Appendix IS-2

Geotechnical Investigation

PD EXHIBIT 9

FEFFER
GEOLOGICAL CONSULTING

March 5, 2020

File No: 2335-94

Franklin E. Dickinson
19 E. 57th Street
New York, NY 10022

Subject: **GEOTECHNICAL INVESTIGATION FOR E.I.R.**
Proposed Nine Story Hotel with Three Subterranean Parking Levels
456 N. Rodeo Drive, Beverly Hills, CA 90210
APN's: 4343-016-001
Beverly Lot: 2 Block: 2
468 N. Rodeo Drive, Beverly Hills, CA 90210
APN: 4343-016-002
Beverly Lot: 1 Block: 2
449 N. Beverly Drive, Beverly Hills, CA 90210
APN: 4343-016-019
Beverly Lot: 19 Block: 2
461 N. Beverly Drive, Beverly Hills, CA 90210
APN: 4343-016-023
Beverly Lot: 23 Block: 2

Dear Mr. Dickinson,

Feffer Geological Consulting is pleased to submit the following preliminary Geotechnical Investigation Report for the proposed development located in the City of Beverly Hills, California. This report is prepared to supplement the draft Environmental Impact Report (EIR) for this project.

Based on our investigation, it is our opinion that construction on the site is feasible from a geotechnical standpoint. A final design level geotechnical report shall be provided by the geologist of record once final plans for the proposed development are completed. We appreciate the opportunity to be of service. Should you have any questions regarding the information contained in this report, please do not hesitate to contact us.

Sincerely,

FEFFER GEOLOGICAL CONSULTING, INC.

Joshua R. Feffer
Principal Engineering Geologist
C.E.G. 2138

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Distribution: Addressee– (1)

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1.0 INTRODUCTION

1.1 Purpose

As requested, Feffer Geological Consulting has completed a preliminary Geotechnical Investigation for proposed future development. The purpose of this investigation is to evaluate the geotechnical conditions at the site in the areas of the proposed construction and provide geotechnical parameters and preliminary recommendations for future design and development. This report is prepared as a technical appendix for the project's Environmental Impact Report.

Based on our investigation, it is our opinion that the future development is feasible from a geotechnical standpoint provided the recommendations contained herein are incorporated into the project plans and specifications. This report should be reviewed in detail prior to proceeding further with the development of the site. When final plans for the proposed construction become available, they should be reviewed by the project soils engineer and engineering geologist of record and a final design level geotechnical report should be prepared.

1.2 Scope of Services

The scope of work performed during this investigation involved the following;

- Research and review of available pertinent geotechnical literature and previous reports for the project site;

- Field Exploration & Testing
  - Subsurface exploration consisting of the drilling of two borings (B1, B2);
  - Installation of one percolation well (B2);
  - Sampling and logging of the subsurface soils;
  - Laboratory testing of selected soil samples collected from the subsurface exploration to determine the engineering properties of the underlying earth materials;
  - Engineering and geologic analysis of the field and laboratory data;

- Compliance with *CEQA Appendix G* and an assessment of:
  - Rupture of a known earthquake
  - Strong seismic ground shaking
  - Seismic-related ground failure
  - Landslides
  - Soil erosion or loss of topsoil
  - Unstable geologic unit or soils
  - Expansive soils
  - Support of septic tanks or alternative waste systems

- Preparation of this report presenting our findings, conclusions, and preliminary recommendations for the proposed construction.

1.3 Site Description

The project site consists of seven developed legal parcels located on the southeast side of "little," or South Santa Monica Boulevard at the intersections of Santa Monica Boulevard, North Rodeo Drive and North Beverly Drive (Figure 1, Figure 2). 456 and 468 N. Rodeo Drive are neighboring developments that consist of two, two-story commercial retail buildings located southwest of the alley bisecting the project site. 449 and 461 N. Beverly Drive are neighboring developments located northeast of the alley bisecting the project site. 449 N. Beverly Drive consists of two single-story commercial developments, and 461 N. Beverly Drive consists of one multi-story commercial/institutional development with one subterranean level of parking. The project site gently slopes towards the southeast with an approximately 4-foot change in elevation across the site (Figure 2).

1.4 Proposed Construction

The proposed project will consist of demolishing the existing structures on each property and constructing a nine-story hotel with commercial/retail space over three subterranean parking levels. The existing alley will be redirected to exit onto N. Beverly Drive to combine the area of all seven parcels.

Final development plans including structure heights, specific building footprints, and subterranean depths are still within the planning phase and will be updated upon final project design. All recommendations within are based on estimated projects heights and subterranean depths. All findings and recommendations within this report are adequate to support the analysis of the project's potential geotechnical impacts.

1.5 Document Review

The following site-specific seismic investigation reports were completed by this firm for each of the developed lots. A summary of findings is included below.

456 N. Rodeo Drive
Feffer Geological Consulting, Investigation of Potential Faulting, dated December 18, 2018

Roy J. Shlemon & Associates, Inc., Recommendation for Acceptance, dated December 20, 2018

City of Beverly Hills, Acceptance of City's Peer Reviewed Recommendation for Acceptance, dated February 14, 2019

A Seismic Investigation Report was prepared for 456 N. Rodeo Drive, dated December 18th, 2018 (FGC, 2018). The subsurface investigation utilized the data from the same continuous borings and Cone Penetration Tests (CPT's) conducted for the projects located at 468 N. Rodeo Drive and 461 N. Beverly Drive. The investigation concluded that no faults traverse the subject property and that the underlying sediment exhibited multiple continuous stratigraphic horizons across the entire boring and CPT transect. The seismic investigation report was reviewed by Roy J. Shlemon and Associates and recommended for approval on December 20th, 2018. The City of Beverly Hills issued a formal approval for the referenced site on February 14th, 2018.

468 N. Rodeo Drive
Feffer Geological Consulting, Investigation of Potential Faulting, dated August 20, 2018

Roy J. Shlemon & Associates, Inc., Recommendation for Acceptance, dated August 29, 2018

City of Beverly Hills, Acceptance of City's Peer Reviewed Recommendation for Acceptance, dated August 29, 2018

A Seismic Investigation Report was prepared for 468 N. Rodeo Drive, dated August 20, 2018 (FGC, 2018a). The subsurface investigation consisted of a transect of 4 continuously cored borings and 11 CPT's explored to a depth of fifty feet below the ground surface. The investigation concluded that no faults traverse the subject property and that the underlying sediment exhibits multiple continuous stratigraphic horizons across the entire boring and CPT transect. The seismic investigation report was reviewed by Roy J. Shlemon and Associates and recommended for approval on August 29th, 2018. The City of Beverly Hills issued a formal approval for the referenced site on August 29th, 2018.

449 N. Beverly Drive
Feffer Geological Consulting, Investigation of Potential Faulting, dated January 16, 2020

Roy J. Shlemon & Associates, Inc., Recommendation for Acceptance, dated January 21, 2020

City of Beverly Hills, Acceptance of City's Peer Reviewed Recommendation for Acceptance, dated January 27, 2018

A Seismic Investigation Report was prepared for 449 N. Rodeo Drive, dated January 16, 2020 (FGC, 2020). The subsurface investigation consisted of drilling 1 continuously cored boring within the alley between 449 N. Beverly Drive and 439 N. Beverly Drive. The investigation also incorporated work conducted at 456 and 468 N. Rodeo Drive and 461 N. Beverly Drive. The investigation concluded that no faults traverse the subject property and that the underlying sediment exhibited multiple continuous stratigraphic horizons across the entire boring and CPT transect. The seismic investigation report was reviewed by Roy J. Shlemon and Associates and recommended for approval on January 21st, 2020. The City of Beverly Hills issued a formal approval for the referenced site on January 27th, 2020.

461 N. Beverly Drive
Feffer Geological Consulting, Investigation of Potential Faulting, dated September 20, 2018

Roy J. Shlemon & Associates, Inc., Recommendation for Acceptance, dated October 2, 2018

City of Beverly Hills, Acceptance of City's Peer Reviewed Recommendation for Acceptance, dated October 8, 2018

A Seismic Investigation Report was prepared for 461 N. Beverly Drive, dated September 20, 2018 (FGC, 2018b). The subsurface investigations consisted of a transect of 5 continuously cored borings drilled to a maximum depth of 50 feet below the ground surface, used in combination with the data gathered from the 468 N. Rodeo Drive report (above). The

investigation concluded that no faults traverse the subject property and that the underlying sediment across the site exhibits multiple continuous stratigraphic horizons across the entire boring transect. The seismic investigation report was reviewed by Roy J. Shlemon and Associates and recommended for acceptance on October 2nd, 2018. The City of Beverly Hills issued a formal approval for the referenced site on October 8th, 2018.

2.0 INVESTIGATION

2.1 General

Our field investigation was performed on July 16th and 17th, 2019 and consisted of a review of site conditions and subsurface exploration involving the drilling of two borings and soil sampling. Our investigation also includes laboratory testing of selected soil samples. Additionally, this report utilizes subsurface data from the recent site-specific seismic investigations completed by this firm at each site.

2.2 Field Exploration

The subsurface investigation performed at the site consisted of drilling two borings by use of a truck-mounted hollow-stem auger drill rig to a maximum depth of 100 feet below the existing ground surface.

The purpose of the exploratory borings was to determine the existing subsurface conditions and to collect subsurface samples in the areas of the proposed construction and throughout the site. Earth materials encountered in the borings consisted of artificial fill over alluvium.

A review of Regional Geologic Maps (Figure 3) indicate that the site is underlain by alluvium of Quaternary age (Holocene to Pleistocene) (Dibblee and Ehrenspeck, 1991).

The borings were logged by our field geologist using both visual and tactile means. Both bulk and relatively undisturbed soil samples were obtained for testing. The approximate locations of the borings are shown on the attached site map (Figure 4). Detailed boring logs are presented in Appendix A.

2.3 Laboratory Testing

Laboratory testing was performed on representative samples obtained during our field exploration. Samples were tested for the purpose of estimating material properties for use in subsequent engineering evaluations. Testing included in-place moisture and density, hydro-response-swell/collapse, consolidation, maximum density, shear strength, and chemical testing. A summary of the laboratory test results is included in Appendix B.

The physical properties of the soils were tested by Soil Labworks, LLC. Chemical testing was performed by HDR Schiff. The undersigned geologist and engineer have reviewed the data, concur, and accept responsibility and use of the data therein.

3.0 SITE GEOLOGY, SEISMICITY, POTENTIAL HAZARDS

3.1 Site Geology

Regionally, the project site is located within the northern portion of the Los Angeles Basin near the boundary between the Transverse and the Peninsular Ranges Geomorphic Provinces. This area of Beverly Hills is bound by the Santa Monica Mountains to the north, West Hollywood to the east, the Holmby Hills to the west, and the Cheviot Hills to the south.

Locally, the site is underlain by dissected and eroded Holocene to Pleistocene age alluvium and terrestrial fan deposits (Hoots and Kew, 1931, Dibblee and Ehrenspeck, 1991, Campbell et. al., 2014).

All recent subsurface explorations by Feffer Geological Consulting (2018, 2018a, 2018b, 2020) have verified regional geologic mapping and lithology. The subsurface explorations indicate that the property is underlain by a veneer of fill overlying Holocene to Pleistocene age alluvium (Qal and Qoa) (Appendix A, Figures 5 and 6). Descriptions of the materials encountered in the exploratory borings are described below.

3.1.1 Artificial Fill (Af)

Artificial fill was encountered in all borings within the upper six to nine feet below the existing ground surface. The fill consists of silty sand that is brown in color, medium dense, and contains scattered brick, asphalt, and concrete fragments. The fill is not considered suitable for the support of new foundations.

3.1.2 Holocene Alluvium (Qal)

Holocene age alluvium was encountered as deep as twenty-nine feet and consists of silty sand to silty sand with clay, and sandy clay to clayey sand that is brown in color. The alluvium is generally massive and contains fine to medium grained sub-rounded gravels with weathered fragments of slate.

3.1.3 Pleistocene Older Alluvium (Qoa)

Pleistocene age alluvium was encountered below the Holocene alluvium beginning at approximately twenty-five to twenty-nine feet. The Pleistocene age alluvium consists of gravelly clayey sand to sandy clay and sand with gravel that is brown to olive grayish brown in color. The alluvium is generally massive to interbedded and contains highly weathered fine to medium grained slate and sandstone gravels.

3.1.5 Groundwater

Groundwater was encountered at a depth of 50 feet in boring B1. A percolation well was installed in boring B2 to a depth of 40 feet for the purpose of future percolation testing.

Historically highest groundwater in this area of Beverly Hills is estimated to be 40 feet below the ground surface (Department of Conservation, 1998).

3.2 Seismicity

A risk common to all areas of Southern California that should not be overlooked is the potential for damage resulting from seismic events (earthquakes). The project site is located within a seismically active area, as is all Southern California.

The State of California enacted the Alquist-Priolo Special Studies Act of 1972 immediately following the destructive 1971 San Fernando earthquake (Department of Conservation, 2019a). The Alquist-Priolo Act is intended to prohibit the location of most structures for human occupancy across a known active fault that intersects the ground surface, thereby mitigating fault-rupture hazard. The Alquist-Priolo Act requires that the State Geologist delineate "Special Studies Zones" along active surficial faults. Development within these “Special Studies Zones” must include geologic investigation demonstrating the absence of a surface rupture threat. “Special Studies Zones” have been renamed and are now referred to as Alquist-Priolo Earthquake Fault Zones (APEFZ). The closest known and mapped faults to the project site are the Santa-Monica, Hollywood, and the Newport-Inglewood Faults. The project site is currently mapped as outside of an existing APEFZ.

According to updated mapping by the State of California and the City of Beverly Hills, the project site is located approximately 80 feet northwest of the Alquist-Priolo Earthquake Fault Zone for the Santa Monica Fault (Olson, 2018; CGS, 2018). The project site was previously investigated by Feffer Geological Consulting (FGC) (2018, 2018a, 2018b, 2020) for the presence of active faulting and each site was found to be underlain by continuous, unbroken stratigraphy and clear of Holocene-active faults. All fault investigation reports were reviewed and approved by Roy J. Shlemon and Associates and the City of Beverly Hills. Based on the accepted and approved reports provided by FGC (2018, 2018a, 2018b, 2020) the project site is not significantly impacted by active faulting or hazards associated with fault rupture along the Santa Monica Fault.

3.2.1 Seismic Hazards

The California State Legislature passed the Seismic Hazards Mapping Act of 1990 and was signed into law and became effective in 1991 (Department of Conservation, 2019b). The Seismic Hazards Mapping Act was prompted following the 1989 Loma Prieta earthquake, and is intended to reduce the threat to protect public safety and minimize the loss of life and property from the effects of strong ground shaking, liquefaction, landslides, and other earthquake-related hazards (Department of Conservation, 2019b). The Seismic Hazards Mapping Act requires that the State Geologist delineate the various "Seismic Hazards Zones." The maps depicting Seismic Hazard Zones are released by the California Geological Survey (CGS). Not all of Southern California has been mapped. Periodically, new maps are issued and existing maps are updated.

The Seismic Hazards Mapping Act requires a site investigation by a certified engineering geologist and/or civil engineer prior to development of a project sited within a hazard zone. The investigation is to include recommendations for a "minimum level of mitigation" that should

reduce the risk of ground failure during an earthquake to a level that does not cause the collapse of buildings for human occupancy. The Seismic Hazards Mapping Act does not require mitigation to a level of no ground failure and/or no structural damage.

Seismic Hazard Zones are based on correlation of a combination of factors, including: surface distribution of soil deposits and bedrock, slope steepness, depth to groundwater, bedding orientation with respect to slopes, bedrock shear strength, and occurrence of past seismic failure. Maps within the series are further designated as Reconnaissance, Preliminary, or Official. Official Seismic Hazard Zones Maps are the culmination of mapping, analysis, review and comment of the CGS, other State agencies, and the public following review and revision of the Preliminary Review Map. The Official Maps are the most rigorous and have the highest confidence level.

The CGS released an official map titled "Earthquake Zones of Required Investigation Beverly Hills Quadrangle," updated on January 11, 2018. The map delineates areas that have been subject to or are potentially subject to earthquake induced faulting, liquefaction, and landsliding.

3.2.2 Seismic Ground Shaking

The project site is located within an active tectonic area with several significant faults capable of producing strong earthquakes (Figure 7). The closest known active fault strand is the east-west trending Santa Monica fault, located approximately 600 feet southeast of the site. Other important regional faults include the Hollywood fault, located approximately one mile northeast of the site, and the Newport-Inglewood fault, located approximately two miles to the southeast of the site. The Los Angeles Basin contains several active faults that could potentially affect the project site area. These faults are discussed further below.

Santa Monica Fault

The Santa Monica fault trends east-west from the Santa Monica coastline on the west to the Hollywood area on the east (Figure 7). It is an oblique-reverse, left-lateral fault that is thought to be a surface expression of tectonic deformation related to Pliocene-Quaternary structural development of the Santa Monica Mountains. Integration of subsurface oil and gas exploration seismic data and well logs, with surficial mapping, indicate the mountains are underlain by a large southward-vergent asymmetric anticline formed over a regional north-dipping thrust ramp at a depth of 6 to 9 miles. Geophysical studies conducted at the Veteran's Administration (VA) property in West Los Angeles indicate the Santa Monica fault is a gently dipping thrust fault with secondary near-vertical faults extending from the primary basal fault toward the ground surface (Pratt et al., 1998; Dolan et al., 2000).

Hollywood Fault

The Hollywood fault consists of multiple left-lateral reverse faults which are a part of the Transverse Ranges Southern Boundary Fault System (Dolan et al. 1997) (Figure 7). Although many geomorphic features of the Hollywood fault have been obliterated or modified by urban development, the Hollywood fault is expressed along the base of the Santa Monica Mountains by scarp-like features and a steep alluvial front. Dolan et al. (1997) map the Hollywood fault as

extending 8½ miles west from the eastern end of the Santa Monica Mountains to a northwest-trending feature referred to as the west Beverly Hills Lineament which is located west of the Benedict Canyon Fan (Dolan, 2000). This lineament may represent an east-dipping normal fault at a left step between the Hollywood and Santa Monica faults or a strike-slip extension of the Newport-Inglewood fault (Dolan et al. 2000). Dibblee (1991) maps the Hollywood fault as extending farther to the west, to the 405 Freeway yielding a fault length of 11 miles.

Newport-Inglewood Fault

The Newport-Inglewood Fault is a northwest-trending strike-slip fault that consists of several discontinuous fault strands (Figure 7). The Newport-Inglewood fault is characterized by left-stepping en-echelon right-lateral faults and associated anticlinal folds and uplifted areas. The series of uplifted hills along the Newport-Inglewood fault include the Cheviot Hills, Baldwin Hills, Rosecrans Hills, Dominguez Hills, Signal Hill, and Reservoir Hill (Barrows, 1974). The onshore portion of the Newport-Inglewood fault strikes predominantly N30°W to N40°W and extends approximately 65 km from Beverly Hills southeast to Newport Beach. Individual fault strands within the Newport-Inglewood fault zone range in strike from N12°W to N62°W (Barrows, 1974). From Newport Beach, the Newport-Inglewood fault zone extends offshore paralleling the California coast to the southeast where it eventually comes back onshore again in San Diego as the Rose Canyon fault zone. A Holocene slip rate of 1.5 mm/yr was established for the Rose Canyon fault zone (Lindvall, Rockwell, and Hudnut, 1995). The slip rate of the Newport-Inglewood fault in the Los Angeles basin is not as well-constrained but is estimated to be about 0.5 – 1.5 mm/yr (Petersen et. al., 1996).

3.2.3 Liquefaction

Liquefaction is a process which occurs when saturated sediments are subjected to repeated strain reversals during a seismic event. The strain reversals cause an increase in pore water pressure such that the internal pore pressure approaches the overburden pressure and the shear strength approaches a low residual value. Liquefied soils are subject to flow, consolidation, or excessive strain. Liquefaction typically occurs in loose to medium dense sand and silty sandy soils below the groundwater table. Predominately fine-grained soils, such as silts, and clays, are less susceptible to liquefaction. According to mapping by the CGS, the site is not included within a zone of potentially liquefiable soil (CGS, 2018). Liquefaction is not considered a significant hazard at the site due to the consolidated nature of the underlying geology and planned depth of construction.

3.2.4 Lateral Spreading Hazard

Saturated soils that have experienced liquefaction may be subject to lateral spreading where located adjacent to free-faces, such as slopes, channels, and rivers. The site is remote to free-faces and the lateral spreading hazard at the site is insignificant.

3.2.5 Landsliding

According to mapping by the CGS (2018), the project site is not located within an area subject to potential seismic-induced slope instability. Since the site is not located within a mapped landslide

zone, and no slopes exist on or within the immediate site vicinity, seismic induced lansliding is not a significant hazard to the future development.

3.2.6 Secondary Ground Effects

The site is not located within an area mapped by the CGS (2018) as being potentially affected by seismic-induced liquefaction or landsliding. Due to the project site's distance from the coastline and other large bodies of water, the site will not be affected by tsunamis or seiches. Since the site has been found to be free from Holocene active faulting (FGC, 2018; 2018a; 2018b, 2020), hazards from secondary ground effects are not considered to significantly impact future development. However, considerable ground shaking may result if rupture occurs along a nearby fault.

3.3 2019 California Building Code Considerations

The proposed development may be designed in accordance with seismic considerations contained in the 2019 California Building Code. The following parameters may be considered for design (ATC, 2020):

Mapped Spectral Response Acceleration Parameters:

	S_S	:	2.115g
	S_1	:	0.756g
Site Class:	D	:	Stiff Soil
Site Coefficients:	F_a	:	1.0
	F_v	:	1.7

Maximum Considered Earthquake Spectral Response Acceleration Parameters:

	SMS	:	2.115g
	S_{M1}	:	3.595g

Design Spectral Response Acceleration Parameters:

S_{DS}	:	1.41g
S_{D1}	:	2.397g
PGA_M	:	0.999g

4.0 GEOTECHNICAL CONSIDERATIONS

4.1 Subsurface Soil Conditions

Subsurface materials at the project site consist of a thin layer of fill over alluvium. Based on laboratory testing at depths ranging from ten to one hundred feet, the alluvium at the project site is competent and capable of supporting engineered structures and appurtenances. The following sections provide a general discussion about settlement and expansive soil activity.

4.2 Settlement

Settlement, or consolidation, occurs over time as a response to changes in pressure and soils stress. Our investigation indicates that the consolidation and hydrocollapse potential of the alluvium is moderately low. The in-situ dry densities are high for the samples taken at the foundation level and it is our experience that these soils have a moderately low potential for consolidation.

4.3 Expansive Soil

Typically, soils that contain a high clay content are susceptible to expansion/contraction. Clay minerals are capable of absorbing water, which causes an increase in volume and leads to expansion. The opposite effect occurs when clay rich soils dry out, thus decreasing in volume and contracting. The on-site soil was found to possess low to medium expansive characteristics based upon field soil classifications. Based on the recommended foundation systems and the underlying soil properties, expansion/contraction is unlikely to affect the proposed development.

4.4 Soil Erosion & Loss of Topsoil

Existing structures and flatwork (i.e. pavement, concrete, brickwork) currently cover the majority of the project sites surfaces. No naturally occurring developed topsoil is exposed, and therefore is not at risk of substantially eroding due to proposed future development.

4.5 Slope Stability

The project site is not located within an area subject to potential seismic-induced slope instability. The property has less than ten feet of overall elevation change from north to south. A slope stability analysis is not required for the property due to the lack of slopes on the project site.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Basis

Conclusions and recommendations contained in this report are based upon information provided, information gathered, laboratory testing, engineering, and geologic evaluations, experience, and judgment. Recommendations contained herein are consistent with industry practice.

5.2 Site Suitability

Geotechnical exploration, analyses, experience, and judgment result in the conclusion that the proposed development is suitable from a geotechnical standpoint.

It is our opinion that the project site can be developed without hazard of landslide, slippage, or settlement, and improvement can occur without similar adverse impact on adjoining properties. Safe project development will require strict adherence to good construction practices, agency and code requirements, and the recommendations in this report.

It should be realized that the purpose of the seismic design utilizing the above parameters is to safeguard against major structural failures and loss of life, but not to prevent damage altogether. Even if the structural engineer provides designs in accordance with the applicable codes for seismic design, the possibility of damage cannot be ruled out if moderate to strong shaking occurs as a result of a large earthquake. This is the case for essentially all structures in Southern California.

5.3 EARTHWORK

5.3.1 General

Grading should be done in accordance with good construction practice, minimum code requirements, and recommendations to follow. Grading criteria are included within Appendix D.

5.3.2 Site Preparation and Grading

Based on our understanding of the proposed development, laboratory testing, and experience, we recommend that new foundations for the proposed development be founded in the underlying alluvium (Qal and Qoa).

Prior to the start of grading operations, utility lines within the project area, if any, should be located and marked in the field so they can be rerouted or protected during site development. All debris and perishable material should be removed from the project site. Although currently not anticipated, all permanent cut and fill slopes should not be constructed steeper than 2:1.

If fill is to be placed, the upper six to eight inches of surface exposed by the excavation should be scarified; moisture conditioned to two to four percent over optimum moisture content and compacted to 90 percent relative compaction[1]. If localized areas of relatively loose soils prevent proper compaction, over-excavation and re-compaction will be necessary.

[1] Relative compaction refers to the ratio of the in-place dry density of soil to the maximum dry density of the same material as obtained by the "modified proctor" (ASTM D1557-14) test procedure.

5.3.3 Excavation Characteristics

Due to the proposed depth of construction, and based on the recommendations herein, deep excavation will be required to complete the development. The borings encountered competent earth material at the depth of construction and below. Caving of material may occur where loose sands and gravels are encountered during excavation. No hard earth materials are anticipated during excavations. Based on the underlying geology, excavation can be completed using standard methods and best practices.

5.4 FOUNDATION SUPPORT

5.4.1 Mat Foundation

A mat foundation will be appropriate for the project. Although structural capacities for the proposed structure are not yet available, the existing alluvium is capable of supporting the proposed structures. For preliminary design, vertical capacity, the mat may be assumed to have an allowable uniform bearing capacity of 5,000 to 10,000 psf. The bearing value shown above is for the total of dead and frequently applied live loads and may be increased by one third for short duration loading, which includes the effects of wind or seismic forces.

For computing deflection, a subgrade modulus of 125 to 300 kips/ft^3 may be assumed. Since the potential for consolation and hydro-collapse is low, the mat foundation is not expected to experience differential settlement, and a rise in the groundwater table will not reduce the bearing capacity of the soils supporting the mat.

5.4.2 Pile Foundation

Support of the mat foundation may be assisted by piles. Piles that range from 24 to 36 inches in diameter are typical. Piles can be preliminarily designed for a skin friction of 400 to 800 psf.

5.4.3 Infiltration/SUSMP/LID

The proposed buildings will extend into the underlying alluvium to an approximate depth of 40 feet below the existing ground surface. Future testing to determine the rates of permeability should be performed for design of an infiltration system. An alternative to infiltration may be designed for the project site in order to comply with SUSMP/LID requirements.

5.4.4 Wastewater Disposal

The proposed development will not require the use of septic tanks or alternative wastewater disposal systems. Since sewers will be used for the disposal of wastewater, there will be no impact to the underlying supporting materials from the disposal of wastewater.

5.4.5 Groundwater and Associated Design

Groundwater was encountered at a depth of 50 feet in boring B1. A percolation well was installed in boring B2 to a depth of 40 feet for the purpose of future percolation testing. Historically highest groundwater in this area of Beverly Hills is estimated to be 40 feet below the ground surface (Department of Conservation, 1998). Wet conditions and actual groundwater may be encountered due to seasonal fluctuations. If groundwater is encountered, dewatering may be required and should be designed by a dewatering contractor and engineer.

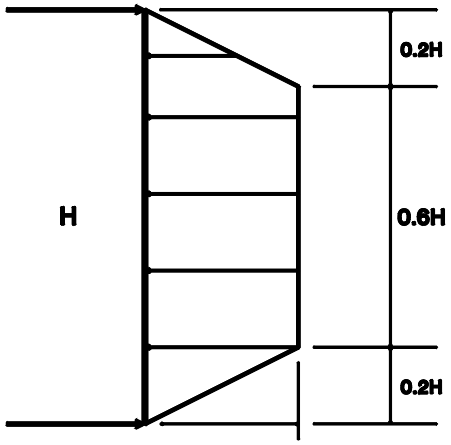
5.5 RETAINING WALLS

5.5.1 Retaining Wall Design

Permanent retaining walls up to 40 feet high that support fill, alluvium, and approved retaining wall backfill, will be designed as a restrained/braced system. For preliminary design, the at-rest earth pressure on walls is 53 pcf in alluvium.

Restrained/braced retaining walls that are pinned at the top by a non-yielding floor should be for the trapezoidal pressure distribution shown on the adjacent figure of 33 H. The uniform trapezoidal pressure may be assumed over the central six tenths of the wall height. The pressure may be decreased to zero at the top and bottom of the wall.

TRAPEZOIDAL DISTRIBUTION OF PRESSURE



33 H

Retaining walls should be provided with a subdrain or weepholes covered with a minimum of 12 inches of ¾ inch crushed gravel.

Retaining walls higher than six feet need to consider a seismic surcharge from the Design Earthquake. The seismic surcharge should be calculated using a factor of safety of 1.0 with the PGA corresponding to ½ of 2/3rds of the PGA_M. The PGA_M is 0.999g and therefore the corresponding seismic design value is 0.333g. A seismic surcharge for retaining walls in alluvium designed for active conditions is considered below:

For a 40-foot-high retaining wall, the static design force is equal to 42.4 kips (40ft^2 *53 pcf /2). For a ground motion of 0.333g and a FS of 1.0, the enclosed calculations indicates that an unbalanced force under seismic conditions from the Maximum Considered Earthquake is 39.4 kips for a 40-foot-high wall. Since the static design force is more than the seismic force an additional seismic surcharge is not needed.

5.5.2 Waterproofing

Moisture affecting retaining walls is one of the most common post-construction complaints. Poorly applied or omitted waterproofing can lead to effflorescence or standing water inside the building. Effflorescence is a process in which a powdery substance is produced on the surface of the concrete by the evaporation of water. The white powder usually consists of soluble salts such as gypsum, calcite, and/or halite (common salt). Effflorescence is common to retaining walls and generally does not affect their strength or integrity.

It is recommended that retaining walls be waterproofed. Waterproofing design and inspection of its installation is not the responsibility of the geotechnical engineer. A qualified waterproofing consultant should be retained in order to recommend a product or method, which would provide protection to below grade walls.

5.6 Temporary Excavations

All vertical cuts shall be inspected to verify geologic continuity. Un-shored vertical cuts to a height of five (5') may be made in earth materials at the site. Un-shored cuts in excess of five feet (5') shall be sloped at a gradient of no steeper than 1:1 (horizontal to vertical) for the portion of the excavation above the vertical cut.

A representative of the geotechnical engineer or geologist should be present during grading to see temporary slopes. All excavations, including caissons, footings, and utility trenches, shall be properly and adequately fenced and/or covered to ensure the safety of all those working on the project. All temporary excavations shall be stabilized as soon as possible after the initial excavation.

Shoring for the project should be preliminarily designed to retain an equivalent fluid pressure of 30 PCF for excavations up to 40 feet in height. For braced restrained conditions, shoring can be designed for a trapezoidal pressure distribution of 20 H as shown on the figure in section 5.5.1. The uniform trapezoidal pressure may be assumed over the central six tenths of the wall height. The pressure may be decreased to zero at the top and bottom of the wall.

Excavation and shoring plans for temporary shore walls shall be developed during final Project design by the project shoring engineer/designer. The locations of tiebacks for, and amount of deflection permitted by excavation shoring elements should be carefully designed such that acceptable deflection at the top of the shoring adjacent to streets, property lines, and historic building foundations is maintained. If less deflection at the top of shoring is necessary, the values for lateral earth pressures on shoring may be increased. All permanent surcharge loading conditions will be evaluated by the Geotechnical Engineer during final Project design. Lateral

earth pressure, tied-back or braced shoring, soldier piles, and tie-back anchors among other practices should be used to resist lateral loads and to ensure no lateral issues with nearby structures. The shoring design should be provided by a California Registered Civil Engineer experienced in the design and construction of shoring under similar conditions. Once final excavation and shoring plans are complete, the plans and the design should be reviewed by the project soils engineer for conformance with the design intent and recommendations and submitted to the City of Beverly Hills for review and approval.

5.6.1 Shoring

Shoring may consist of cast-in-place concrete piles with wood-lagging. Shoring piles should be a minimum of 18 inches in diameter and a minimum of 8 feet into alluvium below the base of the excavation. Piles may be assumed fixed 3 feet below the base of the excavation. For the vertical forces, piles may be designed for a skin friction of 400 to 600 pounds per square foot for that portion of pile in contact with the alluvium. Shoring piles should be spaced a maximum of 10 feet on center.

The friction value is for the total of dead and frequently applied live loads and may be increased by one third for short duration loading, which includes the effects of wind or seismic forces. Resistance to lateral loading may be provided by passive earth pressure within the alluvium below the base of the excavation.

Passive earth pressure may be computed as an equivalent fluid having a density of 400 pounds per cubic foot. The maximum allowable earth pressure is 4,000 to 6,000 pounds per square foot. For design of isolated piles, the allowable passive and maximum earth pressures may be increased by 100 percent. Piles spaced more than 2½ pile diameters on center may be considered isolated.

Rakers or other forms of internal bracing designed by the structural engineer may be used to support the shoring system where tieback anchors cannot be used.

5.6.2 Earth Anchors

Where applicable tie-back anchors may be used to resist lateral loads. Pressure grouted friction anchors are recommended. For design purposes, it is assumed that the active wedge adjacent to the shoring is defined by a plane drawn at 30 degrees with the vertical through the bottom of the excavation. Friction anchors should extend at least 15 feet beyond the potential active wedge or to a greater length if necessary to develop the desired capacities.

The capacities of the anchors should be determined by testing of the initial anchors as outlined in a following section. For preliminary design purposes, it is estimated that cast-in-place gravity anchors will develop an average value of 300 pounds per square foot. Pressure grouted and post grouted anchors will develop much higher capacities. For preliminary design purposes, it is estimated that pressure grouted anchors will develop an average value of 2,500 pounds per square foot. Only the frictional resistance developed beyond the active wedge would be effective in resisting lateral loads. If the anchors are spaced at least six feet on center, no reduction in the capacity of the anchors need be considered due to group action.

The anchors may be installed at angles of 20 to 40 degrees below the horizontal. Caving and sloughing of the anchor hole should be anticipated and provisions made to minimize such caving and sloughing. To minimize chances of caving and sloughing that portion of the anchor shaft within the active wedge should be backfilled with sand before testing the anchor. This portion of the shaft should be filled tightly and flush with the face of the excavation. The sand backfill should be placed by pumping; the sand may contain a small amount of cement to facilitate pumping.

At least 10 percent of the initial anchors for a 24-hour 200 percent test and 10 percent additional anchors for quick 200 percent tests. The specific anchors selected for the 200 percent test should be representative and acceptable to the geotechnical engineer. The purpose of the 200 percent tests is to verify the friction value assumed in design. The anchors should be tested to develop twice the assumed friction value. Anchor rods of sufficient strength should be installed in these anchors to support the 200 percent test loading. Where satisfactory tests are not achieved on the initial anchors, the anchor diameter, and/or length should be increased until satisfactory test results are obtained. The total deflection during the 24-hour 200 percent test should not exceed 12 inches. During the 24-hour test, the anchor deflection should not exceed 0.75 inch measured after the 200 percent test load is applied. If the anchor movement after the 200 percent load has been applied for 12 hours is less than 0.5 inch, and the movement over the previous four hours has been less than 0.1 inch, the 24-hour test may be terminated.

For the quick 200 percent tests, the 200 percent test load should be maintained for 30 minutes. The total deflection of the anchor during the 200 percent quick tests should not exceed 12 inches; the deflection after the 200 percent test load has been applied should not exceed 0.25 inch during the 30-minute period.

All of the anchors should be pretested to at least 150 percent of the design load; the total deflection during the test should not exceed 12 inches. The rate of creep under the 150 percent test should not exceed 0.1 inch over a 15-minute period for the anchor to be approved for the design loading.

After a satisfactory test, each anchor should be locked-off at the design load. The locked-off load should be verified by rechecking the load in the anchor. If the locked-off load varies by more than 10 percent from the design load, the load should be reset until the anchor is locked-off within 10 percent of the design load.

The installation of the anchors and the testing of the completed anchors should be observed by a deputy grading inspector under the direction of the geotechnical engineer.

5.6.3 Lagging

Lagging will be required between piles. Due to arching in the soils, the pressure on the lagging will be less that on the shoring piles. It is recommended that the lagging be designed for the full design pressure but be limited to a maximum of 400 pounds per square foot. The void between the lagging and the back-cut should be slurry-filled and observed by a representative of the geotechnical engineer.

A representative of the geotechnical engineer or geologist should be present during grading to see temporary slopes. All excavations, including: caissons, footings, and utility trenches, shall

be properly and adequately fenced and/or covered to ensure the safety of all those working on the project.

All temporary excavations shall be stabilized as soon as possible after the initial excavation.

5.6.4 Deflection

It is difficult to accurately predict the amount of deflection of a shored embankment. It should be realized that some deflection will occur. The project structural engineer should design the shoring systems such that deflection is restricted to acceptable limits the top of the shored embankment.

5.6.5 Monitoring

Because of the depth of the excavation, some means of monitoring the performance of the shoring system is suggested.

A California Registered Professional Engineer or California Professional Land Surveyor shall prepare an Adjacent Structures Construction Monitoring Plan, subject to review and approval by the City of Beverly Hills Building and Safety Department prior to the initiation of any excavation, grading, or shoring activities. The Adjacent Structures Construction Monitoring Plan shall establish survey monuments and document and record the positions of adjacent structures, sidewalks, buildings, utilities, facades, surfaces feature, etc. to form a baseline for determining settlement or deformation. Upon installation of soldier piles, survey monuments shall be affixed to the tops of representative piles so that deflection can be measured. The shored excavation and adjacent structures, sidewalks, buildings, utilities, facades, cracks, etc. should be visually inspected at a minimum of one time per month. Survey Monuments should be measured at critical stages of excavation, shoring, dewatering, and construction but should not occur less frequently than once every thirty days.

Monitoring reports shall be prepared by the California Professional Land Surveyor documenting the movement monitoring results and distributed to all appropriate parties, including the shoring engineer. Appropriate parties shall be notified if movement exceeds predetermined thresholds and calculated amounts.

In the unlikely event that settlement due to excavation or construction activities cause damage requiring repairs to any adjacent historic buildings, that work shall be performed in consultation with a qualified preservation consultant and in accordance with the California Historical Building Code and the Secretary of Interior's standards, as appropriate.

5.7 Exterior Flatwork and Auxiliary Structures

Whenever planned, exterior flatwork should be placed directly on alluvium or over a two-foot blanket of approved compacted fill. Five-inch net sections with #4 bars at 18 inches o.c.e.w. are also advised. Control joints should be planned at not more than twelve foot spacing for larger concrete areas. Narrower areas of flatwork such as walkways should have control joints planned at

not greater than 1.5 times the width of the walkway. Recommendations provided above for interior slabs can also be used for exterior flatwork, but without a sand layer or Visqueen moisture barrier. Additionally, it is also recommended that at least 12-inch deepened footings be constructed along the edges of larger concrete areas.

Movement of slabs adjacent to structures can be mitigated by doweling slabs to perimeter footings. Doweling should consist of No. 4 bars bent around exterior footing reinforcement. Dowels should be extended at least two feet into planned exterior slabs. Doweling should be spaced consistent with the reinforcement schedule for the slab. With doweling, 3/8-inch minimum thickness expansion joint material should be provided. Where expansion joint material is provided, it should be held down about 3/8 inch below the surface. The expansion joints should be finished with a color matched, flowing, flexible sealer (e.g., pool deck compound) sanded to add mortar-like texture. As an option to doweling, an architectural separation could be provided between the main structures and abutting appurtenant improvements.

Auxiliary structures such as trash enclosures and garden walls can be placed directly on alluvium or on a two-foot blanket of compacted fill.

5.8 Drainage

Drainage should be directed away from structures via non-erodible conduits to suitable disposal areas. Two percent drainage is recommended directly away from structures. Building Code and Civil Engineer requirements and recommendations take precedence. All enclosed planters should be provided with a suitably located drain or drains and/or flooding protection in the form of weep holes or similar. Preferably, structures should have roof gutters and downspouts tied directly to the area drainage system.

5.9 Plan Review

When detailed grading and structural plans are developed, they should be reviewed by the project geotechnical consultant.

5.10 Agency Review

All soil, geologic, and structural aspects of the proposed development are subject to the review and approval of the governing agency(s).

5.11 Supplemental Consulting

During construction, a number of reviews by the project geotechnical consultant are recommended to verify site geotechnical conditions and conformance with the intentions of the recommendations for construction. The following site reviews are advised, some of which are required by the governing agencies.

Preconstruction/pregrading meeting ..... Advised
Cut and/or shoring observation ..... Required

Periodic geotechnical observations and testing during grading.....Required
Reinforcement for all foundations ..... Advised
Slab subgrade moisture barrier membrane ..... Advised
Slab subgrade rock placement ..... Advised
Presaturation checks for all slabs in primary structure areas.....Required
Presaturation checks for all slabs for appurtenant structures..... Advised
Slab steel placement, primary and appurtenant structures..... Advised
Compaction of utility trench backfill..... Advised

5.12 Project Safety

The contractor is the party responsible for providing a safe site. This consultant will not direct the contractor's operations and cannot be responsible for the safety of personnel other than his own representatives on site. The contractor should notify the owner if he is aware of and/or anticipates unsafe conditions. If the geotechnical consultant at the time of construction considers conditions unsafe, the contractor, as well as the owner's representative, will be notified. Within this report the terminology safe or safely may have been utilized. The intent of such use is to imply low risk. Some risk will remain, however, as is always the case.

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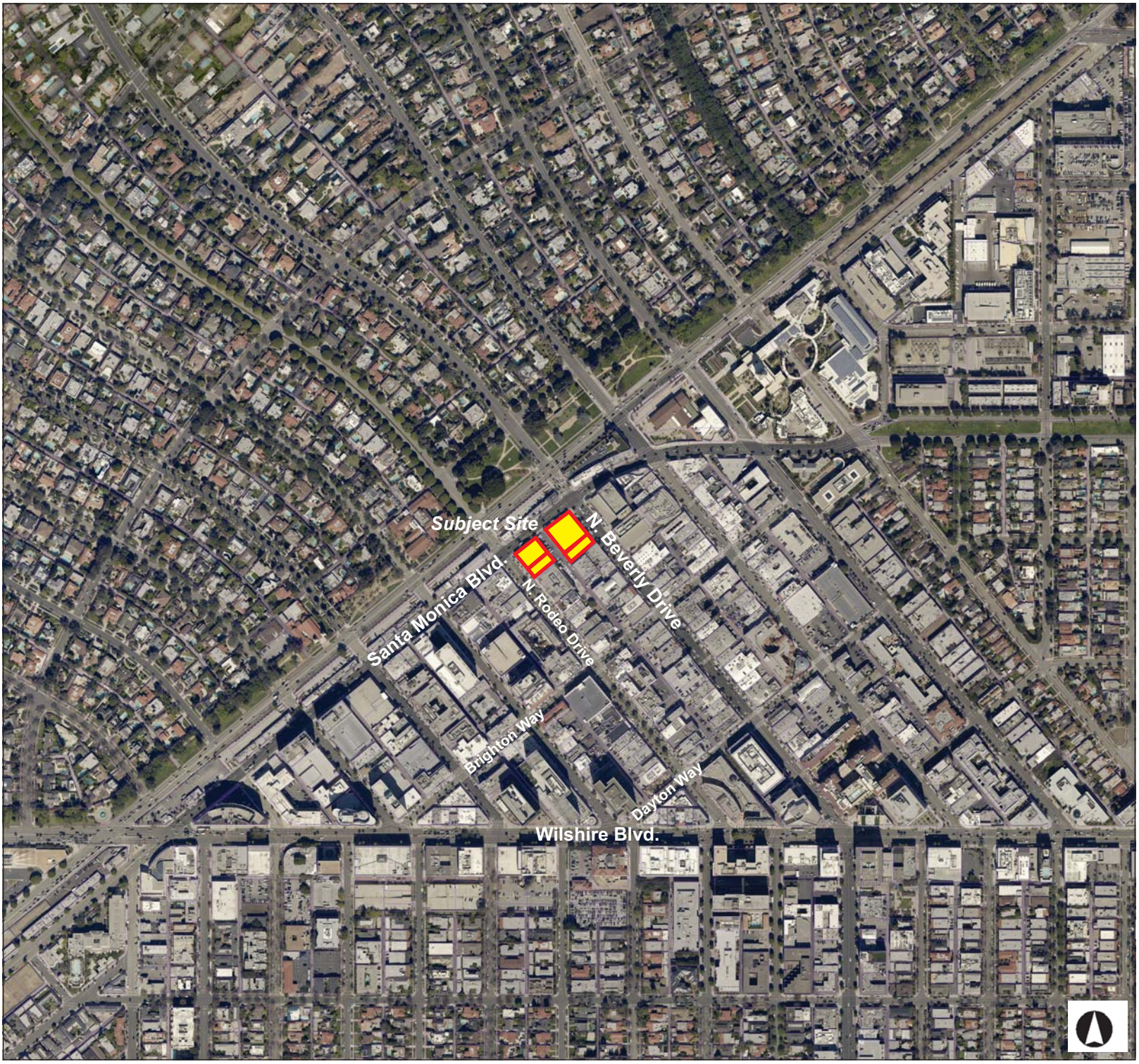
FIGURES

456, 468 N. Rodeo Drive & 449, 461 N. Beverly Drive



This map is for reference only and should not be used for legal decisions. While the County of Los Angeles makes its best effort to ensure data is accurate, the County makes no representation or warranty of any kind.

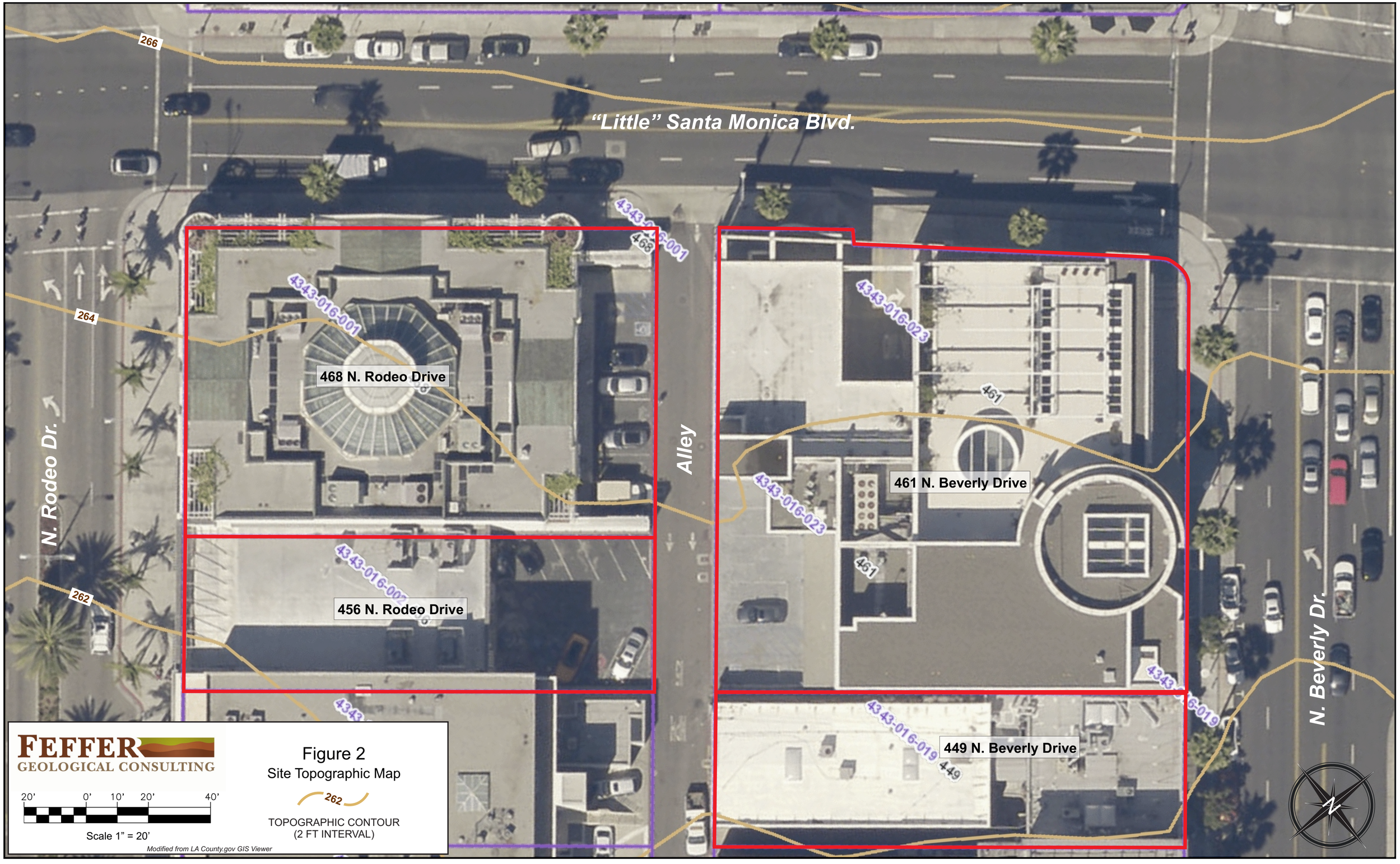
FEFFER GEOLOGICAL CONSULTING

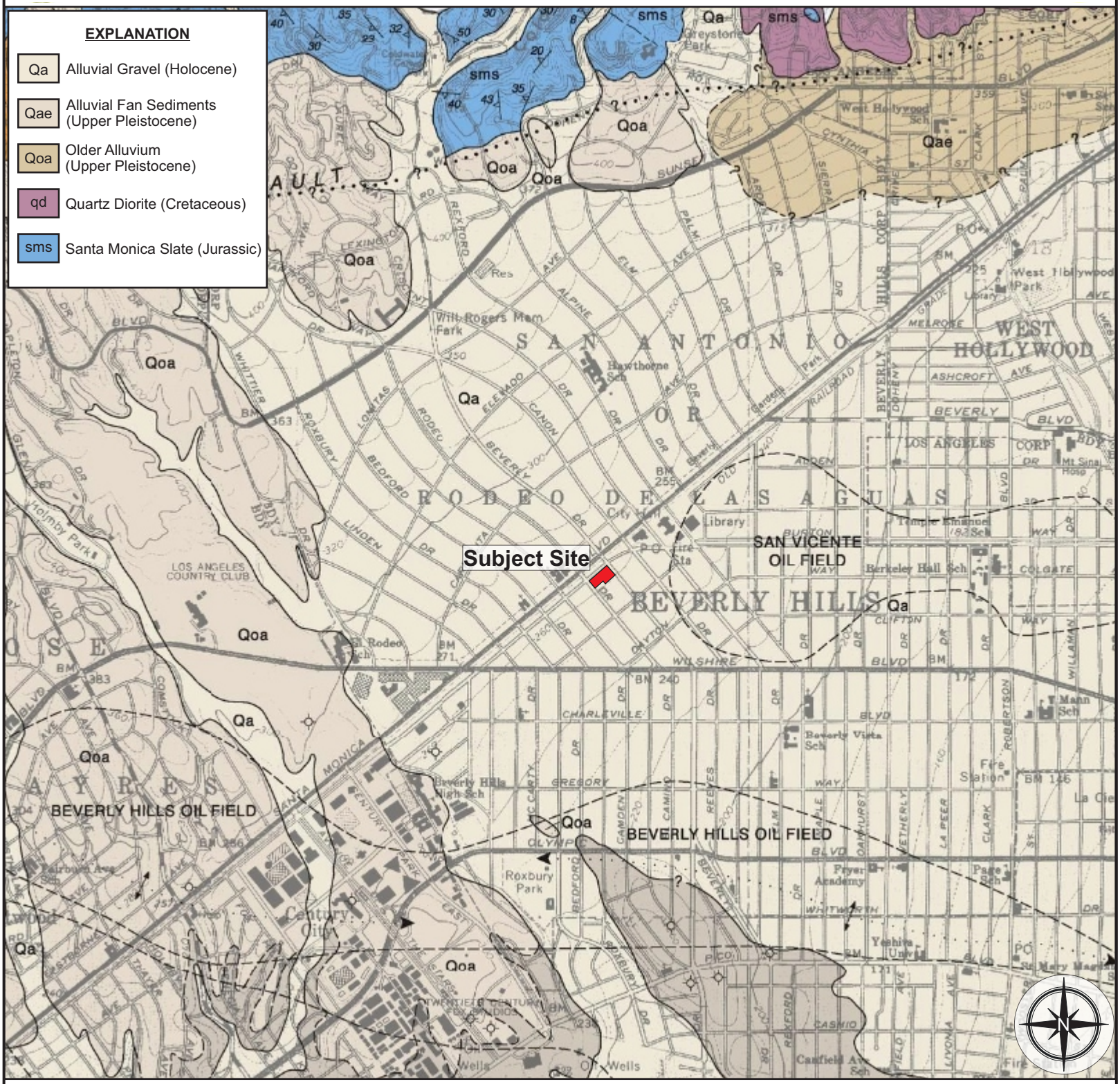
0.3 0 0.14 0.3 Miles

Figure 1

Site Location Map

Modified From The LACounty.gov GIS Viewer


"Little" Santa Monica Blvd.
N. Rodeo Dr.
Alley
N. Beverly Dr.
468 N. Rodeo Drive
456 N. Rodeo Drive
461 N. Beverly Drive
449 N. Beverly Drive
4343-016-001
4343-016-023
4343-016-019
266
264
262
468
461
449
20' 0' 10' 20' 40'
Scale 1" = 20'
Modified from LA County.gov GIS Viewer
FEFFER GEOLOGICAL CONSULTING
Figure 2
Site Topographic Map
262
TOPOGRAPHIC CONTOUR
(2 FT INTERVAL)



FEFFER GEOLOGICAL CONSULTING

MILES
0 0.5 1

SCALE 1:24,000

Figure 3

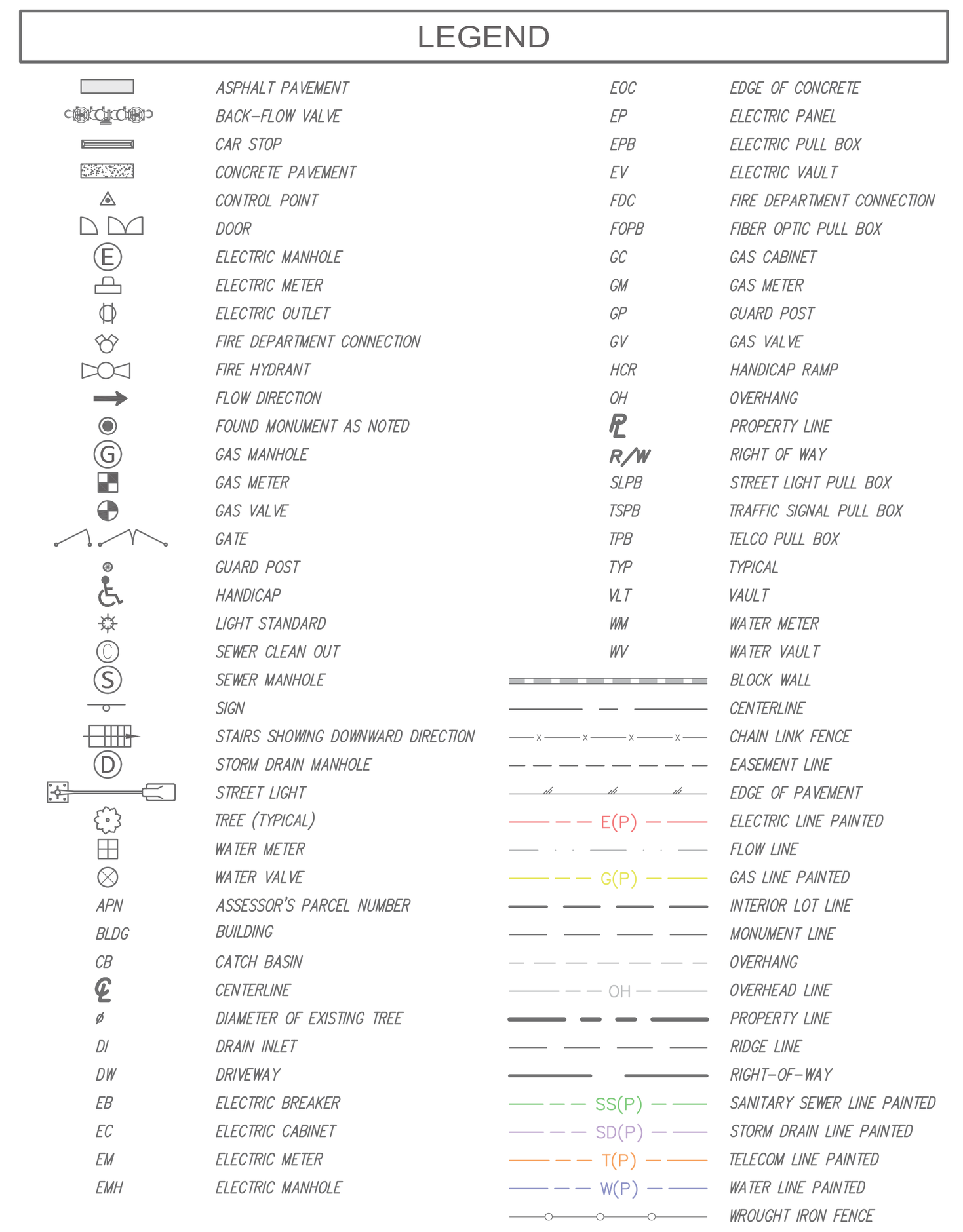
Regional Geologic Map

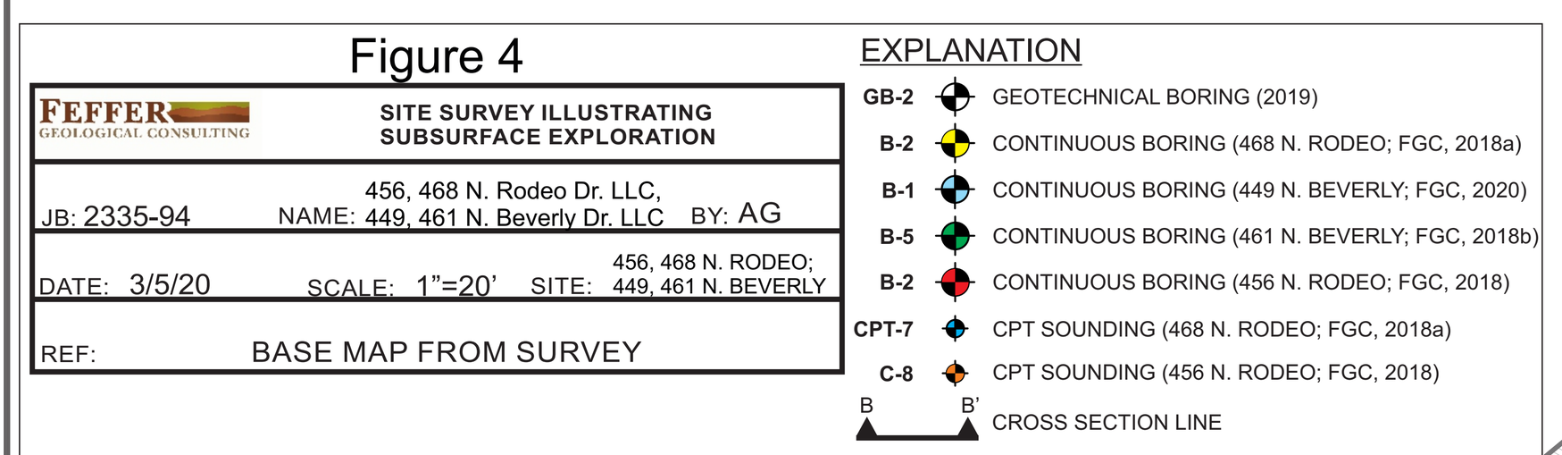
Modified from Dibblee & Ehrenspeck (1991)

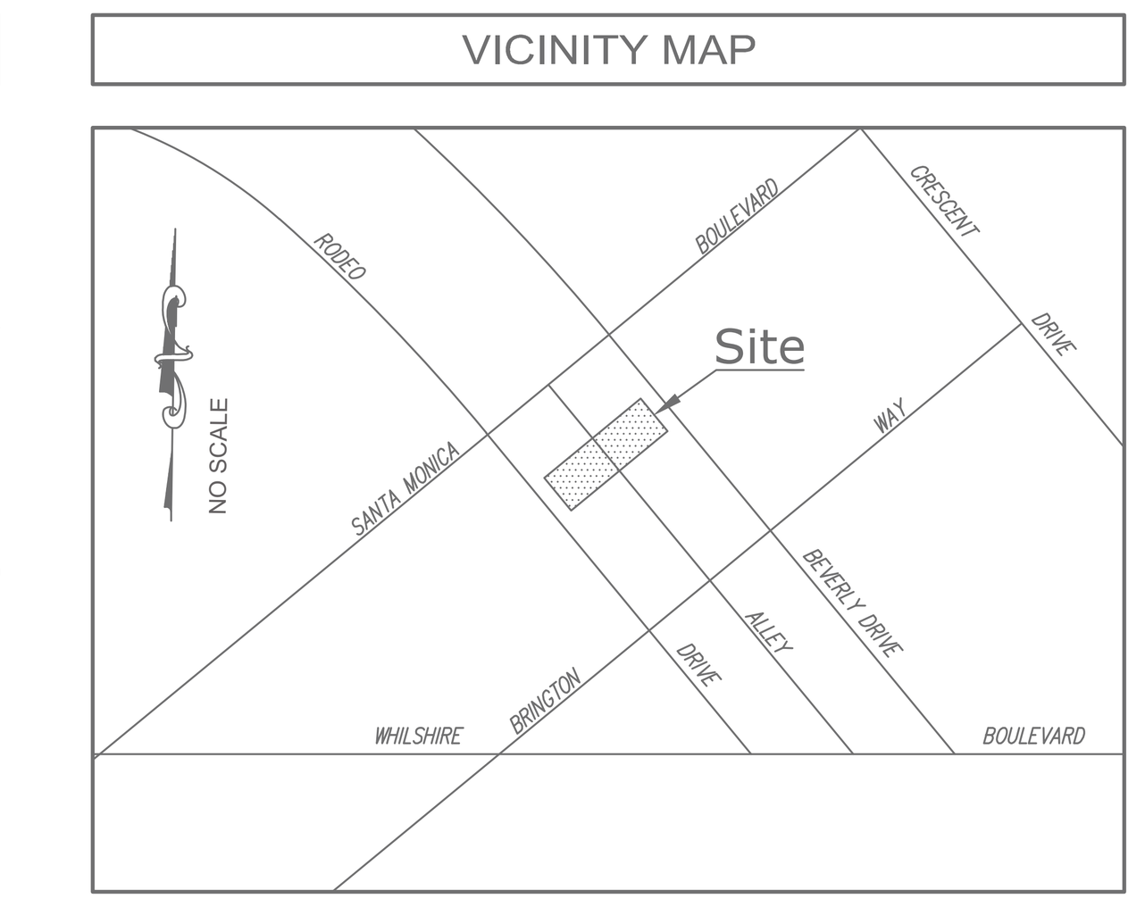
A.L.T.A./N.S.P.S. LAND TITLE SURVEY

449 N. BEVERLY DRIVE, BEVERLY HILLS, CA 90210

LEGEND







SCHEDULE B ITEMS

BASED UPON TITLE REPORT NO. CA-FBCM-IMP-27306-1-18-30011459, DATED SEPTEMBER 14, 2018 AS PREPARED BY FIDELITY NATIONAL TITLE COMPANY.

A.– PROPERTY TAXES **(NOT PLOTTED, NOT SURVEY RELATED)**.

B.– THE HEREIN DESCRIBED PROPERTY LIES WITHIN THE BOUNDARIES OF A MELLO-ROSS COMMUNITY FACILITIES DISTRICT **(NOT PLOTTED, NOT SURVEY RELATED)**.

C.– THE LIEN OF SUPPLEMENTAL OR ESCAPED ASSESSMENT OF PROPERTY TAXES **(NOT PLOTTED, NOT SURVEY RELATED)**.

1.– WATER RIGHTS, CLAIMS OR TITLE TO WATER, WHETHER OR NOT DISCLOSED BY THE PUBLIC RECORDS.

2.– INTENTIONALLY DELETED.

3.– INTENTIONALLY DELETED.

4.– EASEMENT FOR PIPELINES RECORDED IN BOOK 1250, PAGE 130, OF DEEDS **(BLANKET AND UNLOCATABLE)**.

5.– INTENTIONALLY DELETED.

6.– INTENTIONALLY DELETED.

7.– INTENTIONALLY DELETED.

8.– INTENTIONALLY DELETED.

9.– INTENTIONALLY DELETED.

10.– INTENTIONALLY DELETED.

11.– INTENTIONALLY DELETED.

12.– INTENTIONALLY DELETED.

13.– INTENTIONALLY DELETED.

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19.– INTENTIONALLY DELETED.

20.– INTENTIONALLY DELETED.

21.– INTENTIONALLY DELETED.

22.– INTENTIONALLY DELETED.

23.– ANY RIGHTS, INTERESTS, OR CLAIMS WHICH MAY EXIST OR ARISE BY REASON OF THE FOLLOWING MATTERS DISCLOSED BY SURVEY, JOB NO. 18-300.015.44, DATED: AUGUST 1, 2018, LAST REVISED AUGUST 30, 2018, PREPARED BY EPS GROUP, INC. ON BEHALF OF PARTNER ENGINEERING AND SCIENCE, INC.
MATTERS SHOWN:
A) A 0.6' TO 2.6' ENCROACHMENT OF A BUILDING OVERHANG INTO THE STREET RIGHT OF WAY OF SANTA MONICA BOULEVARD.
B) A 0.1' ENCROACHMENT OF A BUILDING ONTO THE PROPERTY FROM THE LAND ADJOINING TO THE SOUTHEAST.
C) A 0.5' TO 2.5' ENCROACHMENT OF A BUILDING OVERHANG INTO THE STREET RIGHT OF WAY OF RODEO DRIVE **(NOT PLOTTED, NOT SURVEY RELATED)**.

24.– INTENTIONALLY DELETED.

25.– INTENTIONALLY DELETED.

26.– A SUBSURFACE OIL AND GAS LEASE RECORDED AUGUST 1, 1966 RECORDING NO. 3502 IN BOOK M2302 PAGE 587; THE EFFECT OF AN INSTRUMENT OF PARTIAL SURRENDER, RECORDED AUGUST 29, 1990 AS INSTRUMENT NO. 90-1494823; THE EFFECT OF THE FOLLOWING FOUR MINERAL DEEDS WHICH PURPORT TO CONVEY LESSOR'S INTEREST UNDER SAID LEASE, RECORDED DECEMBER 19, 2011 AS INSTRUMENT NO. 20111716463; RECORDED APRIL 18, 2012 AS INSTRUMENT NO. 20120580060; RECORDED MAY 16, 2014 AS INSTRUMENT NO. 20140509821, AND RECORDED DECEMBER 21, 2015 AS INSTRUMENT NO. 20151601548; THE EFFECT OF SAID LEASE RECORDED SEPTEMBER 14, AS INSTRUMENT NO. 20180944152 ALL OF OFFICIAL RECORDS **(NOT PLOTTED, NOT SURVEY RELATED)**.

27.– A SUBSURFACE OIL AND GAS LEASE RECORDED AUGUST 13, 1984 RECORDING NO. 84-970523; THE EFFECT OF A RELEASE OF OIL AND GAS LEASES, RECORDED AUGUST 25, 1995 AS INSTRUMENT NO. 95-1395301; THE EFFECT OF SAID LEASE RECORDED SEPTEMBER 14, 1918 AS INSTRUMENT NO. 20180944152 ALL OFFICIAL RECORDS **(NOT PLOTTED, NOT SURVEY RELATED)**.

28.– INTENTIONALLY DELETED.

29.– INTENTIONALLY DELETED.

30.– INTENTIONALLY DELETED.

ZONING RESTRICTIONS

NOTE: INDICATED ZONING INFORMATION IS FROM THE CITY OF BEVERLY HILLS ZONING ORDINANCES IN EFFECT AS OF THE DATE OF THIS SURVEY. ZONING AND RESTRICTIONS SHOWN HEREON WERE OBTAINED BY A GENERAL REQUEST AT THE PUBLIC COUNTER OF THE ABOVE NAMED DEPARTMENT. NO REPRESENTATION IS MADE FOR THE ACCURACY OR COMPLETENESS OF SAID THIRD PARTY INFORMATION. THIS FIRM IS NOT AN EXPERT IN THE REPRESENTATION OF COMPLEX ZONING ORDINANCES. COMPLIANCE IS BEYOND THE SCOPE OF THIS SURVEY. ANY USER OF SAID INFORMATION IS URGED TO CONTACT THE LOCAL AGENCY DIRECTLY.

ZONE: C-3 (COMMERCIAL ZONE)

MINIMUM SETBACKS: FRONT: NOT SPECIFIED
SIDE: NOT SPECIFIED
REAR: NOT SPECIFIED

HEIGHT RESTRICTIONS: NOT SPECIFIED

POSSIBLE ENCROACHMENT NOTES

THIS IS A LISTING OF OBSERVED IMPROVEMENTS THAT CROSS PROPERTY LINES. STATEMENT OF OWNERSHIP OR POSSESSION IS NOT THE INTENT OF THIS LISTING.

1 BUILDING OVERLAPS THE SOUTHERLY PROPERTY LINES

2 OVERHANG OVERLAPS ON THE PROPERTY LINE

ITEMS CORRESPONDING TO TABLE A ITEMS

– ITEM 14
THE NEAREST INTERSECTING STREETS TO THE PROPERTY ARE SHOWN HEREON.

– ITEM 16
NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTION THE FIELD WORK.

– ITEM 17
NO EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WORK.

– ITEM 18
NO EVIDENCE OF WETLANDS ON THE SUBJECT PROPERTY. NO DELINEATION MARKERS OF WETLANDS WERE OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WORK.

LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	N39°31'23"W	50.00'
L2	N50°30'16"E	20.00'
L3	N50°30'37"E	20.00'
L4	N50°30'37"E	39.96'
L5	N39°29'23"W	5.00'
L6	N50°28'17"E	42.00'
L7	N50°28'17"E	42.00'
L8	N39°29'23"W	30.00'
L9	N39°31'23"W	660.19'
L10	N39°29'23"W	39.48'
L11	N50°30'05"E	42.00'
L12	N50°30'05"E	42.00'

CURVE TABLE			
CURVE #	RADIUS	DELTA	LENGHT
C1	10.00	50°37'49"	8.84

SURVEYOR'S CERTIFICATE

TO FIDELITY NATIONAL TITLE INSURANCE COMPANY, 468 N RODEO DRIVE LLC, A DELAWARE LIMITED LIABILITY COMPANY (4343-016-001)
TO FIRST AMERICAN TITLE INSURANCE COMPANY, 456 N RODEO DRIVE LLC, A DELAWARE LIMITED LIABILITY COMPANY (4343-016-002)
TO CHICAGO TITLE INSURANCE COMPANY,
461 N BEVERLY DRIVE LLC, A DELAWARE LIMITED LIABILITY COMPANY (4343-016-003)

TO RENDA JOYE ABRAMSON AND SYDNEY J. DUNITZ, AS TRUSTEES UNDER THAT CERTAIN DECLARATION OF TRUST DATED AUGUST 1, 1952, AS TO AN UNDIVIDED 1/2 INTEREST; A.S. HERSHENSON AND BRENDA ABRAMSON, CO-TRUSTEES UNDER THE WILL OF SYLVIA HERSHENSON, DECEASED, AS TO AN UNDIVIDED 1/4 INTEREST; BRENDA ABRAMSON AND ALAN ABRAMSON, CO-TRUSTEES OF THE A.S. HERSHENSON FAMILY TRUST DATED MARCH 29, 1989 AS TO AN UNDIVIDED 1/4 INTEREST AND FIDELITY NATIONAL TITLE INSURANCE COMPANY.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 6(a), 7(a), 7(b)(1), 7(c), 8, 9, 10(a), 11, 13, 14, 16 AND 17 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON NOVEMBER 19, 2019

DATE OF PLAT OR MAP: DECEMBER 10, 2019

SCHEDULE B ITEMS

BASED UPON TITLE REPORT NO. 997-30029396-1MB, DATED APRIL 26, 2019 AS PREPARED BY FIDELITY NATIONAL TITLE COMPANY.

A.– PROPERTY TAXES **(NOT PLOTTED, NOT SURVEY RELATED)**.

B.– SUPPLEMENTAL TAXES **(NOT PLOTTED, NOT SURVEY RELATED)**.

C.– THE LIEN OF SUPPLEMENTAL OR ESCAPED ASSESSMENT OF PROPERTY TAXES **(NOT PLOTTED, NOT SURVEY RELATED)**.

D.– THE HEREIN DESCRIBED PROPERTY LIES WITHIN THE BOUNDARIES OF A MELLO-ROSS COMMUNITY FACILITIES DISTRICT **(NOT PLOTTED, NOT SURVEY RELATED)**.

1.– WATER RIGHTS, CLAIMS OR TITLE TO WATER, WHETHER OR NOT DISCLOSED BY THE PUBLIC RECORDS.

(2) EASEMENT FOR ALLEY OF MAP RECORDED IN BOOK 11 PAGE 94 OF MAPS **(PLOTTED HEREON)**.

3.– EASEMENT FOR ALL OF SAID LAND RECORDED IN BOOK 11 PAGE 94 OF MAPS **(BLANKET IN NATURE)**.

4.– A COMMUNITY OIL AND GAS LEASE FOR THE TERM HEREIN PROVIDED RECORDED SEPTEMBER 23, 1964 RECORDING NO. 3160 AND AGREEMENT TO AMEND OR MODIFY CERTAIN PROVISIONS OF SAID LEASE RECORDED JUNE 1, 1984 RECORDING NO. 84-656696 BOTH OFFICIAL RECORDS **(NOT PLOTTED, NOT SURVEY RELATED)**.

5.– A SUBSURFACE OIL AND GAS LEASE FOR THE TERM THEREIN PROVIDED, WITH CERTAIN COVENANTS, CONDITIONS AND PROVISIONS TOGETHER WITH EASEMENTS, IF ANY, AS SET FORTH THEREIN, DISCLOSED BY DOCUMENT RECORDED AUGUST 1, 1966 RECORDING NO. 3502 IN BOOK M2302, PAGE 587; THE EFFECT OF AN INSTRUMENT OF PARTIAL SURRENDER, RECORDED AUGUST 29, 1990 AS INSTRUMENT NO. 90-1494823; THE EFFECT OF A RELEASE OF OIL AND GAS LEASES, RECORDED AUGUST 25, 1995 AS INSTRUMENT NO. 95-1395301; THE EFFECT OF THE FOLLOWING FOUR MINERAL DEEDS WHICH PURPORT TO CONVEY LESSOR'S INTEREST UNDER SAID LEASE, RECORDED DECEMBER 19, 2011 AS INSTRUMENT NO. 20111716463, RECORDED APRIL 18, 2012 AS INSTRUMENT NO. 20120580060, RECORDED MAY 16, 2014 AS INSTRUMENT NO. 20140509821, AND RECORDED DECEMBER 21, 2015 AS INSTRUMENT NO. 20151601548, ALL OF OFFICIAL RECORDS **(NOT PLOTTED, NOT SURVEY RELATED)**.

6.– A SUBSURFACE OIL AND GAS LEASE RECORDED AUGUST 13, 1984 RECORDING NO. 84-970523; THE EFFECT OF A RELEASE OF OIL AND GASES, RECORDED AUGUST 25, 1995 AS INSTRUMENT NO. 95-1395301 BOTH OFFICIAL RECORDS **(NOT PLOTTED, NOT SURVEY RELATED)**.

7.– A COMMUNITY OIL AND GAS LEASE FOR THE TERM HEREIN PROVIDED RECORDED APRIL 7, 1998 RECORDING NO. 98-563201 OFFICIAL RECORDS **(NOT PLOTTED, NOT SURVEY RELATED)**.

8.– ANY RIGHTS OF THE PARTIES IN POSSESSION OF A PORTION OR, AR ALL OF, SAID LAND, WICH RIGHTS ARE NOT DISCLOSED BY THE PUBLIC RECORDS **(NOT PLOTTED, NOT SURVEY RELATED)**.

LEGAL DESCRIPTION
TITLE REPORT NO. 997-30029396-1MB

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF BEVERLY HILLS IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 1
THAT PORTION OF THE SOUTHWESTERLY HALF OF THE ALLEY (20 FEET WIDE), IN BLOCK 2 OF BEVERLY, IN THE CITY OF BEVERLY HILLS, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON THE MAP RECORDED IN BOOK 11 PAGE 94 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, LYING NORTHEASTERLY OF AND ADJACENT TO LOTS 1 AND 2 IN BLOCK 2 OF SAID BEVERLY, THAT WOULD PASS WITH A LEGAL CONVEYANCE OF SAID LOTS.

PARCEL 2:
THAT PORTION OF THE SOUTHWESTERLY HALF OF THE ALLEY (20 FEET WIDE), IN BLOCK 2 OF BEVERLY, IN THE CITY OF BEVERLY HILLS, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON THE MAP RECORDED IN BOOK 11 PAGE 94 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, LYING NORTHEASTERLY OF AND ADJACENT TO LOT 3 IN BLOCK 2 OF SAID BEVERLY, THAT WOULD PASS WITH A LEGAL CONVEYANCE OF SAID LOT.

PARCEL 3:
THAT PORTION OF THE NORTHEASTERLY HALF OF THE ALLEY (20 FEET WIDE), IN BLOCK 2 OF BEVERLY, IN THE CITY OF BEVERLY HILLS, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON THE MAP RECORDED IN BOOK 11 PAGE 94 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, LYING SOUTHWESTERLY OF AND ADJACENT TO LOTS 22, 23 AND 24 IN BLOCK 2 OF SAID BEVERLY, THAT WOULD PASS WITH A LEGAL CONVEYANCE OF SAID LOTS.

LEGAL DESCRIPTION
T. REPORT CA-FBSC-IMP-72306-1-18-00085879

THE LAND REFERRED TO HEREIN BELOW IS SITUATED I THE CITY OF BEVERLY HILLS, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

LOT 3 IN BLOCK 2 OF BEVERLY, IN THE CITY OF BEVERLY HILLS, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11 PAGE 94 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

SCHEDULE B ITEMS

BASED UPON TITLE REPORT NO. CA-FBSC-IMP-72306-1-18-00085879, DATED MARCH 19, 2018 AS PREPARED BY FIDELITY NATIONAL TITLE COMPANY.

A.– PROPERTY TAXES **(NOT PLOTTED, NOT SURVEY RELATED)**.

B.– PROPERTY TAXES **(NOT PLOTTED, NOT SURVEY RELATED)**.

C.– THE HEREIN DESCRIBED PROPERTY LIES WITHIN THE BOUNDARIES OF A MELLO-ROSS COMMUNITY FACILITIES DISTRICT **(NOT PLOTTED, NOT SURVEY RELATED)**.

D.– THE LIEN OF SUPPLEMENTAL TAXES **(NOT PLOTTED, NOT SURVEY RELATED)**.

1.– WATER RIGHTS, CLAIMS OR TITLE TO WATER, WHETHER OR NOT DISCLOSED BY THE PUBLIC RECORDS.

2.– A COMMUNITY OIL AND GAS LEASE FOR THE TERM THEREIN PROVIDED, EXECUTED BY THE PARTIES HEREIN NAMED, AND OTHER PARTIES AS OWNERS OF OTHER LANDS DESCRIBED IN SAID LEASE, WITH CERTAIN COVENANTS, CONDITIONS AND PROVISIONS, TOGETHER WITH EASEMENT, IF ANY AS SET FORTH SEPTEMBER 23, 1964 RECORDING NO. 3160 OFFICIAL RECORDS **(NOT PLOTTED, NOT SURVEY RELATED)**.

3.– A COMMUNITY OIL AND GAS LEASE FOR THE TERM THEREIN PROVIDED, EXECUTED BY THE PARTIES HEREIN NAMED, AND OTHER PARTIES AS OWNERS OF OTHER LANDS DESCRIBED IN SAID LEASE, WITH CERTAIN COVENANTS, CONDITIONS AND PROVISIONS, TOGETHER WITH EASEMENT, IF ANY AS SET FORTH APRIL 7, 1998 RECORDING NO. 98-563201 OFFICIAL RECORDS **(NOT PLOTTED, NOT SURVEY RELATED)**.

4.– INTENTIONALLY DELETED.

5.– INTENTIONALLY DELETED.

6.– INTENTIONALLY DELETED.

7.– INTENTIONALLY DELETED.

8.– INTENTIONALLY DELETED.

9.– INTENTIONALLY DELETED.

10.– ANY FACTS, RIGHTS, INTERESTS OR CLAIMS WHICH MAY EXIST OR ARISE BY REASON OF THE FOLLOWING FACTS DISCLOSED BY AN ALTA/NSPS SURVEY, DATED OCTOBER 24, 2017, LAST REVISED ON FEBRUARY 27, 2018, BY PASCAL R. APOTHELOZ, PLS 7734, FOR DRC ENGINEERING, INC., AS PROJECT NO. 17-509:
i. ITEM 4 IS DISCLOSED IN THE SURVEYORS NOTES AS 'BUILDING ENCROACHES 0.1' INTO THE PROPERTY LOCATED NORTHWESTERLY AND 0.2' TO 0.3' ONTO THE PROPERTY LOCATED SOUTHEASTERLY" AND AS DEPICTED ON SAID SURVEY DRAWING **(NOT PLOTTED, NOT SURVEY RELATED)**.

11.– INTENTIONALLY DELETED.

LEGAL DESCRIPTION
T. REPORT NCS-917096-ONT1

THE LAND REFERRED TO IN THIS POLICY IS DESCRIBED AS FOLLOWS:

REAL PROPERTY IN THE CITY OF BEVERLY HILLS, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

LOTS 22, 23 AND 24 IN BLOCK 2 OF BEVERLY, IN THE CITY OF BEVERLY HILLS, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11 PAGE 94 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THAT PORTION OF LOT 24 IN BLOCK 2 OF BEVERLY, IN THE CITY OF BEVERLY HILLS, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON MAP RECORDED IN BOOK 11 PAGE 94 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST NORTHERLY CORNER OF SAID LOT 24; THENCE SOUTH 50° 29' 33" WEST, ALONG THE NORTHWESTERLY LINE OF SAID LOT 24, A DISTANCE OF 112.64 FEET; THENCE SOUTH 39° 30' 27" EAST 5.00 FEET; THENCE NORTH 52° 55' 57" EAST 105.17 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE SOUTHERLY AND HAVING A RADIUS OF 10.00 FEET; THENCE NORTHEASTERLY, ALONG SAID CURVE, AN ARC DISTANCE OF 8.84 FEET TO THE NORTHEASTERLY LINE OF SAID LOT 24; THENCE NORTH 39° 31' 30" WEST, ALONG SAID NORTHEASTERLY LINE, 13.47 FEET TO THE POINT OF BEGINNING AS PER DEED RECORDED OCTOBER 30, 1987 AS INSTRUMENT NO. 87-1734961 AND AS PER FINAL ORDER OF CONDEMNATION RECORDED JULY 21, 1989 AS INSTRUMENT NO. 891168212OF OFFICIAL RECORDS.

SCHEDULE B ITEMS

BASED UPON TITLE REPORT NO. NCS-917096-ONT1, DATED NOVEMBER 6, 2018 AS PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY.

1.– GENERAL AND SPECIAL TAXES **(NOT PLOTTED, NOT SURVEY RELATED)**.

2.– GENERAL AND SPECIAL TAXES **(NOT PLOTTED, NOT SURVEY RELATED)**.

3.– THE LIEN OF SPECIAL TAX **(NOT PLOTTED, NOT SURVEY RELATED)**.

4.– THE LIEN OF SUPPLEMENTAL TAXES **(NOT PLOTTED, NOT SURVEY RELATED)**.

5.– THIS ITEM HAS BEEN INTENTIONALLY DELETED.

6.– AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSE RECORDED JANUARY 26, 1979 AS INSTRUMENT NO. 79-116365 OF OFFICIAL RECORDS **(NOT PLOTTED, DOCUMENT NOT READABLE)**.

7.– SURVEY PREPARED BY JRN CIVIL-ENGINEERS, DATED AUGUST 13, 2018, UNDER JOB NO. 17680, SHOWS THE FOLLOWING:
A) THE FACT THAT THE BUILDING LOCATED ON SAID LAND ENCROACHES ONTO THE EASEMENT IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY RECORDED JANUARY 26, 1979 AS INSTRUMENT NO. 79-116365 OF OFFICIAL RECORDS.
B) THE FACT THAT THE OVERHANGS OF THE BUILDING LOCATED ON SAID LAND EXTEND NORTHWESTERLY AND NORTHEASTERLY OF THE PROPERTY LINE ONTO THE RIGHTS OF WAY OF N. BEVERLY DRIVE AND S. SANTA MONICA BOULEVARD, WHICH OVERHANGS ARE SHOWN AS A AND B ON THE ABOVE-REFERENCED SURVEY.

8.– RIGHTS OF THE PALEY CENTER FOR MEDIA AS A TENANT ONLY UNDER UNRECORDED LEASE DATED NOVEMBER 1, 1994, THE COMPANY INSURES AGAINST LOSS ARISING IN THE EVENT SAID LEASE CONTAINS ANY RIGHTS OF FIRST REFUSAL OR OPTIONS TO PURCHASE ALL OR ANY PORTION OF THE LAND **(NOT PLOTTED, NOT SURVEY RELATED)**.

SURVEYOR'S NOTES

– THE UTILITIES SHOWN HEREON ARE BASED ON OBSERVED EVIDENCE ONLY. THIS SURVEY WOULD NOT SHOW UTILITIES COVERED BY CARS/TRUCKS OR RECENTLY PAVED ASPHALT/CONCRETE OR OVERGROWN BRUSH, TREES AND SHRUBS.

– UNLESS THIS PLAN HAS THE SEAL AND SIGNATURE OF THE SURVEYOR AND/OR ENGINEER RESPONSIBLE FOR ITS PREPARATION, THIS IS NOT AN AUTHENTIC COPY OF THE ORIGINAL SURVEY AND SHALL NOT BE DEEMED RELIABLE.

FLOOD NOTE: BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE "X" OF THE FLOOD INSURANCE RATE MAP, PANEL NO. 06037C1585F, PANEL DATED 9/26/2008. THIS PROPERTY IS NOT LOCATED IN AN AREA WHERE FLOOD HAZARDS EXIST AS DETERMINED BY FEMA. BY TELEPHONE CALL TO THE NATIONAL FLOOD INSURANCE PROGRAM (800-638-6620) WE HAVE LEARNED THIS COMMUNITY DOES CURRENTLY PARTICIPATE IN THE PROGRAM. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS ZONE AND AN ELEVATION CERTIFICATE MAY BE NEEDED TO VERIFY THIS DETERMINATION OR APPLY FOR A VARIANCE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

LEGAL DESCRIPTION
T. REPORT CA-FBCM-IMP-27306-1-18-30011459

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

LOTS 1 AND 2 IN BLOCK 2 OF BEVERLY, IN THE CITY OF BEVERLY HILLS, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11 PAGE 94 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPTING THEREFROM RIGHTS, TITLE AND INTEREST IN ALL OIL, GAS AND OTHER MINERALS IN AND UNDER THE BELOW DESCRIBED PROPERTY, EXCLUDING THEREFROM ANY SURFACE RIGHTS OF INGRESS AND EGRESS FOR THE PURPOSE OF PROSPECTING, DRILLING, AND MINING FOR AND PRODUCING THEM AND SAVING, STORING, TRANSPORTING AND PIPING THE SAME AWAY:

A. THAT PORTION OF THE RANCHO SAN JOSE DE BUENOS AYRES LYING 500 FEET FROM THE SURFACE, AS PER MAP RECORDED IN BOOK 3, PAGE 291 OF PATENTS, DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE CENTER LINE OF VETERAN AVENUE, AS SHOWN ON THE MAP OF TRACT NO. 8235, AS PER MAP RECORDED IN BOOK 114, PAGE 91 TO 93 OF MAPS, WITH A LINE PARALLEL WITH AND 50 FEET NORTH OF THE SOUTHERLY LINE OF WILSHIRE BOULEVARD AS SHOWN ON SAID TRACT NO. 8235; THENCE NORTH 72 DEGREES 19' 58" EAST 1387.80 FEET, MORE OR LESS, TO A LINE PARALLEL WITH AND DISTANT SOUTHWESTERLY 30 FEET MEASURED AT RIGHT ANGLES FROM THE SOUTHWESTERLY LINE OF LOT 1, BLOCK 18, SUBDIVISION OF RANCHO SAN JOSE DE BUENOS AYRES, AS PER MAP RECORDED IN BOOK 26, PAGE 19 MISCELLANEOUS RECORDS; THENCE SOUTHEASTERLY ALONG SAID LINE TO THE SOUTHERLY LINE OF WILSHIRE; THENCE SOUTH 72 DEGREES 19' 58" WEST ALONG SAID SOUTHERLY LINE 1387.80 FEET, MORE OR LESS, TO THE CENTER LINE OF VETERAN AVENUE AS SHOWN ON SAID TRACT 8235; THENCE NORTHWESTERLY ALONG SAID CENTER LINE 50 FEET, MORE OR LESS, TO POINT OF BEGINNING.

B. THAT PORTION OF THE SOUTHWESTERLY 10 FEET OF LOTS 11 AND 12 IN BLOCK 5 OF BEVERLY, AS PER MAP RECORDED IN BOOK 11, PAGE 94 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF LOS ANGELES COUNTY, CALIFORNIA AND LYING 500 FEET FROM THE SURFACE.

LEGAL DESCRIPTION
T.REPORT 30038006-987-987-CS7

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF BEVERLY HILLS, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

LOT 21 IN BLOCK 2 OF BEVERLY, IN THE CITY OF BEVERLY HILLS, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11, PAGE 94 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

SCHEDULE B ITEMS

BASED UPON TITLE REPORT NO. 30038006-987-987-CS7, DATED NOVEMBER 12, 2019 AS PREPARED BY FIDELITY NATIONAL TITLE INSURANCE COMPANY.

1 WATER RIGHTS, CLAIMS OR TITLE TO WATER, WHETHER OR NOT DISCLOSED BY THE PUBLIC RECORDS. **(NOT PLOTTED, NOT SURVEY RELATED)**

2 INTENTIONALLY DELETED.

3 INTENTIONALLY DELETED.

4 INTENTIONALLY DELETED.

5 INTENTIONALLY DELETED.

6 INTENTIONALLY DELETED.

7 INTENTIONALLY DELETED.

8 A DEED OF TRUST. **(NOT PLOTTED, NOT SURVEY RELATED)**

9 A DEED OF TRUST. **(NOT PLOTTED, NOT SURVEY RELATED)**

10 INTENTIONALLY DELETED.

11 A SUBSURFACE OIL AND GAS LEASE FOR THE TERM THEREIN PROVIDED, WITH CERTAIN COVENANTS, CONDITIONS AND PROVISIONS, TOGETHER WITH EASEMENTS, IF ANY, AS SET FORTH THEREIN, DISCLOSED BY DOCUMENT, ENTITLED SUBSURFACE OIL AND GAS, DATED DECEMBER 1, 1997, LESSEE STOKER RESOURCES, L.P., RECORDING NO. 98-563201 OF OFFICIAL RECORDS. **(NOT PLOTTED, NOT SURVEY RELATED)**

12 INTENTIONALLY DELETED.

13 THE EFFECT OF A DEED. **(NOT PLOTTED, NOT SURVEY RELATED)**

THE EFFECT OF A DEED. **(NOT PLOTTED, NOT SURVEY RELATED)**

14 THE EFFECT OF A DEED. **(NOT PLOTTED, NOT SURVEY RELATED)**

15 THE EFFECT OF A DEED. **(NOT PLOTTED, NOT SURVEY RELATED)**

16 THE EFFECT OF A DEED. **(NOT PLOTTED, NOT SURVEY RELATED)**

17 INTENTIONALLY DELETED.

18 ANY INVALIDITY OR DEFECT IN THE TITLE OF THE VESTEES IN THE EVENT THAT THE TRUST REFERRED TO HEREIN IS INVALID OR FAILS TO GRANT SUFFICIENT POWERS TO THE TRUSTEE(S) OR IN THE EVENT THERE IS A LACK OF COMPLIANCE WITH THE TERMS AND PROVISIONS OF THE TRUST INSTRUMENT. IF TITLE IS TO BE INSURED IN THE TRUSTEE(S) OF A TRUST, (OR IF THEIR ACT IS TO BE INSURED), THIS COMPANY WILL REQUIRE A TRUST CERTIFICATION PURSUANT TO CALIFORNIA PROBATE CODE SECTION 18100.5.
THE COMPANY RESERVES THE RIGHT TO ADD ADDITIONAL ITEMS OR MAKE FURTHER REQUIREMENTS AFTER REVIEW OF THE REQUESTED DOCUMENTATION. **(NOT PLOTTED, NOT SURVEY RELATED)**

19 ANY EASEMENTS NOT DISCLOSED BY THE PUBLIC RECORDS AS TO MATTERS AFFECTING TITLE TO REAL PROPERTY, WHETHER OR NOT SAID EASEMENTS ARE VISIBLE AND APPARENT.

20 MATTERS WHICH MAY BE DISCLOSED BY AN INSPECTION AND/OR BY A CORRECT ALTA/NSPS LAND TITLE SURVEY OF SAID LAND THAT IS SATISFACTORY TO THE COMPANY, AND/OR BY INQUIRY OF THE PARTIES IN POSSESSION THEREOF.

21 ANY RIGHTS OF THE PARTIES IN POSSESSION OF A PORTION OF, OR ALL OF, SAID LAND, WHICH RIGHTS ARE NOT DISCLOSED BY THE PUBLIC RECORDS.
THE COMPANY WILL REQUIRE, FOR REVIEW, A FULL AND COMPLETE COPY OF ANY UNRECORDED AGREEMENT, CONTRACT, LICENSE AND/OR LEASE, TOGETHER WITH ALL SUPPLEMENTS, ASSIGNMENTS AND AMENDMENTS THERETO, BEFORE ISSUING ANY POLICY OF TITLE INSURANCE WITHOUT EXCEPTING THIS ITEM FROM COVERAGE.
THE COMPANY RESERVES THE RIGHT TO EXCEPT ADDITIONAL ITEMS AND/OR MAKE ADDITIONAL REQUIREMENTS AFTER REVIEWING SAID DOCUMENTS.

MONUMENT NOTES	
MON.#	DESCRIPTION
M100	FD SPIKE & WASHER, L.S. 5411 PER PWFB 1316/1201-1202
M116	FD SPIKE & WASHER, L.S. 5411 PER PWFB 1316/1201-1202
M117	FD SPIKE & WASHER, L.S. 5411 PER PWFB 1316/1201-1202
M120	FD SPIKE & WASHER, L.S. 5411 PER PWFB 1316/1201-1202
M142	FD PUNCHED DISK IN WELL MON. PER PWFB 1316/1201-1202
M1129	FD SPIKE & WASHER, L.S. 6385 PER PWFB 1316/1201-1202
M2768	FD SPIKE & WASHER, L.S. 5411 PER PWFB 1316/1201-1202

CONTROL POINTS				
CP#	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP101	4906.40'	5077.04'	263.68'	FD S/X
CP1112	5238.09'	5385.58'	265.15'	SET MAGN NAIL
CP1123	5040.52'	5086.16'	265.39'	FD SPIKE AND WASHER
CP1130	5159.17'	5141.60'	267.00'	SET MAGN NAIL

REVISIONS			
NO.	DATE	REVISIONS	BY
0	12/10/19	SUBMITTAL	VG

UTILITY STATEMENT

BURIED UTILITIES AND/OR PIPELINES SHOWN HEREON ARE PER VISIBLE AND APPARENT SURFACE EVIDENCE, RECORD DRAWINGS OF THE CONSTRUCTED UTILITY LINES OBTAINED FROM RELIABLE AND RESPONSIBLE SOURCES NOT CONNECTED WITH CALVADA SURVEYING, INC. OR MARKINGS PROVIDED BY AN INDEPENDENT LOCATING CONTRACTOR. NO GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED, IS MADE AS TO THE ACCURACY OR THOROUGHNESS OF SUCH INFORMATION. IF MORE ACCURATE LOCATIONS OF UNDERGROUND UTILITIES OR PIPE LINES ARE REQUIRED, THE UTILITY OR PIPELINE WILL HAVE TO BE VERIFIED BY FIELD POTHOLING. CALVADA SURVEYING, INC. AND THE SURVEYOR OF RECORD SHALL NOT BE HELD LIABLE FOR THE LOCATION OF OR THE FAILURE TO NOTE THE LOCATION OF NON-VISIBLE UTILITIES OR PIPELINES.

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TWO WORKING DAYS BEFORE YOU DIG

PREPARED FOR

Kimley-Horn
660 S. FIGUEROA ST., SUITE 2050
LOS ANGELES, CA 90017
PHONE: (213) 261-4057

BASIS OF BEARINGS

THE BEARINGS SHOWN HEREON ARE BASED UPON THE CENTERLINE OF SANTA MONICA BOULEVARD, BEING N50°30'37"E PER CORNER RECORD, PWFB 1316-1202

SITE INFORMATION

SITE ADDRESS: 449 N. BEVERLY DR.
BEVERLY HILLS, CA 90210

TOTAL GROUND FLOOR AREA OF BUILDINGS: 39,851 SQ. FT.

PARKING COUNT: 17 REGULAR PARKING STALLS
3 HANDICAP PARKING STALLS
20 TOTAL PARKING STALLS

ASSESSOR'S PARCEL NOS.:	PROPERTY AREA:
4343-016-001	0.350 AC. OR 15,285 SQ. FT.
4343-016-002	0.175 AC. OR 7,644 SQ. FT.
4343-016-023	0.506 AC. OR 22,050 SQ. FT.
4343-016-019	0.175 AC. OR 7,226
ALLEY (NO APN)	0.069 AC. OR 3,001 SQ. FT.
	1.276 AC. OR 55,206 SQ. FT.

SURVEYOR OF RECORD

FIELD COMPLETION DATE: NOVEMBER 19, 2019

LICENSED LAND SURVEYOR Armando D. DuPont L.S. 7780 Exp. 12-31-21 STATE OF CALIFORNIA

Armando D. DuPont
Registration No. 7780

CALVADA SURVEYING, INC.
411 Jenks Cir., Suite 205, Corona, CA 92880
Phone: 951-280-9960 Fax: 951-280-9746
Toll Free: 800-CALVADA www.calvada.com
EST. 1989 JOB NO. 19656

SHEET 1 OF 2

Figure 5

FEFFER GEOLOGICAL CONSULTING

CROSS SECTION A-A'

JB: 2387-85 NAME: 456, 468 N. Rodeo Dr. LLC, 449, 461 N. Beverly Dr. LLC BY: AG

DATE: 3/5/20 SCALE: 1"=10' SITE: 456, 468 N. Rodeo Dr., 449, 461 N. Beverly Dr.

REF: TOPOGRAPHY FROM LA COUNTY GIS VIEWER

EXPLANATION

- **B-1** CONTINUOUS BORING LOCATION (ADDRESS GIVEN)
- **GB-1** GEOTECHNICAL BORING LOCATION
- **CPT-7** CPT SOUNDING LOCATION (468 N. RODEO DR.)
- **C-8** CPT SOUNDING LOCATION (456 N. RODEO DR.)
- **Af** ARTIFICIAL FILL
- **Qal** HOLOCENE ALLUVIUM
- **Qoa** PLEISTOCENE ALLUVIUM
- 50 GROUND WATER DEPTH

SLEEVE FRICTION / CONE RESISTANCE

Depth

10 tsf 400

A

A'

340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160

PROPOSED NINE-STORY HOTEL
OVER THREE SUBTERRANEAN LEVELS

Existing Structure
(450 N. Rodeo Drive)

456 N. Rodeo Drive

468 N. Rodeo Drive

Santa Monica Blvd.

B-1 (449 N. Beverly)

B-2 C-5 (456 N. Rodeo)

C-6

GB-1 C-7

B-1 C-8 (456 N. Rodeo)

CPT-1

CPT-2

GB-2 CPT-3

B-1 CPT-4 (468 N. Rodeo)

CPT-5

CPT-6

CPT-7

B-2 (468 N. Rodeo)

Artificial Fill (Af)

Holocene Alluvium (Qal)

Pleistocene Alluvium (Qoa)

PROPOSED MAT FOUNDATION

Figure 6

PFEFFER	CROSS SECTION B-B'
	456, 468 N. Rodeo Dr. LLC
JB: 2387-85	NAME: 449, 461 N. Beverly Dr. LLC BY: AG
	456, 468 N. Rodeo Dr.
DATE: 3/5/20	SCALE: 1"=1/2" SITE: 449, 461 N. Beverly Dr.
REF:	TOPOGRAPHY FROM LA COUNTY GIS VIEWER

SLEEVE FRICTION CONE RESISTANCE

Depth

10 tsf 400

EXPLANATION

B-1 CONTINUOUS BORING LOCATION (ADDRESS GIVEN)
GB-1 GEOTECHNICAL BORING LOCATION
CPT-7 CPT SOUNDING LOCATION (468 N. RODEO DR.)
Af ARTIFICIAL FILL
Qal HOLOCENE ALLUVIUM
Qoa PLEISTOCENE ALLUVIUM

B

B'

340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160

PROPOSED NINE-STORY HOTEL
OVER THREE SUBTERRANEAN LEVELS

Existing Structure
(456 N. Rodeo Drive)

Existing Structure
(461 N. Beverly Drive)

Alley

N. Rodeo Drive

N. Beverly Drive

B-1
(456 N. Rodeo)

CPT-1

B-3
(461 N. Beverly)

Artificial Fill (Af)

Holocene Alluvium (Qal)

PROPOSED MAT FOUNDATION

Pleistocene Alluvium (Qoa)

Figure 7

Modified from Plate 3 - FER 259 (CGS, 2018)

FAULTS RECOMMENDED FOR ZONING

EXPLANATION

- fault, approximately located
- fault, certain
- fault, concealed
- fault, inferred
- fault, inferred, queried
- Recommended Alquist-Priolo Earthquake Fault Zones
- Existing Alquist-Priolo Earthquake Fault Zones

FEFFER GEOLOGICAL CONSULTING

Santa Monica Fault

Subject Site

1" = 750'

N

Hollywood Fault

Hollywood Quadrangle

Subject Site

Santa Monica Fault

Newport-Inglewood Fault

Topanga Quadrangle

Beverly Hills Quadrangle

0 1,500 3,000 4,500 6,000 Feet

APPENDIX 'A'

Boring Logs

LOG OF EXPLORATORY BORING

Job Number: 2335-94
Project: 456,468 N. Rodeo & 449, 461 N. Beverly Dr.

Boring No: GB-1
Boring Location: See Site Map

Date Performed: 7/16/2019

Drill Type: 8” Hollow Stem Auger

Depth in Feet	Blows per 6”	Sample Type: Undisturbed	Sample Type: Bulk	Bedrock/ Soil Description	Color	Density	Moisture
				Artificial Fill (Af): Silty sand containing asphalt and concrete fragements			
5	5/6/7	R		Sandy clay with silt, few scattered gravels			
				Holocene Alluvium (Qal):			
10	3/5/5	R		Fine to medium sand with scattered rounded to sub rounded medium to coarse gravels	Brown	Weak	Slightly Moist
15	4/8/16	R		Sandy clay with silt, fine grained sand, few fine sub angular gravels	Light Brown	Moderately Hard	Slightly Moist
20	3/6/7	R		No significant change			
25	8/14/17	R		Fine to coarse sand with scattered gravels, slightly oxidized, poorly sorted rounded to angular gravels	Light Brown	Hard	Slightly Moist
				Pleistocene Older Alluvium (Qoa):			
30	14/18/20	R		Clayey sand/ sandy clay, abundant fine to medium gravels, moderately well sorted, scattered CaCO3	Light Brown, Yellowish Brown	Very Hard	Slightly Moist
35	12/18/25/6”	R		Silty clay with sand, very well sorted, slightly oxidized	Brown	Very Hard	Slightly Moist
40	10/12/13	R		Medium to coarse grained sand with clay, poorly sorted rounded to sub rounded gravels	Brown	Moderately Hard	Moist

LOG OF EXPLORATORY BORING

Job Number: 2335-94
Project: 456,468 N. Rodeo & 449, 461 N. Beverly Dr.

Boring No: GB-1
Boring Location: See Site Map

Date Performed: 7/16/2019

Drill Type: 8” Hollow Stem Auger

Depth in Feet	Blows per 6”	Sample Type: Undisturbed	Sample Type: Bulk	Bedrock/ Soil Description	Color	Density	Moisture
40	10/12/13	R		Medium to coarse grained sand with clay, poorly sorted rounded to sub rounded gravels	Brown	Moderately Hard	Moist
45	13/30/15	R		Sandy silt/ silty sand with clay, well sorted, few scattered rounded fine gravels	Brown	Hard	Moist
50	14/24/43	R	▼	Medium to coarse sand, poorly sorted sub angular to sub rounded gravels, groundwater encountered at 50’	Light Brown	Hard	Wet
55	16/27/38	R		Coarse sand with abundant sub rounded to sub angular gravels, oxidized, poorly sorted	Brown	Moderately Hard	Wet
60	20/30/36	R		Coarse grained clayey sand, abundant sub rounded to sub angular scattered gravels	Dark Brown	Hard	Wet
65	6/12/22	R		Silty clay with sand, scattered medium grained gravels, slightly oxidized, possible confining GW layer	Brown	Hard	Slightly Moist
70	7/10/16	R		Silty clay with sand, few fine gravels, mottled coloring, slightly oxidized	Dark Brown	Hard	Slightly Moist
75	17/50/3”	R		Sandy clay, few scattered angular coarse gravels, moderately well sorted	Brown	Soft	Moist
80	12/18/27	R		Sandy clay with silt, few scattered gravels	Brown	Very Hard	Slightly Moist

LOG OF EXPLORATORY BORING

Job Number: 2335-94
Project: 456,468 N. Rodeo & 449, 461 N. Beverly Dr.

Boring No: GB-1
Boring Location: See Site Map

Date Performed: 7/16/2019

Drill Type: 8” Hollow Stem Auger

Depth in Feet	Blows per 6”	Sample Type: Undisturbed	Sample Type: Bulk	Bedrock/ Soil Description	Color	Density	Moisture
80	12/18/27	R		Sandy clay with silt, few scattered gravels	Brown	Very Hard	Slightly Moist
85	15/50/6”	R		Clayey sand with silt, moderately well sorted, scattered fine gravels, slightly oxidized	Brown	Hard	Moist
90	7/29/40	R		Sandy clay with silt, scattered gravels, moderately weathered, poorly sorted	Brown	Hard	Moist
95	19/50/6”	R		Fine to coarse sand, moderately well sorted, sub angular to sub rounded medium gravels	Light Brown	Hard	Moist to Wet
100	12/25/40	R		Silty sand with clay, well sorted	Brown	Moderately Hard	Slightly Moist
				End at 100’, Groundwater at 50’			
105							
110							
115							
120							

LOG OF EXPLORATORY BORING

Job Number: 2335-94
Project: 456,468 N. Rodeo & 449, 461 N. Beverly Dr.

Boring No: GB-2
Boring Location: See Site Map

Date Performed: 7/17/2019

Drill Type: 8” Hollow Stem Auger

Notes: Percolation well set to 40’ total depth. Slotted pipe installed in lower 10’. Lower 10’ of well backfilled with 3/4” crush gravel and capped with bentonite chips. Remaining portion backfilled with drilling spoils

Depth in Feet	Blows per 6”	Sample Type: Undisturbed	Sample Type: Bulk	Bedrock/ Soil Description	Color	Density	Moisture
				Artificial Fill (Af):			
5	6/4/5	SPT		Sandy clay with silt, scattered gravels			
10	5/8/12	R		**Holocene Alluvium (Qal):** Sandy clay with silt, scattered gravels and brick fragments			
15	5/7/10	SPT		Silty clay with sand, very well sorted, minor CaCO3, fine grained, massive	Brown	Soft	Slightly Moist
20	6/6/10	R		Sandy clay with silt, well sorted, few fine scattered gravels	Light Brown	Moderately Weak	Slightly Moist
25	5/7/7	SPT		Clayey sand/Sandy clay, poorly sorted, fine to medium gravels, slightly oxidized, minor CaCO3,	Brown	Weak	Moist
30	4/4/10	R		**Pleistocene Older Alluvium (Qoa):** Clayey sand with fine to coarse sub rounded to sub angular gravel, abundant CaCO3 nodules, poorly sorted, massive	Strong Brown	Hard	Slightly Moist
35	10/10/17	SPT		Sandy clay, fine grained, well sorted, thinly laminated, mottled coloring	Brown & Gray Brown	Hard	Slightly Moist
40	16/20/25	R		Sandy clay with gravel, poorly sorted, slighlty oxidized, medium to coarse sub angular to sub rounded gravels, minor CaCO3	Brown & Yellow Brown	Hard	Slightly Moist

LOG OF EXPLORATORY BORING

Job Number: 2335-94
Project: 456,468 N. Rodeo & 449, 461 N. Beverly Dr.

Boring No: GB-2
Boring Location: See Site Map

Date Performed: 7/17/2019

Drill Type: 8” Hollow Stem Auger

Depth in Feet	Blows per 6”	Sample Type: Undisturbed	Sample Type: Bulk	Bedrock/ Soil Description	Color	Density	Moisture
40	16/20/25	R		Sandy clay with gravel, poorly sorted, slighlty oxidized, medium to coarse sub angular to sub rounded gravels, minor CaCO3	Brown & Yellow Brown	Hard	Slightly Moist
45	10/17/17	SPT		Sandy clay, very well sorted, fine grained sand, trace CaCO3, few scattered gravels, slightly oxidized	Brown & Black	Soft/Weak	Moist
				Clayey sand with coarse gravels, poorly sroted, trace CaCO3, sub angular to sub rounded gravels	Brown	Weak to Slightly Hard	Slightly Moist
50	17/21/44	R		**End at 50’, No Groundwater**			
55							
60							
65							
70							
75							
80							

456 N. Rodeo Drive

Boring Logs

LOG OF EXPLORATORY BORING

Job Number: 2176-85
Project: 456 N. Rodeo Drive

Boring No: B-1
Boring Location: See Site Map

Date Performed: 7/11/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
0	1			**0-7.8’:** Fill - Silty sand, scattered concrete and asphalt fragments Hand augered upper 5’ due to utilities	Brown	Medium Dense	Af
5	2	5/5					Af
				Holocene Alluvium (Qal1) **7.8-10’:** Clayey sand, massive, slightly well oxidized, medium to coarse grained, moderately sticky and plastic, poorly sorted sand, common thin and few moderately thick clay films	Brown 7.5 YR 4/3	Hard, friable	Bt
10						Slightly Hard, friable	C
	3	3.7 /5		**10-12.7’:** Silty sand with clay, massive, slightly well oxidized, medium to coarse grained, slightly sticky, moderately plastic, few fine to medium slate gravels, few to common thin clay films	Brown 7.5 YR 5/3	Slightly Hard, friable	BC
				Holocene Alluvium (Qal2) **12.7-23.5’:** Clayey sand, massive, slightly well oxidized, fine to medium grained moderately well sorted sand, moderate to very sticky, very plastic, few localized fine $CaCO_3$ nodules, common thin and very few moderately thick clay films	Brown 7.5 YR 5/4	Hard, firm	2Bt
15	4	5/5					
20							

LOG OF EXPLORATORY BORING

Job Number: 2176-85
Project: 456 N. Rodeo Drive

Boring No: B-1
Boring Location: See Site Map

Date Performed: 7/11/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
20				**12.7-23.5’:** Clayey sand, massive, slightly well oxidized, fine to medium grained moderately well sorted sand, moderate to very sticky, very plastic, few localized fine $CaCO_3$ nodules, common thin and very few moderately thick clay films	Brown 7.5 YR 5/4	Hard, firm	2Bt
	5	4/5					
				23.5-25’: Silty sand with clay, massive, slightly well oxidized, coarse grained poorly sorted sand, common clay stains, slightly sticky, non-plastic	Brown 7.5 YR 5/4	Slightly Hard, friable	2BC
25				**25-27.7’:** Silty sand, massive, coarse grained poorly sorted sand, non-sticky, non-plastic	Brown 7.5 YR 5/3	Soft, friable	2C
	6	3.5 /5		**Pleistocene Older Alluvium (Qoa1)**			
				27.7 -30’: Clayey sand, massive, moderately well oxidized, slight organics, medium grained, moderately well sorted sand, common thin clay films, very sticky, very plastic	Reddish Brown 5 YR 4/3	Very Hard, firm	$3Bt_1$
30				**30-32.8’:** Sandy clay with gravel, massive, moderately well oxidized, coarse grained, poorly sorted sand, with common fine to medium highly weathered gravels, many thin and common moderately thick clay films	Reddish Brown 5 YR 4/4	Very Hard, friable	$3Bt_2$
	7	5/5		**Pleistocene Older Alluvium (Qoa2)**			
				32.8-39.5’: Clayey silt with sand - silty clay, moist, moderately oxidized, becoming fine to medium grained silty sand with clay, containing few scattered medium gravels	Strong Brown 7.5 YR 5/6	Very Hard, firm	4Bt
35							
	8	5/5					
40				**39.5-42.9’:** Becomes medium to coarse sand with scattered gravels, slightly moist	Brown 7.5 YR 5/4	Soft, friable	4BC

LOG OF EXPLORATORY BORING

Job Number: 2176-85
Project: 456 N. Rodeo Drive

Boring No: B-1
Boring Location: See Site Map

Date Performed: 7/11/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
40				**39.5-42.9’:** Becomes medium to coarse sand with scattered gravels, slightly moist	Brown 7.5 YR 5/4	Soft, friable	4BC
	9	3.3 /5		**42.9-46’:** Clayey sand, massive, moderately oxidized, fine to medium grained moderately well sorted sand, very sticky, very plastic, many thin and common moderately thick clay films	Brown 7.5 YR 4/4	Very hard, friable	5Bt
45				**46-47.2’:** Silty sand with gravel, massive, slightly well oxidized, slightly sticky, non-plastic, coarse grained poorly sorted sand common to many fine to medium, highly weathered slate gravel	Brown 7.5 YR 4/3	Slightly hard, friable	5BC
	10	4/5		**Pleistocene Older Alluvium (Qoa3)** **47.2-48’:** Silty sand with clay, massive, moderately well oxidized, highly truncated, medium to coarse grained poorly sorted sand, with few fine to medium gravels, few to common thin and few moderately thick clay films	Strong Brown 7.5 YR 4/6	Very hard, firm	6Bt
				48’: Silty sand with gravel, slightly oxidized, massive, coarse grained, with many fine to medium subangular and highly weathered gravel, non-sticky, non-plastic	Brown 7.5 YR 5/3	Hard, friable	6BC
50				End at 50, Fill to 7.8’, No Water, No Caving			
55							
60							

LOG OF EXPLORATORY BORING

Job Number: 2176-85
Project: 456 N. Rodeo Drive

Boring No: B-2
Boring Location: See Site Map

Date Performed: 7/11/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
0	1			**0-7.2’:** Fill - Silty sand, scattered concrete and asphalt fragments Hand augered upper 5’ due to utilities	Brown	Medium Dense	Af
5	2	5/5					Af
				Holocene Alluvium (Qal1) **7.2-10.2’:** Silty sand with clay, massive, slight organics, moderately sticky, very plastic, medium to coarse grained poorly sorted sand, common thin and few moderately thick clay films	Brown 7.5 YR 4/4	Hard, firm	Bt
10						Slightly Hard, friable	C
	3	3.9 /5		**10.2-12.5’:** Silty sand with clay, massive, medium to coarse grained poorly sorted sand, slightly well oxidized, few fine gravels, few thin clay films, slightly sticky, slightly plastic	Brown 7.5 YR 5/4	Slightly Hard, friable	BC
				Holocene Alluvium (Qal2) **12.5-22.2’:** Clayey sand, massive, medium grained moderately well sorted sand, very sticky, very plastic, slightly well oxidized	Brown 7.5 YR 4/3-4	Hard, firm	2Bt
15	4	5/5					
20							

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Figure

LOG OF EXPLORATORY BORING

Job Number: 2176-85
Project: 456 N. Rodeo Drive

Boring No: B-2
Boring Location: See Site Map

Date Performed: 7/11/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
20				**12.5-22.2’:** Clayey sand, massive, medium grained moderately well sorted sand, very sticky, very plastic, slightly well oxidized	Brown 7.5 YR 4/3-4	Hard, firm	2Bt
	5	4.5 /5		**22.2-25’:** Silty sand with clay, massive, moderately well oxidized slightly sticky, slightly plastic, coarse grained poorly sorted sand, few fine to medium slate gravels, common thin clay films	Brown 7.5 YR 4/3	Slightly Hard, friable	2BC
25				**25-26.7’:** Silty sand with gravel, massive, slightly well oxidized, coarse grained poorly sorted sand with common fine to medium gravel, non-sticky, non-plastic	Brown 7.5 YR 5/3	Soft, very friable	2C
	6	2.9 /5		**Pleistocene Older Alluvium (Qoa1)** **26.7-28’:** Clayey sand, massive, moderately oxidized, slight organics, medium grained, common thin and few moderately thick clay films	Reddish Brown 5 YR 4/3	Very Hard, firm	$3Bt_1$
				28-33’: Clayey sand with gravel, massive, moderately oxidized, coarse grained poorly sorted sand, common to many fine to medium slate rich gravels, moderately sticky, moderately plastic	Reddish Brown 5 YR 4/4	Very Hard, friable	$3Bt_2$
30	7	5/5		**Pleistocene Older Alluvium (Qoa2)** **33-39.7’:** Sandy clay, massive, faintly mottled, moderately well oxidized, fine to medium grained, moderately well sorted sand	Strong Brown 7.5 YR 4/4	Very Hard, firm	4Bt
35	8	5/5					
40				See Next Page	Brown 7.5 YR 5/4	Slightly Hard, friable	4BC

LOG OF EXPLORATORY BORING

Job Number: 2176-85
Project: 456 N. Rodeo Drive

Boring No: B-2
Boring Location: See Site Map

Date Performed: 7/11/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
40				**39.7-41.5’:** Silty sand with gravel, crudely stratified, coarse grained poorly sorted sand with common to many fine to medium gravels, non to slightly sticky, non-plastic, few clay stains on gravel	Brown 7.5 YR 5/4	Slightly Hard, friable	4BC
	9	3.4 /5		**41.5-45’:** Clayey sand, massive, moderately well oxidized, fine grained well sorted sand, moderately sticky, very plastic, common thin and few moderately thick clay films	Strong Brown 7.5 YR 4/6	Very hard, friable	5Bt
45				**Pleistocene Older Alluvium (Qoa3)** **45-47.5’:** Sandy clay, massive, moderately well oxidized, slight organics, medium to coarse grained poorly sorted sand with few fine to medium gravels, common thin clay films and common moderately thick clay films	Reddish Brown 5 YR 4/4	Very hard, firm	6Bt
	10	3.6 /5		**47.5’:** Silty sand with gravel, crudely stratified, coarse grained poorly sorted sand, slightly well oxidized, common to many fine to medium gravel, sub angular and highly weathered	Brown 7.5 YR 5/4	Hard, friable	5BC
50				End at 50, Fill to 7.2’, No Water, No Caving			
55							
60							

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Figure

468 N. Rodeo Drive

Boring Logs

LOG OF EXPLORATORY BORING

Job Number: 2188-85
Project: 468 N. Rodeo Drive

Boring No: CB-1
Boring Location: See Site Map

Date Performed: 7/30/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
0	1			**0-7.5’:** Fill - Silty sand, scattered concrete and asphalt fragments Hand augered upper 7’ due to utilities	Brown	Medium Dense	Af
5	2	3/3		**Holocene Alluvium (Qal1)** **7.5-10.5’:** Clayey sand, massive, moderate to very sticky, very plastic, medium to coarse grained, poorly sorted, common thin and fine moderately thick clay films with basal scour, of sand with silt	Brown 7.5 YR 4/3	Hard, friable	Af Bt
10						Slightly Hard, friable	C
	3	3.6 /5		**10.5-13.3’:** Silty sand with clay, slightly sticky, moderately plastic, medium to coarse grained, poorly sorted sand, slightly to well oxidized, few common thin clay films	Brown 7.5 YR 5/4	Slightly Hard, friable	BC
15	4	5/5		**Holocene Alluvium (Qal2)** **13.3’:** Sandy clay, clayey sand, very sticky, very plastic, medium to coarse grained, poorly sorted sand, common $CaCO_3$ veinlets, many thin and few moderately thick clay films	Brown 7.5 YR 5/4	Hard, firm	2Bt
20							

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Figure

LOG OF EXPLORATORY BORING

Job Number: 2188-85
Project: 468 N. Rodeo Drive

Boring No: CB-1
Boring Location: See Site Map

Date Performed: 7/30/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
20	5	4.3 /5		**13.3-24’:** Sandy clay, clayey sand, very sticky, very plastic, medium to coarse grained, poorly sorted sand, common $CaCO_3$ veinlets, many thin and few moderately thick clay films	Brown 7.5 YR 5/4	Hard to firm	2Bt
25				**24-26.5’:** Silty sand with clay and gravel, massive to crudely stratified, slightly to moderately sticky, slightly plastic, coarse grained, poorly sorted sand, common fine to medium gravel, few to common thin clay films,	Brown 7.5 YR 5/3	Soft, very friable	2BC
	6	4/5		**Pleistocene Older Alluvium (Qoa1)** **26.5-28’:** Clayey sand, massive, moderately well oxidized, med. - coarse grained sand, very sticky, very plastic, slight organics, common thin and few moderately thick clay films	Reddish Brown 5 YR 4/3	Firm to Very Hard	$3Bt_1$
30				**28-33.5’:** Clayey sand with gravel, massive, moderately well oxidized, coarse grained, poorly sorted sand with common to many thin and common moderately thick clay films	Reddish Brown 5 YR 4/4	Very Hard, friable	$3Bt_2$
	7	5/5		**Pleistocene Older Alluvium (Qoa2)** **33.5-42.5’:** Sandy clay, massive, faintly mottled, very sticky and very plastic, moderately well oxidized, medium grained, moderately well sorted sand	Brown 7.5 YR 5/4	Very Hard, firm	4Bt
35	8	5/5					
40							

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Figure

LOG OF EXPLORATORY BORING

Job Number: 2188-85
Project: 468 N. Rodeo Drive

Boring No: CB-1
Boring Location: See Site Map

Date Performed: 7/30/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
40				**33.5-42.5’:** Sandy clay, massive, faintly mottled, very sticky and very plastic, moderately well oxidized, medium grained, moderately well sorted sand	Brown 7.5 YR 5/4	Very Hard, firm	4Bt
	9	4.2 /5		**42.5-43.7’:** Silty sand with clay, massive, moderately well oxidized, coarse grained poorly sorted sand with common thin clay films, few fine to medium sub rounded slate gravels, slightly sticky, non to slightly plastic	Brown 7.5 YR 5/4	Slightly hard, friable	4BC
				Pleistocene Older Alluvium (Qoa3)	Strong Brown 7.5 YR 5/6	Very hard, firm	5Bt
45				**43.7-48.2’:** Sandy clay, massive, moderately well oxidized, fine grained well sorted sand, plugged with clay, many thin common moderately thick clay films, very sticky, very plastic			
	10	4.6 /5		**48.2’:** Silty sand with gravel, crudely stratified, slightly well oxidized, coarse grained poorly sorted sand, non to slightly sticky, non plastic, with common fine to medium slate gravels	Brown 7.5 YR 5/4	Soft, very friable	5BC
50				End at 50, Fill to 7.5’, No Water, No Caving			
55							
60							

LOG OF EXPLORATORY BORING

Job Number: 2188-85
Project: 468 N. Rodeo Drive

Boring No: CB-2
Boring Location: See Site Map

Date Performed: 7/31/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
0	1			**0-7.3’:** Fill - Silty sand, scattered concrete and asphalt fragments Hand augered upper 7’ due to utilities	Brown	Medium Dense	Af
5	2	2.8 /3		**Holocene Alluvium (Qal1)** **7.3-10.3’:** Silty sand with clay, massive, slightly to moderately sticky, slightly plastic, medium grained moderately well-sorted sand, slightly well oxidized, common fine clay films (7.5 YR 4/4), basal scour at top of run 2.	Brown 7.5 YR 4/3	Slightly Hard, friable	Af Bt C
10	3	4.9 /5		**10.3- 13.1’:** Silty sand, massive, slightly sticky, moderately to slightly plastic, medium grained moderately well-sorted sand, moderately well oxidized, few fine clay films (7.5 YR 4/4), sand scour deposit	Brown 7.5 YR 5/4	Slightly Hard, friable	BC
15	4	4.9 /5		**Holocene Alluvium (Qal2)** **13.5-23.2’:** Clayey sand grades to sandy clay with depth, massive, very sticky, very plastic, fine grained well-sorted sand, slightly well oxidized, plugged with clay	Brown 7.5 YR 4/2	Hard, firm	2Bt
20							

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Figure

LOG OF EXPLORATORY BORING

Job Number: 2188-85
Project: 468 N. Rodeo Drive

Boring No: CB-2
Boring Location: See Site Map

Date Performed: 7/31/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
20				**13.5-23.2’:** Clayey sand grades to sandy clay with depth, massive, very sticky, very plastic, fine grained well-sorted sand, slightly well oxidized, plugged with clay	Brown 7.5 YR 4/2	Hard to firm	2Bt
	5	3.6 /5					
				23.2-26.8’: Silty sand, massive, crudely stratified, slightly sticky, non-plastic, coarse grained with common fine and medium gravels	Brown 7.5 YR 5/4	Slightly hard, very friable	2BC
25							
				Pleistocene Older Alluvium (Qoa1)			
	6	2.7 /5		**26.8-28.2’:** Sandy clay with silt, massive, fine grained, very sticky, very plastic, slight organics	Reddish Brown 5 YR 4/3	Firm to Very Hard	$3Bt_1$
				28.2-33’: Clayey sand with gravel, massive, very sticky, very plastic	Reddish Brown 5 YR 4/4	Very Hard, friable	$3Bt_2$
30							
	7	4.3 /5		**33-35’:** Coarse grained to poorly sorted sand, scattered gravel, fine grained sand, plugged with clay			
35				**Pleistocene Older Alluvium (Qoa2)**			
	8	5/5		**34.8-39.4’:** Sandy clay, massive, very hard, very sticky, very plastic, fine grained well-sorted sand, moderately well oxidized, plugged with clay	Brown 7.5 YR 5/4	Very Hard, firm	4Bt
40				**39.4-41.8’: See next page**	Brown 7.5 YR 4/3	Hard, friable	4BC

LOG OF EXPLORATORY BORING

Job Number: 2188-85
Project: 468 N. Rodeo Drive

Boring No: CB-2
Boring Location: See Site Map

Date Performed: 7/31/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
40				**39.4-41.8’:** Silty sand with clay and gravel, stratified, slightly sticky, non to slightly plastic, coarse grained, poorly sorted sand, slightly well oxidized, common clay films	Brown 7.5 YR 4/3	Hard, friable	4BC
	9	4.2 /5		**41.8-42.8’:** Clayey sand, massive, moderately well oxidized, fine grained well-sorted sand, moderately sticky, moderately plastic, few moderately thick clay films	Brown 7.5 YR 5/4	Very Hard, friable	5Bt
				42.8-45’: Silty sand with gravel, massive, slightly well oxidized, coarse grained, poorly sorted sand, with common fine and medium gravel, slightly sticky, non plastic, common clay stains	Brown 7.5 YR 5/3	Slightly Hard, very friable	5BC
45				**Pleistocene Older Alluvium (Qoa3)** **45-46’:** Sandy clay, massive, very hard, moderately well oxidized, fine grained, very sticky, very plastic, plugged with clay	Brown 7.5 YR 5/4	Very Hard, firm	6Bt
	10	4.1 /5		**46-50’:** Silty sand with gravel, crudely stratified, slightly sticky, slightly plastic, slightly well oxidized, coarse grained with common fine and medium gravel	Brown 7.5 YR 5/3	Slightly Hard, very friable	6BC
50				End at 50, Fill to 7.3’, No Water, No Caving			
55							
60							

Feffer Geological Consulting

Figure

461 N. Beverly Drive

Boring Logs

LOG OF EXPLORATORY BORING

Job Number: 2196-85
Project: 461 N. Beverly Drive

Boring No: B-1
Boring Location: See Site Map

Date Performed: 8/27/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
0	1			**0-8’ Fill:** Silty sand with gravel (Upper 7’ hand augered due to utilities)	Red Brown	Friable, Hard	Af
5	2	3/3		**Holocene Alluvium (Qal 1)** **8-11’:** Silty sand, massive, slight organics, slightly sticky, non to slightly plastic, coarse grained, few fine gravels, common clay stains, slightly moist	10 YR 5/3 (Brown)	Sl. Hard, Friable	Bw
10	3	2.9 /5		**11-12.5’:** Silty sand with gravel, massive, slightly oxidized, non to slightly sticky, non plastic, medium to coarse grained sand with common fine and medium sandstone gravel	10 YR 6/3 (Pale Brown)	Soft, Friable	BC
				12.5-15’: Silty sand with clay, massive, slightly oxidized, slightly to moderately sticky, slightly plastic, medium grained, moderately well sorted, few thin clay films	10 YR 6/4 (Light Yellow Brown)	Hard, Friable	2Bw
15	4	4.8 /5		**Holocene Alluvium (Qal 2)** **15-18.6’:** Sandy clay/ clayey silt with sand, moist, moderately to very sticky, very plastic, fine to medium grained, common thin clay films, **18.6-19.8’:** Cumulic soil, fine gravels, slightly oxidized, few fine CaCO3 nodules	7.5 YR 5/3 (Lt. Brown to Brown)	Hard to Very Hard, Firm	3Bt Cumulic
20							

LOG OF EXPLORATORY BORING

Job Number: 2196-85
Project: 461 N. Beverly Drive

Boring No: B-1
Boring Location: See Site Map

Date Performed: 8/27/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
20				**15-24’:** Sandy clay/ clayey silt with sand, moist, moderately to very sticky, very plastic, fine to medium grained, common thin clay films	7.5 YR 5/3 (Lt. Brown to Brown)	Hard to Very Hard, Firm	3Bt
	5	4.6 /5					
				24-25.5’: Silty sand with gravel, slightly well oxidized, massive, slightly sticky, slightly plastic, coarse sand with scattered angular to sub rounded gravels	7.5 YR 5/4 (Brown)	Hard, Friable	3BC
25				**25.5-27.7’:** Clayey sand, fine to medium grained, slightly oxidized, scattered gravels	7.5 YR 4/4 (Brown)	Hard, Firm	4Bt
	6	4.2 /5		**Pleistocene Older Alluvium (Qoa 1)** **27.7-28.4’:** Clayey sand, fine to medium grained, moderately well oxidized, scattered angular gravels, slightly moist, common thin clay films	5 YR 4/3 (Reddish Brown)	Slightly Hard	5AB
				28.4-33’: Sandy clay, massive, very sticky, very plastic, coarse sand with abundant angular weathered slate fragments, oxidized, CaCO3 nodules, slightly moist, common thin and moderately thick clay films	5 YR 5/4 (Reddish Brown)	Very Hard, Friable	5Bt1
30	7	5/5		**33-34.3’:** Silty sand with clay and gravel, massive, slightly well oxidized, slightly sticky, slightly plastic, common fine and medium sub angular gravel, locally faint gleying, thin clay films	7.5 YR 5/4 (Brown)	Hard, Friable	5Bt2
				Pleistocene Older Alluvium (Qoa 2) **34.3-35’:** Clayey silt/sand, fewer gravels, fine to medium grained, oxidized, slightly moist, very sticky, very plastic, common thin and thick clay films	7.5 YR 4/4 (Brown)	Very Hard, Firm	6Bt1
35				**35-36.5’:** Clayey sand with abundant angular gravels, oxidized, slightly moist, medium to coarse grains, very sticky to very plastic, scattered angular to sub rounded gravels, mottling localized yellow to gray and brown, slightly moist	7.5 YR 4/4 (Brown)	Very Hard, Friable	6Bt2
	8	5/5					
40							

LOG OF EXPLORATORY BORING

Job Number: 2196-85
Project: 461 N. Beverly Drive

Boring No: B-1
Boring Location: See Site Map

Date Performed: 8/27/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
40				**35-43.1’:** Clayey sand with abundant angular gravels, oxidized, slightly moist, medium to coarse grains, very sticky to very plastic, scattered angular to sub rounded gravels, mottling localized yellow to gray and brown, slightly moist	7.5 YR 4/4 (Brown)	Very Hard, Friable	6Bt2
	9	5/5					
				43.1-48.4’: Silty sand with clay and gravel, coarse sand with gravles, angular to sub angular, oxidized, weakly stratified, slightly dry, granitic and slate gravels, slightly sticky, slightly plastic, crude laminations ~1’ thick spaced 1.5-2” apart	7.5 YR 5/4 (Brown)	Hard, Friable	6BC lam
45							
	10	4/5					
				Pleistocene Older Alluvium (Qoa 3) **48.4-49’:** Sandy clay with gravel, well oxidized, moist, very sticky, very plastic, medium grained, common moderately thick and thin clay films	5 YR 4/3 (Reddish Brown)	Very Hard, Dense	7Bt
50				End at 50, Fill to 7’, No Water, No Caving			
55							
60							

LOG OF EXPLORATORY BORING

Job Number: 2196-85
Project: 461 N. Beverly Drive

Boring No: B-2
Boring Location: See Site Map

Date Performed: 8/28/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
0	1			**0-7.8’:** Sandy silt with clay, few scattered pebbles, roots, slightly moist	Brown	Dense	Af
5	2	3.9 /5		**Holocene Alluvium (Qal 1)** **7.8-10’:** Silty sand with gravel, medium to coarse grained, slightly sticky, non plastic, massive, few clay stains, slightly oxidized	10YR 5/3 (Brown)	Slightly Hard	Bw
10				**10-10.5’:** Silty sand with gravel, coarse sand, common scattered gravels, sub angular to sub rounded, non sticky, non plastic	10 YR 6/3 (Pale Light Brown)	Soft, Very Friable	BC
	3	4.3 /5		**10.5-15’:** Silty sand, massive, slight organics, slightly sticky, slightly massive, few medium to coarse grained gravels, slightly moist, CaCO3, root casts, common clay stains	10 YR 5/3 (Brown)	Slightly Hard, Friable	2Bw
15	4	5/5		**Holocene Alluvium (Qal 2)** **15’:** Silty sand with clay, massive, scattered weathered sandstone and slate gravel, medium to coarse grained, slightly moist, slightly well oxidized, clay lenses, moderately sticky, moderately plastic, few to common thin clay films	10 YR 5/4 (Yellow Brown)	Hard, Very Hard, Friable	3Bt
20							

LOG OF EXPLORATORY BORING

Job Number: 2196-85
Project: 461 N. Beverly Drive

Boring No: B-2
Boring Location: See Site Map

Date Performed: 8/28/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
20				**Holocene Alluvium (Qal 2)** **15-24’:** Silty sand with clay, massive, scattered weathered sandstone and slate gravel, medium to coarse grained, slightly moist, slightly well oxidized, clay lenses, moderately sticky, moderately plastic, few to common thin clay films **22.4’:** Becomes coarse sand with clay, scattered angular slate gravels, slightly moist	10 YR 5/4 (Yellow Brown)	Hard, Very Hard, Friable	3Bt
	5	4.3 /5		**24-26.6’:** Silty sand, massive, non to slightly sticky, non plastic, medium to coarse sand with rounded, to sub angular gravels and pebbles, oxidized, fining upward, poorly sorted	10 YR 5/6 (Yellow Brown)	Slightly Hard to Soft, Friable	3BC/C Scour
25				**Pleistocene Older Alluvium (Qoa 1)** **26.6-27’:** Sandy clay with silt, medium sand, very plastic, massive, very sticky, moderately well oxidized	5 YR 4/3 (Reddish Brown)	Hard to Very Hard, Firm	4AB
	6	3.4 /5		**27-31.2’:** Sandy clay, massive, very sticky, very plastic, common fine to moderately thick clay films, coarse sand with few gravels, CaCO3	5 YR 5/4 (Reddish Brown)	Friable, Very Hard	4Bt
30				**31.2-32.7’:** Silty sand with clay, coarse sand with clay, few slate gravels, slightly sticky, slightly plastic, common fine clay films	5 Yr 4/4 (Mottled Gray, Brown)	Friable, Slightly Hard	4Bt2
	7	4.9 /5		**Pleistocene Older Alluvium (Qoa 2)** **32.7’:** Clayey sand to sandy clay, massive, moderately well oxidized, very sticky, very plastic, medium to coarse grained, common thin and few to common moderately thick clay films **39.6’:** Gravelly, slightly oxidized, slightly moist	7.5 YR 5/4-5/6 (Strong Brown)	Hard to Very Hard	5Bt1 Cumulic
35							
	8	5/5					
40							

LOG OF EXPLORATORY BORING

Job Number: 2196-85
Project: 461 N. Beverly Drive

Boring No: B-2
Boring Location: See Site Map

Date Performed: 8/28/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
40				**32.7-42’:** Clayey sand to sandy clay, massive, moderately well oxidized, very sticky, very plastic, medium to coarse grained, common thin and few to common moderately thick clay films	7.5 YR 5/4-5/6 (Strong Brown)	Hard to Very Hard	5Bt1
	9	4.2 /5		**42-44.2’:** Silty sand with clay, coarse sand, weakly stratified, slightly oxidized, poorly sorted, immature, slightly to moderately sticky, slightly plastic, few thin clay films	7.5 YR 5/4 (Brown)	Hard, Friable	5BC lam
45				**Pleistocene Older Alluvium (Qoa 3)** **44.2-46’:** Sandy clay, medium grained, slightly moist, massive, moderately sticky, moderately plastic	7.5 YR 4/6 (Brown)	Very Hard, Firm	6Bt
	10	2.7 /5		**46’:** Silty sand with many gravels, weakly stratified, oxidation stains, non sticky, non plastic	10 YR 6/3 (Pale Brown)	Soft, Very Friable	6BC
50				End at 50, Fill to 7.8’, No Water, No Caving			
55							
60							

LOG OF EXPLORATORY BORING

Job Number: 2196-85
Project: 461 N. Beverly Drive

Boring No: B-3
Boring Location: See Site Map

Date Performed: 8/28/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
0	1	3/5		**0-7.2’:** Fine to medium sand with scattered slate fragments, slightly moist, oxidized	Red Brown	Hard	Af
5	2	2.6 /5		**Holocene Alluvium (Qal 1)** **7.2-10’:** Silty sand with clay, massive, medium grained with few fine to medium gravels, slightly to moderately sticky, slightly plastic, few clay stains	10 YR 5/4 (Brown)	Slightly Hard, Friable	Bw
10				**10-10.5’:** Silty sand, slightly sticky, non plastic, fine sand with few scattered rounded pebbles, slightly moist, oxidized	10 YR 6/4 (Pale Brown)	Soft, Friable	BC
	3	4.7 /5		**10.5-15’:** Silty sand with clay, massive, medium grained, minor CaCO3, few scattered angular slate fragments, moderately sticky, moderately plastic, slightly well oxidized, few thin clay films	10 YR 4/6 (Dark Yellow Brown)	Hard, Friable	2Bw
15	4	4.7 /5		**Holocene Alluvium (Qal 2)** **15’:** Clayey sand, minor CaCO3, slightly moist, minor scattered gravels, medium to coarse sand and few fine angular gravels, moderately well oxidized, common thin and few moderately thick clay films	7.5 YR 5/4-6 (Strong Brown)	Hard, Firm to Friable	3Bt Cumulic
20							

LOG OF EXPLORATORY BORING

Job Number: 2196-85
Project: 461 N. Beverly Drive

Boring No: B-3
Boring Location: See Site Map

Date Performed: 8/28/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
20				**15-23’:** Clayey sand, minor CaCO3, slightly moist, minor scattered gravels, medium to coarse sand and few fine angular gravel, moderately well oxidized, common thin and few moderately thick clay films	7.5 YR 5/4-6 (Strong Brown)	Hard, Firm to Friable	3Bt
	5	5/5		**23-25.6’:** Fine to coarse sand with gravels, oxidation stains, CaCO3 present, weathered gravels, moderately sticky, moderately plastic, few clay stains	7.5 YR 5/4 (Brown)	Slightly Hard, Friable	3BC
25				**Pleistocene Older Alluvium (Qoa 1)** **25.6-28.5’:** Clayey sand with silt, fine to medium sand, with few scattered pebbles, massive, well oxidized, moist, very sticky, very plastic	5 YR 4/4 (Red Brown)	Slightly Hard, Firm	4AB
	6	4.8 /5		**28.5-31.5’:** Sandy clay, medium to coarse sand, slightly moist, well oxidized, poorly sorted angular to sub angular gravels, very sticky, very plastic, common thin and moderately thick clay films	5 YR 5/4 (Red Brown)	Very Hard, Friable	4Bt1
30							
	7	5/5		**31.5-35’:** Sandy clay, well oxidized, massive, very sticky, slightly moist, medium to coarse grained, poorly sorted, very plastic, common thin and moderately thick clay films	5 YR 4/4 (Red Brown)	Hard, Very Hard, Friable	4Bt2
35				**Pleistocene Older Alluvium (Qoa 2)** **35’:** Sandy clay to clayey sand, slightly well oxidized, massive, slight organics, very sticky, very plastic, medium grained, common thin and few moderately thick clay films	7.5 YR 4/3 (Brown)	Hard, Frim	5bt1 Cumulic
	8	5/5		**37.7-40’:** Fine to medium sand, with angular to sub rounded gravels			
40							

LOG OF EXPLORATORY BORING

Job Number: 2196-85
Project: 461 N. Beverly Drive

Boring No: B-3
Boring Location: See Site Map

Date Performed: 8/28/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
40				**Pleistocene Older Alluvium (Qoa 2)** **35-41.8’:** Sandy clay to clayey sand, slightly well oxidized, massive, slight organics, very sticky, very plastic, medium grained, common thin and few moderately thick clay films	7.5 YR 4/3 (Brown)	Hard, Firm	5bt1
	9	2.7 /5		**35-41.8’:** Silty sand with gravel, crudely stratified, coarse grained with common to many fine to medium slate gravels, non to slightly sticky, non plastic, slightly moist	10 YR 6/3 (Pale Brown)	Soft, Very Friable	
45							5 BC/C Scour
	10	2/5					
50				End at 50, Fill to 7.2’, No Water, No Caving			
55							
60							

LOG OF EXPLORATORY BORING

Job Number: 2196-85
Project: 461 N. Beverly Drive

Boring No: B-4
Boring Location: See Site Map

Date Performed: 8/29/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
0	1	3.7 /5		**0-6.9’:** Fine to medium sand with gravel, asphalt and concrete fragments, poorly sorted	Light Brown	Medium Dense	Af
5	2	2.7 /5		**Holocene Alluvium (Qal 1)** **6.9-10’:** Silty sand with angular slate fragments, fine to medium grained, slightly moist, rootlets, coarse grained sand, slightly well oxidized, massive, slightly sticky, slightly plastic, common clay stains	10 YR 5/6 (Yellow Brown)	Slightly Hard, Friable	Bw
10	3	4.7 /5		**10-15’:** Fine to medium silty sand with clay, few angular gravels, moderately well sorted to poorly sorted, angular to sub rounded gravel, slightly moist, slightly oxidized, slightly to moderately sticky, slightly plastic, few fine clay films	10 YR 5/4 (Yellow Brown)	Slightly Hard, Friable	2Bw
15	4	4.5 /5		**Holocene Alluvium (Qal 2)** **15-22.5’:** Clayey sand/ sandy clay, fine to medium, slightly well oxidized, scattered angular to rounded and massive pebbles, clay lense, CaCO3 throughout, poorly sorted, moderate to very sticky, very plastic, few to common thin clay films	7.5 YR 4/3 (Brown)	Hard, Friable	3Bt
20							

LOG OF EXPLORATORY BORING

Job Number: 2196-85
Project: 461 N. Beverly Drive

Boring No: B-4
Boring Location: See Site Map

Date Performed: 8/29/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
20				**15-22.5’:** Clayey sand/ sandy clay, fine to medium, slightly well oxidized, scattered angular to rounded and massive pebbles, clay lense, CaCO3 throughout, poorly sorted, moderate to very sticky, very plastic, few to common thin clay films	7.5 YR 4/3 (Brown)	Hard, Friable	3Bt
	5	3.7 /5		**22.5-25’:** Silty sand with clay, massive, slightly well oxidized, common clay stains, slightly sticky, slightly plastic, medium to coarse grains, moderately immature angular gravels, minor CaCO3	7.5 YR 5/4 (Brown)	Slightly Hard, Friable	3BC
25				**Pleistocene Older Alluvium (Qoa 1)** **25-26.5’:** Clayey sand with silt, fine to medium grained, massive, slight organics, moderately well sorted, very sticky and plastic	5 YR 4/4 (Reddish Brown)	Slightly Hard, Firm	4AB
	6	4.1 /5		**26.5-34’:** Clayey sand, coarse grained, scattered angular gravels moderately well oxidized, poorly sorted, slightly moist, massive, very sticky and plastic, common fine and moderately thick clay films	5 YR 5/4 (Reddish Brown)	Very Hard, Friable	4Bt
30	7	4.8 /5					
35				**Pleistocene Older Alluvium (Qoa 2)** **34’:** Sandy clay, very sticky, very plastic, with medium sands well sorted, mature, slightly moist, many thin to thick clay bands, scattered angular slate fragments, minor oxidation, few to moderately thick and common thin clay films	7.5 YR 5/4 (Brown)	Hard	5Bt Cumulic
	8	3.3 /5					
40							

LOG OF EXPLORATORY BORING

Job Number: 2196-85
Project: 461 N. Beverly Drive

Boring No: B-4
Boring Location: See Site Map

Date Performed: 8/29/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
40				**40-41’:** Silty sand, crudely stratified, non to slightly sticky, non plastic, coarse grained, common fine to medium slate rich gravel few clay stains	7.5 YR 5/3 (Brown)	Soft, Friable	5BC
	9	2.4 /5		**Pleistocene Older Alluvium (Qoa 3)** **41-46.1’:** Sandy clay to clayey sand, massive, slightly well oxidized, coarse grained, very sticky, very plastic, common thin and moderately thick clay films, truncated or inset soil	7.5 YR 4/6 (Strong Brown)	Hard, Firm to Friable	6Bt
45				**46.1-48’:** Silty sand, massive, slightly oxidized, coarse grained, slightly sticky, non to slightly plastic, few fine to medium slate gravels, scour deposit	10 YR 6/3 (Pale Brown)	Soft, Friable	6BC
	10	3.3 /5		**48’:** Sandy clay, massive, moderately well oxidized, medium grained, very sticky, very plastic, faintly gleyed, common to many thin and moderately thick clay films	7.5 YR 4/4 (Brown)	Very Hard, Friable	7Bt
50				End at 50, Fill to 6.9’, No Water, No Caving			
55							
60							

LOG OF EXPLORATORY BORING

Job Number: 2196-85
Project: 461 N. Beverly Drive

Boring No: B-5
Boring Location: See Site Map

Date Performed: 8/29/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
0	1	2.3 /3		**0-8.2’:** Medium sand with clay, scattered asphalt and concrete fragments	Dark Brown	Dense	Af
5	2	4.8 /5		**Holocene Alluvium (Qal 1)** **8.2-10.8’:**Silty sand, with few to common gravels, poorly sorted, slightly oxidized, slightly sticky, slightly plastic, common clay stains	10 YR 6/4 (Light Yellow Brown)	Slightly Hard, Friable	Bw
10	3	4.7 /5		**10.8-14.5’:** Silty sand with clay, scattered pebbles, sightly oxidized, moderately well sorted, minor CaCO3, massive, slightly to moderately sticky, slightly plastic, few thin clay films	10 YR 5/4 (Yellow Brown)	Hard to Slightly Hard, Friable	2Bw
15	4	4.8 /5		**Holocene Alluvium (Qal 2)** **14.5-21.5’:** Clayey sand, massive, medium to coarse grained, slightly well oxidized, few poorly sorted angular gravels, moderately to very sticky, very plastic, common thin and few moderately thick clay films	7.5 YR 5/4 (Brown)	Hard, Friable	3Bt Cumulic
20							

LOG OF EXPLORATORY BORING

Job Number: 2196-85
Project: 461 N. Beverly Drive

Boring No: B-5
Boring Location: See Site Map

Date Performed: 8/29/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
20				**14.5-21.5’:** Clayey sand, massive, medium to coarse grained, slightly well oxidized, few poorly sorted angular gravels, moderately to very sticky, very plastic, common thin and few moderately thick clay films	7.5 YR 5/4 (Brown)	Hard, Friable	3Bt
	5	4.7 /5		**21.5-24.5’:** Silty sand with clay, massive, poorly sorted, immature angular to sub angular gravels, slightly to moderately sticky, slightly plastic, common clay stains, slightly moist	7.5 YR 5/4 (Brown)	Slightly Hard to Hard, Friable	3BC
25				**Pleistocene Older Alluvium (Qoa 1)** **24.5-26.7’:** Clayey sand with silt, fine to medium sand with clay, massive, few rounded to sub angular gravels, poorly sorted, slight organics, moderately to very sticky, very plastic	5 YR 4/4 (Red Brown)	Hard, Firm	4AB
	6	4.1 /5		**26.7-33.2’:** Clayey sand, abundant angular to sub rounded gravels, poorly sorted, highly weathered granite and slate fragments, very sticky, very plastic, common thin and moderately thick clay films, slightly moist	5 YR 5/4 (Red Brown)	Very Hard, Friable	4Bt
30	**7**	5/5					
				Pleistocene Older Alluvium (Qoa 2) **33.2-40.2’:** Clayey sand/sandy clay, medium grained, few rounded to sub rounded gravels, minor oxidation, slightly moist, moderately well oxidized, very sticky and plastic, common thin and few moderately thick clay films	7.5 YR 4/4 (Brown)	Hard to Very Hard, Friable to Firm	5Bt
35	**8**	4.7 /5					
40							

LOG OF EXPLORATORY BORING

Job Number: 2196-85
Project: 461 N. Beverly Drive

Boring No: B-5
Boring Location: See Site Map

Date Performed: 8/29/18

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
40							5Bt
				40.2-41.4’: Silty sand with gravel, coarse grained, crudely stratified, slightly well oxidized, non to slightly sticky, non plastic, common fine slate gravels	7.5 YR 5/4 (Brown)	Soft, Friable	5Bc
				Pleistocene Older Alluvium (Qoa 3)			
	9	4/5		**41.4-46.7’:** Sandy clay, few scattered weathered gravels, slightly oxidized, very sticky, very plastic, common fine and few moderately thick clay films, slightly moist	7.5 YR 5/6 (Strong Brown)	Very Hard, Friable to Firm	6Bt
45							
				46.7-47.8’: Silty sand with gravel, crudely stratified, coarse gravels, poorly sorted, immature, oxidized, slightly moist	7.5 Yr 5/3 (Brown)	Soft, Very Friable	6BC
	10	4/5		**47.8’:** Clay with fine to medium sands, few scattered pebbles, massive, moderately well oxidized, very sticky, very plastic, common to many thin and common moderately thick clay films	7.5 YR 5/6 (Brown)	Very Hard, Friable to Firm	7Bt
50				End at 50, Fill to 8.2’, No Water, No Caving			
55							
60							

449 N. Beverly Drive

Boring Logs

LOG OF EXPLORATORY BORING

Job Number: 2387-95
Project: 449 N. Beverly Drive

Boring No: FB-1
Boring Location: See Site Map

Date Performed: 12/2/19

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
0	1			**Artificial Fill** **0-7.4’:** Silty sand, scattered concrete and asphalt fragments Hand augered upper 5’ due to utilities	Brown	Medium Dense	Af
5	2	4.2 /5					Af
				Holocene Alluvium (Qal1) **7.4’:** Sandy clay with silt, moist, few fine gravels, slightly oxidized, fine grained well sorted sand, slight organics, few fine CaCO3 veinlets, few fine clay films on ped faces	Yellow Brown 10 YR 5/4	Very Hard	Bt
10				**10’:** Silty sand with very minor clay, fine to medium grained sand, slightly moist, large basalt cobble, clay stains on clasts	Pale Brown 10 YR 6/3	Soft	BC
	3	3.7 /5		**Holocene Alluvium (Qal2)** **10.9’:** Fine to medium sand with clay, few fine gravels, moderately well sorted, slightly weathered, common CaCO3 veinlets present, slightly moist, mica rich	Brown 7.5 YR 5/4	Hard	
15				**15’:** Clayey sand with silt, fine grained, few fine gravels, slightly oxidized, moderately well sorted, slightly moist			2Bt1
	4	3.6 /5		**16.3’:** Sandy clay with few fine medium gravels, slightly oxidized trace CaCO3, very few think clay films on ped faces and common clay stains, slightly moist	Brown 10 YR 5/3	Hard	
20							

Feffer Geological Consulting

Figure

LOG OF EXPLORATORY BORING

Job Number: 2387-95
Project: 449 N. Beverly Drive

Boring No: FB-1
Boring Location: See Site Map

Date Performed: 12/2/19

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
20				**20’:** Silty sand with clay, scattered poorly sorted medium grained gravels, slightly oxidized, slightly moist	Brown 10 YR 5/3	Hard	2Bt1
	5	4.1 /5		**21.2’:** Medium to coarse sandy clay, poorly sorted, crudely stratified, slightly weathered, gravels angular to sub-angular, minor carbonates, slightly moist, gravels consisting of weathered slate and granite, very few fine clay films on ped faces, slighlty well oxidized	Brown 7.5 YR 5/3	Hard	2Bt2
				23.5’: Fine to coarse grained sand with trace clay binders, weakly bedded to crudely stratified, poorly sorted, slightly oxidized, moderate carbonates present, slightly moist, scoured contact	Pale Brown 10 YR 6/3 Yellow Brown 10 YR 5/4	Slightly Hard to Soft	2BC/C
25							
	6	3.3 /5		**Pleistocene Older Alluvium (Qoa1)** **27.1’:** Fine to medium sandy clay, abundant carbonates, few scattered, weathered, fine to medium grained rounded gravels, locally gleyed and highly weathered gravel, few thin clay films on ped faces and coating clasts, slightly moist	Brown 7.5 YR 5/4	Very Hard	3Bt1
30				**30’:** Fine to coarse sandy clay, abundant carbonates, moderately weathered fine to coarse grained poorly sorted sand and gravels, locally gleyed, slightly oxidized, few thin clay films coating clasts, slightly moist	Brown 7.5 YR 4/4	Very Hard	3Bt2
	7	5/5		**32.6’:** Sandy clay, moderately well sorted, gradational loss of carbonates, slightly oxidized, common clay stains on ped faces, fine to medium grained sand with few pea gravel, slightly moist	Brown 7.5 YR 5/3	Very Hard	3BC
35				**Pleistocene Older Alluvium (Qoa2)** **35.1’:** Sandy clay/clayey sand, few scattered weathered gravels, crudely stratified, oxidized, slight organics, coarse grained poorly sorted sand with common highly weathered gravel, thin few clay films common to moderately thick on ped faces and coating clasts, slightly moist	Brown 7.5 YR 4/3	Hard to Very Hard	4Bt
	8	5/5		**39’:** Sandy clay/clayey sand, abundant scattered weathered gravels, crudely stratified, oxidized, slightly moist	Brown 7.5 YR 4/3	Hard to Very Hard	4Bt2
40							

LOG OF EXPLORATORY BORING

Job Number: 2387-95
Project: 449 N. Beverly Drive

Boring No: FB-1
Boring Location: See Site Map

Date Performed: 12/2/19

Drill Type: 8” Hollow Stem / Continuous Core

Depth in Feet	Run #	Recovery Ratio	Recovery Graphic	Bedrock/ Soil Description	Color	Density	Strat/ Soil Unit
40							
	9	3.4 /5		**40’:** Fine to coarse sand, scattered weathered gravels, poorly sorted, angular to sub-angular gravels, **42.9’:** Fine grained silty clay with sand, weakly to crudely stratified, gradational loss of carbonates, slightly oxidized, slightly moist	Brown 7.5 YR 4/4	Slightly Hard to Hard	4BC
45				**Pleistocene Older Alluvium (Qoa3)** **45’:** Fine to medium grained sandy clay, scattered fine to medium gravels, crudely stratified, minor carbonates, few to common thin clay films on ped faces, oxidized, moist	Brown 7.5 YR 5/4	Hard	5Bt
	10	4.5 /5		**46.8’:** Very fine grained clayey sand with silt, few scattered gravels, moderately well sorted, moderately well oxidized, few thin clay films on ped faces, moist	Brown 7.5 YR 5/4	Very Hard	6Bt
50				End at 50’, Fill to 7.4’, No Water, No Caving			
55							
60							

APPENDIX 'B'

Laboratory Testing & Engineering

SL19.3132
August 5, 2019

Feffer Geological Consulting
1990 S. Bundy Drive
4th Floor
Los Angeles, California 90025

Attn: Joshua R. Feffer

Subject: Laboratory Testing

Site: 456 & 468 N. Rodeo Drive & 461 N. Beverly Drive
Beverly Hills, California

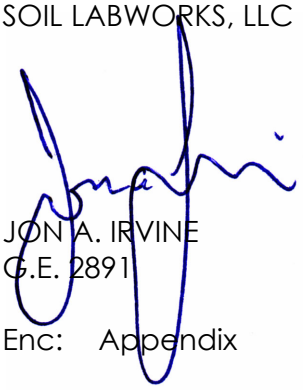
Job: FEFFER/LVMH (Louis Vuitton) – 2335-94

Laboratory testing for the subject property was performed by Soil Labworks, LLC., under the supervision of the undersigned Engineer. Samples of the earth materials were obtained from the subject property by personnel of Feffer Geological and transported to the laboratory of Soil Labworks for testing and analysis. The laboratory tests performed are described and results are attached.

Services performed by this facility for the subject property were conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions.

Respectfully Submitted:

SOIL LABWORKS, LLC



JON A. IRVINE
G.E. 2891

Enc: Appendix

2500 Townsgate Road, Suite E, Westlake Village, California 91361
(805) 370-1338 FAX (805) 371-4693

APPENDIX

Laboratory Testing

Sample Retrieval - Drill Rig

Samples of earth materials were obtained at frequent intervals by driving a thick-walled steel sampler conforming to the most recent version of ASTM D 3550/D 3550M-17 with successive drops of the Kelly bar. The earth material was retained in brass rings of 2.416 inches inside diameter and 1.00 inch height. The central portion of the sample was stored in close-fitting, water-tight containers for transportation to the laboratory.

Moisture Density

The field moisture content and dry density were determined for each of the soil samples. The dry density was determined in pounds per cubic foot following ASTM 2937-17e2. The moisture content was determined as a percentage of the dry soil weight conforming to ASTM 2216-19. The results are presented below in the following table. The percent saturation was calculated on the basis of an estimated specific gravity. Description of earth materials used in this report and shown on the attached Plates were provided by the client.

Test Pit/Boring No.	Sample Depth (Feet)	Soil Type	Dry Density (pcf)	Moisture Content (percent)	Percent Saturation (G_s=2.65)
B1	5	Fill	105.6	17.9	84
B1	10	Alluvium	110.6	4.9	86
B1	15	Alluvium	96.5	22.4	83
B1	20	Alluvium	103.1	20.5	90
B1	25	Alluvium	118.3	7.4	49
B1	30	Alluvium	114.8	16.8	100
B1	35	Alluvium	108.9	20.0	100
B1	40	Alluvium	109.8	7.9	42
B1	45	Alluvium	112.8	14.7	84
B1	50	Alluvium	125.0	12.0	98
B1	55	Alluvium	133.5	9.5	100
B1	60	Alluvium	131.3	11.1	100
B1	65	Alluvium	110.2	20.5	100
B1	70	Alluvium	103.6	23.8	100
B1	75	Alluvium	127.8	9.8	89
B1	80	Alluvium	114.3	18.2	100

Moisture Density (continued)

Test Pit/Boring No.	Sample Depth (Feet)	Soil Type	Dry Density (pcf)	Moisture Content (percent)	Percent Saturation (G_s=2.65)
B1	85	Alluvium	121.8	15.0	100
B1	90	Alluvium	114.4	16.1	96
B1	95	Alluvium	117.6	14.8	97
B1	100	Alluvium	118.6	14.5	98
B2	10	Fill	101.8	18.5	79
B2	20	Alluvium	101.7	22.6	96
B2	30	Alluvium	111.2	13.1	71
B2	40	Alluvium	108.1	18.8	94
B2	50	Alluvium	107.4	13.6	67

Compaction Character

Compaction tests were performed on bulk samples of the earth materials in accordance with ASTM D1557-12ei. The results of the tests are provided on the table below and on the "Moisture-Density Relationship", A-Plates. The specific gravity of the fill/alluvium was estimated from the compaction curves.

Test Pit/Boring No.	Sample Depth (Feet)	Soil Type	Maximum Dry Density (pcf)	Optimum Moisture Content (Percent)
B2	0-50	Fill/Alluvium	115.5	9.0

Shear Strength

The peak and ultimate shear strengths of the alluvium were determined by performing consolidated and drained direct shear tests in conformance with ASTM D3080/D3080M-11. The tests were performed in a strain-controlled machine manufactured by GeoMatic. The rate of deformation was 0.01 inches per minute. Samples were sheared under varying confining pressures, as shown on the "Shear Test Diagrams," B-Plates. The moisture conditions during testing are shown on the following table and on the B-Plates. The samples indicated as saturated were artificially saturated in the laboratory. All saturated samples were sheared under submerged conditions.

Shear Strength (continued)

Test Pit/ Boring No.	Sample Depth (Feet)	Dry Density (pcf)	As-Tested Moisture Content (percent)
B1	10	110.6	28.3
B1	20	103.1	23.3
B1	30	114.8	21.1
B1	40	109.8	19.7
B1	50	125.0	16.0
B1	60	131.3	13.5
B1	70	103.6	22.9
B1	80	114.3	17.9
B1	90	114.4	18.4
B1	100	118.6	20.5

Consolidation

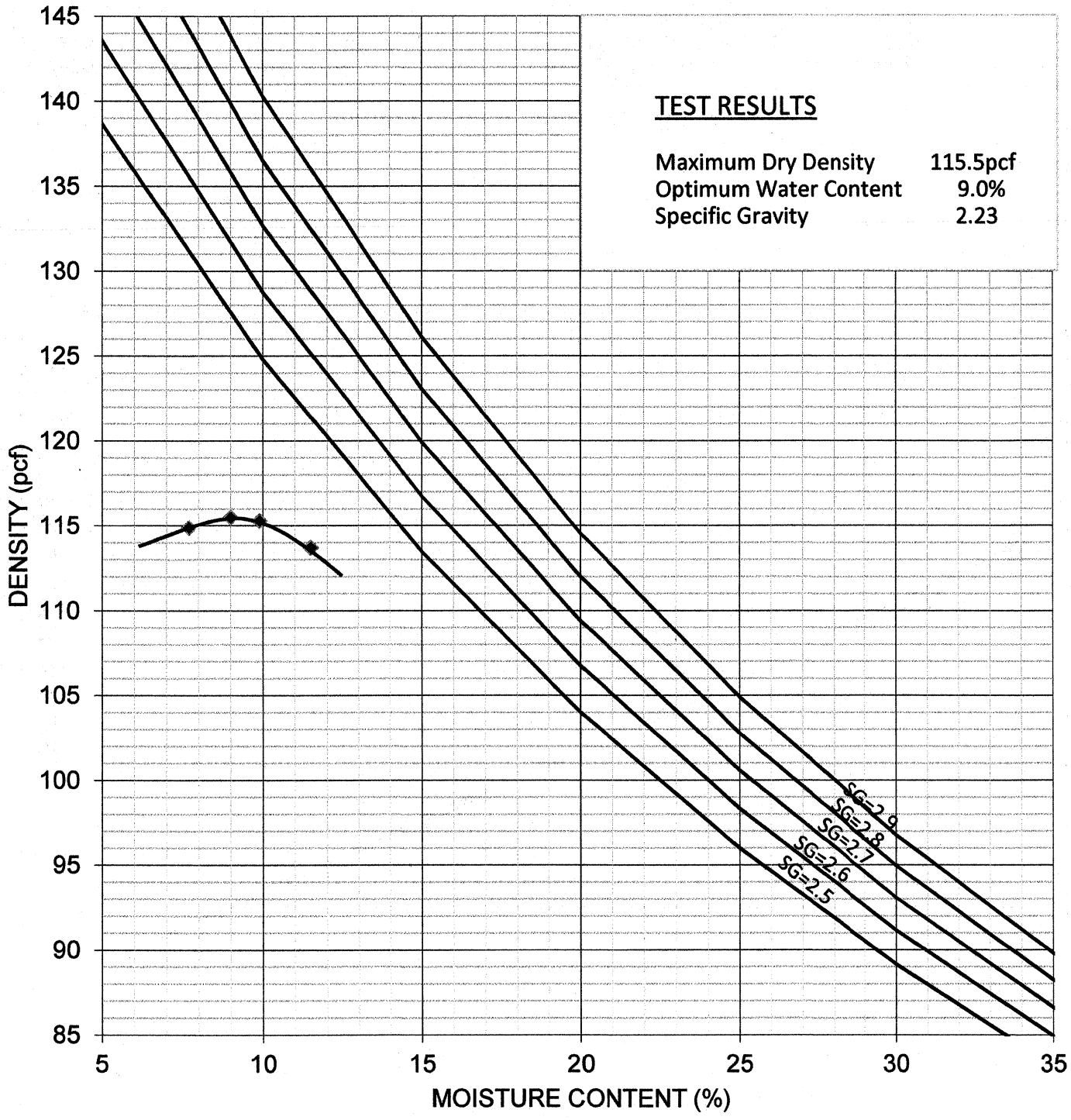
One-dimensional consolidation tests were performed on samples of the alluvium in a consolidometer manufactured by GeoMatic in conformance with ASTM D2435/D2435M-11. The tests were performed on 1-inch high samples retained in brass rings. The samples were initially loaded to approximately ½ of the field over-burden pressure and then unloaded to compensate for the effects of possible disturbance during sampling. Loads were then applied in a geometric progression and resulting deformation recorded. Water was added at a specific load to determine the effect of saturation. The results are plotted on the "Consolidation Test," C-Plates.

SOIL LABWORKS LLC

MOISTURE-DENSITY RELATIONSHIP A-1

JN: SL19.3132 CONSULTANT: JAI
CLIENT: Feffer/LVMH-456&468 Rodeo & 461 Beverly B2 @ 0-50'
EARTH MATERIAL: FILL/ALLUVIUM

NOTE: ASTM Test Method D-1557-12



SOIL LABWORKS LLC

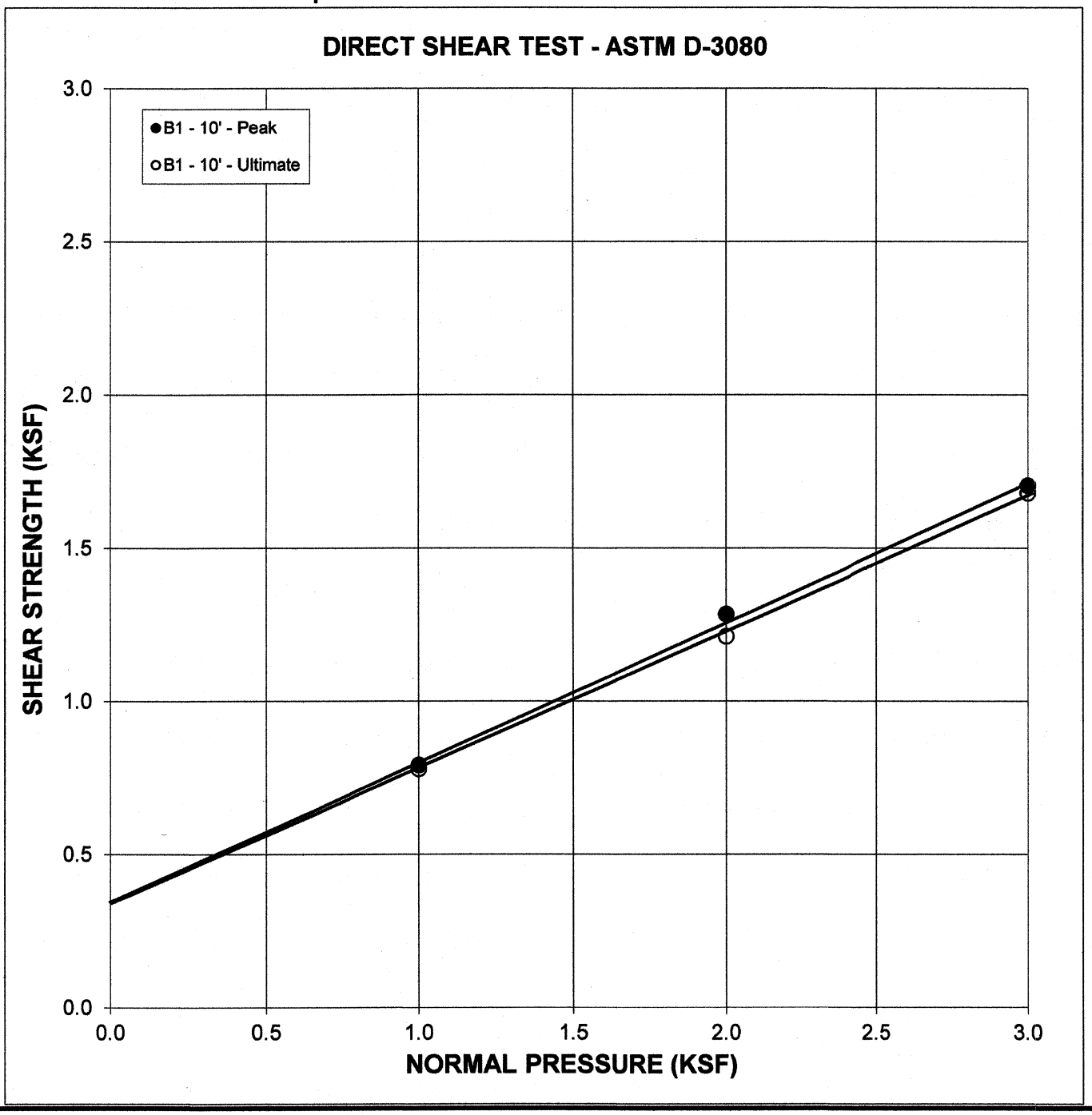
SHEAR DIAGRAM B-1

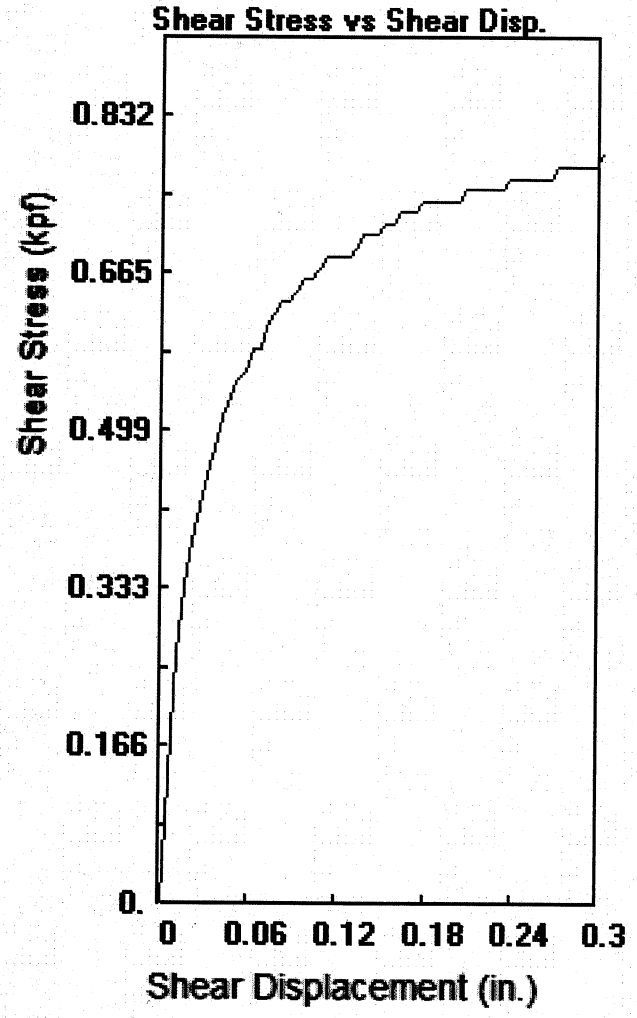
JN: SL19.3132 CONSULTANT JAI
CLIENT: Feffer/LVMH-456&468 Rodeo & 461 Beverly

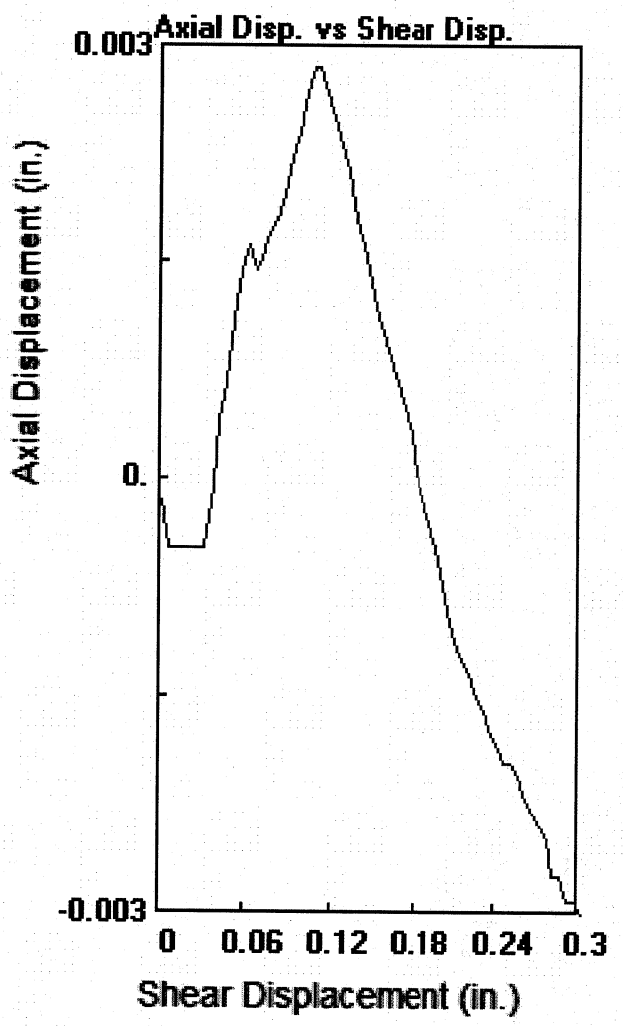
EARTH MATERIAL: ALLUVIUM

	PEAK	ULTIMATE	
Phi Angle	24	23.5	degrees
Cohesion	340	340	psf

Average Moisture Content	28.3%
Average Dry Density (pcf)	110.6
Percent Saturation	100.0%







Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 M BEVER;U DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 1

Technician: BF

Boring: B1

Axial Load: 1000 psf

Depth: 10 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1101.dat

Distance: 0.30 in.

Stress at Max Def
792 0.301

Stress at Max Disp
0.296 780

Maximum Load

792 psf

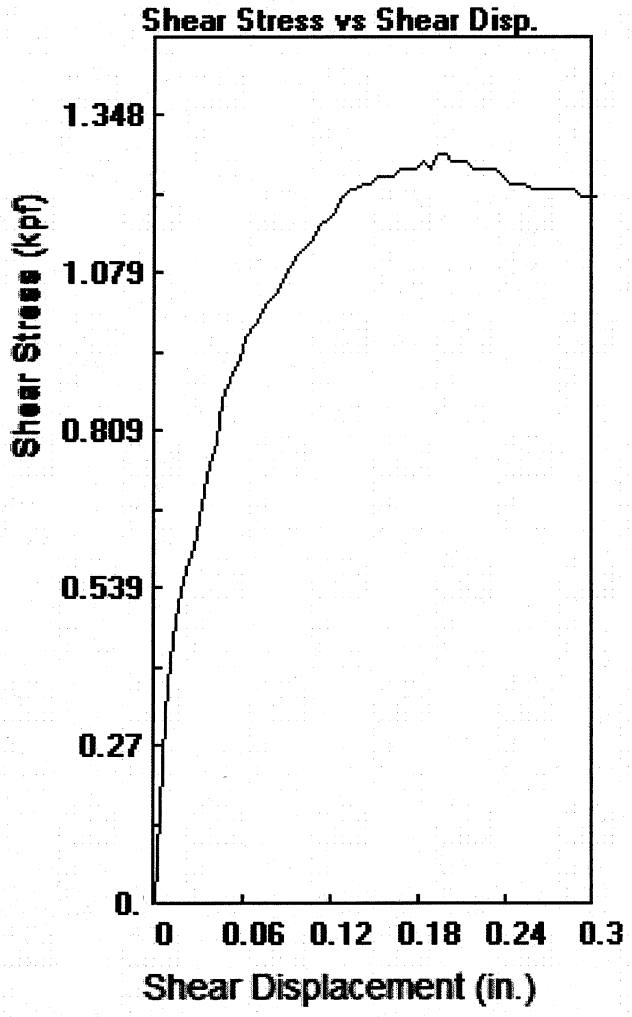
Shear Displacement at maximum Load

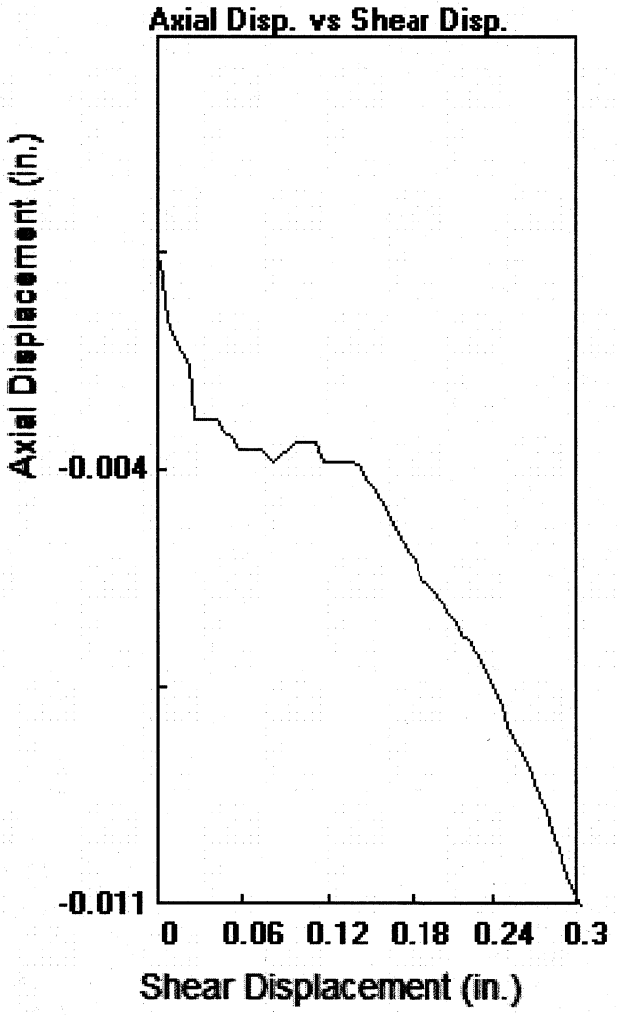
0.3006 in.

Date

8/1/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 M BEVER;U DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 2

Technician: BF

Boring: B1

Axial Load: 2000 psf

Depth: 10 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1102.dat

Distance: 0.30 in.

Stress at Max Def
1284 0.191

Stress at Max Disp
0.296 1212

Maximum Load

1284 psf

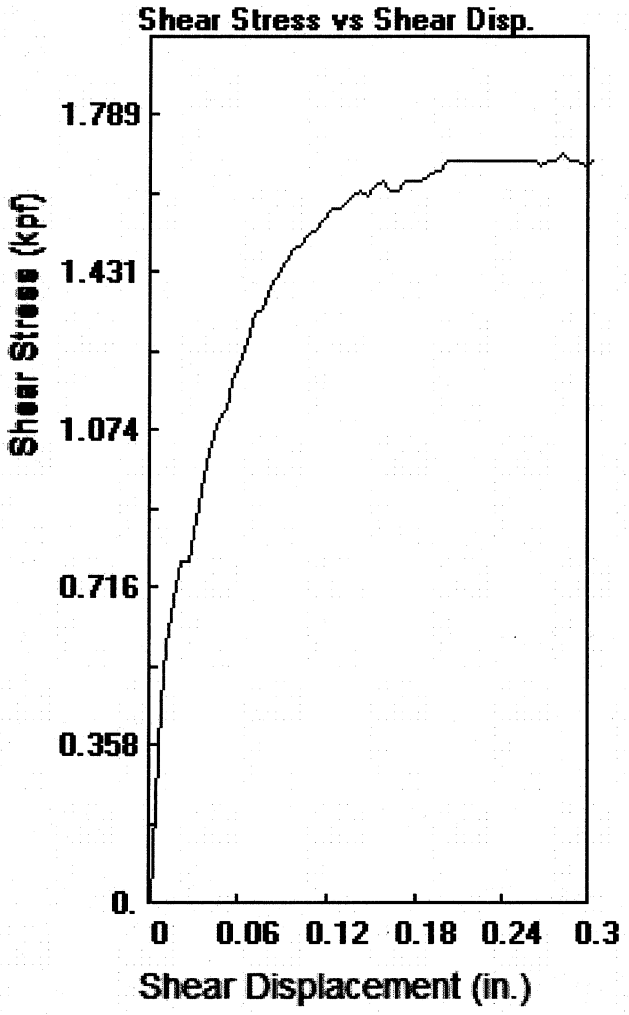
Shear Displacement at maximum Load

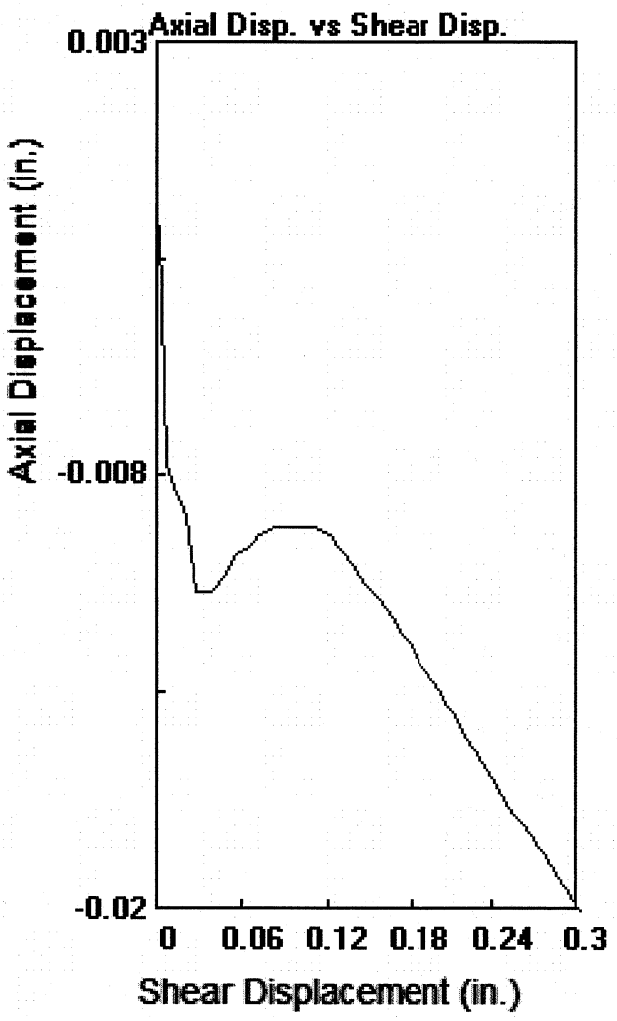
0.1905 in.

Date

8/1/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 M BEVER;U DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 3

Technician: BF

Boring: B1

Axial Load: 3000 psf

Depth: 10 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1103.dat

Distance: 0.30 in.

Stress at Max Def
1704 0.281

Stress at Max Disp
0.296 1680

Maximum Load

1704 psf

Shear Displacement at maximum Load

0.2807 in.

Date

8/1/2019

Soil Labworks

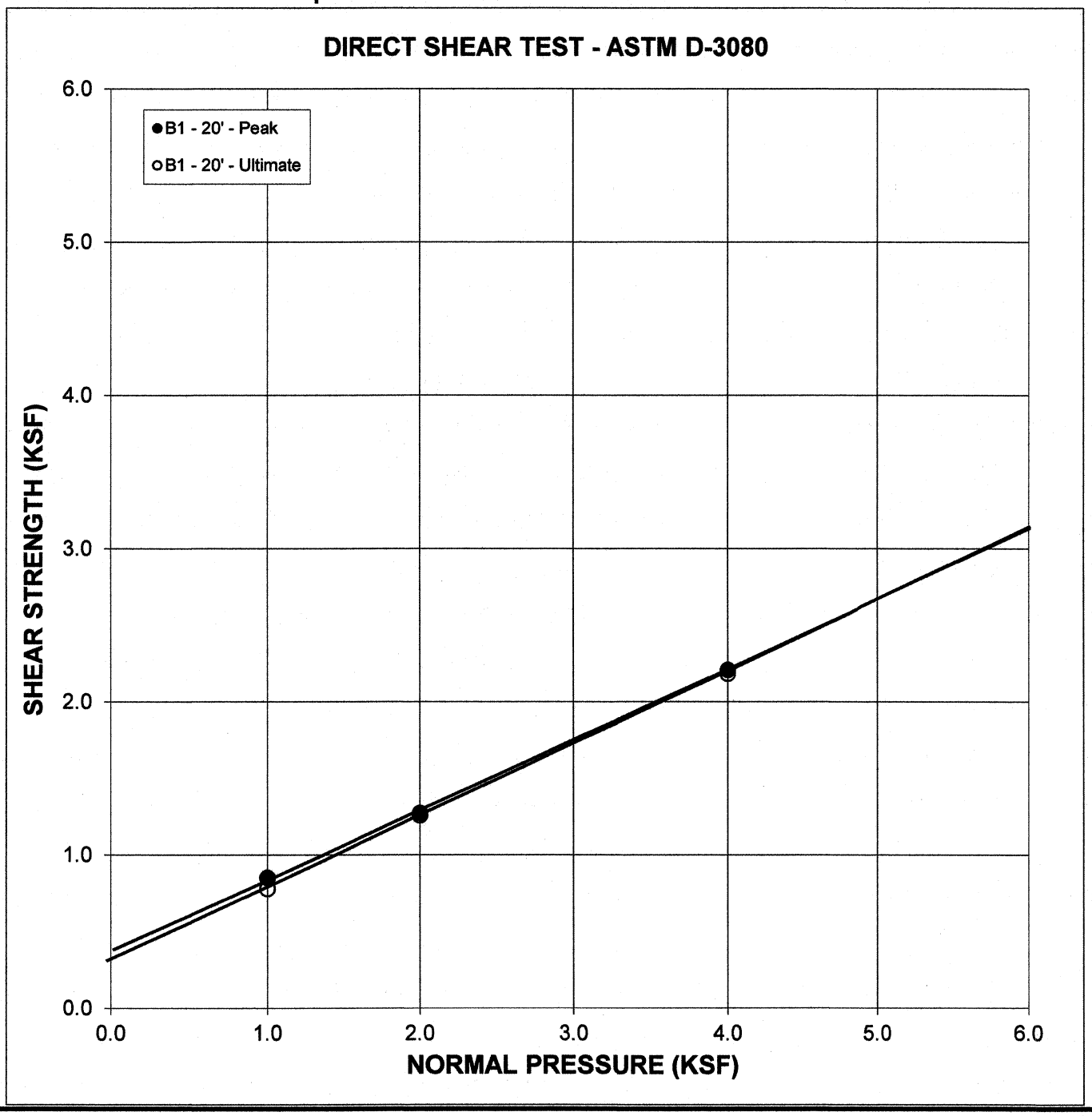
SOIL LABWORKS LLC

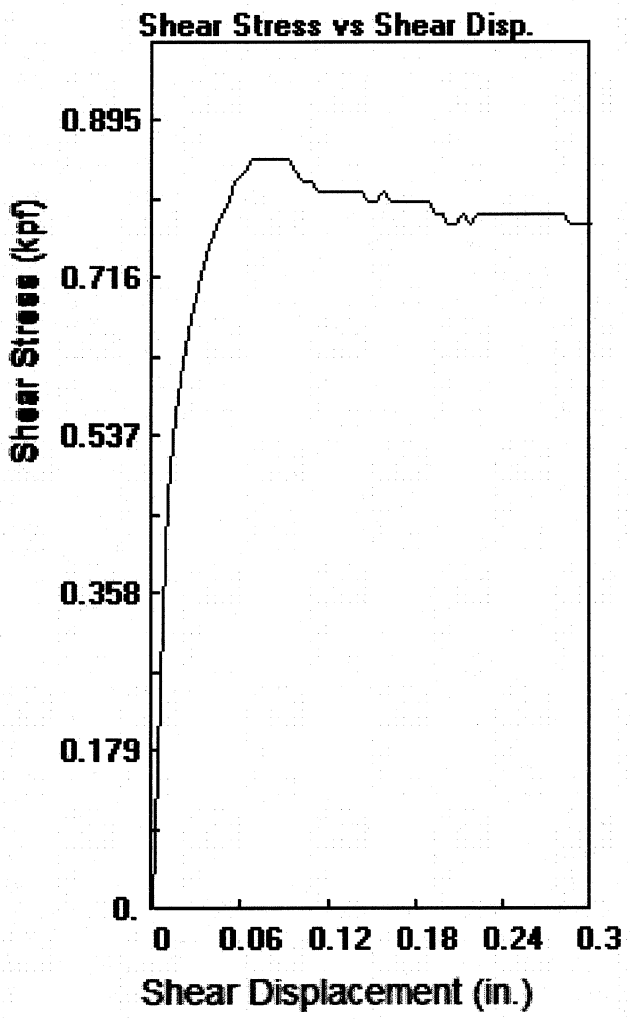
SHEAR DIAGRAM B-2

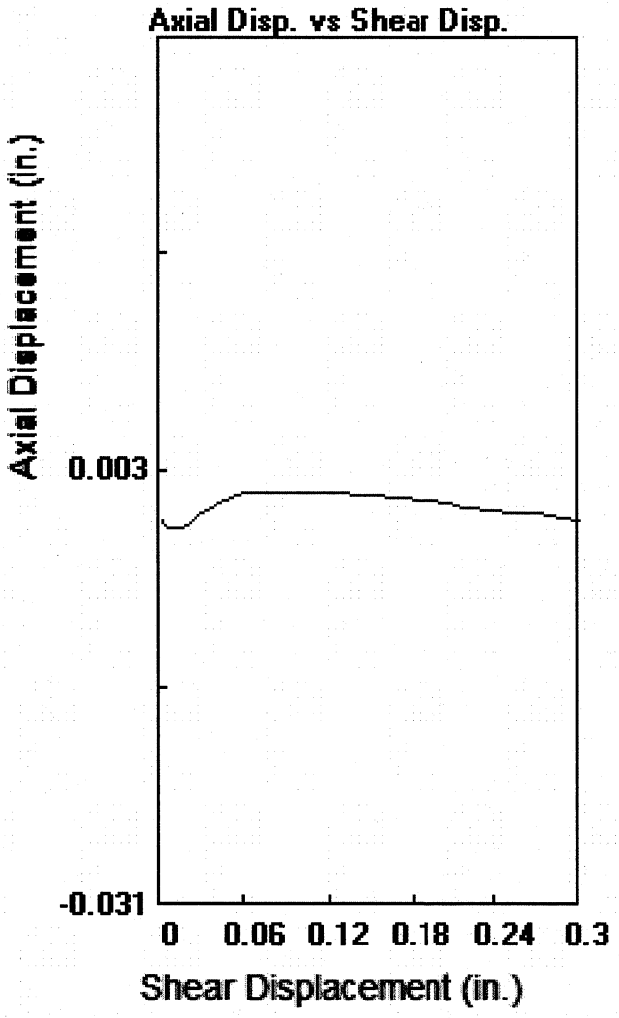
JN: SL19.3132 CONSULTANT JAI
CLIENT: Feffer/LVMH-456&468 Rodeo & 461 Beverly

EARTH MATERIAL: ALLUVIUM

	PEAK	ULTIMATE			
Phi Angle	24	24.5	degrees	Average Moisture Content	23.3%
Cohesion	390	210	psf	Average Dry Density (pcf)	103.1
				Percent Saturation	100.0%







Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 1

Technician: BF

Boring: B1

Axial Load: 1000 psf

Depth: 20 ft.

Shear Rate: 0.010 in./sec.

File: 313281201.dat

Distance: 0.30 in.

Stress at Max Def
852 0.066

Stress at Max Disp
0.295 780

Maximum Load

852 psf

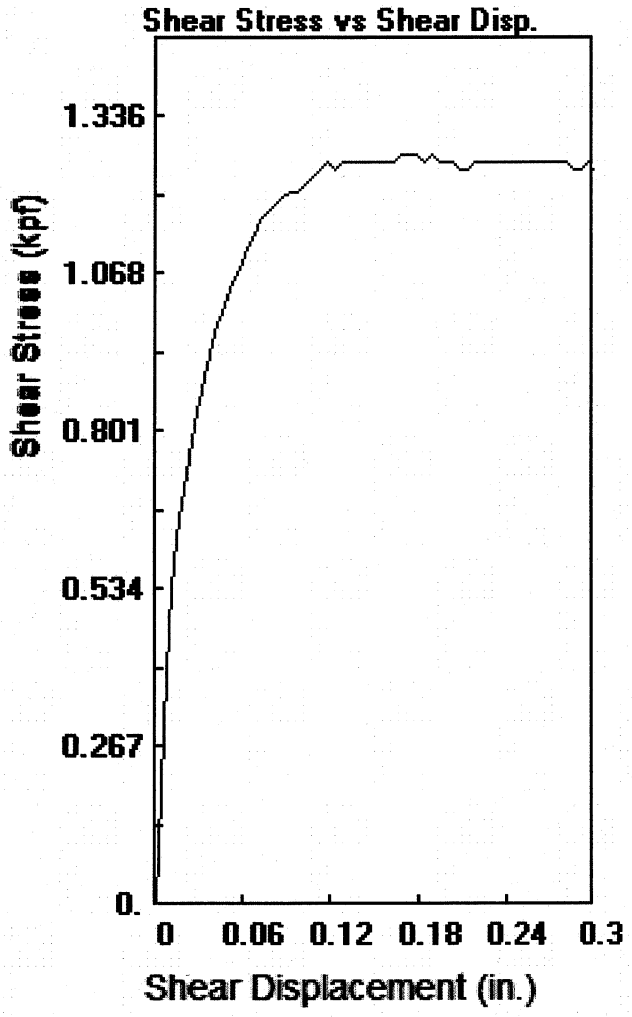
Shear Displacement at maximum Load

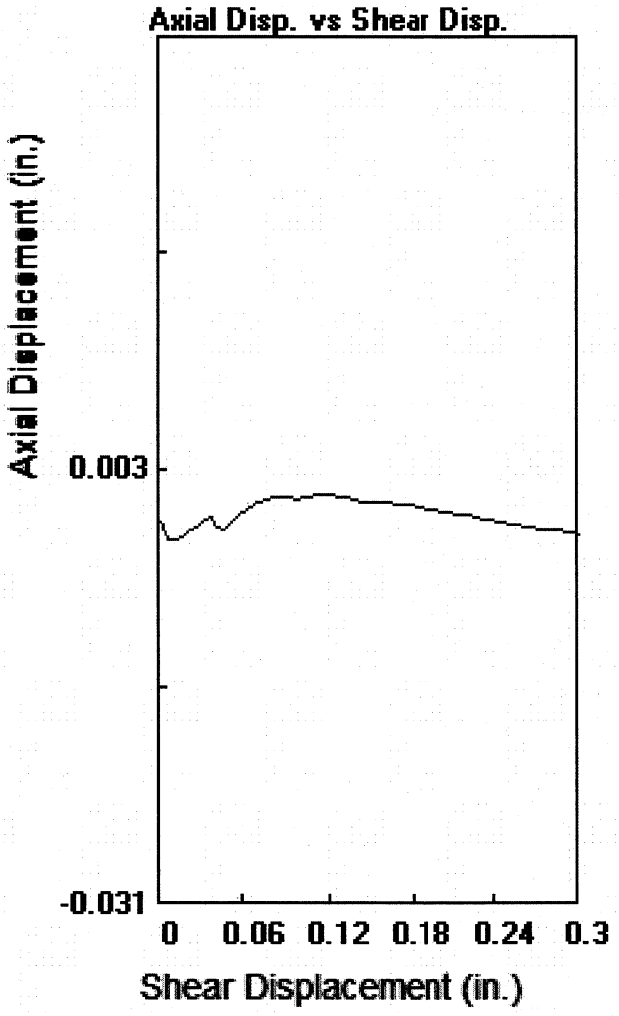
0.0655 in.

Date

7/31/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 2

Technician: BF

Boring: B1

Axial Load: 2000 psf

Depth: 20 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1202.dat

Distance: 0.30 in.

Stress at Max Def
1272 0.166

Stress at Max Disp
0.296 1260

Maximum Load

1272 psf

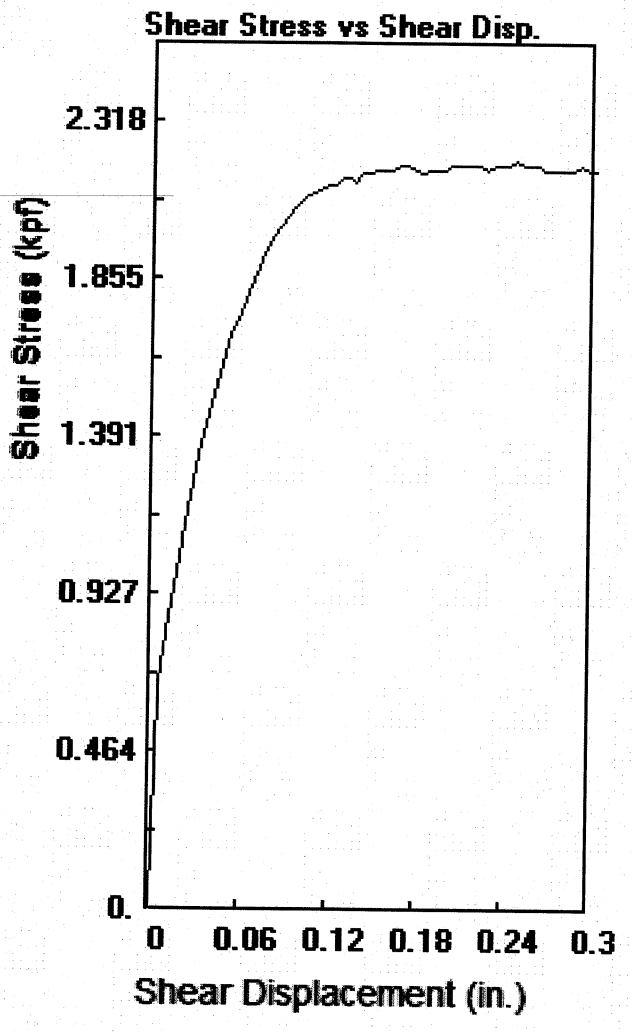
Shear Displacement at maximum Load

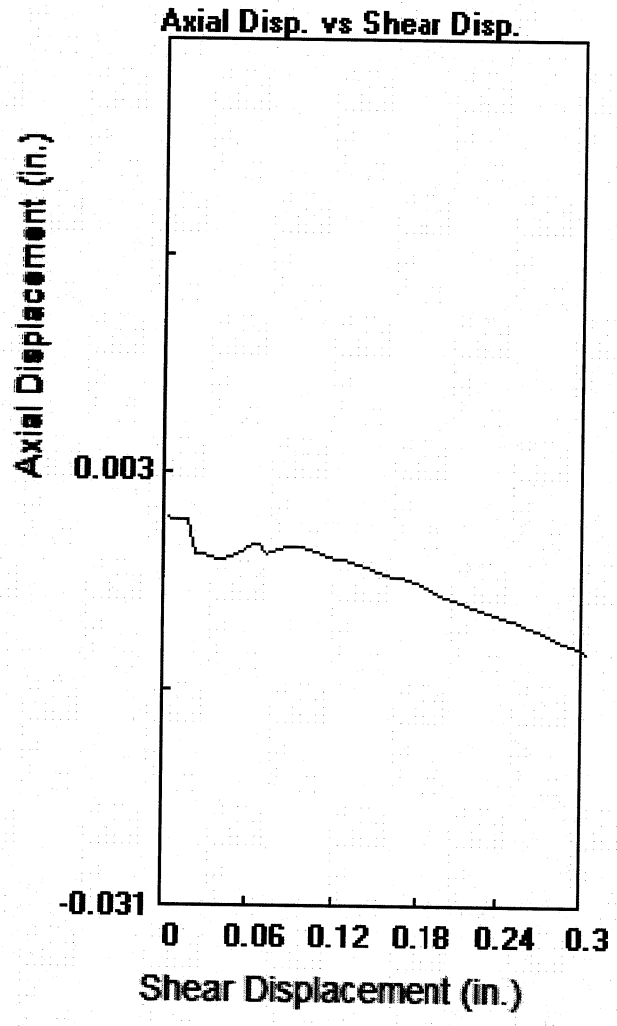
0.1655 in.

Date

7/31/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 3

Technician: BF

Boring: B1

Axial Load: 4000 psf

Depth: 20 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1204.dat

Distance: 0.30 in.

Stress at Max Def
2208 0.246

Stress at Max Disp
0.296 2184

Maximum Load

2208 psf

Shear Displacement at maximum Load

0.2456 in.

Date

7/31/2019

Soil Labworks

SOIL LABWORKS LLC

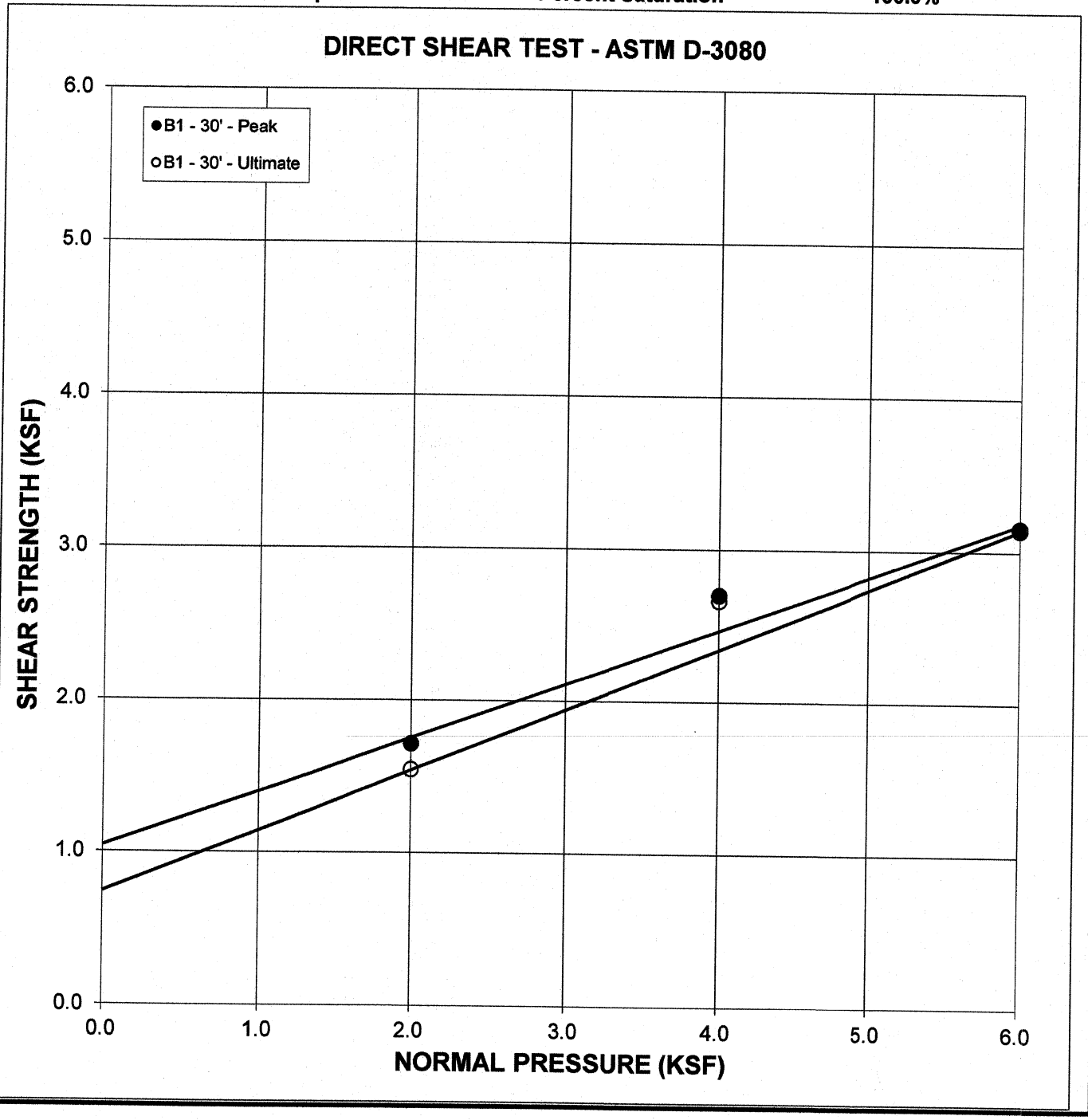
SHEAR DIAGRAM B-3

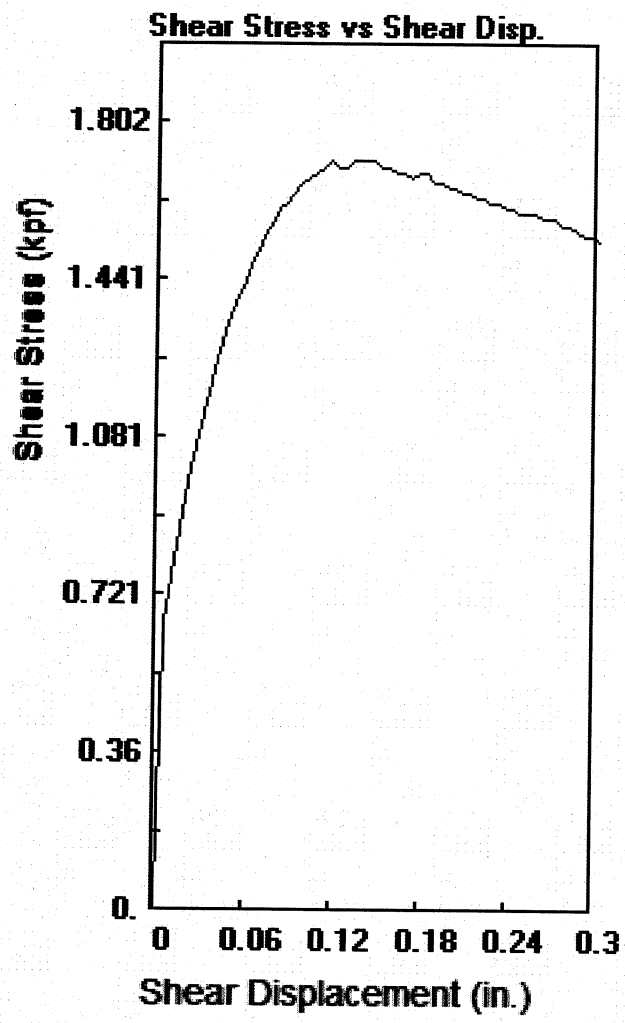
JN: SL19.3132 CONSULTANT JAI
CLIENT: Feffer/LVMH-456&468 Rodeo & 461 Beverly

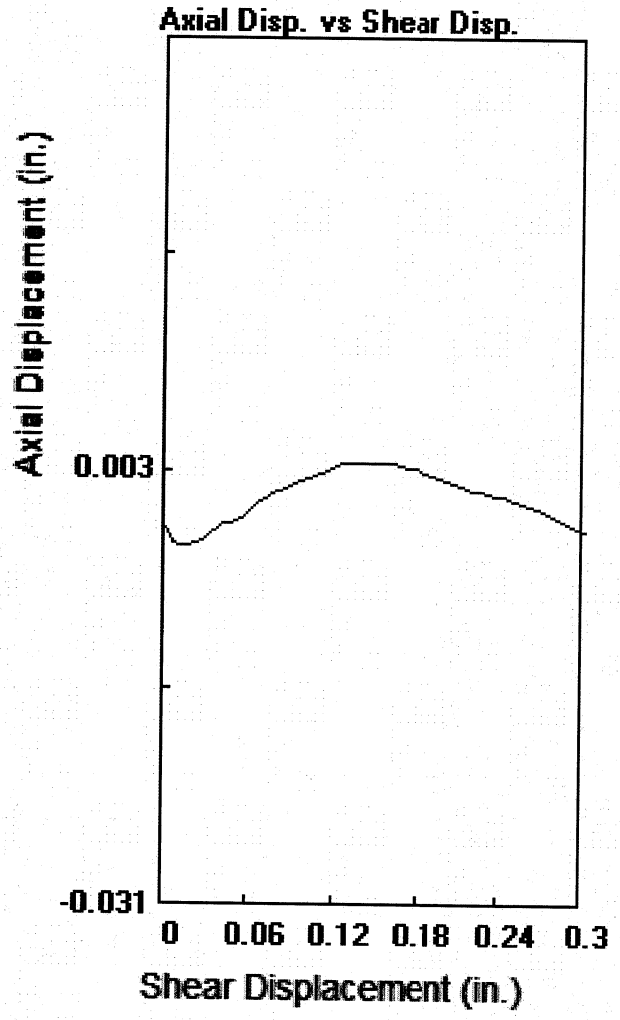
EARTH MATERIAL: ALLUVIUM

	PEAK	ULTIMATE	
Phi Angle	20	21.5	degrees
Cohesion	1040	740	psf

Average Moisture Content	21.1%
Average Dry Density (pcf)	114.8
Percent Saturation	100.0%







Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 1

Technician: BF

Boring: B1

Axial Load: 2000 psf

Depth: 30 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1302.dat

Distance: 0.30 in.

Stress at Max Def
1716 0.116

Stress at Max Disp
0.296 1548

Maximum Load

1716 psf

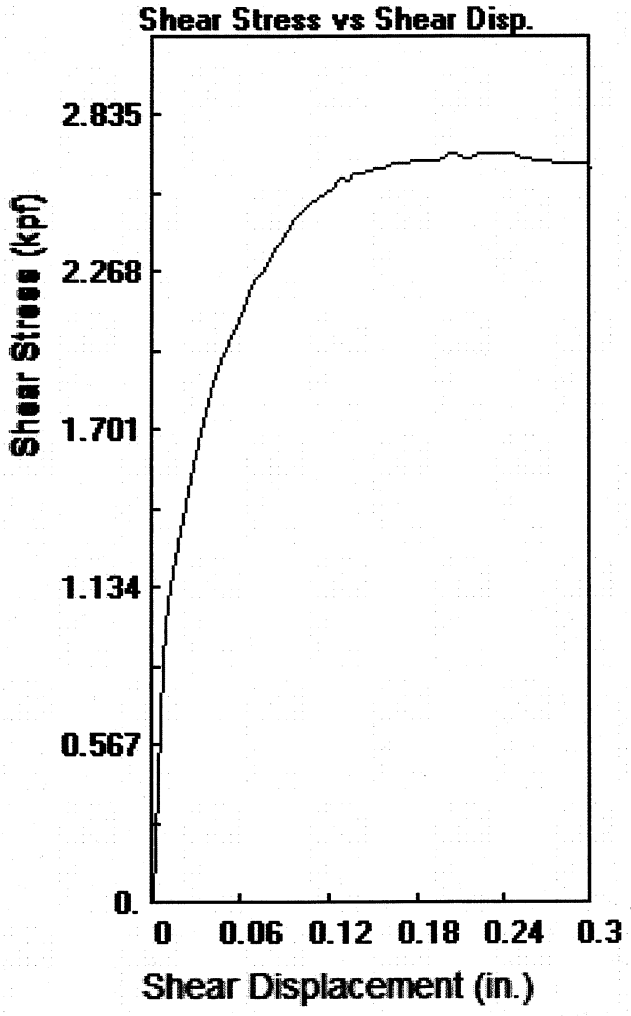
Shear Displacement at maximum Load

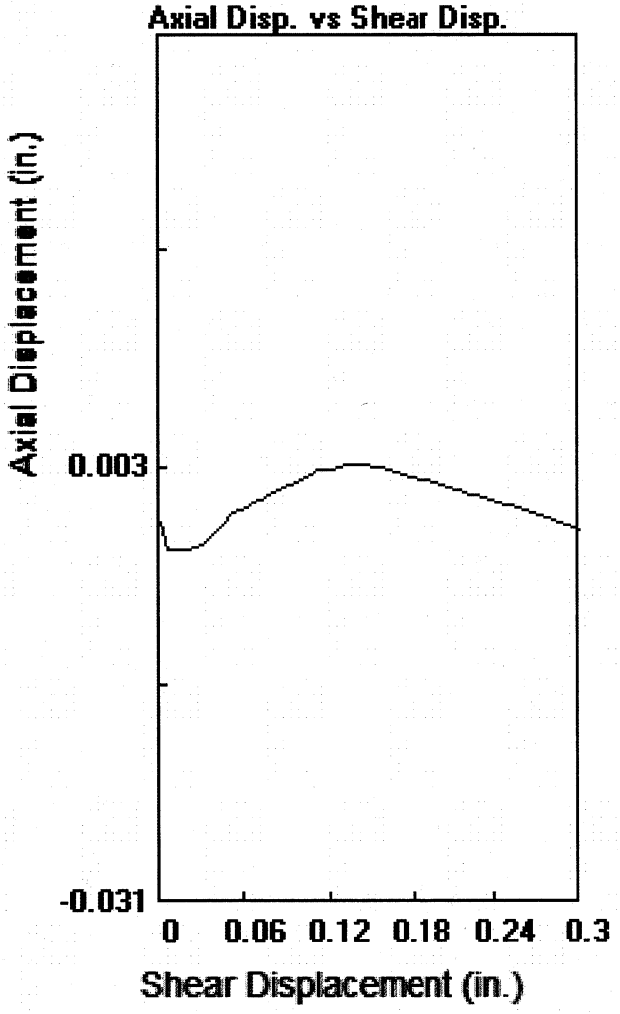
0.1157 in.

Date

7/31/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 2

Technician: BF

Boring: B1

Axial Load: 4000 psf

Depth: 30 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1304.dat

Distance: 0.30 in.

Stress at Max Def
2700 0.201

Stress at Max Disp
0.296 2664

Maximum Load

2700 psf

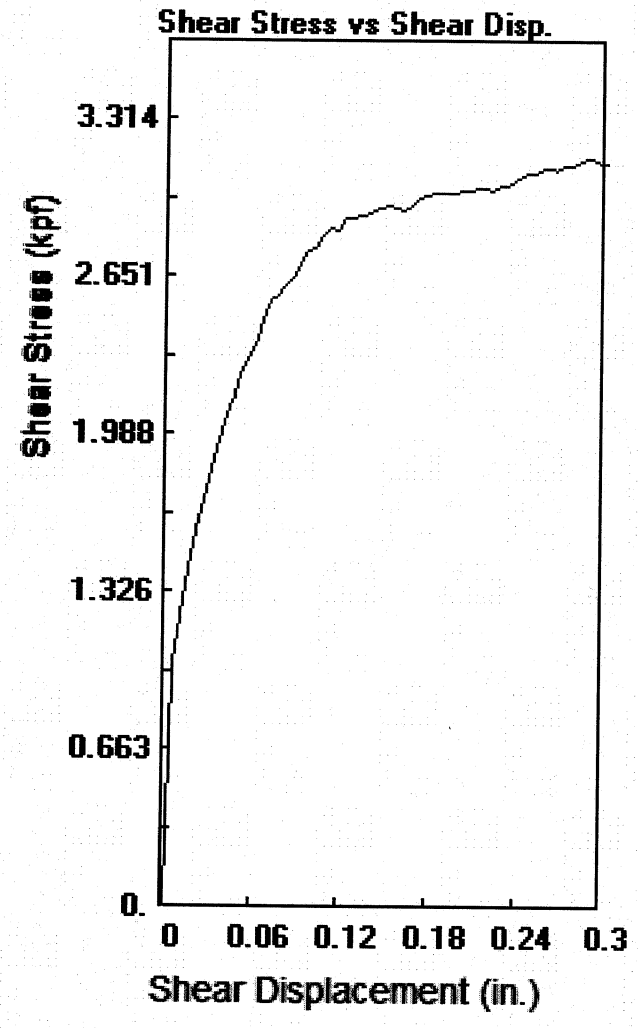
Shear Displacement at maximum Load

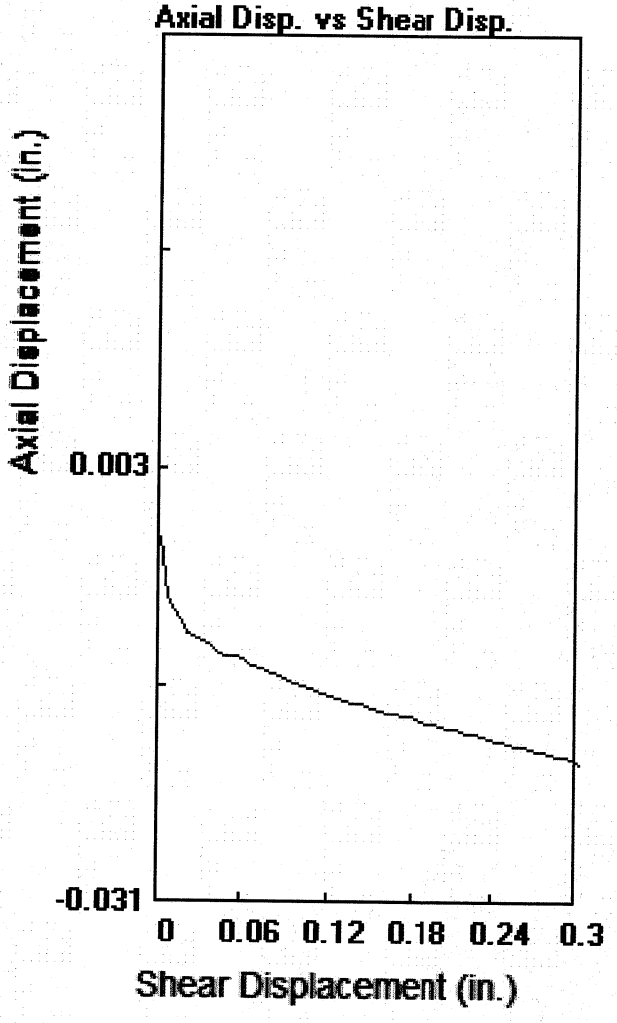
0.2005 in.

Date

7/31/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 3

Technician: BF

Boring: B1

Axial Load: 6000 psf

Depth: 30 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1306.dat

Distance: 0.30 in.

Stress at Max Def
3156 0.286

Stress at Max Disp
0.296 3144

Maximum Load

3156 psf

Shear Displacement at maximum Load

0.2855 in.

Date

7/31/2019

Soil Labworks

SOIL LABWORKS LLC

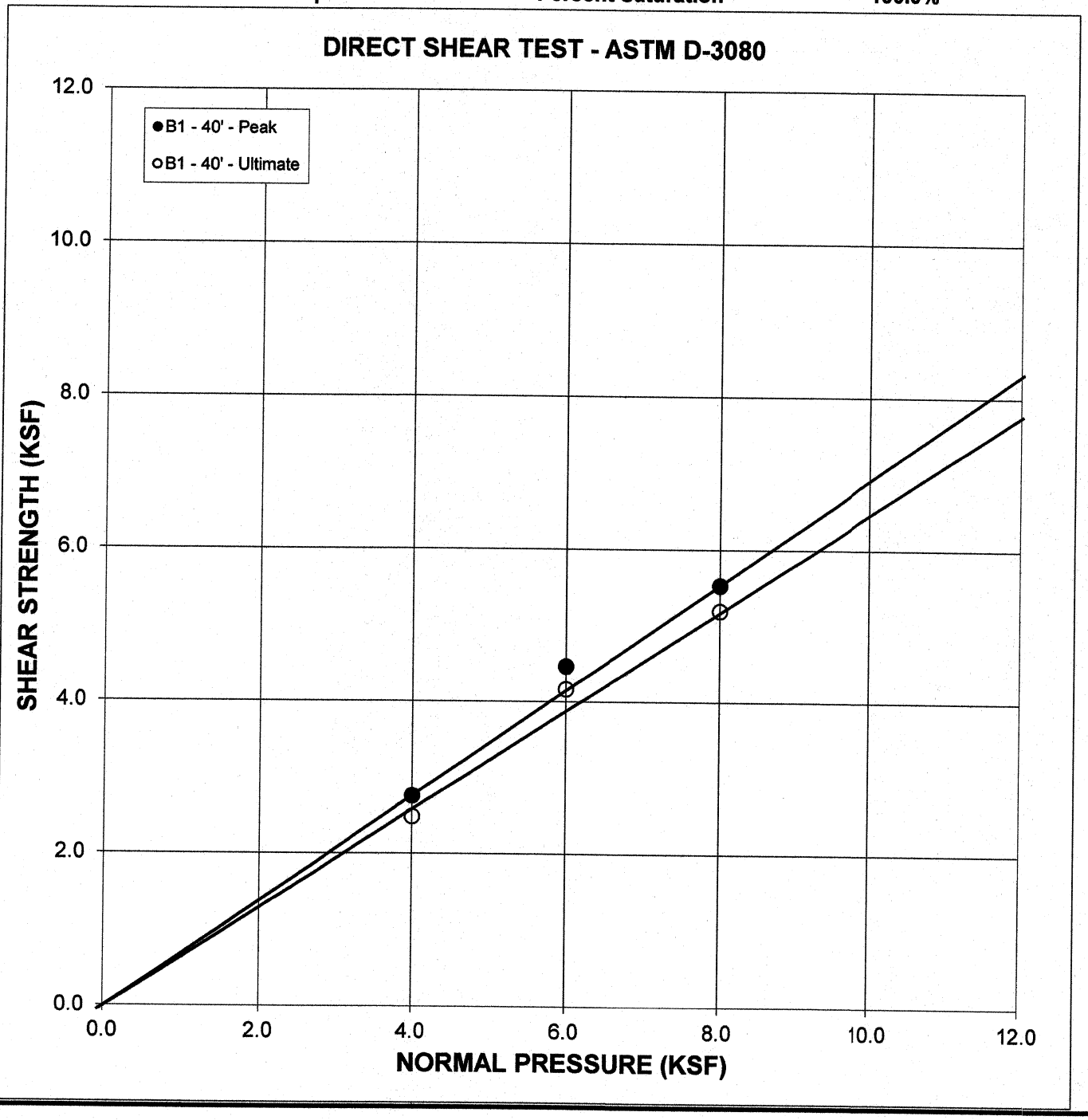
SHEAR DIAGRAM B-4

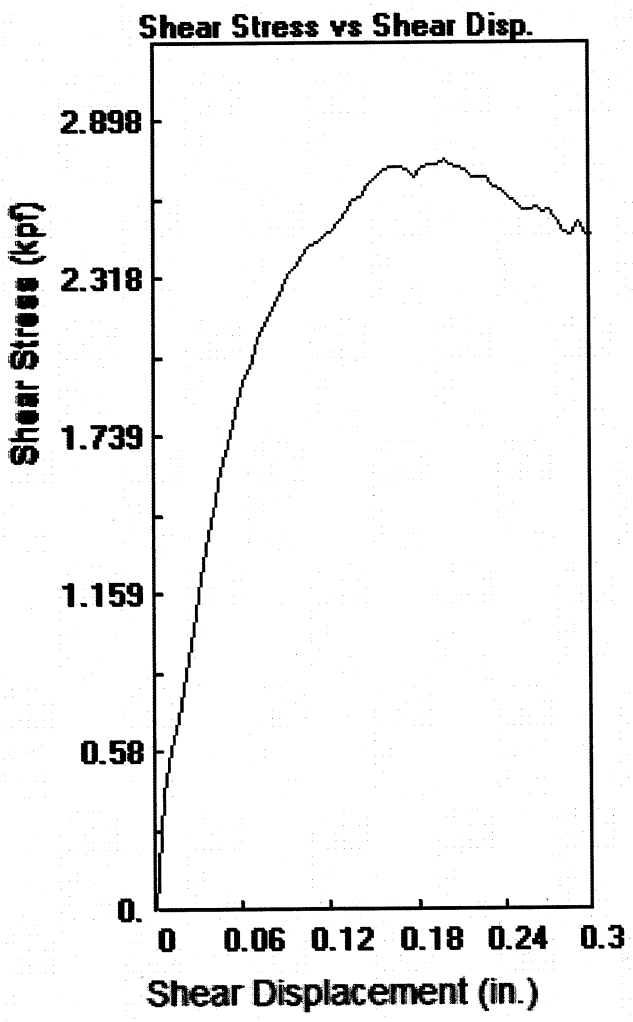
JN: SL19.3132 CONSULTANT JAI
CLIENT: Feffer/LVMH-456&468 Rodeo & 461 Beverly

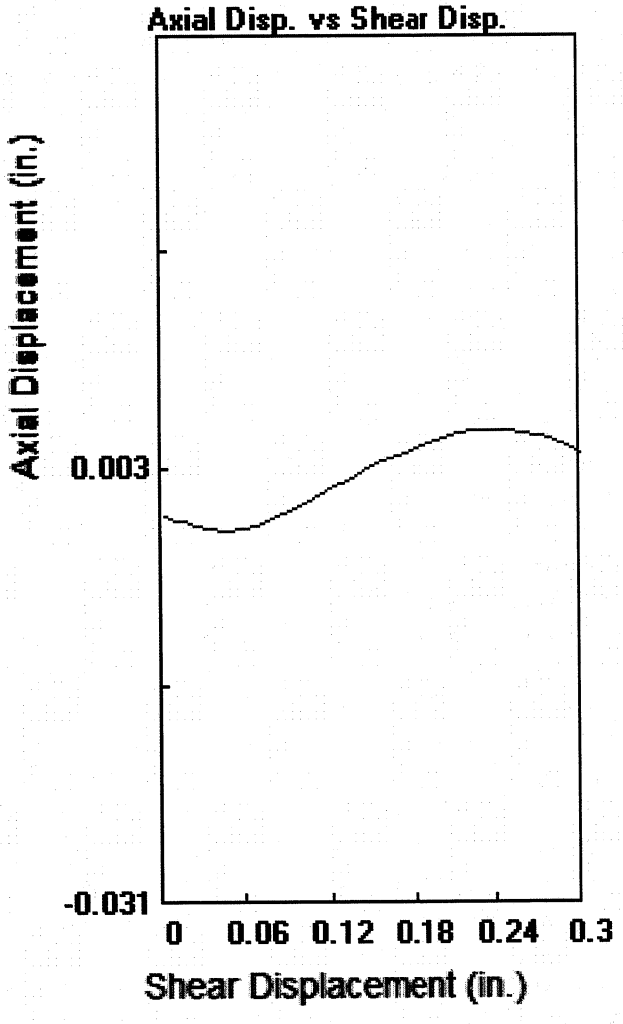
EARTH MATERIAL: ALLUVIUM

	PEAK	ULTIMATE	
Phi Angle	34.5	32.5	degrees
Cohesion	0	0	psf

Average Moisture Content	19.7%
Average Dry Density (pcf)	109.8
Percent Saturation	100.0%







Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO 461 N BEVERLY DR

Job # 3132 — Soil Type:ALLUVIUM

Sample: 1 — Technician: BF

Boring: B1 — Axial Load: 4000 psf

Depth: 40 ft. — Shear Rate: 0.010 in./sec.

File: 3132B1404.dat — Distance: 0.30 in.

Stress at Max Def: 2760 0.196

Stress at Max Disp: 0.296 2484

Maximum Load

2760 psf

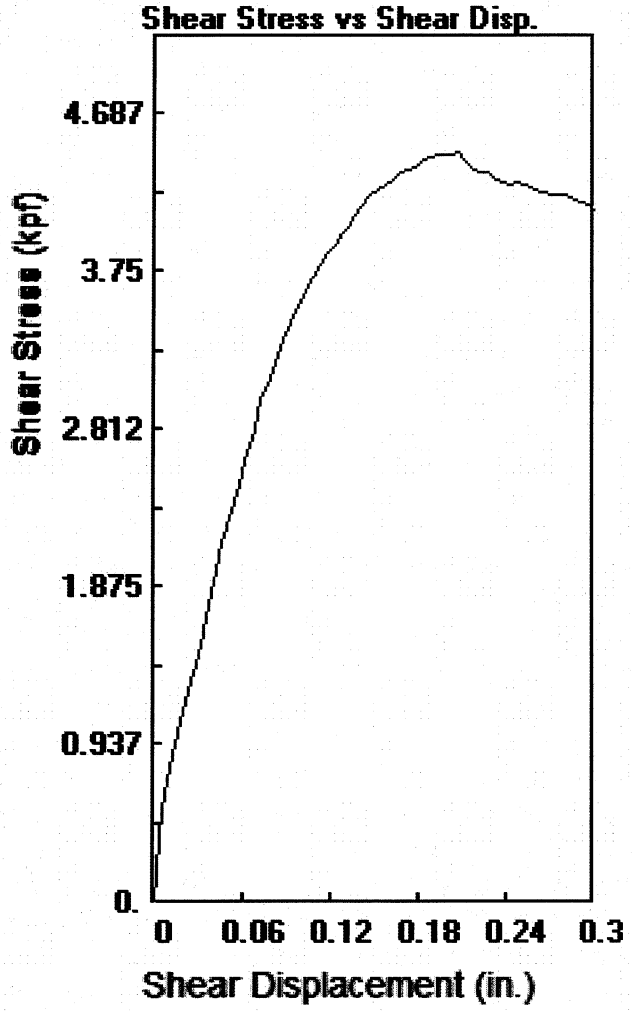
Shear Displacement at maximum Load

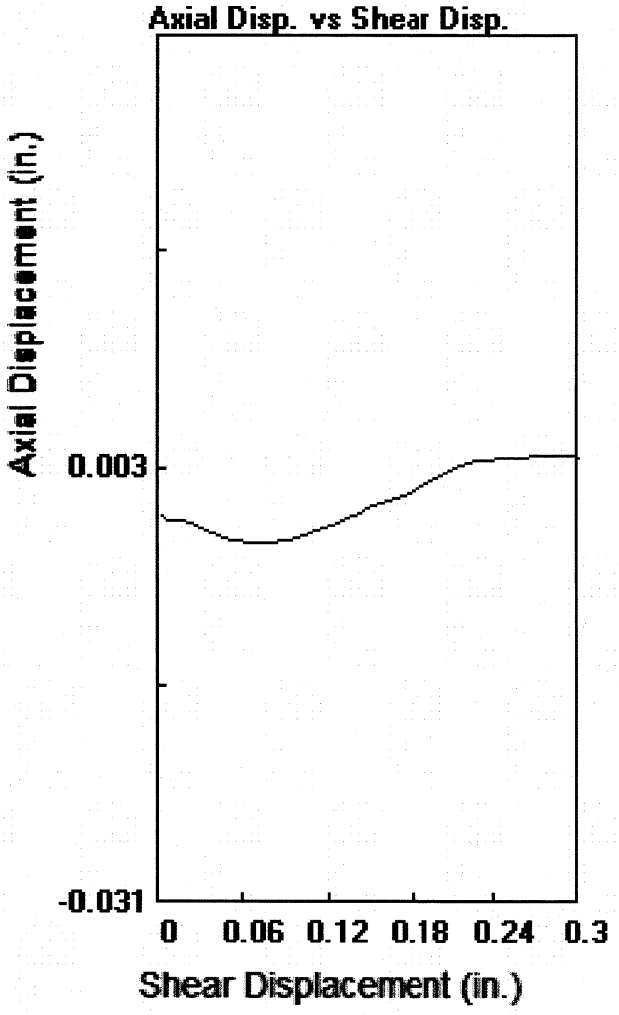
0.1957 in.

Date

7/31/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 2

Technician: BF

Boring: B1

Axial Load: 6000 psf

Depth: 40 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1406.dat

Distance: 0.30 in.

Stress at Max Def
4464 0.206

Stress at Max Disp
0.296 4164

Maximum Load

4464 psf

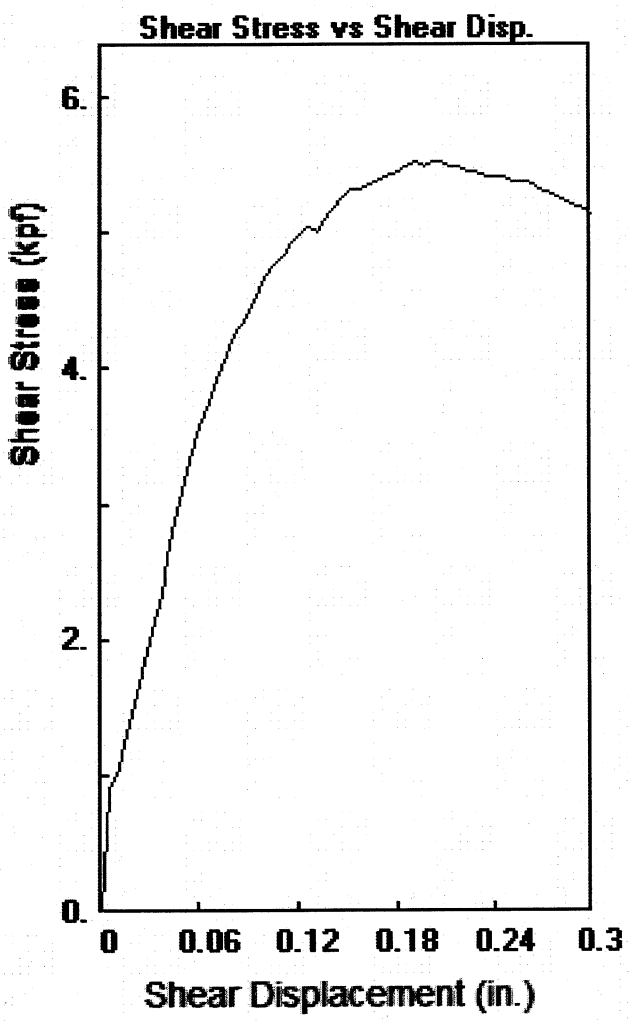
Shear Displacement at maximum Load

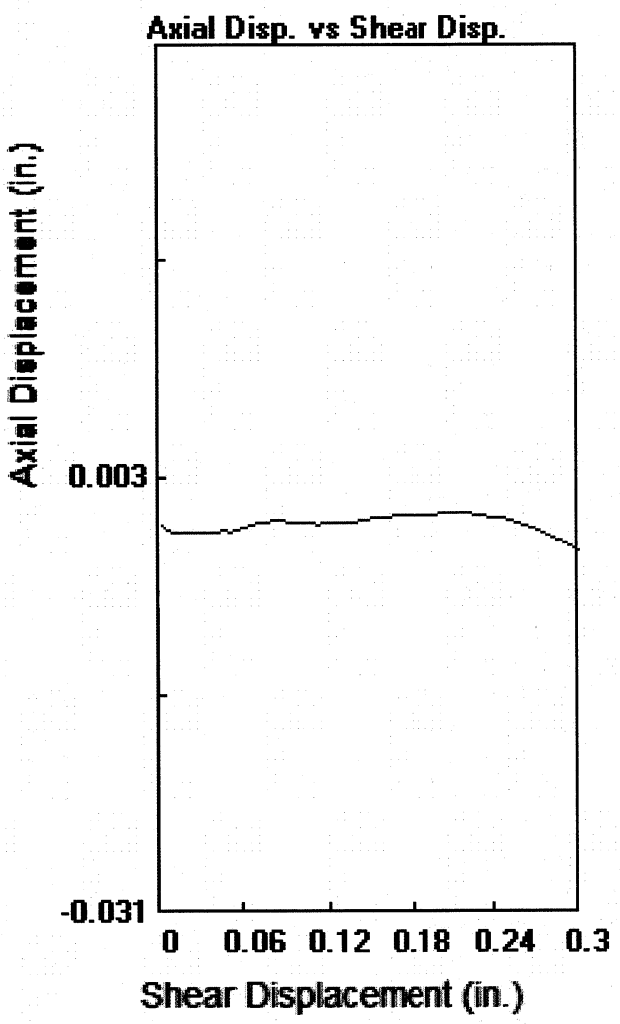
0.2056 in.

Date

7/31/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO 461 N BEVERLY DR

Job # 3132 — Soil Type:ALLUVIUM

Sample: 3 — Technician: BF

Boring: B1 — Axial Load: 8000 psf

Depth: 40 ft. — Shear Rate: 0.010 in./sec.

File: 3132B1408.dat — Distance: 0.30 in.

Stress at Max Def		Stress at Max Disp	
5532	0.191	0.296	5196

Maximum Load

5532 psf

Shear Displacement at maximum Load

0.1907 in.

Date

7/31/2019

Soil Labworks

SOIL LABWORKS LLC

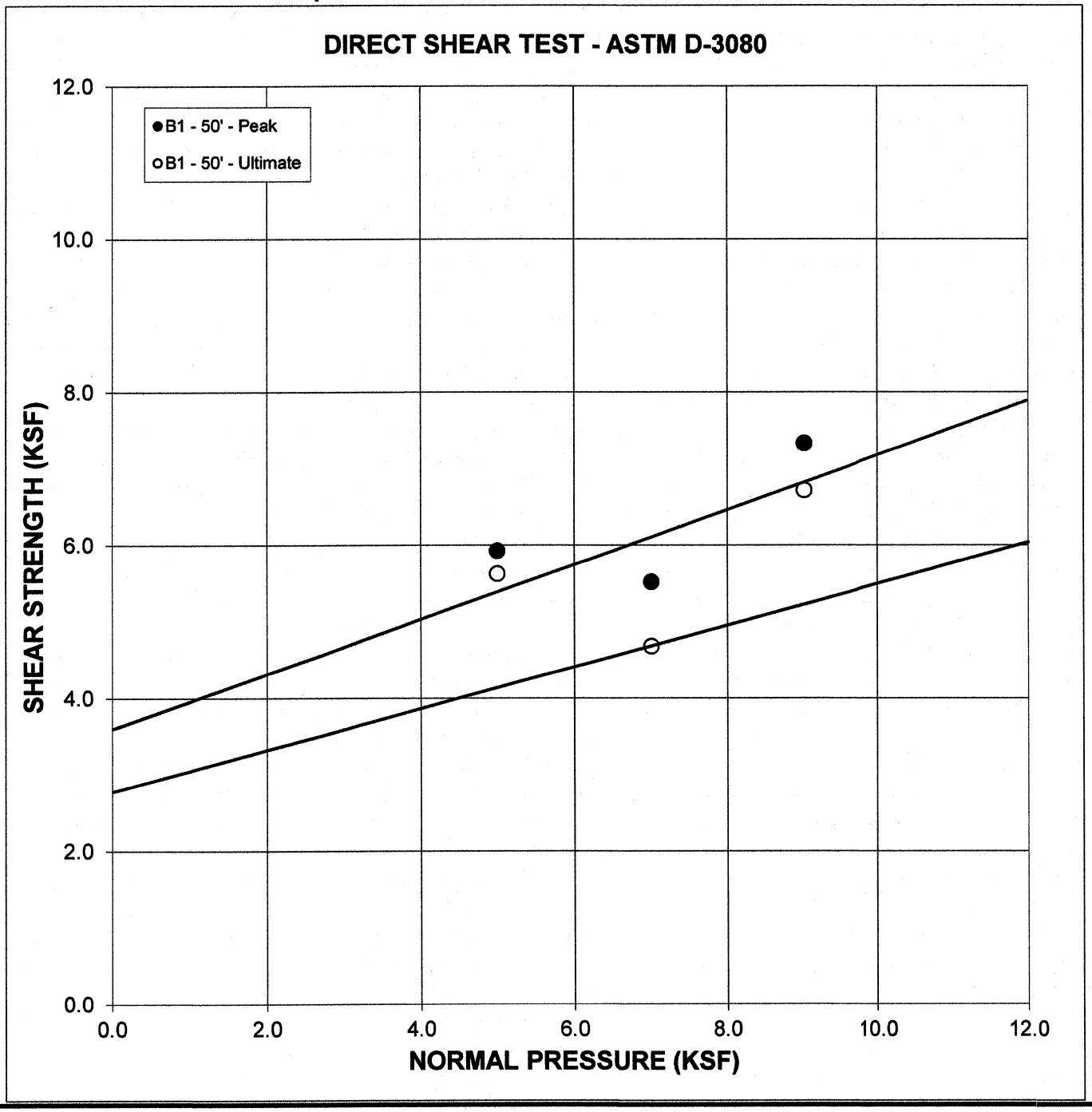
SHEAR DIAGRAM B-5

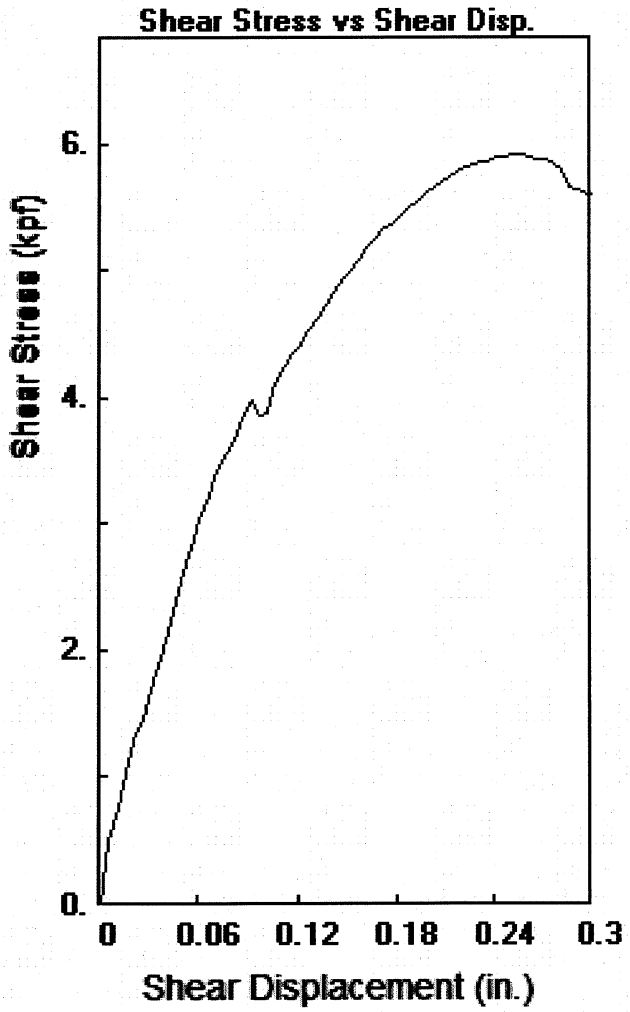
JN: SL19.3132 CONSULTANT JAI
CLIENT: Feffer/LVMH-456&468 Rodeo & 461 Beverly

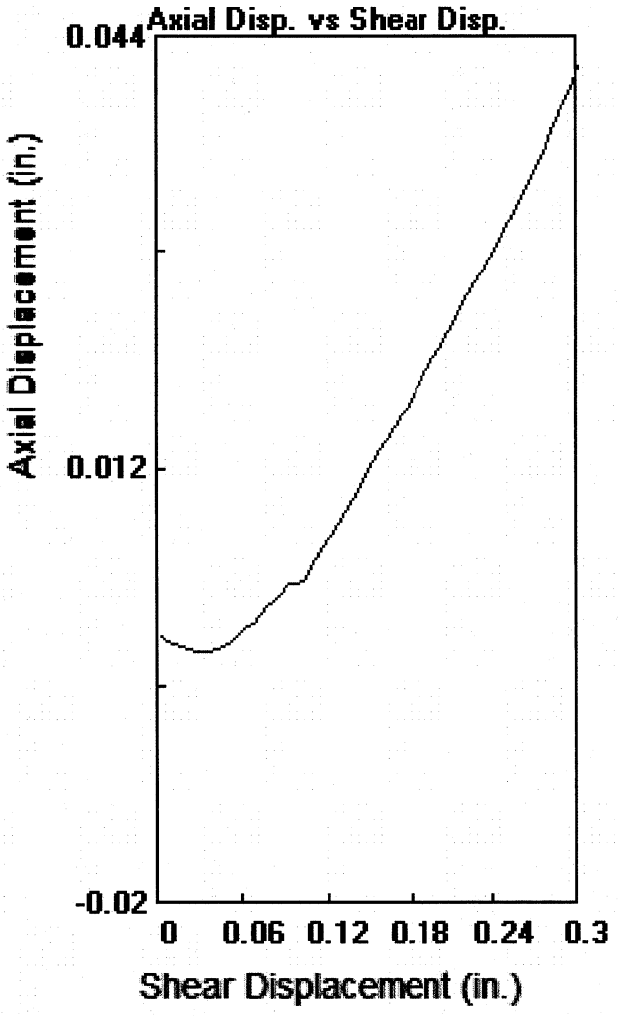
EARTH MATERIAL: ALLUVIUM

	PEAK	ULTIMATE	
Phi Angle	19.5	15	degrees
Cohesion	3640	2760	psf

Average Moisture Content	16.0%
Average Dry Density (pcf)	125.0
Percent Saturation	100.0%







Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 M BEVER;U DR

Job # 3132 — Soil Type:ALLUVIUM

Sample: 1 — Technician: BF

Boring: B1 — Axial Load: 5000 psf

Depth: 50 ft. — Shear Rate: 0.010 in./sec.

File: 3132B1105.dat — Distance: 0.30 in.

Stress at Max Def		Stress at Max Disp	
5928	0.251	0.296	5628

Maximum Load

5928 psf

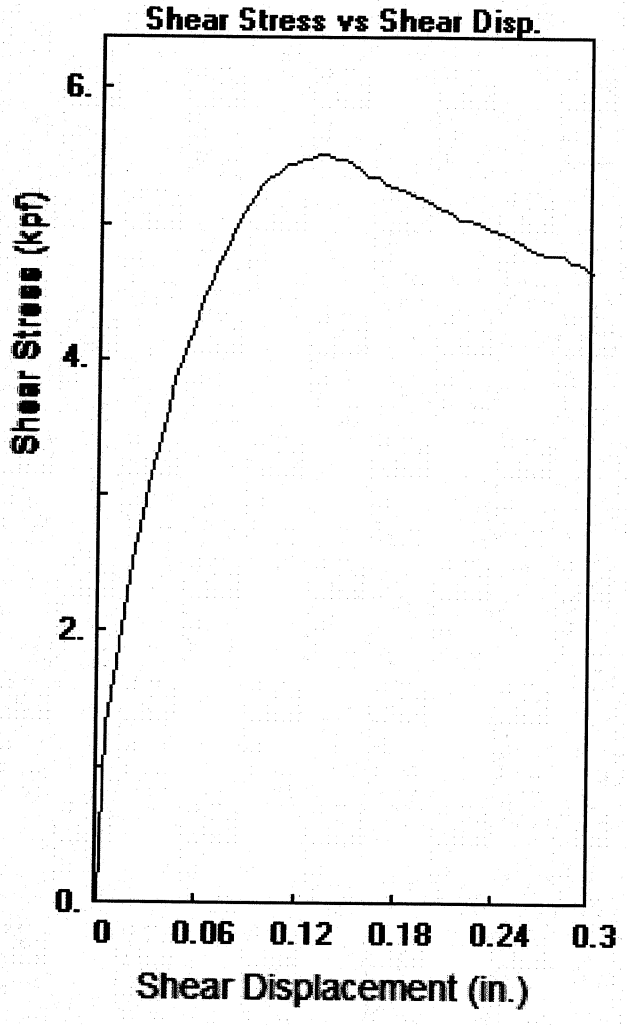
Shear Displacement at maximum Load

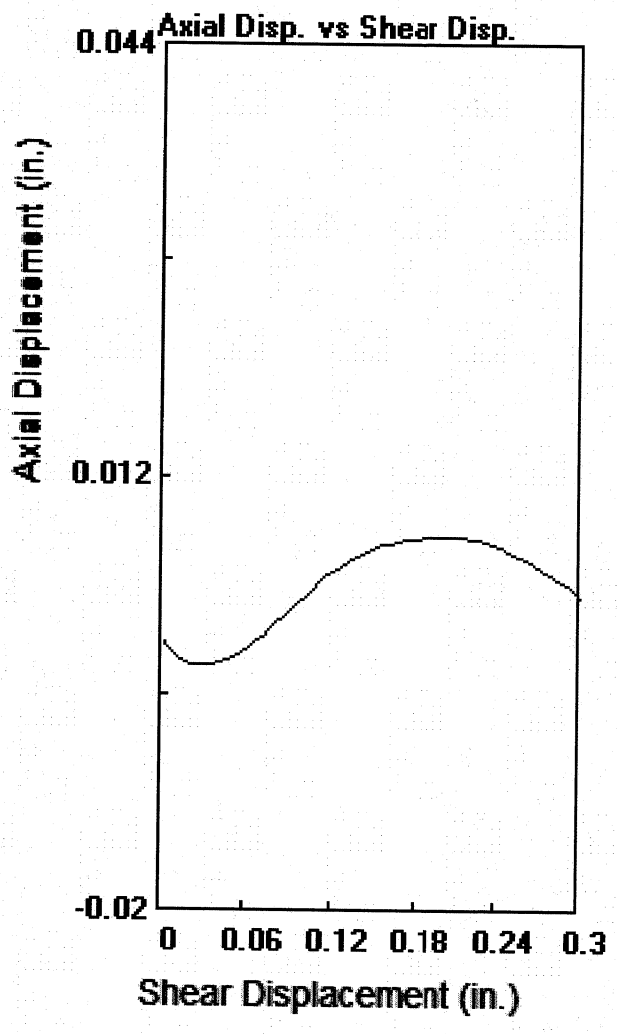
0.2507 in.

Date

8/1/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 M BEVER;U DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 2

Technician: BF

Boring: B1

Axial Load: 7000 psf

Depth: 50 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1107.dat

Distance: 0.30 in.

Stress at Max Def
5520 0.131

Stress at Max Disp
0.296 4680

Maximum Load

5520 psf

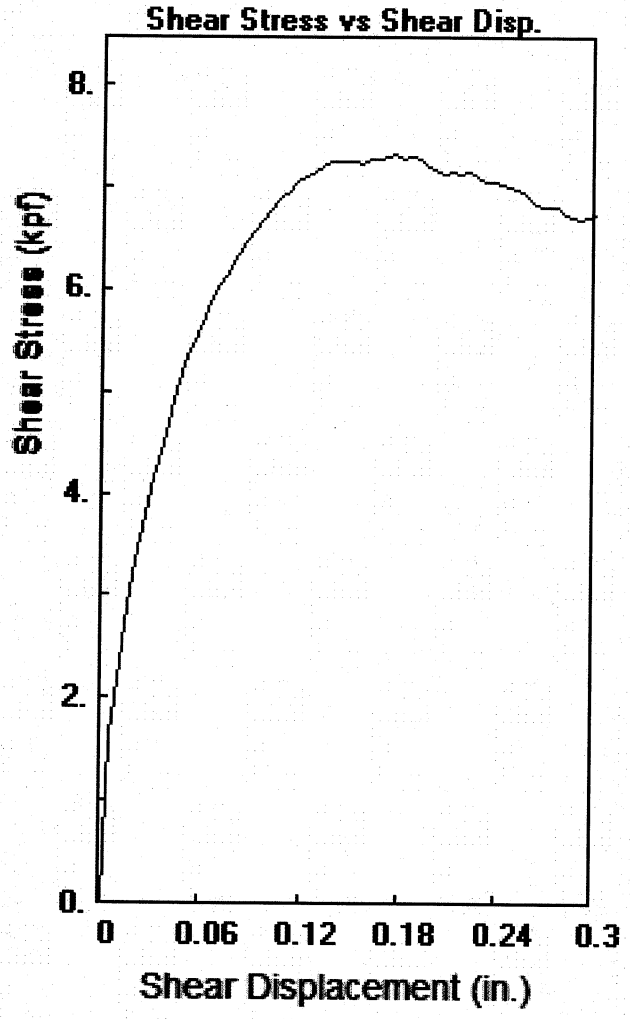
Shear Displacement at maximum Load

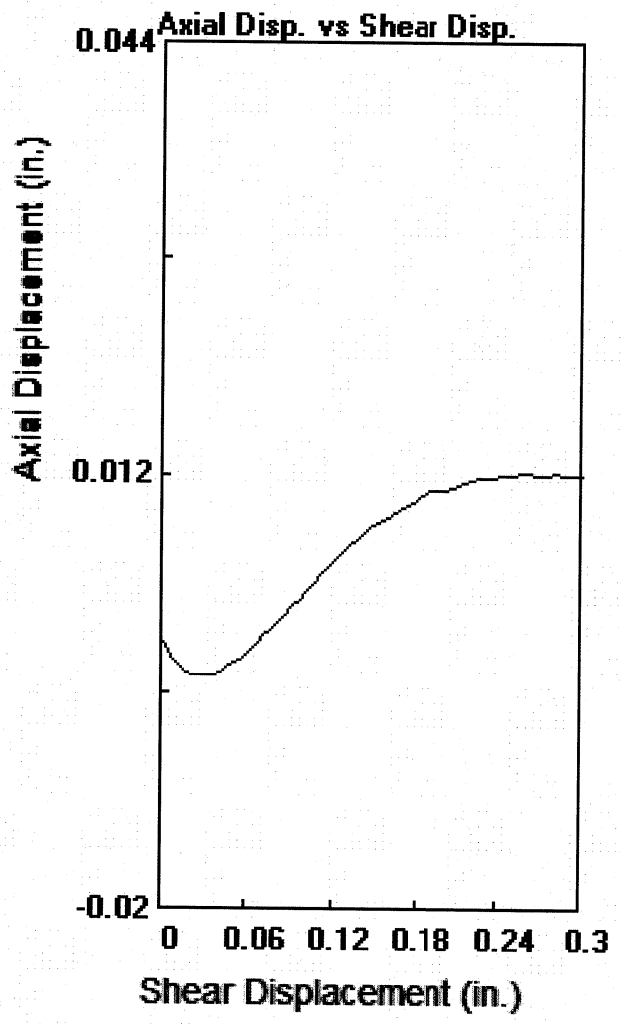
0.1307 in.

Date

8/1/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 M BEVER;U DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 3

Technician: BF

Boring: B1

Axial Load: 9000 psf

Depth: 50 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1109.dat

Distance: 0.30 in.

Stress at Max Def
7332 0.176

Stress at Max Disp
0.296 6720

Maximum Load

7332 psf

Shear Displacement at maximum Load

0.1756 in.

Date

8/1/2019

Soil Labworks

SOIL LABWORKS LLC

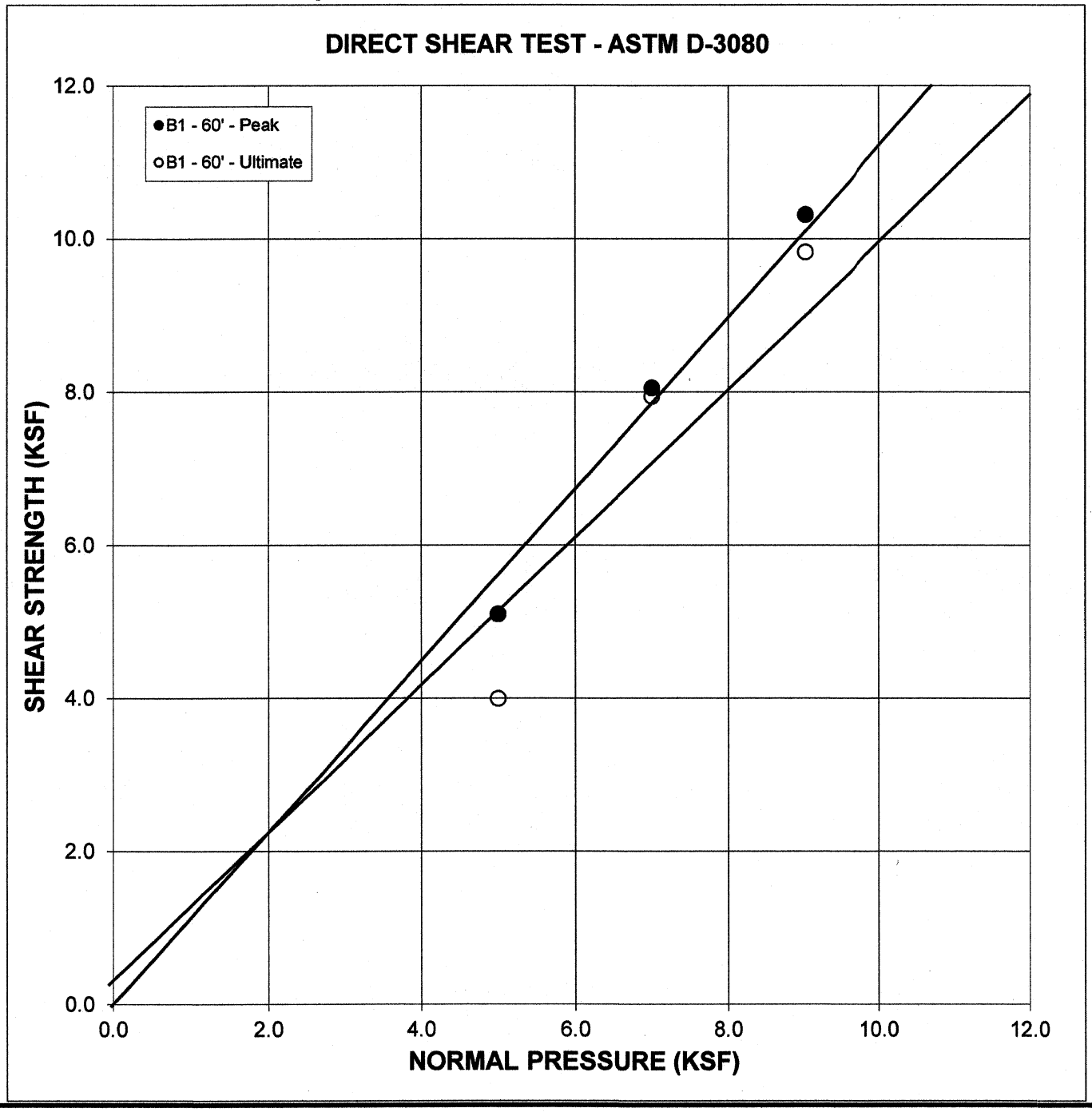
SHEAR DIAGRAM B-6

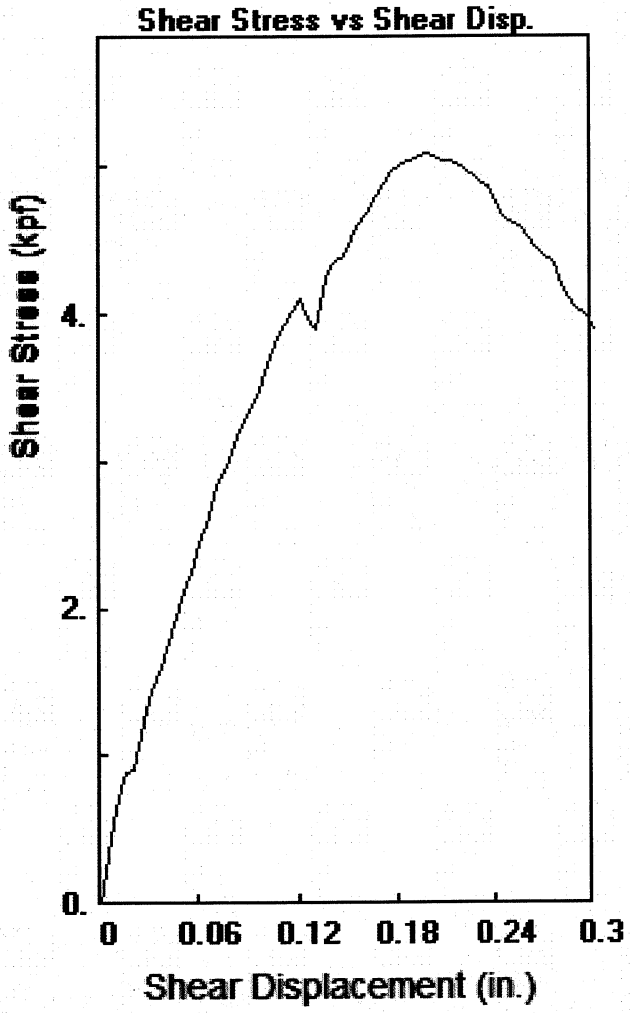
JN: SL19.3132 CONSULTANT JAI
CLIENT: Feffer/LVMH-456&468 Rodeo & 461 Beverly

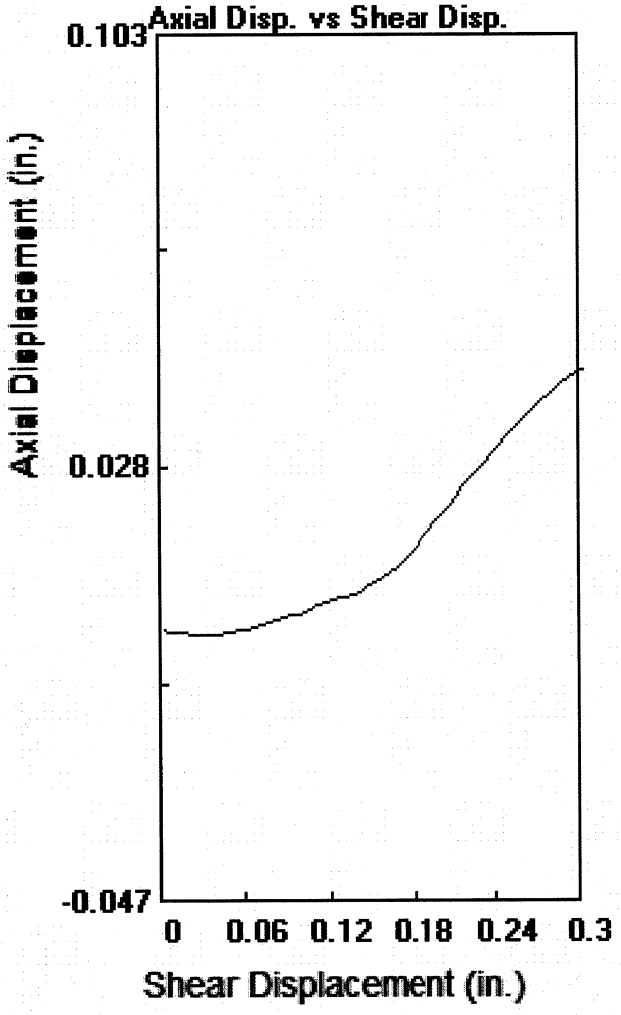
EARTH MATERIAL: ALLUVIUM

	PEAK	ULTIMATE	
Phi Angle	48	43	degrees
Cohesion	0	340	psf

Average Moisture Content	13.5%
Average Dry Density (pcf)	131.3
Percent Saturation	100.0%







Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 1

Technician: BF

Boring: B1

Axial Load: 5000 psf

Depth: 60 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1605.dat

Distance: 0.30 in.

Stress at Max Def
5100 0.196

Stress at Max Disp
0.296 3996

Maximum Load

5100 psf

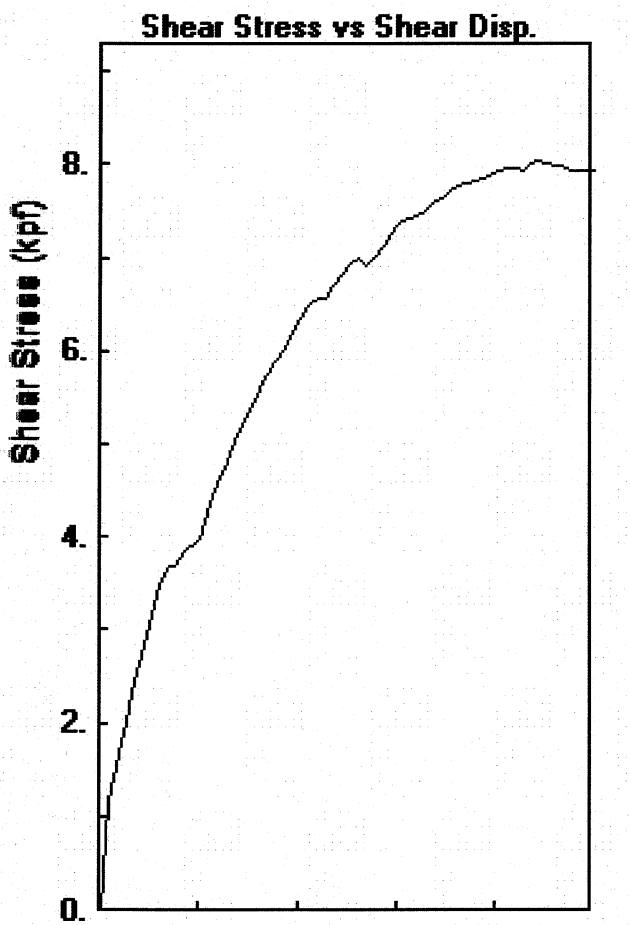
Shear Displacement at maximum Load

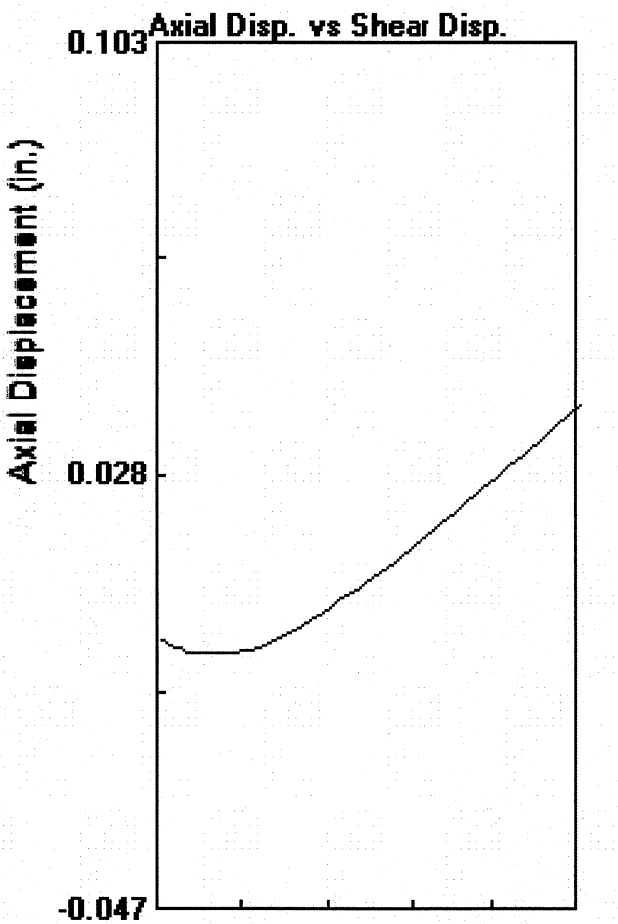
0.1957 in.

Date

8/1/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 2

Technician: BF

Boring: B1

Axial Load: 7000 psf

Depth: 60 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1607.dat

Distance: 0.30 in.

Stress at Max Def
8052 0.266

Stress at Max Disp
0.296 7944

Maximum Load

8052 psf

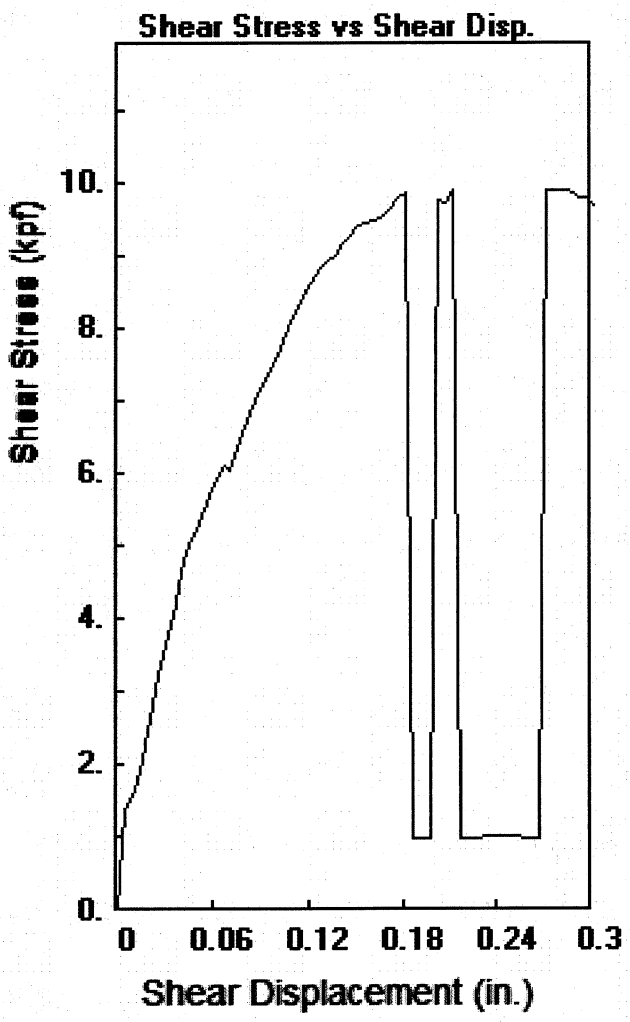
Shear Displacement at maximum Load

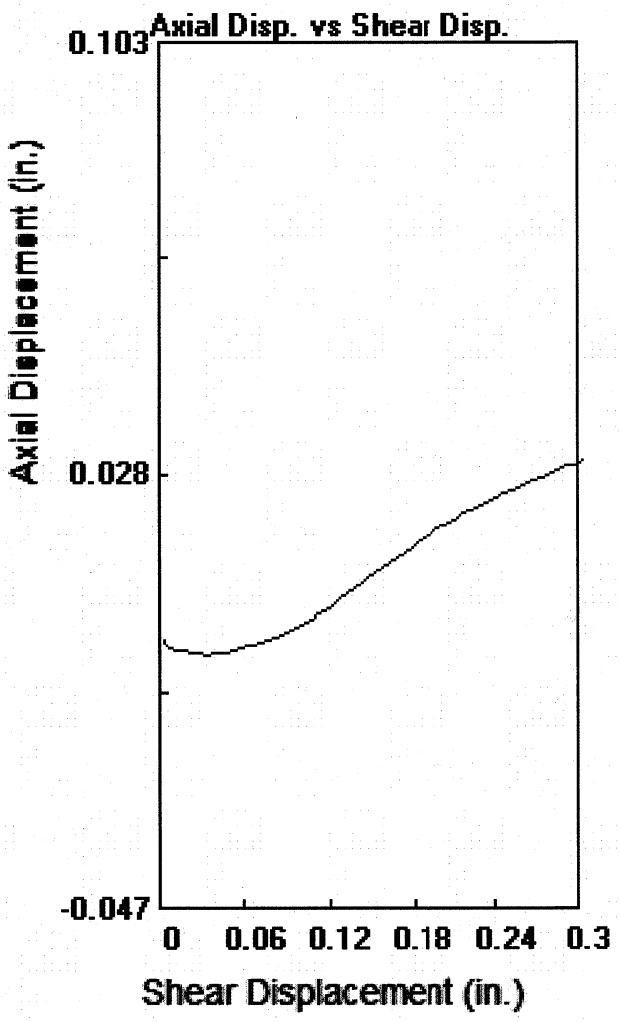
0.2657 in.

Date

8/1/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 3

Technician: BF

Boring: B1

Axial Load: 9000 psf

Depth: 60 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1609.dat

Distance: 0.30 in.

Stress at Max Def
9935 0.211

Stress at Max Disp
0.296 9827

Maximum Load

10319 psf

Shear Displacement at maximum Load

0.2460 in.

Date

8/1/2019

Soil Labworks

SOIL LABWORKS LLC

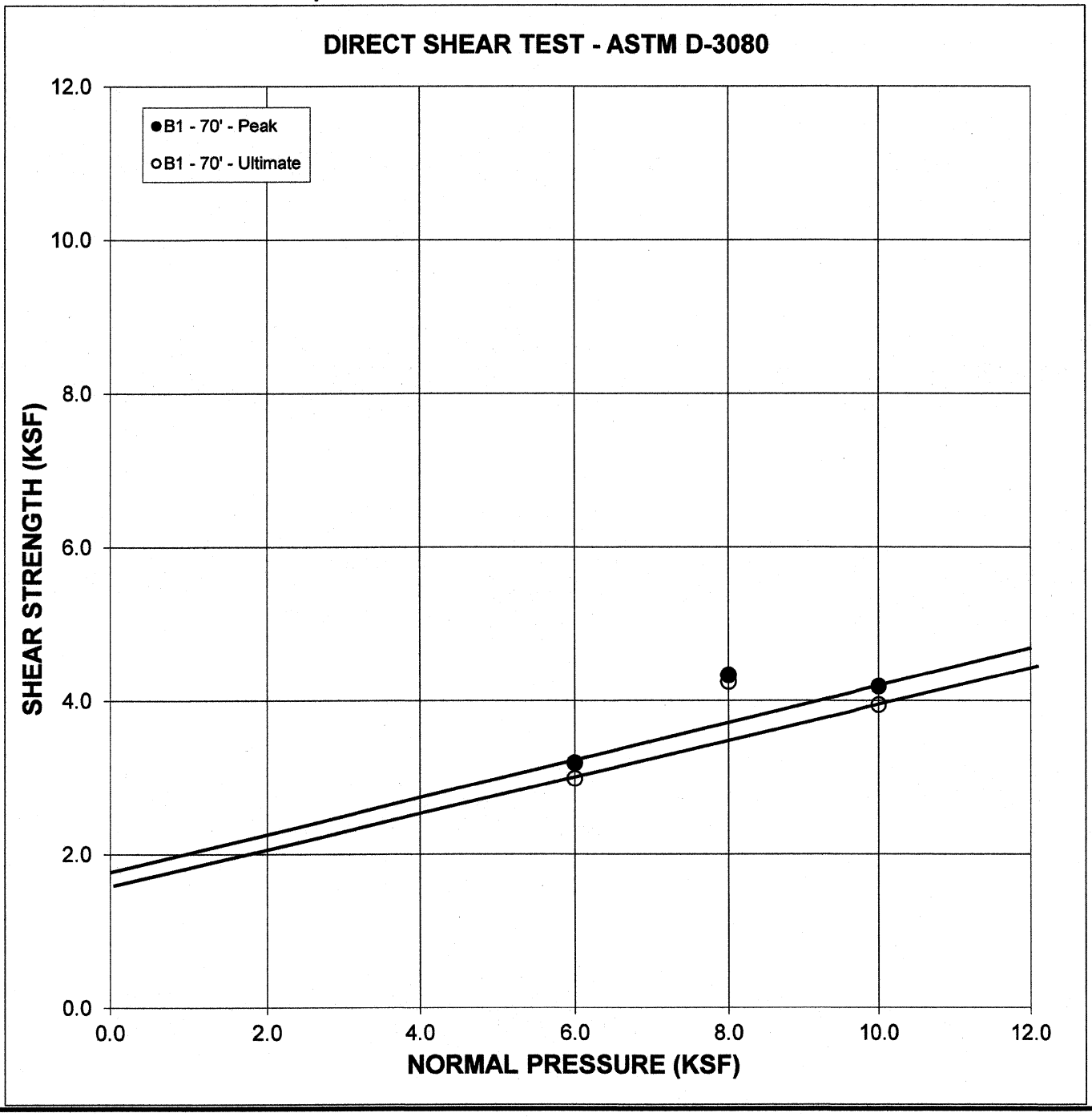
SHEAR DIAGRAM B-7

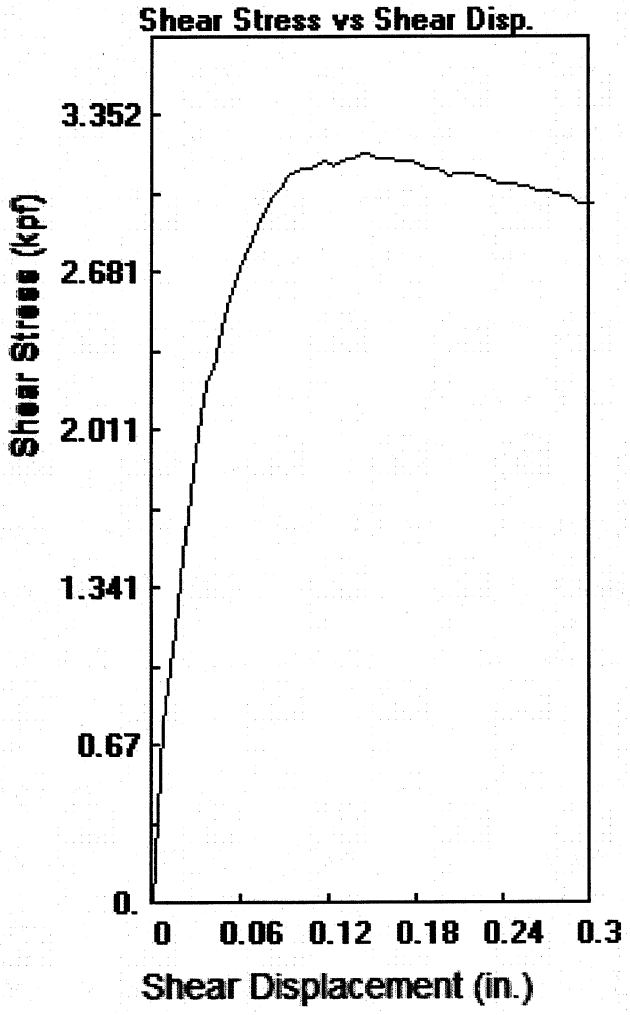
JN: SL19.3132 CONSULTANT JAI
CLIENT: Feffer/LVMH-456&468 Rodeo & 461 Beverly

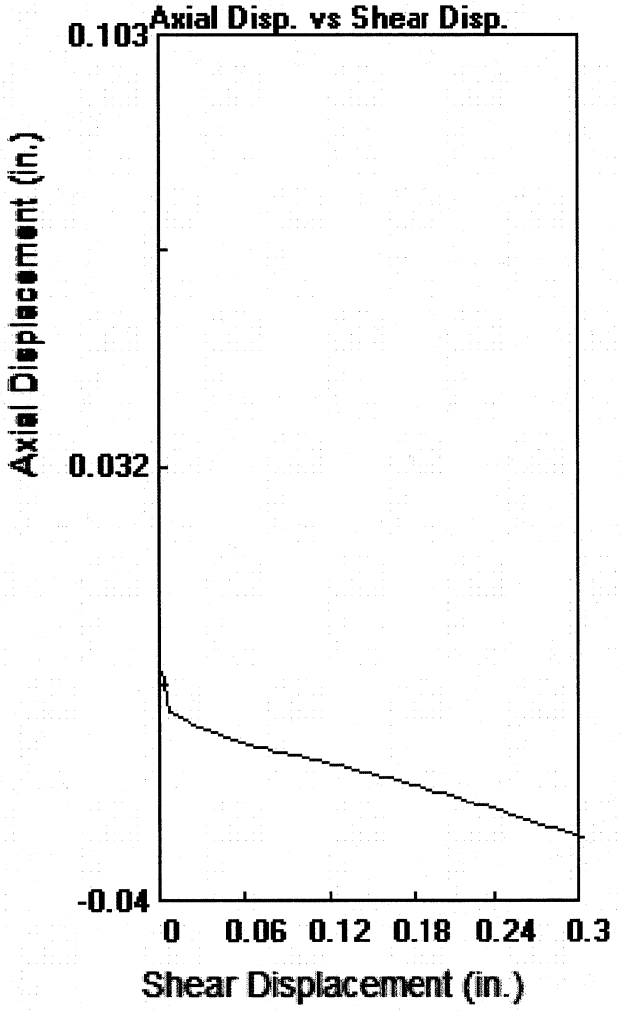
EARTH MATERIAL: ALLUVIUM

	PEAK	ULTIMATE	
Phi Angle	13.5	13	degrees
Cohesion	1760	1560	psf

Average Moisture Content	22.9%
Average Dry Density (pcf)	103.6
Percent Saturation	100.0%







Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 N BEVERLY DR

Job # 3132 — Soil Type:ALLUVIUM

Sample: 1 — Technician: BF

Boring: B1 — Axial Load: 6000 psf

Depth: 70 ft. — Shear Rate: 0.010 in./sec.

File: 3132B1706.dat — Distance: 0.30 in.

Stress at Max Def		Stress at Max Disp	
3192	0.141	0.296	2988

Maximum Load

3192 psf

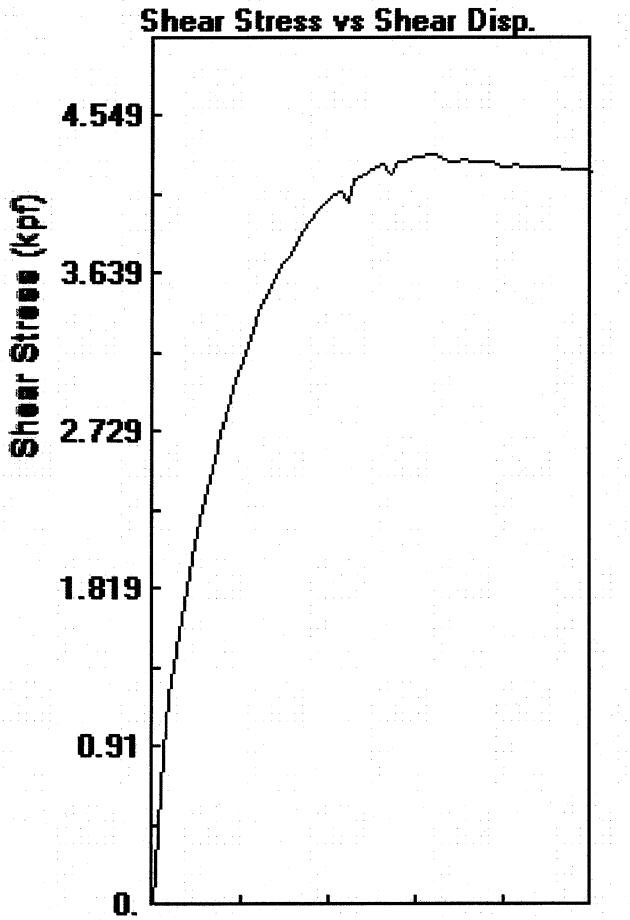
Shear Displacement at maximum Load

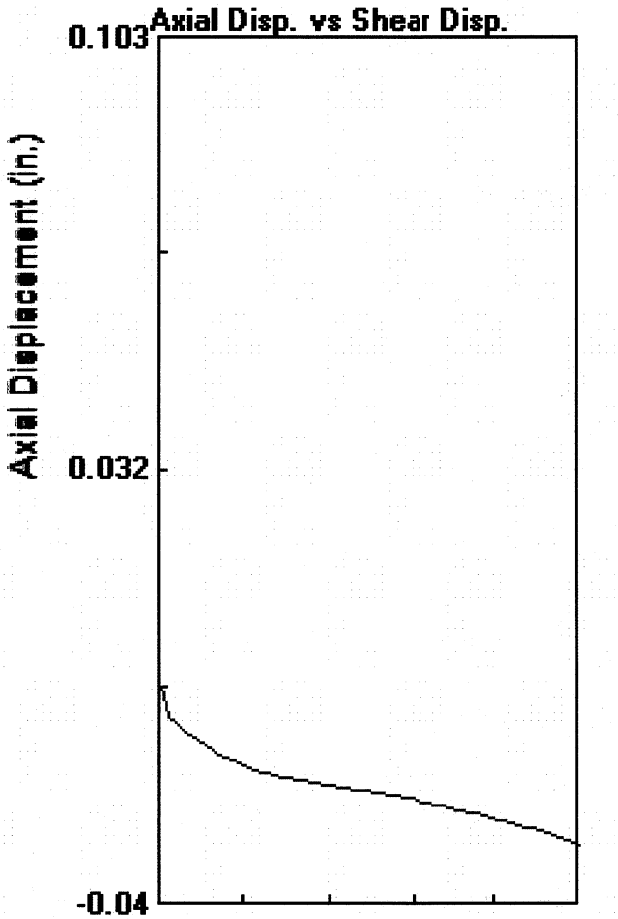
0.1407 in.

Date

8/1/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 2

Technician: BF

Boring: B1

Axial Load: 8000 psf

Depth: 70 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1708.dat

Distance: 0.30 in.

Stress at Max Def
4332 0.186

Stress at Max Disp
0.296 4248

Maximum Load

4332 psf

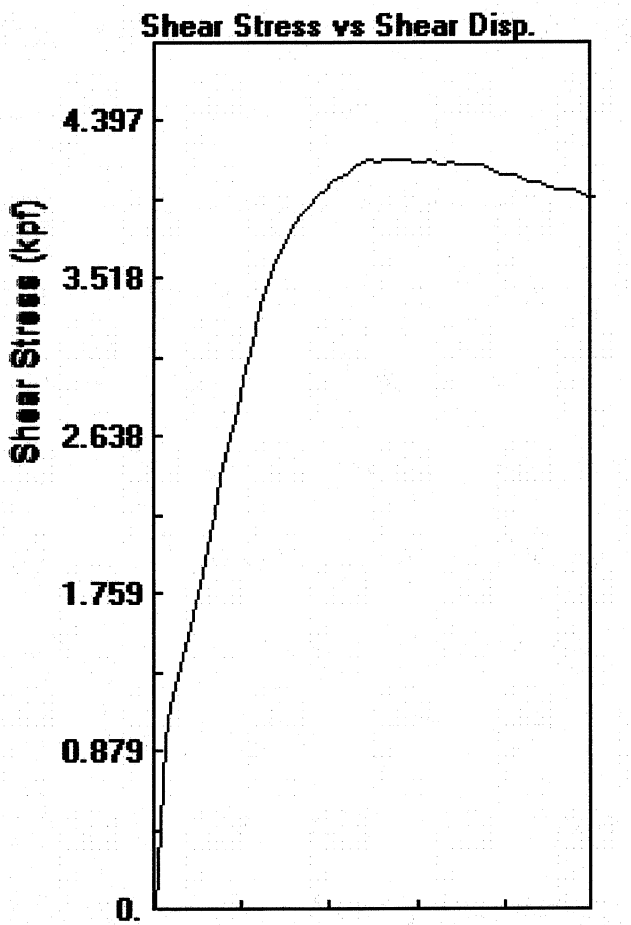
Shear Displacement at maximum Load

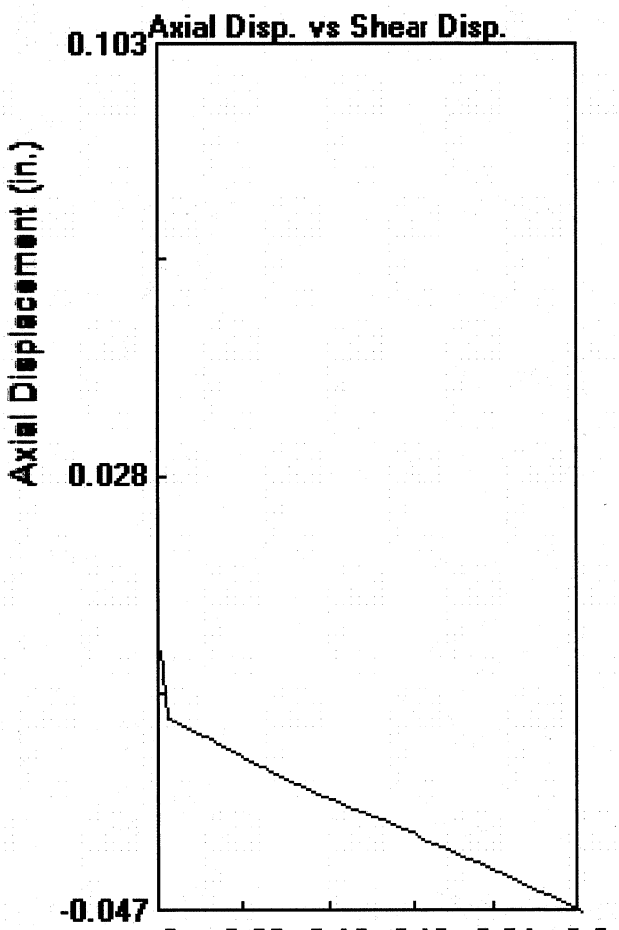
0.1857 in.

Date

8/1/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 3

Technician: BF

Boring: B1

Axial Load: 10000 psf

Depth: 70 ft.

Shear Rate: 0.010 in./sec.

File: 3132B17010.dat

Distance: 0.30 in.

Stress at Max Def
4188 0.146

Stress at Max Disp
0.296 3984

Maximum Load

4188 psf

Shear Displacement at maximum Load

0.1456 in.

Date

8/1/2019

Soil Labworks

SOIL LABWORKS LLC

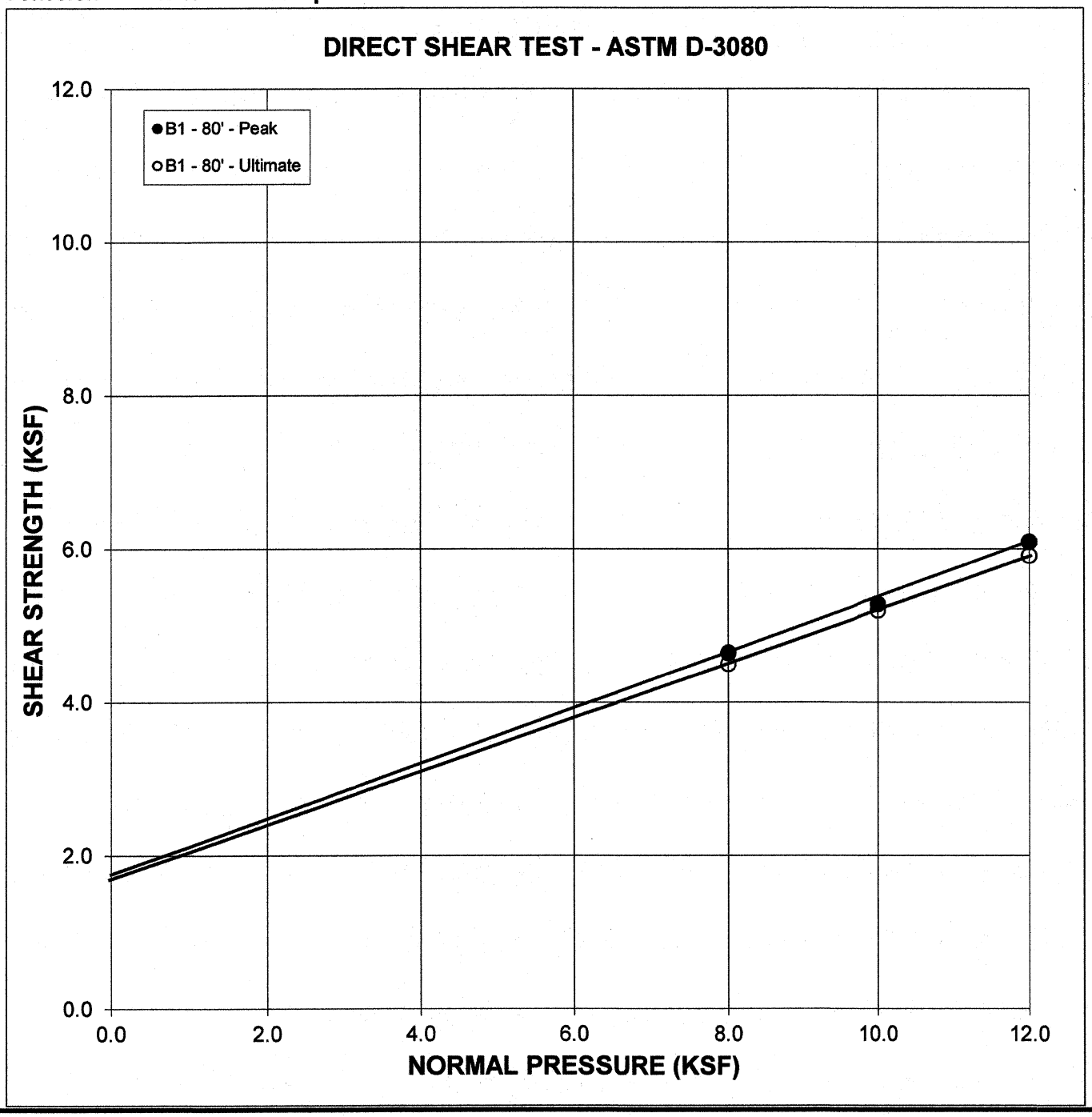
SHEAR DIAGRAM B-8

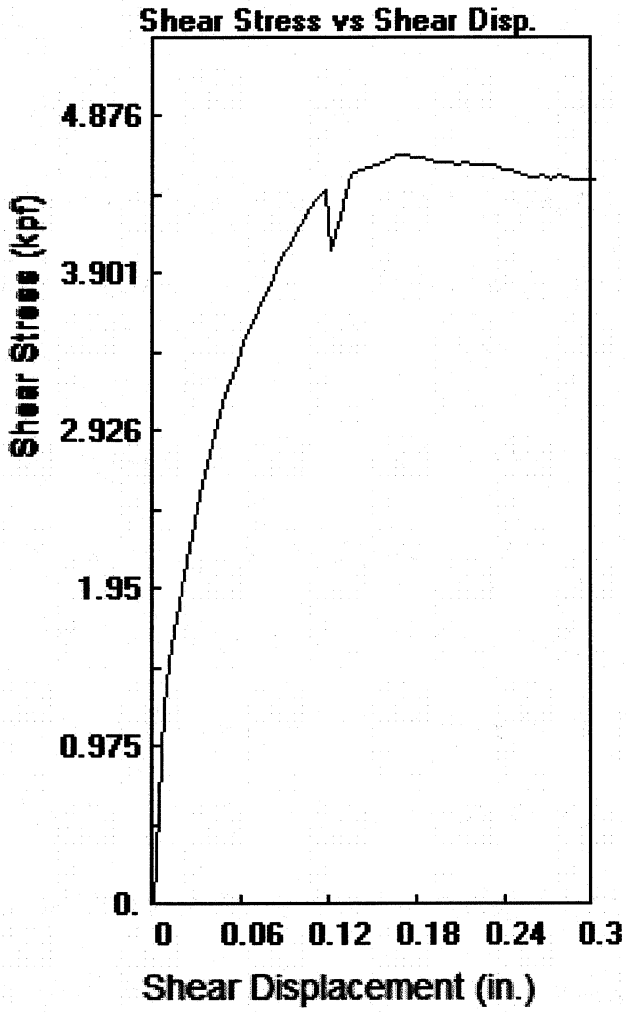
JN: SL19.3132 CONSULTANT JAI
CLIENT: Feffer/LVMH-456&468 Rodeo & 461 Beverly

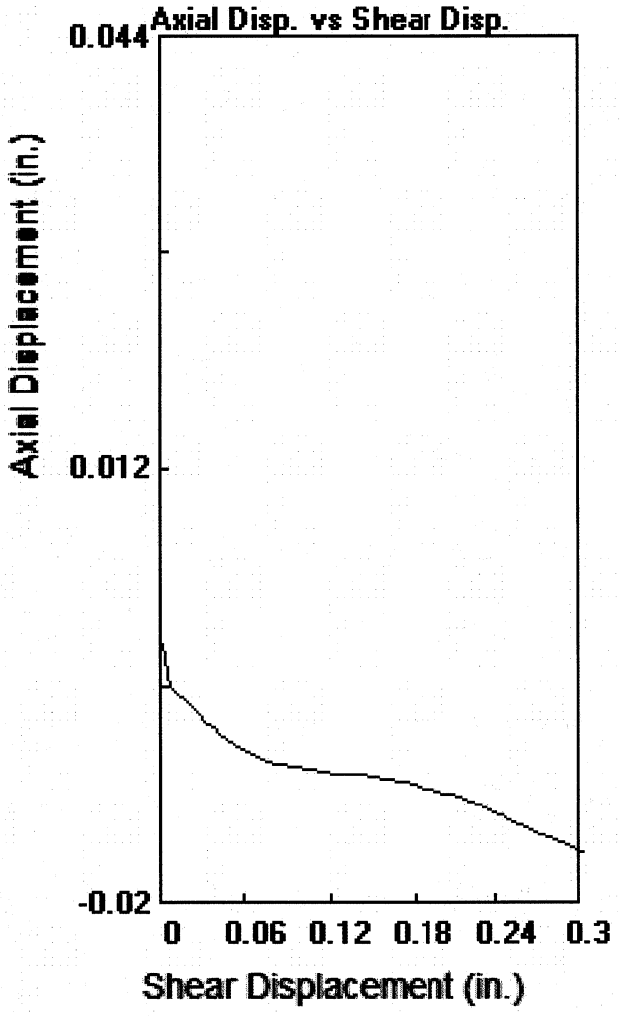
EARTH MATERIAL: ALLUVIUM

	PEAK	ULTIMATE	
Phi Angle	20	19	degrees
Cohesion	1740	1700	psf

Average Moisture Content	17.9%
Average Dry Density (pcf)	114.3
Percent Saturation	100.0%







Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 M BEVER;U DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 1

Technician: BF

Boring: B1

Axial Load: 8000 psf

Depth: 80 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1808.dat

Distance: 0.30 in.

Stress at Max Def
4644 0.166

Stress at Max Disp
0.296 4500

Maximum Load

4644 psf

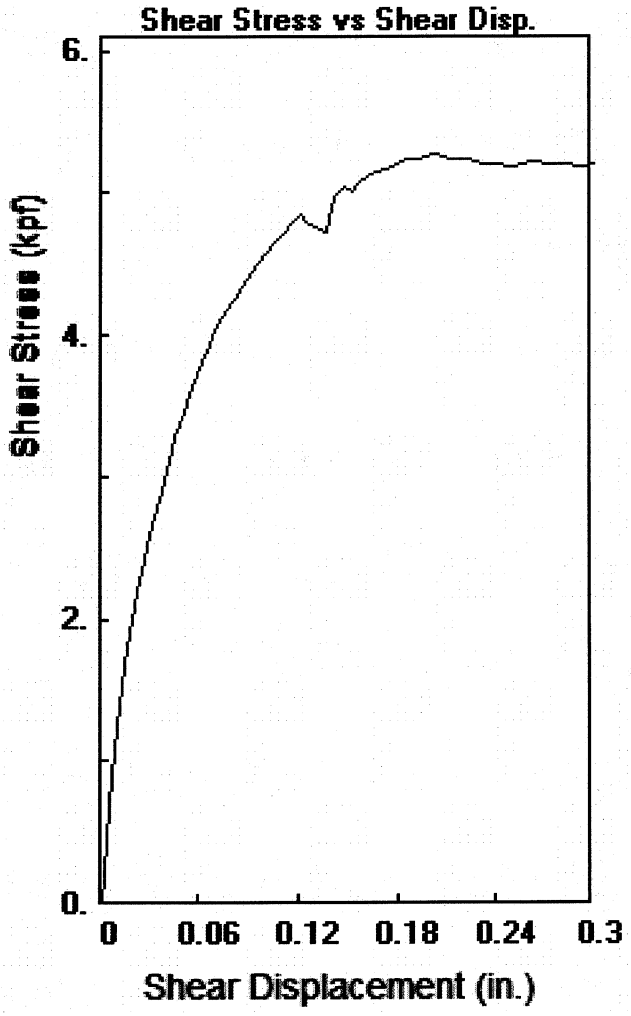
Shear Displacement at maximum Load

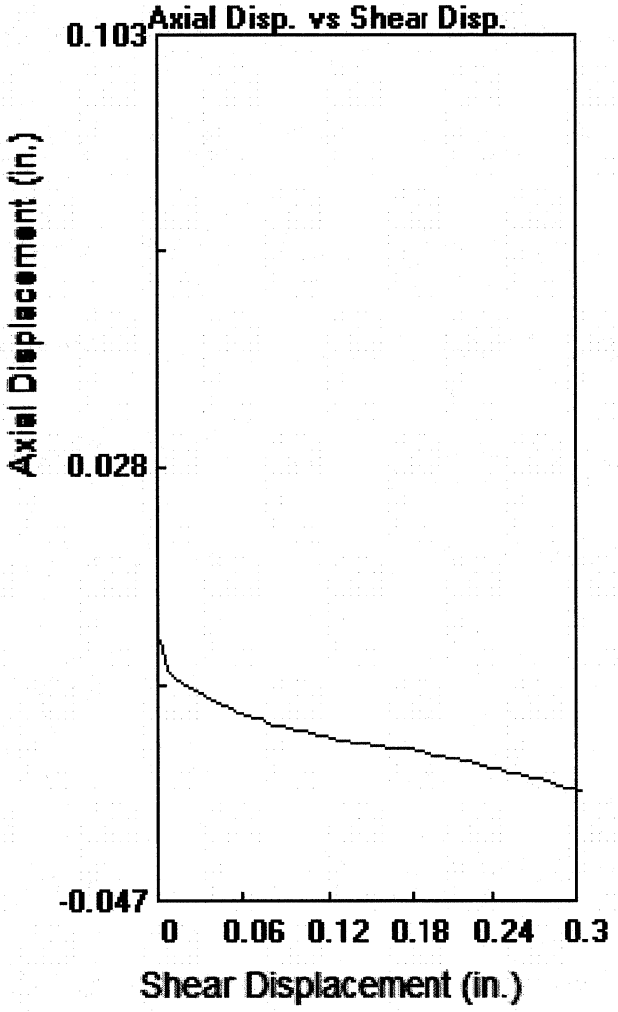
0.1657 in.

Date

8/1/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 2

Technician: BF

Boring: B1

Axial Load: 10000 psf

Depth: 80 ft.

Shear Rate: 0.010 in./sec.

File: 3132B18010.dat

Distance: 0.30 in.

Stress at Max Def
5280 0.201

Stress at Max Disp
0.296 5196

Maximum Load

5280 psf

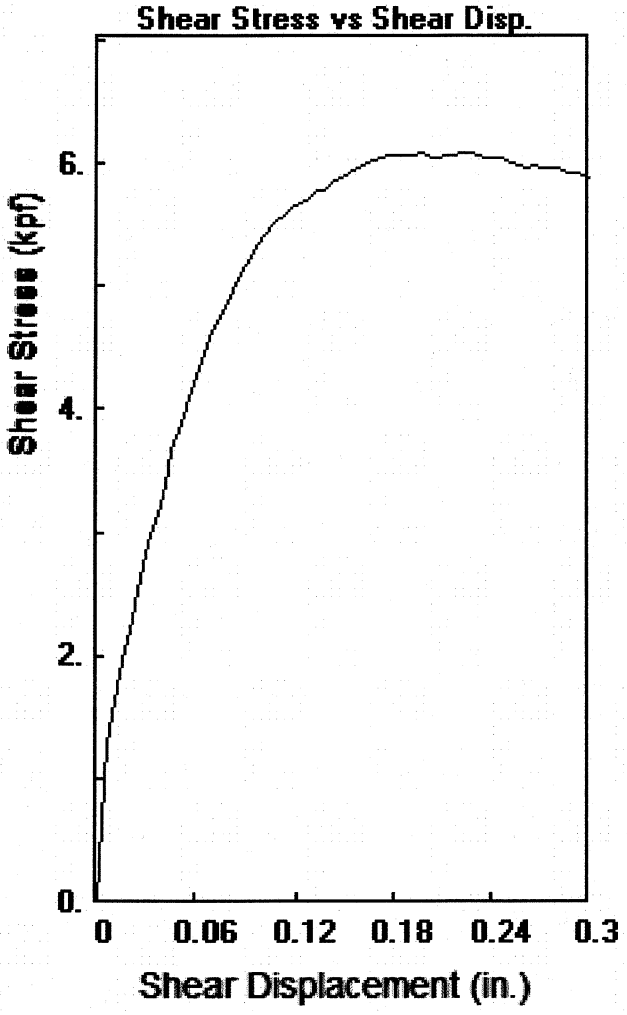
Shear Displacement at maximum Load

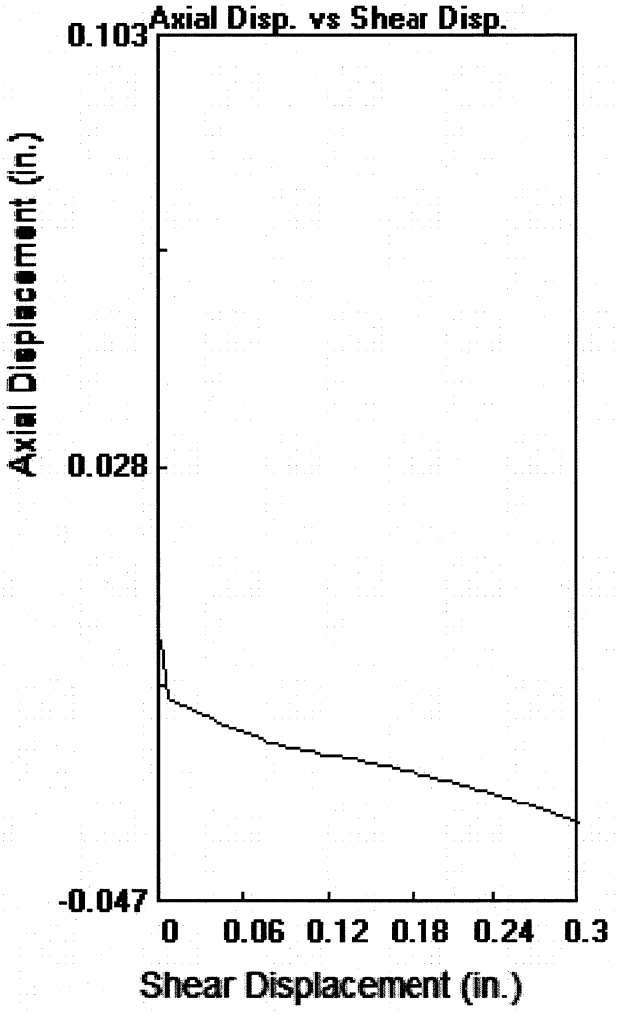
0.2007 in.

Date

8/1/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 3

Technician: BF

Boring: B1

Axial Load: 12000 psf

Depth: 80 ft.

Shear Rate: 0.010 in./sec.

File: 3132B18012.dat

Distance: 0.30 in.

Stress at Max Def
6096 0.196

Stress at Max Disp
0.296 5916

Maximum Load

6096 psf

Shear Displacement at maximum Load

0.1957 in.

Date

8/1/2019

Soil Labworks

SOIL LABWORKS LLC

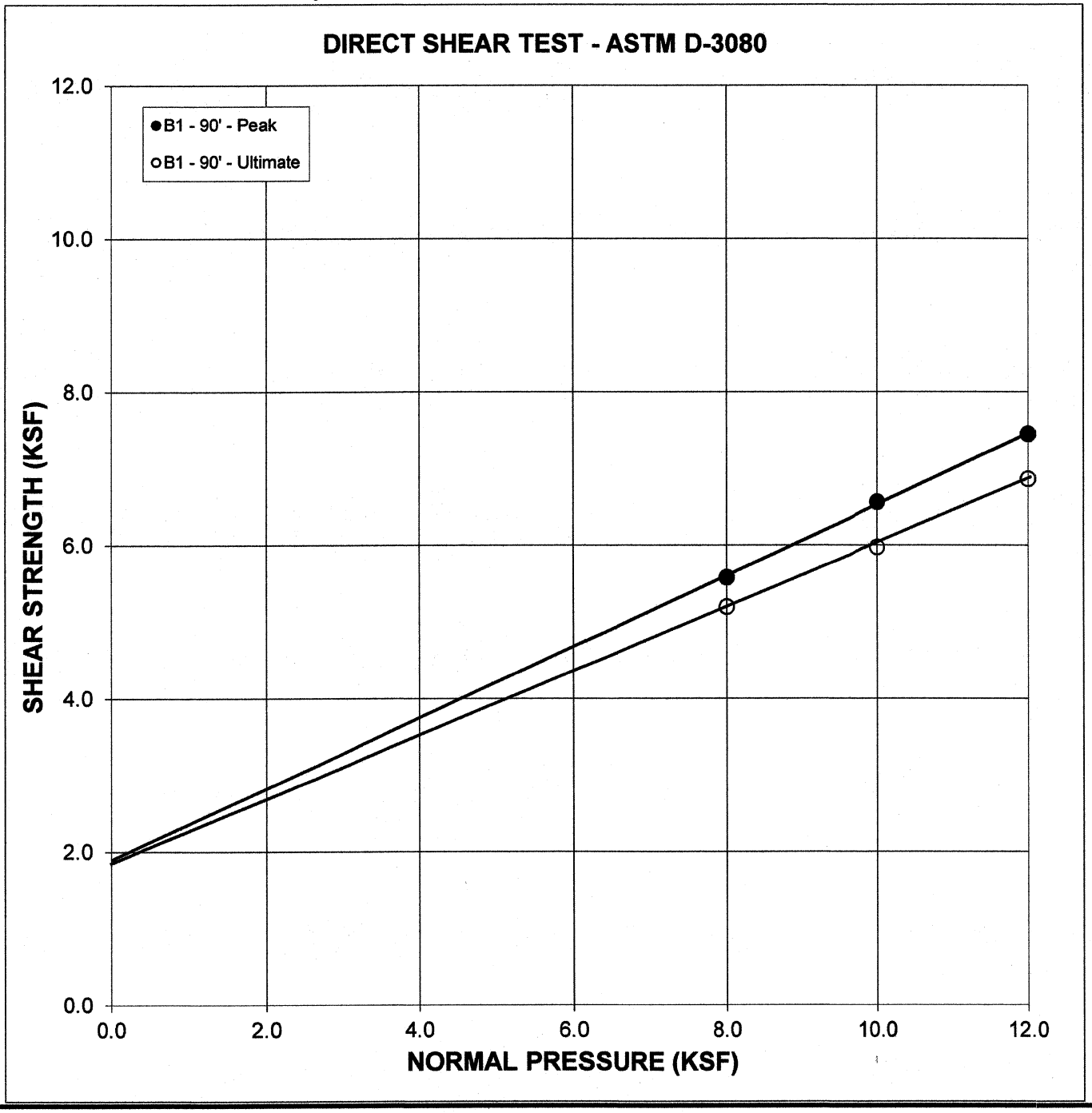
SHEAR DIAGRAM B-9

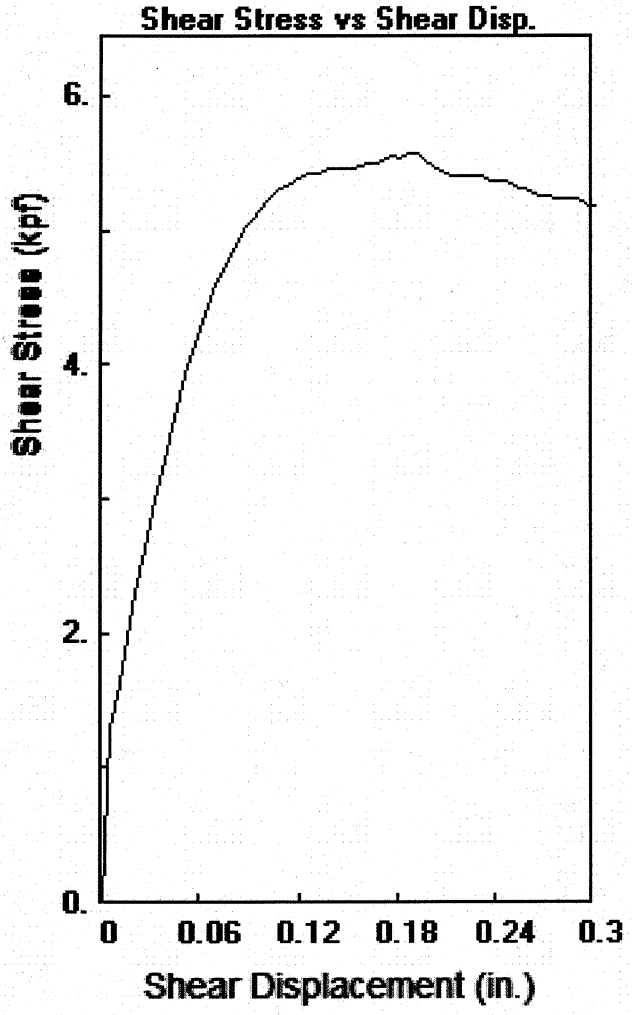
JN: SL19.3132 CONSULTANT JAI
CLIENT: Feffer/LVMH-456&468 Rodeo & 461 Beverly

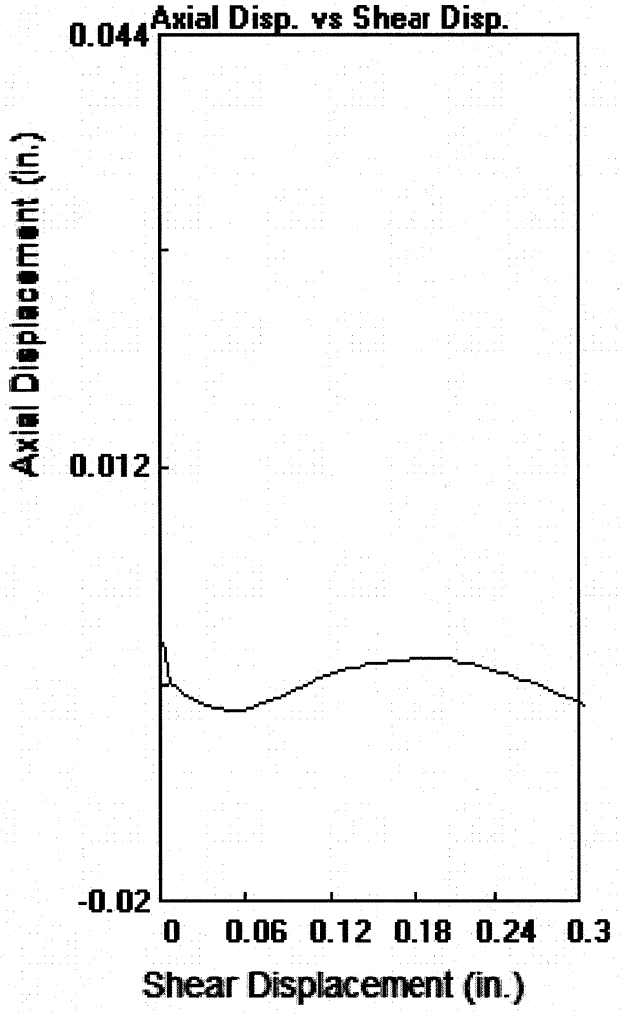
EARTH MATERIAL: ALLUVIUM

	PEAK	ULTIMATE	
Phi Angle	24.5	22	degrees
Cohesion	1920	1880	psf

Average Moisture Content	18.4%
Average Dry Density (pcf)	114.4
Percent Saturation	100.0%







Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 M BEVER;U DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 1

Technician: BF

Boring: B1

Axial Load: 8000 psf

Depth: 90 ft.

Shear Rate: 0.010 in./sec.

File: 3132B1908.dat

Distance: 0.30 in.

Stress at Max Def
5580 0.186

Stress at Max Disp
0.296 5196

Maximum Load

5580 psf

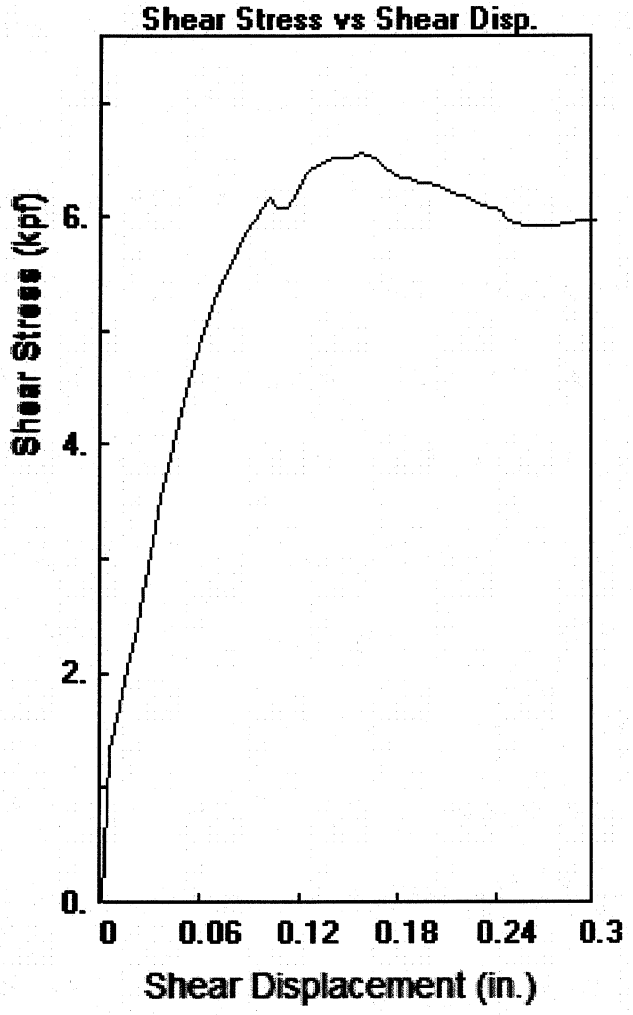
Shear Displacement at maximum Load

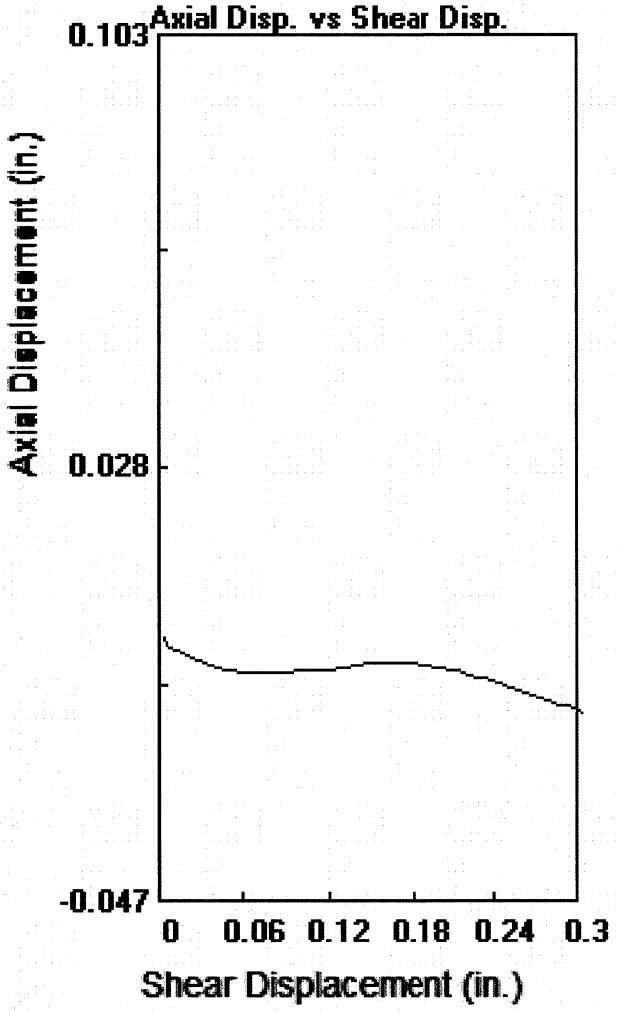
0.1857 in.

Date

8/2/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 2

Technician: BF

Boring: B1

Axial Load: 10000 psf

Depth: 90 ft.

Shear Rate: 0.010 in./sec.

File: 3132B19010.dat

Distance: 0.30 in.

Stress at Max Def
6564 0.156

Stress at Max Disp
0.296 5976

Maximum Load

6564 psf

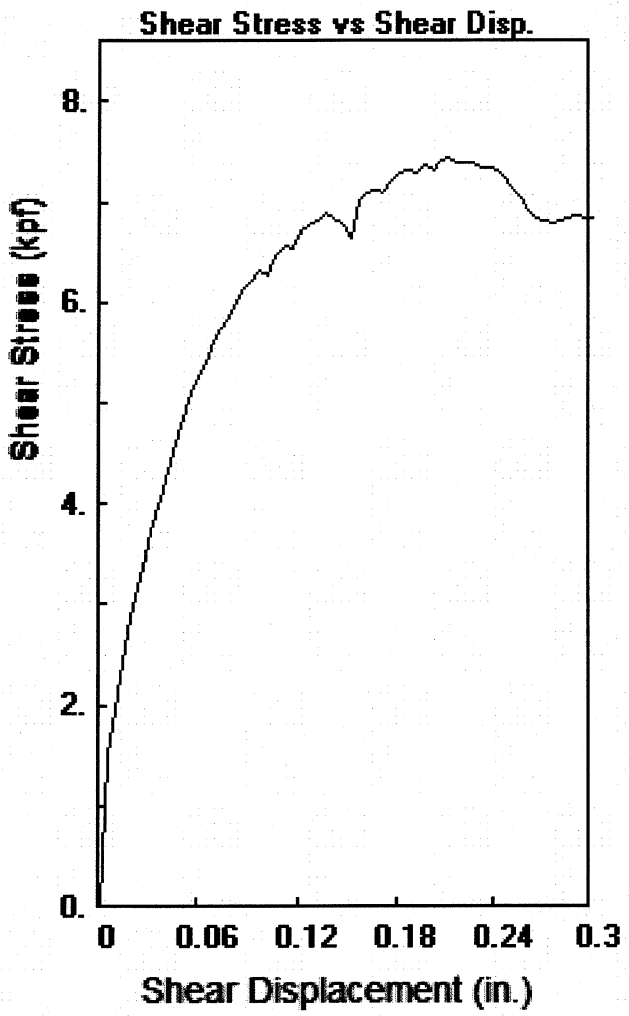
Shear Displacement at maximum Load

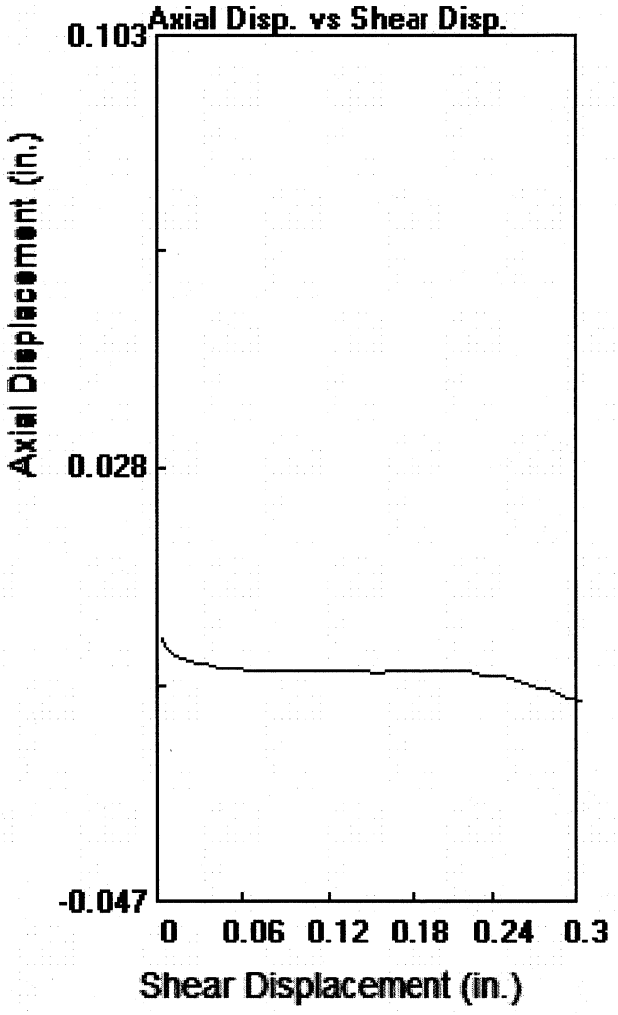
0.1558 in.

Date

8/2/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 3

Technician: BF

Boring: B1

Axial Load: 12000 psf

Depth: 90 ft.

Shear Rate: 0.010 in./sec.

File: 3132B19012.dat

Distance: 0.30 in.

Stress at Max Def
7452 0.211

Stress at Max Disp
0.296 6864

Maximum Load

7452 psf

Shear Displacement at maximum Load

0.2108 in.

Date

8/2/2019

Soil Labworks

SOIL LABWORKS LLC

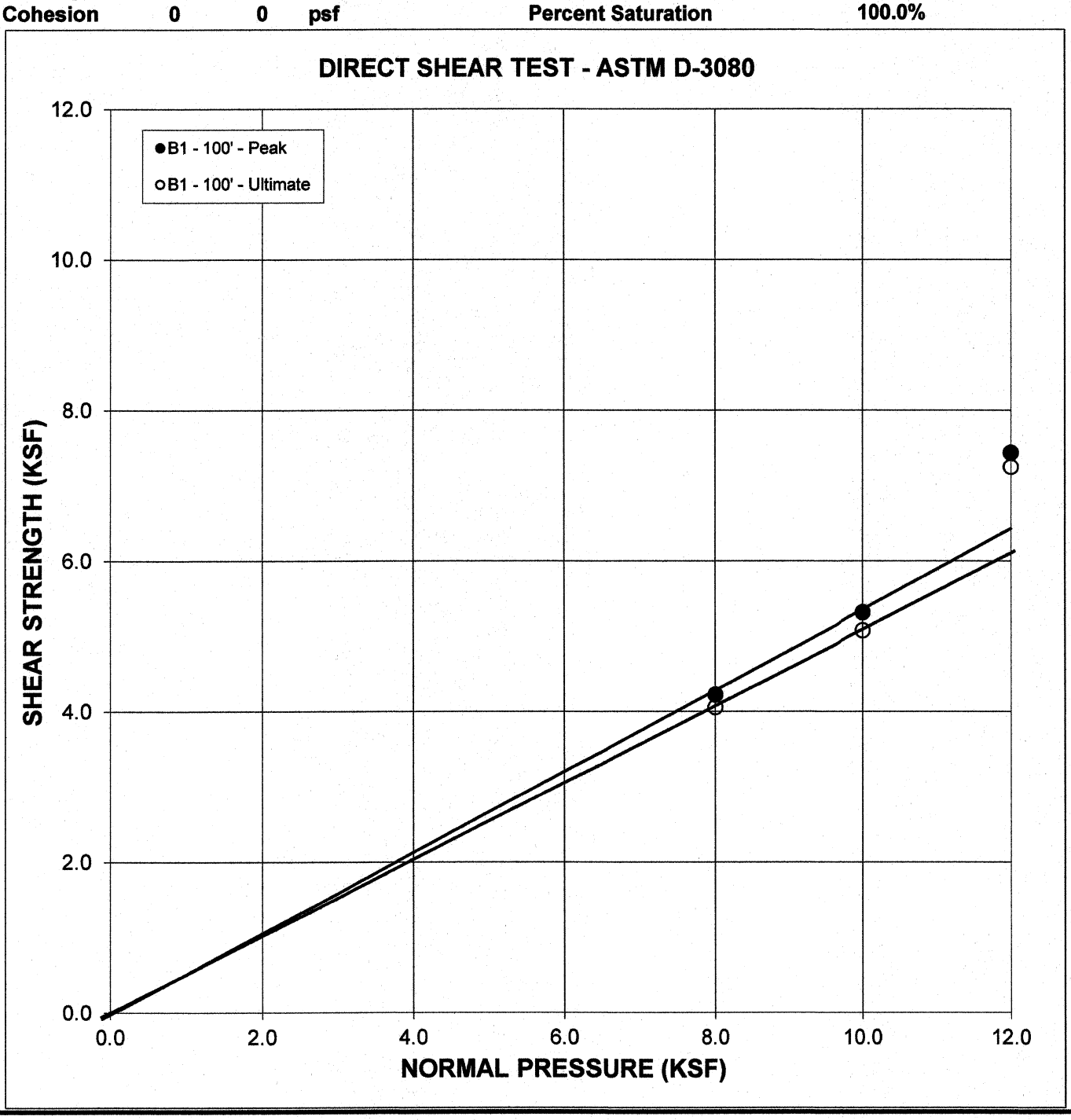
SHEAR DIAGRAM B-10

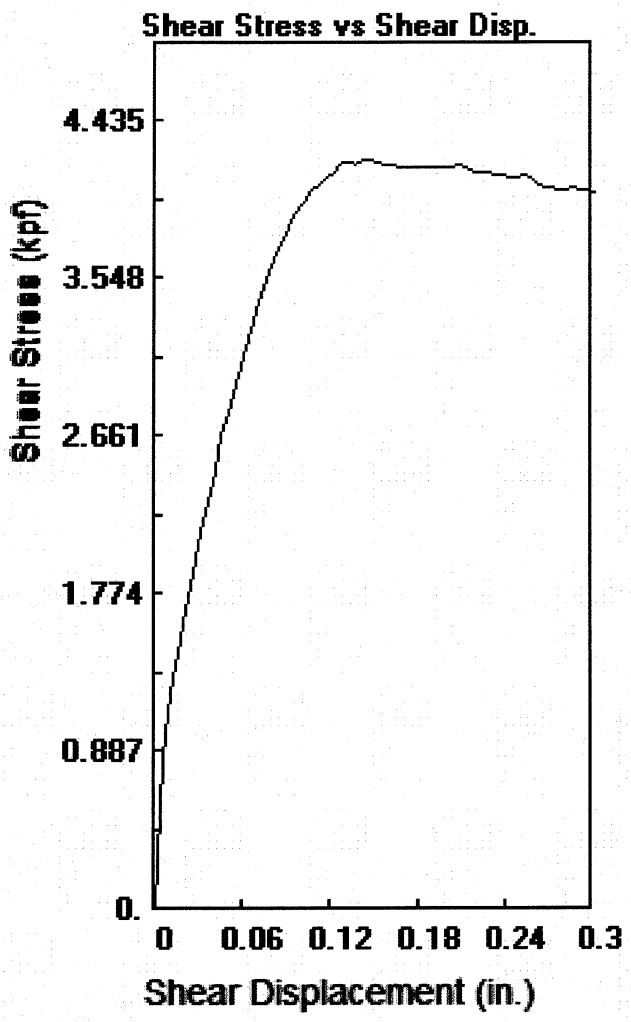
JN: SL19.3132 CONSULTANT JAI
CLIENT: Feffer/LVMH-456&468 Rodeo & 461 Beverly

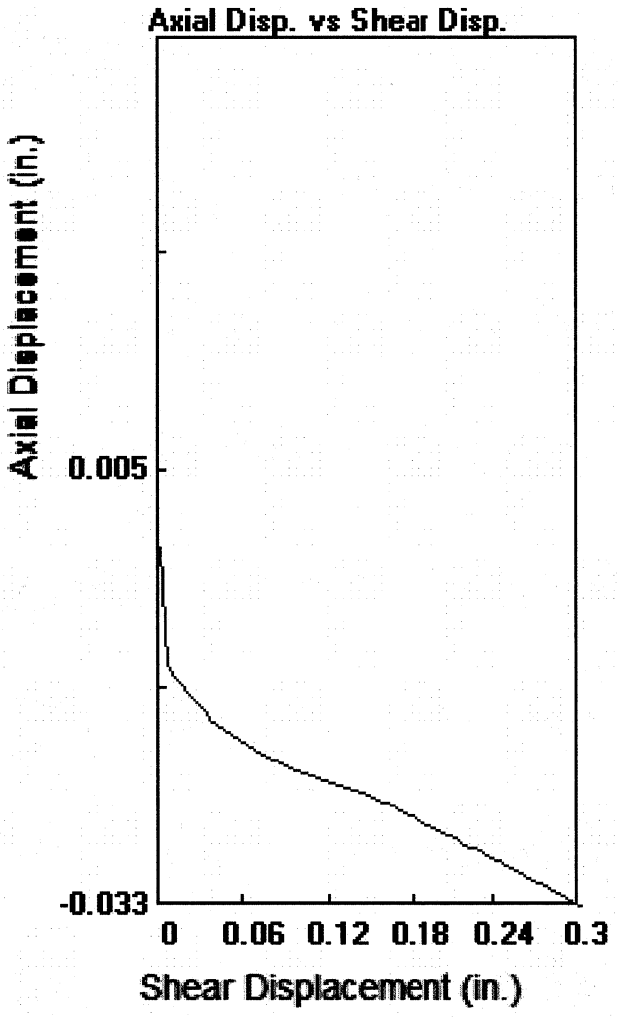
EARTH MATERIAL: ALLUVIUM

	PEAK	ULTIMATE	
Phi Angle	28	26.5	degrees
Cohesion	0	0	psf

Average Moisture Content	20.5%
Average Dry Density (pcf)	118.6
Percent Saturation	100.0%







Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 M BEVER;U DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 1

Technician: BF

Boring: B1

Axial Load: 8000 psf

Depth: 100 ft.

Shear Rate: 0.010 in./sec.

File: 3132B11008.dat

Distance: 0.30 in.

Stress at Max Def
4224 0.141

Stress at Max Disp
0.296 4056

Maximum Load

4224 psf

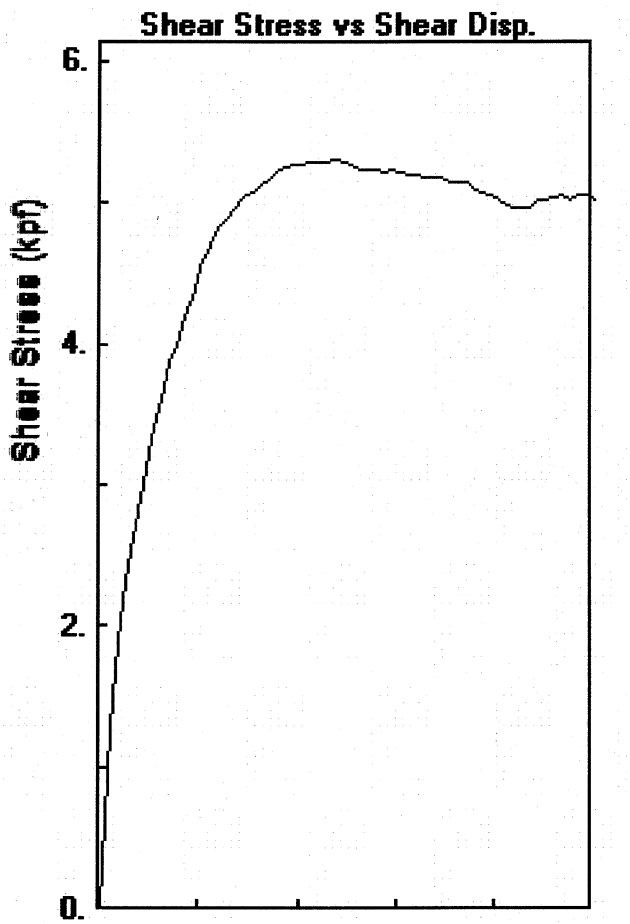
Shear Displacement at maximum Load

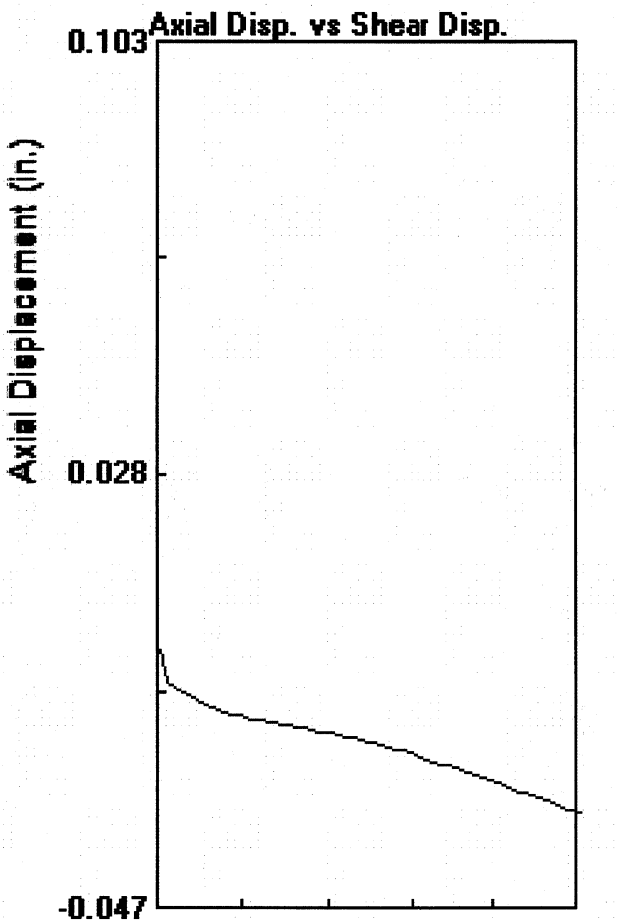
0.1406 in.

Date

8/2/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 N BEVERLY DR

Job # 3132

Soil Type:ALLUVIUM

Sample: 2

Technician: BF

Boring: B1

Axial Load: 10000 psf

Depth: 100 ft.

Shear Rate: 0.010 in./sec.

File: 3132B110010.dat

Distance: 0.30 in.

Stress at Max Def
5316 0.141

Stress at Max Disp
0.296 5076

Maximum Load

5316 psf

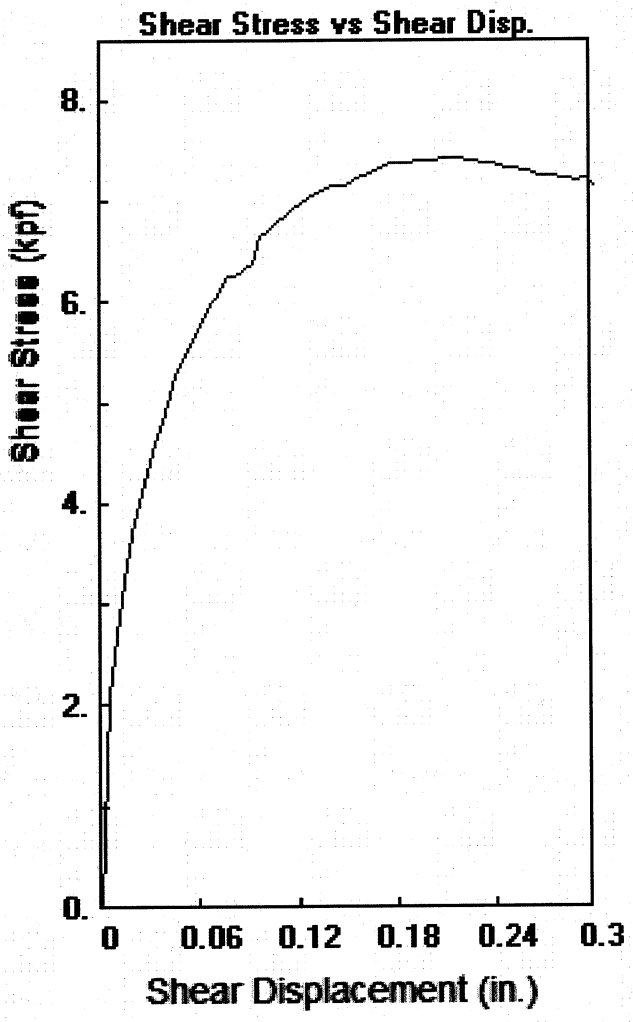
Shear Displacement at maximum Load

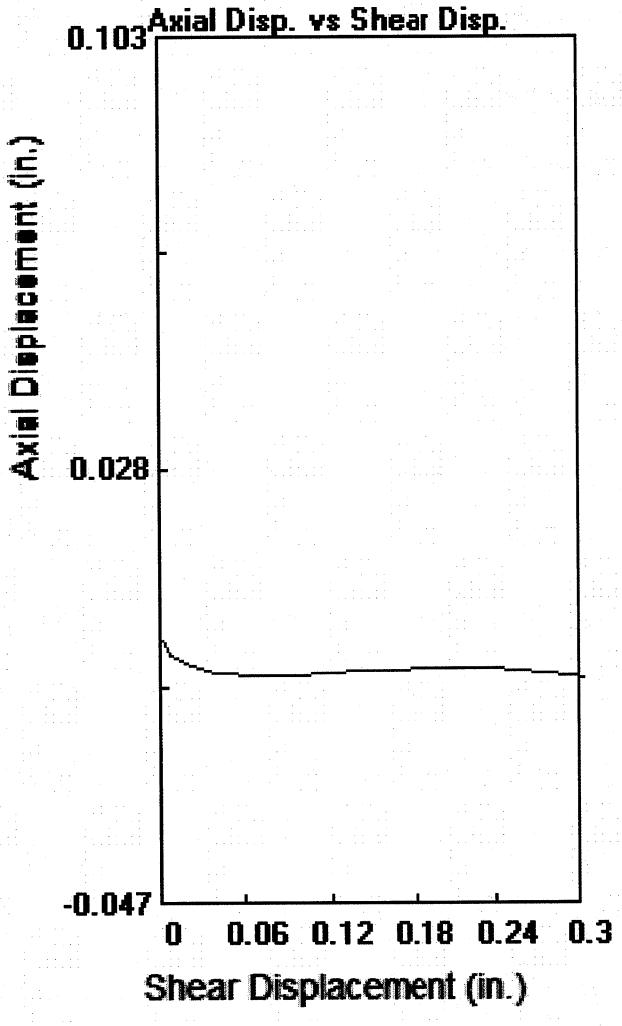
0.1406 in.

Date

8/2/2019

Soil Labworks





Parameters

Client: FEFFER/LVMH

Location: 456 468 N RODEO DR 461 N BEVERLY DR

Job # 3132 — Soil Type:ALLUVIUM

Sample: 3 — Technician: BF

Boring: B1 — Axial Load: 12000 psf

Depth: 100 ft. — Shear Rate: 0.010 in./sec.

File: 3132B110012.dat — Distance: 0.30 in.

Stress at Max Def: 7440 0.206

Stress at Max Disp: 0.296 7248

Maximum Load

7440 psf

Shear Displacement at maximum Load

0.2055 in.

Date

8/2/2019

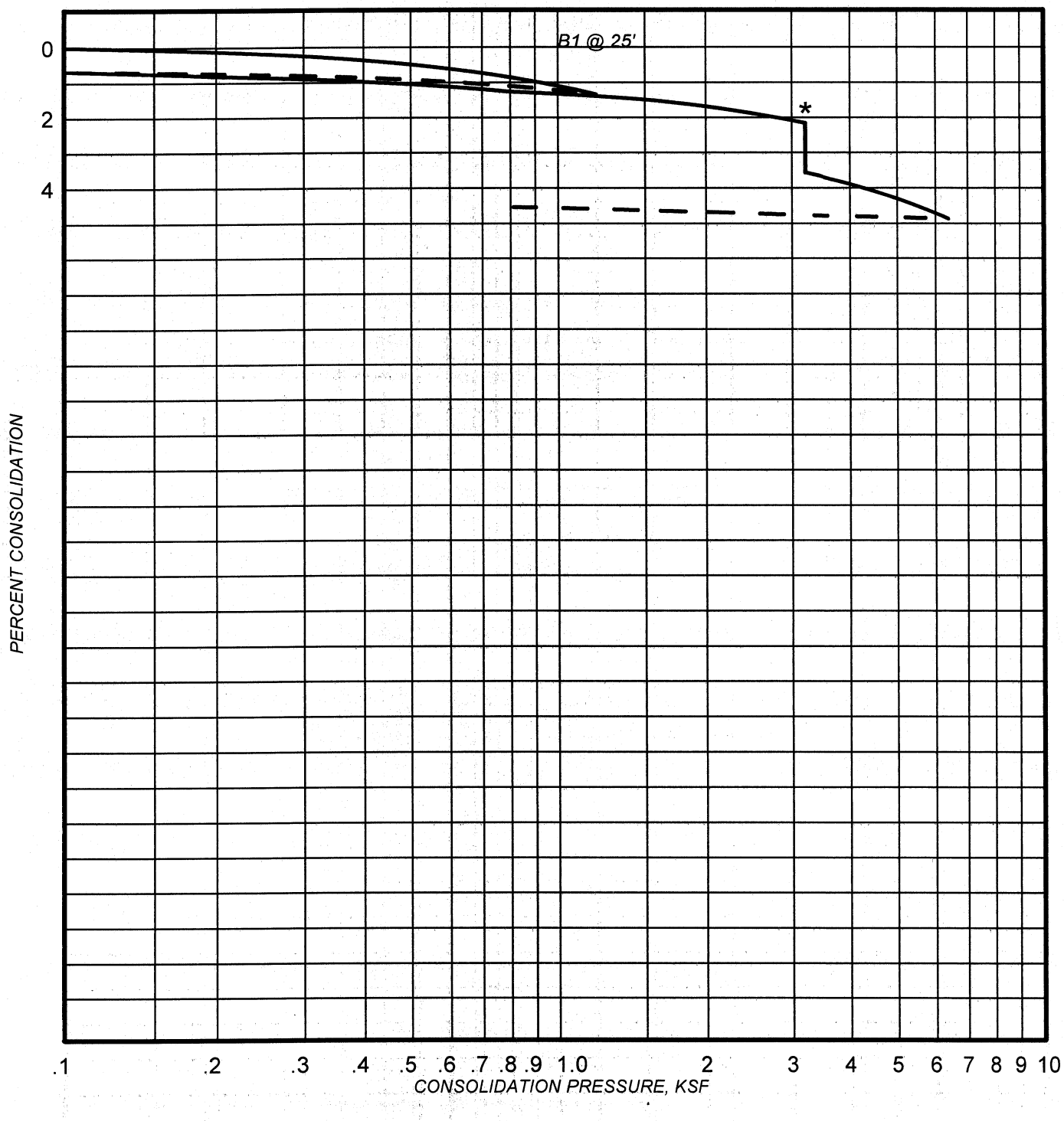
Soil Labworks

CONSOLIDATION TEST

PROJECT: 3132 FEFFER/LVMH 456 & 468 N RODEO DR & 461 N BEVERLY DR

SAMPLE: B1 @ 25'

ALLUVIUM



* Water Added

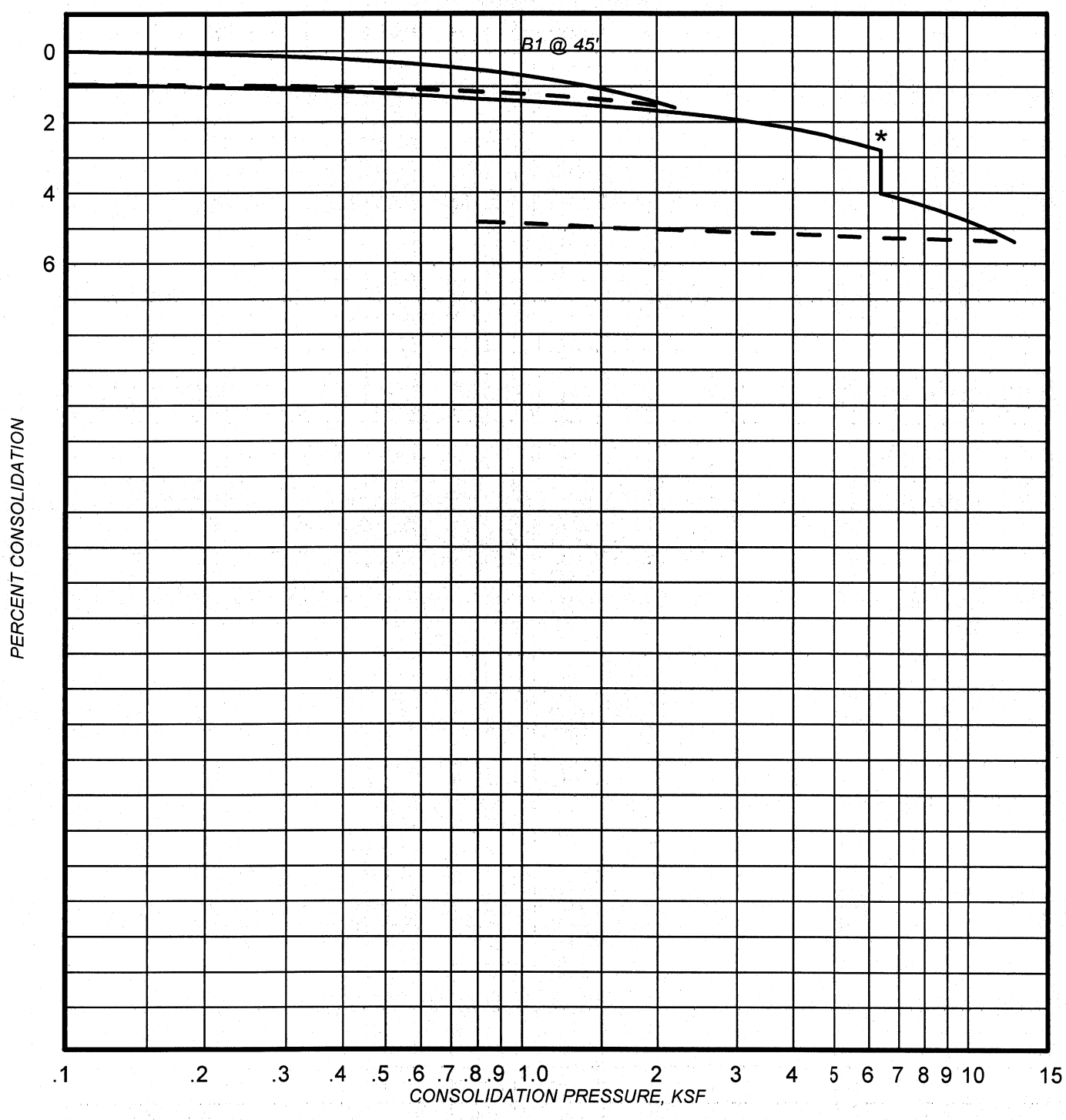
PLATE:

CONSOLIDATION TEST

PROJECT: 3132 FEFFER/LVMH 456 & 468 N RODEO DR & 461 N BEVERLY DR

SAMPLE: B1 @ 45'

ALLUVIUM



* Water Added

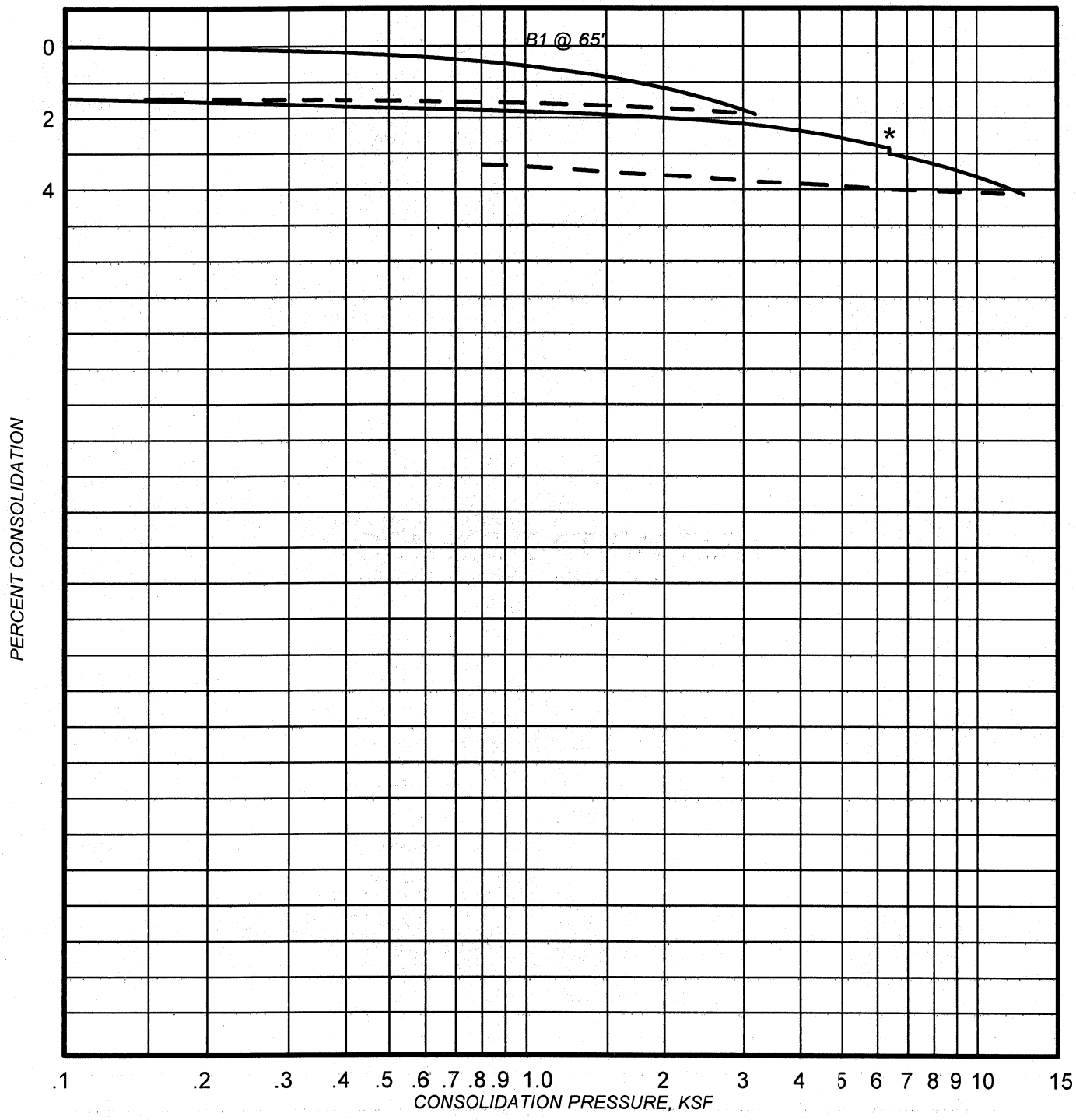
PLATE:

CONSOLIDATION TEST

PROJECT: 3132 FEFFER/LVMH 456 & 468 N RODEO DR & 461 N BEVERLY DR

SAMPLE: B1 @ 65'

ALLUVIUM



* Water Added

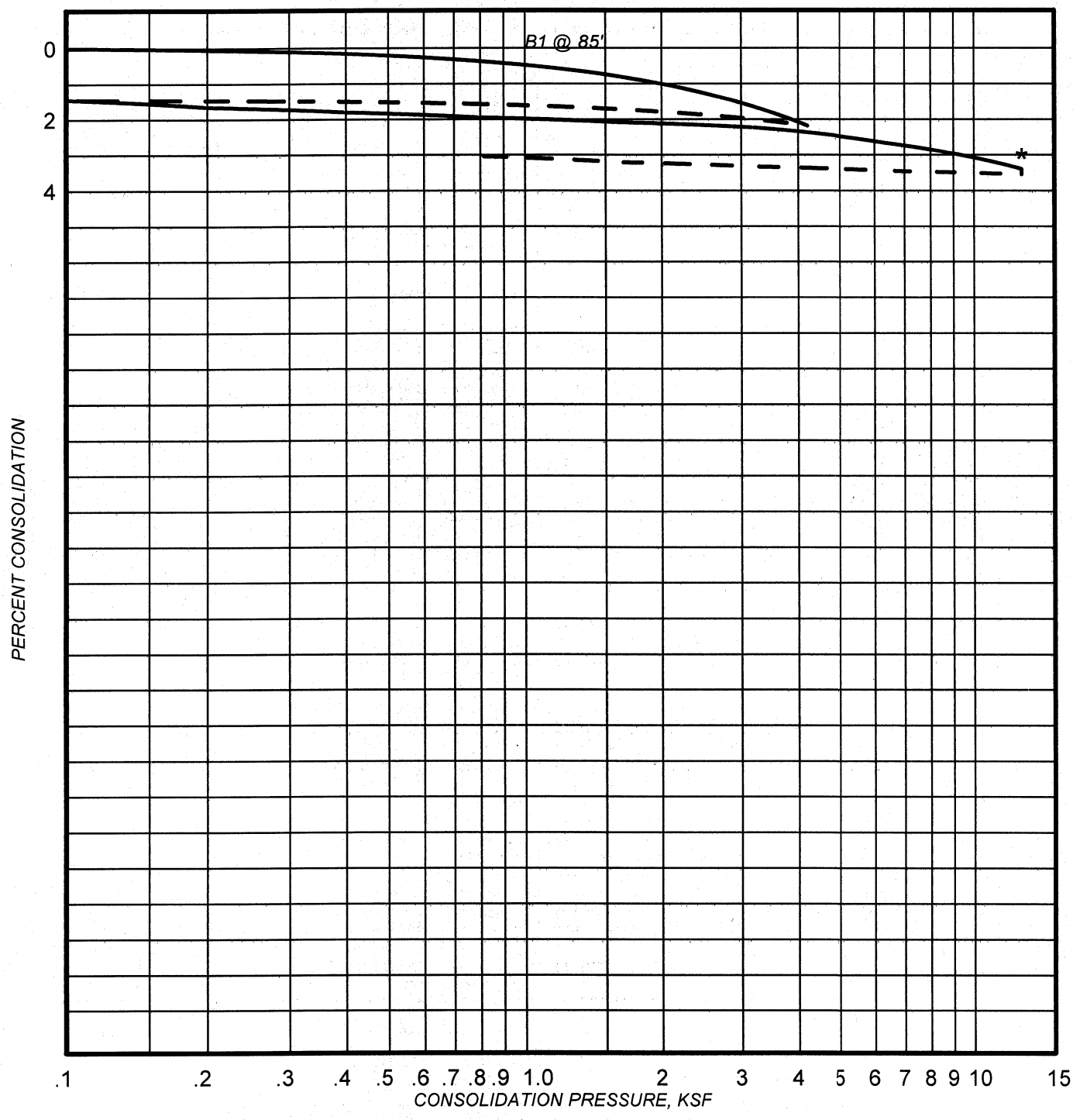
PLATE:

CONSOLIDATION TEST

PROJECT: 3132 FEFFER/LVMH 456 & 468 N RODEO DR & 461 N BEVERLY DR

SAMPLE: B1 @ 85'

ALLUVIUM



* Water Added

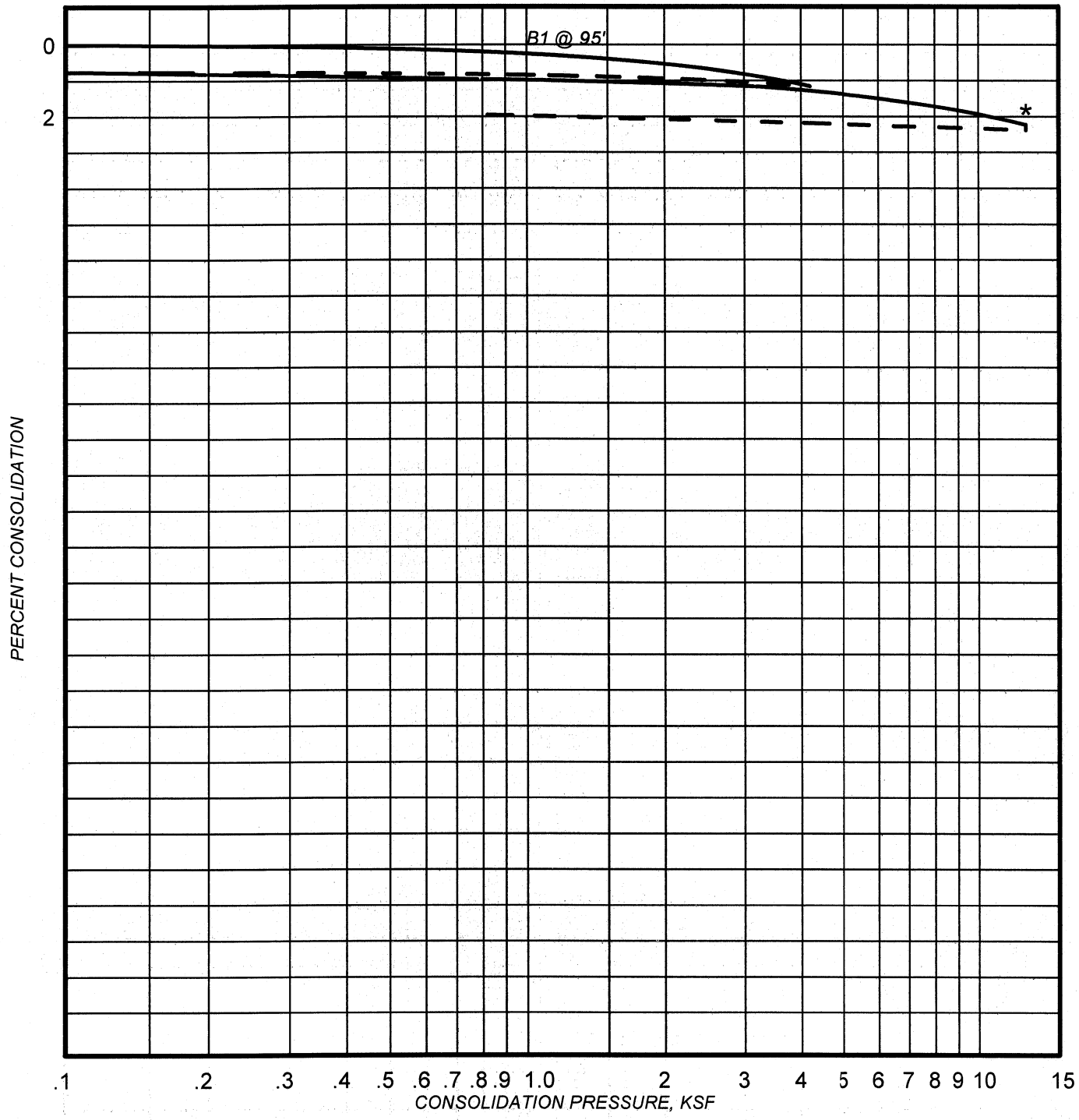
PLATE:

CONSOLIDATION TEST

PROJECT: 3132 FEFFER/LVMH 456 & 468 N RODEO DR & 461 N BEVERLY DR

SAMPLE: B1 @ 95'

ALLUVIUM



* Water Added

PLATE:

TRANSMITTAL LETTER

DATE: August 8, 2019

ATTENTION: **Josh Feffer**

TO: Feffer Geological Consulting
1990 S. Bundy Drive, 4th Floor
Los Angeles, CA 90025

SUBJECT: Laboratory Test Data
LVMH (Louis Vuitton)
Your #3132, HDR Lab #19-0488LAB

COMMENTS: Enclosed are the results for the subject project.

James T. Keegan, MD
Corrosion and Lab Services Section Manager

431 West Baseline Road · Claremont, CA 91711
Phone: 909.962.5485 · Fax: 909.626.3316

Table 1 - Laboratory Tests on Soil Samples

Feffer Geological Consulting
LVMH (Louis Vuitton)
Your #3132, HDR Lab #19-0488LAB
8-Aug-19

Sample ID			B2
Resistivity		**Units**	
as-received		ohm-cm	60,000
minimum		ohm-cm	1,840
pH			8.4
Electrical Conductivity		mS/cm	0.07
Chemical Analyses			
Cations			
calcium	Ca^{2+}	mg/kg	ND
magnesium	Mg^{2+}	mg/kg	ND
sodium	Na^{1+}	mg/kg	51
potassium	K^{1+}	mg/kg	19
Anions			
carbonate	CO_3^{2-}	mg/kg	ND
bicarbonate	HCO_3^{1-}	mg/kg	165
fluoride	F^{1-}	mg/kg	7.6
chloride	Cl^{1-}	mg/kg	5.5
sulfate	SO_4^{2-}	mg/kg	28
phosphate	PO_4^{3-}	mg/kg	ND
Other Tests			
ammonium	NH_4^{1+}	mg/kg	ND
nitrate	NO_3^{1-}	mg/kg	6.6
sulfide	S^{2-}	qual	na
Redox		mV	na

Minimum resistivity per CTM 643, Chlorides per CTM 422, Sulfates per CTM 417

Electrical conductivity in millisiemens/cm and chemical analyses were made on a 1:5 soil-to-water extract.

mg/kg = milligrams per kilogram (parts per million) of dry soil.

Redox = oxidation-reduction potential in millivolts

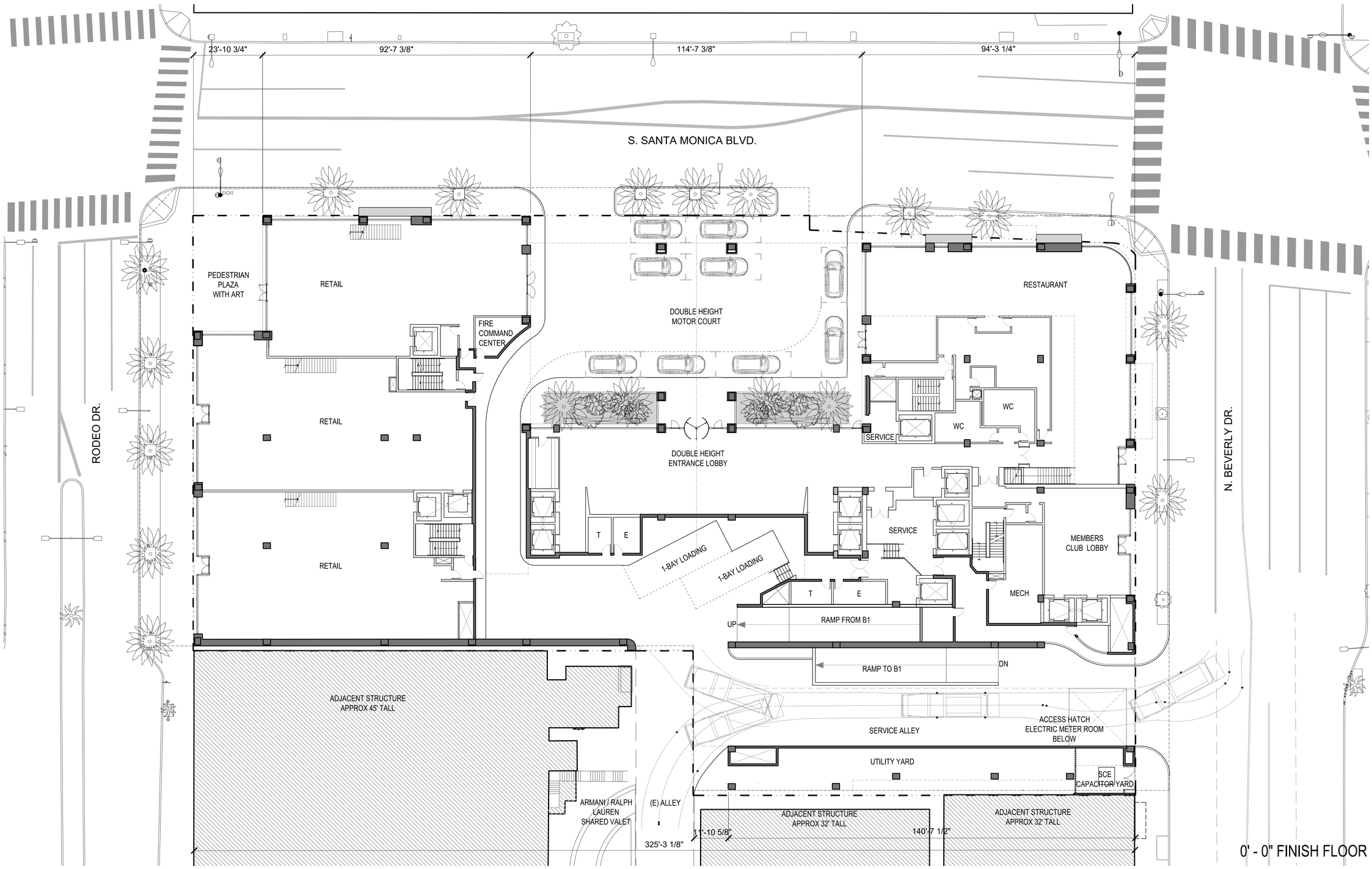
ND = not detected

na = not analyzed

431 West Baseline Road · Claremont, CA 91711
Phone: 909.962.5485 · Fax: 909.626.3316

APPENDIX 'C'

Conceptual Plans



Peter Marino Architect

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE

GROUND LEVEL FLOOR PLAN

SHEET TITLE

03/11/2020
DATE

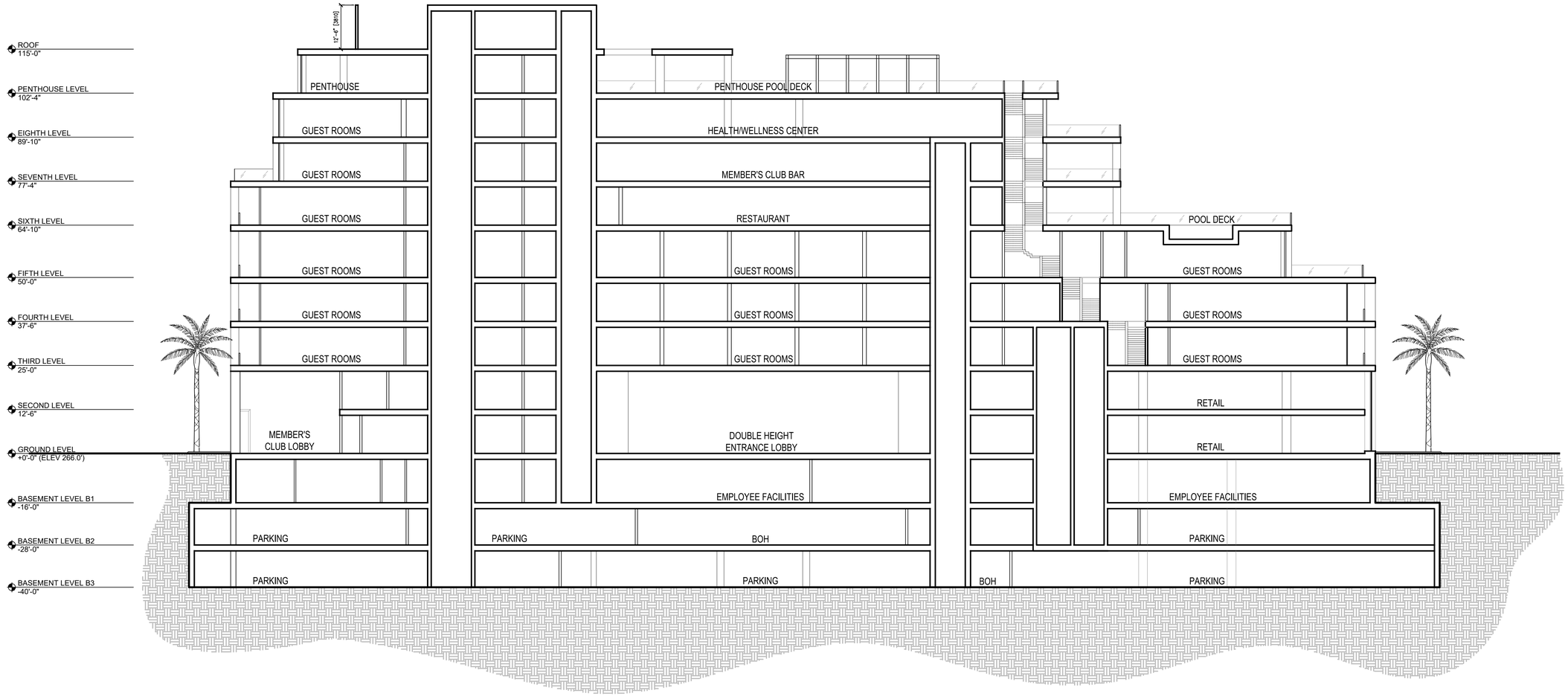
0 8' 16' 32'

1/16"=1'
SCALE

A 111
SHEET NO.

8404
GA PROJECT NO.

CHEVAL BLANC
BEVERLY HILLS
468 RODEO DR.
BEVERLY HILLS,CA 90210



1 LONGITUDINAL SECTION

SCALE: 1/16" = 1'- 0"

Peter Marino Architect

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE

SECTION
SHEET TITLE

03/11/2020
DATE

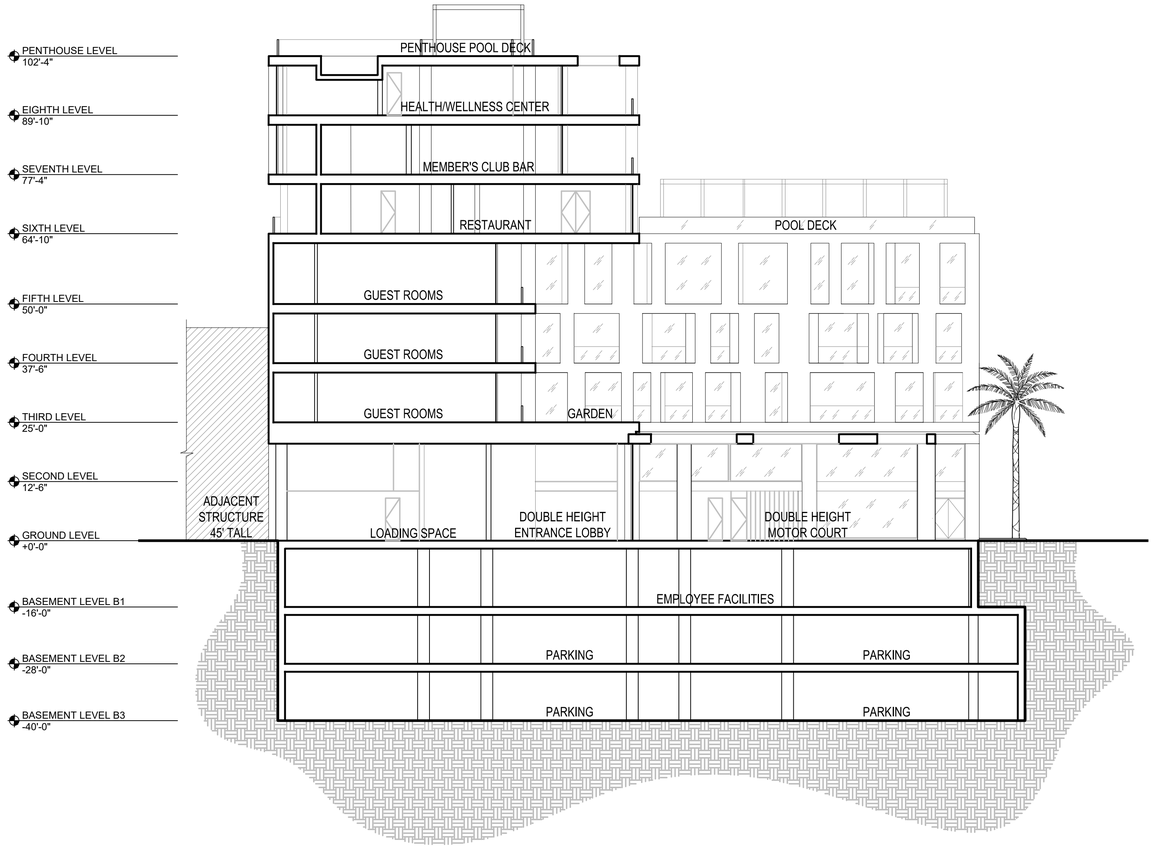
0 8' 16' 32'

1/16"=1'
SCALE

A 351
SHEET NO.

8404
GA PROJECT NO.

CHEVAL BLANC
BEVERLY HILLS
468 RODEO DR.
BEVERLY HILLS,CA 90210



1 SECTION THROUGH MOTOR COURT

SCALE: 1/16" = 1'- 0"

Peter Marino Architect

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE

SECTION
SHEET TITLE

03/11/2020
DATE

0 8' 16' 32'

1/16"=1'
SCALE

A 352
SHEET NO.

8404
GA PROJECT NO.

CHEVAL BLANC
BEVERLY HILLS
468 RODEO DR.
BEVERLY HILLS,CA 90210

APPENDIX ‘D’

Grading Specifications

STANDARD GRADING SPECIFICATIONS

These specifications present the usual and minimum requirements for grading operations performed under our supervision.

GENERAL

1) The Geotechnical Engineer and Engineering Geologist are the developer's representative on the project.

2) All clearing, site preparation or earth work performed on the project shall be conducted by the contractor under the supervision of the Geotechnical Engineer.

3) It is the contractor's responsibility to prepare the ground surface to receive the fills to the satisfaction of the Geotechnical Engineer and to place, spread, mix, water, and compact the fill in accordance with the specifications of the Geotechnical Engineer. The contractor shall also remove all material considered unsatisfactory by the Geotechnical Engineer.

4) It is the contractor's responsibility to have suitable and sufficient compaction equipment on the job site to handle the amount of fill being placed. If necessary, excavation equipment will be shut down to permit completion of compaction. Sufficient watering apparatus will also be provided by the contractor, with due consideration for the fill material, rate of placement and time of year.

5) A final report shall be issued by our firm outlining the contractor's conformance with these specifications.

SITE PREPARATION

1) All vegetation and deleterious materials such as rubbish shall be disposed of off-site. Soil, alluvium or rock materials determined by the Geotechnical Engineer as being unsuitable for placement in compacted fills shall be removed and wasted from the site. Any material incorporated as a part of a compacted fill must be approved by the Geotechnical Engineer.

2) The Engineer shall locate all houses, sheds, sewage disposal systems, large trees or structures on the site or on the grading plan to the best of his knowledge prior to preparing the ground surface.

Any underground structures such as cesspools, cisterns, mining shafts, tunnels, septic tanks, wells, pipe lines, or others not located prior to grading are to be removed or treated in a manner prescribed by the Geotechnical Engineer.

3) After the ground surface to receive fill has been cleared, it shall be scarified, disced or bladed by the contractor until it is uniform and free from ruts, hollows, hummocks or other uneven features which may prevent uniform compaction.

The scarified ground surface shall then be brought to optimum moisture, mixed as required, and compacted as specified. If the scarified zone is greater than twelve inches (12") in depth, the excess shall be removed and placed in lifts restricted to six inches (6").

Prior to placing fill, the ground surface to receive fill shall be inspected, tested and approved by the Geotechnical Engineer.

PLACING, SPREADING AND COMPACTION OF FILL MATERIALS

1) The selected fill material shall be placed in layers which when compacted shall not exceed six inches (6") in thickness. Each layer shall be spread evenly and shall be thoroughly mixed during the spreading to insure uniformity of material and moisture of each layer.

2) Where the moisture content of the fill material is below the limits specified by the Geotechnical Engineer, water shall be added until the moisture content is as required to assure thorough bonding and thorough compaction.

3) Where the moisture content of the fill material is above the limits specified by the Geotechnical Engineer, the fill materials shall be aerated by blading or other satisfactory methods until the moisture content is adequate.

COMPACTED FILLS

1) Any material imported or excavated on the property may be utilized in the fill, provided each material has been determined to be suitable by the Geotechnical Engineer. Roots, tree branches or other matter missed during clearing shall be removed from the fill as directed by the Geotechnical Engineer.

2) Rock fragments less than six inches (6") in diameter may be utilized in the fill, provided:

a) They are not placed in concentrated pockets.

b) There is a sufficient percentage of fine-grained material to surround the rocks.

c) The distribution of the rocks is supervised by the Geotechnical Engineer.

3) Rocks greater than six inches (6") in diameter shall be taken off-site, or placed in accordance with the recommendations of the Geotechnical Engineer in areas designated as suitable for rock disposal. Details for rock disposal such as location, moisture control, percentage of rock placed, will be referred to in the "Conclusions and Recommendations" section of the geotechnical report.

If the rocks greater than six inches (6") in diameter were not anticipated in the preliminary geotechnical and geology report, rock disposal recommendations may not have been made in the "Conclusions and Recommendations" section. In this case, the contractor shall notify the Geotechnical Engineer if rocks greater than six inches (6') in diameter are encountered. The Geotechnical Engineer will than prepare a rock disposal recommendation or request that such rocks be taken off-site.

4) Representative samples of materials to be utilized as compacted fill shall be analyzed in the laboratory by the Geotechnical Engineer to determine their physical properties. If any materials other than that previously tested is encountered during grading, the appropriate analysis of this material shall be conducted by the Geotechnical Engineer as soon as possible.

Material that is spongy, subject to decay or otherwise considered unsuitable shall not be used in the compacted fill.

5) Each layer shall be compacted to a minimum of ninety percent (90%) of the maximum density in compliance with the testing method specified by the controlling governmental agency (ASTM D-1557).

If compaction to a lesser percentage is authorized by the controlling governmental agency because of a specific land use or expansive soil conditions, the area to receive fill compacted to less than ninety percent (90%) shall either be delineated on the grading plan or appropriate reference made to the area in the geotechnical report.

6) Compaction shall be by sheeps foot roller, multi-wheeled pneumatic tire roller, or other types of acceptable rollers. Rollers shall be of such design that they will be able to compact the fill to the specified density. Rolling shall be accomplished while the fill material is at the specified moisture content. The final surface of the lot areas to receive slabs-on-grade should be rolled to a smooth, firm surface.

7) Field density tests shall be made by the Geotechnical Engineer of the compaction of each layer of fill. Density tests shall be made at intervals not to exceed two feet (2') of fill height provided all layers are tested. Where the sheeps foot rollers are used, the soil may be disturbed to a depth of several inches and density readings shall be taken in the compacted material below the disturbed surface. When these readings indicate the density of any layer of fill or portion thereof is below the required ninety percent (90%) density, the particular layer or portion shall be reworked until the required density has been obtained.

8) Buildings shall not span from cut to fill. Cut areas shall be over excavated and compacted to provide a fill mat of three feet (3').

FILL SLOPES

1) All fills shall be keyed and benched through all top soil, colluvium, alluvium, or creep material into sound bedrock or firm material where the slope receiving fill exceeds a ratio of five (5) horizontal to one (1) vertical, in accordance with the recommendations of the Geotechnical Engineer.

2) The key for side hill fills shall be a minimum of fifteen feet (15') within bedrock or firm materials, unless otherwise specified in the geotechnical report.

3) Drainage terraces and subdrainage devices shall be constructed in compliance with the ordinances of the controlling governmental agency, or with the recommendations of the Geotechnical Engineer.

4) The Contractor will be required to obtain a minimum relative compaction of ninety percent (90%) out to the finish slope face of fill slopes, buttresses, and stabilization fills. This may be achieved by either over-building

the slope and cutting back to the compacted core, or by direct compaction of the slope face with suitable equipment, or by any other procedure which produces the required compaction.

5) All fill slopes should be planted or protected from erosion by methods specified in the geotechnical report and by the governing agency.

6) Fill-over-cut slopes shall be properly keyed through topsoil, colluvium, or creep material into rock or firm materials. The transition zone shall be stripped of all soil prior to placing fill.

CUT SLOPES

1) The Engineering Geologist shall inspect all cut slopes excavated in rock, lithified, or formation material at vertical intervals not exceeding ten feet (10').

2) If any conditions not anticipated in the preliminary report such as perched water, seepage, lenticular or confined strata of a potentially adverse nature, unfavorably inclined bedding, joints, or fault planes, are encountered during grading, these conditions shall be analyzed by the Engineering Geologist and Geotechnical Engineer; and recommendations shall be made to treat these problems.

3) Cut slope that face in the same direction as the prevailing drainage shall be protected from slope wash by a non-erosive interceptor swale placed at the top of the slope.

4) Unless otherwise specified in the geological and geotechnical report, no cut slopes shall be excavated higher or steeper than that allowed by the ordinances of the controlling governmental agencies.

5) Drainage terraces shall be constructed in compliance with the ordinances of controlling governmental agencies, or with the recommendations of the Geotechnical Engineer or Engineering Geologist.

GRADING CONTROL

1) Inspection of the fill placement shall be provided by the Geotechnical Engineer during the progress of grading.

2) In general, density tests should be made at intervals not exceeding two feet (2') of fill height or every five hundred (500) cubic yards of fill placed. These criteria will vary depending on soil conditions and the size of the job. In any event, an adequate number of field density tests shall be made to verify that the required compaction is being achieved.

3) Density tests should also be made on the surface materials to receive fill as required by the Geotechnical Engineer.

4) All clean-out, processed ground to receive fill, key excavations, subdrains, and rock disposal must be inspected and approved by the Geotechnical Engineer prior to placing any fill. It shall be the Contractor's responsibility to notify the Geotechnical Engineer when such areas are ready for inspection.

CONSTRUCTION CONSIDERATIONS

1) Erosion control measures, when necessary, shall be provided by the Contractor during grading and prior to the completion and construction of permanent drainage controls.

2) Upon completion of grading and termination of inspections by the Geotechnical Engineer, no further filling or excavating, including that necessary for footings, foundations, large tree wells, retaining walls, or other features shall be performed without the approval of the Geotechnical Engineer or Engineering Geologist.

3) Care shall be taken by the contractor during final grading to preserve any berms, drainage terraces, interceptor swales, or other devices of a permanent nature on or adjacent to the property.