CALIFORNIA COASTAL COMMISSION

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Staff Report: 6/22/2000
Hearing Date: July 11-14, 2000
Commission Action:

STAFF REPORT: REGULAR CALENDAR

APPLICATION NUMBER: 5-00-218

APPLICANT: Louis and Wendy Magur

PROJECT LOCATION: 15245 De Pauw St., Pacific Palisades, Los Angeles County

PROJECT DESCRIPTION: Construct a 3,839 Sq. Ft., 27 ft. above CFR single family house and garage, with 667 c.y. fill and a fenced yard.

Lot Area	7,500 Sq. ft.
Building Coverage	2,000 sq. ft.
Pavement Coverage	1,000 sq. ft.
Landscape Coverage	4,500 sq. ft.
Parking Spaces	2
Zoning	R-1-1
Ht above finished grade	25 ft.

SUMMARY OF STAFF RECOMMENDATION:

Staff is recommending approval with conditions requiring the applicants to (a) provide a review of the final structural and drainage plans assuring that the plans conform to the recommendations of the geology and soils consultant and the City of Los Angeles Department of Building and Safety, (b) install no permanent irrigation system, (c) record a deed restriction assuming the risk of the development, and (d) record a deed restriction requiring a coastal development permit for any future improvement on the lot located between the west wall of the house approved in this action and the Canyon. Staff also recommends that the applicants provide a landscaping plan that allows only temporary irrigation, employs only coastal sage scrub vegetation on the fill slope and avoids the use of invasive, introduced plants that might invade the restored riparian area in the adjacent Potrero Canyon Park. Finally, the staff recommends that the applicants employ Best Management Practices appropriate to the site to limit the discharge of pollutants from the roofs and the driveway to the storm drain system.

LOCAL APPROVALS RECEIVED: AIC City of Los Angeles #1999-2099, 10/20/99

SUBSTANTIVE FILE DOCUMENTS:

1. City of Los Angeles, Department of Building and Safety, Application for Review of Technical Reports and Import Export Routes, 6/5/2000
2. Grover-Hollingsworth and Assoc. Inc, *Additional Exploration and Slope Stability Analysis, Proposed Single Family Residence; Lot 15, block 19, tract 9300; 1525 De Pauw Street, Pacific Palisades, California, March 22, 2000, Report GH8179-G*
3. Coastal Development Permit Application #5-99-405 (Withdrawn)
4. Grover-Hollingsworth and Assoc. Inc, *Geologic and Engineering Exploration Proposed Single Family Residence; Lot 15, block 19, tract 9300; 1525 De Pauw Street, Pacific Palisades, California, April 8, 1998.* Report 8179G
5. City of Los Angeles, Department of Building and Safety, Geologic review letter log # 24218 Soils/Geology file; tract 9300, lot 15, 15245 De Pauw Street, May 7, 1998.
6. 5-91-286 (City of Los Angeles Department of Recreation and Parks) as amended; 5-86-958 (City of Los Angeles)
7. FEIR Potrero Canyon Park Development project, City of Los Angeles, Department of Recreation and Parks, June 1985
8. Kovacs Byer Associates, Geologic and Soils Engineering Exploration Potrero Canyon Park: assorted geotechnical reports dated 6/3/86; 5/27/87/ 7/1/87; 8/12/87; 3/14/87; 4/27/88; 5/23/88; 8/8/88
9. Potrero Canyon Engineering Feasibility report, SCS Engineers-Leighton and Associates October, 1984
10. BCA civil engineers, status report May 16,1991 Potrero canyon
11. William Conn (sp.), 1/21/91 Grading plan and vegetation map, Potrero canyon
12. John E Vigil co. undated plan view grading plan; Potrero canyon
13. Geologic investigation of lot 29 block 1tract 9377 Pacific Palisades
14. J Vigil Potrero Canyon Engineering Drawings, undated sheets 3-6

STAFF NOTE:

This is one of the first proposals to build a structure on lots that are on the rim of Potrero Canyon in Pacific Palisades since the extensive canyon stabilization project undertaken by the City. In the late 1970's and early 1980's, nine major slides occurred along the walls of Potrero Canyon as a result of erosion from the stream that is located in the bottom of the canyon. As a result of the slides a number of residential structures were damaged and demolished by their owners. The City of Los Angeles was forced to acquire twenty-one houses on the canyon rim, some of which it later demolished. In 1984, the City determined that the only way to protect the houses that were still intact on the rim of the Canyon was to fill

the canyon. The Coastal Commission approved the project in three phases, subject to conditions (5-86-958 and 5-91-286, City of Los Angeles.) The third phase of the fill extended about 75 feet above the flow line of the stream. Above that level, the City placed buttress fills extending twenty-five to fifty feet up the canyon sides. The Commission approved the fill with conditions that required the City to re-create an artificial stream on top of the fill, build a public park in the canyon, and revegetate the upper canyon sides and buttress fills with coastal sage scrub.

The City has made substantial progress on the fill project, but the project is not yet complete. Additional fill is still approved near the southerly end of the canyon, south of this lot. In addition, the City has not yet installed the artificial stream and a jogging path that is a permit requirement. The reason that these amenities are not yet installed is that the earthmoving is not yet complete.

The lot subject to this application was damaged by slide 3, the "De Pauw slide," on the western rim of the canyon. By 1991, the City or the owners had demolished six slide-damaged homes on lots at the head of slide three. While the City purchased four of the lots, two of the lots, including this one, remain in private hands. As part of the slide repair, the City constructed a buttress fill extending from the top of the canyon fill in the general location of the slide. City contractors removed much of the slide material to construct the buttress. The top of the buttress fill extends from the main canyon fill (75 feet above the flow line of the former stream) to almost the center of this lot. Three hydraugers in the buttress fill drain the fill and the remaining slide materials at its base.

The applicants propose to extend their house over the buttress fill constructed as part of the City landslide mitigation project. The portion of the house that is over the buttress fill would be supported on twenty-four inch reinforced concrete pilings, supported by grade beams, that are proposed to extend beneath the fill into the natural sedimentary rock. The applicants' geologist and the City Department of Building and Safety have approved this foundation design. In response to questions raised by staff, the applicant's geologist has tested and certified the fill placed by the city that is adjacent to the applicant's lot. The City has reviewed and approved the certification.

The staff recommends approval of a coastal development permit for a single-family house on this parcel with special conditions relating to natural hazards, water quality, erosion control, and natural habitat. The applicant agrees with these recommendations.

STAFF RECOMMENDATION:

Staff recommends that the Commission APPROVE the permit application with special conditions.

MOTION

I move that the Commission approve CDP #5-00-218 pursuant to the staff recommendation.

Staff recommends a YES vote. This will result in adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION

I. APPROVAL WITH CONDITIONS

The Commission hereby **GRANTS** a permit, subject to the conditions below, for the proposed development on the grounds that 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.

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

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

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

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

III. SPECIAL CONDITIONS

1. FUTURE DEVELOPMENT DEED RESTRICTION

A. This permit is only for the development described in coastal development permit No. 5-00-218. Pursuant to Title 14 California Code of Regulations, section 13250(b)(6), the exemptions otherwise provided in Public Resources Code section 30610 (b) shall not apply to the portions of the parcel located between the surface expression of the contact between the natural soils and the nonstructural fill and the Canyon (easterly) property line, as shown in Exhibit 3. Accordingly, any future improvements to the permitted structure, including but not limited to repair and maintenance identified as requiring a permit in Public Resources section 30610(d) and Title 14 California Code of Regulations sections 13252(a) or (b), which are proposed within the restricted area, shall require an amendment to Permit No.5-99-405 from the Commission or shall require an additional coastal development permit from the Commission or from the City of Los Angeles.

B. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants 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 both the applicant's entire parcel and the restricted area. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

2. ASSUMPTION OF RISK, WAIVER OF LIABILITY AND INDEMNITY

A. By acceptance of this permit, the applicants acknowledge and agree (i) that the site may be subject to hazards from wildland fire, settlement of fill, landslide, or earth movement, (ii) to assume the risks to 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 ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms 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. CONFORMANCE OF DESIGN AND CONSTRUCTION PLANS TO GEOTECHNICAL REPORT GEOLOGIC HAZARD

A. All final design and construction plans and grading and drainage plans, shall be consistent with all recommendations contained in the *Additional Exploration and Slope Stability Analysis,* prepared by **Grover-Hollingsworth and Assoc., Inc** dated March 22, 2000, *Section of the Engineering Geologic Report,* prepared by **Grover-Hollingsworth, and Assoc., Inc** dated **April 8, 1998,** and the requirements of the **City Geologic Review Letter 24218 dated May 7 1998. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT,** the applicants shall submit, for the Executive Director's review and approval, evidence that an appropriate licensed professional has reviewed and approved all final design and construction plans and certified that each of those final plans is consistent with all of the recommendations specified in the above-referenced geologic evaluation approved by the California Coastal Commission for the project site.

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

4. WINTERIZATION/EROSION CONTROL PLAN

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall submit, for review and approval of the Executive Director, a plan for erosion and run-off control.

1. EROSION CONTROL PLAN

(a) The erosion control plan shall demonstrate that:

(1) During construction, erosion on the site shall be controlled to avoid adverse impacts on adjacent properties, and the alley behind the site.

(2) The following temporary erosion control measures shall be used during construction: sand bags, a desilting basin and silt fences.

(3) Following construction, erosion on the site shall be controlled to avoid adverse impacts on adjacent properties and public streets.

(4) The following permanent erosion control measures shall be installed: a drain to direct roof and front yard runoff to the street; no drainage shall be directed to rear yard slope; no drainage shall be retained in front yard.

(b) The plan shall include, at a minimum, the following components:

(1) A narrative report describing all temporary run-off and erosion control measures to be used during construction and all permanent erosion control measures to be installed for permanent erosion control.

(2) A site plan showing the location of all temporary erosion control measures.

(3) A schedule for installation and removal of the temporary erosion control measures.

(4) A site plan showing the location of all permanent erosion control measures.

(5) A schedule for installation and maintenance of the permanent erosion control measures.

2. RUN-OFF CONTROL PLAN

(a) The run-off control plan shall demonstrate that:

(1) Run-off from the project shall not increase the sediment or pollutant load in the storm drain system.

(2) Run-off from all roofs, patios, driveways and other impervious surfaces on the site shall be collected, filtered and discharged to avoid ponding or erosion either on or off the site.

(3) Run-off from roofs, and driveways shall be directed through filters designed to remove chemicals and particulates, at least for low flow conditions, (as defined as a one-year storm or as defined by the Regional Water Quality Control Board.)

(b) The plan shall include, at a minimum, the following components:

(1) The location, types and capacity of pipes drains and/or filters proposed.

(2) A schedule for installation and maintenance of the devices.

(3) A site plan showing finished grades at (two foot contour intervals) and drainage improvements.

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

5. FUEL MODIFICATION PLAN

Prior to issuance of the permit, the applicants shall provide for the review and approval of the Executive Director, a fuel modification and fire safety plan for the development. The plan shall minimize impacts to natural vegetation and public views and must have been reviewed and approved by the Los Angeles City Fire Department. The Fuel Modification/Fire Safety plan shall not include any vegetation removal, including thinning, on City Department of Recreation and Parks lands.

6. LANDSCAPE PLAN

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall submit, for the review and written approval of the Executive Director, a plan for landscaping to assure compatibility with the revegetation measures required in coastal development permit 5-91-286A2 and A3. The plan shall be prepared by a licensed landscape architect.

1. The plan shall demonstrate that

(a) To minimize the need for irrigation, all vegetation planted on the site will consist of drought-tolerant plants,
(b) The applicants shall not employ invasive; non-indigenous plant species, which tend to supplant native species. Such plants are listed in Exhibit #16.
(c) All vegetation placed on the canyon side face of the berm approved in 5-91-286 **shall consist of native/drought and fire resistant plants** of the coastal sage scrub community.
(d) All planting will be completed within 60 days after completion of construction,
(e) All required plantings will be maintained in good growing conditions through-out the life of the project, and whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the landscape plan, and
(f) No permanent irrigation system shall be allowed within the property. Temporary above-ground irrigation to allow the establishment of the plantings is allowed.

2. The plan shall include, at a minimum, the following components:

(a) A map showing the type, size, and location of all plant materials that will be on the developed site, topography of the developed site, and all other landscape features, and
(b) A schedule for installation of plants.

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

IV. FINDINGS AND DECLARATIONS:

The Commission hereby finds and declares:

A. Project Description and Location

The applicants propose to construct a two-story over garage, a driveway, and a 3,839 square foot single family house. The house will extend 25 feet above finished grade, twenty-seven feet above the centerline of the De Pauw Street (Exhibit #4 &#5). The house will include a basement. The lot is now presently vacant and is

located on the canyon rim of Potrero Canyon; a coastal canyon trending north and south from Pacific Coast Highway to the Palisades Branch Public Library (Exhibit #1 & #2). The house will be supported by 24-inch reinforced concrete pilings supported by grade beams. A portion of the structure will extend over a buttress fill constructed by the City of Los Angeles landslide mitigation project (5-91-286 as amended.) The applicant proposes to support this portion of the house on 24-inch pilings that will extend through the fill into natural soils.

B. History.

In 1984, and again in 1991, the Commission approved a proposal to fill Potrero Canyon in order to stop continuing damage that was occurring to houses constructed on the rim of the canyon. The stream in the bottom of the canyon had undermined the canyon walls. By the early 1980's, nine major slides and a number of "blowouts" had occurred. As a result of the slides a number of residential structures were damaged and demolished by their owners. In 1984, the City determined that the only way to protect the houses that were still intact on the rim of the Canyon was to fill the canyon and install a subdrain to reduce saturation of the sediments. (5-86-958 and 5-91-286, City of Los Angeles.) By 1986, the City of Los Angeles had acquired 20 houses on the canyon rim, some of which it later demolished. In 1986, the Commission approved a project with 25 feet of fill and a subdrain. The slides continued. By 1991 the City had acquired one additional lot and was considering the acquisition of 7 additional lots on the west canyon rim. The applicant has provided a newspaper clipping that indicates that a total of 31 lots were eventually acquired.

In 1991, after the expiration of its original action, the Commission re-approved an expanded project in three phases, subject to conditions (5-91-286.) In its approval of the revised project, the Commission reviewed evidence that the headscarps were moving inland, potentially threatening additional houses along at least three streets that were parallel to the rim: De Pauw, Friends Street, and Alma Real. The third phase of the fill of the revised project extended about 75 feet above the flow line of the stream. Above that level, the City proposed to place buttress fills extending twenty-five to fifty feet up the canyon sides, in some instances such as this one onto privately owned residential lots. These buttress fills were designed to slow down the incremental failure of the lots (Exhibit #15). The Commission approved the fill with conditions that required the City to (1) create an artificial stream on top of the fill, (2) build a public park and trails in the canyon, (3) revegetate the upper canyon sides and buttress fills with coastal sage scrub, and (4) submit final stamped engineered drawings of the proposed buttress fills before constructing them. The trails, riparian areas and other proposed mitigation measures are not yet complete although some landscaping is installed.

The lot subject to this application was impacted by slide three, which caused the demolition of six houses, including the house formerly located on this lot. The City purchased four of the lots above slide three including the lots on each side of the present lot, and demolished the houses. The City did not purchase this lot. Almost half of this lot is mapped as landslide in maps and aerial photos provided by the City in 1991 (Exhibits #12, #13, & #14). The filling of this part of the canyon (the northern part) has been completed up to 75 feet above the former flow line of the stream. The City is still at work on the southern part of the canyon.

The City has completed the De Pauw buttress fill, which extends from the top of the canyon fill to the pad of the lot subject to this application. This compacted fill occupies a significant portion of this 150-foot deep lot. On the north (inland) side of the lot, the fill extends to within 65 feet of the street side lot line. On the south side of the lot, the fill extends to within 76 feet of the street-side lot line. The applicant's geologist and the City's geologist and geological engineer have approved the applicant's proposed house. On March 22, 2000 the applicant's geologist reported that the fill was adequately compacted and could support the proposed structure. On June 5,2000 the City of Los Angeles, Department of Building and Safety approved the supplemental geology report.

The underlying canyon repair project was approved in part on an emergency basis. Plans for certain features of the project, including the De Pauw buttress fill, were prepared after the permit and its amendments issued. The Commission required, however, that the City submit final stamped detail engineering plans of the buttress fills before construction. The City supplied such plans. However the plans did not include cross sections or construction details such as the location of benches under the fill and the depth of excavation. The City representatives indicate that such information could not have been prepared until the excavation was complete, because the type of soils encountered during construction determined the depth of the excavation. The City consultant has now provided a cross-section of the buttress fill at the location of the lot In evaluating this project the staff has relied on the as-built cross sections provided by the City consultant Jack Vigil and the geotechnical report prepared by the applicant's geologic consultant Grover- Hollingsworth.

C. ACCESS AND RECREATION.

The Coastal Act protects public access and encourages the use of private lands for recreation. In this project, the lot itself has been a private, subdivided residential lot for many years. The lot has not been used for recreation. However, this lot is now suitable for building because the City filled the adjacent canyon. In approving the project that protects this lot from landslides, the Commission required that the City construct and maintain a public park in the canyon

adjacent to this lot. The park includes a 7.9 acre reconstructed riparian habitat and additional acreage of coastal sage scrub (CSS.) The City proposed and the Commission approved a public trail to link the Pacific Palisades recreation center with the coastline. The recreational experience proposed by the City is a mountain trail along an artificial mountain stream, with the slopes and the stream revegetated with local native (CSS) vegetation.

The use of this lot for residential purposes is consistent with that approval. However, as will be noted in the environmentally sensitive habitat section below, if the private owners adjacent to the project use incompatible or invasive plants, their actions could jeopardize the City's efforts to create a replacement for the stream, and to create a mountain hiking experience in the park. Therefore, as further conditioned herein, the applicant is required to install no plants that would invade the restored habitat or jeopardize its survival.

As conditioned to assure that the domestic landscaping is consistent with the park approved in permit 5-91-286; the project is consistent with the access and recreation policies of the Coastal Act.

D. ENVIRONMENTALLY SENSITIVE HABITAT AREAS.

The Coastal Act requires that development adjacent to environmentally sensitive habitat areas and public parks be developed in a manner that is consistent with the protection of the habitat and the habitat in the parks. Section 30240 of the Coastal Act states:

> **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.

The Commission approved grading and fill in this canyon in order to protect this and other residential lots along the canyon rim. Before grading for the fill occurred, the canyon sides supported coastal sage scrub and the stream supported willows and other streambed plants. As a result of construction, this habitat was extirpated. The Commission approved the fill of a stream and the grading subject to a number of special conditions. These included the reconstruction of the stream and its associated riparian habitat at a 2:1 ratio— the

City proposed construction of a 7.9 acre riparian area and stream-- as well as interim mitigation in a nearby state park. In addition, the City proposed and the Commission approved a plan to revegetate the buttress fill slopes with coastal sage scrub, a sensitive assemblage of plants that is threatened with loss statewide.

The fill in this end of the canyon is complete, but the park and trail system is not yet installed. During the first month of its installation and thereafter artificially constructed systems can be easily overwhelmed by introduced plants. Such plants include pepper trees and honeysuckle, plumbago, morning glories, German ivy, eucalyptus, ornamental grasses and other plants that are attracted to moisture and which can overtake a natural stream and associated upland. The California Native Plant Society has prepared a list of invasive plants. In recent years, the Commission has referenced the list, Recommended List of Plants for Landscaping in the Wildland Corridors of the Santa Monica Mountains, 1994, in its conditions, because it gave guidance to applicants. In one project, A-5-RPV-93-005 (Ocean Trails), the Commission required the use of the list in a condition, and the applicant used the list in its Habitat Conservation Plan. The Habitat Conservation Plan was developed under the supervision of the Department of Fish and Game and the Fish and Wildlife Service. As a result of the Resources Agencies' comments, an expanded list was prepared. That list is referred to in Condition 6 and attached as Exhibit 16. The list includes all invasive plants listed by the California Native Plant society and additional plants that, in the view of the Resources Agencies might jeopardize an attempt to revegetate with coastal sage scrub (CSS).

The Commission found that the revegetation would mitigate for the loss of the habitat. However, introduced plants from the houses on the rim could invade these revegetated areas and undermine the City's efforts. It is quite clear that the owners of the residential lots benefited from the project— in fact the project was approved in order to protect existing residential structures from collapse and to allow the subject lot to be developed at all. Because the stabilization work undertaken to stabilize these lots resulted in damage, which must be mitigated, the redevelopment of the residential lots on the canyon rim must be conditioned to assure that the landscaping of these lots is compatible with the adjacent revegetation effort. To be consistent with the revegetation, the development must establish coastal sage scrub on the slopes and avoid invasive plants on the remainder of the lot. As conditioned, the redevelopment of this house is consistent with the Commission action on 5-91-286 as amended and with section 30240(b) of the Coastal Act.

E. HAZARDS TO DEVELOPMENT.

As noted above, Potrero Canyon is the site of nine extensive and disastrous landslides that have destroyed many houses. The City filled the canyon to an

average of 75 feet above the flow line on and in several locations and placed an additional buttress next to the canyon walls. The City's project is nearing completion, and this present application is one of a growing number in which owners are now proposing to rebuild on the canyon rim. The present applicant has provided a geology report from the firm of Grover-Hollingsworth and a geologic approval from the City of Los Angeles Grading Division indicating that the development will be safe, if carried out according to their recommendations. The applicants propose to construct their house in and over part of a lot that has been stabilized with buttress fill. The applicant does not propose to depend on the stability of the fill, which its geologist acknowledges may settle. Instead the applicant proposes to penetrate the fill with pilings which will be seated in terrace materials below.

Section 30253 states in part:

> **Section 30253.**
>
> New development shall:
>
> (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
>
> (2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

The main canyon fill was designed to slow down the failure of the material on the canyon walls and to prevent the slides from expanding. The main canyon fill is 50 to 60 feet below the level of the lots. If one were to draw a theoretical 2:1 slope from the top of the canyon fill though the lots on the canyon rim, the line would extend though the middle of the flat areas of many of them. Because the portion of the lots adjacent to the canyon walls may still be subject to creep or sloughing, individual owners are required to demonstrate that their development is sited and designed so that settlement of the main canyon fill or sloughing of the walls will not damage the structures. In locations where major slides occurred, such as this slide three, the City constructed a buttress fill extending from the top of the main canyon fill to the level of the pads of the lots.

As noted above, a former house on this lot was destroyed by one of the slides. The slide extended over about half the lot (Exhibit #6, #12, #13, & #14). The land adjacent to the lot and about 46% of this lot is now filled to prevent additional

sliding. (Exhibit #7, #8, #9, & #10). The fill in the canyon extends from the main canyon fill to the level of the pad, and onto about 70 feet of this lot. The applicant's geology report distinguishes between the street side of the lot, which is underlain by what the geologist identifies a "stable terrace deposits", and the canyon side of the lot, where there is buttress fill. The geologist has indicated that a house built on this lot will be safe. However, in the buttress fill area, the house will only be safe if 24 inch reinforced friction piles extending a minimum of ten feet into the terrace deposits are provided. The City of Los Angeles Department of Building and Safety approved the proposed plan, with conditions requiring pilings and drainage control as recommended by the applicant's geologists.

The April 18, 1998 geology report from Grover Hollingswoth makes the following statements:

> Friction piles may be used to support any portion of the residence which extends beyond the contact between the alluvial terrace and the certified compacted, non-structural fill. The piles should be a minimum of 24 inches in diameter, a minimum of 10 feet into the terrace, and a minimum of 10 horizontal feet to the contact between the terrace and the compacted non-structural fill. (Page 15)

> Piles may be assumed fixed at 4 feet into terrace. The piles may be designed for a skin friction 400 pounds per square foot for that portion of the pile in contact with the terrace. All piles should be tied in two horizontal directions with grade beams. (Page 15)

> ...Broken, leaking or plugged sprinklers or irrigation lines should be repaired immediately. Frequent inspection of irrigation systems should be performed. (page 24)

> Exploration was performed only on a portion of the site.

The City provided as-built cross sections (Exhibit #10). These cross sections show that the terrace material is benched to accommodate the fill. However, the geology reports also shows that underneath the buttress, there is still some landslide material that was not removed. The City geological consultant is quoted by the applicant's consultant as describing this material as well consolidated landslide debris. (See also Exhibits 6 and 7, Geology report, sections and boring logs.) Upon initial review of an identical project on this lot, 5-99-405 (Magur), the applicant was unable to provide evidence that this plan, which depended on the integrity of the fill, would be structurally sound. The staff recommended, instead, that the pilings be set back from the fill slope. In response to this recommendation the applicant withdrew the application and engaged in further research. On

March 3, 2000 the applicant's geologist conducted a test boring that revealed that the fill was 45 feet thick at this location. The applicant's geologist determined that the fill was suitably compacted and provided the staff with a certificate finding that the existing fill will adequately support the proposed single family residence (Exhibit #17, #18, & #19). Further, applicant's geologist, at the request of the Commission's Senior Geologist, provided slope stability analyses indicating a factor of safety of greater than 1.5 for the static condition and greater than 1.1 for the pseudo-static (earthquake-loading) condition. This report was approved by the City Geologist on June 5, 2000. Based on the new information, the Commission's Senior geologist states that there is no obstacle in approving the house as proposed.

The engineering maps and drawings show three hydraugers in the buttress fill. These hydraugers are supposed to collect nuisance water to supply the riparian area in the canyon. The Commission finds that drainage control measures recommended by the applicant's consultant should be followed. The Commission also finds that to reduce the chance of failure due to broken irrigation lines or over watering, no permanent irrigation should be installed on the lot. Even with the proposed design changes, the conclusion that this lot can be safely developed is based on information and an analysis that are the applicant's responsibility.

Therefore, as a special condition of approval, the applicant must submit evidence that: 1) all other recommendations contained in the soils report have been incorporated into the project's final design, 2) no permanent irrigation be installed in the lot, and 3) that the final plans have incorporated all requirements of the Grading Division of the City of Los Angeles Department of Building and Safety.

The development is surrounded by coastal sage scrub on several sides, some of which is located on public property. Another risk that the applicant assumes in bulding in such a location is the risk of fire. The City of Los Angeles requires owners to clear up to fifty feet of the structure to the mineral soil and to modify the fuel loads of plants from 50 to 200 feet of the property line. However, no clearance is permitted on other neighboring resident's property. Even with the set back as proposed by staff, the project will be subject to hazard from wildland fire. A wildfire can sweep over a carefully designed, fire resistant structure and destroy it in minutes, depending on the wind, the heat of the fire, and the fuel around the structure. There is a potential conflict between the needs of a homeowner for fire safety and the responsibility of the park agency, which owns the adjacent canyon, to maintain watershed cover and habitat on parkland. In building in this location, the applicants are acknowledging that the site may be subject to the risk of fire and the responsibility of constructing in the location is their own.

Under Section 30253 of the Coastal Act new development in areas of high geologic, flood, and fire hazard may occur so long as risks to life and property are

minimized and the other policies of Chapter 3 are met. The Coastal Act recognizes that new development may involve the taking of some risk. When development in areas of identified hazards is proposed, the Commission considers the hazard associated with the project site and the potential cost to the public, as well as the individual's right to use his property.

The Commission notes that the applicants have no control over off-site or on-site conditions that may change and adversely affect the slope on the property, the house and the appurtenant structures. Because of the inherent risks to development situated on the lip of a canyon, the Commission cannot absolutely acknowledge that the foundation design will protect the proposed residence during all-future storms and/or slides. Therefore, the Commission finds that the proposed project is subject to risk from fire, erosion and/or slope failure and that the applicants should assume the liability of such risk.

The applicants may decide that the economic benefits of development outweigh the risk of harm, which may occur from the identified hazards. However, neither the Commission nor any other public agency that permits development should be held liable for the applicants' decision to develop. Therefore, the applicants are required to expressly waive any potential claim of liability against the Commission for any damage or economic harm suffered as a result of the decision to develop. The assumption of risk, when recorded against the property as a deed restriction, will show that the applicants are aware of and appreciates the nature of the hazards which may exist on the site and which may adversely affect the stability or safety of the proposed development. Only as conditioned, to submit evidence that 1) the proposed plans otherwise conform with the recommendations of the City geologist and the consultant, 2) that there is a pre-construction agreement with the adjacent canyon's owner concerning fuel modification, 3) that the applicant has recorded a statement that assumes all risks of the development, 4) that future development between the contact of the fill with the terrace soils and the easterly property require a coastal development permit or an amendment to this permit, and 6) that no permanent onsite irrigation is installed, can the Commission find that the proposed development is consistent with Section 30253 of the Coastal Act.

F. VISUAL IMPACTS OF DEVELOPMENT.

The Coastal Act protects public views. In this case the public views are the views from the trails and the roads in Potrero Canyon Park.

The project is set back from the canyon and conforms to the height limits of this portion of the Pacific Palisades, which is thirty feet above finished grade (Exhibit #4 & #5). As proposed and to require an amendment for any development between the line of the house and the canyon property line, the project is consistent with

section 30251, is in scale with the neighborhood, and with previous Commission approvals.

G. LOCAL COASTAL PROGRAM

Section 30604 (a) of the Coastal Act states:

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

In 1978, the Commission approved a work program for the preparation of Local Coastal Programs in a number of distinct neighborhoods (segments) in the City of Los Angeles. In the Pacific Palisades, issues identified included public recreation, preservation of mountain and hillside lands, and grading and geologic stability.

The City has submitted five Land Use Plans for Commission review and the Commission has certified two (Playa Vista and San Pedro). However, the City has not prepared a Land Use Plan for Pacific Palisades. In the early seventies, a general plan update for the Pacific Palisades had just been completed. When the City began the LUP process, in 1978, with the exception of two tracts (a 1200-acre tract of land and an adjacent approximately 300-acre tract) which were then undergoing subdivision approval, all private lands in the community were subdivided and built out. The Commission's approval of those tracts in 1980 meant that no major planning decision remained in the Pacific Palisades. The tracts were A-381-78 (Headlands) and A-390-78 (AMH). Consequently, the City concentrated its efforts on communities that were rapidly changing and subject to development pressure and controversy, such as Venice, Airport Dunes, Playa Vista, San Pedro, and Playa del Rey.

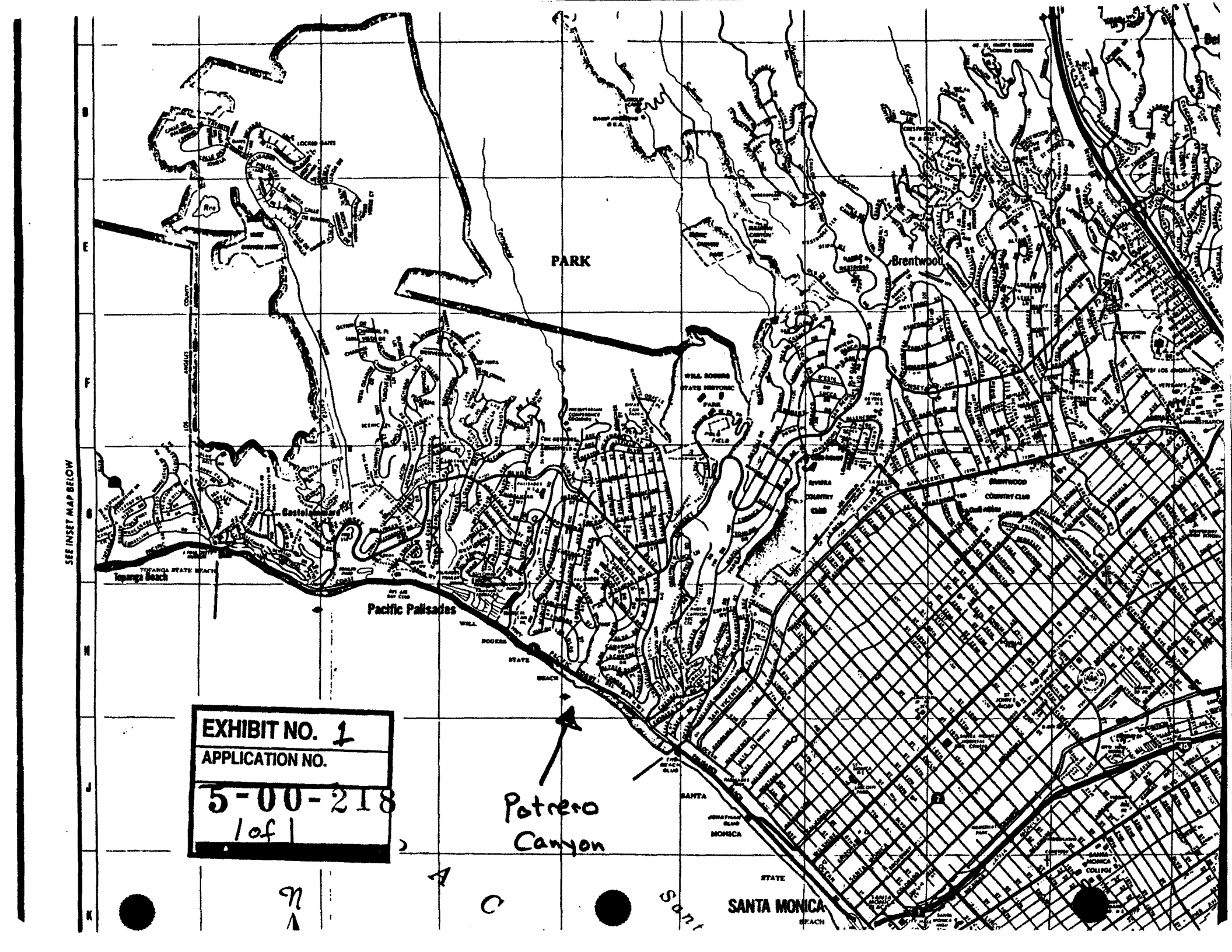
As conditioned, to address the interface between parkland and the developed areas and geologic stability, approval of the proposed development will not prejudice the City's ability to prepare a Local Coastal Program in conformity with Chapter 3 of the Coastal Act. The Commission, therefore, finds that the proposed project is consistent with the provisions of Section 30604 (a) of the Coastal Act.

H. CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096 of the Commission's regulations requires Commission approval of Coastal Development Permit applications 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.

As conditioned, there are no other feasible alternatives or mitigation measures available, which will lessen any significant adverse impact the activity would have on the environment. Therefore, as conditioned, the Commission finds that the proposed project is consistent with CEQA and the policies of the Coastal Act.

H:\Palisades\5-00-218 Magur staff report.doc


PARK
Brentwood
Pacific Palisades
Topanga Beach
SANTA MONICA
Potrero Canyon
SEE INSET MAP BELOW
EXHIBIT NO. 1
APPLICATION NO.
5-00-218
1 of 1

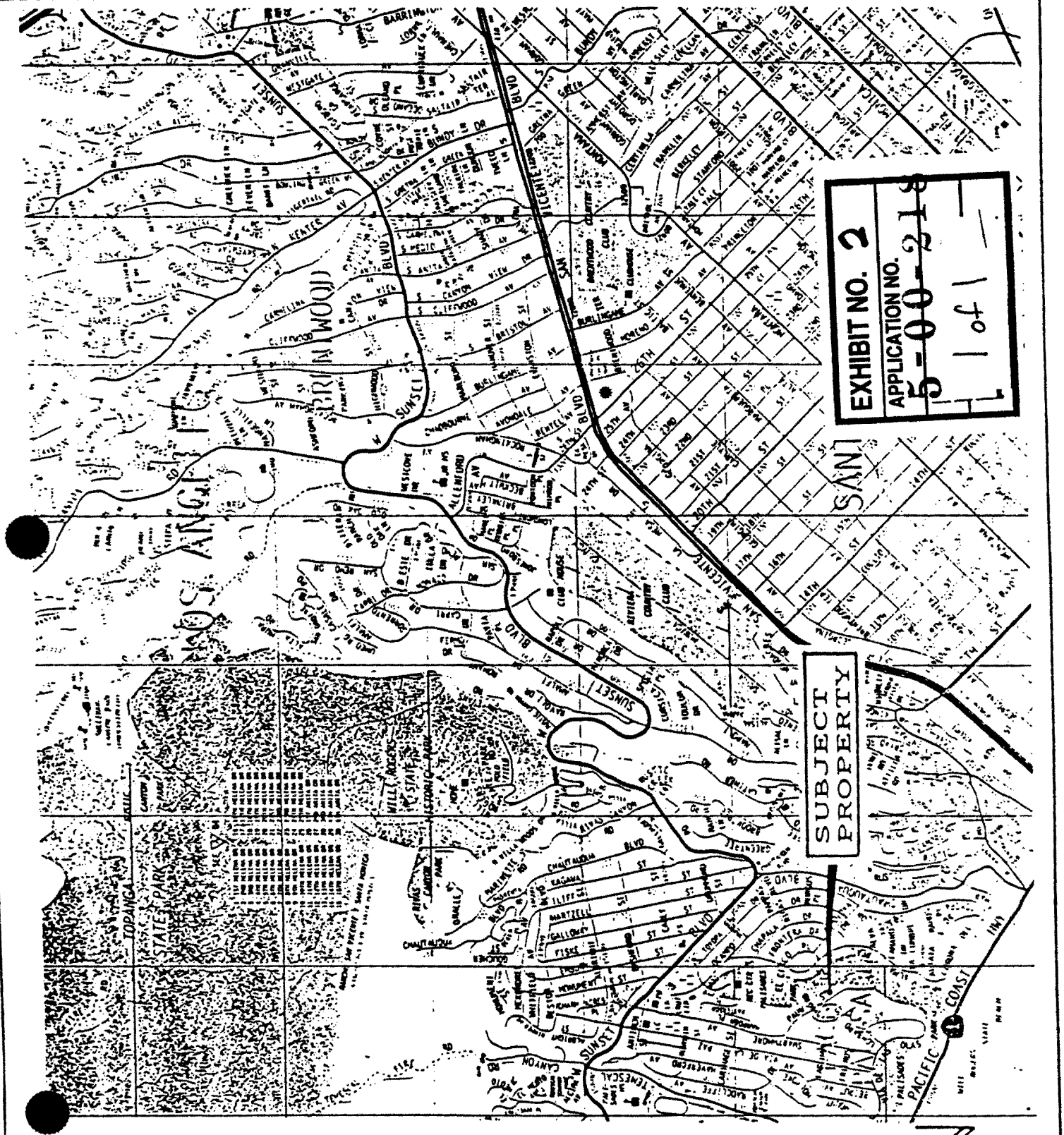
Grover-Hollingsworth and Associates, Inc.

Geotechnical Consultants

BY SMW DATE 4/98 CLIENT MAGUR

REF. LOS ANGELES COUNTY GH 8179-S

THOMAS GUIDE PAGE 631 SUBJECT VICINITY MAP



BUILDING DATA
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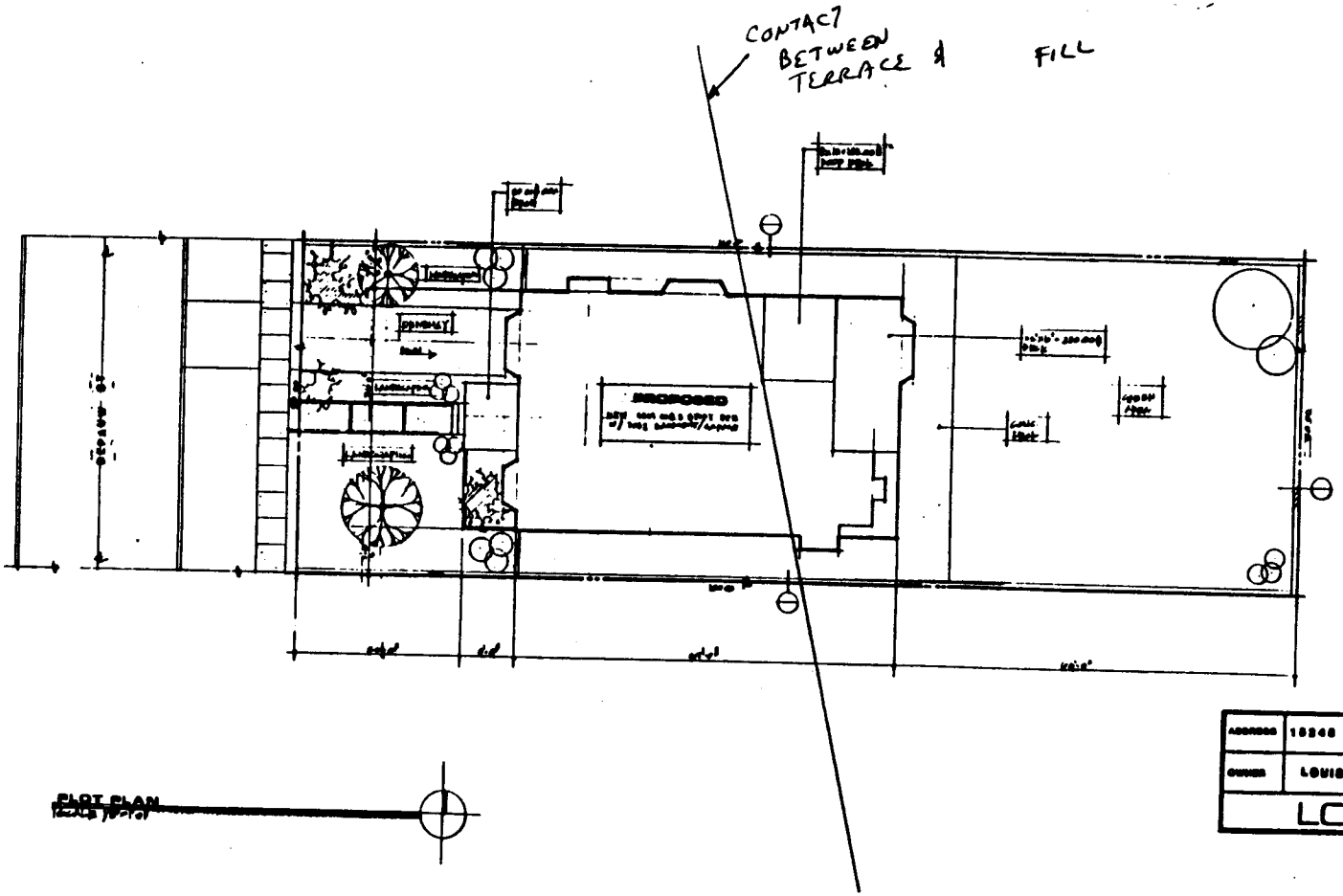
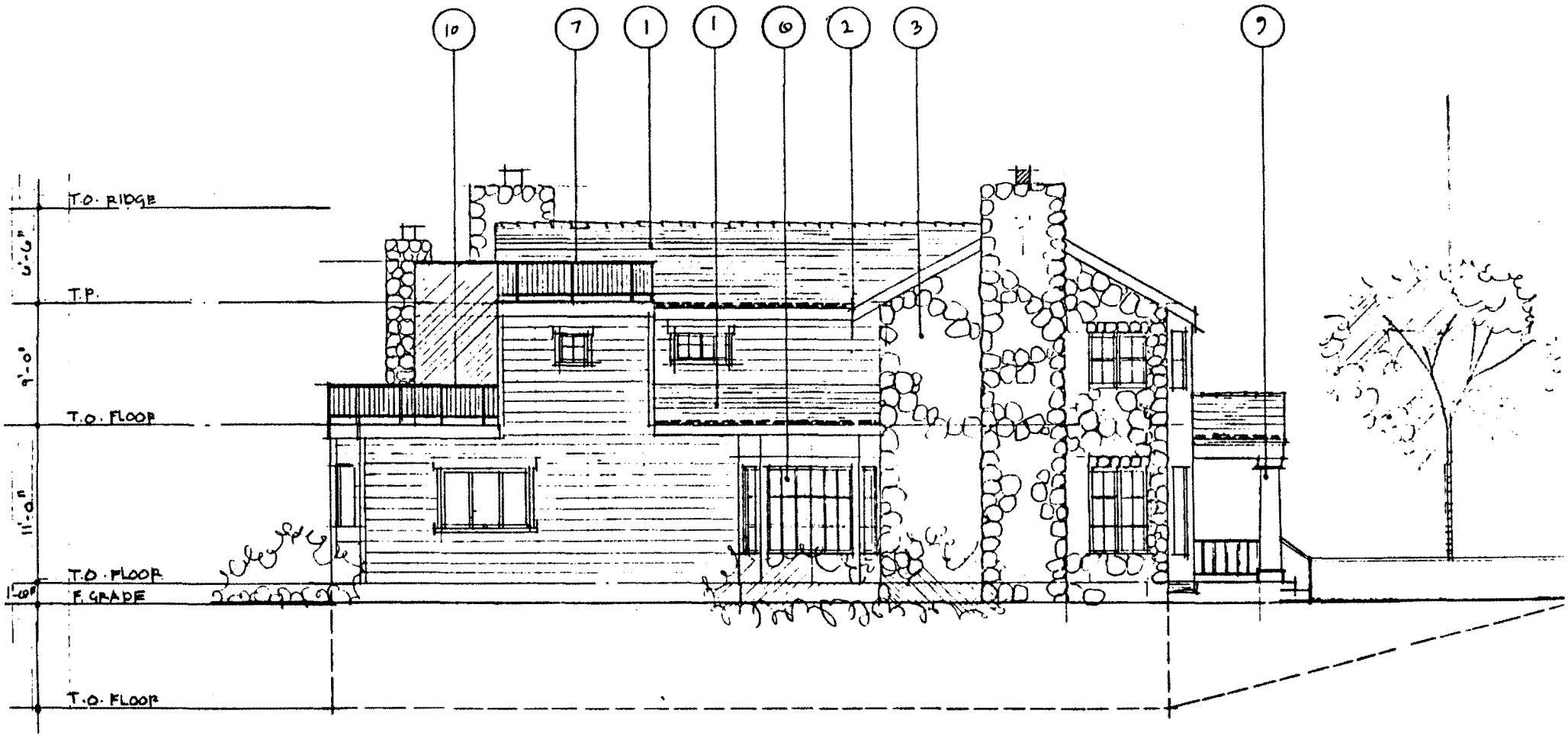


PLOT PLAN

ADDRESS	19348 DEPAUW ST. PACIFIC PALISADES
OWNER	LOUIS MAGUR

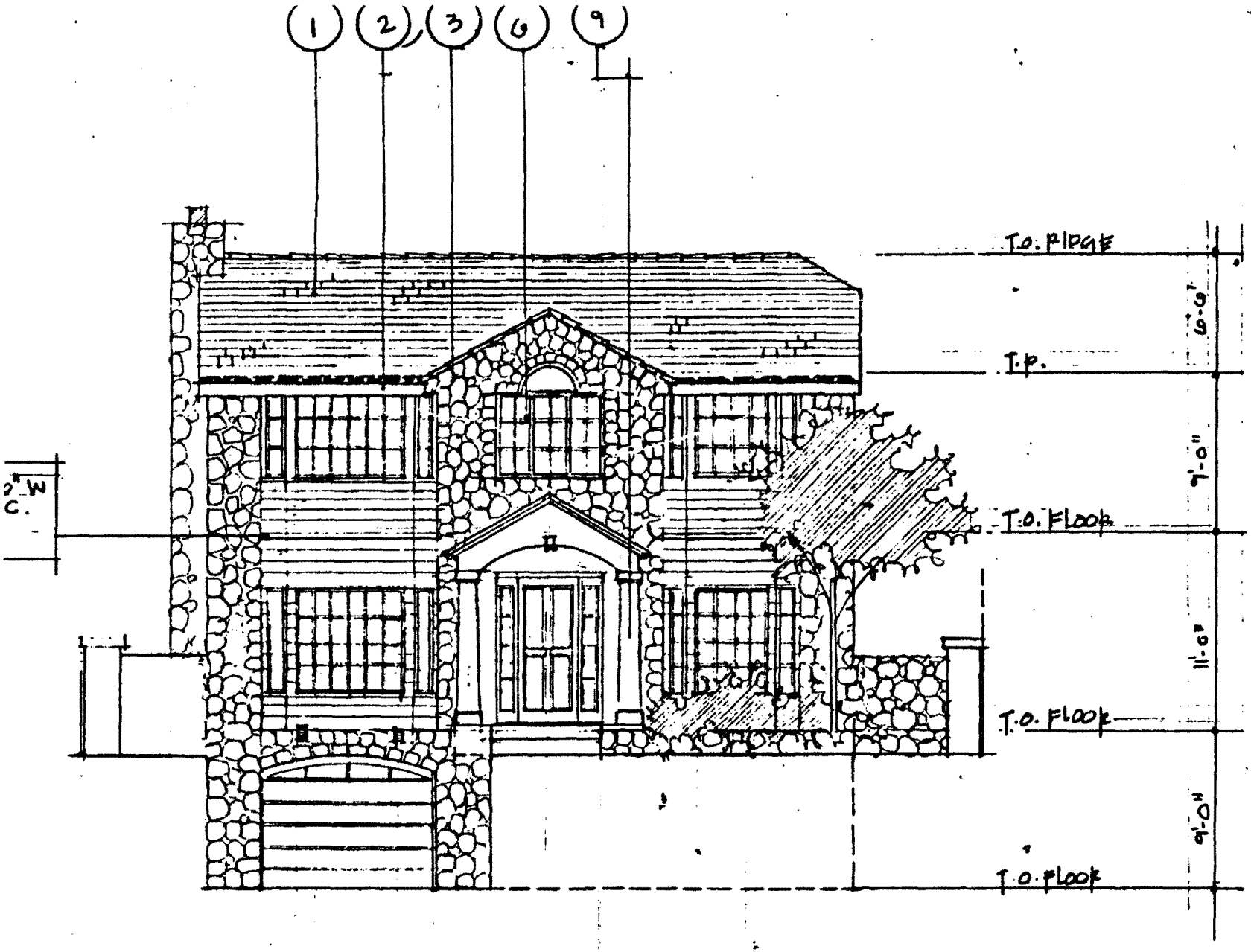
LOERA • DESIGNS

EXHIBIT NO. 3
APPLICATION NO.
5-00-218
Site plan 1 of 1



ELEVATION B
SCALE 1/8"=1'-0"

COASTAL COMMISSION
5-00-218
EXHIBIT # 4
PAGE 1 OF 1



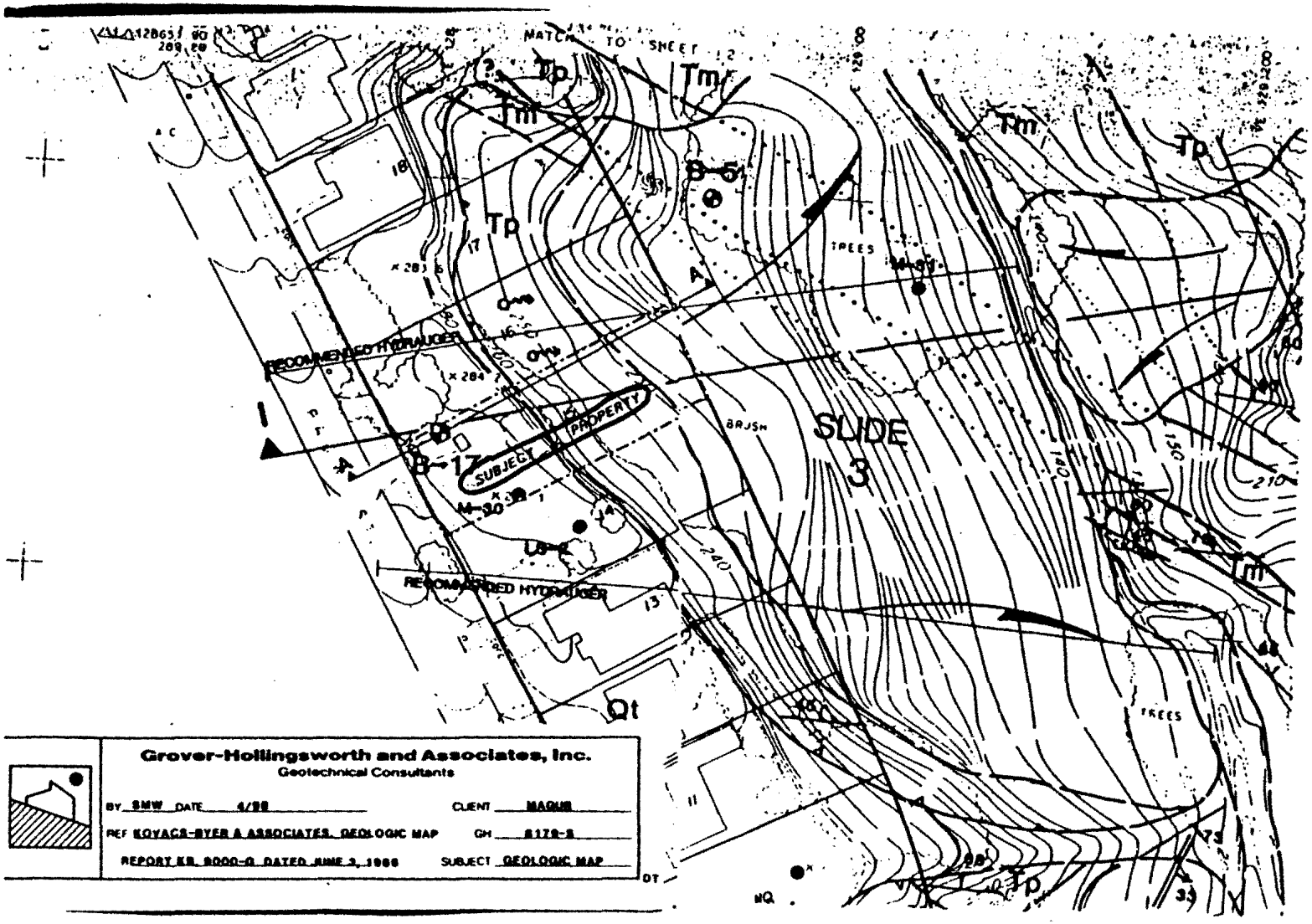
COASTAL COMMISSION
5-00-218

EXHIBIT # 5

PAGE 1 OF 1

ELEVATION C

SCALE 1/8"=1'0"



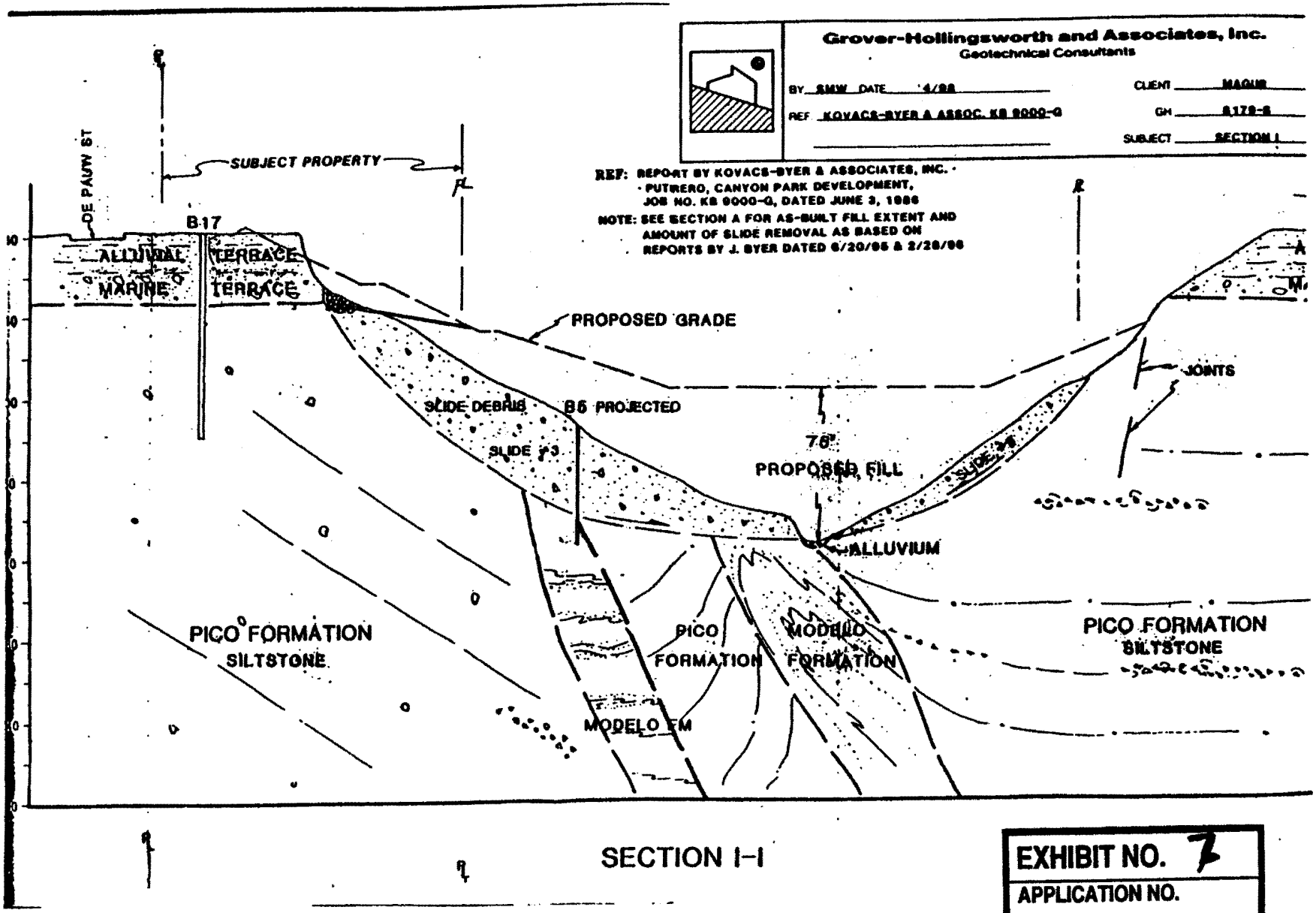
COASTAL COMMISSION

5-00-218

EXHIBIT # 6

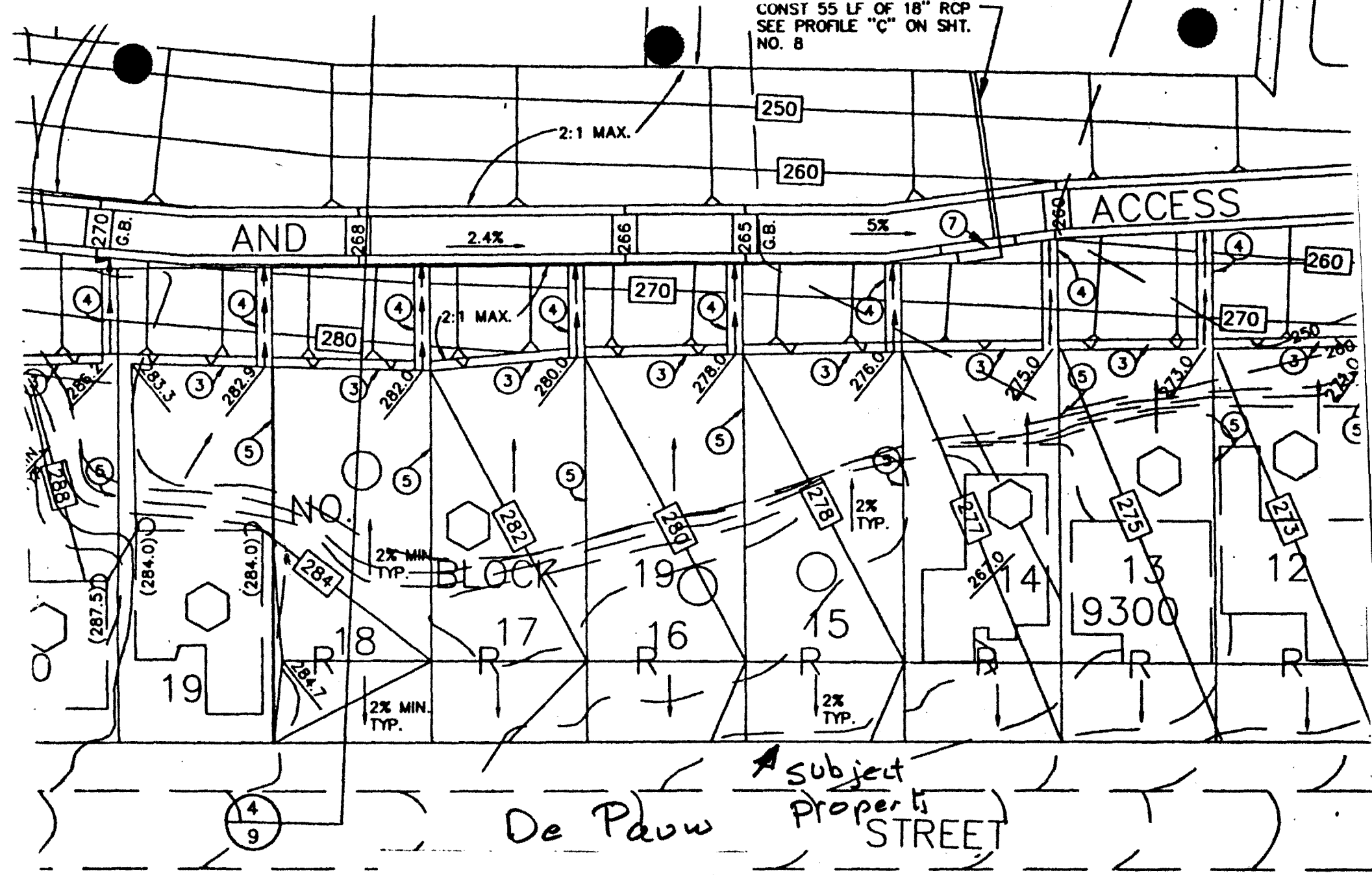
PAGE 1 OF 1

Geologic Map



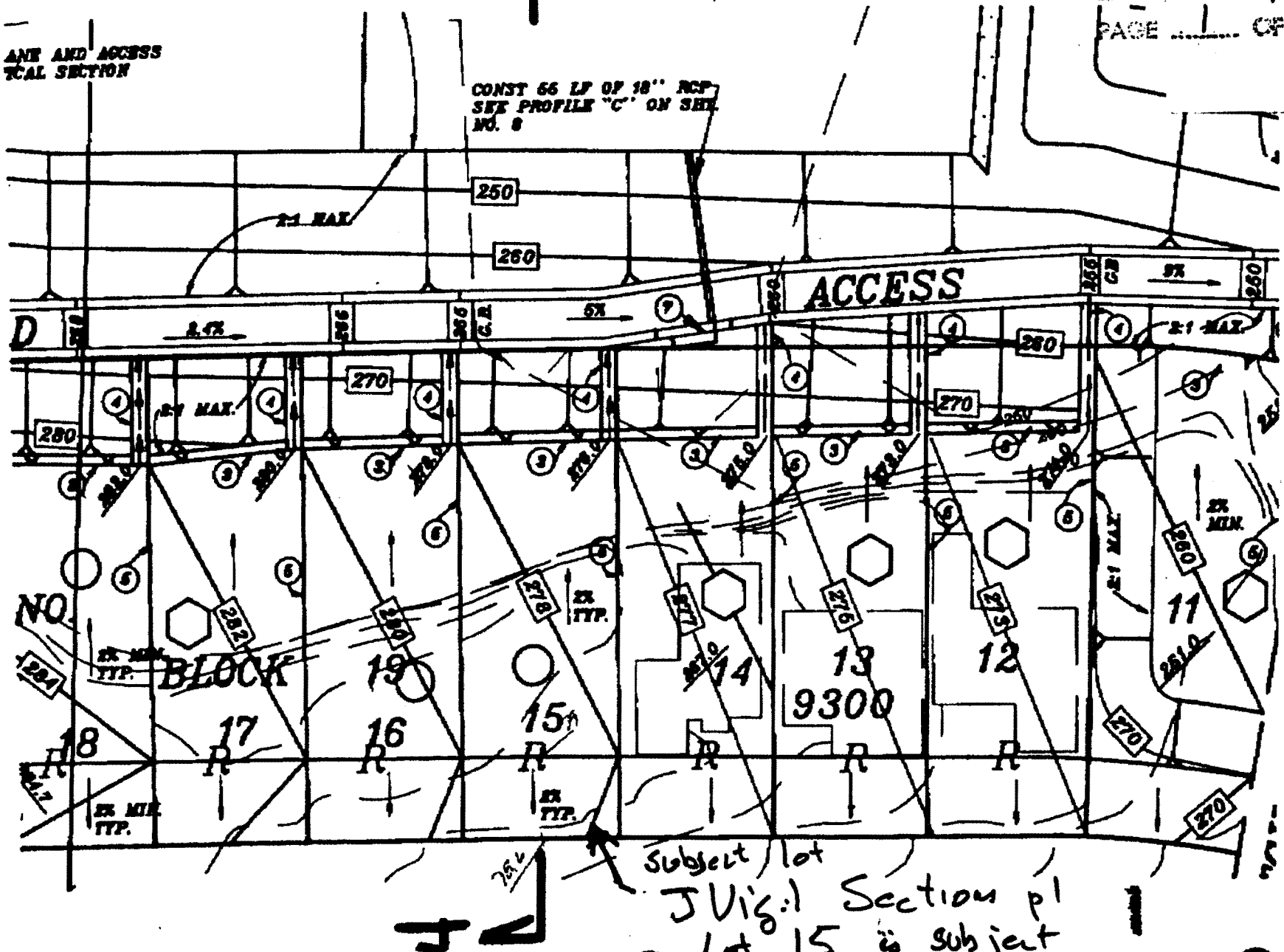
SECTION I-I

EXHIBIT NO. 7
APPLICATION NO.
5-00-218
1 of 1
Geologic Section

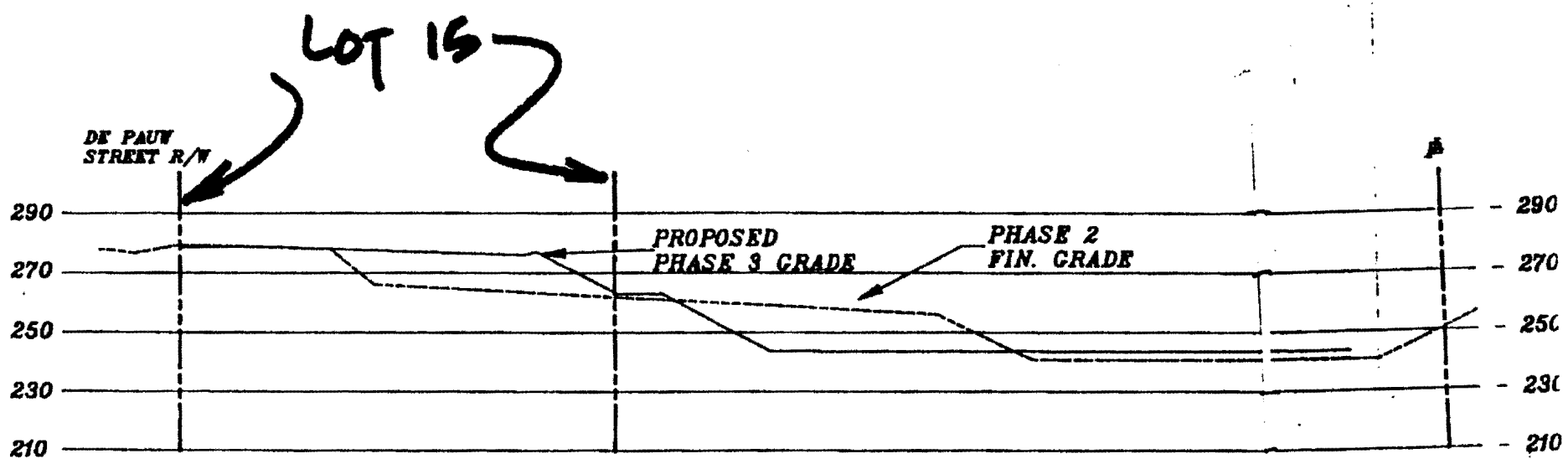


COASTAL COMMISSION
5-00-218
EXHIBIT # 8
PAGE 1 OF 1

J Vigil finish grading plan



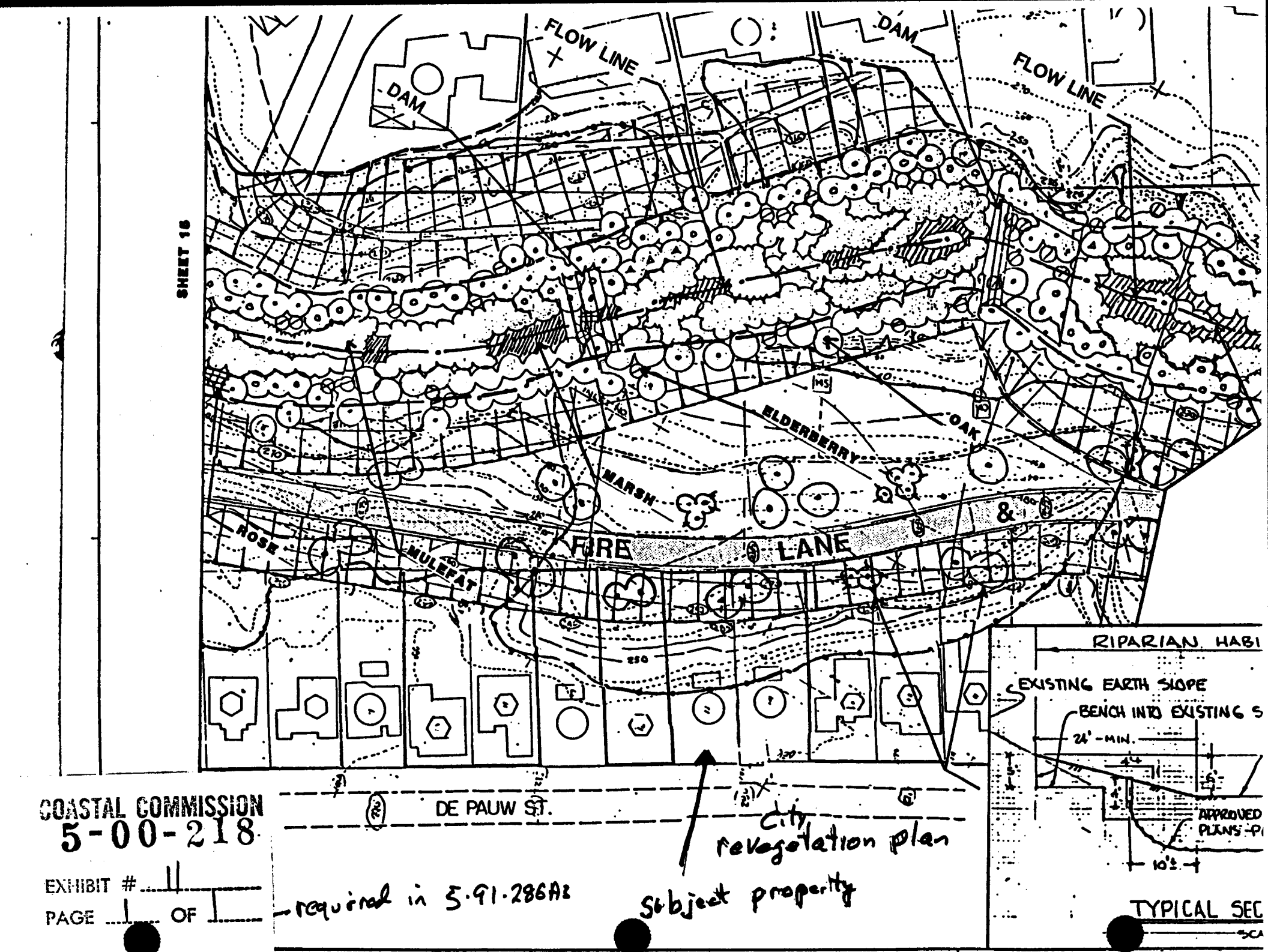
JVIS:1 Section p1
Lot 15 is subject property



SECTION 4

SCALES HORIZ =VERT
1" = 40'

J visit Section of lot 15 and canyon

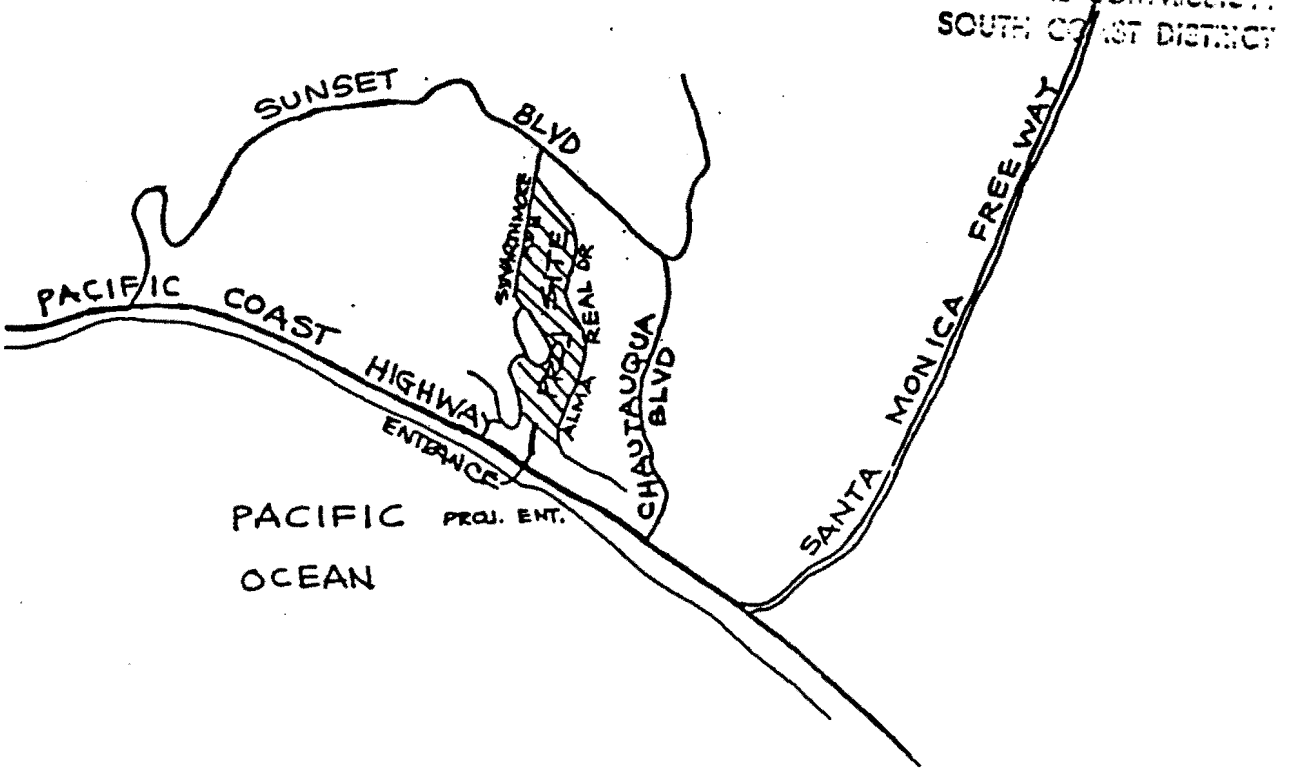


COASTAL COMMISSION
5-00-218

EXHIBIT # 11

PAGE 1 OF 1

POTRERO CANYON RESTORATION



KEY MAP

L A THOMAS GUIDE

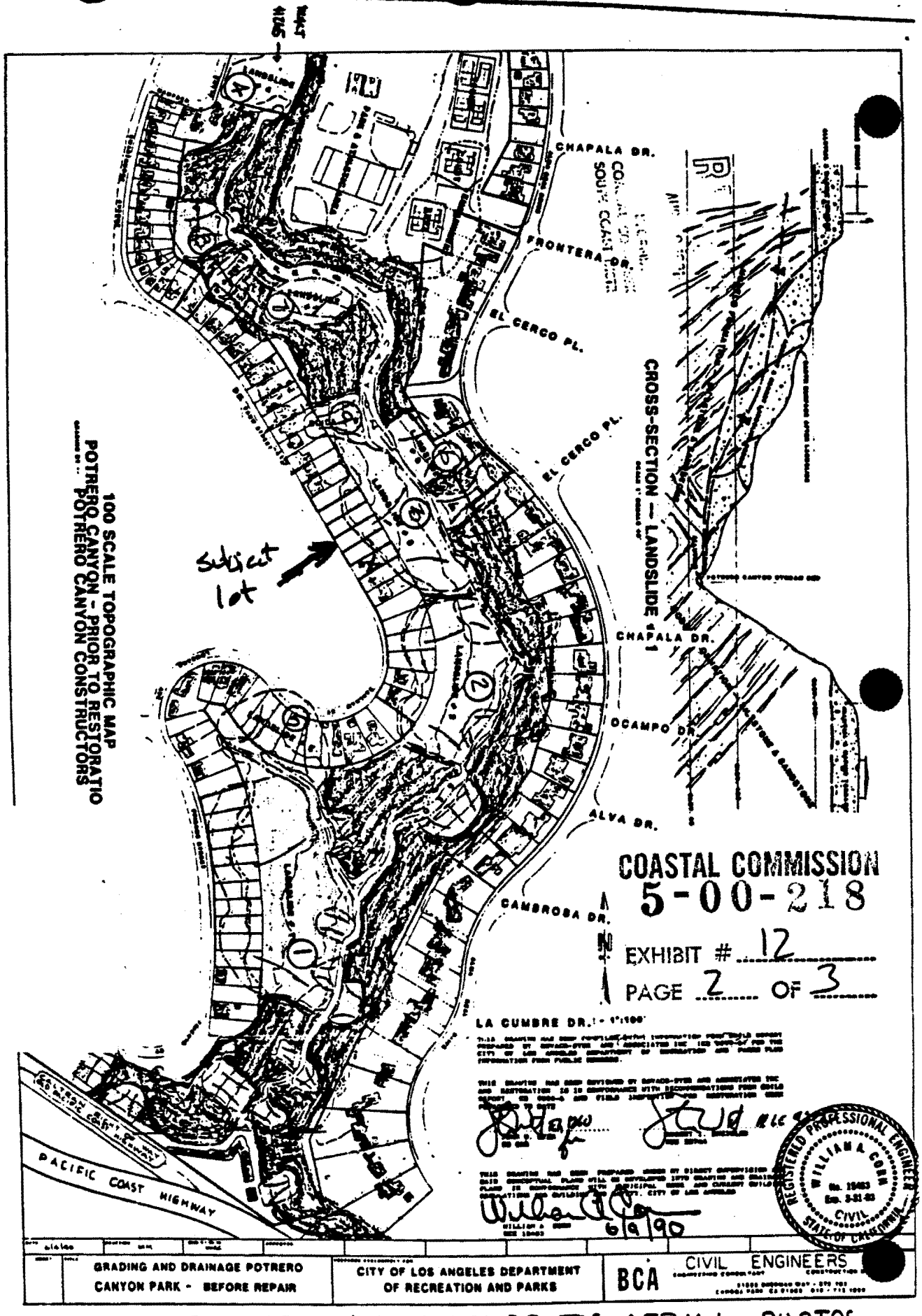
PAGE NO 40 - GRID - D4 & D5

B C A CIVIL ENGINEERS

ENGINEERING CONSULTANT & CONSTRUCTION MANAGEMENT.

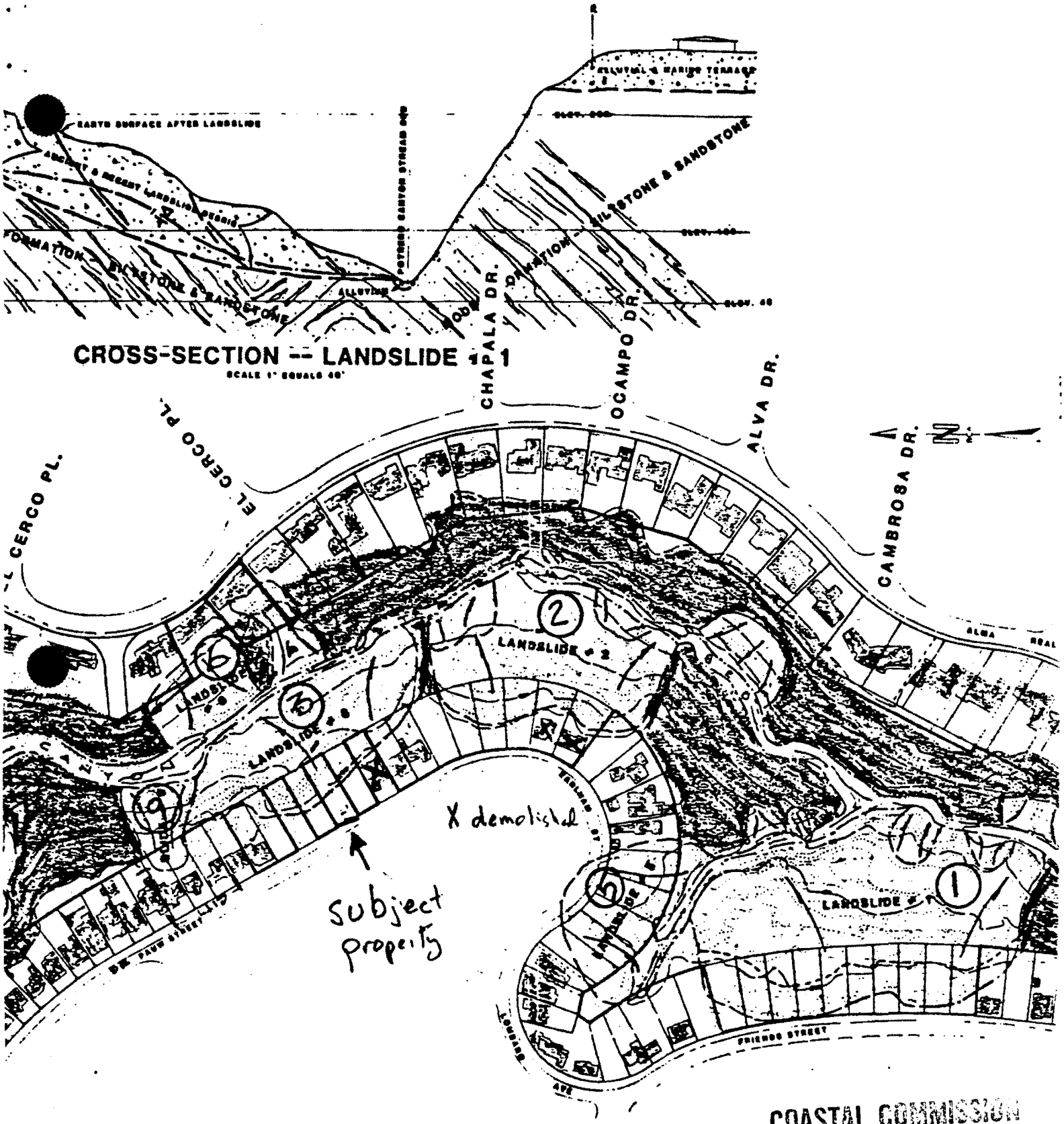
21822 SHERMAN WAY STE 102 CANOGA PARK, CA 91303

PHONE (818) 713 1058.



COASTAL COMMISSION
5-00-218
EXHIBIT # 12
PAGE 2 OF 3

LAYOUT FOR IDENTIFICATION OF LANDSLIDE FOR AERIAL PHOTOS



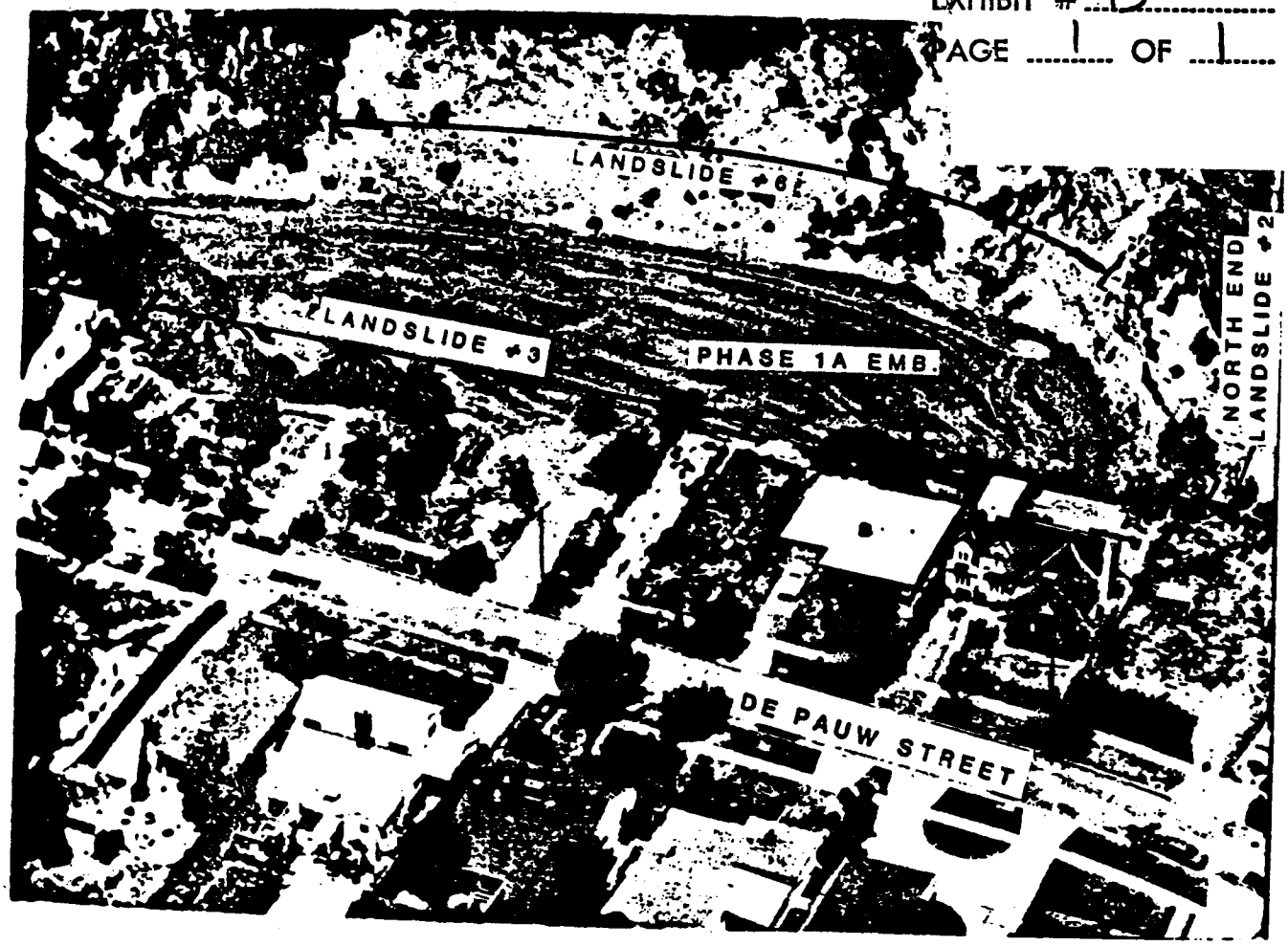
100 SCALE TOPOGRAPHIC MAP
POTRERO CANYON - PRIOR TO RESTORATION
GRADING BY -- POTRERO CANYON CONSTRUCTORS

COASTAL COMMISSION
5-00-218
EXHIBIT # 12
PAGE 3 OF 3

BCA - CIVIL ENGINEERS

AERIAL PHOTOS - POTRERO CANYON - 5/16/91

LANDSLIDE No. 3, LOOKING EAST, AT THE TOP WHERE SIX RESIDENCES HAVE BEEN DEMOLISHED.



NOTE: THE NORTH END OF LANDSLIDE No. 2 IS EXTREMELY CLOSE TO THE EXISTING RESIDENCE.

MASS EMBANKMENT, PHASE 2 WHICH IS THE FOUNDATION FOR BUTTRESS AND EMBANKMENT FOR 2:1 BUTTRESSING OF LANDSLIDE No. 6 IS FIRST ORDER CONSTRUCTION TO SETTLE LAWSUIT, AND STABILIZE EXISTING HOMES.

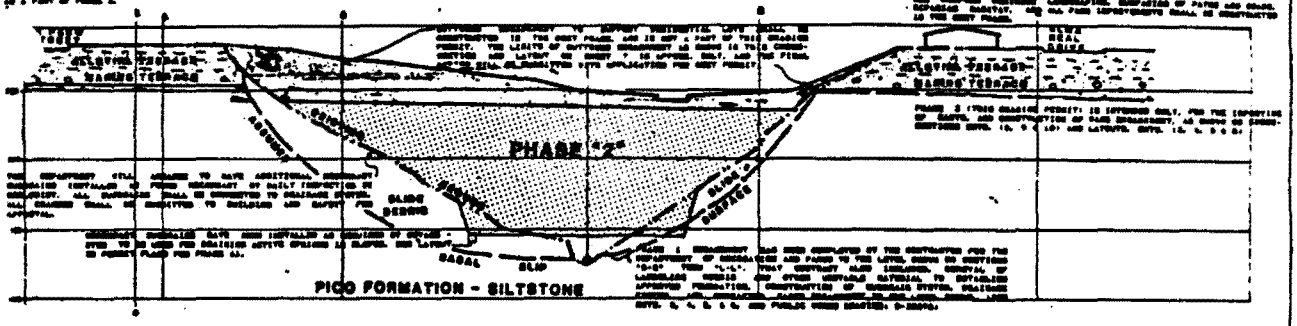
BCA - CIVIL ENGINEERS

AERIAL PHOTOS - POTRERO CANYON - 5/16/9-

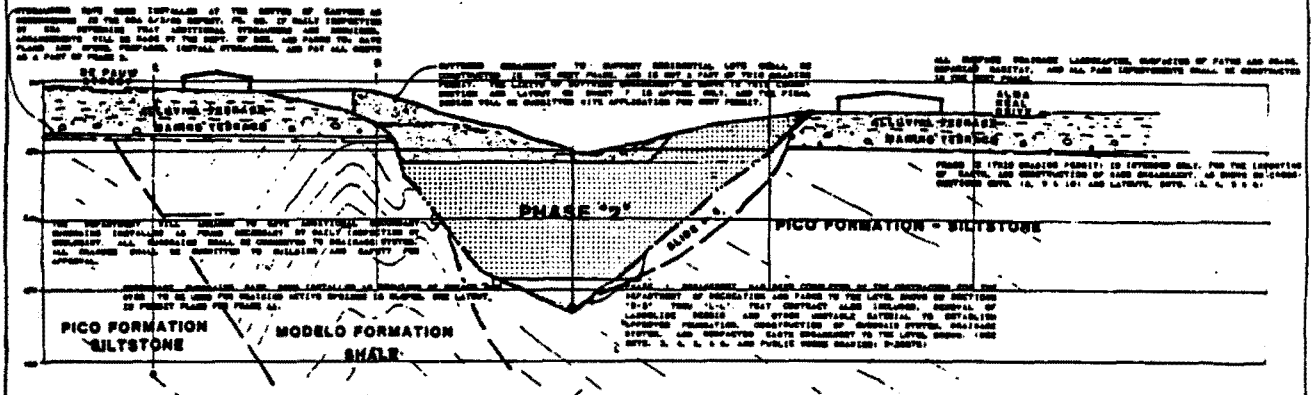
FULL VIEW CLOSE-UP - LANDSLIDE No. 3.

NOTE THAT LANDSLIDE No. 3 HAS BEEN RESPONSIBLE FOR THE DEMOLITION OF SIX RESIDENCES, AND THE SLIDE IS VERY CLOSE TO RESIDENCES AT THE NORTH AND SOUTH END OF THE LANDSLIDE. FOUR OF THE SIX RESIDENTIAL LOTS WHERE THE HOMES WERE DEMOLISHED, HAVE BEEN PURCHASED BY THE CITY OF LOS ANGELES.

Note: final plan used less fill in ph. 2



POTRERO CANYON STABILIZATION - SECTION "I-I"



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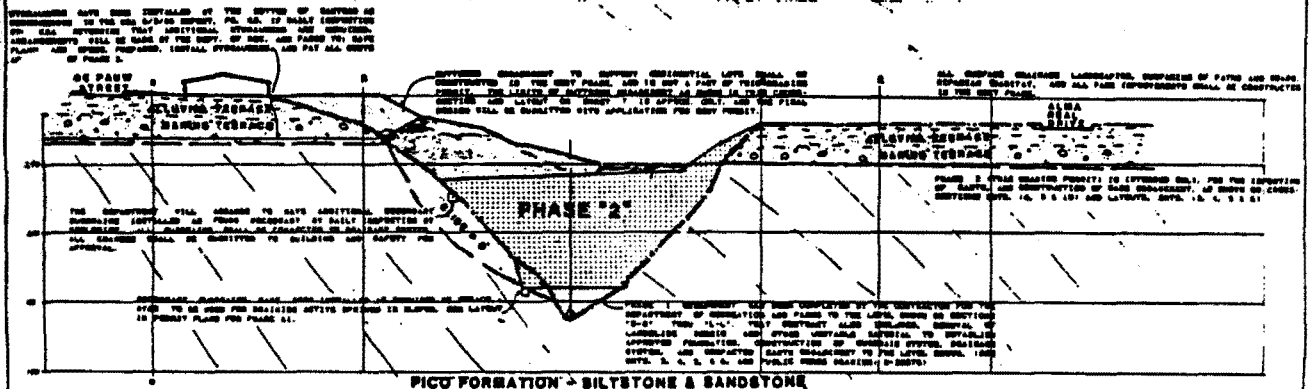

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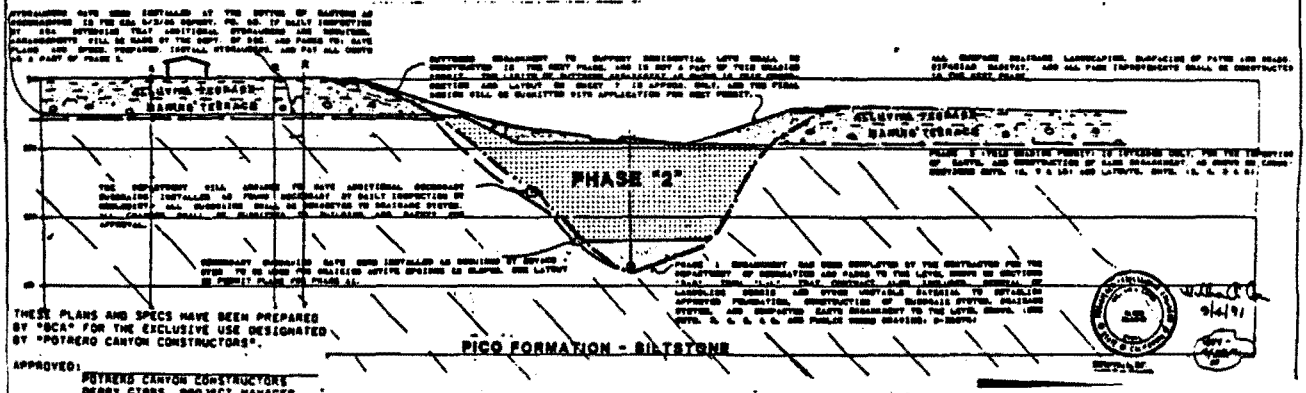


POTRERO CANYON STABILIZATION - SECTION "L-L

THESE PLANS AND SPECS HAVE BEEN PREPARED BY "GCA" FOR THE EXCLUSIVE USE DESIGNATED BY "POTRERO CANYON CONSTRUCTORS".

APPROVED:

POTRERO CANYON CONSTRUCTORS
GERRY GIBBS PROJECT MANAGER

CIVIL ENGINEERS

GRAPHIC SCALE

PRE
NOT F

CITY OF LOS ANGELES, DEPARTMENT OF RECREATION AND PARKS, 200 NORTH MAIN STREET, ROOM 12

TYPICAL SECTIONS - "I-I" "J-J" "K-K" "L-L"

POTRERO CANYON PARK DEVELOPMENT PHASE 2
RAND CONSTRUCTION OF EMBANKMENT & IMPORT

16101 PACIFIC COAST HIGHWAY

COASTAL COMMISSION
5-00-218

EXHIBIT # 15

PAGE 1 OF 1

OCEAN TRAILS
PROHIBITED INVASIVE ORNAMENTAL PLANTS

The species listed below are prohibited from use in landscaping on residential lots, parks, at the golf course clubhouse, and within the golf course proper. In addition to this list, all commercially available seed mixes are prohibited from use at Ocean Trails (variously called "grass mix", "turf mix", "wildflower mix", "meadow seed mix", and "pasture seed mix" mixes). Whenever a prohibited species is detected, the responsible party will be required to immediately remove the plant(s) and take appropriate measures to ensure non-recurrence of the plant species.

SCIENTIFIC NAME	COMMON NAME
Acacia sp. (all species)	Acacia
Acacia cyclopis	Acacia
Acacia dealbata	Acacia
Acacia decurrens	Green Wattle
Acacia longifolia	Sidney Golden Wattle
Acacia melanoxylon	Blackwood Acacia
Acacia redolens	a.k.a. *A. Ongerup*
Achillea millefolium var. *millefolium*	Common Yarrow
Agave americana	Century plant
Ailanthus altissima	Tree of Heaven
Aptenia cordifolia	Red Apple
Arctotheca calendula	Cape Weed
Arctotis sp. (all species & hybrids)	African daisy
Arundo donax	Giant Reed or Arundo Grass
Asphodelus fisulosus	Asphodie
Atriplex glauca	White Saltbush
Atriplex semibaccata	Australian Saltbush
Carpobrotus chilensis	Ice Plant
Carpobrotus edulis	Hottentot Fig
Centranthus ruber	Red Valerian
Chenopodium album	Pigweed, Lamb's Quarters
Chrysanthemum coronarium	Annual chrysanthemum
Cistus sp. (all species)	Rockrose
Cortaderia jubata [C. Atacamensis]	Atacama Pampas Grass
Cortaderia dioica [C. sellowana]	Selloa Pampas Grass
Cotoneaster sp. (all species)	Cotoneaster
Cynodon dactylon	Bermuda Grass
Cytisus sp. (all species)	Broom
Delosperma 'Alba'	White Trailing Ice Plant
Dimorphotheca sp. (all species)	African daisy, Cape marigold, Freeway daisy
Drosanthemum floribundum	Rosea Ice Plant
Drosanthemum hispidum	Purple Ice Plant
Eucalyptus (all species)	Eucalyptus
Eupatorium coelestinum [Ageratina sp.*]*	Mist Flower
Foeniculum vulgare	Sweet Fennel
Gazania sp. (all species & hybrids)	Gazania
Genista sp. (all species)	Broom
Hedera canariensis	Algerian Ivy
Hedera helix	English Ivy

Ipomoea acuminata	Blue dawn flower, Mexican morning glory
Lampranthus spectabilis	Trailing Ice Plant
Lantana camara	Common garden lantana
Limonium perezii	Sea Lavender
Linaria bipartita	Toadflax
Lobularia maritima	Sweet Alyssum
Lonicera japonica 'Halliana'	Hall's Honeysuckle
Lotus corniculatus	Birdsfoot trefoil
Lupinus sp. (all non-native species)	Lupine
Lupinus arboreus	Yellow bush lupine
Lupinus texanus	Texas blue bonnets
Malephora crocea	Ice Plant
Malephora luteola	Ice Plant
Mesembryanthemum crystallinum	Crystal Ice Plant
Mesembryanthemum nodiflorum	Little Ice Plant
Myoporum laetum	Myoporum
Nicotiana glauca	Tree Tobacco
Oenothera berlandieri	Mexican Evening Primrose
Olea europea	Olive tree
Opuntia ficus-indica	Indian fig
Osteospermum sp. (all species)	Trailing African daisy, African daisy, Cape marigold, Freeway daisy
Oxalis pes-caprae	Bermuda Buttercup
Pennisetum clandestinum	Kikuyu Grass
Pennisetum setaceum	Fountain Grass
Phoenix canariensis	Canary Island date palm
Phoenix dactylifera	Date palm
Plumbago auriculata	Cape leadwort
Ricinus communis	Castorbean
Rubus procerus	Himalayan blackberry
Schinus molle	California Pepper Tree
Schinus terebinthifolius	Florida Pepper Tree
Senecio mikanioides	German Ivy
Spartium junceum	Spanish Broom
Tamarix chinensis	Tamarisk
Trifolium tragiferum	Strawberry clover
Tropaelolum majus	Nasturtium
Ulex europaeus	Prickley Broom
Vinca major	Periwinkle

Grover Hollingsworth and Associates, Inc.

March 22, 2000
GH8179-G

Mr. Louis Magur
11300 West Olympic Boulevard, #770
Los Angeles, California 90064

Subject: Additional Exploration and Slope Stability Analysis, Proposed Single-Family Dwelling, Lot 15, Block 19, Tract 9300, 15245 De Pauw Street, Pacific Palisades, California.

Reference: Report by Grover-Hollingsworth and Associates, Inc.: Geologic and Soils Engineering Exploration, Proposed Single-Family Residence, dated April 8, 1998.

City of Los Angeles Review Letter, Log #24218, dated May 7, 1998.

Dear Mr. Magur:

The following report has been prepared to address concerns raised by the staff of the California Coastal Commission regarding the stability of the existing fill slope which descends to the east from the building pad. We also have addressed our recommended lateral pile load. The city of Los Angeles has approved development on the subject site in their May 7, 1998, letter based on our April 8, 1998, report. The City approved the compacted fill within the Potrero Canyon project as primary structural fill on January 22, 1999.

Additional subsurface exploration was performed on March 3, 2000. One boring was drilled to a total depth of 60 feet utilizing a full-size hollow-stem drill rig. the approximate location of the boring is shown on the enclosed Geologic Map. Samples of earth materials encountered in the boring were obtained and transported to the laboratory for testing and analysis. The

results of the laboratory testing are included in Appendix I. Cuttings of earth materials and samples from the boring were logged by the staff geologist. The log of the boring is included on the enclosed "A" plates. Subsurface distribution of the earth materials and the location of the proposed residence are shown on the enclosed Revised Section A, which forms the basis of the enclosed stability calculations.

SITE DESCRIPTION

The subject property consist of a level, elongated pad extending east 120 feet from the west property line near De Pauw Street to the top of the descending fill slope. The boring was drilled near the top of the slope at the northeast corner of the pad. The fill slope descends approximately 14 feet at a 2:1 gradient to a 16-foot-wide concrete-paved terrace. The slope continues to descend approximately 25 feet at a 2:1 gradient below the terrace to the canyon bottom. Canyon fill has been completed below the subject property which resulted in a relatively level 215-foot-wide new canyon bottom. The slope stability calculations were performed on this fill slope.

EARTH MATERIALS

Compacted fill was encountered in the boring to a depth of approximately 45 feet. The compacted fill consists of silty and clayey sand with rock fragments. Bedrock consisting of siltstone included in the Pico Formation was encountered below the fill in the boring.

SEISMIC CONSIDERATIONS

The maximum probable horizontal ground acceleration at the subject site has been analyzed using the EQFAULT Program by Blake. We utilized the Abrahamson and Silva, 1995, and Campbell and Bozorgnia, 1994, attenuation relationships. The subject property is located very close to the Potrero Canyon segment of the Malibu Coast/Santa Monica Fault. This fault is zone is currently considered active by many geologist. The California Division of Mines and Geology has not however mapped a fault hazard zone along this fault. The attenuation

relationships identify a high maximum probable ground acceleration of 0.74 g to 0.83 g (g=gravity). These values assume that the fault ruptures along the segment closest to the subject site. We believe that these acceleration values have an extremely low probability of occurrence during the design life of the structure.

The seismic coefficient used in the pseudostatic analysis is related to the period of the slope, the magnitude of the probable earthquake, and the maximum probable ground acceleration. Historically a horizontal seismic coefficient of 0.15 g has been used. The City of Malibu currently requires a horizontal seismic coefficeint of 0.2 g. Due to the proximity of the site to a potential seismic source and the high possible ground acceleration, we have utilized a horizontal seismic coefficient of 0.3 g for the subject site. It should be emphasized again that the probability of the maximum probable event occurring on the segment of the Malibu Coast Santa Monica Fault closest to the subject site during the design life of the project is remote.

SLOPE STABILITY

Slope stability calculations were performed for the existing compacted fill slope below the building pad. Stability calculations were performed under static conditions and pseudostatic conditions. The calculations were performed using the Interactive Software Designs, Inc., Computer Program. We utilized the Modified Bishop's Method for circular failures.

Calculations MAGURA, MAGURB and MAGURC were performed under static conditions. Calculations MAGURD, MAGURE and MAGURF were performed utilizing a horizontal seismic coefficient of k = 0.3 g. Calculations MAGURA and MAGURD evaluated failure surfaces through the compacted fill, terrace deposits and bedrock over the length of the building pad extending across the toe of the fill slope. Calculations MAGURB and MAGURE evaluated failure surfaces through the compacted fill closer to the top of the slope and extending beyond the toe of the slope. Calculations MAGURC and MAGURF were run to include failure surfaces along the compacted fill and terrace/bedrock contact.

APPENDIX

LABORATORY TESTING

Sample Retrieval - Drill Rig

Undisturbed samples of earth materials were obtained at frequent intervals by driving a thin-walled steel sampler with successive 30-inch drops of 140-pound hammer. The material was retained in brass rings of 2.41 inches inside diameter and 1.00 inch height. The central portion of the sample was stored in close-fitting, water-tight containers for transportation to the laboratory.

Moisture Density

The field moisture content and dry density were determined for each of the undisturbed soil samples. The dry density was determined in pounds per cubic foot. The moisture content was determined as a percentage of the dry soil weight. The results are presented on Plate A.

Shear Strength

The peak shear strength of the compacted fill and bedrock was determined by performing direct shear tests. The tests were performed in a strain-controlled machine manufactured by GeoMatic. The rate of deformation was 0.01 inches per minute. Samples were sheared under varying confining pressures, as shown on the "Shear Test Diagrams," B-plates. The moisture conditions during testing are shown on the B-plates. The samples indicated as saturated were artificially saturated in the laboratory. All saturated samples were sheared under submerged conditions.

Calculations indicate the existing compacted fill slope has a factor of safety in excess of 1.5 under static conditions and 1.1 under seismic conditions and is therefore considered grossly stable.

CONCLUSIONS

It is our finding that the existing fill which has been placed by the City of Los Angeles Department of Parks and Recreation, and approved as a structural compacted fill by the City of Los Angeles Department of Building and Safety provides adequate support for the existing pad under static and seismic conditions. It is further our opinion that the recommended lateral loads are sufficient to account for any minor differential settlement which will occur within the canyon fill.

Should you have any questions, please feel free to call.

Respectfully submitted,

DAVID R. BENSON
Staff Geologist

ROBERT A. HOLLINGSWORTH
G.E. 2022/E.G. 1265

DRB:RAH:dl

Enc: Geologic Map
Revised Section A
Appendix
Plate A-1a thru A-1e
Plate B-1 and B-2
EQ FAULT (9)
Slope Stability Calculations (30)

xc: (6) Addressee

REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HOLLINGSWORTH
No. 2022
Exp. 9-30-03
GEOTECHNICAL
STATE OF CALIFORNIA

LOG OF BORING B-1

Date Drilled: 3/3/00 Logged by: Dave Benson Project Manager: Bob Hollingsworth

Equipment: Hollow-Stem Auger Driving Weight and Drop: California Sampler

Surface Elevation(ft): _____ Depth to Water(ft): _____

DEPTH (ft)	GRAPHIC LOG	SUMMARY OF SUBSURFACE CONDITIONS	SAMPLES DRIVE	SAMPLES BULK	BLOWS/FOOT (Equiv. SPT)	MOISTURE (%)	DRY DENSITY (pcf)	SAMPLE TYPE
		COMPACTED FILL: Gravelly Silty Sand, brown, moist, dense	■		42	7.9	123.9	
5		Gravelly Silty Sand, medium brown, mottled brown and gray, moist, dense	■		42	6.6	125.9	
		Clayey Silt, brown to dark brown, moist, very firm, some rock fragments present	■		32	10.5	123.4	
10		Gravelly Sandy Silt, brown, moist, firm to very firm, contains rock fragments up to 1" in diameter	■		19	13.0	119.6	
		Gravelly Sand to Gravelly Silty Sand, brown, moist, dense	■		19	10.5	120.6	

COASTAL COMMISSION
5-00-218
EXHIBIT # 18
PAGE 1 OF 5

GEO 8179 3/13/00

Grover Hollingsworth and Associates, Inc.

Project Name: Magur, De Pauw, Pacific Palisades

Project No. GH8179-G

Plate A-1a

LOG OF BORING B-1

Date Drilled: 3/3/00 Logged by: Dave Benson Project Manager: Bob Hollingsworth

Equipment: Hollow-Stem Auger Driving Weight and Drop: California Sampler

Surface Elevation(ft): _____ Depth to Water(ft): _____

DEPTH (ft)	GRAPHIC LOG	SUMMARY OF SUBSURFACE CONDITIONS	SAMPLES DRIVE	SAMPLES BULK	BLOWS/FOOT (Equiv. SPT)	MOISTURE (%)	DRY DENSITY (pcf)	SAMPLE TYPE
15		Gravelly Clayey Sand, brown, moist, dense	■		20	14.7	124.9	
		Gravelly Silty Sand, brown with gray mottling, moist, dense	■		25	13.1	122.3	
20		Clayey Silty Sand, brown, mottled medium brown and dark brown, moist, dense, contains occasional rock fragments	■		32	13.2	121.6	
		Silty Clayey Sand, brown to dark brown, moist, dense, contains occasional rock fragments	■		24	9.3	125.7	
25		Silty Sand to Sandy Silt, brown, dark brown, reddish brown and gray, moist, dense to stiff	■		27	13.0	124.1	
		Silty Sand, brown, gray-brown and gray, moist, dense, contains	■		23	8.3	116.4	

LOG OF BORING B-1

Date Drilled: 3/3/00 Logged by: Dave Benson Project Manager: Bob Hollingsworth

Equipment: Hollow-Stem Auger Driving Weight and Drop: California Sampler

Surface Elevation(ft): _____ Depth to Water(ft): _____

DEPTH (ft)	GRAPHIC LOG	SUMMARY OF SUBSURFACE CONDITIONS	SAMPLES DRIVE	SAMPLES BULK	BLOWS/FOOT (Equiv. SPT)	MOISTURE (%)	DRY DENSITY (pcf)	SAMPLE TYPE
		occasional rock fragments	■					
30		(water added by driller to facilitate removal of cuttings) Gravelly Silty Sand, brown, moist, dense	■		28	9.8	116.1	
		Clayey Silty Sand, mottled dark brown and light yellow-brown, moist, dense, contains occasional rock fragments	■		37	11.6	118.1	
35		Gravelly Silty Sand, medium brown with gray mottling, moist, dense	■		25	16.1	106.6	
		Gravlly Clayey Sand to Clayey Sandy Gravel, brown, moist, dense	■		26	10.4	113.6	
40		Silty and Clayey Sand, dark brown, moist, dense, slight organic odor present	■		19	15.8	116.3	

COASTAL COMMISSION
5-00-218
EXHIBIT # 18
PAGE 3 OF 5

Grover Hollingsworth and Associates, Inc.

Project Name: Magur, De Pauw, Pacific Palisades

Project No. GH8179-G

Plate A-1c

LOG OF BORING B-1

Date Drilled: 3/3/00 Logged by: Dave Benson Project Manager: Bob Hollingsworth

Equipment: Hollow-Stem Auger Driving Weight and Drop: California Sampler

Surface Elevation(ft): _____ Depth to Water(ft): _____

DEPTH (ft)	GRAPHIC LOG	SUMMARY OF SUBSURFACE CONDITIONS	SAMPLES DRIVE	SAMPLES BULK	BLOWS/FOOT (Equiv. SPT)	MOISTURE (%)	DRY DENSITY (pcf)	SAMPLE TYPE
		Silty Sand, fine-Grained, dark brown, moist, dense	■		20	13.8	120.8	
45		BEDROCK: Pico Formation Siltstone, green-gray and gray, moist, moderately hard, some Gypsum present	■		24	32.0	86.7	
		Siltstone with small white Sandy inclusions/lenses, contains root hairs	■		30	25.3	98.4	
50		Siltstone, gray, moist, moderately hard	■		37	26.6	96.0	
		Siltstone with Thin White Sandstone Layers, gray, moist, moderately hard to hard	■		40	27.9	93.6	
55			■		50/11"	22.1	106.7	

Grover Hollingsworth and Associates, Inc.

Project Name: Magur, De Pauw, Pacific Palisades

Project No. GH8179-G

Plate A-1d

LOG OF BORING B-1

Date Drilled: 3/3/00 Logged by: Dave Benson Project Manager: Bob Hollingsworth

Equipment: Hollow-Stem Auger Driving Weight and Drop: California Sampler

Surface Elevation(ft): _____ Depth to Water(ft): _____

DEPTH (ft)	GRAPHIC LOG	SUMMARY OF SUBSURFACE CONDITIONS	SAMPLES DRIVE	SAMPLES BULK	BLOWS/FOOT (Equiv. SPT)	MOISTURE (%)	DRY DENSITY (pcf)	SAMPLE TYPE
60		End at 60'; No Water; No Caving Fill to Approximately 45'	■		50/10"	23.8	99.6	
65								

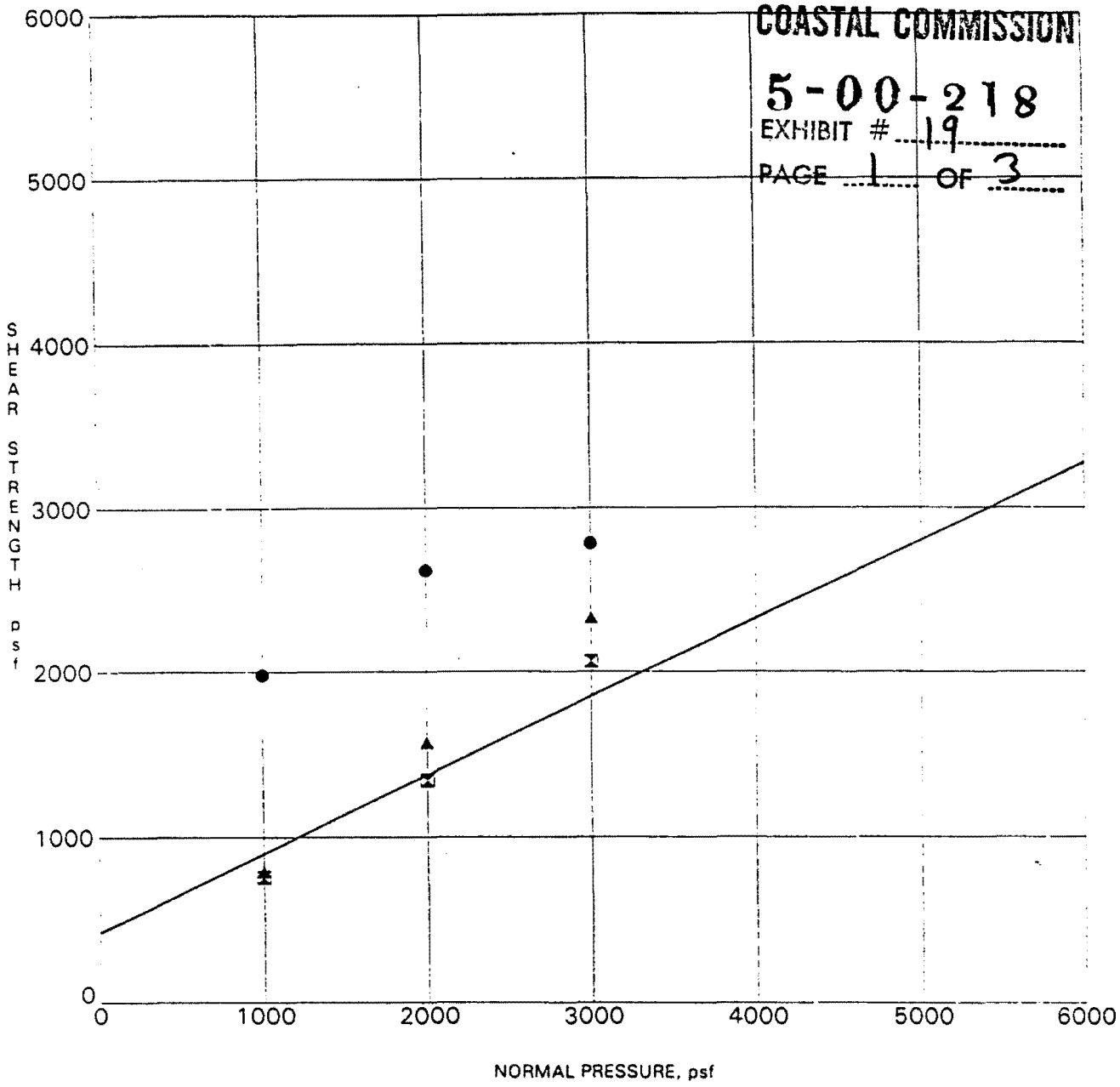
Grover Hollingsworth and Associates, Inc.

Project Name: Magur, De Pauw, Pacific Palisades

Project No. GH8179-G

Plate A-1e

SHEAR TEST DIAGRAM



***NOTE-PEAK STRENGTH VALUES**

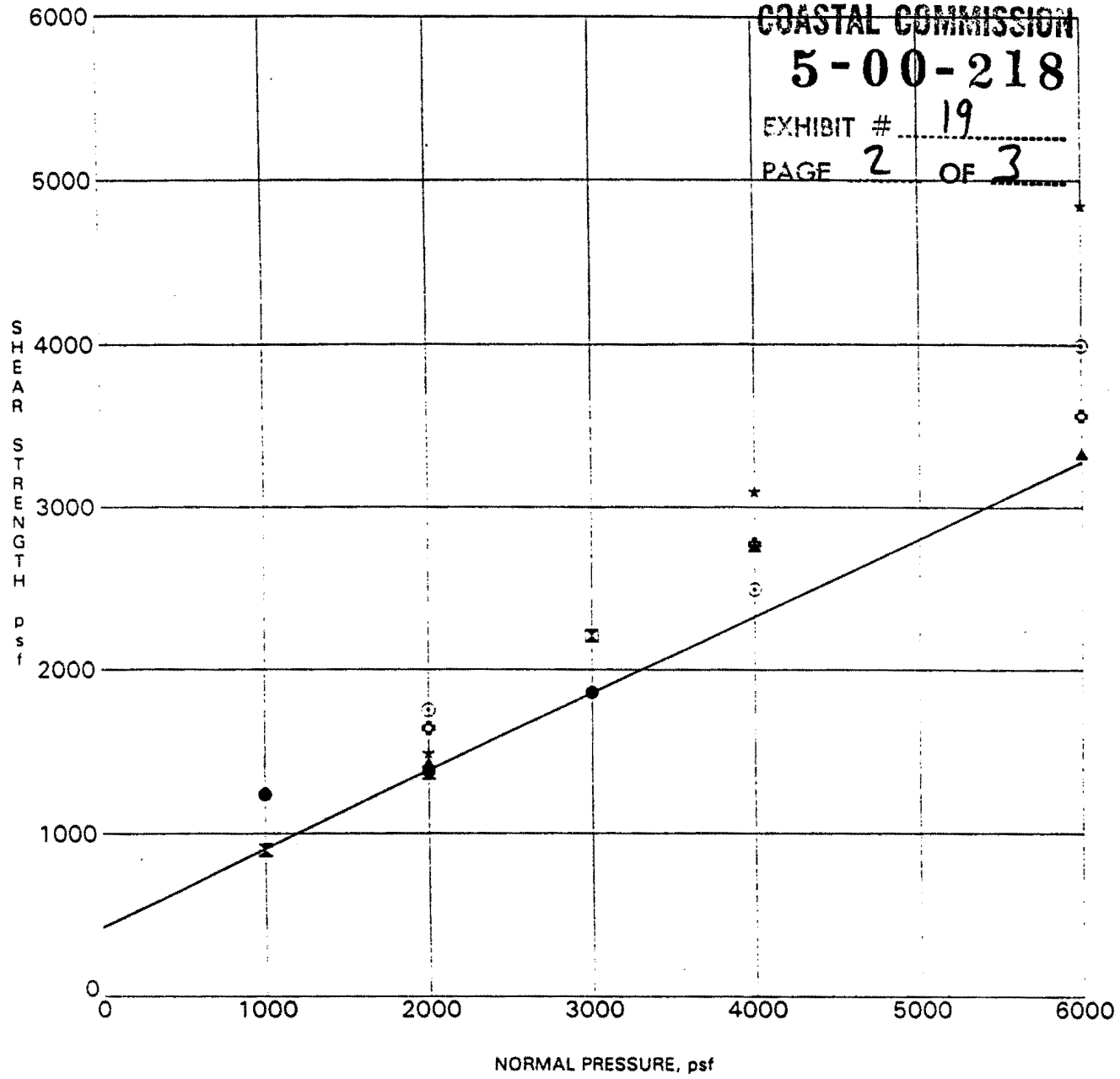
Specimen Identification			Soil Type/Classification	Cohesion	Friction Angle	DD	MC%
●	B-1	5.0	COMPACTED FILL			125.9	8.7
⧗	B-1	10.0	COMPACTED FILL			119.6	19.2
▲	B-1	15.0	COMPACTED FILL			124.9	19.9

PROJECT MAGUR - 15245 DEPAUW STREET JOB NO. GH8179-G
DATE 3/00

Grover-Hollingsworth and Associates, Inc.
Westlake Village, California

PLATE B-1

SHEAR TEST DIAGRAM



***NOTE-PEAK STRENGTH VALUES**

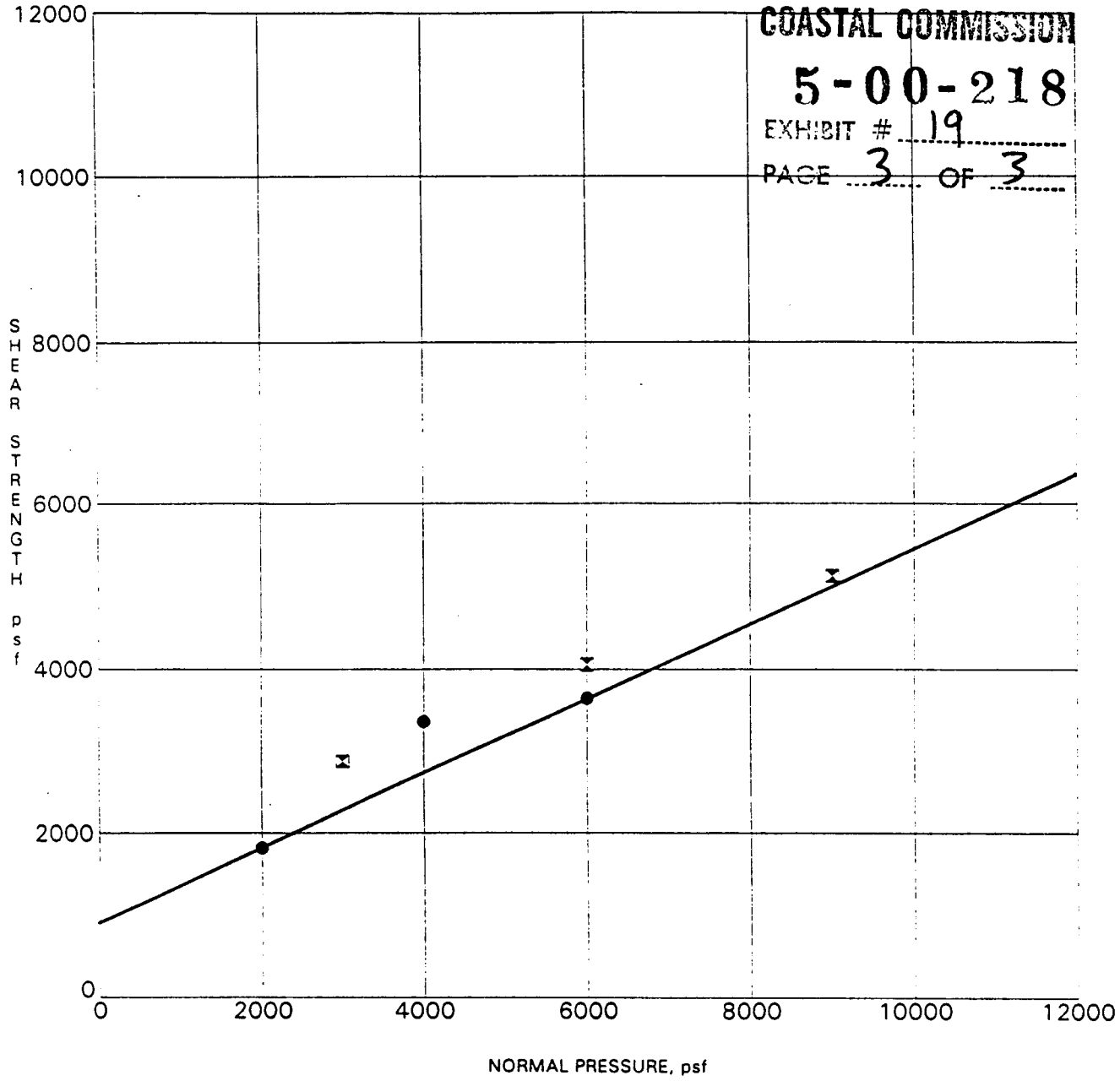
Specimen Identification			Soil Type/Classification	Cohesion	Friction Angle	DD	MC%
●	B-1	20.0	COMPACTED FILL			121.6	17.0
⧗	B-1	22.5	COMPACTED FILL	430	25	125.7	15.3
▲	B-1	30.0	COMPACTED FILL			116.1	15.9
★	B-1	35.0	COMPACTED FILL			106.6	23.3
⊙	B-1	40.0	COMPACTED FILL			116.3	18.0
◇	B-1	42.5	COMPACTED FILL			120.8	9.2

PROJECT MAGUR - 15245 DEPAUW STREET JOB NO. GH8179-G
DATE 3/00

Grover-Hollingsworth and Associates, Inc.
Westlake Village, California

PLATE B-2

SHEAR TEST DIAGRAM



*NOTE-PEAK STRENGTH VALUES

Specimen Identification			Soil Type/Classification	Cohesion	Friction Angle	DD	MC%
●	B-1	45.0	BEDROCK	950	25	86.7	30.8
⧗	B-1	52.5	BEDROCK			93.6	31.9

PROJECT MAGUR - 15245 DEPAUW STREET

JOB NO. GH8179-G
DATE 3/00

Grover-Hollingsworth and Associates, Inc.
Westlake Village, California

PLATE B-3