# This electronic collection of documents is provided for the convenience of the user and is Not a Certified Document –

The documents contained herein were originally issued and sealed by the individuals whose names and license numbers appear on each page, on the dates appearing with their signature on that page.

This file or an individual page shall not be considered a certified document.

46098 REFERENCE

B

# STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION **DIVISION OF HIGHWAYS** GEOTECHNICAL ENGINEERING UNIT

## **CONTENTS**

SHEET NO.	<b>DESCRIPTION</b>
1	TITLE SHEET
2	LEGEND
3	SITE PLAN
4	PROFILE
5-7	CROSS SECTIONS
8-9	BORE LOGS & CORE REPOR

# **STRUCTURE** SUBSURFACE INVESTIGATION

PROJECT	DESCRIPTION	REPLACE	<b>BRIDGE</b>	#143 ON
	OVER LINV			
SITE DES	CRIPTION			

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
I.C.	46098	1	9

# **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 SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N. C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT 1999 707-6550. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA ARE NOT PART OF THE CONTRACT.

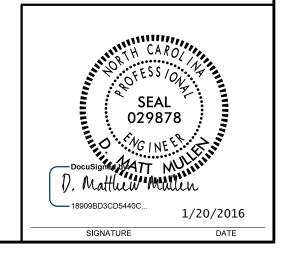
GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA WITHIN THE BORCHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU IN-PLACE TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE DESCRIPTION OF THE DESCRIPTION OF THE STANDARD TEST METHOD. THE DISSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS MOVICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOIL 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 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 INTERPRETATIONS MADE, OR OPINION 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 SATISTY HIMSELF 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.

- IES:
  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.

D.O. CHEEK
_C.J. COFFEY
D.C. ELLIOT
INVESTIGATED BY
DRAWN BY
Ds
CHECKED BY JOSE
SUBMITTED BY
DATE

PERSONNEL



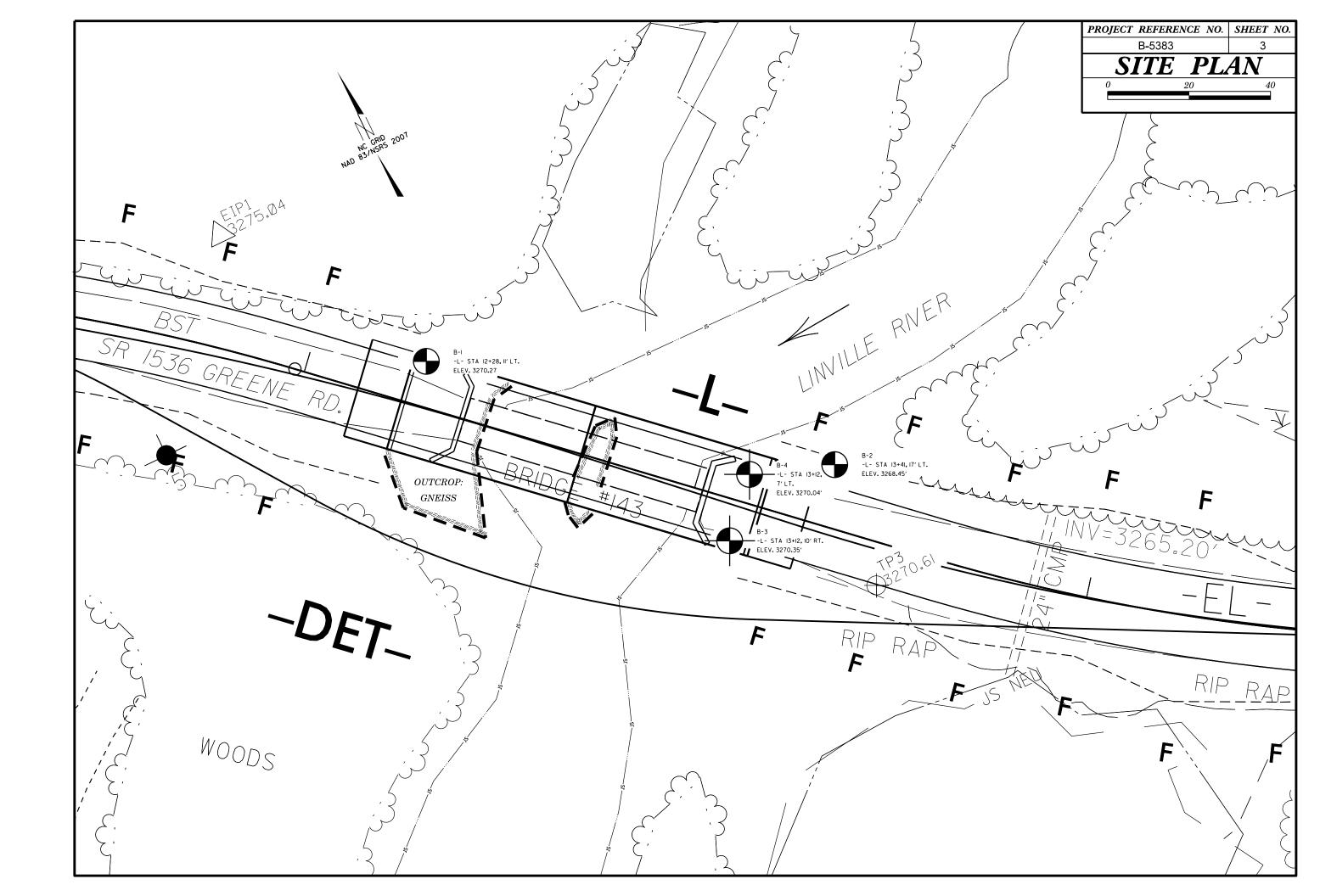
PROJECT REFERENCE NO. SHEET NO. 2

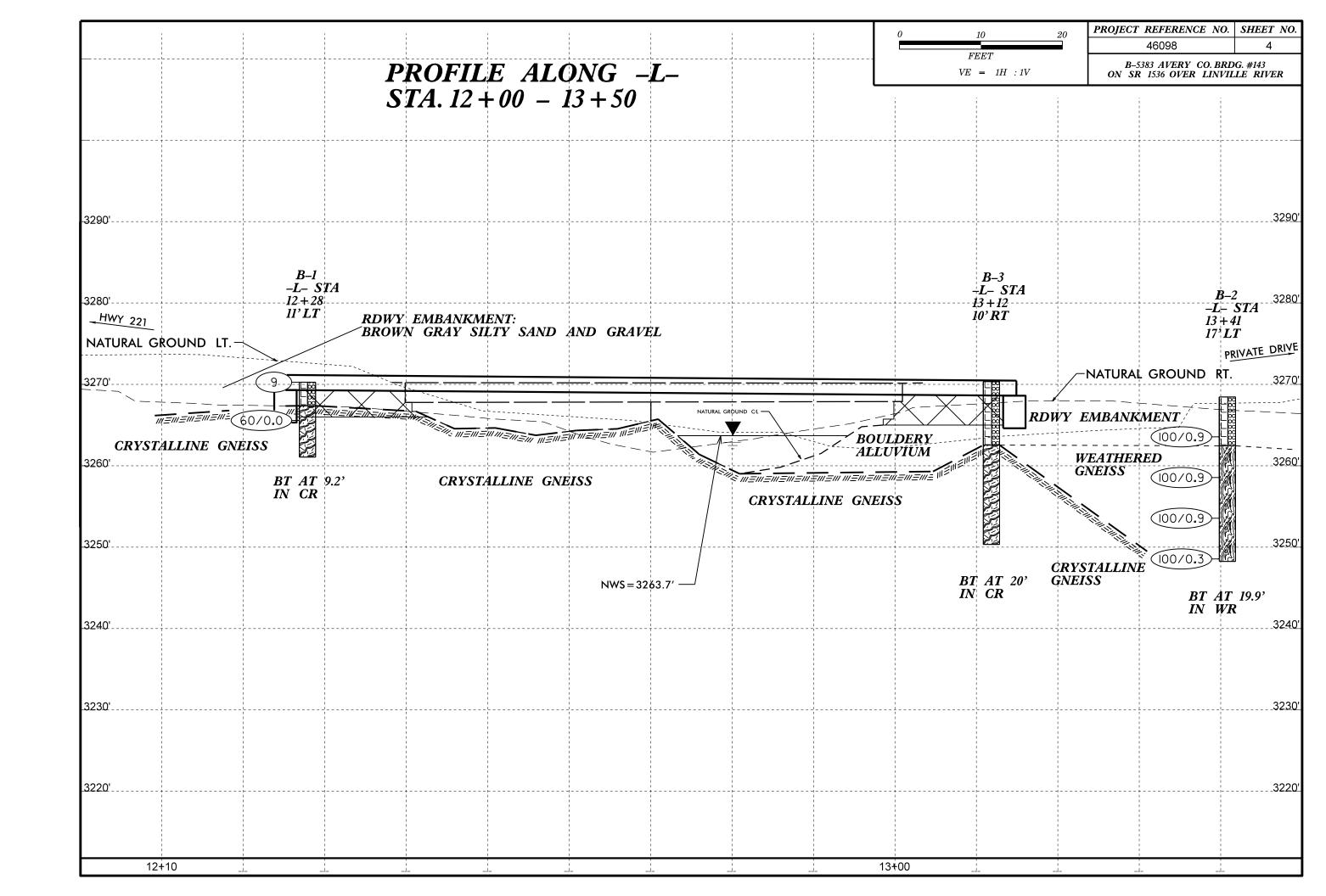
# NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS GEOTECHNICAL ENGINEERING UNIT

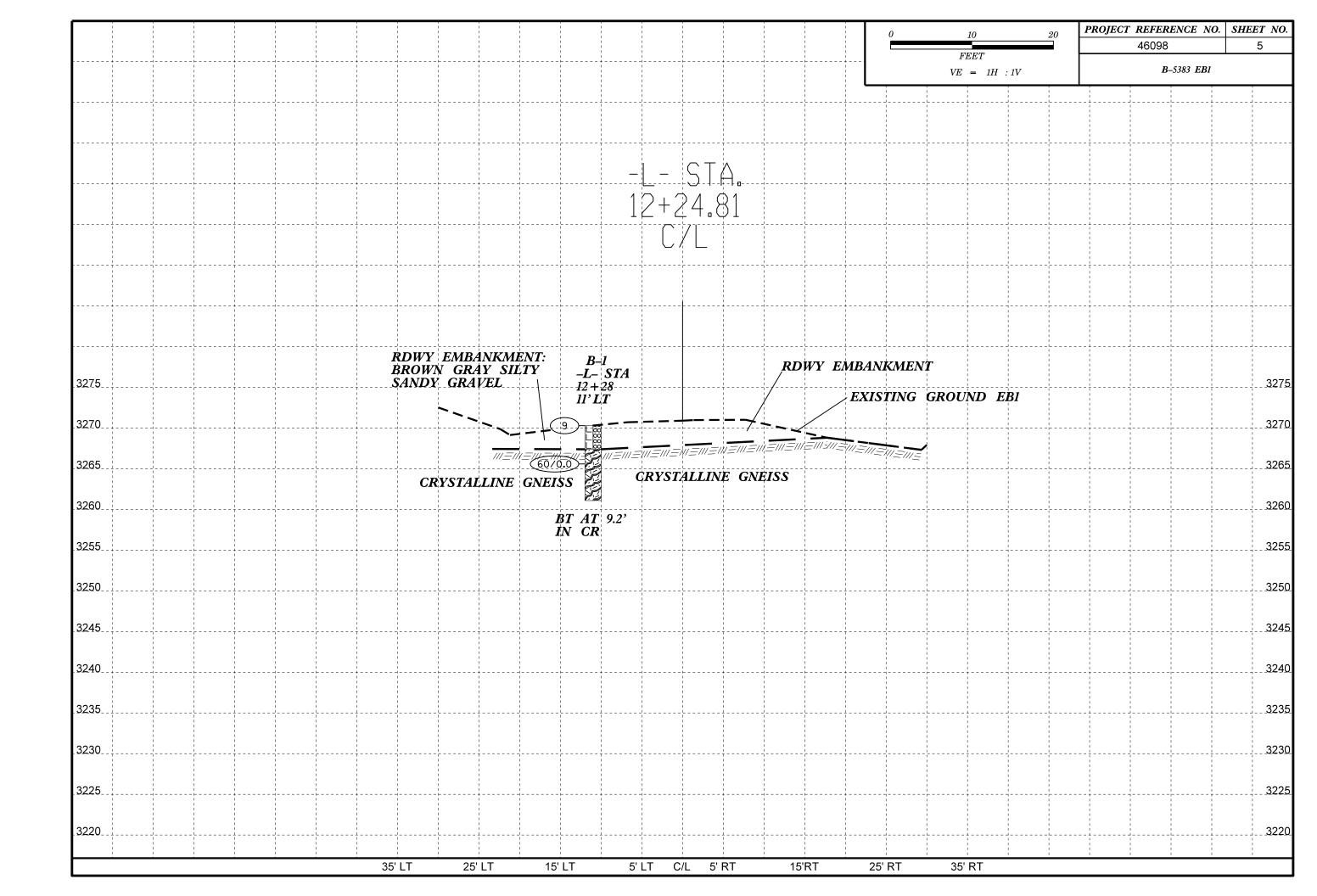
# SUBSURFACE INVESTIGATION

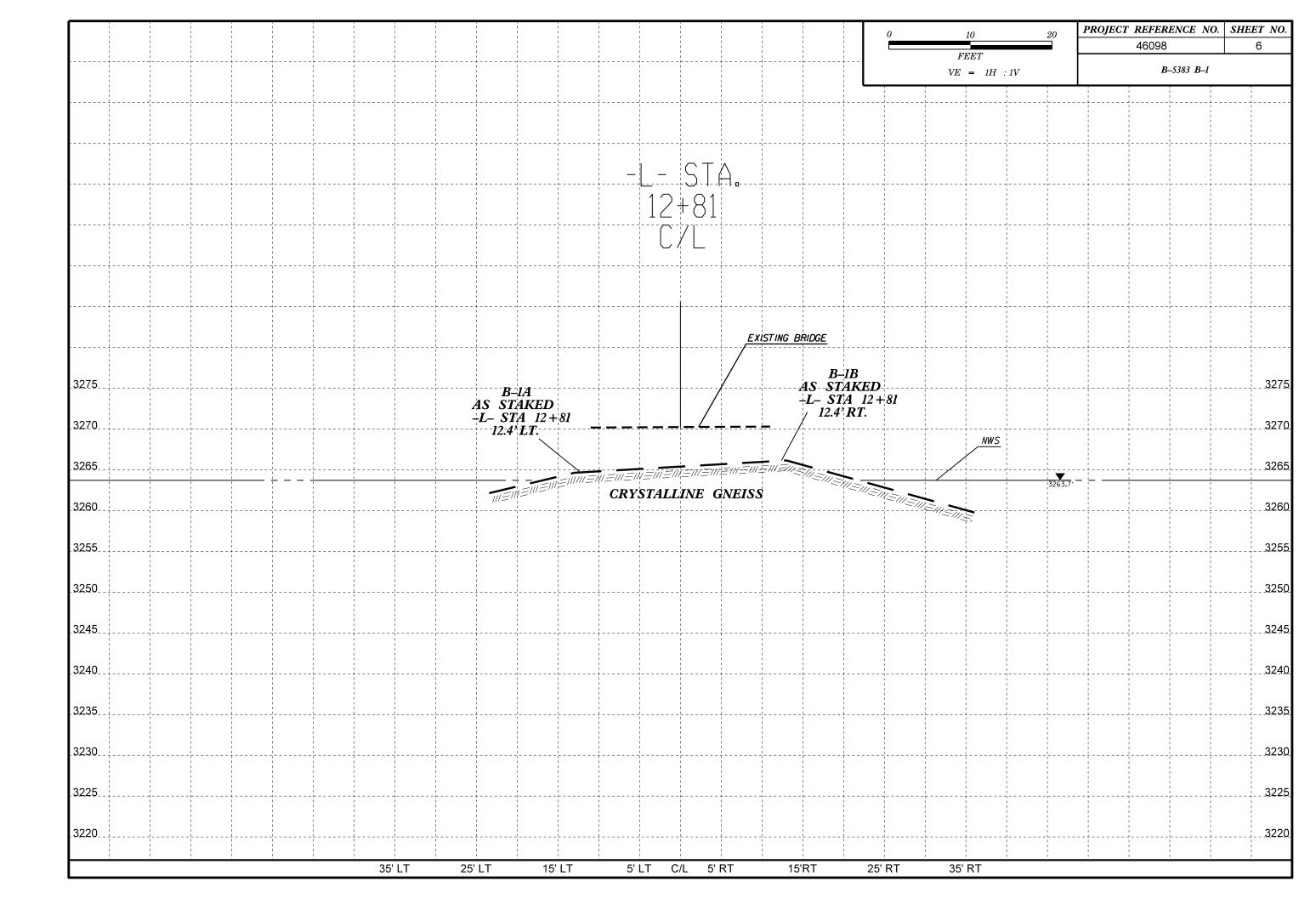
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

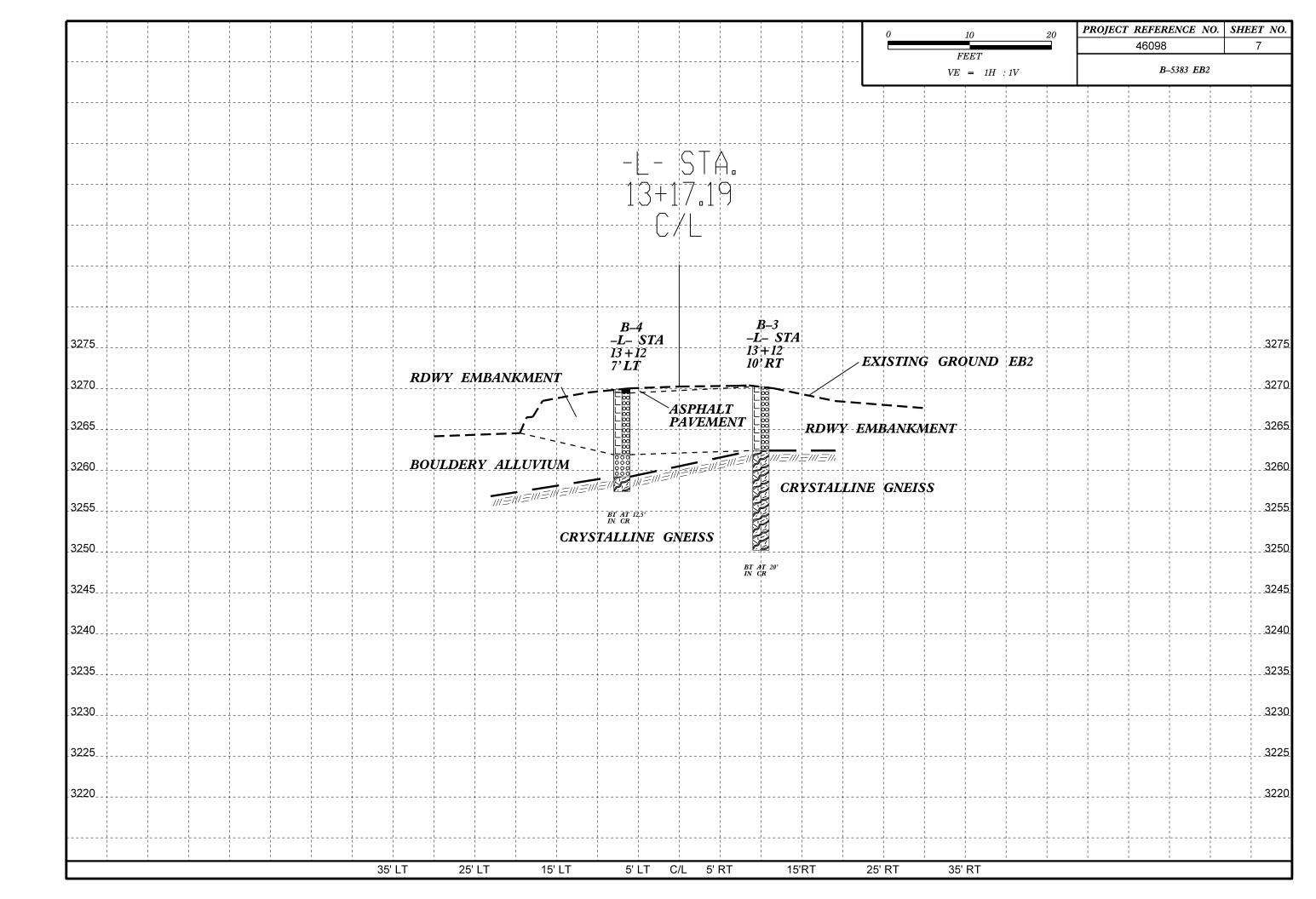
SOIL DESCRIPTION	GRADATION	ROCK DESCRIPTION	TERMS AND DEFINITIONS			
SOIL IS CONSIDERED UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER AND YIELD LESS THAN 100 BLOWS PER FOOT	WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE.		ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER.			
ACCORDING TO THE STANDARD PENETRATION TEST (AASHTO T 206, ASTM D1586). SOIL CLASSIFICATION	GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLE SIZES OF TWO OR MORE SIZES.	SPT REFUSAL IS PENETRATION BY A SPLIT SPOON SAMPLER EQUAL TO OR LESS THAN 0.1 FOOT PER 60	AQUIFER - A WATER BEARING FORMATION OR STRATA.			
CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH	ANGULARITY OF GRAINS	REPRESENTED BY A ZONE OF WEATHERED ROCK.	I			
AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. FOR EXAMPLE, VERY STIFF,GRAY,SILTY CLAY,MOIST WITH INTERBEDDED FINE SAND LAYERS,HIGHLY PLASTIC,A-7-6	THE ANGULARITY OR ROUNDNESS OF SOIL GRAINS IS DESIGNATED BY THE TERMS:	\$(1/72(1/72				
SOIL LEGEND AND AASHTO CLASSIFICATION		ROCK (WR) NON-CUASTAL PLAIN MATERIAL THAT WOULD YIELD SPI N VALUES >				
GENERAL GRANULAR MATERIALS SILT-CLAY MATERIALS OPCOMIC MATERIALS		CRYSTALLINE FINE TO COARSE GRAIN IGNEOUS AND METAMORPHIC ROCK THAT	WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND			
LLASS. (≤ 35% PASSING *200) (> 35% PASSING *200)		POCK (CB) WOULD FIELD SPI REFUSAL IF TESTED. ROCK TYPE INCLUDES GRANITE,				
		NON-CRYSTALLINE FINE TO COARSE GRAIN METAMORPHIC AND NON-COASTAL PLAIN				
SYMBOL COCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOC	SLIGHTLY COMPRESSIBLE LL < 31	ROCK TYPE INCLUDES PHYLLITE, SLATE, SANDSTONE, ETC.	OF SLOPE.			
7. PASSING	MODERATELY COMPRESSIBLE LL = 31 - 50 HIGHLY COMPRESSIBLE LL > 50		CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED			
"10 50 MX GRANULAR SILI" MUCK,	PERCENTAGE OF MATERIAL					
#40   30 MX   50 MX   51 MN   SOILS   SOILS	GRANULAR SILT - CLAY		ROCKS OR CUTS MASSIVE ROCK.			
MATERIAL	TRACE OF ORGANIC MATTER 2 - 3% 3 - 5% TRACE 1 - 10%	HAMMER IF CRYSTALLINE.				
PASSING *40 SOILS WITH		VERY SLIGHT ROCK GENERALLY FRESH, JOINTS STAINED, SOME JOINTS MAY SHOW THIN CLAY COATINGS IF OPEN,				
PI   6 MY   NP   18 MY   18 MY   11 MN   18 MY   18 MY   11 MN   11 MN   LITTLE UK   HICHLY	HIGHLY ORGANIC > 10% > 20% HIGHLY 35% AND ABOVE		LINE OF DIP, MEASURED CLOCKWISE FROM NORTH.			
GROUP INDEX 0 0 0 4 MX 8 MX 12 MX 16 MX NO MX AMOUNTS OF SOILS	GROUND WATER	SLIGHT ROCK GENERALLY FRESH, JOINTS STAINED AND DISCOLORATION EXTENDS INTO ROCK UP TO	FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE			
USUAL TYPES STONE FRAGS. FINE SILTY OR CLAYEY SILTY CLAYEY MATTER	✓ WATER LEVEL IN BORE HOLE IMMEDIATELY AFTER DRILLING	(SLI.) 1 INCH. OPEN JOINTS MAY CONTAIN CLAY. IN GRANITOID ROCKS SOME OCCASIONAL FELDSPAR				
OF MAJOR GRAVEL, AND SAND GRAVEL AND SAND SOILS SOILS	▼ STATIC WATER LEVEL AFTER <u>24</u> HOURS					
CEN PATING		(MOD.) GRANITOID ROCKS, MOST FELDSPARS ARE DULL AND DISCOLORED, SOME SHOW CLAY. ROCK HAS	PARENT MATERIAL.			
AS SUBGRADE EXCELLENT TO GOOD FAIR TO POUR POUR UNSUTABLE	SPRING OR SEEP	WITH FRESH ROCK.	FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM.			
PI OF A-7-5 SUBGROUP IS ≤ LL - 30; PI OF A-7-6 SUBGROUP IS > LL - 30		MODERATELY ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. IN GRANITOID ROCKS, ALL FELDSPARS DULL				
	MISCELLANEOUS SYMBULS					
PRIMARY SOIL TYPE COMPACINESS OR PENETRATION RESISTENCE COMPRESSIVE STRENGTH	ROADWAY EMBANKMENT (RE) 25/025 DIP & DIP DIRECTION	<u>IF TESTED, WOULD YIELD SPT REFUSAL</u>	LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO			
(N-VALUE) (TUNS/FT=)	╼┫  ╚ <del>╎</del>					
GENERALLY LOUSE 4 TO 10 GRANULAR LOUSE 4 TO 10	SOIL SYMBOL  OPT ONT TEST BORING  SLOPE INDICATOR INSTALLATION	TO SOME EXTENT. SOME FRAGMENTS OF STRONG ROCK USUALLY REMAIN.				
MATERIAL DENSE 10 10 30 N/A	ARTIFICIAL FILL (AF) OTHER AUGER BORING CONE PENETROMETER	<u> </u>	USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE.			
(NON-COHESIVE) VERY DENSE > 50	THAN RUADWAY EMBANKMENT TO THE THE TEST	SEVERE BUT MASS IS EFFECTIVELY REDUCED TO SOIL STATUS, WITH ONLY FRAGMENTS OF STRONG ROCK	PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE			
VERY SOFT < 2 < 0.25	── INFERRED SOIL BOUNDARY - CORE BORING SOUNDING ROD					
CENERALLY   SOFT   2 TO 4   0.25 TO 0.5     SILT-CLAY   MEDIUM STIFF   4 TO 8   0.5 TO 1.0	INFERRED ROCK LINE MNONITORING WELL TEST BORING					
MATERIAL   STIFF   8 TO 15   1 TO 2	PIEZOMETER COT NOT NOT NOT NOT NOT NOT NOT NOT NOT N	SCATTERED CONCENTRATIONS. QUARTZ MAY BE PRESENT AS DIKES OR STRINGERS. SAPROLITE IS	ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE			
HARD > 30 > 4	INSTALLATION SPINITHLE		1			
TEXTURE OR GRAIN SIZE	RECOMMENDATION SYMBOLS		ROCK.			
U.S. STD. SIEVE SIZE 4 10 40 60 200 270	UNDERCUT UNCLASSIFIED EXCAVATION -	SEVERAL HARD BLOWS OF THE GEOLOGIST'S PICK.	SILL - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND			
	SHALLOW STALLOW STEET OF	HARD CAN BE SCRATCHED BY KNIFE OR PICK ONLY WITH DIFFICULTY. HARD HAMMER BLOWS REQUIRED	THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS.			
BOULDER COBBLE GRAVEL SAND SAND SILT CLAY	UNDERCOT LSS ACCEPTABLE DEGRADABLE ROCK		SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT			
(CSE, SD.) (F SD.)		HARD EXCAVATED BY HARD BLOW OF A GEOLOGIST'S PICK. HAND SPECIMENS CAN BE DETACHED				
GRAIN MM 305 75 2.0 0.25 0.05 0.005 SIZE IN. 12 3			A 140 LB. HAMMER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF 1 FOOT INTO SOIL			
	☐ CL CLAY MOD MODERATELY 7 - UNIT WEIGHT	HARD CAN BE EXCAVATED IN SMALL CHIPS TO PEICES 1 INCH MAXIMUM SIZE BY HARD BLOWS OF THE	WITH A 2 INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER, SPT REFUSAL IS PENETRATION EQUAL			
SOLI MOISTURE SCALE FIELD MOISTURE	CSE COARSE ORG ORGANIC					
(ATTERBERG LIMITS) DESCRIPTION GUIDE FOR FIELD MOISTURE DESCRIPTION	DMT - DILATOMETER TEST PMT - PRESSUREMETER TEST SAMPLE ABBREVIATIONS	FROM CHIPS TO SEVERAL INCHES IN SIZE BY MODERATE BLOWS OF A PICK POINT. SMALL, THIN	TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE.			
- SATURATED - USUALLY LIQUID; VERY WET, USUALLY	e - VOID RATIO SD SAND, SANDY SS - SPLIT SPOON		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 THE GROUND WATER TABLE		SOFT OR MORE IN THICKNESS CAN BE BROKEN BY FINGER PRESSURE. CAN BE SCRATCHED READILY BY	THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE.			
PLASTIC SEMISOLIDA PEDILIPES DRYING TO	FRAC FRACTURED, FRACTURES TCR - TRICONE REFUSAL RT - RECOMPACTED TRIAXIAL		TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.			
(PI) PL PLASTIC LIMIT	FRAGS FRAGMENTS		BENCH MARK: TP3 -L-STA: I3+48.9 OFF:I0.27' RT			
	EQUIPMENT USED ON SUBJECT PROJECT	VERY WIDE MORE THAN 10 FEET VERY THICKLY BEDDED 4 FEET				
OM OPTIMUM MOISTURE - MUIST - (M) SULID; AT UR NEAR OPTIMUM MOISTURE  SL SHRINKAGE LIMIT	DRILL UNITS: ADVANCING TOOLS: HAMMER TYPE:	WIDE 3 TO 10 FEET THICKLY BEDDED 1.5 - 4 FEET MODERATELY CLOSE 1 TO 3 FEET THINLY BEDDED 0.16 - 1.5 FEET				
REQUIRES ADDITIONAL WATER TO	X CME-45C CLAY BITS AUTOMATIC MANUAL	CLOSE 0.16 TO 1 FOOT VERY THINLY BEDDED 0.03 - 0.16 FEET	NUTES:			
- DRY - (D) ATTAIN OPTIMUM MOISTURE	6' CONTINUOUS FLIGHT AUGER CORE SIZE:	THINLY LAMINATED < 0.008 FEET				
PLASTICITY	8* HOLLOW AUGERSB	INDURATION				
PLASTICITY INDEX (PI) DRY STRENGTH		FOR SEDIMENTARY ROCKS, INDURATION IS THE HARDENING OF MATERIAL BY CEMENTING, HEAT, PRESSURE, ETC.				
NON PLASTIC 0-5 VERY LOW SLIGHTLY PLASTIC 6-15 SLIGHT		FRIABLE RUBBING WITH FINGER FREES NUMEROUS GRAINS; GENTLE BLOW BY HAMMER DISINTEGRATES SAMPLE.				
MODERATELY PLASTIC 16-25 MEDIUM	X CASING X W/ ADVANCER POST HOLE DIGGER	CRAINC CAN BE CERARATER FROM CAMPLE WITH CIFEL BRODE				
	PORTABLE HOIST TRICONE STEEL TEETH HAND AUGER	BREAKS EASILY WHEN HIT WITH HAMMER.				
COLOR						
DESCRIPTIONS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN, RED, YELLOW-BROWN, BLUE-GRAY).	CORE BIT VANE SHEAR TEST	CHARD HAMMED DI ONE DECITIOEN TO DREAM CAMBLE.				
MUDIFIERS SUCH AS LIGHT, DARK, STREAKED, ETC. ARE USED TO DESCRIBE APPEARANCE.			DATE: 8-15-1			











# GEOTECHNICAL BORING REPORT BORE LOG

В	ORE LOG					
<b>WBS</b> 46098.1.1 <b>TIP</b> B-5383 <b>COUNTY</b>	Y AVERY GEOLOGIST Hager, M. M.		<b>WBS</b> 46098.1.1	TIP B-5383 COUN	TY AVERY	GEOLOGIST Hager, M. M.
SITE DESCRIPTION Bridge No. 143 on SR-1536 over the Linville Riv	iver.	GROUND WTR (ft)	SITE DESCRIPTION Bridge No	o. 143 on SR-1536 over the Linville	River.	GROUND WTR (ft)
BORING NO. B-1 STATION 12+28	OFFSET 11 ft LT ALIGNMENT L	<b>0 HR</b> . N/A	BORING NO. B-2	STATION 13+41	OFFSET 17 ft LT	ALIGNMENT L 0 HR. N/A
COLLAR ELEV. 3,270.3 ft TOTAL DEPTH 9.2 ft	NORTHING N/A EASTING N/A	<b>24 HR</b> . Dry	COLLAR ELEV. 3,268.5 ft	TOTAL DEPTH 20.2 ft	NORTHING N/A	EASTING N/A 24 HR. Dry
DRILL RIG/HAMMER EFF./DATE AFO0071 CME-550X 72% 09/03/2009	DRILL METHOD NW Casing W/SPT & Core HAMMI	MER TYPE Automatic	DRILL RIG/HAMMER EFF./DATE AF	FO0071 CME-550X 72% 09/03/2009	DRILL METHOD	NW Casing w/ SPT HAMMER TYPE Automatic
DRILLER Coffey, Jr., C. START DATE 05/10/12	COMP. DATE 05/10/12 SURFACE WATER DEPTH N/A	I/A	DRILLER Coffey, Jr., C.	<b>START DATE</b> 05/10/12	COMP. DATE 05/10/12	SURFACE WATER DEPTH N/A
COLLAR ELEV.         3,270.3 ft         TOTAL DEPTH         9.2 ft           DRILL RIG/HAMMER EFF./DATE         AFO0071 CME-550X         72%         09/03/2009           DRILLER         Coffey, Jr., C.         START DATE         05/10/12           ELEV         DRIVE DEPTH         BLOW COUNT         BLOWS PER FOOT	NORTHING N/A  DRILL METHOD NW Casing W/SPT & Core HAMMI  COMP. DATE 05/10/12  SAMP.   L O SOIL AND ROCK DESC  NO.   MOI   G   ELEV. (ft)  SOIL AND ROCK DESC  ROADWAY EMBANY  Brown-gray silty sand ar  CRYSTALLINE RO  Gray meta-arkos	24 HR. Dry  MER TYPE Automatic  A/A  SCRIPTION  DEPTH (ft)  FACE 0.0  NKMENT  and gravel. 2.9  ROCK  ose. 9.2  ttion 3,261.1 ft in	COLLAR ELEV. 3,268.5 ft DRILL RIG/HAMMER EFF./DATE AF	TOTAL DEPTH 20.2 ft  FO0071 CME-550X 72% 09/03/2009  START DATE 05/10/12  DUNT BLOWS PER FOO  0.5ft 0 25 50	NORTHING N/A  DRILL METHOD  COMP. DATE 05/10/12  T 75 100 NO. MOI	EASTING   N/A   24 HR.   Dry
HE DOUBLE						-
NCDOT BO						

# GEOTECHNICAL BORING REPORT CORE LOG

					1						RE LOG	I					
-	46098					B-538					AVERY	GEOLOGIST Elliott, D	. C.	T		-	3 460
	DESCR		N Brid	lge No. 1				the Lin	ville R	_		I		4	ID WTR (ft)		DES
	RING NO.				+		13+12			+	FSET 10 ft RT	ALIGNMENT L		0 HR.	Dry		RING N
	LAR ELE						<b>PTH</b> 20			NC	PRTHING N/A	EASTING N/A		24 HR.	FIAD		LAR I
	L RIG/HAI			TE AFO	6744 CN	1E - 45C	83% 01/2	9/2015				/ Casing W/SPT & Core	HAMM	ER TYPE	Automatic		L RIG/
-	LLER C				STA	RT DA	<b>TE</b> 07/1	10/15		CC	OMP. DATE 07/10/15	SURFACE WATER DEF	TH N	/A		DRIL	LLER
COF	RE SIZE	NXWL					N 20.0				1					COR	RE SIZ
ELEV (ft)	RUN ELEV (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	REC. (ft) %	UN RQD (ft) %	SAMP. NO.	REC. (ft) %	RQD (ft) %	L O G	ELEV. (ft)	ESCRIPTION AND REMARK	s		DEPTH (ft)	ELEV (ft)	, RU ELE (ft
3 <u>379</u> -6	5											Ground Surface				3269.5	i9
32.3	3,270.4 <del>-</del>	- 0.0	5.0		(2.4)			(5.0) 100%	48%		<del>-</del>	ROADWAY EMBANKMEN bouldery roadway embankme					3,26
	-	-						en	bankm	nen C	-					2265	3,26
3265	3,265.4	- 5.0 -	2.8		(1.9)			(2.8)	(1.9)		<del>-</del> 3,265.4	ROADWAY EMBANKMEN	Г		5.0	3203	3,20
	3,262.6-	- - 7.8			68%			100%	68%		- - 3,262.6	bouldery roadway embankme			7.8		
3260	3,260.4	- - 10.0	2.2		(1.8) 82%	(0.4) 18%		(2.2) 18%	(1.8)		‡	CRYSTALLINE ROCK crystalline gneiss				3260	3,2 <u>6</u> 3,25
3200			5.0		(5.0) 100%	(2.2)			15% CR		<del>-</del> -	, 0					3,25
	-	_			100%	44 /0					<del> </del>  -						0,20
3255	3,255.4	15.0	5.0		(4.0)	(2.6)					_						
	-	_	3.0		80%	52%					_						
	3,250.4	- 20.0									3,250.4				20.0		
	3,230.4	-										ated at Elevation 3,250.4 ft in	crystallin	e gneiss	20.0		3,24
	-	_									-						
	_	-									<del>-</del> -						
	-	_									_						
	-	_									-						
	_	-									-						
	-	-									-						
	-	_									_						
	-										-						
	-	-									-						
	_	-									<del>-</del> -						
	_										<del>-</del>						
	-	_									-						
	-										_						
	-										_						
	_	-									<del>-</del> -						
											-						
20/16	-	_									_						
-	-										-						
D	_	-									<del>-</del> -						
2	-	-									-						
ပ္ <sup> </sup>	-	_									-						
<u> </u>	-	-									-						
2.85	_										<del>-</del> -						
ELO	_										_						
3	-	_									-						
S	-	Ē			1						F						
Ü.		-									<b>-</b>						
주 -	-	_									Ł						
ZF.	-	[			1						<u>-</u>						
NCDOT CORE DOUBLE BORELOGS_CORELOGS.GPJ NC_DOT.GDT 1720/16	-	<u> </u>			1						<u> </u>						
퓌	-	_			1						_						
3	-	_									_						
		-									F						
ź	-	-			1			1			<u> </u>						

***	46098	3.1.1			TIP	B-538	33	С	OUNT	ΥA	VERY		GEOLOGIST Elliott, D.	. C.		
			I Brid	lge No. 1			36 over t						<u>'</u>		GROUN	ID WTR (ft)
	NG NO.			<u> </u>			13+12			_	FSET 7	7 ft LT	ALIGNMENT L		0 HR.	N/A
	AR ELE		270.01	ft	_		<b>PTH</b> 12.	5 ft		+	RTHING		EASTING N/A		24 HR.	N/A
							83% 01/29			1		DRILL METHOD NW		НАММ		Automatic
	LER C						<b>TE</b> 07/1			СС	MP. DA	<b>TE</b> 07/15/15	SURFACE WATER DEP			
	E SIZE						<b>N</b> 22.0 f									
ELEV (ft)	RUN ELEV (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)		UN RQD (ft) %	SAMP. NO.		ATA RQD (ft) %	L O G		D	ESCRIPTION AND REMARKS	S		
3269.59				(IVIIII/IL)	<u>%</u>	<u> </u>		- %	%				Begin Coring @ 0.5 ft			
1209.38	3,269.6	0.5	4.6							138	- 3,269.6		ROADWAY EMBANKMENT	•		0.5
	-	-											Bouldery embankment			
3265	3,265.0	5.0	5.0								3,265.0		ROADWAY EMBANKMENT	-		5.0
	-	-									3,262.0		Bouldery embankment			8.0
3260	3,2 <u>6</u> 0.0 3,259.3	10.0 - 10.7						_		000	_		ALLUVIAL Gravelly, bouldery alluvium			
	3,259.3	-	10.7		(1.5)						3,259.3 - 3,257.5		CRYSTALLINE ROCK			10.7 12.5
	5,257.5-	12.5			83%_					رزافتها	- 3,237.5	Boring Termina	Crystalline gneiss ated at Elevation 3,257.5 ft in c	crystalline	e gneiss	
	_	F									_	· ·		•		
	-															
	-															
	3,249.3	20.7														
	-	ļ.									-					
	_	ļ									_					
	-	‡									-					
	-	‡									_					
	-	Ļ									_					
	-	<u> </u>									_					
	-	Ł									_					
	-	F									_					
	-	F									-					
	_	F									_					
	-	ļ.									-					
	-	-									-					
											_					
	-	<u> </u>									_					
	-	<u> </u>									_					
	-	ŀ									_					
	-	F									F					
	_	ļ									- -					
	-	<u> </u>									-					
	-	<u> </u>									_					
	-	<u> </u>									_					
	-	Ł									E					
	-	-									_					
	-	F														
	-										-					
	_	‡									L					
	-	‡									_					
	-	ł									Ŀ					
	_	F									_					
	-	ļ									-					
	-	‡									<u> </u>					