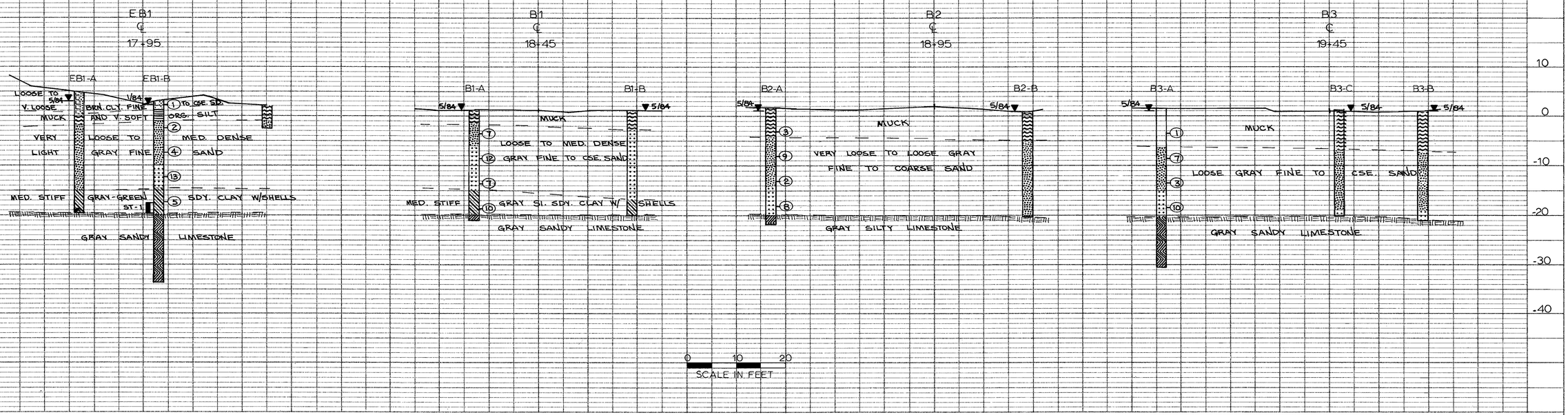
PROJECT: 8.1184801 R-316B

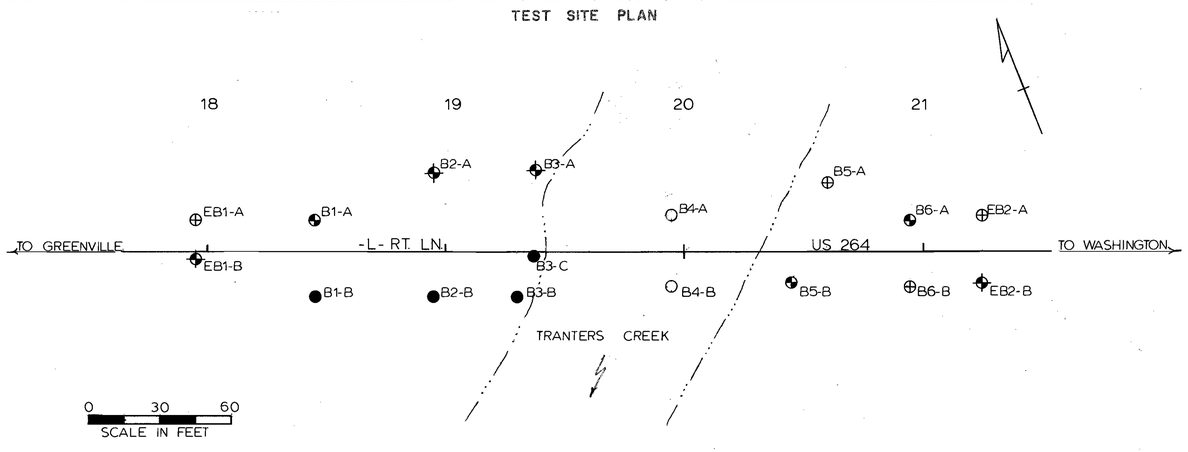
FOUNDATION INVESTIGATION

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
8.1184801	1	5

CROSS SECTIONS THROUGH BORINGS



TEST SITE PLAN



SOIL LEGEND AND CLASSIFICATION

GENERAL CLASS.	GRANULAR MATERIALS (≤35% PASSING #200)							SILT-CLAY MATERIALS (> 35% PASSING #200)				ORGANIC MATERIALS		
GROUP CLASS.	A-1		A-3	A-2				A-4	A-5	A-6	A-7	A-1, A-2 A-3	A-4, A-5 A-6, A-7	
	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7				A-7-5, A-7-6			
SYMBOL														
% PASSING #10	50 MX											GRANULAR SOILS	SILT-CLAY SOILS	MUCK, PEAT
#40	30 MX	50 MX	51 MN											
#200	15 MX	25 MX	10 MX	35 MX	35 MX	35 MX	35 MX	36 MN	36 MN	36 MN	36 MN			
(PASSING #40) LL	6 MX		N.P.	40 MX	41 MN	40 MX	41 MN	40 MX	41 MN	40 MX	41 MN*	SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER		HIGHLY ORGANIC SOILS
PI				10 MX	10 MX	11 MN	11 MN	10 MX	10 MX	11 MN	11 MN*			
GROUP INDEX	0		0	0		4 MX		8 MX	12 MX	16 MX	20 MX			
USUAL TYPES OF MAJOR MATERIALS	STONE FRAGS. GRAVEL & SAND		FINE SAND	SILTY OR CLAYEY GRAVEL AND SAND				SILTY SOILS		CLAYEY SOILS				

* PI OF A-7-5 ≤ (LL - 30); PI OF A-7-6 > (LL - 30)

TEXTURE OR GRAIN SIZE

	BOULDER	COBBLE	GRAVEL	COARSE SAND	MED. SAND	FINE SAND	SILT	CLAY
GRAIN SIZE	MM 305		76	2	0.6 0.25	0.2 .05	.005	
	IN 12"		3"					

SOIL MOISTURE - CORRELATION OF TERMS

SOIL MOISTURE SCALE (ATTERBERG LIMITS)	FIELD MOISTURE DESCRIPTION	GUIDE FOR FIELD MOISTURE DESCRIPTION
	-SATURATED-	USUALLY LIQUID; VERY WET, USUALLY FROM BELOW THE GROUND WATER TABLE
LL — LIQUID LIMIT (PLASTIC RANGE (PI))		
		SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE
PL — PLASTIC LIMIT	-WET- (W)	
OM — OPTIMUM MOISTURE	-MOIST- (M)	SOLID; AT OR NEAR OPTIMUM MOISTURE
SL — SHRINKAGE LIMIT		
8.1184801 R-316B		REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE

CONSISTENCY OR DENSENESS

PRIMARY SOIL TYPE	COMPACTNESS OR CONSISTENCY	RANGE OF STANDARD PENETRATION RESISTANCE (BPF)	RANGE OF UNCONFINED COMPRESSIVE STRENGTH (q_u) (TONS/FT2)
GENERALLY GRANULAR MATERIAL	VERY LOOSE	< 4	N/A
	LOOSE	4 TO 10	
	MEDIUM DENSE	10 TO 30	
	DENSE	30 TO 50	
	VERY DENSE	> 50	
GENERALLY SILT-CLAY MATERIAL	VERY SOFT	< 2	< .25
	SOFT	2 TO 4	.25 TO .5
	MEDIUM STIFF	4 TO 8	.5 TO 1
	STIFF	8 TO 15	1 TO 2
	VERY STIFF	15 TO 30	2 TO 4
	HARD	> 30	> 4

MISCELLANEOUS SYMBOLS AND ABBREVIATIONS

- ROADWAY EMBANKMENT WITH SOIL DESCRIPTION
- SOIL SYMBOL
- ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS
- INFERRED SOIL BOUNDARIES
- STRIKE AND DIP OF BEDS
- APPARENT DIP (NORMAL TO _____)
- TEST BORING (SPT, PPT, VST)
- AUGER BORING
- CORE BORING
- PIEZOMETER INSTALLATION
- SLOPE INDICATOR INSTALLATION
- SPT N-COUNT

SAMPLE DESIGNATIONS

- S BULK SAMPLE
- SS SPLIT SPOON SAMPLE
- ST "SHELBY TUBE SAMPLE
- WS WASH SAMPLE
- ● WASH BORING
- ○ ½" BRIDGE ROD SOUNDING

GROUND WATER

- WATER LEVEL IN BORE HOLE (IMMEDIATELY AFTER DRILLING (I.A.D.) / SOON AFTER DRILLING (▽ ____ HRS.))
- STATIC WATER LEVEL (AFTER 24 HRS.)
- PERCHED WATER (PW), SATURATED ZONE, OR WATER BEARING STRATA
- SPRING OR SEEPAGE

ABBREVIATIONS

ALLUV.	ALLUVIUM	REF.	REFER TO
AR	AUGER REFUSAL	RES.	RESIDUAL
BLDR.	BOULDER	S.	SOFT
BPF	BLOWS PER FOOT	SAT.	SATURATED
C	COHESION	SD.	SAND
CALC.	CALCAREOUS	SDY.	SANDY
CL.	CLAY	SED(S).	SEDIMENT(S)
CLY.	CLAYEY	SL.	SILT, SILTY
COB.	COBBLE	SLI.	SLIGHTLY
CSE.	COARSE		
DPT	DYNAMIC PENETRATION TEST	SPT	STANDARD PENETRATION TEST
e	VOID RATIO	TS.	TOPSOIL
F.	FINE	VST	VANE SHEAR TEST
FOSS.	FOSSILIFEROUS	w	MOISTURE CONTENT
FRAC.	FRACTURED	W	WITH
FRAG(S).	FRAGMENT(S)	γ	UNIT WEIGHT(WET)
GR.	GRAVEL	γ_d	UNIT DRY WEIGHT
GS	SPECIFIC GRAVITY		
GW	GROUND WATER	V. EST.	VERY ESTIMATED
MED.	MEDIUM		
MIC.	MICACEOUS		
MOT.	MOTTLED		
N	BLOW COUNT		
NS	NO SAMPLE TAKEN		
ORG.	ORGANIC		

ROCK DESCRIPTION

IN THE BROADEST MEANING, HARD ROCK IS CONSIDERED TO BE THAT INDURATED EARTH MATERIAL WHICH CANNOT BE SAMPLED BY CONVENTIONAL SOIL SAMPLING TOOLS OR TECHNIQUES. THE BOUNDARY BETWEEN SOIL AND ROCK IS ARBITRARY. TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED BY A ZONE OF "WEATHERED ROCK". FOR THE PURPOSE OF THIS INVESTIGATION, THESE MATERIALS ARE DIVIDED AS FOLLOWS:

TERM	SYMBOLS		DESCRIPTION
HARD ROCK (HR)	CORED ROCK	INFERRED ROCK LINE [2]	MATERIAL THAT CANNOT BE PENETRATED BY POWER AUGERS, EXCEPT IN THIN LEDGES, AND REQUIRES ROCK CORING TOOLS FOR OBTAINING SAMPLE.
WEATHERED ROCK (WR)		HARD WEATHERED ROCK	MATERIAL THAT CAN BE PENETRATED WITH GREAT DIFFICULTY USING POWER AUGERS AND YIELDS SPT REFUSAL[1].
(HWR) (SWR)		SOFT WEATHERED ROCK	MATERIAL THAT CAN BE PENETRATED WITH SOME DIFFICULTY USING POWER AUGERS AND YIELDS SPT VALUES > 100 BPF BUT < SPT REFUSAL.

[1] SPT REFUSAL (ASTM) ≤ 1 INCH OF PENETRATION PER 50 BLOWS.

[2] AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH AUGERS COULD NO LONGER PENETRATE. THE HARD ROCK SYMBOL IS SHOWN WHEN ROCK IS CORED AND ONLY TO THAT DEPTH CORED. A DESCRIPTION OF ROCK IS GIVEN, INCLUDING:

CORE RECOVERY (REC.) - TOTAL LENGTH OF ROCK RECOVERED IN THE CORE BARREL DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%.

ROCK QUALITY DESIGNATION (ROD) - TOTAL LENGTH OF SOUND ROCK SEGMENTS RECOVERED THAT ARE LONGER THAN OR EQUAL TO 4" DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%.

ROCK CORE NOMINAL SIZES: AX CORE ($1^3/16$"); BX CORE ($1^5/8$"); NX CORE ($2^1/8$"); NXWL CORE ($1^{15}/16$")

B.M. RR SPIKE IN BASE OF 10" SWEET GUM 58' RT. STA. 21+78 -L- ELEV. 11.23

MISC: _____

NOTE: THE SUBSURFACE INFORMATION SUPPLIED IN THIS REPORT IS BASED ON A PRELIMINARY BRIDGE REPORT. A REVIEW OF THE SUBSURFACE CONDITIONS IS NECESSARY IF SIGNIFICANT CHANGES ARE MADE IN THE DESIGN AND/OR LOCATION OF THE PROPOSED STRUCTURE.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL UNIT

STATE PROJECT NO. 8.1184801 R-216B F. A. NO. F-38-1(35)

COUNTY BEAUFORT - PITT ROUTE US 264

BRIDGE ON US 264, -L-

OVER TRANTERS CREEK

PROJECT GEOLOGIST E. A. WITORT DRAWN BY M. D. HARRELL

CHECKED BY E. A. WITORT SUBMITTED BY G. L. BUNCH

PERSONNEL MWS RRA TBD SSB RLE DATE SUBMITTED JULY 1984

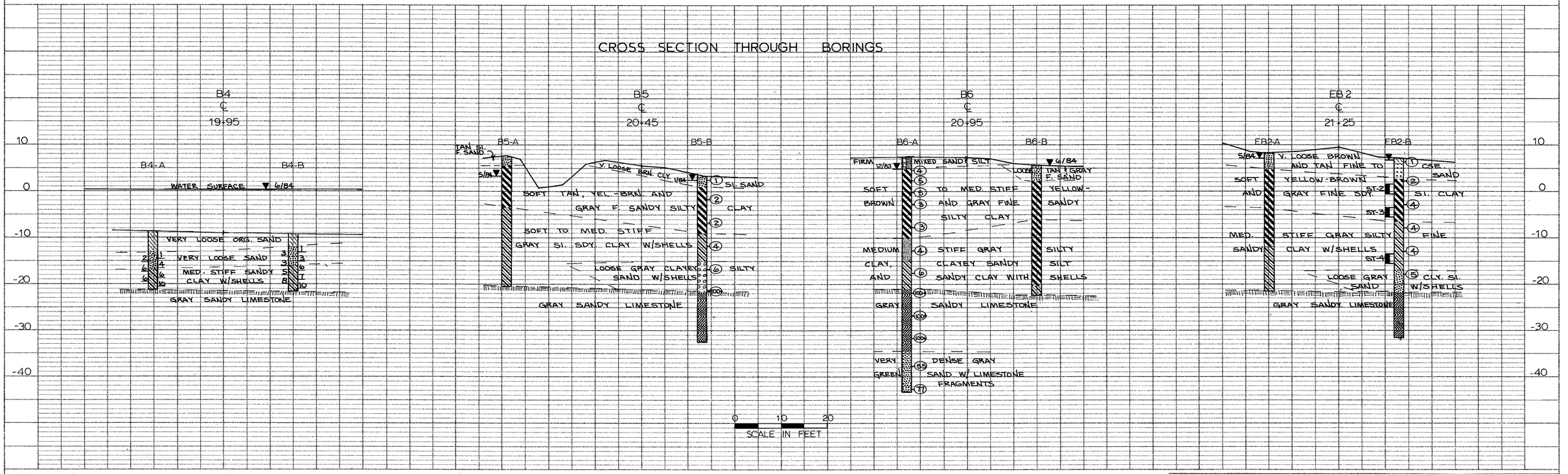
FORM: GEO-01 REVISED 4-77

FOUNDATION INVESTIGATION

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
8.1184801	2	5

PROJECT:

CROSS SECTION THROUGH BORINGS



TEST SITE PLAN

SOIL LEGEND AND CLASSIFICATION

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	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7				A-7-5	A-3	A-6, A-7	
SYMBOL														
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PI	6 MX		N.P.	10 MX	10 MX	11 MN	11 MN	10 MX	10 MX	11 MN	11 MN*			
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TEXTURE OR GRAIN SIZE

	BOULDER	COBBLE	GRAVEL	COARSE SAND	MED. SAND	FINE SAND	SILT	CLAY
GRAIN SIZE	MM 305		76	2	0.6 .25	0.2 .05	.005	
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- CORE BORING
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- SLOPE INDICATOR INSTALLATION
- SPT N-COUNT

SAMPLE DESIGNATIONS

S	BULK SAMPLE
SS	SPLIT SPOON SAMPLE
ST	_____" SHELBY TUBE SAMPLE
WS	WASH SAMPLE

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CALC.	CALCAREOUS	SDY.	SANDY
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FOSS.	FOSSILIFEROUS	w	MOISTURE CONTENT
FRAC.	FRACTURED	w/	WITH
FRAG(S).	FRAGMENT(S)	γ_m	UNIT WEIGHT(WET)
GR.	GRAVEL	γ_d	UNIT DRY WEIGHT
GS	SPECIFIC GRAVITY		
GW	GROUND WATER	V.	VERY
MED.	MEDIUM	EST.	ESTIMATED
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ROCK CORE NOMINAL SIZES: AX CORE ($1^3/16$"); BX CORE ($1^5/8$"); NX CORE ($2^1/8$"); NXWL CORE ($1^{15}/16$")

B.W. _____

MISC: _____

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL UNIT

STATE PROJECT NO. 8.1184801 R-216B F. A. NO. F-38-1(35)

COUNTY BEAUFORT - PITT ROUTE US 264

BRIDGE ON US 264 -L-

OVER TRANTERS CREEK

PROJECT GEOLOGIST E.A.WITORT DRAWN BY M.D.HARRELL

CHECKED BY E.A.WITORT SUBMITTED BY G.L.BUNCH

PERSONNEL _____ DATE SUBMITTED _____

FORM-GEO-01 REVISED 4-77

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
8.1184801	3	5

END

BORING NO. EB1-A BENT NO. 1 COLLAR ELEV. 49

BORING LOC. (STA. & OFFSET) 17+95, 13' LT. -L- RT. LN. TOTAL DEPTH 24.7'

ELEV.	DEPTH	BLOW COUNT (6"/6"/6")	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMP. NO.	DESCRIPTION
49	0.0		GROUND SURFACE				
44.9	4.1			W			TAN AND GRAY SILTY SAND
				SAT			SANDY MUCK W/WOOD FRAGS.
							LIGHT GRAY F. SAND W/TRACE OF WOOD
29.2	19.8			W			GRAY SILTY SANDY CLAY W/SHELLS
24.3	24.7		BORING TERMINATED AT ELEV. -19.8' WITH AUGER REFUSAL ON LIMESTONE				

DATE COMPLETED 5-26-84

BORING NO. B1-A BENT NO. 1 COLLAR ELEV. 12

BORING LOC. (STA. & OFFSET) 18+45, 13' LT. -L- RT. LN. TOTAL DEPTH 22.2'

ELEV.	DEPTH	BLOW COUNT (6"/6"/6")	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMP. NO.	DESCRIPTION
12	0.0		GROUND SURFACE				
	3.9	4 4 3	7	SAT		SS-1	MUCK
							GRAY FINE SAND WITH TRACE OF WOOD
	8.9	4 5 7	12			SS-2	GRAY FINE TO CSE. SAND
	13.9	2 3 4	7			SS-3	GRAY SILTY SANDY CLAY
	18.9	2 2 4	6	W		SS-4	WITH SHELLS
-21.0	22.2		BORING TERMINATED AT ELEV. -21.0 IN LIMESTONE				GRAY SANDY LIMESTONE

DATE COMPLETED 5-25-84

BORING NO. B2-A BENT NO. 2 COLLAR ELEV. 18

BORING LOC. (STA. & OFFSET) 18+95, 33' LT. -L- RT. LN. TOTAL DEPTH 23.6'

ELEV.	DEPTH	BLOW COUNT (6"/6"/6")	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMP. NO.	DESCRIPTION
18	0.0		GROUND SURFACE				
	3.9	1 2 1	3	SAT		SS-1	MUCK WITH WOOD
	8.9	2 3 6	9			SS-2	GRAY FINE SAND WITH WOOD (LOG AT 9.5')
	13.9	2 1 1	2				GRAY FINE TO CSE. SAND
	18.9	4 5 3	8 100%			CORE #1	
-3.6	21.6		CORE #1 REC. = 70% RQD = 30%				GRAY SANDY LIMESTONE
-5.8	23.6		BORING TERMINATED AT ELEV. -21.8' IN GRAY SANDY LIMESTONE				

DATE COMPLETED 5-24-84

SOIL CLASSIFICATION AND GRADATION

SAMPLE	LOCATION	DEPTH	AASHO CLASSIFICATION	N	%PASSING #200 SIEVE	COARSE SAND	FINE SAND	SILT	CLAY	L.L.	P.I.	W.%
SS-1	EB1-B	0.0-1.5	A-2-4(0)	1	23	23	60	7	10	24	NP	
SS-2	"	9.3-10.8	A-2-4(0)	4	12	5	81	3	5	24	NP	
SS-3	"	14.3-15.8	A-3(0)	13	8	4	91	2	3	24	NP	
SS-4	"	19.3-20.8	A-6(4)	5	44	22	39	19	20	32	17	23.4
SS-1	B1-A	3.9-5.4	A-2-4(0)	7	21	8	77	7	8	19	NP	
SS-2	"	8.9-10.4	A-3(0)	12	9	24	70	3	3	18	NP	
SS-3	"	13.9-15.4	A-3(0)	7	8	35	59	3	3	17	NP	
SS-4	"	18.9-20.4	A-6(7)	6	51	21	32	19	28	36	21	
SS-1	B2-A	13.9-15.4	A-2-4(0)	2	19	4	86	8	2	20	NP	
SS-2	"	18.9-20.4	A-3(0)	8	7	37	58	2	3	18	NP	

END

BORING NO. EB1-B BENT NO. 1 COLLAR ELEV. 32

BORING LOC. (STA. & OFFSET) 17+95, 3' RT. -L- RT. LN. TOTAL DEPTH 36.8'

ELEV.	DEPTH	BLOW COUNT (6"/6"/6")	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMP. NO.	DESCRIPTION
32	0.0		GROUND SURFACE				
	4.3	1 - 1	1	SAT		SS-1	BROWN SILTY CLAYEY SAND
		1 1 1	2				BROWN CLY. F. SDY. SILT (ORG.)
	9.3	2 2 2	4				BROWN SILTY CLY. SAND
	14.3	1 5 8	13			SS-2	LIGHT GRAY FINE SAND
	19.3	2 2 3	5			SS-3	
	20.8		ST-1 20.8-22.8 REC = 2.0' 100%	W			GRAY GREEN SILTY
	22.8	REFUSAL	CORE #1 22.8-27.8 REC = 80% RQD = 28%			SS-4	SANDY CLAY W/SHELLS
	27.8		CORE #2 27.8-32.8 REC = 84% RQD = 52%			ST-1	
	32.8		CORE #3 32.8-36.8 REC = 57% RQD = 21% 100%			CORE #1	GRAY SANDY LIMESTONE
-33.6	36.8	REFUSAL	BORING TERMINATED AT ELEV. -33.6' WITH REFUSAL IN SANDY LIMESTONE			CORE #2	
						CORE #3	

DATE COMPLETED 1-6-84

BORING NO. B1-B BENT NO. 1 COLLAR ELEV. 12

BORING LOC. (STA. & OFFSET) 18+45, 19' RT. -L- RT. LN. TOTAL DEPTH 21.2'

ELEV.	DEPTH	BLOW COUNT (6"/6"/6")	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMP. NO.	DESCRIPTION
12	0.0		GROUND SURFACE				
				SAT			MUCK
							GRAY FINE SAND
				M			GRAY SILTY SANDY CLAY WITH SHELLS
-20.0	21.2		WASH BORING TERMINATED AT ELEV. -20.0' ON ROCK				

DATE COMPLETED 5-25-84

BORING NO. B2-B BENT NO. 2 COLLAR ELEV. 10

BORING LOC. (STA. & OFFSET) 18+95, 19' RT. -L- RT. LN. TOTAL DEPTH 21.3'

ELEV.	DEPTH	BLOW COUNT (6"/6"/6")	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMP. NO.	DESCRIPTION
10	0.0		GROUND SURFACE				
							MUCK
							GRAY FINE SAND
-20.3	21.3		WASH BORING TERMINATED AT ELEV. -20.3' ON ROCK				

DATE COMPLETED 5-24-84

SOIL PROPERTIES AND TEST RESULTS

SAMPLE	LOCATION	DEPTH	AASHTO CLASS.	LL	PI	γd PCF	w%	e
ST-1	EB1-B	20.8-22.8						

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL UNIT

STATE PROJECT NO. 8.1184801 F. A. NO. F-38-1(35)

COUNTY BEAUFORT - PITT ROUTE US 264

BRIDGE ON US 264, -L-

OVER TRANTERS CREEK

PROJECT GEOLOGIST E. A. WITORT DRAWN BY M. D. HARRELL

CHECKED BY E. A. WITORT SUBMITTED BY G. L. BUNCH

DATE SUBMITTED JULY 1984

FORM: GEO-02 REVISED 4-77

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
8.1184801	4	5

BORING NO. B3-A BENT NO. 3 COLLAR ELEV. 1.5
BORING LOC. (STA. & OFFSET) 19+38, 34' LT.-L-RT. LN. TOTAL DEPTH 31.9'

ELEV.	DEPTH	BLOW COUNT 6" 6" 6"	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMP. NO.	DESCRIPTION
1.5	0.0		GROUND SURFACE				
	4.0	1 0 1		SAT		SS-1	MUCK WITH WOOD
	9.0	4 3 4		"		SS-2	GRAY FINE SAND WITH TRACE OF WOOD
	14.0	2 1 2		"		SS-3	GRAY FINE TO CSE. SAND (LOG AT 19.5')
	19.0	2 6 4		"		CORE #1	GRAY SANDY LIMESTONE
	21.9		CORE #1 21.9 - 26.9 REC. = 24% RQD = 0%				
	26.9		CORE #2 26.9 - 31.9 REC. = 98% RQD = 78%			CORE #2	
-30.4	31.9		BORING TERMINATED AT ELEV. -30.4 IN SANDY LIMESTONE				

DATE COMPLETED 5-23-84

BORING NO. B3-B BENT NO. 3 COLLAR ELEV. 0.8
BORING LOC. (STA. & OFFSET) 19+30, 19' RT.-L-RT. LN. TOTAL DEPTH 21.8'

ELEV.	DEPTH	BLOW COUNT 6" 6" 6"	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMP. NO.	DESCRIPTION
0.8	0.0		GROUND SURFACE				
							MUCK
							GRAY FINE SAND
-21.0	21.8		WASH BORING TERMINATED AT ELEV. -21.0 ON ROCK				GRAY FINE TO CSE. SAND

DATE COMPLETED 5-23-84

BORING NO. B4-A BENT NO. 4 COLLAR ELEV. -8.6
BORING LOC. (STA. & OFFSET) 19+95, 15' LT.-L-RT. LN. TOTAL DEPTH 12.6'

ELEV.	DEPTH	BLOW COUNT 6" 6" 6"	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMP. NO.	DESCRIPTION
0.4			WATER SURFACE				WATER
-8.6	0.0		CREEK BOTTOM				V. LOOSE ORGANIC SAND
	4.5	PUSH					V. LOOSE TO LOOSE SAND
	6.0	PUSH					SANDY CLAY WITH SHELLS
-21.2	12.6		REFUSAL ON ROCK WITH 1/2" RODS AT ELEV. -21.2'				

DATE COMPLETED 6-12-84

SOIL CLASSIFICATION AND GRADATION

SAMPLE	LOCATION	DEPTH	AASHO CLASSIFICATION	N	%PASSING #200 SIEVE	COARSE SAND	FINE SAND	SILT	CLAY	L.L.	P.I.
SS-1	B3-A	9.0-10.5	A-2-4(0)	7	18	1	88	6	5	22	NP
SS-2	"	14.0-15.5	A-2-4(0)	3	33	1	79	14	6	23	NP
SS-3	"	19.0-20.5	A-3(0)	10	6	25	72	2	1	22	NP

BORING NO. B3-C BENT NO. 3 COLLAR ELEV. 1.3
BORING LOC. (STA. & OFFSET) 19+37, 2' RT.-L-RT. LN. TOTAL DEPTH 21.5'

ELEV.	DEPTH	BLOW COUNT 6" 6" 6"	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMP. NO.	DESCRIPTION
1.3	0.0		GROUND SURFACE				
							MUCK
							GRAY FINE SAND W/WOOD
-20.2	21.5		WASH BORING TERMINATED AT ELEV. -20.2' ON ROCK				GRAY FINE TO CSE. SAND

DATE COMPLETED 5-23-84

BORING NO. _____ BENT NO. _____ COLLAR ELEV. _____
BORING LOC. (STA. & OFFSET) _____ TOTAL DEPTH _____

ELEV.	DEPTH	BLOW COUNT 6" 6" 6"	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMP. NO.	DESCRIPTION

DATE COMPLETED _____

BORING NO. B4-B BENT NO. 4 COLLAR ELEV. -9.3
BORING LOC. (STA. & OFFSET) 19+95, 15' RT.-L-RT. LN. TOTAL DEPTH 12.3'

ELEV.	DEPTH	BLOW COUNT 6" 6" 6"	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMP. NO.	DESCRIPTION
0.4			WATER SURFACE				
-9.3	0.0		CREEK BOTTOM				VERY LOOSE ORGANIC SAND
	2.5	PUSH					VERY LOOSE SAND
	6.5	PUSH					SANDY CLAY W/SHELLS
-21.6	12.3		REFUSAL ON ROCK WITH 1/2" RODS AT ELEV. -21.6'				

DATE COMPLETED 6-12-84

SOIL PROPERTIES AND TEST RESULTS

SAMPLE	LOCATION	DEPTH	AASHTO CLASS.	LL	PI	γ_d PCF	w%	e

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
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GEOTECHNICAL UNIT

STATE PROJECT NO. 8.1184801 R-216B F. A. NO. F-38-1(35)
COUNTY PITT - BEAUFORT ROUTE US 264
BRIDGE ON US 264, -L-
OVER TRANTERS CREEK

PROJECT GEOLOGIST E. A. WITORT DRAWN BY M. D. HARRELL
CHECKED BY E. A. WITORT SUBMITTED BY G. L. BUNCH
DATE SUBMITTED JULY 1984

FORM-GEO-02 REVISED 4-77

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
8.1184801	5	5

BORING NO. B5-A BENT NO. 5 COLLAR ELEV. 7.7
BORING LOC. (STA. & OFFSET) 20+60, 29'LT.-L-RT.LN. TOTAL DEPTH 29.0'

ELEV.	DEPTH	BLOW COUNT	BLOWS PER FOOT	GW DATA	LOG	SAMP. NO.	DESCRIPTION
7.7	0.0						GROUND SURFACE
							TAN SILTY FINE SAND
							TAN AND GRAY SI. CLAY
							BROWN SILTY CLAY W/SHELLS
							GRAY SILTY SANDY CLAY WITH SHELLS
-21.3	29.0						AUGER REFUSAL ON ROCK AT ELEV. -21.3

DATE COMPLETED 5-31-84

BORING NO. B6-A BENT NO. 6 COLLAR ELEV. 7.6
BORING LOC. (STA. & OFFSET) 20+95, 13'LT.-L-RT.LN. TOTAL DEPTH 50.8'

ELEV.	DEPTH	BLOW COUNT	BLOWS PER FOOT	GW DATA	LOG	SAMP. NO.	DESCRIPTION
7.6	0.0						GROUND SURFACE
	2.0	1 2 2	4			SS-1	MIXED SAND AND SILT FILL
	4.3	1 2 3	5			SS-2	BROWN AND GRAY FINE
	6.8	2 2 3	5			SS-3	SANDY SILTY CLAY
	9.3	1 1 2	3				
	14.3	2 1 2	3			SS-4	
	19.3	1 2 2	4			SS-5	GRAY CLY. SANDY SILT AND SILTY SANDY CLAY W/ SHELLS
	24.3	3 3 3	6			SS-6	
	29.3	50/.4	100+				GRAY SANDY LIMESTONE
	34.3	50/.1	100+				
	39.3	50/.05	100+				
	44.3	18 33 22	55			SS-7	GRAY GREEN CLAYEY FINE TO CSE. SAND W/LIMESTONE FRAGMENTS
-43.2	49.3 / 50.8	11 47 30	77			SS-8	
							BORING TERMINATED AT ELEV. -43.2 IN CLY. F.-CSE. SAND

DATE COMPLETED 12-9-83

END
BORING NO. EB2-A BENT NO. 2 COLLAR ELEV. 8.3
BORING LOC. (STA. & OFFSET) 21+25, 15'LT.-L-RT.LN. TOTAL DEPTH 29.7'

ELEV.	DEPTH	BLOW COUNT	BLOWS PER FOOT	GW DATA	LOG	SAMP. NO.	DESCRIPTION
8.3	0.0						GROUND SURFACE
				M			BROWN SILTY F. TO CSE. SAND
				W			YELLOW AND GRAY SILTY CLAY
				W			BLUE GRAY SILTY CLAY WITH SHELLS
				W			GRAY SHELLY CLAY
-21.4	29.7						AUGER REFUSAL AT ELEV. -21.4' ON ROCK

DATE COMPLETED 5-29-84

SOIL CLASSIFICATION AND GRADATION

SAMPLE	LOCATION	DEPTH	AASHO CLASSIFICATION	N	%PASSING #200 SIEVE	COARSE SAND	FINE SAND	SILT	CLAY	L.L.	P.I.	W%
SS-1	B5-B	0.0-1.5	A-2-4(0)	1	33	35	35	18	12	29	NP	
SS-2	"	9.2-10.7	A-7-6(20)	2	81	1	27	30	42	60	41	
SS-3	"	14.2-15.7	A-6(4)	4	51	15	39	22	24	33	13	
SS-4	"	19.2-20.7	A-1-B(0)	6	21	33	36	17	14	22	3	
SS-1	B6-A	2.5-3.5	A-7-6(19)	4	80	6	17	32	45	54	30	
SS-2	"	4.3-5.8	A-7-6(20)	5	83	2	21	34	43	58	35	
SS-3	"	6.8-8.3	A-7-6(20)	5	89	1	16	34	49	63	40	
SS-4	"	14.3-15.8	A-7-6(14)	3	71	10	32	27	31	44	25	
SS-5	"	19.3-20.8	A-4(4)	4	55	15	43	20	22	31	10	
SS-6	"	24.3-25.8	A-6(8)	6	41	22	39	17	22	29	15	
SS-7	"	44.3-45.8	A-2-4(0)	55	16	65	19	6	10	21	2	
SS-8	"	49.3-50.8	A-2-4(0)	77	12	65	21	4	10	25	NP	
SS-1	EB2-B	0.5-1.5	A-3(0)	1	7	68	26	2	4	19	NP	
SS-2	"	4.5-5.7	A-7-6(18)	2	76	9	20	24	47	51	29	39
SS-3	"	9.2-10.7	A-7-6(18)	4	70	2	35	23	41	56	38	35
SS-4	"	14.2-15.7	A-6(11)	4	66	9	35	27	29	39	21	34.8
SS-5	"	19.2-20.7	A-6(5)	4	53	14	43	23	20	32	12	26.9
SS-6	"	24.2-25.7	A-2-4(0)	5	34	23	44	19	14	28	9	

BORING NO. B5-B BENT NO. 5 COLLAR ELEV. 3.4
BORING LOC. (STA. & OFFSET) 20+45, 13'RT.-L-RT.LN. TOTAL DEPTH 35.9'

ELEV.	DEPTH	BLOW COUNT	BLOWS PER FOOT	GW DATA	LOG	SAMP. NO.	DESCRIPTION
3.4	0.0						GROUND SURFACE
				W		SS-1	BROWN CLY. SI. F. TO CSE. SAND
	4.2	1 1 1	2				YELLOW, BROWN AND GRAY MOT. F. SDY. SILTY CLAY
	9.2	1 1 1	2				
	14.2	1 2 2	4			SS-2	GRAY SILTY FINE SANDY CLAY W/SHELLS
	19.2	6 3 3	6			SS-3	
	24.2	18 50/.2	100+	SAT?		SS-4	GRAY CLY. SILTY FINE TO CSE. SAND W/SHELLS
	24.7		TRI-CONE BY REFUSAL				
	28.9	50/.0	100+				GRAY SANDY LIMESTONE
	33.9	50/.0	100+				
-32.5	35.9	REFUSAL					BORING TERMINATED AT ELEV. -32.5' IN SANDY LIMESTONE

DATE COMPLETED 1-12-84

BORING NO. B6-B BENT NO. 6 COLLAR ELEV. 5.7
BORING LOC. (STA. & OFFSET) 20+95, 15'RT.-L-RT.LN. TOTAL DEPTH 28.0'

ELEV.	DEPTH	BLOW COUNT	BLOWS PER FOOT	GW DATA	LOG	SAMP. NO.	DESCRIPTION
5.7	0.0						GROUND SURFACE
							TAN AND GRAY SILTY FINE SAND WITH ROOTS
							YELLOW BROWN AND GRAY FINE SANDY SILTY CLAY
							WITH TRACE OF SHELLS
							GRAY SILTY CLAY W/SHELLS
-22.3	28.0						GRAY SILTY CLAY W/SHELLS AND SAND INTERBEDS
							AUGER REFUSAL ON ROCK AT ELEV. -22.3'

DATE COMPLETED 6-1-84

END
BORING NO. EB2-B BENT NO. 2 COLLAR ELEV. 7.3
BORING LOC. (STA. & OFFSET) 21+25, 13'RT.-L-RT.LN. TOTAL DEPTH 39.0'

ELEV.	DEPTH	BLOW COUNT	BLOWS PER FOOT	GW DATA	LOG	SAMP. NO.	DESCRIPTION
7.3	0.0						GROUND SURFACE
				SAT. W		SS-1	DARK BROWN SILTY SAND
						SS-2	TAN FINE TO CSE. SAND
						ST-2	YELLOW BROWN MOT. FINE SANDY SILTY CLAY
						SS-3	
						ST-3	
						SS-4	GRAY SILTY FINE SDY. CLAY W/SHELLS
						ST-4	
						SS-5	
						SS-6	GRAY CLY. SILTY FINE TO CSE. SAND W/SHELLS
						CORE #1	GRAY SANDY LIMESTONE
						CORE #2	
-31.7	39.0						CORING TERMINATED AT ELEV. -31.7 IN SANDY LIMESTONE

DATE COMPLETED 1-9-84

ST-2 5.7-7.7 REC.= 1.5'
ST-3 10.7-12.7 REC.= 1.5'
ST-4 20.7-22.7 REC.= 1.5'
CORE #1 29.0-34.0 REC.= 20% RQD= 15%
CORE #2 34.0-39.0 REC.= 34% RQD= 28%

SOIL PROPERTIES AND TEST RESULTS

SAMPLE	LOCATION	DEPTH	AASHTO CLASS.	LL	PI	γd PCF	w%	e
ST-2	EB2-B	5.7-7.7						
ST-3	"	10.7-12.7						
ST-4	"	20.7-22.7						

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
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GEOTECHNICAL UNIT

STATE PROJECT NO. 8.1184801 R-216B F. A. NO. F-38-1(35)
COUNTY PITT-BEAUFORT ROUTE US 264
BRIDGE ON US 264 -L-
OVER TRANTERS CREEK

PROJECT GEOLOGIST E. A. WITORT DRAWN BY M. D. HARRELL
CHECKED BY E. A. WITORT SUBMITTED BY G. L. BUNCH
DATE SUBMITTED JULY 1984

FORM: GEO-02 REVISED 4-77

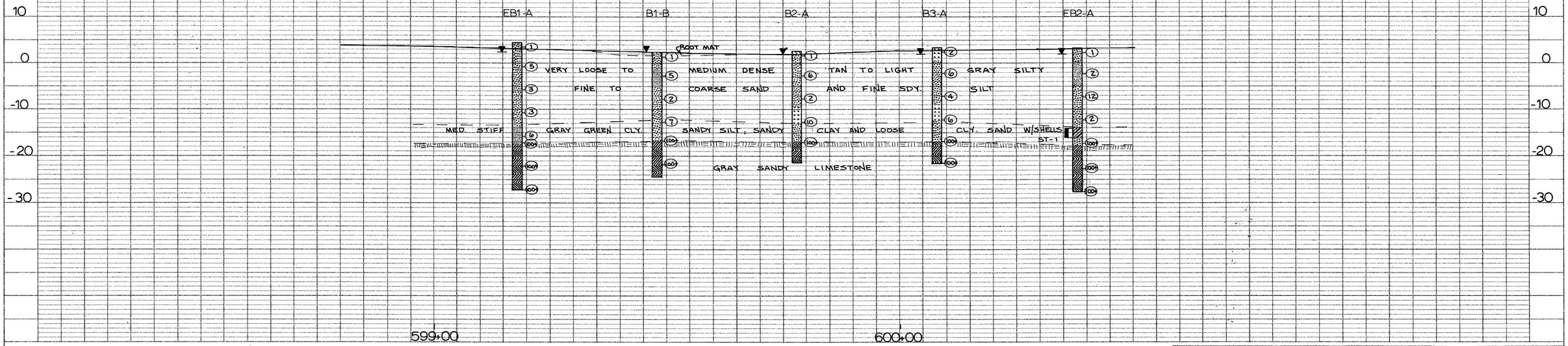
FOUNDATION INVESTIGATION

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
8.1184801	1	2

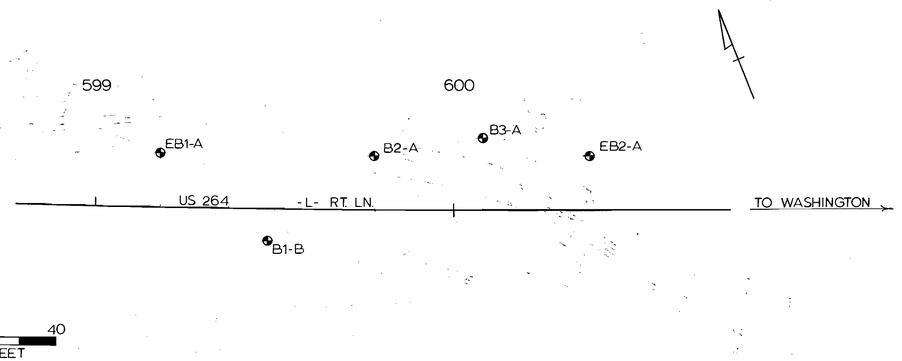
8118480 1

PROJECT: R-216B

PROFILE THROUGH BORINGS



TEST SITE PLAN



SOIL LEGEND AND CLASSIFICATION

GENERAL CLASS.	GRANULAR MATERIALS (≤35% PASSING #200)							SILT-CLAY MATERIALS (> 35% PASSING #200)				ORGANIC MATERIALS		
GROUP CLASS.	A-1		A-3	A-2				A-4	A-5	A-6	A-7	A-1, A-2 A-3	A-4, A-5 A-6, A-7	
	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7				A-7-5 A-7-6			
SYMBOL														
% PASSING #10	50 MX											GRANULAR SOILS	SILT-CLAY SOILS	MUCK, PEAT
#40	30 MX	50 MX	51 MN											
#200	15 MX	25 MX	10 MX	35 MX	35 MX	35 MX	35 MX	36 MN	36 MN	36 MN	36 MN			
(PASSING #40) LL	6 MX		N.P.	40 MX	41 MN	40 MX	41 MN	40 MX	41 MN	40 MX	41 MN*	SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER		HIGHLY ORGANIC SOILS
PI				10 MX	10 MX	11 MN	11 MN	10 MX	10 MX	11 MN	11 MN*			
GROUP INDEX	0		0	0		4 MX		8 MX	12 MX	16 MX	20 MX			
USUAL TYPES OF MAJOR MATERIALS	STONE FRAGS. GRAVEL & SAND		FINE SAND	SILTY OR CLAYEY GRAVEL AND SAND				SILTY SOILS		CLAYEY SOILS				

* PI OF A-7-5 ≤ (LL - 30); PI OF A-7-6 >(LL - 30)

TEXTURE OR GRAIN SIZE

	BOULDER	COBBLE	GRAVEL	COARSE SAND	MED. SAND	FINE SAND	SILT	CLAY
GRAIN SIZE	MM 305		76	2	0.6 0.25	0.2 .05	.005	
	IN 12"		3"					

SOIL MOISTURE - CORRELATION OF TERMS

SOIL MOISTURE SCALE (ATTERBERG LIMITS)	FIELD MOISTURE DESCRIPTION	GUIDE FOR FIELD MOISTURE DESCRIPTION
	-SATURATED-	USUALLY LIQUID; VERY WET, USUALLY FROM BELOW THE GROUND WATER TABLE
LL - LIQUID LIMIT		
PLASTIC RANGE (PI)		SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE
PL - PLASTIC LIMIT	-WET- (W)	
OM - OPTIMUM MOISTURE	-MOIST- (M)	SOLID; AT OR NEAR OPTIMUM MOISTURE
SL - SHRINKAGE LIMIT		
	-DRY- (D)	REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE

CONSISTENCY OR DENSENESS

PRIMARY SOIL TYPE	COMPACTNESS OR CONSISTENCY	RANGE OF STANDARD PENETRATION RESISTANCE (BPF)	RANGE OF UNCONFINED COMPRESSIVE STRENGTH (q_u) (TONS/FT2)
GENERALLY GRANULAR MATERIAL	VERY LOOSE	< 4	N/A
	LOOSE	4 TO 10	
	MEDIUM DENSE	10 TO 30	
	DENSE	30 TO 50	
	VERY DENSE	> 50	
GENERALLY SILT-CLAY MATERIAL	VERY SOFT	< 2	< .25
	SOFT	2 TO 4	.25 TO .5
	MEDIUM STIFF	4 TO 8	.5 TO 1
	STIFF	8 TO 15	1 TO 2
	VERY STIFF	15 TO 30	2 TO 4
	HARD	> 30	> 4

MISCELLANEOUS SYMBOLS AND ABBREVIATIONS

- ROADWAY EMBANKMENT WITH SOIL DESCRIPTION
- SOIL SYMBOL
- ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS
- INFERRED SOIL BOUNDARIES
- STRIKE AND DIP OF BEDS
- APPARENT DIP (NORMAL TO _____)
- SPT / DPT / VST — TEST BORING
- AUGER BORING
- CORE BORING
- PIEZOMETER INSTALLATION
- SLOPE INDICATOR INSTALLATION
- SPT N-COUNT

SAMPLE DESIGNATIONS

S	BULK SAMPLE
SS	SPLIT SPOON SAMPLE
ST	"SHELBY TUBE SAMPLE
WS	WASH SAMPLE

GROUND WATER

- WATER LEVEL IN BORE HOLE {IMMEDIATELY AFTER DRILLING (I.A.D.) / SOON AFTER DRILLING (▽ ____ HRS.)}
- STATIC WATER LEVEL (AFTER 24 HRS.)
- PERCHED WATER (PW), SATURATED ZONE, OR WATER BEARING STRATA
- SPRING OR SEEPAGE

ABBREVIATIONS

ALLUV.	ALLUVIUM	REF.	REFER TO
AR	AUGER REFUSAL	RES.	RESIDUAL
BLDR.	BOULDER	S.	SOFT
BPF	BLOWS PER FOOT	SAT.	SATURATED
C	COHESION	SD.	SAND
CALC.	CALCAREOUS	SDY.	SANDY
CL.	CLAY	SED(S).	SEDIMENT(S)
CLY.	CLAYEY	SL.	SILT, SILTY
COB.	COBBLE	SLI.	SLIGHTLY
CSE.	COARSE		
DPT	DYNAMIC PENETRATION TEST	SPT	STANDARD PENETRATION TEST
e	VOID RATIO	TS.	TOPSOIL
F.	FINE	VST	VANE SHEAR TEST
FOSS.	FOSSILIFEROUS	w	MOISTURE CONTENT
FRAC.	FRACTURED	W/	WITH
FRAG(S).	FRAGMENT(S)	γ	UNIT WEIGHT(WET)
GR.	GRAVEL	γ_d	UNIT DRY WEIGHT
GS	SPECIFIC GRAVITY		
GW	GROUND WATER	V.	VERY
MED.	MEDIUM	EST.	ESTIMATED
MIC.	MICACEOUS		
MOT.	MOTTLED		
N	BLOW COUNT		
NS	NO SAMPLE TAKEN		
ORG.	ORGANIC		

ROCK DESCRIPTION

IN THE BROADEST MEANING, HARD ROCK IS CONSIDERED TO BE THAT INDURATED EARTH MATERIAL WHICH CANNOT BE SAMPLED BY CONVENTIONAL SOIL SAMPLING TOOLS OR TECHNIQUES. THE BOUNDARY BETWEEN SOIL AND ROCK IS ARBITRARY. TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED BY A ZONE OF "WEATHERED ROCK". FOR THE PURPOSE OF THIS INVESTIGATION, THESE MATERIALS ARE DIVIDED AS FOLLOWS:

TERM	SYMBOLS		DESCRIPTION
HARD ROCK (HR)	CORED ROCK	INFERRED ROCK LINE [2]	MATERIAL THAT CANNOT BE PENETRATED BY POWER AUGERS, EXCEPT IN THIN LEDGES, AND REQUIRES ROCK CORING TOOLS FOR OBTAINING SAMPLE.
WEATHERED ROCK (WR)		HARD WEATHERED ROCK	MATERIAL THAT CAN BE PENETRATED WITH GREAT DIFFICULTY USING POWER AUGERS AND YIELDS SPT REFUSAL[1].
(HWR) (SWR)		SOFT WEATHERED ROCK	MATERIAL THAT CAN BE PENETRATED WITH SOME DIFFICULTY USING POWER AUGERS AND YIELDS SPT VALUES > 100 BPF BUT < SPT REFUSAL.

[1] SPT REFUSAL (ASTM) ≤ 1 INCH OF PENETRATION PER 50 BLOWS.

[2] AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH AUGERS COULD NO LONGER PENETRATE. THE HARD ROCK SYMBOL IS SHOWN WHEN ROCK IS CORED AND ONLY TO THAT DEPTH CORED. A DESCRIPTION OF ROCK IS GIVEN, INCLUDING:

CORE RECOVERY (REC.) - TOTAL LENGTH OF ROCK RECOVERED IN THE CORE BARREL DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%.

ROCK QUALITY DESIGNATION (RQD) - TOTAL LENGTH OF SOUND ROCK SEGMENTS RECOVERED THAT ARE LONGER THAN OR EQUAL TO 4" DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%.

ROCK CORE NOMINAL SIZES: AX CORE ($1^3/16$"); BX CORE ($1^5/8$"); NX CORE ($2^1/8$"); NXWL CORE ($1^{15}/16$")

B.M. RR SPIKE IN BASE OF 18" WATER OAK 45' RT. STA. 10+76 -L-

MISC: ELEV. 5.51

NOTE: THE SUBSURFACE INFORMATION SUPPLIED IN THIS REPORT IS BASED ON A PRELIMINARY BRIDGE REPORT. A REVIEW OF THE SUBSURFACE CONDITIONS IS NECESSARY IF SIGNIFICANT CHANGES ARE MADE IN THE DESIGN AND/OR LOCATION OF THE PROPOSED STRUCTURE.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL UNIT

STATE PROJECT NO. 81184801 R-216B F. A. NO. F-38-1(35)

COUNTY BEAUFORT - PITT ROUTE US 264

BRIDGE ON US 264 -L- RT. LN.

OVER TRANTERS CREEK OVERFLOW

PROJECT GEOLOGIST E. A. WITORT DRAWN BY M. D HARRELL

CHECKED BY E. A. WITORT SUBMITTED BY G.L. BUNCH

PERSONNEL RLE
SSB

DATE SUBMITTED MARCH 1984

FORM: GEO-01 REVISED 4-77

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
8.1184801	2	2

END

BORING NO. EB1-A BENT NO. 1 COLLAR ELEV. 46

BORING LOC. (STA. & OFFSET) 599+18, 15' LT. -L- RT LN TOTAL DEPTH 31.8'

ELEV.	DEPTH	BLOW COUNT	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMPLE NO.	DESCRIPTION
46	0.0		GROUND SURFACE				
	4.4	1-1-2	N=3	SAT		SS-1	GRAY AND TAN SILTY FINE TO COARSE SAND
	9.4	2-2-3	N=5	"		SS-2	
	14.4	2-2-1	N=3	"		SS-3	
	19.4	1-1-2	N=3	W		SS-4	
	21.8	4-3-3	N=6			SS-5	GRAY GREEN CLAYEY SANDY SILT WITH SHELLS
	26.8	REFUSAL	CORE #1 21.8 - 26.8 REC = 50% RQD = 25% 100%			CORE #1	GRAY SANDY LIMESTONE
27.2	31.8	REFUSAL	CORE #2 26.8 - 31.8 REC = 94% RQD = 70% 100%			CORE #2	
			CORING TERMINATED AT ELEV. -27.2 WITH REFUSAL IN SANDY LIMESTONE				

DATE COMPLETED 1-17-84

BORING NO. B1-B BENT NO. 1 COLLAR ELEV. 23

BORING LOC. (STA. & OFFSET) 599+48, 9' RT -L- RT LN TOTAL DEPTH 26.6'

ELEV.	DEPTH	BLOW COUNT	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMPLE NO.	DESCRIPTION
23	0.0		GROUND SURFACE				
	2.3		ROOT MAT	SAT		SS-1	TAN SILTY FINE TO CSE. SAND
	4.1	1-2-2	N=4	"		SS-2	LIGHT GRAY FINE SDY. SILT
	9.1	2-2-3	N=5	"		SS-3	LIGHT GRAY SILTY FINE TO COARSE SAND
	14.1	2-2-5	N=7	"		SS-4	GRAY GREEN CLAYEY SILTY SAND WITH SHELLS
	19.1		100%				
	24.1		100%				GRAY SANDY LIMESTONE
-24.3	26.6		BORING TERMINATED AT ELEV. -24.3 WITH REFUSAL IN SANDY LIMESTONE				

DATE COMPLETED 1-19-84

BORING NO. B2-A BENT NO. 2 COLLAR ELEV. 27

BORING LOC. (STA. & OFFSET) 599+78, 15' LT -L- RT LN TOTAL DEPTH 24.0'

ELEV.	DEPTH	BLOW COUNT	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMPLE NO.	DESCRIPTION
27	0.0		GROUND SURFACE				
	2.7		ROOT MAT	SAT		SS-1	TAN AND LIGHT GRAY FINE TO COARSE SAND
	4.4	1-1-3	N=4	"		SS-2	
	9.4	3-3-3	N=6	"		SS-3	GRAY GREEN CLAYEY SILTY SAND WITH SHELLS
	14.4	1-1-1	N=2				
	19.4	6-4-6	N=10				GRAY SANDY LIMESTONE
	21.3	50/4					
-21.3	24.0		BORING TERMINATED AT ELEV. -21.3 IN SANDY LIMESTONE				

DATE COMPLETED 1-23-84

SOIL CLASSIFICATION AND GRADATION

SAMPLE	LOCATION	DEPTH	AASHO CLASSIFICATION	N	% PASSING #200 SIEVE	COARSE SAND	FINE SAND	SILT	CLAY	L.L.	P.I.	W %
SS-1	EB1-A	0.0-1.5	A-2-4(0)		25	17	64	13	6	25	NP	
SS-2	"	4.4-5.9	A-2-4(0)		20	28	56	8	8	18	NP	
SS-3	"	9.4-10.9	A-2-4(0)		11	25	67	6	2	18	NP	
SS-4	"	14.4-15.9	A-2-4(0)		22	16	67	11	6	21	NP	
SS-5	"	19.4-20.9	A-4(0)		36	24	42	18	16	27	9	24.0
SS-1	B1-B	0.5-1.5	A-2-4(0)		24	16	65	14	5	20	NP	
SS-2	"	4.1-5.6	A-2-4(0)		28	10	69	12	9	20	NP	
SS-3	"	9.1-10.6	A-2-4(0)		23	8	75	10	7	20	NP	
SS-4	"	14.6-15.6	A-2-4(0)		25	34	40	14	12	25	4	
SS-1	B2-A	4.4-5.9	A-2-4(0)		30	11	67	11	11	19	NP	
SS-2	"	9.4-10.9	A-2-4(0)		31	7	65	18	10	20	NP	
SS-3	"	14.4-15.9	A-3(0)		5	70	27	2	1	17	NP	
SS-1	B3-A	0.0-1.5	A-3(0)		6	30	66	2	2	22	NP	
SS-2	"	4.6-6.1	A-2-4(0)		21	15	70	5	10	20	NP	
SS-3	"	9.6-11.1	A-2-4(0)		22	11	73	9	7	21	NP	
SS-4	"	14.6-16.1	A-3(0)		2	90	8	1	1	18	NP	
SS-1	EB2-A	0.0-1.5	A-2-4(0)		17	24	62	12	2	24	NP	
SS-2	"	4.5-6.0	A-4(1)		41	9	58	17	16	21	NP	
SS-3	"	9.5.11.0	A-2-4(0)		15	25	64	6	5	16	NP	
SS-4	"	14.5-16.0	A-2-4(0)		18	18	67	9	6	19	NP	

BORING NO. B3-A BENT NO. 3 COLLAR ELEV. 34

BORING LOC. (STA. & OFFSET) 600+08, 20' LT -L- RT LN TOTAL DEPTH 24.9'

ELEV.	DEPTH	BLOW COUNT	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMPLE NO.	DESCRIPTION
34	0.0		GROUND SURFACE				
	4.6	1-1-3	N=4	SAT		SS-1	TAN AND LIGHT GRAY FINE TO COARSE SAND
	9.6	1-2-2	N=4	"		SS-2	
	14.6	4-3-3	N=6	"		SS-3	
	19.6	30-50/2		"		SS-4	
	24.6		100%				GRAY GREEN CLAYEY SAND WITH SHELLS
	24.9	50/3	100%				GRAY SANDY LIMESTONE
-21.5			BORING TERMINATED AT ELEV. -21.5' IN SANDY LIMESTONE				

DATE COMPLETED 1-24-84

END

BORING NO. EB2-A BENT NO. 2 COLLAR ELEV. 32

BORING LOC. (STA. & OFFSET) 600+38, 15' LT -L- RT LN TOTAL DEPTH 30.9

ELEV.	DEPTH	BLOW COUNT	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMPLE NO.	DESCRIPTION
32	0.0		GROUND SURFACE				
	4.5	1-1-2	N=3	SAT		SS-1	TAN SILTY FINE TO CSE. SAND
	9.5	8-7-5	N=12	"		SS-2	LIGHT GRAY CLY. SANDY SILT
	14.5	1-1-2	N=3	"		SS-3	LIGHT GRAY FINE TO CSE. SAND
	17.3		ST-1 17.3-19.3 REC=1.8'			SS-4	
	19.5	20-15 REF	100%			ST-1	GRAY SDY. CLAY W/SHELLS WEATHERED LIMESTONE
	20.9		CORE #1 20.9-25.9 REC = 44% RQD = 26% 100%			CORE #1	GRAY SANDY LIMESTONE
	25.9		CORE #2 25.9-30.9 REC = 100% RQD = 78% 100%			CORE #2	
-27.7	30.9		CORING TERMINATED AT ELEV. -27.7' WITH REFUSAL IN SANDY LIMESTONE				

DATE COMPLETED 1-25-84

BORING NO. _____ BENT NO. _____ COLLAR ELEV. _____

BORING LOC. (STA. & OFFSET) _____ TOTAL DEPTH _____

ELEV.	DEPTH	BLOW COUNT	BLOWS PER FOOT 0 50 100	GW DATA	LOG	SAMPLE NO.	DESCRIPTION

DATE COMPLETED _____

SOIL PROPERTIES AND TEST RESULTS

SAMPLE	LOCATION	DEPTH	AASHTO CLASS.	LL	PI	7d PCF	w%	G
ST-1	EB2-A	17.3-19.3						

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL UNIT

STATE PROJECT NO. 8.1184801 R-216B F. A. NO. F-38-1(35)
COUNTY BEAUFORT - PITT ROUTE US 264
BRIDGE ON US 264 -L- RT LN.
OVER TRANTERS CREEK OVERFLOW

PROJECT GEOLOGIST E. A. WITORT DRAWN BY M. D. HARRELL
CHECKED BY E. A. WITORT SUBMITTED BY G. L. BUNCH
DATE SUBMITTED MARCH 1984

FORM-GEO-02 REVISED 4-77