lord's candle (Yucca whipplei). Smaller shrubs associated with both the scrub and chaparral communities are also found, especially along the edges of clearings and openings with the denser vegetation. Most common are: California sagebrush (Artemisia californica), black sage (Salvia mellifera), California buckwheat (Eriogonum fasciculatum) and deerweed (Lotus scoparius). Understory sub-shrubs, herbs and grasses include: sawtooth goldenbush (Hazardia squarrosus), four o'clock (Mirabilis californica), snapdragon (Antirrhinum coulterianum), red brome (Bromus madritensis rubens), wild oats (Avena barbata) and small-flowered needlegrass (Nassella lepida). Several small coast live oaks have established along the slope next to Mulholland Highway. Their location and size are shown on the vegetation map (Figure 1) (Staff Note, see Exhibit 16). Appendix A contains a list of plants that were positively identified during the spring survey.
>
> A portion of the vegetation of the site has apparently been removed within the last five years by the previous owner (L. Malin), personal contact). This scenario is confirmed by the present condition of the disturbed area. Scattered chaparral shrubs, similar to those that surround the treated area, have naturally introduced in the cleared section, along with common non-native weeds.

This report also describes the wildlife habitat on site as follows:

The project site offers moderate to high values for wildlife. Its continuity with undeveloped lands allows unimpeded movement and genetic exchange over a large area. Contiguous habitat units are superior to those that have become fragmented or isolated by urbanization. The diversity and abundance of vertebrates is determined by soil type, elevation, slope, rainfall and biotic factors (primarily vegetation and to a lesser extent intra- and interspecific interactions). Vegetation type is also heavily influenced by physical conditions. In this way, vegetation types often provide insight into certain animal associations. These factors were heavily relied upon when speculating on the occurrence of a particular species that was not sighted during the limited field surveys.

Chaparral vegetation produces large amounts of seed and fruit, and granivorous birds and small mammals are particularly abundant as a result. Predatory animals are in turn drawn to this prey base. Lizards and snakes are well represented in the chaparral, amphibians less so because of the arid character of the habitat. The characteristic dense overstory provides refuge from the elements and protection from larger predators. Chaparral is an important food resource for mule deer, particularly in its early stages of development or recovery following fire.

The western fence lizard was the only herpetile observed. Coyote (Canis latrans) and mule deer (Odocoileus hemionus) sign was widespread. Opossum (Didelphis virginiana) and broad-footed mole (Scapanus latimanus) were also positively identified from tracks and/or skeletal remains. Gopher (Thomomys bottae) sign was abundant in areas with deeper soils, especially where vegetation had been removed. The following birds were some of the species observed on-site: red-tailed hawk, American kestrel, turkey vulture, California quail, Anna's hummingbird, black phoebe, scrub jay, common raven, and California towhee. Appendix B includes a list of animals that were observed or expected at the site.

This report did not identify any rare, threatened, endangered, or candidates for listing, plant species protected by State or Federal programs. The applicant's biological consultant concludes that the surrounding slopes and the portion of the site that has been cleared in recent years includes or once included chaparral vegetation.

The subject site is located in a relatively undisturbed inland canyon area within the Santa Monica Mountains. The Cold Creek Canyon area supports extensive native vegetation, which serves as natural habitat for numerous wildlife species as with important ecosystem roles in the Santa Monica Mountains (detailed further in Exhibit 15). Commission staff visited the subject property on May 1, 2003 and January 28, 2004 and confirmed that the project site includes chaparral along the southern slopes and portions of the site had been cleared of former vegetation. This chaparral vegetation remaining on the southern slopes of the subject site is relatively pristine and a part of a larger contiguous area of relatively pristine native vegetation located within the Cold Creek Canyon area to the south, southwest and southeast beyond the subject site. There is an existing single family residence with accessory development located on the adjoining parcel to the west. Therefore, the Commission finds that subject parcel includes chaparral vegetation and habitat that qualifies as ESHA under Section 30240.

Impact of Development and Fuel Modification

The proposed project will result in direct and indirect impacts to plant and wildlife habitat as a result of constructing the project and the removal and modification of native vegetation surrounding the project. The existing pad, about 27,000 sq. ft. in size, appears to have been created prior to the effective date of the Coastal Act according to the Commission's historic photographs. This pad area may have been cleared as a result of the fuel modification area necessary to protect the existing residence on the adjoining property which was constructed prior to the effective date of the Coastal Act. The adjoining property's tennis court, storage structure and expanded residence were approved with a Coastal Permit and a Coastal Exemption since then. There is an additional area cleared of native vegetation on the subject property located south of this building pad that is about a half acre in size that occurred in the past five years according to the Biological Assessment and Fuel Modification Plan. A review of the Commission's historic aerial photographs indicates that this vegetation removal occurred after 1986. A portion of this cleared area is located within the proposed project's Fuel Modification Plan, Zone C which is proposed to be thinned as a result of this project. The three fuel modification zones are discussed further below. No coastal permits were found for this additional vegetation removal.

In order to carry out the applicant's consultants recommendation to limit grading operations on site the applicant has reduced the size of the proposed building pad to that of the existing 27,000 sq. ft. pad. In addition, the consultant recommends that a revegetation program be developed and implemented on all disturbed slopes not utilized for improvements and that only native vegetation found in the immediate area be used for revegetation. The restoration of this area is necessary to minimize eroson on the site and sedimentation into Cold Creek and to replace the habitat value of this former chaparral area. In addition, the applicant is being allowed to use an existing building pad substantially larger than the typical 10,000 sq. ft. pad limit for new residences allowed by the Commission in past Coastal Permits in this area. The restoration of this area beyond the building pad minimizes the loss of chaparral ESHA, decreases landform alteration, erosion and sedimentation. In this case the Commission could not approve the proposed residential development on the existing non-conforming 27,000 sq. ft. pad unless mitigation to revegetate the loss of former chaparral habitat that has occurred beyond the pad area. Further, to restore the former chaparral on the area where unpermitted removal of vegetation occurred it is necessary to regrade, add top soil as needed and revegetate this area to minimize further onsite erosion and sedimentation offsite into the protected Cold Creek ESHA. Therefore, the Commission finds that it is necessary to require the applicant to regrade, restore and revegetate this approximate half acre area with native vegetation as identified on Exhibit 16. In order to carry out this site restoration **Special Condition No. One** is required to be implemented. This restoration and revegetation plan shall include grading, landscaping, irrigation and erosion control plans prepared by a qualified habitat restoration consultant and be implemented within 90 days of the issuance of this coastal permit.

The proposed projects direct impacts results from two issues. First, the proposed driveway cut into the slope along Mulholland Highway directly impacts two small oak saplings located on either side of the driveway cut by requiring their removal. The second direct impact is a result of the Preliminary Fuel Modification Plan that indicates the proposed residence will require a Fuel Modification Zone B area where native chaparral will be removed and replanted with other less flammable native plants located from 20 to 50 feet from the residence. This direct impact on chaparral vegetation consists of an area of about 1,285 sq. ft. located on the slope to the east of the residence according to the Biological Assessment and Fuel Modification Plan.

The proposed project's indirect impact is the result of the Fuel Modification Plan required by the Los Angeles County Fire Department. The Preliminary Fuel Modification Plan indicates that the proposed development will include a Zone C, which will require the thinning of native chaparral vegetation located from 50 to 200 feet from the proposed structures affecting about one third of an acre of existing chaparral vegetation. An additional approximate half of an acre includes a portion of the site to be restored and revegetated with chaparral plant species as required by **Special Condition No. One**; this area is also located within Zone C.

The applicant's consultant recommends five mitigation measures addressing an erosion control plan, replacement of the coast live oak saplings onsite on at least a three to one basis of one gallon size, a revegetation program on disturbed slopes not used for development, fuel modification within the thinning zone to remove dead wood and highly flammable species such as chamise, sage and sagebrush, and lastly prohibiting the night lighting onto adjacent open space areas. The removal and replanting of one or two of the existing oak saplings proposed to be removed may be substituted for one or two of the three to one on site replacement oak trees.

These measures suggested by the applicant's consultant to minimize the project's adverse effects in a manner that it will be compatible with the functions and values of this significant watershed are incorporated into the proposed project as required by **Special Condition No. Two**, which addresses landscape, erosion control and fuel modifications plans, limited site fencing, and oak tree replacement on a 3 to 1 basis. In addition, **Special Condition No. Three** addresses the removal of natural vegetation, and **Special Condition No. Four** addresses exterior lighting restriction, as recommended by the applicant's consultant.

As explained above, the slopes to the south and the area where recent grading has occurred immediately south of the building pad constitutes an environmentally sensitive habitat area (ESHA) pursuant to Section 30107.5 and 30240. Section 30240 requires that "environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas." Section 30240 restricts development on the parcel to only those uses that are dependent on the resource. The applicant proposes to construct a single family residence, garage, guest house/cabana, and pool on the parcel. The development is proposed to be located on the building pad that was graded prior to the effective date of the Coastal Act, and does not currently support ESHA. However, the

construction of a residence in that location will still require the removal of chaparral ESHA and replanting of native plants within the area 20 to 50 feet from the structure and the thinning of chaparral ESHA as a result of fuel modification for fire protection purposes in the areas about fifty (50) feet beyond the structure. As single-family residences do not have to be located within ESHAs to function, the Commission does not consider single-family residences to be a use dependent on ESHA resources. Application of Section 30240, by itself, would require denial of the project, because the project would result in significant disruption of habitat values and is not a use dependent on those sensitive habitat resources.

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

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

In the subject case, the applicant purchased the property in November 2002 for an undisclosed amount of money. The lot was designated in the County's certified Land Use Plan in 1986 for residential use. At the time the applicant purchased the lot, the County's certified Land Use Plan did not designate the vegetation on the site as ESHA. Based on these facts the applicant had reason to believe that they had purchased a lot on which they would be able to build a residence.

The Commission finds that in this particular case, other allowable uses for the subject site, such as a recreational park or a nature preserve, are not feasible and would not provide the owner an economic return on the investment. The lot is 2.5 acres, and is

surrounded by other residentially-zoned developed and undeveloped parcels. There is no indication that a public agency would consider it a priority to purchase this lot. The Commission thus concludes that in this particular case there is no viable alternative use for the site other than residential development. The Commission finds, therefore, that outright denial of all residential use on the property would interfere with reasonable investment-backed expectations and deprive the property of all reasonable economic use.

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

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

As discussed above, the proposed development will be approved within ESHA in order to provide an economically viable use. Given that the southern portion of the site with the including the previously disturbed area south of the existing building pad contains or did contain ESHA, there will be significant impacts to ESHA resulting from the required fuel modification area around the approved structure. The following discussion of ESHA impacts from new development and fuel modification is based on the findings of the Malibu LCP[2].

Fuel modification is the removal or modification of combustible native or ornamental vegetation. It may include replacement with drought tolerant, fire resistant plants. The amount and location of required fuel modification would vary according to the fire history of the area, the amount and type of plant species on the site, topography, weather patterns, construction design, and siting of structures. There are typically three fuel modification zones applied by the Fire Department:

---

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

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

Zone B (Irrigated Zone) is required to extend from the outermost edge of Zone A to a maximum of 50 feet. In this area ground covers may not extend over 18 inches in height. Some native vegetation may remain in this zone if they are adequately spaced, maintained free of dead wood and individual plants are thinned. This zone must be irrigated to maintain a high moisture content.

Zone C (Thinning Zone) is required to extend from the outermost edge of Zone B up to 100 feet. This zone would primarily retain existing native vegetation, with the exception of high fuel species such as chemise, red shank, California sagebrush, common buckwheat and sage. Dead or dying vegetation must be removed and the fuel in existing vegetation reduced by thinning individual plants.

Thus, the combined required fuel modification area around structure can extend up to a maximum of 200 feet. If there is not adequate area on the project site to provide the required fuel modification for structures, then brush clearance may also be required on adjacent lots. In this case, the required fuel modification zone will extend from the approved structures as generally shown on Exhibit 16, into chaparral ESHA located to the south and southeast. The applicant submitted a preliminary fuel modification plan approved by the Los Angeles Co. Fire Dept. dated 3/17/03, which notes that a portion of the chaparral ESHA located within the 150 foot fuel modification area along the south and southeast slopes of the parcel will need to be thinned as a result of the development of the project. In addition, a fuel modification area for the residential development located on the adjacent parcel to the west extends onto the northwestern portion of the subject site. To the south and east are vacant parcels with chaparral vegetation. To the north is Mulholland Highway. Therefore, impacts to sensitive chaparral habitat will occur due to required fuel modification for the proposed development on the southern and southeast portion of the subject parcel and on a portion of the adjacent parcel located to the east of the subject parcel. Offsite mitigation is addressed further below.

Notwithstanding the need to protect structures from the risk of wildfire, fuel modification results in significant adverse impacts that are in excess of those directly related to the development itself. Within the area next to approved structures (Zone A), all native vegetation must be removed and ornamental, low-fuel plants substituted. In Zone B, most native vegetation will be removed or widely spaced. Finally, in Zone C, native vegetation may be retained if thinned, although particular high-fuel plant species must be removed. In this way, for a large area around any permitted structures, native vegetation will be cleared, selectively removed to provide wider spacing, and thinned.

Obviously, native vegetation that is cleared and replaced with ornamental species, or substantially removed and widely spaced will be lost as habitat and watershed cover. Additionally, thinned areas will be greatly reduced in habitat value. Even where

complete clearance of vegetation is not required, the natural habitat can be significantly impacted, and ultimately lost. For instance, in coastal sage scrub habitat, the natural soil coverage of the canopies of individual plants provides shading and reduced soil temperatures. When these plants are thinned, the microclimate of the area will be affected, increasing soil temperatures, which can lead to loss of individual plants and the eventual conversion of the area to a dominance of different non-native plant species. The areas created by thinning between shrubs can be invaded by non-native grasses that will over time out-compete native species.

For example, undisturbed coastal sage scrub vegetation typical of coastal canyon slopes, and the down slope riparian corridors of the canyon bottoms, ordinarily contains a variety of tree and shrub species with established root systems. Depending on the canopy coverage, these species may be accompanied by understory species of lower profile. The established vegetative cover, including the leaf detritus and other mulch contributed by the native plants, slows rainfall runoff from canyon slopes and staunches silt flows that result from ordinary erosional processes. The native vegetation thereby limits the intrusion of sediments into downslope creeks. Accordingly, disturbed slopes where vegetation is either cleared or thinned are more directly exposed to rainfall runoff that can therefore wash canyon soils into down-gradient creeks. The resultant erosion reduces topsoil and steepens slopes, making revegetation increasingly difficult or creating ideal conditions for colonization by invasive, non-native species that supplant the native populations.

The cumulative loss of habitat cover also reduces the value of the sensitive resource areas as a refuge for birds and animals, for example by making them—or their nests and burrows—more readily apparent to predators. The impacts of fuel clearance on bird communities was studied by Stralberg who identified three ecological categories of birds in the Santa Monica Mountains: 1) local and long distance migrators (ash-throated flycatcher, Pacific-slope flycatcher, phainopepla, black-headed grosbeak), 2) chaparral-associated species (Bewick's wren, wrentit, blue-gray gnatcatcher, California thrasher, orange-crowned warbler, rufous-crowned sparrow, spotted towhee, California towhee) and 3) urban-associated species (mourning dove, American crow, Western scrub-jay, Northern mockingbird)[3]. It was found in this study that the number of migrators and chaparral-associated species decreased due to habitat fragmentation while the abundance of urban-associated species increased. The impact of fuel clearance is to greatly increase this edge-effect of fragmentation by expanding the amount of cleared area and "edge" many-fold. Similar results of decreases in fragmentation-sensitive bird species are reported from the work of Bolger et. al. in southern California chaparral[4].

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

---

[3] Stralberg, D. 2000. Landscape-level urbanization effects on chaparral birds: a Santa Monica Mountains case study. Pp. 125–136 *in* Keeley, J.E., M. Baer-Keeley, and C.J. Fotheringham (eds.). *2nd interface between ecology and land development in California*. U.S. Geological Survey, Sacramento, California.

[4] Bolger, D. T., T. A. Scott and J. T. Rotenberry. 1997. Breeding bird abundance in an urbanizing landscape in coastal Southern California. Conserv. Biol. 11:406-421.

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[5]. The Argentine ant competes with native harvester ants and carpenter ants displacing them from the habitat[6]. 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[7]. 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[8]. The composition of the whole arthropod community changes and biodiversity decreases when habitats are subjected to fuel modification. In coastal sage scrub disturbed by fuel modification, fewer arthropod predator species are seen and more exotic arthropod species are present than in undisturbed habitats[9].

Studies in the Mediterranean vegetation of South Africa (equivalent to California shrubland with similar plant species) have shown how the invasive Argentine ant can disrupt the whole ecosystem.[10] In South Africa the Argentine ant displaces native ants as they do in California. Because the native ants are no longer present to collect and bury seeds, the seeds of the native plants are exposed to predation, and consumed by seed eating insects, birds and mammals. When this habitat burns after Argentine ant invasion the large-seeded plants that were protected by the native ants all but disappear. So the invasion of a non-native ant species drives out native ants, and this can cause a dramatic change in the species composition of the plant community by disrupting long-established seed dispersal mutualisms. In California, some insect eggs are adapted to being buried by native ants in a manner similar to plant seeds[11].

---

[5] Suarez, A.V., D.T. Bolger and T.J. Case. 1998. Effects of fragmentation and invasion on native ant communities in coastal southern California. Ecology 79(6):2041-2056.

[6] Holway, D.A. 1995. The distribution of the Argentine ant (*Linepithema humile*) in central California: a twenty-year record of invasion. Conservation Biology 9:1634-1637. Human, K.G. and D.M. Gordon. 1996. Exploitation and interference competition between the invasive Argentine ant, (*Linepithema humile*), and native ant species. Oecologia 105:405-412.

[7] Fisher, R.N., A.V. Suarez and T.J. Case. 2002. Spatial patterns in the abundance of the coastal horned lizard. Conservation Biology 16(1):205-215. Suarez, A.V. J.Q. Richmond and T.J. Case. 2000. Prey selection in horned lizards following the invasion of Argentine ants in southern California. Ecological Applications 10(3):711-725.

[8] Suarez, A.V., D.T. Bolger and T.J. Case. 1998. Effects of fragmentation and invasion on native ant communities in coastal southern California. Ecology 79(6):2041-2056. Bond, W. and P. Slingsby. Collapse of an Ant-Plant Mutualism: The Argentine Ant (*Iridomyrmex humilis*) and Myrmecochorous Proteaceae. Ecology 65(4):1031-1037.

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

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

[11] Hughes, L. and M. Westoby. 1992. Capitula on stick insect eggs and elaiosomes on seeds: convergent adaptations for burial by ants. Functional Ecology 6:642-648.

While these impacts resulting from fuel modification can be reduced through siting and design alternatives for new development, they cannot be completely avoided, given the high fire risk and the extent of ESHA on the site. The Commission finds that the loss of chaparral ESHA resulting from the removal, conversion, or modification of natural habitat for new development including fuel modification and brush thinning must be mitigated. The acreage of habitat that is impacted must be determined based on the size of the required fuel modification zone. In this case, the precise area of the undisturbed chaparral ESHA that will be impacted by the proposed development has not been calculated by the applicant on the southern and eastern slopes within Fuel Modification Zones B and C. Therefore, the Commission finds that it is necessary to require the applicant to confirm the area of the ESHA onsite that will be impacted by the proposed development including the areas affected by fuel modification and brush thinning activities, as required by **Special Condition No. Five**.

In the certification of the Malibu LCP the Commission approved three methods for providing mitigation for the unavoidable loss of ESHA resulting from development, including habitat restoration, habitat conservation, and an in-lieu fee for habitat conservation. The Commission finds that these measures are appropriate in this case to mitigate the loss of chaparral habitat on and offsite. These three mitigation methods are provided as three available options for compliance with Special Condition No. Thirteen. The first method is to provide mitigation through the restoration of an area of degraded habitat (either on the project site, or at an off-site location) that is equivalent in size to the area of habitat impacted by the development. A restoration plan must be prepared by a biologist or qualified resource specialist and must provide performance standards, and provisions for maintenance and monitoring. The restored habitat must be permanently preserved through the recordation of an open space easement. This mitigation method is provided for in **Special Condition No. Five**, subpart A.

The second habitat impact mitigation method is habitat conservation. This includes the conservation of an area of intact habitat equivalent to the area of the impacted habitat. The lot containing the habitat conservation area must be restricted from future development and permanently preserved. If the mitigation lot is larger in size than the impacted habitat area, the excess acreage could be used to provide habitat impact mitigation for other development projects that impact ESHA. This mitigation method is provided for in **Special Condition No. Five**, subpart B.

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

restoration site characteristics including topography (steeper is harder), proximity to the coast (minimal or no irrigation required at coastal sites), types of plants (some plants are rare or difficult to cultivate), density of planting, severity of weed problem, condition of soil, etc. Larger projects may realize some economy of scale.

Staff determined the appropriate mitigation for loss of coastal sage scrub or chaparral ESHA should be based on the actual installation of replacement plantings on a disturbed site, including the cost of acquiring the plants (seed mix and container stock) and installing them on the site (hydroseeding and planting). Three cost estimates were obtained for the installation of plants and seeds for one-acre of restoration. These estimates were $9,541, $12,820, and $13,907 per acre of plant installation. The Commission finds it appropriate to average the three estimates of plant installation to arrive at the reasonable in-lieu fee to mitigate for the loss of ESHA associated with the approval of development within an ESHA. Based on this averaging, the required in-lieu fee for habitat mitigation is $12,000 (rounded down from the average figure of $12,089 to simplify administration) per acre of habitat.

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

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

Should the applicant choose the in-lieu fee mitigation method, the fee shall be provided to the Mountains Recreation and Conservation Authority (MRCA) for the acquisition, permanent preservation, or restoration of natural habitat areas within the coastal zone.

This mitigation method is provided for in **Special Condition No. Five**, subpart C for Zones B and C only. The vegetation located within Zone A on the subject parcel, as identified on the Final Fuel Modification Plan is not considered ESHA.

The Commission has determined that in conjunction with siting new development to minimize impacts to ESHA, additional actions can be taken to minimize adverse impacts to ESHA. The Commission finds that the use of non-native and/or invasive plant species for residential landscaping results in both direct and indirect adverse effects to native plants species indigenous to the Malibu/Santa Monica Mountains area. Adverse effects from such landscaping result from the direct occupation or displacement of native plant communities by new development and associated non-native landscaping. Indirect adverse effects include offsite migration and colonization of native plant habitat by non-native/invasive plant species (which tend to outcompete native species) adjacent to new development. The Commission notes that the use of exotic plant species for residential landscaping has already resulted in significant adverse effects to native plant communities in the Malibu/Santa Monica Mountains area. Therefore, in order to minimize adverse effects to the indigenous plant communities of the Malibu/Santa Monica Mountains area, **Special Condition No. Two** requires that all landscaping consist primarily of native plant species and that invasive plant species shall not be used.

In addition, the Commission has found that night lighting of areas in the Malibu/Santa Monica Mountains area creates a visual impact to nearby scenic beaches, scenic roads, parks, and trails. In addition, night lighting may alter or disrupt feeding, nesting, and roosting activities of native wildlife species. The subject site contains environmentally sensitive habitat. Therefore, **Special Condition No. Four**, the Lighting Restriction, limits night lighting of the site in general; limits lighting to the developed area of the site; and specifies that lighting be shielded downward. The restriction on night lighting is necessary to protect the night time rural character of this portion of the Santa Monica Mountains consistent with the scenic and visual qualities of this coastal area. In addition, low intensity security lighting will assist in minimizing the disruption of wildlife traversing this area at night that are commonly found in this rural and relatively undisturbed area. Thus, the lighting restrictions will attenuate the impacts of unnatural light sources and reduce impacts to sensitive wildlife species.

Furthermore, fencing of the site would adversely impact the movement of wildlife through the chaparral ESHA on this over 2.54 acre lot. Therefore, the Commission finds it is necessary to limit fencing to the building pad area within fifty (50) feet of the structure and along the main access driveway as required in **Special Condition No. Two.**

Also, the Commission finds that the amount and location of any new development that may be proposed in the future on the subject site is significantly limited by the unique nature of the site and the environmental constraints discussed above. Therefore, to ensure that any future structures, additions, change in landscaping or intensity of use at the project site, that may otherwise be exempt from coastal permit requirements, are reviewed by the Commission for consistency with the resource protection policies of the

Coastal Act, **Special Condition No. Ten**, the future development restriction, has been required. Finally, **Special Condition No. Twelve** requires the applicant to record a deed restriction that imposes the terms and conditions of this permit as restrictions on use and enjoyment of the property and provides any prospective purchaser of the site with recorded notice that the restrictions are imposed on the subject property.

Therefore for the reasons set forth above, the Commission finds that the proposed project, as conditioned, is consistent with Coastal Act Sections 30230, 30231, 30240 and 30250.

C. 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, 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 that:

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

As described above, the proposed development includes additional grading on an existing building pad for a residence, garage, guest house/cabana and new driveway cut into a slope from Mulholland Highway. The building pad for the residence, garage and driveway together with the drainage system will serve to convey drainage from the applicant's subject property and uphill areas into the watershed. In addition, this application includes the after the fact grading and removal of about one half an acre of chaparral vegetation.

The site is considered a "hillside" development, as the building site is located on the top of a ridge with sloping terrain to the south and southeast, all lands with soils that are susceptible to erosion. The subject parcel drains into Cold Creek, a designated Significant Watershed and Significant Environmental Area.

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 therefore leads to an increase in the volume and velocity of stormwater runoff that can be expected to leave the site. Further, pollutants commonly found in runoff associated with residential use include petroleum hydrocarbons including oil and grease from vehicles; heavy metals; synthetic organic chemicals including paint and household cleaners; soap and dirt from washing vehicles;

dirt and vegetation from yard maintenance; litter; fertilizers, herbicides, and pesticides; and bacteria and pathogens from animal waste. The discharge of these pollutants to coastal waters can cause cumulative impacts such as: eutrophication and anoxic conditions resulting in fish kills and diseases and the alteration of aquatic habitat, including adverse changes to species composition and size; excess nutrients causing algae blooms and sedimentation increasing turbidity which both reduce the penetration of sunlight needed by aquatic vegetation which provide food and cover for aquatic species; disruptions to the reproductive cycle of aquatic species; and acute and sublethal toxicity in marine organisms leading to adverse changes in reproduction and feeding behavior. These impacts reduce the biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes and reduce optimum populations of marine organisms and have adverse impacts on human health.

Therefore, in order to find the proposed 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. Ten, 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 measure 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 Nos. Two, Three, and Six** are necessary to ensure the proposed development will not adversely impact water quality or coastal resources through erosion control, vegetation removal and a drainage and polluted runoff control plan.

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. Further, 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 coastal resources.

Therefore, the Commission finds that the proposed project, as conditioned to incorporate and maintain a drainage and polluted runoff control plan, is consistent with Section 30231 of the Coastal Act.

1. Pool Drainage and Maintenance

The applicant proposes to construct a swimming pool and indoor jacuzzi (inside cabana) that may use chemicals such as chlorine and algaecides if drained from the site into Cold Creek may be harmful to plant and animal species in the Cold Creek Management Area. The Commission notes that the proposed project is conditioned to incorporate the recommendations of the project's consulting geologists and geotechnical engineer related to the construction of the swimming pool and jacuzzi and to incorporate adequate site drainage, and erosion control.

However, the Commission also notes that both leakage and periodic maintenance drainage of the proposed swimming pool and jacuzzi, if not monitored and/or conducted in a controlled manner, may result in excess runoff and erosion potentially causing 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 Watersheds. Therefore, the Commission imposes **Special Condition Number Seven** on the subject application which requires the applicant to submit a written pool/jacuzzi maintenance agreement to use the proposed non-chemical water purification system and a program to maintain proper pH, calcium and alkalinity balance in a manner that any runoff or drainage from the pool will not include excessive chemicals that may adversely affect the designated Significant Watershed or Environmentally Sensitive Habitat Areas, the located to the south and designated ESHA in Cold Creek located about 500 feet to the south from the pool and jacuzzi. The Commission finds that, as conditioned to minimize potential impacts of the proposed pool, the project is consistent with Sections 30231 and 30240 of the Coastal Act.

D. Geologic Stability

Section 30253 of the Coastal Act states:

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.

The proposed development is located in the Malibu area which is generally considered to be subject to an unusually high number of natural hazards. Geologic hazards common to the Malibu area include landslides, erosion, and flooding. In addition, fire is an inherent threat to the indigenous chaparral community of the coastal mountains. Wild fires often denude hillsides in the Santa Monica Mountains of all existing vegetation, thereby contributing to an increased potential for erosion and landslides on property.

The Commission reviews the proposed project's risks to life and property in areas where there are geologic, flood and fire hazards. The applicant proposes to construct a residence and garage as identified above. Regarding the geologic hazard, the applicant submitted the following: Preliminary Geologic and Soils Engineering Investigation, by GeoConcepts, Inc. dated January 16, 2003. This report concludes that:

> It is the finding of this corporation, based on the subsurface data that the proposed project will be safe from landslide, settlement, or slippage and will not adversely affect adjacent property, provided this corporation's recommendations and those of the County of Los Angeles and Uniform Building Code are followed and maintained.

The recommendations in these reports address the following issues: drainage and maintenance, grading and earthwork, foundations, settlement, excavations, retaining walls, slabs on grade, and sewage.

Based on the findings and recommendations of the consulting engineering geologist and engineer, the Commission finds that the development is consistent with Section 30253 of the Coastal Act so long as all recommendations regarding the proposed development are incorporated into the project plans. Therefore, the Commission finds it necessary to require the applicant to submit project plans that have been certified in writing by these consultants as conforming to their recommendations, as noted in **Special Condition No. Eight** for the final project design, grading, and drainage plans for the proposed project.

Minimizing erosion of the site is important to reduce geological hazards on the site and minimize sediment deposition in the drainage leading to Cold Creek. The applicant has submitted preliminary landscape and fuel modification plans for the proposed development. These plans incorporate the use of native species and illustrate how these materials will be used to provide erosion control to those areas of the site disturbed by development activities. These plans also illustrate that vegetation will be "thinned" rather than "cleared" for fuel modification purposes, thus allowing for the continued use of existing native plant materials for on site erosion control. The thinning, rather than complete removal, of native vegetation helps to retain the natural erosion

control properties, such as extensive and deep root systems, provided by these species. These plans will be revised to include the requirements identified by **Special Condition No. Two.**

In order to ensure that drainage from the residential building pad is conveyed from the site and into the watershed in a non-erosive manner and erosion is controlled and minimized during construction, the Commission finds it necessary to require the applicant to submit site drainage plans, as required by **Special Condition Number Two** and a polluted runoff control plan, as required by **Special Condition Number Six.** Furthermore, the Commission finds it necessary to require the applicant, should the proposed improvements to the driveway access or the proposed drainage structures fail or result in erosion, to be solely responsible for any necessary repairs and restoration resulting from this failure along the entire section of the driveway subject to this permit. **Special Condition No. Two** provides for such maintenance of the access driveways and drainage structures.

The Coastal Act also requires that new development minimize the risk to life and property in areas of high fire hazard. The Coastal Act also recognizes that new development may involve the taking of some risk. Coastal Act policies require the Commission to establish the appropriate degree of risk acceptable for the proposed development and to establish who should assume the risk. When development in areas of identified hazards is proposed, the Commission considers the hazard associated with the project site and the potential cost to the public, as well as the individual's right to use his property.

Vegetation in the coastal areas of 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, the Commission can only approve the project if the applicant assumes the liability from these associated risks. Through the waiver of liability, the applicant acknowledges and appreciates the nature of the fire hazard which exists on the site and which may affect the safety of the proposed development, as incorporated by **Special Condition No. Nine.**

The Commission finds that only as conditioned is the proposed project consistent with Section 30253 of the Coastal Act.

E. Visual Resources.

Section 30251 of the Coastal Act states that:

> **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 surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.**

The applicant proposes to construct a two story 35 foot high, 5,784 sq. ft. single family residence with attached three car garage, 1,000 sq. ft. guest house/pool cabana, pool, retaining walls, septic system, grade 850 cubic yards of cut, 850 cubic yards of fill, and an overexcavation of 700 cubic yards of material for remedial grading.

In the review of this project, the Commission reviews the publicly accessible locations where the proposed development is visible to assess potential visual impacts to the public. The Malibu/Santa Monica Mountains Land Use Plan protects visual resources in the Santa Monica Mountains. Mulholland Highway is recognized as a number 1 priority scenic highway, while Stunt Road is recognized as a number 2 priority scenic highway (Exhibit 1). Cold Creek Canyon is recognized as a highly scenic area which are given special treatment when evaluating potential impacts caused by new development. A public trail is located to the west, south and east of the project site. The Calabasas – Cold Creek Trail traverses west to east along various routes connecting Mulholland Highway on the east to the Stokes Ridge Trail on the west (Exhibit 13).

The Commission examines the building site, the proposed grading, and the size of the building pad and structures. The development of the residence, garage and guest house/cabana raise two issues regarding the siting and design: one, whether or not public views from public roadways will be adversely impacted, or two, whether or not public views from public trails will be impacted. It is important to note that there is a residence located on the adjacent parcel to the south and additional residences along Cold Canyon Road located north of Mulholland Highway.

The proposed residence will be visible from Mulholland Highway in both the eastbound and westbound directions. The building pad for the 35 foot high residence is located at the 1,018 foot elevation level about 24 feet higher that the adjoining grade elevation for the Mulholland Highway which is located at about the 994 foot high level. In effect, the top of the proposed residence will be about 59 feet above the grade of the highway. The one story, 15 ft. 3 in. high guest house/cabana is set back from the main residence. Due to its one story height and approximate 150 foot setback from Mulholland Highway, the public visibility of the guest house/cabana will be limited. However, the two story, 35

foot high main residence located as close as 60 feet from Mulholland Highway will be highly visible by westbound and eastbound traffic using Mulholland Highway. Thus, the main residence, as currently proposed, will be highly visible from Mulholland Highway, a designated scenic highway, for both westbound and eastbound traffic (Exhibit 17). In order to reduce the public visibility of the main residence, the height of the structure could be reduced to 26 feet above finished grade, while still allowing a two story design. Landscape screening, such as trees and shrubs, could further reduce the public visibility of the structure from the west, north and east. The Commission finds it necessary to impose **Special Condition No. Thirteen** that requires the applicant to submit revised plans for the review and approval of the Executive Director reducing the height of the main residence to a maximum of 26 feet above finished grade of 1,018 feet above sea level. The Commission also finds it necessary to impose **Special Condition No. Two** that requires the applicant to revise the landscape plan to include vertical elements such as trees and shrubs along the west, north, and east sides of the main residence to partially screen the structure from public view along Mulholland Highway.

The siting, size and grading for the building pad and the proposed residence, garage and guest house/cabana will be visible from portions of Stunt Road and the Calabasas - Cold Creek Trail to the west, south and east at distances ranging from 500 feet to one mile.

The grading necessary to level the existing building pad and complete remedial grading for the pad, is judged to be the minimum amount necessary on the 27,000 sq. ft. existing pad to access the building site from Mulholland Highway while meeting the requirements of the Los Angeles County Fire Department. Furthermore, no significant cut or fill slopes will result from the above referenced grading, and no adverse or significant visual impacts are anticipated as a result of the driveway colored an earthen tone as seen from Mulholland Highway as required by **Special Condition No. Eleven.**

Because the site and proposed structures will be visible from Mulholland Highway located to the west, north and east, and from Stunt Road located to the south and from Calabasas - Cold Canyon Trail located to the west, south and east, mitigation to address potential visual impacts is needed for the site and structures. The proposed two story residence, garage, guest house/cabana and driveway, will be less visually intrusive through the use of earth tones for the structures and roofs of the buildings, the driveway, and non-glare glass which helps the structures blend in with the natural setting. The Commission finds it necessary to impose **Special Condition No. Eleven** to restrict the color of the subject structures and driveway to those compatible with the surrounding environment and prohibit the use of white tones, while requiring the use of non-glare glass windows.

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. To ensure that any future additions to the permitted structures, which would otherwise be exempt from coastal permit requirements, are reviewed for consistency with Section 30251 of the Coastal Act, the Commission finds, that it is necessary to require that all future additions

or improvements to the permitted structures, or any future development on the subject parcel, will require a permit or permit amendment, as required by **Special Condition No. Ten.**

Further, the Commission has found that the use of native plant materials in landscaping plans can soften the visual impact of construction in the Santa Monica Mountains. The use of native plant materials to revegetate graded or disturbed areas reduces the adverse affects of erosion, which can degrade visual resources in addition to causing siltation pollution in ESHAs, and soften the appearance of development within areas of high scenic quality. The applicant has submitted a landscape and fuel modification plan that uses numerous native species compatible with the vegetation associated with the project site for landscaping and erosion control purposes that will be as required to be revised to include the applicant's revise project description. Furthermore, the plan indicates that only those materials designated by the County Fire Department as being a "high fire hazard" are to be removed as a part of this project and that native materials surrounding the residential structure are to "thinned" rather than "cleared" for wildland fire protection. **Special Condition No. Two** requires that the landscape plan be completed within sixty days of residential occupancy with trees and shrubs to partially screen the development from the north, west, south and east. The planting coverage shall also be adequate to provide ninety (90) percent coverage within two (2) years and shall be repeated, if necessary, to provide such coverage.

The Commission has found that night lighting of areas in the Malibu / Santa Monica Mountains area creates a visual impact to nearby scenic beaches, scenic roads, parks, and trails. In addition, night lighting may alter or disrupt feeding, nesting, and roosting activities of native wildlife species. Therefore, in order 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, the Commission limits the nighttime lighting of the property, residence, garage, guest house/cabana and pool to that necessary for safety as outlined in **Special Condition No. Four.**

Special Condition No. Twelve requires the applicant to record a deed restriction that imposes the terms and conditions of this permit as restrictions on use and enjoyment of the property and provides any prospective purchaser of the site with recorded notice that the restrictions are imposed on the subject property.

Therefore, the Commission finds that the project, as conditioned, minimizes impacts to public views to and along the coast and thus, is consistent with Section 30251 of the Coastal Act.

F. Cumulative Impacts

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

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

Section 30105.5 of the Coastal Act defines the term "cumulatively," as it is used in Section 30250(a), to mean that:

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

Section 30252 of the Coastal Act states:

> **The location and amount of new development should maintain and enhance public access to the coast by (l) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing non-automobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of onsite recreational facilities to serve the new development.**

New development raises coastal issues related to cumulative impacts on coastal resources. The construction of a second unit on the site where a primary residence exists intensifies the use of a parcel raising potential impacts on public services, such as water, sewage, electricity and roads. New development also raises issues regarding the location and amount of new development maintaining and enhancing public access to the coast.

Based on these policies, the Commission has limited the development of second dwelling units on residential parcels in the Malibu and Santa Monica Mountain areas. In addition, the issue of second units on lots with primary residences has been the subject of past Commission action in certifying the Los Angeles County Malibu Santa Monica Mountains Land Use Plan (LUP). In its review and action on the Malibu LUP, the Commission found that placing an upper limit on the size of second units (750 sq. ft.) was necessary given the traffic and infrastructure constraints which exist in Malibu and the Santa Monica Mountains and given the abundance of existing vacant residential lots. Furthermore, in allowing these small units, the Commission found that the small

size of units (750 sq. ft.) and the fact that they are likely to be occupied by one or at most two people, such units would have less impact on the limited capacity of Pacific Coast Highway and other roads (as well as infrastructure constraints such as water, sewage, electricity) than an ordinary single family residence. (certified Malibu Santa Monica Mountains Land Use Plan 1986, page 29 and P.C.H. (ACR), 12/83 page V-1 - VI-1).

The second unit issue has also been raised by the Commission with respect to statewide consistency of both coastal development permits and Local Coastal Programs (LCPs). Statewide, additional dwelling units on single family parcels take on a variety of different functions which in large part consist of: 1) a second unit with kitchen facilities including a granny unit, caretaker's unit, and farm labor unit; and 2) a guesthouse, without separate kitchen facilities. Past Commission action has consistently found that both second units and guest houses inherently have the potential to cumulatively impact coastal resources. As such, conditions on coastal development permits and standards within LCP's have been required to limit the size and number of such units to ensure consistency with Chapter 3 policies of the Coastal Act (Certified Malibu Santa Monica Mountains Land Use Plan 1986, page 29). Therefore as a result, the Commission has found that guest houses and second units can intensify the use of a site and impact public services, such as water, sewage, electricity, and roads.

The applicants propose to construct a detached 1,000 sq. ft. guest house/pool cabana as one structure. The guest house is proposed to include 750 sq. ft. of habitable space. Attached to the guest house is a cabana with an indoor jacuzzi pool. The proposed 750 sq. ft. second residential unit complies with the Commission's size limit of 750 sq. ft of habitable space. The cabana is considered an indoor recreational use that is not habitable. The cabana is attached to the guest house without an interior doorway connecting the guest house to the cabana.

The Commission has approved many similar projects that have established a maximum size of 750 sq. ft. habitable space for development which may be considered a secondary dwelling unit such as the proposed unit. However, to ensure that no additions, improvements, or a change of use to the second unit are made that may further intensify the use without due consideration of the potential cumulative impacts, the Commission finds it necessary to require the applicant to record a future development deed restriction, which will require the applicant to obtain an amended or new coastal permit if additions or improvements to the attached 750 sq. ft. second residential unit (and entire property including the residence, garage, cabana, and vegetation removal as noted in Section IV. B, above) are proposed in the future as required by **Special Condition No. Ten.** For these reasons, the Commission finds that, as conditioned, the proposed project is consistent with Section 30250 and 30252 of the Coastal Act.

G. Violation

Development has occurred on the subject site without the required coastal development permit including grading and removal of about one half acre of chaparral vegetation. This application includes the request for after-the-fact approval for the above referenced unpermitted development. The applicant purchased this property in November 2002 with this unpermitted grading and removal of chaparral vegetation. No evidence could be found that this grading and vegetation removal received a coastal permit from this Commission. In order to ensure that the unpermitted development component of this application is resolved in a timely manner, the Commission finds it necessary to require the applicant to fulfill all of the Special Conditions as a prerequisite to the issuance of this permit, as required by **Special Condition No. Fourteen** within 120 days of Commission action. Only as conditioned, is the proposed development consistent with the Coastal Act.

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

H. Local Coastal Program

Section 30604 of the Coastal Act states that:

> **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 permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program which conforms with Chapter 3 policies of the Coastal Act. The preceding sections provide findings that the proposed project will be in conformity with the provisions of Chapter 3 if certain conditions are incorporated into the project and accepted by the applicant. 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's ability to prepare a Local Coastal Program for this area of the Santa Monica Mountains that is also consistent with the policies of Chapter 3 of the Coastal Act as required by Section 30604(a).

I. California Environmental Quality Act

The Coastal Commission's permit process has been designated as the functional equivalent of CEQA. Section 13096(a) of the California Coastal Commission's Code of Regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the project, as conditioned by any conditions of approval, to be consistent with any applicable requirements of CEQA. Section 21080.5 (d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant adverse effects that the activity may have on the environment.

As explained in the findings set forth above in this Staff Report, and incorporated fully herein, all feasible mitigation measures have been adopted to avoid or reduce any significant adverse effects the project may have on the environment. In addition, the Commission finds that there are no other feasible alternatives available that would avoid or substantially reduce any significant adverse effects the project may have on the environment, considering the applicants right to use their property. The County has determined that this project is ministerial relative to CEQA and thus was approve in concept by the County of Los Angeles. Therefore, the proposed project, as conditioned, is consistent with the applicable requirements of CEQA.

403028buyinkreport

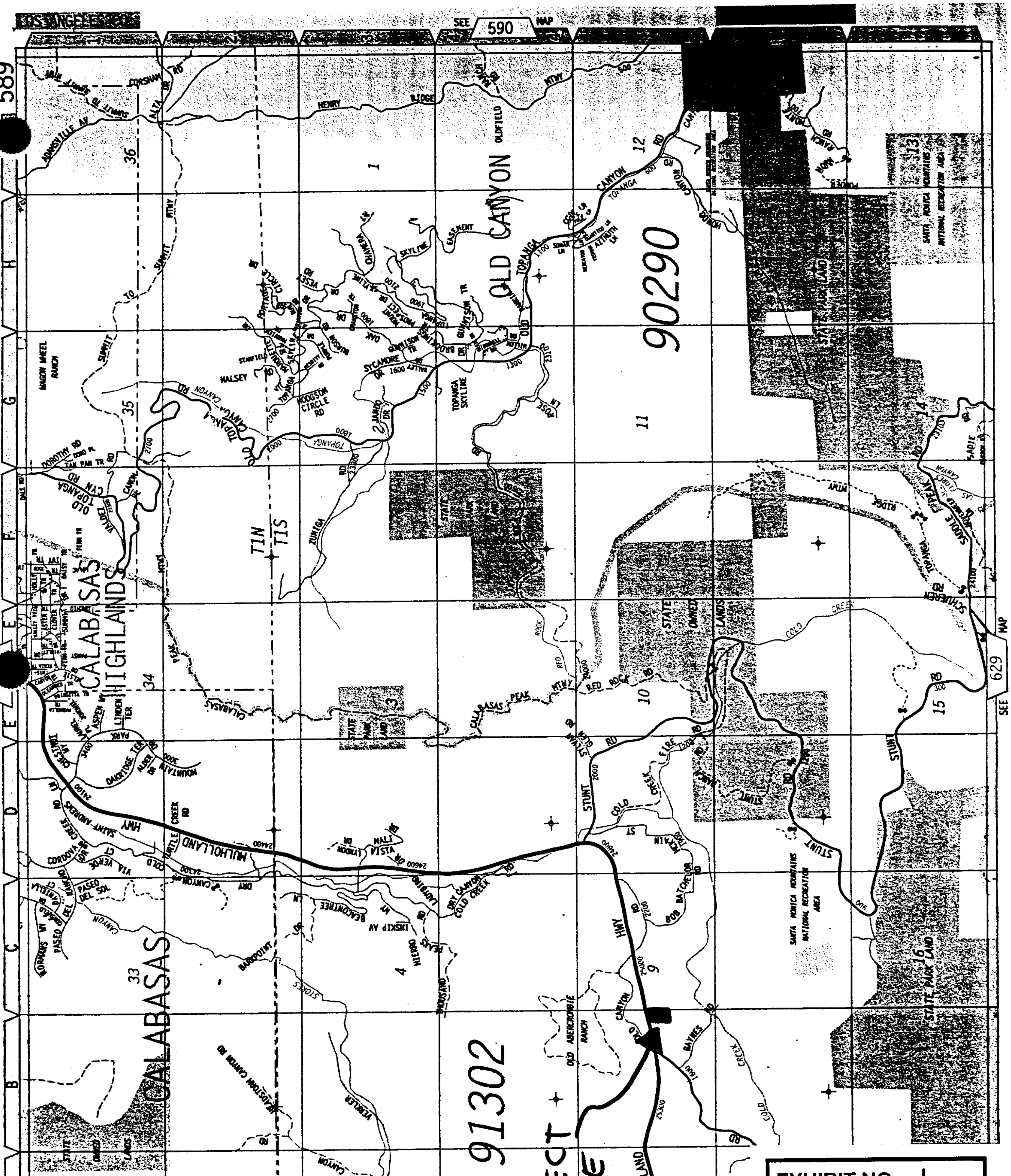


EXHIBIT NO. 1

APPLICATION NO. 4-03-028

Project Site

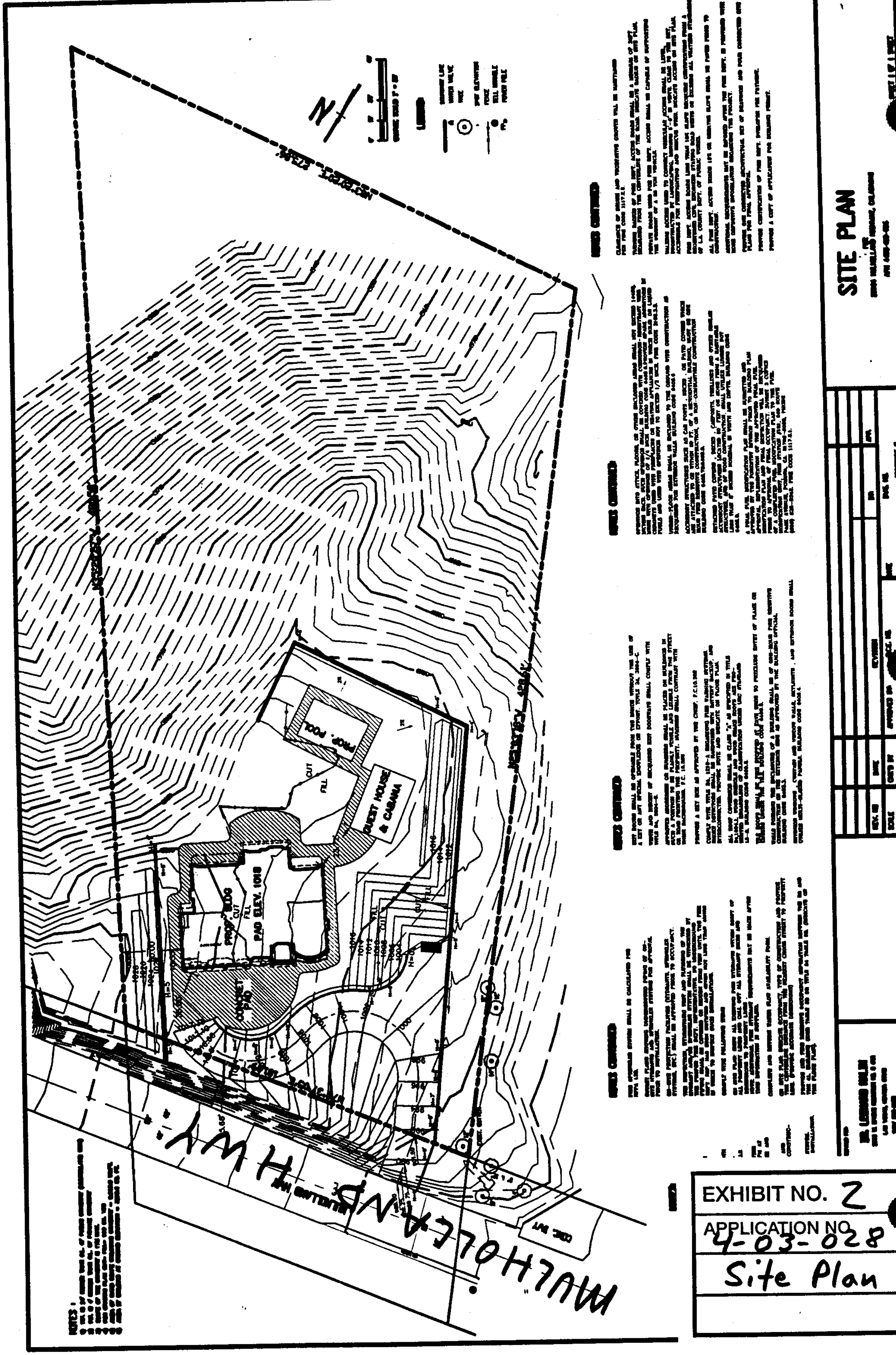
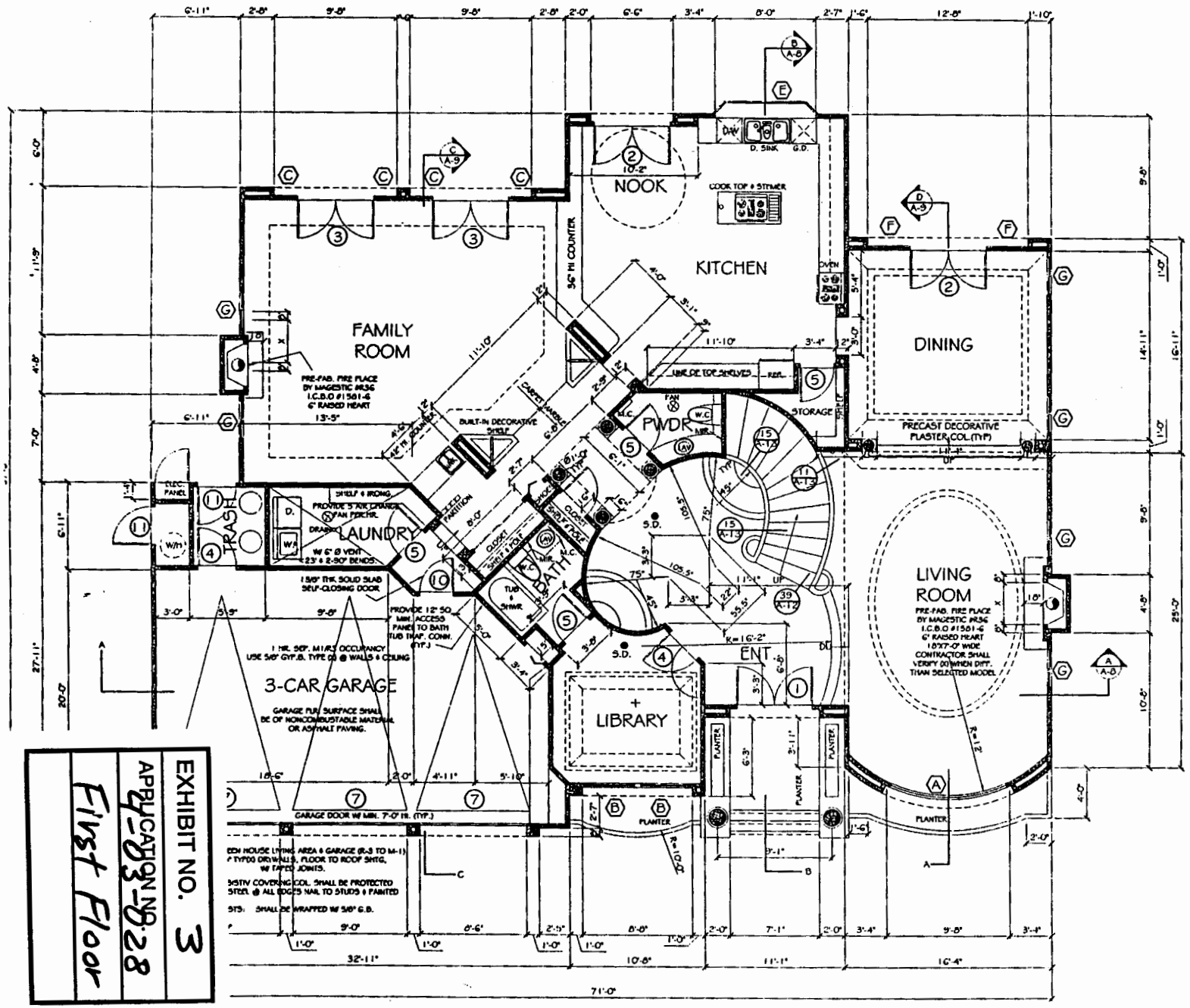


EXHIBIT NO. 2

APPLICATION NO. 4-03-028

Site Plan



1- PROVIDE 1 HR SEP. M-1/R-1
2- MATERIALS APPROVED FOR ONE-HOUR CONSTRUCITON ON GARAGE SIDE.
- DOORS TO BE SELFCLOSING 1 3/8" SOLID WOOD SLAB.
3- GARAGE SHALL NOT OPEN DIRECTLY INTO A ROOM USED FOR SLEEPING PURPOSE.
4- M-1 OCCUPANCY GARAGE IS LIMITED TO 1000 SQ.FT.
5- PROVIDE FAN & DRAIN AT LAUNDRY ROOM
6- PROVIDE A SMOKE DETECTOR MOUNTED @ CEILG. OR WALL OF EACH SLEEPING ROOM, AT A POINT CENTRALLY LOCATED ON THE WALL OR CEILING OF THE HALLWAY OR ROOM GIVING ACCESS TO THE SLEEPING ROOM AND AT THE TOP OF STAIRWAY WITH SLEEPING(S) AT THE UPPER LEVEL.
7- PROVIDE 70" HIGH NON-ABSORBENT WALL ADJACENT TO SHOWE AND APPROVED SHATTER-RESISTANT MATERIALS FOR SHOWER ENCLOSURE.
8- STAIRS DIM.
MAX. 7 RIZE MIN. 10" RUN 12" AWAY FROM THE EDGE.
MIN. 6'-8" VERTICAL HEADROOM AT TREAD NOSING.
HANDRAILS 30" TO 34" HIGH.
MAX. CLEARANCE BETWEEN INTERMEDIATE RAILS IS 6".
9- PROVIDE EXHUST FAN AT ALL BATHROOMS LAUNDRY WITH NO OPERABLE WINDOW CAPABLE OF FIVE AIR CHANGES PER HOUR
10- PROVIDE MIN. 7' CLR. HIGHT AT GARAGE DOOR.
11- PROVIDE 6" DIAMETER DRYER VENT WITH 23' MAX LENGTH & 2-90° BENDS.
12- PROVIDE WATER-RESISTANT G.B. BACKING BOARD AS A BASE FO TILE OR WALL PANELS FOR TUB OR SHOWER ENCLOSURE OR WAT CLOSET WALLS
13- ENCLOSED USABLE UNDER STAIRS SHALL BE PROTECTED W/ 1-HR FIRE- RESIST. USE GYP.B. TYPE(X).
14- MECHANICAL EQUIP. SHALL BE ON PLATFORM 24" HI. OR PROTECTED W/BUMPER PIPE
15- 18" CLR. ABOVE FLOOR FOR ALL PILOT LIGHT.

STAIRS NOTE:

1- RISE 7" MAX., TUN 9" MIN EHRN 12" AWAY FROM INSIDE CURVE OF CIRCULAR STAIRS & 5'-6" WIDE
2- 6" CLR. SPACING OF INTERMEDIATE RAILS
3- HANDRAIL 34" TO 38" ABOVE NOSING, WITH SAFTY RETURN & 1-1/2" TO 2" HANDGRIP CROSS SECTION
4- HEAD ROOM 6'-8" MIN.
5- 12" MAX. VERTICAL DISTANCE BETWEEN LANDINGS.
6- 36" MIN. WIDTH FOR STAIRWAY.

ALSO SEE (30/A-13) (19/A-13) (15/A-13) (1/S-7) (4/S-7)

FIRST FLOOR LIVING AREA = 2712 SQ. FT.
GARAGE AREA = 583 SQ. FT.
TOTAL AREA OF FIRST FLOOR = 3295 SQ. FT.
SECON FLOOR LIVING AREA = 2489 SQ. FT.
TOTAL BUILDING AREA = 5784 SQ. FT.

POOL CABANA AREA = 789 SQ.FT.

EXHIBIT NO. 3
APPLICATION NO. 28
First Floor

FIRST FLOOR PLAN

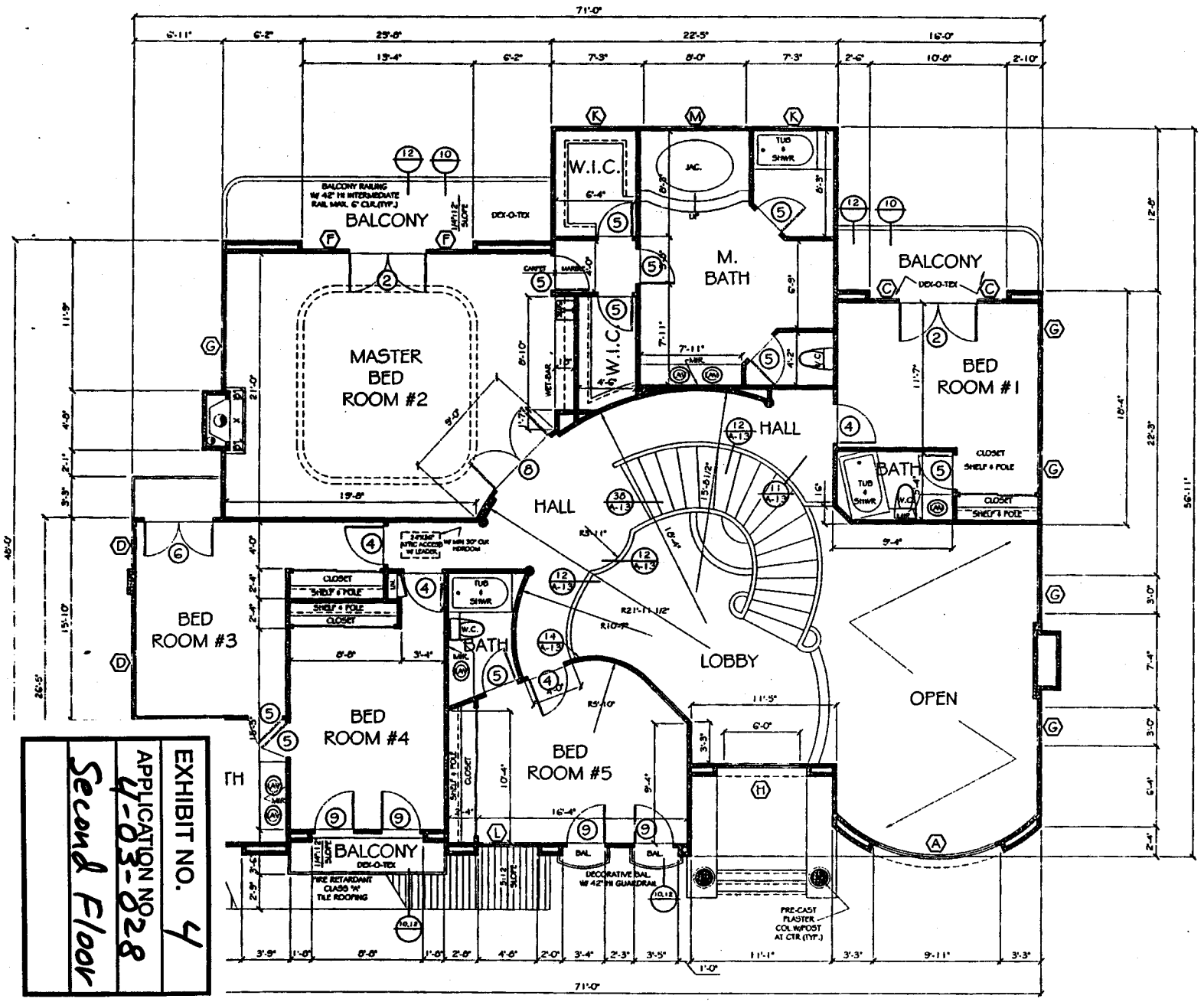


EXHIBIT NO. 4
APPLICATION NO. 4-03-028
Second Floor

SECOND FLOOR PLAN

'SECOND FLOOR' LIVING AREA = 2489 sq. FT.

*PROVIDE A SMOKE DETECTOR MOUNTED ON THE CEILING OR WALL OF EACH SLEEPING ROOM AT A POINT CENTRALLY LOCATED ON THE WALL OR CEILING OF THE HALLWAY OR ROOM GIVING ACCESS TO THE SLEEPING ROOM AND AT THE TOP OF STAIRWAY WITH SLEEPING ROOMS) AT THE UPPER LEVEL.

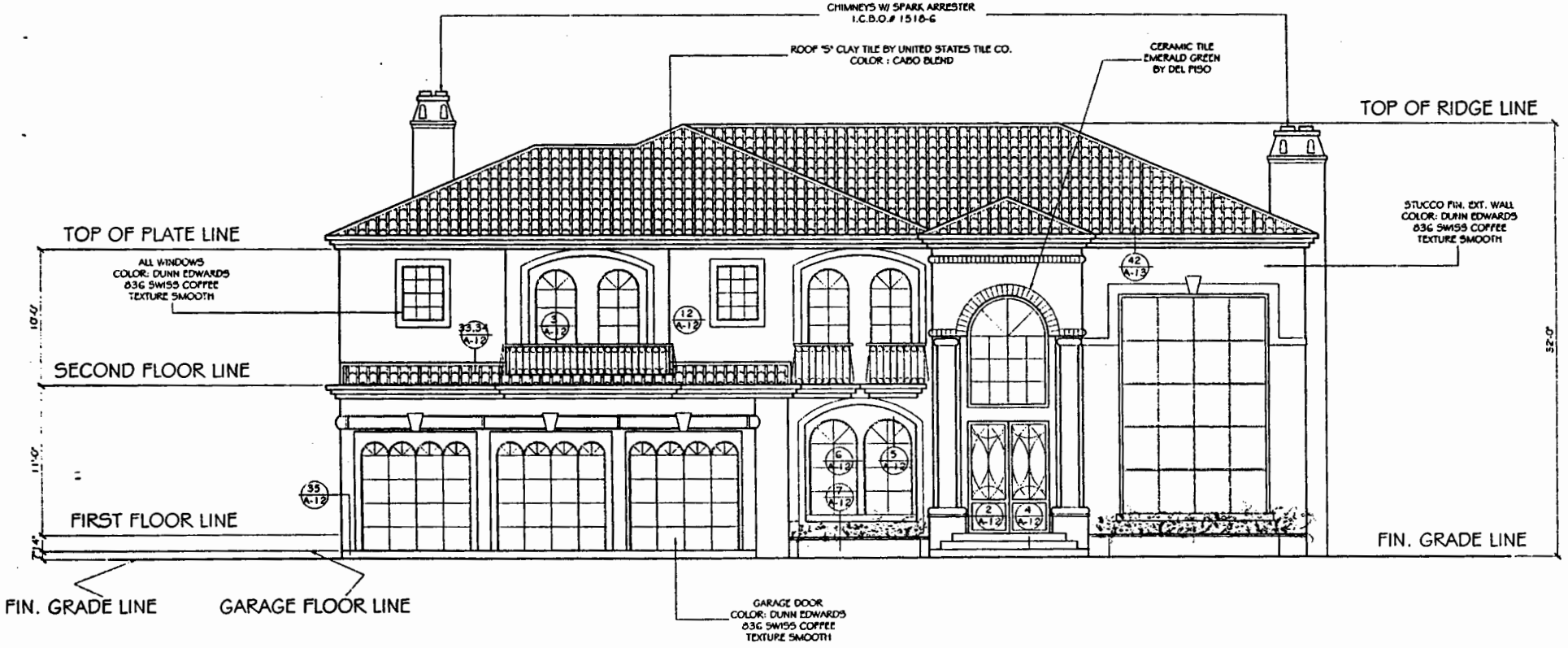
*PROVIDE 70" HIGH NON-ABSORBENT WALL ADJACENT TO SHOWER AND APPROVED SHATTER-RESISTANT MATERIALS FOR SHOWER ENCLOSURE.

*STAIRS DIM.
MAX. 7" RISE MIN. 11" RUN
MIN. 6'-6" VERTICAL HEADROOM AT TREAD NOSING.
HANDRAILS 30" TO 34" HIGH.
MAX. CLEARANCE BETWEEN INTERMEDIATE RAILS IS 6".

*PROVIDE EXHUST FAN AT ALL BATHROOMS WITH NO WINDOW CAPABLE OF FIVE AIR CHANGES PER HOUR.

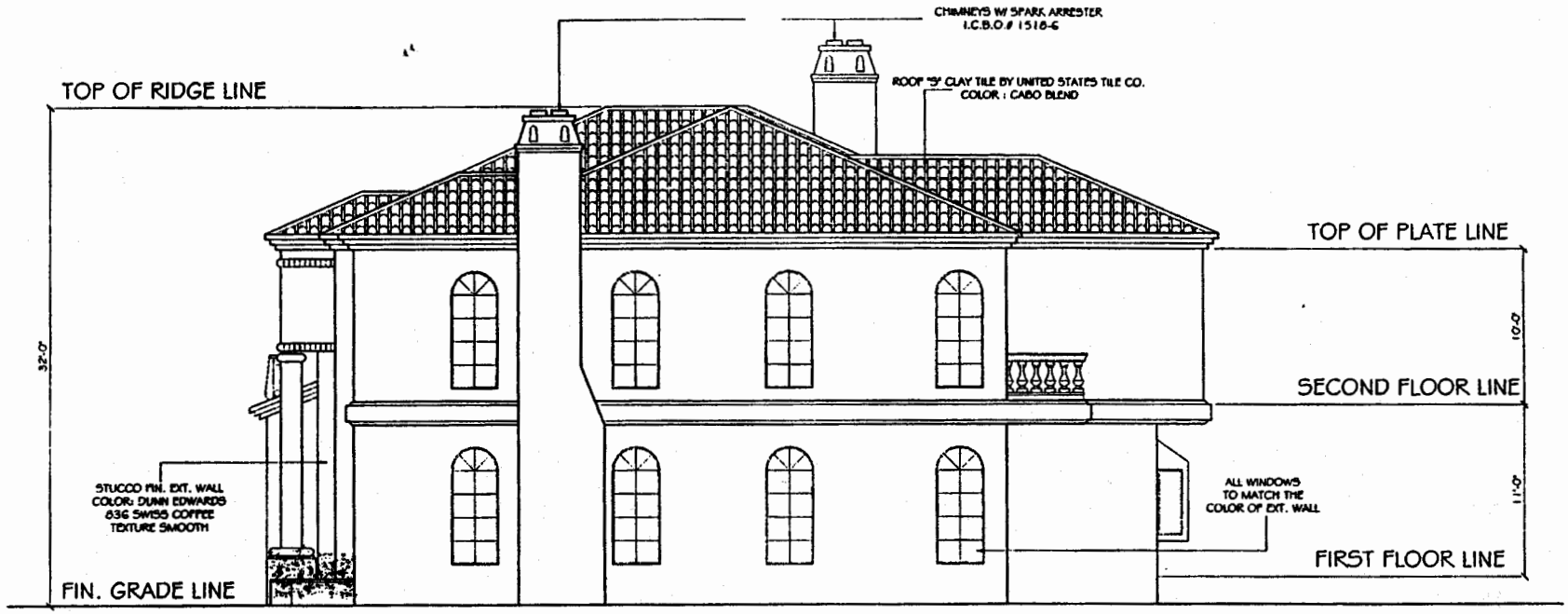
*PROVIDE MIN 12" ACCESS PANEL TO ALL BATH TUB TRA. CONN.

*GUARD RAIL @ BALCONIES 42" W/ MAX. 6" SPACING(TYP.)

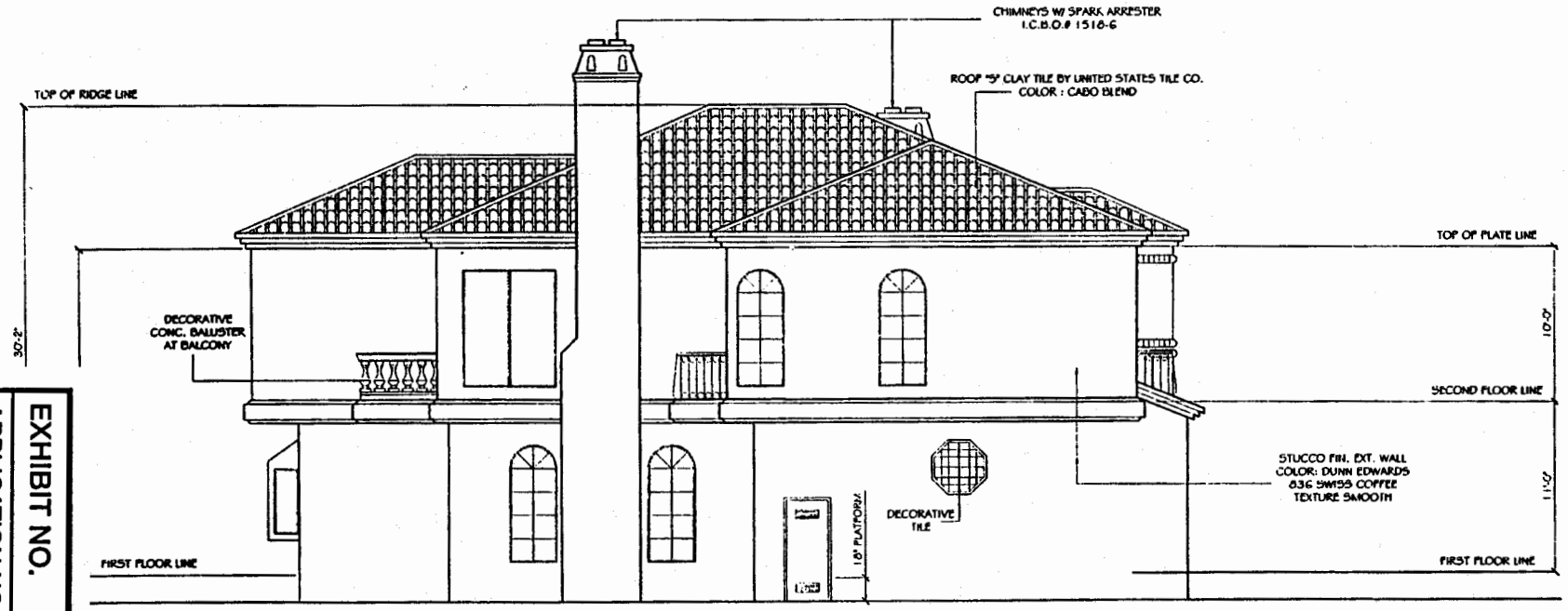


FRONT ELEVATION

EXHIBIT NO. 5
APPLICATION NO. 4-03-028
Front Elevation

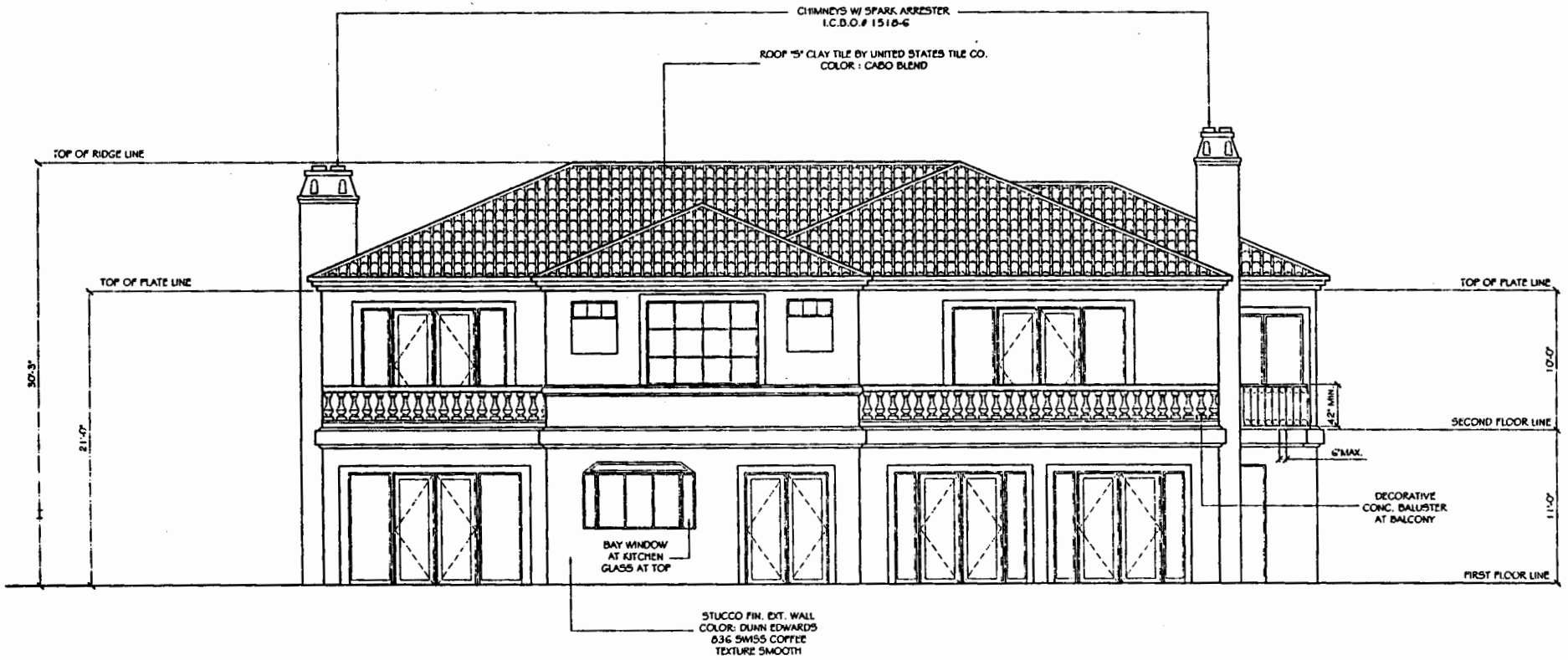


RIGHT SIDE ELEVATION



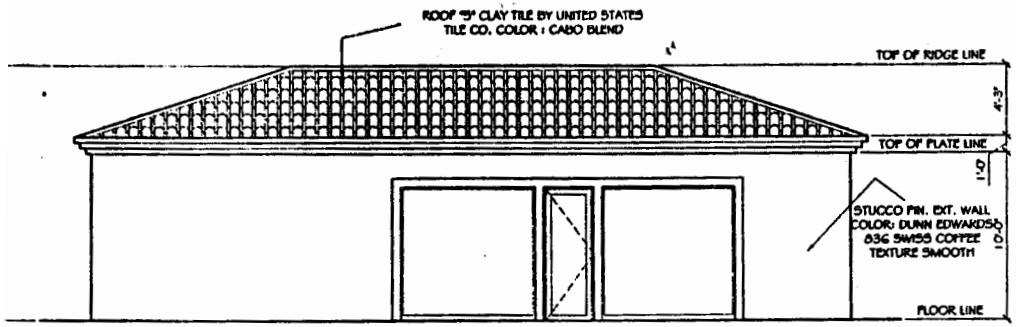
LEFT SIDE ELEVATION

EXHIBIT NO. 6
APPLICATION NO. 4-03-028
Right & Left Side Elevations

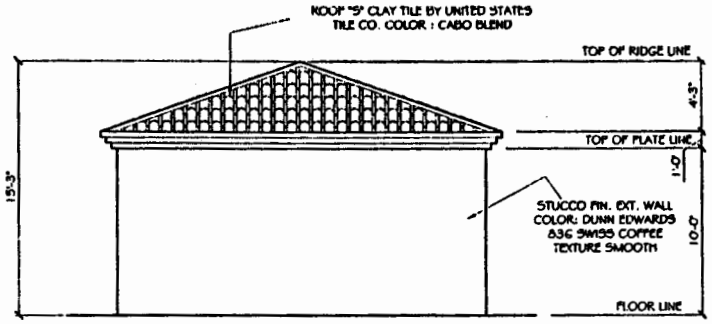


REAR ELEVATION

EXHIBIT NO. 7
APPLICATION NO. 4-03-828
Rear Elevation

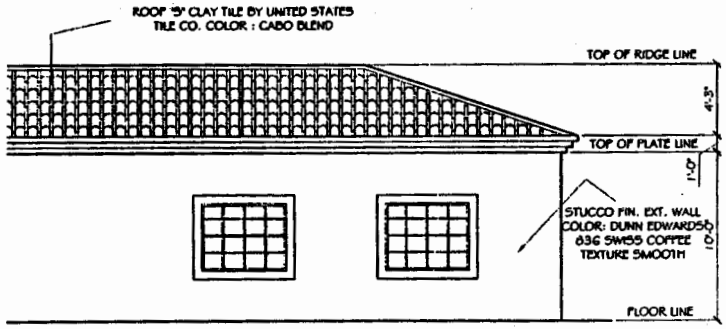


FRONT ELEVATION

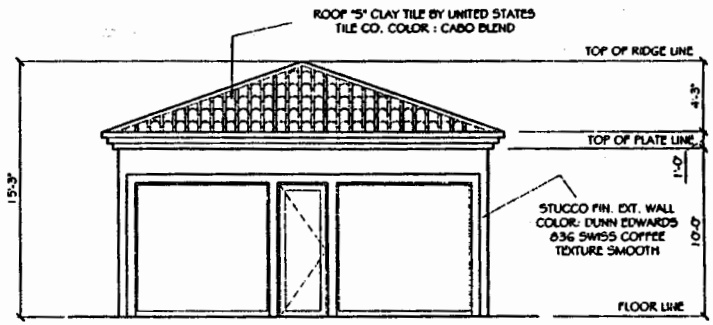


RIGHT SIDE ELEVATION

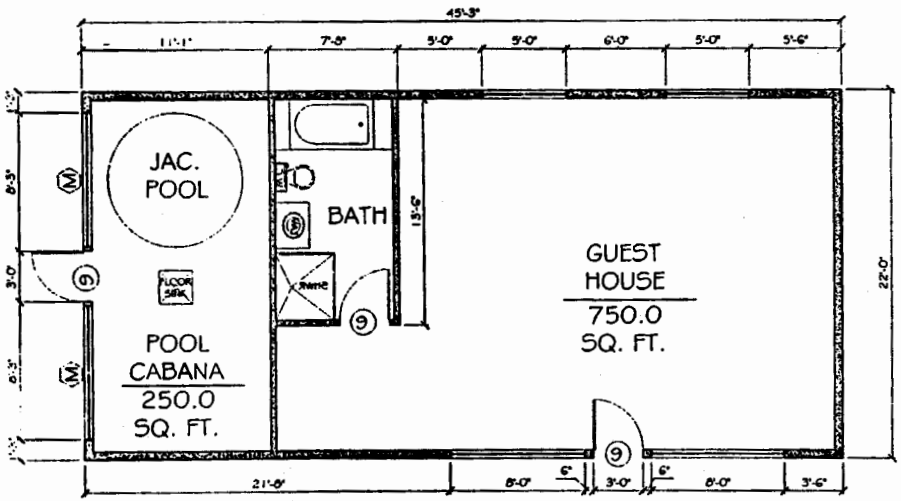
EXHIBIT NO. 8
APPLICATION NO. 4-03-028
Guest House
Cabana



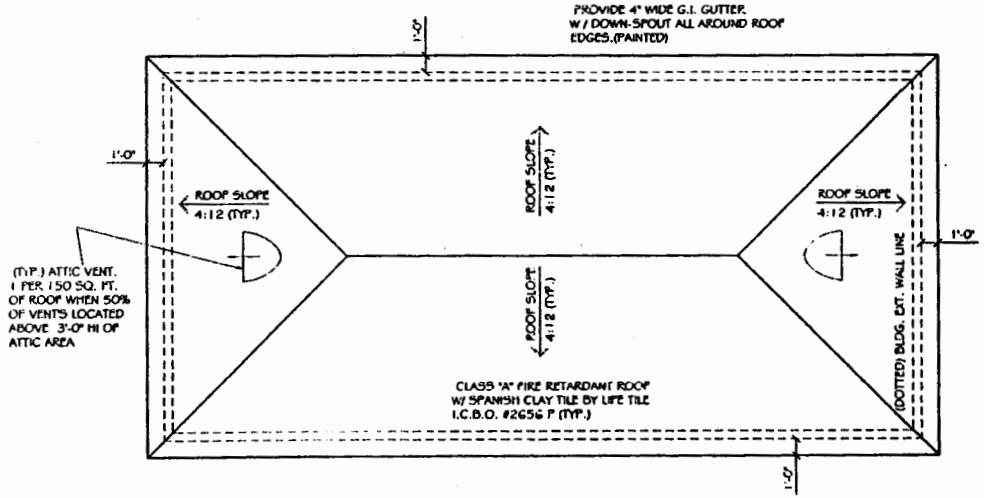
REAR ELEVATION



LEFT SIDE ELEVATION



REVISED POOL CABANA &
GUEST HOUSE FLOOR PLAN



CABANA & GUEST HOUSE ROOF PLAN

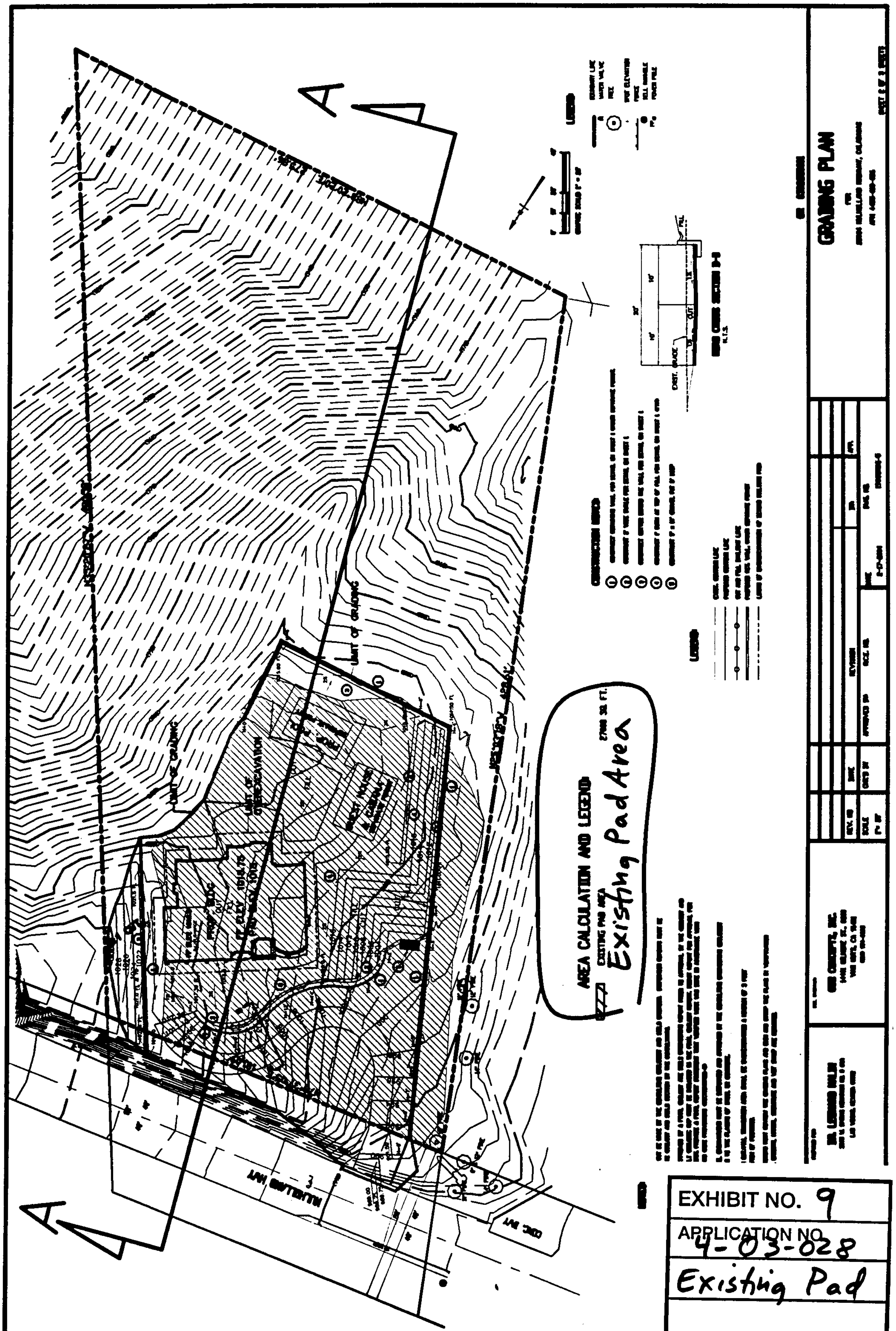


EXHIBIT NO. 9

APPLICATION NO. 4-03-028

Existing Pad

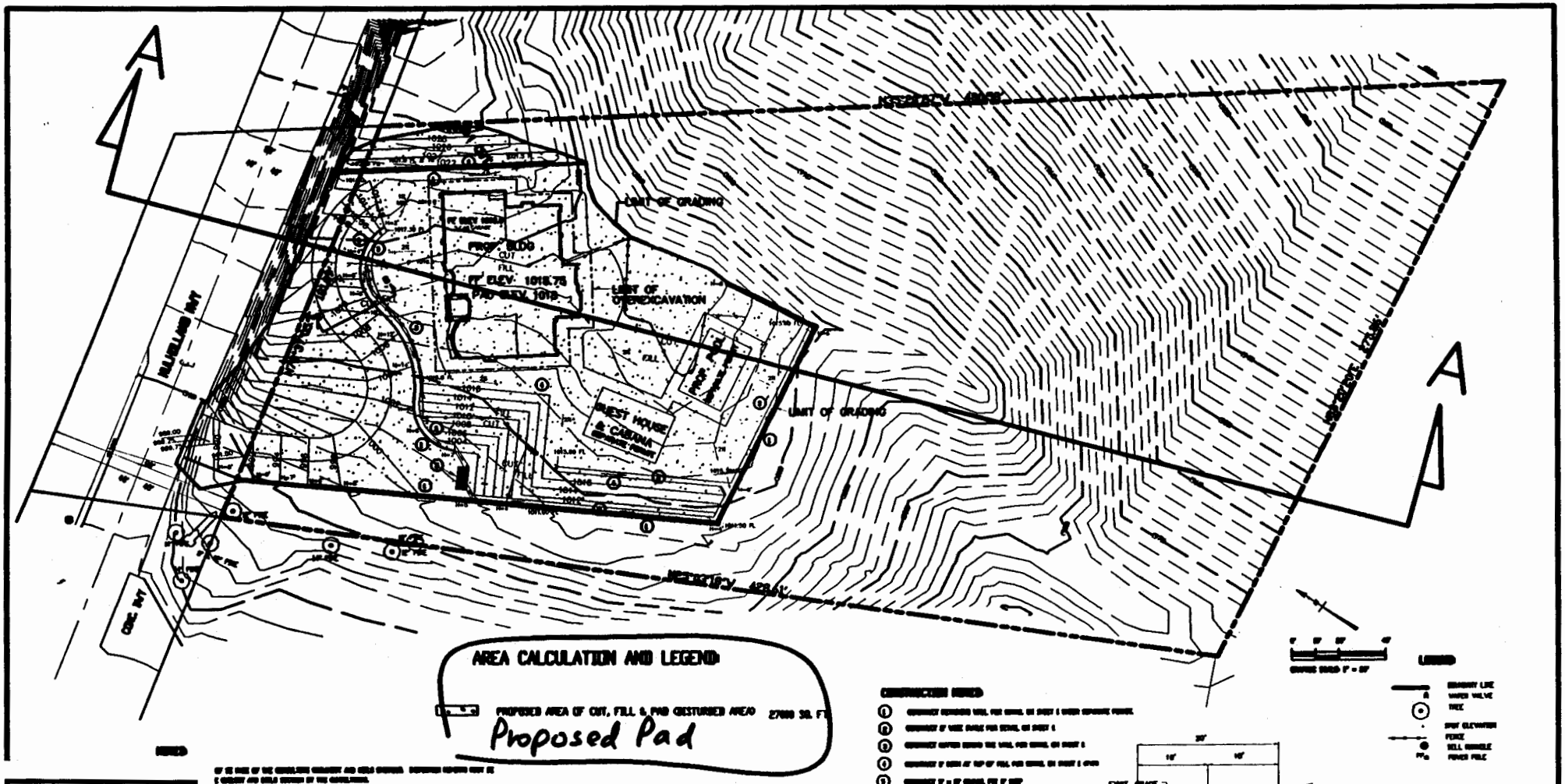


EXHIBIT NO. 10
APPLICATION NO. 4-03-028
Proposed Pad

GENERAL NOTES:

[illegible]

GENERAL GEOTECHNICAL NOTES

[illegible]

FILL NOTES

[illegible]

INSPECTION NOTES

[illegible]

PLANTING AND IRRIGATION NOTES

[illegible]

ATTACHMENT "A" NOTES

[illegible]

ATTACHMENT "B" NOTES

[illegible]

LEGAL DESCRIPTION

[illegible]

BENCH MARK

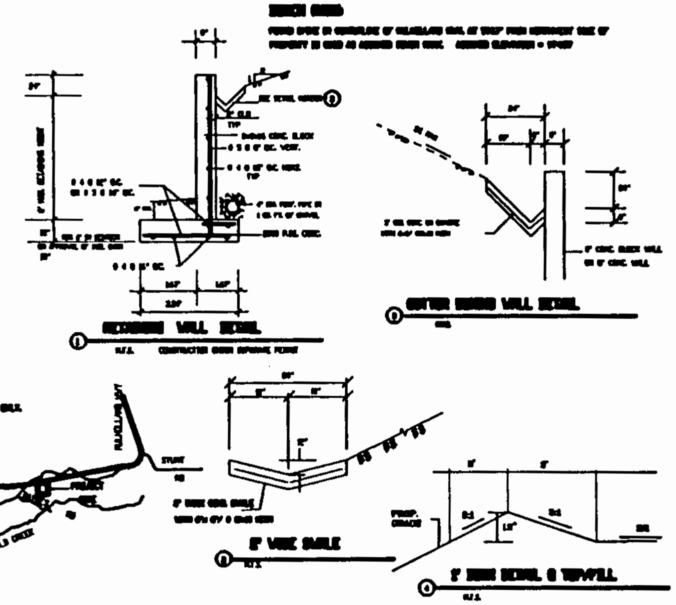
[illegible]

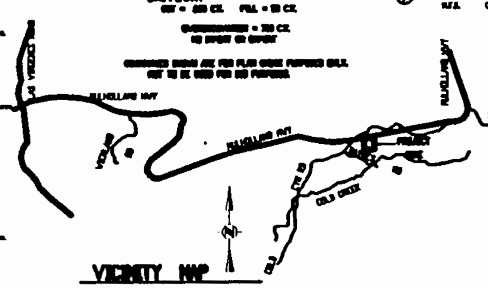
EARTHWORK QUANTITIES

PAD

DRIVEWAY

[illegible]





VICINITY MAP

N.T.S.

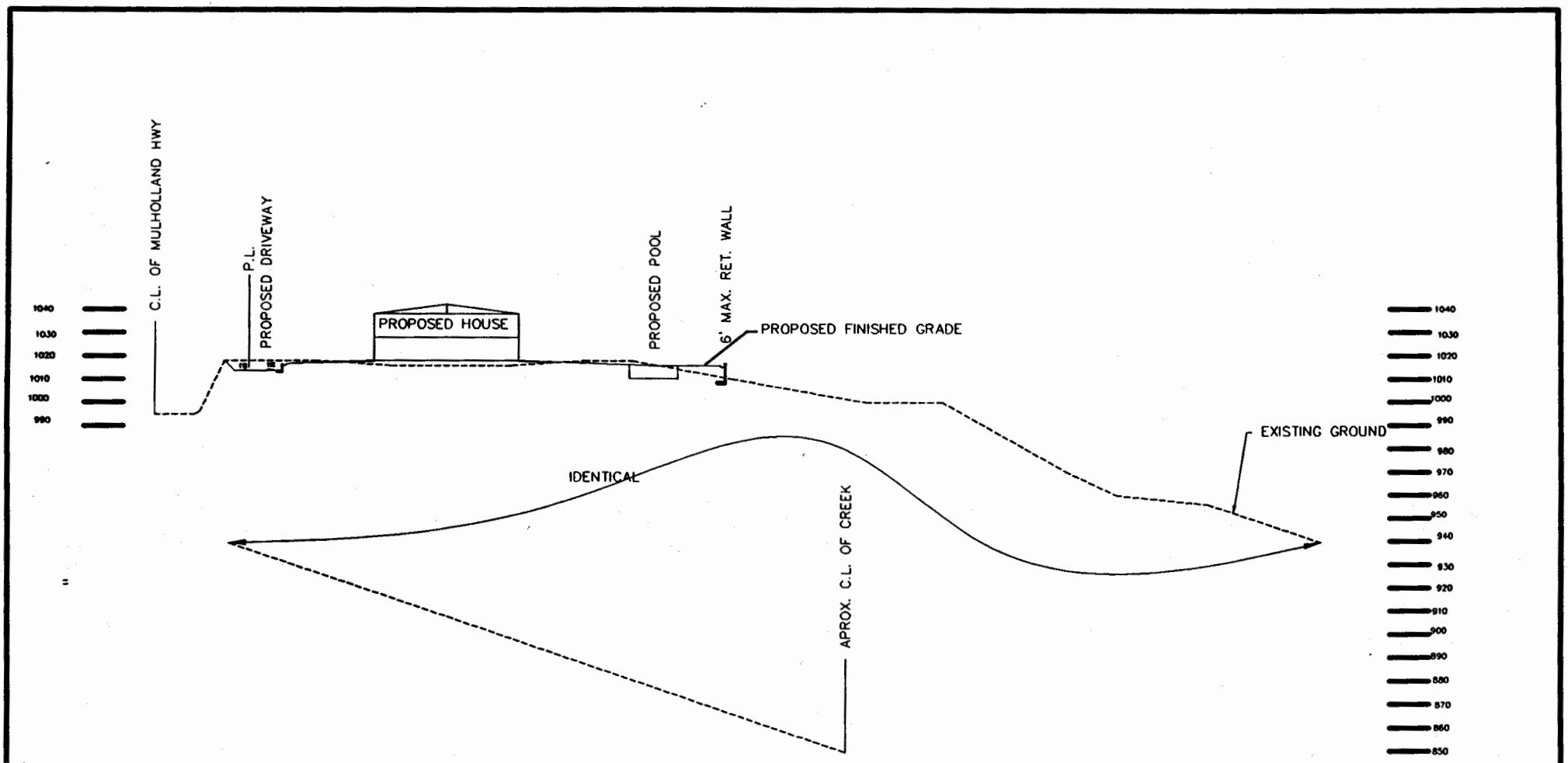
GRADING PLAN

[illegible]

EXHIBIT NO. 11

APPLICATION NO. 4-03-028

Retaining Walls



SECTION A – A

SCALE: HORZ. & VERT. 1" = 20'

EXHIBIT NO. 12
APPLICATION NO. 4-03-028
Grading Plan Section

GRADING PLAN SECTION

malibu/santa mountains
TRAIL SYSTEM

- ALABASAS-COLD CREEK TRAIL
  - 9A To Zuma Ridge Trail
  - 9B To Valley Circle Scenic Corridor Trail
- 13 STOKES RIDGE TRAIL
  - 13A To Calabasas
  - 13B Cold Creek & Stokes Ridge Connector Trail
- 19 STUNT HIGH TRAIL

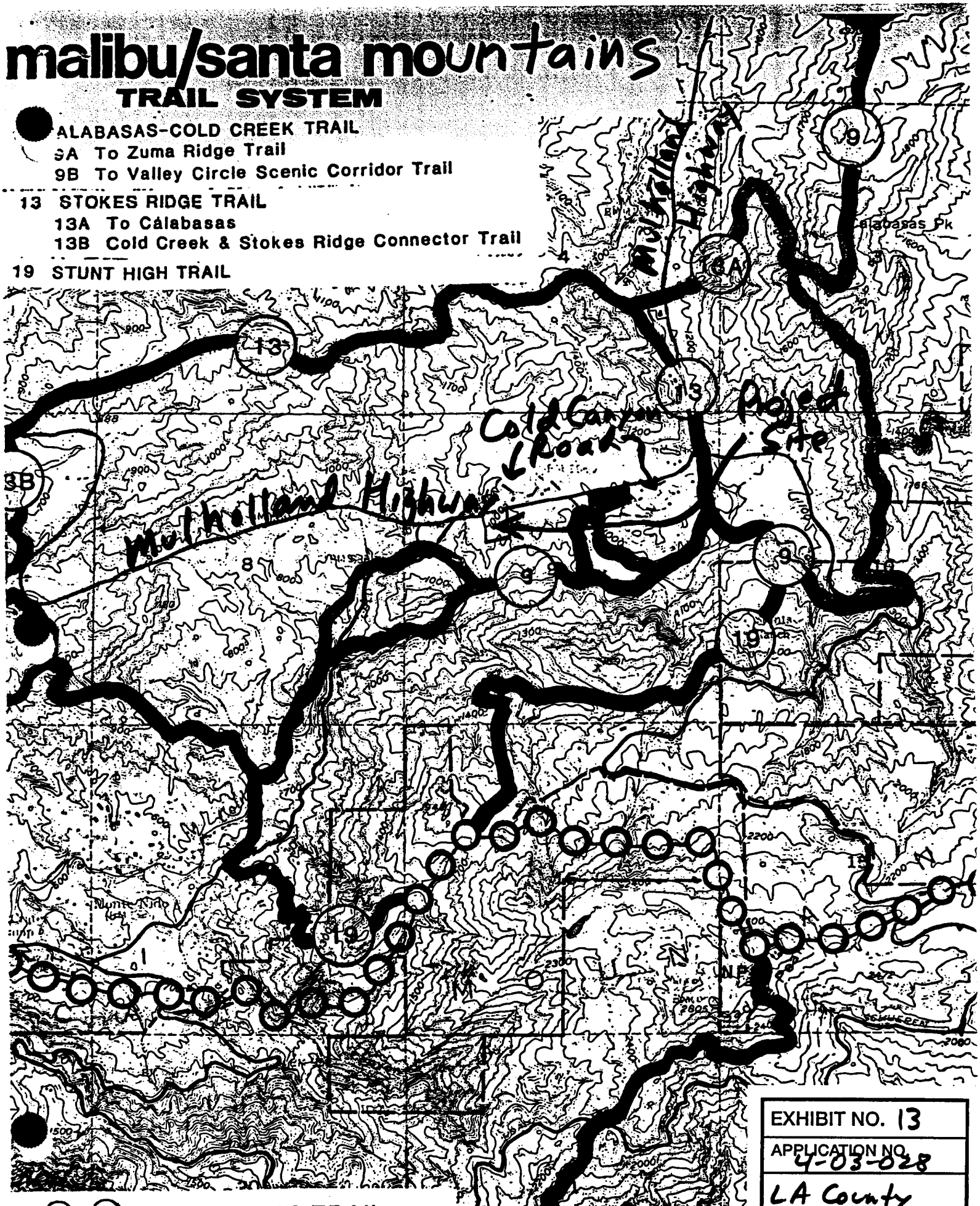


EXHIBIT NO. 13
APPLICATION NO. 4-03-028
LA County
Trail Plan

ENVIRONMENTAL REVIEW BOARD

Case No.	Plot Plan 48748
Location	25080 Mulholland Highway, Calabasas, CA 91302
Applicant	Dr. Leonard Malin
Request	3,295 sq. ft., single family residence and attached garage with septic system, driveway, guest house and pool
Resource Category	Cold Creek Significant Watershed (and SEA)

ERB Meeting Date: April 21, 2003

ERB Evaluation: ___ Consistent X Consistent after Modifications ___ Inconsistent

ERB Recommendations:

- Adhere to the approved fuel modification plan, signed by Ron Durbin on March 17, 2003.
- Cluster the pool and guest house/cabana with the main residence to minimize grading and possible conflicts with Table 1 regulations.
- Restrict lawn to Zone A only (20 feet from structures).
- No eucalyptus, cypress, juniper or pine trees are to be used in the landscaping.
- Use permeable surfaces for all walkways.
- Substitute coast live oak (*Quercus agrifolia*) for valley oak (*Q. lobata*) on the proposed landscaping plan.
- Exterior night lighting shall be directed downward, of low intensity, at low height and shielded to prevent illumination of surrounding properties and undeveloped areas; security lighting, if any is used, shall be on a motion detector.
- Use earth tone colors of the surrounding areas on all structures, including the water tank, to minimize visual impacts to the viewshed.

Staff Recommendation: ___ Consistent X Consistent after Modifications ___ Inconsistent

Suggested Modifications:

- Submit a landscaping plan to the Department of Regional Planning for review prior to submittal to the Fire Department and the issuance of a building permit; landscaping may incorporate some non-invasive exotic plants in Zone A only; other plants are recommended

from the following list, which is a partial representation of what is presently growing on the site.

Antirhinnum coulterianum	*Malacothamnus fasciculatus*
Arctostaphyllos glauca	*Penstemon spectabilis*
Camissonia californica	*Scutellaria belata*
Ceanothus crassifolius	*Sisyrhinchium bellum*
Calochortus catalineae	*Trichostemma lanatum*
Delphinium cardinale	*Vulpia megalura*
Dendromecon rigidus	*Zigadenus fremontii*
Gallium angustifolium	
Helianthus bolanderi	

- Conduct a breeding bird survey prior to earthmoving activities during the breeding season; contact DRP for specific bird survey requirements.
- If fuel modification is to extend to neighboring properties east and south, only selective thinning is to be allowed (i.e., no disking or mowing).
- Remove tocalote (*Centauria melitensis*) from property.

STATE OF CALIFORNIA – THE RESOURCES AGENCY GRAY DAVIS, GOVERNOR

CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
'OICE AND TDD (415) 904-5200
AX (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).

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

---

[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,

---

[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.

---

[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

---

[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.

---

[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

---

[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.

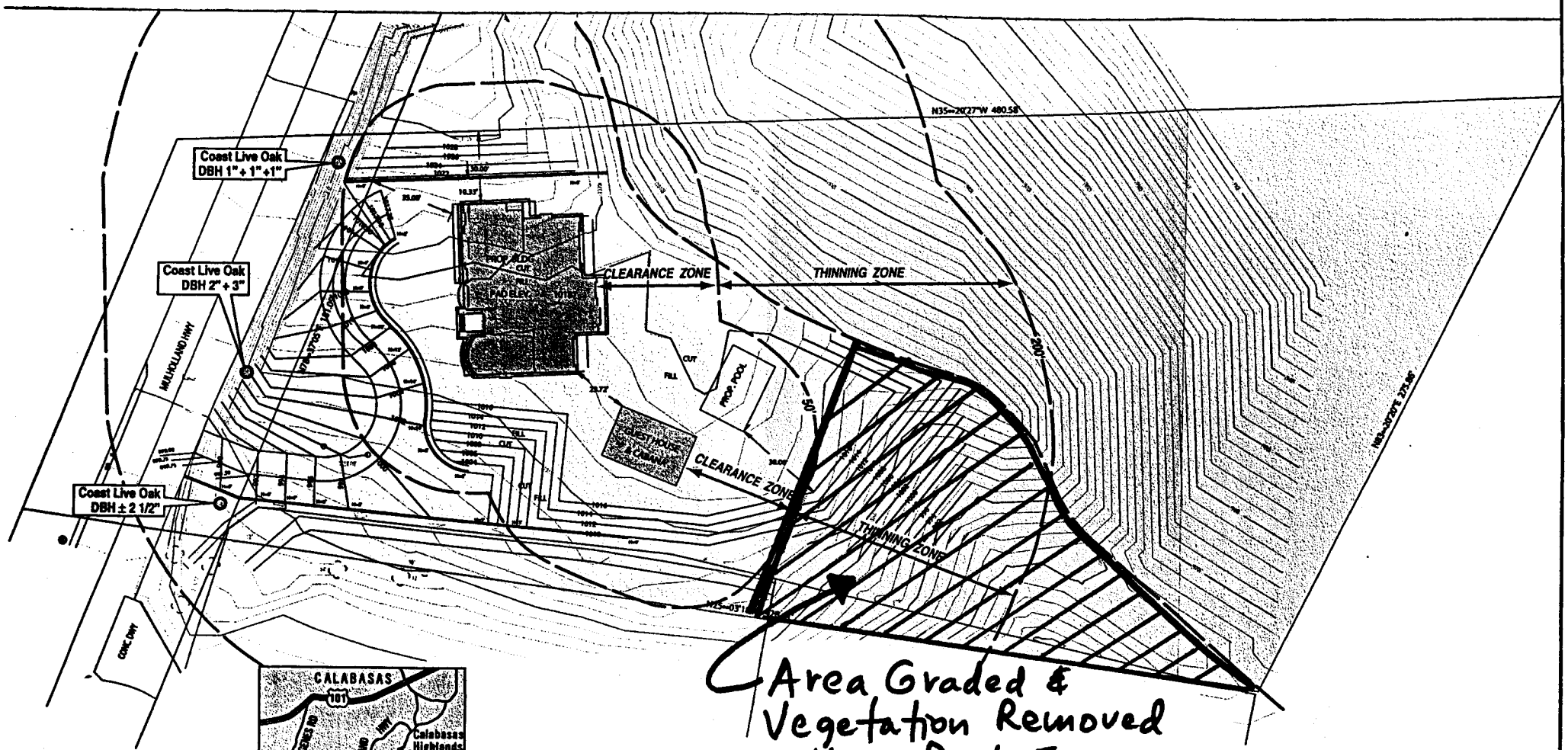
character, physical complexity, and resultant biological diversity. The undeveloped native habitats within the Santa Monica Mountains that are discussed above are ESHA because of their valuable roles in that ecosystem, including providing a critical mosaic of habitats required by many species of birds, 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.

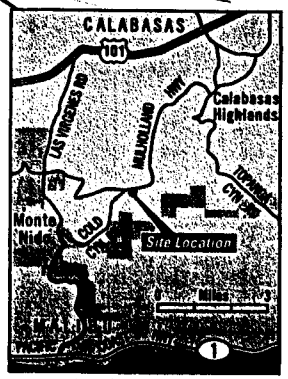
The importance the native habitats in the Santa Monica Mountains was emphasized nearly 20 years ago by the California Department of Fish and Game[103]. Commenting on a Draft Land Use Plan for the City of Malibu, the Regional Manager wrote that, "It is essential that large areas of land be reclassified 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.





Area Graded & Vegetation Removed Within Past 5 years (Area to be Restored)

LEGEND

Fuel Modification Zones

0 – 50 feet	Clearance Zone
50 – 200 feet	Thinning Zone

Existing Vegetation

- Coask Live Oak *(Quercus agrifolia)*
- Chaparral
- Disturbed

0 10 20 40
Scale in Feet

FIGURE 1
25080 Mulholland Hwy

Site Plan, Existing Vegetation & Fuel Management Zones

8/11/03

RACHEL TIERNEY CONSULTING

EXHIBIT NO. 16
APPLICATION NO. 4-03-028
Vegetation & Fuel Management

Residence Ridge height 35 ft. avg fin grade

Westbound View on Mulholland Highway

Residence Ridge height 35 ft. avg fin grade

Eastbound View on Mulholland Highway

Exhibit 17
4-03-028
Public Views of Main Residence