Appendix E
Geotechnical Report

BOARD OF
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SOILS REPORT APPROVAL LETTER

April 25, 2024

LOG # 128522-01
SOILS/GEOLOGY FILE - 2

Baranof Holdings
2850 N Harwood St. #1000
Dallas, TX 75201

TRACT:	STRONG AND DICKENSON'S SOUTH HOLLYWOOD NO. 1(M P 8-84)
BLOCK:	D
LOT(S):	18
LOCATION:	956 N. Seward St.

CURRENT REFERENCE REPORT/LETTER(S)	REPORT No.	DATE OF DOCUMENT	PREPARED BY
Addendum Report	3247-0-0-101	01/24/2024	Gorian & Assc., Inc.

PREVIOUS REFERENCE REPORT/LETTER(S)	REPORT No.	DATE OF DOCUMENT	PREPARED BY
Dept. Review Letter	128522	12/14/2023	LADBS
Soils Report	3247-0-0-100R	10/24/2023	Gorian & Assc., Inc.

The Grading Division of the Department of Building and Safety has reviewed the referenced report that provide recommendations for the proposed 7-story self-storage building. The earth materials at the subsurface exploration locations consist of up to 5 feet of uncertified fill underlain by native soils. The consultants recommend to support the proposed structure on conventional or mat foundations bearing on native undisturbed soils or properly placed fill.

As of January 1, 2023, the City of Los Angeles has adopted the new 2023 Los Angeles Building Code (LABC). The 2023 LABC requirements will apply to all projects where the permit application submittal date is after January 1, 2023.

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 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 soils engineer shall review and approve the detailed plans prior to issuance of any permit. This approval shall be by signature on the plans that clearly indicates the soils engineer has reviewed the plans prepared by the design engineer; and, that the plans included 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. A grading permit shall be obtained for all structural fill and retaining wall backfill (106.1.2).

5. 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.

6. 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).

7. 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 (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. 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).

11. 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)

12. 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).

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. Unsurcharged temporary excavations exposing soil shall be trimmed back at a gradient not exceeding 2:1, as recommended.

15. All foundations shall derive entire support from native undisturbed soils or properly placed fill, as recommended.

16. 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. According to ASCE 7-16 Section 11.4.8, for structures on Site Class D sites with S1 greater than or equal to 0.2, the parameter SM1 determined by EQ. (11.4-2) shall be increased by 50%. Alternatively, a supplemental report containing a site-specific ground motion hazard analysis in accordance with ASCE 7-16 Section 21.2 shall be submitted for review and approval.

17. The structure shall be connected to the public sewer system per P/BC 2020-027.

18. 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 (7013.10).

19. All concentrated drainage shall be conducted in an approved device and disposed of in a manner approved by the LADBS (7013.10).

20. The 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).

21. 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)

22. 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).

23. 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).

24. No footing/slab shall be poured until the compaction report is submitted and approved by the Grading Division of the Department.

25. 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.

26. An on-site storm water infiltration system at the subject site shall not be implemented, as recommended.

ALAN DANG
Structural Engineering Associate II

AD/ad
Log No. 128522-01
213-482-0480

cc: Gorian & Assc., Inc., Project Consultant
LA District Office

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
Grading Division

District	LA	Log No.	128522-1

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.

1. LEGAL DESCRIPTION
Tract: No. 1 Tract of Strong and Dickenson's South Hollywood
Block: Block D Lots: Lots 1 to 2 and 14 to 18

2. PROJECT ADDRESS:
956 N. Seward Street; 949-959 N. Hudson Avenue

3. OWNER: Pure Silver Enterprises, Inc. c/o Levi Pinsky
Address: 333 S. Hope Street
City: Los Angeles Zip: 90071
Phone (Daytime): 213-617-4141

4. APPLICANT Baranof Holdings Land Development, LLC
Address: 2850 N. Harwood Street, Suite 1000
City: Dallas Zip: 75201
Phone (Daytime): 213-229-5135
E-mail address: nmahrou@mayerbrown.com

5. Report(s) Prepared by:
Response to City of Los Angeles Soils Report Review Letter, Dated December 14, 2023 (Log # 128522)

6. Report Date(s):
January 24, 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)
Gorian and Associates, Inc., October 24, 2023, Geotechnical Site Evaluation and Stormwater Infiltration Test Report, Proposed 7-Story Self-Storage Building, 956 Seward Street, Hollywood, California. Work Order: 3247-0-0-100R

9. Previous Department actions? ☑ YES if yes, provide dates and attach a copy to expedite processing.
Dates: City of Los Angeles Soils Report Review Letter dated December 14, 2023

10. Applicant Signature: Arteen Mnayan Position: Applicant Representative

(DEPARTMENT USE ONLY)

REVIEW REQUESTED	FEES	REVIEW REQUESTED	FEES
☒ ~~Soils Engineering~~		No. of Lots	
☐ Geology		No. of Acres	
☐ Combined Soils Engr. & Geol.		☐ Division of Land	
☐ Supplemental		Other	
☐ Combined Supplemental		☑ Expedite	90.75
☐ Import-Export Route		☒ Response to Correction	181.50
Cubic Yards:		☐ Expedite ONLY	
		Sub-total	272.25
		Surcharge	69.91
		TOTAL FEE	342.16

Fee Due: 342.16
Fee Verified By: Arm Date: 4/8/24
(Cashier Use Only)

Receipt #
1810764
Paid on
4/9/24

ACTION BY:

THE REPORT IS: ☐ NOT APPROVED

☐ APPROVED WITH CONDITIONS ☐ BELOW ☐ ATTACHED

For Geology Date

For Soils Date

Geotechnical Site Evaluation
and
Stormwater Infiltration Test Report
Proposed 7-Story Self-Storage Building
956 Seward Street
Hollywood, California

prepared for

Baranof Holdings
2850 N Harwood Street
Suite 1000
Dallas TX 75201

GORIAN & ASSOCIATES, INC.

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Plate 1: Boring Location Map

GORIAN & ASSOCIATES, INC.

Applied Earth Sciences
Geotechnical Engineers
Engineering Geologists
DSA Accepted Testing Laboratory
Special Inspection and Materials Testing

3595 Old Conejo Road
Thousand Oaks
California 91320-2122
805 375-9262

October 24, 2023

Baranof Holdings
2850 N Harwood Street
Suite 1000
Dallas TX 75201

Work Order: 3247-0-0-100R

Subject: **Geotechnical Site Evaluation and Stormwater Infiltration Test Report, Proposed 7-Story Self-Storage Building, 956 Seward Street, Hollywood, California**

1. INTRODUCTION

The following report contains the results of our geotechnical site evaluation for design and construction of an above grade 7-story self-storage building at 956 Seward Street in Hollywood, California. Layout of the project is shown on the attached Geotechnical Map, Plate 1 based on the Site Plan -V1 by Michael W. Folonis Architects. In addition, storm water infiltration testing was performed as part of this site evaluation.

The L shaped site is between Seward and Hudson Streets on the south side of Romaine Street as shown on the attached Site Vicinity Map, Figure 1. Also, it is roughly one block south of Santa Monica Boulevard and four blocks west of Cahuenga Boulevard in the Hollywood area of central Los Angeles, California. Presently, the site is occupied by an existing single story building and open-air paved truck storage area. The existing facility will be demolished for construction of the proposed building with seven floors for a total of 168,565 square feet of floor space based on the architectural plans. Foundations and on-grade slabs are anticipated to be of conventional design. Subterranean construction is not anticipated at this time.

Geotechnical borings were used to obtain data on the subsurface alluvial soils consisting predominately of clayey soils with minor layer of silty fine to coarse sands to the explored depth of 51 feet as described herein. The field exploration was supplemented with laboratory testing to determine mechanical properties of the encountered soils. In addition, research was performed that indicated the site is not within Earthquake Fault, Liquefaction, or Landslide Zones (CGS, *Earthquake Zones of Required Investigation* website). Based on our site evaluation, the site is suitable for the proposed construction from a geotechnical standpoint provided recommendations presented herein are implemented in the project design and construction. Descriptions of the site and geologic units along with our conclusions and recommendations are presented within the text of this report.

2. PROPOSED DEVELOPMENT

The project based on the Site Plan -V1 by Michael W. Folonis Architects will consist of a seven story rectangular building proposed in the western portion of the site as shown on Plate 1. The completed building will have total of 168,565 square feet of floor space. A loading area will be roughly centered on the east side of the building. Access to the site will be via a driveway off Romaine Street. The eastern portion of the L shaped site will be used for surface parking and drive aisles and is anticipated to be paved with asphaltic concrete (AC).

The building may be supported on continuous footings, with individual storage units possibly supported on the interior slab on grade within the interior of the structure. Continuous footings at the perimeter and at the interior are anticipated to be loaded to 8 to 10 kips per linear foot. Steel stud walls spaced on 10-foot centers typically are loaded to approximately 5± kips per linear foot and may be supported directly on a thickened interior slab typical of this type of self-storage structure. The storage live loads are anticipated to be 125 pounds per square foot.

3. SCOPE OF GEOTECHNICAL SERVICES (SITE EVALUATION)

Our site evaluation was performed to provide geotechnical recommendations for design and construction of the self-storage project in general accordance with the Scope of Services presented in our proposal of May 18, 2023 (Proposal Number: 7323-10). Our geotechnical evaluation was performed under the direction of a State registered Geotechnical Engineer and included:

3.1. ARCHIVAL REVIEW

Pertinent geologic/geotechnical references in our office including regional geologic references applicable to the site were reviewed with respect to the proposed development.

3.2. SUBSURFACE EXPLORATION

Two geotechnical borings (8-inch diameter) were excavated for this study in the northern portion of the site with one boring near Seward Street and the other near N. Hudson Ave (an existing building occupies the southern portion of the site). The borings were drilled to a depth of 51 feet below the existing ground surface (bgs) utilizing a subcontractor supplied and operated truck-mounted hollow-stem auger drill rig equipped with an automatic hammer weighing 140 pounds with a 30-inch drop. The approximate boring locations shown on the Boring Location Map (Plate 1).

The field exploration activities described above were observed by an engineer from this office, who logged the underlying materials and from the borings, obtained bulk and relatively undisturbed soil samples for laboratory analyses.

At the conclusion of logging, the borings will be backfilled with a bentonite/cement grout and the surface capped. However, the backfill may settle over time and the site representative should fill any depression that may occur, as necessary.

3.3. STORMWATER INFILTRATION TESTING

Two locations were tested for stormwater infiltration. For infiltration testing, two hollow-stem auger borings were excavated to a total depth of 7 feet below the existing ground surface utilizing a subcontractor supplied and operated truck mounted hollow-stem auger drill rig.

At the conclusion of logging and soil sampling, the borings were converted to infiltration rate test wells by placing 1 foot of medium bentonite chips in the boring prior to placing a 10 foot long 2-inch diameter pipe in each boring with the lower 5 feet of pipe slotted (0.02). The annular space between the slotted pipe and the wall of the excavation was backfilled using #3 sand. The upper portion of the annular space was sealed off with medium bentonite chips followed by soil.

The test zone was pre-soaked by filling to the top of each casing with water. The water was allowed to pre-soak for a maximum period of 24 hours or until the water has completely drained out on the first day of testing. At the conclusion of the pre-soak on the test day, the pipes were refilled with water to approximately a foot above the slotted pipe. After the pre-soak period, a falling head test was performed for both infiltration wells. However, water did not recede in the test well and the site was found to not be suitable for onsite stormwater infiltration. At the conclusion of testing, the excavations were backfilled with soil.

3.4. LABORATORY TESTING

A program of laboratory testing as outlined in Appendix B was performed to evaluate geotechnical properties of selected soil samples obtained during the subsurface exploration.

3.5. GEOTECHNICAL ENGINEERING ANALYSES AND REPORT PREPARATION

The results of our archival research, field exploration, storm water infiltration, laboratory testing, and engineering analyses were used to provide geotechnical recommendations for design and construction of a storage building, as well to provide an infiltration rate for design and construction of the stormwater BMP for the facility. The findings are provided in this report that include:

a) A description of the site and subsurface conditions as encountered in the exploratory excavations including Logs of Subsurface Data (Appendix A) and a Boring Location Map (Plate 1) showing the approximate excavation locations.

b) A description of the laboratory testing programs, including tests results (Appendix B).

c) Discussion and recommendations regarding:
   - i) Geologic hazards including seismic setting of the site and faulting,
   - ii) Seismic design criteria;
   - iii) Soil collapse and expansion potential;
   - iv) Site preparation and remedial grading;
   - v) Concrete slabs on grade including aggregate base and vapor retarder;
   - vi) Modulus of subgrade reaction;
   - vii) Conventional foundation design recommendations;
   - viii) Estimated settlements;
   - ix) Pavement and hardscape design recommendations;
   - x) Soil chemistry analysis, by subcontract;
   - xi) Lateral earth pressures;
   - xii) Stormwater infiltration potential.

4. SITE DESCRIPTION

The flat L shaped site is at 956 Seward Street in the Hollywood area of central Los Angeles, California. It is on the south side of Romaine Street between Seward and Hudson Streets as shown on the attached Site Vicinity Map, Figure 1. Also, it is roughly one block south of Santa Monica Boulevard and four blocks west of Cahuenga Boulevard. Access to the site is off either Romaine or Seward Streets. Presently, the site is occupied by an existing single story building and open-air paved truck storage area. (An inventory of the existing building is beyond the scope of this geotechnical evaluation.) Surface parking and drive areas are outside of the building and the area is used for rental truck storage. The majority of the surrounding area is occupied by multi-stored commercial and apartment buildings.

5. SITE GEOLOGY

The site is underlain by Quaternary-age alluvium (Dibblee, 1991, see the Regional Geologic Map, Figure 2) mantled with a thin veneer of artificial fill (pavement). Descriptions of the encountered units are presented below and in the attached Logs of Subsurface Data (Appendix A).

5.1. ALLUVIUM
Quaternary-age alluvium underlies the entire site to the maximum depth explored, 51 feet (B-1 and B-2) below the existing ground surface. As encountered in the borings drilled for this evaluation, the alluvium generally consists of predominately of yellowish brown clay in a very dense condition interstratified with a minor layer of silty coarse sand.

5.2. ARTIFICIAL FILL
Artificial fill was only encountered on site as pavement covering the surface parking and drive area. The asphaltic concrete was observed 6 inches underlain by 6 to 7 inches of aggregate base materials. Below the aggregate base to a depth of 5 feet is a compacted fill consisting of dark brown slightly silty clay with medium gravel, which is damp and very dense. Additional areas of artificial fill deposits could exist on the site but were not investigated or mapped as they are concealed.

5.3. GROUNDWATER
Groundwater was encountered at 17 feet below the existing ground surface in the exploratory borings. Groundwater is estimated at 20 feet below the ground surface based on the Seismic Hazard Zone Report of the Hollywood 7.5 Minute Quadrangle, Los Angeles County, California. As in any groundwater situation, groundwater levels can fluctuate and groundwater (or perched zones) may be encountered at higher elevations than previously observed in the general area.

5.4. FAULTING AND SEISMICITY
The site, like any other development in Southern California, is in a seismically active region prone to occasional damaging earthquakes. The destructive power of earthquakes can be grouped into fault-rupture, ground shaking (strong motion), and secondary effects of ground shaking such as tsunami, liquefaction, settlement, landslides, etc.

The hazard of fault-rupture is generally thought to be associated with a relatively narrow zone along well-defined pre-existing active faults. No doubt there is and will be exceptions to this, because it is not possible to predict the precise location of a new fault where none existed before (CDMG, 1975). Holocene-active faults are not known to cross the site nor is the site currently within an Alquist-Priolo (A-P) Earthquake Fault Zone as defined by the State Geologist (CGS 2018). The closest active mapped faults are the Hollywood Fault, approximately 1.1 miles to the north, Newport Inglewood Fault, approximately 4.5 miles to the southwest, and the Raymond Fault, approximately 8.8 miles to the northeast. The San Fernando Fault is roughly 13 miles to the north. Potential for surface ground rupture due to faulting onsite during the project lifetime is considered remote.

Although no active or potentially active faults are known to exist within or adjacent the site, the area will be subject to strong ground motion from occasional earthquakes in the region. Significant earthquakes have occurred in Southern California within the last 50 years. Additional earthquakes will likely occur in this area within the life of the project and it will experience strong ground shaking from these events.

Probabilistic seismic hazard analyses (PSHA) predict the Design Basis Earthquake having a 2% probability of exceedance in 50 years (2,475-year return period will have a peak ground acceleration estimated to be 0.90g based on a seismic event with a mean magnitude of 6.80 (Mw) at a mean distance of 7.86 km from the site. This is based on the U.S. Geological Survey (USGS) interactive web application, Unified Hazard Tool https://earthquake.usgs.gov/hazards/interactive/ for the D class site.

Secondary effects of strong ground motion include tsunami, seiche, liquefaction, settlement, earthquake triggered landslides, and flooding from dam failures. Tsunamis are impulsively generated water waves that can cause damage to shoreline areas. A seiche is an oscillation wave within an enclosed body of water. The site is not near the ocean or adjacent a body of water and, therefore, is not subject to tsunami and seiche hazards. Furthermore, the site is not prone to earthquake triggered landslides due to the relatively low relief in the area and preponderance of development covered land, nor is the site in the vicinity of any dam failure inundation zone. The site is not within a State designated seismic hazard zone for liquefaction potential (CGS, Earthquake Zones of Required Investigation website). See Figure 3, the Seismic Hazards Zone Map.

5.5. FLOOD POTENTIAL

Per the City of Los Angeles website:
https://www.ladbsservices2.lacity.org/OnlineServices/PermitReport/ParcelProfileDetail2?pin=144B185-966 the site at 956 Seward Street is not in a flood hazard zone.

5.6. METHANE HAZARD ZONE

Per the City of Los Angeles website:
https://www.ladbsservices2.lacity.org/OnlineServices/PermitReport/ParcelProfileDetail2?pin=144B185-966 the site at 956 Seward Street is within a Methane Buffer Zone. Therefore, methane testing was performed by Methane Specialists and in their report of June 22, 2023 for 956 Seaward Street indicated "This project does not require a methane mitigation system."

5.7. HYDROCONSOLIDATION

Hydroconsolidation occurs when the soil structure collapses due to soil wetting resulting in consolidation of the soil column. However, at this site, the in-place moisture contents are above the optimum moisture. Therefore, addition of water to the soils should not result in hydroconsolidation. In addition, groundwater was encountered at 17 feet in the borings. Therefore, the potential for hydroconsolidation below the completed project should negligible due to the high groundwater and soil moisture contents.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1. GENERAL

The site was evaluated from a geotechnical standpoint for construction of a self-storage facility described herein. The alluvial deposits are suitable for the support of the structure. Therefore, conventional shallow foundations and a mat foundation may be used for structural support. However, remedial grading is needed to prepare the site as discussed hater herein. Differential settlement should be negligible based on the bearing capacities provided herein. The project may be developed as described earlier in this report provided recommendations presented herein are followed and incorporated into the project design and construction.

6.2. SEISMIC DESIGN PARAMETERS

As previously discussed, Holocene-active faults are not known to cross the site nor is the site currently within an Alquist-Priolo (A-P) Earthquake Fault Zone as defined by the State Geologist (CGS 2018). Nevertheless, the site is within a seismically active region prone to occasional damaging earthquakes.

Structures within the site may be designed using procedures for seismic design presented in ASCE/SEI 7-16. Mapped acceleration parameters are initially determined for sites having a shear wave velocity of 2,500 feet per second (Section C11.4.4). The S_s and S_1 values are adjusted to obtain the maximum considered earthquake (MCE) spectral acceleration values for the site based on its site class of D. The seismic design parameters for the site's coordinates (latitude 34.0889 N and longitude 118.3328 W) were obtained from the web based ASCE 7 Hazard Tool https://asce7hazardtool.online/ The parameters are presented on the following page (the full report is presented in Appendix C).

SEISMIC PARAMETER	VALUE PER CBC
Short Period Mapped Acceleration (S_s)	2.087g
Long Period Mapped Acceleration (S_1)	0.748g
Site Class Definition	D
Site Coefficient (F_a)	1.0
Site Coefficient (F_v)	1.7*
$S_{MS} = F_aS_s$	2.087g
$S_{M1} = F_vS_1$	1.272g*
$S_{DS} = 2/3S_{MS}$	1.391g
$S_{D1} = 2/3S_{M1}$	0.848g*
PGA_M	0.983g

**Based on proposed development meeting requirements of the exemption for Site Class D sites in Section 11.4.8 of ASCE 7-16. Further analysis may be required once the Response Modification Factor and Period of the proposed development are known.*

The purpose of the building code earthquake provisions is primarily to safeguard against major structural failures and loss of life, not to limit damage nor maintain function. Therefore, values provided in the building code should be considered minimum design values and should be used with the understanding site acceleration could be higher than addressed by code-based parameters. Cracking of walls and possible structural damage should be anticipated in a significant seismic event.

6.3. STORMWATER INFILTRATION
Based on our test results and field exploration observations, soils within the site were not found to be suitable for construction of a stormwater infiltration system. Water remained in the test wells the day after the wells were filled with water to presoak the test wells. On the test day, the test wells were refilled with water, which did not recede during the test period.

6.4. SITE PREPARATION AND GRADING

6.4.1. General
Geotechnical recommendations are presented in the following sections for preparation of the building pad. Site preparation and fill placement should be performed per the City of Los Angeles standards. The undisturbed in-placed alluvial soils are suitable for foundation support.

6.4.2. Site Clearing
Prior to starting earthwork, trash, debris, and remnants of demolition within all areas of construction should be stripped and removed from the site. Utilities within the area of proposed construction should be identified and removed or protected prior to grading.

6.4.3. Demolition
Presently, the area is covered by paving and facilities related to the prior use of the property that are planned for demolition. Utilities to remain should be protected in place. An inventory of the building is beyond the scope of this geotechnical evaluation. Therefore, equipment foundations and/or various utilities may be encountered during the site demolition.

6.4.4. Existing Fill Soils
Fill soils were encountered in the exploratory borings. The fill is well consolidated and suitable for foundation support. However, since the borings were outside of the existing building, additional evaluation of the fill will be needed once the building has been removed.

6.4.5. Soil Removals
Remedial grading should be performed within the proposed building areas to remove soils disturbed during demolition of the existing site improvements. Soil removals, as a minimum, should extend to undisturbed in-place native alluvial or compacted fill soils below soils disturbed during site clearing. The removal should include disturbed fill soils encountered in the site grading. For areas supporting foundations or concrete slabs on grade including mat slabs, soil removals should extend roughly 2 feet below existing ground surface after demolition. However, deeper excavation may be necessary based on the depth of demolition within the existing facility building. Therefore, the actual depth of needed removal should be evaluated by this office based on the actual depth of removal of existing structure foundations, utilities, or equipment foundations.

The bottom of the soil removal should extend past the outside of the perimeter footings a minimum distance equal to the depth of removal below the footing. However, soil removals should not extend below a 2(horizontal)1(vertical) line extending down from the property lines or as evaluated per this office. After removals are completed, a representative of this office should observe the bottom of the removal area prior to placing fill. Fill soil should not be placed until geotechnical observation of the removal areas is completed.

Outside the building areas, soil removals as a minimum, should extend to undisturbed in-place native alluvial soils of compacted fill below soils disturbed during the site clearing. Removal in the existing parking and drive areas may be limited to the asphaltic concrete and base, however, the removal area should be observed by this office to evaluation if additional soil removal is necessary.

The removed soils may be reused as fill material provided, the soils are clean and placed as described herein. The removal area should be observed by this office prior to fill placement to evaluate if deeper removals are necessary.

6.4.6. Soil Compaction
Fill soil or in-place compaction should be completed to a minimum 90 percent relative compaction. Relative compaction is the ratio of the in-place dry soil density to the maximum dry soil density as determined in general accordance with ASTM laboratory standard D-1557.

6.4.7. In-Place Soil Processing
Once the soil removals are complete and prior to placing fill, the bottom of the removal area should be processed. Processing consists of scarifying the exposed surface to a depth of roughly 6 to 8 inches, conditioning the scarified soil to above the optimum moisture content, and compacting the scarified soil. Processed soil should be compacted to 90 percent relative compaction.

6.4.8. Fill Placement
Soils generated from the removal areas should be suitable for reuse as fill. Import fill if required should be similar to on-site materials. This office should observe the source of import fill prior to placement.

Fill soils should be free of significant vegetation, rocks greater than 6 inches in maximum linear dimension, and other deleterious materials. In addition, fill soils should be mixed and blended. Fill soils should be placed in lifts not exceeding 8 inches in maximum loose thickness, moisture conditioned to slightly over optimum moisture content, and compacted to at least 90 percent relative compaction.

6.5. SOIL EXPANSIVENESS
An expansion test conducted on the upper soils within the site resulted in an expansion index of 73 indicating the underlying fine-grained materials have a moderately expansion potential, in the 51-90 Expansion Index Range. However, based on the consolidation tests, deeper soils have a significant expansion potential. Therefore, soils having a higher expansion potential may be encountered within the

site. Additional expansion tests may be performed at the conclusion of the recommended remedial grading.

Expansive soils contain clay particles that change in volume (shrink or swell) due to a change in the soil moisture content. The amount of volume change depends upon the soil swell potential (amount of expansive clay in the soil), availability of water to the soil, and the soil confining pressure. Swelling occurs when soils containing clay become wet due to excessive water from poor surface drainage, over-irrigation of lawns and planters, and sprinkler or plumbing leaks.

Swelling clay soils can cause distress to construction including walks, drains, and patio slabs (generally as uplift). Construction on expansive soil has an inherent risk that should be acknowledged and understood by the developer/property owner. The geotechnical recommendations presented herein are intended to reduce the potential for expansive soil action. However, these recommendations are not intended, nor designed to provide complete and full mitigation of expansive soil conditions. If requested, additional recommendations can be provided to further reduce the risk of expansive soil movement. Soil movement can be roughly 1± inches. Therefore, the following should be maintained within the lot.

- Positive drainage should be consistently provided and maintained away from structures. Drainage should not be changed creating an adverse drainage condition.
- Landscape watering should be held to a minimum and irrigation systems should be maintained. Sprinkler or plumbing leaks should be immediately repaired so the subgrade soils underlying or adjacent the structures do not become saturated. Trees should be spaced so that roots will not extend under foundations or slabs.

6.6. FOUNDATION DESIGN

6.6.1. Design Data

Structures may be supported on continuous or isolated footings underlain by engineered compacted soil or firm native soils as addressed above and may be designed for an allowable bearing pressure of 3,000 pounds per square foot (psf). The allowable net bearing pressure may be increased by one-third when considering wind or seismic loads. The weight of concrete below grade may be excluded from the footing load. Shallow footings adjacent walls (such as loading docks), should be included in the design of walls or stepped down below a 2(horizontal):1(vertical) plane projecting upward from the bottom of adjacent footings.

Continuous and isolated footings should have minimum widths of 18 inches and 24 inches, respectively. The footings should be embedded a minimum of 36 inches for interior and exterior footings. The embedment should be measured from the lowest adjacent grade (lowest grade at the time of excavation or after). Interior footings may be embedded a minimum of 24 inches below the interior slab. Steel reinforcement should be per the structural engineers' recommendations. However, minimum continuous footing reinforcement should consist of three number five bars in the top and bottom (total of 4 bars). In addition, interior slabs should be tied to the footings with number 4 bars at 24-inch centers bent 3-feet into the slab and extended to within 3 inches of the bottom of the footing. Perimeter isolated footings should be tied together with a grade beam extending 36 inches deep below the lowest adjacent grade.

6.6.2. Mat Slab Design Data

Mat slabs may be designed using an allowable soil bearing pressure of 1,500 pounds per square foot (at the ground surface) or a modulus of subgrade reaction "K" of 125 pounds per cubic inch (pci) at the surface of a properly prepared building pad. The project structural engineer should determine the steel reinforcement and concrete compressive strength. The slabs supporting interior steel stud walls should be a minimum of 8 inches thick. A mat slab should be underlain by a minimum 6-inch-thick layer of ½ inch or larger clean aggregate or per applicable building codes, whichever is the more restrictive. In addition, interior mat slab design should include a moisture retarder as indicated under *Slabs on Grade* below.

6.6.3. Lateral Earth Pressures
Lateral forces on foundations may be resisted by passive earth pressure and base friction. Lateral passive earth pressure may be considered equal to a fluid weighing 250 pounds per cubic foot (pcf). The lateral passive pressure may be increased to a maximum of 2500 psf. Base friction may be computed at 0.3 times the normal load. Passive earth pressure and base friction may be combined without reduction.

A passive pressure of 30 pcf may be used for shallow retaining walls allowed to yield at the top as in loading dock walls. If the walls are restrained, the active pressure should be increased to 60 pcf.

6.6.4. Estimated Settlements
Static settlement of footings should be evaluated once building footing locations and structural loads are known. However, footing settlement for static loading is anticipated on the order of 1/2 inch or less, with a maximum differential settlement of 1/2± inch over a span of approximately 30 feet or between adjacent individual footings. This is provided building construction is started directly after footing excavation, footings are cast soon after the footing excavation, and construction is completed in a timely manner. Settlements due to static loading are expected to occur rapidly as the loads are applied.

All structures settle during construction and some minor settlement of structures can occur after construction during the life of the project. Minor wall cracking could occur within the structure associated with expansion and contraction of the structural members. In addition, wall or slab cracking may be associated with settlement or expansive soil movement. Additional settlement/soil movement could occur if the soils dry or become saturated due to excessive water infiltration generally caused by excessive irrigation, poor drainage, etc.

6.6.5. Footing Excavations
This office should observe the footing excavations prior to placing reinforcing steel. Footings should be cut square and level and cleaned of loose soils. Soil excavated from the footing and utility trenches should not be spread over any areas of construction unless properly compacted. Soils silted into the footing excavations should be removed to the required depth prior to casting the concrete. The footings should be cast as soon as possible to avoid deep desiccation of the footing subsoils.

6.6.6. Premoistening
Footing subsoils should be premoistened to 3% over the optimum moisture content for a depth of 18 inches below the bottom of the footing. Saturated soils or soils silted into the footing excavations should be removed prior to concrete placement.

6.7. SLABS-ON-GRADE

6.7.1. Site Preparation
The subgrade for slabs-on-grade, if disturbed during foundation and utility construction, should be conditioned prior to placement of an aggregate materials. Loose soils should be removed to firm in-place material, the exposed subgrade processed, and the material replaced as engineered compacted fill or aggregate material.

6.7.2. Slab-on-Grade Design Data
Interior concrete slabs on-grade not used for structural support should be 5 inches thick and underlain by 6-inch-thick layer of ½ inch or larger clean aggregate or per applicable building codes, whichever is the more restrictive. The slab should be reinforced with a minimum of number 4 bars at 16-inch centers in each direction. The reinforcement should be placed and kept at slab mid-depth. In addition to the above

slab recommendations, slabs supporting heavy loads including mat slabs should be designed by the structural engineer for the intended loading, thickness, and reinforcement.

Exterior concrete slabs-on-grade (non-auto traffic) and walkways should be a minimum of 4 inches thick and underlain by a minimum of 4 inches of sand. In areas of heavy loading for truck traffic (including trash pickup areas and loading docks) the slab thickness should be increased to a minimum of 7 inches thick. Exterior slabs should be reinforced with a minimum of No. 4 bars on 16-inch centers in each direction. The reinforcement should be placed at mid-depth of the slab. Sidewalks may be constructed of non-reinforced concrete provided the sidewalks are cut into square panels (i.e., 4-foot wide walks should be cut into 4 foot by 4 foot squares).

6.7.3. Premoistening

Slab on-grade subsoils should be premoistened to 3% over the optimum moisture content for a depth of 18 inches.

6.7.4. Concrete Placement and Cracking

Minor cracking of concrete slabs is common and is generally the result of concrete shrinkage continuing after construction. Concrete shrinks as it cures resulting in shrinkage tension within the concrete mass. Since concrete is weak in tension, development of tension results in cracks within the concrete. Therefore, the concrete should be placed using procedures to minimize the cracking within the slab. Shrinkage cracks can become excessive if water is added to the concrete above the allowable limit and proper finishing and curing practices are not followed. Concrete mixing, placement, finishing, and curing should be performed per the American Concrete Institute Guide for Concrete Floor and Slab Construction (ACI 302.1R). Concrete slump during concrete placement should not exceed the design slump specified by the structural engineer or 5 inches, whichever is the lessor. Concrete slabs on grade should be provided with tooled crack control joints at 10-15 foot centers or as specified by the structural engineer.

6.7.5. Moisture Vapor Barrier

Moisture migration occurs when there is a differential potential in the relative moisture below and above the concrete slab on grade. Therefore, concrete slabs on grade within the building interior should be considered sensitive to moisture and an appropriate moisture vapor retarder layer should be installed and maintained below concrete slabs-on-grade. The water vapor retarder should be one that is specifically designed as a vapor retarder and consist of a minimum 15 mil extruded polyolefin plastic and complying with Class A requirements under ASTM E1745 (*Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs*). The vapor retarder should be installed in accordance with ASTM E1643. The water vapor retarder should be installed in direct contact with the concrete slab along with a concrete mix design to control bleeding, shrinkage, and curling (ACI 302.2R). The vapor retarder shall be installed over a minimum 6-inch-thick layer of ½ inch or larger clean aggregate or per applicable building codes, whichever is the more restrictive. The vapor retarder should be placed per ASTM E1643-98(2005) *Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs*. In addition, various trades and the concrete contractor should be required to protect the moisture retarder during construction.

Joints in the vapor retarder layer should be lapped and sealed. Perforations through the moisture vapor retarder such as at pipes, conduits, columns, grade beams, and wall footing penetrations should be sealed per the manufacture's specifications or ASTM E1643. Proper construction practices should be followed during construction of slabs on-grade. Repair and seal tears or punctures in the moisture barrier that may result from the construction process prior to concrete placement.

Minimizing shrinkage cracks in the slab on-grade can further minimize moisture vapor emissions. A properly cured slab utilizing low-slump concrete will reduce the risk of shrinkage cracks in the slab as described herein.

The concrete contractor should make the necessary changes in the concrete placement and curing for concrete placed directly over the retarder. Placing the concrete directly on top of the moisture vapor retarder layer allows the layer to be observed for damage directly prior to concrete placement.

The slabs should be tested for moisture content prior to the selection of the flooring and adhesives. Moisture in the slabs should not exceed the flooring manufacture's specifications. The concrete surface should be sealed per the manufacture's specifications if the moisture readings are excessive. It may be necessary to select floor coverings that are applicable to high moisture conditions.

6.8. SOIL CORROSIVITY

The results of the analytical laboratory testing to evaluate the potential for corrosion of materials in contact with the onsite soils will be provided in a subsequent report.

6.9. SITE DRAINAGE

Positive drainage should be continuously provided and maintained away from the structure during and after construction in accordance with applicable building codes and/or the approved grading plan. Regarding landscaping, planters adjacent a structure should be constructed so that irrigation water will not saturate the soils underlying the building footings and slabs. Trees should not be planted adjacent a structure where roots could grow under the foundations or slabs.

6.10. GUTTERS AND DOWNSPOUTS

Gutters and downspouts should be installed on the buildings to collect roof water and direct the water away from the structure. Downspouts should drain into PVC collector pipes that will carry the water away from the building.

6.11. PAVEMENT DESIGN

The anticipated structural section is 3 inches of asphaltic concrete over 8 inches of aggregate base for parking areas. The structural section should be increased to be 3 inches of asphaltic concrete over 12 inches of aggregate base for drive areas. The final structural sections should be confirmed at the conclusion of grading. The upper 6 inches of subgrade and the base materials should be compacted to at least 90% and 95% of the maximum dry density, respectively.

Planter areas should be graded so excess water drains onto and not beneath the adjacent AC pavement and curbs. Also, adjacent the planters, consideration should be given to deepening the curbs so that water is not allowed to saturate the pavement subgrade.

6.12. PLAN REVIEW(S)

As the development process continues and final detailed grading and site/foundation plans and specifications are developed, they should be reviewed by Gorian and Associates, Inc. Additional geotechnical recommendations may be warranted at that time.

7. CLOSURE

This report was prepared under the direction of State registered geotechnical engineer for the addressee and design consultants solely for design and construction of the project as described herein. No warranty, express or implied, is made as to conclusions and professional advice included in this report. Gorian and Associates, Inc. disclaim any and all responsibility and liability for problems that may occur if the recommendations presented in this report are not followed.

This report may not contain sufficient information for other uses or the purposes of other parties. Recommendations should not be extrapolated to other areas or used for other facilities without consulting Gorian and Associates, Inc. Services of this office should not be construed to relieve the owner or contractors of their responsibilities or liabilities.

The scope of the services provided by Gorian and Associates, Inc. and its staff, excludes responsibility and/or liability for work conducted by others. Such work includes, but is not limited to, means and methods of work performance, quality control of the work, superintendence, sequencing of construction and safety in, on, or about the jobsite.

The recommendations are based on interpretations of the subsurface conditions concluded from information gained from subsurface explorations and a surficial site reconnaissance. The interpretations may differ from actual subsurface conditions, which can vary horizontally and vertically across the site. Due to possible subsurface variations, this office should observe all aspects of field construction addressed in this report. Individuals using this report for bidding or construction purposes should perform such independent investigations as they deem necessary.

oOo

Please contact our office if you have questions regarding the information and recommendations contained in this report, or require additional consultation.

Respectfully submitted,

Gorian and Associates, Inc.

By: Jerome J. Blunck, GE 151
Principal Geotechnical Engineer

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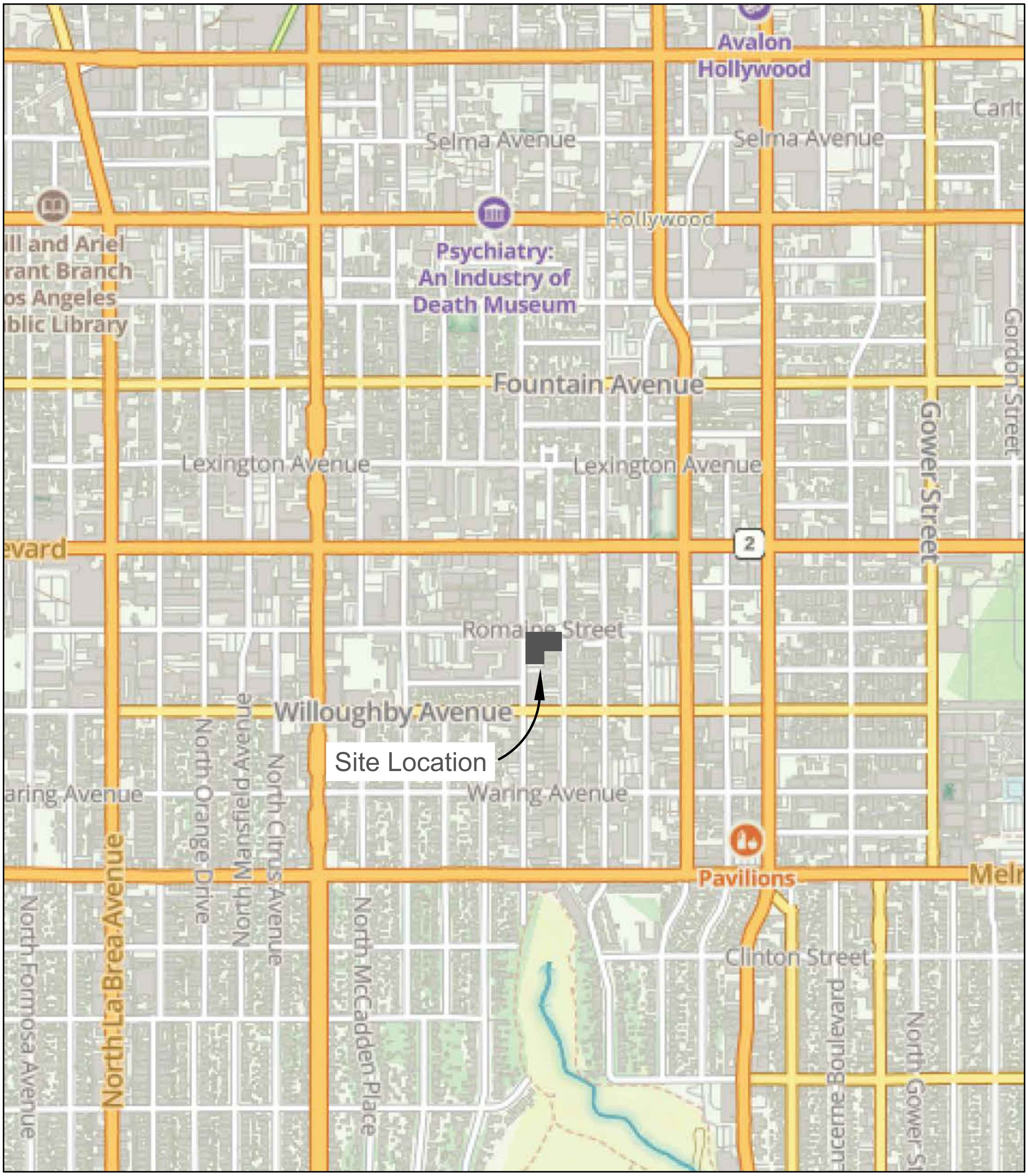
Dibblee, Thomas W., Jr. 1989, *Geologic Map of the Los Angeles 7.5-Minute Quadrangles, Los Angeles County, California.* Dibblee Geological Foundation Map #DF-22.

Methane Specialists, June 22, 2023, *Methane Investigation Report, The Construction of a Self-Storage Facility, 956 Seward St., Los Angeles, CA 90023*. Job # J4457.

United States Geological Survey (USGS) interactive web application, Unified Hazard Tool. https://earthquake.usgs.gov/hazards/interactive/.

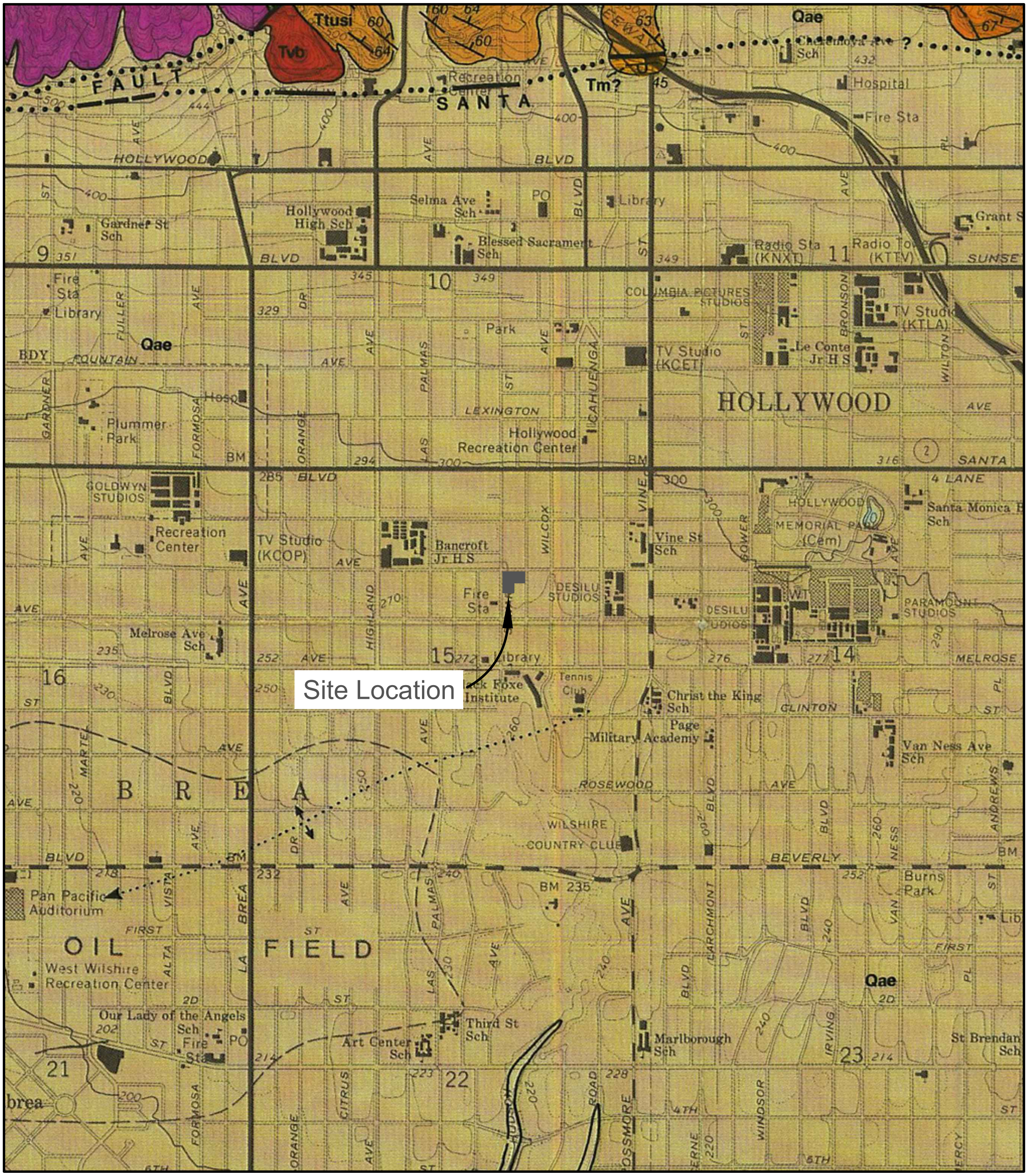


SITE VICINITY MAP

956 Seward Street
Hollywood, California

Gorian & Associates, Inc. *Applied Earth Sciences*	
Job No: 3247-0-0-100	Date: July 2023
Scale: NTS; Drawn by: ; Approved by:	Figure 1

Source
Gaia, online



Source: Dibblee, Thomas W. Jr., ed. Ehrenspeck, Helmut E., 1991, GEOLOGIC MAP OF THE HOLLYWOOD QUADRANGLE, *LOS ANGELES COUNTY, CALIFORNIA*. Dibblee Geological Foundation Map #DF-30.

Explanation

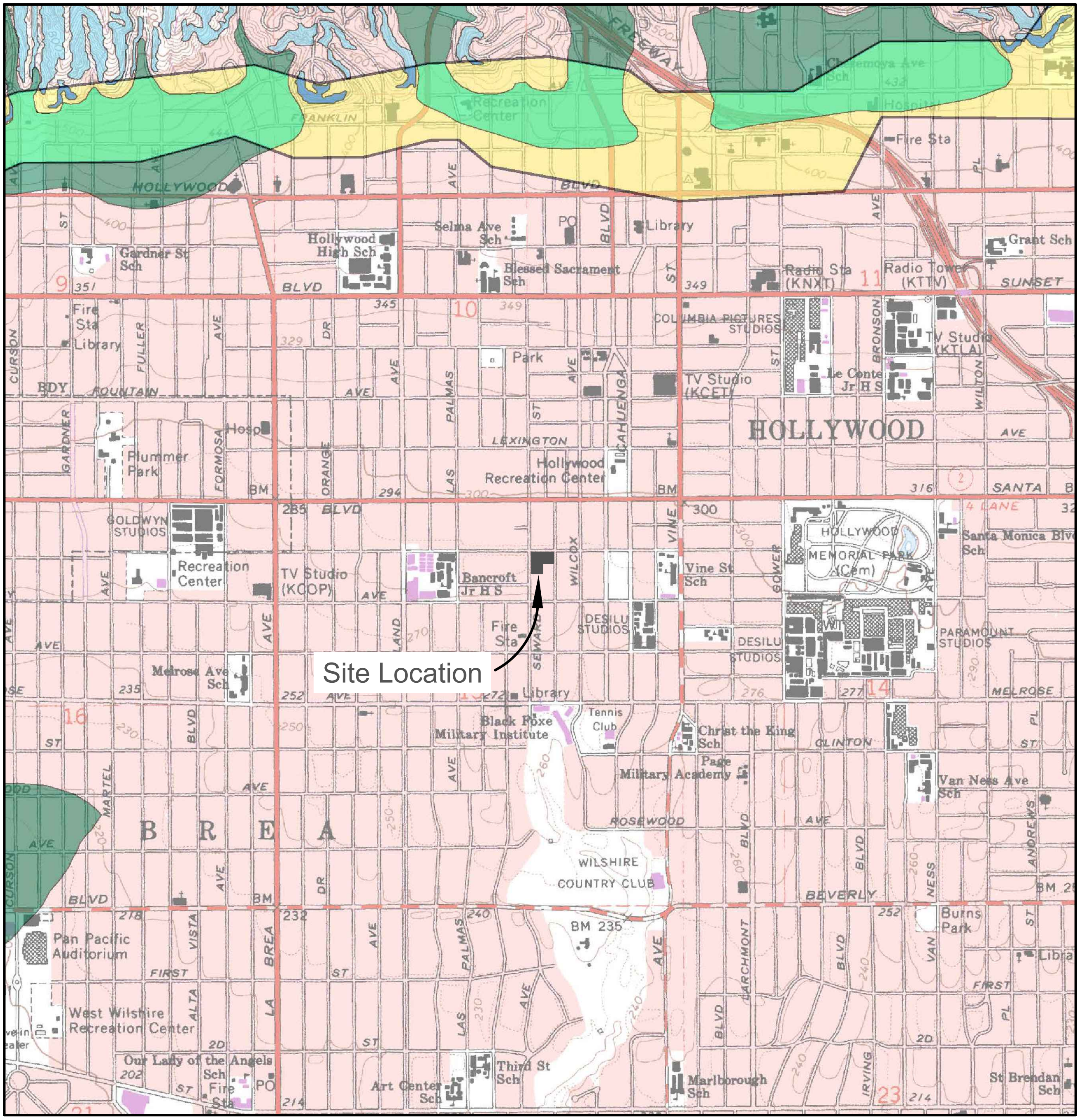
Qa - Alluvium; unconsolidated floodplain deposits of silt, sand and gravel

REGIONAL GEOLOGIC MAP

956 Seward Street
Hollywood, California

Gorian & Associates, Inc.
Applied Earth Sciences

Job No: 3247-0-0-100			Date: July 2023
Scale: 1" = 2000'	Drawn by:		Figure 2
	Approved by:		



Explanation

- Seismic Hazard Zone - Liquefaction
- Earthquake Fault Zone

Source

California Geological Survey, Earthquake Zones of Required Investigation Hollywood Quadrangle, Official Map Released March 25, 1999

SEISMIC HAZARD ZONE MAP

956 Seward Street
Hollywood, California

Gorian & Associates, Inc. *Applied Earth Sciences*		
Job No: 3247-0-0-100		Date: July 2023
Scale: 1" = 2000'	Drawn by: Approved by:	Figure 3

APPENDIX A

LOGS OF SUBSURFACE DATA

GORIAN & ASSOCIATES INC

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Work Order: 3247-0-0-100

SUBSURFACE LOG

Excavation Number: B-1

Page Number: 1

Date(s) Excavated 06/30/2023	Logged By EG	Excavation Location See Map	Approximate Surface Elevation
Excavation Dimension 8"	Equipment Contractor 2R Drilling	Equipment Type CME 75	Hammer Data

Elevation / Depth (ft.)	Bulk	Sample Type	Blow Counts	Moisture Content (% dry weight)	Dry Density (pcf)	USCS	Soil / Lithology	Description	Remarks
0						CL		Asphalt (6"), Base (7") Fill: Dark Brown slightly silty CLAY with medium gravel and cement (damp, very dense).	
			21	18.4	103.2				
5			25	17.0	111.2				
						CL		ALLUVIUM: Yellowish brown slightly silty CLAY with fine to medium cobbles and coarse sand (damp, very dense).	
			20	16.9	110.5				
10			15	19.4	107.7	CL		Dark brown slightly silty CLAY with fine to medium cobbles and coarse sand (damp, very dense).	
15			15	15.8	107.0	CL		Yellowish brown CLAY with trace sand and fine gravel (damp, medium dense). Groundwater at 17'	
						SM		Light yellowish brown slightly silty coarse SAND with fine gravel (moist, medium dense).	
20			21	18.8	101.7				
25			5	25.5	101.9	CL		Light yellowish brown sandy CLAY; trace silt with fine to medium gravel (moist, medium dense).	
30			14	17.1	117.8	CL		Light yellowish brown very sandy CLAY with fine gravel (moist, medium dense).	
35			13	22.2	107.2	SM		Light yellowish brown very sandy CLAY with fine gravel to light yellowish brown clayey SAND with fine gravel, trace silt (moist, medium dense).	

GORIAN & ASSOCIATES, INC.

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Work Order: 3247-0-0-100

SUBSURFACE LOG

Excavation Number: B-1

Elevation / Depth (ft.)	Bulk	Sample Type	Blow Counts	Moisture Content (% dry weight)	Dry Density (pcf)	USCS	Soil / Lithology	Description	Remarks
40						CL		Becoming siltier; light yellowish brown sandy CLAY with fine gravel, trace silt (moist, medium dense).	
45			22	24.4	102.8	ML		Light yellowish brown sandy SILT with fine gravel (moist, medium dense).	
50			15	18.8	108.9	CL		Reddish brown silty CLAY with fine gravel (moist, medium dense).	
								TOTAL DEPTH 51' No Caving Observed Groundwater at 17'	
55									
60									
65									
70									
75									
80									

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Work Order: 3247-0-0-100

SUBSURFACE LOG

Excavation Number: B-2

Page Number: 1

Date(s) Excavated 06/30/2023	Logged By EG	Excavation Location See Map	Approximate Surface Elevation
Excavation Dimension 8"	Equipment Contractor 2R Drilling	Equipment Type CME 75	Hammer Data

Elevation / Depth (ft.)	Bulk	Sample Type	Blow Counts	Moisture Content (% dry weight)	Dry Density (pcf)	USCS	Soil / Lithology	Description	Remarks
0								Asphalt (6"), Base (6")	
		■	15	23.3	88.1	CL		Fill: Dark brown slightly silty CLAY with fine to medium gravel and cement (damp, medium dense).	
5	■	■	20	20.5	98.0	CL		ALLUVIUM: Dark brown CLAY with coarse gravel (damp, medium dense).	
		■	21	23.9	96.6	CL		Dark yellowish brown CLAY with fine gravel, micaceous , trace silt (damp, medium dense).	
10	■	■	23	26.8	97.0	CL		Dark yellowish brown slightly silty CLAY with coarse sand (damp, very dense) .	
15		■	31	19.4	111.6	CL		Dark yellowish brown slightly silty CLAY with coarse SAND and fine to medium gravel (damp, very dense). Groundwater at 17'	
20		■	23	15.7	115.3	CL		Dark yellowish brown to reddish brown very sandy CLAY, fine to medium gravel (very moist, medium dense).	
25		■	12	20.0	108.4	CL		Reddish brown sandy CLAY, micaceous, with fine gravel, trace silt (moist, medium dense).	
30		■	23	24.8	102.9				
35		■	28	20.6	105.6				
						CL		Reddish brown to grayish brown CLAY, micaceous with fine gravel (damp, very dense).	

GORIAN & ASSOCIATES, INC.

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Work Order: 3247-0-0-100

SUBSURFACE LOG

Excavation Number: B-2

Page Number: 2

Elevation / Depth (ft.)	Bulk	Sample Type	Blow Counts	Moisture Content (% dry weight)	Dry Density (pcf)	USCS	Soil / Lithology	Description	Remarks
40		■	20	26.1	98.3	CL		Yellowish brown very sandy CLAY with fine to medium gravel, trace silt (moist, very dense).	
45		■	20	20.6	109.9	SM		Light yellowish brown to reddish brown with clayey coarse SAND with fine to medium gravel, trace silt (moist, medium dense).	
50		■	37	12.5	120.7				
								TOTAL DEPTH 51' No Caving Observed Groundwater at 17'	
55									
60									
65									
70									
75									
80									

APPENDIX B
LABORATORY TESTING

General
Laboratory test results on selected samples are presented below. Test were performed to evaluate the physical and engineering properties of the encountered earth materials, including in-situ moisture content and dry density, optimum moisture-maximum dry density relationships, expansion potential, consolidation characteristics, grain size distribution, and shear strength parameters. Soil corrosivity testing was performed under subcontract by a corrosion engineer.

Density and Moisture Tests
In situ dry density and moisture content were determined for each undisturbed soil sample. The results are presented on the Logs of Subsurface Data (Appendix A).

Maximum Density-Optimum Moisture
A maximum density/optimum moisture test (compaction characteristics) was performed on a selected bulk sample of the soils encountered. The test was performed in general accordance with ASTM D 1557. The results are as follows:

Boring Number	**Depth** (feet)	**Visual Classification**	**Maximum Dry Density – pcf**	**Optimum Moisture Content - %**
B-1	3	dark brown slightly silty clay	113.3	14.1

Soil Expansiveness
An expansion index test was performed on a soil sample obtained from the borings to evaluate expansion potential of the subgrade soils in general accordance with the Expansion Index Test method (ASTM test method D4829-08a). The results are as follows:

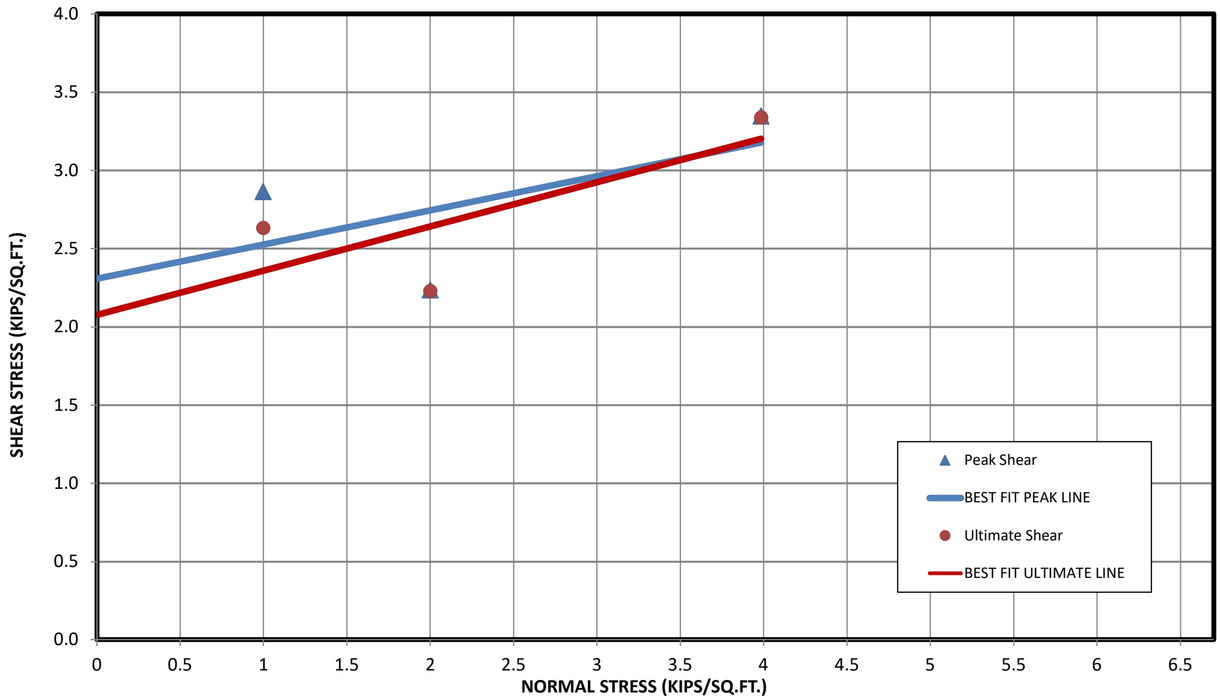
Boring Number	**Depth** (feet)	**Expansion Index**	**Expansion Range**
B-1	3	73	51-90

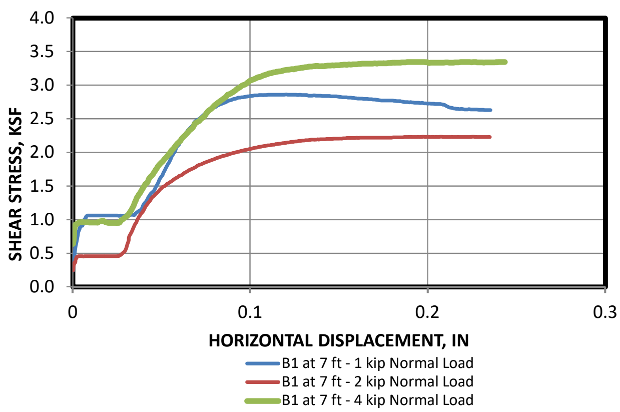
Direct Shear Test
Direct shear tests were performed on two relatively undisturbed samples to evaluate soil shear strength parameters. The sample sets were sheared under normal pressures as indicated on the attached summary graphic plots.

Consolidation Tests
Consolidation (confined compression) tests were performed on three selected samples of the soils below anticipated foundation depths to evaluate compressibility characteristics. The samples were loaded in increments to a maximum of 8,000 pounds per square foot and then rebounded. The samples were inundated at the indicated overburden pressure to evaluate the effect of moisture infiltration on compression behavior. The load-consolidation curves are presented herein as graphic summaries.

DIRECT SHEAR TEST RESULTS

Undisturbed Sample





TEST DATA:	#1	#2	#3
NORM. PRES. (KSF)	1.0	2.0	4.0
ULTIMATE			
SHEAR STRESS (KSF):	2.63	2.23	3.34
H.DISPL. (IN)	0.24	0.24	0.25
DISP. RATE (IN/MIN)	0.01	0.01	0.01
PEAK			
SHEAR STRESS (KSF):	2.86	2.24	3.35
H.DISPL. (IN)	0.12	0.20	0.19

PROJECT:	Baranoff 956 Seward St.
W.O:	3247-0-0-2023
EXCAVATION:	B1
DEPTH:	10 ft

	PEAK	ULT.	RES.
COHESION (KSF):	2.300	2.075	
PHI (DEG):	12	16	

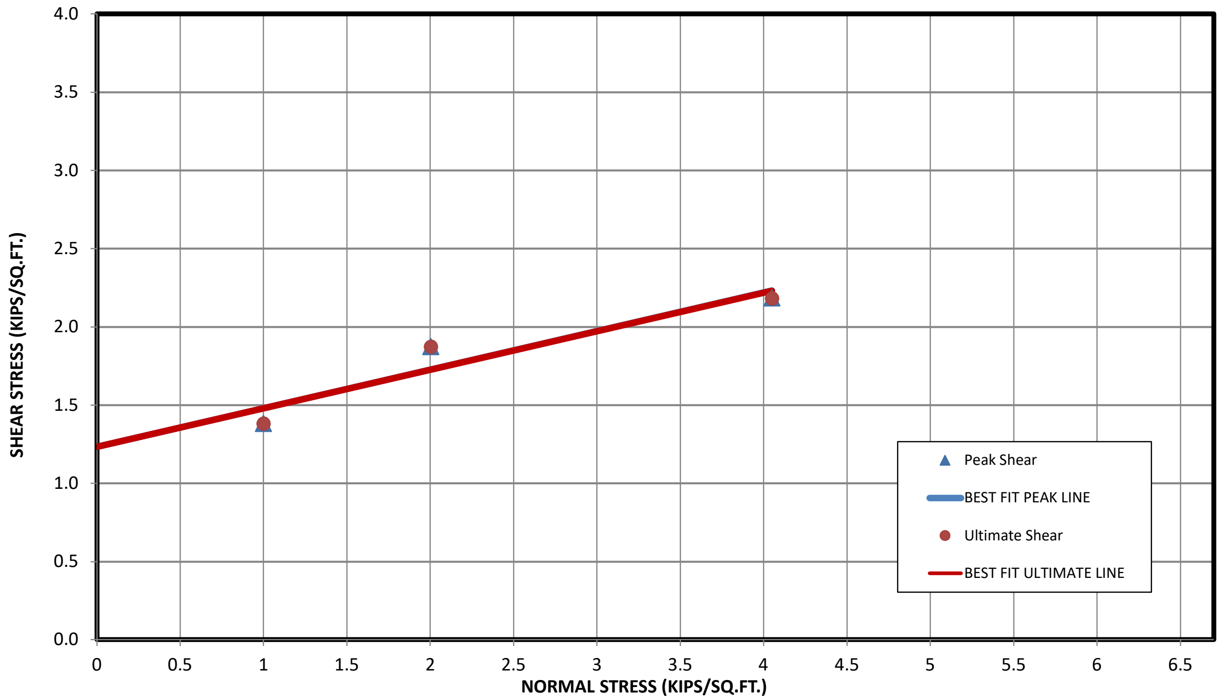
	#1	#2	#3
PRESHEAR DRY DENSITY (PCF):	110.7	111.2	111.9
PRESHEAR MOISTURE (% OF DD):		21.0	
EST.VOID RATIO, e (preshear):	0.47	0.46	0.45

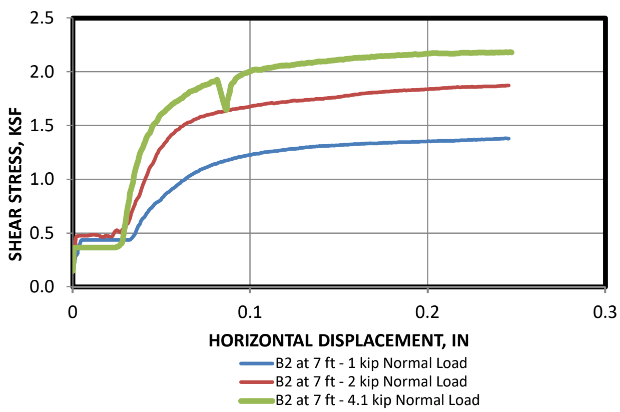
TEST FILES:

S:\GEOTEST\shears\GORIAN\TEST978.DAT
S:\GEOTEST\shears\GORIAN\TEST979.DAT
S:\GEOTEST\shears\GORIAN\TEST980.DAT

DIRECT SHEAR TEST RESULTS

Undisturbed Sample





TEST DATA:	#1	#2	#3
NORM. PRES. (KSF)	1.0	2.0	4.1
ULTIMATE			
SHEAR STRESS (KSF):	1.38	1.87	2.18
H.DISPL. (IN)	0.25	0.25	0.25
DISP. RATE (IN/MIN)	0.01	0.01	0.01
PEAK			
SHEAR STRESS (KSF):	1.38	1.87	2.18
H.DISPL. (IN)	0.25	0.25	0.25

PROJECT:	Baranoff 956 Seward St.
W.O:	3247-0-0-2023
EXCAVATION:	B2
DEPTH:	7 ft

	PEAK	ULT.	RES.
COHESION (KSF):	1.225	1.225	
PHI (DEG):	14	14	

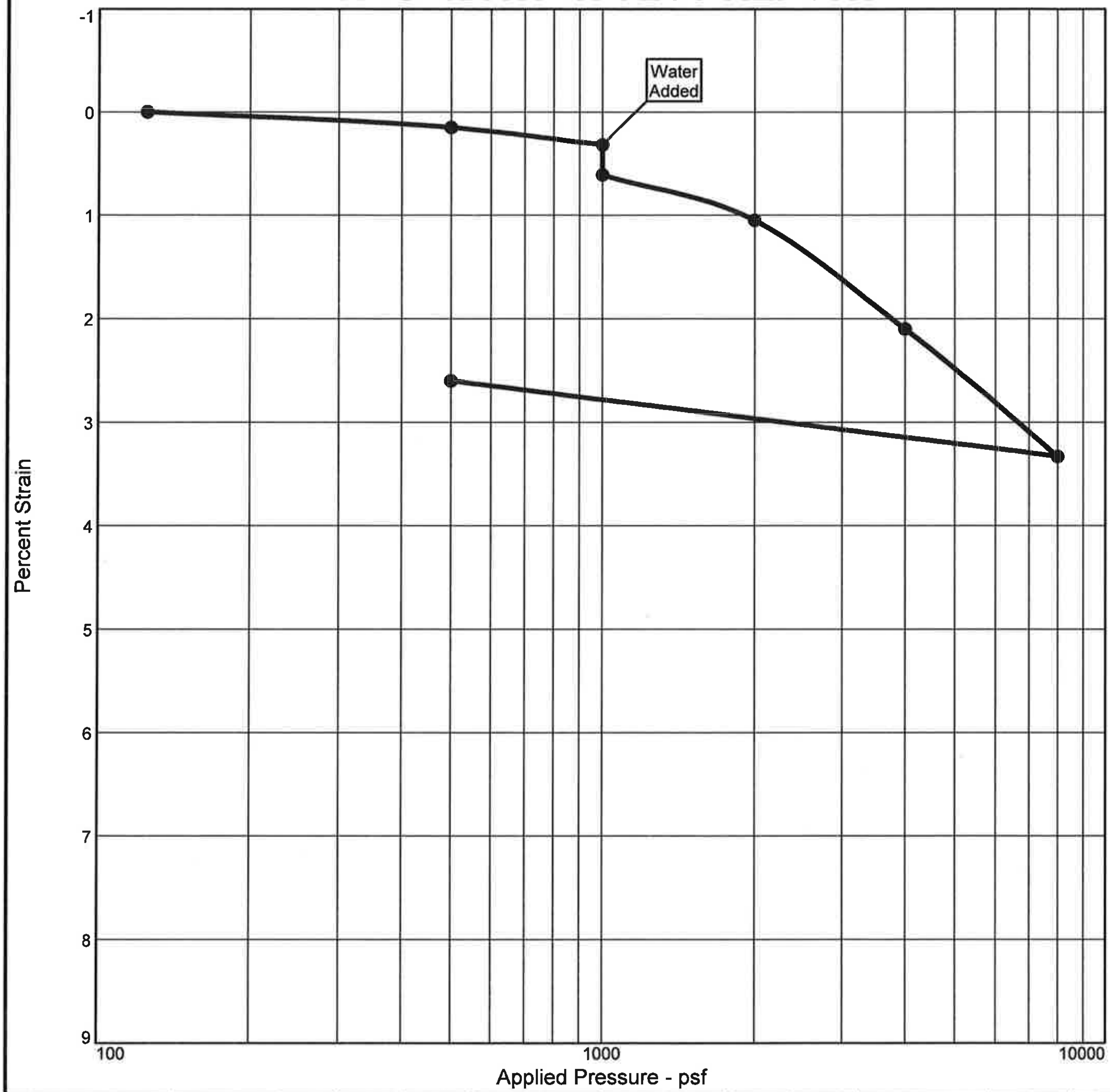
	#1	#2	#3
PRESHEAR DRY DENSITY (PCF):	96.8	97.0	97.4
PRESHEAR MOISTURE (% OF DD):		26.4	
EST.VOID RATIO, e (preshear):	0.68	0.67	0.67

TEST FILES:

S:\GEOTEST\shears\GORIAN\TEST981.DAT
S:\GEOTEST\shears\GORIAN\TEST982.DAT
S:\GEOTEST\shears\GORIAN\TEST983.DAT

GORIAN & ASSOCIATES, INC.

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P_c (psf)	C_c	C_r	Swell Press. (psf)	Clpse. %	e_o
Sat.	Moist.											
							2217				0.3	

MATERIAL DESCRIPTION	USCS	AASHTO

Project No. 3247-0-0- **Client:**

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Source of Sample: B-1 **Depth:** 7

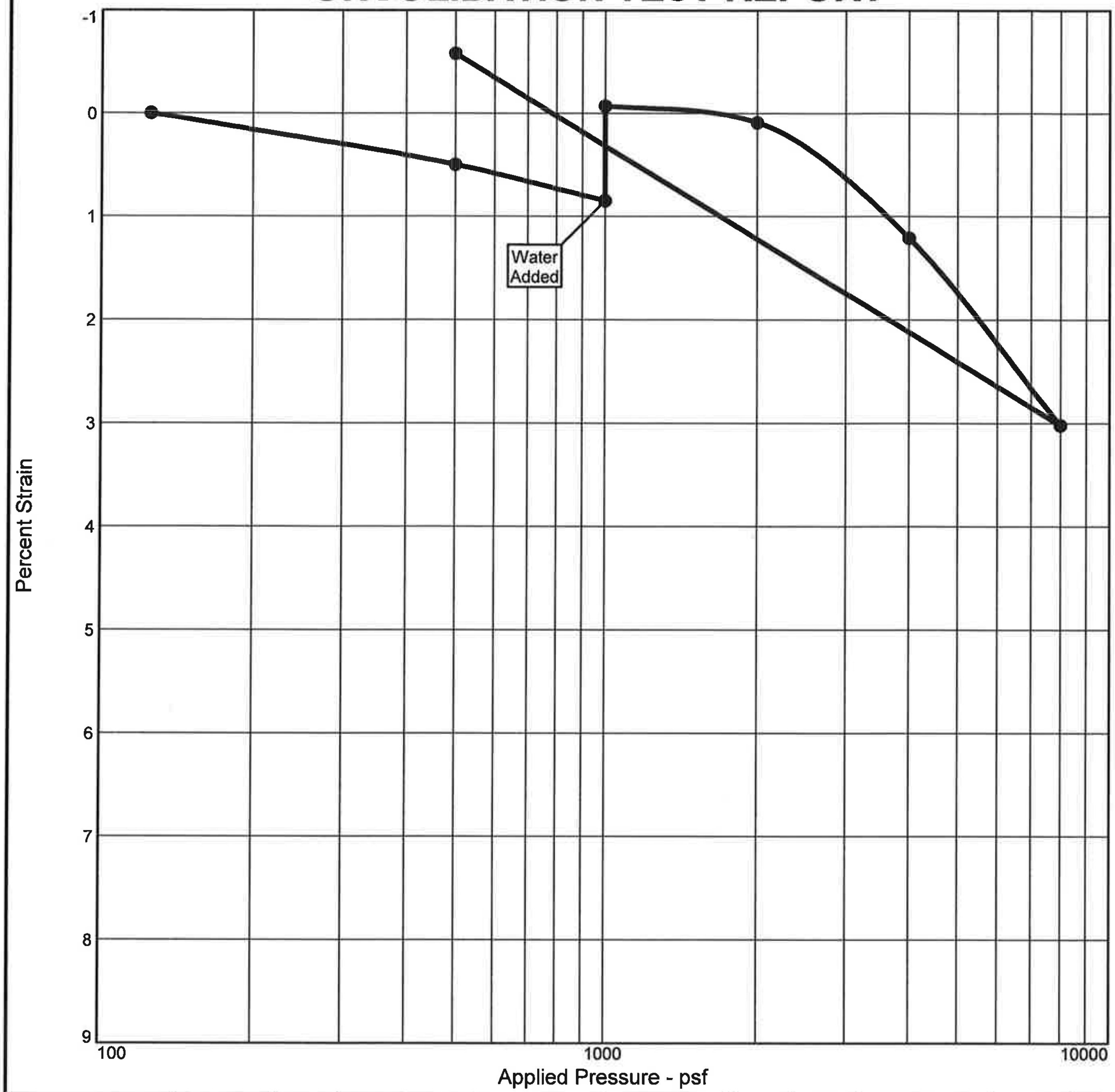
Gorian & Associates

Thousand Oaks, CA

Remarks:

Figure

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P_c (psf)	C_c	C_r	Swell Press. (psf)	Swell %	e_o
Sat.	Moist.											
							2736			3362	0.9	

MATERIAL DESCRIPTION	USCS	AASHTO
Dark yellowish brown slightly silty CLAY with coarse sand (damp, very dense) .	CL	

Project No. 3247-0-0- **Client:**

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Source of Sample: B-2 **Depth:** 10

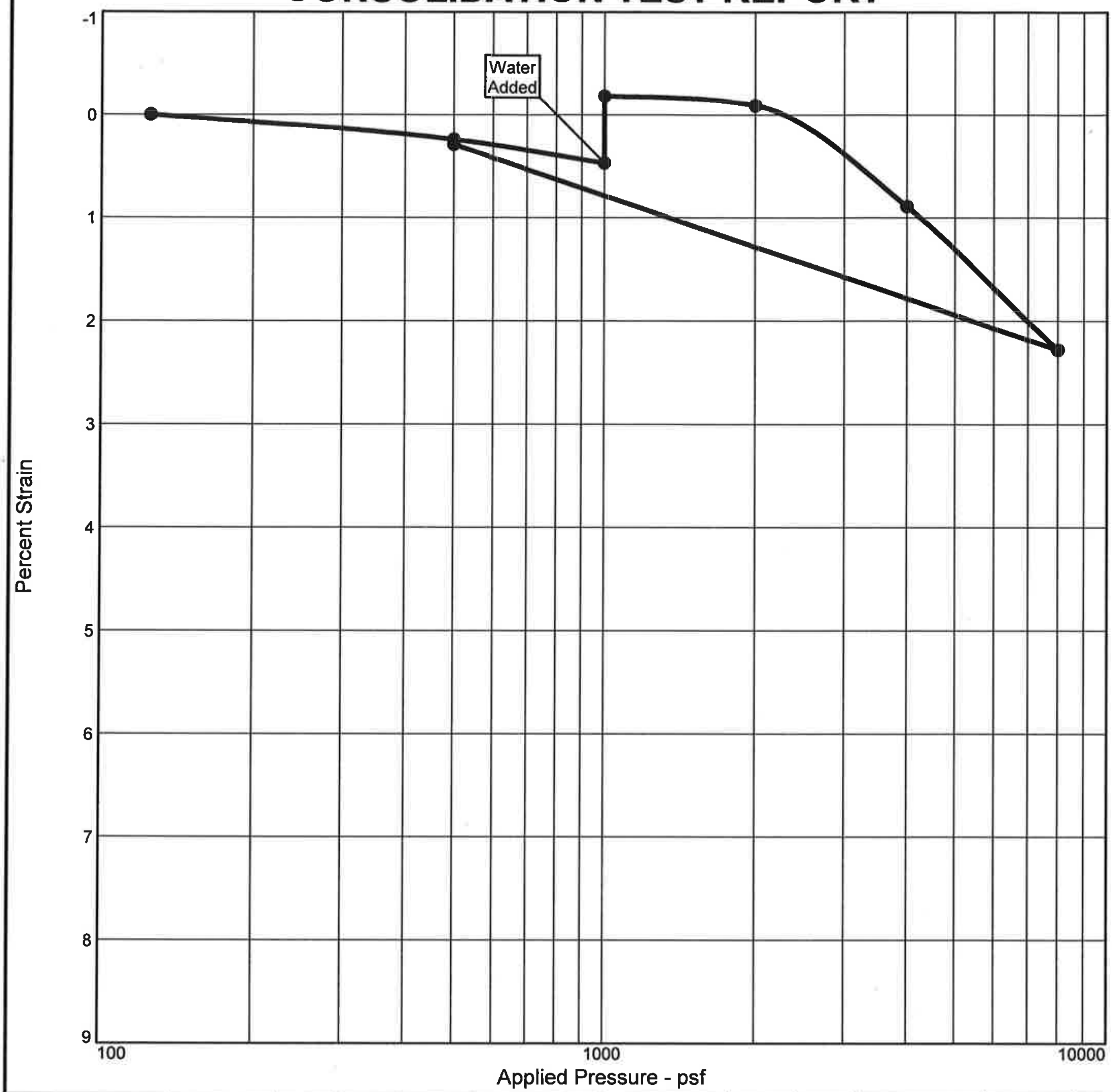
Gorian & Associates

Thousand Oaks, CA

Remarks:

Figure

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P_c (psf)	C_c	C_r	Swell Press. (psf)	Swell %	e_o
Sat.	Moist.											
							2503			3157	0.7	

MATERIAL DESCRIPTION	USCS	AASHTO
Dark yellowish brown slightly silty CLAY with coarse SAND and fine to medium gravel (damp, very dense).	CL	

Project No. 3247-0-0- **Client:**

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Source of Sample: B-2 **Depth:** 15

Gorian & Associates

Thousand Oaks, CA

Remarks:

Figure

APPENDIX C

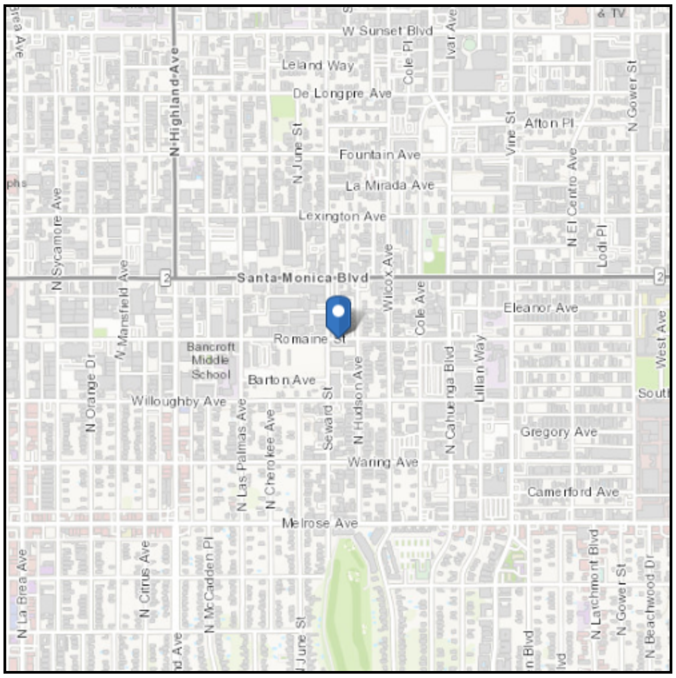
ASCE 7 Hazard Report

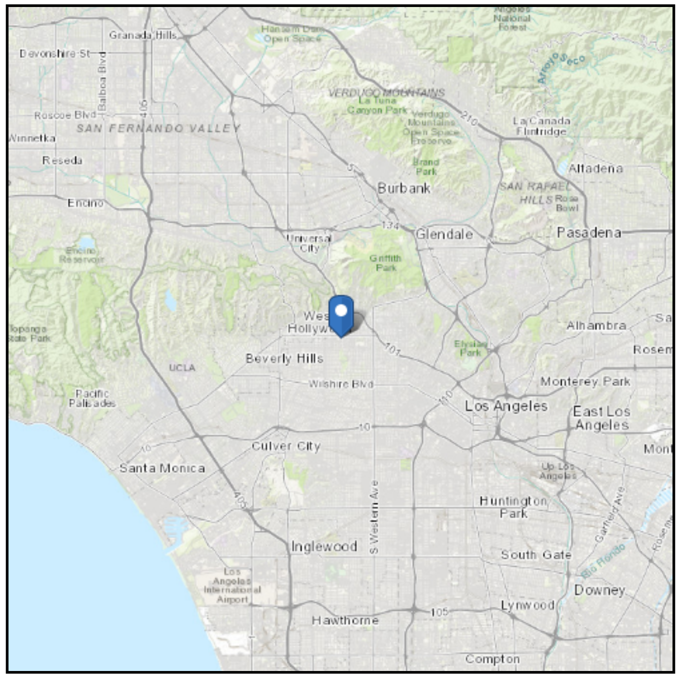
ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Stiff Soil

Latitude: 34.0889
Longitude: -118.3328
Elevation: 291.36458400542494 ft (NAVD 88)





ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Seismic

Site Soil Class: D - Stiff Soil

Results:

S_S :	2.087	S_{D1} :	N/A
S_1 :	0.748	T_L :	8
F_a :	1	PGA :	0.894
F_v :	N/A	PGA_M :	0.983
S_{MS} :	2.087	F_{PGA} :	1.1
S_{M1} :	N/A	I_e :	1
S_{DS} :	1.391	C_v :	1.5

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Thu Jul 20 2023

Date Source: [USGS Seismic Design Maps]

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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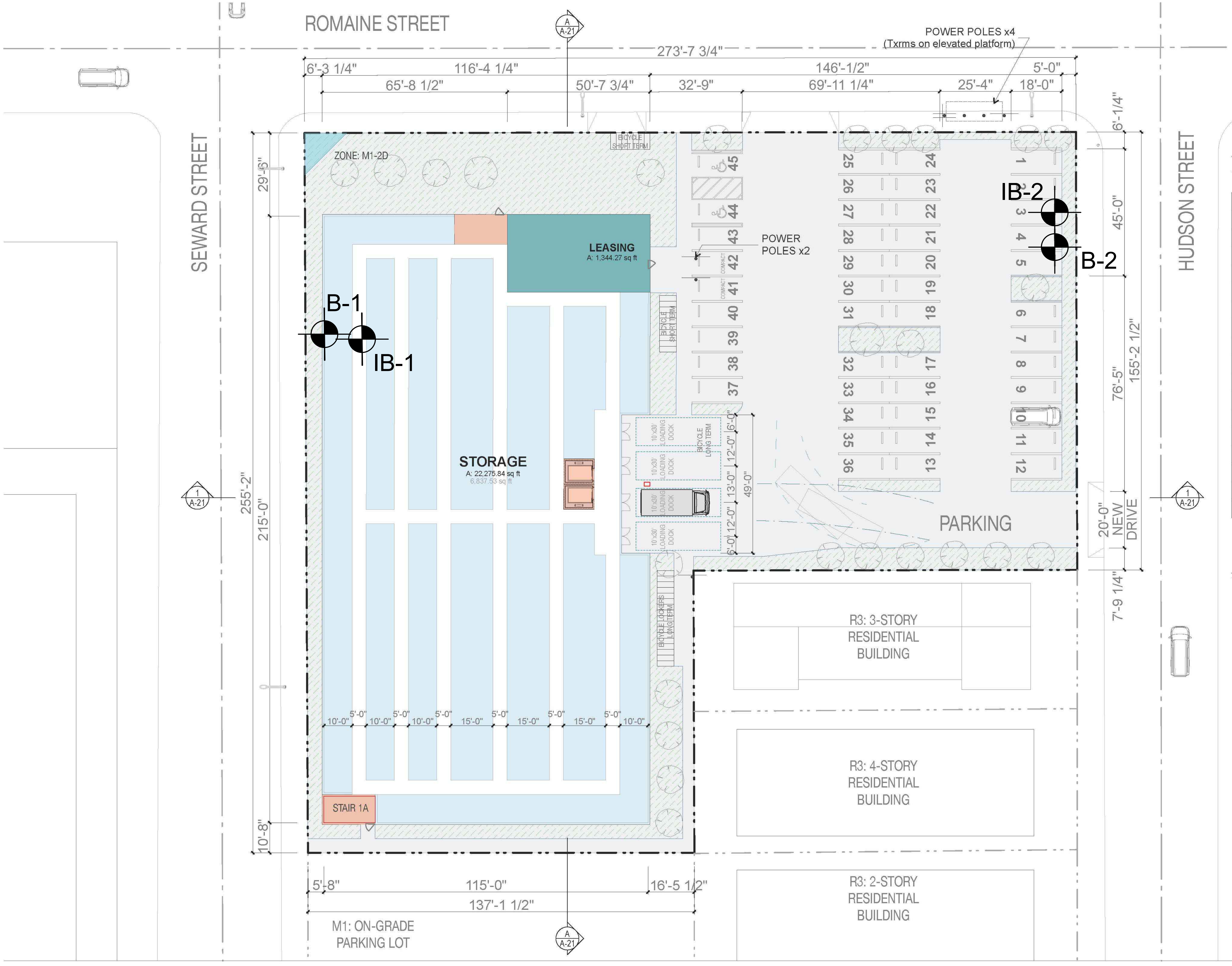

GEOTECHNICAL EXPLANATION

B-2 APPROXIMATE LOCATION OF HOLLOW STEM AUGER BORING

IB-2 APPROXIMATE LOCATION OF INFILTRATION TEST BORING

FAR - 3:1 SITE: ~56,185
AREA ALLOWED: ~168,555 SQ FT

V1 GROSS AREA - Storage - By Floor

Story Level	Unit Type	Qty.	Calculated Area
FIRST FLOOR	LEASING	1	1,344.27
FIRST FLOOR	STORAGE	1	22,275.84
		2	**23,620.11 sq ft**
SECOND FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
THIRD FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
FOURTH FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
FIFTH FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
SIXTH FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
SEVENTH FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
		8	**168,565.35 sq ft**

PARKING	REQ.	TOTAL
VEHICLE	1/500 for first 10K	20 spaces
	1/5000 for balance	31.7
		52 spaces
BICYCLE		
Short Term	1/10,000	16.85 - 17
Long Term	1/10,000	16.85 - 17

BORING LOCATION MAP

Gorian & Associates, Inc.
Applied Earth Sciences

Job No: 3247-0-0-100		Date: July 2023
Scale: 1" = 20'	Drawn by: Approved by:	PLATE 1

V1 SITE PLAN
1/32" = 1'-0"

TRUE NORTH PROJECT NORTH

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Nolan Borden
Barnof Holdings
T: (949) 279-8296

SELF-STORAGE FACILITY

SITE PLAN - V1

A-18
Thursday, May 4, 2023