

CITY OF LOS ANGELES

CALIFORNIA

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DEPARTMENT OF
BUILDING AND SAFETY
201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012

OSAMA YOUNAN, P.E.
GENERAL MANAGER
SUPERINTENDENT OF BUILDING

JOHN WEIGHT
EXECUTIVE OFFICER

GEOLOGY AND SOILS REPORT APPROVAL LETTER

February 12, 2024

LOG # 127750-02
SOILS/GEOLOGY FILE - 2

Aragon (Sunset/Everett) Properties Corp.
1750 Glendale Boulevard, Suite 102
Los Angeles, CA 90026
Attn: Jeff Farrington

TRACT: ANGELENO HEIGHTS (M P 10-63/66)
BLOCK: 31
LOT(S): 3 (Arb-1), 4 (Arb-1), 21 (Arb-1) & 21 (Arb-2)
LOCATION: 1185 W Sunset Blvd.

<u>CURRENT REFERENCE</u> <u>REPORT/LETTER(S)</u>	<u>REPORT</u> <u>No.</u>	<u>DATE OF</u> <u>DOCUMENT</u>	<u>PREPARED BY</u>
Geology/Soils Report	20489	01/26/2024	Geotechnologies, Inc.
<u>PREVIOUS REFERENCE</u> <u>REPORT/LETTER(S)</u>	<u>REPORT</u> <u>No.</u>	<u>DATE OF</u> <u>DOCUMENT</u>	<u>PREPARED BY</u>
Dept. Review Letter	127750-01	01/16/2024	LADBS – Grading
Geology/Soils Report	20489	12/06/2023	Geotechnologies, Inc.
Dept. Review Letter	127750	10/17/2023	LADBS – Grading
Geology/Soils Report	20489	09/06/2023	Geotechnologies, Inc.
Dept. Approval Letter	85606	09/23/2014	LADBS – Grading
Geology/Soils Report	20489	09/10/2014	Geotechnologies, Inc.
3 rd Party Cover Letter	-----	08/05/2014	Hoover Tang
3 rd Party Review Letter	-----	08/04/2014	Wilson Geosciences Inc./ Geo-Dynamics, Inc.
Dept. Appr. Letter	83257-01	06/24/2014	LADBS – Grading
Geology/Soils Report (Resp.)	20489	05/22/2014	Geotechnologies, Inc.
Dept. Correction Letter	83257	03/13/2014	LADBS – Grading
Geology/Soils Report	20489	03/04/2014	Geotechnologies, Inc.
Geology/Soils Report	20489	04/09/2013	Geotechnologies, Inc.

The Grading Division of the Department of Building and Safety has reviewed the referenced report dated January 26, 2024, December 6, 2023, September 6, 2023, that provides recommendations for the proposed new apartment complex, retaining walls, Mat Foundations, waterproofing, and dewatering of groundwater, as depicted on the Plot Plan, Geologic Map and Geologic Cross Sections A-A' through H - H' (of the referenced reports, dated January 26, 2024). The consultants' report that the proposed project is seven stories in height with one to two levels of subterranean

parking. Proposed retaining walls are estimated to range up to 30 feet high. Topographic relief across the site is 95 feet from highest to lowest points. Prior to development along Sunset Blvd. the westerly descending slope was up to 70 feet high and at an approximate gradient of 4(H):1(V), afterwards, the slope was 45 feet high at an approximate gradient of 1(H):1(V). Tiebacks and shoring are proposed to support temporary excavations. The highest vertical cut is anticipated to be 44 feet (including foundations) and will be on the northside of the site as shown on Cross Section H – H'. The toe of slope setback from the adjacent ascending slope at the rear of the property is 15 feet. All associated vertical cuts shall be supported with a retaining wall. The consultants' report that only nuisance water will be captured during construction, and that a formal dewatering program will not be necessary. The basement walls shall be drained conventionally, as recommended on page 3 of the December 6, 2023, referenced report.

The Grading Division of the Department of Building and Safety has reviewed the September 10, 2014 report prepared by Geotechnologies in response to 3rd party review comments presented in the August 4, 2014 letter prepared by Wilson Geosciences and Geo-Dynamics (with a cover letter dated August 5, 2014 by Hoover Tang), regarding surface fault rupture, slope stability analysis, groundwater seepage, and expansive soils.

The consultants performed numerous exploratory excavations, upwards of 30 test pits and 13 borings, from 2006, 2013, and 2016. In 2004, the previous consultant Petra excavated several test pits and hollow stem and bucket auger borings. The earth materials at the subsurface exploration locations consist of fill, from 0.5 to 18.5 feet thick, alluvium from 2 to 9 feet thick, colluvium from 3 to 6 feet thick, underlain by well bedded interbedded sandstone and siltstone Puente Formation Bedrock to a depth of 60 feet. Regional Bedrock bedding is uniform in the area of the subject site, where bedrock dips to the south and southwest ranging from 20 to 50 degrees. The regional geologic structure matches that of the subsurface exploratory excavations.

The consultants' report that groundwater was encountered in all the borings drilled along Sunset Blvd. The groundwater surface appears to descend to the south, down Sunset Blvd. In general groundwater is approximately 9 feet below the ground surface. The water is identified in the alluvium and in the joints and fractures of the bedrock. The ground water level is above the proposed basement finish floor elevation at both ends of the site. Based on the consultants review of the local Seismic Hazard Report, historic high ground water is approximately 20 feet below the ground surface. The consultants note that water seepage into the excavations will occur primarily at the alluvium-bedrock contact, along Sunset Blvd. The water will occur along a distinct zone above the contact. Some seepage may occur through fractures in the rock and along the bedding planes in deeper excavations near Sunset Blvd. .

In the consultants borings excavated in 2006, Boring B-2 (2006), seepage was encountered from 9 to 15 feet, with standing water at 14 feet. In Boring B-3 (2006), seepage was encountered from 15 to 25 feet, with standing water at 15 feet. In Boring B-4 (2006), seepage was encountered from 12 to 20 feet, with standing water at 12 feet. In Boring B-5 (2006), seepage was encountered from 9.5 to 10 feet. In Boring B-6 (2006), seepage was encountered from 11.5 to 12 feet.

In the consultants Borings excavated in 2013, Boring B-1 (2013), groundwater was encountered at 17.5 feet below the ground surface. Boring B-2(2013), groundwater was encountered at 17 feet below the ground surface. Boring B-3 (2013), groundwater was encountered at 9.5 feet below the ground surface. Boring B-4 (2013), no groundwater was encountered to the maximum depth explored of 60 feet below the ground surface.

In the consultants borings excavated in 2016, Boring B-5 (2016), seepage was encountered at 9 and 12 feet below the ground surface, with groundwater at 19 feet. In Boring B-6 (2016), seepage was encountered at 11.5 feet below the ground surface. In Boring B-7 (2016), seepage was encountered at 12 feet below the ground surface.

The subject site is not in an area zoned by the State as potentially liquefiable. This determination is based on groundwater depth records, soil type, and distance to a fault capable of producing a substantial earthquake. The proposed structure will be supported in the siltstone bedrock of the Puente Formation. The consultants note that this bedrock will not liquefy due to its moderately hard consistency and its long tectonic history.

The consultants recommend to support the proposed structure(s) on conventional, mat, and/or drilled-pile foundations bearing on competent bedrock.

The referenced reports dated January 26, 2024, December 6, 2023, September 6, 2023, are acceptable, provided the following conditions are complied with during site development:

(Note: Numbers in parenthesis () refer to applicable sections of the 2023 City of LA Building Code. P/BC numbers refer the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

1. Conformance with the Zoning Code Section 12.21 C8, which limits the heights and number of retaining walls, will be determined during structural plan check.
2. Secure the notarized written consent from all owners upon whose property proposed grading/construction access is to extend, in the event off-site grading and/or access for construction purposes is required (7006.6). The consent shall be included as part of the final plans.
3. The geologist and soils engineer shall review and approve the detailed plans prior to issuance of any permits. This approval shall be by signature on the plans that clearly indicates the geologist and soils engineer have reviewed the plans prepared by the design engineer; and, that the plans include the recommendations contained in their reports (7006.1).
4. All recommendations of the report(s) that are in addition to or more restrictive than the conditions contained herein shall be incorporated into the plans.
5. A copy of the subject and appropriate referenced reports and this approval letter shall be attached to the District Office and field set of plans (7006.1). Submit one copy of the above reports to the Building Department Plan Checker prior to issuance of the permit.
6. A grading permit shall be obtained for all structural fill and retaining wall backfill (106.1.2).
7. All man-made fill shall be compacted to a minimum 90 percent of the maximum dry density of the fill material per the latest version of ASTM D 1557. Where cohesionless soil having less than 15 percent finer than 0.005 millimeters is used for fill, it shall be compacted to a minimum of 95 percent relative compaction based on maximum dry density. Placement of gravel in lieu of compacted fill is only allowed if complying with LAMC Section 91.7011.3.

8. Existing uncertified fill shall not be used for support of footings, concrete slabs or new fill (1809.2, 7011.3).
9. Drainage in conformance with the provisions of the Code shall be maintained during and subsequent to construction (7013.12).
10. Grading shall be scheduled for completion prior to the start of the rainy season, or detailed temporary erosion control plans shall be filed in a manner satisfactory to the Grading Division of the Department and the Department of Public Works, Bureau of Engineering, B-Permit Section, for any grading work in excess of 200 cubic yards (7007.1).

201 N. Figueroa Street 3rd Floor, LA (213) 482-7045

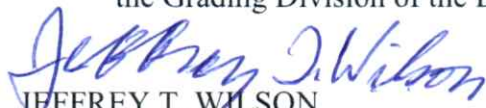
11. All loose foundation excavation material shall be removed prior to commencement of framing. Slopes disturbed by construction activities shall be restored (7005.3).
12. The applicant is advised that the approval of this report does not waive the requirements for excavations contained in the General Safety Orders of the California Department of Industrial Relations (3301.1).
13. Excavations shall not remove lateral support from a public way, adjacent property or an existing structure. Note: Lateral support shall be considered to be removed when the excavation extends below a plane projected downward at an angle of 45 degrees from the bottom of a footing of an existing structure, from the edge of the public way or an adjacent property. (3307.3.1)
14. Prior to the issuance of any permit that authorizes an excavation where the excavation is to be of a greater depth than are the walls or foundation of any adjoining building or structure and located closer to the property line than the depth of the excavation, the owner of the subject site shall provide the Department with evidence that the adjacent property owner has been given a 30-day written notice of such intent to make an excavation (3307.1).
15. The soils engineer shall review and approve the shoring plans prior to issuance of the permit (3307.3.2).
16. Prior to the issuance of the permits, the soils engineer and/or the structural designer shall evaluate the surcharge loads used in the report calculations for the design of the retaining walls and shoring. If the surcharge loads used in the calculations do not conform to the actual surcharge loads, the soil engineer shall submit a supplementary report with revised recommendations to the Department for approval.
17. Unsurcharged temporary excavations over 5 feet exposing fill, shall be trimmed back at a gradient not exceeding 1(H):1(V), to a maximum of 25 feet high, as recommended on page 50 of the September 6, 2023, referenced report.
18. Unsurcharged temporary excavations over 7 feet exposing alluvium (soil), shall be trimmed back at a gradient not exceeding 1(H):1(V), to a maximum of 25 feet high, as recommended on page 50 of the September 6, 2023, referenced report.
19. Unsurcharged temporary excavations over 7 feet exposing bedrock (neutral bedding), shall be trimmed back at a gradient not exceeding 1(H):1(V), to a maximum of 25 feet high, as recommended on page 50 of the September 6, 2023, referenced report.

20. The north wall excavation will expose daylighted bedding, and shall be trimmed to the angle of the bedding, to a maximum of 15 feet high, as recommended on page 50 of the September 6, 2023.
21. Cantilevered and restrained temporary shoring shall be designed for a minimum EFP as specified on pages 55 through 57 of the September 6, 2023, referenced report; all surcharge loads shall be included into the design, as recommended. Total lateral load on shoring piles shall be determined by multiplying the recommended EFP by the pile spacing.
22. Shoring shall be designed for a maximum lateral deflection of ½ inch where a structure is within a 1(H):1(V) plane projected up from the base of the excavation, and for a maximum lateral deflection of 1 inch provided there are no structures within a 1(H):1(V) plane projected up from the base of the excavation, as recommended.
23. A shoring monitoring program shall be implemented to the satisfaction of the soils engineer.
24. Proposed lagging shall be designed for the full design pressure but be limited to a maximum of 400 psf, as recommended on page 53 of the September 6, 2023, referenced report.
25. Proposed Tie-back anchors shall be utilized as recommended on pages 54 and 55 of the September 6, 2023, referenced report.
26. All foundations shall derive entire support from competent bedrock, as recommended and approved by the geologist and soils engineer by inspection.
27. Proposed shoring piles shall utilize a minimum diameter of 18 inches, as recommended on page 52 of the September 6, 2023, referenced report.
28. Proposed shoring piles shall be founded a minimum of 5 feet below the bottom of the footing excavation or 7 feet below the bottom of the excavated plane whichever is deeper, as recommended on page 53 of the September 6, 2023, referenced report.
29. Foundations adjacent to a descending slope steeper than 3:1 (horizontal to vertical) in gradient shall be a minimum distance of one-third the vertical height of the slope but need not exceed 40 feet measured horizontally from the footing bottom to the face of the slope (1808.7.2)
30. Buildings adjacent to ascending slopes steeper than 3H:1V in gradient shall be setback from the toe of the slope a level distance measured perpendicular to slope contours equal to one-half the vertical height of the slope, but need not exceed 15 feet (1808.7.1)
31. Pile caisson and/or isolated foundation ties are required by LAMC Sections 91.1809.13 and/or 91.1810.3.13. Exceptions and modification to this requirement are provided in Information Bulletin P/BC 2020-030.
32. Pile and/or caisson shafts shall be designed for a lateral load of 1000 pounds per linear foot of shaft exposed to fill, soil and weathered bedrock per P/BC 2020-050.
33. The design passive pressure shall be neglected for a portion of the pile with a horizontal setback distance less than five feet from fill, soil or weathered bedrock, or as recommended in the soils report, whichever is greater.

34. When water is present in drilled pile holes, the concrete shall be tremied from the bottom up to ensure minimum segregation of the mix and negligible turbulence of the water (1808.8.3).
35. Existing uncertified fill shall not be used for lateral support of deep foundations (1810.2.1).
36. Where fill soil is located below the subgrade elevation, the fill shall be left in place. Removal and recompaction of soils below the proposed structure will not be performed. A structural slab shall be constructed if existing fill will be left in place, as recommended on page 2 of the December 6, 2023, referenced report.
37. Mat foundations shall be utilized as recommended on page 39 of the September 6, 2023, referenced report.
38. Slabs on uncertified fill shall be designed as a structural slab (7011.3).
39. In the event a floor slab will occur below the water level, a structural slab shall be utilized as recommended on page 60 of the September 6, 2023, referenced report.
40. Slabs placed on approved compacted fill, or competent alluvium or bedrock shall be at least 4 inches thick and shall be reinforced with ½-inch diameter (#4) reinforcing bars spaced a maximum of 16 inches on center each way. Vapor barriers shall be utilized as recommended on pages 58 and 59 of the September 6, 2023, referenced report.
41. The seismic design shall be based on a Site Class C, as recommended. All other seismic design parameters shall be reviewed by LADBS building plan check.
42. Retaining walls shall be designed for a minimum equivalent fluid pressure (EFP) as specified on pages 41 through 45 of the September 6, 2023, referenced report. All surcharge loads shall be incorporated into the design.
43. Retaining walls higher than 6 feet shall be designed for lateral earth pressure due to earthquake motions as specified on pages 46 and 47 of the September 6, 2023, referenced report (1803.5.12).
44. Retaining walls at the base of ascending slopes shall be provided with a minimum freeboard of 2 feet, as recommended on page 42 of the September 6, 2023, referenced report.
45. The recommended equivalent fluid pressure (EFP) for the proposed retaining wall shall apply from the top of the freeboard to the bottom of the wall footing.
46. All retaining walls shall be provided with a standard surface backdrain system and all drainage shall be conducted in a non-erosive device to the street in an acceptable manner (7013.11).
47. With the exception of retaining walls designed for hydrostatic pressure, all retaining walls shall be provided with a subdrain system to prevent possible hydrostatic pressure behind the wall. Prior to issuance of any permit, the retaining wall subdrain system recommended in the soils report shall be incorporated into the foundation plan which shall be reviewed and approved by the soils engineer of record (1805.4).

48. Installation of the subdrain system shall be inspected and approved by the soils engineer of record and the City grading/building inspector (108.9).
49. Basement walls and floors shall be waterproofed/damp-proofed with an LA City approved "Below-grade" waterproofing/damp-proofing material with a research report number (104.2.6).
50. The use of acceptable prefabricated drainage composites (also known as geosynthetic subdrain systems), as an alternative to traditionally accepted methods of draining retained earth, shall be determined during structural plan check.
51. The structure shall be connected to the public sewer system per P/BC 2020-027.
52. All roof, pad and deck drainage shall be conducted to the street in an acceptable manner in non-erosive devices or other approved location in a manner that is acceptable to the LADBS and the Department of Public Works; water shall not be dispersed on to descending slopes without specific approval from the Grading Division and the consulting geologist and soils engineer (7013.10).
53. To control slope drainage, a diverter V-ditch shall be placed at the top of cut slopes, shall be constructed of concrete, and shall be a minimum of 2 feet wide, as recommended on page 63 of the September 6, 2023, referenced report.
54. Concrete V-ditches shall also be placed behind all retaining walls where there is an inclined slope behind the wall, as recommended on page 63 of the September 6, 2023, referenced report.
55. A paved interceptor terrace shall be located on the slope at vertical intervals not exceeding 25 feet, shall have a minimum width of 8 feet, with the down drain connected to the interceptor terrace at 150 foot spacings, as recommended on page 63 of the September 6, 2023, referenced report.
56. An on-site storm water infiltration system at the subject site shall not be implemented, as recommended on page 63 of the September 6, 2023, referenced report.
57. For design purposes for a proposed sump pump, a flow of 10 gallons per minute shall be utilized as recommended by the consultants' on page 45 of the September 6, 2023, referenced report.
58. All concentrated drainage shall be conducted in an approved device and disposed of in a manner approved by the LADBS (7013.10).
59. Sprinkler plans for irrigation shall be submitted and approved by the Mechanical Plan Check Section (7012.3.1).
60. Any recommendations prepared by the geologist and/or the soils engineer for correction of geological hazards found during grading shall be submitted to the Grading Division of the Department for approval prior to use in the field (7008.2, 7008.3).
61. The geologist and soils engineer shall inspect all excavations to determine that conditions anticipated in the report have been encountered and to provide recommendations for the correction of hazards found during grading (7008, 1705.6 & 1705.8).

62. All friction pile or caisson drilling and excavations shall be performed under the inspection and approval of the geologist and soils engineer. The geologist shall indicate the distance that friction piles or caissons penetrate into competent bedrock in a written field memorandum. (1803.5.5, 1705.1.2)
63. Prior to pouring concrete, a representative of the consulting soils engineer shall inspect and approve the footing excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the work inspected meets the conditions of the report. No concrete shall be poured until the LADBS Inspector has also inspected and approved the footing excavations. A written certification to this effect shall be filed with the Grading Division of the Department upon completion of the work. (108.9 & 7008.2)
64. Prior to excavation an initial inspection shall be called with the LADBS Inspector. During the initial inspection, the sequence of construction; shoring; ABC slot cuts; underpinning; pile installation; protection fences; and, dust and traffic control will be scheduled (108.9.1).
65. Installation of shoring, slot cutting and/or pile excavations shall be performed under the inspection and approval of the soils engineer and deputy grading inspector (1705.6, 1705.8).
66. The installation and testing of tie-back anchors shall comply with the recommendations included in the report or the standard sheets titled "Requirement for Tie-back Earth Anchors", whichever is more restrictive. [Research Report #23835]
67. Prior to the placing of compacted fill, a representative of the soils engineer shall inspect and approve the bottom excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the soil inspected meets the conditions of the report. No fill shall be placed until the LADBS Inspector has also inspected and approved the bottom excavations. A written certification to this effect shall be included in the final compaction report filed with the Grading Division of the Department. All fill shall be placed under the inspection and approval of the soils engineer. A compaction report together with the approved soil report and Department approval letter shall be submitted to the Grading Division of the Department upon completion of the compaction. In addition, an Engineer's Certificate of Compliance with the legal description as indicated in the grading permit and the permit number shall be included (7011.3).
68. No footing/slab shall be poured until the compaction report is submitted and approved by the Grading Division of the Department.


JEFFREY T. WILSON
Engineering Geologist I


YING LIU
Geotechnical Engineer II

JTW/YL:jtw/yl
Log No. 127750-02
213-482-0480

cc: Geotechnologies, Inc., Project Consultant
LA District Office

District <u>VII</u>	Log No. <u>127750-2</u>
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APPLICATION FOR REVIEW OF TECHNICAL REPORTS

INSTRUCTIONS

- A. Address all communications to the Grading Division, LADBS, 201 N. Figueroa St., 3rd Fl., Los Angeles, CA 90012
Telephone No. (213)482-0480.
- B. Submit two copies (three for subdivisions) of reports, one "pdf" copy of the report on a CD-Rom or flash drive, and one copy of application with items "1" through "10" completed.
- C. Check should be made to the City of Los Angeles.

<p>1. LEGAL DESCRIPTION</p> <p>Tract: <u>ANGELENO HEIGHTS</u></p> <p>Block: <u>31</u> Lots: <u>1</u></p> <p>3. OWNER: <u>Aragon (Sunset/Everett) Properties Corp.</u></p> <p>Address: <u>1750 Glendale Boulevard, Suite 102</u></p> <p>City: <u>Los Angeles</u> Zip: <u>90026</u></p> <p>Phone (Daytime): _____</p>	<p>2. PROJECT ADDRESS:</p> <p><u>1185 West Sunset Boulevard, Los Angeles</u></p> <p>4. APPLICANT <u>Geotechnologies, Inc.</u></p> <p>Address: <u>439 Western Avenue</u></p> <p>City: <u>Glendale</u> Zip: <u>91201</u></p> <p>Phone (Daytime): <u>(818) 240-9600</u></p> <p>E-mail address: <u>Pymt:accounting@geoteq.com;Eng:rknur@geoteq.com</u></p>
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5. Report(s) Prepared by: Geotechnologies, Inc. (File No. 20489)

6. Report Date(s): January 26, 2024

7. Status of project: Proposed Under Construction Storm Damage

8. Previous site reports? YES if yes, give date(s) of report(s) and name of company who prepared report(s)

Resp Ltr;Upd GEI 12/06/23; 09/06/23 Geotechnologies, Inc.

9. Previous Department actions? YES if yes, provide dates and attach a copy to expedite processing.

Dates: 12/16/23;10/17/23 Log#127750-01; Log#127750

10. Applicant Signature: Reinard Knur Position: Geotechnical Engineer/Partner

(DEPARTMENT USE ONLY)

REVIEW REQUESTED	FEES	REVIEW REQUESTED	FEES
<input type="checkbox"/> Soils Engineering		No. of Lots	
<input type="checkbox"/> Geology		No. of Acres	
<input checked="" type="checkbox"/> Combined Soils Engr. & Geol.		<input type="checkbox"/> Division of Land	
<input type="checkbox"/> Supplemental		Other	
<input type="checkbox"/> Combined Supplemental		<input checked="" type="checkbox"/> Expedite	<u>181.50</u>
<input type="checkbox"/> Import-Export Route		<input checked="" type="checkbox"/> Response to Correction	<u>3163.00</u>
Cubic Yards: _____		<input type="checkbox"/> Expedite ONLY	
		Sub-total	<u>544.50</u>
		One-Stop Surcharge	<u>129.80</u>
		TOTAL FEE	<u>674.30</u>

Fee Due: 674.30

Fee Verified By: AM Date: 1/29/24

(Cashier Use Only)

Receipt #

1763443

Paid on

1/29/24

ACTION BY: _____

THE REPORT IS: NOT APPROVED

APPROVED WITH CONDITIONS BELOW ATTACHED

For Geology _____ Date _____

For Soils _____ Date _____