

REFERENCE: SF-950015

PROJECT: 17BP.4.R.87

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

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY WAYNE
PROJECT DESCRIPTION BRIDGE NO.15 OVER WEST
BEAR CREEK ON SR 1719 (N BESTON RD.)

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STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SF-950015	1	6

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

A. BOZORGI
R. SMITH
J. EDMONDSON

INVESTIGATED BY A. BOZORGI
DRAWN BY M. SNYDER
CHECKED BY G. GOINS
SUBMITTED BY RK&K, LLP
DATE JANUARY 2018

Prepared in the Office of:

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RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO. F-0112



SIGNATURE _____ DATE _____

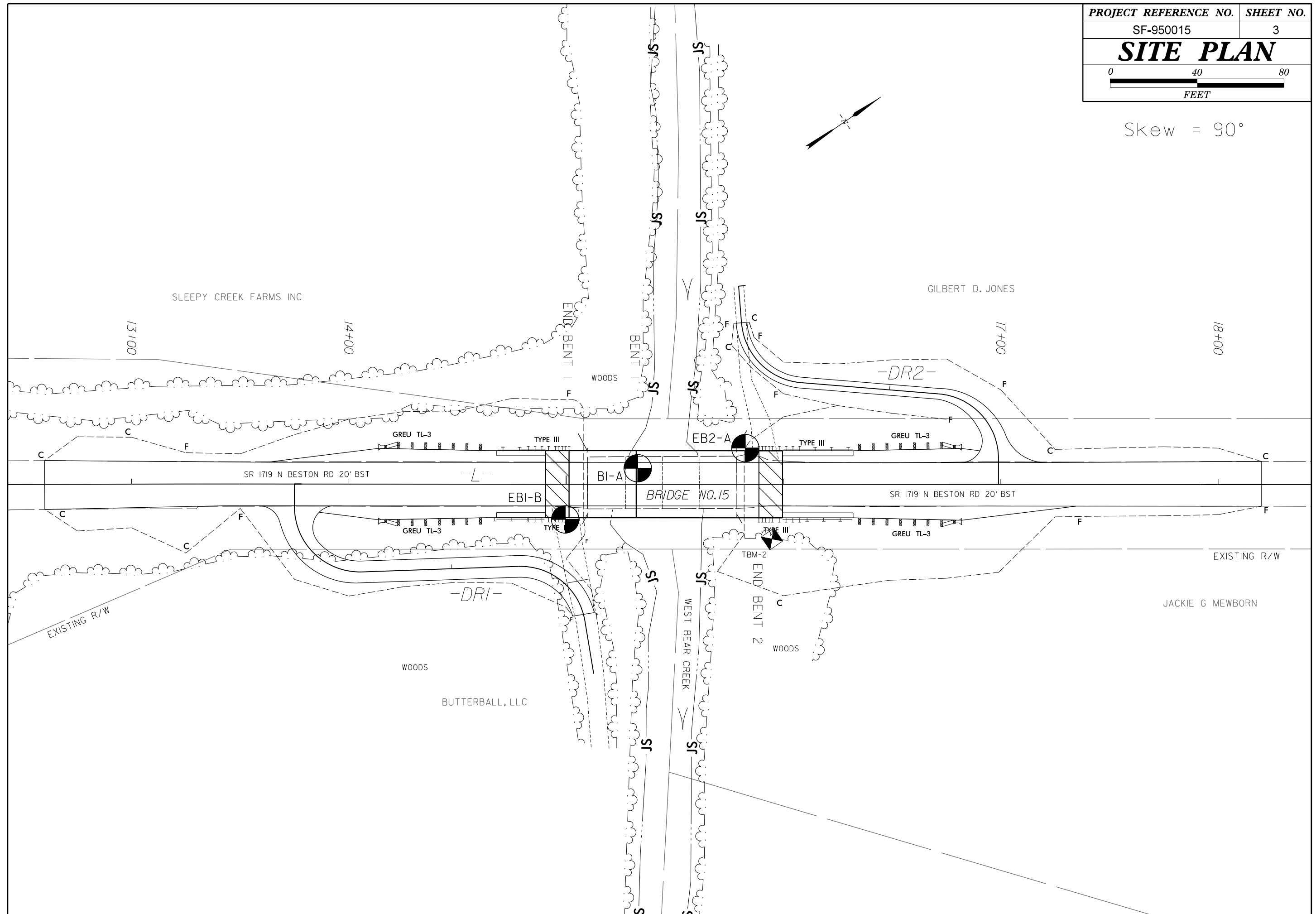
DOCUMENT NOT CONSIDERED FINAL
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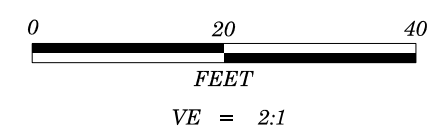
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT
SUBSURFACE INVESTIGATION
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

Table with 4 main columns: SOIL DESCRIPTION, GRADATION, ROCK DESCRIPTION, and TERMS AND DEFINITIONS. It contains detailed technical information including soil classification tables, gradation standards, rock hardness scales, and a comprehensive list of symbols and abbreviations used in geotechnical engineering.

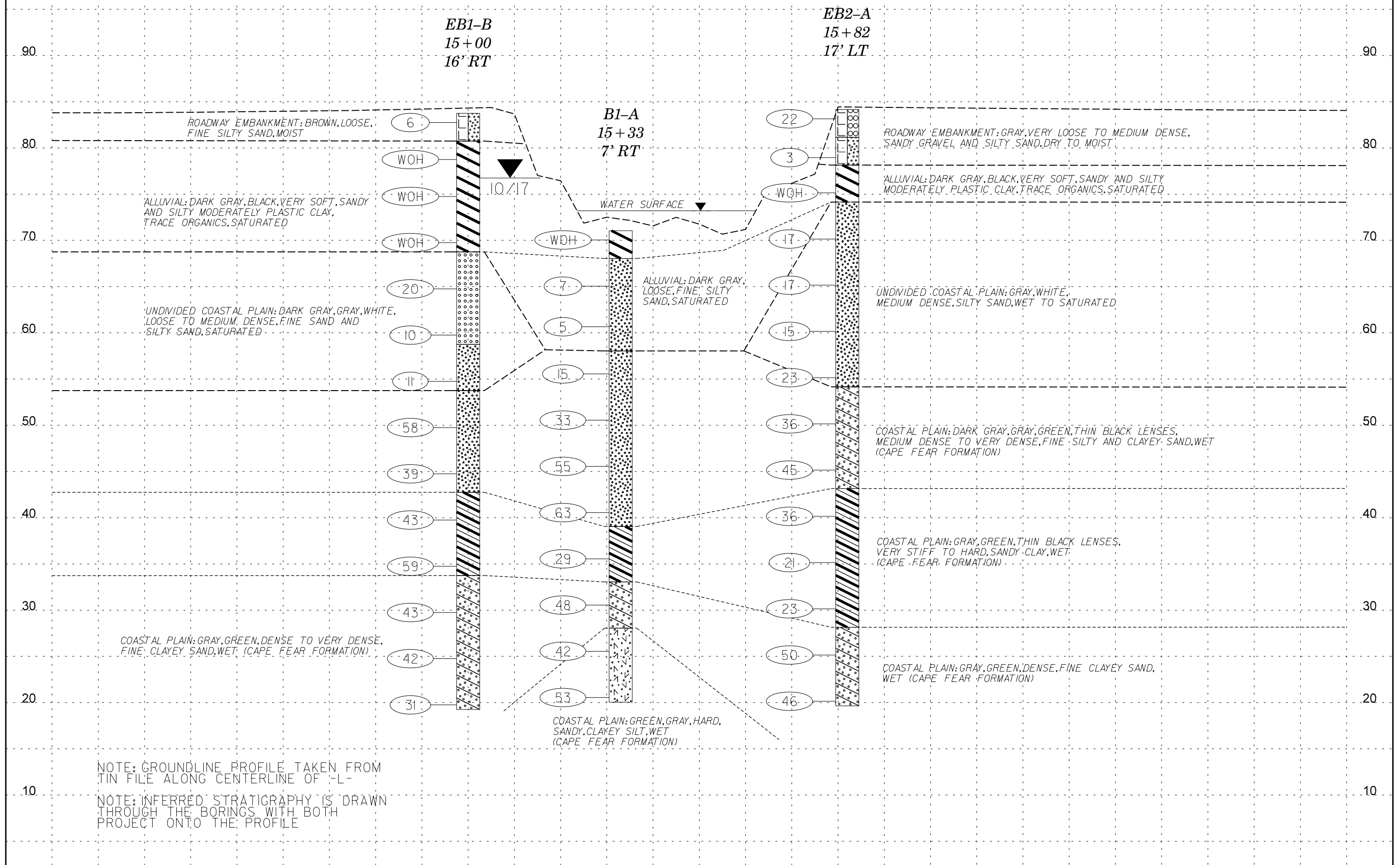
PROJECT REFERENCE NO.	SHEET NO.
SF-950015	3
SITE PLAN	
 0 40 80 FEET	

Skew = 90°





PROJECT REFERENCE NO.	SHEET NO.
SF-950015	4
PROFILE THROUGH BORINGS PROJECTED ALONG -L-	



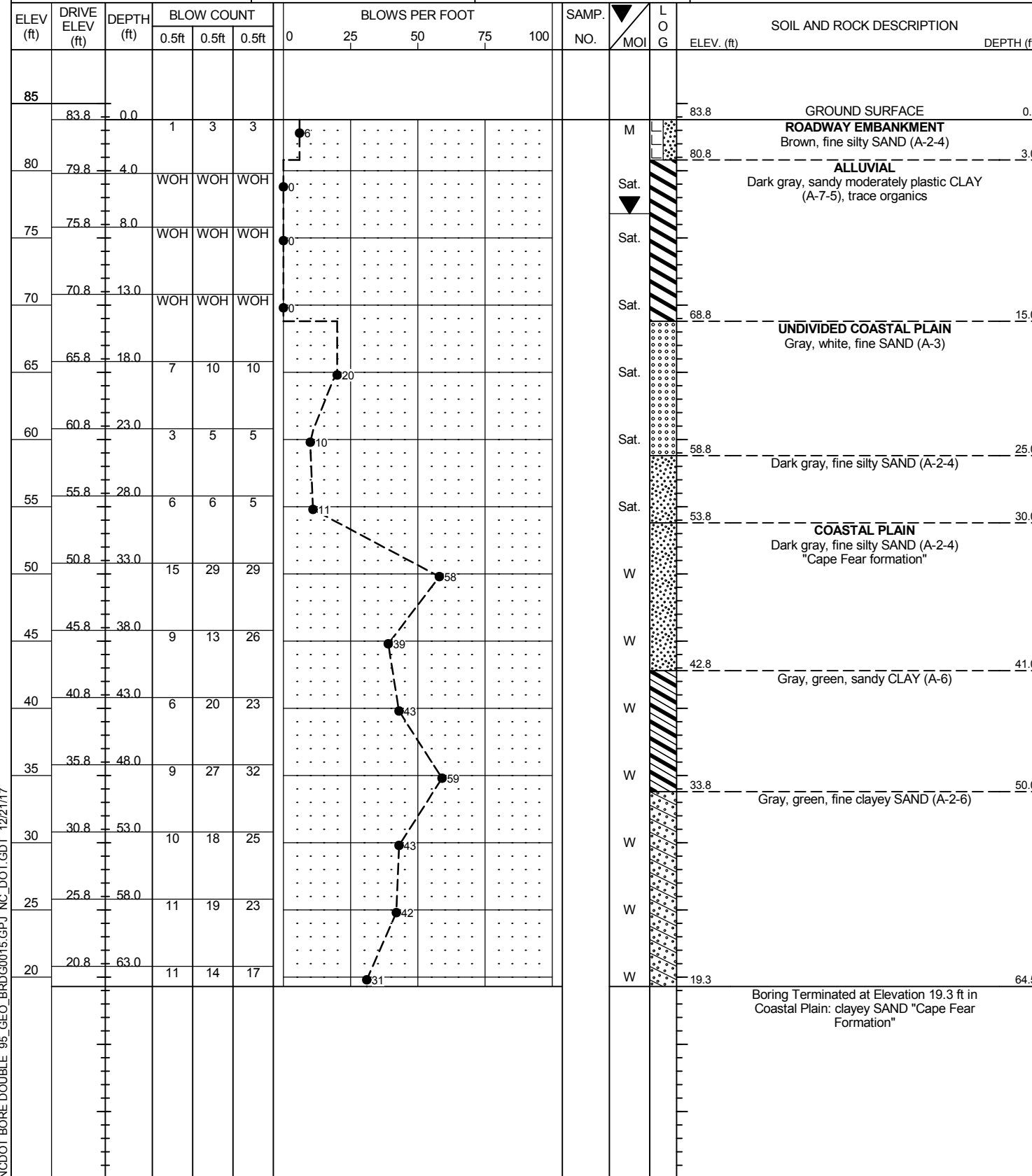
NOTE: GROUNDLINE PROFILE TAKEN FROM TIN FILE ALONG CENTERLINE OF -L-

NOTE: INFERRRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECT ONTO THE PROFILE

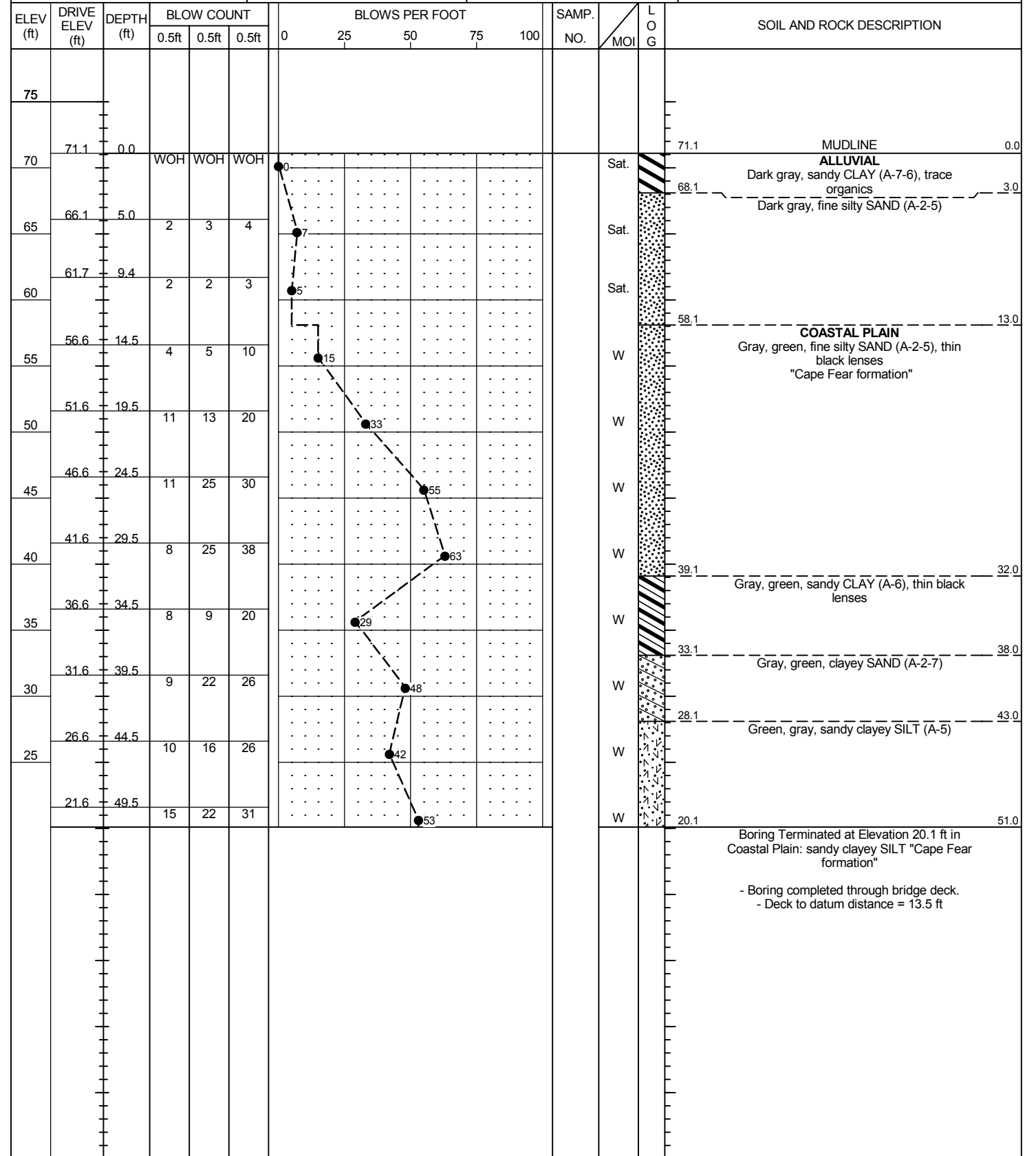
GEOTECHNICAL BORING REPORT

BORE LOG

WBS 17BP.4.R.87		TIP SF-950015		COUNTY WAYNE		GEOLOGIST A. Bozorgi	
SITE DESCRIPTION Bridge No. 15 over Bear Creek on SR 1719 (N Beston Rd)							GROUND WTR (ft)
BORING NO. EB1-B		STATION 15+00		OFFSET 16 ft RT		ALIGNMENT -L-	
COLLAR ELEV. 83.8 ft		TOTAL DEPTH 64.5 ft		NORTHING 587,504		EASTING 2,343,978	
DRILL RIG/HAMMER EFF./DATE RFO0067 CME-550X 81% 10/24/2017			DRILL METHOD Mud Rotary			HAMMER TYPE Automatic	
DRILLER Edmondson, J. M.		START DATE 10/04/17		COMP. DATE 10/05/17		SURFACE WATER DEPTH N/A	



WBS 17BP.4.R.87		TIP SF-950015		COUNTY WAYNE		GEOLOGIST A. Bozorgi	
SITE DESCRIPTION Bridge No. 15 over Bear Creek on SR 1719 (N Beston Rd)							GROUND WTR (ft)
BORING NO. B1-A		STATION 15+33		OFFSET 7 ft RT		ALIGNMENT -L-	
COLLAR ELEV. 71.1 ft		TOTAL DEPTH 51.0 ft		NORTHING 587,545		EASTING 2,343,978	
DRILL RIG/HAMMER EFF./DATE RFO0067 CME-550X 81% 10/24/2017			DRILL METHOD Mud Rotary			HAMMER TYPE Automatic	
DRILLER Edmondson, J. M.		START DATE 10/05/17		COMP. DATE 10/05/17		SURFACE WATER DEPTH 0.3ft	



NCDOT BORE DOUBLE 95_GEO_BRD0015.GPJ NC_DOT.GDT 12/21/17

GEOTECHNICAL BORING REPORT

BORE LOG

WBS 17BP.4.R.87	TIP SF-950015	COUNTY WAYNE	GEOLOGIST A. Bozorgi
SITE DESCRIPTION Bridge No. 15 over Bear Creek on SR 1719 (N Beston Rd)			GROUND WTR (ft)
BORING NO. EB2-A	STATION 15+82	OFFSET 17 ft LT	ALIGNMENT -L-
COLLAR ELEV. 84.2 ft	TOTAL DEPTH 64.5 ft	NORTHING 587,591	EASTING 2,343,998
DRILL RIG/HAMMER EFF./DATE RFO0067 CME-550X 81% 10/24/2017		DRILL METHOD Mud Rotary	HAMMER TYPE Automatic
DRILLER Smith, R. E.	START DATE 10/05/17	COMP. DATE 10/05/17	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)	
85	84.2	0.0											84.2	0.0	GROUND SURFACE
			8	12	10							D	81.2	3.0	ROADWAY EMBANKMENT Gray, sandy GRAVEL (A-1-b)
80	80.0	4.2	2	1	2							M	78.2	6.0	Gray, silty SAND (A-2-5)
			WOH	WOH	WOH							Sat.	74.2	10.0	ALLUVIAL Dark gray, black, silty CLAY (A-7-6), trace organics
75	76.2	8.0										Sat.			UNDIVIDED COASTAL PLAIN Gray, white, silty SAND (A-2-4)
70	71.2	13.0	5	8	9							Sat.			
65	66.2	18.0	5	8	9							Sat.			
60	61.2	23.0	7	9	6							Sat.			
55	56.2	28.0	3	8	15							W	54.2	30.0	COASTAL PLAIN Gray, green, clayey SAND (A-2-7) "Cape Fear formation"
50	51.2	33.0	6	19	17							W			
45	46.2	38.0	6	21	24							W			
40	41.2	43.0	10	13	23							W	43.2	41.0	Gray, green, sandy CLAY (A-6)
35	36.2	48.0	7	10	11							W			
30	31.2	53.0	6	10	13							W	28.2	56.0	Gray, green, clayey SAND (A-2-6)
25	26.2	58.0	18	27	23							W			
20	21.2	63.0	12	21	25							W	19.7	64.5	Boring Terminated at Elevation 19.7 ft in Coastal Plain: clayey SAND "Cape Fear formation"

NCDOT BORE DOUBLE 95_GEO_BRD0015.GPJ NC_DOT.GDT 12/21/17