

REFERENCE: R-2577A

PROJECT: 37405

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2577A	1	6

CONTENTS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	LEGEND (SOIL & ROCK)
3	SITE PLAN & WALL PROFILE
4 - 6	BORING LOGS

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY FORSYTH
PROJECT DESCRIPTION US 158 (REIDSVILLE RD.) FROM
NORTH OF US 421 /I 40 BUS. TO SR 1965 (BELEWS
CREEK RD.)
SITE DESCRIPTION RETAINING WALL NO.1 FROM
-L- STA 28+40 (LT) TO -L- STA 32+07 (LT)

INVENTORY

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 (ON-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

J. MIZE

A. BOZORGI

S&ME PERSONNEL

S&ME PERSONNEL

INVESTIGATED BY RK&K, LLP

DRAWN BY J. MIZE

CHECKED BY G. TAYLOR

SUBMITTED BY RK&K, LLP

DATE JUNE 2019



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Authorized by:

Gary R. Taylor

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10/2/2019

SIGNATURE

DATE

DOCUMENT NOT CONSIDERED FINAL
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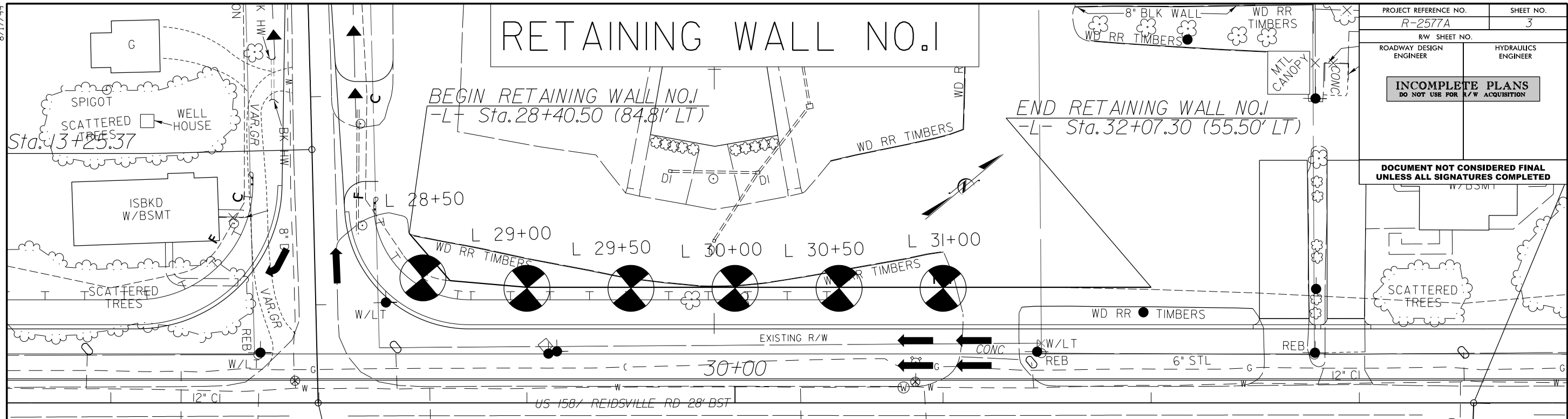
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT
SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

Table with 4 main columns: SOIL DESCRIPTION, GRADATION, ROCK DESCRIPTION, and TERMS AND DEFINITIONS. It contains detailed technical specifications, symbols, and abbreviations for geotechnical engineering.

8/17/99

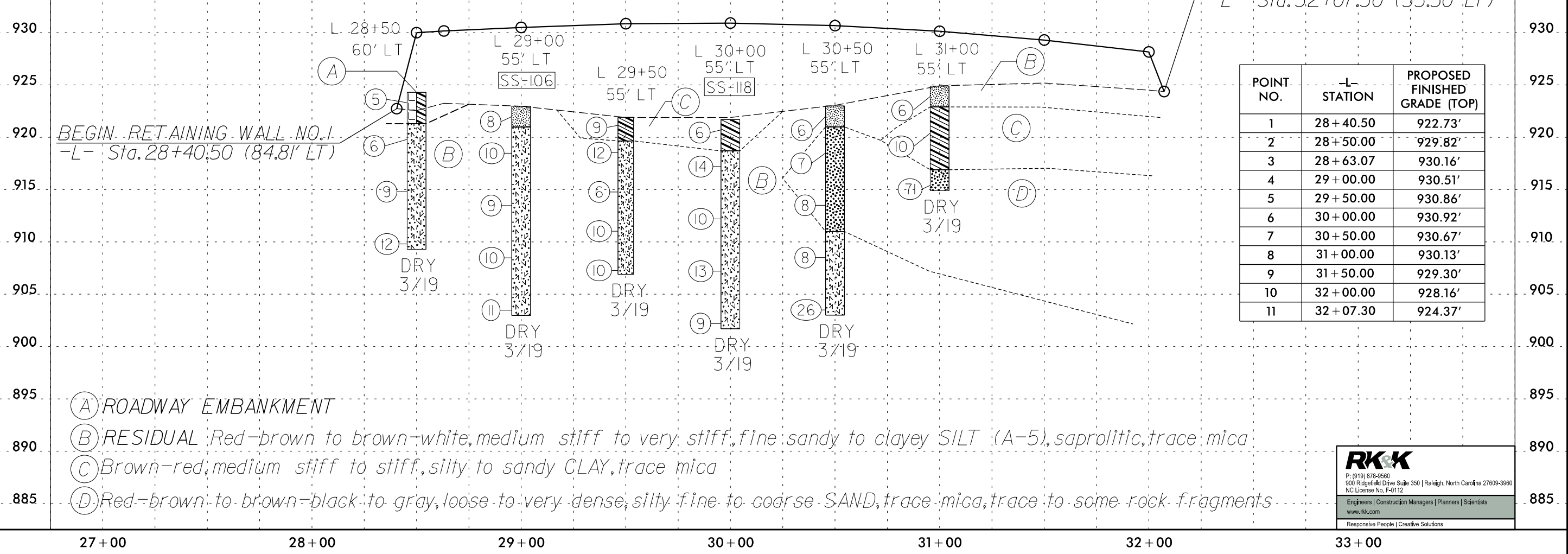
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PROJECT REFERENCE NO. R-2577A	SHEET NO. 3
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

SOIL TEST RESULTS

SAMPLE NO.	LINE	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.T.	% BY WEIGHT				% PASSING SIEVE				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-106	-L-	29+00	0.0 - 1.5	A-4 (0)	40	4	21	40	18	21	89	78	70	42.3	26.2	N/A
SS-118	-L-	30+00	8.5 - 10	A-5 (1)	52	4	7	59	18	16	100	98	93	43.5	30.5	N/A



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GEOTECHNICAL BORING REPORT

BORE LOG

WBS 37405.1.1		TIP R-2577A		COUNTY FORSYTH		GEOLOGIST A Bozorgi											
SITE DESCRIPTION US 158 From North of US 421/I-40 Bus. To SR 1965 (Belews Creek Rd.)							GROUND WTR (ft)										
BORING NO. L 28+50		STATION 28+50		OFFSET 60 ft LT		ALIGNMENT -L-											
COLLAR ELEV. 924.3 ft		TOTAL DEPTH 15.0 ft		NORTHING 863,897		EASTING 1,650,023											
DRILL RIG/HAMMER EFF./DATE SME275 DIEDRICH D-50 90% 11/08/2018			DRILL METHOD H.S. Augers		HAMMER TYPE Automatic												
DRILLER T Williams		START DATE 03/20/19		COMP. DATE 03/20/19		SURFACE WATER DEPTH N/A											
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)			
			0.5ft	0.5ft	0.5ft	0	25	50	75	100							
925	924.3	0.0												924.3	GROUND SURFACE	0.0	
			2	2	3										ROADWAY EMBANKMENT Red-brown, medium stiff, silty CLAY (A-6), trace mica	3.0	
920	920.8	3.5	2	3	3										RESIDUAL Brown-orange, medium stiff to stiff, clayey to fine sandy SILT (A-5)		
915	915.8	8.5	3	4	5												
910	910.8	13.5	4	5	7												
																Boring Terminated at Elevation 909.3 ft in Residual: clayey SILT (A-5)	15.0

WBS 37405.1.1		TIP R-2577A		COUNTY FORSYTH		GEOLOGIST A Bozorgi											
SITE DESCRIPTION US 158 From North of US 421/I-40 Bus. To SR 1965 (Belews Creek Rd.)							GROUND WTR (ft)										
BORING NO. L 29+00		STATION 29+00		OFFSET 55 ft LT		ALIGNMENT -L-											
COLLAR ELEV. 923.0 ft		TOTAL DEPTH 20.0 ft		NORTHING 863,932		EASTING 1,650,059											
DRILL RIG/HAMMER EFF./DATE SME275 DIEDRICH D-50 90% 11/08/2018			DRILL METHOD H.S. Augers		HAMMER TYPE Automatic												
DRILLER T Williams		START DATE 03/20/19		COMP. DATE 03/20/19		SURFACE WATER DEPTH N/A											
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)			
			0.5ft	0.5ft	0.5ft	0	25	50	75	100							
925														923.0	GROUND SURFACE	0.0	
	923.0	0.0	2	4	4										RESIDUAL Red-brown, stiff, fine sandy SILT (A-4) Brown-red, stiff, clayey SILT (A-5)	2.0	
920	919.5	3.5	3	5	5												
915	914.5	8.5	4	4	5												
910	909.5	13.5	4	4	6												
905	904.5	18.5	3	5	6												
																Boring Terminated at Elevation 903.0 ft in Residual: clayey SILT (A-5)	20.0

NCDOT BORE DOUBLE R-2577A_GEO_RDWY.GPJ NC_DOT.GDT 6/5/19

GEOTECHNICAL BORING REPORT

BORE LOG

WBS 37405.1.1		TIP R-2577A		COUNTY FORSYTH		GEOLOGIST A Bozorgi										
SITE DESCRIPTION US 158 From North of US 421/I-40 Bus. To SR 1965 (Belews Creek Rd.)							GROUND WTR (ft)									
BORING NO. L 30+50		STATION 30+50		OFFSET 55 ft LT		ALIGNMENT -L-										
COLLAR ELEV. 923.0 ft		TOTAL DEPTH 20.0 ft		NORTHING 864,047		EASTING 1,650,155										
DRILL RIG/HAMMER EFF./DATE SME275 DIEDRICH D-50 90% 11/08/2018			DRILL METHOD H.S. Augers		HAMMER TYPE Automatic											
DRILLER T Williams		START DATE 03/21/19		COMP. DATE 03/21/19		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
925																
	923.0	0.0	1	3	3								W	923.0	GROUND SURFACE	0.0
920	919.5	3.5	3	3	4								W	921.0	RESIDUAL Red-brown, medium stiff, fine sandy SILT (A-4)	2.0
													W		Red-brown to brown-black, loose, silty SAND (A-2-4), trace mica	
915	914.5	8.5	4	5	3								W			
													W			
910	909.5	13.5	2	3	5								W	911.0	Red-brown, stiff to very stiff, fine sandy SILT (A-5), saprolitic, trace mica	12.0
													W			
905	904.5	18.5	2	5	21								W	903.0	Boring Terminated at Elevation 903.0 ft in Residual: sandy SILT (A-5)	20.0

WBS 37405.1.1		TIP R-2577A		COUNTY FORSYTH		GEOLOGIST A Bozorgi										
SITE DESCRIPTION US 158 From North of US 421/I-40 Bus. To SR 1965 (Belews Creek Rd.)							GROUND WTR (ft)									
BORING NO. L 31+00		STATION 31+00		OFFSET 55 ft LT		ALIGNMENT -L-										
COLLAR ELEV. 924.9 ft		TOTAL DEPTH 10.0 ft		NORTHING 864,086		EASTING 1,650,187										
DRILL RIG/HAMMER EFF./DATE SME275 DIEDRICH D-50 90% 11/08/2018			DRILL METHOD H.S. Augers		HAMMER TYPE Automatic											
DRILLER T Williams		START DATE 03/21/19		COMP. DATE 03/21/19		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
925																
	924.9	0.0	2	3	3								W	924.9	GROUND SURFACE	0.0
													W	922.9	RESIDUAL Red-brown, medium stiff, fine sandy SILT (A-4)	2.0
920	921.4	3.5	3	4	6								W		Brown-red, stiff, fine to coarse sandy CLAY (A-6)	
													W	916.9	Gray, very dense, silty fine to coarse SAND (A-2-4), trace to some rock fragments	8.0
915	916.4	8.5	5	14	57								W	914.9	Boring Terminated at Elevation 914.9 ft in Residual: silty SAND (A-2-4)	10.0