

REFERENCE: SF-530072

PROJECT: 17BP.2.R.72

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

**STRUCTURE**  
**SUBSURFACE INVESTIGATION**

COUNTY LENOIR  
PROJECT DESCRIPTION BRIDGE NO. 72 ON -L- (SR 1502)  
OVER BEAR CREEK

**CONTENTS**

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2	LEGEND (SOIL & ROCK)
3	SITE PLAN
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STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SF-530072	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.

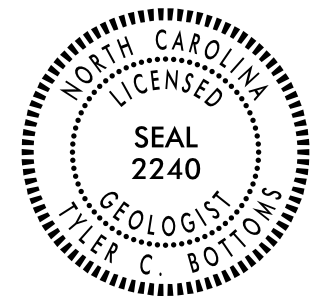
THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT 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  
S.N. ZIMARINO  
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 AUGUST 2017



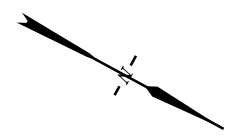
DocuSigned by:  
Tyler C. Bottoms 9/14/2017  
48A2D3DD08CF446  
SIGNATURE DATE

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



PROJECT REFERENCE NO.	SHEET NO.
SF-530072	3
<b>SITE PLAN</b>	

SKEW = 90°



13

14

15

16

LENOIR COUNTY  
WAYNE COUNTY



WOODS

BR. NO. 72

← TO SR 1505

-L- SR 1502

→ TO SR 1718

EBI-B

BI-A

EB2-B

BL-2

EB1 BENT LINE

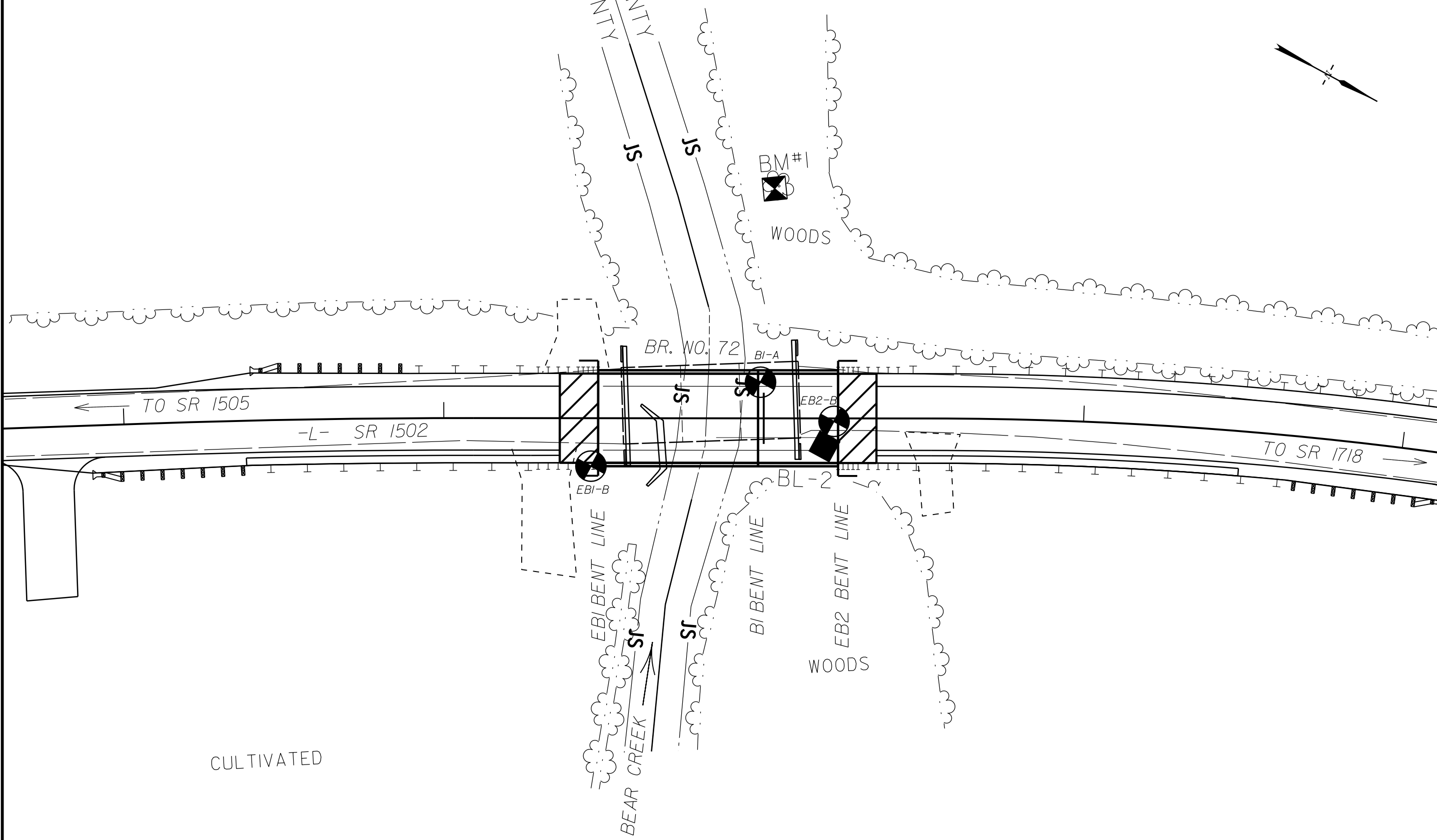
BI BENT LINE

EB2 BENT LINE

WOODS

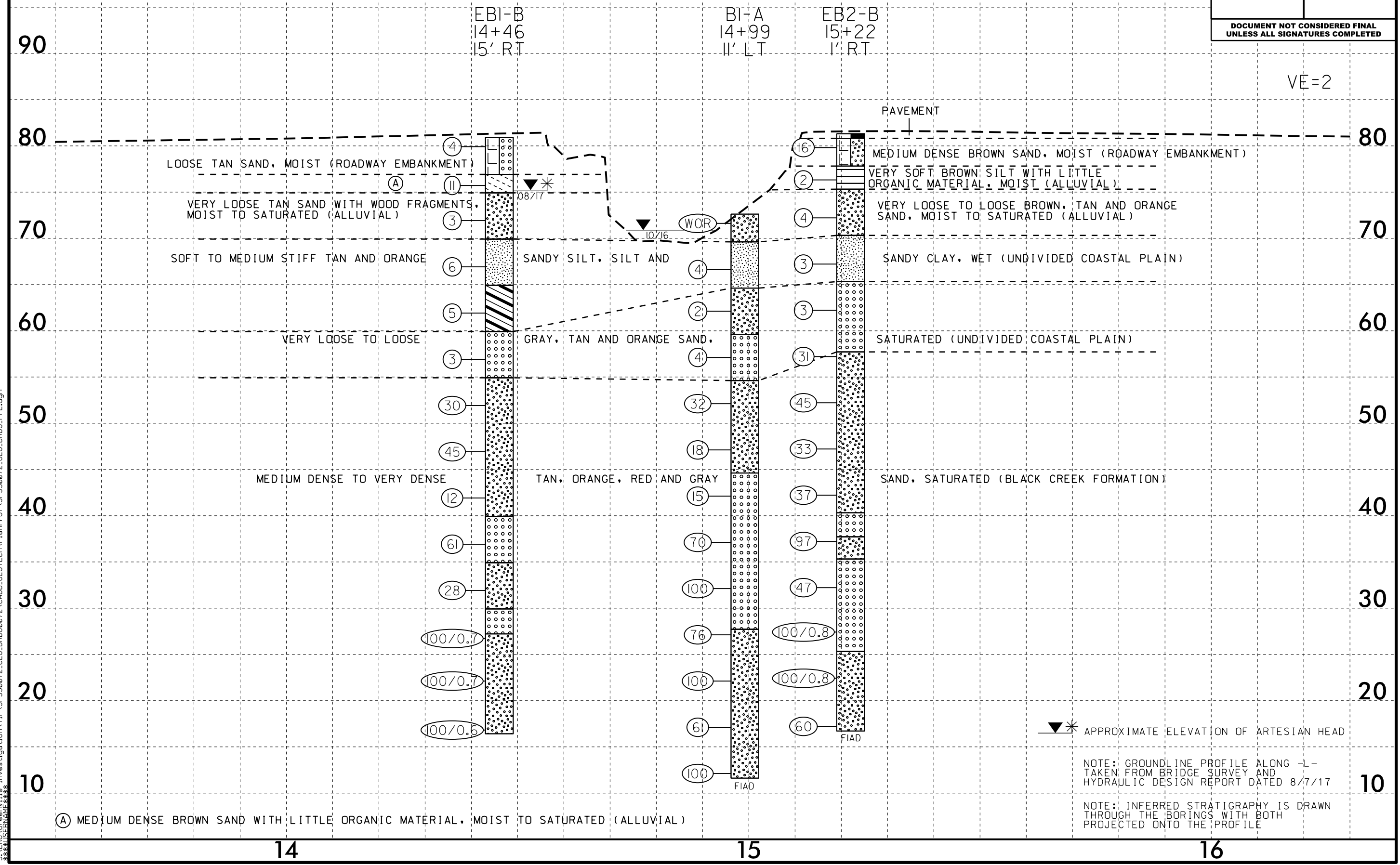
BEAR CREEK

CULTIVATED



# PROFILE THROUGH BORINGS PROJECTED ALONG -L-

5/14/99  
30-AUG-2017 12:43  
S:\ERC\Greenville\_Investigation\TIP\_SF530072\_GEO\_BRDC0072\CADD\_GEOTECH\PlanProf\SF530072\_GEO\_BRDC\_PFL.dgn



# GEOTECHNICAL BORING REPORT BORE LOG

WBS 17BP.2.R.72		TIP SF-530072		COUNTY LENOIR		GEOLOGIST Cornette, C.J.									
SITE DESCRIPTION BRIDGE NO. 72 ON -L- (SR 1502) OVER BEAR CREEK							GROUND WTR (ft)								
BORING NO. EB1-B		STATION 14+46		OFFSET 15 ft RT		ALIGNMENT -L-									
COLLAR ELEV. 80.9 ft		TOTAL DEPTH 64.5 ft		NORTHING 589,375		EASTING 2,354,246									
DRILL RIG/HAMMER EFF./DATE GFO0075 CME-45C 84% 08/21/2017		DRILL METHOD Mud Rotary			HAMMER TYPE Automatic										
DRILLER Smith, R. E.		START DATE 08/24/17		COMP. DATE 08/24/17		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					
85															
	80.9	0.0	1	2	2									80.9	GROUND SURFACE
															ROADWAY EMBANKMENT TAN SAND, MOIST
	76.7	4.2	5	7	4									76.9	ALLUVIAL
														74.9	BROWN SAND WITH LITTLE ORGANIC MATERIAL, MOIST TO SATURATED
	72.9	8.0	1	1	2									69.9	ALLUVIAL TAN SAND WITH WOOD FRAGMENTS, SATURATED
														69.9	UNDIVIDED COASTAL PLAIN TAN AND ORANGE SANDY SILT, WET
	67.9	13.0	2	3	3									64.9	UNDIVIDED COASTAL PLAIN TAN SANDY CLAY, WET
	62.9	18.0	2	3	2									59.9	UNDIVIDED COASTAL PLAIN TAN SAND, SATURATED
	57.9	23.0	1	1	2									54.9	UNDIVIDED COASTAL PLAIN TAN SAND, SATURATED
	52.9	28.0	12	13	17									54.9	COASTAL PLAIN TAN AND GRAY SAND, SATURATED (BLACK CREEK FORMATION)
	47.9	33.0	6	19	26									39.9	
	42.9	38.0	7	8	4									34.9	
	37.9	43.0	23	30	31									29.9	
	32.9	48.0	11	14	14									27.2	
	27.9	53.0	20	57	43/0.2									27.2	
	22.9	58.0	34	66/0.3										27.2	
	17.9	63.0	26	61	39/0.1									27.2	
														16.4	Boring Terminated at Elevation 16.4 ft in Very Dense Sand

WBS 17BP.2.R.72		TIP SF-530072		COUNTY LENOIR		GEOLOGIST Cornette, C.J.									
SITE DESCRIPTION BRIDGE NO. 72 ON -L- (SR 1502) OVER BEAR CREEK							GROUND WTR (ft)								
BORING NO. B1-A		STATION 14+99		OFFSET 11 ft LT		ALIGNMENT -L-									
COLLAR ELEV. 72.6 ft		TOTAL DEPTH 61.0 ft		NORTHING 589,409		EASTING 2,354,198									
DRILL RIG/HAMMER EFF./DATE GFO0075 CME-45C 84% 08/21/2017		DRILL METHOD Mud Rotary			HAMMER TYPE Automatic										
DRILLER Smith, R. E.		START DATE 08/28/17		COMP. DATE 08/28/17		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					
75															
	72.6	0.0												72.6	GROUND SURFACE
															ALLUVIAL BROWN SAND, MOIST TO SATURATED
	67.6	5.0	3	2	2									69.6	UNDIVIDED COASTAL PLAIN GRAY AND TAN SILT, WET
	63.1	9.5	1	1	1									64.6	UNDIVIDED COASTAL PLAIN TAN, GRAY, AND ORANGE SAND, SATURATED
	58.1	14.5	1	1	3									59.6	
	53.1	19.5	8	16	16									54.6	COASTAL PLAIN TAN, GRAY, ORANGE AND RED SAND, SATURATED (BLACK CREEK FORMATION)
	48.1	24.5	7	9	9									44.6	
	43.1	29.5	8	6	9									44.6	
	38.1	34.5	8	33	37									44.6	
	33.1	39.5	18	40	60									44.6	
	28.1	44.5	19	31	45									27.7	
	23.1	49.5	22	37	63									27.7	
	18.1	54.5	21	23	38									27.7	
	13.1	59.5	25	45	55									27.7	
														11.6	Boring Terminated at Elevation 11.6 ft in Very Dense Sand

NCDOT BORE DOUBLE SF530072.GPJ NC\_DOT.GDT 8/30/17

