

REFERENCE: B-4926

PROJECT: 40163

CONTENTS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
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STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 GEOTECHNICAL ENGINEERING UNIT

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY LENOIR
 PROJECT DESCRIPTION BRIDGE No. 20 AND BRIDGE
No. 34 ON NC 55 OVER THE NEUSE RIVER

SITE DESCRIPTION BRIDGE No. 34 ON NC 55 OVER
NEUSE RIVER OVERFLOW AT -L- STA. 35+00

INVENTORY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4926	1	10

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 1919 TOT-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

J. HOWARD

S. HARDEE

INVESTIGATED BY WOOD E&S, INC.

DRAWN BY R. RAHIE

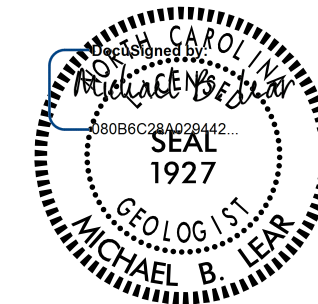
CHECKED BY C. T. TANG

SUBMITTED BY M. LEAR

DATE FEBRUARY, 2022

WOOD E&S, INC.
 4021 STIRRUP CREEK DRIVE, SUITE 100
 DURHAM, NORTH CAROLINA 27703
 (919) 381-9900

NC Engineering F-1253 NC Geology C-247



4/18/2022

SIGNATURE

DATE

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS GEOTECHNICAL ENGINEERING UNIT SUBSURFACE INVESTIGATION SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

Main body of the document containing tables for SOIL DESCRIPTION, GRADATION, ROCK DESCRIPTION, TERMS AND DEFINITIONS, SOIL LEGEND AND AASHTO CLASSIFICATION, CONSISTENCY OR DENSENESS, TEXTURE OR GRAIN SIZE, SOIL MOISTURE - CORRELATION OF TERMS, PLASTICITY, COLOR, MISCELLANEOUS SYMBOLS, RECOMMENDATION SYMBOLS, ABBREVIATIONS, EQUIPMENT USED ON SUBJECT PROJECT, FRACTURE SPACING, BEDDING, INDURATION, and NOTES.

B.17/9c

D:\FEB-2022\1133\Projects\Road\NC-DOT\2019\6468199027_B4926_Kinston\B-4926_GEO\GEO\TechPlan\Prof\B4926_BRDG_mv_03.dgn

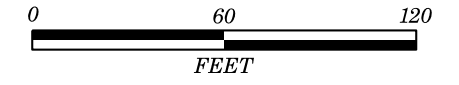
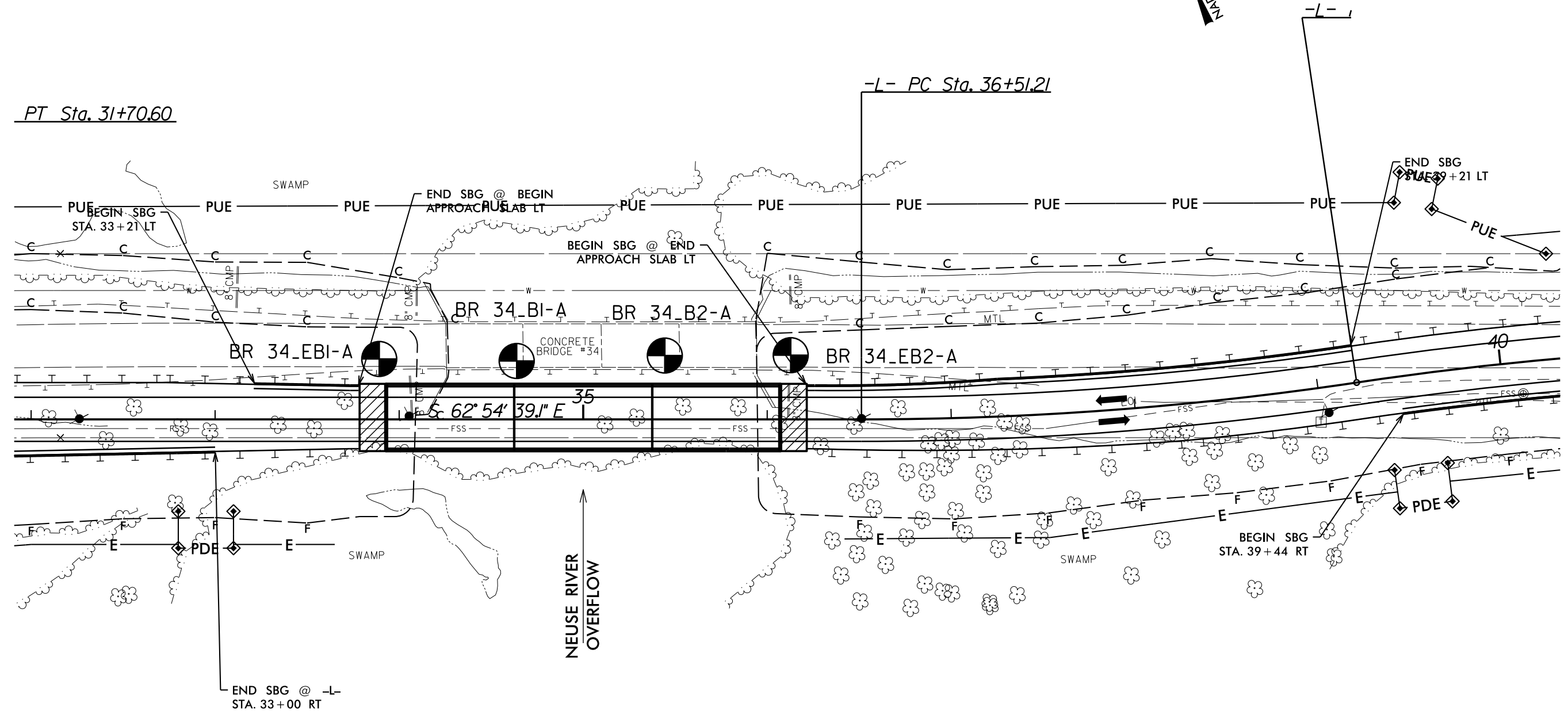


PROJECT REFERENCE NO. B-4926	SHEET NO. 3
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

3

WOODY MAE FARMS, LLC
DB 1153 PG 132
DB 1816 PG 689
PB 6 PG 276

1007
S 81° 38' 20" W



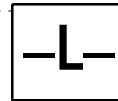
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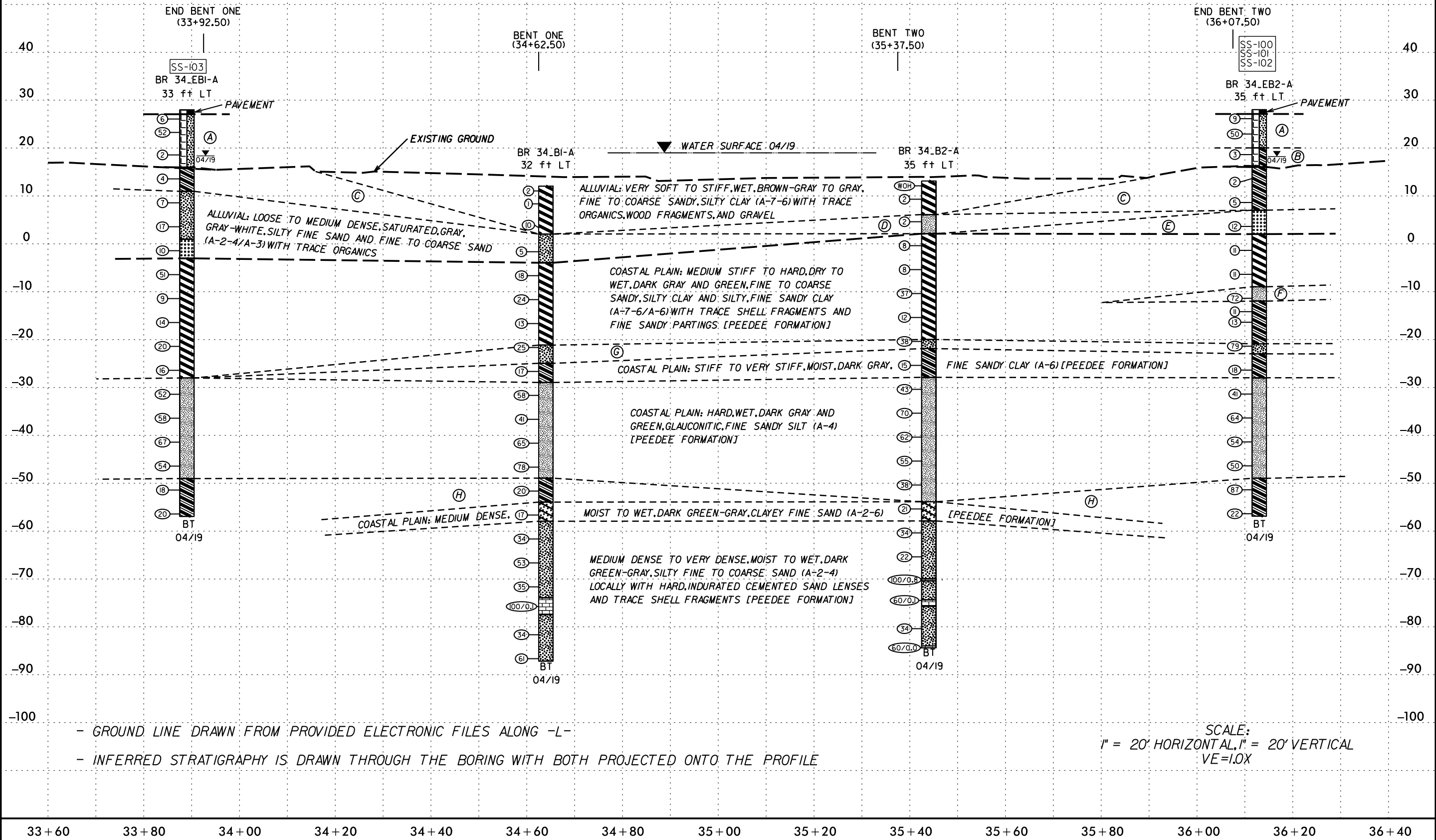
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PROJECT REFERENCE NO. B-4926	SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

- (A) ROADWAY EMBANKMENT: VERY LOOSE TO VERY DENSE, DRY TO SATURATED, TAN-BROWN-ORANGE, SILTY FINE SAND (A-2-4) WITH ASPHALT LENSES
- (B) ROADWAY EMBANKMENT: SOFT, WET, GRAY-ORANGE, FINE TO COARSE SANDY CLAY (A-6) WITH TRACE GRAVEL
- (C) ALLUVIAL: SOFT TO MEDIUM STIFF, MOIST TO WET, GRAY, FINE SANDY, SILTY CLAY (A-6) WITH TRACE ORGANICS
- (D) ALLUVIAL: SOFT, WET, GRAY, FINE SANDY, CLAYEY SILT (A-4) WITH TRACE ORGANICS



- (E) ALLUVIAL: MEDIUM DENSE, SATURATED, GRAY, FINE TO COARSE SAND (A-3) WITH TRACE GRAVEL
- (F) COASTAL PLAIN: HARD, WET, DARK GRAY, SANDY, CLAYEY SILT (A-4) [PEEDEE FORMATION]
- (G) COASTAL PLAIN: MEDIUM DENSE TO VERY DENSE, WET, DARK GRAY, SILTY FINE SAND (A-2-4) [PEEDEE FORMATION]
- (H) COASTAL PLAIN: VERY STIFF TO HARD, MOIST TO SATURATED, DARK GREEN-GRAY, FINE SANDY CLAY (A-6) WITH TRACE SHELL FRAGMENTS AND CEMENTED SAND LENSES [PEEDEE FORMATION]



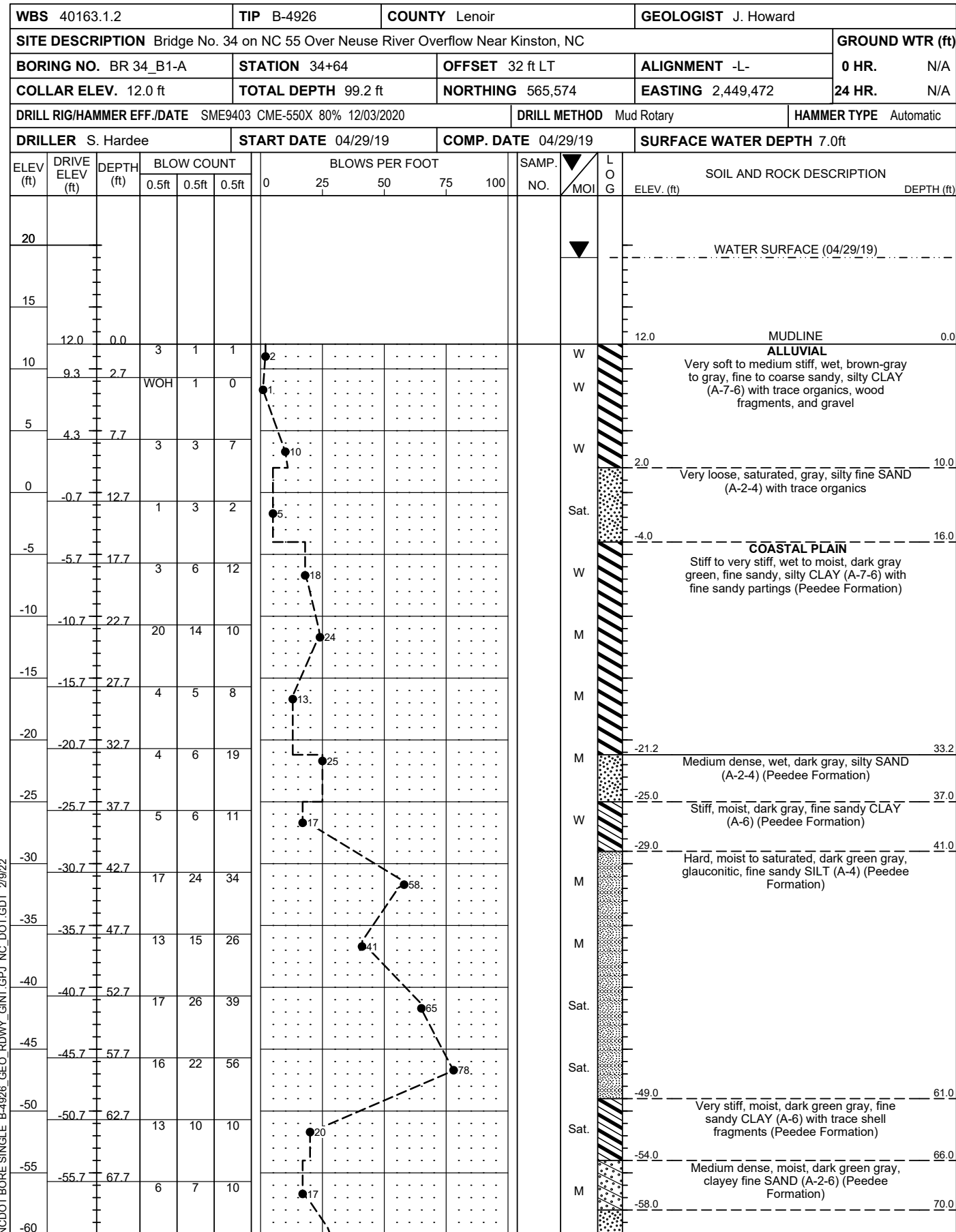
- GROUND LINE DRAWN FROM PROVIDED ELECTRONIC FILES ALONG -L-

- INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORING WITH BOTH PROJECTED ONTO THE PROFILE

SCALE:
1" = 20' HORIZONTAL, 1" = 20' VERTICAL
VE=1.0X

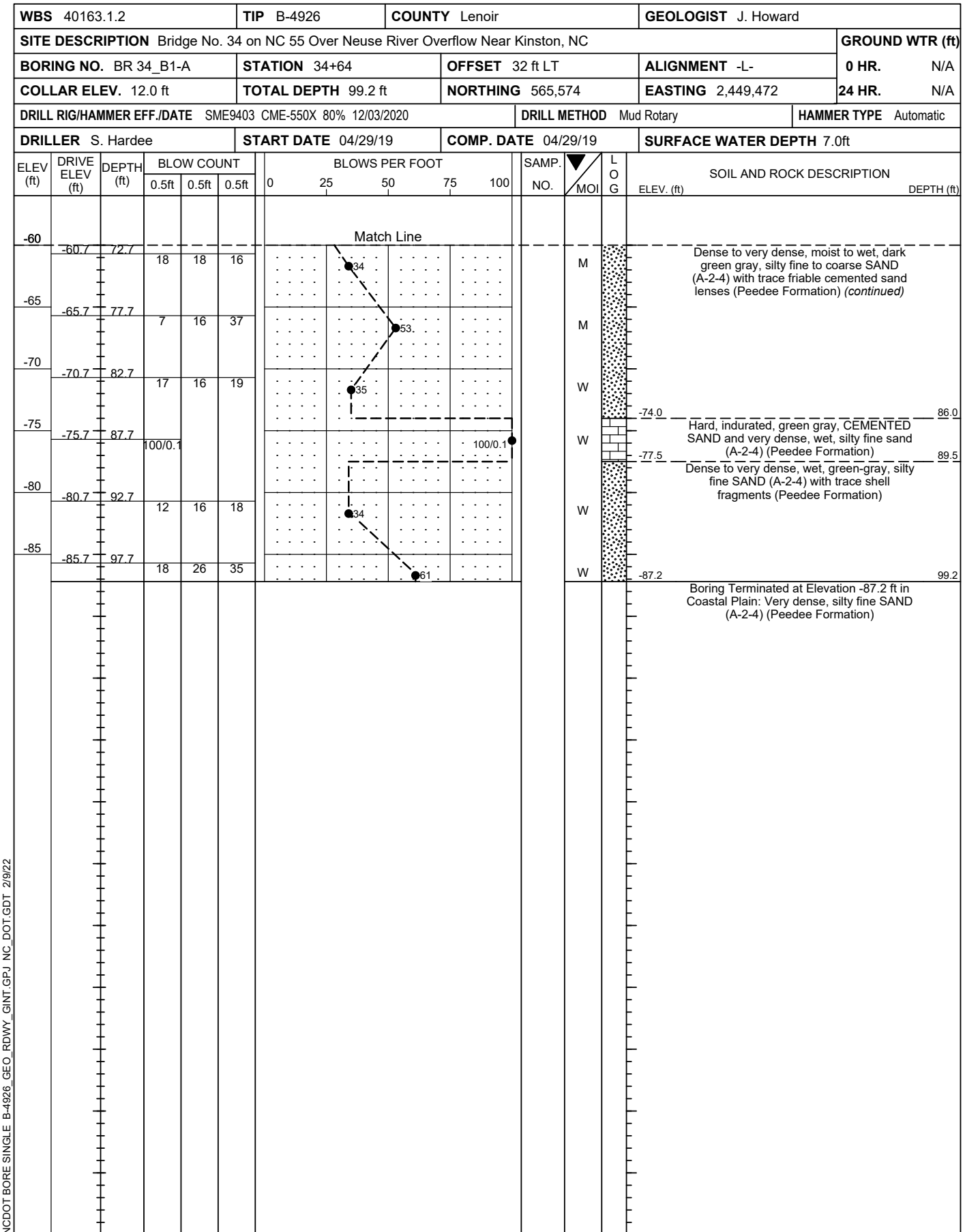
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GEOTECHNICAL BORING REPORT BORE LOG



NCDOT BORE SINGLE B-4926_GEO_RDWY_GINT.GPJ_NC_DOT.GDT 2/9/22

GEOTECHNICAL BORING REPORT BORE LOG



NCDOT BORE SINGLE B-4926_GEO_RDWY_GINT.GPJ_NC_DOT.GDT 2/9/22

GEOTECHNICAL BORING REPORT BORE LOG

WBS 40163.1.2		TIP B-4926		COUNTY Lenoir		GEOLOGIST J. Howard										
SITE DESCRIPTION Bridge No. 34 on NC 55 Over Neuse River Overflow Near Kinston, NC							GROUND WTR (ft)									
BORING NO. BR 34_B2-A		STATION 35+44		OFFSET 35 ft LT		ALIGNMENT -L-										
COLLAR ELEV. 13.1 ft		TOTAL DEPTH 97.5 ft		NORTHING 565,540		EASTING 2,449,545										
DRILL RIG/HAMMER EFF./DATE SME9403 CME-550X 80% 12/03/2020		DRILL METHOD Mud Rotary		HAMMER TYPE Automatic												
DRILLER S. Hardee		START DATE 04/25/19		COMP. DATE 04/25/19		SURFACE WATER DEPTH 6.0ft										
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)	
20																WATER SURFACE (04/25/19)
15	13.1	0.0														MUDLINE
10	10.3	2.8	WOH	WOH	WOH								W			ALLUVIAL Very soft to soft, wet, gray, sandy, silty CLAY (A-7-6) with trace organics
5	5.6	7.5	2	1	1								W			Soft, wet, gray, fine sandy, clayey SILT (A-4) with trace organics
0	0.6	12.5	2	3	5								M			COASTAL PLAIN Medium stiff to hard, dry to wet, dark gray, fine sandy, silty CLAY (A-6) with fine sand partings (Peedee Formation)
-5	-4.4	17.5	3	3	5								M			
-10	-9.4	22.5	11	18	19								D			
-15	-14.4	27.5	3	5	7								W			
-20	-19.4	32.5	4	19	19								M			Dense, wet, dark gray, silty fine SAND (A-2-4) (Peedee Formation)
-25	-24.4	37.5	4	7	8								M			Very stiff, moist, gray, fine sandy CLAY (A-6) (Peedee Formation)
-30	-29.4	42.5	12	17	26								M			Hard, wet, dark green-gray, glauconitic, fine sandy SILT (A-4) (Peedee Formation)
-35	-34.4	47.5	17	28	42								W			
-40	-39.4	52.5	17	24	38								W			
-45	-44.4	57.5	6	22	33								W			
-50	-49.4	62.5	15	23	15								W			
-55	-54.4	67.5	8	11	10								W			Medium dense, wet, dark green gray, clayey fine to coarse SAND (A-2-6) with trace cemented sand fragments (Peedee Formation)
-60	-59.4	72.5											W			

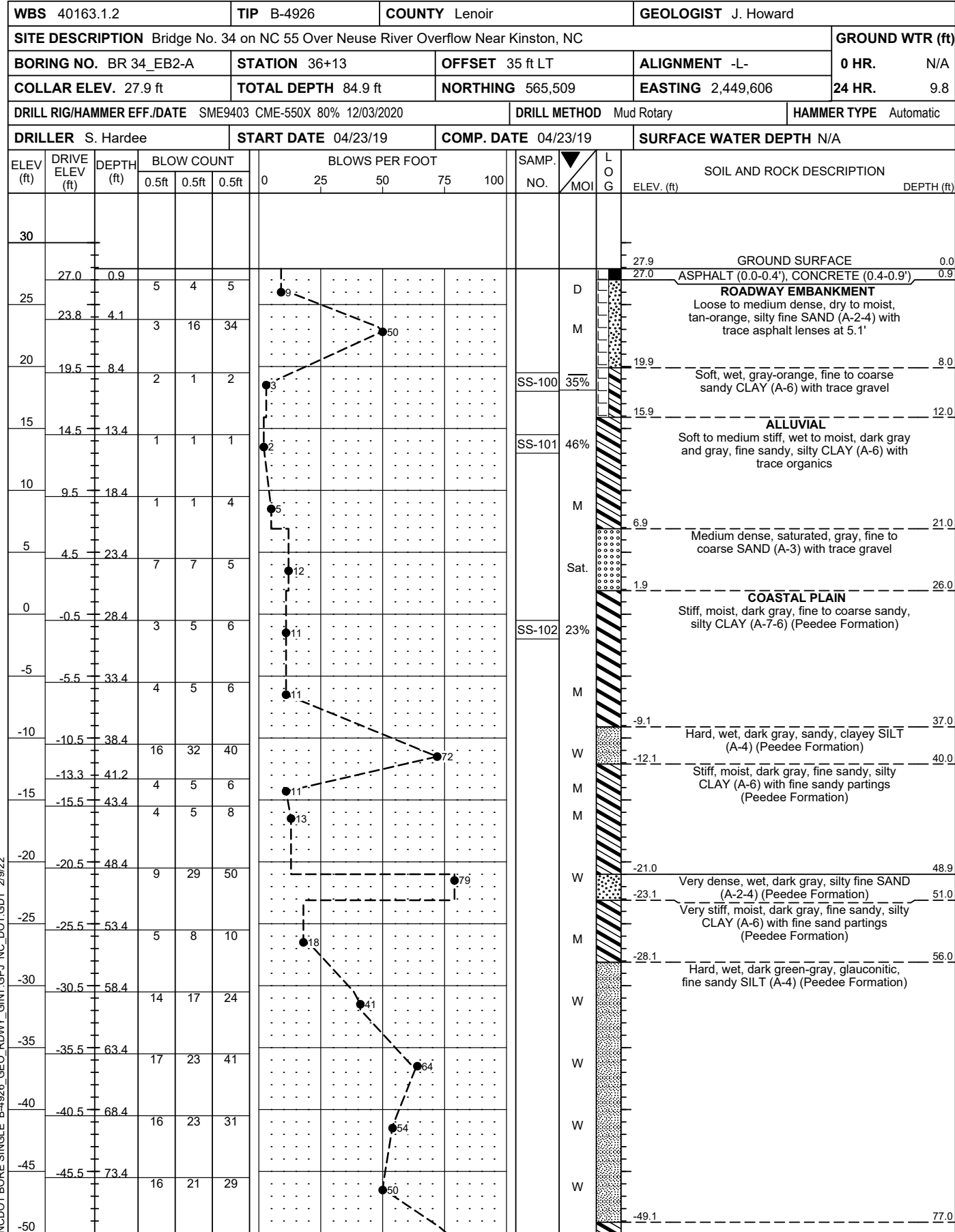
NCDOT BORE SINGLE B-4926 GEO_RDWY_GINT.GPJ_NC_DOT.GDT 2/9/22

GEOTECHNICAL BORING REPORT BORE LOG

WBS 40163.1.2		TIP B-4926		COUNTY Lenoir		GEOLOGIST J. Howard										
SITE DESCRIPTION Bridge No. 34 on NC 55 Over Neuse River Overflow Near Kinston, NC							GROUND WTR (ft)									
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COLLAR ELEV. 13.1 ft		TOTAL DEPTH 97.5 ft		NORTHING 565,540		EASTING 2,449,545										
DRILL RIG/HAMMER EFF./DATE SME9403 CME-550X 80% 12/03/2020		DRILL METHOD Mud Rotary		HAMMER TYPE Automatic												
DRILLER S. Hardee		START DATE 04/25/19		COMP. DATE 04/25/19		SURFACE WATER DEPTH 6.0ft										
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)	
-60																Match Line
-65	-64.4	77.5	7	10	12											Medium dense to very dense, wet, dark green-gray, silty fine to coarse SAND (A-2-4) with trace friable to indurated CEMENTED SAND lenses (Peedee Formation) (continued)
-70	-69.4	82.5	22	78/0.3												Hard, indurated, green-gray, CEMENTED SAND (Peedee Formation)
-75	-74.4	87.5	60/0.1													Medium dense, wet, dark green-gray, silty fine to coarse SAND (A-2-4) with trace friable to indurated CEMENTED SAND lenses (Peedee Formation)
-80	-79.4	92.5	10	15	19											Hard, indurated, green-gray, CEMENTED SAND and dense, wet, silty fine SAND (A-2-4) (Peedee Formation)
																Dense, wet, dark green-gray, silty fine to coarse SAND (A-2-4) with trace friable to indurated CEMENTED SAND lenses (Peedee Formation)
	-84.4	97.5	60/0.0													Hard, indurated, green-gray, CEMENTED SAND and dense, wet, silty fine SAND (A-2-4) (Peedee Formation)
																Boring Terminated with Standard Penetration Test Refusal at Elevation -84.4 ft in Coastal Plain: Hard, indurated, CEMENTED SAND (Peedee Formation)

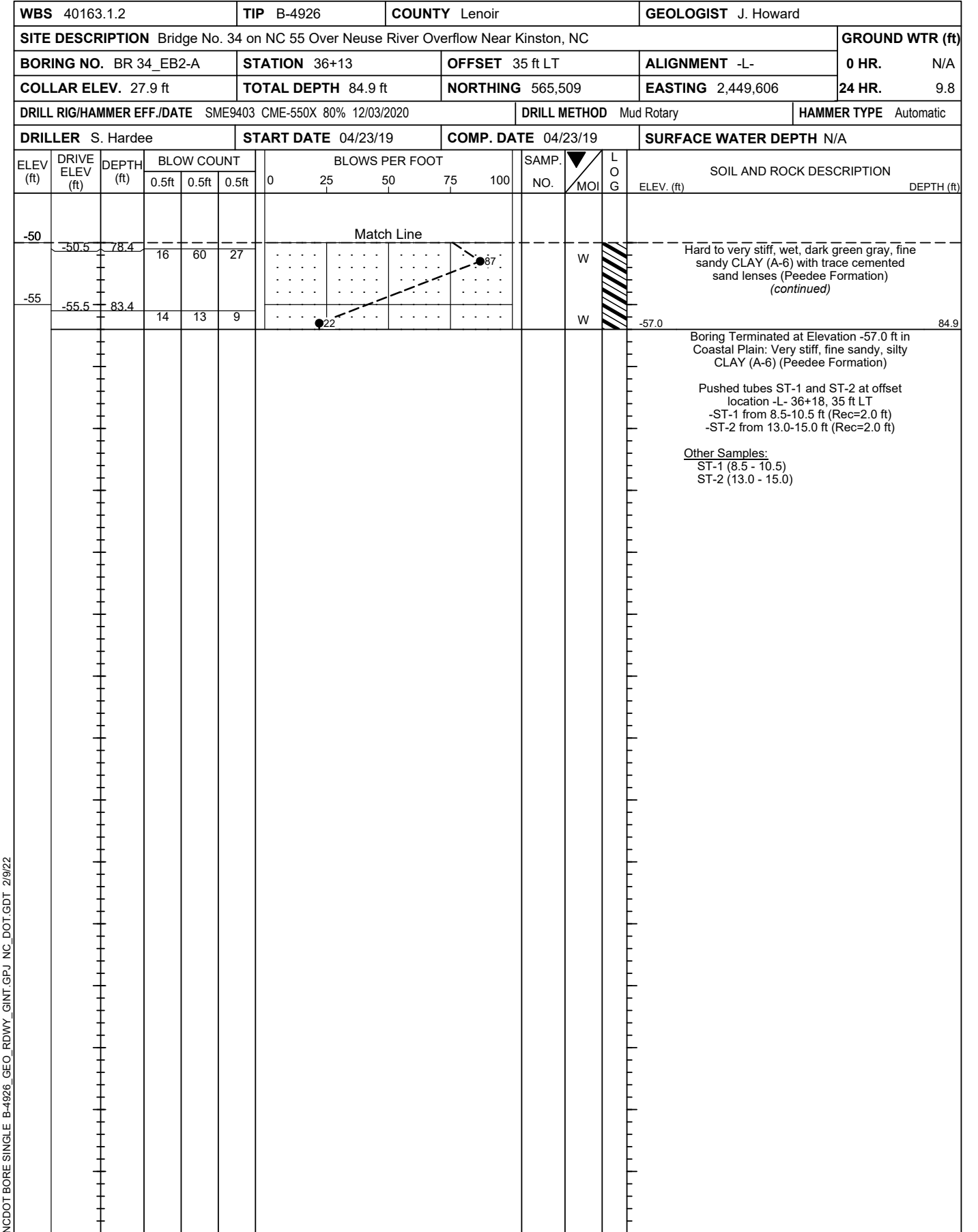
NCDOT BORE SINGLE B-4926 GEO_RDWY_GINT.GPJ_NC_DOT.GDT 2/9/22

**GEOTECHNICAL BORING REPORT
BORE LOG**



NCDOT BORE SINGLE B-4926 GEO_RDWY_GINT.GPJ_NC_DOT.GDT 2/9/22

**GEOTECHNICAL BORING REPORT
BORE LOG**



NCDOT BORE SINGLE B-4926 GEO_RDWY_GINT.GPJ_NC_DOT.GDT 2/9/22

Wood E&IS Project No.: 6468-19-9027

Bridge No. 34 on NC 55 (-L-) Over the Neuse River Overflow at -L- Sta. 35+00

Date Reported: July 2019

NCDOT WBS No.: 40163.1.2

Tip No.: B-4926

County: LENOIR

Date Tested: June 2019

SOIL TEST RESULTS

SAMPLE NO.	STATION	OFFSET	LINE	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
								C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-103	33+89	33' LT	-L-	13.4-14.9'	A-6(12)	35	19	7.8	18.4	36.3	37.4	99.9	95.7	74.8	30.3	-
SS-100	36+13	35' LT	-L-	8.4-9.9'	A-6(12)	37	22	27.5	6.8	33.7	31.4	99.4	77.1	65.6	35.2	-
SS-101	36+13	35' LT	-L-	13.4-14.9'	A-6(8)	30	14	2.1	25.1	37.9	34.9	100.0	99.6	74.2	45.5	-
SS-102	36+13	35' LT	-L-	28.4-29.9'	A-7-6(20)	41	26	12.6	7.5	49.4	30.3	99.8	91.3	80.8	23.4	-

ND = NOT DETERMINED
 NV = NO VALUE
 NP = NON-PLASTIC



Signature

115-01-0504

Certification #

Albert Romero

Print Name

SITE PHOTOGRAPH

