

REFERENCE: B-5602

PROJECT: 45557

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

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY HYDE
PROJECT DESCRIPTION BRIDGE NO. 8 ON -L-
(US 264) OVER BURGESS MILL CREEK AT
STA. 15 + 61

CONTENTS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	LEGEND (SOIL & ROCK)
3	SITE PLAN
4	PROFILE(S)
5-8	BORE LOG(S)

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5602	1	8

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

D. N. ARGENBRIGHT

J. K. CRENSHAW

T. C. BOTTOMS

R. E. SMITH

J. M. EDMUNDSON

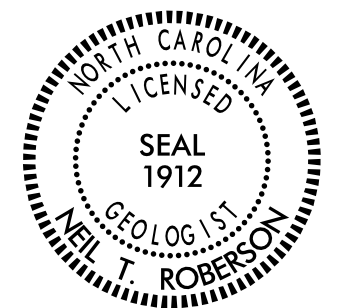
INVESTIGATED BY N. T. ROBERSON

DRAWN BY J. L. PEDRO

CHECKED BY J. L. PEDRO

SUBMITTED BY N. T. ROBERSON

DATE MARCH 2017



DocuSigned by:

Neil Roberson

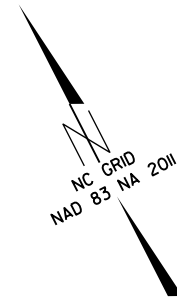
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SIGNATURE

DATE

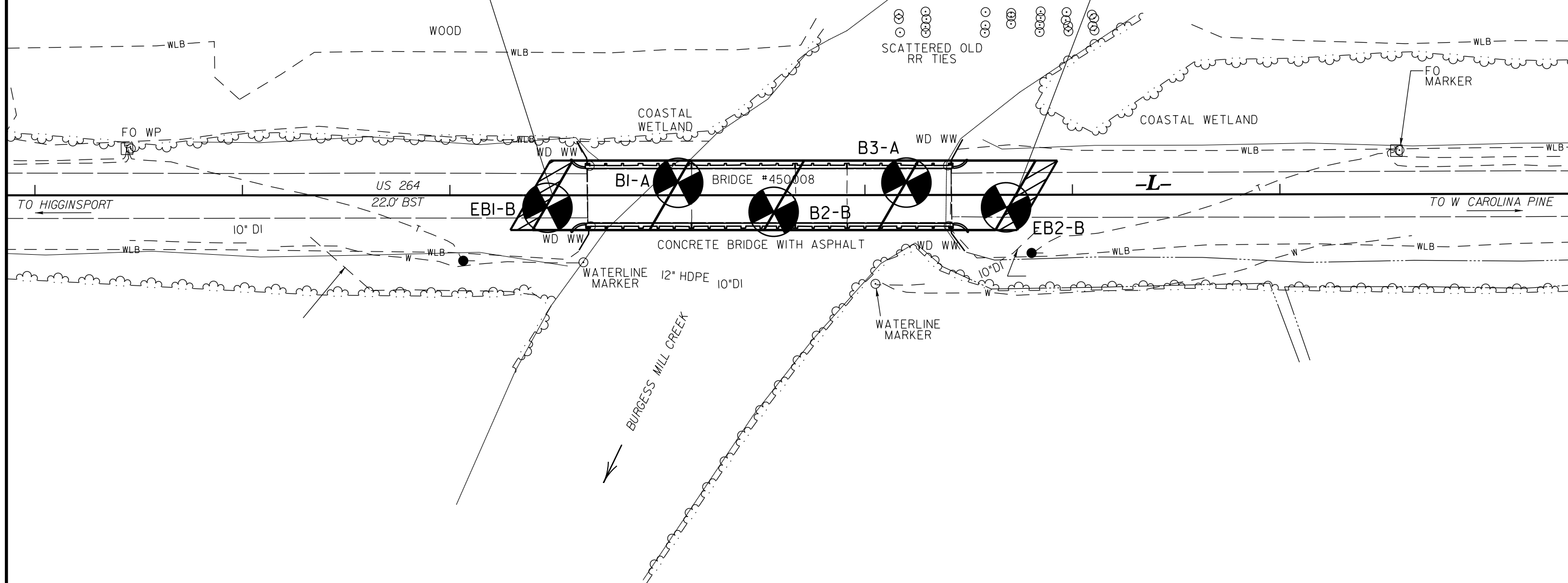
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UNLESS ALL SIGNATURES COMPLETED



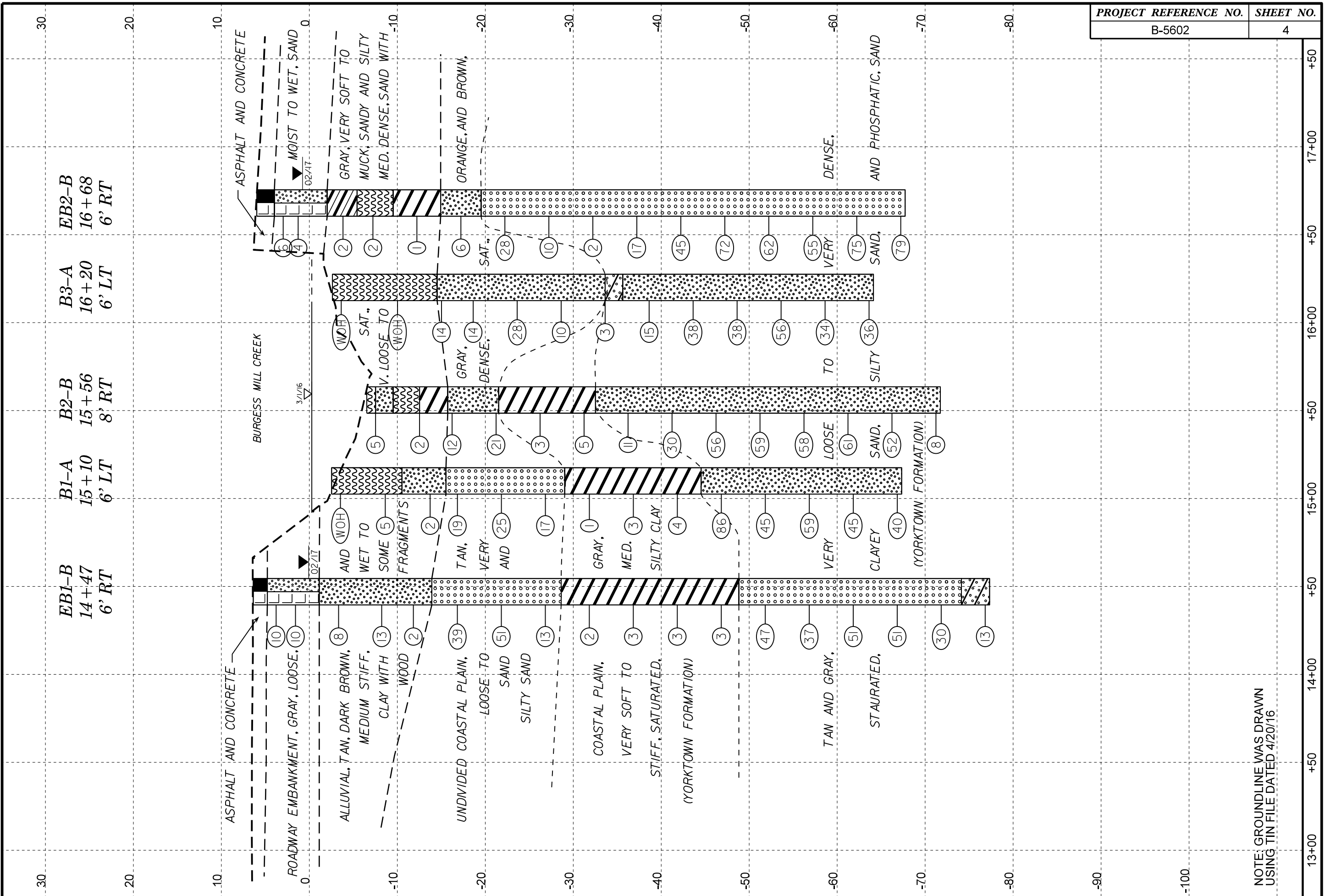
13+00 14+00 15+00 16+00 17+00

BEGIN BRIDGE
-L- STA. 14 + 49.48

END BRIDGE
-L- STA. 16 + 72.70



SKEW ANGLE = 120°



FENCE DIAGRAM OF BORINGS PROJECTED ALONG -L- CENTERLINE



VE = 5:1

NOTE: GROUNDLINE WAS DRAWN USING TIN FILE DATED 4/20/16

13+00 +50 14+00 +50 15+00 +50 16+00 +50 17+00 +50

GEOTECHNICAL BORING REPORT

BORE LOG

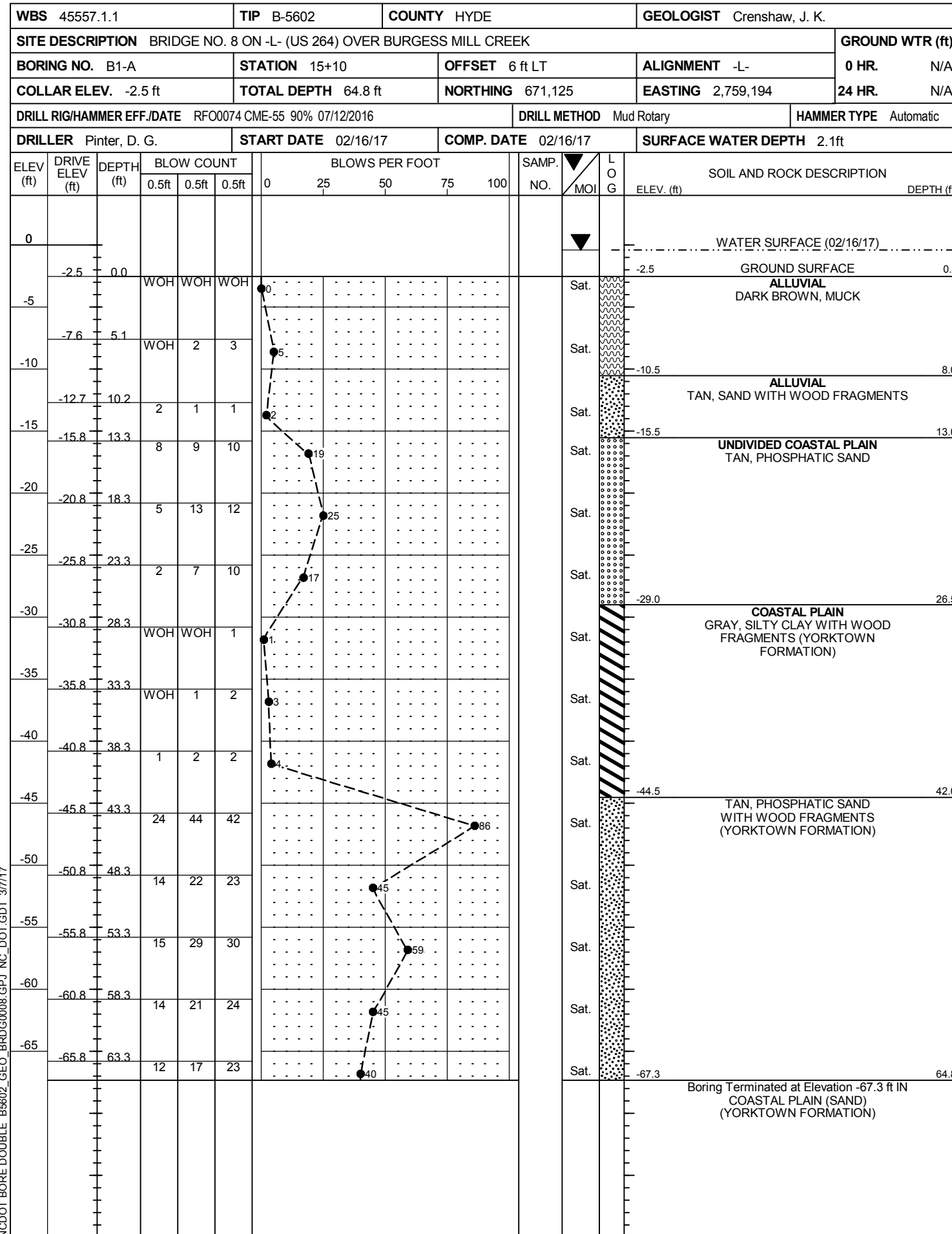
WBS 45557.1.1		TIP B-5602		COUNTY HYDE		GEOLOGIST Crenshaw, J. K.									
SITE DESCRIPTION BRIDGE NO. 8 ON -L- (US 264) OVER BURGESS MILL CREEK							GROUND WTR (ft)								
BORING NO. EB1-B		STATION 14+47		OFFSET 6 ft RT		ALIGNMENT -L-									
COLLAR ELEV. 6.4 ft		TOTAL DEPTH 83.7 ft		NORTHING 671,143		EASTING 2,759,133									
DRILL RIG/HAMMER EFF./DATE RFO0074 CME-55 90% 07/12/2016		DRILL METHOD Mud Rotary		HAMMER TYPE Automatic											
DRILLER Pinter, D. G.		START DATE 02/14/17		COMP. DATE 02/14/17		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					
10															
5	4.8	1.6	6	5	5										
0	2.6	3.8	3	4	6										
-5	-2.3	8.7	3	4	4										
-10	-7.2	13.6	9	6	7										
-15	-10.8	17.2	3	1	1										
-20	-15.8	22.2	7	15	24										
-25	-20.8	27.2	17	24	27										
-30	-25.8	32.2	4	7	6										
-35	-30.8	37.2	WOH	1	1										
-40	-35.8	42.2	WOH	2	1										
-45	-40.8	47.2	WOH	2	1										
-50	-45.8	52.2	WOH	1	2										
-55	-50.8	57.2													
-60	-55.8	62.2													
-65	-60.8	67.2													
-70	-65.8	72.2													

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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					
-70	-70.8	77.2													
-75	-75.8	82.2													

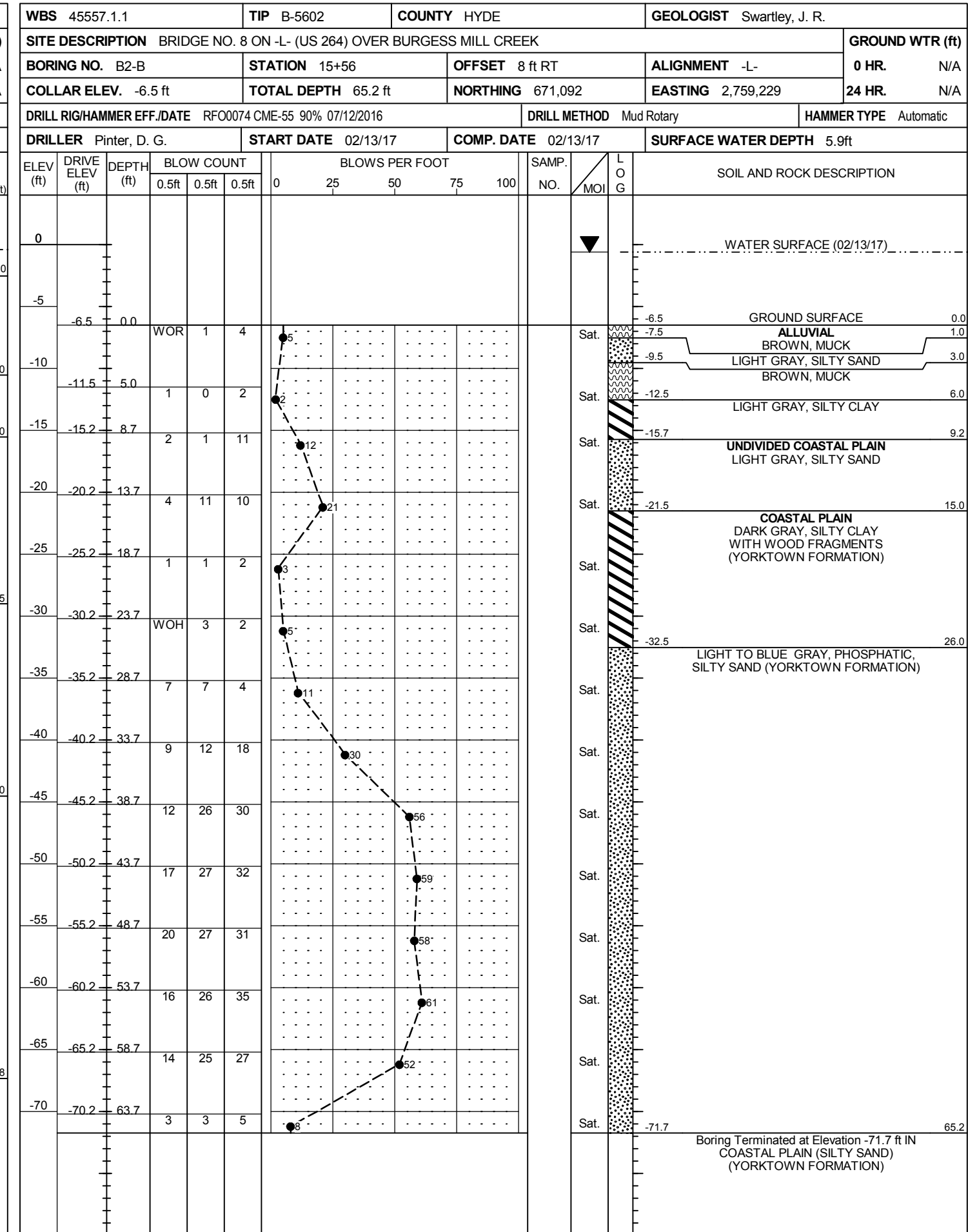
NCDOT BORE DOUBLE B5602_GEO_BRDG0008.GPJ NC_DOT.GDT 3/7/17

GEOTECHNICAL BORING REPORT

BORE LOG



NCDOT BORE DOUBLE B5602_GEO_BRD0008.GPJ NC_DOT.GDT 3/7/17



GEOTECHNICAL BORING REPORT

BORE LOG

WBS 45557.1.1		TIP B-5602		COUNTY HYDE		GEOLOGIST Crenshaw, J. K.									
SITE DESCRIPTION BRIDGE NO. 8 ON -L- (US 264) OVER BURGESS MILL CREEK							GROUND WTR (ft)								
BORING NO. EB2-B		STATION 16+68		OFFSET 6 ft RT		ALIGNMENT -L-									
COLLAR ELEV. 6.0 ft		TOTAL DEPTH 73.7 ft		NORTHING 671,043		EASTING 2,759,330									
DRILL RIG/HAMMER EFF./DATE RFO0074 CME-55 90% 07/12/2016			DRILL METHOD Mud Rotary		HAMMER TYPE Automatic										
DRILLER Pinter, D. G.		START DATE 02/14/17		COMP. DATE 02/14/17		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					
10															
5	4.0	2.0													
0	2.3	3.7	3	3	3										
-5	-2.8	8.8	1	2	2										
	-6.2	12.2	1	1	1										
-10	-11.2	17.2	1	1	1										
-15	-16.2	22.2	2	3	3										
-20	-21.2	27.2	6	11	17										
-25	-26.2	32.2	2	5	5										
-30	-31.2	37.2	2	1	1										
-35	-36.2	42.2	5	6	11										
-40	-41.2	47.2	9	18	27										
-45	-46.2	52.2	14	30	42										
-50	-51.2	57.2	13	27	35										
-55	-56.2	62.2	12	24	31										
-60	-61.2	67.2	15	32	43										
-65	-66.2	72.2	14	33	46										
Boring Terminated at Elevation -67.7 ft IN COASTAL PLAIN (SAND)															

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			0.5ft	0.5ft	0.5ft	0	25	50	75	100					
-70															
Match Line															
(YORKTOWN FORMATION)															

NCDOT BORE DOUBLE B5602_GEO_BRDG008.GPJ NC_DOT.GDT 3/7/17