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ERIC GARCETTI
MAYOR

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

GEOLOGY AND SOILS REPORT APPROVAL LETTER

August 7, 2020

LOG # 112559-01
SOILS/GEOLOGY FILE - 2
LIQ/LAN/AP-Exempt

Republic Services
14747 N. San Fernando Road
Sylmar, CA 91344

TRACT: 10422
LOT(S): FR 9 (Arbs. 1 & 2)
LOCATION: 14747 N. San Fernando Road

| <u>CURRENT REFERENCE REPORT/LETTER(S)</u> | <u>REPORT No.</u> | <u>DATE OF DOCUMENT</u> | <u>PREPARED BY</u> |
|---|-----------------------|-----------------------------|----------------------|
| Request for Modification | RFM 27303 | 08/07/2020 | LADBS |
| Geology/Soils Report | SO19.1200 | 06/11/2020 | Geo-Logic Associates |
| Oversized Doc(s). | " | " | " |

| <u>CURRENT REFERENCE REPORT/LETTER(S)</u> | <u>REPORT No.</u> | <u>DATE OF DOCUMENT</u> | <u>PREPARED BY</u> |
|---|-----------------------|-----------------------------|----------------------|
| Dept. Review Letter | 112559 | 03/31/2020 | LADBS |
| Geology/Soils Report | SO19.1200 | 03/09/2020 | Geo-Logic Associates |

The Grading Division of the Department of Building and Safety has reviewed the referenced report that provides recommendations for the proposed termination fill berm ranging up to 200 feet in height, cut slopes ranging up to 100 feet in height, and retaining walls ranging up to 15 feet in height. The new berm will be located at the main entrance area and is intended to expand the capacity of the landfill area to accommodate future municipal solid waste. The fill berm will be at a gradient of 1½:1 (H:V) on the west-facing side of the berm and 1¾:1 (H:V) on the east-facing side. Additionally, the eastern portion of the berm will range in gradient from 1¾:1 to 2:1 (H:V) to accommodate a new access road. The consultants recommend to support the proposed retaining walls on conventional foundations bearing on properly placed fill and/or competent bedrock.

Subsurface exploration performed by the consultant consisted of six hollow stem borings and one core boring to a maximum depth of 103 feet. The geotechnical exploration was supplemented with borings from groundwater monitoring and gas probe monitoring wells. The earth materials at the subsurface exploration locations consist of up to 75 feet of uncertified fill underlain by alluvium and sandstone and siltstone bedrock. Geologic structure observed by the consultant within the grading area generally consisted of northeast to southeast dipping bedding between 21 and 62 degrees. Groundwater was encountered at a depth of 13 feet at the main entrance area near San Fernando Road.

A "Request for Modification of Building Ordinances" (RFM 27303) has been reviewed and approved by the Department to allow the placement of fill at gradients of 1½:1 and 1¼:1 (H:V) for the construction of the landfill termination berm.

The project is located within a Fault Zone identified by the State of California Alquist-Priolo Act and in a designated seismically induced landslide and liquefaction hazard zones as shown on the Seismic Hazard Zones map issued by the State of California. However, the proposed construction is currently exempt (P/BC 2020-044).

As of January 1, 2020, the City of Los Angeles has adopted the new 2020 Los Angeles Building Code (LABC). The 2020 LABC requirements will apply to all projects where the permit application submittal date is after January 1, 2020.

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

(Note: Numbers in parenthesis () refer to applicable sections of the 2020 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. A detailed geologic mapping of the subgrade slope shall be performed during clearing and grubbing of slopes and during excavations, as recommended on page 34 of the 03/09/2020 report.
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 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 graded, brushed or bare slopes shall be planted with low-water consumption, native-type plant varieties to protect slopes against erosion (7012).
8. All new graded slopes shall be no steeper than 2H:1V, except as specifically approved by the RFM (7010.2 & 7011.2).
9. Prior to the issuance of any permit, an accurate volume determination shall be made and included in the final plans, with regard to the amount of earth material to be exported from the site. For grading involving import or export of more than 1000 cubic yards of earth materials within the grading hillside area, approval is required by the Board of Building and Safety. Application for approval of the haul route must be filed with the Board of Building and Safety Commission Office. Processing time for application is approximately 8 weeks to hearing plus 10-day appeal period.
10. Man-made fill placed in the upper 40 feet shall be compacted to a minimum of 90 percent of the maximum dry density and 93 percent below 40 feet.

11. 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.
12. 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).
13. Compacted fill shall extend beyond the footings a minimum distance equal to the depth of the fill below the bottom of footings or a minimum of three feet whichever is greater, except at locations where lateral over excavation is not possible (i.e., foundations adjacent to property lines or structures), in which case the foundations may be deepened to bear in competent bedrock, as recommended (7011.3).
14. Existing uncertified fill shall not be used for support of footings, concrete slabs or new fill (1809.2, 7011.3).
15. Drainage in conformance with the provisions of the Code shall be maintained during and subsequent to construction (7013.12).
16. 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).

6262 Van Nuys Blvd. Ste 351, Van Nuys (818) 374-4605

17. 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).
18. 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)
19. A supplemental report shall be submitted to the Grading Division of the Department containing recommendations for shoring, underpinning, and sequence of construction in the event that any excavation would remove lateral support to the public way, adjacent property, or adjacent structures (3307.3). A plot plan and cross-section(s) showing the construction type, number of stories, and location of the structures adjacent to the excavation shall be part of the excavation plans (7006.2).
20. All foundations shall derive entire support from properly placed fill or competent bedrock, as recommended and approved by the geologist and soils engineer by inspection.
21. 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).
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. The foundation/slab design shall satisfy all requirements of the Information Bulletin P/BC 2017-116 "Foundation Design for Expansive Soils" (1803.5.3).
24. 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.
25. Retaining walls shall be designed for the lateral earth pressures specified in Appendix F of the 03/2020 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 in Appendix F of the 03/2020 report (1803.5.12).
27. Retaining walls at the base of ascending slopes shall be provided with a minimum freeboard of 12 inches, as recommended.
28. 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.
29. 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).
30. 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).
31. Installation of the subdrain system shall be inspected and approved by the soils engineer of record and the City grading/building inspector (108.9).
32. Prefabricated drainage composites (Miradrain, Geotextiles) may be only used in addition to traditionally accepted methods of draining retained earth.
33. All concentrated drainage shall be conducted in an approved device and disposed of in a manner approved by the LADBS (7013.10).
34. 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).
35. 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).
36. 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)
37. Prior to excavation an initial inspection shall be called with the LADBS Inspector. During the initial inspection, the sequence of construction, protection fences, and dust and traffic control will be scheduled (108.9.1).

38. 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).
39. Where foundations and/or slabs are to be supported on certified fill, no footing/slab shall be poured until the compaction report is submitted and approved by the Grading Division of the Department.


EDMOND LEE
Engineering Geologist Associate III


DAN RYAN EVANGELISTA
Structural Engineering Associate III

Log No. 112559-01
213-482-0480

cc: Geo-Logic Associates, Project Consultant
VN District Office

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
Grading Division

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| District | Log No. 112559-01 |
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APPLICATION FOR REVIEW OF TECHNICAL REPORTS

INSTRUCTIONS

- A. Address all communications to the Grading Division, LADBS, 221 N. Figueroa St., 12th 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.

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|--|---|
| 1. LEGAL DESCRIPTION | 2. PROJECT ADDRESS: 14747 San Fernando Rd. |
| Tract: 10422 | Sylmar, CA 91342 |
| Block: — Lots: 9 Arh 1 & 2 | 4. APPLICANT Tuong-Phu Ngo |
| 3. OWNER: Republic Services | Address: 14747 San Fernando Rd. |
| Address: 14747 San Fernando Rd. | City: Sylmar Zip: 91342 |
| City: Sylmar Zip: 91342 | Phone (Daytime): 818-617-1143 |
| Phone (Daytime): 818-617-1143 | E-mail address: tngo@republicservices.com |
| 5. Report(s) Prepared by: GeoLogic Associates | 6. Report Date(s): 6/11/2020 |
| 7. Status of project: <input type="checkbox"/> Proposed <input type="checkbox"/> Under Construction <input type="checkbox"/> Storm Damage | |
| 8. Previous site reports? <input checked="" type="checkbox"/> YES if yes, give date(s) of report(s) and name of company who prepared report(s) | |
| 9. Previous Department actions? <input checked="" type="checkbox"/> YES if yes, provide dates and attach a copy to expedite processing. | |
| Dates: _____ | |

10. Applicant Signature: **Tuong Phu Ngo** Position: **Environmental Manager**

(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 type="checkbox"/> Combined Soils Engr. & Geol. | | <input type="checkbox"/> Division of Land | |
| <input type="checkbox"/> Supplemental | | Other | |
| <input checked="" type="checkbox"/> Combined Supplemental | 363.00 | <input checked="" type="checkbox"/> Expedite | 181.50 |
| <input type="checkbox"/> Import-Export Route | | <input type="checkbox"/> Response to Correction | |
| Cubic Yards: | | <input type="checkbox"/> Expedite ONLY | |
| | | Sub-total | 544.50 |
| | | Surcharges | 129.80 |
| | | TOTAL FEE | 674.30 |

Fee Due: **674.30**
Fee Verified By: **me** Date: **6/18/20**
(Cashier Use Only)

ACTION BY:

THE REPORT IS: ☐ NOT APPROVED
☐ APPROVED WITH CONDITIONS ☐ BELOW ☐ ATTACHED

| For Geology | | Date |
|-----------------------|----------|--------------------------------------|
| For Soils | | Date |
| GRADING REPORT | \$363.00 | LA Department of Building and Safety |
| SYSTEMS DEV SURCH | \$21.78 | LA HANN 10801601 6/19/20 |
| GEN PLAN MAIN SURCH | \$25.41 | 20 8:44:01 AM |
| DEV SERV CENTER SURCH | \$10.89 | |
| CITY PLAN SURCH | \$21.78 | |
| PLAT APPROVAL FEE | \$181.50 | |
| SYSTEMS DEV SURCH | \$10.89 | |
| GEN PLAN MAIN SURCH | \$12.71 | |

DEV SERV CENTER SURCH \$5.45
CITY PLAN SURCH \$10.89
MISCELLANEOUS \$10.00
Sub Total \$674.30
Receipt #: 0108179644