CITY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

GEOTECHNICAL ENGINEERING DIVISION

GEOTECHNICAL DATA REPORT
AVON STREET (1923) BULKHEAD
W.O. NO.: E1909302
GED FILE # 23-058
FEBRUARY 19, 2025

TABLE OF CONTENTS

1.0 INTRODUCTION 1
2.0 PROJECT SCOPE 1
3.0 GEOTECHNICAL INVESTIGATION 1
3.1 Current Exploration 2
3.2 Previous Investigation 2
3.3 Surface Conditions 2
3.4 Subsurface Conditions 2
3.5 Contaminated Soil 3
3.6 Groundwater 3
4.0 CLOSURE 3

FIGURES:

Figure 1 – Vicinity Map
Figure 2 – Site Location Map

APPENDIX A: Report of Subsurface Investigation, Avon Street (1923) Bulkhead, by Department of General Services, Standards Division, dated January 29, 2025.

APPENDIX B: Excerpts from Preliminary Soils and Engineering Geologic Investigation for Proposed Lower Floor Addition, Portions of Lots 1-3, Elysian Heights Tract, 1923 Avon Street, Los Angeles, California, by GeoSystems, Inc., dated January 4, 2005. Includes logs of test pits and results of associated laboratory testing of soil and bedrock samples.

1.0 INTRODUCTION

The Geotechnical Engineering Division (GED) has prepared this Data Report for a proposed bulkhead that will be constructed to restore support to the northwest side of Avon Street near the lot with an address of 1923 N. Avon Street in the Echo Park area of the City. As shown on Figure 1 – Vicinity Map, the site is in a residential area northeast of Sunset Boulevard and Glendale Boulevard. The approximate alignment of the proposed bulkhead is presented on Figure 2 – Site Location Map.

In the vicinity of the project, Avon Street was constructed across a northwest-facing descending slope using 'cut-and-fill' grading methods whereby the upslope side of the road is cut and the downslope side is filled. Avon Street in this area is paved with asphalt concrete (AC) and lined by an AC berm or curb. The street is bordered on the northwest by a timber guardrail. Behind and northwest of the guardrail is an approximately 100-foot tall slope that descends towards single-family dwelling residences.

A field investigation was conducted by the GED in March 2023 in response to a report of settlement along the northwest (downslope) side of the roadway. The field investigation identified the settlement was caused by gradual densification and creep of inadequately compacted fill underlying the downslope side of the road. The settlement has resulted in damage and lowering of the pavement, curb, and AC berm that line the road. As a result of lowering of the pavement, curb and berm, storm runoff has flowed from the road and onto the adjacent slope causing a 6- to 11-foot wide and 1- to 2-foot deep erosion gully to form. Per the recommendations of that investigation, about 50 linear feet of sandbags were placed along the downslope side of the roadway to contain storm runoff within the street and prevent continued erosion of the slope and further damage to the road. Based on recent field observations, conditions have not significantly changed since that time.

2.0 PROJECT SCOPE

The proposed project scope includes reconstruction of a portion of the street and construction of a new bulkhead on the downslope side of the street. The proposed bulkhead construction is expected to consist of cast-in-drilled-hole (CIDH) piles with steel wide flange beams and precast concrete lagging. The bulkhead will be approximately 70 feet long and include 10 piles. The concrete lagging will extend to approximately 6 feet below the finish roadway surface. The project also includes backfilling behind the bulkhead, repair of the pavement and AC berm, and construction of a new metal beam guardrail in this area.

3.0 GEOTECHNICAL INVESTIGATION

The findings in this report are based on site observations, the results of a previous geotechnical investigation for a nearby property, and the results of a recent subsurface exploration for the current proposed bulkhead.

3.1 Current Exploration

As part of the current project, a field exploration was conducted by drilling two hollow-stem auger borings to approximate depths of 21.5 and 31.5 feet below ground surface in Avon Street. The exploration was conducted by the Los Angeles Department of General Services, Standards Division (Standards). Standards' Report of Subsurface Investigation is included in Appendix A. Standard Penetration Test (SPT) samples were collected from each boring at depths of 2.5 feet, 5 feet, 7.5 feet, 10 feet and every 5 feet thereafter to the explored depths. Samplers were driven into the bottom of the borings with successive drops of a 140-pound automatic trip hammer falling approximately 30 inches. Blows required to advance the SPT samplers every six inches of penetration are shown on the boring logs. Logs of the exploratory borings, discussions of the exploration techniques, and results of laboratory testing on soil samples collected from the borings are provided in their report. The locations of the borings are shown on Figure 2 of this report and in the Standards report of Appendix A.

3.2 Previous Investigation

In 2005, GeoSystems, Inc. conducted a subsurface investigation for a lower-floor addition to an existing one-story residence at 1923 Avon Street, a property located a short distance to the southwest of the proposed bulkhead alignment. Their investigation at that time included excavating three test pits to a maximum depth of 4½ feet. Test pit logs and the results of laboratory testing on collected soil and bedrock samples are included in excerpts of their preliminary soils and engineering-geologic investigation report in Appendix B. The locations of the test pits are shown on Figure 2.

3.3 Surface Conditions

Avon Street within the area of the proposed improvements is a relatively narrow hillside roadway with damaged and lowered pavement and curb or berm. The recent borings identified 5 inches to 7 inches of asphalt in poor condition at the surface without base material. The paved roadway width is about 21 feet wide. The descending slope northwest of the road has an average gradient of about 1.9:1, though some portions, including the area of damage and erosion, are locally steeper.

3.4 Subsurface Conditions

Subsurface soils in the area consist of fill soils over bedrock. Fill was documented to a depth of 14 to 18 feet in the recent boring logs. According to the original street construction plans in 1925, the corner of Avon Street and Duane Street in the area of the new bulkhead was built across a steeply dipping slope and the depth of bedrock along edge of the street at the bulkhead alignment may be as deep as 25 feet. Fill is generally described as a tan mottled brown to dark-brown silty to clayey sand. Bedrock was described as sedimentary rock and siltstone, with thin to laminated interbeds of sandstone. The bedrock is light tan brown to grayish brown and very dense.

More detailed descriptions of the soils encountered are presented on the logs of the current and previous explorations included in Appendices A and B.

3.5 Contaminated Soil

No evidence of contamination was encountered in the referenced borings, and GED has not identified any source of contamination that may affect the project site. The plans should note that if contaminated soil is encountered the contractor shall notify GED for further instructions regarding handling and disposal. The Bureau of Contract Administration (BCA) Inspector for the project shall also be notified if contaminated soil is encountered.

3.6 Groundwater

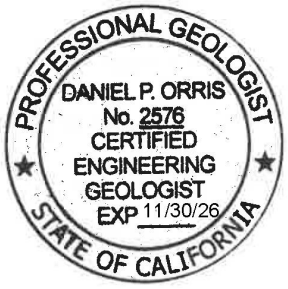
No groundwater was encountered in any of the referenced explorations on the site. Historic high groundwater maps by the California Division of Mines and Geology do not show groundwater readings or contours in this area. Given the relatively shallow bedrock and hillside topography in the area, a standing groundwater table is not expected within the expected depth of construction.

Perched water and seepage can be encountered at contacts between the fill and underlying bedrock and may be present within fractures or permeable layers in the bedrock. Seasonal fluctuations in groundwater levels may occur due to variations in rainfall, irrigation, and other factors that are not readily evident.

4.0 CLOSURE

If there are any questions regarding this report, please contact Benjamin Moore at Benjamin.Moore@lacity.org.



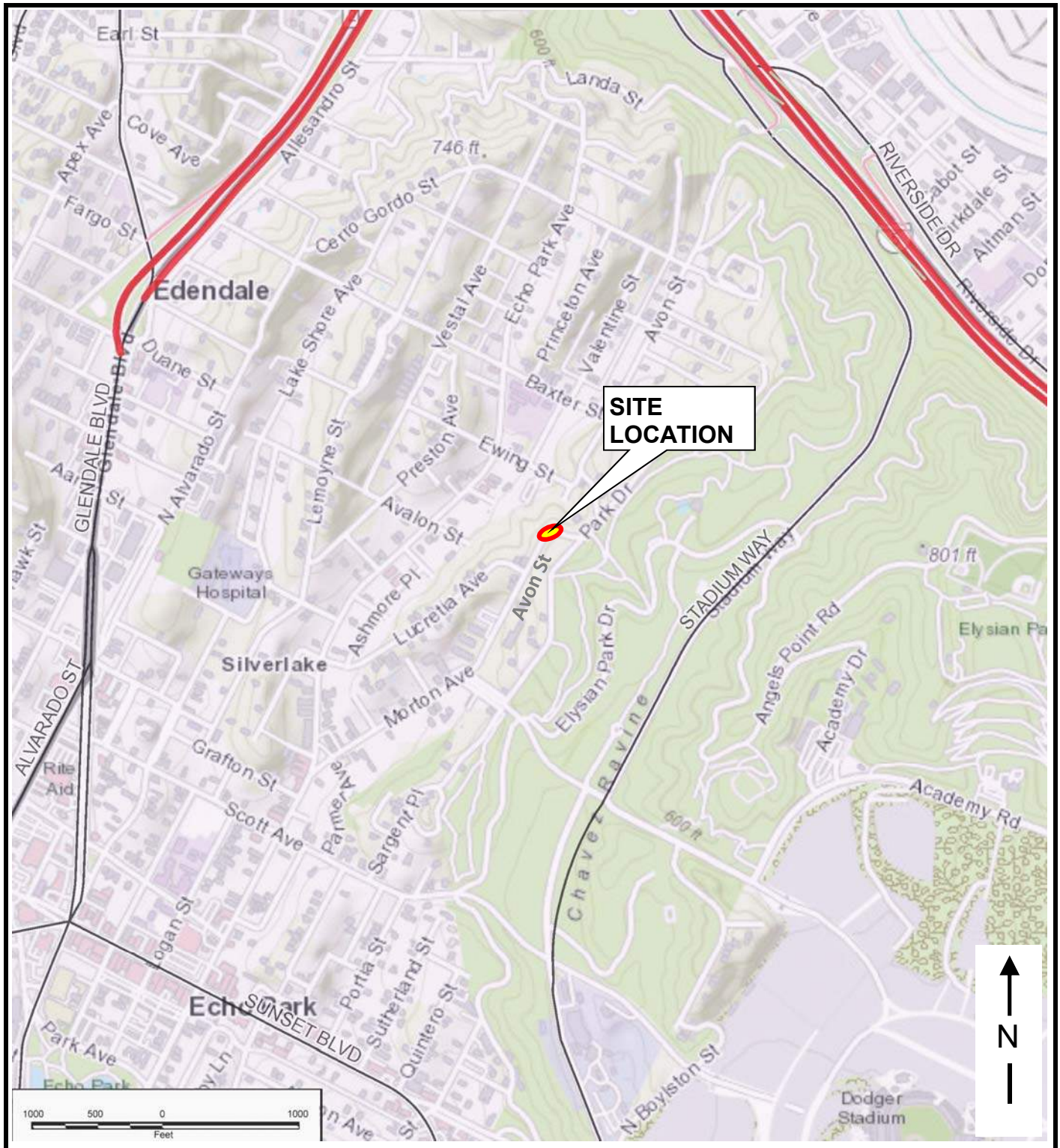


Benjamin Moore, GE 2858
Geotechnical Engineer II

Daniel Orris, CEG 2576
Engineering Geologist I

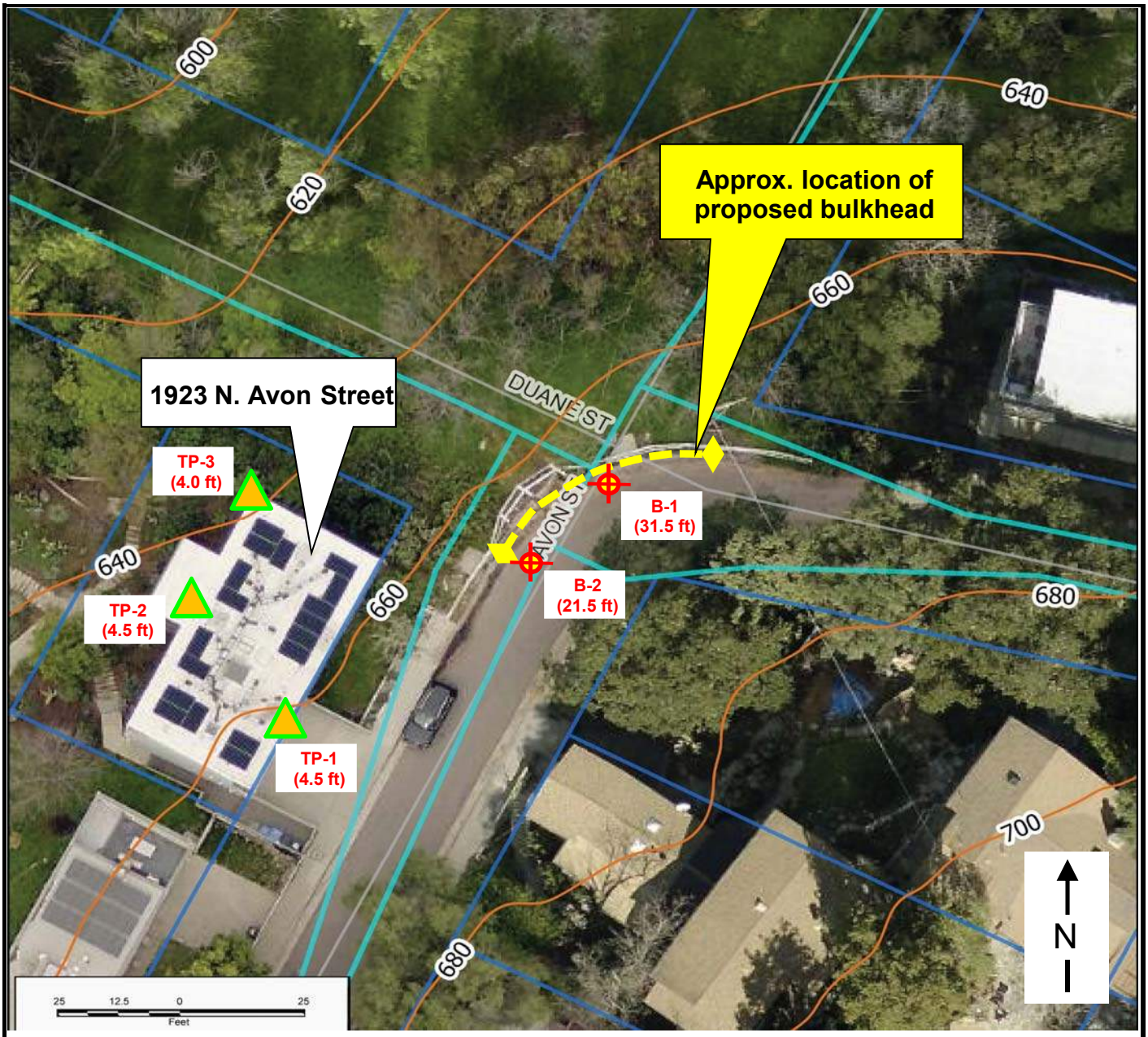
Attachments:
- Figure 1 – Vicinity Map
- Figure 2 – Site Map

FIGURES



VICINITY MAP

AVON STREET (1923) BULKHEAD	BUREAU OF ENGINEERING GEOTECHNICAL ENGINEERING DIVISION (GED) GED FILE NO.: 23-058 DATE: FEBRUARY 2025	FIGURE No. 1



LEGEND

- Topographic contour intervals
- Property Line
- Approximate boring location and designation, Standards Investigation. Boring depth in parenthesis.
- Approximate test pit location and designation, 1923 Avon St. Investigation. Test Pit depth in parenthesis.
- DWP lines, per NavigateLA

SITE LOCATION MAP

AVON STREET (1923) BULKHEAD	BUREAU OF ENGINEERING GEOTECHNICAL ENGINEERING DIVISION (GED) GED FILE NO.: 23-058 DATE: FEBRUARY 2025	FIGURE No. 2

APPENDIX A

Department of General Services, Standards Division
Report of Subsurface Investigation
Avon Street (1923) Bulkhead
January 29, 2025

CITY OF LOS ANGELES
DEPARTMENT OF GENERAL SERVICES
STANDARDS DIVISION

AVON STREET (1923) BULKHEAD

LAB NO. 140-6413

W.O. NO. E1909302
JANUARY 2025

GEOTECHNICAL ENGINEERING DIVISION FILE: 23-058

CITY OF LOS ANGELES
DEPARTMENT OF GENERAL SERVICES
STANDARDS
2319 DORRIS PLACE
LOS ANGELES, CA 90031
(213) 485-2242
fax (213) 485-5075

Lab. No. 140-6413

Received: 11-05-24
NTP: 11-13-24
Reported: 01-29-25

AVON STREET
(1923) BULKHEAD
WO No: E1909302
GED File No: 23-058

TO: Ted Allen, P.E., City Engineer
Public Works / Bureau of Engineering

Attention: Patrick Schmidt, P.E., G.E.

Report of
SUBSURFACE INVESTIGATION

Transmitted herewith are results of the subsurface investigation performed by the Department of General Services, Standards Division (Standards) on the above-named project as requested by the Geotechnical Engineering Division (GED) of the Bureau of Engineering. The logs of the test borings, the Unified Soil Classification and the results of the laboratory tests requested by the Engineer are part of this report. The descriptions reported on the "Log of Test Boring" sheets are based on field identification procedures, examination of the samples in the laboratory and soil classification tests. The soil classification is based on the attached Unified Soils Classification System.

Two test borings were drilled on this project with a truck-mounted Central Mine Equipment Model-55HT drill rig using 8-inch diameter hollow stem augers. Standard Penetration Tests (SPT) ASTM D1586 were also performed. The SPT test involves penetration of soil around the tip of a Split Spoon sampler for a condition of constant energy transmittal. The Split Spoon, 2-inch O.D. by 1⅜-inch I.D., is driven eighteen (18) inches. The sampler is seated in the first six (6) inches and the number of blows required to drive the sampler the last twelve (12) inches is recorded as the SPT blow count value. The driving energy is provided by a 140-pound automatic trip hammer dropped thirty (30) inches at the depths indicated on the log sheets.

The following tests were performed on samples from the test borings:

Particle Size Distribution (ASTM D6913)

Liquid Limit (ASTM D4318 – three point method)

Plasticity Index (ASTM D4318)

Grain Size Analysis/Hydrometer (ASTM D422)

The GED gave the Notice to Proceed with the Subsurface Investigation to Standards on 11-13-2024. Daniel Orris of your Bureau was notified at least 24 hours prior to the drilling and sampling operations. A boring location map is included in this report.

AVON STREET
(1923) BULKHEAD
WO No: E1909302
File No: 23-058

All soil samples for the above-named project that were delivered to Standards Division - Soil Laboratory are presently being stored. These samples will be discarded 45 days after the date of this report unless a specific written request to retain the samples for additional testing or for a longer storage period is submitted by your Bureau.



For RICARDO VILLACORTA, Director
General Services/Standards

RV:PG:RL



N

Legend:

= Test Boring Location

Test Hole No., Location:

B-1, 1923 Avon St. NW/s Rdwy; 90' NE/o SWPL 1923 Avon St., 10' NW/o SECF
B-2, 1923 Avon St. NW/s Rdwy; 66' NE/o SWPL 1923 Avon St., 14' NW/o SECF

CITY OF LOS ANGELES
DEPARTMENT OF GENERAL SERVICES
STANDARDS DIVISION

TEST BORING
LOCATION MAP
& AERIAL PHOTO

PROJECT TITLE: Avon Street (1923) Bulkhead

W.O. NO. E1909302

LAB. NO. 140-6413 | Checked By: PG
DATE: 01-28-25 | Sheet 1 of 1

LOG OF TEST BORING

LAB. NO.: 140- 6413 **PROJECT:** Avon Street(1923) Bulkhead

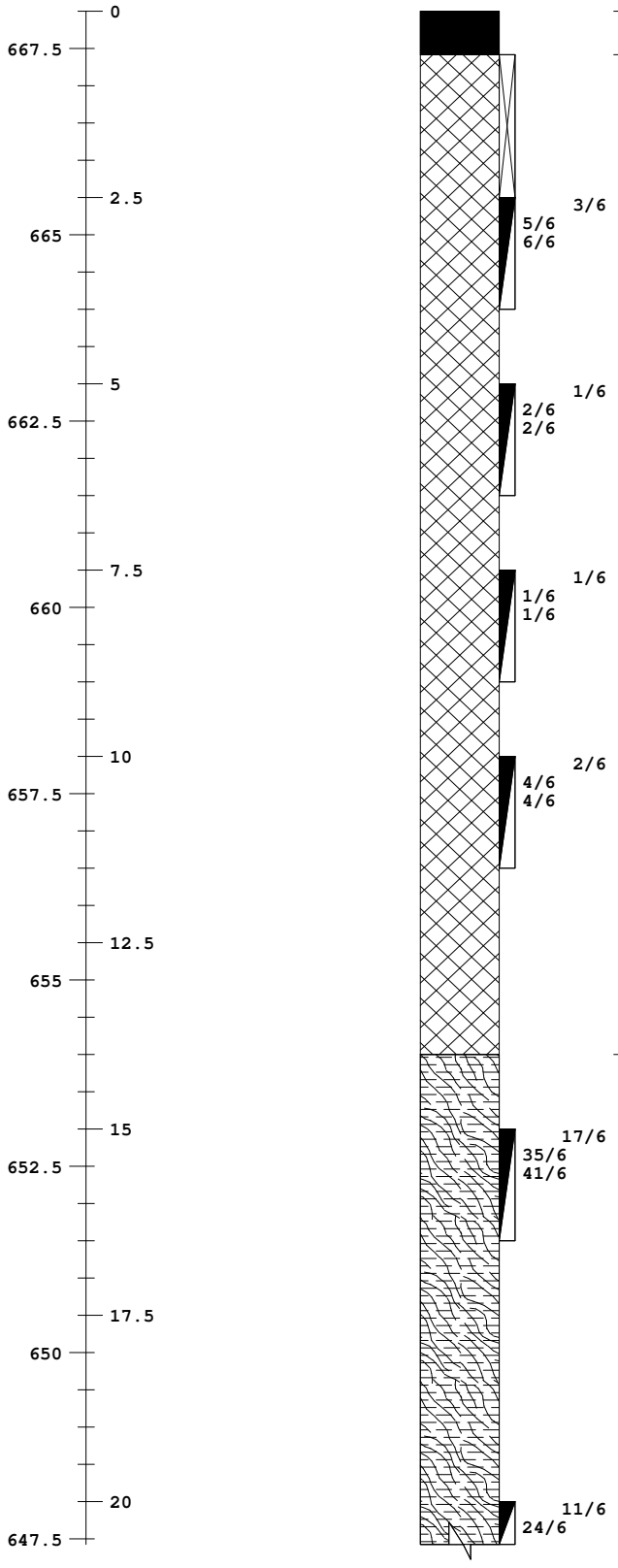
BORING NO.: B-1(Page 1 of 2) **ELEVATION:** 668' **DRILLING DATE:** 12/05/2024

BORING COORDINATES: 1923 Avon St. NW/s Rdwy; 90' NE/o SWPL 1923 Avon St., 10' NW/o SECF

DRILL RIG TYPE: CME-55HT using 8" diameter hollow stem augers

DEPTH TO STANDING WATER: No Water **DEPTH TO WATER SEEPAGE:** No Seepage

DRILLER: R. Scott **LOGGER:** J. Del Rosario **ENGINEER:** L. Gerencher



ELEVATION / DEPTH (ft)	SOIL SYMBOLS, SAMPLER SYMBOLS AND BLOWS/INCHES	USCS	Field Description	Moist. %	Dens. Pcf
			7" asphalt concrete pavement in poor condition		
			FILL MATERIAL. Tan mottled brown Silty Sand. Fine sand; loose; slightly moist; oxidation present. Bulk soil sample was taken from 7"-2.5' depth.		
			Roots present at 4'.		
			Clay content increases after 5'.		
			Dark brown Silty, Clayey Sand. Moist & soft; slightly plastic. Roots present at 7'.		
			Rootlets at 10'.		
			SEDIMENTARY ROCK; Siltstone w/ thin to laminated interbeds of Sandstone; light tan brown w/oxidation; very dense.		

LOG OF TEST BORING

LAB. NO.: 140- 6413 **PROJECT:** Avon Street(1923) Bulkhead

BORING NO.: B-1(Page 2 of 2) **ELEVATION:** 668' **DRILLING DATE:** 12/05/2024

BORING COORDINATES: 1923 Avon St. NW/s Rdwy; 90' NE/o SWPL 1923 Avon St., 10' NW/o SECF

DRILL RIG TYPE: CME-55HT using 8" diameter hollow stem augers

DEPTH TO STANDING WATER: No Water **DEPTH TO WATER SEEPAGE:** No Seepage

DRILLER: R. Scott **LOGGER:** J. Del Rosario **ENGINEER:** L. Gerencher

ELEVATION / DEPTH (ft)	SOIL SYMBOLS, SAMPLER SYMBOLS AND BLOWS/INCHES	USCS	Field Description	Moist. %	Dens. Pcf
22.5 / 645	50/5		SEDIMENTARY ROCK; Siltstone w/ thin to laminated interbeds of Sandstone; light tan brown w/oxidation; very dense.		
25 / 642.5	14/6 23/6 28/6				
27.5 / 640					
30 / 637.5	10/6 21/6 26/6				
32.5 / 635			--- Test Boring Location Coordinates: 34° 05' 09.72" North 118° 14' 56.17" West --- NOTE: Location and elevation are approximate using NavigateLA.		
35 / 632.5					
37.5 / 630					
40 / 627.5					

LOG OF TEST BORING

LAB. NO.: 140- 6413 **PROJECT:** Avon Street(1923) Bulkhead

BORING NO.: B-2(Page 1 of 2) **ELEVATION:** 666' **DRILLING DATE:** 12/05/2024

BORING COORDINATES: 1923 Avon St. NW/s Rdwy; 66' NE/o SWPL 1923 Avon St., 14' NW/o SECF

DRILL RIG TYPE: CME-55HT using 8" diameter hollow stem augers

DEPTH TO STANDING WATER: No Water **DEPTH TO WATER SEEPAGE:** No Seepage

DRILLER: R. Scott **LOGGER:** J. Del Rosario **ENGINEER:** L. Gerencher

ELEVATION / DEPTH (ft)	SOIL SYMBOLS, SAMPLER SYMBOLS AND BLOWS/INCHES	USCS	Field Description	Moist. %	Dens. Pcf
0 / 665			5" asphalt concrete pavement in poor condition		
2.5 / 662.5	3/6, 4/6, 3/6		FILL MATERIAL. Tan mottled brown Silty Sand. Fine sand; loose; slightly moist; oxidation present. Bulk soil sample was taken from 5"-2.5' depth.		
5 / 660	3/6, 3/6, 3/6				
7.5 / 657.5	2/6, 2/6, 3/6				
10 / 655	2/6, 3/6, 4/6				
12.5 / 652.5			Dark brown Clayey Sand. Moist & firm; slightly plastic.		
15 / 650	4/6, 5/6, 6/6		Rootlets at 15'.		
17.5 / 647.5			SEDIMENTARY ROCK; Siltstone w/ thin to laminated interbeds of Sandstone; grayish tan brown w/oxidation; very dense.		
20	18/6, 35/6				

LOG OF TEST BORING

LAB. NO.: 140- 6413 **PROJECT:** Avon Street(1923) Bulkhead

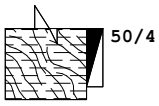
BORING NO.: B-2(Page 2 of 2) **ELEVATION:** 666' **DRILLING DATE:** 12/05/2024

BORING COORDINATES: 1923 Avon St. NW/s Rdwy; 66' NE/o SWPL 1923 Avon St., 14' NW/o SECF

DRILL RIG TYPE: CME-55HT using 8" diameter hollow stem augers

DEPTH TO STANDING WATER: No Water **DEPTH TO WATER SEEPAGE:** No Seepage

DRILLER: R. Scott **LOGGER:** J. Del Rosario **ENGINEER:** L. Gerencher

ELEVATION / DEPTH (ft)	SOIL SYMBOLS, SAMPLER SYMBOLS AND BLOWS/INCHES	USCS	Field Description	Moist. %	Dens. Pcf
645	 50/4		SEDIMENTARY ROCK; Siltstone w/ thin to laminated interbeds of Sandstone.		
22.5			--- Test Boring Location Coordinates: 34° 05' 09.60" North 118° 14' 56.36" West --- NOTE: Location and elevation are approximate using NavigateLA.		
642.5					
25					
640					
27.5					
637.5					
30					
635					
32.5					
632.5					
35					
630					
37.5					
627.5					
40					
625					

KEY TO SYMBOLS

Symbol Description

Strata symbols



AC pavement.



Fill



SEDIMENTARY ROCK

Misc. Symbols



Boring continues

Soil Samplers



Bulk sample taken
from Auger



Standard penetration test

Notes:

1. Two exploratory borings were drilled on 12/05/2027 with a CME-55HT drill rig using 8" diameter hollow stem augers.

2. No free water was encountered during the drilling of this project.

3. Boring locations were provided by Geotechnical Engineering Division and verified by Standards.

4. Abbreviations used on logs:

N/o = north of	NCF = north curb face	NE = northeast
S/o = south of	SCF = south curb face	NW = northwest
E/o = east of	ECF = east curb face	SE = southeast
W/o = west of	WCF = west curb face	SW = southwest
CL = center line	PL = property line	
AC = asphalt concrete	PCC = Portland cement concrete	
OVA = organic vapor analyzer	LEL = lower explosive limit	
PPM = parts per million	HT = high torque	

5. The stratification lines indicated on the boring maps and profiles represent the approximate boundary between material types and the transition may be gradual.

6. The materials, boundaries, and conditions have been established only at the boring locations, and are not necessarily representative of subsurface conditions elsewhere across the site.

UNIFIED SOIL CLASSIFICATION SYSTEM *

MAJOR DIVISIONS			GROUP SYMBOLS		TYPICAL NAMES
COARSE GRAINED SOILS (More than 50% of material is LARGER than No.200 sieve size)	GRAVELS (More than 50 % of coarse fraction is LARGER than the No.4 sieve size)	CLEAN GRAVELS (Little or no fines)		GW	Well graded gravels, gravel-sand mixtures, little or no fines.
				GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
		GRAVELS WITH FINES (Appreciable amount of fines)		GM	Silt gravels, gravel-sand-silt mixtures.
				GC	Clayey gravels, gravel-sand-clay mixtures.
	SANDS (More than 50% of coarse fraction is SMALLER than the No.4 sieve size)	CLEAN SANDS (Little or no fines)		SW	Well graded sands, gravelly sands, little or no fines.
				SP	Poorly graded sands or gravelly sands, little or no fines.
		SANDS WITH FINES (Appreciable amount of fines)		SM	Silty sands, sand-silt mixtures.
				SC	Clayey sands, sand-clay mixtures.
FINE GRAINED SOILS (More than 50% of material is SMALLER than No.200 sieve size)	SILTS AND CLAYS (Liquid limit LESS than 50)			ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
				CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
				OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS (Liquid limit GREATER than 50)			MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
				CH	Inorganic clays of high plasticity, fat clays.
				OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS				Pt	Peat and other highly organic soils.

BOUNDARY CLASSIFICATIONS: Soils possessing characteristics of two groups are designated by combinations of group symbols.

PARTICLE SIZE LIMITS

SILT OR CLAY	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

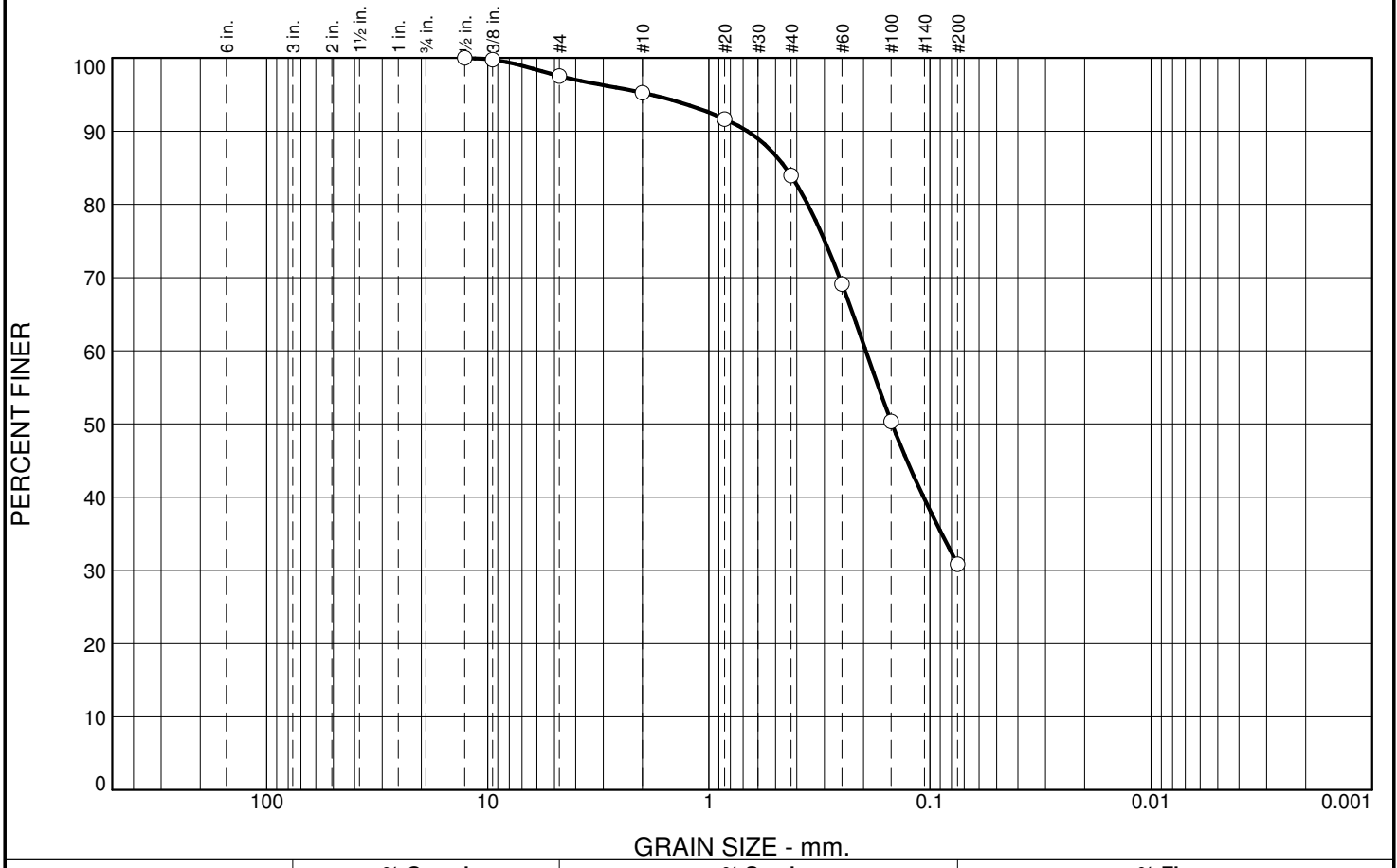
No.200 No.40 No.10 No.4 3/4 in. 3 in. 12 in.

U. S. STANDARD SIEVE SIZE

* Reference:
The Unified Soil Classification System, Corps of Engineers,
U.S. Army Technical Memorandum No. 3-357, Vol. I, March 1953.
(Revised April, 1960)

CITY OF LOS ANGELES
DEPARTMENT OF GENERAL SERVICES
STANDARDS DIVISION
2319 DORRIS PLACE
LOS ANGELES CA 90031
(213) 485-2242

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	2	3	11	53	31	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1/2"	100		
3/8"	100		
#4	98		
#10	95		
#20	92		
#40	84		
#60	69		
#100	50		
#200	31		

* (no specification provided)

Soil Description

silty sand

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 0.6698 D_{85}= 0.4496 D_{60}= 0.1953
D_{50}= 0.1484 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO= A-2-4(0)

Remarks

Location: Avon Street (1923) Bulkhead
Sample Number: B-1 **Depth:** 5'

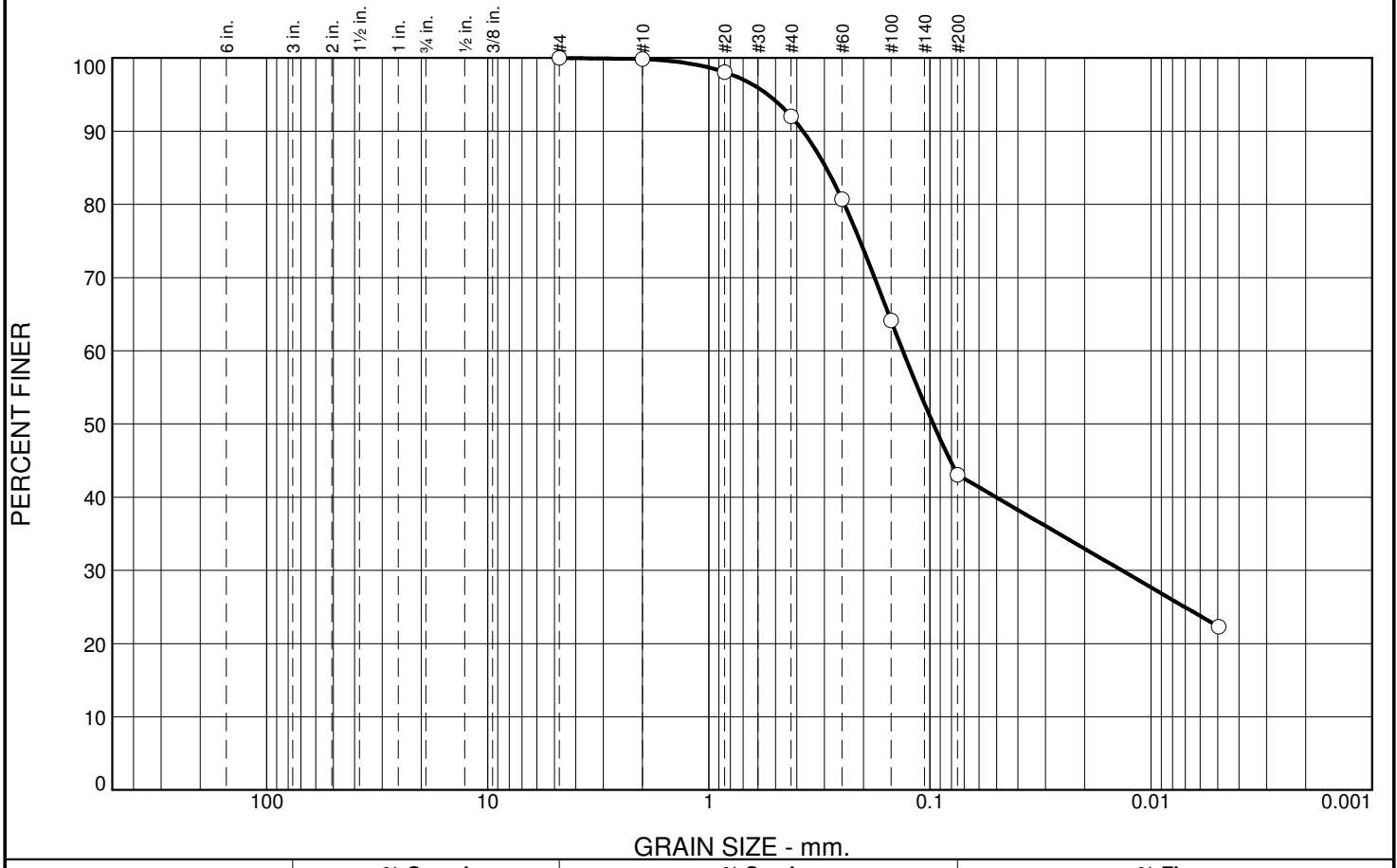
Date: 12/05/2024

CITY OF LOS ANGELES - STANDARDS DIVISION

Client: Geotechnical Engineering
Project: 140-6413 Avon Street (1923) Bulkhead

Project No: 140-6413 **Figure** B1@5

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	0	8	49	21	22

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100		
#10	100		
#20	98		
#40	92		
#60	81		
#100	64		
#200	43		
0.0050 mm.	22		

* (no specification provided)

Soil Description

silty, clayey sand

Atterberg Limits

PL= 18 LL= 25 PI= 7

Coefficients

D_{90}= 0.3752 D_{85}= 0.2948 D_{60}= 0.1326
D_{50}= 0.0965 D_{30}= 0.0136 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SC-SM AASHTO= A-4(0)

Remarks

Location: Avon Street (1923) Bulkhead
Sample Number: B-1 **Depth:** 10'

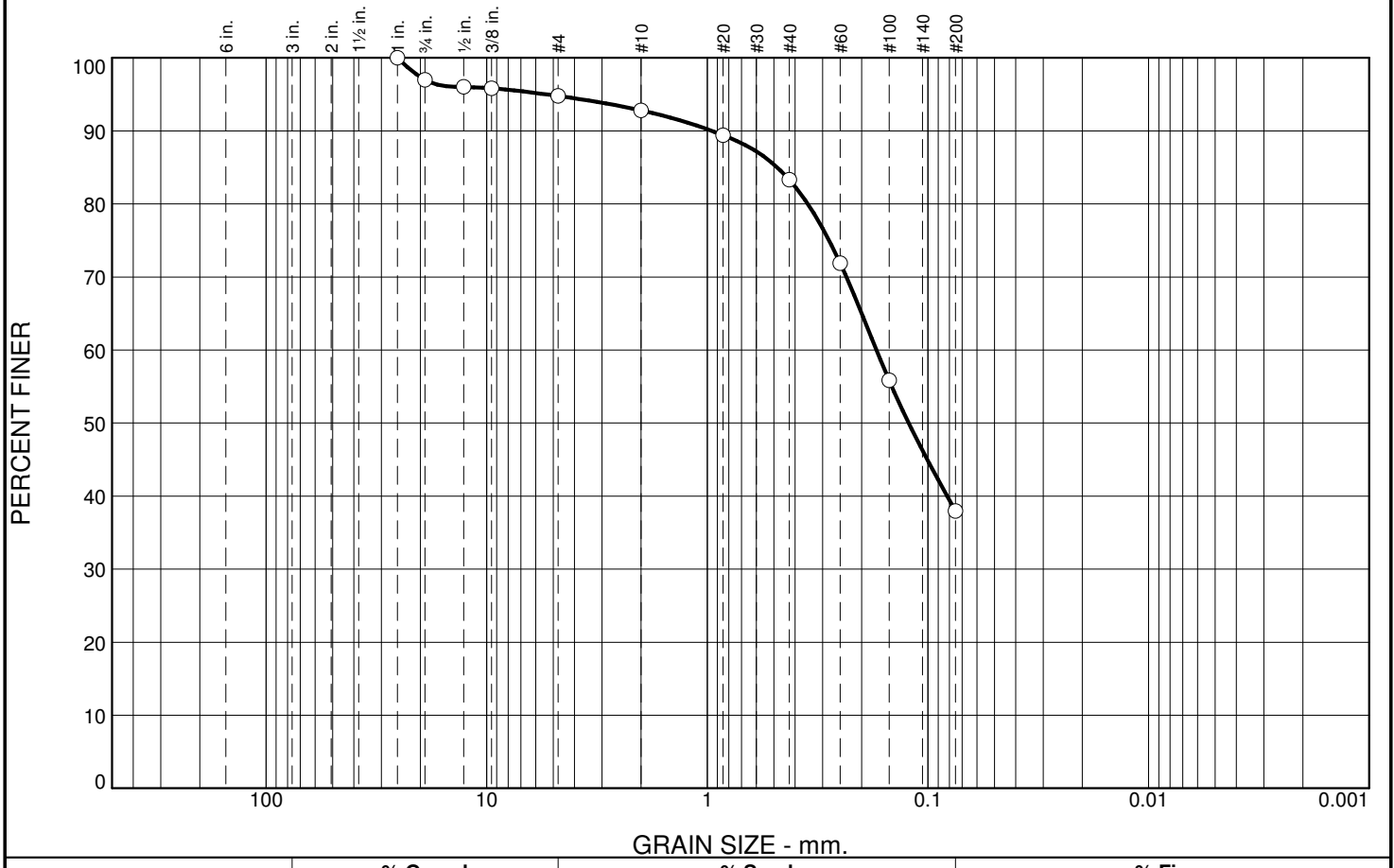
Date: 12/05/2024

CITY OF LOS ANGELES - STANDARDS DIVISION

Client: Geotechnical Engineering
Project: 140-6413 Avon Street (1923) Bulkhead

Project No: 140-6413 **Figure** B1@10

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	3	2	2	10	45	38	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100		
3/4"	97		
1/2"	96		
3/8"	96		
#4	95		
#10	93		
#20	89		
#40	83		
#60	72		
#100	56		
#200	38		

* (no specification provided)

Soil Description

silty sand

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 0.9535 D_{85}= 0.4819 D_{60}= 0.1713
D_{50}= 0.1222 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO= A-4(0)

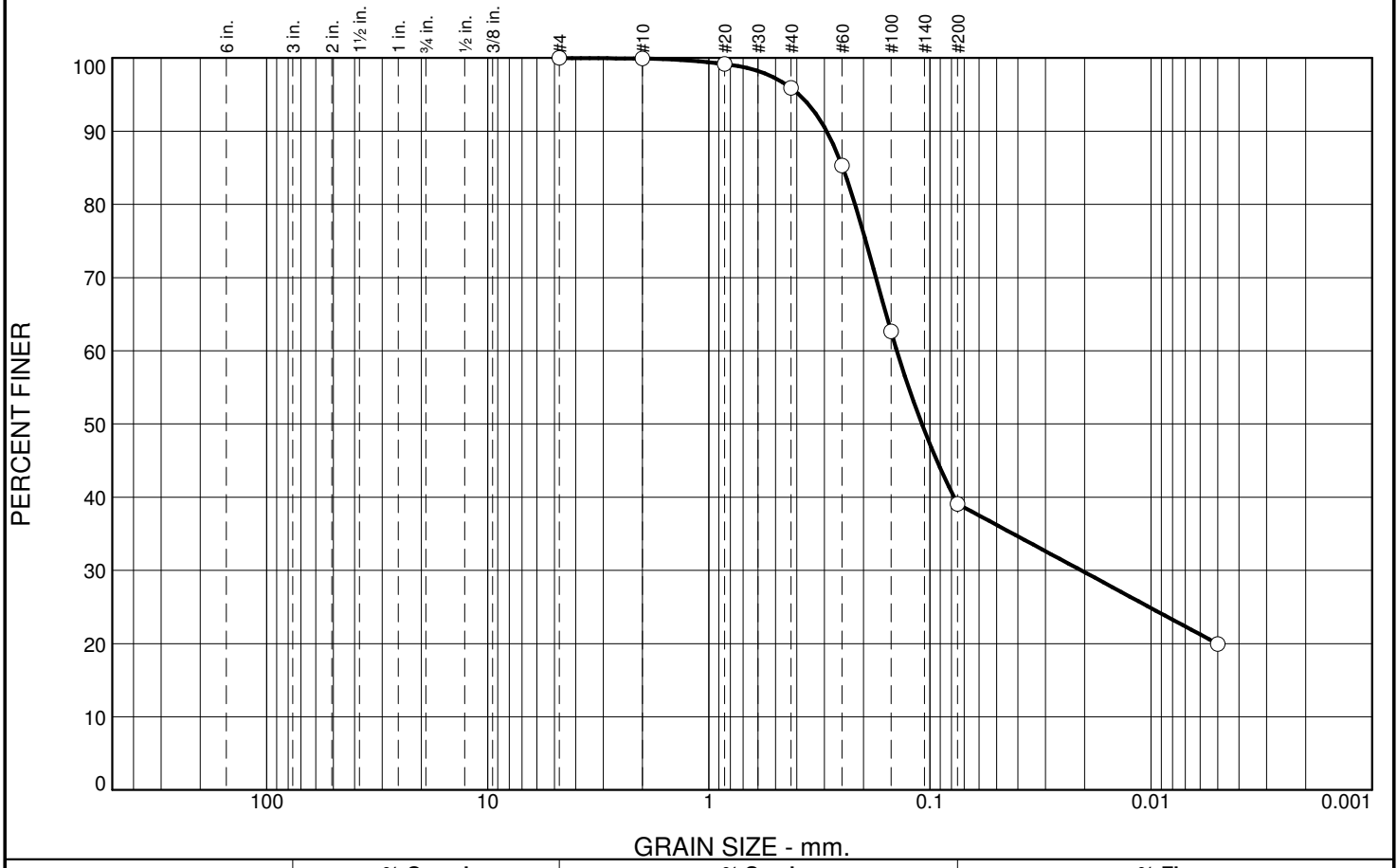
Remarks

Location: Avon Street (1923) Bulkhead
Sample Number: B-2 **Depth:** 7.5' **Date:** 12/05/2024

CITY OF LOS ANGELES - STANDARDS DIVISION

Client: Geotechnical Engineering
Project: 140-6413 Avon Street (1923) Bulkhead
Project No: 140-6413 **Figure** B2@7.5

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	0	4	57	19	20

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100		
#10	100		
#20	99		
#40	96		
#60	85		
#100	63		
#200	39		
0.0050 mm.	20		

* (no specification provided)

Soil Description

clayey sand

Atterberg Limits

PL= 17 LL= 30 PI= 13

Coefficients

D_{90}= 0.2933 D_{85}= 0.2478 D_{60}= 0.1412
D_{50}= 0.1087 D_{30}= 0.0207 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SC AASHTO= A-6(1)

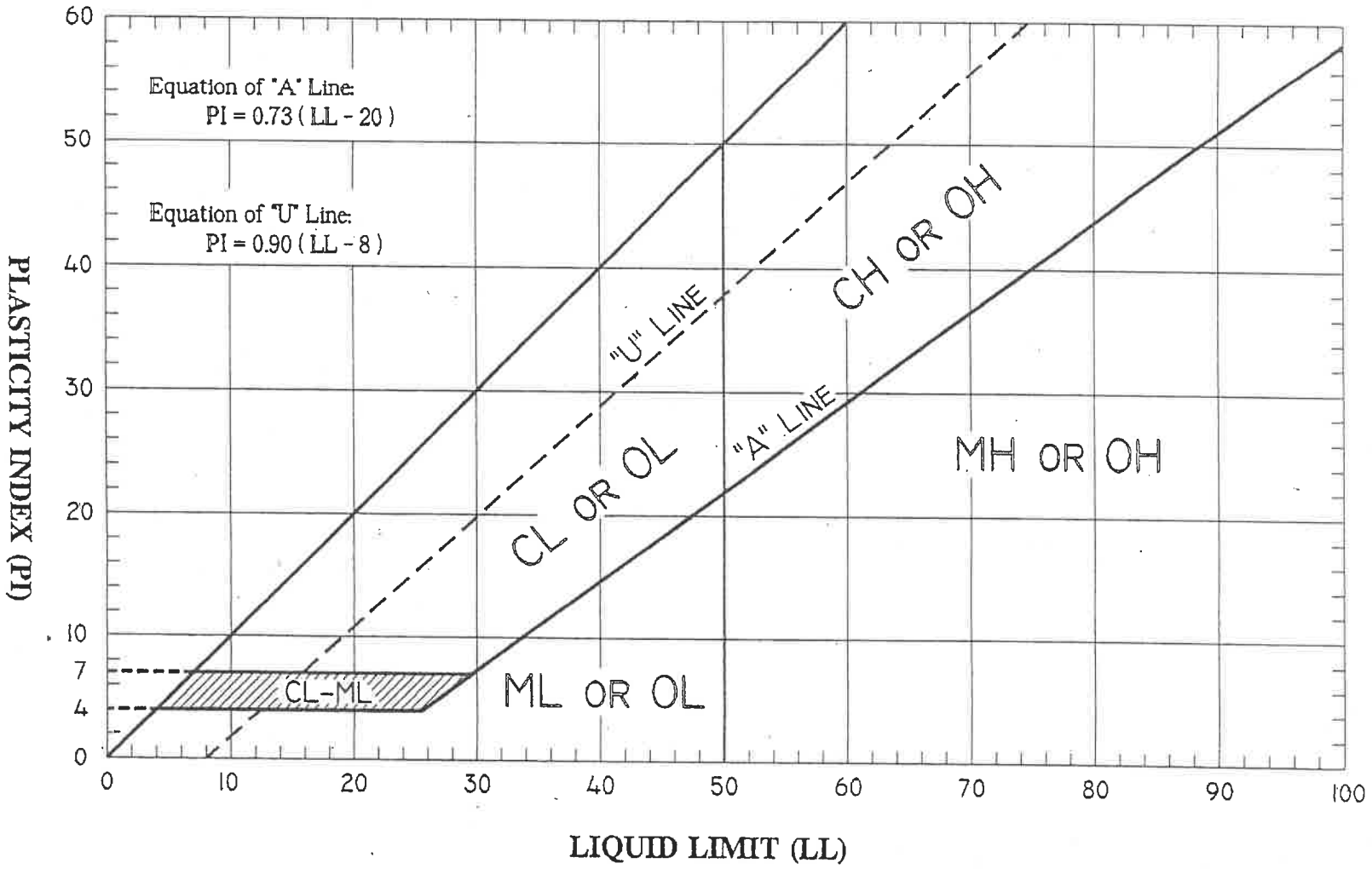
Remarks

Location: Avon Street (1923) Bulkhead
Sample Number: B-2 **Depth:** 15' **Date:** 12/05/2024

CITY OF LOS ANGELES - STANDARDS DIVISION

Client: Geotechnical Engineering
Project: 140-6413 Avon Street (1923) Bulkhead
Project No: 140-6413 **Figure** B2@15

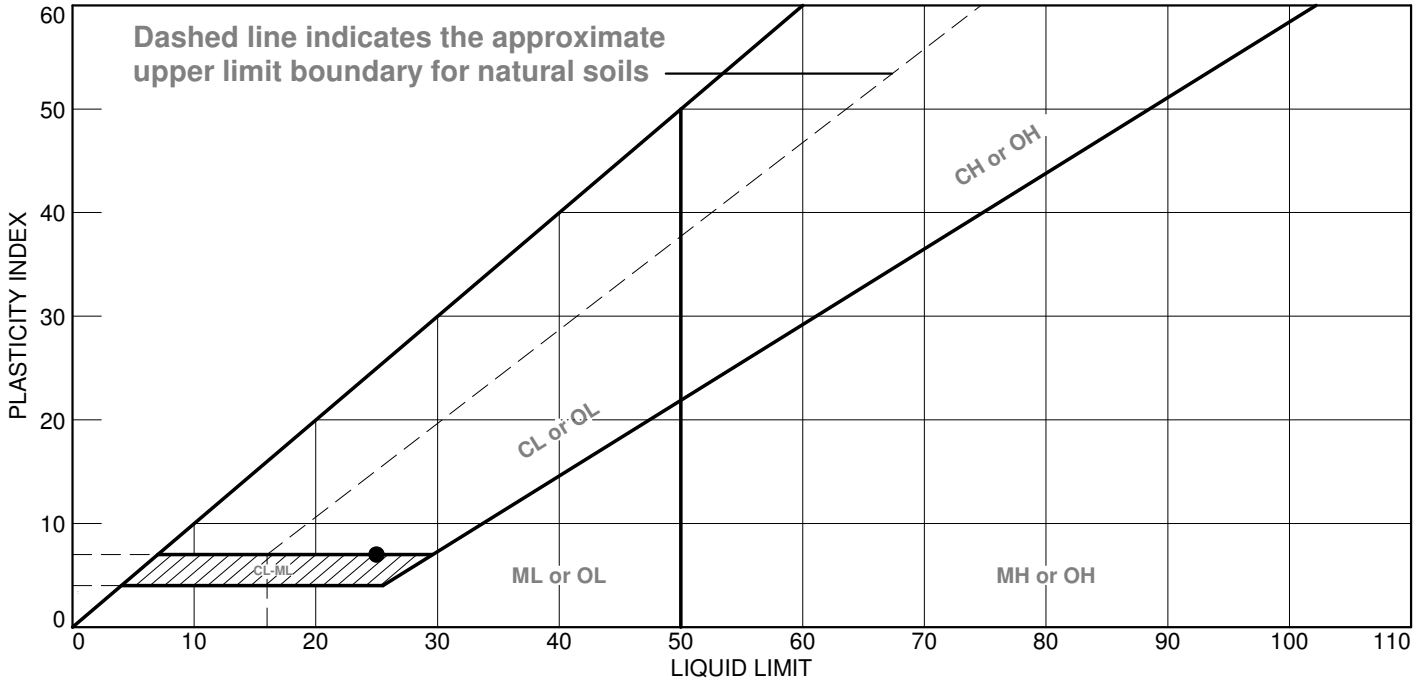
CLASSIFICATION OF FINE-GRAINED SOILS *



* Reference:
U.S. Army Corps of Engineers

CITY OF LOS ANGELES
DEPARTMENT OF GENERAL SERVICES
STANDARDS DIVISION
2319 DORRIS PLACE
LOS ANGELES CA 90031
(213) 485-2242

LIQUID AND PLASTIC LIMITS TEST REPORT





	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	silty, clayey sand	25	18	7	92	43	SC-SM

Project No. 140-6413 **Client:** Geotechnical Engineering

Project: 140-6413 Avon Street (1923) Bulkhead

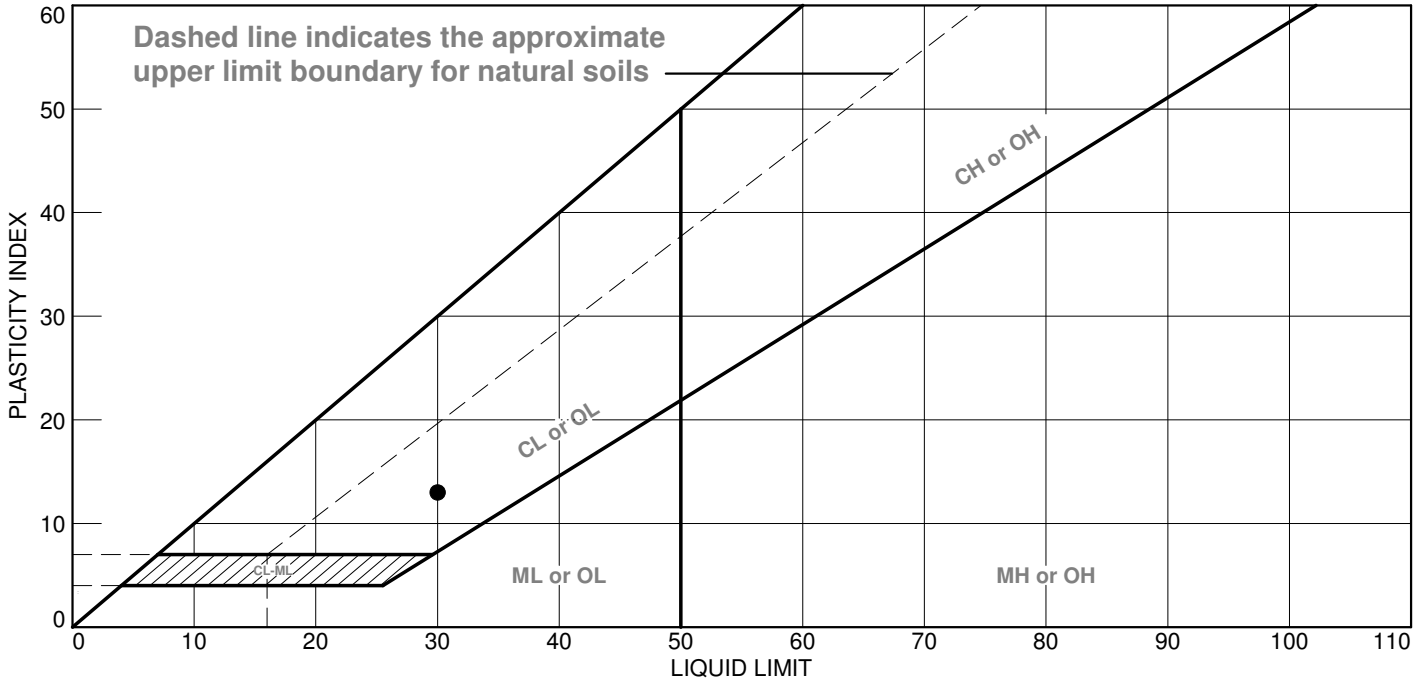
Location: Avon Street (1923) Bulkhead
Sample Number: B-1 **Depth:** 10'

Remarks:

CITY OF LOS ANGELES - STANDARDS DIVISION

Figure B1@10

LIQUID AND PLASTIC LIMITS TEST REPORT





	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	clayey sand	30	17	13	96	39	SC

Project No. 140-6413 **Client:** Geotechnical Engineering

Project: 140-6413 Avon Street (1923) Bulkhead

Location: Avon Street (1923) Bulkhead
Sample Number: B-2 **Depth:** 15'

Remarks:

CITY OF LOS ANGELES - STANDARDS DIVISION

Figure B2@15

CITY OF LOS ANGELES
DEPARTMENT OF GENERAL SERVICES
STANDARDS DIVISION
2319 DORRIS PLACE
LOS ANGELES
(213) 485-2242

Project No.: 140-6413

TEST BORING DATA

Project Title: Avon Street(1923) Bulkhead

WO No: E1909302

Test Boring No.	B-1			B-2						
Sample Depth, ft.	5	10		7.5	15					
In Place Dry Density, pcf										
Field Moisture, %										
Lab Max Dry Density, pcf										
Lab Optimum Moisture, %										
Expansion Index										
R-Value										
Mechanical Analysis (% passing)										
2"	100	100		100	100					
1.5"	100	100		100	100					
1"	100	100		100	100					
3/4"	100	100		97	100					
1/2"	100	100		96	100					
3/8"	100	100		96	100					
No. 4	98	100		95	100					
No. 10	95	100		93	100					
No. 20	92	98		89	99					
No. 40	84	92		83	96					
No. 60	69	81		72	85					
No. 100	50	64		56	63					
No. 200	31	43		38	39					
5 μ (micron), %		22			20					
Liquid Limit, %		25			30					
Plasticity Index, %		7			13					

APPENDIX B

GeoSystems, Inc.
Preliminary Soils and Engineering Geologic Investigation
1923 Avon Street
January 4, 2005

GEOSYSTEMS, INC.

ENVIRONMENTAL
ENGINEERING-GEOLOGY
GEOTECHNICAL ENGINEERING

SUBMITTAL COPY

PRELIMINARY SOILS AND ENGINEERING GEOLOGIC INVESTIGATION FOR PROPOSED LOWER FLOOR ADDITION PORTIONS OF LOTS 1-3, ELYSIAN HEIGHTS TRACT 1923 AVON STREET LOS ANGELES, CALIFORNIA

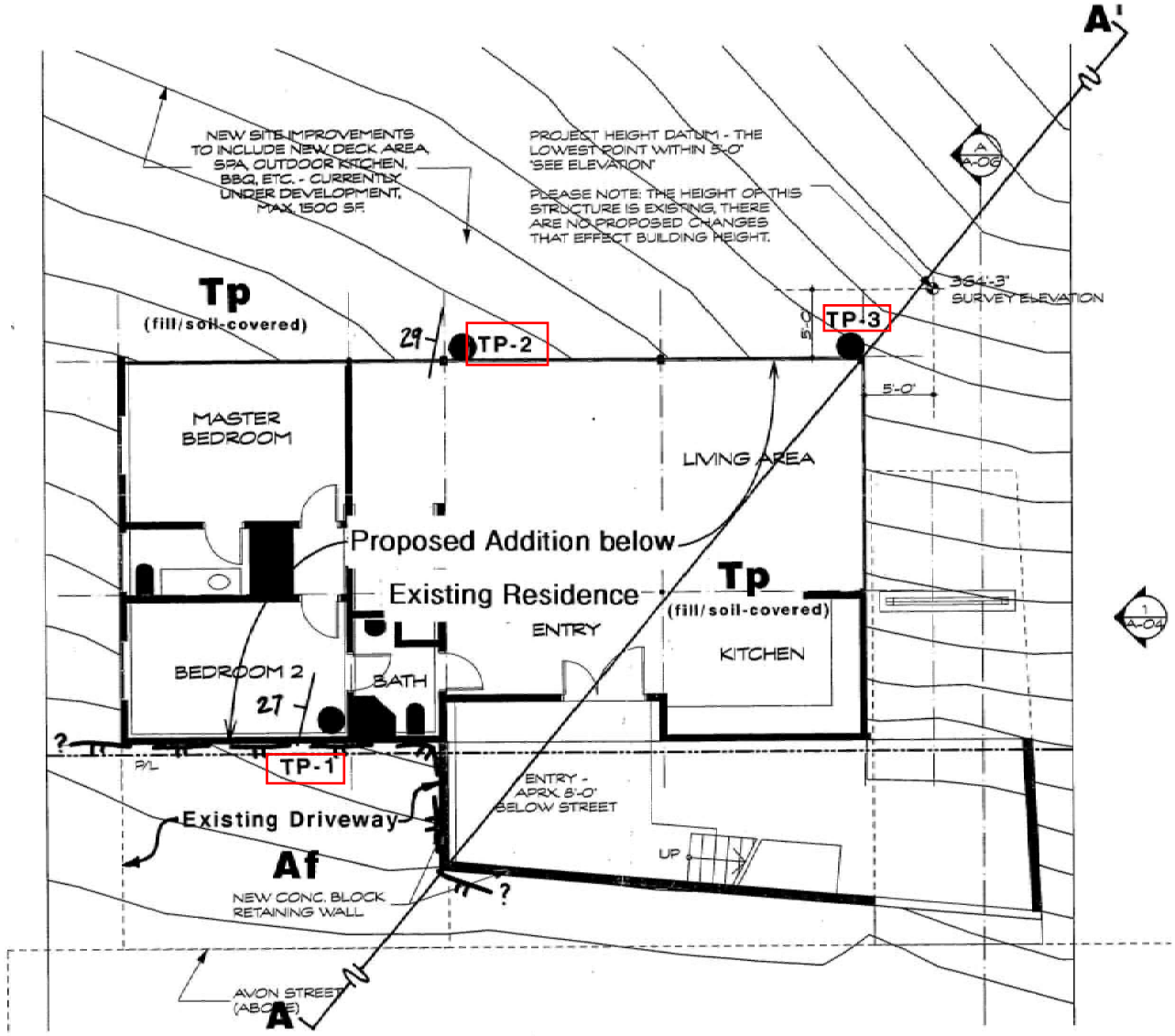
JANUARY 4, 2005 **GS04-1017**

FOR

MR. KEVIN ARNOVITZ
1923 AVON STREET
LOS ANGELES, CA 90026

1545 VICTORY BLVD. 2ND FLOOR GLENDALE CALIFORNIA 91201-9240 PH. 818 - 500 - 9533 FAX 818 - 500 - 0134

10107212006340 39



Scale: 1"=8'

EXPLANATION

Af	ARTIFICIAL FILL
Tp	BEDROCK – PUENTE FORMATION
	APPROXIMATE LIMITS OF ARTIFICIAL FILL
29	STRIKE & DIP OF BEDDING
TP-1	TEST PIT LOCATION
A A'	LINE OF GEOLOGIC CROSS SECTION

1545 VICTORY BL., 2ND FLOOR
GLENDALE CA 91201
PHONE 818-500-9533
FAX 818-500-0134

GEOSYSTEMS, INC.
ENVIRONMENTAL AND GEOTECHNICAL CONSULTANTS

GEOTECHNICAL MAP

1923 Avon Street
Los Angeles, California

GS 04-1017	DATE: Jan., 2005	PLATE 1

1010721200634039

TEST PITS NO. TP-1 THRU TP-3

Lithologic Description

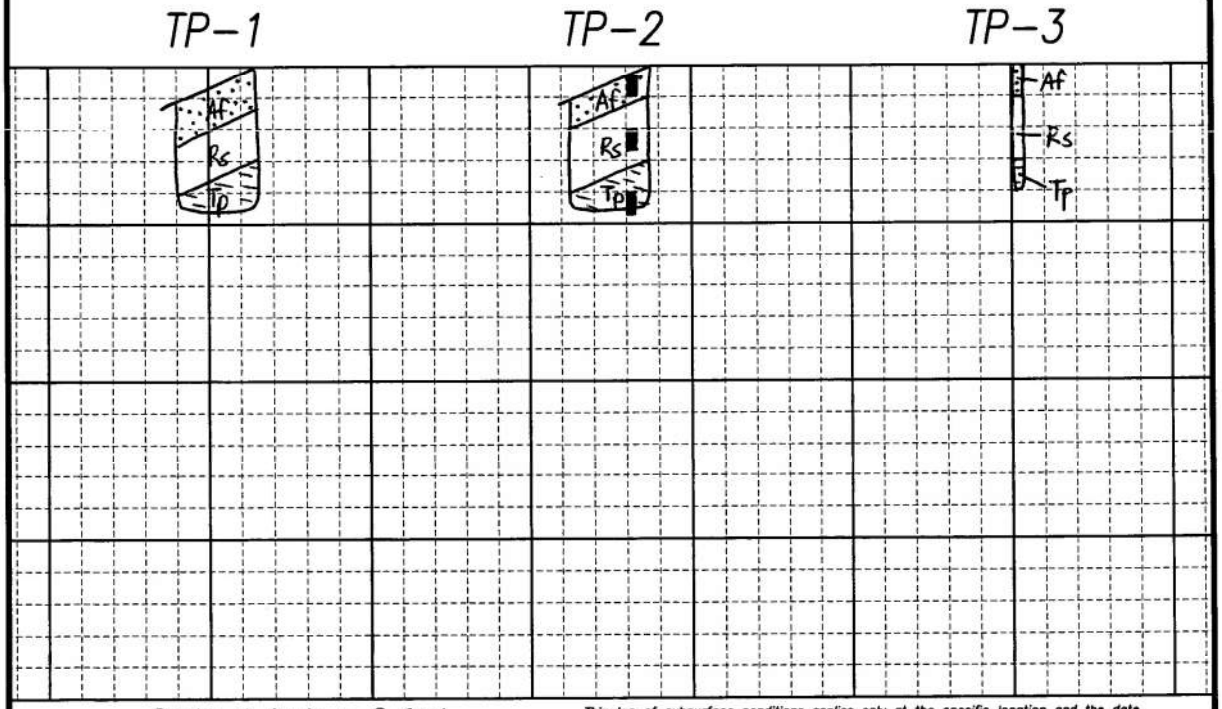
(Af) Artificial Fill – Gravelly Silty Sand; Light brown, damp, slightly dense, with ~20% sandstone fragments up to 6" in diameter.

(Rs) Residual Soil – Silty Sand; Dark brown, damp, dense, with occasional sandstone fragments up to 6" in diameter.

(Tp) Bedrock: Puente Formation – Sandstone and Siltstone; Tan, dry to damp, very dense to hard, poorly bedded to massive.

▮ = Sample Location

(b) = Strike & Dip of Bedding



Scale: 1 inch = 5 feet

This log of subsurface conditions applies only at the specific location and the date indicated. Subsurface conditions may differ at other locations and times.

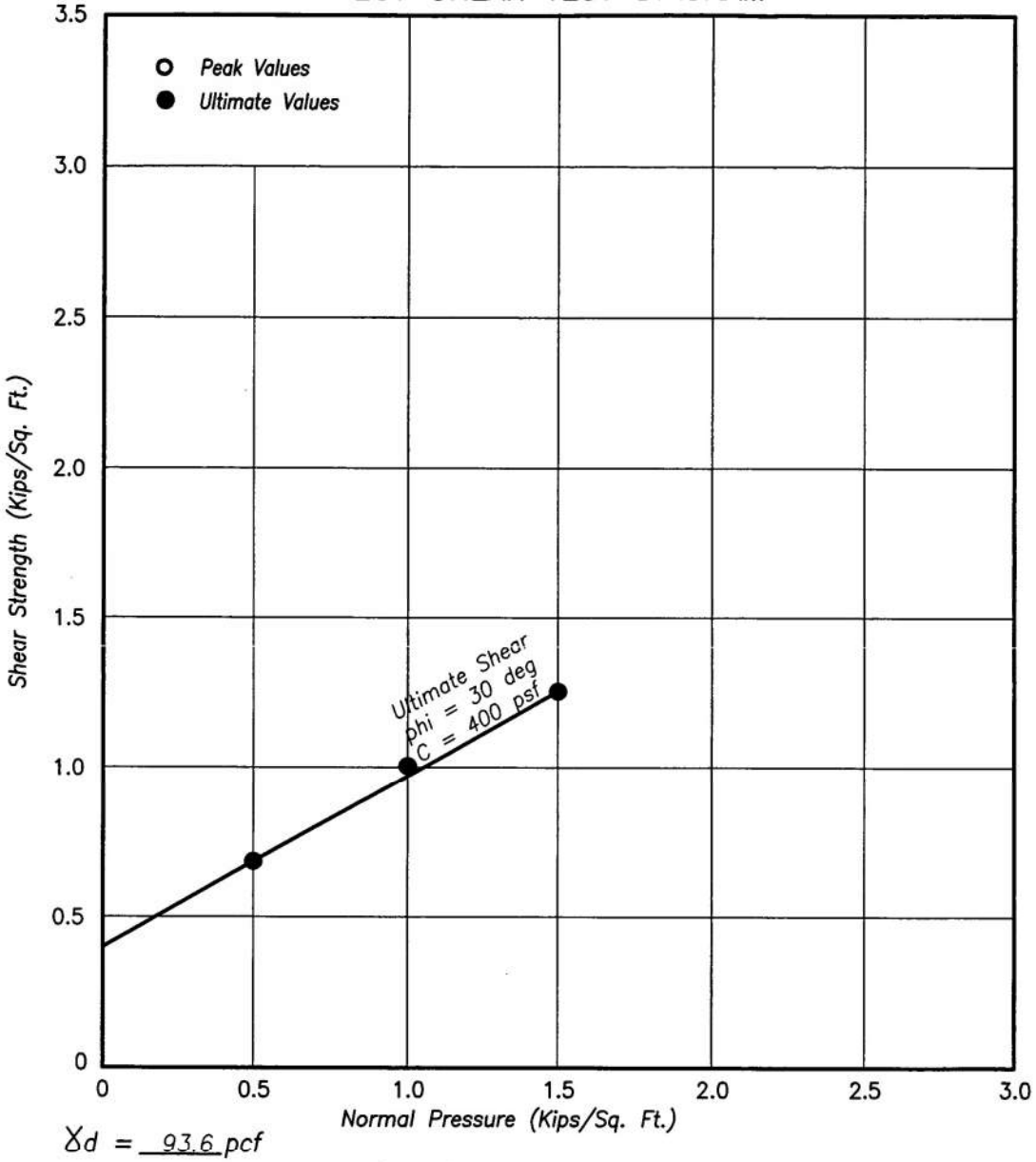
GEOSYSTEMS, INC.
ENVIRONMENTAL AND GEOTECHNICAL CONSULTANTS
1545 Victory Bl., 2nd Floor, Glendale, CA 91201
PHONE 818-500-9533 FAX 818-500-0134

Project: 1923 Avon Street
City: Los Angeles, California
Date Excavated: 11/2/04
Excavation Method: Hand Labor
Logged By: JP
GS # 04-1017

PLATE TP-1

10107212006340 39

DIRECT SHEAR TEST DIAGRAM



γd = 93.6 pcf

Wi = 10.8 %

Wf = 29.4 %

Sample Location: TP-2 Depth: 4 ft.

Material: Bedrock Saturated, Undisturbed

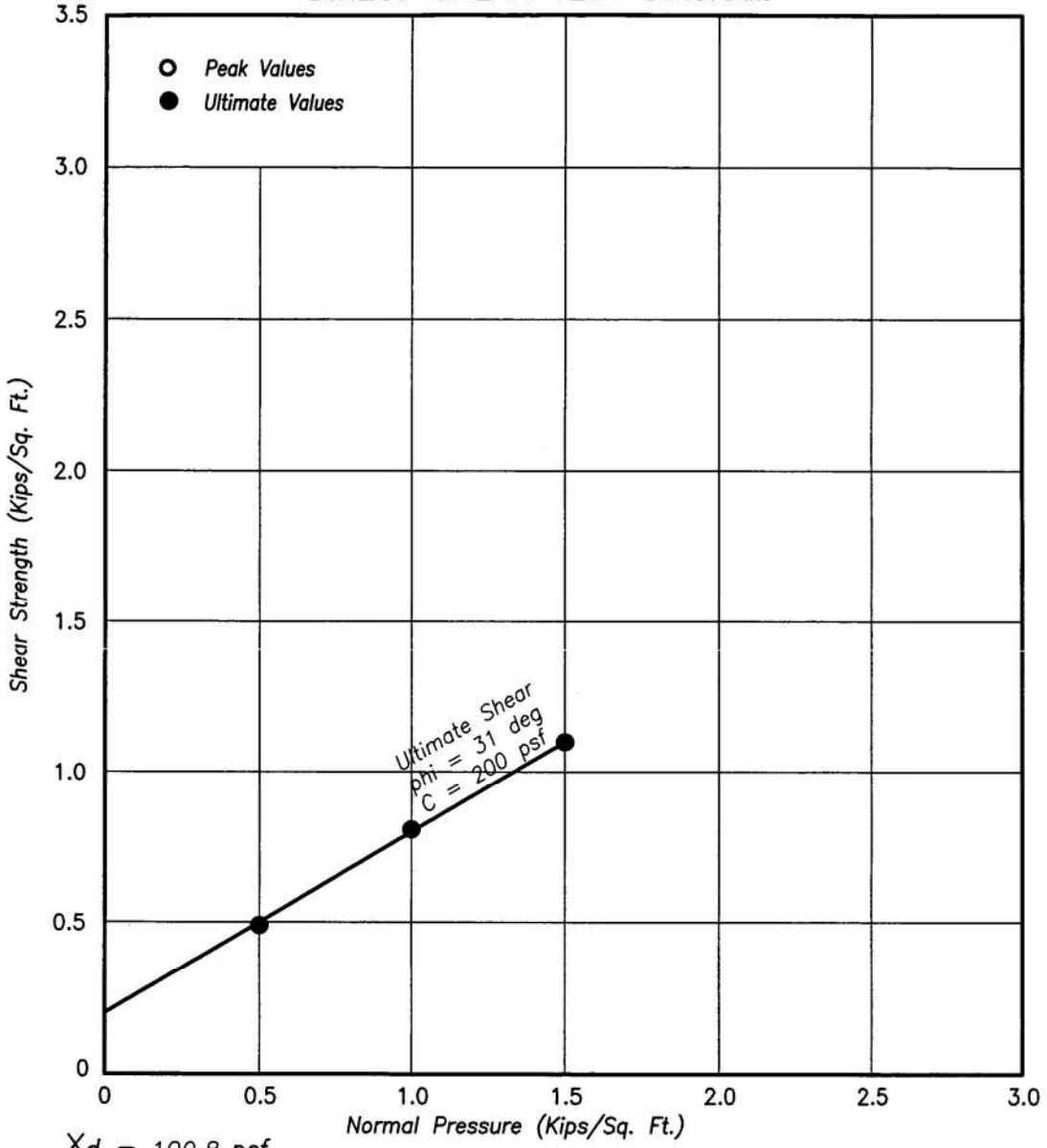
GEOSYSTEMS, INC.
ENVIRONMENTAL AND GEOTECHNICAL CONSULTANTS
1545 Victory Bl., 2nd Floor, Glendale, CA 91201
PHONE 818-500-9533 FAX 818-500-0134

Project: 1923 Avon Street
Los Angeles, California
Date: Dec., 2004
GS # 04-1017

PLATE DS-1

10107212006340 39

DIRECT SHEAR TEST DIAGRAM



γd = 100.8 pcf

Wi = 17.9 %

Wf = 24.7 %

Sample Location: TP-2 Depth: Surface

Material: Fill Saturated, Undisturbed

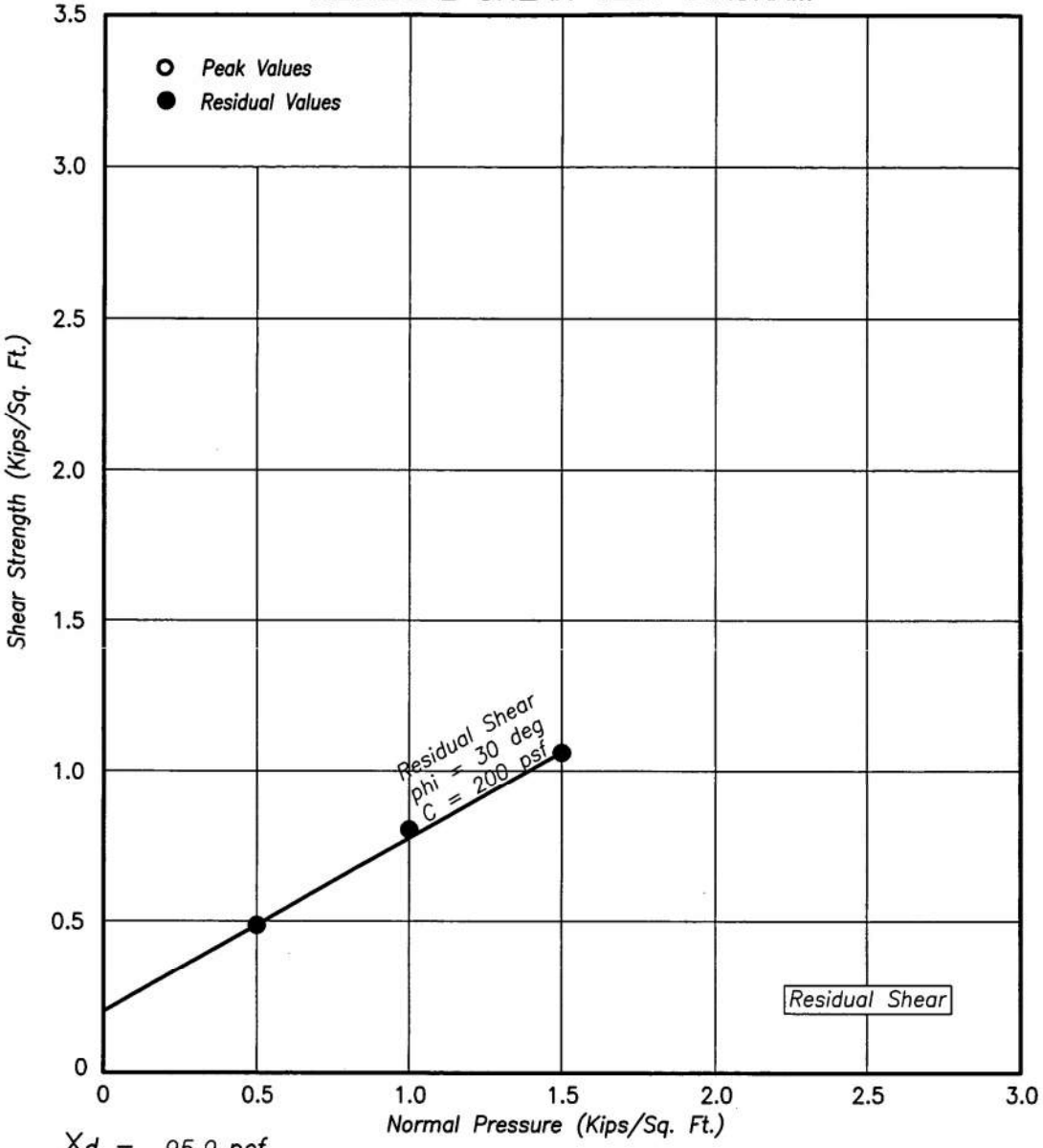
GEOSYSTEMS, INC.
ENVIRONMENTAL AND GEOTECHNICAL CONSULTANTS
1545 Victory Bl., 2nd Floor, Glendale, CA 91201
PHONE 818-500-9533 FAX 818-500-0134

Project: 1923 Avon Street
Los Angeles, California
Date: Dec., 2004
GS # 04-1017

PLATE DS-2

10107212006340 39

RESIDUAL SHEAR TEST DIAGRAM



γd = 95.9 pcf

Wi = 5.6 %

Wf = 25.5 %

Sample Location: TP–2 Depth: 2 ft.

Material: Soil Saturated, Undisturbed

GEOSYSTEMS, INC.
ENVIRONMENTAL AND GEOTECHNICAL CONSULTANTS
1545 Victory Bl., 2nd Floor, Glendale, CA 91201
PHONE 818-500-9533 FAX 818-500-0134

Project: 1923 Avon Street
Los Angeles, California
Date: Dec., 2004
GS # 04–1017

PLATE RS–1

101072120063 4039