

REFERENCE: B-5617

PROJECT: 45572

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

**STRUCTURE
SUBSURFACE INVESTIGATION**

COUNTY CRAVEN
PROJECT DESCRIPTION BRIDGE NO. 41 ON SR 1464
(PUGHTOWN RD.) OVER SWIFT CREEK

CONTENTS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
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5-7	BORE LOG(S)

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5617	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 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.

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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

S. WOODS
D. RACEY
BRIDGER DRILLING
ENTERPRISE, Inc.

INVESTIGATED BY F&R, Inc.
DRAWN BY T.T. WALKER
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SUBMITTED BY P. ALTON
DATE SEPTEMBER 2017

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SIGNATURE _____ DATE _____

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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

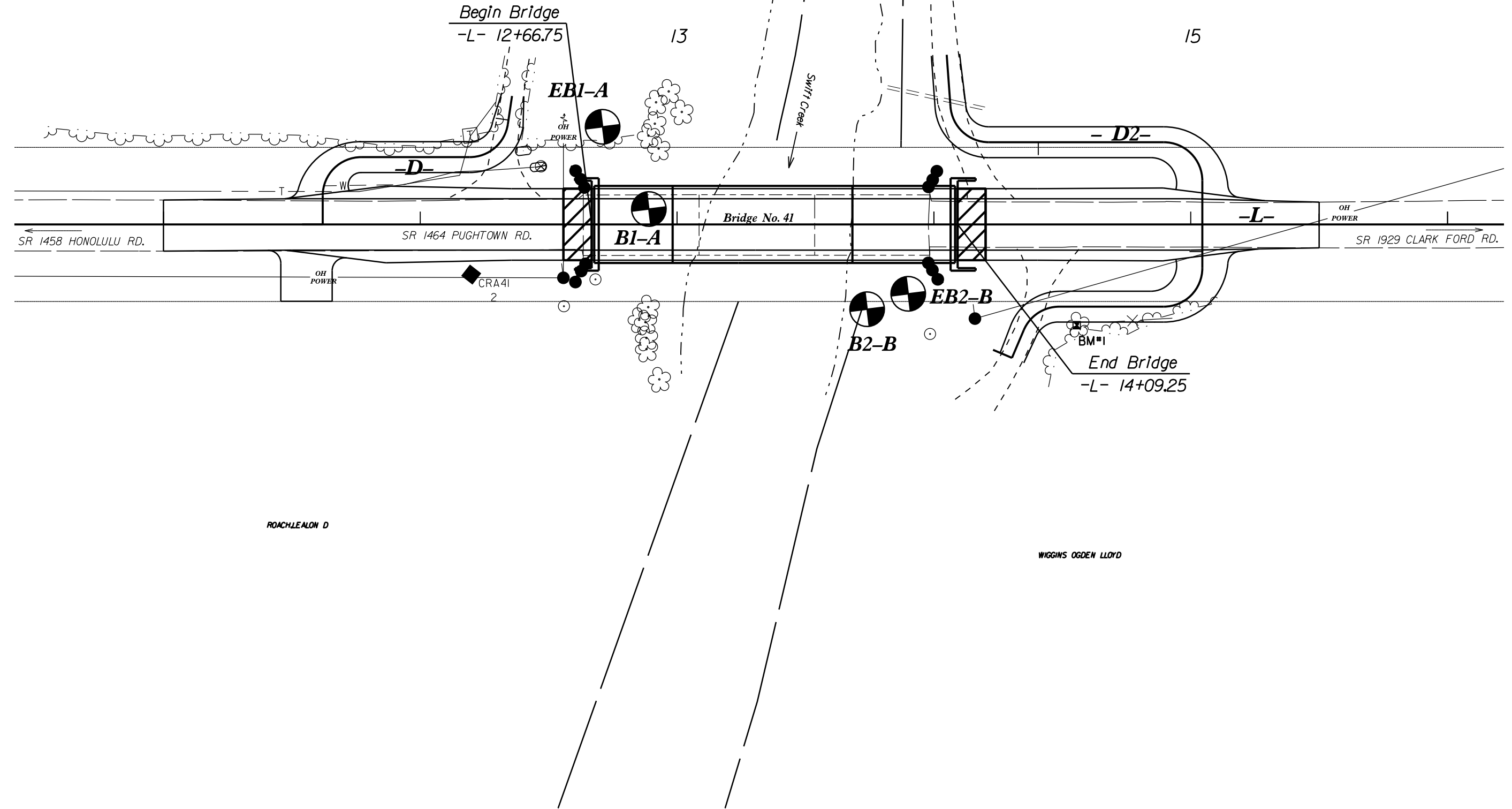
Table with 4 main columns: SOIL DESCRIPTION, GRADATION, ROCK DESCRIPTION, and TERMS AND DEFINITIONS. Includes sub-sections like SOIL LEGEND AND AASHTO CLASSIFICATION, CONSISTENCY OR DENSENESS, TEXTURE OR GRAIN SIZE, SOIL MOISTURE - CORRELATION OF TERMS, PLASTICITY, and COLOR.

PROJECT REFERENCE NO.	SHEET NO.
B-5617	3
SITE PLAN	
 0 40 80 FEET	
SKEW = 90 DEGREES	



BENNETT, RONALD & EULA GRAZIANO

BIT BY BIT FARMS, LLC



ROACH, LEALON D

WIGGINS, OGDEN LLOYD

GEOTECHNICAL BORING REPORT

BORE LOG

WBS 45572.1.1		TIP B-5617		COUNTY CRAVEN		GEOLOGIST S. Woods	
SITE DESCRIPTION Bridge No. 41 on SR 1464 (Pughtown Rd.) over Swift Creek							GROUND WTR (ft)
BORING NO. EB1-A		STATION 12+71		OFFSET 38 ft LT		ALIGNMENT -L-	
COLLAR ELEV. 19.8 ft		TOTAL DEPTH 69.1 ft		NORTHING 592,295		EASTING 2,516,185	
DRILL RIG/HAMMER EFF./DATE BRI2974 CME-45C 85% 02/23/2017				DRILL METHOD Mud Rotary		HAMMER TYPE Automatic	
DRILLER M. Radford		START DATE 08/03/17		COMP. DATE 08/03/17		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	ELEV. (ft)	DEPTH (ft)
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					
20	19.8	0.0	1	2	2								GROUND SURFACE	19.8	0.0
													ALLUVIAL White-Gray-Green, Silty Fine SAND (A-2-4) with Trace Organics (Roots)		
15	16.3	3.5	1	2	4									12.8	7.0
													Brown, Silty Fine to Coarse SAND (A-2-4)		
10	11.3	8.5	4	6	7										
5	6.3	13.5	6	5	6										
0	1.3	18.5	2	2	3								COASTAL PLAIN Gray, Clayey Fine to Coarse SAND (A-2-6) (Yorktown Formation)	2.8	17.0
-5	-3.7	23.5	5	5	6										
-10	-8.7	28.5	3	5	6										
-15	-13.7	33.5	3	3	5										
-20	-18.7	38.5	26	14	39								Gray-White and Dark Gray-Green, Clayey Fine to Coarse SAND (A-2-6) with Trace Cemented Sand and Shell Fragments	-17.2	37.0
-25	-23.7	43.5	8	6	7										
-30	-28.7	48.5	7	7	9										
-35	-33.7	53.5	35	10	9										
-40	-38.7	58.5	10	17	20										
-45	-43.7	63.5	12	21	33										
	-48.7	68.5	67	33/0.1									COASTAL PLAIN SEDIMENTARY ROCK Dark Gray-Green, SANDSTONE	-48.2	68.0
													Boring Terminated at Elevation -49.3 ft in COASTAL PLAIN SEDIMENTARY ROCK (Yorktown Formation)	-49.3	69.1

WBS 45572.1.1		TIP B-5617		COUNTY CRAVEN		GEOLOGIST S. Woods	
SITE DESCRIPTION Bridge No. 41 on SR 1464 (Pughtown Rd.) over Swift Creek							GROUND WTR (ft)
BORING NO. B1-A		STATION 12+89		OFFSET 6 ft LT		ALIGNMENT -L-	
COLLAR ELEV. 13.9 ft		TOTAL DEPTH 69.1 ft		NORTHING 592,261		EASTING 2,516,199	
DRILL RIG/HAMMER EFF./DATE BRI2974 CME-45C 85% 02/23/2017				DRILL METHOD Mud Rotary		HAMMER TYPE Automatic	
DRILLER M. Radford		START DATE 08/01/17		COMP. DATE 08/01/17		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	ELEV. (ft)	DEPTH (ft)
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					
15	13.9	0.0											GROUND SURFACE	13.9	0.0
													ROADWAY EMBANKMENT White-Gray, Silty Fine SAND (A-2-4)	10.9	3.0
10	10.4	3.5	3	4	5								ALLUVIAL Brown to Gray, Silty Fine to Coarse SAND (A-2-4)		
5	5.4	8.5	5	6	6										
0	0.4	13.5	1	WOH	1										
-5	-4.6	18.5	4	6	5								COASTAL PLAIN Gray, Clayey Fine SAND (A-2-6) (Yorktown Formation)	-3.1	17.0
-10	-9.6	23.5	2	3	4										
-15	-14.6	28.5	3	3	5										
-20	-19.1	33.0	9	9	45								Gray, Clayey Fine to Coarse SAND (A-2-6) with Trace Cemented Sand and Shell Fragments	-18.1	32.0
-25	-24.6	38.5	12	9	9										
-30	-29.6	43.5	5	6	8										
-35	-34.6	48.5	8	17	32										
-40	-39.6	53.5	33	15	19								Dark Gray-Green, Silty Fine to Coarse SAND (A-2-4) with Trace Cemented Sand Fragments and Shell Fragments	-38.1	52.0
-45	-44.6	58.5	15	19	30										
-50	-49.6	63.5	45	55/0.2									COASTAL PLAIN SEDIMENTARY ROCK Dark Gray Green, SANDSTONE	-49.1	63.0
-55	-54.6	68.5	54	46/0.1									Boring Terminated at Elevation -55.2 ft in COASTAL PLAIN SEDIMENTARY ROCK (Yorktown Formation)	-55.2	69.1

NCDOT BORE DOUBLE B5617_GEO_BH_BRDG0041.GPJ NC_DOT_GDT 9/29/17

