CALIFORNIA COASTAL COMMISSION
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STAFF REPORT: REGULAR CALENDAR

Application No.:	**5-12-246**
Applicants:	**Kirk G. Howard** **Bill Kurnick**
Project Locations:	380 Avenida La Costa and 400 Avenida La Costa San Clemente, Orange County
Project Description:	Repair of a surficial slope failure across two properties on the slope of a coastal canyon by construction of a caisson/wood lagging retaining wall with trench sub-drains and re-vegetation of the canyon slope; removal of unpermitted temporary slope erosion control measures within the canyon
Staff Recommendation:	Approval with conditions.

SUMMARY OF STAFF RECOMMENDATION

The subject application requests approval for the construction of retaining walls and landscaping (Exhibit #6 and #7). Slope instability occurred at the subject sites during heavy rainstorms in late December 2010. A slump-type landslide affected an area 30 – 35 feet wide across the slope face and extends 25 feet vertically, up slope from the canyon bottom.

The applicants propose to build an approximately 50' long and 12'-14' tall (including both above and below ground components) caisson/wood lagging retaining wall system by drilling seven caissons and setting rebar cages and steel I-beams and pouring reinforced concrete then installing treated lagging 6' above grade and extending 4' below grade with a trench sub-drain extending 3' below the bottom of the below grade lagging to drain water from behind the retaining wall. New landscaping of restored slope (currently denuded due to the landslide) is proposed using native plants appropriate to Orange County coastal canyon habitat.

The project also includes removal of some existing unpermitted development in the canyon. A variety of unpermitted structures have been installed on the slope of the canyon, and adjacent to an ephemeral stream along the bottom of the canyon, in an effort to address slope instability. The applicant is proposing to remove as much of the unpermitted development as can be safely completed. However, there are certain short, unpermitted, retaining structures installed on oversteepened areas of the slope that would remain in place.

Major Coastal Act issues associated with the proposed development include concerns regarding habitat, water quality and geologic hazards. To address potential adverse impacts the Commission staff is recommending the following Special Conditions: **1) Submittal of Final Revised Plans; 2) Conformance with Geotechnical Recommendations; 3) Landscaping; 4) Orange County Fire Authority approval; 5) Assumption of Risk, Waiver of Liability and Indemnity; 6): Storage of Construction Materials, Mechanized Equipment and Removal of Construction Debris; 7) Future Improvements; and 8) Condition Compliance**

Commission staff recommends **approval** of coastal development permit application 5-12-246, as conditioned.

Section 30600(c) of the Coastal Act provides for the issuance of coastal development permits directly by the Commission in regions where the local government having jurisdiction does not have a certified Local Coastal Program. The City of San Clemente only has a certified Land Use Plan and has not exercised the options provided in 30600(b) or 30600.5 to issue its own permits. Therefore, the Coastal Commission is the permit issuing entity and the standard of review is Chapter 3 of the Coastal Act. The certified Land Use Plan may be used for guidance.

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I. MOTION AND RESOLUTION

Motion:

*I move that the Commission **approve** Coastal Development Permit No. 5-12-246 pursuant to the staff recommendation.*

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

Resolution:

The Commission hereby approves a Coastal Development Permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that will substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

This permit is granted subject to the following standard conditions:

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

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

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

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

5. **Terms and Conditions Run with the Land**. These terms and conditions shall be

perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

1. **Submittal of Revised Final Plans.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for review and approval of the Executive Director two (2) sets of final plans that substantially conform with the plans submitted to the Commission on January 31, 2012, prepared by Toal Engineering but shall be revised to include the following:

    1) Those existing keystone walls and post-and-plank retaining walls located entirely within the canyon, which the applicants are not proposing to remove, shall be shaded and clearly marked *"this element not permitted by this or any other coastal development permit"* on each set of plans; the plans shall also indicate that if these unpermitted walls become damaged and/or are partly or wholly removed during any of the development authorized by this permit, the walls shall not be repaired or re-constructed unless or until such repair or reconstruction is approved through the coastal development permit process;

    2) all concrete debris and metal chain link fencing adjacent to the natural ephemeral stream at the bottom of the canyon and other associated materials constructed as "temporary" erosion control measures including temporary wood stairs on the canyon slope that are proposed to be removed by the applicant shall be depicted on the plans and clearly noted for removal prior to or concurrent with construction of the proposed caisson/wood lagging retaining wall.

    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 legally required.

2. **Conformance with Geotechnical Recommendations.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the Executive Director's review and approval, along with 2 copies of each plan, evidence that an appropriately licensed professional has reviewed and approved all final design and construction plans and certified that each of those final plans is consistent with all the recommendations contained in the geologic engineering investigations.

    The applicants 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 unless the Executive Director determines that no amendment is legally required.

3. **Landscaping – Drought Tolerant, Non-Invasive Plans.** Vegetated landscaped areas within the canyon portion of the project site shall only consist of drought tolerant plants native to

coastal Orange County and appropriate to the habitat type. Native plants shall be from local stock wherever possible. No permanent in-ground irrigation systems shall be installed on the canyon-facing portion of the site. Temporary above ground irrigation is allowed to establish plantings. Vegetated landscaped areas on the street-side of the residence are encouraged to use native plant species, however, non-native drought tolerant non-invasive plant species may also be used in that area. No plant species listed as problematic and/or invasive by the California Native Plant Society (http://www.CNPS.org/), the California Invasive Plant Council (formerly the California Exotic Pest Plant Council) (http://www.cal-ipc.org/), or as may be identified from time to time by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as a "noxious weed" by the State of California or the U.S. Federal Government shall be utilized within the property. All plants shall be low water use plants as identified by California Department of Water Resources (http://www.water.ca.gov/wateruseefficiency/docs/wucols00.pdf).

4. **Orange County Fire Authority Approval.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall provide to the Executive Director a copy of a permit issued by the Orange County Fire Authority (OCFA) or letter of permission, or evidence that no permit or permission is required. The applicant shall inform the Executive Director of any changes to the project required by the OCFA and/or any inconsistencies with the conditions of approval contained herein. Changes required by OCFA shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

5. **Assumption of Risk, Waiver of Liability and Indemnity.** By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from slope instability, erosion, landslides, and earth movement; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

6. **Construction Best Management Practices.** The permittee shall comply with the following construction-related requirements and shall do so in a manner that complies with all relevant local, state and federal laws applicable to each requirement:

   (1) No construction materials, debris, or waste shall be placed or stored where it may be subject to wave, wind, rain, or tidal erosion and dispersion;

   (2) Any and all debris resulting from construction activities shall be removed from the project site within 24 hours of completion of the project;

(3) Construction debris and sediment shall be removed from construction areas each day that construction occurs to prevent the accumulation of sediment and other debris which may be discharged into coastal waters;

(4) Erosion control/sedimentation Best Management Practices (BMP's) shall be used to control dust and sedimentation impacts to coastal waters during construction. BMP's shall include, but are not limited to: placement of sand bags around drainage inlets to prevent runoff/sediment transport into coastal waters; and

(5) All construction materials, excluding lumber, shall be covered and enclosed on all sides, and as far away from a storm drain inlet and receiving waters as possible.

Best Management Practices (BMP's) designed to prevent spillage and/or runoff of construction-related materials, sediment, or contaminants associated with construction activity shall be implemented prior to the onset of such activity. Selected BMP's shall be maintained in a functional condition throughout the duration of the project. Such measures shall be used during construction:

(1) The applicant shall ensure the proper handling, storage, and application of petroleum products and other construction materials. These shall include a designated fueling and vehicle maintenance area with appropriate berms and protection to prevent any spillage of gasoline or related petroleum products or contact with runoff. It shall be located as far away from the receiving waters and storm drain inlets as possible;

(2) The applicant shall develop and implement spill prevention and control measures;

(3) The applicant shall maintain and wash equipment and machinery in confined areas specifically designed to control runoff. Thinners or solvents shall not be discharged into sanitary or storm sewer systems. Washout from concrete trucks shall be disposed of at a location not subject to runoff and more than 50 feet away from a stormdrain, open ditch or surface water; and

(4) The applicant shall provide adequate disposal facilities for solid waste, including excess concrete, produced during construction.

7. **Future Improvements.** This permit is only for the development described in Coastal Development Permit No. 5-12-246. Pursuant to Title 14 California Code of Regulations Section 13253(b)(6), the exemptions otherwise provided in Public Resources Code Section 30610(b) shall not apply to this development governed by the Coastal Development Permit No. 5-12-246. Accordingly, any future improvements to the structures authorized by this permit, 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)-(b), shall require an amendment to Permit No. 5-12-246 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.

8. **Condition Compliance.** Within 90 days of Commission action on this coastal development permit application, or within such additional time as the Executive Director may grant for good cause, the applicant shall satisfy all requirements specified in the conditions hereto that the applicant is required to satisfy prior to issuance of this permit. Failure to comply with this requirement may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.

IV. FINDINGS AND DECLARATIONS:

A. PROJECT LOCATION AND DESCRIPTION

The subject sites are two inland coastal canyon residential lots located at 308 Avenida La Costa and 400 Avenida La Costa, San Clemente, Orange County. The subject lots front Avenida La Costa and extend northerly to the rear of each property descending into a coastal canyon on the southeasterly side of Riviera Canyon between two adjacent residential parcels (Exhibit #1). An ephemeral drainage feature runs at the bottom of the canyon. Unpermitted terraces supported by retaining structures were previously graded along the canyon, below the uppermost break in slope at both subject sites by previous property owners. Riviera Canyon is one of seven coastal canyons identified in the City of San Clemente certified Land Use Plan (Exhibit #9). Surrounding development consists of single-family residences. The site is designated as Residential Low Density in the certified Land Use Plan. The nearest public access to the beach is available approximately 700 feet west of the site at the Riviera public beach access way.

The applicants propose to build an approximately 50’ long and 12’-14’ tall caisson/wood lagging retaining wall system to repair slope damage across both properties caused by a 2011 landslide. The caisson/wood retaining wall would be constructed by drilling seven caissons and setting rebar cages and steel I-beams and pouring reinforced concrete. Treated lagging would be installed between the steel I-beams to create a retaining wall that is 6’ above grade and extending 4’ below grade. A trench subdrain would also be built extending 3’ below the bottom of the below grade lagging. The applicants also propose to re-vegetate the denuded canyon slope using native plants appropriate to Orange County coastal canyon habitat. The slope stabilization plan included as Exhibit #6.

Unpermitted development has occurred in the canyon. “Temporary” erosion control measures were installed without the benefit of a coastal development permit by a landscape contractor. After the 2011 landslide, pipe piles and wood lagging were placed on the canyon slope at the landslide scarp as part of a temporary slope terracing which was not completely implemented. Gabions crudely constructed out of chain link fencing material and concrete debris were placed at the bottom of the canyon adjacent to an ephemeral stream in an attempt to prevent further erosion and loss of soil materials from the landslide. Temporary wood steps were also constructed to provide construction access. Photos of the site showing the unpermitted

development are included in Exhibit #8. The applicants propose removal of the unpermitted "temporary" erosion control measures and wood steps. However, the applicants are not proposing removal nor are they requesting an 'after-the-fact' coastal development permit for approximately four concrete block terraces previously constructed on the canyon slope at 308 Avenida La Costa and low treated-wood retaining walls that were constructed on the canyon slope at 400 Avenida La Costa, all by a previous homeowners (Exhibit #6).

B. HAZARDS

Section 30253 of the Coastal Act states in part:

> *New development shall do all of the following:*
>
> *a) Minimize the risk to life and property in areas of high geologic, flood, and fire hazard.*
>
> *b) 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 coastal bluffs.*

The applicant submitted numerous geotechnical investigations prepared by ViaGeos, Consulting Engineering Geologists (see Appendix A). A geotechnical investigation by ViaGeos dated October 27, 2011 consisted of the review of available geologic maps, reconnaissance of the properties and geologic mapping of the recent landslide, logging and sampling of two exploratory trenches and one site boring, and laboratory testing of soil samples. The report provides conclusions of the investigation of the recent landslide and recommendations for design and construction of a slope stabilization system consisting of a pile and lagging retaining wall.

Coastal Canyon Slope Instability – Landslide Characteristics

In a report titled "Geotechnical Investigation of Slope Instability" from ViaGeos dated October 27, 2011 report describes the recent slope instability which occurred during heavy rains in late December 2010 as a slump type of landslide within the lower slope (Exhibits #2-#5). The landslide involved primarily fill soils overlying weak, clayey residual soils/surficial deposits and surficial deposits and affected an area 30 – 35 feet wide across the slope face and extends 25 feet vertically, up slope from the canyon bottom. The landslide thickness appears to be about 4-5 feet thick maximum. Much of the landslide materials moved down slope and was removed from the toe of the landslide by water passing in the stream channel at the bottom of the canyon. Damage to the canyon slope included loss of soil materials, vegetation, chain link fencing, treated wood terrace walls at 400 Avenida La Costa and loss of portions of segmental block retaining walls at 308 Avenida La Costa.

The report further states that the toe of the landslide appears to daylight above the bottom of the active stream channel as buried debris and vegetation pushed over by the landslide are present several feet above the bottom of the stream channel. Therefore, stream erosion at the bottom and lower side slope of the active stream channel does not appear to have been a significant factor in the occurrence of the landslide.

Furthermore, the report concludes:

> *Based upon our investigation, factors contributing to slope instability included:*
>
> - *Significant rainfall during late December 2011*
> - *Shallow groundwater conditions beneath the slope, including the presence of sand beds within the bedrock strata which convey groundwater to the landslide location.*
> - *Saturation of the weathered, weakened near surface soils exposed in the slope face*
> - *The steep inclination of the slope*
> - *Possible excess surface water discharge onto/over the slope*
>
> *Erosion at the base of the slope by runoff/stream flow within the canyon bottom does not appear to have been a factor contributing to the recent instability. Exploratory trenches exposed saturated sandstone beds within the bedrock strata which convey groundwater close to the surface near the landslide head scarp. It is apparent that this groundwater condition strongly influenced the slope instability. As observed in exploratory trenches, the rupture surface developed within and at the base of the residual soil, and along the top of the soft, weathered clayey bedrock.*

The report also notes that lower and possibly greater portions of the slope were formerly re-graded in conjunction with repair of a *prior* slope instability at this location, as non-engineered post and plank slope repair were exposed by the 2010 erosion and instability. No previous permits were issued by the City or the Commission for slope repair at either of the subject sites.

In a later geotechnical report dated September 17, 2012 by ViaGeos, additional overall slope stability analysis was conducted. The report states:

> *The analysis indicated that global instability, which would include failure below the proposed retaining wall is considered unlikely. It is noted that the intent of the geotechnical recommendations is to address the recent surficial instability of the slope in order to limit the potential for damages to portions of the site which are up slope from the landslide scarp where future instability may result due to the presence of the recent landslide and landslide scarp. Additionally, the recommendations are not intended to address potential instability of portions of the slope above the proposed retaining wall system which may be potentially unstable due to the steepness of the slope or due to the presence of non-engineered retaining structures which terrace the slope on both properties.*

Proposed Slope Repair

In order to limit the potential for damages to portions of the site which are up slope from the landslide scarp where future instability may result due to the presence of the landslide and landslide scarp, the consulting engineering geologist recommends repair of the surficial slope failure by construction of caisson/wood lagging retaining wall properly backfilled and with proper subdrains. The proposed plans depict a retaining structure consisting of seven steel piles

embedded into concreted, drilled shafts with treated wood lagging placed between piles to support the ascending slope above the landslide head scarp. Plans depict gravel backfill behind the retaining walls covered by a filter fabric and 18" of native soil compacted to finished elevation and subdrains to control groundwater beneath the slope surface. Proposed plans are included as Exhibit #6.

A grading solution to repair the slope was not considered feasible by the consulting engineer due to prevalent groundwater conditions beneath the landslide and underlying slope. Furthermore, use of pre-cast, driven piles was found to be unacceptable due to the potential for damages which may result from impact vibrations during pile driving operations.

Section 30253(b) of the Coastal Act states that new development shall assure stability and structural integrity and shall not contribute to erosion, geologic instability or destruction of the site or require the construction of protective devices which would substantially alter natural landforms along coastal bluffs.

Mark Johnson, staff geologist has reviewed the geotechnical reports and conducted a site visit in November 2012 and concurs with the findings and conclusions of the applicants' geologists and agrees that the proposed retaining wall design is the least environmentally damaging alternative to repair the slope failure.

In order to minimize further erosion and ensure stability of the proposed retaining wall system, the project must also include adequate drainage and erosion control measures as recommended by the geotechnical investigations. As proposed, the retaining wall includes trench subdrains that will convey groundwater that collects behind the retaining wall down the slope to the existing stream at the toe of the canyon.

Special Condition #2 requires the applicant submit final plans including foundation plans signed by the consulting geotechnical experts verifying conformance with all geotechnical recommendations. As such, these special conditions guarantee that the final development plans are consistent with Section 30253 of the Coastal Act.

Conclusion

Although the conditions described above render the project sufficiently stable to satisfy the requirements of Section 30253,most projects along the coast involve some form of unpredictable risks whether it be from flooding, erosion, earthquakes or fires, to name a few. The proposed project is located on a coastal canyon which is an area that may be subject to potential damage or destruction from natural hazards, including slope instability, erosion, landslides, and earth movement given the general nature of coastal canyons in certain parts of the California coast and seismic activity of nearby faults. **Special Condition #5** requires the applicants acknowledge and agree that the site may be subject to hazards from slope instability, erosion, landslides, and earth movement and assume the risks to themselves and their property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; and to waive any claim of damage or liability against the Commission from such hazards.

Furthermore, as unpermitted development has already occurred in the canyon and because of the potential for future improvements to the existing residences at the top of canyon or associated

landscaping which could potentially adversely impact the geologic stability and/or environmentally sensitive habitat area concerns expressed in this staff report, the Commission imposes **Special Condition #7**. This condition informs the applicant that future development at the site requires an amendment to this permit (5-12-246) or a new coastal development permit. Future development includes, but is not limited to, modification of any development authorized in this permit, landscaping, structural additions to existing residential development, installation of any hardscape and/or decks or fencing. Therefore, as conditioned, the Commission finds that the development conforms to the requirements of Section 30253 of the Coastal Act regarding the siting of development in hazardous areas.

C. HABITAT

Coastal Act and Land Use Plan (LUP) Policies

Section 30240 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.*
>
> *(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.*

San Clemente's certified Land Use Plan (LUP) discusses the importance of coastal canyons and states:

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

Policy VII.12 of the certified LUP states:

> *Encourage activities which improve the natural biological value, integrity and corridor function of the coastal canyons through vegetation restoration, control of alien plants and animals, and landscape buffering.*

Policy XV.13 of 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 development is located within Riviera Canyon, one of seven coastal canyons designated as environmentally sensitive habitat area (ESHA) in the certified LUP. The

applicants' properties extend to the canyon bottom. No portion of the applicant's development area contains resources that rise to the level of ESHA. Nevertheless, preservation and enhancement of the City's coastal canyons is a goal supported by both the environmental protection policies of the Coastal Act, and the certified LUP. Encroachment into the canyon by development increases the potential for the introduction of non-native plant species, and predation of native species by domestic animals, and destabilization of the canyon from excess irrigation. Encroaching development also threatens the visual quality of the canyons. The above-cited policies of the LUP were designed for habitat protection and enhancement; to minimize visual impacts and landform alteration; to avoid cumulative adverse impacts of development encroachment into the canyon; and as a means to limit brush management necessary for fire protection.

Landscaping

San Clemente's certified LUP advocates the preservation of native vegetation and discourages the introduction of non-native vegetation in coastal canyons. Rare or endangered species have been documented to exist within the relatively undisturbed Marblehead coastal canyons of San Clemente. However, the City has designated all coastal canyons, including Riviera Canyon, as environmentally sensitive habitat areas (ESHA), as depicted in Exhibit #9. The coastal canyons act as open space and potential wildlife habitat, as well as corridors for native fauna. Decreases in the amount of native vegetation due to displacement by non-native vegetation have resulted in cumulative adverse impacts upon the habitat value of the canyons. As such, the quality of canyon habitat must be assessed on a site-by-site basis.

The canyon adjacent to the subject site is considered somewhat degraded due to the original canyon grading (cut/fill) for the creation of the original residential tract lots in the late 1950's. and most recently the loss of vegetation along the canyon slopes resulting from the slope instability and the presence of both native and non-native plant species. No portion of the area on the subject site that is proposed to be graded or otherwise developed with structures contains resources that rise to the level of ESHA.

To decrease the potential for canyon instability, deep-rooted, low water use plants, native to coastal Orange County should be selected for general landscaping purposes in order to minimize irrigation requirements and saturation of underlying soils. Low water use, drought tolerant, native plants require less water than other types of vegetation, thereby minimizing the amount of water introduced into the canyon slope. Drought resistant plantings and minimal irrigation encourage root penetration that increases slope stability. The term drought tolerant is equivalent to the terms 'low water use' and 'ultra low water use' as defined and used by "A Guide to Estimating Irrigation Water Needs of Landscape Plantings in California" (a.k.a. WUCOLS) prepared by University of California Cooperative Extension and the California Department of Water Resources dated August 2000 available at http://www.water.ca.gov/wateruseefficiency/docs/wucols00.pdf

Additionally, since the proposed development is within a coastal canyon, designated as ESHA by the City, the protection and enhancement of habitat values is sought, and therefore the placement of vegetation that is considered to be invasive which could supplant native vegetation should not be allowed. Invasive plants have the potential to overcome native plants and spread quickly. Invasive plants are generally those identified by the California Invasive Plant Council

(http://www.cal-ipc.org) and California Native Plant Society (www.CNPS.org/) in their publications. The Commission typically requires that applicants utilize native plant species, particularly along coastal canyons. In the areas on the canyon ward side of the lot, landscaping should only consist of plant species that are appropriate to the habitat type and native to coastal Orange County.

The applicant has submitted a landscape plan (Exhibit #7) which proposes to replant the canyon slope after construction and backfilling of the caisson/lagging retaining walls with a palette of low water use, drought tolerant, native plants such as lemonade berry, coffeeberry, ceanothus, rosemary and buckwheat. **Special Condition #3** requires the applicant adhere to a native, drought tolerant, non-invasive landscaping plan appropriate to the habitat type in the canyon.

Additionally, because the proposed landscaping is within a canyon, the applicant must contact the Orange County Fire Authority (OCFA) to determine if their review is required. **Special Condition #4** requires the applicant to provide written evidence of OCFA approval of a fuel modification plan, or that no fuel modification plan is required.

The special conditions of this staff report are designed to protect and enhance Riviera Canyon as an environmentally sensitive habitat area. Therefore, as conditioned, the Commission finds that the proposed development is consistent with Section 30240(b) of the Coastal Act and the policies of the certified LUP.

D. WATER QUALITY

Section 30230 of the Coastal Act states:

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

Section 30231 of the Coastal Act states:

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

During construction, the proposed development has a potential for a discharge of polluted runoff into coastal waters. Due to this, the Commission imposes **Special Condition #6**, which requires the applicant to comply with construction-related requirements related to storage of construction materials, mechanized equipment and removal of construction debris.

Other sources of polluted runoff could include runoff from impervious surface on the lot and over-watering, which sometimes occurs from installation of landscaping with a high water demand. Plants with a high-water demand are typically not well-suited to the Mediterranean climate of southern California, and therefore often require intense fertilization and application of pesticides/herbicides as a maintenance regime, in addition to regular irrigation. Thus, this type of landscaping can add pollutants to both dry weather and stormwater runoff. Therefore, the use of drought tolerant plants or low-maintenance landscaping is a preferred alternative.

Therefore the Commission imposes **Special Condition #3** requiring the applicant comply with the proposed planting/landscaping plan which includes non-invasive, drought tolerant native vegetation within and adjacent to the canyon and non-invasive, drought tolerant vegetation on the street-facing side of the lot. Native, drought tolerant plants are required because they require little to no watering once they are established (1-3 years), they have deep root systems that tend to stabilize the soil, and are spreading plants that tend to minimize erosion impacts of rain and water run-off continue to maintain the natural plant communities.

Combined with the proposed use of non-invasive drought tolerant vegetation to reduce water runoff discharged from the site, the project will minimize the project's adverse impact on coastal waters to such an extent that it will not have a significant impact on marine resources, biological productivity or coastal water quality. Therefore, the Commission finds that the proposed development, as conditioned, conforms to Sections 30230 and 30231 of the Coastal Act regarding the protection of water quality to protect marine resources, promote the biological productivity of coastal waters and to protect human health.

E. SCENIC AND VISUAL RESOURCES

Section 30251 of the Coastal Act states that:

> *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

San Clemente's certified Land Use Plan (LUP) visual resource policies:

> *Plan policy provides for maintaining the visual character and aesthetic resources of the City through the preservation of: open space areas, coastal bluffs and canyons and public view corridors.*

Policy VII.3 of the certified LUP states:

> *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed:*

a. To protect public views to and along the ocean and scenic coastal area.
b. *To minimize the alteration of coastal bluffs and canyons.*
c. *Where feasible, to restore and enhance visual quality in visually degraded areas.*

Policy XII.5 of the certified LUP states:

> *Preserve the aesthetic resources of the City, including coastal bluffs, visually significant ridgelines, and coastal canyons, and significant public views (GP Policy 10.2)*

Policy XII.6 of the certified LUP states:

> *Preserve the designated undeveloped "natural" coastal canyon areas where appropriate that were originally intended to be open space buffers (See Figure 2-1) (GP Policy 10.2.3)*

The proposed development is located on a private coastal canyon parcel designated as Residential Low Density in the City's certified Land Use Plan (LUP). The residential street is mostly traveled by local residents and is not a regional corridor. There are no public trails in the canyon or in the vicinity, no public parks, or other such public vantage points with direct views of the coastal canyon through the subject site. However, public views of the coastal canyon are available along West Avenida Allessandro.

Section 30251 of the Coastal Act requires that the scenic and visual qualities of coastal areas be protected and where feasible to be restored and enhanced. The applicant proposes the construction of 12'-14'' tall and 50' long retaining wall on the canyon slope. Only the uppermost 6' of the retaining wall will be visible above grade. The visible portion is mostly comprised of earthtone wood lagging that is similar in color to adjacent soils.

After a review of the proposed plans and the supporting geotechnical reports, Dr. Mark Johnsson, Commission staff geologist met with Michael Childs, the applicants' consulting geologist at the subject site on November 15, 2012. Dr. Johnsson agreed that the proposed slope stabilization project as proposed is the least environmentally damaging alternative and involves the least amount of landform alteration. He concluded that if stabilization were delayed, the landslide would continue to shift and would ultimately directly threaten the residential development at the top of the canyon slope at which point a much more substantial vertical wall would be required resulting in greater landform alteration and potentially significant adverse impacts on visual resources. Thus, addressing the slope stability at this point in time provides an opportunity to address the issue without having any significant adverse impacts on visual resources.

To further address the visual impacts of the proposed structure, the applicant proposes landscaping that, once mature, will mostly hide the retaining wall from public view. Landscaping is also proposed on the slope above the proposed engineered retaining wall at 308 Avenida La Costa to address the visual impacts of existing unpermitted un-engineered terracing retaining walls which are not proposed to be removed as part of this slope stabilization project. As proposed, the Commission finds the proposed development consistent with Section 30251 of the Coastal Act.

F. UNPERMITTED DEVELOPMENT

Development has occurred on the subject site without benefit of the required coastal development permit including terracing of the canyon slope at 308 Avenida La Costa with segmental block retaining walls and at 400 Avenida La Costa with low treated-wood retaining walls by previous property owners and recent "temporary" crudely constructed rock gabions made out of chain link fencing and concrete debris at the ephemeral stream at the toe of the canyon and shoring planks and vertical steel piles across both properties in an attempt to address the December 2011 canyon slope land slide. Temporary wood steps were also built to provide construction access. This development occurred within a coastal canyon that is protected for its scenic and habitat value (as described elsewhere in these findings) and exceeds the kind of development normally associated with a single family residence. Thus, the work that was undertaken constitutes development that requires a coastal development permit.

The applicants propose to remove all "temporary" unpermitted structures that they placed in the canyon to address slope instability, including the rock gabions, chain link fencing, concrete debris, vertical steel piles, shoring planks and wood steps. The applicants are not proposing removal nor seeking approval of existing segmental block retaining walls at 308 Avenida La Costa and wood lagging retaining walls at 400 Avenida La Costa constructed by a previous property owner(s). Even if unpermitted development was undertaken by a prior owner(s), the persistence of that development on property under the control of the applicants without a permit constitutes a continuing violation of the Coastal Act, and the applicants are required to obtain authorization of development on their property or to correct that violation.

The applicant's consulting engineering geologist, Michael Childs of ViaGeos did not recommend removal of the unpermitted un-engineered terracing retaining walls as the re-grading of the upper portions of the canyon slope closest to the building pad would not be beneficial to slope stability and may be the cause of further slope instability. Therefore, the applicants are not proposing the removal of the unpermitted numerous terracing retaining walls as part of this application. Approval of this permit does not constitute a waiver of any legal action with regard to any violation of the Coastal Act that may have occurred, nor does it constitute admission as to the legality of any development undertaken on the subject site without a coastal development permit. The Commission imposes **Special Condition #1** requiring the applicant submit final revised plans clearly depicting all unpermitted development and clearly identifying the unpermitted development proposed to be removed and the unpermitted development which the applicants proposed to retain and are not seeking approval. The condition also requires that the plans be marked to indicate that if these unpermitted walls become damaged and/or are partly or wholly removed during any of the development authorized by this permit, the walls shall not be repaired or re-constructed unless or until such repair or reconstruction is approved through the coastal development permit process.

Additionally, to ensure that those portions of the unpermitted development that the applicants are proposing to remove are addressed in a timely manner, **Special Condition #8** requires that the applicant satisfy all conditions of this permit which are prerequisite to the issuance of this permit within 90 days of Commission action. The Executive Director may grant additional time for good cause.

Consideration of the permit application by the Commission has been based solely on the consistency of the proposed development with the policies of Chapter 3 of the Coastal Act. The certified San Clemente Land Use Plan was used as guidance by the Commission in reaching its decision.

G. LOCAL COASTAL PROGRAM

Section 30604(a) of the Coastal Act provides that the Commission shall issue a coastal development permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program that conforms to Chapter 3 policies of the Coastal Act. The Commission certified the Land Use Plan for the City of San Clemente on May 11, 1988, and certified an amendment approved in October 1995. On April 10, 1998, the Commission certified with suggested modifications the Implementation Plan portion of the Local Coastal Program. The suggested modifications expired on October 10, 1998. The City re-submitted on June 3, 1999, but withdrew the submittal on October 5, 2000.

The proposed development, as conditioned, is consistent with the policies contained in the certified Land Use Plan. Moreover, as discussed herein, the development, as conditioned, is consistent with the Chapter 3 policies of the Coastal Act. 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).

H. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13096 Title 14 of the California Code of Regulations requires Commission approval of a coastal development permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The City of San Clemente is the lead agency for purposes of CEQA compliance. The City determined that the project is categorically exempt from CEQA. Furthermore, the proposed development has been conditioned to assure the proposed project is consistent with the resource protection policies of the Coastal Act. The conditions also serve to mitigate significant adverse impacts under CEQA. The conditions are: 1) Submittal of Final Revised Plans; 2) Conformance with Geotechnical Recommendations; 3) Landscaping; 4) OCFA Approval; 5) Assumption of Risk, Waiver of Liability and Indemnity; 6) Storage of Construction Materials, Mechanized Equipment and Removal of Construction Debris; 7) Future Improvements; and 8) Condition Compliance.

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, 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.

APPENDIX A

SUBSTANTIVE FILE DOCUMENTS

Approval-in-Concept from the City San Clemente dated 9/12/12

Geotechnical Review of Slope Stabilization Plans, 400 Avenida La Costa and 308 Avenida La Costa, San Clemente, CA , Coastal Development Permit Application No. 5-12-246 by ViaGeos, dated January 30, 2013, Project No. 111221, Report 13-009

Response to California Coastal Commission Comments, 400 Avenida La Costa and 308 Avenida La Costa, San Clemente, CA , by ViaGeos, dated January 22, 2013, Project No. 111221, Report 13-004

Geotechnical Investigation of Slope Instability, 400 Avenida La Costa and 308 Avenida La Costa, San Clemente, CA , by ViaGeos, dated October 27, 2011, Project No. 111221, Report 11-080

Response to City of San Clemente Review, 400 Avenida La Costa and 308 Avenida La Costa, San Clemente, CA , by ViaGeos, dated September 17, 2012, Project No. 111221, Report 12-080

Slope Stabilization Plan Sheet 1 of 1, Lots 16 & 17, Tract 2964

Google

Address **400 Avenida La Costa**
San Clemente, CA 92672

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EXHIBIT # 1

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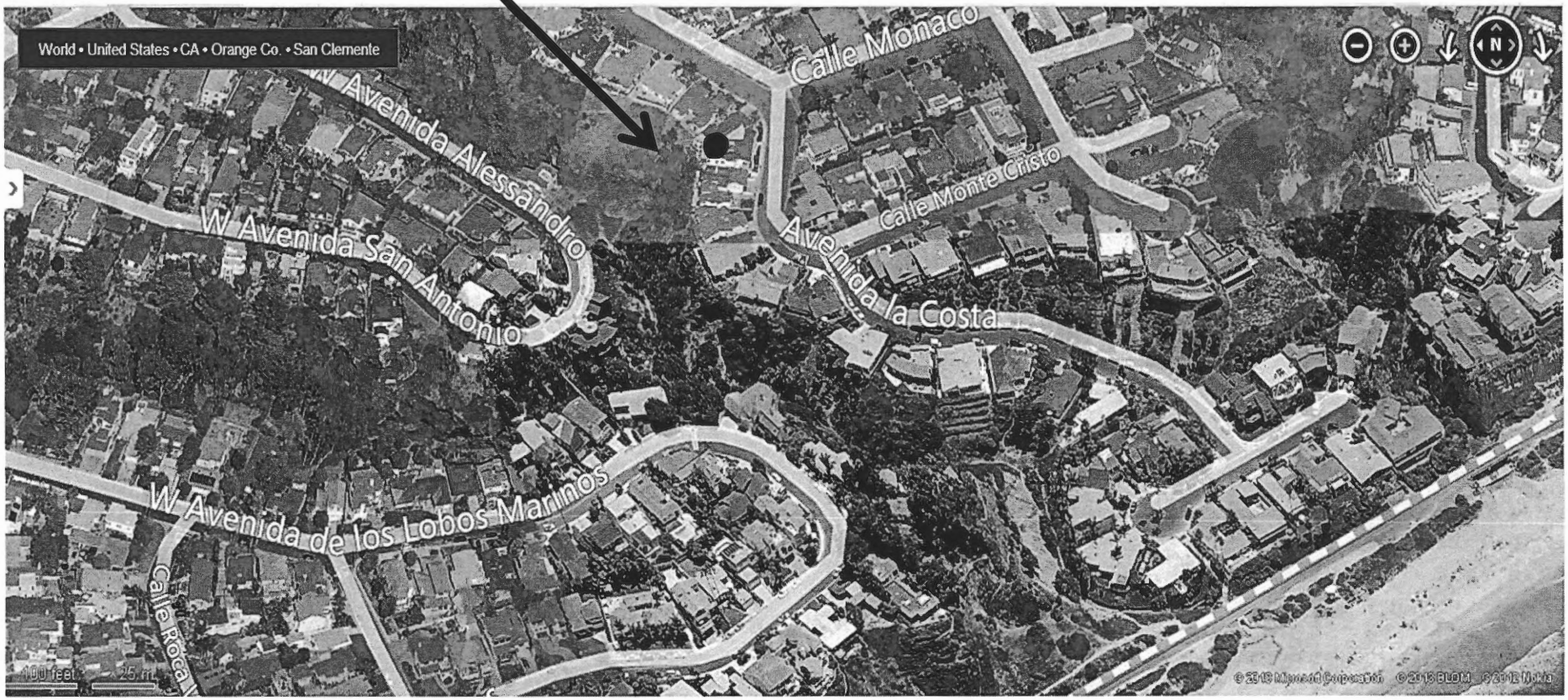
Subject Site within Riviera Canyon



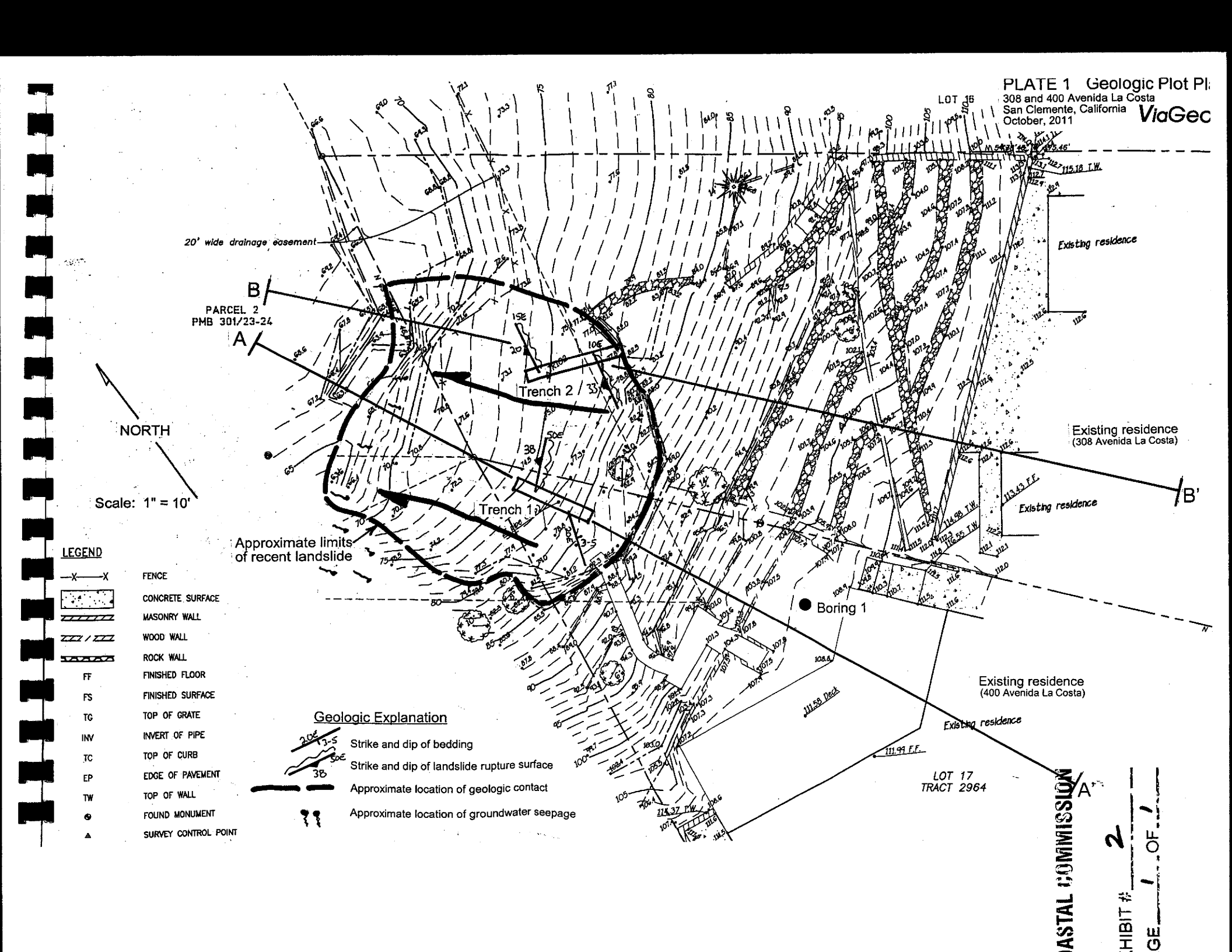


PLATE 1 Geologic Plot Pl
308 and 400 Avenida La Costa
San Clemente, California
October, 2011
ViaGeo
LOT 16
20' wide drainage easement
B
PARCEL 2
PMB 301/23-24
A
Trench 2
Trench 1
NORTH
Scale: 1" = 10'
Approximate limits
of recent landslide
Existing residence
Existing residence
(308 Avenida La Costa)
B'
Existing residence
Boring 1
Existing residence
(400 Avenida La Costa)
Existing residence
LOT 17
TRACT 2964
A'
LEGEND
FENCE
CONCRETE SURFACE
MASONRY WALL
WOOD WALL
ROCK WALL
FF FINISHED FLOOR
FS FINISHED SURFACE
TG TOP OF GRATE
INV INVERT OF PIPE
TC TOP OF CURB
EP EDGE OF PAVEMENT
TW TOP OF WALL
FOUND MONUMENT
SURVEY CONTROL POINT
Geologic Explanation
Strike and dip of bedding
Strike and dip of landslide rupture surface
Approximate location of geologic contact
Approximate location of groundwater seepage
COASTAL COMMISSION
EXHIBIT # 2
PAGE 1 OF 1

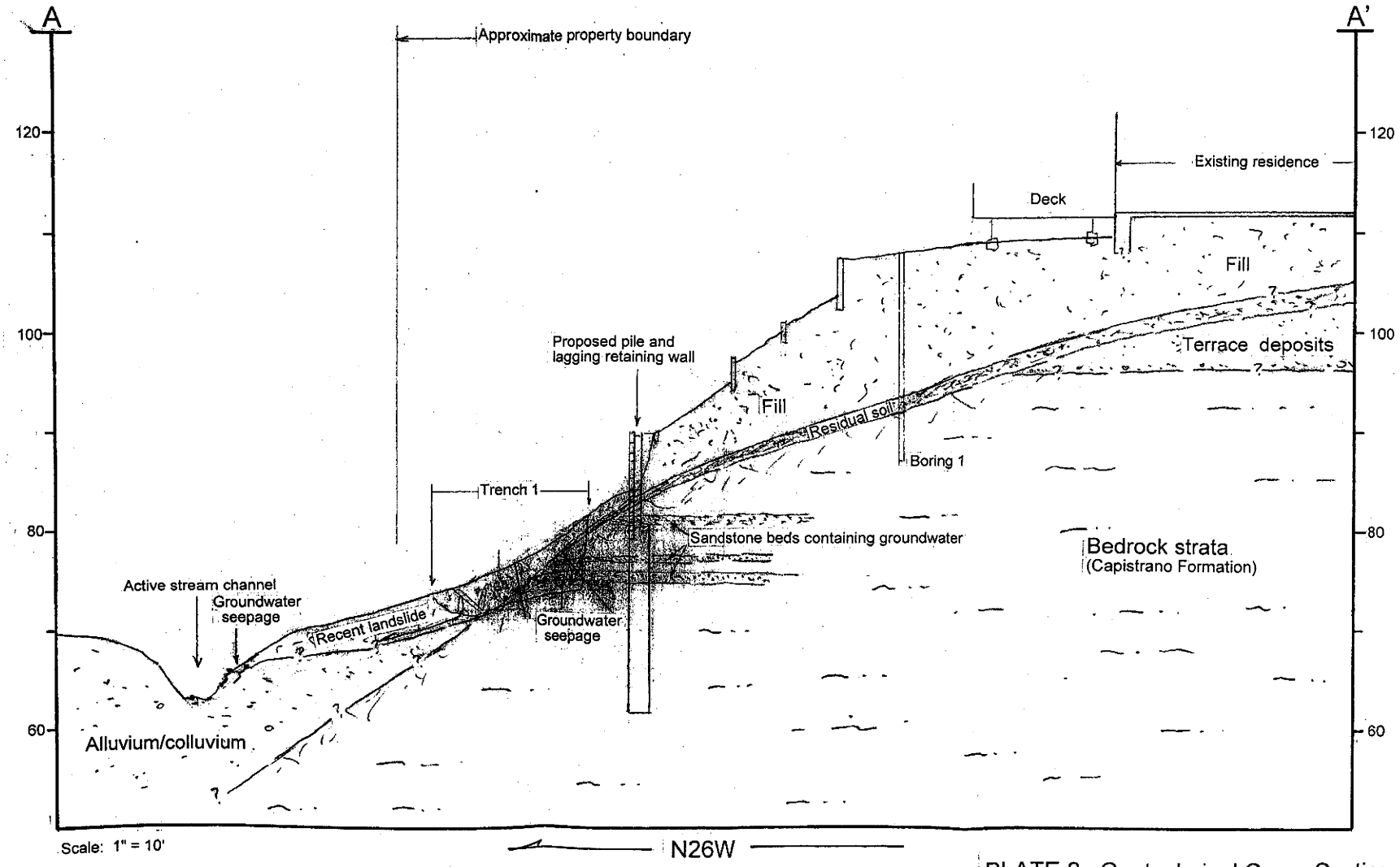


PLATE 2 Geotechnical Cross Section A-A'
400 Avenida La Costa
San Clemente, California
October, 2011

ViaGeos

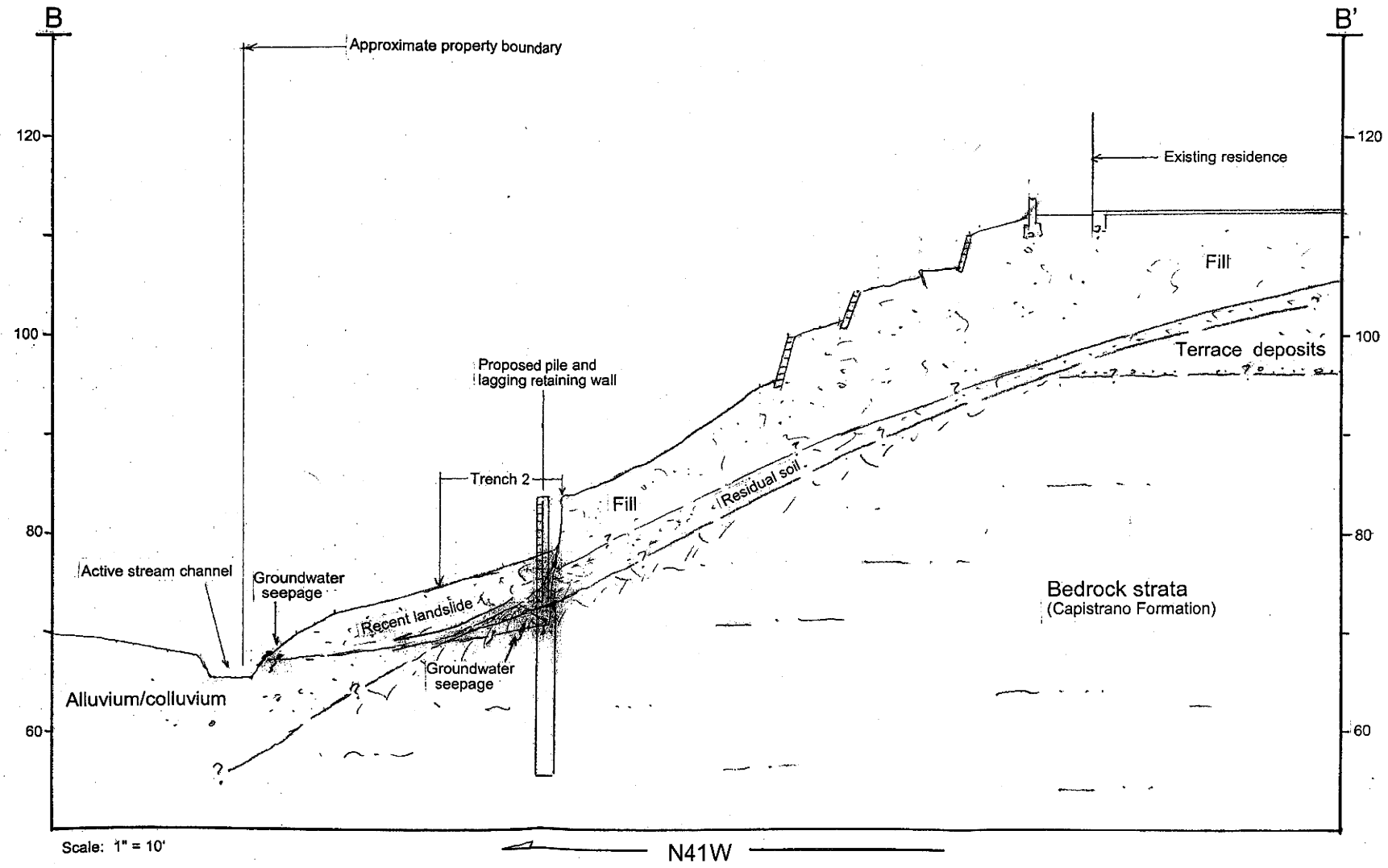
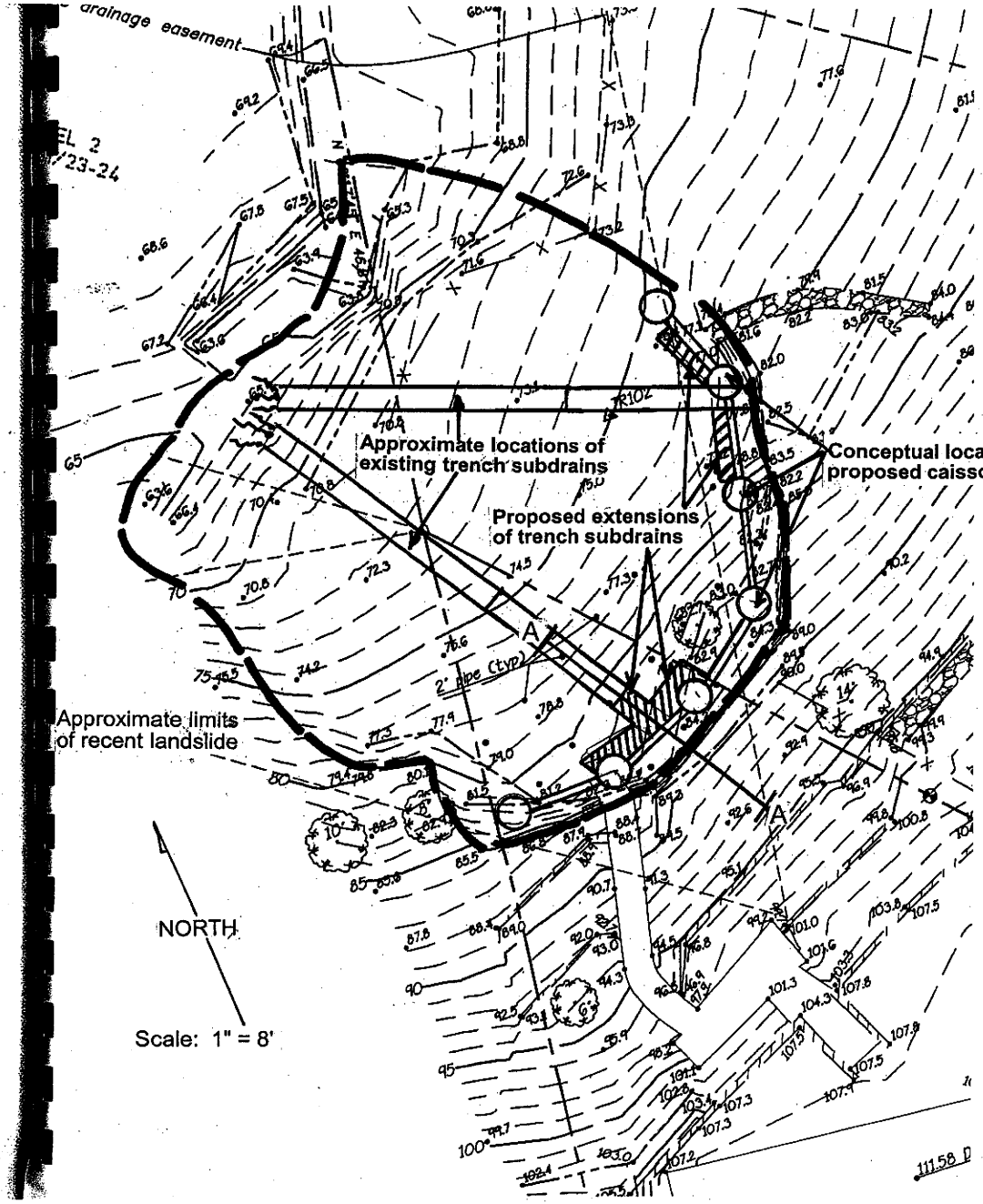


PLATE 3 Geotechnical Cross Section B-B'
400 Avenida La Costa
San Clemente, California
October, 2011
ViaGeos



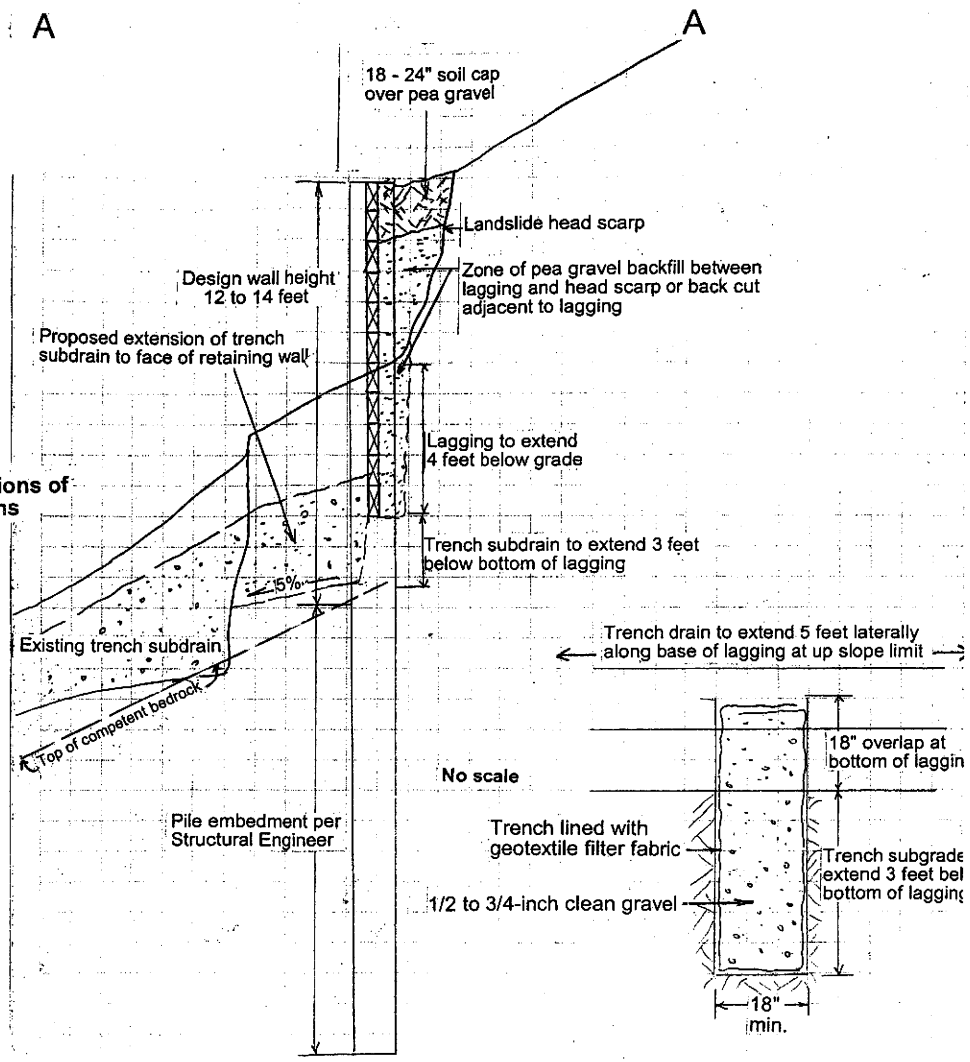


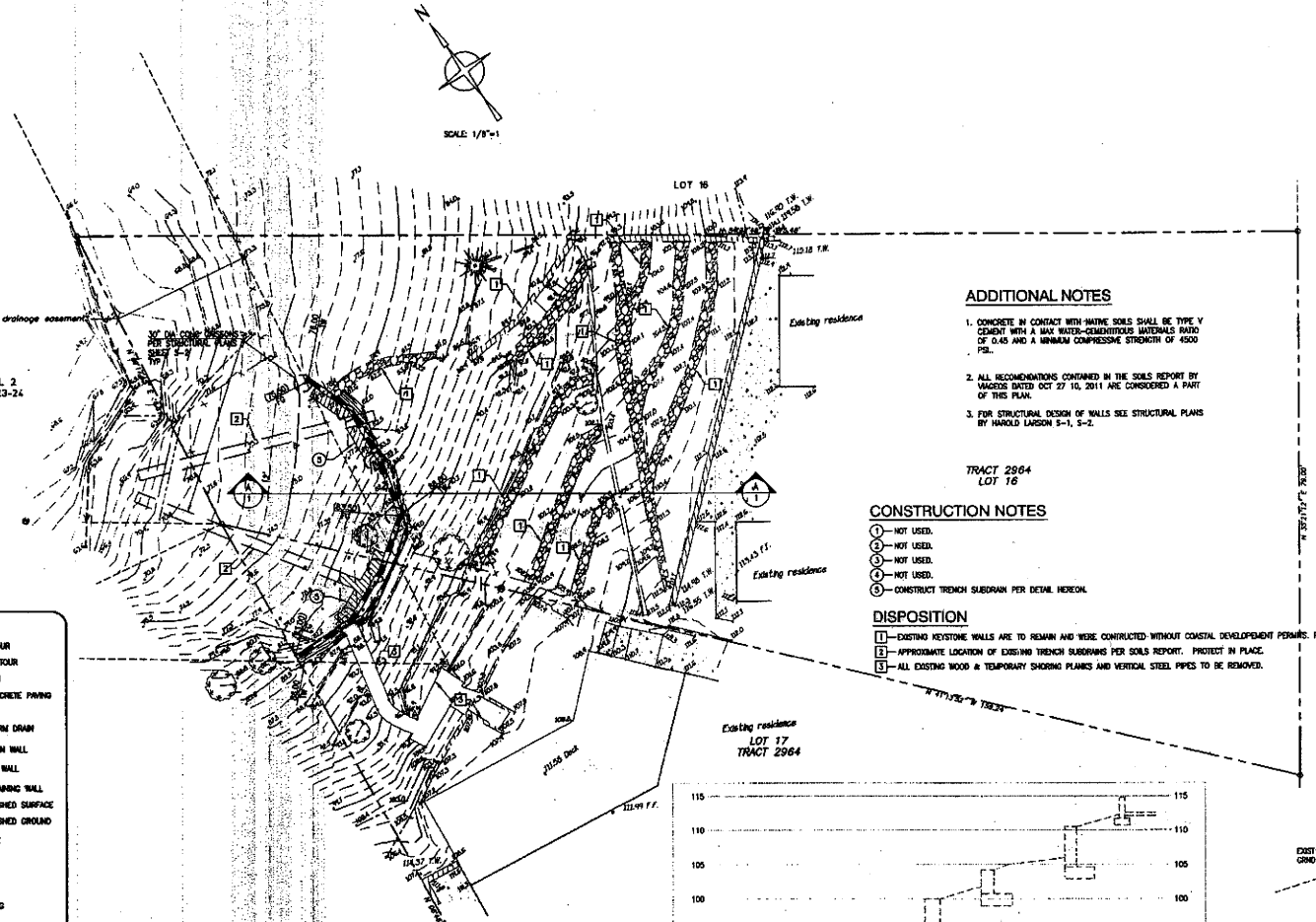
PLATE 4 Plot Plan Depicting Conceptual Piles, Retaining Wall and Subdrain Location and Subdrain Detail

ViaGeos

SLOPE STABILIZATION PLAN

LOTS 16 & 17, TRACT 2964
308 & 400 AVENIDA LA COSTA, SAN CLEMENTE, CALIFORNIA
PREPARED FOR: DR. KIRK; HOWARD AND MR. BILL KURNIK

SCALE: 1/8"=1'



ADDITIONAL NOTES

1. CONCRETE IN CONTACT WITH NATIVE SOILS SHALL BE TYPE V CEMENT WITH A MAX WATER-CEMENTITIOUS MATERIALS RATIO OF 0.45 AND A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI.
2. ALL RECOMENDATIONS CONTAINED IN THE SOILS REPORT BY VIACEOS DATED OCT 27 10, 2011 ARE CONSIDERED A PART OF THIS PLAN.
3. FOR STRUCTURAL DESIGN OF WALLS SEE STRUCTURAL PLANS BY HAROLD LARSON S-1, S-2.

CONSTRUCTION NOTES

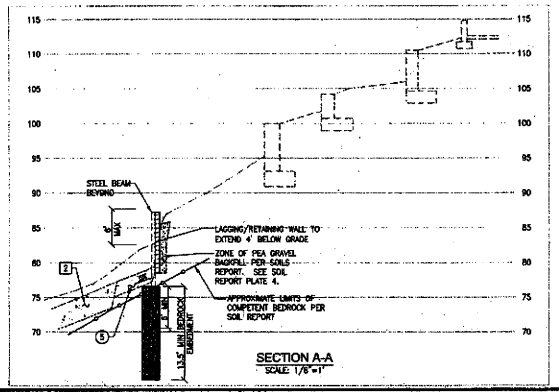
1. NOT USED.
2. NOT USED.
3. NOT USED.
4. NOT USED.
5. CONSTRUCT TRENCH SUBDRAIN PER DETAIL HEREON.

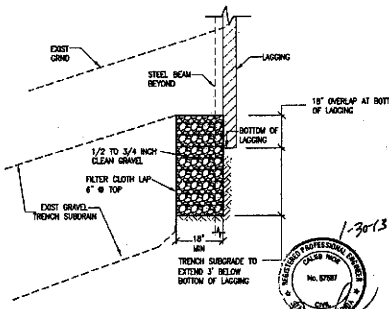
DISPOSITION

1. EXISTING KEYSTONE WALLS ARE TO REMAIN AND WERE CONTRUCTED WITHOUT COASTAL DEVELOPEMENT PERMITS. PROTECT IN PLACE.
2. APPROXIMATE LOCATION OF EXISTING TRENCH SUBDRAINS PER SOILS REPORT. PROTECT IN PLACE.
3. ALL EXISTING WOOD & TEMPORARY SHORING PLANKS AND VERTICAL STEEL PIPES TO BE REMOVED.

LEGEND

100	EXISTING CONTOUR
100	PROPOSED CONTOUR
100.00	SPOT ELEVATION
	PROPOSED CONCRETE PAVING
	PROPERTY LINE
4"	PROPOSED STORM DRAIN
	EXISTING SCREEN WALL
	EXISTING ROCK WALL
	PROPOSED RETAINING WALL
FS	PROPOSED FINISHED SURFACE
FG	PROPOSED FINISHED GROUND
INV	INVERT OF PIPE
TG	TOP OF GRATE
P.L.	PROPERTY LINE
TW	TOP OF WALL
TF	TOP OF FOOTING
H.P.	HIGH POINT
	GRADING LIMITS





5 DETAIL
TRENCH SUBDRAIN
NOT TO SCALE. PER SOIL REPORT

BENCHMARK NOTE:
OCSIM 38-113-05
ELEV=180.998
NAVD88 DATUM, 2005 ADJ.

EASEMENT NOTE:
THE PLAT FOR THIS SURVEY WAS PREPARED WITHOUT A TITLE REPORT. UNPLOTTED EASEMENTS MAY EXIST ON THE SUBJECT PROPERTY.

BOUNDARY NOTE:
THIS IS NOT A BOUNDARY SURVEY. THE TOPOGRAPHIC FEATURES AS SHOWN ON THIS MAP MAY BE ADJUSTED RELATIVE TO THE PLAT UPON COMPLETION OF A BOUNDARY SURVEY

H. SCALE:	1/8"=1'
V. SCALE:	N/A
DATE OF SURVEY:	7-5-11
DR. FILE:	-
DATE:	4-10-2012
DRN.:	G.S.
CHK.:	C.E.
APVD.:	C.E.

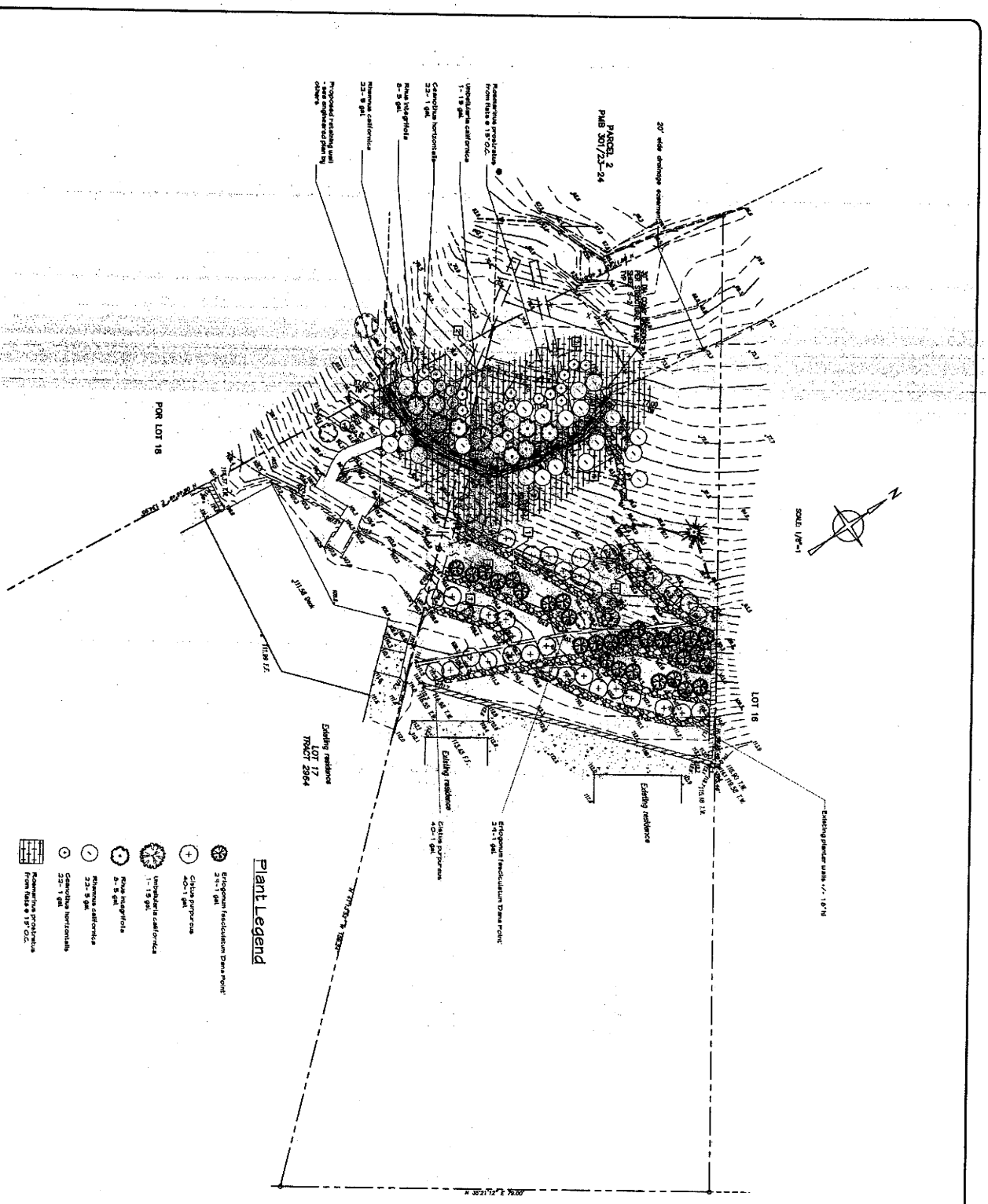
REVISIONS

BY	DATE	APVD.

TOAL ENGINEERING, INC.
Civil Engineers and Land Surveyors
139 Avenida La Cuesta, San Clemente, CA 92672
Ph: 949-492-8566 Fax: 949-492-8625

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER E. GIBBS
No. 57697
CIVIL
STATE OF CALIFORNIA
1-30-13

SHEET 1 OF 1
JOB NO: 1440



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RECEIVED
South Coast Region
JAN 1 6 2015
CALIFORNIA
COASTAL COMMISSION

Date 7/30/15
Scale 1/8"=1'-0"
Sheet L-1
of 1

Oakbrook Landscape, inc.
Landscape Design & Construction
26855 Calle Hermosa
Capistrano Beach, CA 92624
(949) 661-3926 Fax (949) 661-9347
www.oakbrooklandscape.com

Planting Plan

Kurnik & Howard Residences
308 & 400 Avenida La Costa
San Clemente

Revisions
Date
Addendum #1
Initials

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5-12-246

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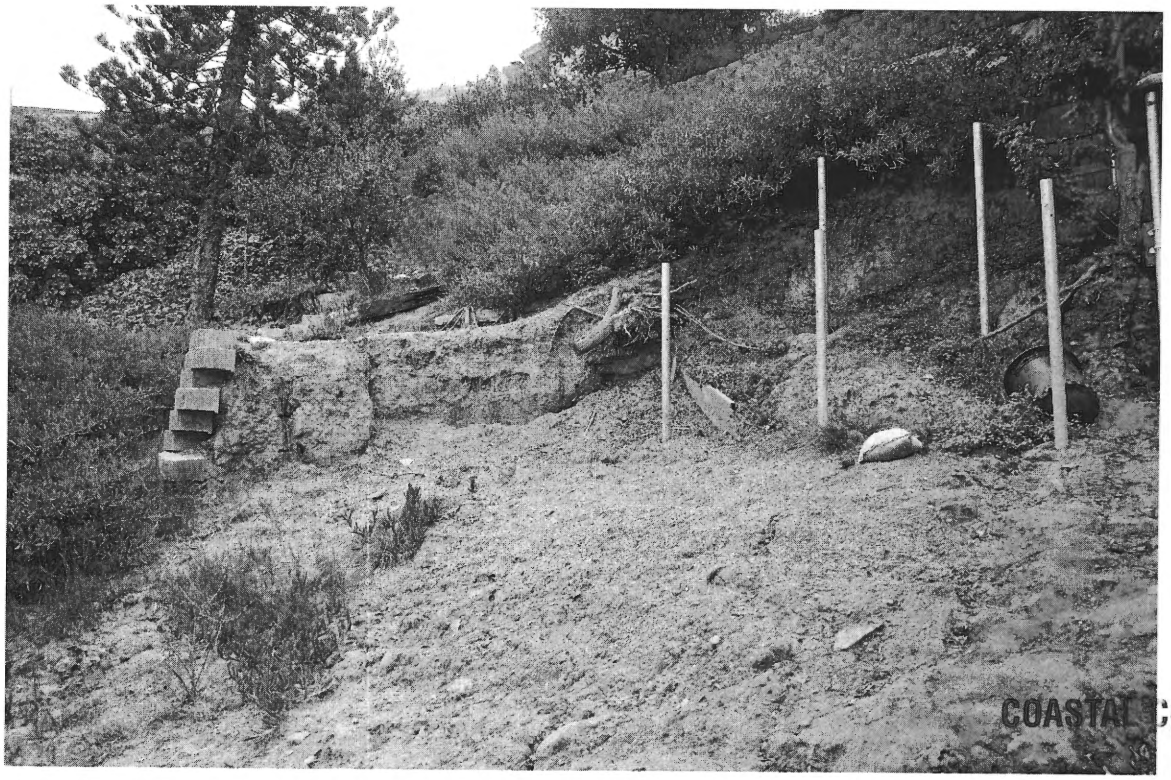
approximate location of proposed temporary trench subdrains

San Clemente, California

Photos of landslide



'temporary' access wood stairs & wood lagging proposed to be removed

'temporary' erosion control concrete & chain link proposed to be removed

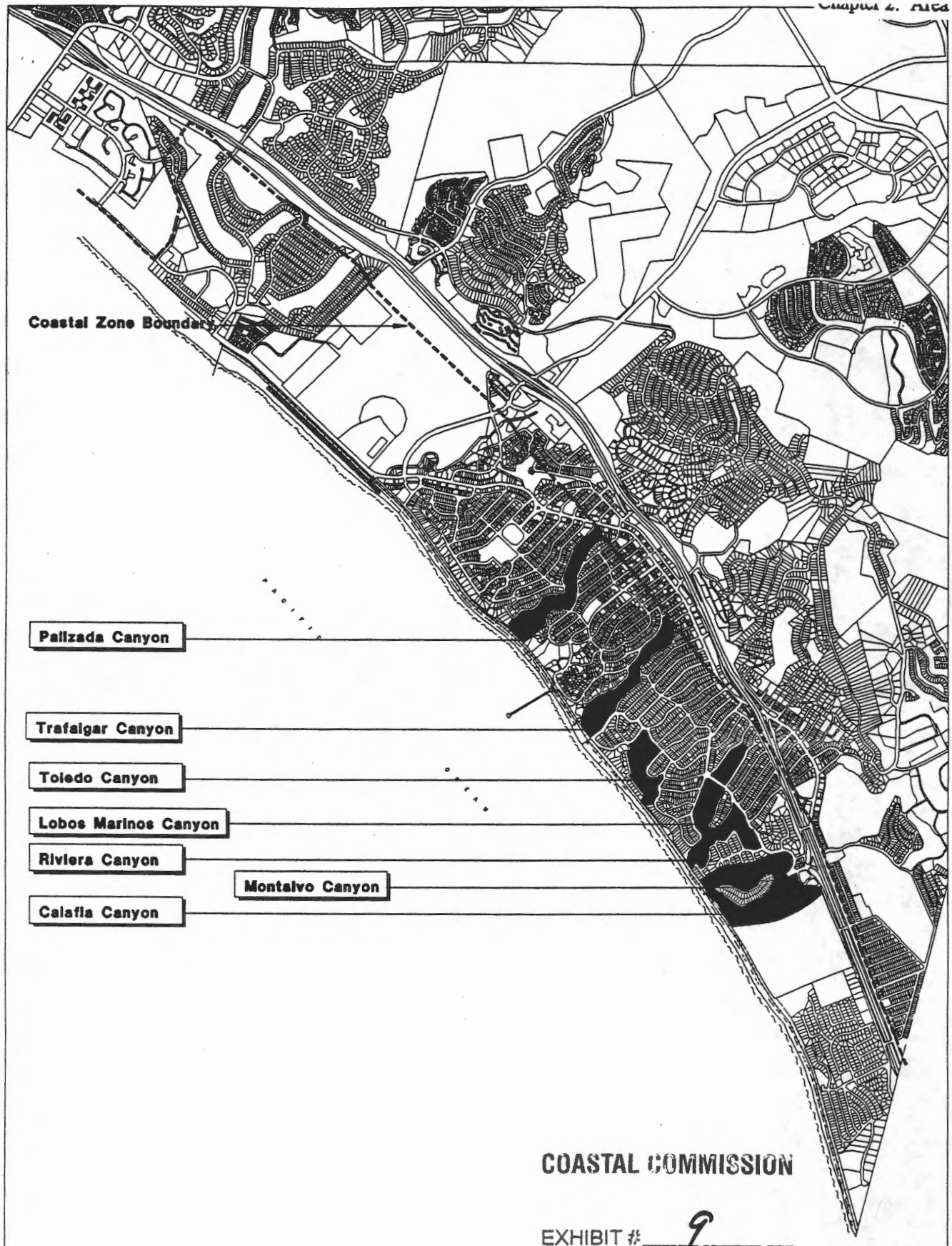


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FIGURE 2-1

CITY OF SAN CLEMENTE

COASTAL CANYONS/ ENVIRONMENTALLY SENSITIVE HABITAT AREAS