

REFERENCE: SF-770200

PROJECT: BP6.R002

CONTENTS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	LEGEND (SOIL & ROCK)
3	SITE PLAN
4	PROFILE
5-7	BORE LOGS

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

STRUCTURE  
SUBSURFACE INVESTIGATION

COUNTY ROBESON

PROJECT DESCRIPTION REPLACE BRIDGE NO. 200 ON  
SR 1550 (LOWE ROAD) OVER BEAR SWAMP

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BP6.R002	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 (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:
- 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.

PERSONNEL

CG2 EXPLORATION

S. N. PATTERSON

INVESTIGATED BY CG2, PLLC

DRAWN BY M. BREWER, P.E.

CHECKED BY R. KRAL, P.E.

SUBMITTED BY CG2, PLLC

DATE MARCH 2022

Prepared in the Office of:



CAROLINAS  
GEOTECHNICAL  
GROUP

2400 CROWNPOINT EXECUTIVE DRIVE  
SUITE 800  
CHARLOTTE, NC 28227  
(980) 339-8684



DocuSigned by:

D. Matthew Brewer

3/27/2022

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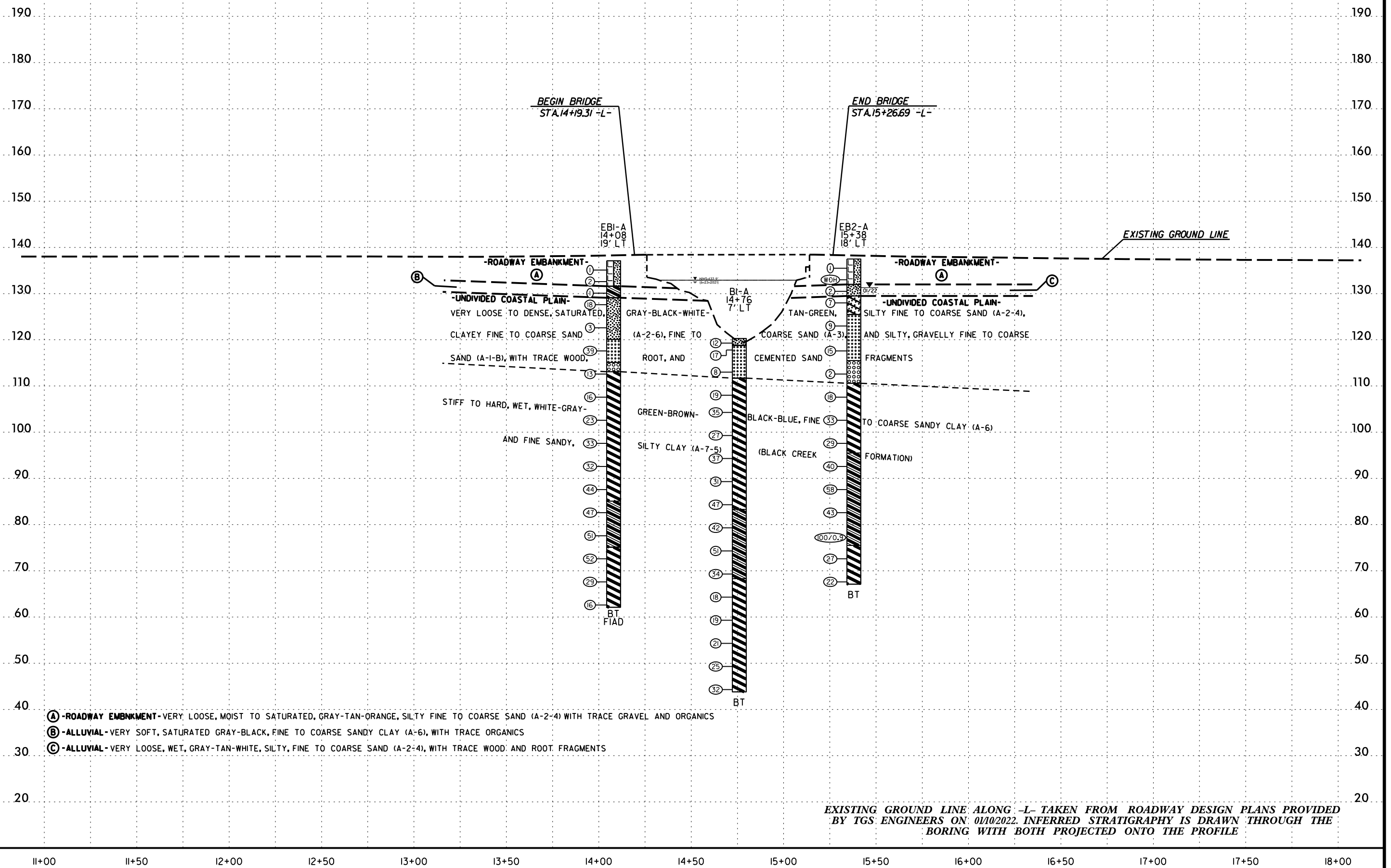
SIGNATURE

DATE

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED







GEOTECHNICAL BORING REPORT  
BORE LOG

WBS BP6.R002			TIP SF-770200			COUNTY ROBESON			GEOLOGIST S. N. Patterson				
SITE DESCRIPTION Bridge 200 on SR 1550 (Lowe Rd) over Bear Swamp									GROUND WTR (ft)				
BORING NO. EB1-A			STATION 14+08			OFFSET 19 ft LT			ALIGNMENT L			0 HR. N/A	
COLLAR ELEV. 137.1 ft			TOTAL DEPTH 75.0 ft			NORTHING 321,072			EASTING 1,964,334			24 HR. FIAD	
DRILL RIGHAMMER EFF./DATE CG20446 Diedrich D50 76%06/14/2021						DRILL METHOD Mud Rotary			HAMMER TYPE Automatic				
DRILLER C. Odom			START DATE 01/28/22			COMP. DATE 01/31/22			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)
140													
	136.1	1.0	1	0	1	1							137.1 GROUND SURFACE 0.0
135													ROADWAY EMBANKMENT
	133.6	3.5	1	1	1	2							Very Loose, Tan-Orange, Silty Fine to Coarse SAND (A-2-4), with trace organics
	131.1	6.0	1	0	1	1							131.6 ALLUVIAL 5.5
130													Very Soft, Gray-Black, Fine to Coarse Sandy CLAY (A-6), with trace organics
	128.6	8.5	4	8	10	18							129.1 8.0
													UNDIVIDED COASTAL PLAIN
125													Very Loose to Medium Dense, Gray-Black-White, Silty Fine to Coarse SAND (A-2-4), with trace wood and root fragments
	123.6	13.5	3	1	2	3							(BLACK CREEK FORMATION)
120													120.1 17.0
	118.6	18.5	17	21	18	39							Very Loose to Dense, Tan-White, Fine to Coarse SAND (A-3)
115													115.1 22.0
	113.6	23.5	3	5	8	13							Medium Dense, Gray-White, Silty, Gravelly Fine to Coarse SAND (A-1-b), with trace cemented sand fragments
110													113.1 24.0
	108.6	28.5	4	7	9	16							COASTAL PLAIN
105													Stiff to Hard, Black-Brown-Blue-Green-Gray, Silty CLAY (A-7-5)
	103.6	33.5	5	8	15	23							(BLACK CREEK FORMATION)
100													
	98.6	38.5	12	14	19	33							
95													
	93.6	43.5	10	14	18	32							
90													
	88.6	48.5	10	17	27	44							
85													
	83.6	53.5	11	20	27	47							85.1 52.0
													Hard, Black-Brown-Blue-Gray, Fine Sandy, Silty CLAY (A-6)
80													(BLACK CREEK FORMATION)
	78.6	58.5	16	24	27	51							
75													
	73.6	63.5	19	23	29	52							75.1 62.0
													Very Stiff to Hard, Gray-Brown-Black, Silty CLAY (A-7-5)
70													(BLACK CREEK FORMATION)
	68.6	68.5	9	12	17	29							
65													
	63.6	73.5	5	7	9	16							62.1 75.0
													Boring Terminated at Elevation 62.1 ft In Coastal Plain Silty CLAY (A-7-5) (BLACK

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SITE DESCRIPTION Bridge 200 on SR 1550 (Lowe Rd) over Bear Swamp									GROUND WTR (ft)				
BORING NO. EB1-A			STATION 14+08			OFFSET 19 ft LT			ALIGNMENT L				
COLLAR ELEV. 137.1 ft			TOTAL DEPTH 75.0 ft			NORTHING 321,072			EASTING 1,964,334				
DRILL RIGHAMMER EFF./DATE CG20446 Diedrich D50 76%06/14/2021						DRILL METHOD Mud Rotary			HAMMER TYPE Automatic				
DRILLER C. Odom			START DATE 01/28/22			COMP. DATE 01/31/22			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			
60						Match Line							
													CREEK FORMATION)

NCDOT BORE DOUBLE ROBESON200.GPJ NC\_DOT.GDT 3/10/22

NCDOT BORE DOUBLE ROBESON200.GPJ NC DOT.GDT 3/10/22

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# GEOTECHNICAL BORING REPORT

## BORE LOG

WBS BP6.R002			TIP SF-770200			COUNTY ROBESON			GEOLOGIST S. N. Patterson						
SITE DESCRIPTION Bridge 200 on SR 1550 (Lowe Rd) over Bear Swamp									GROUND WTR (ft)						
BORING NO. EB2-A			STATION 15+38			OFFSET 18 ft LT			ALIGNMENT L			0 HR. N/A			
COLLAR ELEV. 137.5 ft			TOTAL DEPTH 70.4 ft			NORTHING 321,146			EASTING 1,964,440			24 HR. 6.2			
DRILL RIG/HAMMER EFF./DATE CG20446 Diedrich D50 76%/06/14/2021						DRILL METHOD Mud Rotary			HAMMER TYPE Automatic						
DRILLER C. Odum			START DATE 01/28/22			COMP. DATE 01/28/22			SURFACE WATER DEPTH N/A						
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)
140															
	136.5	1.0	3	0	1									137.5	GROUND SURFACE
135															
	134.0	3.5	1	1	0										
	131.5	6.0	1	1	1									132.0	ROADWAY EMBANKMENT
130															
	129.0	8.5	1	3	4									129.5	Very Loose, Gray-Tan-White, Silty, Fine to Coarse SAND (A-2-4), with trace gravel
														125.5	ALLUVIAL
125															
	124.0	13.5	1	4	5										
120															
	118.6	18.9	4	7	8										
115															
	113.6	23.9	2	1	1										
110															
	108.6	28.9	5	7	11										
105															
	103.6	33.9	10	14	19										
100															
	98.6	38.9	8	11	18										
95															
	93.6	43.9	9	15	25										
90															
	88.6	48.9	13	22	36										
85															
	83.6	53.9	14	15	28										
80															
	78.6	58.9	20	38	62/0.4										
75															
	73.6	63.9	8	12	15										
70															
	68.6	68.9	8	10	12										

WNCDOT BORE DOUBLE ROBESON200.GPJ NC\_DOT.GDT 3/10/22