

REFERENCE: I-5715

PROJECT: 50128

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

ROADWAY
SUBSURFACE INVESTIGATION

COUNTY MECKLENBURG

PROJECT DESCRIPTION I-77 FROM SOUTH OF SR 2140
(STUMPTOWN RD) TO NORTH OF NC 73 (SAM
FURR RD) & SR 2145/NC 73 (SAM FURR RD)
BETWEEN NORTHCROSS DR & US 21
(STATESVILLE RD)

PAVEMENT AND SUBGRADE INVESTIGATION

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5715	1	46

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.

FIELD PERSONNEL

CG2 EXPLORATION

P. TOMASIC, G.I.T

INVESTIGATED BY CG2, PLLC.

DRAWN BY T. WENNER, P.G.

CHECKED BY M. BREWER, P.E.

SUBMITTED BY CG2, PLLC.

DATE JUNE 2024

Prepared in the Office of:



CAROLINAS
GEOTECHNICAL
GROUP

2400 CROWNPOINT EXECUTIVE DRIVE
SUITE 800
CHARLOTTE, NC 28227
(980) 339-8684



DocuSigned by:



06/24/2024

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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***

SOIL DESCRIPTION

SOIL IS CONSIDERED UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER AND YIELD LESS THAN 100 BLOWS PER FOOT ACCORDING TO THE STANDARD PENETRATION TEST (AASHTO T 206, ASTM D1586). SOIL CLASSIFICATION IS BASED ON THE AASHTO SYSTEM. BASIC DESCRIPTIONS GENERALLY INCLUDE THE FOLLOWING: CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. FOR EXAMPLE,
VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6

SOIL LEGEND AND AASHTO CLASSIFICATION

GENERAL CLASS.	GRANULAR MATERIALS (≤ 35% PASSING #200)				SILT-CLAY MATERIALS (> 35% PASSING #200)				ORGANIC MATERIALS			
GROUP CLASS.	A-1	A-3	A-2		A-4	A-5	A-6	A-7	A-1, A-2	A-4, A-5		
SYMBOL												
% PASSING #10 #40 #200	50 30 15	MX 30 25	51 10	35 35	35 35	35 35	36 36	36 36	36 36	36 36		
MATERIAL PASSING #40 LL PI	— 6 MX		— NP		40 10	41 10	40 11	41 11	40 10	41 11	40 11	
GROUP INDEX	0		0		4 MX		8 MX		12 MX		16 MX	
USUAL TYPES OF MAJOR MATERIALS	STONE FRAGS. GRAVEL, AND SAND		FINE SAND		SILTY OR CLAYEY GRAVEL AND SAND		SILTY SOILS		CLAYEY SOILS		SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER	
GEN. RATING AS SUBGRADE	EXCELLENT TO GOOD				FAIR TO POOR				FAIR TO POOR		POOR	

CONSISTENCY OR DENSENESS

PRIMARY SOIL TYPE	COMPACTNESS OR CONSISTENCY	RANGE OF STANDARD PENETRATION RESISTANCE (N-VALUE)	RANGE OF UNCONFINED COMPRESSIVE STRENGTH (TONS/FT²)
GENERALLY GRANULAR MATERIAL (NON-COHESIVE)	VERY LOOSE LOOSE MEDIUM DENSE DENSE VERY DENSE	< 4 4 TO 10 10 TO 30 30 TO 50 > 50	N/A
GENERALLY SILT-CLAY MATERIAL (COHESIVE)	VERY SOFT SOFT MEDIUM STIFF STIFF VERY STIFF HARD	< 2 2 TO 4 4 TO 8 8 TO 15 15 TO 30 > 30	< 0.25 0.25 TO 0.5 0.5 TO 1.0 1 TO 2 2 TO 4 > 4

TEXTURE OR GRAIN SIZE

U.S. STD. SIEVE SIZE OPENING (MM)	4	10	40	60	200	270
	4.75	2.00	0.42	0.25	0.075	0.053
BOULDER (BLDR.)	COBBLE (COB.)	GRAVEL (GR.)	COARSE SAND (CSE. SD.)	FINE SAND (F. SD.)	SILT (SL.)	CLAY (CL.)

SOIL MOISTURE - CORRELATION OF TERMS

SOIL MOISTURE SCALE (ATTERBERG LIMITS)	FIELD MOISTURE DESCRIPTION	GUIDE FOR FIELD MOISTURE DESCRIPTION
LL LI PL PLASTIC RANGE (PI)	- SATURATED - (SAT.)	USUALLY LIQUID; VERY WET, USUALLY FROM BELOW THE GROUND WATER TABLE
	- WET - (W)	SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE
	- MOIST - (M)	SOLID; AT OR NEAR OPTIMUM MOISTURE
OM SL OPTIMUM MOISTURE SHRINKAGE LIMIT	- DRY - (D)	REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE

PLASTICITY

PLASTICITY INDEX (PI)	DRY STRENGTH
NON PLASTIC	0-5 VERY LOW
SLIGHTLY PLASTIC	6-15 SLIGHT
MODERATELY PLASTIC	16-25 MEDIUM
HIGHLY PLASTIC	26 OR MORE HIGH

COLOR

DESCRIPTIONS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN, RED, YELLOW-BROWN, BLUE-GRAY). MODIFIERS SUCH AS LIGHT, DARK, STREAKED, ETC. ARE USED TO DESCRIBE APPEARANCE.

GRADATION

WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE. UNIFORMLY GRADED - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE. GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLE SIZES OF TWO OR MORE SIZES.

ANGULARITY OF GRAINS

THE ANGULARITY OR ROUNDNESS OF SOIL GRAINS IS DESIGNATED BY THE TERMS: ANGULAR, SUBANGULAR, SUBROUNDED, OR ROUNDED.

MINERALOGICAL COMPOSITION

MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHEN THEY ARE CONSIDERED OF SIGNIFICANCE.

COMPRESSIBILITY

SLIGHTLY COMPRESSIBLE LL < 31
MODERATELY COMPRESSIBLE LL = 31 - 50
HIGHLY COMPRESSIBLE LL > 50

PERCENTAGE OF MATERIAL

ORGANIC MATERIAL	GRANULAR SOILS	SILT - CLAY SOILS	OTHER MATERIAL
TRACE OF ORGANIC MATTER	2 - 3%	3 - 5%	TRACE
LITTLE ORGANIC MATTER	3 - 5%	5 - 12%	LITTLE
MODERATELY ORGANIC	5 - 10%	12 - 20%	SOME
HIGHLY ORGANIC	> 10%	> 20%	HIGHLY

GROUND WATER

WATER LEVEL IN BORE HOLE IMMEDIATELY AFTER DRILLING
 STATIC WATER LEVEL AFTER 24 HOURS
 PERCHED WATER, SATURATED ZONE, OR WATER BEARING STRATA
 SPRING OR SEEP

MISCELLANEOUS SYMBOLS

ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION
 SOIL SYMBOL
 ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT
 INFERRED SOIL BOUNDARY
 INFERRED ROCK LINE
 ALLUVIAL SOIL BOUNDARY
 DIP & DIP DIRECTION OF ROCK STRUCTURES
 TEST BORING
 AUGER BORING
 CORE BORING
 MONITORING WELL
 PIEZOMETER INSTALLATION
 SLOPE INDICATOR INSTALLATION
 CONE PENETROMETER TEST
 SOUNDING ROD
 TEST BORING WITH CORE
 SPT N-VALUE

RECOMMENDATION SYMBOLS

UNDERCUT
 SHALLOW UNDERCUT
 UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE
 UNCLASSIFIED EXCAVATION - ACCEPTABLE DEGRADABLE ROCK
 UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN THE TOP 3 FEET OF EMBANKMENT OR BACKFILL

ABBREVIATIONS

AR - AUGER REFUSAL
BT - BORING TERMINATED
CL - CLAY
CPT - CONE PENETRATION TEST
CSE. - COARSE
DMT - DILATOMETER TEST
DPT - DYNAMIC PENETRATION TEST
e - VOID RATIO
F - FINE
FOSS. - FOSSILIFEROUS
FRAC. - FRACTURED, FRACTURES
FRAGS. - FRAGMENTS
HL - HIGHLY
MED. - MEDIUM
MICA. - MICACEOUS
MOD. - MODERATELY
NP - NON PLASTIC
ORG. - ORGANIC
PMT - PRESSUREMETER TEST
SAP. - SAPROLITIC
SD. - SAND, SANDY
SL. - SILT, SILTY
SLI. - SLIGHTLY
TCR - TRICONE REFUSAL
w - MOISTURE CONTENT
V - VERY
VST - VANE SHEAR TEST
WEA. - WEATHERED
γ - UNIT WEIGHT
γd - DRY UNIT WEIGHT
S - BULK
SS - SPLIT SPOON
ST - SHELBY TUBE
RS - ROCK
RT - RECOMPACTED TRIAXIAL
CBR - CALIFORNIA BEARING RATIO

EQUIPMENT USED ON SUBJECT PROJECT

DRILL UNITS:

☐ CME-45C
☐ CME-55
☐ CME-550X
☐ VANE SHEAR TEST
☐ PORTABLE MOIST
☒ MOBILE B-29

ADVANCING TOOLS:

☐ CLAY BITS
☐ 6" CONTINUOUS FLIGHT AUGER
☒ 4" SOLID STEM AUGERS
☐ HARD FACED FINGER BITS
☐ TUNG.-CARBIDE INSERTS
☐ CASING ☐ W/ ADVANCER
☐ TRICONE _____ ' STEEL TEETH
☐ TRICONE _____ ' TUNG.-CARB.
☒ CORE BIT (4-INCH DIAMETER)
☐ _____

HAMMER TYPE:

☐ AUTOMATIC ☐ MANUAL

CORE SIZE:
☐ -B _____ ☐ -H _____
☐ -N _____

HAND TOOLS:
☐ POST HOLE DIGGER
☐ HAND AUGER
☐ SOUNDING ROD
☐ VANE SHEAR TEST
☒ DUAL MASS DCP

ROCK DESCRIPTION

HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT REFUSAL IF TESTED, AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH NON-COASTAL PLAIN MATERIAL WOULD YIELD SPT REFUSAL. SPT REFUSAL IS PENETRATION BY A SPLIT SPOON SAMPLER EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS IN NON-COASTAL PLAIN MATERIAL. THE TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED BY A ZONE OF WEATHERED ROCK. ROCK MATERIALS ARE TYPICALLY DIVIDED AS FOLLOWS:

WEATHERED ROCK

Tip No. I-5715| WBS No. 50128.1.FS1| Mecklenburg County

ABBREVIATIONS

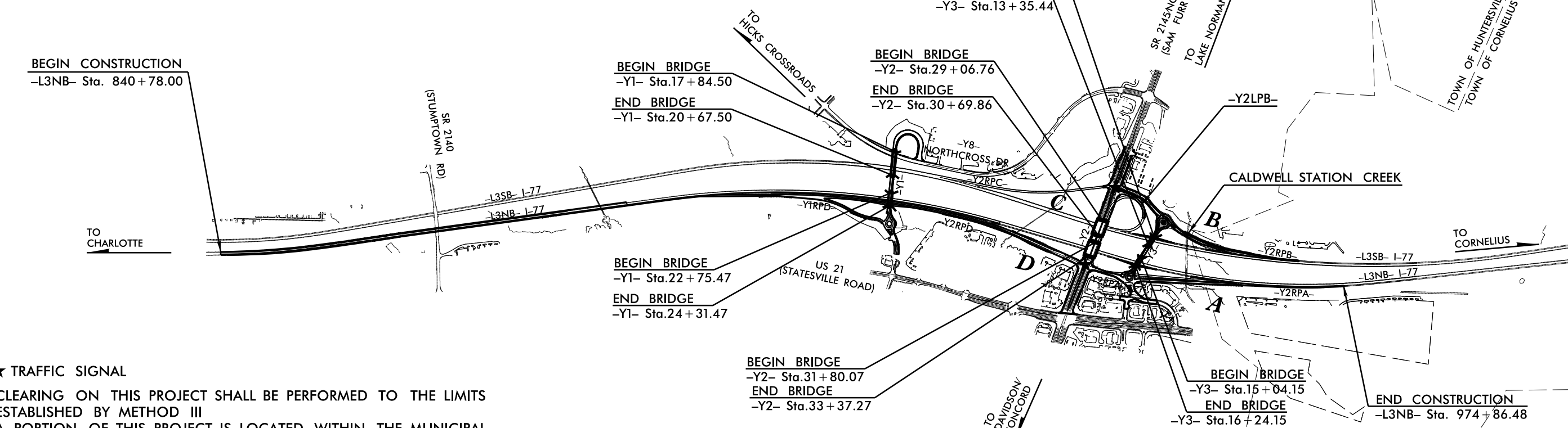
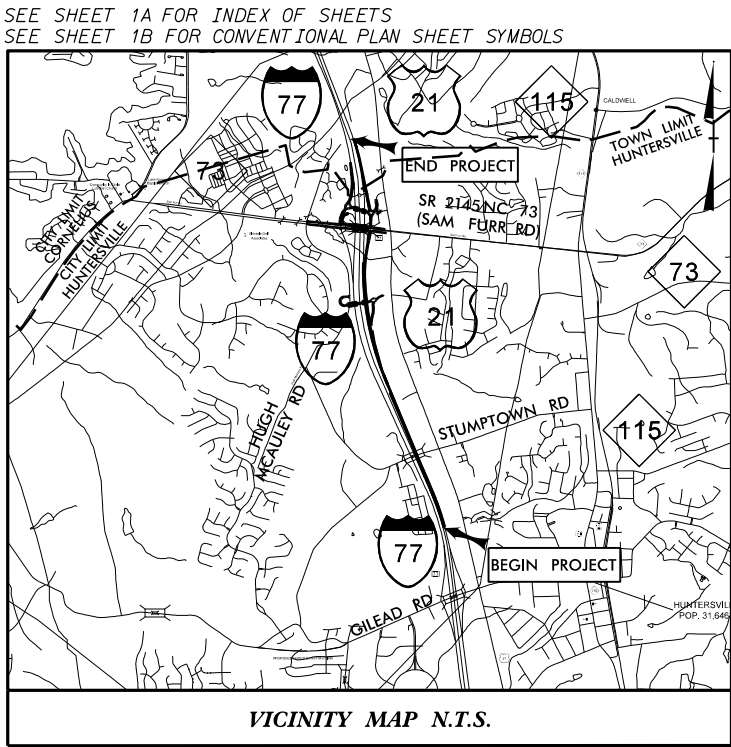
RT LN = Right Lane	CR = Crown
LT LN = Left Lane	S = Super
OSL = Outside Lane	C = Cut
ISL = Inside Lane	F = Fill
OSML = Outside Mid-Lane	DCP = Dynamic Cone Penetrometer
ISML = Inside Mid-Lane	M = Moist
PS = Paved Shoulder	W = Wet
LTL = Left Turn Lane	N/A = Not Observed
RTL = Right Turn Lane	NSR = No Sample Recovered
MID = Middle Lane	S- = Soil Grab Sample
CTL = Center Turn Lane	Ref- = Soil Reference Sample
ISWP = Inside Wheel Path	SS- = Split Spoon Sample
OSWP = Outside Wheel Path	RE = Roadway Embankment
PS = Paved Shoulder	F. = Fine
FW = From White Line	Cse. = Coarse
FY = From Yellow Line	ABC = Aggregate Base Course
RT = Right	STBC = Soil Type Base Course
LT = Left	CSS = Cement Stabilized Subgrade
(I) = Inside	SG = Subgrade
(O) = Outside	AF= Artificial Fill
BOC = Back of Curb	FDR = Full Depth Reclamation
C&G = Curb and Gutter	HP = Highly Plastic
EOP = Edge of Pavement	MP = Moderately Plastic
	FEA = Flattened And Elongated Aggregate

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5715	3	46
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
50128.1.FS1	NHPP-077-1(220)29	PE	
50128.2.1	-	ROW	
50128.2.2	-	UTIL	

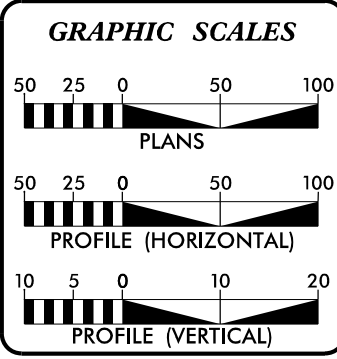
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
MECKLENBURG COUNTY

LOCATION: I-77 FROM SOUTH OF SR 2140 (STUMPTOWN RD) TO NORTH OF NC 73 (SAM FURR RD)
& SR 2145/NC 73 (SAM FURR RD) BETWEEN NORTHCROSS DR & US 21 (STATESVILLE RD)
TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNING, NOISE WALL & STRUCTURES



★ TRAFFIC SIGNAL
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS
ESTABLISHED BY METHOD III
A PORTION OF THIS PROJECT IS LOCATED WITHIN THE MUNICIPAL
BOUNDARIES OF THE TOWNS OF HUNTERSVILLE AND CORNELIUS
THIS IS A PARTIALLY CONTROLLED ACCESS PROJECT WITH ACCESS
LIMITED TO POINTS AS SHOWN ON THE PLANS



DESIGN DATA	
ADT 2025 =	121,400
ADT 2045 =	152,000
DHV =	8 %
D =	55 %
T =	14 % *
V =	70 MPH
* (TTST 10% + DUAL 4%)	
FUNC. CLASS = INTERSTATE "STATE WIDE TIER"	

PROJECT LENGTH	
LENGTH ROADWAY TIP PROJECT I-5715	= 2.539 MILES
LENGTH STRUCTURES TIP PROJECT I-5715	= 0.000 MILES
TOTAL LENGTH OF TIP PROJECT I-5715	= 2.539 MILES
* NOTE: PROJECT LENGTH BASED ON I-77 NORTHBOUND LANES	

PLANS PREPARED FOR
THE NCDOT BY:

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
APRIL 18, 2023

LETTING DATE:
SEPTEMBER 16, 2025

Kimley»Horn
NC LICENSE #F-2102
200 SOUTH TRYON STREET, SUITE 200
CHARLOTTE, NORTH CAROLINA 28202
PHONE: (704) 333-5131

TONY SPACEK, P.E.
PROJECT ENGINEER

SYDNEY ROSENBLUM, P.E.
PROJECT DESIGN ENGINEER

LINDSAY H. CROCKER
PEF PROJECT ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.
ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.
STATE HIGHWAY DESIGN ENGINEER

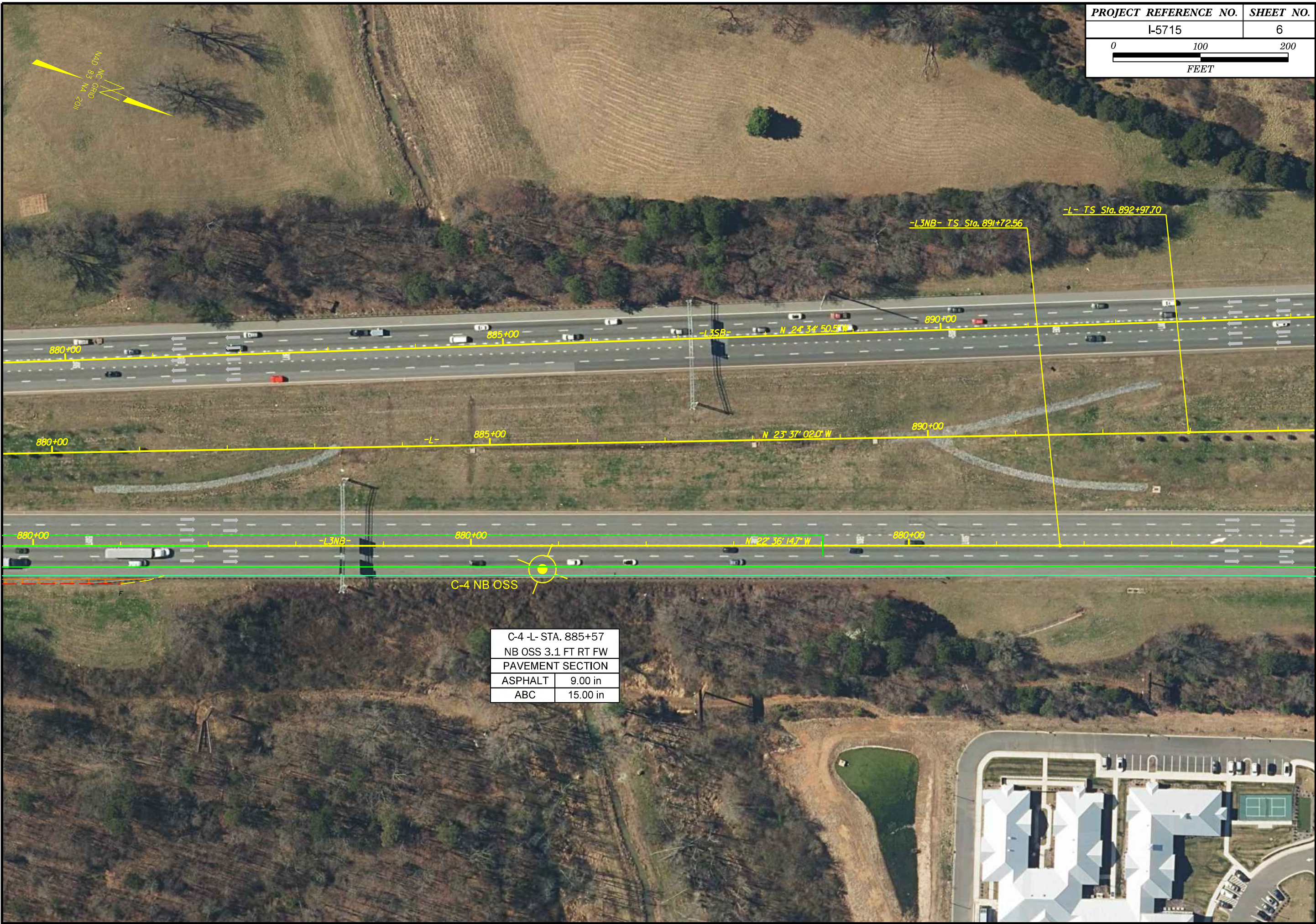
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER P.E.

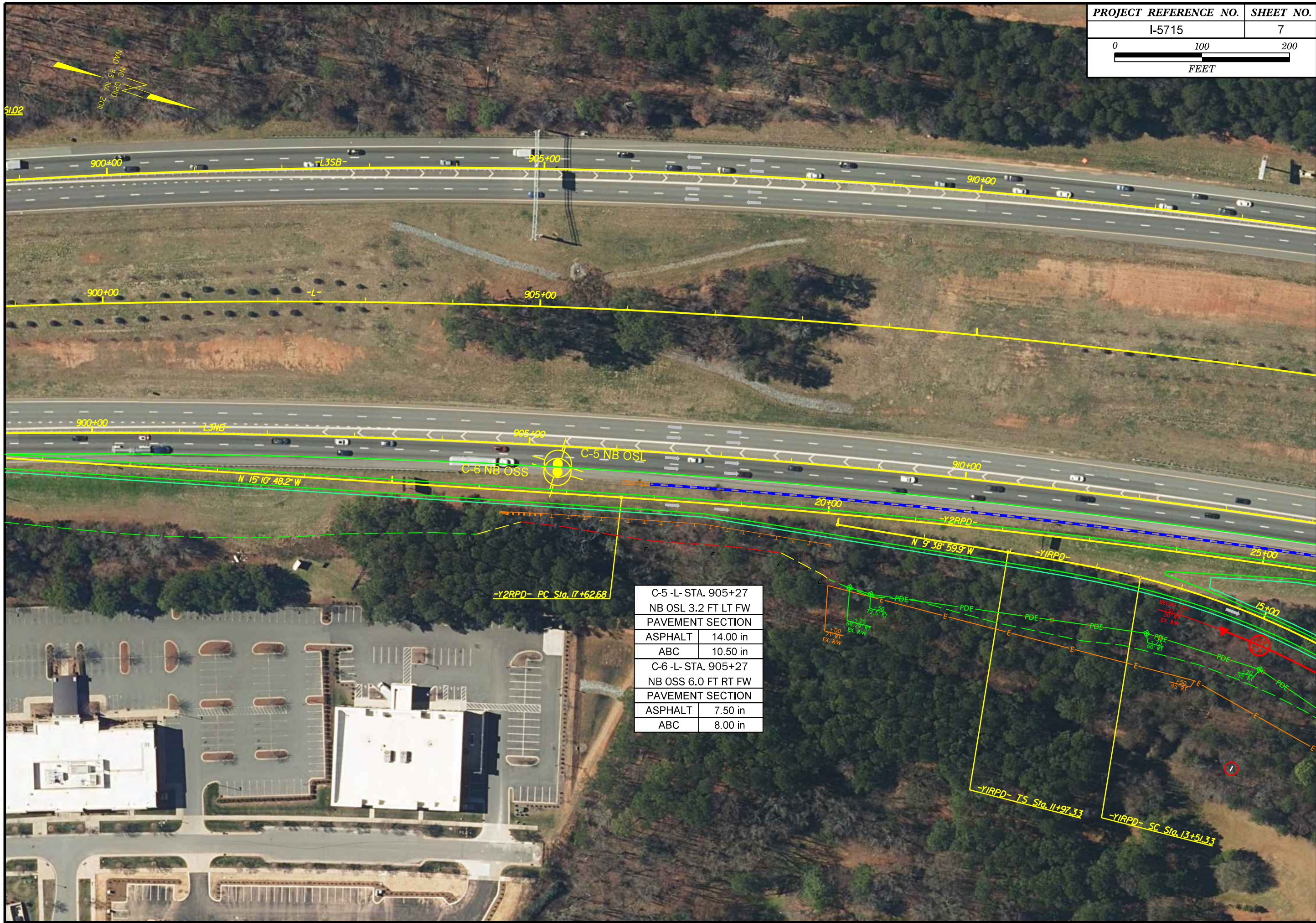
CONTRACT: I-5715







C-4 -L- STA. 885+57	
NB OSS 3.1 FT RT FW	
PAVEMENT SECTION	
ASPHALT	9.00 in
ABC	15.00 in



C-5 -L- STA. 905+27	
NB OSL 3.2 FT LT FW	
PAVEMENT SECTION	
ASPHALT	14.00 in
ABC	10.50 in
C-6 -L- STA. 905+27	
NB OSS 6.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	7.50 in
ABC	8.00 in

8- PT Sta. 24+63.35

-L3SB- ST Sta. 934+05.92

PROJECT REFERENCE NO.	SHEET NO.
I-5715	8
0 100 200 FEET	

NAD 83 NA 2011

925+00

930+00

-L3SB-

N 2° 48' 27.2" E

935+00

N 2° 48' 27.2" E

-L3SB- CS Sta. 930+57.02

-L- CS Sta. 930+97.07

-L- N 1° 59' 35.3" E

925+00

930+00

935+00

925+00

C-7 NB OSS

35+00

-Y2RPD-

40+00

-L3NB- CS Sta. 932+23.59

-L3NB-

930+00

935+00

-L3NB- ST Sta. 936+14.64

-L- ST Sta. 934+67.07

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C-10 RPD OSS

C-8 RPD ISS

C-9 RPD DECEL LN

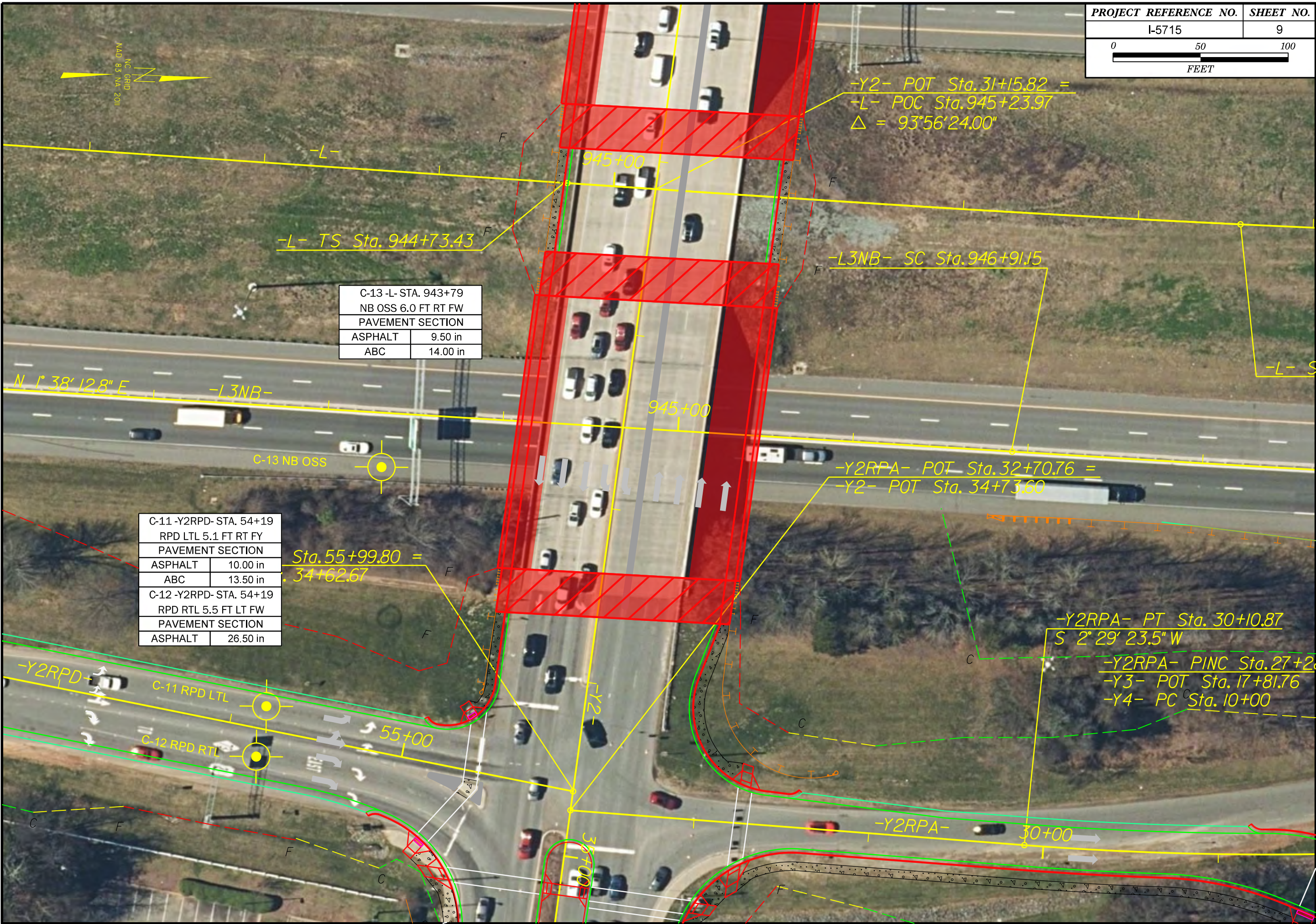
C-7 -L- STA. 925+06	
NB OSS 5.2 FT RT FW	
PAVEMENT SECTION	
ASPHALT	10.50 in
ABC	12.50 in

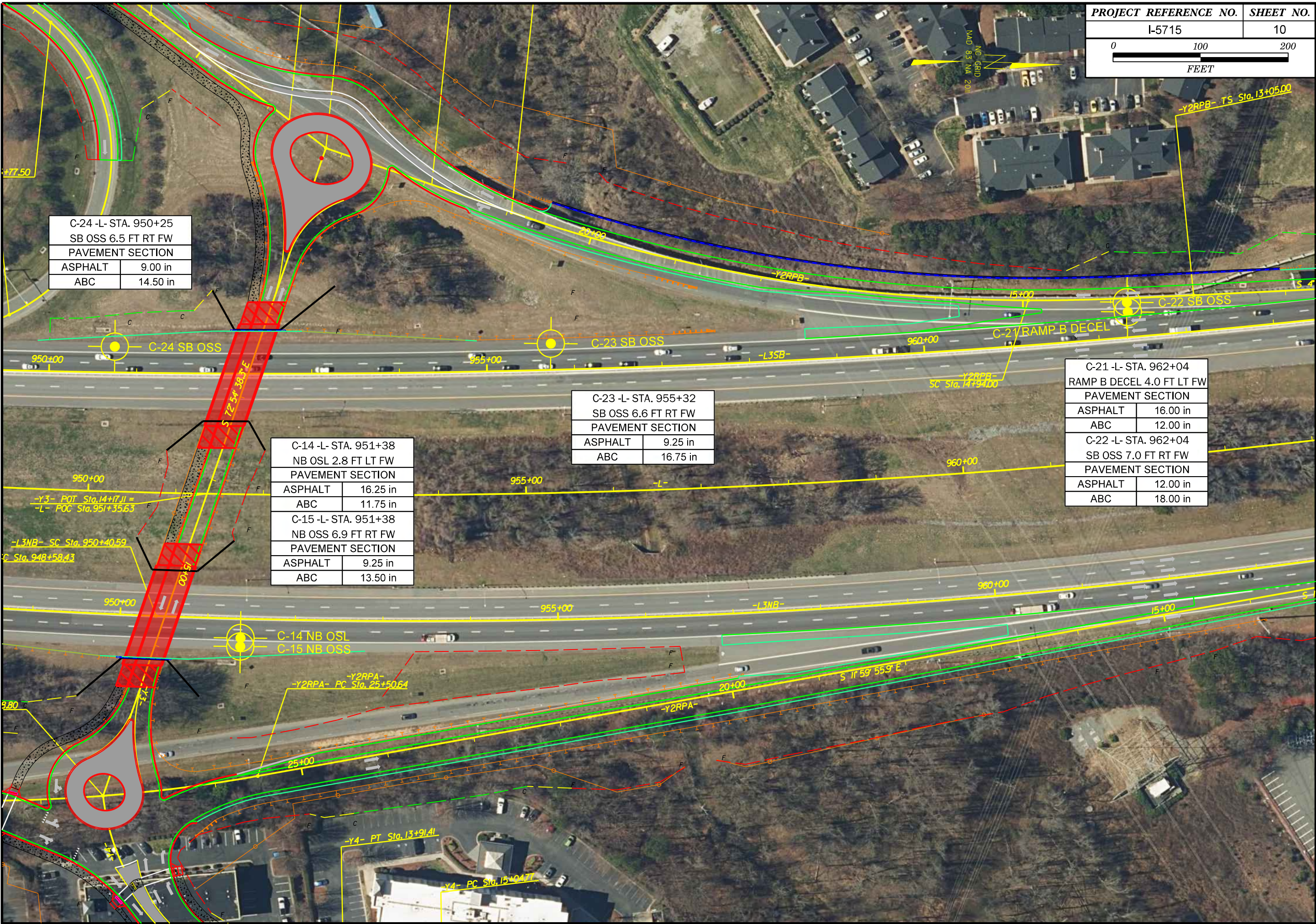
-Y2RPD- CS Sta. 39+77.90

-Y2RPD- SC Sta. 41+37.90

C-8 -Y2RPD- STA. 47+95	
RPD ISS 2.0 FT LT FY	
PAVEMENT SECTION	
ASPHALT	5.25 in
ABC	14.25 in
C-9 -Y2RPD- STA. 47+95	
RPD DECEL LN 1.5 FT LT FW	
PAVEMENT SECTION	
ASPHALT	9.50 in
ABC	8.50 in
C-10 -Y2RPD- STA. 47+95	
RPD OSS 3.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	5.00 in
ABC	12.00 in

-Y2RPD- PT Sta. 47+92.21







C-19 -L- STA. 969+85	
SB OSS 6.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	10.00 in
ABC	7.00 in
C-20 -L- STA. 969+85	
SB OSL 2.6 FT LT FW	
PAVEMENT SECTION	
ASPHALT	18.00 in
ABC	11.50 in

C-16 -L- STA. 967+58	
RAMP A ACCEL 4.9 FT LT FW	
PAVEMENT SECTION	
ASPHALT	16.50 in
ABC	17.00 in
C-17 -L- STA. 967+58	
NB OSS 2.7 FT RT FW	
PAVEMENT SECTION	
ASPHALT	16.50 in
ABC	7.50 in
GEOGRID	
ABC	12.00 in

C-18 -L- STA. 973+79	
NB OSS 7.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	16.00 in
ABC	14.00 in

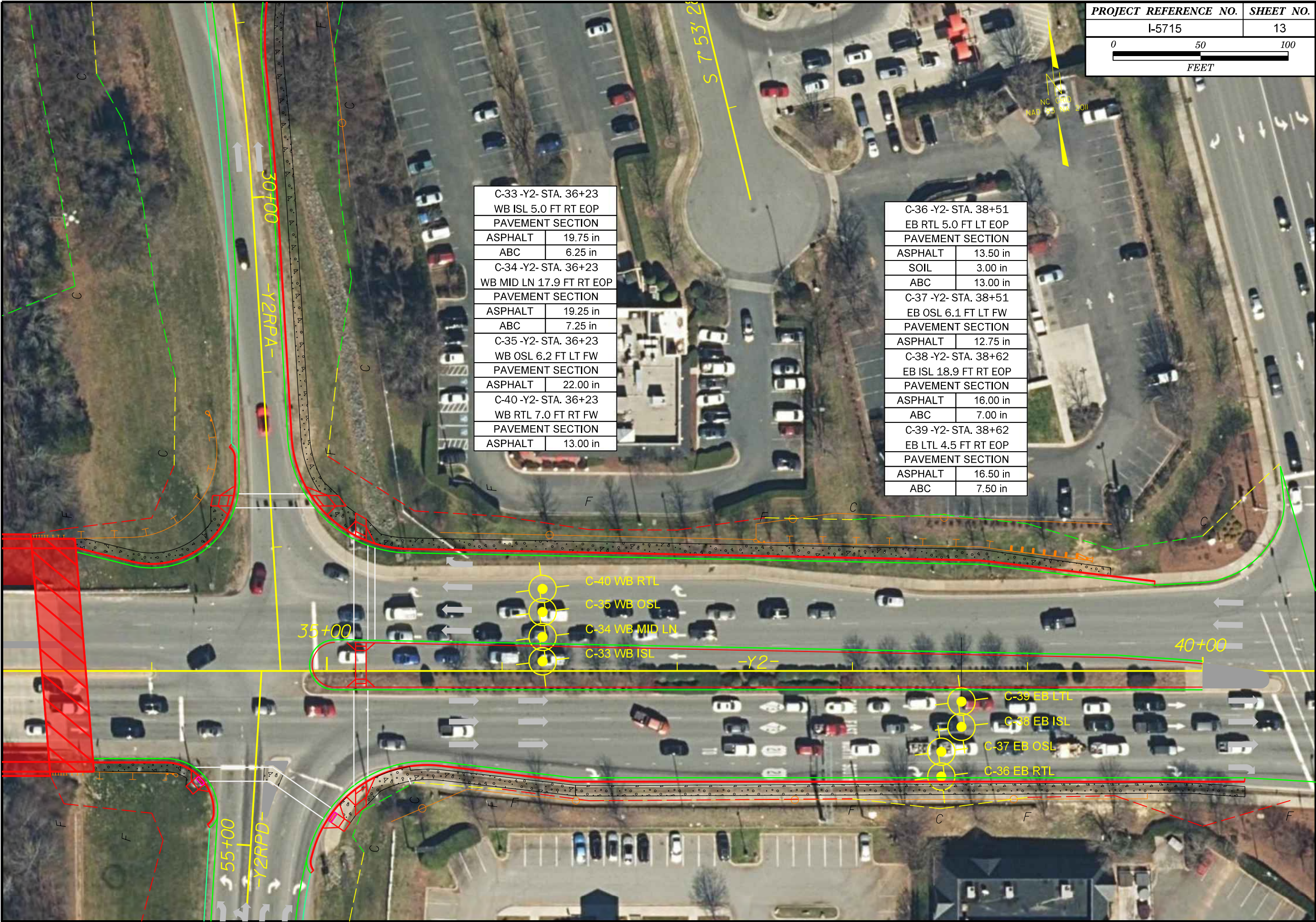
NO GRID
NAD 83 NA 2011

C-25 -Y2- STA. 21+87	
WB ISL 5.0 FT RT FY	
PAVEMENT SECTION	
ASPHALT	15.50 in
ABC	6.50 in
C-26 -Y2- STA. 21+87	
WB OSL 6.5 FT LT EOP	
PAVEMENT SECTION	
ASPHALT	10.50 in

C-30 -Y2- STA. 25+97	
WB PS 5.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	9.25 in
ABC	7.75 in

C-27 -Y2- STA. 23+03	
EB RTL 7.5 FT RT FW	
PAVEMENT SECTION	
ASPHALT	10.25 in
C-28 -Y2- STA. 23+03	
EB OSL 5.8 FT LT FW	
PAVEMENT SECTION	
ASPHALT	18.00 in
C-29 -Y2- STA. 23+03	
EB ISL 5.5 FT RT FY	
PAVEMENT SECTION	
ASPHALT	17.75 in
ABC	6.25 in

C-31 -Y2- STA. 27+40	
EB PS 1.5 FT LT FW	
PAVEMENT SECTION	
ASPHALT	11.50 in
ABC	6.50 in
C-32 -Y2- STA. 27+40	
EB LTL 3.5 FT LT FY	
PAVEMENT SECTION	
ASPHALT	12.50 in
ABC	6.50 in



PAVEMENT INVESTIGATION DATA SHEET

Project:	50128.1.FS1
TIP:	I-5715

Route:	I-77 from South of SR 2140 (Stumptown Rd) to North of NC 73 (Sam Furr Rd) & SR 2145/NC 73 (Sam Furr Rd) between Northcross Dr & US 21 (Statesville Rd)
County:	Mecklenburg

Date Performed:	1/18, 1/19, 1/31, 2/1/2024 (2 Nights)
Field Personnel:	P. Tomasic, CG2 Exploration

		Width (ft)		(ft)	(in)	Thickness (in)						Subgrade						GPS Coordinates	
Test Location	Cut/Fill (Est. of Amount) (ft)	Lane	Shoulder	Offset Distance (See Notes)	Crown "C" or Super "S"	Gross to Top of Soil	Asphalt	ABC	Stabilized Subgrade	Concrete	Pavement Layering	Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)	Asphalt Notes	Northing	Easting
C-1 -L- Sta. 844+87 NB OSL	Cut 8.0	11.0	12.0 PS	1.8 LT FW	Cr	27.00	15.00	12.00			Asphalt ABC SG	2.2-5.0: RES - Orange-Brown-Red, Silty CLAY, with trace to little mica	Ref-1	A-7-5	M	5.0	Joint Crack (ISWP) Bottom 0.75 inches of Core Rubblized, Not Recovered.	611,693	1,446,081
C-2 -L- Sta. 844+87 NB OSS	Cut 8.0	11.0	12.0 PS	7.4 RT FW	Cr	21.50	7.00	14.50			Asphalt ABC SG	1.8-5.0: RES - Orange-Brown-Red, Silty CLAY, with trace to little mica	S-1	A-7-5(4)	M	5.0	Joint Crack 1.0 Foot RT FW	611,695	1,446,089
C-3 -L- Sta. 864+89 NB OSS	Cut 6.0	10.5	10.5 PS	7.2 RT FW	Cr	23.50	8.50	15.00			Asphalt ABC SG	1.9-5.0: RES - Orange-Brown, Silty CLAY, with trace to little mica	S-3	A-7-5(7)	M	5.0	No Distress Observed	613,563	1,445,345
C-4 -L- Sta. 885+57 NB OSS	Fill 20.0 +	11.0	10.0 PS	3.1 RT FW	Cr	24.00	9.00	15.00			Asphalt ABC SG	2.0-5.0: RE - Orange-Brown, Silty CLAY, with trace mica and gravel	S-4	A-7-5(11)	M	5.0	No Distress Observed	615,471	1,444,546
C-5 -L- Sta. 905+27 NB OSL	Fill 10.0	11.0	9.5 PS	3.2 LT FW	Cr	24.50	14.00	10.50			Asphalt ABC SG	2.0-3.5: RE - Orange-Tan, Silty CLAY, MP, with trace mica 3.5-5.0: RE - Orange-Tan, Silty CLAY, MP, with trace mica and stale odor	Ref-6 Ref-6	A-7-5 A-7-5	M M	5.0	No Distress Observed	617,293	1,443,858
C-6 -L- Sta. 905+27 NB OSS	Fill 10.0	11.0	9.5 PS	6.0 RT FW	Cr	15.50	7.50	8.00			Asphalt ABC SG	1.3-5.0: RE - Orange-Brown, Silty CLAY, MP, with trace mica Stale odor in upper 8 inches	S-6	A-7-5(15)	M	5.0	No Distress Observed	617,296	1,443,867
C-7 -L- Sta. 925+06 NB OSS	Fill 6.0	11.0	11.0 PS	5.2 RT FW	Cr	23.00	10.50	12.50			Asphalt ABC SG	1.9-5.0: RE - Orange-Brown, Silty CLAY, MP	S-8	A-7-6(11)	W	5.0	No Distress Observed	619,198	1,443,538
C-8 -Y2RPD- Sta. 47+95 RPD ISS	Fill 6.0	16.0	3.5 PS	2.0 LT FY	S	19.50	5.25	14.25			Asphalt ABC SG	1.6-5.0: RE - Orange-Tan, Silty CLAY, MP, with trace mica	S-26	A-7-5(16)	M	5.0	Moderate to High Severity Transverse Cracking	620,375	1,443,589
C-9 -Y2RPD- Sta. 47+95 RPD Decel LN	Fill 6.0	16.0	4.0 PS	1.5 LT FW	S	18.00	9.50	8.50			Asphalt ABC SG	1.5-5.0: RE - Orange-Brown-Gray, Silty CLAY, MP, with trace mica	S-28	A-7-5(20)	W	5.0	High Severity Fatigue, Longitudinal, and Transverse Cracking 1.5-Inch Bottom-up Crack in Core, 2.0-Inch Top-down Crack in Core	620,372	1,443,607
C-10 -Y2RPD- Sta. 47+95 RPD OSS	Fill 6.0	16.0	4.0 PS	3.0 RT FW	S	17.00	5.00	12.00			Asphalt ABC SG	1.4-5.0: RE: Orange-Red-Tan, Silty CLAY, MP, with trace mica	Ref-28	A-7-5	M	5.0	Moderate to High Severity Transverse Cracking	620,371	1,443,611
C-11 -Y2RPD- Sta. 54+19 RPD LTL	Fill 20.0	12.0	4.0 PS	5.1 RT FY	Cr	23.50	10.00	13.50			Asphalt ABC SG	1.9-5.0: RE, Orange-Tan-Brown, Silty CLAY, HP, with trace mica	S-27	A-7-5(29)	M	5.0	Low to Moderate Severity Longitudinal and Transverse Cracking	620,992	1,443,683
C-12 -Y2RPD- Sta. 54+19 RPD RTL	Fill 20.0	12.0	3.0 PS	5.5 LT FW	Cr	26.50	26.50				Asphalt SG	2.2-5.0: RE - Orange-Tan, Silty CLAY, HP	Ref-27	A-7-5	M	5.0	Low to Moderate Severity Longitudinal and Transverse Cracking	620,987	1,443,712
C-13 -L- Sta. 943+79 NB OSS	Cut 10.0	11.0	11.0 PS	6.0 RT FW	Cr	23.50	9.50	14.00			Asphalt ABC SG	2.0-5.0: RES - Orange-Tan-Brown, Silty CLAY, MP, with trace mica	S-9	A-7-5(14)	M	5.0	No Distress Observed	621,053	1,443,545
C-14 -L- Sta. 951+38 NB OSL	Cut 8.0	12.0	11.0 PS	2.8 LT FW	Cr	28.00	16.25	11.75			Asphalt ABC SG	2.3-5.0: RES - Orange-Brown, Silty CLAY, MP, with trace mica	S-13	A-7-6(10)	M	5.0	No Distress Observed	621,859	1,443,553
C-15 -L- Sta. 951+38 NB OSS	Cut 8.0	12.0	11.0 PS	6.9 RT FW	Cr	22.75	9.25	13.50			Asphalt ABC SG	1.9-5.0: RES - Orange-Brown, Silty CLAY, MP, with trace mica	Ref-13	A-7-6	M	5.0	No Distress Observed	621,859	1,443,563

Notes:

Offset Distance: Left and Right Relative to the Direction of Travel

Prepared by:
Reviewed by:

PFT
DMB

PAVEMENT INVESTIGATION DATA SHEET

Project:	50128.1.FS1
TIP:	I-5715

Route:	I-77 from South of SR 2140 (Stumptown Rd) to North of NC 73 (Sam Furr Rd) & SR 2145/NC 73 (Sam Furr Rd) between Northcross Dr & US 21 (Statesville Rd)
County:	Mecklenburg

Date Performed:	1/18, 1/19, 1/31, 2/1/2024 (2 Nights)
Field Personnel:	P. Tomasic, CG2 Exploration

		Width (ft)		(ft)	(in)	Thickness (in)						Subgrade							GPS Coordinates	
Test Location	Cut/Fill (Est. of Amount) (ft)	Lane	Shoulder	Offset Distance (See Notes)	Crown "Cr" or Super "S"	Gross to Top of Soil	Asphalt	ABC	Stabilized Subgrade	Concrete	Pavement Layering	Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)	Asphalt Notes	Northing	Easting	
C-16 -L- Sta. 967+58 RAMP A ACCEL	Fill 10.0	12.0	3.0 PS	4.9 LT FW	Cr	33.50	16.50	17.00			Asphalt ABC SG	2.8-5.0: RE - Brown-Orange-Red, Silty CLAY, with trace mica	S-15	A-7-5(8)	M	5.0	No Distress Observed	623,472	1,443,381	
C-17 -L- Sta. 967+58 NB OSS	Fill 10.0	12.0	3.0 PS	2.7 RT FW	Cr	36.00	16.50	7.50 12.00			Asphalt ABC, Geogrid, ABC	3.0-5.0: RE - Orange-Red-Brown, Silty CLAY, with trace mica	Ref-15	A-7-5	M	5.0	Low Severity Tranverse Cracking	623,473	1,443,388	
C-18 -L- Sta. 973+79 NB OSS	Cut 6.0	11.5	12.0 PS	7.0 RT FW	Cr	30.00	16.00	14.00			Asphalt ABC SG	2.5-5.0: RES - Orange-Brown, Clayey SILT, with trace mica	S-16	A-5(3)	M	5.0	No Distress Observed	624,073	1,443,219	
C-19 -L- Sta. 969+85 SB OSS	Cut 10.0	11.5	11.0 PS	6.0 RT FW	Cr	17.00	10.00	7.00			Asphalt ABC SG	1.5-5.0: RES - Brown-Tan, Silty CLAY, MP, with trace to little mica Water at 2.0 feet below ground surface. Struck drain pipe.	Ref-21	A-7-5	W	5.0	Low Severity Tansverse Cracking	623,618	1,443,031	
C-20 -L- Sta. 969+85 SB OSL	Cut 10.0	11.5	11.0 PS	2.6 LT FW	Cr	29.50	18.00	11.50			Asphalt ABC SG	2.5-5.0: RES - Orange-Brown-Tan, Silty CLAY, MP, with trace to little mica	S-21	A-7-5(16)	W	5.0	No Distress Observed	623,620	1,443,039	
C-21 -L- Sta. 962+04 RAMP B DECEL	Fill 10.0	8.5	13.5 PS	4.0 LT FW	Cr	28.00	16.00	12.00			Asphalt ABC SG	2.3-5.0:RE - Brown-Gray, Fine to Coarse Sandy CLAY, with trace mica and gravel organics	S-22	A-6(1)	M	5.0	No Distress Observed	622,859	1,443,148	
C-22 -L- Sta. 962+04 SB OSS	Fill 10.0	6.5	13.5 PS	7.0 RT FW	Cr	30.00	12.00	18.00			Asphalt ABC SG	2.5-5.0: RE - Brown-Gray-Orange-Red, Fine to Coarse Sandy CLAY, with trace mica and	Ref-22	A-6	M	5.0	No Distress Observed	622,858	1,443,137	
C-23 -L- Sta. 955+32 SB OSS	Fill 7.0	11.5	11.0 PS	6.6 RT FW	Cr	26.00	9.25	16.75			Asphalt ABC SG	2.2-5.0: RE - Orange-Gray-Brown, Fine to Coarse Sandy CLAY, with trace mica Water weeping from bottom of ABC	S-24	A-6(2)	M	5.0	No Distress Observed	622,202	1,443,206	
C-24 -L- Sta. 950+25 SB OSS	Fill 7.0	11.0	11.0 PS	6.5 RT FW	Cr	23.50	9.00	14.50			Asphalt ABC SG	2.0-5.0: RE - Orange-Brown-Gray, Silty CLAY, with trace mica	S-25	A-7-5(6)	M	5.0	No Distress Observed	621,705	1,443,226	
C-25 -Y2- Sta. 21+87 WB ISL	Fill 15.0	11.5	0.5 PS & Conc. Median	5.0 RT FY	S	22.00	15.50	6.50			Asphalt ABC SG	1.8-5.0: RE - Orange-Tan, Silty CLAY, MP, with trace mica	S-35	A-7-5(16)	M	5.0	No Distress Observed	621,306	1,442,458	
C-26 -Y2- Sta. 21+87 WB OSL	Fill 15.0	13.0	Concrete Curb & Gutter	6.5 LT EOP	S	10.50	10.50				Asphalt SG	RE - Orange-Tan, Silty CLAY, MP, with trace mica DCP not performed to full depth due to utility and no auger performed	Ref-35	A-7-5	M	0.8	No Distress Observed	621,322	1,442,460	
C-27 -Y2- Sta. 23+03 EB RTL	Fill 15.0	12.5	Concrete Curb & Gutter	7.5 RT FW	S	10.25	10.25				Asphalt SG	0.8-5.0: RE - Orange-Brown-Gray, Fine to Coarse Sandy SILT	Ref-19	A-4	M	5.0	No Distress Observed	621,242	1,442,568	
C-28 -Y2- Sta. 23+03 EB OSL	Fill 15.0	12.0		5.8 LT FW	S	18.00	18.00				Asphalt SG	1.5-5.0: RE - Gray-White, Fine to Coarse Sandy SILT, with trace mica	S-19	A-4(0)	M	5.0	No Distress Observed	621,255	1,442,570	
C-29 -Y2- Sta. 23+03 EB ISL	Fill 15.0	11.5	0.5 PS & Conc. Median	5.5 RT FY	S	24.00	17.75	6.25			Asphalt ABC SG	2.0-5.0: RE - Gray-Brown-White, Fine to Coarse Sandy SILT, with trace mica	Ref-19	A-4	M	5.0	No Distress Observed	621,268	1,442,571	
C-30 -Y2- Sta. 25+97 WB PS	Fill 8.0		13.0 PS	5.0 RT FW	Cr	17.00	9.25	7.75			Asphalt ABC SG	1.5-5.0: RE - Brown-Grey, Silty CLAY, MP, with trace mcia	S-18	A-7-6(10)	M	5.0	No Distress Observed	621,289	1,442,868	

Notes:

Offset Distance: Left and Right Relative to the Direction of Travel

Prepared by:
Reviewed by:

PFT
DMB

PAVEMENT INVESTIGATION DATA SHEET

Project:	50128.1.FS1
TIP:	I-5715

Route:	I-77 from South of SR 2140 (Stumptown Rd) to North of NC 73 (Sam Furr Rd) & SR 2145/NC 73 (Sam Furr Rd) between Northcross Dr & US 21 (Statesville Rd)
County:	Mecklenburg

Date Performed:	1/18, 1/19, 1/31, 2/1/2024 (2 Nights)
Field Personnel:	P. Tomasic, CG2 Exploration

		Width (ft)		(ft)	(in)	Thickness (in)						Subgrade						GPS Coordinates	
Test Location	Cut/Fill (Est. of Amount) (ft)	Lane	Shoulder	Offset Distance (See Notes)	Crown "C" or Super "S"	Gross to Top of Soil	Asphalt	ABC	Stabilized Subgrade	Concrete	Pavement Layering	Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)	Asphalt Notes	Northing	Easting
C-31 -Y2- Sta. 27+40 EB PS	Fill 5.0	12.0	3.5 PS	1.5 LT FW	Cr	18.00	11.50	6.50			Asphalt ABC SG	1.5-5.0: RE - Orange-Brown-Tan, Silty CLAY, HP, with trace mica	S-38	A-7-6(17)	M	5.0	No Distress Observed	621,203	1,443,003
C-32 -Y2- Sta. 27+40 EB LTL	Fill 5.0	10.0	5.0 Concrete Median	3.5 LT FY	Cr	19.00	12.50	6.50			Asphalt ABC SG	1.6-5.0: RE - Brown-Orange-Tan, Silty CLAY, with trace to little mica	S-37	A-7-5(5)	M	5.0	No Distress Observed	621,236	1,443,006
C-33 -Y2- Sta. 36+23 WB ISL	Fill 5.0	12.0	Concrete Curb & Gutter	5.0 RT EOP	S	26.00	19.75	6.25			Asphalt ABC SG	2.2-5.0: RE - Orange-Red, Fine to Coarse Sandy CLAY,MP, with trace mica	S-34	A-6(5)	M	5.0	No Distress Observed	621,157	1,443,886
C-34 -Y2- Sta. 36+23 WB MID LN	Fill 5.0	11.0		17.9 RT EOP	S	26.50	19.25	7.25			Asphalt ABC SG	2.2-5.0: RE - Orange-Red-Tan, Fine to Coarse Sandy CLAY,MP, with trace mica	Ref-34	A-6	M	5.0	No Distress Observed	621,171	1,443,888
C-35 -Y2- Sta. 36+23 WB OSL	Fill 5.0	13.0		6.2 LT FW	S	22.00	22.00				Asphalt SG	1.8-5.0: RE - Orange-Brown, Silty CLAY, MP	Ref-10	A-7-5	M	5.0	Low Severity Tranverse and Longitudinal Cracking	621,185	1,443,889
C-40 -Y2- Sta. 36+23 WB RTL	Fill 5.0	12.0	Concrete Curb & Gutter	7.0 RT FW	S	13.00	13.00				Asphalt SG	1.1-5.0: RE - Orange-Brown-Gray, Silty CLAY, MP	S-10	A-7-5(18)	M	5.0	Low Serverity Transverse Cracking	621,198	1,443,890
C-36 -Y2- Sta. 38+51 EB RTL	Fill 8.0	11.5	Concrete Curb & Gutter	5.0 LT EOP	S	29.50	13.50	13.00	3.00 (Soil)		Asphalt Soil/ABC SG	1.1-1.4: RE - Orange-Red, Silty CLAY, HP 1.4-2.6: ABC 2.6-5.0: RE - Orange-Red, Silty CLAY, HP	Ref-31 Ref-31	A-7-6 A-7-6	M M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	621,068	1,444,106
C-37 -Y2- Sta. 38+51 EB OSL	Fill 8.0	13.5		6.1 LT FW	S	12.75	12.75				Asphalt SG	1.0-5.0: RE - Orange-Red-Tan, Silty CLAY, HP	S-31	A-7-6(25)	M	5.0	Low Severity Tansverse Cracking	621,082	1,444,107
C-38 -Y2- Sta. 38+62 EB ISL	Fill 8.0	11.0		18.9 RT EOP	S	23.00	16.00	7.00			Asphalt ABC SG	1.9-5.0: RE - Orange-Red, Fine to Coarse Sandy CLAY, MP, with trace mica	Ref-40	A-6	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	621,096	1,444,109
C-39 -Y2- Sta. 38+62 EB LTL	Fill 8.0	12.0	Concrete Curb & Gutter	4.5 RT EOP	S	24.00	16.50	7.50			Asphalt ABC SG	2.0-5.0: RE, Orange-Gray-Red, Fine to Coarse Sandy CLAY, MP with trace mica and gravel	S-40	A-6(1)	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	621,111	1,444,110

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.	PROJECT TIP I.D.	ROUTE					
						50128.1.FS1	I-5715	I-77 and the NC 73 Interchange					
						COUNTY Mecklenburg	FIELD PROFESSIONAL P. Tomasic	FIELD CREW CG2 Exploration					
Test Location						Date Run		Test Location				Date Run	
C-1 NB OSL -L- Sta. 844+87 1.8 LT FW						1/18-2/1/24		C-2 NB OSS -L- Sta. 844+87 7.4 RT FW				1/18-2/1/24	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum	
DCP	Cumulative cm per blow			ABC		8.0 Cut		DCP	Cumulative cm per blow			ABC	
0.14	7.57	16.31	26.28					0.33	11.50	32.34			
0.28	7.70	16.46	26.45					1.06	11.64	32.89			
0.42	7.82	16.60	26.70					1.24	11.79	33.23			
0.56	7.95	16.75	26.83					1.43	11.93	33.66			
0.70	8.08	16.86	26.93					1.73	12.08	34.14			
0.84	8.21	16.97	27.21					2.03	12.22	34.60			
0.99	8.33	17.08	27.37					2.22	12.28	34.71			
1.14	8.46	17.19	27.69					2.40	12.33	35.64			
1.29	8.59	17.30	28.11					2.59	12.39	35.98			
1.44	8.72	17.41	28.41					2.78	12.44	36.61			
1.59	8.84	17.52	28.72					2.96	12.50	36.89			
1.74	8.97	17.63	29.47					3.15	12.56	37.89			
1.81	9.09	17.74	29.76					3.33	12.61	38.97			
1.88	9.20	17.85	30.43					3.52	12.67	41.22			
1.96	9.32	17.96	30.85					3.71	12.72	43.62			
2.03	9.44	18.05	31.62					3.89	12.78	46.37			
2.10	9.56	18.13	32.31					4.08	12.84	48.79			
2.17	9.67	18.22	32.97					4.21	12.89	50.02			
2.24	9.79	18.30	33.62					4.34	12.95	51.00			
2.32	9.91	18.39	34.54					4.47	13.01	52.80			
2.39	10.03	18.47	36.07					4.59	13.06	55.20			
2.46	10.14	18.56	37.03					4.72	13.12	57.37			
2.53	10.26	18.64	38.25					4.85	13.17	59.92			
2.60	10.41	18.73	39.94					5.03	13.23	65.83			
2.67	10.57	18.81	42.44					5.22	13.29	68.51			
2.75	10.72	18.90	44.58					5.40	13.34	71.12			
2.82	10.88	18.98	46.81					5.58	13.40	74.56			
2.89	11.03	19.07	48.78					5.76	13.45	77.21			
2.98	11.19	19.15	51.18					5.95	13.51	80.03			
3.08	11.34	19.24	53.22					6.13	13.57	83.76			
3.17	11.50	19.32	54.91					6.31	13.62	85.97			
3.26	11.65	19.43	57.11					6.49	13.68	89.31			
3.35	11.81	19.53	58.99					6.68	13.73	92.80			
3.45	11.96	19.64	61.39					6.86	13.79	96.48			
3.54	12.43	19.74	63.85					7.01	13.85	100.11			
3.63	12.53	19.85	66.39					7.15	13.90	103.62			
3.73	12.63	19.95	68.64					7.30	13.96	107.64			
3.82	12.74	20.09	70.66					7.44	14.02	110.80			
3.91	12.84	20.22	73.25					7.59	14.07	114.17			
4.00	12.94	20.36	75.51					7.73	14.13	117.84			
4.10	13.04	20.50	78.40					7.88	14.18	121.47			
4.19	13.17	20.63	80.95					8.03	14.24	125.04			
4.28	13.29	20.77	83.60					8.17	14.30	128.31			
4.38	13.42	20.97	86.35					8.32	14.35	131.69			
4.47	13.54	21.12	89.18					8.46	14.41	134.84			
4.56	13.67	21.37	91.66					8.61	14.46				
4.65	13.79	21.70	93.93					8.75	14.52				
4.75	13.88	21.92	96.52					8.90	DCP REF				
4.84	13.96	22.20	98.83					9.04	Auger				
5.00	14.05	22.31	101.05					9.19	To				
5.16	14.13	22.64	103.67					9.33	25.47				
5.31	14.22	22.75	106.02					9.48	26.94				
5.47	14.30	22.98	108.47					9.62	27.55				
5.63	14.39	23.39	110.70					9.77	28.04				
5.79	14.47	23.64	112.90					9.91	28.34				
5.95	14.56	23.75						10.06	28.59				
6.11	14.64	24.08						10.20	28.93				
6.26	14.73	24.21						10.34	29.30				
6.42	14.95	24.59						10.49	29.74				
6.58	15.16	24.76						10.63	30.02				
6.75	15.38	25.03						10.78	30.42				
6.91	15.59	25.20						10.92	31.11				
7.08	15.81	25.46						11.07	31.16				
7.24	16.02	25.58						11.21	31.58				
7.41	16.17	25.93						11.35	32.09				

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.		PROJECT TIP I.D.				ROUTE			
						50128.1.FS1		I-5715				I-77 and the NC 73 Interchange			
						COUNTY		FIELD PROFESSIONAL				FIELD CREW			
						Mecklenburg		P. Tomasic				CG2 Exploration			
Test Location						Date Run		Test Location				Date Run			
C-3 NB OSS -L- Sta. 864+89 7.2 RT FW						1/18-2/1/24		C-4 NB OSS -L- Sta. 885+57 3.1 RT FW				1/18-2/1/24			
Type		Test Interval		Datum		Cut/Fill		Type		Test Interval		Datum		Cut/Fill	
DCP		Cumulative cm per blow		ABC		6.0 Cut		DCP		Cumulative cm per blow		ABC		20.0+ Fill	
0.61	11.12	16.11	43.36					0.93	12.74	24.15	104.65				
0.87	11.23	16.14	43.84					1.18	12.88	24.34	105.52				
1.19	11.34	16.17	44.37					1.44	13.03	24.52	106.49				
1.65	11.44	16.20	44.79					1.69	13.40	24.71	107.76				
1.92	11.55	16.23	45.17					1.94	13.60	24.90	109.30				
2.13	11.81	16.26	45.45					2.20	13.73	25.09	110.23				
2.38	11.97	16.29	46.37					2.45	13.86	25.28	111.26				
2.65	12.11	16.32	47.61					2.80	13.99	25.47	111.64				
3.24	12.24	DCP REF	48.78					3.48	14.12	26.03	112.09				
3.45	12.33	Auger	49.98					3.56	14.25	26.25	114.34				
3.78	12.49	To	50.85					3.83	14.38	26.82	115.34				
3.98	12.68	29.68	51.82					4.21	14.56	27.29	116.52				
4.05	12.87	31.22	53.63					4.39	14.73	27.88					
4.24	13.02	31.53	55.95					4.57	14.91	28.32					
4.51	13.33	31.75	58.35					4.79	15.08	28.93					
4.64	13.41	31.87	60.74					5.00	15.26	29.73					
4.79	13.49	32.00	62.73					5.20	15.43	30.42					
5.14	13.57	32.12	65.45					5.41	15.78	30.84					
5.18	13.65	32.24	68.13					5.61	16.05	31.44					
5.34	13.73	32.37	70.65					5.82	16.36	32.69					
5.58	13.80	32.49	73.53					6.02	16.52	34.64					
5.82	13.88	32.62	74.91					6.16	16.63	37.49					
6.07	13.96	32.74	77.18					6.30	16.81	41.36					
6.31	14.04	32.86	78.34					6.43	16.99	44.67					
6.55	14.12	32.99	80.42					6.57	17.18	48.32					
6.66	14.20	33.11	82.34					6.71	17.36	50.16					
6.78	14.26	33.36	85.03					6.85	17.54	53.36					
6.89	14.31	33.60	85.96					6.99	17.72	55.97					
7.01	14.37	33.85	87.20					7.13	17.90	57.62					
7.12	14.43	34.10	90.76					7.26	18.08	59.42					
7.23	14.49	34.34	92.67					7.40	18.27	61.06					
7.35	14.54	34.50	95.46					7.54	18.45	62.45					
7.46	14.60	34.66	97.08					7.68	18.63	64.40					
7.58	14.66	34.81	99.23					7.81	18.75	65.97					
7.69	14.72	34.97	100.49					7.95	18.86	67.62					
7.82	14.77	35.13	102.79					8.09	18.98	69.06					
7.96	14.83	35.28	104.57					8.23	19.09	70.75					
8.10	14.89	35.44	106.44					8.36	19.21	72.23					
8.23	14.95	35.59	108.84					8.50	19.32	73.08					
8.37	15.00	35.75	110.18					8.64	19.44	73.68					
8.50	15.06	35.91	112.56					8.78	19.55	74.78					
8.59	15.12	36.06	114.95					8.91	19.67	76.85					
8.68	15.17	36.22	117.61					9.05	19.78	77.57					
8.76	15.23	36.39	120.24					9.23	19.90	78.60					
8.85	15.29	36.55	122.25					9.41	20.23	80.88					
8.94	15.35	36.72	123.44					9.60	20.44	82.18					
9.03	15.40	36.89	124.38					9.78	20.72	83.22					
9.14	15.46	37.05	124.95					9.96	20.94	84.32					
9.24	15.52	37.22	125.76					10.14	21.27	85.68					
9.35	15.58	37.41	130.44					10.29	21.97	87.04					
9.46	15.63	37.59						10.44	22.37	88.16					
9.56	15.69	37.78						10.59	22.46	89.55					
9.67	15.72	37.96						10.74	22.56	90.78					
9.79	15.75	38.15						10.89	22.65	91.69					
9.90	15.78	38.33						11.04	22.74	92.97					
10.02	15.81	39.22						11.46	22.83	94.01					
10.14	15.84	39.71						11.58	22.93	95.14					
10.25	15.87	40.31						11.69	23.02	96.12					
10.37	15.90	40.75						11.81	23.11	97.15					
10.48	15.93	41.09						11.92	23.20	98.19					
10.58	15.96	41.50						12.04	23.30	99.21					
10.69	15.99	41.79						12.15	23.39	100.46					
10.80	16.02	42.05						12.30	23.58	101.52					
10.91	16.05	42.47						12.44	23.77	102.69					
11.01	16.08	42.99						12.59	23.96	103.55					

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET							WBS NO.	PROJECT TIP I.D.				ROUTE				
							50128.1.FS1	I-5715				I-77 and the NC 73 Interchange				
							COUNTY	FIELD PROFESSIONAL				FIELD CREW				
							Mecklenburg	P. Tomasic				CG2 Exploration				
Test Location							Date Run		Test Location					Date Run		
C-5 NB OSL -L- Sta. 905+27 3.2 LT FW							1/18-2/1/24		C-6 NB OSS -L- Sta. 905+27 6.0 RT FW					1/18-2/1/24		
Type	Test Interval			Datum			Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			ABC			10.0 Fill		DCP	Cumulative cm per blow			ABC		10.0 Fill	
0.34	13.41	47.41							1.09	11.79	17.24	89.06				
0.75	13.62	48.54							1.74	11.90	17.29	90.79				
1.36	13.73	49.73							2.05	12.01	DCP REF	92.20				
1.65	13.84	50.84							2.25	12.12	Auger	93.48				
1.96	13.95	51.99							2.65	12.23	To	94.91				
2.38	14.06	52.80							2.78	12.34	29.09	96.18				
2.59	14.17	54.35							3.10	12.46	30.49	97.55				
3.18	14.27	55.42							3.29	12.57	30.70	98.80				
3.31	14.38	56.95							3.54	12.68	30.99	99.82				
3.52	14.49	57.74							3.73	12.81	31.21	101.19				
3.86	14.60	59.50							3.96	12.94	31.45	102.65				
4.10	14.71	60.73							4.17	13.07	31.65	103.79				
4.72	14.82	61.99							4.49	13.20	31.99	104.96				
4.92	15.34	63.05							4.55	13.33	32.34	106.08				
5.07	15.56	64.48							4.69	13.47	32.52	107.31				
5.15	15.77	65.39							4.82	13.60	32.73	108.46				
5.43	16.18	66.59							4.96	13.73	33.03	109.66				
5.61	16.24	67.47							5.09	13.86	33.21	110.58				
5.96	16.61	68.62							5.23	13.99	33.63	111.74				
6.29	16.83	69.66							5.36	14.12	33.77	112.90				
6.41	16.92	70.69							5.50	14.23	34.19	113.74				
6.53	17.00	71.70							5.63	14.34	34.40	114.46				
6.65	17.09	72.56							5.77	14.45	34.70	115.62				
6.77	17.18	73.88							5.90	14.56	34.85	116.43				
6.89	17.26	74.91							6.04	14.67	35.31	117.66				
7.01	17.35	76.32							6.21	14.78	35.62	118.68				
7.13	17.63	77.45							6.39	14.89	35.90	119.74				
7.25	17.90	78.49							6.56	15.00	36.03	120.74				
7.37	18.18	79.98							6.74	15.10	36.39	121.81				
7.49	18.46	81.01							6.91	15.21	36.98	122.72				
7.61	18.73	82.17							7.09	15.32	37.93	123.89				
7.79	19.01	83.34							7.26	15.43	38.09	124.52				
7.98	19.34	84.70							7.44	15.54	38.53	125.83				
8.16	19.53	85.52							7.61	15.65	39.27	126.65				
8.34	19.78	86.41							7.79	15.76	39.59	127.72				
8.53	20.14	87.40							7.96	15.87	40.66	129.31				
8.71	20.55	88.33							8.10	15.92	43.13	129.82				
8.90	20.73	89.38							8.25	15.96	46.67					
9.08	21.32	90.36							8.39	16.01	49.72					
9.26	21.77	91.29							8.53	16.05	52.52					
9.45	22.28	92.13							8.68	16.10	55.27					
9.63	23.15	93.25							8.82	16.14	57.49					
9.76	23.50	94.24							8.97	16.19	59.79					
9.90	24.18	95.54							9.11	16.24	61.41					
10.03	24.57	96.57							9.25	16.28	63.19					
10.16	24.95	97.72							9.40	16.33	64.96					
10.29	25.80	98.69							9.54	16.37	66.31					
10.43	26.51	99.96							9.66	16.42	67.92					
10.56	27.36	100.79							9.79	16.47	69.29					
10.69	28.28	101.94							9.91	16.51	71.27					
10.82	29.26	102.83							10.03	16.56	73.23					
10.96	30.30	103.98							10.15	16.60	75.05					
11.09	31.28	104.76							10.28	16.65	76.75					
11.24	32.80	105.84							10.40	16.69	78.93					
11.40	34.06	107.04							10.52	16.74	80.51					
11.55	35.32	107.95							10.64	16.79	81.96					
11.71	36.75	108.54							10.77	16.83	83.38					
11.86	37.86	109.72							10.89	16.88	84.91					
12.02	39.33	110.76							11.00	16.92	86.42					
12.17	40.53	111.57							11.11	16.97	87.73					
12.33	41.90	112.60							11.23	17.02	87.95					
12.48	42.79								11.34	17.06	88.17					
12.64	43.94								11.45	17.11	88.40					
12.79	45.09								11.56	17.15	88.62					
13.27	46.33								11.67	17.20	88.84					

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET							WBS NO.		PROJECT TIP I.D.				ROUTE			
							50128.1.FS1		I-5715				I-77 and the NC 73 Interchange			
							COUNTY		FIELD PROFESSIONAL				FIELD CREW			
							CG2 Exploration		P. Tomasic				CG2 Exploration			
Test Location							Date Run		Test Location				Date Run			
C-7 NB OSS -L- Sta. 925+06 5.2 RT FW							1/18-2/1/24		C-8 RPD ISS -Y2RPD- Sta. 47+95 2.0 LT FY				1/18-2/1/24			
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill		
DCP	Cumulative cm per blow			ABC		6.0 Fill		DCP	Cumulative cm per blow			ABC		6.0 Fill		
0.49	12.66	32.89	94.93					0.41	17.51	93.34						
0.55	12.88	35.72	95.11					0.66	17.76	93.97						
0.85	13.10	38.59	95.78					0.92	18.00	94.96						
1.28	13.33	40.94	96.27					1.17	18.24	95.81						
1.36	13.86	43.05	96.67					1.43	18.45	97.39						
1.51	14.38	45.43	97.09					1.69	18.65	98.53						
1.84	14.61	47.90	97.69					1.94	18.86	99.58						
2.02	15.04	49.72	98.36					2.33	19.06	100.57						
2.15	15.34	51.86	98.70					2.84	19.27	101.68						
2.48	15.55	53.35	98.87					3.22	19.47	102.94						
2.71	15.69	54.76	99.67					3.53	20.08	103.76						
2.85	15.85	55.82	100.37					3.70	20.33	104.66						
3.14	16.01	57.06	100.79					3.87	20.57	105.88						
3.27	16.18	58.10	101.22					4.05	20.82	107.10						
3.41	16.34	59.14	101.67					4.22	21.07	108.21						
3.58	16.50	60.42	102.32					4.39	21.31	109.05						
3.96	16.66	61.43	103.00					4.56	21.56	110.32						
4.13	16.82	62.67	103.20					4.89	21.96	110.82						
4.51	16.98	63.65	104.02					5.43	22.99	112.34						
4.53	17.15	64.64	104.35					5.73	23.42	112.92						
4.83	17.31	65.67	104.74					5.84	24.17	113.86						
5.00	17.47	66.45	105.58					5.96	25.01	114.99						
5.22	17.68	67.39	106.30					6.27	25.45	115.65						
5.36	17.89	68.45	106.69					6.85	26.10	116.81						
5.76	18.11	69.18	106.98					7.04	26.49	117.83						
5.90	18.32	70.36	107.66					7.22	27.71	118.61						
6.23	18.53	70.96	108.23					7.41	28.14	119.33						
6.48	18.74	71.75	108.77					7.59	29.12	120.70						
6.63	19.01	72.30	109.19					7.78	30.01	121.41						
6.78	19.28	72.98	109.58					7.96	31.31	122.75						
6.92	19.55	74.20	110.07					8.26	32.77	124.23						
7.07	19.82	74.65	110.66					8.63	33.64							
7.22	20.09	75.02	111.03					8.96	35.15							
7.37	20.36	75.84	111.54					9.41	36.20							
7.52	20.57	76.79	112.13					9.84	37.78							
7.67	20.78	77.10	112.41					10.02	41.53							
7.81	20.99	77.77	113.08					10.43	44.49							
7.96	21.20	78.65	113.69					10.74	47.56							
8.11	21.41	79.10	114.28					10.92	50.03							
8.27	21.62	79.86	114.86					11.23	52.26							
8.44	22.10	80.50	115.10					11.50	54.86							
8.60	22.52	81.41	115.78					11.69	56.99							
8.77	22.81	81.99	116.30					12.05	59.08							
8.93	23.04	82.65	116.56					12.49	61.54							
9.10	23.40	83.08	117.10					12.73	63.47							
9.26	23.72	83.58	117.83					13.13	65.29							
9.43	23.77	83.88	118.12					13.28	66.85							
9.59	24.64	84.54	118.29					13.44	68.42							
9.76	24.86	85.23	118.78					13.59	70.15							
9.92	25.09	85.85	119.06					13.74	71.50							
10.10	25.31	86.43	119.46					13.90	73.20							
10.27	25.53	86.92						14.05	74.21							
10.45	25.76	87.76						14.31	76.12							
10.63	25.98	88.24						14.56	77.41							
10.80	26.34	88.65						14.82	79.00							
10.98	26.70	89.20						15.07	80.32							
11.11	27.06	89.97						15.33	81.53							
11.24	27.42	90.36						15.58	82.89							
11.38	27.78	90.72						15.82	84.23							
11.51	28.14	91.34						16.06	85.77							
11.64	28.88	91.84						16.31	86.94							
11.77	29.61	92.66						16.55	87.98							
11.99	30.06	93.06						16.79	89.19							
12.21	30.87	93.67						17.03	90.63							
12.44	31.86	94.18						17.27	91.78							

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.		PROJECT TIP I.D.				ROUTE			
						50128.1.FS1		I-5715				I-77 and the NC 73 Interchange			
						COUNTY		FIELD PROFESSIONAL				FIELD CREW			
						Mecklenburg		P. Tomasic				CG2 Exploration			
Test Location						Date Run		Test Location				Date Run			
C-13 NB OSS -L- Sta. 943+79 6.0 RT FW						1/18-2/1/24		C-14 NB OSL -L- Sta. 951+38 2.8 LT FW				1/18-2/1/24			
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			ABC		10.0 Cut		DCP	Cumulative cm per blow			ABC		8.0 Cut	
0.34	6.46	31.43	98.78					1.17	9.88	22.30	100.02				
0.79	6.52	31.59	100.25					1.39	10.03	22.99	101.42				
0.92	6.58	31.71	101.70					1.54	10.19	23.37	102.66				
1.15	6.64	31.92	102.90					1.70	10.34	23.70	103.18				
1.45	6.70	32.18	104.26					1.85	10.50	24.09	104.38				
1.51	6.76	32.42	105.87					2.00	10.89	24.35	105.69				
1.58	6.82	32.58	107.25					2.16	11.22	24.86	106.47				
1.64	6.88	32.76	108.78					2.31	11.80	25.36	107.63				
1.71	6.94	32.95	110.12					2.39	12.35	25.88	108.08				
1.77	7.00	33.13	111.53					2.47	12.48	26.34	108.76				
1.84	7.06	33.31	112.93					2.55	12.60	26.76	109.59				
1.90	7.12	33.50	114.41					2.63	12.85	27.33	110.40				
1.97	7.18	33.68	115.80					2.71	13.00	28.07					
2.03	7.24	33.95	117.19					2.79	13.18	28.94					
2.10	7.30	34.22	118.70					2.87	13.32	30.28					
2.16	7.36	34.49	120.24					2.95	13.43	31.88					
2.35	7.42	34.75	121.49					3.03	13.53	36.11					
2.54	7.48	35.02	122.69					3.11	13.64	39.34					
2.72	7.54	35.29	124.18					3.19	13.75	41.68					
2.91	7.60	35.62	125.20					3.35	13.85	43.31					
3.10	7.68	35.72	126.20					3.50	13.96	46.04					
3.29	7.75	35.89	126.55					3.66	14.06	47.75					
3.39	7.83	36.01						3.82	14.17	48.69					
3.50	7.91	36.44						3.97	14.28	50.17					
3.60	7.98	36.76						4.13	14.38	51.63					
3.70	8.06	37.01						4.28	14.49	53.18					
3.80	8.14	37.64						4.44	14.64	54.71					
3.91	8.22	38.55						4.60	14.78	56.09					
4.01	8.29	39.19						4.75	14.93	56.99					
4.11	8.37	39.67						4.91	15.07	58.25					
4.21	8.45	40.41						5.04	15.22	58.96					
4.32	8.52	41.48						5.16	15.36	60.17					
4.42	8.60	42.20						5.29	15.49	61.51					
4.52	8.68	44.11						5.42	15.62	62.83					
4.62	8.75	46.45						5.54	15.76	63.72					
4.72	8.83	48.77						5.67	15.89	65.29					
4.83	DCP REF	51.08						5.79	16.02	66.33					
4.93	Auger	53.22						5.92	16.15	67.44					
4.98	To	55.17						6.05	16.25	69.05					
5.04	25.80	57.63						6.17	16.35	70.10					
5.09	27.07	59.47						6.30	16.45	71.25					
5.14	27.79	61.84						6.67	16.55	72.38					
5.19	27.96	63.74						6.78	16.65	73.51					
5.25	28.21	65.70						6.89	16.76	74.71					
5.30	28.29	67.72						7.01	16.86	75.76					
5.35	28.39	69.26						7.12	16.96	76.63					
5.41	28.50	71.02						7.23	17.06	77.83					
5.46	28.60	72.70						7.34	17.16	78.65					
5.51	28.71	74.35						7.47	17.26	79.74					
5.56	28.81	76.01						7.60	17.42	80.92					
5.62	28.92	77.45						7.74	17.58	82.03					
5.67	29.02	78.82						7.87	17.74	83.45					
5.72	29.13	80.31						8.00	17.90	84.79					
5.78	29.23	82.11						8.13	18.06	85.35					
5.83	29.34	83.47						8.26	18.22	86.57					
5.88	29.44	85.05						8.39	19.28	87.64					
5.93	29.60	86.44						8.53	19.89	89.08					
5.99	29.76	87.67						8.66	20.04	90.05					
6.04	29.93	88.90						8.79	20.42	91.36					
6.10	30.09	90.46						8.95	20.63	93.47					
6.16	30.25	91.86						9.10	20.81	94.64					
6.22	30.41	93.41						9.26	21.16	95.68					
6.28	30.61	94.56						9.41	21.46	96.81					
6.34	30.92	95.95						9.57	21.77	97.94					
6.40	31.20	97.45						9.72	21.99	98.99					

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET							WBS NO.		PROJECT TIP I.D.				ROUTE				
							50128.1.FS1		I-5715				I-77 and the NC 73 Interchange				
							COUNTY		FIELD PROFESSIONAL				FIELD CREW				
							CG2 Exploration		P. Tomasic				CG2 Exploration				
Test Location							Date Run		Test Location						Date Run		
C-15 NB OSS -L- Sta. 951+38 6.9 RT FW							1/18-2/1/24		C-16 RAMP A ACCEL -L- Sta. 967+58 4.6 LT FW						1/18-2/1/24		
Type	Test Interval			Datum			Cut/Fill		Type	Test Interval			Datum			Cut/Fill	
DCP	Cumulative cm per blow			ABC			8.0 Cut		DCP	Cumulative cm per blow			ABC			10.0 Fill	
1.71	11.37	53.93							0.86	10.63	31.97						
2.71	11.47	55.77							1.06	10.75	32.15						
3.22	11.57	57.88							1.45	10.86	32.53						
3.65	11.67	59.77							1.99	10.97	32.61						
3.89	11.77	61.89							2.10	11.08	33.12						
4.11	12.03	63.91							2.21	11.19	33.28						
4.24	12.28	65.60							2.32	11.33	33.71						
4.79	12.54	67.34							2.43	11.47	33.91						
4.98	12.79	69.25							2.54	11.62	34.00						
5.19	13.05	71.19							2.65	11.76	34.43						
5.41	13.30	73.07							2.78	11.90	34.68						
5.63	13.64	75.01							2.92	12.04	35.01						
5.85	13.88	76.69							3.05	12.48	35.44						
6.06	14.23	78.27							3.19	12.57	35.82						
6.28	14.46	79.79							3.32	12.66	36.29						
6.50	14.63	81.09							3.46	12.75	36.83						
6.59	15.07	82.62							3.59	12.84	37.16						
6.69	15.33	84.49							3.73	12.92	37.65						
6.78	15.48	85.80							3.86	13.01	38.23						
6.87	15.84	86.89							4.00	13.10	38.79						
6.97	16.14	88.01							4.13	13.19	39.84						
7.06	16.46	89.44							4.28	13.28	40.02						
7.16	16.92	90.62							4.43	13.37	40.79						
7.25	17.25	91.59							4.58	13.46	41.66						
7.34	17.47	92.89							4.74	13.55	43.00						
7.44	17.71	93.86							4.89	13.63	45.36						
7.53	18.15	95.04							5.04	13.72	47.34						
7.63	18.50	96.15							5.21	13.81	50.17						
7.73	18.71	97.46							5.38	13.90	51.86						
7.83	18.93	98.53							5.55	13.99	54.87						
7.93	19.14	99.60							5.72	14.04	57.36						
8.03	19.35	101.13							5.89	14.09	59.86						
8.13	19.57	102.34							6.06	14.14	62.34						
8.23	19.78	103.49							6.19	14.19	65.36						
8.33	20.25	104.97							6.31	14.24	68.44						
8.44	20.73	106.07							6.44	14.29	71.52						
8.54	21.56	106.84							6.56	14.34	74.60						
8.64	21.85	108.20							6.69	14.39	77.38						
8.74	22.37	109.39							6.81	14.43	79.53						
8.84	22.71	110.34							6.94	14.48	82.39						
8.94	23.12	111.58							7.06	14.53	85.43						
9.04	23.79	112.90							7.19	14.58	89.17						
9.14	24.44	114.05							7.31	14.63	91.90						
9.24	24.64	115.35							7.44	14.68	94.79						
9.33	25.09	116.70							7.62	14.73	98.03						
9.43	25.45	117.82							7.80	14.78	101.25						
9.52	25.83	119.07							7.98	14.83	103.51						
9.62	26.32	120.15							8.16	DCP REF	106.43						
9.71	26.97	122.50							8.34	Auger	109.47						
9.81	27.49	124.48							8.51	To							
9.91	27.92								8.69	27.62							
10.00	28.89								8.87	28.52							
10.10	29.66								9.05	28.76							
10.19	30.43								9.23	29.14							
10.29	31.20								9.41	29.36							
10.38	31.89								9.52	29.80							
10.48	32.51								9.63	30.06							
10.57	33.47								9.74	30.39							
10.67	34.36								9.85	30.51							
10.77	35.56								9.97	30.63							
10.87	37.09								10.08	30.76							
10.97	41.95								10.19	30.88							
11.07	46.69								10.30	31.00							
11.17	49.43								10.41	31.12							
11.27	51.67								10.52	31.61							

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET							WBS NO.		PROJECT TIP I.D.				ROUTE			
							50128.1.FS1		I-5715				I-77 and the NC 73 Interchange			
							COUNTY		FIELD PROFESSIONAL				FIELD CREW			
							Mecklenburg		P. Tomasic				CG2 Exploration			
Test Location							Date Run		Test Location				Date Run			
C-17 NB OSS -L- Sta. 967+58 2.7 RT FW							1/18-2/1/24		C-18 NB OSS -L- Sta. 973+79 7.0 RT FW				1/18-2/1/24			
Type	Test Interval			Datum			Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			ABC			10.0 Fill		DCP	Cumulative cm per blow			ABC		6.0 Cut	
1.11	10.48	46.41							0.54	12.99	27.62					
1.75	10.56	46.99							1.08	13.10	28.01					
1.88	10.64	47.74							1.35	13.21	28.62					
2.18	10.72	48.71							2.01	13.32	29.02					
2.36	10.80	50.06							2.39	13.42	29.94					
2.56	10.88	52.80							2.58	13.53	30.33					
2.76	10.96	53.60							2.78	13.64	31.11					
2.97	11.05	55.84							3.12	13.72	32.00					
3.17	11.13	58.01							3.36	13.81	33.01					
3.37	11.21	60.60							3.62	13.89	34.02					
3.57	11.29	62.83							4.05	13.97	34.43					
3.64	11.37	65.42							4.39	14.06	35.04					
3.82	11.45	67.19							4.79	14.14	35.80					
3.96	11.52	69.20							5.03	14.22	36.48					
4.09	11.59	70.94							5.25	14.31	37.20					
4.23	11.66	72.78							5.37	14.39	37.87					
4.37	11.73	75.12							5.83	14.47	38.61					
4.51	11.80	76.70							6.02	14.55	39.80					
4.64	11.86	78.74							6.15	14.64	41.77					
4.78	11.93	80.64							6.33	14.72	44.08					
4.92	12.00	82.11							6.66	14.80	46.26					
5.06	12.07	83.38							7.28	14.89	48.73					
5.19	12.14	85.10							7.35	14.97	51.40					
5.33	12.21	86.21							7.59	15.01	54.51					
5.45	12.36	87.97							7.71	15.05	57.41					
5.58	12.52	89.24							8.01	15.09	60.33					
5.70	12.67	90.70							8.32	15.13	63.55					
5.82	12.82	92.05							8.41	15.17	66.40					
5.94	12.98	93.57							8.61	15.22	69.89					
6.07	13.13	94.98							8.87	15.26	73.46					
6.19	13.29	96.82							9.07	15.30	76.33					
6.31	13.44	98.25							9.21	15.34	79.41					
6.43	13.59	99.91							9.27	15.38	82.98					
6.56	13.75	101.25							9.35	15.42	89.25					
6.68	13.90	102.69							9.43	DCP REF	90.52					
6.83	DCP REF	104.26							9.51	Auger	93.79					
6.97	Auger	106.02							9.59	To	97.20					
7.12	To								9.67	20.06	101.00					
7.27	35.75								9.76	20.48	103.38					
7.41	37.70								9.84	21.23	107.66					
7.56	38.34								9.92	21.80	110.90					
7.70	38.85								10.00	21.94						
7.85	39.15								10.08	22.08						
8.00	39.35								10.16	22.22						
8.14	39.53								10.31	22.36						
8.29	39.72								10.45	22.50						
8.42	39.90								10.60	22.64						
8.56	40.08								10.75	22.78						
8.69	40.26								10.89	22.92						
8.82	40.45								11.04	23.06						
8.95	40.63								11.17	23.20						
9.09	40.81								11.30	23.34						
9.22	40.99								11.42	23.55						
9.35	41.18								11.55	23.76						
9.48	41.36								11.68	23.97						
9.62	41.73								11.81	24.18						
9.75	42.13								11.94	24.39						
9.83	42.51								12.07	24.60						
9.91	43.19								12.19	24.79						
9.99	43.37								12.32	25.13						
10.07	43.84								12.45	25.71						
10.15	44.25								12.56	26.17						
10.24	44.93								12.67	26.33						
10.32	45.41								12.77	26.79						
10.40	45.79								12.88	27.25						

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET							WBS NO.		PROJECT TIP I.D.				ROUTE				
							50128.1.FS1		I-5715				I-77 and the NC 73 Interchange				
							COUNTY		FIELD PROFESSIONAL				FIELD CREW				
							CG2 Exploration		P. Tomasic				CG2 Exploration				
Test Location							Date Run		Test Location						Date Run		
C-19 SB OSS -L- Sta. 969+85 6.0 RT FW							1/18-2/1/24		C-20 SB OSL -L- Sta. 969+85 2.6 LT FW						1/18-2/1/24		
Type	Test Interval			Datum			Cut/Fill		Type	Test Interval			Datum			Cut/Fill	
DCP	Cumulative cm per blow			ABC			10.0 Cut		DCP	Cumulative cm per blow			ABC			10.0 Cut	
0.25	98.46								0.73	10.86	78.74						
0.58	99.20								0.78	10.96	80.08						
1.00	100.16								1.11	11.07	80.46						
1.41	101.82								1.45	11.17	81.21						
1.83	102.97								2.27	11.28	81.90						
2.25	103.90								2.64	11.38	82.38						
2.66	104.82								3.02	11.49	83.44						
3.08	105.50								3.50	11.59	84.20						
3.97	106.61								4.12	11.70	84.82						
4.60	107.59								4.30	DCP REF	85.43						
5.30	108.24								4.48	Auger	86.22						
5.80	109.35								4.65	To	86.95						
6.97	110.81								4.83	26.59	87.42						
7.49	111.84								5.01	26.79	87.86						
8.65	113.16								5.19	27.44	88.49						
9.59	113.87								5.37	27.77	89.45						
10.32	114.27								5.55	28.96	89.96						
11.30	115.13								5.72	29.24	90.73						
12.03	116.38								5.90	29.99	91.17						
13.35	117.25								6.08	31.02	91.86						
15.22	118.18								6.23	32.86	92.69						
16.55	118.91								6.37	34.10	92.95						
18.81	119.67								6.52	35.99	93.69						
20.18	120.74								6.67	37.24	94.42						
22.66	121.91								6.82	39.25	94.86						
33.13	122.52								6.96	40.72	95.55						
34.11	123.57								7.11	41.68	96.15						
36.49	124.29								7.26	42.79	96.85						
38.81									7.41	43.85	97.50						
41.82									7.55	45.34	98.03						
44.66									7.70	46.73	98.58						
46.54									7.82	47.89	99.24						
48.33									7.95	49.03	99.86						
50.05									8.07	50.35	100.38						
51.55									8.19	51.25	101.01						
54.58									8.32	52.20	101.52						
55.99									8.44	53.17	102.11						
56.97									8.57	54.48	102.47						
59.13									8.69	55.16	102.85						
61.43									8.81	56.34							
63.69									8.94	57.18							
65.67									9.06	58.11							
68.08									9.13	59.09							
70.15									9.20	60.10							
71.92									9.27	60.97							
72.95									9.34	61.61							
74.83									9.41	62.88							
76.36									9.48	63.73							
78.13									9.55	64.88							
79.07									9.62	65.60							
80.84									9.69	66.45							
82.40									9.76	66.91							
83.50									9.84	68.22							
84.54									9.91	69.04							
86.03									9.98	70.09							
87.09									10.05	70.89							
88.67									10.12	71.43							
89.40									10.19	72.70							
90.52									10.26	73.70							
92.19									10.33	74.85							
92.86									10.40	75.46							
93.75									10.47	76.30							
94.86									10.54	77.09							
96.93									10.65	77.84							
97.30									10.75	78.49							

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.	PROJECT TIP I.D.	ROUTE					
						50128.1.FS1	I-5715	I-77 and the NC 73 Interchange					
						COUNTY	FIELD PROFESSIONAL	FIELD CREW					
						Mecklenburg	P. Tomasic	CG2 Exploration					
Test Location						Date Run		Test Location				Date Run	
C-21 RAMP B DECEL -L- Sta. 962+04 4.0 LT FW						1/18-2/1/24		C-22 SB OSS -L- Sta. 962+04 7.0 RT FW				1/18-2/1/24	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum	
DCP	Cumulative cm per blow			ABC		10.0 Fill		DCP	Cumulative cm per blow			ABC	
1.72	11.42	81.35						1.36	18.26	48.49	116.53		
2.72	11.53	83.64						1.65	18.50	50.01	117.24		
3.34	11.64	86.68						1.93	18.80	51.91	117.89		
3.82	11.76	88.58						2.22	19.03	53.36	118.93		
4.23	11.87	90.95						2.50	19.63	56.96			
4.79	DCP REF	92.49						2.79	19.98	59.53			
4.97	Auger	94.16						3.07	20.65	62.82			
5.57	To	95.17						3.44	21.00	65.70			
5.77	17.78	95.61						3.70	21.35	68.74			
5.99	18.35	96.11						4.09	21.70	71.01			
6.18	18.97	96.69						4.58	22.04	73.49			
6.37	19.32	97.18						4.90	22.39	76.16			
6.56	19.60	97.58						5.29	22.74	78.03			
6.74	19.81	98.03						5.41	23.34	79.67			
6.93	19.98	98.46						5.68	24.26	80.55			
7.12	20.33	99.16						5.89	24.77	80.88			
7.23	20.48	99.75						6.34	25.03	81.35			
7.33	20.73	100.06						6.67	25.68	81.81			
7.44	20.96	100.70						6.97	26.30	82.19			
7.55	21.18	101.66						7.14	26.68	82.81			
7.65	21.62	102.35						7.43	27.07	83.41			
7.76	21.96	103.19						7.75	27.46	83.97			
7.86	22.36	103.55						8.06	27.78	84.53			
7.97	22.71	104.61						8.22	28.11	84.91			
8.08	22.97	105.78						8.38	28.39	85.25			
8.18	23.20	106.50						8.54	29.11	85.60			
8.29	23.55	107.27						8.70	29.26	85.94			
8.38	23.86	108.12						8.86	29.70	86.28			
8.47	24.25	108.86						9.02	30.10	86.63			
8.55	24.48							9.19	30.75	86.97			
8.64	24.82							9.36	31.04	87.55			
8.73	25.38							9.54	32.53	88.27			
8.82	25.70							9.71	32.90	88.70			
8.91	25.88							9.88	33.21	89.74			
9.00	26.39							10.05	33.36	90.52			
9.08	26.70							10.47	33.94	91.10			
9.17	27.09							11.02	34.09	91.68			
9.26	27.52							11.33	34.27	92.26			
9.35	27.88							11.50	34.77	92.83			
9.44	28.19							11.67	34.99	93.41			
9.52	28.59							11.84	35.44	93.99			
9.61	29.10							12.00	36.00	94.90			
9.70	29.46							12.17	36.28	95.71			
9.76	29.82							12.34	36.83	96.44			
9.82	30.18							12.57	37.33	97.59			
9.87	30.61							12.80	37.59	98.52			
9.93	31.04							13.03	38.12	99.47			
9.99	32.29							13.26	38.57	100.63			
10.05	33.55							13.49	39.04	101.34			
10.10	34.77							13.73	39.58	102.45			
10.16	35.87							13.96	40.07	103.45			
10.22	38.50							14.19	40.65	104.18			
10.28	40.31							14.42	41.09	105.32			
10.33	41.86							14.65	41.67	105.97			
10.39	44.55							14.88	42.40	106.71			
10.45	47.95							15.27	43.17	107.32			
10.51	52.02							15.86	43.36	107.91			
10.56	55.69							16.38	43.42	108.36			
10.62	59.65							16.51	43.56	110.76			
10.73	63.11							16.79	43.72	111.56			
10.85	66.28							16.97	44.25	112.65			
10.96	69.04							17.42	44.77	113.45			
11.07	72.38							17.67	45.30	113.71			
11.19	75.54							17.85	45.95	114.76			
11.30	78.28							18.01	47.96	115.53			

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET							WBS NO.		PROJECT TIP I.D.				ROUTE			
							50128.1.FS1		I-5715				I-77 and the NC 73 Interchange			
							COUNTY		FIELD PROFESSIONAL				FIELD CREW			
							CG2 Exploration		P. Tomasic				CG2 Exploration			
Test Location							Date Run		Test Location				Date Run			
C-23 SB OSS -L- Sta. 955+32 6.6 RT FW							1/18-2/1/24		C-24 SB OSS -L- Sta. 950+25 6.5 RT FW				1/18-2/1/24			
Type	Test Interval			Datum		Cut/Fill	Type	Test Interval			Datum		Cut/Fill			
DCP	Cumulative cm per blow			ABC		7.0 Fill	DCP	Cumulative cm per blow			ABC		7.0 Fill			
1.04	13.96	20.71	112.29				0.78	14.54	25.98	66.67						
1.27	14.05	20.82	113.70				1.51	14.62	26.14	68.87						
1.50	14.15	20.92	114.78				2.03	14.69	26.30	71.30						
1.73	14.24	DCP REF	116.41				2.24	14.76	26.49	73.26						
1.96	14.34	Auger	117.51				2.72	14.84	26.69	75.08						
2.19	14.43	To	118.16				2.86	14.91	26.88	77.08						
2.42	14.53	25.16	119.25				3.38	14.98	27.07	79.02						
2.65	14.62	25.33	121.61				3.72	15.06	27.26	81.45						
2.89	14.73	25.51	122.46				3.94	15.13	27.46	83.17						
3.12	14.83	25.68	123.84				4.15	15.27	27.65	85.28						
3.36	14.94	25.85	124.84				4.35	15.42	27.84	87.14						
3.59	15.05	26.03	125.80				4.56	15.56	28.03	88.73						
3.83	15.15	26.20					4.76	15.71	28.23	90.48						
4.11	15.26	26.38					4.97	15.85	28.42	92.01						
4.39	15.37	26.55					5.17	15.99	28.55	93.48						
4.66	15.48	26.72					5.38	16.14	28.67	94.67						
4.94	15.58	26.90					5.58	16.28	28.80	95.92						
5.22	15.69	27.07					5.79	16.42	28.93	97.58						
5.50	15.80	27.61					5.99	16.57	29.06	98.62						
5.67	15.90	28.01					6.20	16.71	29.18	99.87						
5.85	16.01	28.33					6.33	16.86	29.31	101.05						
6.02	16.12	28.88					6.45	17.00	29.44	102.21						
6.20	16.22	29.19					6.58	17.14	29.56	103.69						
6.37	16.33	29.41					6.71	17.29	29.69	104.37						
6.55	16.43	30.10					6.84	17.43	29.82	105.84						
6.73	16.53	30.29					6.96	17.57	29.95	106.93						
6.90	16.62	30.65					7.09	17.71	30.07	108.14						
7.08	16.72	31.42					7.22	17.84	30.20	109.59						
7.26	16.82	31.98					7.35	17.98	30.33	110.57						
7.43	16.92	32.26					7.47	18.12	30.45	111.47						
7.61	17.02	33.44					7.60	18.26	30.58	112.27						
7.85	17.12	33.75					7.80	18.40	30.71	113.60						
8.09	17.21	34.18					8.00	18.54	30.84	114.46						
8.33	17.31	35.11					8.20	18.67	30.96	115.70						
8.57	17.41	36.12					8.41	18.81	31.09	116.36						
8.81	17.49	37.00					8.61	18.95	31.29	117.30						
9.05	17.58	38.02					8.81	19.09	31.48	118.48						
9.67	17.66	39.57					9.05	19.23	31.68	119.33						
9.95	17.74	40.83					9.29	19.36	31.88	120.53						
10.14	17.83	43.76					9.53	19.50	32.07	121.68						
10.32	17.91	45.33					9.76	19.64	32.27	123.30						
10.51	18.00	48.61					10.00	DCP REF	32.78	123.97						
10.69	18.08	52.97					10.24	Auger	33.32	125.15						
10.88	18.16	56.92					10.51	To	33.54	126.24						
11.06	18.25	61.39					10.87	22.83	33.95	127.24						
11.25	18.33	66.04					11.11	22.96	34.46							
11.43	18.45	69.36					11.34	23.09	34.93							
11.62	18.58	75.17					11.60	23.23	35.77							
11.80	18.70	78.44					12.04	23.36	37.07							
11.99	18.82	81.53					12.37	23.49	39.19							
12.17	18.94	84.34					12.95	23.62	41.10							
12.33	19.07	87.10					13.25	23.77	41.93							
12.48	19.19	89.97					13.59	23.92	43.52							
12.64	19.31	92.36					13.66	24.07	44.10							
12.80	19.43	95.37					13.74	24.22	44.89							
12.95	19.56	97.18					13.81	24.37	46.10							
13.11	19.68	99.03					13.88	24.52	46.52							
13.20	19.80	101.34					13.96	24.68	47.68							
13.30	19.92	103.42					14.03	24.84	48.36							
13.39	20.05	105.21					14.10	25.01	50.16							
13.49	20.17	106.64					14.18	25.17	51.17							
13.58	20.29	108.02					14.25	25.33	53.18							
13.68	20.40	109.15					14.32	25.49	56.01							
13.77	20.50	110.13					14.40	25.65	60.19							
13.87	20.61	111.05					14.47	25.81	63.68							

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.		PROJECT TIP I.D.				ROUTE			
						50128.1.FS1		I-5715				I-77 and the NC 73 Interchange			
						COUNTY		FIELD PROFESSIONAL				FIELD CREW			
						Mecklenburg		P. Tomasic				CG2 Exploration			
Test Location						Date Run		Test Location						Date Run	
C-25 WB ISL -Y2- Sta. 21+87 5.0 RT FY						1/18-2/1/24		C-26 WB OSL -Y2- Sta. 21+87 6.5 LT EOP						1/18-2/1/24	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			ABC		15.0 Fill		DCP	Cumulative cm per blow			SG (A-7-5)		15.0 Fill	
2.07	81.02							1.16							
2.39	82.01							2.06							
3.06	83.56							2.52							
3.39	85.19							2.89							
3.80	86.58							3.24							
4.16	87.60							3.99							
4.71	88.98							4.72							
4.90	90.57							5.31							
5.68	92.13							5.85							
5.95	93.36							6.44							
6.27	94.45							7.06							
6.71	95.82							7.64							
7.07	96.81							8.03							
7.35	98.36							8.50							
7.66	99.49							8.66							
8.10	100.90							9.06							
8.38	102.22							9.72							
8.88	103.53							10.47							
9.27	104.71							11.32							
9.80	105.87							12.28							
10.16	107.56							13.26							
10.50								14.36							
11.11								15.56							
11.63								17.09							
12.02								19.41							
12.84								23.64							
13.73								29.49							
14.29								32.67							
15.93								35.52							
17.66								37.71							
19.35								39.76							
21.20								41.92							
23.58								44.16							
25.60								46.24							
27.70								Utility							
29.76								Present							
31.75															
33.47															
35.60															
37.95															
39.30															
40.88															
42.55															
44.52															
46.34															
47.79															
49.44															
50.93															
52.67															
54.38															
56.37															
57.51															
59.21															
61.24															
62.54															
64.27															
66.11															
67.62															
69.29															
71.42															
72.78															
74.41															
76.76															
77.52															
79.11															

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET							WBS NO.		PROJECT TIP I.D.				ROUTE			
							50128.1.FS1		I-5715				I-77 and the NC 73 Interchange			
							COUNTY		FIELD PROFESSIONAL				FIELD CREW			
							CG2 Exploration		P. Tomasic				CG2 Exploration			
Test Location							Date Run		Test Location					Date Run		
C-27 EB RTL -Y2- Sta.23+03 7.5 RT FW							1/18-2/1/24		C-28 EB OSL -Y2- Sta. 23+03 5.8 LT FW					1/18-2/1/24		
Type	Test Interval			Datum			Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			SG (A-4)			15.0 Fill		DCP	Cumulative cm per blow			SG (A-4(0))		15.0 Fill	
2.18	109.69								0.99	11.41	24.98	46.35				
4.22	111.85								1.17	11.52	25.20	46.63				
6.39	113.32								1.35	11.62	25.43	47.16				
9.45	114.99								1.53	11.73	25.65	47.59				
13.46	117.00								1.70	11.84	25.84	48.37				
20.27	118.69								1.88	11.95	26.02	48.62				
23.30	120.94								2.06	12.06	26.21	48.77				
24.67	123.49								2.25	12.16	26.40	49.09				
26.03									2.47	12.27	26.58	49.72				
27.33									2.76	12.38	26.77	50.31				
28.84									2.95	12.49	27.49	50.80				
30.08									3.31	12.60	27.64	51.26				
31.38									3.49	12.71	27.80	51.83				
32.69									3.66	12.81	28.11	52.64				
33.99									3.83	12.92	28.32	53.19				
35.30									3.98	13.03	28.85	53.95				
36.81									4.12	13.25	29.16	54.67				
38.22									4.27	13.47	29.36	55.43				
39.67									4.42	13.69	29.71	56.01				
41.07									4.56	13.90	29.99	56.58				
42.80									4.71	14.12	30.39	57.42				
44.78									4.85	14.34	30.59	58.17				
46.65									5.00	DCP REF	30.79	59.15				
48.54									5.15	Auger	31.12	59.92				
50.78									5.29	To	31.48	61.65				
53.25									5.44	17.23	31.69	62.82				
54.85									5.62	17.43	31.99	64.24				
56.67									5.80	17.63	32.44	65.47				
58.26									5.98	17.84	32.60	66.73				
60.07									6.16	18.04	32.79	67.79				
61.30									6.34	18.24	33.00	68.88				
62.96									6.51	18.44	33.32	70.25				
64.42									6.69	18.63	33.58	71.57				
65.63									6.87	18.83	33.92	72.80				
67.26									7.05	19.02	34.13	73.60				
69.05									7.23	19.21	34.50	75.12				
70.73									7.41	19.41	34.82	76.36				
72.46									7.52	19.60	35.02	77.71				
75.11									7.63	20.01	35.17	78.71				
76.98									7.74	20.49	35.63	80.34				
78.90									7.85	20.79	35.88	82.25				
79.72									7.96	21.21	36.29	83.99				
80.85									8.07	21.49	36.60	85.71				
81.81									8.18	21.69	36.72	87.27				
82.22									8.29	21.86	36.96	88.57				
83.03									8.40	22.05	37.44	90.11				
83.64									8.51	22.19	37.96	91.90				
84.55									8.62	22.33	38.42	93.43				
85.62									8.80	22.47	38.65	96.09				
86.45									8.99	22.60	38.89	97.32				
87.76									9.17	22.74	39.02	99.28				
88.84									9.36	22.88	39.55	100.99				
90.49									9.54	23.01	39.93	102.23				
92.12									9.73	23.14	40.15	103.93				
93.19									9.91	23.27	40.72					
94.36									10.10	23.40	41.88					
95.69									10.28	23.53	42.15					
97.37									10.47	23.65	42.74					
99.07									10.65	23.78	43.48					
100.58									10.76	23.91	43.74					
102.32									10.87	24.04	44.19					
103.69									10.97	24.17	44.46					
105.24									11.08	24.30	44.66					
106.97									11.19	24.53	45.03					
108.64									11.30	24.75	45.41					

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET					WBS NO.	PROJECT TIP I.D.					ROUTE				
					50128.1.FS1	I-5715					I-77 and the NC 73 Interchange				
					COUNTY	FIELD PROFESSIONAL					FIELD CREW				
					Mecklenburg	P. Tomasic					CG2 Exploration				
Test Location					Date Run		Test Location					Date Run			
C-29 EB ISL -Y2- Sta. 23+03 5.5 RT FY					1/18-2/1/24		C-30 WB PS -Y2- Sta. 25+97 5.0 RT FW					1/18-2/1/24			
Type	Test Interval		Datum		Cut/Fill		Type	Test Interval		Datum		Cut/Fill		Cut/Fill	
DCP	Cumulative cm per blow		ABC		15.0 Fill		DCP	Cumulative cm per blow		ABC		8.0 Fill		8.0 Fill	
1.28	50.86						0.75	35.29	103.93						
2.31	52.98						1.39	36.90	104.82						
2.68	54.86						1.83	38.61	105.48						
3.10	56.37						2.23	39.91	106.18						
3.77	58.36						2.61	41.26	106.69						
3.98	60.43						2.97	42.91	107.22						
4.36	62.84						3.25	44.34	108.08						
4.87	64.35						3.57	46.40	108.48						
5.19	66.48						3.79	48.35	109.44						
5.45	68.58						4.01	50.44	109.83						
5.88	69.91						4.16	52.18	110.45						
6.12	71.70						4.51	53.52	111.01						
6.41	73.01						5.00	55.62	111.29						
6.70	75.07						5.50	56.97	111.95						
6.92	76.72						5.76	58.72	112.22						
7.31	78.76						6.07	60.01	112.66						
7.47	80.80						6.35	60.67	113.25						
7.63	82.76						6.65	61.68	113.94						
7.79	84.82						6.91	62.83	114.54						
7.94	86.60						7.14	63.75	115.18						
8.10	88.47						7.44	65.03	115.83						
8.26	90.35						7.75	66.34	116.95						
9.28	92.20						8.06	67.26	117.32						
9.62	94.55						8.35	68.62	117.80						
10.09	96.65						8.79	70.16	118.54						
10.33	98.78						8.85	71.23	118.86						
10.63	101.44						9.16	72.74	119.46						
10.77							9.31	73.93	119.87						
11.19							9.70	75.23	120.63						
11.54							10.00	76.32	121.24						
11.66							10.15	77.75	121.91						
12.12							10.57	78.86	122.32						
12.34							10.88	80.01	122.90						
12.60							11.25	80.64	123.53						
12.74							11.63	81.77	124.17						
13.20							12.01	82.81							
13.84							12.30	83.19							
14.27							12.55	84.11							
14.54							12.67	85.20							
14.69							13.01	85.72							
15.62							13.27	86.75							
16.63							13.65	87.31							
17.88							14.16	87.85							
18.44							14.40	88.18							
19.58							14.61	88.52							
20.59							16.10	89.36							
22.32							16.26	89.84							
23.52							16.45	90.18							
25.02							16.89	90.55							
26.46							17.55	91.93							
27.78							18.00	93.30							
29.32							18.53	93.69							
30.74							18.75	94.32							
31.90							19.20	94.82							
33.60							19.37	95.96							
34.99							19.96	96.40							
36.17							20.34	97.12							
38.30							20.61	98.13							
40.49							21.31	99.07							
42.28							22.68	99.63							
43.83							24.23	100.37							
45.04							26.74	101.33							
46.38							29.60	101.77							
47.89							31.43	102.81							
48.98							33.42	103.60							

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET							WBS NO.		PROJECT TIP I.D.				ROUTE			
							50128.1.FS1		I-5715				I-77 and the NC 73 Interchange			
							COUNTY		FIELD PROFESSIONAL				FIELD CREW			
							CG2 Exploration		P. Tomasic				CG2 Exploration			
Test Location							Date Run		Test Location				Date Run			
C-31 EB PS -Y2- Sta. 27+40 1.5 LT FW							1/18-2/1/24		C-32 EB LTL -Y2- Sta. 27+40 3.5 LT FY				1/18-2/1/24			
Type	Test Interval			Datum			Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			ABC			5.0 Fill		DCP	Cumulative cm per blow			ABC		5.0 Fill	
0.20	25.77	79.11							0.74	80.68						
0.40	28.04	79.66							0.81	82.67						
0.60	29.63	80.39							1.03	83.98						
0.80	31.76	81.11							1.30	85.73						
1.00	33.69	82.31							1.59	87.25						
1.20	34.93	83.10							2.10	89.30						
1.59	36.70	84.04							2.27	89.76						
1.76	37.69	84.90							2.70	91.02						
2.21	39.15	85.60							3.12	92.44						
2.53	40.20	86.77							3.29	93.23						
2.90	41.40	87.32							3.55	94.19						
3.14	42.76	88.19							3.78	95.10						
3.34	43.60	89.17							3.95	95.85						
3.54	44.85	89.62							4.07	96.44						
3.91	45.72	91.00							4.37	97.83						
4.28	46.24	91.34							4.54	99.36						
4.49	46.77	92.22							4.94	100.50						
4.61	47.33	93.10							5.21	101.51						
4.75	48.06	93.93							5.49	102.59						
4.95	48.62	94.66							5.80	103.42						
5.14	49.37	95.28							6.01	104.45						
5.28	50.12	96.31							6.43	105.46						
5.68	50.89	97.18							6.95	106.38						
5.80	51.63	97.97							7.62	107.55						
6.24	52.60	99.96							8.09	108.76						
6.61	53.05	100.52							8.66	109.68						
6.82	53.95	101.41							9.00	110.78						
7.06	54.27	101.79							9.18	111.76						
7.30	55.21	102.50							9.36	112.43						
7.58	56.16	103.41							9.55	112.98						
7.84	56.62	104.40							10.00	113.52						
8.11	57.51	104.87							10.49	114.22						
8.35	58.26	105.70							11.34	115.29						
8.59	59.06	106.39							11.90	115.84						
8.83	59.25	107.17							13.20	116.37						
9.06	60.03	108.02							14.26	117.30						
9.30	60.23	108.79							15.24	118.80						
9.54	60.73	109.30							16.68							
9.60	61.44	110.04							19.37							
9.89	61.85	110.69							22.33							
10.54	62.53	111.34							26.31							
11.00	63.07	112.07							29.19							
11.28	63.45	112.83							32.50							
11.70	63.99	114.30							35.23							
11.97	64.38	115.39							38.16							
12.27	64.87	116.09							41.06							
12.39	65.33	117.26							43.31							
12.94	65.78								46.36							
13.18	66.17								48.26							
13.71	66.95								50.71							
14.21	67.37								53.33							
14.42	68.03								55.93							
14.78	68.69								57.72							
15.20	69.21								60.46							
15.45	69.97								62.59							
15.65	70.87								64.14							
16.33	71.31								66.01							
16.74	72.38								67.38							
17.02	73.00								69.12							
17.69	73.92								70.69							
18.01	74.83								72.59							
19.06	75.54								73.86							
19.94	76.54								75.55							
21.28	77.78								77.52							
23.44	77.91								79.47							

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.		PROJECT TIP I.D.				ROUTE			
						50128.1.FS1		I-5715				I-77 and the NC 73 Interchange			
						COUNTY		FIELD PROFESSIONAL				FIELD CREW			
						Mecklenburg		P. Tomasic				CG2 Exploration			
Test Location						Date Run		Test Location						Date Run	
C-37 EB OSL -Y2- Sta. 38+51 6.1 LT FW						1/18-2/1/24		C-38 EB ISL -Y2- Sta. 38+62 18.9 RT EOP						1/18-2/1/24	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			SG (A-7-6(25))		8.0 Fill		DCP	Cumulative cm per blow			ABC		8.0 Fill	
1.80								1.52	45.81						
2.84								1.68	47.87						
4.11								1.84	50.22						
5.61								2.00	52.30						
7.18								2.16	53.92						
8.83								2.32	55.55						
10.04								2.48	57.09						
12.28								2.71	58.93						
13.57								2.93	60.84						
14.90								3.16	62.83						
16.79								3.38	64.46						
18.41								3.61	66.16						
20.66								3.83	67.76						
22.73								4.05	69.98						
25.37								4.27	71.90						
27.75								4.49	73.88						
30.02								4.71	75.65						
32.41								4.93	77.81						
35.91								5.15	79.54						
39.56								5.33	81.73						
41.29								5.50	83.43						
43.51								5.68	85.27						
45.60								5.86	87.09						
48.13								6.03	88.78						
50.28								6.21	90.50						
52.88								6.40	92.07						
55.08								6.59	93.79						
57.42								6.78	95.29						
59.66								6.97	96.49						
62.43								7.16	97.74						
64.89								7.36	99.46						
66.90								7.55	100.74						
68.87								7.74	102.03						
71.01								7.93	103.60						
73.19								8.12	105.57						
75.23								8.31	107.78						
76.74								9.22							
78.60								9.66							
80.37								9.97							
82.80								10.42							
84.22								10.84							
86.58								11.36							
88.22								11.63							
89.87								12.33							
92.09								13.19							
94.47								13.49							
96.41								14.16							
98.33								15.34							
100.20								16.38							
102.48								17.66							
104.58								18.57							
106.44								20.46							
108.39								22.95							
110.51								24.96							
112.82								26.87							
114.97								28.59							
117.01								30.79							
								31.85							
								33.13							
								34.05							
								35.22							
								37.16							
								39.42							
								41.64							
								43.60							

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.		PROJECT TIP I.D.				ROUTE			
						50128.1.FS1		I-5715				I-77 and the NC 73 Interchange			
						COUNTY		FIELD PROFESSIONAL				FIELD CREW			
						CG2 Exploration		P. Tomasic				CG2 Exploration			
Test Location						Date Run		Test Location						Date Run	
C-39 EB LTL -Y2- Sta. 38+62 4.5 RT EOP						1/18-2/1/24		C-40 WB RTL -Y2- Sta. 36+23 7.0 RT FW						1/18-2/1/24	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			ABC		8.0 Fill		DCP	Cumulative cm per blow			SG (A-7-5(18))		5.0 Fill	
0.95	60.29							2.68	112.17						
1.75	61.49							5.47	113.76						
2.12	63.33							7.33	115.60						
2.46	64.71							9.53	117.21						
2.83	66.58							11.24	119.07						
3.20	68.03							13.87							
3.90	69.53							16.19							
4.30	70.96							18.81							
4.64	72.64							21.37							
5.13	74.27							24.19							
5.42	75.81							27.25							
5.62	77.54							30.00							
6.47	79.13							32.04							
6.92	80.57							34.28							
7.45	82.49							35.91							
8.42	83.85							37.28							
9.14	85.38							38.94							
9.97	86.36							40.55							
10.49	87.71							42.19							
10.79	89.48							43.68							
11.93	91.33							45.63							
12.60	92.43							47.31							
13.65	94.15							49.41							
15.17	96.02							51.05							
18.88	97.76							52.99							
20.14	99.56							54.74							
20.99	101.34							55.97							
22.27	102.04							57.04							
22.74								58.33							
23.09								59.31							
23.52								60.12							
23.80								60.99							
24.06								61.70							
24.44								62.72							
25.19								63.61							
25.70								64.53							
27.01								65.78							
28.28								66.83							
29.33								67.81							
30.21								69.37							
30.92								70.55							
32.27								72.07							
32.96								73.28							
34.23								74.81							
35.45								76.57							
37.05								78.29							
38.52								79.89							
39.99								81.56							
41.67								83.04							
43.00								84.75							
43.86								86.23							
44.60								87.87							
45.36								89.72							
45.72								91.07							
47.07								92.84							
48.02								94.57							
48.52								96.38							
49.83								98.06							
50.58								99.83							
51.39								101.51							
52.85								103.17							
53.76								105.09							
55.45								107.22							
56.92								108.65							
58.03								110.33							

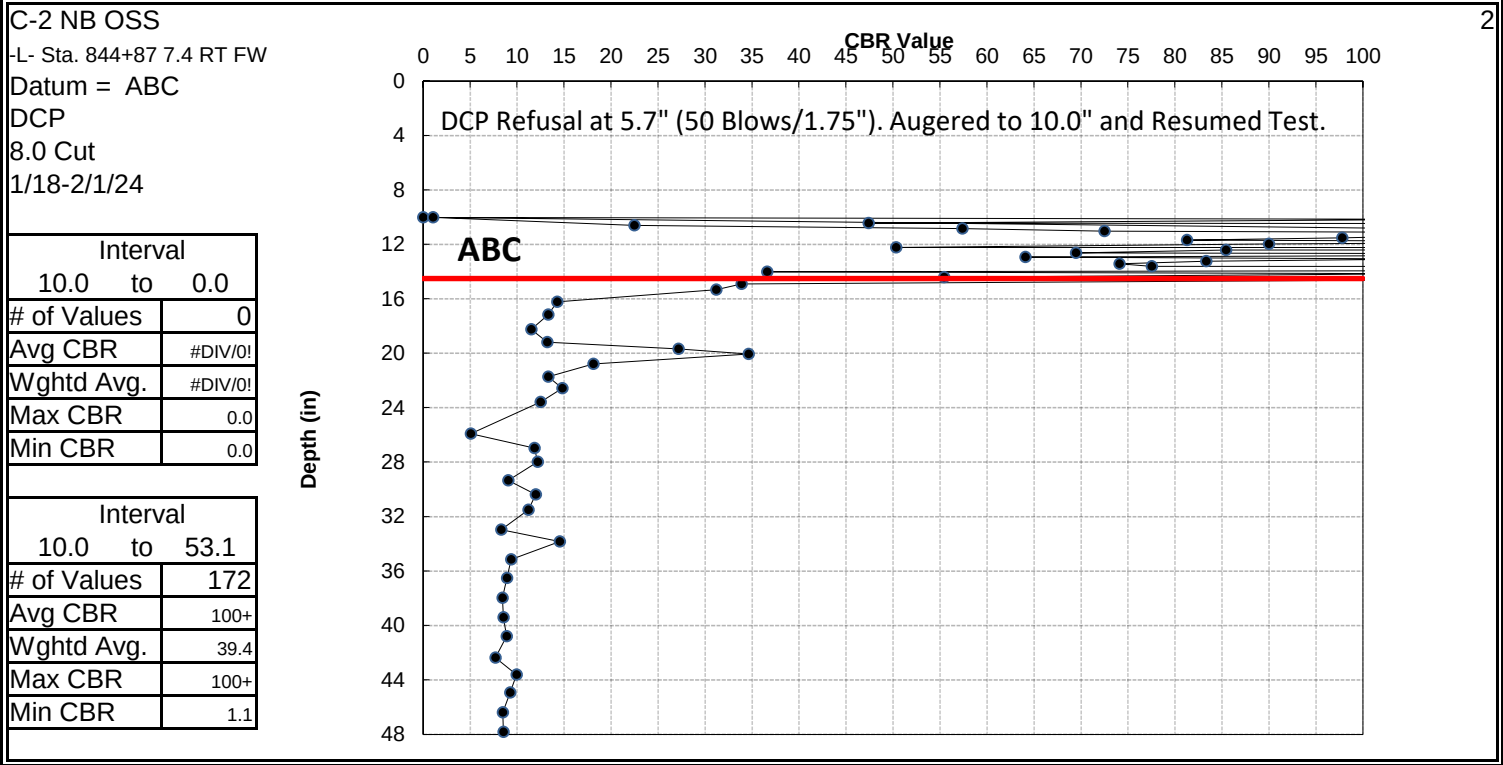
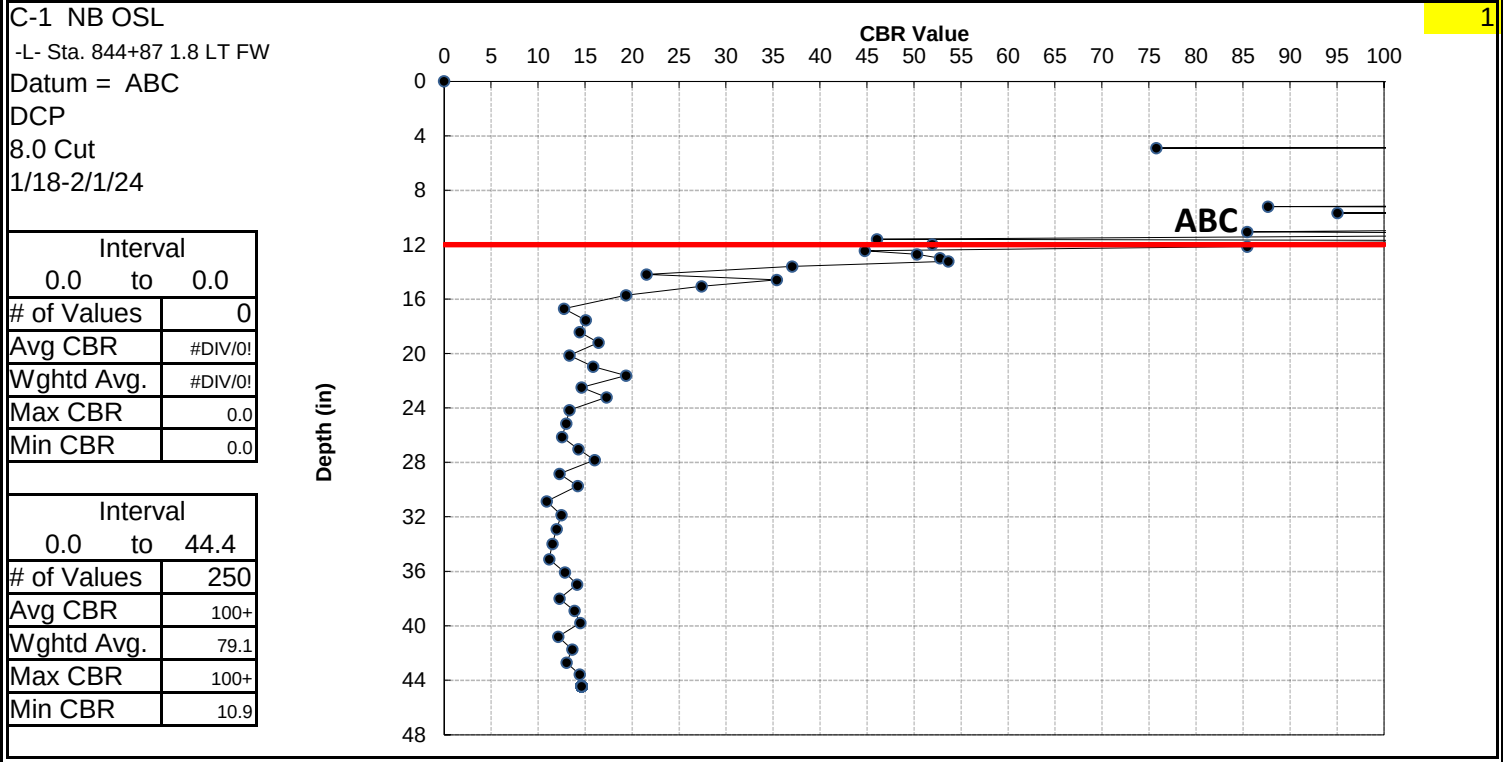


CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

FILE	DCP Graphs C-1- to C-20
------	-------------------------

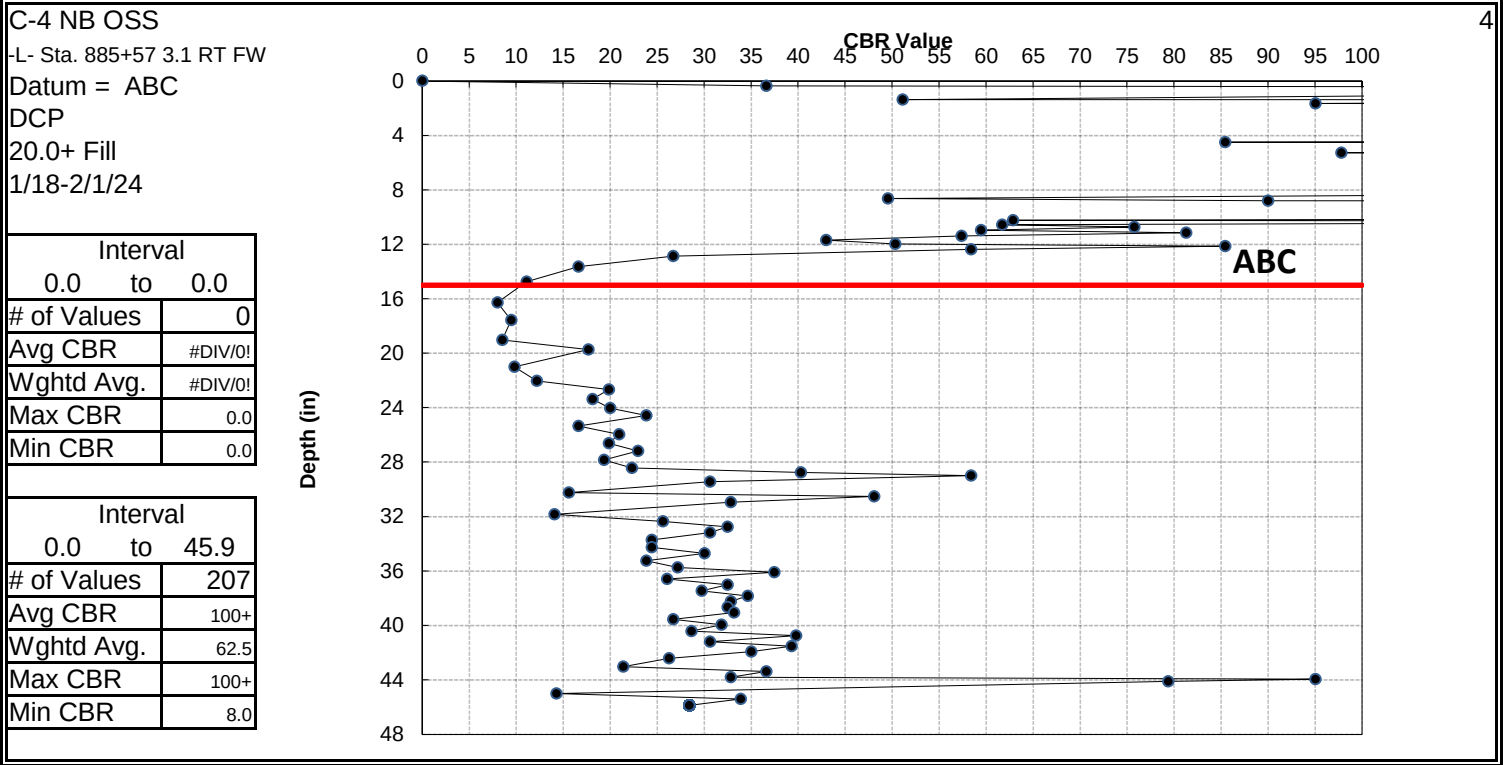
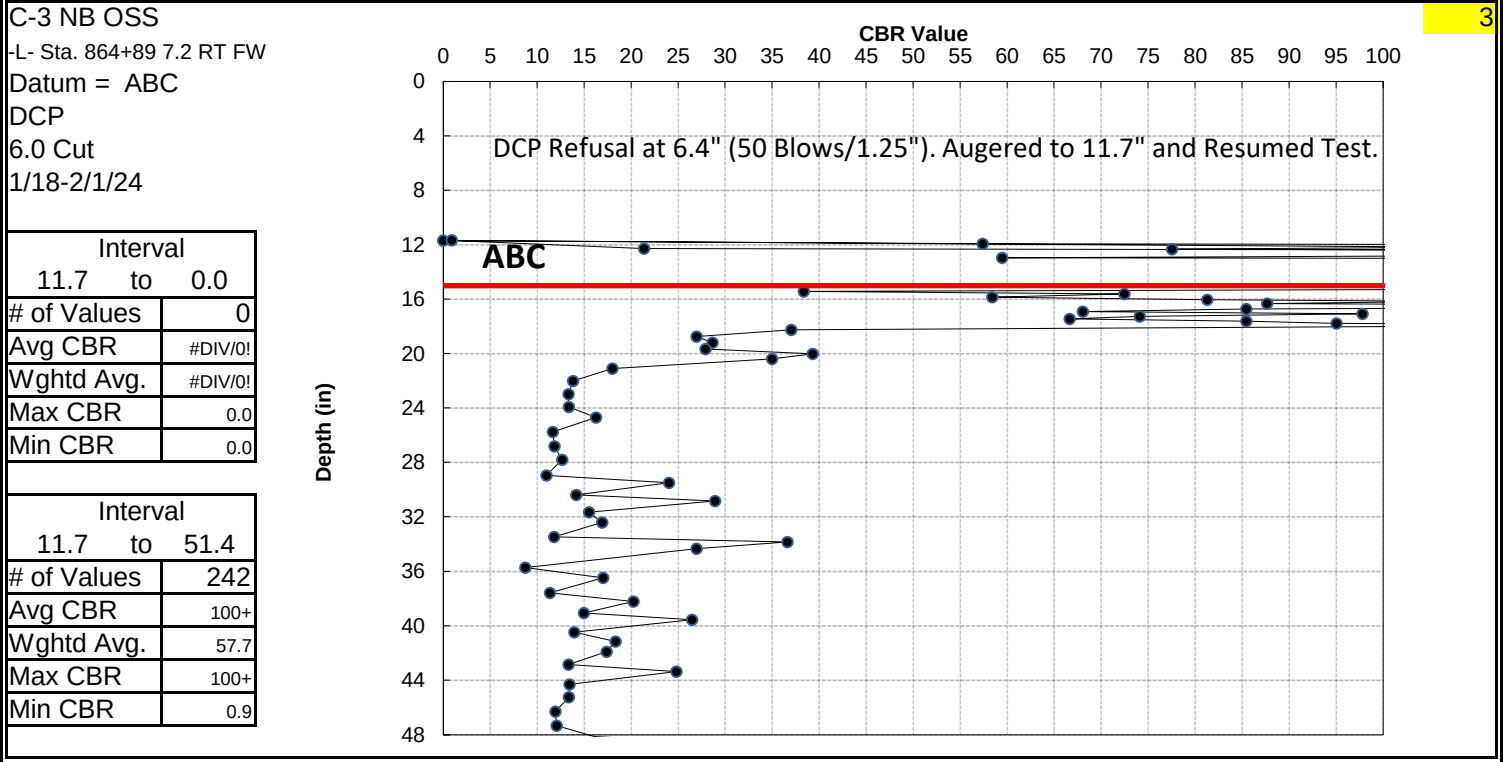


CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

FILE	DCP Graphs C-1- to C-20
------	-------------------------





CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

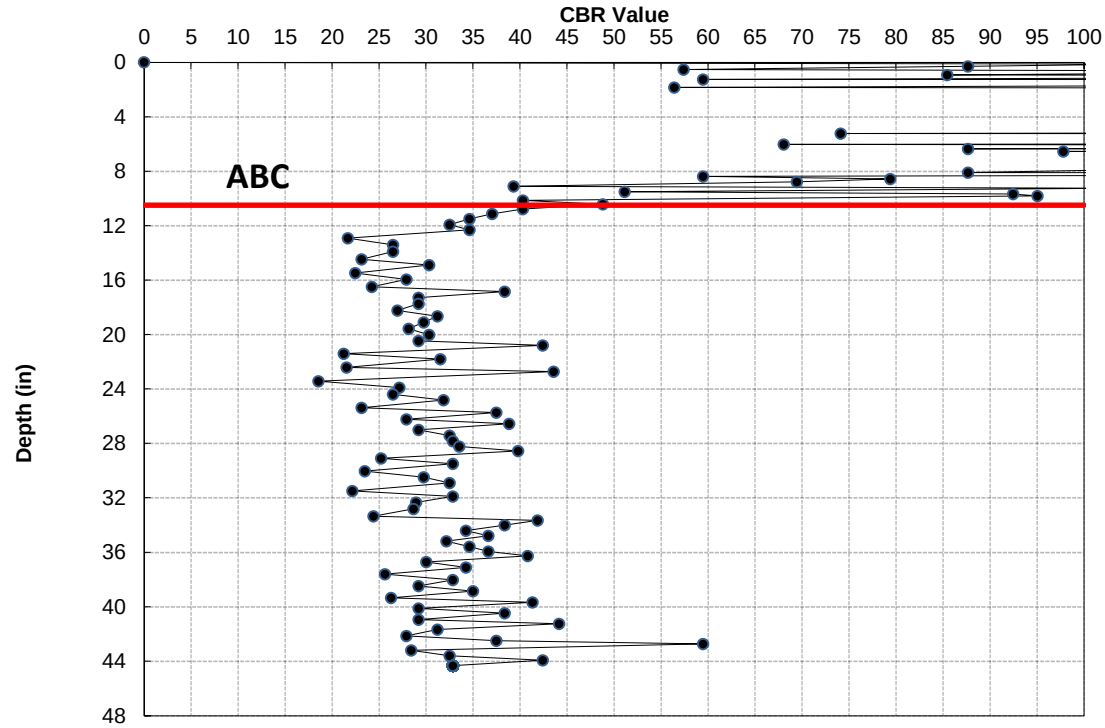
FILE	DCP Graphs C-1- to C-20
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C-5 NB OSL

-L- Sta. 905+27 3.2 LT FW
Datum = ABC
DCP
10.0 Fill
1/18-2/1/24

Interval	0.0 to 0.0
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval	0.0 to 44.3
# of Values	191
Avg CBR	100+
Wghtd Avg.	59.5
Max CBR	100+
Min CBR	18.5



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CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

Sheet 28

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

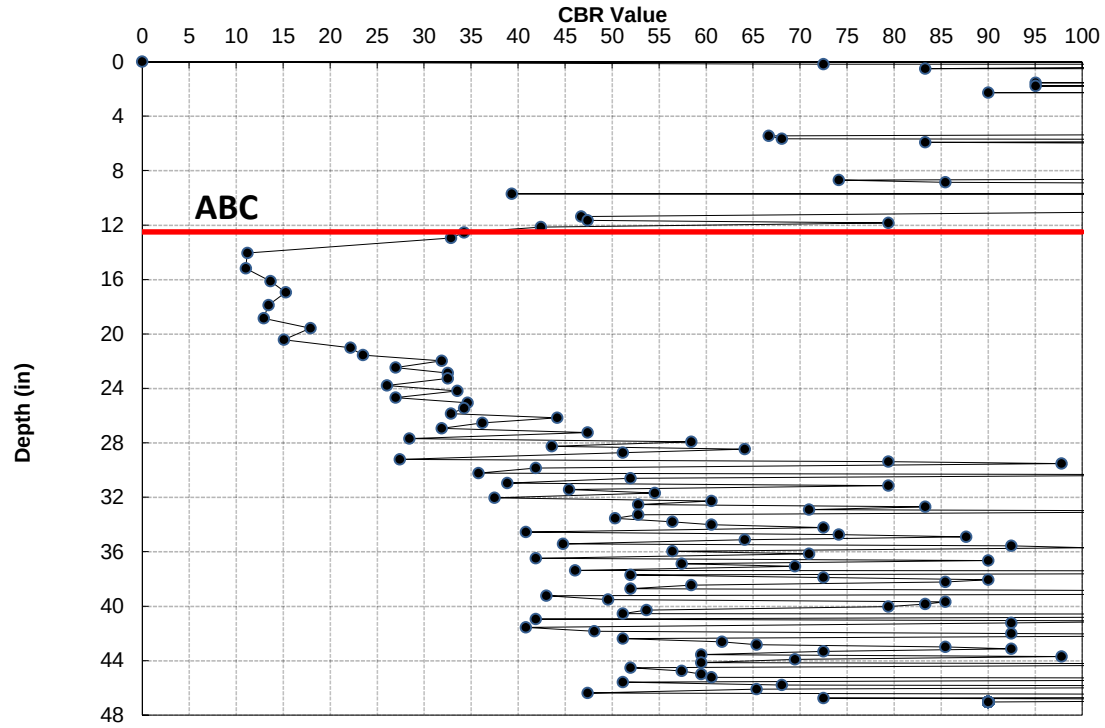
FILE	DCP Graphs C-1- to C-20
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C-7 NB OSS

-L- Sta. 925+06 5.2 RT FW
Datum = ABC
DCP
6.0 Fill
1/18-2/1/24

Interval	0.0 to 0.0
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval	0.0 to 47.0
# of Values	246
Avg CBR	100+
Wghtd Avg.	73.2
Max CBR	100+
Min CBR	11.0



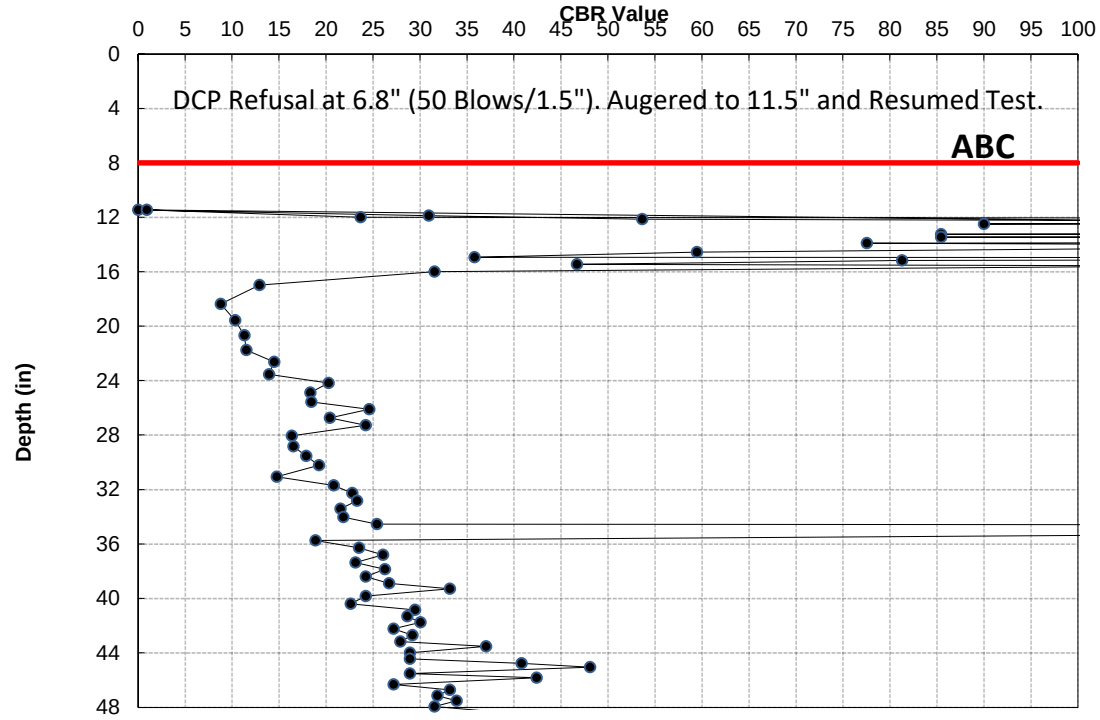
7

C-6 NB OSS

-L- Sta. 905+27 6.0 RT FW
Datum = ABC
DCP
10.0 Fill
1/18-2/1/24

Interval	0.0 to 0.0
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval	11.5 to 51.1
# of Values	229
Avg CBR	100+
Wghtd Avg.	54.3
Max CBR	100+
Min CBR	0.9



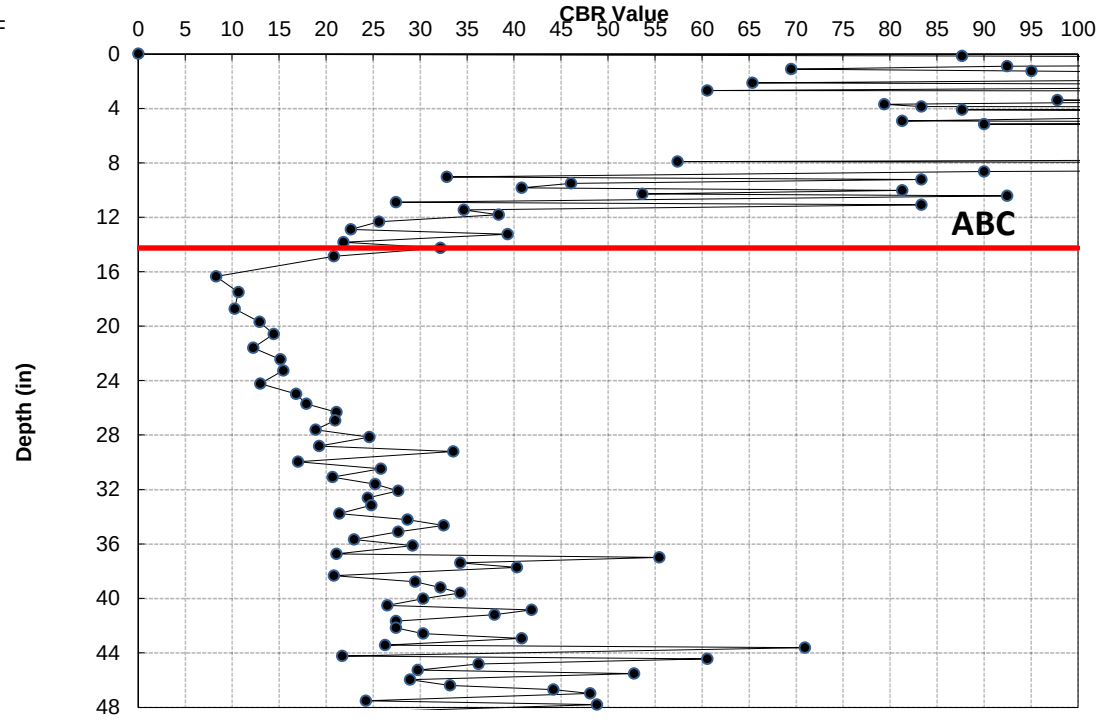
6

C-8 RPD ISS

-Y2RPD- Sta. 47+95 2.0 LT F
Datum = ABC
DCP
6.0 Fill
1/18-2/1/24

Interval	0.0 to 0.0
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval	0.0 to 48.9
# of Values	161
Avg CBR	97.9
Wghtd Avg.	44.7
Max CBR	100+
Min CBR	8.3



8

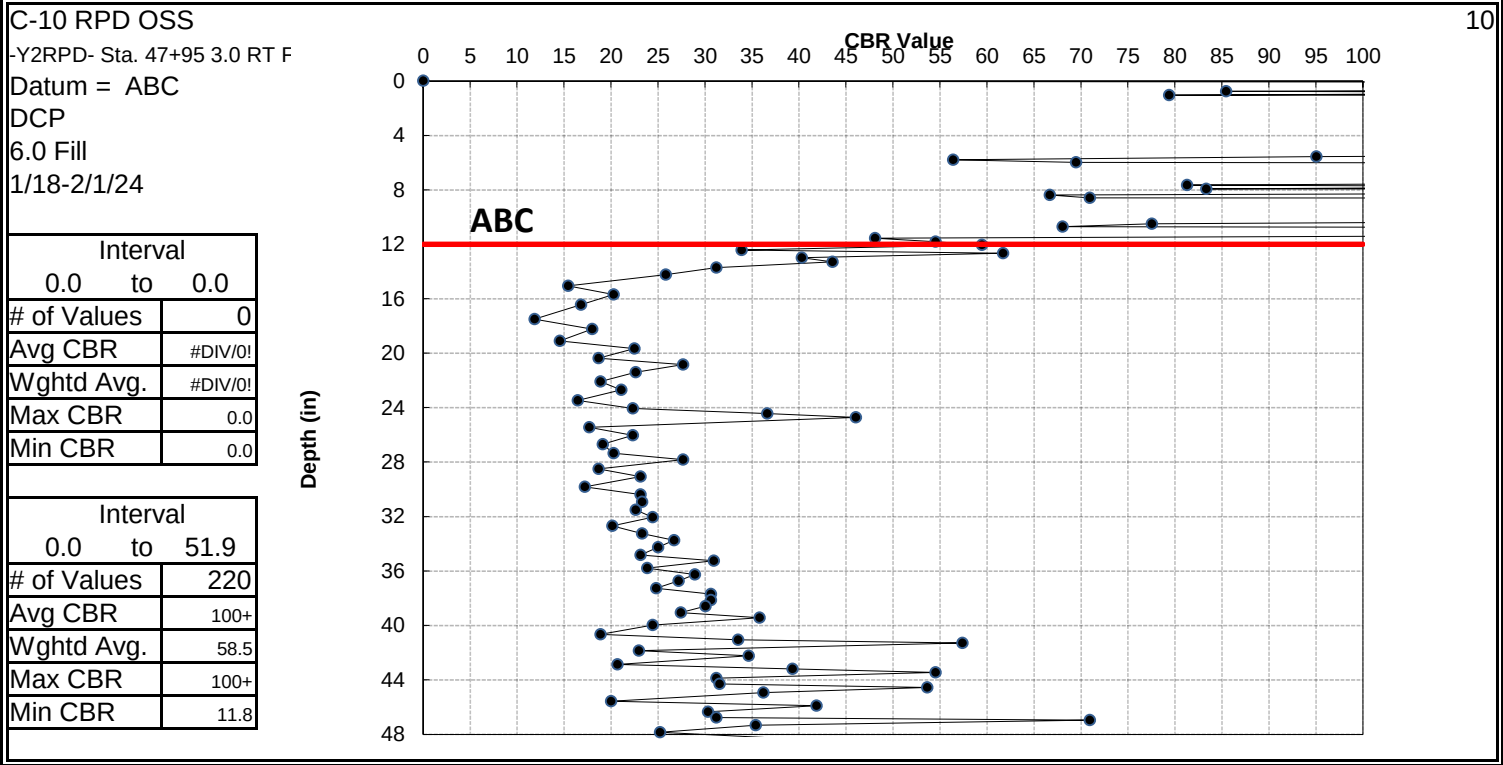
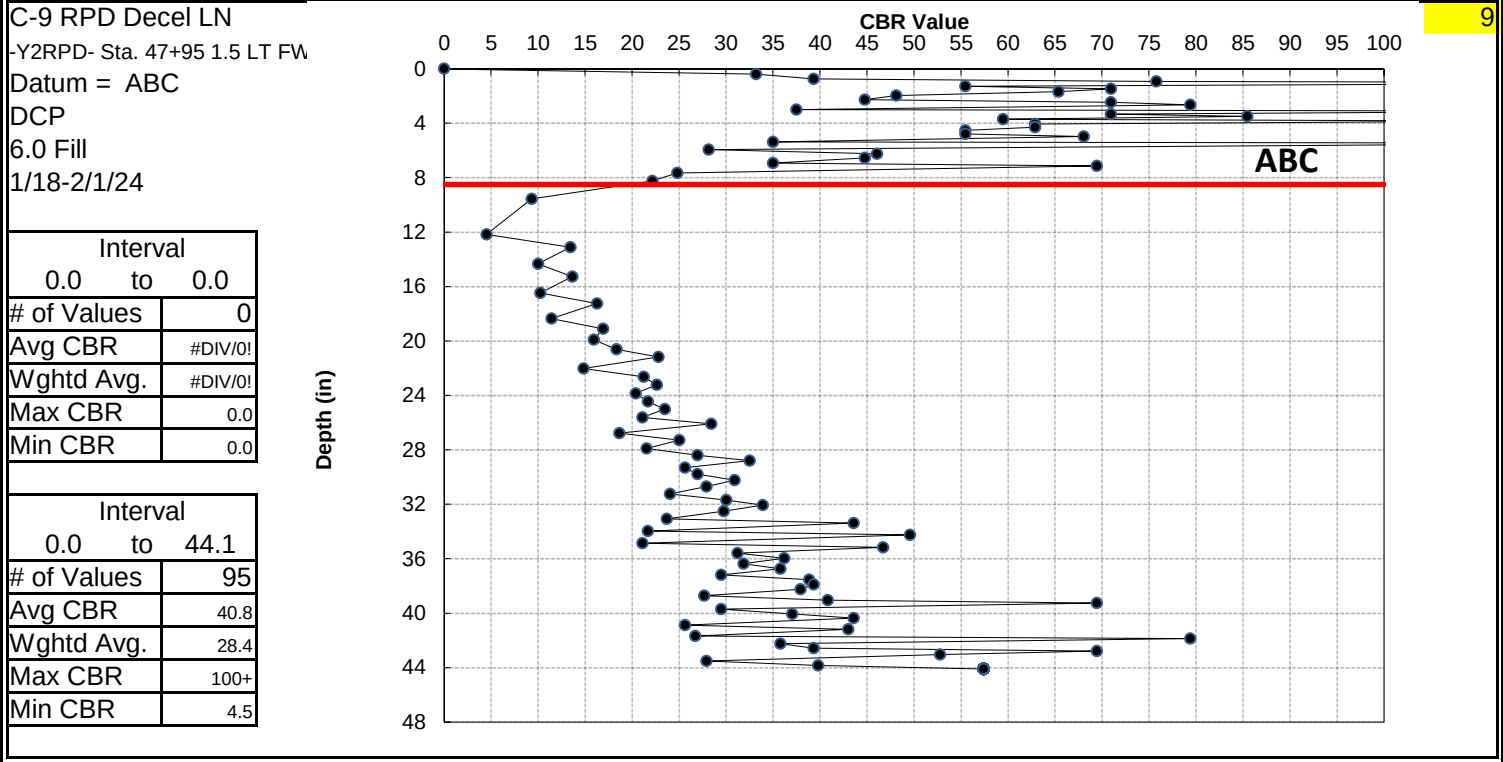


CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

FILE	DCP Graphs C-1- to C-20
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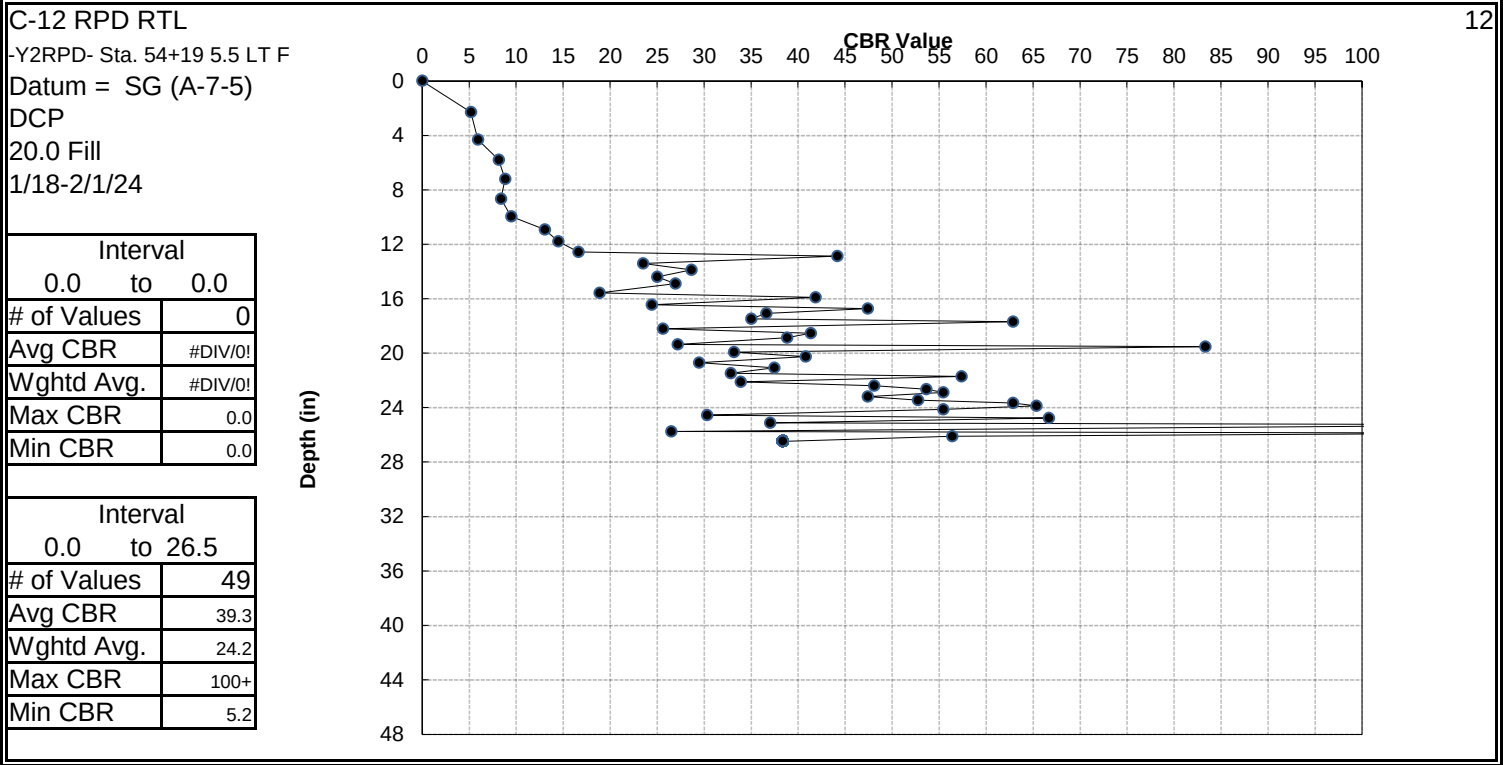
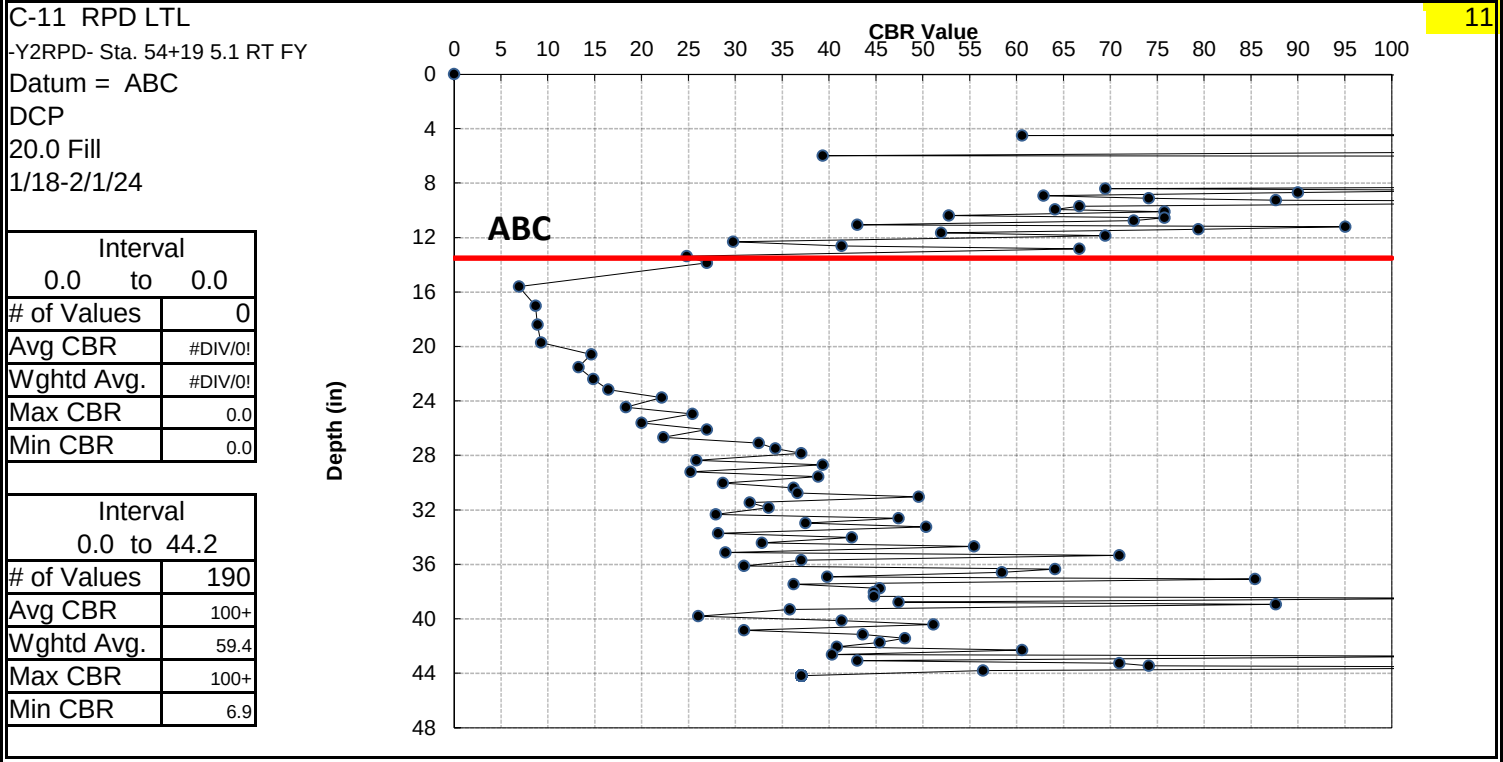
CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

Sheet 29

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

FILE	DCP Graphs C-1- to C-20
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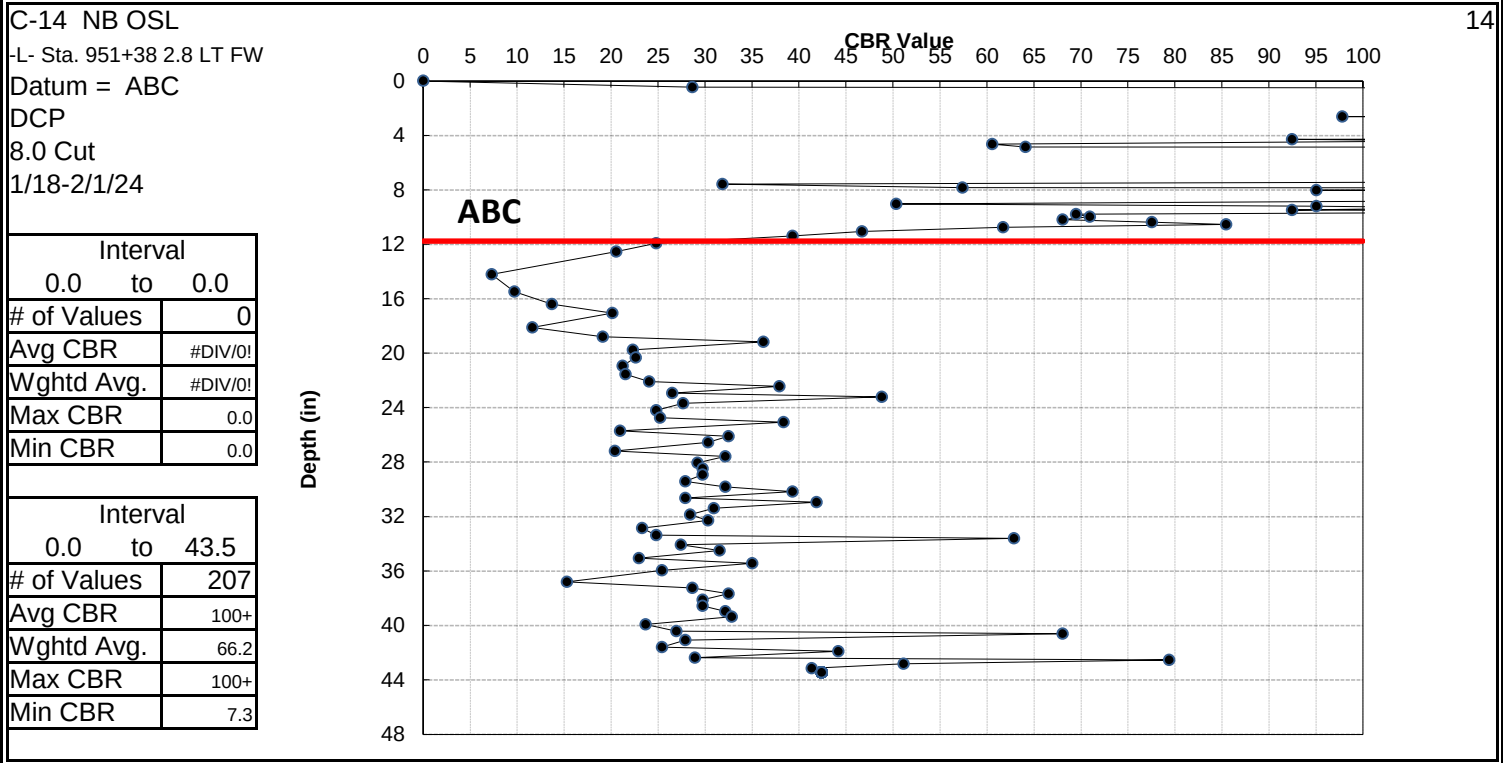
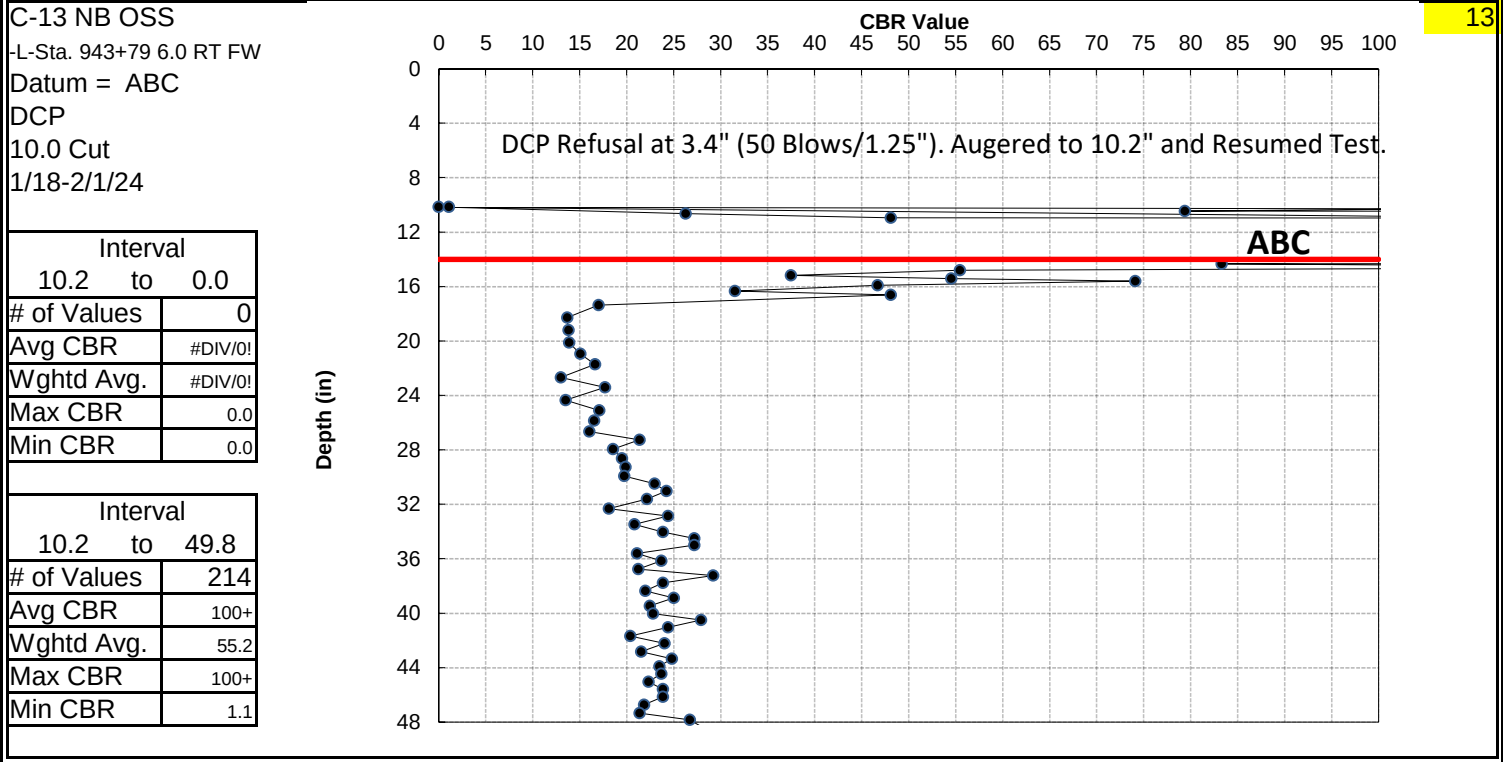


CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

FILE	DCP Graphs C-1- to C-20
------	-------------------------



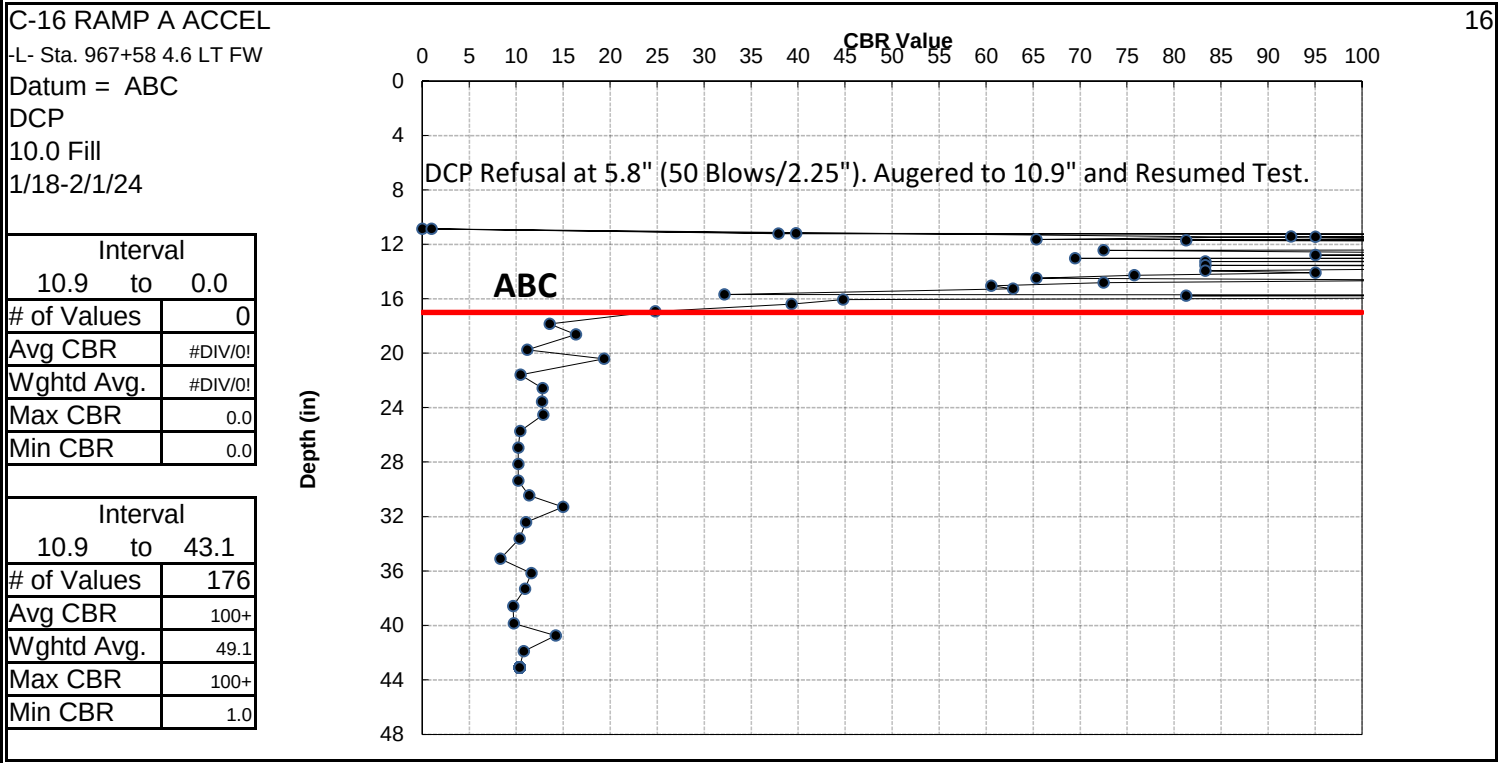
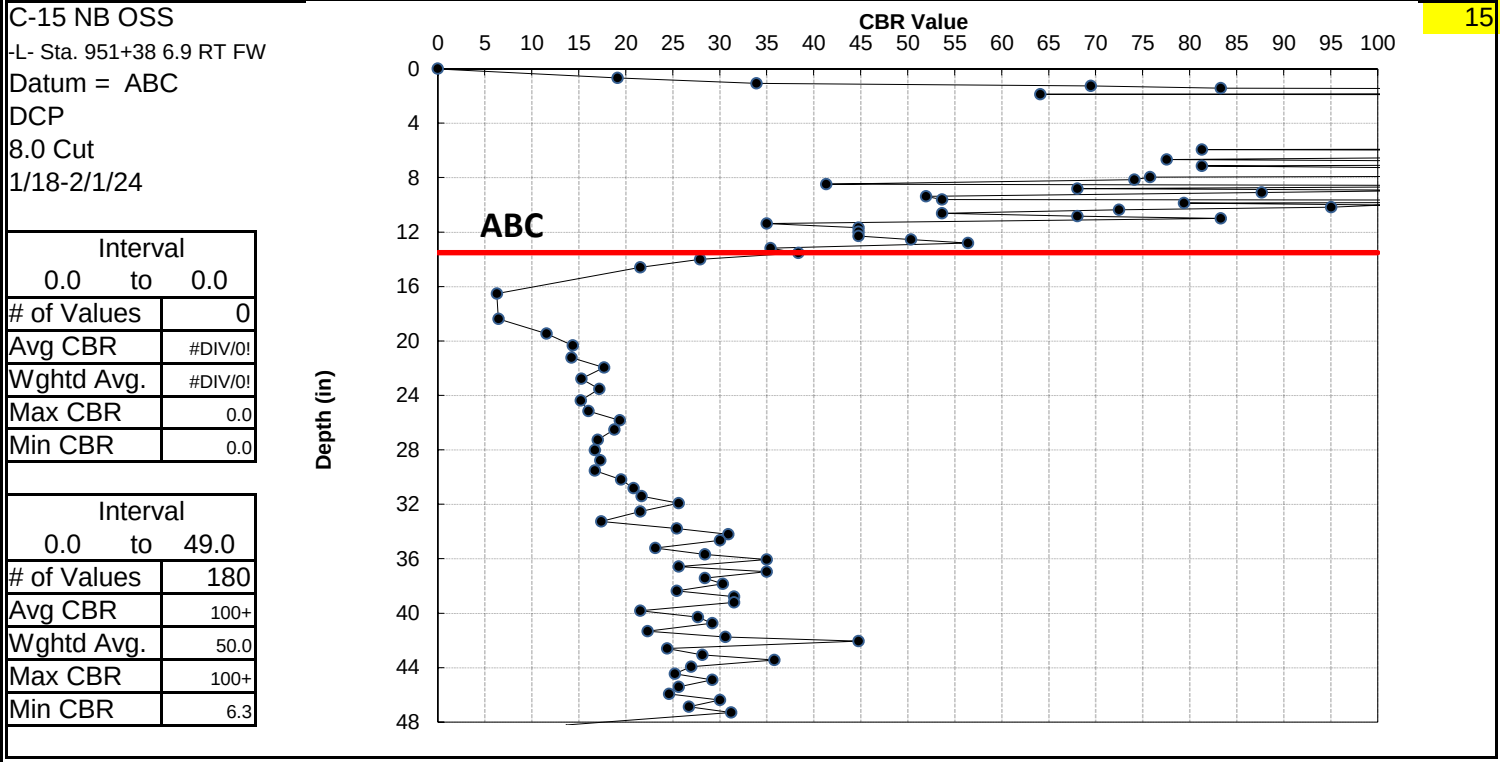
CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

Sheet 30

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

FILE	DCP Graphs C-1- to C-20
------	-------------------------



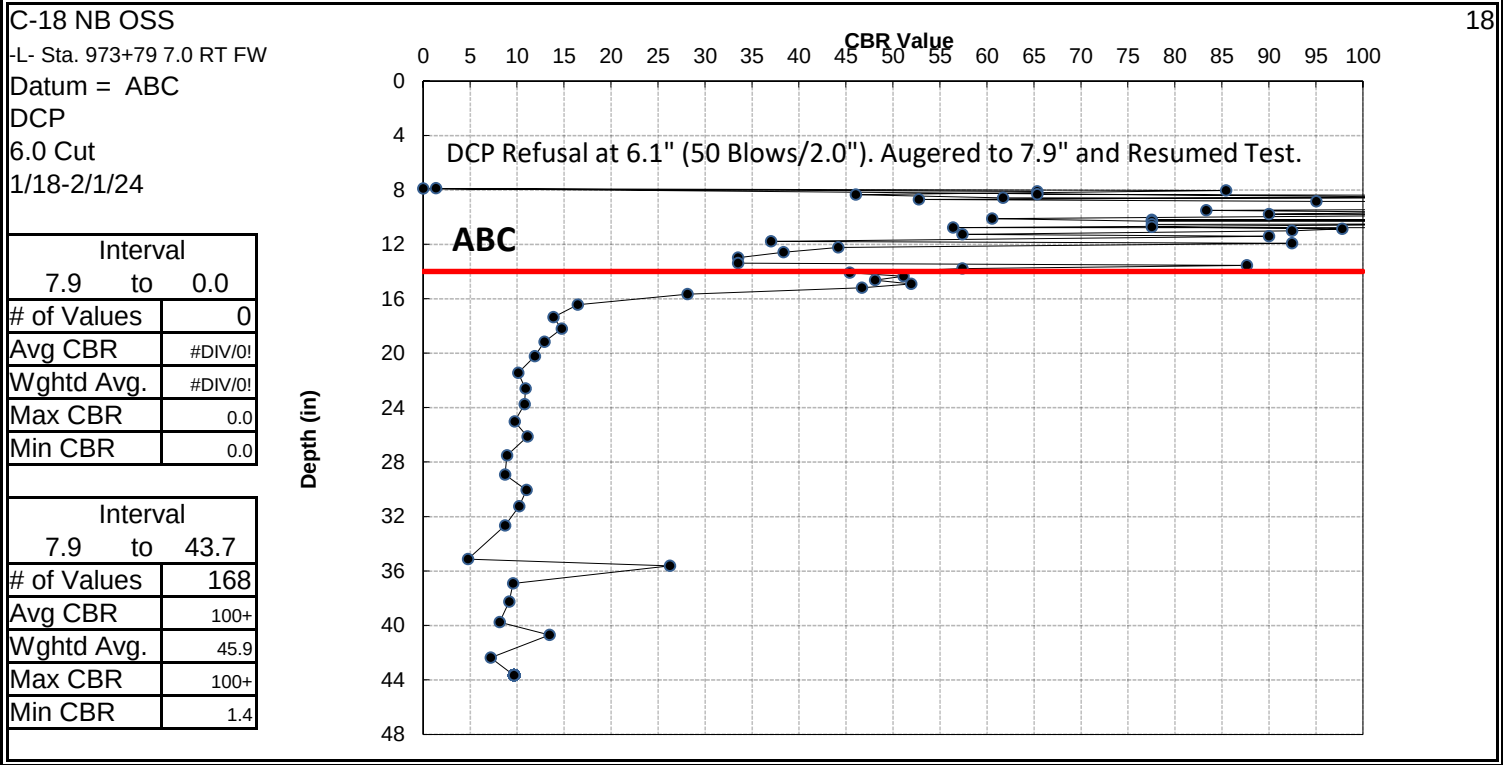
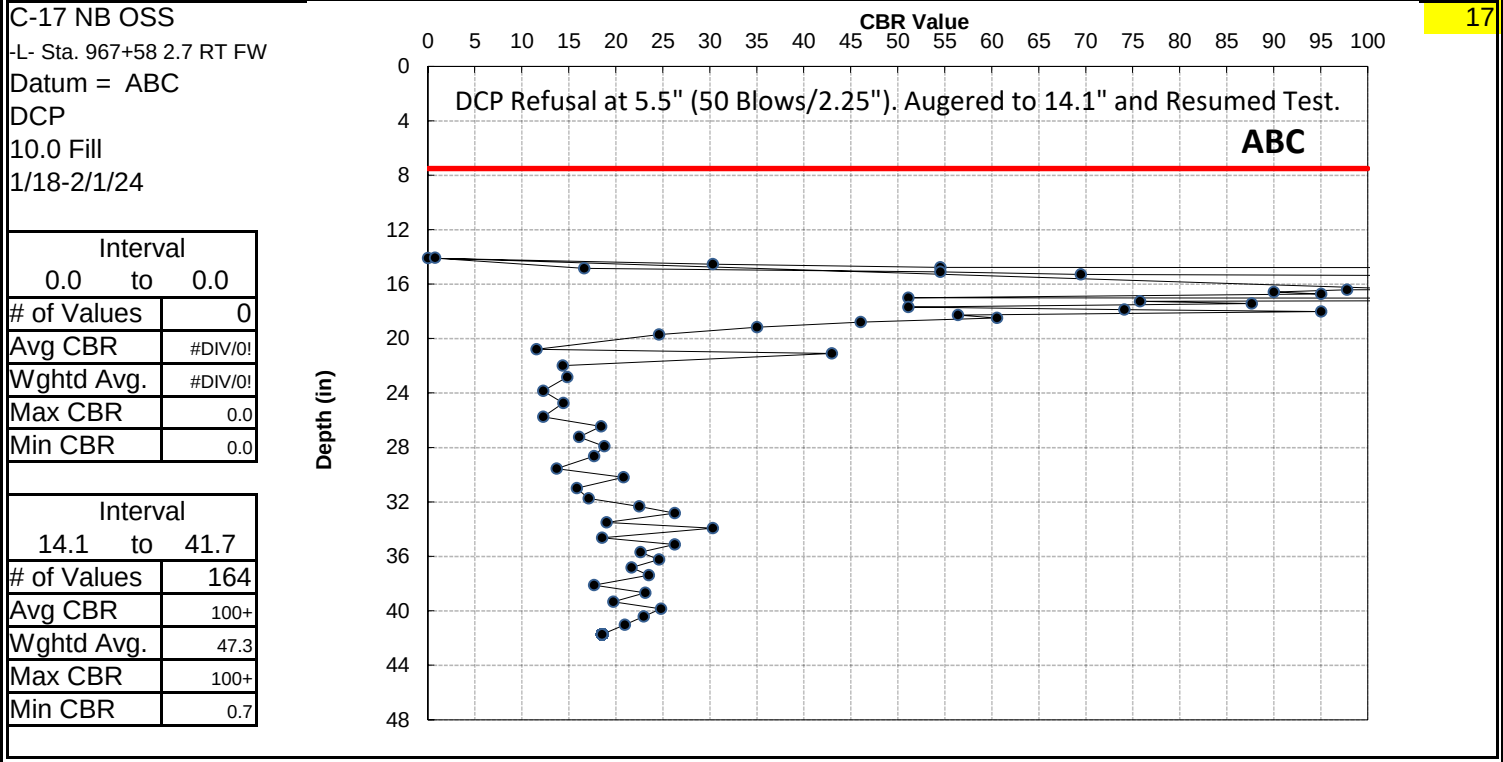


CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

FILE	DCP Graphs C-1- to C-20
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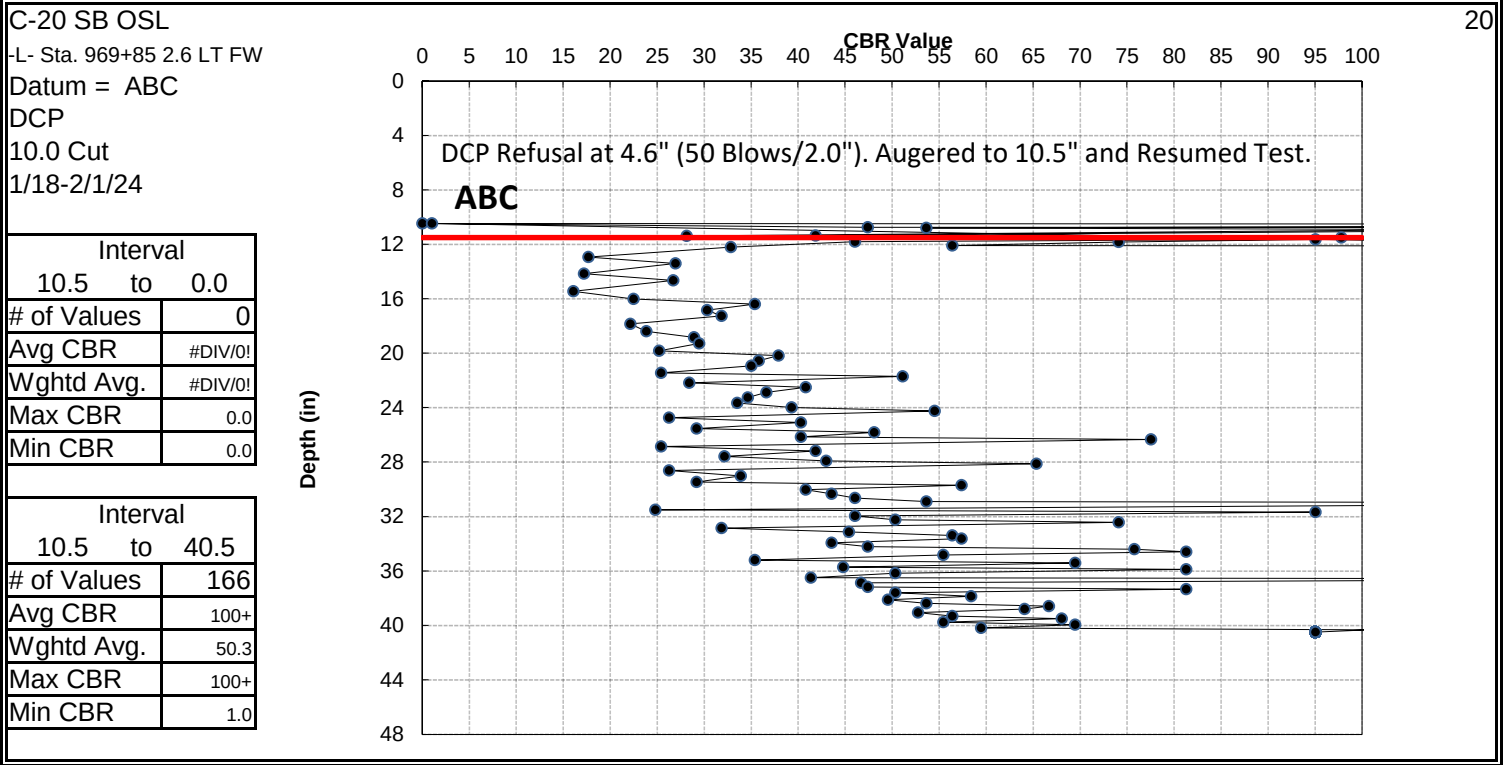
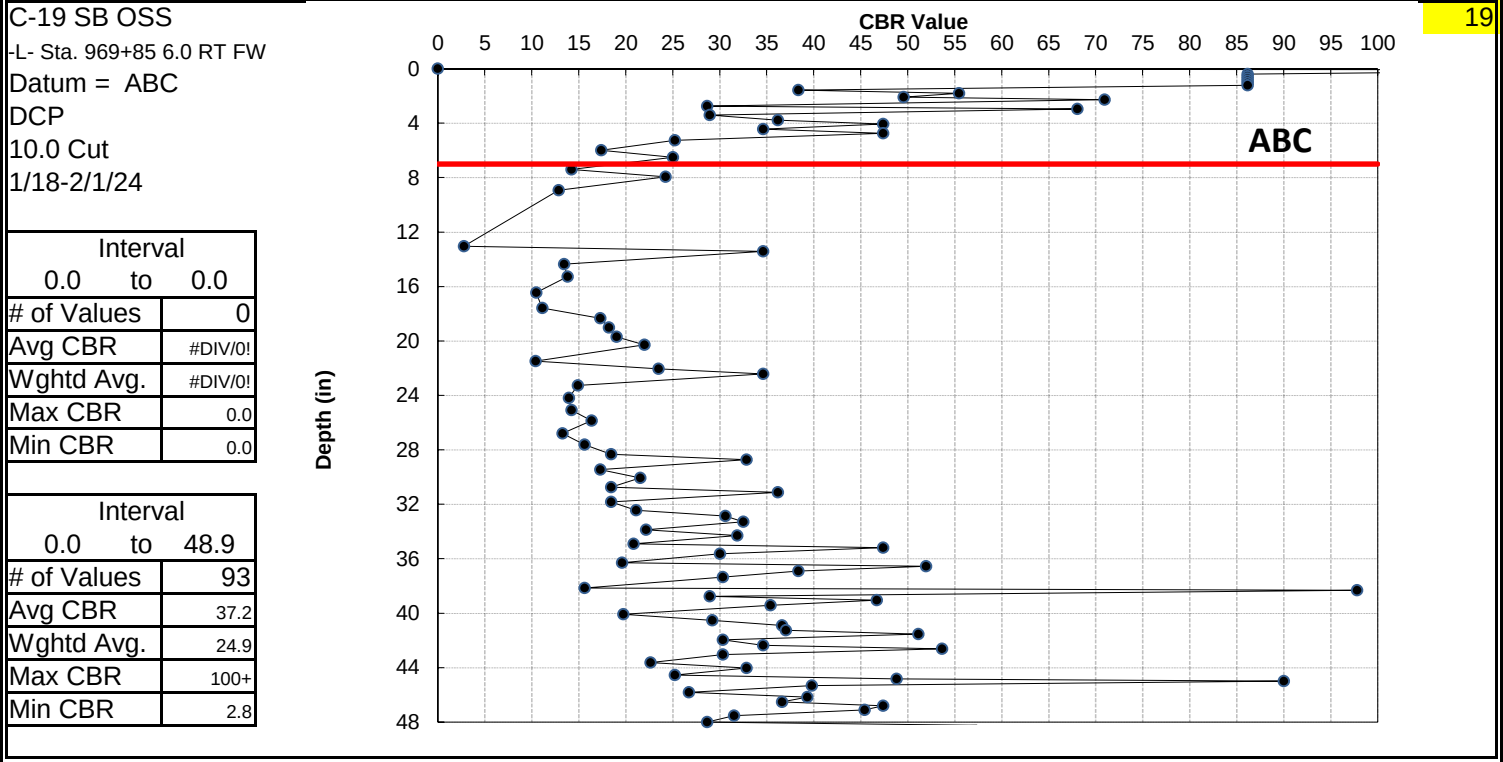
CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

Sheet 31

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

FILE	DCP Graphs C-1- to C-20
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CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

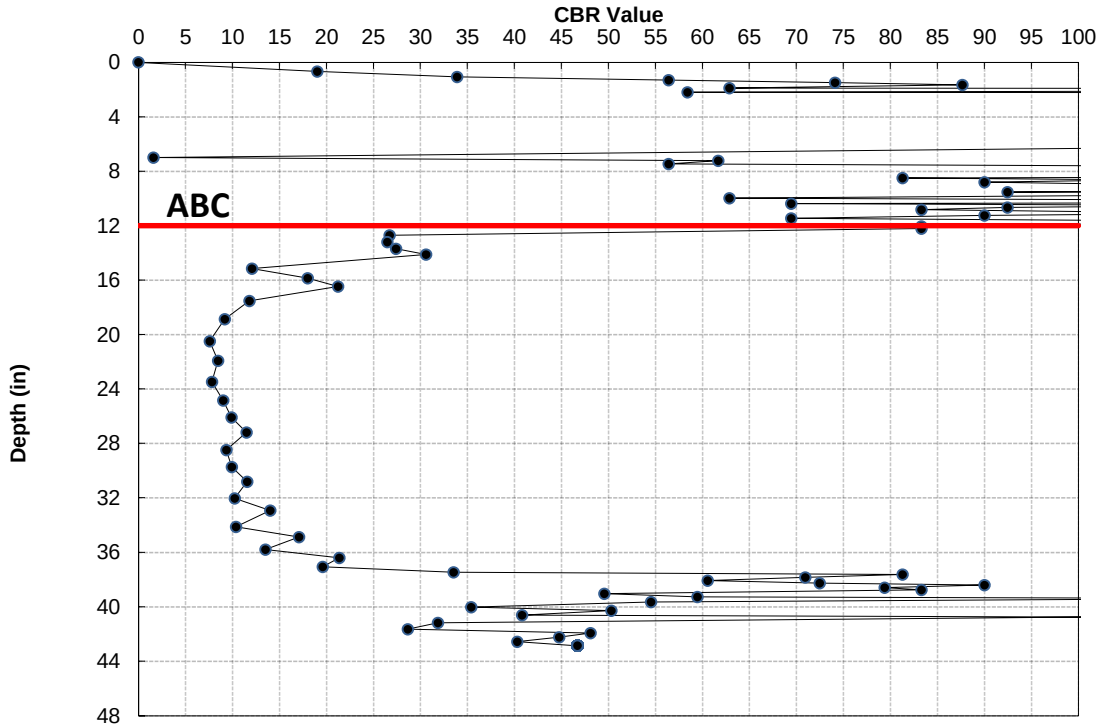
FILE	DCP Graphs C-21- to C-39
------	--------------------------

C-21 RAMP B DECEL

-L- Sta. 962+04 4.0 LT FW
Datum = ABC
DCP
10.0 Fill
1/18-2/1/24

Interval	0.0 to 0.0
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval	0.0 to 42.9
# of Values	156
Avg CBR	100+
Wghtd Avg.	44.5
Max CBR	100+
Min CBR	1.6



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CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

Sheet 32

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

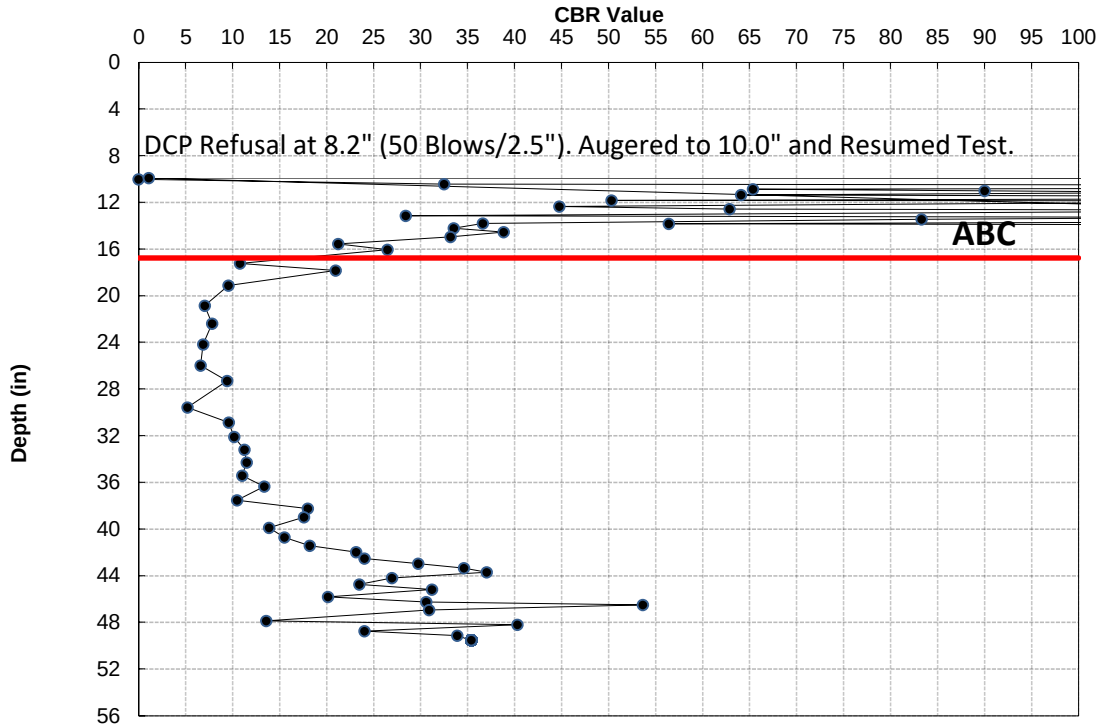
FILE	DCP Graphs C-21- to C-39
------	--------------------------

C-23 SB OSS

-L- Sta. 955+32 6.6 RT FW
Datum = ABC
DCP
7.0 Fill
1/18-2/1/24

Interval	10.0 to 0.0
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval	10.0 to 49.5
# of Values	204
Avg CBR	100+
Wghtd Avg.	48.1
Max CBR	100+
Min CBR	1.1



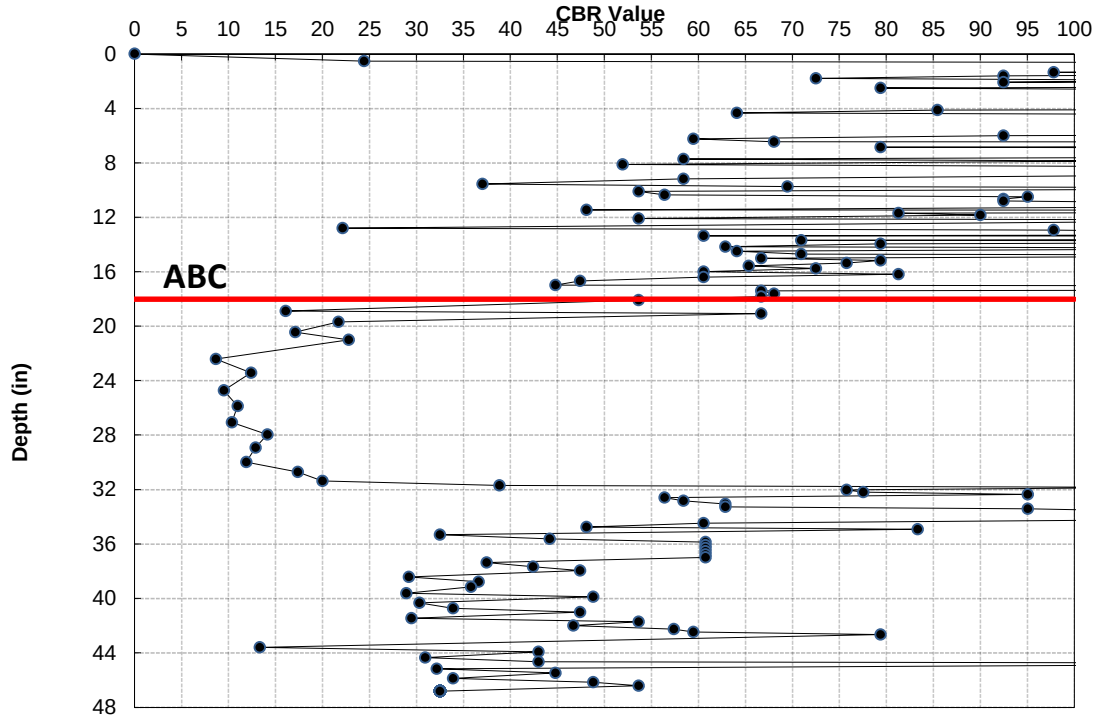
23

C-22 SB OSS

-L- Sta. 962+04 7.0 RT FW
Datum = ABC
DCP
10.0 Fill
1/18-2/1/24

Interval	0.0 to 0.0
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval	0.0 to 46.8
# of Values	199
Avg CBR	100+
Wghtd Avg.	58.7
Max CBR	100+
Min CBR	8.6



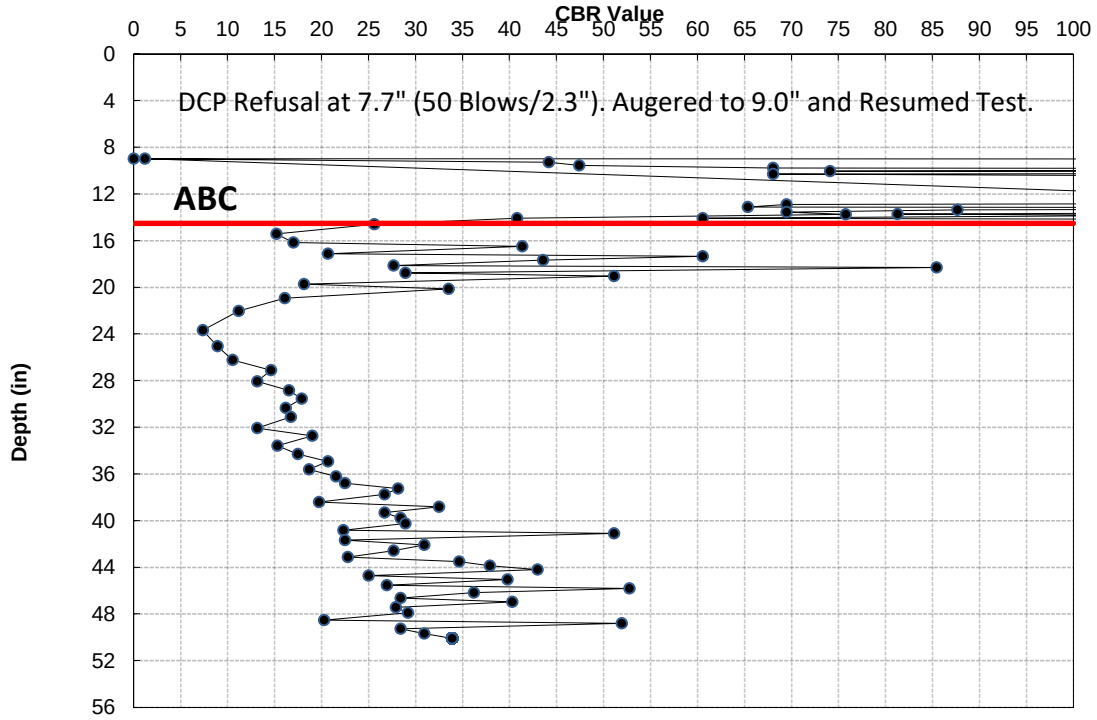
22

C-24 SB OSS

-L- Sta. 950+25 6.5 RT FW
Datum = ABC
DCP
7.0 Fill
1/18-2/1/24

Interval	9.0 to 0.0
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval	9.0 to 50.1
# of Values	237
Avg CBR	100+
Wghtd Avg.	56.4
Max CBR	100+
Min CBR	1.2



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CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

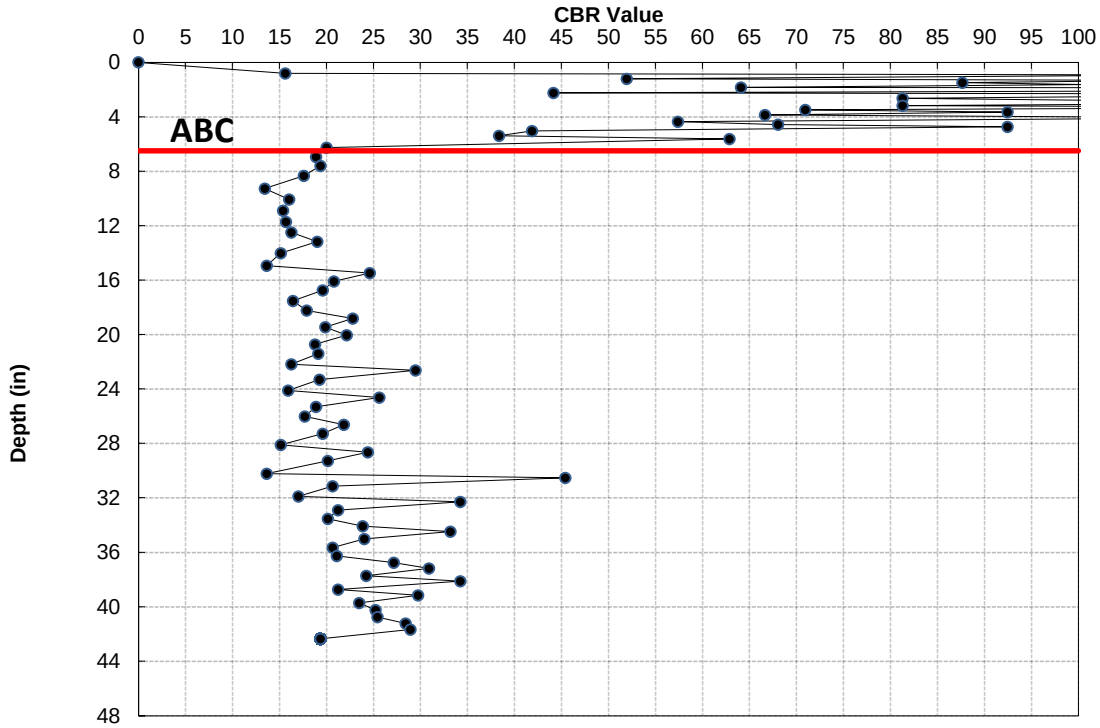
FILE	DCP Graphs C-21- to C-39
------	--------------------------

C-25 WB ISL

-Y2- Sta. 21+87 5.0 RT FY
Datum = ABC
DCP
15.0 Fill
1/18-2/1/24

Interval 0.0 to 0.0	
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval 0.0 to 42.3	
# of Values	86
Avg CBR	43.5
Wghtd Avg.	26.7
Max CBR	100+
Min CBR	13.4



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CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

Sheet 33

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

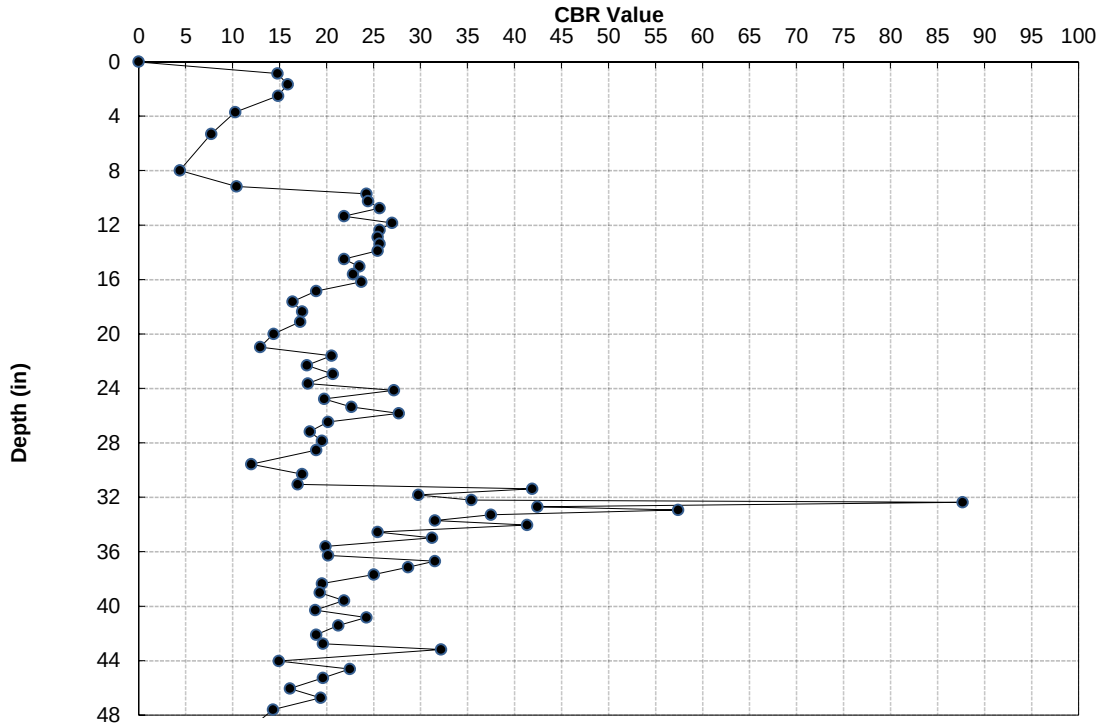
FILE	DCP Graphs C-21- to C-39
------	--------------------------

C-27 EB RTL

-Y2- Sta.23+03 7.5 RT FW
Datum = SG (A-4)
DCP
15.0 Fill
1/18-2/1/24

Interval 0.0 to 0.0	
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval 0.0 to 48.6	
# of Values	73
Avg CBR	23.2
Wghtd Avg.	19.3
Max CBR	87.7
Min CBR	4.4



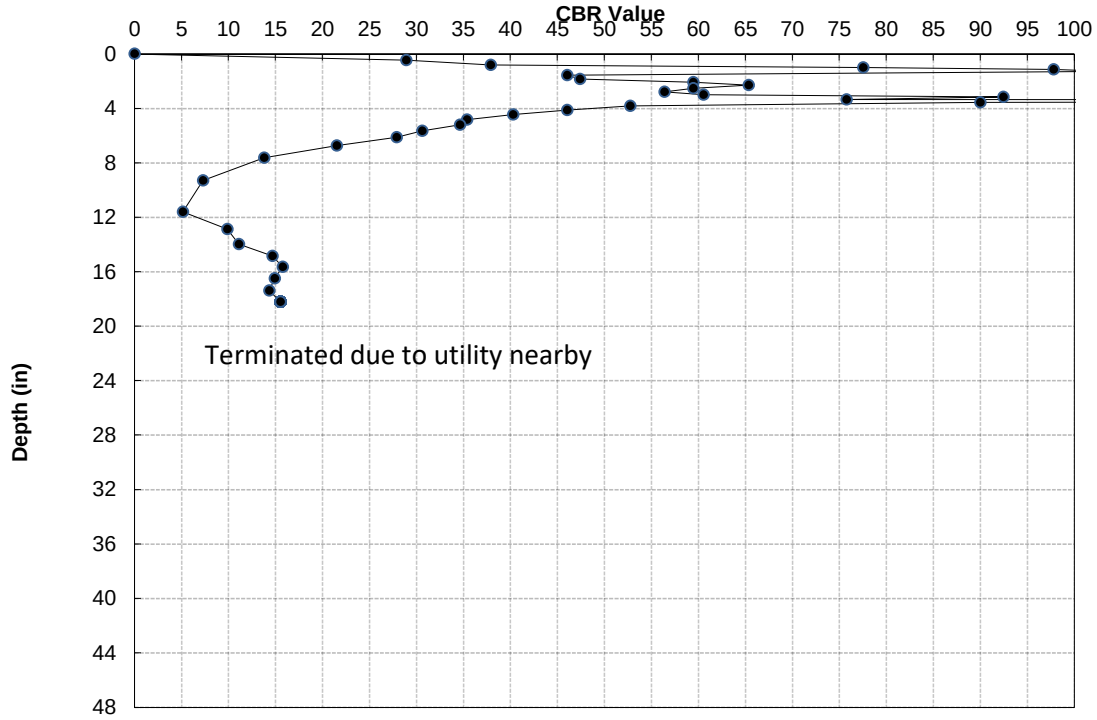
27

C-26 WB OSL

-Y2- Sta. 21+87 6.5 LT EOP
Datum = SG (A-7-5)
DCP
15.0 Fill
1/18-2/1/24

Interval 0.0 to 0.0	
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval 0.0 to 18.2	
# of Values	34
Avg CBR	48.5
Wghtd Avg.	24.4
Max CBR	100+
Min CBR	5.2



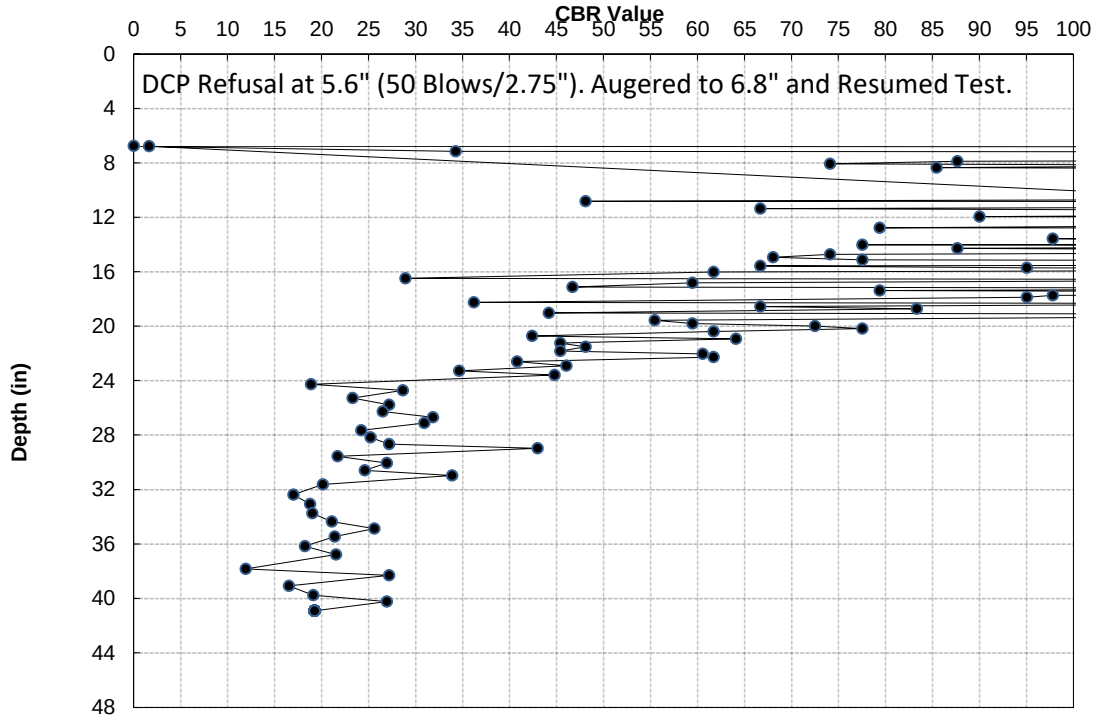
26

C-28 EB OSL

-Y2- Sta. 23+03 5.8 LT FW
Datum = SG (A-4(0))
DCP
15.0 Fill
1/18-2/1/24

Interval 0.0 to 0.0	
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval 6.8 to 40.9	
# of Values	246
Avg CBR	100+
Wghtd Avg.	74.0
Max CBR	100+
Min CBR	1.6



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CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

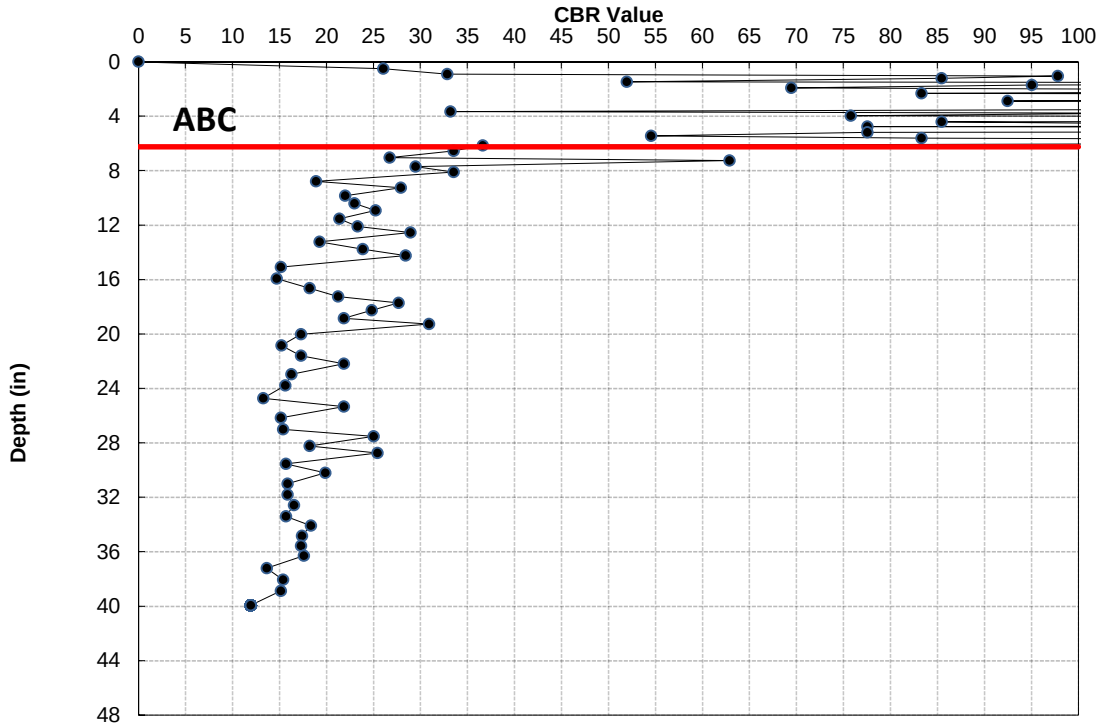
FILE	DCP Graphs C-21- to C-39
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C-29 EB ISL

-Y2- Sta. 23+03 5.5 RT FY
Datum = ABC
DCP
15.0 Fill
1/18-2/1/24

Interval 0.0 to 0.0	
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval 0.0 to 39.9	
# of Values	92
Avg CBR	73.7
Wghtd Avg.	30.5
Max CBR	100+
Min CBR	11.9



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CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

Sheet 34

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

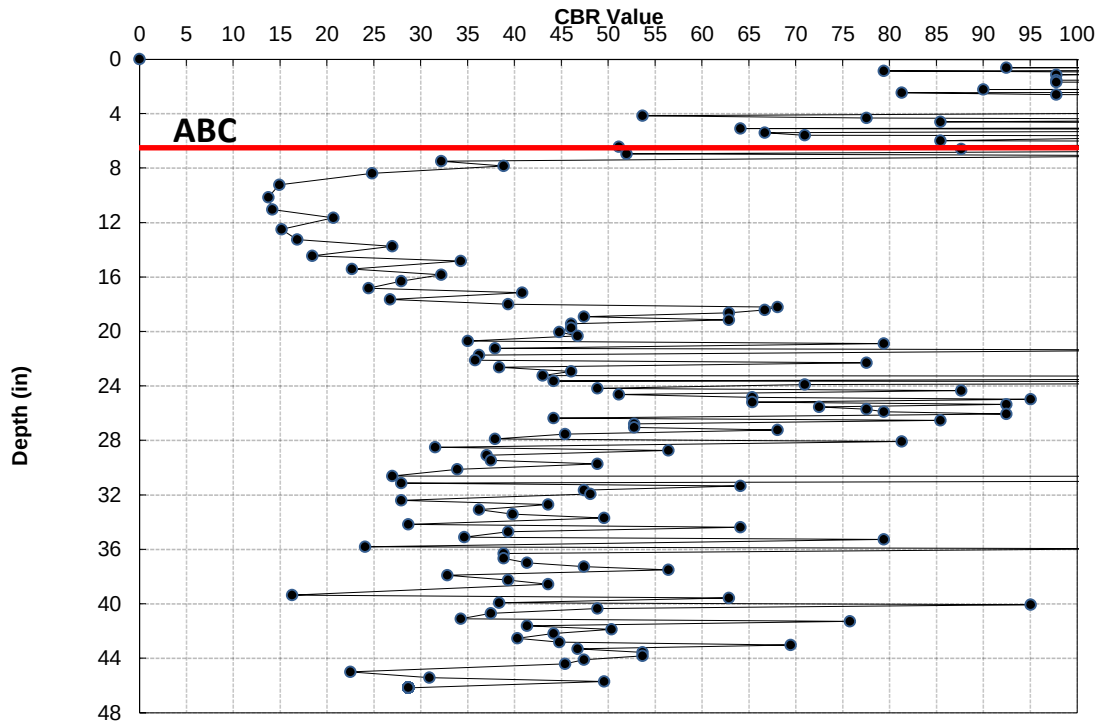
FILE	DCP Graphs C-21- to C-39
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C-31 EB PS

-Y2- Sta. 27+40 1.5 LT FW
Datum = ABC
DCP
5.0 Fill
1/18-2/1/24

Interval 0.0 to 0.0	
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval 0.0 to 46.2	
# of Values	177
Avg CBR	88.4
Wghtd Avg.	52.6
Max CBR	100+
Min CBR	13.8



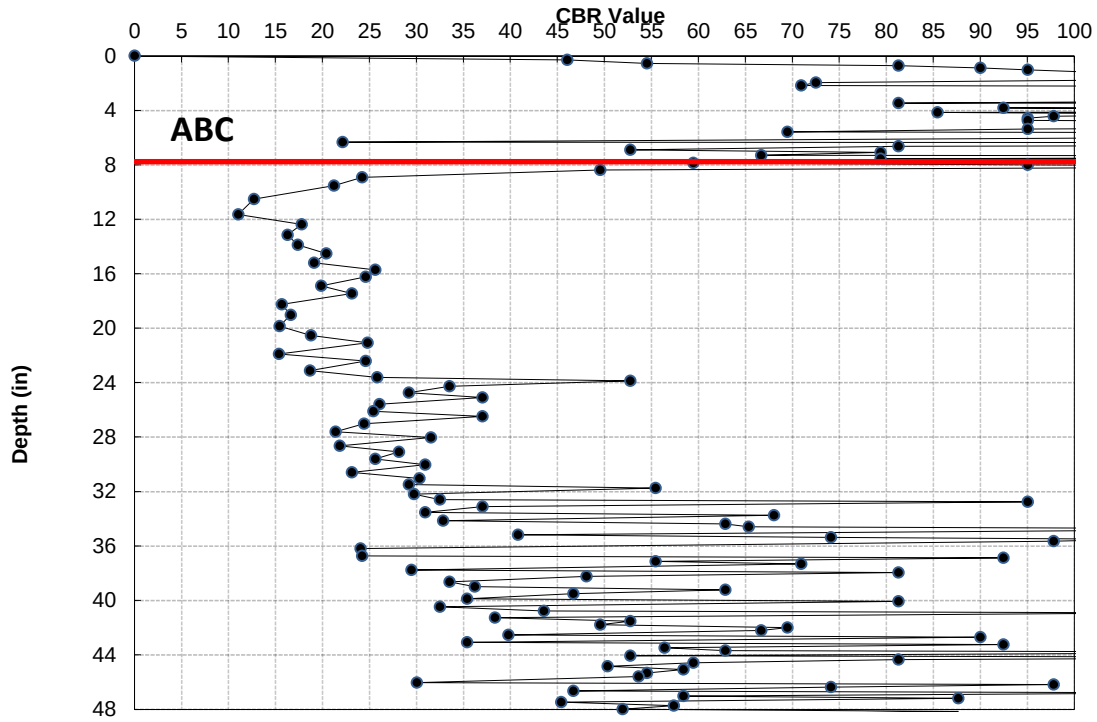
31

C-30 WB PS

-Y2- Sta. 25+97 5.0 RT FW
Datum = ABC
DCP
8.0 Fill
1/18-2/1/24

Interval 0.0 to 0.0	
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval 0.0 to 48.9	
# of Values	165
Avg CBR	78.8
Wghtd Avg.	45.9
Max CBR	100+
Min CBR	11.1



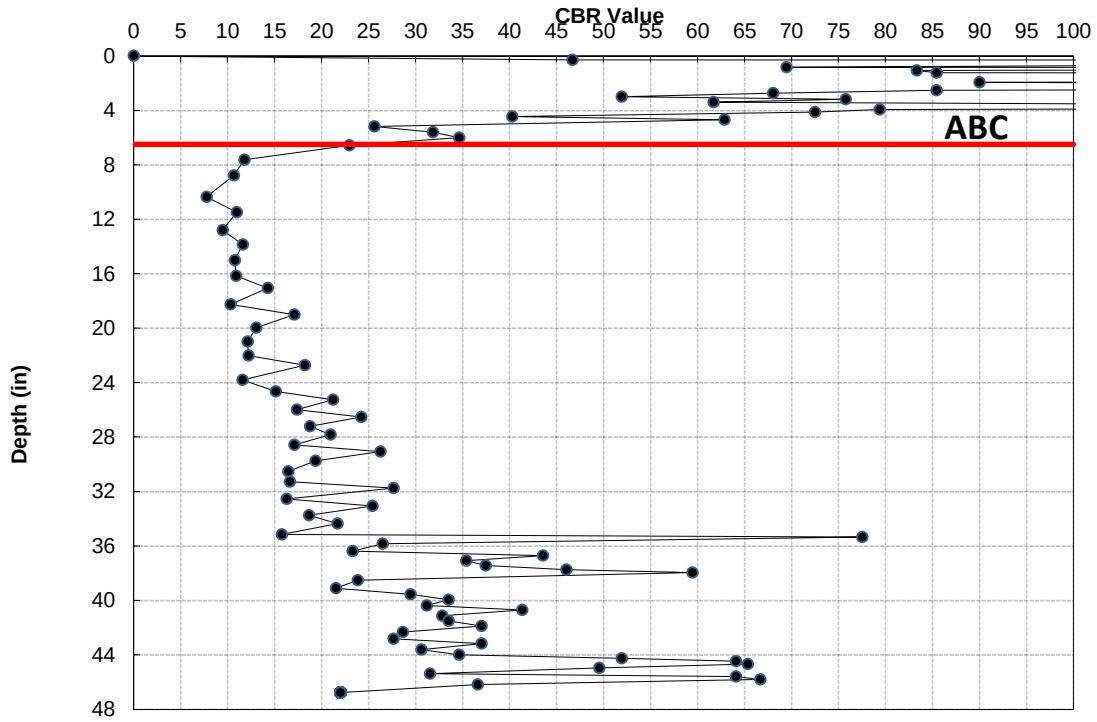
30

C-32 EB LTL

-Y2- Sta. 27+40 3.5 LT FY
Datum = ABC
DCP
5.0 Fill
1/18-2/1/24

Interval 0.0 to 0.0	
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval 0.0 to 46.8	
# of Values	102
Avg CBR	66.8
Wghtd Avg.	28.8
Max CBR	100+
Min CBR	7.8



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CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

FILE	DCP Graphs C-21- to C-39
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C-33 WB ISL

-Y2- Sta. 36+23 5.0 RT EOP

Datum = ABC

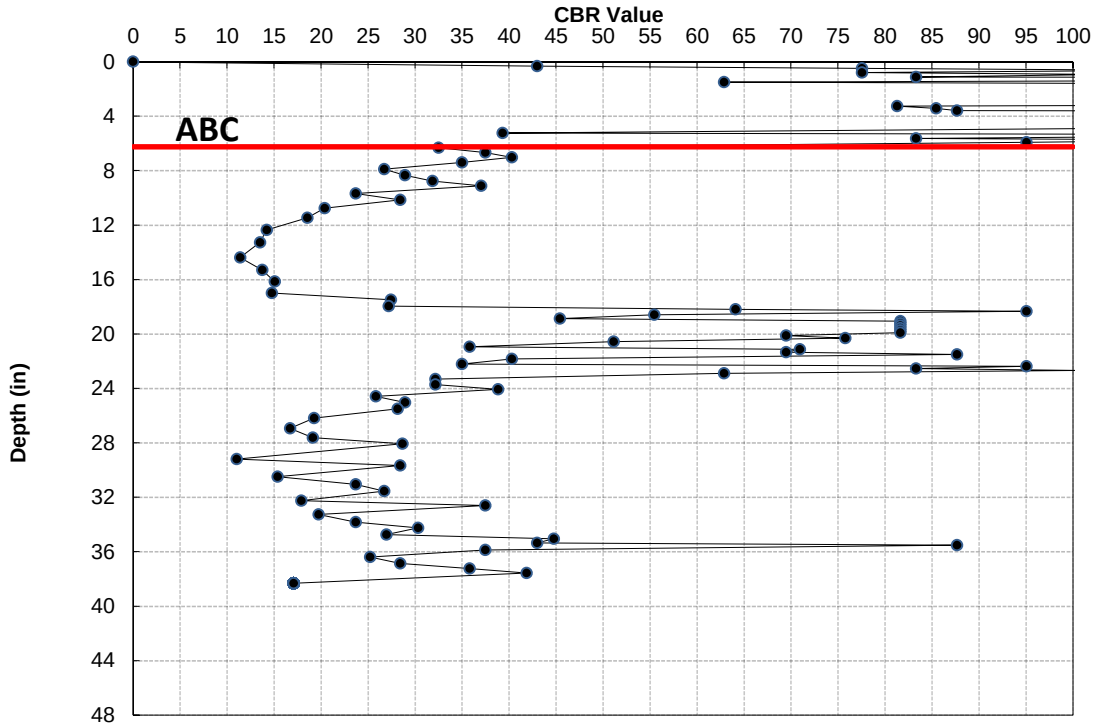
DCP

5.0 Fill

1/18-2/1/24

Interval	
0.0	to 0.0
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval	
0.0	to 38.3
# of Values	119
Avg CBR	76.2
Wghtd Avg.	42.0
Max CBR	100+
Min CBR	11.0



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CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

Sheet 35

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

FILE	DCP Graphs C-21- to C-39
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C-35 WB OSL

-Y2- Sta. 36+23 6.2 LT FW

Datum = SG (A-7-5)

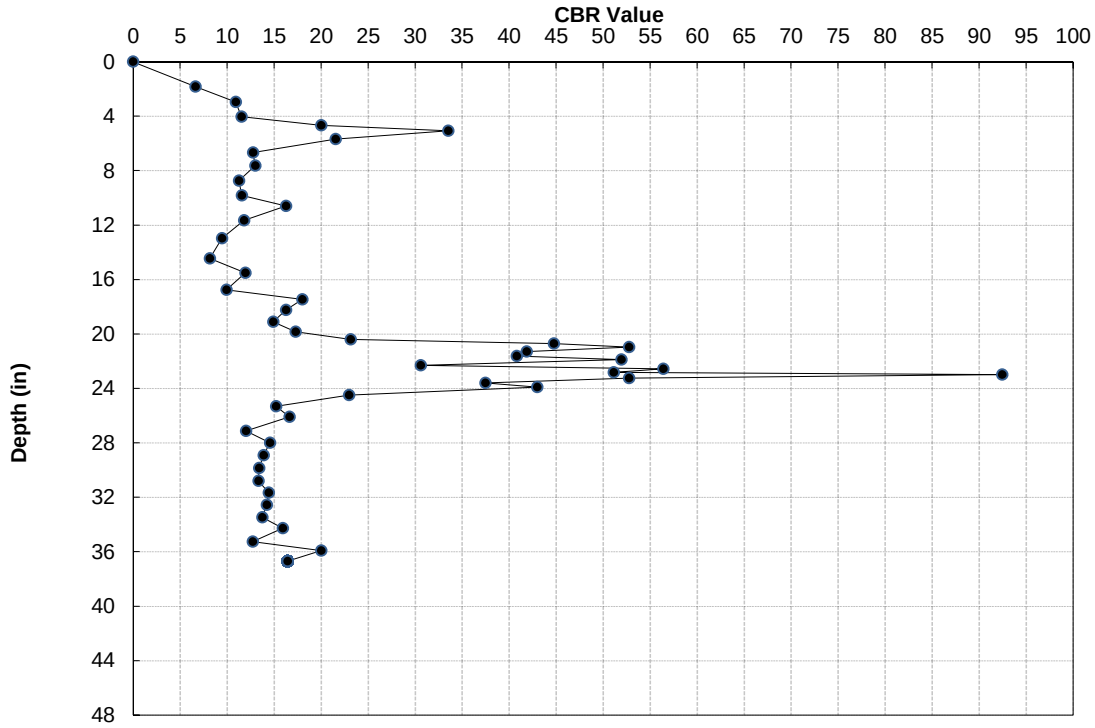
DCP

5.0 Fill

1/18-2/1/24

Interval	
0.0	to 0.0
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval	
0.0	to 36.7
# of Values	48
Avg CBR	23.7
Wghtd Avg.	16.1
Max CBR	92.5
Min CBR	6.6



35

C-34 WB MID LN

-Y2- Sta. 36+23 17.9 RT EOP

Datum = ABC

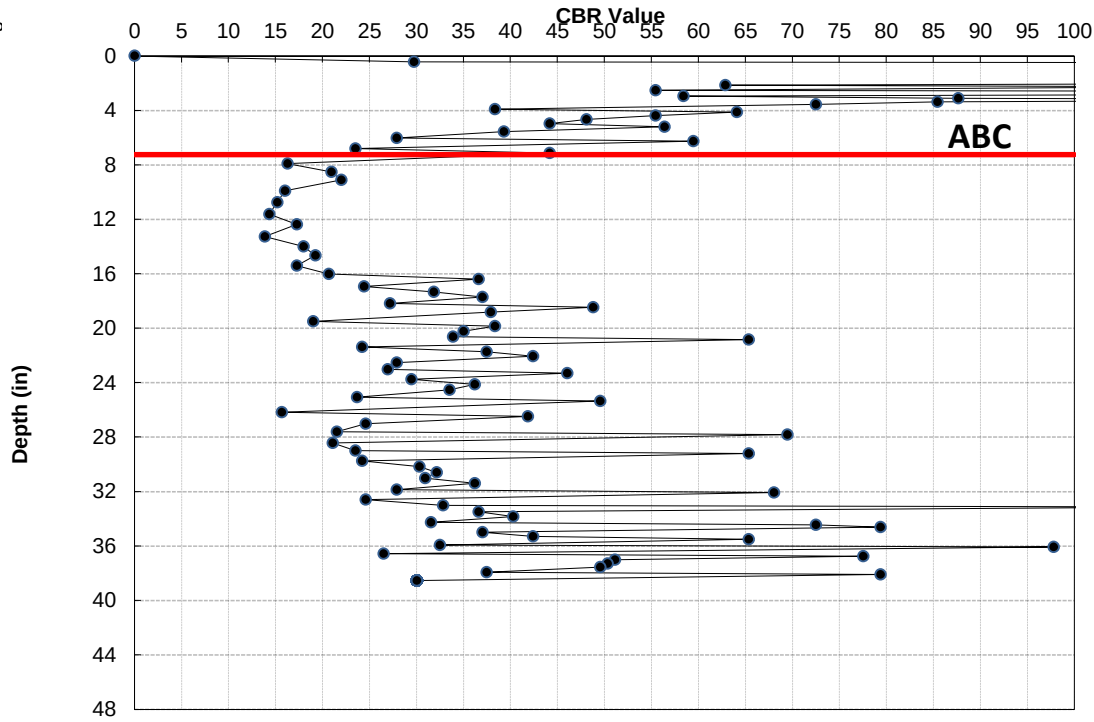
DCP

5.0 Fill

1/18-2/1/24

Interval	
0.0	to 0.0
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval	
0.0	to 38.5
# of Values	110
Avg CBR	64.2
Wghtd Avg.	38.4
Max CBR	100+
Min CBR	13.9



34

C-36 EB RTL

-Y2- Sta. 38+51 5.0 LT EOP

Datum = SG (A-7-6)

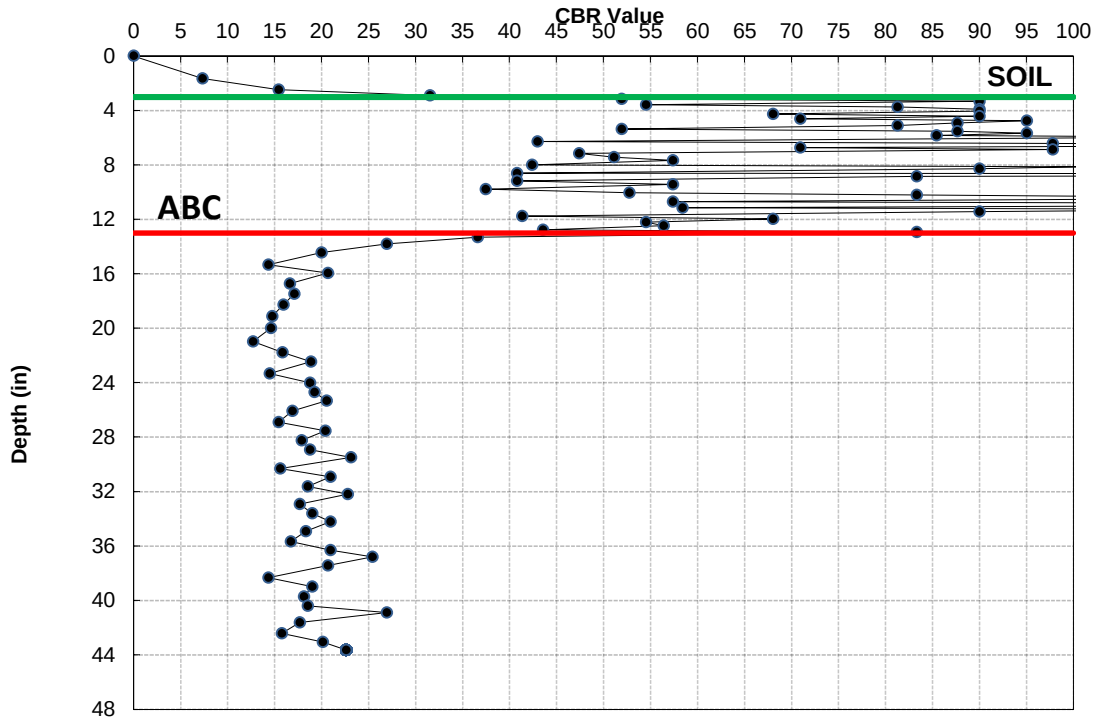
DCP

8.0 Fill

1/18-2/1/24

Interval	
0.0	to 0.0
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval	
0.0	to 43.6
# of Values	97
Avg CBR	50.6
Wghtd Avg.	29.4
Max CBR	100+
Min CBR	7.3



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CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

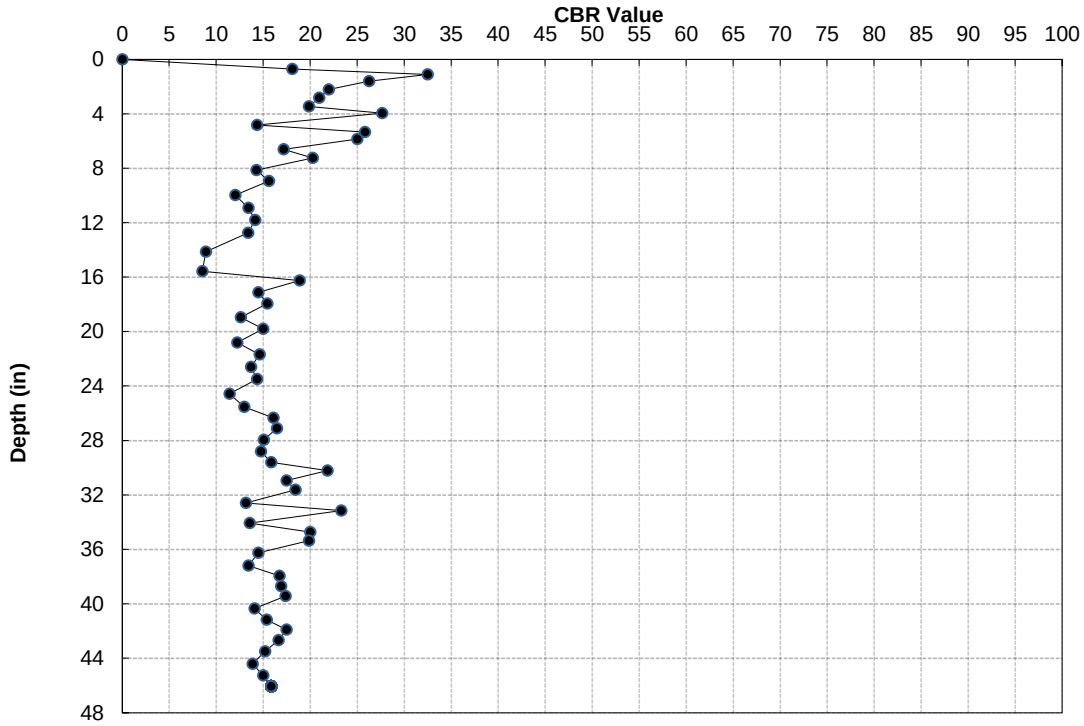
FILE	DCP Graphs C-21- to C-39
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C-37 EB OSL

-Y2- Sta. 38+51 6.1 LT FW
Datum = SG (A-7-6(25))
DCP
8.0 Fill
1/18-2/1/24

Interval	
0.0	to 0.0
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval	
0.0	to 46.1
# of Values	57
Avg CBR	16.7
Wghtd Avg.	15.7
Max CBR	32.5
Min CBR	8.5



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CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

Sheet 36

PROJECT NO.	50128.1.FS1
PROJECT ID	I-5715
ROUTE	I-77 and the NC 73 Interchange
COUNTY	Mecklenburg

GEOLOGIST	P. Tomasic
FIELD CREW	CG2 Exploration

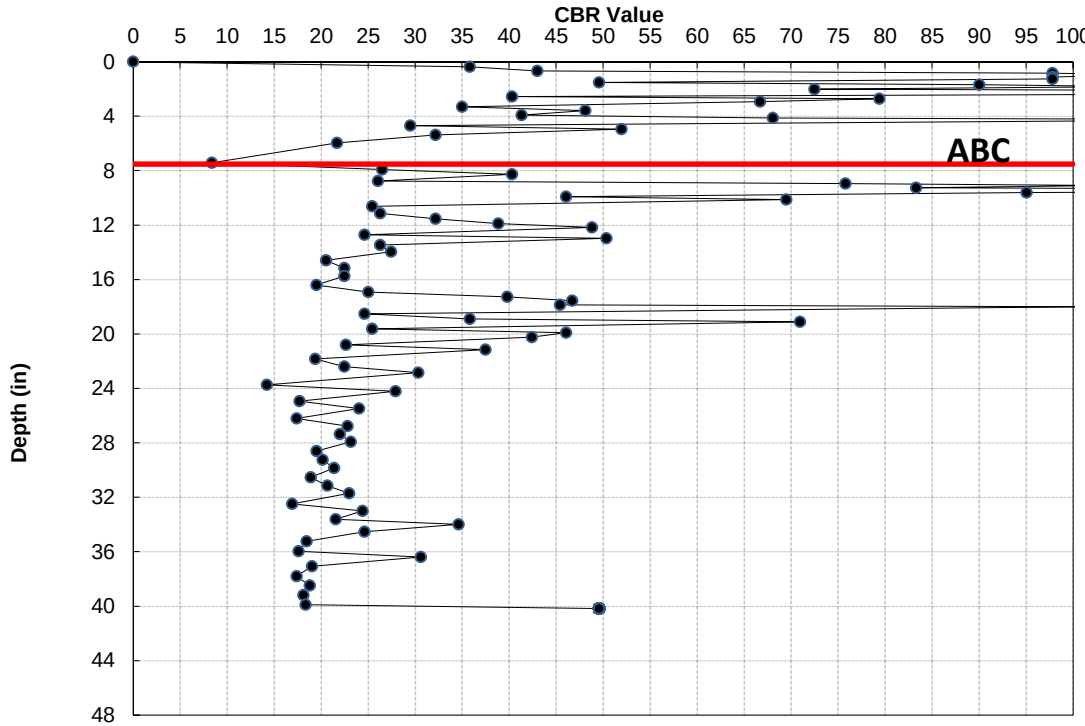
FILE	DCP Graphs C-21- to C-39
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C-39 EB LTL

-Y2- Sta. 38+62 4.5 RT EOP
Datum = ABC
DCP
8.0 Fill
1/18-2/1/24

Interval	
0.0	to 0.0
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval	
0.0	to 40.2
# of Values	93
Avg CBR	45.6
Wghtd Avg.	30.7
Max CBR	100+
Min CBR	8.4



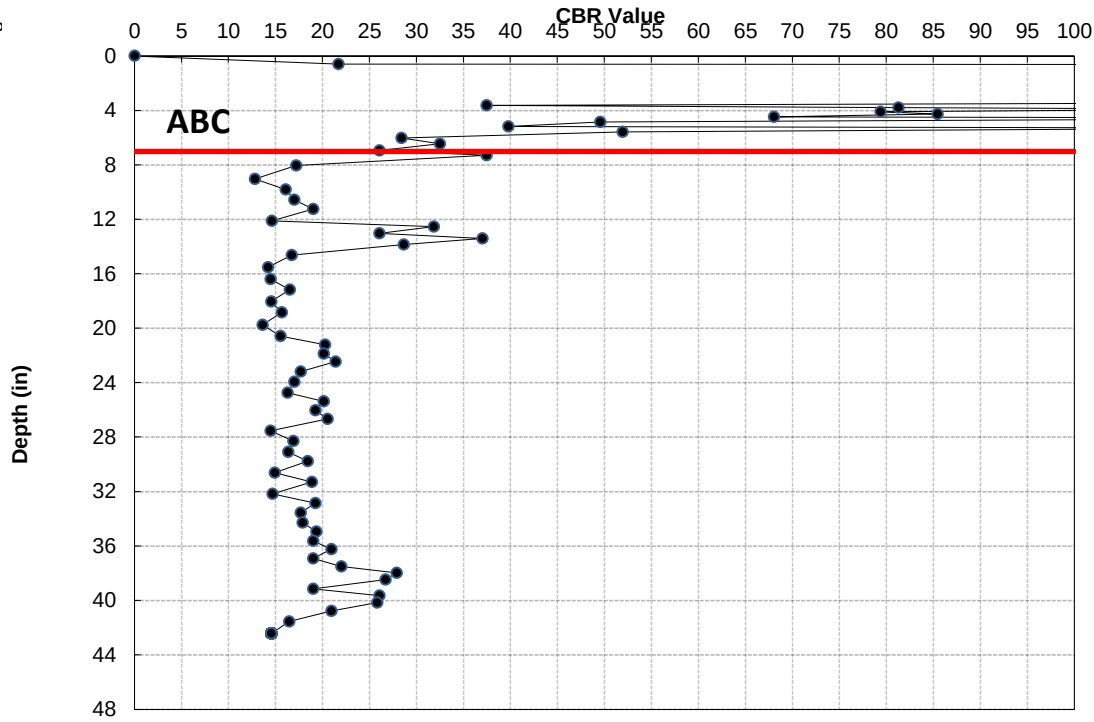
39

C-38 EB ISL

-Y2- Sta. 38+62 18.9 RT EOP
Datum = ABC
DCP
8.0 Fill
1/18-2/1/24

Interval	
0.0	to 0.0
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval	
0.0	to 42.4
# of Values	101
Avg CBR	88.1
Wghtd Avg.	31.6
Max CBR	100+
Min CBR	12.8



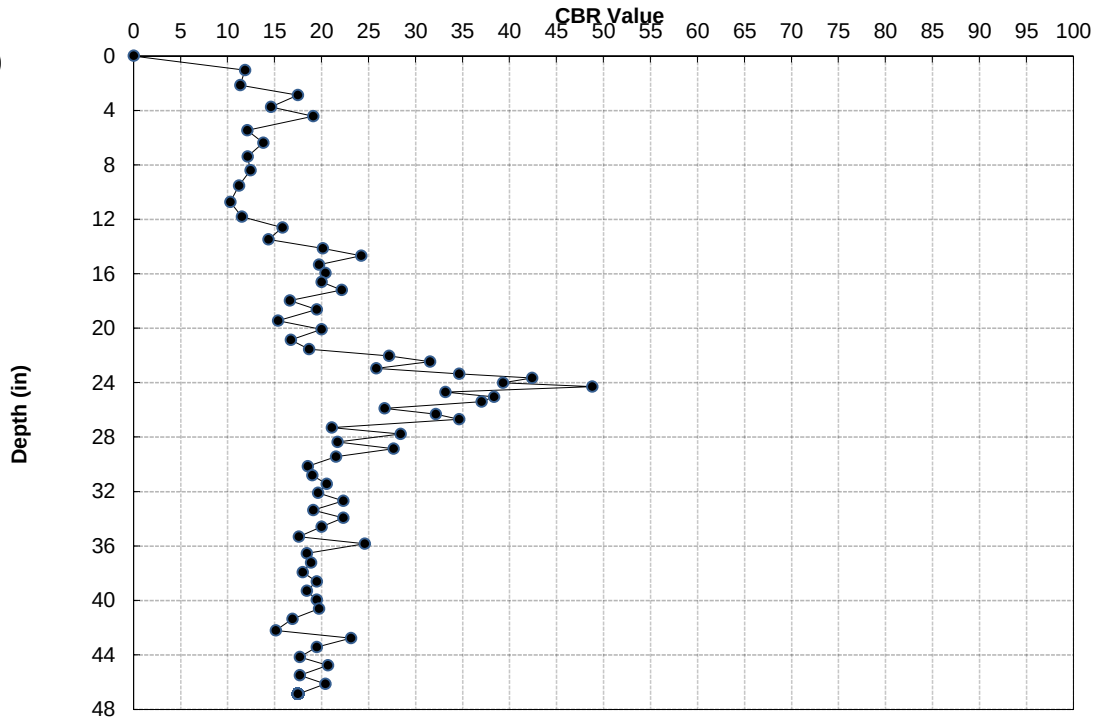
38

C-40 WB RTL

-Y2- Sta. 36+23 7.0 RT FW
Datum = SG (A-7-5(18))
DCP
5.0 Fill
1/18-2/1/24

Interval	
0.0	to 0.0
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

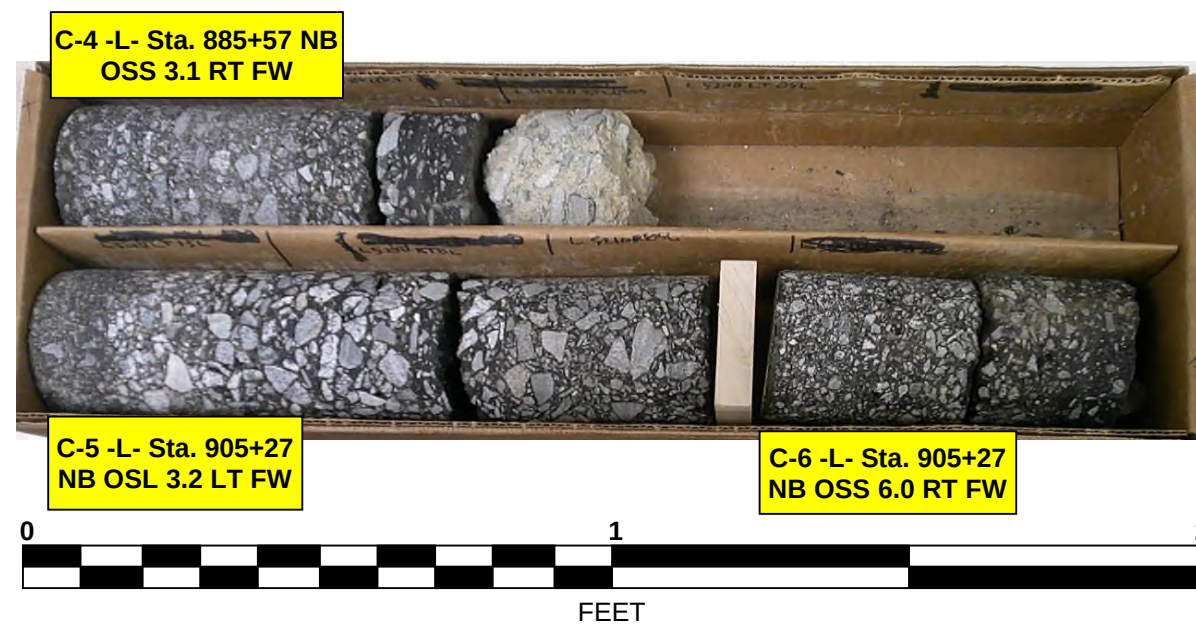
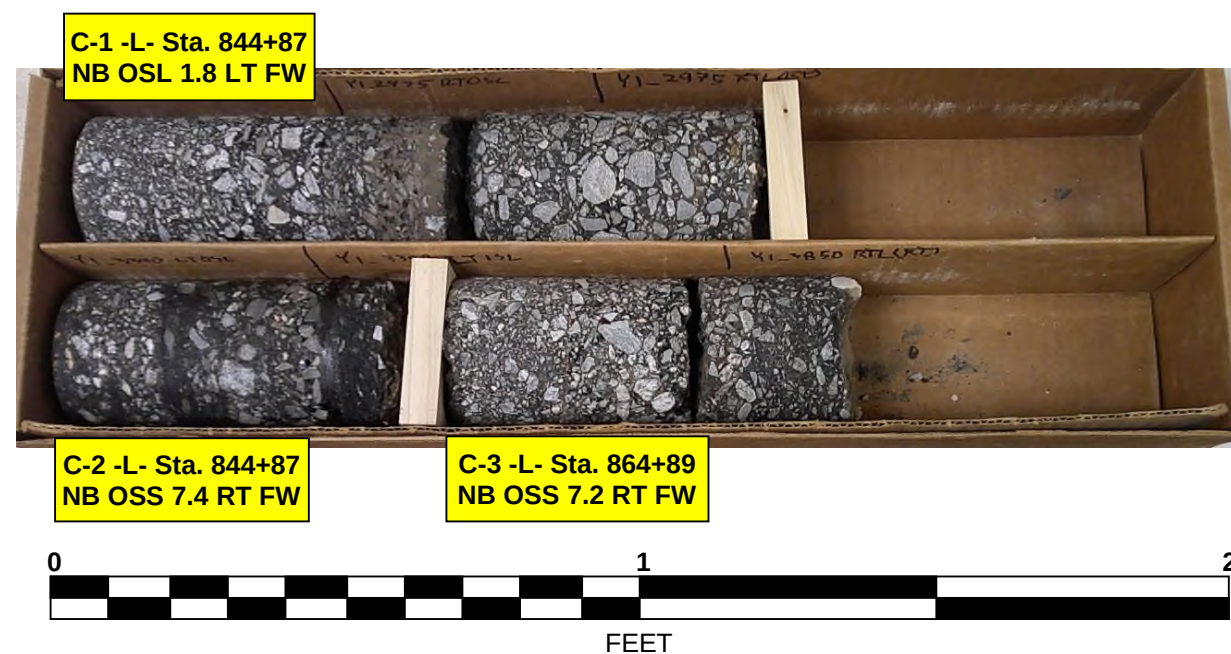
Interval	
0.0	to 46.9
# of Values	70
Avg CBR	21.4
Wghtd Avg.	19.2
Max CBR	48.8
Min CBR	10.3



40

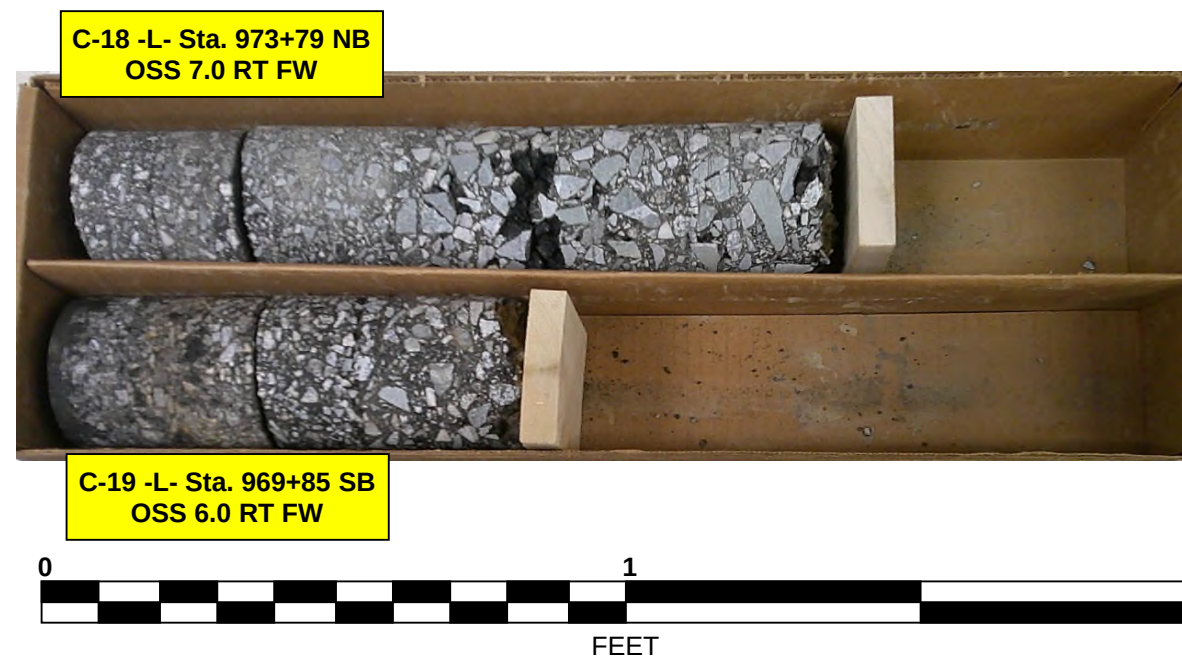
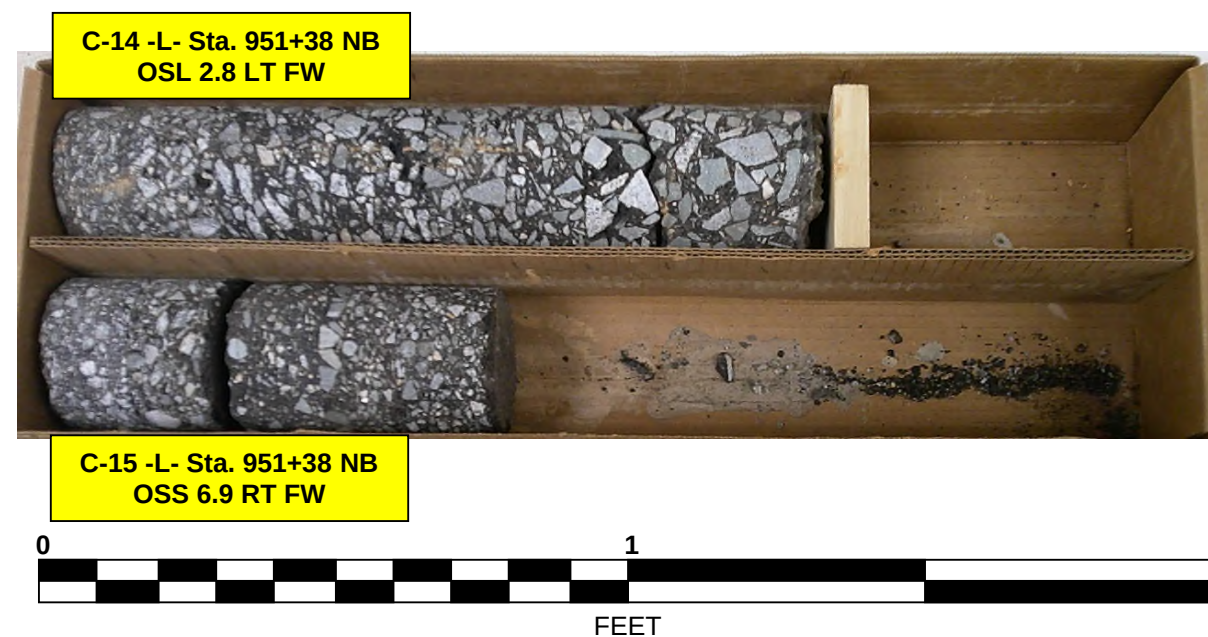
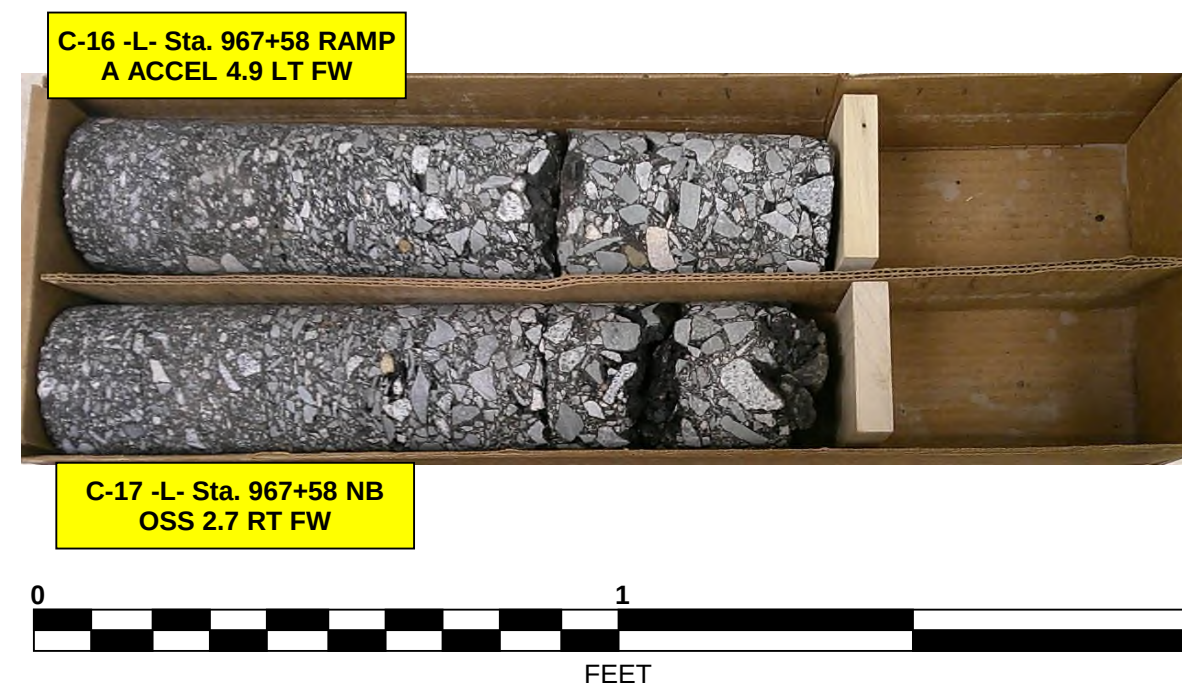
I-5715: I-77 and the NC 73 Interchange. Upgrade Existing Interchange to Split Diamond Configuration

Pavement Core Photographs



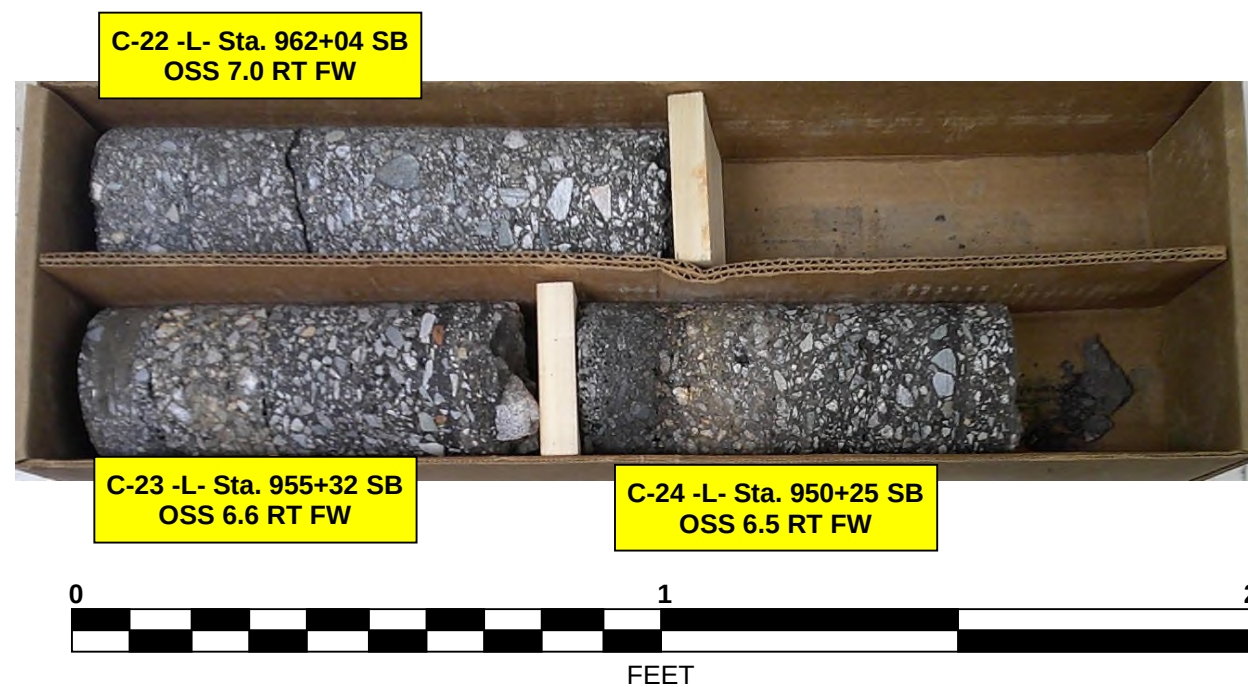
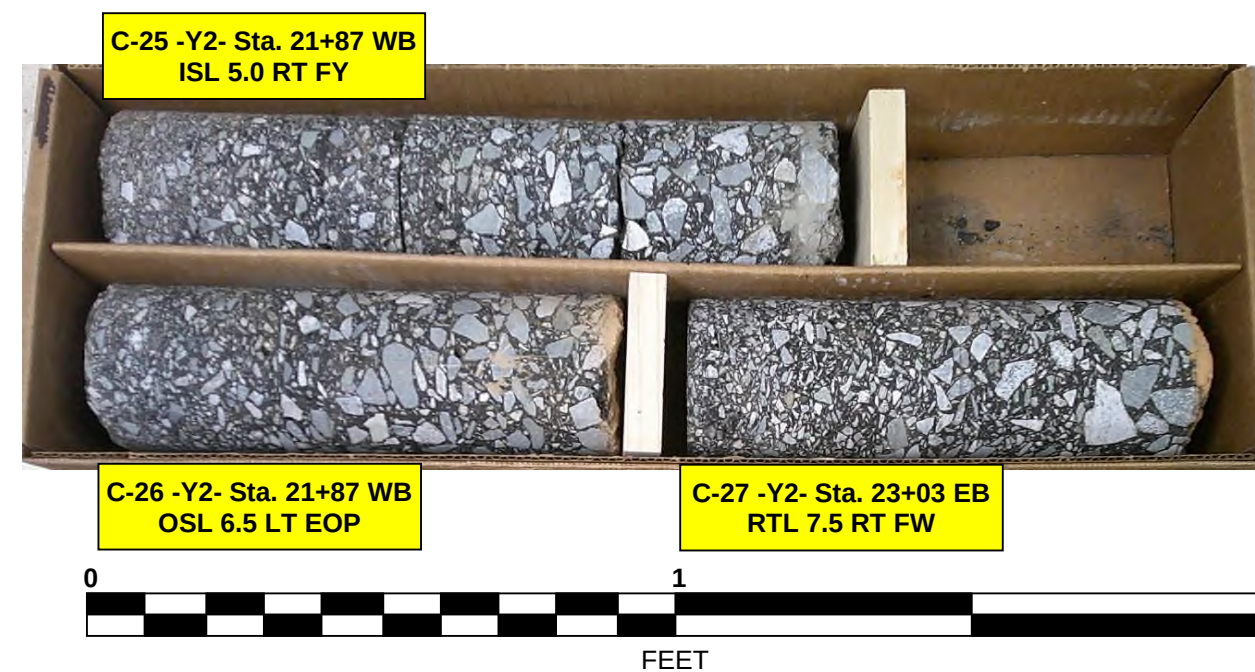
I-5715: I-77 and the NC 73 Interchange. Upgrade Existing Interchange to Split Diamond Configuration

Pavement Core Photographs



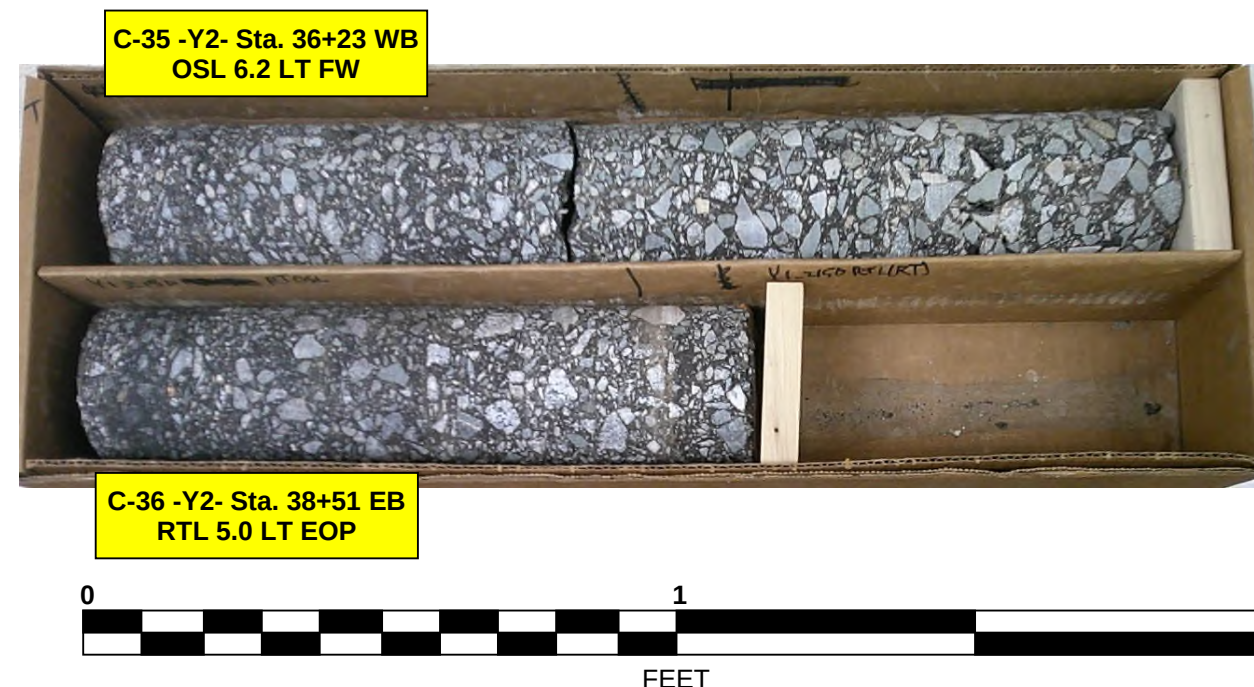
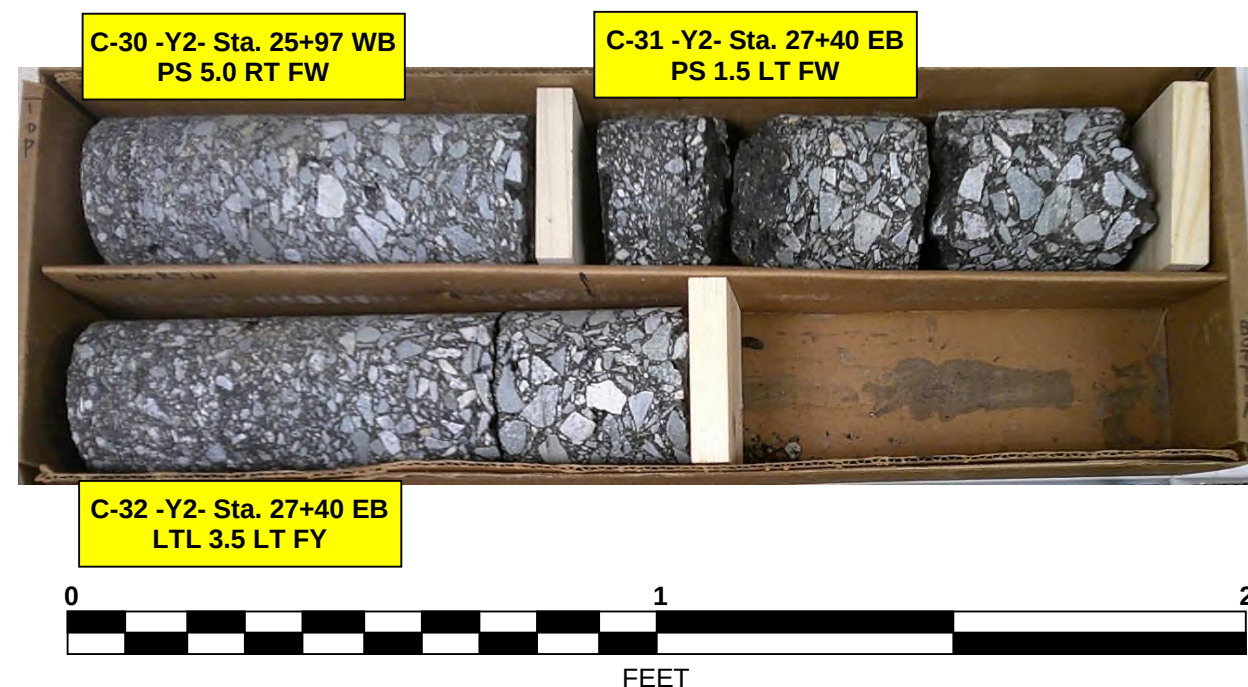
I-5715: I-77 and the NC 73 Interchange. Upgrade Existing Interchange to Split Diamond Configuration

Pavement Core Photographs



I-5715: I-77 and the NC 73 Interchange. Upgrade Existing Interchange to Split Diamond Configuration

Pavement Core Photographs



I-5715: I-77 and the NC 73 Interchange. Upgrade Existing Interchange to Split Diamond Configuration

Pavement Core Photographs



ALIGNMENT	STATION	ABC (in)	LAYER THICKNESS (in)	LAYER	LIFT(S)	REMARKS
-L-	C-1 -L- Sta. 844+87 NB OSL 1.8 LT FW	12.00	8.00	S	5	Low Severity Oxidation, Low to Moderate Severity Stripping, with some small voids and FEA
	15" Asphalt		6.25+	I	2-3	Delamination between S/I, Low Severity Oxidation and Stripping, with some small voids and FEA. Bottom 0.75 inches of core not recovered
-L-	C-2 -L- Sta. 844+87 NB OSS 7.4 RT FW	14.50	2.25	S	2	Low Severity Oxidation and Stripping, with few v. small voids
	7" Asphalt		4.75	I	2	Low to Moderate Severity Oxidation and Stripping, bleeding, with some small voids and FEA
-L-	C-3 -L- Sta. 864+89 NB OSS 7.2 RT FW	15.00	2.50	S	2	Low Severity Oxidation
	8.5" Asphalt		4.00	I	2	Mechanical Separation in lift 2, Low to Moderate Severity Oxidation and Stripping with some small voids
			2.00	S	1	Low Severity Oxidation and stripping, with few small voids
-L-	C-4 -L- Sta. 885+57 NB OSS 3.1 RT FW	15.00	2.50	S	2	Low Severity Oxidation
	9" Asphalt		6.50	I	3	Mechanical Separation in lift 2, Low Severity Oxidation and Stripping with few small voids
-L-	C-5 -L- Sta. 905+27 NB OSL 3.2 LT FW	10.50	1.75	S	1	Low Severity Oxidation
	14" Asphalt		8.00	I	4	Low Severity Oxidation, Mechanical Separation in lift 4
			4.25	B	1	Low Severity Oxidation and Stripping, with some small voids
-L-	C-6 -L- Sta. 905+27 NB OSS 6.0 RT FW	8.00	7.50	S	6	Delamination between lifts 4 and 5, Low Severity Oxidation and Stripping, with some small voids
	7.5" Asphalt					
-L-	C-7 -L- Sta. 925+06 NB OSS 2.5 RT FW	12.50	1.75	S	2	Low Severity Oxidation, Delamination starting between S/I
	10.5" Asphalt		6.75	I	2	Delamination between lifts 1 and 2, Low to Moderate Severity Oxidation and Stripping, with some small voids
			2.00	S	2	Low to Moderate Severity Oxidation, Low Severity Stripping, bleeding, with few small voids
-Y2RPD-	C-8 -Y2RPD- Sta. 47+95 RPD ISS 2.0 LT FY	14.25	5.25	S	4	Low Severity Oxidation, Low to Moderate Severity Stripping, with numerous small to medium voids and FEA
	5.25" Asphalt					
-Y2RPD-	C-9 -Y2RPD- Sta. 47+95 RPD DECEL LN 1.5 LT FW	8.50	4.50	S	3	Delamination between lifts 1 and 2, missing portion in lift 1, Low to Moderate Severity Oxidation and Stripping, with few small voids, and FEA
	9.5" Asphalt		5.00	I	2	Mechanical Seperation in lift 1, top down break in lift 2, Moderate Severity Oxidation, Low Severity Stripping, with few small voids
-Y2RPD-	C-10 -Y2RPD- Sta. 47+95 RPD OSS 3.0 RT FW	12.00	5.00	S	4	Delamination between lifts 2 and 3, Low Severity Oxidation and stripping, with few small voids
	5" Asphalt					
-Y2RPD-	C-11 -Y2RPD- Sta. 54+19 RPD LTL 5.1 RT FY	13.50	3.75	S	3	Low Severity Oxidation and Stripping
	10" Asphalt		6.25	I	3	Delamination between lifts 1 and 2, Low Severity Oxidation and Stripping, with few small voids and FEA
-Y2RPD-	C-12 -Y2RPD- Sta. 54+19 RPD RTL 5.5 LT FW	-	4.25	S	3	Low Severity Oxidation and Stripping
	26.5" Asphalt		22.25	I	7	Delamination between lifts 2 and 3, mechanical break in lift 5, Low Severity Oxidation and Stripping, with few small to medium voids and FEA
-L-	C-13 -L- Sta. 943+79 NB OSS 6.0 RT FW	14.00	2.00	S	2	Low Severity Oxidation
	9.5" Asphalt		6.00	I	3	Delamination between lifts 1 and 2, Low Severity Oxidation and Stripping, with some small voids and FEA
			1.50	S	1	Low Severity Oxidation

ALIGNMENT	STATION	ABC (in)	LAYER THICKNESS (in)	LAYER	LIFT(S)	REMARKS
-L-	C-14 -L- Sta. 951+38 NB OSL 2.8 LT FW	11.75	3.25	S	3	Low Severity Oxidation and Stripping, with some small voids
	16.25" Asphalt		7.25	I	3	Low Severity Oxidation and Stripping, with some small voids
			5.75	B	1	Mechanical Separation in lift, Low Severity Oxidation
-L-	C-15 -L- Sta. 951+38 NB OSS 6.9 RT FW	13.50	2.00	S	2	Low Severity Oxidation and Stripping with few small voids
	9.25" Asphalt		7.25	I	4	Delamination between lifts 1 and 2, Low to Moderate Severity Oxidation, Low Severity Stripping, with numerous small voids
-L-	C-16 -L- Sta. 967+58 RAMP A ACCEL 4.9 LT FW	17.00	4.50	S	4	Low Severity Oxidation and Stripping, with few small voids and FEA
	16.5" Asphalt		6.00	I	3	Low Severity Oxidation and Stripping, with few small voids and FEA, Delamination between I/B
			6.00	B	2	Low Severity Oxidation and Stripping, with some medium to large voids
-L-	C-17 -L- Sta. 967+58 NB OSS 2.7 RT FW	7.50/ 12.00	4.50	S	4	Low Severity Oxidation and Stripping, with few small voids
	16.5" Asphalt		6.00	I	3	Low Severity Oxidation and Stripping, with some small voids
			6.00	B	1	Mechanical Separation in lift, Low to Moderate Severity Oxidation and Stripping, with some medium to large voids
-L-	C-18 -L- Sta. 973+79 NB OSS 7.0 RT FW	14.00	3.50	S	2	Low Severity Oxidation and Stripping, with few small voids
	16" Asphalt		4.00	I	2	Low Severity Oxidation and Stripping, with few small voids
			8.50	B	2	Low to Moderate Severity Oxidation and Stripping, with numerous small to medium voids, Mechanical Separation in lift 1
-L-	C-19 -L- Sta. 969+85 SB OSS 6.0 RT FW	7.00	1.75	S	1	Low Severity Oxidation and Stripping, bleeding, with numerous small voids
	10" Asphalt		8.25	I	3	Delamination between lifts 1 and 2, Low Severity Oxidation and Stripping, with few medium voids
-L-	C-20 -L- Sta. 969+85 SB OSL 2.6 LT FW	11.50	4.00	S	3	Low Severity Oxidation and Stripping
	18" Asphalt		9.50	I	4	Delamination between lifts 3 and 4, Low Severity Oxidation and Stripping, with few small voids
			4.50	B	1	Mechanical break through lift, Low Severity Oxidation, Low to Moderate Severity Stripping, with numerous small voids
-L-	C-21 -L- Sta. 962+04 RAMP B DECEL 4.0 LT FW	12.00	1.75	S	1	Low Severity Oxidation and Stripping, FEA
	16" Asphalt		6.25	I	4	Delamination between lifts 2 and 3, Low Severity Oxidation and Stripping, FEA
			8.00	B	2	Delamination between lifts 1 and 2, Low Severity Oxidation, Moderate Severity Stripping, with few medium voids
-L-	C-22 -L- Sta. 962+04 SB OSS 7.0 RT FW	18.00	2.00	S	2	Low Severity Oxidation and Stripping, with few small voids, FEA
	12" Asphalt		10.00	I	6	Delamination between lifts 2 and 3, Low Severity Oxidation and Stripping, few medium voids
-L-	C-23 -L- Sta. 955+32 SB OSS 6.6 RT FW	16.75	1.50	S	1	Low Severity Oxidation and Stripping
	9.25" Asphalt		7.75	I	4	Low Severity Oxidation and Stripping, numerous small to medium voids between lifts
-L-	C-24 -L- Sta. 950+25 SB OSS 6.5 RT FW	14.50	1.50	S	1	Low Severity Oxidation and Stripping, with some small voids
	9.0" Asphalt		7.50	I	4	Low Severity Oxidation and Stripping, with few medium voids between lifts, FEA

ALIGNMENT	STATION	ABC (in)	LAYER THICKNESS (in)	LAYER	LIFT(S)	REMARKS
-Y2-	C-25 -Y2- Sta. 21+87 WB ISL 5.0 RT FY	6.50	2.00	S	2	Low Severity Oxidation and Stripping, with few very small voids
	15.5" Asphalt		6.50	I	4	Delamination between lifts 3 and 4, Low Severity Oxidation and Stripping, with few medium voids, FEA
			7.00	B	2	Mechanical break in lift 1, Low Severity Oxidation and Stripping, with few medium voids
-Y2-	C-26 -Y2- Sta. 21+87 WB OSL 6.5 LT EOP	-	5.00	S	5	Low Severity Oxidation and Stripping, with few small voids
	10.5" Asphalt		5.50	I	3	Low Severity Oxidation and Stripping, with some small voids
-Y2-	C-27 -Y2- Sta. 23+03 EB RTL 7.5 RT FW	-	4.00	S	4	Low Severity Oxidation and Stripping, with few v. small voids and FEA
	10.25" Asphalt		6.25	I	3	Low Severity Oxidation and Stripping, with few small voids
-Y2-	C-28 -Y2- Sta. 23+03 EB OSL 5.8 LT FW	-	1.50	S	2	Low Severity Oxidation
	18" Asphalt		12.00	I	7	Delamination between lifts 4 and 5
			4.50	B	1	Delamination between I/B, Low Severity Oxidation and Stripping, with some small to medium voids
-Y2-	C-29 -Y2- Sta. 23+03 EB ISL 5.5 RT FY	6.25	2.50	S	2	Low Severity Oxidation and Stripping, with few small voids
	17.75" Asphalt		11.25	I	4	Delamination between lifts 2 and 3, Low Severity Oxidation and Stripping, with few small voids, FEA
			4.00	B	1	Delamination between I/B, Low Severity Oxidation and Stripping, with few v. small voids
-Y2-	C-30 -Y2- Sta. 25+97 WB PS 5.0 RT FW	7.75	2.75	S	3	Low Severity Oxidation, Low to Moderate Severity Stripping, with numerous v. small to small voids
	9.25" Asphalt		6.50	I	3	Low Severity Oxidation and Stripping, with some small voids
-Y2-	C-31 -Y2- Sta. 27+40 EB PS 1.5 LT FW	6.50	3.00	S	3	Moderate Severity Oxidation and Stripping, mechanical break between S/I, with few small to large voids
	11.5" Asphalt		8.50	I	2	Delamination between 1 and 2, Low Severity Oxidation, Low to Moderate Severity Stripping, with few small to medium voids
-Y2-	C-32 -Y2- Sta. 27+40 EB LTL 3.5 LT FY	6.50	5.25	S	4	Low Severity Oxidation and Stripping, with few small voids
	12.5" Asphalt		7.25	I	2	Delamination between lifts 1 and 2, Low Severity Oxidation, Low to Moderate Severity Stripping, with few small to medium voids
-Y2-	C-33 -Y2- Sta. 36+23 WB ISL 5.0 RT EOP	6.25	4.50	S	4	Low Severity Oxidation and Stripping
			8.25	I	3	Delamination between lifts 2 and 3, Low Severity Oxidation and Stripping, with few small to medium voids, FEA
			7.00	B	2	Low Severity Oxidation and Stripping, with few small to medium voids
-Y2-	C-34 -Y2- Sta. 36+23 WB MID LN 17.9 RT EOP	7.25	4.50	S	4	1.5" Crack from top to bottom in lift 1, Low Severity Oxidation and Stripping
			9.75	I	4	Low Severity Oxidation and Stripping, FEA
			5.00	B	1	Delamination between I/B, Low Severity Oxidation and Stripping
-Y2-	C-35 -Y2- Sta. 36+23 WB OSL 6.2 LT FW	-	3.50	S	3	Low Severity Oxidation and Stripping, with some small voids
			12.50	I	5	Low Severity Oxidation and Stripping, with few small voids, Mechanical Separation in lift 3
			6.00	B	2	Low Severity Oxidation and Moderate Severity Stripping, with some small to medium voids
-Y2-	C-36 -Y2- Sta. 38+51 EB RTL 5.0 LT EOP	13.00	3.00	S	2	1.25" Top down crack in lift 1, Low Severity Oxidation and Stripping, with few small voids
	13.5" Asphalt		10.50	I	4	Low Severity Oxidation and Stripping, with few small voids
-Y2-	C-37 -Y2- Sta. 38+51 EB OSL 6.1 LT FW	-	3.25	S	3	Low Severity Oxidation and Stripping
	12.75" Asphalt		9.50	I	4	Low Severity Oxidation and Stripping, with few small voids

ALIGNMENT	STATION	ABC (in)	LAYER THICKNESS (in)	LAYER	LIFT(S)	REMARKS
-Y2-	C-38 -Y2- Sta. 38+62 EB ISL 18.9 RT EOP	7.00		S	3	Low Severity Oxidation and Stripping, with few v. small voids
	16" Asphalt		3.00	I	1	Low Severity Oxidation and Stripping, with few small voids
			2.00	S	2	Low Severity Oxidation and Stripping, with few small voids, FEA
			7.75	I	2	Delamination between lifts 1 and 2, Low Severity Oxidation and Stripping, with few small voids, FEA
-Y2-	C-39 -Y2- Sta. 38+62 EB LTL 4.5 RT EOP	7.50	4.25	S	4	Low Severity Oxidation and Stripping, with few small voids, FEA
	16.5" Asphalt		12.25	I	4	Low Severity Oxidation, Low to Moderate Severity Stripping, with numerous small to medium voids, FEA
-Y2-	C-40 -Y2- Sta. 36+23 WB RTL 7.0 RT FW	-	2.75	S	2	Low Severity Oxidation
	13.00" Asphalt		10.25	I	4	Low Severity Oxidation and Stripping, with some small to medium voids

F&ME CONSULTANTS, INC.
211 BUSINESS PARK BOULEVARD, COLUMBIA SC 29203
(CERT No.: 130-0212)

I-77 from South of SR 2140 (Stumptown Rd) to
North of NC 73 (Sam Furr Rd) & SR 2145/NC 73
(Sam Furr Rd) between Northcross Dr & US 21
(Statesville Rd)

Project

Date Received

2/5/2024

T.I.P. No.

Date Reported

I-5715

2/29/2024

County

Tested By

Mecklenberg

F&ME

F&ME Job No.

CERT No.:

C8806.001 - Task 00017

130-0212

SOIL TEST RESULTS																	
SAMPLE NO.	ALIGNMENT	STATION	LANE	OFFSET (ft.)	DEPTH INTERVAL (ft.)	AASHTO CLASS	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			%	%
									C. SAND	F. SAND	SILT	CLAY	10	40	200	MOISTURE	ORGANIC
S-1	-L-	844+87	NB OSS	7.4 RT FW	1.8 - 5.0	A-7-5(4)	45	11	21.0%	21.3%	31.1%	26.6%	82.5%	73.9%	50.6%	10.6%	ND
S-3	-L-	864+89	NB OSS	7.2 RT FW	1.9 - 5.0	A-7-5(7)	49	12	21.6%	18.4%	25.6%	34.4%	96.2%	85.4%	60.3%	15.1%	ND
S-4	-L-	885+57	NB OSS	3.1 RT FW	2.0 - 5.0	A-7-5(11)	53	15	19.4%	14.3%	21.9%	44.4%	96.5%	85.2%	66.1%	13.4%	ND
S-6	-L-	905+27	NB OSS	6.0 RT FW	1.3 - 5.0	A-7-5(15)	64	24	26.2%	11.9%	25.6%	36.3%	94.5%	75.3%	60.9%	24.4%	ND
S-8	-L-	925+06	NB OSS	5.2 RT FW	1.9 - 5.0	A-7-6(11)	51	22	26.1%	13.5%	11.9%	48.5%	93.2%	75.9%	58.1%	34.5%	ND
S-26	-Y2RPD-	47+95	RPD ISS	2.0 LT FY	1.6 - 5.0	A-7-5(16)	62	24	23.4%	14.4%	31.9%	30.3%	97.7%	82.0%	63.8%	29.5%	ND
S-28	-Y2RPD-	47+95	RPD Decel LN	1.5 RT FW	1.5 - 5.0	A-7-5(20)	62	24	16.7%	12.2%	34.6%	36.5%	99.3%	87.1%	73.9%	33.5%	ND
S-27	-Y2RPD-	54+19	RPD LTL	5.1 RT FY	1.9 - 5.0	A-7-5(29)	71	35	17.2%	8.7%	23.4%	50.7%	99.1%	87.4%	75.0%	22.3%	ND
S-9	-L-	943+79	NB OSS	6.0 RT FW	2.0 - 5.0	A-7-5(14)	52	20	20.5%	13.2%	25.8%	40.5%	98.6%	85.9%	67.4%	19.0%	ND
S-13	-L-	951+38	NB OSL	2.8 LT FW	2.3 - 5.0	A-7-6(10)	46	17	24.8%	14.3%	20.4%	40.5%	99.0%	82.9%	62.5%	20.6%	ND
S-15	-L-	967+58	RAMP A ACCEL	4.9 LT FW	2.8 - 5.0	A-7-5(8)	46	15	23.5%	17.9%	26.1%	32.5%	98.0%	83.0%	61.0%	19.9%	ND
S-16	-L-	973+79	NB OSS	7.0 RT FW	2.5 - 5.0	A-5(3)	49	7	31.7%	16.3%	27.7%	24.3%	98.1%	77.1%	53.3%	15.6%	ND
S-21	-L-	969+85	SB OSL	2.6 LT FW	2.5 - 5.0	A-7-5(16)	72	17	21.1%	11.9%	20.4%	46.6%	99.9%	88.0%	68.8%	32.9%	ND
S-22	-L-	962+04	RAMP B DECEL	4.0 LT FW	2.3 - 5.0	A-6(1)	31	11	31.7%	24.5%	21.6%	22.2%	82.4%	65.4%	39.4%	8.3%	ND
S-24	-L-	955+32	SB OSS	6.6 RT FW	2.2 - 5.0	A-6(2)	36	11	27.9%	22.1%	23.7%	26.3%	87.7%	71.7%	45.8%	13.8%	ND
S-25	-L-	950+25	SB OSS	6.5 RT FW	2.0 - 5.0	A-7-5(6)	43	13	25.2%	16.3%	24.2%	34.3%	91.4%	75.7%	56.1%	20.8%	ND
S-35	-Y2-	21+87	WB ISL	5.0 RT FT	1.8 - 5.0	A-7-5(16)	60	23	21.4%	10.8%	25.1%	42.7%	95.7%	81.6%	66.7%	23.1%	ND
S-19	-Y2-	23+03	EB OSL	5.8 LT FW	1.5 - 5.0	A-4(0)	23	4	32.2%	27.9%	21.7%	18.2%	81.1%	63.6%	36.1%	6.9%	ND
S-18	-Y2-	25+97	WB PS	5.0 RT FW	1.5 - 5.0	A-7-6(10)	48	22	26.0%	16.9%	18.5%	38.6%	92.8%	76.5%	55.9%	14.3%	ND
S-38	-Y2-	27+40	EB PS	1.5 LT FW	1.5 - 5.0	A-7-6(17)	51	27	22.9%	10.7%	11.6%	54.8%	98.7%	84.3%	67.0%	17.3%	ND
S-37	-Y2-	27+40	EB LTL	3.5 LT FY	1.6 - 5.0	A-7-5(5)	49	11	29.1%	17.1%	27.5%	26.3%	96.7%	77.6%	55.2%	17.4%	ND
S-34	-Y2-	36+23	WB ISL	5.0 RT EOP	2.2 - 5.0	A-6(5)	39	17	27.2%	20.6%	19.8%	32.4%	90.9%	75.1%	50.5%	20.7%	ND
S-10	-Y2-	36+23	WB RTL	7.0 RT FW	1.1 - 5.0	A-7-5(18)	60	22	15.0%	13.0%	21.4%	50.6%	99.0%	90.9%	73.1%	27.5%	ND
S-40	-Y2-	38+51	EB LTL	4.5 RT EOP	1.9 - 5.0	A-6(1)	33	13	30.6%	21.4%	19.8%	28.2%	75.3%	58.7%	38.9%	14.7%	ND
S-31	-Y2-	38+51	EB OSL	6.1 LT FW	1.0 - 5.0	A-7-6(25)	56	37	22.2%	8.6%	18.6%	50.6%	99.6%	83.8%	70.5%	21.2%	ND



130-04-0212

NCDOT Cert. No.

02/29/24

Date

Authorized Signature

Prepared in the Office of:
F&ME CONSULTANTS, INC.
COLUMBIA, SOUTH CAROLINA
NCDOT LAB CERT. NO. 130-04-0212



2400 Crownpoint Executive Drive
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Charlotte, NC 28227



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June 20, 2024

MEMORANDUM TO: Matthew J. Alexander, PE
State Geotechnical Engineer

FROM: Carolinas Geotechnical Group, PLLC.

STATE PROJECT: 50128.1.FS1 (I-5715)

COUNTY: Mecklenburg

DESCRIPTION: I-77 from South of SR 2140 (Stumptown Rd) to North of NC 73 (Sam Furr Rd) & SR 2145/NC 73 (Sam Furr Rd) between Northcross Dr & US 21 (Statesville Rd)

SUBJECT: Pavement and Subgrade Investigation Report

Carolinas Geotechnical Group, PLLC (CG2) has completed subgrade investigation and the evaluation for the project located in Huntersville, Mecklenburg County, North Carolina, and presents the following.

The existing roadway along I-77 consists of two travel lanes, two additional toll lanes, and paved shoulders in each direction. NC 73 consists of a bi-directional four-lane roadway with intermittent center turn lane and left/right turn lanes at select intersections. The proposed construction consists of the widening and improvements along I-77 at NC 73 (Sam Furr Rd.) related to converting the interchange to a diverging diamond interchange (DDI). Conversion of the interchange at NC 73 to a DDI will include a new bridge, on/off ramps along I-77, retaining walls, and associated roadways. Additionally, a new bridge with associated on/off ramps and roadways will be constructed over I-77 from Northcross Drive to US 21 (Statesville Rd.). The total length of the project is approximately 2.54 miles.

The subgrade beneath the existing roadway generally consists of residual and roadway embankment soils. The predominant soils encountered were classified as sandy silts (A-4), clayey silts (A-5), sandy clays (A-6), and silty clays (A-7-5/6).

Anticipated borrow soils will likely consist of residual and/or roadway embankment soils similar to those encountered during the investigation. The design soil type is silty clay (A-7).

Pavement and Subgrade Investigation Report

I-77 from South of SR 2140 (Stumptown Rd) to North of NC 73 (Sam Furr Rd) & SR 2145/NC 73 (Sam Furr Rd) between Northcross Dr & US 21 (Statesville Rd)

Mecklenburg County, North Carolina

Observed pavement surface distresses were generally characterized as low to moderate severity longitudinal and transverse cracking at the inside and outside wheel paths. Moderate to High severity transverse, longitudinal, and fatigue cracking was observed along -Y2RPD- at Station 47+95. Overall, the pavement surface along the project corridor is in fair to good condition.

Areas of Special Geotechnical Interest

A. Highly Plastic Soils:

Locations of clays with a PI of 26 or greater.

ALIGNMENT	STATION AND OFFSET	PI
-Y2RPD-	54+19 RPD LTL	35
-Y2RPD-	54+19 RPD RTL	-
-Y2-	27+40 EB PS	27
-Y2-	38+51 EB OSL	37
-Y2-	38+51 EB RTL	-

B. Trapped Water within the Pavement:

Trapped water was not observed within the pavement core borings performed during this investigation.

C. Soils with a High Moisture Content

ALIGNMENT	STATION AND LANE	Moisture Content (%)
-L-	925+06 NB OSS	34.5
-Y2RPD-	47+95 RPD Decel LN	33.5
-L-	969+85 SB OSS	W
-L-	969+85 SB OSL	32.9
-Y2-	38+51 EB OSL	21.2

(M) = Moist, (W) = Wet, (Sat). = Saturated

Pavement and Subgrade Investigation Report

I-77 from South of SR 2140 (Stumptown Rd) to North of NC 73 (Sam Furr Rd) & SR 2145/NC 73 (Sam Furr Rd) between Northcross Dr & US 21 (Statesville Rd)

Mecklenburg County, North Carolina

D. Ground Water

Ground water was encountered within the pavement core borings at the following locations.

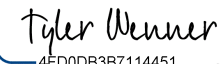
ALIGNMENT	STATION AND OFFSET	DESCRIPTION
-L-	969+85 SB OSS	Water at 2.0 feet below ground surface. Struck drainpipe.
-L-	955+32 SB OSS	Water observed weeping from bottom of ABC.

No bulk samples were collected as part of this project.

We have enjoyed assisting you and look forward to working with you again on future projects. If you have any questions concerning this report, please contact us.

Sincerely,

Carolin's Geotechnical Group, PLLC

DocuSigned by:

 4FD0DB3B7114451...
 C. Tyler Wenner, P.G.
 Project Geologist

D. Matthew Brewer, P.E.
 Senior Project Engineer



Attachments:
 Pavement and Subgrade Inventory Report

DocuSigned by:

 386129C0A4C1462...

06/24/2024