

REFERENCE: I-5972

PROJECT: 44989

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

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY JOHNSTON
PROJECT DESCRIPTION I-95 /US-70 BUSINESS,
UPGRADE INTERCHANGE FROM OUTLET CENTER
DR. TO WEST OF YELVERTON GROVE RD.
SITE DESCRIPTION BRIDGE NO. 66 ON US-70 BUSINESS
(E. MARKET ST.) OVER I-95 BETWEEN US 301 AND
SR 2508

INVENTORY

CONTENTS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	LEGEND (SOIL & ROCK)
3	SITE PLAN
4	PROFILE
5-7	CROSS SECTIONS
8-12	BORE LOGS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5972	1	12

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.

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- 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

P. CARY

J. MIZE

A. BOZORGI

S&ME PERSONNEL

INVESTIGATED BY RK&K, LLP

DRAWN BY M. METRY

CHECKED BY G. GOINS

SUBMITTED BY RK&K, LLP

DATE DECEMBER 2021



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DocuSigned by:

Gregory Goins

1/24/2022

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SIGNATURE

DATE

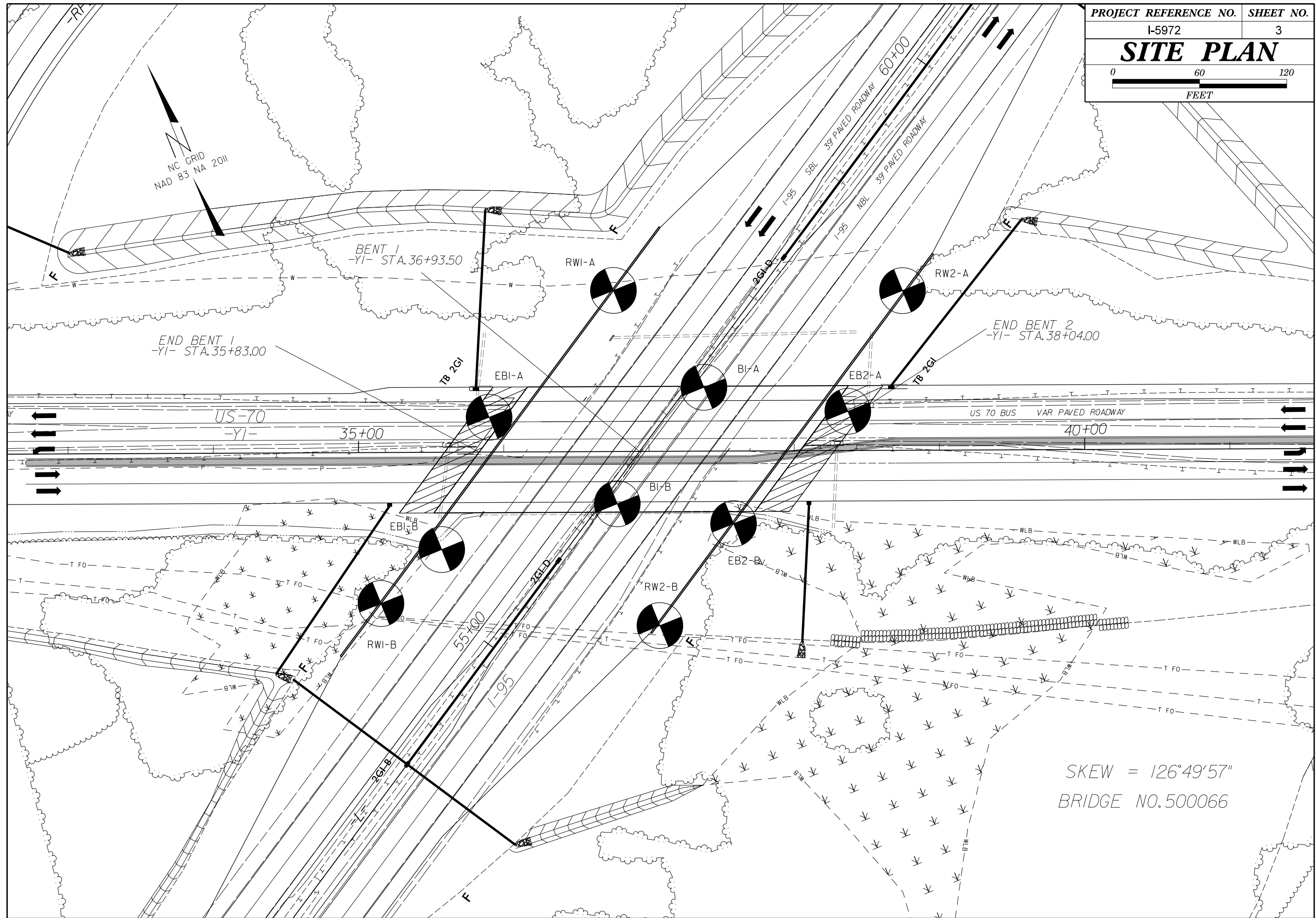
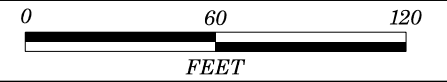
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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
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SUBSURFACE INVESTIGATION

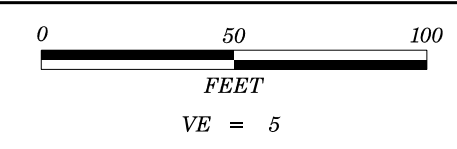
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

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, COLOR, MISCELLANEOUS SYMBOLS, RECOMMENDATION SYMBOLS, ABBREVIATIONS, EQUIPMENT USED ON SUBJECT PROJECT, FRACTURE SPACING, BEDDING, and INDURATION.

SITE PLAN

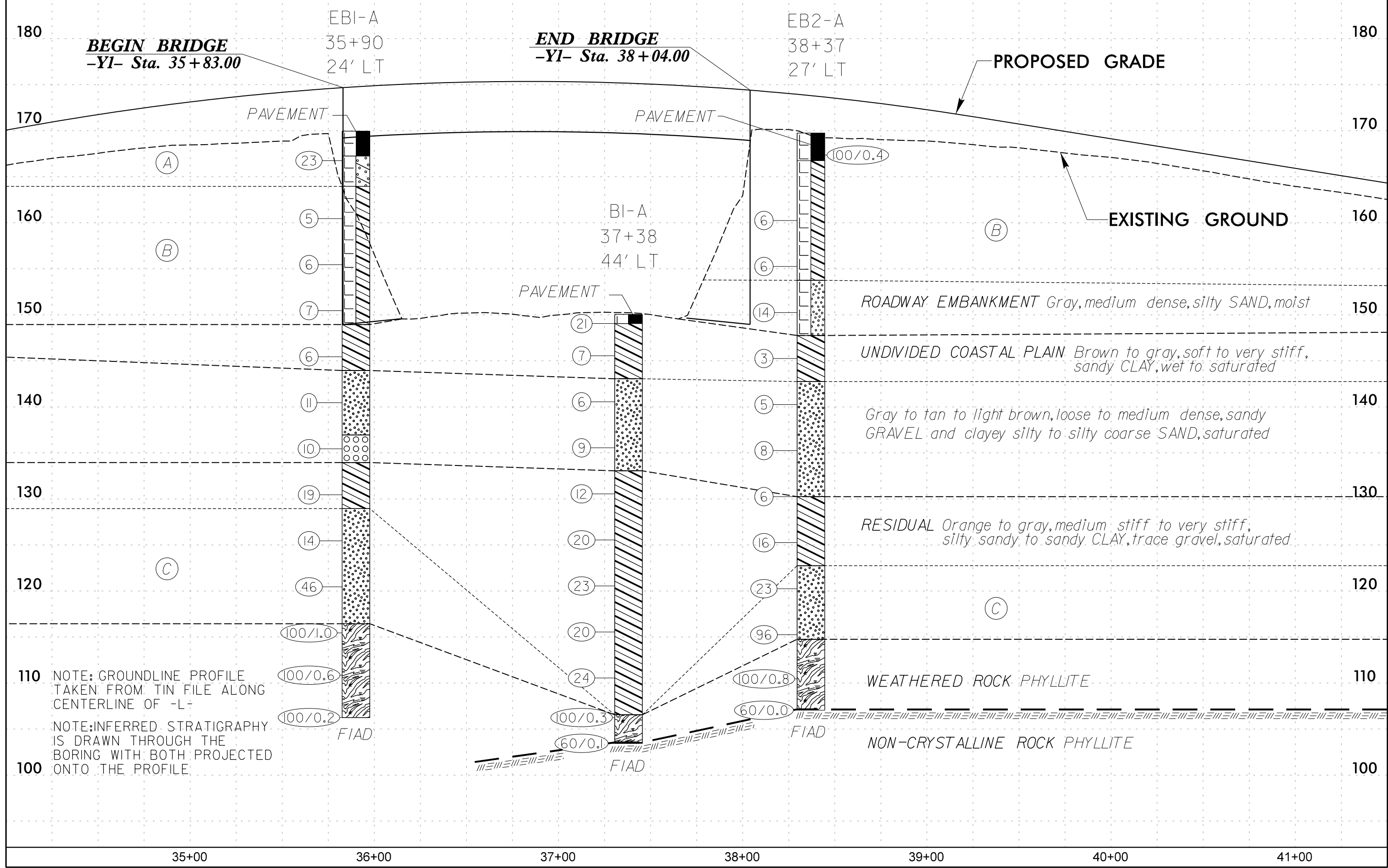


SKEW = 126°49'57"
BRIDGE NO. 500066



PROJECT REFERENCE NO.	SHEET NO.
I-5972	4
PROFILE ALONG -YI- (CENTERLINE)	

- (A) ROADWAY EMBANKMENT Orange, medium dense, clayey coarse SAND, moist
- (B) Brown, medium stiff, sandy CLAY, moist to saturated
- (C) RESIDUAL Green, medium dense to very dense, silty SAND, some rock fragments, saturated

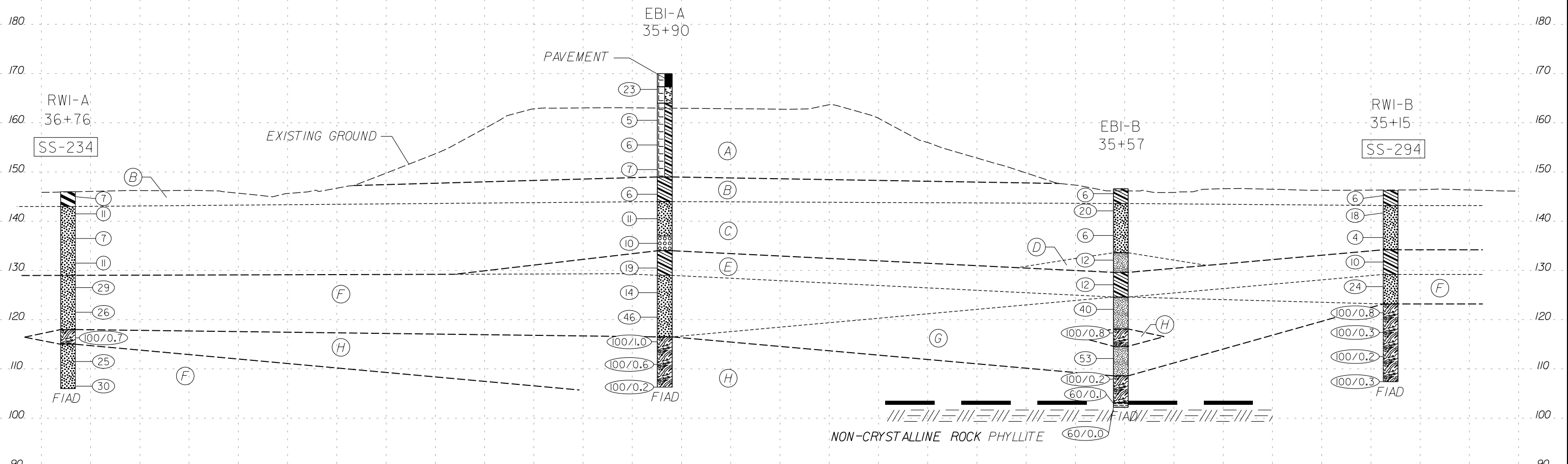


150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING SIEVE			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
							SS-234	36+76	111' LT	0.0-1.5	A-7-6 (5)	45	22		
SS-294	35+15	104' RT	0.0-1.5	A-6 (3)	26	11	25	28	25	22	100	82	54.1	17.8	-

- (A) ROADWAY EMBANKMENT Brown, medium stiff, sandy CLAY (A-6), saturated
- (B) UNDIVIDED COASTAL PLAIN Red to gray to tan, medium stiff, sandy to sandy silty slightly to moderately plastic CLAY (A-6, A-7-6), trace mica, moist
- (C) Orange to brown to tan, loose to medium dense, silty to clayey silty fine to coarse SAND and sandy GRAVEL (A-1-b, A-2-4), saturated
- (D) Orange, stiff, fine sandy SILT (A-4), saturated
- (E) RESIDUAL Orange to green, medium stiff to very stiff, fine sandy to silty sandy CLAY (A-6), trace to little gravel, saturated
- (F) Green to orange to gray, medium dense to dense, silty fine SAND (A-2-4), trace gravel, saturated
- (G) Green, hard, fine sandy SILT (A-4), some mica, saturated
- (H) WEATHERED ROCK PHYLLITE

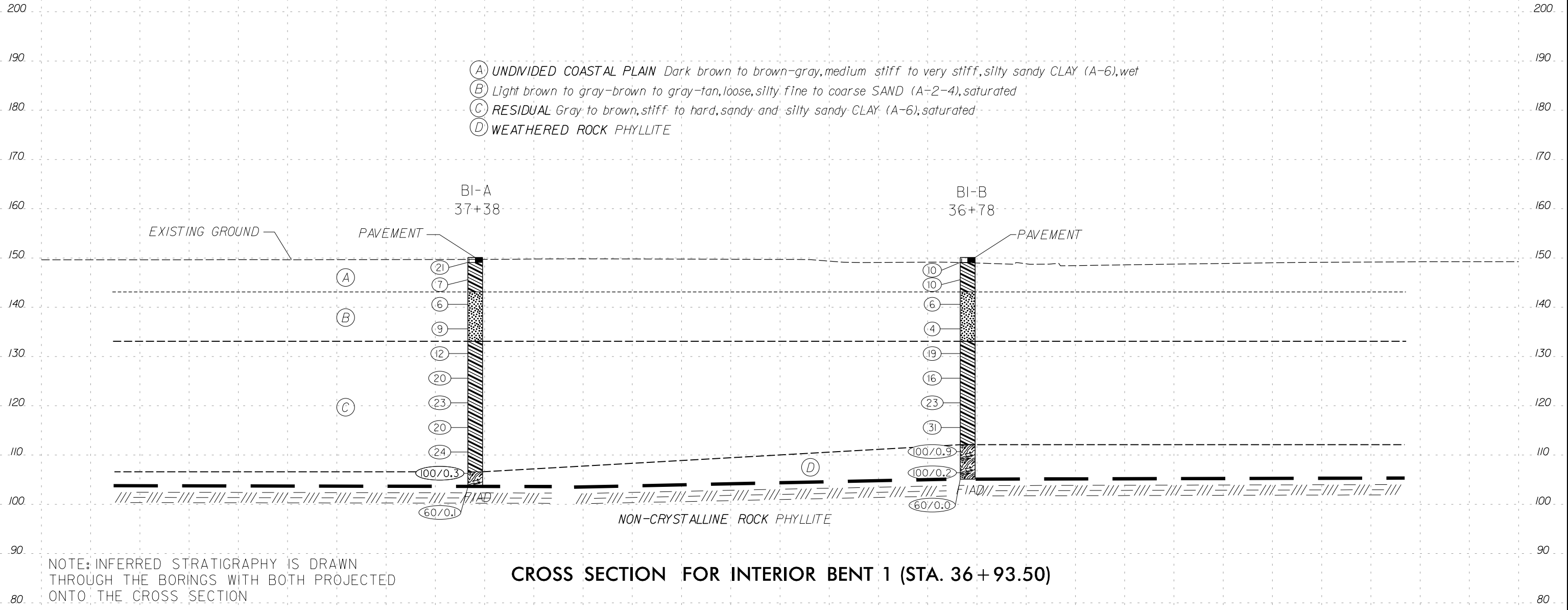


CROSS SECTION FOR END BENT 1 (STA. 35 + 83.00)

-Y/-

NOTE: INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

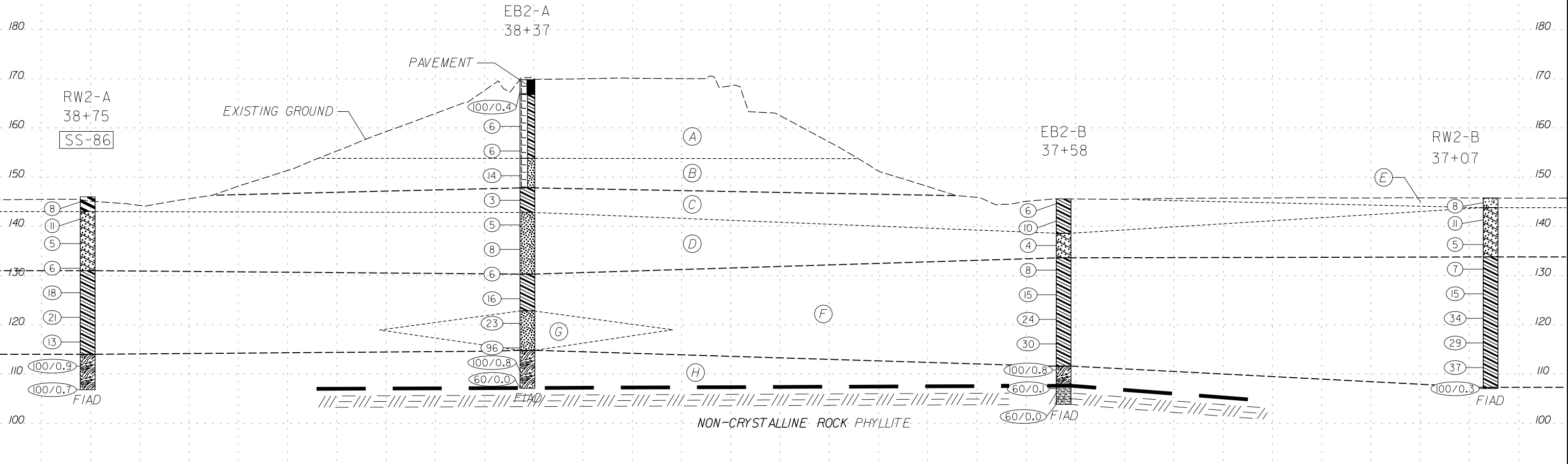
-Y/-

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

SOIL TEST RESULTS															
SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING SIEVE			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-86	38+75	110' LT	0.0-1.5	A-7-6 (4)	43	21	43	19	8	30	100	66	39.6	17.6	-

- (A) ROADWAY EMBANKMENT Dark brown to gray, medium stiff, sandy CLAY (A-6), moist
- (B) Gray, medium dense, silty SAND (A-2-4), moist
- (C) UNDIVIDED COASTAL PLAIN Gray to orange-gray to brown-tan, soft to stiff, coarse sandy moderately plastic CLAY (A-6, A-7-6), saturated
- (D) Tan to gray to tan-orange, loose to medium dense, clayey and silty fine to coarse SAND (A-2-4, A-2-6, A-2-7), saturated
- (E) Tan, medium stiff, sandy clayey SILT (A-5), saturated
- (F) RESIDUAL Light tan to orange to gray, medium stiff to hard, silty sandy to fine sandy CLAY (A-6), saturated
- (G) Green, medium dense to very dense, silty gravelly SAND (A-2-4), saturated
- (H) WEATHERED ROCK PHYLLITE



NOTE: INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

CROSS SECTION FOR END BENT 2 (STA. 38 + 04.00)

CL - Y / -

GEOTECHNICAL BORING REPORT

BORE LOG

WBS 44989.1.1		TIP I-5972		COUNTY JOHNSTON		GEOLOGIST Mize, J.										
SITE DESCRIPTION Bridge No. 66 on US-70 Business (E. Market St.) over I-95 between US 301 and SR 2508							GROUND WTR (ft)									
BORING NO. EB1-A		STATION 35+90		OFFSET 24 ft LT		ALIGNMENT -Y1-										
COLLAR ELEV. 170.0 ft		TOTAL DEPTH 63.7 ft		NORTHING 639,126		EASTING 2,201,946										
DRILL RIG/HAMMER EFF./DATE SME275 DIEDRICH D-50 87% 10/21/2017			DRILL METHOD Mud Rotary			HAMMER TYPE Automatic										
DRILLER Williams, T. J.		START DATE 11/28/18		COMP. DATE 11/28/18		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)		
170														170.0	0.0	GROUND SURFACE
	167.8	2.2											M	167.3	2.7	ROADWAY EMBANKMENT 1.3' Asphalt, 1.4' ABC Stone
165			43	15	8									164.0	6.0	Orange, clayey coarse SAND (A-2-6)
	161.5	8.5											Sat.			Brown, sandy CLAY (A-6)
160			2	2	3											
	156.5	13.5														
155			2	3	3											
	151.5	18.5														
150			4	4	3											
	146.5	23.5														
145			2	3	3											
	141.5	28.5														
140			3	5	6											
	136.5	33.5														
135			5	5	5											
	131.5	38.5														
130			7	9	10											
	126.5	43.5														
125			8	8	6											
	121.5	48.5														
120			14	19	27											
	116.5	53.5														
115			24	45	55/0.45											
	111.5	58.5														
110			75	25/0.1												
	106.5	63.5														
			100/0.2													

WBS 44989.1.1		TIP I-5972		COUNTY JOHNSTON		GEOLOGIST Mize, J.										
SITE DESCRIPTION Bridge No. 66 on US-70 Business (E. Market St.) over I-95 between US 301 and SR 2508							GROUND WTR (ft)									
BORING NO. EB1-B		STATION 35+57		OFFSET 67 ft RT		ALIGNMENT -Y1-										
COLLAR ELEV. 146.6 ft		TOTAL DEPTH 44.4 ft		NORTHING 639,054		EASTING 2,201,882										
DRILL RIG/HAMMER EFF./DATE SME275 DIEDRICH D-50 87% 10/21/2017			DRILL METHOD Mud Rotary			HAMMER TYPE Automatic										
DRILLER Williams, T. J.		START DATE 11/29/18		COMP. DATE 11/29/18		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)		
150														146.6	0.0	GROUND SURFACE
	146.6	0.0											M			UNDIVIDED COASTAL PLAIN Gray to orange, sandy CLAY (A-6)
145			2	3	3									143.6	3.0	Gray to orange to tan, clayey silty to silty coarse SAND (A-2-4)
	143.1	3.5											Sat.			
140			4	8	12											
	138.1	8.5														
135			4	3	3											
	133.1	13.5														
130			3	6	6											
	128.1	18.5														
125			5	4	8											
	123.1	23.5														
120			16	20	20											
	118.1	28.5														
115			54	46/0.3												
	113.1	33.5														
110			19	28	25											
	108.1	38.5														
			100/0.2													
	103.1	43.5														
	102.2	44.4														
			60/0.1													
			60/0.0													

NCDOT BORE DOUBLE I5972_GEO_RDWY_FINAL.GPJ_NC_DOT.GDT 7/27/21

GEOTECHNICAL BORING REPORT

BORE LOG

WBS 44989.1.1		TIP I-5972		COUNTY JOHNSTON		GEOLOGIST Mize, J.										
SITE DESCRIPTION Bridge No. 66 on US-70 Business (E. Market St.) over I-95 between US 301 and SR 2508							GROUND WTR (ft)									
BORING NO. RW1-A		STATION 36+76		OFFSET 111 ft LT		ALIGNMENT -Y1-										
COLLAR ELEV. 146.0 ft		TOTAL DEPTH 40.0 ft		NORTHING 639,175		EASTING 2,202,059										
DRILL RIG/HAMMER EFF./DATE SME275 DIEDRICH D-50 87% 10/21/2017				DRILL METHOD Mud Rotary		HAMMER TYPE Automatic										
DRILLER Williams, T. J.		START DATE 11/26/18		COMP. DATE 11/26/18		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)	
150																
145	146.0	0.0	2	3	4										146.0	GROUND SURFACE
	142.5	3.5	6	6	5										143.0	UNDIVIDED COASTAL PLAIN Red to orange, sandy silty moderately plastic CLAY (A-7-6), trace mica
140																Orange to brown, silty fine to coarse SAND (A-2-4)
135	137.5	8.5	4	3	4											
130	132.5	13.5	5	5	6											
125	127.5	18.5	7	13	16										129.0	RESIDUAL Gray, silty fine to coarse SAND (A-2-4)
120	122.5	23.5	8	12	14											
115	117.5	28.5	22	73	27/0.2										118.0	WEATHERED ROCK PHYLLITE
110	112.5	33.5	7	11	14										115.0	RESIDUAL Orange to gray, silty fine SAND (A-2-4), trace rock fragments
	107.5	38.5	7	12	18										106.0	Boring Terminated at Elevation 106.0 ft in Residual: silty SAND (A-2-4)

WBS 44989.1.1		TIP I-5972		COUNTY JOHNSTON		GEOLOGIST Mize, J.										
SITE DESCRIPTION Bridge No. 66 on US-70 Business (E. Market St.) over I-95 between US 301 and SR 2508							GROUND WTR (ft)									
BORING NO. RW1-B		STATION 35+15		OFFSET 104 ft RT		ALIGNMENT -Y1-										
COLLAR ELEV. 146.2 ft		TOTAL DEPTH 38.8 ft		NORTHING 639,036		EASTING 2,201,829										
DRILL RIG/HAMMER EFF./DATE SME275 DIEDRICH D-50 87% 10/21/2017				DRILL METHOD Mud Rotary		HAMMER TYPE Automatic										
DRILLER Williams, T. J.		START DATE 11/29/18		COMP. DATE 11/29/18		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)	
150																
145	146.2	0.0	2	3	3										146.2	GROUND SURFACE
	142.7	3.5	6	8	10										143.2	UNDIVIDED COASTAL PLAIN Gray to orange, silty sandy slightly plastic CLAY (A-6)
140																Orange, clayey silty coarse SAND (A-2-4)
135	137.7	8.5	2	2	2											
130	132.7	13.5	2	4	6										134.2	RESIDUAL Orange, fine sandy CLAY (A-6)
125	127.7	18.5	10	8	16										129.2	Green to gray, silty fine SAND (A-2-4)
120	122.7	23.5	20	27	73/0.3										123.2	WEATHERED ROCK PHYLLITE
115	117.7	28.5	100/0.3													
110	112.7	33.5	100/0.2													
	107.7	38.5	100/0.3												107.4	Boring Terminated at Elevation 107.4 ft in Weathered Rock: PHYLLITE

NCDOT BORE DOUBLE I5972_GEO_RDWY_FINAL.GPJ NC_DOT.GDT 7/27/21

GEOTECHNICAL BORING REPORT

BORE LOG

WBS 44989.1.1		TIP I-5972		COUNTY JOHNSTON		GEOLOGIST Bozorgi, A.										
SITE DESCRIPTION Bridge No. 66 on US-70 Business (E. Market St.) over I-95 between US 301 and SR 2508							GROUND WTR (ft)									
BORING NO. B1-A		STATION 37+38		OFFSET 44 ft LT		ALIGNMENT -Y1-										
COLLAR ELEV. 150.1 ft		TOTAL DEPTH 46.6 ft		NORTHING 639,090		EASTING 2,202,091										
DRILL RIG/HAMMER EFF./DATE SME275 DIEDRICH D-50 87% 10/21/2017				DRILL METHOD Mud Rotary		HAMMER TYPE Automatic										
DRILLER Williams, T. J.		START DATE 11/26/18		COMP. DATE 11/26/18		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	LOG G	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)	
155																
150	150.1	0.0	3	10	11										150.1	0.0
															149.1	1.0
145	146.6	3.5	2	3	4											
140	141.6	8.5	4	3	3										143.1	7.0
135	136.6	13.5	3	3	6											
130	131.6	18.5	3	5	7										133.1	17.0
125	126.6	23.5	5	10	10											
120	121.6	28.5	6	10	13											
115	116.6	33.5	5	9	11											
110	111.6	38.5	8	10	14											
105	106.6	43.5	100/0.3												106.6	43.5
															103.6	46.5
	103.6	46.5	60/0.1												103.5	46.6

WBS 44989.1.1		TIP I-5972		COUNTY JOHNSTON		GEOLOGIST Bozorgi, A.										
SITE DESCRIPTION Bridge No. 66 on US-70 Business (E. Market St.) over I-95 between US 301 and SR 2508							GROUND WTR (ft)									
BORING NO. B1-B		STATION 36+78		OFFSET 36 ft RT		ALIGNMENT -Y1-										
COLLAR ELEV. 150.1 ft		TOTAL DEPTH 45.0 ft		NORTHING 639,038		EASTING 2,202,006										
DRILL RIG/HAMMER EFF./DATE SME275 DIEDRICH D-50 87% 10/21/2017				DRILL METHOD Mud Rotary		HAMMER TYPE Automatic										
DRILLER Williams, T. J.		START DATE 11/26/18		COMP. DATE 11/26/18		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	LOG G	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)	
155																
150	150.1	0.0	3	6	4										150.1	0.0
															149.1	1.0
145	146.6	3.5	6	4	6											
140	141.6	8.5	4	4	2										143.1	7.0
135	136.6	13.5	2	2	2											
130	131.6	18.5	5	8	11										133.1	17.0
125	126.6	23.5	5	5	11											
120	121.6	28.5	5	10	13											
115	116.6	33.5	11	15	16											
110	111.6	38.5	40	60/0.4											112.1	38.0
	106.6	43.5	100/0.2													
	105.1	45.0	60/0.0												105.1	45.0

NCDOT BORE DOUBLE I5972_GEO_RDWY_FINAL.GPJ NC_DOT.GDT 7/27/21

GEOTECHNICAL BORING REPORT

BORE LOG

WBS 44989.1.1		TIP I-5972		COUNTY JOHNSTON		GEOLOGIST Mize, J.										
SITE DESCRIPTION Bridge No. 66 on US-70 Business (E. Market St.) over I-95 between US 301 and SR 2508							GROUND WTR (ft)									
BORING NO. EB2-A		STATION 38+37		OFFSET 27 ft LT		ALIGNMENT -Y1-										
COLLAR ELEV. 169.8 ft		TOTAL DEPTH 62.7 ft		NORTHING 639,037		EASTING 2,202,177										
DRILL RIG/HAMMER EFF./DATE SME275 DIETRICH D-50 87% 10/21/2017			DRILL METHOD Mud Rotary			HAMMER TYPE Automatic										
DRILLER Williams, T. J.		START DATE 11/28/18		COMP. DATE 11/28/18		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	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
170														169.8	GROUND SURFACE	0.0
	167.8	2.0												166.8	ROADWAY EMBANKMENT 2' Asphalt, 1' ABC Stone	3.0
165			100/0.4												Dark brown to gray, sandy CLAY (A-6)	
160	161.3	8.5	2	2	4											
155	156.3	13.5	2	2	4											
150	151.3	18.5	4	6	8											
145	146.3	23.5	3	1	2											
140	141.3	28.5	3	2	3											
135	136.3	33.5	4	4	4											
130	131.3	38.5	2	1	5											
125	126.3	43.5	5	8	8											
120	121.3	48.5	6	12	11											
115	116.3	53.5	20	42	54											
110	111.3	58.5	36	64/0.3												
	107.1	62.7	60/0.0													

WBS 44989.1.1		TIP I-5972		COUNTY JOHNSTON		GEOLOGIST Cary, P.										
SITE DESCRIPTION Bridge No. 66 on US-70 Business (E. Market St.) over I-95 between US 301 and SR 2508							GROUND WTR (ft)									
BORING NO. EB2-B		STATION 37+58		OFFSET 50 ft RT		ALIGNMENT -Y1-										
COLLAR ELEV. 145.6 ft		TOTAL DEPTH 41.8 ft		NORTHING 638,995		EASTING 2,202,075										
DRILL RIG/HAMMER EFF./DATE SME275 DIETRICH D-50 87% 10/21/2017			DRILL METHOD Mud Rotary			HAMMER TYPE Automatic										
DRILLER Williams, T. J.		START DATE 11/14/18		COMP. DATE 11/14/18		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	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
150														145.6	GROUND SURFACE	0.0
145	145.6	0.0	WOH	3	3											
140	142.1	3.5	5	4	6											
135	137.1	8.5	2	2	2											
130	132.1	13.5	4	3	5											
125	127.1	18.5	4	5	10											
120	122.1	23.5	7	9	15											
115	117.1	28.5	8	12	18											
110	112.1	33.5	19	80	20/0.3											
105	107.1	38.5	60/0.1													
	103.8	41.8	60/0.0													

NCDOT BORE DOUBLE I5972_GEO_RDWY_FINAL.GPJ_NC_DOT_GDT_7/27/21

GEOTECHNICAL BORING REPORT

BORE LOG

WBS 44989.1.1		TIP I-5972		COUNTY JOHNSTON		GEOLOGIST Cary, P.									
SITE DESCRIPTION Bridge No. 66 on US-70 Business (E. Market St.) over I-95 between US 301 and SR 2508							GROUND WTR (ft)								
BORING NO. RW2-A		STATION 38+75		OFFSET 110 ft LT		ALIGNMENT -Y1-									
COLLAR ELEV. 146.0 ft		TOTAL DEPTH 39.2 ft		NORTHING 639,100		EASTING 2,202,243									
DRILL RIG/HAMMER EFF./DATE SME275 DIEDRICH D-50 87% 10/21/2017			DRILL METHOD Mud Rotary			HAMMER TYPE Automatic									
DRILLER Williams, T. J.		START DATE 11/16/18		COMP. DATE 11/16/18		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	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					
150															
145	146.0	0.0	3	3	5									146.0	GROUND SURFACE
	142.5	3.5	5	6	5									143.0	UNDIVIDED COASTAL PLAIN Brown-tan, coarse sandy silty moderately plastic CLAY (A-7-6) Tan, clayey fine to coarse SAND (A-2-7), little gravel
140															
	137.5	8.5	2	2	3										
135															
	132.5	13.5	4	4	2									131.0	RESIDUAL Tan to gray, silty sandy CLAY (A-6)
130															
	127.5	18.5	10	8	10										
125															
	122.5	23.5	7	8	13										
120															
	117.5	28.5	4	6	7										
115															
	112.5	33.5	70	30/0.4										114.0	WEATHERED ROCK PHYLLITE
110															
	107.5	38.5	80	20/0.2										106.8	Boring Terminated at Elevation 106.8 ft in Weathered Rock: PHYLLITE

WBS 44989.1.1		TIP I-5972		COUNTY JOHNSTON		GEOLOGIST Cary, P.									
SITE DESCRIPTION Bridge No. 66 on US-70 Business (E. Market St.) over I-95 between US 301 and SR 2508							GROUND WTR (ft)								
BORING NO. RW2-B		STATION 37+07		OFFSET 120 ft RT		ALIGNMENT -Y1-									
COLLAR ELEV. 145.8 ft		TOTAL DEPTH 38.8 ft		NORTHING 638,949		EASTING 2,202,001									
DRILL RIG/HAMMER EFF./DATE SME275 DIEDRICH D-50 87% 10/21/2017			DRILL METHOD Mud Rotary			HAMMER TYPE Automatic									
DRILLER Williams, T. J.		START DATE 11/14/18		COMP. DATE 11/14/18		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	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					
150															
145	145.8	0.0	3	3	5									145.8	GROUND SURFACE
	142.3	3.5	4	5	6									143.8	UNDIVIDED COASTAL PLAIN Tan, sandy clayey SILT (A-5) Tan to orange, clayey SAND (A-2-7)
140															
	137.3	8.5	4	2	3										
135															
	132.3	13.5	3	3	4									133.8	RESIDUAL Tan-orange to gray, silty fine sandy CLAY (A-6)
130															
	127.3	18.5	4	5	10										
125															
	122.3	23.5	8	16	18										
120															
	117.3	28.5	4	11	18										
115															
	112.3	33.5	11	14	23										
110															
	107.3	38.5	100/0.3											107.3	WEATHERED ROCK PHYLLITE Boring Terminated at Elevation 107.0 ft in Weathered Rock: PHYLLITE

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