

PROJECT: 17BP.8.C.1 REFERENCE: SF-750510

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SF-750510	1	11

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STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY RANDOLPH
PROJECT DESCRIPTION CULVERT ON SR 3120 (CEDAR CREEK DR.) OVER CEDAR FORK CREEK
SITE DESCRIPTION CULVERT NO. 1179

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 (919) 707-6850. 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 BOREHOLE. 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 OBSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS INDICATED 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 SATISFY 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.

- NOTES:
1. 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

Stephen Abernathy
Mike Morgan

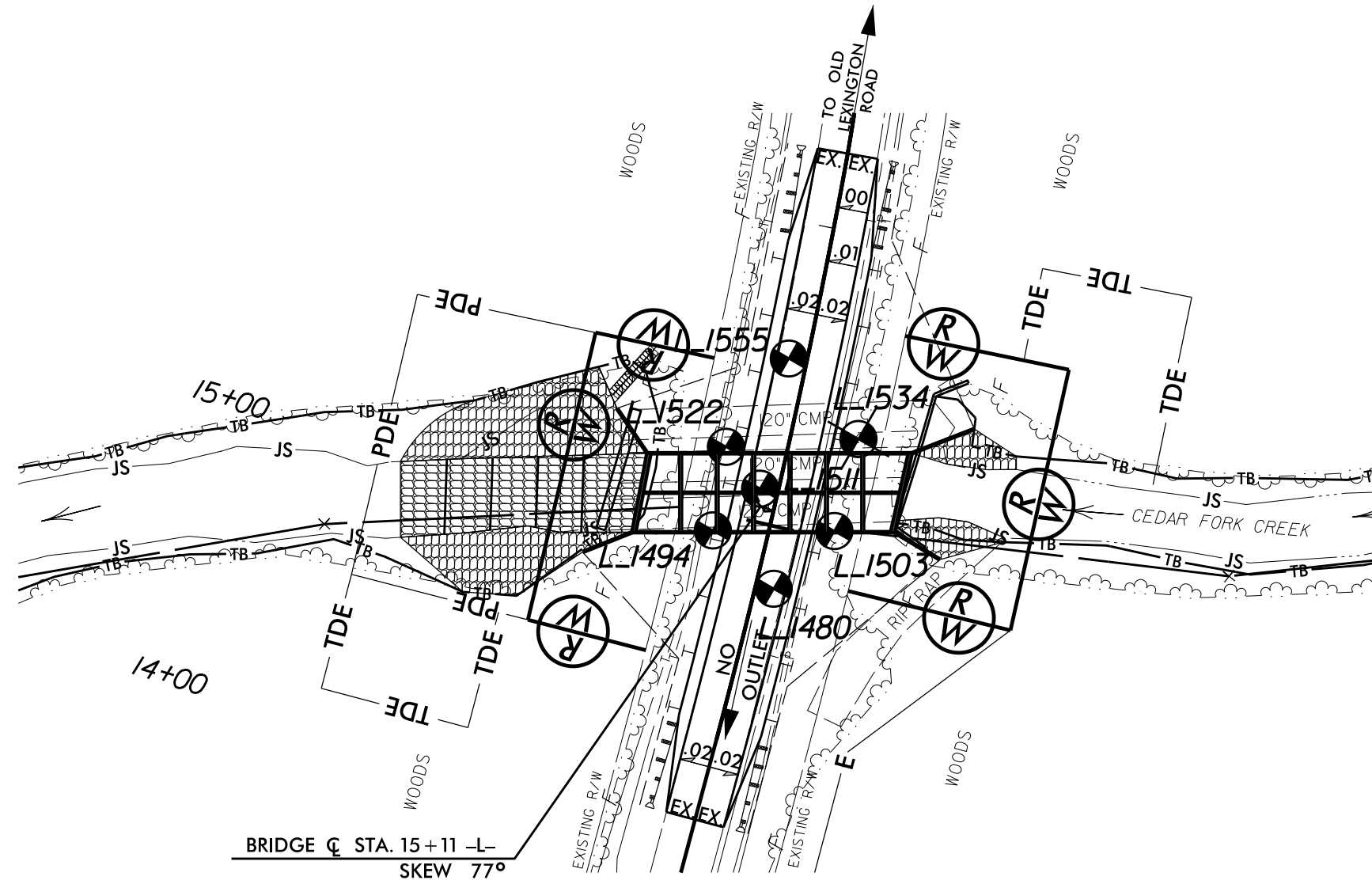
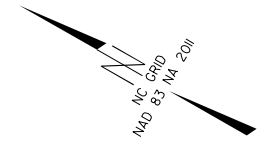
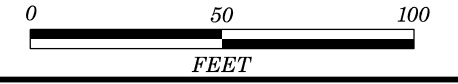
INVESTIGATED BY D. Michael Gragg
DRAWN BY Tamara Stivers
CHECKED BY Kenneth Bussey
SUBMITTED BY HDR|ICA
DATE September 2016



DocuSigned by:
Kenneth Bussey 9/6/2016
6EB2C05E3A1B48C SIGNATURE DATE

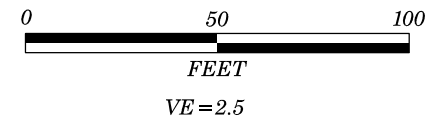
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

SITE PLAN

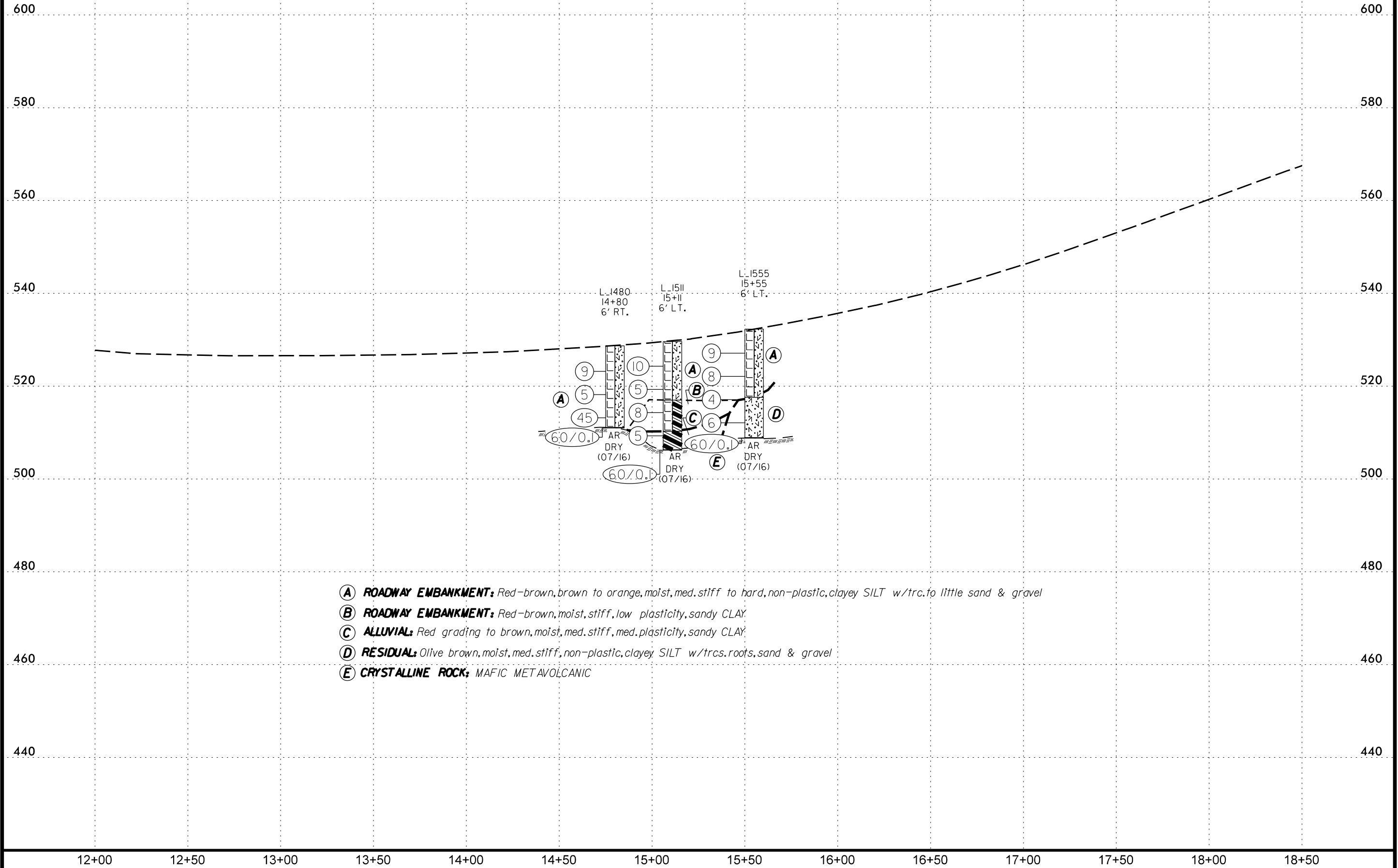


GENERALIZED SUBSURFACE PROFILE ALONG \bar{C} of -L-

GROUNDLINE PROFILE RECEIVED FROM: NCDOT 6/3/2016
 INFERRED STRATIGRAPHY IS DRAWN AT THE PROFILE OFFSET WITH THE BORINGS PROJECTED ONTO THE PROFILE



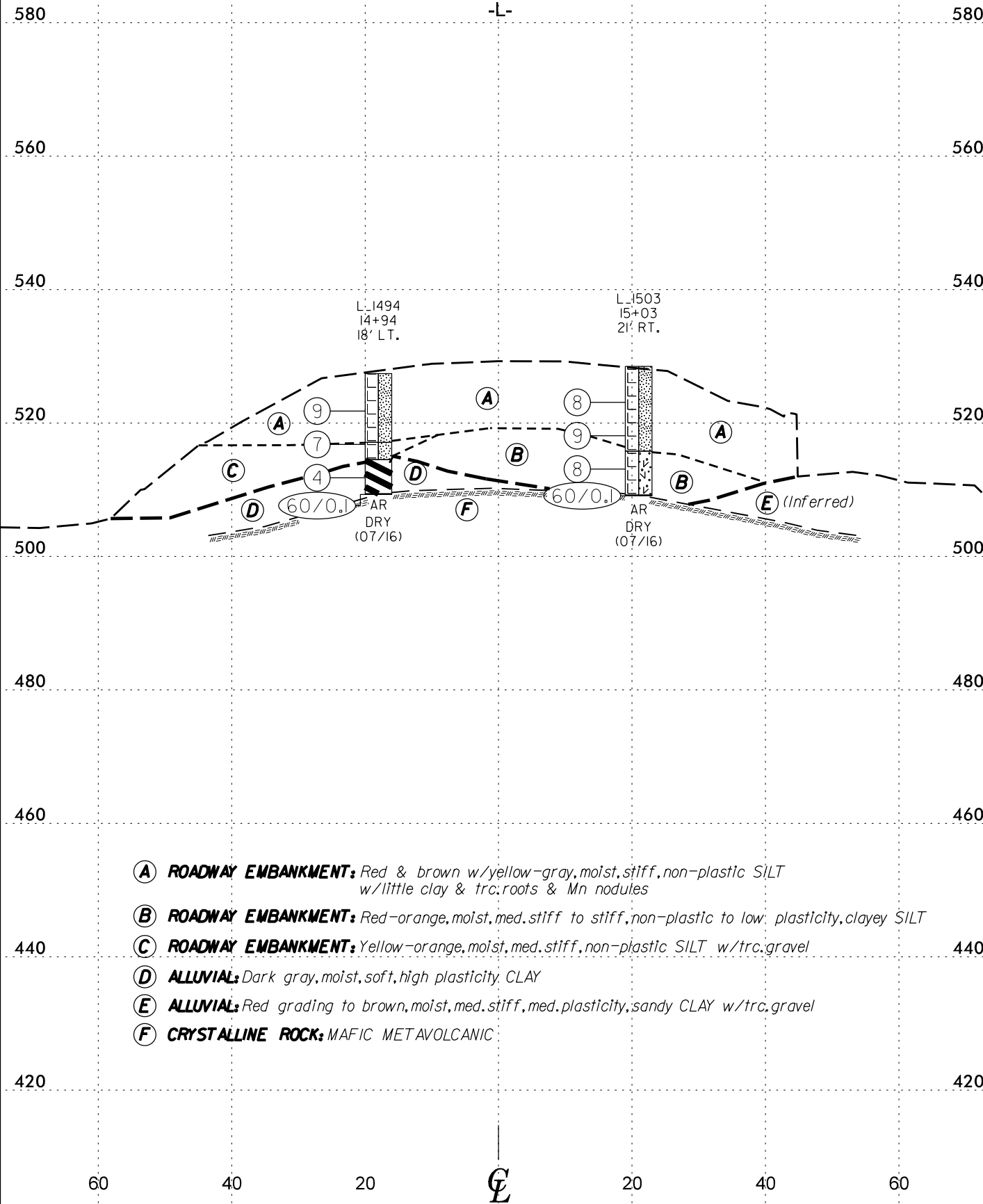
PROJECT REFERENCE NO.	SHEET NO.
SF-750510	4
PROFILE	



- (A) **ROADWAY EMBANKMENT:** Red-brown, brown to orange, moist, med. stiff to hard, non-plastic, clayey SILT w/trcs. to little sand & gravel
- (B) **ROADWAY EMBANKMENT:** Red-brown, moist, stiff, low plasticity, sandy CLAY
- (C) **ALLUVIAL:** Red grading to brown, moist, med. stiff, med. plasticity, sandy CLAY
- (D) **RESIDUAL:** Olive brown, moist, med. stiff, non-plastic, clayey SILT w/trcs. roots, sand & gravel
- (E) **CRYSTALLINE ROCK:** MAFIC METAVOLCANIC

GENERALIZED SUBSURFACE CROSS SECTION STA. 14 + 97.65

77° SKEW
-L-



- (A) **ROADWAY EMBANKMENT:** Red & brown w/yellow-gray, moist, stiff, non-plastic SILT w/little clay & trc: roots & Mn nodules
- (B) **ROADWAY EMBANKMENT:** Red-orange, moist, med. stiff to stiff, non-plastic to low plasticity, clayey SILT
- (C) **ROADWAY EMBANKMENT:** Yellow-orange, moist, med. stiff, non-plastic SILT w/trc. gravel
- (D) **ALLUVIAL:** Dark gray, moist, soft, high plasticity CLAY
- (E) **ALLUVIAL:** Red grading to brown, moist, med. stiff, med. plasticity, sandy CLAY w/trc. gravel
- (F) **CRYSTALLINE ROCK:** MAFIC METAVOLCANIC

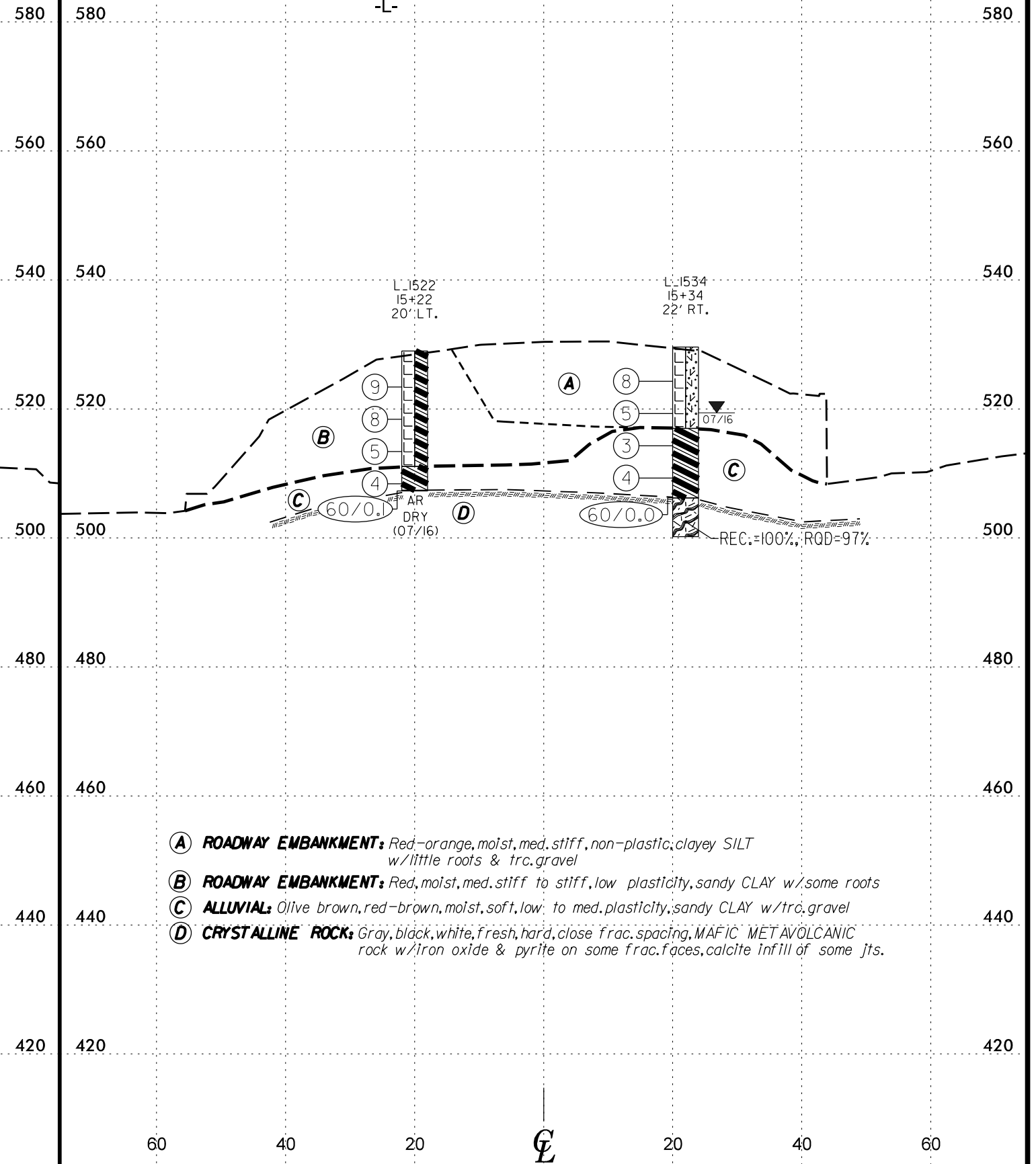
HORIZ. SCALE 0 20 40 (FEET)

VE = NONE

CULVERT NO. 1179 - CROSS SECTION

GENERALIZED SUBSURFACE CROSS SECTION STA. 15 + 24.33

77° SKEW
-L-



- (A) **ROADWAY EMBANKMENT:** Red-orange, moist, med. stiff, non-plastic, clayey SILT w/little roots & trc. gravel
- (B) **ROADWAY EMBANKMENT:** Red, moist, med. stiff to stiff, low plasticity, sandy CLAY w/some roots
- (C) **ALLUVIAL:** Olive brown, red-brown, moist, soft, low to med. plasticity, sandy CLAY w/trc. gravel
- (D) **CRYSTALLINE ROCK:** Gray, black, white, fresh, hard, close frac. spacing, MAFIC METAVOLCANIC rock w/iron oxide & pyrite on some frac. faces, calcite infill of some jts.

HORIZ. SCALE 0 20 40 (FEET)

VE = NONE

CULVERT NO. 1179 - CROSS SECTION

GEOTECHNICAL BORING REPORT

BORE LOG

WBS 17BP.8.C.1		TIP SF-750510		COUNTY RANDOLPH		GEOLOGIST Abernathy, S.										
SITE DESCRIPTION Culvert on SR 3120 (Cedar Creek Drive) over Cedar Fork Creek							GROUND WTR (ft)									
BORING NO. L_1480		STATION 14+80		OFFSET 6 ft RT		ALIGNMENT -L-										
COLLAR ELEV. 528.7 ft		TOTAL DEPTH 17.7 ft		NORTHING 719,042		EASTING 1,746,213										
DRILL RIG/HAMMER EFF./DATE HDR0404 CME-45C 91.5% 11/10/2015			DRILL METHOD H.S. Augers		HAMMER TYPE Automatic											
DRILLER Morgan, M.		START DATE 07/15/16		COMP. DATE 07/15/16		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	LOG G	SOIL AND ROCK DESCRIPTION	ELEV. (ft)	DEPTH (ft)
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
530															528.7	0.0
525	524.2	4.5	3	4	5											
520	519.2	9.5	2	2	3											
515	514.2	14.5	7	23	22											
	511.1	17.6													511.1	17.6
		60/0.1													511.0	17.7
CRYSTALLINE ROCK Mafic Metavolcanic Boring Terminated with Standard Penetration Test Refusal at Elevation 511.0 ft in CR (Mafic Metavolcanic). Boring located in roadway, unable to leave open for 24 hour water table reading.																

WBS 17BP.8.C.1		TIP SF-750510		COUNTY RANDOLPH		GEOLOGIST Abernathy, S.										
SITE DESCRIPTION Culvert on SR 3120 (Cedar Creek Drive) over Cedar Fork Creek							GROUND WTR (ft)									
BORING NO. L_1494		STATION 14+94		OFFSET 18 ft LT		ALIGNMENT -L-										
COLLAR ELEV. 527.4 ft		TOTAL DEPTH 18.1 ft		NORTHING 719,069		EASTING 1,746,219										
DRILL RIG/HAMMER EFF./DATE HDR0404 CME-45C 91.5% 11/10/2015			DRILL METHOD H.S. Augers		HAMMER TYPE Automatic											
DRILLER Morgan, M.		START DATE 07/16/16		COMP. DATE 07/16/16		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	LOG G	SOIL AND ROCK DESCRIPTION	ELEV. (ft)	DEPTH (ft)
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
530															527.4	0.0
525	522.8	4.6	3	4	5											
520	517.8	9.6	1	3	4											
515	512.8	14.6														
	509.4	18.0													509.4	18.0
		60/0.1													509.3	18.1
CRYSTALLINE ROCK inferred Mafic Metavolcanic Boring Terminated with Standard Penetration Test Refusal at Elevation 509.3 ft in CR (inferred Mafic Metavolcanic).																

NCDOT BORE DOUBLE_SF750510_GEO_CULV1179_CEDAR FORK CREEK.GPJ NC_DOT.GDT 8/31/16

GEOTECHNICAL BORING REPORT

BORE LOG

WBS 17BP.8.C.1		TIP SF-750510		COUNTY RANDOLPH		GEOLOGIST Abernathy, S.										
SITE DESCRIPTION Culvert on SR 3120 (Cedar Creek Drive) over Cedar Fork Creek							GROUND WTR (ft)									
BORING NO. L_1503		STATION 15+03		OFFSET 21 ft RT		ALIGNMENT -L-										
COLLAR ELEV. 528.5 ft		TOTAL DEPTH 19.4 ft		NORTHING 719,034		EASTING 1,746,239										
DRILL RIG/HAMMER EFF./DATE HDR0404 CME-45C 91.5% 11/10/2015			DRILL METHOD H.S. Augers		HAMMER TYPE Automatic											
DRILLER Morgan, M.		START DATE 07/16/16		COMP. DATE 07/16/16		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
530														528.5	GROUND SURFACE	0.0
525	524.1	4.4											M	ROADWAY EMBANKMENT Red w/yellow-gray, stiff, non-plastic, SILT w/little clay, roots & Manganese nodules (A-4).		
520			3	3	5								M			
515	519.1	9.4											M			
510	514.1	14.4	5	5	4								M	Red-orange, stiff, non-plastic to low plasticity, clayey SILT (A-5).	12.7	
	509.2	19.3	2	3	5								M			
			60/0.1											509.2	CRYSTALLINE ROCK Mafic Metavolcanic	19.3
														509.1	Boring Terminated with Standard Penetration Test Refusal at Elevation 509.1 ft in CR (Mafic Metavolcanic).	19.4

WBS 17BP.8.C.1		TIP SF-750510		COUNTY RANDOLPH		GEOLOGIST Abernathy, S.										
SITE DESCRIPTION Culvert on SR 3120 (Cedar Creek Drive) over Cedar Fork Creek							GROUND WTR (ft)									
BORING NO. L_1511		STATION 15+11		OFFSET 6 ft LT		ALIGNMENT -L-										
COLLAR ELEV. 529.6 ft		TOTAL DEPTH 23.4 ft		NORTHING 719,062		EASTING 1,746,239										
DRILL RIG/HAMMER EFF./DATE HDR0404 CME-45C 91.5% 11/10/2015			DRILL METHOD H.S. Augers		HAMMER TYPE Automatic											
DRILLER Morgan, M.		START DATE 07/15/16		COMP. DATE 07/15/16		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
530														529.6	GROUND SURFACE	0.0
525	525.3	4.3											M	ROADWAY EMBANKMENT Red-brown, med. stiff to stiff, non-plastic, clayey SILT w/little sand & gravel (A-5).		
520			3	5	5								M			
515	520.3	9.3											M			
510	515.3	14.3	2	2	3								M	Red grading to brown, med. stiff, med. plasticity, sandy CLAY w/trc. gravel (A-6).	12.6	
	510.3	19.3	3	5	3								M			
			WOH	2	3								M			
	506.3	23.3												510.3	ALLUVIAL Red grading to brown, med. stiff, med. plasticity, sandy CLAY w/trc. gravel (A-6).	19.3
			60/0.1											506.3	CRYSTALLINE ROCK Mafic Metavolcanic	23.3
														506.2	Boring Terminated with Standard Penetration Test Refusal at Elevation 506.2 ft in CR (Mafic Metavolcanic).	23.4
															Boring located in roadway, unable to leave open for 24 hour water table reading.	

NCDOT BORE DOUBLE SF750510_GEO_CULV1179_CEDAR FORK CREEK.GPJ NC_DOT.GDT 8/31/16

GEOTECHNICAL BORING REPORT

BORE LOG

WBS 17BP.8.C.1		TIP SF-750510		COUNTY RANDOLPH		GEOLOGIST Abernathy, S.											
SITE DESCRIPTION Culvert on SR 3120 (Cedar Creek Drive) over Cedar Fork Creek							GROUND WTR (ft)										
BORING NO. L_1522		STATION 15+22		OFFSET 20 ft LT		ALIGNMENT -L-											
COLLAR ELEV. 529.0 ft		TOTAL DEPTH 21.7 ft		NORTHING 719,079		EASTING 1,746,245											
DRILL RIG/HAMMER EFF./DATE HDR0404 CME-45C 91.5% 11/10/2015			DRILL METHOD H.S. Augers		HAMMER TYPE Automatic												
DRILLER Morgan, M.		START DATE 07/14/16		COMP. DATE 07/14/16		SURFACE WATER DEPTH N/A											
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION	DEPTH (ft)			
			0.5ft	0.5ft	0.5ft	0	25	50	75	100							
530														529.0	GROUND SURFACE	0.0	
525	524.4	4.6	3	4	5								M	ROADWAY EMBANKMENT Red, med. stiff to stiff, low plasticity, sandy CLAY w/some roots (A-6).			
520	519.4	9.6	2	3	5								M				
515	514.4	14.6	1	2	3								M				
510	509.4	19.6	2	1	3								M		511.1	ALLUVIAL Olive brown, soft, med. plasticity CLAY w/trce. gravel (A-6).	17.9
	507.4	21.6	60/0.1										M		507.4 507.3	CRYSTALLINE ROCK inferred Mafic Metavolcanic Boring Terminated with Standard Penetration Test Refusal at Elevation 507.3 ft in CR (inferred Mafic Metavolcanic).	21.6 21.7

WBS 17BP.8.C.1		TIP SF-750510		COUNTY RANDOLPH		GEOLOGIST Abernathy, S.											
SITE DESCRIPTION Culvert on SR 3120 (Cedar Creek Drive) over Cedar Fork Creek							GROUND WTR (ft)										
BORING NO. L_1534		STATION 15+34		OFFSET 22 ft RT		ALIGNMENT -L-											
COLLAR ELEV. 529.6 ft		TOTAL DEPTH 29.4 ft		NORTHING 719,042		EASTING 1,746,269											
DRILL RIG/HAMMER EFF./DATE HDR0404 CME-45C 91.5% 11/10/2015			DRILL METHOD SPT Core Boring		HAMMER TYPE Automatic												
DRILLER Morgan, M.		START DATE 07/14/16		COMP. DATE 07/15/16		SURFACE WATER DEPTH N/A											
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION	DEPTH (ft)			
			0.5ft	0.5ft	0.5ft	0	25	50	75	100							
530														529.6	GROUND SURFACE	0.0	
525	525.3	4.3	3	3	5								M	ROADWAY EMBANKMENT Red-orange, med. stiff, non-plastic, clayey SILT w/trc. gravel & little roots (A-5).			
520	520.3	9.3	2	2	3								M				
515	515.3	14.3	1	1	2								M		517.0	ALLUVIAL Red-brown, soft, low to med. plasticity, sandy CLAY (A-6).	12.6
510	510.3	19.3	WOH	2	2								M				
505	506.2	23.4	60/0.0										M		506.2	CRYSTALLINE ROCK Mafic Metavolcanic	23.4
														500.2	Boring Terminated at Elevation 500.2 ft in CR (Mafic Metavolcanic).	29.4	

NCDOT BORE DOUBLE_SF750510_GEO_CULV1179_CEDAR FORK CREEK.GPJ_NC_DOT.GDT_8/31/16

GEOTECHNICAL BORING REPORT

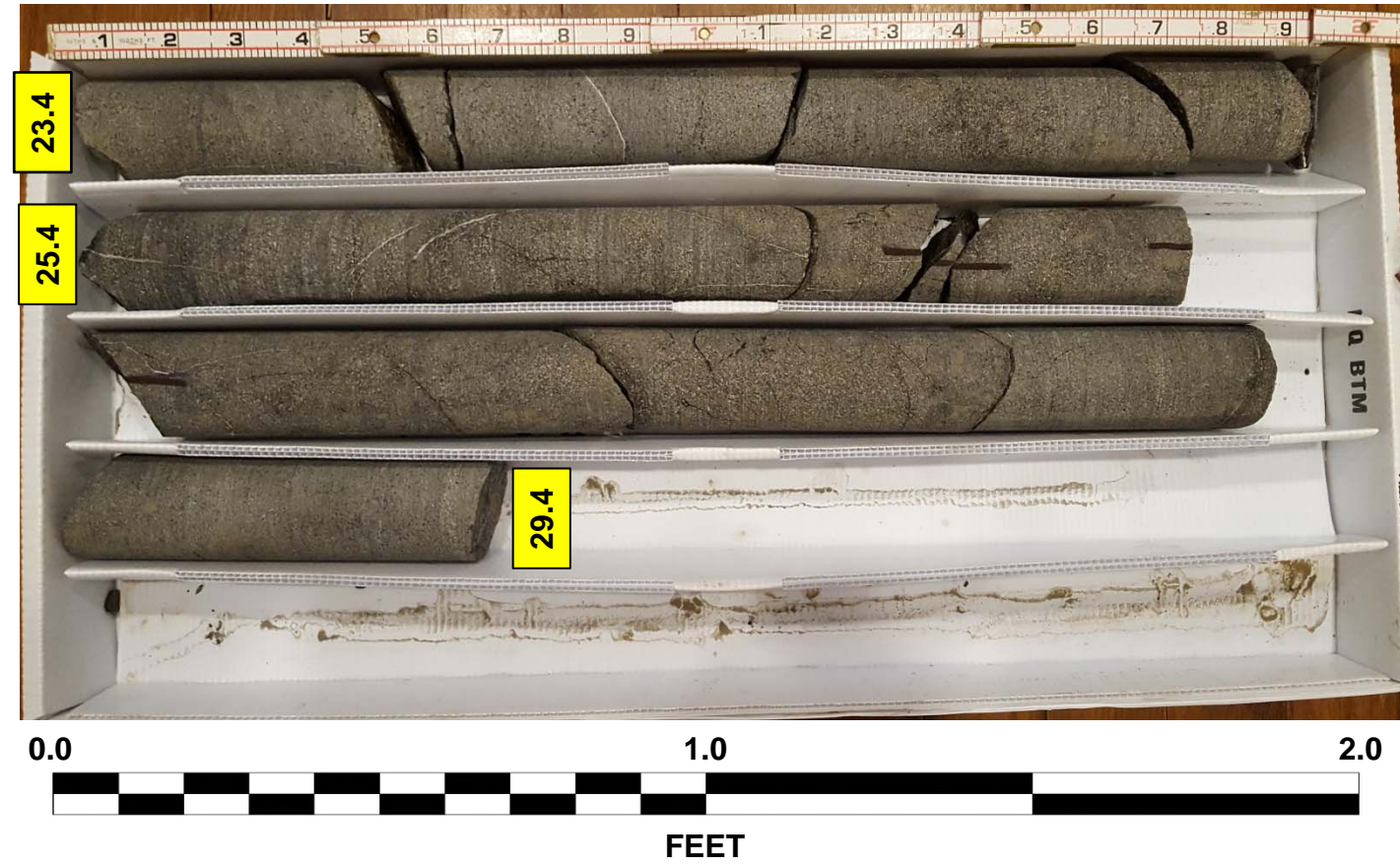
CORE LOG

WBS 17BP.8.C.1		TIP SF-750510		COUNTY RANDOLPH		GEOLOGIST Abernathy, S.					
SITE DESCRIPTION Culvert on SR 3120 (Cedar Creek Drive) over Cedar Fork Creek							GROUND WTR (ft)				
BORING NO. L_1534		STATION 15+34		OFFSET 22 ft RT		ALIGNMENT -L-					
COLLAR ELEV. 529.6 ft		TOTAL DEPTH 29.4 ft		NORTHING 719,042		EASTING 1,746,269					
DRILL RIG/HAMMER EFF./DATE HDR0404 CME-45C 91.5% 11/10/2015				DRILL METHOD SPT Core Boring		HAMMER TYPE Automatic					
DRILLER Morgan, M.		START DATE 07/14/16		COMP. DATE 07/15/16		SURFACE WATER DEPTH N/A					
CORE SIZE NQ-2		TOTAL RUN 6.0 ft									
ELEV (ft)	RUN ELEV (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	RUN		STRATA		LOG	DESCRIPTION AND REMARKS	DEPTH (ft)
					REC. (ft) %	RQD (ft) %	REC. (ft) %	RQD (ft) %			
506.2										Begin Coring @ 23.4 ft	
505	506.2	23.4	2.0	N=60/0.0 2:42	(2.0) 100%	(1.6) 80%	(6.0) 100%	(5.6) 93%		CRYSTALLINE ROCK	23.4
	504.2	25.4	4.0	2:24	(4.0) 100%	(4.0) 100%				Gray, black, white, fresh, hard, close frags., Mafic Metavolcanic w/iron oxide & pyrite on some frac. faces, calcite infill of some jts. 4 5°-15° jts. w/iron oxide stain & trcs. pyrite; 4 20°-40° jts. w/iron oxide stain & trcs. pyrite; 1 40° jt. partially healed.	506.2
	500.2	29.4		2:10 2:27 2:39 2:55						Boring Terminated at Elevation 500.2 ft in CR (Mafic Metavolcanic).	500.2

NCDOT CORE DOUBLE SF750510_GEO_CULV1179_CEDAR FORK CREEK.GPJ NC_DOT.GDT 8/31/16

CORE PHOTOGRAPHIC RECORD
SR 3120 Culvert Over Cedar Fork Creek

L_1534
STA. 15+34 22' RT.
Box 1 of 1: 23.4-29.4 FEET



GEOTECHNICAL BORING REPORT

BORE LOG

WBS 17BP.8.C.1		TIP SF-750510		COUNTY RANDOLPH		GEOLOGIST Abernathy, S.										
SITE DESCRIPTION Culvert on SR 3120 (Cedar Creek Drive) over Cedar Fork Creek							GROUND WTR (ft)									
BORING NO. L_1555		STATION 15+55		OFFSET 6 ft LT		ALIGNMENT -L-										
COLLAR ELEV. 532.3 ft		TOTAL DEPTH 23.5 ft		NORTHING 719,075		EASTING 1,746,281										
DRILL RIG/HAMMER EFF./DATE HDR0404 CME-45C 91.5% 11/10/2015				DRILL METHOD H.S. Augers		HAMMER TYPE Automatic										
DRILLER Morgan, M.		START DATE 07/15/16		COMP. DATE 07/15/16		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION			
			0.5ft	0.5ft	0.5ft	0	25	50	75	100			ELEV. (ft)	DEPTH (ft)		
535														532.3	0.0	GROUND SURFACE
530																ROADWAY EMBANKMENT Red-brown, stiff, non-plastic, clayey SILT w/trc. roots, sand & gravel (A-5).
	528.1	4.2	2	4	5											
525																
	523.1	9.2	2	4	4											
520																
	518.1	14.2	1	2	2									517.6	14.7	RESIDUAL Olive brown, med. stiff, non-plastic, clayey SILT w/trcs. roots, sand & gravel (A-5).
515																
	513.1	19.2	2	3	3											
510																
	508.9	23.4	60/0.1			60/0.1								508.9	23.4	CRYSTALLINE ROCK inferred Mafic Metavolcanic Boring Terminated with Standard Penetration Test Refusal at Elevation 508.8 ft in CR (inferred Mafic Metavolcanic). Boring located in roadway, unable to leave open for 24 hour water table reading.
														508.8	23.5	

NCDOT BORE DOUBLE_SF750510_GEO_CULV1179_CEDAR FORK CREEK.GPJ_NC_DOT.GDT_8/31/16