

CALIFORNIA COASTAL COMMISSION

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Commission Action:



STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 4-98-334

APPLICANT: State of California, Santa Monica Mountains Conservancy

PROJECT LOCATION: 5750, 5775, 5800, 5802, and 5810 Ramirez Canyon Road,
Malibu, County of Los Angeles

PROJECT DESCRIPTION: The applicant requests "after the fact" approval to convert 5 existing single-family residences on five lots to use for offices and appurtenant facilities for up to 16 employees, including 2 maintenance workers; to dedicate one structure for the residential use of one on-site ranger & the ranger's family; install two water supply tanks for fire fighting; and operate commercial enterprise for compensation, including: 1) an average of six garden tours per month for up to 40 participants per tour (peak times April through September); 2) business retreats, workshops, and meetings lasting up to one day, for up to 30 participants per event, up to 24 times per year; and 3) special events such as weddings and fundraisers up to 30 times per year for groups of as many as 200 participants (April through October). The applicant has deleted a previous proposal to conduct one 400-participant event per year from the proposed project description.

LOCAL APPROVALS RECEIVED: Not applicable

SUBSTANTIVE FILE DOCUMENTS: Certified Malibu/Santa Monica Mountains Land Use Plan (LUP) and associated certified maps; "Preliminary Evaluation of Fire Department Access, Wildland Fire Protection, and Evacuation for the Streisand Center for Conservancy Studies" dated June 14, 1999, prepared by Klaus Radtke, PhD, Wildland Resource Sciences; Report on Septic Disposal Systems for Streisand Center for Conservancy Studies, dated June 23, 1994, prepared by Lawrence Young, Registered Environmental Health Sanitarian; Letter from McDermott Pumping, dated June 15, 1999, prepared by P. McDermott; RAND study of 1993 Old Topanga Wildfire, dated July 10, 1995.

STAFF RECOMMENDATION

Staff recommends that the Commission take one (1) vote to adopt the following two-part resolution for the proposed project:

Part 1: APPROVE the request for "after the fact" approval of: 1) conversion of five single family residences to office space and appurtenant facilities for a staff of up to 16, residential occupation by one ranger based on site and the ranger's family, and placement of two water storage tanks; 2) use of the facility for an annual average of six (6) day-use events per month, but no more than twelve (12) such events in any month, for which the applicant may charge fees, with a maximum of forty (40) participants per function, subject to six (6) Special Conditions regarding: 1) Transportation, Parking and Best Management Practices Plan, 2) Assumption of Risk, 3) Future Development Deed Restriction, 4) Septic Disposal System Improvements, 5) Revised Evacuation Plan, and 6) Condition Compliance.

Part 2: DENY the request for "after the fact" approval for functions at the subject site attended by more than 40 participants at any time, or for groups of forty (40) or fewer held more frequently than an annualized average of six (6) such events per month or more than 12 total events in any single month.

SUMMARY

The proposed project is located on five lots totaling approximately 22.5 acres at the end of Ramirez Canyon Road, in the City of Malibu, County of Los Angeles. The site contains five older single family residences and was donated as a unit to the Santa Monica Mountains Conservancy (hereafter, "Conservancy"), State of California, by Barbra (sic) Streisand in 1993. The site is bounded on three sides by Santa Monica Mountains Recreation Area lands owned by the National Park Service. South of the site, Ramirez Canyon is designated for, and partially developed with, single family residences.

Since acquiring the site in 1993, the Conservancy has used the five residences as headquarters for up to sixteen (16) total staff members and maintenance workers, and as housing for a permanent ranger's family. In addition, the Conservancy has undertaken commercial ventures at the site, offering the structures and grounds on the site for hire or directly sponsoring weddings, fundraisers and other functions for groups of up to 200 participants approximately 20 times per year, and for more frequent events for smaller groups of 15 to 40 participants (workshops, tours, etc.). The Conservancy

proposal would continue all Conservancy staff functions and commercial ventures under the present proposal.

There is no general public access to the site, nor are there any public trails through the property. The site is gated and used strictly for the applicant's staff, a residential ranger and the ranger's family, and for commercial events.

Four key issues have emerged in the analysis of the applicant's proposal:

1. Safety. The applicant proposes to attract dense populations of commercial visitors to a site located at the dead end of a relatively narrow, winding road that has been determined substandard for purposes of emergency vehicle access and for the evacuation of the canyon's occupants in the event of a flood or wildfire emergency. The canyon area may be subject to floods (Ramirez Canyon Creek, which drains the Ramirez Canyon Watershed, traverses the center of the grounds) and wildfire. The substandard road is the only way in and out of the canyon.
2. Septic capacity; infrastructure. The five older residences located on the applicant's site have limited septic disposal system capacity, and the one residence proposed for the most intensive guest use has a septic disposal system described by the applicant's consulting environmental health sanitarian as "woefully inadequate." The applicant proposes to address this constraint by using portable toilets for events of over 100 participants. In addition, the existing septic disposal systems appear to be generally undersized and to encroach into the setbacks from the stream corridor that the Commission has required in past permit considerations in the Malibu/Santa Monica Mountains area to protect water quality and environmentally sensitive habitats.
3. Siting of new development. The proposed commercial use is a change in the kinds, locations and intensities of land uses of a site previously developed for residential use. Siting an intensive commercial land use at the end of a substandard road in an area otherwise designated for public parklands and open spaces and for residential uses raises a number of issues under the Coastal Act regarding the appropriate siting of such development.
4. Environmentally Sensitive Habitat Area. The stream corridor meandering through the subject site is designated as ESHA in the certified Malibu/Santa Monica Mountains Land Use Plan Resource Maps. The landowner preceding the present applicant altered the streambanks significantly (placed substantial quantities of riprap in the stream corridor), and while these activities undertaken without the benefit of a coastal development permit are not addressed in this permit request, the creek's status as ESHA remains. Thus, the potential of intensive site use to adversely affect the sensitive riparian habitat (runoff from parking areas into the

stream, proximity of septic disposal systems to the stream, etc.), must be considered. Staff additionally notes that significant plantings of non-native vegetation have been undertaken at the subject site, but that approval of the landscaping activities is not sought in this permit and is subject to separate consideration.

The proposed site is located at the northernmost end of Ramirez Canyon Road, in an area bounded by publicly owned open space and residential development. No other commercial enterprises of the kind or intensity proposed by the Conservancy are authorized in the area. Ramirez Canyon Road is a substandard, private, paved dead-end road as narrow as 12—15 feet in width in some stretches. The winding road is punctuated by Arizona creek crossings and wooden bridges with high flood risk during seasonal precipitation that swells Ramirez Canyon Creek to flood stages. The Los Angeles County Fire Department has confirmed that Ramirez Canyon Road is substandard for emergency fire access purposes.

The road serves approximately 93 lots, of which approximately 56 are improved with residential structures. These totals include the lots off of Via Acero, a 10-15 ft. wide dead-end-road that branches off Ramirez Canyon to the west towards Kanan-Dume Road at the end of Ramirez Canyon Road, a few feet south of the entrance to the Conservancy property.

Ramirez Canyon Road is therefore the only ingress and egress for fire emergency vehicle access to the approximately 93 total lots served by the road, and it is the only emergency evacuation route out of the canyon for the residents in the area. There is no alternate escape route from the canyon. Straightening and/or widening the road and installing bridged creek crossings designed to the Fire Department's standards would entail alterations of the riparian canyon that are not only likely to be found infeasible, but which would result in extensive adverse impacts to the Ramirez Canyon Creek ESHA.

The applicant's proposal to accommodate large parties of up to 200 participants also raises concerns about septic capacity at the site, particularly considering the close proximity of the various septic tanks and leachfields to Ramirez Canyon Creek. The 4,900 sq. ft. "Barn" and 3,370 sq. ft. "Peach House" have been identified by the applicant as the primary locations for larger group activities (up to 100 participants – larger groups would be provided with portable toilets, and would generally assemble out-of-doors), yet the 1,000 gallon septic disposal tank and 375 sq. ft. drainfield serving both structures has been described in the applicant's septic system report as "woefully inadequate."

The Commission, in past permit actions, has relied heavily on the policies contained in the certified Malibu/Santa Monica Mountains Land Use Plan (LUP). The LUP contains

policies specifically applicable to the location of septic systems in proximity to Environmentally Sensitive Habitat Areas (ESHAs). The applicant has not provided exact locations of the leachfields associated with the various septic disposal tanks situated on the proposed site. A simple review of the tank locations, however, in relation to the location of Ramirez Canyon Creek, shows that the locations of the associated leachfields almost certainly do not comply with the applicable setback requirements that have been previously established and applied by the Commission.

Although the former owner of the site undertook extensive alteration of the streambed traversing the subject parcels, and planted large gardens of non-native plants, the applicant has not sought Commission approval for these unpermitted development activities in the present permit application. The proximity of the proposed project and associated impacts to and upon the stream corridor are, however, relevant to the present analysis. As noted, the applicant's environmental health consultant, Larry Young, also routinely reviews septic disposal systems for the City of Malibu. Mr. Young has determined that key components of the existing system are substandard even for routine residential use. Taken together with the suspect location of the systems vis-à-vis the sensitive habitat of the riparian corridor, significant issues arise with regard to the proposed project's consistency with the Chapter 3 policies of the Coastal Act.

Finally, the issues of safety/fire hazard, and septic disposal system capacity/location and potential ESHA impacts collectively give rise to consideration of the consistency of the proposed project with the Coastal Act policies addressing the siting of new development. The Coastal Act requires that new development be located where adequate services exist, and where this is infeasible, where the proposed development will have no adverse impacts, either individually or cumulatively, on coastal resources. The intensive commercial use of the site proposed by the applicant requires consideration by the Commission of the consistency of such a project in a relatively remote location where wildfires are common, served by a substandard road and lacking an alternative evacuation route, and where no sewer system exists, with Coastal Act Section 30250.

STAFF RECOMMENDATION:

I. STAFF RECOMMENDATION OF APPROVAL IN PART AND DENIAL IN PART

Staff recommends that the Commission adopt the following two-part resolution. The motion passes only by affirmative vote of a majority of the Commissioners present.

A. MOTION:

"I move that the Commission adopt the staff recommendation, by adopting the two-part resolution set forth in the staff report."

B. RESOLUTION:

Part 1: Approval with Conditions of a Portion of the Development

The Commission hereby **approves** a coastal development permit for the following: 1) conversion of five single family residences to office space and appurtenant facilities for a staff of up to 16, residential occupation by one ranger based on site and the ranger's family, and placement of two water storage tanks; 2) use of the facility for up to twelve (12) day-use events per month for no more than forty (40) participants per function, but for no more than an annualized average of six (6) such events per month for which the applicant may collect fees, on the grounds that as conditioned, the development will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, 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 of the Coastal Act, and will not have any significant adverse effects on the environment within the meaning of the California Environmental Quality Act.

Part 2: Denial of the Remainder of the Development

The Commission hereby **denies** a coastal development permit for the portion of the proposed development consisting of: use of the facility at any time for functions with more than forty (40) participants, or for groups of forty (40) or fewer held more than an annualized average of six (6) such events per month or more than 12 total events in any single month, on the grounds that this portion of the proposed development will not be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, would 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 of the Coastal Act; and would result in significant adverse effects on the environment within the meaning of the California Environmental Quality Act.

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. **Compliance.** All development must occur in strict compliance with the proposal as set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.

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

5. **Inspections.** The Commission staff shall be allowed to inspect the site and the development during construction, subject to 24-hour advance notice.

6. **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.

7. **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. **Transportation, Parking, and Best Management Practices Plan**

Prior to the issuance of the coastal development permit, the applicant shall submit a Transportation, Parking, and Best Management Practices Plan for the review and approval of the Coastal Commission. Coastal Development Permit 4-98-334 shall not be issued until the Coastal Commission has determined that the Plan complies with the requirements of this Special Condition and the policies of Chapter 3 of the Coastal Act.

The Plan must comply with the following requirements:

- A. Provide evidence that sufficient private offsite parking for visitors taking a shuttle van to the site has been identified and secured, and that sufficient capacity in the designated parking areas exists to ensure that no public parking will be adversely affected by displaced vehicles presently utilizing the designated parking areas. The applicant shall not utilize any public coastal access parking for carpool or offsite parking areas or utilize oversubscribed private parking areas in a manner that may result in displacement of parking demand to public coastal access parking.
- B. Provide evidence that the applicant has sufficient vans available to transport up to forty (40) guests at a time in no more than seven (7) vans to the subject site for

group events or outings, and to keep enough vans to evacuate all visitors continuously available at the on site destination during events, thereby avoiding relay trips to use one or more vans for multiple transportation runs on Ramirez Canyon Road for the same group of guests.

- C. Provides that all parking areas on the subject site are identified and that Best Management Practices (BMP) for control of polluted runoff are applied to each identified parking area. These measures shall include, but not be limited to, installation of drainage swales, green strips, grease traps, and other measures that collect and filter parking area runoff. The drainage from the parking lots shall be conducted away from the riparian corridor of Ramirez Canyon Creek and discharged in a non-erosive manner. The drainage and Best Management Practices component of the plan shall be prepared by a licensed civil engineer.

2) Assumption of Risk, Waiver of Liability and Indemnity Agreement

- A. By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from flooding, erosion, or wildfire; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.
- B. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms of subsection (a) of this condition. The deed restriction shall include a legal description of the applicant's entire parcel. 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) Future Development Deed Restriction

- A. This permit is only for the development described in coastal development permit No. 4-99-015. Pursuant to Title 14 California Code of Regulations sections 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 parcels comprising the proposed site. Accordingly, any future improvements to the subject structures or lands, or changes in the kinds or intensities of the uses of the subject site permitted by Permit No. 4-98-334, including but not limited to clearing of vegetation and grading, which might otherwise be exempt from coastal permitting requirements, shall require an amendment to Permit No. 4-98-334 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government

- B. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall execute and record a deed restriction in a form and content acceptable to the Executive Director, reflecting the above restrictions on development in the restricted area. The deed restriction shall include legal descriptions of the applicant's entire parcel. 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.

4) Septic Disposal System Study and Improvement Plan

Prior to the issuance of the Coastal development permit, the applicant shall submit for the review and approval of the Coastal Commission a septic system study and septic system replacement plan for all facilities on site that utilize a septic system that incorporates the requirements set forth below. Coastal Development Permit 4-98-334 shall not be issued until the Coastal Commission has determined that the Plan and Study comply with the requirements of this Special Condition. The Study and Plan shall incorporate the following requirements:

(a) Demonstrate the exact location and condition of each septic system on-site. The septic system study must address compliance with all uniform plumbing code requirements. In addition, the study shall indicate the location of the septic leachfields or seepage pits from the top of the nearest bank of Ramirez Canyon Creek.

(b) If the septic system study demonstrates that any of the septic system(s) are not in conformance with the Uniform Plumbing Code requirements or that the septic system leach fields or seepage pits are located a minimum of 50 or 100 feet, respectively, from the top of the bank of the nearest edge of Ramirez Canyon Creek. The applicant shall submit a plan, prepared by a qualified environmental health specialist or engineer, to replace the non-conforming septic system(s) with a system(s) that conform with the uniform plumbing code requirements and comply with a 50 foot setback for leachfields and 100 feet

setback for seepage pits from the top of the nearest bank of Ramirez Canyon Creek.

5) Revised Evacuation Plan

Prior to the issuance of the coastal development permit, the applicant shall submit a revised evacuation plan setting forth the maximum number of people allowed on the subject site at any given time (16 employees and the family of the resident ranger, plus a maximum of 40 guests), the requirement that all guests be vanpooled to the site from the remote parking area or areas that are subject to the review and approval of the Commission pursuant to Special Condition 1. The revised evacuation plan shall additionally specify that all guests shall be transported to the destination site by means of a caravan of said vans, rather than a relay shuttle of guests, and that all such vans used to transport guests shall remain continuously on the subject site for the duration of the guests' stay at the site for the purpose of providing adequate immediate evacuation capacity for all assembled guests.

6) Condition Compliance.

- A) 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, except for such additional time as may otherwise be necessary to accomplish Coastal Commission review of the Plans and/or Studies required pursuant to Special Conditions 1 and 4 as set forth above. Failure to comply with this requirement may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.
- B) Prior to commencement of any group functions, other than use of the subject site for the 16 staff members and the family of the residential ranger, the applicant shall complete any septic disposal system upgrades or replacements that may be required pursuant to Special Condition 4 above. Failure to comply with this requirement may result in the institution of enforcement action under provisions of Chapter 9 of the Coastal Act.

IV. Findings and Declarations

The Commission hereby finds and declares:

A. Project Description; Background; Environmental Setting

The proposed project is located on approximately 22.5 acres at the end of Ramirez Canyon Road, City of Malibu, County of Los Angeles. The site contains six single family residences on 5 separate lots and was donated as a unit to the Santa Monica Mountains Conservancy (hereafter, "Conservancy"), State of California, by Barbra Streisand in December, 1993. The site also contains extensive hardscaping such as roadways, paths, terraces, tennis courts, swimming pool, and extensive garden areas. The site is bounded on three sides by the Santa Monica Mountains Recreation Area, owned by the National Park Service. South of the site, Ramirez Canyon is designated for, and partially developed with, single family residences.

The proposed site is traversed by Ramirez Canyon Creek, a designated Environmentally Sensitive Habitat Area (ESHA) on the Resource Maps of the certified Malibu/Santa Monica Mountains Land Use Plan (LUP). In addition, the ESHA-designated riparian corridor is flanked by habitat designated in the LUP as a locally disturbed Sensitive Resource Area (DSR). The stream corridor traversing the proposed project site has been substantially altered without the benefit of a coastal development permit; however, that matter is not addressed in the present staff report. The present report only evaluates the applicants request for "after the fact" approval of a change in the kinds (for staff headquarters and commercial uses), locations (variously on the 22.5-acre site) and intensities (most notably the hosting of groups as large as 200 guests per function frequently throughout the year) of land use on the subject site, described below.

No designated trail corridors are known to occur on the proposed site, however the Coastal Slope Trail, a main artery of the trail network for pedestrian and equestrian users in the Malibu/Santa Monica Mountains area, crosses Ramirez Canyon Road in one location (Exhibit 6). Additionally, the applicant proposes to use the trailhead at Winding Way for a portion of its remote location guest parking.

The only access to the site, and to all other development in Ramirez Canyon, is via Ramirez Canyon Road. As documented in Exhibit 11, the Los Angeles County Fire Department has provided preliminary analysis of the project that indicates that the road is substandard for commercial access purposes. The road does not meet, and cannot meet without substantial landform alteration, the requisite width of 20 feet. In addition, several Arizona stream crossings and narrow wood bridges – the narrowest (twelve feet in width) being immediately adjacent to the proposed site – present obstacles to emergency access vehicles and to occupants of the canyon seeking to evacuate during flooding or wildfires.

Since acquiring the site in 1993, the Conservancy has utilized the five existing residences variously as headquarters for up to sixteen (16) staff members and one residence houses a permanent ranger and the ranger's family. In addition, the Conservancy has undertaken commercial ventures at the site, offering the site for hire

or directly sponsoring, tours, weddings, fundraising events, etc. These functions have included large groups of up to 200 participants and the largest events have been conducted approximately 20 times per year during the past three years, in addition to more frequent events for smaller groups of 15 to 40 participants (workshops, tours, etc.). The Conservancy proposal would continue these commercial ventures. In a previous proposal that has since been modified, the applicant additionally proposed one annual event for up to 400 guests.

The applicant specifically proposes the following uses of the subject site:

1. Offices for 14—16 Santa Monica Mountains Conservancy ("Conservancy") and Mountains Recreation and Conservation Authority (MRCA) staff, including two maintenance workers (Barwood house, Exhibit 10);
2. On-site residence for MRCA Ranger and the ranger's family (Caretaker's House, Exhibit 10)
3. Garden Tours (Maximum of 3 times per week, 40-person maximum, peak times April through September, for a monthly average of 6 tours);
4. Business Retreats, Workshops, and Meetings (Maximum of 24 times per year with 30-person maximum) (Smaller groups as noted in items 3 and 4 would generally collect in the Barn House or Peach House, or both, and would occasionally use the Art Deco House as a reception area, according to the applicant. See Exhibit 10);
5. Special Events, such as weddings and fundraisers (Maximum of 30 events per year with 200-person maximum, primarily April through October).

B. Hazards

Section 30253 of the Coastal Act states in pertinent part that new development shall minimize risks to life and property in areas of high geologic, flood, and fire hazard.

The proposed development is located in the Santa Monica Mountains, an area which is subject to a number of natural hazards. Geologic hazards common to the Santa Monica Mountains include landslides, erosion, and flooding. In addition, fire is an inherent threat to the indigenous chaparral community of the coastal mountains.

The proposed project is located in a steep canyon area subject to an extraordinary potential for damage or destruction from wild fire. The slopes of Ramirez Canyon are vegetated with species typical of the chaparral plant community. Many species common to these plant assemblages 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. In addition, there is a dense canopy of highly flammable exotic landscape vegetation lining the road in Ramirez Canyon. Typically, these species, such as pines and eucalyptus, among others, are highly flammable and have even been described as simply "exploding" into flames when subject to the high temperatures of an expanding wildfire. Fire traveling within the aerial fuel of the dense canopy alone, in such cases, could easily render the canyon road impassable.

In the case of the proposed project, the applicant seeks to entertain frequent assemblies of guests numbering up to 200, approximately 4 times per month during the peak use months of April through October (or a total of 25 such events). The applicant also proposes a range of less intensive gatherings throughout the peak season as well, but it is the larger groups that raise concerns about safe evacuation capacity in the event of a wildfire on Ramirez Canyon Road. The road, which represents the only route into and out of the Ramirez Canyon area (there is no secondary escape route), is of substandard width (as narrow as 12-15 feet in some stretches), has three Arizona creek crossings, and a substandard wooden bridge of twelve feet in width immediately south of the proposed site. Ramirez Canyon Road terminates at a turnaround at the Conservancy entrance that must be accessed by means of the twelve foot wide wooden bridge.

The applicant has submitted a report entitled "Preliminary Evaluation of Fire Department Access, Wildland Fire Protection, and Evacuation for the Streisand Center for Conservancy Studies" located at 5750-5802 Ramirez Canyon Road, dated June 14, 1999, and prepared by Klaus Radtke, PhD, Wildland Resource Sciences. The report is attached in full as Exhibit 14 hereto. The report essentially concedes that adequate fire department access for emergency vehicles is not available on Ramirez Canyon Road, and that the ability to evacuate large groups of people, or indeed any persons should the road become blocked during an evacuation, might not be possible. The report consequently recommends on-site management of guests during a wildfire, including measures such as extensive fuel modification clearances to protect structures from burning vegetation, deployment of foam rig fire fighting capacity (a 1969-vintage foam rig is maintained on site by the Conservancy and the on-site ranger is trained in its use), and essentially relies on a "hunker-down, shelter in place" strategy in the event of a wildfire. The applicant, in accordance with the report's recommendations, proposes to install a 4,500 gallon and a 10,000 gallon water tank on site, and to pump the contents of the existing swimming pool for fire defense water capacity.

The "shelter-in-place" strategy could represent a situation where up to 200 guests, in addition to party attendants and Conservancy employees and the Conservancy ranger's family, would seek to shelter in the 1950s/1960s vintage residential structures on site (most with wooden eaves) while a wildfire passed through. The applicant has submitted no evidence that the existing residences could withstand the intensity of a raging mountain wildfire. In fact, ample evidence exists from the extent of residential

losses—and the loss of life—from the devastating Malibu wildfires of 1993 to conclude that sheltering in place would be a risky option at best. The minimal firefighting capacity of the Conservancy rangers would be quickly overwhelmed, the sole evacuation route along Ramirez Canyon Road could become completely impassable, and consequently a large group of people could be trapped within a canyon inferno.

The applicant has indicated, however, that additional Conservancy rangers would be deployed to assist in firefighting operations in response to a wildland fire. There is no assurance, however, that additional personnel would be able to respond in a timely manner under the extreme circumstances of a rapidly moving, intense wildland fire. Given the general constraints of surface road travel in the entire Malibu/Santa Monica Mountains area, the dense smoke that typically accompanies such a fire, and other constraints addressed herein, the response times of externally sited emergency personnel could be significant and it is possible that such personnel could fail to arrive at all. Moreover, the "triage" method of sorting firefighting priorities under extreme emergency circumstances, and the potential need to defend lives threatened elsewhere, or other Conservancy property, may result in a lower priority for response to the site at the end of Ramirez Canyon Road.

Wildfires generate their own winds, consume available oxygen, and travel at alarming speeds. For example, in the early hours of the 1993 Old Topanga Fire in the Malibu area, the leading edge of the fire was documented to spread from one acre to 200 acres in less than ten minutes. In addition, homeowners tend to stay with their property, attempting to defend it, until the last possible moment. The residents then attempt to flee in panic and to overwhelm escape routes.

Chaparral vegetation naturally encourages the highly efficient spread of fire. When weather conditions are right, (particularly during Santa Ana wind conditions that blow from inland toward the sea) wildfires sweep quickly through mountain passes, down slopes, and through chaparral-covered canyons. In addition, once fire reaches an area, heavy smoke can obscure visibility and slow emergency vehicle access or evacuation efforts. The wildfires in the hills above the City of Oakland have demonstrated in the past decade that no area developed on canyons and slopes, with abundant vegetation is free of severe wildfire risk (and the Oakland fire area had multiple access roads for emergency vehicles and evacuation).

The Radtke report notes that a one-directional, substandard, private road such as Ramirez Canyon Road can be partially or totally blocked off or made unsafe to travel by many scenarios, such as excessive smoke blanketing the bottom of the canyon, a jack-knifed horse trailer (many residents of the canyon have horses), a stationary pumper hooked up to a fire hydrant trying to save a house engulfed in flames, downed power lines, vegetation burning adjacent to or overhanging the road, stalled vehicles, the

cattle tunnel under Pacific Coast Highway blocked by a large vehicle, or the wooden bridge south of Via Acero engulfed in flames.

Thus, emergency evacuation for the lots developed with residences, together with the additional lots on Ramirez Canyon Road that are eligible for future residential development, could entail as many as 93 families trying to evacuate the canyon on the same substandard road. If the additional burden of attempting to evacuate 200 guests is added to the burden already placed on the roadway, the scenario for evacuation becomes virtually impossible to execute. In addition, because the Conservancy proposes to shuttle the guests in with passenger vans for the large events, there would not likely be sufficient van capacity to evacuate 200 guests without multiple trips in each direction. It is likely that emergency response personnel would not allow vehicles back into the canyon area on return trips once an initial evacuation run was successfully made. For this reason, emergency evacuation of large groups appears to be infeasible for a variety of reasons and therefore the Conservancy essentially proposes to shelter guests in place for the duration of a wildfire emergency (provided the Conservancy employees could restrain guests from attempting to flee the site—even on foot, if not in available vehicles—if panic set in during a wildfire).

The Commission further notes that the restriction on group events to daytime use only will further enhance the applicant's ability to provide a safe evacuation of guests should the need arise by avoiding an evacuation during evening hours with significantly reduced visibility.

In addition to fire hazards, Ramirez Canyon Creek traverses Ramirez Canyon Road, and the Conservancy site, in numerous places as shown in Exhibit 7. These crossings are managed via three Arizona crossings and a twelve foot wide wooden bridges in one location. Ramirez Canyon Creek drains the canyon watershed, and is capable of flooding the road or making the Arizona crossings impassable. Evidence of high water is present along the streambanks of the creek visible from Ramirez Canyon Road. In addition, the placement at some points of heavy armoring in and along the crossings, together with evidence of stream bank cutting and erosion shows that the creek reaches or exceeds flood stages during high precipitation events. Additionally, it has been documented in past Commission actions (CDP 4-95-162 (Arbaut)) that during high water flows, the Ramirez Canyon Creek stream channel does encroach near the road and could, under extreme runoff conditions, threaten or undermine the stability of the road. Thus, flooding presents another potential hazard that affects the proposed use of the site for large groups and could additionally exacerbate the ability to either obtain emergency services for the site or to facilitate evacuation of the canyon under emergency conditions. This constraint is less problematic than the wildfire scenario, because peak group events would be held during wildfire season when rainfall is scarce. The applicant would not be restricted from holding events during the rainy season, but has proposed to cancel events when heavy rain forecasts occur.

Nevertheless, weather forecasts contain a significant degree of uncertainty, and heavier-than-predicted precipitation could result in unanticipated flash flood conditions at the proposed site and along Ramirez Canyon Road. Therefore, the proposed project additionally raises the issue of potential flood hazards.

To address the wildfire and flood risks that affect the applicant's proposal, the Commission finds it necessary to restrict the extent of group events that could be held on the site to groups of no more than 40 guests, total, at any one event, that such events be held during daytime hours only, with guests departing the site by sundown, and to require that such groups be transported in enough vans to evacuate all visitors that shall remain on site continuously for the duration of the event, pursuant to Special Conditions 1 (transportation, parking, and best management practices plan) and 5 (revised emergency plan).

The Commission finds that despite the mitigation of hazards provided by the implementation of Special Conditions 1 and 5, the proposed project remains vulnerable to a degree of unmitigable risk due to wildfire and/or flooding. Therefore, the Commission finds it necessary to impose Special Condition 2 (Assumption of Risk). Through Special Condition 2, the applicant acknowledges the nature of the fire and flood hazard which exists on the site and which may affect the safety of the proposed project. Moreover, through acceptance of Special Condition 2, the applicant also agrees to indemnify the Commission, its officers, agents and employees against any and all expenses or liability arising out of the acquisition, design, construction, operation, maintenance, existence, or failure of the permitted project, including injury or death that may occur to visitors to the site or to the applicant's employees or other parties present at the site to perform (by way of example, but not limited to) maintenance, construction, or any other purpose.

In addition, the Commission finds it necessary to impose Special Condition 4 (future development restriction) to require the applicant to seek an amendment to Coastal Development Permit 4-98-334 or a new coastal development permit if any change in the nature of the use of the site is proposed in the future. Special Condition 4, if implemented, will ensure that such changes are reviewed by the Commission or the Commission staff for potential hazards that may be created or exacerbated by the proposal, or that may result in increased hazards to affected parties.

For all of the reasons set forth above, the Commission finds that only if the total number of participants authorized to participate in functions at the subject site is limited to a maximum of forty (40) participants transported by a sufficient number of vans to evacuate all 40 guests in one trip of all assembled vans, and with such vans remaining available continuously on site at all times the participants are present, and as further conditioned by the applicable special conditions set forth above, would the proposed project be consistent with the requirements of Section 30253 of the Coastal Act.

**C. Environmentally Sensitive Habitat Areas; Water Quality/Septic;
and the Location of New Development**

Section 30230.

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

Section 30231.

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

Section 30240.

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

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

Section 30250.

(a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside

existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.

The proposed project is located immediately adjacent to Ramirez Canyon Creek. The creek is recognized as a blueline stream with regular water flows to the ocean. The mouth of the creek is just west of Paradise Cove, an area noted for the presence of the rich, environmentally sensitive kelp bed habitat immediately offshore. The Commission recognized the importance of this creek in certifying the Malibu/Santa Monica Mountains Land Use Plan (LUP) and identified the creek as a designated Environmentally Sensitive Habitat Area (ESHA). The Coastal Act provides for the strictest protection of water quality and environmentally sensitive habitat areas, such as this stream, as essential for the protection of coastal resources. The Coastal Act also provides that development adjacent to ESHAs, such as these kelp beds, must prevent impacts that would degrade these areas.

The subject site contains five (5) single family residences in close proximity to the creek. The residences predate the Coastal Act and are served by aging septic disposal systems and leachfields that do not meet the setback requirements from the blue line stream established by the Commission in past permit decisions and set forth in the certified LUP, upon which the Commission has relied for guidance. For example, LUP Policy P80 requires that leachfields be set back at least 50 feet from the outer edge of riparian or oak canopy and that seepage pits be set back at least 100 feet from the outer edge of riparian or oak canopy. The policy allows for a greater setback if necessary to prevent lateral seepage from the disposal beds into stream waters.

The purpose of requiring adequate setbacks from riparian corridors, and adequate septic disposal system capacity and performance, is to protect water quality. Water quality is protected by avoiding the overflow or lateral seepage of leachate from systems too close to the corridor, or from systems of inadequate capacity or other performance constraint, to enter the stream corridor. Evidence is increasing that improperly located, or inadequate, septic disposal systems near stream and river corridors (as well as adjacent to beaches) are contributing to the high bacterial contamination that requires downstream beach closures, for example. Additionally, the contaminants and acid/alkaline characteristics of leachate may adversely affect the native vegetation adjacent to stream corridors and the biota of the coastal waters.

The applicant has submitted a report prepared by Lawrence Young, Registered Environmental Health Specialist, dated June 23, 1994 (Exhibit 12), addressing the status of the septic disposal system in place to serve the existing five (5) residential structures on site. The report determined that the Peach and Barn houses, which are jointly served by one disposal system (see Exhibit 10 - septic tank locations), are particularly underserved by the disposal system. The report refers to the existing tank

and drainfield as "woefully inadequate"—even for residential use. The Peach and Barn houses are the central sites identified by the applicant for group functions.

Although the applicant proposes to bring temporary portable toilets on site for groups of over 100, the use of the existing septic system for as many as 100 would constitute an extremely intensive use of a septic system. The focused use by a large group also poses a temporal, as well as volumetric burden on the disposal capacity of these antiquated systems. Septic systems generally rely on the extended use of the system over time in accordance with its design capacity to give the system time to percolate slowly and effectively. If a large group of people use a system over a short period of time, even a system that might have been able to accept the same volume of waste water generated over time would become overburdened and potentially discharge effluent to the surface, or laterally, and into the creek corridor.

Given the proximity of the systems on site to the creek, the age and poor condition of many, if not all of the systems, and the intensive use of the systems proposed by the applicant, adverse effects upon the Ramirez Canyon Creek ESHA, and by extension to the downgradient kelp beds located immediately offshore of the mouth of Ramirez Canyon Creek, are likely. The applicant has not, despite the requests of the Commission staff, provided the exact locations of the leachfields associated with the various septic disposal tanks situated on the proposed site. The locations of the septic tanks have been provided by the applicant in 10. A simple review of the tank locations, however, in relation to the location of Ramirez Canyon Creek, indicates that the locations of the associated leachfields almost certainly do not comply with the applicable setback requirements that have been previously established and applied by the Commission to protect water quality and sensitive habitat areas. As noted, the applicable setbacks include 50 feet from the outer edge of riparian canopy for leachfields and 100 feet from the outer edge of riparian canopy for seepage pits.

Therefore, the Commission finds it necessary to limit the total size of groups that may utilize the facility and its septic disposal facilities to no more than 40, to require that the applicant implement all recommendations set forth in the June 23, 1994 report of Lawrence Young referenced above, and to further submit for the Executive Director's review a map to scale showing the complete, accurate footprint of all septic tanks, leachfields, or other appurtenant septic disposal system structures located on the subject site. Pursuant to the further requirements of Special Condition 4, if any septic tanks or leachfields fail to achieve adequate performance standards or applicable setbacks (50 feet from the nearest upper bank of Ramirez Canyon Creek to a leachfield or 100 feet similarly measured for a seepage pit), or should removal, relocation, or installation of any septic disposal structures be necessary upon the further analysis and improvements required by Special Condition 4, the applicant shall submit an application for an amendment to Coastal Development Permit 4-98-334 or an application for a new coastal development permit.

In addition, Coastal Act Section 30250 in pertinent part requires that new development be located where adequate services exist to serve it, and where adequate services are not available, where it will have no adverse effects, either individually or cumulatively on coastal resources. Adequate waste and waste water disposal systems are not available at the end of Ramirez Canyon Road, where the subject site is located. Development in the area relies on septic disposal systems, which were designed in the subject case for use by five single family residences. The applicant is proposing new development that is a significant increase in the intensity for which the septic disposal systems serving the existing residences were designed. Commercial functions for groups as large as forty (40) participants, in addition to the applicant's staff, will overburden the undersized, aging septic disposal systems associated with the older single family residences.

The Commission notes that despite the restriction set forth herein on events, including a limit of no more than 40 participants per event, and 12 or fewer events per month averaging no more than six events per month on an annualized basis, which will give the septic systems time to percolate sufficiently and thus absorb the intensive influx of wastewater from episodic use by commercial functions of up to 40 participants, the authorized functions will still episodically overburden the existing septic disposal systems. This is particularly true because groups will usually gather in only one, or perhaps two of the existing residences at any one event.

The applicant has identified the Peach and Barn structures as the primary group event sites, and it is precisely these structures that the applicant's consulting septic system expert reports to have substandard septic disposal facilities (Exhibit 12). The Commission notes that the applicant has submitted a letter from a septic pumping company stating that the systems perform adequately, but that the letter does not indicate that the pumping company representative is qualified to diagnose the condition of the septic systems. Presumably after pumping is completed by the author of the letter shown in Exhibit 13, the systems do appear to perform adequately immediately after such service to empty the systems of effluent has been performed.

For these reasons, the Commission finds that to ensure consistency of the proposed project with the requirements of Coastal Act Section 30250, the applicant must prepare a thorough evaluation of the existing septic disposal systems and a plan for performing the necessary improvements to the facilities that would result in adequate septic disposal capacity for the size of groups authorized by Coastal Development Permit 4-98-334, pursuant to the requirements of Special Condition 4.

The proposed project presents an additional potential source of contamination to Ramirez Canyon Creek: the applicant has identified paved, hardscaped, graveled, or compacted earth with bark chip areas for parking of up to 45 vehicles as various

locations on the subject site. Each of these areas is located in close proximity to the stream corridor (see Exhibit 10) – some are immediately adjacent to the stream. The applicant proposes to utilize the site for the daily parking of up to sixteen (16) employees and maintenance workers and the family of the on site ranger. In addition, the site would be utilized for parking for commercial functions and for the staging vehicles of caterers, porta potty deliveries, etc. Previous sections of this report have set forth the requirement that the site use be limited to groups of no more than 40 participants, and that these participants be delivered to the site by vanpool. Therefore, up to 7 vans, depending on the size of a group, would be required to deliver the site guests. The total parking requirement under this scenario would therefore be approximately 25 vehicles on a regular basis.

It is widely understood that contamination of soils beneath parked cars may occur as oil, grease, and other fluids leak slowly from the vehicles. These contaminants, while usually small in amount per vehicle, collect cumulatively and may be flushed into adjacent streamcourses during rainfall events. Therefore, given the significant volume of cars that will be parked routinely in the parking areas near Ramirez Canyon Creek, and the proximity of the parking to the creek corridor, the Commission finds it necessary to require the applicant to have a registered civil engineer prepare a parking area Drainage and Best Management Practices Plan (a component of Special Condition 1) to direct parking area runoff away from the creek in a non-erosive manner that filters pollutants to the maximum extent feasible. Such measures may include, by way of example, but are not limited to, the installation of gentle vegetated swales, green stripping, drainage tiles, grease trapping and filtration impoundments, etc.

Finally, the Commission notes that any future changes to the kinds, locations, and/or intensities of land uses of the site, including changes to the residential structures, septic disposal systems, access roadways or driveways, or to the other hardscaping or landscaping surrounding the residential structures that may otherwise be exempt from the requirement of applying for a coastal development permit, shall instead require permit review to ensure that such future development does not give rise to new potential impacts that may adversely affect the Ramirez Canyon Creek riparian corridor and designated ESHA (Special Condition 3).

For all of the reasons set forth above, therefore, the Commission finds that to protect ESHAs, marine waters and the biological productivity of coastal waters, and to ensure that new development does not individually or cumulatively adversely affect coastal resources, the portion of the proposed project that the Commission herein authorizes may only be approved as conditioned by Special Conditions 1, 3 and 4.

D. Coastal Access; Recreation

One of the basic mandates of the Coastal Act is to maximize public access and recreational opportunities within coastal areas and to reserve lands suitable for coastal recreation for that purpose. The Coastal Act has several policies which address the issues of public access and recreation within coastal areas.

Section 30210 of the Coastal Act states:

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

Section 30212.5 of the Coastal Act states:

Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.

Section 30213 of the Coastal Act states:

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

Section 30223 of the Coastal Act states:

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

Section 30252 of the Coastal Act states:

The location and amount of new development should maintain and enhance public access to the coast 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.

The applicant proposes to conduct commercial functions on site and to shuttle guests to the site for such functions via remote parking areas for private cars. The applicant proposes to use three private parking areas, including the Church of Christ Scientist, 28635 Pacific Coast Highway, a private property in the 27400 block of Pacific Coast

Highway, and the Paradise Cove Beach Café, 28128 Pacific Coast Highway, in addition to a public coastal access parking area at the Conservancy's Winding Way trailhead.

The Commission finds that providing parking for commercial enterprises within existing parking areas designated for public coastal access parking is not only a change in the approved use of such parking, but results in a significant, adverse effect on coastal access and recreation. Special Condition 1 requires the applicant to locate sufficient private parking for all guests visiting the site and further requires the applicant to demonstrate that the use of private parking will not displace other users of such sites into nearby coastal access parking areas, thereby causing additional adverse effects upon coastal access.

As noted previously, the applicant is not proposing to open the subject site to general use by the public, nor are any trails presently dedicated, or offered for such dedication by the applicant, on the subject site. The site is bounded on three sides by the lands of the Santa Monica Mountains National Recreation Area, owned by the National Park Service.

The sole access route to the proposed project site is via the dead end Ramirez Canyon Road. The Coastal Slope Trail, identified in the certified Malibu/Santa Monica LUP as a key component of the trail system that serves to provide access between the growing urban areas on and above the coastal terrace and the Santa Monica Mountain park system, crosses Ramirez Canyon Road at the lower reaches of the road. The restriction of authorized functions to groups of forty (40) or fewer guest pursuant to Coastal Development Permit 4-98-334, when fully implemented and in accordance with Special Condition 1, will ensure that all guests arrive at the site in a coordinated van pool that generally would travel as a "caravan", rather than in relay fashion, and therefore that drivers familiar with the road, and traveling in accordance with all applicable restrictions, speed limits, etc., minimize travel on the road to the maximum extent feasible for the group functions authorized by the permit. In denying the applicant's proposal to host commercial functions for up to 200 guests on the site, the Commission thereby limits the total number of vehicles on Ramirez Canyon Road, and thereby affecting the intersection of the road with the Coastal Slope Trail, by limiting the traffic caused by staging activities (caterers, portable toilet deliveries, florists, equipment rental companies, etc.) and the number of van trips required to shuttle in up to 200 guests as proposed by the applicant.

In addition, the portion of the proposed project authorized by the Commission's approval of Coastal Development Permit 4-98-334 only authorizes a maximum of twelve events for forty (40) or fewer participants per event, or no more than six (6) events per month of that size on an annualized basis, thereby limiting the total cumulative effects upon coastal access and recreation of traffic on Ramirez Canyon Road. The applicant had proposed to allow private carpooling for as many as seventy-

two (72) "garden tours" per year for up to forty (40) participants and 24 additional events per year for groups of up to thirty (30) participants. The Commission approval authorizes only a maximum of twelve (12) daytime events for groups of up to forty (40) participants per function, averaging an annualized total of no more than six (6) such events per month or an annual total of seventy-two (72) daytime events per year for groups of up to forty (40) participants per function.

The Commission notes that the traffic on Ramirez Canyon Road associated with the authorized use of the subject site is roughly the equivalent of the average use of Ramirez Canyon Road that would be attributable to the use of the site as five (5) single family residences. The Commission further notes that while specific calculations vary to some extent between traffic analyses, the generally agreed upon figure for single family residences is approximately 10 to 12 trips per day (a round trip counts as two trips). Thus, the five residences could be expected to generate approximately 60 trips per day. At a time of peak use as authorized herein, 15 employees, one ranger and family, and an estimated 7 vans would utilize the site. Thus, the combined trips associated with the site would be approximately 55 trips. It is possible that the employees could make added trips offsite during the day and thus add more trip counts, but this effect is unlikely to significantly affect the total counts or the degree of resultant impact to Ramirez Canyon Road. This level of impact on Ramirez Canyon Road and the Coastal Slope Trail crossing of the road, would not cause significant adverse effects upon coastal access or coastal recreation.

Therefore, for the reasons set forth above, the Commission finds that by limiting the total number and size of commercial events that may be held on the subject site as set forth above, in addition to authorizing the use of the site as headquarters for up to 16 of the applicant's staff and maintenance workers, and the use of one residence for the ranger's family, and by requiring that the remote parking for prospective guests at such functions be situated on private lots that do not displace other users of such parking to coastal access parking spaces, that the proposed project, as conditioned, is consistent with the applicable public access and recreation policies of the Coastal Act.

E. Violation

Various developments have been carried out on the subject site without the required coastal development permits. Addressed in this staff report is the change in the kinds, locations, and intensities of uses represented by the use of the site as the applicant's staff headquarters, for on site ranger residential use, and most importantly, for intensive commercial use for large group gatherings.

The Commission has herein determined that a portion of these proposed uses may continue, subject to special conditions, but that the large group gatherings must cease immediately. Special Condition 6 requires that the applicant satisfy all conditions of this

permit which are prerequisite to the issuance of this permit within 120 days of Commission action on the proposed project.

The Commission's approval of use of the site for day events of up to forty (40) persons does not constitute approval of development associated with the installation and maintenance of gardens on the site. The applicant, in this application, did not seek approval for and the Commission did not consider this land use.

Consideration of this application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Review 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.

F. 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 would not be in conformity with the provisions of Chapter 3 of the Coastal Act. The proposed development would result in adverse impacts and is found to be not consistent with the applicable policies contained in Chapter 3. Therefore, the Commission finds that approval of the portion of the proposed project consisting of use of the site for up to 16 of the applicant's staff members, including maintenance personnel, and the residential occupation of the on-site ranger's family, and the use of the site for up to twelve (12) smaller groups of a maximum of 40 participants, but no more than six (6) such events per month averaged throughout the year, would not prejudice the City of Malibu's ability to prepare a Local Coastal Program which is also consistent with the policies of Chapter 3 of the Coastal Act as required by Section 30604(a).

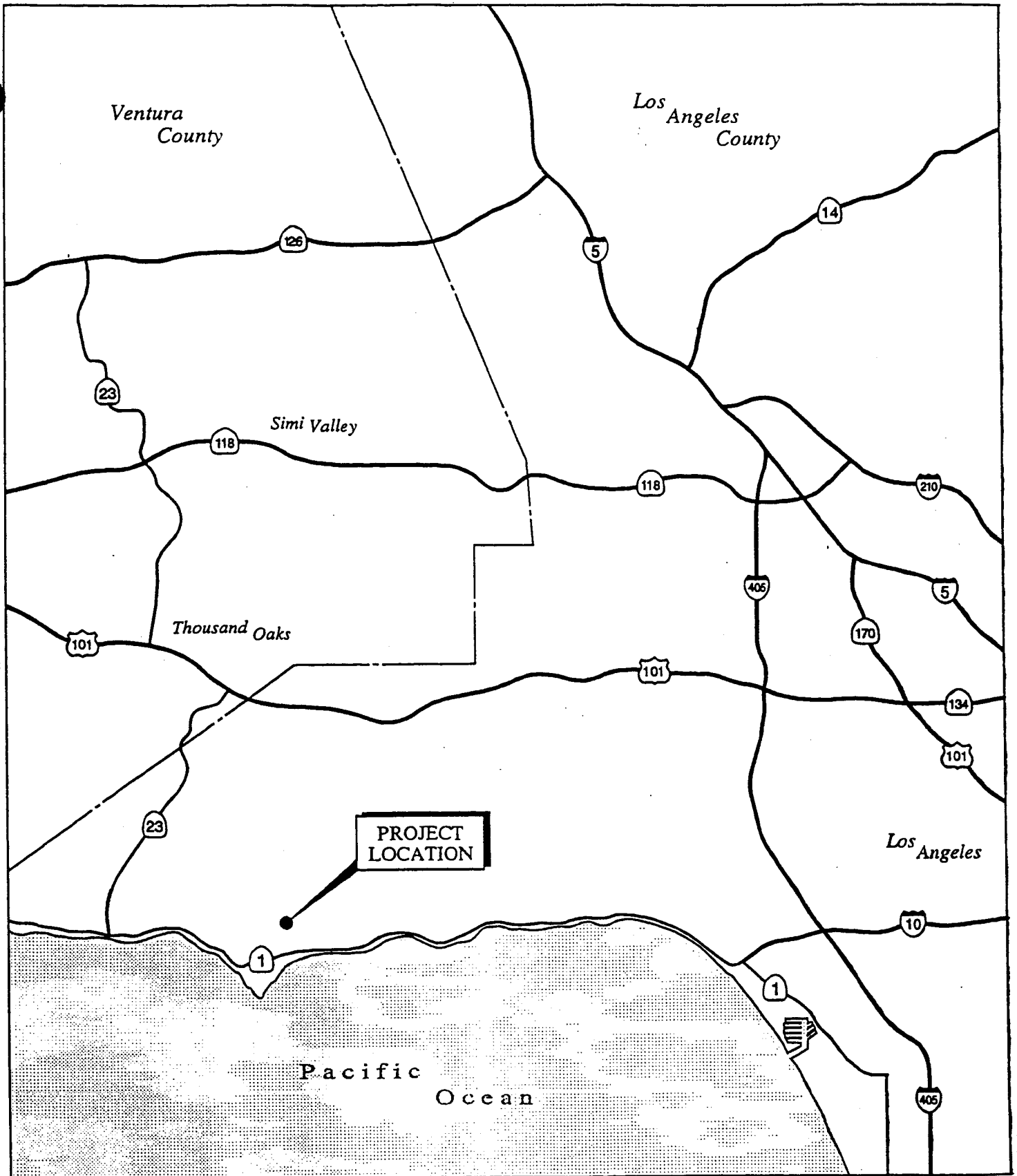
The Commission finds, however, that approval of the portion of the proposed project that would authorize groups larger than 40 maximum to use the site, including groups of as many as 200 guests per event, would the City of Malibu's ability to prepare a Local Coastal Program and that such an approval would not be consistent with the policies of Chapter 3 of the Coastal Act as required by Section 30604(a).

G. California Environmental Quality Act

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

The Commission finds that the portion of the proposed project consisting of the provision of commercial events for groups of more than 40 and up to 200 participants, shuttled to the subject site, or the use of public coastal access or coastal recreational parking areas, such as the Winding Way trailhead, would result in significant adverse effects on the environment, within the meaning of the California Environmental Quality Act of 1970. Therefore, the portion of the proposed project that includes making the subject site available to groups of over 40 participants is determined to be inconsistent with CEQA and the policies of the Coastal Act.

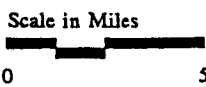
In addition, the Commission also finds that the portion of the proposed project that includes making the site available for groups of 40 or fewer participants to be transported to the site by van shuttle from private carpool gathering points, the placement of two emergency water tanks, and the use of the existing structures on site for up to 16 employees, including maintenance personnel, and the occupancy of one residence for a ranger's family, as conditioned, will not have significant adverse effects on the environment, within the meaning of the California Environmental Quality Act of 1970. Therefore, the proposed project, as conditioned, has been adequately mitigated and is determined to be consistent with CEQA and the policies of the Coastal Act.



2/22/99(MRC501)



LSA



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| EXHIBIT NO. 1 |
| APPLICATION NO. Santa Monica Mtns. Conservancy |
| 4-98-334 |
| Regional Map |

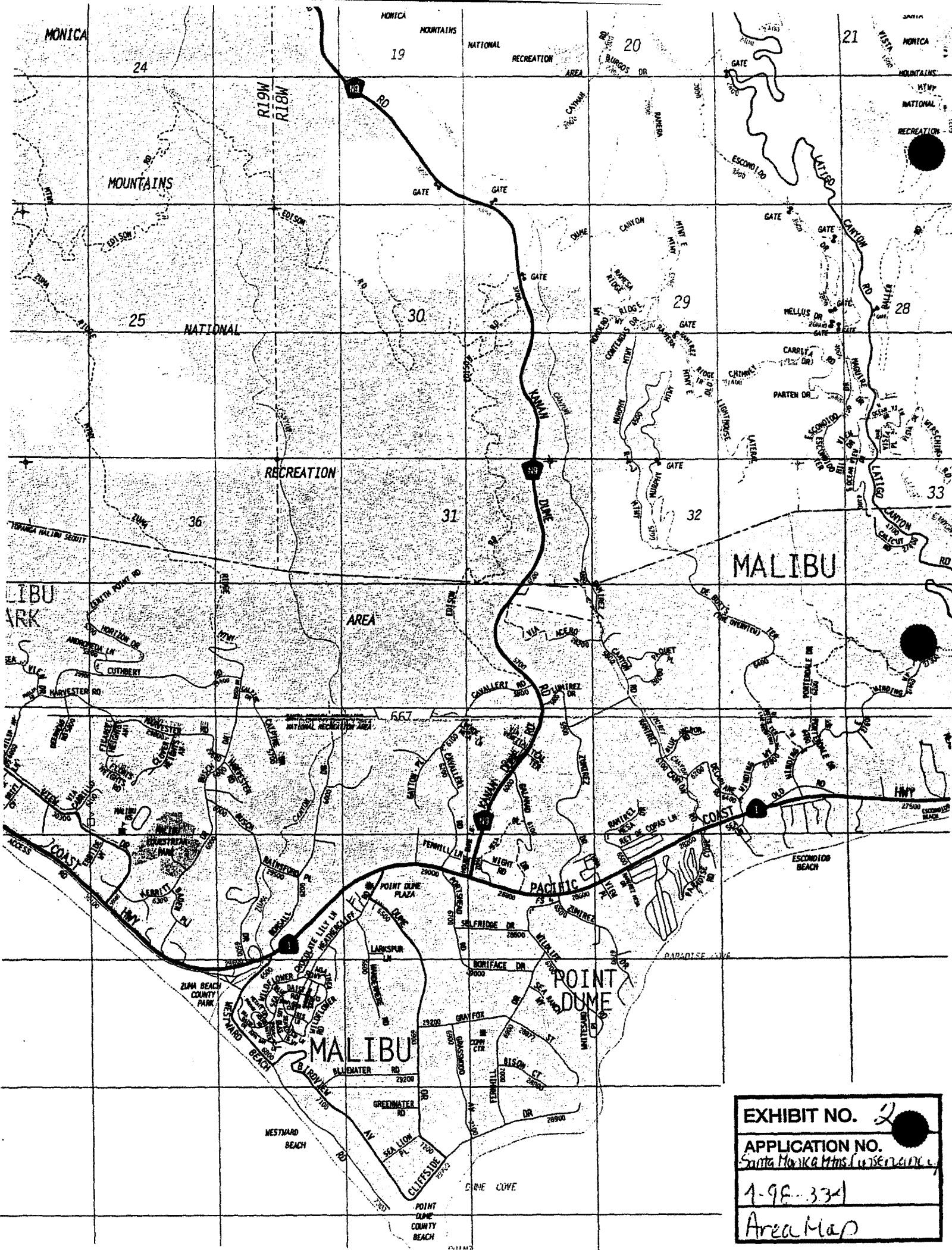


EXHIBIT NO. 2
 APPLICATION NO.
 Santa Monica Mms License #
 1-98-334
 Area Map



2/16/95(MRC501)



LSA

Scale in Feet

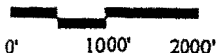


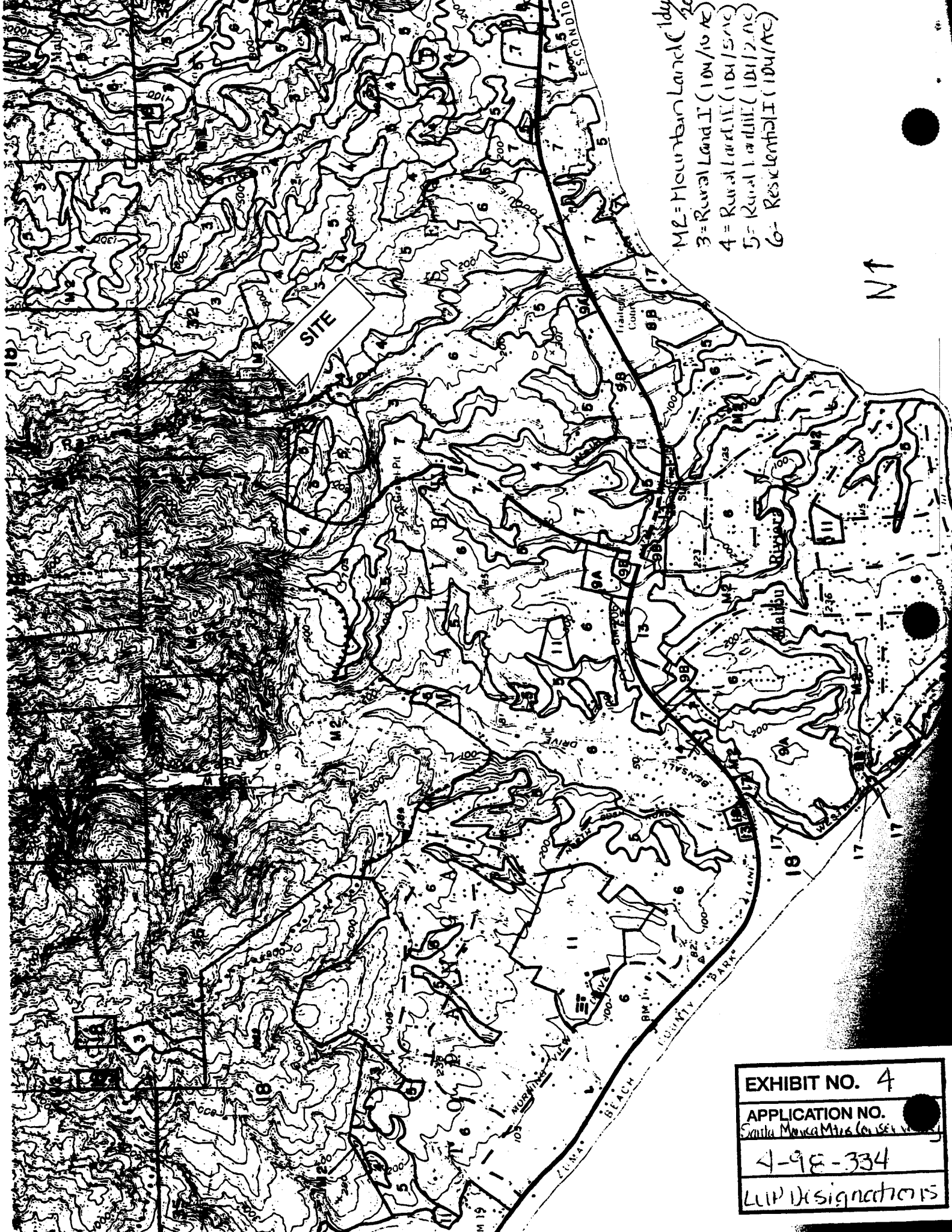
EXHIBIT NO. 3

APPLICATION NO.

Santa Monica Mtns Conservancy

4-98-334

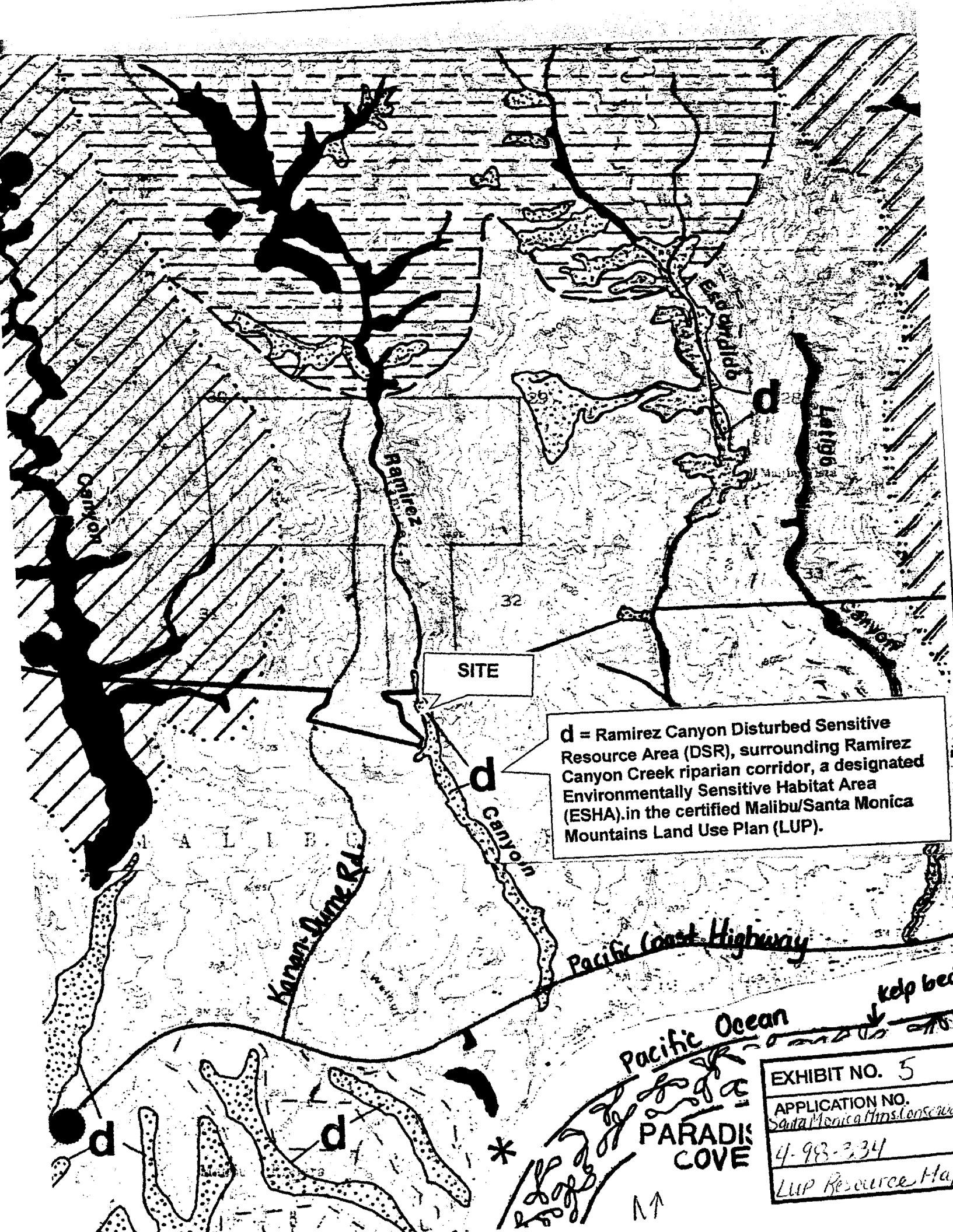
Vicinity Map



- M2=Mountain Land (104/10 AC)
- 3=Rural Land I (104/10 AC)
- 4=Rural Land II (104/5 AC)
- 5=Rural Land III (104/2 AC)
- 6=Residential I (104/AC)

NT

EXHIBIT NO. 4
 APPLICATION NO.
 Santa Monica Mtns Conservancy
 4-98-334
 LUP Designations



SITE

d = Ramirez Canyon Disturbed Sensitive Resource Area (DSR), surrounding Ramirez Canyon Creek riparian corridor, a designated Environmentally Sensitive Habitat Area (ESHA) in the certified Malibu/Santa Monica Mountains Land Use Plan (LUP).

EXHIBIT NO. 5
 APPLICATION NO. Santa Monica Mts. Conserv
 4-98-334
 LUP Resource Ha

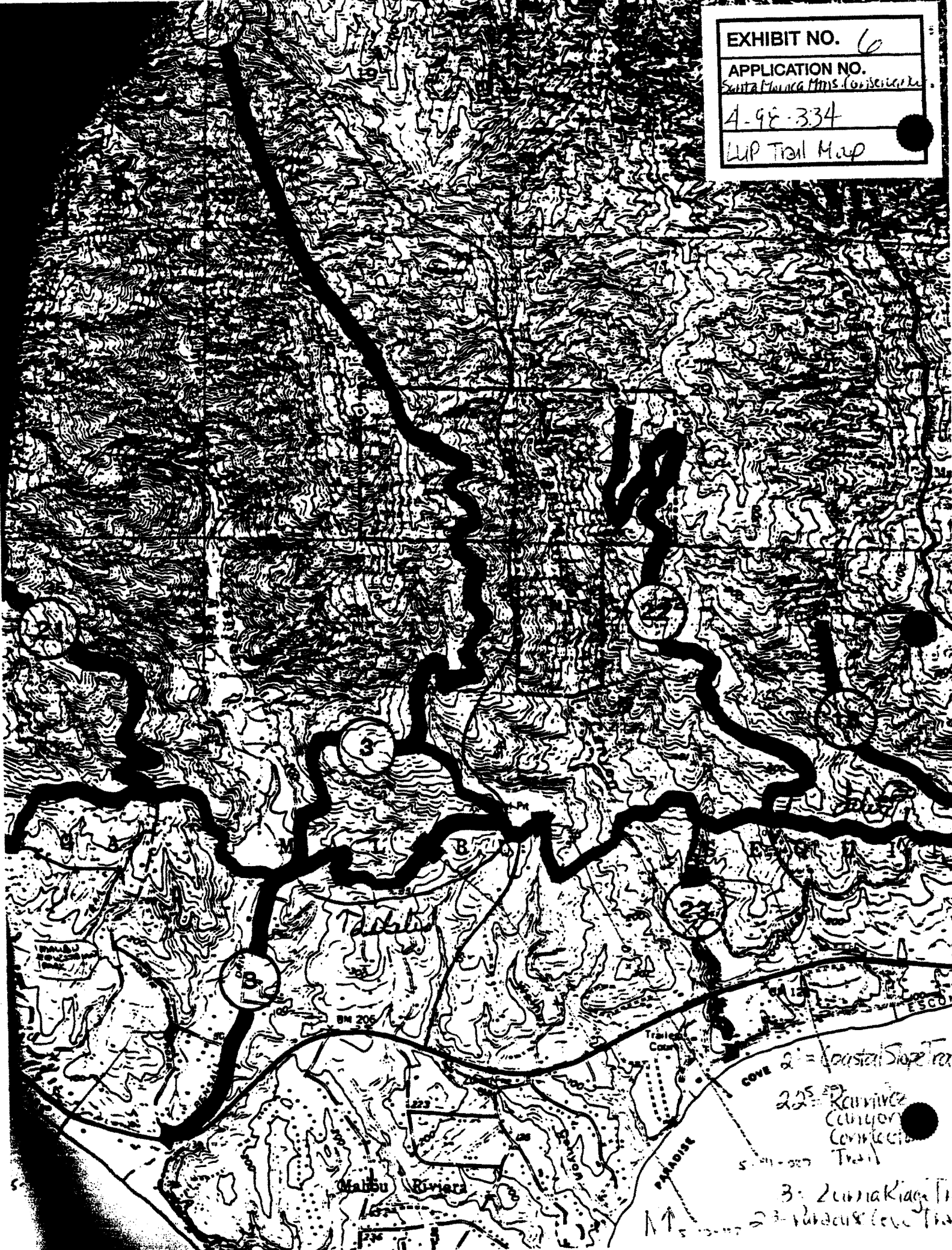
Handwritten: Paradise Cove
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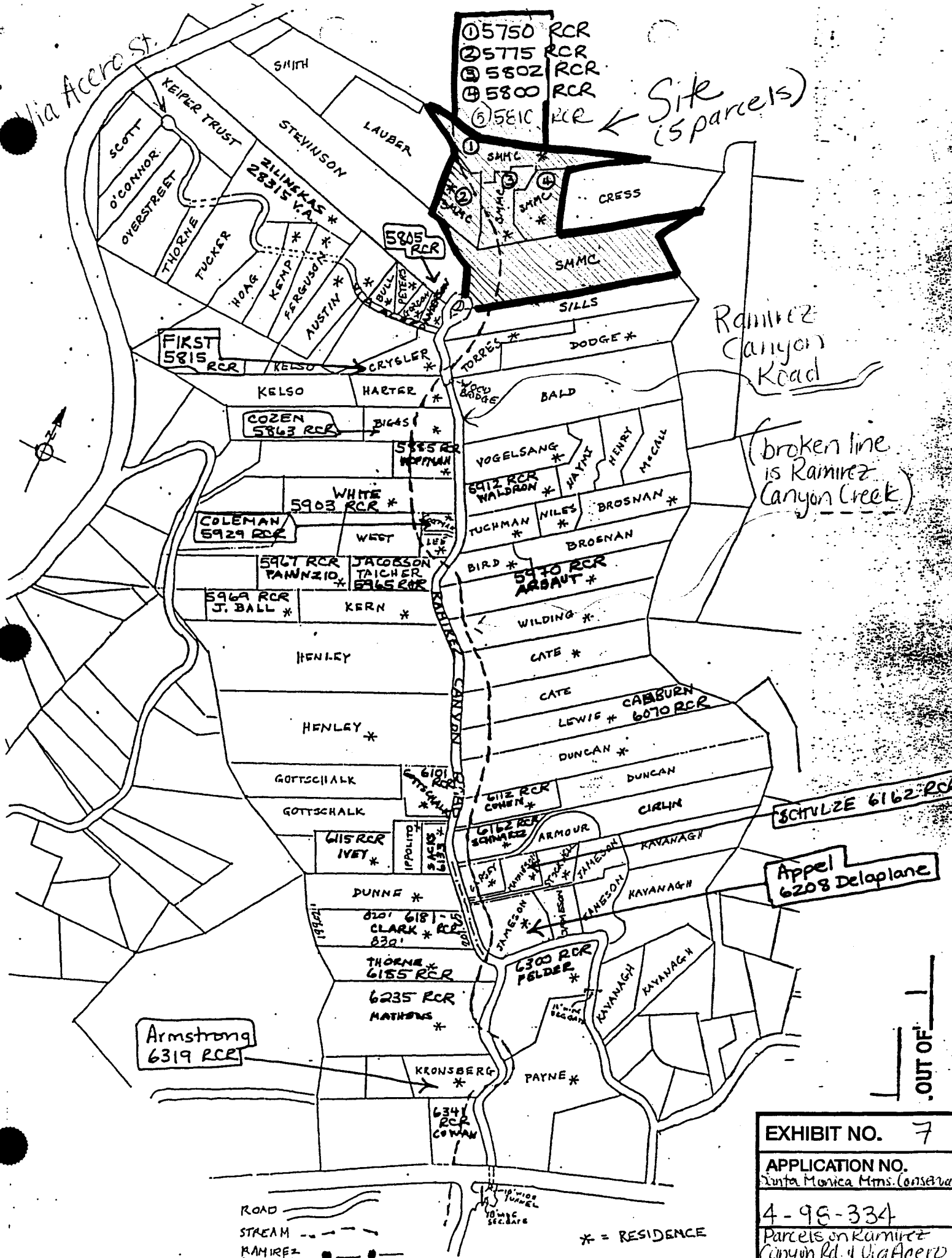
EXHIBIT NO. 6

APPLICATION NO.
Santa Monica Mts. Conservation

4-98-334

LUP Trail Map





- ① 5750 RCR
- ② 5775 RCR
- ③ 5802 RCR
- ④ 5800 RCR
- ⑥ 5810 RCR

← Site (5 parcels)

Ramirez Canyon Road

(broken line is Ramirez Canyon Creek)

Armstrong 6319 RCR

SCHULZE 6162 RCR

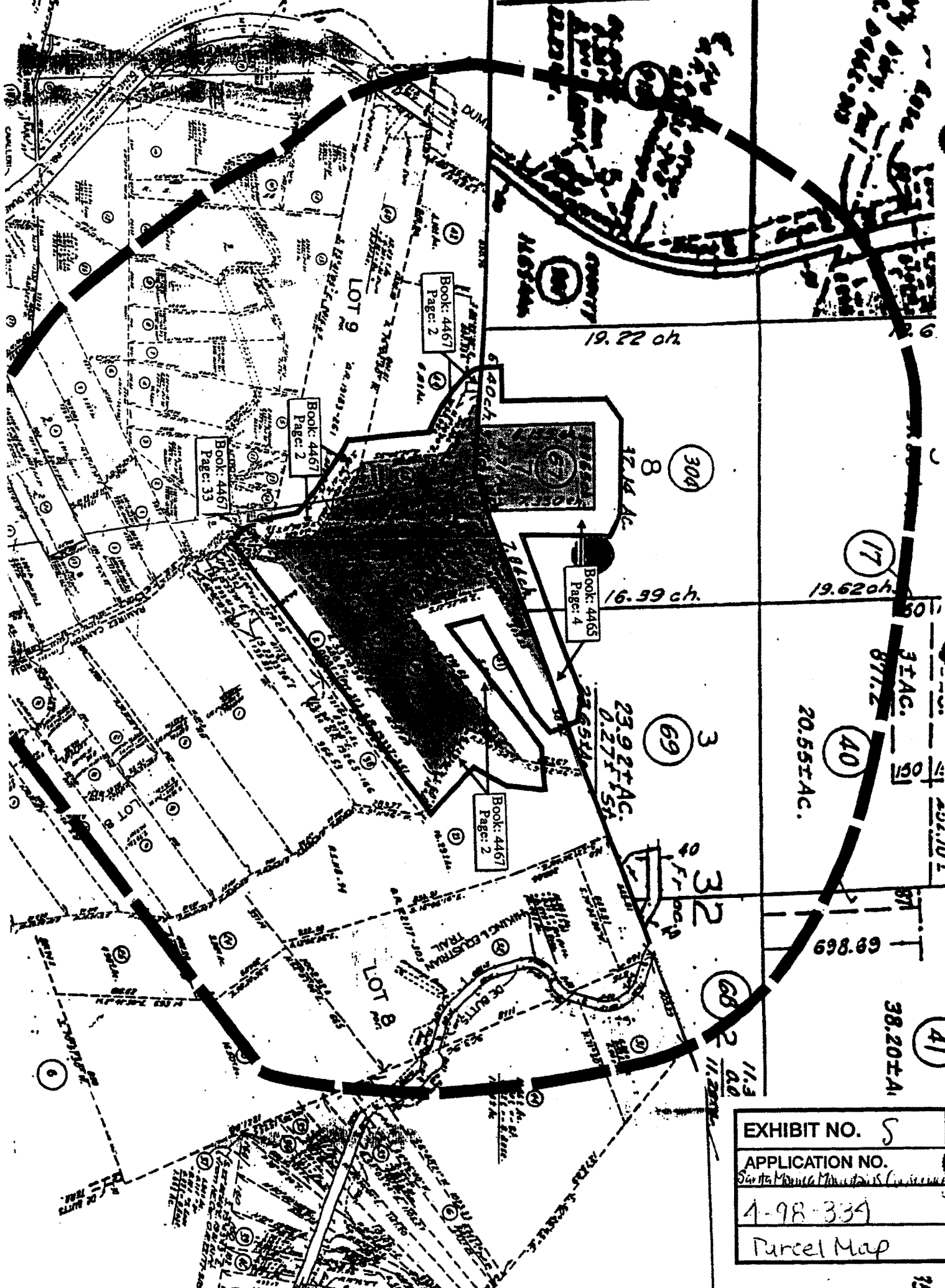
Appel 6208 Delaplaine

OUT OF

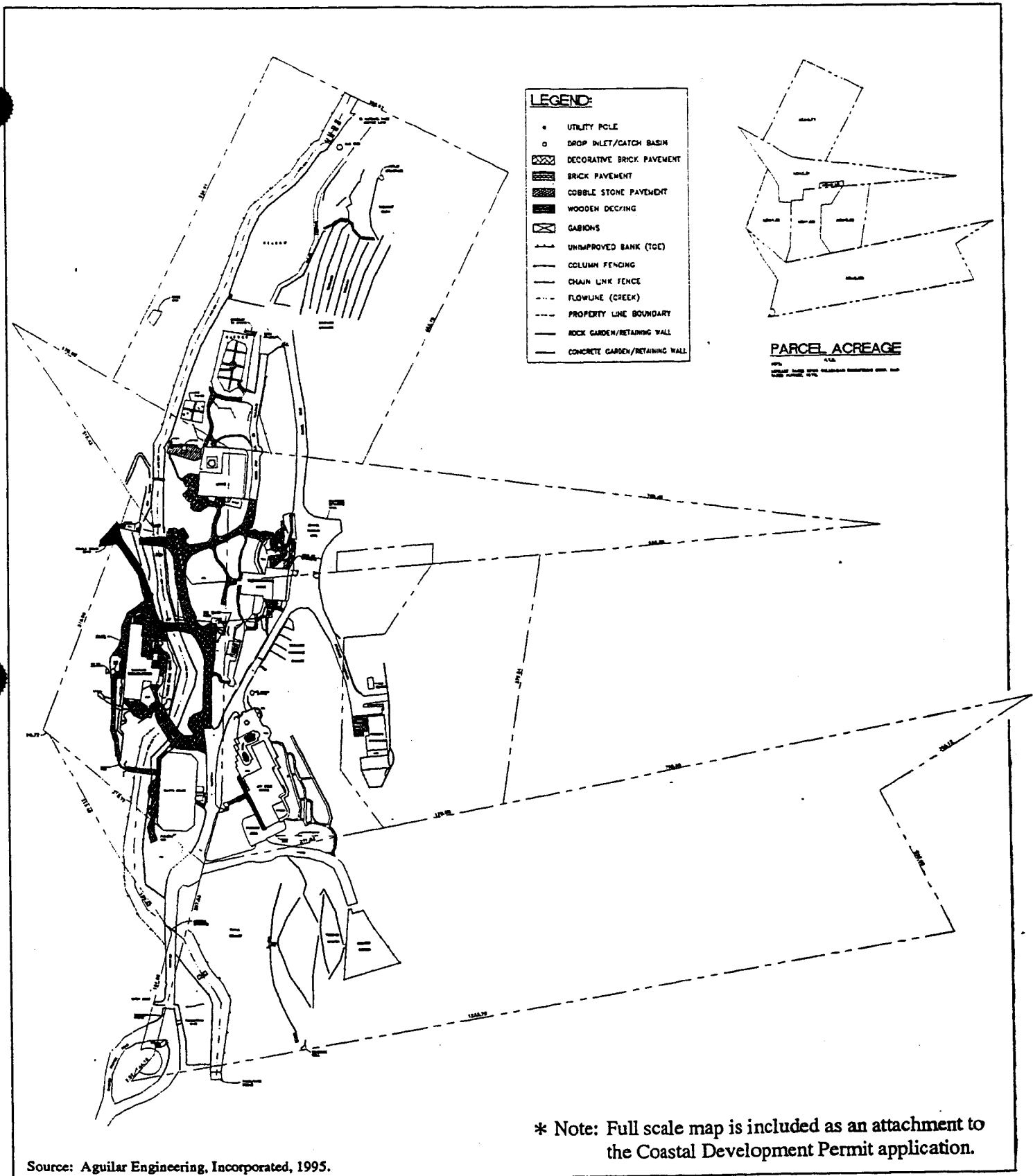
| | |
|---|----------|
| EXHIBIT NO. | 7 |
| APPLICATION NO. | 4-98-334 |
| Parcels on Ramirez Canyon Rd. & Via Acero | |

ROAD
STREAM
RAMIREZ BOUNDARIES

* = RESIDENCE



| |
|--|
| EXHIBIT NO. <i>S</i> |
| APPLICATION NO. <i>Santa Monica Mountains Conservancy</i> |
| <i>1-98-339</i> |
| Parcel Map |



Source: Aguilar Engineering, Incorporated, 1995.

2/16/95(MRC501)

Figure 3

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|---|
| EXHIBIT NO. 9 |
| APPLICATION NO. Santa Monica Mtns. Conservancy |
| 4-98-334 |
| As-Built Map |



LSA

No Scale

Map

Streisand Center
Exhibit B1a

● Septic Tank ● Oak Tree

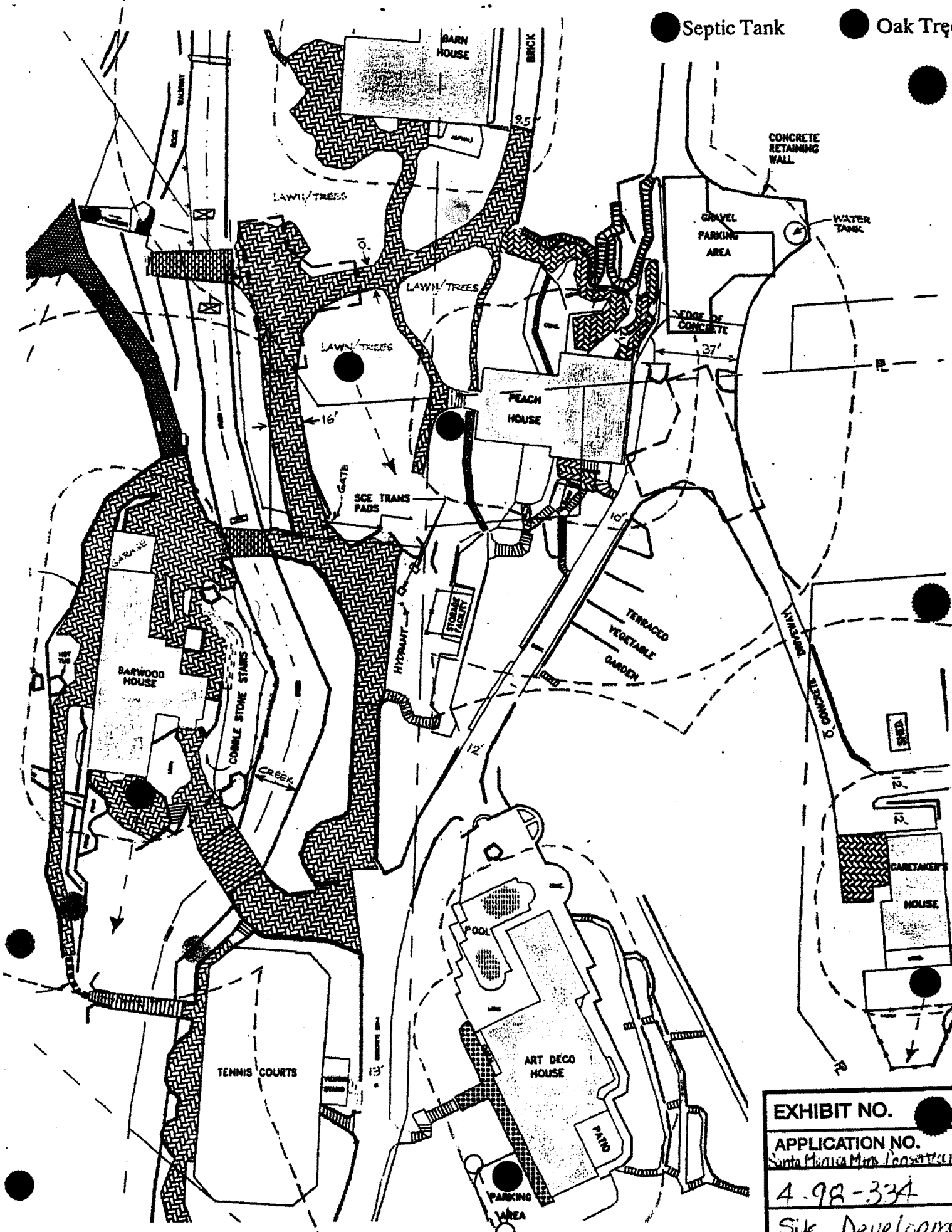


EXHIBIT NO. ●
APPLICATION NO.
Santa Monica Hills Properties
4-98-33A
Site Development

October 5, 1999

TO: BARBARA CAREY
CALIFORNIA COASTAL COMMISSION

FROM: CAPTAIN JIM JORDAN *gjordan*
LA COUNTY FIRE DEPARTMENT
FIRE PREVENTION DIVISION

SUBJECT: STREISAND CENTER FOR CONSERVANCY STUDIES

I have reviewed the coastal permit information sent to me and made a site inspection. There has been a change of use from R-3 (single family dwelling) to B (business). This requires a review of the plans and buildings for compliance with the California Fire and Building Codes. Because this is a state owned and occupied facility I think the Division of State Architect is responsible for the building plan review due to the change of occupancy classification. The LA County Fire Department will review the project for the State Fire Marshal's Office.

The two fire code issues are adequate fireflow water and access to the site. The California Fire Code requires a minimum of twenty-foot width for fire apparatus access. Ramirez Canyon Rd. currently does not meet this minimum width. The required fireflow for the site has not been determined. There are a number of dip crossings from Pacific Coast Highway to the site that are not allowed for commercial projects, but are allowed for residential under the LA County Fire Code.

The rental of the facility for weddings and corporate events doesn't appear to classify the facility as a public assembly. The weddings are all held outside according to the chief ranger, Walt Young. None of the corporate events have more than 49 people inside so a public assembly permit would not be required.

Please call me if you need any additional information.

| |
|--|
| EXHIBIT NO. // |
| APPLICATION NO. <i>Santa Monica Hills (1998) L.A. Co.</i> |
| <i>4-98-334</i> |
| <i>Review of Proposal by L.A. County Fire Dept.</i> |

Lawrence Young

Registered Environmental Health Specialist

Cal. Req. #3738

P.O. Box 973 • Malibu, California 90265

(310) 392-2011
(818) 883-8585

June 23, 1994

Ruth Kilday
Streisand Center for Conservancy Studies
5775 Ramirez Canyon Rd.
Malibu, CA 90265

Project: Streisand Center for Conservancy Studies
5750, 5775, 5800 and 5802 Ramirez Canyon Rd.
Malibu, CA 90265

Dear Ms. Kilday:

At your request, I conducted a private sewage disposal system review of subject properties. My review included obtaining a copy of the Los Angeles County Department of Health Services file on each property, and a site visit to each property conducted on June 6, 1994. Please refer to the attached records when reading the remainder of this report.

5750 RAMIREZ CANYON RD. (PEACE/BARN)

There is a 4,900 square foot single family dwelling, and a 3,370 square foot guest house on this property. Both dwellings are presently served by a 1000 gallon septic tank connected to a 375 square foot drainfield.

This private sewage disposal system is woefully inadequate and should be properly abandoned, or removed, and an adequate private sewage disposal system installed. The new septic tank capacity should be based upon projected daily sewage effluent flow rate, taking into consideration the proposed future use of both dwellings as an academic center for environmental studies. The new drainfield square footage should be based upon a percolation test and analysis of the subsurface soil strata.

5775 RAMIREZ CANYON RD. (BARWOOD)

There is a 3,500 square foot single family dwelling on this property served by a 1000 gallon septic tank and a 1500 gallon septic tank connected to a 345 square foot drainfield. This private sewage disposal system appears to be adequate, however, I wish to make the following recommendations:

3 PAGES

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|--|
| EXHIBIT NO. 12 |
| APPLICATION NO. Santa Monica Mtns Conservancy |
| 4-98-334 |
| septic Report |

1. Twenty inch (20") manhole/inspection ports extending to the ground surface should be installed on both the primary and secondary compartments of both septic tanks. The manhole shaft between the septic tank top and the manhole ring and cover at grade should be twenty inch (20") white P.V.C. SDR35 sewer pipe.
2. The septic tanks should be pumped and cleaned now and at least once every two years in the future to prevent excessive accumulation of sewage solids.
3. All sewer laterals should be electronically traced to provide a more thorough knowledge as to this private sewage disposal system's actual construction.

5800 RAMIREZ CANYON RD. (CARETAKER)

There is a 1,350 square foot single family dwelling on this property served by a 750 gallon septic tank connected to a 480 square foot drainfield. This private sewage disposal system appears to be adequate, however, I wish to make the following recommendations:

1. Twenty inch (20") manhole/inspection ports extending to the ground surface should be installed on both the primary and secondary compartments of the septic tank. The manhole shaft between the septic tank top and the manhole ring and cover at grade should be twenty inch (20") white P.V.C. SDR35 sewer pipe.
2. The septic tank should be pumped and cleaned now and at least once every two years in the future to prevent excessive accumulation of sewage solids.
3. All sewer laterals should be electronically traced to provide a more thorough knowledge as to this private sewage disposal system's actual construction.

5802 RAMIREZ CANYON RD. (ART DECO)

There is a 4,600 square foot single family dwelling on this property served by a 1000 gallon septic tank, a 5' X 31' BI seepage pit, and a 5' X 33' BI seepage pit. This private sewage disposal system appears to be adequate, however, I wish to make the following recommendations:

1. Twenty inch (20") manhole/inspection ports extending to the ground surface should be installed on both the primary and secondary compartments of the septic tank. The manhole shaft between the septic tank top and the manhole ring and cover at grade should be twenty inch (20") white P.V.C. SDR35 sewer pipe.

2. The septic tank should be pumped and cleaned now and at least once every two years in the future to prevent excessive accumulation of sewage solids.
3. Eight inch (8") inspection ports extending to the ground surface should be installed on both seepage pits. The shaft between the seepage pit top and the inspection ring and cover at grade should be eight inch (8") white P.V.C. SCH40, or SDR35 sewer pipe.
4. All sewer laterals should be electronically traced to provide a more thorough knowledge as to this private sewage disposal system's actual construction.

Thank you for this opportunity to be of service. If you have any questions regarding this review, please contact me at your earliest convenience.

Sincerely,

L. Young

Lawrence Young

cc:file

McDermott PUMPING

25669 PACIFIC COAST HIGHWAY • MALIBU, CALIFORNIA 90265 • 213 456 1173

Streisand Center for Conservancy Studies
5810 Ramirez Canyon Road
Malibu, CA 90265

June 15, 1999

Attn: Lisa Soghor

This letter is to state that McDermott Pumping has been providing regular maintenance septic pumping services for the Conservancy Center and that all systems are in good condition and normal operating order. The following statistics for the septic systems located at the center are:

5750 Ramirez Canyon Road (Barn/Peach House)

- 1000 gallon tank connected to a 375 foot drain field.
- Currently used by 8 staff members Monday through Friday, occasional dishwasher use. Garden tours of approximately 30 use the restrooms on Tuesdays, Wednesdays and Thursdays.
- Events up to 100 people use restrooms approximately 25 times a year.

5775 Ramirez Canyon Road (Barwood House)

- 1000 gallon and 1500 gallon tanks are connected to a 345 square foot drain field.
- Used by 7 staff members Monday through Friday, occasional dishwasher use.

5880 Ramirez Canyon Road (Ranger Residence)

- 750 gallon tank connected to a 480 square foot drain field.
- Used as residence by single family of five.

5802 Ramirez Canyon Road (Art Deco House)

- 1000 gallon tank connected to a 5' x 13' B1 seepage pit and a 5' x 33' B1 seepage pit.
- Used infrequently if at all by staff during the work week.

All of these systems are accommodating their use with no stress to the systems and are capable of applications greater than currently being applied. All of these systems have been maintained by McDermott Pumping on an annual basis since 1993.

Respectfully,
P. McDermott
P. McDermott
McDermott Pumping
(310) 836-2021

PM:pm

| |
|---|
| EXHIBIT NO. / 3 |
| APPLICATION NO. Santa Monica Conservancy |
| 4-98-334 |
| Septic Pumping Letter |



GEO SAFETY, INC.

1462 Lachman Lane Pacific Palisades, California 90272 U.S.A. (310) 459-9453 Fax (310) 459-6187

Preliminary Evaluation of Fire Department Access, Wildland Fire Protection, and Evacuation

for the

**STREISAND CENTER FOR CONSERVANCY STUDIES
(SCCS)**

located at
5750 – 5802 Ramirez Canyon Road, Malibu

June 14, 1999

Klaus Radtke, Ph.D.
Wildland Resource Sciences

Permit Application 4-98-334

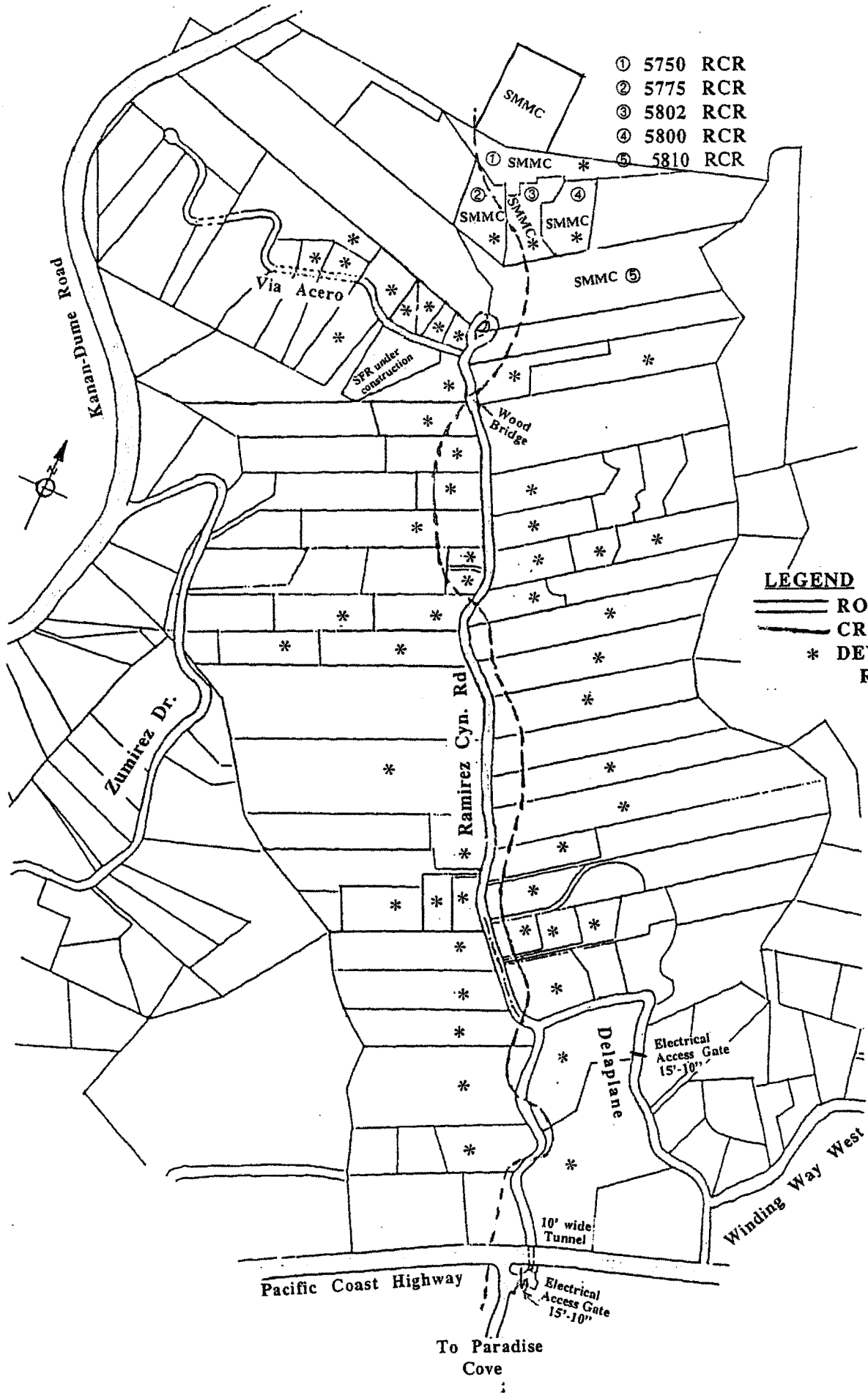
EXHIBIT A

(43 Pages - Ex. 1.
49 Pages Total)

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| EXHIBIT NO. 14 |
| APPLICATION NO. Santa Monica Mtn. Conservancy |
| 4-98-334 |
| Fire Report |

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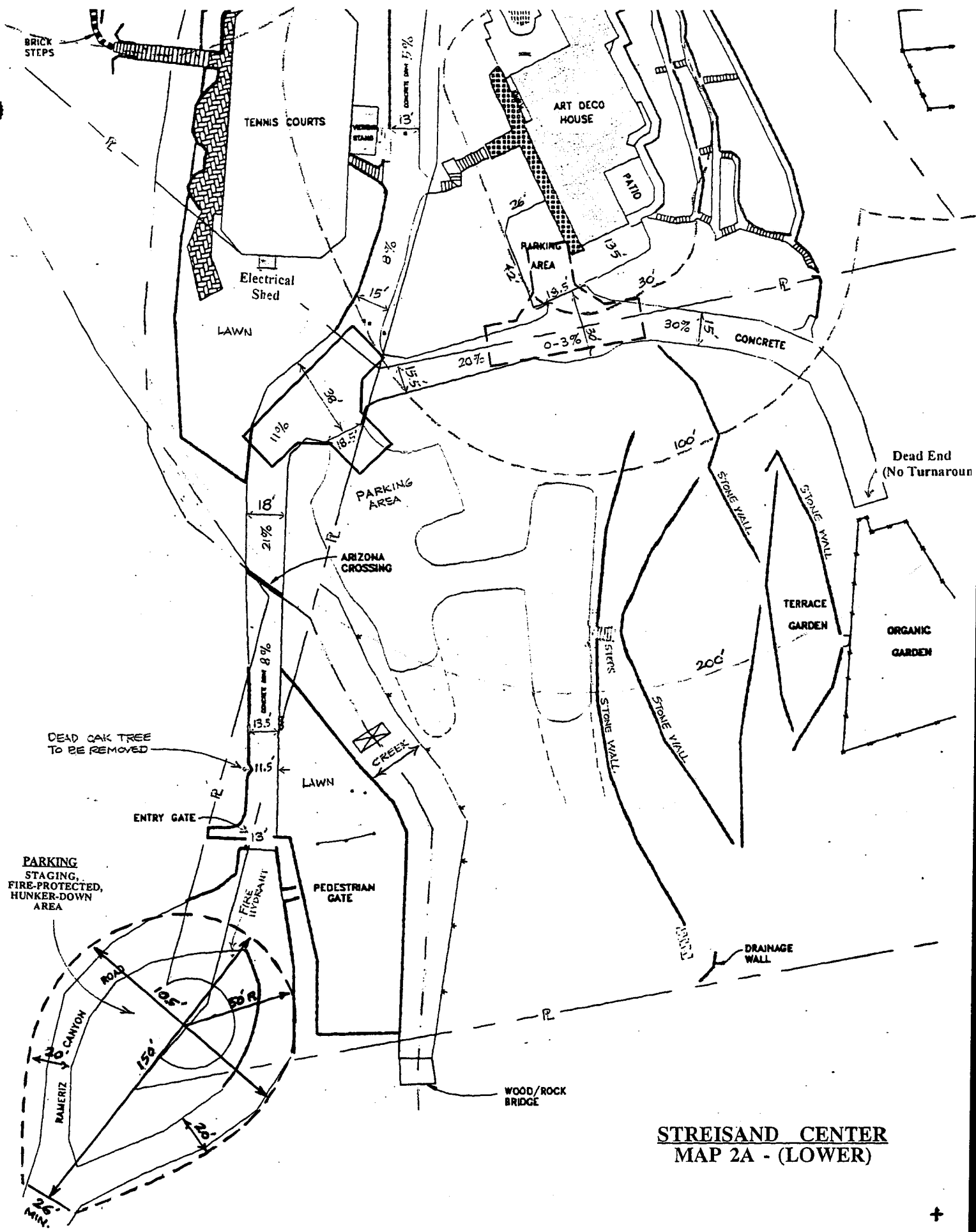
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- ① 5750 RCR
- ② 5775 RCR
- ③ 5802 RCR
- ④ 5800 RCR
- ⑤ 5810 RCR

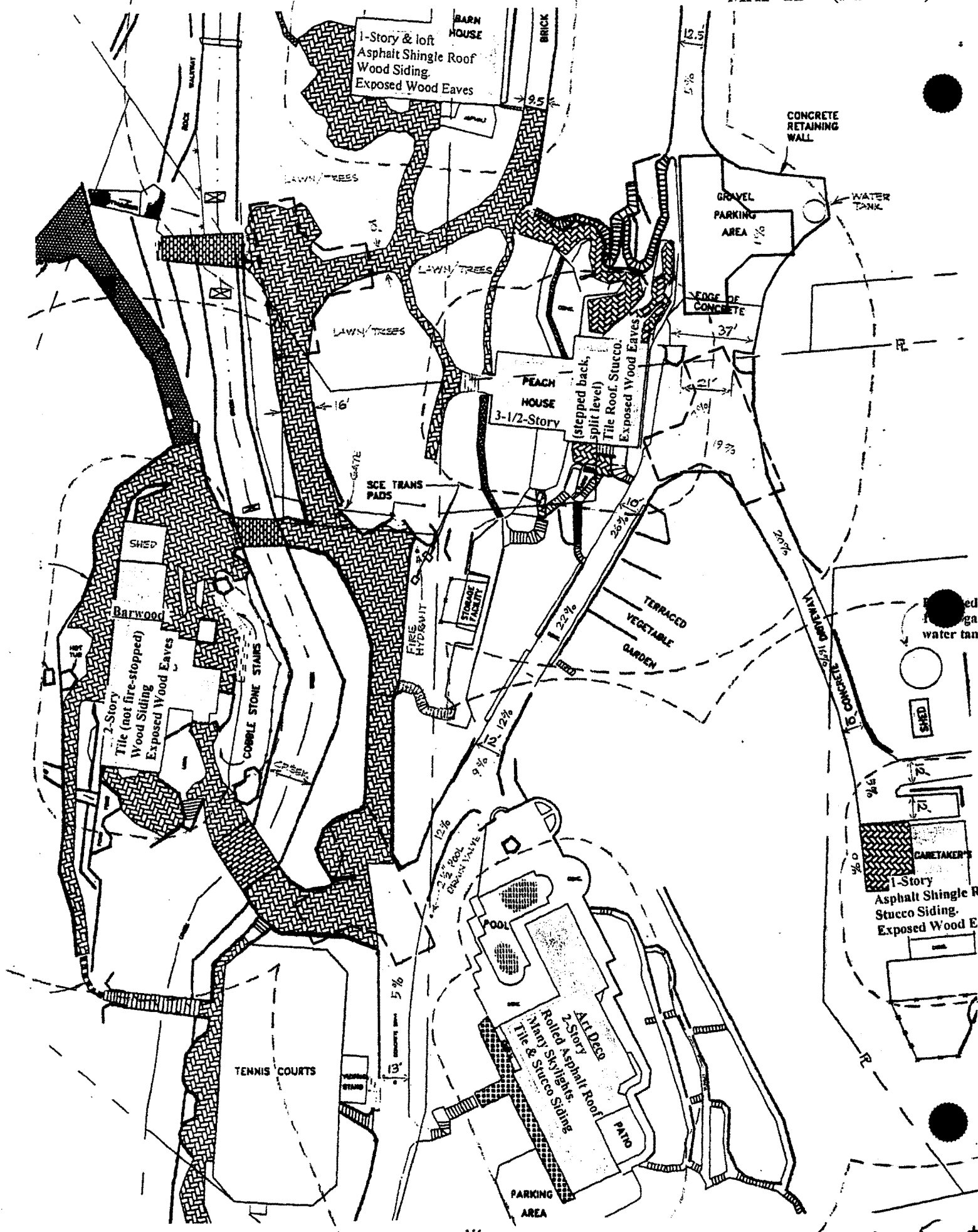
LEGEND
 == ROAD
 --- CREEK
 * DEVELOPED LOT-RESIDENCE

To Paradise Cove

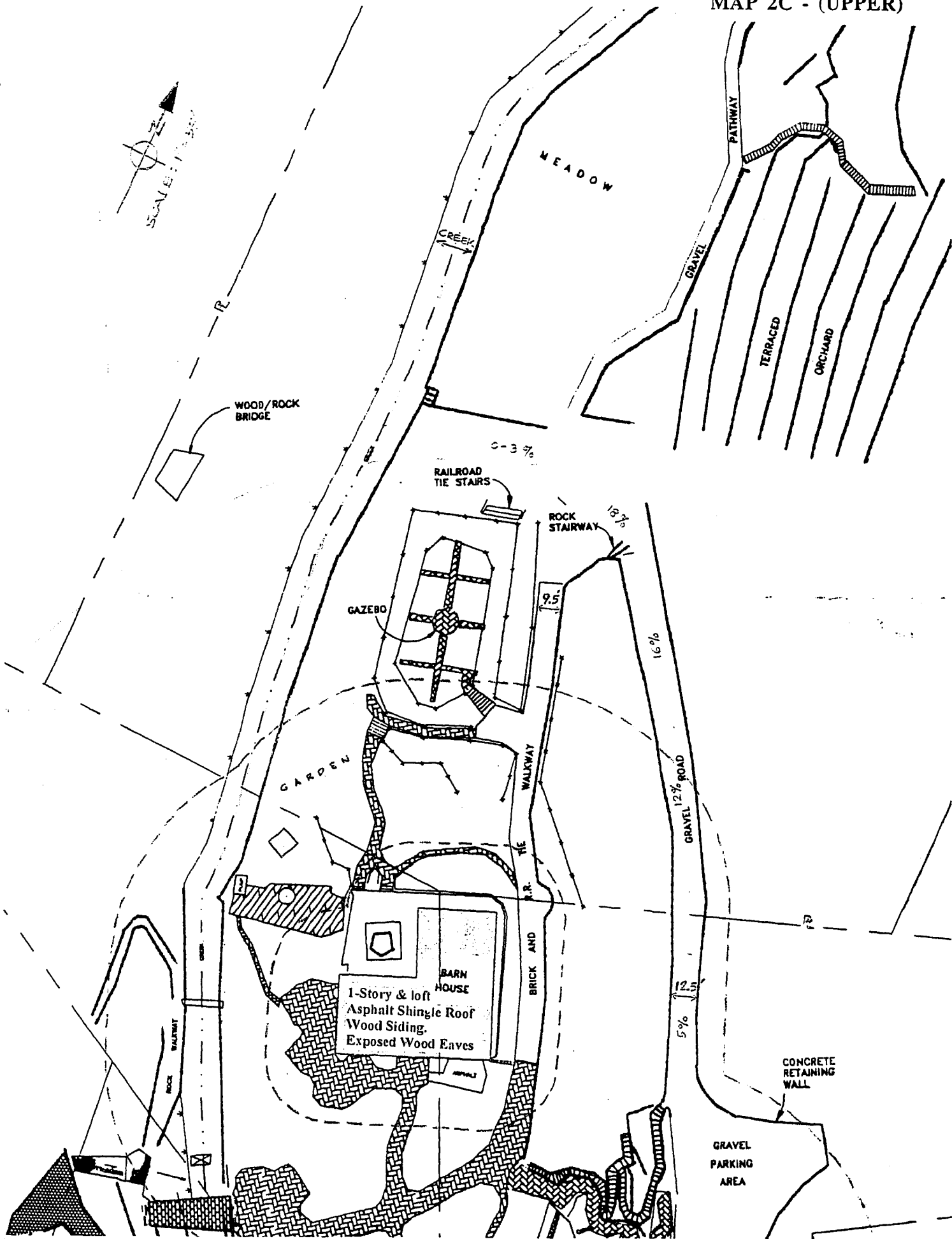


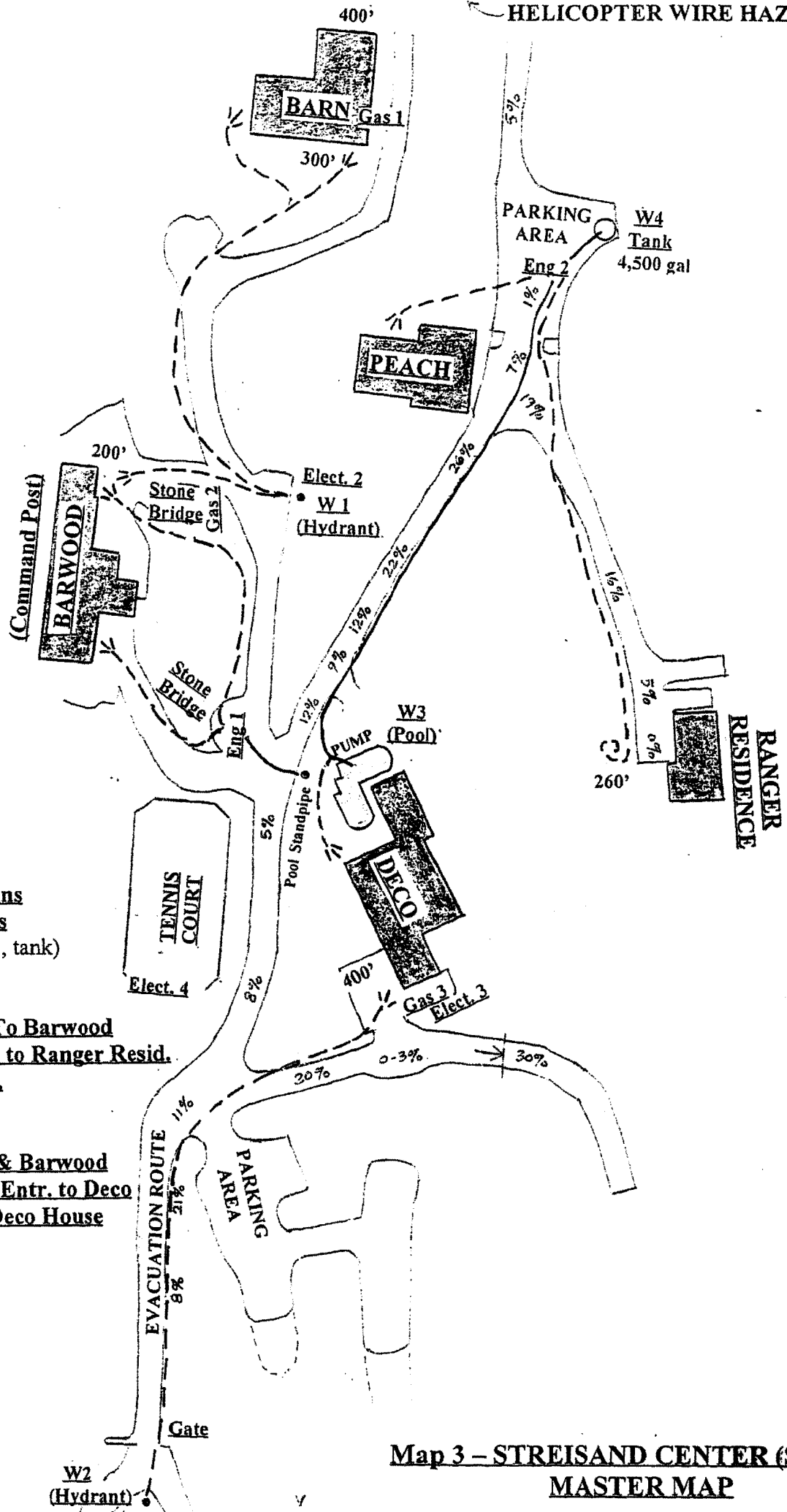
STREISAND CENTER
MAP 2A - (LOWER)

STREISAND CENTER
MAP 2B - (MIDDLE)



STREISAND CENTER
MAP 2C - (UPPER)





LEGEND

Utilities

- Gas = 3 Gas Mains
- Elect. = 4 Electrical Mains
- Water = 4 Water Sources
(2 hydrants, pool, tank)

Engines

- Eng 1 - Draft from Pool To Barwood
- Eng 2 - Draft from Tank to Ranger Resid. and Peach House.

Closelays

- HL 1 - Hydrant to Barn & Barwood
- HL 2 - Hydrant at Front Entr. to Deco
- HL 3 - Pump at Pool to Deco House

Map 3 - STREISAND CENTER (SCCS) MASTER MAP

I. Fire Department Access

1. Minimum Code Access Requirements

A. County of Los Angeles Fire Department

In order to develop or maintain adequate level of fire protection for buildings constructed within the jurisdictional area of the County of Los Angeles Fire Department, access roads must be provided which will support Fire Department apparatus.

Roads, which are public in nature and constructed to Road Department standards, provide acceptable vehicular access. Private access roads including driveways, bridges, and culverts, and building sites served by such roads may not be subject to standards, which would insure access for Fire Department apparatus. The Fire Department has therefore developed minimum standards which are consistent with Section 10.207 of the Fire Code (Title 32) (Appendix 1-Standards For Private Access Roads).

Code Standard No 10.207 (A) pertains to access to single family dwelling construction and (B) pertains to access to structures that require on-site Fire Department apparatus access other than that provided by improved public right-of-way. These code sections attempt to develop, provide, and maintain an adequate level of fire protection which will support Fire Department apparatus and provide access roadways to within 150 feet of all portions of a building.

The present code specifies that paved access roadways are to be provided to within 150 feet of all portions of the exterior walls of the first story of a new building, accessory buildings under 1,000 square feet being excluded. These roadways must not exceed 15% grade, must have not less than 20 feet of unobstructed width,¹ must be "clear to sky,"² must provide adequate roadway turning radius, and must have all-weather driving surfaces capable of supporting a 25-ton firefighting vehicle. Where topography makes a 15% grade impractical or not feasible, a maximum of 20% may be allowed

¹ Code standards for access roadways or private streets for new construction of four or more residences require a minimum of 26 feet of road width even in rural areas such as Ramirez Canyon.

² "Clear to Sky" - Vegetation and other obstruction removed along the road so that no vegetation is overhanging into the required road width.

for a distance not to exceed 150 feet. The average maximum grade must not exceed 17% and grade breaks must not exceed 10%. However, grade may be increased where on-site fire protection systems approved by the (County of Los Angeles) Fire Chief are provided. Curve radii must not be less than 32 feet as determined from the centerline of the road. Minimum paving standards shall be 2" of asphaltic concrete, or equal, over 4" of decomposed granite or equivalent.

Where fire hydrants are present or required, roadway/driveway width along the hydrant locations must be a minimum of 26 feet for a distance of 25 feet on either side of the hydrant. While the minimum width will vary depending on the location of the fire hydrant, a width of 26 feet is generally required for a second pumper to safely pass a stationary pumper hooked up to a fire hydrant (Appendix 2). County Regional Planning also requires 26 feet of clear access from a private roadway to a garage, carport or parking area.

While presently not code for minimum fire safety standards, access road turnouts along access roadways are strongly recommended at least every quarter of a mile and turnarounds at least every half-mile.

As indicated in Appendix 3 "Residential Turnaround Specifications," residential circular turn-arounds shall have a minimum radius of 32 feet. Private roads 20 feet wide meeting at right angles could assist in meeting the minimum requirements of intermediate turn-arounds if 90-degree corners were deleted and replaced with 45-degree corners. Appendix 3 also indicates that hammerhead turn-arounds at private residences require a 70-foot-long and 20-foot-wide head with a 30-foot-long and 20-foot-wide handle to meet minimum fire department vehicle turnaround dimensions.

New industrial and commercial as well as high density residential development requires a minimum unobstructed road width of 26 feet "clear to sky" to within 150 feet of all portions of the exterior wall of the first story of any building. Turn-arounds shall have a minimum of 42 feet radius with another 6-foot clearance for ladder swing.

When conditions prevent the installation of an approved fire apparatus access road, the fire chief may permit the installation of a fire-protection

system or systems in lieu of a minimum code road, provided the system or systems are not otherwise required by this or any other code.

B. State Responsibility Areas

SB 1075, the comprehensive wildland fire safety legislation, required the California Department of Forestry & Fire (CDF) to establish minimum fire safety requirements that apply to SRA (State Responsibility Areas: areas protected by CDF). It also encouraged local jurisdictions not within the SRA to upgrade and establish their own codes. The legislation was motivated by a general lack of response by local governments to the wildland fire protection problems over the previous 20 years. Public Resource Code 4290 was adopted in May 1991 in response to establishing these minimum fire safety requirements and recommended strongly that at least two different public ingress/egress routes on all roads be a standard for all new subdivisions.³ CDF specifically recommended that parcels zoned for 1 to 4.99 acres shall be limited to 1,320 feet maximum length of cumulative dead-end roads (irrespective of mitigation measures). However, the Ramirez Canyon subdivision is an old subdivision dating back to the early 1940's.

Mitigation measures for single-family residences with dead-end-roads have often included as much as 25,000 to 50,000 gallons of additional water storage if it was difficult to meet other mitigation measures due to geology, topography, or environmental concerns. In response to providing mitigation for narrow, substandard streets (serving existing subdivisions) such as Ramirez Canyon Road, reasonable safety alternatives often cited are reduced road length, safety islands, fuel modification along the road, and turnouts.

2. General Overview: Fire Access Road to the Streisand Center

Ramirez Canyon Road is a substandard, private, paved dead-end road measuring approximately 15 to 20 feet (to 25 feet at one point at one fire hydrant) in width. As indicated on Map 1 the road serves the approximately 74 lots located in Ramirez Canyon which includes the six lots of the Santa Monica Mountains Conservancy (SMMC) at the northern end of the road.

³ The Ramirez Canyon subdivision is one of the oldest subdivisions in west Malibu and was established in the early 1940's. However, Ramirez Canyon Road has a 40-foot-wide right-of-way that permits improving and widening the road to at least minimum current fire safety standards for private roads.

Of the approximately 74 lots, 47 are developed (improved with structures) including four of the SMMC lots. Near the northern end of Ramirez Canyon Road, Via Acero, a substandard, approximately 10-to-15-foot-wide winding, dead-end-road branches off to the west towards Kanan-Dume Road. This road serves another 19 lots, 8 of which are presently developed. Additionally, a new house is being constructed on one of the remaining empty lots. Ramirez Canyon Road is therefore the only ingress and egress fire emergency vehicle access road presently serving 55 residences and potentially providing vehicular access to the combined approximately 93 lots located along both roads.

From Pacific Coast Highway, Ramirez Canyon Road can be accessed by two different routes prior to leading into the canyon, both of which have been secured by electric gates installed by the Ramirez Canyon Homeowners Association.

Heading west on PCH the road can be accessed via an approximately 0.3 mile drive over Winding Way West, Delaplane Road and past the electrically operated gate. Winding Way West is 20 feet wide at the intersection with PCH but recent curb and gutter improvements related to development along the intersection of Winding Way West and Delaplane Road has improved these road sections in this area to 23 feet or more. However, as one drops down into the canyon, an approximately 15-foot-wide bottleneck exists at the electric gate. The gate is usually left open for convenience but is periodically closed to retain the right to do so.

Driving east on PCH, Ramirez Canyon Road can be accessed by turning right on Paradise Cove Road and making an immediate left towards the generally locked electrical gate. From stone portal to stone portal, the gate provides a maximum passageway of 17'-8" but due to the fact that the gate does not fully recess when it is opened or inoperative, this is reduced to about 15'-10". The road immediately narrows to 10 feet as it heads into and through the historic 10-foot wide x 10-foot high cattle tunnel that leads under the highway and onto Ramirez Canyon Road. Past the tunnel, the road widens again to about 16 feet in width at the first fire hydrant located at a turn in the road at about 6341 Ramirez Canyon Road.

From the intersection of PCH and Winding Way West one travels about 1.15 miles and from PCH and Paradise Cove about 1 mile to reach the Streisand Center and its approximately 13-foot-wide electrically operated entrance gate that marks the end of the road. The 15-to-20-foot-wide private asphalt-paved Ramirez Canyon Road generally parallels the canyon bottom; however, it crosses the winding, generally dry creek on several occasions via Arizona crossings and a small bridge. Presently there are no turnouts located along the road and areas that may have been designed in the past or could be used as turnouts within the 40-foot-wide private road right-of-way have been overgrown with vegetation.

Instead of the minimum 26-foot-wide roadway width along fire hydrant locations to allow a fire vehicle to pass a stationary pumper, road widths at fire hydrant locations vary from 16 to 25 feet (16', 17', 19.5', 20', 23', 25') without any turnouts provided and without any guard rails to protect the hydrants from cars.⁴ The only fire hydrant (also without guard rails) that could meet at least minimum Fire Department access standards was found at the turnaround of Ramirez Canyon Road in front of the Streisand Center where a minimum paved roadway of approximately 28 feet was provided in this location. Road width at the hydrant on Via Acero after it branches off from Ramirez Canyon Road is only 15 feet.

Within close proximity to the Streisand Center and just south of Via Acero, an 11.5-foot-wide wooden bridge provides another road bottleneck. Notwithstanding these substandard and unsafe road conditions, remodeling and new construction have been ongoing within the canyon both along Ramirez Canyon Road and Via Acero. Apparently, in the past the County of Los Angeles Planning Department and presently the County Fire Department and the City of Malibu have ignored the road conditions and have not followed through with requiring road upgrades or a secondary access prior to issuing permits. Based on Los Angeles County Planning approval the California Coastal Commission also has routinely issued permits in the past for subdivision of individual lots prior to the incorporation of the City of Malibu. This also has increased the density within Ramirez Canyon while ignoring the necessary upgrading of the road system.

⁴ If an individual wishes to inspect minimum road width/turnouts at fire hydrants, fire hydrant protection guard rails and posted "No Parking - Fire Lane" signs, he/she should travel along Winding Way East. It is also a private, substandard fire access road, located less than 1/2 mile east of Ramirez Canyon Road.

Additionally, ongoing remodeling and enlargement of homes fronting the roadway often includes landscape and structural upgrades such as garden walls, ornamental shrubs, and irrigation systems that encroach further into the 40-foot-wide road right-of-way and thereby apparently permanently compromise the safety and necessary widening of the road. In many places vegetation has encroached onto the formerly paved sections of the road and has reduced visibility. The "clear to sky" safety requirements regarding vegetation clearance along the road have also been generally ignored. Even Coast Live Oaks can be dead-wooded and properly pruned and will respond to proper pruning with increased vigor.

Within the 11.5-foot-wide wooden bridge just south of Via Acero, one Sycamore tree is actually leaning onto the road, limiting access to vehicles not more than 12 feet in height (tree marked with sign noting 12-foot maximum height clearance).

Ramirez Canyon Road is posted with signs reading "15 mph Speed Limit" and "Slow Children at Play," and about twelve speed bumps have been installed to assist in enforcing the desired speed limit. Visibly absent along the road are "No Parking - Fire Road" signs as are normally required by the Fire Department along substandard roads.

The only circular turnaround for Fire Department equipment is located at the end of Ramirez Canyon Road in front of the Streisand Center. While substandard (the turn-around road is as narrow as 14 feet in several places), the road can be readily improved and leads around a large central "island". This large island, if also improved and fuel hazard reduction along the road properly and timely performed, can accommodate an additional "commercial" hammerhead turnaround and can also serve as a "fire-protected" "hunker-down" and staging area for fire emergency vehicle parking.

Creating a fire-safe hunker-down and staging area above the narrow, wooden bridge located just south of Via Acero is not only important for fire protection of the Streisand Center but is also of utmost importance for fire protection of all lots along Ramirez Canyon Road and Via Acero that are located above the bridge. As related to Streisand Center personnel the Los Angeles County Fire Department will not commit fire apparatus north of the

narrow, wooden bridge during wildland fire emergencies. This is totally understandable as life safety of its personnel and equipment safety is a top priority to any Fire Department in assessing fire protection strategies.

The Ramirez Canyon Homeowners Association should therefore make certain that hazardous fuels (vegetative and structural) are totally removed at all times extending from the bridge to the turn-around. The Park Ranger at the Streisand Center could also make it a priority of a fire evacuation plan to assure that the exposed wooden bridge is foamed in any serious wildland fire emergency that may endanger the area.

The Old Topanga Fire of November 1993 is a reminder of what can happen if Strategic Fire Protection Planning does not take into account the closure of roads such as by the burning of wooden bridges. When the wooden, seemingly indestructible bridge across Las Flores Creek caught fire as the firestorm swept past it, residents that attempted to outrun the fire in their cars became trapped. One desperate resident drove over the burning bridge while others had to turn around and drive back up into the fire area over Rambla Pacifico and Las Flores Canyon Road to escape the heat and seek medical attention. However, there is presently no secondary access road in Ramirez Canyon that would allow desperate people to head north through a burned-over fire area if they have become trapped by a burning bridge.

As far as turn-arounds are concerned the intersection of Delaplane and Ramirez Canyon Road qualifies as an intermediate residential turn-around but its presently limited radius of about 25 feet makes it difficult for fire vehicles to turn around without backing up. There are also several areas along the road where private driveways meet the road at opposing sides that, if improved by the Homeowner Association, could qualify as intermediate turn-arounds.

Turnouts and minimum fire hydrant road widths (and hydrant guards) for all hydrants could also be readily provided without retaining walls--except perhaps for the hydrant north of the cattle tunnel--if the road were even minimally improved and, where feasible, encroaching vegetation (along with some private irrigation equipment) removed "clear to sky," especially underneath power lines.

3. General Overview: Fire Access Roads within the Streisand Center

Maps 2A, 2B, and 2C show the access road system and its approximate dimensions within the Streisand Center and to individual buildings. As indicated on the maps, the main access road with its moderate grades leading to the individual parcels as well as the steep roads leading up the hill to individual structures are concrete-surfaced. Other roads within the canyon leading to individual structures are surfaced with stone or decorative brick pavement.

Individual buildings are marked with brown color and are identified as to the number of stories and main entrances. Distances of 30', 100', and 200' from these structures are marked by red, purple, and green respectively to provide minimum guidelines for removal of vegetative fuels. Present code turn-arounds for new single-family residences (hammerheads, intermediate turn-arounds) are indicated by a solid red line and conceptual/potential turn-arounds with broken (dash) lines. Road widths as well as road grades are also shown.

As indicated on Map 2A, the entrance stone portals provide a 13-foot-wide paved passageway to the Center. However, an electrically operated gate reduces this passageway to about 12 feet. Driving north past the gate, a retaining wall protecting a small Coast Live Oak juts into the road, reducing it momentarily to 11.5 feet. Since the tree is dead it will be removed and the road widened to its minimum paved width of 13 feet along this location. The concrete access road leads for about 115 feet from the entrance gate down into the creek and over an Arizona crossing, which measures 16 feet in width. From the edge of the concrete Arizona crossing there is an approximately two-foot drop-off into the creek which should be marked by caution signs identifying the potential drop-off should one veer off the road. The maximum grade of 8% extends for about 45 feet along the road.

Northerly of the Arizona crossing the road climbs out of the creek at a steep 20-21% grade, which extends for about 55 feet, and widens to 18 feet. Thereafter the road "levels out" to 11% grade for the next 30 feet and extends into a 38-foot-wide intersection. This intersection can serve as an intermediate turnaround and provides access to an unpaved parking area measuring approximately 65 feet by 30 feet wide with an adjacent 28-foot x 28-foot cleared pad and another 30-foot x 24-foot parking extension. A 10-

foot-wide short dirt road at less than 15% grade leads to another 110-foot-long by 24-to-28-foot-wide level, open-space area southerly of the Art Deco house driveway.

A 15.5-foot-wide and 90-foot-long access driveway with a grade of 20% for the first 75 feet before leveling out branches to the right off the 38-foot-wide intersection and leads uphill to the Art Deco house. The driveway widens to 30 feet in front of the building and leads past an 18.5-foot-wide, gated entrance to the 26-foot by 42-foot unpaved, level parking area. The two gates reduce the entrance width to 16'-9". The near-level access and parking space configurations do not quite meet the required turn-around dimensions for larger fire apparatus and it would be difficult for a pumper to use the first section of the steep dead-end road leading past the gate up to the level organic garden area to back up and turn around. The initial 75 feet of this dead-end road climb at a very steep 30% grade towards the level but soft garden area, which can not substitute as a turn-around. A caution sign should therefore be permanently installed at the base of this incline stating "No Trespassing. Caution. Dead-End Road. No Turn-around" or similar language.

As indicated on Maps 2A and 2B, from the 38-foot-wide level intersection an 18-foot-wide concrete road which narrows within a few feet to 15 feet and then to 13 feet at the viewing stand for the tennis court leads between the tennis court and the Art Deco house up the hill to the Peach House, a total length of about 450 feet. Initially the 'canyon road' has a grade of 8% up to the steps of the Tennis Courts and Art Deco House, a distance of 95 feet. To the pool drain along the road, or a distance of another 106 feet, the grade is reduced to 5%. From this point, the steep road leading straight uphill to the Peach house branches off the canyon road that terminates at the fire hydrant.

As the road leads uphill, it has a grade of 12% to the rear entrance of the Art Deco House (where the 25,000 - 30,000 gallon pool is located), a distance of 55 feet. Thereafter the grade decreases to 9% for 27 feet before increasing to 22% for the next 100 feet and 26% for the remaining 68 feet before widening and leveling off near the top or roof level of the Peach House. As the road reaches the large 'pad' behind the Peach House (potential turn-around) it turns sharply to the right and continues uphill for

another 175 feet, eventually narrowing to 10 feet in width before reaching the level pad of the Caretaker's House. The first 50 feet of the road have a 20% grade. Thereafter the road changes grade to 16% for the next 64 feet before leveling out to 3% as it leads to the old Caretaker's House.

As indicated on Map 2B a concrete-covered pad and road directly behind the Peach House provide enough space for a tight but not level residential turn-around. From there, the concrete-covered pad continues for another 22 feet past the 21-foot-wide entrance to the level gravel-covered parking lot of the building. The level parking lot has somewhat the dimensions of an oversized residential intermediate turn-around with additional room for the approximately 4,500-gallon capacity water tank earmarked for fire protection. As shown on Map 2C, a 10-to-12-foot-wide gravel-covered road leads from the gravel-covered parking area down to the garden area north of the Barn House. Road grades are 5% for the first 50 feet, 12% for the intermediate 100 feet, 16% for the lower 100 feet and 18% for the last 35 feet.

Returning back to the intersection of the canyon road with the steep road leading uphill to the Peach House, Map 2B indicates that the road in the canyon continues straight north at near-level grade to the 4" fire (clean-out) hydrant. Two access driveways lead to the Barwood House across two stone bridges measuring 16.5 feet and 10.5 feet in width with no turnarounds but parking provided beyond the bridges. However, if the wooden storage structure at the north end of the Barwood House would be removed, Type 4 engines or Fire Patrols could readily turn around.

From the hydrant area the road continues past a 15'-6"-wide access gate onto the 115-foot-long and 16-foot-wide access driveway to the Barn House (Map 2C). Even though an approximately 28-foot x 30-foot parking area has been provided (only partially useable because of an overhanging Sycamore tree), present residential turn-around driveway dimensions are not met because the driveway narrows to a 10-foot roadway as it turns towards the Barn House.

While fire hydrants are not provided adjacent to residences (as required by present code), all parts of residential structures can be reached from individual parking lots by fire hoses not exceeding 150 feet in length. The

exception is the Barn House where the distance would be 200 feet. Despite being generally narrow and having steep uphill grades, the road layout has the positive feature of providing two access routes to all structures except for the Caretaker's residence.

It must again be pointed out that the present Streisand Center consists of six individual parcels. When Ms. Streisand bought the initial residence in 1973 and the remaining residences in 1974, Ramirez Canyon Road still extended to the 4" hydrant near the base of what is now called the Peach House.⁵ Four of the original parcels consisted of single-family residences with houses dating back to the 1950's. Soon after purchasing them Ms. Streisand combined the six parcels into one management unit and started remodeling some of the houses as well as improving and surfacing the roads. She also installed the private entrance gate.

4. Fire Protection Water System

As outlined by Water District 29 personnel, the water system for Ramirez Canyon Road is a loop system which, by its design, provides more dependable water pressure to the residences in the area than a dead-end line. From the water main at Pacific Coast Highway⁶ a 6"-diameter water line runs northerly up Ramirez Canyon Road, turns left on Via Acero, and runs underneath Kanan-Dume Road along Cavalleri Road where the line increases to 10" diameter. From there a 12" diameter line leads back south towards PCH and connects to the 16" water main. A dead-end stub line also leads down Kanan-Dume Road but does not tie into the main along the highway.

As verified by the 6" upright steel nipple of the fire hydrant in front of the entrance to the Streisand Center, the 6" water main running along Ramirez Canyon Road probably extends beyond Via Acero to this point. From there a dead-end line believed to be about 4" in diameter leads further north into the Center and probably dead-ends at the base of the Peach House building in a 4" flushout hydrant⁷ (4" main with 4" upright and 1-1/2" Y feeding

⁵ This 'Streisand Center' hydrant at the base of the Peach House dates back to the earlier days of Ramirez Canyon Road and marked the end of the private road.

⁶ The water main supplies the immediate water needs along PCH. The gravity storage water tanks in Malibu are fed by the water main along PCH and basically serve the canyon areas.

⁷ Fire Hydrant: A 6" x 4" x 2-1/2" fire hydrant head supported by a 6" upright steel pipe nipple fed by a water main of minimum I.D. of 6".

two 1-1/2" hoses). Such a "flushout" hydrant supported by a 4" main can only supply a maximum water(fire)flow of 600 gallons per minute (gpm) irrespective of the pumping capacity of a firetruck hooked up to the hydrant, because the watermain limits the flow capacity.

The fire hydrants along Ramirez Canyon Road, supported by the 6" feeder line, can provide a maximum fireflow of 1,000 gpm or the very minimum required for structural fire protection of single family residences.⁸ However, none of these are actual code hydrants by present County Waterworks District 29 definition because the 6" upright steel pipe nipple supports only a 6" x 3" fire hydrant head instead of a 6" x 4" x 2-1/2" head (Appendix 4). According to this present definition the only "code" water hydrant is found at the circular turnaround in front of the Streisand Center.

County Water Works District 29 considers the watermain system within the Streisand Center a private system.

II. Fire Protection at the Center

1. Improved On-Site Fire Protection System

While there is no immediate solution to the substandard private access road leading to the Streisand Center that the Center itself could address, the Conservancy can greatly improve the approximately 55-foot-radius circular turnaround road in front of the Conservancy entrance gate and provide an emergency staging area/safe area/hunker-down area within the large island of the turnaround. The circular road surrounding the central island could be improved to a minimum width of 20 feet (it already measures in excess of

Smaller diameter line flushout heads were used in the past on dead-end lines. However, they do not meet Fire Department flow standards and have been done away with. Present Los Angeles County Waterworks District standards require minimum 6" lines to feed standard fire hydrants that provide minimum fireflow requirements.

⁸ The Insurance Services Office's "Fire Suppression Rating Schedule" (ISO 1980), provides guidance for estimating fire flow requirements for specific structures for insurance rating purposes and provides for the possibility of a second simultaneous (structural) fire. Based upon the one and two-story single family home configurations in the canyon that are generally separated by thirty feet or more, (minimum) suggested fire flows would be about 1,000 gallons per minute (gpm). The ISO suggests that this fire flow be available with water consumption at the maximum daily rate. At 1,000-gpm fire water flow, a two-hour minimum flow duration is required, requiring a daily (water tank) reservoir of approximately 1.44 million gallons as backup to the PCH line.

28 feet at the fire hydrant near the entrance gate to the Center), with the improved island itself providing an additional near-level staging/fire-safe/hunker-down area of approximately 60 feet x 100 feet. Fire-prone ornamental conifers, a nearby Washingtonia palm and some native shrubs would need to be removed and nearby Coast Live Oaks further deadwooded to complete a fire-safe setting. This would provide a vitally needed and strategically located staging/safe area for fire protection planning and emergency evacuation for the Ramirez Canyon area above the bridge. The large safe area within the island protected by the circular turnaround road could serve as refuge for residential and fire emergency vehicles trapped above the bridge or forced to retreat back up Ramirez Canyon Road because of unsafe conditions at, or sudden closure of, Ramirez Canyon Road. This would also set an example for the community as well as individual property owners adjacent to Ramirez Canyon Road and Via Acero on how to assist in creating a more fire-safe community.

Within the center itself the Conservancy is also in the process of installing an on-site fire-protection system not required by fire code to mitigate:

- a) the substandard fire emergency access road conditions found both within and outside the center;
- b) the potentially limited and uncertain water supply for wildland fire fighting and protection of structures;
- c) the safe evacuation from the Streisand Center if necessary; and
- d) the protection of daytime staff and visitors.

Foaming of exposed or burning structures rather than attempting to fight fire with limited and uncertain water supplies has often made the difference in protecting and saving structures during wildland fire conflagrations. This was efficiently demonstrated during the 1993 fire conflagrations in the Southland inclusive of Malibu by CDF and Forest Service wildland fire fighting Type 3 and Type 4 engines⁹ or patrols that were equipped with foam injectors. Soon thereafter structural-trained fire departments inclusive of the County of Los Angeles Fire Department adopted this technology for wildland fire fighting and structural protection.

The Chief Ranger of the Mountains Recreation and Conservation Authority, who lives on site, has emphasized foam technology and standby fire emergency equipment for fire fighting and structural fire protection.

⁹ Type 4 engine or Fire Patrol: generally a pickup truck with a "slip-on" 200-250 gallon water tank with foam injector unit.

The three water sources found at the Streisand Center are being equipped with foam capabilities and standby fire apparatus. The 4" clean-out hydrant south of the Peach House and north below the Art Deco House is being upgraded with a backflow device and a foam eductor system which makes it possible to pump foam off the hydrant pressure.

A 1969 Fire Truck with foam eductor unit is stationed permanently on site (maximum capacity 750 gal/min at 150 psi). It will be used to draft water from the approximately 25,000 to 30,000 gallon Art Deco Pool (pool located along the northwest side of the Art Deco House) to provide fire protection for the immediate area. If necessary, the fire truck can also be used to run a supply line from the pool to the 4,500-gallon water tank located just east of the Peach House. In this case the 11-hp pool "fire pump" can be used as an independent fire protection system. The pump will then be used to draft water from the pool which will be mixed with foam through foam eductors located on the discharge side of the hoses. As indicated on Map 2B and Map 3, gravity-fed water from the pool is also supplied at a standby with a 2-1/2 valve located below the pool at the base of the slope adjacent to the canyon access road.

To make the water more efficient as a fire-fighting agent, 125 gallons of wildfire foam concentrate are stored on site. The foam concentrate functions both as a foam extinguisher (oxygen barrier and insulator) and surfactant (penetrating wetting agent). Optimum mixture ratios for ground operations are 0.3% or one gallon of foam for 300 gallons of water, greatly expanding the potential and use of the 30,000 to 34,500 gallons of on-site water storage for fire fighting.

As indicated in Appendix 5, the County Fire Department requires on-site water storage capacity if a site does not have a public water supply. While water is provided to the Streisand Center by Water District 29, the chart is nevertheless useful for "what if" scenarios and indicates that a one-story single-family residence measuring 7,500 to 8,000 square feet must have 4,500 gallons of water storage reserved for fire fighting in addition to 2,000 gallons of domestic storage. The total square footage of all structures at the Streisand Center does not exceed twice the square footage quoted above. The available water supply (water tank and pool) would be adequate in fire emergencies if the public water supply would fail.

Nevertheless, it would be prudent to engage in a three year fire fighting improvement for the site which can be done quite inexpensively and would focus on providing a large gravity-fed fire fighting water supply that would be replenished from the Water District 29 water main that feeds the hydrant near the base of the Peach House. It is recommended that an additional 10,000-gallon water tank that can provide water in fire emergencies through gravity flow be located at the highest accessible level elevation within the Streisand Center, namely the area to the north slightly above the Caretaker's House. Presently a tall, highly fireprone Fan Palm scheduled for removal is located in the general area. A line for a hydrant should be run from this tank towards the Caretaker's House and an additional line should be run to the water tank behind the Peach House, thereby connecting both tanks into one system.

Such a basic and cost-effective three-year fire improvement plan would all but eliminate the need for hoselays along steep driveways and for fire personnel to accidentally expose themselves to the heat energy released and carried by unpredictable wind currents in steep mountainous terrain. It would also provide the Caretaker's House (the Chief Ranger's residence) and the Peach House with an independent supply of standby water for fire fighting.

As part of standard operating and safety procedures, a ranger with a Type 4 engine (Fire Patrol) with a "Slip-on" 200-gal. water tank with foam injector unit will be stationed on site during all large "events" or events where over 100 people can be expected. Furthermore, the two regular staff members present at these events are familiar with the site and trained in evacuation procedures.

The "Red Book" carried by the rangers of the Mountains Conservation and Recreation Authority for site protection and evacuation is also being updated for the Streisand Center to reflect "Strategic Fire Protection Planning". Appendix 6 shows excerpts for the Streisand Center. Additionally, site maps 2A, 2B, and 2C which were developed for this report will be added to the site-specific fire protection plan for the Streisand Center so that the rangers as well as "outside" department personnel can be provided with precise maps that indicate the location, construction, and size of all structures on site, as well as all access roads with road widths and

grades. Furthermore, an updated site plan (no scale) that covers the whole area on one map has been developed (Map 3) that shows fire fighting apparatus, water sources such as hydrants, pool, and watertank, desired hose lays to individual buildings, as well as electrical and gas shut off locations. Additional maps being updated show the layout of individual buildings with ingress and egress routes.

Here, it must be emphasized that, while strategic fire protection planning is important, fire prevention is even more critical. That is the reason while intensive work has been initiated within the complex that focuses on converting the site into a park-like wildland fire-safe area as much as feasible through removal of flammable vegetation and man-made fuels as outlined in the following chapters.

2. Removal of Flammable Vegetative & Landscape Fuels

As indicated on Maps 2A, 2B and 2C, in addition to the paved but generally unobtrusive road system, the Center was initially designed within garden settings that were to provide an open but nevertheless secluded feeling. Level garden areas, many walkways, stone walls and park-like lawn areas provided fire-safe settings within the Center as well as within close proximity of the buildings. Except for the park-like lawn settings, much of this open feeling had been reduced over time by the relentless growth of often highly flammable ornamental vegetation.

An intensive attempt at fuel modification and removal of flammable vegetative fuels within 200 feet of structures is being undertaken to protect the center from wildland fires. An effective fuelbreak extending between 100 to 200 feet northeast of the Barn House and Peach House has been initiated through the removal of native vegetation as well as of the extensive, now mature and overmature Monterey Pine plantings. Within the complex itself these relatively short-lived pine trees are being thinned out and limbed up to 15 to 20 feet above the ground. The highly flammable fronds from the extensive Royal Palm and Date Palm plantings have been removed and a maintenance schedule is being set up for their continuous removal.

Understanding exposure distance and the amount of heat energy produced by burning landscape vegetation as it proliferates around a structure in

wildland areas is critical in safeguarding it from fire and understanding and appreciating further recommendations in pruning or eliminating flammable landscape vegetation. Dead vegetative fuels less than ¼" in diameter (also called fine dead fuels) are the driving forces in carrying and spreading a fire and providing the wildland or wildland-urban interface fire with its fire characteristics.

For example, for a point source of radiation, such as a burning tree or shrub, the heat intensity decreases with the square of the distance from the source. Thus, a tree burning within 20 feet of a window or flammable wood siding or a flammable wood, non-boxed roof overhang transfers only one-fourth the heat to the house compared with a tree burning within 10 feet and only one-sixteenth the heat compared with a tree within 5 feet. However, a distance of 20 feet is still not enough to safeguard a house under extreme fire weather conditions when analyzing the heat intensity that may be produced by burning vegetation.

For a line source of radiation, such as a hedge or row of trees, the heat intensity only decreases with the distance instead of the square of the distance and a house receives this heat from all points along the line. Thus, the heat intensity received 20 feet from a burning hedge is still one-half that at 10 feet and one-fourth that at 5 feet. Breaking up the fuel continuity and creating limited, distant point sources of heat radiation rather than line sources is the key to fire protection in wildland areas.

Heat intensity generated by burning ornamental vegetation will demonstrate this point. Compared to 6" tall dead and cured grass, a 7-to-9-foot-tall and approximately 8-foot-wide unkept Bougainvillea hedge (a line source of radiation) can increase the flame length¹⁰ by as much as 1700% or 17 times (1.5' vs. 25'), fireline intensity¹¹ by 36,000% or 360 times (1.5 vs. 5,400), and heat per unit area¹² by 2,800% or 28 times (65 vs. 1,820).

As the Bougainvillea hedge gets larger and wider (and for comparison any selfshading vegetation), the interior crown dies and produces a mass of fine

¹⁰ Flame length: The visible function of fireline intensity or of the burning process.

¹¹ Fireline Intensity : Heat released per second from a foot-wide section of fuel extending from the front to the rear of the flame zone. It equals the heat per unit area times the rate of spread.

¹² Heat per Unit Area: The heat released from a square foot of fuel while the flaming zone is in this area.

dead fuels. When the fine fuels are 100% dead as is the case of large, dead fronds from Royal Palms, Date Palms and the tightly packed Washingtonia (Fan) palms whose fronds can remain on the tree for decades, the sudden heat energy released when the last-named tree catches on fire can often create a "fireball" inferno 'incinerating' adjacent flammable fuels in all directions. Thus the heat released per unit area from the burning palm fronds of a Washingtonia Fan Palm not pruned properly for years (with each frond representing a largely fine dead fuel mass representing one to 1-1/2 pounds of oven-dry weight with about twenty such fronds hanging upside down per foot of trunk) can again exceed by several times that of the before-mentioned Bougainvillea hedge.

The alleviate maintenance and fire problems, the Fan Palms within the Streisand Center should be removed with immediate emphasis being placed on removal of the remaining mature (and unpruned) specimens within 100 feet of structures and east of the entrance gate. If any are to be kept they must be pruned on a yearly basis clean to the trunk. Royal Palms whose large dead fronds can measure as much as ten feet in length, must be pruned at least twice a year to assure that no dead fronds are present on the trees during the fire season. From their initial plantings of about seven-foot spacing, it may also be advisable to thin them out to a fifteen-foot spacing. Date palms, such as along the driveway leading to the Art Deco House, should be pruned not less than once a year. Smaller and slower growing palm species should not be overlooked as can accumulate much dead fuel that must also be removed.

Pine trees are similar in their effect on fire behavior but produce very fine dead fuels with a high surface-to-volume ratio that can readily carry a fire and can quickly increase its intensity and destructiveness. A single pine tree overhanging a roof or rain gutter bears this out. The needles produced are high in resin and burn readily when their fuel moisture drops (dead or dying needles) or when exposed to heat. Regular maintenance of the few pine trees that may remain at the Center after fire hazard reduction has been completed must include continuous removal of pine needles.

Evaluating the remaining pine plantations within the Streisand Center for flammability and prioritizing their removal where necessary is therefore of top priority. First, the Monterey Pines along the slopes east of the Barn

House have been pruned up to approximately 15 to 20 feet above the ground and are the dominant trees with no co-dominants nor understory trees present except for a few Coast Live Oak saplings that do not present flammable fuels. Individual pine tree canopies are quite thin and do not create a continuous aerial fuel load. Groundcover consists largely of vinca. These trees, except for a few larger ones that are dying and contain still much dead, fine, aerial fuel, can be kept on site until more Coast Live Oaks become established. Only dead or dying trees need to be removed.

Dying and deteriorating Monterey Pine tree specimens are also still located directly north and south of the Peach House. These trees present an extreme fire hazard and are slated for immediate removal.

While beautiful, the mature Canary Island Pines within close proximity along the slopes southwesterly of the Art Deco house present a much greater fire hazard than the limited Monterey pine plantings remaining easterly of the Barn House. The overtowering, dominant Canary Island Pines have pushed through a canopy of former co-dominant trees and have largely achieved crown closure. The former co-dominant trees are now forming an understory and are the recipient of the heavy litter production of the long pine needles dropping from above. The result is that the canopies of shade-tolerant understory trees are draped with pine needles, and shade-intolerant trees such as Brazilian Pepper have largely died back, producing much fine dead fuel (this was also the case with the Brazilian Pepper trees and smaller Monterey Pine trees once the Royal Palms became dominant, formed an overstory and shaded them out). From a fire safety perspective the Canary Island Pines should be removed, allowing much less flammable understory trees of smaller stature such as an occasional Virginia Box tree, Rubber tree, etc., to again become the dominants.

The Canary Island Pines as well as Monterey Pine plantings also extend onto the wooden tennis court viewing deck and the landscape areas between the tennis court and the Barwood House. These trees should now be selectively removed to break up their fuel load and to allow the Coast Live Oaks to become the dominants again. While some of these Coast Live Oaks need further pruning and dead-wooding such as the oak to the right of the entrance gate, most have been well maintained in the past and their canopies

largely pruned up to 10 to 20 feet above the ground, thus providing very little fine dead fuel.

As far as continuous, general clean-up is concerned, the Art Deco House and the Peach House must receive continuous attention as they will provide emergency shelter. Specifically, the fine dead fuel has to be cleaned from the plantings on the slopes northeasterly of the Art Deco House. The removal of Pepper trees along with the pruning of Bougainvillea hedges should put the emphasis on the generally fire-safe Citrus trees originally planted there. Even the Giant Bird of Paradise trees planted adjacent to the Art Deco house are producing flammable litter that requires regular maintenance.

3. Man-made Structural Fuels and Their Design and Location

As indicated on Maps 2A, 2B, and 2C, one of the positive design features of the Streisand Center is that its five buildings are located on four different lots and therefore separated by at least 100 feet distance from each other so that structural exposure distance¹³ is minimized, conserving the more limited and uncertain water supply during wildland fire conflagrations and accommodating the lower water pressure available on site.

The five single-family structures are the Art Deco House, the Barwood House, the Peach House, the Barn House and the Caretaker's House. The buildings date back to the 1950's and served as single-family residences until the early 1970's when they were purchased by Ms. Streisand and updated.

None of the buildings was built with consistency to present Los Angeles County fire codes for high or extreme wildland fire hazardous areas. The present code, not yet approved in its entirety even by the City of Malibu, requires 1-hr exterior nonflammable materials (such as stucco), dual-pane windows, Class A roofs such as tile or cement shingle, boxed eaves, and interior sprinklers for new construction.

¹³ Fire conflagrations are often caused by structural fuels (i.e., houses) in close proximity to each other. A single story house burning as much as sixty feet upwind of another one could readily release enough heat energy to ignite flammable construction and flammable native and ornamental vegetation on an adjacent, unprotected house.

The wooden two-level viewing stand at the tennis court could be considered an accessory structure and should also be kept in a fire-safe condition through removal of flammable vegetation inclusive of pine trees. Of concern is also the highly flammable wooden shed south of the tennis court which houses the electrical panels for the Barwood House. It should be reconstructed with fire-safe materials.

After extensive fuel modification has been completed on site as recommended in this report, and if the vegetative fuels surrounding the structures and viewing stand are maintained year-round in a totally fire-safe manner, the Art Deco House would be the building least exposed to wildland fire and should be able—even if unattended—to survive an occasional high intensity wildland fire sweeping down the canyon from the north. This is also true for the Peach House with its tile roof and stucco siding. However, it is not as accessible from the entrance gate as the Art Deco House and faces some flammable native vegetation in a steep drainage northerly of the watertank. The native vegetation should not be removed (but can be sparingly thinned within 30 feet of the retaining wall) because of potential excessive runoff and related watershed problems. Regular maintenance, occasional upgrading, and even seemingly minor fire-proofing must be performed on a continual basis on all buildings but especially the Art Deco and Peach Houses which can be used for on-site emergency fire shelter.

Since the roof is the part of a structure most exposed to wildland fire, all roofs must be repaired and upgraded on a regular basis. The near-level roof of the Art Deco House consists largely of rolled and seamed asphalt and is rated as being able to tolerate moderate heat intensity as compared to tile roofs that can withstand high heat intensity. It also consists of windows that can provide a point for fire entry if exposed to heat but more likely if broken by a falling tree or palm branch or airborne branches. The Barwood House has been roofed over with non-fire-stopped tile without removing the old roof and is again in need of repair. It should be properly re-roofed. The attached storage building has a wood roof which must be replaced. The Peach House has only a partially fire-stopped tile roof. Tiles should be fire-stopped such as at the eaves so that birds can not nest there. Both the Barn House and Caretaker's House have asphalt shingle roofs in need of replacement.

Because of its wooden exterior, non-boxed wooden eaves, and barn-like design and construction, the Barn House seems the building most vulnerable to fire. However, because of its location in a park-like setting with lawns and garden areas surrounding it, it could survive a wildfire if attended and any firebrands are extinguished after the firefront has passed. The deteriorating single-story Caretaker's House, because of its remote location along a sidehill cut with uphill and downhill facing slopes and its wooden exposed eaves, seems the least likely to survive a fire whether attended or unattended. It is the Chief Ranger's residence and extensive efforts at modification and creation of defensible space around the building are ongoing. Its positive features are that it has stucco siding and that the rear of the building sits low against the cut slope (i.e., a 6-to-8-foot-high stone wall along the uphill, rear side of the building protects this side up to the eaves).

The two-story Barwood House has wood siding and exposed wooden eaves and is located at the foot of steep slopes. The foot of the slope had been cut and protected by a stone retaining wall which actually provides the exposed uphill-facing first story of the building with some fire protection in that it is located "below grade" and therefore protected from fire exposure if flammable litter such as sycamore leaves are cleared on a regular basis.

The three-and-one-half to four-story split-level Peach House has two separate entrances to the first, third, and fourth stories. Its second story over the first story could be considered a loft. The building has a tile roof and stucco siding and was built recessed or stepped into the hillside so that the second, third, and fourth levels are covered with their own roofs and provided with their own entrances and exits. The fourth story tile roof is at about the same elevation as the access road and parking area which provide an effective 40-foot-wide firebreak. The watertank and the on-site fire engine are located here. This totally protects the rear of the building but leaves its sides somewhat exposed. However, removal of all flammable ornamental fuels on the exposed three sides (downhill and right and left sides) inclusive of the generally brittle, messy and litter-producing Silk Oak trees would recreate a park-like, wildland fire-protected setting.

III. Fire Evacuation

The preliminary investigation of access to the site has indicated that paved and safe overland secondary emergency evacuation routes do not exist (but could be provided from Via Acero to Kanan-Dume Road) and that all evacuation of the site and from lots within Ramirez Canyon must proceed via Ramirez Canyon Road.

This substandard, private road can be partially or totally blocked off or made unsafe to travel by many scenarios, such as excessive smoke blanketing the bottom of the canyon, a jack-knifed horse trailer, a stationary pumper hooked up to a fire hydrant trying to save a house engulfed in flames, downed power lines, vegetation burning adjacent to or overhanging the road,¹⁴ the steep access via Delaplane to Winding Way West blocked by an overturned fire truck, the cattle tunnel under PCH blocked by a large vehicle, and the wooden bridge south of Via Acero engulfed in flames.

One fire-trained ranger with a fire patrol truck with foam capabilities is assigned on site to any large weekend events, such as for example, a wedding. No guests are permitted to stay overnight. The two additional staff members are trained in evacuation procedures. If a wildfire is in progress anywhere in western Malibu the Fire Response/Fire Action Plan for the Streisand Center (excerpts are shown as Appendix 6) requires that two additional slip-on fire trucks (one from Temescal, one from the Southern Branch) are moved up to the Center along with rangers from the Southern Response Area in which the Streisand Center is located.

Because of its accessibility and present use as offices, the Barwood House is designated as the Center's Command Post.

Evacuation would be as per order and judgment of the ranger in charge and would be via the vehicles that delivered the people to the site. However, because of on-site fire-fighting capabilities, fire-safe hunker-down areas in the Art Deco as well as the Peach House that can accommodate 200 people for such emergency, a fire-safe park-like setting within the Center once the

¹⁴ The many conifers recently planted along Winding Way West near the corner of PCH and within close proximity to the road right-of-way may close off this escape route to PCH during their burnout period. as they age and mature in the future and become fire fuels.

fuel modification as outlined is completed, and the fire-safe staging area within the circular drive in front of the Streisand Center, evacuation is not a necessity but becomes a judgment call and depends on the situation encountered. In emergency situations it may therefore be more prudent to remain on site until the fire emergency passes, as evacuation must have a point of origin (The Streisand Center) and a point of destination (such as PCH). Having and seeking safe shelter is most critical for any evacuation plan.

The following situations would make it prudent to initiate evacuation:

1. Hazardous fuel clearance around the wooden bridge had been carried out and the wooden bridge has been foamed so that it is safe to pass over it.
2. A wildfire is in progress north of the site but is not expected to reach the site for at least one hour and Ramirez Canyon Road is not suggested, providing safe, unhindered passage.
3. Fire and/or police department personnel have arrived on site requesting evacuation via Ramirez Canyon Road ahead of a fire and are in contact with other personnel along the road, thereby assessing and providing safe passage.
4. A fire has bypassed the area and the road has been surveyed and found safe for passage.

The following situations would make it not prudent to initiate evacuation:

1. A wildland fire is burning in the general vicinity towards the Streisand Center, is predicted to arrive within one hour or less, and the road is starting to be congested. Typically by that time heavy smoke (which may also stall some cars) would be reducing visibility, and firebrands could also be a safety concern.
2. A fast-moving fire has bypassed the Streisand Center, has outrun emergency preparedness crews, and the rangers are the only emergency-trained person on site facing an uncertain road ahead without any neither backup personnel nor knowledge of the fire situation.
3. Heavy smoke makes visibility and evacuation difficult.

One must remember that, when faced with an uncertain wildland fire situation, it is important to seek safe shelter, relax and evaluate the situation, and wait until the fire passes.

IV. Summary

Ramirez Canyon Road is an approximately one-mile-long, substandard and generally poorly maintained dead-end road that terminates at the Streisand Center. An alternate access road over Via Acero used to terminate as a very steep and non-maintained dirt road at Kanan-Dume Road. The steep and non-paved upper section, for the most part, can only be accessed by four-wheel-drive vehicles and can not be considered as a secondary access road. Ramirez Canyon Road is largely level and could be immediately greatly improved and made much more safer by the Homeowner Association and individual homeowners without any assessments and with minimal cost for the benefits gained. Such immediate improvements which could be readily completed within a few months should focus on widening the road by removal of encroaching, largely ornamental vegetation (and occasionally irrigation systems) and providing "clear to sky" access where feasible. Intermediate turn-arounds, turnouts, and widening of the road to a minimum width of 26 feet for at least 50 feet along fire hydrants could also be readily established/reestablished with the assistance of individual residents at these locations. "No Parking - Fire Lane" signs and guard rails for fire hydrants could also be added with minimal cost.

Attempts at serious vegetation clearance along both Delaplane and selected sections of Ramirez Canyon Road have started in June of this year but may not be successful unless a serious effort is undertaken to cover the length of these roads, thereby opening up turn-outs and initiating turn-arounds. Actual road widening improvements would take more time, would be more costly and may require an assessment by the Homeowners Association or the City of Malibu.

The Streisand Center could assist in the road improvement efforts and in providing a code-upgraded and safe circular turn-around in front of its entrance gate. The large central island of this circular turn-around, if improved, could serve as a vitally needed staging area and "fire-safe" parking and hunker-down area for residents, fire personnel and equipment alike that are caught or had to retreat above the narrow, wooden bridge along Ramirez Canyon Road. Adjacent lot owners could assist with these efforts by removing flammable fuels inclusive of annual flash fuels for at

least 30 feet along the access road around the circular island rather than the minimum of 10 feet required by fire code.

The roads within the Center to the individual lots and buildings reflect the permissive and substandard road designs that were tolerated prior to the predictable, recurrent and destructive large-scale wildland fires of the 1970's and 1980's. They are also perhaps a reflection of the many code exemptions from standard road widths for access roads and driveways granted readily for many reasons by the County Fire Department prior to the disastrous Old Topanga Fire of November 1993, which again brought to light the inadequacy of non-standard streets and non-standard private access roads. Exemptions for access streets/roads to individual residences and driveways measuring 15 feet or less in width were readily granted for claims of excessive grading, topographic, environmental, geologic restrictions, or even financial hardship. Today, exemptions to providing twenty-foot-wide access driveways with residential turn-arounds to new structures as well as fire hydrants located close to the house from which all sections of the house can be reached by a 150-foot-long hoselay are rarely granted.

While generally narrow, it can be said that the road network to individual lots within the Center provides as many or more turn-outs than are presently located along Ramirez Canyon Road, which serves many more structures and parcels. However (as also recommended for Ramirez Canyon Road), the roads can be made much safer even with minimal cost by removal of encroaching ornamental vegetation which reduces visibility and makes turn-arounds more narrow than originally designed.

The low-pressure public water supply for fire fighting has been somewhat mitigated by utilizing the approximately 25,000-to-30,000 gallon pool as a fire fighting reservoir and providing an additional 4,500 gallon water tank earmarked for fire fighting. To make the water more efficient as a fire-fighting agent, 125 gallons of wildfire foam concentrate are stored on site.

A 1969 fire truck with foam eductor unit is stationed permanently on site (maximum capacity 750 gal/min at 150 psi). It will be used to draft water from the approximately 25,000-to-30,000 gallon Art Deco pool to provide fire protection for the immediate area and can also run a supply line from

the pool to the 4,500-gallon water tank located just east of the Peach House. In this case the 11-hp pool "fire pump" can be used as an independent fire protection system. The pump will then be used to draft water from the pool. Gravity-fed water from the pool is also supplied at a standby with a 2-1/2 valve located along the access road.

A three-year fire-fighting improvement for the site proposes to provide a 10,000-gallon watertank above the Caretaker's House (presently the Chief Ranger's residence) supplied with water from the water main and connected to the 4,500 gallon tank behind the Peach House. A line and a hydrant for the Caretaker's house would be provided from the new tank. A line from the old tank could also feed a hydrant for the Peach House.

Additionally, a ranger with a Type 4 engine (Fire Patrol) with a "Slip-on" 200 gal. water tank with foam injector unit will be stationed on site during all large "events" or events where over 100 people can be expected. Two additional engines and additional on-duty rangers are moved up to the Streisand Center according to the Fire Response Plan for the Center if a wildland fire is burning in the west Malibu area. This Fire Response Plan also provides detailed site maps showing road systems, structures, water sources, electrical and gas shut offs, and the layout of every individual building for ingress and egress and evacuation.

APPENDIX 1

COUNTY OF LOS ANGELES FIRE DEPARTMENT FIRE CODE STANDARD NO. 10.207 (A)

SUBJECT: STANDARDS FOR PRIVATE ACCESS ROADS
AND DRIVEWAYS FOR SINGLE-FAMILY DWELLINGS
(no public right-of-way)

APPLICATION: BUILDING SITES NOT SERVED BY IMPROVED
PUBLIC RIGHT-OF-WAYS

In order to develop or maintain an adequate level of fire protection for buildings constructed within the jurisdictional area of the County of Los Angeles Fire Department, access roads must be provided which will support Fire Department apparatus.

Roads which are public in nature and constructed to Road Department standards provide acceptable vehicular access. Private access roads including driveways, bridges, and culverts, may not be subject to standards which would insure access for Fire Department apparatus.

Therefore, the Fire Department has developed the following access standards which are consistent with Section 10.207 of the Fire Code (Title 32).

Section 10.207 of the Fire Code states in part: (a) General. Every building hereafter constructed shall be accessible to fire department apparatus by way of access roadways with an all-weather driving surface of not less than 20 feet of unobstructed width clear to the sky. The roadway shall be extended to within 150 feet of all portions of the exterior walls when measured by an unobstructed route around the exterior of the building. Provisions for turnoff and turnaround for fire department apparatus may be required where an access road exceeds 150 feet in length. Vehicular or pedestrian gates obstructing required access to the building shall be of an approved width and shall be provided only with locking devices and/or override mechanisms which have been approved by the Chief.

In order to accomplish the above code requirements, the roadway shall include the following features.

1. Surface

- a. Private access roadways having a grade of 10% or greater shall have a paved surface. The paving will be consistent with the Los Angeles County Road Department's typical inverted shoulder street section as shown in Figure 1. Alternative structural sections will be acceptable when accompanied by appropriate engineering calculations. The roadway should be

Private All-Weather Access Standards
for single-Family Dwellings
Page 2

designed for a T.I. (Traffic Index) of 4 (10 year) or maximum axle loads as shown in Section b(2) of this standard. Please note Section No. 8 of this standard.

- b. Private access roadways having a grade of less than 10% may use a surface other than pavement specified in 1 (a) if the proposed surface will support the weight and use of fire apparatus during inclement weather conditions. In making a determination as to the acceptability of the proposed road surface the following facts shall be considered:

- (1) Fire apparatus has a gross weight of up to 50,000 pounds.
- (2) Weight distribution is approximately 30% on the front axle and 70% on the rear axle(s). Axle weights will range from 9,000 lbs. to 16,000 lbs. on the front axle and 19,840 lbs. to 34,000 lbs. on the rear axle(s). The rear axle is of a dual tire configuration.

2. Width

The 20-foot minimum standard shall be adhered to with the following exceptions:

- a. Where geological or other restricting forces preclude the development of a full 20 feet of driving surface along the entire length of the access road and the access road does not serve more than two single-family dwellings, modifications may be made. A minimum of 15 feet in width with suitable turnouts at no more than 1/4 mile intervals and turn arounds at not more than 1/2 mile intervals may be acceptable, when in the opinion of the Chief, fire fighting or rescue operations would not be impaired.
- b. Where fire hydrants are required the access road width shall be increased to 26 feet for a minimum of 25 feet on each side of the hydrant location.

3. Length

All private access roads shall be extended to within 150 feet of all portions of the exterior walls of the first story of any building exclusive of accessory buildings under 1,000 square feet. This measurement shall be taken along the path of access (Section 10.207 Fire Code).

4. Grades

On paved private access roads the maximum allowable grade shall not exceed 15% except where the topography makes it impracticable to keep within such grade and then an absolute maximum of 20% will be allowed for up to 150 feet in distance. The average maximum allowed grade including topography difficulties shall be no more than 17%. Grade breaks shall not exceed 10% in 10 feet.

Exception: Grades may be increased where on-site fire protection systems approved by the Fire Chief are provided.

5. Curve Radius

Curve radii shall not be less than 32 feet. This measurement will be determined at the centerline of the road.

6. Drainage Control

Road drainage shall be evaluated by an engineering analysis of the site to determine that the proposed roadway is reasonably free of either sheet flow or concentrated channel flow to the extent that damage will not take place such as to impair its usability and capacity to support heavy fire fighting trucks and equipment. Any dip crossing, culvert, or bridge constructed shall be designed to accommodate the widths and grades listed above, be capable of supporting heavy fire department equipment, and be designed to withstand capital flood flows. Structures, other than dip crossing, across any major water course or within an established floodway shall be subject to the approval of the Flood Control District.

7. Public Right of Ways
 - a. Where the proposed access way lies within or crosses a dedicated or future dedicated public right of way, the Los Angeles County Road Department must approve the improvements.
 - b. If in the future the access road is to become a public maintained street, the above standards should be upgraded to Los Angeles County Road Department standards.
8. The above requirements shall be certified to by a licensed civil engineer on the attached form.
(2000-680)
9. Alternative to Access Standards.

When the proposed building(s) conform to all of the following requirements, the density of housing does not exceed one unit per acre, and in the opinion of the Fire Chief, firefighting or rescue operations would not be impaired, access requirements may be modified:

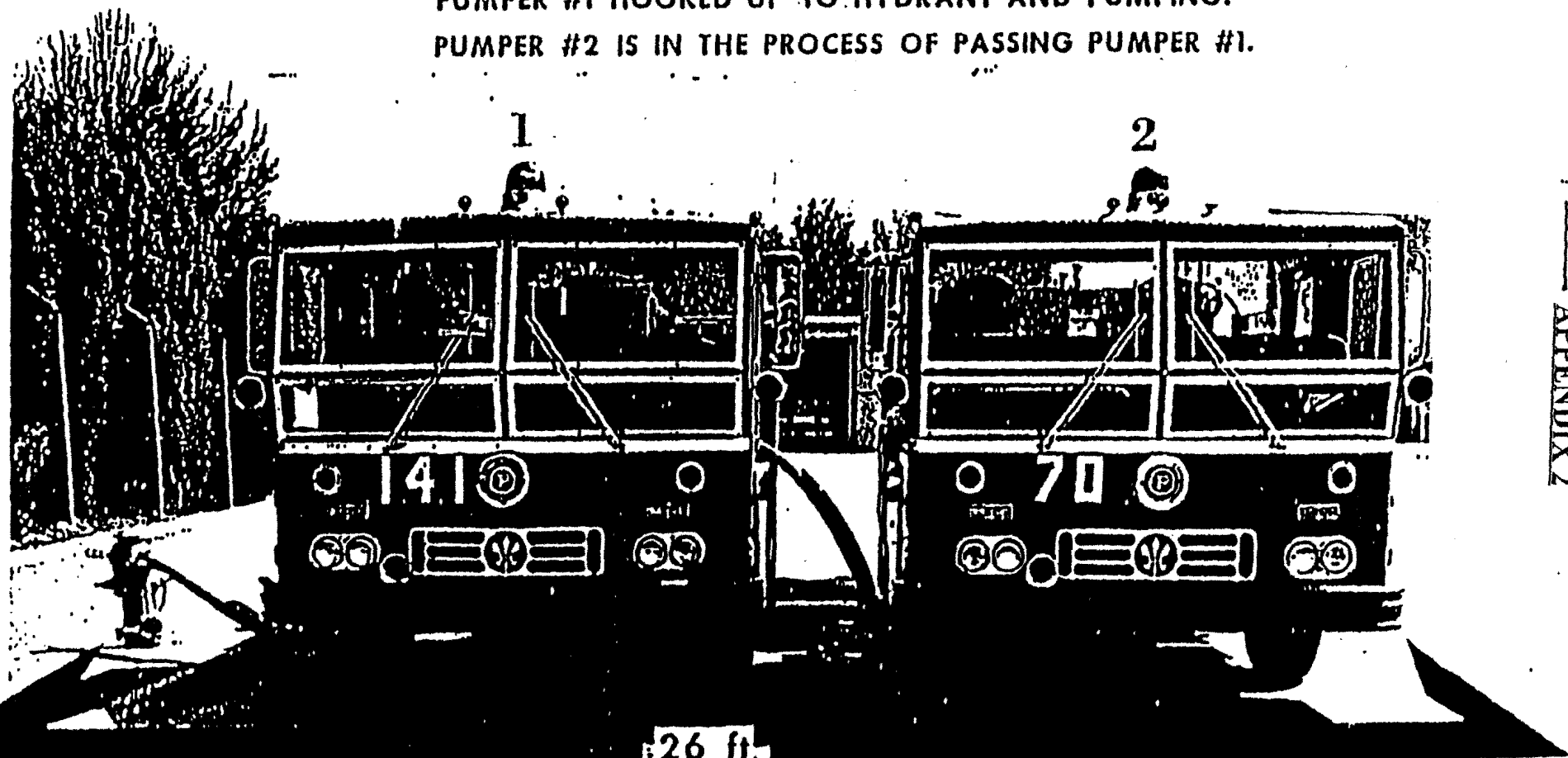
The proposed building must incorporate on-site fire protection facilities which will include a supply of water, fire resistant construction, interior automatic fire sprinkler system, and sufficient brush clearance. The sprinkler system shall be installed according to Regulation No. 19.

FIGURE #1

CONDITION:

PUMPER #1 HOOKED UP TO HYDRANT AND PUMPING.

PUMPER #2 IS IN THE PROCESS OF PASSING PUMPER #1.



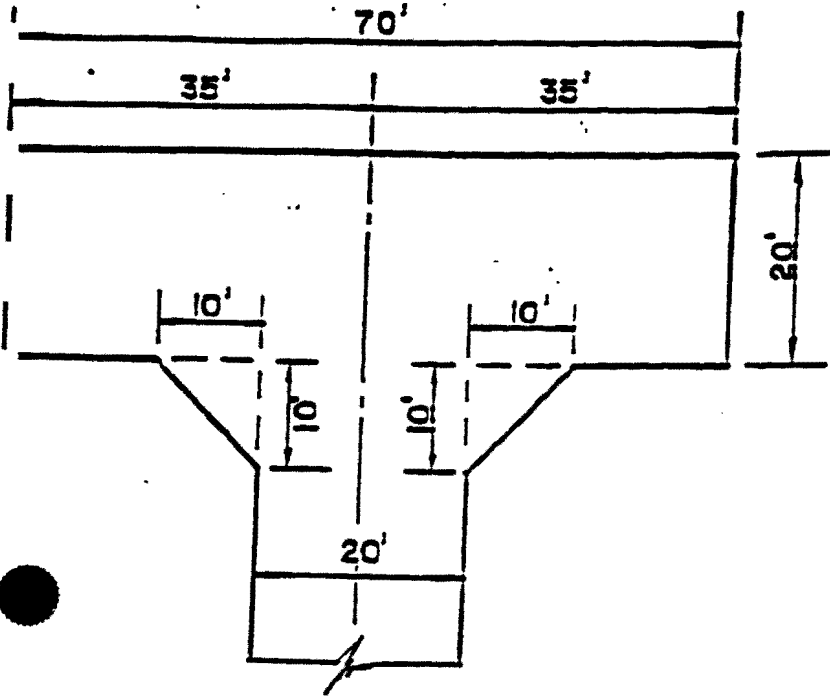
DISTANCE WILL VARY DEPENDING ON LOCATION OF HYDRANT



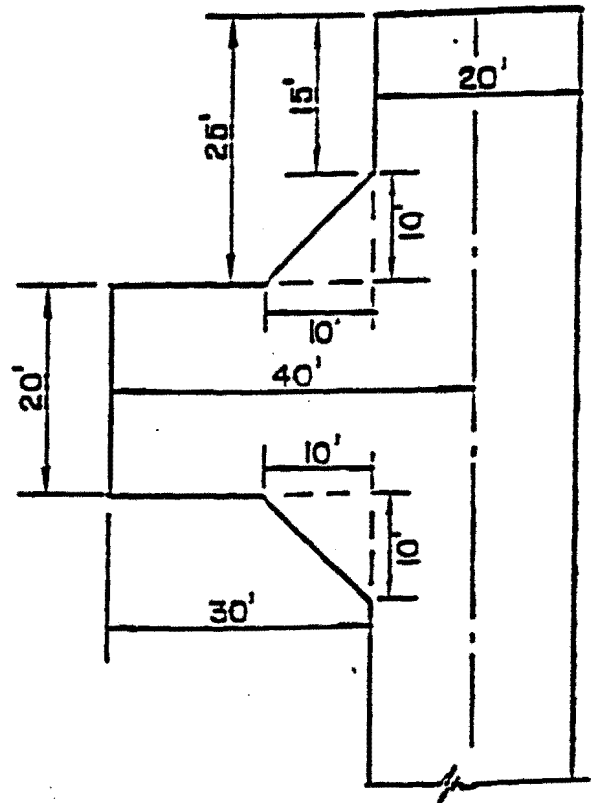


APPENDIX 3
COUNTY OF LOS ANGELES
FIRE DEPARTMENT
FIRE PREVENTION DIVISION

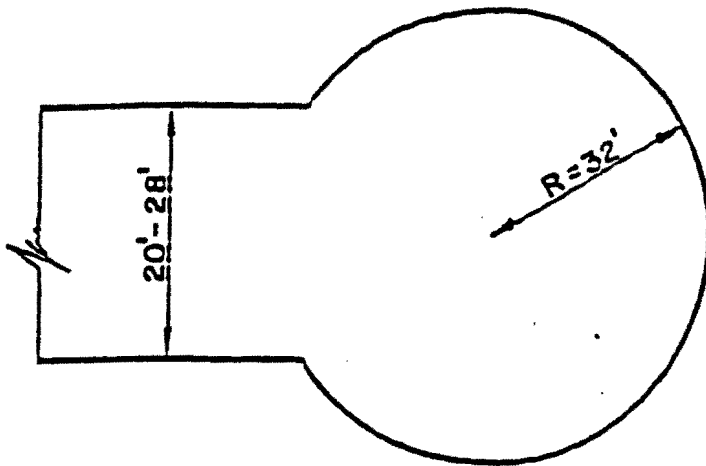
RESIDENTIAL TURNAROUND SPECIFICATIONS



HAMMER-HEAD
TURN-ARUOND



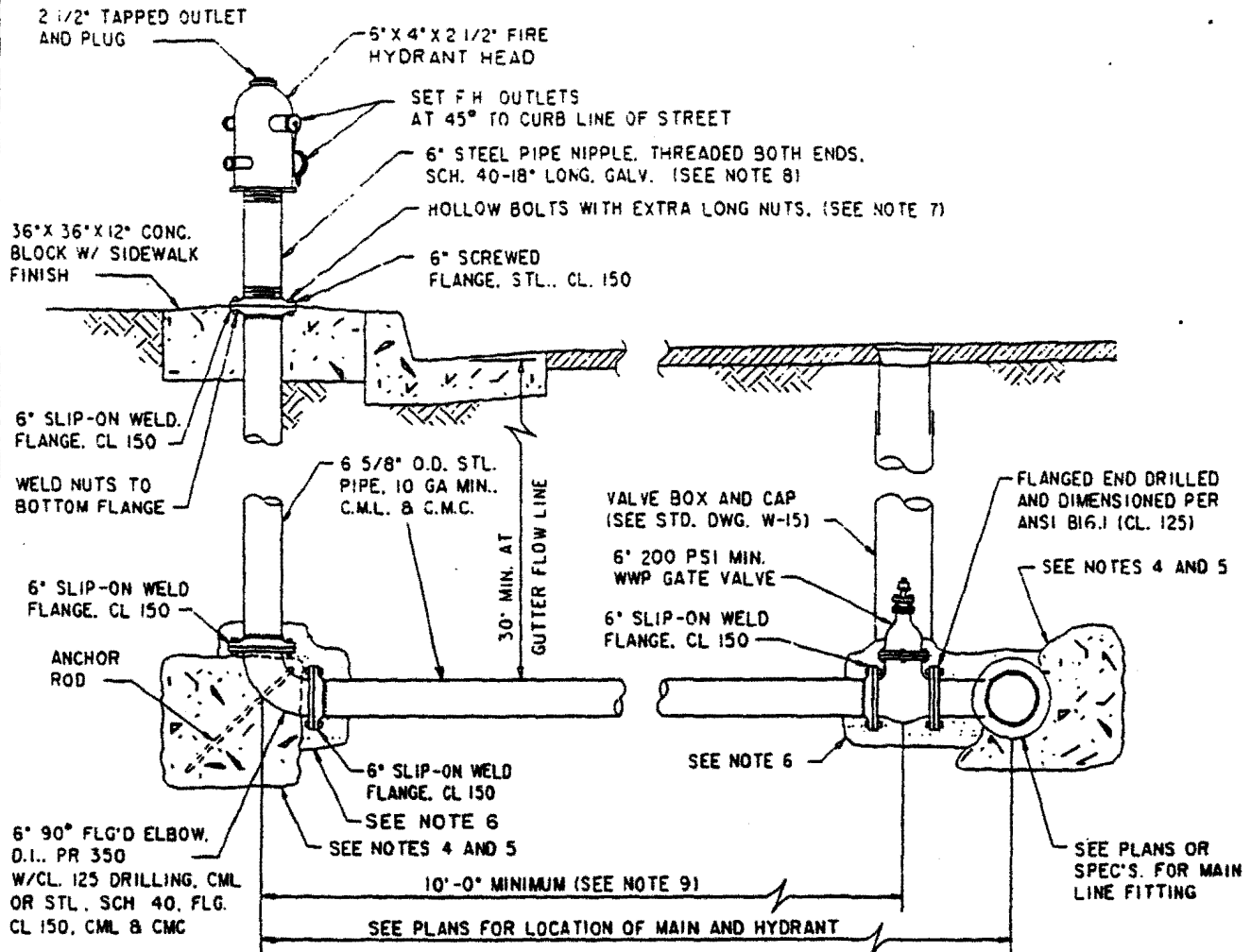
INTERMEDIATE
TURN-AROUND



CIRCULAR TURN-AROUND

FIRE HYDRANT - COMPLETE
(200 PSI MAX. WWP. LATERAL AT RIGHT ANGLE TO MAIN)

APPENDIX 4



GENERAL NOTES:

1. IN THE ABSENCE OF A CURB, SET BOTTOM OUTLET 24-INCHES ABOVE CROWN OF ROAD AND PROVIDE STEEL PIPE BARRICADES AS DIRECTED BY DISTRICT. (SEE STD. DWG. W-14)
2. CENTERLINE OF RISER SHALL BE 2 FEET BEHIND CURB FACE EXCEPT WHERE 5-FOOT WIDE SIDEWALK IS ADJACENT TO CURB, IN WHICH CASE THE RISER SHALL BE AT 6 FEET OR AS SHOWN ON THE PLANS. (ALSO SEE NOTE 10).
3. NO FIRE HYDRANT SHALL BE INSTALLED CLOSER THAN FIVE FEET FROM EDGE OF ANY DRIVEWAY APRON.
4. USE 2000 PSI MINIMUM CONCRETE FOR THRUST BLOCKS AND HYDRANT PAD. PLACE CONCRETE ON UNDISTURBED OR COMPACTED SOIL.
5. SEE STD. DWG. W-21 FOR THRUST BLOCK REQUIREMENTS.
6. ALL UNCOATED METAL SURFACES INCLUDING BOLTS INSTALLED UNDERGROUND ARE TO BE "DIAPERED" AND GROUTED WITH 900-1000 PSI CEMENT MORTAR (1 CEMENT: 3 SAND: 1 LIME) TO PROVIDE A 2-INCH THICK COATING.
7. THE BOLTS AND NUTS CALLED FOR AT THE TOP FLANGE CONNECTION ON THE RISER SHALL BE 3/4" HOLLOW BOLTS FURNISHED BY THE DISTRICT.
8. THE EXTERIOR OF THE ABOVE GROUND PORTION OF THE HYDRANT, EXCEPT FOR THE THREADS SHALL BE PAINTED WITH 2 COATS OF RED-PRIMER RUST-OLEUM #1069 AND 2 COATS OF RUST-OLEUM YELLOW #944.
9. INTERMEDIATE PIPE JOINTS IN LATERAL SHALL BE EITHER LA² OR BELL, WELDED OR FLANGED. PIPE SHALL BE INSTALLED HORIZONTAL OR SLOPING DOWNWARD FROM MAIN TO PROVIDE MINIMUM COVER.
10. FOR FIRE HYDRANT LOCATION WITHIN THE CITY OF LANCASTER REFER TO THE CITY OF LANCASTER STANDARD PLAN PW-1.
11. OUTLETS SHALL BE CAPPED WITH APPROVED PLASTIC CAPS.

LOS ANGELES COUNTY WATERWORKS DISTRICTS

DEPARTMENT OF PUBLIC WORKS

STANDARD DRAWING

W-8

APPROVED *Dean D. Ebbolhus*
ASSISTANT/DEPUTY DIRECTOR

OCTOBER 1998
DATE

SHEET 1 OF 1

APPENDIX 5

CHART 1

ONE STORY SINGLE-FAMILY DWELLINGS

| <u>Building Sq/Ft</u> | <u>Reserved for hose</u> | + | <u>Sprinkler/ Domestic</u> | = | <u>Min Tank Size</u> |
|-----------------------|------------------------------|---|--------------------------------|---|--------------------------|
| up to 500 | 1,000 gal | | 500 gal | | 1,500 gal |
| 501 to 1000 | 1,000 gal | | 500 gal | | 1,500 gal |
| 1001 to 1500 | 1,500 gal | | 500 gal | | 2,000 gal |
| 1501 to 2000 | 1,500 gal | | 500 gal | | 2,000 gal |
| 2001 to 2500 | 2,000 gal | | 1000 gal | | 3,000 gal |
| 2501 to 3000 | 2,000 gal | | 1000 gal | | 3,000 gal |
| 3001 to 3500 | 2,500 gal | | 1000 gal | | 3,500 gal |
| 3501 to 4000 | 2,500 gal | | 1000 gal | | 3,500 gal |
| 4001 to 4500 | 3,000 gal | | 1500 gal | | 4,500 gal |
| 4501 to 5000 | 3,000 gal | | 1500 gal | | 4,500 gal |
| 5001 to 5500 | 3,500 gal | | 1500 gal | | 5,000 gal |
| 5501 to 6000 | 3,500 gal | | 1500 gal | | 5,000 gal |
| 6001 to 6500 | 4,000 gal | | 2000 gal | | 6,000 gal |
| 6501 to 7000 | 4,000 gal | | 2000 gal | | 6,000 gal |
| 7001 to 7500 | 4,500 gal | | 2000 gal | | 6,500 gal |
| 7501 to 8000 | 4,500 gal | | 2000 gal | | 6,500 gal |
| 8001 to 8500 | 5,000 gal | | 2500 gal | | 7,500 gal |
| 8501 to 9000 | 5,000 gal | | 2500 gal | | 7,500 gal |
| 9001 to 9500 | 5,000 gal | | 3000 gal | | 8,000 gal |
| 9501 to 10000 | 5,000 gal | | 3000 gal | | 8,000 gal |

For areas greater than 10,000 sq/ft, add 500 gallons for each 500 sq/ft increment.

Include square footage in additional floor levels, attached garages, sheds, etc.

If water is to be hauled due to lack of well, add 500 gallons to total fire storage.

STREISAND CENTER FOR CONSERVANCY STUDIES FIRE ACTION PLAN

FIRST ON SCENE: YOU ARE THE I.C. UNTIL RELIEVED IN PERSON
ASSESS/SIZE UP & CONSIDER RESOURCES REQUIRED:
- FIRE - LAW ENFORCEMENT - RANGERS - MRCA CREW - NPS -

CONTACT VIA PHONE:

- | | |
|---------------------------------------|--|
| 1. LA County Fire | 911 Then page Walt, wait 1 min., then all emergency page if no callback. |
| 2. MRCA Staff | (888) 562-1116 - All emergency page |
| 3. Walt Young | Home (310) [REDACTED] or (310) [REDACTED] |
| 4. Set emergency message center (310) | [REDACTED] |

OFFICE STAFF & RESIDENTS:

1. Use truck Siren/P.A. to alert Center (wait & P.A.)
2. Use CB radio-channel 9
3. Notify Ranger house, by telephone.
4. Remember to Evacuate Early - use your own vehicle, check out with command post.

EVACUATION

1. Primary route - Ramirez Cyn to PCH

SAFE ZONE

COMMAND POST - Barwood Office

- | | |
|---|---|
| 1. (310) 589-3200 Fax line back-up (310) 589-3207 | 4. Establish CB/FM radio net (use AA batteries) |
| 2. Radio frequency channel 5 Blackjack/channel 14 | 5. Move ranger vehicle to Barwood |
| 3. Utilize Checklist forms | 6. Monitor TV & News Radio |

OBSERVATION POST - Kanan Road above SCCS

1. Radio relay
2. Cell phone contact
3. Fire scout duties

STAGING - Meadow near courts & island at entrance (primary)

1. Lock gate open, switch next to motor - gate code is [REDACTED]
2. Park non-slip on units at staging area.
3. Check in at Barwood with gear for assignment.
4. "Slip ons" Radio while en -route for assignment at PCH Ramirez.

FIRE RESPONSE PRE-PLAN