CALIFORNIA COASTAL COMMISSION

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STAFF REPORT: REGULAR CALENDAR

Application Number:	5-12-301
Applicant:	Mr. Scott B. MacPherson
Agent:	Vladimir Elmanovich
Project Location:	283 Trino Way, Pacific Palisades, City of Los Angeles
Project Description:	Demolition of an existing single-family residence and construction of a new two-story 4,692 square foot single-family residence with subterranean two-car garage and utility room. The development will require a pile foundation and soldier piles and retaining walls in the rear of the property and pin piles along the front, with approximately 706 cubic yards of grading (620 cubic yards of cut and 36 cubic yards of fill).

SUMMARY OF STAFF RECOMMENDATION

Staff is recommending that the Commission <u>APPROVE</u> a coastal development permit for the proposed development with eight (8) special conditions addressing: 1) evidence of conformance with geotechnical recommendations; 2) assumption of risk; 3) submittal of erosion, drainage and polluted runoff control plan; 4) disposal of exported soil; 5) spa leak detection; 6) submittal of landscape plans; 7) pile exposure; and 8) a deed restriction against the property, referencing all of the Special Conditions contained in this staff report.

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MOTION AND RESOLUTION:

Motion:

I move that the Commission approve Coastal Development Permit No. 5-12-301 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 coastal development permit no. 5-12-301 and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

- 1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
- 2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
- 3. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
- 4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

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

III. SPECIAL CONDITIONS

1. CONFORMANCE WITH GEOTECHNICAL RECOMMENDATIONS AND TO CITY GEOTECHNICAL REVIEW LETTERS

A. PRIOR TO ISSUANCE OF THE PERMIT the applicant shall provide, for the review and approval of the Executive Director, all final construction drawings and drainage plans. All final design and construction, grading, drainage devices and foundation plans shall have been reviewed and approved by the Grading Division of the City of Los Angeles Department of Building and Safety. The plans shall conform to all recommendations put forth in the geologic/soils report by Earth Systems Southern California, dated December 8, 2011, as well as all requirements of the City of Los Angeles Department of Building and Safety, Geology and Soils Report Approval Letter, dated June 4, 2012.

B. The monitoring, construction methods and foundation system including the installation of the piles, the permanent and temporary retaining walls, shall conform to and include all requirements and specifications of the City review letter cited above.

C. 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 be carried out without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

2. 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 landslide activity, erosion and/or 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.

3. EROSION, DRAINAGE AND POLLUTED RUNOFF CONTROL

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for review and approval of the Executive Director, a final plan for erosion, drainage and

polluted runoff control, including supporting calculations. The plan shall be prepared by a licensed engineer and shall incorporate Best Management Practices (BMPs) designed to control the volume, velocity and pollutant load of storm water leaving the construction and developed site. The plan shall be reviewed and approved by the consulting engineering geologist to ensure the plan is consistent with geologist's recommendations. In addition to the specifications above, the plan shall demonstrate that:

(a) Erosion on the site shall be controlled to avoid adverse impacts on adjacent properties and public streets.

(b) Clearing and grading activities should be timed to avoid the rainy season whenever possible. If grading takes place during the rainy season ((October 15-March 31)), the plan shall specify that temporary erosion control measures shall be used during construction (e.g., temporary sediment basins [including debris basins, desilting basins or silt traps], temporary drains and swales, sand bag barriers, silt fencing, stabilize any stockpiled fill with geofabric covers or other appropriate cover, install geotextiles or mats on all cut or fill slopes, close and stabilize open trenches as soon as possible).

(c) Only areas essential for construction shall be cleared.

(d) During the rainy season, (October 15- March 31) bare soils shall be stabilized with non-vegetative BMPs as soon as possible, and within five days of clearing or inactivity in construction.(e) Construction entrances shall be properly graded to prevent runoff from construction site. The entrances should be stabilized immediately after grading and frequently maintained to prevent erosion and control dust and tracking of mud offsite.

(f) Runoff shall be intercepted above disturbed slopes and conveyed to a permanent channel or storm drain by using earth dikes, perimeter dikes or swales, or diversions. Use check dams where appropriate.

(g) Spill prevention and control measures shall be developed and implemented.

(h) Sanitary facilities shall be provided for construction workers.

(i) Equipment and machinery shall be maintained and washed 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 properly at an off-site location.

(j) Adequate disposal facilities shall be provided for solid waste, including excess asphalt, produced during construction. Properly recycle or dispose of lunchtime trash and other debris at the end of every construction day.

(k) During construction, the applicant shall obtain approval from the City of Los Angeles Department of Building and Safety for any dewatering necessary during construction and:

(i) shall install filters on the dewatering system,

(ii) shall prevent discharge of water pumped from the site onto nearby property, and shall direct all discharges into paved City street and storm drains.

(I) Permanent erosion and drainage control measures shall be installed to ensure the stability of the site, adjacent properties, and public streets.

(m) All drainage from the lot shall be directed toward the street and away from the bluff slope.

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

(0) Pesticide, herbicide and fertilizer use shall be eliminated or minimized.

(p) The Drainage and Erosion Control Plan shall include, at a minimum, the following components:

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

(ii) Any temporary erosion control measures should grading or site preparation cease for a period of more than 30 days, including but not limited to: stabilization of all stockpiled fill, access roads, disturbed soils and cut and fill slopes with geotextiles and/or mats, sand bag barriers, silt fencing; temporary drains and swales and sediment basins. All disturbed areas shall be stabilized. These temporary erosion control measures shall be monitored and maintained until grading or construction operations resume.

(iii) A site plan showing the location of all temporary erosion control measures. The plan shall delineate the areas to be disturbed by grading or construction activities and shall include any temporary access roads, staging areas and stockpile areas. These erosion control measures shall be required on the project site prior to or concurrent with the initial grading operations and maintained throughout the development process to minimize erosion and sediment from the runoff waters during construction. All sediment shall be retained on-site unless removed to an appropriately approved dumping location either outside the coastal zone or to a site within the coastal zone permitted to receive fill.

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

(v) A site plan showing the location of all permanent erosion and drainage control measures.

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

(vii) A written review and approval of all erosion and drainage control measures by the applicant's engineer and/or geologist.

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

4. DISPOSAL OF SOIL EXPORTED FROM SITE

A. The applicant shall dispose of all excess soils from the site in an approved disposal site either (a) located outside the coastal zone or (b) if located inside the coastal zone, that has a valid coastal development permit from the Coastal Commission.

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

5. SPA LEAK DETECTION

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

potential of leakage from the proposed spa. The plan shall, at a minimum: 1) provide a separate water meter for the spa to allow monitoring of the water usage for the spa and the home; 2) identify the materials, such as plastic linings or specially treated cement, to be used to waterproof the underside of the spa to prevent leakage, and information regarding past success rates of these materials; 3) provide double wall construction to spa with a drainage system and leak detection system installed between the walls, and; 4) identify methods used to control spa drainage and to prevent infiltration from drainage and maintenance activities into the soils of the applicant's and neighboring properties. The applicant shall comply with the mitigation plan approved by the Executive Director.

6. LANDSCAPING PLAN

A) PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and written approval of the Executive Director, a final landscaping plan. The plan shall be prepared by a licensed landscape architect and incorporate the following criteria: (a) a majority of the vegetation planted shall consist of native/drought and fire resistant plants of the coastal bluff scrub community as listed by the California Native Plant Society, Santa Monica Mountains Chapter, in their document entitled Recommended List of Plants for Landscaping in the Santa Monica Mountains, dated February 5, 1996; no plant species listed as problematic and/or invasive by the California Native Plant Society, the California Invasive Plant Council (formerly known as the California Exotic Pest Plant Council), or as may be identified from time to time by the State of California shall be utilized on the property; (b) 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; (c) no permanent irrigation system shall be allowed within the property. Temporary, above ground irrigation to allow the establishment of the plantings is allowed; (d) the plantings established shall provide 90% coverage in 90 days; (e) all required plantings will be maintained in good growing conditions throughout the life of the project, and whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the landscape plan.

- 1) The plan shall include, at a minimum, the following components:
- (a) A map showing the type, size, and location of all plant materials that will be on the developed site, topography of the developed site, and all other landscape features, and;(b) A schedule for installation of plants.

B) Five years from the date of the implementation of the landscaping plan the applicant shall submit for the review and approval of the Executive Director, a landscape monitoring report, prepared by a licensed Landscape Architect, that certifies the on-site landscaping is in conformance with the landscape plan approved pursuant to this Special Condition. The monitoring report shall include photographic documentation of plant species and plant coverage.

If the landscape monitoring report indicates the landscaping is not in conformance with or has failed to meet the performance standards specified in the landscaping plan approved pursuant

to this permit, the applicant, or successors in interest, shall submit a revised or supplemental landscape plan for the review and approval of the Executive Director. The revised landscaping plan must be prepared by a licensed Landscape Architect and shall specify measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan.

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

7. STRUCTURAL APPEARANCE (PILE EXPOSURE)

A. Prior to issuance of the permit the applicant shall submit a plan for the review and approval of the Executive Director to address the potential visual impacts of the pilings in the event that the pilings are exposed and visible from Pacific Coast Highway as a result of earth movement or other circumstances. The applicant shall agree in writing to carry out the approved plan, which shall include:

1. Coloring the exposed concrete pilings so that it will match the surrounding soils. The piles should be colored in such a way that the result would be a natural, mottled appearance. If any piling is exposed, the applicant shall immediately dye or conceal such pilings.

2. Installation of a low "breakaway" skirt wall to cover exposed earth and/or pilings.

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

8. DEED RESTRICTION

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the special conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so

long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

IV. FINDINGS AND DECLARATIONS

A. PROJECT DESCRIPTION

The project site is located at 283 Trino Way, north side of the eastern terminus of Trino Way in the Pacific Palisades community of the City of Los Angeles (see **Exhibits No. 1-2**).

The applicant proposes to demolish an existing two-story 1,657 square foot single-family residence, except for the 380 square foot garage, and construct a two-story, with subterranean level, 33 foot high (as measured above existing grade), 4,692 square foot (5,578 square feet with garage and carport) single family home on a 9,757 square foot lot. The existing garage will be converted to a carport for the new single-family residence. (see **Exhibits No. 3,4, & 5**). The new single-family residence will include a 24" to 36" diameter pile foundation and approximately fourteen 30" to 36" soldier piles and two variable height retaining walls with a maximum height of 10 feet in the rear of the property and fourteen 14 shear pin piles along the front, with approximately 706 cubic yards of grading (620 cubic yards of cut and 36 cubic yards of fill).

The existing graded building pad is approximately 10 to15 feet above Trino Way. The rear of the property has an approximately 20 foot high ascending slope with a gradient of approximately one horizontal to one vertical, with a four to six foot high retaining wall. The project site is located in a residentially developed area approximately ¹/₄ mile north of Pacific Coast Highway. The single-family residences in the surrounding area vary from one to two stories and range in size from 1,585 square feet to 9,193 square feet (see **Exhibit No. 6**)

Permit History

On February 8, 2012, the Commission issued a Waiver [No. 5-12-002W (Macpherson)] for this property and same applicant/property owner. Based on the application submitted by the property owner, the proposed project was described as an addition to an existing single-family residence. The project was described as follows:

Addition of 2,872 square feet to an existing 1,657 square foot single family residence, convert existing garage to carport and add new 574 square foot subterranean garage, two variable height retaining walls with a maximum height of 10 feet in rear yard, spa and trellis cover.

Based on the description in the application and the submitted plans, the approved project was to retain portions of interior and exterior walls of the existing single-family residence and add the new square footage to the remaining iexisting structure, and convert the existing garage to a carport. The plans also included soldier piles along the rear portion of the property and shear pin piles along the front. However, after the Waiver was issued and the applicant obtained the building permit from the City, the entire single-family residence was demolished, except for a small section of the

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southern wall of the former residence, measuring approximately 3 feet in length, and the garage (see **Exhibit No. 7**).

A neighboring resident notified Commission staff stating that the on-going construction was not consistent with the issued Wavier. Subsequently, staff investigated this issue and determined that the construction was not consistent with the approved Waiver and required the applicant to submit a new application for the demolition and construction of a new single-family residence. The applicant argued that under the City's building requirements the project qualified as a remodel as long as there was at least a 3 foot portion of the exterior walls remaining.

Coastal Commission has consistently viewed projects as remodels if no more than 50 percent of the exterior walls were removed. In this case, over 90 percent of the exterior walls were removed. Furthermore, the approved plans submitted with the coastal development permit application showed interior and exterior walls remaining, which were removed during the demolition. Regardless of the City's definition of a remodel, the construction is clearly inconsistent with the Commission's issued Waiver.

Because of the inconsistency with the approved plans and Waiver, Commission staff informed the City of Los Angeles' Building Department that the construction was inconsistent with the Commission approval. Because of the inconsistency the City issued a Stop Work Order. Since work was started with demolition, grading and installation of the solider piles, the applicant's geotechnical consultant, City's Building and Safety Department, and Commission staff worked together to ensure that any work stoppage would not jeopardize the site or surrounding areas. The applicant submitted and implemented an interim erosion control plan during the work stoppage. The plan has been reviewed and approved by the City and the Commission's geologist, Dr. Mark Johnsson and all work has been stopped.

After discussions with the applicant/agent, the applicant/agent agreed to submit a new coastal development permit application for the demolition of the single-family residence and construction of a new residence. The applicant/agent has been cooperative and submitted a new application with the new project description.

B. HAZARDS

The Coastal Act requires that development assure stability and structural integrity. Section 30253 of the Coastal Act states in part:

New development shall:

1) Minimize the risk 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 coastal bluffs.

The applicant has provided geotechnical engineering report from the consulting firm of Earth Systems Southern California, dated December 8, 2011. The report and subsequent addendum were reviewed and approved by the Grading Division of the City of Los Angeles, Department of Building and Safety (see **Exhibit No. 8**). According to the geotechnical report, the project site is underlain with approximately two to four feet of fill. There is a layer of terrace deposits above bedrock (Monterey Formation). The report indicates that there is no fault on the site and the closet fault is the Santa Monica-Malibu Coast Fault, less than three-quarters of a mile to the south. Ground water was encountered at depths of approximately 29 to 34 feet below existing site grade.

Project's Relation to Active and Historic Landslide

The Pacific Palisades area has a long history of natural disasters, some of which have caused catastrophic damages. Hazards common to this area include landslides, and wildfires. According to the geotechnical report there was a slope failure and subsequent repair on the subject site in 1974. A second surficial failure in 1980 occurred on a steep portion of slope easterly of the residence and has been repaired (see **Exhibit No. 9**, Site Geologic Map, prepared by Earth Systems Southern California). The geotechnical report, prepared by Earth Systems, dated December 8, 2011, indicates that recent geotechnical investigation has indicated that the site is free of landslide features (see **Exhibit No. 10**). The report states that:

Lithologic structure within the underlying bedrock, where observed, appeared relatively uniform with poorly defined bedding dipping to the south and southwest at angles typically from 36-52 degrees. This provides a favorable condition with respect to gross stability of the underlying bedrock and the gently descending slope...

According to Birkeland (1997) the marine terrace rests on a bedrock platform that has experienced progressive seaward tilting since its formation. The base of the Stage 5e marine terrace (as mapped by Shaller and Herron, 2004) was observed to be inclined seaward in test pit TP2 and boring B1. Regional geologic maps by Association of Engineering Geologists (1982 for the City of Los Angeles and McGill (1989) indicate the subject site is included within the northernmost extent of an ancient landslide; however Dibblee (1992) indicates the landslide is offsite to the south. The undisrupted basal terrace contact described above indicates that no landslide exists on the subject site. Numerous published regional geology maps and geotechnical reports for the down slope properties indicate that an ancient landslide does exist southerly and down slope of the subject property.

According to the report gross (global) slope stability analyses were performed. For gross static stability, the following safety factors were computed:

Subject site with proposed cuts, unsupported	
Subject site with proposed retaining walls	1.57
Entire slope—lower portion down to the Pacific Ocean	0.76
Defined failure surface along bedding in Tm1(Monterey Formation)	1.43
Defined failure surface along bedding in Tm2 (Monterrey Formation)	1.58

A factor of safety of 1.5 is the generally accepted minimum value required to ensure slope stability by the City and by the Commission. As shown, the proposed cuts on site without support show computed safety factors less than the minimum 1.5 value. To obtain a factor of safety of 1.5 the computations show that new retaining walls are necessary to achieve the minimum factor of safety. The report also states that some form of mitigation would be required along the down slope portion of the property within the upper weaker bedrock (Tm1) to resist potential driving pressure from that portion of the soil and bedrock with stability factor of safety less than 1.5. The report recommends the installation of shear pins along this location.

To provide stability to the entire lot, as recommended by the applicant's geotechnical consultants, the proposed project includes a pile foundation and soldier piles along the perimeter of the property. The piles will penetrate all fill and will be a minimum of 20 feet into bedrock. The geotechnical consultant indicates that by placing the piles into bedrock material and designing the piles to withstand the active fluid pressure as indicated in the geotechnical reports, the proposed project will have a factor of safety in excess of 1.5.

Neighboring opponents to the project raised concerns regarding the stability of the site and adequacy of the geotechnical reports (see **Exhibits No. 11 & 12**). An opponent submitted to the Commission and to the City a letter from geotechnical consultant, Donald B. Kowlewsky, dated October 9, 2012 questioning some of the findings made in the geotechnical report (see **Exhibit No. 13**). Per the request of the City of Los Angeles Department of Building and Safety, Earth Systems Southern California, responded to the comments made by Mr. Kowlewsky in a letter dated October 18, 2012, and submitted the response to the City (see **Exhibit No. 14**). The City reviewed the response letter by Earth Systems and concluded that the geotechnical report and conclusions were adequate and there is no information provided that would require the City to withdraw or modify their original approval of the geotechnical report or project plans. Furthermore, Dr. Mark Johnsson has reviewed the geotechnical reports and City's geotechnical review and concurs with the City's approval.

A second letter from a second geotechnical consultant, Delta Group, dated November 7, 2012, was also submitted to the Commission and to the City. The letter comments on the current conditions of the site (see **Exhibit No. 15**). In addressing the work stoppage, the letter indicates that surficial stability could be a concern but through winterizing the slope using plastic and sand bags, as has been implemented by the applicant under the interim erosion control plan approved by the City and Commission staff, should alleviate the concern. The letter also states that installation of soldier piles should have increased the gross stability of the site and it is their opinion that the project could be stopped for a significant period of time without jeopardizing the site or surrounding area.

The geotechnical report for the project states that the proposed development is considered feasible from a geotechnical engineering standpoint provided their recommendations are incorporated into the development plans. Therefore, the foundation system should assure stability of the site consistent with Section 30253 of the Coastal Act if the project is carried out in accordance with the recommendations set forth in the geotechnical reports. The City concurs, provided all geotechnical recommendations are incorporated.

1. Conformance with Geotechnical Recommendations

Recommendations regarding the design and installation of the structures, foundation system, retaining walls, staging of construction, height of unsupported cuts during construction and grading, and monitoring during construction, have been provided in several reports and letters submitted by the applicant, as referenced in the above noted final report. Adherence to the recommendations contained in these reports is necessary to ensure that the proposed single family home and piles system assures stability and structural integrity, and neither creates nor contributes significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way requires the construction of protective devices that would substantially alter natural landforms.

Therefore, **Special Condition No. 1** requires the applicant to conform with the consultants' geotechnical report, dated December 8, 2011, which addresses piles, and retaining walls, and with City requirements, as set forth in the City approval letter dated June 4, 2012.

2. Assumption of Risk Deed Restriction

Under Section 30253 of the Coastal Act new development in areas of high geologic, flood, and fire hazard may occur so long as risks to life and property are minimized and the other policies of Chapter 3 are met. The Coastal Act recognizes that new development may involve the taking of some risk. When development in areas of identified hazards is proposed, the Commission considers the hazard associated with the project site and the potential cost to the public, as well as the individual's right to use his/her property.

The proposed single family home is located on a sloping lot. The geotechnical analysis report by Earth Systems Southern California states that as designed with the recommendations made in the geotechnical reports it is possible to develop the lot safely. However, the applicant commissioned the report, and ultimately the conclusion of the report and the decision to construct the project is the

responsibility of the applicant. The proposed project may still be subject to natural hazards such as slope failure. The historic slide or nearby slides may unexpectedly move and cause damage to the property, leaving pilings and other foundation work exposed. The geotechnical evaluations do not guarantee that future erosion, landslide activity, or land movement will not affect the stability of the proposed project or that movement of offsite slides might not affect this property or adjacent roads. Because of the inherent risks to development situated on a steeply sloping bluff lot, the Commission cannot absolutely acknowledge that the design of the single family home will protect the subject property during future storms, erosion, and/or landslides. Therefore, the Commission finds that the proposed project is subject to risk from landslides and that the applicant should assume the liability of such risk.

The applicant may decide that the economic benefits of development outweigh the risk of harm, which may occur from the identified hazards. However, neither the Commission nor any other public agency that permits development should be held liable for the applicant's decision to develop. Therefore, the applicant is required to expressly waive any potential claim of liability against the Commission for any damage or economic harm suffered as a result of the decision to develop. The assumption of risk, when recorded against the property as a deed restriction, will show that the applicant is aware of and appreciates the nature of the hazards which may exist on the site and which may adversely affect the stability or safety of the proposed development.

In case an unexpected event occurs on the subject property, the Commission imposes **Special Condition No. 2**, which requires the landowner to assume the risk of extraordinary erosion and/or geologic hazards of the property. **Special Condition No. 3** requires the applicant to record a deed restriction to record this and all special conditions of the permit. The deed restriction will provide notice of potential hazards of the property and help eliminate false expectations on the part of potential buyers of the property, lending institutions, and insurance agencies that the property is safe for an indefinite period of time and for further development indefinitely in the future.

Therefore, prior to issuance of the Coastal Development Permit, the applicant shall execute and record a deed restriction in a form and content acceptable to the Executive Director, which reflects the above restriction on development. The deed restriction shall include a legal description of the applicant's entire parcel. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

3. Erosion Control Measures

Storage or placement of construction materials, debris, or waste in a location subject to erosion and dispersion via rain or wind could result in possible acceleration of slope erosion and landslide activity. **Special Conditions No. 3 and 4** requires the applicant to dispose of all demolition and construction debris at an appropriate location outside of the coastal zone, or to a Commission-approved site inside the coastal zone, and informs the applicant that any change in this plan, including use of a disposal site within the coastal zone that has not been approved by the Commission will require an amendment or new coastal development permit. The applicant shall

follow both temporary and permanent erosion control measures to ensure that the project area is not susceptible to excessive erosion.

Currently, runoff flows uncontrolled over and across the subject property to Porto Marina Way. This uncontrolled runoff has contributed to an increase in erosion across the subject site. The geotechnical report and City's approval requires erosion and runoff control measures to be incorporated into the plans. The applicant has not submitted a drainage plan. To ensure that temporary and permanent drainage and erosion control measures are incorporated the Commission requires a complete erosion control plan for both temporary and permanent measures. Therefore, prior to issuance of the Coastal Development Permit, the applicant shall submit, for the review and approval of the Executive Director, a temporary and permanent erosion control plan that includes a written report describing all temporary and permanent erosion control and run-off measures to be installed and a site plan and schedule showing the location and time of all temporary and permanent erosion control measures (more specifically defined in **Special Condition No. 3**).

In addition to potential erosion due to overwatering and irrigation, swimming pools and other water features can be a source of excess water on the bluff due to leaks. Therefore, **Special Condition No. 5** is necessary to require a special construction and a leak detection system for the swimming pool and any other water feature to be incorporated and implemented into the project.

4. Landscaping

The installation of in-ground irrigation systems, inadequate drainage, and landscaping that requires intensive watering are potential contributors to accelerated bluff erosion, landslides, and sloughing, which could necessitate protective devices. Due to the geologic sensitivity of the site, the Commission requires that all plants be draught tolerant, as defined by the University of California Cooperative Extension and the California Department of Water Resources in their joint publication: *"Guide to Estimating Irrigation Water Needs of Landscape Plantings in California"*.

The applicant has proposed to landscape approximately 3,900 square feet of the property, which includes the front and rear yards. The Commission has routinely required that landscaping be native, non-invasive and drought tolerant to minimize water use on slopes. To ensure that landscaping is consistent with past Commission permit action, the applicant is required in **Special Condition No. 6** to use plants that are drought tolerant, non-invasive, primarily native plants of the coastal bluff scrub community, and to refrain from installing permanent irrigating. As conditioned, to minimize infiltration of water, the development will be consistent with section 30253 of the Coastal Act.

C. VISUAL RESOURCES AND COMMUNITY CHARACTER

Section 30251 of the Coastal Act requires that the scenic and visual qualities of this coastal area shall be protected. Section 30251 of the Coastal Act states, in part:

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...

The proposed project will be a two-story, with subterranean level, 33 foot high (as measured above existing grade), 4,692 square foot (5,578 square feet with garage and carport) single family home on a 9,757 square foot lot.

The Coastal Act protects public views and the scenic and visual qualities of coastal areas. In this case the public views are the views from the public streets to the Pacific Ocean and from Pacific Coast Highway and Will Rogers State Beach to the Santa Monica Mountains. The project will be above Pacific Coast Highway, separated from Pacific Coast Highway by the Upper Bel Air Bay Club and Bay Club Drive, and the residential streets Arno Way and Trino Way.

In April 2011, the City passed a residential building size restriction ordinance, called the Baseline Hillside Ordinance (BHO). The BHO became effective on May 9, 2011. The BHO was designed and passed into law in response to the increasing trend of large home construction, often described as "mansionization" on sloping hillside and canyon lots in Los Angeles. The Baseline Hillside Ordinance (BHO) contains requirements regarding setbacks, floor area, height limits, lot coverage, and grading. The proposed project was accepted by the City for plan check prior to the effective date of the Baseline Hillside Ordinance; therefore, the project was considered by the City to be exempt from the requirements of the BHO.

The proposed project is located in an R1 Zone, in height district 1. The maximum height for a residence in this area is 28 feet for a structure with a roof having a slope of less than 25%, or 33 feet for a structure that has a roof with a slope of greater than 25%. According to the *Baseline Hillside Ordinance: A Comprehensive Guide to the New Hillside Regulations*, written by the Los Angeles Department of City Planning (May 9, 2011), elevations for purposes of the BHO guidelines should be measured from the Hillside Area Grade, which is defined as "the Elevation of the finished or natural surface of the ground, whichever is lower, or the finished surface of the ground established in conformance with a grading plan approved pursuant to a recorded tract or parcel map action." The BHO also contains restrictions on the Floor Area Ratio. An R-1 lot has either a FAR of 25% or an FAR calculated by 1) calculating the area for each portion of the lot within a specific range of topographic slope; 2) multiplying each area identified in part 1 by the FAR associated with that slope range; and 3) adding up the total of the products in part 2 to get the maximum allowable floor area for the site.

Under the BHO requirements, if they would apply, the height limit would be 33 feet for a sloped roof and 28 feet for a flat roof. The proposed project, at a height of 33 feet with a sloped roor, as measured from existing grade, would comply with the height requirement under the BHO. The square footage requirements, using the FAR calculations as applied under the BHO, would limit the size of the residence to 4,290 square feet (not including carport and basement which are exempt). The proposed project using the BHO guildelines would be 4,876 square feet, exceeding the BHO limit by 586 square feet.

The City of Los Angeles does not have a certified Land Use Plan, nor a certified Implementation Plan. Therefore, the standard of review for the proposed project is consistency with the Coastal Act. Coastal Act Section 30251 states in part that:

permitted development shall be... visually compatible with the character of surrounding areas..."

The Commission typically uses certified portions of an LCP as guidance when it has permitting jurisdiction and when the Coastal Act is the standard of review. The BHO is not a part of a certified land use plan or an implementation plan, and has not been reviewed by the Commission for consistency with the Coastal Act policies regarding the preservation of coastal resources. In reviewing projects in the Pacific Palisades and other areas along the coast, the Commission has consistently reviewed neighboring development and past Commission permit action to determine if a project is consistent with the character of the surrounding area and with past Commission permit actions in terms of size and scale. In terms of architectural style, existing and permitted development varies from neighbor to neighbor, and from house to house. The Commission, in the Palisades area, has not used architectural style to define community character.

The applicant has provided a neighborhood compatibility analysis using data provided by the LA County Assessor's office showing square footages of residences in the immediate area (see **Exhibit No. 16**). Residences in the area consist of a mix of old (pre-coastal) and new development varying from one to two stories. According to the analysis which included twenty-three lots, residential structures vary from 1,585 square feet to 9,193 square feet, with an average of approximately 5,389 square feet. Over the years the area has experienced new development with the demolition of older small residences and construction of new larger ones. Over the last 14 years the Commission and/or the City has approved coastal development permits for at least seven single-family residences in the immediate area on Trino Way, Arno Way, and Aderno Way (See **Exhibit No. 17** for map showing CDP approvals. Minor additions that were exempt from coastal permit requirements or required permits were not included). The following chart shows the square footages of structures in the surrounding area that were approved by the Commission or City:

<u>Permit No</u> .	Address	Square Footage of <u>Residence</u>	Lot Area <u>(sq. ft.)</u>
5-05-147	282 Trino Way	6,103	19,200
5-11-046W	200 N. Arno Way	4,935	11,279
5-97-359	374 Arno Way	4,043	7,900
5-00-387	325 Arno Way	8.803	15,300
5-03-376	224 Arno Way	5,768	12,200
5-PPL-07-131	230 Arno Way	6,333	11,800
5-10-154-W	325 N. Aderno Way	5,251	15,300

Based on the seven single-family developments approved by the Commission or City, the projects ranged from 4,043 square feet to 8,803 square feet, with an average of approximately 6,400 square feet. The proposed 4,692 square foot (5,578 square feet with garage and carport) single-family residence will be within the range of existing development and recent development approved by the Commission and City through the coastal development review process. Therefore, the proposed project is consistent with the character of the surrounding neighborhood in terms of height, mass, and scale.

Furthermore, the proposed project is located on a hillside surrounded by single-family residences. The neighborhood streets are narrow and there is very little setback from the streets, therefore, development forms a wall along the streets obstructing most views from these residential streets. The project is also set below the homes upslope and on the above adjacent street, so views from any higher vantage point will not be impacted. The steep slope along Pacific Coast Highway and the hilly topography between Trino Way and Pacific Coast Highway limits views of the neighborhood from Pacific Coast Highway, therefore, because of the topography of the surrounding area and built out nature of the neighborhood, construction of a new residence on this lot will not have any significant impact on coastal views to or along the coast (see **Exhibit No. 18**, Geologic Cross Section, prepared by Earth Systems).

Section 30251 of the Coastal Act also requires all permitted development to minimize alteration of natural landforms. The project site is in a developed residential neighborhood. The site is a sloping lot, descending towards Pacific Coast Highway, which was modified in the past by cut and fill to create the building pad. The project site has been previously developed with a single-family residence and the area is build out with residential development that for the most part have been built into the slope through grading and construction of retaining walls and other supporting structures. The applicant has proposed 670 cubic yards of cut and 36 cubic yards of fill, along with soldier piles. Only minor grading will occur in the rear of the development, and the buried piles and retaining walls will not be visible from the street because the retaining walls will be located behind the residence.

Although the site is not visible from PCH or any area that could have a significant impact on public coastal views, over time it is possible that the buried piles, due to erosion, could become exposed creating a visual impact that degrades the visual quality of the area. Therefore, **Special Condition No. 7** requires that if the piles are exposed the applicant shall agree to measures to minimize the visual impact. Such measures shall include coloring the piles to match the surrounding soils and installing a skirt to cover the exposed piles. The Commission finds that the applicant has minimized landform alteration in his effort to safely construct a single-family home on his property. The design and grading is the least amount of landform alteration necessary to provide adequate support for the proposed project. Therefore, the Commission finds that, as proposed, the project is consistent with Section 30250 of the Coastal Act with regard to siting of development within an existing developed area able to accommodate it. Further, as conditioned, the proposed residence would be consistent with the character of the surrounding area, would not result in a significant impact to scenic visual resources, and would not detract from the scenic qualities of the neighborhood. Therefore, the Commission finds that, as conditioned, the proposed project is consistent with Section 30251 of the Coastal Act with regard to protection of public views.

D. Water Quality/Marine Resources

The proposed development has a potential for a discharge of polluted runoff from the project site into coastal waters. Furthermore, uncontrolled runoff from the project site and the percolation of water could also affect the structural stability of bluffs and hillsides. The Commission recognizes that new development in the Santa Monica Mountains has the potential to adversely impact coastal water quality through the increase of impervious surfaces, increase of runoff, erosion, and sedimentation, and introduction of pollutants such as petroleum, cleaning products, pesticides, fertilizers, and other pollutant sources.

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, minimizing alteration of natural streams.

To address these concerns, the development, as conditioned with Special **Conditions No. 3 and 4**, incorporates design features to minimize the infiltration of water and the effect of construction and post-construction activities on the marine environment. These design features include, but are not limited to, the appropriate management of equipment and construction materials, the use of non-invasive drought tolerant vegetation, and for the use of post-construction best management practices to minimize the project's adverse impact on coastal waters. These special conditions will ensure that 1) sediment is kept on-site during construction; 2) runoff is controlled after construction, so that storm water and on-site irrigation water does not erode or percolate into nearby land (increasing the likelihood of failure); and 3) permanent features that maintain the quality of run off so that run off does not transport pollutants into the ocean.

Therefore, the Commission finds that the proposed development, as conditioned, conforms with Sections 30230 and 30231 of the Coastal Act regarding the protection of water quality to promote the biological productivity of coastal waters and to protect human health.

E. HABITAT

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.

The proposed project is located on a developed lot, which already contains a single-family residence and landscaping and is surrounded by other single-family residences. No environmentally sensitive habitat areas exist on site and the proposed project is not located immediately adjacent to any environmentally sensitive habitat areas, parks or recreation areas. Therefore, as proposed the development conforms to Section 30240 of the Coastal Act.

F. 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 (LCP) that conforms with Chapter 3 policies of the Coastal Act:

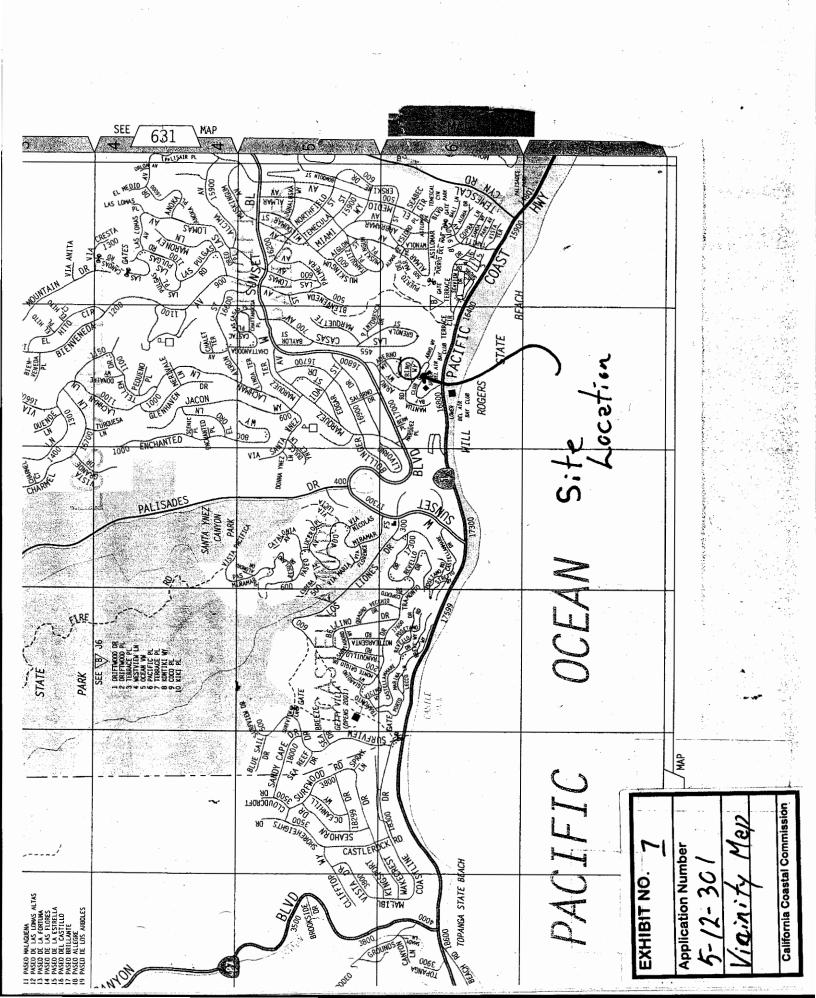
(a) Prior to certification of the Local Coastal Program, a coastal development permit shall be issued if the issuing agency, or the commission on appeal, finds that the proposed development is in conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that the permitted development will not prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200). A denial of a coastal development permit on grounds it would prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200) shall be accompanied by a specific finding which sets forth the basis for such conclusion.

Coastal Act section 30604(a) states that, prior to certification of a local coastal program ("LCP"), a coastal development permit can only be issued upon a finding that the proposed development is in conformity with Chapter 3 of the Act and that the permitted development will not prejudice the ability of the local government to prepare an LCP that is in conformity with Chapter 3. The Pacific Palisades area of the City of Los Angeles has neither a certified LCP nor a certified Land Use Plan. As conditioned, the proposed development will be consistent with Chapter 3 of the Coastal Act. Approval of the project will not prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3 of the Coastal Act.

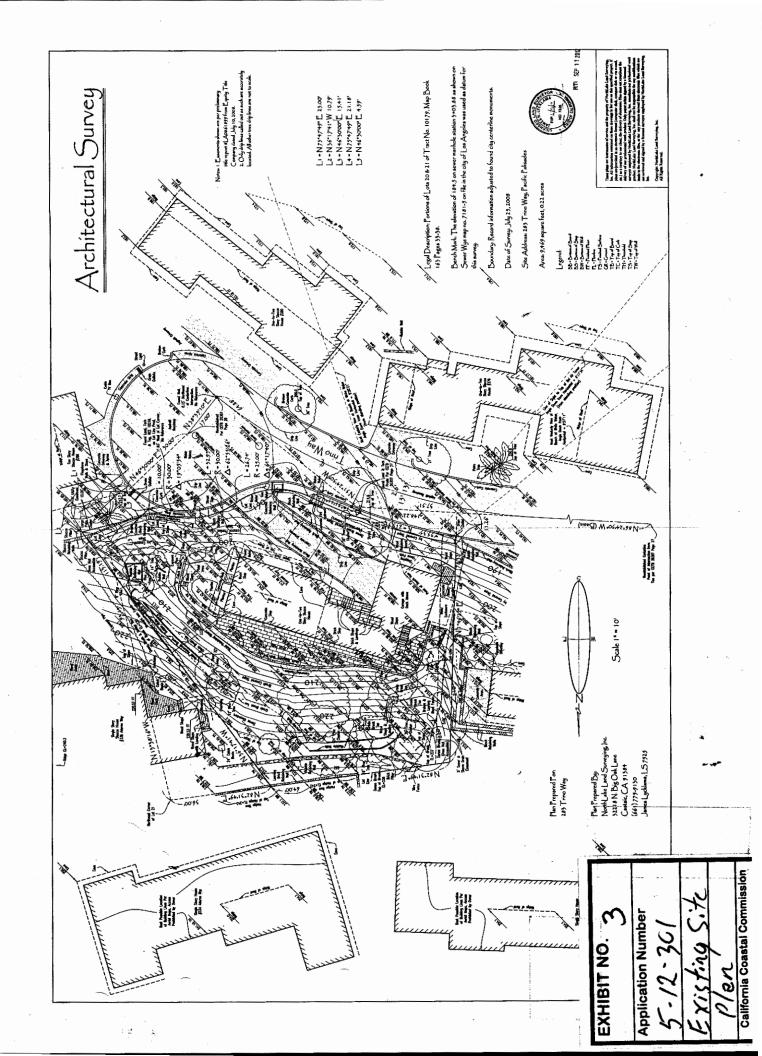
G. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

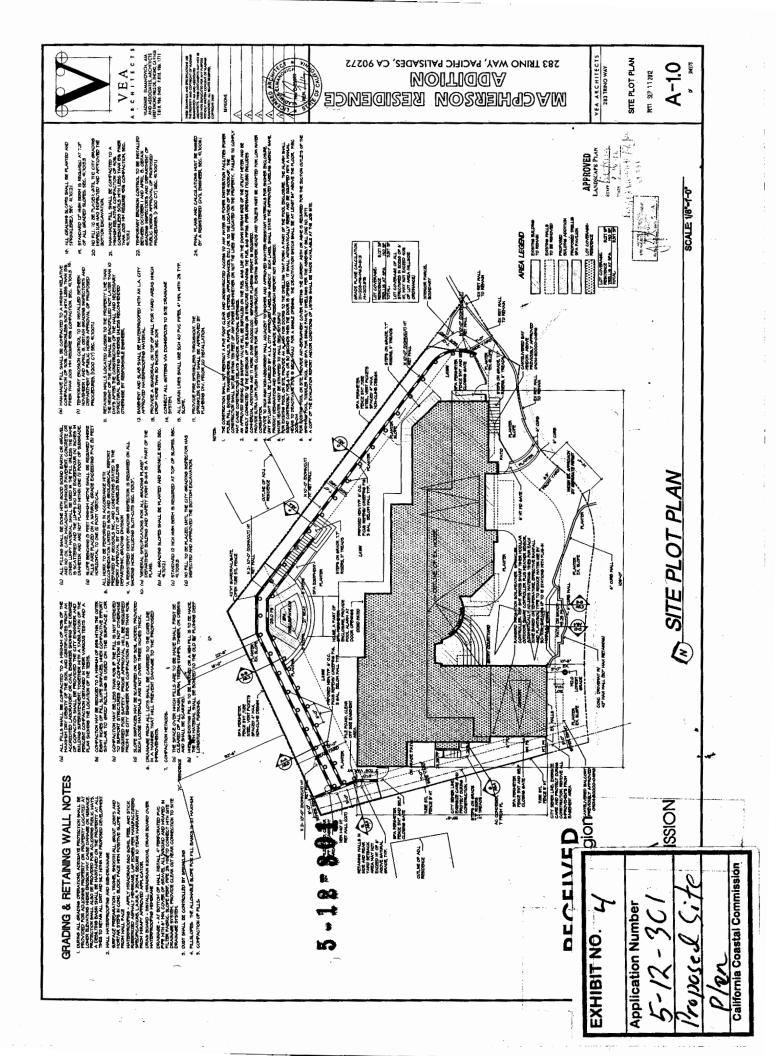
Section 13096 Title 14 of the California Code of Regulations requires Commission approval of a coastal development permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California 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.

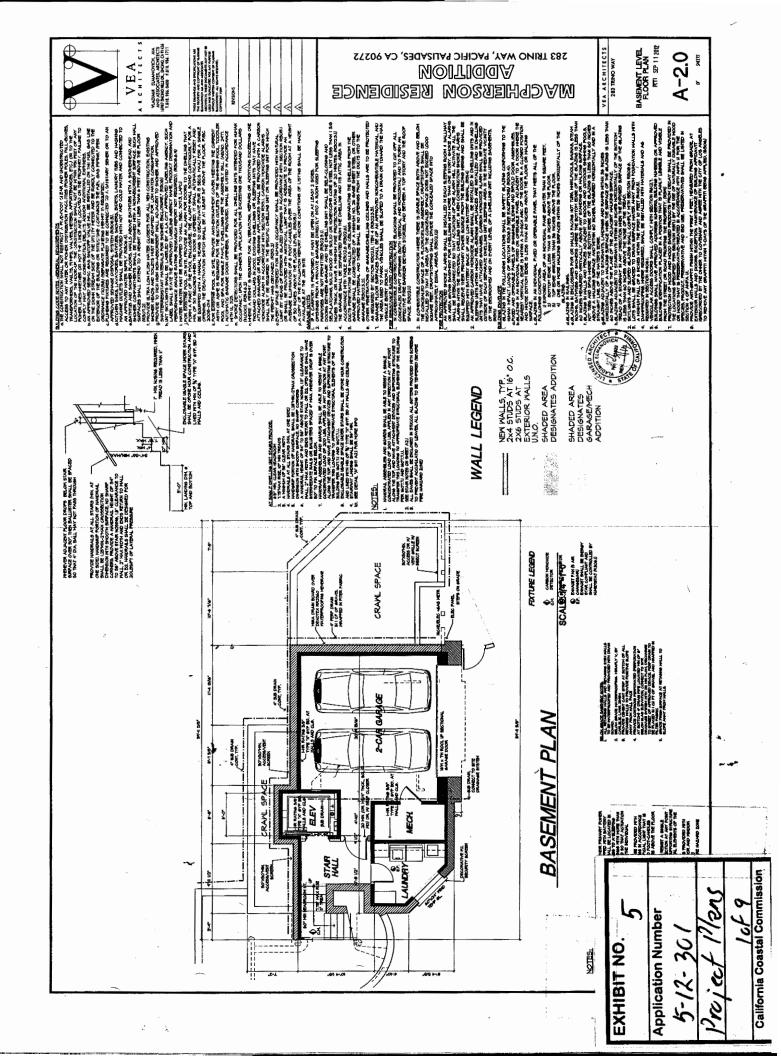
The proposed project, as conditioned, has been found consistent with the Chapter 3 policies of the Coastal Act. All adverse impacts have been minimized by the recommended conditions of approval and there are no feasible alternatives or additional feasible mitigation measures available which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned, can be found consistent with the requirements of the Coastal Act to conform to CEQA.

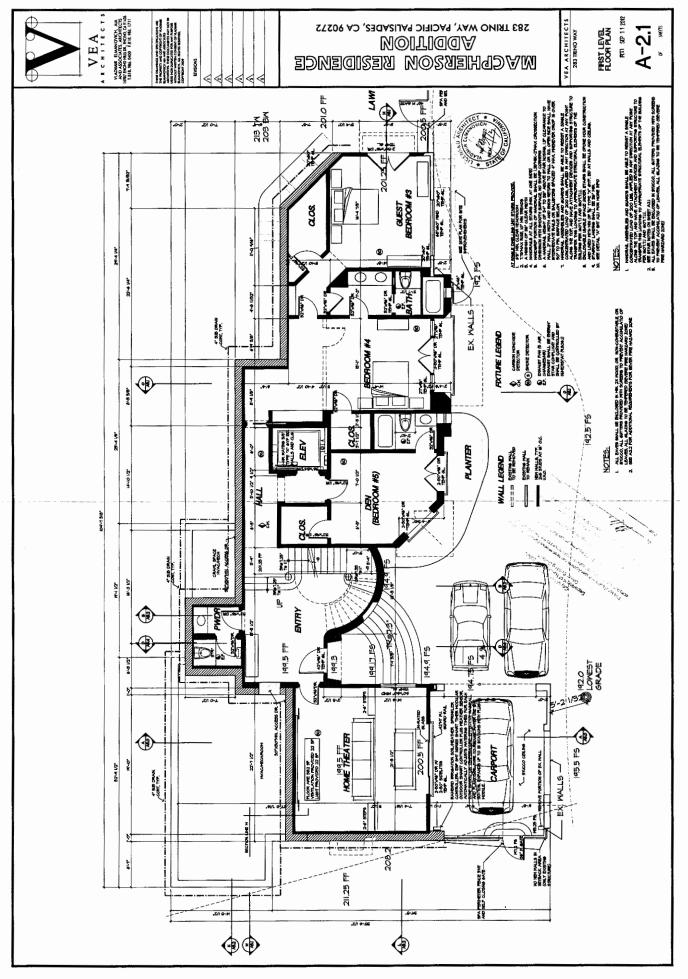


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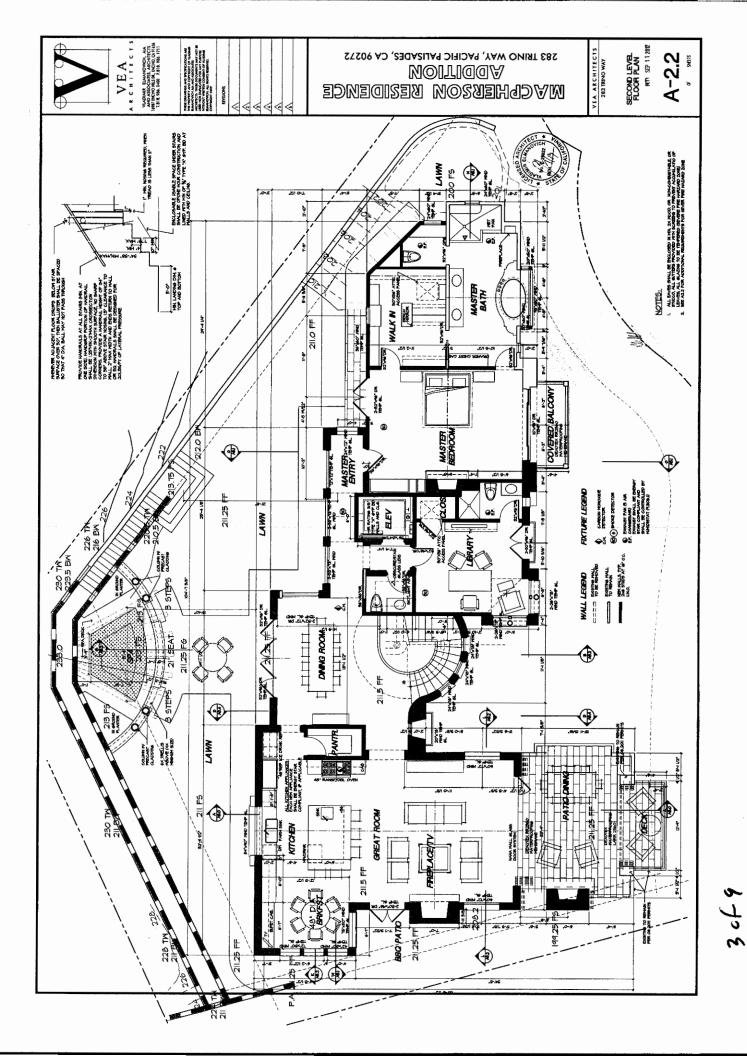


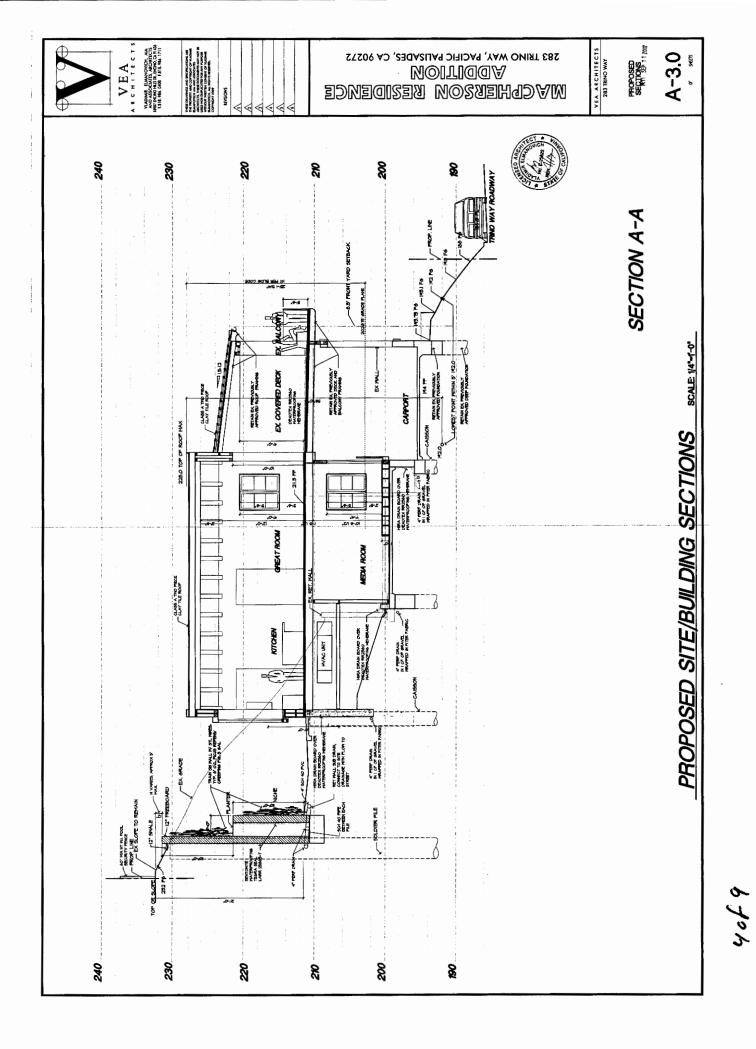


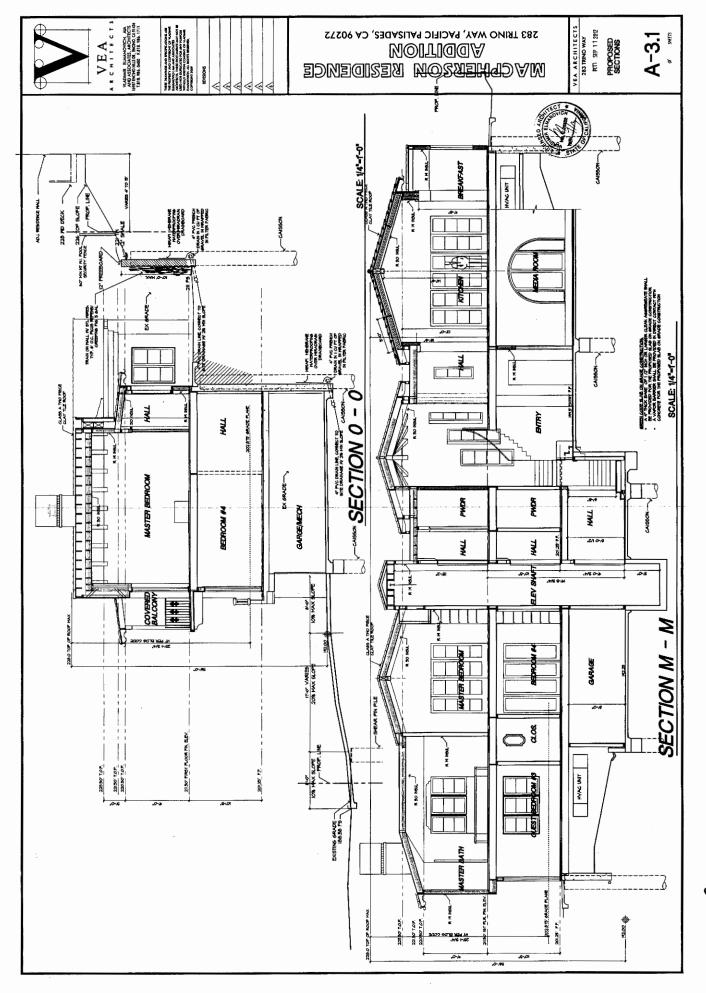




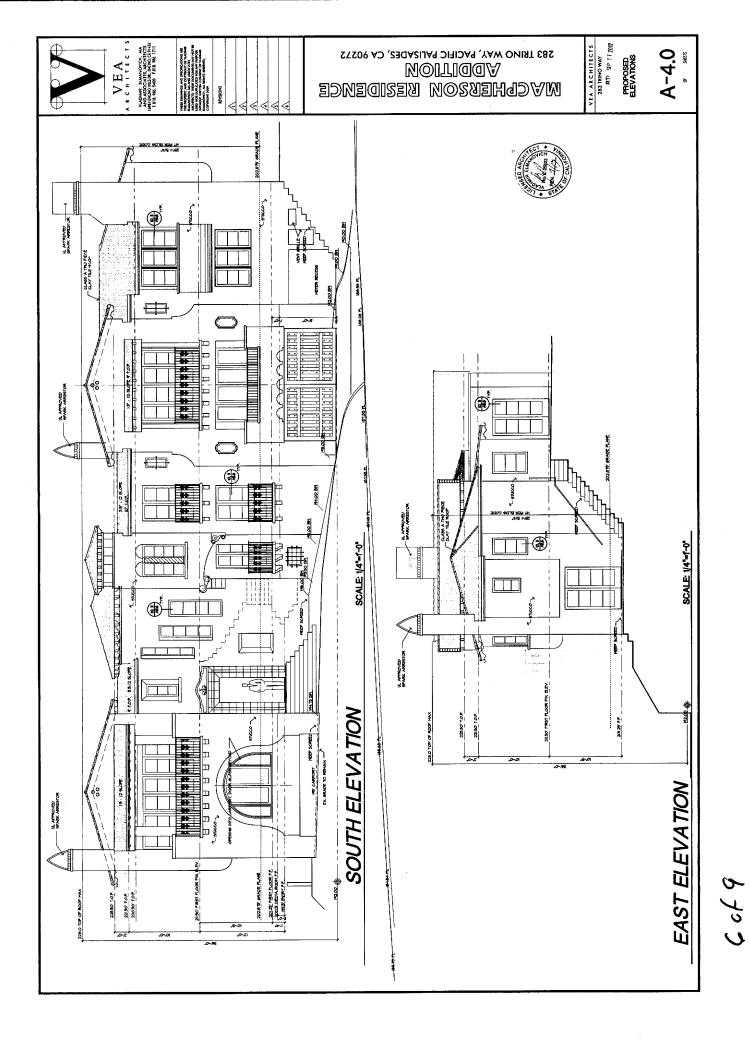
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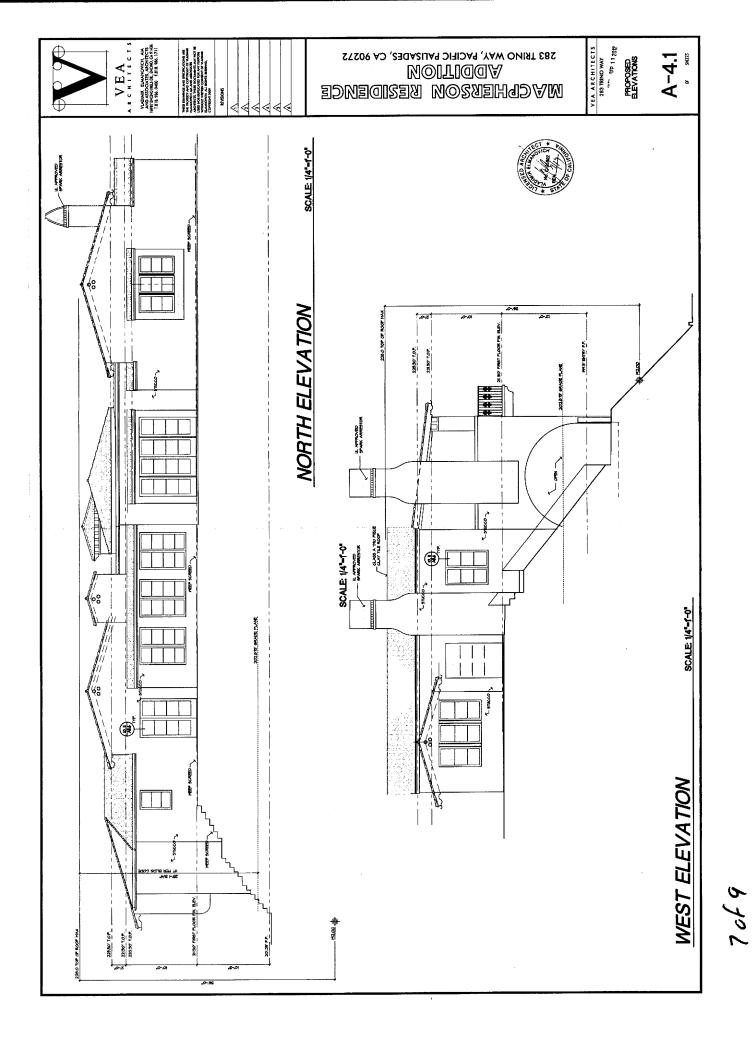


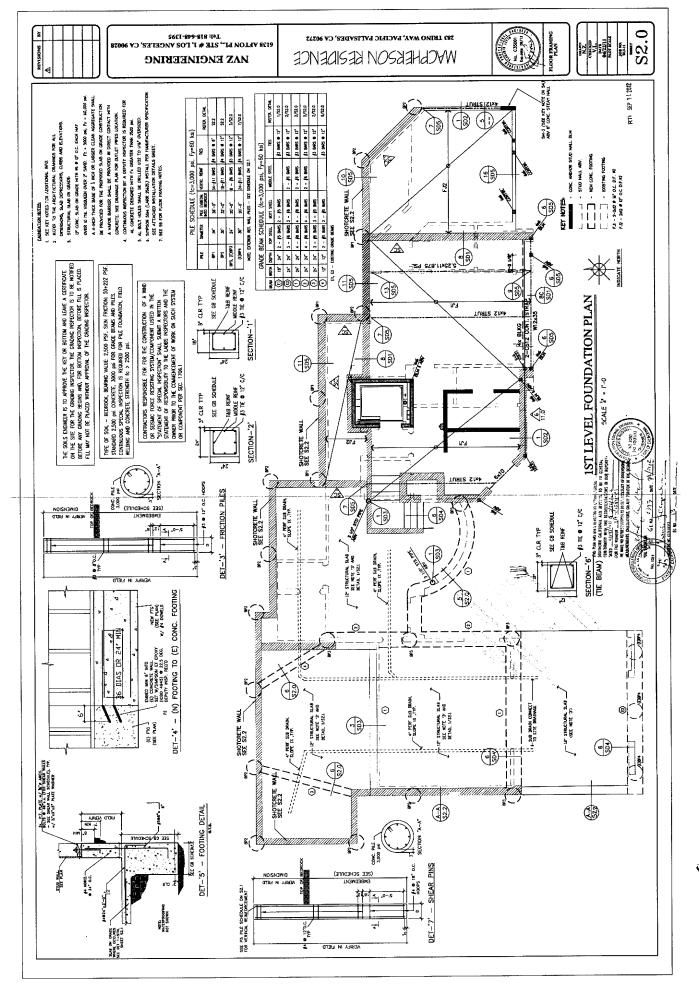


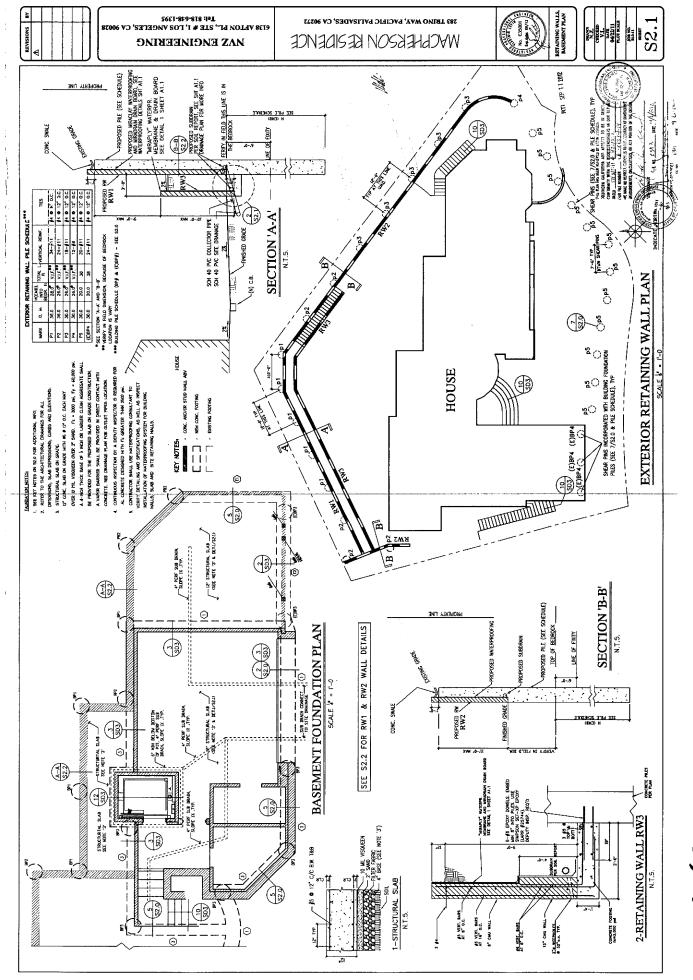


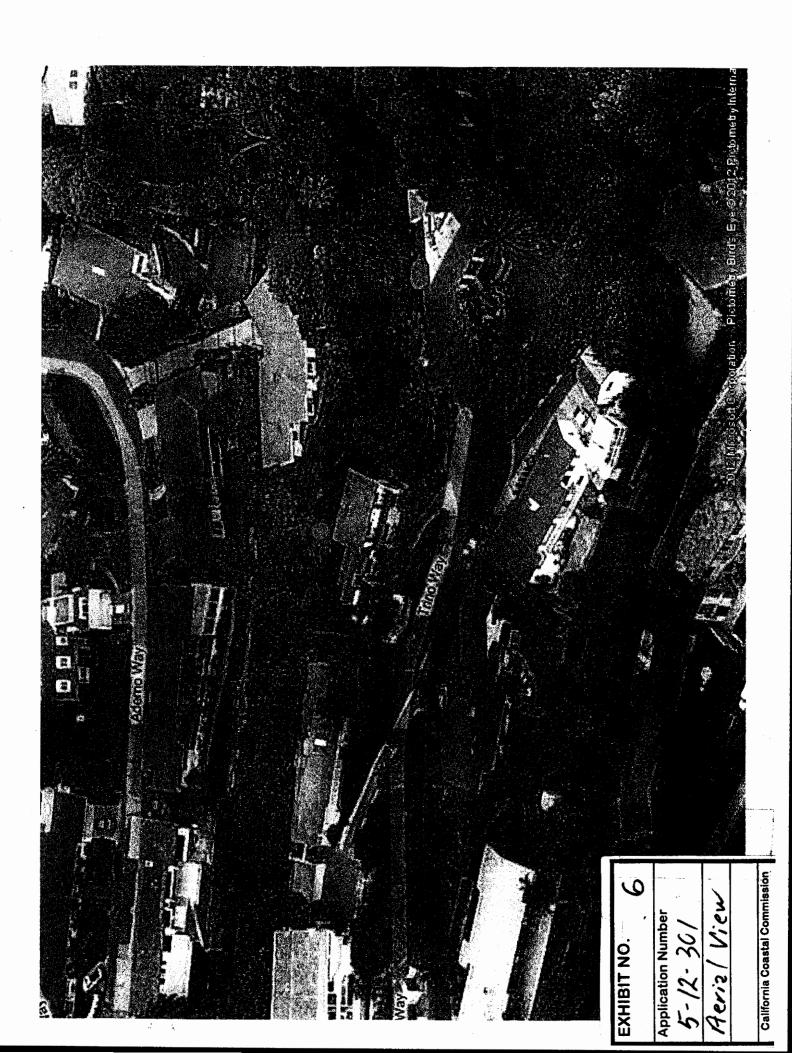
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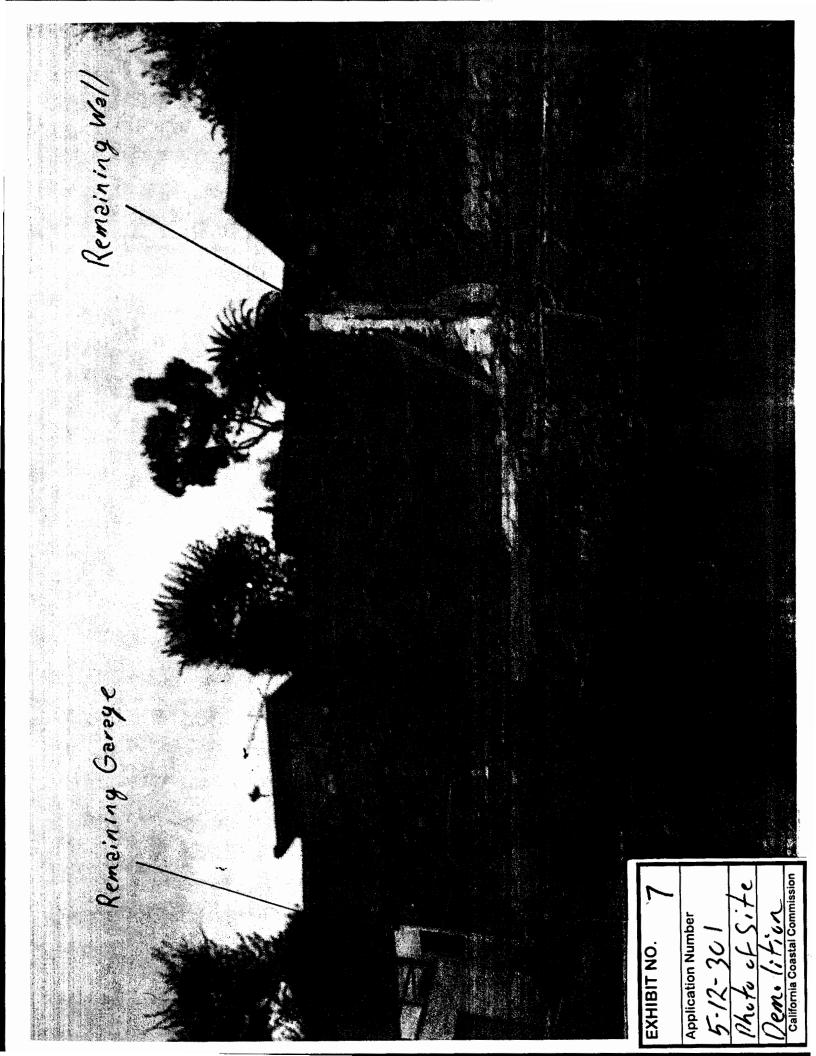


EXHIBIT NO. 8
Application Number
5-12-301
City Approvel
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Califórnia Coastal Commission

CITY OF LOS ANGELES

CALIFORNIA



BUILDING AND SAFETY BUILDING AND SAFETY OORTH FIGUEROA STREET South Coast Region Angeles, CA 90012

OCT 29 2018 OBERT R. "BUD" OVROM GENERAL MANAGER

CALIFORNIA MOND S. CHAN, C.E., S.E. ANTONIO R. VILLARAIGOSA COASTAL COMMISSION TWE OFFICER MAYOR

GEOLOGY AND SOILS REPORT APPROVAL LETTER

June 4, 2012

LOG # 75916-01 SOILS/GEOLOGY FILE - 2 LAN

Scott MacPherson 2716 Ocean Park Blvd., #3080 Santa Monica, CA 90405

TRACT:	10179
LOT(S):	21 (arb-2)
LOCATION:	283 N. Trino Way

CURRENT REFERENCE <u>REPORT/LETTER(S)</u> Geology/Soils Report Soils Supplemental Report	REPORT <u>No.</u> LA-01384-01 LA-01384-01	DATE(S) OF <u>DOCUMENT</u> 03/22/2012 05/23/2012	<u>PREPARED BY</u> Earth Systems So Cal Earth Systems So Cal
PREVIOUS REFERENCE <u>REPORT/LETTER(S)</u> Dept. Correction Letter Geology/Soils Report	REPORT <u>No.</u> 75916 LA-01384-01	DATE(S) OF <u>DOCUMENT</u> 02/17/2012 12/08/2011	<u>PREPARED BY</u> LADBS Earth Systems So Cal
Dept. Approval Letter Geol./Soils Response Rpt. Geol./Soils Response Rpt. Geol./Soils Response Rpt. Geology/Soils Report Soils Lab Testing Report	70310-02 255808 255808 255808 255808 2006-076	05/24/2011 05/24/2011 08/23/2010 06/03/2010 03/16/2010 01/13/2009	LADBS Strata-Tech, Inc. Strata-Tech, Inc. Strata-Tech, Inc. Strata-Tech, Inc. GeoLogic Associates

The Grading Division of the Department of Building and Safety has reviewed the current 03/22/2012 and 05/23/2012 referenced reports providing recommendations for the proposed new residence additions and new retaining wall(s). The valuation of the proposed project exceeds 50 percent of the replacement value of the existing residence.

The site is located in a designated seismically induced landslide hazard zone as shown on the "Seismic Hazard Zones" map issued by the State of California. The above reports include an

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acceptable seismic slope stability analysis and the Code requirements for evaluation of seismically induced landslide hazards have been satisfied.

The Department reviewed and conditionally approved the above previous referenced reports by Strata-Tech, Inc. dated May 24, 2011, August 23, 2010, June 3, 2010, and March 16, 2010, in the Department letter dated May 24, 2011 (Log #70310-02), for the proposed first- and second-story additions (458 and 284 square feet, respectively) to the existing single family residence, a 284-square foot roof cover over the existing garage roof deck and a 23-square foot addition to the existing garage. Said approval only applied to a project not exceeding 50% of the valuation of the existing residence.

Earth Systems Southern California (ESSC) notes that they have reviewed the exploration logs and laboratory data in the reports by Strata-Tech, Inc., for the purpose of comparison only, and that their work is based on their own investigation. It is noted that the scope of the current proposed project is for major additions whose valuation well exceeds 50% of the replacement value of the existing building and the scope of this project exceeds that of the previously approved reports by Strata-Tech.

The earth materials at the subsurface exploration locations consist of up to 2 to 4 feet of uncertified fill underlain by Terrace Deposits overlying Monterey Formation marine biogenic and clastic and siliceous siltstone bedrock. ESSC presented additional data demonstrating that the discontinuity described by Strata-Tech as a fault, is a steeply inclined contact feature consisting of a colluvial wedge of the terrace against a buried ancient coastal bluff surface cut into the bedrock. ESSC extended test pits to the base of the erosional terrace and did not find any continuation of a fault in their deeper boring, confirming their interpretation.

The 12/08/2011, 03/22/2012 and 05/23/2012 reports by Earth Systems Southern California are acceptable, provided the following conditions are complied with during site development:

(Note: Numbers in parenthesis () refer to applicable sections of the 2011 City of LA Building Code. P/BC numbers refer the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

- 1. Earth Systems Southern California is the geologist and soils engineer of record for the current proposed project discussed herein.
- 2. The proposed addition and remodel to the principal building on the site exceeds 50 percent of its replacement value and the entire site shall be brought up to the current Code standard (7005.9). According to the response of Comment 6 in the current report, a portion of the existing garage wall and existing southeast walls of the residence are to remain. The structural plans propose underpin these walls with new cast-in-place pier foundations supported in bedrock located adjacent to walls to allow installation with haunches beams to connect the existing wall to pier foundation. All other construction will be new and subject to current Code requirements.
- 3. The 12/08/2011 and 03/22/2012 reports require that a row of stabilization shear pins (soldier piles) be located along or near the street as shown on Plate II in the 03/22/2012 to provide additional support to bedding planes to provide Code required stability in the descending slope below the site (Condition 34 herein). In addition, soldier piles supporting the basement

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Page 3 283 N. Trino Way

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and rear yard retaining walls are also stabilizing the slope due to the material to be cut out (Condition 36 herein).

- 4. The owners have filed an affidavit (# 20120853108) with the County of Los Angeles Recorders Office for the erection and maintenance of a building in an area subject to landslides or unstable soil, as required by the Department.
- 5. Final plans shall comply with the hillside retaining wall Ordinance No. 176, 445, regarding the number and heights of retaining walls allowed.
- Approval shall be obtained from the Department of Public Works, Bureau of Engineering, Constituent Service Division for the proposed removal of support and/or retaining of slopes adjoining to public way. (3307.3.2) 1828 Sawtelle Blvd., 3rd Floor, West LA (310) 575-8388
- 7. The geologist and soils engineer shall review and approve the detailed plans prior to issuance of any permits. This approval shall be by signature on the plans which clearly indicates that the geologist and soils engineer have reviewed the plans prepared by the design engineer and that the plans include the recommendations contained in their reports. (7006.1)
- 8. All recommendations of the reports which are in addition to or more restrictive than the conditions contained herein shall be incorporated into the plans.
- 9. A copy of the subject and appropriate referenced reports and this approval letter shall be attached to the District Office and field set of plans. Submit one copy of the above reports to the Building Department Plan Checker prior to issuance of the permit. (7006.1)
- 10. A grading permit shall be obtained for all structural fill and retaining wall backfill. (106.1.2)
- 11. All new graded slopes shall be no steeper than 2:1 (7010.2 & 7011.2).
- 12. Any unsupported shale planes, either existing or exposed by grading, shall be supported by a designed retaining wall or buttress fill (7010.2).
- 13. All man-made fill shall be compacted to a minimum 90 percent of the maximum dry density of the fill material per the latest version of ASTM D 1557. Where cohesionless soil having less than 15 percent finer than 0.005 millimeters is used for fill, it shall be compacted to a minimum of 95 percent relative compaction based on maximum dry density (D1556). Placement of gravel in lieu of compacted fill is allowed only if complying with Section 91.7011.3 of the Code. (7011.3)
- 14. Existing uncertified fill shall not be used for support of footings, concrete slabs or new fill. (7011.3 & 1805.1)
- 15. All graded, brushed or bare slopes shall be planted in conformance with Code Section 7012.
- 16. Drainage in conformance with the provisions of the Code shall be maintained during and subsequent to construction. (7013.12)

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Page 4 283 N. Trino Way

- 17. Grading shall be scheduled for completion prior to the start of the rainy season, or detailed temporary erosion control plans shall be filed in a manner satisfactory to the Grading Division of the Department and the Department of Public Works, Bureau of Engineering, B-Permit Section, for any grading work in excess of 200 cu yd. (7007.1) 1828 Sawtelle Blvd., 3rd Floor, West LA (310) 575-8625
- 18. All loose foundation excavation material shall be removed prior to commencement of framing. Slopes disturbed by construction activities shall be restored. (7005.3)
- 19. The applicant is advised that the approval of this report does not waive the requirements for excavations contained in the State Construction Safety Orders enforced by the State Division of Industrial Safety. (3301.1)
- 20. Construction of trenches or excavations which are 5 feet or deeper and into which a person is required to descend requires a permit from the State Division of Industrial Safety prior to obtaining a grading permit. (3301.1)
- 21. Any excavation that would remove lateral support (as defined in 3307.3.1) from a public way or adjacent property or structures, unshored excavations are not allowed and the excavation shall be shored as recommended.
- 22. Prior to the issuance of any permit which authorizes an excavation where the excavation is to be of a greater depth than are the walls or foundation of any adjoining building or structure and located closer to the property line than the depth of the excavation, the owner of the subject site shall provide the Department with evidence that the adjacent property owner has been given a 30-day written notice of such intent to make an excavation. (3307.1)
- 23. Unsurcharged temporary excavations may be cut vertical up to 5 feet. For excavations over 5 feet, the lower 5 feet may be cut vertically and the portion of the excavation above 5 feet shall be trimmed back at a gradient not exceeding 1:1 (horizontal to vertical), as recommended.
- 24. Shoring shall be designed for the minimum lateral earth pressures specified in the section titled "Temporary Shoring" starting on page 18 of the 12/08/2011 report; all surcharge loads shall be included into the design.
- 25. The soils engineer shall review and approve the shoring and/or underpinning plans prior to issuance of the permit. (7006.1)
- 26. Installation of shoring, underpinning, and/or slot cutting excavations shall be performed under the inspection and approval of the soils engineer. (7008.2)
- 27. A shoring monitoring program shall be implemented to the satisfaction of the soils engineer.
- 28. All foundations shall be supported in competent bedrock, as recommended and approved by the geologist and soils engineer by inspection.

Page 5 283 N. Trino Way

- 29. Frictional and passive resistance of end bearing foundations may be combined, provided the passive bearing resistance does not exceed two-thirds of the allowable passive bearing.
- 30. Foundations adjacent to a descending slope steeper than 3:1 in gradient shall be a minimum distance of one-third the vertical height of the slope but need not exceed 40 feet measured horizontally from the foundation bottom to the face of the bedrock slope. (1808.7.2)
- 31. Buildings adjacent to ascending slopes shall be set back from the toe of the slope a level distance equal to one half the vertical height of the slope, but need not exceed 15 feet in accordance with Code Section 1808.7.1.
- 32. Pile caisson and/or isolated foundation ties are required by Code Sections 1809.13 and/or 1810.3.13. Exceptions and modification to this requirement are provided in Information Bulletin P/BC 2002-30.
- 33. Pile and/or caisson shafts shall be designed for a lateral load due to creep of 1000 pounds per linear foot of shaft exposed to uncertified fill, and soil over bedrock. (P/BC2008-050)
- 34. The row of stabilization shear pins (soldier piles) to be located along or near the street as shown on Plate II in the 03/22/2012 report, shall be designed as recommended in the response to Comment 13 in the 03/22/2012 report where pins shall be designed to support a lateral force due to an equivalent fluid pressure (EFP) of 71pcf applied in the upper 15 feet of shear pin below grade over the spacing of pins. Passive resistance shall be allowed only below the Tm₁/Tm₂ contact.
- 35. The Site Class per the 2008 LABC is C. Plan checker shall determine that design spectral response acceleration parameters utilized are determined in conformance with Department requirements.
- 36. The design of soldier piles supporting the basement and rear yard retaining walls shall be designed for the slope stabilization loads as recommended in section titled "Retaining Walls" starting on page 24 of the 12/08/2012 report, except where superceded in the 03/22/2012 report in the response to Comment 10 and as shown in the attached Plate VII, therein. Passive resisting pressure shall be allowed below the "Failure Arc for FS=1.5 w/o Mitigation" in said Plate VII.
- 37. Retaining walls shall be designed for the minimum lateral earth pressures specified in the section titled "Retaining Walls" starting on page 24 of the 12/08/2012 report. All surcharge loads shall be incorporated into the design.
- 38. The rear yard retaining walls shall be provided with a minimum freeboard of one foot, as recommended.
- 39. The recommended EFP for the proposed retaining wall shall apply from the top of the freeboard to the bottom of the wall footing.

- 40. All retaining walls shall be provided with a standard surface backdrain system and all drainage shall be conducted to the street in an acceptable manner and in a non-erosive device. (7013.11)
- 41. All retaining walls shall be provided with a subdrain system to prevent possible hydrostatic pressure behind the wall, as recommended. Prior to issuance of any permit, the retaining wall subdrain system recommended in the soil report shall be incorporated into the foundation plan which shall be reviewed and approved by the soils engineer of record. (1610.1)
- 42. Installation of the subdrain system shall be inspected and approved by the soils engineer of record and the City grading/building inspector. (7008.2 & 108.9)
- 43. Basement walls and floors shall be waterproofed/dampproofed with an L.A. City approved "Below-grade" waterproofing/dampproofing material with a research report number. (1703)
- 44. Prefabricated drainage composites (Miradrain) (Geotextiles) may be only used in addition to traditionally accepted methods of draining retained earth.
- 45. All roof and pad drainage shall be conducted to the street in an acceptable manner. All concentrated drainage shall be conducted in an approved device and disposed of in a manner approved by the LADBS. (7013.10)
- 46. Prior to excavation, an initial inspection shall be called with LADBS Inspector at which time sequence of shoring, protection fences and dust and traffic control will be scheduled.
- 47. The geologist and soil engineer shall inspect all excavations to determine that conditions anticipated in the report have been encountered and to provide recommendations for the correction of hazards found during grading. (7008.3 & 7008.2)
- 48. Any recommendations prepared by the geologist and/or the soils engineer for correction of geological hazards found during grading shall be submitted to the Grading Division of the Department for approval prior to utilization in the field. (7008.3 & 7008.2)
- 49. All friction pile or caisson drilling and installation shall be performed under the continuous inspection and approval of the geologist and soils engineer. The geologist shall indicate the distance that friction piles or caissons penetrated into competent bedrock in a written field memorandum, and the depth to the Tm₁/Tm₂ contact for the shear pins to be located along or near the street, and the depth to the "Failure Arc for FS=1.5 w/o Mitigation" for the soldier piles supporting the basement and rear yard retaining walls. (1808.2.2)
- 50. A registered grading deputy inspector approved by and responsible to the soils engineer shall be required to provide continuous inspection for the proposed underpinning and shoring. (1704.7)
- 51. Prior to the pouring of concrete, a representative of the geologist and soils engineer shall inspect and approve the footing excavations. They shall post a notice on the job site for the LADBS Building Inspector and the Contractor stating that the work so inspected meets the

Page 7 283 N. Trino Way

> conditions of the report, but that no concrete shall be poured until the City Building Inspector has also inspected and approved the footing excavations. A written certification to this effect shall be filed with the Grading Division of the Department upon completion of the work. (108.9 & 7008.2)

52. Prior to the placing of compacted fill, a representative of the geologist and soils engineer shall inspect and approve the bottom excavations. They shall post a notice on the job site for the City Grading Inspector and the Contractor stating that the earth materials inspected meets the conditions of the report(s), but that no fill shall be placed until the LADBS Grading Inspector has also inspected and approved the bottom excavations. A written certification to this effect shall be included in the final compaction report filed with the Grading Division of the Department. All fill shall be placed under the inspection and approval of the soils engineer. A compaction report together with the approved soil report and Department approval letter shall be submitted to the Grading Division of the Department upon completion of the compaction. In addition, an Engineer's Certificate of Compliance with the legal description as indicated in the grading permit and the permit number shall be included. (7011.3)

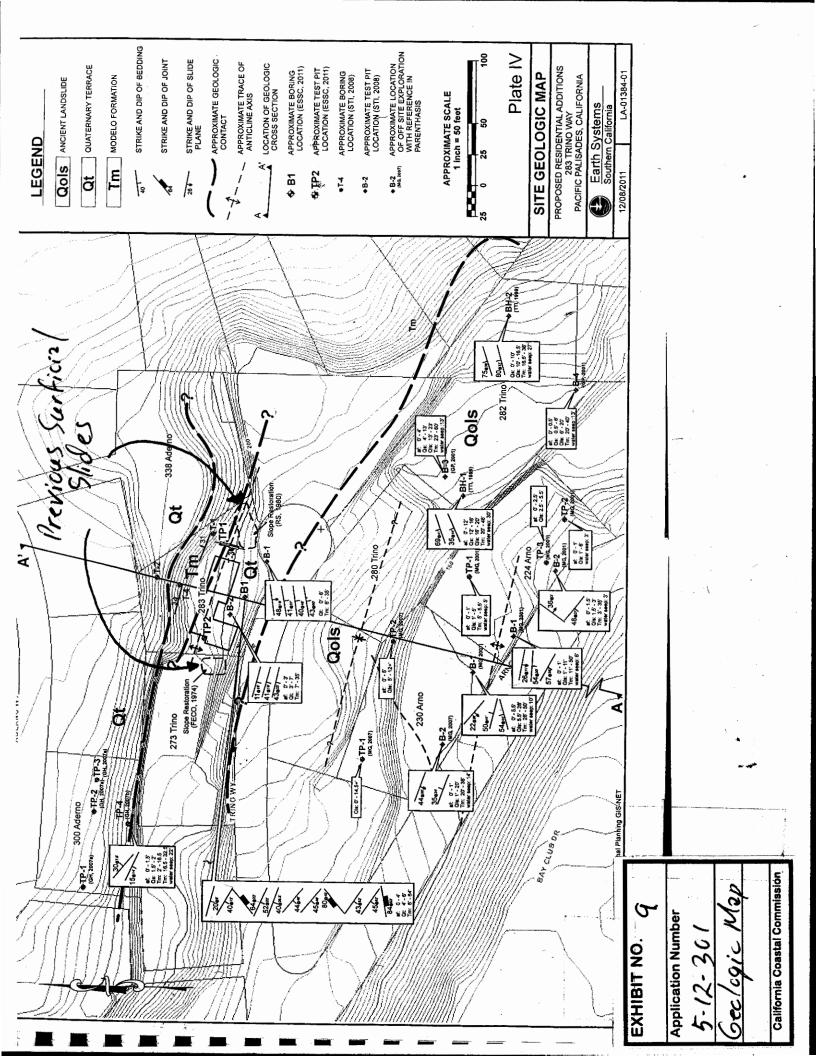
boxy J. Wilson JEFFREY T. WIL

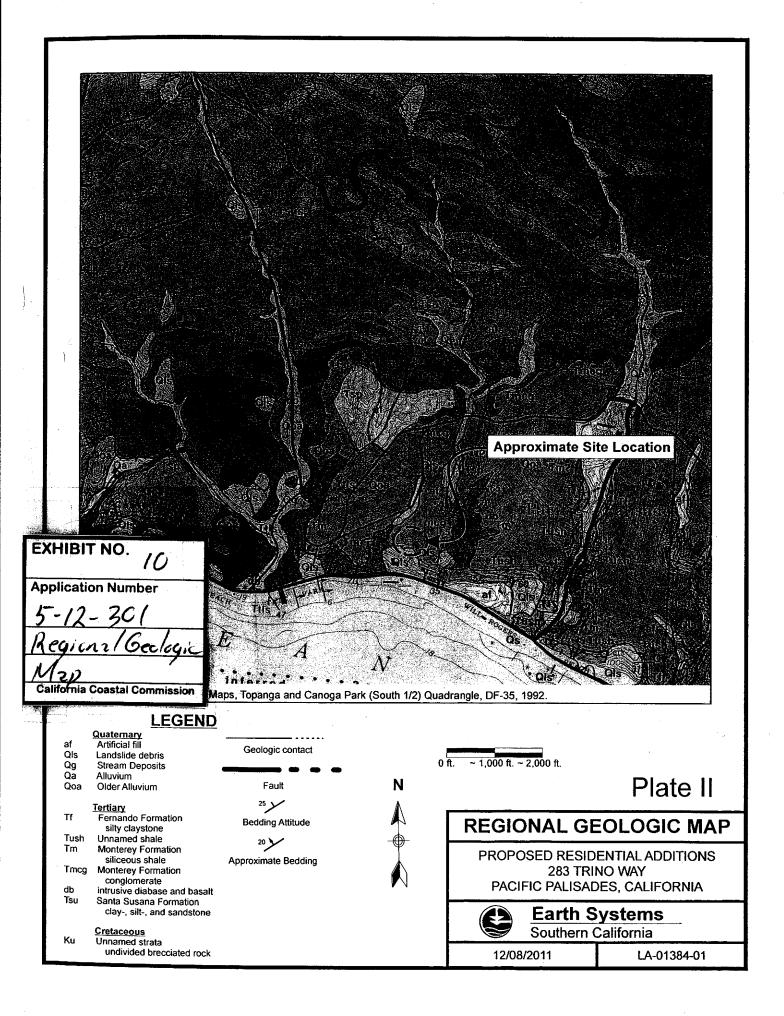
JEFFREY T. WILSON Engineering Geologist I Curtis Dietz

Geotechnical Engineer I

Log No. 75916-01 213-482-0480

cc: Earth Systems So Cal, Applicant & Project Consultant WLA District Office





California Coastal Commission

November 5, 2012

RE: CONSTRUCTION OF A LARGE DEVELOPMENT PROJECT on 283 TRINO WAY 'IN AN AREA SUBJECT TO LANDSLIDING AND UNSTABLE SOILS'

per affidavits requested by LADB5 #20120853108 dated 6-07-12 and #20110722369 dated 5-24-11

Dear Commission:

We are five property owners, directly above and adjacent to this large development project that is currently under construction in Pacific Palisades, California. Other concerned home-owners in the immediate neighborhood have also joined us (as signatories) in the following appeal.

We are duly concerned that the development activities of the owner/developer and his team appear to be threatening the structural integrity of our homes – which sit at the edge of a hillside along the bluffs of the Pacific Coast Highway and directly above or adjacent to the development project.

A few relevant facts:

- On October 15, 2012, the California Coastal Commission ("CCC") notified developer/owner Scott MacPherson that his 283 Trino project was in violation of the California Coastal Act and that all work must cease. We demand that all work must continue to cease at 283 Trino Way, including, but not limited to, any grading and/or any construction of new retaining walls, until all concerned parties have had the opportunity to review the appropriate technical and legal method for proceeding with said construction on this "unstable soil, prone to landslides" (see attached affidavits).
- 2. Developer has drilled and filled the respective deep holes with re-bar and concrete amounting to about 8 piles on East property line, about 6 piles on north property line and more than 10 piles at south property line at street (verification pictures upon request). As the original plot plan depicts, the rubble retaining wall at top of slope, the 80' x 5' retaining wall that was permitted in 1963 which is at toe of rear 25' slope and another 10' retaining wall at south property line at street front, all still remain in place and therefore the current slope condition can and should be mitigated with site plastic and a temporary buttress and drainage system should be installed, as is often done along the Pacific Coast Bluffs, until all appropriate plans and procedures are in place and

EXHIBIT NO. **Application Number** 12:18pm

From-3102165691

To-California Coastal

Page 002

1/2

adjacent neighbors and surrounding neighbors have been properly notified, appropriate CCC public hearings taken place, and the enough time for the adjacent. Homeowners to have their experts' review comments.

- 3. Since the commencement of construction in mid-September, we have attempted to obtain from the owner/developer the detailed project grading plans. structural plans and appurtenant soils reports, so that third-party consultants can review them and make any necessary comments on our behalf. For reasons we cannot understand, neither the owner/developer, nor the Los Angeles Department of Building and Safety ("LABDS") has been willing to provide us with a copy of these public plans and/or reports.
- 4. On October 23, 2012, an Order to Comply was posted on the job site by LADBS requiring that all construction-work cease immediately.
- 5. For the subsequent three days following the issuance of the LADBS Order to Comply, the contractor and his team continued their demolition and construction activities, including the removal of at least 25, 10-yard truckloads of soil demolishing the deep foundations and lowering the pad at the bottom of the slope, directly under our home-sites.

In response to our queries, the developer/owner, Scott MacPherson, has recently submitted another application to CCC for expedited approval. Owner's apparent reasoning behind this most recent application and his request to immediately resume construction is that the CCC had previously granted him a de minimus walver that he submitted in 2011 to which we, once again bring to your attention, that Owner's December 2011 application omitted the geological issues and the demolition of the project, and failed to give neighbors proper notification among other irregularities.

In view of the foregoing, and considering the scope of this development project between the top of bluff and the Pacific Ocean, we respectfully request that Mr. MacPherson's application for an expedited administrative approval not be granted; and that, rather, he submit for a California Coastal permit allowing all neighbors a full and open public-hearing to allow our community appropriate notification and to allow our experts ample time to fully examine the developer's grading and structural plans and all other relevant plans and reports.

Further, we believe that currently unstable site-conditions - which are a direct result of the developer's construction activities – should not be the basis for allowing work to proceed on this site; and that this condition can and should be mitigated with a temporary buttress and drainage system and site plastic until all immediately impacted parties are reasonably satisfied that this development project is proceeding in a safe and

compliant manner, and not threatening the current and future structural stability of our homes and the safety of our families.

We believe that this matter requires your immediate careful review and consideration before any further permission to proceed is granted .

Respectfully,

Calen afwood

The concerned neighborhood,

3/3

338 Ademo Way Pacific Palisades, CA 90272-3344 Telephone: (310) 922-3709 Facsimile: (310) 454-8919 Email: martin.m@röädrunner.com

October 22, 2012

Via Fax to (562) 590-5084 And by hand delivery

Dr. Charles Lester, Executive Director Mr. John (Jack) Ainsworth, Senior Deputy California Coastal Commission 2000ceangate, 10th Floor Long Beach, CA 90802-4416

EXHIBIT NO. **Application Number** KU¥ California Coastal Commission

Re: 283 N. Trino Way, Pacific Palisades required a Coastal Development Permit

Dear Dr. Lester and Mr. Ainsworth,

Please require a Coastal Development Permits for the construction of 5,100 or more square feet on a steeply sloped hillside lot of about 7,650 square feet at 283 N. Trino Way, Pacific Palisades.¹ This coastal development is in an area of high geologic risk that is close to and can be seen from the Will Rogers State Beach. A Coastal Development Permit application would provide notice and an opportunity for the public to be heard before irreparable damage occurs to neighborhood.

1. 283 Trino Way is in an unstable geologic area subject to seismic risk

The development at 283 Trino Way is within an area mapped by John T. McGill as part of a large prehistoric landslide. See The 1989 Geologic Maps of the Pacific Palisades area, Los Angeles, California, by John T. McGill, published by the U.S. Geological Survey. In addition, an October 9, 2012 review by Donald B. Kowalewsky, Certified Engineering Geologist, of the December 8, 2011 preliminary geotechnical engineering report by Earth Systems So Cal noted that the geometry fits with the older slide boundary mapped by McGill through the property.

More recently, the slope at 283 Trino Way had to be repaired twice, about 1963 and again, about 1978. In 1978, following heavy rains, soil slumped from 283 Trino Way to the street. Attached is a photograph taken about February 1978 that shows the soil slump in relation to the then-existing two story house.

Recently, about October 4, 2012, a drill hole on or adjacent to the 1978 soil slump collapsed. This may be seen on the attached photographs. As can be seen from the photographs, the surface soil is dry but the subsurface soil is damp. Consequently, it appears that the drill hole collapse may have resulted from a combination of the unstable soil condition and ground water in the hole. The collapse of the drill hole is the kind of problem that should be reported to the California Coastal Commission along with a subsurface geology report and a remedial recommendation by a soils engineer.

Unfortunately, drilled caissons collapsed nearby in 1978 during the repair to a slide from the lower portion of my property to Trino Way. After the slide, soils engineer, Ralph Stone and Company, Inc., initially recommended that we construct a retaining wall using drilled and belled caissons to support the structure. Accordingly, the contractor drilled ten borings. Similar to what occurred at 283 Trino Way today, in 1978, at least one of the borings partially collapsed.

Engineering geologist John Merrill inspected the borings and collapse. He found that eight of the borings contained water that ranged from a few inches to as much as six feet deep. Mr. Merrill recommended that the soils engineer redesign the retaining wall and use of friction piles as opposed to caissons. Mr. Merrill advised that caissons are likely to cave and prove difficult to maintain until

1.1

concrete can be poured. Consequently, the contractor removed the debris, pumped out the water, and filled the caissons with steel and concrete.

The soils engineer designed a new wall using nine friction piles with 50 foot steel beams. In 1979, a drilling rig drilled nine new holes into bedrock and the contractor inserted circular steel casing into the holes to prevent collapse of the hole. A crane lifted the 50' steel beam into the hole and concrete pumper pumped concrete into each hole. In order to avoid another collapse, several large pieces of equipment had to be on Trino Way at the same time. This included a drilling rig, crane, concrete truck, concrete pump, and other heavy equipment.

The collapse on October 4, 2012, in dry weather of the hole drilled near my retaining wall, reflects the extraordinary geological risks of construction on this site. The California Coastal Commission should require adequate bore holes to be drilled to explore the subsurface geology, particularly at the top of the slope.

In addition to the geological issues at 283 Trino Way, other slides have occurred along Trino Way. Slide debris partially blocked Trino Way, probably during extremely heavy rains of late February and early March 1938. See The Pacific Palisades Area Report on Landslide Study prepared by the U.S. Army Corps of Engineers in cooperation with the U.S. Department of the Interior Geological Survey, September 1976, Appendix 1, page 47. The 1938 slope failures on Trino Way described in The Pacific Palisades Area Report on Landslide Study are also evident in 1938 and 1940 aerial photographs. City records also reflect grading inspection for slope repair at 273 Trino Way about 1973.

2. The Permit Application and Geology Report Should Address Seismic Risk

The proposed construction is within a few miles of the Malibu Coastal Fault. The geology report should address the ability of any proposed retaining wall to withstand an earthquake. In particular, the report should address the risk of soil liquefaction and slope failure in an earthquake.

This is of particular concern because of the steep slope from top to bottom of the hillside at 283 Trino Way. The elevation drops steeply from 228 feet above sea level at the north west corner, nearest the Tuchyner residence, to 187 feet above sea level at the south west corner on Trino Way, a drop of 41 feet over a distance of 78.32 feet.

3. Adequate Off-Street Parking Should be required because 283 Trino Way is close to and visible from the Will Rogers State Beach

The construction site at 283 Trino Way is located near and is visible from the Will Rogers State Beach. Street parking is limited. Patrons of the adjacent Bel Air Bay Club park on the adjoining streets and sometimes in the Will Rogers State Beach parking lot. Public parking is very limited for those who may want to walk through the upper Bel Air Bay Club property to Pacific Coast Highway and the Will Rogers State Beach. Trino Way is a relatively narrow hillside street, 26 feet wide, from lot to lot.

The permit application contains varying and inconsistent information as to the scale of the proposed construction and the size of the lot. An application for a Coastal Development Permit would allow the applicant to provide accurate information. Nonetheless, it appears that the proposed construction is at least 5,100, perhaps as much as 5,900 square feet on a lot of about 7,650 square feet. An application received by the California Coastal Commission on December 23, 2011nstates that the lot area for 283 Trino Way is 9,757.4 square feet. But the dimensions of the lot, unchanged for more than fifty years, are $78.32 \times 64 \times 123 \times 135$ feet and one part of the application included a portion of my property.

4. Open Hillside Space Should be Preserved to Protect Coastal Wildlife

2

Deer, coyotes, raccoons, opossums, birds and other wildlife populate this coastal area. Deer have jumped the fence between my property and the adjacent hillside at 283 Trino Way. Early in the morning, I have observed deer near the intersection of Trino and Arno Way The applicant proposes to

cover the hillside with caissons, concrete retaining walls, a pool or spa, and an enormous mansion. This will destroy the wildlife habitat on this site.

Please require the applicant to submit an application for a Coastal Development Permit to provide sufficient time to review this before the coastal habitat is destroyed.

Sincerely,

,

J- Murphy Mante-Martin J. Murphy

Martin.m@roadrunner.com Fax (310) 454-8919 Mobile: (310) 922-3709

ⁱ The California Coastal Commission noted in an October 15, 2012 letter that Mr. Scott Macpherson, 283 Trino Way, had inaccurately stated in an application for a waiver that no demolition of the existing residence would occur. These and other inaccuracies, such as the actual size of the lot, make it difficult for the public to comment because the application is inaccurate. An application for a Coastal Development Permit would allow Mr. Macpherson time to prepare accurate information and modify his proposal to mitigate damage to this California coastal hillside.

further Signatures per attachments (3. 2/11

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GARY L. Spivack SID Aderno Way PollisAdes, CA 90272

Lili Eichter

Emma Sp;vack=

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Zohrch Bahmani 282 TriNO Way Parif Palisades CA 90272

Faizin Khalkheli 282 Trino Way. Pagific Palisady ca 96272

Henry Ullerich

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John M. Elchler 201 Aderno Way Pacific Palisades, CA 90272

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Kimbr L. Eichter 201 Aderno Way Pacific Palisades, CA 40272

Janet Krusi 360 Aderno Way Pacific Palisades, G 90272

Alan Krusi 360 Aderno Way Pucific Pulisadis, la 9027

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Jake Spirack 350 Aderno Way Pacific Palisados, CA 90272

Jill Spivack 350 Aderno Way Pacific Palisader, CA 90272 Will Eichter

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201 Aderno Way Pacific Palisades CA 90272

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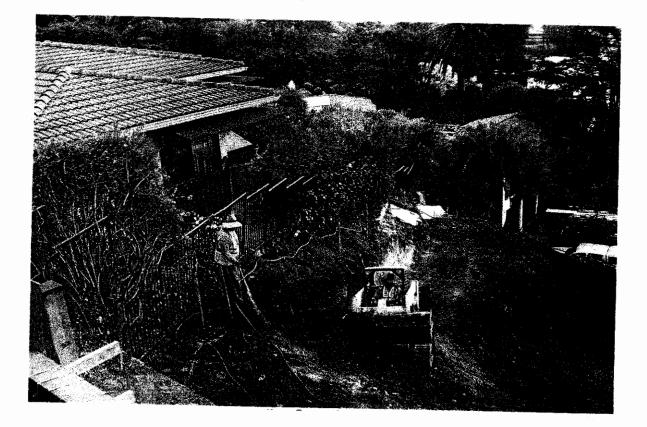
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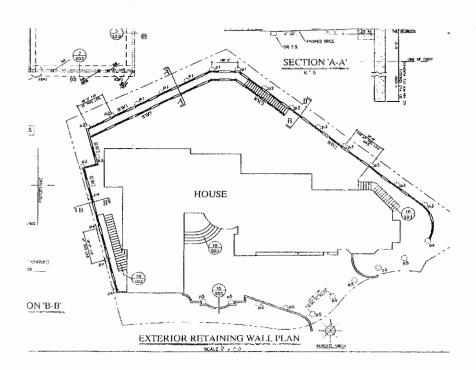
283 TRINO WAY





283 TRINO WAY - Application Comments 10-23 7/11 Trab





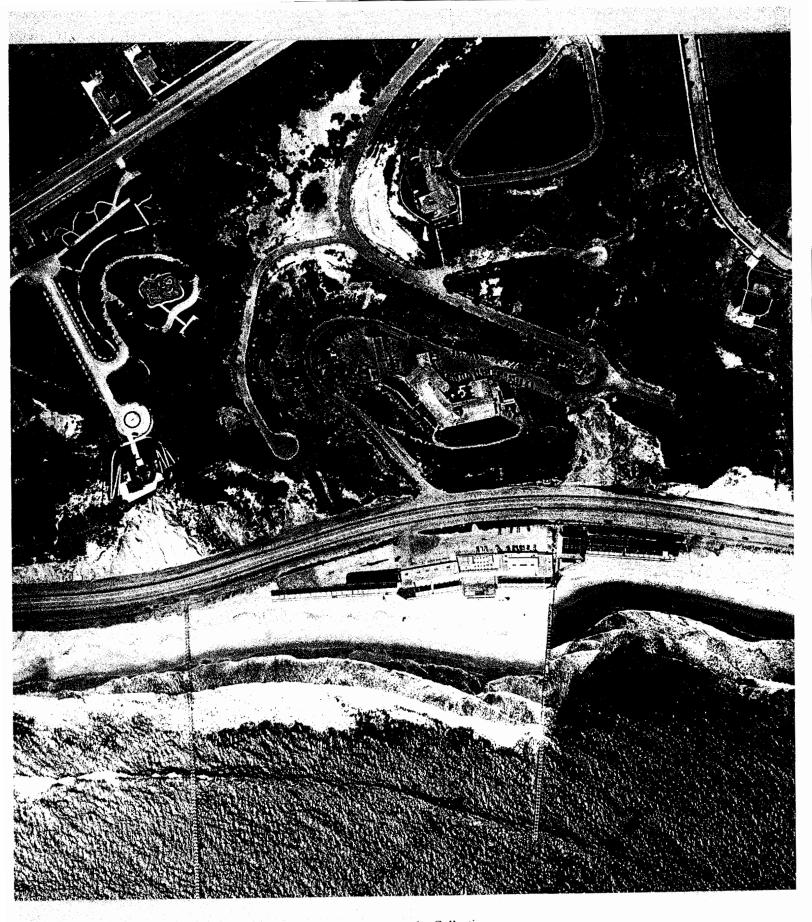
NO CAISSINS/PILES For POOL

8/11



In 1978, following heavy rains, soil slumped from 283 Trino Way to the street. Attached is a photograph taken about February 1978 that shows the soil slump in relation to the then-existing two story house.

9/11



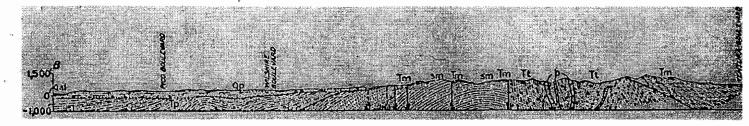
Fairchild Aerial Photography Collection Flight C-5139, Frame 22 4/27/1938 1'' = 200'

10/11



Fairchild Aerial Photography Collection Flight C-6330, Frame 63 3/5/1940 1" = 272'

n/n



Donald B. Kowalewsky ENVIRONMENTAL &. ENGINEERING GEOLOGY

November 4, 2012

SUBJECT: Geologic comments regarding 283 Trino Way, Pacific Palisades, California

The following comments are based on my review of available geologic reports, permit documents and regional geologic maps.

Review of "Preliminary geotechnical engineering report" Earth Systems Southern California (ESSC), 12/8/11:

1. The unconformity in the ESSC test pit TP-1 does not correspond to the shear plane in Strata Tech's test pit TP-3 because ESSC has a transition from bedrock to terrace deposits and Strata Tech has bedrock on both sides. At the same location as the contact in the ESSC test pit and the fault in the Strata Tech test pit, the US Geological Survey map (McGill, 1989), provided herein as Figure 1, shows the head scarp of an older landslide. Neither ESSC nor Strata Tech discuss or provide sufficient information to discount an ancient slide plane?

2. Strata Tech's boring B-2 has poorer quality earth materials above 16', adversely dipping strata of 11° at 15' an abrupt change in dip angle at 16'. Neither ESSC nor Strata Tech considered this information although it is consistent with an ancient slide plane.

3. Strata Tech also indicated a clay gouge at 18' with 48° S dip. This is also consistent with the head scarp of a landslide as mapped by McGill but was not considered in either the ESSC nor Strata Tech reports.

4. ESSC B-1 shows abundant roots along a contact at 8'; they state: the rock is "no longer indurated" at about 18'; softer clay rich at 20'; 4" clay at 26', 40° S dip very hard at 28'. All of these conditions are very suggestive of potential failure surfaces consistent with the landslide as mapped by McGill.

EXHIBIT NO. 13	
Application Number	oad
5-12-301	26
D. Kowslewsky	:
Letter	
California Coastal Commission	

RECEIVED South Coast Region

NOV 6 2012

CALIFORNIA COASTAL COMMISSION (310) 457-2456
Fax: (310) 457-4721
Email: maliburock@gmail.com

1/4

It appears that the contact/fault in item 1 above combined with the poor quality earth materials in both Strata Tech (Items 2 and 3) and the poor quality materials and roots in the ESSC borings (Item 4) especially the transition between softer and harder earth materials could represent a slide plane. This geometry fits with the older slide boundary mapped by McGill through the property. It appears that both Strata Tech and ESSC misinterpreted their data.

5. The ESSC report mis-mapped the landslide that was reported by Ralph Stone in 1978 and did not map or even address the landslide on 283 Trino Way mapped by Pacific Soils in 1962.

6. The 1962 landslide involved much of the upper slope where the soldier piles are proposed, but the ESSC report did reference that landslide and therefore did not consider that older landslide in their design. Obviously they mis-represented the geologic history of the property to the City and Coastal Commission.

Review of ESSC Addendum report dated 3/22/12:

1. Cross-section A-A' does not properly depict the relationship of bedrock and terrace deposits (as compared to the geologic map). The cross-section shows terrace deposits terminating 3 feet south of the northerly property line along a nearly horizontal contact at elevation 229. The geologic map shows terrace deposits 24 feet south of the property line and at an elevation of 220.

12. Based on the geologic map, many of the proposed soldier piles will penetrate terrace deposits before encountering bedrock. Geologic cross-section A-A' indicates piles will not encounter terrace deposits. Terrace deposits may not be capable of bridging the 10' to 12' distance between the soldier piles until the wall is completed. This condition places the residence at 334 Aderno at risk.

Retaining Wall plan discrepancies:

Retaining wall piles were recommended to be a minimum of 20 feet into bedrock (to be inspected by ESSC) with piles fixed 6 feet below the top of bedrock and 20 feet below the Tm1 and Tm2 contact (per ESSC addendum report). But the ESSC cross-section A-A' shows the entire soldier pile in Tm1. The ESSC boring log does not specify the contact between Tm1 and Tm2.

2/4

3/4

1. The structural engineering plans do not conform with report recommendations (See Sheet S2.1).

2. ESSC cross-section A-A' indicates the Tm1 and Tm2 contact. At the upper portion of the pile supported retaining wall, the contact is 45 feet below the finished pad grade. (See the upper soldier pile location on cross-section A-A'). It is not the 6 feet shown on Sheet S2.1. This is a major discrepancy between the report recommendations and the structural plans.

Important comments

1. The ESSC report addressing the major remodel and spa was dated 12/8/11, therefore any City planning ordinances applicable at that time should apply to this project.

2. The US Geologic Survey mapping by McGill appears to be correct and verified by the data in the ESSC and Strata Tech boring and trench logs. The history of slope failures (1962 and 1978) as well as the fact that the site is mapped in an older landslide indicates that the California Coastal Commission should have reviewed the geologic data before making a decision. It appears that forms submitted to them indicated the site was not in a geologically sensitive area. These forms are clearly misleading.

3. This review of available data was performed in an expedited manner due to the necessity of having these items made public as soon as possible to avoid potential unfortunate circumstances. These comments may not address all of the potential concerns.

Donald B. Kowalewsky

Certified Engineering Geologist 1025



Job # 08630H6.001

11/4/12 Page # 4

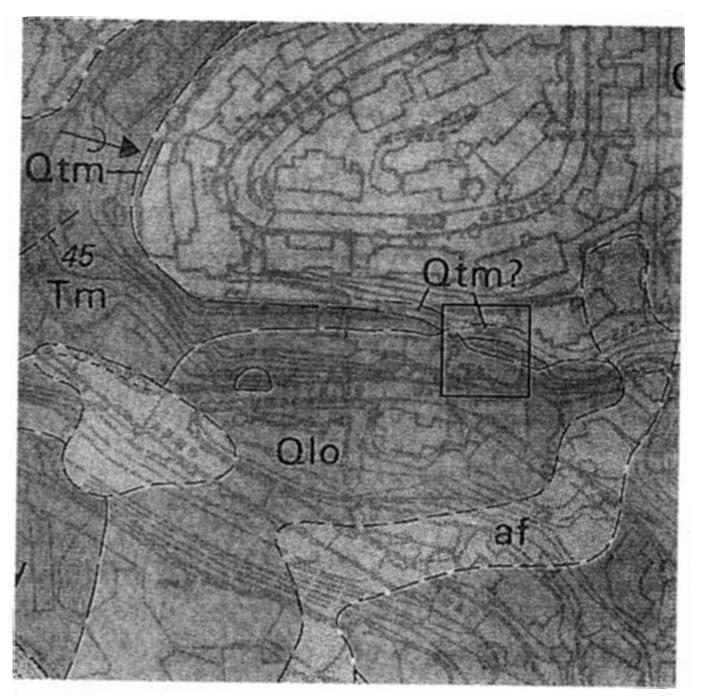


FIGURE 1. Geologic Map McGill, 1989 USGS Map I-1828

Site in square

LEGEND af = earth fill Qlo = older landslide Qtm = marine terrace deposits Tm = Modelo Formation

4/4



RECEIVED South Coast Region

14550 Haynes Street, Suite 202 Van Nuys, CA 91411 (818) 901-8075 Fax (818) 901-8084 www.earthsystems.com

OCT 29 2012

October 18, 2012

CALIFORNIA COASTAL COMMISSION LA-01384-02

Mr. Scott MacPherson 2716 Ocean Park Boulevard, Suite 3080 Santa Monica, California 90405

Subject:

Response to Third-Party Comments During Construction Proposed Residential Additions and Retaining Walls Lot 21, Tract 10179 283 Trino Way Pacific Palisades, California

References: Preliminary Geotechnical Engineering Report, Proposed Residential Additions and Retaining Walls, Lot 21, Tract 10179, 283 Trino Way, Pacific Palisades, California, by Earth Systems Southern California, LA-01384-01 dated December 8, 2011.

> Addendum No. 1 Geotechnical Engineering Report, Response to City Review, Proposed Residential Additions and Retaining Walls, Lot 21, Tract 10179, 283 Trino Way, Pacific Palisades, California, by Earth Systems Southern California, LA-01384-01, dated March 22, 2012.

> Supplemental Clarification of Foundation Recommendations, Proposed Residential Additions and Retaining Walls, Lot 21, Tract 10179, 283 Trino Way, Pacific Palisades, California, by Earth Systems Southern California, LA-01384-01, dated May 23, 2012.

> Architectural plans by VEA Architects (undated) and structural plans by NVZ Engineering (4-22-11, rev. 9-26-12).

> Geology and Soils Report Approval Letter from City of Los Angeles Department of Building and Safety (LADBS)- Grading Division, Log Number 75916-01, dated June 4, 2012.

> Geologic comments regarding 283 Trino Way, Pacific Palisades, California, by Donald B. Kowalewsky, dated October 9, 2012.

This letter has been prepared per the request the City of Los Angeles Department of Building & Safety as a documented response to comments by Donald B. Kowalewsky in a letter dated October 9, 2012. The comments of the Kowalewsky letter are transcribed below in the order presented in the letter. Each comment is followed by our response. A copy of the Kowalewsky letter is included as Attachment A to this response.

EXHIBIT NO. Application Number

1/20

RESPONSE TO REVIEW COMMENTS

Comment 1: "Unconformity in ESSC TP-1 does not correspond to shear plane in Strata Tech TP-3 because ESSC has a transition from bedrock to terrace deposits and Strata Tech has bedrock on both sides. Is this an ancient slide plane? The head scarp of the older landslide?"

....

Response: Strata Tech, Inc. (ST) prepared various reports during 2010 and 2011 which contained discrepancies in the test pit log numbering and interpretation. Strata-Tech ultimately determined this anomalous feature observed in T-3 to be a fault. Earth Systems completed a 12 foot long trench, as opposed to ST's two-foot wide test pit, through the area of this feature for the purpose of carefully studying it.

The fault/discontinuity identified by ST in T-3 has a recorded dip of 64 degrees to the south. This feature, if it was continuous, would have been encountered at a depth of roughly 50 feet in Earth Systems boring B1 and it would have been encountered in ST's B-1. There are no nearby mapped active faults in the vicinity of the subject site.

Based on ESSC's observation of test pits TP1 and TP2 by both of the undersigned geologists it is ESSC's opinion that the feature, ultimately described as a fault by Strata-Tech, Inc. (ST), is in fact an ancient depositional contact, as described in the referenced reports by Earth Systems. Furthermore, there are geologic attitude discrepancies in the characterization of this feature by ST as well as inconsistencies in the interpretation without explanation.

ESSC's interpretation corresponds to the findings of regional geomorphic shoreline studies by Shaller and Herron (2004) and by McGill (1989). McGill's study depicts two observations of the seacliff (SC) as low as elevation 215 feet on the slope that ascends from the subject residence. Shaller and Herron present a map of the Marine Oxygen Isotope Stage 5e shoreline angle (SA) at approximate elevation 196 feet (projected from observations in Santa Ynez and Las Pulgas canyons.

Earth Systems interprets the seacliff as low as approximate elevation 199 feet (TP1) and the bedrock platform elevation as high as approximate elevation 195 feet (TP2). The shoreline angle point (Birkeland, 1972) is constrained by these two observed features (i.e., 195 feet < SA <199 feet). This close agreement with published regional observations suggests long term site stability.

- **Comment 2:** "Strata Tech B-2 has poorer quality earth materials above 16', adverse dip of 11° at 15' abrupt change in dip angle at 16'. Is this a slide plane?"
- **Response:** Earth Systems completed a boring (B1) near ST's B-2 for the purpose of evaluating these conditions. Based on consideration of the model described above and careful logging by Earth Systems professional staff it was concluded that a slide plane was not present.

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It is our opinion that the "poorer quality earth materials" result from weathering and diagenetic processes within the oxidized zone. However, consideration of this lithologic and structural change has been accounted for in subsequent slope stability analyses. Earth Systems concluded that this upper material (upper 15 feet) will require mitigation in the form of engineered shear pins to provide an adequate safety factor.

- **Comment 3:** "Strata Tech indicates clay gouge at 18' with 48° S dip. Is this a potential failure plane?"
- **Response:** Boring B1 was completed near ST's B-2 for the purpose of assessing this feature. Based on careful logging by Earth Systems' professional staff it was concluded that a failure plane was not present. No gouge was encountered in the borings. Therefore, the material logged as gouge by ST could not have been continuous, and was therefore not likely to be gouge.
- **Comment 4:** "ESSC B-1 shows abundant roots along a contact at 8'; "no longer indurated" at about 18', softer clay rich at 20' 4" clay at 26', 40° S dip very hard at 28'. All of these conditions may represent existing or potential failure surfaces. It appears that the contact/fault in item 1 above combined with the poor quality earth materials in both Strata Tech (Items 2 and 3) and the poor quality materials and roots in the ESSC borings (Item 4) especially the transition between softer and harder earth materials could represent a slide plane. This geometry fits with the older slide boundary mapped by McGill through the property. Did Strata Tech and ESSC misinterpret their data?"
- **Response:** Earth Systems recognized the potential for slope stabioliity issues on the subject property and arranged subsurface exploration to address it. The features described at 8' (roots on fracture surface) show no offset of the overlying unconsolidated sediments. Clay-rich beds at 20' specifically mentions lack of movement indicators and the clay bed at 26' is clearly depositional sequence that grades coarser with depth. None of the referenced clay beds have the textural or morphological characteristics of a landslide rupture surface. Based on careful logging by Earth Systems' professional staff it was concluded that a failure plane was not present.
- **Comment 5:** "ESSC recommended that they review shoring plans and monitor installation of shoring. They also stated shoring is to be monitored by a City registered deputy inspector. Is this being performed?"
- **Response:** A review of the shoring plans was completed by Earth Systems' geotechnical engineer and engineering geologist as required by the Los Angeles Department of Building and Safety (LADBS). A City registered deputy soils and grading inspector is currently on site during the drilling procedures and has been in communication with the LADBS official as required during the course of the soldier pile construction

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- **Comment 6:** "Vertical and lateral deflections of shoring elements and neighboring buildings by licensed surveyor was recommended. Is this being performed?"
- **Response:** The shoring has not yet been installed at the writing of this letter. Once shoring is installed Earth Systems does recommend that a licensed surveyor survey the tops of the shoring piles and monitor them on a regular basis. The general contractor has instructed North Lake Land Surveying Inc. to confirm roof ridge heights on all of the adjacent neighbor's homes. This was initiated before any drilling started and will be expanded to include shoring elements as they are available during the project.
- Comment 7: "Retaining wall piles were recommended to be a minimum of 20 feet into bedrock (to be inspected by ESSC) with piles fixed 6 feet below top of bedrock and 20 feet below the Tm1 and Tm2 contact (per addendum report). But cross-section A-A' shows the entire soldier pile in Tm1. The boring log does not specify the contact between Tm1 and Tm2. (Design by structural engineer). Structural plans do not conform with report recommendations (See Sheet S2.1). See cross-section A-A' for Tm1 and Tm2 contact. (Contact is 45 feet below the finish pad grade at the upper soldier pile location on A-A', not the 6 feet shown on Sheet S2.1). This is a major discrepancy between the report recommendations and the structural plans."
- **Response:** Recommendations were provided (Earth Systems, 3/22/12 response to Comment #13) for the shear pin piles, proposed along the down slope portion of the site, to be embedded at least 20 feet into competent bedrock below the Tm₁/Tm₂ contact, not the soldier piles (Earth Systems, 12/8/11 §E) at the top of the slope.
- **Comment 8:** "Report states: No pier hole should be left open overnight. They have been open for six days, one of which collapsed. Tomorrow rain is forecast and they are still open."
- **Response:** The contractor has covered the holes upon completion of drilling. No holes are left open overnight.

The collapsed material observed in Boring #15 occurred entirely within saturated fill that results from heavy irrigation of the adjoining property. Irrigation runoff also collected in the boring. This boring was immediately backfilled with drill tailings and the surrounding area was sandbagged in order to prevent surface runoff from entering the boring. This boring will be re-drilled with casing to prevent further caving.

- **Comment 9:** "The ESSC report mis-mapped the landslide that was reported by Ralph Stone in 1978 and did not map or even address the landslide on 283 Trino Way mapped by Pacific Soils in 1962."
- Response: Earth Systems recommends concerned parties read the File Research section of the referenced Preliminary Geotechnical Engineering Report by Earth Systems dated December 8, 2011. Referenced reports by Ralph Stone (1978-1980) and Pacific Soils (1963) document slope repairs due to shallow soil failures on oversteepened slopes. In other words, those failures no longer exist. The maps of those failures/repairs were

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crude and open to interpretation (i.e., no north arrow, scale or cultural features from which fill limits might be interpreted), but were transferred to our map as diligently as could be expected given the uncertainties of the original mapping.

However, it should be noted that the proposed soldier pile wall and subsequent excavation will better support the top of slope, provide stormwater runoff and interior drainage control as well as remove the onsite steep portions of the slope that may have contributed to past instability.

Comment 10: "The 1962 landslide involved much of the upper slope where the soldier piles are proposed, but the ESSC report did not consider that older landslide."

- **Response:** The referenced report by Pacific Soils (1963) was completed for the repair of a slope failure which appears to have extended from 338 Aderno Way to the subject site (283 Trino Way). The map of this repair was crude and not reliable (i.e., no north arrow, scale or cultural features from which fill limits might be interpreted). The proposed soldier pile wall has been designed to support the minimal offsite slopes remaining.
- **Comment 11:** "Cross-section A-A' does not properly depict the relationship of bedrock and terrace deposits (as compared to the geologic map). The cross-section shows terrace deposits terminating 3 feet south of the northerly property line along a nearly horizontal contact at elevation 229. The geologic map shows terrace deposits 24 feet south of the property line and at an elevation of 220."
- **Response:** The location of the mapped approximate contact (Earth Systems, 3/22/12) on the Site Geologic Map (Plate II) and Geologic Cross Section (Plate VI) was interpreted based on survey contours and available observations and information from the referenced geologic maps of the project area. The location of the mapped contact has been trimmed to allow equipment access and no longer exists as mapped. All foundations will extend into bedrock and the wall has been designed for a "worst case" scenario.
- **Comment 12:** "Based on the geologic map, many of the proposed soldier piles will penetrate terrace deposits before encountering bedrock. The geologic cross-section A-A' indicates piles will not encounter terrace deposits. Terrace deposits may not be capable of bridging the 10' to 12' distance between soldier piles until the wall is completed. This condition places the residence at 334 Aderno at risk."
- **Response:** Continuous lagging with a slurry backfill is proposed to be placed one bay at a time as the construction cut is made. The 7' to 9'wide open face vertical excavations will not remain unsupported for a significant time.

An unknown depth of uncertified fill has been discovered at the northern property line. This loose fill is supported by an unpermitted concrete rubble wall that crosses the property line. The uncertified fill is settling and creeping downslope removing support from the property line brick wall that rests on it. The wall has rotated as much

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as 12-degrees downslope and portions of the base of the footing are exposed where fill has settled or eroded away. The effect of this material on the soldier pile retaining wall installation will be evaluated when soldier pile drilling exposes the depth and condition of these materials. Temporary measures to support this material will be recommended as necessary.

"Important Comment" 1: "The ESSC report addressing the major remodel and spa was dated 12/8/11, therefore any City planning ordinances applicable at the time should apply to this project."

Response: No response required.

"Important Comment" 2: "The US Geological Survey mapping by McGill appears to be correct and verified by the data in the ESSC and Strata Tech boring and trench logs. The history of slope failures (1962 and 1978) as well as the fact that the site is mapped in an older landslide indicates that the California Coastal Commission should have reviewed the geologic data before making a decision. It appears that forms submitted to them indicated the site was not in a geologically sensitive area. These forms are misleading."

Response: No response required.

"Important Comment" 3: "This review of available data was performed in an expedited manner due to the necessity of having these items made public as soon as possible to avoid potential unfortunate circumstances. These comments may not address all the potential concerns."

Response: No response required.

ESSC trusts this letter is sufficient at this time and meets your current needs. ESSC appreciates this opportunity to provide professional geotechnical services for this project. If you have any questions regarding the information contained in this letter, or if you require additional services, please contact the undersigned.

Respectfully submitted,

Earth Systems Southern California

Christopher F. Allen Staff Geologist

William A. LaChape Project Engineering

Distribution: 1 – Addressee, 1 – Architect (VEA Architects), 2 – City of Los Angeles Dept Building and Safety – Grading Division (Mr. Prevost)

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REFERENCES

General References

- Association of Engineering Geologists (AEG), 1982, Geologic Maps Santa Monica Mountains, Los Angeles, California, compiled by City of Los Angeles.
- Atik, Linda Al and Nicholas Sitar, 2010, Seismic Earth Pressures on Cantilever Retaining Structures, Journal of Geotechnical and Geoenvironmental Engineering, v. 136, n. 10, p. 1324-1333, October 2010.
- Birkeland, P. W., 1972, Late Quaternary Eustatic Sea-level Changes Along the Malibu Coast, Los Angeles County, California: Journal Geology, Vol. 80, pp. 432-448.
- Campbell, R. H., 1990, Geology and Tectonic Evolution of the Western Transverse Ranges. In Jacobson, M. L. (Editor), National Earthquake Hazards Reduction Program, Summaries of Technical Reports, Vol. XXX: U.S. Geological Survey Open File Report 90-334, Menlo Park, CA, pp. 464–469.
- Campbell, R. H.; Yerkes, R. F.; and Wentworth, C. M., 1966, Detachment Faults in the Central Santa Monica Mountains, California: U. S. Geological Survey Professional Paper 550-C, pp. C1–C11.
- California Division of Mines and Geology, 1997, Seismic Hazard Evaluation Report for the Topanga 7.5 Minute Quadrangle, Los Angeles County, California, Open File Report No. 01, dated 1997.
- California Division of Mines and Geology, 2008, Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117A, dated 2008.
- Davis, W. M., 1933, Glacial epochs of the Santa Monica Mountains, California: Geological Society America Bulletin, Vol. 44, pp.1041–1133.
- Dibblee, T. W., JR., 1982, Geology of the Santa Monica Mountains and Simi Hills, southern California. In Fife, D. L. and Minch, J. A. (Editors), Geology and Mineral Wealth of the California Transverse Ranges: Mason Hill Volume: South Coast Geological Society, Santa Ana, CA, pp. 94–130.
- Dibblee, T. W., JR., 1992, Geologic Map of the Topanga and Canoga Park (South ½) Quadrangles, Los Angeles County, California: Dibblee Geological Foundation, Santa Barbara, CA, Map #DF-35, scale 1:24,000.
- Dolan, J. F.; Sieh, K.; and Rockwell, T. K., 2000, Late Quaternary Activity and Seismic Potential of the Santa Monica Fault System, Los Angeles, California: Geological Society America Bulletin, Vol. 112, pp. 1559– 1581.
- Earth Systems Southern California, 2011, Preliminary Geotechnical Engineering Report, Proposed Residential Additions and Retaining Walls, Lot 21, Tract 10179, 283 Trino Way, Pacific Palisades, California, LA-01384-01, dated December 8, 2011.
- Earth Systems Southern California, 2012, Addendum No. 1 Geotechnical Engineering Report, Response to City Review, Proposed Residential Additions and Retaining Walls, Lot 21, Tract 10179, 283 Trino Way, Pacific Palisades, California, LA-01384-01, dated March 22, 2012.

EARTH SYSTEMS SOUTHERN CALIFORNIA

9/20

- Fisher, P. J., And Lee, C., 1992, Evolution of Santa Monica-San Pedro Margin, California, during the last 25,000 years. In Heath, E. G. and Lewis, W. L. (Editors), The Retrogressive Pleistocene Shoreline, Coastal Southern California: South Coast Geological Society, Santa Ana, CA, Annual Field Trip Guidebook No. 20, pp. 161–194.
- Fisher, M. A.; Normark, W. R.; Bohannon, R. G.; Slitter, R. W.; and Calvert, A. J., 2003, Geology of the Continental Margin beneath Santa Monica Bay, southern California, from seismic-reflection data: Bulletin Seismological Society America, Vol. 93, No. 5, pp. 1955–1983.
- Hart, Earl W. and William A. Bryant, 1999, Fault-Rupture Hazard Zones in California, Alquist-Priolo Fault Zone Act with index to Earthquake Fault Zone Maps, California Division of Mines and Geology Special Publication 42, revised 1999.
- Heron, C. W., and Shaller, P. J., 1997, Reinterpretation of Wave-Cut Marine Terraces West of Palisades Mesa, Pacific Palisades, California: Geological Society America, Abstracts with Programs, Vol. 29, No. 5, p. 19.
- Hoots, H. W., 1931, Geology of the Eastern Part of the Santa Monica Mountains, Los Angeles County, California: U.S. Geological Survey, Washington D.C., Professional Paper 165-C, 83-134 p, plate 16, 1:24,000.
- Jennings, C.W, 1994, Fault Activity Map of California and Adjacent Areas: California Division of Mines and Geology, Geological Data Map No. 6, scale 1:750,000.
- Johnson, H.R., 1932, *Geologic Report of the Quelinda Estate*: Unpublished Report containing 25 Plates including annotated photographs, resistivity survey data, geologic maps and palinspastic cross-sections illustrating the geologic history of the Pacific Palisades area.
- Lew, Marshall Lew, Nicholas Sitar, Linda Al Atik, Martin B. Hudson, G.E., 2010, Seismic Earth Pressures on Deep Building Basements, SEAOC 2010 Convention Proceedings, dated 2010.
- McGill, J.T., 1973, Geologic Maps of the Pacific Palisades area, Los Angeles, California: U.S. Geological Survey Miscellaneous Investigations Series Map- I-1828, scale, 1:4,800.
- McGill, J.T., 1982, Geologic Maps of the Pacific Palisades area, Los Angeles, California: U.S. Geological Survey Miscellaneous Investigations Series Open-File Report 82-194; map scale= 1:4,800.
- McGill, J.T., 1989, Geologic maps of the Pacific Palisades area, Los Angeles, California: U.S. Geological Survey Miscellaneous Investigations Map I-1828.
- Pratt, T. L.; Dolan, J. F.; Odum, J. K.; Stephenson, W. J.; Williams, R. A.; AND Templeton, M. E., 1998, Multiscale Seismic Imaging of Active Fault Zones for Hazard Assessment: A Case Study of the Santa Monica fault zone, Los Angeles, California: Geophysics, Vol. 63, No. 2, pp. 479–489.
- Shackleton, N. J., and Opdyke, N. D., 1973, Oxygen Isotope and Paleomagnetic Stratigraphy of Equatorial Pacific Core V28-238: Oxygen Isotope Temperatures and Ice Volumes on a 105 year and 106 year scale: Quaternary Research, Vol. 3, pp. 39–55.
- Shaller, P. J., and Heron, C. W., 2004, Proposed Revision of Marine Terrace Extent, Geometry, and Rates of Uplift, Pacific Palisades, California: Geological Society America, Environmental and Engineering Geoscience, Vol. X, No. 3, pp. 253-275.

10/20

- Stark, Timothy D., Hangseok Choi and Sean McCone, 2005, Drained Shear Strength Parameters for Analysis of Landslides, Journal of Geotechnical and Geoenvironmental Engineering, v. 131, n. 5, p. 575-588, May 2005.
- Woodring, W.P., Bramlette, M.N., and Kew, W.S.W., 1946, Geology and paleontology of Palos Verdes Hills, California: U.S. Geological Survey Professional Paper 207, 145 p., geologic map scale 1:24,000.
- Yerkes, R. F.; Campbell, R. H., 1994, Preliminary geologic map of the Topanga Quadrangle, Southern California; OFR 94-266; Scale 1:24,000.
- Yerkes, R.F. and Campbell, R.H., 1980, Geologic map of east-central Santa Monica Mountain, Los Angeles County, California: U.S. Geologic Survey Miscellaneous Investigations Series, Map I-1146.

Site Specific References

(Lot 21, Tract 10179, 283 Trino Way, Pacific Palisades, California)

- Ralph Stone and Company, Inc., 1978, Slope Failure Inspections Soil Slope Stability Analyses and Recommended Repair at 283 Trino Way, Pacific Palisades, California 90272, November 20, 1978.
- City of Los Angeles, 1979, *Approval Letter*, City of Los Angeles Department of Building and Safety, October 30, 1979.
- Ralph Stone and Company, Inc., 1980a, Soil Compaction Testing for Retaining Walls and Slope Repair at 283 Trino Way, Pacific Palisades, California 90272, November 20, 1980.
- City of Los Angeles, 1980, Correction Letter, City of Los Angeles Department of Building and Safety, December 10, 1980.
- Ralph Stone and Company, Inc., 1980b, Soil Compaction Testing for Retaining Walls and Slope Repair at 283 Trino Way, Pacific Palisades, California 90272, December 22, 1978.
- City of Los Angeles, 1981, Approval Letter, City of Los Angeles Department of Building and Safety, January 2, 1981.
- Strata-Tech, Inc., 2010a, Preliminary Engineer Geology & Geotechnical Investigation of Proposed House Remodel at 283 Trino Way, City of Los Angeles, California, W.O. 255808, March 22, 2009 (revised March 16, 2010).
- City of Los Angeles, 2010a, *Geology and Soils Report Correction Letter*, City of Los Angeles Department of Building and Safety, Log# 70310, May 5, 2010.
- Strata-Tech, Inc., 2010b, Response to City of Los Angeles Soils Report Correction Letter, Preliminary for Proposed Residence, 283 Trino Way, Los Angeles, California. Log 70310, W.O. 255808, June 3, 2010.
- City of Los Angeles, 2010b, *Geology and Soils Report Correction Letter*, City of Los Angeles Department of Building and Safety, Log# 70310-01, July 27, 2010.

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October 16, 2012

- Strata-Tech, Inc., 2010c, Response to City of Los Angeles Geology and Soils Report Correction Letter, Proposed Remodel, Existing Single-Family Residence, 283 Trino Way, Los Angeles, California. Log 70310-01, W.O. 255808, August 23, 2010.
- Strata-Tech, Inc., 2011, Response to Building Department Meeting with Curtis Dietz on October 27, 2010, regarding Proposed Remodel, Existing Single-Family Residence, 283 Trino Way, Los Angeles, California. Log 70310-01, W.O. 255808, November 28, 2010 (revised May 24, 2011).
- City of Los Angeles, 2011, Geology and Soils Report Correction Letter, City of Los Angeles Department of Building and Safety, Log# 70310-02, May 19, 2011 (revised May 24, 2011).
- City of Los Angeles, 2011, Affidavit Regarding Erection and Maintenance of Building in an Area Subject to Landsliding and Unstable Soils, dated May 19, 2011, recorded May 24, 2011.
- Earth Systems Southern California, 2011, Preliminary Geotechnical Engineering Report, Proposed Residential Additions and Retaining Walls, Lot 21, Tract 10179, 283 Trino Way, Pacific Palisades, California, LA-01384-01 dated December 8, 2011.
- City of Los Angeles, 2012, Geology and Soils Report Correction Letter, City of Los Angeles Department of Building and Safety, Log # 75916, dated February 17, 2012.

(273 Trino Way, Lot 22, Tract 10179, Pacific Palisades, California)

- Foundation Engineering Co., Inc., 1974, Report on Controlled Compacted Fill, 273 Trino Way, Pacific Palisades, California, March 29, 1974.
- City of Los Angeles, 1974, approval letter, City of Los Angeles Department of Building and Safety, May 1, 1974.

(280 Trino Way, Lot 17, Tract 10179, Pacific Palisades, California)

- City of Los Angeles, 1958, Certificate of Compliance, 280 Trino Way Pacific Palisades, California, January 16, 1958.
- City of Los Angeles, 1987, Grading Pre-Inspection Report, 280 Trino Way, Pacific Palisades, California, Plan Check # CC 887, January 21, 1987.
- City of Los Angeles, 2008, Grading Pre-Inspection Report, 280 Trino Way Pacific Palisades, California, Permit Application 08030-30000-01877, July 2, 2008.

(282 Trino Way, Lot 16, Tract 10179, Pacific Palisades, California)

- Terra Technology & Instrumentation, 1999, Limited Preliminary Geotechnical Investigation Pre-Purchase Evaluation, 282 Trino Way, Tract 10179, Lot 16 and Tract 9300, Lot 56, Pacific Palisades Area, California, Report TT&I-15950-1.1, April 12, 1999.
- Geoplan, Inc., 2001, Engineering Geologic Report, Proposed Redevelopment, 282 Trino Way, Pacific Palisades, California, Project 112010, July 3, 2001.

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- Strata-Tech, Inc., 2001a, Geotechnical Engineering Investigation, Proposed Improvements, 282 Trino Way, Pacific Palisades, California, W.O 174601, October 2, 2001.
- Strata-Tech, Inc., 2001b, Addendum to Geotechnical Engineering Investigation, Proposed Improvements, 282 Trino Way, Pacific Palisades, California, W.O 174601, October 2, 2001.
- City of Los Angeles, 2001, Geology and Soils Report Correction Letter, City of Los Angeles Department of Building and Safety, Log# 35529, December 21, 2001.
- Geoplan, Inc., 2002a, Engineering Geologic Memorandum/Response to GRS12-21-01, Proposed Redevelopment, 282 Trino Way, Lot 16, Tract 10179, Pacific Palisades, California, Project 112010, February 25, 2002.
- Geoplan, Inc., 2002b, Engineering Geologic Memorandum Prelandslide Topography for Back-Calculation, 282 Trino Way, Pacific Palisades, California, Project 112010-5.9, May 9, 2002.
- West Coast Geotechnical., 2002, Update Geotechnical Engineering Report and Response to the City of Los Angeles Department of Building and Safety Review Letter, City Log #35529, Dated December 21, 2001, Proposed Residential Development, 282 Trino Way, Pacific Palisades, City of Los Angeles, California, Project No. 3836, October 18, 2002.
- City of Los Angeles, 2003a, *Geology and Soils Report Correction Letter*, City of Los Angeles Department of Building and Safety, Log# 35529-01, March 28, 2003.
- Strata-Tech, Inc., 2003, Memorandum Response to LADBS Letter, Proposed Residential Development, Lot 16, Tract 10179, 282 Trino Way, Pacific Palisades, California, W.O 174601-A, May 30, 2003.
- West Coast Geotechnical., 2003, Addendum Geotechnical Engineering Report, Response to the City of Los Angeles Department of Building and Safety Grading Division Review Letter, City Log #35529, Dated March 28, 2003, Proposed Residential Development, Lot 16, Tract 10179, 282 Trino Way, Pacific Palisades, City of Los Angeles, California, Project No. 3836, September 5, 2003.
- City of Los Angeles, 2003b, *Geology and Soils Report Correction Letter*, City of Los Angeles Department of Building and Safety, Log# 35529-02, November 3, 2003.
- Strata-Tech, Inc., 2004, Engineering Geologic Memorandum Response Geotechnical Review Sheet, Proposed Residence at Lot 16, Tract 10179, 282 Trino Way, Pacific Palisades, California, W.O 174601-B, April 20, 2004.
- West Coast Geotechnical., 2004, Addendum Geotechnical Engineering Report #2, Response to the City of Los Angeles Department of Building and Safety Grading Division Review Letter, City Log #35529-02, Dated November 3, 2003, Proposed Residential Development, Lot 16, Tract 10179, 282 Trino Way, Pacific Palisades, City of Los Angeles, California, Project No. 3836, May 12, 2004.
- City of Los Angeles, 2004, *Geology and Soils Report Approval Letter*, City of Los Angeles Department of Building and Safety, Log# 35529-03, July 8, 2004.
- Calwest Geotechnical., 2010, Final Compaction Report, Custon Single Family Residential Development, Lot 16, Tract 10179, 282 Trino Way, Pacific Palisades, City of Los Angeles, California, Project No. 4832, December 1, 2010.

13/20

City of Los Angeles, 2011, Compaction Report Approval List for Secondary Fill, City of Los Angeles Department of Building and Safety, March 21, 2011.

(300 Aderno Way, Lot 39, Tract 10179, Pacific Palisades, California)

- Grover Hollington and Associates, Inc., 2007a, Geologic and Soils Engineering Exploration, Proposed Mitigation of Wood Retaining Walls, Lot 39, Tract 10179, 300 Aderno Way Pacific Palisades, California, Report GH13497-G, May 9, 2007.
- City of Los Angeles, 2007a, Geology and Soils Report Approval Letter, Lot 39, Tract 10179, 300 Aderno Way Pacific Palisades, California, Log # 59339, July 24, 2007.
- Grover Hollington and Associates, Inc., 2007b, Addendum Report, Proposed Soldier Piles and Associated Retaining Wall, Lot 39, Tract 10179, 300 Aderno Way Pacific Palisades, California, Report GH13497-G, June 27, 2007.
- Grover Hollington and Associates, Inc., 2007c, Addendum Report, Proposed Soldier Piles and Associated Retaining Wall and Swimming Pool, Lot 39, Tract 10179, 300 Aderno Way Pacific Palisades, area of Los Angeles, California, Report GH13497-G, effective August 7, 2007.
- City of Los Angeles, 2007b, Geology and Soils Report Approval Letter, Lot 39, Tract 10179, 300 Aderno Way Pacific Palisades, California, Log # 59726, August 28, 2007.
- City of Los Angeles, 2007c, Geology and Soils Report Approval Letter, Lot 39, Tract 10179, 300 Aderno Way Pacific Palisades, California, Log # 59940, September 25, 2007.
- Grover Hollington and Associates, Inc. Addendum Report, Slot Cutting, Temporary Retaining Wall Excavation, Lot 39, Tract 10179, 300 Aderno Way Pacific Palisades, area of Los Angeles, California, Report GH13497-G, effective December 2, 2009.
- City of Los Angeles, 2009, *Geology and Soils Report Approval Letter*, Lot 39, Tract 10179, 300 Aderno Way Pacific Palisades, California, Log # 69435, December 9, 2009.

(338 Aderno Way, Lots or Portions of Lots 20 & 21, Tract 10179, Pacific Palisades, California)

- Pacific Soils Engineering, Inc. Supervised Compaction Report, Lot 20, Tract 10179, 334 Aderno Way Pacific Palisades, California, Work Order 4083, January 10, 1963.
- City of Los Angeles, *Final Approval*, Lot 20, Tract 10179, 334 Aderno Way Pacific Palisades, California, March 8, 1963.
- Ralph Stone and Company, Inc. Soils Engineering Investigation and Report For 338 Aderno Way Pacific Palisades, California, File No. 766, May 22, 1978.
- City of Los Angeles, Approved for mitigative repair, Portions of Lots 20 & 21, 338 Aderno Way Pacific Palisades, California, June 22, 1978.
- Ralph Stone and Company, Inc. Retaining Wall and Slope Repair Inspection at 338 Aderno Way, Pacific Palisades, File No. 766, October 15, 1979.

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- City of Los Angeles., Approval for Mitigative Repair, Portions of Lots 20 & 21, 338 Aderno Way Pacific Palisades, California. December 5, 1979.
- Ralph Stone and Company, Inc., Soils Compaction Testing for Retaining Wall at 338 Aderno Way Pacific Palisades, California, File No. 766, July 14, 1980.
- City of Los Angeles, Final Approval, Lots 20 & 21, 338 Aderno Way Pacific Palisades, California, October 7, 1980.

(224 Arno Way, Lot 14, Tract 10179, Pacific Palisades, California)

- Mountain Geology Inc., 2001a, Engineering Geologic Report Proposed Site Improvements 224 Arno Way, Pacific Palisades, City of Los Angeles, California, JH4721, March 5, 2001.
- City of Los Angeles,2001a, Application for Review with Not Approval, 224 Arno Way Pacific Palisades, California, Log # 33693, June 22, 2001.
- Mountain Geology Inc., 2001b, Addendum engineering Geologic Report #1, Proposed Site Improvements, 224 Arno Way, Pacific Palisades, City of Los Angeles, California, JH4721a, July 5, 2001.
- West Coast Geotechnical, 2001, Addendum Geotechnical Engineering Report Response to the City of Los Angeles Building and Safety Grading Division Review Letter, Log #33693, dated June 22, 2001, Proposed Residence Remodel and Additions, Built-in Swimming Pool, and Site Retaining Walls, 224 Arno Way Pacific Palisades, City of Los Angeles, California, Project No. 3609, July 16, 2001.
- City of Los Angeles, 2001b, Geology and Soils Report Correction Letter, 224 Arno Way Pacific Palisades, California, Log # 33693-01, August 21, 2001.
- City of Los Angeles, 2001c, Geology and Soils Report Correction Letter, 224 Arno Way Pacific Palisades, California, Log # 33693-02, October 5, 2001.
- Mountain Geology Inc., 2001c, Updated Engineering Geologic Report and Response to City of Los Angeles, Department of Building and Safety-Grading Division, Review letters dated August 21, 2001 and October 5, 2001Proposed Site Improvements, 224 Arno Way Pacific Palisades, California, JH4721c, August 5, 2001.
- West Coast Geotechnical, 2002, Update Geotechnical Engineering Report and Response to City of Los Angeles Department of Building and Safety-Grading Division Review letter dated October 5/August 21, 2001, Proposed Residence Remodel and Addition, 224 Arno Way Pacific Palisades, City of Los Angeles, California, Project No. 3609, August 21, 2002.
- City of Los Angeles, 2002, Geology and Soils Report Correction Letter, 224 Arno Way Pacific Palisades, California, Log # 33693-03, October 17, 2002.
- Mountain Geology Inc., 2002, Addendum Engineering Geologic Report #2, 224 Arno Way Pacific Palisades, City of Los Angeles, California, December 12, 2002.
- West Coast Geotechnical, 2003, Addendum Geotechnical Engineering Report #2, Response to City of Los Angeles Department of Building and Safety-Grading Division Review letter, Log # 33693-03, Dated October 17,2002, Proposed Residence Remodel and additions. Built-in swimming pool, and Site

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Retaining Walls, 224 Arno Way Pacific Palisades, City of Los Angeles, California, Log # 33693-03, January 3, 2003.

- City of Los Angeles, 2003a, Geology and Soils Report Approval Letter, 224 Arno Way Pacific Palisades, California, Log # 33693-04, March 7, 2003.
- Mountain Geology Inc., 2003, Update Engineering Geologic Report, 224 Arno Way Pacific Palisades, City of Los Angeles California, June 2, 2003.
- West Coast Geotechnical, 2003b, Update Geotechnical Engineering Report, Proposed site improvements, 224 Arno Way Pacific Palisades, City of Los Angeles, California, Document # 1010215200513541, June 16, 2003.
- City of Los Angeles, 2003b, Geology and Soils Report Approval Letter, 224 Arno Way Pacific Palisades, California, Log # 40524, July 28, 2003.

(230 Arno Way, Lot 13, Tract 10179, Pacific Palisades, California)

- Mountain Geology Inc., 2007a, Report of Engineering Geologic study, proposed custom single-family residential development, Lot 13, Tract 10179, 230 Arno Way Pacific Palisades area, City of Los Angeles California, MGI Project # JH6905, March 16, 2007.
- Calwest Geotechnical, 2007a, Geotechnical Engineering Report, Proposed custom single-family residential development, Lot 13, Tract 10179, 230 Arno Way Pacific Palisades area, City of Los Angeles California, Document #1010829200753787, March 27, 2007.
- Mountain Geology Inc., 2007b, Addendum Engineering Geologic Report #1, proposed custom single-family residential development, Lot 13, Tract 10179, 230 Arno Way Pacific Palisades area, City of Los Angeles California, MGI Project # JH6905, June 25, 2007.
- Calwest Geotechnical, 2007b, Addendum Geotechnical Engineering Report, Response to City of Los Angeles, Geology and Soils Report Correction Letter Log # 58087, date June 15, 2007, Proposed custom singlefamily residential development, Lot 13, Tract 10179, 230 Arno Way Pacific Palisades area, City of Los Angeles California, Document #1010829200753787, March 27, 2007.
- City of Los Angeles, 2007, Geology and Soils Report Approval Letter, 230 Arno Way Pacific Palisades, California, Log # 58087-01, October 12, 2007.

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Attachment A

Donald B. Kowalewsky "Geologic Comments regarding 283 Trino Way, Pacific Palisades, CA" 10-9-2012

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Donald B. Kowalewsky ENVIRONMENTAL &. ENGINEERING GEOLOGY

October 9, 2012

SUBJECT: Geologic comments regarding 283 Trino Way, Pacific Palisades, California

Tre

The following comments are based on my review of available geologic reports, permit documents and regional geologic maps.

Review of "Preliminary geotechnical engineering report" Earth Systems So Cal, 12/8/11

1. Unconformity in ESSC TP-1 does not correspond to shear plane in Strata Tech TP-3 because ESSC has a transition from bedrock to terrace deposits and Strata Tech has bedrock on both sides. Is this an ancient slide plane? The head scarp of the older landslide?

2. Strata Tech B-2 has poorer quality earth materials above 16', adverse dip of 11° at 15' abrupt change in dip angle at 16'. Is this a slide plane?

3. Strata Tech indicates clay gouge at 18' with 48° S dip. Is this a potential failure plane?

4. ESSC B-1 shows abundant roots along a contact at 8'; "no longer indurated" at about 18', softer clay rich at 20' 4" clay at 26', 40° S dip very hard at 28'. All of these conditions may represent existing or potential failure surfaces.

It appears that the contact/fault in item 1 above combined with the poor quality earth materials in both Strata Tech (Items 2 and 3) and the poor quality materials and roots in the ESSC borings (Item 4) especially the transition between softer and harder earth materials could represent a slide plane. This geometry fits with the older slide boundary mapped by McGill through the property. Did Strata Tech and ESSC misinterpret their data?

27101 Old Chimney Road Malibu, California 90265 (310) 457-2456
Fax:(310) 457-4721
Email: maliburock@gmail.com

5. ESSC recommended that they review shoring plans and monitor installation of shoring. They also stated shoring is to be monitored by a City registered deputy inspector. Is this being performed?

6. Vertical and lateral deflections of shoring elements and neighboring buildings by licensed surveyor was recommended. Is this being performed?

7. Retaining wall piles were recommended to be a minimum of 20 feet into bedrock (to be inspected by ESSC) with piles fixed 6 feet below top of bedrock and 20 feet below the Tm1 and Tm2 contact (per addendum report). But cross-section A-A' shows the entire soldier pile in Tm1. The boring log does not specify the contact between Tm1 and Tm2. (Design by structural engineer). Structural plans do not conform with report recommendations (See Sheet S2.1). See cross-section A-A' for Tm1 and Tm2 contact. (Contact is 45 feet below the finish pad grade at the upper soldier pile location on A-A', not the 6 feet show on Sheet S2.1). This is a major discrepancy between the report recommendations and the structural plans.

8. Report states: No pier hole should be left open overnight. They have been open for six days, one of which collapsed. Tomorrow rain is forecast and they are still open.

9. The ESSC report mis-mapped the landslide that was reported by Ralph Stone in 1978 and did not map or even address the landslide on 283 Trino Way mapped by Pacific Soils in 1962.

10. The 1962 landslide involved much of the upper slope where the soldier piles are proposed, but the ESSC report did not consider that older landslide.

Review of ESSC Addendum report dated 3/22/12

11. Cross-section A-A' does not properly depict the relationship of bedrock and terrace deposits (as compared to the geologic map). The cross-section shows terrace deposits terminating 3 feet south of the northerly property line along a nearly horizontal contact at elevation 229. The geologic map shows terrace deposits 24 feet south of the property line and at an elevation of 220.

12. Based on the geologic map, many of the proposed soldier piles will penetrate terrace deposits before encountering bedrock. The geologic cross-section A-A' indicates piles will not encounter

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terrace deposits. Terrace deposits may not be capable of bridging the 10' to 12' distance between the soldier piles until the wall is completed. This condition places the residence at 334 Aderno at risk.

Important comments

1. The ESSC report addressing the major remodel and spa was dated 12/8/11, therefore any City planning ordinances applicable at that time should apply to this project.

2. The US Geologic Survey mapping by McGill appears to be correct and verified by the data in the ESSC and Strata Tech boring and trench logs. The history of slope failures (1962 and 1978) as well as the fact that the site is mapped in an older landslide indicates that the California Coastal Commission should have reviewed the geologic data before making a decision. It appears that forms submitted to them indicated the site was not in a geologically sensitive area. These forms are clearly misleading.

3. This review of available data was performed in an expedited manner due to the necessity of having these items made public as soon as possible to avoid potential unfortunate circumstances. These comments may not address all of the potential concerns.

Donald B. Kowalewsky Certified Engineering Geologist 1025



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RECEIVED South Coast Region

NOV 8 2012

GDC Project No.: LA12-269

CALIFORNIA COASTAL COMMISSION

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Reference: Application No. CCC # 5-12-301 and CCC # 5-12-002 283 Trino Way Pacific Palisades, CA 90272

Dear Mr. Nutter,

November 7, 2012

Melvin L. Nutter, Esg.

200 Oceangate, Suite 850

Long Beach, CA 90802-4353

ARCO Center

On November 5th, 2012, I was asked to assess the condition of the property at 283 Trino Way in Pacific Palisades and review several geotechnical reports regarding the development, including Geotechnical Reports by Earth Systems, City of Los Angeles Review Letters, the enclosed "Attachment A" to a California Coastal Commission application dated October 31st, 2012 (Appendix A), and a Temporary Site Stabilization and Erosion Control Plan (Sheet No. SEC1) dated October 29th, 2012.

Current condition of the site at 283 Trino Way

I documented the geotechnical conditions of the subject site on November 6th, 2012. During my site visit this morning I observed the following:

- A retaining structure consisting of a line of soldier piles has been completed along the north (Photos 2 to 5) and east property lines (Photos 6 and 7).
- The cuts made on the slopes appear to be very minor, as exemplified in Photos 7 and 8. Please note the presence of pre-demolition features in Photo 8, including a rubble wall, cactus and tree stump. Furthermore the locations of the remaining residence walls on Photo 3, also suggest that cuts made by the developer are minor.
- No home or residents are present below the slope (Photos 1 and 2).
- The slope is relatively small (the difference in elevation between the pad elevation and top of slope is about 36-feet) and can be easily covered with plastic (Photos 2 and 3).

A relatively flat area is located where the demolished residence used to be located (Photo 2).

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EXHIBIT NO. 15 **Application Number** 2.301 (sroup **California Coastal Commission**

Attachment A to the California Coastal Commission Application dated October 31, 2012 (Appendix A)

The document in Appendix A suggests that a "significant safety issue" exists and that the cuts and tailing piles "increasingly jeopardize the stability of the hillside." When analyzing the stability of a slope Geotechnical Engineers, like myself, consider the potential for both surficial and deep seated slope instabilities.

The Potential for Surficial Stability Problems:

Surficial failures are caused during heavy rainstorms by the saturation of near surface materials. These failures are shallow and are sometimes called "skin failures". At this location they tend to be about 4-feet deep.

Although surficial stability could be a concern at the subject site, winterizing the slope using plastic and sand bags should alleviate the concern. The small cuts between soldier piles along the east property line (Photos 6 and 7) can be easily shored with plywood (similarly to what is depicted in Photo 8). Hence, in my opinion, shallow stability is not a major concern, especially since the slopes are relatively small and there are no homes or residents immediately below the subject slope.

The Potential for Deep Seated Stability Problems:

Gross instabilities (or deep seated failures) occur deep below the surface through shearing of rocks and soils. The recent installation of soldier piles should have increased the gross stability of the site at this stage. Furthermore, since only minor cuts have been made, it is difficult to envision how a deep seated failure would suddenly become a "significant safety issue" at this stage of construction

Conclusions

I do not agree with the "significant safety issue" characterization in Appendix A. In my opinion, the project may be stopped for a significant period of time provided the slope is adequately winterized by an experienced contractor.

In my professional opinion, the request in Attachment A appears to be an attempt to advance the project further along, and is not justified by geotechnical engineering safety concerns.



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Credentials

I have a Doctorate in Civil Engineering, and I am a Professor at UCLA where I have taught slope stability and the design of retaining structures at the graduate and undergraduate level. My C.V. is attached in Appendix B.

Sincerely,

Group Delta Consultants, Inc.

Dr. Daniel Pradel, P.E. G.E. D.G.E. Principal Engineer



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Photo 1 (aerial photograph taken March 1, 2011)

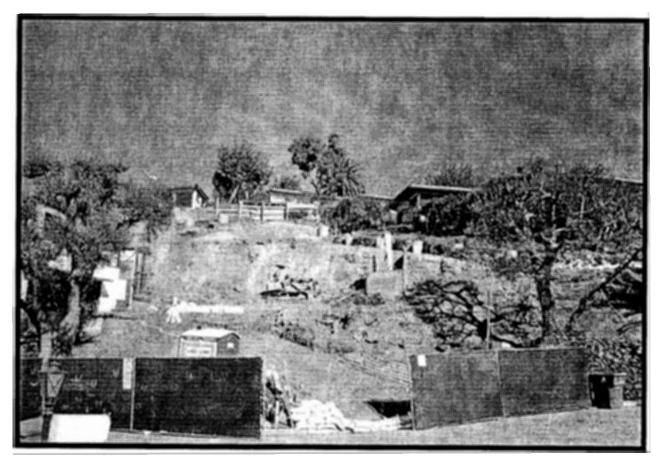


Photo 2 (view from Trino Way)

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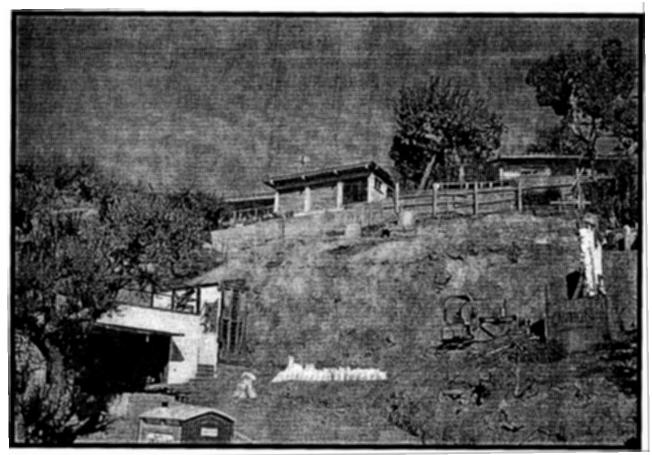


Photo 3 (soldier piles along top of slope)

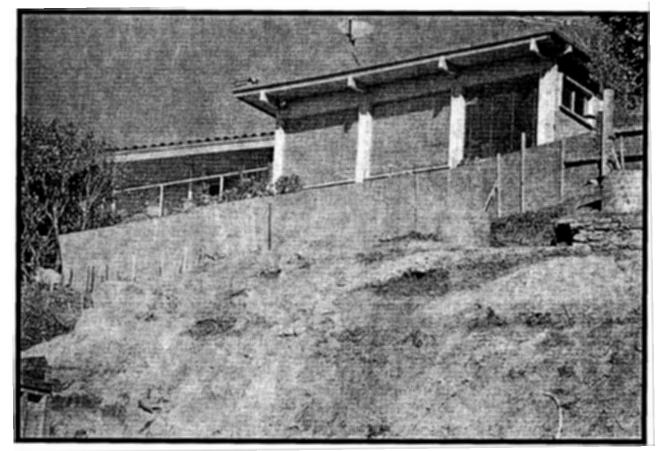
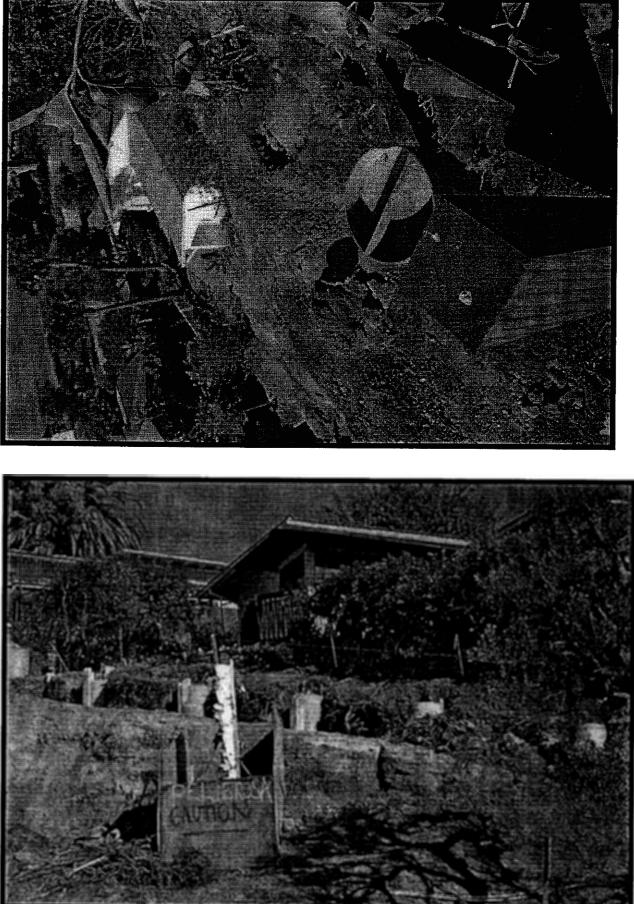


Photo 4 (soldier piles along top of slope)

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Photo 6 (soldier piles along east property line)

Photo 5 (soldier piles along top of slope)

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Photo 8 (rubble wall, cactus and stump)

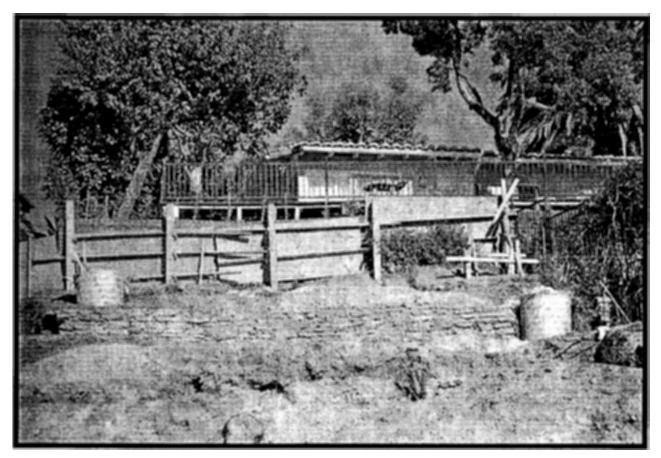


Photo 7 (soldier piles along east property line)



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November 7, 2012

LA12-269

Attachment A



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283 Trino Way-CCC Application 10.31.2012 Page 1 of 1

Attachment A to a California Coastal Commission Permit Application. 283 Trino Way -Project Scope of Work

Attachment A

Project is a follow up to the previously issued Coastal Waiver No 5-12-002 for major renovation to a single family residence for Mr. Scott Macpherson. Current application is to change Coastal Commission status from a renovation to a demolition and a construction of a new residence. This change of status is requested by the owner at the direction of the Coastal Commission staff. Construction for the project commenced and then was stopped by Coastal Commission on the basis that the Waiver issued did not permit the demolition of the existing structure which has already been completed. The owner believes that the Waiver was issued by the Coastal Commission with knowledge of the extent of the demolition then planned and that his right to proceed with the project is vested by the work he has undertaken. He will be requesting that the Coastal Commission allow the work to continue under the Waiver by letter under separate cover which will address his vested rights in further detail. However, in the interim the suspension of work has created a significant safety issue in that construction of the retaining walls and retaining walls has begun and the site currently has exposed vertical cuts and tailing piles on site that will increasingly jeopardize the stability of the hillside if construction is not allowed to proceed. The owner wishes to do everything possible to cooperate with the regulatory agencies involved in order to resolve the permitting issues as rapidly as possible so that potential damage to his property, adjoining properties and persons in the area can be avoided. As a result, and because we are now in the rainy season, he is pursuing this application concurrently with his separate request to proceed under the Waiver previously issued.

Scope of work, size of home and site work are substantially the same as per approved Waiver and per approval by building department, City of Los Angeles. Size of home is 4,692 sf Habitable and 428 sf covered patios (totaling 5,120sf per zoning code) Additionally, home has a two car garage and one car carport totaling 886 sf. Height is 36'. Two retaining walls up to 10' are proposed (to comply with city of Los Angeles retaining wall ordinance).

The project is compatible with neighborhood to the style (the residence sill be Spanish Colonial Revival style) and to the size and height -there several homes in immediate surrounding neighborhood that are of this or larger size -see the attached Exhibit B -compatibility map.

Project complies with City of Los Angeles hillside ordinance and was submitted for plan check prior to BHO (Baseline Hillside Ordinance) came into effect. Due to the Vesting rights policy in city of Los Angeles, project is not subject to BHO, and was approved as such. Building permits were issued in June 2011 and Sept of 2012 (permits attached).

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November 7, 2012

LA12-269

Attachment B



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Education

Certificate of Postdoctoral Studies, University of California, Los Angeles, 1989, Major Field: Geotechnical Engineering

Dr. of Engineering, Civil Engineering, University of Tokyo, 1987, Major Field: Soil Mechanics and Foundation Engineering

Diploma of Civil Engineering, Swiss Institute of Technology, Lausanne, 1982, Major Field: Civil Engineering

Professional Registrations Registered Geotechnical Engineer, State of California (G.E. 2242)

Registered Civil Engineer, State of California (R.C.E. 47734)

Registered Civil Engineer, State of Nevada (R.C.E. 12285)

Registered Civil Engineer, State of Hawaii (R.C.E. 12243)

Registered Engineer, Switzerland (Number 2/16791)

Diplomate of ASCE's Academy of Geo-Professionals No. 1135

Deep Foundation Institute's High-Strain Dynamic Pile Testing Certification (2416AA13B)

Post-Disaster Safety Assessment Program No.61821

EXPERIENCE SUMMARY

Dr. Daniel Pradel has over 25 years of experience in the field of geotechnical engineering. He has performed investigations and analyses of dams, landslides, building foundations and has also performed numerous forensic evaluations. He has performed geotechnical earthquake engineering investigations of ground motions for specific sites, and regional studies of earthquake damage and seismicity. Dr. Pradel has also performed geotechnical investigations of settlement, retaining walls, piping and expansion heave. He has performed engineering analyses for the grading of engineered fills, and the design and repair of building foundations. He has also designed the repair and mitigation of slope failures and landslides using drilled shafts, fill buttresses and other techniques.

WORK EXPERIENCE

Group Delta Consultants (2011 to current) Praad Geotechnical (1997 to 2011) Lockwood Singh & Associates (1989 to 1997) Motor Columbus, Switzerland (1982-1984)

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers, American Society of Testing Materials, International Society of Soil Mechanics and Foundation Engineering, Structural Engineers Association of Southern California, Swiss Society of Engineers and Architects, Swiss Society of Soil and Rock Mechanics, International Conference of Building Officials.

SELECTED PROJECT EXPERIENCE

Silicon Valley Rapid Transit, San Jose, CA (2005-2008)

Dr. Pradel performed static analyses using finite differences (FLAC) for the design of a deep-soilmixing cut-off wall and braced excavation system of the proposed cut-and-cover station and portal structures for the tunnel alignment. He performed numerical analyses to estimate the structural loads developed during excavation and construction of the support system. Dr. Pradel also performed seismic ground response analyses to develop input ground motions and dynamic soil properties for soil-structure interaction analyses. Results are published in ASCE Geotechnical Special Publication 181, Geotechnical Earthquake Engineering and Soil Dynamics IV.

Linden Terrace Landslide, Calabasas, CA (1999-2004)

Dr. Pradel performed seismic analyses to determine the ground motions that affected the landslide during the 1994 Northridge Earthquake and Finite Element Analyses, using the software QUAD4M,

to predict the magnitude of earthquake induced displacements. The comparison between observed and predicted movements was published in the Journal of Geotechnical and Geoenvironmental Engineering (ASCE), Vol. 131, No. 11, 1360-1369.

Construction Vibration Studies for Public Works Projects at Various Locations in Southern California and Nevada (2009-2011)

Dr. Pradel performed construction vibration monitoring for a contractor performing public roadway and bridge improvements at various locations in Nevada and Southern California. He performed investigations of adjacent structures and buildings, and recorded vibration levels from construction activities in order to determine if the threshold limits were exceeded and the potential for structural distress.

EL Cajon Arch Dam, Honduras (1982-1984)

Dr. Pradel performed static and dynamic analyses using Finite Elements for the design of the bottom outlet and elevator towers. After a portion of the upper left abutment was lost during blasting during construction, Dr. Pradel performed numerical analyses to verify that stress redistribution would not significantly overstress the arch dam and rock abutments. Additional analyses included design of instrumentation to evaluate the performance of the grout and drainage curtains and rock abutments.

Strathern Landfill, Los Angeles, CA (2008-2009)

Dr. Pradel performed numerical analyses using the program FLAC to estimate the varying amounts of settlement from inert landfill material with varying depths across the site. Using these settlement estimates, Dr. Pradel recommended zones for potential redevelopment of the closed landfill and their associated conceptual foundation designs (geogrid reinforced fill mats and concrete mat foundations).

Estrondo Landslide Stabilization, Encino, CA (2002-2006)

Dr. Pradel managed and coordinated the investigation and stabilization of a large landslide on 3 properties. Dr. Pradel was the Engineer of Record for the stabilization, designing a system of caisson-supported retaining walls with tiebacks in the upper row, a permanent soil buttress, and drainage gallery for subsurface dewatering. Dr. Pradel also performed numerical analyses of the landslide and repair, using FLAC to model the soil-structure interaction.

Caltrans Wall along 1405 S, Westchester, California (2004-2005)

Dr. Pradel performed analyses of a 35-ft high soil nail wall exhibiting movement along the 405 freeway in Westchester, CA. His investigation included subsurface investigation, monitoring of wall movement and distress, and numerical analyses to determine the mode of deformation, critical failure mode, area of wall influence/damage, and potential methods of repair.

Metro Gold Line, South Pasadena, California (2005-2007)

Dr. Pradel performed a vibration study for the Metro Gold Line light rail extension into South Pasadena. He investigated claims of distress on nearby residences from construction activities and train vibrations, performed vibration testing at various distances and locations along the Gold Line tracks.

New Tract Development, Agua Dulce, CA (2000)

Dr. Pradel performed a seismic hazard assessment for a 908 acre development, including determination of the ground motions for structural design using deterministic and probabilistic

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methods, development of site specific response spectra for cut and fill areas, evaluation of liquefaction potential, and seismically induced settlement analyses.

Melia Landslide Stabilization, Los Angeles, CA (2005-2010)

Dr. Pradel was originally retained as an expert witness to investigate a large landslide affecting several homeowners in a secluded hillside area in Los Angeles, and then was hired as engineer of record to repair the landslide. Dr. Pradel managed and coordinated the site reconnaissance, subsurface investigation and monitoring of the slope movement with slope inclinometers. He performed numerical analyses using the program FLAC to determine the feasibility of stabilization of the ancient landslide using a combination of landslide removal, pile supported retaining walls, and a fill buttress. The numerical modeling included both the temporary and permanent stability of the affected properties.

During repairs, Dr. Pradel was the engineer of record for the slope stabilization which included construction of a fill buttress and retaining walls for the stabilization of the Landslide.

Ground Motion Studies, Various Sites, Los Angeles, CA (1997-2006)

Following the Northridge Earthquake, Dr. Pradel performed numerous site specific ground motion studies for hundreds of sites located across the Los Angeles region. He researched ground motion recordings, selected dynamic soil properties, and developed site-specific ground motions and response spectra to provide to structural engineers. He has also investigated the effects of earthquakes on many tall structures. He published his findings on the correlation between ground motions and structural damages using a database of over 200 steel buildings. His findings were published in 2006 at the "Soil Stress-Strain Behavior, Measurement, Modeling and Analysis" conference in Rome.

Celite Dam Replacement Spillway, Lompoc, CA (2003)

When a replacement spillway was necessary for the Celite dam Dr. Pradel performed a study to select a new location and directed a subsurface investigation for the geotechnical design of the spillway and hydraulic structures.

Paute Mazar Gravity Dam, Ecuador (1983-1984)

Dr. Pradel performed static and dynamic analyses for the stability of the rock abutments. He used Finite Element results to evaluate the stresses and water pressures in the rock mass and performed three-dimensional rock mechanics stability analyses to determine the potential for three-dimensional discrete geologic block failures in the rock abutments.

Emosson Dam, Switzerland (1982-1984)

Emosson dam is a 590-feet high double curvature arch dam in Switzerland. Dr Pradel performed a yearly inspection and worked on the feasibility study to raise the dam by building an additional concrete arch connected to the existing dam with tiebacks.

Yuracmayo Earth Dam, Peru (1982-1984)

Dr. Pradel performed numerical deformation analyses to evaluate the dynamic performance of the dam and predict displacements of the dam under various Earthquake scenarios. The large predicted displacements resulted in significant changes to the dam cross-section to reduce the potential for a major failure due to seismic events.

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Murrieta Creek Fault, Temecula Valley, California (1990-1991)

Dr. Pradel performed a study using Finite Element Analyses to predict the area of influence of the regional wetting induced (hydro-consolidation) subsidence. Finite Element predictions included determination of the likely location of ground extension/cracking and determination of the magnitude of settlement. He also designed several mitigation measures.

Sinaloa Dam, Simi Valley, California (1992-1993)

Dr. Pradel performed a feasibility study for the improvement/reconstruction of the dam, including subsurface characterization and testing, seepage, and stability analyses (static, dynamic and rapid drawdown conditions).

Sacred Falls, Oahu, Hawaii (2000-2001)

Dr. Pradel worked for the State of Hawaii and performed a geotechnical investigation of the rock fall that killed several people in the Sacred Falls Park. He also performed a feasibility study of potential mitigation and remediation techniques for the State Park.

Ground Improvement, Lancaster, California (2001)

Geotechnical investigation, design, and construction observations of ground improvement by compaction grouting in Lancaster, CA (for Allstate Insurance).

Geotechnical Investigation, Tokyo, Japan (2004-2006)

Geotechnical investigation of the causes of settlement and design of remediation using piles for a tract of homes near Tokyo, Japan (for American Homes of Japan).

COMMITTEES AND AWARDS

Committee Member, Recommended procedures for implementation of DMG SP117 ("Guidelines for evaluating and mitigating seismic hazards in California") for analyzing and mitigating landslide hazards in California (2001-2002)

Editor and Committee Member, Recommended procedures for implementation of DMG SP117 ("Guidelines for evaluating and mitigating seismic hazards in California") for analyzing and mitigating landslide hazards in California (1999-2000)

Chair of the Los Angeles Geotechnical Technical Section of the American Society of Civil Engineers (1999-2000).

Vice-Chair of the Los Angeles Geotechnical Technical Section of the American Society of Civil Engineers (1998-1999).

Treasurer and Secretary of the Los Angeles Geotechnical Technical Section of the American Society of Civil Engineers (1996-1998).

1st and 2nd Director of the Los Angeles Geotechnical Technical Section of the American Society of Civil Engineers (1994-1996).

Committee Member of the Geotechnical Engineering Career Awards Committee, for the National Science Foundation (1997).

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Committee Member of the Slope Stability Committee for the Los Angeles County Department of Building and Safety (1995-1996).

Committee member of the American Society of Testing Materials Committee on Soil and Rock (1990-present).

Subcommittee chairman for the Structural Engineers Association of Southern California for Foundations (1990 - 1992).

Committee member of the American Society of Testing Materials Committee on Waste Management (1992-present).

"State of Vaud" award for thesis at the Swiss Institute of Technology in Lausanne, Switzerland (1982).

TEACHING, RESEARCH AND PUBLICATIONS

Dr. Pradel is also an Adjunct Associate Professor in the Civil Engineering Department at UCLA, where he has taught graduate and undergraduate courses in Soil Mechanics, Foundation Engineering, Slope Stability, Earth Retaining Structures, Finite Elements, Constitutive Modeling and Structural Engineering. In particular, he is the instructor of the only course at UCLA that focuses on the design of earth and concrete dams, including seepage analyses by numerical methods, piping, and slope stability analyses (including rapid drawdown).

Dr. Pradel is the author of many publications on topics such as dynamic compression of soils during earthquakes, seismic displacements of slopes, liquefaction and slope stability. He is the former chair of the Los Angeles ASCE geotechnical technical group, an editorial board member of the ASCE Journal of Geotechnical Engineering and has peer reviewed and edited U.S. Army Corps of Engineers (USACOE) technical manuals. In 1995, after a 2-year effort, the USACE presented Dr. Pradel with a certificate of Appreciation for his work for them

Dr. Pradel is also an active member in several research committees, his duties include reviewing documents and standards for the American Society of Testing Materials (ASTM), being member of the American Society of Civil Engineers Education Committee, and was subcommittee chairman for "Foundations" within the Structural Engineers Association of Southern California.

PUBLICATIONS IN JOURNALS AND BOOKS:

- Pradel D., Tiwari B., Wartman J. (2011), "Landslides Triggered by 2011 Tohoku Pacific Earthquake: Preliminary Observations", Geo-Strata (ASCE's Geo-Institute) Sept./Oct. 2011, 28-32
- Pradel D. and Chang K. (2011), "Practical Design of Stabilizing Piles" Deep Foundations (DFI), Summer 2011, 51-54
- Pradel D., Smith P., Stewart J. and Raad G. (2005), "Case History of Landslide Movement during the Northridge Earthquake". ASCE Journal of Geotechnical and Geoenvironmental Engineering, Vol. 131, No. 11, 1360-1369.

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- Pradel D. (1997), "Procedure to Evaluate Earthquake-Induced Settlements in Dry Sandy Soils". ASCE Journal of Geotechnical Engineering, Vol. 124, No. 4, 364-368 and Vol. 124, No. 10, 1048.
- Pradel D. and Raad G. (1993), "Influence of Permeability on Surficial Stability of Homogeneous Slopes". ASCE Journal of Geotechnical Engineering, Vol. 119, No. 2, 315-332.
- Pradel D., Raad G. and Harter R. (1992), "Hydrocompression Settlement of Deep Fills, Discussion". ASCE Journal of Geotechnical Engineering, Vol. 118, No. 6, 954-955.
- Lade P.V. and Pradel D. (1990), "Stability and Flow of Granular Materials: Experimental Investigation". ASCE Journal of Engineering Mechanics, Vol. 116, No. 11, 2532-2550.
- Pradel D. and Lade P.V. (1990), "Stability and Flow of Granular Materials: Analytical Investigation". ASCE Journal of Engineering Mechanics, Vol. 116, No. 11, 2551-2566.
- Pradel D., Ishihara K. and Gutierrez M. (1990), "Yielding and Flow of Sand under Principal Stress Axes Rotation". Soils and Foundations, Vol. 30, No. 1, 87-99.
- Towhata I., Pradel D. and Ishihara K. (1988) "Plasticity Approach to Sand Behavior Under Principal Stress Axes Rotation". Micromechanics of Granular Materials, Studies in Applied Mechanics, Vol. 20, 191-200.

PUBLICATIONS IN PROCEEDINGS:

- Pradel D., Wartman J., and Tiwari B. (2012), "Failure of Fujinuma Dam During the 2011 Tohoku Earthquake" 9th International Conference on Urban Earthquake Engineering/ 4th Asia Conference on Earthquake Engineering March 6-8, 2012, Tokyo, Japan
- Tiwari B., Pradel D., Wartman J. (2012), "Performance of Slopes and Dams on the Mw 9.0 Tohoku, Japan Earthquake", 2nd International Conference on Performance-Based Design in Earthquake Geotechnical Engineering, Taormina, Italy.
- Pradel D., Garner J. and Kwok A. (2010), "Design of drilled shafts to enhance slope stability", ASCE GSP 208, Earth Retention Conference 3, Bellevue, 920-927.
- Pradel D. and Carillo R. (2008), "Landslide stabilization using drilled shafts", Proc. 1st Int. FLAC/DEM Symposium, Minneapolis.

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- Chiu P., Pradel D. Et al. (2008), "Seismic Response Analyses for the Silicon Valley Rapid Transit Project", ASCE GSP 181, Geotechnical Earthquake Engineering and Soil Dynamics IV, Sacramento, 1-10.
- Pradel D. (2006), "Engineering Implications of Ground Motions on Welded Steel Moment Resisting Frame Buildings". Soil Stress-Strain Behavior, Measurement, Modeling and Analysis, Springer, Roma, 937-947.
- Pradel D. (1994), "Active Pressure Distribution in Cohesive Soils". Proc. of the XXIth International Conference of Soil Mechanics and Foundation Engineering, New Delhi, Vol. 2, 795-798.
- Pradel D. (1991), "Instability and Plastic Flow of Soils". ASCE Engineering Mechanics Specialty Conference, Columbus OH, 1174-1178.
- Pradel D. and Lade P.V. (1989), "Plastic Flow and Instability of Granular Materials". Proc. of the IIIrd International Symposium on Numerical Models in Geomechanics, Niagara Falls, 9-16.
- Lade P.V. and Pradel D. (1989), "Comparison of Single and Double Hardening Models for Frictional Materials". Proc. of the IIIrd International Symposium on Numerical Models in Geomechanics, Niagara Falls, 147-154.
- Pradel D. and Lade P.V. (1989), "Instability of Sand Under Applied Shear Stresses". Proc. of the XXth International Conference of Soil Mechanics and Foundation Engineering, Rio de Janeiro, 8/18: 743-748.
- Pradel D. (1988), "Model with Multiple Mechanisms for Anisotropic Behaviors of Sands". Proc. of the VIth International Conference on Numerical Methods in Geomechanics, Innsbruck, 503-508.
- Pradel D., Ishihara K. and Gutierrez M. (1987), "On Modeling of Inherent Anisotropy of Sands". Proc. of the XXIIth Japan National Conference on Soil Mechanics and Foundation Engineering, Niigata, 359-362
- Pradel D. and Ishihara K. (1987), "Elastoplastic Model for Anisotropic Behavior of Sands". Proc. of the IInd International Conference on Constitutive Laws for Engineering Materials, Tucson, 631-638.

COMMITTEE PUBLICATIONS:

- American Society of Civil Engineers (2007): "Seismic Rehabilitation of Existing Buildings" ASCE/SEI 41-06.
- American Society of Civil Engineers (2003): "Seismic Evaluation of Existing Buildings" ASCE/SEI 31-03.

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. ,

Southern California Earthquake Center (2002): "Recommended Procedures for Implementation of DMG Special Publication 117 Guidelines for Analyzing and Mitigating Landslide Hazards in California."

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