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W15b

5-21-0906

(City of Los Angeles)

FEBRUARY 8, 2023

EXHIBITS

Exhibit 1 – Vicinity Map.....2

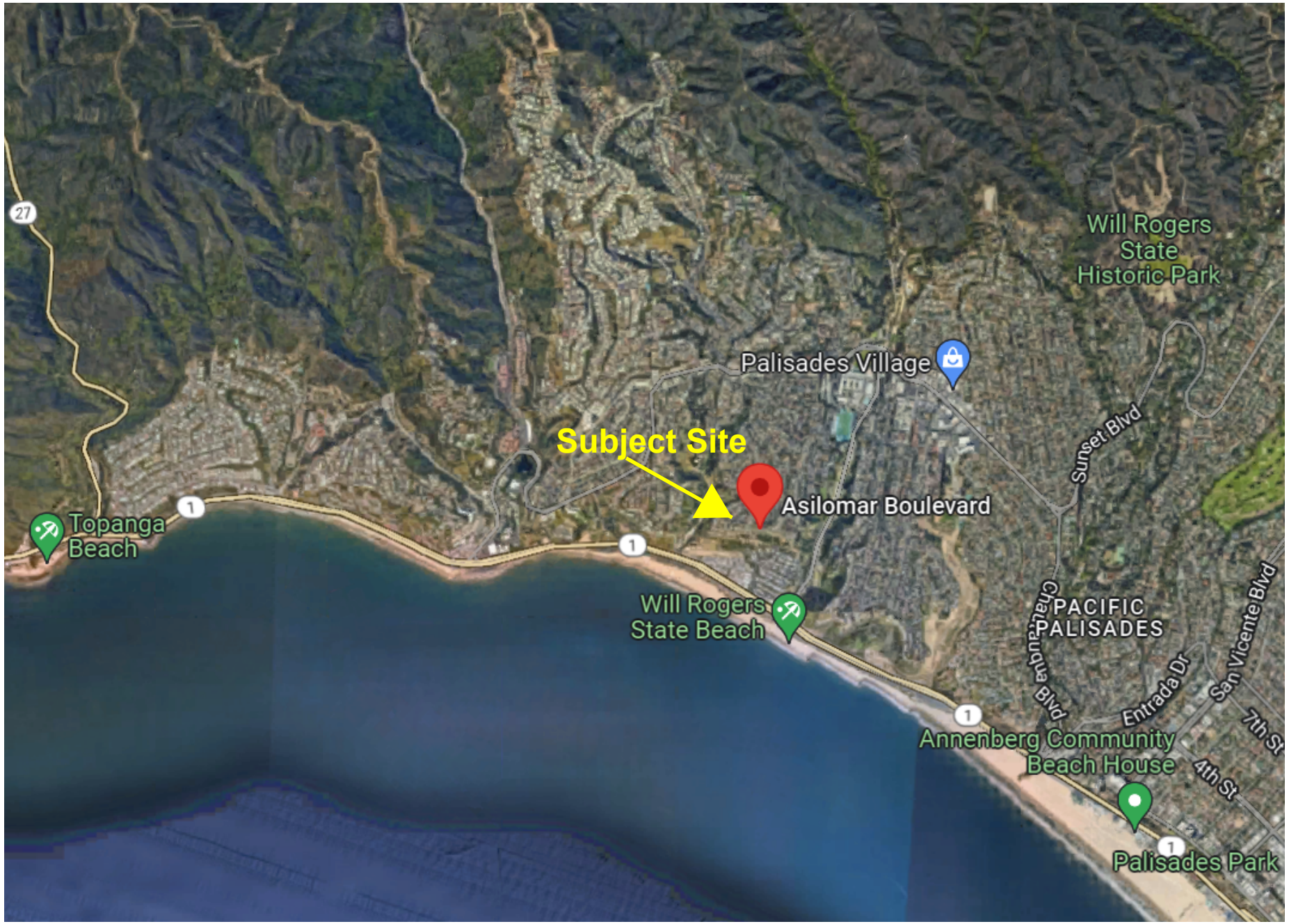
Exhibit 2 – Project Plans and Description.....4

Exhibit 3 – Project Alternatives.....10

Exhibit 4 – Key Observation Points (KOPs).....16

Exhibit 5 – Vegetation Survey.....20

Exhibit 1 – Vicinity Map



Source: ESRI 2017

0 100 200 Feet

Active Construction Zone

Construction Laydown Area

Figure 2-5

Construction Area Map

Exhibit 2 – Project Plans and Description

Figure 2.1: 4.5 foot DSM Column Layout (RR = 0.3) - Asilomar Blvd., South of Sewer Line

Source: Fugro, 2017

Figure 2-3

Not to Scale

Cement-Deep Soil Mixing Schematic Plan Cross Section

CITY OF LOS ANGELES

CALIFORNIA

DEPARTMENT OF PUBLIC WORKS

BUREAU OF ENGINEERING

TED ALLEN, PE
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August 18, 2022

CA Coastal Commission
SOUTH COAST DISTRICT OFFICE
C/O Shahar Amitay
301 E. Ocean Blvd. Suite 300
Long Beach, CA 90802-4830

Via Email: Shahar.Amitay@coastal.ca.gov

Dear Mr. Amitay,

This letter serves as a response to your Application Status Letter – Incomplete III, dated July 12, 2022.

- Item 2. Local Coastal Development Permit (CDP)
- Item 3. CDSM Pilot Project Results (Special Condition 5(d) of CDP 5-18-0844, and
- Item 6. Noticing, were already provided to you via Share Point.

The responses to the remaining Items are as follows:

Response to Item #1 Detailed Project Description

PROJECT DESCRIPTION

The proposed Asilomar Boulevard Stabilization Project includes the installation of 346 overlapping columns installed using Deep Soil Cement Mixing (DSM). The deep mixing method is an in-situ soil treatment in which native soils or fills are blended with cementitious and/or other materials, typically referred to as binders. Compared to native soils or fills, the soil-binder composite material that is created has enhanced engineering properties such as increased strength…(Federal Highway Administration Design Manual: Deep Mixing for Embankment and Foundation Support, October 2013).

The columns will be located within the City of Los Angeles right-of-way, will only occupy the southern half of Asilomar Boulevard, between Almar Avenue and Wynola Avenue, and will extend over an area that is approximately 426 feet long and 18.5 feet wide. Construction will not involve any grading of the slope along Asilomar Boulevard. The DSM columns will be 4.5 feet in diameter and 90 feet deep and will overlap by a minimum of 1 foot. The pavement will be replaced over a wider area that will include the full width of Asilomar Boulevard (approximately 36 feet) between Almar Avenue and Arbramar Avenue (approximately 703 feet). The project drawings include details of the proposed DSM layout and pavement replacement.

The pattern and number of DSM columns were selected based on engineering analysis. The lateral extent and depth of the DSM-improved zone were based on mapped landslide lateral limits and depth of sliding planes from geotechnical and geologic studies at the site. The DSM layout (open-cell pattern) was selected to provide sufficient stabilization of the street without excessive replacement of the in-situ materials. Additional details of the engineering analysis are provided in Fugro's report dated December 23, 2021.

We note that during the pilot study in 2020 (see Fugro report dated October 8, 2020), groundwater was not encountered in columns drilled to 90 feet below ground surface. Dewatering wells have been installed on the north side of Asilomar Boulevard by the City. These dewatering wells are designed to dewater to depths close to the bottom of the proposed DSM columns. As such, with the wells active, the project would not be expected to affect the current groundwater regime. The dewatering wells will be protected in place during construction and the City plans to keep them in operation.

Response to Item #4 Tribal Consultation

The City of Los Angeles Bureau of Engineering Environmental Management Group contacted the Gabrielino Tongva Nation Sam Dunlap, Cultural Resource Director, August 11, 2022 via telephone and was asked to send over all of the information that was previously sent in 2017. Information was sent August 18, 2022 via email including the Best Management Practices, the Local Coastal Development Permit Conditions, and Mitigation Measures.

Response to Item #5 Project Alternatives

<u>Retaining Wall with Soldier Piles and Tiebacks Overview and Construction Scenario</u>

This Alternative would include earthwork and grading on the slope south of Asilomar Boulevard, as well as improvements to the damaged fire access road. This Alternative would include soldier pile and lagging systems consisting of wide-flange or bearing-pile steel sections installed along the slope, with timber lagging placed horizontally between

the piles, creating the retaining wall. Tiebacks would then be installed to provide lateral support for the wall. A permanent wall facing of cast-in-place concrete or shotcrete would be installed on the front of the retaining wall, which may include aesthetic architectural features. The face of the retaining wall would extend vertically approximately 65 feet below Asilomar Boulevard, and the access road would be rebuilt to an elevation of approximately 30 feet such that only approximately 30 feet of the wall face would be exposed. Figure 5-1 shows the schematic plan for this Alternative. The construction of this Alternative would last approximately 16 months. Site preparation activities under this Alternative would involve removal of the existing pavement along the southern portion of the Asilomar Boulevard ROW. Vehicular access to Asilomar Boulevard would be maintained throughout construction of this Alternative; however, traffic would be reduced to a single lane on the northern side of Asilomar Boulevard, with the construction zone occupying the southern lane of the roadway. Under this Alternative, it is estimated that approximately 82,000 cubic yards of material would be excavated and hauled away from the Project site and approximately 58,000 cubic yards of material would be imported to the site, including backfill, concrete, and roadway base material. Additionally, this Alternative would require approximately 42,250 square feet of drainage membrane material, 10,000 square feet of shotcrete facing material, and 28,000 square feet of asphalt pavement. Under this Alternative holes of approximately four feet in diameter would be drilled along the south side of Asilomar Boulevard to a depth of up to 120 feet. Soldier beams consisting of double Hsection steel piles welded together would be placed within each of the drilled holes, spaced at approximately every eight feet, center to center, along the south side of Asilomar Boulevard between Almar Avenue and Wynola Street. Following placement of the soldier piles, the holes would then be filled with structural concrete below the bottom of the proposed excavation or lean concrete where timber lagging would be installed. Once the concrete columns surrounding the solider beams have set, the soils in front of the piles would be excavated. Drainage panels would be placed over the exposed soils between each soldier pile, and timber lagging would be placed horizontally between the piles to create the retaining wall. A collector pipe enclosed in drain rock wrapped in filter fabric would be installed at the base of the wall to capture any free groundwater and convey it to a suitable discharge point. Any voids between the timber lagging and the soils behind it would be backfilled. Tieback anchors would be installed at each soldier pile location by drilling holes of between 6 to 12 inches in diameter and securing the tiebacks with grout. The drainage membrane, timber lagging, and tieback anchor installation sequence would occur in rows at 10-foot increments until a depth of approximately 65 feet below the ground surface is reached. A permanent wall facing of cast-in-place concrete or shotcrete would then be installed on top of the timber lagging wall.

The advantages of this Alternative are that conventional construction methods would be used. It would limit the construction zone directly on Asilomar Boulevard. The design is adaptable and pleasant aesthetically. Soldier piles and lagging are relatively inexpensive and common with local contractors. Also, this Alternative would allow

groundwater to drain efficiently. The tieback can be post-grouted to achieve high bonded-strength and can be proof tested to confirm capacity during construction.

The disadvantages of this Alternative are that local dewatering may be required to lower the water table during construction. Also the placement of lagging may be difficult where soft soil or perched groundwater is encountered. Unlike the Preferred Alternative, a large volume of earthwork would be required to install tiebacks. These long tiebacks, if installed beyond the public right-of-way require easements from owners of adjacent properties and may be susceptible to creep, which may result in excessive deformation of the proposed wall and settlement of the adjacent ground surface. Further, tiebacks may leak at the anchor head and cause discoloration of the finished wall if installed below the groundwater surface. Additionally, tiebacks may require a permanent ROW easement, and a temporary easement for installation. This Alternative may require additional regulatory oversight. Lastly, the it would require that Construction traffic hauls off slope material and then also import back it once the tiebacks are installed, causing increased haul trips.

This Alternative would impact coastal resources, specifically Section 30251, scenic and visual qualities of the hillside since it will greatly alter the natural landform and will not be visually compatible with the character of the surrounding areas.

CONCLUSION

In conclusion, The City of Los Angeles Bureau of Engineering Environmental Management Group has included all of the documentation that has been requested by the California Coastal Commission. Please inform us of any other information that you need in order to make a determination on this Project.

With gratitude,

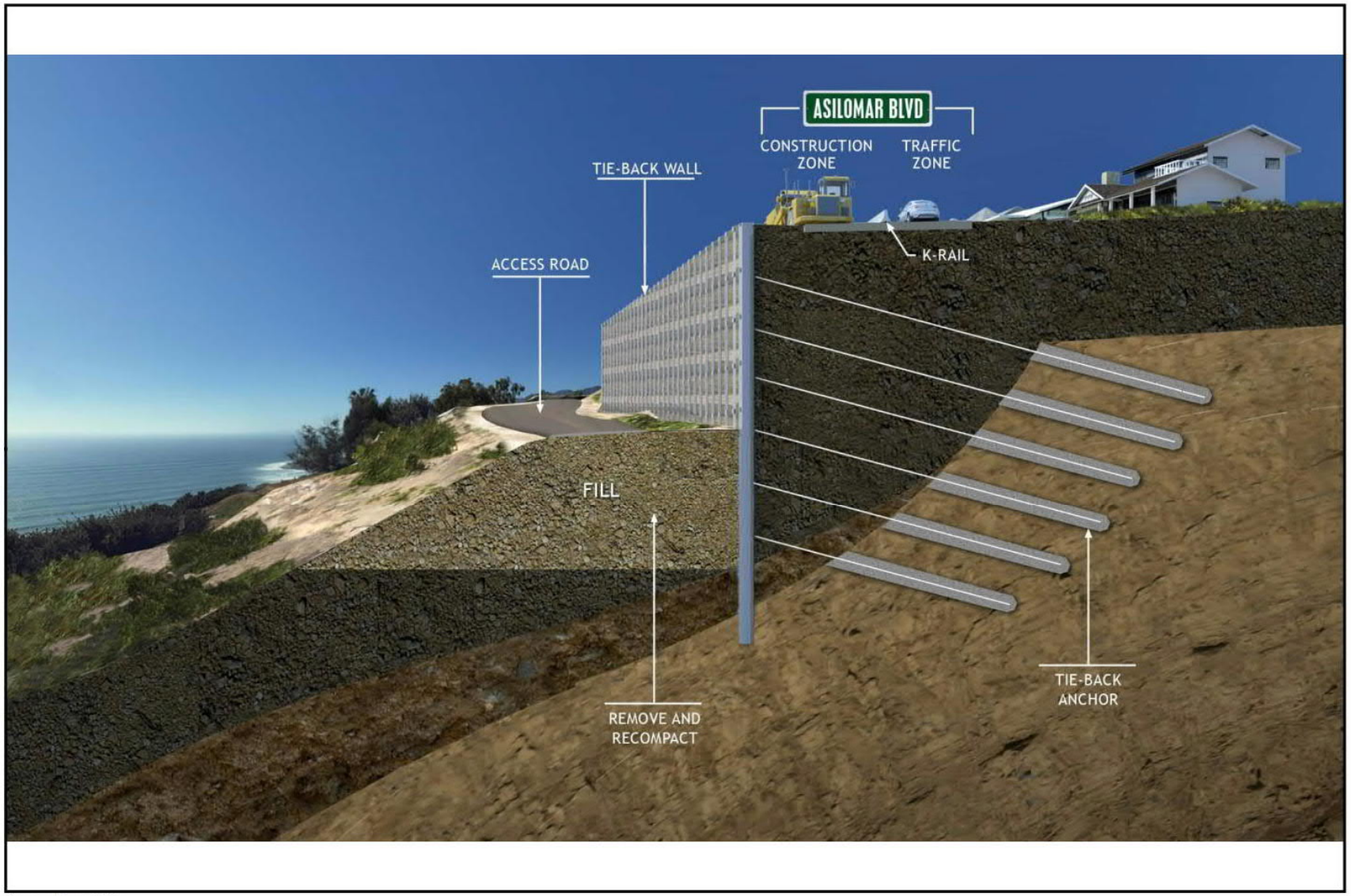
Eileen Schoetzow

Digitally signed by Eileen Schoetzow
DN: cn=Eileen Schoetzow, o, ou, email=eileen.schoetzow@lacity.org, c=US
Date: 2022.08.19 11:19:18 -07'00'

Eileen Schoetzow, MBA
Environmental Supervisor I

EMS/:ems

Asilomar Response To Incomplete Ltr III Coastal Commission

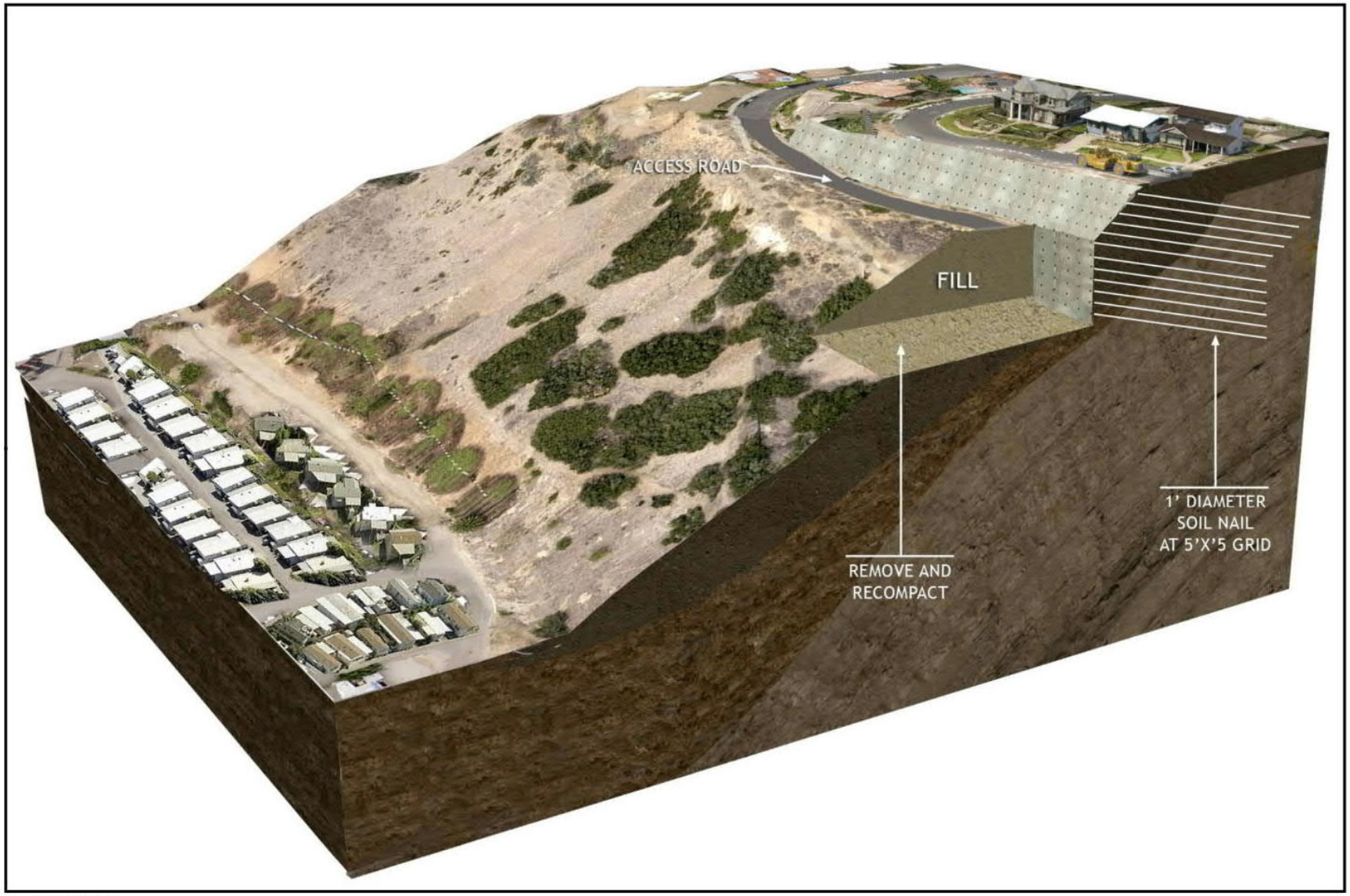


Source: Fugro, 2017

Figure 5-1

Not to Scale

Alternative 1: Retaining Wall with Soldier Piles and Tiebacks



Source: ESRI 2017

Not to Scale

Figure 5-2

Alternative 2: Soil Nail Wall

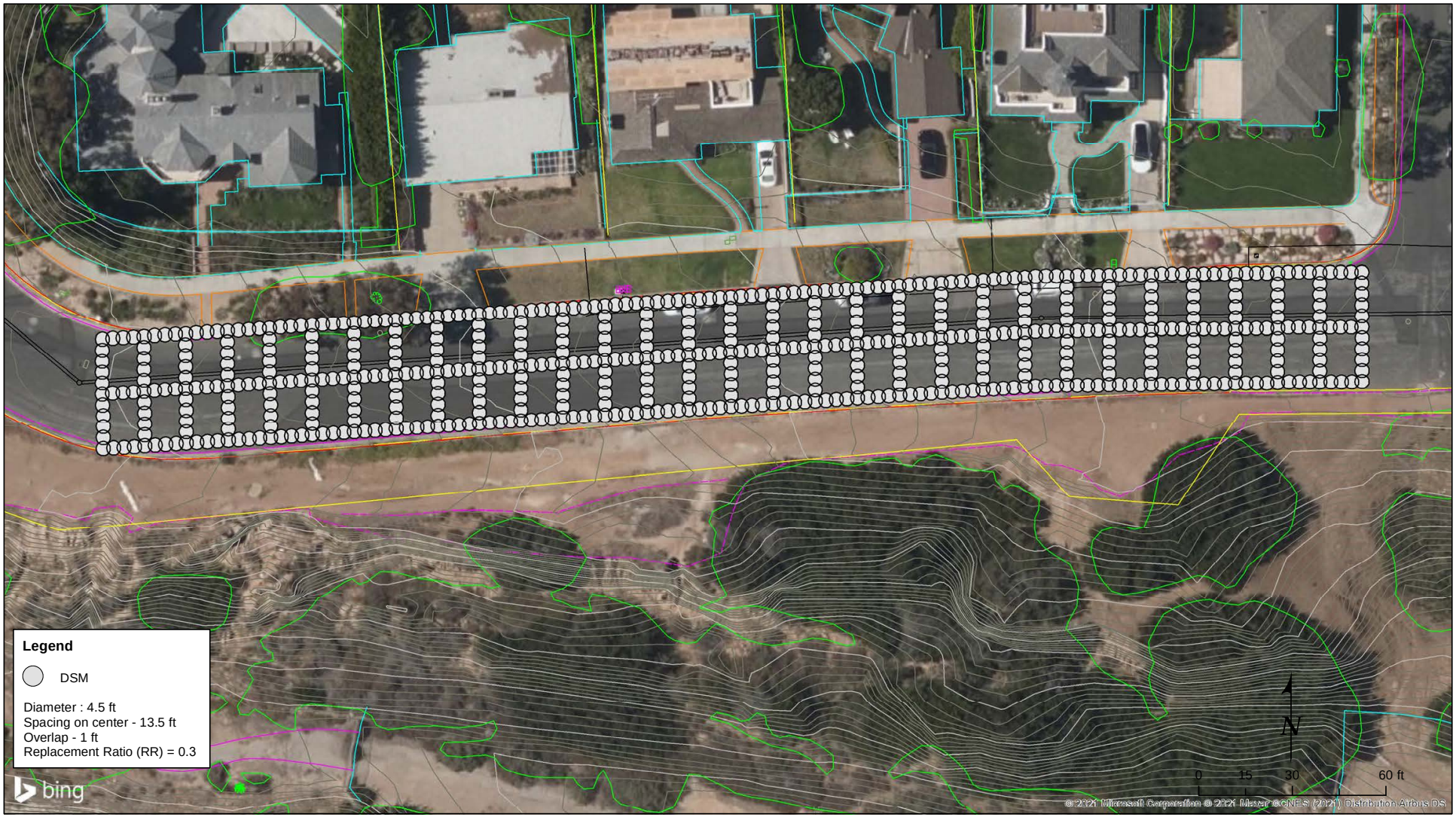


Figure 2.2: 4.5 foot DSM Column Layout (RR = 0.3)

Figure 2.3: 4.5 foot DSM Column Layout (RR = 0.5) - Asilomar Blvd., South of Sewer Line

Figure 2.4: 6 foot DSM Column Layout (RR = 0.3) - Asilomar Blvd., South of Sewer Line

Figure 2.5: 6 foot DSM Column Layout (RR = 0.5) - Asilomar Blvd., South of Sewer Line

Exhibit 4 – Key Observation Points (KOPs) Eileen's Edits 8/9/17

LEGEND:

Proposed Project | Alternatives 1 & 2 | Laydown Area | Key Observation Point | Eliminated Viewpoint

500 ft

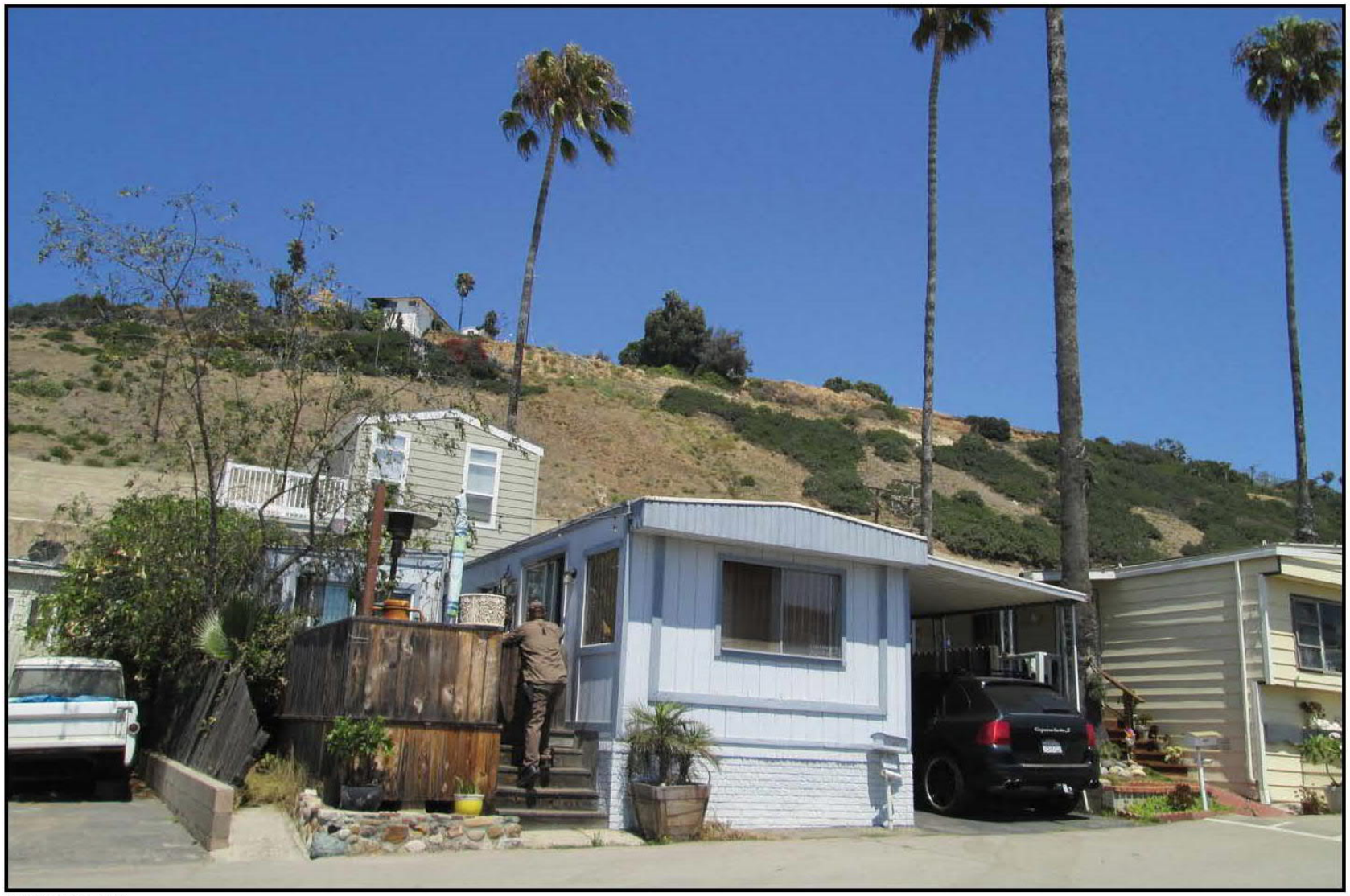
Source: Google, 2017; TAHA, 2017.

taha
TAHA 2016-085

Asilomar Boulevard Landslide Mitigation
Visual Impact Methodology

BUREAU OF ENGINEERING

FIGURE 1
KOPs & ELIMINATED VIEWPOINTS



Source: Aecom, 2017.

NOT TO SCALE

Figure 3.1-2

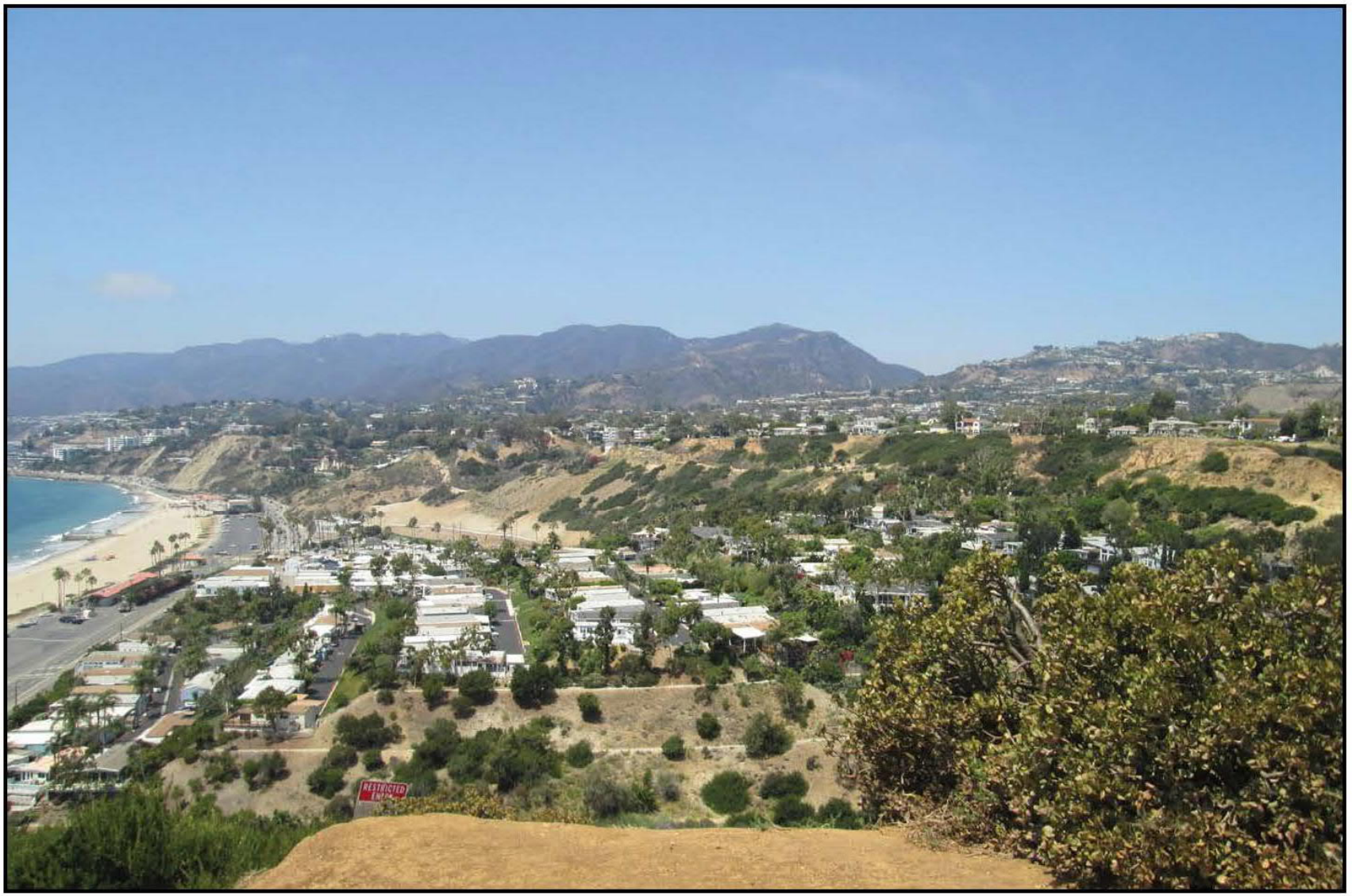
Existing Condition/Simulated View of Proposed Project Viewed from KOP 1

Source: Aecom, 2017.

NOT TO SCALE

Figure 3.1-3

Existing Condition/Simulated View of Proposed Project Viewed from KOP 2



Source: Aecom, 2017.

NOT TO SCALE

Figure 3.1-4

Existing Condition/Simulated View of Proposed Project Viewed from KOP 3

Exhibit 5 – Vegetation Survey

Y:\Projects\BDL_Legacy\Projfile\2017\60537907_LABOE_Asilomar\900-CAD-GIS\920 GIS-Graphics\NaturalResources\Vegetation.mxd Job No. 60537907 Created By: Amy Burgess Date: 9/13/2017

LEGEND

- Preferred Alternative – Cement Deep Soil Mixing
- Other Project Alternatives – Retaining/Soil Wall
- Staging Area
- Biological Study Area (BSA)

VEGETATION COMMUNITIES AND LAND COVER TYPES

- Lemonade berry Scrub
- Disturbed Coastal Scrub
- Disturbed - Access Road
- Disturbed/Bareground
- Urban Developed

0 150 300 Feet

Base Map Source:
ArcGIS Online, Bing Map Hybrid

Figure 2-1
Vegetation Communities and Cover Types in the BSA

Asilomar Boulevard Landslide Mitigation Project

City of Los Angeles Department of Public Works BUREAU OF ENGINEERING

AECOM

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