STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION **DIVISION OF HIGHWAYS CONTENTS** GEOTECHNICAL ENGINEERING UNIT SHEET NO. **DESCRIPTION** 24D TITLE SHEET **STRUCTURE** LEGEND 2 3-5 SITE PLAN(S) SUBSURFACE INVESTIGATION 6-7 PROFILE(S) ら N COUNTY _GUILFORD PROJECT DESCRIPTION GREENSBORO WESTERN LOOP FROM OLD BATTLEGROUND ROAD TO LAWNDALE DRIVE REFERENCE SITE DESCRIPTION SOUND BARRIER WALL 2: FROM -RPDY4- LEFT TO -L- 434+06 RIGHT

4820 m PROJEC

STATE	STATE PROJECT REPERENCE NO.	SHEET NQ.	TOTAL SHEETS
N.C.	U–2524D	1	7

CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES AND SOLI TEST DATA AVAILABLE MAY BE REVEWED OR INSPECTED IN RALEICH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT 1919) TO7-6850. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOLI TEST DATA A RE NOT PART OF THE CONTRACT.

GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA WITHIN THE BORCHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU UNI-FLACE)TEST DATA CAN BE RELIED ON ONLY TO THE DECREE OF RELIABILITY INHERENT IN THE STANDARD TEST WETHO. THE OBSERVED WATER LEVELS OR SOL MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOL MOISTURE CONDITIONS MAY YARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERRETATIONS MADE, OR OPNION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY IMINSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THE PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

- NOTES: I. THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N.C. DEPARTMENT OF TRANSPORTATION AS ACCURATE NOR IS IT CONSIDERED PART OF THE PLANS, SPECIFICATIONS OR CONTRACT FOR THE PROJECT. BY HAVING REQUESTED THIS INFORMATION, THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

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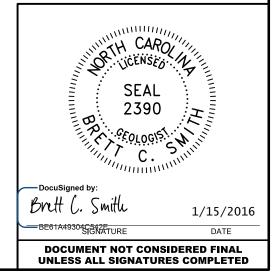
INVESTIGATED BY _B. SMITH, PG

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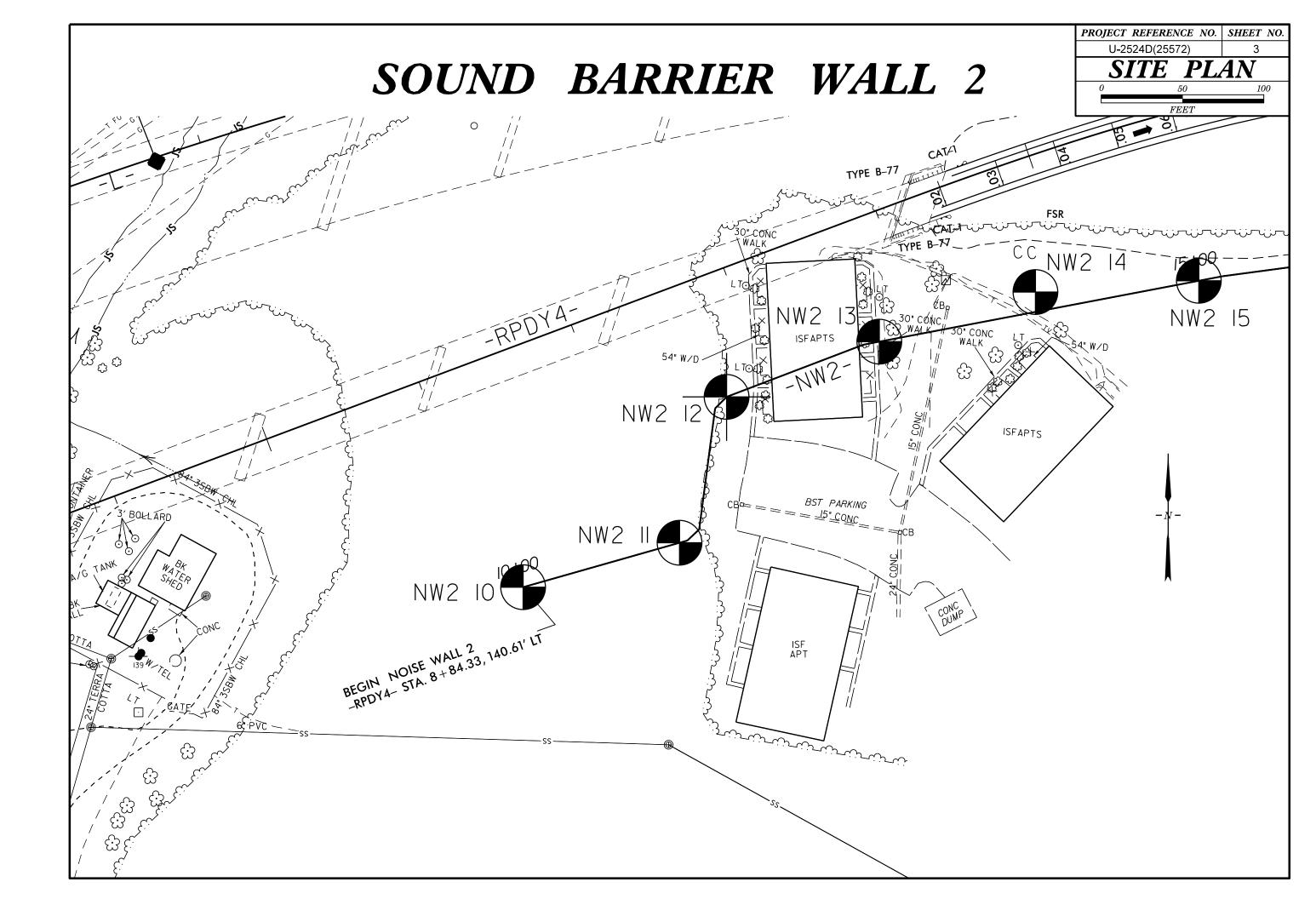
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS GEOTECHNICAL ENGINEERING UNIT SUBSURFACE INVESTIGATION

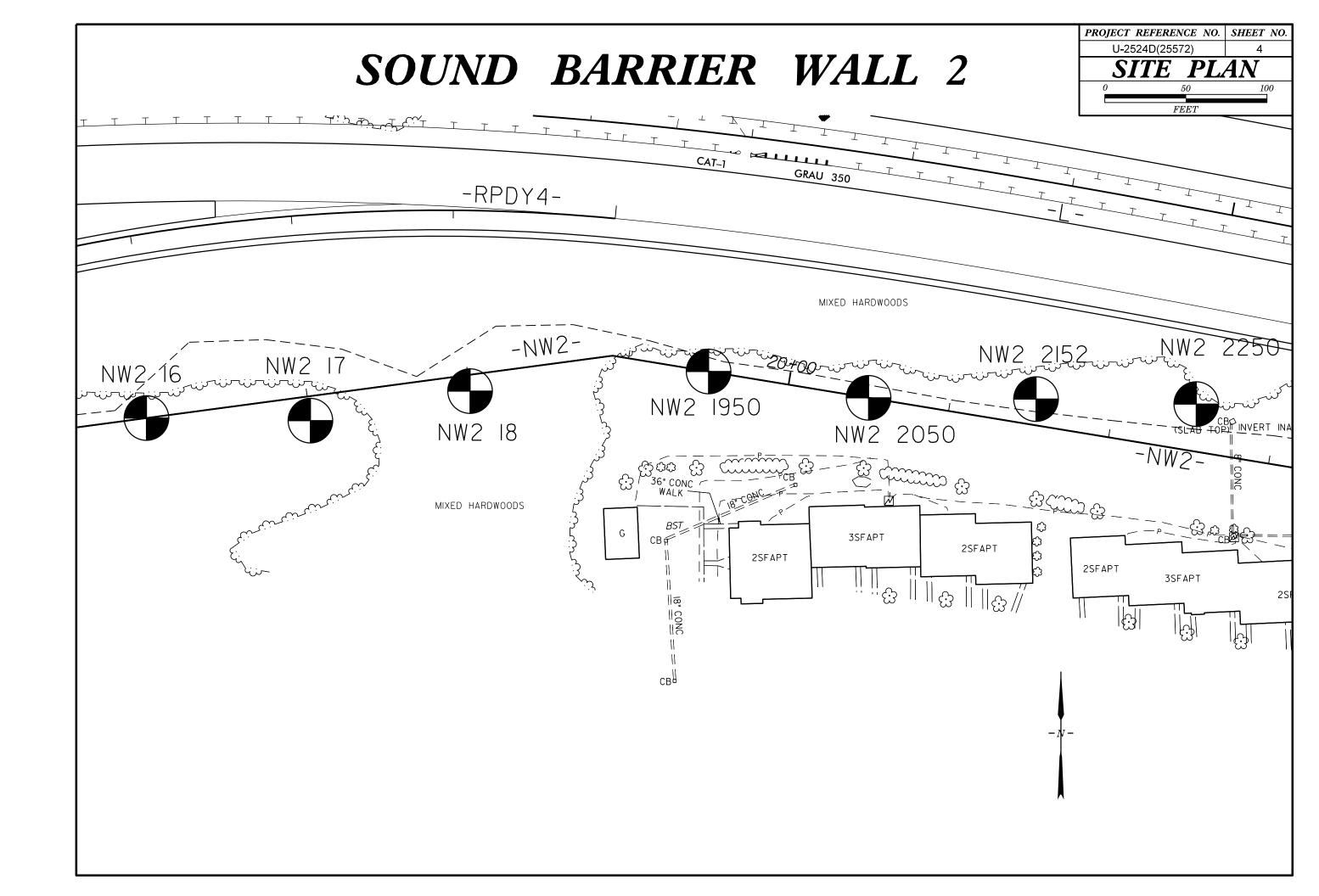
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

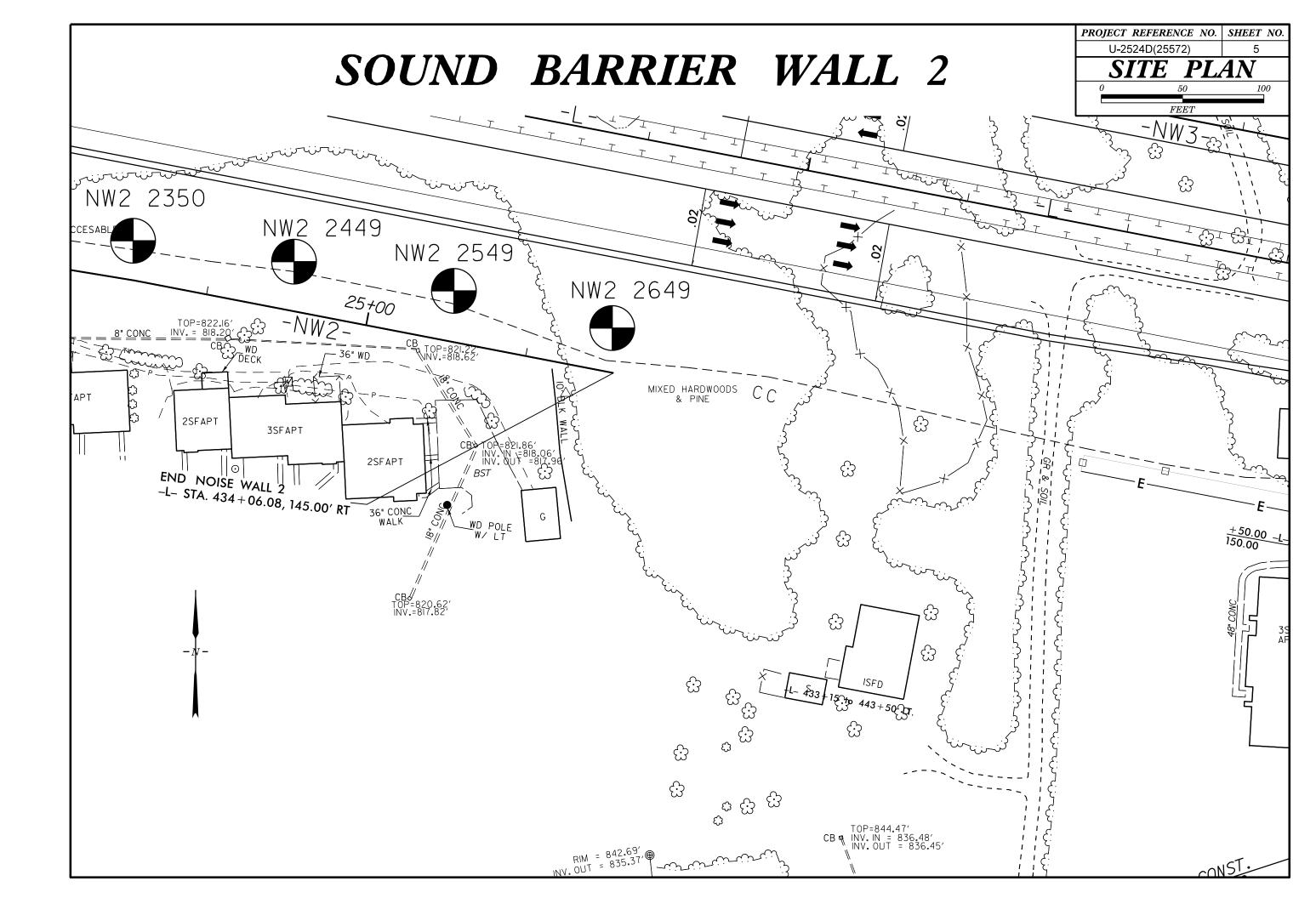
	SOIL DESCRIPTION		L	GRADATION				SCRIPTION NOULD YIELD SPT REFUSAL IF TESTED. AN INFEF	TERMS AND DEFINITIONS
	ED, SEMI-CONSOLIDATED, OR WEATHERED EA FLIGHT POWER AUGER AND YIELD LESS T			ES A GOOD REPRESENTATION OF PARTICL DICATES THAT SOIL PARTICLES ARE ALL		ROCK LINE INDIC	ATES THE LEVEL AT WHICH NON-COA	STAL PLAIN MATERIAL WOULD YIELD SPT REFUS	L. <u>HELOVION (HELOV.)</u> SUIS THI HAVE BEEN THINSPORTED BI WHIER.
ACCORDING TO THE STANDARD PENET	TRATION TEST (AASHTO T 206, ASTM D158	86). SOIL CLASSIFICATION		S A MIXTURE OF UNIFORM PARTICLE SIZE				MPLER EQUAL TO OR LESS THAN 0.1 FOOT PER	Ø <u>AQUIFER</u> - A WATER BEARING FORMATION OR STRATA.
	TEM. BASIC DESCRIPTIONS GENERALLY INCL TURE, AASHTO CLASSIFICATION, AND OTHER			ANGULARITY OF GRAIN			A ZONE OF WEATHERED ROCK.	NSITION BETWEEN SOIL AND ROCK IS OFTEN	ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND.
	ION, ANGULARITY, STRUCTURE, PLASTICITY, E			Y OR ROUNDNESS OF SOIL GRAINS IS DES			ARE TYPICALLY DIVIDED AS FOLLOW	/S:	ARGILLACEOUS - APPLIED TO ALL ROCKS OR SUBSTANCES COMPOSED OF CLAY MINERALS, OR HAVING
	NST WITH INTERBEDDED FINE SAND LAYERS, HI			GULAR, SUBROUNDED, OR ROUNDED.	SIGNATED BIT THE TERMS:	WEATHERED	NON-COASTAL PLA	IN MATERIAL THAT WOULD YIELD SPT N VALUES	A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, SUCH AS SHALE, SLATE, ETC.
SOIL LEGEN	ID AND AASHTO CLASSIFIC	ATION	l	MINERALOGICAL COMPOSIT	TION	ROCK (WR)	100 BLOWS PER FO	DOT IF TESTED.	ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT
GENERAL GRANULAR MATERIAL		ORGANIC MATERIALS				CRYSTALLINE	FINE TO COARSE O	GRAIN IGNEOUS AND METAMORPHIC ROCK THAT	WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND
CLASS. (≤ 35% PASSING ■20				MES SUCH AS QUARTZ, FELDSPAR, MICA, TAU I DESCRIPTIONS WHEN THEY ARE CONSIDE		ROCK (CR)	GNEISS, GABBRO, SC	REFUSAL IF TESTED. ROCK TYPE INCLUDES GRAU	
		A-1, A-2 A-4, A-5	HAE ODED IN	COMPRESSIBILITY		NON-CRYSTALLIN	FINE TO COARSE O	GRAIN METAMORPHIC AND NON-COASTAL PLAIN	CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE.
CLASS. A-1-6 A-1-6 A-2-4 A-2-5	-5 A-2-6 A-2-7 A-7-5 A-7-6	A-3 A-6, A-7	CI 101		11 4 21	ROCK (NCR)		<pre>< THAT WOULD YEILD SPT REFUSAL IF TESTED. DES PHYLLITE, SLATE, SANDSTONE, ETC.</pre>	COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE.
SYMBOL 0000000000				RATELY COMPRESSIBLE	LL < 31 LL = 31 - 50	COASTAL PLAIN	COASTAL PLAIN SE	DIMENTS CEMENTED INTO ROCK, BUT MAY NOT Y	
% PASSING			HIGHL	Y COMPRESSIBLE	LL > 50	SEDIMENTARY RO	CK SPT REFUSAL. ROC SHELL BEDS. ETC.	K TYPE INCLUDES LIMESTONE, SANDSTONE, CEMEN	BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.
*10 50 MX		RANULAR CLAY MUCK,		PERCENTAGE OF MATERI	AL			HERING	DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT
■40 30 MX 50 MX 51 MN ■200 15 MX 25 MX 10 MX 35 MX 35 MX	1X 35 MX 35 MX 36 MN 36 MN 36 MN 36 MN	SOILS SOILS PEAT	ORGANIC MATERIAL	GRANULAR SILT - CLAY	OTHER MATERIAL				ROCKS OR CUTS MASSIVE ROCK.
			TRACE OF ORGANIC MA	<u>SOILS</u> <u>SOILS</u> ATTER 2 - 3% 3 - 5%	TRACE 1 - 10%		MER IF CRYSTALS BRIGHT, FEW JUIN	TS MAY SHOW SLIGHT STAINING. ROCK RINGS UNDER	DIP - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE
PASSING 40			LITTLE ORGANIC MATTE	ER 3 - 5% 5 - 12%	LITTLE 10 - 20%			SOME JOINTS MAY SHOW THIN CLAY COATINGS IF O	HORIZONTAL.
LL – – 40 MX 41 MM	IN 40 MX 41 MN 40 MX 41 MN 40 MX 41 MN	SOILS WITH	MODERATELY ORGANIC		SOME 20 - 35% HIGHLY 35% AND ABOVE			SHINE BRIGHTLY. ROCK RINGS UNDER HAMMER BLOWS	IF <u>DIP DIRECTION (DIP AZIMUTH)</u> - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE
PI 6 MX NP 10 MX 10 MX	1X 11 MN 11 MN 10 MX 10 MX 11 MN 11 MN	MODERATE ORGANIC	HIGHLY ORGANIC	> 10% > 20%	HIGHLY 35% AND ABOVE	OF	A CRYSTALLINE NATURE.		LINE OF DIP, MEASURED CLOCKWISE FROM NORTH.
GROUP INDEX Ø Ø Ø	4 MX 8 MX 12 MX 16 MX ND MX			GROUND WATER				AND DISCOLORATION EXTENDS INTO ROCK UP TO	FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.
USUAL TYPES STONE FRAGS. EINE SUITY O	OR CLAYEY SILTY CLAYEY	ORGANIC SOLLS MATTER	∇	WATER LEVEL IN BORE HOLE IMMEDIAT	ELY AFTER DRILLING			IN GRANITOID ROCKS SOME OCCASIONAL FELDSPAR	
UF MAJUR GRAVEL, AND SAND CRAVEL	AND SAND SOILS SOILS		▼	STATIC WATER LEVEL AFTER 24 HO	DURS			SCOLORATION AND WEATHERING EFFECTS. IN	FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES.
MATERIALS SAND SAND SAND SAND								DULL AND DISCOLORED, SOME SHOW CLAY. ROCK HAS	FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM PARENT MATERIAL.
GEN. RATING EXCELLENT TO GOOD	ID FAIR TO POOR F	FAIR TO POOR UNSUITABLE	<u>VPW</u>	PERCHED WATER, SATURATED ZONE, OR N	WATER BEARING STRATA			SHOWS SIGNIFICANT LOSS OF STRENGTH AS COMPARE	
				SPRING OR SEEP		WIT	H FRESH ROCK.		FORMATION (FM.) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE
	OUP IS \leq LL - 30 ; PI OF A-7-6 SUBGROUP IS > I	LL - 30						R STAINED. IN GRANITOID ROCKS, ALL FELDSPARS D	
LUNS	SISTENCY OR DENSENESS			MISCELLANEOUS SYMBOL	L3			KAOLINIZATION. ROCK SHOWS SEVERE LOSS OF STRE ST'S PICK. ROCK GIVES "CLUNK" SOUND WHEN STRUCK	
PRIMARY SOIL TYPE COMPACTNE		RANGE OF UNCONFINED COMPRESSIVE STRENGTH	ROADWAY EMBA	ANKMENT (RE) 25/025 DIP & DIP DIRE	CTION		TESTED, WOULD YIELD SPT REFUSAL		LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO
CONSISTE	ENCY (N-VALUE)	(TONS/FT ²)	WITH SOIL DES		TURES	SEVERE ALI	ROCK EXCEPT QUARTZ DISCOLORED O	R STAINED. ROCK FABRIC CLEAR AND EVIDENT BUT	ITS LATERAL EXTENT.
GENERALLY VERY LO			SOIL SYMBOL		NG SLOPE INDICATOR			IN GRANITOID ROCKS ALL FELDSPARS ARE KAOLINIZ	D LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS.
GRANULAR MEDIUM D		N/A		VST PMT	INSTALLATION		SOME EXTENT. SOME FRAGMENTS OF S TESTED, WOULD YIELD SPT N VALUES 2		MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS. MOTTLING IN SOILS
MATERIAL DENSE		N/H	ARTIFICIAL FIL		CONE PENETROMETER			R STAINED. ROCK FABRIC ELEMENTS ARE DISCERNIB	USUALLY INDICATES POOR AFRATION AND LACK OF GOOD DRAINAGE
(NON-COHESIVE) VERY DE								SOIL STATUS, WITH ONLY FRAGMENTS OF STRONG RO	
VERY SC	OFT < 2	< 0.25	INFERRED SOIL	L BOUNDARY - CORE BORING	 SOUNDING ROD 			ROCK WEATHERED TO A DEGREE THAT ONLY MINOR	OF AN INTERVENING IMPERVIOUS STRATUM.
GENERALLY SOFT		0.25 TO 0.5		, ₩				AIN. <u>IF TESTED, WOULD YIELD SPT N VALUES < 100</u>	HEOLOGIE MESH SOLE FOR HEOL IN TERCE OF THE WEATHERING OF HOUR
SILT-CLAY MEDIUM S MATERIAL STIFF		0.5 TO 1.0 1 TO 2		K LINE MONITORING WEL	WITH CORE			T DISCERNIBLE, OR DISCERNIBLE ONLY IN SMALL AN BE PRESENT AS DIKES OR STRINGERS. SAPROLITE	ROCK GOHEITT DESIGNATION (RGD) - A MEASONE OF NOCK GOHEITT DESCRIBED BY TOTAL LENGTH OF
(COHESIVE) VERY ST		2 TO 4	ALLUVIAL SOIL		- SPT N-VALUE		SO AN EXAMPLE.	BE THESENT HS DIKES ON STRINGERS. SHINDEITE	ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.
HARD		> 4))		BUCK H	ARDNESS	
TE	XTURE OR GRAIN SIZE			RECOMMENDATION SYMBO)LS	VERY HARD CAI		RP PICK. BREAKING OF HAND SPECIMENS REQUIRES	SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK.
U.S. STD. SIEVE SIZE 4	4 10 40 60 200	270		UNCLASSIFIED EXCAVATION -	고켜 UNCLASSIFIED EXCAVATION -		ERAL HARD BLOWS OF THE GEOLOGIST		SILL - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND
	.76 2.00 0.42 0.25 0.075	0.053			ACCEPTABLE, BUT NOT TO BE USED IN THE TOP 3 FEET OF			ILY WITH DIFFICULTY. HARD HAMMER BLOWS REQUIR	RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO
BOULDER COBBLE GRA	COARSE FINE	SILT CLAY	SHALLOW UNDERCUT	UNCLASSIFIED EXCAVATION - ACCEPTABLE DEGRADABLE ROCK	EMBANKMENT OR BACKFILL		DETACH HAND SPECIMEN.		THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS.
	B SAND SAND	(SL.) (CL.)						OUGES OR GROOVES TO 0.25 INCHES DEEP CAN BE	SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT
	(CSE, SD.) (F SD.)			ABBREVIATIONS				ST'S PICK. HAND SPECIMENS CAN BE DETACHED	OR SLIP PLANE.
GRAIN MM 305 75 SIZE IN. 12 3	2.0 0.25	0.05 0.005	AR - AUGER REFUSAL BT - BORING TERMINATED	MED MEDIUM MICA MICACEOUS	VST - VANE SHEAR TEST WEA WEATHERED		MODERATE BLOWS.		STANDARD PENETRATION TEST (PENETRATION RESISTANCE)(SPT) - NUMBER OF BLOWS (N OR BPF) OF A 140 LB. HAMMER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF 1 FOOT INTO SOIL
			CL CLAY	MOD MODERATELY	γ - UNIT WEIGHT			DEEP BY FIRM PRESSURE OF KNIFE OR PICK POIN PEICES 1 INCH MAXIMUM SIZE BY HARD BLOWS OF T	
SOIL MOIST	URE - CORRELATION OF T	ERMS	CPT - CONE PENETRATION		$\gamma_{\rm d}$ - DRY UNIT WEIGHT		NT OF A GEOLOGIST'S PICK.		TO OR LESS THAN 0.1 FOOT PER 60 BLOWS.
SOIL MOISTURE SCALE	FIELD MOISTURE GUIDE FOR FIE	ELD MOISTURE DESCRIPTION	CSE COARSE	ORG ORGANIC				KNIFE OR PICK. CAN BE EXCAVATED IN FRAGMENTS	STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY
(ATTERBERG LIMITS)	DESCRIPTION		DMT - DILATOMETER TEST DPT - DYNAMIC PENETRAT		ST <u>SAMPLE ABBREVIATIONS</u> S - BULK		OM CHIPS TO SEVERAL INCHES IN SIZE CES CAN BE BROKEN BY FINGER PRESS	BY MODERATE BLOWS OF A PICK POINT. SMALL, TH	
		ID; VERY WET, USUALLY	e - VOID RATIO	SD SAND, SANDY	SS - SPLIT SPOON			AVATED READILY WITH POINT OF PICK. PIECES 1 INC	STRATA ROCK QUALITY DESIGNATION (SROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY
	(SAT.) FROM BELOW 1	THE GROUND WATER TABLE	F - FINE	SL SILT, SILTY	ST - SHELBY TUBE			AVATED READILY WITH POINT OF PICK. PIECES I INU BY FINGER PRESSURE. CAN BE SCRATCHED READILY	THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A DEDCENTAGE
			FOSS FOSSILIFEROUS FRAC FRACTURED, FRACT	SLI SLIGHTLY TURES TCR - TRICONE REFUSAL	RS – ROCK RT – RECOMPACTED TRIAXIAL		GERNAIL.		TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.
RANGE <	- WET - (W) SEMISULID; REU ATTAIN OPTIMU	QUIRES DRYING TO UM MOISTURE	FRAGS FRAGMENTS	w - MOISTURE CONTENT	CBR - CALIFORNIA BEARING	FRA	CTURE SPACING	BEDDING	BENCH MARK:
(PI) PL PLASTIC LIMIT			HI HIGHLY	V - VERY	RATIO	TERM	SPACING	TERM THICKNESS	
		NEAR OPTIMUM MOISTURE	EOU	JIPMENT USED ON SUBJECT	PROJECT	VERY WIDE	MORE THAN 10 FEET	VERY THICKLY BEDDED 4 FEET	ELEVATION: FEET
OM OPTIMUM MOISTURE	- MOIST - (M) SOLID; AT OR M	NEHR OFTIMOM MOISTORE	DRILL UNITS:	ADVANCING TOOLS:	HAMMER TYPE:	WIDE MODERATELY	3 TO 10 FEET CLOSE 1 TO 3 FEET	THICKLY BEDDED 1.5 - 4 FEET THINLY BEDDED 0.16 - 1.5 FEE	
SL SHRINKAGE LIMIT			CME-45C	CLAY BITS	X AUTOMATIC MANUAL	CLOSE	0.16 TO 1 FOOT	VERY THINLY BEDDED 0.03 - 0.16 FE	T NUTES:
	- DRY - (D) REQUIRES ADDI ATTAIN OPTIMU	DITIONAL WATER TO		6 CONTINUOUS FLIGHT AUGER		VERY CLOSE	LESS THAN 0.16 FEET	THICKLY LAMINATED 0.008 - 0.03 FE THINLY LAMINATED < 0.008 FEET	
			CME-55	8" HOLLOW AUGERS	CORE SIZE:				The following existing borings from U-2524C Roadway Subsurface Inventory were used in this report: 42900RT,
	PLASTICITY				□-в □-н				47000DT 4700DT 47200DT 47700DT 47400DT (Completed 7/20/00
	PLASTICITY INDEX (PI)	DRY STRENGTH	X CME-550	HARD FACED FINGER BITS	X-N Q2	FUR SEDIMENTAR		ING OF MATERIAL BY CEMENTING, HEAT, PRESSUR	ETC. 8/4/06)
NON PLASTIC	0-5	VERY LOW	VANE SHEAR TEST	TUNGCARBIDE INSERTS		FRIABLE		FINGER FREES NUMEROUS GRAINS: BY HAMMER DISINTEGRATES SAMPLE.	
SLIGHTLY PLASTIC MODERATELY PLASTIC	6-15 16-25	SLIGHT MEDIUM	THINE SHEAR IEST	X CASING W/ ADVANCER	HAND TOOLS:				
HIGHLY PLASTIC	26 OR MORE	HIGH	PORTABLE HOIST		POST HOLE DIGGER	MODERATE		E SEPARATED FROM SAMPLE WITH STEEL PROBE: (WHEN HIT WITH HAMMER.	
	COLOR				HAND AUGER			FFICULT TO SEPARATE WITH STEEL PROBE:	
			X CME-850		SOUNDING ROD	INDURATED		BREAK WITH HAMMER.	
	OR COLOR COMBINATIONS (TAN, RED, YE			X CORE BIT	VANE SHEAR TEST			BLOWS REQUIRED TO BREAK SAMPLE;	
MODIFIERS SUCH AS LIGHT, D	DARK, STREAKED, ETC. ARE USED TO DESC	CRIBE APPEARANCE.		X 2.25" Hollow Stem Augers		EXTREMEL		S ACROSS GRAINS.	DATE: 8-15-14
					1				

PROJECT REFERENCE NO. U-2524D

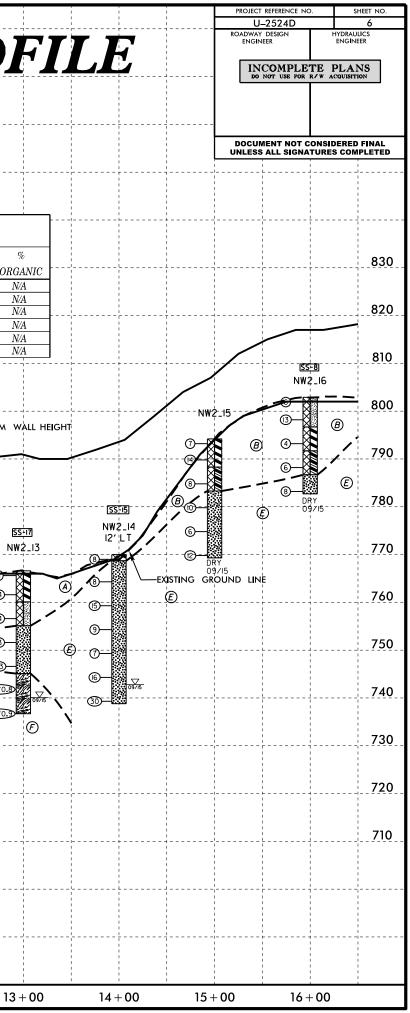
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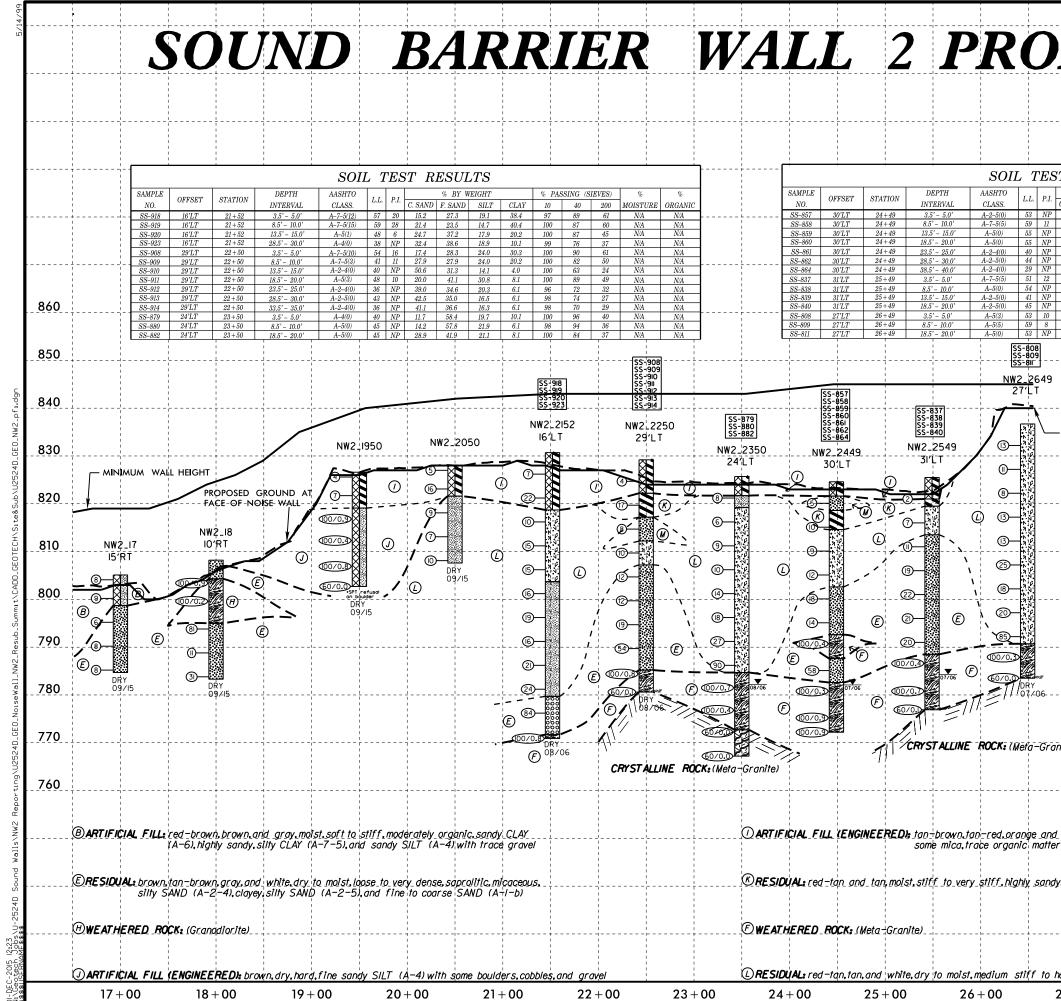






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·														
						SO	IL TES	ST R	ESUI	\overline{TS}				
830		SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L. P.I.	C. SAND	% BY W	EIGHT SILT	CLAY	% PASSIN	VG (SIEVES) 40 200	MOISTURE C
 		SS-25 SS-27	CL CL	11+00 11+00	$\begin{array}{r} 9.3' - 10.8' \\ 19.3' - 20.8' \end{array}$	A-6(3) A-4(1)	40 19 32 10	35.1 28.9	24.1 27.5	12.0 20.8	28.8 22.8	97	74 39 81 43	25.4 25.5
820		SS-21 SS-17	CL CL	12+00 13+00	4.3' - 5.8' 0.0' - 1.5'	A-7-5(4) A-7-6(7)	49 19 47 15	32.0 25.1	26.0 25.2	11.6 19.3	30.4 30.4	98	77	20.4 15.1
810		<u>SS-15</u> <u>SS-8</u>	12'LT CL	14+00 16+00	4.7' - 6.2' 13.7' - 15.2'	$ \begin{array}{c c} $	30 NP 32 12	45.0 32.9	35.1 22.2	<u>15.7</u> <u>20.5</u>	4.2 24.4		67 21 76 47 ¦	6.3 19.7
800														
700														
790								+		·	 			
780						I I I I	1		1	ł	1			
		·		;;; 		<u> </u> 	 			·				
770	ARTIFICIAL FILL (ENGINEERED)	k red-brown_and_brown	dry to_mois	t.stiff_toyery	ustiff.medium_pu	asticity.highly_s	sandy,si/ty_CL	AY					OPOSED GR	E WALL
1	@ARTIFICIAL FILL (ENGINEERED)							AY					CÉ OF NOIS	E WALL 2-12 7-12
1	BARTIFICIAL FILL: red-brown, brow		t.soft_to_stit	f, moder ately				AY				F/	CE OF NOIS	
760	BART IFICIAL FILL: red -brown, brown, brown, brown, brown, brown, clay (A-7-5), CLAY (A-7-5), CALLUVIAL: red -brown, orange-brown, brown, orange-brown, brown, b	wn.and_gray.dry_to_mois and_sandy_SILT_(A=4)w own.brown.and_aray.mois	t.soft_to_stit ith trace gr	ff.moderately avel	organic, sandy CL um_stiff, medium	AY_ (A=6), highly	∠ sandy.silty_			IW2_10		F/ SS-25 SS-27	CE OF NOIS	
760 750	℗ѦҞҬӀӺӏҪӏӒҍ_Ӻӏҍҍ ӷҽd=brown,brow CLAY (A=7=5), © ALLUVIAL: red=brown,orange=bro moderately organic, san	wn.and_gray.dry_to_mois and sandy SILT (A-4)w own.brown.and_gray.mois ndy SILT (A-4),and silty	t, soft to_stit vith trace_gr st to_wet.very CLAY_(A-7	f, moder ately avel soft to media 5) with trace	organic, sandy CL um_stiff.medium gravel	AY_(A=6), highly plasticity, sanc	L SONDY.SILTY_ TY_CLAY_(A-6)	 k		IW2-10		F/ SS-25 SS-27	CE OF NOIS	
760 750	BART IFICIAL FILL: red -brown, brown, brown, brown, brown, brown, clay (A-7-5), CLAY (A-7-5), CALLUVIAL: red -brown, orange-brown, brown, orange-brown, brown, b	wn.and_gray.dry_to_mois and_sandy_SILT_(A=4) w own.brown.and_gray.mois ndy_SILT_(A=4), and_silty ated.loose_to_medium_de	t, soft to_stit vith trace_gr st to_wet.very CLAY_(A-7	f, moder ately avel soft to media 5) with trace	organic, sandy CL um_stiff.medium gravel	AY_(A=6), highly plasticity, sanc	L SONDY.SILTY_ TY_CLAY_(A-6)	 k	3-	IW2_10		F/ SS:257 NW2_11 (2) (2) (2) (2) (2) (2) (2) (2)	CE OF NOIS	WALL 2-12 (4) (4) (4)
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