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STATE OF CALIFORNIA—THE RESOURCES AGENCY PETE WILSON, *Governor*

CALIFORNIA COASTAL COMMISSION
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Filed: June 14, 1996
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Staff: RMR/LB RMR
Staff Report: July 23, 1996
Hearing Date: August 13-16, 1996
Commission Action:

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 5-96-093

APPLICANT: City of San Clemente AGENT: Bill Cameron

PROJECT LOCATION: Trafalgar Canyon, South Ola Vista to 128 Trafalgar Lane

PROJECT DESCRIPTION: Install an 800 foot long, 72 inch wide storm drain pipe to connect with existing storm drain improvements, place 20,000 cubic yards of fill over the pipe to a maximum height of 30 feet; grade, bench and revegetate the canyon fill slopes; and reconstruct Trafalgar Lane. Included in the application submittal is a California Department of Fish and Game Streambed Alteration Agreement signed by the City which requires the City to record a conservation easement or deed restriction over the revegetated slopes.

Lot area:	2.8 ac
Building coverage:	NA
Pavement coverage:	36,000 sq. ft.
Landscape coverage:	85,000 sq. ft.
Parking spaces:	NA
Zoning:	Residential
Plan designation:	Residential
Project density:	NA
Ht abv fin grade:	NA

LOCAL APPROVALS RECEIVED: Approval in concept from the City of San Clemente, Trafalgar Lane Stabilization/Final Mitigated Negative Declaration SCH No. 95081005 (September 1995)

SUBSTANTIVE FILE DOCUMENTS:

1. Preliminary Geotechnical Investigation, Geobase, Nov. 1994
2. Oct. 28, 1994 Letter from the City of San Clemente Regarding Alternatives
3. June 13, 1996 Letter from the City of San Clemente Regarding Information Requested by Staff
4. June 13, 1996 Letter from Leighton and Associates, Inc. Regarding Staff's Geotechnical Questions
5. September 27, 1995 Letter from Leighton and Associates, Inc. Regarding Settlement of Fill

6. Biological Resources Assessment, LSA, Oct. 1994
7. Trafalgar Lane Stabilization / Final Mitigated Negative Declaration, Ed Almanza & Assoc., Sept. 1995
8. Fish & Game Streambed Alteration Agreement No. 5-313-95
9. Coastal Development Permit 5-91-286 (Potrero Canyon)

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends approval of the proposed development with special conditions regarding assumption of risk, evidence of permission to construct, geological recommendations, and landscaping plan.

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution:

1. Approval with Conditions

The Commission hereby grants a permit for the proposed development, subject to the conditions below, 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 impacts 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. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions 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 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 project during its development, 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. Evidence of Permission to Construct

Prior to the issuance of the coastal development permit, the City shall provide evidence of its legal right to enter the property and construct the project, either by providing evidence of written permission from the homeowners at 259, 257, 255, 253, 251, 249, 245 Avenida Madrid, 243, 241, 239, 237, 235, 233, 231 Avenida Monterey and at 154 Trafalgar Lane or evidence that it has original ownership of the property.

2. Assumption of Risk

Prior to the issuance of the coastal development permit, the City shall submit a letter, for the review and approval of the Executive Director, stating that the City understands that: a) the site is subject to hazard from landslides, erosion and settlement and the City assumes the liability from those hazards and (b) that the City unconditionally waives any claim of liability on the part of the Commission and agrees to indemnify and hold harmless the Commission, its officers, agents, and employees against all claims, demands, damages, costs, and expenses of liability arising out of the acquisition, design, construction, operation, maintenance, existence or failure of the permitted project.

3. Conformance with Geological Recommendations

All recommendations contained in the Geologic Report by Geobase, Inc. dated 1994, the report by Leighton and Associates, Inc., dated 1995 and the letter by Leighton and Associates, Inc. dated June 13, 1996, shall be incorporated into all final design and construction plans, including drainage. Prior to the issuance of the coastal development permit the applicant shall submit, for the review and approval of the Executive Director, final design and construction plans that incorporate the recommendations made in the referenced reports.

The final plans shall include a signed statement by a geotechnical consultant certifying that each of the recommendations have been incorporated into the final plans. Any substantial changes in the proposed development approved by the Commission which may be required by the consultant shall require an amendment to the permit or a new coastal permit.

4. Landscaping Plan

Prior to the issuance of the coastal development permit, the applicant shall submit a landscaping and erosion control plan for the review and approval of the Executive Director. The plans shall incorporate the following criteria:

(a) All graded areas on the subject site shall be planted and maintained for erosion control and preservation of native vegetation. To minimize the need for irrigation and to mitigate for the loss of native vegetation, all landscaping in graded areas shall consist of native drought resistant plants as specified in Table 1 of the June 29, 1995 Conceptual Mitigation/Enhancement Plan developed by Glenn Lukos Associates. Invasive, non-indigenous plant species which tend to supplant native species shall not be used.

(b) Should grading take place during the rainy season (November 1-March 31), sediment basins (including debris basins, desilting basins, or silt traps) shall be required on the project site prior to or concurrent with the initial grading operations and maintained through the development process to minimize sediment from run-off waters during construction. All sediment should be retained on-site unless removed to an appropriate approved dumping location.

(c) Fill slopes and graded areas shall be stabilized with planting at the completion of final grading. Planting shall be of native species using the planting and maintenance procedures outlined in the June 29, 1995 Conceptual Mitigation/Enhancement Plan by Glenn Lukos Associates. Such planting shall be adequate to provide coverage as stipulated in the three-year monitoring program specified in the Conceptual Mitigation/Enhancement Plan. This plan provides for 35% coverage the first year, 55 percent coverage the second year and 75% coverage by the third year.

(d) The applicant shall supply the Executive Director with the annual monitoring reports required in the Conceptual Mitigation/Enhancement Plan.

IV. Findings and Declarations

The Commission hereby finds and declares:

A. Project Description

The City of San Clemente is proposing to construct an 800 foot long, 72 inch wide storm drain pipe, place 20,000 cubic yards of fill over the pipe, revegetate the canyon fill slopes, and reconstruct Trafalgar Lane. The maximum height of the fill is 30 feet. The site for the proposed development is Trafalgar Canyon bounded by South Ola Vista to the south, Trafalgar Lane to the south and east, Avenida Madrid to the west and Avenida Monterey to the north (see Exhibit 2). There is one canyon-fronting residence between Trafalgar Lane and the canyon at 154 Trafalgar Lane, with the remainder of the 800 feet being vacant slopes. There are 15 canyon-fronting residences off of Avenida Madrid and Avenida Monterey. Avenida Madrid becomes Avenida Monterey as the street progresses northeast (see Exhibit 2).

The proposed development is a flood control project designed to ensure the stability and safety of Trafalgar Lane and to protect existing residences on both sides of the canyon from further destabilization by erosion of slopes caused by uncontained storm waters.

Following the winter storms of January 1993 representatives of the City of San Clemente's engineering department took Coastal Commission staff on a guided tour of storm damage. One of the major areas of concern on that tour was Trafalgar Canyon. The residence at 154 Trafalgar Lane had suffered damage to the driveway and the City pointed to increased canyon slope oversteepening which had progressed to the foundations of some of the residences on the north side of the canyon. At that time the City began to consult with Coastal Commission staff concerning a comprehensive solution to the problems at Trafalgar canyon.

There are three components to the project. The first part is to install the 72 inch storm drain in the existing canyon bottom. The second part is to fill the canyon and recontour and bench the canyon slopes for greater stability. The third part is to rebuild Trafalgar Lane which runs parallel to the canyon to the south and east. The City's major concern is to stabilize Trafalgar Lane, which is currently experiencing ongoing slumping, cracking and settlement caused by storm water erosion of supporting slopes and differential settlement of improperly compacted soils. Winter rain runoff has created erosion problems in the stream channel and surrounding slopes. The project will also benefit one homeowner on the southern side of the canyon and homeowners on the northern side of the canyon whose homes have already been damaged or are potentially threatened by storm water erosion and oversteepening of the canyon slopes. This project is designed as a comprehensive, long-term solution to both the road stabilization problem and threats to existing residential structures.

Exhibit 4 shows cross-sections of the existing topography and proposed topography. Exhibit 5 is a computer model of the existing topography and Exhibit 6 is a computer model of the proposed topography. As is shown in Exhibit 6, the proposed fill would have the effect of making existing oversteepened slopes more gentle.

The proposed 72 inch storm drain pipe will connect the existing 6' X 5' reinforced concrete box downstream at Ola Vista Lane with the existing 72 inch reinforced concrete pipe culvert at the upstream terminus of the project (see Exhibit 3). The canyon upstream of the existing 72" culvert is not channelized for several hundred feet. The downstream stretch was piped and filled in the early 1970's. The proposed storm drain pipe is designed to handle a 100 year event. There will be no measurable increase in flow once the project is built.

The biological report prepared for the applicant by LSA Associates, Inc. indicates there is no riparian or wetland vegetation in the stream channel. The stream channel is narrow, incised and scoured of vegetation. Vegetation on the southern slopes consists of a mixture of native, ornamental, and ruderal plants. Implementation of the project will result in the temporary removal of 1.7 acres of the mixed plant community and the permanent removal of 0.13 acres of streambed. The City will revegetate 1.95 acres of regraded slopes with native chaparral plants particular to the San Clemente area. In addition, the Streambed Alteration Agreement requires the City to record either a conservation easement or deed restriction over their property protecting the replanted slopes in perpetuity. The 1601-1603 Streambed Alteration Agreement submitted with the application included a draft conservation easement, thereby indicating that the City chose to protect the resources with a conservation easement, not a deed restriction. This

agreement (Exhibit 7) states that there is no riparian vegetation on the site and that the replanting program and conservation easement or deed restriction serves as mitigation for the impacted native vegetation on the slopes.

The Final Mitigated Negative Declaration includes an archaeological survey conducted by Ed Almanza & Associates which states that there are no significant or potentially significant resources on the site.

B. Geologic Hazard & Flood Control

Section 30253 of the Coastal Act states in part:

> 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.

Section 30236 of the Coastal Act states:

> Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

The proposed development is a flood control project designed to ensure the stability and safety of Trafalgar Lane and to protect existing residences on both sides of the canyon from further slope destabilization by erosion from uncontained storm water runoff. The geotechnical analysis in this staff report applies to both Sections 30253 and 30236. However, the requirements of section 30236 are more complex and an additional analysis will be provided in this staff report concerning mitigation and alternatives.

The stability problem in Trafalgar Canyon resulted from the combination of low strength soils, placement of substandard fill, and the downcutting of the canyon bottom by concentrated runoff. The downcutting establishes a cycle whereby slides or block falls occur, the debris falls into the canyon temporarily stabilizing the toe of the slopes, the debris is eventually washed away, tension cracks begin to appear on the slope face and the cycle is repeated.

The City of San Clemente has documented threats to the existing road and residences. Trafalgar Lane is experiencing distress due to soil creep and landsliding, and rsidences along the canyon are at risk from oversteepened slopes and landsliding due to storm water erosion. Installation of the 72" storm drain pipe will contain the storm waters and eliminate the threat of slope failure from storm water erosion.

The road and existing structures will be protected from further slope erosion of oversteepened slopes by the placement of fill in the canyon to buttress the northern and western canyon walls. Excavation, benching and recompaction of the southern slopes are necessary to protect Trafalgar Lane from further destabilization. Exhibit 4 shows cross-sections of the existing topography and proposed topography. Exhibit 5 is a computer model of the existing topography and Exhibit 6 is a computer model of the proposed topography. As is shown in Exhibit 6, the proposed fill would have the effect of making existing oversteepened slopes more gentle.

1. Protection of the Existing Road for Public Safety

The City has submitted a geotechnical investigation by GEOBASE, INC. dated November 1994. The purpose of the geotechnical investigation was to analyze the slope failures and pavement distress and to suggest corrective measures.

The proposed development encompasses 800 feet of Trafalgar Lane from 128 Trafalgar Lane to the junction of Trafalgar Lane and South Ola Vista. The road is 30 feet wide and is bounded on the north and east by slopes and on the south and east by a sidewalk and single-family homes (see Exhibit 3). Slopes on the north and east of Trafalgar Lane are densely vegetated and range from ratios of 3:1 to 1:1. The stream channel at the bottom of the canyon varies from 8 to 15 feet wide. During their investigation the geotechnical consultants conducted site observations, aerial photo study, field geological mapping, excavation of four (4) test pits, and drilling of three (3) borings.

Examination of the road revealed cracking of the curbs and pavement adjacent to slope slip scars, signs of repeated street patching and repair, locations where curb and gutters had been replaced, and general unevenness of the pavement. The consultants conclude that the causes of the road distress are erosion of the bedrock and soils by rain water runoff in the canyon, differential settlement of the underlying fill, soil creep due to oversteepened slope conditions, inadequate road drainage and progressive deterioration of the roadway slopes.

Subsurface studies showed that the artificial soils beneath the road were compressible and had a degree of compaction below 90%, that the artificial soils have a high expansion potential, and that the marine terrace deposits show little or no cementation. The road was constructed in the 1920's and 1930's and the artificial fill was not properly compacted.

Examination of the slopes adjacent to the road showed that there were numerous tension cracks, slide scarps, slip scars and that the slopes were oversteepened. The geologic report states:

> The combination of the oversteepened slope profile, not properly compacted artificial fill, incomplete removal of the colluvial soils, and the lack of proper benching into competent materials have resulted in creeping of the soils. This slow downward movement of soils in the upper and mid-portion of the slope may have caused additional settlement in the pavement area.

The geologic report notes that oversteepening of the slopes is due to slope undercutting by storm waters in the canyon and slides of soils caused by the wetting and drying of expansive soils. Exhibit 4 shows that the portion of

the road most affected by steep slopes is crss-section D-D in the upstream stretch of the canyon.

The City considered other alternatives which involved Trafalgar Lane only. Any alternative considered, however, did involve overexcavation of the top three feet of road, the removal of vegetation on the slopes adjacent to the road and either benching of slopes or installation of soil nails or caissons. But any alternative which did not include the containment of the storm water run-off left open the possibility for slope erosion and future slope failure.

In addition to filling the canyon and benching and compacting the slopes the consultants recommend that at a minimum, three feet of the subgrade soils under the road pavement be removed and replaced with properly compacted fill the entire length of the roadway.

The applicants chose the proposed project alternative because it is a comprehensive, long-term solution necessary to minimize risks to life and property and to protect existing development, i.e., Trafalgar Lane.

2. Protection of Existing Homes

The 1994 GEOBASE geologic report includes an analysis of problem areas impacting residences along Trafalgar Canyon. The most serious problems are located towards South Ola Vista, where the deepest fill will be located, and the least serious problems are located off of Avenida Monterey. However, the consulting geologists state that given time and erosion, the residences off of Avenida Monterey will be more seriously impacted by storm water erosion.

The slope below 259 and 251 Avenida Madrid is oversteepened with a slope ratio of .5:1. A gabian wall is located at the toe of the slope beneath 259 and 257 Avenida Madrid. A support column of 259 Avenida Madrid is located at the crest of the oversteepened slope and is showing signs of erosion. A concrete staircase at 259 Avenida Madrid has been displaced three (3) inches and cracks were observed at the rear wall of the residence.

The slope below 255 Avenida Madrid includes a slip scar on the face with talus debris and large dislodged blocks of bedrock at the toe of the slope. Tension cracks were observed at the headscarp.

The geological consultants observed a surficial slip scar beneath 251 Avenida Madrid and several surficial slip scars beneath 245 Avenida Madrid.

The City has submitted a letter dated June 13, 1996 concerning threats to existing residences along Trafalgar Canyon. The letter notes that structures at 154 Trafalgar Lane and 253, 255, 257 and 259 Avenida Madrid are most at risk. These structures have lost their canyon buffer zone and the slopes beneath these residences are oversteepened. The residence at 154 Trafalgar Lane already suffered damage during the winter rains of 1993. A letter from Geobase, Inc. dated June 13, 1996 also addresses slope stability and threats to existing structures.

The geologic report notes that unless some action is taken this erosional process will eventually place the other canyon-fronting homes on Avenida Madrid at risk.

> The distress to the roadway, up to the time of this investigation, has not been related to gross instability of the adjacent slopes; however, there is a potential for gross instability on both sides of the canyon, especially along the southwestern portion, if remedial measures are not carried out to improve the current conditions of these slopes.

A letter from Leighton and Associates, Inc., dated September 27, 1995 addresses the issue of settlement which would be caused by the placement of 20,000 cubic yards of fill. Exhibit 4 includes cross-sections of the canyon with the existing and proposed topography. These sections show that the deepest deposit of fill would be located towards South Ola Vista (Section A-A). The geotechnical consultants state that settlement may occur below 15 structures. For the five structures at 233, 235, 239, 241 and 243 Avenida Monterey the amount of settlement was deemed insignificant. For five other residences at 231 and 237 Avenida Monterey and 245, 249 and 251 Avenida Madrid settlement may cause minor cosmetic cracking. However, for the structures at 253, 255, 257 and 259 Avenida Madrid and 154 Trafalgar, settlement may exceed 1.5 inches.

However, the geotechnical consultants conclude that implementation of the proposed project will ensure the stability of the existing residences along this stretch of Trafalgar Canyon by increasing the level of safety factor to 1.5 or more. As stated in the geologic report:

> With a code complying safety factor for the canyon side walls, the threat of total loss of foundation support and destruction of the residential structure is abated. The anticipated level of induced distress as a result of postulated settlements (Leighton, 1995) is minor widening of probably pre-existing cracks. But even if one should assume a worst-case scenario of severe structural cracks the damage would be far smaller than the consequences of total foundation loss.

3. Section 30236 Analysis

In order to meet the requirements for conformance with Section 30236, a project involving substantial alteration of streams must incorporate the best mitigation measures, be a water supply project or a flood control project where no other method for protecting existing structures in the floodplain is feasible and where such measures are necessary to protect existing development.

Conversion of 800 feet of incised stream channel constitutes a substantial alteration. Without installation of the storm drain pipe there will be continued storm water erosion and slope failure from flood level velocities threatening Trafalgar Lane and residences. The existing residences and the road are located on the canyon rim which is approximately 50 feet above the flow line of the stream. The flood waters have cut a narrow, incised stream channel in the canyon bottom. Normally, water flowing through the canyon is contained in the stream channel. However, during flooding the water level rises above the canyon channel and erodes the toe of the slopes or cut into the canyon walls, thus endangering structures on the canyon top. Technically, however, the structures at risk are not in the floodplain of the canyon stream.

The placement of a 72" storm drain pipe in the flow line of the canyon, therefore, is a necessary flood control project to contain the storm waters

flowing through Trafalgar Canyon. Finally, placement of the 20,000 cubic yards of fill is necessary to buttress the currently oversteepened canyon walls and prevent further damage to Trafalgar Lane and stabilize the slopes below existing residences.

Subsections 1 and 2 (above) document the threats to Trafalgar Lane and existing residences posed by ongoing erosion of the canyon slopes caused by storm waters. This section will address the remaining tests of Section 30236, which are feasible alternatives and mitigation.

a. Alternatives

The proposed project is a comprehensive solution to erosion threats to both the roadway and existing residences along the canyon. One alternative considered by the City is the no project alternative. This alternative is unacceptable because maintaining the status quo would result in further damage to the existing road and existing homes.

The Mitigated Negative Declaration includes a discussion of alternatives, including the no project alternative. It states:

> Under this alternative, repeated failures would occur periodically in association with high rates of storm flow and precipitation. Trafalgar Lane would continue to be undermined, with the road's substandard condition progressing from pavement distress to gross instability. The threat of failure on the adjacent canyon slope would eventually heighten the public safety hazard, leading to the road's closure.

Another alternative posed by the City is to take the minimal measures required to remediate the road problems only. Under this alternative the City would install a system of piles or caissons along the northern edge of Trafalgar Lane. However, as is stated in the Mitigated Negative Declaration:

> While the alternative would mitigate lateral and downward movement of materials underlying the roadway, it would not address the undermining of Trafalgar Canyon's slopes due to high velocity runoff, oversteepened slopes, and dislodging of bedrock in the canyon. ... Because it does not address the undermining of Trafalgar Canyon's banks and potential mass instability, it does not achieve the project's objective, i.e., permanent stabilization of Trafalgar Lane.

This alternative would also not take into consideration problems facing existing homeowners. In the absence of a comprehensive solution and in the event of further slope destabilization, the City and the Commission will have to handle applications by multiple individual homeowners for foundation and other stabilization projects. And because of the loss of rear yards, stabilization of these homes would be extremely problematic and expensive.

As was stated in the June 13, 1996 letter from the City of San Clemente:

> Without this project, each homeowner will need to take measures at their property to prevent gradual downcutting of the canyon bottom to prevent total foundation loss. Each homeowner will need to enter into the canyon to implement measures.

It is not known how individual homeowners would address the problem. It is clear that piecemeal solutions pose a much greater threat to coastal resources and have a much greater potential for conflicts with Sections 30253 and Section 30236. Each homeowner applying for a permit would require a comprehensive geological and soils report, and, depending upon the method of stabilization, possibly a Streambed Alteration Agreement, and mitigation plan. There is the further potential that homeowners would wait until immediate measures are required and apply for emergency permits.

The final alternative considered by the City is to install a grout curtain along the base of Trafalgar Canyon, i.e., harden the stream channel bottom and sides. While this alternative would address the issue of ongoing slope erosion, it would not solve the problem of the threats to existing development from already oversteepened slopes.

Therefore, the Commission finds that the proposed development of a 72" storm drain pipe does constitute substantial alteration of a stream, is the only feasible method for protecting existing structures and is necessary for public safety, i.e., stabilization of Trafalgar Lane.

b. Mitigation

Section 30236 requires that any substantial alteration of streams shall incorporate the best mitigation measures feasible. The installation of the 72" pipe and placement of 20,000 cubic yards of fill will result in the loss of .13 acres of stream bed, the permanent loss of .37 acres of non-native plants, and the temporary loss of 1.33 acres of native vegetation. To mitigate the loss of the streambed and native vegetation (1.46 acres), the California Department of Fish and Game is requiring that the City revegetate 1.95 acres of the canyon with native chaparral habitat and record a conservation easement over the revegetated area.

There is no riparian habitat in the stream channel. The channel is incised and subject to periodic scour, thereby preventing the establishment of riparian habitat. Water flowing through the canyon is derived primarily from residential development run-off.

The City's biological consultant Glenn Lukos Associates has prepared a conceptual mitigation/enhancement plan for the proposed project. The biologic report states that the site is composed of a mix of native chaparral plants (1.33 ac.) and non-native plants (0.62 ac.), with the dominant native plant being Lemonade berry (Rhus integrifolia). Mitigation for the loss of the 1.33 ac. of native plants is the revegetation of 1.95 ac. The mitigation is adequate for several reasons. First, the project will stabilize the slopes and there will be no more loss of slopes and vegetation due to erosion. Second, the non-natives will be removed and only native chaparral plants will be established. Third, the slopes will be less steep and more conducive to plant growth. Fourth, the revegetation area will be placed in a conservation easement for the purpose of protecting the fish and wildlife resources in perpetuity. Fifth, the mitigation plan has been approved by the California Department of Fish and Game and a Streambed Alteration Agreement has been agreed to. Sixth, the habitat enhancement plan includes provisions for irrigation for two years, plant replacement, monitoring by qualified biologist for three years, weeding, and a goal of 75% coverage in three years.

Therefore, the Commission finds that the habitat mitigation and enhancement plan incorporates the best feasible mitigation measures and is consistent with Section 30236 of the Coastal Act.

4. Conclusions

Section 30253 of the Coastal Act states in part that new development shall minimize risks to life and property and shall assure stability and structural integrity. The cause of destabilization of the road and existing canyon slopes is that the slopes are being undercut by erosion caused by storm water. The amount of storm water coursing through the canyon has increased with the buildout of San Clemente and increased development outside the coastal zone.

Installation of the storm drain pipe would ensure stability of the canyon by eliminating the ongoing erosion caused by storm water runoff. Placement of the 20,000 cubic yards of fill would assure the future stability of the road and residences by buttressing existing oversteepened slopes. The proposed development is a comprehensive solution which would obviate the need for at-risk homeowners to individually apply for permits to install visible caisson systems or hardscape protective measures at the base of the slope to protect their homes.

The proposed development is a flood control project which would eliminate the ongoing threat of erosion to Trafalgar Lane and to existing residences along the canyon. Therefore, the Commission finds that the proposed development of a 72 inch pipe, 20,000 cubic yards of fill, and reconstruction of Trafalgar Lane conforms with Section 30253 of the Coastal Act.

Trafalgar Canyon is an area of high flood hazard where storm water runoff is undercutting slopes and endangering an existing road and residences. The proposed development is a comprehensive solution to protect all development in Trafalgar Canyon and will ensure the future stability of the area. However, the geologic report has identified several residences which in the future may be subject to differential settlement caused by the fill. For these reasons, the City shall be required to indemnify and hold harmless the Coastal Commission from any claims related to the proposed development. In addition, the City shall be conditioned to conform with the geologic recommendations special condition so that the project will be carried out in conformance with the recommendations of the consulting geologist concerning placement of the pipe, fill, overexcavation of the road, recompaction and benching of the slopes.

Only as conditioned for assumption of risk and conformance with geologic recommendations does the Commission find the proposed project conforms with Section 30253 of the Coastal Act.

Section 30236 of the Coastal Act restricts the substantial alteration of rivers and streams to necessary water supply projects and flood control projects where no other method for protecting structures is feasible and where such protection is necessary for public safety or to protect existing development.

The proposed development is a flood control project where both an existing road and existing homes are threatened by erosion of the canyon slopes. One

residence on Trafalgar Lane (154 Trafalgar Lane) was damaged in the winter storms of 1993 when a driveway was undercut. Other homes on Avenida Madrid have lost their buffer zone at the top of slope and have foundations threatened by slope failure caused by the erosive effects of flood waters.

The findings above show that the installation of the 72" pipe is a flood control project; that placement of the fill is necessary to stabilize the existing oversteepened slopes and protect the existing road and residences; that the proposed development is the most feasible method of protecting structures; that the development includes the best mitigation measures; and that the project is necessary for public safety and to protect existing development. Therefore, the Commission finds that the proposed development is consistent with Sections 30253 and 30236 of the Coastal Act.

C. Environmentally Sensitive Habitat Area

Section 30240(a) of the Coastal Act states:

> (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.

The certified San Clemente LUP also has policies guiding development in coastal canyons.

> In most cases, coastal canyons are designated for nature open space, which limits potential development and helps to ensure preservation.

The coastal canyon preservation policy in the certified LUP provides guidelines for limiting development on coastal canyons and applies primarily to setbacks for residential development.

Policy 8 in the certified LUP states:

> The removal of native vegetation and the introduction of non-native vegetation in the canyons shall be minimized. The use of native plant species in and adjacent to the canyons shall be encouraged.

The proposed project is located in Trafalgar Canyon, one of seven coastal canyons designated as environmentally sensitive habitat area (ESHA) in the certified LUP. The coastal canyons are designated as ESHAs because they contain remnants of coastal sage/chaparral and riparian communities. However, over the years the amount of native vegetation is decreasing because of development, fire clearance, invasion of exotic plants and revegetation with non-native plants.

LSA Associates, Inc. conducted a biological resources assessment in October 1994 to inventory the flora and fauna. The assessment characterizes the Trafalgar Canyon habitat as a homogeneous mixture of ornamental, ruderal and native plant species, with no Federal or State listed sensitive plant or animal species present. However, of the 1.7 acres of vegetation, 1.33 acres is native vegetation or ESHA.

The City's biological consultant Glenn Lukos Associates has prepared a conceptual mitigation/enhancement plan for the proposed project. The biologic

report states that the site is composed of a mix of native chaparral plants (1.33 ac.) and non-native plants (0.62 ac.), with the dominant native plant being Lemonade berry (Rhus integrifolia), which has low fire potential. Mitigation for the loss of the .13 acres of streambed and 1.33 ac. of native plants is the revegetation of 1.95 ac.

Section 30240(a) states that ESHAs shall be protected against significant disruption of habitat values and only uses dependent on those resources shall be allowed. Due to the lack of riparian and hydrophytic vegetation, the ESHA portion of Trafalgar Canyon consists of the native vegetation concentrated on the canyon slopes adjacent to the stream bed. These slopes are being destabilized by storm water erosion which causes undercutting and slope failure. If the status quo is maintained, slope erosion will have an ongoing adverse impact on the quantity and quality of native habitat. Implementation of the project will have temporary impacts but will be beneficial in the long-term. The use of the site will not change and will remain open space, however, the plant community will be changed from an eroding, mixed native and non-native plant community to a stable, enhanced, exclusively native plant community protected by a conservation easement.

There are several beneficial aspects to the project. First, the project will stabilize the slopes and there will be no more loss of slopes and vegetation due to erosion. Second, the non-natives will be removed and only native chaparral plants will be replanted. Revegetation will result in 1.95 acres of native habitat as opposed to the existing 1.33 acres, an increase of .62 acres. Third, the slopes will be less steep and more conducive to plant establishment and growth. Fourth, the habitat enhancement plan includes provisions for irrigation for two years, plant replacement, monitoring by qualified biologist for three years, weeding, and a goal of 75% coverage in three years. Fifth, the mitigation plan has been approved by the California Department of Fish and Game and a Streambed Alteration Agreement has been agreed to. Sixth, the revegetation area will be placed in a conservation easement for perpetuity.

Implementation of the project would result in the loss of .13 acres of stream channel. There is residential run-off water flowing through the canyon, however, there is no riparian vegetation due to oversteepening of the stream channel and scour. The Fish and Game Streambed Alteration Agreement notes that loss of the stream channel will be mitigated for by the increase in the acreage of native vegetation.

Therefore, the Commission finds that although implementation of the proposed project will result in temporary impacts to the ESHA, in the long term the project will result in more and better quality native habitat which would be protected in perpetuity by a conservation easement.

D. Ability to Implement Project

Section 30601.5 of the Coastal Act states:

> Where the applicant for a coastal development permit is not the owner of a fee interest in the property on which a proposed development is to be located, but can demonstrate a legal right, interest, or other entitlement to use the property for the proposed development, the commission shall not require the holder or owner of any superior interest in the property

to join the applicant as coapplicant. All holders or owners of other interests of record in that affected property shall be notified in writing of the permit application and invited to join as coapplicant. In addition, prior to the issuance of a coastal development permit, the applicant shall demonstrate the authority to comply with all conditions of approval.

The City of San Clemente is the applicant for the proposed development. Implementation of the project would involve placing fill within the property boundaries of the private property owners identified in Exhibit 3. The City of San Clemente has sent letters to the homeowners inviting them to be co-applicants. None of the homeowners have contacted staff requesting to be co-applicants.

However, the City has not demonstrated that it has the authority to comply with all conditions of approval as specified in Section 30601.5. Therefore, the Commission has included a special condition requiring that the applicant supply to the Executive Director proof of homeowners' permission for the City to enter their property and do the work described in the project application. Only as conditioned does the Commission find that the proposed development conforms with Section 30601.5 of the Coastal Act.

E. Local Coastal Program

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 Commission certified the Land Use Plan for the City of San Clemente on May 11, 1988. As conditioned the proposed development is consistent with the policies contained in the certified Land Use Plan. Therefore, approval of the proposed development will not prejudice the City's ability to prepare a Local Coastal Program for San Clemente that is consistent with the Chapter 3 policies of the Coastal Act as required by Section 30604(a).

F. California Environmental Quality Act

Section 13096 of the California Code of 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)(i) 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 impact which the activity may have on the environment.

The proposed project has been conditioned to comply with an assumption of risk condition, conformance with geologic recommendations condition, landscaping plan, and provide evidence of permission to construct in order to be found consistent with Sections 30253, 30240 and 30601.5 of the Coastal Act. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as

conditioned to mitigate the identified impacts, is the least environmentally damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.

7017F

8/29/94(CSN401)

N

LSA

Scale in Feet
0 1000 2000

Figure 2

Project Vicinity

EXHIBIT NO. 1
APPLICATION NO. 5-96-093
VICINITY
California Coastal Commission

Eugene C Gobbo 4/24/95

EUGENE C. GOBBO — DATE
FHWA AREA ENGINEER

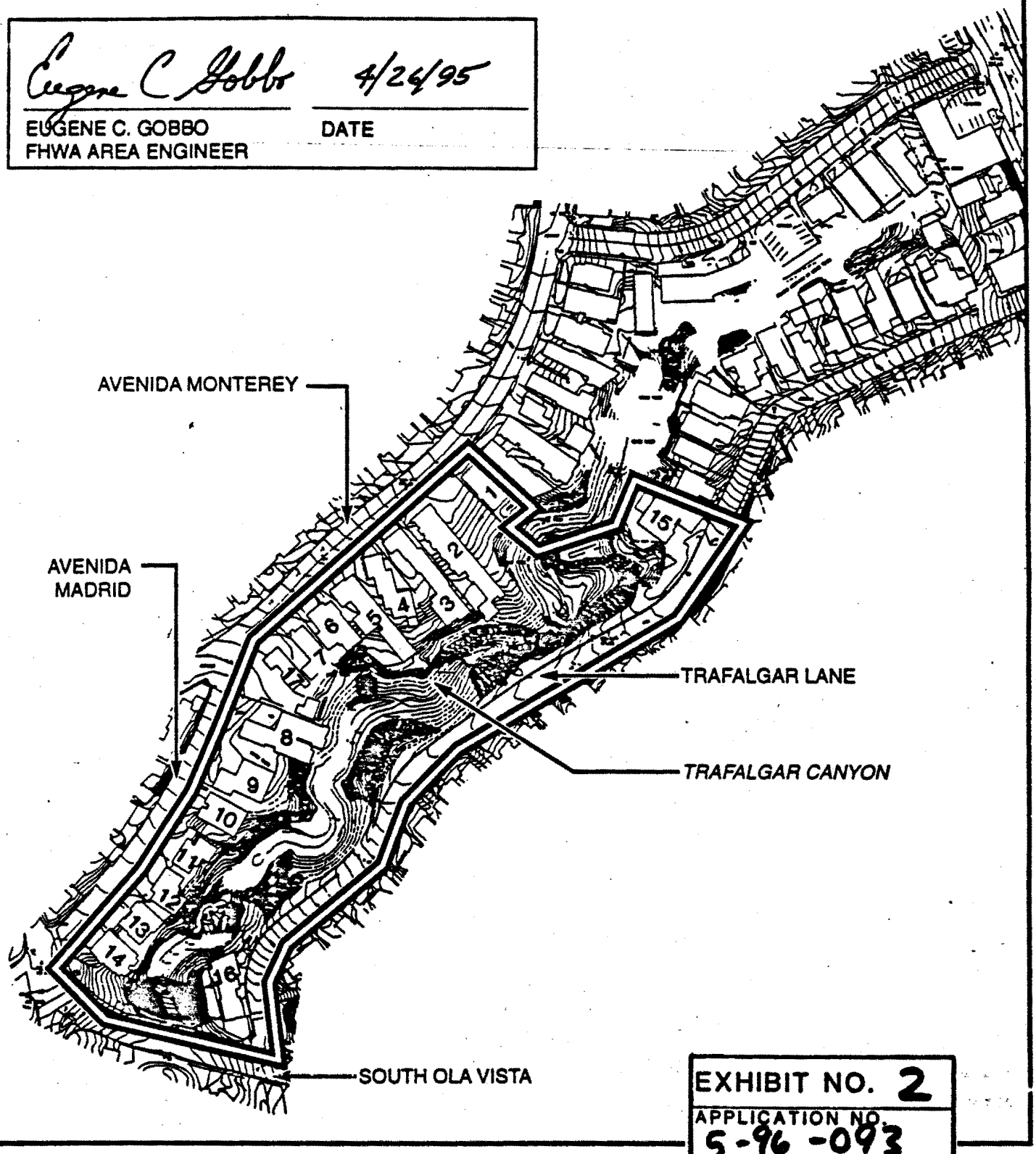


EXHIBIT NO. 2
APPLICATION NO. 5-96-093
SITE AREA
California Coastal Commission

Figure 3
Area of Potential Effect

ED ALMANZA & associates

Trafalgar Lane Stabilization

City of San Clemente

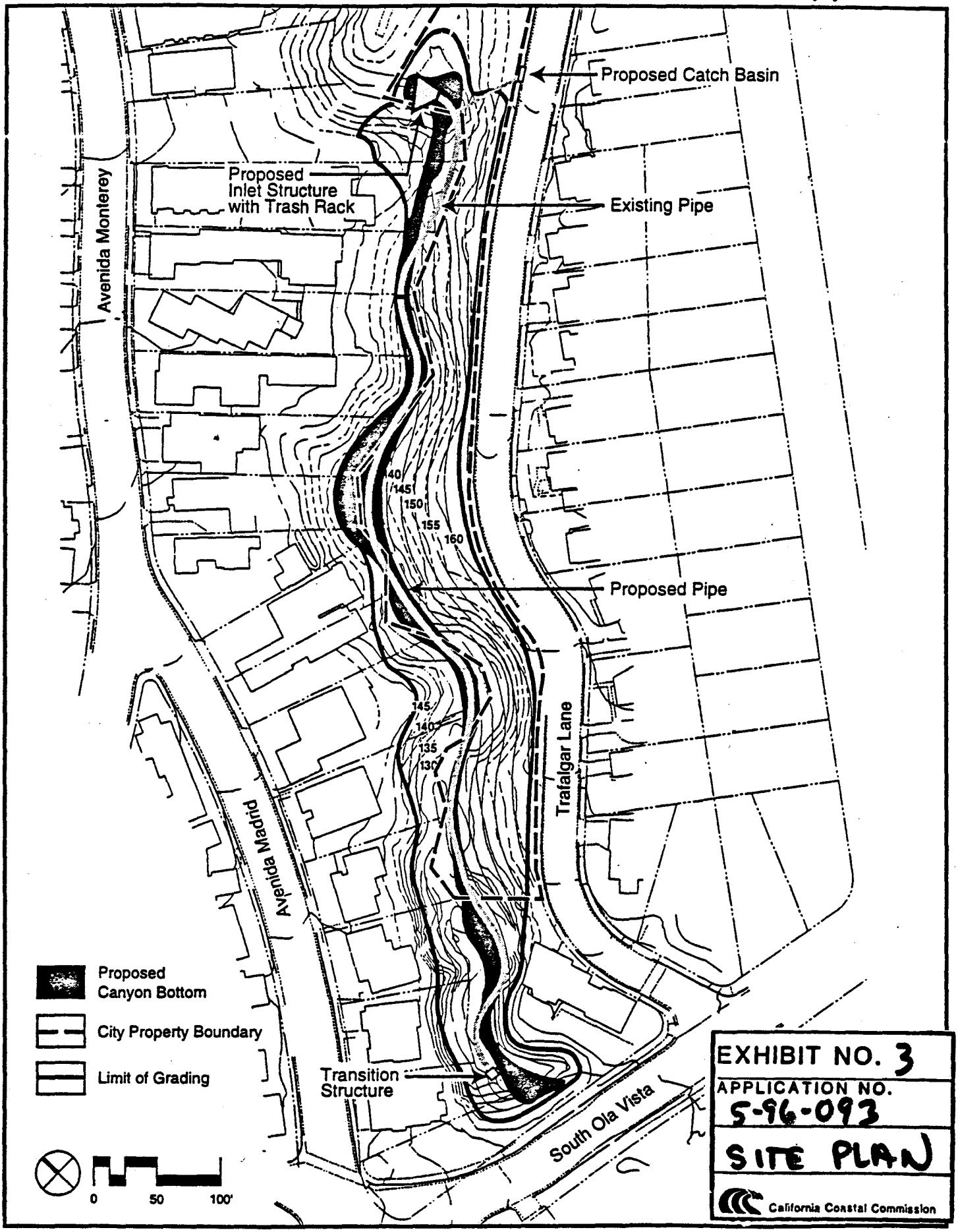


EXHIBIT NO. 3

APPLICATION NO. 5-96-093

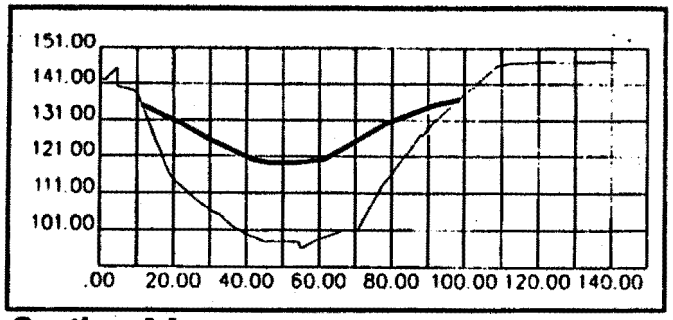
SITE PLAN

California Coastal Commission

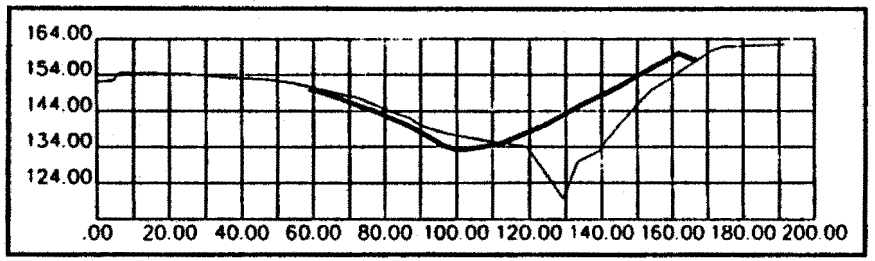
Source: Glenn Lukos Associates

Exhibit 6

Proposed Grading Plan



Section AA



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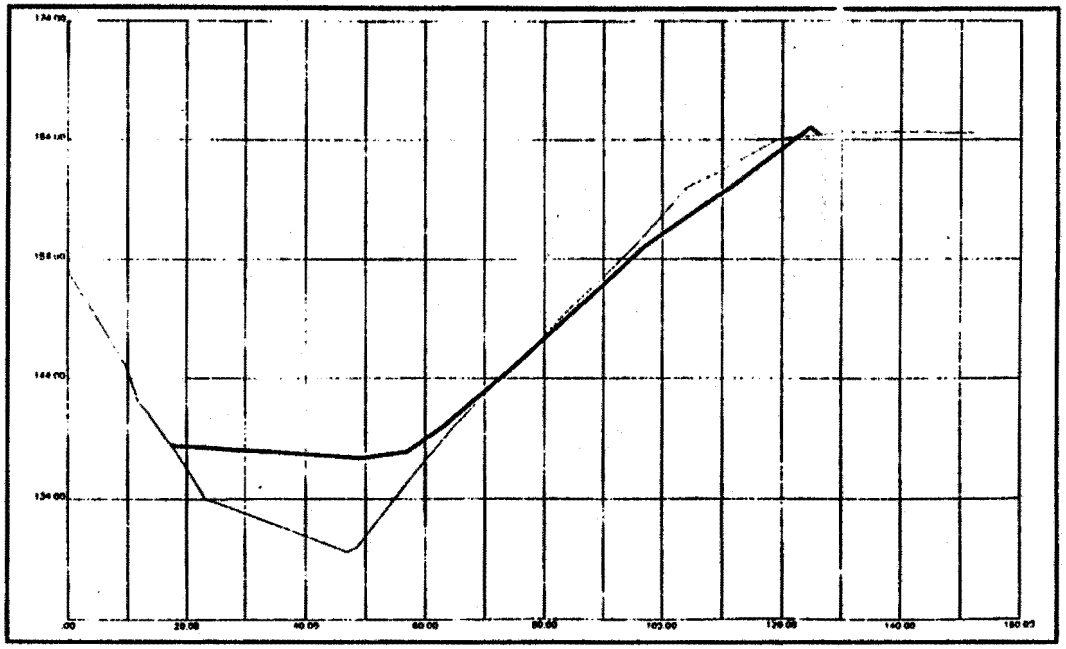
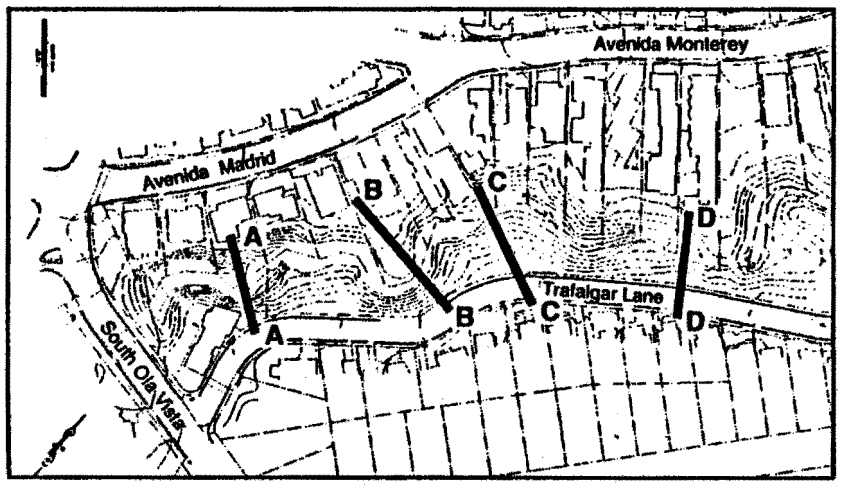
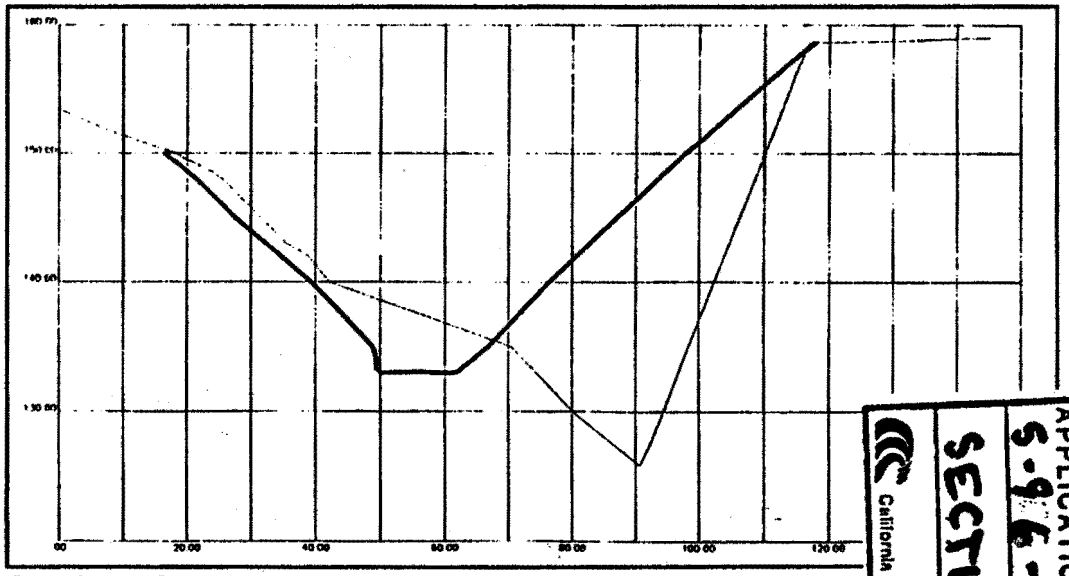


Section CC



Key Map



Section DD

Proposed

EXHIBIT NO. 4
APPLICATION NO. 5-96-093
SECTIONS
California Coastal Commission

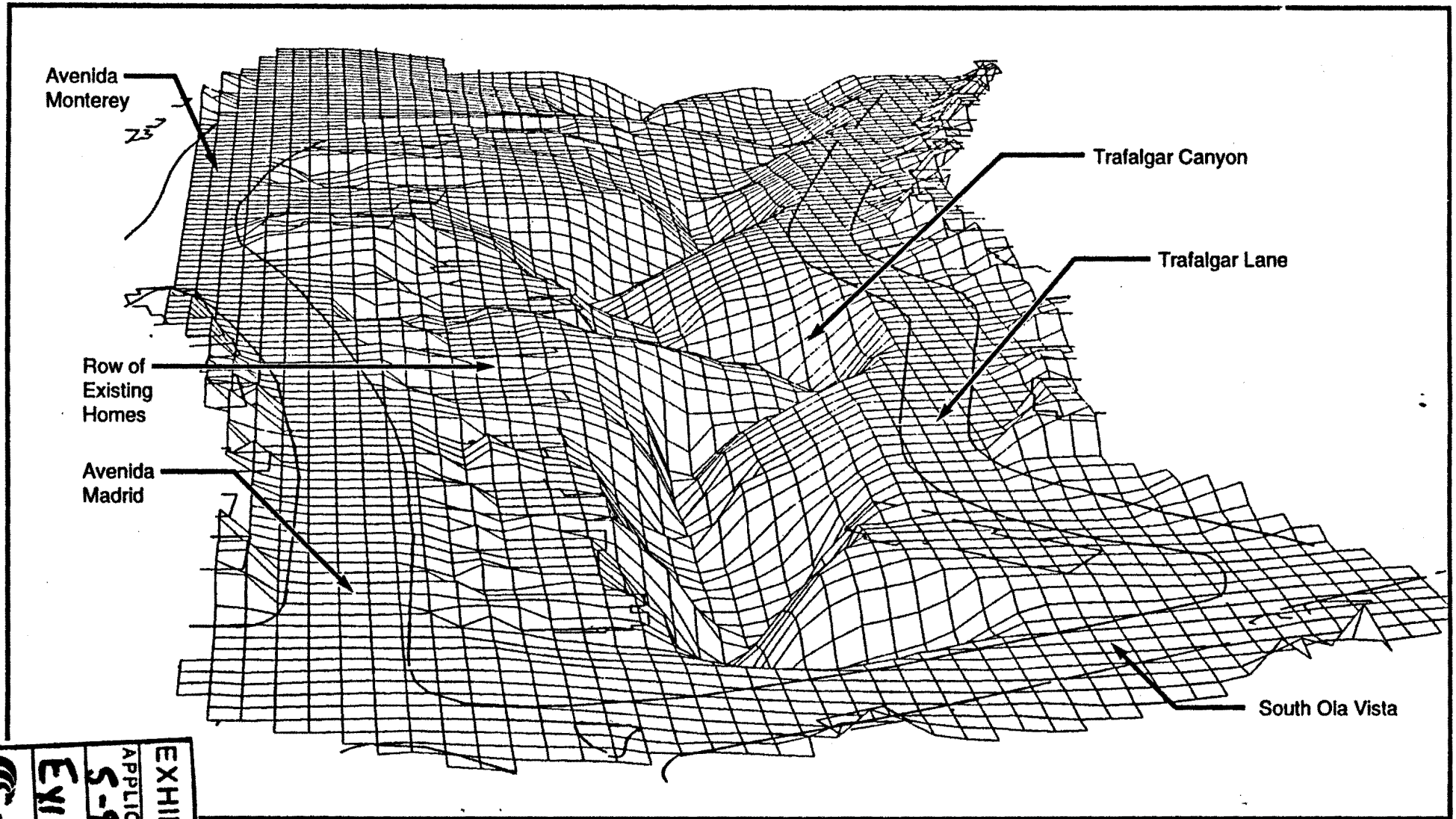


Exhibit 8a

Existing Topography: Trafalgar Canyon - Bird's Eye View

EXHIBIT NO. 5
APPLICATION NO. 5-96-093
EXIST. TOPO
California Coastal Commission

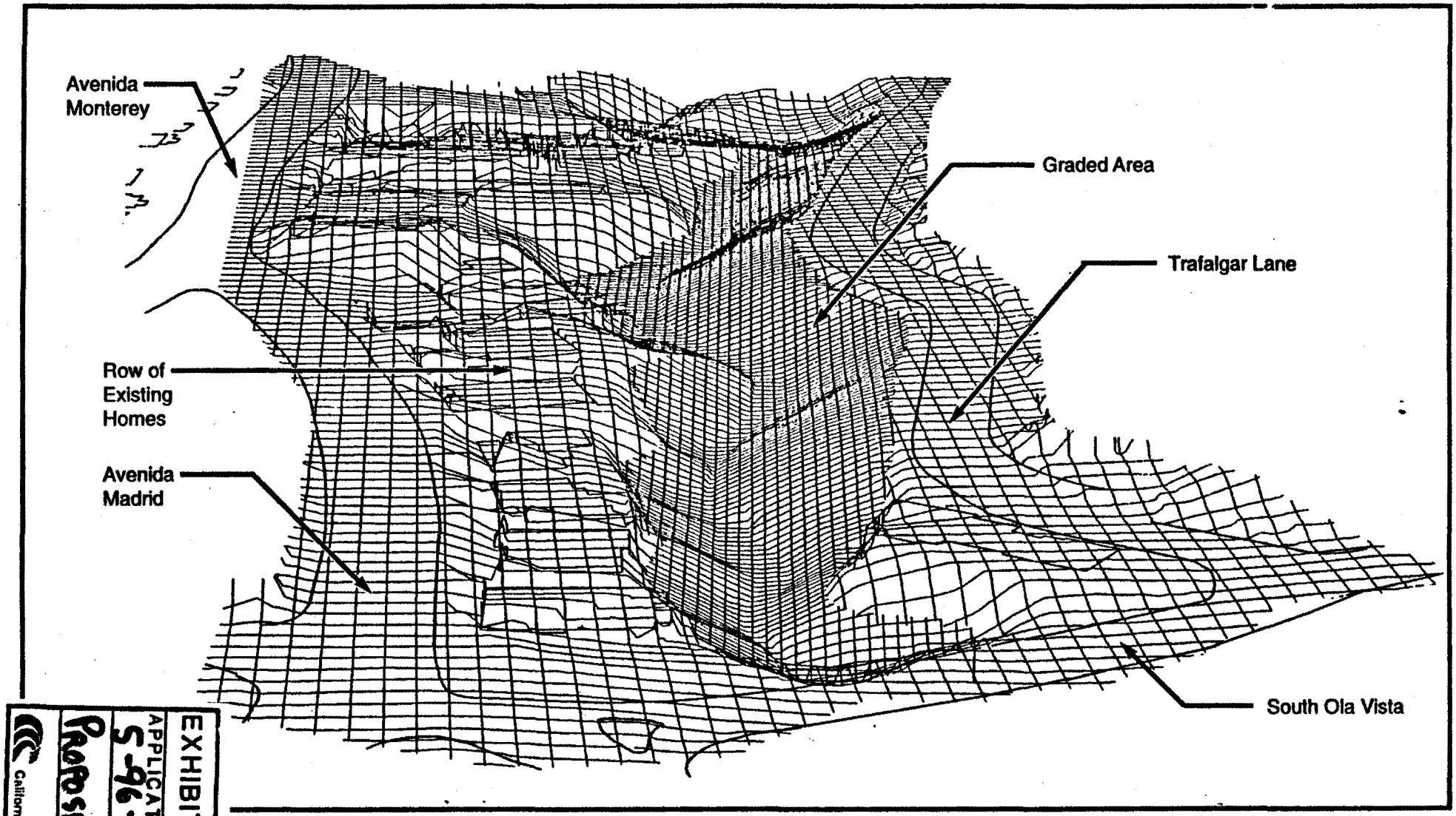


EXHIBIT NO. 6
APPLICATION NO. 5-96-093
PROPOSED TOPO
California Coastal Commission

Exhibit 8b

Graded Topography: Trafalgar Canyon - Bird's Eye View

CALIFORNIA DEPARTMENT OF FISH AND GAME
330 Golden Shore, Suite 50
Long Beach, California 90802

Notification No. 5-313-95
Page 1 of 4

AGREEMENT REGARDING PROPOSED STREAM OR LAKE ALTERATION

THIS AGREEMENT, entered into between the State of California, Department of Fish and Game, hereinafter called the Department, and ~~the Mayor of~~ City of San Clemente, State of California, hereinafter called the Operator, is as follows:

WHEREAS, pursuant to Section 1601 of California Fish and Game Code, the Operator, on the 30th day of June, 1995, notified the Department that they intend to divert or obstruct the natural flow of, or change the bed, channel, or bank of, or use material from the streambed(s) of, the following water(s): Trafalgar Canyon, tributary to Pacific Ocean, Los Angeles County, California, USGS San Clemente Quad Map Section 4, Township 9 South, Range 7 West.

WHEREAS, the Department has determined that such operations may substantially adversely affect existing fish and wildlife resources including: all aquatic resources and wildlife in the area.

THEREFORE, the Department hereby proposes measures to protect fish and wildlife resources during the Operator's work. The Operator hereby agrees to accept the following measures/ conditions as part of the proposed work.

If the Operator's work changes from that stated in the notification specified above, this Agreement is no longer valid and a new notification shall be submitted to the Department of Fish and Game. Failure to comply with the provisions of this Agreement and with other pertinent code sections, including but not limited to Fish and Game Code Sections 5650, 5652, 5937, and 5948, may result in prosecution.

Nothing in this Agreement authorizes the Operator to trespass on any land or property, nor does it relieve the Operator of responsibility for compliance with applicable federal, state, or local laws or ordinances. A consummated Agreement does not constitute Department of Fish and Game endorsement of the proposed operation, or assure the Department's concurrence with permits required from other agencies.

This Agreement becomes effective the date of Department's signature and terminates on December 31, 1997 for project construction only. This Agreement shall remain in effect for that time necessary to satisfy the terms/conditions of this Agreement.

EXHIBIT NO. 7
APPLICATION NO. 5-96-093
AGREEMENT
California Coastal Commission

STREAMBED ALTERATION CONDITIONS FOR NOTIFICATION NUMBER: 5-313-95

1. The following provisions constitute the limit of activities agreed to and resolved by this Agreement. The signing of this Agreement does not imply that the Operator is precluded from doing other activities at the site. However, activities not specifically agreed to and resolved by this Agreement shall be subject to separate notification pursuant to Fish and Game Code Sections 1600 et seq.

2. The Operator proposes to partially fill Trafalgar Canyon for a distance of 800 feet up to a maximum height of 30 feet in order to stabilize the almost vertical steep canyon banks to a 2:1 to 4:1 slopes. Approximately 20,000 cubic yards of fill would be placed in the canyon bottom in order to stabilize Trafalgar Lane on one side and provide slope failure protection to residential properties along the opposite bank. Currently about 150 feet of the drainage is within a reinforced concrete pipe, and the drainage off the newly constructed slopes would be directed towards South Ola Vista and collected into an inlet that would drain into the new RCP beneath Trafalgar Canyon. The total impacted area in the canyon up to a height of 30 feet would be 1.95 acres, including 0.13 acre of streambed. The canyon runs in a southwesterly direction and the drainage becomes increasingly incised and 50 feet deep towards South Ola Vista. There are no riparian species growing adjacent to or within the drainage course at the canyon bottom. Mitigation shall be revegetation of the recontoured slopes with native vegetation to enhance wildlife habitat.

3. The agreed work includes activities associated with No. 2 above. The project area is located **parallel to Trafalgar Lane, roughly from its intersection with South Ola Vista to a point 800 feet to the northeast, approximately one-quarter mile from the Pacific Ocean and the San Clemente pier, in the City of San Clemente,** Orange County. Specific work areas and mitigation measures are described on/in the plans and documents submitted by the Operator and shall be implemented as proposed unless directed differently by this agreement.

4. Mitigation for the loss of canyon bottom with permanent flows and loss of adjoining habitat shall be in accordance with the Conceptual Mitigation/Enhancement Plan prepared by Glenn Lukos Associates, Inc. dated June 29, 1995. A copy of the Final Revegetation and Monitoring Plan shall be submitted to the Department for approval within 90 days of signing of this Agreement.

5. Storm drains lines/culverts shall be adequately sized to carry peak storm flows for the drainage to one outfall structure. The storm drain lines/culverts and the outfall structure shall be properly aligned within the stream and otherwise engineered, installed and maintained, to assure resistance to washout, and to erosion of the stream bed, stream banks and/or fill. Water velocity shall be dissipated at the outfall, to reduce erosion.

STREAMBED ALTERATION CONDITIONS FOR NOTIFICATION NUMBER: 5-313-95

6. A wildlife conservation easement or deed restriction, substantially in the form attached as Exhibit A, shall be recorded on the property to protect fish and wildlife resources in perpetuity for the City owned portion of all filled areas. The easement shall be in favor of the Department or its designated agent and shall be recorded before initiation of construction activities.

7. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, oil or petroleum products or other organic or earthen material from any logging, construction, or associated activity of whatever nature shall be allowed to enter into or placed where it may be washed by rainfall or runoff into, waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any stream.

8. Vegetation removed from the stream shall not be stockpiled in the stream bed or on its bank. The sites selected on which to push this material out of the stream should be selected in compliance with the other provisions of this Agreement. Where possible brush piles shall be left to provide wildlife habitat.

9. No equipment maintenance shall be done within or near any stream channel or lake margin where petroleum products or other pollutants from the equipment may enter these areas under any flow.

10. Fill shall be limited to the minimal amount necessary to accomplish the agreed activities. Except as otherwise specified in this Agreement, fill construction materials other than on-site alluvium, shall consist of clean fill soil.

11. Silty/turbid water as a result of construction shall not be discharged into the stream. Such water shall be settled, filtered, or otherwise treated prior to discharge. The Operator's ability to minimize turbidity/siltation shall be the subject of pre-construction planning and feature implementation.

12. Access to the worksite shall be via existing roads and access ramps.

13. All planting shall be done between October 1 and April 30 to take advantage of the winter rainy season.

14. This Agreement does not authorize the construction of any temporary or permanent dam, structure, flow restriction or fill except as described in the Operator's notification.

STREAMBED ALTERATION CONDITIONS FOR NOTIFICATION NUMBER: 5-313-95

15. The Operator shall comply with all litter and pollution laws. All contractors, subcontractors and employees shall also obey these laws and it shall be the responsibility of the operator to ensure compliance.

16. The Operator shall **provide a copy of this** Agreement **to all contractors, subcontractors, and the Operator's project supervisors. Copies of the** Agreement **shall be readily available at work sites at all times during periods of active work** and must be presented to any Department personnel, or personnel from another agency upon demand.

17. The Operator **shall** notify the Department, **in writing, at least five (5) days prior to initiation of construction (project) activities and at least five (5) days prior to completion of construction (project) activities.** Notification shall be sent to the Department at 330 Golden Shore, Suite 50, Long Beach, CA 90802, Attn: ES.

18. The Department reserves the right to enter the project site at any time to ensure compliance with terms/conditions of this Agreement.

19. The Department reserves the right to suspend and/or revoke this Agreement if the Department determines that the circumstances warrant. The circumstances that could require a reevaluation include, but are not limited to, the following:

a. Failure to comply with the terms/conditions of this Agreement.
b. The information provided by the Operator in support of the Agreement/Notification is determined by the Department to be incomplete, or inaccurate.
c. When new information becomes available to the Department representative(s) that was not known when preparing the original terms/conditions of this Agreement.
d. The project as described in the Notification/Agreement has changed, or conditions affecting fish and wildlife resources change.

CONCURRENCE

City of San Clemente
(Operator's name)

3-6-96
(signature) (date)

Mayor – Steve Apodaca
(title)

Attest:
Myrna Erway
City Clerk of the City of
San Clemente, California

California Dept. of Fish and Game

(signature) (date)

Environmental Specialist III
(title)