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CONTENTS SHEET NO.

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3

4 34518. REFERENCE

DESCRIPTION TITLE SHEET LEGEND SITE PLAN AND PROFILE BORE LOGS

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS GEOTECHNICAL ENGINEERING UNIT

STRUCTURE SUBSURFACE INVESTIGATION

COUNTY ASHE

PROJECT DESCRIPTION US 221 FROM NORTH OF OF SOUTH FORK NEW RIVER TO SOUTH OF NC 194 **RETAINING WALL #1** SITE DESCRIPTION

-L- STA 321+25 LT 51'TO STA 322+40 LT 51'

-2915C Ŕ PROJECT

STATE PROJECT REFERENCE NO. STATE NO. SHEETS N.C. 34518.1.4 1 4

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 REVIEWED OR INSPECTED IN RALEICH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT 1991 707-6850. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA ARE NOT PART OF THE CONTRACT.

CENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARE SAME BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORNGS OR BETWEEN SAMFLED STRATA WITHIN THE BOREHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU UNI-FLACE) TEST DATA CAN BE RELED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOLL MOISTURE CONDITIONS MOICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OF CONTRACTOR IS CALIDADE 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 INTERPRETATIONS MADE, OR THE DEPARTMENT AS TO THE TYPE OF MATERNALS AND CONSTRUCTIONS TO BE ENCOUNTERED. OFINION OF THE DEPARTMENT AS TO THE INVESTIGATION MADE, NOR THE INTERPRETATIONS TO BE ENCOUNTERED. AS HE DEEMS NECESSARY TO SATISY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THE PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OF FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FOM THE ACTUAL CONDENSATION OF FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FOR THE ACTUAL CONDENSATION.

- 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. 2. 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.

PERSONNEL	
DCE	_
DOC	_
_CJC	_
	_
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INVESTIGATED BY	_
DRAWN BY	_
	-
CHECKED BY SCC	-
SUBMITTED BY <u>JCK</u> J€2	-
DATE	_
D. Mattuce Mullin 18909BD3CD5440C	
7/28/2015	
SIGNATURE DATE	

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

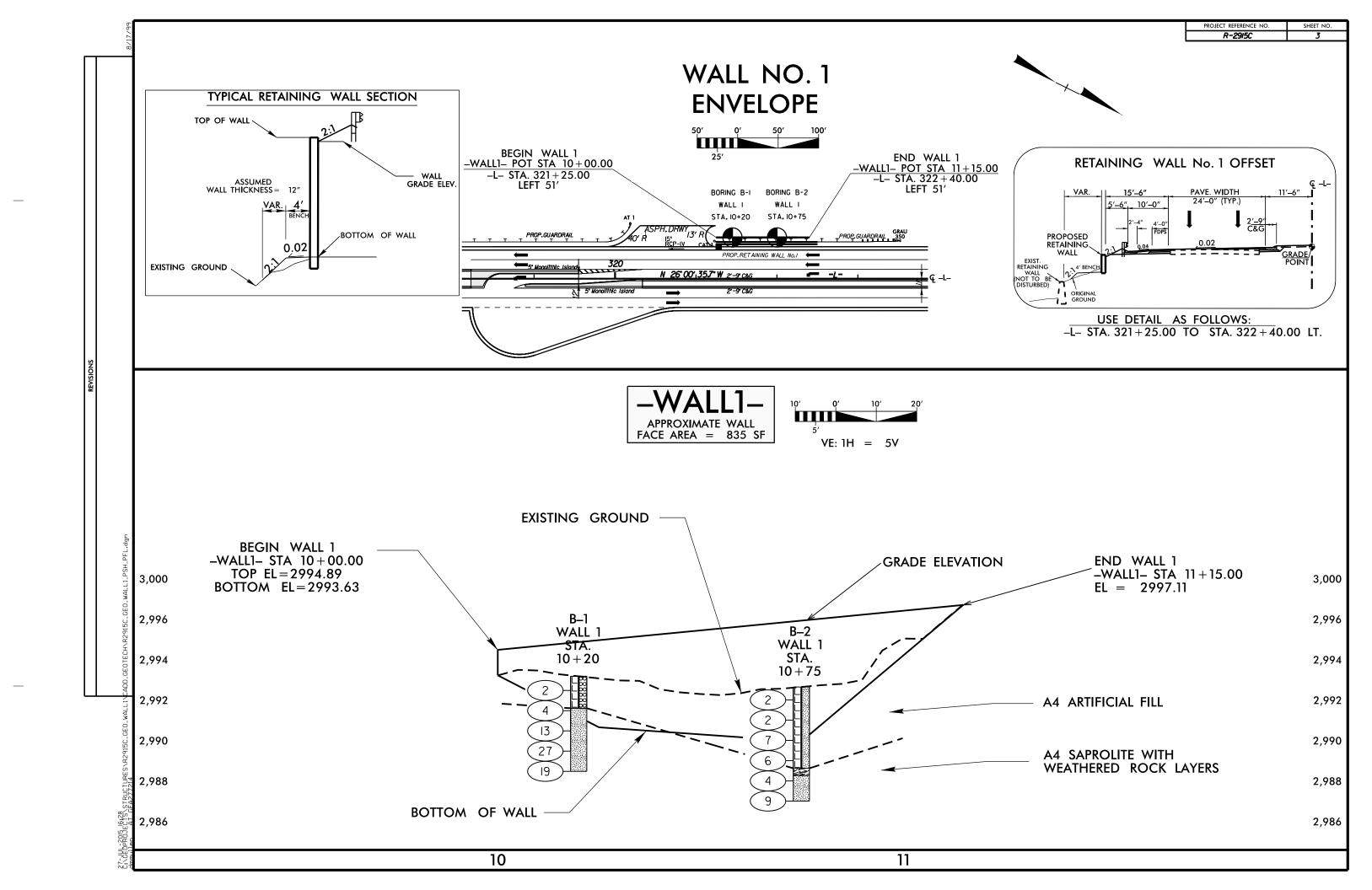
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

		ç	SOIL DE	SCRI	PTION						GRe	ADATION						ROCK DES	
SOIL IS CONSIDERED UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN					WELL GRADED - INDICA	ATES A GOOD			CLE SIZES FR	OM FINE TO COARSE.	HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT REFUSAL IF TESTED								
	NETRATED WITH A CONTINUOUS FLIGHT POWER AUGER AND YIELD LESS THAN 100 BLOWS PER FOOT IRDING TO THE STANDARD PENETRATION TEST (AASHTO T 206, ASTM D1586). SOIL CLASSIFICATION				UNIFORMLY GRADED - I GAP-GRADED - INDICAT						ROCK LINE INDICATES THE LEVEL AT WHICH NON-COASTAL PLAIN MATERIAL WOULD YIELD SPT REFUSAL IS PENETRATION BY A SPLIT SPOON SAMPLER EQUAL TO OR LESS THAN 0.1								
	BASED ON THE A											TY OF GRAI		on Hone Sizes.				MATERIAL, THE TRAN THERED ROCK.	NSITION BETWEEN SOIL AND ROCK I
AS	S MINERALOGICA	L COMPOSITION	, ANGULARIT	TY, STRI	UCTURE, PLA	STICITY, ETC.	FOR EXAMPL	Ε.	THE ANGULARI					THE TERMS:				DIVIDED AS FOLLOWS	ò:
	VERY STIFF,GRAY,	SILTY CLAY, MOIST						5	THE ANGULARITY OR ROUNDNESS OF SOIL GRAINS IS DESIGNATED BY THE TERMS; ANGULAR, SUBANGULAR, SUBROUNDED, OR ROUNDED.				WEATHERED ROCK (WR)			NON-COASTAL PLAIN 100 BLOWS PER FOO	N MATERIAL THAT WOULD YIELD SPT		
GENERAL		ULAR MATERIALS		-	-CLAY MATERIA				MINERALOGICAL COMPOSITION						2.2		RAIN IGNEOUS AND METAMORPHIC ROC		
CLASS.	(≤ 35	% PASSING *200)		(> 3	5% PASSING *2	:00)	ORGANIC MATE	RIALS						CRYSTALLINE ROCK (CR)	-		WOULD YIELD SPT F GNEISS, GABBRO, SCH	REFUSAL IF TESTED. ROCK TYPE INC	
GROUP CLASS.	A-1 A-3			A-4	A-5 A-6		2 A-4, A-5 A-6, A-7		HRE USED I	.N DESCRIPT		ESSIBILITY	JERED OF SIG	NIFICANCE.	NON-CRYSTAL			FINE TO COARSE GR	RAIN METAMORPHIC AND NON-COASTAL
0	A-1-a A-1-b	A-2-4 A-2-5	A-2-6 A-2-7			A-7-5, A-3 A-7-6	H-6, H-7		SI TO	GHTLY COMPR		ESSIBILIII	LL < 31		ROCK (NCR)	E			THAT WOULD YEILD SPT REFUSAL IF ES PHYLLITE, SLATE, SANDSTONE, ETC.
SYMBOL					4.7.4				MODI	MPRESSIBLE	E	LL = 31 - 50 LL > 50					COASTAL PLAIN SEE	DIMENTS CEMENTED INTO ROCK BUT N K TYPE INCLUDES LIMESTONE SANDST	
% PASSING						CRANU	AP SILT-	MUCK	HIGH	HLY COMPRES		E OF MATER			SEDIMENTARY (CP)			SHELL BEDS, ETC.	. THE INCLUDES LIMESTONE, SHNDST
*40 3	*10 50 MX *40 30 MX 50 MX 51 MN 50 LAY PEAT					PERCENTAGE OF MATERIAL					WEATHERING								
-	15 MX 25 MX 10 M	X 35 MX 35 MX	35 MX 35 MX	36 MN	36 MN 36 MN	36 MN	00120		ORGANIC MATERIA TRACE OF ORGANIC M	<u>+L</u>	<u>SOILS</u> 2 - 3%	SILT - CLAY <u>SOILS</u> 3 - 5%	OTHER TRACE	MATERIAL 1 - 10%	FRESH	ROCK FRES HAMMER IF			S MAY SHOW SLIGHT STAINING. ROCK R
MATERIAL PASSING #40									LITTLE ORGANIC MAT	TTER	3 - 5%	5 - 12%	LITTLE	10 - 20%	VERY SLIGHT				SOME JOINTS MAY SHOW THIN CLAY CO
u		40 MX 41 MN				41 MN	OILS WITH .ITTLE OR		MODERATELY ORGANIC		5 - 10% > 10%	12 - 20% > 20%	SOME HIGHL Y	20 - 35% 35% AND ABOVE	(V SLI.)	CRYSTALS	ON A BROK	KEN SPECIMEN FACE S	HINE BRIGHTLY. ROCK RINGS UNDER HA
PI	6 MX NP	10 MX 10 MX					MODERATE	HIGHLY ORGANIC				ND WATER			-	OF A CRYS			
GROUP INDEX		0	4 MX	8 MX	12 MX 16 MX		MOUNTS OF ORGANIC	SOILS						PDI L INC	SLIGHT (SLI.)				AND DISCOLORATION EXTENDS INTO ROC IN GRANITOID ROCKS SOME OCCASIONAL
	GRAVEL, AND SAND			SILT		-	MATTER					ORE HOLE IMMEDIA		DRILLING		CRYSTALS	ARE DULL	AND DISCOLORED. CRY	STALLINE ROCKS RING UNDER HAMMER
MATERIALS	SAND		IU SANU	SOIL	_S SOI	15						el after <u>24</u> i			MODERATE				COLORATION AND WEATHERING EFFECTS. ULL AND DISCOLORED.SOME SHOW CLAY
GEN, RATING	EXCE	LLENT TO GOOD		F	AIR TO POOR	FAIR	O POOR	UNSUITABLE	<u> </u>	PERCHED	D WATER, SA	TURATED ZONE, OR	WATER BEAR	NNG STRATA	(MOD.)				HOWS SIGNIFICANT LOSS OF STRENGTH
AS SUBGRADE	DI OF	A-7-5 SUBGROUP	10 < 11 2	0.010			20		l O-M-	SPRING	OR SEEP					WITH FRES			
	FLUF				DENSEN		שכ		-	MI	SCELLAN	NEOUS SYMBO	ר א		MODERATELY SEVERE				STAINED. IN GRANITOID ROCKS, ALL FE AOLINIZATION. ROCK SHOWS SEVERE LO
					E OF STAND		ANGE OF UN	CONFINED							(MOD. SEV.)	AND CAN B	BE EXCAVAT	TED WITH A GEOLOGIST	T'S PICK. ROCK GIVES "CLUNK" SOUND W
PRIMARY S	SOIL TYPE	COMPACTNESS CONSISTEN			ATION RESIS		OMPRESSIVE (TONS/F	STRENGTH	L ROADWAY EMI L WITH SOIL D			DIP & DIP DIR DF ROCK STRU	ECTION					ELD SPT REFUSAL	
		VERY LOOS	F		< 4		(100576			ESCHIPTION			_	SLOPE INDICATOR	SEVERE (SEV.)				STAINED. ROCK FABRIC CLEAR AND EV N GRANITOID ROCKS ALL FELDSPARS AF
GENERAL GRANULA		LOOSE			4 TO 10				SOIL SYMBOL	-	\bigcirc	OPT DMT TEST BOP VST PMT	RING	INSTALLATION		TO SOME E	EXTENT. SO	ME FRAGMENTS OF ST	RONG ROCK USUALLY REMAIN.
MATERIA	λL.	MEDIUM DEM DENSE	ISE		10 TO 30 30 TO 50		N/A		ARTIFICIAL F			AUGER BORING	۵	CONE PENETROMETER	VERY			ELD SPT N VALUES >	<u>IOU BPF</u> STAINED. ROCK FABRIC ELEMENTS ARE
(NON-COF	HESIVE)	VERY DENS	E		> 50				THAN ROADW	AT EMBANKM		, ,	\bigcirc	TEST	SEVERE				OIL STATUS, WITH ONLY FRAGMENTS OF
		VERY SOF	т		< 2		< 0.2		INFERRED SO	JIL BOUNDAR	хи -Ο)- CORE BORING	•	SOUNDING ROD	(V SEV.)				ROCK WEATHERED TO A DEGREE THAT IN. IF TESTED, WOULD YIELD SPT N VA
GENERAL SILT-CL		SOFT MEDIUM ST	FF		2 TO 4 4 TO 8		0.25 TO 0.5 TO		INFERRED RO	JCK LINE	MW O	MONITORING WE		TEST BORING	COMPLETE				DISCERNIBLE, OR DISCERNIBLE ONLY I
MATERIA	ΆL.	STIFF			8 TO 15		1 TO	2			-	PIEZOMETER	Ψ	WITH CORE	00/11/22/12	SCATTERED	CONCENTR		BE PRESENT AS DIKES OR STRINGERS.
(COHESI)	VE)	VERY STIF HARD	F		15 TO 30 > 30		2 TO > 4		TTTTT ALLUVIAL SO	IL BOUNDAR	ar 🛆	INSTALLATION	\bigcirc	- SPT N-VALUE		ALSO AN E	XAMPLE.		
		TEX	TURE O	R GR	AIN SIZ	Έ.				REC	COMMEND	DATION SYMB	OLS					ROCK HA	
U.S. STD. SIE	EVE SIZE	4	10	40	60	200 2	0				ASSIFIED E			SIFIED EXCAVATION -	VERY HARD			S OF THE GEOLOGIST'S	P PICK. BREAKING OF HAND SPECIMENS 5 PICK.
OPENING (MM) 4.76 2.00 0.42 0.25 0.075 0.053			SHALLOW INCLASSIFIED EXCAVATION - UNCLASSIFIED EXCAVATION - UNCLASSIFIED EXCAVATION -					HARD CAN BE SCRATCHED BY KNIFE OR PICK ONLY WITH DIFFICULTY. HARD HAMMER E											
BOULDEF				COARS SAND		F INE SAND	SILT	CLAY	UNDERCUT	ACCE!	PTABLE DEC	XCAVATION - GRADABLE ROCK	EMBAN	MENT OR BACKFILL		TO DETACH			
(BLDR.)	(COB.)	(GR.)		CSE. S		(F SD.)	(SL.)	(CL.)				EVIATIONS			MODERATELY HARD				UGES OR GROOVES TO 0.25 INCHES DEE ST'S PICK. HAND SPECIMENS CAN BE DE
GRAIN MM		75	2.0		0.25	ø.	0.00	15	AR - AUGER REFUSAL		MED N			VANE SHEAR TEST		BY MODERA			
SIZE IN.		3							BT - BORING TERMINATE CL CLAY	2D		MICACEOUS MODERATELY		WEATHERED INIT WEIGHT	MEDIUM HARD				DEEP BY FIRM PRESSURE OF KNIFE OR EICES 1 INCH MAXIMUM SIZE BY HARD B
		<u> MOISTU</u>			LATION	OF TER	1S		CPT - CONE PENETRATIO	ON TEST	NP - NO	ON PLASTIC		RY UNIT WEIGHT		POINT OF			
	MOISTURE SCA		FIELD MOIS DESCRIPT		GUIDE	FOR FIELD	MOISTURE DE	SCRIPTION	CSE COARSE DMT - DILATOMETER TE	ST	ORG C PMT - F	DRGANIC PRESSUREMETER TE	EST SAM	IPLE ABBREVIATIONS	SOFT				NIFE OR PICK. CAN BE EXCAVATED IN F
									DPT - DYNAMIC PENETRA		SAP S	SAPROLITIC	S - BI					EN BY FINGER PRESSU	BY MODERATE BLOWS OF A PICK POINT. JRE.
			- SATURATE (SAT.)	ED -			ERY WET,US GROUND WAT		e - VOID RATIO F - FINE			AND, SANDY LT, SILTY		SPLIT SPOON SHELBY TUBE	VERY				WATED READILY WITH POINT OF PICK. P
	LIQUID LIM	IT							FOSS FOSSILIFEROUS		SLI S		RS - 1		SOFT	OR MORE I FINGERNAIL		SS CAN BE BROKEN BY	Y FINGER PRESSURE. CAN BE SCRATCHE
PLASTIC RANGE <			- WET - (W	n			ES DRYING T	0	FRAC FRACTURED, FRA FRAGS FRAGMENTS	CTURES		IRICONE REFUSAL		RECOMPACTED TRIAXIAL CALIFORNIA BEARING		FRACTUF			BEDDING
(PI) PL L	PLASTIC LI	IMIT			ALIAI	N OPTIMUM	IUISTURE		HI HIGHLY		V - VER			RATIO	TERM	TRHCTO		SPACING	TERM
			- MOIST -	(M)	COL 10-	AT OR NEA	OPTIMUM M		EC	JUIPMEN	T USED	ON SUBJECT	[PROJEC	Т	VERY WID	E		THAN 10 FEET	VERY THICKLY BEDDED
OM .	OPTIMUM M	UISTURE	- 140131 -	(11)	SULID;	HI UN NEH		IUISTORE	DRILL UNITS:	ADVANCI	NG TOOLS:		HAMMER T	YPE:	WIDE MODERATE	ELY CLOSE		TO 10 FEET TO 3 FEET	THICKLY BEDDED 1.5 THINLY BEDDED 0.16
5L .					REQUIE	RES ADDITIO	NAL WATER 1	το	X CME-45C		AY BITS		X AUTI	DMATIC MANUAL	CLOSE VERY CLO	005		5 TO 1 FOOT THAN 0.16 FEET	VERY THINLY BEDDED 0.03 THICKLY LAMINATED 0.008
			- DRY - (D))		N OPTIMUM				6" (CONTINUOUS	FLIGHT AUGER	CORE SIZE		VERT CLU	ISE	LESS I	THAN 0.16 FEET	THICKLY LAMINATED 0.008 THINLY LAMINATED < (
			PLAS	STICI	TY				CME-55	8" '	HOLLOW AUG	ERS	в	н				INDUR	ATION
PLASTICITY INDEX (PI) DRY STRENGTH					CME-550	HAI	RD FACED F	INGER BITS	X-N XV	//	FOR SEDIMEN	TARY ROCK	S, INDURAT	TION IS THE HARDENI	ING OF MATERIAL BY CEMENTING, HEA				
NON PLASTIC 0-5 VERY LOW						Τυ	NGCARBIDE	INSERTS			FRIAB	LE			FINGER FREES NUMEROUS GRAINS;				
	GHTLY PLASTIC ERATELY PLAS			6-15 16-25			SLIGHT MEDIUM		VANE SHEAR TEST	X CA	SING X	W/ ADVANCER	HAND TOO						BY HAMMER DISINTEGRATES SAMPLE.
	HLY PLASTIC			OR MO	RE		HIGH		PORTABLE HOIST		ICONE	•STEEL TEETH		T HOLE DIGGER	MODER	RATELY INDU	JRATED		SEPARATED FROM SAMPLE WITH STE WHEN HIT WITH HAMMER.
			CC	DLOR							ICONE	TUNGCARB.	HAN	D AUGER NDING ROD		ATED			FICULT TO SEPARATE WITH STEEL P
DECORDE	IONS MAY INCL								∐		RE BIT			SHEAR TEST	INDUR	AIEU			BREAK WITH HAMMER.
	DIFIERS SUCH													L SHEMIN (EST	EXTRE	MELY INDUF	RATED		BLOWS REQUIRED TO BREAK SAMPLE:
1															1			SAMPLE BREAKS	ACROSS GRAINS.



2

	TERMS AND DEFINITIONS
D. AN INFERRED SPT REFUSAL.	ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER.
FOOT PER 60	ADUIFER - A WATER BEARING FORMATION OR STRATA.
IS OFTEN	ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND.
N VALUES >	ARGILLACEOUS - APPLIED TO ALL ROCKS OR SUBSTANCES COMPOSED OF CLAY MINERALS, OR HAVING A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, SUCH AS SHALE, SLATE, ETC.
	ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT
CK THAT CLUDES GRANITE,	WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND SURFACE.
- PLAIN F TESTED.	<u>CALCAREOUS (CALC.)</u> - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE. <u>COLLUVIUM</u> - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE.
MAY NOT YIELD FONE,CEMENTED	CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.
	$\underline{\text{DIKE}}$ - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CUTS MASSIVE ROCK.
RINGS UNDER	$\underline{\text{DIP}}$ - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL.
ATINGS IF OPEN. MMER BLOWS IF	DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH.
K UP TO FELDSPAR	FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.
BLOWS.	FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES.
. IN 7. ROCK HAS	FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM PARENT MATERIAL.
AS COMPARED	FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM.
ELDSPARS DULL ISS OF STRENGTH	FORMATION (FM.) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD.
HEN STRUCK.	JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED.
IDENT BUT	LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT.
RE KAOLINIZED	LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS.
	MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS. MOTTLING IN SOILS
DISCERNIBLE	USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE. PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE
STRONG ROCK ONLY MINOR	<u>PERCHED WATER</u> - WATER MAINTAINED ABUVE THE NURMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENING IMPERVIOUS STRATUM.
ALUES < 100 BPF	RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK.
N SMALL AND SAPROLITE IS	ROCK DUALITY DESIGNATION (ROD) - A MEASURE OF ROCK DUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS EDUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.
REQUIRES	$\underline{SAPROLITE}$ (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK.
OWS REQUIRED	<u>SILL</u> - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS.
EP CAN BE TACHED	$\underline{\text{SLICKENSIDE}}$ - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE.
R PICK POINT. BLOWS OF THE	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 WITH A 2 INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS.
FRAGMENTS . SMALL, THIN	STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE.
PIECES 1 INCH ED READILY BY	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 THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE.
to hendler bi	TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.
	BENCH MARK:
THICKNESS	
4 FEET 5 - 4 FEET	ELEVATION: FEET
6 - 1.5 FEET 3 - 0.16 FEET	NOTES:
8 - 0.03 FEET 0.008 FEET	
T, PRESSURE, ETC.	
EL PROBE:	
PROBE;	
:	DATE: 8-15-14





NCDOT GEOTECHNICAL ENGINEERING UNIT

WBS 34518.1.4 TIP R2915C COUNTY	ASHE	GEOLOGIST Elliott, D. C.	WBS 34518.1.4 TIP R2915C COUNTY ASHE	GEOLOGIST Elliott, D. C.
SITE DESCRIPTION N/A		GROUND WTR (ft)	SITE DESCRIPTION N/A	GROUND WTR (ft)
BORING NO. B-1 STATION 10+20	OFFSET N/A	ALIGNMENT WALL 1 0 HR. N/A	BORING NO. B-2 STATION 10+75 OFFSET N/A	ALIGNMENT WALL 1 0 HR. N/A
COLLAR ELEV. N/A TOTAL DEPTH 25.0 ft I	NORTHING N/A	EASTING N/A 24 HR. N/A	COLLAR ELEV. N/A TOTAL DEPTH 29.7 ft NORTHING N/A	EASTING N/A 24 HR. N/A
DRILL RIG/HAMMER EFF./DATE AFO9394 CME-45C 88% 05/14/2014	DRILL METHOD H.S	Augers HAMMER TYPE Automatic	DRILL RIG/HAMMER EFF./DATE AFO9394 CME-45C 88% 05/14/2014 DRILL METHOD H.S.	Augers HAMMER TYPE Automatic
DRILLER Cheek, D. O. START DATE 07/20/15	COMP. DATE 07/20/15	SURFACE WATER DEPTH N/A	DRILLER Cheek, D. O. START DATE 07/20/15 COMP. DATE 07/20/15	SURFACE WATER DEPTH N/A
ELEV (ft)DRIVE ELEV (ft)DEPTHBLOW COUNTBLOWS PER FOOT(ft)0.5ft0.5ft0.5ft025507		SOIL AND ROCK DESCRIPTION	ELEV (ft) DRIVE ELEV (ft) DEPTH (ft) BLOW COUNT BLOWS PER FOOT SAMP. L O O (ft) 0.5ft 0.5ft 0.5ft 0 25 50 75 100 NO. MOI G	SOIL AND ROCK DESCRIPTION
ELEV DRIVE DEPTH BLOW COUNT BLOWS PER FOOT			DRILLER Cheek, D. O. START DATE 07/20/15 ELEV DRIVE DEPTH BLOW COUNT BLOWS PER FOOT SAMP.	SURFACE WATER DEPTH N/A

SHEET