

REFERENCE: U-4751

PROJECT: 40191

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

**STRUCTURE  
SUBSURFACE INVESTIGATION**

COUNTY NEW HANOVER  
PROJECT DESCRIPTION SR 1409 (MILITARY CUT-OFF  
ROAD) TO US 17 IN WILMINGTON

SITE DESCRIPTION NOISE WALL NO. 11 AT -L-  
STA. 113 + 00, LEFT

**CONTENTS**

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	LEGEND
3-4	SITE PLAN
5-6	PROFILE
7-14	APPENDIX A - CPT LOGS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-4751	1	14

**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:  
1. 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.  
2. 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

- J. MUESSEN, EI
- MID-ATLANTIC
- A. FOWLER
- M. WIGGINS
- M. LOOGAN

INVESTIGATED BY D. BROWN, PE  
 DRAWN BY D. BROWN, PE  
 CHECKED BY E. MAYR, PE  
 SUBMITTED BY D. BROWN, PE  
 DATE MAY 2015

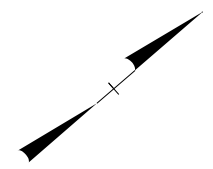
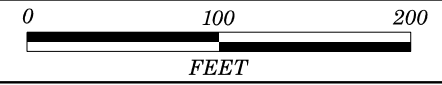


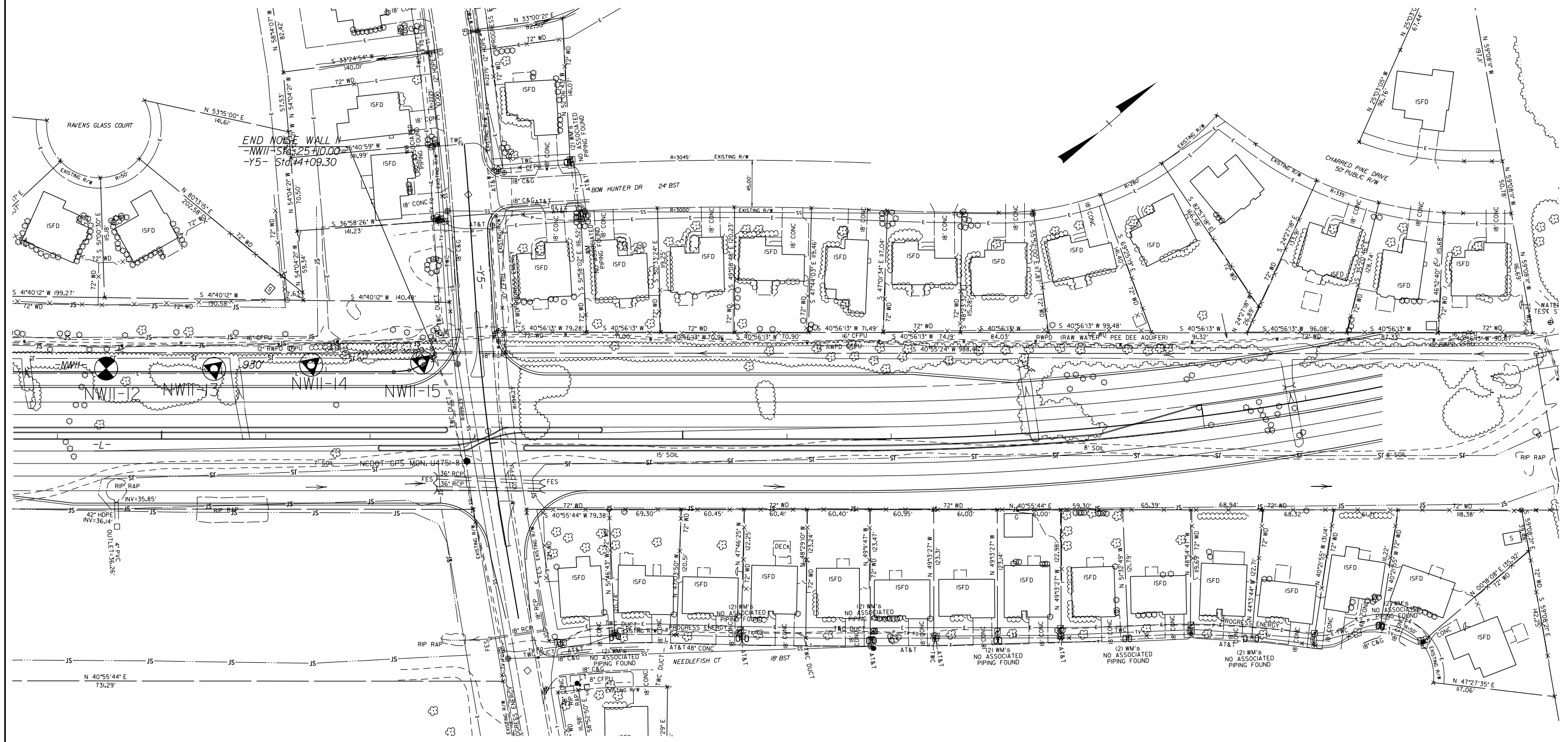
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Donald W. Brown Jr. 6/9/2015  
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 SIGNATURE DATE

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. Includes sub-sections like 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, FRACTURE SPACING, BEDDING, and INDURATION.

# SITE PLAN

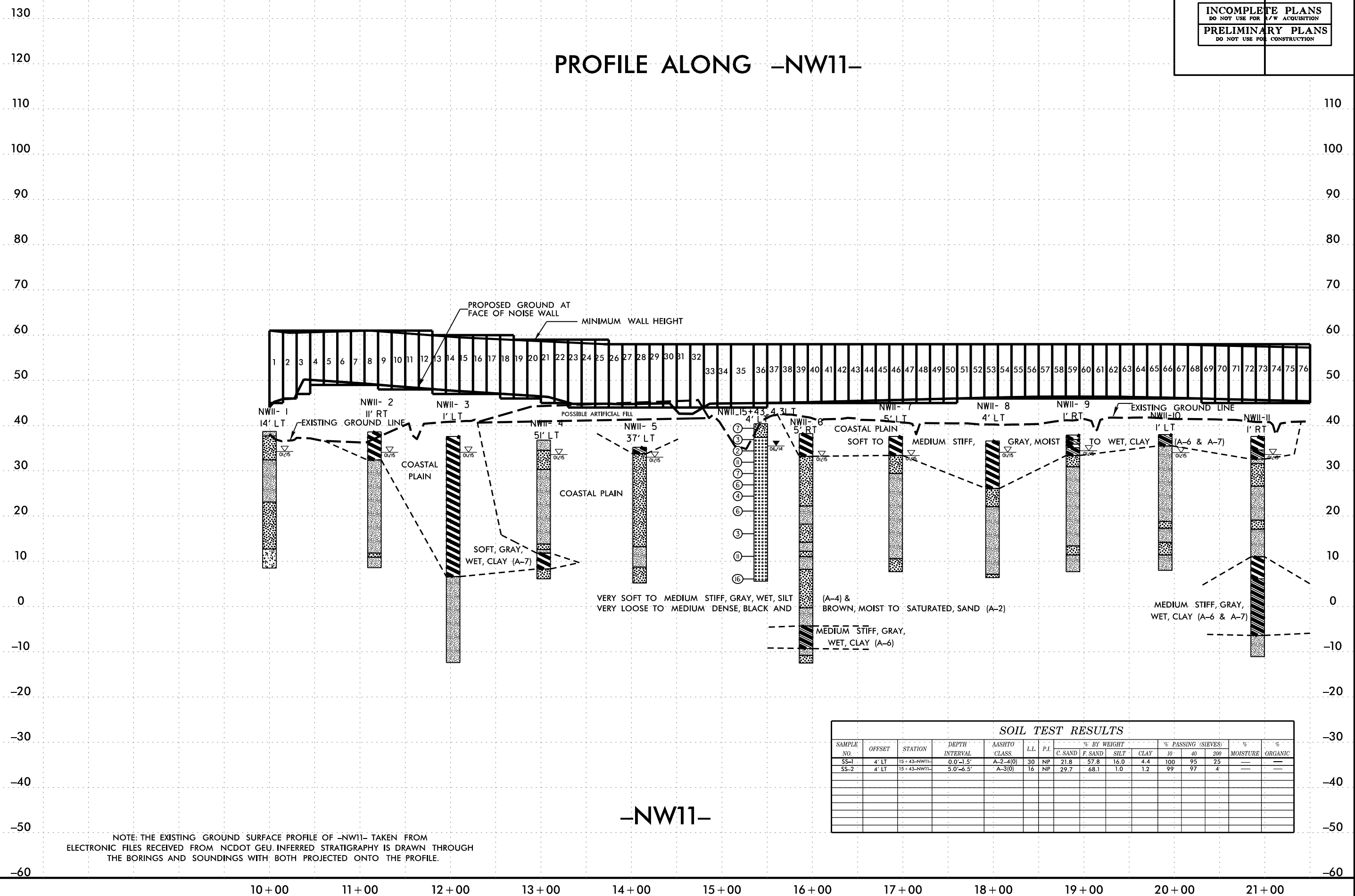




5/14/99

PROJECT REFERENCE NO. <i>U-4751</i>		SHEET NO. <b>5</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION		
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION		

# PROFILE ALONG -NW11-



SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS	LL	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-1	4' LT	15+43-NW11	0.0'-1.5'	A-2-4(0)	30	NP	21.8	57.8	16.0	4.4	100	95	25	—	—
SS-2	4' LT	15+43-NW11	5.0'-6.5'	A-3(0)	16	NP	29.7	68.1	1.0	1.2	99	97	4	—	—

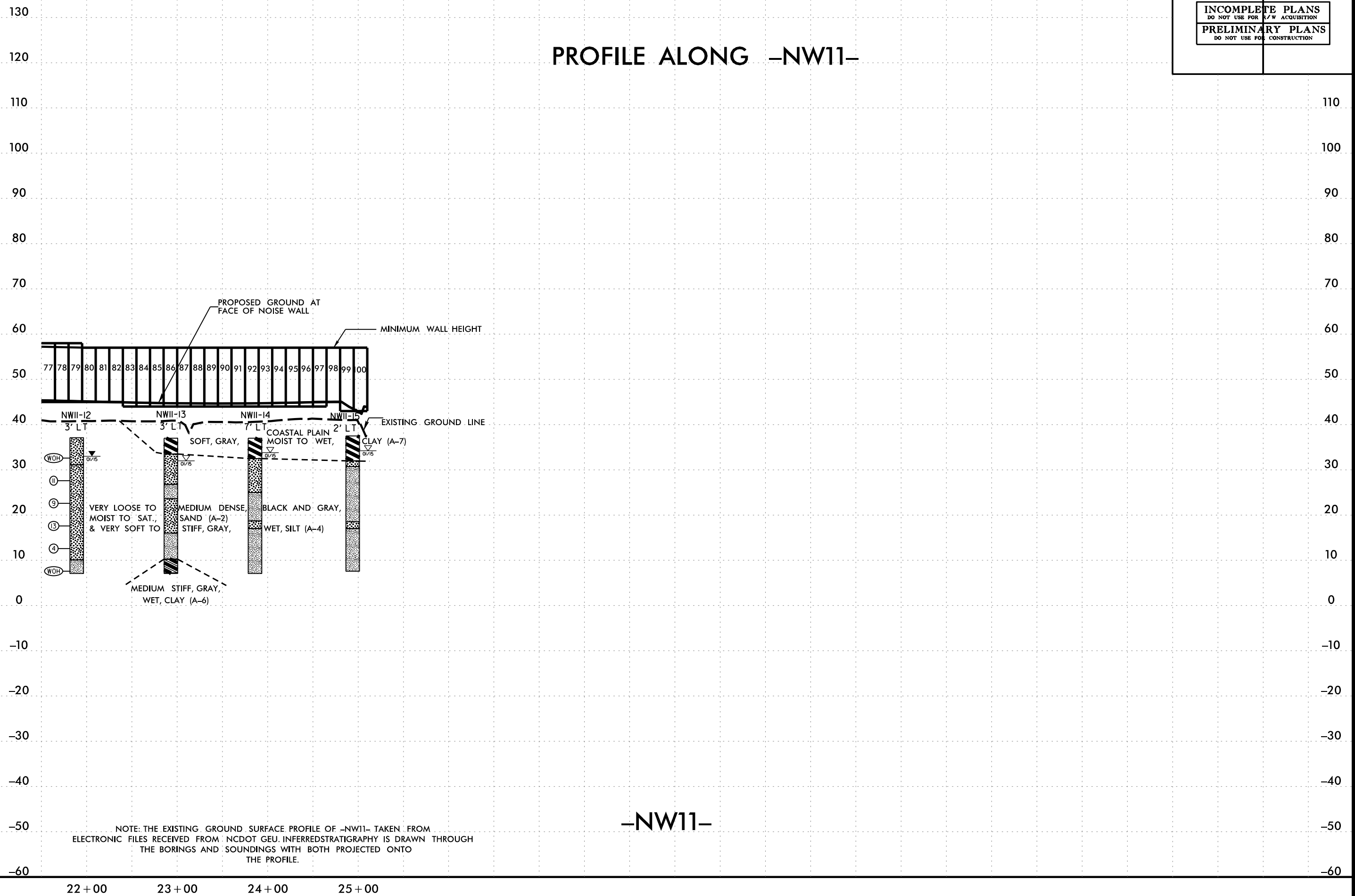
NOTE: THE EXISTING GROUND SURFACE PROFILE OF -NW11- TAKEN FROM ELECTRONIC FILES RECEIVED FROM NCDOT GEU. INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS AND SOUNDINGS WITH BOTH PROJECTED ONTO THE PROFILE.

-NW11-

5/14/99

PROJECT REFERENCE NO. <b>U-4751</b>	SHEET NO. <b>6</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

# PROFILE ALONG -NW11-

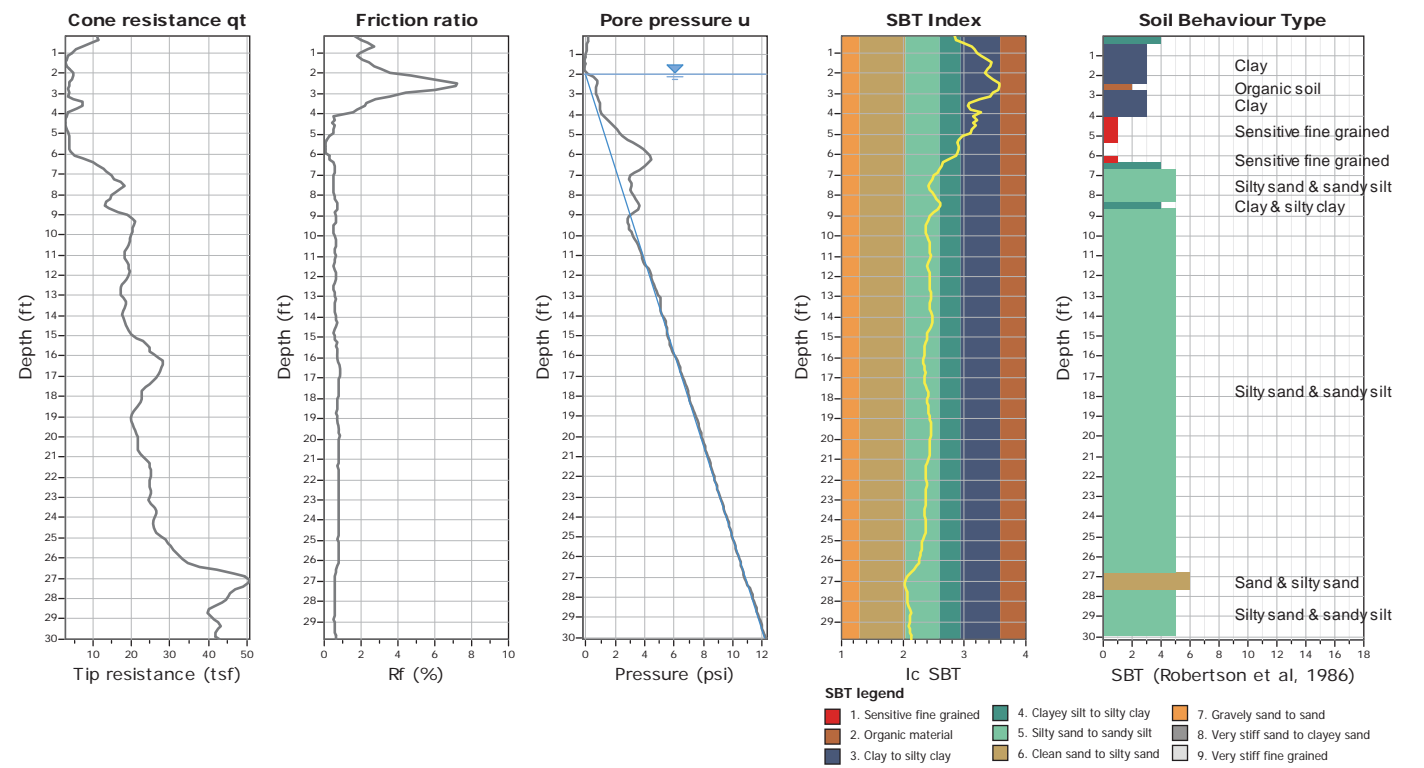
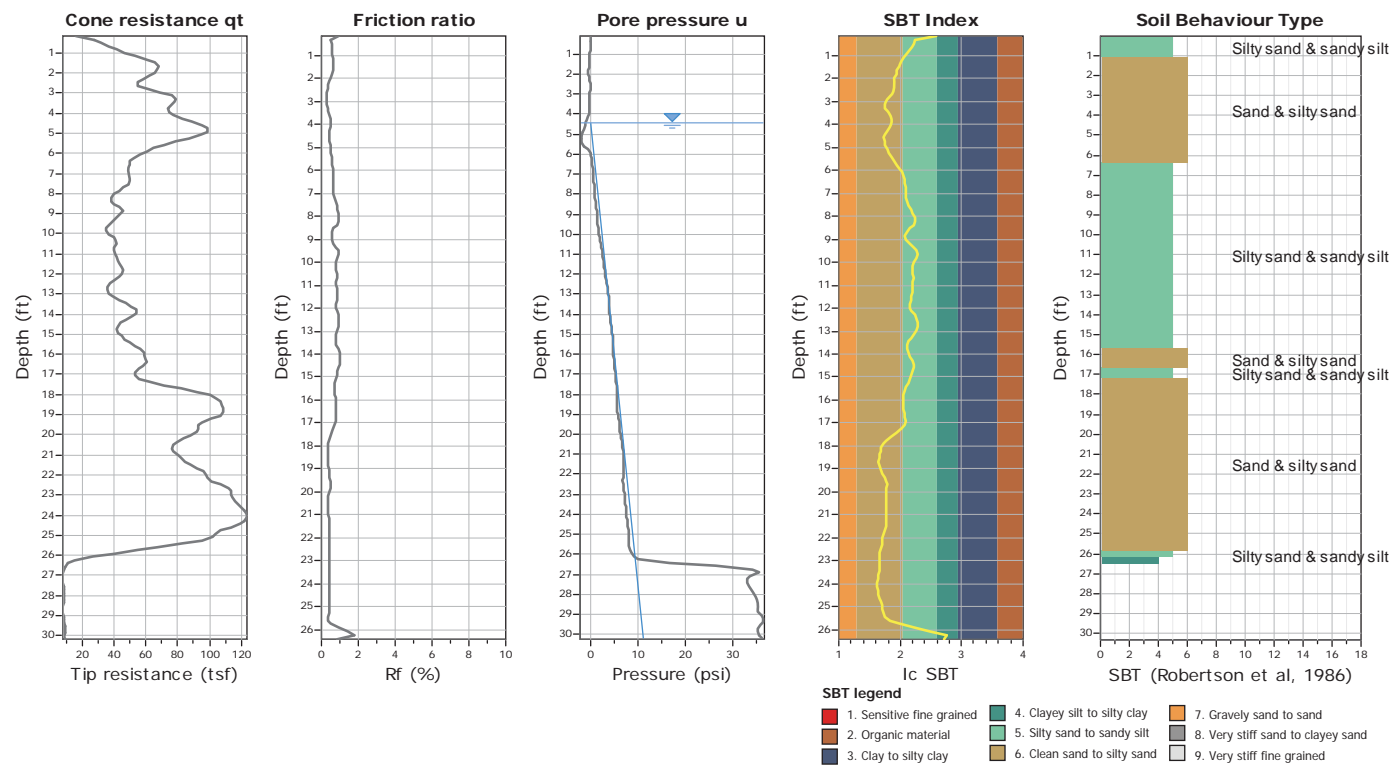


NOTE: THE EXISTING GROUND SURFACE PROFILE OF -NW11- TAKEN FROM ELECTRONIC FILES RECEIVED FROM NCDOT GEU. INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS AND SOUNDINGS WITH BOTH PROJECTED ONTO THE PROFILE.

## -NW11-

5/14/99

***APPENDIX A  
CPT LOGS***





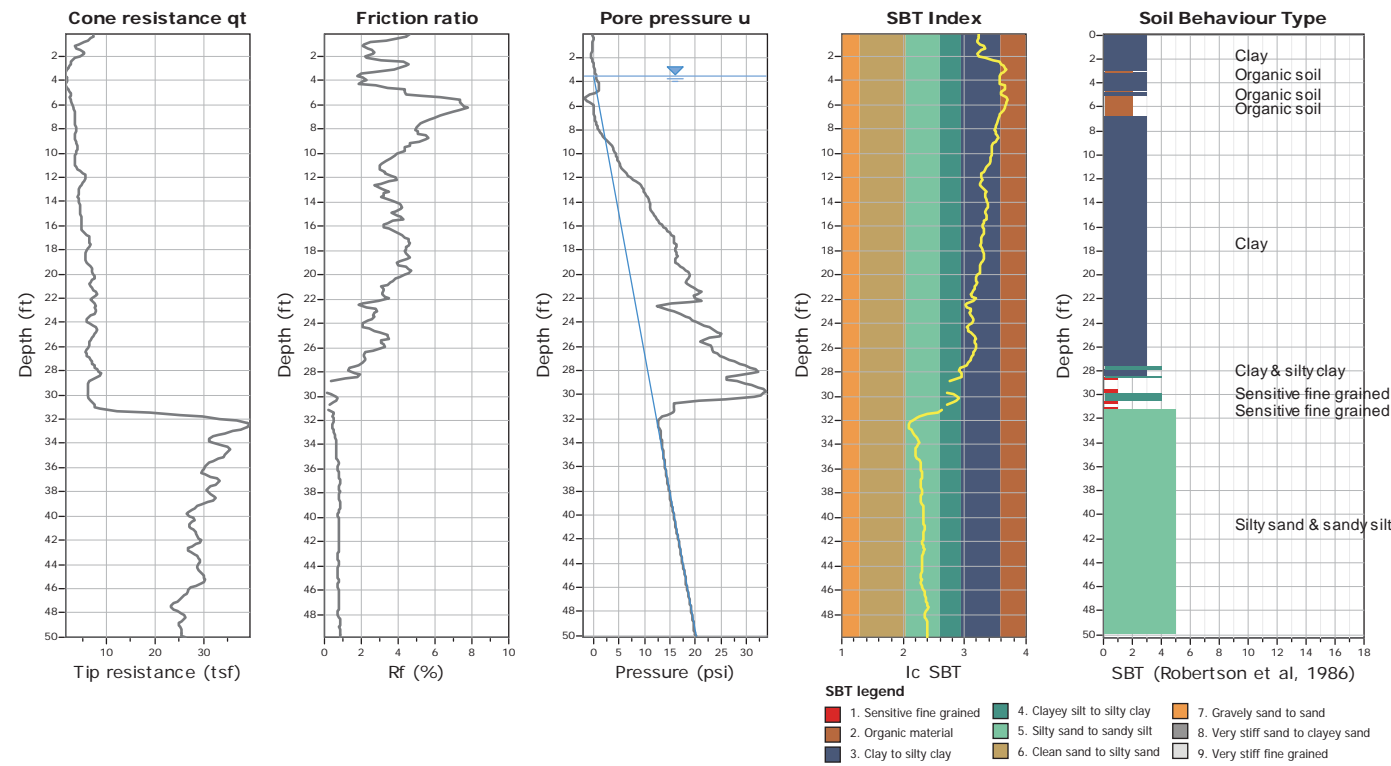


STEWART

Project: U-4751 SOUND WALL 11  
Location: NEW HANOVER CO.

CPT: NW11- 3

Total depth: 50.03 ft, Date: 1/7/2015  
Cone Type: Hogentogler 10 Ton  
Cone Operator: Mid-Atlantic Drilling

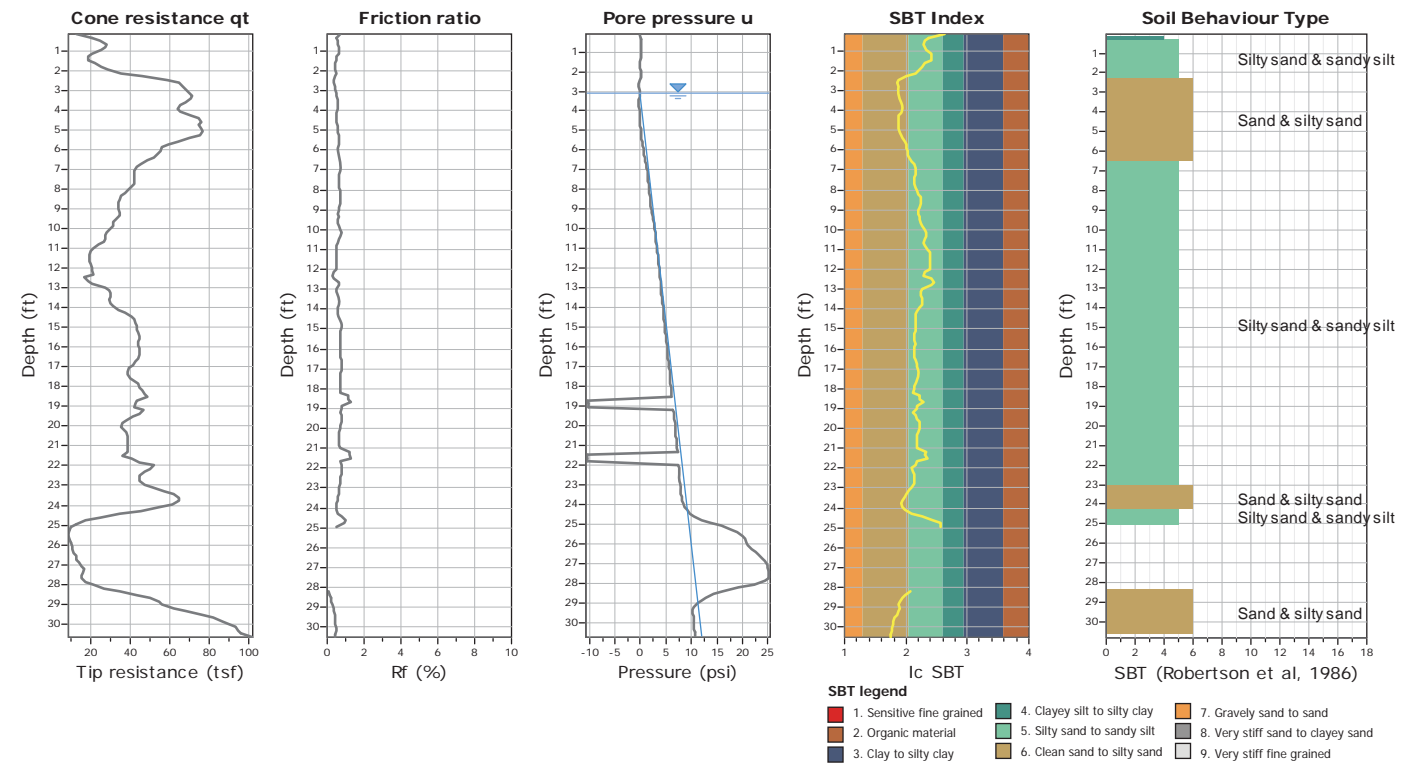


STEWART

Project: U-4751 SOUND WALL 11  
Location: NEW HANOVER CO.

CPT: NW11- 4

Total depth: 30.68 ft, Date: 1/7/2015  
Cone Type: Hogentogler 10 Ton  
Cone Operator: Mid-Atlantic Drilling



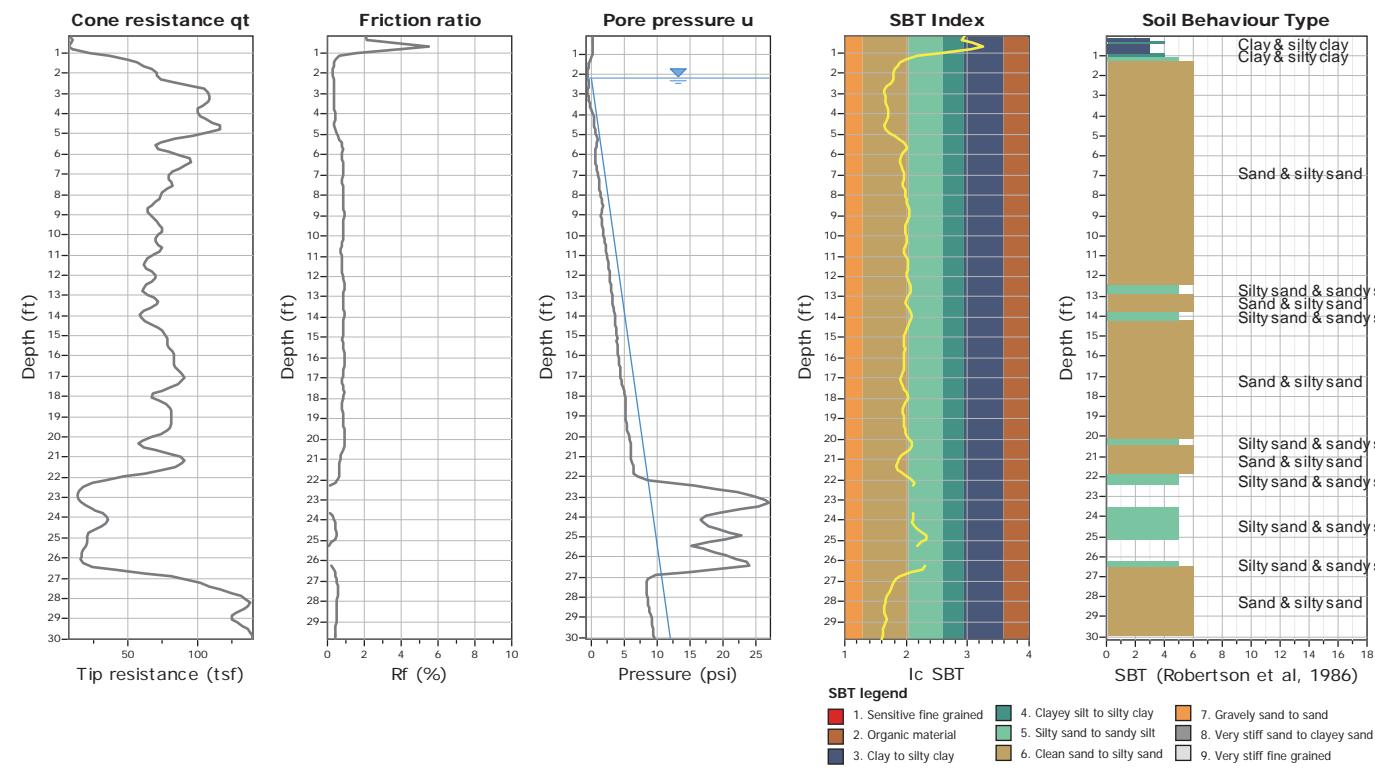


STEWART

Project: U-4751 SOUND WALL 11  
Location: NEW HANOVER CO.

CPT: NW11- 5

Total depth: 30.02 ft, Date: 1/7/2015  
Cone Type: Hogentogler 10 Ton  
Cone Operator: Mid-Atlantic Drilling



STEWART

Project: U-4751 SOUND WALL 11  
Location: NEW HANOVER CO.

CPT: NW11- 6

Total depth: 50.69 ft, Date: 1/6/2015  
Cone Type: Hogentogler 10 Ton  
Cone Operator: Mid-Atlantic Drilling

