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OSAMA YOUNAN, P.E. EXECUTIVE OFFICER

## GEOLOGY AND SOILS REPORT APPROVAL LETTER

April 20, 2017

LOG # 97576 SOILS/GEOLOGY FILE - 2

6436 Hollywood Blvd., LLC 40 West 57th Street, 23 FL New York, New York 10019

TRACT:

HOLLYWOOD (MR 28-59/60)

BLOCK:

14

LOTS:

1 (Arbs. 2 & 3), 2 (Arbs. 2 & 3), FR 3, FR 4, FR 5 (Arb. 1), FR 6 (Arb. 1), FR 15 (Arb. 2),

FR 16 (Arb. 1)

LOCATION:

6430, 6432, 6434, 6438, 6440, & 6436 W. Hollywood Boulevard and 1624, 1626, 1628,

1634, 1638, 1640, 1642, 1644, 1646, & 1648 N. Wilcox Avenue

CURRENT REFERENCE REPORT DATE OF

REPORT/LETTER(S)

Geology/Soils Report

LA-01670-01

LA-01670-02

LA-010/2016

Earth Systems

LA-01670-02

LA-010/2016

Earth Systems

The Grading Division of the Department of Building and Safety has reviewed the referenced reports that provide recommendations for the proposed demolition of all site structures except a 2-story structure that will be preserved and renovated, a 1-story structure, and a 17-story (15-above, 2-below grade) mixed use building with retaining walls. The earth materials at the subsurface exploration locations consist of up to 5 feet of uncertified fill underlain by alluvium. The consultants recommend to support the proposed 1-story structure on conventional foundations bearing on a blanket of properly placed fill a minimum of 3 feet thick and the proposed 17-story tower on mat-type foundations bearing on native undisturbed soils.

The referenced reports are acceptable, provided the following conditions are complied with during site development:

(Note: Numbers in parenthesis () refer to applicable sections of the 2017 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. Whenever the principal building on a site is added to, altered or repaired in excess of 50 percent of its replacement value, the entire site shall be brought up to the current Code standard. (7005.9).

If this condition applies, a supplemental report identifying all non-conforming conditions shall be provided with recommendations to bring the entire site into conformance with the current Code standard. This shall include but not to be limited to regrading and/or retaining of steep slopes and underpinning/replacement of all existing foundations where not in conformance with current Code standards.

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- 2. 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).
- 3. An on-site storm water infiltration system at the subject site shall not be implemented, as recommended.
- 4. All recommendations of the reports 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. If import soils are used, no footings shall be poured until the soils engineer has submitted a compaction report containing in-place shear test data and settlement data to the Grading Division of the Department; and, obtained approval (7008.2).
- 9. Existing uncertified fill shall not be used for support of footings, concrete slabs or new fill (1809.2, 7011.3).
- 10. Drainage in conformance with the provisions of the Code shall be maintained during and subsequent to construction (7013.12).
- 11. 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).
- 12. Temporary excavations that remove lateral support to the public way, adjacent property, or adjacent structures shall be supported by shoring, as recommended. 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)
- 13. 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).
- 14. The soils engineer shall review and approve the shoring and/or underpinning plans prior to issuance of the permit (3307.3.2).

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- 15. 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.
- 16. Unsurcharged temporary excavation may be cut vertical up to 5 feet. For excavations over 5 feet, the lower 5 feet may be cut vertically and the portion of the excavation above 5 feet shall be trimmed back at a gradient not exceeding 1.5H:1V, as recommended.
- 17. Shoring shall be designed for the lateral earth pressures specified in the section titled "C. Temporary Shoring" starting on page 16 of the 10/07/2016 report; all surcharge loads shall be included into the design.
- 18. Shoring shall be designed for a maximum lateral deflection of 1 inch, provided there are no structures within a 1:1 plane projected up from the base of the excavation. Where a structure is within a 1:1 plane projected up from the base of the excavation, shoring shall be designed for a maximum lateral deflection of ½ inch, or to a lower deflection determined by the consultant that does not present any potential hazard to the adjacent structure.
- 19. A shoring monitoring program shall be implemented to the satisfaction of the soils engineer.
- 20. All foundations shall derive entire support from native undisturbed soils or a blanket of properly placed fill a minimum of 3 feet thick, as recommended and approved by the soils engineer by inspection.
- 21. 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.
- 22. Footings supported on approved compacted fill or expansive soil shall be reinforced with a minimum of four (4), ½-inch diameter (#4) deformed reinforcing bars. Two (2) bars shall be placed near the bottom and two (2) bars placed near the top of the footing.
- 23. Slabs placed on approved compacted fill shall be at least 3½ inches thick and shall be reinforced with ½-inch diameter (#4) reinforcing bars spaced a maximum of 16 inches on center each way.
- 24. The seismic design shall be based on a Site Class D, as recommended. All other seismic design parameters shall be reviewed by LADBS building plan check.
- 25. Retaining walls shall be designed for the lateral earth pressures specified in the section titled "G.1 Retaining Walls" starting on page 24 of the 10/07/2016 report. All surcharge loads shall be included into the design.
- 26. Retaining walls higher than 6 feet shall be designed for lateral earth pressure due to earthquake motions as specified on section titled "G.2 Retaining Walls" of the 10/07/2017 report (1803.5.12).
- 27. 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).
- 28. 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

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be incorporated into the foundation plan which shall be reviewed and approved by the soils engineer of record (1805.4).

- 29. Installation of the subdrain system shall be inspected and approved by the soils engineer of record and the City grading/building inspector (108.9).
- 30. 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).
- 31. Prefabricated drainage composites (Miradrain, Geotextiles) may be only used in addition to traditionally accepted methods of draining retained earth.
- 32. The structure shall be connected to the public sewer system per P/BC 2014-027.
- 33. All roof, pad and deck drainage shall be conducted to the street in an acceptable manner; 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).
- 34. All concentrated drainage shall be conducted in an approved device and disposed of in a manner approved by the LADBS (7013.10).
- 35. 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).
- 36. 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).
- 37. 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)
- 38. Prior to excavation an initial inspection shall be called with the LADBS Inspector. During the initial inspection, the sequence of construction; shoring; underpinning; protection fences; and, dust and traffic control will be scheduled (108.9.1).
- 39. Installation of shoring, underpinning, slot cutting excavations and/or pile installation shall be performed under the inspection and approval of the soils engineer and deputy grading inspector (1705.6).
- 40. 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
- 41. 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

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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).

42. No footing/slab shall be poured until the compaction report is submitted and approved by the

Grading Division of the Department.

CASEY LEE JENSEN

Engineering Geologist Associate II

Structural Engineering Associate I

CLJ/DRE:clj/dre Log No. 97576

213-482-0480

Earth Systems, Project Consultant cc:

LA District Office