

REFERENCE: SF-470014

PROJECT: 17BP.1.R.82

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

STRUCTURE SUBSURFACE INVESTIGATION

COUNTY HYDE
PROJECT DESCRIPTION BRIDGE NO.14 ON -L- (SR 1108)
OVER UNNAMED CANAL

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SF-470014	1	5

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

C.J. CORNETTE

R.E. SMITH

J.M. EDMONDSON

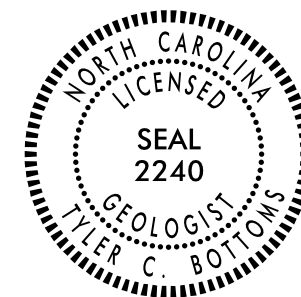
INVESTIGATED BY T.C. BOTTOMS

DRAWN BY T.C. BOTTOMS

CHECKED BY D.N. ARGENBRIGHT

SUBMITTED BY D.N. ARGENBRIGHT

DATE MAY 2017



DocuSigned by:

Tyler Bottoms

5/24/2017

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SIGNATURE

DATE

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

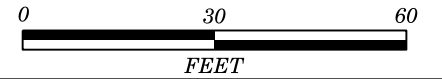
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

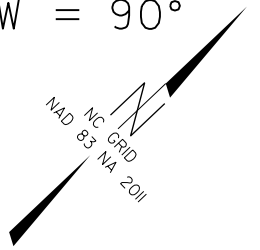
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

Main table containing sections: SOIL DESCRIPTION, GRADATION, ROCK DESCRIPTION, TERMS AND DEFINITIONS, SOIL LEGEND AND AASHTO CLASSIFICATION, ANGULARITY OF GRAINS, MINERALOGICAL COMPOSITION, COMPRESSION, PERCENTAGE OF MATERIAL, GROUND WATER, MISCELLANEOUS SYMBOLS, RECOMMENDATION SYMBOLS, ABBREVIATIONS, EQUIPMENT USED ON SUBJECT PROJECT, TEXTURE OR GRAIN SIZE, SOIL MOISTURE - CORRELATION OF TERMS, PLASTICITY, COLOR, FRACTURE SPACING, BEDDING, INDOURATION.

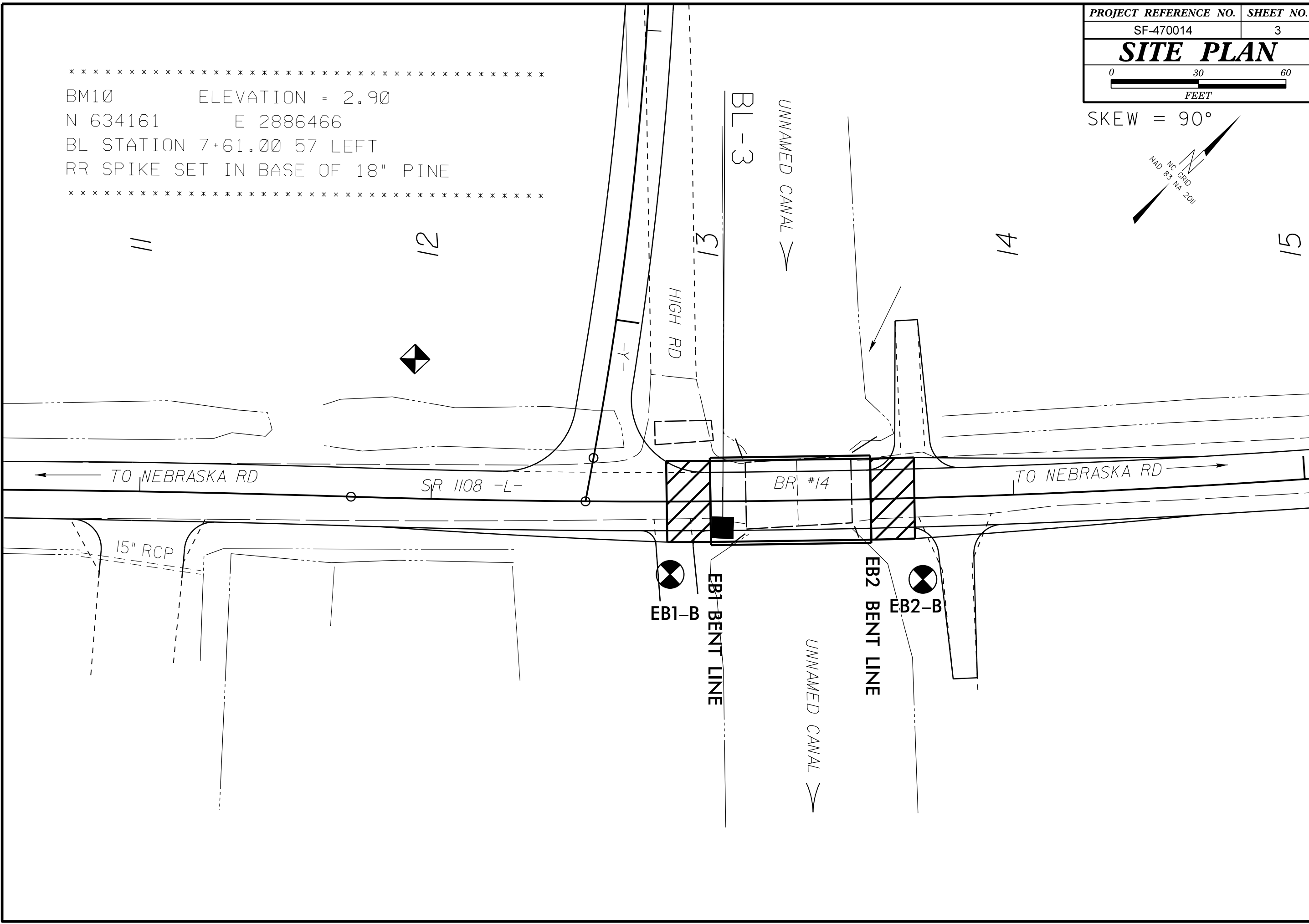
SITE PLAN



SKREW = 90°



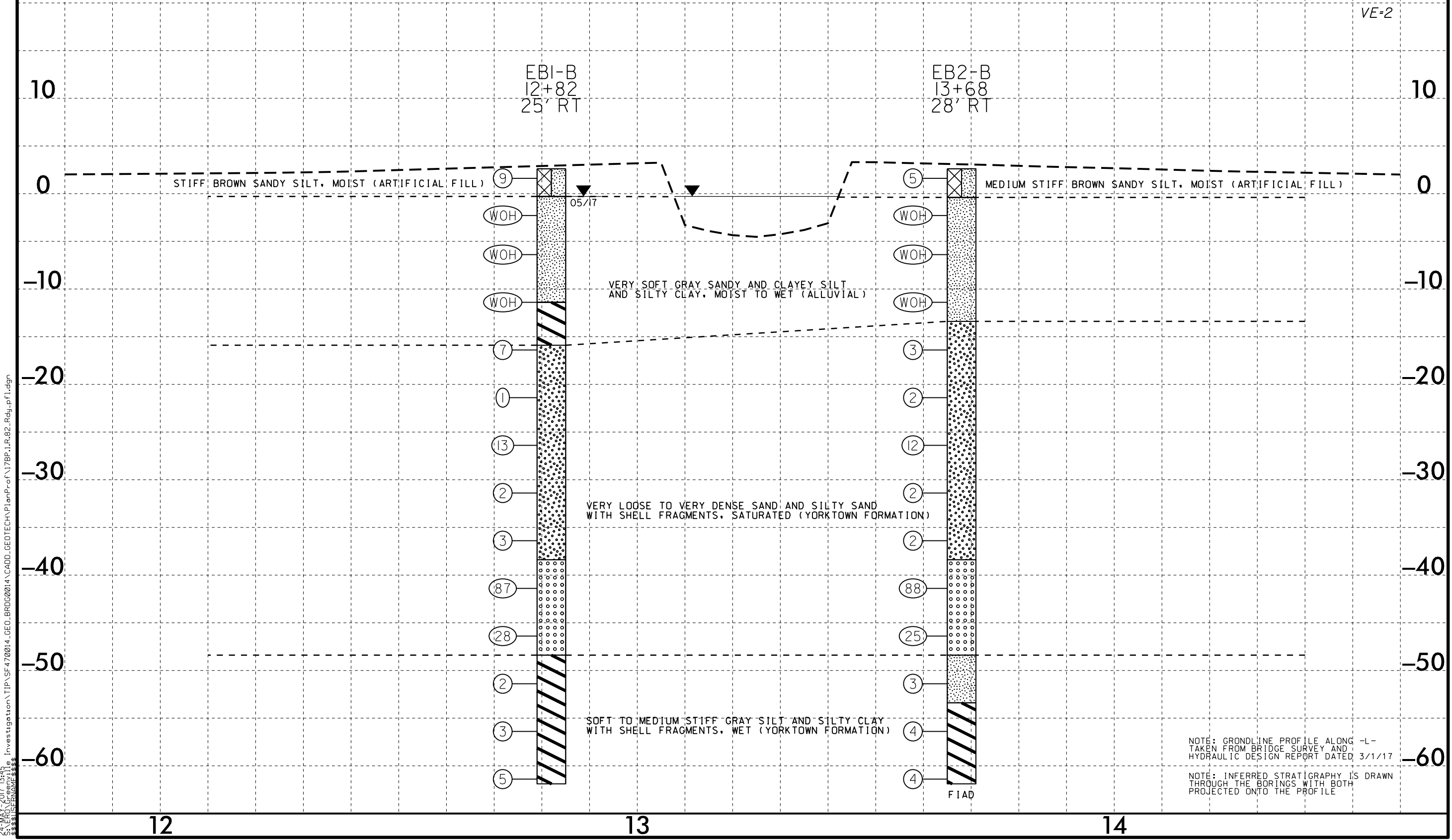
 BM10 ELEVATION = 2.90
 N 634161 E 2886466
 BL STATION 7+61.00 57 LEFT
 RR SPIKE SET IN BASE OF 18" PINE



PROJECT REFERENCE NO. <i>SF-470014</i>	SHEET NO. <i>4</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PROFILE THROUGH BORINGS PROJECTED ALONG -L-

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GEOTECHNICAL BORING REPORT

BORE LOG

WBS 17BP.1.R.82		TIP SF-470014		COUNTY HYDE		GEOLOGIST Cornette, C. J.										
SITE DESCRIPTION BRIDGE NO. 14 ON -L- (SR 1108) OVER UNNAMED CANAL							GROUND WTR (ft)									
BORING NO. EB1-B		STATION 12+82		OFFSET 25 ft RT		ALIGNMENT -L-										
COLLAR ELEV. 2.7 ft		TOTAL DEPTH 64.5 ft		NORTHING 634,174		EASTING 2,886,580										
DRILL RIG/HAMMER EFF./DATE GFO0075 CME-45C 83% 04/11/2016		DRILL METHOD Mud Rotary		HAMMER TYPE Automatic												
DRILLER Smith, R. E.		START DATE 05/14/17		COMP. DATE 05/14/17		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
5	2.7	0.0												2.7	GROUND SURFACE	0.0
0	-1.3	3.9	WOH	WOH	WOH									-0.3	ARTIFICIAL FILL BROWN SANDY SILT, MOIST	2.9
-5	-5.4	8.0	WOH	WOH	WOH										ALLUVIAL GRAY SANDY SILT, WET	
-10	-10.4	13.0	WOH	WOH	WOH											
-15	-15.4	18.0	6	5	2									-11.4	ALLUVIAL GRAY SILTY CLAY, WET	14.0
-20	-20.4	23.0	1	1	0									-15.9	COASTAL PLAIN GRAY SILTY SAND AND SAND WITH SHELL FRAGMENTS, SATURATED (YORKTOWN FORMATION)	18.5
-25	-25.4	28.0	4	5	8											
-30	-30.4	33.0	2	1	1											
-35	-35.4	38.0	2	1	2											
-40	-40.4	43.0	16	48	39									-38.4		41.0
-45	-45.4	48.0	16	17	11											
-50	-50.4	53.0	1	1	1									-48.4	COASTAL PLAIN GRAY SILTY CLAY WITH SHELL FRAGMENTS, WET (YORKTOWN FORMATION)	51.0
-55	-55.4	58.0	WOH	2	1											
-60	-60.4	63.0	2	3	2									-61.9	Boring Terminated at Elevation -61.9 ft in Silty Clay	64.5

WBS 17BP.1.R.82		TIP SF-470014		COUNTY HYDE		GEOLOGIST Cornette, C. J.										
SITE DESCRIPTION BRIDGE NO. 14 ON -L- (SR 1108) OVER UNNAMED CANAL							GROUND WTR (ft)									
BORING NO. EB2-B		STATION 13+68		OFFSET 28 ft RT		ALIGNMENT -L-										
COLLAR ELEV. 2.7 ft		TOTAL DEPTH 64.5 ft		NORTHING 634,236		EASTING 2,886,641										
DRILL RIG/HAMMER EFF./DATE GFO0075 CME-45C 83% 04/11/2016		DRILL METHOD Mud Rotary		HAMMER TYPE Automatic												
DRILLER Edmondson, J. M.		START DATE 05/14/17		COMP. DATE 05/14/17		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
5	2.7	0.0												2.7	GROUND SURFACE	0.0
0	-1.2	3.9	WOH	WOH	WOH									-0.3	ARTIFICIAL FILL BROWN SANDY SILT, MOIST	3.0
-5	-5.3	8.0	WOH	WOH	WOH										ALLUVIAL GRAY SANDY AND CLAYEY SILT, MOIST TO WET	
-10	-10.3	13.0	WOH	WOH	WOH											
-15	-15.3	18.0	2	2	1									-13.3	COASTAL PLAIN GRAY SILTY SAND AND SAND WITH SHELL FRAGMENTS, SATURATED (YORKTOWN FORMATION)	16.0
-20	-20.3	23.0	1	1	1											
-25	-25.3	28.0	5	4	8											
-30	-30.3	33.0	1	1	1											
-35	-35.3	38.0	1	1	1											
-40	-40.3	43.0	18	37	51									-38.3		41.0
-45	-45.3	48.0	7	14	11											
-50	-50.3	53.0	WOH	2	1									-48.3	COASTAL PLAIN GRAY SILTY CLAY WITH SHELL FRAGMENTS, WET (YORKTOWN FORMATION)	51.0
-55	-55.3	58.0	WOH	2	2									-53.3	COASTAL PLAIN GRAY SILTY CLAY WITH SHELL FRAGMENTS, WET (YORKTOWN FORMATION)	56.0
-60	-60.3	63.0	WOH	2	2									-61.8	Boring Terminated at Elevation -61.8 ft in Silty Clay	64.5

NCDOT BORE DOUBLE SF-470014_GEO_BRDG.GPJ_NC_DOT.GDT 5/24/17