

REFERENCE: I-5987A

PROJECT: 47533

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

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY ROBESON
PROJECT DESCRIPTION I-95 IMPROVEMENTS FROM SOUTH OF US 301 (EXIT 22) TO NORTH OF SR 1758 (McDUFFIE CROSSING ROAD)
SITE DESCRIPTION SITE 3 - ABUTMENT RETAINING WALLS AT END BENT 1 AND END BENT 2 OF BRIDGE ON -Y3- (SR 1758 McDUFFIE CROSSING ROAD) OVER -L- (I-95) AT -Y3- STA. 30+04.11

CONTENTS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	LEGEND (SOIL & ROCK)
3	SITE PLAN
4 - 5	PROFILES
6 - 12	BORE LOGS
13	SOIL TEST RESULTS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5987A	1	13

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

<u>DEGON, A. N.</u>	<u>FARMER, B. C.</u>
<u>DUGGINS, W. T.</u>	<u>TURNAGE, J. R.</u>
<u>TANNER, M. L.</u>	<u>KELLY, N. S.</u>
<u>PESI, W. (F&R)</u>	<u>DAVIS, S. (F&R)</u>

INVESTIGATED BY TERRACON CONSULTANTS
 DRAWN BY FIELDS, W. D.
 CHECKED BY RIGGS, Jr., A. F.
 SUBMITTED BY ALEXANDER, M. J.
 DATE JANUARY 2022

Prepared in the Office of:



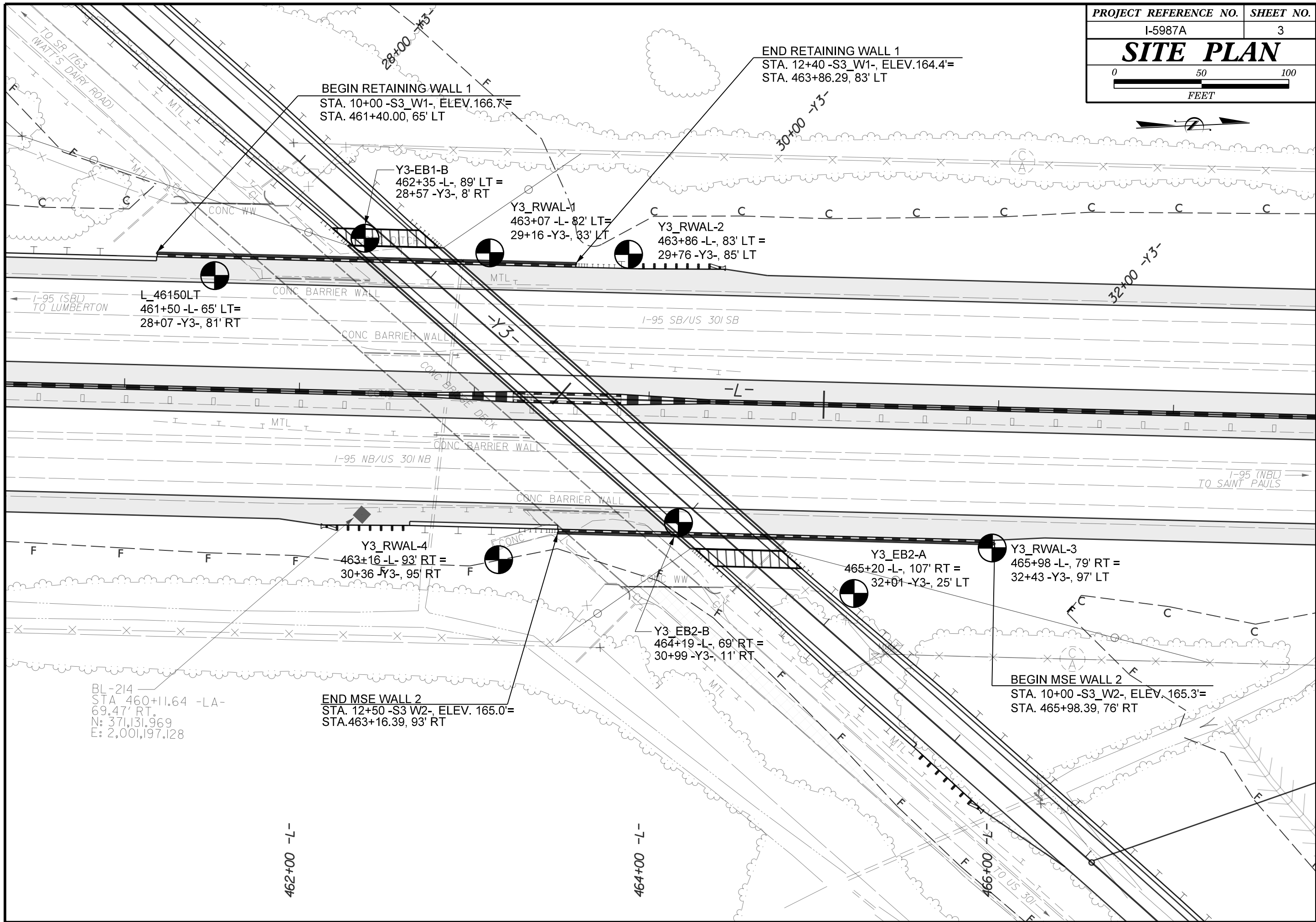
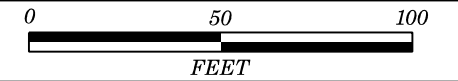
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 Matt Alexander 01/28/2022
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 SIGNATURE DATE

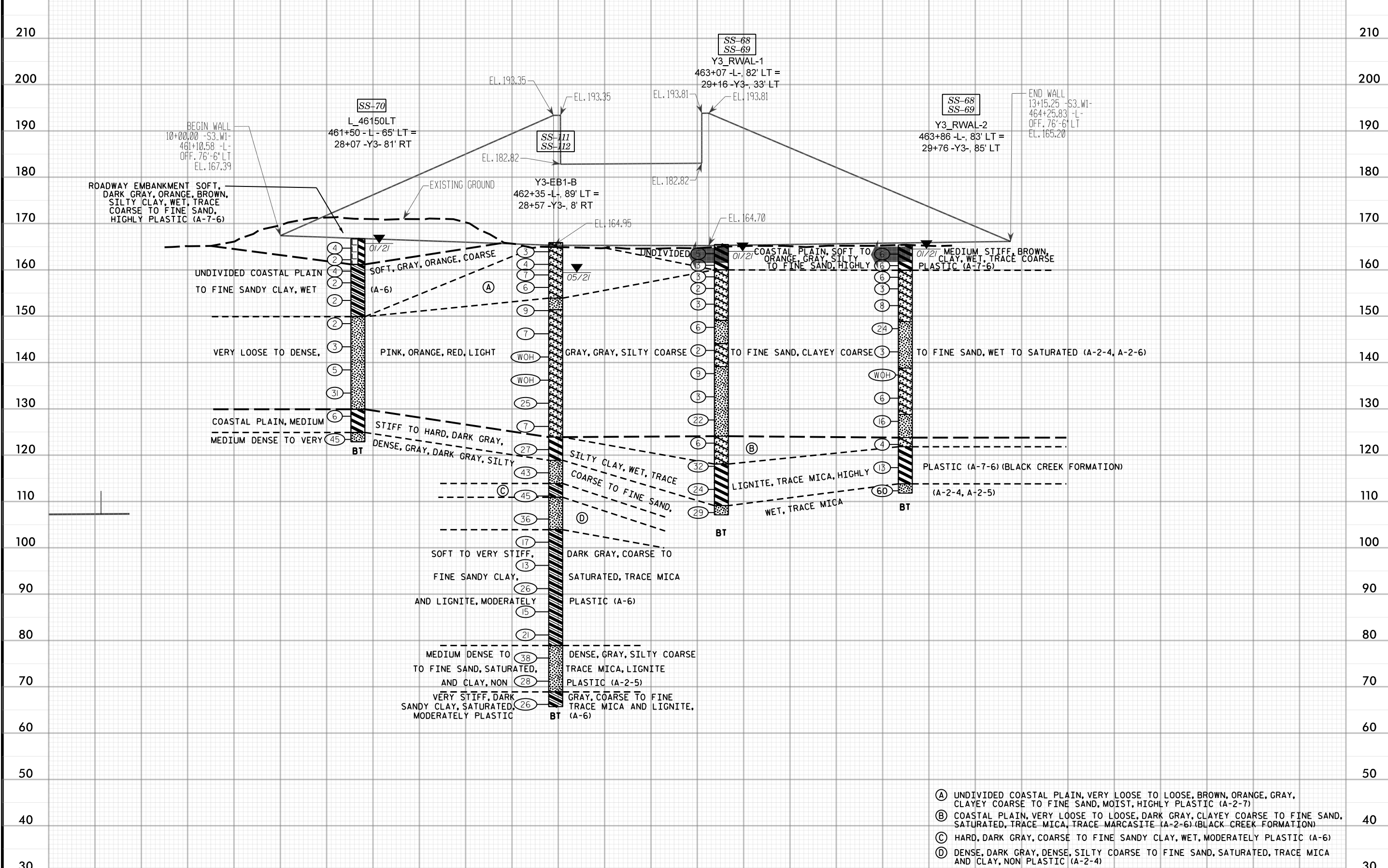
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

Table with columns: SOIL DESCRIPTION, GRADATION, ROCK DESCRIPTION, 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, COLOR, MISCELLANEOUS SYMBOLS, RECOMMENDATION SYMBOLS, ABBREVIATIONS, EQUIPMENT USED ON SUBJECT PROJECT, FRACTURE SPACING, BEDDING, INDOURATION.

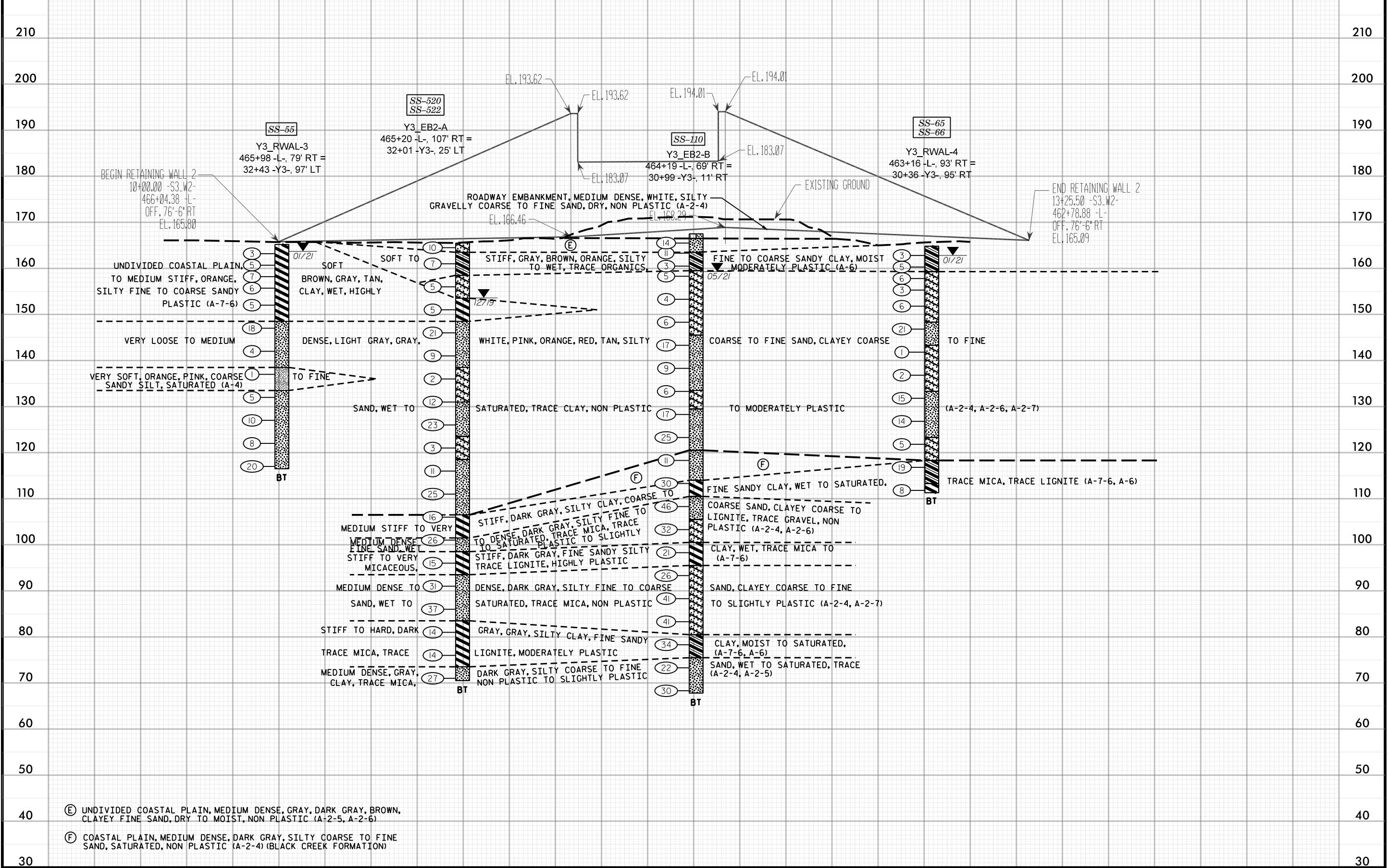
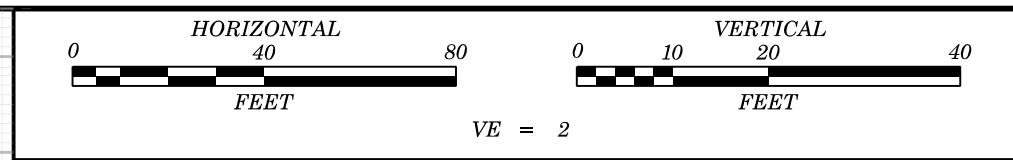
SITE PLAN





- (A) UNDIVIDED COASTAL PLAIN, VERY LOOSE TO LOOSE, BROWN, ORANGE, GRAY, CLAYEY COARSE TO FINE SAND, MOIST, HIGHLY PLASTIC (A-2-7)
- (B) COASTAL PLAIN, VERY LOOSE TO LOOSE, DARK GRAY, CLAYEY COARSE TO FINE SAND, SATURATED, TRACE MICA, TRACE MARCASITE (A-2-6) (BLACK CREEK FORMATION)
- (C) HARD, DARK GRAY, COARSE TO FINE SANDY CLAY, WET, MODERATELY PLASTIC (A-6)
- (D) DENSE, DARK GRAY, DENSE, SILTY COARSE TO FINE SAND, SATURATED, TRACE MICA AND CLAY, NON PLASTIC (A-2-4)

NOTE: INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ON TO THE EXISTING GROUND PROFILE ALONG THE CENTERLINE OF -S3_W2- TAKEN FROM THE PROVIDED PROJECT TIN FILE (i5987_ls_tin1.tin).



WBS 47533.1.2	TIP I-5987A	COUNTY ROBESON	GEOLOGIST FARMER, B. C.
SITE DESCRIPTION SITE 3 - ABUTMENT RET. WALLS AT EB1 AND EB2 OF BRIDGE ON -Y3- OVER -L- AT -Y3- STA. 30+40.11			GROUND WTR (ft)
BORING NO. L_46150LT	STATION 461+50	OFFSET 65 ft LT	ALIGNMENT -L-
COLLAR ELEV. 166.7 ft	TOTAL DEPTH 43.8 ft	NORTHING 371,055	EASTING 2,001,044
DRILL RIG/HAMMER EFF./DATE TER92-0 ACKER RENEGADE 86% 02/15/2019		DRILL METHOD Mud Rotary	HAMMER TYPE Automatic
DRILLER DUGGINS, W. T.	START DATE 01/22/21	COMP. DATE 01/22/21	SURFACE WATER DEPTH N/A

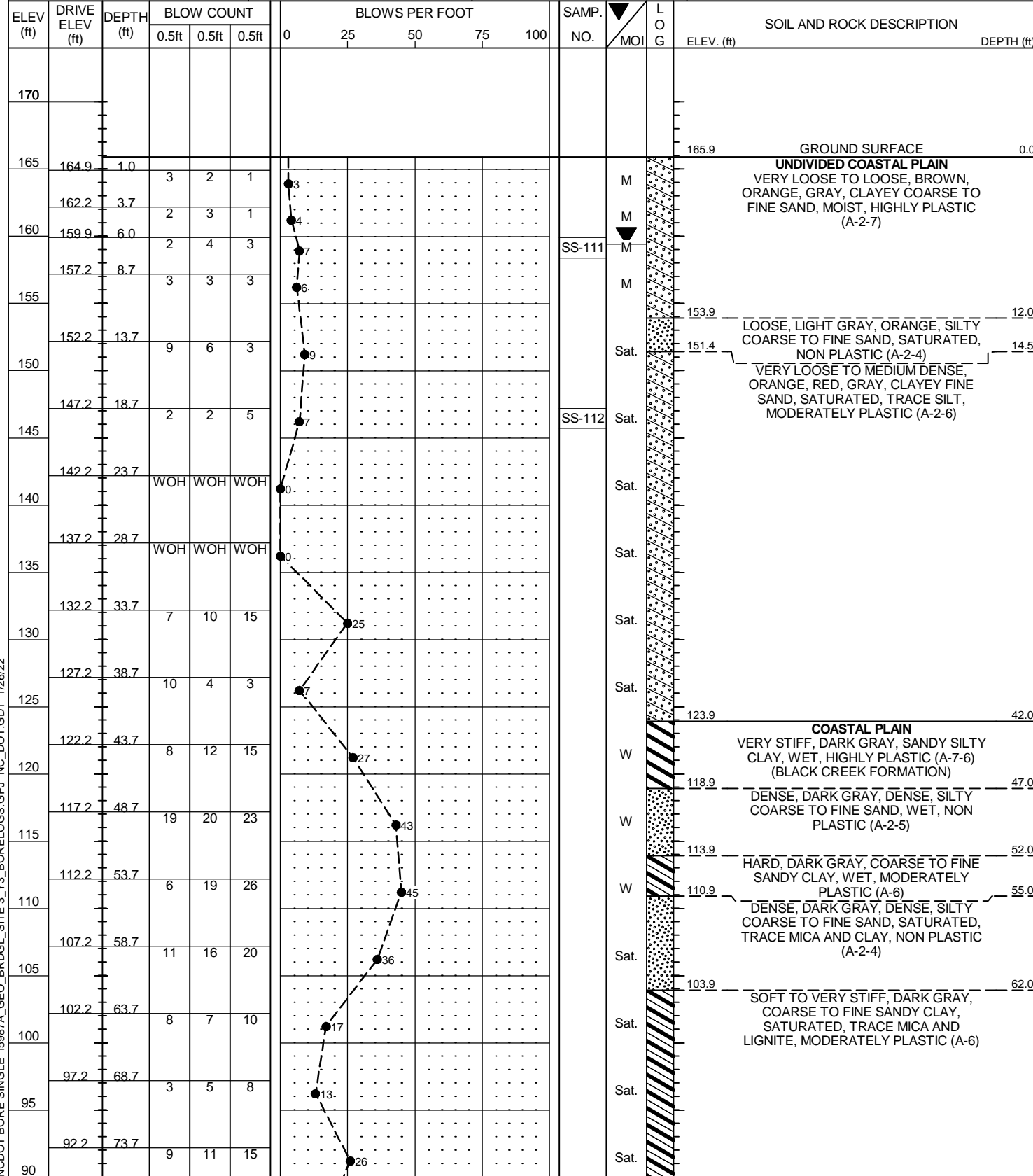
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					
170															
														166.7	0.0
165	165.7	1.0				1	2	2							
	163.2	3.5				WOH	WOH	2							
160	160.7	6.0				2	3	1						161.2	5.5
	158.2	8.5				1	1	1							
155	154.4	12.3				1	1	1							
150	149.4	17.3												149.9	16.8
	144.4	22.3				WOH	1	1							
145	144.4	22.3				2	2	1							
140	139.4	27.3				4	3	2							
135	134.4	32.3				9	16	15							
130	129.4	37.3				2	2	4						129.9	36.8
	124.4	42.3				12	19	26						124.9	41.8
														122.9	43.8

NCDOT BORE SINGLE I5987A_GEO_BRDGL_SITE 3_Y3_BORELOGS.GPJ NC_DOT.GDT 1/26/22

Boring Terminated at Elevation 122.9 ft IN COASTAL PLAIN SILTY SAND (BLACK CREEK FORMATION)
STA. 28+07 -Y3-; 81' RT

GEOTECHNICAL BORING REPORT
BORE LOG

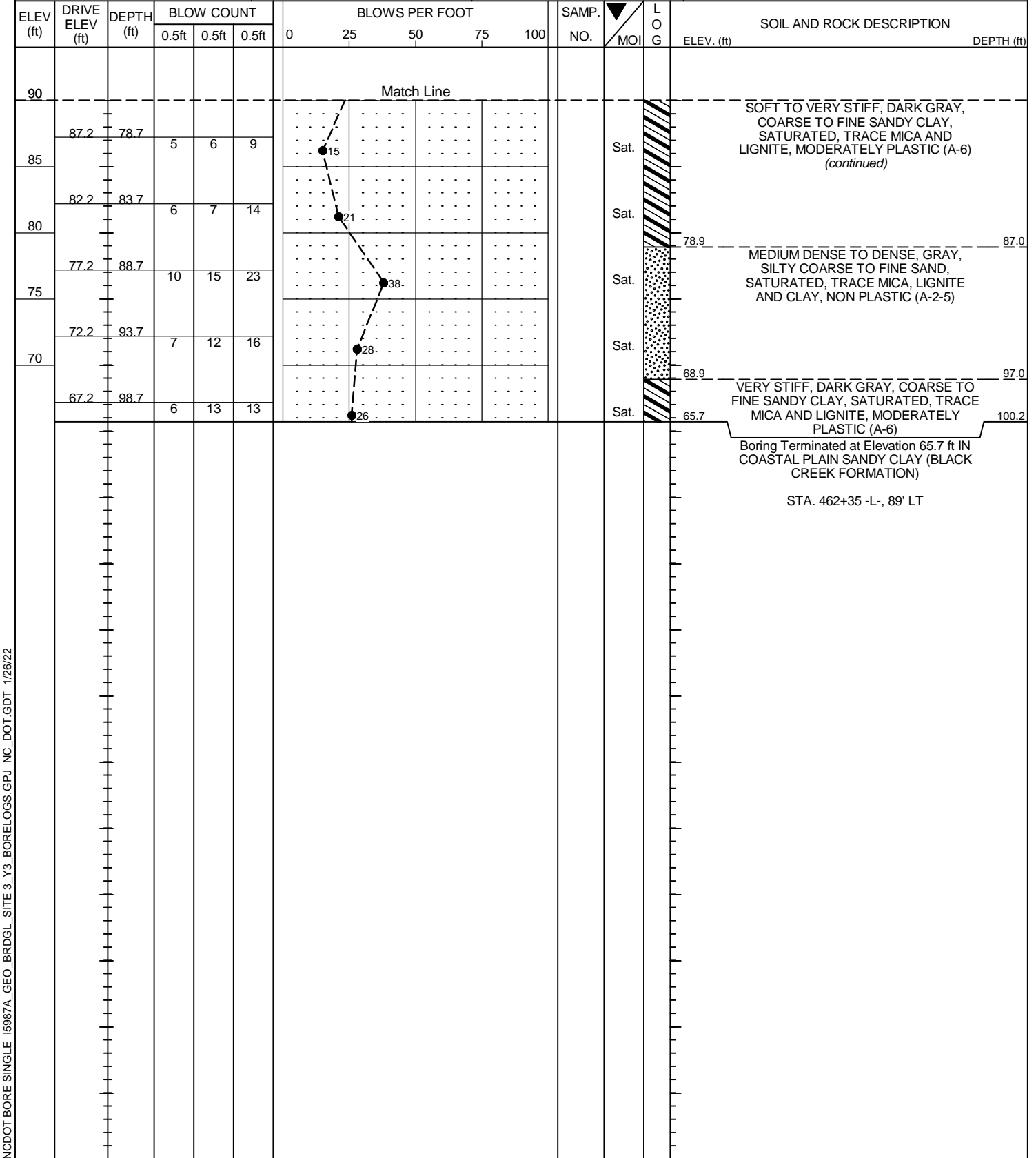
WBS 47533.1.2	TIP I-5987A	COUNTY ROBESON	GEOLOGIST DEGON, A. N.
SITE DESCRIPTION SITE 3 - ABUTMENT RET. WALLS AT EB1 AND EB2 OF BRIDGE ON -Y3- OVER -L- AT -Y3- STA. 30+40.11			GROUND WTR (ft)
BORING NO. Y3-EB1-B	STATION 28+57	OFFSET 8 ft RT	ALIGNMENT -Y3-
COLLAR ELEV. 165.9 ft	TOTAL DEPTH 100.2 ft	NORTHING 371,141	EASTING 2,001,040
DRILL RIG/HAMMER EFF./DATE TER299 DIEDRICH D-50 79% 12/31/2020		DRILL METHOD Mud Rotary	HAMMER TYPE Automatic
DRILLER TURNAGE, J. R.	START DATE 05/10/21	COMP. DATE 05/11/21	SURFACE WATER DEPTH N/A



NCDOT BORE SINGLE I5987A_GEO_BRDGL_SITE 3_Y3_BORELOGS.GPJ_NC_DOT.GDT 1/26/22

GEOTECHNICAL BORING REPORT
BORE LOG

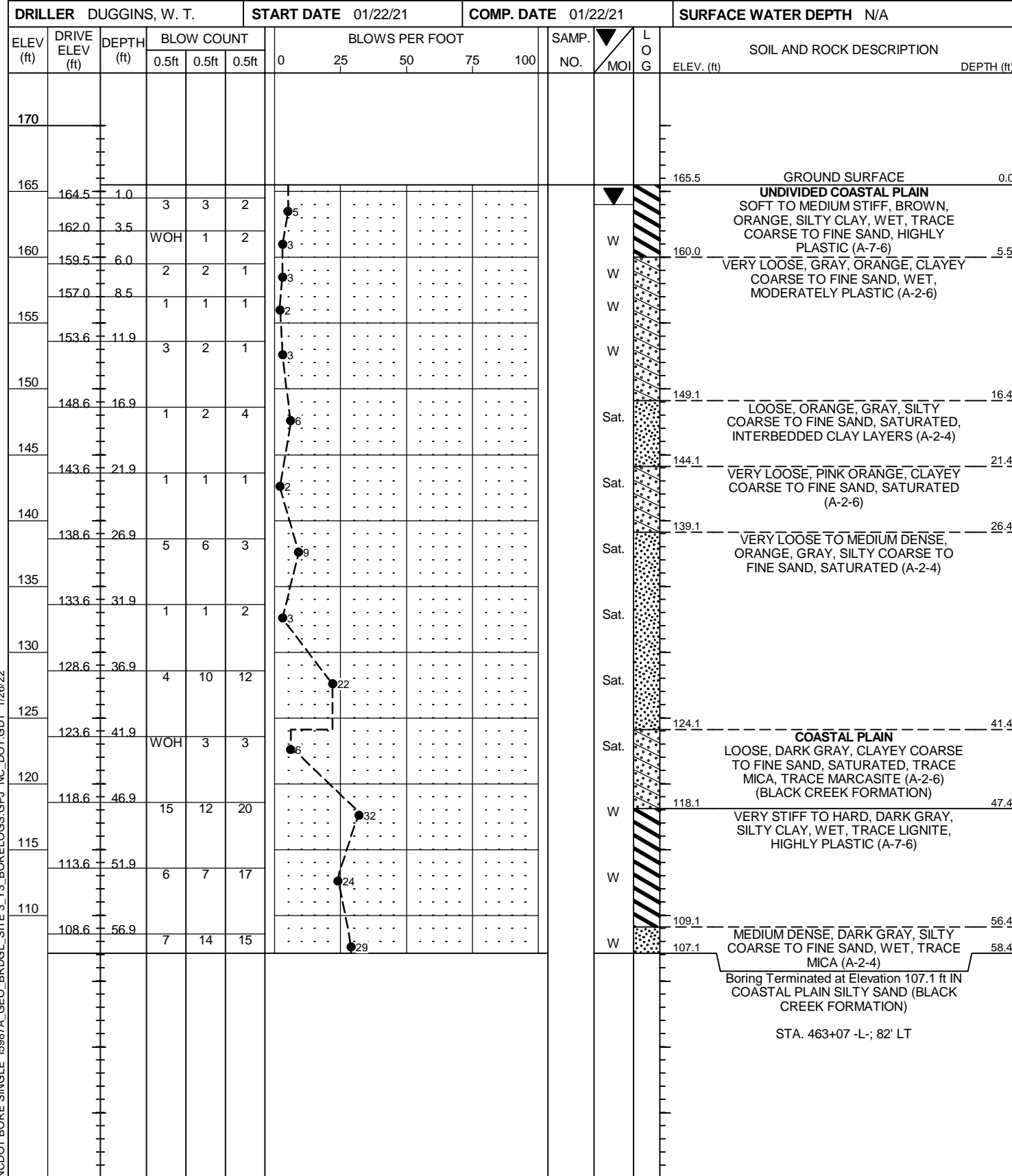
WBS 47533.1.2	TIP I-5987A	COUNTY ROBESON	GEOLOGIST DEGON, A. N.
SITE DESCRIPTION SITE 3 - ABUTMENT RET. WALLS AT EB1 AND EB2 OF BRIDGE ON -Y3- OVER -L- AT -Y3- STA. 30+40.11			GROUND WTR (ft)
BORING NO. Y3-EB1-B	STATION 28+57	OFFSET 8 ft RT	ALIGNMENT -Y3-
COLLAR ELEV. 165.9 ft	TOTAL DEPTH 100.2 ft	NORTHING 371,141	EASTING 2,001,040
DRILL RIG/HAMMER EFF./DATE TER299 DIEDRICH D-50 79% 12/31/2020		DRILL METHOD Mud Rotary	HAMMER TYPE Automatic
DRILLER TURNAGE, J. R.	START DATE 05/10/21	COMP. DATE 05/11/21	SURFACE WATER DEPTH N/A



NCDOT BORE SINGLE I5987A_GEO_BRDGL_SITE 3_Y3_BORELOGS.GPJ_NC_DOT.GDT 1/26/22

GEOTECHNICAL BORING REPORT
BORE LOG

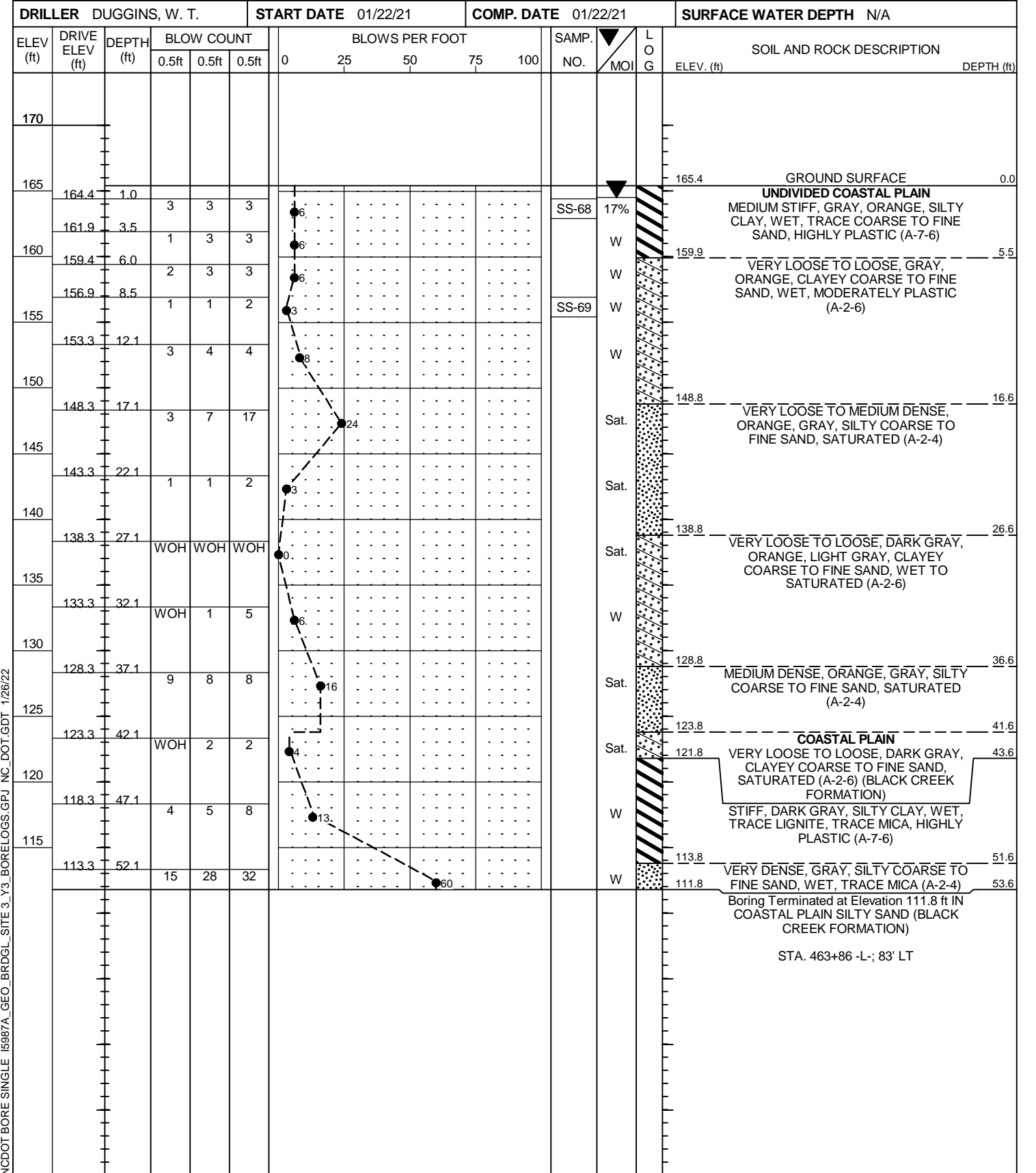
WBS 47533.1.2	TIP I-5987A	COUNTY ROBESON	GEOLOGIST FARMER, B. C.
SITE DESCRIPTION SITE 3 - ABUTMENT RET. WALLS AT EB1 AND EB2 OF BRIDGE ON -Y3- OVER -L- AT -Y3- STA. 30+40.11			GROUND WTR (ft)
BORING NO. Y3_RWAL-1	STATION 29+16	OFFSET 33 ft LT	ALIGNMENT -Y3-
COLLAR ELEV. 165.5 ft	TOTAL DEPTH 58.4 ft	NORTHING 371,212	EASTING 2,001,051
DRILL RIG/HAMMER EFF./DATE TER92-0 ACKER RENEGADE 86% 02/15/2019		DRILL METHOD Mud Rotary	HAMMER TYPE Automatic
DRILLER DUGGINS, W. T.	START DATE 01/22/21	COMP. DATE 01/22/21	SURFACE WATER DEPTH N/A



NCDOT BORE SINGLE I5987A_GEO_BRDGL_SITE 3_Y3_BORELOGS.GPJ_NC_DOT.GDT 1/26/22

GEOTECHNICAL BORING REPORT
BORE LOG

WBS 47533.1.2	TIP I-5987A	COUNTY ROBESON	GEOLOGIST FARMER, B. C.
SITE DESCRIPTION SITE 3 - ABUTMENT RET. WALLS AT EB1 AND EB2 OF BRIDGE ON -Y3- OVER -L- AT -Y3- STA. 30+40.11			GROUND WTR (ft)
BORING NO. Y3_RWAL-2	STATION 29+76	OFFSET 85 ft LT	ALIGNMENT -Y3-
COLLAR ELEV. 165.4 ft	TOTAL DEPTH 53.6 ft	NORTHING 371,291	EASTING 2,001,055
DRILL RIG/HAMMER EFF./DATE TER92-0 ACKER RENEGADE 86% 02/15/2019		DRILL METHOD Mud Rotary	HAMMER TYPE Automatic
DRILLER DUGGINS, W. T.	START DATE 01/22/21	COMP. DATE 01/22/21	SURFACE WATER DEPTH N/A



NCDOT BORE SINGLE I5987A_GEO_BRDGL_SITE 3_Y3_BORELOGS.GPJ_NC_DOT.GDT 1/26/22

WBS 47533.1.2	TIP I-5987A	COUNTY ROBESON	GEOLOGIST FARMER, B. C.
SITE DESCRIPTION SITE 3 - ABUTMENT RET. WALLS AT EB1 AND EB2 OF BRIDGE ON -Y3- OVER -L- AT -Y3- STA. 30+40.11			GROUND WTR (ft)
BORING NO. Y3_RWAL-3	STATION 32+43	OFFSET 97 ft LT	ALIGNMENT -Y3-
COLLAR ELEV. 165.2 ft	TOTAL DEPTH 48.7 ft	NORTHING 371,491	EASTING 2,001,233
DRILL RIG/HAMMER EFF./DATE TER92-0 ACKER RENEGADE 86% 02/15/2019		DRILL METHOD Mud Rotary	HAMMER TYPE Automatic
DRILLER DUGGINS, W. T.	START DATE 01/21/21	COMP. DATE 01/21/21	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	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
170																
165	164.2	1.0													165.2	GROUND SURFACE
	161.7	3.5	2	2	1	3										UNDIVIDED COASTAL PLAIN SOFT TO MEDIUM STIFF, ORANGE, BROWN, GRAY, SILTY CLAY, WET, HIGHLY PLASTIC (A-7-6)
160	159.2	6.0	2	3	4											
	156.7	8.5	2	3	3											
155	153.0	12.2	1	2	3											
150	148.0	17.2	3	8	10										148.5	LOOSE TO MEDIUM DENSE, ORANGE, TAN, RED, SILTY COARSE TO FINE SAND, SATURATED (A-2-4)
145	143.0	22.2	1	1	3											INTERBEDDED CLAY LAYERS
140	138.0	27.2	1	0	1										138.5	VERY SOFT, ORANGE, PINK, COARSE TO FINE SANDY SILT, SATURATED (A-4)
135	133.0	32.2	1	2	3										133.5	LOOSE TO MEDIUM DENSE, ORANGE, GRAY, WHITE, SILTY COARSE TO FINE SAND, SATURATED (A-2-4)
130	128.0	37.2	2	2	8											
125	123.0	42.2	3	4	4											
120	118.0	47.2	6	8	12										116.5	Boring Terminated at Elevation 116.5 ft IN UNDIVIDED COASTAL PLAIN SANDY CLAY STA. 465+98 -L-; 79' RT

NCDOT BORE SINGLE I5987A_GEO_BRDGL_SITE 3_Y3_BORELOGS.GPJ NC_DOT.GDT 1/26/22

GEOTECHNICAL BORING REPORT BORE LOG

WBS 47533.1.2		TIP I-5987A		COUNTY ROBESON		GEOLOGIST W. Pesl										
SITE DESCRIPTION SITE 3 - ABUTMENT RET. WALLS AT EB1 AND EB2 OF BRIDGE ON -Y3- OVER -L- AT -Y3- STA. 30+40.11							GROUND WTR (ft)									
BORING NO. Y3_EB2-A		STATION 32+01		OFFSET 25 ft LT		ALIGNMENT -Y3-										
COLLAR ELEV. 165.5 ft		TOTAL DEPTH 95.0 ft		NORTHING 371,411		EASTING 2,001,255										
DRILL RIG/HAMMER EFF./DATE F&R2175 CME-55 84% 03/01/2019		DRILL METHOD Mud Rotary		HAMMER TYPE Automatic												
DRILLER S. Davis		START DATE 12/05/19		COMP. DATE 12/05/19		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	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
170																
165	165.5	0.0	2	3	7										165.5	GROUND SURFACE
163.5															163.5	UNDIVIDED COASTAL PLAIN LOOSE, BROWN-GRAY, SILTY CLAYEY FINE TO COARSE SAND, MOIST, TRACE ORGANICS (A-2-6)
160	162.0	3.5	2	3	4										158.5	MEDIUM STIFF, GRAY-BROWN-ORANGE, SILTY FINE TO COARSE SANDY CLAY, MOIST, TRACE ORGANICS, MODERATELY PLASTIC (A-6)
155	157.0	8.5	2	2	3										153.5	LOOSE, GRAY-TAN, SILTY CLAYEY FINE TO COARSE SAND, WET (A-2-6)
150	152.0	13.5	2	2	3										148.5	MEDIUM STIFF, GRAY-TAN, SILTY FINE TO COARSE SANDY CLAY, WET, HIGHLY PLASTIC (A-7-6)
145	147.0	18.5	9	8	13										142.0	LOOSE TO MEDIUM DENSE, RED-BROWN-GRAY, SILTY FINE SAND, WET TO SATURATED (A-2-4)
140	142.0	23.5	5	4	5										138.5	VERY LOOSE TO MEDIUM DENSE, ORANGE-TAN-GRAY, SILTY CLAYEY FINE SAND, SATURATED (A-2-6)
135	137.0	28.5	2	1	1										131.0	MEDIUM DENSE, BROWN-GRAY, SILTY FINE TO COARSE SAND, WET (A-2-4)
130	132.0	33.5	2	3	9										123.5	VERY LOOSE, ORANGE-TAN-GRAY, SILTY CLAYEY FINE TO COARSE SAND, SATURATED (A-2-6)
125	127.0	38.5	5	10	13										118.5	MEDIUM DENSE, ORANGE-BROWN-GRAY, SILTY FINE TO COARSE SAND, WET, TRACE CLAY (A-2-4)
120	122.0	43.5	2	2	1										106.5	COASTAL PLAIN VERY STIFF, DARK GRAY, SILTY CLAY, WET, TRACE MICA AND LIGNITE (A-7-6) (BLACK CREEK FORMATION)
115	117.0	48.5	3	5	6										101.5	MEDIUM DENSE, DARK GRAY, SILTY FINE TO COARSE SAND, WET, TRACE MICA, CLAY, AND GRAVEL (A-2-4)
110	112.0	53.5	5	9	16										98.5	STIFF TO VERY STIFF, DARK GRAY, FINE SANDY SILTY CLAY, WET, MICACEOUS (A-7-6)
105	107.0	58.5	12	7	9										93.5	DENSE, DARK GRAY, SILTY FINE TO COARSE SAND, WET, TRACE MICA AND CLAY (A-2-4)
100	102.0	63.5	8	13	13											
95	97.0	68.5	5	6	9											
90	92.0	73.5	9	13	18											

NCDOT BORE SINGLE I5987A_GEO_BRDGL_SITE 3_Y3_BORELOGS.GPJ_NC_DOT.GDT 1/26/22

GEOTECHNICAL BORING REPORT BORE LOG

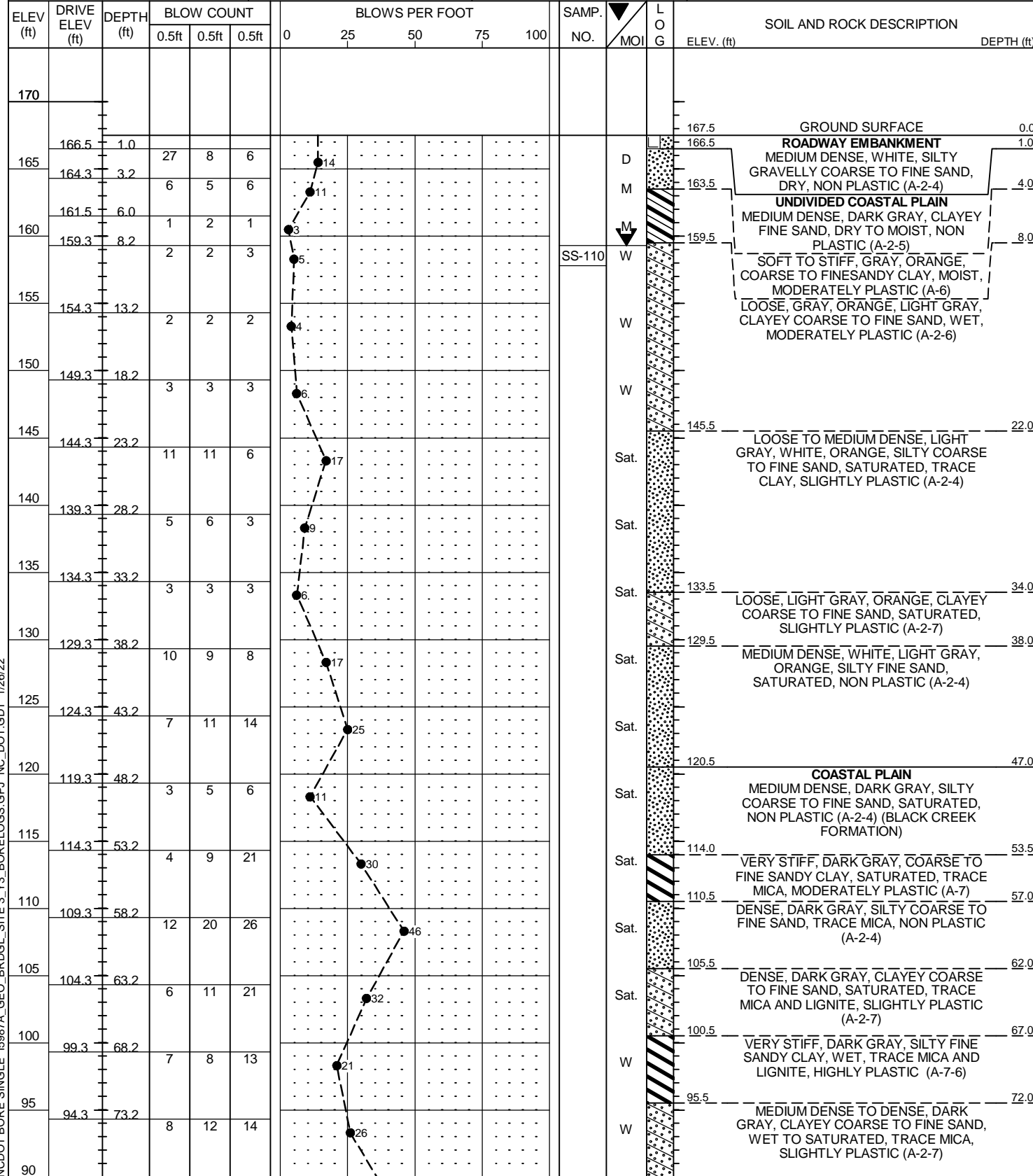
WBS 47533.1.2		TIP I-5987A		COUNTY ROBESON		GEOLOGIST W. Pesl										
SITE DESCRIPTION SITE 3 - ABUTMENT RET. WALLS AT EB1 AND EB2 OF BRIDGE ON -Y3- OVER -L- AT -Y3- STA. 30+40.11							GROUND WTR (ft)									
BORING NO. Y3_EB2-A		STATION 32+01		OFFSET 25 ft LT		ALIGNMENT -Y3-										
COLLAR ELEV. 165.5 ft		TOTAL DEPTH 95.0 ft		NORTHING 371,411		EASTING 2,001,255										
DRILL RIG/HAMMER EFF./DATE F&R2175 CME-55 84% 03/01/2019		DRILL METHOD Mud Rotary		HAMMER TYPE Automatic												
DRILLER S. Davis		START DATE 12/05/19		COMP. DATE 12/05/19		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	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
90																
85	87.0	78.5	11	21	16										83.5	DENSE, DARK GRAY, SILTY FINE TO COARSE SAND, WET, TRACE MICA AND CLAY (A-2-4) (continued)
80	82.0	83.5	5	6	8										73.5	STIFF, DARK GRAY-GRAY, SILTY CLAY, MOIST, TRACE MICA (A-7-6)
75	77.0	88.5	4	6	8										70.5	MEDIUM DENSE, DARK GRAY-GRAY, SILTY FINE TO COARSE SAND, WET, TRACE CLAY (A-2-4)
	72.0	93.5	12	11	16										70.5	Boring Terminated at Elevation 70.5 ft in SAND (COASTAL PLAIN) (BLACK CREEK FORMATION)

NCDOT BORE SINGLE I5987A_GEO_BRDGL_SITE 3_Y3_BORELOGS.GPJ_NC_DOT.GDT 1/26/22

Notes:
1. Surficial Organic Soil: 0.0-0.2'
STA. 465+20 -L-; 107' RT

GEOTECHNICAL BORING REPORT
BORE LOG

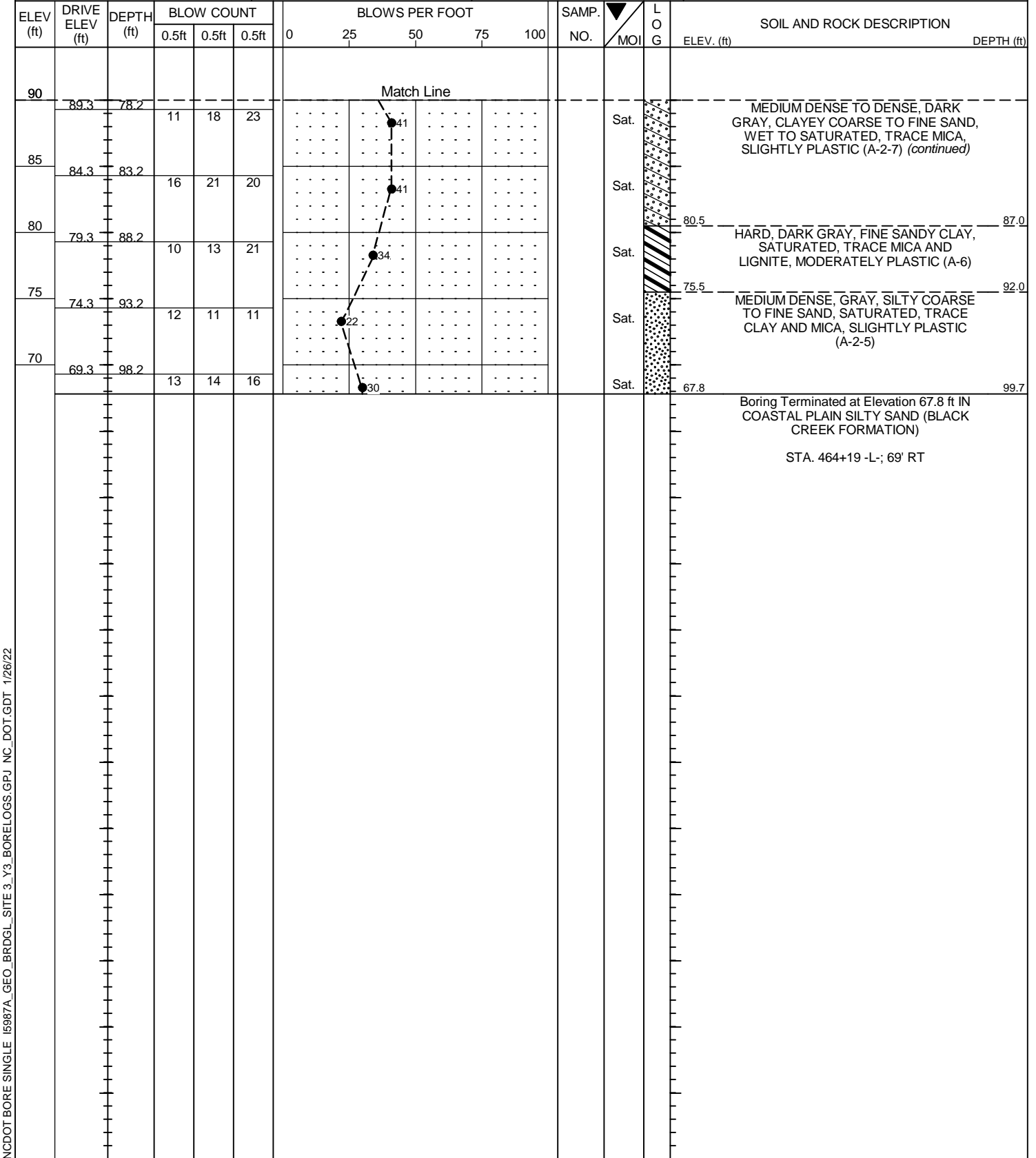
WBS 47533.1.2	TIP I-5987A	COUNTY ROBESON	GEOLOGIST DEGON, A. N.
SITE DESCRIPTION SITE 3 - ABUTMENT RET. WALLS AT EB1 AND EB2 OF BRIDGE ON -Y3- OVER -L- AT -Y3- STA. 30+40.11			GROUND WTR (ft)
BORING NO. Y3_EB2-B	STATION 30+99	OFFSET 11 ft RT	ALIGNMENT -Y3-
COLLAR ELEV. 167.5 ft	TOTAL DEPTH 99.7 ft	NORTHING 371,312	EASTING 2,001,210
DRILL RIG/HAMMER EFF./DATE TER299 DIEDRICH D-50 79% 12/31/2020		DRILL METHOD Mud Rotary	HAMMER TYPE Automatic
DRILLER TURNAGE, J. R.	START DATE 05/10/21	COMP. DATE 05/10/21	SURFACE WATER DEPTH N/A



NCDOT BORE SINGLE I5987A_GEO_BRDGL_SITE 3_Y3_BORELOGS.GPJ_NC_DOT.GDT 1/26/22

GEOTECHNICAL BORING REPORT
BORE LOG

WBS 47533.1.2	TIP I-5987A	COUNTY ROBESON	GEOLOGIST DEGON, A. N.
SITE DESCRIPTION SITE 3 - ABUTMENT RET. WALLS AT EB1 AND EB2 OF BRIDGE ON -Y3- OVER -L- AT -Y3- STA. 30+40.11			GROUND WTR (ft)
BORING NO. Y3_EB2-B	STATION 30+99	OFFSET 11 ft RT	ALIGNMENT -Y3-
COLLAR ELEV. 167.5 ft	TOTAL DEPTH 99.7 ft	NORTHING 371,312	EASTING 2,001,210
DRILL RIG/HAMMER EFF./DATE TER299 DIEDRICH D-50 79% 12/31/2020		DRILL METHOD Mud Rotary	HAMMER TYPE Automatic
DRILLER TURNAGE, J. R.	START DATE 05/10/21	COMP. DATE 05/10/21	SURFACE WATER DEPTH N/A



NCDOT BORE SINGLE I5987A_GEO_BRDGL_SITE 3_Y3_BORELOGS.GPJ_NC_DOT.GDT 1/26/22

WBS 47533.1.2	TIP I-5987A	COUNTY ROBESON	GEOLOGIST FARMER, B. C.
SITE DESCRIPTION SITE 3 - ABUTMENT RET. WALLS AT EB1 AND EB2 OF BRIDGE ON -Y3- OVER -L- AT -Y3- STA. 30+40.11			GROUND WTR (ft)
BORING NO. Y3_RWAL-4	STATION 30+36	OFFSET 95 ft RT	ALIGNMENT -Y3-
COLLAR ELEV. 164.8 ft	TOTAL DEPTH 53.5 ft	NORTHING 371,208	EASTING 2,001,226
DRILL RIG/HAMMER EFF./DATE TER92-0 ACKER RENEGADE 86% 02/15/2019		DRILL METHOD Mud Rotary	HAMMER TYPE Automatic
DRILLER DUGGINS, W. T.	START DATE 01/20/21	COMP. DATE 01/20/21	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							
165														164.8	0.0	GROUND SURFACE	
	163.8	1.0															UNDIVIDED COASTAL PLAIN
	161.3	3.5	WOH	WOH	3												SOFT TO MEDIUM STIFF, GRAY, ORANGE, FINE TO COARSE SANDY CLAY, WET, MODERATELY PLASTIC (A-6)
160	158.8	6.0	1	2	3												
	156.3	8.5	4	3	3												VERY LOOSE TO LOOSE, GRAY, PINK, CLAYEY COARSE TO FINE SAND, WET, SLIGHTLY PLASTIC (A-2-6)
155	152.8	12.0	2	1	2												
	147.8	17.0	1	2	4												
150	142.8	22.0	8	10	11												MEDIUM DENSE, ORANGE, GRAY, TAN, SILTY COARSE TO FINE SAND, WET, INTERBEDDED CLAY LAYERS (A-2-4)
145	142.8	22.0	1	0	1												VERY LOOSE, GRAY, ORANGE, PINK, CLAYEY COARSE TO FINE SAND, WET (A-2-6)
140	137.8	27.0	1	1	1												
135	132.8	32.0	2	6	9												MEDIUM DENSE, PINK, RED, GRAY, WHITE, SILTY COARSE TO FINE SAND, WET (A-2-4)
130	127.8	37.0	6	7	7												
125	122.8	42.0	6	3	2												LOOSE, ORANGE, CLAYEY COARSE TO FINE SAND, WET (A-2-6)
120	117.8	47.0	4	7	12												COASTAL PLAIN
115	112.8	52.0	2	3	5												VERY STIFF, DARK GRAY, COARSE TO FINE SANDY CLAY, WET (A-6) (BLACK CREEK FORMATION)
																	MEDIUM STIFF TO STIFF, DARK GRAY, SILTY CLAY, WET, HIGHLY PLASTIC (A-7-6)
																	Boring Terminated at Elevation 111.3 ft IN COASTAL PLAIN SILTY CLAY (BLACK CREEK FORMATION)
																	STA. 463+16 -L-; 93' RT

NCDOT BORE SINGLE I5987A_GEO_BRDGL_SITE 3_Y3_BORELOGS.GPJ NC_DOT.GDT 1/26/22

LABORATORY TESTING SUMMARY

PROJECT NUMBER: 47533.1.2

TIP: I-5987A

COUNTY: ROBESON

DESCRIPTION: SITE 3 - ABUTMENT RETAINING WALLS AT END BENT 1 AND END BENT 2 OF BRIDGE ON -Y3- (SR 1758 McDUFFIE CROSSING RD.) OVER -L- (I-95) AT -Y3- STA. 30+04.11

Sample No.	Station	Alignment	Offset (feet)	Depth Interval (feet)	AASHTO Class.	L.L.	P.I.	% by Weight				% Retained #4 Sieve	% Passing (sieves)			% Moisture	% Organic
								Coarse Sand	Fine Sand	Silt	Clay		#10	#40	#200		
SS-70	461+50	-L-	65 LT	1.0 - 2.5	A-7-6 (6)	43	28	40.4	20.2	6.8	32.6	0	99	72	42	17.5	--
SS-65	30+36	-Y3-	95 RT	1.0 - 2.5	A-6 (7)	38	25	34.6	19.5	11.7	34.2	0	100	78	48	20.3	--
SS-66	30+36	-Y3-	95 RT	6.0 - 7.5	A-2-6 (0)	28	13	54.3	26.7	2.0	17.0	0	99	68	21	--	--
SS-55	32+43	-Y3-	97 LT	3.5 - 5.0	A-7-6 (7)	48	30	34.8	25.9	5.5	33.8	0	100	81	42	24.0	--
SS-111	28+57	-Y3-	8 RT	6.0 - 7.5	A-2-7 (4)	52	32	48.2	19.7	4.4	27.7	0	100	69	34	22.5	--
SS-112	28+57	-Y3-	8 RT	18.7 - 20.2	A-2-6 (1)	33	19	13.8	56.8	7.0	22.4	0	99	94	33	--	--
SS-68	29+76	-Y3-	85 LT	1.0 - 2.5	A-7-6 (8)	43	26	34.0	22.1	8.7	35.2	0	99	78	47	17.3	--
SS-69	29+76	-Y3-	85 LT	8.5 - 10.0	A-2-6 (0)	40	25	53.2	23.5	1.5	21.8	0	99	69	25	--	--
SS-520	32+01	-Y3-	25 LT	3.5 - 5.0	A-6 (2)	31	17	39.1	24.9	9.2	26.8	0	100	78	40	15.7	--
SS-522	32+01	-Y3-	25 LT	13.5 - 15.0	A-7-6 (10)	49	32	28.0	28.5	8.0	35.5	0	100	85	48	24.5	--

Stephanie H. Huffman
 Certified Lab Technician Signature

114-01-1203
 Certification Number