THE CITY OF SAN DIEGO

Report to the Hearing Officer

DATE ISSUED: January 25, 2023 REPORT NO. HO-23-002

HEARING DATE: February 1, 2023

SUBJECT: 5386 Calumet Avenue, Process Three Decision

PROJECT NUMBER: 696586

OWNER/APPLICANT: Barlow Capital Investments, LLC

SUMMARY

Should the Hearing Officer approve the stabilization of a coastal bluff with erodible concrete fill over rubble fill at a site with an existing single-family residence located at 5386 Calumet Avenue within the La Jolla Community Planning area?

Staff Recommendation:

1. Approve an application for Coastal Development Permit No. 2584085 and Site Development Permit No. 2584664.

Community Planning Group Recommendations: On September 1, 2022, the La Jolla Community Planning Association voted 14-0-1 to recommend approval of the proposed project without conditions.

Environmental Review: This project was determined to be categorically exempt from the California Environmental Quality Act (CEQA) pursuant to CEQA section 15301, Existing Facilities. This project is not pending an appeal of the environmental determination. The environmental exemption determination for this project was made on December 21, 2022, and the opportunity to appeal that determination ended on January 6, 2023.

BACKGROUND

The 0.16-acre site is located at 5386 Calumet Avenue and is in the RS-1-7 Zone, Coastal Overlay (Appealable), Coastal Height Limit, and Sensitive Coastal Bluff Zones. The project site includes an existing single-family residence within an established residential area in the La Jolla Community Plan and Local Coastal Program Land Use Plan (Community Plan).

The project requires a Process Three Site Development Permit for development on a coastal bluff (environmentally sensitive lands) and a Coastal Development Permit for coastal development of premises within the Coastal Overlay Zone (SDMC Section 126.0702(b).

DISCUSSION

Project Description

The project scope includes the demolition of an existing upper bluff wall and the removal of rubble and other debris within the bluff failure area and the installation of temporary erosion control, construction of a replacement 24-inch high masonry upper bluff wall behind the top of bluff five-foot setback, placement of erodible fill, placement of erodible concrete fill over rubble fill, redirection of drainage currently flowing over bluff out to existing gutter at Calumet Avenue, installation of drainage piping/gutter out to existing gutter at Calumet Avenue and relocation of three posts (landward the from bluff edge) and post foundations for existing rear patio.

The project site is zoned RS-1-7 and the Community Plan designates the site and surrounding area as Low-Density Residential (5-9 dwelling units/acre). The Community Plan prohibits "coastal bluff development, on or beyond the bluff face, except for public stairways and ramps to provide access from the bluff top to the beach or to maintain bluff stability" (Natural Resources and Open Space System Policy #4, a.).

Per San Diego Municipal Code Section 143.0143(g), Coastal bluff repair and erosion control measures may occur on the bluff face only if "the applicant shall submit a geotechnical report that documents the need for an erosion control measure to the City Manager. The geotechnical report shall identify the type and design of the erosion control measure necessary for the protection of the existing primary structures, based on site-specific conditions and analysis of alternatives. The report must be accepted as adequate by the City Manager before any erosion control measures can be approved."

ENGEO performed a geotechnical study and prepared this geotechnical report, which has been reviewed and accepted by the City of San Diego Development Services Department, for the bluff failure that occurred at 5386 Calumet Avenue. The section of coastline for the proposed project is characterized by steep coastal bluffs comprised of relatively erosion-resistant Cretaceous strata (Point Loma or Cabrillo Formations) at the bluff base and less resistant upper-bluff terrace deposits, with a narrow cobble beach at the base of the bluff. The bluff in the project area is located in a high-energy wave environment subject to direct wave impact. As a result of wave-induced erosion, various types of coastal fortification have been previously installed in the project area, incorporating rock revetments, concrete-filled sandbags, and gunite-covered bluffs (ENGEO, Geotechnical Study).

Based on ENGEO's review of existing documents and site investigation and slope stability analyses, ENGEO recommends the construction of an erodible concrete infill to provide protection of the remaining fill and to support to the existing residential structure. It is ENGEO opinion that if immediate action is not taken, continued erosion will result in additional loss of the bluff top, ultimately leading to failure of a portion of the house. The failure will not only jeopardize the integrity of the house but could also be dangerous for the beach-going public and bluff-top inhabitants alike (ENGEO, Geotechnical Study).

The proposed stabilization would consist of infilling the failed area with a textured and colored, low-strength concrete mix designed to blend into the natural coastal bluff. Erodible concrete, also called Controlled Low-Strength Material (CLSM), typically has a 28-day compressive strength range from 100 to 300 psi. A typical CLSM mix contains cement, water, fly ash, and fine aggregate. It is mixed to produce a surface that is anticipated to erode at approximately the same rate as the surrounding coastal bluffs. Per the Geotechnical report dated September 30, 2021, the estimated rate of erosion of the intact bluff below 5386 Calumet Avenue is 2 to 3 inches per year. Assuming an annualized erosion rate of 0.2 feet per year, then the proposed concrete cap would be eroded within 20+/- years, re-exposing the rubble fill behind it.

The proposed project is the minimum possible repair to the coastal bluff and will not adversely affect environmentally sensitive lands.

Conclusion

Staff has reviewed the proposal, including all the issues identified through the review process, and has determined that all project issues have been addressed. The project conforms with the Community Plan, General Plan, and the adopted City Council policies and regulations of the Land Development Code. Staff has provided draft findings and conditions (Attachment 4 and 5) and recommends the Hearing Officer APPROVE Coastal Development Permit No. 2584085 and Site Development Permit No. 2584664.

ALTERNATIVES

1. Approve Coastal Development Permit No. 2584085 and Site Development Permit No. 2584664, with modifications.

2. Deny Coastal Development Permit No. 2584085 and Site Development Permit No. 2584664, if the findings required to approve the project cannot be affirmed.

Respectfully submitted,

Oscar Galvez III

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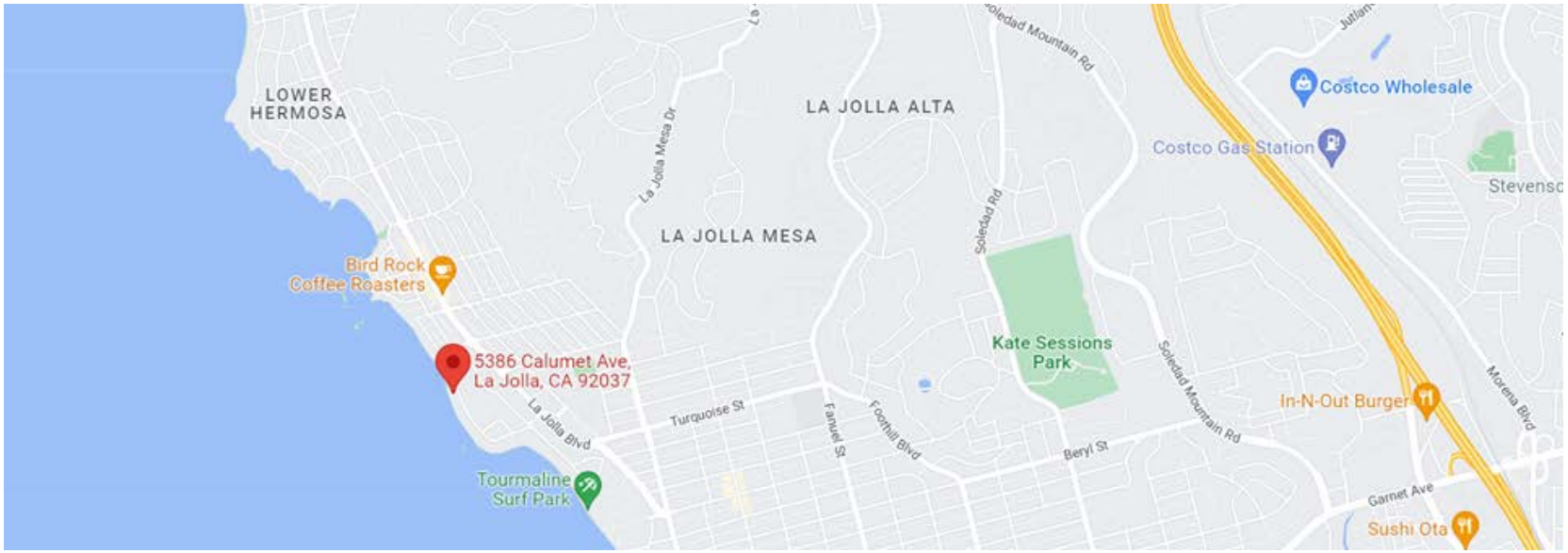
Oscar Galvez III, Development Project Manager

Attachments:

1. Project Location Map
2. Community Plan Land Use Map
3. Aerial Photograph
4. Draft Resolution with Findings
5. Draft Permit with Conditions
6. Environmental Exemption
7. Community Planning Group Recommendation
8. Ownership Disclosure Statement

9. Project Plans
10. Geotechnical Report (ENGEO Incorporated)



Project Location Map

Calumet Avenue
Project No. 696586 - 5386 Calumet Av.

North

ATTACHMENT 1

Project Site

Land Use Map

Calumet Avenue
Project No. 696586 - 5386 Calumet Av.

North

ATTACHMENT 2

Aerial Photograph

Calumet Avenue
Project No. 696586 - 5386 Calumet Av.

North

ATTACHMENT 3

HEARING OFFICER
RESOLUTION NO. _____
COASTAL DEVELOPMENT PERMIT NO. 2584085
SITE DEVELOPMENT PERMIT NO. 2584664
5386 CALUMET AVENUE - PROJECT NO. 696586

WHEREAS, BARLOW CAPITAL INVESTMENTS, LLC, a California Limited Liability Company, Owner/Permittee, filed an application with the City of San Diego for a permit for the stabilization of a coastal bluff with erodible concrete fill over rubble fill (as described in and by reference to the approved Exhibits "A" and corresponding conditions of approval for the associated Permits No. 2584085 and No. 2584664), on portions of a 0.16-acre site;

WHEREAS, the project site is located at 5386 Calumet Avenue in the RS-1-7 Zone, Coastal Overlay (Appealable), Coastal Height Limit, Sensitive Coastal (Bluff), First Public Roadway, Transit Area Overlay, Transit Priority Area, and Parking Impact (Coastal and Beach Impact) Overlay Zones within the La Jolla Community Plan area;

WHEREAS, the project site is legally described as Lot 7 of Sun Gold Point, According to Map No. 3216, Filed in the County Recorder of San Diego County on April 14, 1955.

WHEREAS, on December 21, 2022, the City of San Diego, as Lead Agency, through the Development Services Department, made and issued an Environmental Determination that the project is exempt from the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) under CEQA Guideline Section 15303 (New construction or conversion of small structures); and there was no appeal of the Environmental Determination filed within the time period provided by San Diego Municipal Code Section 112.0520;

WHEREAS, on February 1, 2023, the Hearing Officer of the City of San Diego considered Coastal Development Permit No. 2584085 and Site Development Permit No. 2584664 pursuant to the Land Development Code of the City of San Diego;

BE IT RESOLVED by the Hearing Officer of the City of San Diego, that it adopts the following findings with respect to Coastal Development Permit No. 2584085 and Site Development Permit No. 2584664:

A. COASTAL DEVELOPMENT PERMIT [SDMC Section 126.0708]

1. Findings for all Coastal Development Permits:

a. The proposed coastal development will not encroach upon any existing physical accessway that is legally used by the public or any proposed public accessway identified in a Local Coastal Program land use plan; and the proposed coastal development will enhance and protect public views to and along the ocean and other scenic coastal areas as specified in the Local Coastal Program land use plan.

The site is located at 5386 Calumet Avenue within the La Jolla Community Plan and Local Coastal Program Land Use Plan (Community Plan). The proposed coastal development consists of the placement of approximately 25-foot-wide, 27-foot-high erodible concrete fill over an existing coastal notch. This notch is currently filled with debris from the de-commissioned coastal defense base that was located on the coastal bluff during World War II (WWII). The proposed repair consists of the demolition of an existing upper bluff wall; removal of rubble and other debris within the bluff failure area; construction of a replacement masonry wall behind the top of bluff five-foot setback; placement of erodible fill; placement of erodible concrete fill over rubble fill; and the modification of onsite drainage. The proposed project will not encroach upon the existing physical access way identified in the Community Plan and will improve access in the area because the WWII military debris that locally impedes access along the coast will be removed. The proposed coastal development will not interfere with public views of the ocean because the top of the proposed fill is located at an elevation that is approximately two feet below the surface of Calumet Avenue and will not interrupt any existing view corridor.

The proposed infill would be constructed behind the property line. Therefore, the proposed project will not encroach upon any existing physical accessway that is legally used by the public or any proposed public accessway identified in a Local Coastal Program land use plan; and the proposed coastal development will enhance and protect public views to and along the ocean and other scenic coastal areas as specified in the Local Coastal Program land use plan.

b. The proposed coastal development will not adversely affect environmentally sensitive lands.

The 0.16-acre site is in the RS-1-7 Zone, Coastal Overlay (Appealable), Coastal Height Limit, and Sensitive Coastal Bluff Zones. Per the geotechnical report, which has been reviewed and accepted by the City of San Diego Development Services Department, the proposed project is the minimum possible repair to the coastal bluff and will not

adversely affect environmentally sensitive lands in the form of coastal bluffs. The proposed repair consists of the demolition of an existing upper bluff wall; removal of rubble and other debris within the bluff failure area; construction of a replacement masonry wall behind the top of bluff five-foot setback; placement of erodible fill; placement of erodible concrete fill over rubble fill; and the modification of onsite drainage. Currently, debris occasionally spills out from the coastal notch. The adjacent bluffs will not be affected by this project.

ENGEO performed a geotechnical study and prepared a geotechnical report for the bluff failure that occurred at 5386 Calumet Avenue. The section of coastline for the proposed project is characterized by steep coastal bluffs comprised of relatively erosion-resistant Cretaceous strata (Point Loma or Cabrillo Formations) at the bluff base and less resistant upper-bluff terrace deposits, with a narrow cobble beach at the base of the bluff. The bluff in the project area is located in a high-energy wave environment subject to direct wave impact. As a result of wave-induced erosion, various types of coastal fortification have been previously installed in the project area, incorporating rock revetments, concrete-filled sandbags, and gunite-covered bluffs (ENGEO, Geotechnical Study).

Based on ENGEO's review of existing documents and site investigation and slope stability analyses, ENGEO recommends the installation of erodible concrete fill to provide protection of the remaining fill and to support the existing residential structure. It is ENGEO opinion that if immediate action is not taken, continued erosion will result in additional loss of the bluff top, ultimately leading to failure of a portion of the house. The failure will not only jeopardize the integrity of the house but could also be dangerous for the beach-going public and bluff-top inhabitants alike (ENGEO, Geotechnical Study).

Rincon Consultants, Inc. (Rincon) was retained by the property owner to conduct an archaeological resources study for the proposed stabilization efforts at 5386 Calumet Avenue. The South Coastal Information Center (SCIC) records search identified 24 previously recorded cultural resources within a 0.5-mile radius of the project site, none of which are within the project site. The resources include 11 historic era buildings, seven groupings of historic era curb stamps, three historic era refuse scatters, one prehistoric campsite, one isolated prehistoric metate and mano, and one isolated historic era glass insulator. Additionally, 40 previously conducted cultural resources studies were performed within a 0.5-mile radius of the project site, none of which include the project site (Rincon, Archaeological Resources Report Form).

The design is considered the minimum necessary to stabilize and protect the existing residence and improvements that are currently undermined as a result of recent failures and is considered necessary for stabilization. Therefore, the proposed coastal development will not adversely affect environmentally sensitive lands.

c. The proposed coastal development is in conformity with the certified Local Coastal Program land use plan and complies with all regulations of the certified Implementation Program.

The proposed project will not interfere with lateral public access along the shoreline, and due to the project's proposed cleanup of existing debris on the beach, it will improve beachgoing access along the shoreline and into the ocean. Per the Natural Resources and Open Space section of the Community Plan, Policy 4(c) requires "a geotechnical report for all bluff top development to document that the site is stable enough to support the proposed development in accordance with the Environmentally Sensitive Lands regulations." ENGEO performed a geotechnical study and prepared a geotechnical report for the bluff failure that occurred at 5386 Calumet Avenue which was reviewed and accepted by geology.

Policy 4(e) recommends that "new shoreline protective devices to be consistent in design, materials and in color with the existing natural environment" (Community Plan; Natural Resources and Open Space section). The proposed stabilization would consist of filling in the failed area with a textured and colored, low-strength concrete mix designed to blend into the natural coastal bluff.

In addition, Policy 4(g) recommends "surface drainage away from the bluff towards the street or into special drainage facilities that have been equipped to divert water runoff from flowing over the bluff. The proposed coastal development includes improvements to bluff-top drainage and directs stormwater flow to the street rather than over the coastal bluff.

The proposed project is the minimum possible repair to the coastal bluff and will not adversely affect environmentally sensitive lands. Therefore, the proposed coastal development is in conformity with the certified Local Coastal Program land use plan and complies with all regulations of the certified Implementation Program.

d. For every Coastal Development Permit issued for any coastal development between the nearest public road and the sea or the shoreline of any body of water located within the Coastal Overlay Zone the coastal development is in conformity with the public access and public recreation policies of Chapter 3 of the California Coastal Act.

The proposed infill would be constructed behind the property line. The proposed project will not interfere with lateral public access along the shoreline, and due to the project's proposed cleanup of existing debris on the beach will improve pedestrian access along the shoreline. Public recreation will also be improved with the removal of concrete debris along the shoreline which could be considered hazardous to beachgoers entering and leaving the ocean. Therefore, the proposed project is in conformity with the public access and public recreation policies of Chapter 3 of the California Coastal Act.

B. SITE DEVELOPMENT PERMIT [SDMC Section 126.0505]

2. <u>Findings for all Site Development Permits:</u>

a. The proposed development will not adversely affect the applicable land use plan.

The 0.16-acre site is in the RS-1-7 Zone and doesn't include the expansion of the existing residence. The project site includes an existing single-family residence within an established residential area in the La Jolla Community Plan and Local Coastal Program Land Use Plan (Community Plan). The project scope includes a permit for the stabilization of the coastal bluff with erodible concrete fill over rubble fill.

Per the Natural Resources and Open Space section of the Community Plan, Policy 4(c) requires "a geotechnical report for all bluff top development to document that the site is stable enough to support the proposed development in accordance with the Environmentally Sensitive Lands regulations." ENGEO performed a geotechnical study and prepared a geotechnical report for the bluff failure that occurred at 5386 Calumet Avenue which was reviewed and accepted by geology.

Policy 4(e) recommends that "new shoreline protective devices to be consistent in design, materials and in color with the existing natural environment" (Community Plan; Natural Resources and Open Space section). The proposed stabilization would consist of filling in the failed area with a textured and colored, low-strength concrete mix designed to blend into the natural coastal bluff.

In addition, Policy 4(g) recommends "surface drainage away from the bluff towards the street or into special drainage facilities that have been equipped to divert water runoff from flowing over the bluff. The proposed coastal development includes improvements to bluff-top drainage and directs stormwater flow to the street rather than over the coastal bluff.

Based on ENGEO's review of existing documents and site investigation and slope stability analyses, ENGEO recommends the construction of an erodible concrete fill to provide protection of the remaining fill and to support to the existing residential structure. The proposed stabilization would consist of filling in the failed area with a textured and colored, low-strength concrete mix designed to blend into the natural coastal bluff. It is ENGEO's opinion that if immediate action is not taken, continued erosion will result in additional loss of the bluff top, ultimately leading to the failure of a portion of the house.

The bluff repair work will not alter the natural character of the bluff face, restrict public access, or encroach onto public property. The proposed project is the minimum possible repair to the coastal bluff and will not adversely affect environmentally sensitive lands. Therefore, the proposed project will not adversely affect the applicable land use plan.

b. The proposed development will not be detrimental to the public health, safety, and welfare.

The proposed project will enhance public health, safety, and welfare by removing broken concrete slabs, rusting rebar, rubble from the beach, and by eliminating the potential of additional rubble fill from spilling out onto the beach below due to continued bluff failure. Due to bluff failure, bluff top improvements have been undermined and have fallen onto the beach below and if not repaired will continue to fall onto the beach, endangering beachgoers. The proposed design is considered to be the minimum necessary to stabilize and protect the existing residence and improvements that are currently undermined as a result of recent failures and is considered necessary for bluff stabilization.

Per San Diego Municipal Code Section 143.0143(g), a geotechnical report shall identify the type and design of the erosion control measure necessary for the protection of the existing primary structures, based on site-specific conditions and analysis of alternatives. The Owner/Permittee submitted a Geotechnical Report which provided recommendations for the repair necessary to stabilize the coastal bluff and the improvements located at the top of the bluff. The Geotechnical Report has been reviewed and accepted by the City of San Diego Development Services Department. Therefore, the proposed project will not be detrimental to the public health, safety, and welfare.

c. The proposed development will comply with the regulations of the Land Development Code including any allowable deviations pursuant to the Land Development Code.

Per San Diego Municipal Code Section 143.0143(g), Coastal bluff repair and erosion control measures may occur on the bluff face only if they comply with the following (1 -4):

(1) Coastal bluff repair and erosion control measures may be allowed on the coastal bluff face only if determined to be the only feasible means of erosion control and when necessary, to protect the existing primary structures or to protect public improvements that cannot feasibly be relocated.

ENGEO performed a geotechnical study and prepared a geotechnical report for the bluff failure that occurred at 5386 Calumet Avenue. The section of coastline for the proposed project is characterized by steep coastal bluffs comprised of relatively erosion-resistant Cretaceous strata (Point Loma or Cabrillo Formations) at the bluff base and less resistant upper-bluff terrace deposits, with a narrow cobble beach at the base of the bluff. The bluff in the project area is located in a high-energy wave environment subject to direct wave impact. As a result of wave-induced erosion, various types of coastal fortification have been previously installed in the project area, incorporating rock revetments, concrete-filled sandbags, and gunite-covered bluffs (ENGEO, Geotechnical Study). Based on ENGEO's review of existing documents and site investigation and slope stability analyses, ENGEO recommends the construction of an erodible concrete fill to provide protection of the remaining fill and to support to the existing residential structure. It is ENGEO's opinion that if

immediate action is not taken, continued erosion will result in additional loss of the bluff top, ultimately leading to failure of a portion of the house. The failure will not only jeopardize the integrity of the house but could also be dangerous for the beach-going public and bluff-top inhabitants alike (ENGEO, Geotechnical Study).

(2) Coastal bluff repair and erosion control measures shall not cause significant alteration of the natural character of the bluff face.

The proposed stabilization would consist of infilling the failed area with a textured and colored, low-strength concrete mix designed to blend into the natural coastal bluff. The design is considered the minimum necessary to stabilize and protect the existing residence and improvements that are currently undermined as a result of recent failures and is considered necessary for stabilization.

(3) The applicant shall submit a geotechnical report that documents the need for an erosion control measure to the City Manager. The geotechnical report shall identify the type and design of the erosion control measure necessary for protection of the existing primary structures, based upon site-specific conditions and analysis of alternatives. The report must be accepted as adequate by the City Manager before any erosion control measures can be approved.

Per the geotechnical report, which has been reviewed and accepted by the City of San Diego Development Services Department, the proposed project is the minimum possible repair to the coastal bluff and will not adversely affect environmentally sensitive lands in the form of coastal bluffs.

(4) Air-placed concrete, including gunite or shotcrete, retaining walls, fills or other similar erosion control measures shall be designed and implemented in accordance with generally accepted engineering standards and specifications and shall also incorporate existing and adjacent landform characteristics including color coating, texturing, landscape, and topographical features.

The proposed stabilization would consist of filling in the failed area with a textured and colored, low-strength concrete mix designed to blend into the natural coastal bluff.

(5) Where erosion control measures are proposed to encroach upon or affect any portion of property owned by the City of San Diego, the applicant shall provide written permission from the City Manager before approval of any permit. Documentation of this approval shall be recorded with the conditions of permit approval.

No erosion control measures are proposed to encroach upon or affect any portion of property owned by the City of San Diego. No deviations are proposed. Therefore, the

proposed project is in conformity with the certified Local Coastal Program land use plan and complies with all regulations of the certified Implementation Program.

3. <u>Supplemental Findings-Environmentally Sensitive Lands:</u>

a. The site is physically suitable for the design and siting of the proposed development and the development will result in minimum disturbance to environmentally sensitive lands.

Per the geotechnical report, which has been reviewed and accepted by the City of San Diego Development Services Department, the proposed project is the minimum possible repair to the coastal bluff and will not adversely affect environmentally sensitive lands. The erodible concrete infill will cap the debris in place. Currently, debris occasionally spills out from the coastal notch. The adjacent bluffs will not be affected by this project. The design is considered the minimum necessary to stabilize and protect the existing residence and improvements that are currently undermined as a result of recent failures and is considered necessary for stabilization.

ENGEO performed a geotechnical study on September 30, 2021 and prepared this geotechnical report for the bluff failure that occurred at 5386 Calumet Avenue. The section of coastline for the proposed project is characterized by steep coastal bluffs comprised of relatively erosion-resistant Cretaceous strata (Point Loma or Cabrillo Formations) at the bluff base and less resistant upper-bluff terrace deposits, with a narrow cobble beach at the base of the bluff. The bluff in the project area is located in a high-energy wave environment subject to direct wave impact. As a result of wave-induced erosion, various types of coastal fortification have been previously installed in the project area, incorporating rock revetments, concrete-filled sandbags, and gunite-covered bluffs (ENGEO, Geotechnical Study).

Based on ENGEO's review of existing documents and site investigation and slope stability analyses, ENGEO recommends the construction of an erodible concrete infill to provide protection of the remaining fill and to support to the existing residential structure. The proposed stabilization would consist of infilling the failed area with a textured and colored, low-strength concrete mix designed to blend into the natural coastal bluff. It is ENGEO opinion that if immediate action is not taken, continued erosion will result in additional loss of the bluff top, ultimately leading to failure of a portion of the house. The failure will not only jeopardize the integrity of the house but could also be dangerous for the beach-going public and bluff-top inhabitants alike (ENGEO, Geotechnical Study).

Rincon Consultants, Inc. (Rincon) was retained by the property owner to conduct an archaeological resources study for the proposed stabilization efforts at 5386 Calumet Avenue. The SCIC records search identified 24 previously recorded cultural resources within a 0.5-mile radius of the project site, none of which are within the project site. The resources include 11 historic era buildings, seven groupings of historic era curb stamps, three historic era refuse scatters, one prehistoric campsite, one isolated prehistoric metate and mano, and one isolated historic era glass insulator. Additionally, 40 previously conducted cultural resources studies were

performed within a 0.5-mile radius of the project site, none of which include the project site (Rincon, Archaeological Resources Report Form).

Therefore, the site is physically suitable for the design and siting of the proposed development and the development will result in minimum disturbance to environmentally sensitive lands.

b. The proposed development will minimize the alteration of natural landforms and will not result in undue risk from geologic and erosional forces, flood hazards, or fire hazards.

San Diego Municipal Code Section 143.0143(b), states that the proposed grading shall minimize the alteration of natural landforms and graded areas shall topographically resemble natural landforms of the surrounding area". This project does not propose to alter natural landforms but will cap in place the remnants of World War II Coastal Defense rubble that were placed in a coastal gully/notch after the war ended and the bluff top military base was dismantled. The proposed project will not result in undue risk from geologic and erosional forces. Stabilization of the rubble fill will reduce the risk of additional erosion of the fill. The project will not result in undue risk from flood or fire hazards. Bluff top stormwater runoff which currently flows over the bluff face will be captured and redirected out to the curb on Calumet Avenue, thereby reducing coastal erosion.

The proposed stabilization would include clearing the old construction debris at the base of the infill, excavating an approximately two-foot-deep keyway into the Point Loma Formation soils, and constructing a minimum four-foot-thick erodible concrete fill slope below elevation +16 feet, and a minimum three-foot-thick above elevation +16 feet to contain and protect the loose fill soils from marine erosion. The proposed infill would be constructed behind the property line. Post-grout pipes would be installed extending behind the erodible concrete fill to fill any remaining voids and consolidate the debris fill soils. Subdrains would be drilled and extended through the erodible concrete and debris fill along the formational contact into the Cabrillo Formation.

Per the geotechnical report, which has been reviewed and accepted by the City of San Diego Development Services Department, the proposed development will minimize the alteration of natural landforms and will not result in undue risk from geologic and erosional forces, flood hazards, or fire hazards.

c. The proposed development will be sited and designed to prevent adverse impacts on any adjacent environmentally sensitive lands.

The proposed infill would be constructed behind the property line. The proposed project will not interfere with lateral public access along the shoreline, and due to the project's proposed cleanup of existing debris on the beach will improve pedestrian access along the shoreline. The proposed development is targeted strictly on capping the eroding rubble fill from the bluff and does not propose to impact any of the surrounding coastal bluffs or the beach. The design is considered the

minimum necessary to stabilize and protect the existing residence and improvements that are currently undermined as a result of recent failures and is considered necessary for stabilization.

Per San Diego Municipal Code Section 143.0143(g), a geotechnical report shall identify the type and design of the erosion control measure necessary for the protection of the existing primary structures, based on site-specific conditions and analysis of alternatives. The Owner/Permittee submitted a Geotechnical Report that has been reviewed and accepted by the City of San Diego Development Services Department.

In addition, Rincon Consultants, Inc. (Rincon) was retained by the property owner to conduct an archaeological resources study for the proposed stabilization efforts at 5386 Calumet Avenue. The SCIC records search identified 24 previously recorded cultural resources within a 0.5-mile radius of the project site, none of which are within the project site. The resources include 11 historic era buildings, seven groupings of historic era curb stamps, three historic era refuse scatters, one prehistoric campsite, one isolated prehistoric metate and mano, and one isolated historic era glass insulator. Additionally, 40 previously conducted cultural resources studies were performed within a 0.5-mile radius of the project site, none of which include the project site (Rincon, Archaeological Resources Report Form).

Therefore, the proposed project will not have adverse impacts on any adjacent environmentally sensitive lands.

d. The proposed development will be consistent with the City of San Diego's Multiple Species Conservation Program (MSCP) Subarea Plan and Vernal Pool Habitat Conservation Plan (VPHCP).

The proposed infill would be constructed behind the property line. The proposed project is not located within the City of San Diego's Multiple Species Conservation Program (MSCP) Subarea Plan and Vernal Pool Habitat Conservation Plan (VPHCP) boundaries.

e. The proposed development will not contribute to the erosion of public beaches or adversely impact local shoreline sand supply.

The proposed infill would be constructed behind the property line. The proposed development will not contribute to the erosion of public beaches or adversely impact local shoreline sand supply as the only portion of the existing bluff that will be capped is an existing coastal gully/notch filled with rubble. The remainder of the bluff face at the property will be left in a natural state to erode and contribute to the shoreline sand supply. The design is considered the minimum necessary to stabilize and protect the existing residence and improvements that are currently undermined as a result of recent failures and is considered necessary for stabilization.

Based on ENGEO's review of existing documents and site investigation and slope stability analyses, ENGEO recommends the construction of an erodible concrete infill

to provide protection of the remaining fill and to support to the existing residential structure. It is ENGEO opinion that if immediate action is not taken, continued erosion will result in additional loss of the bluff top, ultimately leading to failure of a portion of the house. The failure will not only jeopardize the integrity of the house but could also be dangerous for the beach-going public and bluff-top inhabitants alike (ENGEO, Geotechnical Study). Therefore, the proposed development will not contribute to the erosion of public beaches or adversely impact local shoreline sand supply.

f. The nature and extent of mitigation required as a condition of the permit is reasonably related to, and calculated to alleviate, negative impacts created by the proposed development.

Mitigation is not required as a condition of the permit. The project will include the removal of debris currently on the beach and bluff and will prevent additional rubble from spilling onto the beach and causing hazards to beachgoers. The natural portions of the bluff will not be negatively impacted by the project, and the erodible concrete cap over the rubble will be carved and colored to march the existing bluff. The design is considered the minimum necessary to stabilize and protect the existing residence and improvements that are currently undermined as a result of recent failures and is considered necessary for stabilization.

The above findings are supported by the minutes, maps and exhibits, all of which are incorporated herein by this reference.

BE IT FURTHER RESOLVED that, based on the findings hereinbefore adopted by the Hearing Officer, Coastal Development Permit No. 2584085 and Site Development Permit No. 2584664 is hereby GRANTED by the Hearing Officer to the referenced Owner/Permittee, in the form, exhibits, terms, and conditions as set forth in Permit No. 2584085 and 2584664, a copy of which is attached hereto and made a part hereof.

Oscar Galvez III
Development Project Manager
Development Services Department

Adopted on: February 1, 2023

IO#: 24009075

RECORDING REQUESTED BY
CITY OF SAN DIEGO
DEVELOPMENT SERVICES
PERMIT INTAKE,
MAIL STATION 501

WHEN RECORDED MAIL TO
PROJECT MANAGEMENT
PERMIT CLERK
MAIL STATION 501

INTERNAL ORDER NUMBER: 24009075 SPACE ABOVE THIS LINE FOR RECORDER'S USE

COASTAL DEVELOPMENT PERMIT NO. 2584085
SITE DEVELOPMENT PERMIT NO. 2584664
5386 CALUMET AVENUE - PROJECT NO. 696586
HEARING OFFICER

Coastal Development Permit No. 2584085 and Site Development Permit No. 2584664 are granted by the Hearing Officer of the City of San Diego to BARLOW CAPITAL INVESTMENTS, LLC, a California Limited Liability Company, Owner/Permittee, pursuant to San Diego Municipal Code [SDMC] sections 126.0708 and 126.0505. The 0.16-acre site is located at 5386 Calumet Avenue in the RS-1-7 Zone, Coastal Overlay (Appealable), Coastal Height Limit, Sensitive Coastal (Bluff), First Public Roadway, Transit Area Overlay, and Transit Priority Area, and Parking Impact (Coastal and Beach Impact) Overlay Zones within the La Jolla Community Plan area. The project site is legally described as: Lot 7 of Sun Gold Point, According to Map No. 3216, Filed in the County Recorder of San Diego County on April 14, 1955.

Subject to the terms and conditions set forth in this Permit, permission is granted to the Owner/Permittee for stabilization of coastal bluff with erodible concrete fill over rubble fill described and identified by size, dimension, quantity, type, and location on the approved exhibits [Exhibit "A"] dated February 1, 2023, on file in the Development Services Department.

The project shall include:

a. Demolition of an existing upper bluff wall and removal of rubble and other debris within the bluff failure area;

b. Installation of temporary erosion control, construction of a replacement 24-inch high masonry upper bluff wall behind the top of bluff five-foot setback, placement of erodible fill, placement of erodible concrete fill over rubble fill, redirection of drainage currently flowing over bluff out to existing gutter at Calumet Avenue, installation of drainage piping/gutter out to existing gutter at Calumet Avenue and relocation of three posts (landward the from bluff edge) and post foundations for existing rear patio; and

c. Public and private accessory improvements determined by the Development Services Department to be consistent with the land use and development standards for this site in accordance with the adopted community plan, the California Environmental Quality Act

[CEQA] and the CEQA Guidelines, the City Engineer's requirements, zoning regulations, conditions of this Permit, and any other applicable regulations of the SDMC.

STANDARD REQUIREMENTS:

1. This permit must be utilized within thirty-six (36) months after the date on which all rights of appeal have expired. If this permit is not utilized in accordance with Chapter 12, Article 6, Division 1 of the SDMC within the 36-month period, this permit shall be void unless an Extension of Time has been granted. Any such Extension of Time must meet all SDMC requirements and applicable guidelines in effect at the time the extension is considered by the appropriate decision-maker. This permit must be utilized by February 15, 2026.

2. This Coastal Development Permit shall become effective on the eleventh working day following receipt by the California Coastal Commission of the Notice of Final Action or following all appeals.

3. No permit for the construction, occupancy, or operation of any facility or improvement described herein shall be granted, nor shall any activity authorized by this Permit be conducted on the premises until:

   a. The Owner/Permittee signs and returns the Permit to the Development Services Department; and

   b. The Permit is recorded in the Office of the San Diego County Recorder.

4. While this Permit is in effect, the subject property shall be used only for the purposes and under the terms and conditions set forth in this Permit unless otherwise authorized by the appropriate City decision-maker.

5. This Permit is a covenant running with the subject property and all of the requirements and conditions of this Permit and related documents shall be binding upon the Owner/Permittee and any successor(s) in interest.

6. The continued use of this Permit shall be subject to the regulations of this and any other applicable governmental agency.

7. Issuance of this Permit by the City of San Diego does not authorize the Owner/Permittee for this Permit to violate any Federal, State or City laws, ordinances, regulations or policies including, but not limited to, the Endangered Species Act of 1973 [ESA] and any amendments thereto (16 U.S.C. § 1531 et seq.).

8. The Owner/Permittee shall secure all necessary building permits. The Owner/Permittee is informed that to secure these permits, substantial building modifications and site improvements may be required to comply with applicable building, fire, mechanical, and plumbing codes, and State and Federal disability access laws.

9. Construction plans shall be in substantial conformity to Exhibit "A." Changes, modifications, or alterations to the construction plans are prohibited unless appropriate application(s) or amendment(s) to this Permit have been granted.

10. All of the conditions contained in this Permit have been considered and were determined necessary to make the findings required for approval of this Permit. The Permit holder is required to comply with each and every condition in order to maintain the entitlements that are granted by this Permit.

If any condition of this Permit, on a legal challenge by the Owner/Permittee of this Permit, is found or held by a court of competent jurisdiction to be invalid, unenforceable, or unreasonable, this Permit shall be void. However, in such an event, the Owner/Permittee shall have the right, by paying applicable processing fees, to bring a request for a new permit without the "invalid" conditions(s) back to the discretionary body which approved the Permit for a determination by that body as to whether all of the findings necessary for the issuance of the proposed permit can still be made in the absence of the "invalid" condition(s). Such hearing shall be a hearing de novo, and the discretionary body shall have the absolute right to approve, disapprove, or modify the proposed permit and the condition(s) contained therein.

CLIMATE ACTION PLAN REQUIREMENTS:

11. Owner/Permittee shall comply with the Climate Action Plan (CAP) Consistency Checklist stamped as Exhibit "A." Prior to issuance of any construction permit, all CAP strategies shall be noted within the first three (3) sheets of the construction plans under the heading "Climate Action Plan Requirements" and shall be enforced and implemented to the satisfaction of the Development Services Department.

ENGINEERING REQUIREMENTS:

12. Prior to the issuance of any building permit, the Owner/Permittee shall obtain an Encroachment Maintenance and Removal Agreement, for the private sidewalk under drain on Calumet Avenue right-of-way, satisfactory to the City Engineer.

13. Prior to the issuance of any building permit, the Owner/Permittee shall obtain a grading permit for the grading proposed for this project. All grading shall conform to requirements in accordance with the City of San Diego Municipal Code in a manner satisfactory to the City Engineer.

14. Prior to the issuance of any construction permit, the Owner/Permittee shall incorporate any construction Best Management Practices necessary to comply with Chapter 14, Article 2, Division 1 (Grading Regulations) of the San Diego Municipal Code, into the construction plans or specifications, satisfactory to the City Engineer.

15. Prior to the issuance of any construction permit, the Owner/Permittee shall submit a Water Pollution Control Plan (WPCP). The WPCP shall be drafted in accordance with Part 2, Chapter 4.2 and Appendix 'D' of the City of San Diego Storm Water Standards Manual.

LANDSCAPE REQUIREMENTS:

16. Prior to issuance of any construction permit for grading, the Owner/Permittee shall submit complete construction documents for the revegetation and hydro-seeding of all disturbed land in accordance with the City of San Diego Landscape Standards, Storm Water Design Manual, and to the satisfaction of the Development Services Department. All plans shall be in substantial conformance to this permit (including Environmental conditions) and Exhibit "A," on file in the Development Services Department.

17. The Owner/Permittee shall be responsible for the maintenance of all landscape improvements shown on the approved plans, including in the right-of-way, unless long-term maintenance of said landscaping will be the responsibility of another entity approved by the Development Services Department. All required landscape shall be maintained consistent with the Landscape Standards in a disease, weed, and litter-free condition at all times. Severe pruning or "topping" of trees is not permitted.

18. If any required landscape (including existing or new plantings, hardscape, landscape features, etc.) indicated on the approved construction documents is damaged or removed, the Owner/Permittee shall repair and/or replace in kind and equivalent size per the approved documents to the satisfaction of the Development Services Department within 30 days of damage or Final Inspection.

PLANNING/DESIGN REQUIREMENTS:

19. A topographical survey conforming to the provisions of the SDMC may be required if it is determined, during construction, that there may be a conflict between the building(s) under construction and a condition of this Permit or a regulation of the underlying zone. The cost of any such survey shall be borne by the Owner/Permittee.

20. All private outdoor lighting shall be shaded and adjusted to fall on the same premises where such lights are located and in accordance with the applicable regulations in the SDMC.

21. A visual corridor of not less than the side yard setbacks or no more than 10 feet in width, and running the full depth of the premises, shall be preserved and deed restricted.

INFORMATION ONLY:

- The issuance of this discretionary permit alone does not allow the immediate commencement or continued operation of the proposed use on site. Any operation allowed by this discretionary permit may only begin or recommence after all conditions listed on this permit are fully completed and all required ministerial permits have been issued and received a final inspection.

- Any party on whom fees, dedications, reservations, or other exactions have been imposed as conditions of approval of this Permit, may protest the imposition within ninety days of the

approval of this development permit by filing a written protest with the City Clerk pursuant to California Government Code-section 66020.

- This development may be subject to impact fees at the time of construction permit issuance.

APPROVED by the Hearing Officer of the City of San Diego on February 1, 2023, and [Approved Resolution Number].

Coastal Development Permit No. 2584085
Site Development Permit No. 2584664
Date of Approval: February 1, 2023

AUTHENTICATED BY THE CITY OF SAN DIEGO DEVELOPMENT SERVICES DEPARTMENT

_____
Oscar Galvez III
Development Project Manager

NOTE: Notary acknowledgment must be attached per Civil Code section 1189 et seq.

The undersigned Owner/Permittee, by execution hereof, agrees to each and every condition of this Permit and promises to perform each and every obligation of Owner/Permittee hereunder.

Barlow Capital Investments, LLC
Owner/Permittee

By _____
Sasha Lowther
Owner/Member

NOTE: Notary acknowledgments must be attached per Civil Code section 1189 et seq.

THE CITY OF SAN DIEGO

Date of Notice December 21, 2022

NOTICE OF RIGHT TO APPEAL ENVIRONMENTAL DETERMINATION

DEVELOPMENT SERVICES DEPARTMENT

SAP No. 24009075

PROJECT NAME/NUMBER: 5386 Calumet /696586

COMMUNITY PLAN AREA: La Jolla

COUNCIL DISTRICTS: 1

LOCATION: The project is located at 5386 Calumet Avenue, San Diego, CA

PROJECT DESCRIPTION: COASTAL DEVELOPMENT PERMIT (CDP) and SITE DEVELOPMENT PERMIT (SDP) for the stabilizing of a failing bluff at a site with an existing single-family residence. The project would remove the existing rubble and gunite stabilization improvements and infill the failed area with a textured and colored, low-strength concrete mix designed to blend into the natural coastal bluff. The proposed project is the minimum possible repair to the coastal bluff and will not adversely affect environmentally sensitive lands. The 0.16-acre site is in the RS-1-7 Zone, Coastal Overlay (Appealable), Coastal Height Limit, and Sensitive Coastal Bluff Zones within the La Jolla Community Plan area and Council District 1.

ENTITY CONSIDERING PROJECT APPROVAL: City of San Diego, Hearing Officer

ENVIRONMENTAL DETERMINATION: Section 15302 (Replacement or Reconstruction)

ENTITY MAKING ENVIRONMENTAL DETERMINATION: City of San Diego, Development Services Department

STATEMENT SUPPORTING REASON FOR ENVIRONMENTAL DETERMINATION: The City of San Diego conducted an environmental review which determined that the proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15302. CEQA Section 15302 allows for the replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site and will have substantially the same purpose and capacity as the structure being replaced. The proposed project would remove the old and failing bluff stabilization improvements and would replace them with new improvements on the same site that would serve the same purpose. No environmental impacts were identified for the proposed project and none of the exceptions described in CEQA Guidelines Section 15300.2 apply.

DEVELOPMENT PROJECT MANAGER: Oscar Galvez III
MAILING ADDRESS: 1222 First Avenue, MS 501, San Diego, CA 92101-4153
PHONE NUMBER/EMAIL: (619) 619-446-5237/ GalvezO@sandiego.gov

On December 21, 2022 the City of San Diego made the above-referenced environmental determination pursuant to the California Environmental Quality Act (CEQA). This determination is appealable to the City Council. If you have any questions about this determination, contact the City Development Project Manager listed above.

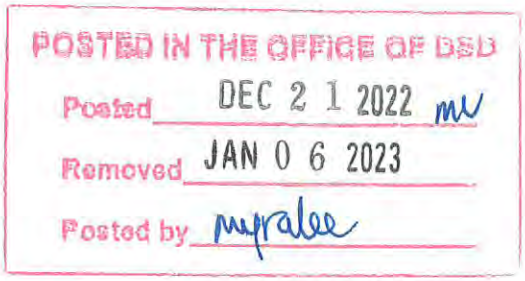
Applications to appeal CEQA determinations made by staff (including the City Manager) to the City Council must be filed in the office of the City Clerk within 10 business days from the date of the posting of this Notice so the final day to file an appeal is January 6, 2022.

During the Statewide "Safer-at-Home" directive to reduce the spread of COVID-19, beginning March 19, 2020, appeals to the City Clerk must be filed by email or US Mail as follows:

1) Appeals filed via E-mail: Send the appeal by email to Hearings1@sandiego.gov; your email appeal will be acknowledged within 24 hours. The appeal application can be obtained here. You must separately mail the appeal fee by check payable to the City Treasurer to: City Clerk/Appeal, MS 2A, 202 C Street, San Diego, CA 92101. The appeal filing fee must be postmarked within 5 business days of the date the appeal is filed.

2) Appeals filed via US Mail: Send the appeal by US Mail to City Clerk/Appeal, MS 2A, 202 C Street, San Diego, CA 92101. Appeals filed by US Mail must have a United States Postal Service (USPS) postmark by the appeal deadline to be considered valid. The appeal application can be obtained here. You must separately mail the required appeal fee by check payable to the City Treasurer to: City Clerk/Appeal, MS 2A, 202 C Street, San Diego, CA 92101. The appeal filing fee must be postmarked within 5 business days of the date the appeal is filed.

This information will be made available in alternative formats upon request.



City of San Diego
Development Services
1222 First Ave., MS-302
San Diego, CA 92101

Community Planning Committee Distribution Form

Project Name:	Project Number:
5386 Calumet/Freeman	696586

Community: La Jolla

For project scope and contact information (project manager and applicant), log into OpenDSD at https://aca.accela.com/SANDIEGO.

Select "Search for Project Status" and input the Project Number to access project information.

- ● Vote to Approve
- ❒ Vote to Approve with Conditions Listed Below
- ❒ Vote to Approve with Non-Binding Recommendations Listed Below
- ❒ Vote to Deny

Date of Vote: September 01, 2022

# of Members Yes	# of Members No	# of Members Abstain
14	0	1

Conditions or Recommendations:

❒ No Action
(Please specify, e.g., Need further information, Split vote, Lack of quorum, etc.)

NAME: Suzanne Baracchini

TITLE: LJCPA Trustee/Secretary

DATE: September 09, 2022

Attach additional pages if necessary (maximum 3 attachments).

City of San Diego
Development Services
1222 First Ave., MS 302
San Diego, CA 92101
(619) 446-5000

Ownership Disclosure Statement

FORM DS-318 October 2017

Approval Type: *Check appropriate box for type of approval(s) requested:* ❑ Neighborhood Use Permit ❑ Coastal Development Permit ❑ Neighborhood Development Permit ❑ Site Development Permit ❑ Planned Development Permit ❑ Conditional Use Permit ❑ Variance ❑ Tentative Map ❑ Vesting Tentative Map ❑ Map Waiver ❑ Land Use Plan Amendment • ❑ **Other** _____

Project Title: 5386 Calumet CDP/SDP **Project No. *For City Use Only*:** 696586

Project Address: 5386 Calumet Avenue, La Jolla, CA 92037

Specify Form of Ownership/Legal Status (please check):

❑ Corporation ☒ Limited Liability -or- ❑ General – What State? California Corporate Identification No. _____

❑ Partnership ❑ Individual

By signing the Ownership Disclosure Statement, the owner(s) acknowledge that an application for a permit, map or other matter will be filed with the City of San Diego on the subject property with the intent to record an encumbrance against the property. Please list below the owner(s), applicant(s), and other financially interested persons of the above referenced property. A financially interested party includes any individual, firm, co-partnership, joint venture, association, social club, fraternal organization, corporation, estate, trust, receiver or syndicate with a financial interest in the application. If the applicant includes a corporation or partnership, include the names, titles, addresses of all individuals owning more than 10% of the shares. If a publicly-owned corporation, include the names, titles, and addresses of the corporate officers. (A separate page may be attached if necessary.) If any person is a nonprofit organization or a trust, list the names and addresses of **ANY** person serving as an officer or director of the nonprofit organization or as trustee or beneficiary of the nonprofit organization. A signature is required of at least one of the property owners. Attach additional pages if needed. Note: The applicant is responsible for notifying the Project Manager of any changes in ownership during the time the application is being processed or considered. Changes in ownership are to be given to the Project Manager at least thirty days prior to any public hearing on the subject property. Failure to provide accurate and current ownership information could result in a delay in the hearing process.

Property Owner

Name of Individual: Sasha Lowther / Barlow capital investments LLC ☒ Owner ❑ Tenant/Lessee ❑ Successor Agency

Street Address: 8625 commerce ave

City: san Diego State: ca Zip: 92121

Phone No.: 619 770 40 36 Fax No.: _____ Email: exoticosjb@hotmail.com

Signature: Sasha Lowther Date: 09/29/2022

Additional pages Attached: ❑ Yes ❑ No

Applicant

Name of Individual: sasha lowther ☒ Owner ❑ Tenant/Lessee ❑ Successor Agency

Street Address: 5386 calumet

City: la jolla State: ca Zip: 92037

Phone No.: 619 770 4036 Fax No.: _____ Email: exoticosjb@hotmail.com

Signature: Sasha Lowther Date: _____

Additional pages Attached: ❑ Yes ❑ No

Other Financially Interested Persons

Name of Individual: none ❑ Owner ❑ Tenant/Lessee ❑ Successor Agency

Street Address: _____

City: _____ State: _____ Zip: _____

Phone No.: _____ Fax No.: _____ Email: _____

Signature: _____ Date: _____

Additional pages Attached: ❑ Yes ❑ No

DEVELOPMENT PERMIT PLANS FOR:
BLUFF STABILIZATION
5386 CALUMET AVENUE, LA JOLLA, CA

GENERAL NOTES

1. APPROVAL OF THESE PLANS BY THE CITY ENGINEER DOES NOT AUTHORIZE ANY WORK TO BE PERFORMED UNTIL A PERMIT HAS BEEN ISSUED.

2. THE APPROVAL OF THIS PLAN OR ISSUANCE OF A PERMIT BY THE CALIFORNIA COASTAL COMMISSION AND/OR THE CITY OF SAN DIEGO DOES NOT AUTHORIZE THE OWNER TO VIOLATE ANY FEDERAL, STATE OR CITY LAWS, ORDINANCES, REGULATIONS, OR POLICIES, INCLUDING, BUT NOT LIMITED TO, THE FEDERAL ENDANGERED SPECIES ACT OF 1973 AND AMENDMENTS THERETO (16 USC SECTION 1531 ET.SEQ.).

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DESTROYED, A LAND SURVEYOR SHALL REPLACE SUCH MONUMENTS WITH APPROPRIATE MONUMENTS. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT, SECTION 8771 OF THE BUSINESS AND PROFESSIONS CODE OF THE STATE OF CALIFORNIA. IF ANY VERTICAL CONTROL IS TO BE DISTURBED OR DESTROYED, THE CITY OF SAN DIEGO FIELD SURVEY SECTION MUST BE NOTIFIED, IN WRITING, AT LEAST 3 DAYS PRIOR TO THE CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPLACING ANY VERTICAL CONTROL BENCHMARKS DESTROYED BY THE CONSTRUCTION.

4. IMPORTANT NOTICE: SECTION 4216 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A ``PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT, TOLL FREE 1-800-422-4133, TWO DAYS BEFORE YOU DIG.

5. CONTRACTOR SHALL IMPLEMENT AN EROSION AND SEDIMENT CONTROL PROGRAM DURING THE PROJECT GRADING AND/OR CONSTRUCTION ACTIVITIES. THE PROGRAM SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE STATE WATER RESOURCE CONTROL BOARD AND THE CITY OF SAN DIEGO MUNICIPAL CODE AND STORM WATER STANDARDS MANUAL.

6. ``PUBLIC IMPROVEMENT SUBJECT TO DESUETUDE OR DAMAGE." IF REPAIR OR REPLACEMENT OF SUCH PUBLIC IMPROVEMENTS IS REQUIRED, THE OWNER SHALL OBTAIN THE REQUIRED PERMITS FOR WORK IN THE PUBLIC RIGHT-OF-WAY, SATISFACTORY TO THE PERMIT- ISSUING AUTHORITY.

7. ALL EXISTING AND/OR PROPOSED PUBLIC UTILITY SYSTEM AND SERVICE FACILITIES SHALL BE INSTALLED UNDERGROUND IN ACCORDANCE WITH SECTION 144.0240 OF THE MUNICIPAL CODE.

8. PRIOR TO ANY DISTURBANCE TO THE SITE, EXCLUDING UTILITY MARK-OUTS AND SURVEYING, THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR A PRE-CONSTRUCTION MEETING WITH THE CITY OF SAN DIEGO FIELD ENGINEERING DIVISION (858) 627-3200.

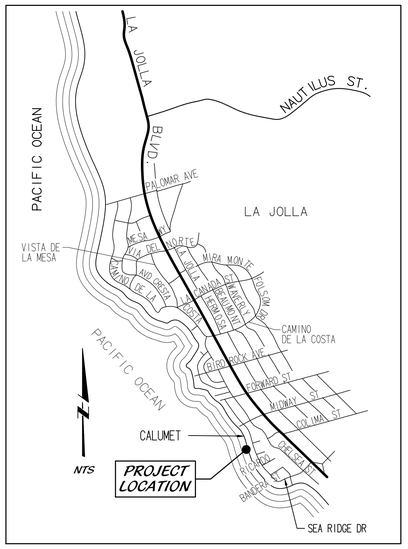
9. DEVIATIONS FROM THESE SIGNED PLANS WILL NOT BE ALLOWED UNLESS A CONSTRUCTION CHANGE IS APPROVED BY THE CITY ENGINEER OR THE CHANGE IS REQUIRED BY THE CITY INSPECTOR.

10. AS-BUILT DRAWINGS MUST BE SUBMITTED TO THE RESIDENT ENGINEER PRIOR TO ACCEPTANCE OF THIS PROJECT BY THE CITY OF SAN DIEGO.

11. AN AS-GRADED GEOTECHNICAL REPORT AND A SET OF THE REDLINE GRADING PLANS SHALL BE SUBMITTED AT AREA 3 ON THE THIRD FLOOR OF DEVELOPMENT SERVICES WITHIN 30 CALENDAR DAYS OF THE COMPLETION OF GRADING. AN ADDITIONAL SET SHALL BE PROVIDED TO THE RESIDENT ENGINEER OF THE FIELD ENGINEERING DIVISION AT 9485 AERO DR.

12. THE AREA WHICH IS DEFINED AS A NON GRADING AREA AND WHICH IS NOT TO BE DISTURBED SHALL BE STAKED PRIOR TO START OF THE WORK. THE PERMIT APPLICANT AND ALL OF THEIR REPRESENTATIVES OR CONTRACTORS SHALL COMPLY WITH THE REQUIREMENTS FOR PROTECTION OF THIS AREA AS REQUIRED BY ANY APPLICABLE AGENCY. ISSUANCE OF THE CITY'S GRADING PERMIT SHALL NOT RELIEVE THE APPLICANT OR ANY OF THEIR REPRESENTATIVES OR CONTRACTORS FROM COMPLYING WITH ANY STATE OR FEDERAL REQUIREMENTS BY AGENCIES INCLUDING BUT NOT LIMITED TO CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, CALIFORNIA DEPARTMENT OF FISH AND GAME. COMPLIANCE MAY INCLUDE OBTAINING PERMITS, OTHER AUTHORIZATIONS, OR COMPLIANCE WITH MANDATES BY ANY APPLICABLE STATE OR FEDERAL AGENCY.

13. CONTRACTOR SHALL REMOVE AND REPLACE ALL UTILITY BOXES SERVING AS HANDHOLDS THAT ARE NOT IN "AS-NEW" CONDITION IN PROPOSED SIDEWALK. DAMAGED BOXES, OR THOSE THAT ARE NOT IN COMPLIANCE WITH CURRENT CODE SHALL BE REMOVED AND REPLACED WITH NEW BOXES, INCLUDING WATER, SEWER, TRAFFIC SIGNALS, STREET LIGHTS, DRY UTILITIES-SDG&E, COX, ETC. ALL NEW METAL LIDS SHALL BE SLIP RESISTANT (FRICTION FACTOR >/= 0.50) AND INSTALLED FLUSH WITH PROPOSED SIDEWALK GRADE. IF A SLIP RESISTANT METAL LID IS NOT COMMERCIALLY AVAILABLE FOR THAT USE, NEW BOXES AND LIDS SHALL BE INSTALLED.



VICINITY MAP
NOT TO SCALE

BENCHMARK AND SURVEY NOTES

BENCH MARK-CITY OF SAN DIEGO BRASS PLUG LOCATED AT THE NORTH CURB RETURN OF CALUMET AVENUE AND BANDERA STREET. ELEVATION 37.825 NAVD 29.

TOPOGRAPHY SOURCE

AERIAL TOPOGRAPHY SURVEY BY SAN-LO ERIAL SURVEYS.
FLIGHT DATE: DECEMBER 13, 2017, CONTROL & FIELD VERIFICATION BY TEAS LAND SURVEYING, DATED DECEMBER 13, 2017.

TOTAL DISTURBED AREA

<0.05 ACRES

GRADING QUANTITIES

GRADED AREA	0.021 ACRES	MAX. CUT DEPTH	0 FT.
CUT QUANTITIES	0 [CYD]	MAX CUT SLOPE RATIO	N/A
CONCRETE FILL QUANTITY	150 [CYD]	MAX. FILL DEPTH	4 FT.
(IMPORT) / EXPORT	150 [CYD]	MAX FILL SLOPE RATIO	N/A
MAX CUT DEPTH UNDER BUILDING FOOTPRINT			0 FT.
MAX CUT DEPTH OUTSIDE BUILDING FOOTPRINT			0 FT.
MAX FILL DEPTH UNDER BUILDING FOOTPRINT			0 FT.
MAX FILL DEPTH OUTSIDE BUILDING FOOTPRINT			0 FT.

SPECIAL NOTE:

1. IN ORDER TO REDUCE, CONTROL OR MITIGATE EROSION OF THE COASTAL BLUFF, ALL DRAINAGE FROM IMPROVEMENTS ON THE PREMISES SHALL BE DIRECTED AWAY FROM THE COASTAL BLUFF AND INTO THE GUTTER SYSTEM ON CALUMET AVENUE.

TOTAL PERVIOUS / IMPERVIOUS AREAS:

CURRENT IMPERVIOUS AREA:	4,982 S.F. (0.114 ACRES)
PROPOSED IMPERVIOUS AREA:	-14 S.F. (0.0 ACRES)
TOTAL IMPERVIOUS AREA:	4,968 S.F. (0.114 ACRES)
CURRENT PERVIOUS AREA:	1,818 S.F. (0.042 ACRES)
PROPOSED PERVIOUS AREA:	+14 S.F. (0.0) ACRES)
TOTAL AREA OF DISTURBANCE:	1,030 S.F. (0.023 ACRES)

PROJECT DATA

PROJECT TEAM: DESIGN ENGINEER: ENGINEERING GEOLOGIST:	TERRACOSTA CONSULTING GROUP WALTER F. CRAMPTON, RCE GREGORY SPAULDING, CEG 3890 MURPHY CANYON ROAD, STE 200 SAN DIEGO, CALIFORNIA 92123 (858) 573-6900
SITE ADDRESS:	5386 CALUMET AVENUE LA JOLLA, CA 92037
LEGAL DESCRIPTION:	LOT 7 OF SUN GOLD POINT, MAP 3216
ASSESSOR PARCEL NO.:	APN 415-021-01-00
OWNER NAME & ADDRESS:	BARLOW CAPITAL INVESTMENTS LLC, SASHA LOWTHER 8565 EL PASEO GRANDE, LA JOLLA, CA
EXISTING & PROPOSED USE:	SINGLE FAMILY RESIDENCE
YEAR CONSTRUCTED:	1962
LANDSCAPE AREA (S.F.):	1,340 S.F. (.031 ACRES)
ZONING DESIGNATION:	RS-1-7
LOT SIZE:	6,800 S.F. (0.156 ACRES)
SETBACKS: FRONT SIDE REAR	 15 FEET 5'-6" FEET 10 FEET
OVERLAY ZONES:	COASTAL OVERLAY ZONE, COASTAL HEIGHT LIMIT, FIRST PUBLIC ROADWAY, PARKING IMPACT, RESIDENTIAL TANDEM PARKING, TRANSIT AREA, SENSITIVE COASTAL, COASTAL BLUFF, SENSITIVE VEGETATION, PALEONTOLOGICAL SENSITIVITY

APPROVALS NEEDED:

THIS PROJECT REQUIRES THE FOLLOWING DISCRETIONARY PERMITS/APPROVALS:

- COASTAL DEVELOPMENT PERMIT (CONSOLIDATED)
- SITE DEVELOPMENT PERMIT

PROJECT SCOPE OF WORK:

THIS PROJECT CONSISTS OF THE FOLLOWING:

- INSTALLATION OF TEMPORARY EROSION CONTROL.
- REMOVAL OF RUBBLE AND OTHER DEBRIS WITHIN BLUFF FAILURE AS REQUIRED TO PLACE ERODIBLE FILL
- PLACEMENT OF ERODIBLE CONCRETE FILL OVER RUBBLE FILL
- DEMOLITION OF UPPER BLUFF WALL AND RECONSTRUCTION BEHIND 5-FOOT SETBACK
- DIRECT DRAINAGE CURRENTLY FLOWING OVER BLUFF OUT TO GUTTER AT CALUMET AVENUE

SHEET INDEX

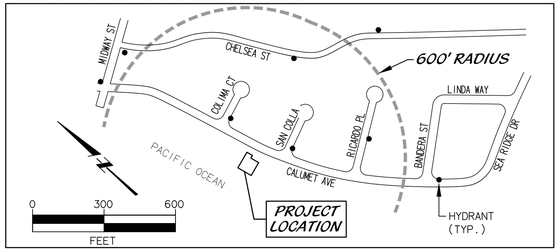
PAGE NO.	SHT. NO.	DESCRIPTION
TS01	1	TITLE SHEET & NOTES
C01	2	EXISTING SITE PLAN & SECTION
C02	3	DEMOLITION SITE PLAN & SECTION
C03	4	PROPOSED SITE PLAN
C04	5	PROPOSED DRAINAGE PLAN
C05	6	PROPOSED GRADING PLAN
C06	7	EROSION CONTROL & LANDSCAPE PLAN

DRONE PHOTO TAKEN MAY 28, 2020

LEGEND

EXISTING IMPROVEMENTS	STD. DWGS.	SYMBOL
PROPERTY LINE		
CONTOUR		10
WALL		
EASEMENT LINE		
SETBACK LINE		
STORM DRAIN		SD
DOWNSPOUT		DS
DIRECTION OF DRAINAGE		
PROPOSED IMPROVEMENTS		
ERODIBLE CONCRETE INFILL		
SUMP VAULT		
CHANNEL DRAIN		
SIDEWALK UNDERDRAIN	D-27	

FIRE HYDRANT LOCATION MAP



REGISTERED PROFESSIONAL ENGINEER
WALTER F. CRAMPTON
No. 23792
Exp. 12/31/23
CIVIL
STATE OF CALIFORNIA

TERRACOSTA CONSULTING GROUP
an ENGEO Company
3890 MURPHY CANYON ROAD, SUITE 200
SAN DIEGO, CALIFORNIA 92123
(858) 573-6900

PRIVATE CONTRACT

DEVELOPMENT PERMIT PLANS FOR:

BLUFF STABILIZATION
5386 CALUMET AVENUE

SHEET TITLE:

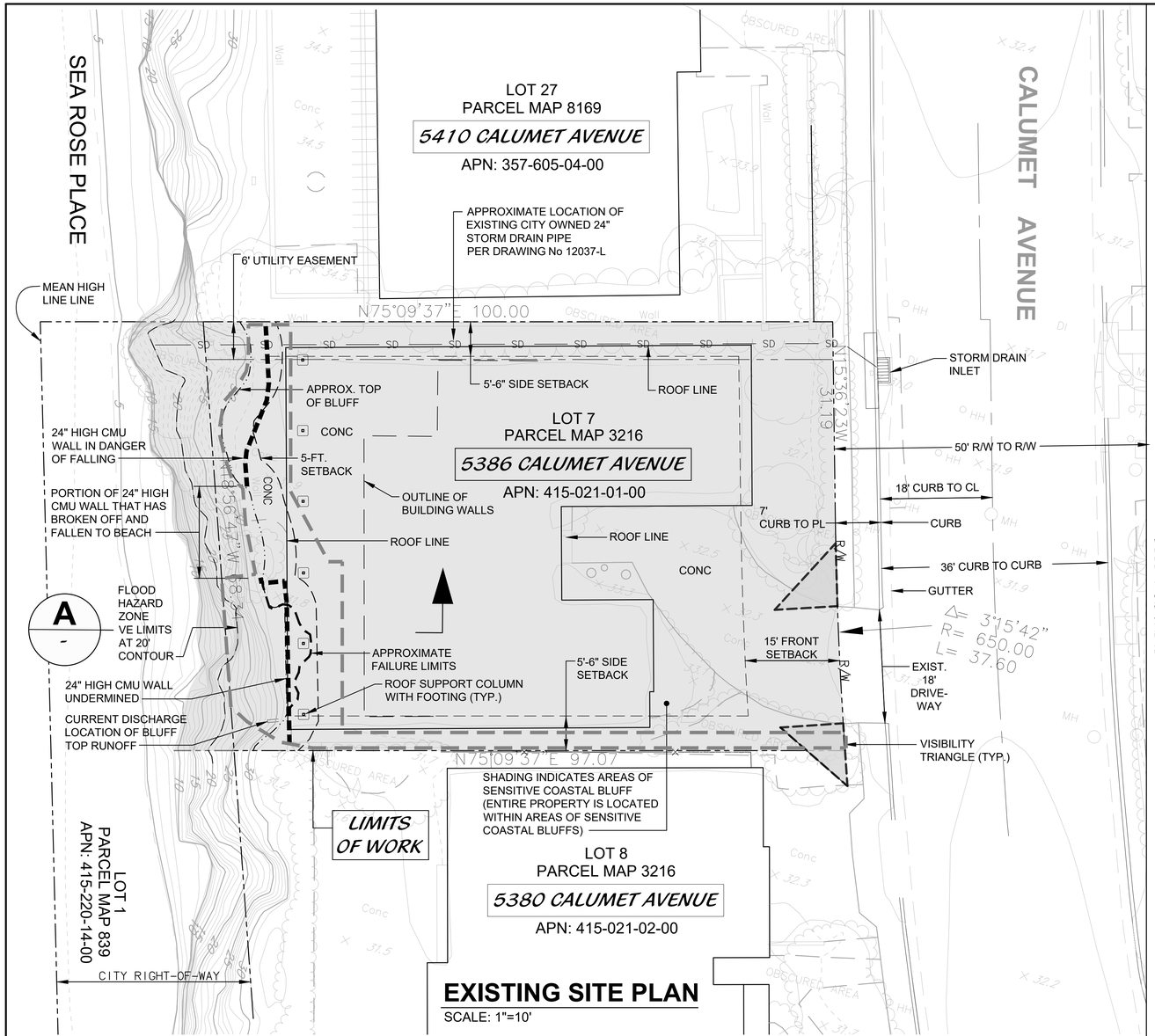
TITLE SHEET & NOTES

CITY OF SAN DIEGO, CALIFORNIA
DEVELOPMENT SERVICES DEPARTMENT
SHEET 1 OF 7 SHEETS

PROJECT NO. 696586
1875-6249 NAD 83 COORDINATES
235-1688 LAMBERT COORDINATES

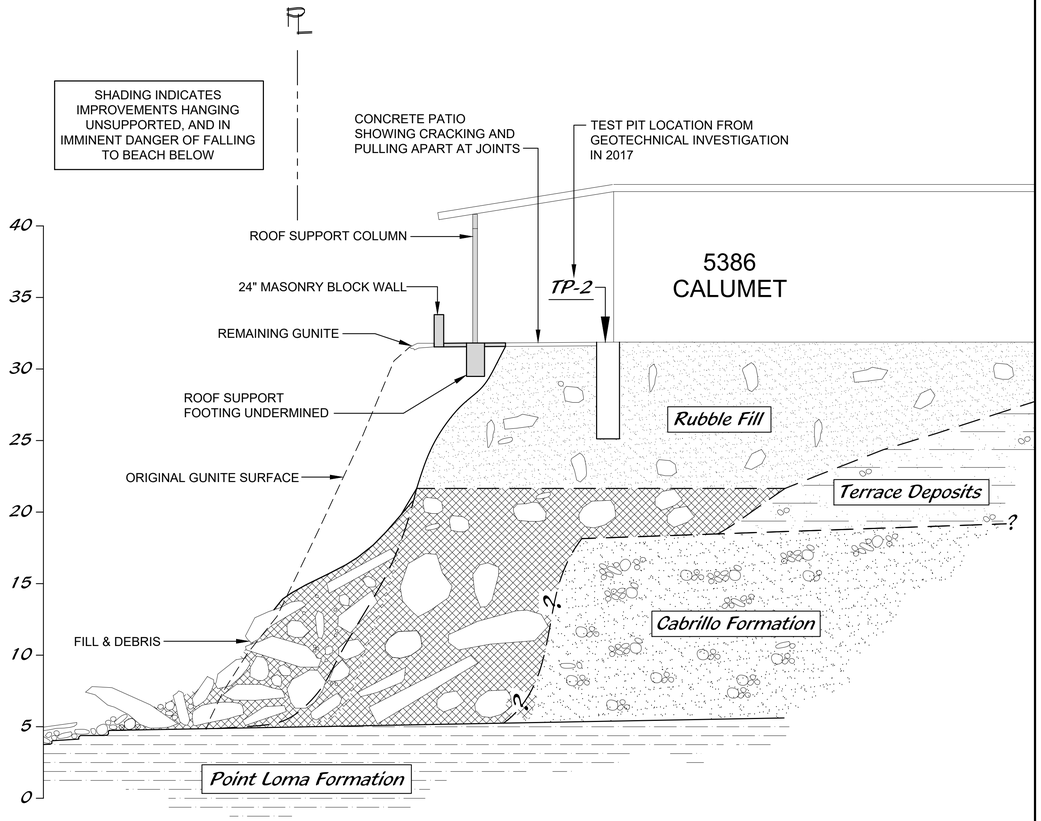
REV	DESCRIPTION	DATE
1	CHANGES PER COMPLETENESS REVIEW	11/23/21
2	CHANGES PER CITY COMMENTS LETTER	06/1/22
3	CHANGES PER CITY COMMENTS LETTER	09/22/22

TS01



EXISTING SITE PLAN

SCALE: 1"=10'



EXISTING CROSS SECTION A -

SCALE: 1"=5' (H:V)

SCALE: 1"=10'

0 10 20 40

FEET

SITE PLAN NOTES:

1. THE GEOLOGIC HAZARD CATEGORIES FOR THIS SITE ARE 47 AND 53.
2. A 6-FOOT WIDE UTILITY EASEMENT EXISTS AT THE NORTHERN PROPERTY LINE.
3. NO TRANSIT STOPS ARE LOCATED NEARBY PROJECT LOCATION AND NONE ARE PROPOSED.
4. BUILDING ADDRESS NUMBERS ARE VISIBLE FROM THE STREET FRONTING THE PROJECT PROPERTY.
5. SEE SHEET TS01 OF PLANS FOR FIRE HYDRANT LOCATIONS WITHIN 600 FEET OF PROJECT.
6. PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMIT, THE OWNER/PERMITTEE SHALL INCORPORATE ANY CONSTRUCTION BEST MANAGEMENT PRACTICES NECESSARY TO COMPLY WITH CHAPTER 14, ARTICLE 2, DIVISION 1 (GRADING REGULATIONS) OF THE SAN DIEGO MUNICIPAL CODE, INTO THE CONSTRUCTION PLANS OR SPECIFICATIONS.
7. PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMIT THE OWNER/PERMITTEE SHALL SUBMIT A WATER POLLUTION CONTROL PLAN (WPCP). THE WPCP SHALL BE PREPARED IN ACCORDANCE WITH THE GUIDELINES IN PART 2 CONSTRUCTION BMP STANDARDS CHAPTER 4 OF THE CITY'S STORM WATER STANDARDS.

REGISTERED PROFESSIONAL ENGINEER
WALTER F. CRAMPTON
No. 23792
Exp. 12/31/23
CIVIL
STATE OF CALIFORNIA

TERRACOSTA CONSULTING GROUP
an ENGEO Company
3890 MURPHY CANYON ROAD, SUITE 200
SAN DIEGO, CALIFORNIA 92123
(858) 573-6900

PRIVATE CONTRACT

DEVELOPMENT PERMIT PLANS FOR:

BLUFF STABILIZATION
5386 CALUMET AVENUE

SHEET TITLE:

EXISTING SITE PLAN & SECTION

CITY OF SAN DIEGO, CALIFORNIA
DEVELOPMENT SERVICES DEPARTMENT
SHEET 2 OF 7 SHEETS

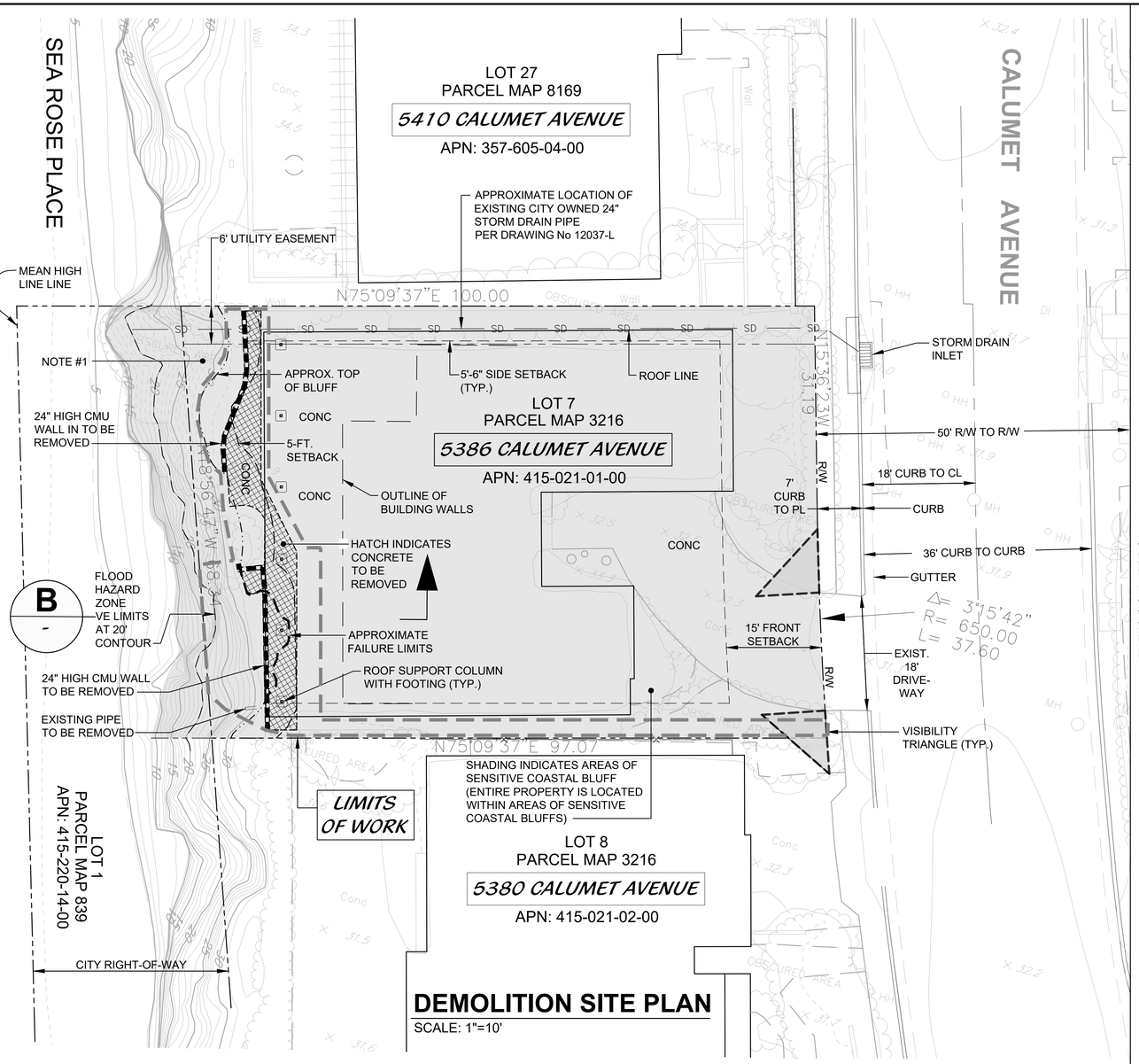
PROJECT NO. 696586

1875-6249
NAD 83 COORDINATES

235-1688
LAMBERT COORDINATES

REV	DESCRIPTION	DATE
1	CHANGES PER COMPLETENESS REVIEW	11/23/21
2	CHANGES PER CITY COMMENTS LETTER	06/1/22
3	CHANGES PER CITY COMMENTS LETTER	09/22/22

C01

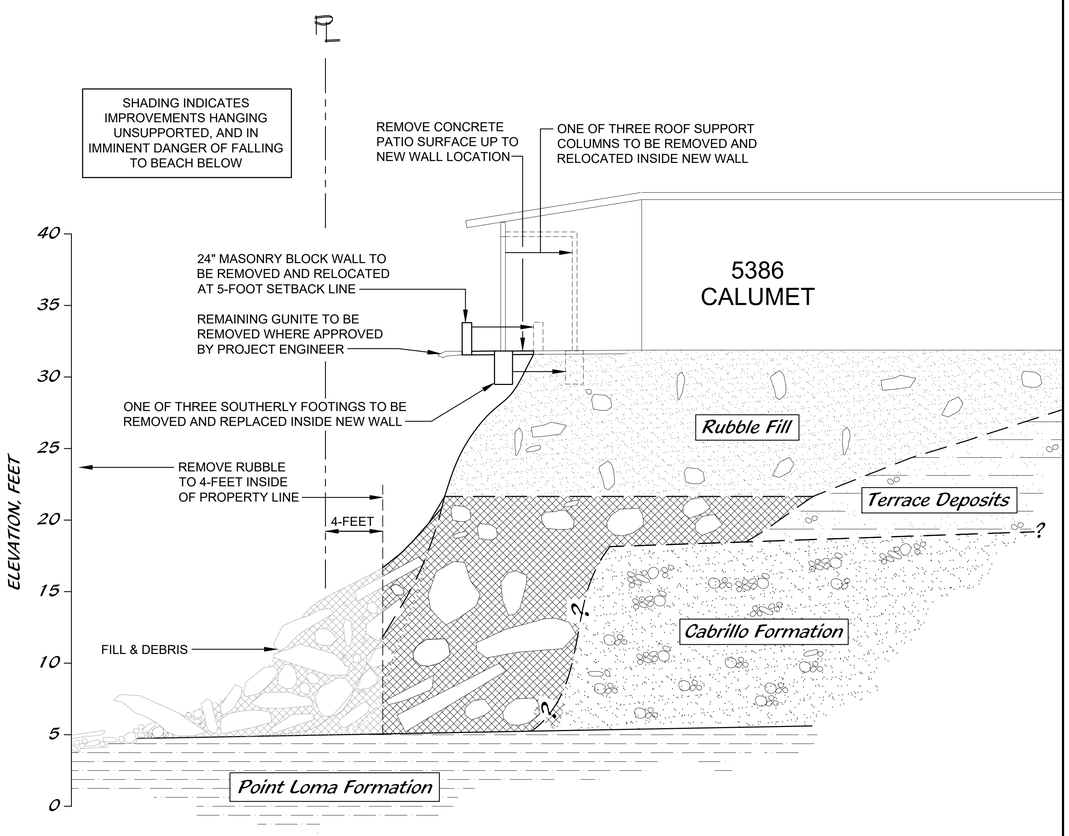


DEMOLITION SITE PLAN

SCALE: 1"=10'

DEMOLITION SITE PLAN NOTES:

1. EXISTING GUNITE ON BLUFF SHALL BE REMOVED IF ENGINEER OF RECORD DEEMS IT SAFE AND REMOVAL WILL NOT DESTABILIZE EXISTING BLUFF.



DEMOLITION CROSS SECTION

SCALE: 1"=5' (H:V)

B
-

REGISTERED PROFESSIONAL ENGINEER
WALTER F. CRAMPTON
No. 23792
Exp. 12/31/23
CIVIL
STATE OF CALIFORNIA

TERRACOSTA CONSULTING GROUP
an ENGEO Company
3890 MURPHY CANYON ROAD, SUITE 200
SAN DIEGO, CALIFORNIA 92123
(858) 573-6900

PRIVATE CONTRACT

DEVELOPMENT PERMIT PLANS FOR:

BLUFF STABILIZATION
5386 CALUMET AVENUE

SHEET TITLE:

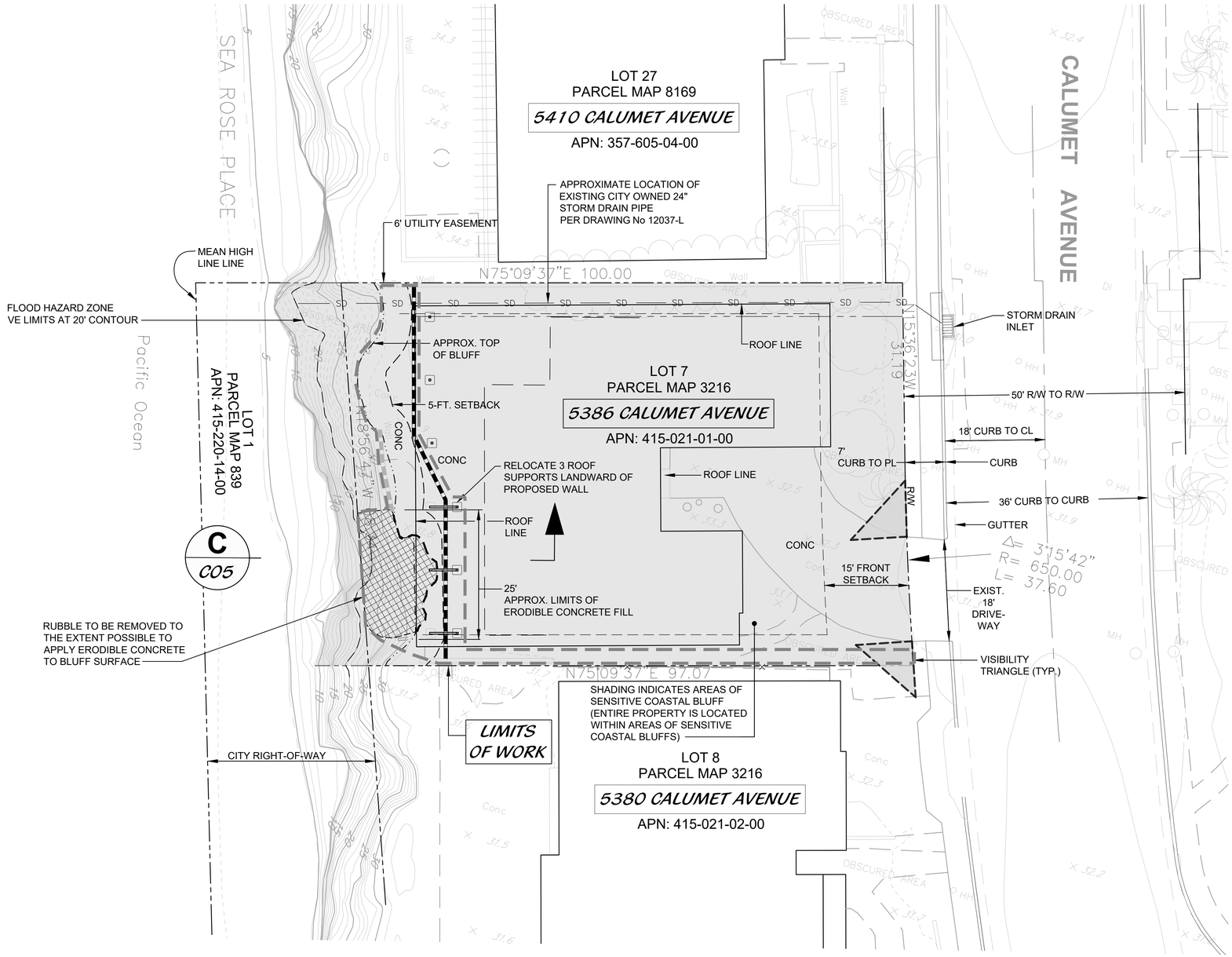
DEMOLITION SITE PLAN & SECTION

CITY OF SAN DIEGO, CALIFORNIA
DEVELOPMENT SERVICES DEPARTMENT
SHEET 3 OF 7 SHEETS

PROJECT NO. 696586
1875-6249
NAD 83 COORDINATES
235-1688
LAMBERT COORDINATES

REV	DESCRIPTION	DATE
1	CHANGES PER COMPLETENESS REVIEW	11/23/21
2	CHANGES PER CITY COMMENTS LETTER	06/1/22
3	CHANGES PER CITY COMMENTS LETTER	09/22/22

C02



SITE PLAN NOTES:
1. THE GEOLOGIC HAZARD CATEGORIES FOR THIS SITE ARE 47 AND 53.

2. A 6-FOOT WIDE UTILITY EASEMENT EXISTS AT THE NORTHERN PROPERTY LINE.

3. NO TRANSIT STOPS ARE LOCATED NEARBY PROJECT LOCATION AND NONE ARE PROPOSED.

4. BUILDING ADDRESS NUMBERS ARE VISIBLE FROM THE STREET FRONTING THE PROJECT PROPERTY.

5. SEE SHEET TS01 OF PLANS FOR FIRE HYDRANT LOCATIONS WITHIN 600 FEET OF PROJECT.

SCALE: 1"=10'

0 10 20 40
FEET

PROPOSED SITE PLAN
SCALE: 1"=10'

REGISTERED PROFESSIONAL ENGINEER
WALTER T. CRAMPTON
No. 23792
Exp. 12/31/23
CIVIL
STATE OF CALIFORNIA

TERRACOSTA CONSULTING GROUP
an ENGEO Company
3890 MURPHY CANYON ROAD, SUITE 200
SAN DIEGO, CALIFORNIA 92123
(858) 573-6900

PRIVATE CONTRACT

DEVELOPMENT PERMIT PLANS FOR:

BLUFF STABILIZATION
5386 CALUMET AVENUE

SHEET TITLE:

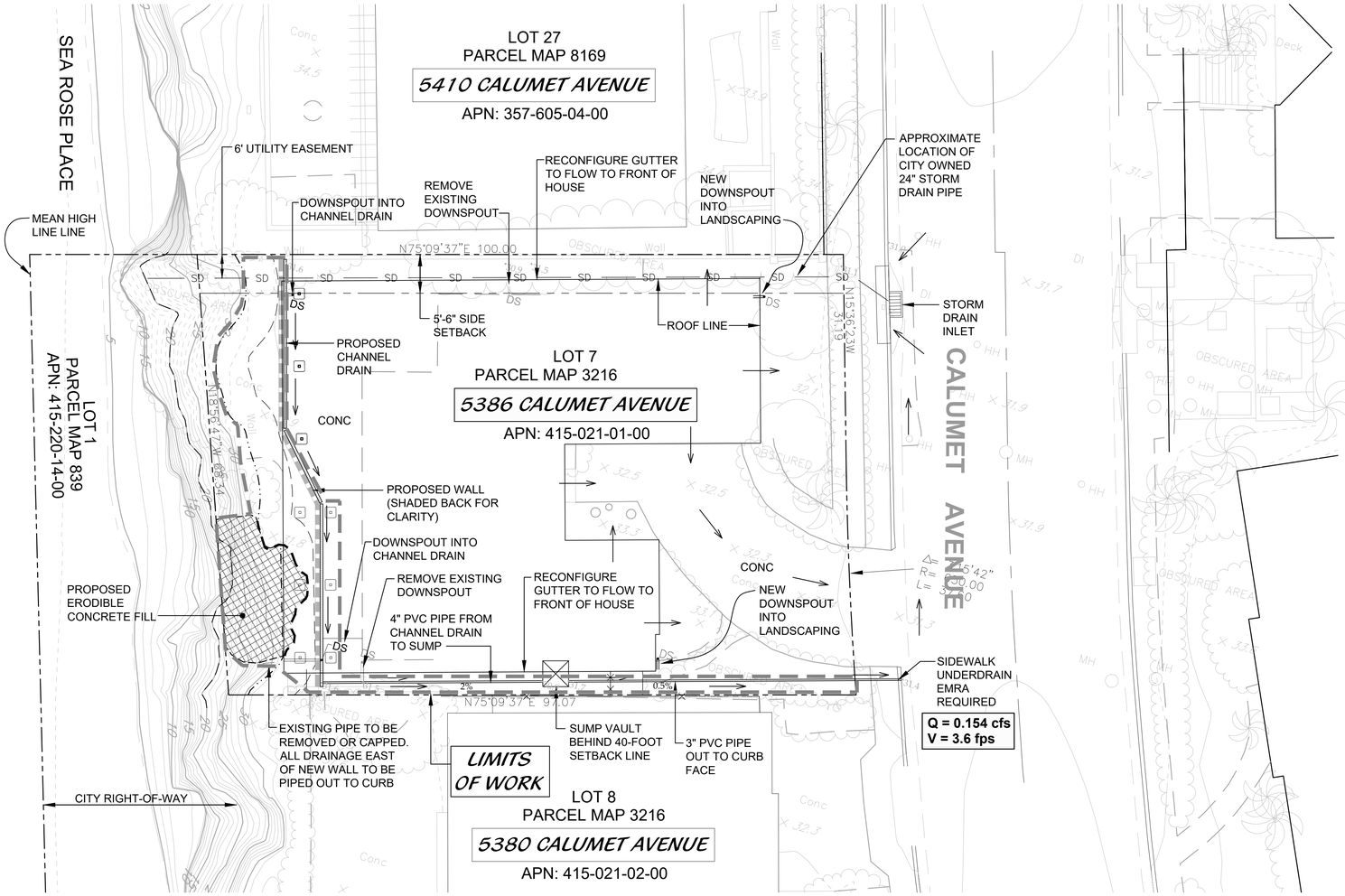
PROPOSED SITE PLAN

CITY OF SAN DIEGO, CALIFORNIA
DEVELOPMENT SERVICES DEPARTMENT
SHEET **4** OF **7** SHEETS

PROJECT NO. 696586
1875-6249
NAD 83 COORDINATES
235-1688
LAMBERT COORDINATES

REV	DESCRIPTION	DATE
1	CHANGES PER COMPLETENESS REVIEW	11/23/21
2	CHANGES PER CITY COMMENTS LETTER	06/1/22
3	CHANGES PER CITY COMMENTS LETTER	09/22/22

C03



PROPOSED DRAINAGE PLAN

SCALE: 1"=10'

SCALE: 1"=10'

0 10 20 40

FEET

REGISTERED PROFESSIONAL ENGINEER
WALTER T. CRAMPTON
No. 23792
Exp. 12/31/23
CIVIL
STATE OF CALIFORNIA

TERRACOSTA CONSULTING GROUP
an ENGEO Company
3890 MURPHY CANYON ROAD, SUITE 200
SAN DIEGO, CALIFORNIA 92123
(858) 573-6900

PRIVATE CONTRACT

DEVELOPMENT PERMIT PLANS FOR:

BLUFF STABILIZATION
5386 CALUMET AVENUE

SHEET TITLE:

PROPOSED DRAINAGE PLAN

CITY OF SAN DIEGO, CALIFORNIA
DEVELOPMENT SERVICES DEPARTMENT
SHEET 5 OF 7 SHEETS

PROJECT NO. 696586
1875-6249 NAD 83 COORDINATES
235-1688 LAMBERT COORDINATES

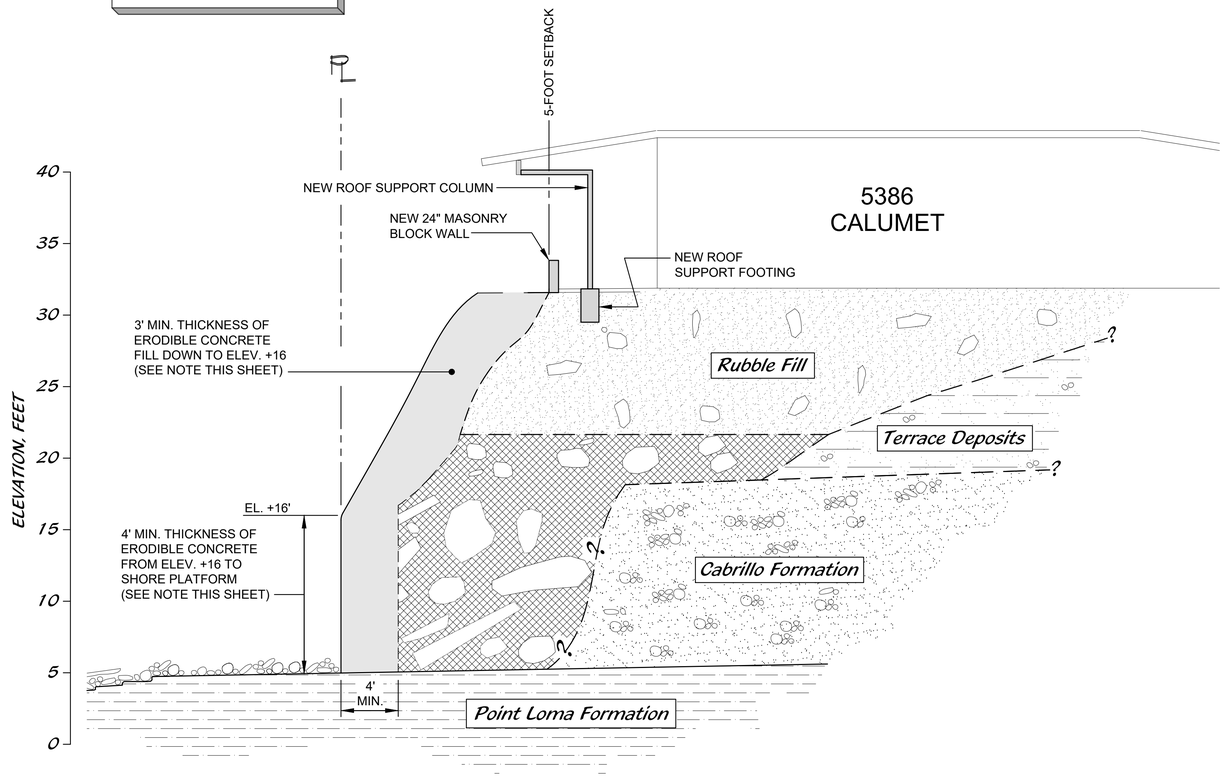
REV	DESCRIPTION	DATE
1	CHANGES PER COMPLETENESS REVIEW	11/23/21
2	CHANGES PER CITY COMMENTS LETTER	06/1/22
3	CHANGES PER CITY COMMENTS LETTER	09/22/22

C04

DRONE PHOTO - EXISTING CONDITION

PROPOSED REPAIR

NOTE:
THE ERODIBLE CONCRETE FILL WILL HAVE A NATURALIZED AND COLORIZED SURFACE TO MATCH SURROUNDING BLUFFS OR GEOLOGIC FORMATION



PROPOSED REPAIR CROSS SECTION

C
-

SCALE: 1"=5' (H:V)

ESTIMATED QUANTITY OF ERODIBLE CONCRETE FILL: 150 C.Y.

REGISTERED PROFESSIONAL ENGINEER
WALTER F. CRAMPTON
No. 23792
Exp. 12/31/23
CIVIL
STATE OF CALIFORNIA

TERRACOSTA CONSULTING GROUP
an ENGEO Company
3890 MURPHY CANYON ROAD, SUITE 200
SAN DIEGO, CALIFORNIA 92123
(858) 573-6900

PRIVATE CONTRACT

DEVELOPMENT PERMIT PLANS FOR:

BLUFF STABILIZATION
5386 CALUMET AVENUE

SHEET TITLE:

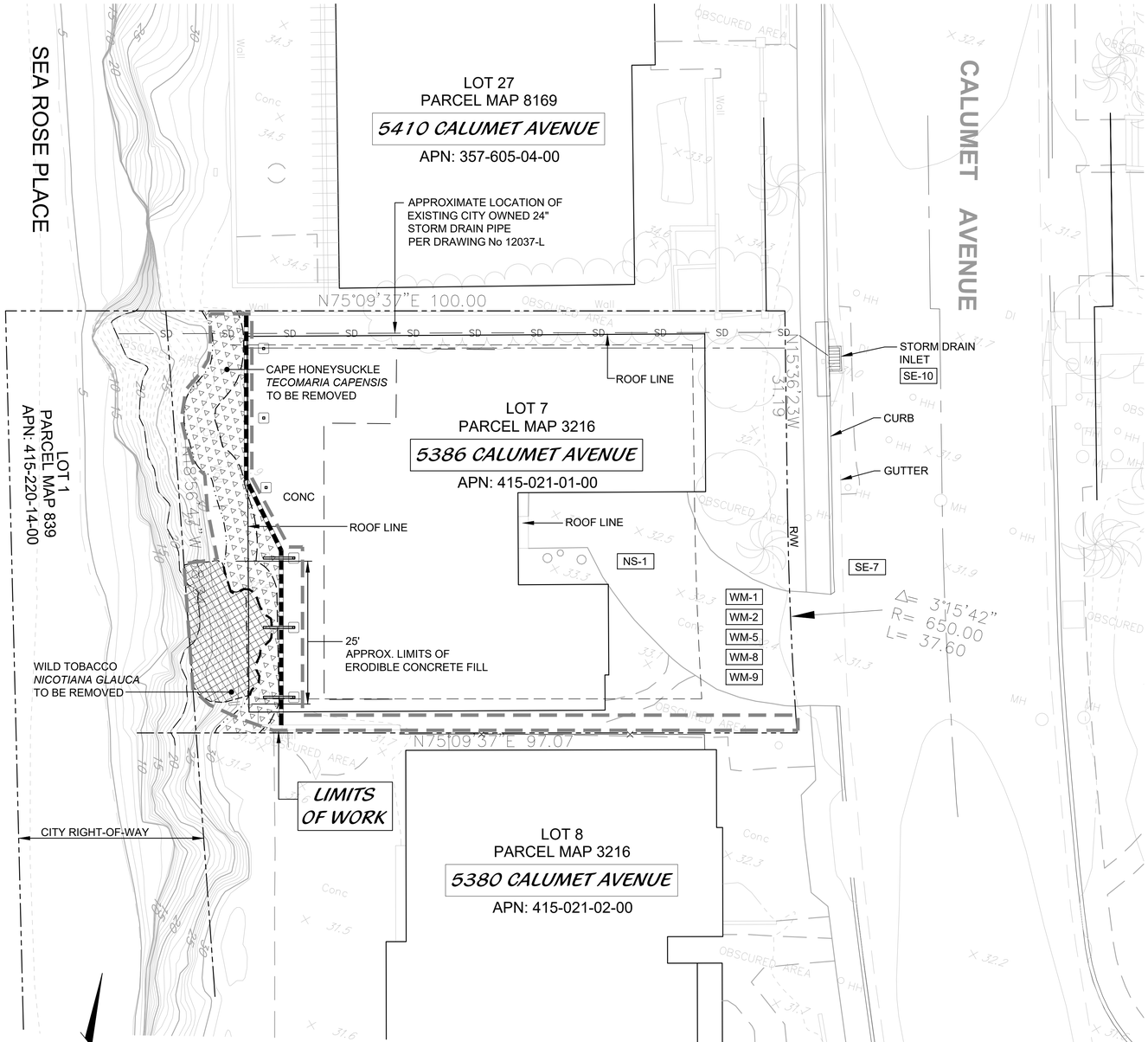
PROPOSED GRADING PLAN

CITY OF SAN DIEGO, CALIFORNIA
DEVELOPMENT SERVICES DEPARTMENT
SHEET **6** OF **7** SHEETS

PROJECT NO. 696586
1875-6249
NAD 83 COORDINATES
235-1688
LAMBERT COORDINATES

REV	DESCRIPTION	DATE
1	CHANGES PER COMPLETENESS REVIEW	11/23/21
2	CHANGES PER CITY COMMENTS LETTER	06/1/22
3	CHANGES PER CITY COMMENTS LETTER	09/22/22

C05



SCALE: 1"=10'

0 10 20 40

FEET

EROSION CONTROL & LANDSCAPE PLAN

SCALE: 1"=10'

STAGING & PHASING AND LANDSCAPE NOTES

1. NO CONSTRUCTION EQUIPMENT SHALL BE ALLOWED OUTSIDE THE PROPOSED AREA OF WORK UNLESS DIRECTED/APPROVED IN WRITING BY THE PROJECT ENGINEER OR THE CITY MANAGER AND THE PROPERTY OWNERS.

2. CONTRACTOR SHALL EXAMINE THE CONDITIONS AND CONSTRAINTS OF THE SITE PRIOR TO CONSTRUCTION AND COORDINATE WITH THE ENGINEER OF RECORD THE PROPOSED LOCATION AND EXTENT OF ANY EXCAVATED ON-SITE MATERIAL STOCKPILES.

3. CONTRACTOR MAY USE ON-STREET PARKING ON CALUMET AVENUE FOR PERSONAL VEHICLES ONLY. NO CONSTRUCTION EQUIPMENT PARKING SHALL OCCUR ON PUBLIC STREETS OR RIGHT-OF-WAYS.

4. PRIOR TO SITE CLEARING AND GRUBBING, A TEMPORARY ORANGE ENVIRONMENTAL FENCE AND A 24" HIGH SILT FENCE SHALL BE INSTALLED AROUND THE PROPOSED WORK AREA. THE EXACT LOCATION AND ALIGNMENT SHALL BE DEFINED IN THE FIELD BY THE INSPECTING ENGINEER.

5. INTERIM BINDER NOTE: GRADING, DISTURBED, OR ERODED AREAS TO BE TREATED WITH A NON-IRRIGATED HYDROSEED MIX SHALL RECEIVE AN INTERIM BINDER/TACKIFIER AS NEEDED BETWEEN APRIL 2 AND AUGUST 31 FOR DUST-EROSION CONTROL, WITH SUBSEQUENT APPLICATION OF HYDROSEED MIX DURING THE RAINY SEASON BETWEEN OCTOBER 1 AND APRIL 1.

STORM WATER QUALITY BMP LEGEND

WASTE MANAGEMENT & MATERIAL POLLUTION CONTROL BMPs

- WM-1 MATERIAL DELIVERY AND STORAGE
- WM-2 MATERIAL USE
- WM-5 SOLID WASTE MANAGEMENT
- WM-8 CONCRETE WASTE MANAGEMENT
- WM-9 SANITARY/SEPTIC WASTE MANAGEMENT

TEMPORARY SEDIMENT CONTROL BMPs

- SE-7 STREET SWEEPING & VACUUMING
- SE-10 STORM DRAIN INLET PROTECTION

WIND EROSION CONTROL BMPs

- WE-1 WIND EROSION CONTROL

TEMPORARY SOIL STABILIZATION BMPs

- EC-4 HYDROSEEDING SEE NOTE #5 & CITY NOTES BELOW.

NON-STORM WATER MANAGEMENT BMPs

- NS-1 WATER CONSERVATION PRACTICES

NOTES:

1. PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMIT, THE OWNER/PERMITTEE SHALL INCORPORATE ANY CONSTRUCTION BEST MANAGEMENT PRACTICES NECESSARY TO COMPLY WITH CHAPTER 14, ARTICLE 2, DIVISION 1 (GRADING REGULATIONS) OF THE SAN DIEGO MUNICIPAL CODE, INTO THE CONSTRUCTION PLANS OR SPECIFICATIONS.

2. PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMIT THE OWNER/PERMITTEE SHALL SUBMIT A WATER POLLUTION CONTROL PLAN (WPCP). THE WPCP SHALL BE PREPARED IN ACCORDANCE WITH THE GUIDELINES IN PART 2 CONSTRUCTION BMP STANDARDS CHAPTER 4 OF THE CITY'S STORM WATER STANDARDS.

HYDROSEED MIX

ABBR.	SCIENTIFIC NAME	COMMON NAME	LBS/ACRE	PLS*	SEED COUNT	PLS-LBS/ACRE*
ESC. CAL.	ESCHSCHOLTZIA CALIFORNICA	CALIFORNIA POPPY	4	74	270,000	1.5
FES. MIC.	FESTUCA MICROSTACHYS	THREE WEEK FESCUE	12	72	420,000	4
LUP. BIC.	LUPINUS BICOLOR	PYGMY-LEAFED LUPINE	4	78	115,000	3
PLA. ERE.	PLANTAGO ERECTA	DWARF PLANTAIN	20	72	250,000	12
	SARVON™			6 GAL/ACRE		
	MULCH	VIRGIN WOOD FIBER		2000 LBS/ACRE		
	SUPERTHRIVE™			4.25 QTS. (2 OZ./100 GALS)		
	FERTILIZER	TRI- C™ (6-2-4, S)		450 LBS/ACRE		
	BINDER	GUAR GUM		225 LBS/ACRE		
	COMPOST TEA - PER HYDROSEED CONTRACTOR RECOMMENDATIONS					

* PLS = % PURITY X % GERMINATION. HOWEVER, CONTRACTOR SHALL PROVIDE THE SPECIFIED PLS-LBS/ACRE

4.4 HYDROSEEDING PROCEDURES (FROM CITY OF SAN DIEGO LANDSCAPE STANDARDS)

4.4-1 SEED MIXES SHALL BE SPECIFIED BY THE PURE LIVE SEED OF EACH SPECIES.

4.4-2 FIBER MULCH SHALL BE APPLIED AT A MINIMUM RATE OF 2,000 POUNDS PER ACRE EXCEPT WHEN USED IN CONJUNCTION WITH STRAW MULCH, WHEN IT SHALL BE APPLIED AT A MINIMUM RATE OF 400 POUNDS PER ACRE.

4.4-3 A WETTING AGENT CONSISTING OF 95 PERCENT ALKYL POLYETHYLENE GLYCOL ETHER SHALL BE APPLIED AS PER MANUFACTURERS' RECOMMENDATIONS.

4.4-4 EQUIPMENT USED FOR THE APPLICATION OF SLURRY SHALL HAVE A BUILT-IN AGITATION SYSTEM TO SUSPEND AND HOMOGENEOUSLY MIX THE SLURRY. THE SLURRY MIX SHALL BE DYED GREEN. THE EQUIPMENT MUST HAVE A PUMP CAPABLE OF APPLYING SLURRY UNIFORMLY.

4.5 MAINTENANCE REQUIREMENTS

4.5-1 PERMANENTLY IRRIGATED SLOPES SHALL BE MAINTAINED FOR A PERIOD NO LESS THAN 90 DAYS.

4.5-2 NONPERMANENTLY IRRIGATED AREAS SHALL BE MAINTAINED FOR A PERIOD NOT LESS THAN 25 MONTHS.

4.5-3 ALL REVEGETATED AREAS SHALL BE MAINTAINED BY THE PERMITTEE UNTIL FINAL APPROVAL BY THE CITY MANAGER. THE MAINTENANCE PERIOD BEGINS ON THE FIRST DAY FOLLOWING ACCEPTANCE AND MAY BE EXTENDED AT THE DETERMINATION OF THE CITY MANAGER.

4.5-4 PRIOR TO FINAL APPROVAL, THE CITY MANAGER MAY REQUIRE CORRECTIVE ACTION INCLUDING BUT NOT LIMITED TO, REPLANTING, THE PROVISION OR MODIFICATION OF IRRIGATION SYSTEMS, AND THE REPAIR OF ANY SOIL EROSION OR SLOPE SLIPPAGE.

REGISTERED PROFESSIONAL ENGINEER
WALTER F. CRAMPTON
No. 23792
Exp. 12/31/23
CIVIL
STATE OF CALIFORNIA

TERRACOSTA CONSULTING GROUP
an ENGEO Company
3890 MURPHY CANYON ROAD, SUITE 200
SAN DIEGO, CALIFORNIA 92123
(858) 573-6900

PRIVATE CONTRACT

DEVELOPMENT PERMIT PLANS FOR:

BLUFF STABILIZATION
5386 CALUMET AVENUE

SHEET TITLE:

EROSION CONTROL & LANDSCAPE PLAN

CITY OF SAN DIEGO, CALIFORNIA
DEVELOPMENT SERVICES DEPARTMENT
SHEET 7 OF 7 SHEETS

PROJECT NO. 696586

1875-6249
NAD 83 COORDINATES

235-1688
LAMBERT COORDINATES

REV	DESCRIPTION	DATE
1	CHANGES PER COMPLETENESS REVIEW	11/23/21
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3	CHANGES PER CITY COMMENTS LETTER	09/22/22

C06

ATTACHMENT 10

SLOPE STABILIZATION
5386 CALUMET AVENUE
LA JOLLA, CALIFORNIA

GEOTECHNICAL REPORT

SUBMITTED TO
Mr. Bryan Huey
5386 Calumet Avenue
La Jolla, California 92037

PREPARED BY
ENGEO Incorporated

September 30, 2021

PROJECT NO.
T2976.000.000
Phase 002

ENGEO
Expect Excellence

Project No.
T2976.000.000
Phase 002

September 30, 2021

Mr. Bryan Huey
5386 Calumet Avenue
La Jolla, California

Subject: Slope Stabilization
5386 Calumet Avenue
La Jolla, California

GEOTECHNICAL REPORT

Dear Mr. Huey:

ENGEO performed a geotechnical study and prepared this geotechnical report for the bluff failure that occurred at 5386 Calumet Avenue in La Jolla, California. The accompanying report describes the geotechnical and coastal processes affecting the subject area, and provides a summary of design constraints and overview of the technical analyses conducted in support of stabilization of the coastal bluff.

Conceptually, the proposed stabilization would consist of infilling the failed area with a textured and colored, low-strength concrete mix designed to blend into the natural coastal bluff. Please note that this design is considered the minimum necessary to stabilize and protect the existing residence and improvements that are currently undermined as a result of recent failures, and is considered necessary for stabilization.

We appreciate the opportunity to work with you on this project and trust this information meets your needs. If you have any questions or require additional information, please give us a call.

ENGEO Incorporated

Walter F. Crampton, GE

Gregory A. Spaulding, PG

WFC/GAS/jg
Attachments

TABLE OF CONTENTS

1.0 INTRODUCTION

This report presents the results of our geotechnical study completed to address the bluff failure seaward of the subject bluff-top property located at 5386 Calumet Avenue, San Diego, California. The property is located in the Bird Rock area of La Jolla on the westerly side of Calumet Avenue between Colima Court and San Colla Street in La Jolla, California, as shown on the Geology & Location Map (Figure 1). Based on our research, the lot was developed in 1962 and consists of a single-story wood-frame house located near the bluff edge. The lot is flanked on the north and south by residential properties, and on the east by Calumet Avenue and steep coastal bluffs that descend to a narrow shingle beach on the west.

Over the last approximately four years, the subject property has been adversely affected by winter storm waves, resulting in undermining and collapse of a protective gunite slope located at the southwest corner of the house, exposing underlying bluff and fill soils to erosion by waves. Photos 1 through 5 illustrate the progression of undermining and failures between March 2017 and May 2020. Photos 6 and 6A illustrate the condition in January and February 2021. Once breached, the old rubble fill has rapidly eroded, further undermining and failing the remaining gunite, causing significant concern for the undermining of the house foundation. As a result of the bluff failure, it is our opinion that immediate efforts are necessary to restabilize the bluff to protect the house from damage.

2.0 BACKGROUND

From our research and review of historical aerial photographs of the site area, the site was once occupied by the U.S. Army's Coast Artillery Corps and consisted of barracks, cannon foundations, and other support structures. Our research indicates that these improvements existed through the end of World War II, and were formally decommissioned and disposed of in the late 1940s/early 1950s, when the property was sold and subdivided for residential development.

Our site observations, research, and review of historical aerial photographs indicate that a number of small drainages and gullies existed along the bluffs prior to development (Photo 7). Figures 2 through 4 illustrate the approximate limits of the small canyon infill seen in Photo 7. Our research and observations also indicate that these small drainages were infilled with the concrete rubble and construction debris generated during demolition of the buildings and site improvements for the Coast Artillery Corps site, as seen in the previously referenced photos.

Review of the 1972 and 1979 aerial photographs on the California Coastal Records Project (Coastal Records) website (listed in the References section) indicates that at one time, the rubble that infilled the subject drainage extended out onto the beach, protecting the infill and lower bluff. While the 1979 Coastal Records photograph still shows rubble protecting the lower bluff, the extent of the protective rubble appears to have decreased. Based on review of the 1987 Coastal Records photograph, it appears that the entire bluff face in front of 5386 Calumet was then gunited to protect the infilled drainage from further erosion. The 2004 Coastal Records photograph shows that the gunite was also extended to the south, covering up a substantial portion of the bluff face for the southerly property. The 2008 Coastal Records photograph illustrates that the protective gunite covering at the base of the slope was beginning to be attacked by marine erosion and undermined. The 2010 Coastal Records photograph indicates that the gunite had been breached and undermined in the area of the infilled canyon, and appears to be re-exposing the rubble fill. The 2013 Coastal Records photograph shows that the gunite is continuing to be undermined.

Currently, a substantial portion of the protective gunite has been damaged and removed by waves from winter storms, exposing the rubble infill to marine erosion during high surf conditions.

3.0 RESEARCH AND DOCUMENT REVIEW

Our research and document review included review of published and unpublished reports, maps, and historical photographs of the site and surrounding area. A list of documents reviewed is provided at the end of this report.

4.0 FIELD INVESTIGATION

Our field investigation consisted of performing a geologic site reconnaissance, mapping of the bluff, and excavating, logging, and sampling three test pits in an effort to define the quality and limits of the fills. The locations of the test pits and approximate limits of the fill soils are shown on Figures 2 through 4. Figure 3 also shows the formational units, and faults where exposed in the bluff face. All mapping and logging of the test pits was completed by a licensed engineering geologist from ENGEO. Logs of the test pits are presented in Appendix A as Figures A-1 through A-3.

5.0 PHYSIOGRAPHY AND GEOLOGY

The present-day configuration of the southern California coastline can be said to have its early beginnings during Cretaceous time (120 to 85 million years ago), when the southern California batholiths intruded existing Triassic- and Jurassic-age strata, causing uplift to the east and subsidence to the west, where the deposition of marine sediments has continued through the last 80 to 60 million years.

Regional tectonic faulting has resulted in uplift of the relatively erosion-resistant Cabrillo and Point Loma Formations over a relatively small section of the coastal bluff in the general site area. The project is located at the westerly bluff-terminated edge of an approximately 1/4-mile-wide, gently westerly sloping coastal terrace, one of a sequence of well-defined wave-cut abrasion terraces created primarily by higher eustatic sea stands during Pleistocene-age interglacial episodes.

5.1 GEOLOGIC UNITS

The principal geologic units exposed in the bluff at the site are the Cretaceous Point Loma Formation (Kp) and conglomerate portion of the Cretaceous Cabrillo Formation (Kcc), which forms the near-vertical, lower cliffed portion of the bluff, and the overlying late Pleistocene terrace deposits, which cover the upper bluff. These units are described below, and are shown on Figure 3 and in cross section on Figures 4, 4A, and 4B. A small amount of man-made fill soils may exist immediately below the existing site improvements in the failure area, but definitive measurement was precluded due to safety concerns. However, the presence or absence of fill does not substantially affect the analysis, conclusions, or recommendations for the site.

Point Loma Formation (Kp): The Point Loma Formation is described as mostly interbedded, fine-grained, dusky-yellow sandstone and olive-gray siltstone. It can generally be seen in the La Jolla sea cliffs from Bird Rock to La Jolla Shores. Interpolation from well logs suggests that the total thickness of the Point Loma Formation is on the order of 1,000-feet (300-meters) thick. The Point Loma Formation is exposed in the lower portion of the bluff face and is exposed on the shore platform.

Cabrillo Formation (Kcs): The late Cretaceous bedrock unit at the site is the Cabrillo Formation, a 560±-foot-thick sedimentary deposit that discontinuously crops out in coastal San Diego County from the southern tip of Point Loma to Carlsbad. At the site, it forms the steeply ascending lower part of the coastal bluff, generally below elevation 24± feet. As shown on Figures 2 and 3, ancient sub-parallel mineralized faults or fractures exposed in the bluff face offset beds in the Cabrillo Formation, but do not extend into the overlying terrace. The northerly-most fault feature also provides a conduit for groundwater, and a spring exiting from under the gunite above the beach level (approximate elevation 10 feet) discharges an estimated 3 to 5 gallons per minute onto the beach. Groundwater was also observed in small amounts seeping through unfractured portions of the rock, suggesting that saturation extends well above beach level.

Terrace Deposits (Qt): The Pleistocenee marine terrace deposits unconformably overlie the Cabrillo Formation on a marine erosion platform formed approximately 120,000 years ago when sea level was 20± feet higher (Lajoie et al., 1992). At that time, sea level was at a high eustatic level due to substantial melting of the ice caps during an interglacial period. The terrace deposits generally consist of poorly consolidated, fine- to medium-grained sand (Kennedy and Peterson, 1975).

Fill Soils (af): Fill soils were encountered in the test pits generally ranged from 2 to 4 feet where encountered away from the canyon debris fill and consist of stiff, damp to moist, mottle gray-brown to red-brown, sandy clay with gravel, cobble, and occasional boulders and construction debris.

Three generalized geologic cross sections through the property, based on observed bluff geometries, are presented as Figures 4, 4A, and 4B. Section locations are shown on the Site Plan (Figure 2).

5.2 GROUNDWATER

Groundwater exiting from under the gunite at the base of the bluff can be seen at the northerly side of the property. The spring appears to have developed along a fault and discharges continuously. Infiltration, including irrigation within the hydrologic capture area of the coastal bluffs, will increase the local groundwater levels, changing the discharge rates throughout the seasons.

5.3 SEISMICITY

The project area is located in a moderately active seismic region of southern California that is subject to moderate to strong shaking from nearby and distant earthquakes. Ground shaking from earthquakes on six major active fault zones could affect the site. These would include the Rose Canyon, Coronado Bank, San Diego Trough, San Clemente, Elsinore, and San Jacinto/Superstition Hills fault zones. The nearest of these, the Rose Canyon fault zone, parallels the shoreline and is located approximately 2.3 kilometers (about 1.4 miles) east of the site. The maximum credible earthquake for the Rose Canyon Fault is considered to be Magnitude 7.2. The maximum probable earthquake for this fault has been estimated at Magnitude 6½.

5.4 GEOLOGIC STRUCTURE

Movement along the Rose Canyon Fault appears to have caused gentle folding on the coastal side of the fault. This gentle folding has caused a 10- to 15-degree, small, southeast dip in the exposed strata at the site. The episodes of faulting and long-continued tectonic stresses in the

project site area have resulted in hundreds of visible joints, fractures, and shear zones having both micro- and large-scale variations in erosion potential.

6.0 BLUFF EROSION

This section of coastline is characterized by steep coastal bluffs comprised of relatively erosion-resistant Cretaceous strata (Point Loma or Cabrillo Formations) at the bluff base and less-resistant upper-bluff terrace deposits, with a narrow cobble beach at the base of the bluff. The bluff in the project area is located in a high-energy wave environment subject to direct wave impact. As a result of wave-induced erosion, various types of coastal fortification have been previously installed in the project area, incorporating rock revetments, concrete-filled sandbags, and gunite-covered bluffs, as can be seen in photographs available on the Coastal Records website (listed in the References section).

6.1 LOWER-BLUFF EROSION

Review of historical photographs dating back to the 1970s has not revealed a great deal of long-term lower-bluff erosion in the formational soils in the general site area. Younger Tertiary formations to the north, in Solana Beach for example, exhibit erosion rates on the order of 0.4 foot per year. The Cabrillo Formation and the erosion-resistant Point Loma Formation, both of which pre-date the Tertiary formations, would be expected to have a much smaller erosion rate, likely on the order of 2 to 3 inches per year. Based on our observations and comparison to other areas along this reach of coastline, erosion in this area is estimated to be 2 to 3 feet of the lower bluff, and 1 to 2 feet of the upper bluff over the past 10 years.

Our observations indicate that the exposed small canyon fill likely has an erosion rate of 1+ foot per year since it was exposed, and is most affected by the winter storms.

6.2 EMPIRICAL AND ANALYTICAL TECHNIQUES OF EROSION RATE ASSESSMENT

The scientific community has been actively engaged in developing numerical models to assess rates of shoreline erosion. Numerical models attempt to address both the landward retreat of the sea cliff and the development of the shore platform. In this simplest expression, predictive cliff-erosion models take the following form (Sunamura, 1977):

$$dx/dt \propto \ln\left(\frac{f_w}{f_r}\right)$$

where *dx/dt* is the horizontal rate of erosion, f_w is the wave force, and f_r is the rock resistance. Similar equations have been developed to describe platform development.

Of particular interest in numerical modeling is the fact that a minimum or critical wave height capable of causing erosion exists, below which, for a given rock lithology, no erosion would occur. Additionally, the rate of erosion increases in logarithmic proportion to increase in wave force, which is substantially less than a linear increase in wave energy. Importantly, however, these numerical models describe the mechanical erosion of intact rock of assumed uniform lithology, and do not account for the accelerated erosion caused by the hydrodynamic component of wave forces that occurs in fractured rock and, of course, the subject rubble fill.

When using the preceding equation, and when comparing the site conditions with San Diego's North County Tertiary cliff-forming sediments, the wave force (fw) is likely similar for the subject site and North County San Diego. Importantly, however, the erosion resistance of the rock (fr) is considerably stronger for the Cretaceous sediments than for the Tertiary sediments. This suggests both a more severe storm wave to initiate erosion of the sea cliff, and a corresponding reduction in marine erosion for a given design wave event from the Cretaceous sediments than from the North County Tertiary sediments. Thus, one would again conclude that, in the absence of more data, the annualized average erosion rate for the site would be on the order of 2 to 3 inches (0.17 to 0.25 foot) per year, given the more well-defined erosion rate of the Tertiary sediments of 4.8 inches (0.4 foot) per year.

In the localized section of coastal bluff below 5386 Calumet Avenue, an adverse geologic condition (faulting) is aggravated by an adverse groundwater condition (seepage), reducing the bedrock resistance resulting in a localized increased erosion rate possibly approaching 0.4 foot per year. The faulting/fracturing of the bedrock produced planes of weakness and disrupted the original structure of the rock. The constant groundwater seepage removes cementitious minerals bonding the sand, gravel, and cobbles into a tight, resistant matrix, substantially reducing local resistance to erosion.

7.0 ASSESSMENT OF EXISTING STRUCTURES

The project area was subject to significant and intense storm events during the recent winter storms. The wave energy from these storms, likely coupled with increased seepage, caused undermining of the protective gunite cover. Once the gunite cover was breached, the waves attacked and eroded the fill, causing undermining and potential loss of support for the property (Photos 1 through 6). Based on our observations, it is evident that stabilization must be performed as soon as possible to prevent structural damage to the house.

8.0 SLOPE STABILITY

8.1 SLOPE STABILITY ANALYSES

In order to assess the stability of the upper bluff, slope stability analyses were performed. The stability of the upper portion of the coastal bluff was evaluated using the computer software, GSTABL7. GSTABL7 is a graphical program that uses limit equilibrium theory to compute the factor of safety for earth and rock slopes. The Modified Bishop Method was selected for analyses of the subject slope. Summary results of the stability analyses are provided in Appendix B.
Slope stability analyses indicate that the existing factors of safety for the intact coastal bluff, as indicated in Sections A and C, range from 3.1 to 3.6, with seismic factors of safety ranging from 2.6 to 2.8, all well above code minimums. In contrast, however, Section B drawn through the eroding infill has a factor of safety on the order of 1, which reflects the ongoing failures of this canyon infill. Without immediate stabilization measures, the western portion of the house will be damaged as a result of subsequent upper-bluff failures.

9.0 ALTERNATIVES ANALYSIS

As part of this study, we considered three alternatives to stabilize the bluff. Those alternatives are discussed below.

9.1 DO NOTHING

Based on the results of our stability analyses, this alternative will eventually result in the damage or loss of the southwest corner of the house (Section B). This area has a calculated static factor of safety of 1.0 and a dynamic (seismic) factor of safety of 0.80. This area also has the highest rates of marine erosion and will likely experience a catastrophic failure within the next few years if left unprotected and unstabilized.

9.2 INFILL FAILURE AREA WITH LOW-STRENGTH CONCRETE

This option includes infilling the failure area with low-strength (erodible) colored concrete to protect the remaining fill and provide support for the corner of the house (Figures 5 and 6). The concrete can be colored and textured to mimic the natural bluff. Based on the results of our stability analyses, this option would increase the factor of safety against slope instability to 2.2. Over time, the infill will erode back at a similar rate as the surrounding formational soils and is commonly the preferred method of the regulatory agencies.

9.3 TIED-BACK WALL

This option consists of constructing a reinforced tied-back structural wall with a colored and textured sacrificial finish that would mimic the natural bluff. This option is the most robust repair.

10.0 RECOMMENDATIONS

As we understand, the regulatory agencies prefer the least intrusive and least permanent repair. Based on our review of existing documents and our site investigation and slope stability analyses, we recommend the construction of an erodible concrete infill to provide protection of the remaining fill and to support to the existing residential structure. It is our opinion that if immediate action is not taken, continued erosion will result in additional loss of the bluff top, ultimately leading to failure of a portion of the house. The failure will not only jeopardize the integrity of the house, but could also be dangerous for the beach-going public and bluff-top inhabitants alike.

11.0 PROPOSED STABILIZATION

As described above, the proposed stabilization would include clearing the old construction debris at the base of the infill, excavating an approximately 2-foot-deep keyway into the Point Loma Formation soils, and constructing a minimum 4-foot-thick erodible concrete fill slope below elevation +16 feet NGVD 29, and a minimum 3-foot-thick above elevation +16 feet to contain and protect the loose fill soils from marine erosion (Figures 5 and 6). The proposed infill would be constructed behind the property line. Post-grout pipes would be installed extending behind the erodible concrete fill to fill any remaining voids and consolidate the debris fill soils. Subdrains would be drilled and extended through the erodible concrete and debris fill along the formational contact into the Cabrillo Formation.

We recommend that the erodible concrete fill consist of controlled low strength material (CLSM) and comply with the provisions of Section 201-6 of the Greenbook Standard Specifications for Public Works Construction. The CLSM mix design shall attain a minimum 28-day unconfined

compressive strength of 300 psi. The mix shall include the following materials per cubic yard of concrete:

Type II Portland Cement	200 pounds
Type F Fly Ash	180 pounds

12.0 LIMITATIONS

Coastal engineering and the earth sciences are characterized by uncertainty. Professional judgments represented herein are based partly on our evaluation of the technical information gathered, partly on our understanding of the proposed construction, and partly on our general experience. Our engineering work and judgments rendered meet the current professional standards; we do not guarantee the performance of the project in any respect. This warranty is in lieu of all other warranties, expressed or implied.

We have observed only a small portion of the pertinent soil and groundwater conditions at the proposed project site. The recommendations made herein are based on the assumption that soil conditions do not deviate appreciably from those found during our field investigation. This assumption is in turn based on an additional assumption that ENGEO will be retained to provide continuous observation and testing during the construction phase of the project in order to confirm our original basis of design. If another geotechnical firm is retained to implement the recommendations contained in this report, they should review this report and accept full responsibility in writing as the Geotechnical Engineer-of-Record. ENGEO cannot accept any responsibility for the project or the assumptions, conclusions, analysis, or recommendations provided herein unless retained to confirm the accuracy of our basis for design, and to provide construction inspection to verify adherence with our recommendations throughout the construction period. If the plans for site development are changed, or if variations or undesirable geotechnical conditions are encountered during construction, ENGEO should be consulted for further recommendations.

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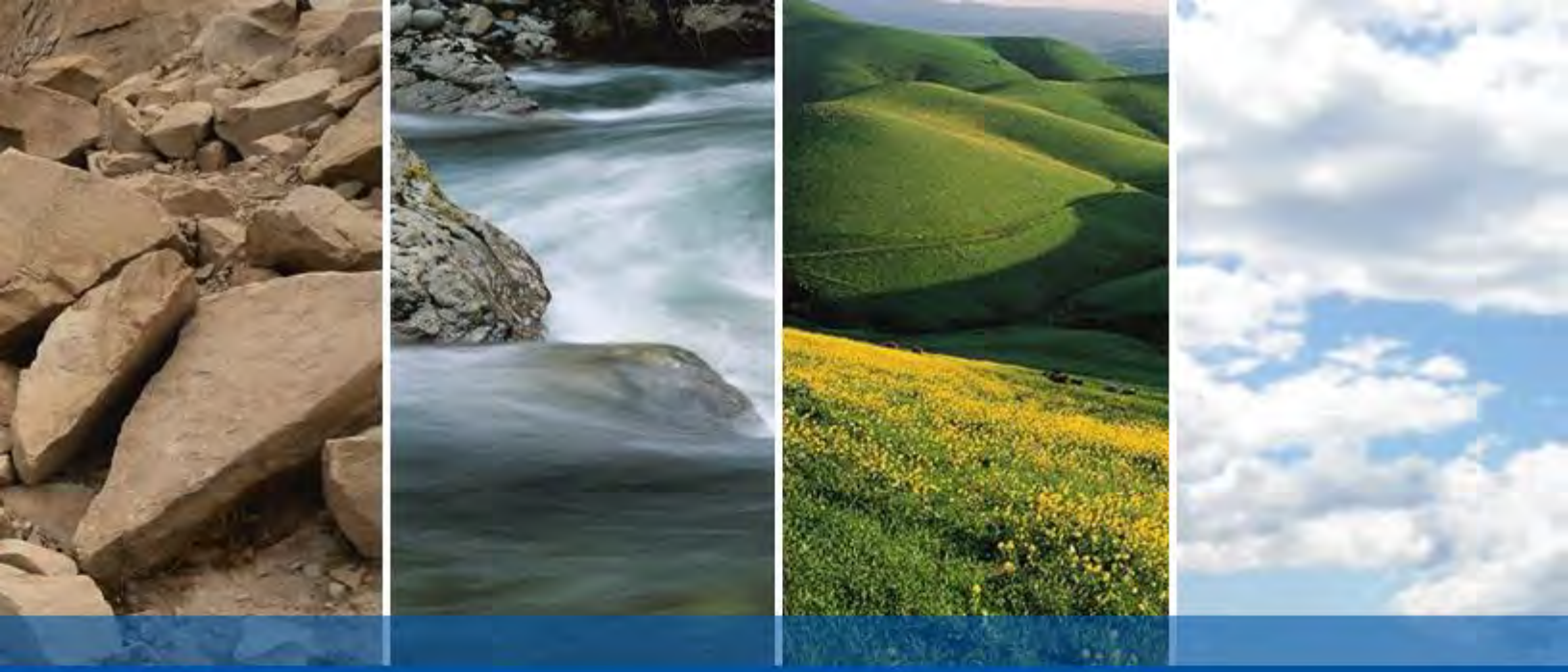

PHOTOGRAPHS

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Project: 5386 Calumet Avenue, La Jolla | Project No. T2976.000.000 | Photo 1

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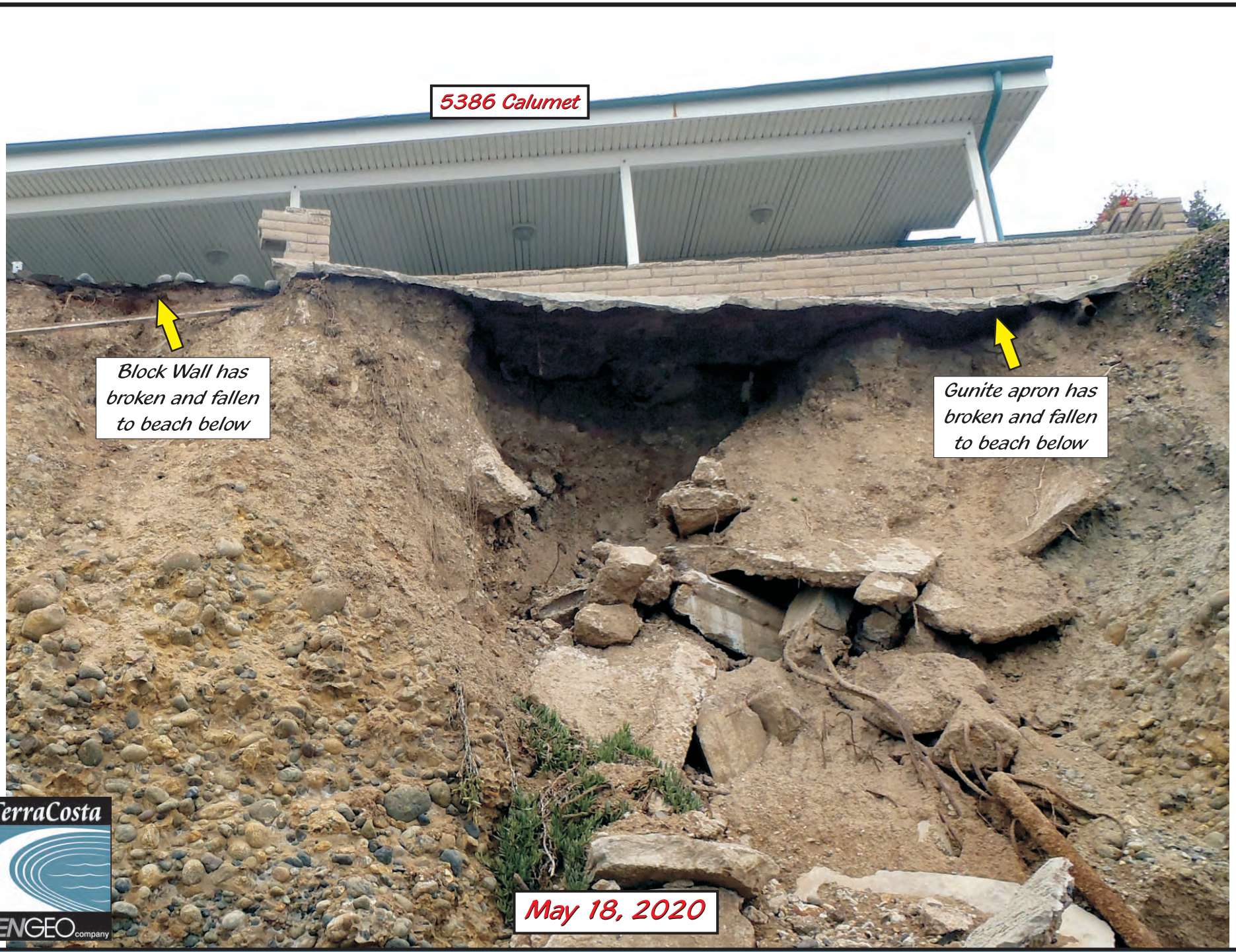

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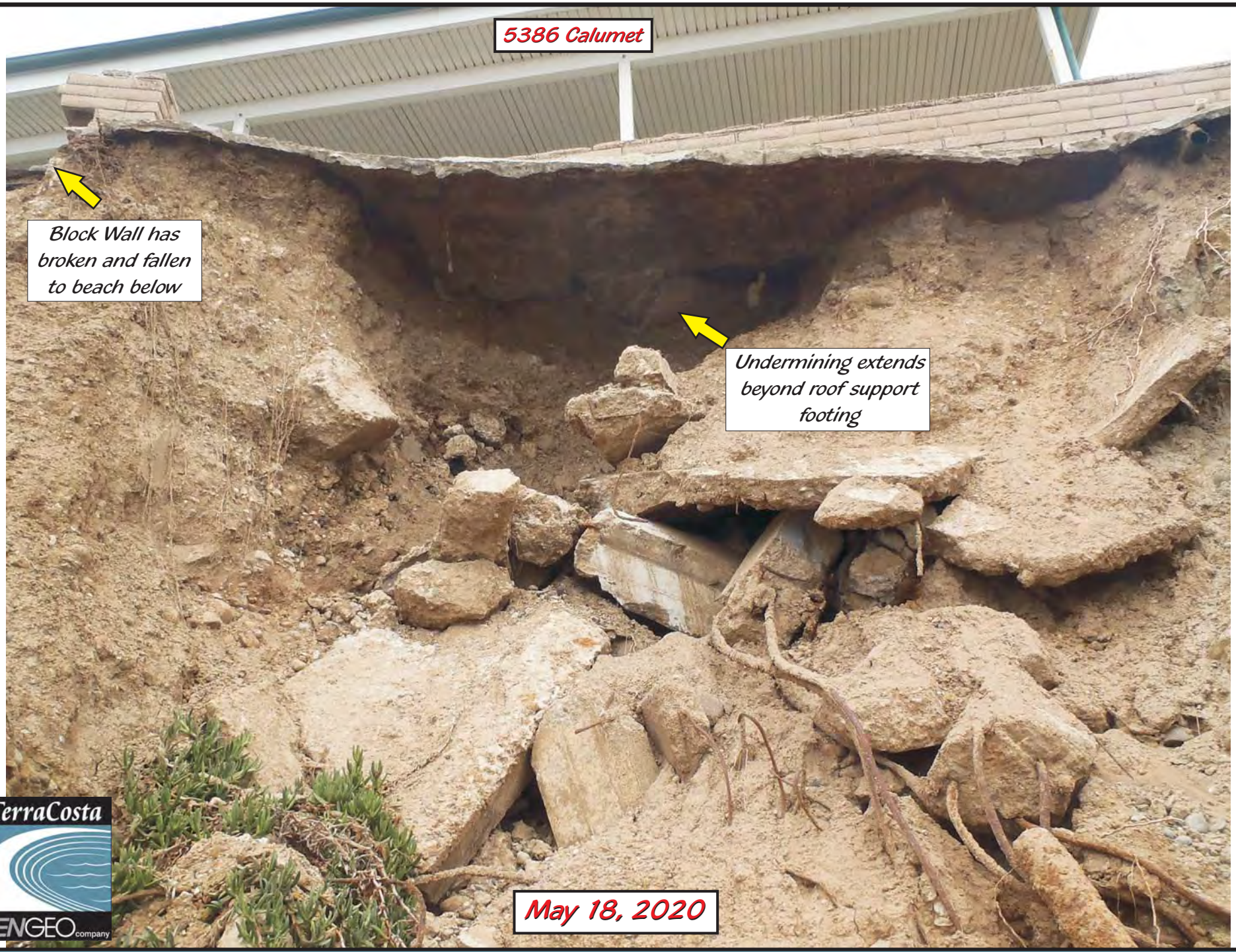

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PHOTO 6: *Drone photo taken January 18, 2021.*

PHOTO 6A: *Bluff below residence on February 4, 2021.*

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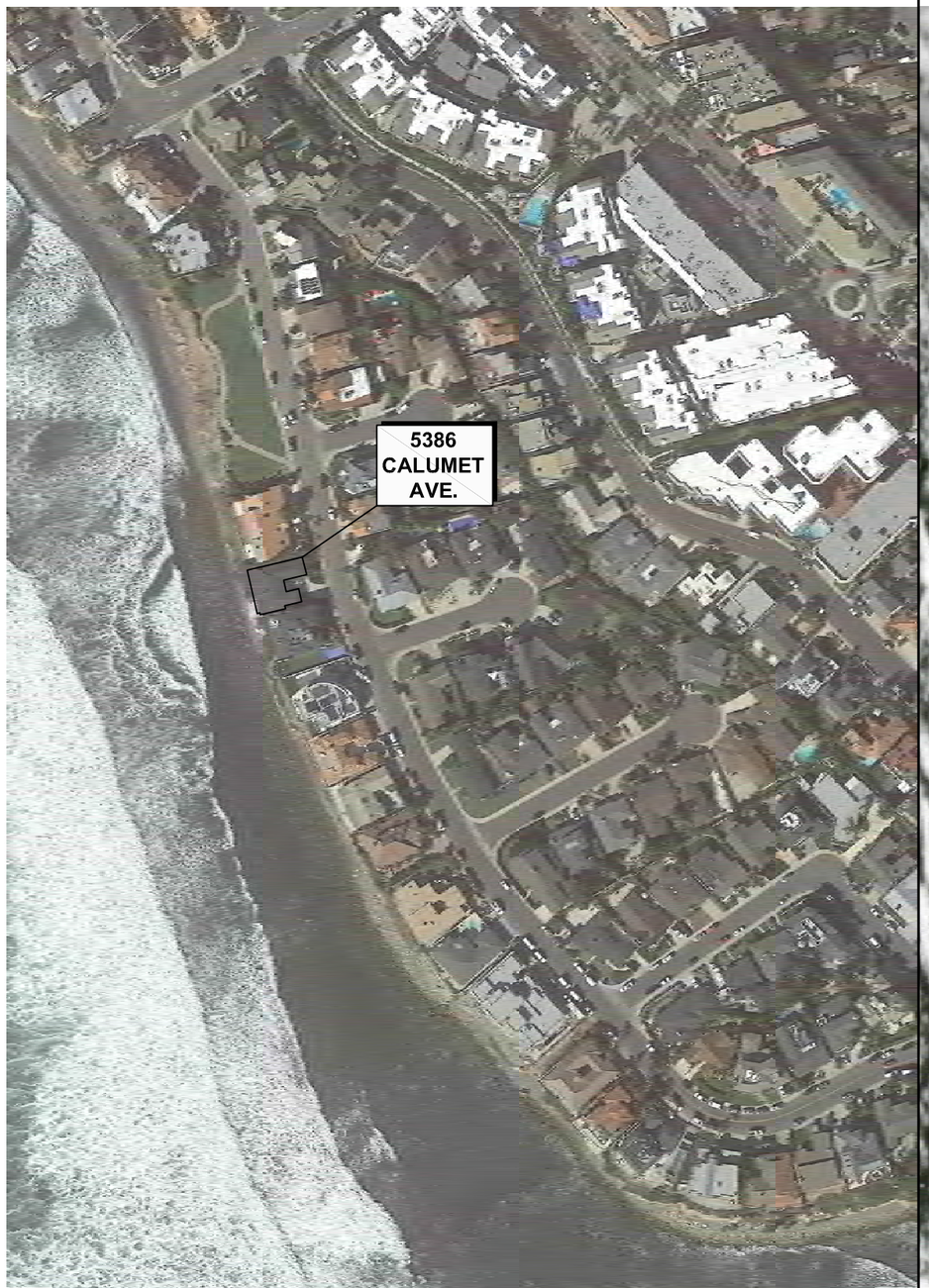
PROJECT:
5386 CALUMET AVENUE, LA JOLLA

PHOTO NOS.:
6 - 6A



2016 GOOGLE EARTH IMAGE

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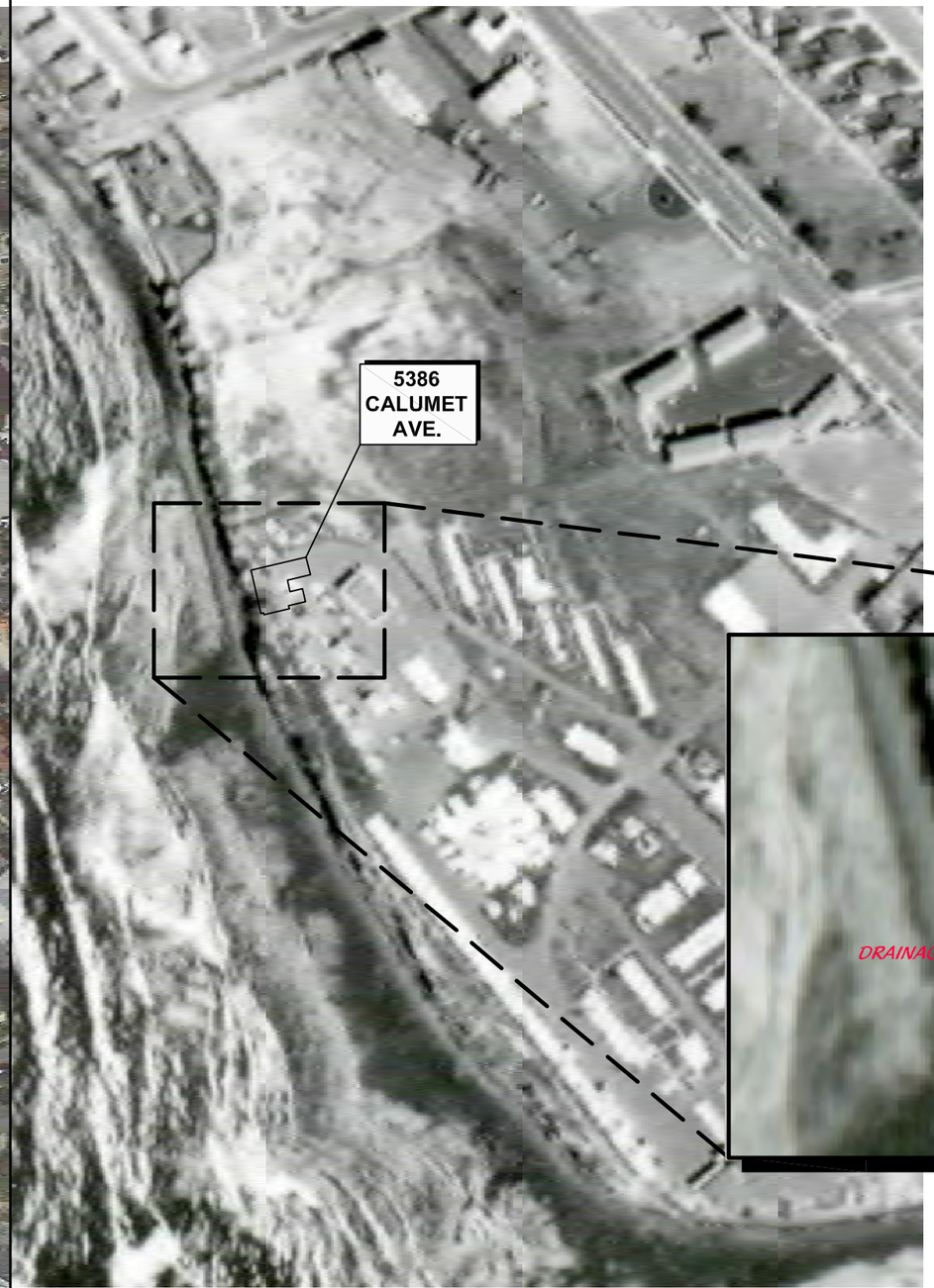

1953 AERIAL PHOTO

APPROXIMATE SCALE: 1"=200'

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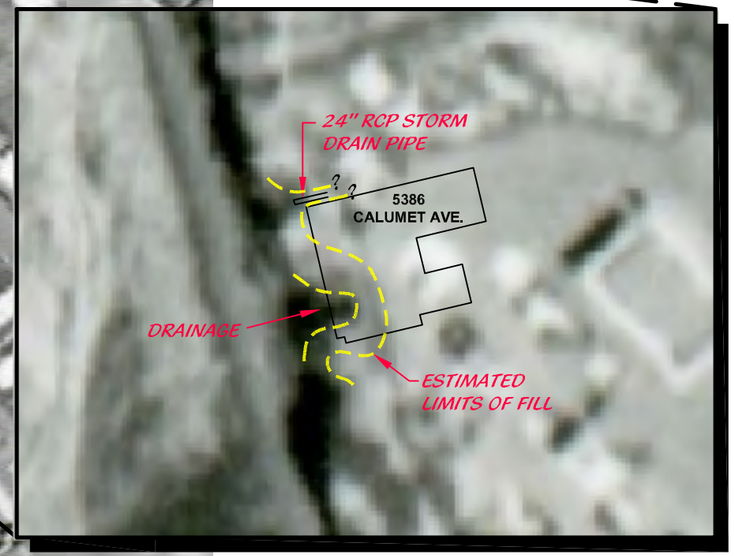
SCALE: 1"=200'



1953 AERIAL DETAIL

NOT TO SCALE

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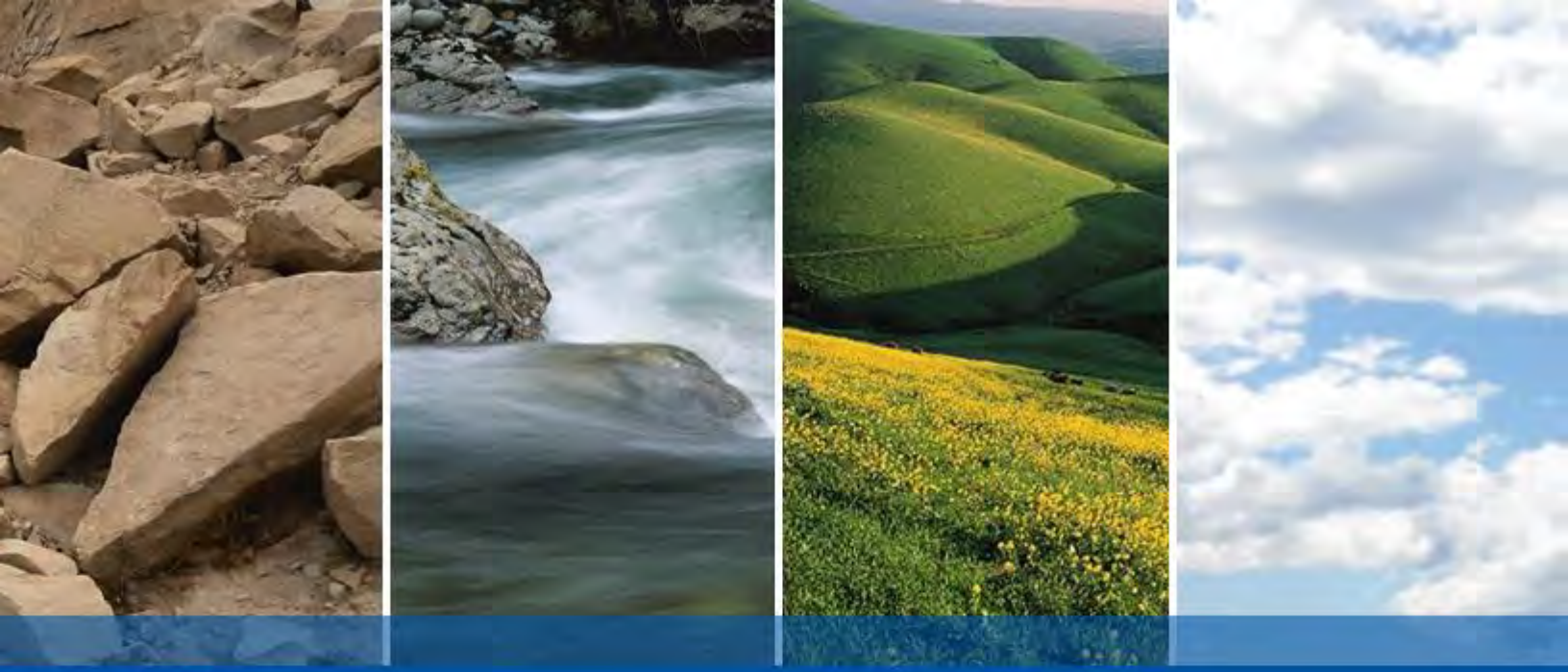
PHOTO NUMBER
7

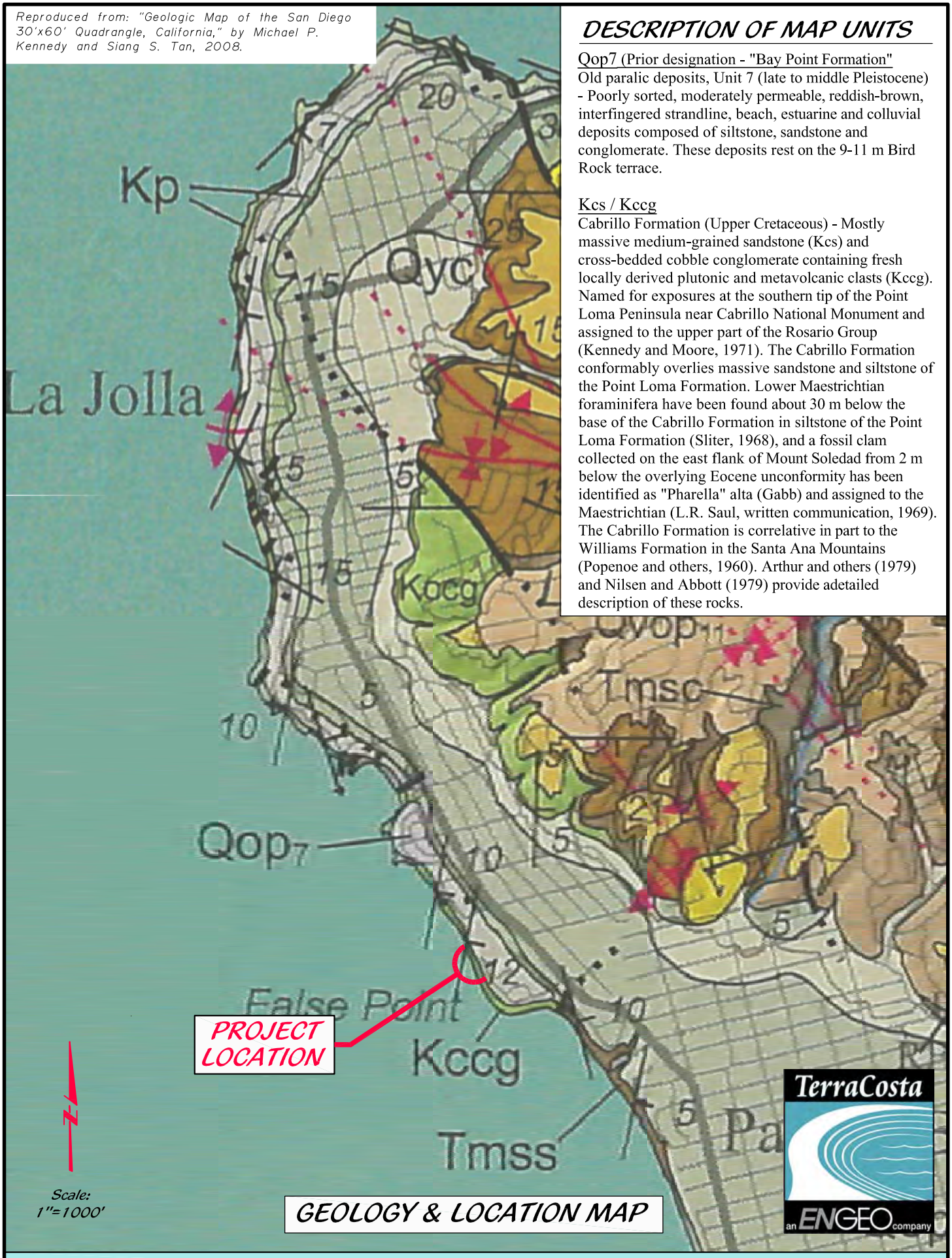
PROJECT NAME
5386 CALUMET AVENUE
LA JOLLA

PROJECT NUMBER
T2976.000.000

AERIAL PHOTOS
2016 and 1953



FIGURES

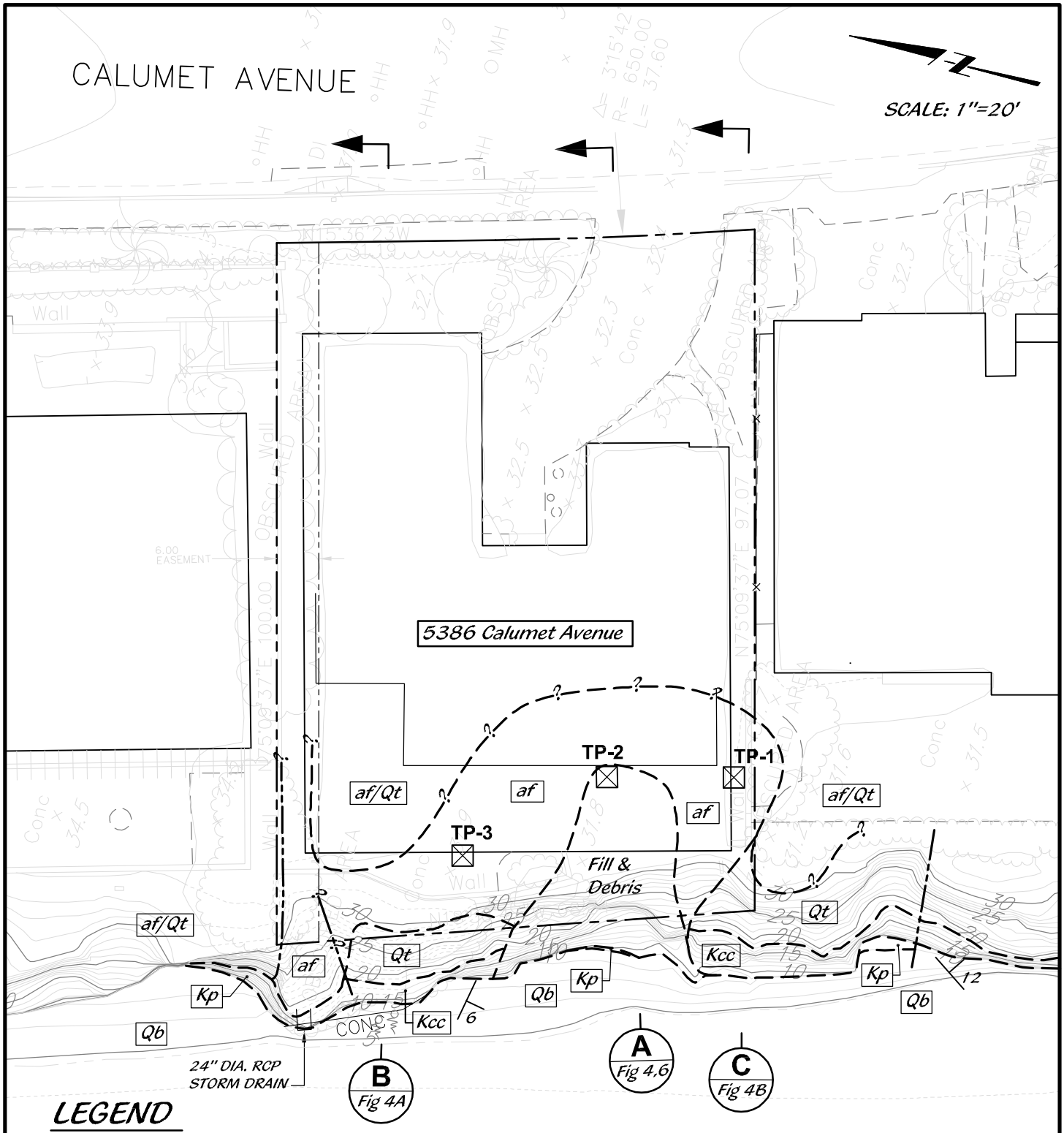


Reproduced from: "Geologic Map of the San Diego 30'x60' Quadrangle, California," by Michael P. Kennedy and Siang S. Tan, 2008.

DESCRIPTION OF MAP UNITS

Qop7 (Prior designation - "Bay Point Formation"
Old paralic deposits, Unit 7 (late to middle Pleistocene) - Poorly sorted, moderately permeable, reddish-brown, interfingered strandline, beach, estuarine and colluvial deposits composed of siltstone, sandstone and conglomerate. These deposits rest on the 9-11 m Bird Rock terrace.

Kcs / Kccg
Cabrillo Formation (Upper Cretaceous) - Mostly massive medium-grained sandstone (Kcs) and cross-bedded cobble conglomerate containing fresh locally derived plutonic and metavolcanic clasts (Kccg). Named for exposures at the southern tip of the Point Loma Peninsula near Cabrillo National Monument and assigned to the upper part of the Rosario Group (Kennedy and Moore, 1971). The Cabrillo Formation conformably overlies massive sandstone and siltstone of the Point Loma Formation. Lower Maestrichtian foraminifera have been found about 30 m below the base of the Cabrillo Formation in siltstone of the Point Loma Formation (Sliter, 1968), and a fossil clam collected on the east flank of Mount Soledad from 2 m below the overlying Eocene unconformity has been identified as "Pharella" alta (Gabb) and assigned to the Maestrichtian (L.R. Saul, written communication, 1969). The Cabrillo Formation is correlative in part to the Williams Formation in the Santa Ana Mountains (Popenoe and others, 1960). Arthur and others (1979) and Nilsen and Abbott (1979) provide adetailed description of these rocks.



LEGEND

af	ARTIFICIAL FILL
Qb	BEACH DEPOSITS
Qt	LATE PLEISTOCENE BAY POINT FORMATION (POORLY CONSOLIDATED SANDS)
Kcc	LATE CRETACEOUS CABRILLO FORMATION (CONGLOMERATIC SANDSTONES)
Kp	LATE CRETACEOUS POINT LOMA FORMATION (SANDSTONES)
-------	CONTACT "BOUNDARY" BETWEEN TWO GEOLOGIC AND/OR SOIL UNITS
——--——	FAULT
12	BEDDING ATTITUDE

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FIGURE NUMBER
2

PROJECT NAME
5386 CALUMET AVENUE
LA JOLLA

PROJECT NUMBER
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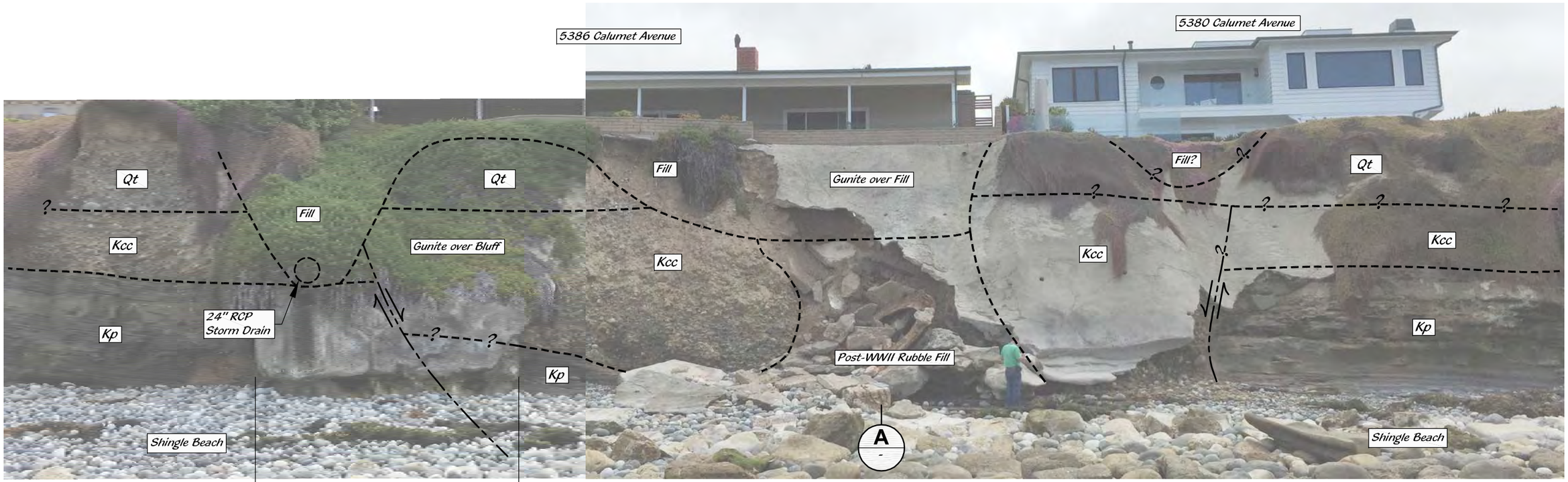
SITE PLAN



Date of Photo: May 17, 2017

PHOTO FROM BEACH

NOT TO SCALE

LEGEND

Qt	LATE PLEISTOCENE TERRACE DEPOSITS (POORLY CONSOLIDATED SANDS)
Kcc	LATE CRETACEOUS CABRILLO FORMATION (CONGLOMERATIC SANDSTONES)
Kp	LATE CRETACEOUS POINT LOMA FORMATION (SANDSTONES)
- - - - - -	CONTACT "BOUNDARY" BETWEEN TWO GEOLOGIC AND/OR SOIL UNITS
	FAULT

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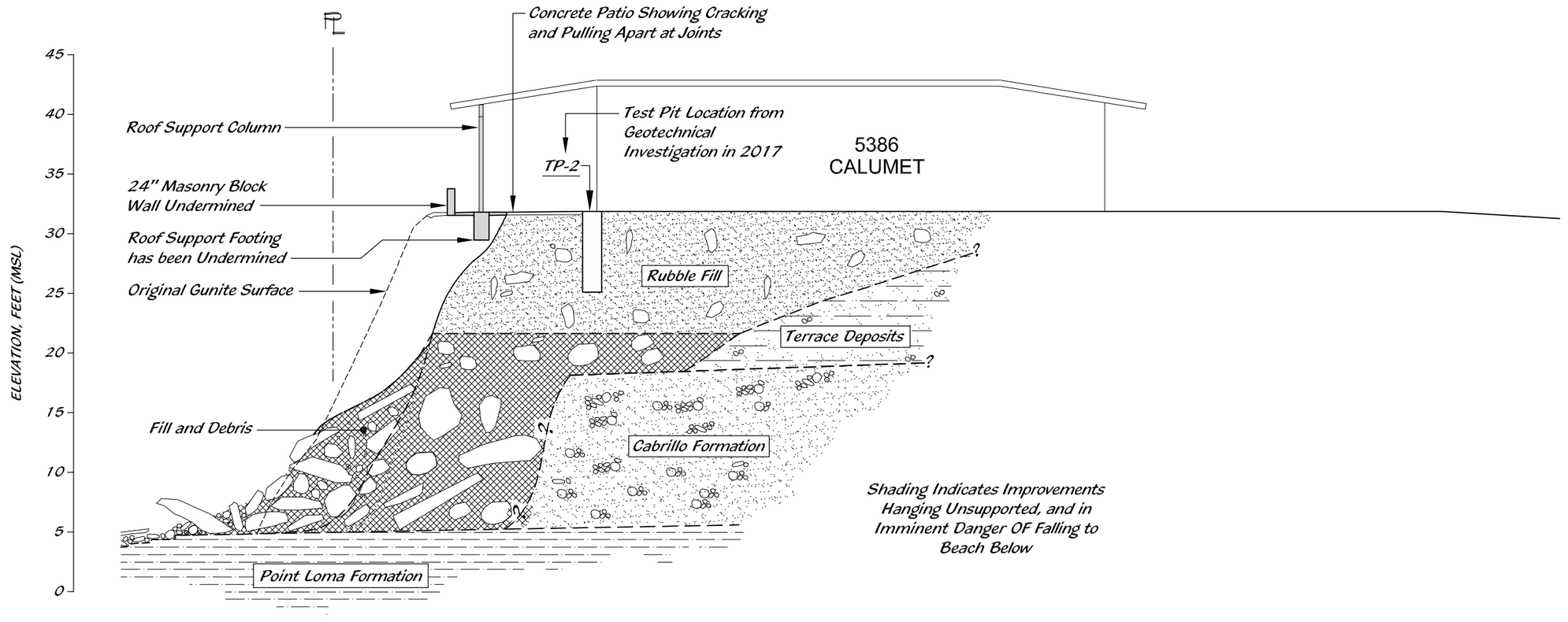
FIGURE NUMBER 3

PROJECT NAME: 5386 CALUMET AVENUE LA JOLLA

PROJECT NUMBER: T2976.000.000

GEOLOGIC PROFILE



Shading Indicates Improvements Hanging Unsupported, and in Imminent Danger OF Falling to Beach Below

CROSS SECTION-EXISTING

A
-

SCALE: 1"=10'

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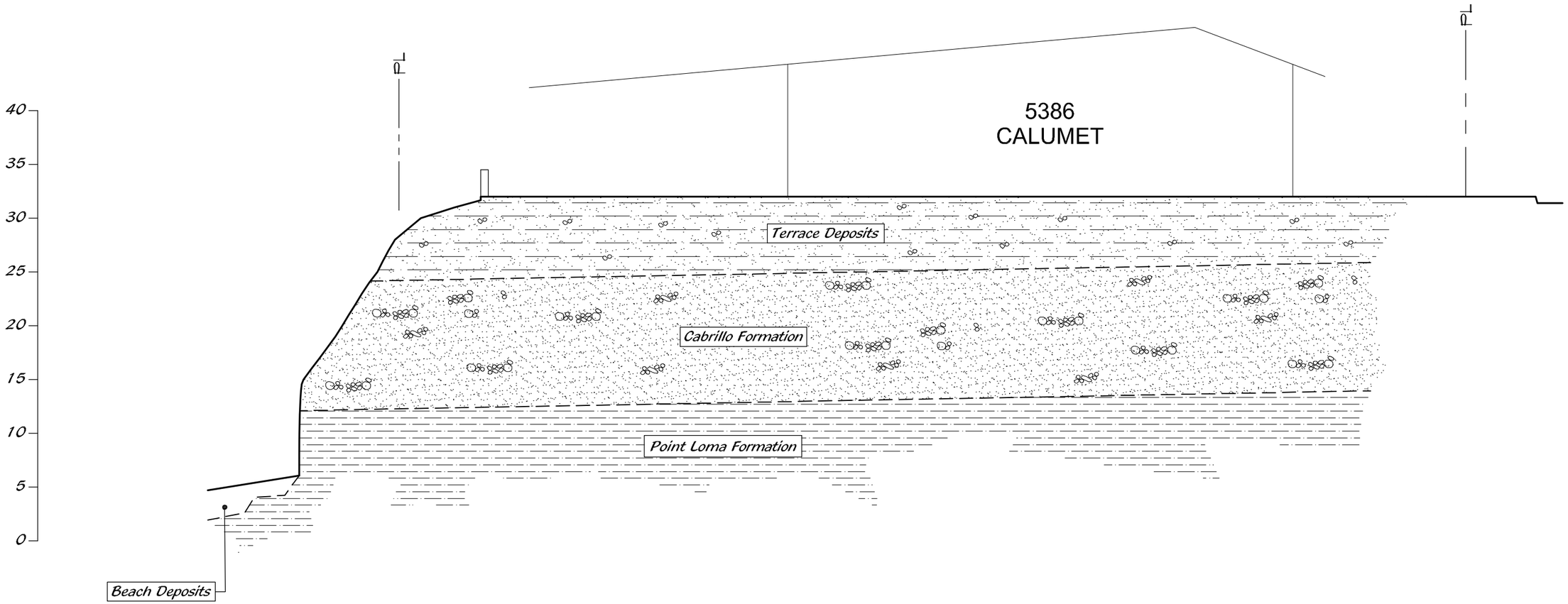
FIGURE NUMBER
4

PROJECT NAME
5386 CALUMET AVENUE
LA JOLLA

PROJECT NUMBER
T2976.000.000

EXISTING CROSS SECTION



CROSS SECTION-EXISTING

SCALE: 1"=10'

B
-

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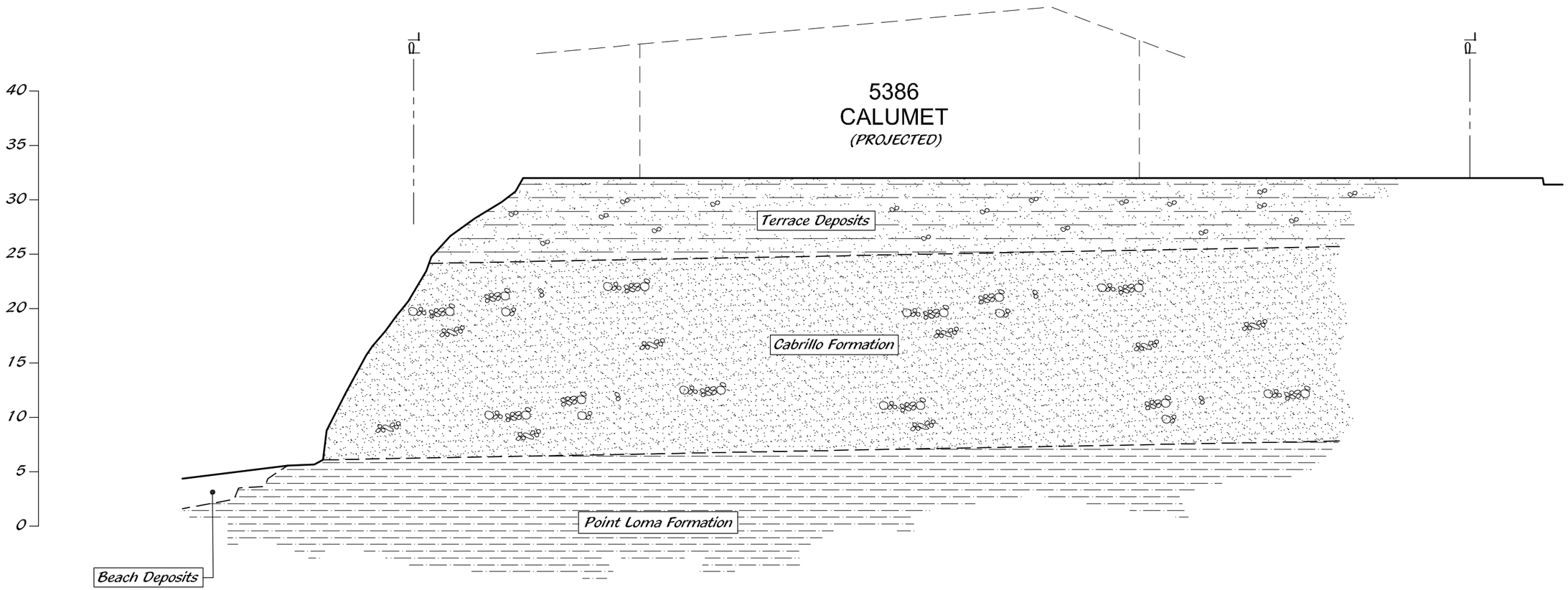
TERRACOSTA CONSULTING GROUP
ENGINEERS AND GEOLOGISTS
3890 MURPHY CANYON ROAD, SUITE 200
SAN DIEGO, CA 92123 (858) 573-6900

FIGURE NUMBER
4A

PROJECT NAME
5386 CALUMET AVENUE
LA JOLLA

PROJECT NUMBER
T2976.000.000

EXISTING CROSS SECTION



CROSS SECTION-EXISTING

SCALE: 1"=10'

C
-

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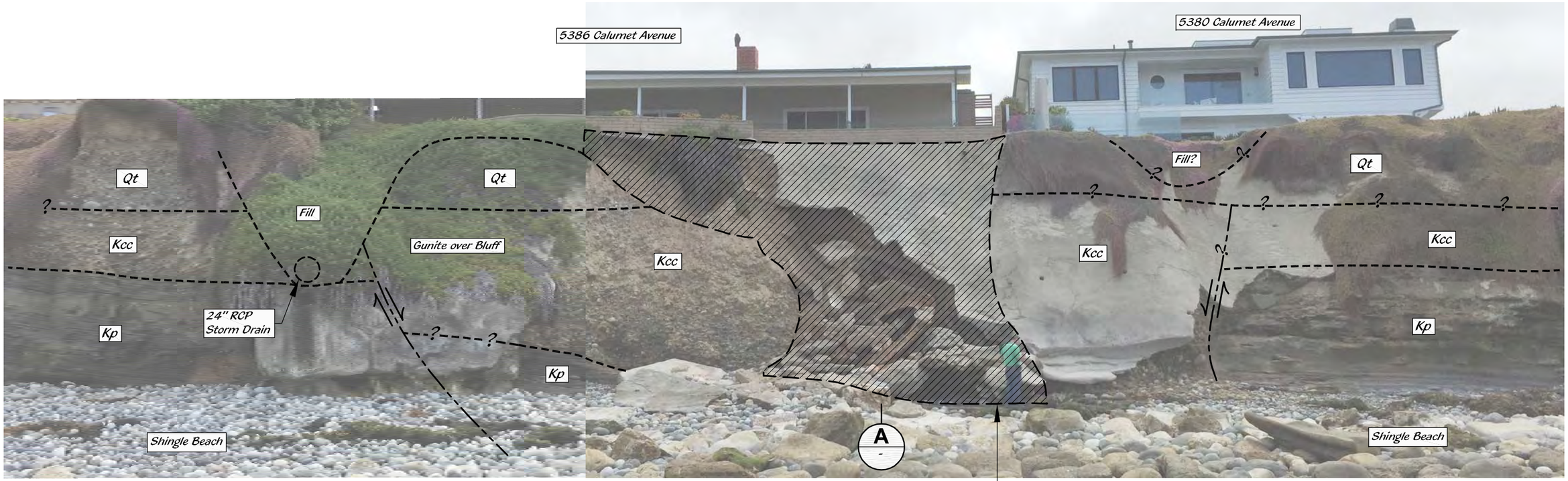
TERRACOSTA CONSULTING GROUP
ENGINEERS AND GEOLOGISTS
3890 MURPHY CANYON ROAD, SUITE 200
SAN DIEGO, CA 92123 (858) 573-6900

FIGURE NUMBER
4B

PROJECT NAME
5386 CALUMET AVENUE
LA JOLLA

PROJECT NUMBER
T2976.000.000

EXISTING CROSS SECTION



Date of Photo: May 17, 2017

APPROXIMATE LIMITS OF
PROPOSED EMERGENCY REPAIR

PHOTO FROM BEACH

NOT TO SCALE

LEGEND

Qt	LATE PLEISTOCENE TERRACE DEPOSITS (POORLY CONSOLIDATED SANDS)
Kcc	LATE CRETACEOUS CABRILLO FORMATION (CONGLOMERATIC SANDSTONES)
Kp	LATE CRETACEOUS POINT LOMA FORMATION (SANDSTONES)
- - - - - -	CONTACT "BOUNDARY" BETWEEN TWO GEOLOGIC AND/OR SOIL UNITS
	FAULT

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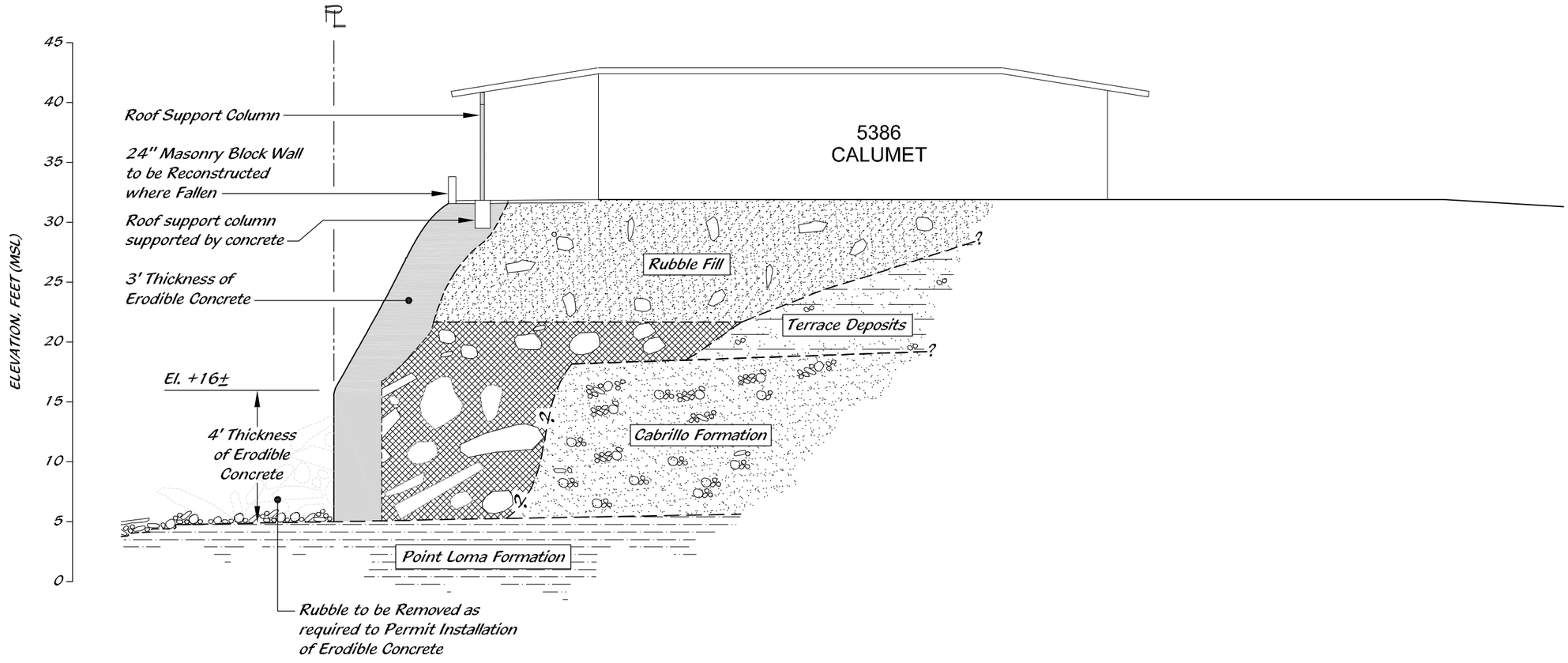
ENGINEERS AND GEOLOGISTS
4455 MURPHY CANYON ROAD, SUITE 100
SAN DIEGO, CA 92123 (858) 573-6900

FIGURE NUMBER
5

PROJECT NAME
5386 CALUMET AVENUE
LA JOLLA

PROJECT NUMBER
T2976.000.000

PROPOSED REPAIR



CROSS SECTION - PROPOSED

SCALE: 1"=10'

A
-

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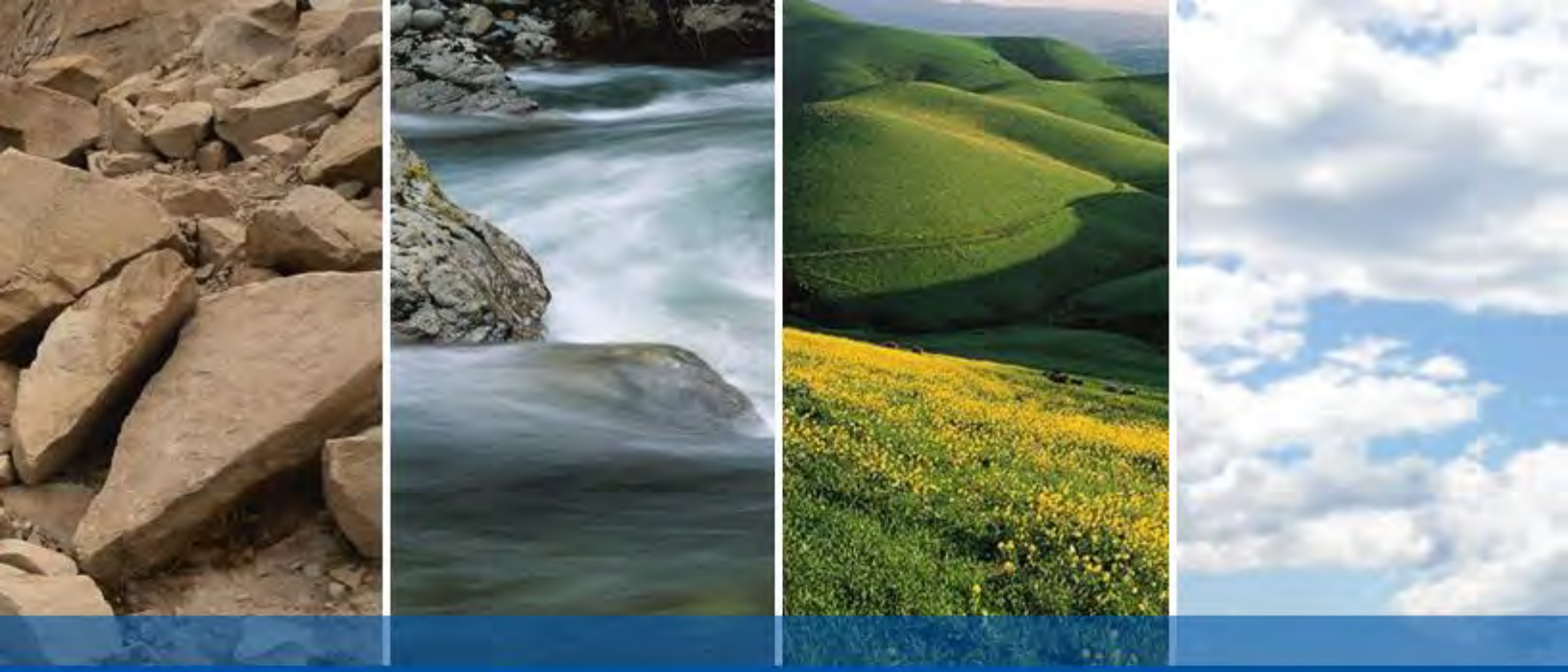
ENGINEERS AND GEOLOGISTS
3890 MURPHY CANYON ROAD, SUITE 200
SAN DIEGO, CA 92123 (858) 573-6900

FIGURE NUMBER
6

PROJECT NAME
5386 CALUMET AVENUE
LA JOLLA

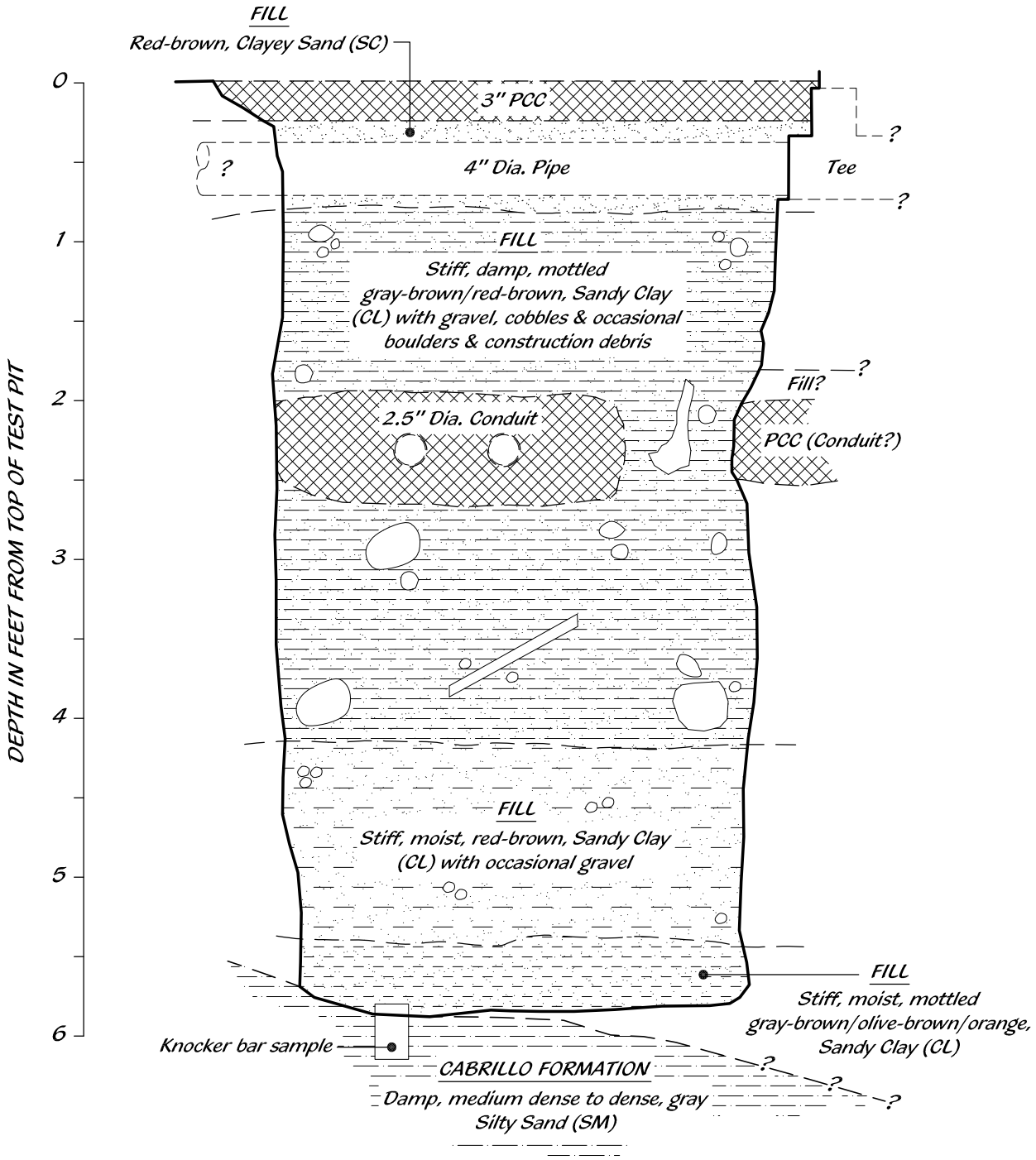
PROJECT NUMBER
T2976.000.000

PROPOSED CROSS SECTION



APPENDIX A

Logs of Test Pits



NOTES:

Grab Sample 6'±

Knocker Bar 6'±

LOG OF TEST PIT TP-1

SCALE: 1"=1'

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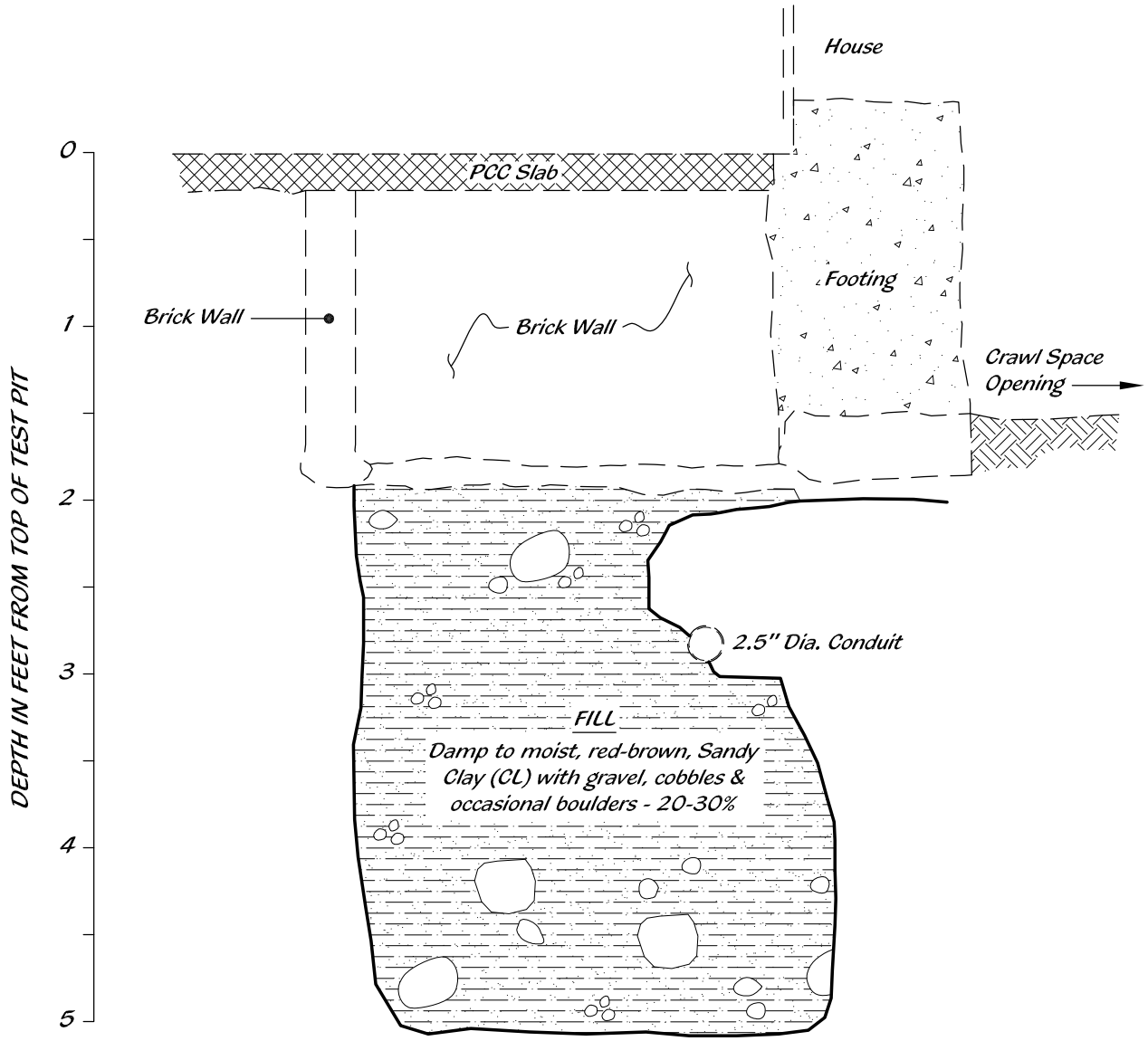
3890 MURPHY CANYON ROAD, SUITE 200
SAN DIEGO, CA 92123 (858) 573-6900

FIGURE NUMBER
A-1

PROJECT NAME
5386 CALUMET AVENUE
LA JOLLA

PROJECT NUMBER
T2976.000.000

LOG OF TEST PIT



NOTE:
Sack Sample 3'-5'

LOG OF TEST PIT TP-2

SCALE: 1"=1'

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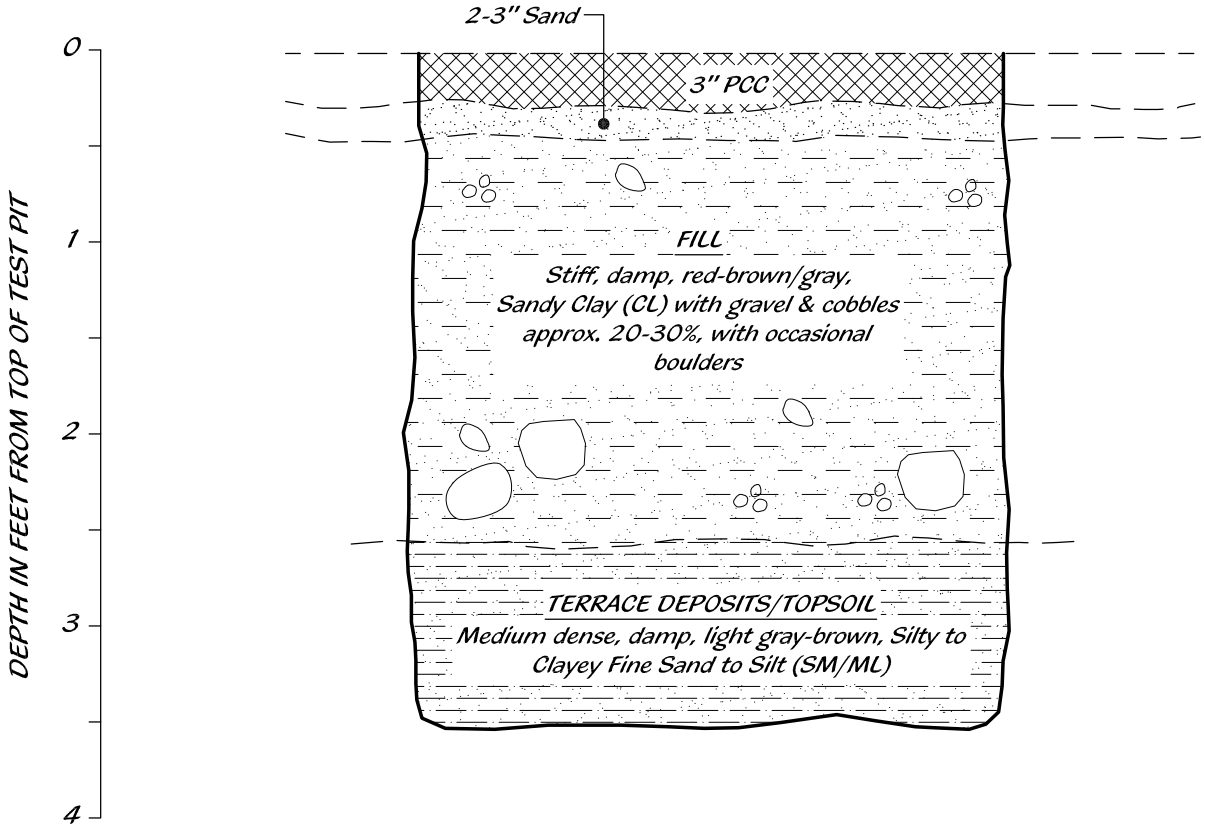
FIGURE NUMBER
A-2

PROJECT NAME
5386 CALUMET AVENUE
LA JOLLA

PROJECT NUMBER
T2976.000.000

LOG OF TEST PIT



NOTE:
Grab Sample 3'-3.5'

LOG OF TEST PIT TP-3

SCALE: 1"=1'

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3890 MURPHY CANYON ROAD, SUITE 200
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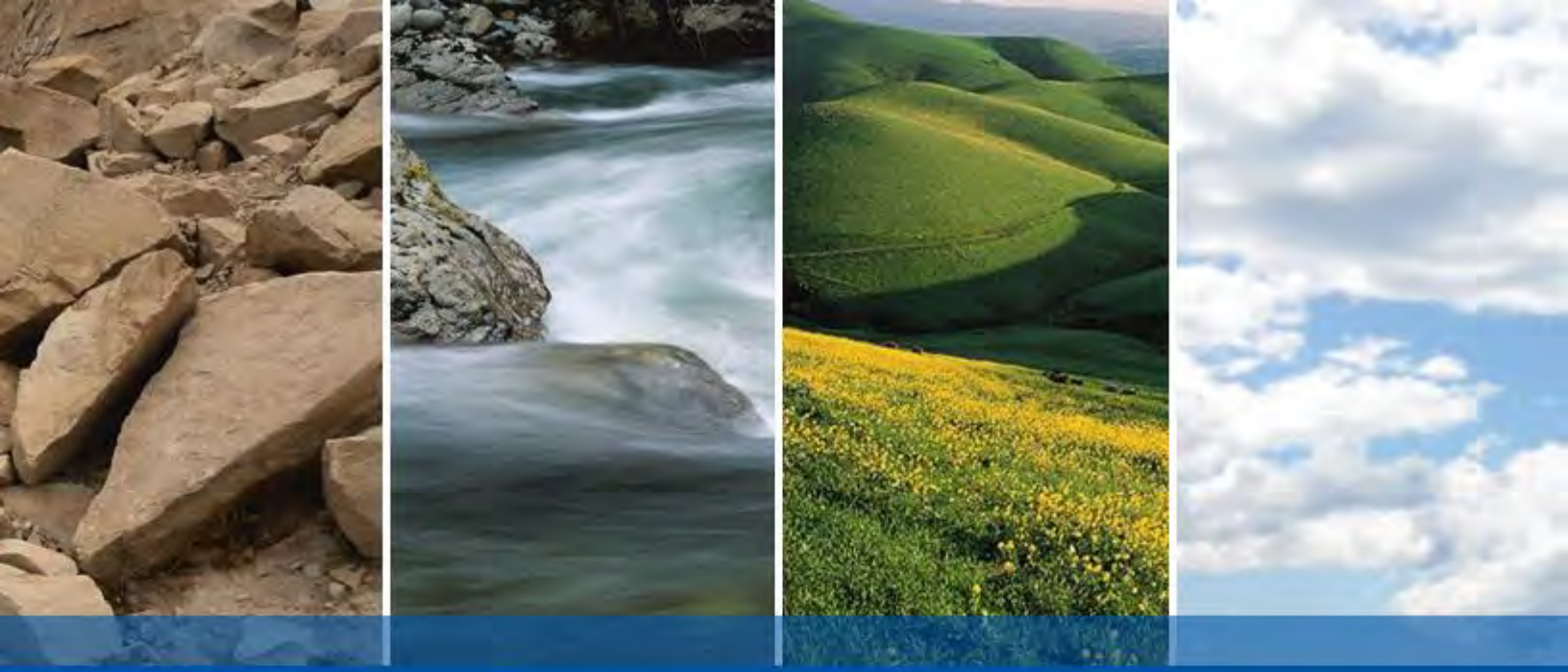
FIGURE NUMBER
A-3

PROJECT NAME
5386 CALUMET AVENUE
LA JOLLA

PROJECT NUMBER
T2976.000.000

LOG OF TEST PIT



APPENDIX B

Slope Stability Analyses

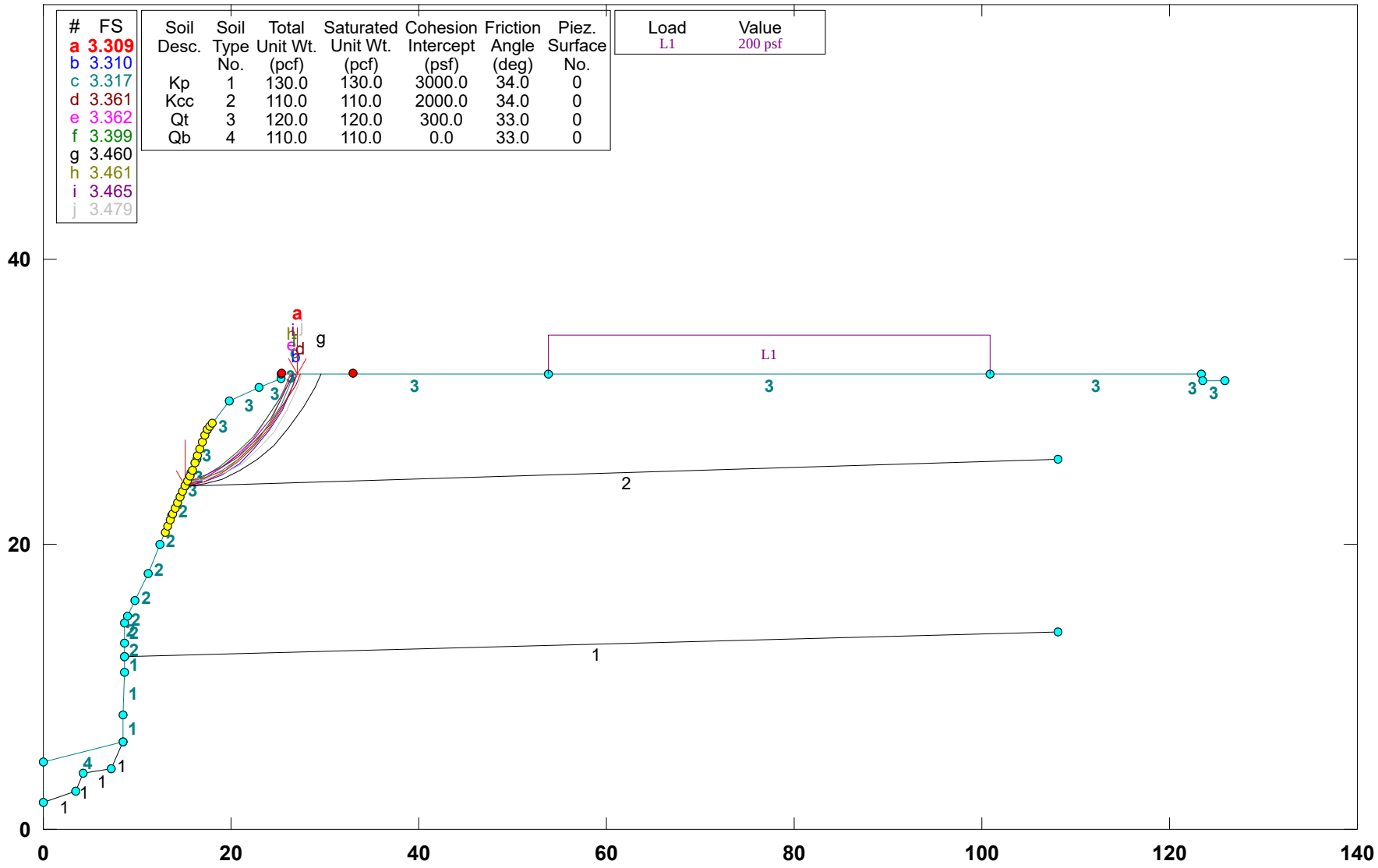
5386 Calumet Avenue Section A - Existing, Static, Min

c:\project files\2900-2999\2976, 5386 calumet avenue, kcabrillo, qop7, debris fill\2021-09-08 crh\section a_existing_static_min.pl2 Run By: ENGEO 9/9/2021 05:13PM

#	FS
a	3.309
b	3.310
c	3.317
d	3.361
e	3.362
f	3.399
g	3.460
h	3.461
i	3.465
j	3.479

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Kp	1	130.0	130.0	3000.0	34.0	0
Kcc	2	110.0	110.0	2000.0	34.0	0
Qt	3	120.0	120.0	300.0	33.0	0
Qb	4	110.0	110.0	0.0	33.0	0

Load	Value
L1	200 psf



GSTABL7 v.2 FSmin=3.309

Safety Factors Are Calculated By The Modified Bishop Method

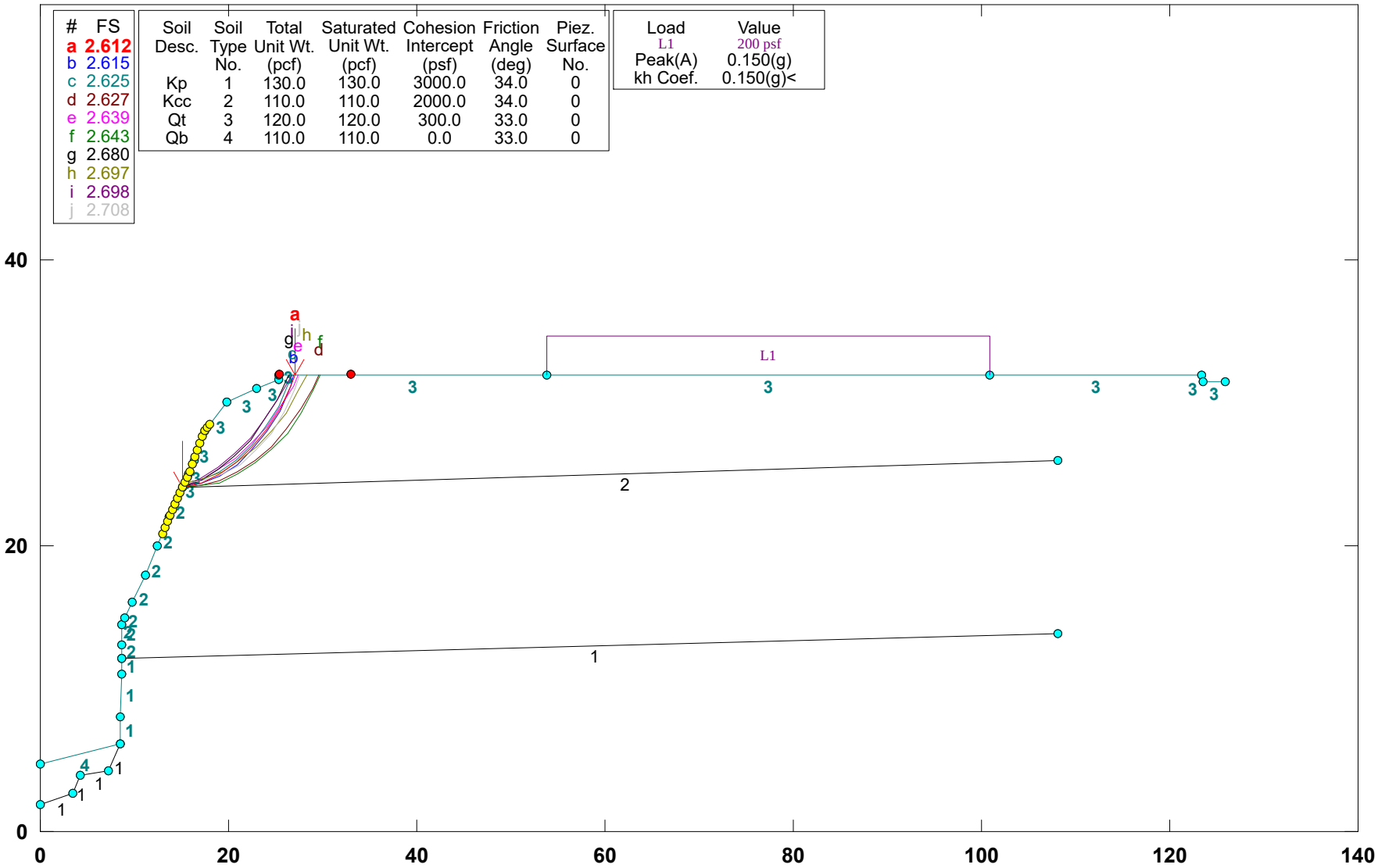
5386 Calumet Avenue Section A - Existing, Dynamic, Min

c:\project files\2900-2999\2976, 5386 calumet avenue, kcabrillo, qop7, debris fill\2021-09-08 crh\section a_existing_dynamic_min.pl2 Run By: ENGEO 9/9/2021 05:10PM

#	FS
a	2.612
b	2.615
c	2.625
d	2.627
e	2.639
f	2.643
g	2.680
h	2.697
i	2.698
j	2.708

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Kp	1	130.0	130.0	3000.0	34.0	0
Kcc	2	110.0	110.0	2000.0	34.0	0
Qt	3	120.0	120.0	300.0	33.0	0
Qb	4	110.0	110.0	0.0	33.0	0

Load	Value
L1	200 psf
Peak(A)	0.150(g)
kh Coef.	0.150(g)<



GSTABL7 v.2 FSmin=2.612

Safety Factors Are Calculated By The Modified Bishop Method

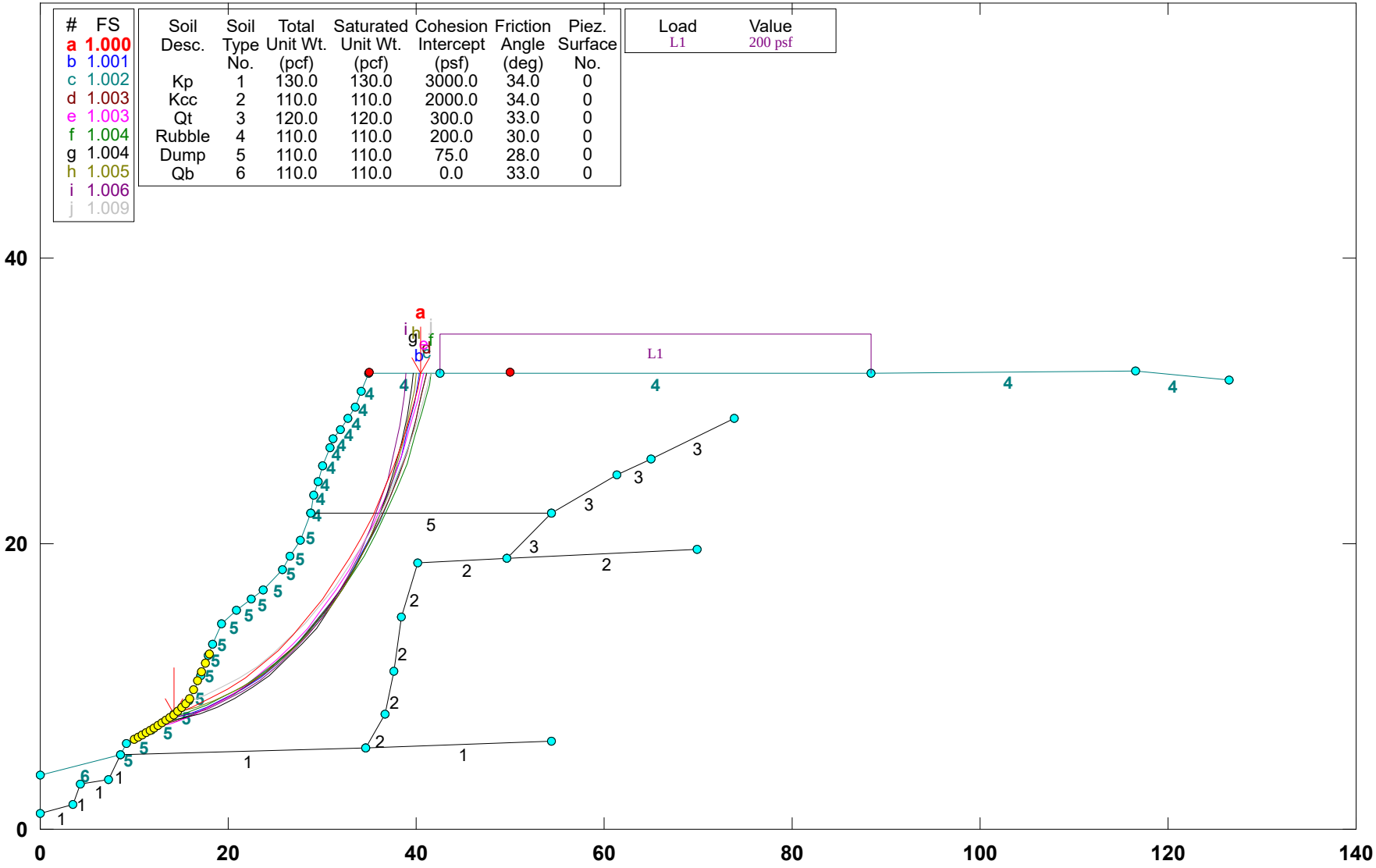
5386 Calumet Avenue Section B - Existing, Static, Min

c:\project files\2900-2999\2976, 5386 calumet avenue, kcabrillo, qop7, debris fill\2021-09-08 crh\section b_existing_static_min.pl2 Run By: ENGEO 9/10/2021 11:02AM

#	FS
a	1.000
b	1.001
c	1.002
d	1.003
e	1.003
f	1.004
g	1.004
h	1.005
i	1.006
j	1.009

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Kp	1	130.0	130.0	3000.0	34.0	0
Kcc	2	110.0	110.0	2000.0	34.0	0
Qt	3	120.0	120.0	300.0	33.0	0
Rubble	4	110.0	110.0	200.0	30.0	0
Dump	5	110.0	110.0	75.0	28.0	0
Qb	6	110.0	110.0	0.0	33.0	0

Load	Value
L1	200 psf



GSTABL7 v.2 FSmin=1.000

Safety Factors Are Calculated By The Modified Bishop Method

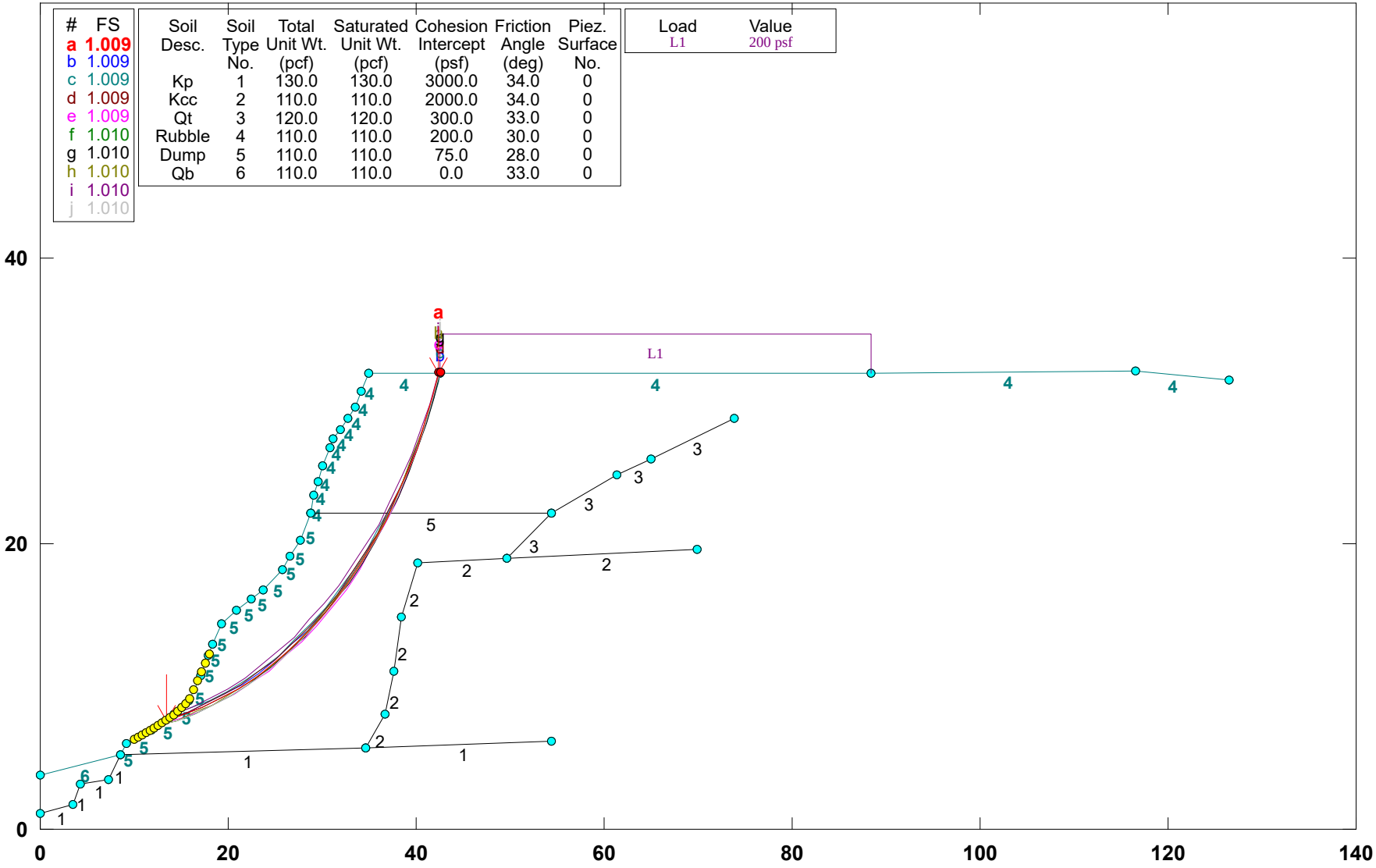
5386 Calumet Avenue Section B - Existing, Static, Footing

c:\project files\2900-2999\2976, 5386 calumet avenue, kcabrillo, qop7, debris fill\2021-09-08 crh\section b_existing_static_footing.pl2 Run By: ENGEO 9/10/2021 11:07AM

#	FS
a	1.009
b	1.009
c	1.009
d	1.009
e	1.009
f	1.010
g	1.010
h	1.010
i	1.010
j	1.010

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Kp	1	130.0	130.0	3000.0	34.0	0
Kcc	2	110.0	110.0	2000.0	34.0	0
Qt	3	120.0	120.0	300.0	33.0	0
Rubble	4	110.0	110.0	200.0	30.0	0
Dump	5	110.0	110.0	75.0	28.0	0
Qb	6	110.0	110.0	0.0	33.0	0

Load	Value
L1	200 psf



GSTABL7 v.2 FSmin=1.009

Safety Factors Are Calculated By The Modified Bishop Method

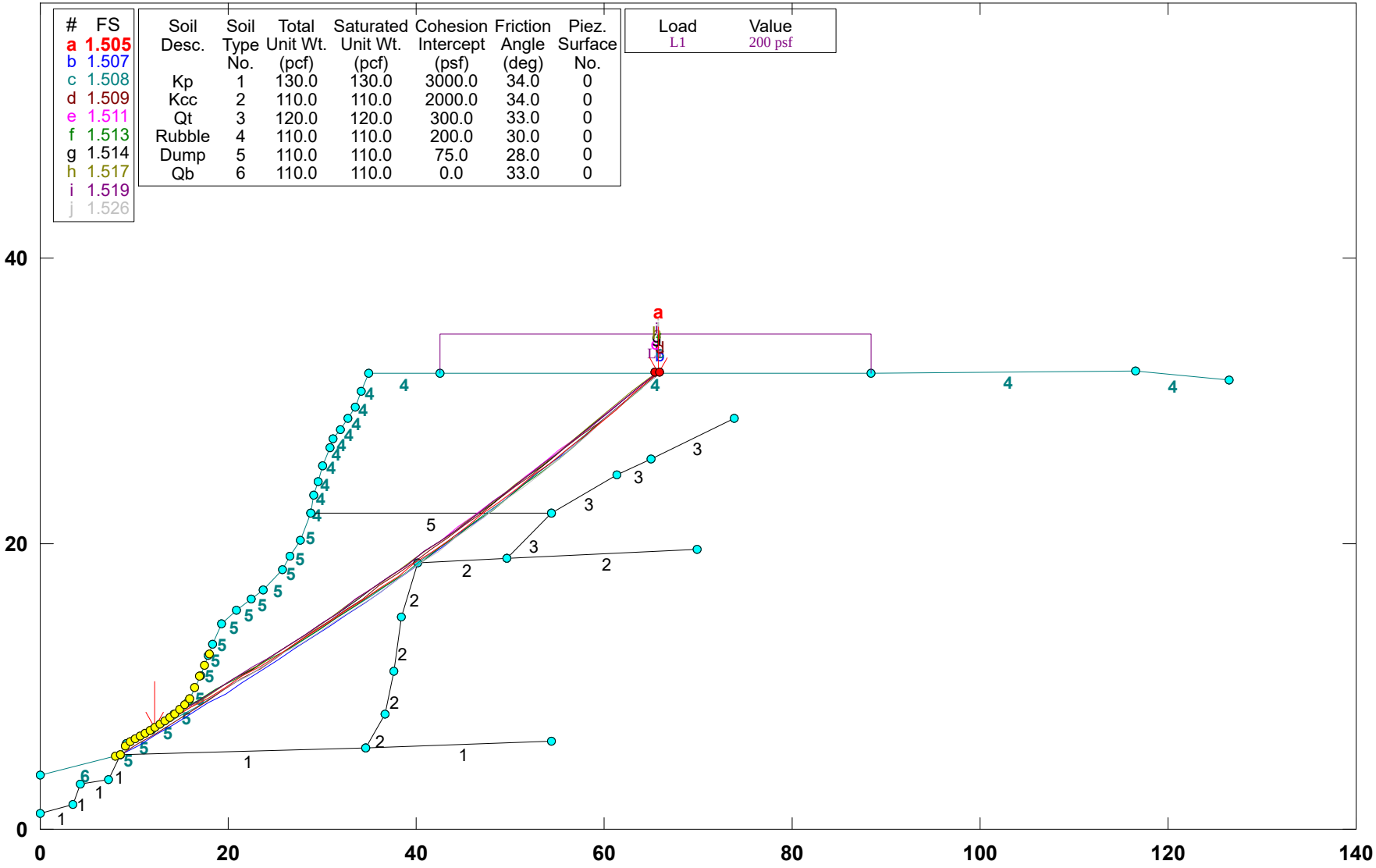
5386 Calumet Avenue Section B - Existing, Static, F.O.S. 1.5

c:\project files\2900-2999\2976, 5386 calumet avenue, kcabrillo, qop7, debris fill\2021-09-08 crh\section b_existing_static_fos15.pl2 Run By: ENGEO 9/10/2021 11:08AM

#	FS
a	1.505
b	1.507
c	1.508
d	1.509
e	1.511
f	1.513
g	1.514
h	1.517
i	1.519
j	1.526

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Kp	1	130.0	130.0	3000.0	34.0	0
Kcc	2	110.0	110.0	2000.0	34.0	0
Qt	3	120.0	120.0	300.0	33.0	0
Rubble	4	110.0	110.0	200.0	30.0	0
Dump	5	110.0	110.0	75.0	28.0	0
Qb	6	110.0	110.0	0.0	33.0	0

Load	Value
L1	200 psf



GSTABL7 v.2 FSmin=1.505

Safety Factors Are Calculated By The Modified Bishop Method

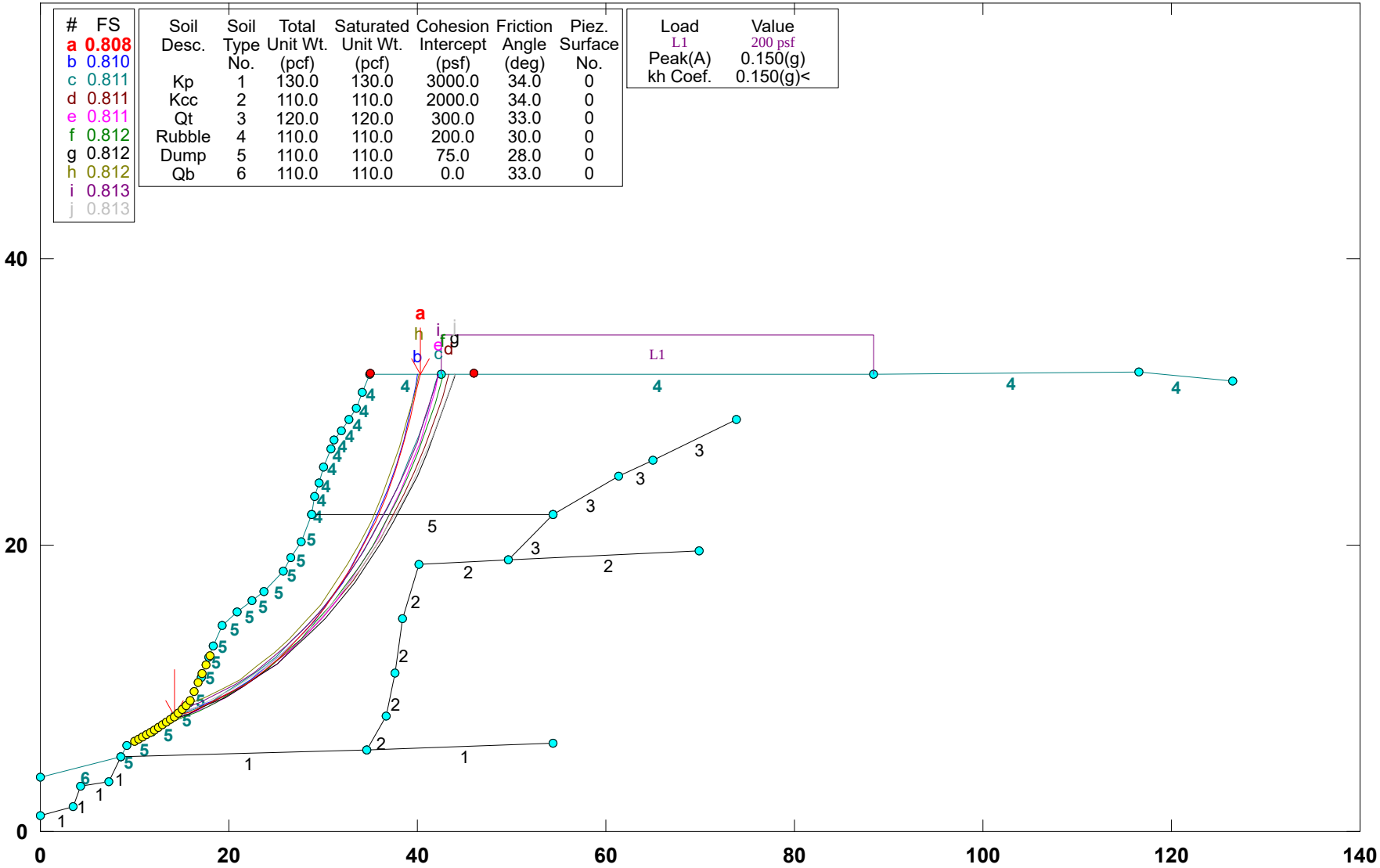
5386 Calumet Avenue Section B - Existing, Dyn, Min

c:\project files\2900-2999\2976, 5386 calumet avenue, kcabrillo, qop7, debris fill\2021-09-08 crh\section b_existing_dynamic_min.pl2 Run By: ENGEO 9/10/2021 11:11AM

#	FS
a	0.808
b	0.810
c	0.811
d	0.811
e	0.811
f	0.812
g	0.812
h	0.812
i	0.813
j	0.813

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Kp	1	130.0	130.0	3000.0	34.0	0
Kcc	2	110.0	110.0	2000.0	34.0	0
Qt	3	120.0	120.0	300.0	33.0	0
Rubble	4	110.0	110.0	200.0	30.0	0
Dump	5	110.0	110.0	75.0	28.0	0
Qb	6	110.0	110.0	0.0	33.0	0

Load	Value
L1	200 psf
Peak(A)	0.150(g)
kh Coef.	0.150(g)<



GSTABL7 v.2 FSmin=0.808

Safety Factors Are Calculated By The Modified Bishop Method

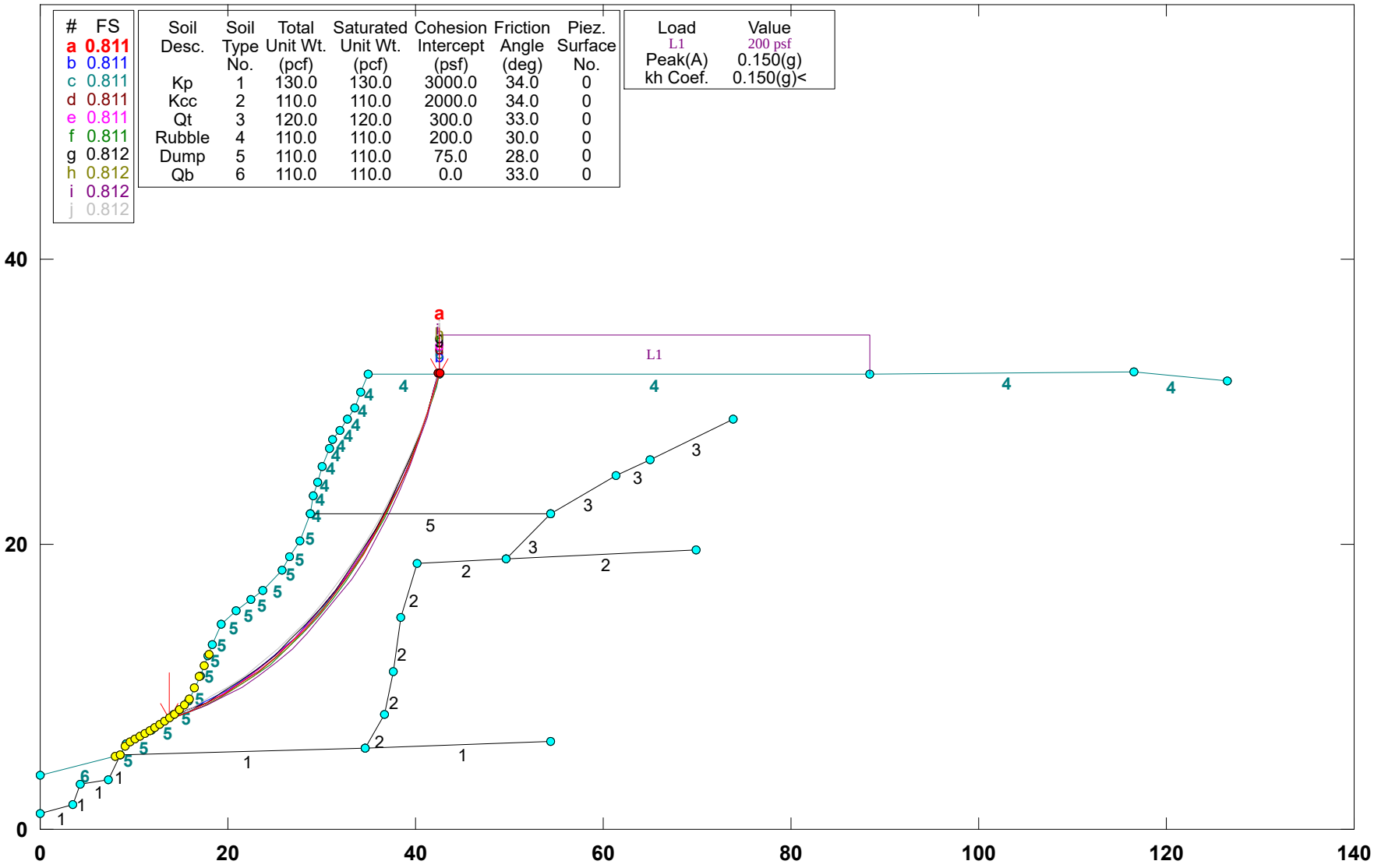
5386 Calumet Avenue Section B - Existing, Dyn, Footing

c:\project files\2900-2999\2976, 5386 calumet avenue, kcabrillo, qop7, debris fill\2021-09-08 crh\section b_existing_dynamic_footing.pl2 Run By: ENGEO 9/10/2021 11:16AM

#	FS
a	0.811
b	0.811
c	0.811
d	0.811
e	0.811
f	0.811
g	0.812
h	0.812
i	0.812
j	0.812

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Kp	1	130.0	130.0	3000.0	34.0	0
Kcc	2	110.0	110.0	2000.0	34.0	0
Qt	3	120.0	120.0	300.0	33.0	0
Rubble	4	110.0	110.0	200.0	30.0	0
Dump	5	110.0	110.0	75.0	28.0	0
Qb	6	110.0	110.0	0.0	33.0	0

Load	Value
L1	200 psf
Peak(A)	0.150(g)
kh Coef.	0.150(g)<



GSTABL7 v.2 FSmin=0.811

Safety Factors Are Calculated By The Modified Bishop Method

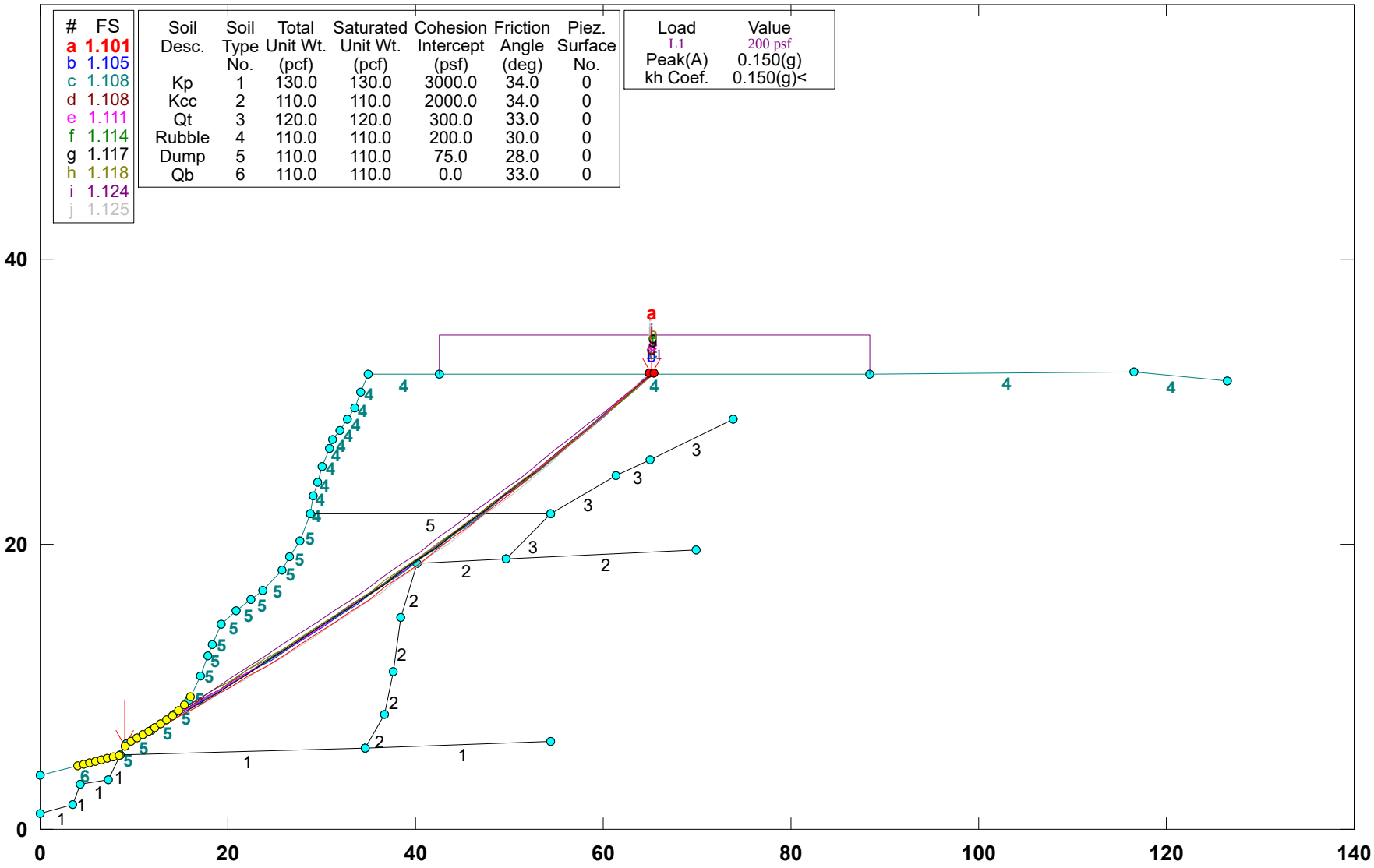
5386 Calumet Avenue Section B - Existing, Dyn, F.O.S. 1.1

c:\project files\2900-2999\2976, 5386 calumet avenue, kcabrillo, qop7, debris fill\2021-09-08 crh\section b_existing_dynamic_fos11.pl2 Run By: ENGEO 9/10/2021 11:18AM

#	FS
a	1.101
b	1.105
c	1.108
d	1.108
e	1.111
f	1.114
g	1.117
h	1.118
i	1.124
j	1.125

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Kp	1	130.0	130.0	3000.0	34.0	0
Kcc	2	110.0	110.0	2000.0	34.0	0
Qt	3	120.0	120.0	300.0	33.0	0
Rubble	4	110.0	110.0	200.0	30.0	0
Dump	5	110.0	110.0	75.0	28.0	0
Qb	6	110.0	110.0	0.0	33.0	0

Load	Value
L1	200 psf
Peak(A)	0.150(g)
kh Coef.	0.150(g)<



GSTABL7 v.2 FSmin=1.101

Safety Factors Are Calculated By The Modified Bishop Method

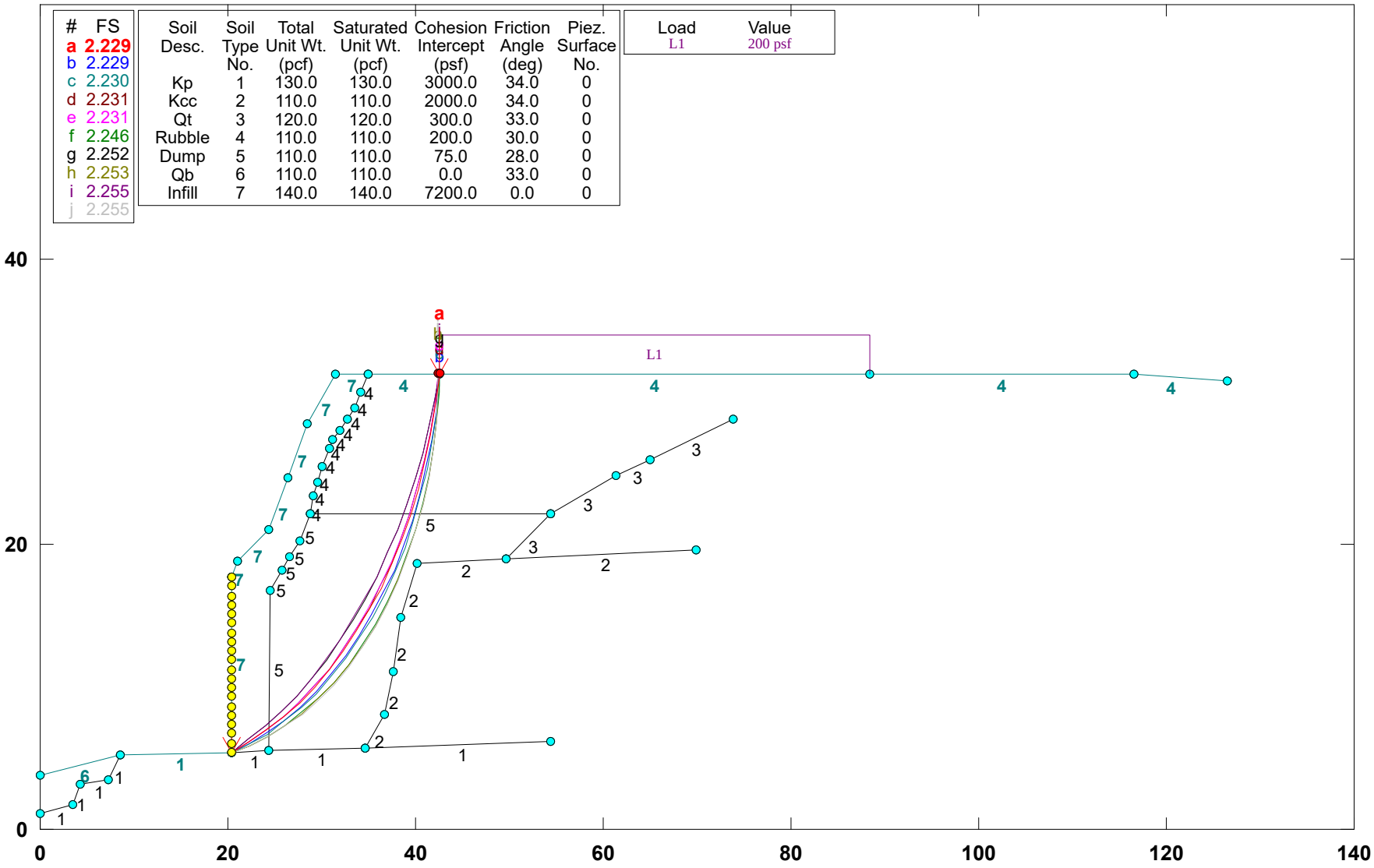
5386 Calumet Avenue Section B - Proposed, Static

c:\project files\2900-2999\2976, 5386 calumet avenue, kcabrillo, qop7, debris fill\2021-09-08 crh\section b_proposed_static.pl2 Run By: ENGEO 9/10/2021 11:24AM

#	FS
a	2.229
b	2.229
c	2.230
d	2.231
e	2.231
f	2.246
g	2.252
h	2.253
i	2.255
j	2.255

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Kp	1	130.0	130.0	3000.0	34.0	0
Kcc	2	110.0	110.0	2000.0	34.0	0
Qt	3	120.0	120.0	300.0	33.0	0
Rubble	4	110.0	110.0	200.0	30.0	0
Dump	5	110.0	110.0	75.0	28.0	0
Qb	6	110.0	110.0	0.0	33.0	0
Infill	7	140.0	140.0	7200.0	0.0	0

Load	Value
L1	200 psf



GSTABL7 v.2 FSmin=2.229

Safety Factors Are Calculated By The Modified Bishop Method

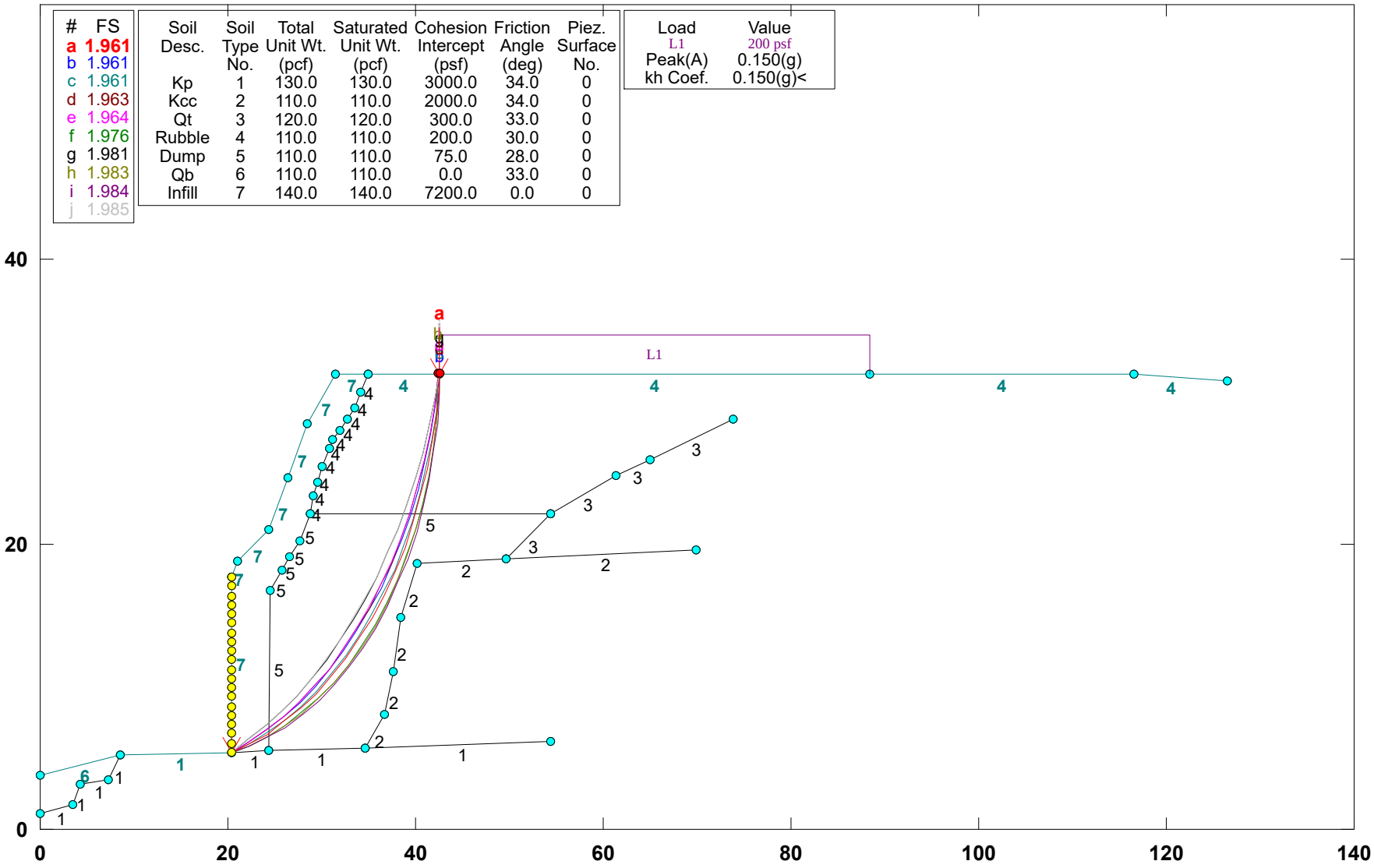
5386 Calumet Avenue Section B - Proposed, Dyn

c:\project files\2900-2999\2976, 5386 calumet avenue, kcabrillo, qop7, debris fill\2021-09-08 crh\section b_proposed_dynamic.pl2 Run By: ENGEO 9/10/2021 11:27AM

#	FS
a	1.961
b	1.961
c	1.961
d	1.963
e	1.964
f	1.976
g	1.981
h	1.983
i	1.984
j	1.985

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Kp	1	130.0	130.0	3000.0	34.0	0
Kcc	2	110.0	110.0	2000.0	34.0	0
Qt	3	120.0	120.0	300.0	33.0	0
Rubble	4	110.0	110.0	200.0	30.0	0
Dump	5	110.0	110.0	75.0	28.0	0
Qb	6	110.0	110.0	0.0	33.0	0
Infill	7	140.0	140.0	7200.0	0.0	0

Load	Value
L1	200 psf
Peak(A)	0.150(g)
kh Coef.	0.150(g)<



GSTABL7 v.2 FSmin=1.961

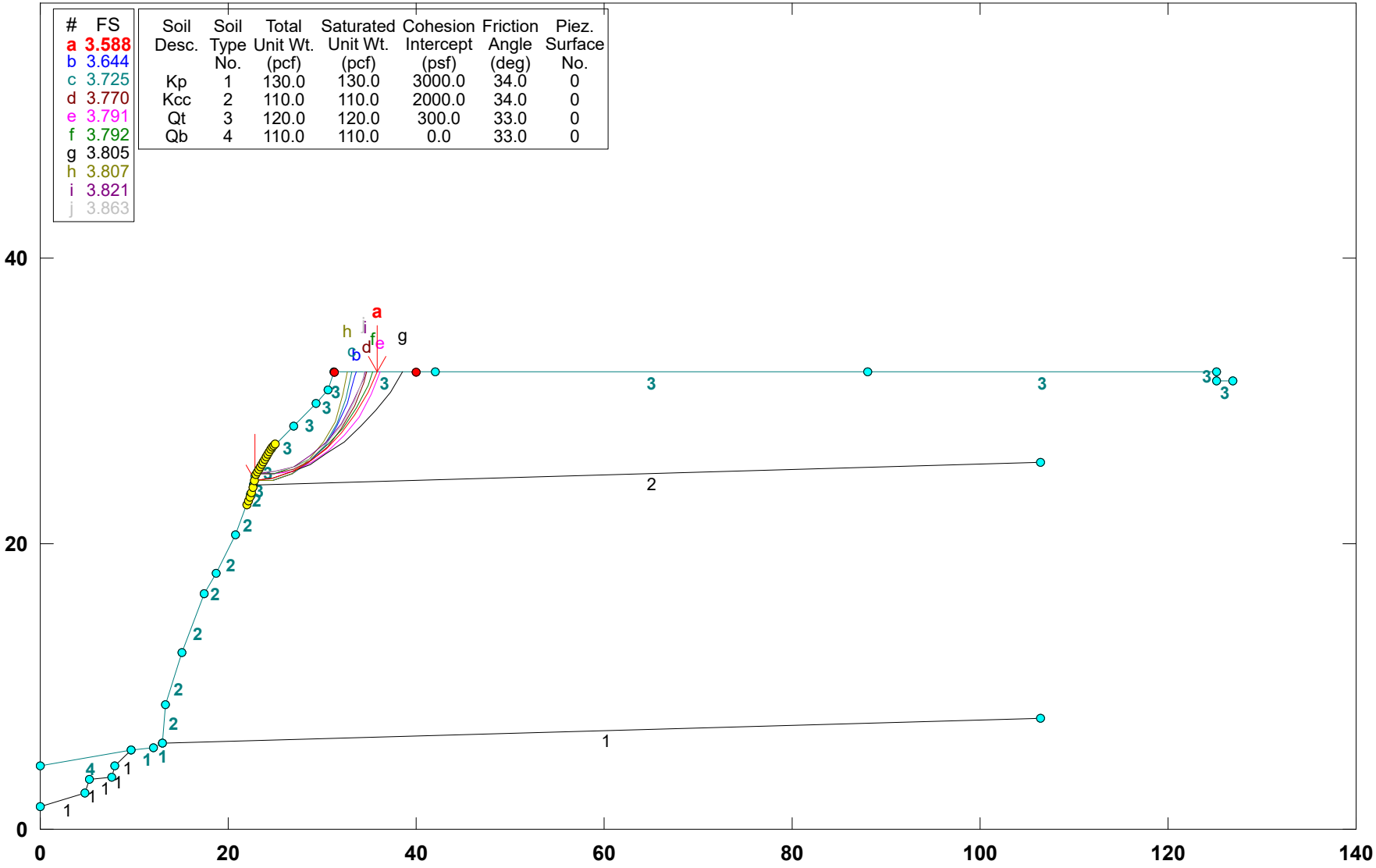
Safety Factors Are Calculated By The Modified Bishop Method

5386 Calumet Avenue Section C - Existing, Static, Min

c:\project files\2900-2999\2976, 5386 calumet avenue, kcabrillo, qop7, debris fill\2021-09-08 crh\section c_existing_static_min.pl2 Run By: ENGEO 9/9/2021 05:31PM

#	FS
a	3.588
b	3.644
c	3.725
d	3.770
e	3.791
f	3.792
g	3.805
h	3.807
i	3.821
j	3.863

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Kp	1	130.0	130.0	3000.0	34.0	0
Kcc	2	110.0	110.0	2000.0	34.0	0
Qt	3	120.0	120.0	300.0	33.0	0
Qb	4	110.0	110.0	0.0	33.0	0



GSTABL7 v.2 FSmin=3.588

Safety Factors Are Calculated By The Modified Bishop Method

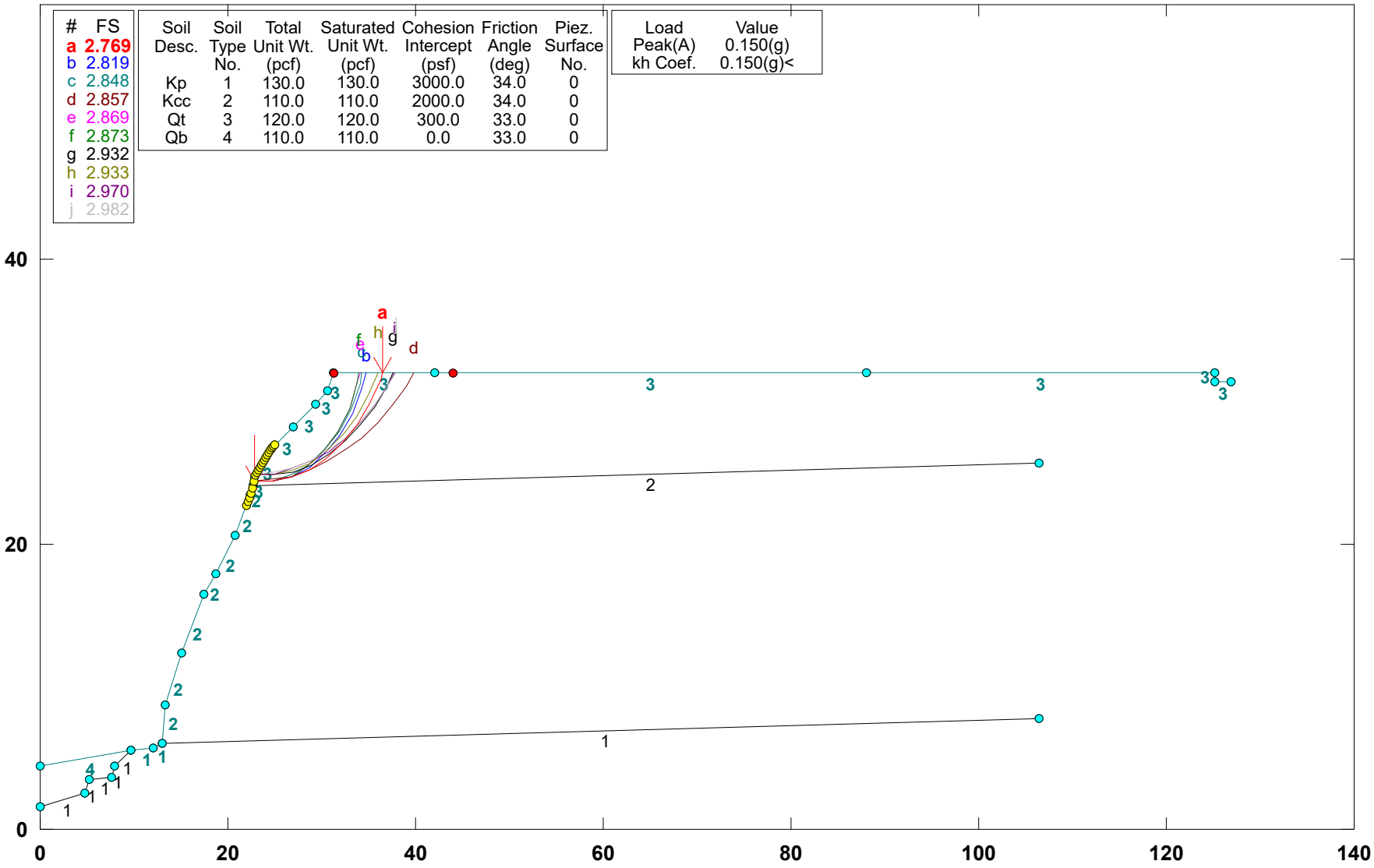
5386 Calumet Avenue Section C - Existing, Dyn, Min

c:\project files\2900-2999\2976, 5386 calumet avenue, kcabrillo, qop7, debris fill\2021-09-08 crh\section c_existing_dynamic_min.pl2 Run By: ENGEO 9/9/2021 05:36PM

#	FS
a	2.769
b	2.819
c	2.848
d	2.857
e	2.869
f	2.873
g	2.932
h	2.933
i	2.970
j	2.982

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Kp	1	130.0	130.0	3000.0	34.0	0
Kcc	2	110.0	110.0	2000.0	34.0	0
Qt	3	120.0	120.0	300.0	33.0	0
Qb	4	110.0	110.0	0.0	33.0	0

Load	Value
Peak(A)	0.150(g)
kh Coef.	0.150(g)<



GSTABL7 v.2 FSmin=2.769

Safety Factors Are Calculated By The Modified Bishop Method