

APPENDIX G

GEOTECHNICAL REPORT – ENGEO 2025



DIABLO ROAD PEDESTRIAN TRIAL PROJECT
DANVILLE, CALIFORNIA

GEOTECHNICAL DATA REPORT

SUBMITTED TO
Mr. Allan Shields
Town of Danville
500 La Gonda Way
Danville, CA 94526

PREPARED BY
ENGEO Incorporated

May 29, 2025

PROJECT NO.
8870.000.011

Project No.
8870.000.011

May 29, 2025

Mr. Allan Shields
Town of Danville
510 La Gonda Way
Danville, CA 94526

Subject: Diablo Road Pedestrian Trail Project
Danville, California

GEOTECHNICAL DATA REPORT

Dear Mr. Shields:

We are pleased to provide this Geotechnical Data Report (GDR) for the Diablo Road Pedestrian Trail Project located in Danville, California. The site is owned by the Town of Danville.

This report provides the geotechnical data obtained in our geotechnical exploration carried out in March of 2023 to support design and construction of the Diablo Road Pedestrian Trail. We were contracted with the Town of Danville for this scope of work under Professional Services Agreement Account Code 14G81993-7720C-XC055 for Capital Improvement Project C-055 dated March 8, 2024, and amended on February 25, 2025.

This GDR may be made available to bidders and construction contractors as a reference document. This GDR is not a construction document and should not be construed as such.

If you have any questions or comments regarding this report, please contact us and we will be glad to discuss them with you.

Sincerely,

ENGEO Incorporated


Jonathan Buck, GE, LEED, AP, GSD

ww/jb/tpb/ar




Theodore P. Bayham, GE, CEG



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1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

We prepared this Geotechnical Data Report (GDR) containing relevant geologic and geotechnical data for the Diablo Road Pedestrian Trail project located along the southern side of Diablo Road in Danville, California. The site is bound by Fairway Drive to the west and Alameda Diablo to the southeast, as shown in the Vicinity Map, Figure 1.

The scope of our services included performing pre-field activities, observing and logging subsurface explorations, and performing laboratory testing on select soil samples retrieved from our explorations. Our exploration program included drilling five geotechnical borings (1-B1 through 1-B5). The locations of the explorations are presented in the Site Plan, Figure 2.

1.2 PROJECT DESCRIPTION

The proposed 12-foot-wide pedestrian trail will start near Fairway Drive, approximately 85 feet southeast of the existing culvert, and extend approximately 0.9 miles along the southern side of Diablo Road. The trail alignment is to be in a narrow strip of land between Diablo Road and Green Valley Creek.

All elevations referred to in this report are with respect to WGS84 datum.

2.0 FIELD EXPLORATION

2.1 SUBSURFACE EXPLORATION DESCRIPTION

We carried out our site explorations on January 23 and 24, 2023, and May 23, 2025. The general scope of our field explorations for the project are presented below.

- Five geotechnical exploration borings (1-B1 through 1-B5):
 - Borings were advanced using solid-flight auger drilling techniques.
 - Depth of explorations ranged from approximately 26 feet to 31½ feet below ground surface (bgs).
 - Disturbed and relatively undisturbed samples were collected from discreet depths to characterize the subsurface conditions encountered and to identify suitability for laboratory testing.
- Three cone penetration test soundings (2-CPT1 through 2-CPT3):
 - Cone penetration tests (CPTs) were advanced to 50 feet bgs.

Our exploratory boring logs are presented in Appendix A. The logs contain the soil type, color, consistency, and visual classification in general accordance with the Unified Soil Classification System (USCS), along with laboratory results for tests completed on select samples collected during the exploration. The logs graphically describe the subsurface conditions at the exploration locations for the date of exploration; however, subsurface conditions may vary with time. The CPT logs are presented in Appendix B.

2.1.1 Utility Clearance

In preparing our site plan, we located the borings in areas clear of underground utilities with adequate overhead clearance between the drill rig mast and overhead lines. We notified Underground Services Alert (USA) of the field activities a minimum of 48 hours prior to the start of the work.

2.2 EXPLORATION METHODS

2.2.1 Geotechnical Borings and Logging

The borings were drilled and sampled by West Coast Exploration under the supervision of ENGEO's geologist using an approximately 4.5-inch-diameter solid-flight auger drilling technique on a truck-mounted CME drill rig.

A summary of the borings is presented in Table 2.2-1. The borings were logged in the field by a geologist through the examination of soil samples and drill cuttings. The logs were prepared in accordance with the USCS based on the field logged soil descriptions, visual examination of samples in the laboratory, and laboratory test results. The as-drilled boring locations are shown in the Site Plan, Figure 2, and the boring logs are included in Appendix A. Select geotechnical laboratory test results are shown in the logs with a complete set of results included in Appendix B.

TABLE 2.2-1: Summary of Boring Locations

BORING NO.	DATE DRILLED	LATITUDE/LONGITUDE (degrees)	GROUND SURFACE ELEV. (feet, WGS84)	BORING DEPTH ^a (feet)
1-B1	1/23/2023	37.835693/-121.969209	473	26½
1-B2	1/23/2023	37.835554/-121.968425	476	31½
1-B3	1/23/2023	37.835496/-121.968193	476	29
1-B4	1/24/2023	37.8352332/-122.9673395	479	26
1-B5	1/24/2023	37.83513/-121.967127	480	31½

Note: ^a. Final approximate total drilled depth

2.2.2 Cone Penetration Testing

We retained the services of a subcontractor operating a CPT rig to perform testing to a maximum depth of approximately 50 feet bgs. The CPT has a 20-ton compression-type cone with a 15-square-centimeter (cm²) base area, an apex angle of 60 degrees, and a friction sleeve with a surface area of 225 cm². The cone, connected with a series of rods, is pushed into the ground at a constant rate. Cone readings are taken at approximately 5-cm intervals with a penetration rate of 2 cm per second in accordance with ASTM D5778.

Measurements include the tip resistance to penetration of the cone (Q_c), the resistance of the surface sleeve (F_s), and pore pressure (U) (Robertson and Campanella, 1988). The CPT logs are presented in Appendix B.

TABLE 2.2-1: Summary of CPT Locations

BORING NO.	DATE DRILLED	LATITUDE/LONGITUDE (degrees)	GROUND SURFACE ELEV. (feet, WGS84)	BORING DEPTH ^a (feet)
2-CPT1	5/23/2025	37.83571/-121.96948	472	50
2-CPT2	5/23/2025	37.83552/-121.96833	477	50
2-CPT3	5/23/2025	37.83521/-121.96734	480	50

Note: ^a. Final approximate total drilled depth

2.3 SOIL SAMPLING AND DATA COLLECTION METHODS

A standard penetration test (SPT) split-spoon driven sampler with a 1½-inch inside diameter (I.D.), 2-inch outside diameter (O.D.) was used to collect samples and obtain SPT blow counts. A modified California split-spoon driven sampler with a 2½-inch I.D., 3-inch O.D. was used to collect samples and obtain blow counts. The samples and blow counts were obtained by dropping a 140-pound hammer (automatic trip hammer) through a 30-inch free fall and the number of blows was recorded for each 6 inches of penetration. The blow counts recorded on the boring logs represent the accumulated number of blows to drive the sampler 12 inches; the blow counts have not been converted using any correction factors. The auto-trip hammers on the drill rigs used in the investigation are periodically tested by West Coast Drilling for efficiency. Based on historical test results for a range of site conditions, the hammers are estimated to operate at approximately 75 percent energy efficiency (corresponding to an energy correction factor of $C_E=1.25$ for determining corrected blow counts). Storage and transport of the samples consisted of sealed bags and capped steel sampling sleeves for SPT and modified California samples, respectively.

2.4 GEOTECHNICAL LABORATORY TESTING

Samples were tested to determine the soil classification and engineering properties of the soil. Laboratory tests that were performed included the following.

- Dry density (ASTM D2937)
- Moisture content (ASTM D2216)
- Grain Size Distribution (ASTM D422)
- Percent passing No. 200 sieve (ASTM D1140)
- Atterberg Limits (ASTM D4318)
- Unconfined Compression Strength Test (ASTM D2166)

Laboratory test results are summarized on the exploration logs presented in Appendix A and tabulated below in Table 2.4-1. The detailed data sheets documenting the laboratory testing results are presented in Appendix C.

TABLE 2.4-1: Summary of Geotechnical Laboratory Testing

BORING NO.	DEPTH (feet)	SAMPLE TYPE	DRY DENSITY ^a (pcf)	MOISTURE CONTENT ^b (%)	SAMPLE GRADATION ^c			UCS ^d (psf)	ATTERBERG LIMITS ^e
					% GRAVEL	% SAND	% FINES		LL - PL - PI
1-B1	3-3.5	MC	97.5	20.6					33-23-10
1-B1	11-11.5	MC	107.4	20.4					
1-B1	16-16.5	MC			3	72	25		
1-B2	16-16.5	MC					52		
1-B3	9-9.5	MC	96.2	27.3			772		
1-B3	14-14.5	MC	105.9	20.3					
1-B4	2-3.5	SPT							35-17-18
1-B4	5-6.5	SPT		12.9					
1-B4	11-11.5	MC					33		
1-B5	11-11.5	MC		15.6					

Notes:

a. ASTM D2937

b. ASTM D2216

c. ASTM D1140 and ASTM D422

d. ASTM D2166

e. ASTM D4318

SPT = Standard Penetration Test, split spoon sampler, MC = Modified California sampler (2.5 I.D., used with liners)

pcf = pounds per cubic foot, psf = pounds per square foot

LL = Liquid Limit, PL = Plastic Limit, PI = Plasticity Index, NP = Non-Plastic

2.5 LOCAL GROUNDWATER CONDITIONS

Field measurements of water levels, as noted in our borings at the time of drilling and interpreted from the CPT logs, are listed in Table 2.5-1.

TABLE 2.5-1: Local Groundwater Conditions

BORING NO.	DATE DRILLED	LATITUDE/LONGITUDE (degrees)	APPROX. DEPTH OF GROUNDWATER DURING DRILLING (feet)	APPROX. GROUNDWATER ELEVATION (feet, WGS84)
1-B1	1/23/2023	37.835693/-121.969209	15	458
1-B2	1/23/2023	37.835554/-121.968425	15	461
1-B3	1/23/2023	37.835496/-121.968193	15	461
1-B4	1/24/2023	37.8352332/-122.9673395	15	464
1-B5	1/24/2023	37.83513/-121.967127	15	465
2-CPT1	5/23/2025	37.83571/-121.96948	16	456
2-CPT2	5/23/2025	37.83552/ -121.96833	16	461
2-CPT3	5/23/2025	37.83521/-121.96734	17	463

3.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

This GDR was prepared for the use of the Town of Danville and their consultants for the Diablo Road Pedestrian Trail Project. This report may not provide all the information needed by the Town of Danville and its consultants for the future development of the site. This GDR may be made available to potential bidders and the project's construction contractor as a reference document only. This GDR is not a construction document and should not be construed as a construction document.

The geotechnical data provided in this report is presented within the limits prescribed by the client, in accordance with generally accepted professional engineering practices. We determined the lines designating the interface between layers on the exploration logs using visual observations. The transition between the materials may be abrupt or gradual. The exploration logs contain information concerning samples recovered, indications of the presence of various materials such as clay, sand, silt, rock, existing fill, etc., and observations of groundwater encountered. The field logs also contain our interpretation of the subsurface conditions between sample locations. Therefore, the logs contain both factual and interpretative information. No warranty, either express or implied, is made.

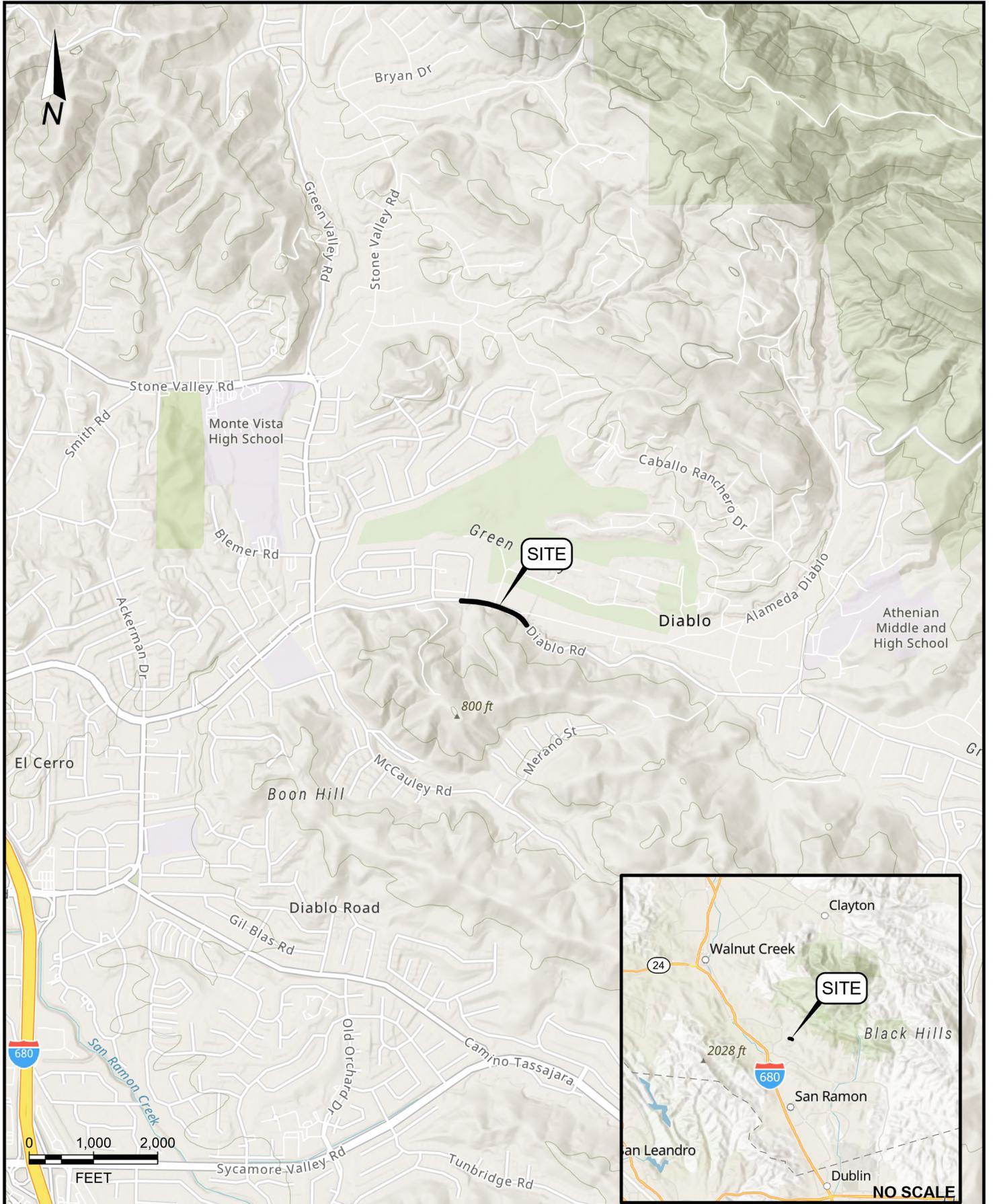


FIGURES

FIGURE 1: Vicinity Map

FIGURE 2: Site Plan

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BASEMAP SOURCE: ENGEO INC, ESRI WORLD TOPO MAP

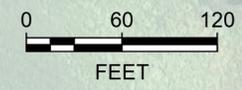


VICINITY MAP
 DIABLO ROAD TRAIL
 DIABLO, CALIFORNIA

PROJECT NO.: 8870.000.011	
SCALE: AS SHOWN	
DRAWN BY: MMH	CHECKED BY: JDB

FIGURE NO.
1

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BASEMAP SOURCE: GOOGLE EARTH MAPPING SERVICE 2025

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

-  Project Site
-  Cone Penetration Test (ENGEO, 2025)
-  Boring (ENGEO, 2023)



SITE PLAN
DIABLO ROAD TRAIL
DANVILLE, CALIFORNIA

PROJECT NO.: 8870.000.011	
SCALE: AS SHOWN	
DRAWN BY: MMH	CHECKED BY: JDB

FIGURE NO.
2



APPENDIX A

**KEY TO BORING LOGS
GEOTECHNICAL EXPLORATION LOGS**

KEY TO BORING LOGS

MAJOR TYPES

DESCRIPTION

COARSE-GRAINED SOILS MORE THAN HALF OF MAT'L LARGER THAN #200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES		GW - Well graded gravels or gravel-sand mixtures GP - Poorly graded gravels or gravel-sand mixtures
		GRAVELS WITH OVER 12 % FINES		GM - Silty gravels, gravel-sand and silt mixtures GC - Clayey gravels, gravel-sand and clay mixtures
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES		SW - Well graded sands, or gravelly sand mixtures SP - Poorly graded sands or gravelly sand mixtures
		SANDS WITH OVER 12 % FINES		SM - Silty sand, sand-silt mixtures SC - Clayey sand, sand-clay mixtures
THAN #200 SIEVE FINE-GRAINED SOILS MORE THAN HALF OF MAT'L SMALLER	SILTS AND CLAYS LIQUID LIMITS 50% OR LESS			ML - Inorganic silt with low to medium plasticity CL - Inorganic clay with low to medium plasticity OL - Low plasticity organic silts and clays
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%			MH - Inorganic silt with high plasticity CH - Inorganic clay with high plasticity OH - Highly plastic organic silts and clays
	HIGHLY ORGANIC SOILS			PT - Peat and other highly organic soils

GRAIN SIZES

		U.S. STANDARD SERIES SIEVE SIZE			CLEAR SQUARE SIEVE OPENINGS					
		200	40	10	4	3/4 "	3"	12"		
SILTS AND CLAYS	SAND				GRAVEL		COBBLES	BOULDERS		
	FINE	MEDIUM	COARSE	FINE	COARSE					

RELATIVE DENSITY

CONSISTENCY

SANDS AND GRAVELS	BLOWS/FOOT (S.P.T.) ¹	SILTS AND CLAYS	APPROXIMATE SHEAR STRENGTH (PSF) ²
VERY LOOSE	0-4	VERY SOFT	0-250
LOOSE	4-10	SOFT	250-500
MEDIUM DENSE	10-30	MEDIUM STIFF	500-1,000
DENSE	30-50	STIFF	1,000-2,000
VERY DENSE	OVER 50	VERY STIFF	2,000-4,000
		HARD	> 4,000

MOISTURE CONDITION

DRY	Absence of moisture, dusty, dry to touch
MOIST	Damp but no visible water
WET	Visible freewater

LINE TYPES

—————	Solid - Layer Break
-----	Dashed - Gradational or approximate layer break

SAMPLER SYMBOLS

	Modified California (3-inch O.D.) Sampler
	California (2.5-inch O.D.) Sampler
	S.P.T. Split Spoon (2-inch O.D.) Sampler
	Shelby Tube
	Continuous Core
	Bag Samples
	Grab Samples
	No Recovery

GROUND-WATER SYMBOLS

	Groundwater level during drilling
	Stabilized groundwater level

NOTES

1. Standard Penetration Tests (S.P.T.) number of blows for a 140-pound hammer falling 30 inches to drive a 2-inch O.D. (1-3/8-inch I.D.) sampler, assuming 60% hammer efficiency
2. Approximate shear strength measured in field at time of drilling in units of pounds per square foot



SOIL BORING 1-B1

LATITUDE: 37.83570

LONGITUDE: -121.96921

Diablo Road Pedestrian Trail
Danville, CA
8870.000.011

DATE DRILLED: 01/23/2023
HOLE DEPTH: 26.5 ft
HOLE DIAMETER: 4.5 in
SURFACE ELEV.: ~473 ft (WGS84)

LOGGED BY / REVIEWED BY: KW / JB
DRILLING CONTRACTOR: West Coast Drilling
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Pulley

Depth (ft)	Elevation (ft)	Sampler Type	MATERIAL DESCRIPTION	Graphic Log	Water Levels	Blow Count (blows/ft) or Penetration Resistance	Liquid Limit	Plasticity Index	Fines (%)	Moisture Content (%)	Dry Density (pcf)	Compressive Strength (psf) *Field Approximation (tsf)	Shear Strength (psf) *Field Approximation (tsf)	Strength Test Type
450			LEAN CLAY WITH SAND (CL) , dark reddish brown mottled with bluish gray, very stiff, moist, approximately 20% sand, rootlets, carbonates.			47						3.5*		
25			SANDY LEAN CLAY WITH SILT (CL) , yellowish brown, stiff, carbonates.			29						1.75*		

Bottom of boring at 26½ feet below grade.
Groundwater encountered at approximately 15 feet at the time of drilling.



SOIL BORING 1-B2

LATITUDE: 37.83555

LONGITUDE: -121.96843

Diablo Road Pedestrian Trail
Danville, CA
8870.000.011

DATE DRILLED: 01/23/2023
HOLE DEPTH: 31.5 ft
HOLE DIAMETER: 4.5 in
SURFACE ELEV.: ~476 ft (WGS84)

LOGGED BY / REVIEWED BY: KW / JB
DRILLING CONTRACTOR: West Coast Drilling
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Pulley

Depth (ft)	Elevation (ft)	Sampler Type	MATERIAL DESCRIPTION	Graphic Log	Water Levels	Blow Count (blows/ft) or Penetration Resistance	Liquid Limit	Plasticity Index	Fines (%)	Moisture Content (%)	Dry Density (pcf)	Compressive Strength (psf) *Field Approximation (tsf)	Shear Strength (psf) *Field Approximation (tsf)	Strength Test Type
455			POORLY GRADED SAND WITH CLAY (SP-SC) , dark brown, medium dense, moist, approximately 10% fines, carbonates.			25								
25														
450			SANDY LEAN CLAY (CL) , dark brown, medium stiff, moist, approximately 30% sand.			15						1*		
30														
445			Stiff, wet.			24						1.5*		

Bottom of boring at 31½ feet below grade. Groundwater encountered at approximately 15 feet at the time of drilling.



SOIL BORING 1-B3

LATITUDE: 37.83550

LONGITUDE: -121.96819

Diablo Road Pedestrian Trail
Danville, CA
8870.000.011

DATE DRILLED: 01/23/2023
HOLE DEPTH: 29 ft
HOLE DIAMETER: 4.5 in
SURFACE ELEV.: ~476 ft (WGS84)

LOGGED BY / REVIEWED BY: KW / JB
DRILLING CONTRACTOR: West Coast Drilling
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Pulley

Depth (ft)	Elevation (ft)	Sampler Type	MATERIAL DESCRIPTION	Graphic Log	Water Levels	Blow Count (blows/ft) or Penetration Resistance	Liquid Limit	Plasticity Index	Fines (%)	Moisture Content (%)	Dry Density (pcf)	Compressive Strength (psf) *Field Approximation (tsf)	Shear Strength (psf) *Field Approximation (tsf)	Strength Test Type
455														
25			SANDY LEAN CLAY (CL) , yellowish brown, stiff, moist, approximately 40% sand, rootlets.			37						2.5*		
450			LEAN CLAY WITH SAND (CL) , brown, hard, moist, approximately 20% sand, trace carbonates.			56						>4.5*		

Bottom of boring at 29 feet below grade.
Groundwater encountered at approximately 15 feet at the time of drilling.



SOIL BORING 1-B4

LATITUDE: 37.83523

LONGITUDE: -121.96734

Diablo Road Pedestrian Trail
Danville, CA
8870.000.011

DATE DRILLED: 01/24/2023
HOLE DEPTH: 26 ft
HOLE DIAMETER: 4.5 in
SURFACE ELEV.: ~479 ft (WGS84)

LOGGED BY / REVIEWED BY: KW / JB
DRILLING CONTRACTOR: West Coast Drilling
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Pulley

Depth (ft)	Elevation (ft)	Sampler Type	MATERIAL DESCRIPTION	Graphic Log	Water Levels	Blow Count (blows/ft) or Penetration Resistance	Liquid Limit	Plasticity Index	Fines (%)	Moisture Content (%)	Dry Density (pcf)	Compressive Strength (psf) *Field Approximation (tsf)	Shear Strength (psf) *Field Approximation (tsf)	Strength Test Type
455			CLAYEY SAND (SC) , dark brown, very dense, moist, fine-grained sand, fine-grained sand, approximately 30% fines.			85								
25			CONGLOMERATE , light brown, very strong, moderately weathered, sand, gravel.			56								

Bottom of boring at 26 feet below grade.
Groundwater encountered at approximately 15 feet at the time of drilling.



SOIL BORING 1-B5

LATITUDE: 37.83513

LONGITUDE: -121.96713

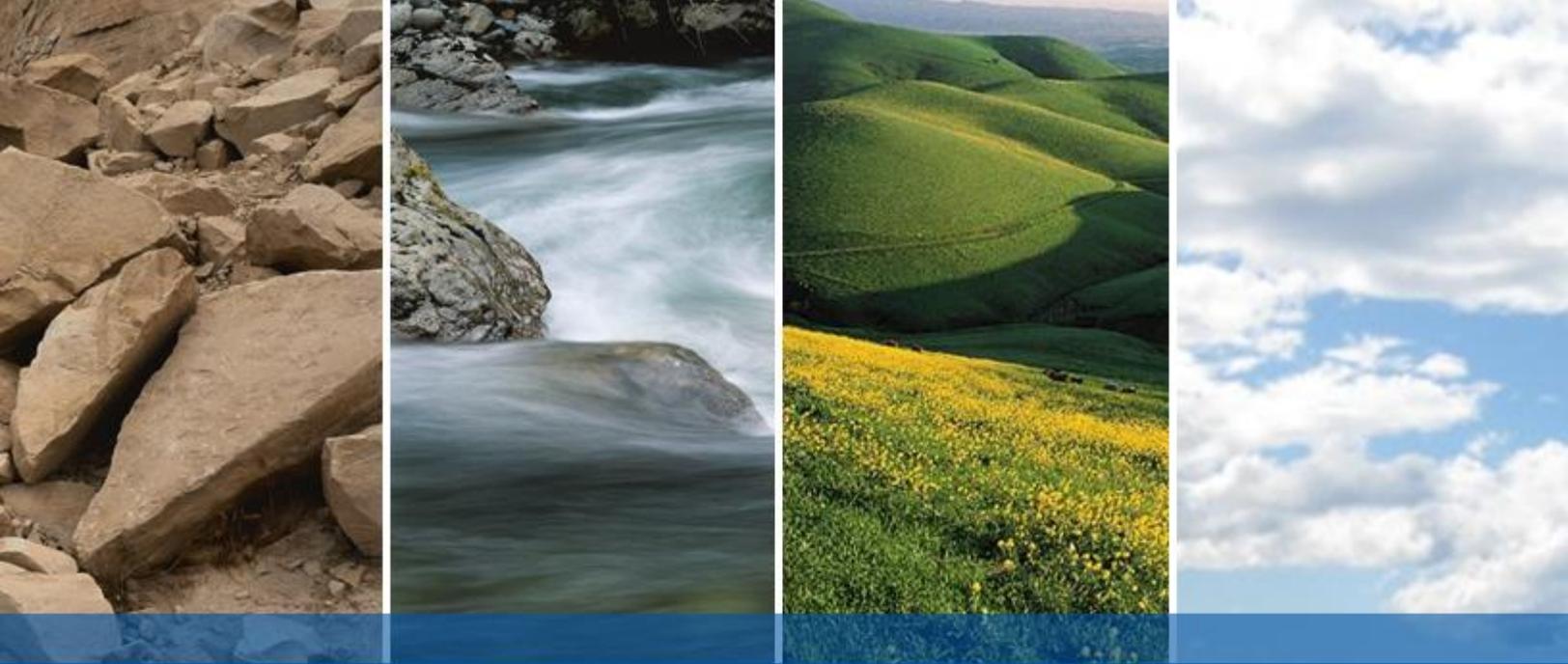
Diablo Road Pedestrian Trail
Danville, CA
8870.000.011

DATE DRILLED: 01/24/2023
HOLE DEPTH: 31.5 ft
HOLE DIAMETER: 4.5 in
SURFACE ELEV.: ~480 ft (WGS84)

LOGGED BY / REVIEWED BY: KW / JB
DRILLING CONTRACTOR: West Coast Drilling
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Pulley

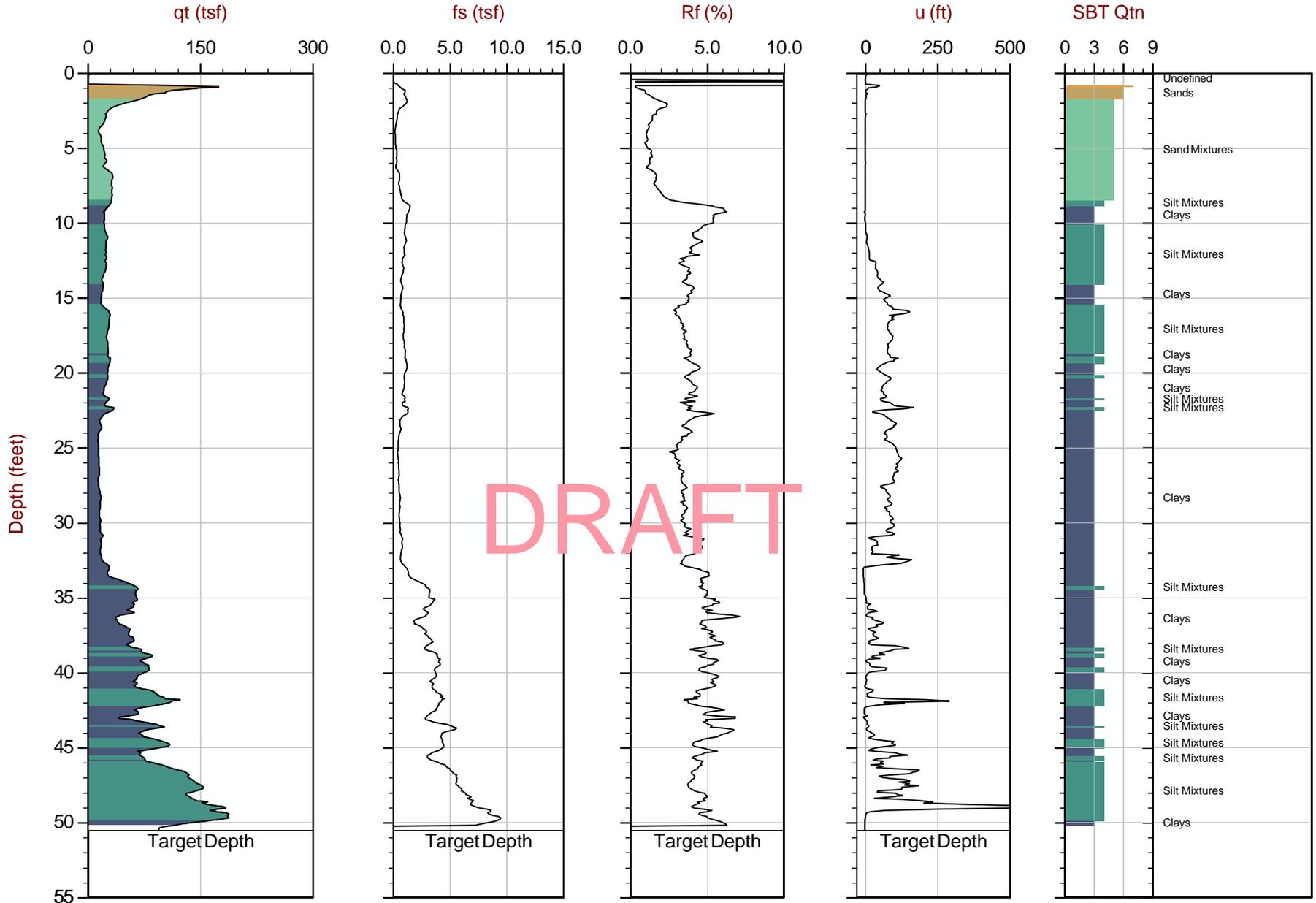
Depth (ft)	Elevation (ft)	Sampler Type	MATERIAL DESCRIPTION	Graphic Log	Water Levels	Blow Count (blows/ft) or Penetration Resistance	Liquid Limit	Plasticity Index	Fines (%)	Moisture Content (%)	Dry Density (pcf)	Compressive Strength (psf) *Field Approximation (tsf)	Shear Strength (psf) *Field Approximation (tsf)	Strength Test Type
25	455		LEAN CLAY (CL) , dark brown mottled with bluish gray, very stiff, moist, less than 10% sand, carbonates.			50						3*		
			LEAN CLAY WITH SAND (CL) , dark brown, very stiff, moist, approximately 20% sand, carbonates.			40						2*		
30	450		Stiff			37						2*		

Bottom of boring at 31½ feet below grade.
Groundwater encountered at approximately 15 feet at the time of drilling.



APPENDIX B

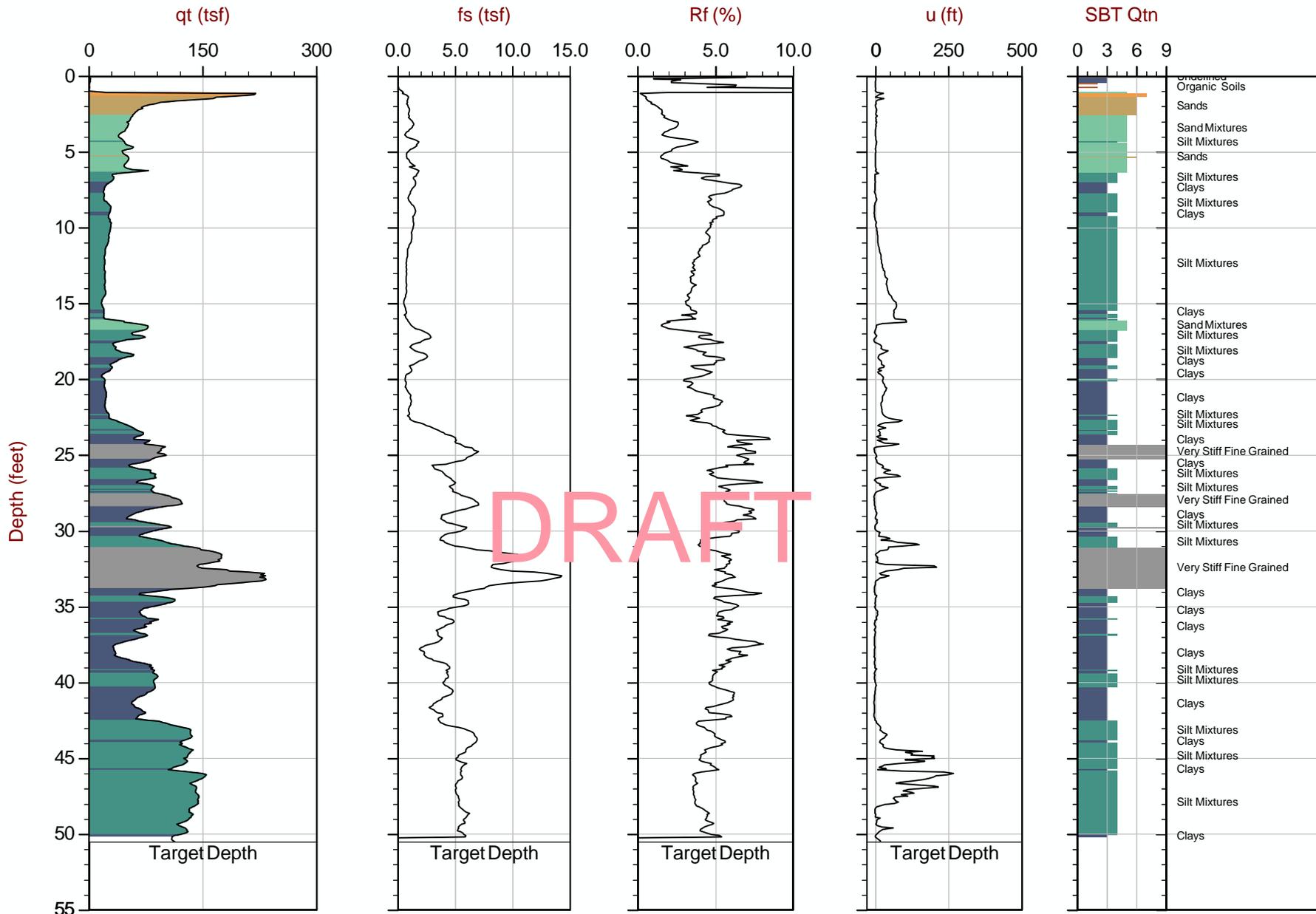
CONE PENETRATION TEST LOGS (ConeTec)

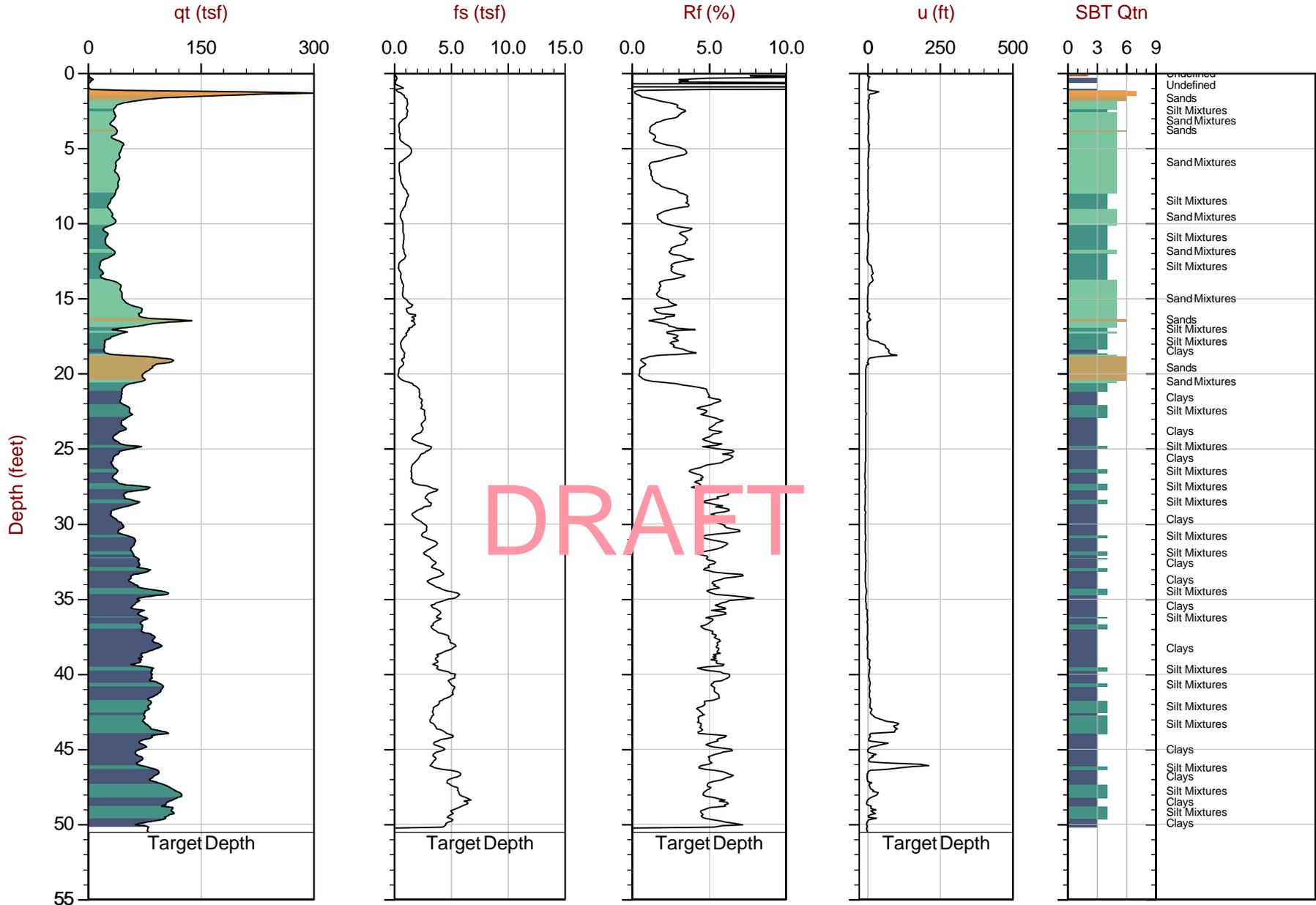


Max Depth: 15.400 m / 50.52 ft
 Depth Inc: 0.025 m / 0.082 ft
 Avg Int: Every Point

File: 25-56-29621_CP01.dat
 Unit Wt: SBTQtn(PKR2009)

SBT: Robertson, 2009 and 2010
 Coords: N: N/A E: N/A Elev: N/A
 Page No: 1 of 1

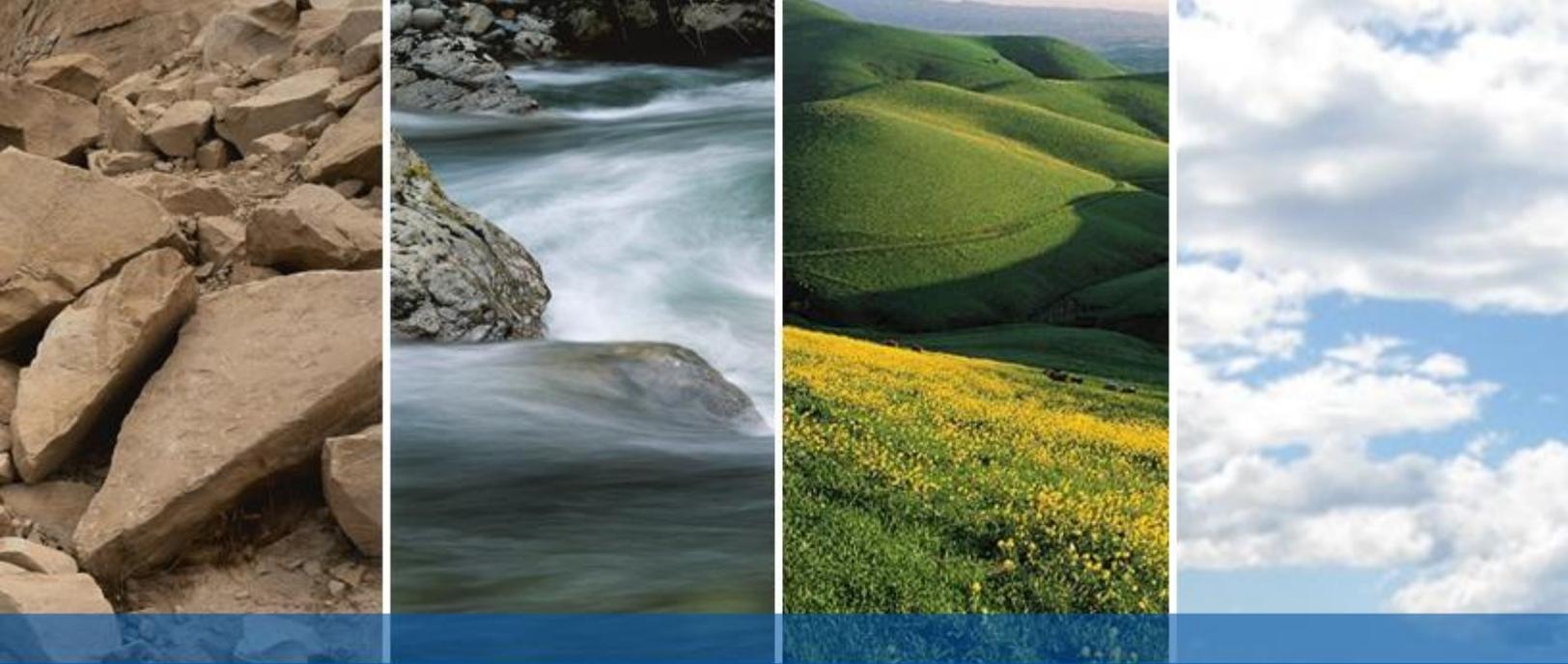




Max Depth: 15.400 m / 50.52 ft
 Depth Inc: 0.025 m / 0.082 ft
 Avg Int: Every Point

File: 25-56-29621_CP03.dat
 Unit Wt: SBTQtn(PKR2009)

SBT: Robertson, 2009 and 2010
 Coords: N: N/A E: N/A Elev: N/A
 Page No: 1 of 1

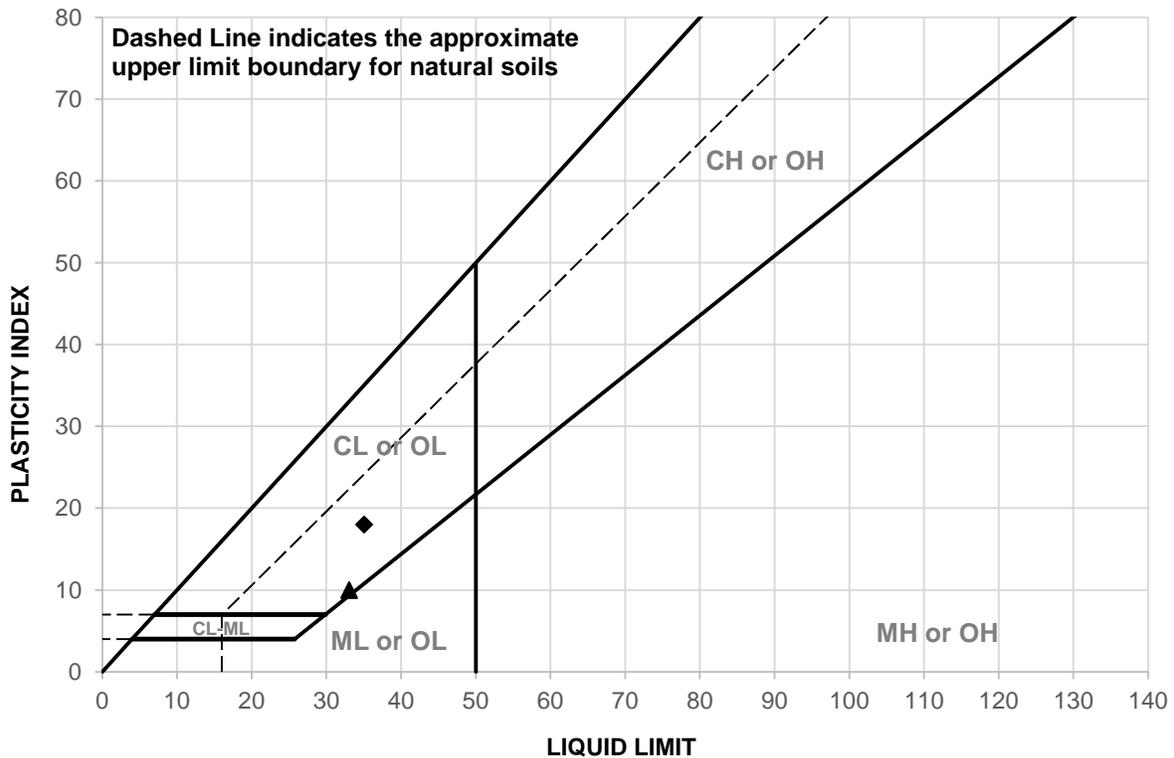


APPENDIX C

GEOTECHNICAL LABORATORY TEST DATA

LIQUID AND PLASTIC LIMITS TEST REPORT

ASTM D4318



	SAMPLE ID	DEPTH (ft)	MATERIAL DESCRIPTION	LL	PL	PI
▲	1-B1@3-3.5	3-3.5	See exploration logs	33	23	10
◆	1-B4@2-3.5	2-3.5	See exploration logs	35	17	18

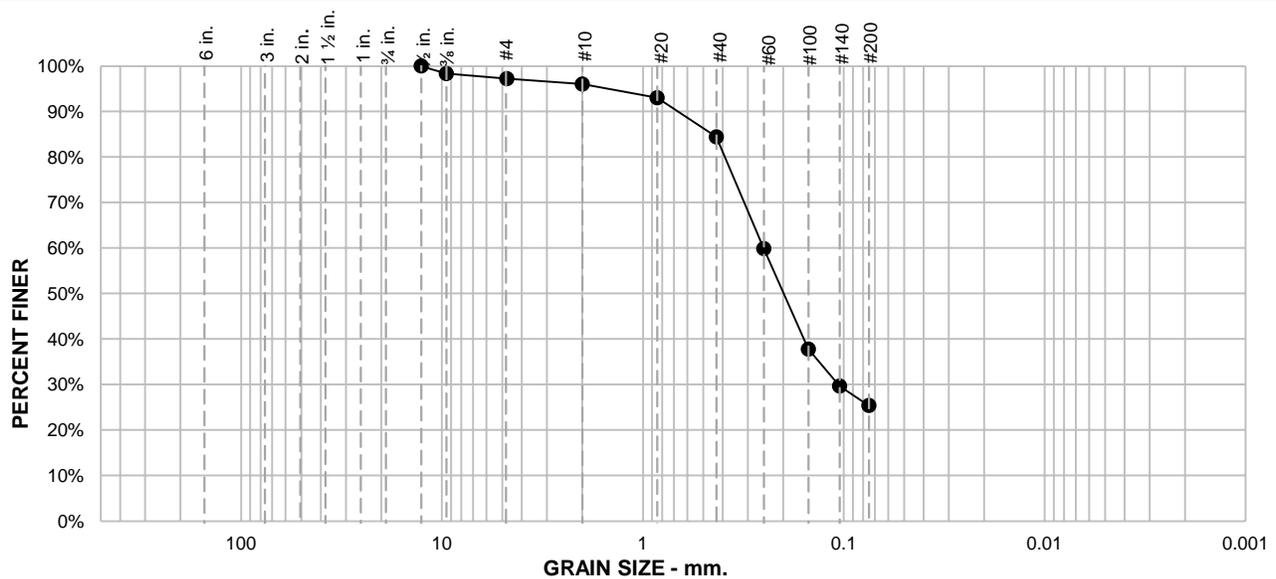
	SAMPLE ID	TEST METHOD	REMARKS
▲	1-B1@3-3.5	PI: ASTM D4318, Wet Method	
◆	1-B4@2-3.5	PI: ASTM D4318, Wet Method	



CLIENT: Town of Danville
PROJECT NAME: Diablo Road Pedestrian Trail
PROJECT NO: 8870.000.011 PH001
PROJECT LOCATION: Danville, California
REPORT DATE: 2/7/2023
TESTED BY: K. Nguyen
REVIEWED BY: G. Criste

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D422



SAMPLE ID: 1-B1@15-16.5'
DEPTH (ft): 15-16.5'

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
		2.8	1.2	11.6	59.0	25.4	
SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)	SOIL DESCRIPTION			
				See exploration logs			
1/2 in.	100.0						
3/8 in.	98.3						
#4	97.2						
#10	96.0						
#20	93.0						
#40	84.4						
#60	59.9						
#100	37.8						
#140	29.7						
#200	25.4						
				ATTERBERG LIMITS			
				PL =	LL =	PI =	
				COEFFICIENTS			
				D ₉₀ = 0.6702 mm	D ₈₅ = 0.4509 mm	D ₆₀ = 0.2506 mm	
				D ₅₀ = 0.1989 mm	D ₃₀ = 0.1064 mm	D ₁₅ =	
				D ₁₀ =	C _u =	C _c =	
				CLASSIFICATION			
				USCS =			
				REMARKS			
				USCS: ASTM D2488			

* (no specification provided)

CLIENT: Town of Danville



PROJECT NAME: Diablo Road Pedestrian Trail

PROJECT NO: 8870.000.011 PH001

PROJECT LOCATION: Danville, CA

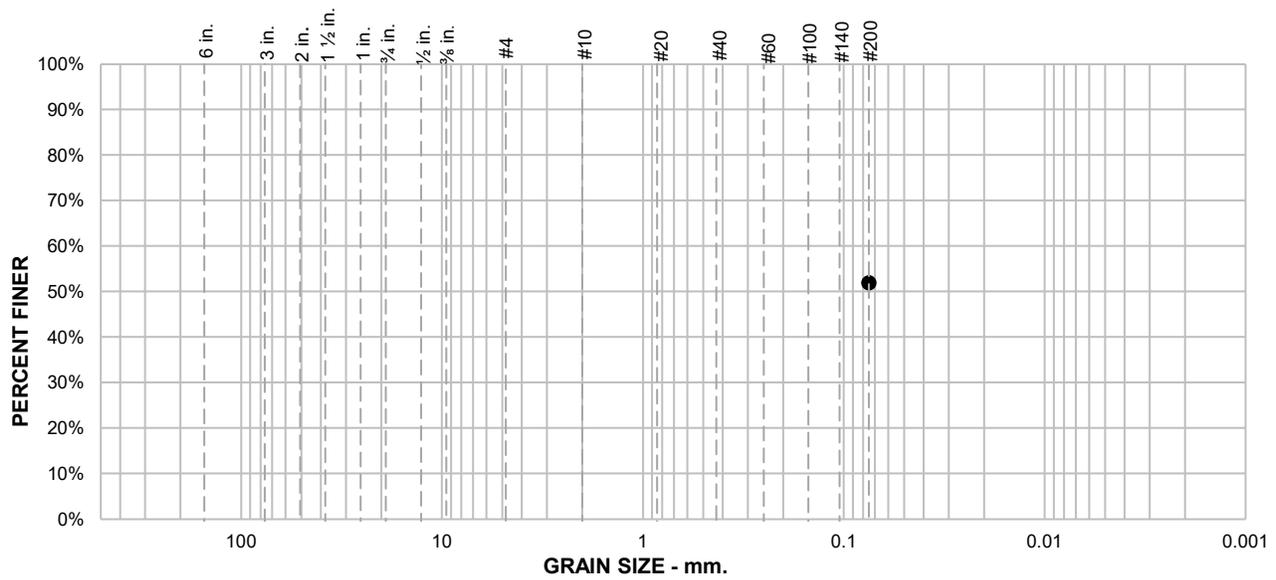
REPORT DATE: 2/1/2023

TESTED BY: O.Espinoza

REVIEWED BY: D. Seibold

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D1140, Method B



SAMPLE ID: 1-B2@16-16.5

DEPTH (ft): 16.0-16.5

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
							51.9
SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)	SOIL DESCRIPTION			
#200	51.9			See exploration logs			
ATTERBERG LIMITS							
PL =		LL =		PI =			
COEFFICIENTS							
D ₉₀ =		D ₈₅ =		D ₆₀ =			
D ₅₀ =		D ₃₀ =		D ₁₅ =			
D ₁₀ =		C _u =		C _c =			
CLASSIFICATION							
USCS =							
REMARKS							
Soak time = 240 min Dry sample weight = 355.2 g							

* (no specification provided)

CLIENT: Town of Danville



PROJECT NAME: Diablo Road Pedestrian Trail

PROJECT NO: 8870.000.011 PH001

PROJECT LOCATION: Danville, California

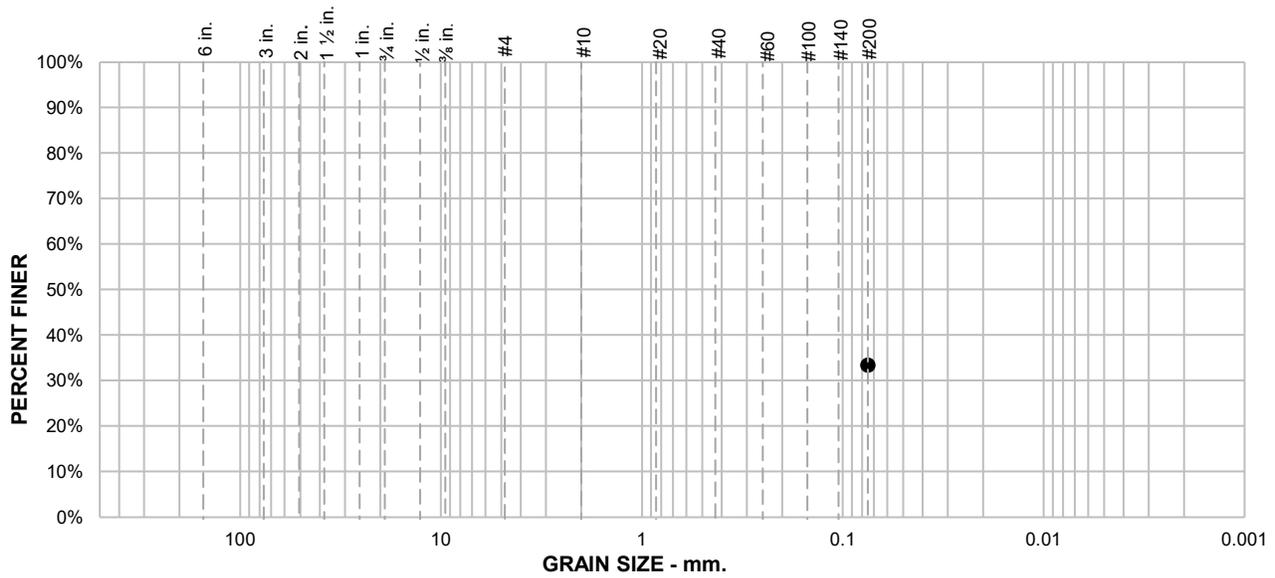
REPORT DATE: 2/6/2023

TESTED BY: O. Espinoza

REVIEWED BY: G. Criste

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D1140, Method B



SAMPLE ID: 1-B4@11-11.5
DEPTH (ft): 11.0-11.5

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
							33.4
SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)	SOIL DESCRIPTION			
#200	33.4			See exploration logs			
				ATTERBERG LIMITS			
				PL =	LL =	PI =	
				COEFFICIENTS			
				D ₉₀ =	D ₈₅ =	D ₆₀ =	
				D ₅₀ =	D ₃₀ =	D ₁₅ =	
				D ₁₀ =	C _u =	C _c =	
				CLASSIFICATION			
				USCS =			
				REMARKS			
				Soak time = 300 min Dry sample weight = 619 g			

* (no specification provided)



CLIENT: Town of Danville
PROJECT NAME: Diablo Road Pedestrian Trail
PROJECT NO: 8870.000.011 PH001
PROJECT LOCATION: Danville, California
REPORT DATE: 2/6/2023
TESTED BY: O. Espinoza
REVIEWED BY: G. Criste

MOISTURE CONTENT REPORT

ASTM D2216

SAMPLE ID	1-B4@ 5-6.5	1-B5@ 11-11.5						
DEPTH (ft.)	5.0-6.5	11.0-11.5						
METHOD A OR B	B	B						
MOISTURE CONTENT (%)	12.9	15.6						



CLIENT: Town of Danville

PROJECT NAME: Diablo Road Pedestrian Trail

PROJECT NO: 8870.000.011 PH001

PROJECT LOCATION: Danville, California

REPORT DATE: 2/3/2023

TESTED BY: O. Espinoza

REVIEWED BY: G. Criste

MOISTURE-DENSITY DETERMINATION REPORT

ASTM D7263

SAMPLE ID	1-B1@ 3-3.5	1-B1@ 11-11.5	1-B3@ 14-14.5					
DEPTH (ft.)	3.0-3.5	11.0-11.5	14.0-14.5					
METHOD A OR B	B	B	B					
MOISTURE CONTENT (%)	20.6	20.4	20.3					
DRY DENSITY (pcf)	97.5	107.0	105.9					



CLIENT: Town of Danville

PROJECT NAME: Diablo Road Pedestrian Trail

PROJECT NO: 8870.000.011 PH001

PROJECT LOCATION: Danville, California

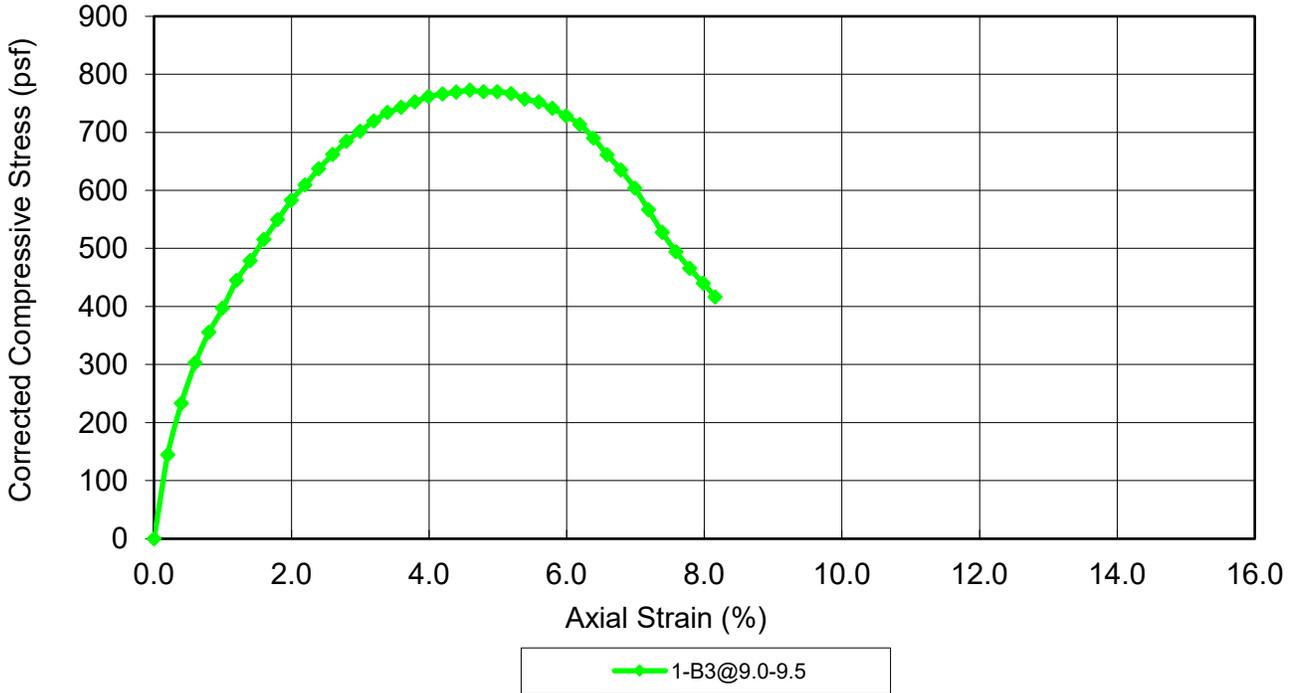
REPORT DATE: 2/3/2023

TESTED BY: O. Espinoza

REVIEWED BY: G. Criste

UNCONFINED COMPRESSION TEST REPORT (ASTM D2166)

Compressive Stress vs. Axial Strain Curve(s)



SPECIMEN	
BEFORE TEST	1-B3@9.0-9.5
Test Moisture Content (%)	27.32
Dry Density (pcf)	96.2
Saturation (%)	97.0
Void Ratio	0.77
Diameter (in)	2.395
Height (in)	5.009
Height-To-Diameter Ratio	2.09
TEST DATA	
Unconfined Compressive Strength (psf)	772.4
Undrained Shear Strength (psf)	386.2
Strain Rate (in/min)	0.050
Specific Gravity (ASSUMED)	2.720
Strain at Failure(%)	4.59
Test Remarks	
SPECIMEN	DESCRIPTION
1-B3@9.0-9.5	See exploration logs

PROJECT NAME: Diablo Road Pedestrian Trail
PROJECT NO: 8870.000.011 PH011
CLIENT: Town of Danville
LOCATION: Danville, California

Test Date: 2/3/2023
Tested By: O. Espinoza
Reviewed By: G. Criste



