REFERENCE: R-5921

PROJECT: 48470

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5921	1	119

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

ROADWAY SUBSURFACE INVESTIGATION

COUNTY *HAYWOOD*

PROJECT DESCRIPTION *US 276 (JOHNATHAN CREEK RD) FROM US 19 TO 0.5 MILES SOUTH OF I-40*

PAVEMENT AND SUBGRADE INVESTIGATION

CONTENTS

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.

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2. BY HAVING REQUESTED THIS INFORMATION, THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

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DATE *OCTOBER 2023*

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SIGNATURE DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-5921	2

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-3	A-4, A-5 A-6, A-7	
	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7				A-7-5, A-7-6			
SYMBOL														
% PASSING #10 #40 #200	50 MX 30 MX 15 MX	50 MX 25 MX	51 MN 10 MX	35 MX	35 MX	35 MX	35 MX	36 MN	36 MN	36 MN	36 MN	GRANULAR SOILS	SILT-CLAY SOILS	MUCK, PEAT
MATERIAL PASSING #40 LL PI	— 6 MX		— NP	40 MX 10 MX	41 MN 10 MX	40 MX 11 MN	41 MN 11 MN	40 MX 10 MX	41 MN 10 MX	40 MX 11 MN	41 MN 11 MN	SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER		HIGHLY ORGANIC SOILS
GROUP INDEX	0		0	0		4 MX		8 MX	12 MX	16 MX	NO MX			
USUAL TYPES OF MAJOR MATERIALS	STONE FRAGS. GRAVEL, AND SAND		FINE SAND	SILTY OR CLAYEY GRAVEL AND SAND				SILTY SOILS		CLAYEY SOILS				
GEN. RATING AS SUBGRADE	EXCELLENT TO GOOD							FAIR TO POOR				FAIR TO POOR	POOR	UNSUITABLE

PI OF A-7-5 SUBGROUP IS ≤ LL - 30 ; PI OF A-7-6 SUBGROUP IS > LL - 30

CONSISTENCY OR DENSENESS

PRIMARY SOIL TYPE	COMPACTNESS OR CONSISTENCY	RANGE OF STANDARD PENETRATION RESISTENCE (N-VALUE)	RANGE OF UNCONFINED COMPRESSIVE STRENGTH ($TONS/FT^2$)
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	4	10	40	60	200	270
OPENING (MM)	4.76	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.)

GRAIN SIZE	MM	305	75	2.0	0.25	0.05	0.005
	IN.	12	3				

SOIL MOISTURE - CORRELATION OF TERMS

SOIL MOISTURE SCALE (ATTERBERG LIMITS)	FIELD MOISTURE DESCRIPTION	GUIDE FOR FIELD MOISTURE DESCRIPTION
	- SATURATED - (SAT.)	USUALLY LIQUID; VERY WET, USUALLY FROM BELOW THE GROUND WATER TABLE
LL — LIQUID LIMIT		
PLASTIC RANGE (PI)	- WET - (W)	SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE
PL — PLASTIC LIMIT		
OM — OPTIMUM MOISTURE SL — SHRINKAGE LIMIT	- MOIST - (M)	SOLID; AT OR NEAR OPTIMUM MOISTURE
	- 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	1 - 10%
LITTLE ORGANIC MATTER	3 - 5%	5 - 12%	LITTLE	10 - 20%
MODERATELY ORGANIC	5 - 10%	12 - 20%	SOME	20 - 35%
HIGHLY ORGANIC	> 10%	> 20%	HIGHLY	35% AND ABOVE

GROUND WATER

- WATER LEVEL IN BORE HOLE IMMEDIATELY AFTER DRILLING
- STATIC WATER LEVEL AFTER 24 HOURS
- PW — 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
- 25/025 — DIP & DIP DIRECTION OF ROCK STRUCTURES
- SPT, DPT, DMT, VST, PMT — TEST BORING
- AUGER BORING
- CORE BORING
- MW — 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
HI. - 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
γ_d - DRY UNIT WEIGHT

SAMPLE ABBREVIATIONS

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 HOIST
- [X] MOBILE B29
- [ ] _____

ADVANCING TOOLS:
- [ ] CLAY BITS
- [ ] 6" CONTINUOUS FLIGHT AUGER
- [X] 4" SOLID STEM AUGERS
- [ ] HARD FACED FINGER BITS
- [ ] TUNG.-CARBIDE INSERTS
- [ ] CASING [ ] W/ ADVANCER
- [ ] TRICONE _____" STEEL TEETH
- [ ] TRICONE _____" TUNG.-CARB.
- [X] 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
- [X] 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 (WR)	NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT N VALUES > 100 BLOWS PER FOOT IF TESTED.
CRYSTALLINE ROCK (CR)	FINE TO COARSE GRAIN IGNEOUS AND METAMORPHIC ROCK THAT WOULD YIELD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES GRANITE, GNEISS, GABBRO, SCHIST, ETC.
NON-CRYSTALLINE ROCK (NCR)	FINE TO COARSE GRAIN METAMORPHIC AND NON-COASTAL PLAIN SEDIMENTARY ROCK THAT WOULD YEILD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES PHYLLITE, SLATE, SANDSTONE, ETC.
COASTAL PLAIN SEDIMENTARY ROCK (CP)	COASTAL PLAIN SEDIMENTS CEMENTED INTO ROCK, BUT MAY NOT YIELD SPT REFUSAL. ROCK TYPE INCLUDES LIMESTONE, SANDSTONE, CEMENTED SHELL BEDS, ETC.

WEATHERING

FRESH	ROCK FRESH, CRYSTALS BRIGHT, FEW JOINTS MAY SHOW SLIGHT STAINING. ROCK RINGS UNDER HAMMER IF CRYSTALLINE.
VERY SLIGHT (V SLI.)	ROCK GENERALLY FRESH, JOINTS STAINED, SOME JOINTS MAY SHOW THIN CLAY COATINGS IF OPEN, CRYSTALS ON A BROKEN SPECIMEN FACE SHINE BRIGHTLY. ROCK RINGS UNDER HAMMER BLOWS IF OF A CRYSTALLINE NATURE.
SLIGHT (SLI.)	ROCK GENERALLY FRESH, JOINTS STAINED AND DISCOLORATION EXTENDS INTO ROCK UP TO 1 INCH. OPEN JOINTS MAY CONTAIN CLAY. IN GRANITOID ROCKS SOME OCCASIONAL FELDSPAR CRYSTALS ARE DULL AND DISCOLORED. CRYSTALLINE ROCKS RING UNDER HAMMER BLOWS.
MODERATE (MOD.)	SIGNIFICANT PORTIONS OF ROCK SHOW DISCOLORATION AND WEATHERING EFFECTS. IN GRANITOID ROCKS, MOST FELDSPARS ARE DULL AND DISCOLORED, SOME SHOW CLAY. ROCK HAS DULL SOUND UNDER HAMMER BLOWS AND SHOWS SIGNIFICANT LOSS OF STRENGTH AS COMPARED WITH FRESH ROCK.
MODERATELY SEVERE (MOD. SEV.)	ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. IN GRANITOID ROCKS, ALL FELDSPARS DULL AND DISCOLORED AND A MAJORITY SHOW KAOLINIZATION. ROCK SHOWS SEVERE LOSS OF STRENGTH AND CAN BE EXCAVATED WITH A GEOLOGIST'S PICK. ROCK GIVES "CLUNK" SOUND WHEN STRUCK. *IF TESTED, WOULD YIELD SPT REFUSAL*
SEVERE (SEV.)	ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC CLEAR AND EVIDENT BUT REDUCED IN STRENGTH TO STRONG SOIL. IN GRANITOID ROCKS ALL FELDSPARS ARE KAOLINIZED TO SOME EXTENT. SOME FRAGMENTS OF STRONG ROCK USUALLY REMAIN. *IF TESTED, WOULD YIELD SPT N VALUES > 100 BPF*
VERY SEVERE (V SEV.)	ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC ELEMENTS ARE DISCERNIBLE BUT MASS IS EFFECTIVELY REDUCED TO SOIL STATUS, WITH ONLY FRAGMENTS OF STRONG ROCK REMAINING. SAPROLITE IS AN EXAMPLE OF ROCK WEATHERED TO A DEGREE THAT ONLY MINOR VESTIGES OF ORIGINAL ROCK FABRIC REMAIN. *IF TESTED, WOULD YIELD SPT N VALUES < 100 BPF*
COMPLETE	ROCK REDUCED TO SOIL. ROCK FABRIC NOT DISCERNIBLE, OR DISCERNIBLE ONLY IN SMALL AND SCATTERED CONCENTRATIONS. QUARTZ MAY BE PRESENT AS DIKES OR STRINGERS. SAPROLITE IS ALSO AN EXAMPLE.

ROCK HARDNESS

VERY HARD	CANNOT BE SCRATCHED BY KNIFE OR SHARP PICK. BREAKING OF HAND SPECIMENS REQUIRES SEVERAL HARD BLOWS OF THE GEOLOGIST'S PICK.
HARD	CAN BE SCRATCHED BY KNIFE OR PICK ONLY WITH DIFFICULTY. HARD HAMMER BLOWS REQUIRED TO DETACH HAND SPECIMEN.
MODERATELY HARD	CAN BE SCRATCHED BY KNIFE OR PICK. GOUGES OR GROOVES TO 0.25 INCHES DEEP CAN BE EXCAVATED BY HARD BLOW OF A GEOLOGIST'S PICK. HAND SPECIMENS CAN BE DETACHED BY MODERATE BLOWS.
MEDIUM HARD	CAN BE GROOVED OR GOUGED 0.05 INCHES DEEP BY FIRM PRESSURE OF KNIFE OR PICK POINT. CAN BE EXCAVATED IN SMALL CHIPS TO PEICES 1 INCH MAXIMUM SIZE BY HARD BLOWS OF THE POINT OF A GEOLOGIST'S PICK.
SOFT	CAN BE GROVED OR GOUGED READILY BY KNIFE OR PICK. CAN BE EXCAVATED IN FRAGMENTS FROM CHIPS TO SEVERAL INCHES IN SIZE BY MODERATE BLOWS OF A PICK POINT. SMALL, THIN PIECES CAN BE BROKEN BY FINGER PRESSURE.
VERY SOFT	CAN BE CARVED WITH KNIFE. CAN BE EXCAVATED READILY WITH POINT OF PICK. PIECES 1 INCH OR MORE IN THICKNESS CAN BE BROKEN BY FINGER PRESSURE. CAN BE SCRATCHED READILY BY FINGERNAIL.

FRACTURE SPACING

TERM	SPACING
VERY WIDE	MORE THAN 10 FEET
WIDE	3 TO 10 FEET
MODERATELY CLOSE	1 TO 3 FEET
CLOSE	0.16 TO 1 FOOT
VERY CLOSE	LESS THAN 0.16 FEET

BEDDING

TERM	THICKNESS
VERY THICKLY BEDDED	4 FEET
THICKLY BEDDED	1.5 - 4 FEET
THINLY BEDDED	0.16 - 1.5 FEET
VERY THINLY BEDDED	0.03 - 0.16 FEET
THICKLY LAMINATED	0.008 - 0.03 FEET
THINLY LAMINATED	< 0.008 FEET

INDURATION

FOR SEDIMENTARY ROCKS, INDURATION IS THE HARDENING OF MATERIAL BY CEMENTING, HEAT, PRESSURE, ETC.

FRIABLE	RUBBING WITH FINGER FREES NUMEROUS GRAINS; GENTLE BLOW BY HAMMER DISINTEGRATES SAMPLE.
MODERATELY INDURATED	GRAINS CAN BE SEPARATED FROM SAMPLE WITH STEEL PROBE; BREAKS EASILY WHEN HIT WITH HAMMER.
INDURATED	GRAINS ARE DIFFICULT TO SEPARATE WITH STEEL PROBE; DIFFICULT TO BREAK WITH HAMMER.
EXTREMELY INDURATED	SHARP HAMMER BLOWS REQUIRED TO BREAK SAMPLE; SAMPLE BREAKS ACROSS GRAINS.

TERMS AND DEFINITIONS

ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER.

AQUIFER - A WATER BEARING FORMATION OR STRATA.

ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND.

ARGILLACEOUS - APPLIED TO ALL ROCKS OR SUBSTANCES COMPOSED OF CLAY MINERALS, OR HAVING A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, SUCH AS SHALE, SLATE, ETC.

ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND SURFACE.

CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE.

COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE.

CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.

DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CUTS MASSIVE ROCK.

DIP - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL.

DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH.

FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.

FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES.

FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM PARENT MATERIAL.

FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM.

FORMATION (FM.) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD.

JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED.

LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT.

LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS.

MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS. MOTTLING IN SOILS USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE.

PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENING IMPERVIOUS STRATUM.

RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK.

ROCK QUALITY DESIGNATION (RQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.

SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK.

SILL - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS.

SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE.

STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (N OR BPF) OF A 140 LB. HAMMER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF 1 FOOT INTO SOIL WITH A 2 INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS.

STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE.

STRATA ROCK QUALITY DESIGNATION (SRQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE.

TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.

BENCH MARK: N/A

ELEVATION: FEET

NOTES:

ROADWAY DESIGN FILES DATED 8/10/22 PROVIDED BY TGS

- PAVEMENT CORE WITH DCP
- BULK SAMPLE
- DCP

DATE: 8-15-14

PROJECT REFERENCE NO.	SHEET NO.
R–5921	2A

Tip No. R-5921 | WBS No. 48470.1.1| Haywood County

ABBREVIATIONS

RT LN = Right Lane
LT LN = Left Lane
OSL = Outside Lane
ISL = Inside Lane
OSML = Outside Mid-Lane
ISML = Inside Mid-Lane
PS = Paved Shoulder
LTL = Left Turn Lane
RTL = Right Turn Lane
MID = Middle Lane
ISWP = Inside Wheel Path
OSWP = Outside Wheel Path
PS = Paved Shoulder
FW = From White Line
FY = From Yellow Line
RT = Right
LT = Left
(I) = Inside
(O) = Outside
BOC = Back of Curb
C&G = Curb and Gutter
EOP = Edge of Pavement

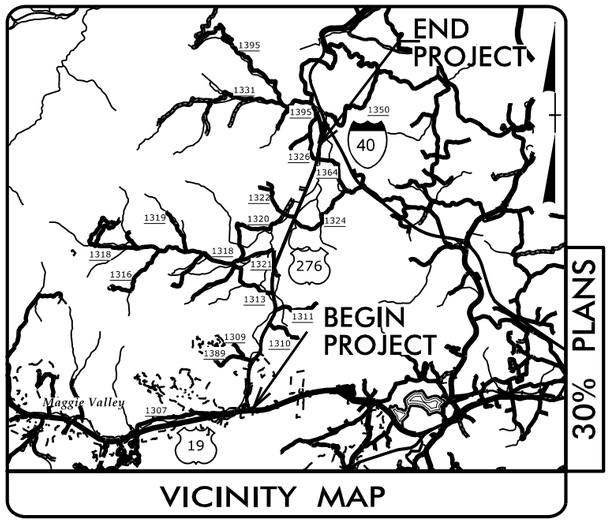
CR = Crown
S = Super
C = Cut
F = Fill
DCP = Dynamic Cone Penetrometer
M = Moist
W = Wet
N/A = Not Observed
NSR = No Sample Recovered
S- = Soil Grab Sample
Ref- = Soil Reference Sample
SS- = Split Spoon Sample
RE = Roadway Embankment
F. = Fine
Cse. = Coarse
ABC = Aggregate Base Course
STBC = Soil Type Base Course
CSS = Chemical Stabilized Soil
SG = Subgrade
AR = Auger Refusal
MP = Moderately Plastic
HP = Highly Plastic

DATE: 8-15-14

CONTRACT:

TIP PROJECT: R-5921

See Sheet 1A For Index of Sheets



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HAYWOOD COUNTY

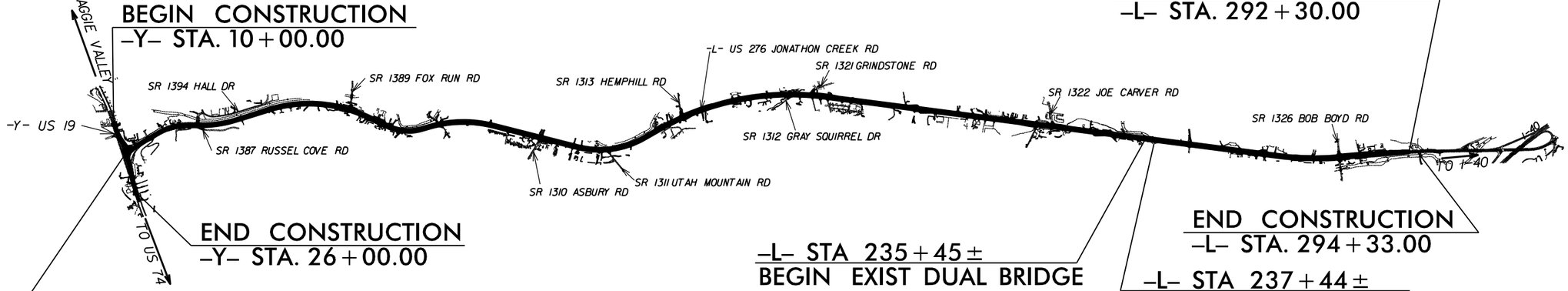
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5921	3	119

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
48470.1.1	0276019	PE

LOCATION: *US 276 (JONATHAN CREEK RD) FROM US 19 TO 0.5 MILES SOUTH OF I-40*

TYPE OF WORK: *GRADING, PAVING, AND DRAINAGE*

NAD 83/2011



CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.
A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE TOWN OF MAGGIE VALLEY

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

PLANS: 50 25 0 50 100
PROFILE (HORIZONTAL): 50 25 0 50 100
PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

ADT 2023 = 5,400 – 13,600
ADT 2045 = 7,000 – 17,500
K = 9 %
D = 55 %
T = 7 % *
V = 60 MPH
* TTST = 3% DUAL = 4%
FUNC CLASS = MINOR RURAL ARTERIAL
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-5921 = 5.347 MILES
TOTAL LENGTH TIP PROJECT R-5921 = 5.347 MILES

NCDOT CONTACT: JEANETTE WHITE, PE

PLANS PREPARED BY:
TGS ENGINEERS
201 W. MARION ST
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275

PLANS PREPARED FOR:
NORTH CAROLINA DEPARTMENT OF TRANSPORATION
DIVISION 14
252 Webster Rd
Sylva, NC 28779

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JANUARY 9, 2023

LETTING DATE: SEPTEMBER 17, 2024

JIMMY TERRY, PE
PROJECT ENGINEER

AUSTIN R. TURNER, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION

PROJECT REFERENCE NO.	SHEET NO.
R-5921	4

0 50 100
FEET

NC GRID
NAD 83 NA 2011

C-1 -L- (SB) STA. 14+51 LT ISL 12.0 FT RT FY		C-2 -L- (SB) STA. 14+51 LTL (LT) 2.0 FT RT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	7.25 in	ASPHALT	6.50 in
ABC	8.75 in	ABC	12.50 in

C-33 -L- (NB) STA. 14+53 RT OSL 1.3 FT LT FW		C-33A -L- (NB) STA. 14+53 RT OSL 2.5 FT LT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	5.00 in	ASPHALT	9.25 in
ABC	14.00 in	ABC	9.75 in

C-66 -Y- STA. 20+84 LT RAMP 10.0 FT LT EOP		C-67 -Y- STA. 20+84 LT GORE 6.0 FT RT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	6.00 in	ASPHALT	5.50 in
ABC	14.00 in	ABC	11.00 in
UTILITY PRESENT		UTILITY PRESENT	
C-68 -Y- STA. 20+84 LT OSL 6.0 FT LT FW		C-69 -Y- STA. 20+84 LT ISL 5.0 FT RT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	7.50 in	ASPHALT	5.00 in
ABC	14.50 in	ABC	15.00 in
UTILITY PRESENT		UTILITY PRESENT	

C-63 -Y- STA. 11+95 CTL 6.0 FT RT FY		C-64 -Y- STA. 11+95 RT ISL 6.0 FT RT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	4.50 in	ASPHALT	4.25 in
ABC	12.50 in	ABC	12.25 in

C-65 -Y- STA. 11+95 RT OSL 2.5 FT LT EOP	
PAVEMENT SECTION	
ASPHALT	6.00 in
ABC	11.00 in

-L- PT 14+53.77
DCP-1
15+00
C-1 LT ISL
C-2 LTL (LT)
C-33A RT OSL
C-33 RT OSL
-L- PRC 12+56.10
-Y- PRC 15+05.80
-Y- PC 11+55.35
-Y- POT 10+00.00
15+00
C-63 CTL
C-64 RT ISL
C-65 RT OSL
-Y- PCC 15+73.99
-Y- STA. 10+00.00
BEGIN CONSTRUCTION
-L- STA. 10+00.00
BEGIN TIP PROJECT R-5921
-L- PC 10+00.00 =
-Y- POC 17+01.52
-Y- PRC 17+49.86
20+00
C-66 LT RAMP
C-67 LT GORE
C-68 LT OSL
C-69 LT ISL
-Y-
-Y- PRC 18+86.10
-Y- PC 22+13.25
-Y- PT 20+86.92

PROJECT REFERENCE NO.	SHEET NO.
R-5921	5

0 50 100
FEET

NAD 83 NA 2011 NC GRID

C-4 -L- (SB) STA. 30+64 LT OSS 0.2 FT RT FW		C-70 -L- (SB) STA. 30+64 LT OSL 1.6 FT LT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	8.50 in	ASPHALT	9.00 in
ABC	10.00 in	ABC	9.50 in

C-3 -L- (SB) STA. 27+71 LTL (LT) 4.0 FT RT FY	
PAVEMENT SECTION	
ASPHALT	7.75 in
ABC	11.25 in

C-71 -L- (SB) STA. 30+64 LT ISL 3.0 FT RT FY		C-72 -L- (SB) STA. 30+64 LT ISS 0.2 FT RT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	7.00 in	ASPHALT	7.00 in
ABC	10.00 in	ABC	10.00 in

C-34 -L- (NB) STA. 26+00 LTL (RT) 5.0 FT RT FY	
PAVEMENT SECTION	
ASPHALT	7.00 in
ABC	10.00 in

C-79 -L- (NB) STA. 30+60 RT ISS 0.2 FT RT FY		C-35 -L- (NB) STA. 30+60 RT ISL 2.8 FT RT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	5.25 in	ASPHALT	5.25 in
ABC	10.50 in	ABC	16.50 in
C-80 -L- (NB) STA. 30+60 RT OSL 2.0 FT LT FW		C-81 -L- (NB) STA. 30+60 RT OSS 0.5 FT RT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	7.00 in	ASPHALT	7.00 in
ABC	11.00 in	ABC	11.00 in

20+00
DCP-2
DCP-3
-L- PC IT 18+89.68
-L- PT 24+22.33
25+00
C-34 LTL (RT)
C-3 LTL (LT)
DCP-4
C-4 LT OSS
C-70 LT OSL
C-71 LT ISL
C-72 LT ISS
30+00
DCP-5
C-79 RT ISS
C-35 RT ISL
C-80 RT OSL
C-81 RT OSS

PROJECT REFERENCE NO.	SHEET NO.
R-5921	6

0 50 100
FEET

NC GRID NAD 83 NA 2011

C-5 -L- (SB) STA. 42+24 LT ISL 0.2 FT RT FY	
PAVEMENT SECTION	
ASPHALT	8.25 in
ABC	7.75 in

C-5 LT ISL
DCP-7
DCP-6
40+00
45+00
50+00
-L-
C-36 LTL (RT)
C-37 RT OSL
DCP-8
-L- PC 42+37.75

C-36 -L- (NB) STA. 42+23 LTL (RT) 7.0 FT RT FY	
PAVEMENT SECTION	
ASPHALT	6.25 in
ABC	9.75 in

C-37 -L- (NB) STA. 42+23 RT OSL 0.3 FT LT FW	
PAVEMENT SECTION	
ASPHALT	7.25 in
ABC	9.75 in

PROJECT REFERENCE NO.	SHEET NO.
R-5921	7

0 50 100
FEET

NC GRID
NAD 83 NA 2011

C-6 -L- (SB) STA. 59+19 LT OSL 0.6 FT LT FW	
PAVEMENT SECTION	
ASPHALT	7.50 in
ABC	10.00 in

C-38 -L- (NB) STA. 59+19 LTL (RT) 6.0 FT RT FY		C-39 -L- (NB) STA. 59+19 RT ISL 5.0 FT RT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	6.50 in	ASPHALT	6.75 in
ABC	11.00 in	ABC	11.25 in

55+00
DCP-9
-L-
C-6 LT OSL
C-38 LTL (RT)
C-39 RT ISL
60+00
BULK-1
DCP-10
65+00
-L- PT 63+53.48
DCP-11
-L- PC 69+08.0

PROJECT REFERENCE NO.	SHEET NO.
R-5921	8

0 50 100
FEET

NAD 83 NA 2011 NC GRID

-L- PT 76+21.08

C-7 -L- (SB) STA. 75+11 LT ISL 1.0 FT RT FY	
PAVEMENT SECTION	
ASPHALT	8.00 in
ABC	9.00 in

C-7 LT ISL

-L-

80+00

DCP-12

C-40 RT OSL

DCP-13

DCP-14

DCP-15

85+00

C-40 -L- (NB) STA. 75+14 RT OSL 3.0 FT LT FW	
PAVEMENT SECTION	
ASPHALT	5.75 in
ABC	12.25 in

-L- PC 78+47.99

PROJECT REFERENCE NO.	SHEET NO.
R-5921	9

0 50 100
FEET

NAD 83 NA 2011 NC GRID

C-8 -L- (SB) STA. 89+64 LT OSL 0.2 FT LT FW	
PAVEMENT SECTION	
ASPHALT	7.75 in
ABC	9.25 in

C-41 -L- (NB) STA. 89+63 RT ISL 0.6 FT RT FY	
PAVEMENT SECTION	
ASPHALT	7.75 in
ABC	11.25 in

C-9 -L- (SB) STA. 103+04 LT ISL 15.0 FT RT FY		C-10 -L- (SB) STA. 103+04 LTL (LT) 4.5 FT RT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	7.75 in	ASPHALT	9.00 in
ABC	9.25 in	ABC	9.50 in

C-42 -L- (NB) STA. 103+01 RT OSL 2.0 FT LT FW	
PAVEMENT SECTION	
ASPHALT	6.50 in
ABC	12.50 in

C-8 LT OSL
90+00
C-41 RT ISL
95+00
-L- 91+94.34
-L-
DCP-16
100+00
DCP-17
C-9 LT ISL
C-10 LTL (LT)
C-42 RT OSL

PROJECT REFERENCE NO.	SHEET NO.
R-5921	10

0 50 100
FEET

NC GRID
NAD 83 NA 2011

-L- PC 110+59.81

DCP-18

110+00

BULK-2

DCP-19

-L-

115+00

DCP-20

C-11 LT OSL

C-12 LTL (LT)

120+00

DCP-21

C-43 RT ISL

C-11 -L- (SB) STA. 118+06 LT OSL 0.6 FT LT FW		C-12 -L- (SB) STA. 118+06 LTL (LT) 5.0 FT RT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	6.75 in	ASPHALT	7.25 in
ABC	9.75 in	ABC	9.75 in

C-43 -L- (NB) STA. 118+06 RT ISL 3.0 FT RT FY	
PAVEMENT SECTION	
ASPHALT	7.25 in
ABC	9.75 in

PROJECT REFERENCE NO.	SHEET NO.
R-5921	11

0 50 100
FEET

NAD 83 NA 2011 NC GRID

C-13 -L- (SB) STA. 135+54 RTL (LT) 5.0 FT LT FW		C-14 -L- (SB) STA. 135+54 LT ISL 2.0 FT RT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	7.00 in	ASPHALT	8.00 in
ABC	10.00 in	ABC	9.00 in

C-44 -L- (NB) STA. 133+92 LTL (RT) 5.0 FT RT FY		C-45 -L- (NB) STA. 133+92 RT OSL 3.5 FT LT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	7.00 in	ASPHALT	6.75 in
ABC	11.00 in	ABC	11.25 in

-L- PT 125+35.50
125+00
130+00
135+00
-L-
-L- PC 129+07.86
DCP-22
DCP-23
DCP-24
DCP-25
C-13 RTL (LT)
C-14 LT ISL
C-44 LTL (RT)
C-45 RT OSL

PROJECT REFERENCE NO.	SHEET NO.
R-5921	12

0 50 100
FEET

NC GRID
NAD 83 NA 2011

C-15 -L- (SB) STA. 150+00 LT OSL 3.3 FT LT FW	
PAVEMENT SECTION	
ASPHALT	7.50 in
ABC	7.50 in

C-46 -L- (NB) STA. 149+97 RT ISL 1.0 FT RT FY	
PAVEMENT SECTION	
ASPHALT	6.75 in
ABC	13.75 in

145+00
-L-
DCP-27
DCP-26
150+00
C-15 LT OSL
C-46 RT ISL

PROJECT REFERENCE NO.	SHEET NO.
R-5921	13

0 50 100
FEET

NAD 83 NA 2011 NC GRID N

C-16 -L- (SB) STA. 159+00 LTL (LT) 5.0 FT RT FY	
PAVEMENT SECTION	
ASPHALT	6.50 in
ABC	12.50 in

C-17 -L- (SB) STA. 163+96 RTL (LT) 5.0 FT LT FW	
PAVEMENT SECTION	
ASPHALT	7.25 in
ABC	8.25 in

C-18 -L- (SB) STA. 163+96 LT ISL 0.5 FT RT FY	
PAVEMENT SECTION	
ASPHALT	7.00 in
ABC	10.00 in

C-47 -L- (NB) STA. 157+91 LTL (RT) 7.0 FT RT FY	
PAVEMENT SECTION	
ASPHALT	6.50 in
ABC	13.50 in

C-48 -L- (NB) STA. 162+46 LTL (RT) 6.0 FT RT FY	
PAVEMENT SECTION	
ASPHALT	7.25 in
ABC	10.75 in

C-49 -L- (NB) STA. 162+46 RT OSL 2.6 FT LT FW	
PAVEMENT SECTION	
ASPHALT	7.25 in
ABC	10.25 in

C-16 LTL (LT)
C-47 LTL (RT)
160+00
DCP-29
DCP-30
-L-
C-48 LTL (RT)
C-49 RT OSL
C-17 RTL (LT)
C-18 LT ISL
165+00
DCP-32
DCP-31
-L- PT 165+99.97
170+00
DCP-33

PROJECT REFERENCE NO.	SHEET NO.
R-5921	14

0 50 100
FEET

NC GRID
NAD 83 NA 2011

C-19 -L- (SB) STA. 179+97 LT OSS 0.2 FT RT FW		C-73 -L- (SB) STA. 179+97 LT OSL 3.0 FT LT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	8.75 in	ASPHALT	7.75 in
ABC	7.25 in	ABC	8.25 in
C-74 -L- (SB) STA. 179+97 LT ISL 2.0 FT RT FY		C-75 -L- (SB) STA. 179+97 LT ISS 0.3 FT RT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	7.00 in	ASPHALT	7.00 in
ABC	11.00 in	ABC	10.00 in

C-82 -L- (NB) STA. 179+94 RT ISS 0.5 FT RT FY		C-50 -L- (NB) STA. 179+94 RT ISL 3.0 FT RT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	6.25 in	ASPHALT	6.75 in
ABC	16.25 in	ABC	15.75 in
C-83 -L- (NB) STA. 179+94 RT OSL 2.6 FT LT FW		C-84 -L- (NB) STA. 179+94 RT OSS 0.5 FT RT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	8.00 in	ASPHALT	8.25 in
ABC	8.00 in	ABC	10.00 in

C-19 LT OSS
C-73 LT OSL
C-74 LT ISL
C-75 LT ISS
180+00
C-82 RT ISS
C-50 RT ISL
C-83 RT OSL
C-84 RT OSS
-L-
DCP-34
185+00
DCP-35
DCP-36
190+00
BULK-3

PROJECT REFERENCE NO.	SHEET NO.
R-5921	15

0 50 100
FEET

NAD 83 NA 2011 NC GRID

C-20 -L- (SB) STA. 195+11 LT ISL 2.0 FT RT FY	
PAVEMENT SECTION	
ASPHALT	8.25 in
ABC	9.75 in

C-51 -L- (NB) STA. 195+10 RT OSL 0.3 FT RT FW	
PAVEMENT SECTION	
ASPHALT	7.00 in
ABC	12.00 in

195+00
C-20 LT ISL
C-51 RT OSL
DCP-37
200+00
-L-
DCP-38
DCP-40
DCP-39
205+00

PROJECT REFERENCE NO.	SHEET NO.
R-5921	16

0 50 100
FEET

NAD 83 NA 2011 NC GRID

C-21 -L- (SB) STA. 210+03 LT OSL 2.0 FT LT FW	
PAVEMENT SECTION	
ASPHALT	6.50 in
ABC	5.50 in

C-22 -L- (SB) STA. 212+85 LTL (LT) 5.0 FT RT FY	
PAVEMENT SECTION	
ASPHALT	8.00 in
ABC	8.00 in

C-23 -L- STA. 216+03 RTL (LT) 6.0 FT LT FW	
PAVEMENT SECTION	
ASPHALT	6.25 in
ABC	YES
UTILITY PRESENT	

C-52 -L- (NB) STA. 210+06 RT ISL 0.5 FT RT FY	
PAVEMENT SECTION	
ASPHALT	7.50 in
ABC	10.50 in

C-53 -L- (NB) STA. 214+42 LTL (RT) 6.0 FT RT FY	
PAVEMENT SECTION	
ASPHALT	7.00 in
ABC	13.00 in

C-21 LT OSL
210+00
DCP-41
C-52 RT ISL
DCP-42
C-22 LTL (LT)
-L-
215+00
C-53 LTL (RT)
C-23 RTL (LT)
DCP-43
DCP-44
220+00

PROJECT REFERENCE NO.	SHEET NO.
R-5921	17

0 50 100
FEET

NC GRID
NAD 83 NA 2011

C-24 -L- (SB) STA. 225+02
LT ISL 3.0 FT RT FY
PAVEMENT SECTION	
ASPHALT	7.25 in
ABC	10.25 in

C-24 LT ISL
225+00
DCP-45

C-54 RT OSL

C-54 -L- (NB) STA. 224+97
RT OSL 3.0 FT LT FW
PAVEMENT SECTION	
ASPHALT	7.75 in
ABC	11.75 in

C-25 -L- (SB) STA. 229+84
LTL (LT) 5.0 FT RT FY
PAVEMENT SECTION	
ASPHALT	8.50 in
ABC	9.00 in

C-25 LTL (LT)
230+00

-L-

DCP-46
235+00

PROJECT REFERENCE NO.	SHEET NO.
R-5921	18

0 50 100
FEET

NAD 83 NA 2011 NC GRID

C-26 -L- (SB) STA. 240+20 LT OSL 0.2 FT LT FW	
PAVEMENT SECTION	
ASPHALT	7.25 in
ABC	9.25 in

C-55 -L- (NB) STA. 240+17 RT ISL 1.4 FT RT FY	
PAVEMENT SECTION	
ASPHALT	6.75 in
ABC	12.25 in

C-27 -L- (SB) STA. 245+89 LTL (LT) 4.0 FT RT FY	
PAVEMENT SECTION	
ASPHALT	4.00 in
ABC	18.50 in

C-56 -L- (NB) STA. 244+45 LTL (RT) 6.3 FT RT FY	
PAVEMENT SECTION	
ASPHALT	8.25 in
ABC	10.00 in

C-28 -L- (SB) STA. 254+79 LT ISL 2.0 FT RT FY	
PAVEMENT SECTION	
ASPHALT	7.50 in
ABC	10.00 in

C-57 -L- (NB) STA. 254+79 RT OSL 3.0 FT LT FW	
PAVEMENT SECTION	
ASPHALT	6.50 in
ABC	9.50 in

C-26 LT OSL
240+00
C-55 RT ISL
-L-
DCP-47
245+00
C-56 LTL (RT)
C-27 LTL (LT)
DCP-48
DCP-49
250+00
-L-
C-28 LT ISL
C-57 RT OSL

PROJECT REFERENCE NO.	SHEET NO.
R-5921	19

0 50 100
FEET

NAD 83 NC GRID

-L-
260+00
DCP-50
DCP-52
DCP-51
265+00
-L- PC 264+27.92
-L-
270+00
C-29 LT OSL
C-58 RT ISL

C-29 -L- (SB) STA. 270+18 LT OSL 3.0 FT LT FW	
PAVEMENT SECTION	
ASPHALT	7.50 in
ABC	9.00 in

C-58 -L- (NB) STA. 270+16 RT ISL 0.2 FT RT FY	
PAVEMENT SECTION	
ASPHALT	6.00 in
ABC	11.00 in

PROJECT REFERENCE NO.	SHEET NO.
R-5921	20

0 50 100
FEET

NAD 83 NA 2011 NC GRID

-L- PT 276+32.50

C-30 -L- (SB) STA. 277+95 RTL (LT) 5.0 FT LT FW		C-31 -L- (SB) STA. 277+95 LTL (LT) 5.0 FT RT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	6.25 in	ASPHALT	6.50 in
ABC	YES	ABC	14.00 in
UTILITY PRESENT			

C-76 -L- (SB) STA. 285+03 LT OSS 0.5 FT LT EOP		C-77 -L- (SB) STA. 285+03 LT OSL 3.0 FT LT EOP	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	6.25 in	ASPHALT	7.50 in
ABC	8.75 in	ABC	7.50 in
C-32 -L- (SB) STA. 285+03 LT ISL 1.6 FT RT FY		C-78 -L- (SB) STA. 285+03 LT ISS 0.2 FT RT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	8.00 in	ASPHALT	8.25 in
ABC	8.00 in	ABC	7.75 in

DCP-53
275+00
C-59 LTL (RT)
C-60 RTL (RT)
C-30 RTL (LT)
C-31 LTL (LT)
DCP-54
280+00
DCP-55
DCP-56
BULK-4
C-76 LT OSS
C-77 LT OSL
C-32 LT ISL
C-78 LT ISS
285+00
-L-
C-85 RT ISS
C-86 RT ISL
C-61 RT OSL
C-87 RT OSS
DCP-57
DCP-58
-L- PC 287+10.38

C-59 -L- (NB) STA. 276+47 LTL (RT) 5.3 FT RT FY		C-60 -L- (NB) STA. 276+47 RTL (RT) 4.0 FT LT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	7.00 in	ASPHALT	7.50 in
ABC	9.00 in	ABC	10.50 in

C-85 -L- (NB) STA. 285+05 RT ISS 0.2 FT RT FY		C-86 -L- (NB) STA. 285+05 RT ISL 5.0 FT RT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	7.25 in	ASPHALT	7.00 in
ABC	8.75 in	ABC	9.00 in
C-61 -L- (NB) STA. 285+05 RT OSL 3.0 FT LT FW		C-87 -L- (NB) STA. 285+05 RT OSS 0.2 FT RT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	7.25 in	ASPHALT	7.00 in
ABC	8.25 in	ABC	8.00 in

PROJECT REFERENCE NO.	SHEET NO.
R-5921	21

0 50 100
FEET

NAD 83 NA 2011
NC GRID

C-62 -L- (NB) STA. 291+29 LTL (RT) 6.0 FT RT FY	
PAVEMENT SECTION	
ASPHALT	6.75 in
ABC	8.25 in

290+00

C-62 LTL (RT)

-L-

295+00

300+00

-L- PT 296+48.93

PAVEMENT INVESTIGATION DATA SHEET

Project:	48470.1.1
TIP:	R-5921

Route:	US 276 (Johnathan Creek Rd) from US 19 to 0.5 miles south of I-40
County:	Haywood

Date Performed:	11/16, 11/17, 11/18, 11/21, 11/22
Field Personnel:	M. Brewer, P. Tomasic, T. Wenner

		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-1 -L- (SB) Sta. 14+51 LT ISL	Fill 7.0	11.0	2.0 PS	12.0 RT FY	Cr.	16.00	7.25	8.75			Asphalt ABC SG	1.3-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	S-1	A-4(0)	M	5.0	Moderate Severity Joint Crack along ISL/CTL, Low to Moderate Severity Transverse Cracking	669,670	801,604
C-2 -L- (SB) Sta. 14+51 LTL (LT)	Fill 8.0	11.0	2.0 PS	2.0 RT FY	Cr.	19.00	6.50	12.50			Asphalt ABC SG	1.6-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-1	A-4	M	5.0	Moderate Severity Joint Crack along ISL/CTL, Low to Moderate Severity Transverse Cracking	669,673	801,614
C-3 -L- (SB) Sta. 27+71 LTL (LT)	Fill 6.0	11.0	0.5 PS	4.0 RT FY	Cr.	19.00	7.75	11.25			Asphalt ABC SG	1.6-5.0: RE - Brown, Fine to Coarse Sandy, Silty CLAY	S-3	A-7-6(3)	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	670,974	801,593
C-4 -L- (SB) Sta. 30+64 LT OSS	Fill 8.0	11.0	0.5 PS	0.2 RT FW	Cr.	18.50	8.50	10.00			Asphalt ABC SG	1.5-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-71	A-4	M	5.0	Moderate to High Severity Fatigue Cracking (IS/OSWP), 1/2 inch Rutting (ISWP)	671,261	801,624
C-70 -L- (SB) Sta. 30+64 LT OSL	Fill 8.0	11.0	0.5 PS	1.6 LT FW	Cr.	18.50	9.00	9.50			Asphalt ABC SG	1.5-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-71	A-4	M	5.0	Moderate to High Severity Fatigue Cracking (IS/OSWP), 1/2 inch Rutting (ISWP)	671,261	801,623
C-71 -L- (SB) Sta. 30+64 LT ISL	Fill 8.0	11.0		3.0 RT FY	Cr.	17.00	7.00	10.00			Asphalt ABC SG	1.4-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	S-71	A-4(0)	M	5.0	Low to Moderate Severity Transverse Cracking	671,258	801,643
C-72 -L- (SB) Sta. 30+64 LT ISS	Fill 8.0	11.0		0.2 RT FY	Cr.	17.00	7.00	10.00			Asphalt ABC SG	1.4-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-71	A-4	M	5.0	Low to Moderate Severity Transverse Cracking	671,257	801,646
C-5 -L- (SB) Sta. 42+24 LT ISL	Fill 5.0	11.0		0.2 RT FY	S	16.00	8.25	7.75			Asphalt ABC SG	1.3-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	S-5	A-4(0)	M	5.0	Low Severity Transverse Cracking	672,411	801,637
C-6 -L- (SB) Sta. 59+19 LT OSL	Fill 6.0	11.0	0.5 PS	0.6 LT FW	S	17.50	7.50	10.00			Asphalt ABC SG	1.5-5.0: RE - Orange-Brown, Fine Sandy, Silty CLAY, with trace gravel	S-6	A-7-5(8)	M	5.0	Moderate to High Severity Transverse and Longitudinal Cracking, Sawcut Patch (ISL) (~18' L x 11' W)	674,059	802,028
C-7 -L- (SB) Sta. 75+11 LT ISL	Fill 8.0	11.0		1.0 RT FY	Cr.	17.00	8.00	9.00			Asphalt ABC SG	1.4-5.0: RE - Orange-Brown, Fine to Coarse Sandy SILT, with trace mica	S-7	A-4(0)	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	675,367	802,872
C-8 -L- (SB) Sta. 89+64 LT OSL	Fill 5.0	11.0	0.5 PS	0.2 LT FW	S	17.00	7.75	9.25			Asphalt ABC SG	1.4-5.0: RE - Brown, Silty Fine to Coarse SAND, with trace mica	S-8	A-2-4	M	5.0	Low Severity Transverse Cracking	676,804	803,083
C-9 -L- (SB) Sta. 103+04 LT ISL	Fill 5.0	11.0		15.0 RT FY	Cr.	17.00	7.75	9.25			Asphalt ABC SG	1.4-4.0: RE - Brown, Silty Fine to Coarse SAND, with trace gravel	Ref-8	A-2-4	M	4.0 AR	Low to Moderate Severity Transverse and Longitudinal Cracking	677,973	803,746
C-10 -L- (SB) Sta. 103+04 LTL (LT)	Fill 5.0	11.0		4.5 RT FY	Cr.	18.50	9.00	9.50			Asphalt ABC SG	1.5-5.0: RE - Brown, Fine to Coarse Sandy CLAY	S-10	A-6(3)	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	677,967	803,755
C-11 -L- (SB) Sta. 118+06 LT OSL	Fill 7.0	11.0		0.6 LT FW	Cr.	16.50	6.75	9.75			Asphalt ABC SG	1.4-5.0: RE - Brown, Fine to Coarse Sandy, Silty CLAY, MP	Ref-12	A-7-6	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	679,333	804,320
C-12 -L- (SB) Sta. 118+06 LTL (LT)	Fill 7.0	11.0		5.0 RT FY	Cr.	17.00	7.25	9.75			Asphalt ABC SG	1.4-3.0: RE - Brown, Fine to Coarse Sandy, Silty CLAY, MP 3.0-5.0: RE - Boulder Fill	S-12	A-7-6(4)	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	679,328	804,349

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

Prepared by: CTW
Reviewed by: DMB

PAVEMENT INVESTIGATION DATA SHEET

Project:	48470.1.1
TIP:	R-5921

Route:	US 276 (Johnathan Creek Rd) from US 19 to 0.5 miles south of I-40
County:	Haywood

Date Performed:	11/16, 11/17, 11/18, 11/21, 11/22
Field Personnel:	M. Brewer, P. Tomasic, T. Wenner

		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-13 -L- (SB) Sta. 135+54 RTL (LT)	Fill 5.0	11.0		5.0 LT FW	Cr.	17.00	7.00	10.00			Asphalt ABC SG	1.4-5.0: RE - Brown, Silty Fine to Coarse SAND, with trace mica	S-13	A-2-4	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	681,036	804,038
C-14 -L- (SB) Sta. 135+54 LT ISL	Fill 5.0	11.0		2.0 RT FY	Cr.	17.00	8.00	9.00			Asphalt ABC SG	1.4-5.0: RE - Brown, Silty Fine to Coarse SAND, with trace mica	Ref-13	A-2-4	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	681,039	804,063
C-15 -L- (SB) Sta. 150+00 LT OSL	Fill 5.0	11.0	0.5 PS	3.3 LT FW	Cr.	15.00	7.50	7.50			Asphalt ABC SG	1.3-4.5: RE - Brown, Silty Fine to Coarse SAND	S-15	A-2-4	M	4.5 AR	Low Severity Transverse Cracking	682,489	804,022
C-16 -L- (SB) Sta. 159+00 LTL (LT)	Fill 6.0	11.0		5.0 RT FY	Cr.	19.00	6.50	12.50			Asphalt ABC SG	1.6-5.0: RE - Brown, Fine to Coarse SAND, with trace gravel	S-16	A-1-b	M	5.0	Moderate to High Severity Joint Cracking along ISL/CTL, Moderate to High Severity Transverse Cracking	683,372	804,214
C-17 -L- (SB) Sta. 163+96 RTL (LT)	Fill 6.0	10.0		5.0 LT FW	Cr.	15.50	7.25	8.25			Asphalt ABC SG	1.3-5.0: RE - Brown, Silty Fine to Coarse SAND, with trace mica and gravel	Ref-18	A-2-4	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	683,857	804,334
C-18 -L- (SB) Sta. 163+96 LT ISL	Fill 5.0	11.0		0.5 RT FY	Cr.	17.00	7.00	10.00			Asphalt ABC SG	1.4-4.5: RE - Brown, Silty Fine to Coarse SAND, with trace mica and gravel	S-18	A-2-4	M	4.5 AR	Moderate Severity Joint Crack along ISL/OSL, Low to Moderate Severity Transverse Cracking	683,848	804,359
C-19 -L- (SB) Sta. 179+97 LT OSS	Fill 5.0	11.0	0.5 PS	0.2 RT FW	Cr.	16.00	8.75	7.25			Asphalt ABC SG	1.3-5.0: RE -Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-74	A-4	M	5.0	Low to Moderate Severity Fatigue Cracking (OSWP), 1/2 inch Rutting (OSWP)	685,340	804,942
C-73 -L- (SB) Sta. 179+97 LT OSL	Fill 5.0	11.0	0.5 PS	3.0 LT FW	Cr.	16.00	7.75	8.25			Asphalt ABC SG	1.3-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-74	A-4	M	5.0	Low to Moderate Severity Fatigue Cracking (OSWP), 1/2 inch Rutting (OSWP) **Full-Depth Crack in Core**	685,339	804,945
C-74 -L- (SB) Sta. 179+97 LT ISL	Fill 3.0	11.0		2.0 RT FY	Cr.	18.00	7.00	11.00			Asphalt ABC SG	1.5-3.0: RE - Brown, Fine to Coarse Sandy SILT 3.0-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-75 S-74	A-4 A-4(0)	M M	5.0	Low to Moderate Severity Transverse Cracking	685,332	804,961
C-75 -L- (SB) Sta. 179+97 LT ISS	Fill 3.0	11.0		0.3 RT FY	Cr.	17.00	7.00	10.00			Asphalt ABC SG	1.4-3.0: RE - Brown, Fine to Coarse Sandy SILT 3.0-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	S-75 Ref-74	A-4(0) A-4	M M	5.0	Low to Moderate Severity Transverse Cracking	685,331	804,963
C-20 -L- (SB) Sta. 195+11 LT ISL	Fill 5.0	11.0		2.0 RT FY	Cr.	18.00	8.25	9.75			Asphalt ABC SG	1.5-5.0: RE - Brown, Fine Sandy, Silty CLAY, MP, with trace mica	S-20	A-7-5(8)	M	5.0	Low to Moderate Severity Transverse Cracking	686,733	805,536
C-21 -L- (SB) Sta. 210+03 LT OSL	Fill 5.0	11.0	0.5 PS	2.0 LT FW	Cr.	12.00	6.50	5.50			Asphalt ABC SG	1.0-5.0: RE - Black, Silty Fine to Coarse SAND, with trace organics, organic odor	S-21	A-2-4	M	5.0	Low to Moderate Severity Fatigue Cracking (OSWP), Low to Moderate Severity Transverse Cracking 3/4 inch Rutting (OSWP) **Core Highly Degraded**	688,120	806,085
C-22 -L- (SB) Sta. 212+85 LTL (LT)	Fill 5.0	11.0		5.0 RT FY	Cr.	16.00	8.00	8.00			Asphalt ABC SG	1.3-5.0: RE - Gray, Fine to Coarse Sandy SILT, organic odor	S-22	A-4(0)	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	688,371	806,217
C-23 -L- (SB) Sta. 216+03 RTL (LT)	Fill 6.0	11.0		6.0 LT FW	Cr.		6.25	Yes			Asphalt ABC	Utility Conflict, No Auger/DCP performed					Low to Moderate Severity Transverse and Longitudinal Cracking	688,678	806,306
C-24 -L- (SB) Sta. 225+02 LT ISL	Fill 6.0	11.0		3.0 RT FY	Cr.	17.50	7.25	10.25			Asphalt ABC SG	1.5-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	S-24	A-4(0)	M	5.0	Low to Moderate Severity Transverse Cracking, Low to Moderate Severity Fatigue Cracking (LT OSL OSWP)	689,501	806,670

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

Prepared by: CTW
Reviewed by: DMB

PAVEMENT INVESTIGATION DATA SHEET

Project:	48470.1.1
TIP:	R-5921

Route:	US 276 (Johnathan Creek Rd) from US 19 to 0.5 miles south of I-40
County:	Haywood

Date Performed:	11/16, 11/17, 11/18, 11/21, 11/22
Field Personnel:	M. Brewer, P. Tomasic, T. Wenner

		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-25 -L- (SB) Sta. 229+84 LTL (LT)	Fill 7.0	11.0		5.0 RT FY	Cr.	17.50	8.50	9.00			Asphalt ABC SG	1.5-5.0: RE - Brown, Silty Fine to Coarse SAND, with trace gravel	S-25	A-2-4	M	5.0	Low to Moderate Severity Transverse Cracking	689,944	806,860
C-26 -L- (SB) Sta. 240+20 LT OSL	Fill 8.0	11.0	0.5 PS	0.2 LT FW	Cr.	16.50	7.25	9.25			Asphalt ABC SG	1.4-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	S-26	A-4(0)	M	5.0	Low Severity Fatigue Cracking (OSWP)	690,913	807,228
C-27 -L- (SB) Sta. 245+89 LTL (LT)	Fill 5.0	11.0		4.0 RT FY	Cr.	22.50	4.00	18.50			Asphalt ABC SG	1.9-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace gravel and mica	S-27	A-4(0)	M	5.0	Moderate to High Severity Transverse and Longitudinal Cracking	691,428	807,470
C-28 -L- (SB) Sta. 254+79 LT ISL	Fill 5.0	11.0		2.0 RT FY	Cr.	17.50	7.50	10.00			Asphalt ABC SG	1.5-5.0: RE - Brown-Orange, Fine to Coarse Sandy SILT	S-28	A-4(0)	M	5.0	Moderate to High Severity Transverse and Longitudinal Cracking	692,255	807,800
C-29 -L- (SB) Sta. 270+18 LT OSL	Fill 5.0	11.0	0.5 PS	3.0 LT FW	Cr.	16.50	7.50	9.00			Asphalt ABC SG	1.4-5.0: RE - Brown-Orange, Fine to Coarse Sandy SILT, with trace mica and gravel	S-29	A-4(0)	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	693,692	808,337
C-30 -L- (SB) Sta. 277+95 RTL (LT)	Fill 3.0	11.0		5.0 LT FW	Cr.		6.25	Yes			Asphalt ABC	Utility Conflict, No Auger/DCP performed					Moderate to High Severity Transverse and Longitudinal Cracking	694,447	808,497
C-31 -L- (SB) Sta. 277+95 LTL (LT)	Fill 5.0	11.0		5.0 RT FY	Cr.	20.50	6.50	14.00			Asphalt ABC SG	1.7-5.0: RE - Orange-Brown, Silty CLAY, MP	S-31	A-7-6(7)	M	5.0	Moderate to High Severity Transverse and Longitudinal Cracking	694,441	808,532
C-76 -L- (SB) Sta. 285+03 LT OSS	Fill 5.0	11.0	Gravel Shoulder	0.5 LT EOP	Cr.	15.00	6.25	8.75			Asphalt ABC SG	1.3-5.0: RE - Brown, Fine to Coarse Sandy CLAY, with trace mica and gravel	Ref-77	A-6(12)	M	5.0	High Severity Transverse and Longitudinal Cracking and Ravelling Large Pothole along OSS at EOP (10' L x 8' W x 0.6' D), High Distress Area	695,143	808,631
C-77 -L- (SB) Sta. 285+03 LT OSL	Fill 5.0	11.0	Gravel Shoulder	3.0 LT EOP	Cr.	15.00	7.50	7.50			Asphalt ABC SG	1.3-5.0: RE - Brown, Fine to Coarse Sandy CLAY, with trace mica and gravel	S-77	A-6(12)	M	5.0	High Severity Transverse and Longitudinal Cracking and Ravelling Large Pothole along OSS at EOP (10' L x 8' W x 0.6' D), High Distress Area **4-inch Bottom Up Crack in Core**	695,142	808,633
C-32 -L- (SB) Sta. 285+03 LT ISL	Fill 5.0	11.0		1.6 RT FY	Cr.	16.00	8.00	8.00			Asphalt ABC SG	1.3-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-78	A-4	M	5.0	Low to Moderate Severity Transverse Cracking	695,139	808,651
C-78 -L- (SB) Sta. 285+03 LT ISS	Fill 5.0	11.0		0.2 RT FY	Cr.	16.00	8.25	7.75			Asphalt ABC SG	1.3-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	S-78	A-4(0)	M	5.0	Low to Moderate Severity Transverse Cracking	695,139	808,652
C-33A -L- (NB) Sta. 14+53 RT OSL	Fill 5.0	16.0		2.5 LT FW	Cr.	19.00	9.25	9.75			Asphalt ABC SG	1.6-5.0: RE - Gray-Brown, Silty Fine to Coarse SAND, with trace gravel and organics	S-33A	A-2-4	M	5.0	Low to Moderate Fatigue Cracking (IS/OSWP), Outer 2.5' of Lane Highly Distressed	669,692	801,674
C-33 -L- (NB) Sta. 14+53 RT OSL	Fill 5.0	16.0		1.3 LT FW	Cr.	19.00	5.00	14.00			Asphalt ABC SG	1.6-5.0: RE - Gray-Brown, Silty Fine to Coarse SAND, with trace gravel and organics	Ref-33A	A-2-4	M	5.0	Low to Moderate Fatigue Cracking (IS/OSWP), Outer 2.5' of Lane Highly Distressed	669,691	801,673
C-34 -L- (NB) Sta. 26+00 LTL (RT)	Fill 5.0	12.0	1.0 PS	5.0 RT FY	Cr.	17.00	7.00	10.00			Asphalt ABC SG	1.4-3.0: RE - Brown, Silty CLAY 3.0-5.0: RE - Brown-Gray, Fine to Coarse Sandy SILT	S-34 Ref-37	A-7-6(12) A-4	M M	5.0	Moderate to High Severity Transverse Cracking, Potholes Nearly 1.0' L x 0.5' W x 0.3' D	670,802	801,576
C-79 -L- (NB) Sta. 30+60 RT ISS	Fill 5.0	12.0		0.2 RT FY	S	15.75	5.25	10.50			Asphalt ABC SG	1.3-3.0: RE - Brown, Fine to Coarse Sandy CLAY 3.0-5.0: RE - Brown-Gray, Fine to Coarse Sandy SILT	S-79 Ref-37	A-6(2) A-4	M M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking Potholes Due to Broken Reflector Along Centerline (1' L x 0.5' W x 0.3' D)	671,249	801,691

Notes:

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

Prepared by: CTW

Reviewed by: DMB

PAVEMENT INVESTIGATION DATA SHEET

Project:	48470.1.1
TIP:	R-5921

Route:	US 276 (Johnathan Creek Rd) from US 19 to 0.5 miles south of I-40
County:	Haywood

Date Performed:	11/16, 11/17, 11/18, 11/21, 11/22
Field Personnel:	M. Brewer, P. Tomasic, T. Wenner

		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-35 -L- (NB) Sta. 30+60 RT ISL	Fill 4.0	12.0		2.8 RT FY	S	21.75	5.25	16.50			Asphalt ABC SG	1.8-4.0: RE - Brown, Fine to Coarse Sandy CLAY 4.0-5.0: RE - Brown-Gray, Fine to Coarse Sandy SILT	Ref-79 Ref-37	A-6 A-4	M M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking Potholes Due to Broken Reflector Along Centerline (1' L x 0.5' W x 0.3' D)	671,248	801,693
C-80 -L- (NB) Sta. 30+60 RT OSL	Fill 5.0	11.0	1.0 PS	2.0 LT FW	S	18.00	7.00	11.00			Asphalt ABC SG	1.5-5.0: RE - Brown, Fine to Coarse Sandy CLAY	Ref-81	A-6	M	5.0	Moderate to High Severity Transverse Cracking, Moderate to High Severity Joint Crack along Centerline	671,245	801,711
C-81 -L- (NB) Sta. 30+60 RT OSS	Fill 5.0	11.0	1.0 PS	0.5 RT FW	S	18.00	7.00	11.00			Asphalt ABC SG	1.5-5.0: RE - Brown, Fine to Coarse Sandy CLAY	S-81	A-6(2)	M	5.0	Moderate to High Severity Transverse Cracking, Moderate to High Severity Joint Crack along Centerline	671,244	801,713
C-36 -L- (NB) Sta. 42+23 LTL (RT)	Fill 5.0	16.0	1.0 PS	7.0 RT FY	Cr.	16.00	6.25	9.75			Asphalt ABC SG	1.3-5.0: RE - Brown, Fine to Coarse Sandy SILT	S-36	A-4(0)	M	5.0	Low to Moderate Severity Longitudinal Cracking	672,412	801,674
C-37 -L- (NB) Sta. 42+23 RT OSL	Fill 5.0	12.0	0.5 PS	0.3 LT FW	Cr.	17.00	7.25	9.75			Asphalt ABC SG	1.4-3.0: RE - Brown, Fine to Coarse Sandy SILT 3.0-5.0: RE - Brown-Gray, Fine to Coarse Sandy SILT	Ref-36 S-37	A-4 A-4(0)	M M	5.0	Low to Moderate Severity Longitudinal Cracking	672,413	801,705
C-38 -L- (NB) Sta. 59+19 LTL (RT)	Fill 5.0	10.0		6.0 RT FY	Cr.	17.50	6.50	11.00			Asphalt ABC SG	1.5-5.0: RE - Brown, Silty CLAY, MP, with trace mica	Ref-39	A-7-6	M	5.0	Moderate to High Severity Transverse and Longitudinal Cracking, Moderate to High Severity Ravelling RT LN (ISWP)	674,025	802,079
C-39 -L- (NB) Sta. 59+19 RT ISL	Fill 5.0	11.0		5.0 RT FW	Cr.	18.00	6.75	11.25			Asphalt ABC SG	1.5-5.0: RE - Brown, Silty CLAY, MP, with trace mica	S-39	A-7-6(9)	M	5.0	Moderate to High Severity Transverse and Longitudinal Cracking, Moderate to High Severity Ravelling RT LN (ISWP)	674,019	802,089
C-40 -L- (NB) Sta. 75+14 RT OSL	Fill 5.0	11.0		3.0 LT FW	Cr.	18.00	5.75	12.25			Asphalt ABC SG	1.5-5.0: RE - Brown, Fine Sandy SILT, with trace mica	S-40	A-4(0)	M	5.0	Low to Moderate Severity Fatigue Cracking (OSWP), Moderate to High Severity Joint Crack along Centerline	675,364	802,938
C-41 -L- (NB) Sta. 89+63 RT ISL	Fill 5.0	11.0		0.6 RT FY	Cr.	19.00	7.75	11.25			Asphalt ABC SG	1.6-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	S-41	A-4(0)	M	5.0	Moderate Severity Transverse Cracking (ISL), Moderate to High Severity Block Cracking (OSL)	676,775	803,144
C-42 -L- (NB) Sta. 103+01 RT OSL	Fill 5.0	11.0		2.0 LT FW	Cr.	19.00	6.50	12.50			Asphalt ABC SG	1.6-5.0: RE - Brown, Silty Fine to Coarse SAND, with trace mica	S-42	A-2-4	M	5.0	Low to Moderate Severity Transverse Cracking, Moderate to High Fatigue Cracking (IS/OSWP) **Full-Depth Crack in Core**	677,938	803,803
C-43 -L- (NB) Sta. 118+06 RT ISL	Fill 8.0	11.0		3.0 RT FY	Cr.	17.00	7.25	9.75			Asphalt ABC SG	1.4-5.0: RE - Red-Brown, Fine to Coarse Sandy SILT	S-43	A-4(0)	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking (IS/OSWP) LT and RT Lanes	679,321	804,389
C-44 -L- (NB) Sta. 133+92 LTL (RT)	Fill 5.0	10.0		5.0 RT FY	Cr.	18.00	7.00	11.00			Asphalt ABC SG	1.5-5.0: RE - Red-Brown, Fine to Coarse Sandy SILT	S-44	A-4(0)	M	5.0	Low to Moderate Severity Transverse Cracking, Low Severity Longitudinal Cracking	680,887	804,130
C-45 -L- (NB) Sta. 133+92 RT OSL	Fill 5.0	11.0	2.0 PS	3.5 LT FW	Cr.	18.00	6.75	11.25			Asphalt ABC SG	1.5-5.0: RE -Orange-Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-44	A-4	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking, Moderate to High Severity Fatigue Cracking (IS/OSWP) **4" Top-Down Crack in Core**	680,890	804,154
C-46 -L- (NB) Sta. 149+97 RT ISL	Fill 5.0	11.0		1.0 RT FY	Cr.	20.50	6.75	13.75			Asphalt ABC SG	1.7-4.0: RE - Orange-Brown, Silty CLAY 4.0-5.0: RE - Black, Fine to Coarse Sandy SILT, organic odor	S-46 Ref-44	A-7-5(6) A-4	M M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	682,480	804,086
C-47 -L- (NB) Sta. 157+91 LTL (RT)	Fill 5.0	11.0		7.0 RT FY	Cr.	20.00	6.50	13.50			Asphalt ABC SG	1.7-5.0: RE - Orange-Brown, Silty CLAY, MP, with trace mica, organic staining at ~4-4.5'	S-47	A-7-5(6)	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking, Low to Moderate Severity Fatigue Cracking (RT LN OSWP)	683,258	804,219

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

Prepared by: CTW
Reviewed by: DMB

PAVEMENT INVESTIGATION DATA SHEET

Project:	48470.1.1
TIP:	R-5921

Route:	US 276 (Johnathan Creek Rd) from US 19 to 0.5 miles south of I-40
County:	Haywood

Date Performed:	11/16, 11/17, 11/18, 11/21, 11/22
Field Personnel:	M. Brewer, P. Tomasic, T. Wenner

		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-48 -L- (NB) Sta. 162+46 LTL (RT)	Fill 5.0	10.0	1.0 PS	6.0 RT FY	Cr.	18.00	7.25	10.75			Asphalt ABC SG	1.5-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica and gravel, organic staining at ~1.6-3.0'	Ref-50	A-4	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking, Low to Moderate Severity Fatigue Cracking RT LN (OSWP)	683,693	804,346
C-49 -L- (NB) Sta. 162+46 RT OSL	Fill 5.0	11.0		2.6 LT FW	Cr.	17.50	7.25	10.25			Asphalt ABC SG	1.5-5.0: RE - Brown, Gravelly Fine to Coarse SAND	S-49	A-1-b	M	5.0	Low to Moderate Severity Transverse Cracking, Low to Moderate Severity Fatigue Cracking (IS/OSWP) **Full-Depth Top-Down Crack in Core**	683,685	804,370
C-82 -L- (NB) Sta. 179+94 RT ISS	Fill 5.0	11.0		0.5 RT FY	Cr.	22.50	6.25	16.25			Asphalt ABC SG	1.9-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica and gravel	Ref-50	A-4	M	5.0	Low to Moderate Severity Transverse Cracking, Low to Moderate Severity Fatigue Cracking RT LN	685,312	805,004
C-50 -L- (NB) Sta. 179+94 RT ISL	Fill 5.0	11.0		3.0 RT FY	Cr.	22.50	6.75	15.75			Asphalt ABC SG	1.9-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica and gravel	S-50	A-4(0)	M	5.0	Low to Moderate Severity Transverse Cracking, Low to Moderate Severity Fatigue Cracking RT LN	685,311	805,007
C-83 -L- (NB) Sta. 179+94 RT OSL	Fill 5.0	11.0	1.0 PS	2.6 LT FW	Cr.	16.00	8.00	8.00			Asphalt ABC SG	1.3-5.0: RE -Brown, Fine to Coarse Sandy SILT, with trace mica and gravel	Ref-50	A-4	M	5.0	Low to Moderate Severity Transverse Cracking, Low to Moderate Severity Fatigue Cracking RT LN	685,305	805,021
C-84 -L- (NB) Sta. 179+94 RT OSS	Fill 5.0	11.0	1.0 PS	0.5 RT FW	Cr.	18.25	8.25	10.00			Asphalt ABC SG	1.5-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica and gravel	Ref-50	A-4	M	5.0	Low to Moderate Severity Transverse Cracking, Low to Moderate Severity Fatigue Cracking RT LN	685,303	805,024
C-51 -L- (NB) Sta. 195+10 RT OSL	Fill 5.0	11.0	1.5 PS	0.3 RT FW	Cr.	19.00	7.00	12.00			Asphalt ABC SG	1.6-5.0: RE - Brown-Orange, Silty CLAY, MP	S-51	A-7-5(6)	M	5.0	Moderate to High Severity Joint Crack along Centerline, Low to Moderate Severity Fatigue Cracking	686,706	805,599
C-52 -L- (NB) Sta. 210+06 RT ISL	Fill 5.0	11.0		0.5 RT FY	Cr.	18.00	7.50	10.50			Asphalt ABC SG	1.5-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica and gravel	S-52	A-4(0)	M	5.0	Low to Moderate Severity Transverse Cracking, Low to Moderate Severity Fatigue Cracking LT LN	688,098	806,147
C-53 -L- (NB) Sta. 214+42 LTL (RT)	Fill 5.0	11.0		6.0 RT FY	Cr.	20.00	7.00	13.00			Asphalt ABC SG	1.7-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-54	A-4	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	688,504	806,307
C-54 -L- (NB) Sta. 224+97 RT OSL	Fill 5.0	11.0	1.0 PS	3.0 LT FW	Cr.	19.50	7.75	11.75			Asphalt ABC SG	1.6-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	S-54	A-4(0)	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	689,471	806,730
C-55 -L- (NB) Sta. 240+17 RT ISL	Fill 5.0	11.0		1.4 RT FY	Cr.	19.00	6.75	12.25			Asphalt ABC SG	1.6-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	S-55	A-4(0)	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	690,884	807,290
C-56 -L- (NB) Sta. 244+45 LTL (RT)	Fill 7.0	10.0		6.3 RT FY	Cr.	18.25	8.25	10.00			Asphalt ABC SG	1.5-5.0: RE - Brown-Gray, Fine to Coarse Sandy SILT, with trace gravel	Ref-37	A-4	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking	691,283	807,445
C-57 -L- (NB) Sta. 254+79 RT OSL	Fill 5.0	11.0	1.0 PS	3.0 LT FW	Cr.	16.00	6.50	9.50			Asphalt ABC SG	1.3-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-55	A-4	M	5.0	Low to Moderate Severity Fatigue Cracking (OSWP), Moderate to High Severity Transverse Cracking	692,230	807,861
C-58 -L- (NB) Sta. 270+16 RT ISL	Fill 5.0	11.0		0.2 RT FY	Cr.	17.00	6.00	11.00			Asphalt ABC SG	1.4-5.0: RE - Brown-Orange, Fine to Coarse Sandy SILT, with trace mica and gravel	Ref-29	A-4	M	5.0	Low to Moderate Severity Transverse and Longitudinal Cracking **Cored on Crack, Little Core Recovery**	693,672	808,399
C-59 -L- (NB) Sta. 276+47 LTL (RT)	Fill 5.0	11.0	1.0 PS	5.3 RT FY	Cr.	16.00	7.00	9.00			Asphalt ABC SG	1.3-5.0: RE - Dark Brown-Red, Fine to Coarse Sandy SILT, with a petroleum odor	S-59	A-4(0)	M	5.0	Moderate to High Severity Transverse Cracking (LTL/LT LN), Moderate to High Severity Transverse and Longitudinal Cracking (RT LN/RTL)	694,289	808,537

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

Prepared by: CTW
Reviewed by: DMB

PAVEMENT INVESTIGATION DATA SHEET

Project:	48470.1.1
TIP:	R-5921

Route:	US 276 (Johnathan Creek Rd) from US 19 to 0.5 miles south of I-40
County:	Haywood

Date Performed:	11/16, 11/17, 11/18, 11/21, 11/22
Field Personnel:	M. Brewer, P. Tomasic, T. Wenner

		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-60 -L- (NB) Sta. 276+47 RTL (RT)	Fill 5.0	11.0		4.0 LT FW	Cr.	18.00	7.50	10.50			Asphalt ABC SG	1.5-5.0: RE - Orange, Fine to Coarse Sandy SILT	S-60	A-4(0)	M	5.0	Moderate to High Severity Transverse Cracking (LTL/LT LN), Moderate to High Severity Transverse and Longitudinal Cracking (RT LN/RTL)	694,283	808,572
C-85 -L- (NB) Sta. 285+05 RT ISS	Fill 8.0	11.0		0.2 RT FY	Cr.	16.00	7.25	8.75			Asphalt ABC SG	1.3-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica and gravel	Ref-86	A-4	M	5.0	Moderate to High Severity Transverse and Longitudinal Cracking	695,132	808,697
C-86 -L- (NB) Sta. 285+05 RT ISL	Fill 8.0	11.0		5.0 RT FY	Cr.	16.00	7.00	9.00			Asphalt ABC SG	1.3-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica and gravel	S-86	A-4(0)	M	5.0	Moderate to High Severity Transverse and Longitudinal Cracking	695,131	808,702
C-61 -L- (NB) Sta. 285+05 RT OSL	Fill 8.0	11.0	0.5 PS	3.0 LT FW	Cr.	15.50	7.25	8.25			Asphalt ABC SG	1.3-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica and gravel, boulders within RE	Ref-86	A-4	M	5.0	Moderate to High Severity Fatigue Cracking (IS/OSWP), Moderate to High Severity Transverse Cracking	695,129	808,717
C-87 -L- (NB) Sta. 285+05 RT OSS	Fill 8.0	11.0	0.5 PS	0.2 RT FW	Cr.	15.00	7.00	8.00			Asphalt ABC SG	1.3-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace gravel, boulders within RE	Ref-86	A-4	M	5.0	Moderate to High Severity Transverse and Longitudinal Cracking	695,128	808,720
C-62 -L- (NB) Sta. 291+29 LTL (RT)	Fill 5.0	11.0	Concrete Median	6.0 RT FY	Cr.	15.00	6.75	8.25			Asphalt ABC SG	1.3-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica and gravel	Ref-86	A-4	M	5.0	Moderate to High Severity Transverse and Longitudinal Cracking, High Severity Fatigue Cracking RT LN (IS/OSWP) **Full-Depth Crack in Core**	695,747	808,803
C-63 -Y- Sta. 11+95 CTL	Fill 3.0	11.0		6.0 RT FY	Cr.	17.00	4.50	12.50			Asphalt ABC SG	1.4-5.0: RE - Tan-Yellow, Fine to Coarse Sandy SILT, with trace mica	Ref-64	A-4	M	5.0	Moderate to High Severity Transverse and Longitudinal Cracking	669,151	801,262
C-64 -Y- Sta. 11+95 RT ISL	Fill 5.0	11.0		6.0 RT FY	Cr.	16.50	4.25	12.25			Asphalt ABC SG	1.4-5.0: RE - Tan-Yellow, Fine to Coarse Sandy SILT, with trace mica	S-64	A-4(0)	M	5.0	Moderate to High Severity Transverse and Longitudinal Cracking, Moderate to High Severity Fatigue Cracking (ISWP)	669,138	801,262
C-65 -Y- Sta. 11+95 RT OSL	Fill 5.0	11.0	2.5 Concrete Curb & Gutter	2.5 LT EOP	Cr.	17.00	6.00	11.00			Asphalt ABC SG	1.4-5.0: RE - Tan-Yellow, Fine to Coarse Sandy SILT, with trace mica	Ref-64	A-4	M	5.0	Moderate to High Severity Transverse and Longitudinal Cracking	669,125	801,262
C-66 -Y- Sta. 20+84 LT RAMP	Fill 3.0	16.0	2.5 Concrete Curb & Gutter	10.0 LT EOP	Cr.	20.00	6.00	14.00			Asphalt ABC SG	1.7-2.5: RE - Gray, Silty Fine to Coarse Sand, with an organic odor Auger not extended to full depth due utility nearby	Ref-68	A-2-4	M	2.5	Moderate to High Severity Transverse and Longitudinal Cracking, Moderate to High Severity Fatigue Cracking (ISWP)	669,246	802,134
C-67 -Y- Sta. 20+84 LT GORE	Fill 5.0	11.0		6.0 RT FW	Cr.	16.50	5.50	11.00			Asphalt ABC SG	1.4-2.5: RE - Gray, Silty Fine to Coarse SAND, with trace mica Auger not extended to full depth due utility nearby	Ref-68	A-2-4	M	2.5	Moderate to High Severity Transverse and Longitudinal Cracking	669,234	802,134
C-68 -Y- Sta. 20+84 LT OSL	Fill 5.0	11.0		6.0 LT FW	Cr.	22.00	7.50	14.50			Asphalt ABC SG	1.8-3.0: RE - Gray, Silty Fine to Coarse SAND, with an organic odor Auger not extended to full depth due utility nearby	S-68	A-2-4	M	3.0	Moderate to High Severity Transverse and Longitudinal Cracking	669,222	802,134
C-69 -Y- Sta. 20+84 LT ISL	Fill 5.0	11.0		5.0 RT FY	Cr.	20.00	5.00	15.00			Asphalt ABC SG	1.7-3.0: RE - Gray, Silty Fine to Coarse SAND, with an organic odor Auger not extended to full depth due utility nearby	Ref-68	A-2-4	M	3.0	Moderate to High Severity Transverse and Longitudinal Cracking	669,210	802,134

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

Prepared by: CTW
Reviewed by: DMB

PAVEMENT INVESTIGATION DATA SHEET

Project:	48470.1.1
TIP:	R-5921

Route:	US 276 (Johnathan Creek Rd) from US 19 to 0.5 miles south of I-40
County:	Haywood

Date Performed:	11/16, 11/17, 11/18, 11/21, 11/22
Field Personnel:	M. Brewer, P. Tomasic, T. Wenner

		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
DCP-1 -L- Sta. 14+99	Fill 7.0	RT Median		8.0 LT FY								0.0-3.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-1	A-4	M	3.0		669,727	801,628
DCP-2 -L- Sta. 22+50	Fill 5.0	RT Median		6.0 LT FY								0.0-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-1	A-4	M	5.0		670,460	801,503
DCP-3 -L- Sta. 22+50	Fill 5.0	RT Shoulder		6.5 RT FW								0.0-1.2: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-1	A-4	M	1.2		670,455	801,539
DCP-4 -L- Sta. 27+51	Fill 6.0	RT Median		5.0 LT FY								0.0-3.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-71	A-4	M	3.0 AR		670,946	801,619
DCP-5 -L- Sta. 32+50	Fill 8.0	LT Median		9.0 LT FY								0.0-2.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-71	A-4	M	2.0 AR		671,440	801,675
DCP-6 -L- Sta. 37+50	Fill 5.0	LT Median		9.0 LT FY								0.0-5.0: RE - Orange-Brown, Silty CLAY	S-106	A-7-6(5)	M	5.0		671,938	801,668
DCP-7 -L- Sta. 42+49	Fill 5.0	LT Median		8.0 LT FY								0.0-2.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-5	A-4	M	2.0 AR		672,437	801,645
DCP-8 -L- Sta. 50+00	Fill 4.0	RT Shoulder		6.0 RT FW								0.0-4.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-5	A-4	M	4.0		673,172	801,777
DCP-9 -L- Sta. 55+00	Fill 5.0	RT Median		5.5 LT FY								0.0-4.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica 4.0-5.0: RE - Brown-Gray , Fine to Coarse Sandy SILT	Ref-5 Ref-37	A-4 A-4	M M	5.0		673,653	801,892
DCP-10 -L- Sta. 62+00	Fill 5.0	LT Median		6.0 LT FY								0.0-3.5: RE - Brown, Fine to Coarse Sandy SILT, with trace mica 3.5-4.5: RE - Boulder Fill	Ref-5	A-4	M	4.5 AR		674,277	802,208
DCP-11 -L- Sta. 66+99	Fill 5.0	LT Median		3.0 LT FY								0.0-4.5: RE - Orange-Brown, Fine Sandy, Silty CLAY, with trace mica and gravel	S-111	A-7-6(14)	M	4.5 AR		674,667	802,521
DCP-12 -L- Sta. 75+13	Fill 5.0	RT Median		4.0 LT FY								0.0-5.0: RE - Orange-Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-7	A-4	M	5.0		675,365	802,914
DCP-13 -L- Sta. 79+51	Fill 5.0	RT Median		7.0 LT FY								0.0-5.0: RE - Orange-Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-7	A-4	M	5.0		675,804	802,916
DCP-14 -L- Sta. 82+00	Fill 5.0	LT Median		8.0 LT FY								0.0-3.0: RE - Orange-Brown, Fine to Coarse Sandy SILT, with trace mica 3.0-4.0: RE - Brown, Silty CLAY, MP	Ref-7 S-114A	A-4 A-7-5(11)	M M	4.0		676,054	802,906
DCP-15 -L- Sta. 82+50	Fill 3.0	RT Shoulder		2.0 RT FW								0.0-3.0: RE - Orange-Brown, Fine to Coarse Sandy SILT, with trace mica 3.0-4.0: RE - Brown-Orange, Silty CLAY, MP, with trace mica	Ref-7 S-115	A-4 A-7-5(8)	M W	4.0		676,095	802,974

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

Prepared by: CTW
Reviewed by: DMB

PAVEMENT INVESTIGATION DATA SHEET

Project:	48470.1.1
TIP:	R-5921

Route:	US 276 (Johnathan Creek Rd) from US 19 to 0.5 miles south of I-40
County:	Haywood

Date Performed:	11/16, 11/17, 11/18, 11/21, 11/22
Field Personnel:	M. Brewer, P. Tomasic, T. Wenner

		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
DCP-16 -L- Sta. 97+50	Fill 5.0	LT Shoulder		1.5 RT FW								0.0-3.0: RE - Brown, Silty Fine to Coarse SAND, with trace mica	Ref-42	A-2-4	M	3.0 AR		677,500	803,455
DCP-17 -L- Sta. 100+00	Fill 5.0	RT Median		6.0 LT FY								0.0-3.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-41	A-4	M	3.0 AR		677,688	803,632
DCP-18 -L- Sta. 107+00	Fill 5.0	LT Median		6.0 LT FY								0.0-4.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-41	A-4	M	4.0		678,315	803,945
DCP-19 -L- Sta. 110+50	Fill 5.0	RT Shoulder		3.0 RT FW								Utility Conflict, No Auger performed						678,590	804,171
DCP-20 -L- Sta. 115+00	Fill 5.0	RT Median		5.0 LT FY								0.0-2.0: RE - Brown, Silty Fine to Coarse SAND, with boulders and trac mica	Ref-42	A-2-4	M	2.0 AR		679,022	804,319
DCP-21 -L- Sta. 121+00	Fill 7.0	LT Median		4.5 LT FW								0.0-2.8: RE - Red-Brown, Fine to Coarse Sandy SILT	Ref-43	A-4	M	2.8 AR		679,620	804,359
DCP-22 -L- Sta. 125+50	Fill 7.0	LT Shoulder		1.5 RT FW								Utility Conflict, No Auger performed						680,052	804,263
DCP-23 -L- Sta. 132+00	Fill 5.0	RT Median		5.0 LT FY								0.0-5.0: RE - Red-Brown, Fine to Coarse Sandy SILT	Ref-44	A-4	M	5.0		680,698	804,165
DCP-25 -L- Sta. 138+00	Fill 5.0	LT Shoulder		8.0 RT FW								Utility Conflict, No Auger performed RE - Dark Brown, Silty Fine to Coarse SAND, with trace gravel	Ref-124	A-2-4				681,282	804,005
DCP-24 -L- Sta. 138+00	Fill 5.0	LT Median		7.0 LT FY								0.0-5.0: RE - Dark Brown, Silty Fine to Coarse SAND, with trace gravel	S-124	A-2-4	M	5.0		681,286	804,043
DCP-26 -L- Sta. 141+50	Fill 5.0	RT Shoulder		2.0 RT FW								0.0-4.0: RE - Brown, Silty Fine to Coarse SAND, with trace mica	Ref-42	A-2-4	M	4.0		681,638	804,080
DCP-27 -L- Sta. 145+00	Fill 5.0	RT Median		6.0 LT FY								0.0-5.0: RE - Brown, Silty Fine to Coarse SAND, with trace mica	Ref-42	A-2-4	M	5.0		681,986	804,046
DCP-28 -L- Sta. 157+50												Utility Conflict, No Auger/DCP performed, test omitted						-	-
DCP-29 -L- Sta. 161+00	Fill 5.0	LT Median		3.0 LT FY								0.0-5.0: RE - Brown, Fine to Coarse SAND, with trace gravel	Ref-16	A-1-b	M	5.0		683,564	804,273
DCP-30 -L- Sta. 161+00	Fill 5.0	RT Median		5.5 LT FY								0.0-5.0: RE - Brown, Fine to Coarse SAND, with trace gravel	Ref-16	A-1-b	M	5.0		683,556	804,298

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

Prepared by: CTW
Reviewed by: DMB

PAVEMENT INVESTIGATION DATA SHEET

Project:	48470.1.1
TIP:	R-5921

Route:	US 276 (Johnathan Creek Rd) from US 19 to 0.5 miles south of I-40
County:	Haywood

Date Performed:	11/16, 11/17, 11/18, 11/21, 11/22
Field Personnel:	M. Brewer, P. Tomasic, T. Wenner

		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
DCP-32 -L- Sta. 166+00	Fill 2.0	LT Shoulder		5.0 RT FW								Utility Conflict, No Auger performed RE - Brown, Silty Fine to Coarse SAND, with trace mica and gravel	Ref-18	A-2-4				684,049	804,407
DCP-31 -L- Sta. 166+00	Fill 5.0	LT Median		5.0 LT FY								0.0-4.0: RE - Brown, Silty Fine to Coarse SAND, with trace mica and gravel Auger Refusal on Boulder	Ref-18	A-2-4	M	4.0 AR		684,037	804,439
DCP-33 -L- Sta. 170+00	Fill 5.0	RT Shoulder		2.0 RT FW								Utility Conflict, No Auger performed						684,383	804,649
DCP-34 -L- Sta. 184+00	Fill 5.0	RT Median		7.0 LT FY								0.0-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica and gravel	Ref-50	A-4	M	5.0		685,690	805,151
DCP-35 -L- Sta. 187+49	Fill 5.0	LT Shoulder		1.5 RT FW								Utility Conflict, No Auger performed						686,037	805,226
DCP-36 -L- Sta. 188+00	Fill 5.0	LT Median		5.5 LT FY								0.0-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica and gravel	Ref-50	A-4	M	5.0		686,072	805,274
DCP-37 -L- Sta. 196+00	Fill 5.0	RT Median		4.5 LT FY								0.0-1.5: RE - Brown, Fine to Coarse Sandy SILT 1.5-2.8: RE - Tan, Silty CLAY, MP	Ref-50 S-137	A-4 A-7-5(9)	M M	2.8 AR		686,799	805,609
DCP-38 -L- Sta. 200+00	Fill 5.0	RT Median		4.0 LT FY								0.0-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-50	A-4	M	5.0		687,169	805,761
DCP-39 -L- Sta. 202+50	Fill 3.0	RT Shoulder		4.0 RT FW								0.0-1.2: RE - Dark Brown, Gravelly, Fine to Coarse Sandy SILT Auger	Ref-140	A-4	M	1.2 AR		687,389	805,884
DCP-40 -L- Sta. 203+00	Fill 3.0	LT Median		9.0 LT FY								0.0-5.0: RE - Dark Brown, Gravelly, Fine to Coarse Sandy SILT	S-140	A-4(0)	M	5.0		687,458	805,846
DCP-41 -L- Sta. 210+06	Fill 3.0	RT Median		4.0 LT FY								0.0-5.0: RE - RE - Brown, Fine to Coarse Sandy SILT, with trace mica and gravel	Ref-52	A-4	M	5.0		688,100	806,141
DCP-42 -L- Sta. 210+06	Fill 3.0	RT Shoulder		3.0 RT FW								0.0-4.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica and gravel	Ref-52	A-4	M	4.0		688,090	806,170
DCP-43 -L- Sta. 217+50	Fill 2.0	LT Shoulder		1.5 RT FW								0.0-3.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-24	A-4	M	3.0 AR		688,813	806,364
DCP-44 -L- Sta. 218+00	Fill 4.0	LT Median		5.0 LT FY								0.0-3.0: RE -Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-24	A-4	M	3.0 AR		688,848	806,411
DCP-45 -L- Sta. 225+01	Fill 5.0	LT Median		5.5 LT FY								0.0-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-24	A-4	M	5.0		689,497	806,677

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

Prepared by: CTW
Reviewed by: DMB

PAVEMENT INVESTIGATION DATA SHEET

Project:	48470.1.1
TIP:	R-5921

Route:	US 276 (Johnathan Creek Rd) from US 19 to 0.5 miles south of I-40
County:	Haywood

Date Performed:	11/16, 11/17, 11/18, 11/21, 11/22
Field Personnel:	M. Brewer, P. Tomasic, T. Wenner

		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
DCP-46 -L- Sta. 232+49	Fill 2.0	RT Shoulder		2.0 RT FW								0.0-3.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica	Ref-54	A-4	M	3.0 AR		690,165	807,020
DCP-47 -L- Sta. 244+00	Fill 2.0	RT Median		2.0 LT FY								0.0-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace gravel and mica	Ref-27	A-4	M	5.0		691,243	807,423
DCP-48 -L- Sta. 247+50	Fill 2.0	LT Shoulder		1.0 RT FW								Utility Conflict, No Auger performed						691,589	807,503
DCP-49 -L- Sta. 248+00	Fill 5.0	LT Median		6.0 LT FY								0.0-2.0: RE - Brown, Fine to Coarse Sandy SILT, with trace gravel and mica	Ref-27	A-4	M	2.0 AR		691,623	807,550
DCP-50 -L- Sta. 260+01	Fill 5.0	RT Median		1.0 LT FY								0.0-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace gravel and mica	Ref-27	A-4	M	5.0		692,721	808,040
DCP-51 -L- Sta. 262+50	Fill 4.0	RT Shoulder		1.0 RT FW								0.0-4.0: RE - Brown, Fine to Coarse Sandy SILT, with trace gravel and mica	Ref-27	A-4	M	4.0		692,941	808,158
DCP-52 -L- Sta. 263+00	Fill 5.0	LT Median		4.0 LT FY								0.0-3.0: RE - Brown, Fine to Coarse Sandy SILT, with trace gravel and mica	Ref-27	A-4	M	3.0 AR		693,012	808,117
DCP-53 -L- Sta. 274+00	Fill 6.0	RT Median		4.0 LT FY								0.0-5.0: RE, Orange-Brown, Fine to Coarse Sandy CLAY, with trace gravel	S-153	A-6(1)	M	5.0		694,046	808,490
DCP-54 -L- Sta. 277+48	Fill 5.0	CTL Median		15.0 LT FY								0.0-1.5: RE - Dark Brown-Red, Fine to Coarse Sandy SILT, with trace gravel	Ref-59	A-4	M	1.5 AR		694,390	808,548
DCP-55 -L- Sta. 281+00	Fill 3.0	LT Shoulder		1.5 RT FW								Utility Conflict, No Auger performed						694,746	808,557
DCP-56 -L- Sta. 281+00	Fill 5.0	LT Median		5.0 LT FY								Utility Conflict, No Auger performed						694,741	808,586
DCP-57 -L- Sta. 285+05	Fill 4.0	RT Shoulder		2.0 RT FW								0.0-4.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica and gravel	Ref-86	A-4	M	4.0		695,128	808,722
DCP-58 -L- Sta. 286+00	Fill 2.0	RT Median		3.0 LT FY								0.0-5.0: RE - Brown, Fine to Coarse Sandy SILT, with trace mica and gravel	Ref-86	A-4	M	5.0		695,227	808,711

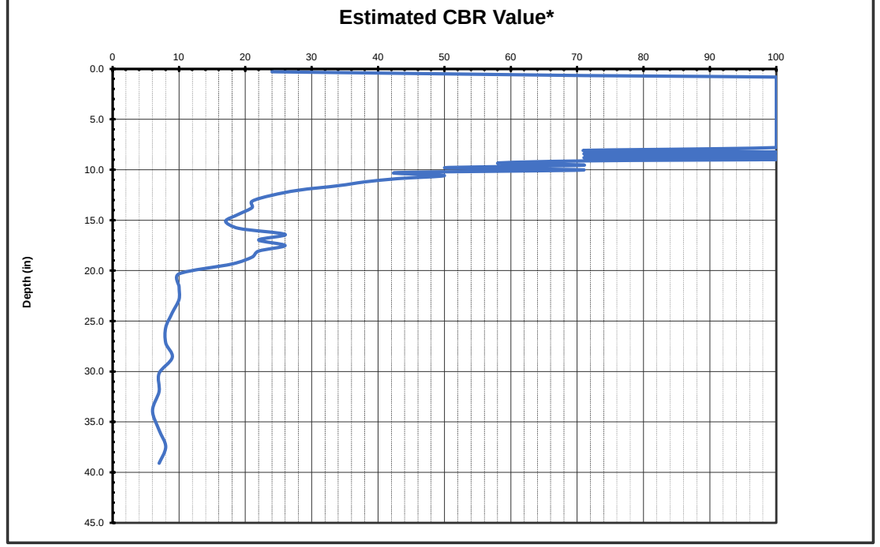
Notes:
Offset Distance: Left and Right Relative to the Direction of Travel

Prepared by: CTW
Reviewed by: DMB

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run				Test Location						Date Run			
C-1 -L- (SB) Sta. 14+51 LT ISL 12.0 FT RT FY						11/16 to 11/22/22				C-2 -L- (SB) Sta. 14+51 LTL (LT) 2.0 FT RT FY						11/16 to 11/22/22			
Type	Test Interval				Datum		Cut/Fill			Type	Test Interval				Datum		Cut/Fill		
DCP	Cumulative cm per blow				ABC		7.0 ft Fill			DCP	Cumulative cm per blow				ABC		8.0 ft Fill		
1.40	16.38									1.60	16.62	24.64	90.40						
1.90	16.66									2.20	16.76	24.75	91.10						
2.20	16.94									2.70	16.90	24.86	92.10						
2.50	17.22									3.00	17.04	24.97	93.40						
2.80	17.50									3.40	17.18	25.08	94.50						
2.90	17.82									3.70	17.32	25.19	95.00						
3.14	18.14									3.90	17.46	25.30	96.00						
3.38	18.46									4.00	17.60	25.50	96.50						
3.62	18.78									4.24	17.80	26.20	96.70						
3.86	19.10									4.48	18.00	26.60	97.70						
4.10	19.40									4.72	18.20	27.10	98.50						
4.34	19.70									4.96	18.40	27.60	99.30						
4.58	19.90									5.20	18.60	28.30	100.30						
4.82	20.30									5.30	18.80	28.50	101.00						
5.06	20.80									5.50	19.00	28.60	102.10						
5.30	21.10									5.70	19.20	28.90	103.10						
5.46	21.60									5.90	19.40	29.70	104.30						
5.62	21.90									6.10	19.60	29.90	105.60						
5.78	22.10									6.30	19.68	30.30	106.00						
5.94	22.60									6.54	19.76	30.70							
6.10	22.90									6.78	19.84	31.10							
6.32	23.40									7.02	19.92	31.40							
6.54	24.00									7.26	20.00	32.00							
6.76	24.50									7.50	20.08	32.40							
6.98	25.20									7.74	20.16	32.90							
7.20	25.70									7.98	20.24	33.30							
7.46	26.50									8.22	20.32	33.70							
7.72	27.20									8.46	20.40	34.20							
7.98	28.00									8.70	20.62	34.70							
8.24	28.90									8.90	20.84	35.30							
8.50	29.90									9.10	21.06	35.90							
8.72	31.10									9.30	21.28	36.50							
8.94	32.50									9.50	21.50	37.10							
9.16	34.10									9.70	21.58	37.80							
9.38	35.70									9.88	21.66	38.80							
9.60	37.40									10.06	21.74	40.00							
9.80	39.30									10.24	21.82	42.10							
10.00	41.00									10.42	21.90	44.40							
10.20	42.30									10.60	21.96	46.40							
10.40	43.80									10.80	22.02	49.90							
10.60	45.10									11.00	22.08	52.40							
10.82	46.60									11.20	22.14	55.10							
11.04	48.20									11.40	22.20	57.80							
11.26	50.00									11.60	22.32	60.40							
11.48	53.20									11.72	22.44	62.60							
11.70	56.40									11.84	22.56	64.50							
11.90	59.60									11.96	22.68	66.10							
12.10	63.20									12.08	22.80	68.10							
12.30	67.00									12.20	22.92	69.90							
12.50	70.90									12.48	23.04	71.40							
12.70	74.40									12.76	23.16	72.80							
12.92	78.90									13.04	23.28	74.40							
13.14	83.50									13.32	23.40	75.70							
13.36	88.60									13.60	23.48	77.20							
13.58	93.30									13.92	23.56	78.40							
13.80	97.00									14.24	23.64	79.20							
14.00	101.60									14.56	23.72	80.30							
14.20										14.88	23.80	81.60							
14.40										15.20	23.88	82.90							
14.60										15.40	23.96	83.90							
14.80										15.60	24.04	84.60							
15.06										15.80	24.12	85.30							
15.32										16.00	24.20	86.40							
15.58										16.20	24.31	86.80							
15.84										16.34	24.42	87.90							
16.10										16.48	24.53	89.10							

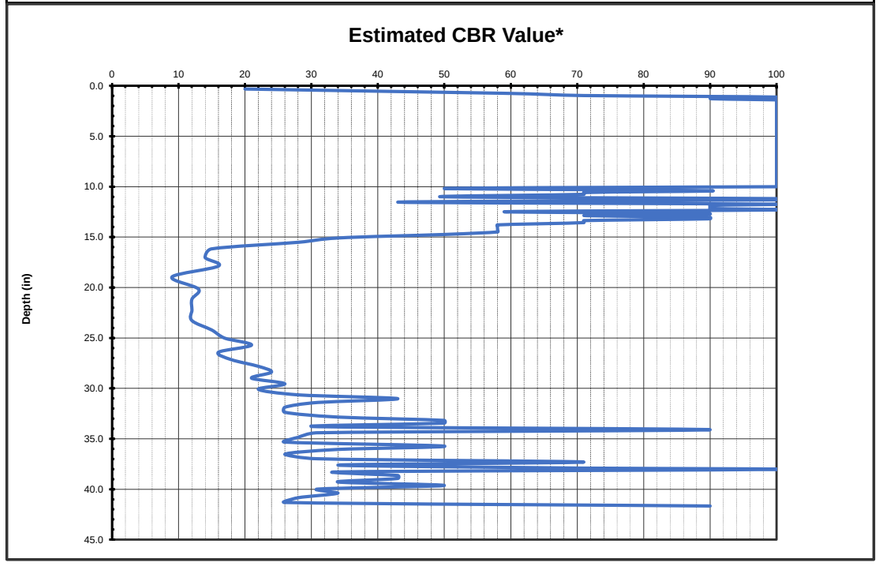
Test Location
C-1 -L- (SB) Sta. 14+51 LT ISL 12.0 FT RT FY



ABC	
ABC Thickness (in)	8.75
Average CBR	98
Weighted CBR Average	93
Maximum CBR Value	100
Minimum CBR Value	24

Soil Subgrade	
Average CBR	29
Weighted Average	16
Max CBR	100
Min CBR	6

Test Location
C-2 -L- (SB) Sta. 14+51 LTL (LT) 2.0 FT RT FY



ABC	
ABC Thickness (in)	12.50
Average CBR	97
Weighted CBR Average	89
Maximum CBR Value	100
Minimum CBR Value	20

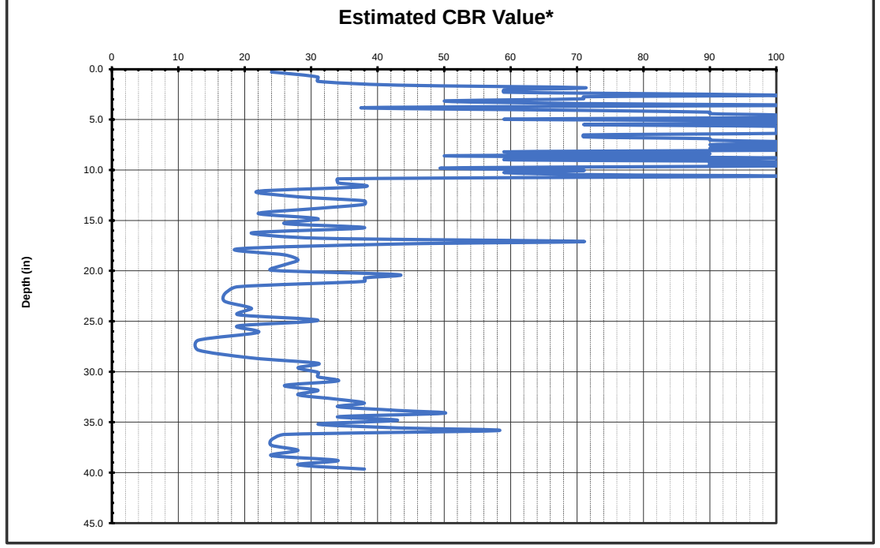
Soil Subgrade	
Average CBR	40
Weighted Average	28
Max CBR	100
Min CBR	9

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								48470.1.1		R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY		FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood		T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run		Test Location						Date Run	
C-3 -L- (SB) Sta. 27+71 LTL (LT) 4.0 FT RT FY								11/16 to 11/22/22		C-4 -L- (SB) Sta. 30+64 LT OSS 0.2 FT RT FW						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill		Type	Test Interval				Datum			Cut/Fill	
DCP	Cumulative cm per blow				ABC			6.0 ft Fill		DCP	Cumulative cm per blow				ABC			8.0 ft Fill	
1.40	32.70									0.80	28.65	93.40							
2.50	33.60									1.70	29.40	94.90							
3.60	34.50									2.10	30.40	95.90							
4.40	35.60									2.50	31.30	97.00							
4.90	37.10									3.10	32.40	98.40							
5.50	38.20									3.60	34.50	99.50							
6.10	39.50									4.10	36.70	100.40							
6.50	40.40									4.70	39.10	101.40							
6.70	42.00									4.90	41.30	101.90							
7.20	43.10									5.60	43.20	102.40							
7.70	43.60									5.80	45.50								
8.40	44.40									6.00	48.50								
8.90	46.10									6.50	51.50								
9.10	47.40									6.90	53.40								
9.20	48.60									7.20	55.20								
10.10	49.90									7.50	55.60								
10.60	51.30									7.90	56.00								
11.00	52.10									8.30	56.10								
11.40	53.00									8.90	56.50								
11.60	53.90									9.10	56.70								
11.90	55.60									9.70	56.90								
12.10	57.50									10.00	57.50								
12.30	59.40									10.30	57.80								
12.90	61.00									10.60	58.00								
13.10	62.70									10.80	58.10								
13.40	63.80									11.20	58.60								
13.70	65.50									11.50	58.80								
14.20	67.00									11.70	59.30								
14.50	69.50									12.00	59.50								
14.80	71.90									12.60	59.70								
15.10	73.50									13.00	60.00								
15.40	74.60									13.40	60.40								
15.70	75.80									13.80	60.80								
16.00	76.90									14.30	61.10								
16.30	78.00									14.80	61.90								
16.80	79.00									15.20	62.80								
17.30	80.30									15.70	63.10								
17.70	81.40									16.10	64.10								
18.10	82.60									16.50	65.20								
18.30	83.60									16.60	65.90								
18.50	84.50									17.00	66.90								
18.80	85.50									17.30	68.00								
19.20	86.30									17.60	68.90								
19.40	87.00									18.00	69.60								
19.70	88.00									18.20	70.70								
20.10	88.80									18.80	71.70								
20.30	89.90									19.20	72.80								
20.50	90.70									19.40	73.60								
21.10	91.30									19.70	74.60								
21.50	92.60									20.40	75.60								
22.20	94.00									20.50	76.50								
22.50	95.40									21.40	77.50								
23.10	96.60									21.80	78.50								
23.40	98.00									22.40	79.60								
23.80	99.00									22.90	80.90								
24.20	100.20									23.10	81.70								
24.50	101.10									23.60	82.40								
25.20										24.10	83.60								
25.70										24.60	84.80								
26.30										24.80	86.00								
26.80										25.50	86.90								
27.10										26.10	87.80								
28.10										26.60	88.80								
29.10										27.00	89.90								
30.00										27.50	91.00								
31.50										27.90	92.20								

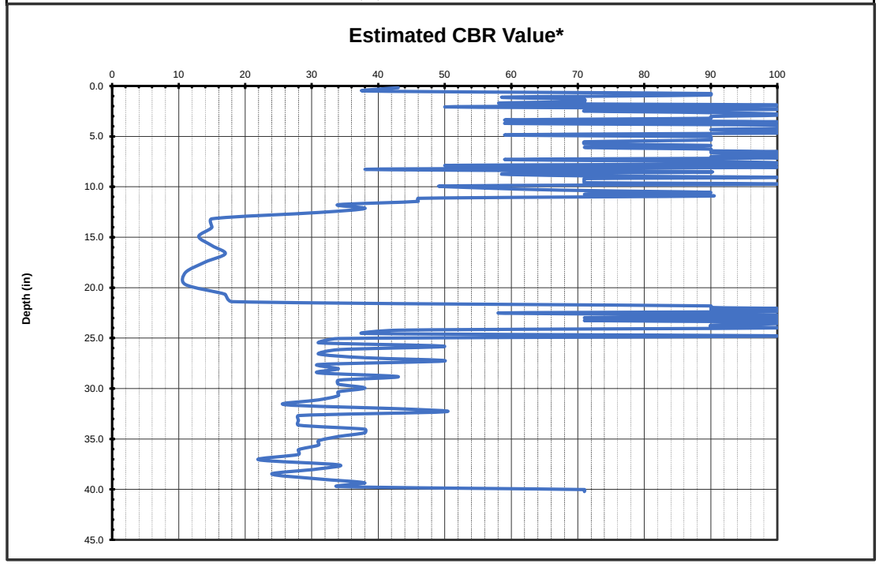
Test Location
C-3 -L- (SB) Sta. 27+71 LTL (LT) 4.0 FT RT FY



ABC	
ABC Thickness (in)	11.25
Average CBR	81
Weighted CBR Average	69
Maximum CBR Value	100
Minimum CBR Value	24

Soil Subgrade	
Average CBR	31
Weighted Average	28
Max CBR	71
Min CBR	13

Test Location
C-4 -L- (SB) Sta. 30+64 LT OSS 0.2 FT RT FW



ABC	
ABC Thickness (in)	10.00
Average CBR	82
Weighted CBR Average	75
Maximum CBR Value	100
Minimum CBR Value	38

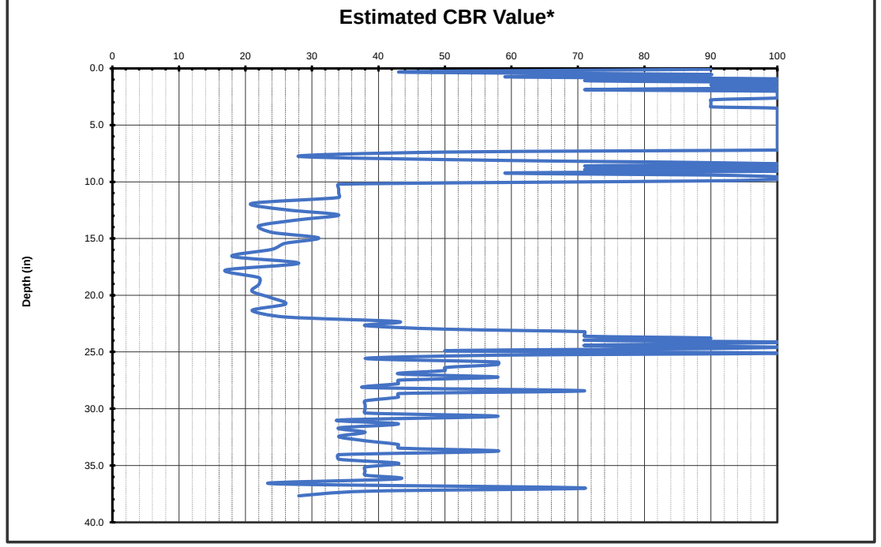
Soil Subgrade	
Average CBR	50
Weighted Average	34
Max CBR	100
Min CBR	11

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
C-70 -L- (SB) Sta. 30+64 LT OSL 1.6 FT LT FW								11/16 to 11/22/22				C-71 -L- (SB) Sta. 30+64 LT ISL 3.0 FT RT FY						11/16 to 11/22/22	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill					
DCP	Cumulative cm per blow			ABC		8.0 ft Fill		DCP	Cumulative cm per blow			ABC		8.0 ft Fill					
0.40	21.30	76.70						1.20	6.60	32.70									
1.20	21.60	77.60						1.90	6.70	33.80									
1.60	22.10	78.20						2.40	7.00	34.80									
2.20	22.40	79.20						2.80	7.20	35.50									
2.50	22.90	80.00						3.00	7.30	36.30									
3.00	23.10	81.00						3.20	7.40	37.40									
3.20	23.70	81.90						3.40	7.50	38.30									
3.50	24.10	82.90						3.60	7.60	39.40									
3.90	24.40	83.80						3.80	7.70	40.70									
4.20	24.70	84.60						3.96	7.80	42.00									
4.50	25.00	85.40						4.12	7.90	43.40									
5.00	25.40	86.00						4.28	8.00	45.00									
5.20	26.40	87.00						4.44	8.10	46.40									
5.52	27.40	88.00						4.60	8.20	47.80									
5.84	28.40	88.80						4.72	8.25	49.20									
6.16	29.40	89.70						4.84	8.30	51.00									
6.48	31.00	90.60						4.96	8.35	52.80									
6.80	32.30	91.50						5.08	8.40	53.90									
7.20	33.30	92.30						5.20	8.45	55.70									
7.60	34.50	93.70						5.40	8.50	57.40									
8.00	36.00	94.20						5.60	8.55	59.10									
8.40	37.40	95.10						5.80	8.60	60.30									
8.80	38.50	96.30						6.00	8.65	62.00									
8.94	39.80							6.20	8.70	63.40									
9.08	41.20							6.38	8.81	65.80									
9.22	43.00							6.56	8.92	68.10									
9.36	44.20							6.74	9.03	69.70									
9.50	46.10							6.92	9.14	71.40									
9.80	47.60							7.10	9.25	73.30									
10.10	49.10							7.28	9.36										
10.40	50.70							7.46	9.47										
10.70	52.10							7.64	9.58										
11.00	53.40							7.82	9.69										
11.18	55.00							8.00	9.80										
11.36	56.30							8.12	10.05										
11.54	57.10							8.24	10.30										
11.72	58.00							8.36	10.55										
11.90	58.70							8.48	10.80										
12.10	59.20							8.60	11.05										
12.30	59.70							8.76	11.30										
12.50	60.20							8.92	11.55										
12.70	60.60							9.08	11.80										
12.90	61.10							9.24	12.05										
13.14	61.40							9.40	12.30										
13.38	61.80							9.50	12.90										
13.62	62.30							9.60	13.70										
13.86	62.50							9.70	14.60										
14.10	62.90							9.80	15.60										
14.36	63.60							9.90	16.20										
14.62	63.90							10.00	17.00										
14.88	64.50							10.10	18.40										
15.14	65.40							10.20	19.50										
15.40	66.00							10.30	20.90										
15.72	66.60							10.40	22.30										
16.04	67.30							DCP REF	23.60										
16.36	68.00							AUGER 18.3	25.00										
16.68	68.80							TO 28.7 CM	26.20										
17.00	69.40							1.10	26.40										
17.28	70.20							1.80	27.40										
17.56	71.00							2.30	27.90										
17.84	71.90							2.90	28.30										
18.12	72.40							3.40	28.60										
18.40	73.20							3.50	29.30										
19.10	74.00							4.20	29.80										
20.30	74.90							5.10	30.50										
20.90	75.80							5.80	31.60										

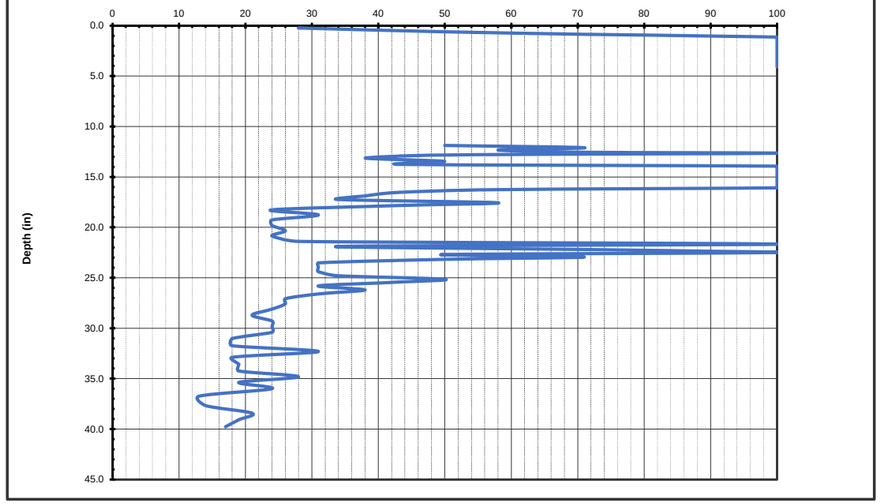
Test Location
C-70 -L- (SB) Sta. 30+64 LT OSL 1.6 FT LT FW



ABC	
ABC Thickness (in)	9.50
Average CBR	93
Weighted CBR Average	86
Maximum CBR Value	100
Minimum CBR Value	28

Soil Subgrade	
Average CBR	47
Weighted Average	38
Max CBR	100
Min CBR	17

Test Location
C-71 -L- (SB) Sta. 30+64 LT ISL 3.0 FT RT FY



ABC	
ABC Thickness (in)	10.00
Average CBR	97
Weighted CBR Average	87
Maximum CBR Value	100
Minimum CBR Value	28

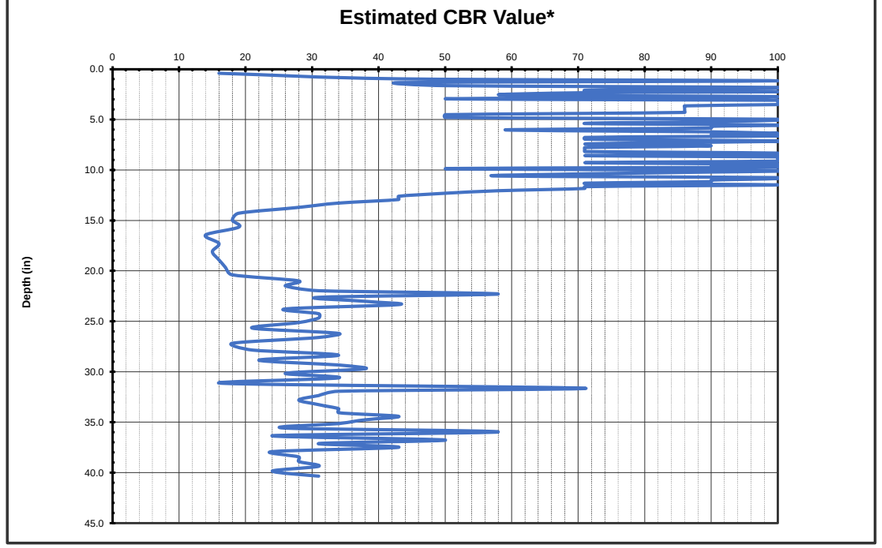
Soil Subgrade	
Average CBR	64
Weighted Average	25
Max CBR	100
Min CBR	1

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								48470.1.1		R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY		FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood		T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run		Test Location					Date Run				
C-72 -L- (SB) Sta. 30+64 LT ISS 0.2 FT RT FY						11/16 to 11/22/22		C-5 -L- (SB) Sta. 42+24 LT ISL 0.2 FT RT FY					11/16 to 11/22/22				
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill			
DCP	Cumulative cm per blow			ABC		8.0 ft Fill		DCP	Cumulative cm per blow			ABC		5.0 ft Fill			
2.00	27.40	101.90						1.80	42.30	71.50							
2.80	27.70	103.00						2.60	42.40	72.00							
3.00	28.10							3.20	42.50	72.40							
3.80	28.50							3.50	42.60	73.40							
4.50	29.00							4.00	42.70	73.80							
4.70	29.30							4.50	42.80	74.50							
5.10	29.80							4.90	42.90	75.00							
5.60	30.30							5.40	43.01	75.60							
5.70	30.90							5.60	43.12	76.20							
6.20	31.60							5.80	43.23	76.90							
6.80	32.40							6.40	43.34	77.30							
7.10	33.20							6.50	43.45	77.90							
7.80	34.20							6.90	43.56	78.30							
7.90	35.40							7.10	43.67	78.90							
8.00	37.10							7.40	43.78	79.20							
8.20	38.90							7.70	43.89	79.80							
8.40	40.60							8.10	44.00	80.50							
8.60	42.90							8.60	44.30	81.00							
8.80	44.90							8.80	44.60	81.80							
9.00	47.00							9.10	44.90	82.60							
9.42	49.00							9.50	45.20	83.30							
9.84	50.90							10.00	45.50	83.80							
10.26	52.70							10.40	45.86	84.30							
10.68	53.90							10.70	46.22	85.40							
11.10	55.20							10.90	46.58	85.90							
11.80	56.30							11.30	46.94	86.70							
12.50	56.90							11.60	47.30	87.10							
12.70	58.00							11.90	48.08	87.80							
13.00	58.90							12.30	48.86	88.80							
13.40	59.70							12.80	49.64	89.30							
13.90	61.00							13.00	50.42	90.20							
14.20	62.10							13.30	51.20	90.90							
14.60	63.20							13.70	52.10	91.50							
15.00	64.40							13.90	53.10	92.20							
15.60	66.00							14.40	53.60	93.00							
16.00	67.00							14.80	54.10	93.60							
16.30	68.10							15.30	54.60	94.50							
16.70	69.90							15.60	55.40	95.10							
16.90	71.50							16.10	56.10	95.60							
17.40	72.50							17.00	56.80	96.50							
17.90	74.00							17.30	57.60	97.30							
18.20	75.00							18.00	58.00	98.40							
18.60	75.90							18.70	58.70	99.10							
19.10	77.20							19.10	59.20	99.70							
19.50	78.20							19.50	59.90	100.50							
20.00	80.10							20.30	60.50	100.80							
20.50	80.60							21.20	60.90								
21.00	81.60							22.20	61.50								
21.20	82.70							23.10	62.10								
21.50	83.90							24.60	62.70								
22.00	85.00							26.30	63.50								
22.20	86.00							27.10	64.00								
22.50	87.00							28.90	64.50								
22.80	87.80							30.70	65.60								
23.00	88.70							32.40	66.10								
23.30	89.70							33.90	66.90								
23.80	91.00							35.60	67.30								
24.00	91.60							37.20	67.70								
24.20	93.00							38.60	68.10								
24.60	93.70							39.63	68.30								
24.70	94.80							40.67	68.90								
25.40	95.60							41.70	69.10								
25.70	97.00							41.90	69.70								
26.10	98.20							42.00	70.00								
26.60	99.40							42.10	70.70								
27.20	100.50							42.20	71.00								

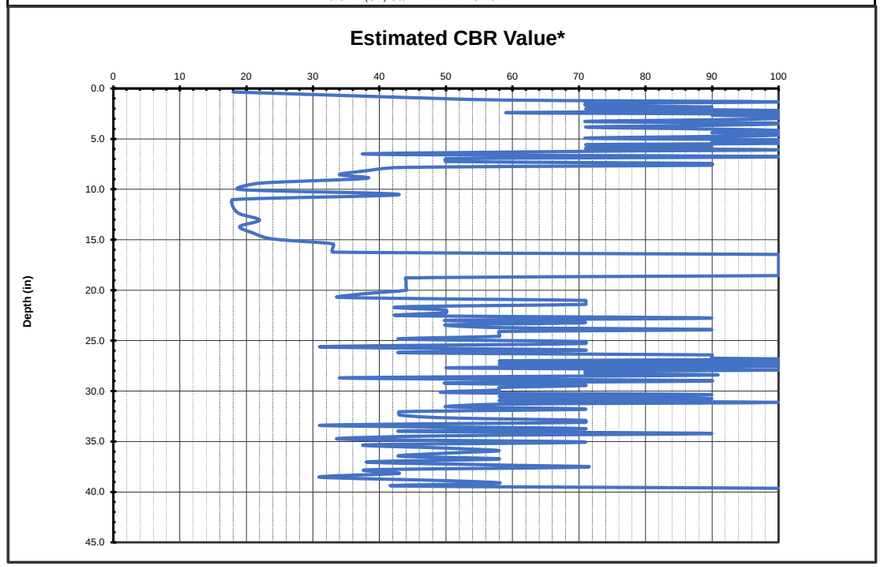
Test Location
C-72 -L- (SB) Sta. 30+64 LT ISS 0.2 FT RT FY



ABC	
ABC Thickness (in)	10.00
Average CBR	84
Weighted CBR Average	72
Maximum CBR Value	100
Minimum CBR Value	16

Soil Subgrade	
Average CBR	40
Weighted Average	31
Max CBR	100
Min CBR	14

Test Location
C-5 -L- (SB) Sta. 42+24 LT ISL 0.2 FT RT FY



ABC	
ABC Thickness (in)	7.75
Average CBR	83
Weighted CBR Average	72
Maximum CBR Value	100
Minimum CBR Value	18

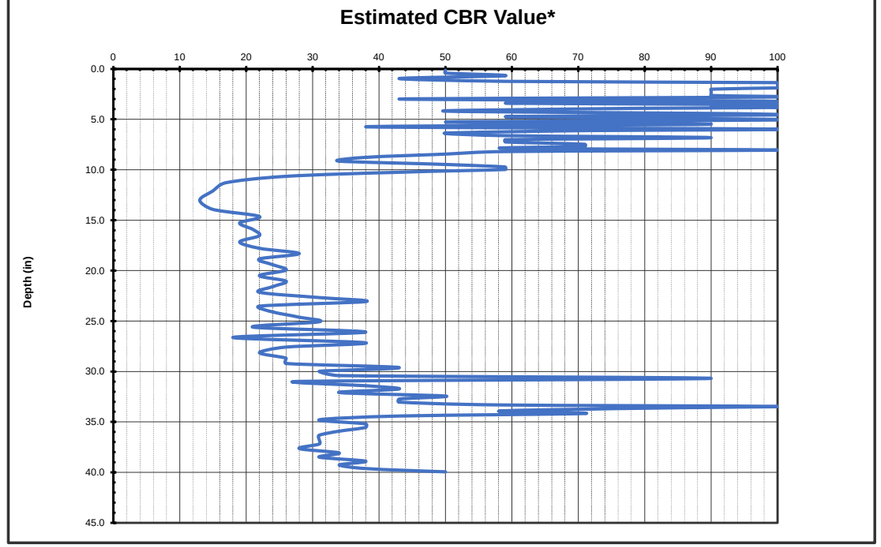
Soil Subgrade	
Average CBR	66
Weighted Average	50
Max CBR	100
Min CBR	18

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								48470.1.1		R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY		FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood		T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run		Test Location						Date Run	
C-6 -L- (SB) Sta. 59+19 LT OSL 0.6 FT LT FW								11/16 to 11/22/22		C-7 -L- (SB) Sta. 75+11 LT ISL 1.0 FT RT FY						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill		Type	Test Interval				Datum			Cut/Fill	
DCP	Cumulative cm per blow				ABC			6.0 ft Fill		DCP	Cumulative cm per blow				ABC			8.0 ft Fill	
0.70	51.30									1.40	24.85								
1.40	52.80									2.10	25.33								
2.00	54.10									2.30	25.80								
2.80	55.50									3.30	26.50								
3.40	57.00									3.80	27.50								
3.50	58.10									4.10	29.00								
3.78	59.00									4.50	30.50								
4.06	60.50									4.70	32.00								
4.34	61.90									4.90	33.40								
4.62	63.10									5.10	34.80								
4.90	64.20									5.30	36.20								
5.30	65.80									5.50	37.20								
5.70	66.70									5.74	39.40								
6.10	68.50									5.98	41.20								
6.50	69.40									6.22	42.60								
6.90	70.70									6.46	43.90								
7.20	72.20									6.70	45.40								
8.00	73.50									6.88	47.00								
8.30	74.80									7.06	48.50								
8.90	75.60									7.24	50.00								
9.10	76.70									7.42	51.60								
9.50	77.70									7.60	53.20								
9.80	78.10									7.88	54.70								
10.30	79.30									8.16	56.90								
11.00	80.20									8.44	59.10								
11.40	81.00									8.72	61.40								
11.70	82.00									9.00	63.70								
12.30	82.70									9.32	66.00								
12.70	83.50									9.64	67.00								
13.00	84.30									9.96	70.40								
13.70	84.90									10.28	72.60								
14.10	85.00									10.60	74.60								
15.00	85.40									10.96	76.70								
15.30	85.90									11.32	78.70								
15.80	86.50									11.68	80.10								
16.50	87.00									12.04	81.50								
17.10	87.80									12.40	83.40								
17.50	88.90									12.78	85.10								
18.10	89.80									13.16	86.90								
18.70	90.70									13.54	88.90								
19.20	91.70									13.92	90.70								
19.70	92.80									14.30	92.40								
20.30	93.90									14.80	93.60								
20.50	95.00									15.20	95.10								
21.10	96.20									15.50	97.40								
21.80	97.20									15.80	98.30								
22.70	98.30									16.10	99.40								
23.70	99.20									16.30	100.50								
24.40	100.20									16.90	101.50								
25.00	101.10									17.20	102.60								
25.60	101.80									17.50									
26.40										17.80									
27.70										18.00									
29.60										18.20									
31.80										18.50									
34.30										18.70									
36.40										19.30									
37.90										19.80									
39.60										20.30									
41.20										21.00									
42.70										21.30									
44.40										22.20									
45.90										23.10									
47.10										23.40									
48.60										23.90									
50.00										24.38									

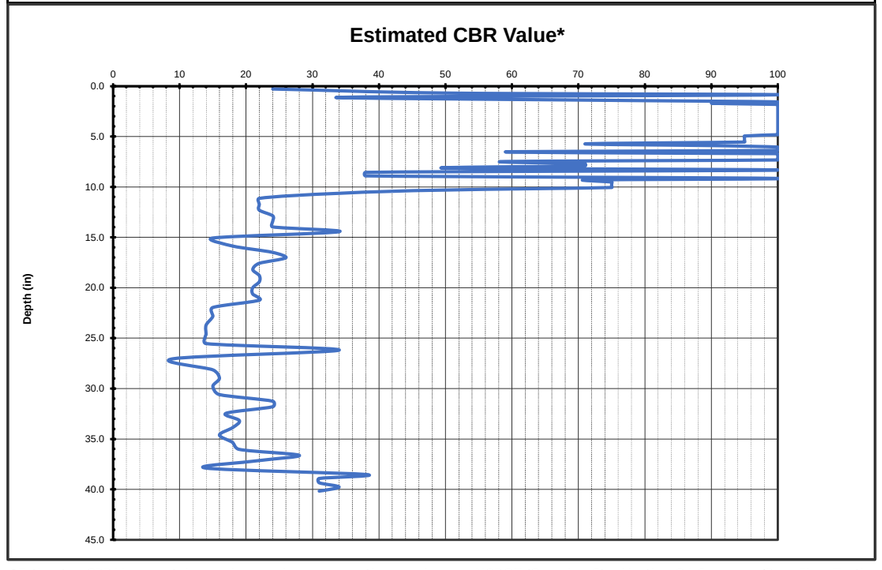
Test Location
C-6 -L- (SB) Sta. 59+19 LT OSL 0.6 FT LT FW



ABC	
ABC Thickness (in)	10.00
Average CBR	74
Weighted CBR Average	66
Maximum CBR Value	100
Minimum CBR Value	34

Soil Subgrade	
Average CBR	35
Weighted Average	29
Max CBR	100
Min CBR	13

Test Location
C-7 -L- (SB) Sta. 75+11 LT ISL 1.0 FT RT FY



ABC	
ABC Thickness (in)	9.00
Average CBR	90
Weighted CBR Average	79
Maximum CBR Value	100
Minimum CBR Value	24

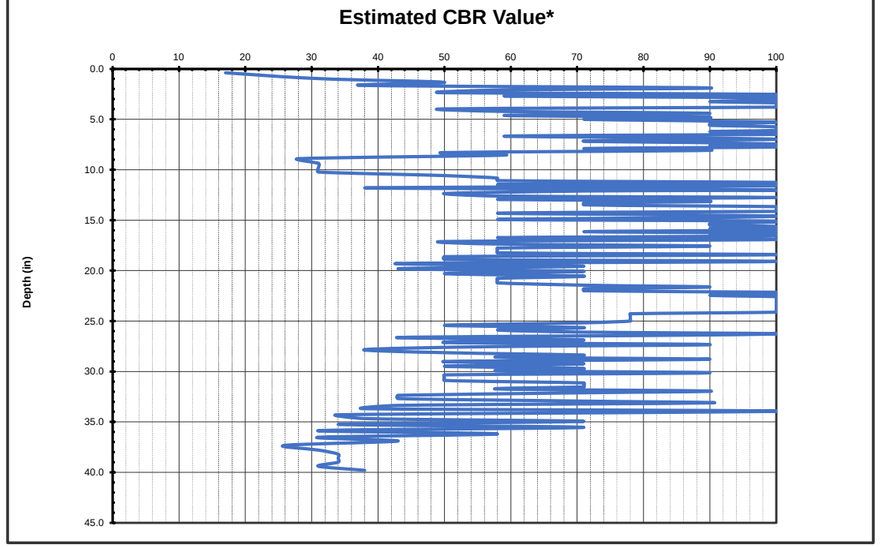
Soil Subgrade	
Average CBR	29
Weighted Average	22
Max CBR	100
Min CBR	9

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
C-8 -L- (SB) Sta. 89+64 LT OSL 0.2 FT LT FW								11/16 to 11/22/22				C-9 -L- (SB) Sta. 103+04 LT ISL 15.0 FT RT FY						11/16 to 11/22/22	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill					
DCP	Cumulative cm per blow			ABC		5.0 ft Fill		DCP	Cumulative cm per blow			ABC		5.0 ft Fill					
1.90	34.00	60.80						0.90	DCP Ref	61.80									
3.00	34.50	61.10						1.70	AUGER 9.10	62.30									
3.70	34.80	61.40						2.00	TO 20.30 CM	62.80									
4.60	35.10	61.86						2.40	1.70	63.00									
5.00	35.30	62.32						2.60	2.10	63.02									
5.60	35.50	62.78						2.80	2.60	63.03									
6.30	35.70	63.24						3.20	3.20	63.05									
6.50	36.00	63.70						3.90	3.90	63.06									
7.10	36.60	64.20						4.30	4.40	63.08									
7.40	37.00	64.90						4.60	4.80	63.10									
7.70	37.20	65.40						4.80	5.20	63.11									
8.00	37.60	66.00						5.10	5.90	63.13									
8.40	38.20	66.50						5.40	6.70	63.14									
8.70	38.40	66.80						5.60	7.40	63.16									
8.90	38.70	67.20						5.80	8.50	63.18									
9.20	39.10	68.00						5.90	10.30	63.19									
9.50	39.50	68.50						5.99	11.40	63.21									
9.70	39.80	69.20						6.07	14.20	63.22									
10.40	40.00	69.60						6.16	15.90	63.24									
11.00	40.40	70.20						6.24	16.80	63.26									
11.40	40.70	71.10						6.33	18.10	63.27									
12.00	41.20	71.80						6.41	19.30	63.29									
12.40	41.50	72.30						6.50	20.40	63.30									
12.90	41.90	72.90						6.58	21.50	63.32									
13.30	42.20	73.30						6.67	22.70	63.34									
13.60	42.80	74.00						6.75	23.70	63.35									
14.00	43.10	74.50						6.84	25.00	63.37									
14.40	43.80	75.20						6.92	25.90	63.38									
14.70	44.40	75.70						7.01	27.00	63.40									
15.00	44.80	76.30						7.09	28.00	63.42									
15.30	45.40	76.70						7.18	29.20	63.43									
15.60	46.00	77.40						7.26	30.30	63.45									
16.00	46.60	78.10						7.35	31.30	63.46									
16.30	46.90	78.80						7.43	32.30	63.48									
16.60	47.60	79.30						7.52	33.40	63.50									
17.20	48.30	79.80						7.60	34.30	63.51									
17.60	48.60	80.30						7.67	35.40	63.53									
17.90	49.40	80.90						7.74	36.30	63.54									
18.40	49.90	81.30						7.81	37.40	63.56									
18.80	50.70	81.80						7.88	38.40	63.58									
19.10	51.20	82.60						7.95	39.30	63.59									
19.50	51.90	83.40						8.02	40.30	63.61									
19.80	52.40	83.90						8.09	41.30	63.62									
20.30	53.00	84.30						8.16	42.40	63.64									
20.70	53.60	85.10						8.23	43.60	63.66									
21.40	54.20	86.00						8.30	44.60	63.67									
22.00	54.70	86.20						8.37	45.60	63.69									
23.20	55.10	86.60						8.44	46.70	63.70									
24.30	55.60	87.60						8.51	47.90	63.72									
25.40	56.10	88.50						8.58	49.10	63.74									
26.50	56.40	89.00						8.65	49.80	63.75									
27.20	56.60	90.00						8.72	50.90	63.77									
27.80	56.80	90.50						8.79	51.80	63.78									
28.40	57.20	91.60						8.86	52.70	63.80									
28.70	57.46	92.20						8.93	53.70	DCP REF									
28.80	57.72	93.30						9.00	54.70	60/0.5"									
29.40	57.98	94.10						9.22	55.50										
29.50	58.24	95.40						9.44	56.60										
30.40	58.50	96.50						9.66	57.20										
30.50	58.78	97.50						9.88	58.10										
31.00	59.06	98.50						10.10	59.70										
31.70	59.34	99.50						10.32	60.00										
32.30	59.62	100.60						10.54	60.40										
32.50	59.90	101.50						10.76	60.90										
33.10	60.20							10.98	61.00										
33.50	60.50							11.20	61.60										

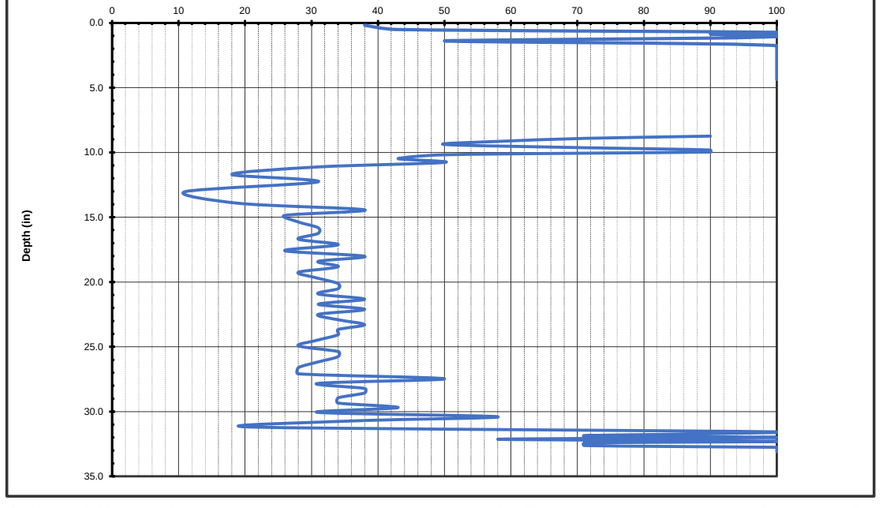
Test Location
C-8 -L- (SB) Sta. 89+64 LT OSL 0.2 FT LT FW



ABC	
ABC Thickness (in)	9.25
Average CBR	80
Weighted CBR Average	67
Maximum CBR Value	100
Minimum CBR Value	17

Soil Subgrade	
Average CBR	72
Weighted Average	61
Max CBR	100
Min CBR	26

Test Location
C-9 -L- (SB) Sta. 103+04 LT ISL 15.0 FT RT FY



ABC	
ABC Thickness (in)	9.25
Average CBR	95
Weighted CBR Average	32
Maximum CBR Value	100
Minimum CBR Value	1

Soil Subgrade	
Average CBR	68
Weighted Average	36
Max CBR	100
Min CBR	11

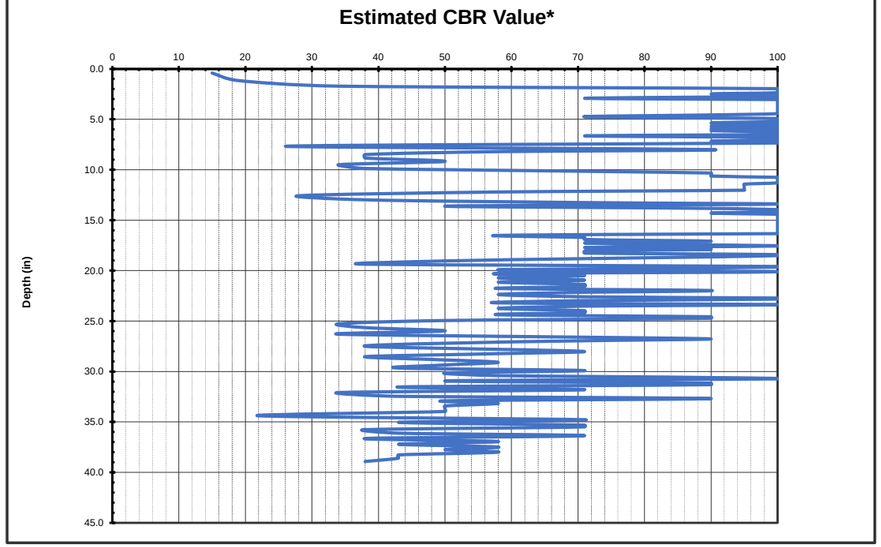
*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET				WBS NO.		PROJECT TIP I.D.		ROUTE	
				48470.1.1		R-5921		US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40	
				COUNTY		FIELD PROFESSIONAL		DRILLER/HELPER	
				Haywood		T. Wenner, P.G.		M. Brewer, P. Tomasic	
Test Location				Date Run		Test Location		Date Run	
C-10 -L- (SB) Sta. 103+04 LTL (LT) 4.5 FT RT FY				11/16 to 11/22/22		C-11 -L- (SB) Sta. 118+06 LT OSL 0.6 FT LT FW		11/16 to 11/22/22	
Type	Test Interval		Datum	Cut/Fill		Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow		ABC	5.0 ft Fill		DCP	Cumulative cm per blow	ABC	7.0 ft Fill

2.10	25.50	44.50	80.50					2.30	72.00								
3.80	26.00	44.70	81.00					3.30	73.10								
4.80	26.40	45.20	82.00					3.80	74.30								
5.10	26.80	45.60	82.80					4.40	75.50								
5.40	27.20	46.10	83.20					4.80	76.90								
5.60	27.40	46.60	83.90					5.50	78.00								
5.90	27.60	46.90	84.50					6.10	79.10								
6.10	27.80	47.10	85.20					7.10	80.20								
6.50	28.10	47.50	85.90					7.60	81.40								
6.80	28.30	48.00	86.60					8.30	82.20								
7.10	28.60	48.70	88.10					9.00	83.00								
7.60	28.80	49.60	88.60					9.70	84.00								
7.80	29.18	49.90	89.40					10.30	84.70								
8.00	29.56	50.30	89.90					10.90	85.30								
8.11	29.94	50.90	90.40					11.30	86.30								
8.22	30.32	51.20	91.30					11.50	87.20								
8.33	30.70	51.80	92.10					12.40	88.10								
8.44	31.30	52.30	92.60					12.80	89.10								
8.55	32.50	52.90	93.50					13.60	90.40								
8.66	33.40	53.40	94.10					14.20	91.60								
8.77	33.90	54.00	94.90					15.00	92.70								
8.88	34.20	54.50	95.50					16.00	93.40								
8.99	34.90	55.00	96.20					16.80	94.20								
9.10	35.30	55.60	96.80					17.50	94.30								
9.30	35.60	56.00	97.60					18.00	95.10								
9.50	35.80	56.50	98.40					18.90	95.60								
9.70	36.10	57.10	99.30					20.20	96.50								
9.90	36.50	57.60						21.00	97.70								
10.10	36.70	57.80						22.10	98.90								
10.36	36.90	58.10						22.90	99.80								
10.62	37.04	58.60						24.50	100.30								
10.88	37.17	59.20						26.00	100.70								
11.14	37.31	59.50						28.60	101.30								
11.40	37.44	60.00						31.00	101.80								
11.80	37.58	60.60						33.30	102.20								
12.30	37.71	61.10						36.00	102.60								
12.60	37.85	61.60						39.30	103.30								
12.80	37.98	62.20						43.20	104.30								
13.10	38.12	62.60						47.60	105.70								
13.40	38.25	63.00						51.00									
13.80	38.39	63.70						53.90									
14.10	38.52	64.70						56.30									
14.20	38.66	65.60						57.90									
14.60	38.79	66.30						58.60									
14.80	38.93	67.30						59.50									
15.20	39.06	67.80						60.00									
15.30	39.20	68.20						60.50									
15.70	39.33	68.70						60.90									
16.00	39.47	69.40						61.60									
16.20	39.60	70.30						62.70									
16.50	39.77	70.90						63.80									
16.60	39.94	71.40						64.60									
17.10	40.11	72.00						64.80									
17.40	40.28	72.90						65.20									
17.70	40.45	73.60						65.42									
18.00	40.62	74.20						65.64									
18.40	40.79	74.90						65.86									
18.50	40.96	75.70						66.08									
18.80	41.13	76.20						66.30									
20.10	41.30	76.90						66.64									
20.50	41.60	77.50						66.98									
21.10	42.20	77.90						67.32									
22.00	42.70	78.20						67.66									
22.90	43.20	78.90						68.00									
23.60	43.60	79.30						69.90									
24.60	44.10	79.70						71.00									

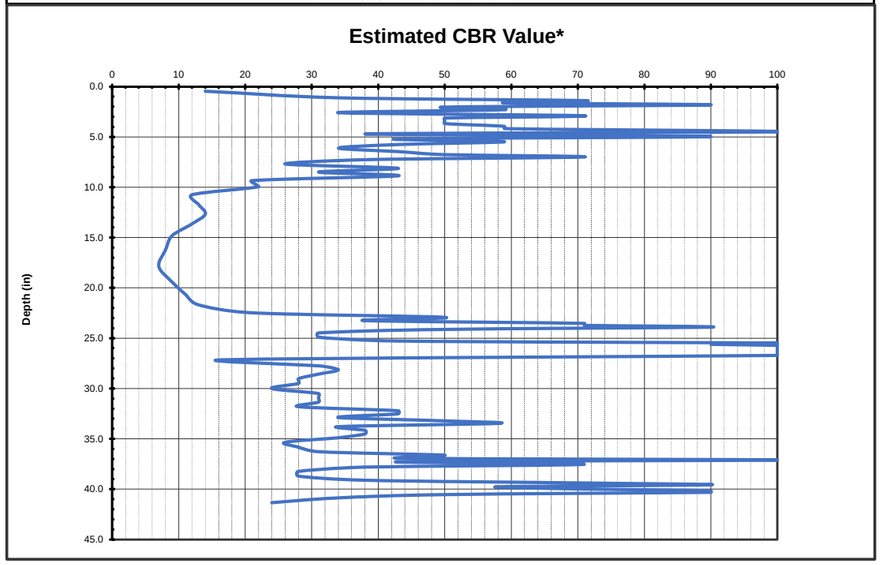
Test Location
C-10 -L- (SB) Sta. 103+04 LTL (LT) 4.5 FT RT FY



ABC	
ABC Thickness (in)	9.50
Average CBR	89
Weighted CBR Average	68
Maximum CBR Value	100
Minimum CBR Value	15

Soil Subgrade	
Average CBR	76
Weighted Average	64
Max CBR	100
Min CBR	22

Test Location
C-11 -L- (SB) Sta. 118+06 LT OSL 0.6 FT LT FW



ABC	
ABC Thickness (in)	8.00
Average CBR	55
Weighted CBR Average	46
Maximum CBR Value	100
Minimum CBR Value	14

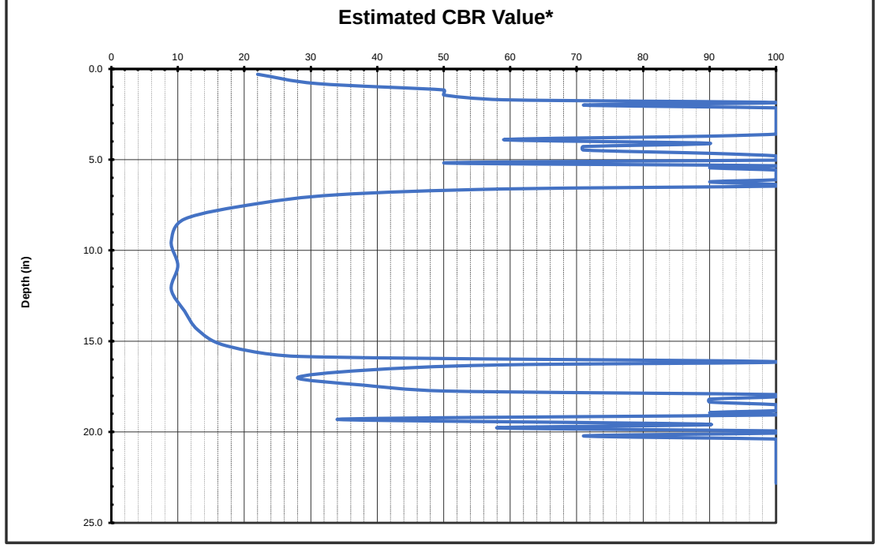
Soil Subgrade	
Average CBR	48
Weighted Average	30
Max CBR	100
Min CBR	7

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
C-12 -L- (SB) Sta. 118+06 LTL (LT) 5.0 FT RT FY								11/16 to 11/22/22				C-13 -L- (SB) Sta. 135+54 RTL (LT) 5.0 FT LT FW						11/16 to 11/22/22	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill					
DCP	Cumulative cm per blow			ABC		7.0 ft Fill		DCP	Cumulative cm per blow			ABC		5.0 ft Fill					
1.50	43.80	57.55						1.40	44.24	72.50									
2.60	44.70	57.64						2.20	44.31	73.30									
3.30	45.40	57.73						2.90	44.38	73.80									
4.00	45.70	57.82						3.70	44.45	74.90									
4.60	46.00	57.91						4.10	44.52	75.10									
4.80	46.40	58.00						4.60	44.59	76.00									
5.30	46.80	DCP REF						5.00	44.66	76.40									
5.60	47.10	50/.1"						5.40	44.73	77.10									
5.90	47.40							5.80	44.80	77.80									
6.09	47.70							6.10	44.95	78.50									
6.28	47.90							7.00	45.09	79.10									
6.47	48.30							7.50	45.24	79.40									
6.66	48.50							7.90	45.38	79.70									
6.85	49.50							8.30	45.53	80.30									
7.04	49.90							8.60	45.67	80.90									
7.23	50.50							9.10	45.82	81.90									
7.42	50.80							9.50	45.96	82.40									
7.61	51.10							9.90	46.11	83.00									
7.80	51.60							10.40	46.25	83.70									
7.94	51.90							10.80	46.40	84.00									
8.08	52.10							11.20	46.54	85.40									
8.22	52.20							11.50	46.69	85.80									
8.36	52.36							12.00	46.83	86.40									
8.50	52.52							12.40	46.98	87.20									
8.64	52.68							12.90	47.12	88.00									
8.78	52.84							13.30	47.27	89.20									
8.92	53.00							13.90	47.41	90.60									
9.06	53.08							14.30	47.56	91.50									
9.20	53.16							14.90	47.70	92.40									
9.60	53.24							15.40	48.50	93.60									
10.20	53.32							16.00	49.20	94.70									
10.60	53.40							16.60	49.80	95.80									
11.10	53.56							17.40	50.60	97.00									
11.60	53.72							18.00	51.00	97.90									
12.00	53.88							18.90	51.80	99.20									
12.30	54.04							19.80	52.40	100.10									
12.50	54.20							20.80	52.90	100.50									
12.70	54.36							22.00	53.50	100.60									
12.80	54.52							23.60	54.00	101.10									
13.50	54.68							25.30	54.50	101.70									
13.60	54.84							27.40	55.10	102.80									
14.00	55.00							29.40	55.70	103.60									
14.30	55.10							32.00	56.40	104.00									
14.50	55.20							33.30	57.10										
14.80	55.30							38.60	57.50										
15.10	55.40							40.00	58.50										
15.20	55.50							40.80	58.90										
15.40	55.60							41.40	59.30										
15.60	55.70							41.60	60.10										
16.00	55.80							41.90	60.90										
16.30	55.90							42.20	61.10										
16.50	56.00							42.50	61.50										
17.10	56.11							42.80	62.40										
18.10	56.22							43.10	63.00										
19.60	56.33							43.40	63.70										
22.40	56.44							43.47	64.50										
25.90	56.55							43.54	65.50										
29.10	56.66							43.61	66.60										
32.50	56.77							43.68	67.10										
35.30	56.88							43.75	67.60										
37.70	56.99							43.82	68.20										
39.60	57.10							43.89	69.00										
40.80	57.19							43.96	69.70										
41.10	57.28							44.03	70.50										
41.70	57.37							44.10	71.10										
42.60	57.46							44.17	71.60										

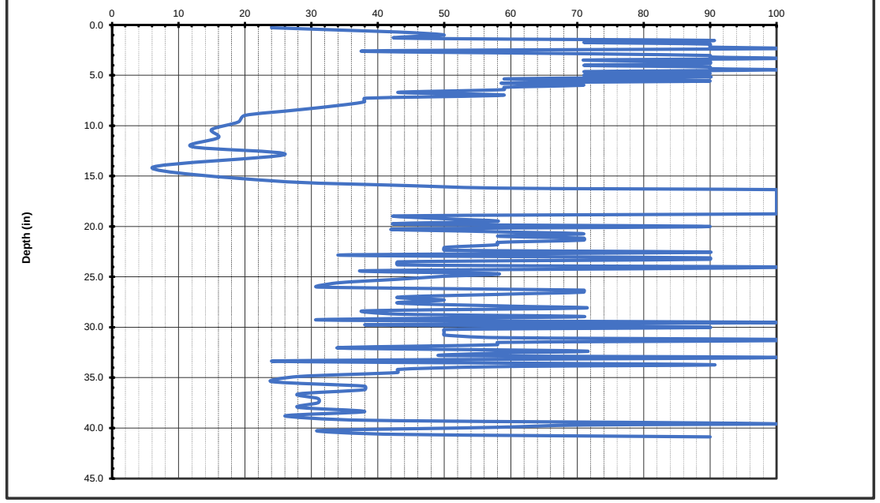
Test Location
C-12 -L- (SB) Sta. 118+06 LTL (LT) 5.0 FT RT FY



ABC	
ABC Thickness (in)	9.75
Average CBR	85
Weighted CBR Average	54
Maximum CBR Value	100
Minimum CBR Value	9

Soil Subgrade	
Average CBR	88
Weighted Average	48
Max CBR	100
Min CBR	9

Test Location
C-13 -L- (SB) Sta. 135+54 RTL (LT) 5.0 FT LT FW



ABC	
ABC Thickness (in)	10.00
Average CBR	67
Weighted CBR Average	55
Maximum CBR Value	100
Minimum CBR Value	19

Soil Subgrade	
Average CBR	70
Weighted Average	46
Max CBR	100
Min CBR	6

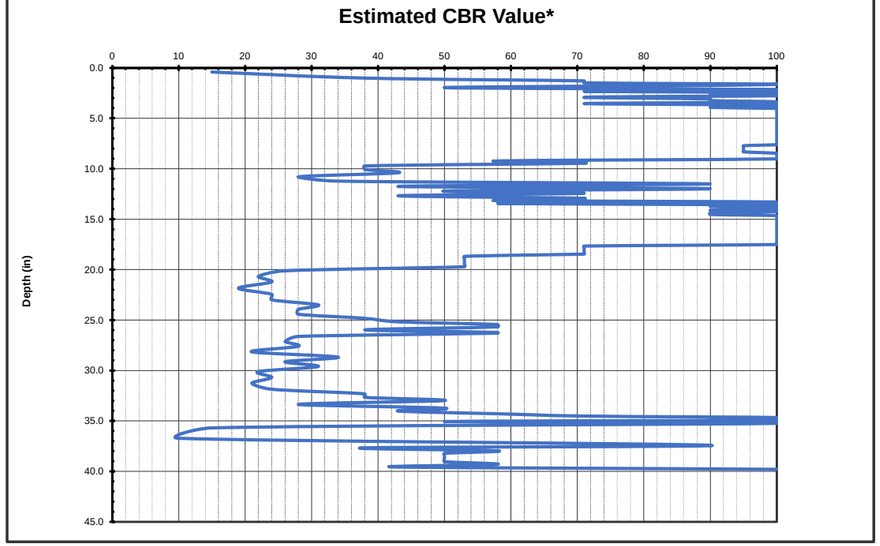
*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET				WBS NO.		PROJECT TIP I.D.		ROUTE	
				48470.1.1		R-5921		US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40	
				COUNTY		FIELD PROFESSIONAL		DRILLER/HELPER	
				Haywood		T. Wenner, P.G.		M. Brewer, P. Tomasic	
Test Location				Date Run		Test Location		Date Run	
C-14 -L- (SB) Sta. 135+54 LT ISL 2.0 FT RT FY				11/16 to 11/22/22		C-15 -L- (SB) Sta. 150+00 LT OSL 3.3 FT LT FW		11/16 to 11/22/22	
Type	Test Interval		Datum	Cut/Fill		Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow		ABC	5.0 ft Fill		DCP	Cumulative cm per blow	ABC	5.0 ft Fill

2.10	18.50	40.96	88.70					0.70	17.12	41.20	62.20	80.96						
3.00	18.68	41.12	89.40					1.50	17.36	42.10	62.50	81.02						
3.50	18.86	41.28	89.60					2.00	17.60	42.90	62.70	81.09						
4.00	19.04	41.44	91.70					2.50	17.82	43.50	62.90	81.15						
4.20	19.22	41.60	94.80					3.00	18.04	43.90	63.50	81.22						
4.60	19.40	41.76	95.20					3.30	18.26	44.60	64.00	81.28						
5.30	19.78	41.92	96.10					3.70	18.48	45.40	64.30	81.35						
5.60	20.16	42.08	96.70					4.10	18.70	46.00	64.50	81.41						
6.10	20.54	42.24	97.40					4.40	18.96	46.50	65.20	81.48						
6.30	20.92	42.40	98.10					4.60	19.22	47.00	65.40	81.54						
6.50	21.30	42.62	98.80					4.80	19.48	47.30	65.80	81.61						
6.90	21.66	42.84	99.50					5.00	19.74	47.70	66.20	81.67						
7.10	22.02	43.06	100.10					5.20	20.00	48.40	66.60	81.74						
7.60	22.38	43.28	100.90					5.40	20.60	48.70	66.80	81.80						
8.00	22.74	43.50	101.20					5.62	21.20	49.20	67.40	81.91						
8.40	23.10	43.72						5.84	21.80	49.30	67.60	82.02						
8.60	23.70	43.94						6.06	22.40	49.40	68.10	82.13						
8.70	24.20	44.16						6.28	23.00	49.50	68.50	82.24						
9.20	25.10	44.38						6.50	23.28	49.60	68.90	82.35						
9.50	26.00	44.60						6.74	23.56	49.70	69.50	82.46						
9.70	26.80	45.10						6.98	23.84	49.80	69.90	82.57						
10.10	28.00	45.60						7.22	24.12	49.90	70.40	82.68						
10.25	29.00	46.10						7.46	24.40	50.00	70.70	82.79						
10.40	29.40	46.60						7.70	24.62	50.10	71.10	82.90						
10.55	30.20	47.10						7.90	24.84	50.20	71.40	DCP REF						
10.70	30.60	47.76						8.10	25.06	50.42	71.70	50/2.0"						
10.85	31.30	48.42						8.30	25.28	50.64	72.10							
11.00	31.80	49.08						8.50	25.50	50.86	72.90							
11.15	32.60	49.74						8.70	25.78	51.08	73.20							
11.30	33.10	50.40						8.88	26.06	51.30	73.50							
11.45	33.70	51.70						9.06	26.34	51.52	74.00							
11.60	33.80	53.20						9.24	26.62	51.74	74.50							
11.74	34.40	54.60						9.42	26.90	51.96	74.60							
11.88	34.60	56.30						9.60	27.22	52.18	75.50							
12.02	35.00	57.70						9.74	27.54	52.40	75.60							
12.16	35.30	59.10						9.88	27.86	52.68	75.90							
12.30	35.60	60.20						10.02	28.18	52.96	76.80							
12.44	36.00	61.40						10.16	28.50	53.24	77.00							
12.58	36.30	62.60						10.30	28.88	53.52	77.30							
12.72	36.70	63.50						10.62	29.26	53.80	77.60							
12.86	37.10	64.30						10.94	29.64	54.12	77.86							
13.00	37.22	64.90						11.26	30.02	54.44	78.12							
13.24	37.34	65.50						11.58	30.40	54.76	78.38							
13.48	37.46	66.40						11.90	30.68	55.08	78.64							
13.72	37.58	67.00						12.18	30.96	55.40	78.90							
13.96	37.70	68.20						12.46	31.24	55.68	79.10							
14.20	37.84	69.50						12.74	31.52	55.96	79.30							
14.38	37.98	70.70						13.02	31.80	56.24	79.50							
14.56	38.12	72.30						13.30	32.14	56.52	79.70							
14.74	38.26	73.30						13.48	32.48	56.80	79.90							
14.92	38.40	74.60						13.66	32.82	57.12	79.96							
15.10	38.54	75.70						13.84	33.16	57.44	80.02							
15.30	38.68	77.20						14.02	33.50	57.76	80.08							
15.50	38.82	78.60						14.20	33.80	58.08	80.14							
15.70	38.96	80.20						14.32	34.10	58.40	80.20							
15.90	39.10	81.60						14.44	34.40	58.62	80.26							
16.10	39.27	82.50						14.56	34.70	58.84	80.32							
16.38	39.44	83.40						14.68	35.00	59.06	80.38							
16.66	39.61	84.10						14.80	36.10	59.28	80.44							
16.94	39.78	85.30						15.12	36.80	59.50	80.50							
17.22	39.95	86.00						15.44	37.60	59.90	80.57							
17.50	40.12	86.80						15.76	38.50	60.30	80.63							
17.70	40.29	87.40						16.08	39.10	60.70	80.70							
17.90	40.46	87.90						16.40	39.50	61.10	80.76							
18.10	40.63	88.20						16.64	40.30	61.50	80.83							
18.30	40.80	88.60						16.88	40.70	61.80	80.89							

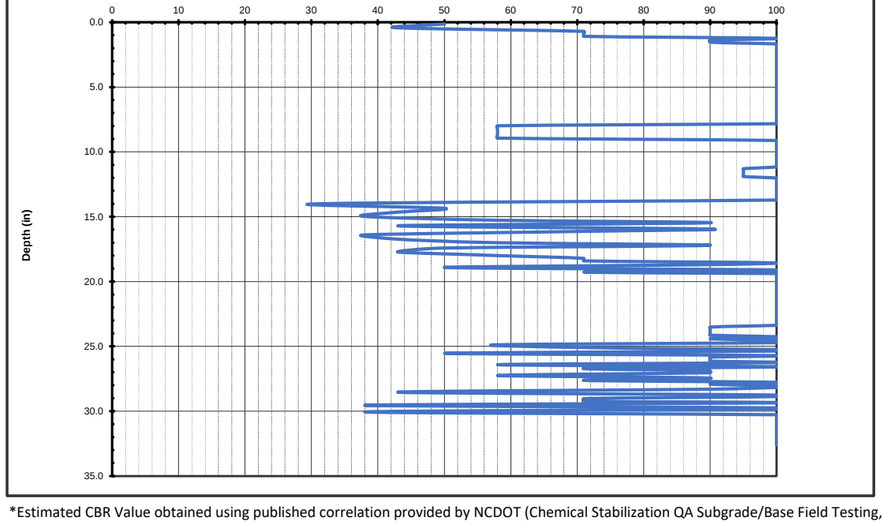
Test Location
C-14 -L- (SB) Sta. 135+54 LT ISL 2.0 FT RT FY



ABC	
ABC Thickness (in)	9.00
Average CBR	95
Weighted CBR Average	84
Maximum CBR Value	100
Minimum CBR Value	15

Soil Subgrade	
Average CBR	70
Weighted Average	47
Max CBR	100
Min CBR	10

Test Location
C-15 -L- (SB) Sta. 150+00 LT OSL 3.3 FT LT FW



ABC	
ABC Thickness (in)	7.50
Average CBR	97
Weighted CBR Average	93
Maximum CBR Value	100
Minimum CBR Value	43

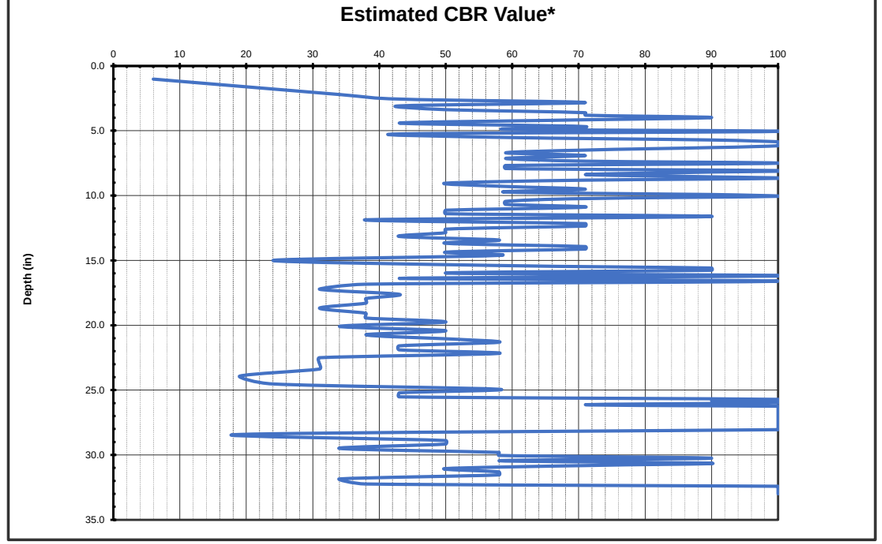
Soil Subgrade	
Average CBR	92
Weighted Average	82
Max CBR	100
Min CBR	31

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET				WBS NO.				PROJECT TIP I.D.				ROUTE			
				48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
				COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
				Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location				Date Run				Test Location				Date Run			
C-16 -L- (SB) Sta. 159+00 LTL (LT) 5.0 FT RT FY				11/16 to 11/22/22				C-17 -L- (SB) Sta. 163+96 RTL (LT) 5.0 FT LT FW				11/16 to 11/22/22			
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			ABC		6.0 ft Fill		DCP	Cumulative cm per blow			ABC		6.0 ft Fill	
5.10	41.10	69.43	83.32					2.50							
6.10	41.20	69.54	83.35					3.40							
6.90	42.00	69.65	83.38					4.50							
7.40	42.30	69.76	83.41					5.70							
8.20	43.20	69.87	83.44					6.40							
8.90	44.30	69.98	83.47					7.60							
9.40	45.10	70.09	83.50					8.50							
9.90	46.00	70.20	83.53					9.50							
10.30	46.90	70.31	83.56					11.20							
10.80	48.00	70.42	83.59					12.40							
11.60	48.90	70.53	83.62					12.70							
12.10	49.80	70.64	83.65					13.60							
12.70	50.50	70.75	83.68					14.40							
12.90	51.50	70.86	83.71					15.20							
13.70	52.20	70.97	83.74					16.60							
14.30	53.10	71.08	83.77					17.10							
14.70	53.80	71.19	83.80					18.60							
15.00	54.40	71.30	DCP REF					19.70							
15.30	55.20	73.00	50/0"					20.90							
15.50	56.00	73.70						22.20							
15.80	56.60	74.40						23.90							
16.20	57.70	75.40						25.60							
16.70	58.80	76.00						27.90							
17.30	59.90	76.60						30.40							
17.80	61.60	77.00						33.40							
18.40	63.00	77.60						38.00							
18.90	63.60	78.00						43.30							
19.20	64.40	78.50						50.60							
19.80	65.20	79.20						54.10							
20.40	65.40	79.80						58.50							
20.60	65.80	80.40						60.10							
21.00	66.10	81.40						60.90							
21.50	66.60	82.30						62.00							
21.90	66.70	82.33						62.60							
22.10	66.77	82.36						63.00							
22.60	66.83	82.39						63.90							
23.30	66.90	82.42						65.00							
23.90	66.96	82.45						65.80							
24.40	67.03	82.48						67.20							
25.00	67.09	82.51						68.80							
25.40	67.16	82.54						70.80							
25.70	67.22	82.57						72.90							
26.20	67.29	82.60						74.80							
26.80	67.35	82.63						77.90							
27.40	67.42	82.66						79.60							
27.90	67.48	82.69						86.20							
28.60	67.55	82.72						88.80							
29.30	67.61	82.75						90.90							
29.70	67.68	82.78						92.90							
30.60	67.74	82.81						94.70							
31.10	67.81	82.84						96.70							
31.60	67.87	82.87						99.00							
32.30	67.94	82.90						100.60							
33.00	68.00	82.93						101.30							
33.80	68.11	82.96													
34.40	68.22	82.99													
35.10	68.33	83.02													
35.60	68.44	83.05													
36.10	68.55	83.08													
36.80	68.66	83.11													
37.40	68.77	83.14													
38.80	68.88	83.17													
39.40	68.99	83.20													
39.80	69.10	83.23													
40.20	69.21	83.26													
40.90	69.32	83.29													

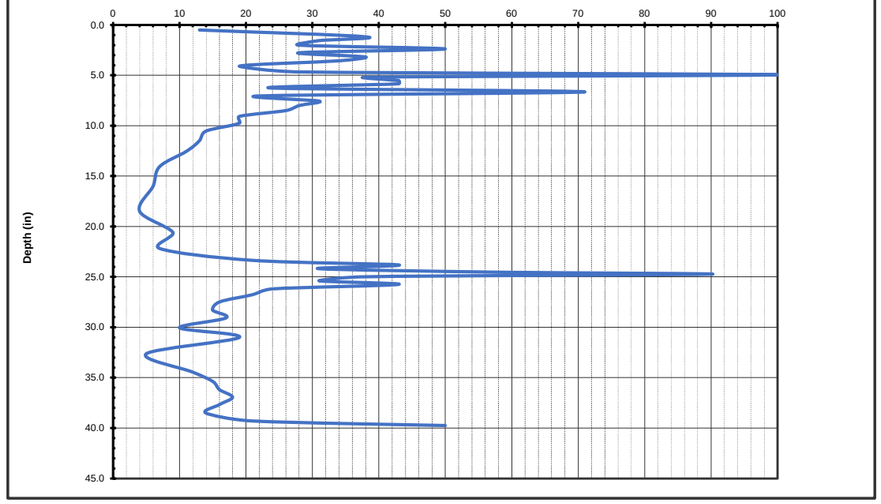
Test Location
C-16 -L- (SB) Sta. 159+00 LTL (LT) 5.0 FT RT FY



ABC	
ABC Thickness (in)	12.50
Average CBR	70
Weighted CBR Average	55
Maximum CBR Value	100
Minimum CBR Value	6

Soil Subgrade	
Average CBR	82
Weighted Average	52
Max CBR	100
Min CBR	19

Test Location
C-17 -L- (SB) Sta. 163+96 RTL (LT) 5.0 FT LT FW



ABC	
ABC Thickness (in)	8.25
Average CBR	37
Weighted CBR Average	31
Maximum CBR Value	100
Minimum CBR Value	13

Soil Subgrade	
Average CBR	22
Weighted Average	14
Max CBR	90
Min CBR	4

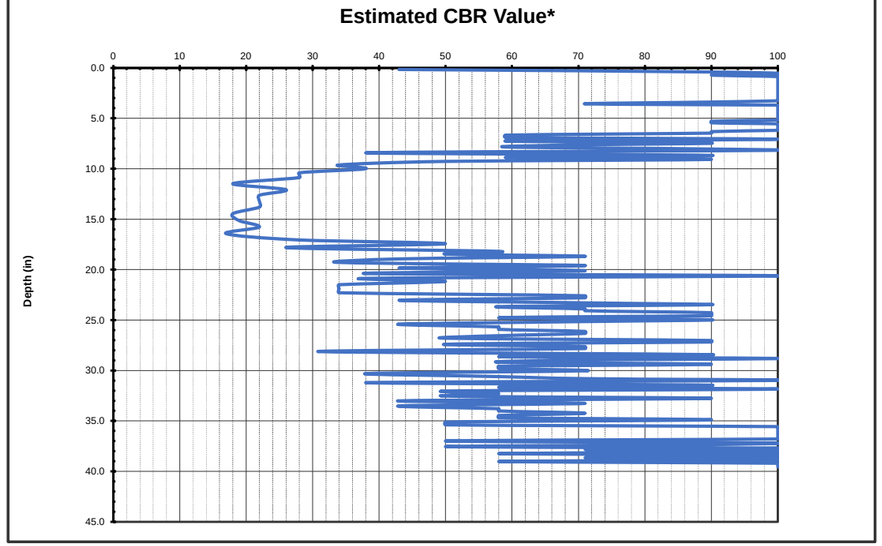
*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET				WBS NO.		PROJECT TIP I.D.		ROUTE	
				48470.1.1		R-5921		US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40	
				COUNTY		FIELD PROFESSIONAL		DRILLER/HELPER	
				Haywood		T. Wenner, P.G.		M. Brewer, P. Tomasic	
Test Location				Date Run		Test Location		Date Run	
C-18 -L- (SB) Sta. 163+96 LT ISL 0.5 FT RT FY				11/16 to 11/22/22		C-19 -L- (SB) Sta. 179+97 LT OSS 0.2 FT RT FW		11/16 to 11/22/22	
Type	Test Interval		Datum	Cut/Fill		Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow		ABC	5.0 ft Fill		DCP	Cumulative cm per blow	ABC	5.0 ft Fill

0.80	15.00	65.50	95.80					0.90	28.10						
1.20	15.30	66.10	96.30					1.50	29.85						
1.50	15.60	66.60	96.50					1.90	31.60						
1.60	15.80	67.10	96.80					2.30	34.60						
2.00	16.20	67.70	97.40					2.50	37.40						
2.30	16.60	68.40	97.50					2.70	39.80						
2.40	17.20	68.80	97.70					3.20	43.00						
2.55	17.80	69.20	97.90					3.60	45.70						
2.70	18.10	69.90	98.40					4.00	48.20						
2.85	18.70	70.40	98.60					4.30	50.40						
3.00	19.10	70.90	98.80					4.50	52.80						
3.15	19.60	72.00	99.40					5.00	54.90						
3.30	20.20	72.40	99.70					5.20	56.70						
3.45	20.60	73.00	99.90					5.30	58.70						
3.60	20.90	73.30	100.20					5.60	60.50						
3.75	21.80	73.80	100.40					5.90	62.10						
3.90	22.20	74.40	100.60					6.10	63.80						
4.08	22.80	74.80						6.40	65.40						
4.26	23.20	75.40						7.10	67.20						
4.44	23.90	76.00						7.30	69.00						
4.62	24.90	76.50						7.50	70.50						
4.80	25.80	77.40						8.00	72.10						
5.00	27.00	78.00						8.20	73.60						
5.20	28.20	78.50						8.80	75.00						
5.40	30.00	78.80						9.10	76.50						
5.60	31.30	79.70						9.50	78.20						
5.80	32.80	80.10						9.90	80.00						
6.10	34.30	80.70						10.30	81.60						
6.40	35.80	81.00						10.50	83.30						
6.70	37.60	81.70						10.70	84.70						
7.00	39.30	82.30						11.20	86.50						
7.30	40.80	83.00						11.50	88.20						
7.46	42.70	83.40						11.80	89.60						
7.62	43.90	84.20						12.30	91.40						
7.78	44.60	84.70						12.60	92.80						
7.94	45.90	85.50						12.90	94.10						
8.10	46.50	86.10						13.20	95.60						
8.40	47.20	86.70						13.60	97.20						
8.80	47.70	87.20						14.00	98.70						
9.30	48.50	87.80						14.60	99.60						
9.44	49.50	88.40						15.00	100.90						
9.58	50.00	88.80						15.40							
9.72	50.80	89.50						15.60							
9.86	51.30	90.20						16.10							
10.00	52.20	90.40						16.50							
10.20	52.50	90.60						17.00							
10.40	53.40	90.70						17.40							
10.60	54.10	90.82						17.60							
10.80	55.10	90.94						18.00							
11.00	56.10	91.06						18.40							
11.20	57.10	91.18						18.90							
11.40	57.60	91.30						19.40							
11.60	58.10	91.42						19.70							
11.80	58.90	91.54						20.00							
12.00	59.40	91.66						20.50							
12.20	59.80	91.78						20.70							
12.40	60.40	91.90						21.20							
12.60	60.90	92.24						21.60							
12.80	61.40	92.58						22.10							
13.00	61.80	92.92						22.60							
13.20	62.20	93.26						23.40							
13.60	62.60	93.60						24.20							
14.00	63.20	94.30						25.00							
14.10	63.60	94.60						25.60							
14.40	64.10	95.00						26.40							
14.70	64.90	95.70						27.10							

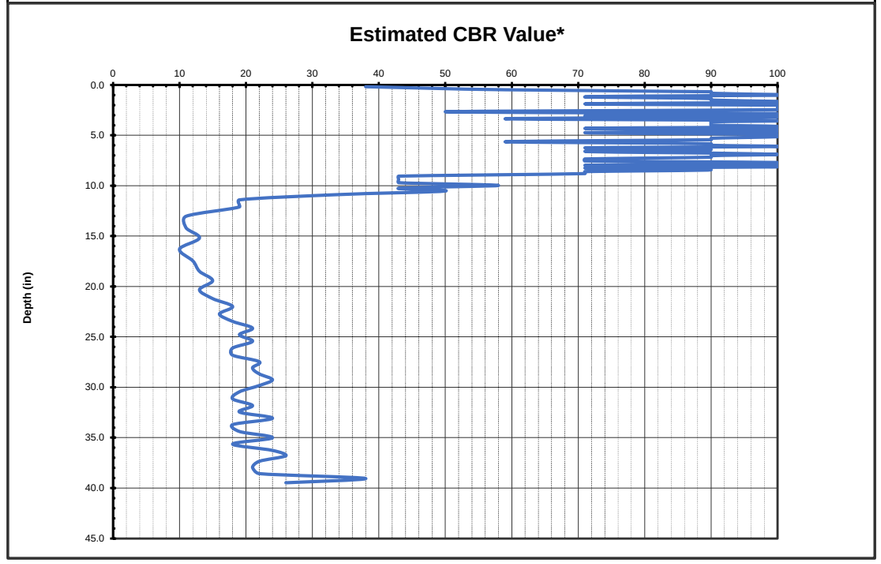
Test Location
C-18 -L- (SB) Sta. 163+96 LT ISL 0.5 FT RT FY



ABC	
ABC Thickness (in)	10.00
Average CBR	92
Weighted CBR Average	82
Maximum CBR Value	100
Minimum CBR Value	34

Soil Subgrade	
Average CBR	69
Weighted Average	53
Max CBR	100
Min CBR	17

Test Location
C-19 -L- (SB) Sta. 179+97 LT OSS 0.2 FT RT FW



ABC	
ABC Thickness (in)	7.25
Average CBR	88
Weighted CBR Average	82
Maximum CBR Value	100
Minimum CBR Value	38

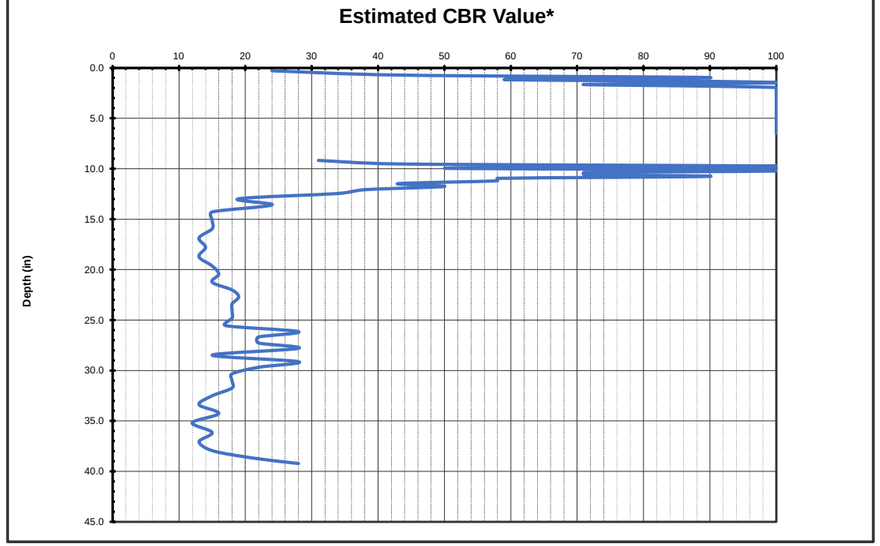
Soil Subgrade	
Average CBR	33
Weighted Average	23
Max CBR	100
Min CBR	10

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.		ROUTE	
								48470.1.1		R-5921		US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40	
								COUNTY		FIELD PROFESSIONAL		DRILLER/HELPER	
								Haywood		T. Wenner, P.G.		M. Brewer, P. Tomasic	
Test Location						Date Run		Test Location				Date Run	
C-73 -L- (SB) Sta. 179+97 LT OSL 3.0 FT LT FW						11/16 to 11/22/22		C-74 -L- (SB) Sta. 179+97 LT ISL 2.0 FT RT FY				11/16 to 11/22/22	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			ABC		5.0 ft Fill		DCP	Cumulative cm per blow			ABC		3.0 ft Fill	
1.40	13.84	53.70						0.80	12.12	46.80					
2.20	13.96	55.50						1.50	12.30	47.80					
2.60	14.08	57.30						1.60	12.44	49.10					
3.20	14.20	59.10						2.10	12.58	50.30					
3.60	14.31	61.20						2.70	12.72	51.40					
3.90	14.42	63.60						2.80	12.86	52.40					
4.40	14.53	65.60						3.00	13.00	53.60					
4.80	14.64	68.30						3.20	13.22	54.70					
5.00	14.75	70.50						3.40	13.44	55.80					
5.20	14.86	72.90						3.60	13.66	56.90					
5.38	14.97	75.00						3.70	13.88	58.20					
5.56	15.08	76.60						3.80	14.10	59.10					
5.74	15.19	77.80						4.00	14.60	60.40					
5.92	15.30							4.22	15.40	61.50					
6.10	15.42							4.44	16.50	63.00					
6.28	15.54							4.66	16.60	63.70					
6.46	15.66							4.88	17.10	64.80					
6.64	15.78							5.10	17.20	66.00					
6.82	15.90							5.28	17.40	67.40					
7.00	16.02							5.46	17.70	68.70					
7.22	16.14							5.64	17.90	69.90					
7.44	16.26							5.82	18.00	71.30					
7.66	16.38							6.00	18.10	72.70					
7.88	16.50							6.16	18.30	74.10					
8.10	DCP REF							6.32	18.50	75.20					
8.36	AUGER 6.9							6.48	18.60	76.60					
8.62	TO 22.4 CM							6.64	18.90	77.90					
8.88	0.30							6.80	19.20	79.40					
9.14	1.40							6.90	19.40	80.80					
9.40	2.20							7.00	19.60	82.40					
9.56	2.50							7.10	19.90	84.30					
9.72	3.20							7.20	20.00	86.50					
9.88	3.40							7.30	20.30	88.00					
10.04	3.70							7.52	20.50	89.90					
10.20	4.20							7.74	20.80	91.40					
10.32	4.70							7.96	21.10	93.20					
10.44	5.10							8.18	21.27	95.00					
10.56	5.70							8.40	21.44	96.90					
10.68	6.30							8.50	21.61	98.70					
10.80	7.10							8.60	21.78	100.30					
10.90	7.80							8.70	21.95	101.70					
11.00	8.70							8.80	22.12	102.20					
11.10	9.70							8.90	22.29						
11.20	11.40							9.06	22.46						
11.30	12.80							9.22	22.63						
11.40	14.90							9.38	22.80						
11.50	17.00							9.54	23.40						
11.60	19.20							9.70	23.80						
11.70	21.60							9.80	24.60						
11.80	23.90							9.90	25.10						
11.92	26.40							10.00	25.50						
12.04	28.50							10.10	25.90						
12.16	30.50							10.20	26.30						
12.28	32.60							10.30	27.00						
12.40	34.40							10.40	27.60						
12.52	36.10							10.50	28.40						
12.64	37.90							10.60	29.30						
12.76	39.70							10.70	30.50						
12.88	41.50							10.84	32.40						
13.00	43.40							10.98	34.40						
13.12	44.60							11.12	36.30						
13.24	46.10							11.26	38.70						
13.36	47.60							11.40	41.00						
13.48	48.80							11.58	43.00						
13.60	51.00							11.76	44.20						
13.72	52.20							11.94	45.40						

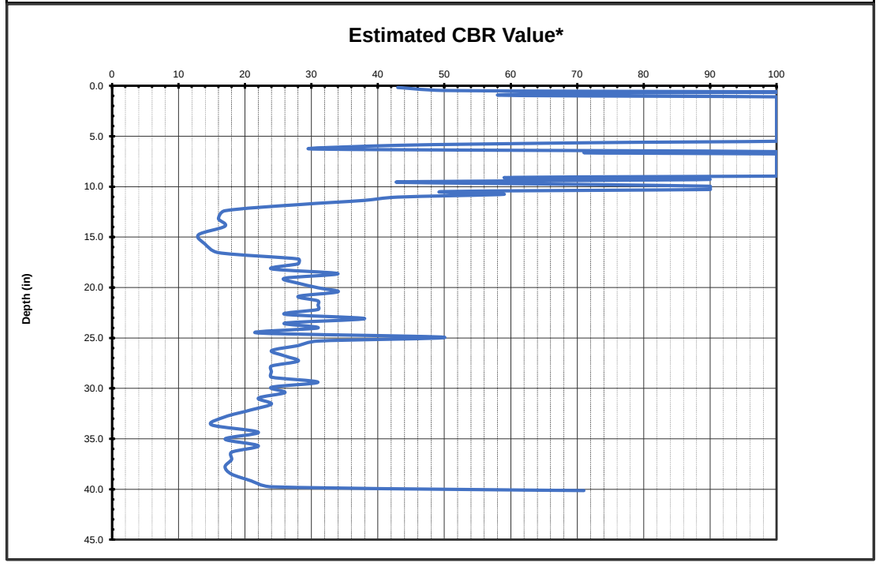
Test Location
C-73 -L- (SB) Sta. 179+97 LT OSL 3.0 FT LT FW



ABC	
ABC Thickness (in)	8.25
Average CBR	97
Weighted CBR Average	88
Maximum CBR Value	100
Minimum CBR Value	24

Soil Subgrade	
Average CBR	31
Weighted Average	21
Max CBR	100
Min CBR	12

Test Location
C-74 -L- (SB) Sta. 179+97 LT ISL 2.0 FT RT FY



ABC	
ABC Thickness (in)	11.00
Average CBR	95
Weighted CBR Average	84
Maximum CBR Value	100
Minimum CBR Value	31

Soil Subgrade	
Average CBR	26
Weighted Average	24
Max CBR	71
Min CBR	13

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

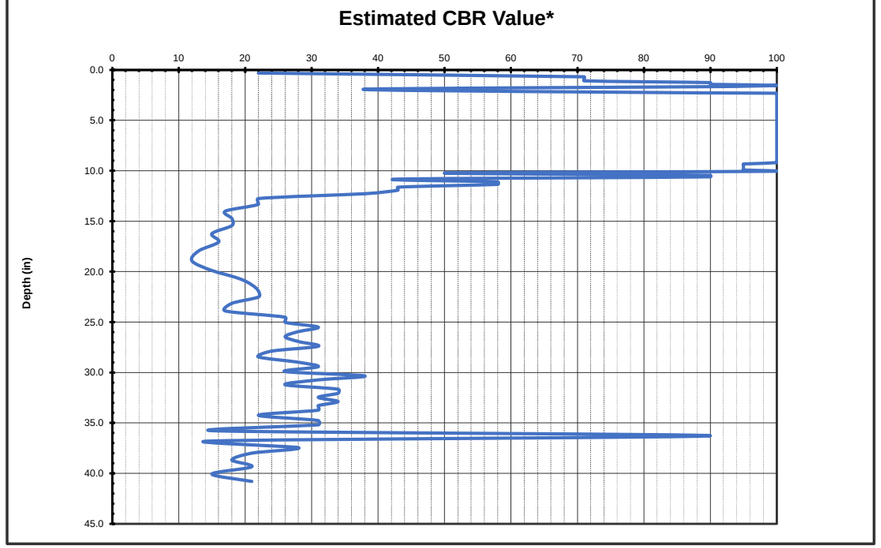
DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	48470.1.1	R-5921	US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40
	COUNTY	FIELD PROFESSIONAL	DRILLER/HELPER
	Haywood	T. Wenner, P.G.	M. Brewer, P. Tomasic

Test Location	Date Run	Test Location	Date Run
C-75 -L- (SB) Sta. 179+97 LT ISS 0.3 FT RT FY	11/16 to 11/22/22	C-20 -L- (SB) Sta. 195+11 LT ISL 2.0 FT RT FY	11/16 to 11/22/22

Type	Test Interval	Datum	Cut/Fill	Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow	ABC	3.0 ft Fill	DCP	Cumulative cm per blow	ABC	5.0 ft Fill

1.50	16.20	62.90						0.60	12.88	68.50					
2.00	16.40	64.20						1.10	12.95	69.40					
2.50	16.60	65.30						1.30	13.02	70.20					
3.00	16.80	66.50						1.70	13.09	71.00					
3.40	17.00	67.80						2.10	13.16	71.40					
3.80	17.20	69.00						2.80	13.23	71.90					
4.00	17.40	70.10						3.60	13.30						
4.40	17.60	71.50						4.20	DCP REF						
5.30	17.80	73.00						4.80	AUGER 18.1						
5.80	18.00	74.20						5.00	TO 29.4 CM						
5.90	18.20	75.30						5.20	1.20						
6.10	18.40	76.60						5.80	1.80						
6.30	18.60	77.50						6.00	2.80						
6.60	18.80	78.60						6.30	4.10						
6.80	19.00	79.90						6.60	5.80						
7.00	19.16	80.90						6.70	7.30						
7.16	19.32	81.90						7.00	9.50						
7.32	19.48	83.00						7.20	11.70						
7.48	19.64	84.00						7.60	14.50						
7.64	19.80	85.10						7.70	17.00						
7.80	19.98	86.20						7.80	18.40						
7.94	20.16	87.70						8.10	19.80						
8.08	20.34	88.80						8.50	21.30						
8.22	20.52	89.90						8.60	23.00						
8.36	20.70	91.90						8.70	24.50						
8.50	20.96	92.30						8.80	25.50						
8.70	21.22	94.50						8.90	27.00						
8.90	21.48	95.70						9.00	28.20						
9.10	21.74	97.30						9.10	29.60						
9.30	22.00	99.10						9.20	30.70						
9.50	22.30	100.70						9.30	32.10						
9.70	22.60	102.80						9.40	33.20						
9.90	22.90	104.40						9.50	34.30						
10.10	23.20							9.64	35.40						
10.30	23.50							9.78	36.50						
10.50	23.88							9.92	37.70						
10.70	24.26							10.06	38.80						
10.90	24.64							10.20	39.90						
11.10	25.02							10.34	40.90						
11.30	25.40							10.48	42.00						
11.50	25.60							10.62	43.20						
11.64	26.30							10.76	44.30						
11.78	26.70							10.90	45.30						
11.92	27.10							10.98	46.50						
12.06	27.90							11.06	47.30						
12.20	28.50							11.14	48.50						
12.40	29.10							11.22	49.50						
12.60	29.90							11.30	50.30						
12.80	30.70							11.38	51.50						
13.00	31.60							11.46	52.70						
13.20	33.10							11.54	53.70						
13.40	34.60							11.62	54.70						
13.60	36.50							11.70	55.60						
13.80	38.30							11.79	56.90						
14.00	40.10							11.88	57.90						
14.20	42.30							11.97	58.30						
14.36	44.30							12.06	59.40						
14.52	46.80							12.15	60.20						
14.68	49.40							12.24	61.10						
14.84	51.60							12.33	62.40						
15.00	53.30							12.42	63.10						
15.20	54.90							12.51	63.60						
15.40	56.40							12.60	64.60						
15.60	57.90							12.67	65.60						
15.80	59.70							12.74	66.50						
16.00	61.60							12.81	67.70						

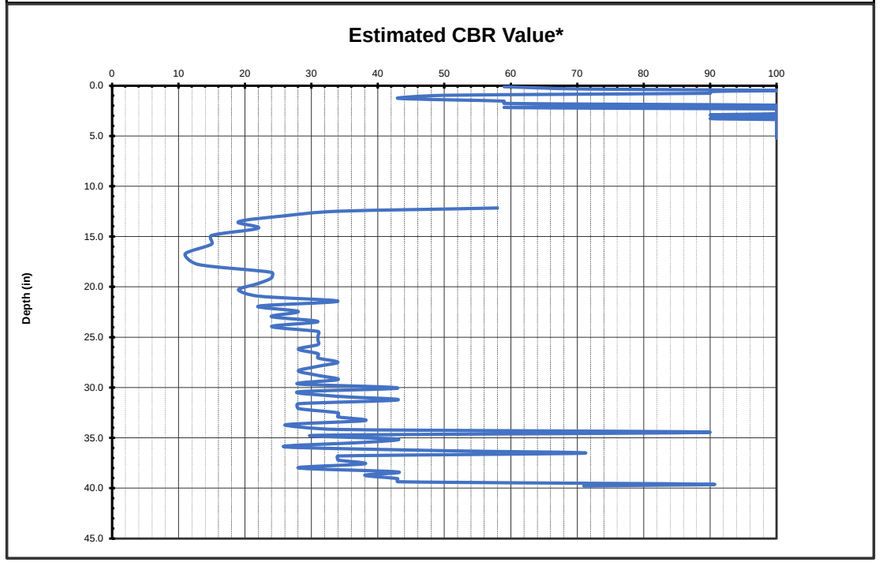
Test Location
C-75 -L- (SB) Sta. 179+97 LT ISS 0.3 FT RT FY



ABC	
ABC Thickness (in)	10.00
Average CBR	97
Weighted CBR Average	90
Maximum CBR Value	100
Minimum CBR Value	22

Soil Subgrade	
Average CBR	31
Weighted Average	25
Max CBR	100
Min CBR	12

Test Location
C-20 -L- (SB) Sta. 195+11 LT ISL 2.0 FT RT FY



ABC	
ABC Thickness (in)	9.75
Average CBR	94
Weighted CBR Average	26
Maximum CBR Value	100
Minimum CBR Value	1

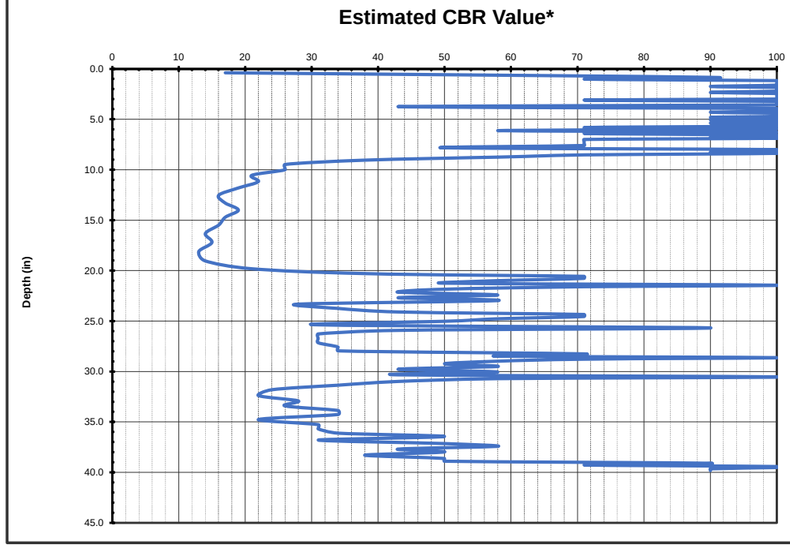
Soil Subgrade	
Average CBR	34
Weighted Average	29
Max CBR	90
Min CBR	11

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								48470.1.1		R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY		FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood		T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run		Test Location					Date Run				
C-21 -L- (SB) Sta. 210+03 LT OSL 2.0 FT LT FW						11/16 to 11/22/22		C-22 -L- (SB) Sta. 212+85 LTL (LT) 5.0 FT RT FY					11/16 to 11/22/22				
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill			
DCP	Cumulative cm per blow			ABC		5.0 ft Fill		DCP	Cumulative cm per blow			ABC		5.0 ft Fill			
1.90	20.40	85.50						2.10	46.00	65.30							
2.30	20.70	86.50						3.10	47.70	65.50							
2.80	21.10	87.50						4.00	49.80	65.80							
3.10	21.40	89.00						4.70	50.80	66.20							
3.40	21.90	90.10						5.10	51.90	66.50							
3.70	22.50	91.20						5.60	52.60	66.70							
3.80	23.40	92.20						6.20	53.40	67.00							
4.00	24.70	92.90						6.30	53.70	67.40							
4.20	26.00	94.00						6.52	54.30	67.80							
4.60	27.60	94.70						6.74	54.80	67.90							
4.70	29.10	95.30						6.96	55.40	DCP REF							
5.00	30.80	96.10						7.18	55.60	60/4.0"							
5.30	32.80	96.80						7.40	55.80								
5.50	34.70	97.70						7.62	56.00								
5.70	36.40	98.40						7.84	56.10								
6.10	38.30	99.10						8.06	56.22								
6.30	40.30	99.50						8.28	56.34								
6.60	42.60	100.00						8.50	56.46								
6.70	44.80	100.20						8.78	56.58								
6.90	47.20	100.50						9.06	56.70								
7.10	49.50	100.90						9.34	56.82								
7.20	51.10	101.30						9.62	56.94								
7.50	52.00							9.90	57.06								
7.60	52.50							10.20	57.18								
8.10	53.00							10.80	57.30								
8.20	53.60							11.20	57.42								
8.30	54.30							11.70	57.54								
8.60	54.60							12.00	57.66								
8.70	55.10							12.50	57.78								
8.90	55.80							12.70	57.90								
9.00	56.60							13.70	58.02								
9.10	57.20							14.00	58.14								
9.90	58.00							14.30	58.26								
10.00	58.60							14.80	58.38								
10.30	59.80							15.10	58.50								
10.40	60.80							15.50	58.69								
10.60	61.60							16.00	58.87								
10.70	62.10							16.50	59.06								
11.10	62.60							16.80	59.25								
11.20	63.20							17.40	59.43								
11.50	63.90							17.70	59.62								
11.80	65.00							17.90	59.81								
12.00	65.40							18.60	59.99								
12.40	66.20							19.30	60.18								
12.60	67.30							19.80	60.37								
13.00	68.40							20.40	60.55								
13.20	69.50							20.80	60.74								
13.40	70.50							21.60	60.93								
13.80	71.50							22.40	61.11								
14.00	72.00							23.10	61.30								
14.30	72.60							23.60	61.49								
14.50	72.80							24.50	61.67								
15.00	73.30							25.50	61.86								
15.20	73.90							26.40	62.05								
15.80	74.60							27.40	62.23								
16.00	75.20							28.60	62.42								
16.50	76.00							29.80	62.61								
16.80	76.60							31.50	62.79								
17.00	77.40							32.90	62.98								
17.40	77.70							34.80	63.17								
17.50	78.30							36.10	63.35								
18.00	79.10							37.90	63.54								
18.50	80.10							39.50	63.73								
19.00	81.50							40.80	63.91								
19.50	83.00							42.40	64.10								
20.20	84.20							44.20	65.10								

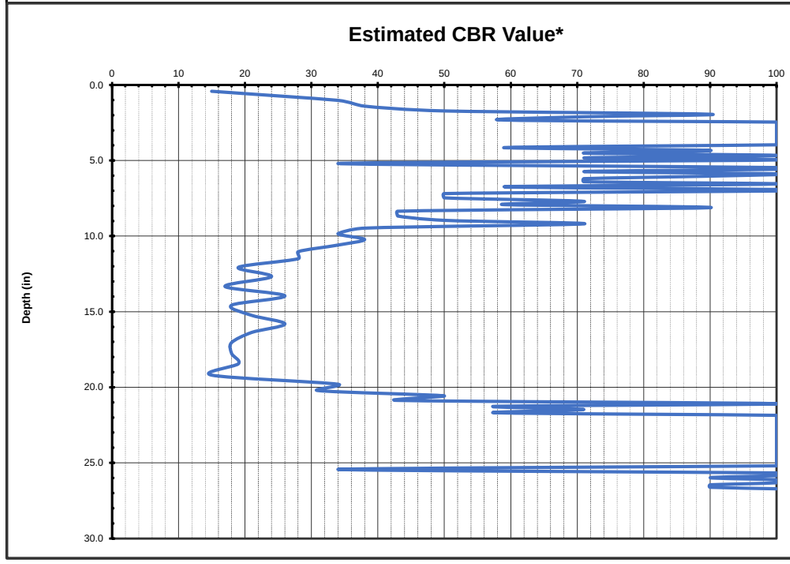
Test Location
C-21 -L- (SB) Sta. 210+03 LT OSL 2.0 FT LT FW



ABC	
ABC Thickness (in)	5.50
Average CBR	95
Weighted CBR Average	81
Maximum CBR Value	100
Minimum CBR Value	17

Soil Subgrade	
Average CBR	54
Weighted Average	39
Max CBR	100
Min CBR	13

Test Location
C-22 -L- (SB) Sta. 212+85 LTL (LT) 5.0 FT RT FY



ABC	
ABC Thickness (in)	8.00
Average CBR	82
Weighted CBR Average	67
Maximum CBR Value	100
Minimum CBR Value	15

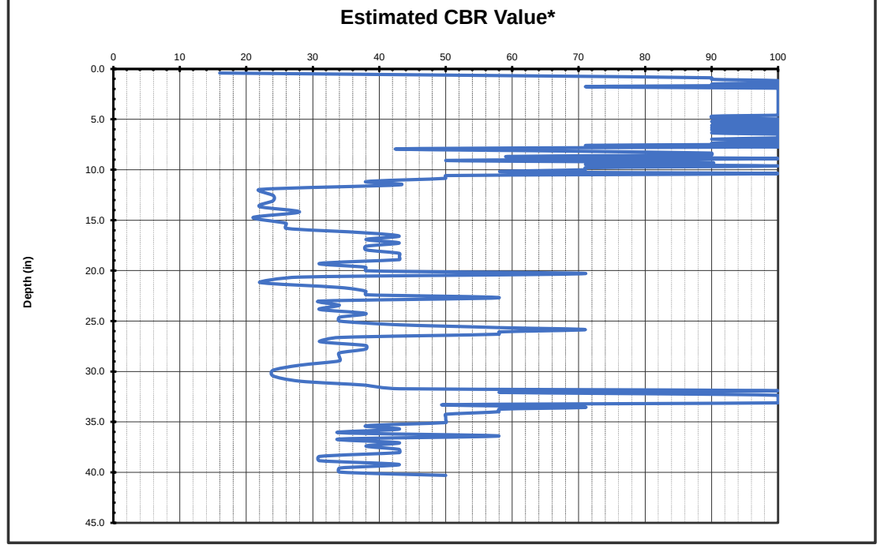
Soil Subgrade	
Average CBR	79
Weighted Average	47
Max CBR	100
Min CBR	15

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run				Test Location						Date Run			
C-24 -L- (SB) Sta. 225+02 LT ISL 3.0 FT RT FY						11/16 to 11/22/22				C-25 -L- (SB) Sta. 229+84 LTL (LT) 5.0 FT RT FY						11/16 to 11/22/22			
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill					
DCP	Cumulative cm per blow			ABC		6.0 ft Fill		DCP	Cumulative cm per blow			ABC		7.0 ft Fill					
2.00	15.90	64.80						1.10	41.20										
2.40	16.30	65.40						2.70	42.40										
2.80	16.50	65.90						3.30	43.60										
3.00	16.70	66.50						3.90	44.80										
3.30	17.00	67.10						4.20	46.10										
3.60	17.20	68.10						4.60	47.20										
4.00	17.50	69.20						5.10	48.70										
4.20	17.90	70.10						5.70	50.30										
4.70	18.00	71.00						6.20	52.10										
5.00	18.30	72.00						6.60	53.80										
5.10	18.50	73.00						7.10	56.00										
5.40	18.90	74.00						7.40	58.40										
5.48	19.00	75.20						7.80	61.80										
5.56	19.50	76.60						8.00	65.80										
5.64	19.70	78.00						8.30	69.10										
5.72	20.50	79.20						8.60	71.40										
5.80	21.00	80.10						9.00	72.40										
5.88	21.40	80.90						9.60	73.60										
5.96	21.80	81.10						10.00	75.70										
6.04	22.40	81.70						10.30	78.40										
6.12	22.70	82.10						10.60	80.10										
6.20	23.40	82.20						10.70	81.20										
6.42	23.80	82.40						11.00	83.30										
6.64	24.30	82.58						11.40	86.60										
6.86	24.60	82.76						11.70	91.30										
7.08	25.10	82.94						11.90	94.10										
7.30	25.60	83.12						12.10	97.20										
7.50	26.20	83.30						12.40	98.50										
7.70	26.50	83.48						12.90											
7.90	27.20	83.66						13.30											
8.10	27.90	83.84						13.90											
8.30	28.80	84.02						14.30											
8.50	29.60	84.20						14.80											
8.70	31.10	84.90						15.40											
8.90	32.50	85.40						15.90											
9.10	33.90	86.00						16.50											
9.30	35.40	86.60						16.90											
9.54	36.60	87.30						17.40											
9.78	38.20	88.00						17.80											
10.02	39.50	88.70						18.30											
10.26	40.80	89.40						18.80											
10.50	41.70	90.30						19.20											
10.60	42.50	91.10						19.60											
10.70	43.40	92.10						19.80											
10.80	44.20	92.70						20.30											
10.90	45.10	93.70						21.00											
11.00	46.00	94.50						21.80											
11.14	46.80	95.40						22.50											
11.28	47.60	96.20						23.60											
11.42	48.40	97.00						25.20											
11.56	49.50	98.10						26.80											
11.70	50.40	99.20						28.00											
12.10	51.30	100.00						29.10											
12.50	51.80	101.00						30.10											
12.70	53.00	102.00						31.00											
13.00	54.50	102.70						31.70											
13.40	55.50							32.80											
13.70	56.40							33.10											
13.80	57.30							34.00											
14.00	57.90							34.60											
14.40	59.00							35.60											
14.60	60.00							36.30											
15.00	61.10							37.10											
15.10	62.00							38.20											
15.50	63.00							39.20											
15.70	64.00							40.20											

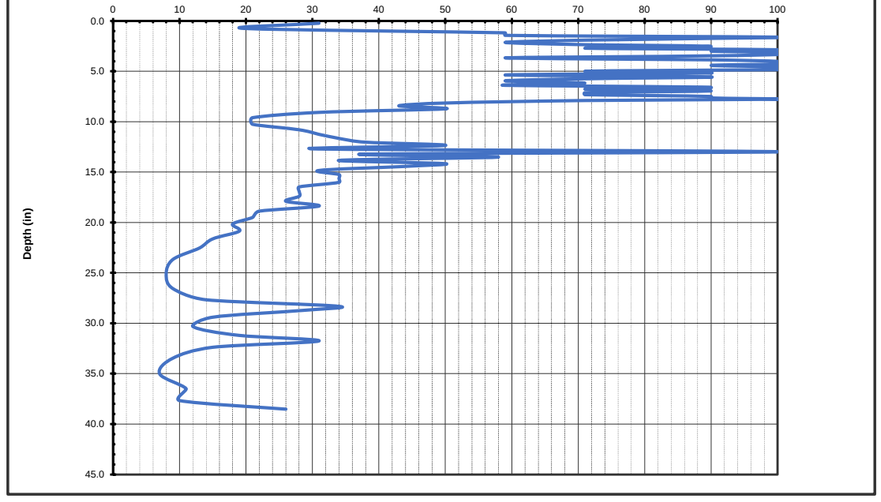
Test Location
C-24 -L- (SB) Sta. 225+02 LT ISL 3.0 FT RT FY



ABC	
ABC Thickness (in)	10.25
Average CBR	94
Weighted CBR Average	83
Maximum CBR Value	100
Minimum CBR Value	16

Soil Subgrade	
Average CBR	49
Weighted Average	39
Max CBR	100
Min CBR	21

Test Location
C-25 -L- (SB) Sta. 229+84 LTL (LT) 5.0 FT RT FY



ABC	
ABC Thickness (in)	9.00
Average CBR	79
Weighted CBR Average	70
Maximum CBR Value	100
Minimum CBR Value	20

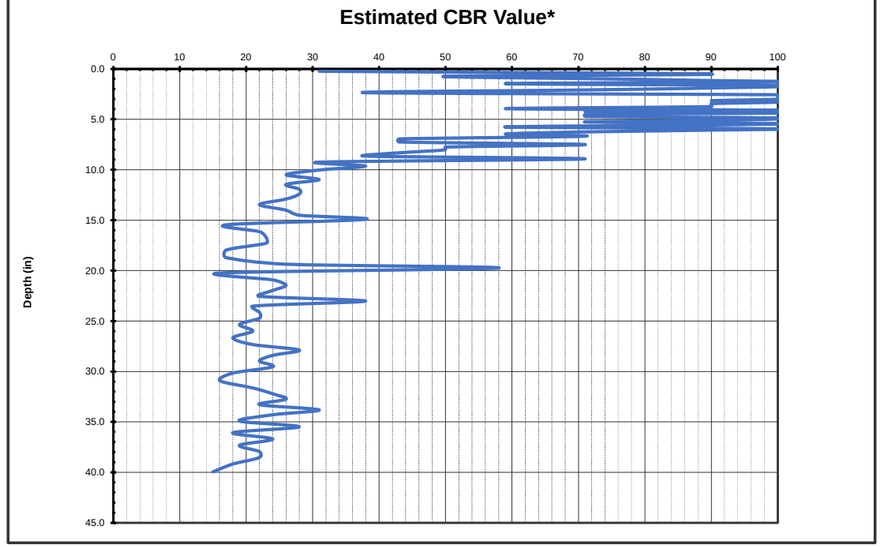
Soil Subgrade	
Average CBR	27
Weighted Average	20
Max CBR	100
Min CBR	7

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
C-26 -L- (SB) Sta. 240+20 LT OSL 0.2 FT LT FW								11/16 to 11/22/22				C-27 -L- (SB) Sta. 245+89 LTL (LT) 4.0 FT RT FY						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill				Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				ABC			8.0 ft Fill				DCP	Cumulative cm per blow			ABC		5.0 ft Fill	
1.10	48.50											1.20	15.86	34.00	101.80				
1.50	49.80											2.20	16.10	34.50	102.30				
2.20	50.40											2.50	16.32	35.10	102.80				
2.70	52.40											2.90	16.54	35.60	103.10				
3.10	53.80											3.40	16.76	36.10	103.50				
3.40	55.10											3.70	16.98	36.70	103.70				
4.00	56.50											4.10	17.20	37.30	104.10				
4.30	58.00											4.40	17.32	37.70	104.90				
4.60	58.90											4.70	17.44	38.10	105.50				
5.00	60.50											5.10	17.56	38.50	106.30				
5.50	62.00											5.30	17.68	38.90	107.20				
6.40	63.50											5.60	17.80	39.40	107.80				
6.60	65.20											5.80	18.00	39.60	108.80				
6.90	66.80											6.00	18.20	40.00					
7.20	68.60											6.20	18.40	40.20					
7.50	70.20											6.70	18.60	40.50					
7.80	71.40											7.00	18.80	41.20					
8.20	72.80											7.20	19.06	41.50					
8.50	74.30											7.50	19.32	42.10					
8.90	75.70											7.70	19.58	42.70					
9.30	77.50											8.20	19.84	43.50					
9.70	79.50											8.40	20.10	43.80					
10.30	81.10											8.80	20.28	44.80					
10.50	82.50											8.90	20.46	45.50					
11.00	83.80											9.20	20.64	46.40					
11.20	85.30											9.50	20.82	47.60					
11.70	86.40											9.90	21.00	48.50					
12.20	87.80											10.10	21.40	49.60					
12.50	89.50											10.30	21.60	50.70					
12.70	90.70											10.60	21.80	52.00					
13.10	92.50											10.80	21.96	54.20					
13.60	93.90											11.00	22.12	56.20					
13.90	95.60											11.06	22.28	57.20					
14.30	97.10											11.12	22.44	58.00					
14.90	98.60											11.18	22.60	58.60					
15.20	100.40											11.24	22.80	59.10					
15.60	102.50											11.30	23.00	59.60					
16.10												11.36	23.20	61.10					
16.70												11.42	23.40	62.30					
17.20												11.48	23.60	63.70					
18.00												11.54	24.10	65.20					
18.80												11.60	24.60	66.70					
19.30												11.74	24.90	68.30					
20.00												11.88	25.20	69.80					
20.70												12.02	25.30	71.50					
21.50												12.16	25.60	72.70					
22.40												12.30	26.20	74.30					
22.90												12.38	26.50	76.40					
24.00												12.46	26.90	78.20					
24.90												12.54	27.00	79.90					
26.00												12.62	27.20	81.40					
27.30												12.70	28.00	82.60					
28.40												12.92	28.40	83.80					
29.70												13.14	28.60	85.00					
30.90												13.36	29.10	86.40					
32.10												13.58	29.50	87.90					
33.40												13.80	29.90	89.70					
34.90												13.98	30.40	91.80					
36.20												14.17	30.70	93.80					
37.40												14.35	31.40	95.90					
38.30												14.53	31.50	97.50					
40.20												14.72	31.90	98.80					
41.70												14.90	32.10	99.80					
43.15												15.14	33.10	100.50					
44.60												15.38	33.40	101.20					
46.55												15.62	33.90	101.40					

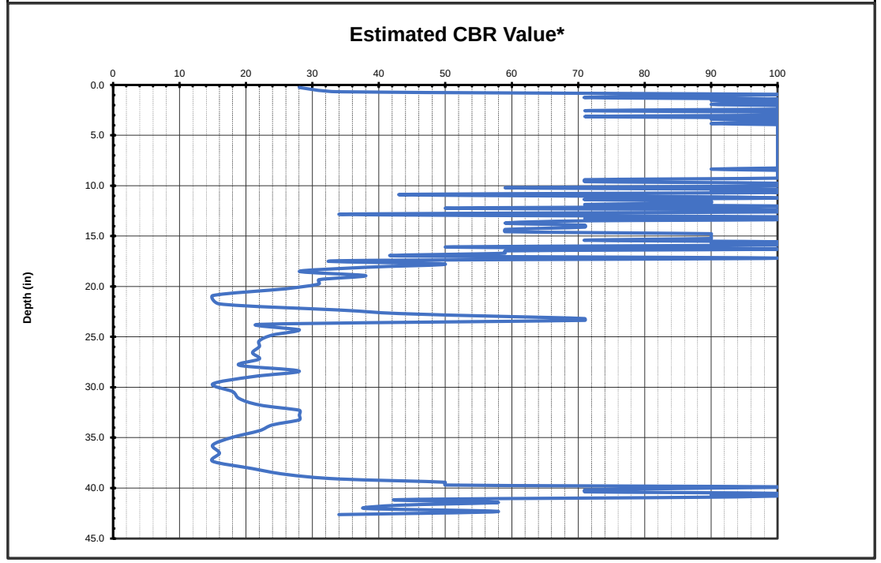
Test Location
C-26 -L- (SB) Sta. 240+20 LT OSL 0.2 FT LT FW



ABC	
ABC Thickness (in)	9.25
Average CBR	77
Weighted CBR Average	67
Maximum CBR Value	100
Minimum CBR Value	31

Soil Subgrade	
Average CBR	24
Weighted Average	23
Max CBR	58
Min CBR	15

Test Location
C-27 -L- (SB) Sta. 245+89 LTL (LT) 4.0 FT RT FY



ABC	
ABC Thickness (in)	18.50
Average CBR	91
Weighted CBR Average	80
Maximum CBR Value	100
Minimum CBR Value	28

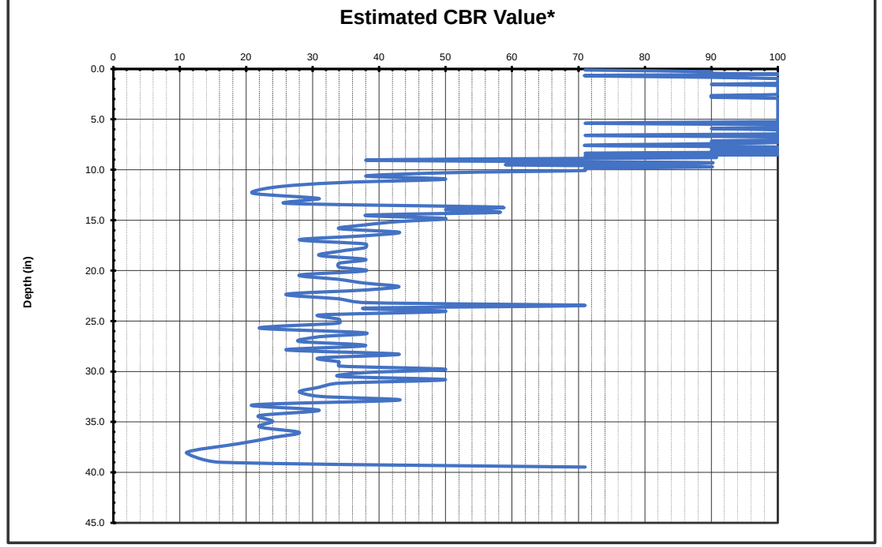
Soil Subgrade	
Average CBR	39
Weighted Average	29
Max CBR	100
Min CBR	15

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run				Test Location						Date Run			
C-28 -L- (SB) Sta. 254+79 LT ISL 2.0 FT RT FY						11/16 to 11/22/22				C-29 -L- (SB) Sta. 270+18 LT OSL 3.0 FT LT FW						11/16 to 11/22/22			
Type	Test Interval			Datum		Cut/Fill				Type	Test Interval			Datum		Cut/Fill			
DCP	Cumulative cm per blow			ABC		5.0 ft Fill				DCP	Cumulative cm per blow			ABC		5.0 ft Fill			
0.50	14.70	59.30								1.00	19.10	51.60							
0.90	14.80	59.80								1.80	19.20	52.40							
1.30	15.20	60.70								2.60	19.50	53.00							
1.40	15.40	61.40								3.60	19.80	53.70							
1.90	15.60	62.50								4.20	19.90	54.40							
2.30	15.90	63.50								4.37	20.20	55.40							
2.60	16.20	64.50								4.54	20.40	56.40							
2.80	16.50	66.00								4.71	20.50	57.50							
3.10	17.00	66.90								4.88	20.70	58.60							
3.40	17.20	68.00								5.05	21.10	59.60							
3.50	17.50	69.20								5.22	21.50	60.50							
3.70	17.70	70.10								5.39	21.70	61.30							
4.10	18.00	71.40								5.56	22.10	61.80							
4.20	18.40	72.20								5.73	22.50	62.60							
4.50	18.60	73.30								5.90	22.58	64.00							
4.60	19.00	74.30								6.22	22.66	65.00							
4.90	19.50	75.30								6.54	22.74	66.00							
5.10	19.80	76.00								6.86	22.82	67.00							
5.40	20.20	76.90								7.18	22.90	68.00							
5.50	20.40	77.90								7.50	22.98	69.30							
5.80	20.80	78.60								7.68	23.06	71.00							
6.00	21.00	79.60								7.86	23.14	72.80							
6.10	21.50	80.70								8.04	23.22	74.80							
6.40	21.60	81.90								8.22	23.30	76.60							
6.50	22.10	83.00								8.40	23.56	78.30							
6.90	22.50	83.80								8.54	23.82	79.90							
7.30	23.40	85.40								8.68	24.08	81.60							
7.40	23.80	86.50								8.82	24.34	83.50							
7.50	24.40	88.00								8.96	24.60	85.50							
7.80	24.80	89.40								9.10	24.82	87.70							
8.00	25.30	90.90								9.30	25.04	90.20							
8.20	25.80	92.10								9.50	25.26	92.60							
8.30	26.50	93.50								9.70	25.48	94.30							
8.48	27.40	95.20								9.90	25.70	95.40							
8.66	28.10	98.00								10.10	26.04	96.00							
8.84	29.10	100.00								10.42	26.38	96.50							
9.02	30.50	100.50								10.74	26.72	97.00							
9.20	32.10									11.06	27.06	97.60							
9.30	33.20									11.38	27.40	98.50							
9.40	34.50									11.70	27.84	99.60							
9.50	35.10									11.98	28.28	100.90							
9.60	35.80									12.26	28.72	101.70							
9.70	36.40									12.54	29.16	102.50							
9.84	37.30									12.82	29.60	102.60							
9.98	38.00									13.10	30.00	103.60							
10.12	38.80									13.20	30.50	104.40							
10.26	39.70									13.50	30.80								
10.40	40.70									13.70	31.30								
10.58	41.50									14.00	31.80								
10.76	42.40									14.14	32.30								
10.94	43.60									14.28	32.80								
11.12	44.50									14.42	33.20								
11.30	45.40									14.56	33.70								
11.48	46.40									14.70	34.20								
11.66	47.50									14.92	35.00								
11.84	48.40									15.14	35.60								
12.02	49.40									15.36	36.50								
12.20	50.40									15.58	38.20								
12.44	51.30									15.80	39.60								
12.68	52.50									16.70	41.20								
12.92	53.50									17.10	42.90								
13.16	54.40									17.80	44.90								
13.40	55.20									18.10	46.40								
13.90	56.10									18.30	47.90								
14.10	57.40									18.40	49.60								
14.40	58.40									18.70	50.70								

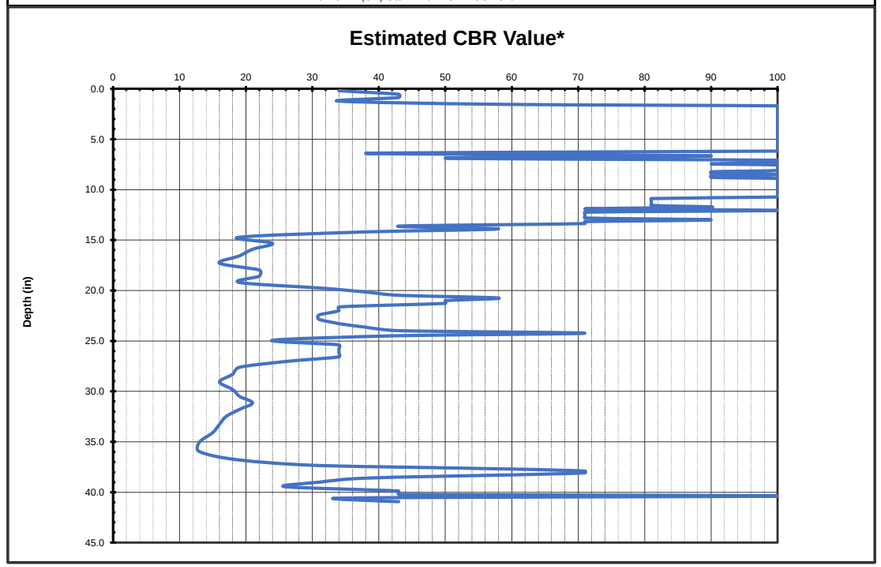
Test Location
C-28 -L- (SB) Sta. 254+79 LT ISL 2.0 FT RT FY



ABC	
ABC Thickness (in)	10.00
Average CBR	95
Weighted CBR Average	90
Maximum CBR Value	100
Minimum CBR Value	38

Soil Subgrade	
Average CBR	36
Weighted Average	33
Max CBR	71
Min CBR	11

Test Location
C-29 -L- (SB) Sta. 270+18 LT OSL 3.0 FT LT FW



ABC	
ABC Thickness (in)	9.00
Average CBR	95
Weighted CBR Average	84
Maximum CBR Value	100
Minimum CBR Value	34

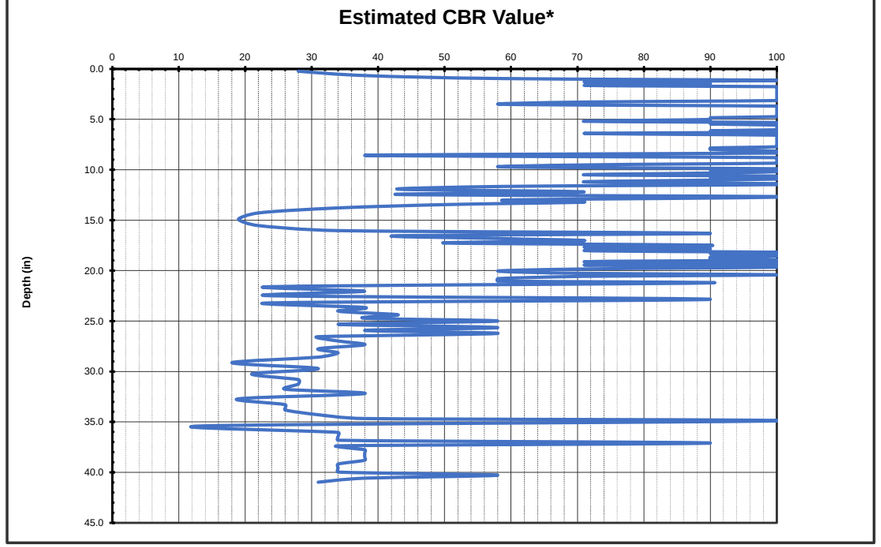
Soil Subgrade	
Average CBR	56
Weighted Average	36
Max CBR	100
Min CBR	13

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET				WBS NO.				PROJECT TIP I.D.				ROUTE			
				48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
				COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
				Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location				Date Run				Test Location				Date Run			
C-31 -L- (SB) Sta. 277+95 LTL (LT) 5.0 FT RT FY				11/16 to 11/22/22				C-76 -L- (SB) Sta. 285+03 LT OSS 0.5 FT LT EOP				11/16 to 11/22/22			
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			ABC		5.0 ft Fill		DCP	Cumulative cm per blow			ABC		5.0 ft Fill	
1.20	16.50	47.00	104.60					1.60	40.60						
2.10	16.80	47.20						2.50	41.20						
2.70	17.10	47.60						3.40	41.70						
3.00	17.40	48.00						3.90	42.60						
3.50	17.60	48.30						4.30	43.30						
3.90	17.80	48.80						5.10	44.20						
4.40	18.10	49.10						5.50	45.20						
4.55	18.40	49.60						6.30	46.00						
4.70	18.60	49.80						7.50	47.50						
4.85	18.80	50.10						7.80	49.00						
5.00	19.10	50.60						7.90	50.50						
5.15	19.20	51.20						8.20	51.80						
5.30	19.50	51.70						8.90	53.30						
5.45	19.70	52.00						9.40	54.80						
5.60	20.10	52.50						9.90	56.50						
5.75	20.50	53.10						10.20	58.50						
5.90	20.80	53.70						11.00	59.70						
5.97	21.10	54.10						11.20	62.10						
6.04	21.30	55.50						11.50	63.50						
6.11	22.20	56.40						11.76	65.30						
6.18	22.40	57.80						12.02	66.60						
6.25	22.70	58.20						12.28	68.50						
6.32	23.00	59.60						12.54	70.00						
6.39	23.30	60.50						12.80	71.70						
6.46	23.60	61.50						13.06	73.20						
6.53	23.90	62.30						13.32	74.20						
6.60	24.40	63.20						13.58	75.40						
6.80	25.00	63.80						13.84	76.60						
7.00	25.30	64.80						14.10	78.10						
7.20	25.70	65.40						14.54	79.70						
7.40	26.00	66.30						14.98	81.50						
7.60	26.40	66.90						15.42	83.40						
7.80	26.90	68.00						15.86	85.00						
8.10	27.10	69.00						16.30	86.70						
8.60	27.50	69.90						17.00	88.90						
9.20	27.70	71.00						17.70	90.50						
9.50	27.80	72.00						18.40	92.20						
9.70	28.20	73.10						18.80	93.50						
9.84	28.70	74.90						19.50	95.30						
9.98	29.00	76.00						20.10	97.40						
10.12	29.30	77.60						20.90	99.20						
10.26	29.90	78.80						21.50	100.70						
10.40	30.70	80.00						21.60	102.00						
10.54	31.20	81.30						22.50	102.60						
10.68	32.00	82.20						23.00							
10.82	32.30	83.90						24.30							
10.96	32.70	85.20						26.70							
11.10	33.30	86.50						29.40							
11.30	33.80	87.60						31.80							
11.50	34.50	88.50						33.40							
11.70	35.50	88.70						34.10							
11.90	37.00	91.00						34.90							
12.10	38.70	92.00						35.30							
12.50	40.20	93.00						35.70							
12.90	41.20	94.00						35.80							
13.40	41.60	94.40						35.90							
13.60	42.40	95.40						36.30							
14.00	43.00	96.30						36.50							
14.30	43.50	97.20						37.10							
14.60	44.20	98.10						37.40							
14.90	44.60	99.00						38.00							
15.00	45.10	100.00						38.50							
15.20	45.50	101.00						38.92							
15.40	46.00	102.00						39.34							
15.80	46.30	102.60						39.76							
16.00	46.70	103.50						40.18							

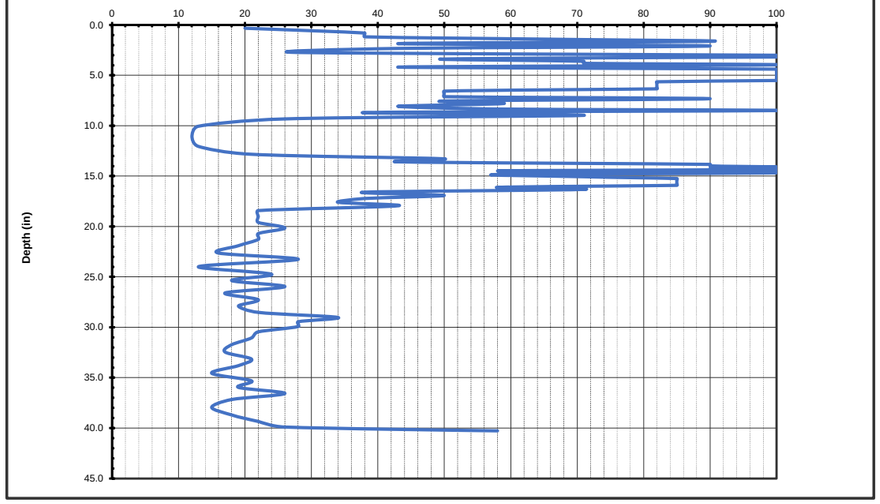
Test Location
C-31 -L- (SB) Sta. 277+95 LTL (LT) 5.0 FT RT FY



ABC	
ABC Thickness (in)	14.00
Average CBR	91
Weighted CBR Average	80
Maximum CBR Value	100
Minimum CBR Value	28

Soil Subgrade	
Average CBR	52
Weighted Average	40
Max CBR	100
Min CBR	14

Test Location
C-76 -L- (SB) Sta. 285+03 LT OSS 0.5 FT LT EOP



ABC	
ABC Thickness (in)	8.75
Average CBR	75
Weighted CBR Average	61
Maximum CBR Value	100
Minimum CBR Value	20

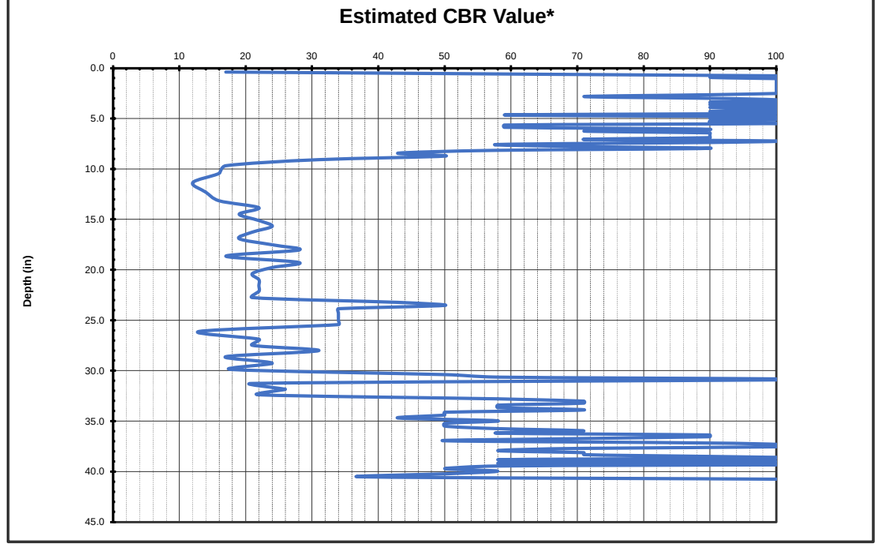
Soil Subgrade	
Average CBR	40
Weighted Average	27
Max CBR	100
Min CBR	12

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
C-77 -L- (SB) Sta. 285+03 LT OSL 3.0 FT LT EOP								11/16 to 11/22/22				C-32 -L- (SB) Sta. 285+03 LT ISL 1.6 FT RT FY						11/16 to 11/22/22	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill					
DCP	Cumulative cm per blow			ABC		5.0 ft Fill		DCP	Cumulative cm per blow			ABC		5.0 ft Fill					
1.90	27.50	97.10						2.50	19.80	81.40									
2.00	30.10	97.60						3.50	20.20	82.30									
2.10	32.40	98.00						4.30	20.50	82.90									
2.50	34.40	98.30						4.70	20.80	83.40									
2.80	35.90	98.90						5.10	21.30	83.60									
3.00	37.60	99.20						5.60	21.70	84.00									
3.10	39.10	99.80						6.00	22.30	84.40									
3.36	40.50	99.90						6.10	22.70	85.00									
3.62	42.10	100.50						6.50	23.10	85.20									
3.88	43.80	101.20						6.60	23.50	85.60									
4.14	45.20	101.80						7.10	23.90	85.70									
4.40	46.40	102.50						7.40	24.40	86.00									
4.50	48.30	103.40						7.80	25.00	86.30									
4.60	49.50	103.60						7.90	25.70	87.10									
4.70	50.90							8.00	26.40	88.00									
4.80	52.50							8.20	27.00	88.80									
4.90	54.00							8.70	27.80	90.80									
5.22	55.50							9.00	28.50	91.80									
5.54	57.00							9.06	29.30	92.90									
5.86	58.60							9.12	30.30	93.80									
6.18	59.40							9.18	31.50	95.00									
6.50	60.10							9.24	33.20	96.00									
6.90	61.10							9.30	34.80	96.80									
7.40	62.10							9.36	36.40	97.70									
7.80	63.10							9.42	38.20	98.60									
8.10	64.10							9.48	40.10	99.60									
8.30	65.10							9.54	42.20	100.50									
8.40	67.50							9.60	43.60	101.50									
8.80	69.00							9.80	45.60	102.40									
9.00	70.60							10.00	47.80										
9.40	71.70							10.20	49.20										
9.60	73.60							10.40	50.10										
9.70	75.00							10.60	50.70										
10.10	76.80							10.82	51.10										
10.30	77.50							11.04	51.30										
10.60	78.10							11.26	51.80										
10.70	78.40							11.48	52.20										
11.10	78.60							11.70	52.70										
11.30	80.20							12.30	53.50										
11.50	81.50							12.50	54.20										
12.10	83.00							12.70	54.80										
12.40	83.60							13.10	55.50										
12.80	84.10							13.30	56.60										
13.10	84.60							13.80	58.00										
13.50	85.20							14.00	59.30										
13.90	85.80							14.30	60.50										
14.00	86.30							14.40	61.80										
14.60	87.00							14.80	62.90										
15.20	87.70							15.10	64.10										
15.60	88.50							15.40	65.30										
16.10	89.10							15.70	66.10										
16.50	89.80							16.00	67.20										
16.90	90.50							16.10	68.30										
17.30	91.10							16.40	69.30										
17.70	91.60							16.70	69.40										
18.20	92.20							16.90	70.40										
18.50	92.60							17.20	71.20										
18.90	93.00							17.40	72.90										
19.50	93.50							17.80	73.80										
20.00	94.20							18.10	74.60										
20.40	94.60							18.30	75.80										
21.00	94.90							18.50	77.00										
21.80	95.20							18.70	78.00										
22.50	95.50							19.10	78.70										
23.60	96.00							19.40	79.70										
25.50	96.60							19.60	80.50										

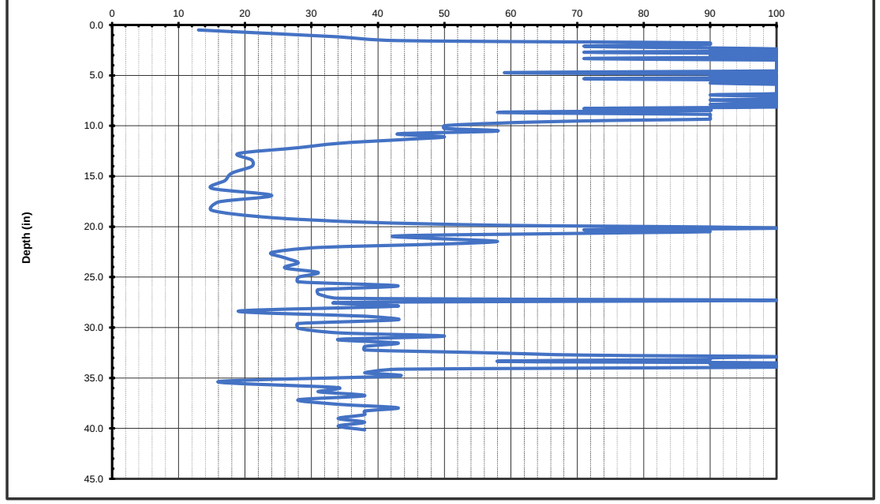
Test Location
C-77 -L- (SB) Sta. 285+03 LT OSL 3.0 FT LT EOP



ABC	
ABC Thickness (in)	7.50
Average CBR	92
Weighted CBR Average	82
Maximum CBR Value	100
Minimum CBR Value	17

Soil Subgrade	
Average CBR	49
Weighted Average	35
Max CBR	100
Min CBR	12

Test Location
C-32 -L- (SB) Sta. 285+03 LT ISL 1.6 FT RT FY



ABC	
ABC Thickness (in)	8.00
Average CBR	93
Weighted CBR Average	78
Maximum CBR Value	100
Minimum CBR Value	13

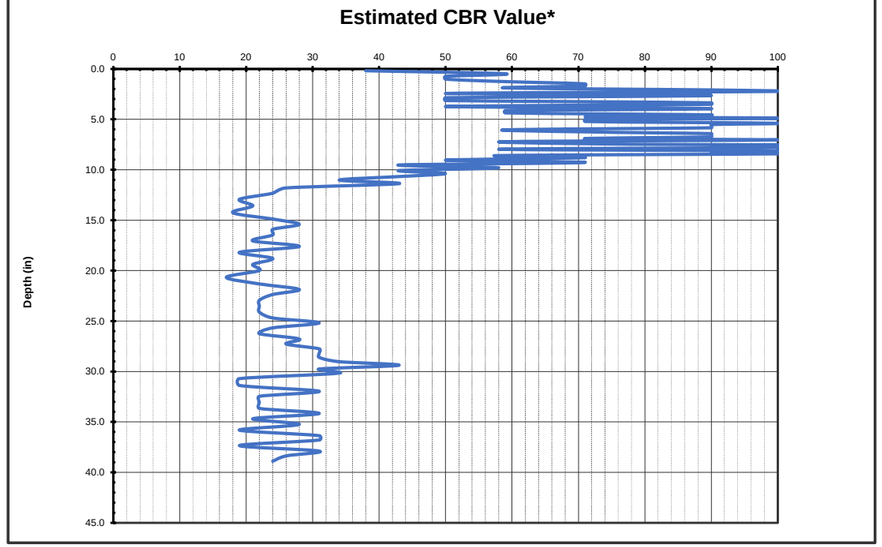
Soil Subgrade	
Average CBR	50
Weighted Average	37
Max CBR	100
Min CBR	15

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.			PROJECT TIP I.D.			ROUTE			
								48470.1.1			R-5921			US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY			FIELD PROFESSIONAL			DRILLER/HELPER			
								Haywood			T. Wenner, P.G.			M. Brewer, P. Tomasic			
Test Location						Date Run		Test Location						Date Run			
C-78 -L- (SB) Sta. 285+03 LT ISS 0.2 FT RT FY						11/16 to 11/22/22		C-33A -L- (NB) Sta. 14+53 RT OSL 2.5 FT LT FW						11/16 to 11/22/22			
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill			
DCP	Cumulative cm per blow			ABC		5.0 ft Fill		DCP	Cumulative cm per blow			ABC		5.0 ft Fill			
0.90	45.30							2.10	67.40	80.65							
1.50	47.00							2.60	67.70	80.66							
2.20	48.40							3.20	67.88	80.67							
2.90	50.00							3.30	68.06	80.68							
3.50	51.50							4.00	68.24	80.69							
4.00	53.40							4.70	68.42	80.70							
4.50	54.90							5.30	68.60	80.71							
5.10	56.10							6.00	68.78	80.72							
5.50	57.50							6.50	68.96	80.73							
5.80	59.00							7.00	69.14	80.74							
6.50	60.50							7.70	69.32	80.75							
6.90	62.00							8.00	69.50	80.76							
7.60	63.40							8.60	69.60	80.77							
8.30	64.50							9.10	69.70	80.78							
8.70	65.90							9.40	69.80	80.79							
9.10	67.40							10.10	69.90	80.80							
9.80	68.60							10.60	70.00	80.81							
10.20	69.90							11.10	70.10	80.82							
10.80	71.00							11.60	70.20	80.83							
11.40	72.10							12.10	70.30	80.84							
11.80	73.20							12.80	70.40	80.85							
12.30	74.20							13.40	70.50	80.86							
12.50	75.00							14.00	70.72	80.87							
13.00	76.10							14.50	70.94	80.88							
13.50	77.10							15.40	71.16	80.89							
13.80	78.85							16.10	71.38	80.90							
14.20	80.60							16.90	71.60	80.91							
14.60	81.70							17.40	71.82	80.92							
15.00	83.20							18.10	72.04	80.93							
15.60	84.70							19.60	72.26	80.94							
16.10	86.20							19.90	72.48	80.95							
16.50	87.30							21.20	72.70	80.96							
16.90	88.90							22.60	72.96	80.97							
17.30	90.10							22.70	73.22	80.98							
17.80	91.80							23.60	73.48	80.99							
18.00	92.90							24.00	73.74	81.00							
18.60	94.00							24.90	74.00	DCP REF							
19.10	95.70							25.80	74.28	80/0.8"							
19.20	96.80							26.50	74.56								
19.60	98.10							27.10	74.84								
19.90	99.50							27.90	75.12								
20.50								29.20	75.40								
20.80								31.60	76.10								
21.20								33.40	76.60								
21.50								35.70	77.50								
22.10								39.10	78.40								
22.60								42.60	79.00								
23.30								46.30	79.50								
23.80								50.30	79.80								
24.60								53.40	79.90								
25.20								55.00	80.20								
26.00								56.50	80.50								
26.70								58.20	80.51								
27.50								59.60	80.52								
28.50								60.70	80.53								
29.30								61.80	80.54								
30.60								62.70	80.55								
32.00								63.50	80.56								
33.70								63.80	80.57								
35.30								64.20	80.58								
37.10								65.10	80.59								
38.50								65.50	80.60								
39.70								65.80	80.61								
41.10								66.40	80.62								
42.50								66.70	80.63								
44.10								67.20	80.64								

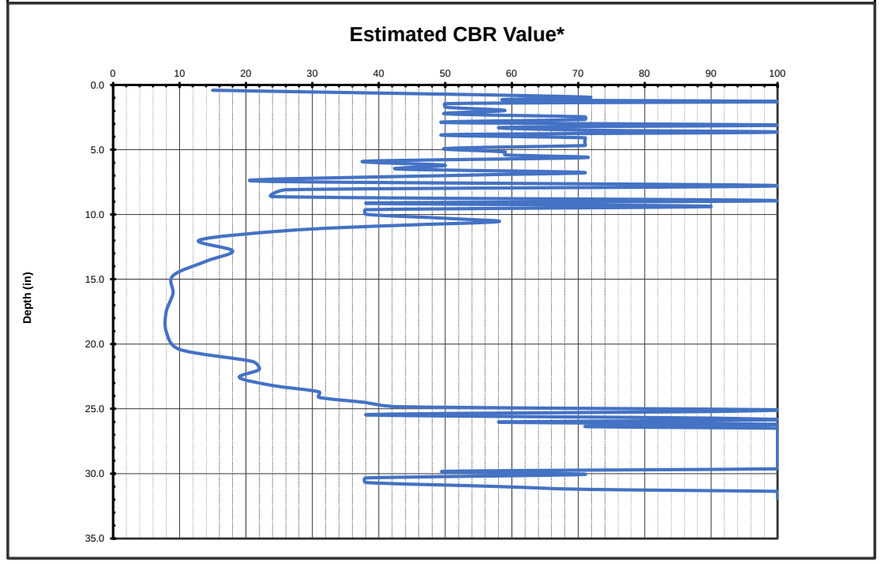
Test Location
C-78 -L- (SB) Sta. 285+03 LT ISS 0.2 FT RT FY



ABC	
ABC Thickness (in)	7.75
Average CBR	75
Weighted CBR Average	69
Maximum CBR Value	100
Minimum CBR Value	38

Soil Subgrade	
Average CBR	34
Weighted Average	28
Max CBR	100
Min CBR	17

Test Location
C-33A -L- (NB) Sta. 14+53 RT OSL 2.5 FT LT FW



ABC	
ABC Thickness (in)	9.75
Average CBR	61
Weighted CBR Average	49
Maximum CBR Value	100
Minimum CBR Value	15

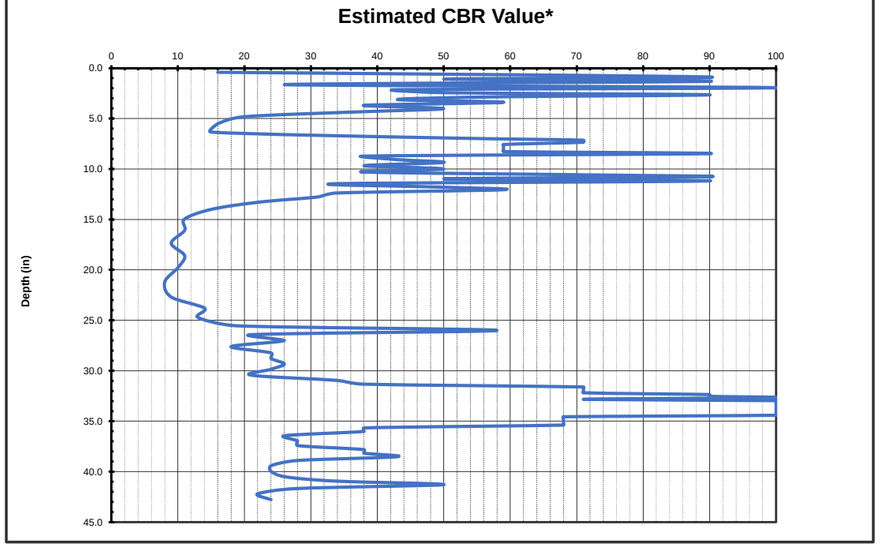
Soil Subgrade	
Average CBR	85
Weighted Average	38
Max CBR	100
Min CBR	8

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location				Date Run			
C-33 -L- (NB) Sta. 14+53 RT OSL 1.3 FT LT FW								11/16 to 11/22/22				C-34 -L- (NB) Sta. 26+00 LTL (RT) 5.0 FT RT FY				11/16 to 11/22/22			
Type	Test Interval				Datum			Cut/Fill				Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				ABC			5.0 ft Fill				DCP	Cumulative cm per blow			ABC		5.0 ft Fill	
2.00	81.50											1.20	48.20	107.68					
2.40	82.00											2.20	50.20	107.70					
3.10	82.40											2.80	51.90	107.72					
3.50	82.80											3.30	54.20	107.73					
4.80	83.10											3.90	55.50	107.75					
5.00	83.60											4.20	57.10	107.77					
5.80	83.79											4.70	58.40	107.79					
6.50	83.98											5.30	60.30	107.81					
6.90	84.17											5.70	62.20	107.82					
7.50	84.36											6.20	63.30	107.84					
8.30	84.55											6.40	64.60	107.86					
8.90	84.74											6.80	65.60	107.88					
9.80	84.93											7.40	66.50	107.90					
10.50	85.12											7.70	67.50	107.91					
11.40	85.31											8.20	68.10	107.93					
13.00	85.50											8.60	69.00	107.95					
15.00	85.70											9.30	69.50	107.97					
17.20	85.90											9.70	70.00	107.99					
17.90	86.10											10.20	71.00	108.00					
18.40	86.30											10.70	71.80	108.02					
18.90	86.50											11.20	72.90	108.04					
19.50	86.70											11.30	74.00	108.06					
20.10	86.90											11.70	75.40	108.08					
20.70	87.10											11.90	76.20	108.09					
21.30	87.30											12.20	77.10	108.11					
21.70	87.50											12.60	77.90	108.13					
22.60	88.02											12.90	78.80	108.15					
23.40	88.54											13.40	79.50	108.17					
24.10	89.06											13.80	80.40	108.18					
25.00	89.58											14.10	81.60	108.20					
25.70	90.10											14.50	83.30	108.22					
26.60	91.00											14.70	83.90	108.24					
27.10	91.90											14.80	84.80	108.26					
27.50	93.20											15.10	85.10	108.27					
28.20	94.40											15.50	86.00	108.29					
28.60	95.60											15.74	87.40	108.31					
29.60	96.50											15.98	88.40	108.33					
30.30	97.40											16.22	89.50	108.35					
30.90	98.20											16.46	90.40	108.36					
31.90	99.40											16.70	91.10	108.38					
33.00	100.80											17.06	91.90	108.40					
34.50	102.20											17.42	92.90	DCP REF					
36.60	103.50											17.78	93.90	80/0.5*					
39.40	104.50											18.14	94.80						
42.30	105.20											18.50	96.10						
45.80	106.40											18.90	97.20						
48.60	107.90											19.50	98.00						
51.80	109.30											20.10	98.40						
55.90												20.50	98.70						
59.30												21.00	100.00						
61.60												21.60	101.00						
64.00												22.10	102.00						
65.70												22.60	102.90						
66.30												23.40	104.00						
67.90												24.20	105.30						
69.20												25.40	106.40						
71.00												26.50	107.50						
72.40												28.20	107.52						
73.80												31.20	107.54						
75.10												34.10	107.55						
76.50												36.20	107.57						
78.10												39.00	107.59						
79.10												41.30	107.61						
80.00												42.90	107.63						
80.50												44.60	107.64						
81.00												46.30	107.66						

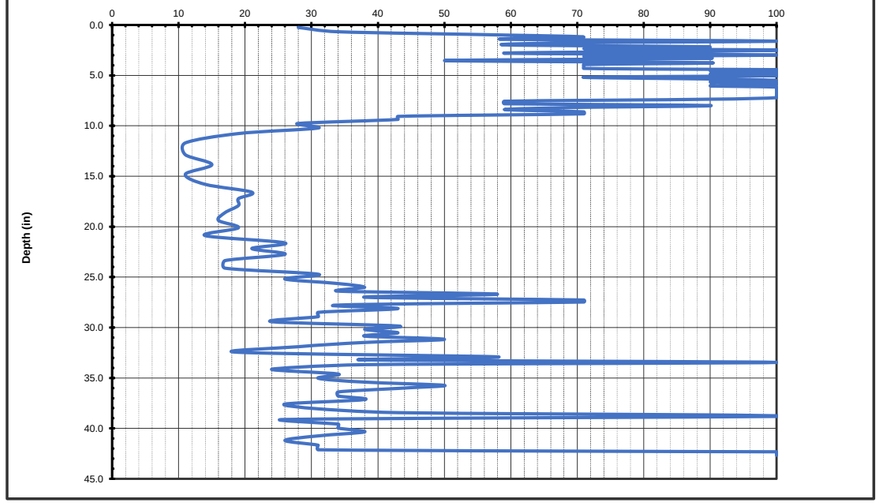
Test Location
C-33 -L- (NB) Sta. 14+53 RT OSL 1.3 FT LT FW



ABC	
ABC Thickness (in)	14.00
Average CBR	51
Weighted CBR Average	40
Maximum CBR Value	100
Minimum CBR Value	15

Soil Subgrade	
Average CBR	56
Weighted Average	29
Max CBR	100
Min CBR	8

Test Location
C-34 -L- (NB) Sta. 26+00 LTL (RT) 5.0 FT RT FY



ABC	
ABC Thickness (in)	10.00
Average CBR	81
Weighted CBR Average	71
Maximum CBR Value	100
Minimum CBR Value	28

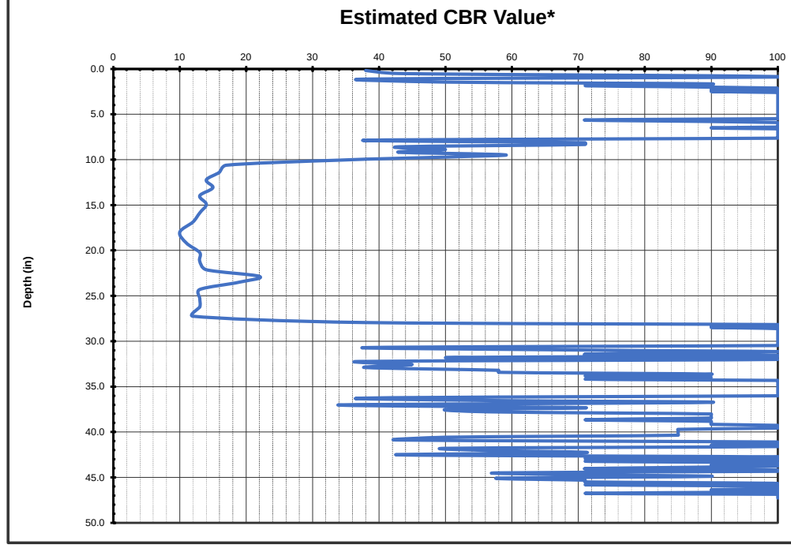
Soil Subgrade	
Average CBR	62
Weighted Average	28
Max CBR	100
Min CBR	11

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET				WBS NO.				PROJECT TIP I.D.				ROUTE			
				48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
				COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
				Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location				Date Run				Test Location				Date Run			
C-79 -L- (NB) Sta. 30+60 RT ISS 0.2 FT RT FY				11/16 to 11/22/22				C-35 -L- (NB) Sta. 30+60 RT ISL 2.8 FT RT FY				11/16 to 11/22/22			
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			ABC		5.0 ft Fill		DCP	Cumulative cm per blow			ABC		4.0 ft Fill	
0.90	16.80	78.40	104.50	119.64				1.50	72.20	86.50					
1.70	17.10	78.90	104.80	119.66				2.60	72.50	86.57					
2.10	17.40	79.20	105.10	119.68				3.40	73.10	86.63					
2.40	17.70	79.60	105.50	119.70				4.30	73.60	86.70					
3.30	18.00	80.10	105.80	119.73				4.50	73.80	86.77					
4.00	18.30	80.40	106.50	119.75				5.60	74.00	86.83					
4.40	18.54	81.10	107.10	119.77				6.10	74.60	86.90					
4.90	18.78	81.40	107.60	119.79				6.70	75.00	DCP REF					
5.30	19.02	82.33	108.40	119.81				7.10	75.40	50/0.1"					
5.60	19.26	83.10	108.70	119.84				7.70	75.80						
6.00	19.50	84.00	109.20	119.86				8.20	76.30						
6.10	20.40	84.60	109.50	119.88				8.50	76.50						
6.50	20.90	85.20	110.00	119.90				9.10	77.00						
6.60	21.40	85.60	110.30	119.92				9.60	77.30						
6.80	22.20	86.10	110.60	119.95				10.20	77.60						
7.10	22.90	86.50	111.00	119.97				10.70	77.90						
7.20	23.70	87.00	111.20	119.99				11.40	78.40						
7.30	24.30	87.30	111.60	120.01				11.90	78.60						
7.40	25.00	87.60	112.10	120.03				12.40	78.80						
7.50	26.00	87.78	112.40	120.06				12.90	79.00						
7.60	27.90	87.96	112.70	120.08				13.60	79.20						
7.78	29.90	88.14	113.30	120.10				14.40	79.40						
7.95	32.20	88.32	113.80	DCP REF				14.60	79.60						
8.13	34.30	88.50	114.20	50/0.4"				15.20	79.86						
8.30	36.70	88.68	114.80					15.70	80.12						
8.48	39.00	88.86	115.30					16.20	80.38						
8.66	41.50	89.04	115.80					16.70	80.64						
8.84	44.10	89.22	116.10					17.20	80.90						
9.02	47.20	89.40	116.60					17.80	81.14						
9.20	50.20	89.58	116.80					18.30	81.38						
9.40	52.60	89.76	117.00					19.20	81.62						
9.60	55.00	89.94	117.30					19.80	81.86						
9.80	57.30	90.12	117.50					20.10	82.10						
10.00	58.80	90.30	117.90					20.90	82.40						
10.20	60.50	90.56	118.10					21.60	82.70						
10.40	62.90	90.82	118.20					22.50	83.00						
10.60	65.40	91.08	118.50					23.40	83.30						
10.80	67.90	91.34	119.00					25.10	83.60						
11.00	70.50	91.60	119.02					27.50	83.86						
11.20	71.40	92.50	119.04					30.90	84.12						
11.30	71.60	93.10	119.07					35.40	84.38						
11.40	72.00	93.50	119.09					39.00	84.64						
11.50	72.10	94.50	119.11					41.90	84.90						
11.60	72.50	95.00	119.13					44.60	84.97						
11.70	72.80	95.70	119.15					47.00	85.03						
11.86	73.10	96.30	119.18					49.40	85.10						
12.02	73.31	96.70	119.20					51.50	85.17						
12.18	73.52	97.10	119.22					53.80	85.23						
12.34	73.73	97.50	119.24					55.50	85.30						
12.50	73.94	97.90	119.26					57.00	85.37						
12.76	74.15	98.40	119.29					58.10	85.43						
13.02	74.36	98.80	119.31					59.80	85.50						
13.28	74.57	99.20	119.33					61.10	85.57						
13.54	74.78	99.60	119.35					61.90	85.63						
13.80	74.99	99.80	119.37					62.50	85.70						
14.00	75.20	100.00	119.40					63.90	85.77						
14.50	75.40	100.20	119.42					64.40	85.83						
14.90	75.60	100.40	119.44					66.00	85.90						
15.10	75.80	100.60	119.46					66.50	85.97						
15.40	76.00	101.02	119.48					67.70	86.03						
15.60	76.20	101.44	119.51					68.60	86.10						
15.80	76.46	101.86	119.53					69.30	86.17						
16.00	76.72	102.28	119.55					70.00	86.23						
16.20	76.98	102.70	119.57					70.60	86.30						
16.30	77.24	103.40	119.59					71.20	86.37						
16.70	77.50	104.20	119.62					71.70	86.43						

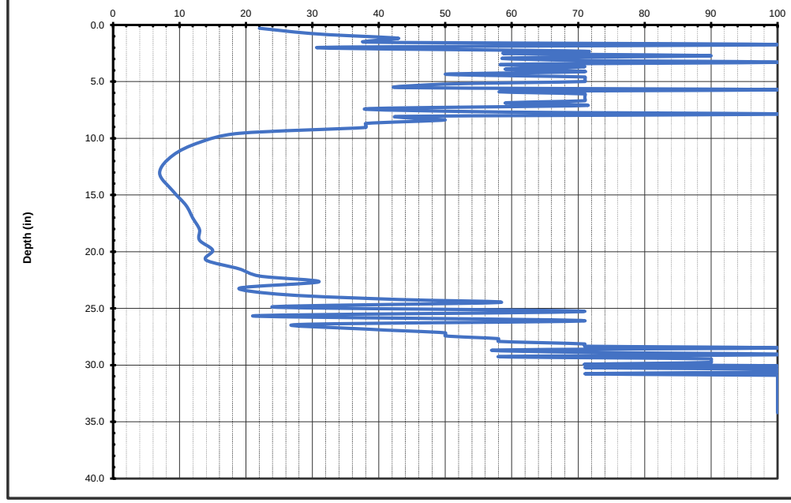
Test Location
C-79 -L- (NB) Sta. 30+60 RT ISS 0.2 FT RT FY



ABC	
ABC Thickness (in)	10.50
Average CBR	91
Weighted CBR Average	77
Maximum CBR Value	100
Minimum CBR Value	34

Soil Subgrade	
Average CBR	83
Weighted Average	47
Max CBR	100
Min CBR	10

Test Location
C-35 -L- (NB) Sta. 30+60 RT ISL 2.8 FT RT FY



ABC	
ABC Thickness (in)	16.50
Average CBR	54
Weighted CBR Average	35
Maximum CBR Value	100
Minimum CBR Value	7

Soil Subgrade	
Average CBR	82
Weighted Average	48
Max CBR	100
Min CBR	12

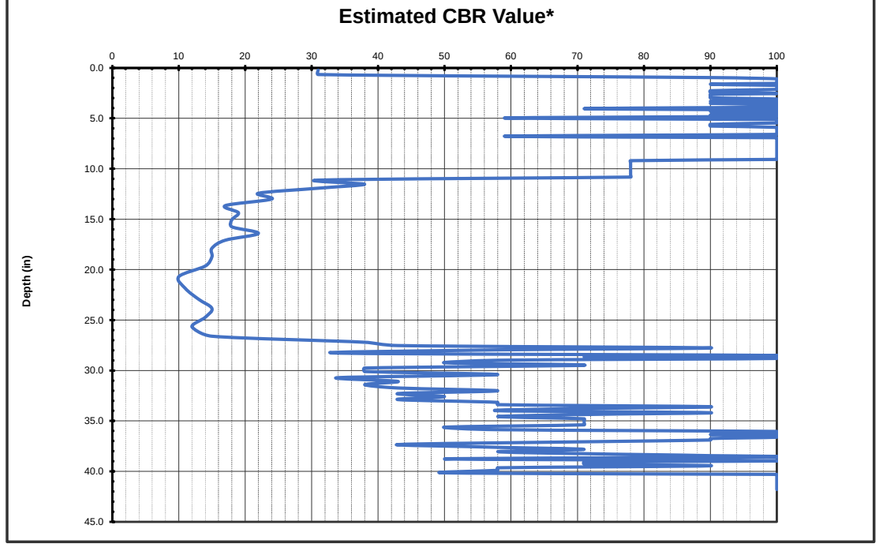
*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET				WBS NO.		PROJECT TIP I.D.		ROUTE	
				48470.1.1		R-5921		US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40	
				COUNTY		FIELD PROFESSIONAL		DRILLER/HELPER	
				Haywood		T. Wenner, P.G.		M. Brewer, P. Tomasic	
Test Location				Date Run		Test Location		Date Run	
C-80 -L- (NB) Sta. 30+60 RT OSL 2.0 FT LT FW				11/16 to 11/22/22		C-81 -L- (NB) Sta. 30+60 RT OSS 0.5 FT RT FW		11/16 to 11/22/22	
Type	Test Interval		Datum	Cut/Fill		Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow		ABC	5.0 ft Fill		DCP	Cumulative cm per blow	ABC	5.0 ft Fill

1.10	19.95	82.40	104.37					1.80	20.20	81.10	108.50							
2.20	20.16	83.10	104.44					2.50	20.48	81.40	108.90							
2.60	20.37	83.90	104.51					3.30	20.76	81.70	109.40							
2.90	20.58	84.50	104.59					3.40	21.04	82.30	110.00							
3.20	20.79	85.10	104.66					4.30	21.32	82.50	110.50							
3.50	21.00	85.50	104.73					4.40	21.60	82.90	111.00							
3.80	21.21	86.00	104.81					4.90	22.04	83.40	111.60							
3.90	21.42	86.60	104.88					5.20	22.48	83.90	112.00							
4.30	21.63	87.00	104.95					5.80	22.92	84.30	112.20							
4.50	21.84	87.50	105.03					6.20	23.36	84.60	112.50							
4.80	22.05	88.10	105.10					6.80	23.80	85.20	112.70							
5.00	22.26	88.60	105.17					7.40	24.10	85.40								
5.30	22.47	89.10	105.25					7.90	24.80	86.00								
5.50	22.68	89.60	105.32					8.10	25.50	86.50								
5.90	22.89	90.10	105.39					8.50	25.60	86.80								
6.30	23.10	90.80	105.47					8.80	25.90	87.10								
6.50	23.56	91.40	105.54					9.10	26.30	87.50								
6.90	24.02	91.60	105.61					9.50	26.60	87.80								
7.30	24.48	91.90	105.69					9.80	27.50	88.40								
7.70	24.94	92.10	105.76					10.10	28.30	88.90								
7.90	25.40	92.50	105.83					10.40	29.40	89.10								
8.20	25.86	92.70	105.91					10.70	30.80	89.50								
8.60	26.32	92.90	105.98					11.00	32.40	90.00								
8.70	26.78	93.10	106.05					11.40	34.40	90.40								
9.10	27.24	93.50	106.13					11.70	36.50	90.90								
9.40	27.70	93.90	106.20					12.00	38.60	91.40								
9.70	28.80	94.40	DCP REF					12.10	40.80	91.90								
10.00	29.70	95.20	50/2.0"					12.40	42.60	92.40								
10.50	30.80	95.80						12.60	44.40	92.70								
10.70	32.30	96.30						12.90	46.40	93.10								
11.10	33.70	96.90						13.20	47.90	93.50								
11.40	35.60	97.40						13.70	49.00	93.80								
11.60	37.30	97.80						13.80	50.50	94.10								
12.00	39.10	98.10						14.10	52.60	94.30								
12.30	40.90	98.80						14.40	54.40	94.60								
12.90	42.40	99.00						14.60	56.40	94.70								
13.10	44.30	99.50						14.70	58.10	94.94								
13.40	46.50	100.00						15.00	60.10	95.18								
13.70	48.70	100.40						15.20	62.00	95.42								
14.00	51.00	101.00						15.50	63.50	95.66								
14.40	54.10	101.60						15.80	64.70	95.90								
14.80	57.00	102.30						16.00	66.10	96.22								
15.10	59.50	102.39						16.20	67.70	96.54								
15.40	61.60	102.47						16.50	69.00	96.86								
15.70	63.90	102.56						16.70	70.30	97.18								
15.90	66.50	102.64						17.40	70.60	97.50								
16.00	68.60	102.73						17.70	71.50	98.00								
16.20	69.50	102.81						17.81	72.50	98.60								
16.50	70.30	102.90						17.92	73.10	99.10								
16.60	70.70	102.98						18.03	74.00	99.60								
16.90	71.30	103.07						18.14	74.50	100.00								
17.50	72.30	103.15						18.25	75.10	100.50								
17.64	72.50	103.24						18.36	76.00	101.00								
17.78	73.00	103.32						18.47	76.50	101.40								
17.92	73.30	103.41						18.58	77.20	101.70								
18.06	73.90	103.49						18.69	77.90	102.30								
18.20	74.60	103.58						18.80	78.40	102.90								
18.34	75.10	103.66						18.94	78.80	103.20								
18.48	76.00	103.75						19.08	79.20	103.80								
18.62	76.90	103.83						19.22	79.50	104.10								
18.76	77.50	103.92						19.36	79.80	104.70								
18.90	78.50	104.00						19.50	80.00	105.30								
19.11	79.30	104.07						19.64	80.30	105.90								
19.32	80.20	104.15						19.78	80.60	106.40								
19.53	81.00	104.22						19.92	80.70	107.50								
19.74	81.60	104.29						20.06	80.90	108.00								

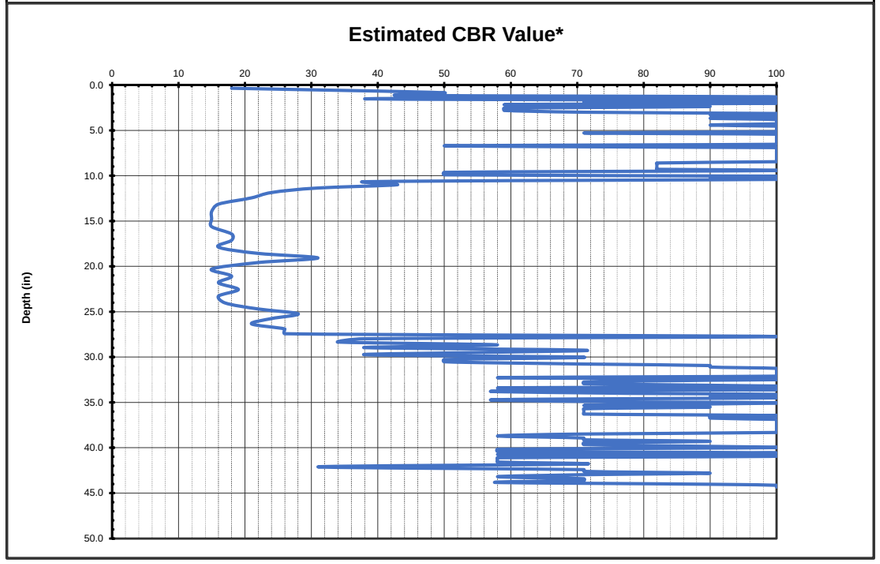
Test Location
C-80 -L- (NB) Sta. 30+60 RT OSL 2.0 FT LT FW



ABC	
ABC Thickness (in)	11.00
Average CBR	93
Weighted CBR Average	87
Maximum CBR Value	100
Minimum CBR Value	31

Soil Subgrade	
Average CBR	72
Weighted Average	39
Max CBR	100
Min CBR	10

Test Location
C-81 -L- (NB) Sta. 30+60 RT OSS 0.5 FT RT FW



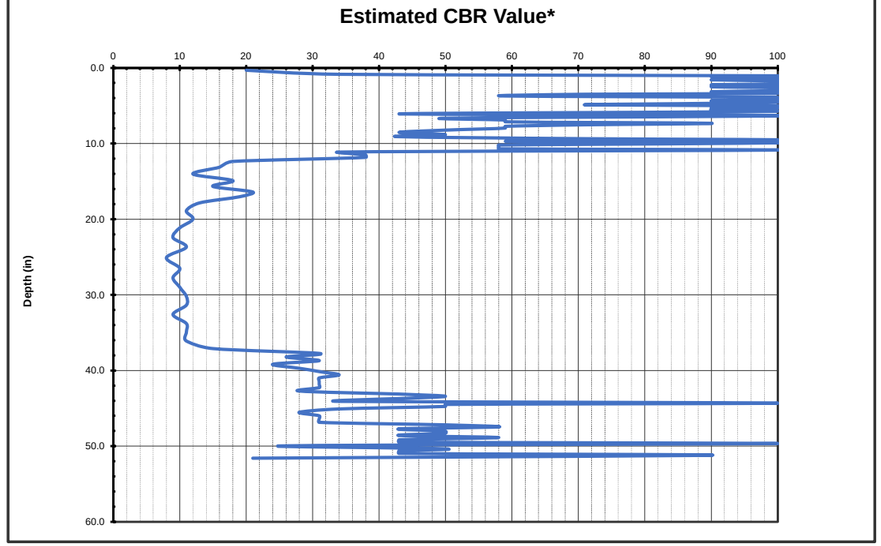
ABC	
ABC Thickness (in)	11.00
Average CBR	90
Weighted CBR Average	76
Maximum CBR Value	100
Minimum CBR Value	18

Soil Subgrade	
Average CBR	69
Weighted Average	46
Max CBR	100
Min CBR	15

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
C-36 -L- (NB) Sta. 42+23 LTL (RT) 7.0 FT RT FY								11/16 to 11/22/22				C-37 -L- (NB) Sta. 42+23 RT OSL 0.3 FT LT FW						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill				Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				ABC			5.0 ft Fill				DCP	Cumulative cm per blow			ABC		5.0 ft Fill	
1.60	29.60											1.20	51.50						
2.60	30.50											1.60	52.30						
2.70	32.30											2.30	52.70						
3.10	34.30											3.10	53.70						
3.30	36.90											3.80	53.80						
3.50	38.70											4.20	54.00						
3.80	40.80											4.90	54.10						
4.20	42.40											5.20	55.20						
4.40	44.10											5.80	55.50						
4.70	46.50											6.30	55.80						
4.90	49.40											6.80	56.50						
5.20	52.10											7.40	57.30						
5.50	55.30											7.90	58.00						
5.90	58.60											8.30	58.70						
6.10	61.60											8.60	59.70						
6.50	65.70											9.00	60.60						
6.80	68.80											9.40	61.60						
7.10	72.10											10.00	62.60						
7.30	75.20											10.60	63.60						
7.50	78.20											10.90	64.00						
7.80	81.10											11.50	65.20						
8.20	84.40											12.00	65.80						
8.50	87.20											12.50	66.50						
8.60	90.20											13.00	67.30						
9.10	93.10											13.50	68.30						
9.70	95.30											14.00	69.70						
10.00	96.40											14.90	70.80						
10.20	97.70											15.30	72.60						
10.50	98.80											15.70	74.60						
10.80	100.20											15.90	76.60						
11.20	101.40											16.06	78.90						
11.40	102.50											16.22	80.80						
11.70	103.50											16.38	82.80						
12.10	104.60											16.54	84.80						
12.60	105.70											16.70	87.10						
12.90	106.80											16.86	89.60						
13.30	107.90											17.02	92.40						
13.60	109.10											17.18	94.50						
14.00	109.90											17.34	97.20						
14.40	110.60											17.50	100.60						
14.60	111.40											17.78	103.90						
15.00	112.40											18.06	106.60						
15.80	112.60											18.34	109.60						
16.10	113.30											18.62	112.40						
16.50	114.00											18.90	113.90						
17.20	115.00											19.50	114.30						
17.80	116.20											20.10	115.10						
18.40	117.30											20.60	115.70						
18.80	118.40											21.20	116.60						
19.30	119.50											21.90	118.30						
19.90	120.20											22.80	121.00						
20.50	120.80											23.40	123.60						
21.20	121.60											24.10							
22.00	122.30											24.60							
22.70	123.00											25.30							
23.50	123.80											26.50							
24.00	124.40											28.00							
24.30	125.20											30.00							
24.90	126.00											31.50							
25.20	126.20											35.70							
25.60	127.50											37.60							
26.20	128.20											39.20							
26.80	129.00											42.20							
27.40	129.80											44.70							
27.70	130.20											47.00							
28.70	131.80											49.60							

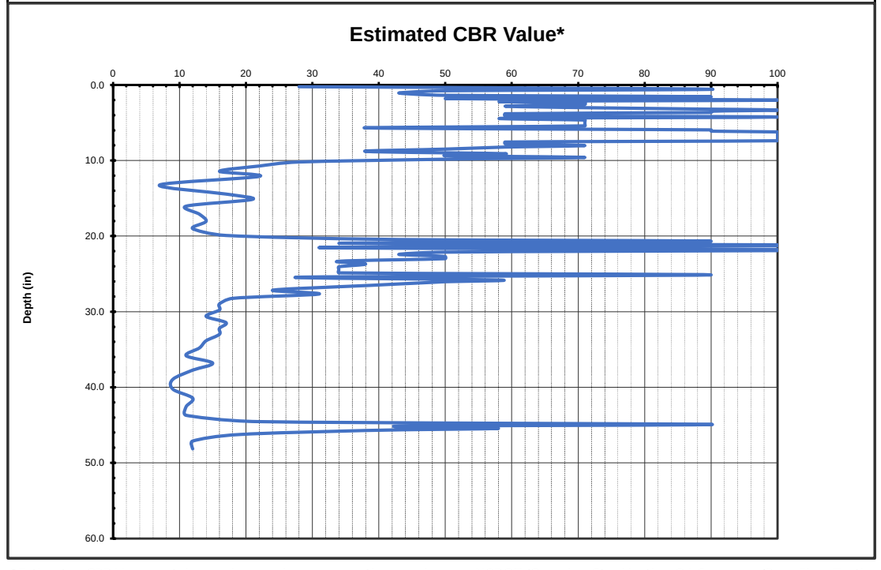
Test Location
C-36 -L- (NB) Sta. 42+23 LTL (RT) 7.0 FT RT FY



ABC	
ABC Thickness (in)	9.75
Average CBR	84
Weighted CBR Average	72
Maximum CBR Value	100
Minimum CBR Value	20

Soil Subgrade	
Average CBR	35
Weighted Average	23
Max CBR	100
Min CBR	8

Test Location
C-37 -L- (NB) Sta. 42+23 RT OSL 0.3 FT LT FW



ABC	
ABC Thickness (in)	9.75
Average CBR	77
Weighted CBR Average	67
Maximum CBR Value	100
Minimum CBR Value	28

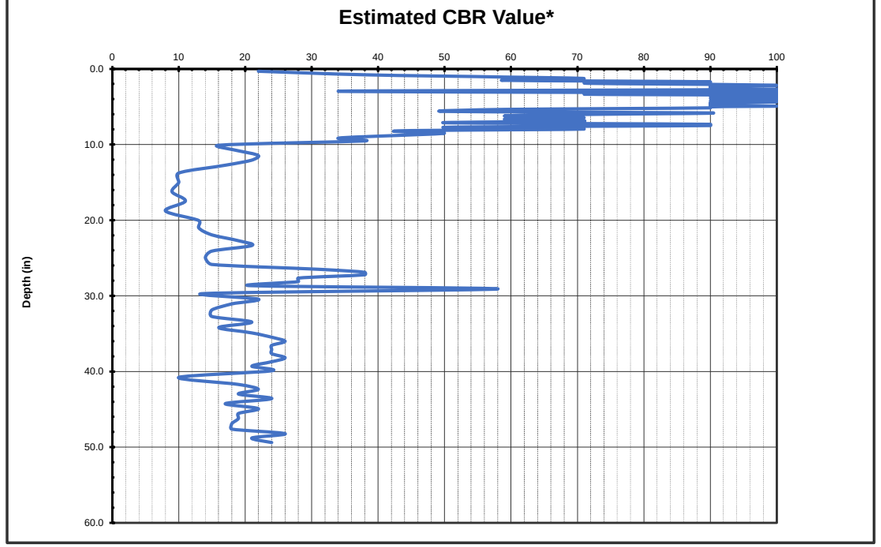
Soil Subgrade	
Average CBR	34
Weighted Average	21
Max CBR	100
Min CBR	7

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
C-38 -L- (NB) Sta. 59+19 LTL (RT) 6.0 FT RT FY								11/16 to 11/22/22				C-39 -L- (NB) Sta. 59+19 RT ISL 5.0 FT RT FW						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill				Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				ABC			5.0 ft Fill				DCP	Cumulative cm per blow			ABC		5.0 ft Fill	
1.50	67.80											1.10	13.70	51.00	125.40				
2.40	68.70											1.40	13.80	51.80	126.80				
3.00	69.60											2.30	13.90	52.60	128.20				
3.50	70.80											2.40	14.00	53.50	129.80				
4.10	72.00											2.50	14.18	54.30	131.00				
4.50	73.60											2.80	14.36	55.20	132.20				
5.00	74.20											3.10	14.54	56.60					
5.40	76.50											3.60	14.72	57.60					
5.60	78.00											3.76	14.90	58.80					
6.00	79.80											3.92	15.12	59.70					
6.40	82.00											4.08	15.34	60.50					
6.80	84.20											4.24	15.56	61.10					
7.00	85.80											4.40	15.78	62.60					
8.00	87.80											4.50	16.00	63.40					
8.20	89.40											4.60	16.30	63.60					
8.70	90.80											4.70	16.60	63.80					
9.00	92.10											4.80	16.90	64.60					
9.40	93.50											4.90	17.20	65.50					
9.60	94.90											5.00	17.50	66.50					
10.00	96.30											5.10	18.00	67.70					
10.30	97.60											5.20	18.30	69.10					
10.50	99.00											5.30	18.50	70.20					
10.90	100.60											5.40	18.90	71.20					
11.20	102.00											5.50	19.30	72.80					
11.60	105.10											5.60	19.60	74.40					
12.00	106.80											5.70	20.00	76.10					
12.40	108.30											5.80	20.20	77.90					
12.50	110.00											5.90	20.60	79.50					
12.90	111.40											6.00	21.10	81.00					
13.30	113.30											6.10	21.60	82.70					
13.90	114.80											6.20	21.70	84.00					
14.60	116.50											6.30	22.20	85.50					
15.00	118.20											6.40	22.70	86.90					
15.50	120.00											6.54	22.90	88.00					
16.10	121.80											6.68	23.30	89.40					
16.60	123.10											6.82	23.70	90.80					
17.20	124.70											6.96	24.30	91.80					
17.70	126.10											7.10	24.70	92.70					
18.40												7.22	25.40	93.90					
18.80												7.34	26.20	95.00					
19.20												7.46	27.00	96.60					
19.90												7.58	28.30	97.50					
20.40												7.70	30.70	99.00					
21.20												7.94	31.80	100.40					
21.90												8.18	32.70	101.80					
22.70												8.42	33.80	103.00					
23.70												8.66	34.90	103.80					
24.60												8.90	36.00	104.50					
26.60												9.30	36.80	105.30					
28.30												9.50	37.40	106.00					
29.80												9.70	37.90	106.60					
31.40												10.10	38.50	107.70					
33.30												10.30	39.50	108.90					
36.50												10.60	40.40	110.10					
39.60												10.90	41.40	111.00					
42.90												11.10	42.50	112.70					
45.80												11.30	43.40	113.40					
49.60												11.50	44.20	114.50					
52.10												11.70	45.00	115.70					
54.60												12.00	45.80	116.60					
56.80												12.10	46.60	117.60					
58.50												12.40	47.20	119.00					
60.10												12.60	48.30	120.00					
62.20												12.80	48.90	121.20					
64.50												13.10	49.80	122.50					
66.70												13.40	50.50	124.00					

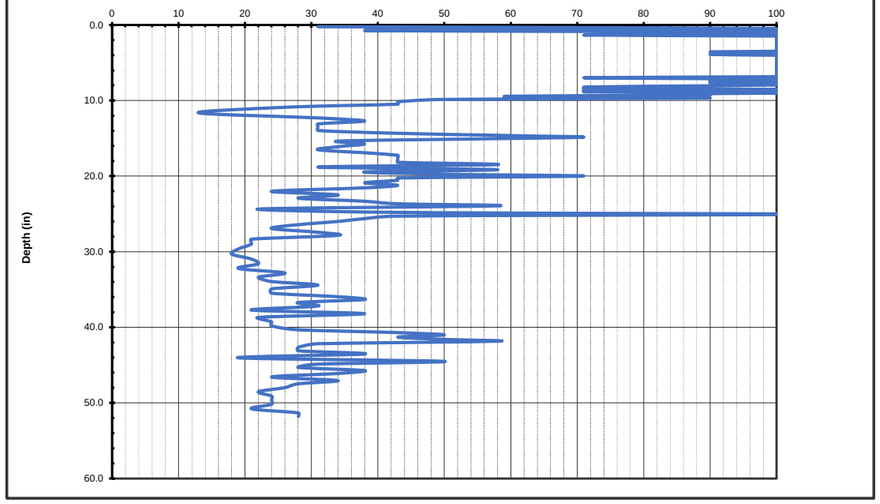
Test Location
C-38 -L- (NB) Sta. 59+19 LTL (RT) 6.0 FT RT FY



ABC	
ABC Thickness (in)	11.00
Average CBR	72
Weighted CBR Average	58
Maximum CBR Value	100
Minimum CBR Value	16

Soil Subgrade	
Average CBR	21
Weighted Average	18
Max CBR	58
Min CBR	8

Test Location
C-39 -L- (NB) Sta. 59+19 RT ISL 5.0 FT RT FW



ABC	
ABC Thickness (in)	11.25
Average CBR	94
Weighted CBR Average	82
Maximum CBR Value	100
Minimum CBR Value	26

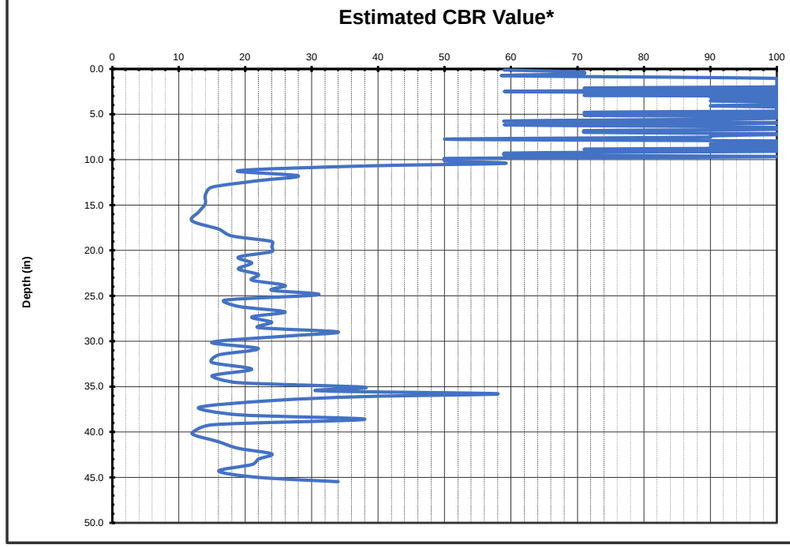
Soil Subgrade	
Average CBR	36
Weighted Average	31
Max CBR	100
Min CBR	13

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run				Test Location						Date Run			
C-40 -L- (NB) Sta. 75+14 RT OSL 3.0 FT LT FW						11/16 to 11/22/22				C-41 -L- (NB) Sta. 89+63 RT ISL 0.6 FT RT FY						11/16 to 11/22/22			
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill					
DCP	Cumulative cm per blow			ABC		5.0 ft Fill		DCP	Cumulative cm per blow			ABC		5.0 ft Fill					
0.60	18.20	98.50						1.50	21.00	87.65	116.10								
1.10	18.50	100.60						2.40	21.30	87.76	117.10								
1.60	18.90	103.30						2.70	22.00	87.87	117.90								
2.20	19.30	105.30						3.10	22.50	87.98	118.30								
2.60	20.00	107.00						3.90	22.60	88.09	119.00								
2.70	20.30	108.40						4.00	23.50	88.20	119.60								
2.90	20.60	109.90						4.50	24.30	88.33	120.20								
3.00	20.80	111.50						4.80	24.90	88.46	120.80								
3.20	21.20	113.50						5.00	25.10	88.59	122.40								
3.30	21.40	115.00						5.14	25.70	88.72	123.00								
3.40	21.60	116.00						5.28	26.00	88.85	123.50								
3.50	22.00							5.42	26.40	88.98	124.00								
3.60	22.20							5.56	26.70	89.11	124.60								
3.70	22.70							5.70	27.10	89.24	125.00								
3.80	22.90							6.04	27.80	89.37	125.70								
3.90	23.20							6.38	28.20	89.50	126.10								
4.00	23.80							6.72	29.20	89.68	126.60								
4.10	24.40							7.06	30.60	89.86	127.20								
4.20	24.70							7.40	31.90	90.04	128.30								
4.38	25.40							7.80	33.80	90.22	128.90								
4.56	26.10							8.10	37.20	90.40									
4.74	26.70							8.60	40.10	90.72									
4.92	27.60							8.90	43.00	91.04									
5.10	29.30							9.20	45.50	91.36									
5.60	30.50							9.60	47.90	91.68									
5.70	32.00							9.70	49.90	92.00									
6.00	34.20							10.00	51.40	92.80									
6.60	36.50							10.10	52.90	93.50									
6.90	38.80							10.26	54.50	93.90									
7.00	41.20							10.42	56.10	94.20									
7.10	43.80							10.58	57.20	94.90									
7.60	45.80							10.74	59.20	95.60									
7.70	47.60							10.90	61.00	96.10									
8.10	49.00							10.98	63.00	96.60									
8.40	50.40							11.06	64.90	97.30									
8.70	51.80							11.14	66.20	97.50									
9.10	53.50							11.22	66.90	98.00									
9.40	55.10							11.30	67.70	98.50									
9.70	56.80							11.62	68.40	99.10									
9.90	58.30							11.94	69.40	99.60									
10.10	59.90							12.26	70.60	100.30									
10.50	61.20							12.58	71.50	101.10									
10.80	62.60							12.90	73.00	102.00									
11.10	63.70							13.04	75.00	102.50									
11.40	65.60							13.18	76.50	103.10									
11.60	67.30							13.32	78.20	103.70									
11.70	68.60							13.46	80.10	104.40									
11.90	70.20							13.60	81.60	104.90									
12.40	71.60							13.80	83.60	105.60									
12.60	73.10							14.00	84.90	106.30									
12.70	74.10							14.20	85.60	106.90									
13.20	75.40							14.40	85.90	107.50									
13.50	77.50							14.60	86.02	108.00									
13.70	79.00							15.00	86.14	108.50									
13.90	81.00							15.40	86.26	109.00									
14.30	83.20							15.80	86.38	109.70									
14.90	84.80							16.20	86.50	110.20									
15.10	86.90							16.60	86.62	110.80									
15.30	88.60							17.20	86.74	111.30									
15.90	89.50							17.30	86.86	111.90									
16.30	90.60							17.80	86.98	112.50									
16.50	91.20							18.30	87.10	113.00									
16.80	92.10							18.80	87.21	113.70									
17.00	93.50							19.30	87.32	114.40									
17.50	95.90							19.80	87.43	114.60									
18.00	97.60							20.40	87.54	115.50									

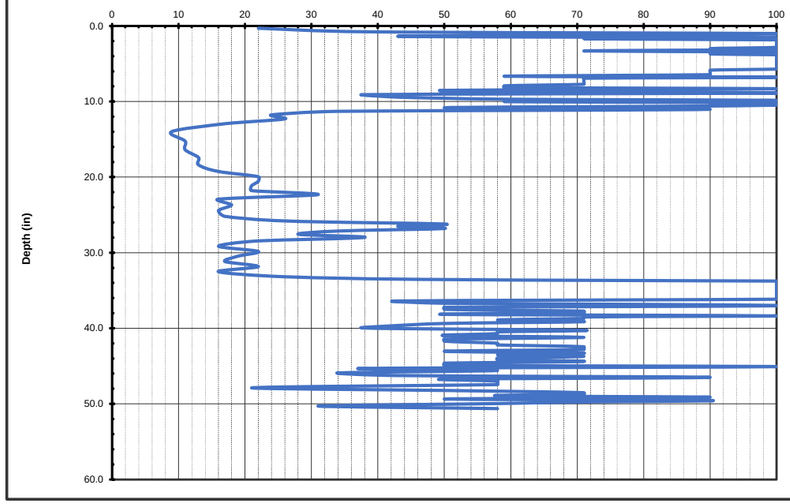
Test Location
C-40 -L- (NB) Sta. 75+14 RT OSL 3.0 FT LT FW



ABC	
ABC Thickness (in)	12.25
Average CBR	88
Weighted CBR Average	75
Maximum CBR Value	100
Minimum CBR Value	19

Soil Subgrade	
Average CBR	22
Weighted Average	20
Max CBR	58
Min CBR	12

Test Location
C-41 -L- (NB) Sta. 89+63 RT ISL 0.6 FT RT FY



ABC	
ABC Thickness (in)	11.25
Average CBR	88
Weighted CBR Average	76
Maximum CBR Value	100
Minimum CBR Value	22

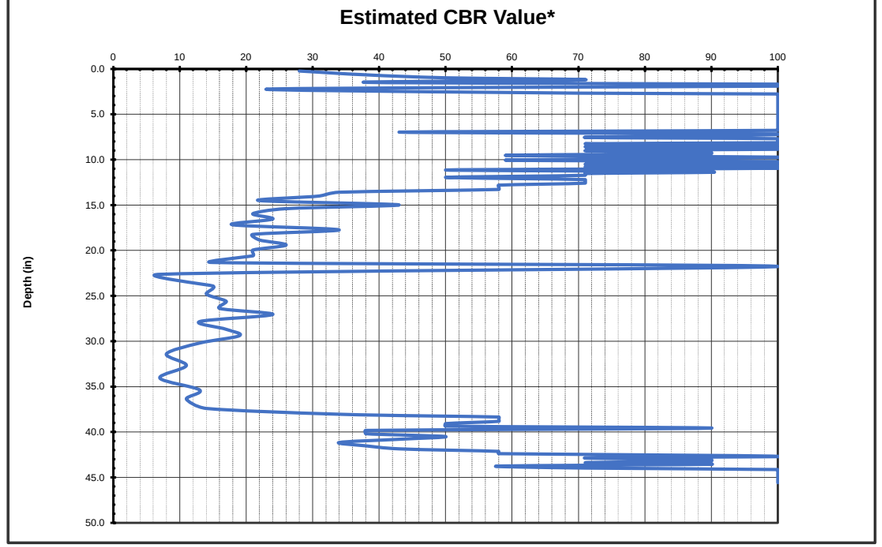
Soil Subgrade	
Average CBR	63
Weighted Average	38
Max CBR	100
Min CBR	9

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET				WBS NO.		PROJECT TIP I.D.		ROUTE	
				48470.1.1		R-5921		US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40	
				COUNTY		FIELD PROFESSIONAL		DRILLER/HELPER	
				Haywood		T. Wenner, P.G.		M. Brewer, P. Tomasic	
Test Location				Date Run		Test Location		Date Run	
C-42 -L- (NB) Sta. 103+01 RT OSL 2.0 FT LT FW				11/16 to 11/22/22		C-43 -L- (NB) Sta. 118+06 RT ISL 3.0 FT RT FY		11/16 to 11/22/22	
Type	Test Interval			Datum	Cut/Fill	Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow			ABC	5.0 ft Fill	DCP	Cumulative cm per blow	ABC	8.0 ft Fill
1.20	15.60	45.50	112.95			2.10	13.00	112.30	
2.10	15.68	47.10	112.99			2.24	13.40	115.40	
2.80	15.76	48.60	113.04			2.38	14.00	118.30	
3.30	15.84	49.90	113.08			2.52	14.30	120.80	
4.20	15.92	51.50	113.12			2.66	14.60	122.30	
4.34	16.00	53.10	113.17			2.80	14.80	124.80	
4.48	16.08	55.20	113.21			2.98	15.10	127.00	
4.62	16.16	55.30	113.26			3.16	15.30	129.80	
4.76	16.24	59.60	113.30			3.34	15.50		
4.90	16.32	61.80	113.40			3.52	15.80		
6.30	16.40	64.10	113.50			3.70	16.20		
6.90	16.50	66.00	113.60			3.80	16.70		
7.10	16.60	68.00	113.70			3.90	16.88		
7.30	16.70	69.40	113.80			4.00	17.06		
7.50	16.80	71.90	113.90			4.10	17.24		
7.70	16.90	73.80	114.00			4.20	17.42		
7.90	17.10	75.50	114.10			4.32	17.60		
8.06	17.30	77.90	114.20			4.44	17.78		
8.22	18.10	81.60	114.30			4.56	17.96		
8.38	18.20	84.40	114.40			4.68	18.14		
8.54	18.50	88.60	114.50			4.80	18.32		
8.70	18.90	91.00	114.60			4.96	18.50		
8.86	19.40	93.80	114.70			5.12	18.86		
9.02	19.60	96.10	114.80			5.28	19.22		
9.18	19.90	97.10	114.90			5.44	19.58		
9.34	20.10	97.70	115.00			5.60	19.94		
9.50	20.40	98.30	115.10			6.00	20.30		
9.74	20.60	98.90	115.20			6.40	20.60		
9.98	20.70	99.60	115.30			6.70	21.30		
10.22	21.20	100.30	115.40			7.00	22.20		
10.46	21.50	100.70	115.50			7.10	23.00		
10.70	22.00	101.60	115.60			7.30	23.60		
10.88	22.30	102.50	115.70			7.70	24.50		
11.06	22.60	103.20	115.80			8.00	25.30		
11.24	23.10	104.00	DCP REF			8.50	26.40		
11.42	23.50	105.00	50/3.0*			8.64	27.50		
11.60	23.90	105.90				8.78	29.20		
11.74	24.50	106.70				8.92	30.60		
11.88	24.80	107.30				9.06	32.00		
12.02	25.20	107.90				9.20	33.20		
12.16	25.80	108.30				9.34	35.40		
12.30	26.10	108.60				9.48	37.60		
12.44	26.40	109.10				9.62	39.50		
12.58	26.90	109.50				9.76	41.40		
12.72	27.10	109.90				9.90	43.60		
12.86	27.60	110.40				10.20	45.60		
13.00	27.90	110.80				10.80	47.70		
13.20	28.60	111.40				10.91	50.40		
13.40	29.00	111.90				11.02	52.60		
13.60	29.50	112.20				11.13	55.50		
13.80	30.00	112.24				11.24	58.10		
14.00	30.70	112.29				11.35	61.00		
14.14	31.20	112.33				11.46	63.90		
14.28	31.70	112.38				11.57	67.10		
14.42	32.20	112.42				11.68	70.40		
14.56	32.80	112.46				11.79	73.20		
14.70	33.40	112.51				11.90	76.30		
14.79	34.00	112.55				12.01	79.30		
14.88	35.00	112.60				12.12	81.60		
14.97	36.10	112.64				12.23	84.70		
15.06	37.60	112.68				12.34	87.80		
15.15	38.40	112.73				12.45	91.90		
15.24	39.70	112.77				12.56	96.40		
15.33	41.30	112.82				12.67	101.30		
15.42	42.70	112.86				12.78	105.10		
15.51	44.50	112.90				12.89	108.50		

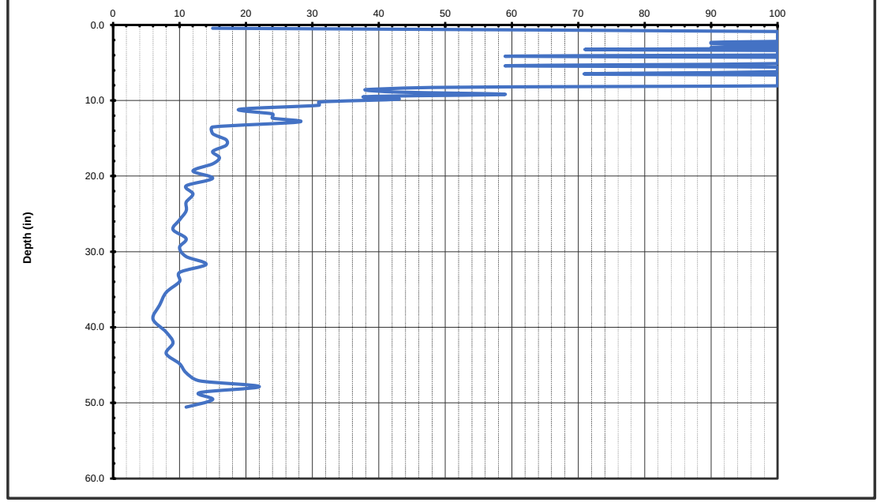
Test Location
C-42 -L- (NB) Sta. 103+01 RT OSL 2.0 FT LT FW



ABC	
ABC Thickness (in)	12.50
Average CBR	92
Weighted CBR Average	78
Maximum CBR Value	100
Minimum CBR Value	24

Soil Subgrade	
Average CBR	68
Weighted Average	29
Max CBR	100
Min CBR	7

Test Location
C-43 -L- (NB) Sta. 118+06 RT ISL 3.0 FT RT FY



ABC	
ABC Thickness (in)	9.75
Average CBR	94
Weighted CBR Average	80
Maximum CBR Value	100
Minimum CBR Value	15

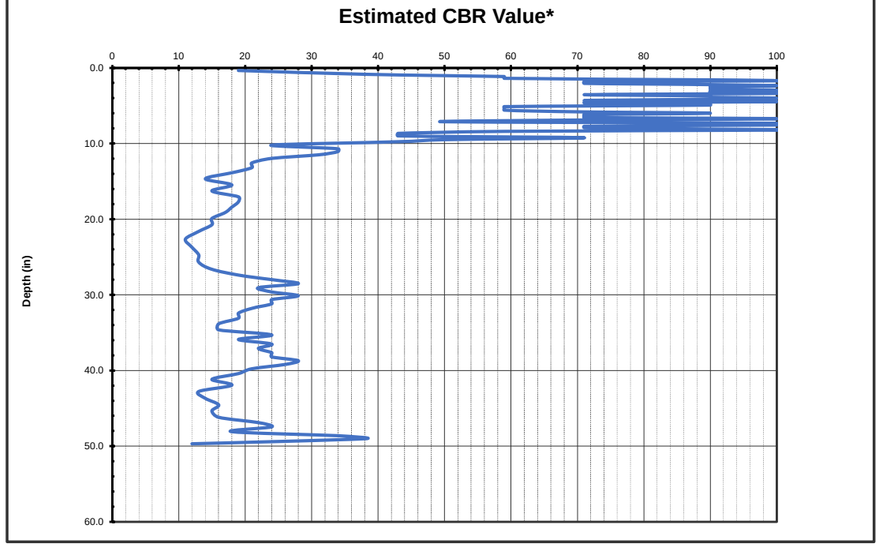
Soil Subgrade	
Average CBR	15
Weighted Average	12
Max CBR	43
Min CBR	6

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
C-44 -L- (NB) Sta. 133+92 LTL (RT) 5.0 FT RT FY								11/16 to 11/22/22				C-45 -L- (NB) Sta. 133+92 RT OSL 3.5 FT LT FW						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill				Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				ABC			5.0 ft Fill				DCP	Cumulative cm per blow			ABC		5.0 ft Fill	
1.70	51.60											1.20	16.90	79.90					
2.60	53.70											1.50	17.10	81.80					
3.20	56.10											1.70	17.30	83.40					
3.80	58.90											2.10	17.50	84.90					
4.20	61.50											2.40	17.70	86.50					
4.40	64.00											2.60	18.40	88.00					
4.90	66.50											3.10	18.90	89.50					
5.40	68.70											3.50	19.50	91.00					
5.80	70.40											3.70	19.70	92.50					
6.10	71.80											4.00	19.80	94.20					
6.50	73.00											4.20	20.10	95.80					
6.90	74.50											4.70	20.60	97.10					
7.30	75.90											5.00	20.90	98.60					
7.60	77.10											5.40	21.20	99.90					
8.00	78.50											5.70	21.60	101.50					
8.40	79.90											5.80	21.90	103.10					
8.70	81.50											6.20	22.20	104.90					
9.20	83.20											6.40	22.50	106.50					
9.60	84.90											6.50	22.80	108.20					
10.00	86.90											6.70	23.00	109.90					
10.30	88.90											6.80	23.40	111.30					
10.70	90.30											6.90	23.70	112.90					
11.20	92.00											7.10	24.10	114.50					
11.40	93.40											7.30	24.40	116.00					
11.90	94.90											7.50	24.70	117.40					
12.30	96.30											7.70	25.00	119.00					
12.70	97.70											7.90	25.40	120.50					
13.30	98.90											8.10	26.20	121.90					
13.90	100.20											8.30	27.00	122.90					
14.50	101.80											8.50	27.70	123.60					
15.00	103.50											8.70	28.50						
15.40	105.60											8.90	29.60						
15.90	107.40											9.12	31.20						
16.40	109.80											9.34	32.60						
16.90	112.10											9.56	34.20						
17.20	114.10											9.78	35.60						
17.70	116.30											10.00	36.90						
18.40	118.30											10.14	38.40						
18.70	119.80											10.28	39.60						
19.00	121.20											10.42	41.00						
19.30	123.00											10.56	42.00						
19.80	124.00											10.70	42.80						
20.30	124.90											10.90	43.90						
20.70	127.50											11.10	44.80						
21.00												11.30	45.80						
21.60												11.50	47.10						
22.40												11.70	48.00						
23.20												11.86	49.30						
23.70												12.02	50.40						
24.40												12.18	51.50						
25.20												12.34	53.00						
26.60												12.50	54.10						
27.60												12.80	55.80						
28.60												13.10	57.60						
29.70												13.40	59.40						
31.10												13.70	61.00						
32.70												14.00	62.80						
34.30												14.40	64.50						
36.10												14.60	66.00						
38.40												15.00	67.20						
40.20												15.50	69.10						
42.40												15.70	70.80						
44.10												16.00	72.10						
45.80												16.20	74.50						
47.60												16.40	76.40						
49.50												16.60	78.30						

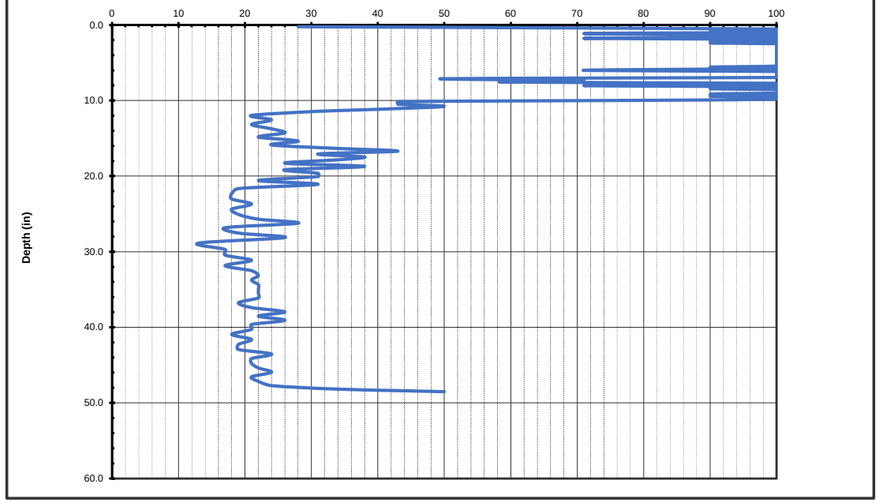
Test Location
C-44 -L- (NB) Sta. 133+92 LTL (RT) 5.0 FT RT FY



ABC	
ABC Thickness (in)	11.00
Average CBR	75
Weighted CBR Average	65
Maximum CBR Value	100
Minimum CBR Value	19

Soil Subgrade	
Average CBR	20
Weighted Average	19
Max CBR	38
Min CBR	11

Test Location
C-45 -L- (NB) Sta. 133+92 RT OSL 3.5 FT LT FW



ABC	
ABC Thickness (in)	11.25
Average CBR	94
Weighted CBR Average	85
Maximum CBR Value	100
Minimum CBR Value	28

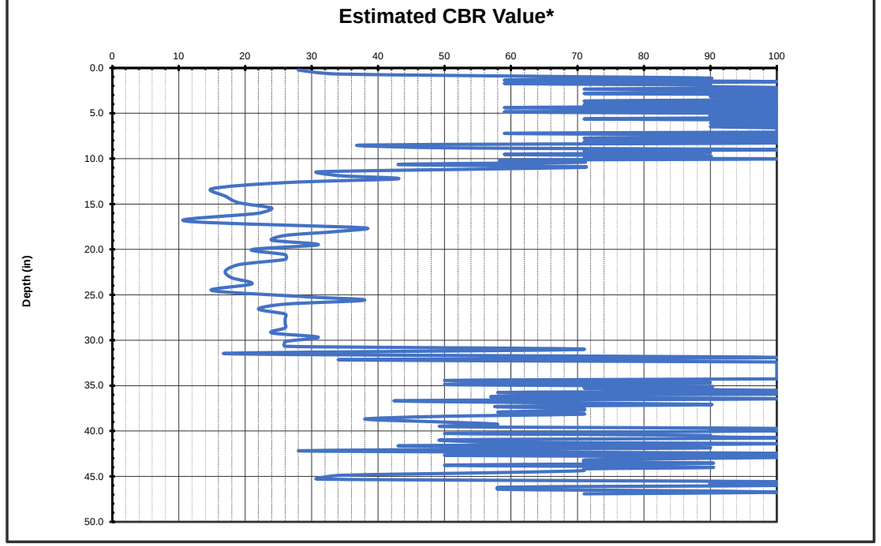
Soil Subgrade	
Average CBR	24
Weighted Average	23
Max CBR	50
Min CBR	13

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET				WBS NO.				PROJECT TIP I.D.				ROUTE			
				48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
				COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
				Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location				Date Run				Test Location				Date Run			
C-46 -L- (NB) Sta. 149+97 RT ISL 1.0 FT RT FY				11/16 to 11/22/22				C-47 -L- (NB) Sta. 157+91 LTL (RT) 7.0 FT RT FY				11/16 to 11/22/22			
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			ABC		5.0 ft Fill		DCP	Cumulative cm per blow			ABC		5.0 ft Fill	
1.20	23.90	83.70	111.50					1.20	24.00	41.28					
2.20	24.50	83.77	111.90					1.70	24.30	41.30					
2.70	24.90	83.85	112.40					2.40	24.90	41.34					
3.10	25.40	83.92	112.90					2.80	25.40	41.37					
3.70	25.50	84.00	113.50					3.30	25.90	41.41					
4.00	26.10	84.18	114.50					3.80	27.00	41.44					
4.60	26.60	84.36	115.60					4.00	27.40	41.48					
5.00	27.40	84.54	115.90					4.70	27.80	41.51					
5.40	27.90	84.72	116.30					5.30	28.40	41.55					
5.70	28.50	84.90	116.70					5.70	28.80	41.58					
6.20	29.60	85.08	117.00					6.00	29.10	41.62					
6.40	30.60	85.26	117.60					6.40	29.30	41.65					
6.70	31.40	85.44	118.20					6.80	30.10	41.69					
6.90	32.70	85.62	118.60					7.30	30.50	41.72					
7.40	34.90	85.80	118.90					7.80	31.00	41.76					
7.50	36.80	86.06	119.40					8.20	31.40	41.79					
7.80	38.50	86.32						8.60	31.70	41.83					
8.20	39.90	86.58						8.90	32.00	41.86					
8.50	41.40	86.84						9.10	32.20	41.90					
8.80	44.30	87.10						9.70	33.30	41.93					
9.00	45.20	87.80						10.00	33.50	41.97					
9.50	46.20	88.20						10.10	33.90	42.00					
9.80	47.50	88.90						10.30	34.20	42.08					
10.00	48.90	89.30						10.60	34.40	42.16					
10.50	50.00	89.80						10.90	34.70	42.24					
10.80	51.60	90.20						11.20	35.00	42.32					
11.40	52.90	90.50						11.60	35.60	42.40					
11.70	54.20	91.10						11.80	35.77	42.48					
12.00	55.90	91.30						12.30	35.94	42.56					
12.60	57.80	91.80						12.50	36.11	42.64					
12.90	59.60	92.40						12.80	36.28	42.72					
13.30	61.20	92.70						13.00	36.45	42.80					
13.70	63.30	93.50						13.20	36.62	DCP REF					
14.00	64.50	94.00						13.50	36.79	60/0.1*					
14.50	65.40	94.40						13.70	36.96						
14.60	66.70	95.00						13.90	37.13						
14.90	68.20	95.50						14.20	37.30						
15.20	69.50	96.00						14.50	37.60						
15.60	70.80	96.60						14.70	37.90						
15.90	72.10	97.10						14.80	38.20						
16.20	73.40	97.80						15.20	38.60						
16.60	74.80	98.70						15.60	38.70						
16.90	75.90	99.40						15.80	39.00						
17.01	77.20	100.00						15.90	39.60						
17.12	78.50	100.70						16.20	39.80						
17.23	79.00	101.00						16.50	40.30						
17.34	80.90	101.40						16.80	40.70						
17.45	81.10	101.50						17.00	40.90						
17.56	82.10	101.90						17.20	40.92						
17.67	82.40	102.60						17.60	40.94						
17.78	82.48	103.00						18.10	40.96						
17.89	82.55	103.40						18.40	40.98						
18.00	82.63	103.70						18.80	41.00						
18.60	82.70	104.40						19.10	41.02						
18.90	82.78	105.00						19.40	41.04						
19.10	82.86	105.30						19.70	41.06						
19.40	82.93	106.10						20.10	41.08						
19.90	83.01	106.50						20.60	41.10						
20.10	83.09	107.70						20.90	41.12						
20.40	83.16	108.00						21.10	41.14						
20.90	83.24	108.70						21.50	41.16						
21.10	83.31	109.00						21.90	41.18						
22.00	83.39	109.40						22.10	41.20						
22.70	83.47	109.90						22.60	41.22						
23.00	83.54	110.40						22.80	41.24						
23.50	83.62	110.80						23.00	41.26						

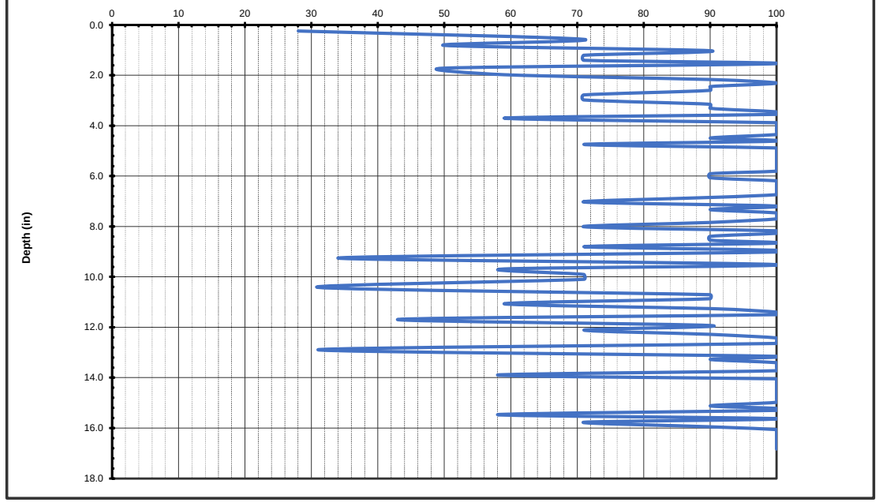
Test Location
C-46 -L- (NB) Sta. 149+97 RT ISL 1.0 FT RT FY



ABC	
ABC Thickness (in)	13.75
Average CBR	82
Weighted CBR Average	66
Maximum CBR Value	100
Minimum CBR Value	15

Soil Subgrade	
Average CBR	69
Weighted Average	44
Max CBR	100
Min CBR	11

Test Location
C-47 -L- (NB) Sta. 157+91 LTL (RT) 7.0 FT RT FY



ABC	
ABC Thickness (in)	13.50
Average CBR	87
Weighted CBR Average	77
Maximum CBR Value	100
Minimum CBR Value	28

Soil Subgrade	
Average CBR	98
Weighted Average	92
Max CBR	100
Min CBR	58

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

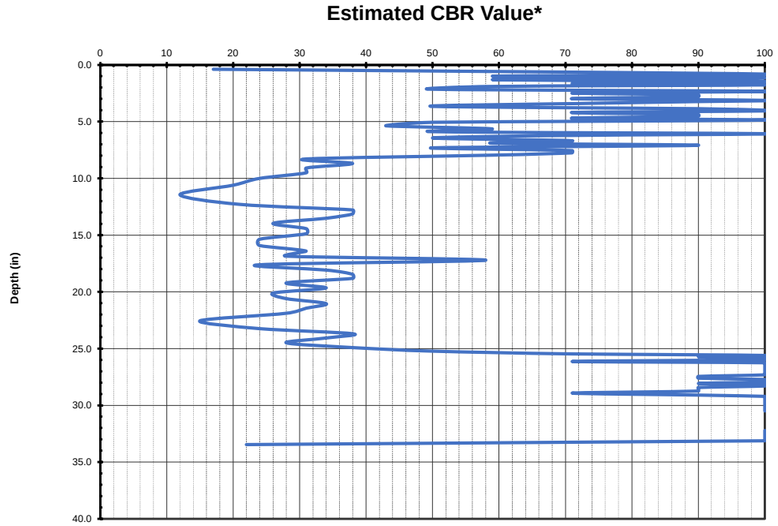
DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	48470.1.1	R-5921	US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40
	COUNTY	FIELD PROFESSIONAL	DRILLER/HELPER
	Haywood	T. Wenner, P.G.	M. Brewer, P. Tomasic

Test Location	Date Run	Test Location	Date Run
C-48 -L- (NB) Sta. 162+46 LTL (RT) 6.0 FT RT FY	11/16 to 11/22/22	C-49 -L- (NB) Sta. 162+46 RT OSL 2.6 FT LT FW	11/16 to 11/22/22

Type	Test Interval	Datum	Cut/Fill	Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow	ABC	5.0 ft Fill	DCP	Cumulative cm per blow	ABC	5.0 ft Fill

1.90	51.70	76.30						0.70	15.30	39.00	67.06				
2.20	52.90	76.36						1.10	15.50	39.80	67.29				
2.80	53.90	76.42						1.70	15.60	40.50	67.52				
3.00	55.00	76.49						2.20	15.90	41.40	67.75				
3.60	56.20	76.55						2.60	16.10	42.30	67.98				
3.90	58.30	76.61						2.80	16.30	43.30	68.21				
4.40	59.70	76.68						3.00	16.50	44.00	68.44				
4.50	60.60	76.74						3.50	16.80	44.70	68.67				
5.10	61.60	76.80						3.80	17.10	45.50	68.90				
5.80	62.80	76.87						4.00	17.40	46.10	69.14				
6.00	63.70	76.93						4.20	17.60	46.70	69.38				
6.50	64.40	76.99						4.80	17.90	47.50	69.62				
6.90	64.90	77.06						5.00	18.20	48.20	69.86				
7.30	65.10	77.12						5.30	18.30	48.90	70.10				
7.80	65.50	77.18						5.50	18.48	49.80	70.34				
8.00	65.60	77.25						5.70	18.66	50.50	70.58				
8.40	65.90	77.31						6.00	18.84	51.50	70.82				
8.90	66.10	77.37						6.30	19.02	52.10	71.06				
9.60	66.60	77.44						6.41	19.20	53.90	71.30				
10.00	66.70	77.50						6.52	19.38	55.00	71.50				
10.20	67.00	DCP REF						6.63	19.56	55.70	71.70				
10.40	67.20	AUGER 4.1						6.74	19.74	56.30	71.90				
10.90	67.50	TO 81.6 CM						6.85	19.92	56.70	72.10				
11.30	67.70	0.14						6.96	20.10	57.00	72.30				
11.70	68.00	0.27						7.07	20.22	57.70	72.42				
12.20	68.30	0.41						7.18	20.34	58.10	72.54				
12.50	68.60	0.55						7.29	20.46	58.40	72.66				
13.20	68.90	0.68						7.40	20.58	58.70	72.78				
14.00	69.20	0.82						7.51	20.70	59.00	72.90				
14.60	69.50	0.96						7.62	20.82	59.20	73.03				
15.30	69.90	1.09						7.73	20.94	59.50	73.16				
15.50	70.30	1.23						7.84	21.06	59.70	73.29				
16.00	70.50	1.37						7.95	21.18	60.00	73.42				
16.70	70.70	1.51						8.06	21.30	60.20	73.55				
17.20	70.90	1.64						8.17	21.51	60.50	73.68				
17.80	71.10	1.78						8.28	21.72	60.70	73.81				
18.20	71.50	1.92						8.39	21.93	60.90	73.94				
18.90	71.70	2.05						8.50	22.14	61.20	74.07				
19.40	72.00	2.19						8.65	22.35	61.60	74.20				
19.90	72.40	2.33						8.80	22.56	61.80	DCP REF				
20.50	72.80	2.46						8.95	22.77	61.98	50/3.8"				
21.60	73.20	2.60						9.10	22.98	62.16					
22.50	73.70	4.10						9.25	23.19	62.34					
23.60	74.10	DCP REF						9.40	23.40	62.52					
24.70	74.30	50/0.2"						9.55	23.90	62.70					
26.10	74.40							9.70	24.30	62.88					
27.70	74.60							9.85	24.50	63.06					
30.40	74.70							10.00	24.90	63.24					
32.00	74.90							10.22	25.70	63.42					
32.90	75.00							10.44	26.40	63.60					
33.80	75.10							10.66	26.90	63.80					
34.80	75.20							10.88	27.50	64.00					
36.10	75.30							11.10	27.80	64.40					
37.20	75.40							11.34	28.30	64.70					
38.30	75.50							11.58	28.80	65.00					
39.70	75.60							11.82	29.30	65.16					
41.10	75.66							12.06	29.90	65.32					
42.20	75.73							12.30	30.60	65.48					
43.40	75.79							12.68	31.50	65.64					
44.00	75.85							13.06	32.50	65.80					
45.40	75.92							13.44	33.70	65.96					
46.40	75.98							13.82	34.70	66.12					
47.30	76.04							14.20	35.70	66.28					
48.20	76.11							14.50	36.70	66.44					
49.40	76.17							14.70	37.60	66.60					
50.40	76.23							15.00	38.30	66.83					

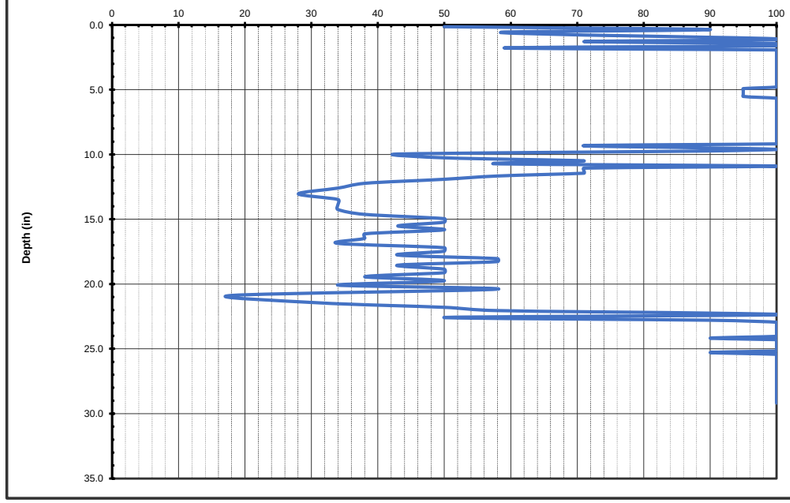
Test Location
C-48 -L- (NB) Sta. 162+46 LTL (RT) 6.0 FT RT FY



ABC	
ABC Thickness (in)	10.75
Average CBR	69
Weighted CBR Average	55
Maximum CBR Value	100
Minimum CBR Value	17

Soil Subgrade	
Average CBR	81
Weighted Average	79
Max CBR	100
Min CBR	12

Test Location
C-49 -L- (NB) Sta. 162+46 RT OSL 2.6 FT LT FW



ABC	
ABC Thickness (in)	10.25
Average CBR	97
Weighted CBR Average	92
Maximum CBR Value	100
Minimum CBR Value	43

Soil Subgrade	
Average CBR	83
Weighted Average	64
Max CBR	100
Min CBR	18

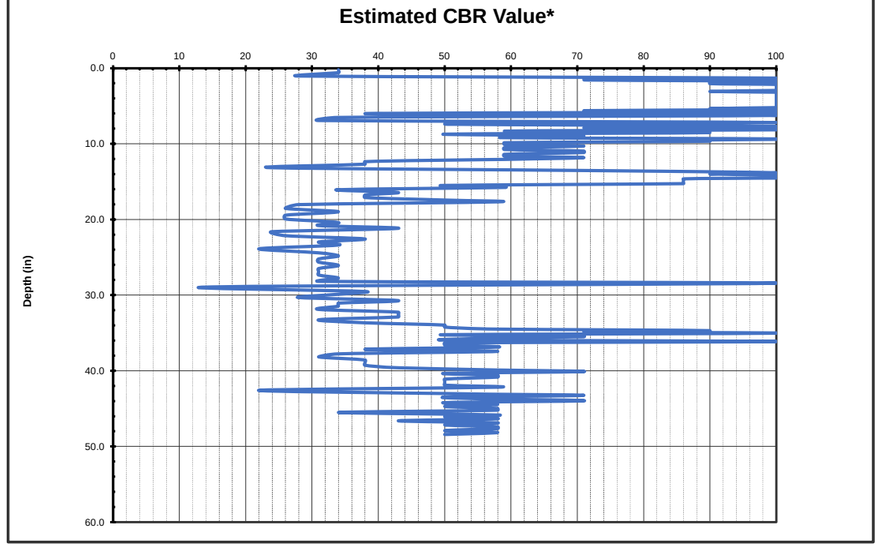
*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET				WBS NO.		PROJECT TIP I.D.		ROUTE	
				48470.1.1		R-5921		US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40	
				COUNTY		FIELD PROFESSIONAL		DRILLER/HELPER	
				Haywood		T. Wenner, P.G.		M. Brewer, P. Tomasic	
Test Location				Date Run		Test Location		Date Run	
C-82 -L- (NB) Sta. 179+94 RT ISS 0.5 FT RT FY				11/16 to 11/22/22		C-50 -L- (NB) Sta. 179+94 RT ISL 3.0 FT RT FY		11/16 to 11/22/22	
Type	Test Interval		Datum	Cut/Fill		Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow		ABC	5.0 ft Fill		DCP	Cumulative cm per blow	ABC	5.0 ft Fill

1.00	24.30	71.00	120.70					1.20	16.60	84.10									
2.00	24.70	72.10	121.30					1.90	16.90	85.20									
3.20	25.30	72.30	122.00					2.10	17.10	86.20									
3.50	25.90	74.50	122.60					2.50	17.23	87.10									
3.70	26.40	75.40	123.30					2.70	17.36	87.60									
4.20	27.00	76.40						3.10	17.49	88.60									
4.40	27.60	77.60						3.40	17.62	89.50									
4.60	28.10	78.40						3.70	17.75	90.40									
5.00	28.60	79.40						4.00	17.88	91.30									
5.40	29.20	80.40						4.20	18.01	92.40									
5.50	29.80	81.50						4.50	18.14	92.80									
5.80	30.30	82.30						4.80	18.27	93.80									
5.90	30.90	83.10						5.00	18.40	94.80									
6.00	31.80	83.90						5.30	18.72	95.60									
6.30	32.70	85.00						5.40	19.04	96.50									
6.50	34.10	85.90						5.60	19.36	97.40									
6.70	34.60	86.60						5.80	19.68	98.10									
7.00	35.00	87.30						6.20	20.00	98.60									
7.30	35.30	87.90						6.40	20.40	99.50									
7.60	35.70	88.30						6.60	20.80	100.30									
8.00	36.00	88.80						6.80	21.60	101.00									
8.10	36.09	89.10						7.00	22.30	101.80									
8.30	36.18	89.80						7.20	22.90	102.60									
8.50	36.27	90.30						7.30	23.30	103.40									
8.60	36.36	90.90						7.40	24.10	104.50									
8.80	36.45	91.60						7.50	25.00	105.50									
9.10	36.54	91.90						7.60	25.50	106.10									
9.40	36.63	92.60						7.70	26.20	107.10									
9.70	36.72	93.30						7.80	26.90	107.80									
10.00	36.81	93.90						7.90	27.30	108.50									
10.10	36.90	94.80						8.00	27.90	109.40									
10.40	37.32	95.40						8.10	28.50	110.50									
10.70	37.74	96.40						8.20	29.50	110.60									
10.90	38.16	97.50						8.40	30.00	111.20									
11.10	38.58	98.40						8.60	31.90	112.00									
11.30	39.00	99.30						8.80	33.10	112.70									
11.60	39.70	100.20						9.00	34.10	113.40									
11.80	40.30	101.00						9.20	35.00	114.10									
12.10	41.30	101.60						9.38	35.60	114.90									
12.40	42.10	102.10						9.56	37.00	115.90									
12.70	43.00	102.80						9.74	38.60	116.70									
12.80	43.90	103.40						9.92	40.40	117.40									
13.10	44.60	104.00						10.10	42.50	118.30									
13.40	45.20	104.70						10.50	44.50	119.10									
13.80	46.40	105.40						10.90	45.90	119.70									
13.90	47.70	106.10						11.40	47.90	120.70									
14.00	48.70	106.80						11.70	50.00	121.80									
14.50	50.00	107.40						11.90	52.20	122.60									
14.80	51.30	108.90						12.20	54.30										
15.70	52.30	109.60						12.30	56.40										
16.00	53.40	110.10						12.50	58.30										
17.00	54.20	110.80						12.70	60.00										
18.10	55.60	111.40						13.20	62.00										
18.40	56.90	111.90						13.40	64.20										
19.10	57.80	112.60						13.70	66.20										
19.50	58.90	113.20						14.00	68.20										
19.80	59.90	113.90						14.20	69.80										
20.30	61.40	114.50						14.40	71.80										
20.60	62.50	115.10						14.70	73.20										
20.80	63.50	116.10						14.90	73.70										
21.40	64.60	116.70						15.10	75.50										
21.80	65.70	117.40						15.40	77.80										
22.50	66.70	118.00						15.60	78.90										
23.00	67.80	118.80						15.90	80.60										
23.60	68.90	119.40						16.10	81.90										
23.90	70.00	120.10						16.20	83.00										

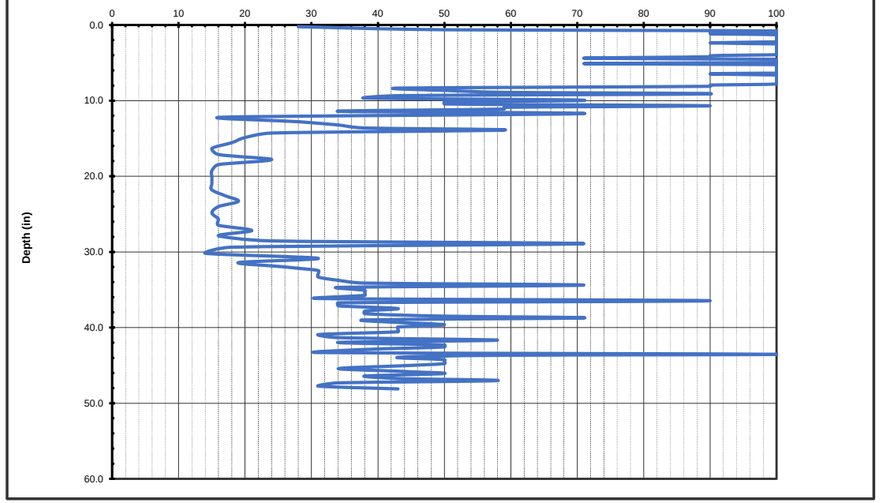
Test Location
C-82 -L- (NB) Sta. 179+94 RT ISS 0.5 FT RT FY



ABC	
ABC Thickness (in)	16.25
Average CBR	84
Weighted CBR Average	70
Maximum CBR Value	100
Minimum CBR Value	24

Soil Subgrade	
Average CBR	46
Weighted Average	41
Max CBR	100
Min CBR	15

Test Location
C-50 -L- (NB) Sta. 179+94 RT ISL 3.0 FT RT FY



ABC	
ABC Thickness (in)	15.75
Average CBR	87
Weighted CBR Average	66
Maximum CBR Value	100
Minimum CBR Value	17

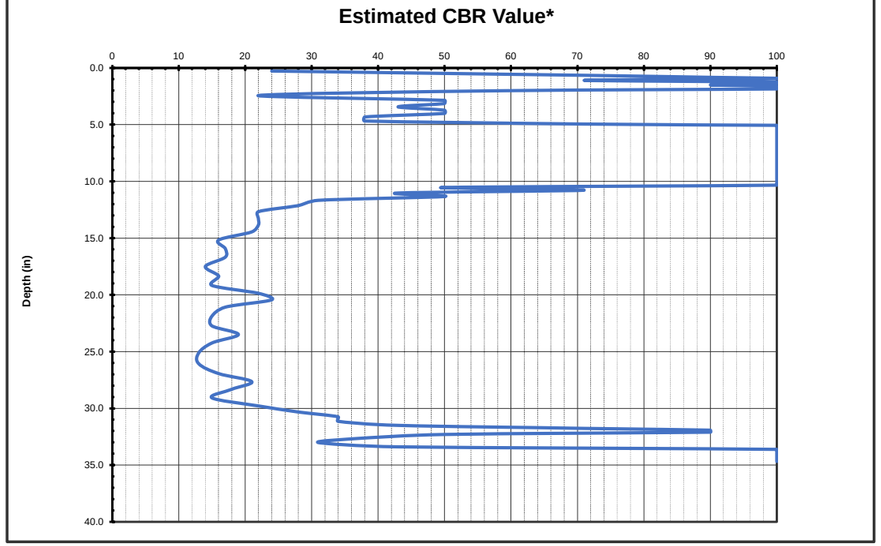
Soil Subgrade	
Average CBR	37
Weighted Average	29
Max CBR	100
Min CBR	14

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
C-83 -L- (NB) Sta. 179+94 RT OSL 2.6 FT LT FW								11/16 to 11/22/22				C-84 -L- (NB) Sta. 179+94 RT OSS 0.5 FT RT FW						11/16 to 11/22/22	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill					
DCP	Cumulative cm per blow			ABC		5.0 ft Fill		DCP	Cumulative cm per blow			ABC		5.0 ft Fill					
1.40	19.24	78.60						1.80	20.10	71.90									
1.90	19.41	79.60						2.60	20.50	72.60									
2.30	19.58	80.40						3.30	20.80	73.60									
2.50	19.75	80.90						3.80	21.00	75.10									
3.00	19.92	81.30						4.20	21.40	76.10									
3.30	20.09	81.70						4.50	21.90	77.20									
3.60	20.26	82.40						4.90	22.20	78.50									
4.00	20.43	83.30						5.20	22.60	79.80									
4.20	20.60	84.40						5.40	23.00	80.80									
4.40	20.81	85.20						5.90	23.40	81.90									
4.60	21.02	85.50						6.30	23.80	82.10									
4.80	21.23	85.80						6.40	24.10	84.40									
5.40	21.44	86.10						6.50	24.50	85.60									
6.90	21.65	86.15						6.80	24.90	86.90									
7.60	21.86	86.20						7.00	25.30	88.20									
8.30	22.07	86.25						7.40	25.60	89.40									
9.10	22.28	86.30						7.80	25.90	90.70									
9.80	22.49	86.35						8.00	26.10	92.00									
10.50	22.70	86.40						8.30	26.40	93.40									
11.40	22.87	86.45						8.40	26.60	94.10									
12.30	23.04	86.50						8.60	26.90	95.60									
12.80	23.21	86.55						9.00	27.20	97.00									
12.90	23.38	86.60						9.30	27.30	98.20									
13.10	23.55	86.65						9.50	27.80	98.70									
13.20	23.72	86.70						9.70	28.00	99.40									
13.34	23.89	86.75						10.00	28.30	100.10									
13.48	24.06	86.80						10.30	28.90	100.70									
13.62	24.23	86.85						10.80	29.20	101.30									
13.76	24.40	86.90						11.00	29.90	102.20									
13.90	24.74	86.95						11.30	30.40	103.10									
14.04	25.08	87.00						11.60	31.10	104.00									
14.18	25.42	87.05						11.90	32.00	105.10									
14.32	25.76	87.10						12.10	32.80	106.10									
14.46	26.10	87.14						12.50	33.60	107.20									
14.60	26.40	87.18						12.60	34.80	108.50									
14.80	27.10	87.22						12.90	36.50	109.50									
15.00	27.60	87.26						13.10	37.80	110.60									
15.20	28.40	87.30						13.28	39.40	111.40									
15.40	29.10	87.34						13.46	41.00	112.40									
15.60	30.20	87.38						13.64	42.30	113.80									
15.78	31.40	87.42						13.82	42.60	114.50									
15.96	32.90	87.46						14.00	43.20	115.50									
16.14	34.40	87.50						14.18	43.70	116.40									
16.32	35.90	87.54						14.36	44.20	117.00									
16.50	37.50	87.58						14.54	44.70										
16.62	39.50	87.62						14.72	45.00										
16.74	41.40	87.66						14.90	45.50										
16.86	43.30	87.70						15.10	46.30										
16.98	45.60	87.74						15.30	47.20										
17.10	47.60	87.78						15.50	48.40										
17.30	49.70	87.82						15.70	49.80										
17.50	51.20	87.86						15.90	51.10										
17.70	52.60	87.90						16.10	52.70										
17.90	54.50	87.94						16.30	54.30										
18.10	56.60	87.98						16.50	55.60										
18.18	58.80	88.02						16.70	56.90										
18.26	60.50	88.06						16.90	58.10										
18.34	62.60	88.10						17.18	59.00										
18.42	65.00	DCP REF						17.46	60.30										
18.50	67.40	60/1.5"						17.74	61.70										
18.58	69.40							18.02	63.40										
18.66	71.00							18.30	65.10										
18.74	72.80							18.80	66.40										
18.82	74.90							19.00	68.10										
18.90	76.40							19.40	69.40										
19.07	77.60							19.80	70.60										

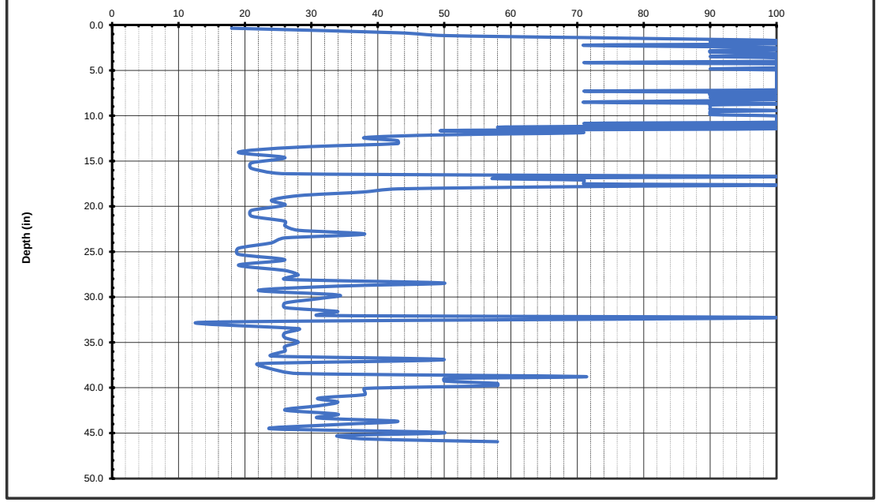
Test Location
C-83 -L- (NB) Sta. 179+94 RT OSL 2.6 FT LT FW



ABC	
ABC Thickness (in)	8.00
Average CBR	91
Weighted CBR Average	71
Maximum CBR Value	100
Minimum CBR Value	22

Soil Subgrade	
Average CBR	76
Weighted Average	33
Max CBR	100
Min CBR	13

Test Location
C-84 -L- (NB) Sta. 179+94 RT OSS 0.5 FT RT FW



ABC	
ABC Thickness (in)	10.00
Average CBR	94
Weighted CBR Average	85
Maximum CBR Value	100
Minimum CBR Value	18

Soil Subgrade	
Average CBR	45
Weighted Average	34
Max CBR	100
Min CBR	14

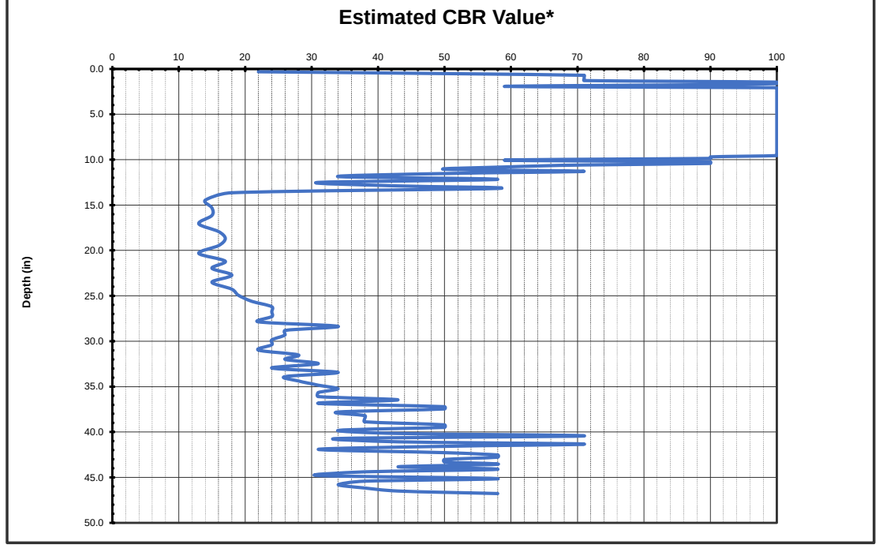
*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET				WBS NO.		PROJECT TIP I.D.		ROUTE	
				48470.1.1		R-5921		US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40	
				COUNTY		FIELD PROFESSIONAL		DRILLER/HELPER	
				Haywood		T. Wenner, P.G.		M. Brewer, P. Tomasic	
Test Location				Date Run		Test Location		Date Run	
C-51 -L- (NB) Sta. 195+10 RT OSL 0.3 FT RT FW				11/16 to 11/22/22		C-52 -L- (NB) Sta. 210+06 RT ISL 0.5 FT RT FY		11/16 to 11/22/22	
Type	Test Interval		Datum	Cut/Fill		Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow		ABC	5.0 ft Fill		DCP	Cumulative cm per blow	ABC	5.0 ft Fill

1.50	16.28	32.30	113.20						1.50	52.50									
2.00	16.44	33.10	114.30						2.40	54.60									
2.50	16.60	33.70	114.90						2.70	55.90									
3.00	16.78	35.50	115.80						3.20	57.10									
3.50	16.96	37.80	116.80						3.70	59.10									
3.80	17.14	39.90	117.70						4.00	61.00									
4.00	17.32	42.10	118.50						4.50	62.80									
4.20	17.50	44.50	119.10						4.70	63.00									
4.60	17.72	46.50							5.20	64.80									
5.20	17.94	48.40							5.60	66.40									
5.30	18.16	50.40							6.00	67.90									
5.60	18.38	52.80							6.40	69.60									
5.90	18.60	54.70							6.70	70.70									
6.00	18.80	56.80							7.30	73.10									
6.12	18.90	58.60							7.60	74.80									
6.24	19.10	60.70							8.00	76.30									
6.36	19.20	62.50							8.40	77.90									
6.48	19.40	64.20							8.70	79.10									
6.60	19.60	65.80							8.90	80.20									
6.80	19.67	67.20							9.40	81.40									
7.00	19.74	68.60							9.70	82.40									
7.20	19.81	70.00							10.00	83.50									
7.40	19.88	71.50							10.60	85.00									
7.60	19.95	72.50							11.00	86.40									
7.80	20.02	73.80							11.60	88.30									
8.00	20.09	75.10							12.00	89.50									
8.20	20.16	76.50							12.20	90.60									
8.40	20.23	77.90							12.50	91.50									
8.60	20.30	79.40							12.70	92.50									
8.78	20.46	80.60							13.00	93.50									
8.96	20.62	81.90							13.20	93.70									
9.14	20.78	83.00							13.60	94.40									
9.32	20.94	84.40							14.10	95.50									
9.50	21.10	85.40							14.70	95.90									
9.70	21.26	86.70							15.30	96.90									
9.90	21.42	87.90							15.80	98.40									
10.10	21.58	89.00							16.20	99.80									
10.30	21.74	90.00							16.60	100.80									
10.50	21.90	91.10							17.10	102.30									
10.66	22.01	92.20							17.70	103.40									
10.82	22.12	93.00							18.30	104.60									
10.98	22.23	94.10							18.60	106.00									
11.14	22.34	94.80							19.20	107.50									
11.30	22.45	95.50							19.80	108.90									
11.54	22.56	96.50							20.50	110.40									
11.78	22.67	97.40							21.00	112.00									
12.02	22.78	98.30							21.60	113.30									
12.26	22.89	99.20							22.10	115.00									
12.50	23.00	99.90							22.70	116.20									
12.76	23.28	100.60							23.50	117.80									
13.02	23.56	101.60							24.20	121.80									
13.28	23.84	102.40							24.90	123.60									
13.54	24.12	102.90							25.60										
13.80	24.40	103.90							26.30										
14.02	24.80	104.70							27.20										
14.24	25.20	105.20							28.40										
14.46	25.80	105.90							29.30										
14.68	26.20	107.00							30.50										
14.90	26.60	107.70							31.70										
15.08	27.10	108.30							33.50										
15.26	27.70	108.90							35.20										
15.44	28.40	109.60							38.20										
15.62	28.90	110.30							41.40										
15.80	29.60	110.90							44.80										
15.96	30.60	111.70							47.80										
16.12	31.20	112.30							50.60										

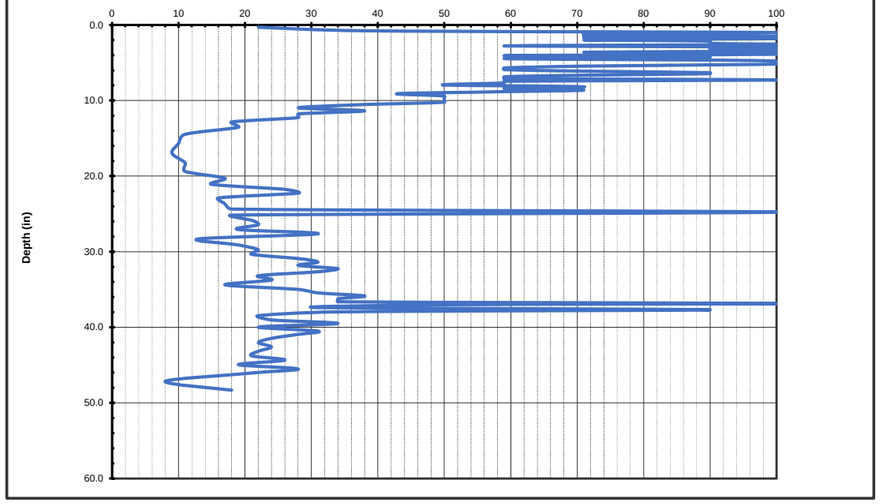
Test Location
C-51 -L- (NB) Sta. 195+10 RT OSL 0.3 FT RT FW



ABC	
ABC Thickness (in)	12.00
Average CBR	95
Weighted CBR Average	86
Maximum CBR Value	100
Minimum CBR Value	22

Soil Subgrade	
Average CBR	34
Weighted Average	29
Max CBR	71
Min CBR	13

Test Location
C-52 -L- (NB) Sta. 210+06 RT ISL 0.5 FT RT FY



ABC	
ABC Thickness (in)	10.50
Average CBR	76
Weighted CBR Average	68
Maximum CBR Value	100
Minimum CBR Value	22

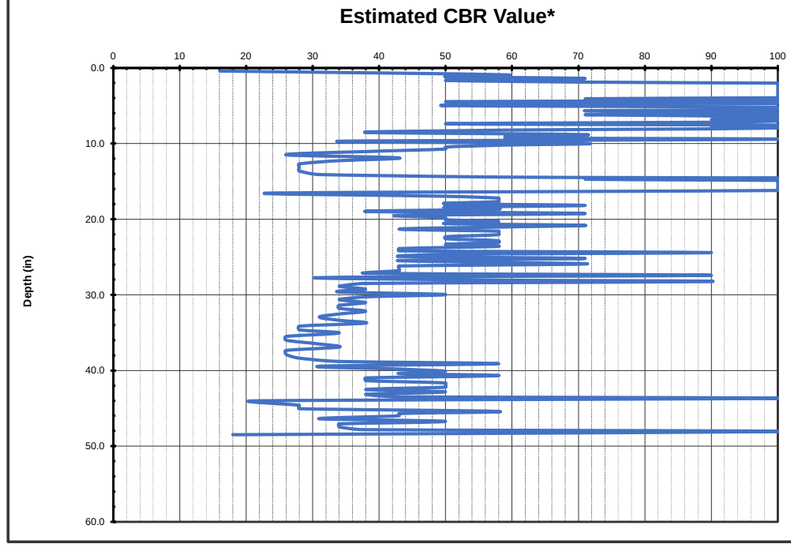
Soil Subgrade	
Average CBR	27
Weighted Average	22
Max CBR	100
Min CBR	8

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
C-53 -L- (NB) Sta. 214+42 LTL (RT) 6.0 FT RT FY								11/16 to 11/22/22				C-54 -L- (NB) Sta. 224+97 RT OSL 3.0 FT LT FW						11/16 to 11/22/22	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			ABC		5.0 ft Fill		DCP	Cumulative cm per blow			ABC		5.0 ft Fill	
2.00	23.80	65.60						1.40	2.34	66.40					
2.60	24.10	66.10						2.00	2.60	67.20					
3.30	25.10	66.90						2.70	3.20	67.80					
3.80	25.60	67.70						2.80	3.70	69.00					
4.50	26.20	68.50						2.91	4.20	69.90					
5.00	26.90	69.40						3.02	4.60	70.80					
5.20	27.60	69.80						3.13	4.90	71.80					
5.30	28.50	70.90						3.24	5.60	72.60					
5.60	29.80	71.50						3.35	6.20	73.40					
5.76	30.60	71.90						3.46	6.60	74.40					
5.92	31.60	72.80						3.57	7.10	75.40					
6.08	32.80	73.80						3.68	7.60	76.20					
6.24	34.00	74.70						3.79	8.00	77.10					
6.40	35.20	75.70						3.90	8.80	78.20					
6.62	36.30	76.40						3.98	9.40	79.20					
6.84	36.90	77.30						4.06	10.10	80.20					
7.06	37.10	78.30						4.14	10.90	81.30					
7.28	37.60	79.20						4.22	11.60	82.50					
7.50	37.90	80.20						4.30	12.20	83.70					
7.70	38.20	81.20						4.38	13.00	85.10					
7.90	38.50	82.10						4.46	13.90	86.90					
8.10	38.78	83.10						4.54	14.60	89.20					
8.30	39.06	84.20						4.62	15.50						
8.50	39.34	85.20						4.70	16.40						
8.70	39.62	86.10						4.90	17.30						
9.00	39.90	87.30						5.10	18.50						
9.20	40.18	88.50						5.30	19.30						
9.40	40.46	89.50						5.50	20.80						
9.70	40.74	90.80						5.70	21.00						
9.90	41.02	92.10						5.76	21.40						
10.10	41.30	93.20						5.82	22.30						
10.60	42.70	94.20						5.88	23.40						
10.90	43.40	95.50						5.94	24.90						
11.00	44.00	96.80						6.00	26.20						
11.70	44.60	98.00						6.06	27.60						
11.80	45.20	99.00						6.12	29.10						
12.30	45.90	99.60						6.18	30.00						
13.00	46.40	100.70						6.24	31.40						
13.30	47.10	101.50						6.30	32.90						
13.60	47.70	102.20						6.35	34.50						
13.90	48.60	103.00						6.40	36.20						
14.10	49.10	103.60						6.45	37.60						
14.60	49.90	104.50						6.50	38.30						
15.00	50.60	105.40						6.55	40.40						
15.20	51.30	106.10						6.60	41.70						
15.40	51.90	106.80						6.65	43.20						
15.90	52.60	107.50						6.70	44.50						
16.30	53.10	108.40						6.75	46.00						
16.50	53.70	109.10						6.80	46.80						
16.60	54.50	110.00						6.86	47.60						
16.80	55.10	110.80						6.92	49.00						
17.10	55.70	111.00						6.98	50.50						
17.50	56.30	112.60						7.04	52.00						
17.70	57.00	113.80						7.10	53.20						
18.00	57.70	115.00						7.16	54.90						
18.40	58.30	115.60						7.22	56.00						
19.10	58.90	116.40						7.28	57.10						
19.30	59.60	117.20						7.34	58.60						
19.60	60.20	118.30						7.40	59.80						
20.00	61.00	119.00						DCP REF	60.40						
20.20	61.80	120.00						AUGER 19.6	61.30						
20.60	62.20	121.00						TO 27.00	62.20						
21.20	62.90	121.90						1.30	63.30						
22.10	63.70	122.20						1.56	64.00						
22.60	64.20	124.00						1.82	64.50						
23.20	65.00							2.08	65.40						

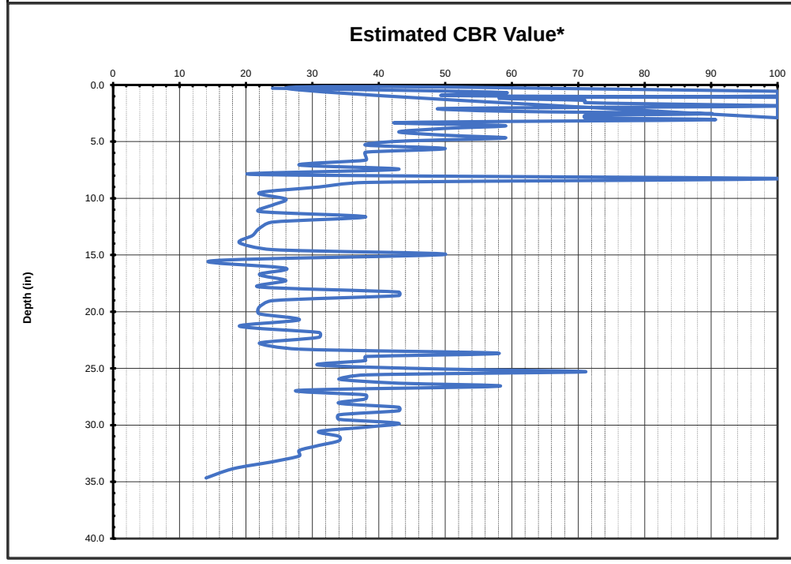
Test Location
C-53 -L- (NB) Sta. 214+42 LTL (RT) 6.0 FT RT FY



ABC	
ABC Thickness (in)	13.00
Average CBR	82
Weighted CBR Average	65
Maximum CBR Value	100
Minimum CBR Value	16

Soil Subgrade	
Average CBR	52
Weighted Average	44
Max CBR	100
Min CBR	18

Test Location
C-54 -L- (NB) Sta. 224+97 RT OSL 3.0 FT LT FW



ABC	
ABC Thickness (in)	11.75
Average CBR	81
Weighted CBR Average	52
Maximum CBR Value	100
Minimum CBR Value	22

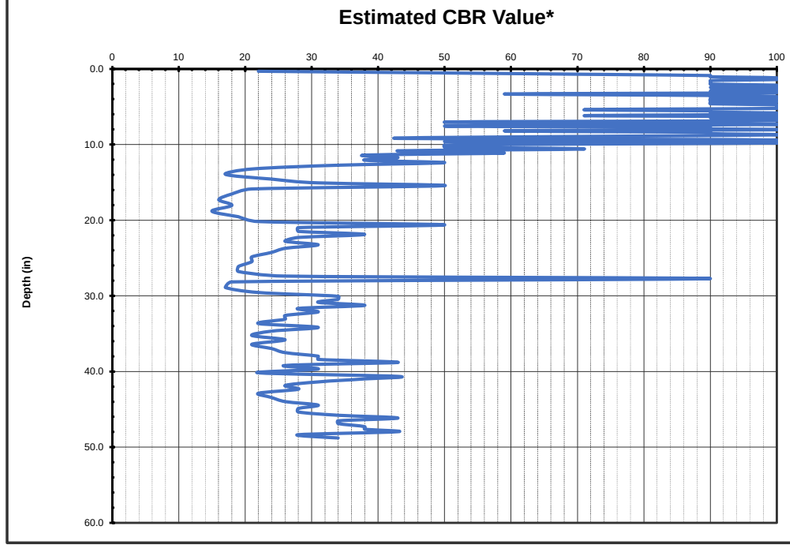
Soil Subgrade	
Average CBR	33
Weighted Average	29
Max CBR	71
Min CBR	14

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								48470.1.1		R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY		FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood		T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run		Test Location					Date Run				
C-55 -L- (NB) Sta. 240+17 RT ISL 1.4 FT RT FY						11/16 to 11/22/22		C-56 -L- (NB) Sta. 244+45 LTL (RT) 6.3 FT RT FY					11/16 to 11/22/22				
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill			
DCP	Cumulative cm per blow			ABC		5.0 ft Fill		DCP	Cumulative cm per blow			ABC		7.0 ft Fill			
1.50	25.20	106.90						1.90	75.20								
2.00	25.90	108.10						3.30	77.40								
2.40	26.60	109.60						4.30	79.30								
2.80	27.10	111.00						5.20	80.90								
3.10	27.90	112.30						6.00	82.70								
3.40	28.50	113.40						6.60	84.80								
3.70	29.40	114.60						7.20	86.10								
4.10	30.20	115.80						7.70	87.60								
4.50	31.10	116.80						8.10	89.30								
4.90	31.80	117.60						9.00	90.70								
5.30	32.80	118.60						9.60	92.00								
5.50	34.40	119.60						10.40	93.40								
5.80	36.30	120.50						11.00	95.30								
6.00	37.70	121.40						11.60	96.90								
6.40	38.80	122.20						12.30	98.50								
6.70	39.50	123.40						12.90	100.30								
7.00	41.10	124.40						13.40	101.50								
7.20	42.90							14.10	103.20								
7.60	44.90							14.80	104.60								
7.90	46.70							15.50	105.90								
8.10	48.80							16.30	107.50								
8.70	50.50							17.10	108.70								
9.10	52.00							18.10	110.30								
9.40	52.70							19.10	112.10								
9.80	53.90							20.20	113.90								
10.00	55.10							21.70	115.50								
10.40	56.00							22.80	117.20								
10.80	57.20							24.50	118.50								
10.90	58.50							26.80									
11.10	59.60							29.80									
11.50	60.90							32.50									
11.90	62.30							34.50									
12.20	63.90							35.90									
12.40	65.50							37.00									
12.60	67.20							37.90									
12.80	68.90							38.70									
13.10	70.20							39.10									
13.40	70.60							39.50									
13.90	72.40							40.00									
14.30	74.30							40.50									
14.70	75.80							41.50									
14.80	76.80							42.40									
15.10	77.80							43.40									
15.40	78.90							44.30									
15.90	79.80							45.50									
16.20	81.00							46.50									
16.60	82.10							47.50									
16.90	83.40							48.50									
17.20	84.70							49.50									
17.50	86.20							50.70									
18.20	87.30							51.80									
18.60	88.70							52.70									
18.80	90.30							53.60									
19.50	91.60							54.60									
19.90	93.20							55.70									
20.30	94.60							56.80									
20.50	95.90							58.10									
21.10	97.00							59.40									
21.50	98.10							61.10									
21.90	98.90							62.60									
22.40	100.20							64.40									
22.90	101.30							66.20									
23.70	102.80							67.70									
24.00	103.60							69.50									
24.70	104.50							71.20									
24.80	105.60							73.20									

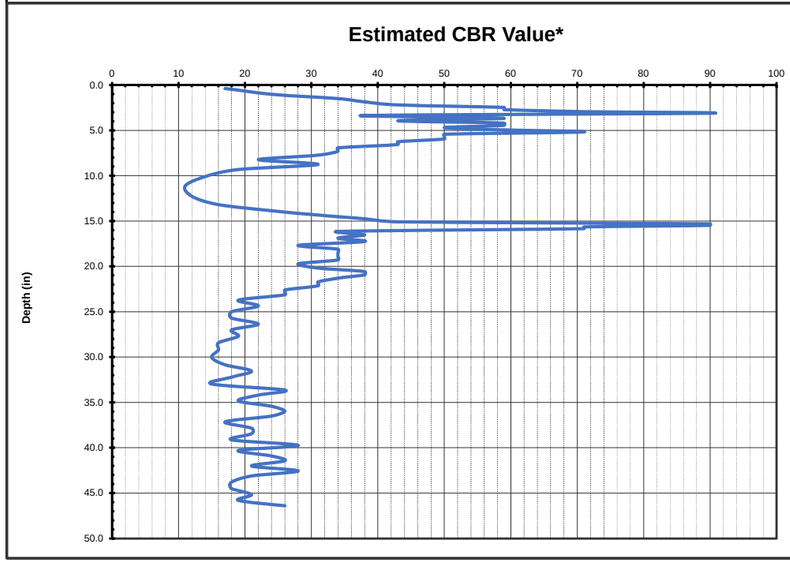
Test Location
C-55 -L- (NB) Sta. 240+17 RT ISL 1.4 FT RT FY



ABC	
ABC Thickness (in)	12.25
Average CBR	85
Weighted CBR Average	74
Maximum CBR Value	100
Minimum CBR Value	22

Soil Subgrade	
Average CBR	29
Weighted Average	27
Max CBR	90
Min CBR	15

Test Location
C-56 -L- (NB) Sta. 244+45 LTL (RT) 6.3 FT RT FY



ABC	
ABC Thickness (in)	10.00
Average CBR	46
Weighted CBR Average	39
Maximum CBR Value	90
Minimum CBR Value	17

Soil Subgrade	
Average CBR	28
Weighted Average	23
Max CBR	90
Min CBR	11

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

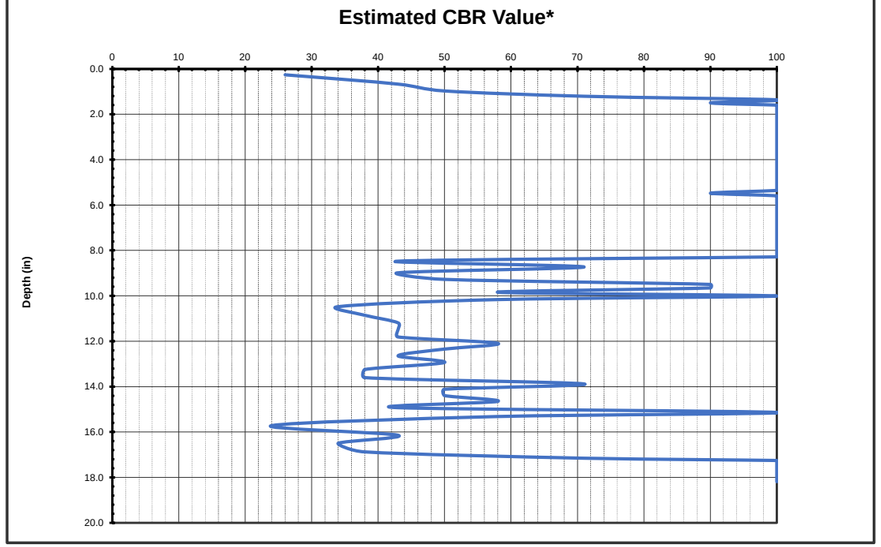
DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	48470.1.1	R-5921	US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40
	COUNTY	FIELD PROFESSIONAL	DRILLER/HELPER
	Haywood	T. Wenner, P.G.	M. Brewer, P. Tomasic

Test Location	Date Run	Test Location	Date Run
C-57 -L- (NB) Sta. 254+79 RT OSL 3.0 FT LT FW	11/16 to 11/22/22	C-58 -L- (NB) Sta. 270+16 RT ISL 0.2 FT RT FY	11/16 to 11/22/22

Type	Test Interval	Datum	Cut/Fill	Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow	ABC	5.0 ft Fill	DCP	Cumulative cm per blow	ABC	5.0 ft Fill

1.30	15.18	39.20						5.50	63.60	95.10					
2.10	15.26	40.60						6.90	64.00	95.70					
2.80	15.34	41.40						8.00	64.60	96.00					
3.30	15.42	42.40						9.00	65.60	96.30					
3.60	15.50	43.30						9.60	66.50	96.60					
4.00	15.63	43.80						10.00	67.30	96.90					
4.10	15.76	43.85						10.90	68.30	97.10					
4.40	15.89	43.90						11.50	69.10	97.20					
4.60	16.02	43.94						12.00	70.40	97.50					
4.83	16.15	43.99						12.60	71.30	97.54					
5.06	16.28	44.04						13.30	72.10	97.59					
5.29	16.41	44.09						13.60	72.50	97.63					
5.52	16.54	44.14						14.40	73.30	97.67					
5.75	16.67	44.18						15.20	74.10	97.72					
5.98	16.80	44.23						15.50	75.00	97.76					
6.21	16.90	44.28						16.00	76.00	97.80					
6.44	17.00	44.33						16.90	77.00	97.85					
6.67	17.10	44.38						17.60	78.10	97.89					
6.90	17.20	44.42						17.90	79.10	97.93					
7.08	17.30	44.47						18.70	79.80	97.98					
7.26	17.40	44.52						19.80	80.50	98.02					
7.44	17.50	44.57						21.30	81.60	98.06					
7.62	17.60	44.62						22.20	82.70	98.11					
7.80	17.70	44.66						23.40	83.40	98.15					
7.98	17.80	44.71						24.60	84.50	98.19					
8.16	18.10	44.76						26.40	85.10	98.24					
8.34	18.40	44.81						28.50	85.40	98.28					
8.52	18.70	44.86						30.10	85.70	98.32					
8.70	19.00	44.90						31.30	86.20	98.37					
8.98	19.30	44.95						32.60	86.50	98.41					
9.26	19.54	45.00						33.70	86.90	98.45					
9.54	19.78	45.05						34.80	87.10	98.50					
9.82	20.02	45.10						35.40	87.25	98.54					
10.10	20.26	45.14						35.90	87.39	98.58					
10.24	20.50	45.19						36.80	87.54	98.63					
10.38	20.62	45.24						37.80	87.68	98.67					
10.52	20.74	45.29						38.70	87.83	98.71					
10.66	20.86	45.34						39.40	87.97	98.76					
10.80	20.98	45.38						40.10	88.12	98.80					
10.95	21.10	45.43						40.60	88.26	98.87					
11.10	21.90	45.48						42.10	88.41	98.94					
11.25	22.40	45.53						42.70	88.55	99.01					
11.40	23.20	45.58						43.60	88.70	99.08					
11.55	23.90	45.62						44.40	88.84	99.15					
11.70	24.30	45.67						45.50	88.99	99.22					
11.85	24.70	45.72						46.40	89.13	99.29					
12.00	25.30	45.77						47.10	89.28	99.36					
12.15	25.50	45.82						48.30	89.42	99.43					
12.30	26.10	45.86						49.10	89.57	99.50					
12.40	27.10	45.91						50.10	89.71	99.57					
12.60	28.00	45.96						51.00	89.86	99.64					
12.80	28.80	46.01						51.70	90.00	99.71					
13.00	29.60	46.06						52.10	90.29	99.78					
13.20	30.40	46.10						53.30	90.58	99.85					
13.30	31.00	46.15						54.20	90.87	99.92					
13.50	31.70	46.20						55.20	91.16	99.99					
13.70	32.50	DCP REF						56.00	91.45	100.06					
14.10	33.20	50/1.0"						56.50	91.74	100.13					
14.30	34.10							57.50	92.03	100.20					
14.50	35.00							58.40	92.32	DCP REF					
14.70	35.50							59.30	92.61	50/1.0"					
14.78	36.20							60.20	92.90						
14.86	36.90							61.00	93.34						
14.94	37.50							62.00	93.78						
15.02	38.30							62.40	94.22						
15.10	38.60							63.00	94.66						

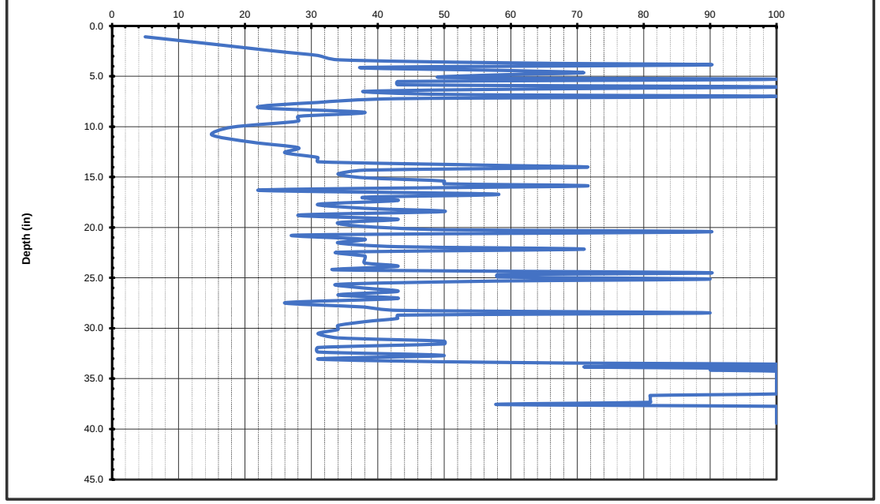
Test Location
C-57 -L- (NB) Sta. 254+79 RT OSL 3.0 FT LT FW



ABC	
ABC Thickness (in)	9.5
Average CBR	96
Weighted CBR Average	86
Maximum CBR Value	100
Minimum CBR Value	26

Soil Subgrade	
Average CBR	83
Weighted Average	53
Max CBR	100
Min CBR	24

Test Location
C-58 -L- (NB) Sta. 270+16 RT ISL 0.2 FT RT FY



ABC	
ABC Thickness (in)	11.0
Average CBR	48
Weighted CBR Average	32
Maximum CBR Value	100
Minimum CBR Value	5

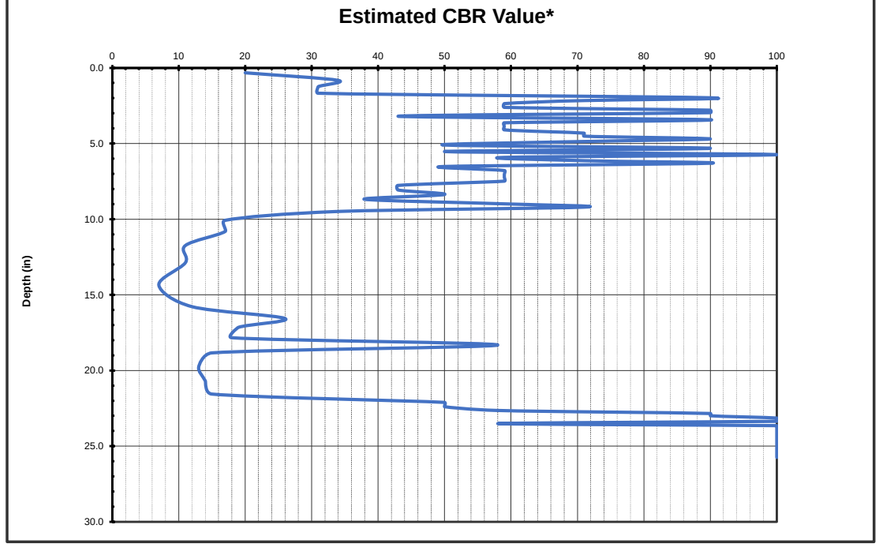
Soil Subgrade	
Average CBR	77
Weighted Average	51
Max CBR	100
Min CBR	21

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run				Test Location						Date Run			
C-59 -L- (NB) Sta. 276+47 LTL (RT) 5.3 FT RT FY						11/16 to 11/22/22				C-60 -L- (NB) Sta. 276+47 RTL (RT) 4.0 FT LT FW						11/16 to 11/22/22			
Type	Test Interval			Datum		Cut/Fill				Type	Test Interval			Datum		Cut/Fill			
DCP	Cumulative cm per blow			ABC		5.0 ft Fill				DCP	Cumulative cm per blow			ABC		5.0 ft Fill			
1.60	60.48									1.20	43.80								
2.60	60.56									2.40	45.50								
3.70	60.64									3.00	47.10								
4.80	60.72									3.70	48.50								
5.20	60.80									4.10	50.00								
5.70	60.92									4.50	50.90								
6.30	61.04									5.00	51.80								
6.90	61.16									5.50	52.60								
7.30	61.28									5.90	53.60								
7.70	61.40									6.10	54.90								
8.50	61.52									6.40	56.20								
8.90	61.64									6.70	57.20								
9.50	61.76									7.30	58.60								
10.10	61.88									7.80	60.00								
10.70	62.00									8.10	61.00								
11.20	62.16									8.60	62.40								
11.70	62.32									9.00	63.60								
12.10	62.48									9.20	64.80								
12.60	62.64									9.60	66.40								
13.30	62.80									10.00	67.40								
13.70	62.96									10.40	69.10								
14.40	63.12									10.70	70.40								
14.70	63.28									11.00	71.10								
15.30	63.44									11.30	72.20								
15.80	63.60									11.60	72.50								
16.20	63.71									12.00	72.70								
16.90	63.82									12.40	74.40								
17.50	63.93									12.90	75.20								
18.10	64.04									13.40	75.90								
18.70	64.15									13.60	76.80								
19.30	64.26									14.30	77.60								
20.10	64.37									14.58	78.40								
20.90	64.48									14.86	79.20								
21.60	64.59									15.14	80.00								
22.50	64.70									15.42	80.40								
23.10	64.77									15.70	81.40								
23.60	64.84									16.20	82.20								
24.60	64.91									16.60	82.80								
26.50	64.98									17.10	83.60								
28.40	65.05									17.50	84.30								
31.20	65.12									17.70	85.34								
34.20	65.19									18.20	86.38								
38.70	65.26									18.80	87.42								
41.40	65.33									19.20	88.46								
42.70	65.40									19.50	89.50								
44.40	DCP REF									20.20	89.80								
46.20	50/2.2"									20.40	90.50								
46.80										21.00	91.50								
48.90										21.50	92.60								
51.40										22.20	93.50								
53.70										22.80	94.60								
55.80										23.50	95.30								
56.50										23.90	96.10								
57.20										24.50	97.00								
57.80										25.40	98.30								
58.20										26.10	99.00								
58.60										27.10	99.90								
58.90										28.00	100.70								
59.20										28.60	101.40								
59.40										29.80	103.50								
60.00										31.40	105.10								
60.08										33.20	106.10								
60.16										35.70									
60.24										38.20									
60.32										40.10									
60.40										41.30									

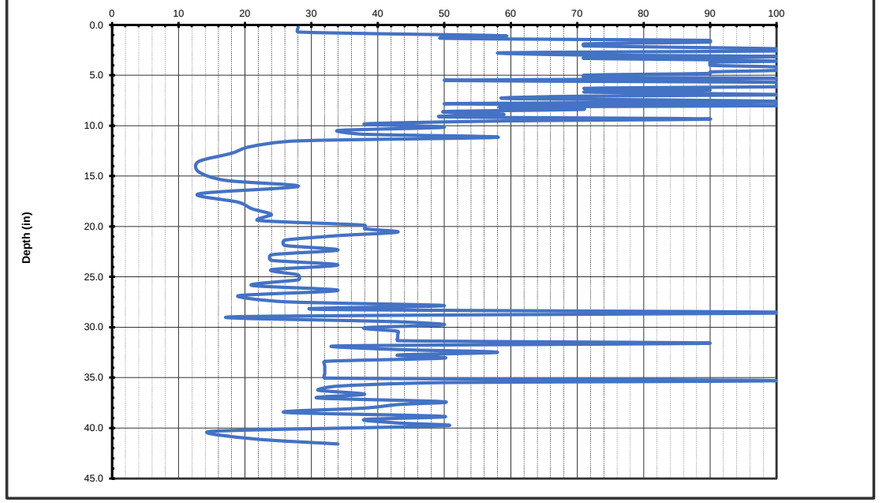
Test Location
C-59 -L- (NB) Sta. 276+47 LTL (RT) 5.3 FT RT FY



ABC	
ABC Thickness (in)	9.00
Average CBR	62
Weighted CBR Average	55
Maximum CBR Value	100
Minimum CBR Value	20

Soil Subgrade	
Average CBR	81
Weighted Average	32
Max CBR	100
Min CBR	7

Test Location
C-60 -L- (NB) Sta. 276+47 RTL (RT) 4.0 FT LT FW



ABC	
ABC Thickness (in)	10.50
Average CBR	78
Weighted CBR Average	69
Maximum CBR Value	100
Minimum CBR Value	28

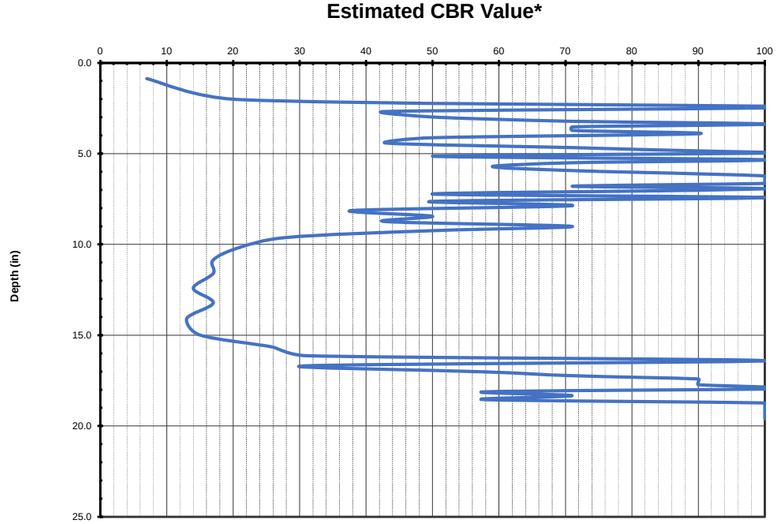
Soil Subgrade	
Average CBR	37
Weighted Average	30
Max CBR	100
Min CBR	13

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
C-85 -L- (NB) Sta. 285+05 RT ISS 0.2 FT RT FY								11/16 to 11/22/22				C-86 -L- (NB) Sta. 285+05 RT ISL 5.0 FT RT FY						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill				Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				ABC			8.0 ft Fill				DCP	Cumulative cm per blow			ABC		8.0 ft Fill	
4.36	48.06											1.70	19.50	59.80	84.50	122.90			
5.90	48.10											2.50	19.72	60.60	85.00				
6.20	48.14											2.90	19.94	60.80	85.40				
6.40	48.18											3.30	20.16	61.30	86.50				
7.20	48.22											3.70	20.38	61.80	87.00				
7.90	48.26											4.10	20.60	62.10	87.60				
8.40	48.30											4.40	20.82	62.90	88.30				
8.70	48.34											5.20	21.04	63.60	88.60				
9.20	48.38											5.70	21.26	64.10	89.10				
9.70	48.42											5.90	21.48	64.60	89.50				
10.10	48.46											6.90	21.70	65.10	89.70				
10.80	48.50											7.20	22.30	65.60	90.00				
11.60	48.54											7.30	23.10	66.00	90.40				
12.10	48.58											7.80	23.80	66.30	91.00				
12.50	48.62											8.30	24.00	66.70	91.50				
12.70	48.66											8.60	24.30	66.90	92.10				
13.40	48.70											8.90	25.10	67.30	92.60				
13.70	48.74											9.10	25.90	67.90	93.20				
14.20	48.77											9.50	26.70	68.40	93.90				
14.80	48.81											9.90	27.80	68.80	94.70				
15.30	48.85											10.10	29.00	69.40	95.30				
15.70	48.88											10.40	30.50	69.90	95.90				
15.90	48.92											10.70	31.90	70.30	96.40				
16.20	48.96											10.90	33.50	70.80	97.00				
16.40	48.99											11.10	34.70	71.50	97.60				
16.70	49.03											11.60	35.80	71.90	98.10				
17.00	49.07											11.70	37.20	72.50	98.15				
17.50	49.10											12.00	38.60	73.10	98.90				
17.60	49.14											12.20	40.20	73.20	99.40				
18.00	49.18											12.50	41.80	73.60	99.70				
18.70	49.21											12.90	43.20	74.10	100.10				
19.00	49.25											13.30	44.30	74.50	100.70				
19.70	49.29											13.50	45.30	75.10	101.20				
20.20	49.32											13.90	46.40	75.50	101.50				
21.10	49.36											14.60	47.20	76.30	102.20				
21.80	49.40											14.80	48.00	76.90	102.80				
22.60	49.43											15.00	49.00	77.60	103.40				
23.10	49.47											15.12	49.40	77.80	104.50				
23.80	49.51											15.24	49.80	78.10	105.40				
25.00	49.54											15.36	50.50	78.30	106.00				
26.60	49.58											15.48	51.00	78.50	106.50				
28.50	49.62											15.60	51.13	78.90	107.30				
30.40	49.65											15.72	51.26	79.30	108.00				
32.64	49.69											15.84	51.39	79.80	108.80				
34.50	49.73											15.96	51.52	79.98	109.40				
37.00	49.76											16.08	51.65	80.16	110.00				
39.10	49.80											16.20	51.78	80.34	110.70				
40.40	DCP REF											16.32	51.91	80.52	111.40				
41.50	50/1*											16.44	52.04	80.70	112.00				
41.80												16.56	52.17	80.88	112.70				
42.90												16.68	52.30	81.06	112.90				
43.50												16.80	53.10	81.24	113.40				
44.00												16.92	53.60	81.42	113.70				
44.40												17.04	54.10	81.60	114.40				
44.80												17.16	54.60	81.77	114.80				
45.20												17.28	54.90	81.94	115.30				
45.50												17.40	55.40	82.11	115.90				
45.70												17.61	56.00	82.28	116.50				
46.30												17.82	56.50	82.45	116.90				
46.80												18.03	56.80	82.62	117.50				
47.40												18.24	57.30	82.79	118.40				
47.70												18.45	57.60	82.96	119.00				
47.90												18.66	58.20	83.13	120.10				
47.94												18.87	58.70	83.30	120.70				
47.98												19.08	59.10	83.90	121.50				
48.02												19.29	59.50	84.20	122.30				

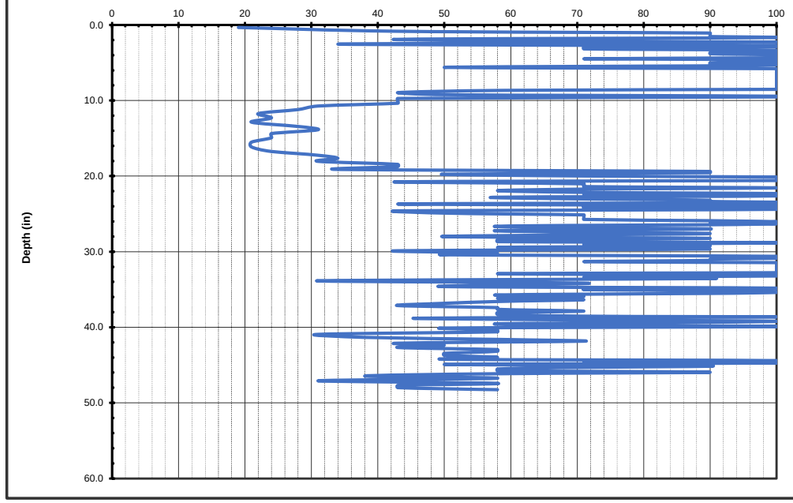
Test Location
C-85 -L- (NB) Sta. 285+05 RT ISS 0.2 FT RT FY



ABC	
ABC Thickness (in)	8.75
Average CBR	72
Weighted CBR Average	52
Maximum CBR Value	100
Minimum CBR Value	7

Soil Subgrade	
Average CBR	85
Weighted Average	38
Max CBR	100
Min CBR	13

Test Location
C-86 -L- (NB) Sta. 285+05 RT ISL 5.0 FT RT FY



ABC	
ABC Thickness (in)	9.00
Average CBR	92
Weighted CBR Average	79
Maximum CBR Value	100
Minimum CBR Value	19

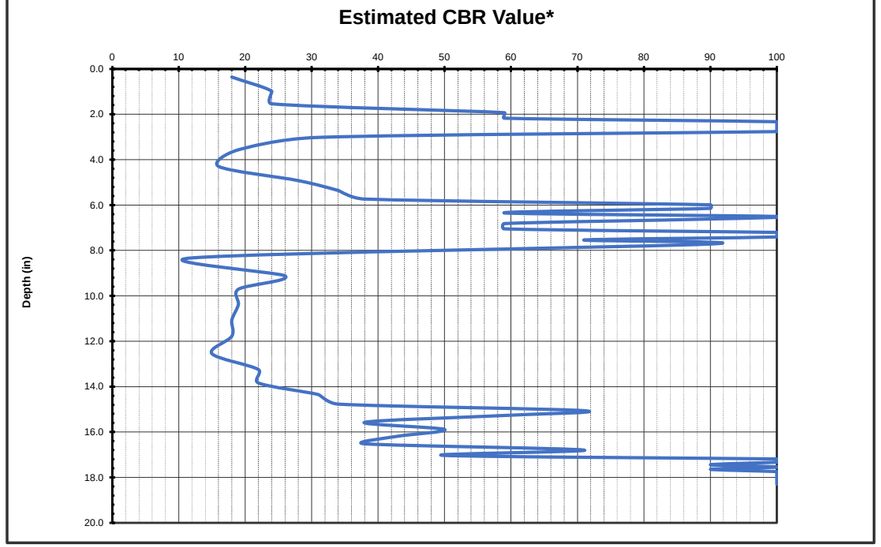
Soil Subgrade	
Average CBR	71
Weighted Average	57
Max CBR	100
Min CBR	21

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run				Test Location						Date Run			
C-61 -L- (NB) Sta. 285+05 RT OSL 3.0 FT LT FW						11/16 to 11/22/22				C-87 -L- (NB) Sta. 285+05 RT OSS 0.2 FT RT FW						11/16 to 11/22/22			
Type	Test Interval				Datum		Cut/Fill			Type	Test Interval				Datum		Cut/Fill		
DCP	Cumulative cm per blow				ABC		8.0 ft Fill			DCP	Cumulative cm per blow				ABC		8.0 ft Fill		
1.80	45.52									1.70	44.09								
3.20	45.56									2.60	44.16								
4.60	45.59									3.00	44.23								
5.20	45.63									3.50	44.30								
5.80	45.66									4.10	44.32								
6.00	45.70									4.60	44.33								
6.30	45.73									4.90	44.35								
6.50	45.77									5.20	44.37								
6.70	45.80									5.70	44.39								
6.90	45.84									5.80	44.40								
7.10	45.87									6.20	44.42								
8.20	45.91									6.30	44.44								
9.90	45.94									6.70	44.45								
11.90	45.98									7.00	44.47								
13.10	46.01									7.50	44.49								
14.10	46.05									7.80	44.51								
15.00	46.08									8.00	44.52								
15.40	46.12									8.10	44.54								
15.80	46.15									8.30	44.56								
16.40	46.19									8.70	44.57								
16.60	46.22									8.80	44.59								
17.00	46.26									10.10	44.61								
17.60	46.29									11.70	44.63								
18.20	46.33									14.00	44.64								
18.40	46.36									14.30	44.66								
18.70	46.40									14.70	44.68								
18.90	46.43									15.60	44.69								
19.40	46.47									15.90	44.71								
19.80	46.50									16.40	44.73								
22.50	DCP REF									16.70	44.75								
23.80	50/1.0"									17.20	44.76								
25.50										17.60	44.78								
27.20										18.20	44.80								
29.00										18.90	44.81								
30.80										19.20	44.83								
32.90										19.90	44.85								
34.40										20.90	44.87								
35.90										21.90	44.88								
37.00										23.70	44.90								
38.00										25.10	DCP REF								
38.50										26.40	50/1.0"								
39.10										28.20									
40.00										30.30									
40.70										32.40									
41.50										33.50									
42.40										34.20									
42.90										34.70									
43.60										35.50									
43.70										36.60									
43.90										37.60									
44.10										38.70									
44.50										40.00									
44.60										40.60									
45.00										41.50									
45.10										41.90									
45.14										42.24									
45.17										42.58									
45.21										42.92									
45.24										43.26									
45.28										43.60									
45.31										43.67									
45.35										43.74									
45.38										43.81									
45.42										43.88									
45.45										43.95									
45.49										44.02									

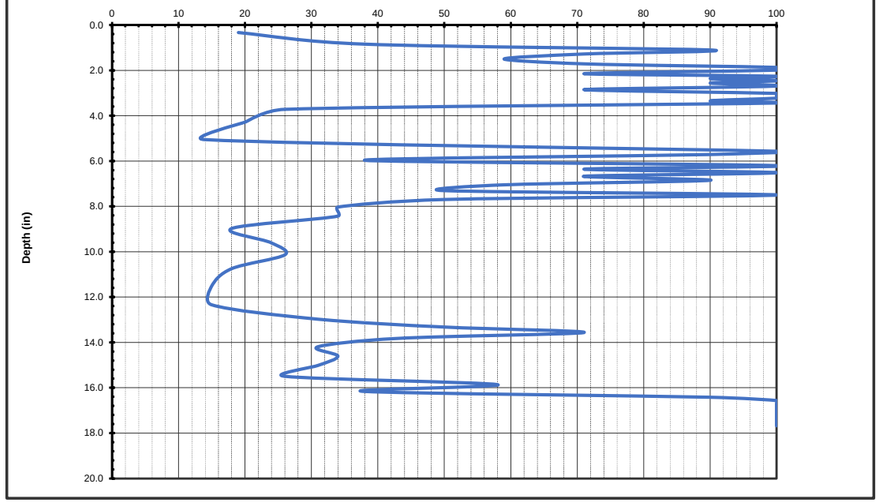
Test Location
C-61 -L- (NB) Sta. 285+05 RT OSL 3.0 FT LT FW



ABC	
ABC Thickness (in)	8.25
Average CBR	68
Weighted CBR Average	44
Maximum CBR Value	100
Minimum CBR Value	16

Soil Subgrade	
Average CBR	81
Weighted Average	35
Max CBR	100
Min CBR	12

Test Location
C-87 -L- (NB) Sta. 285+05 RT OSS 0.2 FT RT FW



ABC	
ABC Thickness (in)	8.00
Average CBR	76
Weighted CBR Average	55
Maximum CBR Value	100
Minimum CBR Value	14

Soil Subgrade	
Average CBR	82
Weighted Average	38
Max CBR	100
Min CBR	15

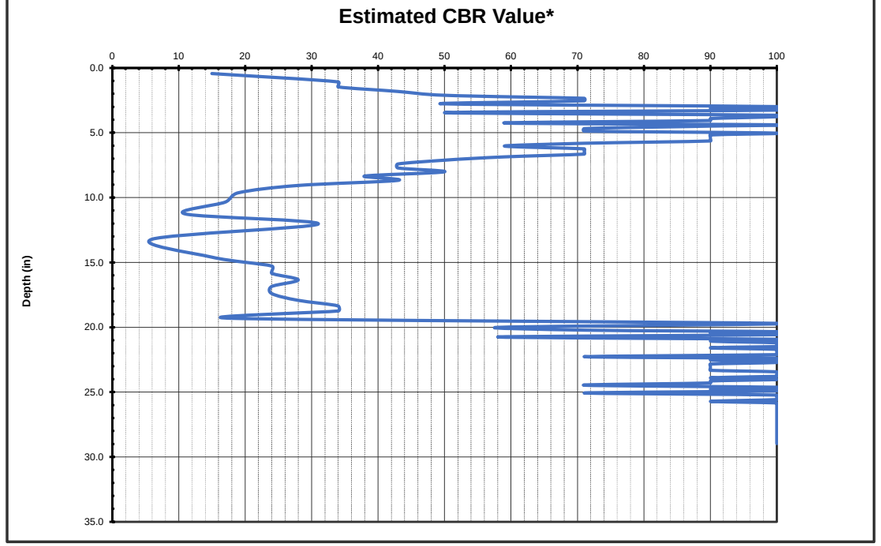
*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET				WBS NO.		PROJECT TIP I.D.		ROUTE	
				48470.1.1		R-5921		US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40	
				COUNTY		FIELD PROFESSIONAL		DRILLER/HELPER	
				Haywood		T. Wenner, P.G.		M. Brewer, P. Tomasic	
Test Location				Date Run		Test Location		Date Run	
C-62 -L- (NB) Sta. 291+29 LTL (RT) 6.0 FT RT FY				11/16 to 11/22/22		C-63 -Y- Sta. 11+95 CTL 6.0 FT RT FY		11/16 to 11/22/22	
Type	Test Interval		Datum	Cut/Fill		Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow		ABC	5.0 ft Fill		DCP	Cumulative cm per blow	ABC	3.0 ft Fill

2.20	54.30	70.44						3.10	21.60	65.30									
3.20	54.50	70.65						4.00	21.90	67.00									
4.20	54.60	70.86						4.50	22.10	68.40									
5.00	55.00	71.07						5.20	22.40	69.60									
5.70	55.20	71.28						5.70	22.80	71.10									
6.20	55.40	71.49						6.20	23.00	72.60									
6.70	55.60	71.70						6.70	23.10	74.10									
7.40	55.90	71.78						7.10	23.50	76.00									
7.70	56.00	71.86						7.60	23.60	77.70									
8.10	56.30	71.94						8.00	24.00	80.50									
8.40	56.80	72.02						8.50	24.30	82.50									
9.10	56.90	72.10						9.00	25.00	84.60									
9.40	57.00	72.18						9.50	25.50	87.20									
9.70	57.40	72.26						9.90	26.20	89.90									
10.10	57.60	72.34						10.30	26.70	92.40									
10.50	57.80	72.42						10.40	27.20	94.70									
11.10	58.20	72.50						10.80	27.70	96.70									
11.20	58.60	72.61						11.00	28.20	99.30									
11.60	59.00	72.72						11.20	28.40	101.50									
12.10	59.40	72.83						11.40	29.30	104.10									
12.60	59.60	72.94						11.60	29.50	106.70									
12.90	59.90	73.05						11.80	29.90	109.50									
13.30	60.20	73.16						12.00	30.00	111.10									
13.70	60.30	73.27						12.28	30.60										
14.10	60.50	73.38						12.56	30.90										
14.50	60.90	73.49						12.84	31.40										
15.00	61.10	73.60						13.12	31.70										
15.60	61.50	DCP REF						13.40	32.00										
16.10	61.90	50/3.0"						13.52	32.50										
16.60	62.40							13.64	32.80										
17.10	62.70							13.76	33.10										
17.70	63.10							13.88	33.40										
18.40	63.40							14.00	33.70										
19.20	63.90							14.16	33.90										
20.00	64.20							14.32	34.30										
20.70	64.50							14.48	34.50										
21.60	64.80							14.64	34.90										
22.40	65.10							14.80	35.20										
23.60	65.50							15.00	35.80										
25.30	65.70							15.20	36.60										
27.20	66.00							15.40	37.60										
30.00	66.30							15.60	38.40										
31.10	66.40							15.80	39.20										
36.00	66.58							16.00	40.10										
38.10	66.76							16.20	41.10										
39.50	66.94							16.40	41.90										
40.90	67.12							16.60	43.00										
42.10	67.30							16.80	44.20										
43.50	67.48							17.06	45.30										
44.90	67.66							17.32	46.40										
46.10	67.84							17.58	47.50										
47.10	68.02							17.84	48.40										
48.10	68.20							18.10	49.30										
49.90	68.34							18.30	50.20										
50.10	68.48							18.50	51.10										
50.50	68.62							18.70	52.20										
51.10	68.76							18.90	53.30										
51.60	68.90							19.10	54.20										
51.70	69.04							19.36	55.30										
52.10	69.18							19.62	56.50										
52.40	69.32							19.88	57.70										
53.00	69.46							20.14	58.70										
53.30	69.60							20.40	59.80										
53.70	69.81							20.70	60.90										
53.90	70.02							20.80	62.10										
54.10	70.23							21.20	63.60										

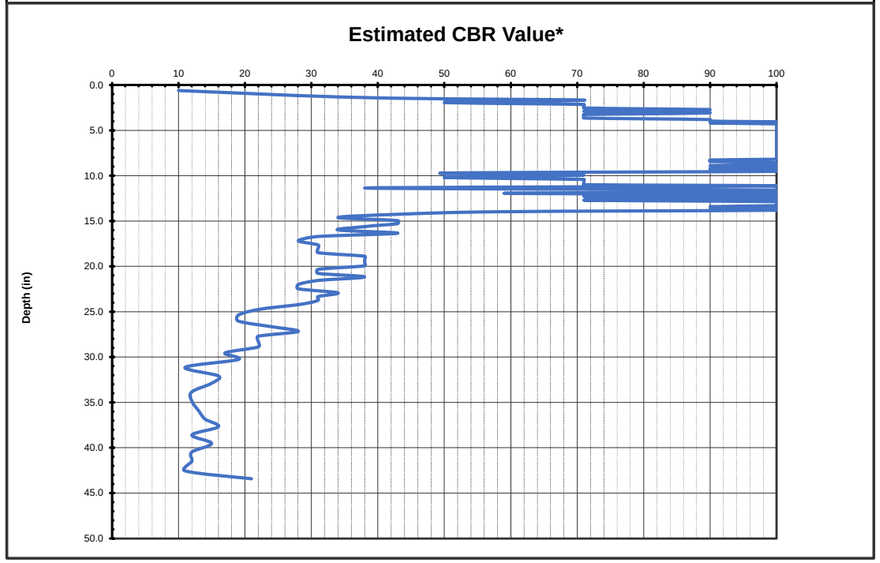
Test Location
C-62 -L- (NB) Sta. 291+29 LTL (RT) 6.0 FT RT FY



ABC	
ABC Thickness (in)	8.25
Average CBR	70
Weighted CBR Average	59
Maximum CBR Value	100
Minimum CBR Value	15

Soil Subgrade	
Average CBR	86
Weighted Average	53
Max CBR	100
Min CBR	6

Test Location
C-63 -Y- Sta. 11+95 CTL 6.0 FT RT FY



ABC	
ABC Thickness (in)	12.50
Average CBR	90
Weighted CBR Average	76
Maximum CBR Value	100
Minimum CBR Value	10

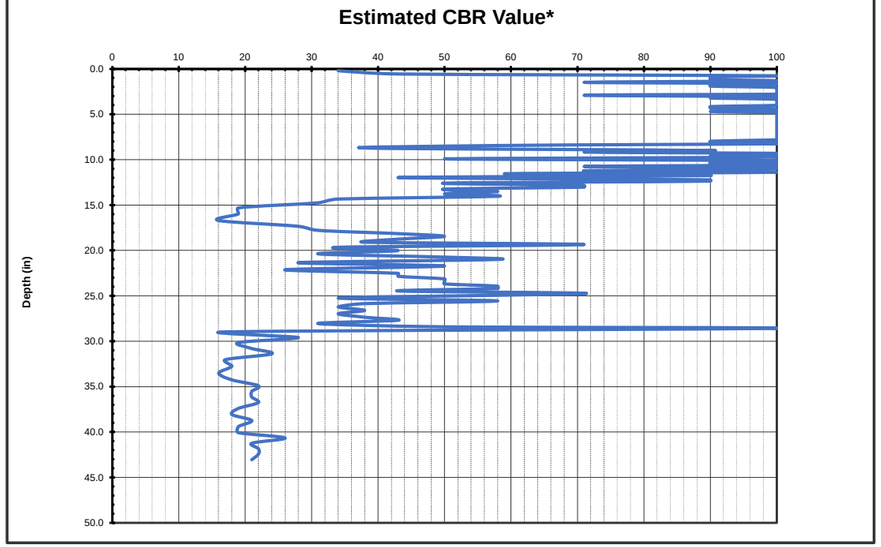
Soil Subgrade	
Average CBR	39
Weighted Average	25
Max CBR	100
Min CBR	11

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								48470.1.1		R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY		FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood		T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run		Test Location					Date Run				
C-64 -Y- Sta. 11+95 RT ISL 6.0 FT RT FY						11/16 to 11/22/22		C-65 -Y- Sta. 11+95 RT OSL 2.5 FT LT EOP					11/16 to 11/22/22				
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill			
DCP	Cumulative cm per blow			ABC		5.0 ft Fill		DCP	Cumulative cm per blow			ABC		5.0 ft Fill			
1.00	20.00	63.60						1.00	39.30	104.50							
1.80	20.40	64.60						1.50	40.50	104.70							
2.00	20.80	65.20						2.00	41.30								
2.40	21.10	66.10						2.40	42.50								
2.80	21.70	67.10						2.80	43.50								
3.20	22.60	68.00						3.20	44.40								
3.50	23.00	69.00						3.50	45.10								
4.00	23.50	69.90						4.10	46.20								
4.20	23.70	70.70						4.40	47.10								
4.60	24.00	71.80						4.70	47.90								
5.00	24.10	72.50						5.10	48.90								
5.30	24.50	72.60						5.40	50.00								
5.50	24.80	74.50						5.90	51.00								
5.70	25.50	75.70						6.40	52.00								
6.00	25.80	77.40						6.70	53.40								
6.30	26.00	79.00						7.30	54.50								
6.60	26.40	80.40						7.60	55.30								
6.80	26.80	82.30						8.10	56.50								
7.00	27.00	84.10						8.40	57.20								
7.10	27.50	86.10						8.80	58.20								
7.60	27.80	87.90						8.90	59.30								
7.90	27.90	89.40						9.20	60.30								
8.30	28.30	91.00						9.60	61.00								
8.60	28.80	92.60						9.80	62.00								
8.90	29.00	94.10						10.50	62.70								
9.20	29.60	95.80						10.70	63.60								
9.40	30.00	97.60						11.20	64.50								
9.60	30.80	99.20						11.50	65.50								
9.80	31.20	100.90						12.00	66.40								
10.10	31.60	102.60						12.50	67.40								
10.30	32.30	103.90						12.80	68.30								
10.70	32.80	105.50						13.40	69.50								
11.10	33.30	107.00						13.60	70.40								
11.30	34.00	108.50						13.90	71.60								
11.50	34.60	110.10						14.10	72.70								
11.70	35.30							14.60	74.10								
12.10	35.90							14.80	75.60								
12.38	36.90							15.30	76.60								
12.66	38.00							15.60	77.90								
12.94	39.70							15.90	79.40								
13.22	41.40							16.30	80.70								
13.50	43.40							16.80	81.90								
13.72	44.60							17.40	83.10								
13.94	45.70							17.60	84.40								
14.16	46.50							18.30	86.10								
14.38	47.20							18.60	87.00								
14.60	48.00							19.10	89.00								
14.86	48.90							19.50	89.90								
15.12	49.40							20.20	91.00								
15.38	50.40							20.70	92.50								
15.64	51.20							21.40	93.80								
15.90	52.30							21.80	94.70								
16.22	53.00							22.10	96.00								
16.54	53.60							22.60	97.00								
16.86	54.80							23.20	97.80								
17.18	55.50							23.90	98.20								
17.50	56.80							24.60	99.00								
17.70	57.60							25.90	99.80								
17.90	58.40							26.90	100.30								
18.10	59.10							28.60	100.50								
18.30	59.80							30.90	101.00								
18.50	60.50							32.90	101.50								
18.80	61.10							34.50	102.00								
19.10	61.70							35.80	102.30								
19.40	62.50							37.00	103.20								
19.70	63.00							37.70	103.80								

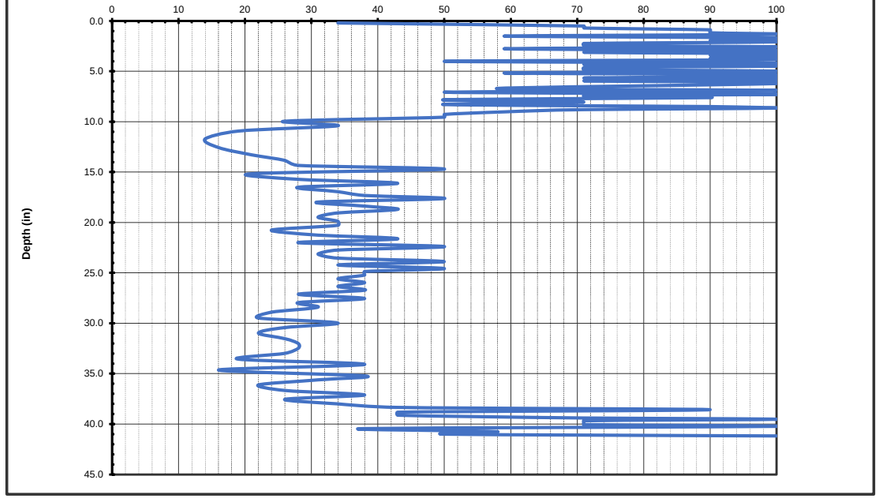
Test Location
C-64 -Y- Sta. 11+95 RT ISL 6.0 FT RT FY



ABC	
ABC Thickness (in)	12.25
Average CBR	93
Weighted CBR Average	86
Maximum CBR Value	100
Minimum CBR Value	34

Soil Subgrade	
Average CBR	38
Weighted Average	31
Max CBR	100
Min CBR	16

Test Location
C-65 -Y- Sta. 11+95 RT OSL 2.5 FT LT EOP



ABC	
ABC Thickness (in)	11.00
Average CBR	79
Weighted CBR Average	67
Maximum CBR Value	100
Minimum CBR Value	19

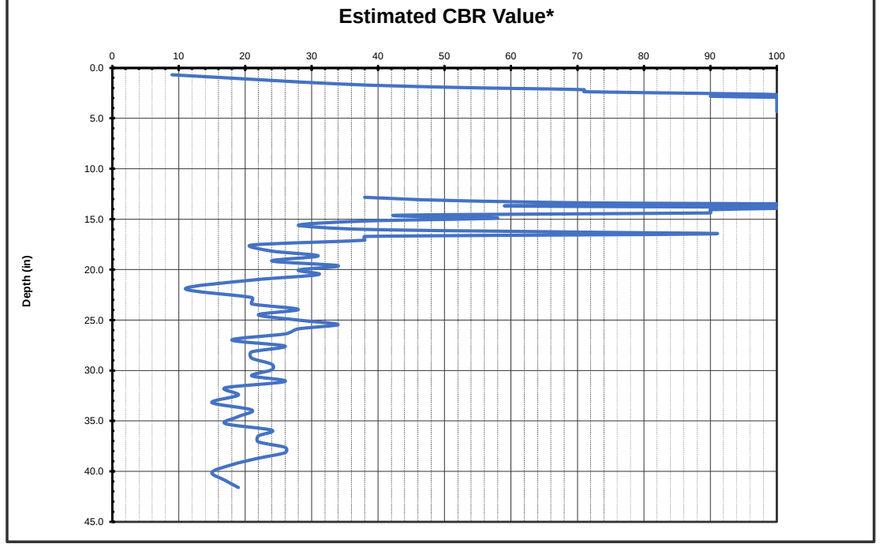
Soil Subgrade	
Average CBR	39
Weighted Average	33
Max CBR	100
Min CBR	14

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
C-66 -Y- Sta. 20+84 LT RAMP 10.0 FT LT EOP								11/16 to 11/22/22				C-67 -Y- Sta. 20+84 LT GORE 6.0 FT RT FW						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill				Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				ABC			3.0 ft Fill				DCP	Cumulative cm per blow			ABC		5.0 ft Fill	
3.50	4.00											2.00	54.40						
4.50	4.20											4.00	56.70						
5.20	4.50											4.60	58.30						
5.70	4.90											5.40	59.80						
6.20	5.30											5.60	61.50						
6.60	5.70											6.30	62.70						
6.90	6.50											7.10	64.20						
7.30	7.10											7.50	65.70						
7.42	8.00											8.00	67.80						
7.54	9.20											8.50	70.00						
7.66	10.10											9.00	71.90						
7.78	10.60											9.40	73.90						
7.90	11.00											9.90	76.30						
8.02	11.90											10.20	78.00						
8.14	12.80											10.80	79.80						
8.26	14.40											11.00	81.60						
8.38	15.80											11.20	83.20						
8.50	16.90											11.40	84.90						
8.66	18.30											11.60	86.70						
8.82	19.30											11.80	88.30						
8.98	20.50											12.30	90.00						
9.14	21.60											12.80	91.80						
9.30	23.20											13.50	93.50						
9.46	26.00											14.30	95.50						
9.62	27.60											15.50	97.20						
9.78	29.20											15.70	98.90						
9.94	30.40											16.50	100.00						
10.10	31.90											17.10	102.40						
10.13	33.10											17.60							
10.16	34.10											18.10							
10.19	35.30											18.40							
10.22	36.60											19.00							
10.25	38.40											19.30							
10.28	39.70											19.80							
10.31	41.30											20.20							
10.34	42.90											20.50							
10.37	44.30											21.10							
10.40	45.70											21.70							
10.43	47.30											22.30							
10.46	48.60											22.80							
10.49	50.50											23.30							
10.52	52.20											23.90							
10.55	54.30											24.50							
10.58	55.90											25.00							
10.61	57.60											25.40							
10.64	59.50											25.80							
10.67	60.90											26.40							
10.70	62.40											27.20							
10.73	63.90											27.90							
10.76	65.20											28.80							
10.79	66.50											29.90							
10.82	68.00											30.80							
10.85	69.80											31.90							
10.88	71.90											32.90							
10.91	73.80											34.00							
10.94	75.50											35.40							
10.97												37.00							
11.00												38.70							
DCP REF.												40.40							
AUGER 20.0												42.30							
TO 31.0 CM												44.50							
1.10												46.10							
2.00												47.60							
2.70												49.00							
3.20												50.50							
3.40												51.80							

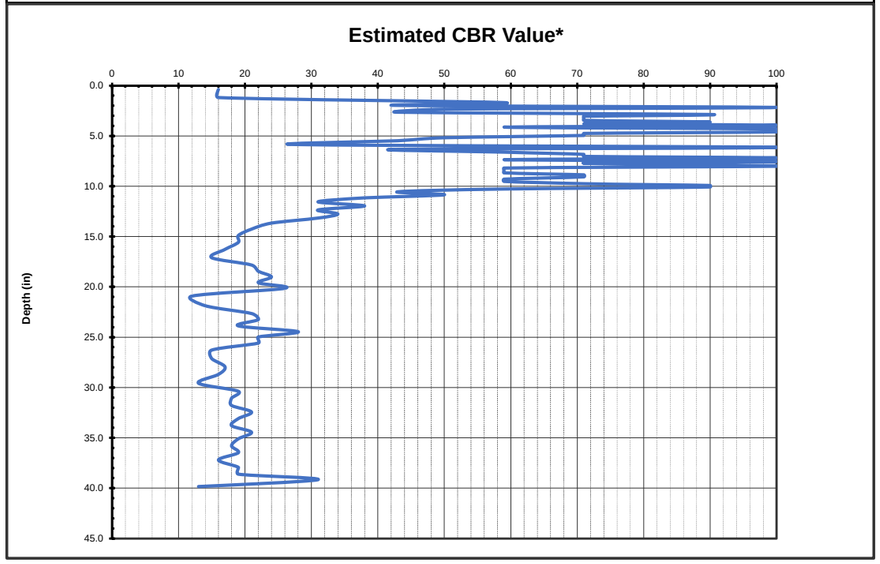
Test Location
C-66 -Y- Sta. 20+84 LT RAMP 10.0 FT LT EOP



ABC	
ABC Thickness (in)	14.00
Average CBR	92
Weighted CBR Average	57
Maximum CBR Value	100
Minimum CBR Value	9

Soil Subgrade	
Average CBR	31
Weighted Average	25
Max CBR	90
Min CBR	11

Test Location
C-67 -Y- Sta. 20+84 LT GORE 6.0 FT RT FW



ABC	
ABC Thickness (in)	11.00
Average CBR	70
Weighted CBR Average	57
Maximum CBR Value	100
Minimum CBR Value	16

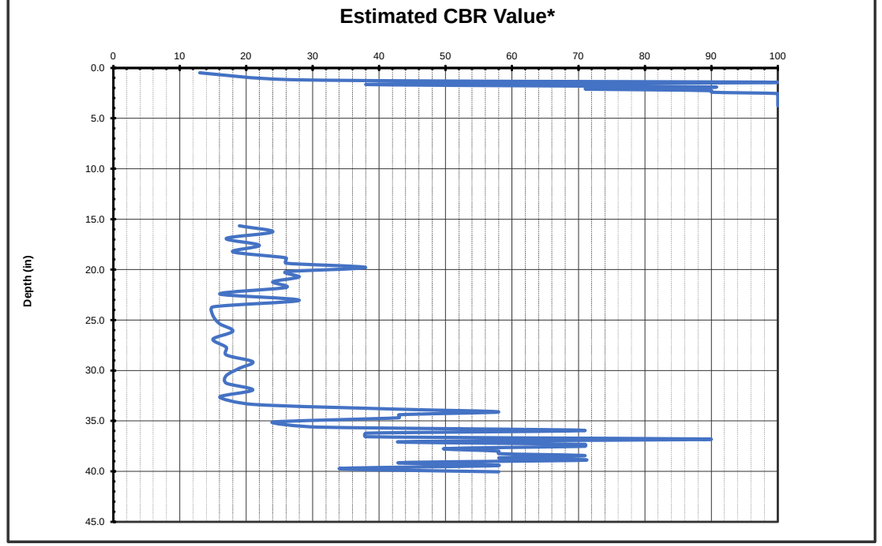
Soil Subgrade	
Average CBR	21
Weighted Average	20
Max CBR	38
Min CBR	12

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								48470.1.1		R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY		FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood		T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run		Test Location						Date Run	
C-68 -Y- Sta. 20+84 LT OSL 6.0 FT LT FW								11/16 to 11/22/22		C-69 -Y- Sta. 20+84 LT ISL 5.0 FT RT FY						11/16 to 11/22/22	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill			
DCP	Cumulative cm per blow			ABC		5.0 ft Fill		DCP	Cumulative cm per blow			ABC		5.0 ft Fill			
2.40	4.90							1.40	18.52	74.00							
3.60	6.80							2.00	18.63								
3.70	8.30							3.50	18.74								
4.60	10.10							4.20	18.85								
5.00	11.40							5.50	18.96								
5.50	12.70							5.90	19.07								
5.90	13.60							6.30	19.18								
6.30	14.90							7.00	19.29								
6.50	16.10							7.40	19.40								
6.70	17.50							7.90	DCP REF								
6.80	18.80							8.20	AUGER 9.0								
7.00	20.80							9.10	TO 28.4 CM								
7.03	22.00							9.30	2.00								
7.07	24.10							9.70	2.80								
7.10	26.30							10.30	3.50								
7.13	28.30							10.60	4.10								
7.17	30.10							11.00	4.50								
7.20	32.30							11.30	5.30								
7.23	34.20							11.50	6.10								
7.27	36.10							11.60	6.70								
7.30	37.70							12.10	7.70								
7.33	39.40							12.60	8.30								
7.37	41.30							12.70	9.40								
7.40	43.20							13.00	11.10								
7.43	44.80							13.80	13.10								
7.47	46.80							13.88	15.00								
7.50	48.40							13.96	16.90								
7.53	49.20							14.04	18.70								
7.57	49.80							14.12	19.60								
7.60	50.60							14.20	20.90								
7.63	51.40							14.28	22.00								
7.67	52.80							14.36	23.10								
7.70	53.90							14.44	24.50								
7.73	54.40							14.52	25.90								
7.77	55.30							14.60	27.40								
7.80	56.20							14.78	29.10								
7.83	56.60							14.96	30.80								
7.87	57.40							15.14	32.90								
7.90	57.90							15.32	34.10								
7.93	58.40							15.50	36.20								
7.97	59.10							15.59	37.70								
8.00	59.70							15.67	38.80								
8.08	60.30							15.76	39.60								
8.16	60.80							15.85	40.50								
8.24	61.40							15.93	41.40								
8.32	61.90							16.02	42.10								
8.40	62.70							16.11	44.70								
8.48	63.30							16.19	46.10								
8.56	64.30							16.28	47.40								
8.64	64.90							16.37	48.70								
8.72								16.45	50.00								
8.80								16.54	51.40								
8.89								16.63	52.70								
8.98								16.71	53.70								
9.07								16.80	54.20								
9.16								16.95	56.90								
9.24								17.10	58.40								
9.33								17.25	59.70								
9.42								17.40	61.60								
9.51								17.55	63.20								
9.60								17.70	64.90								
DCP REF								17.85	66.50								
Augar 27.5								18.00	67.40								
TO 37.1 CM								18.15	69.10								
1.80								18.30	71.30								
3.50								18.41	72.80								

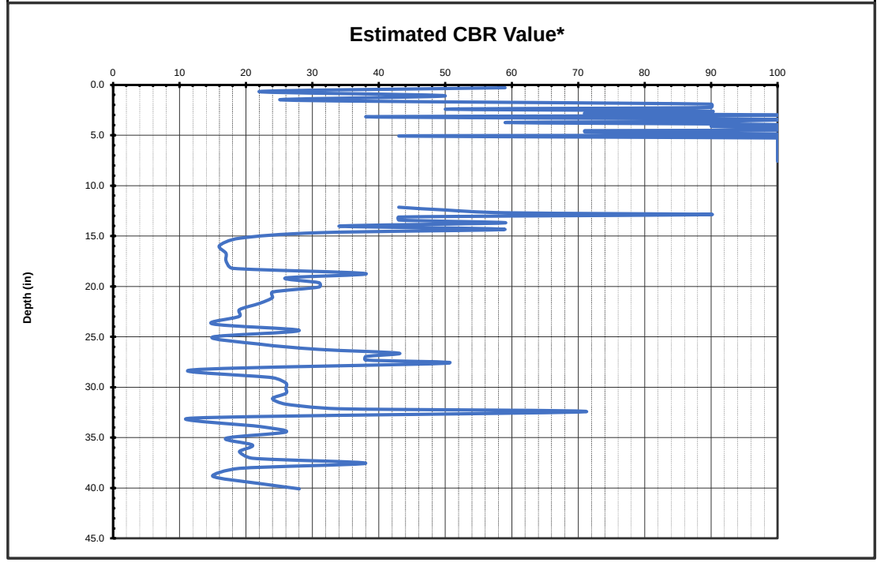
Test Location
C-68 -Y- Sta. 20+84 LT OSL 6.0 FT LT FW



ABC	
ABC Thickness (in)	14.5
Average CBR	94
Weighted CBR Average	13
Maximum CBR Value	100
Minimum CBR Value	1

Soil Subgrade	
Average CBR	35
Weighted Average	27
Max CBR	90
Min CBR	15

Test Location
C-69 -Y- Sta. 20+84 LT ISL 5.0 FT RT FY



ABC	
ABC Thickness (in)	15.0
Average CBR	85
Weighted CBR Average	30
Maximum CBR Value	100
Minimum CBR Value	1

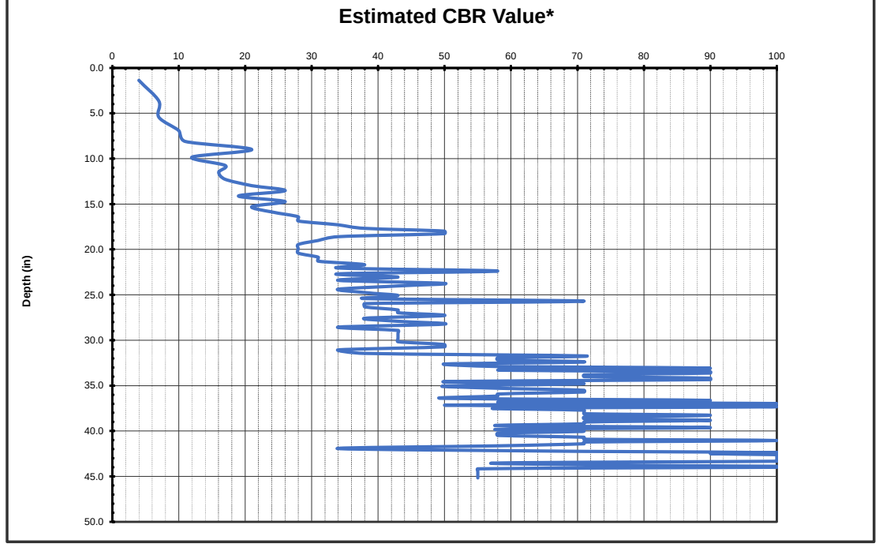
Soil Subgrade	
Average CBR	26
Weighted Average	23
Max CBR	71
Min CBR	12

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
DCP-1 -L- Sta.14+99 8.0 FT LT FY								11/16 to 11/22/22				DCP-2 -L- Sta. 22+50 6.0 FT LT FY						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill				Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				SG (A-4)			7.0 ft Fill				DCP	Cumulative cm per blow			SG (A-4)		5.0 ft Fill	
7.00	84.20											5.50	18.90	107.20					
11.50	84.80											7.00	21.60	108.10					
16.00	85.20											7.60	23.50	109.10					
19.10	85.60											7.90	25.60	110.30					
22.00	86.10											8.60	27.70	111.50					
23.60	86.60											9.00	29.10	112.20					
26.30	87.00											9.40	30.50	113.20					
28.20	87.40											9.70	32.10	114.10					
30.20	88.10											10.10	35.40	115.40					
32.10	88.60											10.50	38.40	116.20					
33.70	89.30											10.80	42.80	117.00					
35.00	89.90											11.10	47.60	117.40					
36.70	90.40											11.30	51.00	118.10					
38.00	90.90											11.60	53.20	118.60					
39.60	91.50											11.90	54.20						
41.00	92.10											11.93	54.80						
42.20	92.80											11.96	55.50						
43.40	93.20											12.00	56.40						
44.40	93.80											12.03	57.40						
45.30	94.00											12.06	58.50						
46.00	94.70											12.09	59.50						
46.70	94.90											12.12	61.60						
47.70	95.50											12.16	63.20						
48.80	96.00											12.19	64.80						
50.00	96.50											12.22	66.00						
51.20	97.00											12.25	67.10						
52.40	97.40											12.28	68.70						
53.50	97.90											12.32	71.50						
54.60	98.40											12.35	74.60						
55.50	98.80											12.38	77.10						
56.50	99.30											12.41	79.20						
57.10	99.80											12.44	80.60						
58.10	100.40											12.48	81.60						
58.90	100.80											12.51	82.60						
59.90	101.40											12.54	83.60						
60.60	101.90											12.57	84.70						
61.40	102.50											12.60	86.00						
62.40	103.10											12.64	86.70						
63.30	103.60											12.67	87.40						
64.10	104.10											12.70	87.50						
65.00	104.40											12.76	88.10						
65.50	104.90											12.82	88.30						
66.40	105.40											12.88	88.50						
67.30	106.00											12.94	88.70						
68.10	107.00											13.00	89.10						
68.90	107.50											13.06	89.60						
69.60	107.70											13.12	89.90						
70.50	108.10											13.18	90.10						
71.30	108.30											13.24	90.90						
72.00	108.50											13.30	91.60						
73.00	108.84											13.36	92.50						
73.80	109.18											13.42	93.30						
74.60	109.52											13.48	93.80						
75.40	109.86											13.54	94.70						
76.20	110.20											13.60	95.40						
77.00	110.80											13.66	96.10						
77.70	111.30											13.72	97.10						
78.40	111.60											13.78	97.80						
79.40	111.80											13.84	98.90						
80.30	112.44											13.90	99.90						
80.80	113.08											14.10	100.90						
81.40	113.72											14.30	102.10						
82.00	114.36											14.50	103.10						
82.50	115.00											14.70	103.90						
83.20												14.90	105.50						
83.80												16.40	106.40						

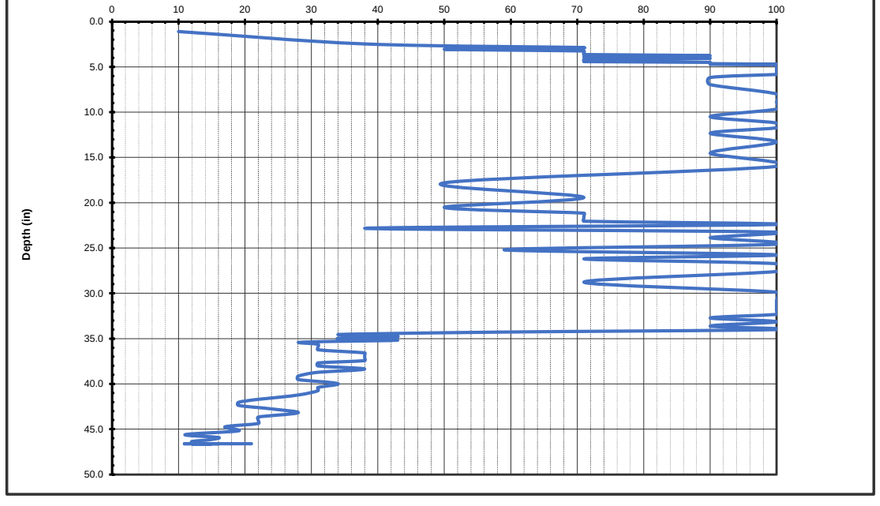
Test Location
DCP-1 -L- Sta.14+99 8.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	55
Weighted Average	38
Max CBR	100
Min CBR	4

Test Location
DCP-2 -L- Sta. 22+50 6.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

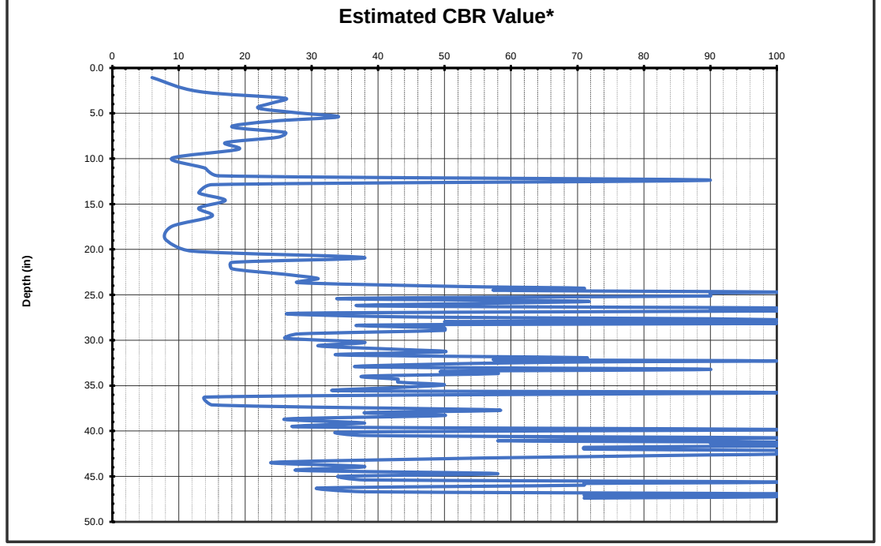
Soil Subgrade	
Average CBR	64
Weighted Average	29
Max CBR	100
Min CBR	6

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
DCP-3 -L- Sta. 22+50 6.5 FT RT FW								11/16 to 11/22/22				DCP-4 -L- Sta. 27+51 5.0 FT LT FY						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill				Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				SG (A-4)			5.0 ft Fill				DCP	Cumulative cm per blow			SG (A-4)		6.0 ft Fill	
5.40	83.20											3.80	91.79						
7.80	84.10											6.20	91.86						
9.10	84.50											9.50	91.93						
10.50	85.20											12.00	92.00						
12.00	85.80											14.20	92.07						
13.20	86.70											16.20	92.14						
14.20	87.50											17.90	92.21						
15.60	88.30											19.40	92.28						
17.40	89.00											20.90	92.35						
18.70	89.80											22.10	92.42						
20.01	90.80											24.10	92.49						
21.90	90.90											26.00	92.56						
23.60	93.20											27.80	92.63						
26.90	95.40											29.70	92.70						
29.20	96.00											31.30	92.77						
31.20	96.90											32.60	92.84						
31.60	97.60											34.00	92.91						
33.70	98.90											35.80	92.98						
36.10	99.80											38.40	93.05						
38.00	101.00											41.60	93.12						
40.40	101.20											45.30	93.19						
42.60	101.40											49.30	93.26						
46.00	102.40											50.90	93.33						
49.90	103.30											51.20	93.40						
52.60	103.60											52.30							
53.50	104.00											52.80							
55.30	104.60											53.60							
57.10	104.80											54.70							
58.40	105.20											56.30							
59.50	105.50											57.90							
60.70	105.70											60.20							
61.40	105.90											62.20							
61.90	106.40											64.20							
62.50	106.90											65.80							
62.80	107.10											67.90							
63.20	107.40											69.90							
63.60	107.50											71.50							
64.00	107.80											73.30							
65.00	108.00											75.00							
65.50	108.10											76.40							
66.10	108.50											78.20							
67.00	109.00											81.40							
67.30	109.70											82.90							
67.50	111.10											84.00							
67.90	112.00											85.00							
68.00	113.20											85.60							
69.20	113.80											86.30							
70.00	114.80											86.90							
70.40	115.70											87.40							
70.70	116.00											88.00							
71.40	116.50											88.60							
71.50	117.00											89.00							
72.40	118.10											89.40							
73.10	119.00											89.80							
73.80	119.30											90.00							
75.00	119.80											90.30							
76.30	120.10											90.60							
77.20	120.60											90.90							
78.30												91.10							
79.10												91.30							
79.80												91.37							
80.80												91.44							
81.30												91.51							
81.90												91.58							
82.00												91.65							
82.50												91.72							

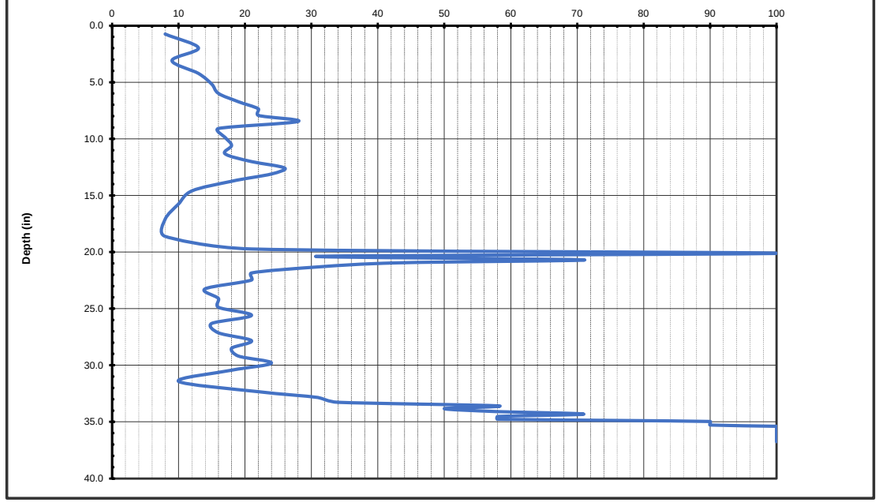
Test Location
DCP-3 -L- Sta. 22+50 6.5 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	54
Weighted Average	33
Max CBR	100
Min CBR	6

Test Location
DCP-4 -L- Sta. 27+51 5.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

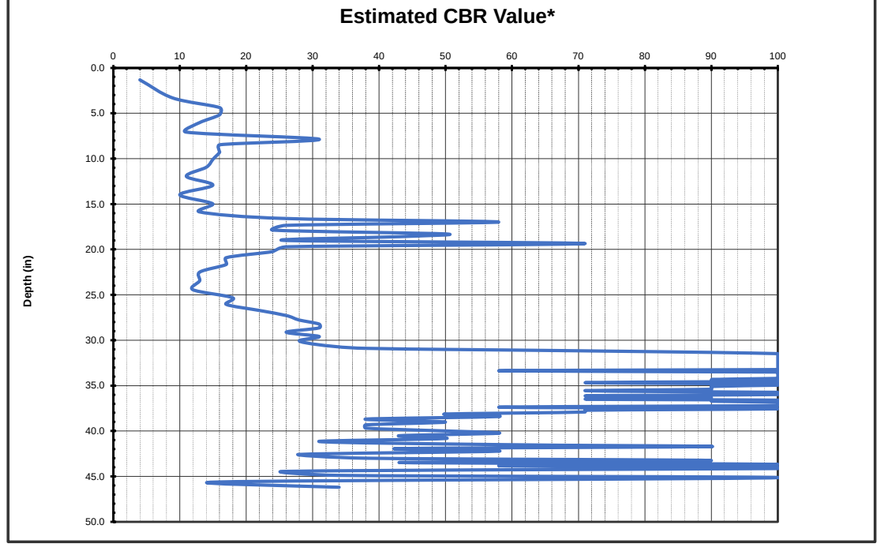
Soil Subgrade	
Average CBR	58
Weighted Average	23
Max CBR	100
Min CBR	8

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location				Date Run			
DCP-5 -L- Sta. 32+50 9.0 FT LT FY								11/16 to 11/22/22				DCP-6 -L- Sta. 37+50 9.0 FT LT FY				11/16 to 11/22/22			
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill					
DCP	Cumulative cm per blow			SG (A-4)		8.0 ft Fill		DCP	Cumulative cm per blow			SG (A-7-6)		5.0 ft Fill					
6.70	82.10	99.40						3.80	43.83										
10.10	82.16	100.30						5.50	43.90										
12.10	82.22	101.20						7.50	44.03										
14.10	82.28	101.90						9.40	44.16										
16.50	82.34	102.50						10.80	44.29										
19.40	82.40	103.30						11.80	44.42										
20.50	82.50	104.00						12.80	44.55										
22.50	82.60	105.10						13.60	44.68										
24.50	82.70	105.70						14.60	44.81										
26.60	82.80	106.10						15.60	44.94										
28.90	82.90	106.90						16.80	45.07										
31.70	83.00	107.50						16.90	45.20										
33.90	83.10	108.70						17.10	45.34										
37.00	83.20	109.60						17.90	45.48										
39.10	83.30	110.00						18.90	45.62										
41.50	83.40	110.80						19.60	45.76										
42.80	83.50	111.00						20.40	45.90										
43.40	83.60	111.60						21.00	46.04										
44.70	83.70	111.90						21.60	46.18										
46.10	83.80	112.20						22.40	46.32										
46.80	83.90	113.50						22.80	46.46										
47.60	84.00	114.50						23.40	46.60										
48.90	84.10	114.80						24.00	46.72										
49.40	84.20	116.80						24.20	46.84										
50.70	84.30	117.80						25.00	46.96										
52.10	84.40							25.40	47.08										
54.00	85.00							26.60	47.20										
55.90	85.20							27.50	47.32										
58.30	85.40							27.60	47.44										
60.70	85.60							28.20	47.56										
63.40	85.80							28.50	47.68										
65.20	86.10							28.90	47.80										
67.10	86.20							29.90	DCP REF										
68.60	86.50							30.40	50/2.5"										
69.90	86.70							31.50											
71.10	87.00							32.20											
72.20	87.40							32.60											
73.30	87.60							33.30											
74.60	87.80							34.00											
75.70	88.30							35.10											
76.90	88.60							35.90											
78.00	88.90							37.00											
78.90	89.30							37.60											
79.40	89.70							38.80											
79.80	90.10							40.10											
80.10	90.60							41.40											
80.40	90.90							42.00											
80.51	91.00							42.10											
80.62	91.30							42.21											
80.73	91.50							42.32											
80.84	92.00							42.43											
80.95	92.40							42.54											
81.06	92.90							42.65											
81.17	93.00							42.76											
81.28	93.40							42.87											
81.39	93.70							42.98											
81.50	94.00							43.09											
81.56	94.30							43.20											
81.62	94.60							43.27											
81.68	95.20							43.34											
81.74	95.50							43.41											
81.80	96.00							43.48											
81.86	96.50							43.55											
81.92	97.20							43.62											
81.98	97.80							43.69											
82.04	98.70							43.76											

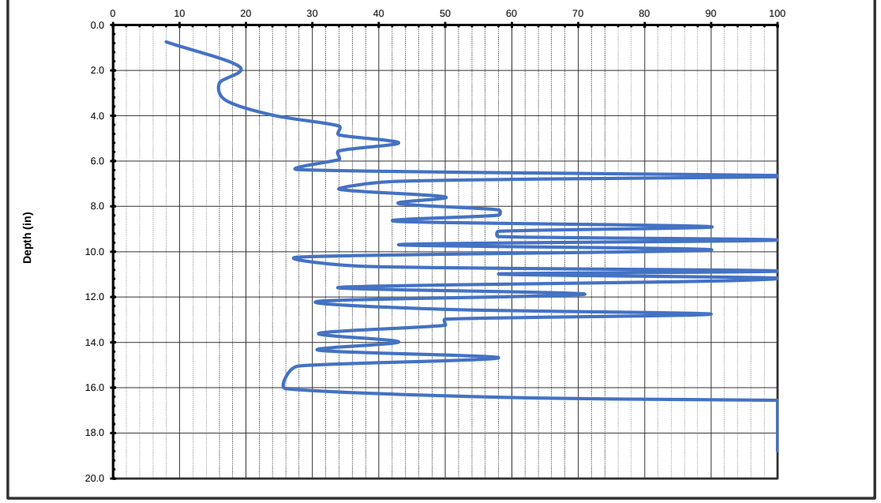
Test Location
DCP-5 -L- Sta. 32+50 9.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	69
Weighted Average	33
Max CBR	100
Min CBR	4

Test Location
DCP-6 -L- Sta. 37+50 9.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

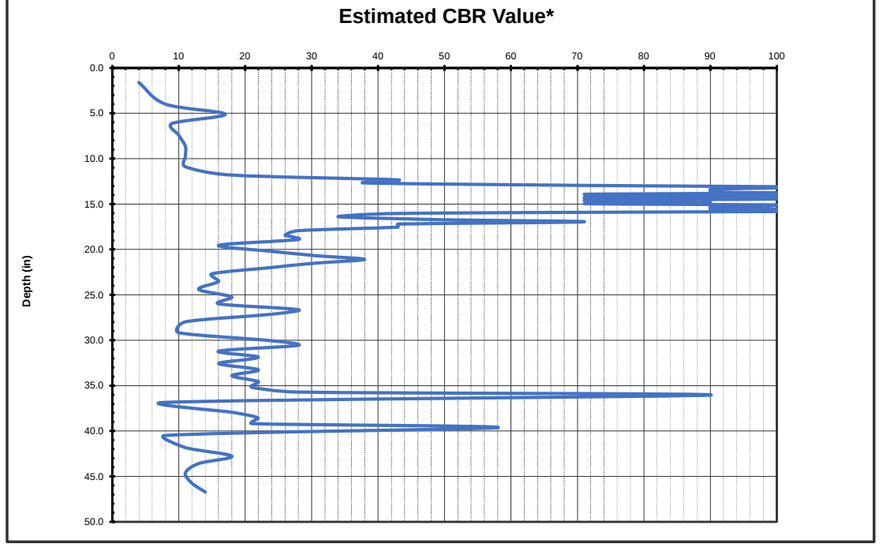
Soil Subgrade	
Average CBR	76
Weighted Average	44
Max CBR	100
Min CBR	8

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET							WBS NO.		PROJECT TIP I.D.				ROUTE			
							48470.1.1		R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
							COUNTY		FIELD PROFESSIONAL				DRILLER/HELPER			
							Haywood		T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location							Date Run		Test Location						Date Run	
DCP-7 -L- Sta. 42+49 8.0 FT LT FY							11/16 to 11/22/22		DCP-8 -L- Sta. 50+00 6.0 FT RT FW						11/16 to 11/22/22	
Type	Test Interval				Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				SG (A-4)		5.0 ft Fill		DCP	Cumulative cm per blow			SG (A-4)		4.0 ft Fill	
8.20	91.30								3.00							
12.00	91.70								7.20							
13.90	95.40								10.80							
17.20	97.20								15.00							
20.40	98.70								21.30							
23.40	100.30								30.10							
26.20	100.90								37.20							
29.10	104.70								44.20							
30.90	107.70								52.30							
31.70	109.50								58.90							
32.60	111.90								69.70							
33.10	114.80								79.30							
33.40	117.50								89.90							
33.70	119.80								98.20							
34.10									108.00							
34.50									112.00							
34.90									114.40							
35.10									116.00							
35.60									117.20							
35.70																
36.00																
36.50																
36.80																
37.30																
37.70																
38.20																
38.40																
38.70																
39.10																
39.50																
39.60																
40.00																
40.30																
41.10																
42.10																
42.80																
43.30																
44.10																
44.90																
46.10																
47.40																
48.60																
50.60																
52.00																
53.10																
54.00																
55.10																
56.50																
58.70																
60.70																
63.20																
65.00																
67.00																
68.20																
69.60																
72.50																
75.60																
77.00																
78.20																
80.20																
81.70																
83.70																
85.20																
87.00																
88.50																
90.10																

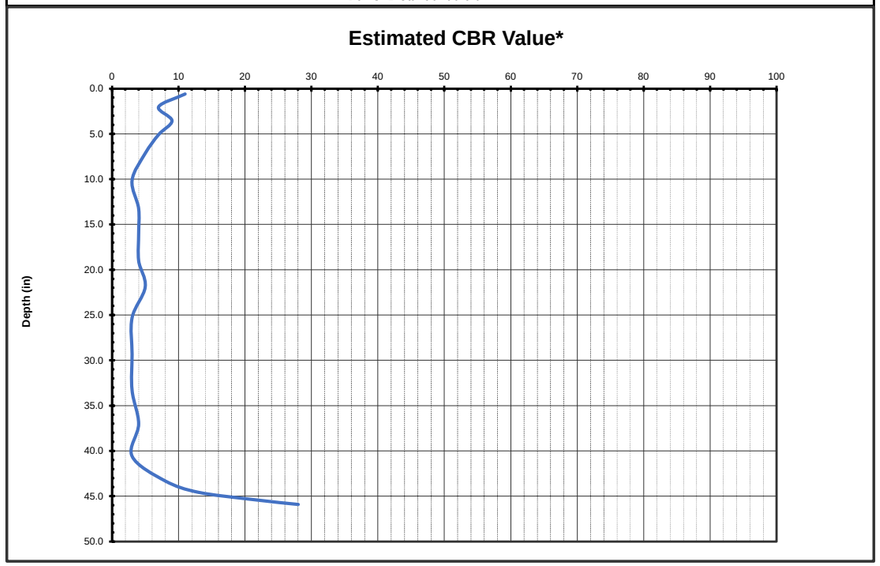
Test Location
DCP-7 -L- Sta. 42+49 8.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	42
Weighted Average	22
Max CBR	100
Min CBR	4

Test Location
DCP-8 -L- Sta. 50+00 6.0 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

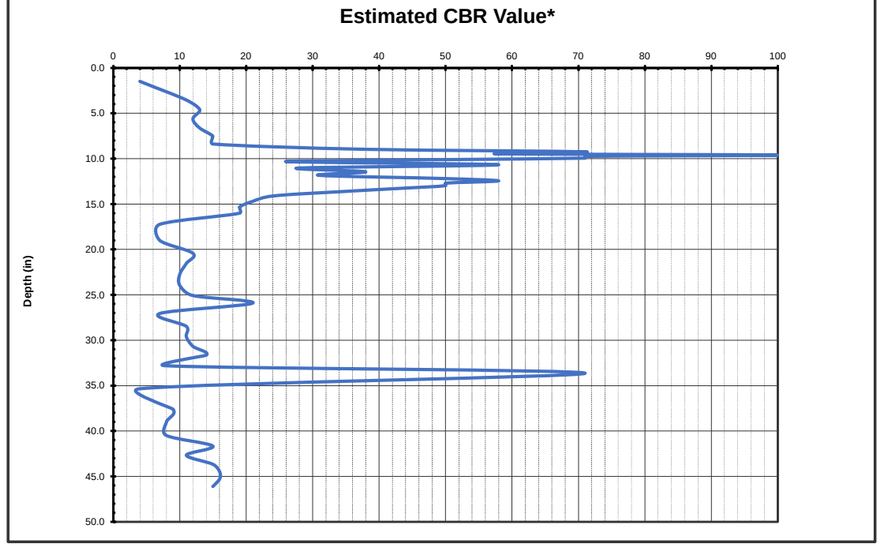
Soil Subgrade	
Average CBR	8
Weighted Average	5
Max CBR	28
Min CBR	3

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run					Test Location						Date Run		
DCP-9 -L- Sta. 55+00 5.5 FT LT FY						11/16 to 11/22/22					DCP-10 -L- Sta. 62+00 6.0 FT LT FY						11/16 to 11/22/22		
Type	Test Interval			Datum		Cut/Fill					Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow			SG (A-4)		5.0 ft Fill					DCP	Cumulative cm per blow				SG (A-4)		5.0 ft Fill	
7.50											7.10	65.54	101.90						
10.40											10.90	65.82	102.30						
12.90											15.30	66.10	103.00						
15.60											19.90	66.44	103.40						
18.00											24.50	66.78	104.00						
20.20											28.60	67.12	105.20						
22.30											32.50	67.46	105.80						
23.20											35.00	67.80	106.30						
23.70											37.40	67.92	106.70						
24.30											40.10	68.04	107.40						
24.50											42.60	68.16	107.70						
25.00											45.00	68.28	108.00						
25.50											46.60	68.40	108.40						
26.80											48.40	69.00	108.60						
27.40											50.10	69.60	108.80						
28.60											51.30	70.40	109.40						
29.50											51.60	71.20							
30.60											53.00	72.00							
31.30											54.70	72.80							
31.90											56.60	73.40							
32.60											58.40	74.30							
33.30											59.70	74.70							
34.10											60.30	75.50							
35.10											60.90	76.10							
36.50											60.95	76.30							
38.10											60.99	76.70							
39.80											61.04	77.40							
41.50											61.08	78.10							
46.00											61.13	78.30							
50.50											61.17	79.20							
53.20											61.22	79.60							
56.20											61.26	80.30							
59.30											61.31	81.00							
62.40											61.35	81.70							
65.00											61.40	82.40							
66.60											61.44	83.00							
70.80											61.49	83.50							
73.80											61.53	84.00							
76.60											61.58	85.00							
79.20											61.62	85.60							
81.50											61.67	86.10							
85.20											61.71	86.90							
85.70											61.76	87.30							
93.80											61.80	87.80							
97.20											61.95	88.50							
101.00											62.09	88.90							
104.70											62.24	89.50							
106.90											62.38	90.00							
109.80											62.53	90.40							
112.00											62.67	90.80							
114.00											62.82	91.30							
116.00											62.96	91.50							
118.20											63.11	92.30							
											63.25	92.70							
											63.40	93.50							
											63.54	93.80							
											63.69	94.60							
											63.83	95.90							
											63.98	96.60							
											64.12	97.30							
											64.27	97.90							
											64.41	98.40							
											64.56	99.10							
											64.70	99.60							
											64.98	100.80							
											65.26	101.10							

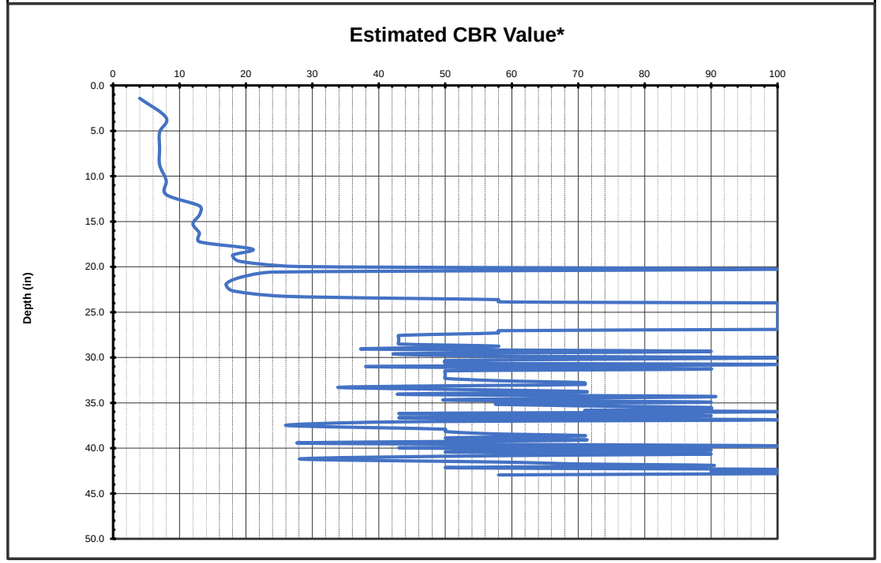
Test Location
DCP-9 -L- Sta. 55+00 5.5 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	26
Weighted Average	15
Max CBR	100
Min CBR	4

Test Location
DCP-10 -L- Sta. 62+00 6.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

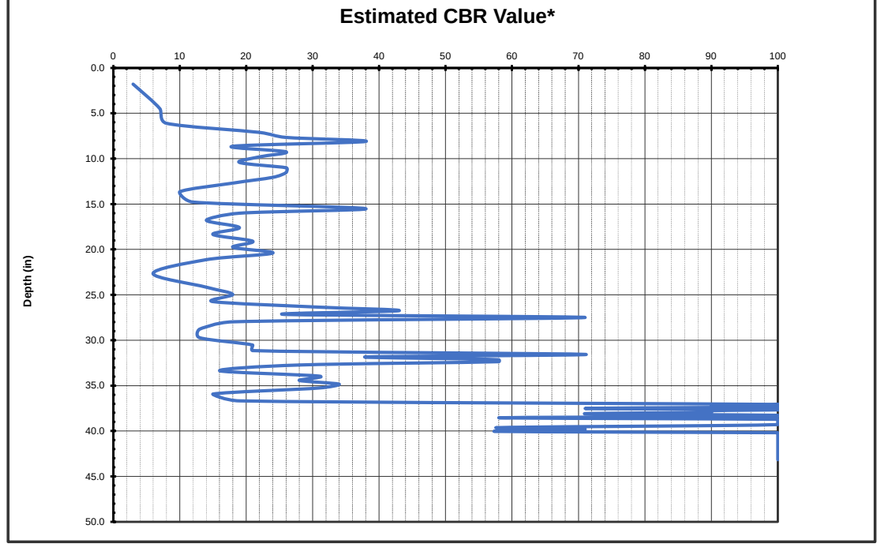
Soil Subgrade	
Average CBR	71
Weighted Average	35
Max CBR	100
Min CBR	4

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								48470.1.1		R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY		FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood		T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run		Test Location					Date Run				
DCP-11 -L- Sta. 66+99 3.0 FT LT FY						11/16 to 11/22/22		DCP-12 -L- Sta. 75+13 4.0 FT LT FY					11/16 to 11/22/22				
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill			
DCP	Cumulative cm per blow			SG (A-7-6)		5.0 ft Fill		DCP	Cumulative cm per blow			SG (A-4)		5.0 ft Fill			
9.10	99.22	109.20						6.10	58.55								
13.60	99.39	109.24						8.10	58.60								
17.30	99.56	109.28						10.80	58.64								
18.80	99.73	109.32						11.90	58.69								
20.10	99.90	109.36						13.60	58.73								
21.00	100.30	109.40						15.10	58.78								
22.80	100.90	109.44						16.90	58.82								
24.10	101.40	109.48						18.20	58.87								
25.60	102.00	109.52						19.80	58.91								
27.30	102.07	109.56						20.80	58.96								
28.60	102.14	109.60						23.60	59.00								
29.90	102.21	DCP REF						25.80	59.10								
31.30	102.28	50/2.0"						28.60	59.19								
33.10	102.35							31.50	59.29								
36.20	102.42							35.40	59.38								
38.90	102.49							38.70	59.48								
39.80	102.56							41.80	59.57								
41.50	102.63							44.00	59.67								
43.80	102.70							44.30	59.76								
45.50	103.00							45.00	59.86								
47.70	103.17							45.80	59.95								
49.30	103.34							46.00	60.05								
51.10	103.51							46.50	60.14								
52.50	103.68							47.40	60.24								
54.80	103.85							48.30	60.33								
60.20	104.02							48.80	60.43								
62.50	104.19							50.30	60.52								
64.30	104.36							50.50	60.62								
66.40	104.53							50.90	60.71								
67.50	104.70							51.50	60.81								
68.30	104.90							52.10	60.90								
69.60	105.10							52.50	60.94								
70.10	105.30							52.80	60.97								
71.90	105.50							53.40	61.01								
74.30	105.70							53.80	61.04								
76.70	105.96							54.10	61.08								
78.30	106.22							54.30	61.11								
79.90	106.48							54.60	61.15								
80.40	106.74							54.90	61.18								
81.30	107.00							55.20	61.22								
81.90	107.30							55.50	61.25								
82.50	107.40							55.60	61.29								
83.70	107.50							55.70	61.32								
85.70	107.60							55.80	61.36								
86.80	107.70							56.30	61.39								
88.00	107.80							56.50	61.43								
89.00	107.90							57.20	61.46								
90.10	108.04							57.29	61.50								
92.30	108.18							57.38	61.53								
94.00	108.32							57.47	61.57								
94.30	108.46							57.56	61.60								
94.70	108.60							57.65	DCP REF								
95.00	108.64							57.74	50/1.5"								
95.50	108.68							57.83									
95.70	108.72							57.92									
96.10	108.76							58.01									
96.50	108.80							58.10									
97.00	108.84							58.15									
97.30	108.88							58.19									
97.60	108.92							58.24									
98.20	108.96							58.28									
98.37	109.00							58.33									
98.54	109.04							58.37									
98.71	109.08							58.42									
98.88	109.12							58.46									
99.05	109.16							58.51									

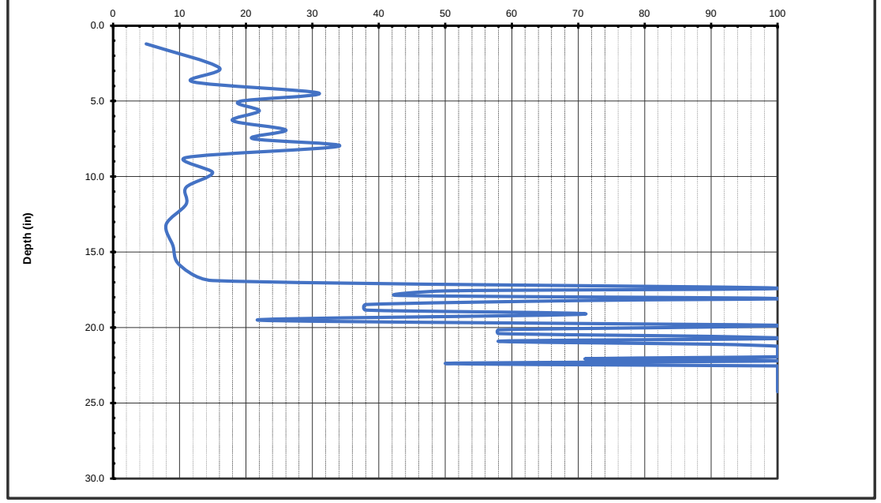
Test Location
DCP-11 -L- Sta. 66+99 3.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	72
Weighted Average	28
Max CBR	100
Min CBR	3

Test Location
DCP-12 -L- Sta. 75+13 4.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

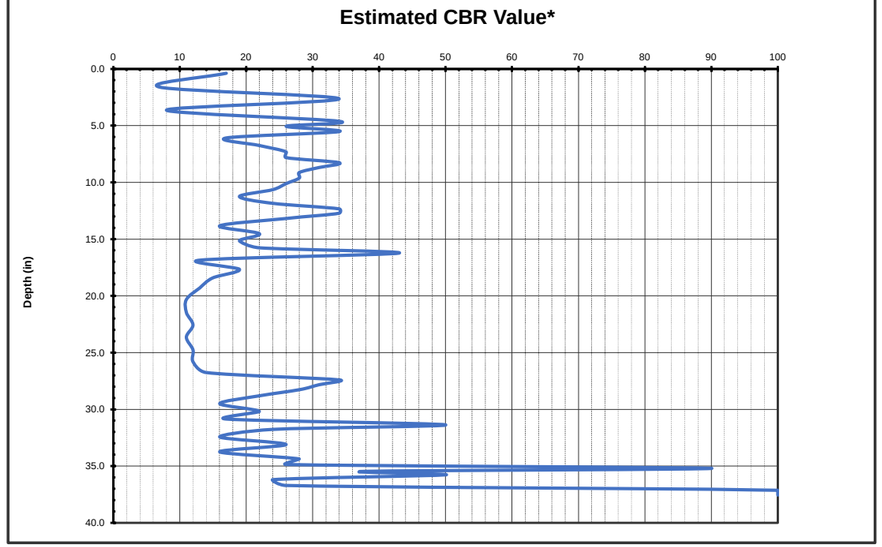
Soil Subgrade	
Average CBR	82
Weighted Average	30
Max CBR	100
Min CBR	5

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.			PROJECT TIP I.D.			ROUTE			
								48470.1.1			R-5921			US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY			FIELD PROFESSIONAL			DRILLER/HELPER			
								Haywood			T. Wenner, P.G.			M. Brewer, P. Tomasic			
Test Location						Date Run		Test Location						Date Run			
DCP-13 -L- Sta. 79+51 7.0 FT LT FY						11/16 to 11/22/22		DCP-14 -L- Sta. 82+00 8.0 FT LT FY						11/16 to 11/22/22			
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill			
DCP	Cumulative cm per blow			SG (A-4)		5.0 ft Fill		DCP	Cumulative cm per blow			SG (A-4)		5.0 ft Fill			
1.90	94.77							3.00									
6.20	94.82							5.80									
7.20	94.88							9.50									
11.20	94.93							11.80									
12.20	94.98							14.90									
13.50	95.03							18.30									
14.50	95.09							21.00									
16.40	95.14							24.60									
17.90	95.19							26.60									
19.20	95.24							28.60									
20.50	95.30							30.70									
21.50	95.35							32.10									
22.60	95.40							34.30									
23.80	DCP REF							36.70									
25.00	50/1.0"							39.10									
26.30								41.90									
27.70								44.90									
29.40								47.60									
30.80								50.40									
31.80								53.20									
32.80								54.60									
34.10								55.60									
36.10								57.80									
37.60								59.20									
39.30								60.80									
40.80								61.90									
41.60								62.10									
44.00								63.60									
45.70								64.70									
47.80								65.80									
50.20								67.10									
53.00								68.70									
56.00								70.50									
58.60								72.30									
61.50								74.50									
64.20								76.50									
66.80								78.10									
69.10								80.90									
70.10								81.80									
71.20								83.60									
72.40								84.20									
73.90								85.70									
75.90								88.20									
77.40								89.80									
79.30								91.30									
80.00								93.50									
81.40								95.20									
83.40								97.30									
84.70								99.40									
86.70								101.50									
87.90								103.60									
89.20								105.90									
89.60								108.70									
90.50								111.00									
91.20								113.00									
92.60								115.00									
93.90								117.20									
94.30								118.60									
94.35																	
94.40																	
94.46																	
94.51																	
94.56																	
94.61																	
94.67																	
94.72																	

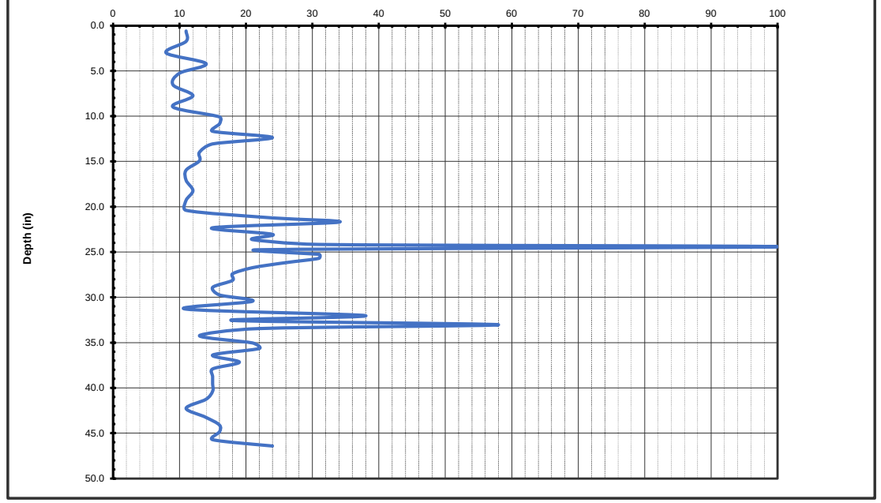
Test Location
DCP-13 -L- Sta. 79+51 7.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	46
Weighted Average	21
Max CBR	100
Min CBR	7

Test Location
DCP-14 -L- Sta. 82+00 8.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

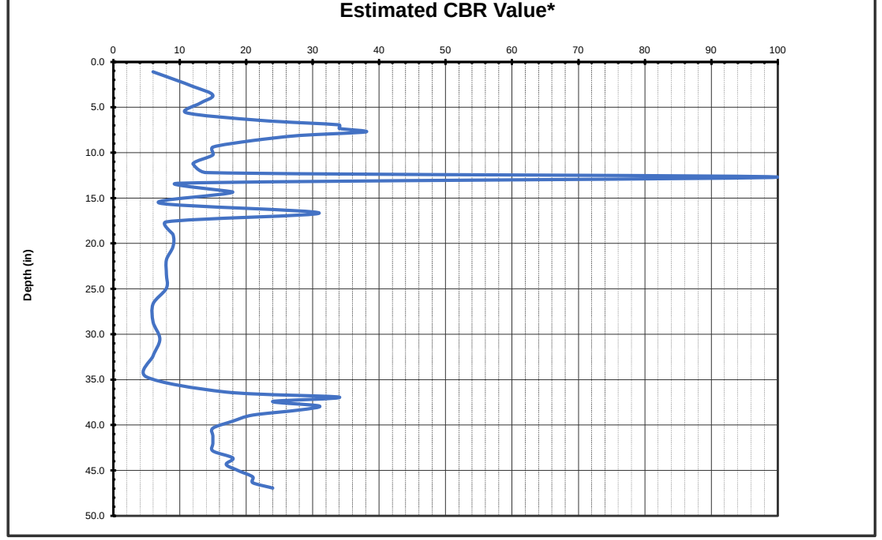
Soil Subgrade	
Average CBR	19
Weighted Average	16
Max CBR	100
Min CBR	8

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.	PROJECT TIP I.D.	ROUTE							
								48470.1.1	R-5921	US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40							
								COUNTY	FIELD PROFESSIONAL	DRILLER/HELPER							
								Haywood	T. Wenner, P.G.	M. Brewer, P. Tomasic							
Test Location								Date Run	Test Location								Date Run
DCP-15 -L- Sta. 82+50 2.0 FT RT FW								11/16 to 11/22/22	DCP-16 -L- Sta. 82+50 1.5 FT RT FW								11/16 to 11/22/22
Type	Test Interval			Datum		Cut/Fill			Type	Test Interval			Datum		Cut/Fill		
DCP	Cumulative cm per blow			SG (A-4)		3.0 ft Fill			DCP	Cumulative cm per blow			SG (A-2-4)		5.0 ft Fill		
5.50									4.80	69.00							
8.20									8.40	69.60							
10.40									10.60	72.70							
12.80									12.30	75.50							
15.60									13.80	75.90							
17.10									14.70	76.60							
18.10									15.90	77.00							
19.10									17.30	77.90							
20.00									18.60	78.40							
21.20									19.80	78.90							
22.80									21.20	79.60							
24.90									22.80	80.30							
27.10									24.50	81.20							
29.80									25.50	81.70							
32.10									27.00	82.00							
32.30									28.10	83.00							
35.50									28.60	83.50							
37.30									29.50	84.30							
41.70									29.90	84.90							
42.80									30.20	85.60							
46.60									31.00	86.20							
49.90									31.30	87.00							
53.40									31.70	87.70							
57.40									32.10	88.60							
61.40									32.50	89.30							
65.20									33.30	90.30							
70.20									33.50	91.00							
75.30									33.80	91.90							
79.70									34.10	92.90							
84.80									34.60	94.00							
91.40									35.10	95.00							
93.30									35.20	96.10							
94.30									35.70	97.60							
95.70									36.40	99.10							
96.80									37.00	100.50							
98.00									37.30	101.60							
99.60									37.70	102.80							
101.40									38.10	103.90							
103.50									38.60	105.20							
105.70									39.10	106.40							
107.80									39.50	107.50							
109.90									39.90	108.70							
111.70									40.60	110.10							
113.60									41.50	111.50							
115.30									42.40	112.80							
116.90									43.00	114.10							
118.50									43.90	115.60							
119.90									44.80								
									45.80								
									47.30								
									49.40								
									51.40								
									52.70								
									54.50								
									56.10								
									58.10								
									60.00								
									61.50								
									63.10								
									63.80								
									64.60								
									66.00								
									66.40								
									67.10								
									68.00								
									68.60								

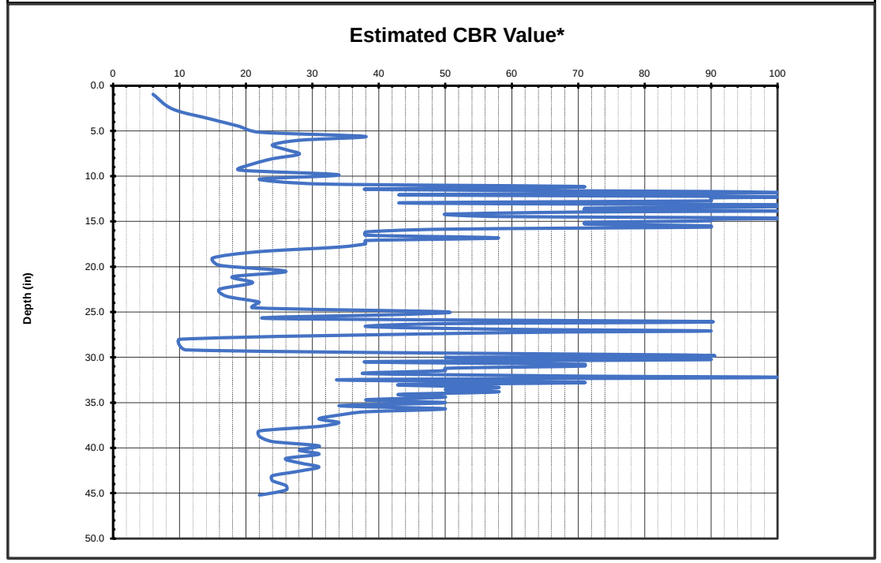
Test Location
DCP-15 -L- Sta. 82+50 2.0 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	19
Weighted Average	13
Max CBR	100
Min CBR	5

Test Location
DCP-16 -L- Sta. 82+50 1.5 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

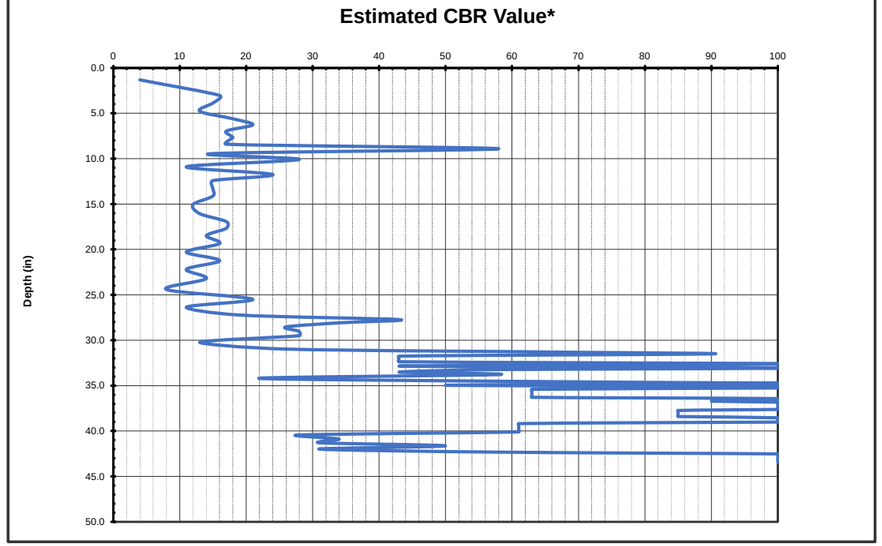
Soil Subgrade	
Average CBR	47
Weighted Average	33
Max CBR	100
Min CBR	6

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
DCP-17 -L- Sta. 100+00 6.0 FT LT FY								11/16 to 11/22/22				DCP-18 -L- Sta. 107+00 6.0 FT LT FY						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill				Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				SG (A-4)			5.0 ft Fill				DCP	Cumulative cm per blow			SG (A-4)		5.0 ft Fill	
6.70	93.00											6.00	106.20						
8.70	93.40											8.00	106.90						
10.90	93.60											10.60	108.00						
13.30	93.80											13.10	108.60						
15.10	94.00											15.50	109.50						
16.70	94.20											18.40	110.40						
18.60	94.40											20.40	111.10						
20.40	94.52											23.40	112.00						
22.30	94.64											26.70	112.60						
22.90	94.76											30.50	113.10						
25.00	94.88											34.40	113.70						
26.20	95.00											37.40	114.40						
29.10	95.12											39.90	114.60						
30.50	95.24											42.30	115.40						
32.60	95.36											44.50	115.70						
34.80	95.48											47.30	116.30						
36.90	95.60											49.70	116.90						
39.50	96.02											52.00	117.50						
42.00	96.44											55.10	118.00						
43.90	96.86											57.70	118.70						
45.80	97.28											59.90	119.40						
48.10	97.70											62.60	119.90						
50.10	98.00											64.80							
52.90	98.30											65.70							
54.90	98.60											66.20							
57.80	98.90											67.00							
60.10	99.20											67.20							
63.90	99.78											67.50							
65.50	100.36											68.00							
68.30	100.94											68.20							
70.00	101.52											68.70							
70.80	102.10											69.00							
71.80	103.30											69.70							
73.10	104.30											70.40							
74.30	105.40											70.90							
75.50	106.10											71.20							
78.00	107.20											71.70							
79.30	107.80											72.20							
79.80	108.10											73.40							
80.20	108.20											76.60							
81.00	108.30											78.10							
81.80	108.40											79.30							
82.60	108.50											81.00							
82.80	108.60											83.40							
83.00	108.76											85.10							
83.80	108.92											86.90							
84.10	109.08											88.50							
84.70	109.24											89.90							
85.50	109.40											90.80							
86.10	109.60											91.80							
87.60	109.80											92.50							
88.10	110.00											93.10							
88.40	110.20											94.20							
89.10	110.40											95.00							
89.20												95.90							
89.30												96.70							
89.40												97.50							
89.50												98.60							
89.60												99.90							
90.16												100.80							
90.72												101.90							
91.28												102.60							
91.84												103.50							
92.40												104.10							
92.60												104.90							
92.90												105.80							

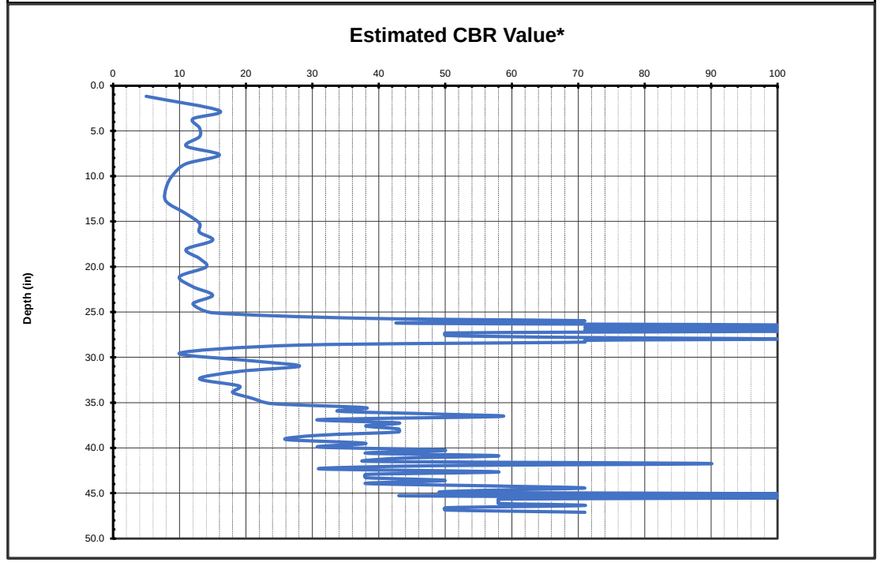
Test Location
DCP-17 -L- Sta. 100+00 6.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	63
Weighted Average	30
Max CBR	100
Min CBR	4

Test Location
DCP-18 -L- Sta. 107+00 6.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

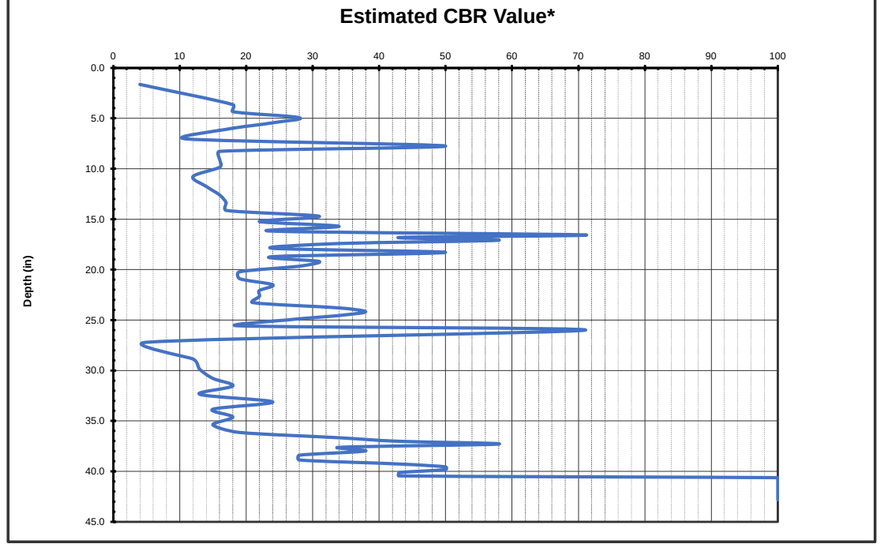
Soil Subgrade	
Average CBR	41
Weighted Average	24
Max CBR	100
Min CBR	5

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								48470.1.1		R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY		FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood		T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run		Test Location					Date Run				
DCP-19 -L- Sta. 110+50 3.0 FT RT FW						11/16 to 11/22/22		DCP-20 -L- Sta. 115+00 5.0 FT LT FY					11/16 to 11/22/22				
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill			
DCP	Cumulative cm per blow			SG		5.0 ft Fill		DCP	Cumulative cm per blow			SG (A-2-4)		5.0 ft Fill			
8.30	103.68							5.90	93.80								
10.10	103.92							10.20	94.30								
11.90	104.16							13.90	95.30								
13.10	104.40							16.90	96.30								
14.50	104.54							19.40	97.00								
16.40	104.68							20.60	97.60								
19.30	104.82							22.40	97.80								
20.00	104.96							25.20	99.00								
22.00	105.10							27.00	99.30								
24.00	105.32							28.50	99.50								
26.00	105.54							30.50	102.00								
28.70	105.76							33.60	104.40								
31.00	105.98							36.90	104.70								
33.00	106.20							40.10	105.50								
34.90	106.30							43.60	106.20								
36.80	106.40							46.70	106.40								
37.90	106.50							49.70	107.20								
39.40	106.60							51.20	107.70								
40.40	106.70							52.90	108.20								
41.80	106.83							54.40	108.40								
42.30	106.96							55.70	108.70								
43.10	107.09							57.10	109.20								
43.70	107.22							58.60	109.50								
44.70	107.35							60.00	110.00								
46.10	107.48							61.20	111.00								
46.80	107.61							62.00	112.00								
48.20	107.74							63.20	112.50								
49.30	107.87							63.90	113.30								
50.50	108.00							65.20	114.90								
52.20	108.08							66.10	116.20								
53.90	108.16							66.90	117.20								
55.30	108.24							67.80	117.90								
56.80	108.32							68.60	118.90								
58.30	108.40							69.30	119.40								
59.90	108.48							70.40	119.80								
60.90	108.56							71.20									
61.80	108.64							72.00									
62.80	108.72							73.20									
64.10	108.80							74.10									
65.80								75.20									
66.30								76.40									
71.90								77.40									
74.60								78.50									
77.10								79.40									
79.20								80.10									
81.00								81.10									
83.40								82.20									
84.80								83.40									
87.00								83.70									
88.80								84.30									
90.90								85.10									
92.60								85.40									
93.60								87.00									
94.40								87.40									
95.00								88.40									
96.00								88.60									
96.90								89.00									
98.10								89.40									
99.30								89.80									
100.10								90.20									
100.80								90.60									
101.50								91.00									
102.30								91.30									
103.10								91.90									
103.20								92.40									
103.44								92.70									

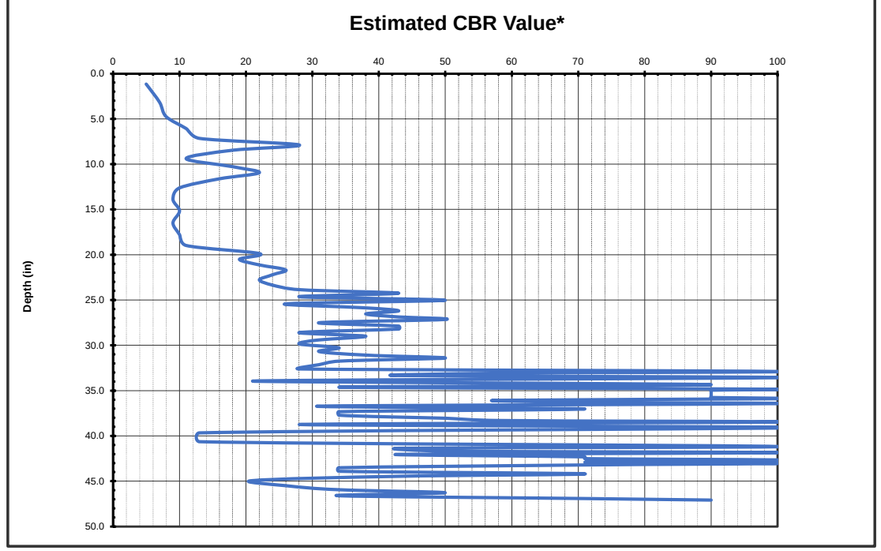
Test Location
DCP-19 -L- Sta. 110+50 3.0 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	56
Weighted Average	25
Max CBR	100
Min CBR	4

Test Location
DCP-20 -L- Sta. 115+00 5.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

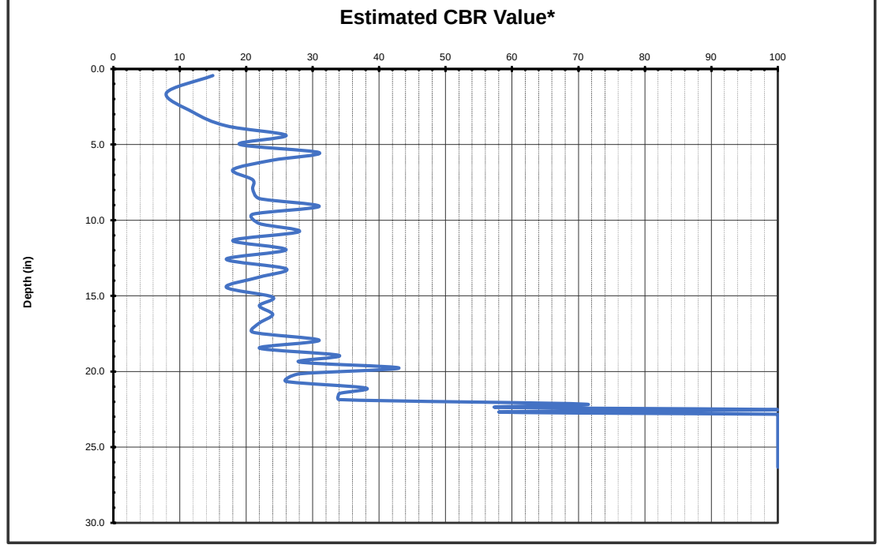
Soil Subgrade	
Average CBR	47
Weighted Average	28
Max CBR	100
Min CBR	5

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
DCP-21 -L- Sta. 121+00 4.5 FT LT FW								11/16 to 11/22/22				DCP-22 -L- Sta. 125+50 1.5 FT RT FW						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill				Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				SG (A-4)			7.0 ft Fill				DCP	Cumulative cm per blow			SG		7.0 ft Fill	
2.20	60.67											6.30							
5.90	60.76											10.90							
8.60	60.84											14.50							
10.50	60.93											17.50							
11.80	61.01											20.10							
13.50	61.10											22.60							
14.60	61.18											25.20							
16.00	61.25											29.10							
17.80	61.33											31.60							
19.40	61.40											34.30							
21.00	61.48											38.00							
22.50	61.55											42.90							
23.60	61.63											48.40							
25.20	61.70											54.30							
26.70	61.78											70.40							
27.90	61.85											83.00							
29.70	61.93											84.50							
31.00	62.00											85.30							
32.90	62.08											85.90							
34.20	62.15											86.20							
35.70	62.23											86.70							
37.60	62.30											86.80							
39.00	62.38											87.00							
40.50	62.45											87.60							
41.90	62.53											88.10							
43.40	62.60											Terminated							
45.00	62.75											Due to							
46.10	62.90											Utility							
47.60	63.05																		
48.60	63.20																		
49.80	63.35																		
50.60	63.50																		
51.80	63.65																		
53.10	63.80																		
54.00	63.95																		
55.00	64.10																		
56.00	64.28																		
56.50	64.46																		
57.10	64.64																		
57.30	64.82																		
57.90	65.00																		
58.06	65.18																		
58.22	65.36																		
58.38	65.54																		
58.54	65.72																		
58.70	65.90																		
58.82	66.00																		
58.94	66.10																		
59.06	66.20																		
59.18	66.30																		
59.30	66.40																		
59.39	66.50																		
59.47	66.60																		
59.56	66.70																		
59.64	66.80																		
59.73	66.90																		
59.81	DCP REF																		
59.90	60/2.0"																		
59.99																			
60.07																			
60.16																			
60.24																			
60.33																			
60.41																			
60.50																			
60.59																			

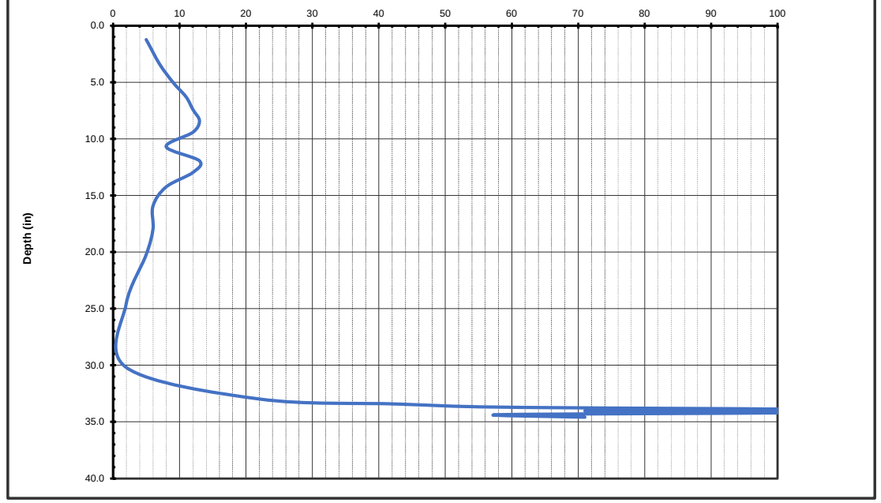
Test Location
DCP-21 -L- Sta. 121+00 4.5 FT LT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	76
Weighted Average	34
Max CBR	100
Min CBR	8

Test Location
DCP-22 -L- Sta. 125+50 1.5 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

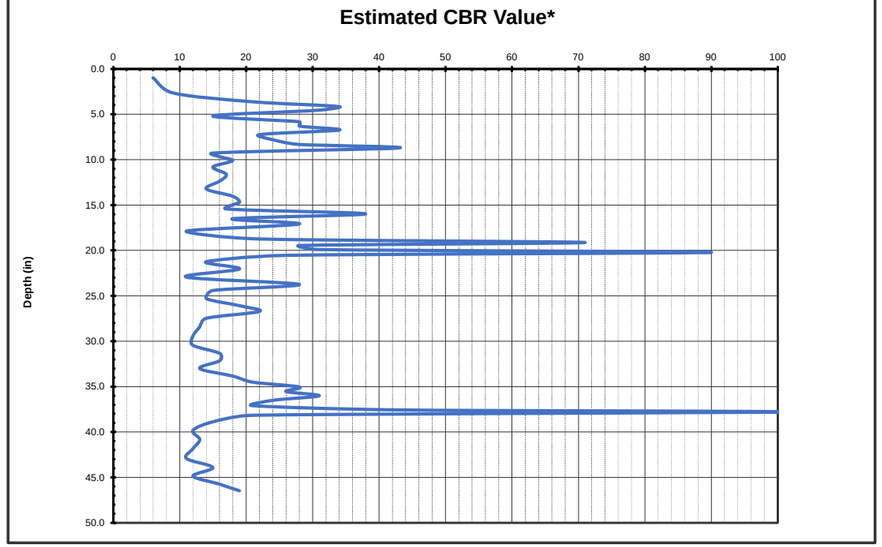
Soil Subgrade	
Average CBR	30
Weighted Average	9
Max CBR	100
Min CBR	2

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.			PROJECT TIP I.D.			ROUTE			
								48470.1.1			R-5921			US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY			FIELD PROFESSIONAL			DRILLER/HELPER			
								Haywood			T. Wenner, P.G.			M. Brewer, P. Tomasic			
Test Location								Date Run			Test Location					Date Run	
DCP-23 -L- Sta. 132+00 5.0 FT LT FY								11/16 to 11/22/22			DCP-24 -L- Sta. 138+00 7.0 FT LT FY					11/16 to 11/22/22	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum			Cut/Fill		
DCP	Cumulative cm per blow			SG (A-4)		5.0 ft Fill		DCP	Cumulative cm per blow			SG (A-2-4)			5.0 ft Fill		
5.00								7.40	56.06	79.00							
8.40								9.10	56.34	80.10							
10.00								12.80	56.62	80.50							
11.00								17.00	56.90	80.80							
12.10								20.20	57.10	81.10							
14.20								23.10	57.30	81.80							
15.40								25.80	57.50	82.30							
16.60								29.80	57.70	82.90							
17.60								33.70	57.90	83.40							
19.10								35.60	58.20	84.40							
20.50								37.30	58.50	84.70							
21.70								38.80	58.80	85.60							
22.50								40.00	59.10	86.30							
24.60								40.90	59.40	87.00							
26.40								42.00	59.62	87.40							
28.50								42.60	59.84	88.10							
30.40								43.10	60.06	88.60							
32.40								43.40	60.28	89.00							
34.70								43.70	60.50	89.40							
36.50								44.10	60.82	90.00							
38.20								44.34	61.14	90.50							
40.10								44.58	61.46	91.40							
41.00								44.82	61.78	92.20							
42.80								45.06	62.10	93.10							
44.00								45.30	62.46	94.10							
46.80								45.58	62.82	95.70							
48.30								45.86	63.18	97.30							
48.80								46.14	63.54	99.00							
50.00								46.42	63.90	100.40							
51.10								46.70	64.40	101.50							
51.50								46.96	64.60	102.00							
52.80								47.22	65.00	102.90							
55.10								47.48	65.20	103.60							
56.80								47.74	65.60	104.10							
59.70								48.00	65.90	105.40							
60.90								48.26	66.40	106.00							
63.10								48.52	66.80	106.70							
65.40								48.78	67.10	107.50							
67.10								49.04	67.90	108.40							
68.60								49.30	68.80	109.40							
70.90								49.54	69.50	110.10							
73.40								49.78	70.70	110.90							
76.00								50.02	71.40	111.90							
78.60								50.26	72.10	112.60							
80.60								50.50	72.60	113.50							
82.60								50.68	73.30								
85.00								50.86	73.80								
86.80								51.04	74.10								
88.40								51.22	74.60								
89.60								51.40	75.10								
90.90								51.66	75.30								
92.00								51.92	75.60								
93.40								52.18	76.10								
95.00								52.44	76.20								
95.80								52.70	76.30								
96.10								52.92	76.40								
97.70								53.14	76.50								
99.80								53.36	76.60								
102.50								53.58	76.90								
104.90								53.80	77.20								
107.60								54.14	77.50								
110.40								54.48	77.80								
112.60								54.82	78.10								
115.20								55.16	78.40								
117.20								55.50	78.60								
118.90								55.78	78.80								

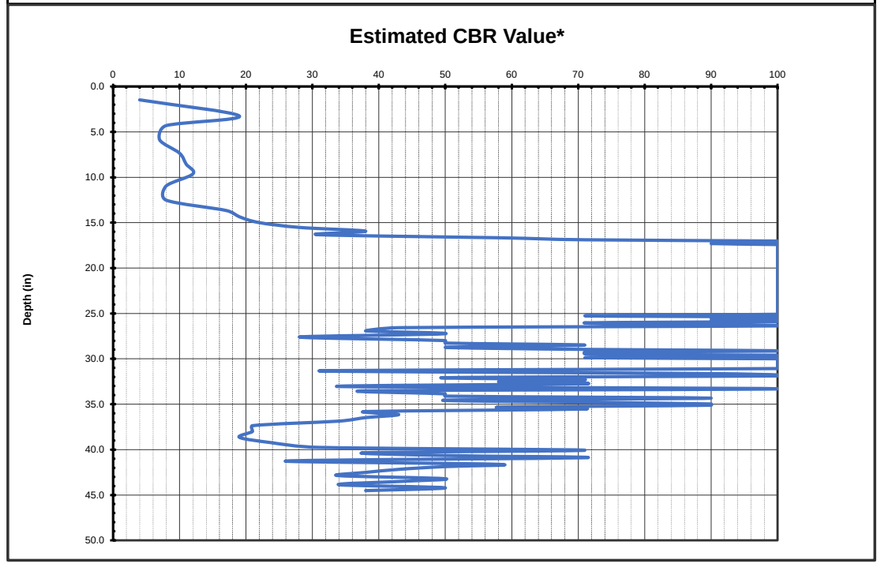
Test Location
DCP-23 -L- Sta. 132+00 5.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	23
Weighted Average	18
Max CBR	100
Min CBR	6

Test Location
DCP-24 -L- Sta. 138+00 7.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	77
Weighted Average	46
Max CBR	100
Min CBR	4

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.							PROJECT TIP I.D.							ROUTE						
								48470.1.1							R-5921							US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40						
								COUNTY							FIELD PROFESSIONAL							DRILLER/HELPER						
								Haywood							T. Wenner, P.G.							M. Brewer, P. Tomasic						
Test Location								Date Run							Test Location							Date Run						
DCP-25 -L- Sta. 138+00 8.0 FT RT FW								11/16 to 11/22/22							DCP-26 -L- Sta. 141+50 2.0 FT RT FW							11/16 to 11/22/22						
Type	Test Interval			Datum		Cut/Fill									Type	Test Interval			Datum		Cut/Fill							
DCP	Cumulative cm per blow			SG (A-2-4)		5.0 ft Fill									DCP	Cumulative cm per blow			SG (A-2-4)		5.0 ft Fill							
5.90															5.70	109.01												
7.80															8.20	109.12												
9.90															9.90	109.23												
12.30															11.50	109.34												
12.80															13.40	109.45												
14.70															14.90	109.56												
17.50															16.70	109.67												
18.80															17.60	109.78												
20.10															19.10	109.89												
21.30															20.40	110.00												
22.60															22.10	110.50												
24.10															23.20	111.00												
24.70															24.90	111.50												
24.90															26.80	112.00												
25.30															30.10	112.50												
25.50															33.70	113.00												
25.60															36.90	113.60												
25.70															41.70	114.10												
26.00															46.60	114.80												
27.00															50.90	115.20												
Terminated															55.50	115.60												
Due to															58.10	116.00												
Utility															61.00	116.30												
															62.00	116.70												
															63.00	117.30												
															64.30	118.10												
															66.70													
															68.50													
															70.30													
															72.50													
															74.80													
															76.80													
															79.50													
															82.70													
															86.70													
															91.50													
															95.20													
															98.20													
															102.20													
															104.80													
															105.60													
															105.67													
															105.75													
															105.82													
															105.89													
															105.97													
															106.04													
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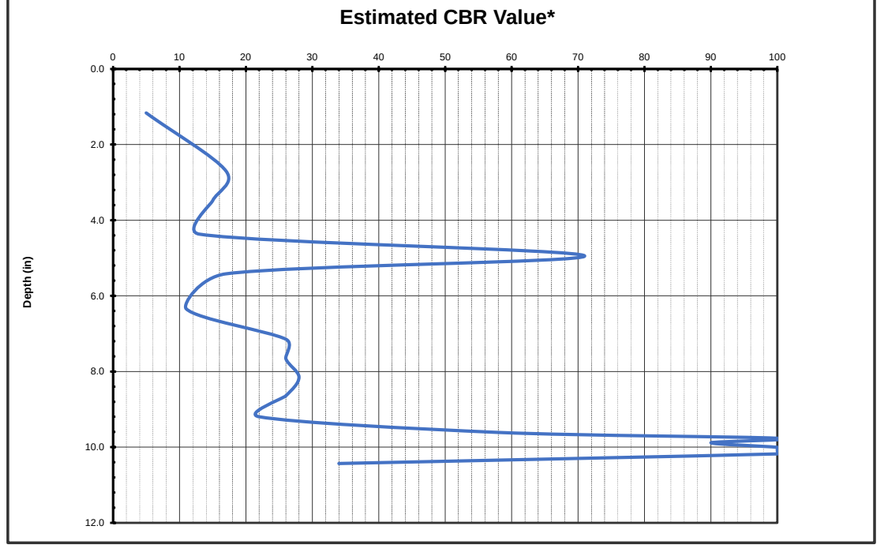
															106.26													
															106.33													
															106.41													
															106.48													
															106.55													
															106.63													
															106.70													
															106.92													
															107.14													
															107.36													
															107.58													
															107.80													
															108.02													
															108.24													
															108.46													
															108.68													
															108.90													

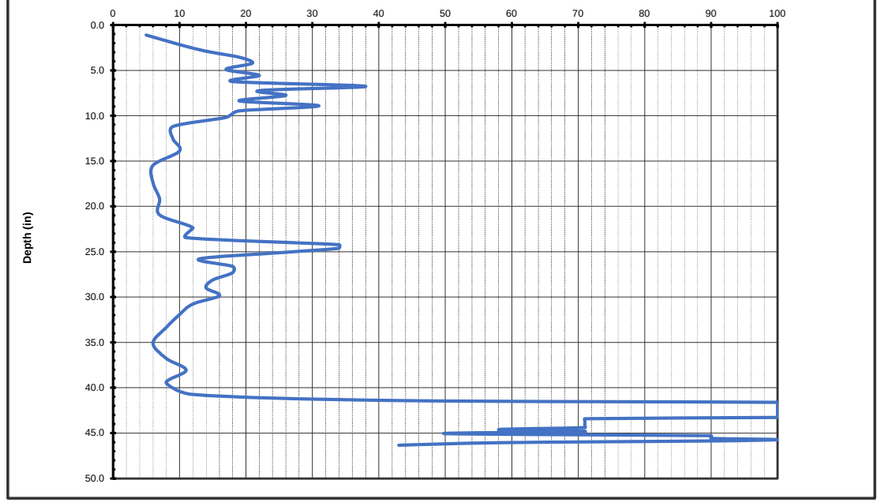
Test Location
DCP-25 -L- Sta. 138+00 8.0 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	48
Weighted Average	22
Max CBR	100
Min CBR	5

Test Location
DCP-26 -L- Sta. 141+50 2.0 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

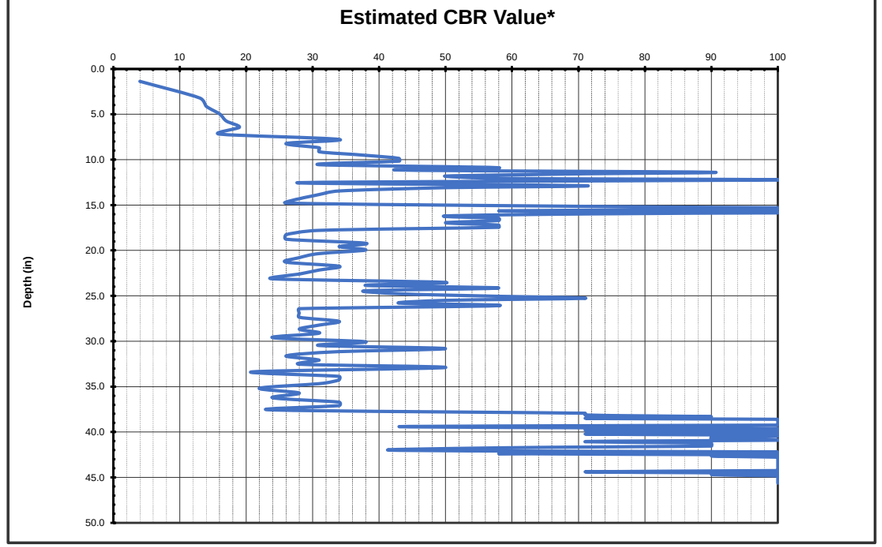
Soil Subgrade	
Average CBR	58
Weighted Average	20
Max CBR	100
Min CBR	5

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
DCP-27 -L- Sta. 145+00 6.0 FT LT FY								11/16 to 11/22/22				DCP-29 -L- Sta. 161+00 3.0 FT LT FY						11/16 to 11/22/22	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill					
DCP	Cumulative cm per blow			SG (A-2-4)		5.0 ft Fill		DCP	Cumulative cm per blow			SG (A-1-b)		5.0 ft Fill					
6.90	66.50	109.70						7.10	41.70	85.60									
9.30	67.70	109.92						11.20	42.20	87.10									
11.60	68.90	110.14						14.20	42.90	88.30									
13.60	70.10	110.36						15.70	43.30	89.80									
15.50	71.10	110.58						16.80	43.70	91.10									
17.20	72.20	110.80						18.40	44.20	92.30									
19.20	73.40	111.14						20.30	44.60	93.70									
20.20	74.50	111.48						20.80	45.10	94.90									
21.50	75.90	111.82						21.10	45.90	96.50									
22.60	76.80	112.16						21.40	46.50	97.80									
23.70	77.90	112.50						22.30	46.90	99.30									
24.60	78.60	113.00						23.40	47.90	100.60									
25.40	79.60	113.30						24.40	49.00	102.00									
26.20	80.90	113.70						25.30	49.90	103.40									
27.30	82.00	114.00						26.00	50.50	104.70									
27.90	83.20	114.14						26.40	51.10	106.30									
28.70	83.90	114.28						26.90	51.90	107.50									
29.10	85.50	114.42						27.20	52.60	108.90									
29.60	86.50	114.56						27.80	53.50	110.30									
30.30	87.50	114.70						28.30	54.00	111.50									
30.90	88.60	114.96						28.70	54.90	112.80									
31.20	90.10	115.22						29.40	55.80	114.10									
32.40	91.30	115.48						29.60	56.30	115.40									
32.90	92.70	115.74						30.20	57.10										
33.60	93.70	116.00						30.40	58.40										
34.60	94.70							30.60	60.10										
35.70	96.10							30.90	61.10										
36.90	96.60							31.10	61.70										
38.20	97.10							31.20	62.20										
38.70	97.50							31.40	63.10										
38.90	98.00							31.60	63.70										
39.10	98.10							31.80	64.30										
39.40	98.40							32.10	64.80										
40.00	98.60							32.60	65.20										
40.10	98.80							32.80	65.70										
40.20	98.98							33.20	66.40										
40.30	99.16							33.50	67.00										
40.80	99.34							33.90	68.00										
41.50	99.52							34.40	69.00										
42.10	99.70							34.60	69.50										
42.70	100.50							34.80	69.90										
43.40	100.80							35.20	70.20										
44.00	101.30							35.40	70.50										
44.60	101.60							35.70	70.80										
45.70	101.80							35.90	71.30										
47.00	101.90							36.30	71.60										
48.30	102.40							36.40	71.90										
49.20	102.60							36.60	72.20										
50.20	102.90							36.80	72.50										
51.10	103.30							37.00	72.90										
52.20	103.70							37.20	73.20										
53.40	104.00							37.40	73.50										
54.70	104.50							37.60	74.00										
55.70	104.90							37.80	74.30										
56.80	105.30							38.00	74.90										
58.00	105.70							38.20	75.20										
59.40	106.30							38.40	75.60										
60.10	107.10							38.73	76.20										
61.00	107.30							39.06	76.70										
61.60	107.90							39.39	77.40										
62.50	108.10							39.72	78.40										
63.30	108.50							40.05	79.30										
63.90	108.74							40.38	80.30										
64.40	108.98							40.71	81.80										
65.10	109.22							41.04	82.90										
65.90	109.46							41.37	84.40										

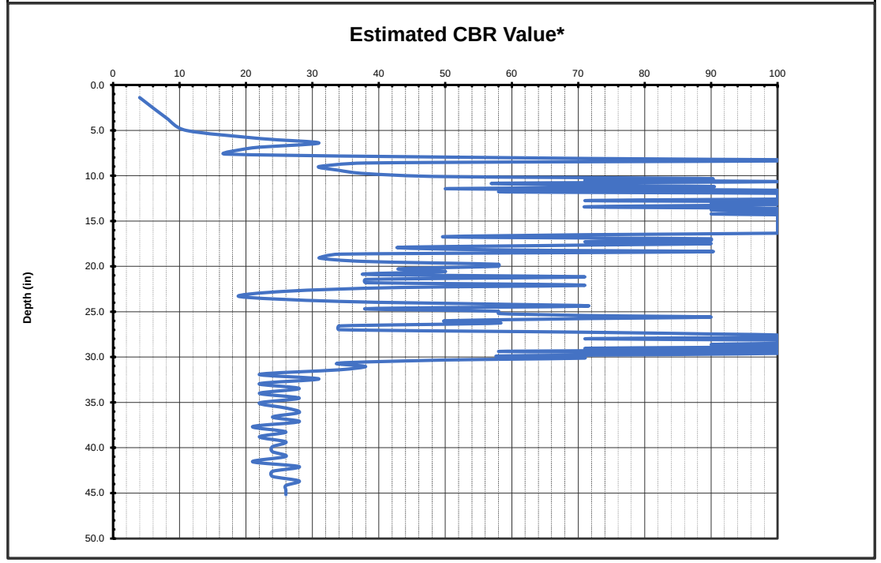
Test Location
DCP-27 -L- Sta. 145+00 6.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	63
Weighted Average	41
Max CBR	100
Min CBR	4

Test Location
DCP-29 -L- Sta. 161+00 3.0 FT LT FY



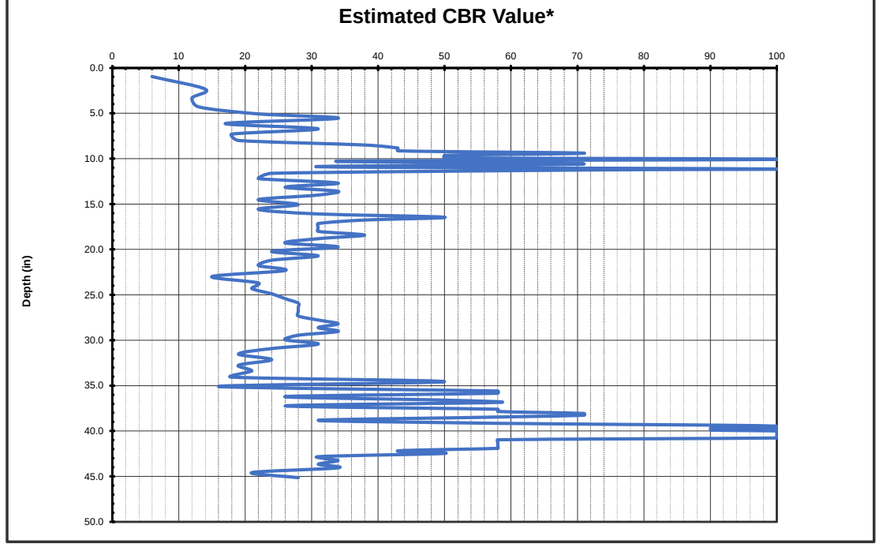
ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	65
Weighted Average	42
Max CBR	100
Min CBR	4

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
DCP-30 -L- Sta. 161+00 5.5 FT LT FY								11/16 to 11/22/22				DCP-32 -L- Sta. 166+00 5.0 FT RT FW						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill				Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				SG (A-1-b)			5.0 ft Fill				DCP	Cumulative cm per blow			SG (A-2-4)		2.0 ft Fill	
4.80	85.60											3.30	37.70						
7.10	87.40											5.00	37.86						
9.70	88.10											6.40	38.02						
12.10	90.10											7.80	38.18						
13.60	90.70											9.00	38.34						
14.60	91.30											9.80	38.50						
16.50	92.60											10.40	38.66						
17.60	93.30											10.60	38.82						
19.40	93.90											11.40	38.98						
21.10	95.20											11.90	39.14						
22.00	95.80											12.20	39.30						
22.80	96.40											13.00	39.58						
23.60	96.90											13.70	39.86						
24.10	97.40											14.90	40.14						
24.80	98.00											15.60	40.42						
25.50	99.10											16.00	40.70						
25.60	99.70											16.80	41.14						
26.60	100.10											17.80	41.58						
27.10	100.30											18.30	42.02						
28.20	100.60											19.00	42.46						
28.30	101.00											19.50	42.90						
28.80	101.10											20.20	43.04						
30.20	101.50											21.20	43.18						
31.70	101.60											21.90	43.32						
32.70	101.70											22.60	43.46						
34.00	101.90											23.80	43.60						
35.00	102.00											24.30	43.74						
36.10	102.20											25.10	43.88						
37.60	102.50											25.50	44.02						
38.80	102.80											26.30	44.16						
40.30	103.10											26.90	44.30						
41.40	103.40											27.40	44.46						
42.10	103.70											27.70	44.62						
43.00	104.30											27.80	44.78						
44.10	104.90											28.00	44.94						
45.20	105.50											28.30	45.10						
46.30	106.10											28.70	45.26						
47.20	106.70											29.12	45.42						
48.30	107.50											29.54	45.58						
49.60	108.20											29.96	45.74						
50.60	109.30											30.38	45.90						
52.00	110.30											30.80	46.03						
53.10	111.40											31.12	46.16						
54.50	112.40											31.44	46.29						
56.00	114.00											31.76	46.42						
57.30	115.20											32.08	46.55						
59.40												32.40	46.68						
60.90												32.74	46.81						
62.50												33.08	46.94						
63.90												33.42	47.07						
65.20												33.76	47.20						
66.40												34.10	DCP REF						
67.60												34.32	50/4.0"						
68.80												34.54							
70.00												34.76							
71.10												34.98							
72.10												35.20							
73.20												35.46							
74.20												35.72							
75.40												35.98							
76.70												36.24							
77.80												36.50							
79.20												36.74							
80.90												36.98							
82.30												37.22							
84.00												37.46							

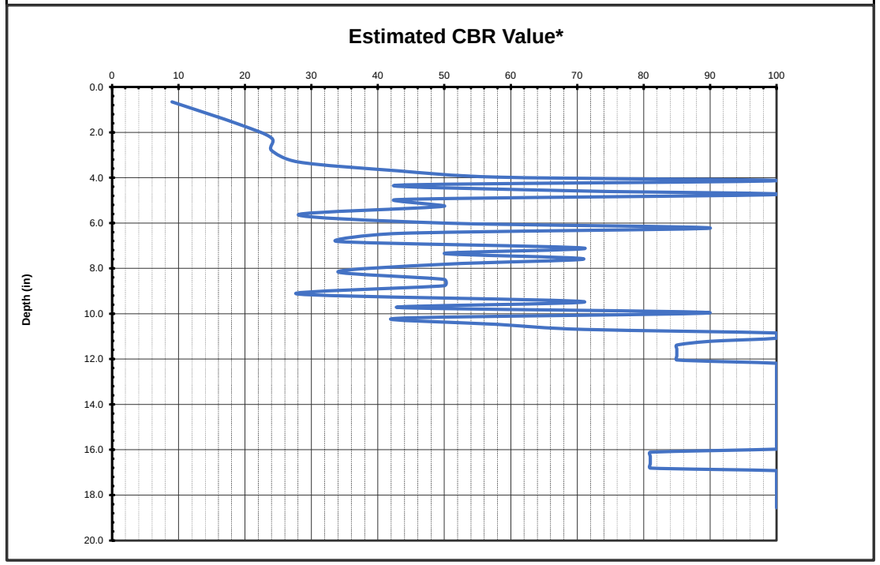
Test Location
DCP-30 -L- Sta. 161+00 5.5 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	45
Weighted Average	31
Max CBR	100
Min CBR	6

Test Location
DCP-32 -L- Sta. 166+00 5.0 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	85
Weighted Average	63
Max CBR	100
Min CBR	9

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	48470.1.1	R-5921	US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40
	COUNTY	FIELD PROFESSIONAL	DRILLER/HELPER
	Haywood	T. Wenner, P.G.	M. Brewer, P. Tomasic

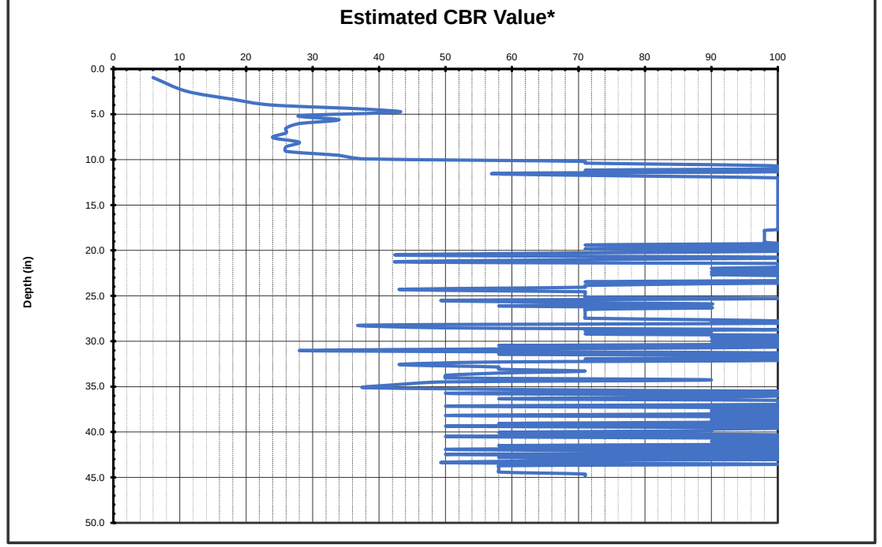
Test Location	Date Run
DCP-31 -L- Sta. 166+00 5.0 FT LT FY	11/16 to 11/22/22

Type	Test Interval			Datum	Cut/Fill	
DCP	Cumulative cm per blow			SG (A-2-4)	5.0 ft Fill	
4.80	35.72	43.29	62.60	92.60		
7.60	35.84	43.39	63.10	92.80		
9.40	35.96	43.48	63.60	93.10		
10.80	36.08	43.58	64.10	93.40		
11.70	36.20	43.67	64.40	93.70		
12.50	36.33	43.77	65.10	94.00		
13.70	36.46	43.86	65.60	94.70		
14.70	36.59	43.96	66.00	94.90		
15.90	36.72	44.05	66.60	95.20		
17.20	36.85	44.15	67.00	95.60		
18.50	36.98	44.24	67.50	95.80		
19.90	37.11	44.34	68.00	96.20		
21.10	37.24	44.43	68.50	96.30		
22.40	37.37	44.53	69.00	96.60		
23.70	37.50	44.62	69.50	97.30		
24.70	37.63	44.72	70.00	97.50		
25.60	37.76	44.81	70.40	97.90		
26.10	37.89	44.91	70.70	98.20		
26.60	38.02	45.00	71.10	98.60		
27.00	38.15	45.37	71.20	98.90		
27.22	38.28	45.74	72.10	99.50		
27.44	38.41	46.11	72.80	99.60		
27.66	38.54	46.48	73.00	100.30		
27.88	38.67	46.85	73.50	100.60		
28.10	38.80	47.22	73.90	101.00		
28.60	38.93	47.59	74.40	101.40		
28.90	39.05	47.96	74.60	102.00		
29.50	39.18	48.33	74.90	102.40		
30.00	39.30	48.70	75.30	102.50		
30.40	39.43	49.00	75.40	103.20		
30.51	39.55	49.50	75.70	103.50		
30.62	39.68	49.80	75.90	103.70		
30.73	39.80	50.10	76.30	104.00		
30.84	39.93	50.60	76.60	104.40		
30.95	40.05	50.90	76.90	104.70		
31.06	40.18	51.20	77.00	104.90		
31.17	40.30	51.70	77.10	105.10		
31.28	40.43	52.50	77.70	105.70		
31.39	40.55	52.80	77.80	105.90		
31.50	40.68	53.10	78.20	106.10		
31.71	40.80	53.60	79.40	106.80		
31.92	40.93	54.40	79.50	107.10		
32.13	41.05	54.50	80.10	107.40		
32.34	41.18	54.80	80.30	107.50		
32.55	41.30	55.10	80.70	108.20		
32.75	41.39	55.40	80.90	108.40		
32.96	41.48	55.60	81.40	109.00		
33.17	41.57	56.00	81.70	109.30		
33.38	41.66	56.30	82.30	109.80		
33.59	41.75	56.50	83.10	110.50		
33.80	41.84	56.60	83.70	110.70		
33.92	41.93	57.00	84.30	111.30		
34.04	42.02	57.30	84.80	111.90		
34.16	42.11	57.70	85.40	112.50		
34.28	42.20	57.90	86.10	113.10		
34.40	42.29	58.20	86.80	113.60		
34.52	42.38	58.50	87.20	114.10		
34.64	42.47	58.80	87.90			
34.76	42.56	59.10	88.70			
34.88	42.65	59.30	89.60			
35.00	42.74	59.80	90.10			
35.12	42.83	59.90	90.40			
35.24	42.92	60.30	91.10			
35.36	43.01	60.80	91.40			
35.48	43.10	61.30	91.60			
35.60	43.20	62.10	92.00			

Test Location	Date Run
DCP-33 -L- Sta. 170+00 2.0 FT RT FW	11/16 to 11/22/22

Type	Test Interval			Datum	Cut/Fill	
DCP	Cumulative cm per blow			SG	5.0 ft Fill	
4.60	58.50	91.98				
5.60	58.90	92.24				
7.10	59.30	92.50				
8.20	60.70	92.66				
8.60	62.40	92.82				
9.30	63.10	92.98				
10.20	64.00	93.14				
10.60	64.60	93.30				
11.00	65.10	93.56				
12.00	65.80	93.82				
12.40	66.60	94.08				
13.40	67.20	94.34				
14.10	67.80	94.60				
14.80	68.40	94.94				
15.50	68.90	95.28				
16.70	69.40	95.62				
18.50	70.00	95.96				
19.90	71.00	96.30				
20.90	71.60	96.37				
21.90	72.60	96.44				
22.80	73.60	96.51				
23.60	74.40	96.58				
25.00	75.30	96.65				
26.10	75.60	96.72				
27.40	76.00	96.79				
28.70	76.80	96.86				
30.30	77.40	96.93				
31.50	77.90	97.00				
33.00	78.50	DCP REF				
35.00	79.10	50/4.0"				
36.90	79.60					
38.50	80.00					
40.00	80.70					
40.60	80.90					
42.50	81.60					
43.00	82.50					
43.40	83.10					
43.70	83.70					
44.50	83.90					
44.84	84.50					
45.18	84.90					
45.52	85.50					
45.86	86.60					
46.20	87.00					
46.38	87.12					
46.56	87.24					
46.74	87.36					
46.92	87.48					
47.10	87.60					
47.52	87.79					
47.94	87.98					
48.36	88.17					
48.78	88.36					
49.20	88.55					
49.70	88.74					
50.30	88.93					
50.80	89.12					
51.70	89.31					
51.90	89.50					
52.70	89.84					
53.20	90.18					
53.70	90.52					
54.90	90.86					
56.50	91.20					
57.50	91.46					

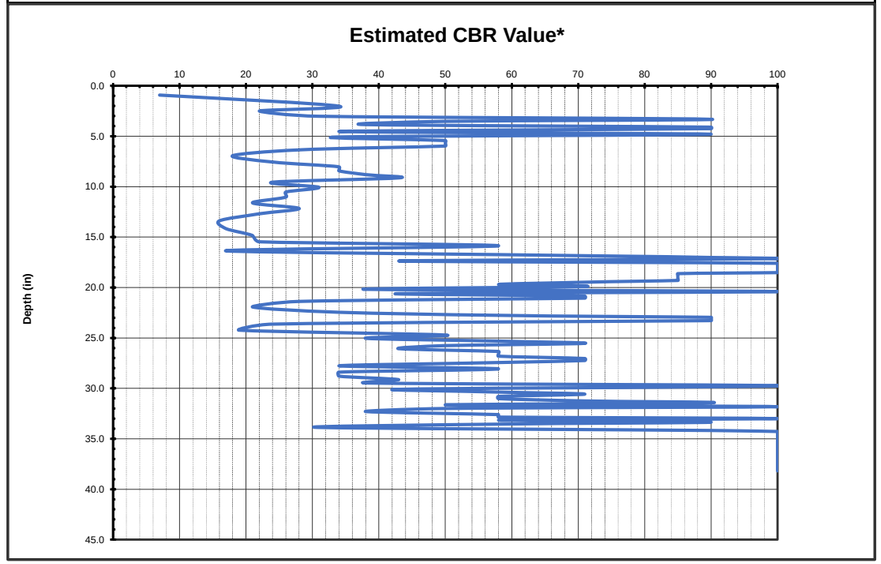
Test Location
DCP-31 -L- Sta. 166+00 5.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	87
Weighted Average	66
Max CBR	100
Min CBR	6

Test Location
DCP-33 -L- Sta. 170+00 2.0 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

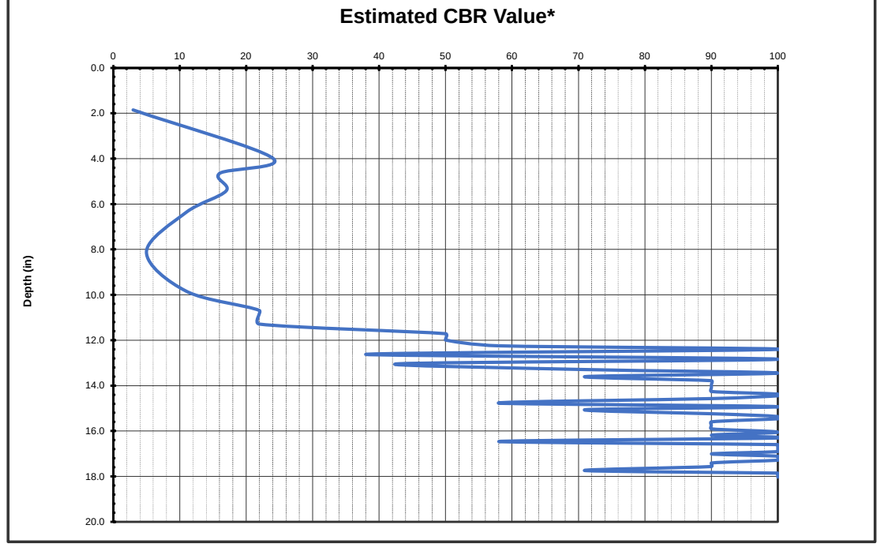
Soil Subgrade	
Average CBR	71
Weighted Average	48
Max CBR	100
Min CBR	7

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
DCP-34 -L- Sta. 184+00 7.0 FT LT FY								11/16 to 11/22/22				DCP-35 -L- Sta. 187+49 1.5 FT RT FW						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill				Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				SG (A-4)			5.0 ft Fill				DCP	Cumulative cm per blow			SG		5.0 ft Fill	
9.40	45.52											4.70	113.30						
10.80	45.53											9.20							
12.80	45.53											11.30							
14.70	45.54											12.60							
17.60	45.55											13.00							
23.60	45.56											14.20							
26.40	45.56											15.40							
27.90	45.57											16.30							
29.40	45.58											17.80							
30.10	45.59											19.60							
30.80	45.60											21.60							
31.40	45.60											23.40							
31.60	45.61											25.40							
32.50	45.62											27.70							
32.70	45.63											30.50							
33.50	45.64											32.00							
34.00	45.64											33.40							
34.30	45.65											34.40							
34.80	45.66											34.90							
35.20	45.67											35.70							
35.60	45.67											36.40							
36.00	45.68											37.00							
36.40	45.69											37.80							
36.60	45.70											38.40							
36.80	45.71											39.10							
37.20	45.71											39.90							
37.80	45.72											40.40							
38.00	45.73											41.40							
38.50	45.74											42.10							
38.90	45.75											42.60							
39.10	45.75											43.70							
39.40	45.76											44.50							
39.80	45.77											45.20							
40.20	45.78											46.10							
40.60	45.78											47.00							
40.90	45.79											48.00							
41.30	45.80											49.30							
41.50	DCP REF											51.00							
42.10	50/0.5"											53.20							
42.20												54.70							
42.40												55.00							
42.70												60.80							
42.90												63.30							
43.00												65.80							
43.40												68.20							
43.50												70.50							
43.80												72.80							
44.00												74.80							
44.40												77.10							
44.80												79.50							
45.30												81.60							
45.40												83.70							
45.41												86.60							
45.42												87.60							
45.42												89.10							
45.43												90.50							
45.44												91.40							
45.45												92.70							
45.45												93.80							
45.46												95.80							
45.47												97.20							
45.48												99.00							
45.49												101.90							
45.49												104.00							
45.50												106.50							
45.51												110.20							

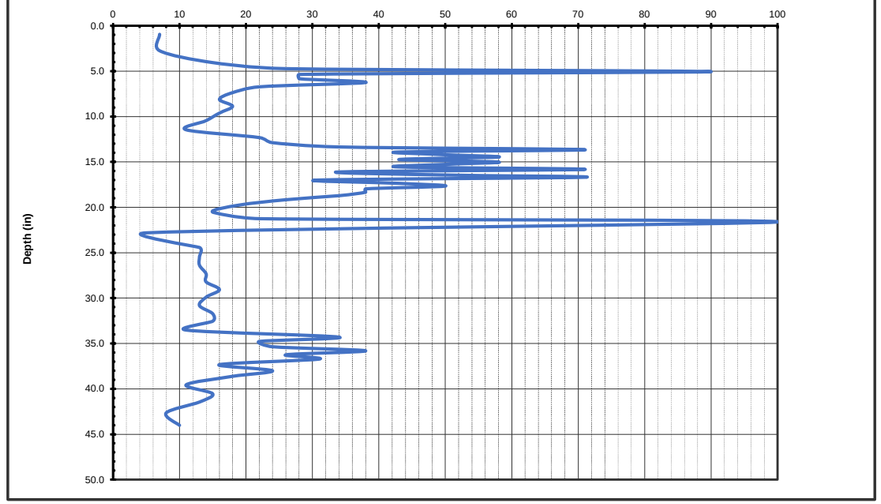
Test Location
DCP-34 -L- Sta. 184+00 7.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	87
Weighted Average	34
Max CBR	100
Min CBR	3

Test Location
DCP-35 -L- Sta. 187+49 1.5 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

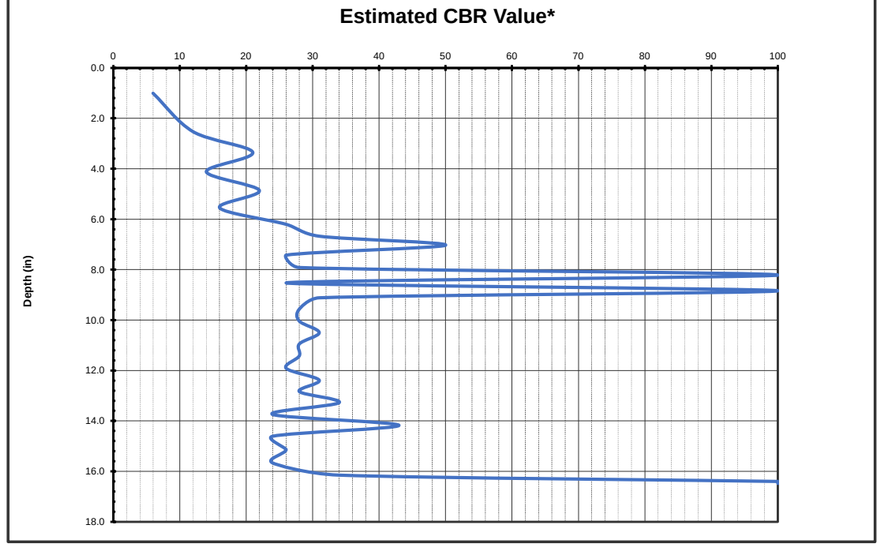
Soil Subgrade	
Average CBR	29
Weighted Average	20
Max CBR	100
Min CBR	5

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.	PROJECT TIP I.D.	ROUTE
								48470.1.1	R-5921	US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40
								COUNTY	FIELD PROFESSIONAL	DRILLER/HELPER
								Haywood	T. Wenner, P.G.	M. Brewer, P. Tomasic
Test Location								Date Run	Test Location	Date Run
DCP-36 -L- Sta. 188+00 5.5 FT LT FY								11/16 to 11/22/22	DCP-37 -L- Sta. 196+00 4.5 FT LT FY	11/16 to 11/22/22
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow			SG (A-4)		5.0 ft Fill		DCP	Cumulative cm per blow	SG (A-4)	5.0 ft Fill
5.10								6.50			
7.70								10.30			
9.30								14.20			
11.60								17.50			
13.10								20.50			
15.10								23.10			
16.40								24.50			
17.50								26.50			
18.20								28.50			
19.50								31.00			
20.70								33.30			
21.00								36.40			
22.30								40.90			
22.60								45.80			
23.70								49.90			
24.90								53.40			
26.10								56.90			
27.20								58.40			
28.40								60.30			
29.60								61.70			
30.90								63.60			
32.00								65.50			
33.20								67.60			
34.20								69.20			
35.60								70.10			
36.40								71.00			
37.80								72.00			
39.10								72.80			
40.50								73.60			
41.50								74.90			
41.80								76.30			
41.90								77.90			
DCP REF								79.50			
50/0.0"								81.50			
								85.80			
								90.20			
								96.40			
								100.70			
								105.10			
								109.00			
								112.30			

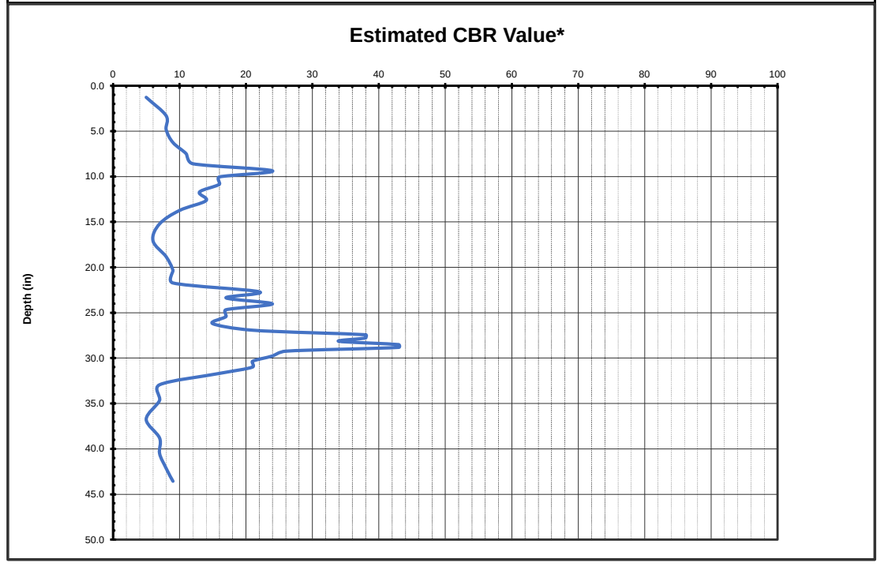
Test Location
DCP-36 -L- Sta. 188+00 5.5 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	36
Weighted Average	25
Max CBR	100
Min CBR	6

Test Location
DCP-37 -L- Sta. 196+00 4.5 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

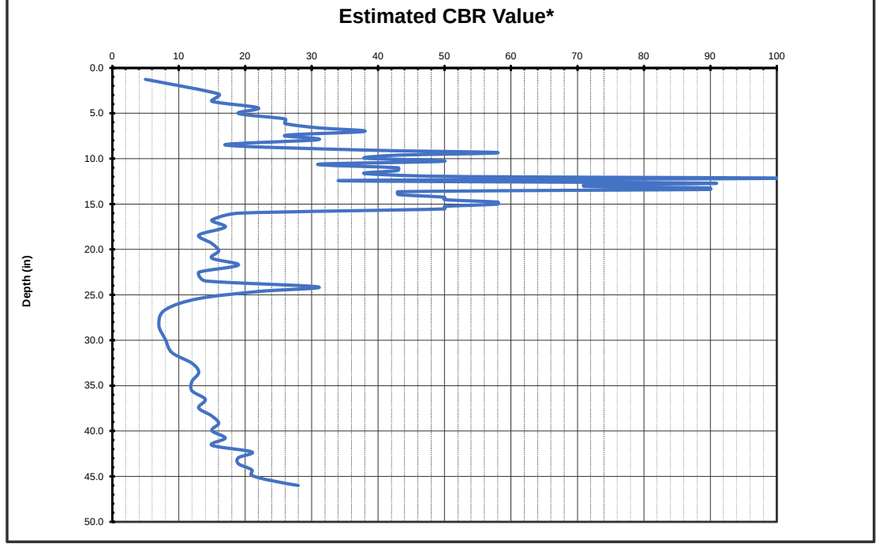
Soil Subgrade	
Average CBR	16
Weighted Average	12
Max CBR	43
Min CBR	5

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
DCP-38 -L- Sta. 200+00 4.0 FT LT FY								11/16 to 11/22/22				DCP-39 -L- Sta. 202+50 4.0 FT RT FW						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill				Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				SG (A-4)			5.0 ft Fill				DCP	Cumulative cm per blow			SG (A-4)		3.0 ft Fill	
6.30	109.90											3.80	87.00						
8.30	111.60											5.80	92.20						
10.40	113.20											8.00	97.60						
11.90	114.80											9.00	103.60						
13.60	116.20											10.40	108.20						
14.90	117.40											11.00	111.10						
16.20												12.00	113.50						
17.30												13.30	115.60						
18.20												14.20	119.10						
19.50												15.40	120.60						
20.60												16.50							
22.50												17.70							
23.40												18.70							
24.00												19.20							
24.80												20.10							
25.70												20.60							
26.40												21.10							
27.50												21.50							
28.30												22.30							
29.10												23.10							
30.00												23.20							
30.70												24.00							
31.00												24.40							
32.00												24.90							
32.40												25.30							
32.90												25.50							
33.40												25.60							
33.80												26.00							
34.20												26.20							
35.00												26.60							
35.80												26.80							
36.50												27.20							
37.20												27.50							
37.80												28.20							
38.40												28.90							
39.10												29.30							
39.80												29.90							
41.50												30.40							
43.60												31.20							
45.50												32.00							
48.00												32.80							
50.20												33.50							
52.20												33.90							
54.30												35.10							
56.00												36.60							
58.40												37.60							
60.70												38.50							
61.80												39.90							
63.30												41.80							
65.70												43.70							
69.60												45.30							
74.00												47.40							
78.00												49.60							
81.30												51.50							
83.90												53.10							
86.40												55.20							
89.00												57.80							
91.60												60.30							
93.90												63.00							
96.30												65.60							
98.40												68.70							
100.40												71.20							
102.60												74.00							
104.50												76.90							
106.60												79.90							
108.20												83.20							

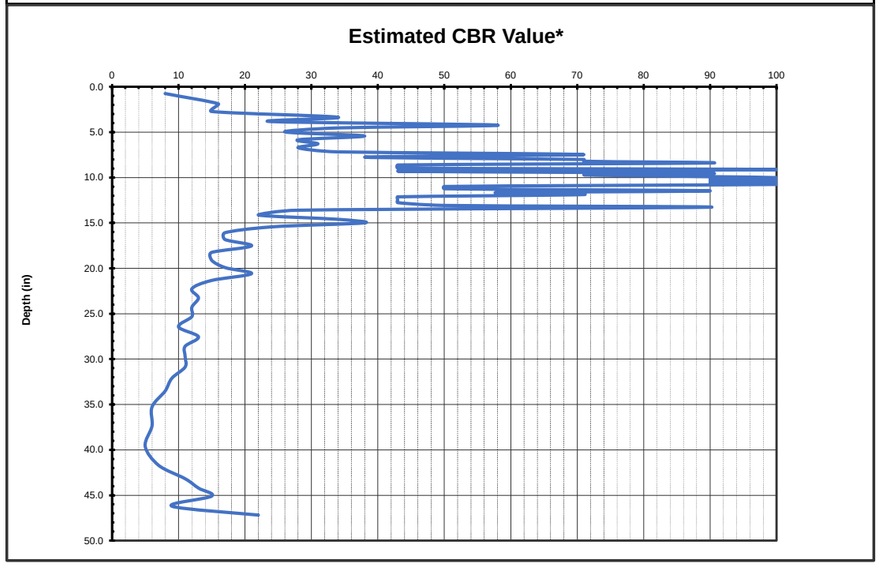
Test Location
DCP-38 -L- Sta. 200+00 4.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	31
Weighted Average	20
Max CBR	100
Min CBR	5

Test Location
DCP-39 -L- Sta. 202+50 4.0 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

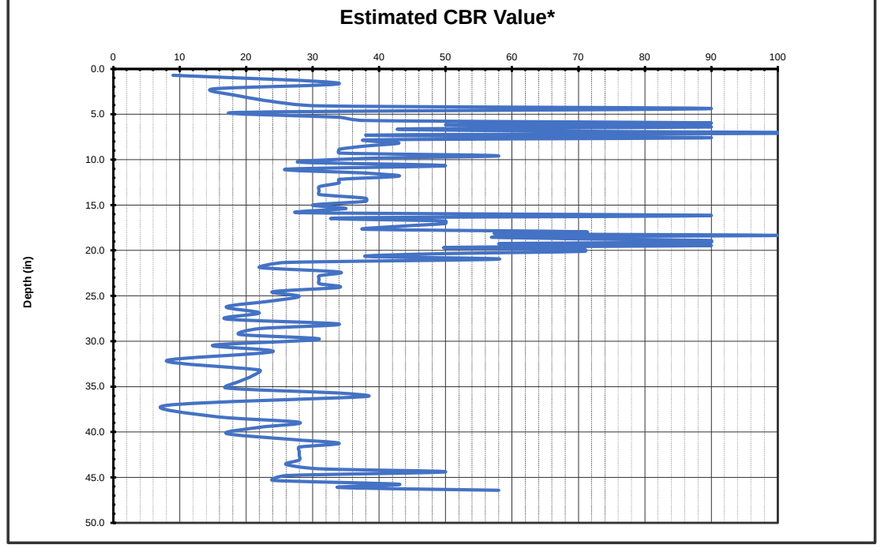
Soil Subgrade	
Average CBR	40
Weighted Average	20
Max CBR	100
Min CBR	5

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								48470.1.1		R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY		FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood		T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run		Test Location					Date Run				
DCP-40 -L- Sta. 203+00 9.0 FT LT FY						11/16 to 11/22/22		DCP-41 -L- Sta. 210+06 4.0 FT LT FY					11/16 to 11/22/22				
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill			
DCP	Cumulative cm per blow			SG (A-4)		3.0 ft Fill		DCP	Cumulative cm per blow			SG (A-4)		3.0 ft Fill			
3.50	58.40							4.00	65.78	81.22							
4.50	59.50							6.20	65.97	81.38							
6.70	60.60							10.90	66.16	81.54							
8.40	61.60							13.80	66.35	81.70							
9.80	63.00							15.00	66.54	81.88							
10.90	64.20							17.00	66.73	82.06							
11.30	65.60							17.50	66.92	82.24							
13.00	67.50							18.00	67.11	82.42							
14.00	69.00							18.80	67.30	82.60							
14.90	70.90							19.00	68.30	DCP REF							
15.30	71.90							19.70	68.60	SG/4.0"							
16.00	73.40							20.20	68.80								
16.40	75.10							21.40	69.10								
17.20	76.20							22.30	69.50								
17.70	78.40							22.50	69.80								
17.80	79.80							23.80	70.10								
17.90	83.50							24.50	70.50								
18.10	85.00							25.30	70.90								
19.00	86.60							25.80	71.00								
19.40	88.30							26.40	71.10								
20.30	90.20							27.00	71.30								
21.10	91.20							27.50	71.60								
22.00	92.10							28.40	71.70								
23.00	96.10							28.80	72.00								
24.00	98.30							29.70	72.20								
24.60	99.50							30.10	72.48								
25.50	101.00							31.20	72.76								
26.70	102.90							32.80	73.04								
27.40	104.20							33.50	73.32								
28.70	105.20							35.10	73.60								
29.60	106.40							36.30	73.82								
30.40	107.60							37.80	74.04								
31.40	108.80							39.40	74.26								
32.40	110.00							40.70	74.48								
33.50	111.30							42.30	74.70								
34.60	112.40							43.80	74.82								
35.70	113.10							44.80	74.94								
36.60	114.40							46.40	75.06								
37.50	115.80							47.80	75.18								
38.63	116.60							48.90	75.30								
39.60	117.60							50.20	75.52								
40.80	118.20							51.60	75.74								
41.20								53.00	75.96								
42.20								54.60	76.18								
42.90								55.60	76.40								
43.60								56.90	76.60								
44.40								58.40	76.80								
45.30								59.00	77.00								
45.80								59.50	77.20								
46.40								60.00	77.40								
46.70								60.28	77.62								
47.30								60.56	77.84								
47.80								60.84	78.06								
48.20								61.12	78.28								
48.60								61.40	78.50								
49.20								61.70	78.70								
49.60								62.10	78.90								
50.30								62.30	79.10								
50.80								62.90	79.30								
51.30								63.50	79.50								
52.00								63.88	79.78								
52.90								64.26	80.06								
53.50								64.64	80.34								
54.80								65.02	80.62								
56.30								65.40	80.90								
57.30								65.59	81.06								

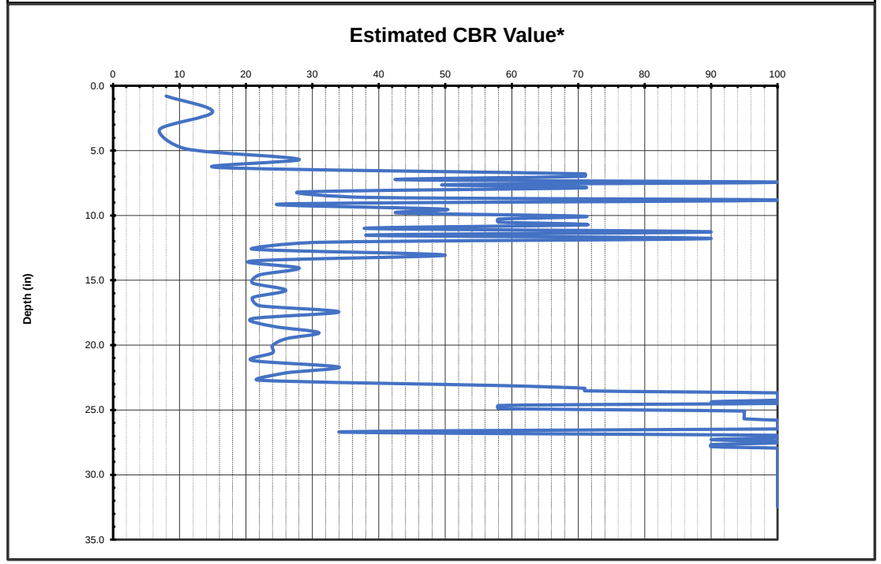
Test Location
DCP-40 -L- Sta. 203+00 9.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	41
Weighted Average	31
Max CBR	100
Min CBR	8

Test Location
DCP-41 -L- Sta. 210+06 4.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	77
Weighted Average	46
Max CBR	100
Min CBR	7

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

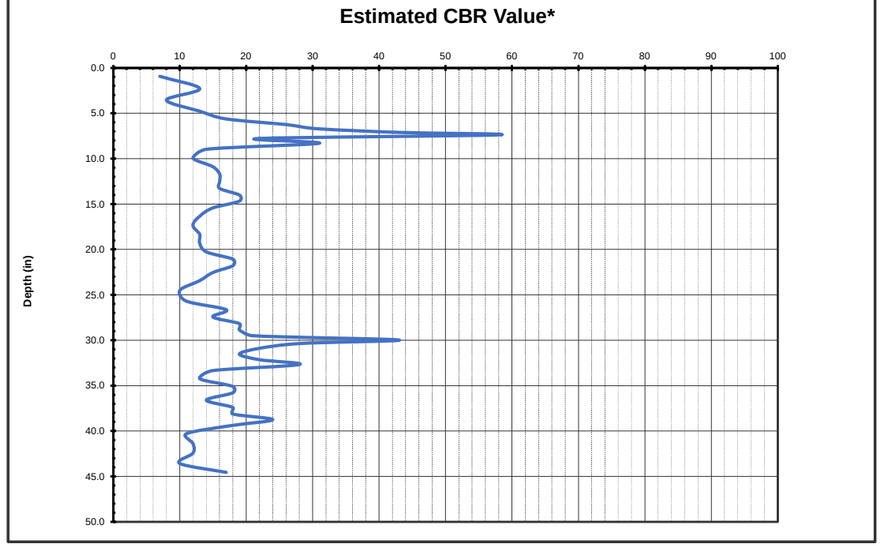
CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	48470.1.1	R-5921	US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40
	COUNTY	FIELD PROFESSIONAL	DRILLER/HELPER
	Haywood	T. Wenner, P.G.	M. Brewer, P. Tomasic

Test Location	Date Run	Test Location	Date Run
DCP-42 -L- Sta. 210+06 3.0 FT RT FW	11/16 to 11/22/22	DCP-43 -L- Sta. 217+50 1.5 FT RT FW	11/16 to 11/22/22

Type	Test Interval	Datum	Cut/Fill	Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow	SG (A-4)	3.0 ft Fill	DCP	Cumulative cm per blow	SG (A-4)	2.0 ft Fill
4.60				0.90	83.40 92.54		
7.00				4.20	84.00 92.56		
10.90				5.70	84.60 92.58		
13.30				7.00	85.20 92.60		
15.20				8.00	85.80 DCP REF		
16.50				9.10	86.40 50/0.5"		
17.60				10.40	87.20		
18.40				11.70	87.80		
19.00				13.00	88.40		
20.50				13.80	88.70		
21.60				15.00	89.10		
23.90				16.20	89.28		
26.50				16.50	89.46		
28.70				17.30	89.64		
30.70				18.00	89.82		
32.70				18.30	90.00		
34.70				19.30	90.60		
36.40				20.40	91.00		
38.10				21.50	91.40		
40.20				21.80	91.60		
42.70				22.10	91.62		
45.30				23.00	91.64		
47.80				24.10	91.66		
50.30				24.40	91.68		
52.60				25.00	91.70		
54.40				26.10	91.72		
56.20				26.80	91.74		
58.30				27.50	91.76		
60.70				28.00	91.78		
63.80				29.00	91.80		
66.70				30.00	91.82		
68.60				31.20	91.84		
70.70				31.80	91.86		
72.40				33.10	91.88		
74.10				34.00	91.90		
75.70				35.50	91.92		
76.50				36.40	91.94		
77.70				36.90	91.96		
79.20				38.00	91.98		
80.90				38.40	92.00		
82.40				39.50	92.02		
83.60				40.90	92.04		
85.70				42.80	92.06		
88.20				47.40	92.08		
90.00				51.90	92.10		
91.80				56.60	92.12		
94.10				61.50	92.14		
95.90				66.70	92.16		
97.70				72.50	92.18		
99.10				77.50	92.20		
100.90				78.10	92.22		
103.70				78.60	92.24		
106.40				78.90	92.26		
109.10				79.30	92.28		
112.20				79.48	92.30		
114.10				79.66	92.32		
				79.84	92.34		
				80.02	92.36		
				80.20	92.38		
				80.38	92.40		
				80.56	92.42		
				80.74	92.44		
				80.92	92.46		
				81.10	92.48		
				82.00	92.50		
				82.60	92.52		

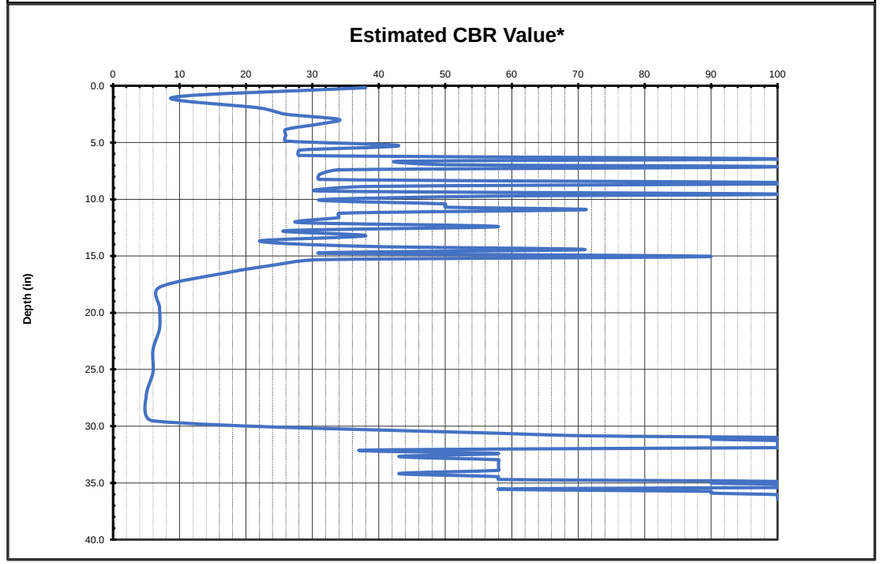
Test Location
DCP-42 -L- Sta. 210+06 3.0 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	18
Weighted Average	16
Max CBR	58
Min CBR	7

Test Location
DCP-43 -L- Sta. 217+50 1.5 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

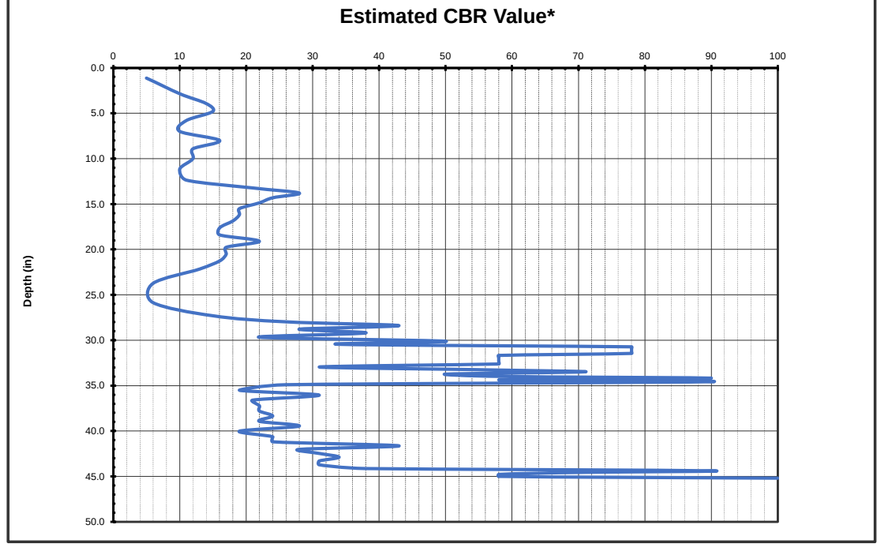
Soil Subgrade	
Average CBR	73
Weighted Average	30
Max CBR	100
Min CBR	5

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								48470.1.1		R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY		FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood		T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run		Test Location					Date Run				
DCP-44 -L- Sta. 218+00 5.0 FT LT FY						11/16 to 11/22/22		DCP-45 -L- Sta. 225+01 5.5 FT LT FY					11/16 to 11/22/22				
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill			
DCP	Cumulative cm per blow			SG (A-4)		4.0 ft Fill		DCP	Cumulative cm per blow			SG (A-4)		5.0 ft Fill			
5.60	107.30							5.60	58.10								
8.80	108.40							7.10	59.10								
11.10	109.40							8.70	59.40								
13.20	110.50							10.20	59.90								
16.20	111.60							11.50	60.20								
19.30	112.50							12.60	60.60								
21.30	112.90							13.60	60.90								
24.00	113.40							14.90	61.20								
26.70	114.00							16.10	61.80								
29.90	114.60							16.70	61.90								
32.80	114.90							18.10	62.70								
34.40								18.30	63.80								
35.60								18.90	64.60								
37.00								19.90	65.00								
38.50								20.50	65.90								
40.20								21.30	66.20								
41.90								22.00	67.10								
43.70								22.80	67.50								
45.70								23.40	68.60								
47.70								24.10	69.30								
49.20								24.70	69.90								
51.10								25.30	70.40								
53.00								25.90	71.20								
55.00								26.90	71.80								
57.50								27.90	72.80								
63.00								28.50	73.70								
68.30								29.40	74.20								
70.40								30.40	75.40								
71.70								31.00	76.00								
72.50								31.60	76.70								
73.70								32.20	78.00								
74.60								32.80	78.90								
76.10								33.50	79.50								
76.80								33.80	80.90								
77.80								34.40	81.30								
78.26								34.70	82.10								
78.72								34.90	83.50								
79.18								35.20	85.00								
79.64								35.70	85.60								
80.10								36.10	86.70								
80.70								36.50	88.20								
81.30								38.40	90.60								
81.90								38.70	91.90								
82.50								39.50	93.60								
83.10								39.90	95.40								
84.20								40.40	97.30								
84.80								40.70	98.80								
85.30								41.90	100.90								
86.00								42.60	102.50								
86.60								43.40	103.70								
87.00								44.40	104.70								
87.60								45.40	107.20								
88.00								46.50	109.20								
89.30								47.10	110.80								
91.00								48.10	112.80								
92.10								48.50	116.10								
93.70								49.70	118.60								
95.20								51.20	120.70								
96.70								51.80									
98.10								53.50									
99.60								54.30									
100.80								55.40									
102.50								56.00									
103.90								56.70									
105.30								57.20									
106.10								57.50									

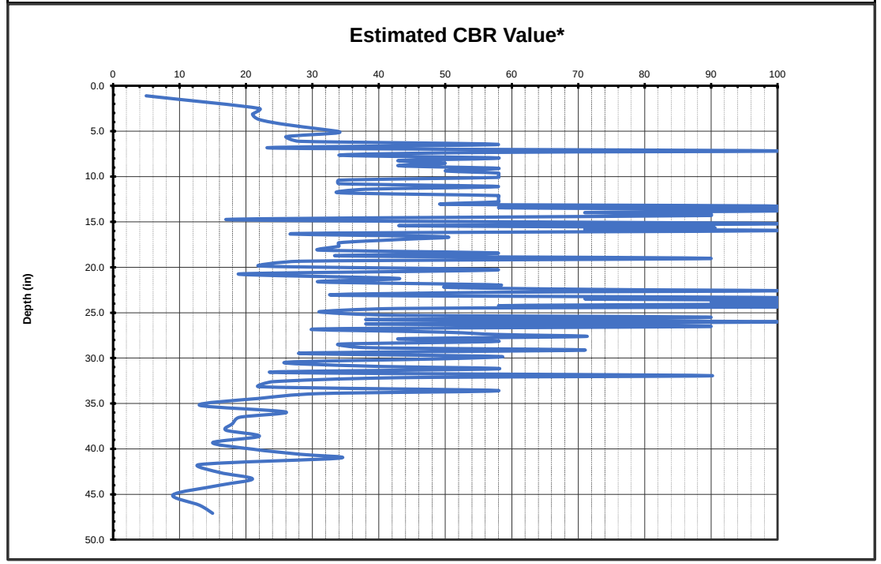
Test Location
DCP-44 -L- Sta. 218+00 5.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	36
Weighted Average	22
Max CBR	100
Min CBR	5

Test Location
DCP-45 -L- Sta. 225+01 5.5 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

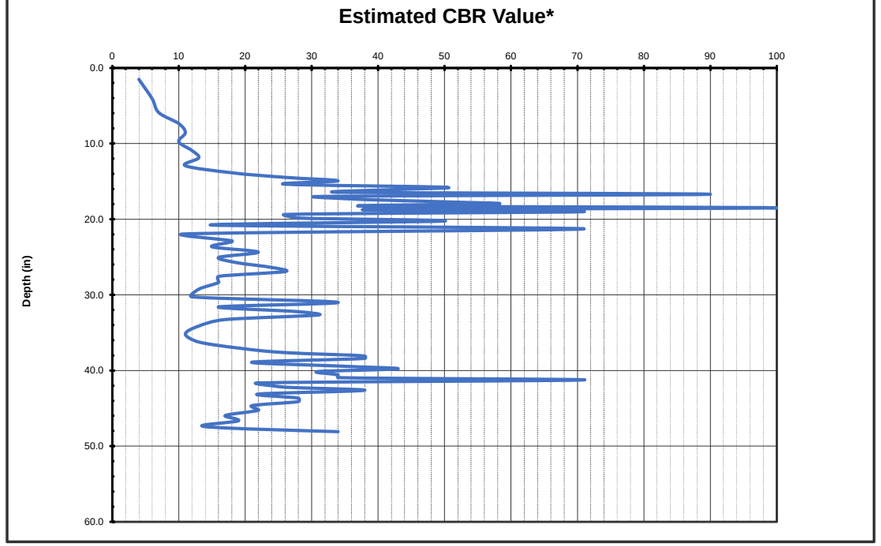
Soil Subgrade	
Average CBR	49
Weighted Average	34
Max CBR	100
Min CBR	5

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								48470.1.1		R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY		FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood		T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run		Test Location					Date Run				
DCP-46 -L- Sta. 232+49 2.0 FT RT FW						11/16 to 11/22/22		DCP-47 -L- Sta. 244+00 2.0 FT LT FY					11/16 to 11/22/22				
Type	Test Interval				Datum		Cut/Fill	Type	Test Interval				Datum		Cut/Fill		
DCP	Cumulative cm per blow				SG (A-4)		2.0 ft Fill	DCP	Cumulative cm per blow				SG (A-4)		2.0 ft Fill		
7.60	112.60							5.50	75.70								
12.90	114.20							7.50	75.88								
17.10	115.70							12.90	76.06								
20.30	117.60							14.80	76.24								
23.20	119.30							15.80	76.42								
26.40	121.60							17.00	76.60								
29.00	122.60							18.00	76.80								
31.40								19.00	77.10								
34.30								20.00	77.50								
36.10								21.10	77.90								
37.40								22.00	78.30								
38.40								22.90	78.80								
39.70								23.60	79.30								
40.40								24.40	79.70								
41.20								25.10	80.00								
42.20								26.40	80.40								
42.60								26.90	81.00								
43.70								27.40	81.50								
44.60								28.30	82.40								
45.30								28.90	82.90								
45.90								29.20	84.00								
46.80								30.00	84.80								
47.10								30.60	85.40								
48.00								31.00	86.40								
48.50								32.00	87.10								
49.80								33.10	88.10								
51.00								33.90	89.00								
51.70								34.50	90.10								
53.80								36.30	91.50								
54.30								39.10	92.60								
57.10								42.00	93.60								
58.90								43.00	94.10								
61.10								44.10	95.80								
62.60								46.20	96.70								
64.60								49.70	97.60								
66.30								53.20	98.10								
67.70								55.10	99.00								
69.00								56.30	99.90								
71.00								56.90	100.70								
73.00								57.60	101.50								
75.50								58.80	102.20								
78.20								59.80	103.10								
79.20								61.30	103.80								
81.20								62.60	104.20								
82.40								63.80	104.90								
83.50								64.70	105.40								
85.40								66.20	106.10								
87.90								67.10	106.70								
90.80								68.10	107.30								
93.20								69.00	107.90								
94.90								69.80	108.00								
96.20								70.50	108.70								
97.10								71.20	109.20								
98.00								71.90	109.80								
99.60								72.80	110.30								
100.60								72.90	111.00								
101.40								73.80	111.60								
102.50								73.90	112.50								
103.50								74.30	113.30								
104.50								74.40	113.70								
105.00								74.70	114.20								
106.50								74.80	114.90								
107.80								74.98									
108.70								75.16									
110.20								75.34									
111.40								75.52									

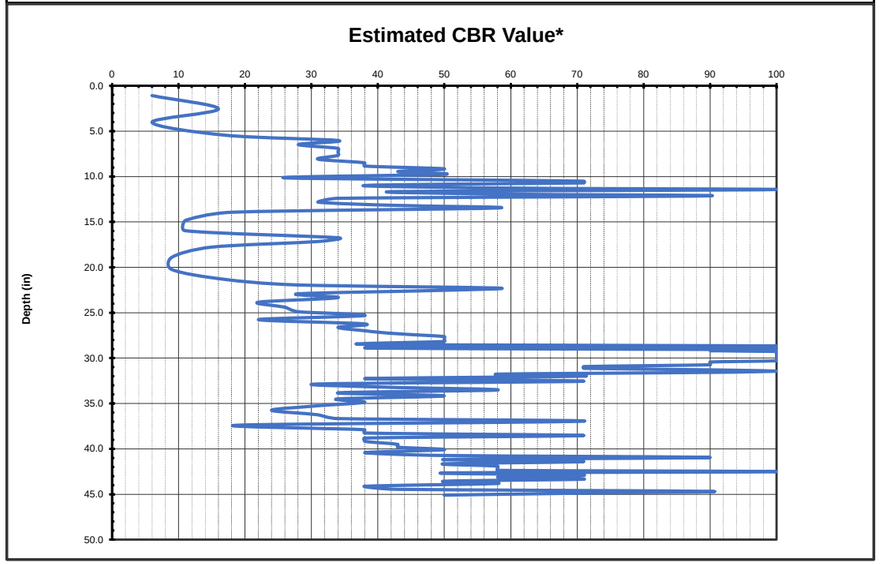
Test Location
DCP-46 -L- Sta. 232+49 2.0 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	28
Weighted Average	20
Max CBR	100
Min CBR	4

Test Location
DCP-47 -L- Sta. 244+00 2.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

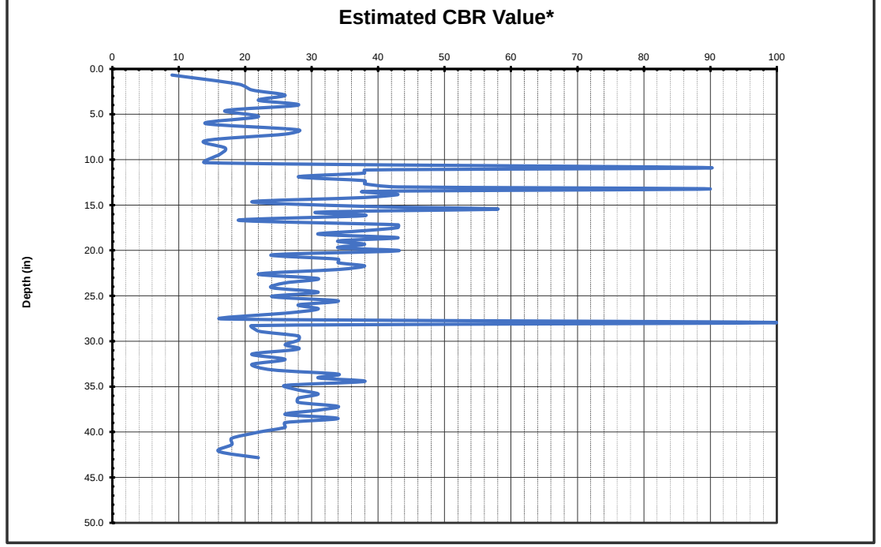
Soil Subgrade	
Average CBR	54
Weighted Average	36
Max CBR	100
Min CBR	6

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
DCP-48 -L- Sta. 247+50 1.0 FT RT FW								11/16 to 11/22/22				DCP-49 -L- Sta. 248+00 6.0 FT LT FY						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill				Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				SG			2.0 ft Fill				DCP	Cumulative cm per blow			SG (A-4)		5.0 ft Fill	
3.40	83.50											5.20	91.27						
5.10	84.90											9.00	91.40						
6.70	85.90											12.90	91.53						
8.00	87.00											16.60	91.67						
9.50	87.90											19.00	91.80						
10.70	89.20											22.00	91.93						
12.60	90.40											25.70	92.07						
14.10	91.50											29.60	92.20						
16.40	92.70											32.00	92.27						
17.60	93.90											33.40	92.35						
18.90	94.90											35.50	92.42						
21.20	96.00											37.70	92.49						
23.10	97.30											39.20	92.57						
25.10	98.30											41.00	92.64						
27.40	99.60											42.80	92.71						
27.80	100.90											44.00	92.79						
28.70	102.40											45.50	92.86						
29.60	104.20											47.60	92.93						
30.80	106.00											49.20	93.01						
31.70	108.00											50.70	93.08						
32.60	109.50											51.40	93.15						
33.40												52.40	93.23						
33.80												53.40	93.30						
34.70												54.00	DCP REF						
35.50												55.00	50/3.0"						
36.40												56.30							
38.00												58.00							
38.90												59.90							
39.50												60.90							
40.60												61.60							
41.50												62.70							
43.20												63.60							
44.00												64.60							
44.80												65.50							
45.70												66.30							
46.80												67.80							
47.60												68.50							
48.60												70.20							
49.50												71.10							
50.50												72.90							
51.30												73.60							
52.70												74.90							
53.70												75.90							
54.70												77.40							
55.60												79.90							
56.60												80.30							
58.10												81.00							
59.20												82.20							
60.50												83.70							
61.90												85.00							
63.00												86.80							
64.40												88.20							
65.40												89.40							
66.60												89.53							
67.70												89.67							
69.00												89.80							
70.90												89.93							
71.00												90.07							
72.60												90.20							
74.10												90.33							
75.30												90.47							
76.50												90.60							
77.80												90.73							
79.00												90.87							
80.60												91.00							
81.90												91.13							

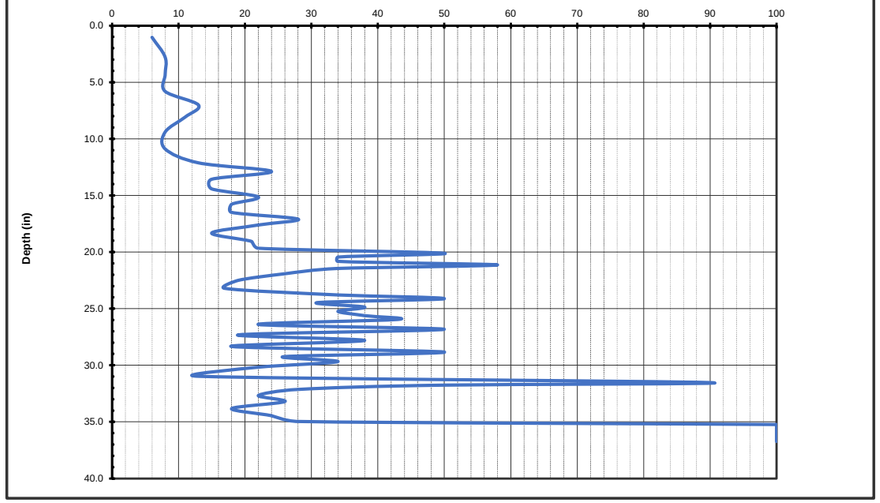
Test Location
DCP-48 -L- Sta. 247+50 1.0 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	31
Weighted Average	27
Max CBR	100
Min CBR	9

Test Location
DCP-49 -L- Sta. 248+00 6.0 FT LT FY



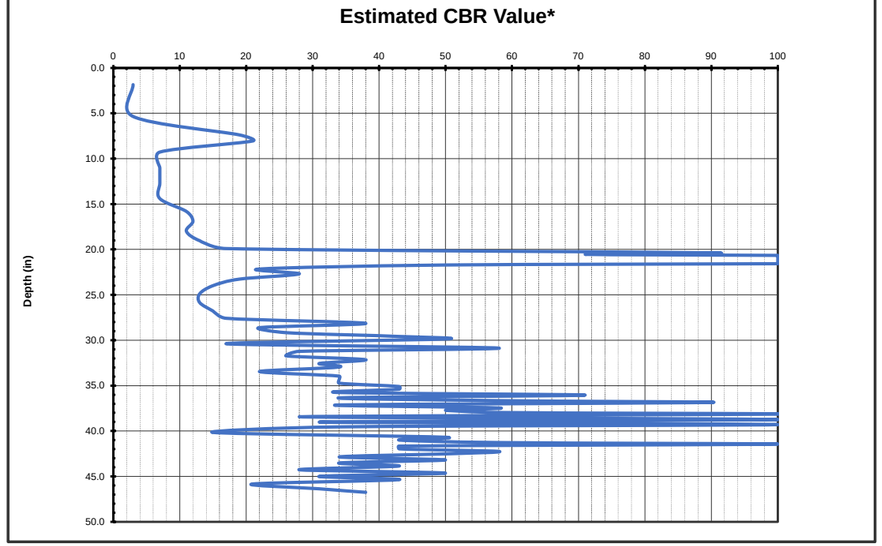
ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	56
Weighted Average	23
Max CBR	100
Min CBR	6

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								48470.1.1				R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY				FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood				T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run				Test Location						Date Run	
DCP-50 -L- Sta. 260+01 1.0 FT LT FY								11/16 to 11/22/22				DCP-51 -L- Sta. 262+50 1.0 FT RT FW						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill				Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				SG (A-4)			5.0 ft Fill				DCP	Cumulative cm per blow			SG (A-4)		4.0 ft Fill	
9.30	93.80											5.40	101.50						
17.90	94.80											9.70	101.90						
19.60	95.40											13.70	102.40						
21.20	96.10											16.80	102.50						
25.90	96.70											19.90	103.00						
30.10	97.00											22.20	103.50						
34.40	98.20											24.40	104.00						
38.70	98.50											26.50	104.30						
41.60	99.60											28.70	104.80						
44.20	99.90											31.30	105.50						
47.10	100.90											33.60	106.30						
49.60	103.00											34.60	106.90						
51.50	103.70											35.20	107.30						
51.90	104.50											36.10	107.80						
52.40	105.10											36.70	108.20						
52.51	105.40											37.30	108.70						
52.62	106.20											38.00	109.10						
52.73	107.00											38.60	109.40						
52.84	107.60											39.70	110.30						
52.95	108.30											40.90	110.90						
53.06	109.30											41.90	111.10						
53.17	110.00											43.20	111.60						
53.28	111.00											44.60	112.20						
53.39	111.80											46.50	112.80						
53.50	113.00											47.40	113.80						
53.63	113.70											50.50							
53.76	114.80											52.50							
53.89	115.60											55.30							
54.02	117.20											57.60							
54.15	118.30											60.40							
54.28	119.20											62.80							
54.41												65.30							
54.54												67.20							
54.67												70.50							
54.80												73.10							
55.50												75.60							
57.00												77.90							
58.20												79.80							
59.90												81.90							
62.00												83.50							
64.40												85.90							
66.90												86.50							
69.10												87.20							
71.00												88.10							
71.90												88.43							
73.40												88.75							
74.70												89.08							
75.50												89.40							
76.20												90.50							
78.10												91.70							
78.70												92.60							
79.90												93.40							
81.20												93.80							
82.10												94.40							
83.20												95.10							
84.20												95.50							
85.70												96.40							
86.70												97.00							
87.70												97.60							
88.70												98.20							
89.50												99.00							
90.30												99.60							
91.30												100.00							
91.80												100.40							
92.80												100.70							
93.40												101.00							

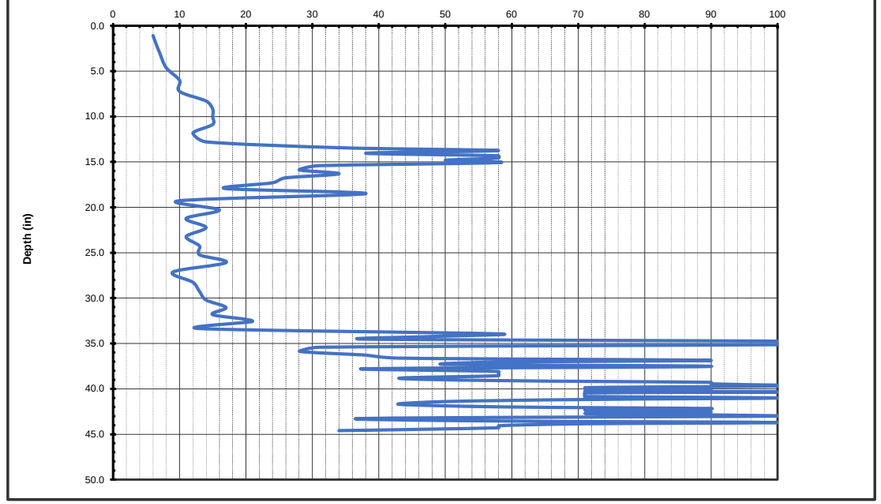
Test Location
DCP-50 -L- Sta. 260+01 1.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	50
Weighted Average	24
Max CBR	100
Min CBR	3

Test Location
DCP-51 -L- Sta. 262+50 1.0 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

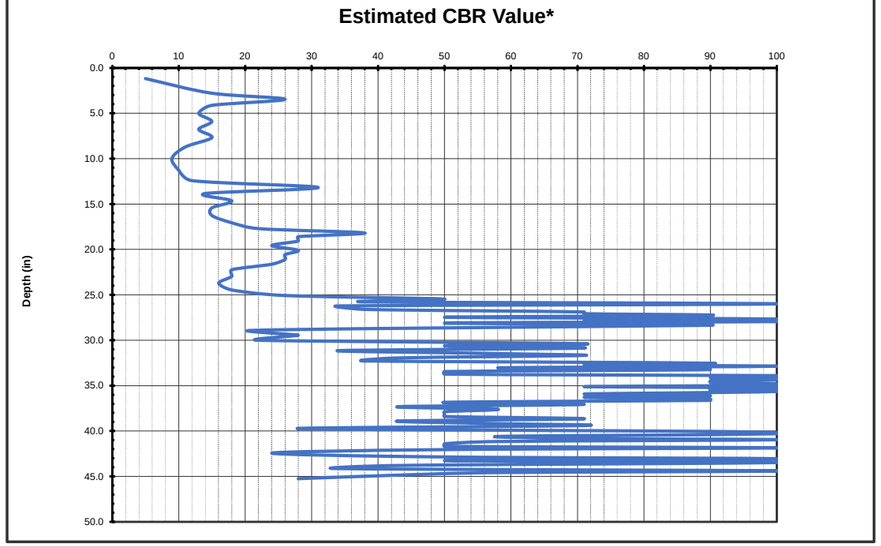
Soil Subgrade	
Average CBR	48
Weighted Average	27
Max CBR	100
Min CBR	6

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								48470.1.1		R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY		FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood		T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run		Test Location						Date Run	
DCP-52 -L- Sta. 263+00 4.0 FT LT FY								11/16 to 11/22/22		DCP-53 -L- Sta. 274+00 4.0 FT LT FY						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill		Type	Test Interval				Datum			Cut/Fill	
DCP	Cumulative cm per blow				SG (A-4)			5.0 ft Fill		DCP	Cumulative cm per blow				SG (A-6)			6.0 ft Fill	
6.00	86.50									9.50	78.40								
8.10	86.90									13.40	78.80								
9.40	87.10									15.70	80.00								
11.50	87.40									18.00	80.20								
13.90	87.80									21.30	81.00								
16.00	88.20									25.00	82.00								
18.40	88.50									29.70	82.60								
20.60	88.70									32.80	83.40								
23.60	88.90									34.20	84.40								
27.00	89.40									35.00	85.00								
30.20	89.60									36.10	86.10								
32.90	90.00									36.90	87.20								
34.00	90.40									38.40	88.20								
36.30	90.60									39.30	89.60								
38.10	91.00									40.40	91.00								
40.20	91.50									42.00	92.50								
42.40	91.90									43.20	94.20								
44.20	92.40									44.00	95.30								
45.70	92.80									45.10	96.20								
46.60	93.20									46.00	96.60								
47.80	93.90									47.10	97.20								
49.00	94.40									48.70	97.46								
50.40	95.20									50.00	97.72								
51.60	95.80									53.90	97.98								
52.90	96.50									55.50	98.24								
54.20	97.20									56.70	98.50								
55.60	97.90									58.40	98.90								
57.40	98.40									60.40	99.30								
59.20	99.20									61.80	99.70								
61.20	99.80									63.20	100.10								
63.00	100.30									64.70	100.50								
64.30	101.50									65.90	100.86								
65.00	101.90									67.00	101.22								
65.90	102.20									68.10	101.58								
66.10	102.40									68.90	101.94								
67.10	102.80									69.90	102.30								
68.00	103.40									70.10	104.00								
68.50	103.90									70.30	106.00								
69.00	104.20									70.50	107.80								
69.40	104.80									70.70	109.00								
70.10	105.50									70.90	110.00								
70.40	106.20									71.12	110.80								
70.90	106.40									71.34	112.00								
71.00	107.10									71.56	113.00								
71.70	108.50									71.78	114.30								
72.10	109.20									72.00	115.40								
72.60	109.50									72.22	116.10								
74.20	110.20									72.44	117.20								
75.40	110.40									72.66	118.20								
76.90	110.80									72.88	119.00								
77.40	111.60									73.10	119.90								
78.10	112.60									73.28									
78.60	112.90									73.46									
79.60	113.50									73.64									
80.20	114.30									73.82									
80.70	115.50									74.00									
81.50										74.18									
82.40										74.36									
82.80										74.54									
83.30										74.72									
83.60										74.90									
84.20										75.26									
84.60										75.62									
85.30										75.98									
86.00										76.34									
86.20										76.70									

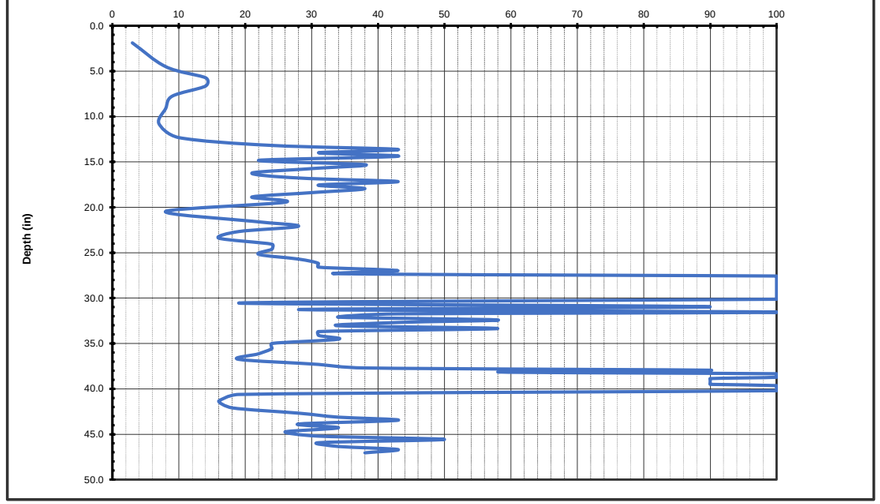
Test Location
DCP-52 -L- Sta. 263+00 4.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	56
Weighted Average	34
Max CBR	100
Min CBR	5

Test Location
DCP-53 -L- Sta. 274+00 4.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	57
Weighted Average	30
Max CBR	100
Min CBR	3

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

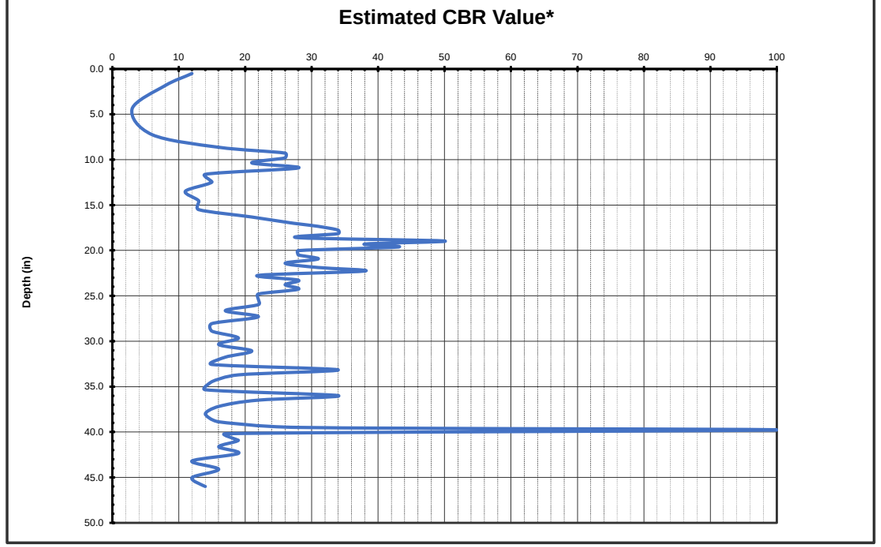
CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	48470.1.1	R-5921	US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40
	COUNTY	FIELD PROFESSIONAL	DRILLER/HELPER
	Haywood	T. Wenner, P.G.	M. Brewer, P. Tomasic

Test Location	Date Run	Test Location	Date Run
DCP-54 -L- Sta. 277+48 15 FT LT FY	11/16 to 11/22/22	DCP-55 -L- Sta. 281+00 1.5 FT RT FW	11/16 to 11/22/22

Type	Test Interval	Datum	Cut/Fill	Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow	SG (A-4)	5.0 ft Fill	DCP	Cumulative cm per blow	SG	3.0 ft Fill
2.60				5.70	94.60		
6.60				8.50	97.50		
15.80				11.50	100.00		
20.90				13.70	101.20		
22.90				15.00	102.60		
24.20				17.00	104.50		
25.50				18.00	106.30		
27.10				18.90	107.70		
28.30				19.50	108.90		
30.60				20.50	111.10		
32.70				20.80	113.00		
35.70				21.70	114.40		
38.10				22.30	116.00		
40.60				22.90	117.90		
42.20				23.10			
43.50				23.40			
44.60				24.40			
45.60				25.50			
46.60				26.10			
47.80				27.00			
48.50				28.10			
49.40				29.30			
50.20				29.90			
51.40				30.60			
52.60				31.20			
53.70				31.90			
55.00				32.50			
56.10				32.90			
57.00				33.70			
58.50				34.10			
59.70				34.70			
61.00				35.10			
62.20				36.10			
63.70				37.00			
65.20				37.20			
66.70				37.90			
68.60				38.30			
70.10				39.10			
72.30				39.90			
74.40				40.60			
76.10				41.40			
78.10				42.20			
79.70				43.30			
81.60				44.40			
83.70				45.80			
84.70				47.40			
86.40				48.40			
88.60				50.00			
90.90				52.00			
91.90				54.50			
93.40				57.40			
95.40				59.70			
97.70				62.80			
99.70				66.60			
100.90				70.50			
101.10				74.40			
103.00				77.70			
104.70				78.60			
106.70				80.00			
108.40				80.50			
111.00				81.70			
113.00				83.40			
115.70				84.90			
118.00				86.30			
				88.00			
				91.50			

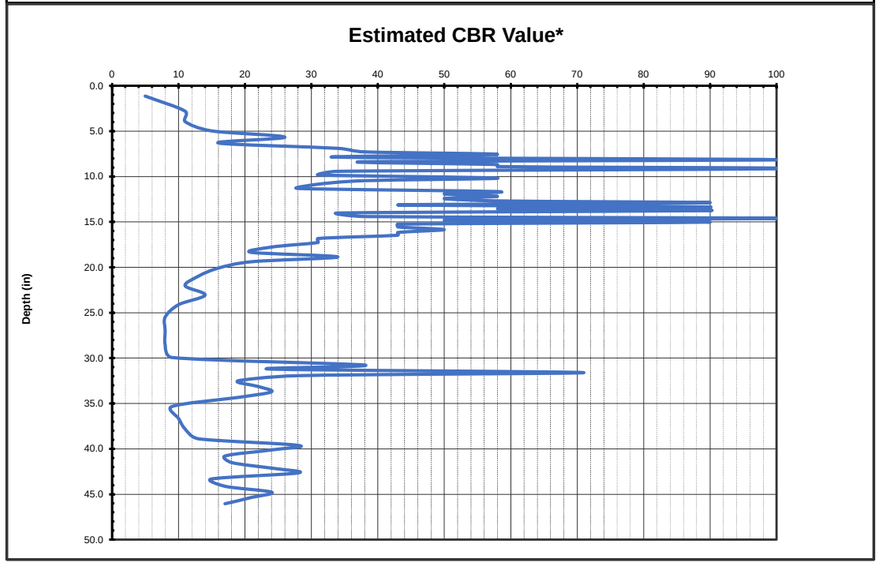
Test Location
DCP-54 -L- Sta. 277+48 15 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	23
Weighted Average	18
Max CBR	100
Min CBR	3

Test Location
DCP-55 -L- Sta. 281+00 1.5 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

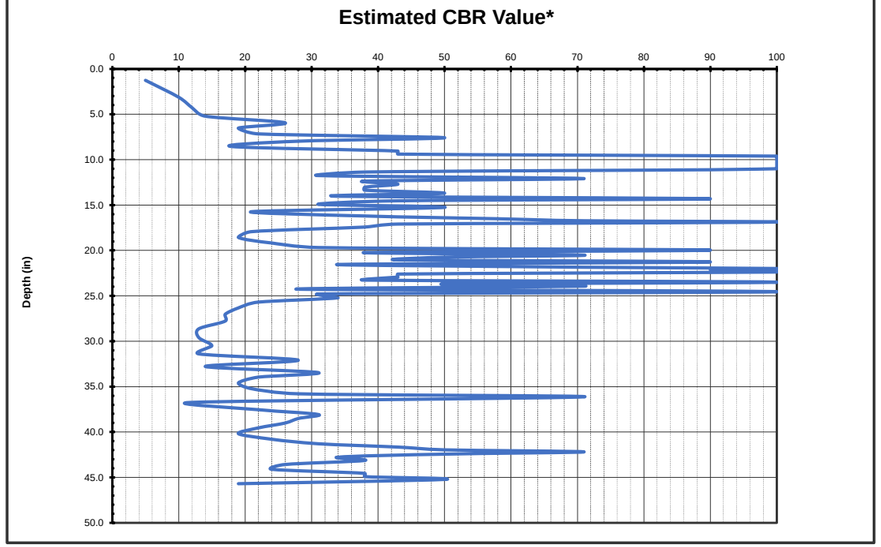
Soil Subgrade	
Average CBR	36
Weighted Average	22
Max CBR	100
Min CBR	5

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								48470.1.1		R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
								COUNTY		FIELD PROFESSIONAL				DRILLER/HELPER			
								Haywood		T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location								Date Run		Test Location						Date Run	
DCP-56 -L- Sta. 281+00 5.0 FT LT FY								11/16 to 11/22/22		DCP-57 -L- Sta. 285+05 2.0 FT RT FW						11/16 to 11/22/22	
Type	Test Interval				Datum			Cut/Fill		Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow				SG			5.0 ft Fill		DCP	Cumulative cm per blow				SG (A-4)		4.0 ft Fill	
6.30	53.00									6.60	79.00							
9.50	53.80									10.10	79.80							
12.10	54.20									13.40	80.00							
14.40	55.20									15.00	80.60							
15.70	55.70									15.60	81.00							
17.40	56.00									16.90	81.50							
18.90	56.40									18.20	82.10							
19.60	56.70									19.40	82.50							
20.80	57.00									20.60	83.20							
22.60	57.80									21.50	83.60							
23.40	58.60									21.90	83.90							
24.20	59.50									23.40	84.60							
24.50	59.80									24.40	85.10							
24.59	60.50									25.50	85.60							
24.67	61.00									26.40	86.10							
24.76	62.20									27.30	86.50							
24.85	62.40									27.90	87.30							
24.93	63.50									28.40	87.40							
25.02	64.50									28.80	88.40							
25.11	66.00									29.10	88.70							
25.19	67.70									29.60	89.30							
25.28	69.60									30.00	89.90							
25.37	71.50									30.30	90.20							
25.45	73.90									30.90	90.90							
25.54	76.40									31.40	91.60							
25.63	78.50									31.90	91.80							
25.71	80.90									32.50	92.10							
25.80	82.10									33.00	92.40							
26.02	84.40									33.30	92.70							
26.24	85.50									34.30	93.00							
26.46	87.00									35.00	93.10							
26.68	88.70									36.00	93.30							
26.90	90.30									36.70	93.80							
27.12	91.50									38.30	94.50							
27.34	92.00									40.40	96.00							
27.56	94.60									42.50	96.90							
27.78	96.10									45.10	97.70							
28.00	97.20									47.50	98.60							
28.40	98.40									49.60	99.50							
29.30	99.70									51.70	100.40							
30.40	101.20									54.50	101.50							
30.90	102.90									56.40	102.90							
31.80	104.30									58.10	104.00							
32.60	105.40									59.20	105.10							
33.50	106.20									60.80	106.50							
34.40	106.90									62.10	107.50							
35.10	107.40									63.40	108.80							
36.10	108.10									64.30	110.00							
36.50	109.10									64.70	111.30							
37.30	110.00									65.80	112.40							
38.40	111.30									66.30	113.30							
39.10	112.70									67.10	114.70							
40.70	113.60									67.40	115.80							
41.60	114.50									68.10								
42.20	115.20									68.80								
42.70	116.90									69.20								
43.00										69.80								
43.80										70.60								
44.70										71.30								
46.30										72.70								
48.00										73.40								
49.40										74.30								
50.50										75.10								
50.90										76.30								
51.80										77.00								
52.30										78.10								

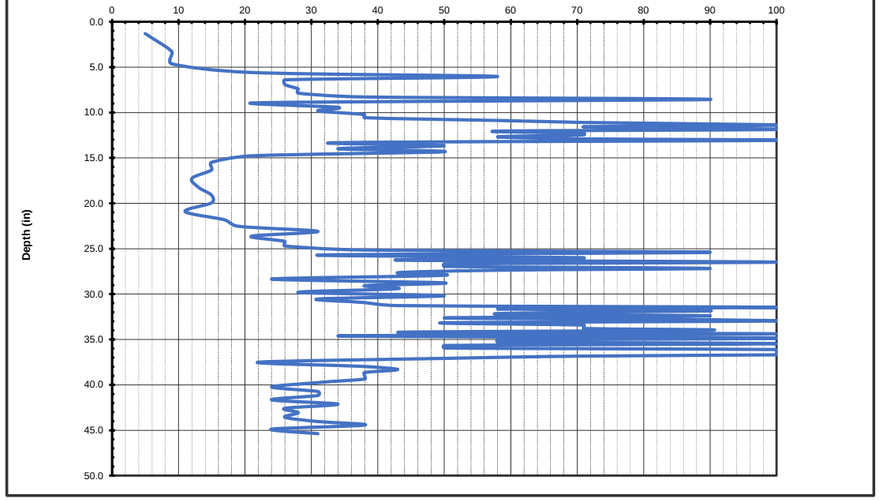
Test Location
DCP-56 -L- Sta. 281+00 5.0 FT LT FY



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

Soil Subgrade	
Average CBR	53
Weighted Average	31
Max CBR	100
Min CBR	5

Test Location
DCP-57 -L- Sta. 285+05 2.0 FT RT FW



ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

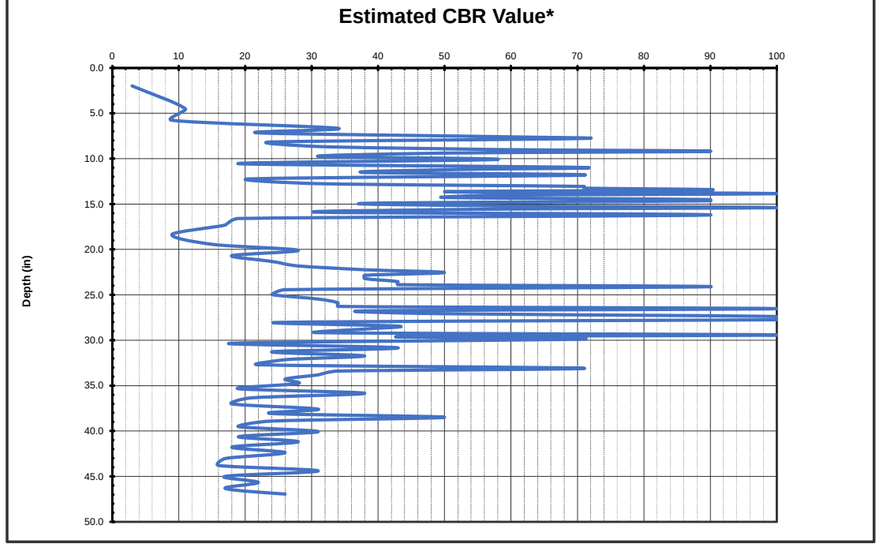
Soil Subgrade	
Average CBR	51
Weighted Average	34
Max CBR	100
Min CBR	5

*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.		PROJECT TIP I.D.				ROUTE			
						48470.1.1		R-5921				US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40			
						COUNTY		FIELD PROFESSIONAL				DRILLER/HELPER			
						Haywood		T. Wenner, P.G.				M. Brewer, P. Tomasic			
Test Location						Date Run		Test Location						Date Run	
DCP-58 -L- Sta. 286+00 3.0 FT LT FY						11/16 to 11/22/22									
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			SG (A-4)		2.0 ft Fill		DCP	Cumulative cm per blow						
10.00	70.20														
12.90	70.30														
16.40	70.40														
17.40	70.50														
18.90	71.80														
19.50	72.60														
20.00	73.50														
21.40	74.60														
22.50	74.80														
23.10	75.60														
23.50	76.10														
24.20	77.90														
25.30	78.70														
25.90	80.10														
27.60	81.00														
28.10	82.30														
28.80	83.80														
29.70	84.30														
30.20	85.30														
31.80	86.40														
32.90	87.70														
33.40	88.90														
33.90	90.60														
34.30	91.50														
35.00	93.10														
35.30	94.90														
35.90	96.00														
36.60	97.40														
37.00	98.10														
37.40	99.50														
38.30	101.20														
38.90	102.30														
39.20	104.00														
39.80	105.20														
40.90	107.00														
41.30	108.30														
43.00	110.20														
44.90	112.20														
48.30	113.30														
50.40	115.20														
51.60	116.70														
53.40	118.60														
54.80	119.90														
56.00															
56.90															
57.60															
58.50															
59.40															
60.20															
61.00															
61.40															
62.70															
64.10															
65.20															
66.20															
67.20															
67.50															
68.40															
69.10															
69.50															
69.60															
69.70															
69.80															
69.90															
70.00															
70.10															

Test Location
DCP-58 -L- Sta. 286+00 3.0 FT LT FY



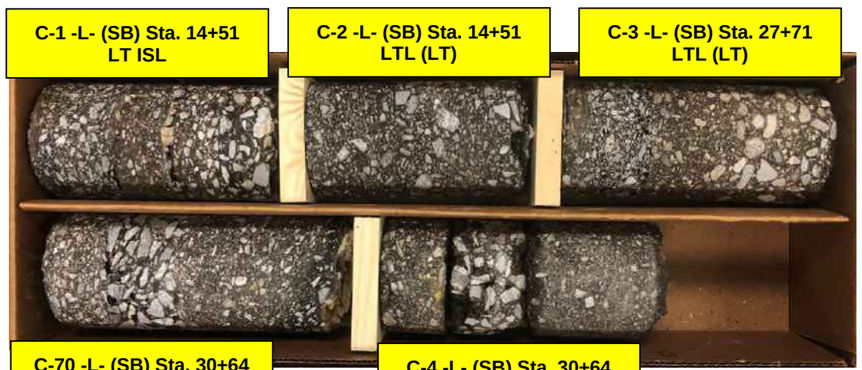
ABC	
ABC Thickness (in)	
Average CBR	
Weighted CBR Average	
Maximum CBR Value	
Minimum CBR Value	

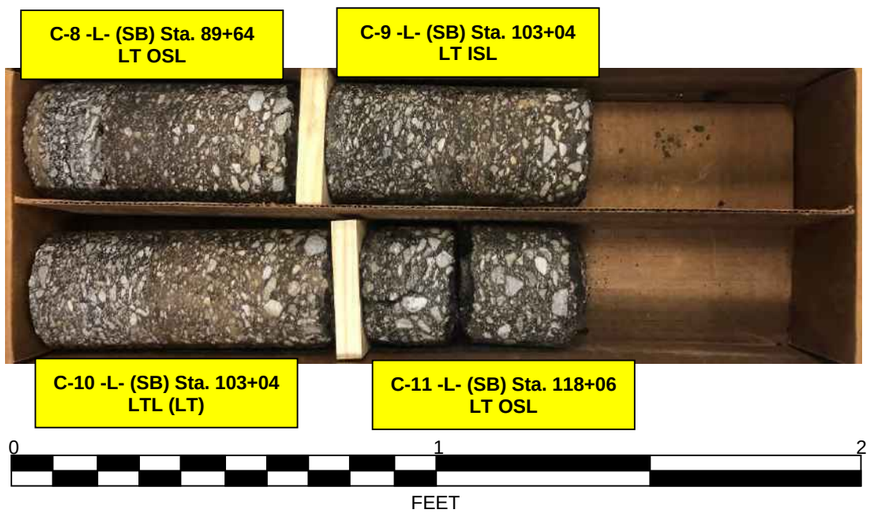
Soil Subgrade	
Average CBR	46
Weighted Average	29
Max CBR	100
Min CBR	3

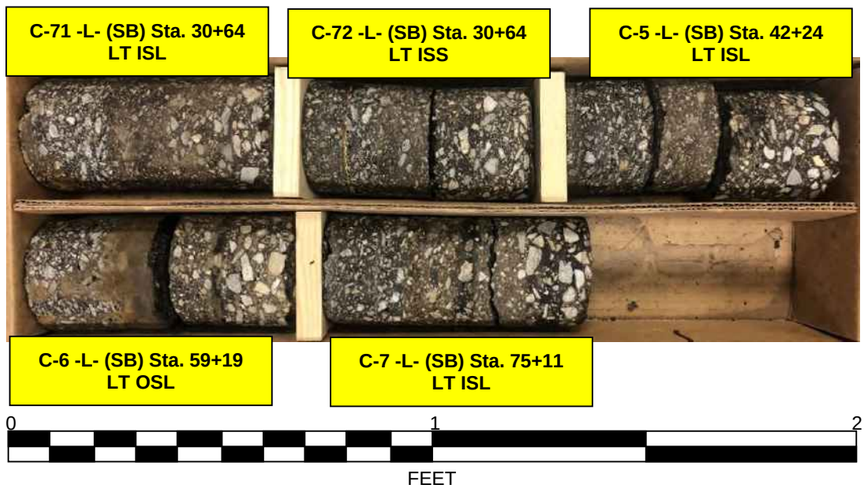
*Estimated CBR Value obtained using published correlation provided by NCDOT (Chemical Stabilization QA Subgrade/Base Field Testing, 2015)

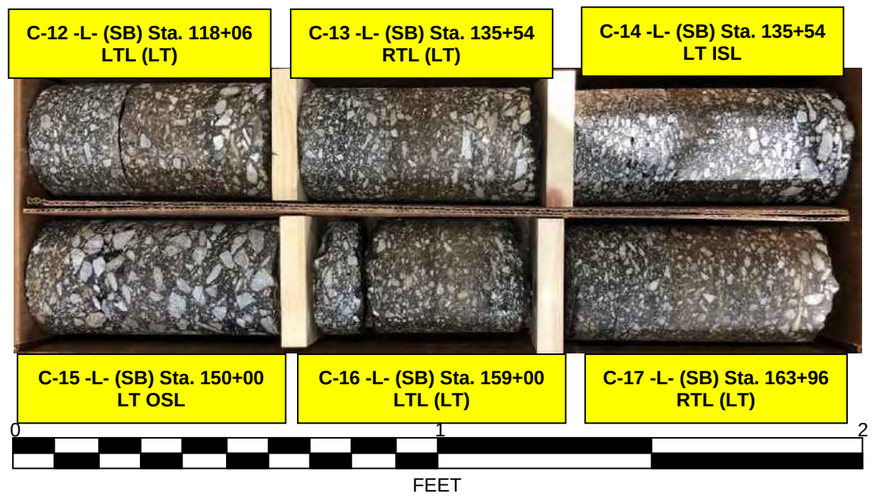
R-5921: US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40

Pavement Core Photographs



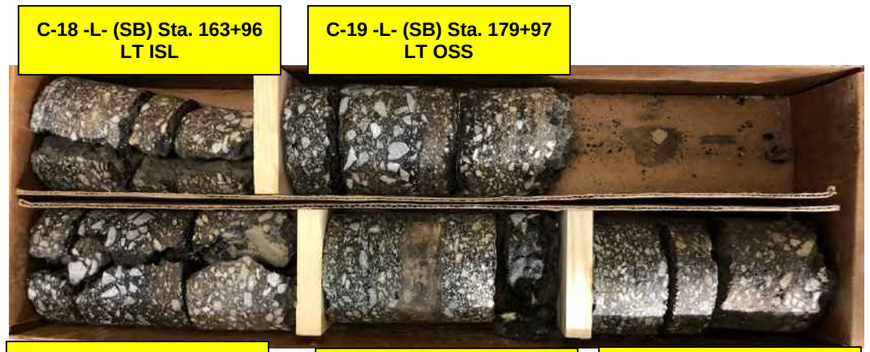


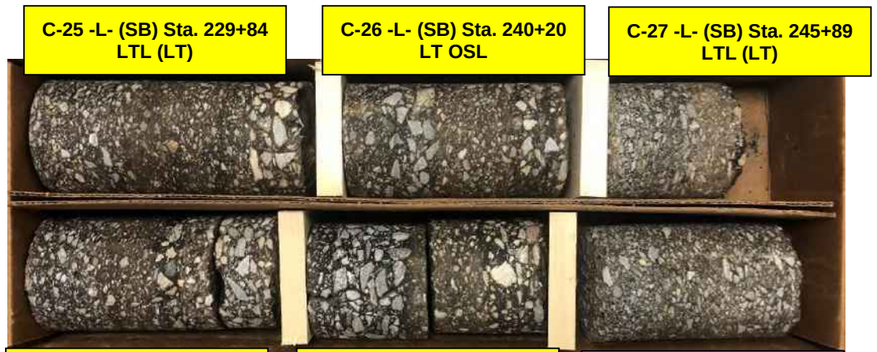


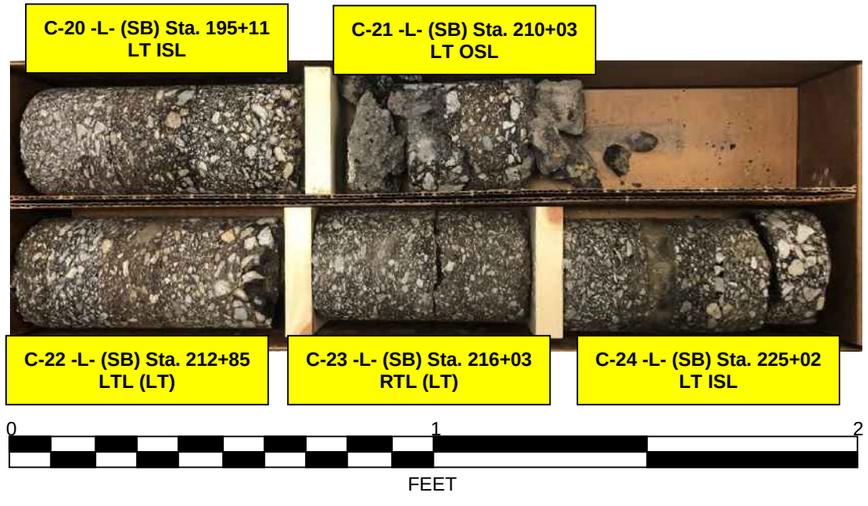


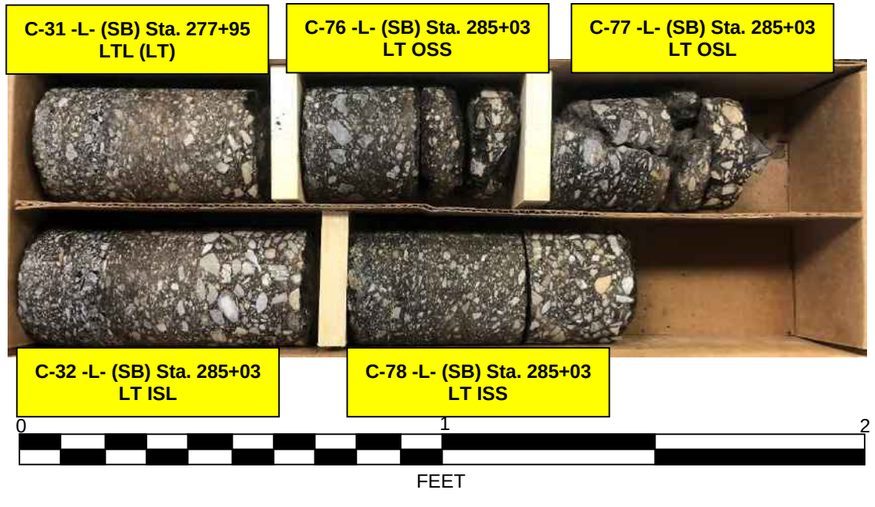
R-5921: US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40

Pavement Core Photographs



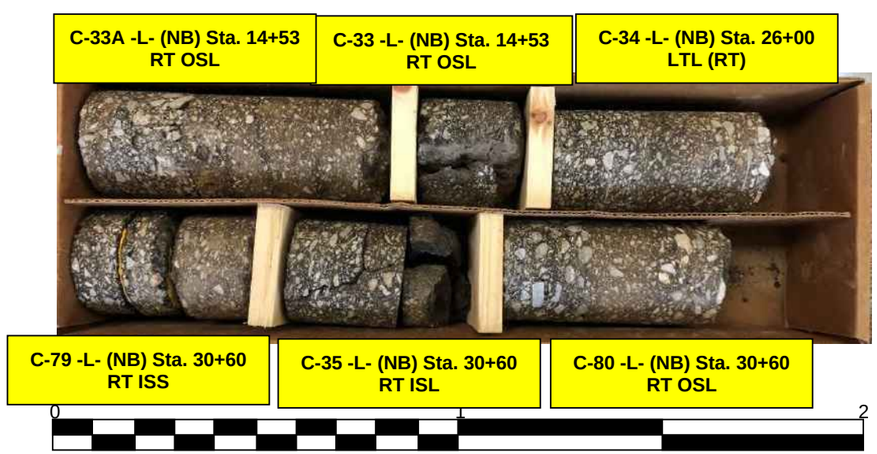


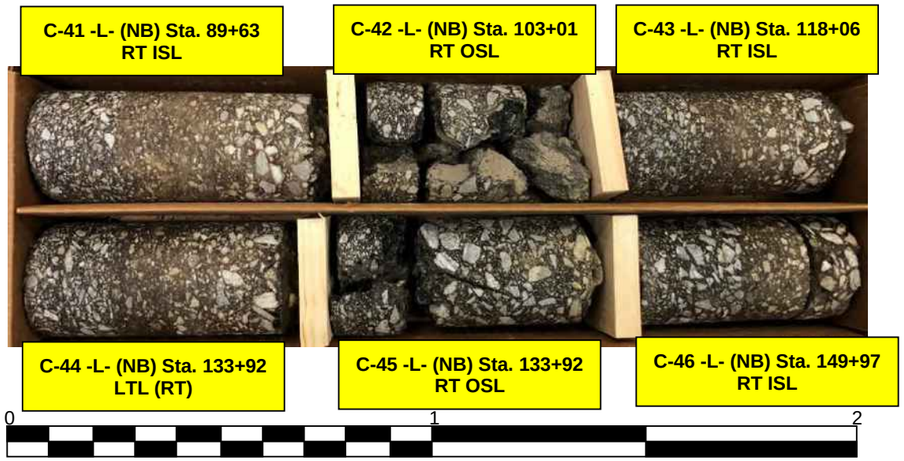


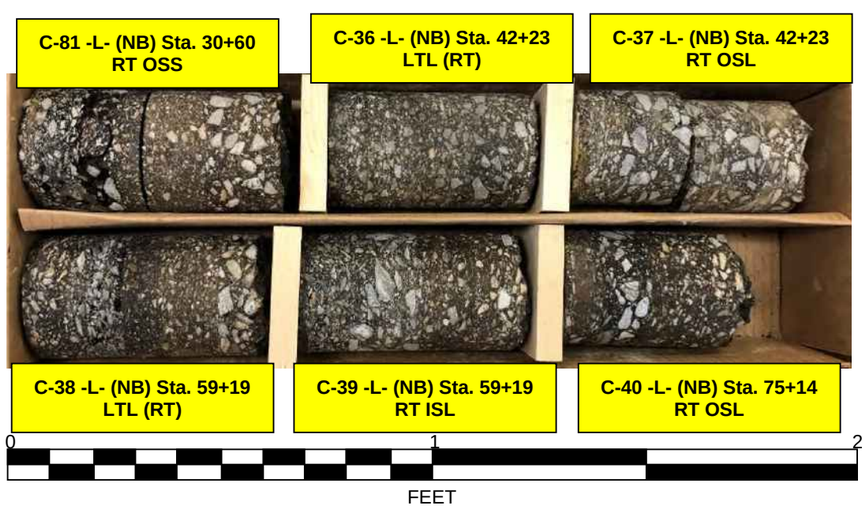


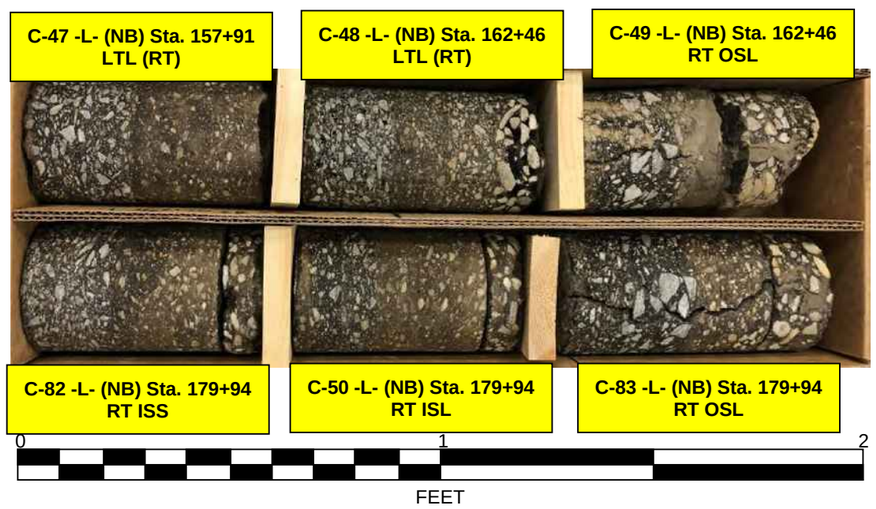
R-5921: US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40

Pavement Core Photographs



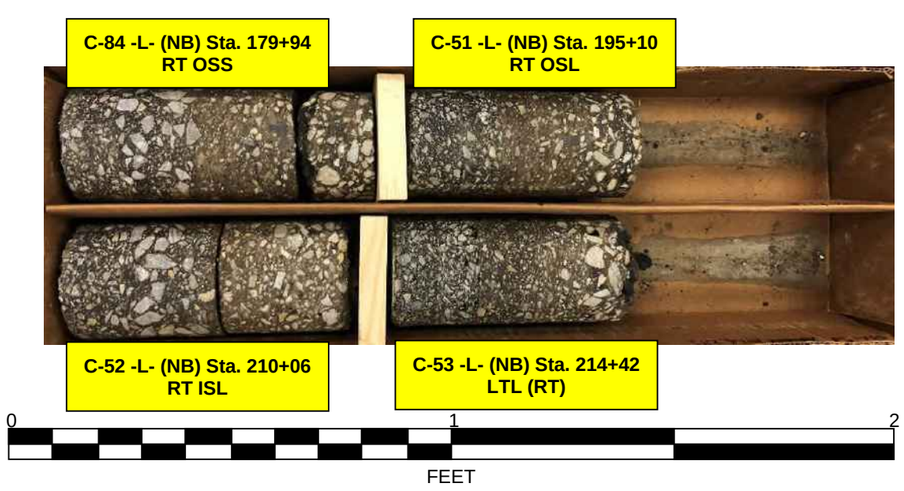


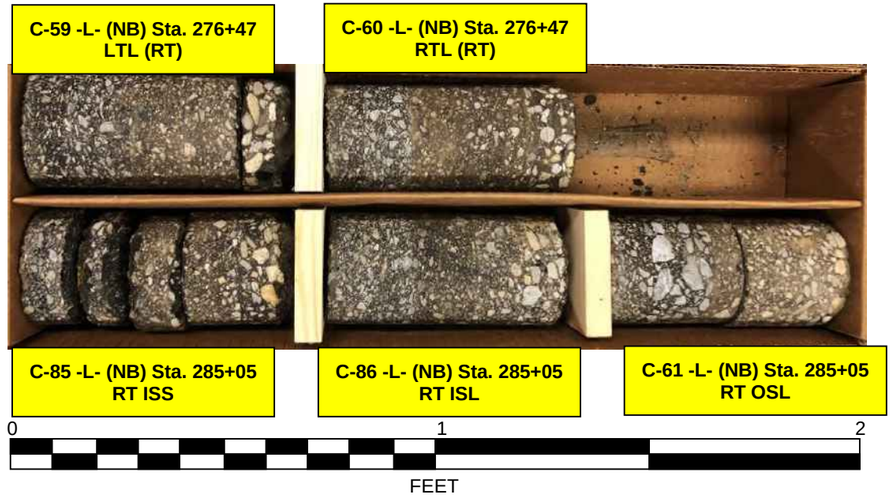


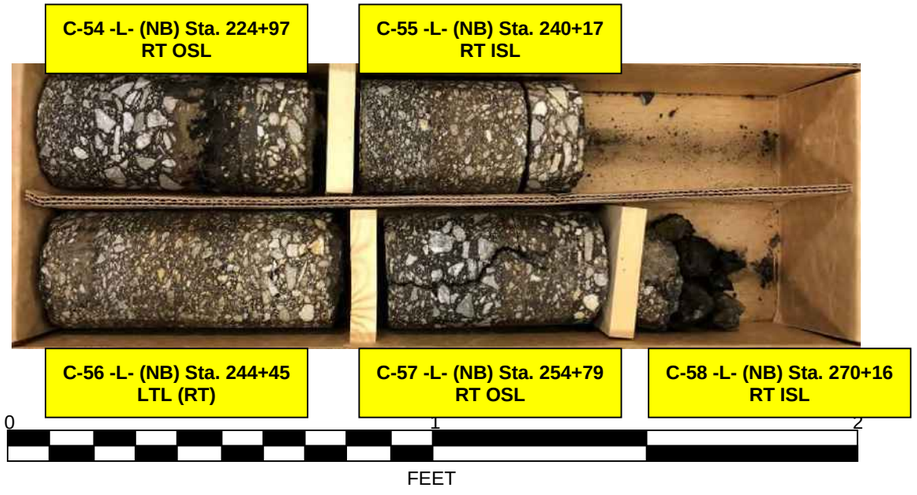


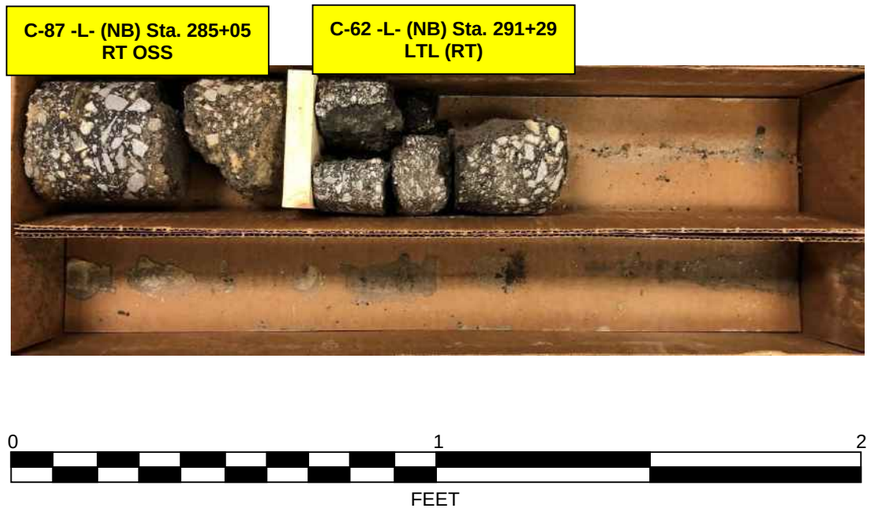
R-5921: US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40

Pavement Core Photographs



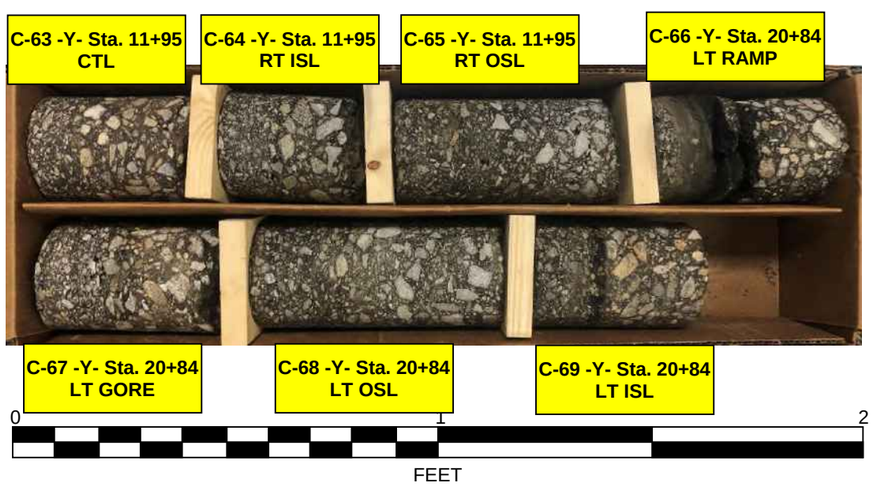






R-5921: US 276 (Jonathan Creek Rd) from US 19 to 0.5 miles south of I-40

Pavement Core Photographs



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

Project US 276 (Jonathan Creek Rd) from US 19 to 0.5-miles South of I-40 **T.I.P. No.** R-5921 **County** Haywood **F&ME Job No.** C8806 - Task 00023

Date Received 12/30/2022 **Date Reported** 1/17/2023 **Tested By** F&ME **CERT No.:** 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- (SB)	14+51	LT ISL	12.0 RT FY	1.3 - 5.0	A-4(0)	NP	NP	28.8%	24.4%	32.6%	14.2%	85.0%	69.1%	43.5%	20.1%	ND
S-3	-L- (SB)	27+71	LTL (LT)	4.0 RT FY	1.6 - 5.0	A-7-6(3)	43	14	25.1%	22.8%	29.7%	22.2%	74.2%	61.9%	42.1%	21.1%	ND
S-5	-L- (SB)	42+24	LT ISL	0.2 RT FY	1.3 - 5.0	A-4(0)	38	7	24.6%	25.7%	27.3%	22.4%	75.8%	64.4%	41.7%	22.3%	ND
S-6	-L- (SB)	59+19	LT OSL	0.6 LT FW	1.5 - 5.0	A-7-5(8)	49	14	19.0%	22.8%	27.4%	30.8%	93.0%	82.6%	58.7%	26.5%	ND
S-7	-L- (SB)	75+11	LT ISL	1.0 RT FY	1.4 - 5.0	A-4(0)	NP	NP	26.5%	30.0%	29.1%	14.4%	86.6%	73.7%	42.5%	23.6%	ND
S-8	-L- (SB)	89+64	LT OSL	0.2 LT FW	1.4 - 5.0	A-2-4	NP	NP	30.2%	40.2%	23.6%	6.0%	86.8%	70.7%	32.0%	10.8%	ND
S-10	-L- (SB)	103+04	LTL (LT)	4.5 RT FY	1.5 - 5.0	A-6(3)	38	11	22.0%	29.5%	30.4%	18.1%	88.7%	76.8%	48.2%	14.7%	ND
S-12	-L- (SB)	118+06	LTL (LT)	5.0 RT FY	1.4 - 3.0	A-7-6(4)	44	17	29.8%	27.8%	20.2%	22.2%	89.4%	71.2%	42.7%	22.8%	ND
S-13	-L- (SB)	135+54	RTL (LT)	5.0 LT FW	1.4 - 5.0	A-2-4	NP	NP	33.6%	33.7%	26.7%	6.0%	87.0%	67.9%	33.7%	11.9%	ND
S-15	-L- (SB)	150+00	LT OSL	3.3 LT FW	1.3 - 4.5	A-2-4	NP	NP	31.5%	42.8%	19.7%	6.0%	80.9%	67.3%	26.1%	4.5%	ND
S-16	-L- (SB)	159+00	LTL (LT)	5.0 RT FY	1.6 - 5.0	A-1-b	NP	NP	40.6%	29.3%	22.0%	8.1%	57.9%	41.9%	20.1%	9.0%	ND
S-18	-L- (SB)	163+96	LT ISL	0.5 RT FY	1.4 - 4.5	A-2-4	NP	NP	34.9%	31.8%	25.3%	8.0%	76.1%	59.4%	29.1%	13.4%	ND
S-20	-L- (SB)	195+11	LT ISL	2.0 RT FY	1.5 - 5.0	A-7-5(8)	51	21	24.2%	21.5%	23.9%	30.4%	87.1%	74.7%	50.7%	23.7%	ND
S-21	-L- (SB)	210+03	LT OSL	2.0 LT FW	1.0 - 5.0	A-2-4	39	5	34.5%	21.9%	23.1%	20.5%	73.3%	55.6%	34.5%	31.1%	ND
S-22	-L- (SB)	212+85	LTL (LT)	5.0 RT FY	1.3 - 5.0	A-4(0)	36	10	35.0%	26.0%	18.5%	20.5%	85.1%	66.0%	36.8%	23.3%	ND
S-24	-L- (SB)	225+02	LT ISL	3.0 RT FY	1.5 - 5.0	A-4(0)	NP	NP	32.1%	34.5%	21.3%	12.1%	93.5%	75.7%	37.1%	16.4%	ND
S-25	-L- (SB)	229+84	LTL (LT)	5.0 RT FY	1.5 - 5.0	A-2-4	NP	NP	30.4%	30.8%	24.6%	14.2%	67.6%	54.8%	30.2%	14.8%	ND
S-26	-L- (SB)	240+20	LT OSL	0.2 LT FW	1.4 - 5.0	A-4(0)	NP	NP	24.7%	34.7%	28.4%	12.2%	88.7%	77.2%	41.5%	19.0%	ND
S-27	-L- (SB)	245+89	LTL (LT)	4.0 RT FY	1.9 - 5.0	A-4(0)	NP	NP	21.7%	29.9%	26.2%	22.2%	96.2%	83.8%	52.0%	17.4%	ND
S-28	-L- (SB)	254+79	LT ISL	2.0 RT FY	1.5 - 5.0	A-4(0)	29	6	13.8%	35.7%	36.3%	14.2%	71.9%	66.4%	43.1%	18.7%	ND
S-29	-L- (SB)	270+18	LT OSL	3.0 LT FW	1.4 - 5.0	A-4(0)	NP	NP	26.7%	27.3%	25.7%	20.3%	85.7%	71.6%	44.2%	18.9%	ND
S-31	-L- (SB)	277+95	LTL (LT)	5.0 RT FY	1.7 - 5.0	A-7-6(7)	41	16	21.9%	22.6%	24.5%	31.0%	97.3%	84.0%	58.4%	22.0%	ND
S-33A	-L- (NB)	14+53	RT OSL	2.5 LT FW	1.6 - 5.0	A-2-4	32	8	28.8%	26.4%	22.6%	22.2%	63.8%	52.1%	31.7%	17.5%	ND
S-34	-L- (NB)	26+00	LTL (RT)	5.0 RT FY	1.4 - 3.0	A-7-6(12)	43	12	24.3%	26.3%	22.8%	26.6%	80.7%	68.9%	44.0%	20.8%	ND
S-36	-L- (NB)	42+23	LTL (RT)	7.0 RT FY	1.3 - 5.0	A-4(0)	NP	NP	26.0%	31.9%	27.9%	14.2%	92.8%	77.8%	45.9%	25.6%	ND
S-37	-L- (NB)	42+23	RT OSL	0.3 LT FW	3.0 - 5.0	A-4(0)	NP	NP	25.8%	30.6%	27.3%	16.3%	87.3%	73.2%	43.1%	20.3%	ND
S-39	-L- (NB)	59+19	RT ISL	5.0 RT FW	1.5 - 5.0	A-7-6(9)	46	18	18.5%	26.0%	27.0%	28.5%	95.5%	79.8%	57.6%	15.0%	ND
S-40	-L- (NB)	75+14	RT OSL	3.0 LT FW	1.5 - 5.0	A-4(0)	NP	NP	26.2%	30.1%	25.2%	18.5%	97.1%	81.7%	48.3%	20.5%	ND
S-41	-L- (NB)	89+63	RT ISL	0.6 RT FY	1.6 - 5.0	A-4(0)	NP	NP	25.7%	29.9%	26.2%	18.2%	73.0%	61.7%	36.7%	18.0%	ND
S-42	-L- (NB)	103+01	RT OSL	2.0 LT FW	1.6 - 5.0	A-2-4	NP	NP	26.9%	35.8%	25.2%	12.1%	76.2%	63.3%	33.1%	18.1%	ND
S-43	-L- (NB)	118+06	RT ISL	3.0 RT FY	1.4 - 5.0	A-4(0)	NP	NP	18.5%	29.0%	32.2%	20.3%	99.0%	88.4%	57.8%	26.9%	ND
S-44	-L- (NB)	133+92	LTL (RT)	5.0 RT FY	1.5 - 5.0	A-4(0)	NP	NP	17.3%	22.7%	43.8%	16.2%	88.2%	78.7%	57.1%	22.6%	ND
S-46	-L- (NB)	149+97	RT ISL	1.0 RT FY	1.6 - 4.0	A-7-5(6)	45	14	20.9%	29.5%	27.4%	22.2%	96.1%	84.2%	52.9%	17.9%	ND
S-47	-L- (NB)	157+91	LTL (RT)	7.0 RT FY	1.6 - 5.0	A-7-5(6)	56	24	24.4%	33.9%	25.3%	16.4%	87.8%	75.2%	42.2%	16.7%	ND
S-49	-L- (NB)	162+46	RT OSL	2.6 LT FW	1.5 - 5.0	A-1-b	NP	NP	40.7%	26.2%	25.1%	8.0%	64.5%	44.2%	24.9%	6.9%	ND
S-50	-L- (NB)	179+94	RT ISL	3.0 RT FW	1.9 - 5.0	A-4(0)	NP	NP	28.1%	28.5%	25.3%	18.1%	78.3%	63.5%	38.5%	20.0%	ND
S-51	-L- (NB)	195+10	RT OSL	0.3 RT FW	1.6 - 5.0	A-7-5(6)	53	21	21.2%	21.6%	24.9%	32.3%	71.7%	62.9%	44.1%	24.0%	ND
S-52	-L- (NB)	210+06	RT ISL	0.5 RT FY	1.5 - 5.0	A-4(0)	NP	NP	28.8%	32.1%	22.9%	16.2%	90.0%	74.7%	41.2%	20.9%	ND
S-54	-L- (NB)	224+97	RT OSL	3.0 LT FW	1.6 - 5.0	A-4(0)	NP	NP	24.5%	34.7%	22.7%	18.1%	93.3%	81.3%	44.3%	14.3%	ND
S-55	-L- (NB)	240+17	RT ISL	1.4 RT FY	1.6 - 5.0	A-4(0)	NP	NP	21.0%	30.8%	27.7%	20.5%	79.2%	70.2%	42.9%	17.8%	ND
S-59	-L- (NB)	276+47	LTL (RT)	5.3 RT FY	1.3 - 5.0	A-4(0)	31	8	27.6%	29.0%	25.3%	18.1%	75.9%	62.6%	37.2%	10.2%	ND

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

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

Project US 276 (Jonathan Creek Rd) from US 19 to 0.5-miles South of I-40 **T.I.P. No.** R-5921 **County** Haywood **F&ME Job No.** C8806 - Task 00023

Date Received 12/30/2022 **Date Reported** 1/17/2023 **Tested By** F&ME **CERT No.:** 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-60	-L- (NB)	276+47	RTL (RT)	4.0 LT FW	1.5 - 5.0	A-4(0)	NP	NP	23.8%	27.0%	24.9%	24.3%	98.8%	84.4%	54.8%	22.2%	ND
S-64	-Y-	11+95	RT ISL	6.0 RT FY	1.4 - 5.0	A-4(0)	NP	NP	21.9%	30.0%	25.4%	22.7%	99.1%	88.5%	53.1%	27.8%	ND
S-68	-Y-	20+84	LT OSL	6.0 LT FW	1.8 - 3.0	A-2-4	32	9	24.2%	28.9%	24.6%	22.3%	62.0%	53.2%	32.7%	19.0%	ND
S-71	-L- (SB)	30+64	LT ISL	3.0 RT FY	1.4 - 5.0	A-4(0)	NP	NP	26.3%	30.2%	31.2%	12.3%	95.5%	79.2%	48.1%	19.5%	ND
S-74	-L- (SB)	179+97	LT ISL	0.3 RT FY	3.0 - 5.0	A-4(0)	NP	NP	22.9%	31.6%	27.4%	8.1%	97.0%	77.2%	39.5%	19.9%	ND
S-75	-L- (SB)	179+97	LT ISS	0.3 RT FY	1.4 - 3.0	A-4(0)	NP	NP	34.2%	31.2%	24.5%	10.1%	95.1%	74.5%	38.4%	20.7%	ND
S-77	-L- (SB)	285+03	LT OSL	3.0 LT EOP	1.3 - 5.0	A-6(12)	38	8	21.2%	31.2%	31.4%	16.2%	90.9%	78.5%	48.6%	23.0%	ND
S-78	-L- (SB)	285+03	LT ISS	0.5 RT FW	1.3 - 5.0	A-4(0)	NP	NP	22.4%	31.4%	27.8%	18.4%	95.0%	83.7%	49.8%	25.0%	ND
S-79	-L- (NB)	30+60	RT ISS	0.2 RT FY	1.3 - 3.0	A-6(2)	33	11	31.3%	24.9%	23.5%	20.3%	94.8%	73.4%	46.3%	15.5%	ND
S-81	-L- (NB)	30+60	RT OSS	0.5 RT FW	1.5 - 5.0	A-6(2)	40	15	29.9%	22.8%	21.0%	26.3%	77.2%	61.4%	40.3%	17.5%	ND
S-86	-L- (NB)	285+05	RT ISL	5.0 RT FY	1.3 - 5.0	A-4(0)	NP	NP	26.6%	29.7%	29.6%	14.1%	82.8%	69.0%	41.5%	8.2%	ND
S-106	-L-	37+50	LT Median	9.0 LT FY	0.0 - 5.0	A-7-6(5)	42	14	24.4%	22.7%	26.2%	26.7%	87.6%	73.5%	50.5%	21.4%	ND
S-111	-L-	66+99	LT Median	3.0 LT FY	0.0 - 4.5	A-7-6(14)	46	11	23.4%	26.4%	21.0%	29.2%	85.5%	73.0%	47.2%	29.7%	ND
S-114A	-L-	82+00	LT Median	8.0 LT FY	0.0 - 3.0	A-7-5(11)	47	17	10.4%	16.8%	25.9%	46.9%	88.3%	83.3%	67.5%	24.6%	ND
S-115	-L-	82+50	RT Shoulder	2.0 RT FW	3.0 - 4.0	A-7-5(8)	53	19	17.2%	23.8%	20.1%	38.9%	81.5%	73.2%	51.8%	30.8%	ND
S-124	-L-	138+00	LT Median	7.0 LT FY	0.0 - 5.0	A-2-4	NP	NP	31.1%	36.2%	20.3%	12.4%	74.6%	60.8%	28.4%	27.1%	ND
S-137	-L-	196+00	RT Median	4.5 LT FY	1.5 - 2.8	A-7-5(9)	48	18	22.7%	22.0%	22.8%	32.5%	97.8%	84.4%	58.3%	23.4%	ND
S-140	-L-	203+00	LT Median	9.0 LT FY	0.0 - 5.0	A-4(0)	33	7	26.6%	26.4%	18.7%	28.3%	68.1%	57.7%	35.0%	27.1%	ND
S-153	-L-	274+00	RT Median	4.0 LT FY	0.0 - 5.0	A-6(1)	38	11	25.8%	28.9%	23.0%	22.3%	78.2%	66.0%	39.9%	17.5%	ND

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

Project US 276 (Jonathan Creek Rd) from US 19 to 0.5-miles South of I-40 **T.I.P. No.** R-5921 **County** Haywood **F&ME Job No.** C8806 - Task 00023

Date Received 3/17/2023 **Date Reported** 4/24/2023 **Tested By** F&ME **CERT No.:** 130-0212

SOIL TEST RESULTS

SAMPLE NO.	*ALIGNMENT*	*STATION*	*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*
Bulk-1	-L-	60+22	82 RT	0.0 - 5.0	A-4(0)	31	6	26.2%	33.8%	25.9%	14.1%	76.5%	64.4%	35.9%	9.7%	ND
Bulk-2	-L-	112+62	61 LT	1.0 - 3.0	A-2-4	35	7	27.9%	28.7%	21.2%	22.2%	67.8%	55.6%	32.9%	9.9%	ND
Bulk-3	-L-	186+72	80 RT	1.0 - 8.0	A-7-5(5)	44	11	23.3%	23.9%	20.5%	32.3%	98.7%	85.1%	56.0%	25.9%	ND
Bulk-4	-L-	282+95	71 LT	1.0 - 3.0	A-6(3)	39	12	23.5%	22.7%	21.5%	32.3%	84.0%	71.3%	48.7%	17.9%	ND

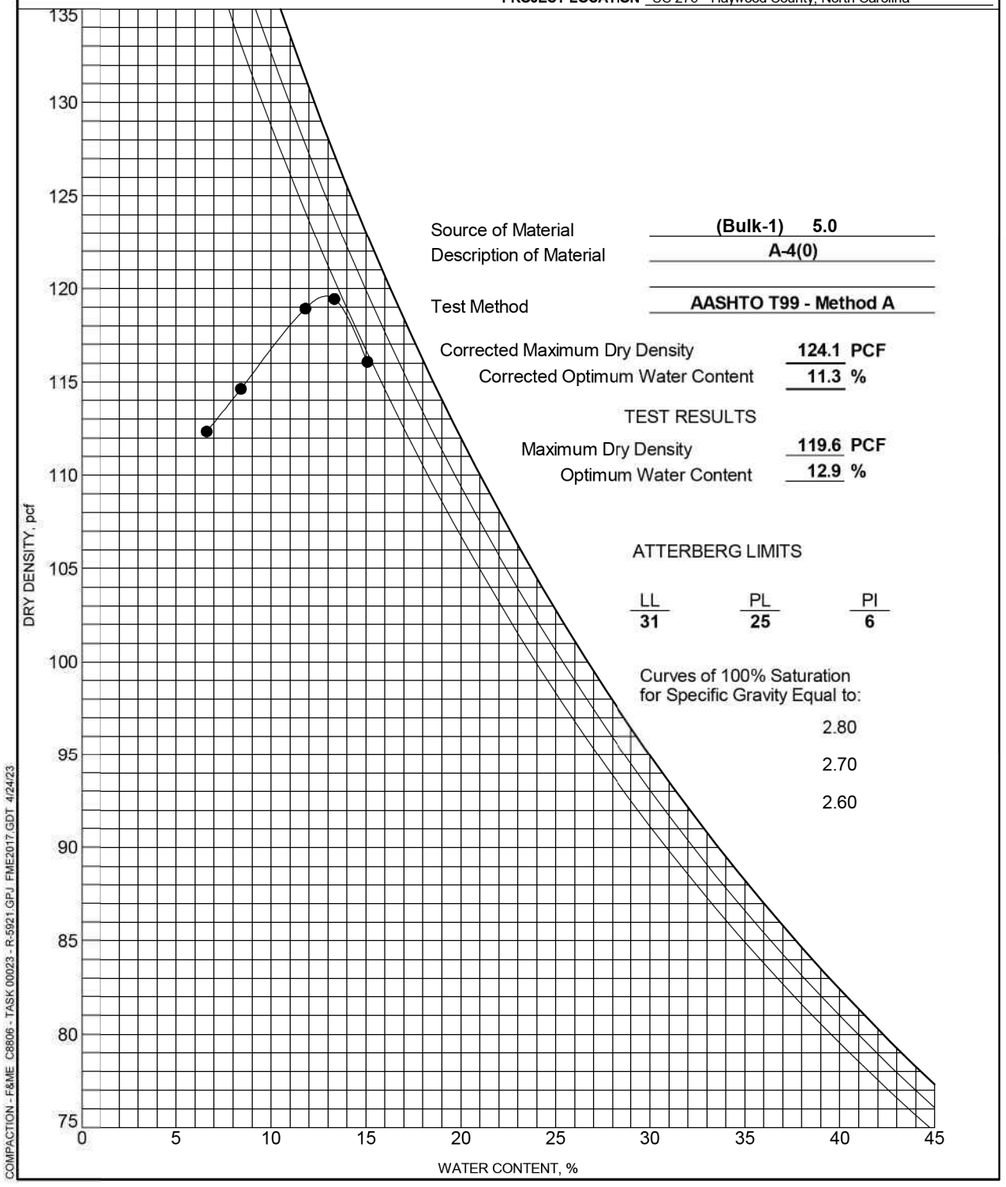
MOISTURE-DENSITY RELATIONSHIP

F&ME CONSULTANTS

PROJECT ID R-5921 (FME Project No.: C8806 - Task 00023)

PROJECT NAME US 276 from US 19 to 0.5 mi South of I-40

PROJECT LOCATION US 276 - Haywood County, North Carolina



Source of Material: (Bulk-1) 5.0

Description of Material: A-4(0)

Test Method: AASHTO T99 - Method A

Corrected Maximum Dry Density: 124.1 PCF

Corrected Optimum Water Content: 11.3 %

TEST RESULTS

Maximum Dry Density: 119.6 PCF

Optimum Water Content: 12.9 %

ATTERBERG LIMITS

LL	PL	PI
31	25	6

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

COMPACTION - F&ME C8806 - TASK 00023 - R-5921.GPJ FME2017.GDT 4/24/23

REV 01/2023

CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

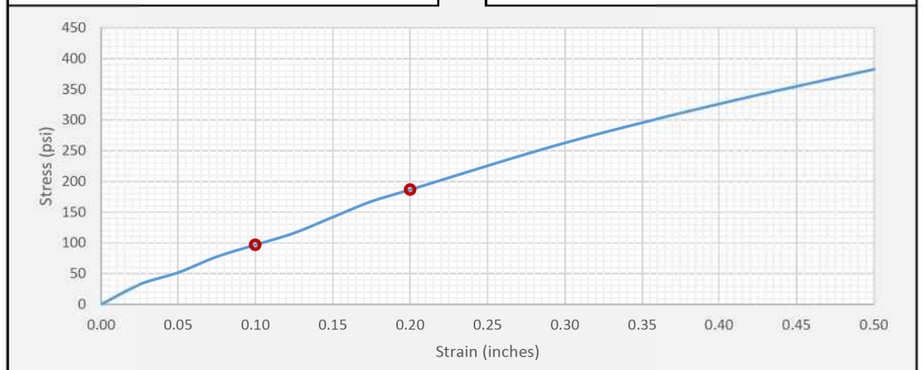
Project Name	R-5921 (US 276)			Project No.	C8806
Sample Location	Bulk-1 (Specimen A)			FME Lab ID	23-0775
Soil Description	A-4(0)			Depth/Elev.	0.0 - 5.0
Date Sampled	--	Sampled By:	FME	Date Received	3/17/23
Date Test Began	3/23/23	Date Completed	3/27/23	Tested By	DH & CM

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	119.6	Optimum Moisture Content (%)	12.9
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
9.7	**12.4**



Before Soaking	
Dry Density (lb/ft^3)	119.2
Moisture Content	12.4%
Percent Compaction	99.6%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	115.5
Moisture Content (Top 1")	17.9%
Percent Compaction	96.6%
Percent Shrink/Swell	1.5%

ADDITIONAL COMMENTS

Desired Percent Compaction = 100%

F&ME CONSULTANTS

F&ME Consultants, Inc.
211 Business Park Blvd., Columbia, SC 29203

Reviewed By

4/25/23
Date

REV 01/2023

CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

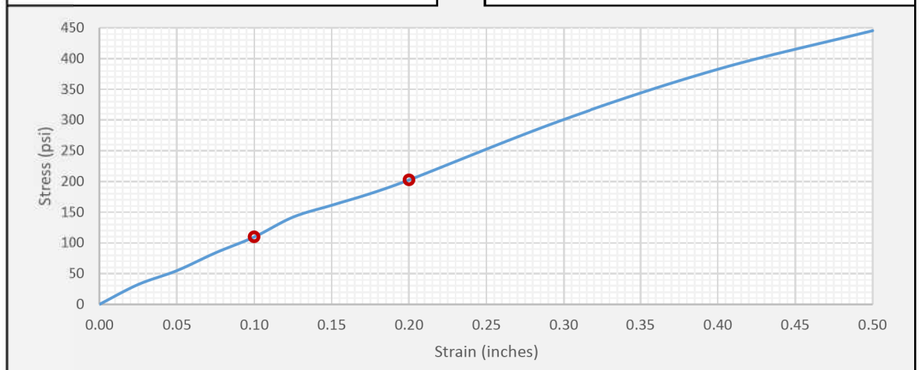
Project Name	R-5921 (US 276)			Project No.	C8806
Sample Location	Bulk-1 (Specimen B)			FME Lab ID	23-0775
Soil Description	A-4(0)			Depth/Elev.	0.0 - 5.0
Date Sampled	--	Sampled By:	FME	Date Received	3/17/23
Date Test Began	3/23/23	Date Completed	3/27/23	Tested By	DH & CM

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	119.6	Optimum Moisture Content (%)	12.9
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
11.0	**13.5**



Before Soaking	
Dry Density (lb/ft^3)	119.8
Moisture Content	12.2%
Percent Compaction	100.2%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	115.7
Moisture Content (Top 1")	18.4%
Percent Compaction	96.7%
Percent Shrink/Swell	1.1%

ADDITIONAL COMMENTS

Desired Percent Compaction = 100%

F&ME CONSULTANTS

F&ME Consultants, Inc.
211 Business Park Blvd., Columbia, SC 29203

Reviewed By

4/25/23
Date

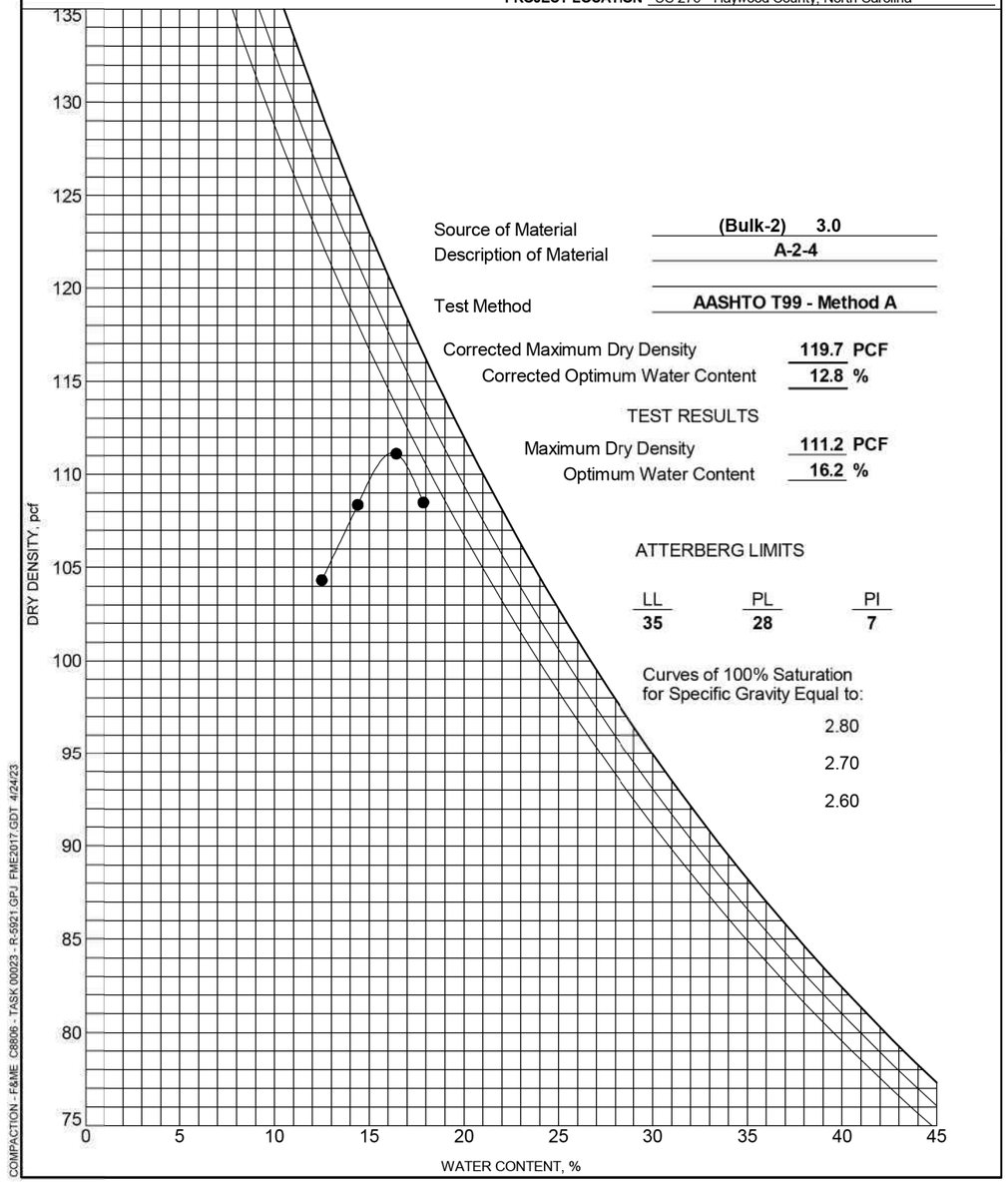
F&ME CONSULTANTS

MOISTURE-DENSITY RELATIONSHIP

PROJECT ID R-5921 (FME Project No.: C8806 - Task 00023)

PROJECT NAME US 276 from US 19 to 0.5 mi South of I-40

PROJECT LOCATION US 276 - Haywood County, North Carolina



Source of Material: (Bulk-2) 3.0

Description of Material: A-2-4

Test Method: AASHTO T99 - Method A

Corrected Maximum Dry Density: 119.7 PCF

Corrected Optimum Water Content: 12.8 %

TEST RESULTS

Maximum Dry Density: 111.2 PCF

Optimum Water Content: 16.2 %

ATTERBERG LIMITS

LL	PL	PI
35	28	7

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

COMPACTION - F&ME C8806 - TASK 00023 - R-5921.GPJ FME2017.GDT 4/24/23

REV 01/2023

CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

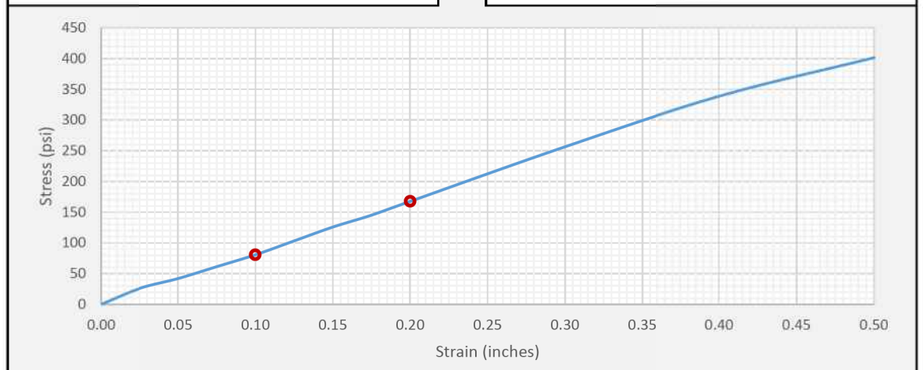
Project Name	R-5921 (US 276)			Project No.	C8806
Sample Location	Bulk-2 (Specimen A)			FME Lab ID	23-0776
Soil Description	A-2-4			Depth/Elev.	1.0 - 3.0
Date Sampled	--	Sampled By:	FME	Date Received	3/17/23
Date Test Began	3/23/23	Date Completed	3/27/23	Tested By	DH & CM

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	111.2	Optimum Moisture Content (%)	16.2
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
8.1	**11.2**



Before Soaking	
Dry Density (lb/ft^3)	111.6
Moisture Content	15.6%
Percent Compaction	100.4%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	108.6
Moisture Content (Top 1")	20.5%
Percent Compaction	97.6%
Percent Shrink/Swell	0.7%

ADDITIONAL COMMENTS

Desired Percent Compaction = 100%

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211 Business Park Blvd., Columbia, SC 29203

Reviewed By

4/25/23
Date

REV 01/2023

CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

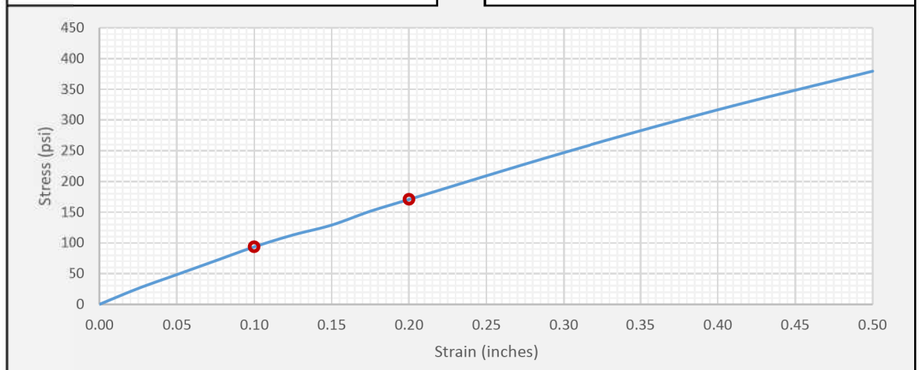
Project Name	R-5921 (US 276)			Project No.	C8806
Sample Location	Bulk-2 (Specimen B)			FME Lab ID	23-0776
Soil Description	A-2-4			Depth/Elev.	1.0 - 3.0
Date Sampled	--	Sampled By:	FME	Date Received	3/17/23
Date Test Began	3/23/23	Date Completed	3/27/23	Tested By	DH & CM

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	111.2	Optimum Moisture Content (%)	16.2
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
9.4	**11.4**



Before Soaking	
Dry Density (lb/ft^3)	111.8
Moisture Content	15.8%
Percent Compaction	100.6%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	109.0
Moisture Content (Top 1")	20.2%
Percent Compaction	98.0%
Percent Shrink/Swell	0.6%

ADDITIONAL COMMENTS

Desired Percent Compaction = 100%

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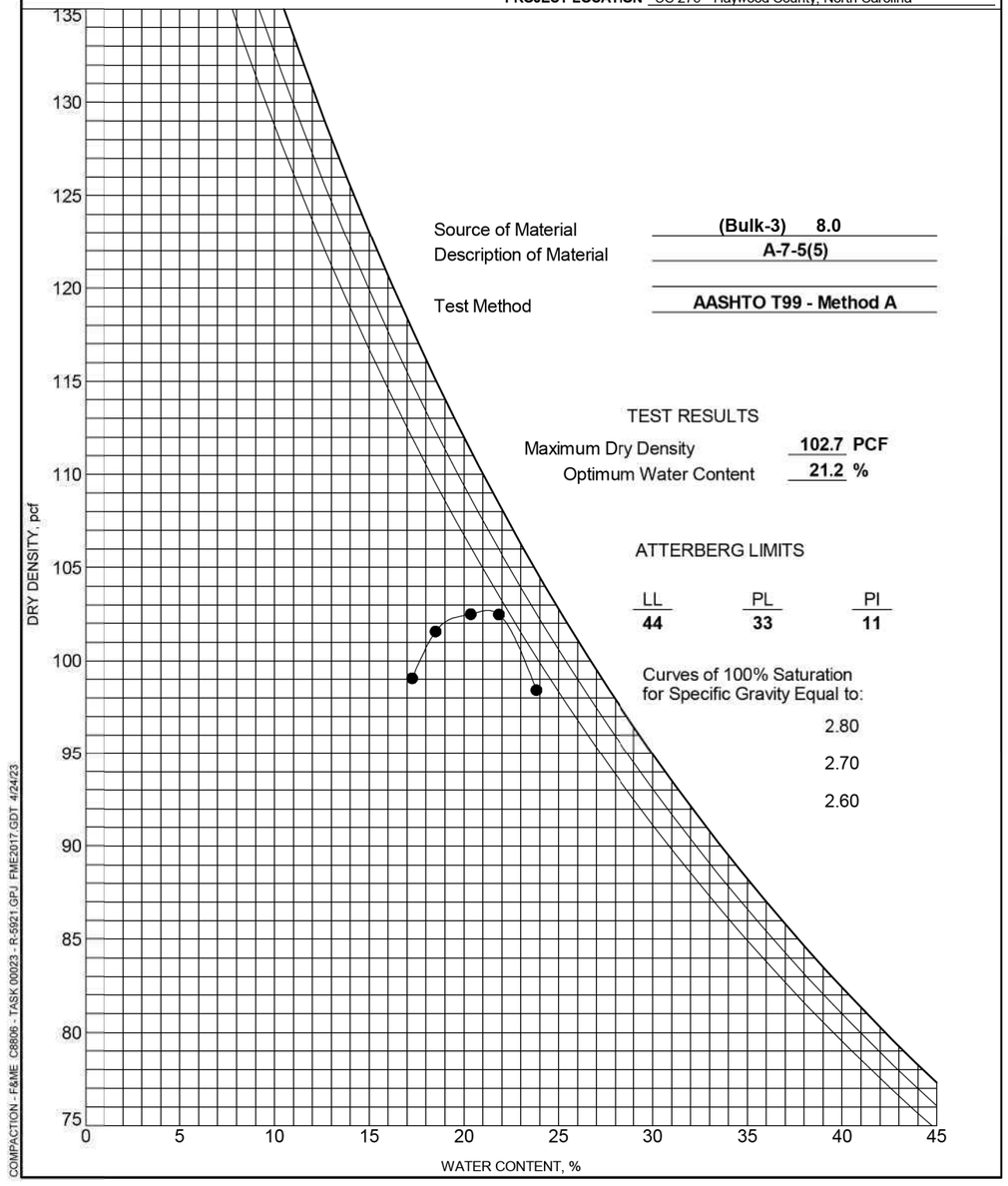
MOISTURE-DENSITY RELATIONSHIP

F&ME CONSULTANTS

PROJECT ID R-5921 (FME Project No.: C8806 - Task 00023)

PROJECT NAME US 276 from US 19 to 0.5 mi South of I-40

PROJECT LOCATION US 276 - Haywood County, North Carolina



Source of Material: **(Bulk-3) 8.0**

Description of Material: **A-7-5(5)**

Test Method: **AASHTO T99 - Method A**

TEST RESULTS

Maximum Dry Density: **102.7** PCF

Optimum Water Content: **21.2** %

ATTERBERG LIMITS

LL	PL	PI
44	33	11

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

COMPACTION - F&ME C8806 - TASK 00023 - R-5921.GPJ FME2017.GDT 4/24/23

REV 01/2023

CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

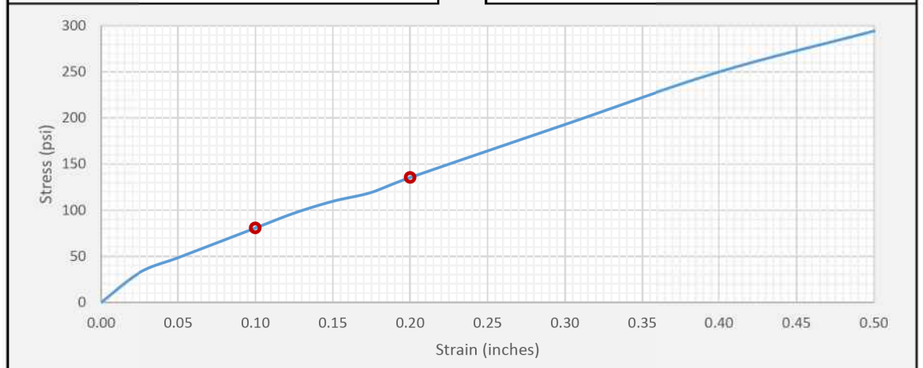
Project Name	R-5921 (US 276)			Project No.	C8806 - Task 00023
Sample Location	Bulk-3 (Specimen A)			FME Lab ID	23-0776
Soil Description	A-7-5(5)			Depth/Elev.	1.0 - 8.0
Date Sampled	--	Sampled By:	FME	Date Received	3/17/23
Date Test Began	3/23/23	Date Completed	3/27/23	Tested By	DH & CM

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	102.7	Optimum Moisture Content (%)	21.2
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
8.1	**9.0**



Before Soaking	
Dry Density (lb/ft^3)	102.8
Moisture Content	20.8%
Percent Compaction	100.1%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	100.1
Moisture Content (Top 1")	25.0%
Percent Compaction	97.5%
Percent Shrink/Swell	1.0%

ADDITIONAL COMMENTS

Desired Percent Compaction = 100%

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4/25/23
Date

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CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

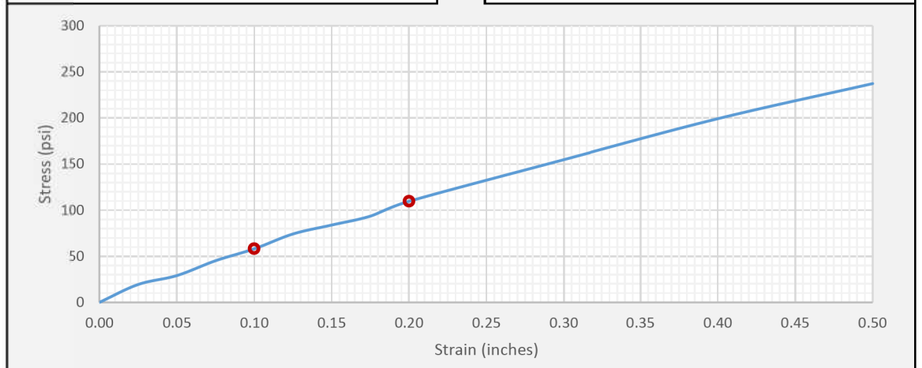
Project Name	R-5921 (US 276)			Project No.	C8806 - Task 00023
Sample Location	Bulk-3 (Specimen B)			FME Lab ID	23-0776
Soil Description	A-7-5(5)			Depth/Elev.	1.0 - 8.0
Date Sampled	--	Sampled By:	FME	Date Received	3/17/23
Date Test Began	4/14/23	Date Completed	4/18/23	Tested By	JJ

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	102.7	Optimum Moisture Content (%)	21.2
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
5.8	**7.3**



Before Soaking	
Dry Density (lb/ft^3)	102.5
Moisture Content	21.2%
Percent Compaction	99.8%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	101.1
Moisture Content (Top 1")	23.9%
Percent Compaction	98.5%
Percent Shrink/Swell	0.8%

ADDITIONAL COMMENTS

Desired Percent Compaction = 100%

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Reviewed By

4/25/23
Date

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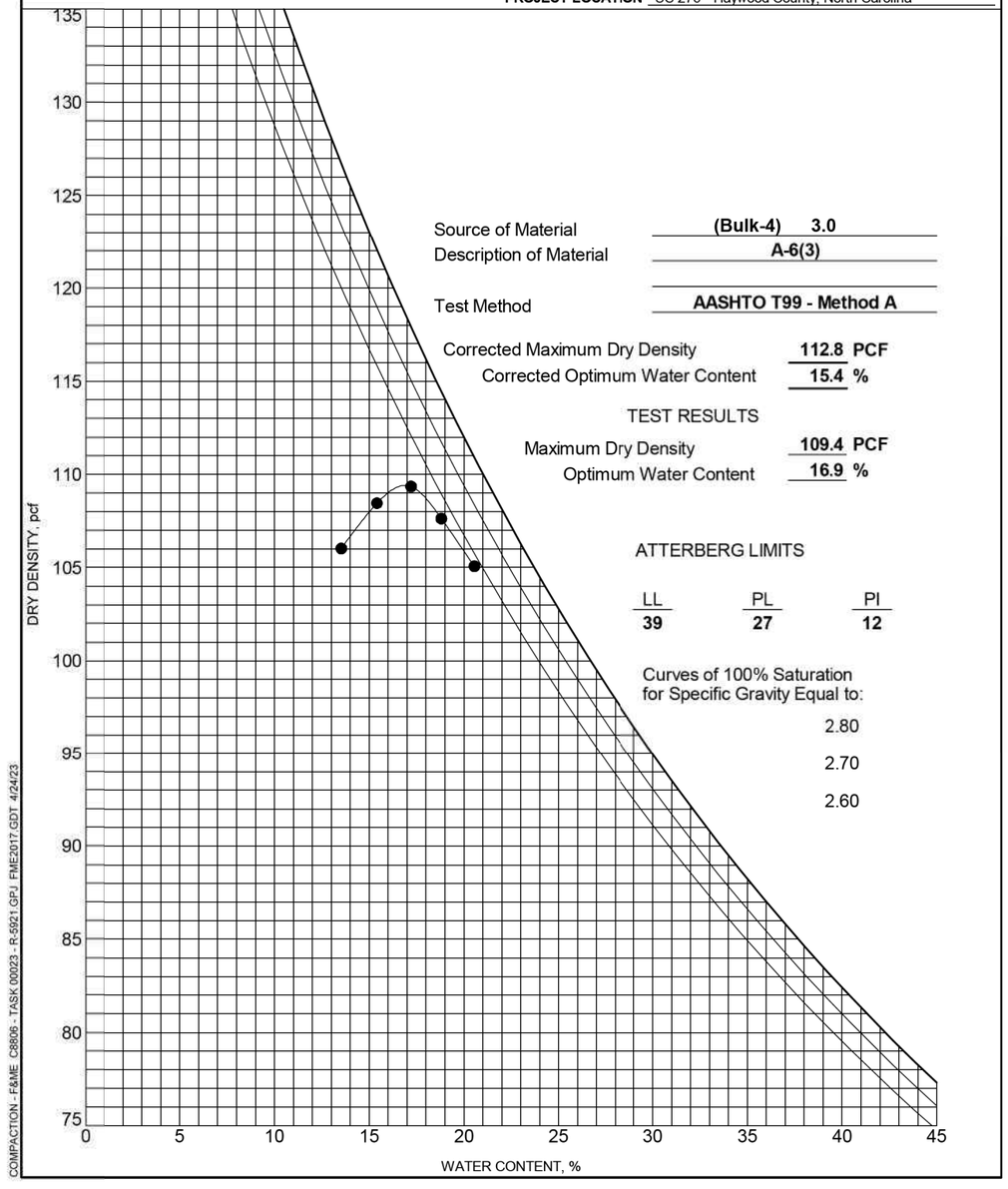
MOISTURE-DENSITY RELATIONSHIP

PROJECT ID R-5921 (FME Project No.: C8806 - Task 00023)

PROJECT NAME US 276 from US 19 to 0.5 mi South of I-40

PROJECT LOCATION US 276 - Haywood County, North Carolina



Source of Material: **(Bulk-4) 3.0**

Description of Material: **A-6(3)**

Test Method: **AASHTO T99 - Method A**

Corrected Maximum Dry Density: **112.8 PCF**

Corrected Optimum Water Content: **15.4 %**

TEST RESULTS

Maximum Dry Density: **109.4 PCF**

Optimum Water Content: **16.9 %**

ATTERBERG LIMITS

LL	PL	PI
39	27	12

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

COMPACTION - F&ME C8806 - TASK 00023 - R-5921.GPJ FME2017.GDT 4/24/23

REV 01/2023

CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

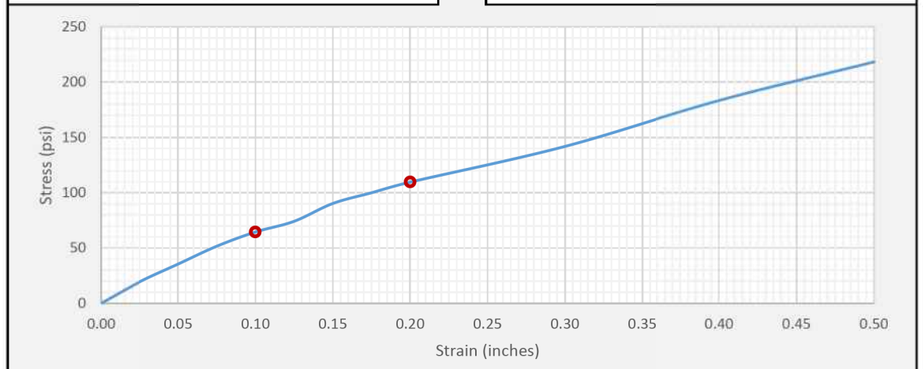
Project Name	R-5921 (US 276)			Project No.	C8806 - Task 00023
Sample Location	Bulk-4 (Specimen A)			FME Lab ID	23-0778
Soil Description	A-6(3)			Depth/Elev.	1.0 - 3.0
Date Sampled	--	Sampled By:	FME	Date Received	3/17/23
Date Test Began	3/30/23	Date Completed	4/3/23	Tested By	DH & CM

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	109.4	Optimum Moisture Content (%)	16.9
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
6.4	**7.3**



Before Soaking	
Dry Density (lb/ft^3)	110.9
Moisture Content	17.0%
Percent Compaction	101.4%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	106.3
Moisture Content (Top 1")	22.1%
Percent Compaction	97.2%
Percent Shrink/Swell	1.7%

ADDITIONAL COMMENTS

Desired Percent Compaction = 100%

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4/24/23
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CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

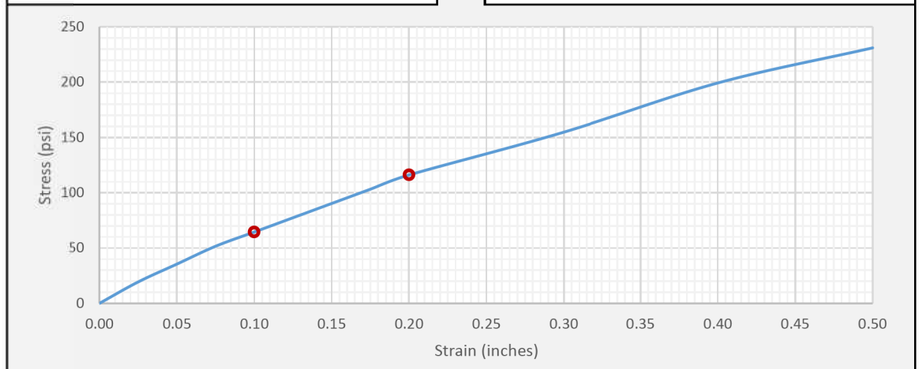
Project Name	R-5921 (US 276)			Project No.	C8806 - Task 00023
Sample Location	Bulk-4 (Specimen B)			FME Lab ID	23-0778
Soil Description	A-6(3)			Depth/Elev.	1.0 - 3.0
Date Sampled	--	Sampled By:	FME	Date Received	3/17/23
Date Test Began	3/30/23	Date Completed	4/3/23	Tested By	DH & CM

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	109.4	Optimum Moisture Content (%)	16.9
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
6.4	**7.7**



Before Soaking	
Dry Density (lb/ft^3)	109.7
Moisture Content	16.8%
Percent Compaction	100.3%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	105.5
Moisture Content (Top 1")	22.0%
Percent Compaction	96.5%
Percent Shrink/Swell	1.6%

ADDITIONAL COMMENTS

Desired Percent Compaction =100%

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