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## GEOLOGY AND SOILS REPORT APPROVAL LETTER

August 28, 2024

LOG # 131619  
SOILS/GEOLOGY FILE - 2  
LAN-Exempt

Structural AF  
2536 N. Vasanta Way  
Los Angeles, CA 90068

TRACT: 3643  
LOT: 60 (Arb. 2)  
LOCATION: 2536 N. Vasanta Way

<u>CURRENT REFERENCE</u> <u>REPORT/LETTER</u>	<u>REPORT</u> <u>No.</u>	<u>DATE OF</u> <u>DOCUMENT</u>	<u>PREPARED BY</u>
Geology/Soils Report	4133	06/28/2024	Rybak Geotechnical

<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. Approval Letter	---	12/27/1973	LADBS
Geology/Soils Report	1030	12/5/1973	Geology & Soils Consultants

The Grading Division of the Department of Building and Safety has reviewed the referenced report, which provides recommendations for the proposed remediation of the ongoing distress to the existing residence by underpinning the foundations.

According to the referenced report dated 06/28/2024, at the time of exploration, the subject site was occupied by a residential structure with an attached carport. The site surface slopes downward to the east at a 1.5H:1V gradient near the existing house and gradually flattens toward the toe of the slope.

The subject site was previously explored in 1973 by Geology and Soils Consultants, Inc. through excavation of three borings to depths ranging between 25 and 27.5 feet. Additionally, subsurface exploration consisting of two test pits and two borings to a maximum depth of 15 feet below the ground surface was conducted in 2024 by Rybak Geotechnical, Inc. The earth materials at the subsurface exploration locations consist of up to 13 feet of uncertified fill underlain by residual soil and bedrock. According to the Geology and Soils Consultants report dated 12/5/1973, bedding planes mapped in the test borings strike almost east-west with dips to the south ranging from 14 to 54 degrees. No groundwater was encountered to the maximum depth explored. According to the consultants, the soils have a medium expansion potential.

The consultants recommend underpinning the existing residence on drilled-pile foundations bearing on competent bedrock.

The site is located in a designated seismically induced landslide hazard zone as shown on the Seismic Hazard Zones map issued by the State of California. However, the proposed construction is currently exempt (P/BC 2023-044).

It shall be understood that the proposed method of repair is not in full conformance with current Code regulations and must, therefore, be classified as remedial and intended to improve site conditions over that which presently exists.

The recommendations outlined in the above reports are intended to improve the existing site conditions and are acceptable to the Department provided the conditions outlined below are followed:

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

1. 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).
2. All recommendations of the report that are in addition to or more restrictive than the conditions contained herein shall be incorporated into the plans.
3. 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.
4. 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.
5. Existing uncertified fill shall not be used for support of footings, concrete slabs or new fill (1809.2, 7011.3).
6. Drainage in conformance with the provisions of the Code shall be maintained during and subsequent to construction (7013.12).
7. 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).

8. All loose foundation excavation material shall be removed prior to commencement of framing. Slopes disturbed by construction activities shall be restored (7005.3).
9. 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).
10. Temporary excavations that remove lateral support to the public way, adjacent property, or adjacent structures shall be constructed using ABC slot cuts. 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)
11. Where any excavation, not addressed in the approved reports, would remove lateral support (as defined in 3307.3.1) from a public way, adjacent property or structures, a supplemental report shall be submitted to the Grading Division of the Department containing recommendations for shoring, underpinning, and sequence of construction. Shoring recommendations shall include the maximum allowable lateral deflection of shoring system to prevent damage to adjacent structures, properties and/or public ways. Report shall include a plot plan and cross-section(s) showing the construction type, number of stories, and location of adjacent structures, and analysis incorporating all surcharge loads that demonstrate an acceptable factor of safety against failure. (7006.2 & 3307.3.2)
12. 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).
13. The soils engineer shall review and approve the underpinning plans prior to issuance of the permit (3307.3.2).
14. Unsurcharged temporary excavations over 12 feet exposing exciting uncertified fill and soil shall be trimmed back at a gradient not exceeding 1:1, as recommended (see pg. 18 of the 06/28/2024 report).
15. Surcharged ABC slot-cut method may be used for temporary excavations with each slot-cut not exceeding 5 feet in height and not exceeding 6 feet in width, as recommended. The surcharge load shall not exceed the value given in the report. The soils engineer shall determine the clearance between the excavation and the existing foundation. The soils engineer shall verify in the field if the existing earth materials are stable in the slot-cut excavation. Each slot shall be inspected by the soils engineer and approved in writing prior to any worker access. The width of the slot-cut shall not be larger than the height of the excavation.
16. All foundations shall derive entire support from competent bedrock, as recommended and approved by the geologist and soils engineer by inspection.
17. The structural designer and soils engineer shall verify and attest to the adequacy of the existing footings for underpinning by signature and license stamp, on the final plans.

18. 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).
19. 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.
20. 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.
21. 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.
22. 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).
23. Existing uncertified fill shall not be used for lateral support of deep foundations (1810.2.1).
24. Slabs on uncertified fill shall be designed as a structural slab (7011.3).
25. 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.
26. All deck drainage shall be collected and conducted to an approved location in a non-erosive device (7013.10).
27. 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).
28. All concentrated drainage shall be conducted in an approved device and disposed of in a manner approved by the LADBS (7013.10).
29. 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).
30. 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).
31. 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)

32. 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)
33. Prior to excavation an initial inspection shall be called with the LADBS Inspector. During the initial inspection, the sequence of construction; ABC slot cuts; underpinning; pile installation; protection fences; and, dust and traffic control will be scheduled (108.9.1).
34. Underpinning, 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).
35. 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).
36. A supplemental report shall be provided in the event any deviation to the currently proposed project configuration, as presented and as shown in the plans and cross sections included in the approved reports, is made. This shall include but not limited to: relocation, change in any dimension, change in the number of stories above or below grade of any of the proposed structures; addition of any structure(s), such as retaining walls, decks, swimming pools, driveways, access roads, living quarters, etc.; or, additional permanent grading or temporary grading for construction purposes that are not described and not shown in the plans and cross sections included in the approved reports.



NADER TAVASSOLI  
Engineering Geologist Associate I



YING LIU  
Geotechnical Engineer II

NT/YL:nt/yl  
Log No. 131619  
213-482-0480

cc: Meri Ayrapetyan, Applicant  
Rybak Geotechnical, Inc., Project Consultant  
LA District Office