STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

January 21, 2022

MEMORANDUM TO: Clark Morrison PhD, P.E.
State Pavement Design Engineer

Tatia L. White, P.E., PLS
State Roadway Design Engineer

FROM: J. L. Pilipchuk, P.E., L.G.
State Geotechnical Engineer

DocuSigned by:
John Pilipchuk
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STATE PROJECT: 34165.1.6 (I-2513AA)

COUNTY: Buncombe

DESCRIPTION: I-26 from I-40 to SR 3548 (Haywood Rd.)

SUBJECT: Pavement and Subgrade Investigation Report

The Geotechnical Engineering Unit has completed the evaluation of the pavement and subgrade investigation for this project and presents the following.

The existing concrete on the project has evidence of the Alkali-Silica Reaction (ASR). The proposal is to remove the existing unbonded concrete overlay and the original concrete pavement structure down to the underling asphalt layer. A new concrete pavement will be constructed in-place over the asphalt layer. Widening of a shoulder or lane and shoulder will be constructed adjacent to the existing lanes. Inside median work is restricted to alignments -Y EB- and -Y WB-.

The subgrade beneath the existing roadway consists of residual and roadway embankment soils. Both residual and roadway soils are both predominantly sandy silt (A-4). Soils less frequently encountered are silty sand (A-2-4), sandy clay (A-6) and silty clay (A-7).

Anticipated borrow will likely consist of sandy silt (A-4) and silty sand (A-2-4).

The length of this project is 1.742 miles.

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CENTURY CENTER COMPLEX
ENTRANCE B-2
1020 BIRCH RIDGE DRIVE
RALEIGH NC

The existing pavement is in poor condition. The existing unbonded concrete overlay has the effects of the ASR and has deteriorated the concrete over time, resulting in numerous concrete patches and potholes present along the project. The asphalt shoulders are in good condition.

AREAS OF SPECIAL GEOTECHNICAL INTEREST

A. Highly Plastic Clays:
No clays with a PI of 26 or greater were sampled onsite.

B. Trapped Water within the Pavement:
No trapped water within the pavement was observed onsite.

C. Soils with a High Moisture Content:

LINE	STATION AND OFFSET	MOISTURE CONTENT
-Y_EB-	20+58 EB ISS	M-W
-Y_EB-	20+62 (Bulk-2)	M-W
-Y_WB-	10+698 WB OSS	M-W

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

JLP/JBB

ATTACHMENT 1:	Pavement and Subgrade Inventory	108
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Jeffrey Brian Barfield

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Jeffrey Brian Barfield 01/21/2022
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REFERENCE: I-2513AA/AB

PROJECT: 34165.1.6

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-2513AA/AB	1	107

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

ROADWAY SUBSURFACE INVESTIGATION

COUNTY *BUNCOMBE*

PROJECT DESCRIPTION *I-26 FROM I-40 TO SR 3548 (HAYWOOD ROAD)*

PAVEMENT AND SUBGRADE INVESTIGATION

CONTENTS

CAUTION NOTICE

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GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA WITHIN THE BOREHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU (IN-PLACE) TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOIL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE, OR OPINION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THE PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

NOTES:
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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.

PERSONNEL

M. BREWER

D. UNDERWOOD

C. ODOM

INVESTIGATED BY *CG2*

DRAWN BY *M. BREWER, P.E.*

CHECKED BY *R. KRAL, P.E.*

SUBMITTED BY *CG2*

DATE *NOVEMBER 2021*

Prepared in the Office of:

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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	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
- [X] CME-550X
- [ ] VANE SHEAR TEST
- [ ] PORTABLE HOIST
- [ ] _____
- [ ] _____

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 10/15/21 PROVIDED BY NCDOT

- PAVEMENT CORE WITH DCP
- BULK SAMPLE

DATE: 8-15-14

PROJECT REFERENCE NO.	SHEET NO.
I–2513AA/AB	2A

Tip No. I-2513AA/AB | WBS No. 34165.1.6| Buncombe 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
SAND = Drainage Sand (see pavement layering on PIDS)

PROJECT REFERENCE NO.	SHEET NO.
I–2513AA/AB	3

THIS SHEET IS A PLACEHOLDER FOR THE ROADWAY TITLE SHEET WHEN AVAILABLE

DATE: 8-15-14

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	4

0 50 100
FEET

NC GRID NAD 83 NA 2011

-RPD- PC Sta. 12+
BEARING BK = N 27°01'2
-LI_WB- PT Sta. 49+22.10
-LI_WB- PC Sta. 48+64.44
-RPD- POT Sta. 10+00.00 =
-LI_WB- POT Sta. 48+15.00 (12' RT

C-14 RPD Sta. 11+06 WB OSS 2.3 FT RT FW	
PAVEMENT SECTION	
ASPHALT	6.25 in
STBC	4.00 in
SAND	4.00 in

C-13 RPD Sta. 11+07 RAMP 6.0 FT LT FW	
PAVEMENT SECTION	
ASPHALT	2.75 in
CONCRETE	9.50 in
STBC	7.75 in

C-10 L1_WB Sta. 44+64 WB OSL 2.2 FT LT FW	
PAVEMENT SECTION	
ASPHALT	4.25 in
CONCRETE	9.50 in
STBC	5.25 in

C-11 L1_WB Sta. 44+64 WB OSS 6.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	24.00 in

CAT-1
GREU TL-3

C-14 WB OSS
C-13 RAMP
C-12 WB ISS
C-2 EB OSL
C-3 EB OSS
C-11 WB OSS
C-10 WB OSL
C-1 EB OSS

50+00
45+00
-RPD-
-LI_WB-
-LI_EB-

C-12 L1_WB Sta. 49+23 WB ISS 1.8 FT LT FY	
PAVEMENT SECTION	
ASPHALT	5.75 in
STBC	6.25 in
SAND	4.00 in

C-2 L1_EB Sta. 48+86 EB OSL 1.8 FT LT FW		C-3 L1_EB Sta. 48+86 EB OSS 8.0 FT RT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	23.00 in	ASPHALT	24.00 in
STBC	7.00 in	STBC	6.00 in

C-1 L1_EB Sta. 44+07 EB OSS 10 FT RT FW	
PAVEMENT SECTION	
ASPHALT	20.50 in
STBC	9.50 in

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	5

0 50 100
FEET

NC GRID
NAD 83 NA 2011

C-20 L1_WB Sta. 59+80	
WB OSS 1.8 FT RT FW	
PAVEMENT SECTION	
ASPHALT	6.00 in
STBC	6.00 in
SAND	4.00 in

C-18 L1_WB Sta. 54+80		C-17 L1_WB Sta. 54+79	
WB OSS 5.5 FT RT FW		WB OSL 3.4 FT LT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	5.50 in	ASPHALT	2.50 in
STBC	4.50 in	CONCRETE	9.75 in
SAND	4.00 in	STBC	5.75 in

C-19 RPDB Sta. 14+83	
WB ISS 2.4 FT LT FY	
PAVEMENT SECTION	
ASPHALT	6.50 in
STBC	6.00 in
SAND	4.00 in

C-15 L1_WB Sta. 54+78		C-16 L1_WB Sta. 54+79	
WB ISS 2.4 FT LT FY		WB ISL 6.5 FT RT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	5.75 in	ASPHALT	2.25 in
STBC	5.75 in	CONCRETE	9.25 in
SAND	4.00 in	STBC	7.50 in

C-5 L1_EB Sta. 59+28	
EB OSS 5.4 FT RT FW	
PAVEMENT SECTION	
ASPHALT	3.25 in
STBC	12.75 in

C-4 L1_EB Sta. 53+86	
EB OSS 2.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	20.50 in
STBC	3.50 in

20+00
-RPD-
-LI_WB- SC Sta. 57+73.69
50' INC.
+23.69
60+00
C-20 WB OSS
15+00
C-19 WB ISS
-RPDB-
+23.73
50' INC.
-RPDB- POT Sta. 11+73.69 =
-LI_WB- POT Sta. 56+73.69 (24' LT)
-RPDB- POT Sta. 10+00.00 =
-LI_WB- POT Sta. 55+00.00 (24' LT)
55+00
-LI_WB-
C-18 WB OSS
C-17 WB OSL
C-16 WB ISL
C-15 WB ISS
GREU TL-3
15+00
-LI_EB-
55+00
C-5 EB OSS
CAT-1
50' INC.
-RPC- CS Sta. 47+35.31
-RPC- ST Sta. 48+85.31 =
-LI_EB- POT Sta. 57+13.41 (24' LT)
C-4 EB OSS
BULK-5

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	6

0 50 100
FEET

END CONSTRUCTION
-LI_WB- POC STA.66+00.00

NC GRID NAD 83 NA 2011

-RPDB- PRC Sta. 22+47.14

C-25 L1_WB Sta. 65+83	
WB ISS 2.3 FT LT FY	
PAVEMENT SECTION	
ASPHALT	6.25 in
STBC	5.75 in
SAND	4.00 in

C-26 L1_WB Sta. 65+83	
WB OSL 1.9 FT LT FW	
PAVEMENT SECTION	
ASPHALT	3.00 in
CONCRETE	9.00 in
STBC	6.50 in

C-27 L1_WB Sta. 65+83	
WB OSS 5.2 FT RT FW	
PAVEMENT SECTION	
ASPHALT	4.75 in
STBC	6.25 in
SAND	4.00 in

C-27 WB OSS
C-26 WB OSL
C-25 WB ISS
65+00
-LI_WB-
25+00
-RPD-
-LI_WB- SC Sta. 63+25.64
+25.64
50' INC.

C-24 RPDB Sta. 20+44	
WB OSS 1.4 FT RT FW	
PAVEMENT SECTION	
ASPHALT	6.50 in
STBC	4.50 in
SAND	4.00 in

C-23 RPDB Sta. 20+44	
WB OSL 2.8 FT LT FW	
PAVEMENT SECTION	
ASPHALT	5.50 in
CONCRETE	8.50 in
STBC	5.00 in

C-22 RPDB Sta. 20+43	
WB ISS 1.7 FT LT FY	
PAVEMENT SECTION	
ASPHALT	5.50 in
STBC	7.50 in
SAND	4.00 in

C-24 WB OSS
C-23 WB OSL
C-22 WB ISS
C-21 WB OSS
20+00
-RPDB-
BULK-4

C-21 RPDB Sta. 18+14	
WB OSS 5.7 FT RT FW	
PAVEMENT SECTION	
ASPHALT	5.00 in
STBC	7.00 in
SAND	4.00 in

END CONSTRUCTION
-LI_EB- POT STA.66+10.00
-RPDB- POT STA.20+70.00

C-7 L1_EB Sta. 66+48	
EB OSS 2.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	6.00 in
STBC	5.00 in

C-8 L1_EB Sta. 66+48	
EB ISL 2.3 FT RT FY	
PAVEMENT SECTION	
ASPHALT	2.50 in
CONCRETE	8.75 in
STBC	4.75 in

C-9 L1_EB Sta. 62+48	
EB ISS 1.5 FT LT FY	
PAVEMENT SECTION	
ASPHALT	5.00 in
STBC	7.00 in

C-6 L1_EB Sta. 62+34	
EB ISS 2.0 FT LT FY	
PAVEMENT SECTION	
ASPHALT	5.50 in
STBC	5.50 in

GREU TL-3
C-9 EB ISS
C-8 EB ISL
C-7 EB OSS
C-6 EB ISS
65+00
60+00
-LI_EB-
45+00
-RPC-
40+00
TYPE B-77

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	7

0 50 100
FEET

NC GRID NAD 83 NA 2011

BEGIN CONSTRUCTION
-Y- STA.18+80.00

C-72 Y Sta. 20+96 WB OSS 4.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	27.00 in
STBC	3.00 in
SAND	4.00 in

C-73 Y Sta. 20+96 WB OSL 4.0 FT LT FW	
PAVEMENT SECTION	
CONCRETE	14.50 in
ASPHALT	4.00 in
CONCRETE	9.50 in
STBC	4.00 in

C-75 Y Sta. 20+96 WB ISL (0) 9.5 FT RT FY	
PAVEMENT SECTION	
CONCRETE	14.25 in
ASPHALT	10.75 in
STBC	3.00 in
SAND	3.00 in

C-76 Y Sta. 20+96 WB ISL (I) 1.8 FT RT FY	
PAVEMENT SECTION	
CONCRETE	14.50 in
ASPHALT	4.00 in
STBC	10.00 in
SAND	3.50 in

C-77 Y Sta. 20+96 WB ISS 2.3 FT LT FY	
PAVEMENT SECTION	
ASPHALT	21.50 in
SHOULDER DRAIN	

F F C F F C

C-72 WB OSS
C-73 WB OSL
C-75 WB ISL (0)
C-76 WB ISL (I)
C-77 WB ISS

20+00

-Y-

25+00

C-28 EB OSS

C-28 Y Sta. 19+19 EB OSS 4.1 FT RT FW	
PAVEMENT SECTION	
ASPHALT	18.50 in
STBC	12.50 in
SAND	4.00 in

C-29 EB OSS

C-29 Y Sta. 23+92 EB OSS 3.7 FT RT FW	
PAVEMENT SECTION	
ASPHALT	23.50 in
STBC	4.50 in
SAND	4.00 in

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	8

0 50 100
FEET

NC GRID
NAD 83 NA 2011

C-78 Y Sta. 26+00 WB OSS 11.8 FT RT FW	
PAVEMENT SECTION	
ASPHALT	17.00 in
STBC	6.00 in
ASPHALT	8.00 in
SAND	4.00 in

C-79 Y Sta. 28+56 WB MERGE LANE 2.0 FT LT FW	
PAVEMENT SECTION	
CONCRETE	16.00 in
ASPHALT	10.50 in
CONCRETE	9.50 in
STBC	4.00 in

C-80 Y Sta. 31+41 WB OSS 4.7 FT RT FW	
PAVEMENT SECTION	
ASPHALT	29.50 in
SAND	4.00 in

CAT-1

C-78 WB OSS

C-79 WB MERGE LANE

C-80 WB OSS

25+00

30+00

-Y-

C-30 EB ISS
C-31 EB ISL
C-32 EB MID-LANE
C-33 EB OSL
C-34 EB MERGE LANE
C-35 EB OSS

-Y5RPC- ST Sta. 10+00.00 =
-Y- POC Sta. 30+13.00 (47' RT)

C-30 Y Sta. 30+95 EB ISS 2.0 FT LT FY	
PAVEMENT SECTION	
ASPHALT	16.50 in
STBC	6.00 in
ASPHALT	9.50 in
STBC	4.00 in

C-31 Y Sta. 30+95 EB ISL 5.6 FT RT FY	
PAVEMENT SECTION	
CONCRETE	15.25 in
ASPHALT	14.50 in
STBC	5.25 in

C-32 Y Sta. 30+94 EB MID-LANE 19.6 FT LT FW	
PAVEMENT SECTION	
CONCRETE	14.25 in
ASPHALT	3.50 in
CONCRETE	9.25 in
STBC	7.00 in

C-33 Y Sta. 30+94 EB OSL 6.6 FT LT FW	
PAVEMENT SECTION	
CONCRETE	14.50 in
ASPHALT	14.00 in
FABRIC	-
STBC	4.00 in

C-34 Y Sta. 31+09 EB MERGE LANE 4.0 FT LT FW	
PAVEMENT SECTION	
CONCRETE	15.00 in
ASPHALT	4.25 in
CONCRETE	9.75 in
STBC	4.00 in

C-35 Y Sta. 31+09 EB OSS 6.8 FT RT FW	
PAVEMENT SECTION	
ASPHALT	24.00 in
SHOULDER DRAIN	10.00 in

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	9

0 50 100
FEET

NC GRID
NAD 83 NA 2011

C-81 Y5RPB Sta. 14+04	
WB RAMP OSS 6.8 FT RT FW	
PAVEMENT SECTION	
ASPHALT	28.50 in
STBC	4.50 in
SAND	3.00 in

C-82 Y Sta. 37+45	
WB OSS 9.5 FT RT FW	
PAVEMENT SECTION	
ASPHALT	28.00 in
STBC	4.50 in
SAND	4.00 in

C-36 Y5RPC Sta. 15+80	
EB RAMP OSS 6.8 FT RT FW	
PAVEMENT SECTION	
ASPHALT	13.50 in
SHOULDER DRAIN	

C-37 Y Sta. 37+02	
EB OSS 8.5 FT RT FW	
PAVEMENT SECTION	
ASPHALT	15.50 in
STBC	8.50
SAND	5.00 in

C-81 WB RAMP OSS
15+00
-Y5RPB-
-Y- CS Sta. 37+72.89
-Y- ST Sta. 39+32.89
C-82 WB OSS
35+00
40+00
-Y-
15+00 IA-MASH TL-3
C-37 EB OSS
C-36 EB RAMP OSS
-Y5RPC-
20+00

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	10

0 50 100
FEET

-Y5LPB- PCC Sta. 14+10.16

-Y5LPB- ST Sta. 19+04.12

-Y5LPB- SC Sta. 13+25.00

NC GRID
NAD 83 NA 2011

20+00

L 32.60

R 81.62

7" W

C-83 Y Sta. 41+94	
WB OSS 9.4 FT RT FW	
PAVEMENT SECTION	
ASPHALT	18.00 in
STBC	4.00 in

-EY5- PC Sta. 26+42.50

-Y5LPB- ST Sta. 10+00.00 =
-Y- POT Sta. 45+30.63 (47' LT)

-EY5- PT Sta. 27+58

-Y5LPB- POT Sta. 22+7

CAT-1

C-83 WB OSS

45+00

-Y-

25+00

N 42° 35' 05.6" E

C-38 EB OSL

C-39 EB OSS

C-40 EB OSS

C-38 Y Sta. 43+34		C-39 Y Sta. 43+34	
EB OSL 3.7 FT LT FW		EB OSS 4.3 FT RT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
CONCRETE	14.25 in	ASPHALT	13.00 in
ASPHALT	5.25 in	STBC	3.00 in

C-40 Y Sta. 48+83	
EB OSS 4.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	20.00 in
SHOULDER DRAIN	8.00 in

-EY5- PC Sta. 23+19.06

-EY5- PT Sta. 24+38.98

25+00

GREU

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	11

0 50 100
FEET

NC GRID
NAD 83 NA 2011

-Y5RPA- PC Sta. 23+66.07
BEARING BK = N 80° 19' 13.7" W

C-84 Y Sta. 50+37	
WB OSS 6.5 FT RT FW	
PAVEMENT SECTION	
ASPHALT	15.00 in
STBC	7.00 in

-Y5RPA- PT Sta. 21+53.16

HIGH POINT
21+26.30

CAT-1

25+00

7+58.02

2+75.73

TYPE B-77

20+00

C-84 WB OSS

50+00

-Y-

55+00

TYPE B-77

20+00

-Y5RPB-

TYPE B-77

HIGH POINT
23+62.49

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	12

0 50 100
FEET

NC GRID
NAD 83 NA 2011

C-85 Y Sta. 58+51 WB OSS 6.2 FT RT FW	
PAVEMENT SECTION	
ASPHALT	16.00 in
STBC	8.00 in

C-86 Y Sta. 58+50 WB OSL 5.5 FT LT FW	
PAVEMENT SECTION	
CONCRETE	15.25 in
ASPHALT	11.75 in
STBC	5.00 in
SAND	3.00 in

C-87 Y Sta. 58+51 WB OSML 15.5 FT LT FW	
PAVEMENT SECTION	
CONCRETE	14.50 in
ASPHALT	4.00 in
CONCRETE	8.50 in
STBC	3.00 in
SAND	3.00 in

C-88 Y Sta. 63+40 WB OSS 6.6 FT RT FW	
PAVEMENT SECTION	
ASPHALT	15.25 in
STBC	6.75 in

C-41 Y Sta. 58+86 EB OSML 17.6 FT LT FW	
PAVEMENT SECTION	
CONCRETE	15.00 in
ASPHALT	4.00 in
CONCRETE	8.50 in
STBC	5.50 in

C-42 Y Sta. 58+86 EB OSL 4.8 FT LT FW	
PAVEMENT SECTION	
CONCRETE	15.00 in
ASPHALT	3.75 in
CONCRETE	8.25 in
STBC	4.00 in

C-43 Y Sta. 58+86 EB OSS 3.5 FT RT FW	
PAVEMENT SECTION	
ASPHALT	14.75 in
STBC	8.25 in
SHOULDER DRAIN	8.00 in

C-44 Y Sta. 63+48 EB OSS 8.3 FT RT FW	
PAVEMENT SECTION	
ASPHALT	14.50 in
STBC	6.75 in

-Y5RPA- PRC
15+00
C-85 WB OSS
C-86 WB OSL
C-87 WB OSML
C-88 WB OSS
60+00
65+00
-Y-
C-41 EB OSML
C-42 EB OSL
C-43 EB OSS
15+00
C-44 EB OSS
-Y5RPA-
-Y- POC
-Y16- POT Sta. 11+19.90
Sta. 10+57.14

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	13

0 50 100
FEET

NC GRID
NAD 83 NA 2011

C-89 Y Sta. 68+54	
WB OSS 5.5 FT RT FW	
PAVEMENT SECTION	
ASPHALT	15.50 in
ABC	24.50 in
FABRIC	-

C-90 Y Sta. 75+02	
WB OSS 6.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	15.00 in
STBC	6.00 in

C-89 WB OSS

C-90 WB OSS

70+00

75+00

-Y-

C-45 EB OSS

C-46 EB OSS

F

F

F F

C-45 Y Sta. 68+28	
EB OSS 3.8 FT RT FW	
PAVEMENT SECTION	
ASPHALT	16.50 in
STBC	3.00 in

C-46 Y Sta. 75+08	
EB OSS 8.2 FT RT FW	
PAVEMENT SECTION	
ASPHALT	14.75 in
STBC	8.25 in

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	14

0 50 100
FEET

NC GRID
NAD 83 NA 2011

C-91 Y Sta. 80+09	
WB OSS 6.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	17.00 in
CONCRETE	4.00 in

C-92 Y Sta. 85+47	
WB OSS 5.8 FT RT FW	
PAVEMENT SECTION	
ASPHALT	16.00 in
CSS	6.00 in

C-91 WB OSS

C-92 WB OSS

80+00

85+00

C-47 EB OSS

C-48 EB OSS

BULK-1

C-47 Y Sta. 80+18	
EB OSS 4.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	23.00 in
SHOULDER DRAIN	8.00 in

C-48 Y Sta. 85+43	
EB OSS 9.5 FT RT FW	
PAVEMENT SECTION	
ASPHALT	16.75 in
STBC	6.25 in

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	15

0 50 100
FEET

NC GRID
NAD 83 NA 2011

C-93 Y Sta. 88+85 WB OSS 6.3 FT RT FW	
PAVEMENT SECTION	
ASPHALT	36.50 in
STBC	3.50 in

C-94 Y Sta. 88+74 WB OSL 5.7 FT LT FW	
PAVEMENT SECTION	
CONCRETE	13.75 in
ASPHALT	10.25 in
STBC	2.00 in
SAND	4.00 in

C-96 Y Sta. 88+75 WB ISL 2.4 FT RT FY	
PAVEMENT SECTION	
CONCRETE	15.50 in
ASPHALT	10.50 in
STBC	8.00 in

C-97 Y Sta. 88+75 WB ISS 3.7 FT LT FY	
PAVEMENT SECTION	
ASPHALT	19.50 in
STBC	6.50 in

C-98 Y_WB Sta. 10+69 WB OSS 2.1 FT RT FW	
PAVEMENT SECTION	
ASPHALT	34.50 in
STBC	2.50 in

-Y_WB- POT Sta. 10+00.00 =
-Y- POT Sta. 93+44.02 (47' LT)

C-93 WB OSS
C-94 WB OSL
C-96 WB ISL
C-97 WB ISS
C-98 WB OSS
C-49 EB ISS
C-50 EB ISL
C-51 EB ISML
C-52 EB OSML
C-53 EB OSL
C-54 EB OSS
C-55 EB OSS

90+00

-Y- POT Sta. 93+44.02

-Y-

TYPE B-77

C-49 Y Sta. 87+83 EB ISS 4.0 FT LT FY	
PAVEMENT SECTION	
ASPHALT	17.00 in
STBC	5.00 in

C-50 Y Sta. 87+83 EB ISL 5.5 FT RT FY	
PAVEMENT SECTION	
CONCRETE	15.75 in
ASPHALT	4.50 in
STBC	10.00 in

C-51 Y Sta. 87+84 EB ISML 16.3 FT RT FY	
PAVEMENT SECTION	
CONCRETE	15.00 in
ASPHALT	4.25 in
CONCRETE	8.50 in
STBC	6.25 in

C-52 Y Sta. 87+84 EB OSML 13.5 FT LT FW	
PAVEMENT SECTION	
CONCRETE	14.75 in
ASPHALT	4.75 in
CONCRETE	5.25 in
STBC	7.25 in

C-53 Y Sta. 87+84 EB OSL 2.8 FT LT FW	
PAVEMENT SECTION	
CONCRETE	14.00 in
ASPHALT	10.00 in
STBC	6.00 in

C-54 Y Sta. 87+84 EB OSS 8.2 FT RT FW	
PAVEMENT SECTION	
ASPHALT	16.75 in
STBC	6.75 in

C-55 Y_EB Sta. 10+59 EB OSS 4.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	25.75 in
STBC	7.25 in

10+00

-Y19- POT

-Y_EB- PC Sta. 10+00.00 =
-Y- POT Sta. 93+44.02 (35' RT)

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	16

0 50 100
FEET

NC GRID
NAD 83 NA 2011

C-99 Y_WB Sta. 15+88 WB OSS 6.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	36.50 in
STBC	2.50 in
CAT-1	

C-100 Y_WB Sta. 15+88 WB ISS 1.5 FT LT FY	
PAVEMENT SECTION	
ASPHALT	10.00 in
CONCRETE	9.00 in
STBC	5.00 in

C-101 Y_WB Sta. 20+65 WB OSS 6.2 FT RT FW	
PAVEMENT SECTION	
ASPHALT	26.50 in
STBC	3.50 in

C-102 Y_WB Sta. 20+65 WB ISS 4.5 FT LT FY	
PAVEMENT SECTION	
ASPHALT	9.50 in
STBC	7.50 in
SAND	4.00 in

C-56 Y_EB Sta. 15+85 EB ISS 1.7 FT LT FY	
PAVEMENT SECTION	
ASPHALT	7.50 in
STBC	8.50 in
ASPHALT	8.00 in

C-57 Y_EB Sta. 15+83 EB OSS 10.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	25.50 in

C-58 Y_EB Sta. 20+58 EB ISS 1.5 FT LT FY	
PAVEMENT SECTION	
ASPHALT	23.00 in
FABRIC	-

C-59 Y_EB Sta. 20+65 EB OSS 5.5 FT RT FW	
PAVEMENT SECTION	
ASPHALT	11.50 in
STBC	8.50 in

C-99 WB OSS
C-100 WB ISS
C-101 WB OSS
C-102 WB ISS
C-56 EB ISS
C-57 EB OSS
C-58 EB ISS
C-59 EB OSS
BULK-2
GREU TL-3
DOUBLE FACED GUIDERAIL
TYPE B-77
-Y_WB-
-Y_EB-
-RPDB- POT Sta. 56+15.28 =
-Y_WB- TS Sta. 20+27.49 (24' RT)
-Y_EB- POT Sta.22+09.24 (24' RT) =
-RPC- ST Sta. 10+00.00
20+00
55+00
+27.49

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	17

0 50 100
FEET

-RPDB- PT Sta. 47+64.72

-Y_EB-

25+00

C-60 EB ISS
C-61 EB ISL
C-62 EB ISML
C-62 EB OSML
C-63 EB OSL
C-64 EB OSS

-RPC-

15+00

TYPE B-77

TYPE B-77

-RPC- SC Sta. 11+50.00
END.CONSTRUCTION

-Y6A- POT Sta. 13+40.00

-Y6A- POT Sta. 13+83.23

-Y6A- PT Sta. 13+12.23

-Y6A- PC Sta. 12+37.97

-Y6A- PT Sta. 10+96.07

C-60 Y_EB Sta. 25+61 EB ISS 2.5 FT LT FY	
PAVEMENT SECTION	
ASPHALT	27.50 in
STBC	5.50 in

C-61 Y_EB Sta. 25+60 EB ISL 6.5 FT RT FY	
PAVEMENT SECTION	
ASPHALT	25.00 in
STBC	3.00 in

C-62 Y_EB Sta. 25+60 EB ISML 17.3 FT RT FY	
PAVEMENT SECTION	
ASPHALT	5.00 in
CONCRETE	9.00 in
STBC	6.00 in

C-63 Y_EB Sta. 25+61 EB OSML 16.8 FT LT FW	
PAVEMENT SECTION	
ASPHALT	5.25 in
CONCRETE	8.75 in
STBC	8.00 in

C-64 Y_EB Sta. 25+61 EB OSL 4.7 FT LT FW	
PAVEMENT SECTION	
ASPHALT	4.75 in
CONCRETE	9.50 in
STBC	5.75 in

C-65 Y_EB Sta. 25+60 EB OSS 3.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	9.75 in
STBC	11.25 in

GREU TL-2

GREU TL-2

-RPC- CS Sta. 14+87.93

-RPC- ST Sta. 16+37.93

NC GRID
NAD 83 NA 2011

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	18

0 50 100
FEET

C-66 Y_EB Sta. 31+04 EB ISS 4.0 FT LT FY		C-67 Y_EB Sta. 31+04 EB OSS 7.5 FT RT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	9.50 in	ASPHALT	9.00 in
STBC	8.00 in	STBC	8.00 in

-RPDB- PT Sta. 47+64.72

-RPDB- PC Sta. 43+87.35

-Y_EB-

30+00

C-66 EB ISS

C-67 EB OSS

15+00

20+00

TYPE B-77

TYPE B-77

GREU TL-2

-RPC- ST Sta. 14+87.93

-RPC- ST Sta. 16+37.93

-RPC- TS Sta. 19+89.74

-RPC- SC Sta. 21+39.74

NC GRID
NAD 83 NA 2011

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	19

0 50 100
FEET

C-68 Y_EB Sta. 36+17 EB ISS 1.7 FT LT FY		C-69 Y_EB Sta. 36+18 EB OSS 6.5 FT RT FW			
PAVEMENT SECTION		PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	10.00 in	OSS (I)		OSS (O)	
STBC	8.00 in	ASPHALT	2.25 in	ASPHALT	6.00 in
		CONCRETE	9.50 in	STBC	10.00 in
		STBC	8.25 in		

C-70 Y_EB Sta. 41+01 EB ISS 2.5 FT LT FY		C-71 Y_EB Sta. 41+02 EB OSS 7.0 FT RT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	9.50 in	ASPHALT	9.00 in
STBC	9.50 in	STBC	7.00 in

-Y_EB- SC Sta. 36+58.79

C-68 EB ISS

C-69 EB OSS

C-70 EB ISS

C-71 EB OSS

-Y_EB-

GREU TL-3

GREU TL-3

35+00

40+00

25+00

C F C F C F C F C F C F

NC GRID
NAD 83 NA 2011

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	20

0 50 100
FEET

C-103 Y_WB Sta. 27+11 WB OSS 6.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	8.00 in
CONCRETE	9.00 in
STBC	6.00 in

C-104 Y_WB Sta. 27+12 WB OSL 1.6 FT LT FW	
PAVEMENT SECTION	
ASPHALT	8.50 in
CONCRETE	9.00 in
STBC	6.50 in

C-105 Y_WB Sta. 27+11 WB MID-LANE 15.5 LT FW	
PAVEMENT SECTION	
ASPHALT	23.50 in
SAND	4.00 in

C-106 Y_WB Sta. 27+11 WB ISL 4.2 FT RT FY	
PAVEMENT SECTION	
ASPHALT	21.75 in
STBC	5.25 in
SAND	3.00 in

C-107 Y_WB Sta. 27+12 WB ISS 1.7 FT LT FY	
PAVEMENT SECTION	
ASPHALT	27.00 in
STBC	6.00 in
SAND	3.00 in

-Y_WB- CS Sta. 29+50.29

-Y_WB- SC Sta. 23+27.49

-Y_WB- 25+00

-RPDB-

-RPDB- PT Sta. 47+64.72

25+00

30+00

50+00

GREU TL-2

TYPE B-77

C-103 WB OSS
C-104 WB OSL
C-105 WB MID-LANE
C-106 WB ISL
C-107 WB ISS

NC GRID
NAD 83 NA 2011

PROJECT REFERENCE NO.	SHEET NO.
I-2513AA/AB	21

0 50 100
FEET

NC GRID
NAD 83 NA 2011

C-108 Y_WB Sta. 32+51 WB OSS 6.0 FT RT FW		C-109 Y_WB Sta. 32+52 WB ISS 1.5 FT LT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	15.00 in	ASPHALT	27.00 in
STBC	3.00 in	STBC	6.00 in
SAND	3.00 in	SAND	3.00 in

-Y_WB- Sta. 32+50.29

C-108 WB OSS

C-109 WB ISS

-Y_WB-

3.48%

2.97%

35+00

30+00

END CONSTRUCTION
-Y_WB- POT STA. 33+25.00

BEGIN CONSTRUCTION
-RPDB- PC STA. 43+87.35

C-110 RPDB Sta. 44+31 WB OSS 6.3 FT RT FW		C-111 RPDB Sta. 44+30 WB OSL 2.1 FT LT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	7.75 in	ASPHALT	3.00 in
STBC	6.25 in	CONCRETE	9.25 in
SAND	4.00 in	STBC	6.75 in

C-110 WB OSS
C-111 WB OSL
C-112 WB ISL
C-113 WB ISS

-RPDB-

40+00

45+00

BULK-3

C-112 RPDB Sta. 44+30 WB ISL 5.4 FT RT FY		C-113 RPDB Sta. 44+30 WB ISS 1.7 FT LT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	2.25 in	ASPHALT	5.25 in
CONCRETE	9.00 in	STBC	7.25 in
STBC	5.75 in	SAND	4.00 in

-RPDB- PC Sta. 43+87.35

PAVEMENT INVESTIGATION DATA SHEET

Project:	34165.1.6
TIP:	I-2513AA/AB

Route:	I-26 from I-40 to SR 3548 (Haywood Road)
County:	Buncombe

Date Performed:	9/27-10/1 & 10/11-10/13 (6 Nights)
Field Personnel:	M. Brewer, D. Underwood, C. Odom

		Width (ft)		(ft)	(in)	Thickness (in)						SG						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/STBC	Shoulder Drain Drainage Sand CSS (Chemical)	Concrete	Pavement Layering	Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)	Asphalt Notes	Northing	Easting
C-1 L1_EB Sta. 44+07 EB OSS	Cut 20.0	11.5 OSL	17.0 PS	10 RT FW	C	30.00	20.50	9.50 STBC	-	-	Asphalt STBC SG	2.5-5.0: RES - Brown,Silty, Gravelly, Fine to Coarse SAND, trace mica	S-1	A-1-b	M	5	No Observed Shoulder Distress, Low Severity Longitudinal Cracking (OSL) 12-inch pothole at longitudinal joint between Mid-Lane/OSL	673,499	927,568
C-2 L1_EB Sta. 48+86 EB OSL	Cut 20.0	11.5 OSL (Old Merge Lane)	10.0 PS Concrete Exp. Gutter	1.8 LT FW	C	30.00	23.00	7.00 STBC	-	-	Asphalt STBC SG	2.5-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-2	A-4	M	5	Moderate to High Severity Longitudinal and Transverse Cracking at OSL/ISL joints (Reflective) No shoulder distress, 12-inch pothole at longitudinal joint between Mid-Lane/OSL	673,909	927,319
C-3 L1_EB Sta. 48+86 EB OSS	Cut 20.0	11.5 OSL (Old Merge Lane)	10.0 PS Concrete Exp. Gutter	8.0 RT FW	C	30.00	24.00	6.00 STBC	-	-	Asphalt STBC SG	2.5-5.0: RES - Brown, Silty Fine to Coarse SAND, trace mica	S-3	A-2-4	M	5	Moderate to High Severity Longitudinal and Transverse Cracking at OSL/ISL joints (Reflective) No shoulder distress, Approx. 12-inch pothole at longitudinal joint between Mid-Lane/OSL	673,914	927,327
Bulk-5 L1_EB Sta. 52+17 LT	Cut 15.0	-	-	-	-	-	-	-	-	-	-	1.0-3.0: RES - Brown-Red, F.-Cse. Sandy, Silty CLAY, trace mica Slighlty Plastic	Bulk-5	A-7-5	M 17%	3	Bulk Sample #5 Collected from Top of Cut Slope (LT)	674,177	927,124
C-4 L1_EB Sta. 53+86 EB OSS	Cut 10.0	12.0 Merge Lane	10.0 PS Concrete Exp. Gutter	2.0 RT FW	C	24.00	20.50	3.50 STBC	-	-	Asphalt STBC SG	2.0-5.0: RES - Orange, Fine to Coarse Sandy SILT, trace mica	S-4	A-4	M	5	Moderate Severity Longintudinal and Transverse Cracking in Merge Lane (ISWP) No shoulder distress	674,338	927,062
C-5 L1_EB Sta. 59+28 EB OSS	Fill 2.5	12.0 OSL	9.5 PS	5.4 RT FW	C	16.00	3.25	12.75 STBC	-	-	Asphalt STBC SG	1.3-2.5: RE - Red-Brown, Fine to Coarse Sandy SILT, trace mica 2.5-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-5 Ref-6	A-4 A-4	M M	5 5	Low Severity Transverse Cracking (OSS), Moderate Severity Transverse and Longitudinal Cracking at OSL/ISL Joints (Reflective), 12-inch x 12-inch patched pothole (OSL)	674,797	926,775
C-6 L1_EB Sta. 62+34 EB ISS	Fill 0.9	10.5 ISL	3.5 PS	2.0 LT FY	C	11.00	5.50	5.50 STBC	-	-	Asphalt STBC SG	0.9-5.0: RES - Brown, Fine to Coarse Sandy, Clayey SILT, trace mica	S-6	A-7-5	M	5	Low Severity Transverse Cracking (ISS), **Full Depth Bottom Up Crack in Core**	675,081	926,652
C-7 L1_EB Sta. 66+48 EB OSS	Fill 1.3	11.5 OSL	12.0 PS	2.0 RT FW	C	11.00	6.00	5.00 STBC	-	-	Asphalt STBC SG	0.9-1.3: RE - Brown-Orange, Fine to Coarse Sandy SILT, trace mica 1.3-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	Ref-9 S-7	A-4 A-4	M M	5	Moderate to High Severity Transverse and Longitudinal Cracking at OSL/ISL Joints (Reflective) Low to Moderate Severity Transverse and Longitudinal Cracking (ISS) Approx. 12-inch pothole at transverse oint at ISL/OSL	675,419	926,412
C-8 L1_EB Sta. 66+48 EB ISL	Fill 1.9	12.0 ISL	3.0 PS	2.3 RT FY	C	16.00	2.50	4.75 STBC	-	8.75	Asphalt Concrete STBC/SG	1.3-1.9: RE - Brown-Orange, Fine to Coarse Sandy SILT, trace mica 1.9-5.0: RES - Gray-Brown, Fine to Coarse Sandy SILT, trace mica and gravel	Ref-9 S-8	A-4 A-4	M M	5	Moderate to High Severity Transverse and Longitudinal Cracking at OSL/ISL Joints (Reflective) Low to Moderate Severity Transverse and Longitudinal Cracking (ISS) Approx. 12-inch pothole at transverse joint at ISL/OSL	675,432	926,432
C-9 L1_EB Sta. 62+48 EB ISS	Fill 1.5	12.0 ISL	3.0 PS	1.5 LT FY	C	12.00	5.00	7.00 STBC	-	-	Asphalt STBC SG	1.0-1.5: RE - Brown-Orange, Silty Fine to Coarse SAND, trace mica 1.5-5.0: RES - Gray-Brown, Fine to Coarse Sandy SILT, trace mica and gravel	S-9 S-9A	A-2-4 A-4	M M	5	Moderate to High Severity Transverse and Longitudinal Cracking at OSL/ISL Joints (Reflective) Low to Moderate Severity Transverse and Longitudinal Cracking (ISS) Approx. 12-16 inch pothole at transverse joint at ISL/OSL	675,434	926,435

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

Prepared by: DMB
Reviewed by: REK

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.		PROJECT TIP I.D.				ROUTE			
						34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
						COUNTY		FIELD PROFESSIONAL				FIELD CREW			
						Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location						Date Run		Test Location						Date Run	
C-1 L1_EB Sta. 44+07 EB OSS 10 FT RT FW						9/27-10/1, 10/11-10/13		C-2 L1_EB Sta. 48+86 EB OSL 1.8 FT LT FW						9/27-10/1, 10/11-10/13	
Type	Test Interval				Datum		Cut/Fill	Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC		20.0 ft Cut	DCP	Cumulative cm per blow				STBC		20.0 ft Cut	
1.20	19.40	89.60						1.20	36.20							
2.20	19.60	90.70						2.40	37.00							
2.80	20.00							3.50	37.80							
3.20	20.40							4.10	38.40							
3.60	20.70							5.40	39.20							
4.00	20.90							5.90	40.10							
4.20	21.20							6.80	41.40							
4.40	21.50							7.40	43.00							
4.90	22.00							8.10	44.60							
5.40	22.10							8.60	45.90							
5.50	22.40							9.30	46.80							
5.90	22.70							9.70	48.00							
6.40	23.00							10.30	49.90							
6.60	23.30							10.70	52.00							
6.80	23.80							11.10	53.90							
7.10	24.00							11.30	55.40							
7.30	24.50							11.40	55.90							
7.50	24.90							11.50	56.60							
7.80	25.50							11.70	57.20							
7.90	25.80							11.90	57.60							
8.10	26.10							12.00	58.10							
8.50	26.60							12.40	58.70							
8.90	27.10							12.60	59.60							
9.60	27.40							13.00	60.40							
9.90	27.80							13.30	61.20							
10.20	28.20							13.70	62.20							
10.60	28.70							14.00	63.20							
10.90	29.50							14.20	64.10							
11.20	30.10							14.70	64.80							
11.40	30.80							15.00	65.40							
11.80	31.50							15.20	66.00							
12.00	31.90							15.70	66.40							
12.30	32.50							16.20	66.80							
12.46	32.90							16.40	67.30							
12.62	33.40							16.90	67.60							
12.78	34.00							17.20	67.80							
12.94	35.20							17.50	68.00							
13.10	36.50							17.90	68.10							
13.26	37.20							18.20	68.30							
13.42	38.00							18.90	**50/0"**							
13.58	39.40							19.20	**DCP REF**							
13.74	41.00							19.70								
13.90	43.00							20.10								
14.10	45.00							20.50								
14.30	47.00							21.20								
14.50	49.30							21.80								
14.70	51.20							22.40								
14.90	53.00							23.10								
15.10	55.00							23.60								
15.30	57.00							24.20								
15.50	59.00							24.80								
15.70	61.20							25.90								
15.90	62.80							26.50								
16.16	64.40							27.20								
16.42	66.50							28.10								
16.68	68.20							28.90								
16.94	69.80							29.60								
17.20	71.90							30.20								
17.46	74.40							30.60								
17.72	77.00							30.80								
17.98	79.30							32.20								
18.24	81.90							33.40								
18.50	84.20							34.20								
19.00	85.70							34.90								
19.10	87.90							35.50								

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.		PROJECT TIP I.D.				ROUTE			
						34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
						COUNTY		FIELD PROFESSIONAL				FIELD CREW			
						Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location						Date Run		Test Location						Date Run	
C-3 L1_EB Sta. 48+86 EB OSS 8.0 FT RT FW						9/27-10/1, 10/11-10/13		C-4 L1_EB Sta. 53+86 EB OSS 2.0 FT RT FW						9/27-10/1, 10/11-10/13	
Type	Test Interval				Datum		Cut/Fill	Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC		20.0 ft Cut	DCP	Cumulative cm per blow				STBC		10.0 ft Cut	
0.10	46.40							1.30	42.30	73.50						
1.50	47.00							2.70	43.00	74.50						
3.00	47.90							3.60	43.60	75.00						
4.60	48.20							4.40	43.80	75.80						
5.90	49.10							5.40	44.10	76.30						
7.40	50.00							6.20	44.70	77.00						
9.10	51.50							7.20	45.30	77.80						
10.60	51.90							7.90	45.50	78.60						
12.40	52.30							8.70	45.90	79.20						
13.60	52.60							9.40	46.20	79.90						
15.10	53.70							10.50	46.40	80.70						
16.40	54.80							11.20	46.80	81.40						
17.30	55.40							12.00	47.10	81.90						
17.70	56.20							12.80	47.70	82.30						
18.30	57.10							13.60	48.00	83.30						
18.70	57.70							14.60	48.50	84.10						
19.10	58.40							15.40	48.80	84.60						
19.30	59.70							16.20	49.50	85.10						
19.90	60.10							17.20	49.70	85.70						
20.30	61.10							17.90	50.20	86.20						
20.70	61.90							18.10	50.60	86.80						
20.90	62.80							18.60	51.00	87.60						
21.30	63.70							19.10	51.50	88.00						
21.80	64.40							19.60	52.10	88.40						
21.90	65.40							20.20	52.50	89.00						
22.70	66.30							20.80	52.90	89.10						
23.40	67.20							21.00	53.20	89.50						
23.60	68.20							21.60	53.50	90.10						
23.90	69.30							22.10	54.00	90.70						
24.10	70.10							22.50	54.40	91.30						
24.60	71.10							23.00	54.80	91.80						
26.00	72.30							23.50	55.30	92.30						
27.00	73.30							24.20	55.70	92.90						
28.70	74.40							24.50	56.20	93.40						
29.80	75.70							24.90	56.50	94.00						
30.80	76.90							25.40	57.00	94.40						
31.40	77.80							25.80	57.50	95.00						
32.40	79.00							26.50	57.80	95.50						
33.40	80.30							27.00	58.30	96.00						
34.20	81.10							27.60	58.90	96.90						
34.70	81.70							28.30	59.60	97.50						
35.20	82.40							28.90	59.80	98.20						
35.60	83.00							29.40	60.10	98.60						
36.30	83.60							30.00	60.80	99.20						
36.70	84.40							30.80	61.00	99.70						
37.20	84.90							31.40	61.60	100.10						
37.70	85.40							32.10	61.90	100.60						
38.20	86.40							32.80	62.70	100.90						
38.40	87.30							33.30	63.00	101.30						
38.90	88.20							34.30	63.80	102.00						
39.30	89.50							34.80	64.30	102.40						
39.60	90.70							35.20	64.80	102.90						
40.00	91.60							36.00	65.00	103.40						
40.50	92.60							36.50	65.40	104.00						
40.70	93.70							37.20	66.00							
41.30	94.60							37.80	66.60							
41.90	95.80							38.20	67.30							
42.50	96.60							38.70	67.90							
42.90	97.50							39.20	68.60							
43.60	98.30							39.80	69.30							
44.20	99.20							40.10	69.90							
44.70	100.00							40.70	70.60							
45.30	100.90							41.00	71.30							
45.60	101.80							41.50	72.10							
46.00	102.50							41.80	72.80							

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET							WBS NO.	PROJECT TIP I.D.	ROUTE
							34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
							COUNTY	FIELD PROFESSIONAL	FIELD CREW
							Haywood	M. Brewer	C. Odom/D. Underwood
Test Location							Date Run	Test Location	Date Run
C-5 L1_EB Sta. 59+28 EB OSS 5.4 FT RT FW							9/27-10/1, 10/11-10/13	C-6 L1_EB Sta. 62+34 EB ISS 2.0 FT LT FY	9/27-10/1, 10/11-10/13
Type	Test Interval				Datum		Cut/Fill	Type	Test Interval				Datum		Cut/Fill
DCP	Cumulative cm per blow				STBC		2.5 ft Fill	DCP	Cumulative cm per blow				STBC		0.9 ft Fill
1.00	30.20	102.10	122.00					1.20	60.90	103.40					
2.00	31.60	102.30	122.40					1.80	61.20	103.90					
2.40	33.50	102.40	122.70					2.20	61.70	104.50					
3.30	35.90	102.60	123.00					3.00	62.00	105.00					
4.00	37.60	102.90	123.40					3.80	62.20	105.70					
4.60	39.40	103.00	123.70					4.50	62.50	106.40					
4.90	41.30	103.30	124.30					5.20	62.70	107.10					
5.40	43.10	103.50	124.50					6.00	63.10	107.60					
6.00	44.90	103.60	124.80					6.70	63.40	108.30					
6.30	46.60	104.00	125.20					7.70	63.70	109.10					
6.60	48.40	104.10	125.60					8.60	64.50	109.70					
7.40	50.40	104.30	126.00					9.60	65.10	110.70					
8.00	51.60	104.60	126.30					10.90	65.50	111.20					
8.50	52.60	104.70	126.70					12.10	66.00	112.20					
8.70	54.20	105.10	127.00					13.20	66.70	113.30					
9.00	55.90	105.40	127.40					14.60	67.40	114.40					
9.40	57.50	105.70	127.80					16.00	68.60	115.20					
9.90	59.30	106.20	128.10					17.30	69.30	116.30					
10.40	60.20	106.40	128.60					18.70	70.10	117.20					
10.60	61.10	106.80	129.00					19.80	71.10	118.20					
10.80	61.80	107.20	129.50					21.10	72.20	118.70					
11.10	62.50	107.40	130.00					21.80	72.70	119.70					
11.60	63.30	107.90	130.50					23.00	73.60	120.80					
11.70	64.50	108.20	131.00					23.70	74.70	121.70					
11.90	65.80	108.60	131.90					25.00	75.60	122.50					
12.20	67.40	109.10	132.40					26.60	76.40	123.40					
12.60	68.70	109.30	133.00					28.10	77.40	124.20					
12.80	69.70	109.60	133.30					29.50	78.10	125.10					
13.10	70.90	109.90	133.80					30.60	78.80	125.80					
13.40	72.30	110.30	134.20					31.50	79.50	126.40					
13.50	73.60	110.50	134.80					32.30	80.10	127.00					
13.90	74.90	110.90	135.20					32.90	80.70	127.40					
14.10	76.60	111.20	135.50					33.60	81.60	128.20					
14.20	78.50	111.40	136.00					34.10	82.20	129.10					
14.90	80.20	111.80	136.40					34.60	83.00	129.90					
15.00	82.40	112.10	136.70					35.00	83.70	130.50					
15.30	84.50	112.40	137.40					35.50	84.40	131.40					
15.60	86.00	112.70	137.90					36.20	85.10	132.10					
15.90	87.10	113.00	138.40					36.80	85.80	132.90					
16.20	88.10	113.30	138.80					37.50	86.60	133.50					
16.60	88.90	113.70	139.30					38.30	87.40	134.40					
16.80	89.70	114.00	139.60					39.00	88.00	134.90					
17.20	90.50	114.50	140.30					39.70	88.70						
17.70	91.40	114.60	140.70					40.60	89.40						
17.90	92.20	114.90	141.40					41.90	90.10						
18.30	93.00	115.30	141.80					43.30	90.70						
18.80	93.70	115.50	142.10					45.00	91.50						
19.10	94.30	115.80	142.60					47.10	92.10						
19.50	94.90	116.10	143.10					48.60	92.90						
19.90	95.90	116.40						49.80	93.50						
20.20	96.70	116.70						50.50	94.10						
20.70	97.30	116.80						51.50	94.90						
21.20	98.00	117.00						52.30	95.50						
21.70	98.80	117.50						53.50	95.70						
22.20	99.30	118.00						54.40	96.10						
22.70	99.60	118.40						55.20	96.70						
23.20	99.80	118.60						56.50	97.50						
23.70	100.20	118.90						57.70	98.00						
24.60	100.30	119.10						58.50	98.90						
25.10	100.40	120.00						59.00	99.50						
25.90	100.90	120.10						59.30	100.20						
26.60	101.20	120.30						59.60	100.70						
27.40	101.40	120.50						59.90	101.30						
28.30	101.60	120.90						60.20	102.10						
29.20	101.80	121.50						60.40	102.70						

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET							WBS NO.	PROJECT TIP I.D.	ROUTE
							34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
							COUNTY	FIELD PROFESSIONAL	FIELD CREW
							Haywood	M. Brewer	C. Odom/D. Underwood
Test Location							Date Run	Test Location	Date Run
C-7 L1_EB Sta. 66+48 EB OSS 2.0 FT RT FW							9/27-10/1, 10/11-10/13	C-8 L1_EB Sta. 66+48 EB ISL 2.3 FT RT FY	9/27-10/1, 10/11-10/13
Type	Test Interval				Datum		Cut/Fill	Type	Test Interval				Datum		Cut/Fill
DCP	Cumulative cm per blow				STBC		1.3 ft Fill	DCP	Cumulative cm per blow				STBC		1.9 ft Fill
1.10	34.10	71.90	100.50					1.30	32.90						
1.70	35.20	72.50	101.00					1.90	33.00						
2.30	36.10	72.90	101.50					2.60	33.40						
2.70	37.00	73.30	101.90					3.10	33.50						
3.10	37.80	73.60	102.50					3.50	33.70						
3.50	38.60	74.10	103.10					4.10	33.90						
3.70	39.40	74.60	103.80					4.60	34.00						
4.10	40.30	74.90	104.40					5.00	34.20						
4.40	41.00	75.30	104.90					5.40	34.29						
4.80	41.70	75.70	105.40					6.00	34.38						
5.10	42.30	76.20	106.10					6.40	34.47						
5.30	43.00	76.50	106.70					6.90	34.56						
5.70	43.90	76.70	107.40					7.50	34.65						
5.90	44.70	77.30	108.00					8.10	34.74						
6.20	45.50	77.70	108.80					8.60	34.83						
6.60	46.50	78.00	109.50					9.20	34.92						
6.90	47.10	78.40	110.40					9.70	35.01						
7.00	47.90	78.70	111.10					10.40	35.10						
7.20	48.60	79.10	112.00					11.30	35.13						
7.30	49.40	79.40	112.80					12.10	35.16						
8.00	50.10	79.80	113.50					13.00	35.19						
8.90	50.60	80.30	114.30					13.60	35.22						
10.40	51.20	80.70	115.10					14.50	35.25						
10.90	51.80	81.00	115.90					15.20	35.28						
11.40	52.40	81.40	116.80					15.90	35.31						
11.80	53.10	82.00	117.50					16.80	35.34						
12.10	53.60	82.30	118.20					17.50	35.37						
12.60	54.30	82.70	119.10					18.50	35.40						
13.00	55.00	83.20	119.80					19.20	35.43						
13.30	55.70	83.60	120.60					19.90	35.46						
13.80	56.30	83.90	121.30					20.50	35.49						
14.10	57.00	84.30	121.80					21.20	35.52						
14.40	57.60	84.70	122.30					21.70	35.55						
14.70	58.00	85.30	122.80					22.20	35.58						
15.10	58.40	85.50	123.50					22.60	35.61						
15.40	59.20	86.00	124.00					22.90	35.64						
15.60	59.50	86.40	124.60					23.30	35.67						
15.90	60.00	86.70	125.10					23.60	35.70						
16.50	60.70	87.30	125.60					23.80	35.72						
17.00	61.30	87.80	126.00					24.00	35.74						
17.60	61.70	88.30	126.50					24.20	35.76						
18.30	62.20	88.70	126.80					24.40	35.78						
19.00	62.60	89.20	127.40					24.70	35.80						
19.60	63.10	89.80	127.80					24.90	35.82						
20.10	63.40	90.30	128.10					25.30	35.84						
20.60	64.00	90.90	128.60					25.50	35.86						
21.30	64.50	91.20	129.10					25.90	35.88						
22.00	64.90	91.70	129.40					26.20	35.90						
22.70	65.40	92.10	129.80					26.60	35.92						
23.20	65.70	92.60	130.30					27.00	35.94						
23.90	66.20	93.00						27.10	35.96						
24.60	66.50	93.50						27.20	35.98						
25.30	66.80	94.00						28.10	36.00						
25.70	67.10	94.40						28.40	36.02						
26.70	67.40	94.90						28.70	36.04						
27.40	67.80	95.40						29.10	36.06						
27.70	68.30	95.90						29.70	36.08						
28.10	68.50	96.40						30.10	36.10						
28.50	69.00	96.90						30.50	**50/0.75'**						
29.10	69.50	97.40						31.00	**DCP REF**						
29.70	70.00	97.80						31.30							
30.60	70.30	98.30						31.50							
31.50	70.90	98.80						31.90							
32.40	71.20	99.50						32.20							
33.20	71.70	99.90						32.60							

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
	COUNTY	FIELD PROFESSIONAL	FIELD CREW
	Haywood	M. Brewer	C. Odom/D. Underwood
Test Location	Date Run	Test Location	Date Run
C-9 L1_EB Sta. 62+48 EB ISS 1.5 FT LT FY	9/27-10/1, 10/11-10/13		9/27-10/1, 10/11-10/13

Type	Test Interval		Datum	Cut/Fill	Type	Test Interval		Datum	Cut/Fill
DCP	Cumulative cm per blow		STBC	1.5 ft Fill	DCP	Cumulative cm per blow			
0.80	29.05	1.62							
1.40	29.10	1.70							
1.80	29.15	1.77							
2.30	29.20	1.84							
2.60	29.25	1.91							
2.90	29.30	1.98							
3.50	29.35	2.05							
3.60	29.40	2.12							
3.80	29.45	2.19							
4.00	29.50	2.26							
4.30	29.53	2.33							
4.50	29.56	2.40							
4.70	29.59	2.44							
5.00	29.62	2.48							
5.20	29.65	2.52							
5.50	29.68	2.56							
5.70	29.71	2.60							
6.00	29.74	2.64							
6.20	29.77	2.68							
6.40	29.80	2.72							
6.70	29.87	2.76							
7.00	29.94	2.80							
7.70	30.01	2.85							
8.20	30.08	2.90							
8.60	30.15	2.95							
9.00	30.22	3.00							
9.30	30.29	3.05							
9.50	30.36	3.10							
9.90	30.43	3.15							
10.50	30.50	3.20							
11.20	30.52	3.25							
11.40	30.54	3.30							
12.50	30.56	3.35							
13.10	30.58	3.40							
13.60	30.60	3.45							
14.20	30.62	3.50							
15.10	30.64	3.55							
16.20	30.66	3.60							
17.00	30.68	3.65							
17.90	30.70	3.70							
19.20	**50/1.3"**	3.75							
20.40	**DCP REF**	3.80							
21.40		3.82							
22.20	**AUGER**	3.84							
23.20	**3.6 cm**	3.86							
23.90	**to 34.3**	3.88							
25.00	0.00	3.90							
25.90	0.09	3.92							
26.30	0.18	3.94							
26.70	0.27	3.96							
26.90	0.36	3.98							
27.00	0.45	4.00							
27.20	0.54	**50/1"**							
27.70	0.63	**DCP REF**							
27.80	0.72								
27.92	0.81								
28.04	0.90								
28.16	0.98								
28.28	1.06								
28.40	1.14								
28.52	1.22								
28.64	1.30								
28.76	1.38								
28.88	1.46								
29.00	1.54								

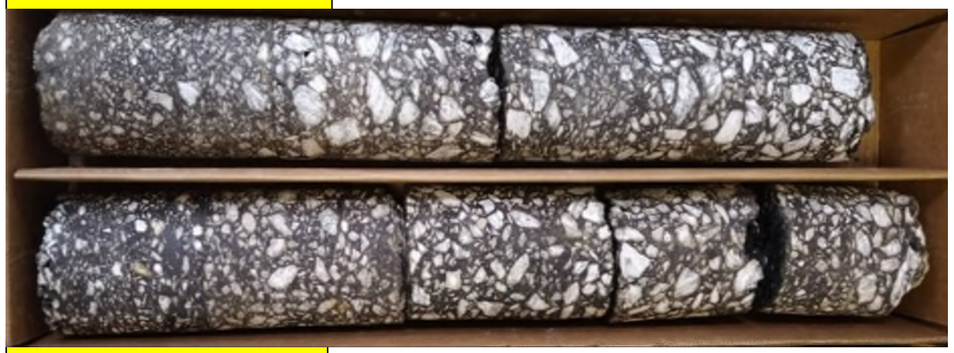
DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
	COUNTY	FIELD PROFESSIONAL	FIELD CREW
	Haywood	M. Brewer	C. Odom/D. Underwood
Test Location	Date Run	Test Location	Date Run
	9/27-10/1, 10/11-10/13		9/27-10/1, 10/11-10/13

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

I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

C-1 L1_EB Sta. 44+07 EB OSS

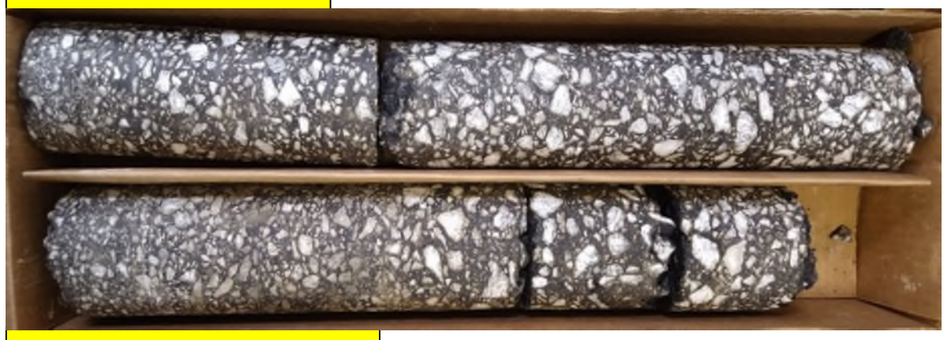


C-2 L1_EB Sta. 48+86 EB OSL

0 1 2

FEET

C-3 L1_EB Sta. 48+86 EB OSS



C-4 L1_EB Sta. 53+86 EB OSS

0 1 2

FEET

C-5 L1_EB Sta. 59+28 EB OSS

C-6 L1_EB Sta. 62+34 EB ISS

C-7 L1_EB Sta. 66+48 EB OSS

C-8 L1_EB Sta. 66+48 EB ISL

C-9 L1_EB Sta. 62+48 EB ISS

0 1 2

FEET

SOIL TEST RESULTS

SAMPLE NO.	ALIGNMENT	LANE	OFFSET	STATION	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	L1_EB	EB OSS	10 RT FW	44+07	2.5-5.0	A-1-b	23	NP	37.4%	34.0%	22.6%	6.0%	67.0%	48.4%	23.6%	7.0%	ND
S-3	L1_EB	EB OSS	8.0 RT FW	48+86	2.5-5.0	A-2-4	35	NP	41.2%	26.5%	24.3%	8.0%	67.0%	46.6%	25.4%	12.7%	ND
S-4	L1_EB	EB OSS	2.0 RT FW	53+86	2.0-5.0	A-4(0)	34	NP	27.8%	37.1%	23.1%	12.0%	94.8%	77.9%	39.8%	22.8%	ND
S-5	L1_EB	EB OSS	5.4 RT FW	59+28	1.3-2.5	A-4(0)	32	3	26.6%	31.3%	26.1%	16.1%	80.1%	66.7%	38.3%	15.0%	ND
S-6	L1_EB	EB ISS	2.0 LT FY	62+34	0.9-5.0	A-7-5(1)	48	12	28.9%	34.0%	23.0%	14.1%	88.5%	73.4%	38.1%	20.9%	ND
S-9	L1_EB	EB ISS	1.5 LT FY	62+48	1.0-1.5	A-2-4	28	3	40.4%	32.2%	17.4%	10.0%	79.8%	58.0%	26.1%	3.3%	ND

*FROM WHITE LINE (FW)
*FROM YELLOW LINE (FY)

Prepared in the Office of:
F&ME CONSULTANTS, INC.
COLUMBIA, SOUTH CAROLINA
NCDOT LAB CERT. NO. 132–0212

PAVEMENT INVESTIGATION DATA SHEET

Project:	34165.1.6
TIP:	I-2513AA/AB

Route:	I-26 from I-40 to SR 3548 (Haywood Road)
County:	Buncombe

Date Performed:	9/27-10/1 & 10/11-10/13 (6 Nights)
Field Personnel:	M. Brewer, D. Underwood, C. Odom

		Width (ft)		(ft)	(in)	Thickness (in)						SG						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/STBC	Shoulder Drain Drainage Sand CSS (Chemical)	Concrete	Pavement Layering	Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)	Asphalt Notes	Northing	Easting
C-10 L1_WB Sta. 44+64 WB OSL	Cut 20.0	12.0 OSL	12.5 PS	2.2 LT FW	C	19.00	4.25	5.25 STBC	-	9.50	Asphalt Concrete STBC/SG	1.6-5.0: RES - Brown-Red, Fine to Coarse Sandy SILT, trace mica	S-10	A-4	M	5	No Observed Distress	673,574	927,691
C-11 L1_WB Sta. 44+64 WB OSS	Cut 20.0	12.0 OSL	12.5 PS	6.0 RT FW	C	24.00	24.00	-	-	-	Asphalt SG	2.0-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-11	A-4	M	5	No Observed Distress	673,578	927,698
C-12 L1_WB Sta. 49+23 WB ISS	Cut 5.0	11.0 ISL	3.5 PS	1.8 LT FY	C	16.00	5.75	6.25 STBC	4.00 SAND	-	Asphalt STBC/Sand SG	1.3-5.0: RES - Brown, Silty Fine to Coarse SAND, trace mica	S-12	A-2-4	M	5	Moderate to High Severity Longitudinal and Transverse Cracking at joints (Reflective) Approx. 12 to 18-inch pothole at transverse joint at ISL/OSL	673,951	927,425
C-15 L1_WB Sta. 54+78 WB ISS	Cut 20.0	11.0 ISL	3.5 PS	2.4 LT FY	C	15.50	5.75	5.75 STBC	4.00 SAND	-	Asphalt STBC/Sand SG	1.3-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-15	A-4	M	5	Moderate to High Severity Longitudinal and Transverse Cracking at joints (Reflective) No Observed Distress (ISS)	674,435	927,152
C-16 L1_WB Sta. 54+79 WB ISL	Cut 20.0	11.0 ISL	3.5 PS	6.5 RT FY	C	19.00	2.25	7.50 STBC	-	9.25	Asphalt Concrete STBC/SG	1.7-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-16	A-4	M	5	Moderate to High Severity Longitudinal and Transverse Cracking at joints (Reflective)	674,440	927,160
C-17 L1_WB Sta. 54+79 WB OSL	Cut 20.0	12.8 OSL	10.0 PS	3.4 LT FW	C	18.00	2.50	5.75 STBC	-	9.75	Asphalt Concrete STBC/SG	1.5-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-17	A-4	M	5	Low to Moderate Severity Transverse and Longitudinal Cracking at joints (Reflective) Low to Moderate Severity Longidutinal Cracking (ISWP - OSL)	674,452	927,181
C-18 L1_WB Sta. 54+80 WB OSS	Cut 20.0	12.8 OSL	10.0 PS	5.5 RT FW	C	14.00	5.50	4.50 STBC	4.00 SAND	-	Asphalt STBC/Sand SG	1.2-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-18	A-4	M	5	Low to Moderate Severity Transverse and Longitudinal Cracking at joints (Reflective) Low to Moderate Severity Longidutinal Cracking (ISWP - OSL) No Observed Distress (OSS)	674,457	927,189
C-20 L1_WB Sta. 59+80 WB OSS	Cut 20.0	12.0 OSL	9.8 PS	1.8 RT FW	C	16.00	6.00	6.00 STBC	4.00 SAND	-	Asphalt STBC/Sand SG	1.3-5.0: RES - Brown-Gray, Silty Fine to Coarse SAND, trace mica	S-20	A-2-4	M	5	Low to Moderate Severity Transverse and Longitudinal Cracking at joints (Reflective) Moderate Severity Ravelling at OSML, No Observed Distress (OSS)	674,898	926,953
C-25 L1_WB Sta. 65+83 WB ISS	Cut 5.0	11.0 ISL	3.5 PS	2.3 LT FY	C	16.00	6.25	5.75 STBC	4.00 SAND	-	Asphalt STBC/Sand SG	1.3-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-25	A-4	M	5	Low Severity Transverse Cracking, Low Severity Edge Cracking (Reflective)	675,457	926,729
C-26 L1_WB Sta. 65+83 WB OSL	Fill 5.0	11.0 OSL	9.0 PS	1.9 LT FW	C	18.50	3.00	6.50 STBC	-	9.00	Asphalt Concrete STBC/SG	1.5-5.0: RE - Brown-Red, Fine to Coarse Sandy, Clayey SILT	S-26	A-6	M	5	Low Severity Transverse Cracking, Low Severity Edge Cracking (Reflective)	675,462	926,752
C-27 L1_WB Sta. 65+83 WB OSS	Fill 5.0	11.0 OSL	9.0 PS	5.2 RT FW	C	15.00	4.75	6.25 STBC	4.00 SAND	-	Asphalt STBC/Sand SG	1.3-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica	S-27	A-4	M	5	Low Severity Transverse Cracking, Low Severity Edge Cracking (Reflective)	675,463	926,759

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

Prepared by: DMB
Reviewed by: REK

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.	PROJECT TIP I.D.	ROUTE
						34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
						COUNTY	FIELD PROFESSIONAL	FIELD CREW
						Haywood	M. Brewer	C. Odom/D. Underwood
Test Location						Date Run	Test Location	Date Run
C-10 L1_WB Sta. 44+64 WB OSL 2.2 FT LT FW						9/27-10/1, 10/11-10/13	C-11 L1_WB Sta. 44+64 WB OSS 6.0 FT RT FW	9/27-10/1, 10/11-10/13
Type	Test Interval			Datum		Cut/Fill	Type	Test Interval			Datum		Cut/Fill
DCP	Cumulative cm per blow			STBC		20.0 ft Cut	DCP	Cumulative cm per blow			Subgrade (A-4)		20.0 ft Cut
0.60	82.90	139.14					2.50	90.00					
2.00	84.10	139.30					3.70	90.40					
2.80	86.30						5.10	90.68					
3.30	87.90						6.40	90.96					
4.00	89.70						7.40	91.24					
4.80	91.40						8.40	91.52					
5.00	93.40						9.50	91.80					
5.80	94.90						10.10	92.08					
6.30	96.80						11.10	92.36					
7.20	99.10						12.40	92.64					
7.80	101.00						13.50	92.92					
8.40	102.90						14.60	93.20					
9.10	104.70						16.10	93.29					
10.00	107.00						17.60	93.38					
11.20	109.30						19.30	93.47					
12.20	111.60						20.90	93.56					
13.20	113.60						23.00	93.65					
14.60	115.80						24.90	93.74					
15.30	118.10						26.70	93.83					
16.70	120.40						28.60	93.92					
18.20	121.90						30.40	94.01					
19.60	124.50						32.60	94.10					
20.80	126.20						34.60	94.15					
22.20	127.30						36.40	94.20					
23.50	128.60						37.90	94.25					
24.60	130.10						39.40	94.30					
25.60	132.30						40.80	94.35					
26.80	134.20						42.10	94.40					
27.80	135.50						43.40	94.45					
29.10	135.90						45.20	94.50					
30.50	136.00						47.00	94.55					
31.80	136.10						49.00	94.60					
33.10	136.20						51.20	94.65					
34.30	136.30						53.50	94.70					
34.90	136.40						55.10	94.75					
35.80	136.50						56.30	94.80					
36.60	136.60						57.40	94.85					
37.40	136.70						58.80	94.90					
38.40	136.80						60.40	94.95					
39.60	136.90						62.10	95.00					
40.50	137.00						63.70	95.05					
41.80	137.10						65.40	95.10					
43.10	137.17						67.10	95.11					
44.50	137.24						69.20	95.12					
45.80	137.31						70.90	95.13					
47.00	137.38						73.00	95.14					
48.60	137.45						74.60	95.15					
49.80	137.52						75.90	95.16					
51.00	137.59						76.80	95.17					
52.50	137.66						77.60	95.18					
54.20	137.73						79.60	95.19					
56.00	137.80						80.60	95.20					
57.30	137.87						81.40	**50/2"**					
58.60	137.94						82.10	**DCP REF**					
60.40	138.01						82.90						
62.40	138.08						83.60						
64.10	138.15						84.50						
65.70	138.22						85.40						
67.90	138.29						86.40						
70.30	138.36						87.40						
72.10	138.43						88.10						
75.10	138.50						88.70						
77.30	138.66						89.20						
79.20	138.82						89.50						
81.10	138.98						89.80						

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.	PROJECT TIP I.D.	ROUTE
						34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
						COUNTY	FIELD PROFESSIONAL	FIELD CREW
						Haywood	M. Brewer	C. Odom/D. Underwood
Test Location						Date Run	Test Location	Date Run
C-12 L1_WB Sta. 49+23 WB ISS 1.8 FT LT FY						9/27-10/1, 10/11-10/13	C-15 L1_WB Sta. 54+78 WB ISS 2.4 FT LT FY	9/27-10/1, 10/11-10/13
Type	Test Interval			Datum		Cut/Fill	Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow			STBC		5.0 ft Cut	DCP	Cumulative cm per blow				STBC		20.0 ft Cut	
0.80	51.30						0.60	39.30	61.30	99.80					
1.20	51.40						1.20	39.70	61.90	100.40					
2.00	51.70						2.00	39.90	62.50	100.80					
2.50	51.90						2.20	40.30	63.20	101.20					
2.90	52.10						3.40	40.70	64.00	101.70					
3.80	52.21						4.00	40.96	64.70	102.20					
4.50	52.32						4.50	41.22	64.90	102.70					
4.90	52.43						5.00	41.48	66.20	103.20					
5.50	52.54						5.60	41.74	66.40	103.70					
6.00	52.65						6.10	42.00	67.00	104.20					
6.20	52.76						6.90	42.20	67.90	104.70					
7.10	52.87						7.80	42.40	68.50	104.90					
7.90	52.98						8.20	42.60	69.00	106.00					
8.40	53.09						9.40	42.80	70.30	106.30					
9.10	53.20						10.30	43.00	70.80	107.00					
9.40	53.21						10.90	43.28	71.30	107.40					
10.10	53.21						11.90	43.56	71.80	107.90					
10.90	53.22						12.70	43.84	72.30	109.10					
11.10	53.22						13.30	44.12	72.90	109.70					
11.60	53.23						14.60	44.40	73.50	110.20					
12.70	53.23						15.60	44.70	74.10	110.70					
13.40	53.24						16.50	45.00	74.60	111.30					
13.90	53.24						17.50	45.30	75.20	112.00					
15.00	53.25						18.40	45.60	75.90	112.60					
15.90	53.25						19.30	45.90	76.60	113.30					
16.90	53.26						20.20	46.20	77.30	113.90					
18.00	53.26						20.70	46.50	77.80	114.10					
19.20	53.27						20.90	46.80	78.40	115.10					
20.60	53.27						21.30	47.10	78.90	115.60					
21.90	53.28						22.20	47.40	79.40	115.90					
23.10	53.28						22.80	47.70	80.00	116.30					
24.00	53.29						23.30	48.00	80.60	116.90					
25.50	53.29						23.70	48.30	81.30	117.80					
26.90	53.30						24.40	48.60	81.70	118.60					
28.30	53.30						24.60	48.90	82.50	119.30					
30.30	53.31						25.10	49.26	82.90	120.10					
31.90	53.31						25.60	49.62	83.50	121.00					
33.70	53.32						26.00	49.98	84.20	122.00					
35.20	53.32						26.60	50.34	84.80	122.80					
36.90	53.33						27.00	50.70	85.20	123.50					
38.40	53.33						27.40	51.02	85.60	124.40					
39.80	53.34						27.70	51.34	86.00	125.10					
41.00	53.34						27.90	51.66	86.50	126.20					
41.90	53.35						28.50	51.98	86.70	128.20					
42.20	53.35						29.00	52.30	87.70	129.50					
43.40	53.36						29.30	52.68	88.20	130.20					
43.70	53.36						29.70	53.06	88.80	130.60					
44.40	53.37						30.30	53.44	89.30	131.20					
44.70	53.37						30.80	53.82	89.60	132.00					
45.60	53.38						31.30	54.20	90.00	132.80					
45.70	53.38						32.00	54.50	90.60	133.20					
46.20	53.39						32.50	54.80	91.00	134.90					
46.60	53.39						33.10	55.40	91.50	135.80					
47.00	53.40						33.80	55.80	92.70	136.50					
47.40	53.40						34.20	56.30	93.30						
47.90	**50/0.5"**						34.90	56.80	93.90						
48.20	**DCP REF**						35.40	57.20	94.40						
48.60							35.90	57.40	95.10						
48.90							36.50	58.00	95.70						
49.30							37.10	58.40	96.40						
49.70							37.30	58.80	97.00						
50.00							37.70	59.40	97.50						
50.30							38.10	60.10	98.30						
50.60							38.40	60.50	98.90						
50.90							38.90	61.10	99.30						

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
	COUNTY	FIELD PROFESSIONAL	FIELD CREW
	Haywood	M. Brewer	C. Odom/D. Underwood

Test Location	Date Run
C-16 L1_WB Sta. 54+79 WB ISL 6.5 FT RT FY	9/27-10/1, 10/11-10/13

Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC		20.0 ft Cut	
3.40	26.66							
6.10	26.84							
7.50	27.02							
8.70	27.20							
9.40	27.36							
10.40	27.52							
10.80	27.68							
11.60	27.84							
12.20	28.00							
12.80	28.10							
13.40	28.20							
13.90	28.30							
14.40	28.40							
14.90	28.50							
15.50	28.64							
16.00	28.78							
16.30	28.92							
16.60	29.06							
16.90	29.20							
17.40	29.26							
17.70	29.32							
18.10	29.38							
18.30	29.44							
18.40	29.50							
18.70	29.56							
19.00	29.62							
19.30	29.68							
19.70	29.74							
20.10	29.80							
20.40	29.90							
20.60	30.00							
20.90	30.10							
21.00	30.20							
21.20	30.30							
21.30	30.40							
21.40	30.50							
21.60	30.60							
21.70	30.70							
21.90	30.80							
22.00	30.93							
22.20	31.06							
22.30	31.19							
22.40	31.32							
22.50	31.45							
22.70	31.58							
23.00	31.71							
23.10	31.84							
23.20	31.97							
23.40	32.10							
23.50	**50/2.4"**							
23.70	**DCP REF**							
23.80								
23.90								
24.00								
24.30								
24.50								
24.70								
24.80								
24.90								
25.30								
25.40								
25.70								
25.80								
26.30								
26.48								

Test Location	Date Run
C-17 L1_WB Sta. 54+79 WB OSL 3.4 FT LT FW	9/27-10/1, 10/11-10/13

Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC		20.0 ft Cut	
0.80	35.52	57.50	92.20	117.10				
1.30	35.76	58.30	92.60	117.60				
1.70	36.00	58.90	92.70	118.20				
2.40	36.18	59.60	93.20	118.70				
2.80	36.36	60.00	93.30	119.20				
3.00	36.54	60.50	93.70	119.80				
3.50	36.72	61.30	94.30	120.10				
4.20	36.90	61.70	94.60	120.60				
4.80	37.06	62.30	94.80	120.90				
5.50	37.22	63.10	95.00	121.20				
6.80	37.38	63.70	95.10	121.70				
7.80	37.54	64.30	95.40	122.40				
8.90	37.70	64.90	95.80	122.80				
10.30	37.90	65.40	96.20					
11.60	38.10	66.20	96.40					
12.60	38.30	66.70	96.60					
13.60	38.50	67.30	97.10					
14.90	38.70	68.00	97.60					
16.40	38.90	68.40	98.00					
17.90	39.10	69.20	98.40					
19.50	39.30	69.80	98.70					
20.80	39.50	70.30	99.00					
21.60	39.70	71.20	99.20					
22.30	39.90	71.50	99.70					
22.80	40.40	72.10	100.10					
23.00	40.60	72.60	100.30					
23.50	41.00	73.20	100.70					
24.20	41.30	73.70	101.00					
24.40	41.60	74.30	101.26					
24.80	41.80	74.80	101.52					
25.40	41.90	75.50	101.78					
25.80	42.30	76.20	102.04					
26.20	42.60	76.80	102.30					
26.50	42.70	77.10	102.70					
26.90	43.00	78.20	103.20					
27.40	43.22	78.90	103.40					
27.70	43.44	79.20	103.90					
28.00	43.66	80.30	104.20					
28.50	43.88	81.00	104.70					
28.90	44.10	81.60	104.90					
29.10	44.54	82.10	105.30					
29.70	44.98	82.70	105.60					
30.00	45.42	83.40	105.90					
30.40	45.86	83.90	106.40					
30.50	46.30	84.10	106.80					
30.80	46.64	84.40	107.20					
30.90	46.98	85.10	107.70					
31.30	47.32	85.40	108.00					
31.54	47.66	85.80	108.60					
31.78	48.00	86.40	108.90					
32.02	48.40	86.80	109.50					
32.26	49.00	87.10	109.70					
32.50	49.50	87.60	110.30					
32.70	50.00	88.00	110.70					
32.90	50.50	88.60	111.30					
33.20	51.00	88.90	111.70					
33.50	51.60	89.30	112.30					
33.70	52.10	89.70	112.80					
33.80	52.80	90.00	113.30					
34.10	53.40	90.50	113.80					
34.30	54.30	90.60	114.30					
34.60	54.90	91.10	114.90					
34.80	55.40	91.20	115.40					
35.04	56.10	91.70	116.10					
35.28	56.80	92.00	116.60					

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
	COUNTY	FIELD PROFESSIONAL	FIELD CREW
	Haywood	M. Brewer	C. Odom/D. Underwood

Test Location	Date Run
C-18 L1_WB Sta. 54+80 WB OSS 5.5 FT RT FW	9/27-10/1, 10/11-10/13

Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC		20.0 ft Cut	
0.90	52.50	104.70						
1.40	53.10	106.40						
1.90	53.50	107.90						
2.60	53.90	109.40						
3.40	54.20	110.70						
3.90	54.90	112.10						
4.40	55.40	113.60						
4.90	56.10	115.00						
5.50	56.80	116.40						
5.80	57.30	117.80						
6.50	57.70	119.20						
7.10	58.30	120.20						
7.50	58.60	121.40						
8.20	58.80	122.40						
9.10	59.20	123.70						
10.00	59.60	124.90						
10.90	59.70	126.00						
11.60	60.00	127.10						
12.60	60.40	128.40						
13.30	61.10	129.60						
14.20	61.30	130.70						
15.30	61.60	131.70						
16.50	62.10	132.90						
17.60	62.50	133.80						
19.20	63.20	134.90						
21.40	63.80	135.90						
24.10	64.50	137.10						
27.10	65.10	138.00						
29.80	65.40	138.90						
31.70	65.90	140.00						
33.30	66.30	141.00						
34.40	66.80							
35.70	67.50							
38.10	68.10							
39.10	68.40							
39.90	69.30							
40.60	69.60							
41.20	70.20							
41.70	70.90							
41.90	71.90							
42.40	73.00							
42.90	73.80							
43.30	74.80							
43.60	75.60							
43.90	76.60							
44.50	77.80							
44.90	78.60							
45.10	79.70							
45.50	80.80							
45.90	81.90							
46.30	83.10							
46.80	84.40							
47.00	85.70							
47.60	86.80							
47.90	88.00							
48.00	89.20							
48.10	90.50							
49.10	92.20							
49.40	93.50							
50.00	95.00							
50.30	96.60							
50.50	98.30							
51.30	100.10							
51.60	101.70							
52.00	103.30							

Test Location	Date Run
C-20 L1_WB Sta. 59+80 WB OSS 1.8 FT RT FW	9/27-10/1, 10/11-10/13

Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC		20.0 ft Cut	
1.30	44.20							
1.80	44.25							
2.30	44.30							
2.90	44.35							
3.30	44.40							
3.60	44.45							
4.10	44.50							
4.50	44.55							
4.80	44.60							
5.20	44.68							
5.60	44.76							
6.00	44.84							
7.10	44.92							
7.60	45.00							
8.10	45.08							
8.60	45.16							
8.90	45.24							
9.50	45.32							
10.20	45.40							
10.80	45.47							
11.30	45.54							
11.80	45.61							
12.40	45.68							
13.10	45.75							
13.80	45.82							
14.70	45.89							
16.50	45.96							
17.60	46.03							
18.70	46.10							
19.90	46.15							
21.50	46.20							
23.50	46.25							
26.00	46.30							
28.20	46.35							
29.90	46.40							
31.50	46.45							
33.20	46.50							
34.30	46.55							
35.30	46.60							
36.40	**50/1.25"**							
37.50	**DCP REF**							
38.20								
39.20								
40.40								
41.30								
42.00								
42.30								
42.50								
42.70								
42.80								
43.10								
43.30								
43.40								
43.50								
43.56								
43.62								
43.68								
43.74								
43.80								
43.86								
43.92								
43.98								
44.04								
44.10								
44.15								

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
	COUNTY	FIELD PROFESSIONAL	FIELD CREW
	Haywood	M. Brewer	C. Odom/D. Underwood

Test Location	Date Run	Test Location	Date Run
C-25 L1_WB Sta. 65+83 WB ISS 2.3 FT LT FY	9/27-10/1, 10/11-10/13	C-26 L1_WB Sta. 65+83 WB OSL 1.9 FT LT FW	9/27-10/1, 10/11-10/13

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

0.90	64.30	105.80						0.80	76.60	101.90						1.70	75.60	85.94					
1.90	64.90	106.40						1.50	77.10	101.91						2.00	76.50	85.99					
2.30	66.20	107.20						2.40	77.60	101.93						3.30	77.50	86.05					
2.70	67.30	107.90						3.20	78.10	101.94						4.30	78.00	86.10					
3.20	67.70	108.50						3.80	78.40	101.96						5.20	78.40	86.18					
3.60	68.80	109.30						4.60	78.80	101.97						6.20	78.80	86.26					
4.10	69.20	110.20						5.60	79.50	101.98						7.30	79.00	86.34					
4.80	70.30	110.90						7.00	79.90	102.00						8.20	79.30	86.42					
5.20	71.40	111.60						8.20	80.30	102.01						8.80	79.70	86.50					
6.00	72.80	112.60						9.50	80.80	102.03						9.90	79.80	86.58					
6.20	74.30	113.20						10.60	81.20	102.04						10.90	80.00	86.66					
6.60	75.90	114.10						11.50	81.80	102.05						12.10	80.40	86.74					
7.10	77.30	114.70						12.50	82.10	102.07						13.10	80.55	86.82					
7.40	78.40	115.50						13.80	82.70	102.08						14.40	80.70	86.90					
7.80	79.40	116.20						15.00	82.90	102.10						15.80	80.85	**50/1.7"**					
8.10	80.40	116.90						16.50	83.50	102.11						16.60	81.00	**DCP REF**					
8.50	81.70	117.50						18.00	83.80	102.12						17.60	81.15						
9.10	82.70	118.20						19.70	84.40	102.14						18.40	81.30						
9.70	83.50	118.60						21.60	84.60	102.15						19.90	81.45						
10.30	84.10	119.20						23.20	85.20	102.17						21.70	81.60						
11.10	84.40	119.70						25.10	85.60	102.18						24.00	81.75						
11.80	85.20	120.20						27.40	86.40	102.19						25.70	81.90						
12.50	86.50	120.70						28.70	86.60	102.21						26.90	82.30						
13.30	87.70	121.20						32.30	87.20	102.22						28.50	82.70						
14.20	88.80	121.60						35.10	87.30	102.24						30.10	82.80						
14.90	89.90	122.30						37.80	87.90	102.25						31.60	83.10						
16.10	90.30	122.80						39.70	88.20	102.26						33.50	83.50						
17.50	90.60	123.40						41.80	88.70	102.28						35.30	83.60						
19.20	90.90	123.70						43.80	88.90	102.29						36.60	83.90						
21.60	91.90	124.10						45.30	89.20	102.31						37.40	83.96						
24.20	92.30	124.70						46.60	89.40	102.32						38.40	84.01						
26.00	92.60	125.10						48.20	89.60	102.33						39.40	84.07						
26.80	92.80	125.30						49.90	90.00	102.35						40.90	84.12						
27.30	93.30	125.60						51.20	90.60	102.36						41.40	84.18						
27.70	93.50	126.00						52.40	90.70	102.38						44.10	84.23						
28.20	93.90	126.20						53.80	91.10	102.39						45.60	84.29						
28.80	94.30	126.40						54.10	91.30	102.40						47.00	84.34						
29.50	94.80	126.59						54.90	91.60	102.42						48.70	84.40						
30.60	95.20	126.78						55.70	92.10	102.43						49.90	84.45						
31.70	95.60	126.97						56.80	92.30	102.45						51.00	84.51						
33.00	96.00	127.16						57.70	92.90	102.46						52.00	84.56						
34.40	96.40	127.35						59.20	93.20	102.47						54.10	84.62						
35.90	96.70	127.54						60.50	93.50	102.49						55.70	84.67						
36.90	97.10	127.73						61.40	93.80	102.50						57.40	84.73						
38.40	97.40	127.92						63.00	94.30	102.52						58.90	84.78						
39.50	97.60	128.11						64.20	94.60	102.53						60.50	84.84						
40.70	97.90	128.30						65.20	94.90	102.54						61.00	84.89						
43.20	98.10	128.42						66.20	95.40	102.56						61.40	84.95						
44.60	98.30	128.54						67.20	95.80	102.57						61.80	85.00						
46.30	98.50	128.66						68.00	96.20	102.59						62.20	85.06						
47.60	98.70	128.78						68.60	96.40	102.60						62.60	85.11						
48.60	98.90	128.90						69.70	96.50	**50/0.25"**						62.90	85.17						
49.60	99.20	129.00						70.40	97.10	**DCP REF**						63.40	85.22						
50.40	99.60	129.30						70.90	97.40							64.20	85.28						
51.30	100.00	129.50						71.40	97.80							65.30	85.33						
52.20	100.50	129.70						71.90	98.20							66.40	85.39						
53.30	100.80	129.80						72.30	98.80							67.40	85.44						
54.20	101.50	129.90						72.60	99.30							68.30	85.50						
55.10	101.90							72.90	99.60							69.30	85.55						
56.00	102.50							73.50	100.30							70.40	85.61						
57.90	103.00							74.10	100.70							71.30	85.66						
59.00	103.50							74.70	101.00							72.60	85.72						
60.60	104.00							75.20	101.20							73.30	85.77						
61.40	104.70							75.80	101.30							74.10	85.83						
63.00	105.20							76.40	101.50							74.90	85.88						

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
	COUNTY	FIELD PROFESSIONAL	FIELD CREW
	Haywood	M. Brewer	C. Odom/D. Underwood

Test Location	Date Run	Test Location	Date Run
C-27 L1_WB Sta. 65+83 WB OSS 5.2 FT RT FW	9/27-10/1, 10/11-10/13		9/27-10/1, 10/11-10/13

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

I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

C-10 L1_WB Sta. 44+64 WB OSL

C-11 L1_WB Sta. 44+64 WB OSS

0 1 2

FEET

C-12 L1_WB Sta. 49+23 WB ISS

C-15 L1_WB Sta. 54+78 WB ISS

C-16 L1_WB Sta. 54+79 WB ISL

0 1 2

FEET

C-17 L1_WB Sta. 54+79 WB OSL

C-18 L1_WB Sta. 54+80 WB OSS

C-20 L1_WB Sta. 59+80 WB OSS

C-25 L1_WB Sta. 65+83 WB ISS

0 1 2

FEET

C-27 L1_WB Sta. 65+83 WB OSS

C-26 L1_WB Sta. 65+83 WB OSL

0 1 2

FEET

SOIL TEST RESULTS

SAMPLE NO.	ALIGNMENT	LANE	OFFSET	STATION	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-10	L1_WB	WB OSL	2.2 LT FW	44+64	1.6-5.0	A-4(0)	35	NP	25.2%	31.0%	25.7%	18.1%	83.0%	70.5%	40.8%	16.0%	ND
S-12	L1_WB	WB ISS	1.8 LT FY	49+23	1.3-5.0	A-2-4	32	NP	38.4%	34.4%	21.2%	6.0%	84.4%	63.6%	27.9%	9.4%	ND
S-15	L1_WB	WB ISS	2.4 LT FY	54+78	1.3-5.0	A-4(0)	32	5	26.2%	37.3%	26.4%	10.0%	84.5%	70.6%	37.1%	9.7%	ND
S-17	L1_WB	WB OSL	3.4 LT FW	54+79	1.5-5.0	A-4(0)	48	NP	32.0%	34.1%	23.9%	10.1%	92.4%	75.5%	37.5%	9.2%	ND
S-20	L1_WB	WB OSS	1.8 RT FW	59+80	1.3-5.0	A-2-4	27	NP	26.5%	38.6%	24.0%	11.0%	80.7%	67.9%	34.4%	11.3%	ND
S-26	L1_WB	WB OSL	1.9 LT FW	65+83	1.5-5.0	A-6(2)	36	11	28.3%	27.1%	28.5%	16.1%	85.6%	69.2%	42.6%	16.9%	ND

*FROM WHITE LINE (FW)
*FROM YELLOW LINE (FY)

Prepared in the Office of:
F&ME CONSULTANTS, INC.
COLUMBIA, SOUTH CAROLINA
NCDOT LAB CERT. NO. 132–0212

PAVEMENT INVESTIGATION DATA SHEET

Project:	34165.1.6
TIP:	I-2513AA/AB

Route:	I-26 from I-40 to SR 3548 (Haywood Road)
County:	Buncombe

Date Performed:	9/27-10/1 & 10/11-10/13 (6 Nights)
Field Personnel:	M. Brewer, D. Underwood, C. Odom

		Width (ft)		(ft)	(in)	Thickness (in)						SG						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/STBC	Shoulder Drain Drainage Sand CSS (Chemical)	Concrete	Pavement Layering	Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)	Asphalt Notes	Northing	Easting
C-14 RPD Sta. 11+06 WB OSS	Cut 10.0	15.5 RAMP	3.8 PS	2.3 RT FW	C	14.25	6.25	4.00 STBC	4.00 SAND	-	Asphalt STBC/Sand SG	1.2-1.7: RE - Brown, Fine to Coarse Sandy SILT, trace mica 1.7-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-14 Ref-11	A-4 A-4	M M	5	Low Severity Transverse Cracking and Longitudinal Cracking (RAMP - ISWP) No Shoulder Distress	673,977	927,475
C-13 RPD Sta. 11+07 RAMP	Cut 10.0	15.5 RAMP	3.8 PS	6.0 LT FW	C	20.00	2.75	7.75 STBC	-	9.50	Asphalt Concrete STBC/SG	1.7-3.0: RE - Brown, Silty Fine to Coarse SAND, trace mica 3.0-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-13 Ref-11	A-2-4 A-4	M M	5	Low Severity Transverse Cracking and Longitudinal Cracking (RAMP - ISWP) No Shoulder Distress	673,974	927,467
C-19 RPDB Sta. 14+83 WB ISS	Cut 20.0	11.0 ISL	3.2 PS	2.4 LT FY	C	16.50	6.50	6.00 STBC	4.00 SAND	-	Asphalt STBC/Sand SG	1.4-5.0: RES - Brown-Orange, Fine to Coarse Sandy SILT, trace mica	S-19	A-4	M	5	Low to Moderate Severity Transverse and Longitudinal Cracking at joints (Reflective) Moderate Severity Ravelling at OSML, No Observed Distress (ISS)	674,875	926,905
C-21 RPDB Sta. 18+14 WB OSS	Cut 20.0	11.0 OSL	11.5 PS	5.7 RT FW	C	16.00	5.00	7.00 STBC	4.00 SAND	-	Asphalt STBC/Sand SG	1.3-5.0: RES - Brown-Gray, Fine to Coarse Sandy SILT, Trace mica	S-21	A-4	M	5	Low to Moderate Severity Longitudinal and Transverse Cracking at joints (Reflective) High Seveirty Shoving at 3 OSL Panels, approximately 65 feet south of test location.	675,179	926,771
Bulk-4 RPDB Sta. 20+42 LT	Cut 20.0	-	-	-	-	-	-	-	-	-	-	1.0-3.0: RES - Brown-Orange, Silty F.-Cse. SAND, trace mica	Bulk-4	A-2-4	M 19%	3	Bulk Sample #4 Collected at grade near toe of existing cut slope (LT)	675,349	926,608
C-22 RPDB Sta. 20+43 WB ISS	Cut 20.0	11.0 ISL	3.5 PS	1.7 LT FY	C	17.00	5.50	7.50 STBC	4.00 SAND	-	Asphalt STBC/Sand SG	1.4-5.0: RES - Brown-Orange, Fine to Coarse Sandy SILT, trace mica	S-22	A-4	M	5	Low Severity Longitudinal and Transverse Cracking at joints (Reflective) Moderate Severity Raveling at OSL joints No Shoulder Distress	675,375	926,651
C-23 RPDB Sta. 20+44 WB OSL	Fill 5.0	11.0 OSL	12.0 PS	2.8 LT FW	C	19.00	5.50	5.00 STBC		8.50	Asphalt Concrete STBC/SG	1.6-5.0: RE - Brown-Red, Fine to Coarse Sandy, Clayey SILT, trace mica	S-23	A-4	M	5	Low Severity Longitudinal and Transverse Cracking at joints (Reflective) Moderate Severity Raveling at OSL joints	675,364	926,631
C-24 RPDB Sta. 20+44 WB OSS	Fill 5.0	11.0 OSL	12.0 PS	1.4 RT FW	C	15.00	6.50	4.50 STBC	4.00 SAND	-	Asphalt STBC/Sand SG	1.3-5.0: RE - Brown-Red, Fine to Coarse Sandy SILT, trace mica	S-24	A-4	M	5	Low Severity Longitudinal and Transverse Cracking at joints (Reflective) Moderate Severity Raveling at OSL joints No Shoulder Distress	675,378	926,655
Bulk-3 RPDB Sta. 43+96	Cut 20.0	-	-	-	-	-	-	-	-	-	-	1.0-3.0: RES - Red-Orange, Silty F.-Cse. SAND, trace mica	Bulk-3	A-2-4	M 15%	3	Bulk Sample #3 Collected at grade near toe of existing cut slope (LT)	676,709	924,866
C-111 RPDB Sta. 44+30 WB OSL	Cut 20.0	11.5 OSL	11.0 PS	2.1 LT FW	S	19.00	3.00	6.75 STBC	-	9.25	Asphalt Concrete STBC/SG	1.6-5.0: RES - Red, Fine to Coarse Sandy SILT, trace mica	S-111	A-4	M	5	Low Severity Longitudinal Cracking (ISWP) Low Severity Longitudinal and Transverse Cracking at joints (Reflective) **Full Depth Crack in Core (construction joint)**	676,760	924,844
C-112 RPDB Sta. 44+30 WB ISL	Cut 20.0	12.0 ISL	3.0 PS	5.4 RT FY	S	17.00	2.25	5.75 STBC	-	9.00	Asphalt Concrete STBC/SG	1.4-5.0: RES - Brown-Orange, Fine to Coarse Sandy SILT, trace mica	S-112	A-4	M	5	Low Severity Longitudinal and Transverse Cracking at joints (Reflective)	676,744	924,840
C-113 RPDB Sta. 44+30 WB ISS	Cut 20.0	12.0 ISL	3.0 PS	1.7 LT FY	S	16.50	5.25	7.25 STBC	4.00 SAND	-	Asphalt STBC/Sand SG	1.4-5.0: RES - Brown-Orange, Fine to Coarse Sandy SILT, trace mica	S-113	A-4	M	5	Low Severity Transverse Cracking	676,737	924,838
C-110 RPDB Sta. 44+31 WB OSS	Cut 20.0	11.5 OSL	11.0 PS	6.3 RT FW	S	18.00	7.75	6.25 STBC	4.00 SAND	-	Asphalt STBC/Sand SG	1.5-5.0: RES - Brown-Orange, Fine to Coarse Sandy SILT, trace mica	S-110	A-4	M	5	Low Severity Transverse Cracking (Very Fine)	676,769	924,846

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

Prepared by: DMB
Reviewed by: REK

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
								COUNTY		FIELD PROFESSIONAL				FIELD CREW			
								Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location								Date Run		Test Location							Date Run
C-14 RPD Sta. 11+06 WB OSS 2.3 FT RT FW								9/27-10/1, 10/11-10/13		C-13 RPD Sta. 11+07 RAMP 6.0 FT LT FW							9/27-10/1, 10/11-10/13
Type	Test Interval				Datum			Cut/Fill		Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC			10.0 ft Cut		DCP	Cumulative cm per blow				STBC		10.0 ft Cut	
1.10	64.30	89.60	121.90							0.90	43.20	86.40	100.58				
2.00	65.00	90.00	122.30							1.40	43.70	87.80	100.64				
2.70	65.40	90.10	122.60							2.00	44.30	89.20	100.70				
3.50	66.00	90.40	123.00							2.50	44.90	90.40	**50/1.25"**				
4.30	66.30	90.60	123.30							3.00	45.40	91.40	**DCP REF**				
5.10	66.90	90.70	123.70							3.60	45.80	92.50					
5.90	67.30	91.40	123.90							4.20	46.10	93.50					
6.60	67.90	91.60	124.40							4.70	46.40	94.10					
7.30	68.80	92.00	124.60							5.40	46.70	94.70					
8.00	69.00	92.20	125.00							6.30	47.20	95.20					
8.80	69.50	92.60	125.20							6.90	47.70	95.70					
9.60	70.10	93.30	125.70							7.60	48.10	96.00					
10.40	70.80	93.40	125.90							8.40	48.60	96.20					
11.30	71.40	93.70	126.20							9.40	49.20	96.50					
12.20	72.00	93.90	126.50							10.20	49.80	96.80					
13.00	72.60	94.30	126.90							11.30	50.60	96.90					
14.00	73.20	94.40	127.30							12.40	51.10	97.30					
14.90	73.60	95.00	127.70							13.60	51.80	97.60					
15.90	74.10	95.10	128.00							14.70	52.50	97.66					
16.80	74.40	95.90	128.50							16.10	53.10	97.72					
18.00	74.80	96.30	129.00							17.40	53.70	97.78					
19.20	75.10	96.50	129.40							18.90	54.40	97.84					
20.20	75.40	97.00	129.80							20.60	55.00	97.90					
21.20	75.70	97.10	129.90							22.20	55.70	97.96					
22.50	75.90	97.80	130.30							23.70	56.30	98.02					
23.60	76.30	98.10	130.40							25.00	57.00	98.08					
24.60	76.50	98.80								26.50	57.50	98.14					
25.20	76.90	99.20								27.20	58.00	98.20					
25.80	77.10	99.90								27.90	58.40	98.27					
26.30	77.50	100.40								28.20	59.00	98.33					
26.90	77.70	101.10								28.60	59.60	98.40					
27.30	78.40	101.50								29.10	60.20	98.46					
27.90	78.60	102.30								29.60	61.00	98.53					
28.70	79.00	102.60								30.00	61.60	98.59					
29.40	79.20	103.60								30.30	62.20	98.66					
30.70	79.40	103.70								30.90	62.90	98.72					
32.30	79.70	104.60								31.10	63.50	98.79					
33.60	79.90	105.20								31.20	64.40	98.85					
34.80	80.20	105.90								31.80	65.30	98.92					
36.10	80.50	106.60								32.00	65.90	98.98					
37.10	80.90	107.30								32.40	66.90	99.05					
38.10	81.00	107.80								32.50	67.70	99.11					
39.70	81.40	108.30								33.20	68.70	99.18					
41.30	81.80	108.90								33.80	69.60	99.24					
43.20	82.20	110.00								34.10	70.60	99.31					
45.20	82.60	110.80								34.30	71.60	99.37					
47.20	82.90	111.40								34.50	72.40	99.44					
49.00	83.30	111.70								34.70	73.60	99.50					
50.40	83.70	112.00								35.10	74.60	99.56					
51.60	84.20	112.90								35.60	75.60	99.62					
53.00	84.40	113.10								36.10	76.40	99.68					
54.50	84.80	113.60								36.40	76.90	99.74					
55.80	85.10	114.30								36.80	77.20	99.80					
56.90	85.40	115.10								37.00	77.80	99.86					
57.70	86.30	115.60								37.30	78.20	99.92					
58.40	86.60	116.10								37.70	78.90	99.98					
59.10	86.90	116.60								38.30	79.50	100.04					
59.70	87.30	117.10								38.70	79.80	100.10					
60.10	87.50	117.80								39.50	80.30	100.16					
60.70	87.90	118.40								40.10	80.90	100.22					
61.30	88.40	119.30								40.60	81.80	100.28					
61.80	88.60	119.90								41.10	82.60	100.34					
62.40	88.70	120.40								41.60	83.50	100.40					
63.10	89.00	120.90								42.30	84.40	100.46					
63.80	89.40	121.40								42.80	85.40	100.52					

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
								COUNTY		FIELD PROFESSIONAL				FIELD CREW			
								Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location								Date Run		Test Location							Date Run
C-19 RPDB Sta. 14+83 WB ISS 2.4 FT LT FY								9/27-10/1, 10/11-10/13		C-21 RPDB Sta. 18+14 WB OSS 5.7 FT RT FW							9/27-10/1, 10/11-10/13
Type	Test Interval				Datum			Cut/Fill		Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC			20.0 ft Cut		DCP	Cumulative cm per blow				STBC		20.0 ft Cut	
1.00	90.70	117.20								1.70	76.50						
2.30	91.20	117.70								2.00	78.40						
3.40	91.70	118.20								2.80	80.00						
3.90	91.90	118.80								3.00	81.60						
5.50	92.50	119.20								3.40	83.20						
6.40	92.90	119.90								4.00	84.90						
7.30	93.40	120.30								4.40	86.30						
7.90	93.90	120.70								5.00	87.80						
9.10	94.40	121.10								5.20	89.70						
10.10	95.00	121.50								5.80	91.60						
11.20	95.70	121.80								6.40	93.20						
12.40	95.80	122.30								6.90	94.50						
13.40	96.40	122.50								7.30	95.80						
14.40	96.60	123.20								7.60	97.60						
15.60	96.90	123.50								7.90	99.30						
16.90	97.10	123.80								8.20	100.90						
17.80	97.50	124.20								8.60	102.20						
19.30	97.60	124.60								9.20	103.40						
20.80	97.80	125.00								9.90	104.70						
22.70	98.00	125.40								10.30	105.70						
24.70	98.40	125.90								10.80	106.40						
27.40	98.50	126.10								11.30	107.30						
29.40	98.90	126.60								12.00	108.20						
30.70	99.40	126.90								12.60	109.20						
32.20	99.80	127.20								13.40	109.90						
33.20	99.90	127.60								14.20	110.60						
34.40	100.30	127.90								15.00	111.80						
35.60	100.70	128.30								15.70	112.40						
37.10	101.00									16.90	113.30						
38.30	101.30									17.60	113.70						
39.80	101.70									18.90	114.30						
41.00	102.00									20.40	115.10						
42.10	102.50									22.10	115.90						
43.30	102.90									24.50	116.50						
44.00	103.20									27.00	117.30						
45.40	103.60									29.80	117.90						
46.90	103.90									32.80	118.70						
48.30	104.40									35.80	119.40						
49.30	104.60									39.10	120.40						
50.80	105.20									42.50	121.00						
52.70	105.40									45.40	121.90						
54.30	105.90									46.80	122.50						
55.40	106.30									48.40	123.40						
56.60	106.80									49.40	124.20						
58.20	107.30									50.70	125.20						
59.30	107.80									51.40	126.00						
60.70	108.10									52.70	126.90						
62.10	108.60									53.60	127.80						
63.50	109.10									54.70	128.80						
64.90	109.60									55.90	129.60						
67.10	110.10									57.20	130.60						
68.90	110.60									58.30	131.50						
71.10	111.10									58.50	132.60						
73.00	111.40									59.50	133.40						
74.30	111.60									61.10	134.30						
75.80	111.90									62.50	135.20						
77.20	112.40									64.30	136.30						
79.10	112.80									65.90	137.00						
80.90	113.30									67.30							
82.80	113.70									68.70							
84.60	114.50									69.70							
86.20	114.90									71.10							
87.50	115.50									72.20							
88.90	115.90									73.50							
89.90	116.30									74.80							

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
	COUNTY	FIELD PROFESSIONAL	FIELD CREW
	Haywood	M. Brewer	C. Odom/D. Underwood

Test Location	Date Run	Test Location	Date Run
C-22 RPDB Sta. 20+43 WB ISS 1.7 FT LT FY	9/27-10/1, 10/11-10/13	C-23 RPDB Sta. 20+44 WB OSL 2.8 FT LT FW	9/27-10/1, 10/11-10/13

Type	Test Interval	Datum	Cut/Fill	Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow	STBC	20.0 ft Cut	DCP	Cumulative cm per blow	STBC	5.0 ft Fill

1.00	42.20							1.40	65.20	103.50					
1.80	43.00							1.70	66.10	104.10					
2.60	43.50							1.90	67.00	104.60					
3.10	44.20							2.40	67.20	105.20					
3.60	45.10							2.70	67.90	105.60					
4.10	45.90							3.10	68.40	106.50					
4.50	46.70							3.40	69.10	106.80					
5.00	47.20							3.80	69.70	107.40					
5.50	48.30							4.10	70.60	108.00					
6.00	49.30							4.40	71.10	108.40					
6.50	50.20							4.90	71.70	108.60					
7.00	51.30							5.20	72.40	109.40					
7.40	52.10							5.60	73.10	110.00					
8.00	53.10							6.30	73.80	110.50					
8.40	54.10							7.10	74.50	111.10					
9.50	55.00							7.60	75.10	111.70					
10.10	56.00							8.50	75.80	112.30					
10.70	57.30							9.70	76.50	113.20					
11.20	58.90							10.80	77.10	114.00					
11.70	60.00							11.90	78.00	115.10					
12.00	60.10							13.30	78.60	115.80					
12.60	60.20							14.60	79.50	116.40					
13.10	62.10							15.90	79.80	116.80					
13.50	63.80							16.80	80.70	117.20					
14.10	64.90							18.40	81.50	117.50					
14.40	66.80							19.50	82.30	117.60					
15.00	68.40							20.40	82.80	118.00					
15.60	69.50							21.20	83.50	118.40					
16.20	70.90							22.70	84.20	118.80					
16.80	72.20							24.40	84.70	119.10					
17.50	73.50							26.20	85.00	119.90					
18.10	74.60							27.80	85.40	120.40					
18.90	75.90							28.90	85.80	120.80					
19.70	77.20							30.40	86.40	121.10					
20.40	78.50							32.20	87.30	121.60					
21.10	79.80							33.10	87.90	121.80					
21.70	81.40							34.20	88.80	122.00					
22.50	82.90							35.00	89.40	122.30					
23.20	84.60							35.70	90.40	122.60					
23.80	86.70							36.60	91.30	123.00					
24.40	88.20							37.60	91.90	123.40					
25.00	89.60							38.40	92.70	123.60					
25.60	91.10							39.50	93.10	124.00					
26.20	92.40							40.50	93.60	124.30					
27.00	93.50							41.70	94.10	124.60					
27.60	94.60							42.80	94.40	124.70					
28.10	96.20							43.90	94.90	124.80					
28.90	97.40							45.10	95.20	125.50					
29.40	98.40							46.00	95.70	126.20					
30.30	98.50							46.60	96.30	126.70					
31.00	100.10							47.60	96.70	127.30					
31.70	101.80							49.40	97.30	128.00					
32.50	103.10							50.60	97.70	128.70					
33.20	104.80							51.90	98.40	129.20					
34.20	106.60							53.30	99.10	130.00					
34.90	108.50							54.20	99.70	130.80					
35.70	110.20							55.20	100.10	131.50					
36.50	112.10							55.70	100.50	132.10					
37.10	113.70							56.60	100.70	132.90					
37.70	115.30							58.60	101.20	133.20					
38.50	117.30							60.10	101.50						
39.30	119.40							61.30	101.90						
39.90								62.40	102.20						
40.80								63.40	102.60						
41.60								64.70	103.20						

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
	COUNTY	FIELD PROFESSIONAL	FIELD CREW
	Haywood	M. Brewer	C. Odom/D. Underwood

Test Location	Date Run	Test Location	Date Run
C-24 RPDB Sta. 20+44 WB OSS 1.4 FT RT FW	9/27-10/1, 10/11-10/13	C-111 RPDB Sta. 44+30 WB OSL 2.1 FT LT FW	9/27-10/1, 10/11-10/13

Type	Test Interval	Datum	Cut/Fill	Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow	STBC	5.0 ft Fill	DCP	Cumulative cm per blow	STBC	20.0 ft Cut

1.90	27.70	83.80	117.60					1.10	95.60						
2.00	28.40	84.40	118.10					1.80	98.30						
2.40	28.80	84.90	118.60					2.30	100.30						
2.70	29.20	85.50	119.00					2.80	102.00						
3.10	29.60	86.10	119.40					3.20	103.60						
3.40	30.10	86.60	119.70					3.70	105.60						
3.50	30.60	87.10	120.00					4.00	108.00						
3.90	31.10	88.20	120.50					4.40	110.40						
4.30	31.70	88.60	120.90					4.90	113.30						
4.60	32.10	89.10	121.20					5.40	116.50						
4.90	32.30	89.60	121.60					5.90	118.10						
5.20	32.80	89.90	122.10					6.50							
5.40	33.20	90.40	122.50					7.10							
5.60	33.90	90.80	122.90					7.50							
5.90	34.60	91.30	123.40					8.10							
6.20	35.10	91.80	123.80					8.60							
6.40	35.70	92.20	124.10					9.00							
6.70	36.20	92.60	124.40					9.70							
7.00	37.20	93.10	124.80					10.70							
7.30	38.00	93.70	125.20					11.70							
7.60	38.90	94.20	125.50					12.70							
8.10	39.70	94.80	125.90					14.00							
8.40	40.50	95.40	126.40					15.20							
8.70	41.50	96.10	126.60					16.50							
8.80	42.40	96.60	127.20					17.80							
9.20	43.50	97.40	127.80					19.20							
9.40	45.60	98.10	128.30					20.60							
9.80	46.80	98.80	128.80					22.20							
10.20	47.90	99.50	129.30					23.90							
10.60	49.10	100.20	129.90					25.50							
11.00	50.60	100.80	130.00					27.60							
11.30	52.60	101.60	131.10					29.60							
11.60	54.90	102.00	132.10					31.30							
12.10	56.90	102.90						33.20							
12.50	58.30	103.70						34.90							
12.90	59.70	104.50						36.80							
13.30	61.30	105.30						38.90							
14.00	62.50	105.90						39.40							
14.30	63.70	106.70						41.10							
14.80	64.70	107.30						43.20							
15.30	65.90	108.10						45.10							
15.80	67.00	108.70						47.10							
16.20	68.10	109.70						49.20							
16.90	68.90	110.20						51.80							
17.40	69.80	110.80						53.90							
17.90	70.40	110.90						55.60							
18.30	71.10	111.20						56.90							
18.90	71.90	111.40						58.30							
19.00	72.70	111.80						59.60							
20.10	73.40	112.00						61.30							
20.60	74.10	112.30						63.50							
21.30	74.80	112.60						65.50							
21.70	75.40	112.80						67.60							
22.30	76.00	113.00						68.60							
22.60	76.70	113.30						70.20							
23.20	77.30	113.50						72.40							
23.60	77.90	113.90						75.20							
24.10	78.50	114.20						77.80							
24.60	79.20	114.60						80.50							
25.00	79.90	114.90						82.60							
25.30	80.00	115.40						84.60							
25.90	81.30	115.80						86.60							
26.40	81.90	116.20						88.70							
26.90	82.60	116.80						90.50							
27.20	83.10	117.20						93.00							

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.	PROJECT TIP I.D.	ROUTE
						34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
						COUNTY	FIELD PROFESSIONAL	FIELD CREW
						Haywood	M. Brewer	C. Odom/D. Underwood
Test Location						Date Run	Test Location	Date Run
C-112 RPDB Sta. 44+30 WB ISL 5.4 FT RT FY						9/27-10/1, 10/11-10/13	C-113 RPDB Sta. 44+30 WB ISS 1.7 FT LT FY	9/27-10/1, 10/11-10/13
Type	Test Interval			Datum		Cut/Fill	Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			STBC		20.0 ft Cut	DCP	Cumulative cm per blow			STBC		20.0 ft Cut	
1.00	81.40						1.70	54.40	127.90					
1.80	81.90						2.10	55.90	128.80					
2.00	82.40						2.80	57.30	129.60					
2.40	82.90						3.60	58.40						
2.80	83.60						4.00	59.60						
3.10	84.30						4.60	60.60						
3.40	85.20						5.20	61.80						
3.50	86.30						5.90	63.10						
3.80	86.90						6.40	64.60						
4.20	87.30						6.80	65.80						
4.60	87.70						7.20	67.30						
5.10	87.90						7.80	68.40						
5.70	88.10						8.10	69.80						
6.40	88.40						8.60	70.60						
7.10	89.30						9.20	71.50						
7.80	89.70						9.50	72.70						
8.40	90.20						9.90	73.80						
9.10	90.70						10.50	75.10						
10.10	91.50						11.20	76.40						
11.20	92.20						11.60	77.90						
12.10	93.00						12.10	79.00						
13.90	93.90						12.70	80.10						
15.90	94.60						13.30	80.80						
17.70	95.40						13.90	81.80						
19.10	96.30						14.50	82.90						
20.50	97.00						14.90	84.20						
22.30	97.80						15.50	85.90						
23.70	98.40						16.20	87.50						
25.00	99.50						16.80	89.50						
26.40	100.40						17.50	91.40						
28.00	101.10						18.20	92.70						
29.40	102.10						18.80	94.00						
30.90	103.00						19.50	95.40						
32.20	103.90						20.20	96.70						
33.80	104.60						21.10	98.20						
35.50	105.40						22.00	99.70						
36.40	106.20						22.90	101.50						
38.20	106.90						23.90	102.70						
40.80	107.70						25.30	104.00						
43.00	108.40						27.00	105.10						
45.00	109.20						28.50	106.50						
47.10	109.70						29.70	108.00						
49.30	110.30						30.60	109.50						
51.00							31.90	111.80						
52.70							33.20	114.00						
54.60							34.20	115.20						
56.50							35.00	116.10						
58.10							36.10	116.70						
59.70							37.10	117.30						
61.50							38.30	117.80						
62.80							39.00	118.20						
64.30							39.80	118.40						
65.90							40.60	118.80						
67.50							41.60	119.30						
68.70							42.50	119.70						
70.10							43.40	120.20						
71.00							44.20	121.00						
72.20							45.20	121.60						
73.60							46.40	121.90						
74.90							47.50	122.70						
76.20							48.90	123.50						
77.50							49.90	124.50						
78.80							51.00	125.20						
79.80							52.00	126.20						
80.80							53.10	127.00						

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.	PROJECT TIP I.D.	ROUTE
						34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
						COUNTY	FIELD PROFESSIONAL	FIELD CREW
						Haywood	M. Brewer	C. Odom/D. Underwood
Test Location						Date Run	Test Location	Date Run
C-110 RPDB Sta. 44+31 WB OSS 6.3 FT RT FW						9/27-10/1, 10/11-10/13		9/27-10/1, 10/11-10/13
Type	Test Interval			Datum		Cut/Fill	Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow			STBC		20.0 ft Cut	DCP	Cumulative cm per blow						
1.70	60.70													
2.10	61.90													
2.90	63.30													
3.30	64.90													
3.90	66.40													
4.40	68.10													
5.00	69.10													
5.40	70.00													
5.80	71.90													
6.30	73.60													
6.60	75.50													
7.00	77.40													
7.20	79.50													
7.60	81.30													
7.90	82.90													
8.40	84.60													
8.70	86.10													
9.00	87.90													
9.60	88.40													
10.00	91.00													
10.40	92.40													
10.80	94.00													
11.40	95.50													
11.60	97.20													
12.40	99.00													
12.70	101.00													
13.10	103.50													
13.70	106.80													
14.40	109.80													
15.20	112.30													
15.80	113.80													
16.70	114.50													
17.50	115.70													
18.20	117.00													
19.10	118.50													
20.20	120.30													
21.30	121.90													
22.60	123.70													
23.90	125.60													
25.40	128.30													
27.50	131.10													
29.10														
30.60														
31.70														
32.80														
34.20														
35.10														
36.10														
36.80														
37.40														
38.10														
39.10														
40.00														
41.20														
42.50														
44.00														
45.30														
46.60														
48.30														
50.00														
52.60														
53.50														
55.20														
57.00														
59.00														

I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

C-14 RPD Sta. 11+06 WB OSS

C-13 RPD Sta. 11+07 RAMP

0 1 2

FEET

C-19 RPDB Sta. 14+83 WB ISS

C-21 RPDB Sta. 18+14 WB OSS

C-22 RPDB Sta. 20+43 WB ISS

C-23 RPDB Sta. 20+44 WB OSL

C-24 RPDB Sta. 20+44 WB OSS

0 1 2

FEET

C-111 RPDB Sta. 44+30 WB OSL

C-113 RPDB Sta. 44+30 WB ISS

C-112 RPDB Sta. 44+30 WB ISL

C-110 RPDB Sta. 44+31 WB OSS

0 1 2

FEET

SOIL TEST RESULTS

SAMPLE NO.	ALIGNMENT	LANE	OFFSET	STATION	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-13	RPD	RAMP	6.0 LT FW	11+07	1.7-3.0	A-2-4	35	NP	30.3%	43.1%	20.6%	6.0%	88.5%	72.7%	30.5%	6.8%	ND
S-19	RPDB	WB ISS	2.4 LT FY	14+83	1.4-5.0	A-4(0)	35	NP	27.9%	29.8%	23.0%	19.3%	86.9%	70.4%	42.6%	12.8%	ND
S-21	RPDB	WB OSS	5.7 RT FW	18+14	1.3-5.0	A-4(0)	34	NP	33.2%	30.3%	23.6%	12.9%	88.7%	68.2%	37.6%	14.0%	ND
S-23	RPDB	WB OSL	2.8 LT FW	20+44	1.6-5.0	A-4(1)	36	9	27.2%	28.0%	21.7%	23.1%	83.3%	68.1%	41.9%	15.3%	ND
S-112	RPDB	WB ISL	5.4 RT FY	44+30	1.4-5.0	A-4(0)	33	NP	21.8%	31.4%	18.7%	28.1%	87.5%	76.0%	45.6%	14.4%	ND
S-110	RPDB	WB OSS	6.3 RT FW	44+31	1.5-5.0	A-4(0)	33	4	20.4%	35.0%	24.5%	20.1%	80.5%	72.1%	40.3%	16.4%	ND

*FROM WHITE LINE (FW)
*FROM YELLOW LINE (FY)

Prepared in the Office of:
F&ME CONSULTANTS, INC.
COLUMBIA, SOUTH CAROLINA
NCDOT LAB CERT. NO. 132–0212

PAVEMENT INVESTIGATION DATA SHEET

Project:	34165.1.6
TIP:	I-2513AA/AB

Route:	I-26 from I-40 to SR 3548 (Haywood Road)
County:	Buncombe

Date Performed:	9/27-10/1 & 10/11-10/13 (6 Nights)
Field Personnel:	M. Brewer, D. Underwood, C. Odom

		Width (ft)		(ft)	(in)	Thickness (in)						SG						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/STBC	Shoulder Drain Drainage Sand CSS (Chemical)	Concrete	Pavement Layering	Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)	Asphalt Notes	Northing	Easting
C-28 Y Sta. 19+19 EB OSS	Cut 15.0	11.5 OSL	12.0 PS Concrete Exp. Gutter	4.1 RT FW	C	35.00	18.50	12.50 STBC	4.00 SAND	-	Aphalt STBC/Sand SG	2.9-5.0: RES - Red, Fine to Coarse Sandy SILT, trace mica	S-28	A-4	M	5	No Observed Pavement Distress	678,225	915,440
C-29 Y Sta. 23+92 EB OSS	Cut 10.0	12.0 OSL	12.0 PS Concrete Exp. Gutter	3.7 RT FW	C	32.00	23.50	4.50 STBC	4.00 SAND	-	Aphalt STBC/Sand SG	2.7-5.0: RES - Brown, Silty Fine to Coarse SAND, trace mica	S-29	A-2-5	M	5	Low Severity Transverse Cracking (OSS)	678,353	915,889
C-32 Y Sta. 30+94 EB MID-LANE	Cut 5.0	12.0	N/A	19.6 LT FW	S	34.00	3.50	7.00 STBC	-	14.25 - 9.25	Concrete Asphalt/Conc. STBC/SG	2.8-5.0: RES - Red-Brown, Fine to Coarse Sandy SILT, trace mica	S-32	A-4	M	5	Very Fine Spiderweb Cracking, Hairline Longitudinal Crack in Core (1/2-inch)	678,461	916,575
C-33 Y Sta. 30+94 EB OSL	Cut 5.0	12.0	N/A	6.6 LT FW	S	32.50	14.00	4.00 STBC	-	14.50	Concrete Asphalt/Fabric STBC/SG	2.7-5.0: RES - Brown-Red, Fine to Coarse Sandy SILT, trace mica	S-33	A-4	M	5	Very Fine Spiderweb Cracking, 2 ft x 3 ft patch at joint near ISWP Test performed adjacent to patching.	678,448	916,575
C-30 Y Sta. 30+95 EB ISS	Fill 10.0	11.5 ISL	12.0 PS Concrete Barrier	2.0 LT FY	S	36.00	16.50 - 9.50	6.00 STBC 4.00	-	-	Asphalt STBC/Asphalt STBC/SG	3.0-5.0: RE - Brown-Red, Fine to Coarse Sandy SILT, trace mica Augered throught Asphalt from 1.9-2.7	S-30	A-4	M	5	Low Severity Fatigue Cracking, and Low Severity Longitudinal and Transverse Cracking	678,478	916,575
C-31 Y Sta. 30+95 EB ISL	Fill 5.0	11.5 ISL	12.0 PS Concrete Barrier	5.6 RT FY	S	35.00	14.50	5.25 STBC	-	15.25	Concrete Asphalt STBC/SG	2.9-5.0: RE - Red-Brown, Fine to Coarse Sandy SILT, trace mica	S-31	A-4	M	5	No Observed Pavement Distress	678,471	916,575
C-34 Y Sta. 31+09 EB MERGE LANE	Cut 5.0	12.0 MERGE LANE	12.0 PS	4.0 LT FW	S	33.00	4.25	4.00 STBC	-	15.00 - 9.75	Concrete Asphalt/Conc. STBC/SG	2.7-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-34	A-4	M	5	Moderate Severity Longitudinal Cracking at Joint (Reflective) Very Fine Hairline Spiderweb Cracking (MERGE LANE)	678,434	916,590
C-35 Y Sta. 31+09 EB OSS	Cut 10.0	12.0 OSL	12.0 PS Concrete Exp. Gutter	6.8 RT FW	S	34.00	24.00	-	10.00 Shoulder Drain	-	Asphalt Shoulder Drain SG	2.8-5.0: RES - Red-Brown, Fine to Coarse Sandy SILT, trace mica Shoulder Drain Encountered from 2.0-2.8 ft	S-35	A-4	M	5	No Observed Pavement Distress (OSS)	678,423	916,590
C-37 Y Sta. 37+02 EB OSS	Fill 20.0	12.0 OSL	12.0 PS Concrete Exp. Gutter	8.5 RT FW	S	29.00	15.50	8.50 STBC	5.00 SAND	-	Asphalt STBC/Sand SG	2.4-5.0: RE - Red, Fine to Coarse Sandy SILT, trace mica	S-37	A-4	M	5	2 ft x 3 ft pothole at Transverse/Longitudinal joint (OSL-ISWP), High Severity Concrete Spalling Low Severity Transverse Cracking (OSL), No Observed Pavement Distress (OSS)	678,404	917,174
C-38 Y Sta. 43+34 EB OSL	Fill 20.0	11.5 OSL	11.0 PS Concrete Exp. Gutter	3.7 LT FW	C	19.50	5.25	-	-	14.25	Concrete Asphalt SG	1.6-2.4: RE - Red, Fine to Coarse Sandy SILT, little mica 2.4-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace gravel	Ref-37 Ref-39A	A-4 A-4	M M	5	Low Severity Longitudinal (OSWP, ISWP) and Transverse Cracking, Very Fine Spiderweb Cracking Patching Approx. 12-inch wide at Transverse Concrete Joint	678,313	917,797
C-39 Y Sta. 43+34 EB OSS	Fill 20.0	11.5 OSL	11.0 PS Concrete Exp. Gutter	4.3 RT FW	C	16.00	13.00	3.00 STBC	-	-	Asphalt STBC SG	1.3-2.5: RE - Brown-Tan, Silty Fine to Coarse SAND, trace gravel 2.5-5.0: RE - Brown, Fine to Coarse Sandy SILT, little to some mica	S-39 S-39A	A-2-4 A-4	M M	5	Low Severity Longitudinal (OSWP, ISWP) and Transverse Cracking, Very Fine Spiderweb Hairline Cracking Patching Approx. 12-inch wide at Transverse Concrete Joint	678,305	917,796
C-40 Y Sta. 48+83 EB OSS	Fill 15.0	12.0 OSL	12.0 PS Concrete Exp. Gutter	4.0 RT FW	C	28.00	20.00	-	8.00 Shoulder Drain	-	Asphalt Shoulder Drain SG	2.3-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica	S-40	A-4	M	5	High Severity Concrete Spalling at Longitudinal Joints, Low Severity Transverse Cracking (OSS)	678,213	918,337
C-41 Y Sta. 58+86 EB OSML	Fill 15.0	12.0 OSML	N/A	17.6 LT FW	C	33.00	4.00	5.50 STBC	-	15.00 - 8.50	Concrete Asphalt/Conc. STBC/SG	2.8-5.0: RE - Red-Brown, Fine to Coarse Sandy SILT, trace mica	Ref-42	A-4	M	5	Very Fine Spiderweb Hairline Cracking (OSML - OSWP, ISWP)	678,054	919,327
C-42 Y Sta. 58+86 EB OSL	Fill 15.0	12.0 OSL	14.0 PS Concrete Barrier	4.8 LT FW	C	31.00	3.75	4.00 STBC	-	15.00 - 8.25	Concrete Asphalt/Conc. STBC/SG	2.6-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica	S-42	A-4	M	5	Very Fine Spiderweb Hairline Cracking (OSML - OSWP, ISWP) High Severity Concrete Spalling at Longitudinal Joint (6 to 8 inches)	678,041	919,325
C-43 Y Sta. 58+86 EB OSS	Fill 15.0	12.0 OSL	14.0 PS Concrete Barrier	3.5 RT FW	C	31.00	14.75	8.25 STBC	8.00 Shoulder Drain	-	Asphalt STBC Gravel/SG	2.6-5.0: RE - Brown, Fine to Coarse Sand SILT, trace organics Gravel Layer - Possible Shoulder Drain STBC Layer attached to pavement core	S-43	A-4	M	5	Very Fine Spiderweb Hairline Cracking (OSML - OSWP, ISWP)	678,033	919,324

Notes:

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

Prepared by: DMB

Reviewed by: REK

PAVEMENT INVESTIGATION DATA SHEET

Project:	34165.1.6
TIP:	I-2513AA/AB

Route:	I-26 from I-40 to SR 3548 (Haywood Road)
County:	Buncombe

Date Performed:	9/27-10/1 & 10/11-10/13 (6 Nights)
Field Personnel:	M. Brewer, D. Underwood, C. Odom

		Width (ft)		(ft)	(in)	Thickness (in)						SG						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/STBC	Shoulder Drain Drainage Sand CSS (Chemical)	Concrete	Pavement Layering	Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)	Asphalt Notes	Northing	Easting
C-44 Y Sta. 63+48 EB OSS	Fill 10.0	12.0 OSL	14.0 PS Concrete Barrier	8.3 RT FW	C	21.00	14.50	6.50 STBC	-	-	Asphalt STBC SG	1.8-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica	S-44	A-4	M	5	Low Severity Longitudinal (OSS-OSWP, ISWP) Cracking, Very Fine Hairline Spiderweb Cracking (OSL)	677,950	919,777
C-45 Y Sta. 68+28 EB OSS	Fill 10.0	12.0 OSL	14.0 PS Concrete Barrier	3.8 RT FW	C	19.50	16.50	3.00 STBC	-	-	Asphalt STBC SG	1.7-5.0: RE - Brown-Red, Fine to Coarse Sandy SILT, trace mica	S-45	A-4	M	5	No Pavement Distress (OSS), High Severity Concrete Spalling at OSL - Outside Joint, 3 to 4 inches	677,859	920,246
C-46 Y Sta. 75+08 EB OSS	Fill 5.0	12.0 OSL	14.0 PS Concrete Barrier	8.2 RT FW	C	23.00	14.75	8.25 STBC	-	-	Asphalt STBC SG	1.9-5.0: RE - Brown-Red, Silty Fine to Coarse SAND, trace mica	S-46	A-2-4	M	5	No Pavement Distress (OSS), High Severity Concrete Spalling at OSL/MID Joint 4 to 6-inch wide spalls along joint.	677,692	920,903
C-47 Y Sta. 80+18 EB OSS	Cut 30.0	12.0 OSL	12.0 PS Concrete Barrier	4.0 RT FW	C	31.00	23.00	-	8.00 Shoulder Drain		Asphalt Shoulder Drain SG	2.6-5.0: RES - Brown, Fine to Coarse to Coares Sandy SILT, trace mica	S-47	A-4	M	5	No Pavement Distress	677,567	921,397
Bulk-1 Y Sta. 80+34 RT	Cut 30.0	-	-	-	-	-	-	-	-	-	-	1.0-3.0: RES - Brown-Orange, Silty Fine to Coarse SAND, trace mica	Bulk-1	A-2-4 15%	M	3	Bulk Sample #1 Collected at grade near toe of existing cut slope (RT)	677,541	921,407
C-48 Y Sta. 85+43 EB OSS	Cut 20.0	12.0 OSL	12.0 PS Concrete Barrier	9.5 RT FW	C	23.00	16.75	6.25 STBC	-	-	Asphalt STBC SG	1.9-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-48	A-4	M	5	No Pavement Distress	677,428	921,904
C-49 Y Sta. 87+83 EB ISS	Cut 15.0	12.0 ISL	10.0 PS Concrete Barrier	4.0 LT FY	C	22.00	17.00	5.00 STBC	-	-	Asphalt STBC SG	1.8-2.3: RE - Brown, Fine to Coarse Sandy SILT, trace mica 2.3-5.0: RES - White, SILT, trace mica	S-49 S-49A	A-4 A-5	M M	5	No Pavement Distress	677,427	922,152
C-50 Y Sta. 87+83 EB ISL	Cut 15.0	12.0 ISL	10.0 PS Concrete Barrier	5.5 RT FY	C	30.25	4.50	10.00 STBC	-	15.75	Concrete Asphalt STBC/SG	2.6-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-50	A-4	M	5	No Pavement Distress	677,417	922,149
C-51 Y Sta. 87+84 EB ISML	Cut 15.0	12.0 ISML	N/A	16.3 RT FY	C	34.00	4.25	6.25 STBC	-	15.00 - 8.50	Concrete Asphalt/Conc. STBC/SG	2.8-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-51	A-4	M	5	No Pavement Distress	677,407	922,147
C-52 Y Sta. 87+84 EB OSML	Cut 15.0	12.0 OSML	N/A	13.5 LT FW	C	32.00	4.75	7.25 STBC		14.75 5.25	Concrete Asphalt/Conc. STBC/SG	2.7-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-52	A-4	M	5	Very Fine to Coarse Longitudinal Cracking and Hairline Spiderweb Cracking (ISWP, OSWP)	677,390	922,143
C-53 Y Sta. 87+84 EB OSL	Cut 15.0	12.0 OSML	11.5 PS Concrete Exp. Gutter	2.8 LT FW	C	30.00	10.00	6.00 STBC	-	14.00	Concrete Asphalt STBC/SG	2.5-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-53	A-4	M	5	Very Fine to Coarse Longitudinal Cracking and Hairline Spiderweb Cracking (ISWP, OSWP)	677,379	922,140
C-54 Y Sta. 87+84 EB OSS	Cut 15.0	12.0 OSL	11.5 PS Concrete Exp. Gutter	8.2 RT FW	C	23.50	16.75	6.75 STBC	-	-	Asphalt STBC SG	1.9-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-54	A-4	M	5	No Pavement Distress	677,368	922,137
C-55 Y_EB Sta. 10+59 EB OSS	Fill 10.0	12.0 OSL	13.5 PS Concrete Exp. Gutter	4.0 RT FW	C	33.00	25.75	7.25 STBC	-	-	Asphalt STBC SG	2.8-5.0: RE - Brown-Gray, Fine to Coarse Sandy SILT	S-55	A-4	M	5	Low Severity Transverse Cracking (OSS) Moderate Severity Longitudinal Cracking at OSL Joints (Reflective)	677,215	922,737
C-57 Y_EB Sta. 15+83 EB OSS	Cut 30.0	12.0 OSL	12.5 PS Concrete Exp. Gutter	10.0 RT FW	C	25.50	25.50	-	-	-	Asphalt SG	2.1-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-57	A-4	M	5	Moderate Severity Longitudinal Cracking at OSL joints (Reflective), Low Severity Transverse Cracking (OSL, OSML), No Observed Shoulder Distress	677,051	923,233
C-56 Y_EB Sta. 15+85 EB ISS	Cut 30.0	11.0 ISL	3.5 PS	1.7 LT FY	C	24.00	7.50 - 8.00	8.50 STBC	-	-	Asphalt STBC/Asphalt SG	2.0-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica Augered through Asphalt from 1.3-2.0	S-56	A-4	M	5	Moderate Severity Transverse Cracking (All Lanes), Moderate Severity Longitudinal Cracking (ISL-ISWP)	677,107	923,253

Notes:

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

Prepared by: DMB

Reviewed by: REK

PAVEMENT INVESTIGATION DATA SHEET

Project:	34165.1.6
TIP:	I-2513AA/AB

Route:	I-26 from I-40 to SR 3548 (Haywood Road)
County:	Buncombe

Date Performed:	9/27-10/1 & 10/11-10/13 (6 Nights)
Field Personnel:	M. Brewer, D. Underwood, C. Odom

		Width (ft)		(ft)	(in)	Thickness (in)						SG						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/STBC	Shoulder Drain Drainage Sand CSS (Chemical)	Concrete	Pavement Layering	Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)	Asphalt Notes	Northing	Easting
C-58 Y_EB Sta. 20+58 EB ISS	Cut 30.0	11.0 OSL	2.5 PS	1.5 LT FY	C	23.00	23.00	-	-	-	Asphalt Fabric SG	1.9-5.0: RES - White, Fine Sandy SILT	S-58	A-4	M-W	5	ISL Outside Longitudinal Joint - High Severity Longitudinal Cracking, Severe Joint Degredation Low to Moderate Severity Transverse Cracking (ISL)	676,952	923,700
Bulk-2 Y_EB Sta. 20+62	Cut 30.0	-	-	-	-	-	-	-	-	-	-	1.0-3.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	Bulk-2	A-4	M-W 28%	3	Bulk Sample #2 Collected at grade near toe of existing cut slope (RT) Standing Water Observed Near Toe of Slope	676,875	923,678
C-59 Y_EB Sta. 20+65 EB OSS	Cut 40.0	12.0 OSL	9.5 PS	5.5 RT FW	C	20.00	11.50	8.50 STBC	-	-	Asphalt STBC SG	1.7-5.0: RES - Brown-White, Fine to Coarse Sandy SILT, trace mica	S-59	A-4	M	5	Moderate to High Severity Longitudinal (4-6 inch wide) Cracking at OSL Oustide/Inside Joint - Patched No Observed Shoulder Distress	676,898	923,689
C-61 Y_EB Sta. 25+60 EB ISL	Fill 4.0	11.5 ISL	3.5 PS	6.5 RT FY	C	28.00	25.00	3.00 STBC	-	-	Asphalt STBC SG	2.2-4.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica 4.0-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-61 Ref-63	A-4	M	5	Low Severity Transverse Cracking (ISL), Joint Degradation (Longitudinal and Transverse) at ISL/ISML	676,778	924,171
C-62 Y_EB Sta. 25+60 EB ISML	Fill 4.0	12.0	N/A	17.3 RT FY	C	20.00	5.00	6.00 STBC	-	9.00	Asphalt Concrete STBC/SG	1.7-4.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica 4.0-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-62 Ref-63	A-4	M	5	Low Severity Transverse Cracking (ISL), Joint Degradation (Longitudinal and Transverse) at ISL/ISML	676,768	924,168
C-65 Y_EB Sta. 25+60 EB OSS	Cut 30.0	11.5 OSL	9.5 PS	3.0 RT FW	C	21.00	9.75	11.25 STBC	-	-	Asphalt STBC SG	1.8-5.0: RES - Brown-Orange, Fine to Coarse Sandy SILT, trace mica	S-65	A-4	M	5	Moderate Severity Transverse Cracking (OSL), No Observed Shoulder Distress	676,736	924,157
C-60 Y_EB Sta. 25+61 EB ISS	Fill 4.0	11.5 ISL	3.5 PS	2.5 LT FY	C	33.00	27.50	5.50 STBC	-	-	Asphalt STBC SG	2.8-4.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica 4.0-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-60 Ref-63	A-4	M	5	Low Severity Transverse Cracking (ISL), Joint Degradation (Longitudinal and Transverse) at ISL/ISML No Observed Pavement Distress (ISS)	676,787	924,175
C-63 Y_EB Sta. 25+61 EB OSML	Cut 30.0	12.0	N/A	16.8 LT FW	C	22.00	5.25	8.00 STBC	-	8.75	Asphalt Concrete STBC/SG	1.8-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-63	A-4	M	5	Moderate Severity Transverse Cracking (OSML)	676,755	924,164
C-64 Y_EB Sta. 25+61 EB OSL	Cut 30.0	11.5 OSL	9.5 PS	4.7 LT FW	C	20.00	4.75	5.75 STBC	-	9.50	Asphalt Concrete STBC/SG	1.7-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-64	A-4	M	5	Moderate Severity Transverse Cracking (OSL), Crack in Core **Full Depth Crack in Core (construction joint)**	676,744	924,160
C-66 Y_EB Sta. 31+04 EB ISS	Cut 10.0	11.5 ISL	6.3 PS	4.0 LT FY	C	17.50	9.50	8.00 STBC	-	-	Asphalt STBC SG	1.4-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-66	A-4	M	5	Low to Moderate Severity Longitudinal and Transverse Cracking at Joints (Reflective) Low Severity Transverse Cracking (ISS)	676,609	924,688
C-67 Y_EB Sta. 31+04 EB OSS	At Grade	11.0 OSL	10.0 PS	7.5 RT FW	C	17.00	9.00	8.00 STBC	-	-	Asphalt STBC SG	1.4-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	Ref-65	A-4	M	5	Low Severity Transverse and Longitudinal Cracking at Joints (Reflective) Low Severity Transverse Cracking (OSL, OSS)	676,553	924,669
C-68 Y_EB Sta. 36+17 EB ISS	Fill 5.0	11.5 ISL	5.5 PS	1.7 LT FY	C	18.00	10.00	8.00 STBC	-	-	Asphalt STBC SG	1.5-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica	S-68	A-4	M	5	Low to Moderate Severity Transverse and Longitudinal Cracking at Joints (Reflective) No Observed Shoulder Distress	676,443	925,173
C-69 Y_EB Sta. 36+18 EB OSS	At Grade	12.0 OSL	15.0 PS GORE	6.5 RT FW	C	20.00 16.00	2.25 6.00	8.25 STBC 10.00	-	9.50	Asphalt Concrete STBC/SG	1.7-5.0: RES - Brown, Fine to Coarse Sandy, Silty CLAY, trace mica Only Recovered Core from Concrete Section	S-69	A-6	M	5	Core Location Drilled at Concrete Section/Gore Section Interface Low to Moderate Severity Transverse and Longitudinal Cracking at Joints (Reflective) No Observed Shoulder Distress	676,400	925,160
C-70 Y_EB Sta. 41+01 EB ISS	Fill 5.0	11.5 ISL	6.3 PS	2.5 LT FY	S	19.00	9.50	9.50 STBC	-	-	Asphalt STBC SG	1.6-5.0: RE - Brown-Red, Fine to Coarse Sandy SILT, trace tree fragmen	S-70	A-4	M	5	Low to Moderate Severity Longitudinal and Transverse Cracking at Joint (Reflective) (ISL) Very Fine Hairline Transverse Cracking (ISS)	676,334	925,642
C-71 Y_EB Sta. 41+02 EB OSS	Fill 5.0	11.5 OSL	12.0 PS	7.0 RT FW	S	16.00	9.00	7.00 STBC	-	-	Asphalt STBC SG	1.3-5.0: RE - Brown-Red, Fine to Coarse Sandy SILT, trace mica	S-71	A-4	M	5	Low to Moderate Severity Longitudinal and Transverse Cracking at Joint (Reflective) (OSL)	676,289	925,635

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

Prepared by: DMB
Reviewed by: REK

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET							WBS NO.	PROJECT TIP I.D.	ROUTE
							34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
							COUNTY	FIELD PROFESSIONAL	FIELD CREW
							Haywood	M. Brewer	C. Odom/D. Underwood
Test Location							Date Run	Test Location	Date Run
C-28 Y Sta. 19+19 EB OSS 4.1 FT RT FW							9/27-10/1, 10/11-10/13	C-29 Y Sta. 23+92 EB OSS 3.7 FT RT RW	9/27-10/1, 10/11-10/13
Type	Test Interval				Datum		Cut/Fill	Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC		15.0 ft Cut	DCP	Cumulative cm per blow				STBC		10.0 ft Cut	
0.60	7.00	74.80						0.70	67.30							
0.90	7.05	76.40						1.20	68.50							
1.20	7.10	78.20						1.80	69.40							
1.50	7.15	80.10						2.20	70.20							
1.70	7.20	82.40						2.70	71.00							
1.80	7.25	84.30						3.00	71.80							
1.90	7.30	85.90						3.40	72.80							
2.10	7.35	87.60						3.70	73.80							
2.30	7.40	89.70						4.20	74.80							
2.42	50/1.25*	91.80						4.60	75.90							
2.54	DCP REF	94.80						5.00	76.90							
2.66		97.20						5.40	77.90							
2.78	AUGER	99.20						5.80	79.10							
2.90	23.4 CM	100.70						6.00	80.30							
3.02	to 30.8							6.40	81.30							
3.14	1.20							7.00	82.50							
3.26	1.70							7.80	83.70							
3.38	2.10							8.40	85.00							
3.50	2.50							9.20	86.20							
3.68	3.00							10.20	87.40							
3.86	3.40							11.40	88.50							
4.04	3.80							11.90	89.60							
4.22	4.30							12.50	90.90							
4.40	4.60							13.30	92.00							
4.52	5.20							13.90	92.90							
4.64	5.50							15.10	93.80							
4.76	6.20							16.80	94.80							
4.88	6.80							18.90	95.60							
5.00	7.20							20.70	96.40							
5.04	7.90							22.40	97.60							
5.08	8.30							24.10	98.60							
5.12	9.20							26.00	99.80							
5.16	10.10							27.90	100.80							
5.20	11.10							29.90	101.60							
5.30	12.70							31.70	102.50							
5.40	14.40							33.50	103.50							
5.50	16.40							35.00	104.40							
5.60	18.30							36.20	105.40							
5.70	20.30							37.50	106.60							
5.78	22.80							38.90	107.80							
5.86	25.40							40.20	109.20							
5.94	27.80							41.80	110.50							
6.02	30.00							43.30	111.70							
6.10	32.00							44.80								
6.15	34.00							46.40								
6.20	35.90							47.80								
6.25	38.00							49.30								
6.30	40.60							50.40								
6.35	43.40							51.80								
6.40	47.00							52.60								
6.45	49.90							53.70								
6.50	52.60							54.60								
6.55	55.10							55.80								
6.60	57.10							56.70								
6.63	58.90							57.80								
6.66	60.60							58.80								
6.69	62.30							59.90								
6.72	63.90							60.50								
6.75	65.50							61.10								
6.78	66.70							62.00								
6.81	67.80							62.80								
6.84	69.50							63.80								
6.87	70.90							64.60								
6.90	71.90							65.70								
6.95	73.40							66.50								

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET							WBS NO.	PROJECT TIP I.D.	ROUTE
							34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
							COUNTY	FIELD PROFESSIONAL	FIELD CREW
							Haywood	M. Brewer	C. Odom/D. Underwood
Test Location							Date Run	Test Location	Date Run
C-32 Y Sta. 30+94 EB MID-LANE 19.6 FT LT FW							9/27-10/1, 10/11-10/13	C-33 Y Sta. 30+94 EB OSL 6.6 FT LT FW	9/27-10/1, 10/11-10/13
Type	Test Interval				Datum		Cut/Fill	Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC		5.0 ft Cut	DCP	Cumulative cm per blow				STBC		5.0 ft Cut	
1.10	82.50							1.30	72.00							
1.70	83.60							2.00	72.80							
2.10	84.60							2.70	73.50							
2.50	85.60							3.50	74.50							
3.10	86.60							3.80	75.10							
3.60	87.80							4.80	76.30							
4.20	89.10							6.00	77.50							
4.60	90.20							7.20	79.10							
4.90	91.50							9.40	80.50							
5.40	92.80							10.70	82.20							
5.90	94.00							12.00	83.80							
6.40	95.90							14.10	85.00							
6.80	96.60							16.10	86.50							
7.30	97.70							18.20	87.80							
7.90	98.70							19.60	89.00							
8.60	99.70							20.90	90.00							
9.40	101.00							22.80	91.30							
9.80								24.80	92.50							
10.90								26.10	93.50							
12.20								27.50	94.60							
13.40								29.50	95.90							
15.10								31.80	97.20							
16.40								35.10								
18.00								37.20								
20.50								40.10								
22.10								42.80								
23.60								45.80								
25.20								48.70								
27.30								51.00								
28.80								52.50								
30.10								53.80								
32.20								54.50								
33.70								55.30								
35.50								55.80								
37.00								56.40								
38.50								56.80								
39.60								57.20								
40.60								57.50								
41.60								58.00								
42.20								58.70								
43.60								59.10								
45.20								59.60								
47.00								60.00								
49.20								60.40								
50.80								60.90								
52.80								61.30								
54.80								61.60								
56.80								62.10								
58.60								62.60								
60.20								63.00								
61.90								63.40								
63.30								63.80								
65.00								64.20								
66.30								64.80								
67.80								65.00								
68.50								65.40								
69.60								66.10								
70.70								66.70								
72.10								67.20								
73.40								67.90								
74.90								68.60								
76.50								69.20								
78.20								70.00								
79.70								70.60								
81.20								71.30								

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
								COUNTY		FIELD PROFESSIONAL				FIELD CREW			
								Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location						Date Run		Test Location					Date Run				
C-30 Y Sta. 30+95 EB ISS 2.0 FT LT FY						9/27-10/1, 10/11-10/13		C-31 Y Sta. 30+95 EB ISL 5.6 FT RT FY					9/27-10/1, 10/11-10/13				
Type	Test Interval				Datum	Cut/Fill		Type	Test Interval				Datum	Cut/Fill			
DCP	Cumulative cm per blow				STBC	10.0 ft Fill		DCP	Cumulative cm per blow				STBC	5.0 ft Fill			
1.60	16.32	0.60	64.50					0.10									
2.40	16.46	1.00	69.70					0.60									
2.80	16.60	1.40	74.40					1.40									
2.90	16.78	1.80	78.00					1.80									
3.30	16.96	2.10	80.70					2.10									
3.70	17.14	2.50	82.70					2.80									
3.90	17.32	2.70	84.40					3.50									
4.00	17.50	3.00	86.00					4.20									
4.20	17.64	3.30	88.30					4.80									
4.60	17.78	3.70	91.00					5.60									
5.00	17.92	3.90	93.20					6.80									
5.20	18.06	4.20						7.30									
5.50	18.20	4.40						7.90									
5.70	18.36	4.60						8.90									
5.90	18.52	4.80						10.10									
6.20	18.68	5.30						11.50									
6.40	18.84	5.60						13.90									
6.70	19.00	5.90						16.30									
6.90	19.15	6.10						18.60									
7.00	19.30	6.40						20.30									
7.10	19.45	6.70						22.40									
7.60	19.60	7.10						24.30									
8.20	19.75	7.40						27.60									
8.50	19.90	7.70						30.00									
8.70	20.05	8.20						33.00									
8.90	20.20	8.50						35.70									
9.10	20.35	8.80						38.10									
9.20	20.50	9.40						40.50									
9.50	20.90	10.00						43.10									
9.70	21.10	11.10						45.60									
9.80	21.25	12.00						48.60									
9.90	21.40	12.70						51.10									
10.10	21.55	13.60						53.10									
10.40	21.70	14.50						56.40									
10.70	21.85	15.30						59.10									
11.00	22.00	16.10						62.30									
11.10	22.15	16.60						65.70									
11.60	22.30	17.40						69.00									
11.80	22.45	18.10						73.40									
11.90	22.60	18.50						76.60									
12.10	22.69	18.90						79.60									
12.20	22.78	19.30						82.70									
12.50	22.87	19.70						85.10									
12.60	22.96	20.10						87.30									
12.70	23.05	20.60						89.40									
12.80	23.14	21.20						91.10									
12.90	23.23	21.70						93.00									
13.00	23.32	22.60						94.70									
13.20	23.41	23.20						96.20									
13.40	23.50	24.30						98.70									
13.60	23.57	25.30															
13.80	23.64	26.30															
14.00	23.71	27.40															
14.20	23.78	29.30															
14.40	23.85	30.90															
14.60	23.92	32.90															
14.80	23.99	34.70															
15.00	24.06	39.20															
15.18	24.13	41.30															
15.36	24.20	44.00															
15.54	**50/2.6"**	47.00															
15.72	**DCP REF**	50.10															
15.90	**AUGER**	53.30															
16.04	**17.5 CM**	56.80															
16.18	**TO 41.7**	60.50															

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
								COUNTY		FIELD PROFESSIONAL				FIELD CREW			
								Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location						Date Run		Test Location					Date Run				
C-34 Y Sta. 31+09 EB MERGE LANE 4.0 FT LT FW						9/27-10/1, 10/11-10/13		C-35 Y Sta. 31+09 EB OSS 6.8 FT RT FW					9/27-10/1, 10/11-10/13				
Type	Test Interval				Datum	Cut/Fill		Type	Test Interval				Datum	Cut/Fill			
DCP	Cumulative cm per blow				STBC	5.0 ft Cut		DCP	Cumulative cm per blow				Shoulder Drain	10.0 ft Cut			
1.00	32.30	51.60	68.60					2.10	70.40								
1.40	32.40	51.90	68.90					4.00	70.60								
2.30	32.60	52.10	69.40					5.30	71.30								
3.20	33.00	52.30	70.10					6.50	72.10								
4.10	33.40	52.80	70.40					7.70	72.70								
4.90	33.60	52.90	70.80					8.90	73.30								
5.30	34.00	53.00	71.00					10.20	74.00								
6.10	34.10	53.10	71.30					11.70	74.80								
6.40	34.30	53.30	71.70					13.10	75.40								
7.40	34.40	53.70	72.20					14.40	76.10								
8.00	34.80	54.10	72.40					15.70	76.90								
9.00	35.10	54.40	72.80					17.20	77.70								
9.90	35.30	54.60	73.00					19.00	78.40								
11.00	35.60	54.80	73.30					20.70	79.40								
12.00	36.00	55.10	73.80					21.90	80.30								
13.00	36.30	55.40						24.10	81.40								
14.30	36.50	55.60						26.20	82.30								
16.00	36.90	55.70						28.80	83.40								
16.80	37.10	56.00						31.00	84.40								
18.30	37.50	56.10						33.20	85.30								
19.40	37.70	56.40						35.50	86.10								
19.60	38.00	56.60						37.70	87.10								
20.10	38.30	56.90						39.60	87.80								
20.60	38.60	57.30						40.90	88.50								
21.00	38.70	57.40						42.20	89.00								
21.30	38.80	57.80						43.20	89.70								
21.70	39.20	58.00						44.20	90.20								
22.00	39.40	58.30						45.10	90.70								
22.40	39.80	58.50						45.90	91.20								
22.70	40.10	58.70						46.60	91.30								
23.10	40.30	59.00						47.40	91.70								
23.40	40.60	59.20						48.20	92.20								
23.60	40.80	59.50						49.00	92.60								
23.80	41.10	59.90						49.60	93.00								
24.00	41.30	60.00						50.30	93.70								
24.20	41.70	60.10						50.90	94.30								
24.40	42.40	60.20						51.80	94.90								
24.60	42.80	60.30						52.30	95.80								
24.86	43.00	60.80						53.00	96.30								
25.12	43.30	61.10						53.10	97.00								
25.38	43.70	61.80						53.70	97.80								
25.64	44.00	62.20						54.30	98.40								
25.90	44.70	62.40						55.20	99.20								
26.00	44.80	62.70						55.90	99.80								
26.50	45.20	62.90						56.70	100.80								
26.60	45.40	63.20						57.40	101.60								
27.10	45.60	63.40						58.30	102.60								
27.40	46.10	63.80						58.90	103.40								
27.60	46.50	63.90						59.60	104.50								
27.70	46.70	64.00						60.30	105.30								
28.20	47.20	64.40						61.00	106.20								
28.50	47.40	64.90						61.80	107.30								
28.60	47.80	65.20						62.40	108.20								
28.90	48.10	65.60						62.90	109.10								
29.20	48.30	65.80						63.50	110.10								
29.30	48.70	66.10						64.30									
29.70	48.90	66.40						65.00									
30.00	49.10	66.70						65.70									
30.50	49.40	66.90						66.10									
30.70	49.60	67.20						66.80									
31.10	50.10	67.40						67.50									
31.30	50.30	67.70						68.10									
31.50	50.50	67.90						68.80									
31.80	50.80	68.10						69.30									
32.00	51.20	68.40						70.10									

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.		PROJECT TIP I.D.				ROUTE			
						34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
						COUNTY		FIELD PROFESSIONAL				FIELD CREW			
						Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location						Date Run		Test Location						Date Run	
C-37 Y Sta. 37+02 EB OSS 8.5 FT RT FW						9/27-10/1, 10/11-10/13		C-38 Y Sta. 43+34 EB OSL 3.7 FT LT FW						9/27-10/1, 10/11-10/13	
Type	Test Interval				Datum	Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC	20.0 ft Fill		DCP	Cumulative cm per blow			Subgrade (A-4)		20.0 ft Fill	
1.50	53.40	116.20						3.90	50.70	75.70	89.96				
2.20	53.80	117.60						5.90	51.30	76.30	90.00				
2.90	54.20	118.90						7.10	51.60	77.00	90.04				
3.90	54.60	120.20						10.20	52.10	77.50	90.08				
5.20	55.00	120.40						12.50	52.50	77.80	90.12				
6.70	55.60							15.10	53.00	78.00	90.16				
8.60	56.00							17.70	53.50	78.30	90.20				
10.50	56.40							20.70	53.90	78.50	90.24				
12.70	56.90							21.70	54.40	78.80	90.28				
13.50	57.30							22.30	54.80	79.20	90.32				
14.30	57.90							22.90	55.30	79.30	90.36				
15.10	58.50							23.40	55.80	79.60	90.40				
16.10	59.00							23.80	56.30	79.80	90.44				
16.90	59.60							24.40	56.70	80.00	90.48				
18.10	60.50							25.30	57.30	80.60	90.52				
19.40	61.20							26.10	57.80	80.80	90.56				
20.80	62.10							26.70	58.20	81.00	90.60				
22.20	62.90							27.60	58.60	81.10	90.64				
24.00	63.70							28.20	59.10	81.40	90.68				
24.90	64.60							28.90	59.40	81.70	90.72				
26.00	65.40							29.70	59.60	81.90	90.76				
26.70	66.30							30.40	59.80	82.10	90.80				
27.00	67.30							31.30	59.90	82.40	90.82				
27.40	68.10							31.80	60.00	82.90	90.84				
28.00	69.00							32.00	60.20	83.30	90.86				
28.40	69.70							32.30	60.40	83.60	90.88				
28.80	70.20							32.40	60.50	84.30	90.90				
29.30	71.40							32.70	60.60	84.90	90.92				
29.40	72.60							32.90	60.70	85.00	90.94				
30.30	74.00							33.10	60.80	85.40	90.96				
31.50	75.10							33.40	60.90	85.80	90.98				
32.80	76.10							33.60	61.00	86.00	91.00				
34.40	77.00							33.90	61.10	86.40	**50/1"**				
35.50	77.90							34.20	61.20	86.70	**DCP REF**				
36.80	78.80							34.50	61.30	87.00					
38.10	79.80							34.80	61.50	87.40					
38.80	80.60							35.20	61.80	87.80					
39.30	81.50							35.40	61.90	88.00					
39.70	82.60							35.70	62.10	88.20					
40.60	85.10							36.10	62.30	88.30					
41.40	86.40							36.60	62.50	88.40					
41.90	87.60							37.10	62.80	88.50					
42.40	88.50							37.90	63.10	88.60					
43.20	89.60							38.70	63.50	88.70					
44.00	90.60							39.40	64.00	88.90					
44.30	91.90							40.30	64.50	89.00					
44.70	93.20							40.80	65.10	89.10					
45.30	94.40							41.50	65.70	89.15					
45.80	95.80							41.80	66.20	89.20					
46.40	96.90							42.10	66.80	89.25					
47.00	98.10							42.50	67.30	89.30					
47.80	99.40							43.30	67.90	89.35					
47.90	100.70							43.80	68.40	89.40					
48.70	101.80							44.40	68.90	89.45					
48.90	102.80							45.00	69.40	89.50					
49.30	103.90							45.80	69.90	89.55					
49.70	105.10							46.40	70.20	89.60					
50.20	106.30							46.90	70.80	89.64					
50.60	107.70							47.30	71.20	89.68					
51.00	108.90							47.90	71.60	89.72					
51.40	110.00							48.30	72.20	89.76					
51.80	111.10							48.80	72.90	89.80					
52.20	112.30							49.30	73.70	89.84					
52.70	113.60							49.80	74.30	89.88					
53.10	114.90							50.30	75.00	89.92					

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.		PROJECT TIP I.D.				ROUTE			
						34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
						COUNTY		FIELD PROFESSIONAL				FIELD CREW			
						Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location						Date Run		Test Location						Date Run	
C-39 Y Sta. 43+34 EB OSS 4.3 FT RT FW						9/27-10/1, 10/11-10/13		C-40 Y Sta. 48+83 EB OSS 4.0 FT RT FW						9/27-10/1, 10/11-10/13	
Type	Test Interval				Datum	Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC	20.0 ft Fill		DCP	Cumulative cm per blow			Shoulder Drain		15.0 ft Fill	
3.80	44.60	58.30	70.72					4.00	74.50						
7.80	44.70	58.60	70.79					7.60	75.00						
11.60	44.80	58.80	70.86					11.20	75.60						
13.70	44.90	59.30	70.93					14.60	76.40						
15.00	45.12	59.60	71.00					18.20	77.30						
16.30	45.34	59.80	71.06					20.90	78.10						
17.60	45.56	60.00	71.12					24.50	79.00						
19.00	45.78	60.20	71.18					28.60	79.80						
20.70	46.00	60.40	71.24					33.00	80.80						
22.70	46.08	60.60	71.30					38.20	81.80						
24.80	46.16	60.74	71.36					40.70	82.30						
26.30	46.24	60.88	71.42					41.70	83.20						
28.00	46.32	61.02	71.48					42.60	84.20						
29.50	46.40	61.16	71.54					43.40	85.40						
31.10	46.60	61.30	71.60					43.90	86.50						
32.10	46.70	61.52	71.61					44.10	87.50						
33.10	46.80	61.74	71.63					44.50	88.40						
34.00	46.90	61.96	71.64					44.90	89.00						
35.00	47.00	62.18	71.65					45.20	89.50						
35.90	47.10	62.40	71.67					45.60	90.20						
36.70	47.20	62.50	71.68					46.10	90.80						
37.50	47.30	62.60	71.69					46.50	91.30						
38.30	47.40	62.70	71.71					46.90	91.50						
38.80	47.50	62.80	71.72					47.40	92.20						
39.10	47.60	62.90	71.73					47.70	92.80						
39.40	48.00	63.08	71.75					48.00	93.40						
39.50	48.28	63.26	71.76					48.40	94.10						
39.80	48.56	63.44	71.77					49.00	94.70						
40.00	48.84	63.62	71.79					49.50	95.20						
40.20	49.12	63.80	71.80					49.80	95.60						
40.40	49.40	63.96	71.81					50.40	96.30						
40.50	49.62	64.12	71.83					50.80	96.80						
40.70	49.84	64.28	71.84					51.20	97.30						
40.90	50.06	64.44	71.85					51.70	98.00						
41.10	50.28	64.60	71.87					52.10	98.50						
41.20	50.50	64.82	71.88					52.60	99.00						
41.40	50.68	65.04	71.89					53.10	99.60						
41.50	50.86	65.26	71.91					53.60	100.30						
41.62	51.04	65.48	71.92					54.00	101.00						
41.74	51.22	65.70	71.93					54.60	101.50						
41.86	51.40	65.92	71.95					55.00	102.20						
41.98	51.52	66.14	71.96					55.40	102.70						
42.10	51.64	66.36	71.97					55.80	103.20						
42.16	51.76	66.58	71.99					56.50	103.60						
42.22	51.88	66.80	72.00					56.90	104.00						
42.28	52.00	66.90	**50/1"**					57.60	104.60						
42.34	52.24	66.94	**DCP REF**					58.20	105.20						
42.40	52.48	66.98						58.80	105.70						
42.50	52.72	67.02						59.50	106.30						
42.60	52.96	67.06						60.00	106.90						
42.70	53.20	67.10						60.80	107.50						
42.80	53.40	67.30						61.60	108.10						
42.90	53.80	68.20						62.60	108.60						
43.02	54.00	68.50						63.30	109.20						
43.14	54.30	69.00						63.80	109.60						
43.26	54.50	69.30						64.80							
43.38	54.90	69.50						65.50							
43.50	55.20	69.80						66.70							
43.66	55.60	70.20						68.10							
43.82	55.90	70.30						69.10							
43.98	56.30	70.37						70.50							
44.14	56.80	70.44						71.70							
44.30	57.20	70.51						72.50							
44.40	57.60	70.58						73.40							
44.50	58.00	70.65						74.00							

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
	COUNTY	FIELD PROFESSIONAL	FIELD CREW
	Haywood	M. Brewer	C. Odom/D. Underwood

Test Location	Date Run	Test Location	Date Run
C-41 Y Sta. 58+86 EB OSML 17.6 FT LT FW	9/27-10/1, 10/11-10/13	C-42 Y Sta. 58+86 EB OSL 4.8 FT LT FW	9/27-10/1, 10/11-10/13

Type	Test Interval	Datum	Cut/Fill	Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow	STBC	15.0 ft Fill	DCP	Cumulative cm per blow	STBC	15.0 ft Fill
1.50	76.90			3.90	91.60		
2.60	78.00			4.60	93.00		
3.60	78.90			5.40	94.40		
4.40	80.00			6.20	95.50		
5.40	80.10			6.60	96.60		
6.50	81.10			7.20	98.20		
7.30	82.10			8.60	99.80		
8.30	83.30			9.60	101.80		
9.50	84.20			10.80	103.40		
10.10	85.50			11.50	105.10		
11.10	86.70			12.40	106.80		
12.10	87.80			13.30	108.60		
13.40	89.00			14.40			
14.50	90.50			15.30			
15.80	91.80			16.60			
17.00	93.20			17.30			
18.40	94.90			18.20			
19.70				19.10			
20.60				20.10			
22.70				21.00			
23.90				21.90			
25.20				23.10			
26.40				24.60			
27.90				26.00			
29.60				27.80			
31.00				29.00			
32.70				30.80			
34.00				32.40			
35.50				34.60			
36.70				36.50			
37.70				38.10			
39.20				39.60			
40.50				41.20			
42.00				42.80			
43.20				44.30			
44.70				45.80			
46.10				47.50			
47.30				49.40			
48.70				51.30			
50.30				53.00			
52.20				54.90			
54.30				56.70			
56.10				58.20			
57.70				61.00			
59.20				62.40			
60.00				63.90			
61.40				65.40			
62.40				66.90			
63.40				68.40			
64.50				70.10			
65.50				72.70			
66.60				73.50			
67.30				75.00			
68.40				76.50			
68.80				77.40			
69.50				78.00			
70.30				79.00			
70.90				80.60			
71.60				81.50			
72.20				82.90			
73.00				84.10			
73.40				85.50			
74.10				86.80			
74.90				88.50			
75.90				90.10			

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
	COUNTY	FIELD PROFESSIONAL	FIELD CREW
	Haywood	M. Brewer	C. Odom/D. Underwood

Test Location	Date Run	Test Location	Date Run
C-43 Y Sta. 58+86 EB OSS 3.5 FT RT FW	9/27-10/1, 10/11-10/13	C-44 Y Sta. 63+48 EB OSS 8.3 FT RT FW	9/27-10/1, 10/11-10/13

Type	Test Interval	Datum	Cut/Fill	Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow	STBC	15.0 ft Fill	DCP	Cumulative cm per blow	STBC	10.0 ft Fill
1.00	74.20			1.50	115.14		
1.80	76.20			2.00	115.41		
2.40	78.20			3.30	115.68		
3.00	79.80			3.80	115.95		
3.70	81.30			4.80	116.22		
4.30	82.20			5.50	116.49		
5.50	84.20			6.20	116.76		
5.90	85.80			7.10	117.03		
6.50	87.80			8.00	117.30		
7.20	90.00			9.20	117.65		
8.40	91.30			10.70	118.00		
9.10	92.00			12.80	118.35		
9.70	92.40			14.80	118.70		
10.30	93.40			16.40	119.05		
11.00	94.20			18.30	119.40		
11.70	95.40			20.90	119.75		
12.30	96.60			25.00	120.10		
13.00	98.40			28.60	120.45		
13.70	100.10			33.20	120.80		
14.30	101.70			38.00	121.20		
15.20	103.10			41.00	121.50		
16.00	104.60			43.70	121.90		
16.70	106.20			47.00	122.80		
17.60	107.70			51.50	123.00		
18.70	109.10			56.30	123.60		
19.40	110.20			59.70	124.30		
20.20	111.50			61.40	125.10		
20.60	112.90			62.40	126.00		
21.60	114.20			64.10	126.70		
23.70	115.90			66.00	127.80		
24.50				68.30			
25.60				70.90			
26.40				73.60			
27.30				76.20			
28.40				79.20			
29.20				82.20			
29.90				84.10			
30.60				87.00			
31.30				91.00			
32.10				95.40			
33.80				99.50			
34.40				102.00			
35.50				104.20			
36.80				105.70			
38.20				108.00			
39.40				109.70			
40.80				110.90			
42.90				111.60			
43.50				112.00			
45.10				112.30			
46.60				112.70			
48.10				112.80			
49.40				112.90			
50.80				113.00			
52.20				113.16			
54.00				113.32			
55.80				113.48			
58.00				113.64			
59.90				113.80			
62.00				113.96			
64.30				114.12			
66.80				114.28			
68.20				114.44			
70.10				114.60			
72.10				114.87			

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.	PROJECT TIP I.D.	ROUTE
						34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
						COUNTY	FIELD PROFESSIONAL	FIELD CREW
						Haywood	M. Brewer	C. Odom/D. Underwood
Test Location						Date Run	Test Location	Date Run
C-45 Y Sta. 68+28 EB OSS 3.8 FT RT FW						9/27-10/1, 10/11-10/13	C-46 Y Sta. 75+08 EB OSS 8.2 FT RT FW	9/27-10/1, 10/11-10/13
Type	Test Interval		Datum			Cut/Fill	Type	Test Interval		Datum		Cut/Fill	
DCP	Cumulative cm per blow		STBC			10.0 ft Fill	DCP	Cumulative cm per blow		STBC		5.0 ft Fill	
4.10	69.00						1.20	85.50					
7.70	69.60						2.10	88.40					
10.70	70.40						3.40	90.00					
13.90	71.80						4.20	91.00					
18.60	72.40						5.20	92.40					
23.50	73.30						6.10	93.40					
28.60	74.30						7.00	94.50					
34.00	75.40						7.80	95.50					
38.30	76.00						8.60	96.60					
40.90	77.50						9.40	97.60					
42.40	77.80						10.80	98.50					
44.10	79.10						12.20	99.20					
46.60	79.90						13.60	100.10					
49.90	81.30						15.40	101.00					
51.80	82.30						17.30	102.00					
53.40	83.10						18.40	103.10					
54.50	84.40						19.80	103.90					
55.60	85.30						21.10	105.00					
56.90	87.00						23.00	105.80					
58.30	88.20						24.70	106.60					
58.50	89.00						26.00	107.80					
58.80	90.00						26.90	108.90					
59.00	91.00						27.50	110.10					
59.60	92.20						28.90	111.00					
59.70	93.30						30.30	112.10					
59.80	94.50						32.00	113.20					
60.00	95.40						33.10	114.20					
60.16	96.80						33.40	116.10					
60.32	97.90						35.70	117.60					
60.48	99.20						37.10	119.40					
60.64	100.40						38.50	121.40					
60.80	101.90						40.30	123.30					
60.96	103.20						41.70	124.80					
61.12	105.30						42.70	126.00					
61.28	107.50						43.70	127.20					
61.44	109.20						44.70	128.40					
61.60	110.70						45.80	129.50					
61.72	112.20						47.20						
61.84	113.50						48.50						
61.96	114.80						49.50						
62.08	116.20						50.50						
62.20	117.50						51.90						
62.32	118.60						53.40						
62.44	119.70						54.90						
62.56	120.80						56.70						
62.68	122.00						58.60						
62.80	123.00						60.70						
62.90	123.80						63.00						
63.00	124.50						65.00						
63.10							66.20						
63.20							67.40						
63.30							68.30						
63.46							69.50						
63.62							70.50						
63.78							71.80						
63.94							72.90						
64.10							74.00						
64.52							75.50						
64.94							76.80						
65.36							78.20						
65.78							79.30						
66.20							80.50						
66.80							81.70						
67.50							83.10						
68.20							84.70						

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.	PROJECT TIP I.D.	ROUTE
						34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
						COUNTY	FIELD PROFESSIONAL	FIELD CREW
						Haywood	M. Brewer	C. Odom/D. Underwood
Test Location						Date Run	Test Location	Date Run
C-47 Y Sta. 80+18 EB OSS 4.0 FT RT FW						9/27-10/1, 10/11-10/13	C-48 Y Sta. 85+43 EB OSS 9.5 FT RT FW	9/27-10/1, 10/11-10/13
Type	Test Interval		Datum			Cut/Fill	Type	Test Interval		Datum		Cut/Fill	
DCP	Cumulative cm per blow		Shoulder Drain			30.0 ft Cut	DCP	Cumulative cm per blow		STBC		20.0 ft Cut	
2.60							1.90	86.80					
5.60							3.20	87.30					
7.70							4.30	88.00					
10.60							5.40	88.60					
13.40							6.10	89.30					
24.90							7.40	90.20					
31.10							8.40	91.00					
36.40							9.70	91.70					
41.80							11.10	92.50					
48.50							12.40	93.10					
52.70							13.80	93.80					
55.90							15.80	94.30					
60.20							17.10	94.90					
65.30							18.70	95.70					
70.50							20.30	96.10					
74.10							21.90	96.70					
76.70							23.60	97.20					
79.60							27.90	97.70					
82.00							30.00	98.10					
84.30							32.70	98.70					
85.90							35.40	99.50					
87.60							38.60	99.90					
89.10							41.50	100.70					
90.70							43.80	101.30					
92.00							45.40	102.00					
93.50							46.40	102.60					
94.90							47.50	103.10					
96.10							48.50	103.90					
98.20							49.60	104.50					
99.70							50.70	105.20					
101.40							51.60	105.90					
102.90							52.50	106.60					
104.70							53.60	107.30					
107.30							54.60	108.10					
109.50							55.60	108.70					
112.10							56.60	109.20					
							57.50	109.80					
							59.00	110.20					
							60.00	110.80					
							61.10	111.50					
							62.20	112.40					
							63.40	113.00					
							64.60	113.40					
							65.70	114.00					
							67.00	114.70					
							67.90	115.40					
							69.00	115.90					
							70.30	116.70					
							71.30	117.40					
							71.70	118.00					
							72.70	118.70					
							73.90	119.40					
							74.40	120.00					
							76.00	120.80					
							77.00	121.60					
							77.60	122.50					
							78.70	123.30					
							79.10	124.10					
							80.20	125.00					
							81.20	125.70					
							82.30	126.60					
							83.40	127.30					
							84.20	128.20					
							85.10						
							85.80						

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.		PROJECT TIP I.D.		ROUTE	
						34165.1.6		I-2513AA/AB		I-26 from I-40 to SR 3548 (Haywood Road)	
						COUNTY		FIELD PROFESSIONAL		FIELD CREW	
						Haywood		M. Brewer		C. Odom/D. Underwood	
Test Location						Date Run		Test Location			Date Run
C-49 Y Sta. 87+83 EB ISS 4.0 FT LT FY						9/27-10/1, 10/11-10/13		C-50 Y Sta. 87+83 EB ISL 5.5 FT RT FY			9/27-10/1, 10/11-10/13
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow			STBC		15.0 ft Cut		DCP	Cumulative cm per blow	STBC	15.0 ft Cut
0.70	65.90							1.20	63.80		
2.50	67.60							2.10	65.50		
3.30	69.70							2.90	67.40		
4.10	71.50							3.40	69.40		
4.70	73.50							4.10	71.30		
5.40	75.30							5.70	73.20		
5.80	77.10							6.50	75.70		
6.60	78.70							7.10	77.60		
7.20	80.30							7.80	79.50		
7.90	82.10							8.30	81.40		
8.40	84.50							8.90	83.10		
9.30	86.10							9.50	84.90		
9.70	87.70							10.00	86.70		
9.90	89.00							10.50	88.70		
11.10	90.40							11.10	91.00		
11.60	91.40							11.60	93.00		
11.90	92.60							12.10	95.00		
12.40	93.70							12.70	97.00		
13.10	94.80							13.20	98.90		
13.60	95.70							13.70	101.00		
14.10	96.70							14.30	103.30		
14.70	97.60							15.20	105.50		
15.20	98.50							15.80	107.70		
15.90	99.20							16.50	109.70		
16.60	99.60							17.30	111.50		
17.40	100.20							18.00	113.50		
18.40	101.00							19.00			
19.40	101.90							19.70			
20.40	102.50							20.40			
21.60	103.00							21.00			
22.80	103.50							21.80			
24.00	103.90							22.70			
25.20	104.00							22.90			
26.60	104.40							23.70			
27.60	104.70							24.00			
27.80	105.10							24.40			
28.70	105.60							25.00			
29.50	106.20							25.60			
30.00	106.50							26.10			
31.10	106.90							27.00			
31.80	107.70							27.70			
32.50	108.10							28.10			
33.40	108.60							29.20			
34.30								30.30			
35.00								31.40			
36.00								32.40			
37.20								33.60			
38.10								34.80			
39.50								35.90			
40.50								36.90			
41.90								38.00			
43.60								39.30			
44.70								40.70			
46.10								42.30			
47.70								44.20			
49.50								45.90			
51.20								47.60			
53.00								49.30			
54.60								51.00			
56.20								52.90			
57.40								55.20			
58.20								57.10			
60.10								58.90			
62.10								60.50			
63.80								62.00			

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.		PROJECT TIP I.D.		ROUTE	
						34165.1.6		I-2513AA/AB		I-26 from I-40 to SR 3548 (Haywood Road)	
						COUNTY		FIELD PROFESSIONAL		FIELD CREW	
						Haywood		M. Brewer		C. Odom/D. Underwood	
Test Location						Date Run		Test Location			Date Run
C-51 Y Sta. 87+84 EB ISML 16.3 FT RT FW						9/27-10/1, 10/11-10/13		C-52 Y Sta. 87+84 EB OSML 13.5 FT LT FW			9/27-10/1, 10/11-10/13
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow			STBC		15.0 ft Cut		DCP	Cumulative cm per blow	STBC	15.0 ft Cut
0.80	31.20	60.40	89.60					0.90	37.00	61.80	
1.30	32.20	60.70	90.20					1.60	37.20	62.30	
2.10	32.60	61.30	90.80					1.90	37.60	62.70	
2.60	32.80	61.60	91.00					2.60	37.70	63.00	
3.10	33.00	61.90	91.70					2.90	37.90	63.10	
3.40	33.50	62.20	92.10					3.50	38.10	63.40	
3.90	34.50	62.60	92.60					3.90	38.30	63.60	
4.40	35.30	63.00	93.00					4.40	38.50	64.10	
5.20	36.20	63.30	93.50					5.20	39.20	64.30	
5.80	37.00	63.50	94.20					5.60	39.50	64.60	
6.50	37.80	63.90	94.90					6.60	39.90	64.80	
7.00	38.60	64.20	95.40					7.20	40.20	65.00	
7.80	39.50	64.50	96.00					7.70	40.60	65.20	
8.40	40.50	65.00	96.60					8.30	40.90	65.42	
8.80	41.00	65.30	97.50					8.50	41.40	65.64	
9.40	41.50	65.80	98.20					8.80	41.70	65.86	
10.00	42.00	66.00	99.00					9.00	42.10	66.08	
10.50	42.70	66.20						9.60	42.40	66.30	
11.10	43.30	66.30						9.80	42.80	66.56	
11.70	43.80	66.80						10.10	43.00	66.82	
12.50	44.10	67.20						10.60	43.40	67.08	
13.00	44.50	67.90						11.40	43.90	67.34	
13.50	44.80	68.10						11.70	44.40	67.60	
14.00	44.90	68.60						12.30	44.80	67.82	
14.70	45.20	69.50						12.70	45.20	68.04	
15.00	45.30	70.00						13.30	45.70	68.26	
15.40	45.70	70.30						13.90	46.20	68.48	
15.90	45.90	71.00						14.60	46.50	68.70	
16.10	46.50	71.50						15.30	47.20	68.92	
16.70	46.70	71.90						15.80	47.40	69.14	
16.90	47.00	72.20						16.50	47.90	69.36	
17.40	47.50	72.90						17.20	48.30	69.58	
17.80	47.90	73.40						17.90	48.80	69.80	
18.40	48.50	74.70						18.60	49.30	69.90	
18.70	48.80	75.00						19.50	49.70	70.00	
18.80	49.30	75.50						20.10	50.10	70.10	
19.10	49.60	75.80						20.80	50.50	70.20	
19.40	49.80	75.90						21.50	50.90	70.30	
19.80	50.20	76.20						21.80	51.20	70.40	
20.00	50.60	77.10						22.60	51.60	70.50	
20.30	50.90	78.10						23.20	52.00	70.60	
20.50	51.30	78.40						23.80	52.40	70.70	
21.00	51.70	78.60						24.60	52.60	70.80	
21.40	51.80	79.00						25.20	53.40	70.87	
21.50	52.10	79.20						25.70	54.00	70.94	
21.80	52.40	80.00						27.00	54.30	71.01	
21.90	52.60	80.30						27.60	54.70	71.08	
22.50	52.90	80.40						28.10	55.00	71.15	
23.00	53.50	80.70						29.00	55.40	71.22	
23.30	54.10	81.00						29.60	55.70	71.29	
24.00	54.50	81.30						30.00	56.00	71.36	
24.30	54.60	81.90						30.50	56.20	71.43	
24.90	55.00	82.00						31.40	56.70	71.50	
25.30	55.30	82.60						31.60	57.30	71.63	
25.70	55.90	82.80						32.20	57.90	71.76	
26.40	56.30	83.20						32.90	58.60	71.89	
26.70	56.60	83.80						33.40	59.00	72.02	
27.10	57.00	84.00						33.80	59.30	72.15	
27.50	57.30	84.20						34.20	59.70	72.28	
28.00	57.80	85.60						34.60	60.10	72.41	
28.50	58.00	86.30						35.10	60.30	72.54	
29.00	58.80	86.50						35.40	60.50	72.67	
29.50	59.50	87.40						35.70	60.90	72.80	
30.00	59.80	88.10						36.10	61.30	**50/3"**	
30.60	60.10	88.90						36.70	61.60	**DCP REF**	

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								34165.1.6				I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
								COUNTY				FIELD PROFESSIONAL				FIELD CREW			
								Haywood				M. Brewer				C. Odom/D. Underwood			
Test Location						Date Run		Test Location							Date Run				
C-53 Y Sta. 87+84 EB OSL 2.8 FT LT FW						9/27-10/1, 10/11-10/13		C-54 Y Sta. 87+84 EB OSS 8.2 FT RT FW							9/27-10/1, 10/11-10/13				
Type	Test Interval				Datum		Cut/Fill	Type	Test Interval				Datum		Cut/Fill				
DCP	Cumulative cm per blow				STBC		15.0 ft Cut	DCP	Cumulative cm per blow				STBC		15.0 ft Cut				
1.90	54.10	88.80						1.60	99.40										
3.00	55.00	89.30						2.90	100.60										
4.20	55.70	90.20						3.80	101.50										
5.30	56.80	90.30						4.90	102.60										
6.50	57.00	90.90						5.70	103.50										
7.70	57.70	91.20						6.60	104.00										
8.70	58.40	91.70						7.50	105.10										
9.70	59.10	92.00						8.60	106.20										
11.10	60.00	92.30						9.60	107.10										
12.10	60.90	92.70						10.70	108.10										
13.20	61.40	93.00						12.00	109.00										
14.20	62.10	93.20						13.00	109.90										
15.10	62.80	93.40						15.10	110.50										
16.10	63.80	93.60						16.70	111.30										
16.90	64.70	93.80						18.50	112.10										
17.80	65.70	94.10						20.50	112.80										
18.50	66.40	94.30						22.30	113.30										
19.20	67.50	94.60						24.50	114.00										
19.90	68.20	94.90						26.40	114.50										
20.30	69.30	95.10						28.90	115.20										
20.80	70.00	95.30						31.30	115.90										
21.50	70.80	95.70						33.90	116.50										
22.00	71.50	96.00						36.40	118.00										
22.50	72.10	96.20						39.40	118.80										
23.20	72.70	96.60						41.70	119.60										
23.80	73.30	96.80						44.00	120.50										
24.40	73.80	97.10						46.10	121.30										
24.80	74.20	97.40						47.60	122.10										
25.50	75.00	97.70						49.00	123.00										
26.10	75.20	98.00						50.20	123.80										
26.70	75.70	98.30						51.80	124.60										
27.20	76.30	98.80						52.70	125.50										
28.10	76.60	99.10						54.00	126.20										
28.80	77.30	99.50						55.10	126.90										
29.50	77.80	100.10						56.70	127.80										
30.40	78.30	100.50						58.30	128.40										
31.10	78.80	100.80						59.80	128.80										
31.90	79.20	101.40						61.00	130.40										
32.60	79.50	101.70						62.40											
33.40	79.90	102.10						63.40											
34.50	80.40							64.60											
35.50	80.60							65.50											
36.50	81.10							66.60											
37.50	81.50							68.00											
38.40	81.90							69.40											
39.20	82.50							70.50											
40.20	82.70							71.60											
40.90	83.00							72.80											
42.00	83.50							74.00											
42.90	83.80							75.20											
43.90	84.20							76.30											
44.80	84.60							77.50											
45.50	84.80							78.90											
46.30	85.10							80.20											
46.90	85.50							81.70											
47.60	85.70							83.20											
48.40	86.10							84.90											
49.00	86.40							86.50											
49.50	86.70							88.00											
50.50	87.00							89.90											
50.80	87.30							91.70											
52.30	87.60							93.50											
52.40	87.90							95.20											
52.50	88.20							96.80											
53.40	88.60							98.20											

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								34165.1.6				I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
								COUNTY				FIELD PROFESSIONAL				FIELD CREW			
								Haywood				M. Brewer				C. Odom/D. Underwood			
Test Location						Date Run		Test Location							Date Run				
C-55 Y_EB Sta. 10+59 EB OSS 4.0 FT RT FW						9/27-10/1, 10/11-10/13		C-57 Y_EB Sta. 15+83 EB OSS 10.0 FT RT FW							9/27-10/1, 10/11-10/13				
Type	Test Interval				Datum		Cut/Fill	Type	Test Interval				Datum		Cut/Fill				
DCP	Cumulative cm per blow				STBC		10.0 ft Fill	DCP	Cumulative cm per blow				Subgrade (A-4)		30.0 ft Cut				
1.60	42.10	93.50						3.10	97.30										
2.50	42.70	95.30						6.40	97.60										
3.50	43.20	97.20						9.20	98.10										
4.20	43.50	99.00						11.90	98.40										
5.20	44.00	101.00						15.40	98.70										
6.00	44.50	102.50						19.50	99.20										
6.60	44.90	104.20						24.00	99.80										
7.40	45.50	105.80						28.50	100.40										
8.30	46.00							34.00	100.70										
9.20	46.80							42.60	101.30										
10.00	47.40							46.20	101.90										
10.80	48.00							48.20	102.60										
11.70	48.50							49.90											
12.60	49.30							51.40											
13.70	49.80							52.10											
14.60	50.30							54.40											
15.50	50.90							56.20											
16.50	51.50							57.60											
17.40	51.80							58.90											
17.80	52.20							60.30											
18.00	52.50							61.60											
18.40	53.10							62.80											
18.60	53.70							64.00											
19.40	54.30							65.70											
20.30	54.70							67.40											
21.40	55.40							68.80											
22.20	55.90							70.30											
23.00	56.50							71.30											
23.70	57.00							72.30											
24.20	57.50							73.10											
24.70	58.20							74.10											
25.60	59.10							74.70											
26.00	60.00							75.80											
26.80	60.70							76.30											
27.50	61.30							77.20											
28.30	62.30							77.80											
28.60	63.10							78.40											
29.00	64.00							79.00											
29.50	65.40							79.90											
30.00	66.50							80.40											
30.50	67.70							81.00											
31.20	68.40							81.60											
31.40	69.40							82.40											
31.60	70.00							82.80											
31.70	71.00							83.30											
32.20	71.90							84.40											
32.70	72.60							85.00											
33.10	73.10							85.50											
33.30	74.50							86.00											
33.90	75.30							87.00											
34.50	76.40							87.60											
35.00	77.30							88.40											
35.80	77.90							89.10											
36.50	78.80							90.00											
36.90	79.40							90.60											
37.50	80.30							91.80											
38.00	81.20							92.20											
38.40	82.30							93.70											
38.70	83.40							94.30											
38.90	84.30							94.60											
39.30	85.30							95.20											
39.60	86.50							95.60											
40.00	88.20							96.10											
40.80	90.00							96.50											
41.50	91.70							96.90											

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET							WBS NO.	PROJECT TIP I.D.	ROUTE
							34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
							COUNTY	FIELD PROFESSIONAL	FIELD CREW
							Haywood	M. Brewer	C. Odom/D. Underwood
Test Location							Date Run	Test Location	Date Run
C-56 Y_EB Sta. 15+85 EB ISS 1.7 FT LT FY							9/27-10/1, 10/11-10/13	C-58 Y_EB Sta. 20+58 EB ISS 1.5 FT LT FY	9/27-10/1, 10/11-10/13
Type	Test Interval			Datum			Cut/Fill	Type	Test Interval			Datum		Cut/Fill
DCP	Cumulative cm per blow			STBC			30.0 ft Cut	DCP	Cumulative cm per blow			Subgrade (A-4)		30.0 ft Cut
0.90	14.05	11.10	60.40					1.40	92.90					
1.80	14.08	11.40	61.90					2.50	93.50					
2.40	14.10	12.10	63.20					3.40	94.50					
2.70	14.13	12.80	64.90					4.40	95.70					
3.40	14.15	13.40	66.70					5.90	96.80					
3.80	14.18	14.20	68.40					7.40	97.70					
4.40	14.20	14.70	70.00					8.50	98.90					
4.90	14.23	15.20	71.30					9.80	100.30					
5.50	14.25	15.80	72.50					11.30	101.50					
5.80	14.28	16.50	74.00					12.50	102.60					
6.20	14.30	17.20	75.00					14.00	104.00					
6.70	14.33	18.10	76.20					15.30	105.40					
7.20	14.35	18.80	77.40					18.10	106.60					
7.60	14.38	19.50	78.50					18.70	108.20					
8.10	14.40	20.10	79.70					20.90	109.40					
8.50	**50/0***	21.00	80.80					22.20	110.70					
8.90	**DCP REF**	21.50	81.70					23.90	111.80					
9.20	**AUGER**	22.50	82.80					25.60						
9.50	**7.8 CM**	23.00	83.60					27.40						
9.90	**TO 22.2**	23.50	84.60					28.90						
10.10	0.50	24.10	85.40					30.50						
10.40	0.70	24.90	86.60					31.60						
10.70	0.80	25.30	87.70					32.80						
11.20	1.00	26.40	88.80					34.30						
11.60	1.08	27.20	89.90					35.90						
11.90	1.16	27.80	91.20					37.50						
12.00	1.24	28.40	92.40					39.10						
12.30	1.32	29.20	93.50					41.10						
12.60	1.40	30.10	95.00					42.80						
12.80	1.48	30.70	96.10					44.50						
12.84	1.56	31.50	98.00					46.40						
12.88	1.64	32.20	99.30					47.90						
12.92	1.72	32.80	100.20					49.60						
12.96	1.80	33.60	101.10					51.10						
13.00	1.94	34.30	101.80					52.70						
13.04	2.08	35.10						53.80						
13.08	2.22	37.00						55.30						
13.12	2.36	37.90						56.30						
13.16	2.50	38.80						57.80						
13.20	2.64	39.70						58.90						
13.24	2.78	40.60						60.00						
13.27	2.92	41.40						61.40						
13.31	3.06	42.20						64.00						
13.34	3.20	42.70						65.50						
13.38	3.43	43.40						66.00						
13.41	3.66	44.00						67.50						
13.45	3.89	45.00						68.90						
13.48	4.12	45.70						70.60						
13.52	4.35	46.50						72.00						
13.55	4.58	47.00						73.30						
13.59	4.81	47.80						74.80						
13.62	5.04	48.40						76.00						
13.66	5.27	49.10						77.10						
13.69	5.50	49.60						78.60						
13.73	5.90	50.20						79.70						
13.76	6.20	51.10						80.80						
13.80	6.60	51.90						82.30						
13.83	6.90	52.70						83.50						
13.87	7.40	53.50						84.50						
13.90	7.80	54.50						85.80						
13.93	8.50	55.20						87.00						
13.95	9.00	56.00						88.10						
13.98	9.50	57.20						89.20						
14.00	9.90	58.10						90.30						
14.03	10.40	59.20						91.50						

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET							WBS NO.	PROJECT TIP I.D.	ROUTE
							34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
							COUNTY	FIELD PROFESSIONAL	FIELD CREW
							Haywood	M. Brewer	C. Odom/D. Underwood
Test Location							Date Run	Test Location	Date Run
C-59 Y_EB Sta. 20+65 EB OSS 5.5 FT RT FW							9/27-10/1, 10/11-10/13	C-61 Y_EB Sta. 25+60 EB ISL 6.5 FT RT FY	9/27-10/1, 10/11-10/13
Type	Test Interval			Datum			Cut/Fill	Type	Test Interval			Datum		Cut/Fill
DCP	Cumulative cm per blow			STBC			40.0 ft Cut	DCP	Cumulative cm per blow			STBC		10.0 ft Fill
0.40	82.80							2.60	81.50					
0.90	84.10							4.20	82.40					
1.60	85.40							5.60	83.40					
2.10	86.60							6.30	84.10					
2.50	88.10							7.80	84.90					
3.00	89.30							9.10	85.90					
3.40	90.90							10.60	86.20					
3.90	92.40							12.40	87.00					
4.20	93.80							14.40	87.80					
4.70	94.80							16.40	88.40					
5.40	96.10							18.10	89.00					
5.80	97.10							19.40	89.80					
6.30	98.60							20.80	90.60					
6.90	100.00							22.00	91.30					
7.20	101.30							23.00	92.10					
7.60	102.50							24.20	93.00					
8.10	103.80							25.60	93.50					
8.70	105.20							27.50	94.40					
9.20	106.20							29.20	95.20					
9.70	107.50							31.20	96.20					
10.30	108.50							33.10	97.10					
11.10	109.50							34.60	97.80					
11.60	110.60							36.30	98.80					
12.30	111.70							37.60	99.20					
13.00	112.20							39.00	100.10					
13.50	113.90							40.10	101.00					
14.70	114.90							41.50	102.00					
15.90	116.00							43.00	102.80					
17.20	116.90							44.40	103.70					
18.40	117.80							45.80	104.70					
19.80	118.80							47.30						
21.40	119.90							48.60						
23.30	121.00							49.60						
25.30	122.20							51.00						
27.30	123.30							52.10						
28.40	124.20							53.10						
30.30	124.90							54.40						
31.70	125.90							55.50						
33.20	127.10							56.40						
35.40	128.00							57.70						
37.60								58.60						
39.40								59.50						
41.10								60.40						
43.20								61.20						
45.40								62.10						
48.60								63.20						
51.50								64.00						
53.80								64.60						
56.40								65.30						
58.60								66.00						
60.20								66.80						
62.50								67.80						
64.50								68.50						
66.40								69.50						
68.40								70.30						
70.40								71.40						
72.00								72.40						
73.90								73.20						
75.70								74.30						
77.50								75.30						
78.90								76.30						
79.90								77.40						
81.00								78.20						
81.70								79.40						
81.80								80.40						

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.		PROJECT TIP I.D.				ROUTE			
						34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
						COUNTY		FIELD PROFESSIONAL				FIELD CREW			
						Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location						Date Run		Test Location						Date Run	
C-62 Y_EB Sta. 25+60 EB ISML 17.3 FT RT FY						9/27-10/1, 10/11-10/13		C-65 Y_EB Sta. 25+60 EB OSS 3.0 FT RT FW						9/27-10/1, 10/11-10/13	
Type	Test Interval				Datum	Cut/Fill		Type	Test Interval				Datum	Cut/Fill	
DCP	Cumulative cm per blow				STBC	10.0 ft Fill		DCP	Cumulative cm per blow				STBC	5.0 ft Cut	
1.50	54.50	113.20						1.40	42.30	134.30					
2.10	55.20	113.90						2.20	43.40	136.00					
2.80	55.70	114.80						2.60	44.50	138.00					
3.10	56.50	115.60						2.90	45.60	139.80					
3.70	57.00	116.30						3.20	46.50	141.60					
4.00	57.60	117.00						3.60	47.40	143.30					
4.50	58.30	117.80						3.80	48.90						
4.80	58.90	118.60						4.10	50.50						
5.50	59.70	119.30						4.40	52.20						
6.10	60.40	120.00						4.70	53.50						
6.50	61.20	120.90						5.00	54.80						
6.90	61.90	121.60						5.20	55.90						
7.50	62.60	122.20						5.60	56.90						
8.00	63.20	122.90						5.90	58.10						
8.60	63.90	123.50						6.20	59.30						
9.20	64.50	124.10						6.40	60.20						
9.90	65.30	124.70						6.70	61.60						
10.40	66.10	125.50						7.00	63.00						
11.30	66.70	125.90						7.20	64.20						
11.80	67.10	126.40						7.50	65.50						
12.50	67.60	127.10						7.80	66.70						
13.20	68.40	127.60						8.20	68.20						
13.60	69.10	128.30						8.50	70.00						
14.30	70.10	128.90						8.90	71.20						
14.90	71.10	129.60						9.30	73.00						
15.50	72.00	130.30						9.60	74.70						
16.20	72.90	130.90						9.80	76.70						
17.20	74.10	131.50						10.30	78.50						
18.00	75.00	132.20						10.70	80.30						
19.20	76.00	132.30						11.10	81.20						
20.50	76.90	132.80						11.40	83.50						
21.60	77.90							12.00	84.90						
22.70	78.90							12.40	86.30						
23.50	79.80							12.70	87.50						
24.70	81.30							13.10	88.30						
25.80	82.50							13.60	89.60						
26.80	83.50							14.10	90.50						
27.90	84.70							14.60	91.80						
29.00	85.60							15.00	93.00						
30.20	86.60							15.50	94.10						
31.40	87.50							16.10	95.20						
32.80	88.50							16.60	96.40						
34.20	89.60							17.20	97.90						
35.30	90.70							17.70	99.50						
36.60	91.70							18.40	101.50						
37.80	92.70							19.00	103.30						
39.00	94.00							19.90	104.90						
40.20	95.20							20.80	106.60						
41.40	96.40							21.70	108.30						
42.60	97.50							22.70	110.00						
43.40	98.80							23.90	111.70						
44.30	99.90							25.20	113.30						
45.10	101.00							26.60	114.90						
45.90	101.90							28.10	116.20						
46.70	102.80							29.30	117.70						
47.50	103.80							31.00	118.90						
48.30	104.40							32.40	120.40						
49.00	105.90							34.80	122.10						
49.80	106.90							35.00	123.70						
50.50	107.80							36.10	125.30						
51.20	108.70							37.30	126.60						
51.80	109.60							38.30	128.20						
52.40	110.60							39.40	129.70						
53.00	111.40							40.30	131.10						
53.70	112.40							41.30	132.70						

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.		PROJECT TIP I.D.				ROUTE			
						34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
						COUNTY		FIELD PROFESSIONAL				FIELD CREW			
						Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location						Date Run		Test Location						Date Run	
C-60 Y_EB Sta. 25+61 EB ISS 2.5 FT LT FY						9/27-10/1, 10/11-10/13		C-63 Y_EB Sta. 25+61 EB OSML 16.8 FT LT FW						9/27-10/1, 10/11-10/13	
Type	Test Interval				Datum	Cut/Fill		Type	Test Interval				Datum	Cut/Fill	
DCP	Cumulative cm per blow				STBC	10.0 ft Fill		DCP	Cumulative cm per blow				STBC	5.0 ft Fill	
1.90								1.60	70.50						
2.40								3.00	71.80						
3.30								4.10	72.50						
4.00								5.40	73.60						
4.80								6.40	74.50						
5.60								7.40	75.50						
6.30								8.30	76.20						
6.90								9.50	77.10						
7.60								10.60	77.90						
8.30								11.60	79.20						
9.50								12.90	80.40						
10.40								13.10	81.40						
11.40								15.60	82.50						
12.40								16.90	83.60						
13.70								18.40	84.60						
14.80								19.80	85.60						
16.20								21.30	86.80						
17.80								22.80	87.60						
19.90								24.10	89.20						
22.10								25.30	90.50						
24.30								26.60	91.90						
27.00								27.50	93.30						
30.80								28.60	94.70						
35.20								30.00	95.90						
40.50								30.90	97.20						
44.70								31.80	98.20						
48.70								32.80	99.40						
52.80								33.80	100.30						
56.20								35.10	101.40						
60.30								36.30	102.50						
65.40								37.10	103.40						
69.00								38.20	104.00						
71.40								39.60	104.80						
74.00								40.60	105.70						
77.20								41.50	106.10						
80.80								42.60	106.70						
83.40								43.30	107.70						
85.50								44.20	108.30						
87.50								44.90	109.20						
89.30								45.70	110.00						
91.40								46.80	111.10						
93.80								47.30	112.00						
95.90								48.30	113.10						
98.20								49.00	114.40						
101.40								49.90	115.50						
								50.80							
								51.70							
								52.50							
								53.40							
								54.30							
								55.20							
								56.00							
								57.10							
								58.10							
								59.20							
								60.40							
								61.50							
								62.40							
								63.40							
								64.40							
								65.70							
								66.80							
								67.90							
								68.70							
								69.80							

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.	PROJECT TIP I.D.	ROUTE
						34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
						COUNTY	FIELD PROFESSIONAL	FIELD CREW
						Haywood	M. Brewer	C. Odom/D. Underwood
Test Location						Date Run	Test Location	Date Run
C-64 Y_EB Sta. 25+61 EB OSL 4.7 FT LT FW						9/27-10/1, 10/11-10/13	C-66 Y_EB Sta. 31+04 EB ISS 4.0 FT LT FY	9/27-10/1, 10/11-10/13
Type	Test Interval		Datum			Cut/Fill	Type	Test Interval		Datum		Cut/Fill
DCP	Cumulative cm per blow		STBC			5.0 ft Fill	DCP	Cumulative cm per blow		STBC		10.0 ft Cut
0.70	63.80						1.20	74.20				
1.10	65.30						1.80	76.20				
1.40	67.00						2.20	78.00				
1.70	68.90						3.60	80.60				
2.00	71.00						4.10	82.70				
2.40	73.20						4.60	85.10				
2.70	75.40						5.40	87.30				
3.10	77.70						6.00	89.50				
3.30	79.90						6.50	91.50				
3.60	82.10						7.20	93.70				
3.90	84.40						7.80	95.80				
4.20	86.60						8.40	98.10				
4.70	89.00						9.20	100.40				
5.10	90.50						9.90	102.90				
5.70	92.50						10.30	105.30				
6.10	94.30						11.10	108.00				
6.60	95.90						11.90	110.30				
7.00	97.40						12.70	112.30				
7.80	98.90						13.50	114.00				
8.10	100.60						14.30	115.80				
8.60	102.00						15.00	118.00				
9.20	103.50						15.40	120.50				
9.60	104.90						16.70	123.50				
10.00	106.40						18.00	125.70				
10.70	108.00						19.30	128.20				
11.40	109.50						20.10	129.60				
12.30	110.90						21.30	130.60				
13.40	112.50						22.40					
14.30	114.00						23.60					
14.90	115.90						24.90					
15.90	117.90						26.20					
16.60	120.20						27.30					
17.30	122.30						28.40					
17.90	124.10						30.00					
18.60							31.20					
19.70							32.50					
21.00							33.70					
22.30							34.90					
23.30							36.20					
24.50							37.10					
25.80							38.30					
27.00							39.60					
28.30							41.20					
29.60							42.50					
31.10							43.70					
32.20							45.50					
33.50							46.90					
35.00							48.30					
36.50							49.60					
38.00							51.10					
39.10							52.70					
41.30							53.90					
42.90							55.30					
44.60							57.00					
46.20							58.00					
48.10							59.10					
50.10							60.20					
52.10							61.40					
54.00							63.00					
55.90							64.70					
57.30							66.30					
58.20							68.50					
60.00							70.50					
61.20							72.00					
62.60							73.30					

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.	PROJECT TIP I.D.	ROUTE
						34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
						COUNTY	FIELD PROFESSIONAL	FIELD CREW
						Haywood	M. Brewer	C. Odom/D. Underwood
Test Location						Date Run	Test Location	Date Run
C-67 Y_EB Sta. 31+04 EB OSS 7.5 FT RT FY						9/27-10/1, 10/11-10/13	C-68 Y_EB Sta. 36+17 EB ISS 1.7 FT LT FY	9/27-10/1, 10/11-10/13
Type	Test Interval		Datum			Cut/Fill	Type	Test Interval		Datum		Cut/Fill
DCP	Cumulative cm per blow		STBC			At Grade	DCP	Cumulative cm per blow		STBC		5.0 ft Fill
1.00	43.70	132.00					1.50	95.60	126.40			
1.70	45.70	132.40					2.10	95.80	127.00			
1.80	47.90	132.80					2.30	96.00	127.80			
2.20	50.30	133.30					2.80	96.40				
2.50	52.10	133.70					3.10	96.60				
3.10	53.50	134.00					3.50	97.00				
3.40	55.00	134.40					4.30	97.40				
3.60	56.70	134.70					4.80	97.80				
3.90	58.30	135.40					5.40	98.20				
4.30	60.50						6.00	98.70				
4.70	62.60						6.60	99.40				
4.90	64.70						7.30	99.90				
5.40	66.30						7.90	100.50				
5.80	68.40						8.80	100.90				
5.90	70.20						9.40	101.50				
6.20	72.20						10.40	102.00				
6.50	74.10						11.00	102.50				
6.70	75.60						12.10	102.90				
7.30	77.00						13.10	103.30				
7.40	78.60						14.10	103.80				
7.80	80.50						15.50	104.40				
8.30	83.40						17.10	104.80				
8.50	86.80						19.00	105.50				
9.20	90.00						20.40	106.00				
9.40	94.50						21.80	106.50				
9.80	99.60						23.60	107.00				
10.00	100.90						25.20	107.50				
10.20	102.40						26.40	107.60				
10.50	103.60						28.40	108.40				
11.10	105.30						30.30	109.00				
11.60	107.20						32.40	109.50				
12.30	109.00						34.50	110.00				
12.90	111.50						36.40	110.60				
13.60	113.30						38.10	110.90				
13.90	115.10						40.00	111.40				
14.00	116.30						42.10	111.90				
14.20	117.40						44.00	112.30				
14.70	118.10						45.70	112.60				
15.60	119.10						47.50	113.60				
16.20	119.70						49.70	114.30				
16.40	120.40						52.00	114.70				
16.90	120.90						54.00	115.20				
17.80	121.80						55.80	115.70				
18.30	122.00						57.50	116.40				
18.70	123.10						59.30	116.70				
19.50	123.70						61.10	117.10				
19.70	124.30						63.10	117.60				
20.70	124.70						65.00	117.80				
21.90	125.40						66.50	118.20				
22.60	125.70						68.30	118.50				
23.50	126.10						70.40	118.90				
25.50	126.60						72.30	119.50				
25.60	127.20						74.30	119.80				
26.70	127.50						75.70	120.40				
27.90	127.90						77.80	120.80				
28.90	128.30						80.40	121.40				
30.10	128.70						82.70	121.90				
31.40	129.00						85.00	122.40				
32.80	129.50						87.20	122.90				
34.10	129.60						89.50	123.20				
35.50	130.00						92.00	123.80				
36.90	130.40						94.00	124.30				
38.40	130.90						94.60	124.80				
39.80	131.30						94.80	125.30				
41.10	131.70						95.30	126.00				

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.	PROJECT TIP I.D.	ROUTE
						34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
						COUNTY	FIELD PROFESSIONAL	FIELD CREW
						Haywood	M. Brewer	C. Odom/D. Underwood
Test Location						Date Run	Test Location	Date Run
C-69 Y_EB Sta. 36+18 EB OSS 1.7 FT LT FY						9/27-10/1, 10/11-10/13	C-70 Y_EB Sta. 41+01 EB ISS 6.5 FT RT FW	9/27-10/1, 10/11-10/13
Type	Test Interval		Datum			Cut/Fill	Type	Test Interval		Datum		Cut/Fill	
DCP	Cumulative cm per blow		STBC			At Grade	DCP	Cumulative cm per blow		STBC		5.0 ft Fill	
1.70	95.40						1.00	70.60					
2.30	96.40						1.50	72.70					
3.40	97.30						2.40	73.30					
4.40	98.20						3.10	74.90					
5.20	99.00						3.90	76.50					
5.80	99.70						4.60	77.90					
6.60	100.40						5.30	79.60					
7.30	101.00						6.10	81.30					
8.00	101.50						6.70	82.60					
8.90	102.20						7.40	83.90					
10.50	102.40						8.00	85.30					
12.30	103.20						8.90	86.50					
14.00	103.60						9.50	87.60					
14.90	104.20						10.50	88.90					
15.50	104.60						11.00	90.00					
16.00	105.00						12.00	91.20					
16.60	105.60						13.00	92.40					
17.30	106.10						14.00	93.70					
17.80	106.60						15.10	95.10					
18.50	107.00						15.90	96.20					
19.30	107.40						16.50	97.30					
19.60	108.00						17.30	98.40					
20.50	108.60						18.00	99.70					
22.40	109.00						18.50	100.80					
23.70	109.70						19.00	101.50					
25.00	110.50						19.60	103.10					
26.50	110.90						20.20	104.60					
27.90	111.40						20.90	106.50					
28.80	112.20						21.50	108.50					
30.40	113.00						22.50	110.20					
31.70	113.90						23.60	112.00					
32.80	114.90						24.70	113.40					
33.90	115.90						26.30	114.60					
35.10	117.10						27.70	115.60					
36.60	117.90						29.50	116.60					
37.90	118.90						30.50	117.70					
39.40	119.70						31.50	118.90					
41.00	120.90						32.10	120.30					
42.80	121.80						33.40	121.30					
44.60	122.90						34.30	122.60					
46.60	123.90						35.30	124.40					
49.00	124.80						36.30	126.40					
51.60	125.60						37.40	128.60					
53.60	126.60						38.80	130.20					
56.00	127.50						40.20	131.40					
58.20	128.40						41.80	132.50					
60.20	129.40						43.20	133.30					
62.30	130.40						44.50	134.10					
63.60	131.20						46.00	134.80					
66.30	132.20						47.30	135.50					
68.40							48.30	136.20					
71.00							49.70	137.00					
73.00							51.10						
75.30							51.60						
79.80							53.30						
82.30							54.90						
84.30							56.30						
86.00							58.80						
87.60							60.20						
88.90							62.30						
90.20							64.40						
91.30							65.80						
92.30							66.60						
93.50							67.70						
94.50							69.00						

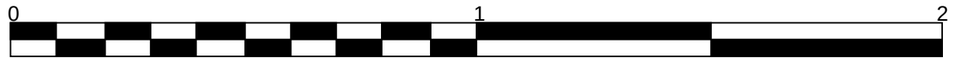
DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.	PROJECT TIP I.D.	ROUTE
						34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
						COUNTY	FIELD PROFESSIONAL	FIELD CREW
						Haywood	M. Brewer	C. Odom/D. Underwood
Test Location						Date Run	Test Location	Date Run
C-71 Y_EB Sta. 41+02 EB OSS 2.5 FT LT FY						9/27-10/1, 10/11-10/13		9/27-10/1, 10/11-10/13
Type	Test Interval		Datum			Cut/Fill	Type	Test Interval		Datum		Cut/Fill	
DCP	Cumulative cm per blow		STBC			5.0 ft Fill	DCP	Cumulative cm per blow					
1.00	61.30												
1.60	62.00												
2.20	62.80												
2.70	63.20												
3.30	63.80												
3.70	64.70												
4.40	65.70												
5.20	66.60												
5.90	67.60												
6.90	68.70												
7.40	69.50												
8.10	70.70												
8.80	71.60												
9.60	72.60												
10.40	73.50												
11.10	74.60												
12.00	75.40												
13.10	76.20												
14.10	76.90												
15.40	77.90												
17.30	78.80												
19.20	79.80												
20.70	80.90												
22.10	81.90												
22.90	83.00												
23.70	84.20												
24.60	85.60												
25.30	86.50												
26.00	87.70												
26.90	89.10												
27.60	90.40												
28.40	91.80												
29.00	92.40												
29.60	93.50												
30.30	94.60												
30.90	95.90												
31.40	96.80												
32.00	97.80												
32.70	98.80												
33.50	100.00												
34.30	101.40												
35.00	102.90												
35.70	104.10												
36.50	105.80												
37.00	107.70												
37.70	109.00												
38.50	110.60												
39.40	112.10												
40.40	113.40												
41.20	114.80												
42.00	116.30												
43.10	117.70												
43.90	119.20												
44.90	120.50												
45.80	121.80												
46.90	123.20												
48.20	124.30												
49.80	125.60												
51.00	126.50												
52.90	127.90												
54.80	129.00												
56.60	130.10												
58.20	131.30												
59.40	132.50												
60.40	133.90												

I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

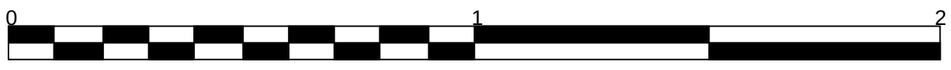
Pavement Core Photographs

C-28 Y Sta. 19+19 EB OSS

C-29 Y Sta. 23+92 EB OSS

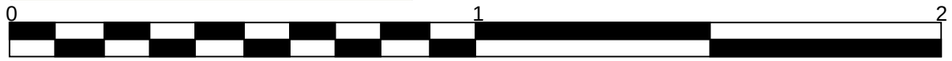


C-32 Y Sta. 30+94 EB MID-LANE

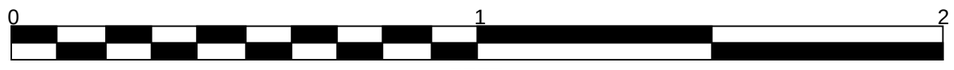


C-33 Y Sta. 30+94 EB OSL

C-33 Y Sta. 30+94 EB OSL (continued)



C-30 Y Sta. 30+95 EB ISS

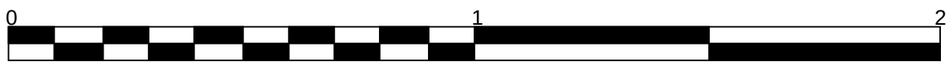


I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

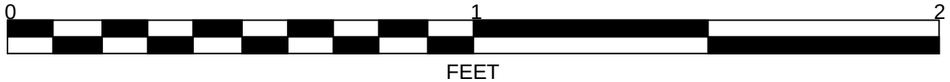
C-31 Y Sta. 30+95 EB ISL

C-31 Y Sta. 30+95 EB ISL (continued)



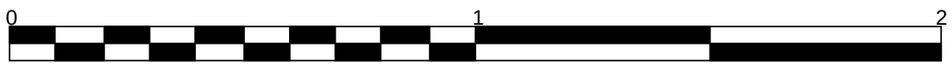
C-34 Y Sta. 31+09 EB MERGE LANE

C-34 Y Sta. 31+09 EB MERGE LANE (continued)



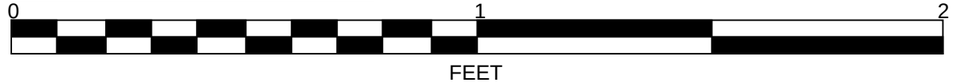
C-35 Y Sta. 31+09 EB OSS

C-37 Y Sta. 37+02 EB OSS



C-38 Y Sta. 43+34 EB OSL

C-39 Y Sta. 43+34 EB OSS



I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

C-40 Y Sta. 48+83 EB OSS

0 1 2

FEET

C-41 Y Sta. 58+86 EB OSML

C-41 Y Sta. 58+86 EB OSML (continued)

0 1 2

FEET

C-42 Y Sta. 58+86 EB OSL

C-42 Y Sta. 58+86 EB OSL (continued)

0 1 2

FEET

C-43 Y Sta. 58+86 EB OSS

C-44 Y Sta. 63+48 EB OSS

0 1 2

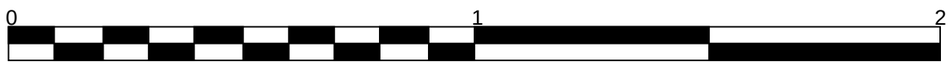
FEET

I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

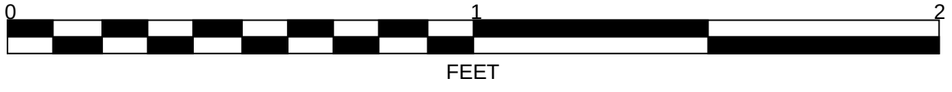
C-45 Y Sta. 68+28 EB OSS

C-46 Y Sta. 75+08 EB OSS



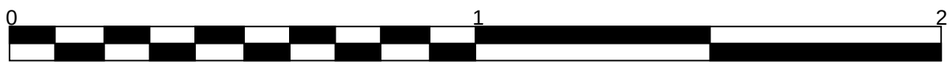
C-47 Y Sta. 80+18 EB OSS

C-48 Y Sta. 85+43 EB OSS



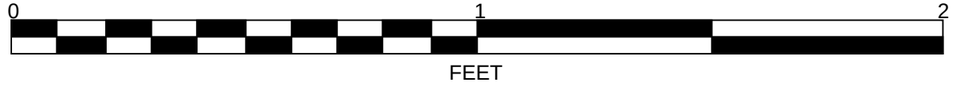
C-49 Y Sta. 87+83 EB ISS

C-50 Y Sta. 87+83 EB ISL



C-51 Y Sta. 87+84 EB ISML

C-51 Y Sta. 87+84 EB ISML (continued)

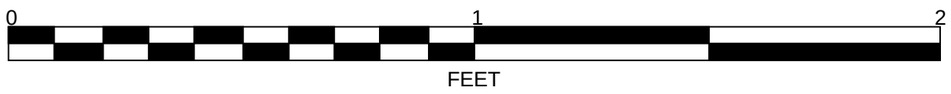


I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

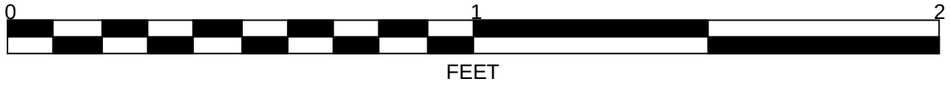
C-52 Y Sta. 87+84 EB OSML

C-52 Y Sta. 87+84 EB OSML (continued)



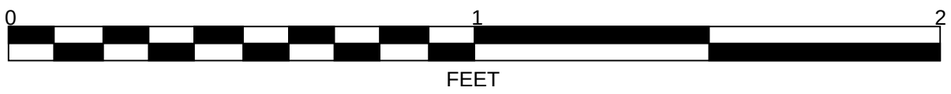
C-53 Y Sta. 87+84 EB OSL

C-54 Y Sta. 87+84 EB OSS



C-55 Y_EB Sta. 10+59 EB OSS

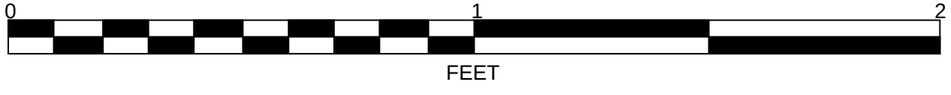
C-55 Y_EB Sta. 10+59 EB OSS (continued)



C-57 Y_EB Sta. 15+83 EB OSS

C-57 Y_EB Sta. 15+83 EB OSS (continued)

C-56 Y_EB Sta. 15+85 EB ISS

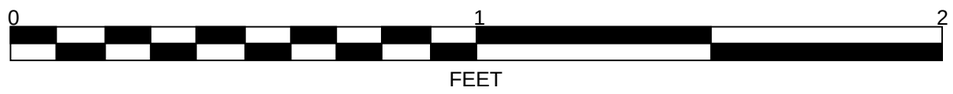


I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

C-58 Y_EB Sta. 20+58 EB ISS

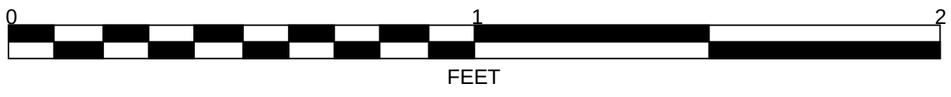
C-59 Y_EB Sta. 20+65 EB OSS



C-61 Y_EB Sta. 25+60 EB ISL

C-61 Y_EB Sta. 25+60 EB ISL (continuted)

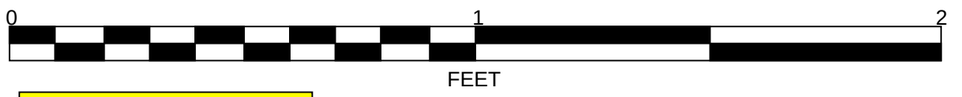
C-62 Y_EB Sta. 25+60 EB ISML



C-65 Y_EB Sta. 25+60 EB OSS

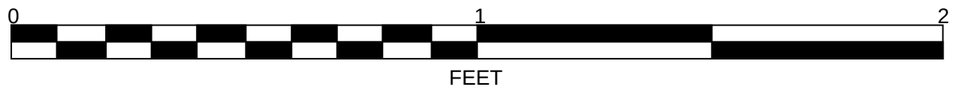
C-60 Y_EB Sta. 25+61 EB ISS

C-60 Y_EB Sta. 25+61 EB ISS (continued)



C-63 Y_EB Sta. 25+61 EB OSML

C-64 Y_EB Sta. 25+61 EB OSL



I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

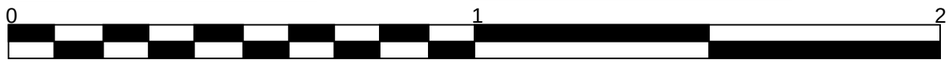
Pavement Core Photographs

C-66 Y_EB Sta. 31+04 EB ISS

C-67 Y_EB Sta. 31+04 EB OSS

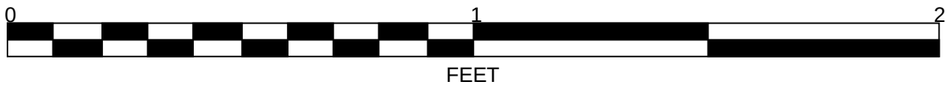
C-68 Y_EB Sta. 36+17 EB ISS

C-69 Y_EB Sta. 36+18 EB OSS



C-70 Y_EB Sta. 41+01 EB ISS

C-71 Y_EB Sta. 41+02 EB OSS



SOIL TEST RESULTS

SAMPLE NO.	ALIGNMENT	LANE	OFFSET	STATION	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-28	Y	EB OSS	4.1 RT FW	19+19	2.9-5.0	A-4(0)	35	NP	20.2%	31.8%	27.9%	20.1%	92.8%	81.5%	51.2%	15.8%	ND
S-29	Y	EB OSS	3.7 RT FW	23+92	2.7-5.0	A-2-5	42	8	33.2%	33.5%	23.3%	10.0%	88.2%	71.1%	34.4%	17.2%	ND
S-30	Y	EB ISS	2.0 LT FY	30+95	3.0-5.0	A-4(3)	39	9	22.2%	22.5%	27.1%	28.1%	90.8%	77.7%	53.9%	15.4%	ND
S-34	Y	EB MERGE LANE	4.0 LT FW	31+09	2.7-5.0	A-4(0)	35	NP	20.9%	52.0%	21.1%	6.0%	99.3%	90.4%	35.8%	6.3%	ND
S-37	Y	EB OSS	8.5 RT FW	37+02	2.4-5.0	A-4(0)	36	6	35.2%	24.6%	19.8%	20.4%	85.1%	64.0%	38.2%	15.6%	ND
S-39	Y	EB OSS	4.3 RT FW	43+34	1.3-2.5	A-2-4	32	4	36.9%	25.8%	24.6%	12.7%	70.5%	52.1%	29.5%	10.7%	ND
S-40	Y	EB OSS	4.0 RT FW	48+83	2.3-5.0	A-4(0)	35	8	29.9%	28.1%	22.2%	19.9%	80.8%	64.7%	38.7%	15.0%	ND
S-42	Y	EB OSL	4.8 LT FW	58+86	2.6-5.0	A-4(0)	36	NP	19.7%	25.1%	27.6%	27.5%	84.9%	73.5%	51.8%	15.4%	ND
S-44	Y	EB OSS	8.3 RT FW	63+48	1.8-5.0	A-4(0)	36	NP	25.6%	27.8%	25.8%	20.8%	88.0%	72.7%	46.6%	21.7%	ND
S-45	Y	EB OSS	3.8 RT FW	68+28	1.7-5.0	A-4(0)	37	4	30.0%	23.3%	28.9%	17.9%	82.7%	65.4%	42.3%	26.2%	ND
S-46	Y	EB OSS	8.2 RT FW	75+08	1.9-5.0	A-2-4	36	5	35.3%	30.0%	23.2%	11.5%	84.6%	63.6%	34.5%	23.4%	ND
S-48	Y	EB OSS	9.5 RT FW	85+43	1.9-5.0	A-4(0)	34	NP	19.5%	45.3%	25.2%	10.0%	95.0%	86.0%	42.8%	11.5%	ND
S-50	Y	EB ISL	5.5 RT FY	87+83	2.6-5.0	A-4(0)	38	NP	36.1%	24.0%	25.8%	14.1%	93.4%	68.0%	41.8%	23.3%	ND
S-53	Y	EB OSL	2.8 LT FW	87+84	2.5-5.0	A-4(0)	33	NP	22.6%	35.1%	27.0%	15.3%	94.8%	81.8%	47.5%	13.5%	ND
S-55	Y	EB OSS	4.0 RT FW	10+59	2.8-5.0	A-4(1)	37	5	18.2%	32.8%	32.9%	16.1%	94.8%	85.7%	53.3%	13.0%	ND
S-57	Y_EB	EB OSS	10.0 RT FW	15+83	2.1-5.0	A-4(0)	33	NP	20.3%	35.3%	32.7%	11.7%	87.3%	77.1%	45.2%	26.8%	ND
S-56	Y_EB	EB ISS	1.7 LT FY	15+85	2.0-5.0	A-4(0)	28	NP	15.7%	41.3%	28.6%	14.4%	94.9%	87.9%	47.8%	12.7%	ND
S-58	Y_EB	EB ISS	1.5 LT FY	20+58	1.9-5.0	A-4(0)	36	NP	2.3%	19.7%	53.8%	24.2%	99.9%	98.6%	88.0%	29.0%	ND
S-59	Y_EB	EB OSS	5.5 RT FW	20+65	1.7-5.0	A-4(0)	38	NP	36.1%	24.0%	25.8%	14.1%	93.4%	68.0%	41.8%	23.7%	ND
S-61	Y_EB	EB ISL	6.5 RT FY	25+60	2.2-5.0	A-4(0)	32	6	25.6%	38.7%	23.7%	12.0%	82.9%	70.5%	35.1%	27.7%	ND
S-64	Y_EB	EB OSL	4.7 LT FW	25+61	1.7-5.0	A-4(2)	34	6	9.7%	36.8%	33.4%	20.1%	98.9%	95.6%	59.4%	17.1%	ND
S-66	Y_EB	EB ISS	4.0 LT FY	31+04	1.4-5.0	A-4(1)	34	7	22.8%	33.6%	25.5%	18.1%	91.5%	78.9%	45.9%	15.0%	ND
S-68	Y_EB	EB ISS	1.7 LT FY	36+17	1.5-5.0	A-4(3)	38	10	21.4%	27.6%	24.9%	26.1%	89.3%	77.3%	49.9%	15.1%	ND
S-69	Y_EB	EB OSS	6.5 RT FW	36+18	1.7-5.0	A-6(4)	40	12	18.6%	29.8%	25.5%	26.1%	91.1%	81.2%	53.1%	20.0%	ND
S-70	Y_EB	EB ISS	2.5 LT FY	41+01	1.6-5.0	A-4(0)	36	5	24.8%	30.9%	25.1%	19.2%	83.9%	70.9%	42.2%	15.3%	ND
S-71	Y_EB	EB OSS	7.0 RT FW	41+02	1.3-5.0	A-4(0)	31	9	34.9%	25.2%	15.8%	24.1%	82.9%	64.1%	36.4%	12.5%	ND

FROM WHITE LINE (FW)

FROM YELLOW LINE (FY)

Prepared in the Office of:

F&ME CONSULTANTS, INC.
COLUMBIA, SOUTH CAROLINA
NCDOT LAB CERT. NO. 132–0212

PAVEMENT INVESTIGATION DATA SHEET

Project:	34165.1.6
TIP:	I-2513AA/AB

Route:	I-26 from I-40 to SR 3548 (Haywood Road)
County:	Buncombe

Date Performed:	9/27-10/1 & 10/11-10/13 (6 Nights)
Field Personnel:	M. Brewer, D. Underwood, C. Odom

		Width (ft)		(ft)	(in)	Thickness (in)						SG						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/STBC	Shoulder Drain Drainage Sand CSS (Chemical)	Concrete	Pavement Layering	Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)	Asphalt Notes	Northing	Easting
C-72 Y Sta. 20+96 WB OSS	Cut 40.0	11.5 OSL	12.2 PS	4.0 RT FW	S	34.00	27.00	3.00 STBC	4.00 SAND	-	Asphalt STBC/SAND SG	2.8-5.0: RES - Red-Orange, Fine to Coarse Sandy SILT, trace mica	S-72	A-4	M	5	No Observed Pavement Distress	678,377	915,577
C-73 Y Sta. 20+96 WB OSL	Cut 40.0	11.5 OSL	12.2 PS	4.0 LT FW	S	32.00	4.00	4.00 STBC	-	14.50 9.50	Concrete Asphalt/Conc. STBC/SG	2.7-5.0: RES - Red-Orange, Fine to Coarse Sandy SILT, trace mica	S-73	A-4	M	5	No Observed Pavement Distress	678,369	915,579
C-75 Y Sta. 20+96 WB ISL (O)	Cut 40.0	11.0 ISL	10.0 PS Concrete Barrier Wall	9.5 RT FY	S	31.00	10.75	3.00 STBC	3.00 SAND	14.25	Concrete Asphalt/STBC SAND/SG	2.6-5.0: RES - Red-Orange, Fine to Coarse Sandy SILT, trace mica	S-75	A-4	M	5	High Severity Longitudinal and Transverse Cracking (ISL), Very Fine Hairline Spiderweb Cracking **1.5-inch Top Down Crack in Core** Bottom 8 inches of concrete core disentegrated during coring operation.	678,348	915,585
C-76 Y Sta. 20+96 WB ISL (I)	Cut 40.0	11.0 ISL	10.0 PS	1.8 RT FY	S	32.00	4.00	10.00 STBC	3.50 SAND	14.50	Concrete Asphalt/STBC SAND/SG	2.7-5.0: RES - Red, Fine to Coarse Sandy SILT, trace mica	Ref-75	A-4	M	5	High Severity Longitudinal and Transverse Cracking (ISL), Very Fine Hairline Spiderweb Cracking **Hairline Top Down Crack in Core**	678,341	915,588
C-77 Y Sta. 20+96 WB ISS	Cut 40.0	11.0 ISL	10.0 PS	2.3 LT FY	S	N/A	21.50	-	Shoulder Drain	-	Asphalt Shoulder Drain	Did not auger due to location over shoulder drain.	-	-	-	-	No Observed Pavement Distress	678,337	915,589
C-78 Y Sta. 26+00 WB OSS	Cut 20.0	12.0 OSL	13.0 PS	11.8 RT FW	S	35.00	17.00 8.00	6.00 STBC	4.00 SAND	-	Asphalt STBC/Asphalt SAND/SG	2.9-5.0: RES - Red-Pink, Fine to Coarse Sandy SILT, trace mica Augered through Asphalt from 1.9-2.6	S-78	A-4	M	5	Patching (ISL), No Observed Pavement Distress (OSL, OSS)	678,500	916,073
C-79 Y Sta. 28+56 WB MERGE LANE	Fill 5.0	11.0 MERGE 12.0 OSL	11.0 PS	2.0 LT FW	S	40.00	10.50	4.00 STBC	-	16.00 9.50	Concrete Asphalt/Conc. STBC/SG	3.3-5.0: RE - Red, Fine to Coarse Sandy SILT, trace mica	S-79	A-4	M	5	Low Severity Transverse Cracking (OSS), Patching (ISL)	678,530	916,331
C-80 Y Sta. 31+41 WB OSS	Fill 15.0	12.0 OSL	11.0 PS	4.7 RT FW	S	33.50	29.50	-	4.00 SAND	-	Asphalt SAND SG	2.8-5.0: RE - Brown-Orange, Fine to Coarse Sandy, Clayey SILT, trace mica	S-80	A-5	M	5	No Observed Pavement Distress (OSS), Patching (ISL)	678,553	916,620
C-82 Y Sta. 37+45 WB OSS	Fill 10.0	12.0 OSL	11.5 PS	9.5 RT FW	C	36.50	28.00	4.50 STBC	4.00 SAND	-	Asphalt STBC/SAND SG	3.1-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica	S-82	A-4	M	5	Concrete Patching at Transverse Joints (ISL), High Severity Spalling (6 inch x 12 inch - OSL) No Observed Pavement Distress (OSS)	678,508	917,231
C-83 Y Sta. 41+94 WB OSS	Fill 15.0	11.5 OSL	8.0 Asphalt PS 4.0 Concrete	9.4 RT FW	C	22.00	18.00	4.00 STBC	-	-	Asphalt STBC SG	1.8-5.0: RE - Brown-Gray, Silty, Gravelly, Fine to Coarse SAND	S-83	A-1-b	M	5	No Observed Pavement Distress	678,434	917,676
C-84 Y Sta. 50+37 WB OSS	Fill 25.0	11.5 OSL	12.0 PS Concrete Exp. Gutter	6.5 RT FW	C	22.00	15.00	7.00 STBC	-	-	Asphalt STBC SG	1.8-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica	S-84	A-4	M	5	Low Severity Transverse Cracking (OSS)	678,301	918,508
C-85 Y Sta. 58+51 WB OSS	Fill 20.0	12.0 OSL	11.5 PS Concrete Exp. Gutter	6.2 RT FW	C	24.00	16.00	8.00 STBC	-	-	Asphalt STBC SG	2.0-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica	S-85	A-4	M	5	No Observed Pavement Distress	678,164	919,310
C-86 Y Sta. 58+50 WB OSL	Fill 20.0	12.0 PS	11.5 PS Concrete Exp. Gutter	5.5 LT FW	C	35.00	11.75	5.00 STBC	3.00 SAND	15.25	Concrete Asphalt/STBC SAND/SG	2.9-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica	Ref-87	A-4	M	5	Very Fine Hairline Spiderweb Cracking (ISWP, OSWP)	678,153	919,308
C-87 Y Sta. 58+51 WB OSML	Fill 20.0	12.0	-	15.5 LT FW	C	33.00	4.00	3.00 STBC	3.00 SAND	14.50 8.50	Concrete Asphalt/Conc. STBC/SAND/SG	2.8-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace gravel	S-87	A-4	M	5	Very Fine Hairline Spiderweb Cracking (ISWP, OSWP), High Severity Spalling (12 inch x 12 inch) at Transverse Joint	678,143	919,307
C-88 Y Sta. 63+40 WB OSS	Fill 20.0	12.0 OSL	12.0 PS Concrete Exp. Gutter	6.6 RT FW	C	22.00	15.25	6.75 STBC	-	-	Asphalt STBC SG	1.8-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica Possible Rock Fill	S-88	A-4	M	5	Very Fine Hairline Spiderweb Cracking (OSL, OSML), No Observed Pavement Distress (OSS)	678,082	919,793

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

Prepared by: DMB
Reviewed by: REK

PAVEMENT INVESTIGATION DATA SHEET

Project:	34165.1.6
TIP:	I-2513AA/AB

Route:	
County:	Buncombe

Date Performed:	9/27-10/1 & 10/11-10/13 (6 Nights)
Field Personnel:	M. Brewer, D. Underwood, C. Odom

		Width (ft)		(ft)	(in)	Thickness (in)						SG						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/STBC	Shoulder Drain Drainage Sand CSS (Chemical)	Concrete	Pavement Layering	Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)	Asphalt Notes	Northing	Easting
C-89 Y Sta. 68+54 WB OSS	Fill 25.0	12.0 OSL	11.5 PS Concrete Exp. Gutter	5.5 RT FW	C	40.00	15.50	24.50 ABC	-	-	Asphalt ABC/Fabric SG	3.3-5.0: RE - Tan, Fine to Coarse Sandy SILT, trace mica	S-89	A-4	M	5	Very Fine Hairline Spiderweb Cracking (OSL, OSML), No Observed Pavement Distress (OSS)	677,978	920,299
C-90 Y Sta. 75+02 WB OSS	Fill 30.0	12.0 OSL	11.5 PS Concrete Exp. Gutter	6.0 RT FW	C	21.00	15.00	6.00 STBC	-	-	Asphalt STBC SG	1.8-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica	S-90	A-4	M	5	Very Fine Hairline Spiderweb Cracking (OSL, OSML), No Observed Pavement Distress (OSS)	677,821	920,931
C-91 Y Sta. 80+09 WB OSS	Cut 35.0	12.0 OSL	12.0 PS Concrete Exp. Gutter	6.0 RT FW	C	21.00	17.00	4.00 STBC	-	-	Asphalt STBC SG	1.8-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-91	A-4	M	5	No Observed Pavement Distress (OSS), Patching ISL	677,692	921,421
C-92 Y Sta. 85+47 WB OSS	Cut 10.0	12.0 OSL	12.0 PS Concrete Exp. Gutter	5.8 RT FW	C	22.00	16.00	-	6.00 CSS	-	Asphalt CSS SG	1.7-3.0: RE - Red-Gray, Fine to Coarse Sandy SILT, trace organics 3.0-5.0: RES - Brown-Gray, Fine to Coarse Sandy SILT, trace mica	S-92 Ref-101	A-4 A-4	M M	5	No Observed Pavement Distress (OSS), Patching ISL Portion of subgrade soil recovered with core	677,556	921,941
C-93 Y Sta. 88+85 WB OSS	Fill 5.0	12.0 OSL	12.4 PS Concrete Exp. Gutter	6.3 RT FW	C	40.00	36.50	3.50 STBC	-	-	Asphalt STBC SG	3.3-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica	S-93	A-4	M	5	No Observable Pavement Distress	677,471	922,268
C-94 Y Sta. 88+74 WB OSL	Fill 5.0	12.0 OSL	12.4 PS Concrete Exp. Gutter	5.7 LT FW	C	30.00	10.25	2.00 STBC	4.00 SAND	13.75	Concrete Asphalt/STBC SAND/SG	2.5-5.0: RE - Brown-Red, Fine to Coarse Sandy SILT, trace mica	Ref-93	A-4	M	5	No Observable Pavement Distress	677,462	922,255
C-96 Y Sta. 88+75 WB ISL	Fill 5.0	12.0 ISL	10.0 PS	2.4 RT FY	C	34.00	10.50	8.00 STBC	-	15.50	Concrete Asphalt STBC/SG	2.8-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica	S-96	A-4	M	5	High Seveirty Longitudinal Cracking (ISL), Multiple Transverse Patches, **Drilled on a Crack**	677,424	922,246
C-97 Y Sta. 88+75 WB ISS	Fill 5.0	12.0 ISL	10.0 PS	3.7 LT FY	C	26.00	19.50	6.50 STBC	-	-	Asphalt STBC SG	2.2-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica	S-97	A-4	M	5	No Observed Pavement Distress (ISS)	677,417	922,244
C-98 Y_WB Sta. 10+69 WB OSS	Fill 15.0	12.0 OSL	12.0 PS Concrete Exp. Gutter	2.1 RT FW	C	37.00	34.50	2.50 STBC	-	-	Asphalt STBC SG	3.1-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica	S-98	A-4	M-W	5	High Severity Longitudinal Cracking (4 to 8-inches wide) at Joints (Reflective) Low Severity Tranverse Cracking (OSL, OSS)	677,333	922,778
C-99 Y_WB Sta. 15+88 WB OSS	Cut 20.0	12.0 OSL	11.0 PS	6.0 RT FW	C	39.00	36.50	2.50 STBC	-	-	Asphalt STBC SG	3.2-5.0: RES - Brown-White, Silty Fine to Coarse SAND, trace mica	Ref-101	A-2-4	M	5	Low to Moderate Severity Transverse and Longitudinal Cracking (OSL - Reflective) No Observed Pavement Distress (OSS)	677,206	923,281
C-100 Y_WB Sta. 15+88 WB ISS	Cut 20.0	12.0 ISL	3.5 PS	1.5 LT FY	C	24.00	10.00	5.00 STBC	-	9.00	Asphalt Concrete STBC/SG	2.0-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-100	A-4	M	5	Low to Moderate Severity Transverse and Longitudinal Cracking (ISL - Reflective) No Observed Pavement Distress (ISS)	677,152	923,267
C-101 Y_WB Sta. 20+65 WB OSS	Cut 15.0	11.0 OSL	12.0 PS	6.2 RT FW	C	30.00	26.50	3.50 STBC	-	-	Asphalt STBC SG	2.5-5.0: RES - Brown-White, Silty Fine to Coarse Sand, trace mica	S-101	A-2-4	M	5	Moderate Severity Transverse and Longitudinal Cracking (OSL - Reflective)	677,085	923,743
C-102 Y_WB Sta. 20+65 WB ISS	Cut 15.0	12.0 ISL	8.5 PS	4.5 LT FY	C	21.00	9.50	7.50 STBC	4.00 SAND	-	Asphalt STBC SAND/SG	1.8-5.0: RES - Brown-Tan, Fine to Coarse Sandy SILT, trace mica	S-102	A-4	M	5	Low Severity Longitudinal and Transverse Cracking (ISS) Moderate Severity Transverse and Longitudinal Cracking (ISL - Reflective)	677,028	923,728
C-103 Y_WB Sta. 27+11 WB OSS	Fill 10.0	11.5 ISL	12.0 PS Concrete Exp. Gutter	6.0 RT FW	S	23.00	8.00	6.00 STBC	-	9.00	Asphalt Concrete STBC/SG	1.9-5.0: RE - Orange, Fine to Coarse Sandy SILT, trace mica	S-103	A-4	M	5	Moderate Severity Transverse Cracking (ISS) Low to Moderate Severity Transverse and Longitudinal Cracking (Reflective)	676,991	924,375
C-105 Y_WB Sta. 27+11 WB MID-LANE	Fill 10.0	12.0	-	15.5 LT FW	S	27.50	23.50	-	4.00 SAND	-	Asphalt SAND SG	2.3-5.0: RE - Brown, Fine to Coarse Sandy SILT, trace mica	S-105	A-4	M	5	Low to Moderate Severity Transverse and Longitudinal Cracking (Reflective)	676,970	924,374

Notes:

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

Prepared by: DMB

Reviewed by: REK

PAVEMENT INVESTIGATION DATA SHEET

Project:	34165.1.6
TIP:	I-2513AA/AB

Route:	I-26 from I-40 to SR 3548 (Haywood Road)
County:	Buncombe

Date Performed:	9/27-10/1 & 10/11-10/13 (6 Nights)
Field Personnel:	M. Brewer, D. Underwood, C. Odom

		Width (ft)		(ft)	(in)	Thickness (in)						SG						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/STBC	Shoulder Drain Drainage Sand CSS (Chemical)	Concrete	Pavement Layering	Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)	Asphalt Notes	Northing	Easting
C-106 Y_WB Sta. 27+11 WB ISL	Cut 5.0	12.0 ISL	4.0 PS	4.2 RT FY	S	30.00	21.75	5.25 STBC	3.00 SAND	-	Asphalt STBC SAND/SG	2.6-5.0: RES - Brown, Fine to Coarse Sandy SILT, trace mica	S-106	A-4	M	5	Low to Moderate Severity Transverse and Longitudinal Cracking (Reflective)	676,954	924,374
C-104 Y_WB Sta. 27+12 WB OSL	Fill 10.0	11.5 OSL	-	1.6 LT FW	S	24.00	8.50	6.50 STBC	-	9.00	Asphalt Concrete STBC/SG	2.0-5.0: RE - Brown-Gray, Fine to Coarse Sandy SILT, little roots and tree fragments	S-104	A-4	M	5	Low to Moderate Severity Transverse and Longitudinal Cracking (Reflective)	676,984	924,375
C-107 Y_WB Sta. 27+12 WB ISS	Cut 5.0	12.0 OSL	4.0 PS	1.7 LT FY	S	36.00	27.00	6.00 STBC	3.00 SAND	-	Asphalt STBC SAND/SG	3.0-5.0: RES - Brown-Orange, Fine to Coarse Sandy SILT, trace mica	S-107	A-4	M	5	No Observed Pavement Distress Portion of subgrade soil attached to bottom of core	676,948	924,374
C-108 Y_WB Sta. 32+51 WB OSS	Cut 7.0	11.0 OSL	11.5 PS / 10.0 PS & Conc. Exp. Gutter	6.0 RT FW	S	21.00	15.00	3.00 STBC	3.00 SAND		Asphalt STBC SAND/SG	1.8-5.0: RES - Brown-Orange, Silty Fine to Coarse SAND, trace mica Augered through Asphalt from 0.7-1.3	S-108	A-2-4	M	5	Transition from Asphalt Curb to Concrete Expressway Gutter at Test Locations Low to Moderate Severity Longitudinal and Transverse Cracking at Joints (Reflective)	677,034	924,907
C-109 Y_WB Sta. 32+52 WB ISS	Cut 20.0	12.0 ISL	4.0 PS	1.5 LT FY	S	36.00	27.00	6.00 STBC	3.00 SAND	-	Asphalt STBC/SAND SG	3.0-3.5 - RES - Brown, Fine to Coarse Sandy SILT, trace mica Auger Refusal - 3.5 ft	Ref-108	A-4	M	3.5 A/R	Moderate Severity Longitudinal Cracking (ISL - OSWP, MID-Lane ISWP) No Observed Pavement Distress (ISS)	676,991	924,914

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

Prepared by: DMB
Reviewed by: REK

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
	COUNTY	FIELD PROFESSIONAL	FIELD CREW
	Haywood	M. Brewer	C. Odom/D. Underwood

Test Location	Date Run	Test Location	Date Run
C-72 Y Sta. 20+96 WB OSS 4.0 FT RT FW	9/27-10/1, 10/11-10/13	C-73 Y Sta. 20+96 WB OSL 4.0 FT LT FW	9/27-10/1, 10/11-10/13

Type	Test Interval	Datum	Cut/Fill	Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow	STBC	40.0 ft Cut	DCP	Cumulative cm per blow	STBC	40.0 ft Cut
1.80	77.30			1.00	80.30		
3.40	78.20			1.70			
4.70	79.50			2.60			
5.90	80.60			3.50			
7.00	81.60			4.50			
8.50	82.70			5.90			
9.50	83.70			7.10			
10.40	84.90			8.40			
11.40	85.90			9.60			
12.40	86.90			11.20			
13.60				13.20			
14.60				15.00			
15.50				16.80			
16.50				18.40			
17.60				19.60			
18.40				21.10			
19.40				22.90			
20.70				24.70			
21.90				26.30			
23.10				27.70			
24.40				28.80			
25.80				30.20			
27.00				31.60			
28.20				33.20			
29.00				34.30			
30.00				35.50			
31.10				36.60			
32.10				37.70			
33.00				39.20			
33.90				40.90			
34.90				42.50			
35.90				44.00			
36.80				45.40			
38.00				46.80			
39.00				48.20			
40.10				49.70			
41.00				51.00			
42.30				52.20			
43.30				53.50			
44.80				55.10			
46.10				56.20			
47.30				57.00			
49.00				58.00			
50.40				58.70			
51.90				59.80			
53.20				61.10			
54.70				62.20			
56.00				63.20			
57.40				64.50			
58.90				65.80			
60.30				67.10			
61.70				67.90			
63.00				68.30			
64.30				69.30			
65.60				70.40			
67.00				71.40			
68.30				72.40			
69.20				73.40			
70.40				74.30			
71.40				75.20			
72.60				76.00			
73.40				77.00			
74.20				77.90			
75.10				78.70			
76.30				79.60			

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
	COUNTY	FIELD PROFESSIONAL	FIELD CREW
	Haywood	M. Brewer	C. Odom/D. Underwood

Test Location	Date Run	Test Location	Date Run
C-75 Y Sta. 20+96 WB ISL (O) 9.5 FT RT FY	9/27-10/1, 10/11-10/13	C-76 Y Sta. 20+96 WB ISL (I) 1.8 FT RT FY	9/27-10/1, 10/11-10/13

Type	Test Interval	Datum	Cut/Fill	Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow	STBC	40.0 ft Cut	DCP	Cumulative cm per blow	STBC	40.0 ft Cut
1.90				1.00	48.70		
3.30				2.10	49.80		
4.50				2.60	51.00		
5.60				2.90	52.20		
6.70				3.20	53.30		
7.90				3.60	54.40		
9.30				3.80	55.70		
10.70				4.20	56.80		
12.10				4.80	58.00		
14.50				5.30	59.10		
17.00				6.10	60.30		
19.50				6.70	61.10		
22.00				7.50	62.00		
24.50				8.10	63.00		
26.90				8.70	64.10		
29.40				9.50	65.30		
31.80				10.30	66.40		
34.10				10.50	67.60		
36.10				11.50	68.80		
38.40				12.10	70.10		
40.30				12.70	71.30		
42.10				13.60	72.50		
43.70				14.10	73.70		
45.50				14.90	74.90		
47.00				15.50	76.10		
48.40				16.40	77.50		
49.70				17.30	78.60		
51.00				18.50	79.70		
52.40				19.10	80.90		
53.80				19.80	81.60		
55.20				20.10	83.40		
56.70				20.60	85.20		
57.60				21.00	87.40		
58.20				21.70	89.40		
59.20				22.20	91.20		
60.30				22.80	92.90		
61.60				23.10	94.50		
62.90				23.40	96.00		
63.50				23.80	97.50		
64.70				24.40	98.90		
65.70				25.00	100.10		
66.90				25.40	101.20		
67.80				26.10	102.60		
69.00				26.60	103.70		
70.20				27.00	105.10		
71.50				27.50			
72.90				28.50			
73.80				29.10			
74.90				29.20			
75.90				29.80			
76.90				30.40			
77.90				31.20			
78.40				31.90			
79.40				32.80			
80.30				33.40			
80.90				34.70			
				35.90			
				36.90			
				38.10			
				39.60			
				41.30			
				43.10			
				44.30			
				46.10			
				47.50			

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.	PROJECT TIP I.D.	ROUTE
						34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
						COUNTY	FIELD PROFESSIONAL	FIELD CREW
						Haywood	M. Brewer	C. Odom/D. Underwood
Test Location						Date Run	Test Location	Date Run
C-77 Y Sta. 20+96 WB ISS 2.3 FT LT FY						9/27-10/1, 10/11-10/13	C-78 Y Sta. 26+00 WB OSS 11.8 FT RT FW	9/27-10/1, 10/11-10/13
Type	Test Interval			Datum		Cut/Fill	Type	Test Interval		Datum		Cut/Fill	
DCP	Cumulative cm per blow			Shoulder Drain		40.0 ft Cut	DCP	Cumulative cm per blow		STBC		20.0 ft Cut	
0.90	71.10						2.70	DCP REF	20.40				
1.60	71.90						3.50		21.10				
2.50	73.00						3.80	Auger	21.70				
3.40	73.80						4.20	9.7 cm	22.60				
4.30	75.10						4.50	to 19.8	23.50				
5.40	76.10						4.90	0.00	24.90				
6.50	77.20						5.20	0.22	26.20				
7.00	78.10						5.40	0.44	27.50				
7.80	78.90						5.70	0.66	29.30				
8.60	80.40						6.10	0.88	30.80				
9.00	81.50						6.30	1.10	33.00				
9.70	82.40						6.50	1.30	35.40				
10.70	83.30						6.60	1.50	38.30				
12.10	84.40						6.80	1.70	40.80				
13.50	85.50						6.90	1.90	42.40				
15.30	86.60						7.00	2.10	44.10				
17.00	88.00						7.10	2.34	46.00				
20.70	89.10						7.20	2.58	48.20				
27.40	90.20						7.30	2.82	50.40				
29.30	91.20						7.40	3.06	53.30				
30.70	92.20						7.50	3.30	56.00				
32.10	93.20						7.60	3.62	59.40				
33.00	94.20						7.70	3.94	62.60				
34.10	95.10						7.80	4.26	66.20				
35.30							7.88	4.58	68.00				
36.50							7.96	4.90	70.10				
37.80							8.04	5.14	72.00				
39.10							8.12	5.38	73.40				
40.30							8.20	5.62	75.00				
41.50							8.28	5.86	76.30				
42.80							8.36	6.10	77.40				
44.10							8.44	6.28	78.60				
45.40							8.52	6.46	79.70				
46.60							8.60	6.64	80.70				
47.90							8.67	6.82	81.60				
48.90							8.74	7.00	82.50				
49.90							8.81	7.28	83.90				
51.70							8.88	7.56	85.00				
51.90							8.95	7.84	86.50				
52.70							9.02	8.12	87.90				
53.30							9.09	8.40	88.20				
53.90							9.16	8.76					
54.60							9.23	9.12					
55.20							9.30	9.48					
55.90							9.34	9.84					
56.30							9.38	10.20					
57.20							9.42	10.50					
57.30							9.46	10.70					
57.60							9.50	11.30					
58.20							9.54	11.70					
58.90							9.58	12.10					
59.60							9.62	12.60					
60.40							9.66	12.90					
61.00							9.70	13.50					
61.80							9.74	13.90					
62.20							9.78	14.60					
62.70							9.82	14.80					
63.60							9.86	15.60					
64.40							9.90	15.90					
65.10							9.94	16.60					
65.90							9.98	17.30					
66.70							10.02	17.70					
67.50							10.06	18.20					
68.40							10.10	18.90					
69.30							50/1.5"	19.50					

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.	PROJECT TIP I.D.	ROUTE
						34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
						COUNTY	FIELD PROFESSIONAL	FIELD CREW
						Haywood	M. Brewer	C. Odom/D. Underwood
Test Location						Date Run	Test Location	Date Run
C-79 Y Sta. 28+56 WB MERGE LANE 2.0 FT LT FW						9/27-10/1, 10/11-10/13	C-80 Y Sta. 31+41 WB OSS 4.7 FT RT FW	9/27-10/1, 10/11-10/13
Type	Test Interval			Datum		Cut/Fill	Type	Test Interval		Datum		Cut/Fill	
DCP	Cumulative cm per blow			STBC		5.0 ft Fill	DCP	Cumulative cm per blow		SAND		15.0 ft Fill	
3.10							1.90						
6.00							3.10						
9.30							4.30						
13.50							5.70						
16.30							7.30						
19.20							8.90						
22.00							10.50						
24.90							13.10						
28.10							16.10						
30.30							18.30						
32.20							20.80						
34.20							23.80						
36.40							27.60						
38.30							31.50						
40.00							34.50						
41.40							36.20						
42.50							39.70						
43.10							41.90						
43.70							44.80						
44.30							47.10						
44.90							48.90						
45.40							50.50						
46.00							52.10						
46.90							53.80						
47.90							55.30						
48.50							56.00						
49.30							56.50						
50.30							57.60						
51.50							59.30						
52.80							60.60						
53.90							61.90						
55.00							63.20						
56.50							64.40						
							65.80						
							66.90						
							68.50						
							69.50						
							70.60						
							71.40						
							72.30						
							73.00						
							73.80						
							74.50						
							75.00						
							75.50						
							76.20						
							76.80						
							77.20						
							78.40						
							79.40						
							80.20						

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
								COUNTY		FIELD PROFESSIONAL				FIELD CREW			
								Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location								Date Run		Test Location							Date Run
C-82 Y Sta. 37+45 WB OSS 9.5 FT RT FW								9/27-10/1, 10/11-10/13		C-83 Y Sta. 41+94 WB OSS 9.4 FT RT FW							9/27-10/1, 10/11-10/13
Type	Test Interval				Datum			Cut/Fill		Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC			10.0 ft Fill		DCP	Cumulative cm per blow				STBC		15.0 ft Fill	
2.30										0.70	33.58	55.48	98.60				
2.90										1.10	34.04	55.92	100.20				
3.60										1.80	34.50	56.36	101.50				
4.50										2.40	35.10	56.80	103.80				
5.00										2.80	35.60	57.30	104.20				
5.80										3.30	36.00	58.20	105.30				
6.50										3.70	36.30	58.80	106.10				
7.40										4.00	36.60	59.20	106.60				
8.00										4.40	37.00	59.40					
8.60										4.60	37.20	59.70					
9.60										5.10	37.80	59.80					
10.60										5.90	38.30	60.30					
11.60										7.00	38.60	60.60					
12.60										8.20	39.20	61.00					
13.60										9.10	39.60	61.20					
15.10										10.00	39.90	61.40					
16.90										10.90	40.40	61.90					
19.60										11.80	41.10	62.30					
22.00										13.00	41.60	62.50					
23.90										14.50	41.80	62.70					
25.30										16.00	42.30	63.30					
27.40										17.30	42.50	64.10					
29.50										18.30	42.60	64.90					
31.50										19.70	42.70	65.70					
33.80										20.60	42.86	66.60					
34.60										23.10	43.02	67.50					
38.70										24.00	43.18	68.70					
41.00										24.70	43.34	69.50					
43.50										24.80	43.50	70.50					
46.10										24.90	43.76	71.60					
48.10										25.10	44.02	72.70					
51.30										25.40	44.28	73.60					
55.10										25.50	44.54	74.70					
58.10										25.72	44.80	75.50					
61.70										25.94	45.06	76.30					
65.70										26.16	45.32	77.10					
69.40										26.38	45.58	77.90					
71.40										26.60	45.84	78.40					
73.70										26.78	46.10	79.00					
78.50										26.96	46.38	79.30					
										27.14	46.66	79.80					
										27.32	46.94	80.30					
										27.50	47.22	80.60					
										27.62	47.50	81.00					
										27.74	47.74	81.60					
										27.86	47.98	82.00					
										27.98	48.22	82.50					
										28.10	48.46	83.10					
										28.40	48.70	83.50					
										28.70	49.08	84.00					
										29.00	49.46	84.50					
										29.30	49.84	84.80					
										29.60	50.22	85.20					
										29.84	50.60	85.60					
										30.08	50.92	87.00					
										30.32	51.24	87.30					
										30.56	51.56	87.80					
										30.80	51.88	88.60					
										31.08	52.20	89.40					
										31.36	52.68	90.40					
										31.64	53.16	91.80					
										31.92	53.64	92.80					
										32.20	54.12	93.90					
										32.66	54.60	95.50					
										33.12	55.04	96.90					

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
								COUNTY		FIELD PROFESSIONAL				FIELD CREW			
								Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location								Date Run		Test Location							Date Run
C-84 Y Sta. 50+37 WB OSS 6.5 FT RT FW								9/27-10/1, 10/11-10/13		C-85 Y Sta. 58+51 WB OSS 6.2 FT RT FW							9/27-10/1, 10/11-10/13
Type	Test Interval				Datum			Cut/Fill		Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC			25.0 ft Fill		DCP	Cumulative cm per blow				STBC		20.0 ft Fill	
1.90	**DCP REF**	36.80	77.00							1.30	37.10	96.10					
3.20	**Auger**	37.00	77.70							2.20	37.48	96.70					
4.30	**15.0 cm**	37.40	78.50							3.00	37.86	97.20					
5.60	**to 32.80**	37.60	79.30							4.00	38.24	98.00					
6.80	1.50	38.00	79.60							4.70	38.62	98.70					
7.90	2.90	38.20	80.20							5.50	39.00	99.30					
9.10	4.70	38.60	80.70							6.10	39.70	99.90					
10.10	6.40	39.00	81.50							6.70	40.50	100.30					
11.30	8.20	39.40	82.00							7.50	41.50	101.20					
12.00	9.80	39.80	82.70							8.10	42.40	101.80					
13.00	11.50	40.20	83.60							8.90	43.40	102.40					
15.10	12.80	40.80								9.50	44.40	103.10					
15.80	13.00	41.20								10.50	45.80	103.60					
15.90	13.10	41.60								11.10	46.90	104.40					
15.96	14.00	42.20								11.60	47.90	105.00					
16.02	14.50	42.50								12.30	49.40	105.60					
16.08	14.60	43.10								13.10	50.40	106.40					
16.14	14.74	43.60								13.80	51.80	107.20					
16.20	14.88	44.00								14.80	52.80	107.80					
16.26	15.02	44.20								15.20	53.90	108.40					
16.32	15.16	44.40								16.20	55.10	109.10					
16.38	15.30	44.80								16.80	56.90	109.90					
16.44	15.46	45.10								17.30	59.00	110.50					
16.50	15.62	45.50								17.70	60.60	111.40					
16.53	15.78	45.90								18.20	62.70	112.30					
16.57	15.94	46.30								19.00	64.40	113.10					
16.60	16.10	46.60								19.50	66.10	114.00					
16.63	16.70	47.00								20.20	67.60	115.10					
16.66	17.30	47.80								20.80	69.40	115.80					
16.70	18.20	48.60								21.50	71.00	116.60					
16.73	19.20	49.30								22.00	72.60	117.50					
16.76	19.90	49.90								22.40	74.80						
16.79	20.80	50.30								22.90	78.20						
16.83	21.80	51.00								23.70	83.00						
16.86	22.90	51.60								24.30	84.00						
16.89	23.40	52.30								24.70	84.50						
16.92	23.90	53.20								25.30	84.60						
16.96	24.60	54.10								25.90	85.00						
16.99	24.70	55.00								26.50	85.20						
17.02	25.70	55.80								27.40	85.30						
17.05	26.20	56.40								27.70	85.60						
17.09	26.90	56.90								28.20	86.00						
17.12	27.40	57.90								28.80	86.30						
17.15	28.00	59.00								29.30	86.60						
17.18	28.40	59.20								29.70	86.70						
17.22	28.80	60.30								30.50	87.00						
17.25	29.10	61.20								31.20	87.20						
17.28	29.30	62.00								31.70	87.40						
17.31	29.80	62.80								32.40	87.60						
17.35	30.10	63.10								32.90	87.90						
17.38	30.60	63.70								33.50	88.10						
17.41	31.20	64.40								33.90	88.30						
17.44	31.60	65.00								34.30	88.60						
17.48	32.00	65.60								34.80	89.20						
17.51	32.40	66.00								35.20	89.50						
17.54	32.70	66.50								35.30	90.00						
17.57	33.10	67.00								35.50	90.40						
17.61	33.50	67.80								35.70	91.20						
17.64	33.70	68.50								35.90	91.40						
17.67	34.20	69.90								36.10	92.20						
17.70	34.70	70.90								36.20	92.90						
17.74	35.00	72.00								36.38	93.60						
17.77	35.50	73.40								36.56	94.20						
17.80	35.90	74.70								36.74	94.70						
50/1"	36.40	76.00								36.92	95.30						

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
								COUNTY		FIELD PROFESSIONAL				FIELD CREW			
								Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location								Date Run		Test Location							Date Run
C-86 Y Sta. 58+50 WB OSL 5.5 FT LT FW								9/27-10/1, 10/11-10/13		C-87 Y Sta. 58+51 WB OSML 15.5 FT LT FW							9/27-10/1, 10/11-10/13
Type	Test Interval				Datum			Cut/Fill		Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC			20.0 ft Fill		DCP	Cumulative cm per blow				STBC		20.0 ft Fill	
1.40										0.80	67.80							
2.20										1.30	68.20							
2.70										2.40	69.00							
3.20										2.90	69.50							
3.80										3.50	70.40							
4.60										4.10	71.00							
5.40										4.90	71.50							
6.10										5.50	72.20							
6.80										6.00	72.90							
7.50										7.00	73.50							
8.40										7.90	74.10							
9.30										8.70	74.80							
10.10										9.90	75.60							
11.40										11.00	76.20							
12.60										12.40	76.80							
14.30										13.90	77.70							
15.00										15.50	78.40							
16.30										16.90	79.00							
17.70										18.50	79.80							
19.40										19.90	80.50							
20.70										21.20	81.30							
22.40										22.50	82.00							
24.40										24.00	82.70							
26.10										25.50	83.30							
28.30										27.00	83.90							
30.30										28.40								
32.40										29.80								
34.50										31.20								
36.40										32.50								
38.70										33.70								
40.90										34.60								
43.10										35.70								
44.70										37.00								
46.70										38.00								
48.60										40.30								
50.80										42.20								
52.90										44.40								
55.60										46.20								
57.90										48.00								
59.60										49.50								
61.40										50.90								
63.20										51.80								
64.70										52.70								
66.60										53.10								
68.50										53.50								
71.00										54.00								
74.00										54.50								
76.40										55.10								
78.10										55.80								
79.50										56.20								
80.80										56.90								
82.30										57.50								
83.50										58.50								
										59.30								
										60.00								
										60.70								
										61.50								
										62.30								
										63.00								
										63.60								
										64.40								
										65.10								
										65.90								
										66.50								
										67.00								

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
								COUNTY		FIELD PROFESSIONAL				FIELD CREW			
								Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location								Date Run		Test Location							Date Run
C-88 Y Sta. 63+40 WB OSS 6.6 FT RT FW								9/27-10/1, 10/11-10/13		C-89 Y Sta. 68+54 WB OSS 5.5 FT RT FW							9/27-10/1, 10/11-10/13
Type	Test Interval				Datum			Cut/Fill		Type	Test Interval				Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC			20.0 ft Fill		DCP	Cumulative cm per blow				ABC		25.0 ft Fill	
1.40	38.70	51.42								0.90	13.76	23.46	38.50	83.20				
2.20	39.00	51.48								1.30	13.90	23.60	38.80	84.90				
2.90	39.20	51.54								1.50	14.02	23.76	39.10	86.70				
3.70	39.40	51.60								1.80	14.14	23.92	39.40	88.90				
4.60	39.60	51.66								2.00	14.26	24.08	39.80	91.30				
5.30	39.90	51.72								2.30	14.38	24.24	40.00	92.80				
5.50	40.10	51.78								2.40	14.50	24.40	40.10	95.00				
6.10	40.30	51.84								2.70	14.64	24.60	40.60	96.20				
6.30	40.40	51.90								3.10	14.78	24.80	41.00	97.30				
6.60	40.64	51.94								3.20	14.92	25.00	41.30	98.40				
7.30	40.88	51.98								3.60	15.06	25.20	41.60	99.40				
7.50	41.12	52.02								4.10	15.20	25.40	42.00	100.30				
8.10	41.36	52.06								4.70	15.32	25.66	42.20	101.20				
8.90	41.60	52.10								5.20	15.44	25.92	42.70	102.20				
9.50	41.78	52.14								5.40	15.56	26.18	43.00	103.30				
10.10	41.96	52.18								5.50	15.68	26.44	43.40	104.10				
10.80	42.14	52.22								5.60	15.80	26.70	43.70	105.10				
11.60	42.32	52.26								5.70	15.98	26.90	44.00	105.90				
12.30	42.50	52.30								6.00	16.16	27.00	44.60	106.60				
13.10	42.72	52.34								6.10	16.34	27.30	45.00	107.40				
14.00	42.94	52.38								6.20	16.52	27.60	45.40	108.00				
14.80	43.16	52.42								6.30	16.70	28.00	45.70	108.50				
15.40	43.38	52.46								6.40	16.94	28.10	46.30	109.00				
16.40	43.60	52.50								6.60	17.18	28.22	46.70	109.60				
17.30	43.88	52.54								6.90	17.42	28.34	47.10	110.20				
18.10	44.16	52.58								7.10	17.66	28.46	47.60	110.70				
19.20	44.44	52.62								7.30	17.90	28.58	47.90	111.20				
19.60	44.72	52.66								7.50	18.06	28.70	48.60	111.90				
20.00	45.00	52.70								7.60	18.22	28.90	49.10	112.60				
20.40	45.26	52.74								7.90	18.38	29.10	49.40	113.40				
20.80	45.52	52.78								8.00	18.54	29.30	49.60					
21.20	45.78	52.82								8.60	18.70	29.50	50.00					
21.44	46.04	52.86								8.70	18.84	29.70	50.40					
21.68	46.30	52.90								8.80	18.98	29.96	50.70					
21.92	46.54	**50/1"**								8.90	19.12	30.22	51.20					
22.16	46.78	**DCP REF**								9.20	19.26	30.48	51.70					
22.40	47.02									9.60	19.40	30.74	52.20					
22.58	47.26									9.80	19.48	31.00	52.80					
22.76	47.50									10.00	19.56	31.20	53.20					
22.94	47.82									10.20	19.64	31.40	53.60					
23.12	48.14									10.40	19.72	31.60	54.20					
23.30	48.46									10.60	19.80	31.80	54.50					
23.48	48.78									10.70	19.94	32.00	54.90					
23.66	49.10									10.80	20.08	32.22	55.20					
23.84	49.36									10.90	20.22	32.44	55.70					
24.02	49.62									11.00	20.36	32.66	56.00					
24.20	49.88									11.10	20.50	32.88	56.50					
24.70	50.14									11.20	20.68	33.10	57.00					
25.20	50.40									11.30	20.86	33.50	57.40					
25.90	50.46									11.40	21.04	33.70	58.10					
26.20	50.52									11.50	21.22	34.20	58.60					
26.80	50.58									11.60	21.40	34.40	59.30					
27.40	50.64									11.78	21.52	34.70	59.70					
28.40	50.70									11.96	21.64	35.10	60.20					
29.60	50.76									12.14	21.76	35.20	61.10					
30.90	50.82									12.32	21.88	35.40	61.70					
32.00	50.88									12.50	22.00	35.90	62.40					
33.00	50.94									12.64	22.18	36.00	63.70					
33.90	51.00									12.78	22.36	36.50	65.20					
34.60	51.06									12.92	22.54	36.70	66.60					
35.60	51.12									13.06	22.72	37.10	69.60					
36.40	51.18									13.20	22.90	37.30	72.90					
37.20	51.24									13.34	23.04	37.50	75.90					
38.00	51.30									13.48	23.18	37.90	79.00					
38.40	51.36									13.62	23.32	38.30	81.60					

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.		PROJECT TIP I.D.				ROUTE			
						34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
						COUNTY		FIELD PROFESSIONAL				FIELD CREW			
						Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location						Date Run		Test Location						Date Run	
C-90 Y Sta. 75+02 WB OSS 6.0 FT RT FW						9/27-10/1, 10/11-10/13		C-91 Y Sta. 80+09 WB OSS 6.0 FT RT FW						9/27-10/1, 10/11-10/13	
Type	Test Interval				Datum	Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC	30.0 ft Fill		DCP	Cumulative cm per blow			STBC		35.0 ft Cut	
1.50	54.70							2.60	93.00						
2.40	56.30							4.20	94.40						
3.40	57.70							5.90	95.90						
4.20	59.20							7.60	97.30						
5.10	60.30							9.70	98.40						
5.70	61.30							11.10	99.70						
6.20	62.20							12.50	101.10						
6.40	63.00							13.60	102.40						
6.80	64.10							15.00	103.50						
7.10	65.00							15.80	104.00						
7.30	65.90							16.70	105.20						
7.60	67.00							17.60	106.50						
7.90	67.80							19.00	107.70						
8.10	68.70							20.40	109.50						
8.60	69.50							21.90	110.80						
8.90	70.40							23.40	112.30						
9.10	71.10							24.40							
9.40	72.00							25.10							
9.60	72.90							25.70							
9.80	73.80							26.30							
10.20	75.00							27.30							
10.50	76.10							28.20							
10.80	77.50							29.50							
11.20	78.70							30.50							
11.60	79.80							31.70							
12.30	80.90							32.90							
12.90	82.10							34.10							
13.30	83.60							35.30							
14.00	85.00							36.50							
14.60	86.60							37.90							
15.00	88.50							39.40							
15.90	91.00							40.80							
16.70	93.00							42.30							
17.40	95.60							44.20							
18.40	97.00							46.10							
19.20	98.50							47.40							
20.10	99.90							48.40							
21.10	101.20							49.80							
21.70	102.40							51.30							
22.50	104.00							52.80							
23.60	105.80							54.50							
24.70	107.90							56.10							
25.70	110.00							57.60							
26.70	111.60							59.70							
27.80	113.40							61.30							
28.80								62.90							
29.80								64.70							
30.70								66.30							
31.50								67.90							
32.20								69.60							
33.20								71.10							
34.20								72.10							
35.20								74.10							
36.40								76.00							
37.40								77.50							
38.80								79.10							
39.80								80.80							
40.50								82.20							
41.50								83.90							
43.00								85.10							
44.60								86.30							
46.20								87.90							
47.90								89.40							
50.50								90.40							
53.00								91.60							

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.		PROJECT TIP I.D.				ROUTE			
						34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
						COUNTY		FIELD PROFESSIONAL				FIELD CREW			
						Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location						Date Run		Test Location						Date Run	
C-92 Y Sta. 85+47 WB OSS 5.8 FT RT FW						9/27-10/1, 10/11-10/13		C-93 Y Sta. 88+85 WB OSS 6.3 FT RT FW						9/27-10/1, 10/11-10/13	
Type	Test Interval				Datum	Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				CSS (A-4)	10.0 ft Cut		DCP	Cumulative cm per blow			STBC		5.0 ft Fill	
1.50	92.10							2.00							
2.90	92.90							3.60							
4.80	93.70							4.40							
6.40	94.40							5.60							
8.10	95.60							6.70							
9.90	96.70							7.80							
12.20	97.20							8.50							
14.10	98.10							9.30							
16.10	98.70							10.00							
17.70	99.50							10.50							
19.80	100.20							11.30							
21.80	100.80							12.00							
23.70	101.30							12.90							
25.50	102.00							13.60							
27.60	102.40							14.50							
29.40								15.00							
31.40								15.60							
33.90								16.20							
36.40								16.80							
38.60								17.50							
39.90								18.40							
41.40								19.40							
43.40								20.50							
45.00								21.70							
46.60								23.10							
48.10								24.60							
49.50								26.20							
50.90								27.80							
52.30								29.20							
53.00								30.60							
54.40								31.80							
55.50								32.80							
57.20								33.90							
58.50								34.80							
60.00								35.70							
61.50								36.50							
63.00								37.00							
64.40								38.00							
65.80								38.70							
66.80								39.40							
68.40								40.30							
70.00								41.00							
71.20								41.90							
72.20								42.90							
73.10								43.80							
74.20								44.80							
75.30								46.00							
76.40								47.30							
77.40								48.80							
78.40								49.90							
79.30								51.40							
80.40								53.50							
81.40								56.40							
82.40								58.70							
82.90								60.60							
83.90															
84.60															
85.60															
86.40															
87.10															
87.80															
88.70															
89.10															
90.40															
91.20															

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								34165.1.6				I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
								COUNTY				FIELD PROFESSIONAL				FIELD CREW			
								Haywood				M. Brewer				C. Odom/D. Underwood			
Test Location								Date Run				Test Location						Date Run	
C-94 Y Sta. 88+74 WB OSL 5.7 FT LT FW								9/27-10/1, 10/11-10/13				C-96 Y Sta. 88+75 WB ISL 2.4 FT RT FY						9/27-10/1, 10/11-10/13	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill					
DCP	Cumulative cm per blow			STBC		5.0 ft Fill		DCP	Cumulative cm per blow			STBC		5.0 ft Fill					
1.00	72.10							1.00	51.00										
1.60	73.10							1.70	51.20										
2.00	75.10							2.40	53.60										
2.40	76.50							2.80	54.60										
2.70	78.30							3.30	55.60										
3.00	80.30							3.70	56.70										
3.60	82.10							4.20	57.90										
3.80	83.60							4.50	59.10										
4.30	85.10							5.00	60.30										
4.70	86.40							5.30	61.30										
5.20	88.00							5.90	62.60										
5.50	89.50							6.20	63.80										
6.10	91.20							6.60	65.00										
6.50	93.00							7.00	65.20										
7.10								7.20	66.40										
7.80								7.50	68.40										
8.20								7.90	69.80										
8.40								8.30	70.90										
8.80								8.60	72.20										
9.30								9.00	73.30										
9.90								9.10	74.80										
10.30								9.40	76.00										
10.90								9.80	77.30										
11.60								10.20	78.50										
12.20								10.60	79.90										
13.10								10.90	81.40										
13.80								11.40	82.70										
14.80								11.70	84.10										
16.00								12.20											
17.20								12.60											
18.30								13.10											
19.80								13.50											
21.40								14.40											
23.00								14.80											
24.20								15.60											
25.40								16.10											
26.30								16.70											
27.60								17.40											
29.00								18.10											
30.50								18.90											
32.00								19.80											
33.30								20.60											
34.60								21.50											
35.90								22.20											
37.10								23.10											
38.40								24.20											
39.70								25.30											
41.00								26.50											
42.10								27.90											
43.80								29.10											
45.60								30.50											
47.70								31.70											
50.20								33.10											
52.30								34.60											
54.30								35.80											
56.20								37.20											
58.00								38.60											
59.40								40.20											
61.20								41.60											
62.70								43.10											
64.60								44.60											
66.20								45.80											
67.40								47.20											
68.90								48.40											
70.50								49.70											

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.				PROJECT TIP I.D.				ROUTE			
								34165.1.6				I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
								COUNTY				FIELD PROFESSIONAL				FIELD CREW			
								Haywood				M. Brewer				C. Odom/D. Underwood			
Test Location								Date Run				Test Location						Date Run	
C-97 Y Sta. 88+75 WB ISS 3.7 FT LT FY								9/27-10/1, 10/11-10/13				C-98 Y_WB Sta. 10+69 WB OSS 2.1 FT RT FW						9/27-10/1, 10/11-10/13	
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill					
DCP	Cumulative cm per blow			STBC		5.0 ft Fill		DCP	Cumulative cm per blow			STBC		15.0 ft Fill					
1.40	47.50							2.80											
2.50	47.90							4.30											
3.20	48.40							5.70											
4.20	48.90							7.00											
5.20	49.30							8.40											
6.00	49.80							9.80											
6.80	50.20							10.90											
7.20	50.60							12.30											
7.60	51.10							13.60											
7.80	51.60							15.00											
8.20	52.10							16.40											
8.60	52.80							18.10											
9.00	53.10							19.60											
9.60	53.70							21.60											
10.20	54.20							24.00											
11.20	54.90							26.30											
12.10	55.40							28.90											
12.80	55.90							31.20											
13.60	56.50							33.60											
14.20	57.10							36.20											
15.00	57.80							39.40											
15.80	58.50							42.70											
16.80	59.10							46.50											
17.50	59.90							50.00											
18.00	60.60							53.80											
18.60	61.30							57.10											
19.00	62.20							59.60											
20.00	63.10							61.40											
21.30	63.90							63.40											
22.40	64.80							64.90											
23.60	65.70																		
24.70	66.40																		
25.80	67.30																		
26.80	68.20																		
27.70	69.90																		
28.30	70.90																		
29.00	71.90																		
29.60	73.00																		
30.10	74.20																		
30.60	75.40																		
31.00	76.70																		
31.50	77.80																		
32.00	79.00																		
32.70	80.40																		
33.40	81.60																		
34.10	82.90																		
35.10	84.20																		
35.60	85.80																		
36.20	87.00																		
36.80	88.10																		
37.50	89.20																		
38.20	90.20																		
38.90	91.30																		
39.70	92.40																		
40.40	93.30																		
41.10	94.40																		
41.90	95.40																		
42.60	96.70																		
43.30	97.50																		
44.00	98.60																		
44.60																			
45.30																			
45.90																			
46.50																			
47.00																			

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
								COUNTY		FIELD PROFESSIONAL				FIELD CREW			
								Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location						Date Run		Test Location					Date Run				
C-99 Y_WB Sta. 15+88 WB OSS 6.0 FT RT FW						9/27-10/1, 10/11-10/13		C-100 Y_WB Sta. 15+88 WB ISS 1.5 FT LT FY					9/27-10/1, 10/11-10/13				
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill			
DCP	Cumulative cm per blow			STBC		20.0 ft Cut		DCP	Cumulative cm per blow			STBC		20.0 ft Cut			
1.50								1.60	43.10	73.30							
2.00								2.40	43.90	73.70							
3.40								3.00	44.20	74.20							
5.00								3.80	44.50	74.60							
5.90								4.80	44.70	74.70							
6.80								5.20	45.40	75.20							
7.50								5.80	45.70	75.80							
8.40								6.30	46.20	76.30							
9.20								7.00	46.70	76.80							
10.30								7.80	47.10	77.30							
11.10								8.70	47.60	78.20							
12.00								10.00	48.10	78.70							
12.90								11.10	48.90	79.10							
13.80								12.20	49.20	79.50							
14.30								13.60	49.90	80.10							
15.60								14.40	50.40	80.70							
16.50								15.50	51.20	81.20							
17.70								17.00	51.80	81.70							
18.90								18.10	52.10	82.00							
20.00								19.40	52.70	82.40							
21.30								20.60	53.20	83.00							
22.90								22.00	53.90	83.50							
24.20								23.30	54.50	83.90							
25.60								24.00	55.00	84.40							
27.30								24.90	55.80	84.90							
28.50								25.90	56.20	85.00							
30.70								26.70	56.80	85.40							
32.60								27.20	57.50	85.90							
34.60								28.00	58.50	86.20							
36.90								28.30	58.60	86.70							
38.90								28.90	59.50	87.10							
40.90								29.40	60.00	87.60							
42.90								29.90	60.40	88.00							
44.60								30.50	60.80	88.40							
46.40								31.00	61.20	88.80							
47.80								31.50	61.70	89.30							
49.40								32.00	62.10	89.60							
50.70								32.40	62.60	90.40							
52.30								32.90	63.00	90.80							
53.50								33.20	63.40	91.20							
55.20								33.60	63.90	91.90							
56.70								34.00	64.10	92.30							
58.00								34.70	64.30	92.60							
59.30								34.90	64.70	93.20							
60.50								35.40	65.20	93.40							
								35.70	65.50	93.80							
								36.00	65.80	94.00							
								36.20	66.30	94.40							
								36.50	66.60	94.70							
								36.80	67.00	95.00							
								37.00	67.40	95.30							
								37.30	67.80	95.60							
								37.70	68.10	96.00							
								38.20	68.70	96.10							
								38.50	69.00	96.40							
								39.20	69.40								
								39.60	69.70								
								39.90	70.00								
								40.70	70.40								
								40.90	71.00								
								41.00	71.10								
								41.60	71.50								
								42.10	71.80								
								42.40	72.50								
								42.70	72.70								

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.				ROUTE			
								34165.1.6		I-2513AA/AB				I-26 from I-40 to SR 3548 (Haywood Road)			
								COUNTY		FIELD PROFESSIONAL				FIELD CREW			
								Haywood		M. Brewer				C. Odom/D. Underwood			
Test Location						Date Run		Test Location					Date Run				
C-101 Y_WB Sta. 20+65 WB OSS 6.2 FT RT FW						9/27-10/1, 10/11-10/13		C-102 Y_WB Sta. 20+65 WB ISS 4.5 FT LT FY					9/27-10/1, 10/11-10/13				
Type	Test Interval			Datum		Cut/Fill		Type	Test Interval			Datum		Cut/Fill			
DCP	Cumulative cm per blow			STBC		15.0 Cut		DCP	Cumulative cm per blow			STBC		15.0 ft Cut			
1.80								1.40	58.20	108.80							
2.30								2.00	59.10	109.40							
4.70								2.40	60.00	109.70							
6.00								2.70	61.00	110.10							
7.30								2.90	61.60	110.90							
8.70								3.40	62.40	111.40							
10.20								3.70	62.80	111.90							
11.40								4.00	63.70	112.30							
12.40								4.30	64.40	113.10							
14.00								4.70	65.30	113.50							
15.60								5.00	65.50	114.10							
16.90								5.20	66.40	114.30							
17.70								5.70	67.30	114.80							
18.60								6.30	68.00	115.20							
19.80								6.60	68.80	115.80							
21.00								7.00	69.60	116.20							
21.90								7.40	70.50	116.80							
22.70								7.70	71.50	117.30							
23.40								8.00	72.90	117.60							
24.20								8.40	74.60	118.00							
25.40								8.70	76.90	118.50							
26.50								9.20	79.10	119.00							
27.90								9.50	80.80	119.60							
29.10								9.70	81.60	120.10							
30.40								10.30	84.00	120.90							
31.90								10.70	84.70	121.20							
33.30								11.00	85.40	121.60							
34.90								11.60	86.10	122.30							
36.50								12.00	86.80	122.60							
38.20								12.50	87.30	123.10							
40.40								13.10	87.80	123.70							
42.50								13.60	88.60	124.20							
44.70								14.40	89.40	124.60							
46.70								15.00	89.70	125.20							
48.60								15.80	90.40								
50.40								16.60	90.70								
52.40								17.60	91.10								
54.40								18.60	91.90								
56.50								19.60	92.60								
58.50								20.60	93.50								
60.30								21.60	93.90								
62.40								22.60	94.70								
64.40								23.30	95.30								
66.10								24.50	95.60								
67.90								25.20	96.40								
69.60								26.30	97.00								
71.20								27.70	97.60								
72.70								29.00	98.10								
74.10								30.20	98.70								
75.90								30.70	99.30								
77.50								31.90	100.00								
79.40								33.40	100.70								
81.20								35.10	101.50								
82.90								37.10	102.10								
84.30								39.50	102.60								
86.30								41.90	102.90								
88.30								44.00	103.70								
								45.80	104.20								
								47.60	104.80								
								49.20	105.20								
								50.80	106.10								
								52.60	106.80								
								54.60	107.20								
								55.20	107.80								
								57.10	108.10								

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.	PROJECT TIP I.D.	ROUTE
						34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
						COUNTY	FIELD PROFESSIONAL	FIELD CREW
						Haywood	M. Brewer	C. Odom/D. Underwood
Test Location						Date Run	Test Location	Date Run
C-103 Y_WB Sta. 27+11 WB OSS 6.0 FT RT FW						9/27-10/1, 10/11-10/13	C-105 Y_WB Sta. 27+11 WB MID-LANE 15.5 FT LT FW	9/27-10/1, 10/11-10/13
Type	Test Interval			Datum		Cut/Fill	Type	Test Interval			Datum		Cut/Fill
DCP	Cumulative cm per blow			STBC		10.0 ft Fill	DCP	Cumulative cm per blow			Drainage SAND		10.0 ft Fill
1.80	64.20						2.00	59.50					
2.10	65.30						3.10	61.20					
2.60	66.60						4.40	62.90					
3.30	67.60						5.90	64.40					
3.80	68.50						6.90	66.50					
4.20	69.40						8.20	68.60					
4.80	70.60						9.30	70.50					
5.30	71.70						10.90	71.40					
5.70	72.60						12.50	74.20					
6.30	73.90						13.90	75.40					
6.80	75.30						15.20	78.90					
7.10	76.50						15.70	79.10					
7.60	77.70						15.80	80.40					
8.30	79.20						16.60	81.90					
8.60	80.40						17.00	83.40					
9.20	81.60						17.10	84.90					
9.70	82.90						17.30	86.40					
10.30	84.20						17.40	87.00					
11.00	85.50						17.50	88.80					
11.90	86.90						17.60	90.20					
12.50	88.50						17.70	92.00					
13.30	90.10						17.80						
14.10	91.60						17.90						
15.00	93.00						18.00						
16.20	94.20						18.18						
17.50	95.50						18.36						
19.40	97.00						18.54						
21.00	98.60						18.72						
22.70	100.40						18.90						
24.50	102.50						19.40						
26.30	104.00						20.00						
28.10	105.90						20.40						
29.70	106.10						20.80						
31.30	108.60						21.20						
32.60	110.20						21.90						
33.90							22.40						
35.20							22.90						
36.70							23.30						
38.20							24.10						
39.70							24.70						
40.90							25.70						
42.30							26.40						
43.20							27.60						
44.40							28.60						
45.60							30.20						
47.00							31.50						
48.50							33.00						
50.30							34.10						
51.40							35.00						
52.40							35.90						
52.90							36.90						
53.40							37.80						
53.60							38.80						
53.90							40.50						
54.40							42.00						
55.20							43.30						
55.60							45.00						
56.30							46.70						
57.00							48.20						
57.40							49.60						
58.60							51.20						
59.50							52.80						
60.40							54.50						
61.60							56.00						
62.90							57.80						

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET						WBS NO.	PROJECT TIP I.D.	ROUTE
						34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
						COUNTY	FIELD PROFESSIONAL	FIELD CREW
						Haywood	M. Brewer	C. Odom/D. Underwood
Test Location						Date Run	Test Location	Date Run
C-106 Y_WB Sta. 27+11 WB ISL 4.2 FT RT FY						9/27-10/1, 10/11-10/13	C-104 Y_WB Sta. 27+12 WB OSL 1.6 FT LT FW	9/27-10/1, 10/11-10/13
Type	Test Interval			Datum		Cut/Fill	Type	Test Interval			Datum		Cut/Fill
DCP	Cumulative cm per blow			STBC		5.0 ft Cut	DCP	Cumulative cm per blow			STBC		10.0 ft Fill
1.00	12.10	47.10					0.90	45.40	90.80				
1.60	12.80	48.30					1.50	45.80	92.00				
1.90	13.60	49.70					2.10	46.30	93.10				
2.00	14.10	50.90					2.50	47.20	94.30				
2.10	15.10	52.20					3.00	47.60	95.10				
2.20	15.70	53.70					3.40	48.10	96.00				
2.30	16.60	55.10					3.70	48.60	96.80				
2.40	17.00	56.60					4.00	49.10	97.50				
2.50	17.50	58.10					4.50	49.60	98.30				
2.60	18.20	59.30					5.00	50.10	99.20				
2.70	18.90	60.20					5.50	50.60	99.90				
2.80	19.40	61.40					6.00	50.90	100.50				
2.90	20.00	62.30					6.50	51.40	101.30				
2.93	20.60	63.40					7.10	52.00	101.90				
2.96	21.20	64.40					7.50	52.20	102.40				
2.99	22.00	65.40					8.10	52.90	102.70				
3.02	22.40	66.80					8.60	53.50	103.40				
3.05	23.30	68.00					9.40	54.20	104.30				
3.08	23.90	70.20					10.10	55.00	105.30				
3.11	24.40	71.20					10.90	55.70	106.40				
3.14	25.10	72.40					11.80	56.30	107.40				
3.17	25.50	73.20					12.60	57.20					
3.20	25.90	73.90					13.40	57.80					
3.24	26.00	74.40					14.50	58.50					
3.28	26.70	75.70					15.60	59.50					
3.32	26.80	76.30					17.20	59.80					
3.36	27.30	77.30					18.50	60.40					
3.40	27.50	77.80					19.60	61.10					
3.44	27.90	78.80					20.70	61.70					
3.48	28.10	79.60					22.20	62.60					
3.52	28.30	80.70					23.40	63.20					
3.56	28.70	81.60					24.80	64.00					
3.60	28.90	82.90					26.40	64.50					
3.67	29.20	84.30					28.00	65.00					
3.74	30.00	85.70					29.50	65.70					
3.81	30.50	86.30					30.80	66.50					
3.88	30.90	86.90					31.90	67.00					
3.95	31.30	87.50					32.90	67.70					
4.02	31.80	88.30					34.20	68.70					
4.09	32.30	89.20					35.20	69.40					
4.16	32.80	89.90					36.20	70.30					
4.23	33.10	90.50					37.10	70.90					
4.30	33.30	91.60					37.60	71.80					
4.46	33.40	92.80					38.00	72.40					
4.62	33.70	93.10					38.80	73.20					
4.78	33.80						39.10	74.50					
4.94	34.10						39.32	75.10					
5.10	34.20						39.54	75.90					
5.26	34.40						39.76	76.60					
5.42	34.60						39.98	77.30					
5.58	35.00						40.20	78.00					
5.74	35.10						40.48	78.60					
5.90	35.70						40.76	79.30					
6.14	36.30						41.04	80.00					
6.38	36.70						41.32	80.80					
6.62	37.30						41.60	81.60					
6.86	37.70						41.86	82.30					
7.10	38.20						42.12	83.10					
7.60	38.80						42.38	83.90					
7.90	39.40						42.64	84.80					
8.20	40.50						42.90	85.50					
8.60	41.50						43.30	86.60					
9.50	42.80						43.70	87.60					
10.40	44.00						44.30	88.60					
11.40	45.40						44.80	89.60					

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.		ROUTE			
								34165.1.6		I-2513AA/AB		I-26 from I-40 to SR 3548 (Haywood Road)			
								COUNTY		FIELD PROFESSIONAL		FIELD CREW			
								Haywood		M. Brewer		C. Odom/D. Underwood			
Test Location								Date Run		Test Location					Date Run
C-107 Y_WB Sta. 27+12 WB ISS 1.7 FT LT FY								9/27-10/1, 10/11-10/13		C-108 Y_WB Sta. 32+51 WB OSS 6.0 FT RT FW					9/27-10/1, 10/11-10/13
Type	Test Interval				Datum			Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC			5.0 ft Cut		DCP	Cumulative cm per blow			Asphalt Base (-8.5")		7.0 ft Cut	
0.80	34.90									0.90	**50/1.75"**	29.60	60.60	93.04			
1.60	37.00									1.30	**DCP REF**	30.20	61.00	93.22			
2.50	38.60									1.60		30.90	61.40	93.40			
3.20	39.90									2.20	**Auger**	31.60	61.70	93.58			
3.50	41.00									2.40	**7.2 cm**	32.00	62.20	93.76			
3.90	42.10									2.70	**to 15.5**	32.70	62.40	93.94			
4.10	43.30									2.80	0.90	33.20	62.90	94.12			
4.30	44.50									3.10	1.40	33.80	63.20	94.30			
4.40	45.70									3.30	1.80	34.20	63.70	94.54			
4.50	46.90									3.50	2.20	34.80	64.20	94.78			
4.60	48.20									3.70	2.40	35.40	64.50	95.02			
4.70	49.40									3.80	2.60	35.90	65.10	95.26			
4.80	50.30									3.90	2.90	36.50	65.50	95.50			
4.90	51.30									4.00	3.10	36.80	66.00	96.20			
5.00	52.30									4.30	3.40	37.40	66.30	97.30			
5.14	53.60									4.34	3.70	37.80	66.70	98.20			
5.28	55.00									4.38	4.10	38.10	67.00	99.00			
5.42	56.60									4.42	4.50	38.60	67.70	99.80			
5.56	58.20									4.46	4.90	39.00	68.40	100.60			
5.70	60.20									4.50	5.30	39.20	68.90	101.20			
5.88	61.40									4.54	5.60	39.80	69.40	101.90			
6.06	63.40									4.58	6.00	40.20	69.90	102.60			
6.24	65.80									4.62	6.80	40.60	70.50	103.20			
6.42	67.50									4.66	7.20	40.90	71.10	103.80			
6.60	70.00									4.70	7.40	41.20	71.60	104.40			
6.72	71.10									4.77	7.70	41.30	72.30	105.40			
6.84	73.50									4.84	8.20	41.50	73.00	106.00			
6.96	74.60									4.91	8.30	41.80	73.60	106.40			
7.08	76.00									4.98	8.80	42.10	74.40	106.90			
7.20	77.90									5.05	9.40	42.20	74.90	107.40			
7.62										5.12	9.90	42.70	75.40	107.90			
8.04										5.19	10.40	43.10	75.80	108.40			
8.46										5.26	11.00	43.60	76.80	108.80			
8.88										5.33	11.50	44.00	77.60	109.40			
9.30										5.40	12.10	44.40	78.60	109.70			
9.70										5.51	12.70	45.00	79.50	110.10			
10.10										5.62	13.50	45.30	80.30	110.50			
10.50										5.73	13.90	45.80	81.10	111.10			
10.90										5.84	14.50	46.40	82.00	111.60			
11.30										5.95	15.10	46.90	82.90	111.90			
11.70										6.06	15.90	47.50	83.70	112.20			
12.00										6.17	16.70	47.90	84.70	112.40			
12.40										6.28	17.20	48.40	85.50	112.60			
13.50										6.39	17.60	49.10	86.20				
14.10										6.50	18.10	49.60	86.70				
15.10										6.61	18.80	50.40	87.30				
15.70										6.72	19.80	51.00	87.70				
16.50										6.83	20.20	51.10	88.20				
17.50										6.94	20.90	51.60	88.60				
18.30										7.05	21.50	52.10	88.90				
18.90										7.16	22.00	52.60	89.20				
19.40										7.27	22.60	53.10	89.50				
20.00										7.38	23.30	53.80	89.70				
20.70										7.49	23.70	54.20	89.90				
21.80										7.60	24.30	54.60	90.20				
22.60										7.67	24.60	55.20	90.50				
23.50										7.74	25.40	55.70	91.10				
24.70										7.81	26.00	56.00	91.40				
26.10										7.88	26.40	56.90	91.80				
27.10										7.95	26.70	57.50	92.00				
29.20										8.02	27.20	58.10	92.30				
30.80										8.09	27.80	58.70	92.40				
31.90										8.16	28.30	59.10	92.50				
32.30										8.23	28.90	59.60	92.68				
33.10										8.30	29.30	60.10	92.86				

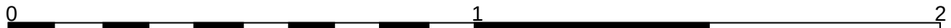
DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET								WBS NO.		PROJECT TIP I.D.		ROUTE			
								34165.1.6		I-2513AA/AB		I-26 from I-40 to SR 3548 (Haywood Road)			
								COUNTY		FIELD PROFESSIONAL		FIELD CREW			
								Haywood		M. Brewer		C. Odom/D. Underwood			
Test Location								Date Run		Test Location					Date Run
C-109 Y_WB Sta. 32+52 WB ISS 1.5 FT LT FY								9/27-10/1, 10/11-10/13							9/27-10/1, 10/11-10/13
Type	Test Interval				Datum			Cut/Fill		Type	Test Interval			Datum		Cut/Fill	
DCP	Cumulative cm per blow				STBC			20.0 ft Cut		DCP	Cumulative cm per blow						
2.20	23.20	36.90	53.80														
3.40	23.50	37.00	54.30														
5.00	23.80	37.40	54.90														
6.90	24.00	37.60	55.40														
8.50	24.40	37.90	55.90														
9.80	24.70	38.00	56.50														
11.20	25.20	38.50	56.80														
12.50	25.40	38.90	57.00														
13.80	25.60	39.30	57.20														
14.40	25.70	39.50	**50/0"**														
14.80	25.90	39.90	**DCP REF**														
15.10	26.20	40.04															
15.30	26.30	40.18															
15.50	26.40	40.32															
15.80	26.70	40.46															
15.92	26.80	40.60															
16.04	26.90	40.80															
16.16	27.00	40.90															
16.28	27.10	41.20															
16.40	27.20	41.50															
16.47	27.30	42.00															
16.54	27.40	42.40															
16.61	27.50	42.60															
16.68	27.60	42.70															
16.75	27.70	42.84															
16.82	27.86	42.98															
16.89	28.02	43.12															
16.96	28.18	43.26															
17.03	28.34	43.40															
17.10	28.50	43.58															
17.18	28.66	43.76															
17.26	28.82	43.94															
17.34	28.98	44.12															
17.42	29.14	44.30															
17.50	29.30	44.62															
17.58	29.56	44.94															
17.66	29.82	45.26															
17.74	30.08	45.58															
17.82	30.34	45.90															
17.90	30.60	46.20															
18.03	30.90	46.50															
18.16	31.20	47.20															
18.29	31.50	47.90															
18.42	31.80	48.18															
18.55	32.10	48.46															
18.68	32.50	48.74															
18.81	33.00	49.02															
18.94	33.30	49.30															
19.07	33.60	49.50															
19.20	33.80	49.80															
19.32	33.94	49.96															
19.44	34.08	50.12															
19.56	34.22	50.28															
19.68	34.36	50.44															
19.80	34.50	50.60															
20.00	34.80	51.10															
20.40	34.90	51.40															
20.70	35.10	51.80															
21.00	35.20	52.20															
21.30	35.40	52.50															
21.70	35.60	52.90															
21.90	36.00	53.10															
22.40	36.30	53.30															
22.60	36.40	53.50															
23.00	36.60	53.70															

I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

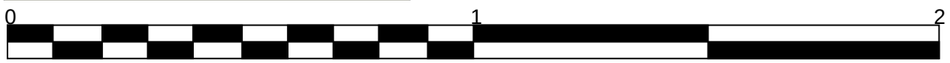
C-72 Y Sta. 20+96 WB OSS

C-72 Y Sta. 20+96 WB OSS (continued)



C-73 Y Sta. 20+96 WB OSL

C-73 Y Sta. 20+96 WB OSL (continued)



C-75 Y Sta. 20+96 WB ISL (O)

C-76 Y Sta. 20+96 WB ISL (I)

C-77 Y Sta. 20+96 WB ISS

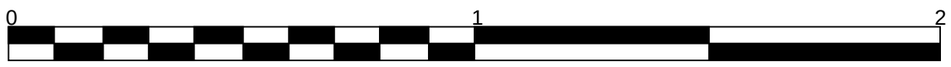
C-78 Y Sta. 26+00 WB OSS

I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

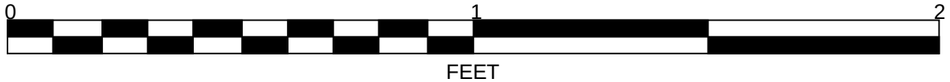
C-79 Y Sta. 28+56 WB MERGE LANE

C-79 Y Sta. 28+56 WB MERGE LANE (continued)



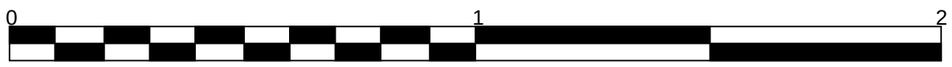
C-80 Y Sta. 31+41 WB OSS

C-80 Y Sta. 31+41 WB OSS (continued)



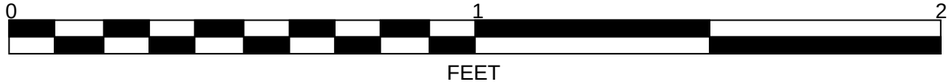
C-82 Y Sta. 37+45 WB OSS

C-82 Y Sta. 37+45 WB OSS (continued)



C-83 Y Sta. 41+94 WB OSS

C-84 Y Sta. 50+37 WB OSS



I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

C-85 Y Sta. 58+51 WB OSS

0 1 2

FEET

C-86 Y Sta. 58+50 WB OSL

C-86 Y Sta. 58+50 WB OSL (continued)

0 1 2

FEET

C-87 Y Sta. 58+51 WB OSML

C-87 Y Sta. 58+51 WB OSML (continued)

0 1 2

FEET

C-88 Y Sta. 63+40 WB OSS

C-89 Y Sta. 68+54 WB OSS

0 1 2

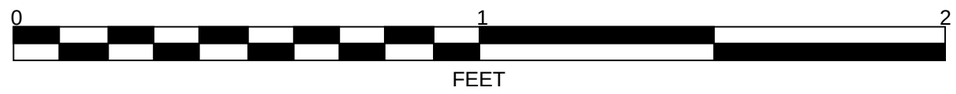
FEET

I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

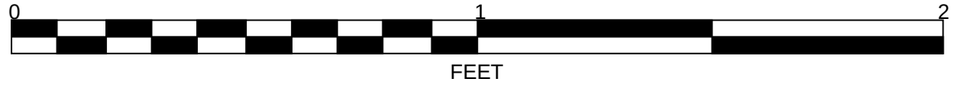
Pavement Core Photographs

C-90 Y Sta. 75+02 WB OSS

C-91 Y Sta. 80+09 WB OSS

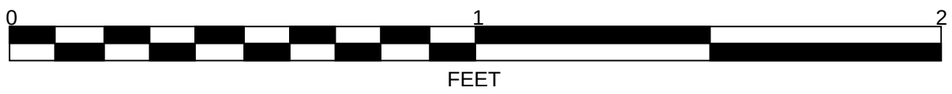


C-92 Y Sta. 85+47 WB OSS

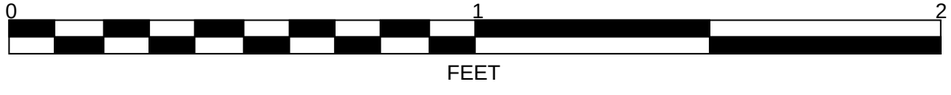


C-93 Y Sta. 88+85 WB OSS

C-93 Y Sta. 88+85 WB OSS (continued)



C-94 Y Sta. 88+74 WB OSL



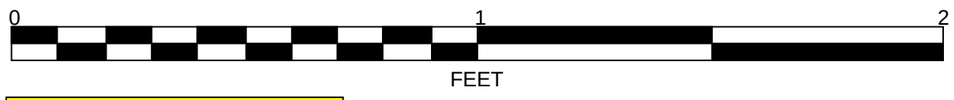
I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

C-96 Y Sta. 88+75 WB ISL

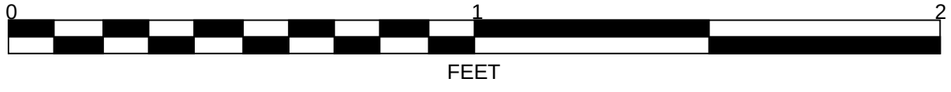
C-96 Y Sta. 88+75 WB ISL (continued)

C-97 Y Sta. 88+75 WB ISS



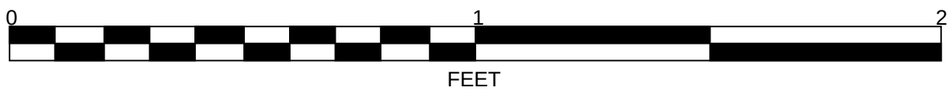
C-98 Y_WB Sta. 10+69 WB OSS

C-98 Y_WB Sta. 10+69 WB OSS (continued)

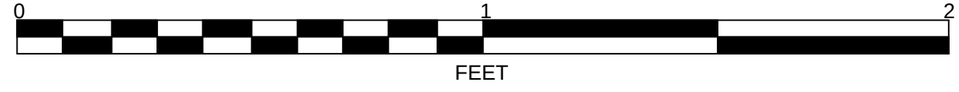


C-99 Y_WB Sta. 15+88 WB OSS

C-99 Y_WB Sta. 15+88 WB OSS (continued)



C-100 Y_WB Sta. 15+88 WB ISS

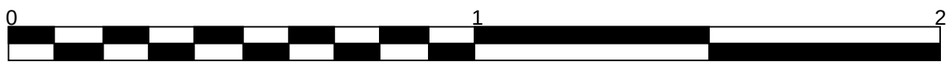


I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

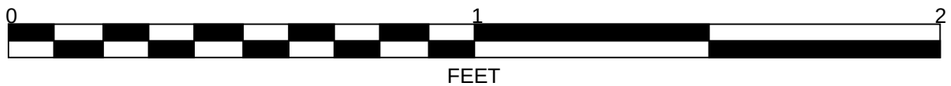
Pavement Core Photographs

C-101 Y_WB Sta. 20+65 WB OSS

C-101 Y_WB Sta. 20+65 WB OSS (continued)



C-102 Y_WB Sta. 20+65 WB ISS

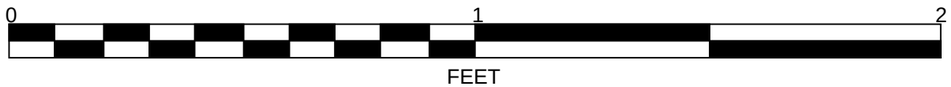


C-103 Y_WB Sta. 27+11 WB OSS

C-105 Y_WB Sta. 27+11 WB MID-LANE

C-106 Y_WB Sta. 27+11 WB ISL

C-104 Y_WB Sta. 27+12 WB OSL



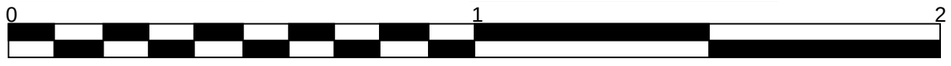
I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

C-107 Y_WB Sta. 27+12 WB ISS

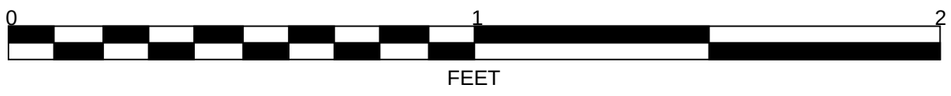
C-107 Y_WB Sta. 27+12 WB ISS (continued)

C-108 Y_WB Sta. 32+51 WB OSS



C-109 Y_WB Sta. 32+52 WB ISS

C-109 Y_WB Sta. 32+52 WB ISS (continued)



SOIL TEST RESULTS

SAMPLE NO.	ALIGNMENT	LANE	OFFSET	STATION	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-72	Y	WB OSS	4.0 RT FW	20+96	2.8-5.0	A-4(1)	32	4	17.0%	34.8%	30.2%	18.1%	98.9%	90.5%	53.3%	16.6%	ND
S-73	Y	WB OSL	4.0 LT FW	20+96	2.7-5.0	A-4(0)	48	NP	12.2%	22.9%	38.8%	26.1%	99.3%	93.9%	69.1%	17.4%	ND
S-75	Y	WB ISL (O)	9.5 RT FY	20+96	2.6-5.0	A-4(0)	51	NP	9.2%	14.6%	54.1%	22.1%	99.5%	94.6%	78.6%	29.5%	ND
S-78	Y	WB OSS	11.8 RT FW	26+00	2.9-5.0	A-4(0)	44	NP	24.7%	27.2%	32.0%	16.0%	92.9%	81.9%	48.5%	12.0%	ND
S-79	Y	WB MERGE LANE	2.0 LT FW	28+56	3.3-5.0	A-4(0)	42	NP	23.8%	28.7%	25.4%	22.1%	78.4%	67.4%	41.7%	22.7%	ND
S-80	Y	WB OSS	4.7 RT FW	31+41	2.8-5.0	A-5(3)	45	8	24.0%	23.4%	24.5%	28.1%	94.0%	79.1%	54.0%	23.8%	ND
S-82	Y	WB OSS	9.5 RT FW	37+45	3.1-5.0	A-4(0)	44	NP	34.1%	21.5%	28.4%	16.1%	94.8%	72.3%	45.6%	27.5%	ND
S-83	Y	WB OSS	9.4 RT FW	41+94	1.8-5.0	A-1-b	30	NP	48.8%	25.0%	20.2%	6.0%	61.6%	41.1%	18.1%	5.9%	ND
S-84	Y	WB OSS	6.5 RT FW	50+37	1.8-5.0	A-4(0)	33	NP	19.0%	38.7%	26.2%	16.1%	86.5%	77.0%	44.0%	14.2%	ND
S-85	Y	WB OSS	6.2 RT FW	58+51	2.0-5.0	A-4(0)	31	NP	21.9%	34.9%	29.2%	14.0%	84.5%	72.6%	44.7%	11.6%	ND
S-87	Y	WB OSML	15.5 LT FW	58+51	2.8-5.0	A-4(0)	36	NP	23.1%	28.6%	30.2%	18.1%	87.8%	74.8%	47.5%	8.6%	ND
S-88	Y	WB OSS	6.6 RT FW	63+40	1.8-5.0	A-4(0)	30	NP	19.3%	38.6%	28.1%	14.0%	90.7%	80.4%	45.1%	12.2%	ND
S-89	Y	WB OSS	5.5 RT FW	68+54	3.5-5.0	A-4(0)	31	NP	24.6%	35.6%	23.8%	16.1%	85.1%	72.2%	40.6%	19.3%	ND
S-90	Y	WB OSS	6.0 RT FW	75+02	1.8-5.0	A-4(0)	31	NP	22.0%	36.9%	25.0%	16.1%	89.6%	77.2%	43.3%	13.9%	ND
S-91	Y	WB OSS	6.0 RT FW	80+09	1.7-5.0	A-4(0)	36	NP	30.9%	32.4%	20.6%	16.0%	94.5%	76.0%	40.9%	15.1%	ND
S-92	Y	WB OSS	5.8 RT FW	85+47	1.7-3.0	A-4(0)	31	NP	23.0%	22.0%	18.8%	36.2%	96.6%	82.7%	57.0%	19.1%	ND
S-96	Y	WB ISL	2.4 RT FY	88+75	2.8-5.0	A-4(0)	36	NP	24.9%	28.3%	28.7%	18.0%	98.8%	85.3%	51.9%	13.0%	ND
S-97	Y	WB ISS	3.7 LT FY	88+75	2.2-5.0	A-4(0)	33	NP	22.3%	33.3%	30.3%	14.0%	96.2%	82.2%	49.4%	6.7%	ND
S-93	Y	WB OSS	6.3 RT FW	88+85	3.3-5.0	A-4(2)	35	8	22.3%	28.8%	20.8%	28.1%	88.5%	76.8%	47.9%	10.6%	ND
S-98	Y_WB	WB OSS	2.1 RT FW	10+69	3.1-5.0	A-4(0)	38	NP	26.1%	30.7%	29.1%	14.1%	93.7%	79.5%	45.9%	31.7%	ND
S-100	Y_WB	WB ISS	1.5 LT FY	15+88	2.0-5.0	A-4(0)	31	NP	20.5%	37.0%	34.5%	8.0%	92.1%	82.4%	46.4%	10.1%	ND
S-102	Y_WB	WB OSS	4.5 RT FW	20+65	1.8-5.0	A-4(1)	31	5	30.5%	20.2%	27.2%	22.1%	96.0%	73.6%	51.9%	16.7%	ND
S-106	Y_WB	WB ISL	4.2 RT FY	27+11	2.6-5.0	A-4(0)	32	NP	25.1%	32.9%	26.0%	16.0%	86.6%	72.0%	42.4%	10.9%	ND
S-104	Y_WB	WB OSL	1.6 LT FW	27+12	2.0-5.0	A-4(0)	35	NP	21.1%	30.2%	26.7%	22.0%	91.8%	79.7%	50.8%	15.7%	ND
S-108	Y_WB	WB OSS	6.0 RT FW	32+51	2.3-5.0	A-2-4	30	NP	26.1%	37.4%	22.5%	14.0%	79.1%	65.2%	34.6%	9.6%	ND

*FROM WHITE LINE (FW)

*FROM YELLOW LINE (FY)

Prepared in the Office of:

F&ME CONSULTANTS, INC.
COLUMBIA, SOUTH CAROLINA
NCDOT LAB CERT. NO. 132–0212

PAVEMENT INVESTIGATION DATA SHEET

Project:	34165.1.6
TIP:	I-2513AA/AB

Route:	I-26 from I-40 to SR 3548 (Haywood Road)
County:	Buncombe

Date Performed:	9/27-10/1 & 10/11-10/13 (6 Nights)
Field Personnel:	M. Brewer, D. Underwood, C. Odom

		Width (ft)		(ft)	(in)	Thickness (in)						SG						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/STBC	Shoulder Drain Drainage Sand CSS (Chemical)	Concrete	Pavement Layering	Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)	Asphalt Notes	Northing	Easting
C-36 Y5RPC Sta. 15+80 EB RAMP OSS	Fill 20.0	13.0 RAMP	12.0 PS Concrete Exp. Gutter	6.8 RT FW	S	23.50	13.50	-	10.00 Shoulder Drain	-	Asphalt Shoulder Drain -	Did not auger due to presence of shoulder drain	-	-	-	-	No Observed Pavement Distress (OSS), Low to Moderate Severity Edge Cracking along Longitudinal Joint	678,376	917,068
C-81 Y5RPB Sta. 14+04 WB RAMP OSS	Fill 10.0	15.5 RAMP	10.0 PS Concrete Exp. Gutter	6.8 RT FW	S	36.00	28.50	4.50 STBC	3.00 SAND	-	Asphalt STBC/SAND SG	3.1-5.0: RE - Red, Fine to Coarse Sandy SILT, trace mica	S-81	A-4	M	5	No Observed Pavement Distress	678,590	917,119

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

Prepared by: DMB
Reviewed by: REK

CAROLINAS GEOTECHNICAL GROUP

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
	COUNTY	FIELD PROFESSIONAL	FIELD CREW
	Haywood	M. Brewer	C. Odom/D. Underwood

Test Location	Date Run	Test Location	Date Run
C-36 Y5RPC Sta. 15+80 EB RAMP OSS 6.8 FT RT FW	9/27-10/1, 10/11-10/13	C-81 Y5RPB Sta. 14+04 WB RAMP OSS 6.8 FT RT FW	9/27-10/1, 10/11-10/13

Type	Test Interval	Datum	Cut/Fill	Type	Test Interval	Datum	Cut/Fill
DCP	Cumulative cm per blow	Shoulder Drain	20.0 ft Fill	DCP	Cumulative cm per blow	STBC	10.0 ft Fill

0.60	13.60	97.90						1.00	73.30										
1.00	14.00	99.30						1.80	74.50										
1.30	14.40	100.80						2.40	76.10										
1.40	14.70	102.00						2.80											
1.50	15.00	103.40						3.60											
1.80	15.50	104.80						4.10											
1.90	16.10	106.10						4.80											
2.20	16.70	107.60						5.40											
2.30	17.30	108.80						6.10											
2.50	18.10	110.10						6.60											
2.70	18.80	111.20						7.30											
2.80	20.00	112.50						8.00											
2.90	21.60	114.00						8.30											
3.20	23.40	114.80						9.20											
3.30	25.20	115.40						10.00											
3.40	26.10	116.20						10.60											
3.50	27.40	117.20						11.40											
3.60	28.40	118.90						12.10											
3.70	29.60	120.00						12.50											
3.90	30.70	121.40						13.50											
4.00	31.90	123.10						13.60											
4.10	33.10	124.50						15.50											
4.20	35.40	126.00						16.60											
4.40	37.50	127.20						17.80											
4.50	39.70	128.50						18.50											
4.70	42.50	129.90						19.20											
4.90	51.10	131.30						19.80											
5.00	51.90	132.80						20.50											
5.10	53.20	134.10						21.10											
5.30	54.40	135.50						22.00											
5.40	55.70	137.00						23.10											
5.60	57.30	138.50						24.70											
5.80	58.80							27.00											
5.90	60.70							29.50											
6.00	62.20							31.80											
6.10	64.10							33.60											
6.20	65.50							35.60											
6.40	66.70							37.40											
6.60	68.30							39.10											
6.90	69.80							40.90											
7.00	71.10							42.30											
7.10	72.10							43.30											
7.20	73.00							44.30											
7.40	73.80							45.00											
7.50	74.50							46.20											
7.80	75.10							47.40											
8.00	75.90							48.20											
8.30	76.90							49.20											
8.50	77.70							50.40											
8.70	78.60							51.70											
9.00	79.40							53.40											
9.30	80.40							54.60											
9.50	81.40							55.80											
9.70	82.40							56.90											
9.90	83.40							58.30											
10.30	84.70							59.50											
10.50	86.00							60.70											
10.80	87.10							62.30											
11.00	88.50							63.60											
11.60	89.80							64.70											
11.90	91.10							66.20											
12.40	92.40							67.20											
12.50	93.60							68.30											
12.90	95.20							70.00											
13.30	96.60							71.30											

DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET	WBS NO.	PROJECT TIP I.D.	ROUTE
	34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
	COUNTY	FIELD PROFESSIONAL	FIELD CREW
	Haywood	M. Brewer	C. Odom/D. Underwood

Test Location	Date Run	Test Location	Date Run
	9/27-10/1, 10/11-10/13		9/27-10/1, 10/11-10/13

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

I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

C-36 Y5RPC Sta. 15+80 EB RAMP OSS

0 1 2

FEET

C-81 Y5RPB Sta. 14+04 WB RAMP OSS

C-81 Y5RPB Sta. 14+04 WB RAMP OSS (continued)

0 1 2

FEET

SOIL TEST RESULTS

SAMPLE NO.	ALIGNMENT	LANE	OFFSET	STATION	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-81	Y5RPB	WB RAMP OSS	6.8 RT FW	14+04	3.1-5.0	A-4(1)	40	6	24.8%	31.0%	22.0%	22.1%	90.7%	77.1%	44.9%	23.2%	ND

*FROM WHITE LINE (FW)
*FROM YELLOW LINE (FY)

Prepared in the Office of:
F&ME CONSULTANTS, INC.
COLUMBIA, SOUTH CAROLINA
NCDOT LAB CERT. NO. 132–0212

PROJECT REFERENCE NO.	SHEET NO.
I–2513AA/AB	86

REFERENCE: I–2513AA/AB

PROJECT: 34165

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

LABORATORY TEST RESULTS (CHEMICAL)

Prepared in the Office of:
F&ME CONSULTANTS, INC.
COLUMBIA, SOUTH CAROLINA
NCDOT LAB CERT. NO. 132–0212

F&ME CONSULTANTS, INC.
3112 DEVINE STREET, COLUMBIA SC 29205
(CERT No.: 130-0212)

Project Asheville I-26 Connector **T.I.P. No.** I-2513A **County** Buncombe **F&ME Job No.** C8806 - Task 00003

Date Received 10/5/2021 **Date Reported** 11/9/2021 **Tested By** J. Hiers **CERT No.:** 130-04-0212

SOIL TEST RESULTS

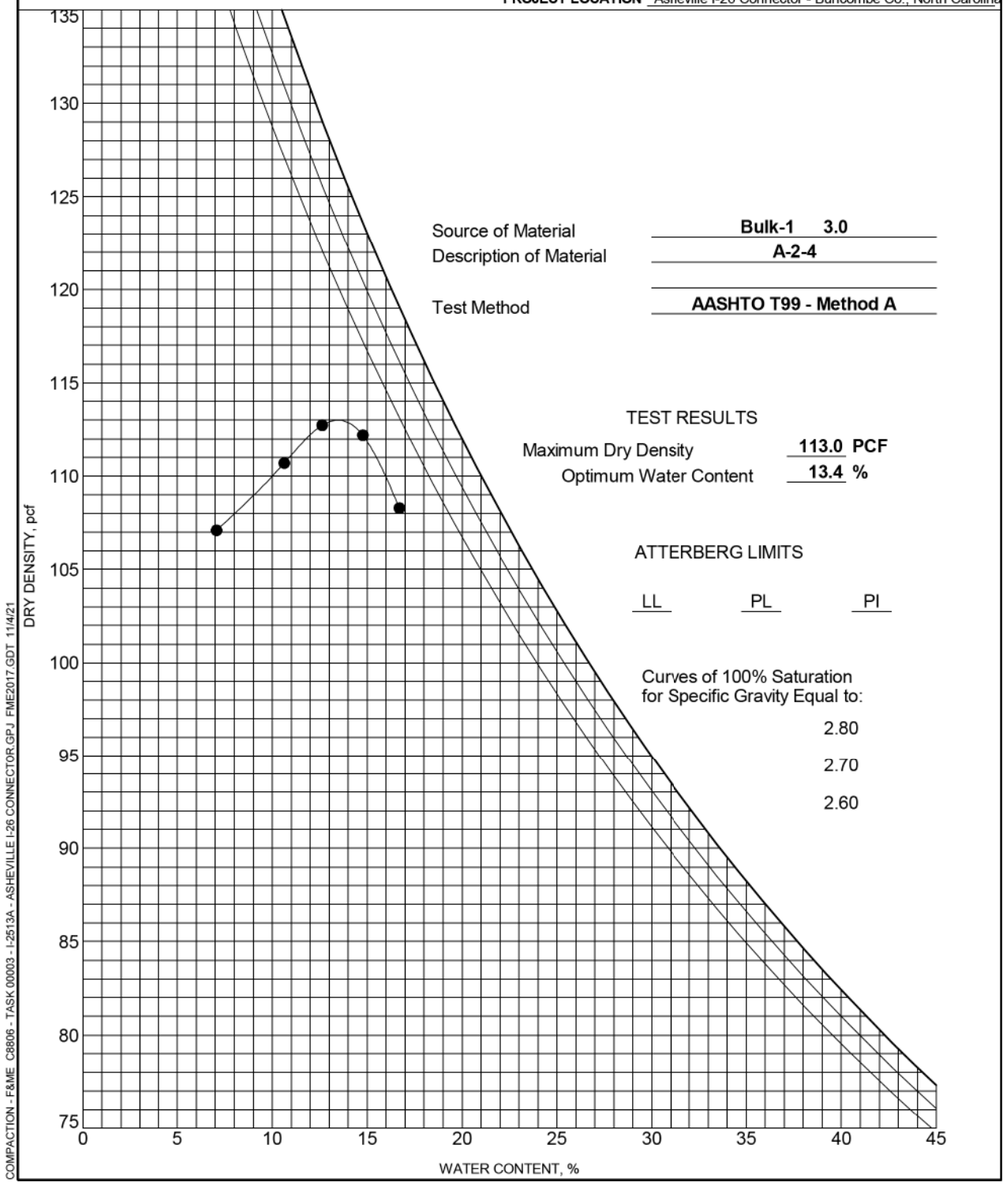
SAMPLE NO.	*OFFSET*	*STATION*	*DEPTH INTERVAL (ft.)*	*AASHTO CLASS*	*L.L.*	*P.I.*	*% BY WEIGHT*				*% PASSING (SIEVES)*			*%*	*%*
							C. SAND	*F. SAND*	*SILT*	*CLAY*	*10*	*40*	*200*	*MOISTURE*	*ORGANIC*
Bulk-1	RT	80+34	1.0 - 3.0	A-2-4	28	NP	45.3%	26.5%	22.1%	6.0%	91%	60%	30.0%	14.5%	ND
Bulk-2	RT	20+62	1.0 - 3.0	A-4(0)	39	NP	27.5%	36.9%	31.6%	4.0%	95%	79%	40.3%	28.0%	ND
Bulk-3	LT	43+96	1.0 - 3.0	A-2-4	32	NP	34.0%	35.4%	20.5%	10.0%	78%	61%	28.7%	15.3%	ND
Bulk-4	LT	20+42	1.0 - 3.0	A-2-4	39	NP	33.7%	33.4%	22.8%	10.1%	82%	63%	31.6%	19.2%	ND
Bulk-5	LT	52+17	1.0 - 3.0	A-7-5(2)	41	11	32.6%	27.5%	19.8%	20.1%	93%	71%	41.5%	17.3%	ND

F&ME CONSULTANTS

MOISTURE-DENSITY RELATIONSHIP

PROJECT ID C8806.000 - Task 00003 (NCDOT TIP# I-1513A) **PROJECT NAME** Asheville I-26 Connector

PROJECT LOCATION Asheville I-26 Connector - Buncombe Co., North Carolina



Source of Material: **Bulk-1 3.0**

Description of Material: **A-2-4**

Test Method: **AASHTO T99 - Method A**

TEST RESULTS

Maximum Dry Density: **113.0** PCF

Optimum Water Content: **13.4** %

ATTERBERG LIMITS

LL	PL	PI

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

COMPACTION - F&ME C8806 - TASK 00003 - I-2513A - ASHEVILLE I-26 CONNECTOR.GPJ FME2017.GDT 11/4/21

PROJECT REFERENCE NO.	SHEET NO.
I–2513AA/AB	

REV 08/2021

CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

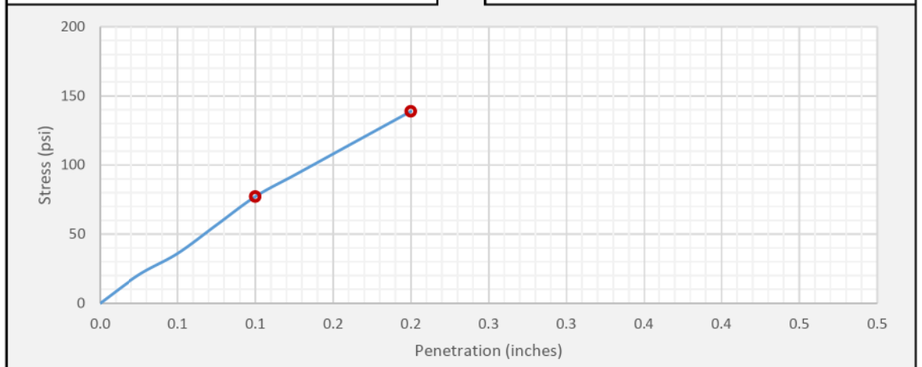
Project Name	Asheville I-26 Connector			NCDOT STIP #	I-2513A
Sample Location	Bulk-1 (Specimen 1)			FME Lab ID	21-2278
Soil Description	A-2-4			Depth/Elev.	1.0' - 3.0'
Date Sampled	10/1/21	Sampled By:	CG2	Date Received	10/05/21
Date Test Began	10/15/21	Date Completed	10/19/21	Tested By	M. Johnson

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	113.0	Optimum Moisture Content (%)	13.4
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
7.7	**9.3**



Before Soaking	
Initial Dry Density (lb/ft^3)	112.2
Moisture Content	13.4%
Percent Compaction	99.3%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	109.7
Moisture Content (Top 1")	18.2%
Percent Compaction	97.1%
Percent Shrink/Swell	0.3%

ADDITIONAL COMMENTS

LL=28, PL=NP, PI=NP, %Passing #200 Sieve = 30.0
80+34 - RT

F&ME CONSULTANTS

F&ME Consultants, Inc.
3112 Devine Street, Columbia, SC 29205

Reviewed By

130-04-0212
NCDOT Certification No.

10/22/21
Date

REV 08/2021

CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

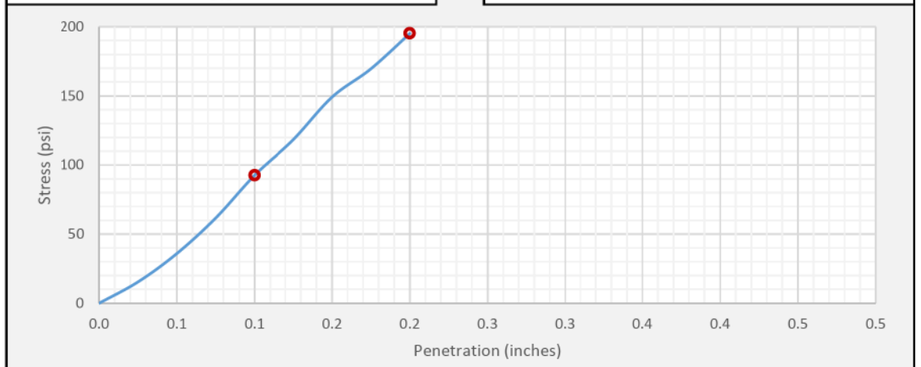
Project Name	Asheville I-26 Connector			NCDOT STIP #	I-2513A
Sample Location	Bulk-1 (Specimen 2)			FME Lab ID	21-2278
Soil Description	A-2-4			Depth/Elev.	1.0' - 3.0'
Date Sampled	10/1/21	Sampled By:	CG2	Date Received	10/05/21
Date Test Began	10/15/21	Date Completed	10/19/21	Tested By	M. Johnson

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	113.0	Optimum Moisture Content (%)	13.4
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
9.3	**13.0**



Before Soaking	
Initial Dry Density (lb/ft^3)	112.4
Moisture Content	13.3%
Percent Compaction	99.4%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	110.1
Moisture Content (Top 1")	17.6%
Percent Compaction	97.4%
Percent Shrink/Swell	0.3%

ADDITIONAL COMMENTS

LL=28, PL=NP, PI=NP, %Passing #200 Sieve = 30.0
80+34 - RT

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Reviewed By

130-04-0212
NCDOT Certification No.

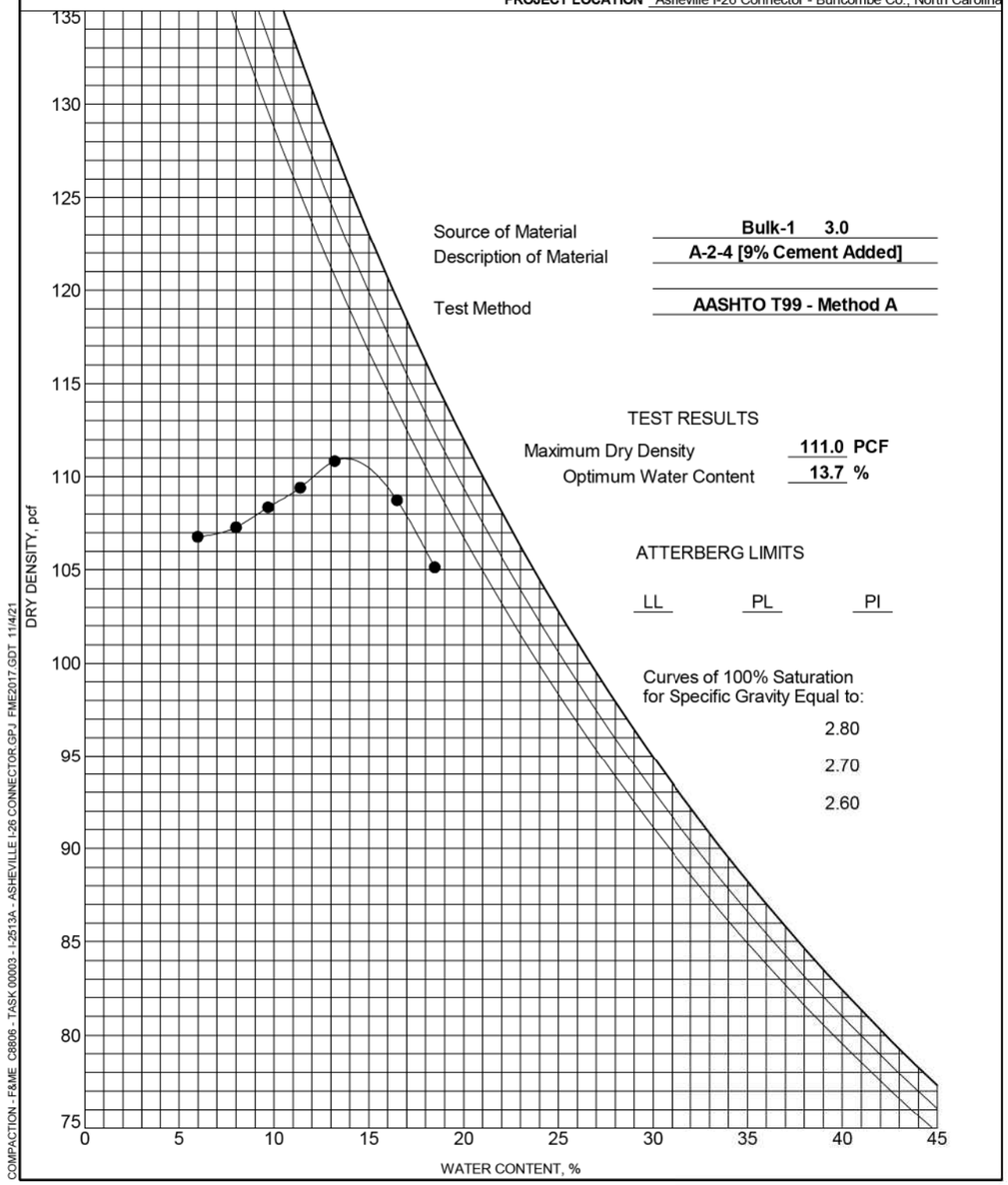
10/22/21
Date

MOISTURE-DENSITY RELATIONSHIP

F&ME CONSULTANTS

PROJECT ID C8806.000 - Task 00003 (NCDOT TIP# I-1513A) **PROJECT NAME** Asheville I-26 Connector

PROJECT LOCATION Asheville I-26 Connector - Buncombe Co., North Carolina



Source of Material: **Bulk-1 3.0**

Description of Material: **A-2-4 [9% Cement Added]**

Test Method: **AASHTO T99 - Method A**

TEST RESULTS

Maximum Dry Density: **111.0 PCF**

Optimum Water Content: **13.7 %**

ATTERBERG LIMITS

LL PL PI

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

COMPACTION - F&ME C8806 - TASK 00003 - I-2513A - ASHEVILLE I-26 CONNECTOR.GPJ F&ME2017.GDT 11/4/21

REV 08/2021

COMPRESSIVE STRENGTH OF MOLDED SOIL-CEMENT CYLINDERS
ASTM D-1633

SAMPLE INFORMATION

Project Name	Asheville I-26 Connector			NCDOT STIP #	I-2513A
Sample Location	Bulk-1			FME Lab ID	21-2278
Soil Description	A-2-4			Depth/Elev.	1.0 - 3.0 ft.
Station	80+34			Offset	RT
Date Sampled	10/01/21	Sampled By:	CG2	Date Received	10/05/21
Date Molded	10/27/21	Date Tested	11/03/21	Tested By	M. Johnson

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Cement Added to Proctor	9%
Max Dry Density (lb/ft^3)	111.0	Optimum Moisture Content (%)	13.7

TESTING RESULTS

% Cement	Age (Days)	Moisture Content	Height (in.)	Diameter (in.)	Area (in.^{2})	Maximum Load (lbf)	Compressive Strength (psi)	Avgerage Compressive Strength (psi)
8%	7	13.3%	4.590	3.996	12.54	6,126	490	**480**
8%	7	13.2%	4.620	3.996	12.54	5,942	475	
10%	7	13.3%	4.609	3.997	12.55	7,413	590	**570**
10%	7	13.2%	4.605	3.998	12.55	6,959	555	

ADDITIONAL COMMENTS

Bulk Soil Sample Data (without Cement Added):

LL=28, PL=NP, PI=NP

%Passing #200 Sieve = 30.0%

As-Received Natural Moisture Content = 14.5%

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130-04-0212 — NCDOT Certification No.

Reviewed By

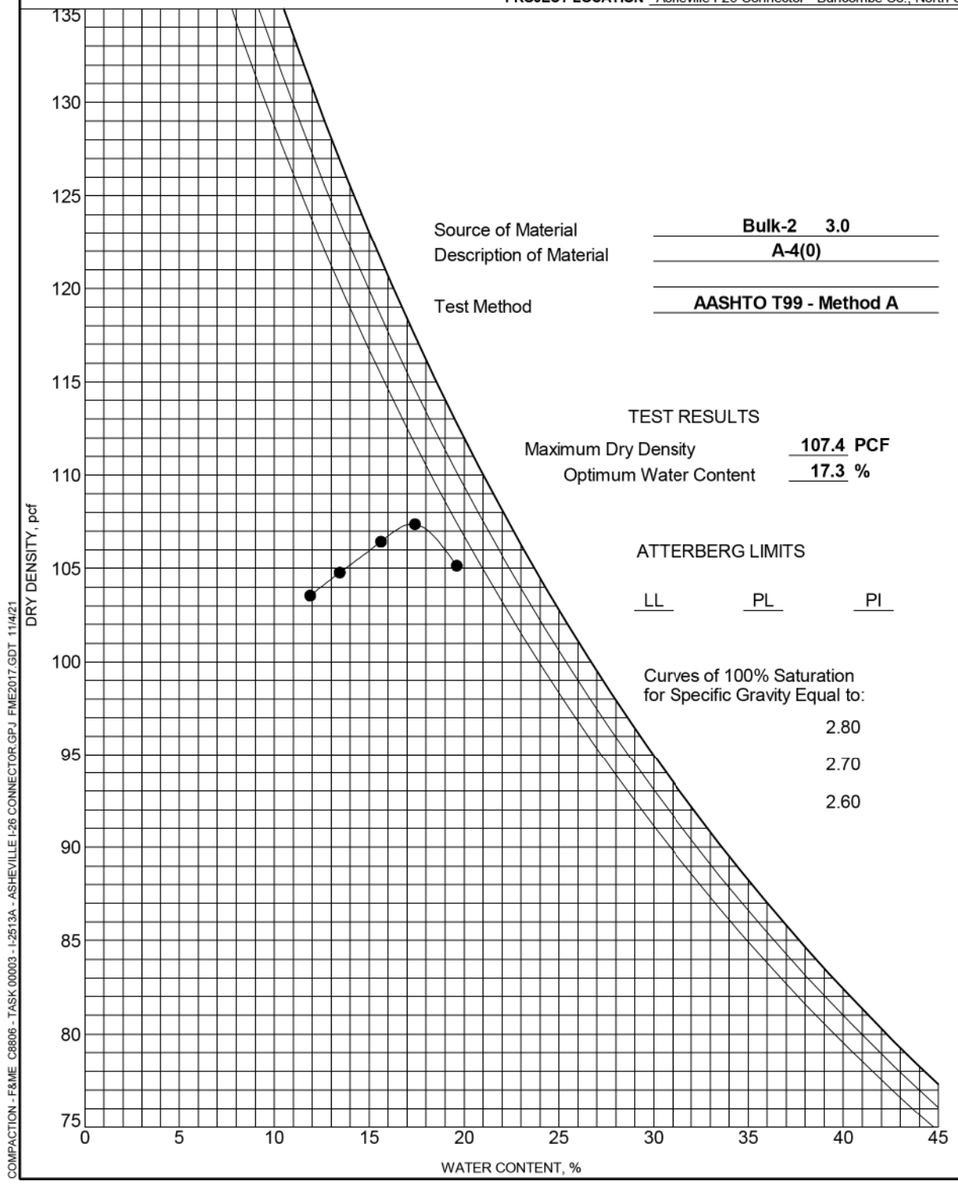
11/03/21 — Date

F&ME CONSULTANTS

MOISTURE-DENSITY RELATIONSHIP

PROJECT ID C8806.000 - Task 00003 (NCDOT TIP# I-1513A) **PROJECT NAME** Asheville I-26 Connector

PROJECT LOCATION Asheville I-26 Connector - Buncombe Co., North Carolina



Source of Material: **Bulk-2 3.0**

Description of Material: **A-4(0)**

Test Method: **AASHTO T99 - Method A**

TEST RESULTS

Maximum Dry Density: **107.4** **PCF**

Optimum Water Content: **17.3** **%**

ATTERBERG LIMITS

LL	PL	PI

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

COMPACTION - F&ME C8806 - TASK 00003 - I-2513A - ASHEVILLE I-26 CONNECTOR.GPJ FME2017.GDT 11/4/21

REV 08/2021

CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

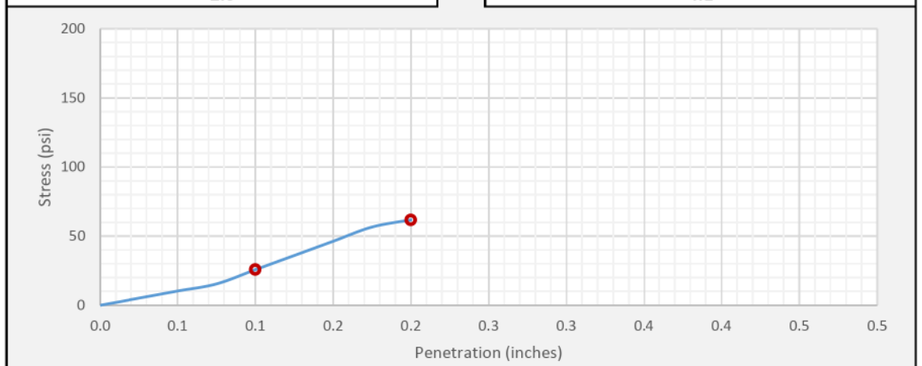
Project Name	Asheville I-26 Connector			NCDOT STIP #	I-2513A
Sample Location	Bulk-2 (Specimen 1)			FME Lab ID	21-2278
Soil Description	A-4(0)			Depth/Elev.	1.0' - 3.0'
Date Sampled	10/1/21	Sampled By:	CG2	Date Received	10/05/21
Date Test Began	10/15/21	Date Completed	10/19/21	Tested By	M. Johnson

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	107.4	Optimum Moisture Content (%)	17.3
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
2.6	**4.1**



Before Soaking	
Initial Dry Density (lb/ft^3)	105.1
Moisture Content	17.3%
Percent Compaction	97.8%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	99.4
Moisture Content (Top 1")	25.6%
Percent Compaction	92.6%
Percent Shrink/Swell	1.8%

ADDITIONAL COMMENTS

LL=39, PL=NP, PI=NP, %Passing #200 Sieve = 40.3
20+62 - RT

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130-04-0212
NCDOT Certification No.

10/22/21
Date

REV 08/2021

CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

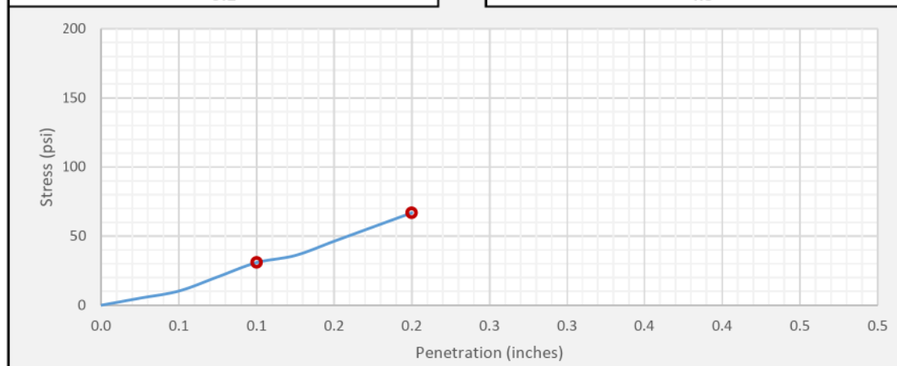
Project Name	Asheville I-26 Connector			NCDOT STIP #	I-2513A
Sample Location	Bulk-2 (Specimen 2)			FME Lab ID	21-2278
Soil Description	A-4(0)			Depth/Elev.	1.0' - 3.0'
Date Sampled	10/1/21	Sampled By:	CG2	Date Received	10/05/21
Date Test Began	10/15/21	Date Completed	10/19/21	Tested By	M. Johnson

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	107.4	Optimum Moisture Content (%)	17.3
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
3.1	**4.5**



Before Soaking	
Initial Dry Density (lb/ft^3)	105.2
Moisture Content	17.3%
Percent Compaction	98.0%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	99.5
Moisture Content (Top 1")	26.3%
Percent Compaction	92.7%
Percent Shrink/Swell	2.0%

ADDITIONAL COMMENTS

LL=39, PL=NP, PI=NP, %Passing #200 Sieve = 40.3
20+62 - RT

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10/22/21
Date

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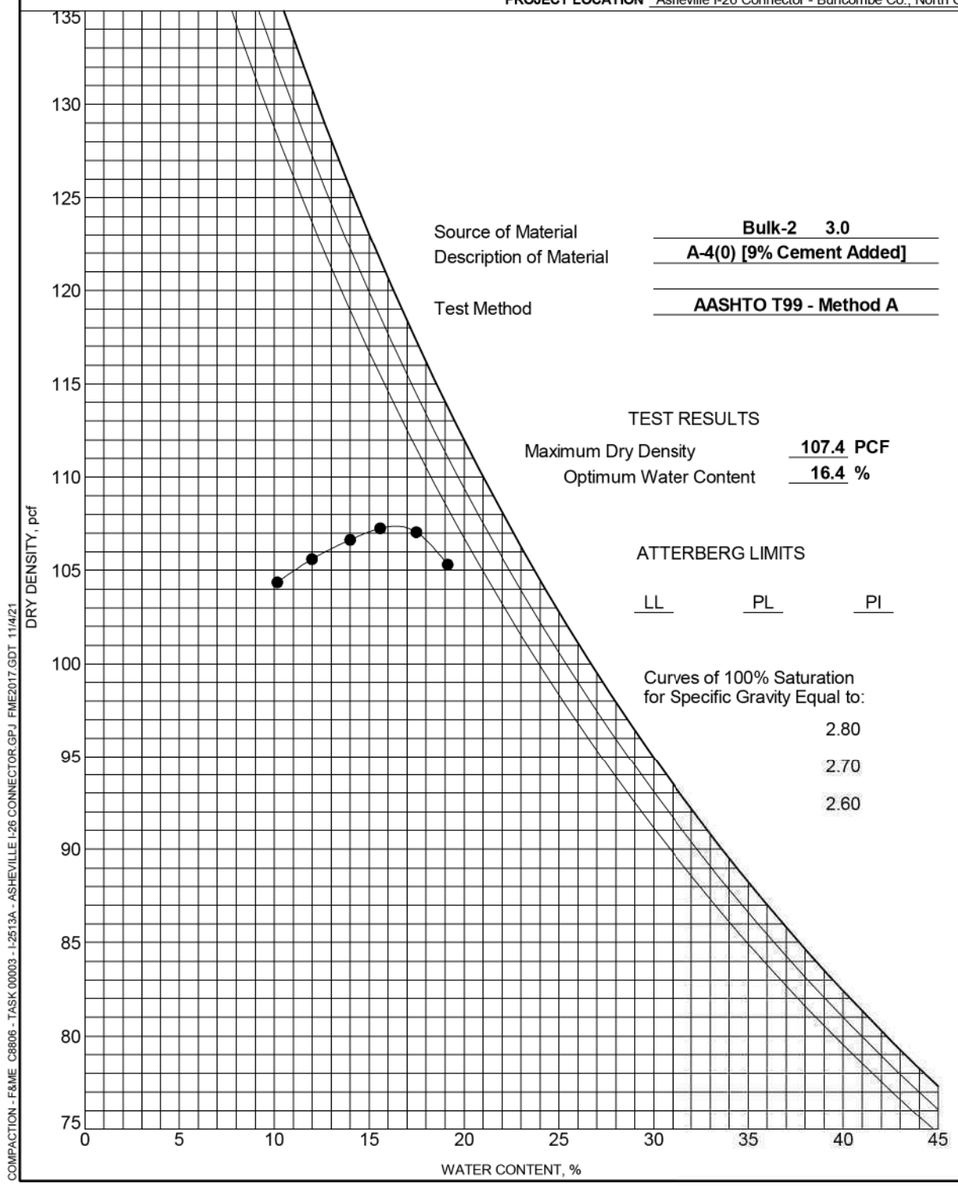
MOISTURE-DENSITY RELATIONSHIP

PROJECT ID C8806.000 - Task 00003 (NCDOT TIP# I-1513A) **PROJECT NAME** Asheville I-26 Connector

PROJECT LOCATION Asheville I-26 Connector - Buncombe Co., North Carolina



COMPACTION - F&ME C8806 - TASK 00003 - I-2513A - ASHEVILLE I-26 CONNECTOR.GPJ FME2017.GDT 11/4/21

REV 08/2021

COMPRESSIVE STRENGTH OF MOLDED SOIL-CEMENT CYLINDERS
ASTM D-1633

SAMPLE INFORMATION

Project Name	Asheville I-26 Connector			NCDOT STIP #	I-2513A
Sample Location	Bulk-2			FME Lab ID	21-2279
Soil Description	A-4(0)			Depth/Elev.	1.0 - 3.0 ft.
Station	20+62			Offset	RT
Date Sampled	10/01/21	Sampled By:	CG2	Date Received	10/05/21
Date Molded	10/27/21	Date Tested	11/03/21	Tested By	M. Johnson

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Cement Added to Proctor	9%
Max Dry Density (lb/ft^3)	107.4	Optimum Moisture Content (%)	16.4

TESTING RESULTS

% Cement	Age (Days)	Moisture Content	Height (in.)	Diameter (in.)	Area (in.^{2})	Maximum Load (lbf)	Compressive Strength (psi)	Avgerage Compressive Strength (psi)
8%	7	16.0%	4.604	3.995	12.53	3,582	285	290
8%	7	15.8%	4.591	3.996	12.54	3,552	285	
10%	7	15.9%	4.610	3.996	12.54	4,046	325	330
10%	7	15.8%	4.613	3.999	12.56	4,072	325	

ADDITIONAL COMMENTS

Bulk Soil Sample Data (without Cement Added):

LL=39, PL=NP, PI=NP

%Passing #200 Sieve = 40.3%

As-Received Natural Moisture Content = 28.0%

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NCDOT Certification No.

11/03/21
Date

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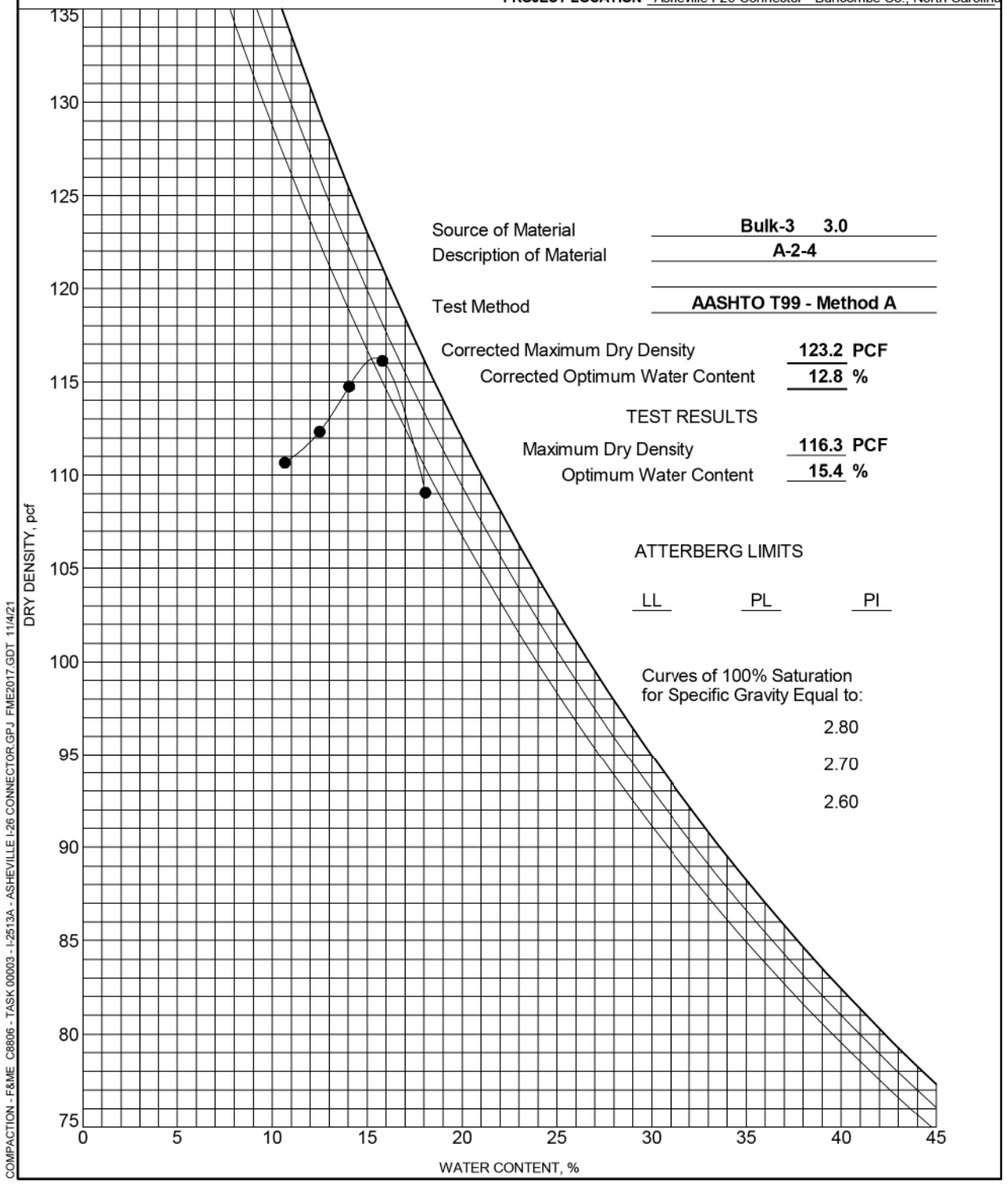
MOISTURE-DENSITY RELATIONSHIP

PROJECT ID C8806.000 - Task 00003 (NCDOT TIP# I-1513A) **PROJECT NAME** Asheville I-26 Connector

PROJECT LOCATION Asheville I-26 Connector - Buncombe Co., North Carolina



Source of Material: **Bulk-3 3.0**

Description of Material: **A-2-4**

Test Method: **AASHTO T99 - Method A**

Corrected Maximum Dry Density: **123.2** PCF

Corrected Optimum Water Content: **12.8** %

TEST RESULTS

Maximum Dry Density: **116.3** PCF

Optimum Water Content: **15.4** %

ATTERBERG LIMITS

LL	PL	PI

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

COMPACTION - F&ME C8806 - TASK 00003 - I-2513A - ASHEVILLE I-26 CONNECTOR.GPJ FME2017.GDT 11/4/21

REV 08/2021

CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

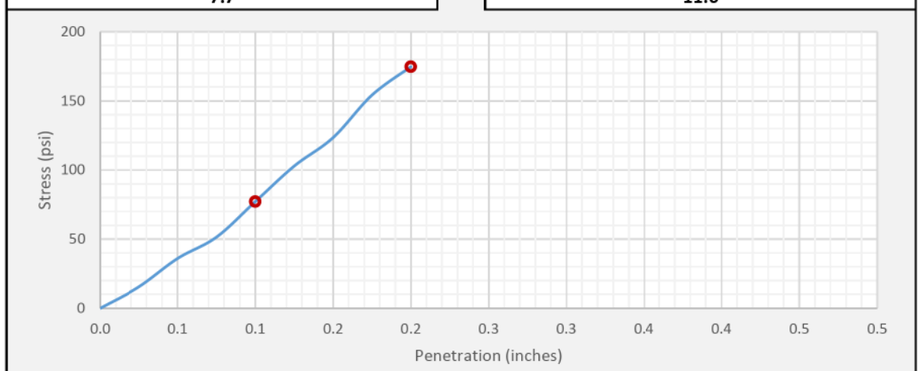
Project Name	Asheville I-26 Connector			NCDOT STIP #	I-2513A
Sample Location	Bulk-3 (Specimen 1)			FME Lab ID	21-2278
Soil Description	A-2-4			Depth/Elev.	1.0' - 3.0'
Date Sampled	10/1/21	Sampled By:	CG2	Date Received	10/05/21
Date Test Began	10/15/21	Date Completed	10/19/21	Tested By	M. Johnson

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	116.3	Optimum Moisture Content (%)	15.4
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
7.7	**11.6**



Before Soaking	
Initial Dry Density (lb/ft^3)	113.4
Moisture Content	15.7%
Percent Compaction	97.5%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	112.0
Moisture Content (Top 1")	18.1%
Percent Compaction	96.3%
Percent Shrink/Swell	0.2%

ADDITIONAL COMMENTS

LL=32, PL=NP, PI=NP, %Passing #200 Sieve = 28.7
43+96 - LT

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3112 Devine Street, Columbia, SC 29205

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130-04-0212
NCDOT Certification No.

10/22/21
Date

REV 08/2021

CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

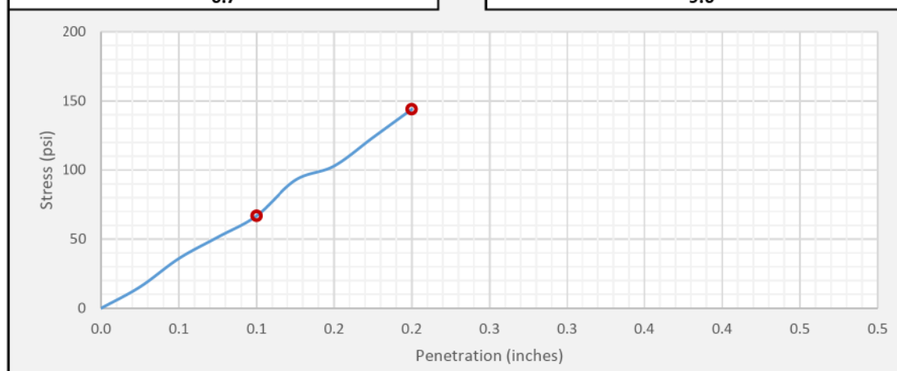
Project Name	Asheville I-26 Connector			NCDOT STIP #	I-2513A
Sample Location	Bulk-3 (Specimen 2)			FME Lab ID	21-2278
Soil Description	A-2-4			Depth/Elev.	1.0' - 3.0'
Date Sampled	10/1/21	Sampled By:	CG2	Date Received	10/05/21
Date Test Began	10/15/21	Date Completed	10/19/21	Tested By	M. Johnson

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	116.3	Optimum Moisture Content (%)	15.4
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
6.7	**9.6**



Before Soaking	
Initial Dry Density (lb/ft^3)	113.3
Moisture Content	15.5%
Percent Compaction	97.4%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	111.4
Moisture Content (Top 1")	18.5%
Percent Compaction	95.8%
Percent Shrink/Swell	0.2%

ADDITIONAL COMMENTS

LL=32, PL=NP, PI=NP, %Passing #200 Sieve = 28.7
43+96 - LT

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Reviewed By

130-04-0212
NCDOT Certification No.

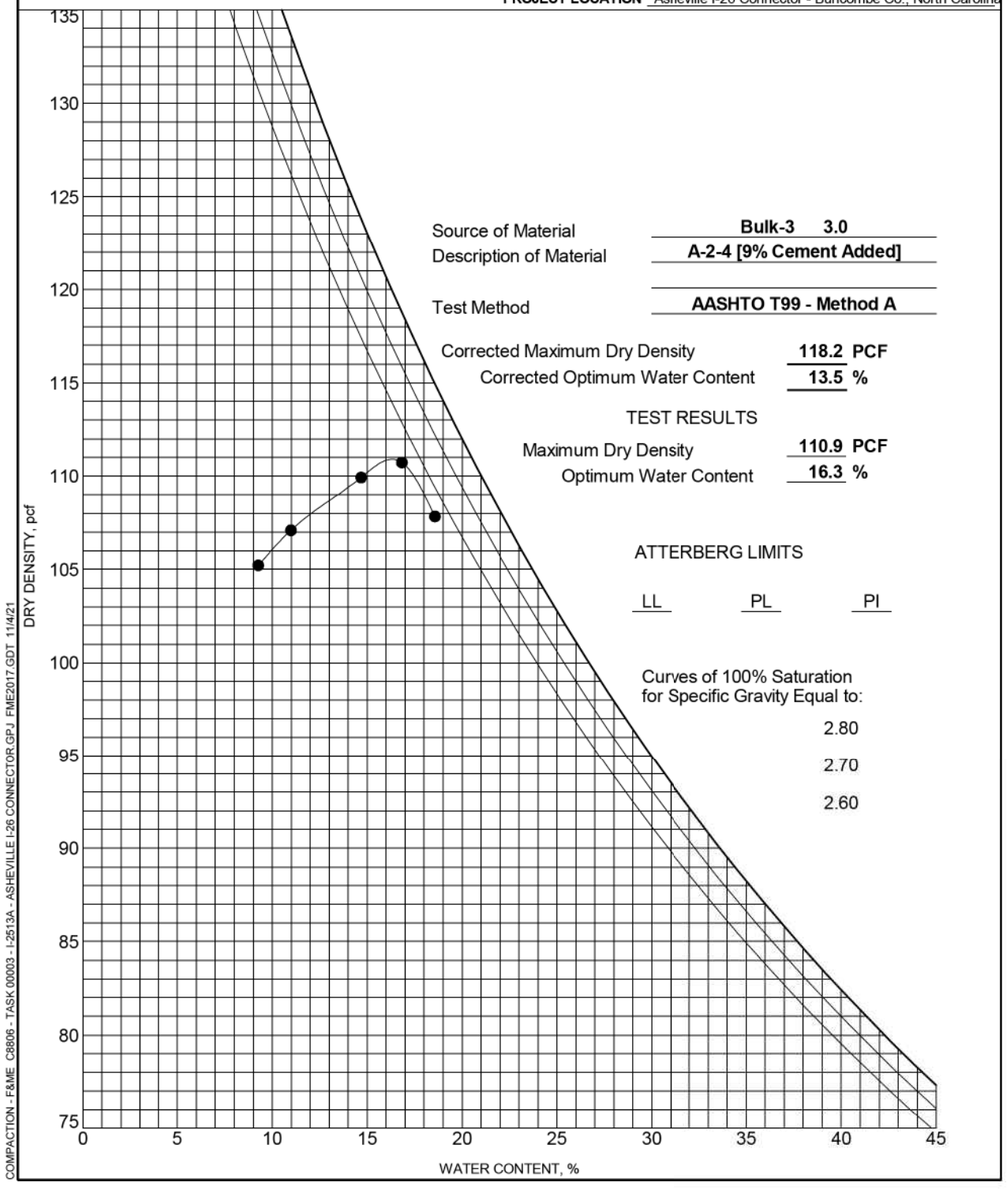
10/22/21
Date

MOISTURE-DENSITY RELATIONSHIP

F&ME CONSULTANTS

PROJECT ID C8806.000 - Task 00003 (NCDOT TIP# I-1513A) **PROJECT NAME** Asheville I-26 Connector

PROJECT LOCATION Asheville I-26 Connector - Buncombe Co., North Carolina



Source of Material: Bulk-3 3.0

Description of Material: A-2-4 [9% Cement Added]

Test Method: AASHTO T99 - Method A

Corrected Maximum Dry Density: 118.2 PCF

Corrected Optimum Water Content: 13.5 %

TEST RESULTS

Maximum Dry Density: 110.9 PCF

Optimum Water Content: 16.3 %

ATTERBERG LIMITS

LL PL PI

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

COMPACTION - F&ME C8806 - TASK 00003 - I-2513A - ASHEVILLE I-26 CONNECTOR.GPJ FME2017.GDT 11/4/21

REV 08/2021

COMPRESSIVE STRENGTH OF MOLDED SOIL-CEMENT CYLINDERS ASTM D-1633

SAMPLE INFORMATION

Project Name	Asheville I-26 Connector			NCDOT STIP #	I-2513A
Sample Location	Bulk-3			FME Lab ID	21-2280
Soil Description	A-4(0)			Depth/Elev.	1.0 - 3.0 ft.
Station	43+96			Offset	LT
Date Sampled	10/01/21	Sampled By:	CG2	Date Received	10/05/21
Date Molded	10/27/21	Date Tested	11/03/21	Tested By	M. Johnson

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Cement Added to Proctor	9%
Max Dry Density (lb/ft^3)	110.9	Optimum Moisture Content (%)	16.3

TESTING RESULTS

% Cement	Age (Days)	Moisture Content	Height (in.)	Diameter (in.)	Area (in.^{2})	Maximum Load (lbf)	Compressive Strength (psi)	Avgerage Compressive Strength (psi)
8%	7	15.8%	4.618	4.001	12.57	4,499	360	330
8%	7	15.8%	4.588	3.996	12.54	3,753	300	
10%	7	16.1%	4.604	3.996	12.54	5,283	420	390
10%	7	15.8%	4.628	4.000	12.57	4,586	365	

ADDITIONAL COMMENTS

Bulk Soil Sample Data (without Cement Added):

LL=32, PL=NP, PI=NP

%Passing #200 Sieve = 28.7%

As-Received Natural Moisture Content = 15.3%

F&ME CONSULTANTS

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3112 Devine Street, Columbia, SC 29205

Reviewed By

130-04-0212 NCDOT Certification No.

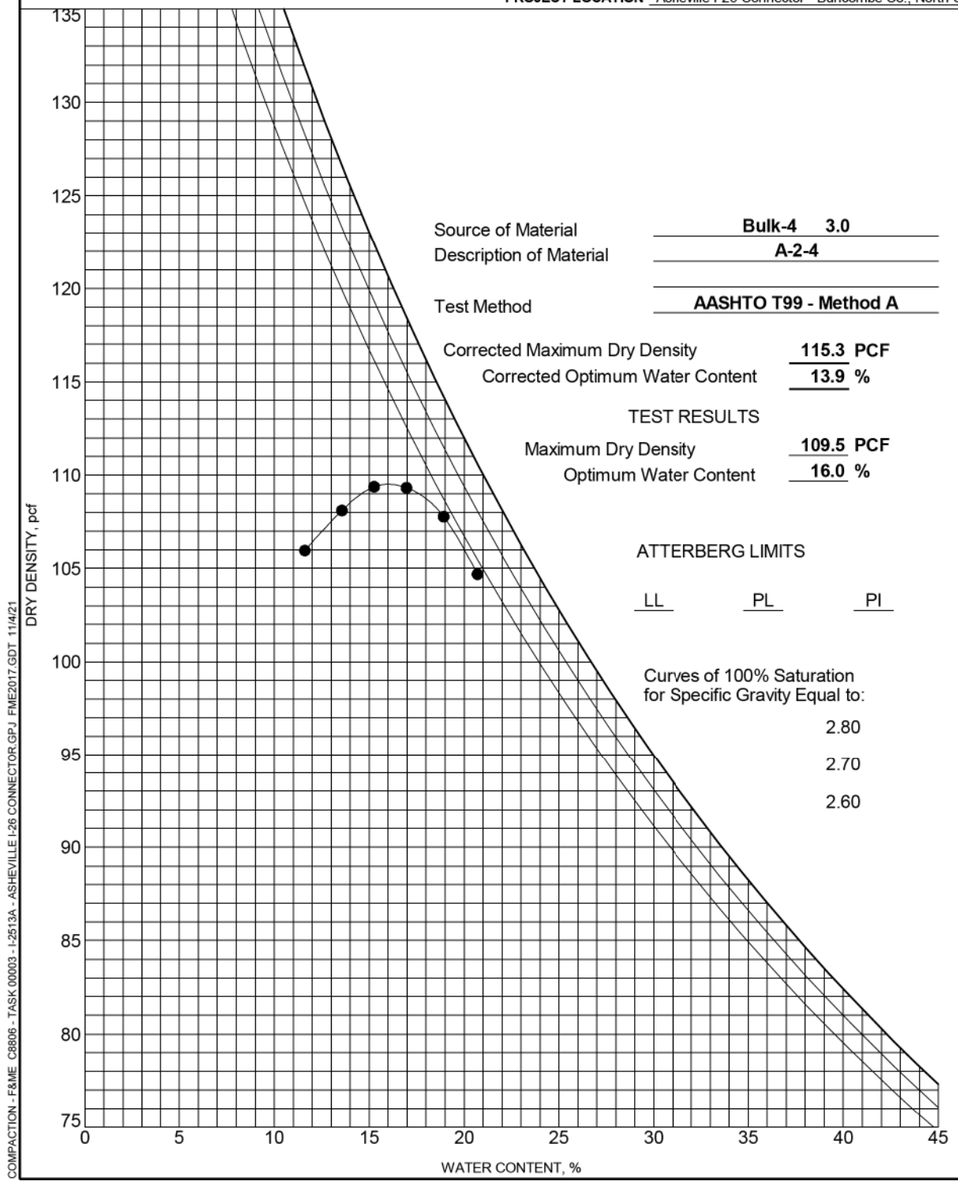
11/03/21 Date

F&ME CONSULTANTS

MOISTURE-DENSITY RELATIONSHIP

PROJECT ID C8806.000 - Task 00003 (NCDOT TIP# I-1513A) **PROJECT NAME** Asheville I-26 Connector

PROJECT LOCATION Asheville I-26 Connector - Buncombe Co., North Carolina



Source of Material: **Bulk-4 3.0**

Description of Material: **A-2-4**

Test Method: **AASHTO T99 - Method A**

Corrected Maximum Dry Density: **115.3** PCF

Corrected Optimum Water Content: **13.9** %

TEST RESULTS

Maximum Dry Density: **109.5** PCF

Optimum Water Content: **16.0** %

ATTERBERG LIMITS

LL	PL	PI

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

COMPACTION - F&ME C8806 - TASK 00003 - I-2513A - ASHEVILLE I-26 CONNECTOR.GPJ FME2017.GDT 11/4/21

REV 08/2021

CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

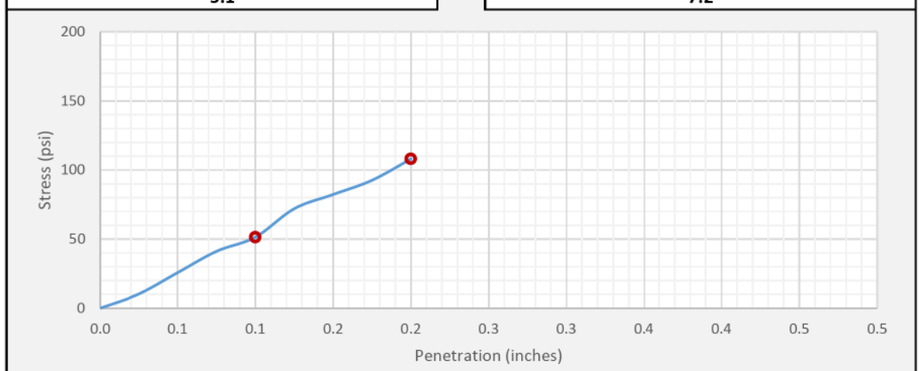
Project Name	Asheville I-26 Connector			NCDOT STIP #	I-2513A
Sample Location	Bulk-4 (Specimen 1)			FME Lab ID	21-2278
Soil Description	A-2-4			Depth/Elev.	1.0' - 3.0'
Date Sampled	10/1/21	Sampled By:	CG2	Date Received	10/05/21
Date Test Began	10/15/21	Date Completed	10/19/21	Tested By	M. Johnson

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	109.5	Optimum Moisture Content (%)	16.0
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
5.1	**7.2**



Before Soaking	
Initial Dry Density (lb/ft^3)	108.6
Moisture Content	15.8%
Percent Compaction	99.2%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	103.4
Moisture Content (Top 1")	24.4%
Percent Compaction	94.5%
Percent Shrink/Swell	1.7%

ADDITIONAL COMMENTS

LL=39, PL=NP, PI=NP, %Passing #200 Sieve = 31.6
20+42 - LT

F&ME CONSULTANTS

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3112 Devine Street, Columbia, SC 29205

Reviewed By

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NCDOT Certification No.

10/22/21
Date

REV 08/2021

CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

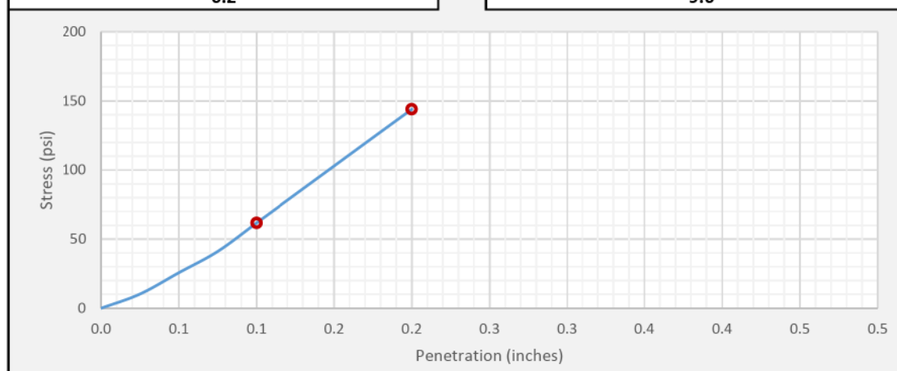
Project Name	Asheville I-26 Connector			NCDOT STIP #	I-2513A
Sample Location	Bulk-4 (Specimen 2)			FME Lab ID	21-2278
Soil Description	A-2-4			Depth/Elev.	1.0' - 3.0'
Date Sampled	10/1/21	Sampled By:	CG2	Date Received	10/05/21
Date Test Began	10/15/21	Date Completed	10/19/21	Tested By	M. Johnson

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	109.5	Optimum Moisture Content (%)	16.0
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
6.2	**9.6**



Before Soaking	
Initial Dry Density (lb/ft^3)	109.5
Moisture Content	16.3%
Percent Compaction	100.0%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	104.1
Moisture Content (Top 1")	24.1%
Percent Compaction	95.1%
Percent Shrink/Swell	1.5%

ADDITIONAL COMMENTS

LL=39, PL=NP, PI=NP, %Passing #200 Sieve = 31.6
20+42 - LT

F&ME CONSULTANTS

F&ME Consultants, Inc.
3112 Devine Street, Columbia, SC 29205

Reviewed By

130-04-0212
NCDOT Certification No.

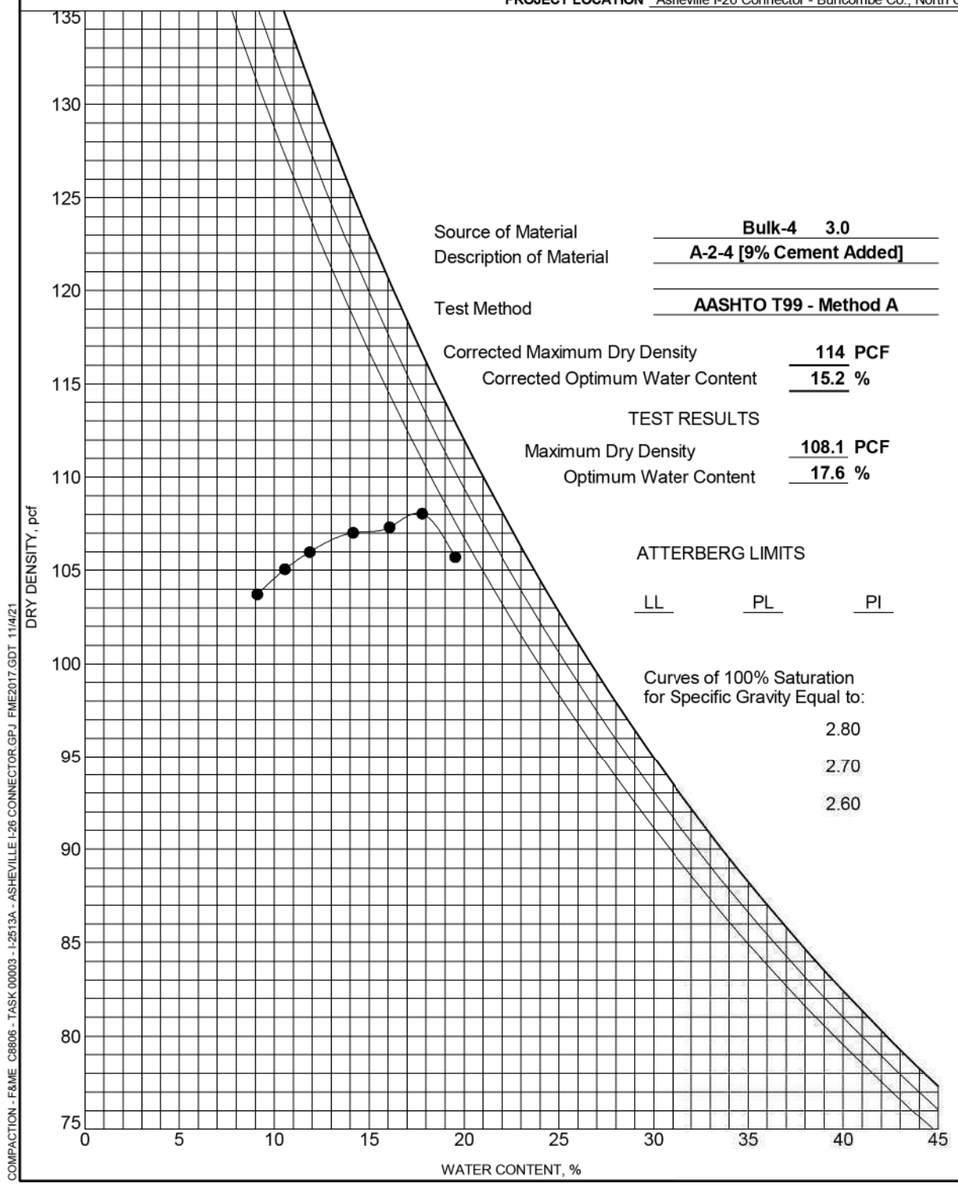
10/22/21
Date

F&ME CONSULTANTS

MOISTURE-DENSITY RELATIONSHIP

PROJECT ID C8806.000 - Task 00003 (NCDOT TIP# I-1513A) **PROJECT NAME** Asheville I-26 Connector

PROJECT LOCATION Asheville I-26 Connector - Buncombe Co., North Carolina



Source of Material: **Bulk-4 3.0**

Description of Material: **A-2-4 [9% Cement Added]**

Test Method: **AASHTO T99 - Method A**

Corrected Maximum Dry Density: **114 PCF**

Corrected Optimum Water Content: **15.2 %**

TEST RESULTS

Maximum Dry Density: **108.1 PCF**

Optimum Water Content: **17.6 %**

ATTERBERG LIMITS

LL PL PI

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

COMPACTION - F&ME C8806 - TASK 00003 - I-2513A - ASHEVILLE I-26 CONNECTOR.GPJ FME2017.GDT 11/4/21

REV 08/2021

COMPRESSIVE STRENGTH OF MOLDED SOIL-CEMENT CYLINDERS
ASTM D-1633

SAMPLE INFORMATION

Project Name	Asheville I-26 Connector			NCDOT STIP #	I-2513A
Sample Location	Bulk-4			FME Lab ID	21-2281
Soil Description	A-2-4			Depth/Elev.	1.0 - 3.0 ft.
Station	20+42			Offset	LT
Date Sampled	10/01/21	Sampled By:	CG2	Date Received	10/05/21
Date Molded	10/27/21	Date Tested	11/03/21	Tested By	M. Johnson

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Cement Added to Proctor	9%
Max Dry Density (lb/ft^3)	108.1	Optimum Moisture Content (%)	17.6

TESTING RESULTS

% Cement	Age (Days)	Moisture Content	Height (in.)	Diameter (in.)	Area (in.^{2})	Maximum Load (lbf)	Compressive Strength (psi)	Avgerage Compressive Strength (psi)
8%	7	17.3%	4.614	4.004	12.59	3,374	270	280
8%	7	17.3%	4.621	4.000	12.57	3,668	290	
10%	7	17.3%	4.623	3.998	12.55	4,073	325	330
10%	7	17.2%	4.637	4.000	12.57	4,196	335	

ADDITIONAL COMMENTS

Bulk Soil Sample Data (without Cement Added):

LL=39, PL=NP, PI=NP

%Passing #200 Sieve = 31.6%

As-Received Natural Moisture Content = 19.2%

F&ME CONSULTANTS

F&ME Consultants, Inc.

3112 Devine Street, Columbia, SC 29205

130-04-0212
NCDOT Certification No.

Reviewed By

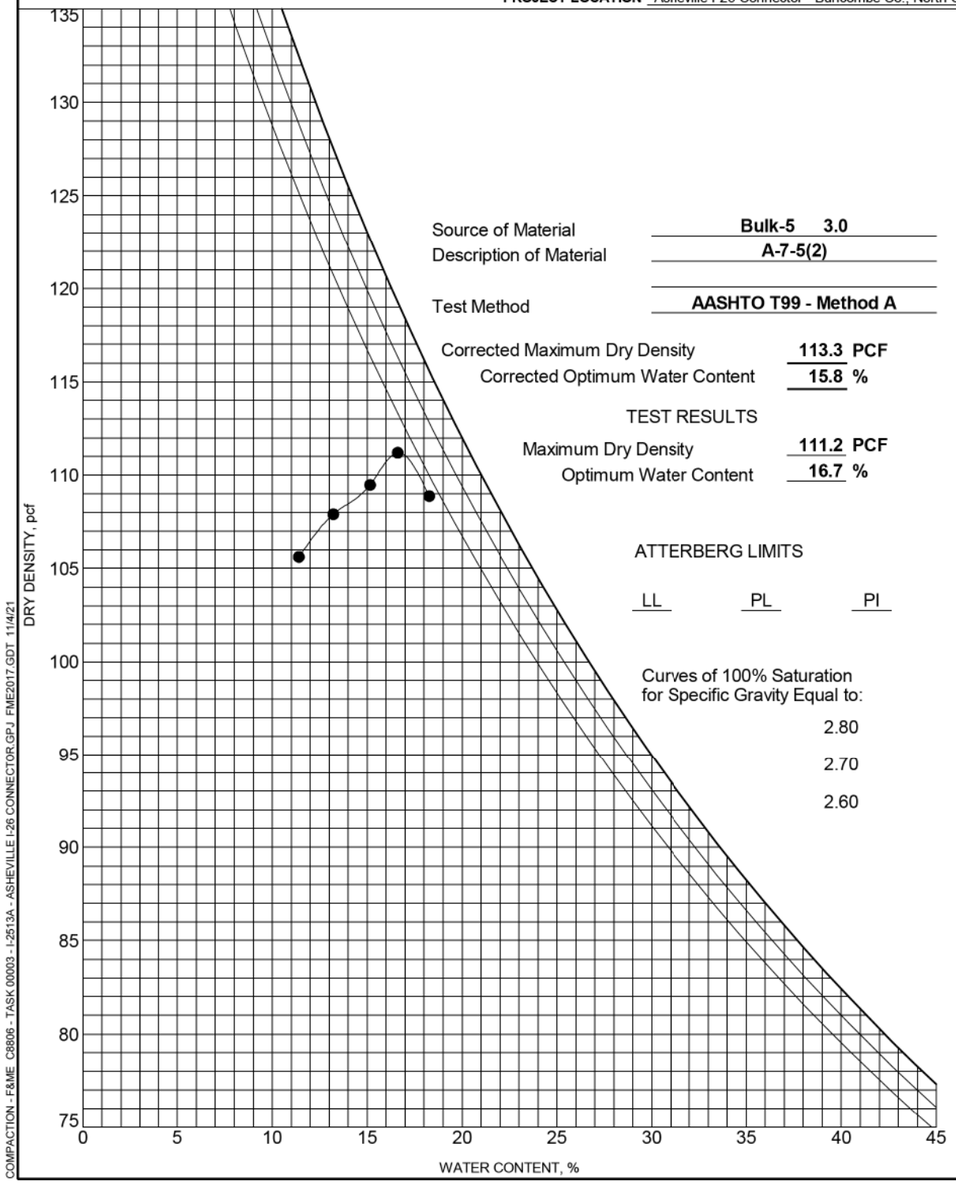
11/03/21
Date

F&ME CONSULTANTS

MOISTURE-DENSITY RELATIONSHIP

PROJECT ID C8806.000 - Task 00003 (NCDOT TIP# I-1513A) **PROJECT NAME** Asheville I-26 Connector

PROJECT LOCATION Asheville I-26 Connector - Buncombe Co., North Carolina



Source of Material: **Bulk-5 3.0**

Description of Material: **A-7-5(2)**

Test Method: **AASHTO T99 - Method A**

Corrected Maximum Dry Density: **113.3 PCF**

Corrected Optimum Water Content: **15.8 %**

TEST RESULTS

Maximum Dry Density: **111.2 PCF**

Optimum Water Content: **16.7 %**

ATTERBERG LIMITS

LL	PL	PI

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

COMPACTION - F&ME C8806 - TASK 00003 - I-2513A - ASHEVILLE I-26 CONNECTOR.GPJ FME2017.GDT 11/4/21

REV 08/2021

CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

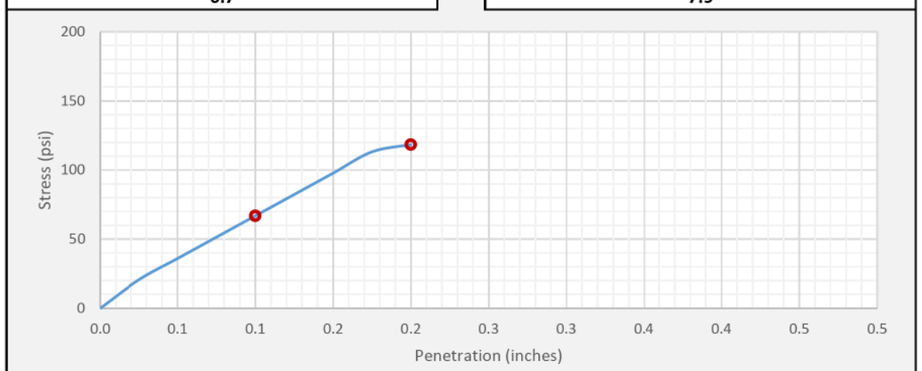
Project Name	Asheville I-26 Connector			NCDOT STIP #	I-2513A
Sample Location	Bulk-5 (Specimen 1)			FME Lab ID	21-2278
Soil Description	A-2-4			Depth/Elev.	1.0' - 3.0'
Date Sampled	10/1/21	Sampled By:	CG2	Date Received	10/05/21
Date Test Began	10/15/21	Date Completed	10/19/21	Tested By	M. Johnson

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	111.2	Optimum Moisture Content (%)	16.7
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
6.7	**7.9**



Before Soaking	
Initial Dry Density (lb/ft^3)	111.3
Moisture Content	16.7%
Percent Compaction	100.1%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	109.2
Moisture Content (Top 1")	20.0%
Percent Compaction	98.2%
Percent Shrink/Swell	0.4%

ADDITIONAL COMMENTS

LL=41, PL=30, PI=11, %Passing #200 Sieve = 41.5
52+17 - LT

F&ME CONSULTANTS

F&ME Consultants, Inc.
3112 Devine Street, Columbia, SC 29205

Reviewed By

130-04-0212
NCDOT Certification No.

10/22/21
Date

REV 08/2021

CALIFORNIA BEARING RATIO (CBR)
AASHTO T193

SAMPLE INFORMATION

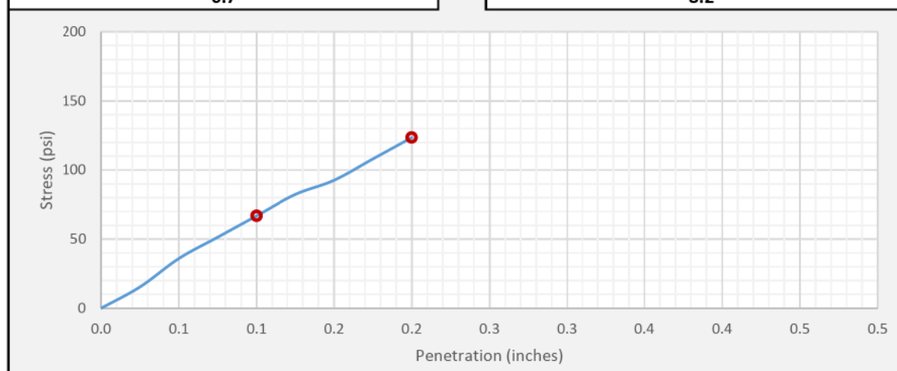
Project Name	Asheville I-26 Connector			NCDOT STIP #	I-2513A
Sample Location	Bulk-5 (Specimen 2)			FME Lab ID	21-2278
Soil Description	A-2-4			Depth/Elev.	1.0' - 3.0'
Date Sampled	10/1/21	Sampled By:	CG2	Date Received	10/05/21
Date Test Began	10/15/21	Date Completed	10/19/21	Tested By	M. Johnson

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft^3)	111.2	Optimum Moisture Content (%)	16.7
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
6.7	**8.2**



Before Soaking	
Initial Dry Density (lb/ft^3)	110.3
Moisture Content	16.5%
Percent Compaction	99.2%
Percent Shrink/Swell	--

After Soaking	
Dry Density (lb/ft^3)	108.4
Moisture Content (Top 1")	19.5%
Percent Compaction	97.5%
Percent Shrink/Swell	0.5%

ADDITIONAL COMMENTS

LL=41, PL=30, PI=11, %Passing #200 Sieve = 41.5
52+17 - LT

F&ME CONSULTANTS

F&ME Consultants, Inc.
3112 Devine Street, Columbia, SC 29205

Reviewed By

130-04-0212
NCDOT Certification No.

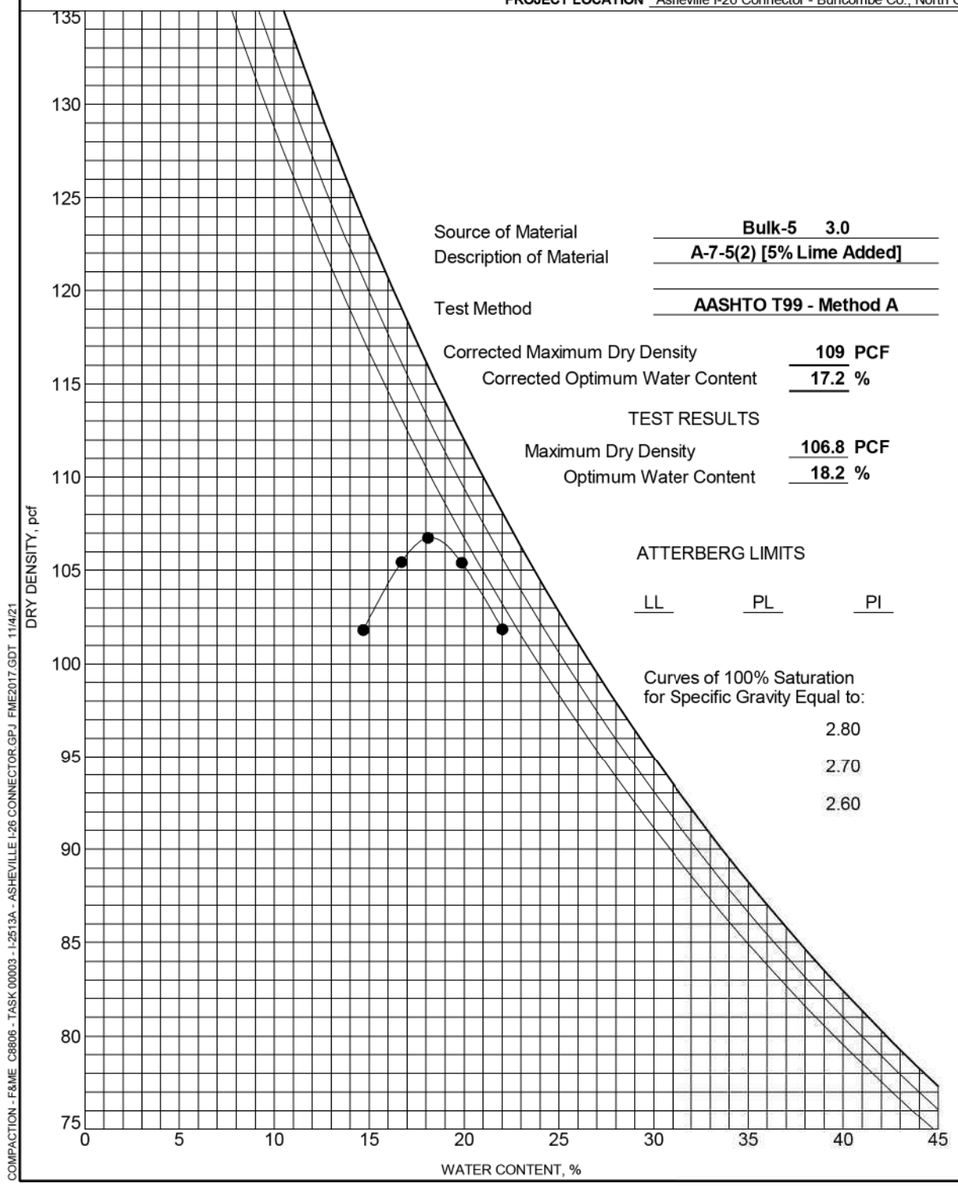
10/22/21
Date

F&ME CONSULTANTS

MOISTURE-DENSITY RELATIONSHIP

PROJECT ID C8806.000 - Task 00003 (NCDOT TIP# I-1513A) **PROJECT NAME** Asheville I-26 Connector

PROJECT LOCATION Asheville I-26 Connector - Buncombe Co., North Carolina



Source of Material: **Bulk-5 3.0**

Description of Material: **A-7-5(2) [5% Lime Added]**

Test Method: **AASHTO T99 - Method A**

Corrected Maximum Dry Density: **109 PCF**

Corrected Optimum Water Content: **17.2 %**

TEST RESULTS

Maximum Dry Density: **106.8 PCF**

Optimum Water Content: **18.2 %**

ATTERBERG LIMITS

LL	PL	PI

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

REV 08/2021

COMPRESSIVE STRENGTH OF MOLDED SOIL-LIME CYLINDERS
ASTM D-1633

SAMPLE INFORMATION

Project Name	Asheville I-26 Connector			NCDOT STIP #	I-2513A
Sample Location	Bulk-5			FME Lab ID	21-2282
Soil Description	A-7-5(2)			Depth/Elev.	1.0 - 3.0 ft.
Station	52+17			Offset	LT
Date Sampled	10/01/21	Sampled By:	CG2	Date Received	10/05/21
Date Molded	10/27/21	Date Tested	11/03/21	Tested By	M. Johnson

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Lime Added to Proctor	5%
Max Dry Density (lb/ft^3)	106.8	Optimum Moisture Content (%)	17.2

TESTING RESULTS

% Lime	Age (Days)	Moisture Content	Height (in.)	Diameter (in.)	Area (in.^{2})	Maximum Load (lbf)	Compressive Strength (psi)	Avgerage Compressive Strength (psi)
4%	7	18.0%	4.626	3.990	12.50	1066	85	85
4%	7	17.5%	4.605	3.997	12.55	1088	85	
6%	7	18.2%	4.63	3.996	12.54	1069	85	85
6%	7	17.9%	4.605	3.991	12.51	1076	85	

ADDITIONAL COMMENTS

Bulk Soil Sample Data (without Lime Added):

LL=41, PL=30, PI=11

%Passing #200 Sieve = 41.5%

As-Received Natural Moisture Content = 17.3%

F&ME CONSULTANTS

F&ME Consultants, Inc.

3112 Devine Street, Columbia, SC 29205

130-04-0212
NCDOT Certification No.

Reviewed By

11/03/21
Date

PROJECT REFERENCE NO.	SHEET NO.
I–2513AA/AB	103

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

PHOTOGRAPHS

REFERENCE: I–2513AA/AB

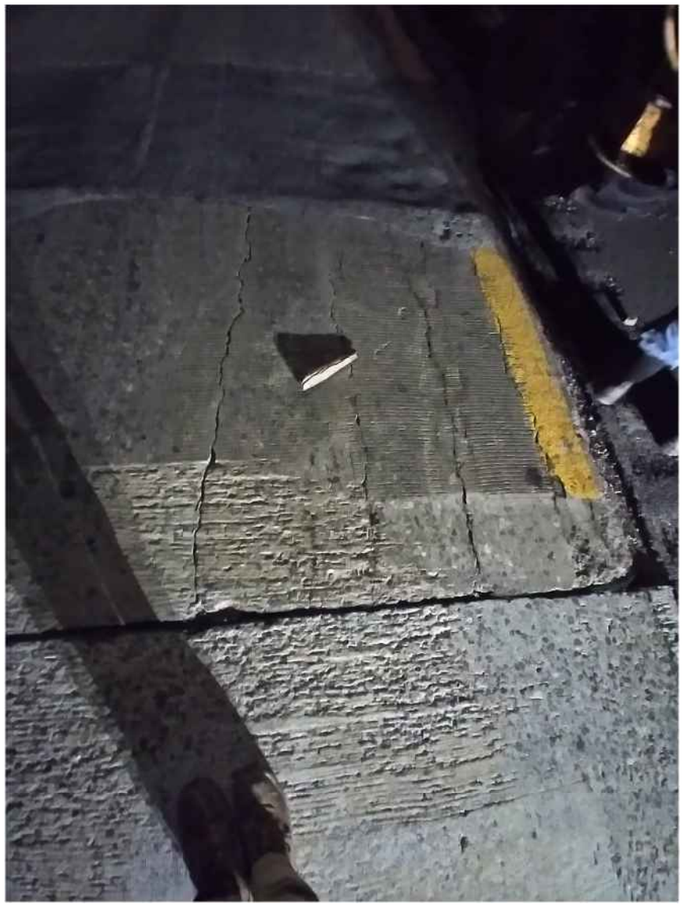
PROJECT: 34165

#1: EXAMPLE DRAINAGE SAND PHOTO – C–94

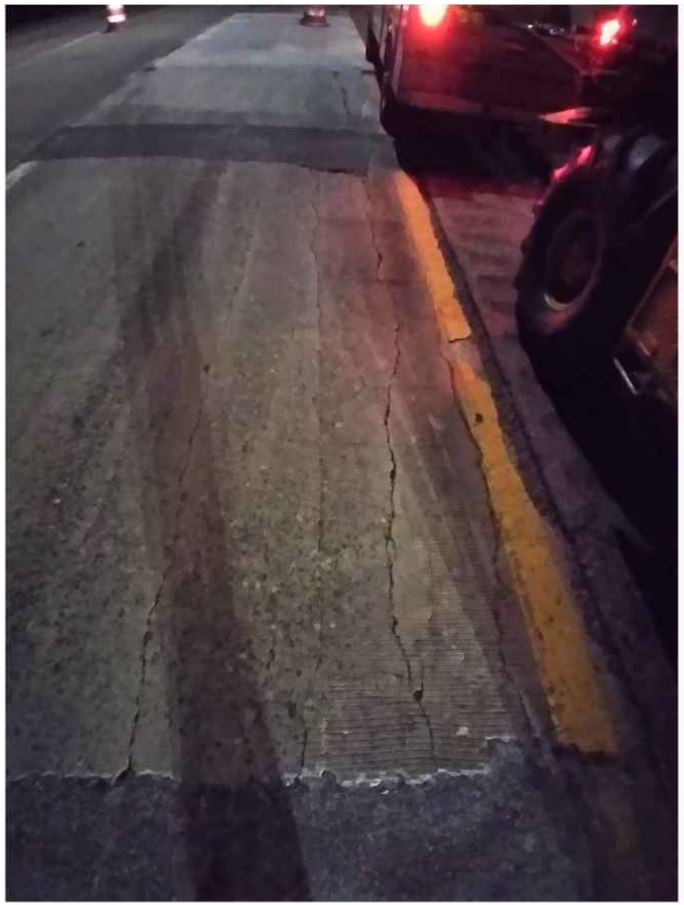
#3: EXAMPLE STBC – C–13

#2: EXAMPLE STBC – C–28

#4: EXAMPLE ABC – C–89



#5: CONCRETE DISTRESS BETWEEN PATCHES I–40 WB ISL



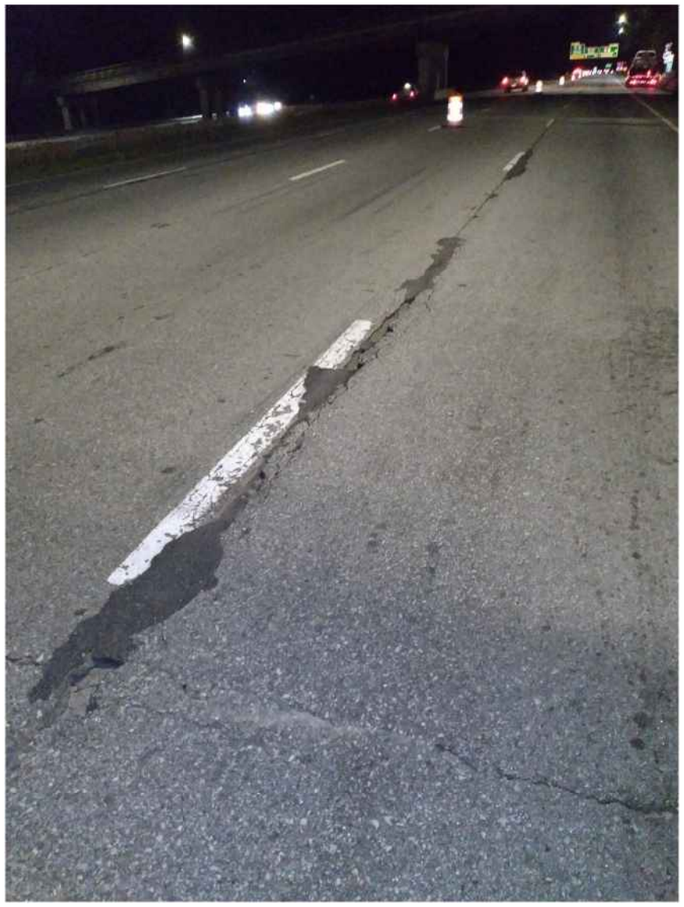
#6: CONCRETE DISTRESS BETWEEN PATCHES I–40 WB ISL

#7: CONCRETE DISTRESS – VERY FINE SPIDER WEB CRACKING AND TRANSVERSE JOINT SPALLING I–40 EB OSML

#8: SPALLING CONCRETE/POTHOLE AT TRANSVERSE JOINT, ATTEMPTED PATCH, TYPICAL

#9: SPALLING CONCRETE/POTHOLE AT TRANSVERSE JOINT, TYPICAL

#10: SPALLING CONCRETE/POTHOLE AT LONGITUDINAL JOINT, TYPICAL



#11: REFLECTIVE CRACKING AT LONGITUDINAL JOINT, SEVERE JOINT DEGRADATION, PATCHED, TYPICAL

#12: REFLECTIVE CRACKING AT LONGITUDINAL JOINT, SEVERE JOINT DEGRADATION, TYPICAL

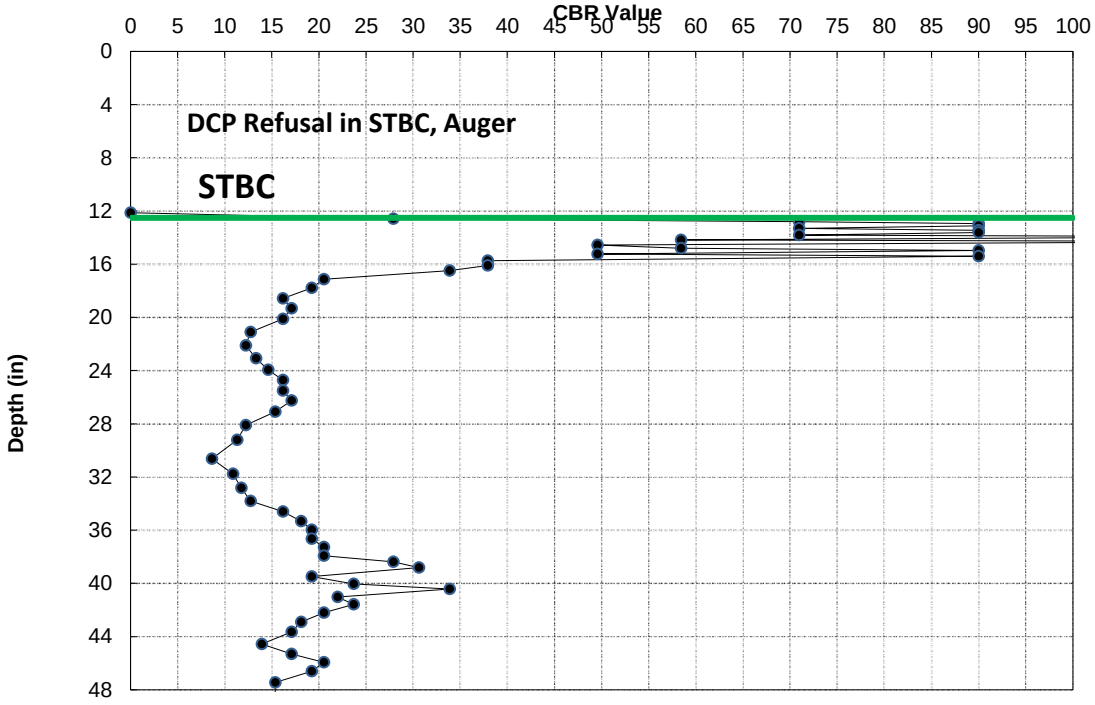
#13: REFLECTIVE CRACKING AT LONGITUDINAL AND TRANSVERSE JOINTS, SEVERE DEGREDATION OF OVERLAY, TYPICAL

C-28 Y Sta. 19+19 EB OSS 4.1 FT RT FW 8

Datum = STBC
RAW
Cut
10/11/21

Interval 12.1 to 12.6	
# of Values	1
Avg CBR	38.4
Wghtd Avg.	32.1
Max CBR	100+
Min CBR	19.2

Interval 12.6 to 51.8	
# of Values	63
Avg CBR	33.5
Wghtd Avg.	20.8
Max CBR	100+
Min CBR	8.6



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

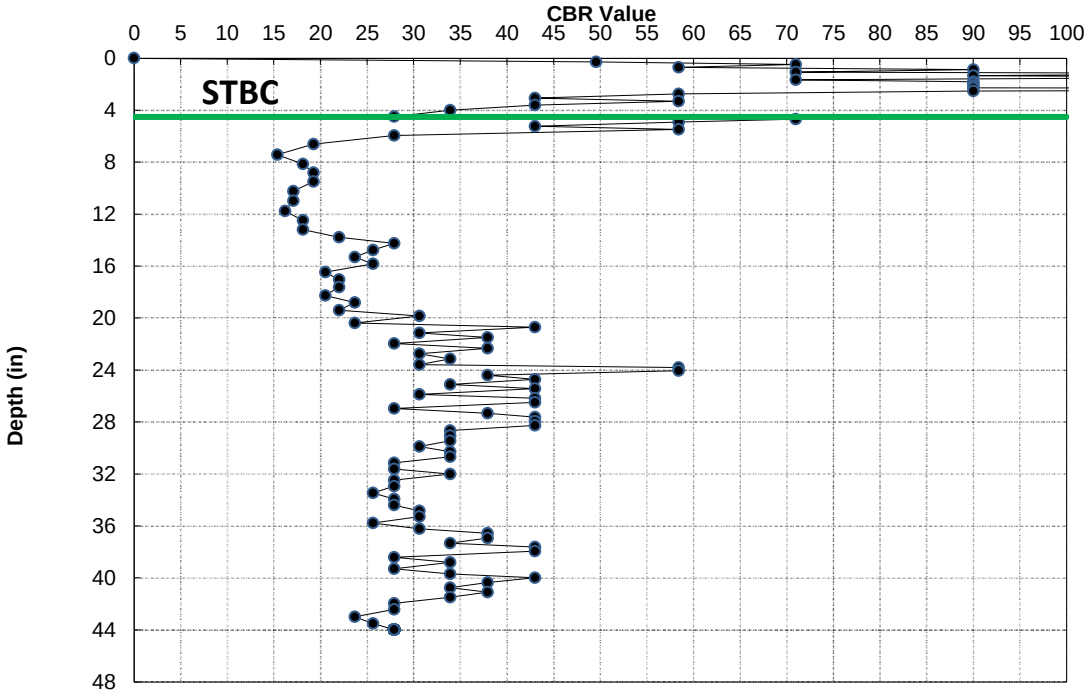
FILE	I2513AA_AB DCP Graphs

C-29 Y Sta. 23+92 EB OSS 3.7 FT RT FW 9

Datum = STBC
RAW
Cut
10/11/21

Interval 0.0 to 4.5	
# of Values	21
Avg CBR	78.5
Wghtd Avg.	65.0
Max CBR	100+
Min CBR	27.9

Interval 4.5 to 44.0	
# of Values	87
Avg CBR	32.0
Wghtd Avg.	29.1
Max CBR	70.9
Min CBR	15.4

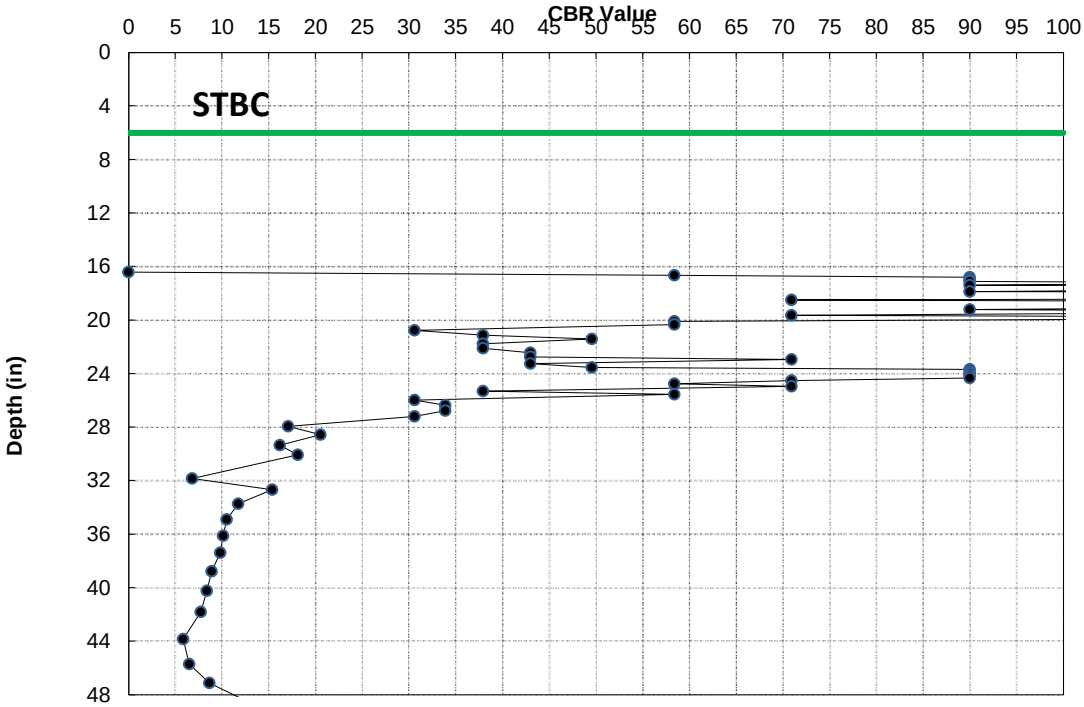


C-30 Y Sta. 30+95 EB ISS 2.0 FT LT FY 10

Datum = STBC
RAW
Cut
10/11/2021

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

Interval 16.4 to 53.1	
# of Values	76
Avg CBR	66.6
Wghtd Avg.	27.3
Max CBR	100+
Min CBR	5.8



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

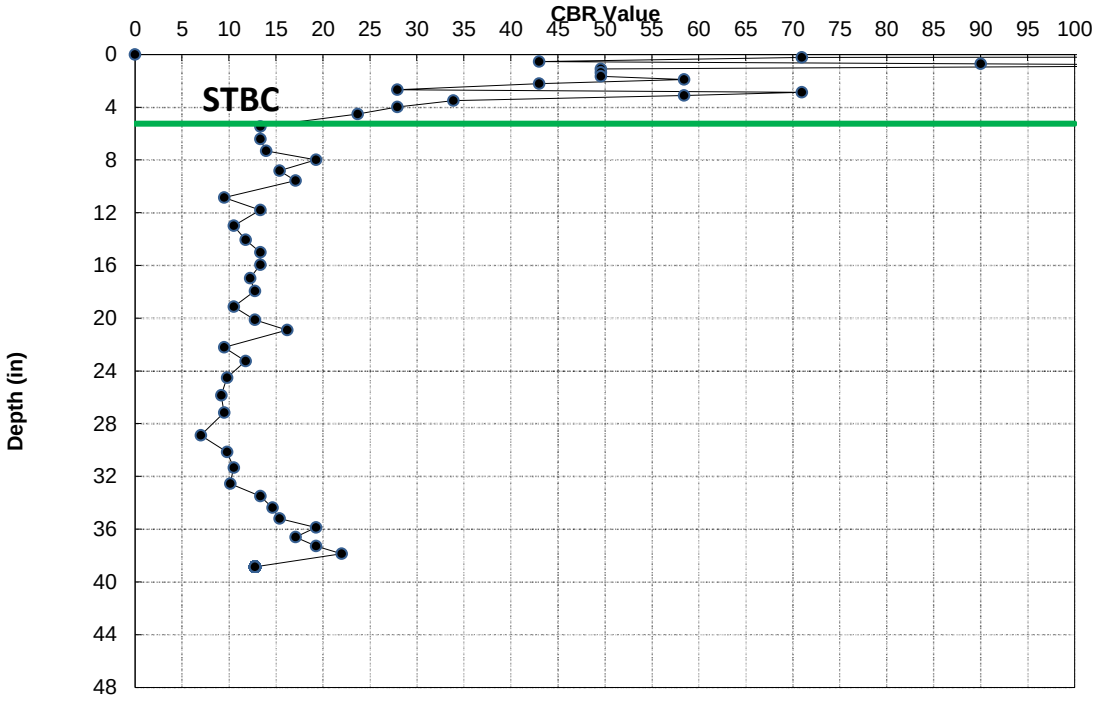
FILE	I2513AA_AB DCP Graphs

C-31 Y Sta. 30+95 EB ISL 5.6 FT RT FY 11

Datum = STBC
RAW
Cut
10/11/21

Interval 0.0 to 5.5	
# of Values	17
Avg CBR	72.2
Wghtd Avg.	42.0
Max CBR	100+
Min CBR	13.3

Interval 5.5 to 38.9	
# of Values	33
Avg CBR	13.2
Wghtd Avg.	12.4
Max CBR	22.0
Min CBR	7.0

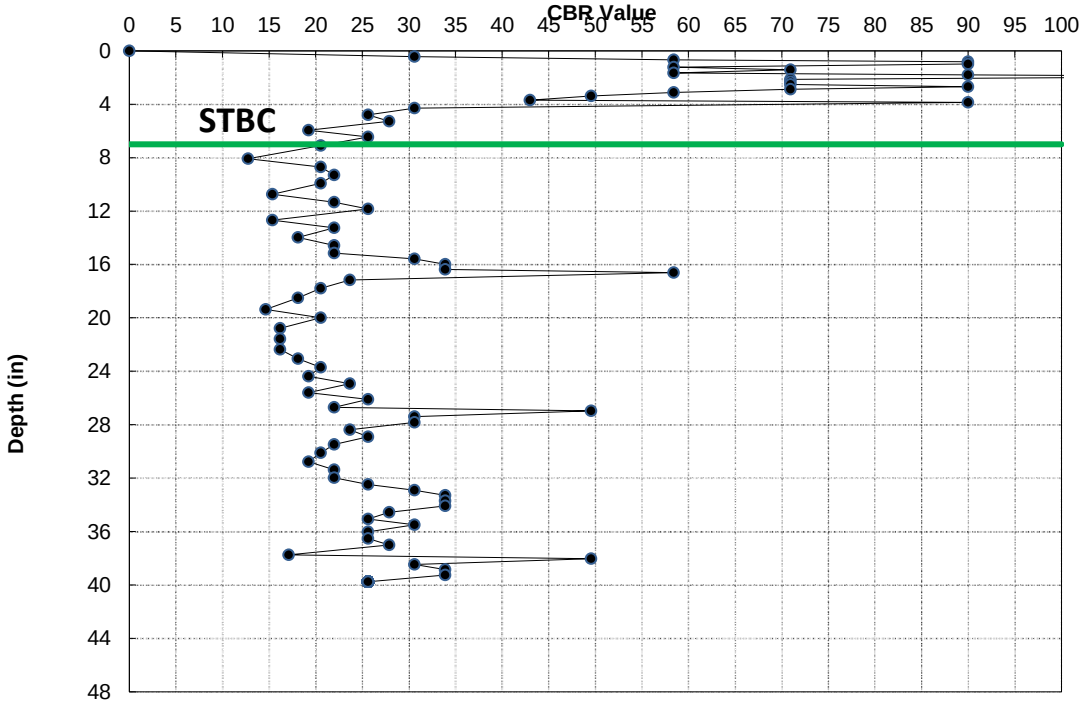


C-32 Y Sta. 30+94 EB MID-LANE 19.6 FT LT FW 12

Datum = STBC
RAW
Cut
10/11/21

Interval 0.0 to 7.1	
# of Values	24
Avg CBR	59.7
Wghtd Avg.	46.0
Max CBR	100+
Min CBR	19.2

Interval 7.1 to 39.8	
# of Values	58
Avg CBR	25.3
Wghtd Avg.	23.1
Max CBR	58.4
Min CBR	12.8



PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

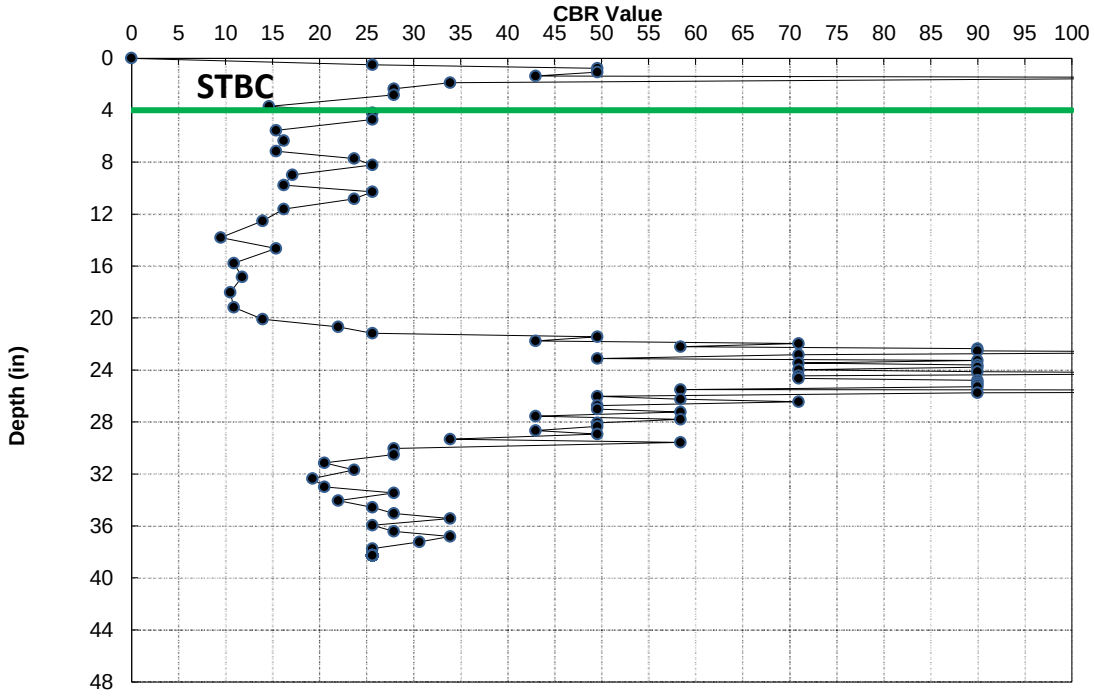
FILE	I2513AA_AB DCP Graphs

C-33 Y Sta. 30+94 EB OSL 6.6 FT LT FW 13

Datum = STBC
RAW
Cut
10/11/21

Interval 0.0 to 4.2	
# of Values	10
Avg CBR	42.0
Wghtd Avg.	31.5
Max CBR	100+
Min CBR	14.6

Interval 4.2 to 38.3	
# of Values	77
Avg CBR	47.3
Wghtd Avg.	29.9
Max CBR	100+
Min CBR	9.5

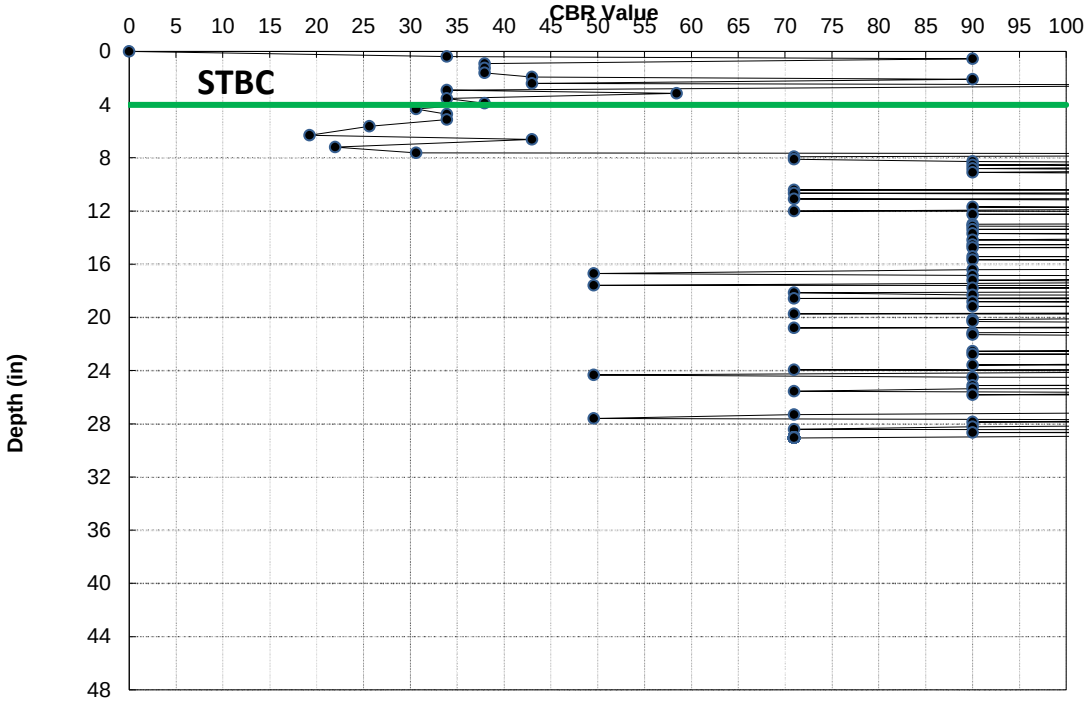


C-34 Y Sta. 31+09 EB MERGE LANE 4.0 FT LT FW 14

Datum = STBC
RAW
Cut
10/11/21

Interval 0.0 to 3.9	
# of Values	13
Avg CBR	53.8
Wghtd Avg.	45.3
Max CBR	100+
Min CBR	33.9

Interval 3.9 to 29.1	
# of Values	197
Avg CBR	100+
Wghtd Avg.	100+
Max CBR	100+
Min CBR	19.2



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

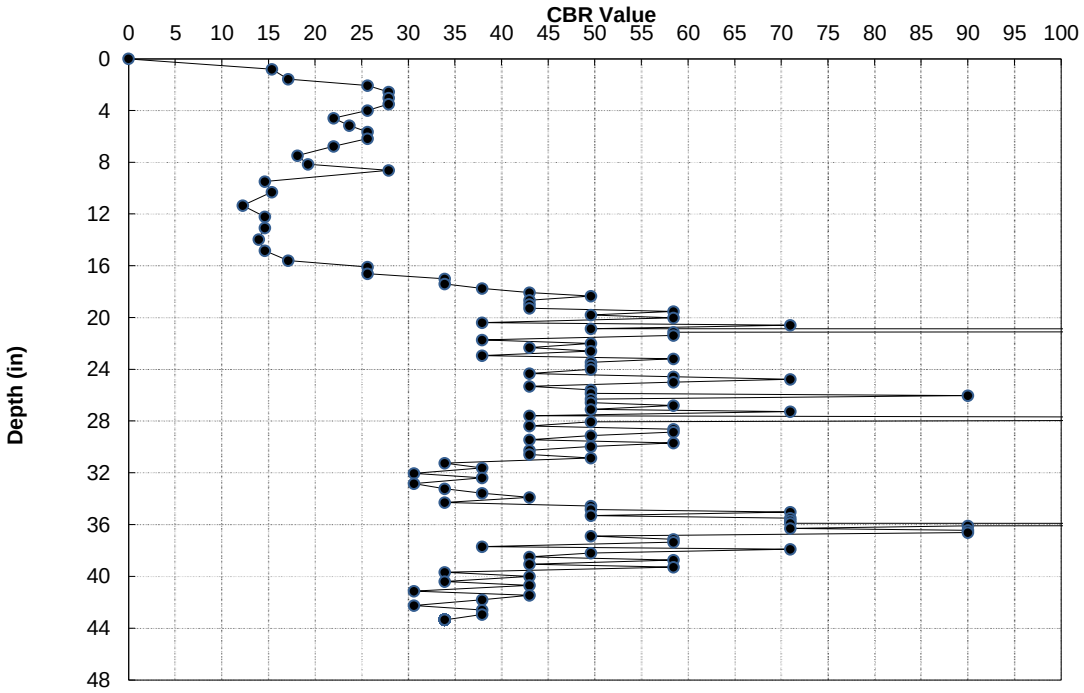
FILE	I2513AA_AB DCP Graphs

C-35 Y Sta. 31+09 EB OSS 6.8 FT RT FW 15

Datum = SHOULDER DR
RAW
Cut
10/11/21

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

Interval 0.0 to 43.3	
# of Values	120
Avg CBR	51.4
Wghtd Avg.	36.8
Max CBR	100+
Min CBR	12.2

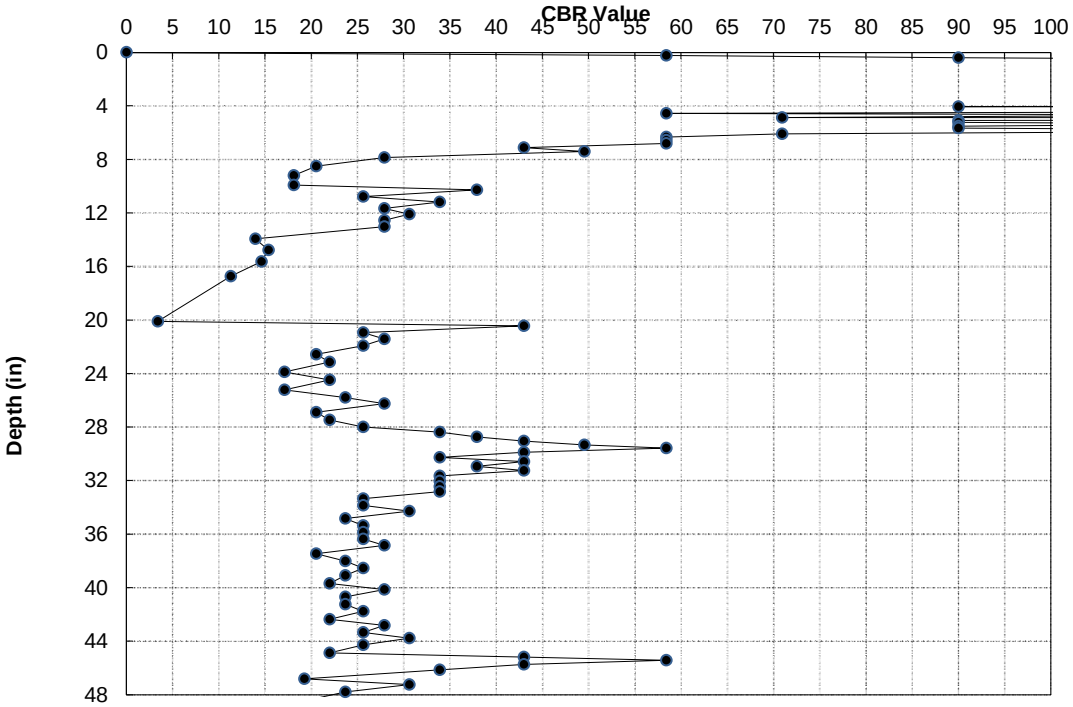


C-36 Y5RPC Sta. 15+80 EB RAMP OSS1 16

Datum = SHOULDER DF
RAW
Fill
10/11/21

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

Interval 0.0 to 54.5	
# of Values	162
Avg CBR	100+
Wghtd Avg.	40.0
Max CBR	100+
Min CBR	3.4



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

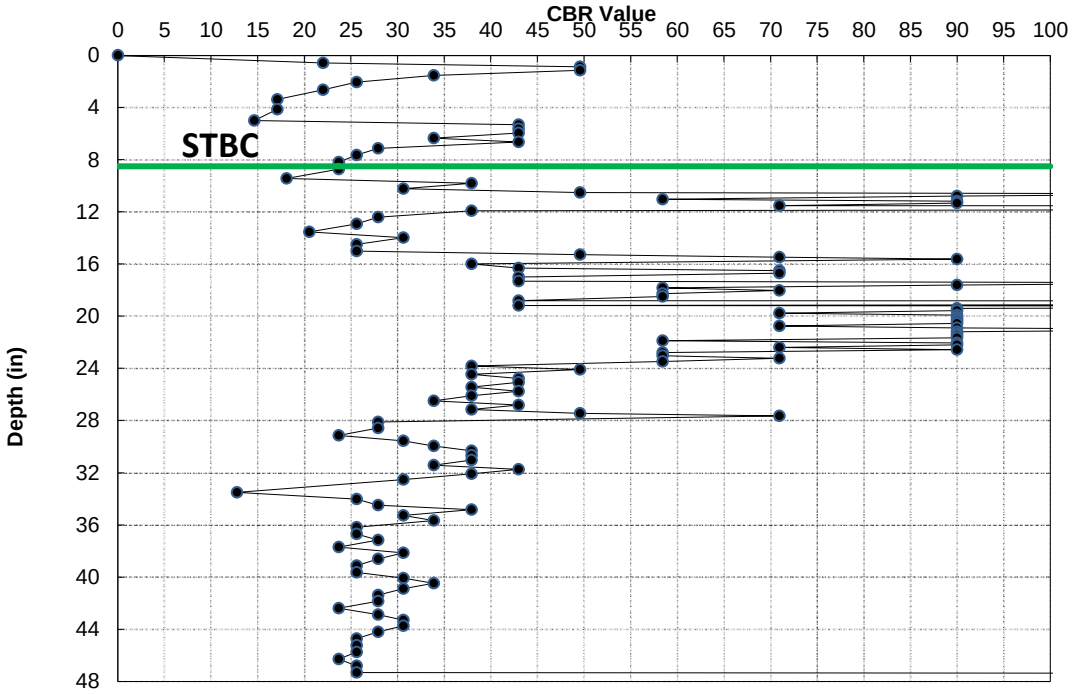
FILE	I2513AA_AB DCP Graphs

C-37 Y Sta. 37+02 EB OSS 8.5 FT RT FW 17

Datum = STBC
RAW
Fill
10/11/21

Interval 0.0 to 8.7	
# of Values	18
Avg CBR	31.0
Wghtd Avg.	27.1
Max CBR	49.6
Min CBR	14.6

Interval 8.7 to 47.4	
# of Values	117
Avg CBR	58.7
Wghtd Avg.	40.8
Max CBR	100+
Min CBR	12.8

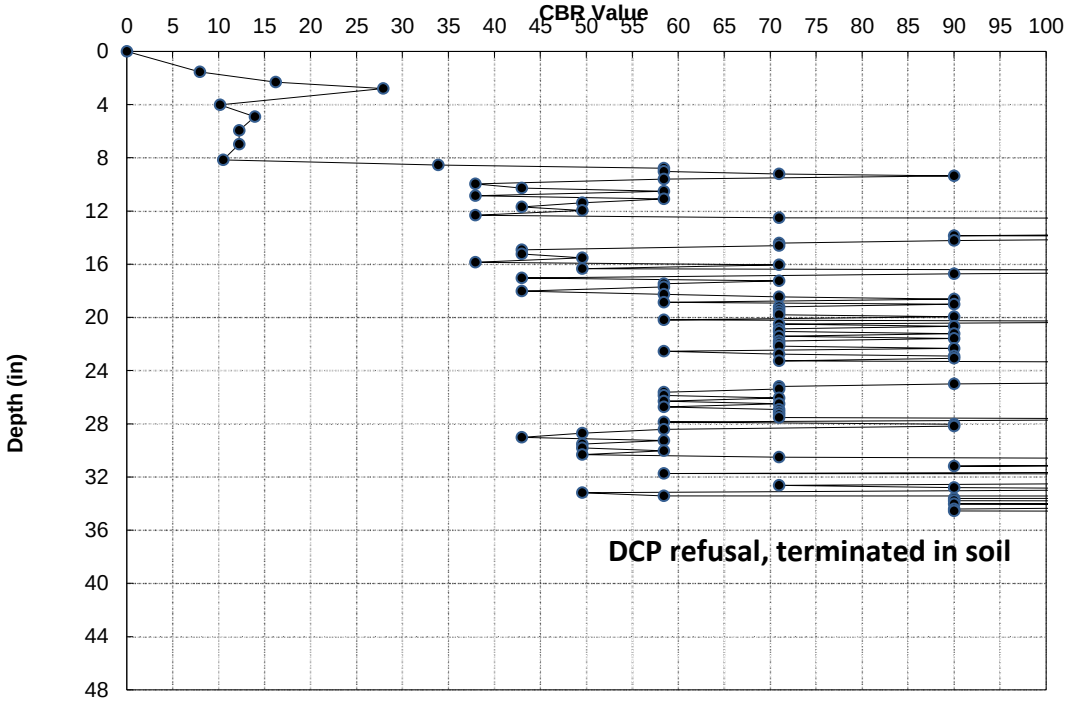


C-38 Y Sta. 43+34 EB OSL 3.7 FT LT FW 18

Datum = SG
RAW
Fill
10/11/21

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

Interval 0.0 to 35.8	
# of Values	227
Avg CBR	100+
Wghtd Avg.	89.8
Max CBR	100+
Min CBR	7.9



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

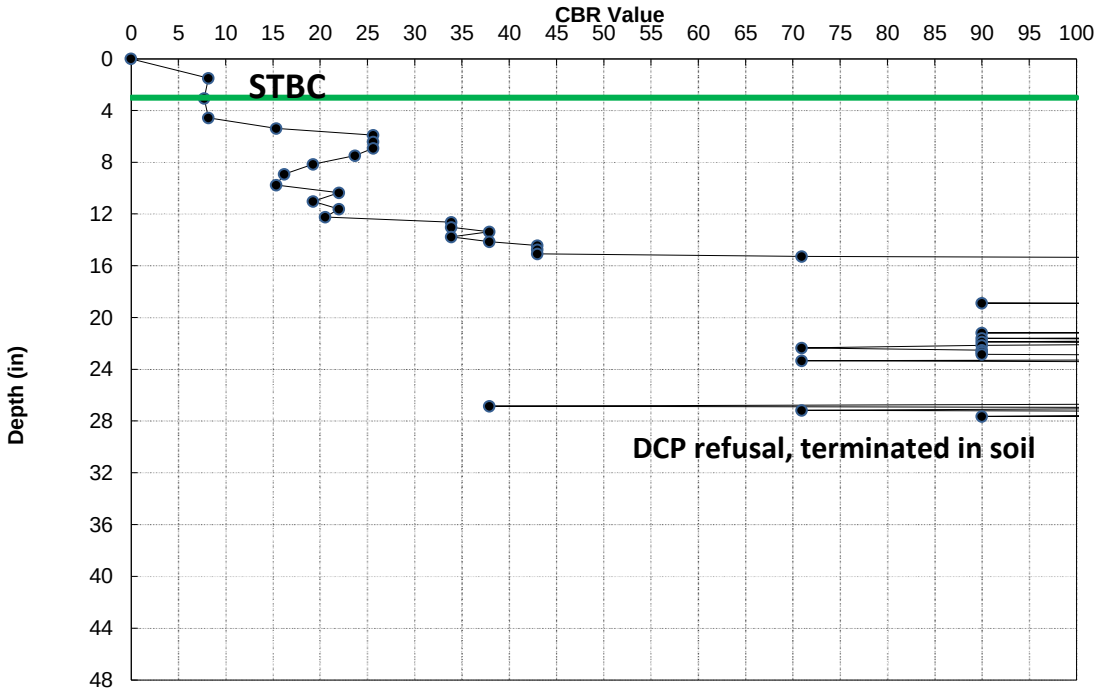
FILE	I2513AA_AB DCP Graphs

C-39 Y Sta. 43+34 EB OSS 4.3 FT RT FW — 19

Datum = STBC
RAW
Fill
10/11/21

Interval 0.0 to 3.1	
# of Values	2
Avg CBR	7.9
Wghtd Avg.	7.9
Max CBR	8.2
Min CBR	7.7

Interval 3.1 to 28.3	
# of Values	238
Avg CBR	100+
Wghtd Avg.	100+
Max CBR	100+
Min CBR	8.2

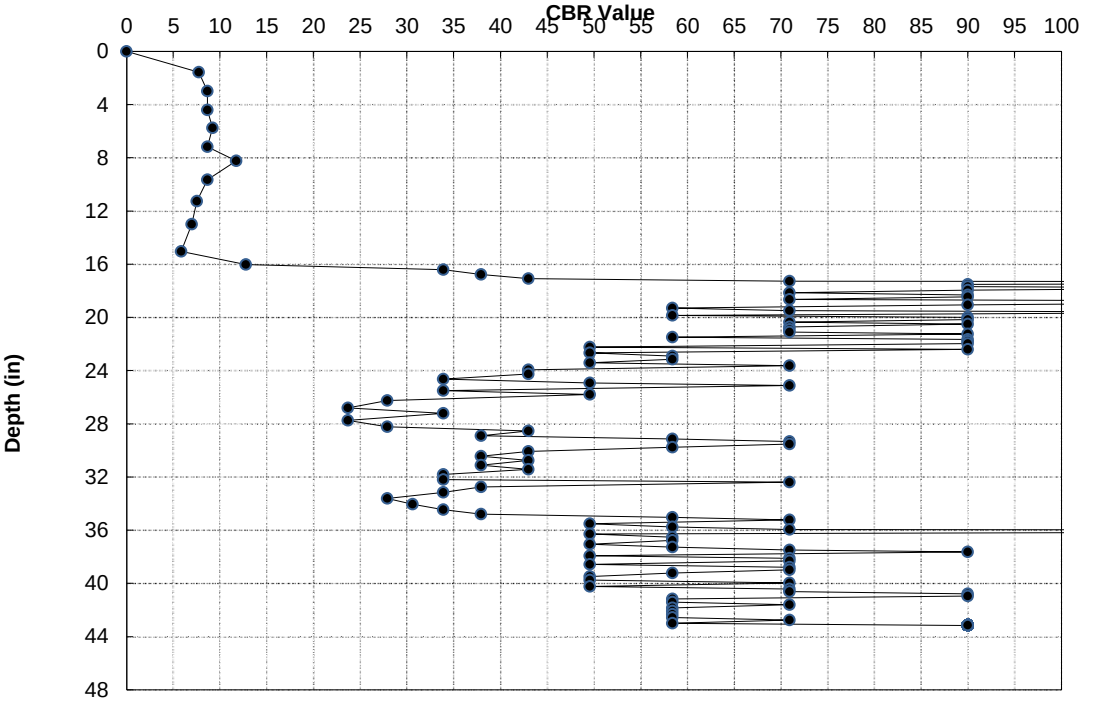


C-40 Y Sta. 48+83 EB OSS 4.0 FT RT FW — 20

Datum = SHOULDER D
RAW
Fill
10/11/21

Interval 0.0 to 0.0	
# of Values	0
Avg CBR	#DIV/0!
Wghtd Avg.	27.1
Max CBR	0.0
Min CBR	0.0

Interval 0.0 to 43.1	
# of Values	119
Avg CBR	59.8
Wghtd Avg.	38.5
Max CBR	100+
Min CBR	5.8



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

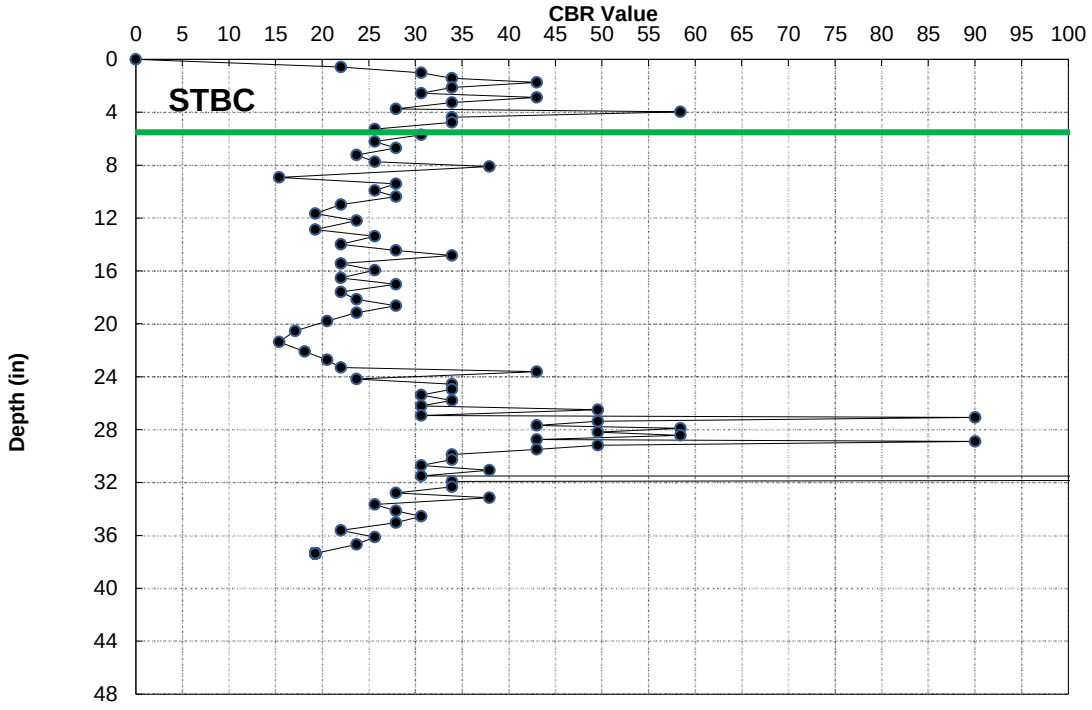
FILE	I2513AA_AB DCP Graphs 3

C-41 Y Sta. 58+86 EB OSML 17.6 FT LT FW 1

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 5.3	
# of Values	13
Avg CBR	34.7
Wghtd Avg.	32.8
Max CBR	58.4
Min CBR	22.0

Interval 5.3 to 37.4	
# of Values	69
Avg CBR	37.0
Wghtd Avg.	28.4
Max CBR	100+
Min CBR	15.4

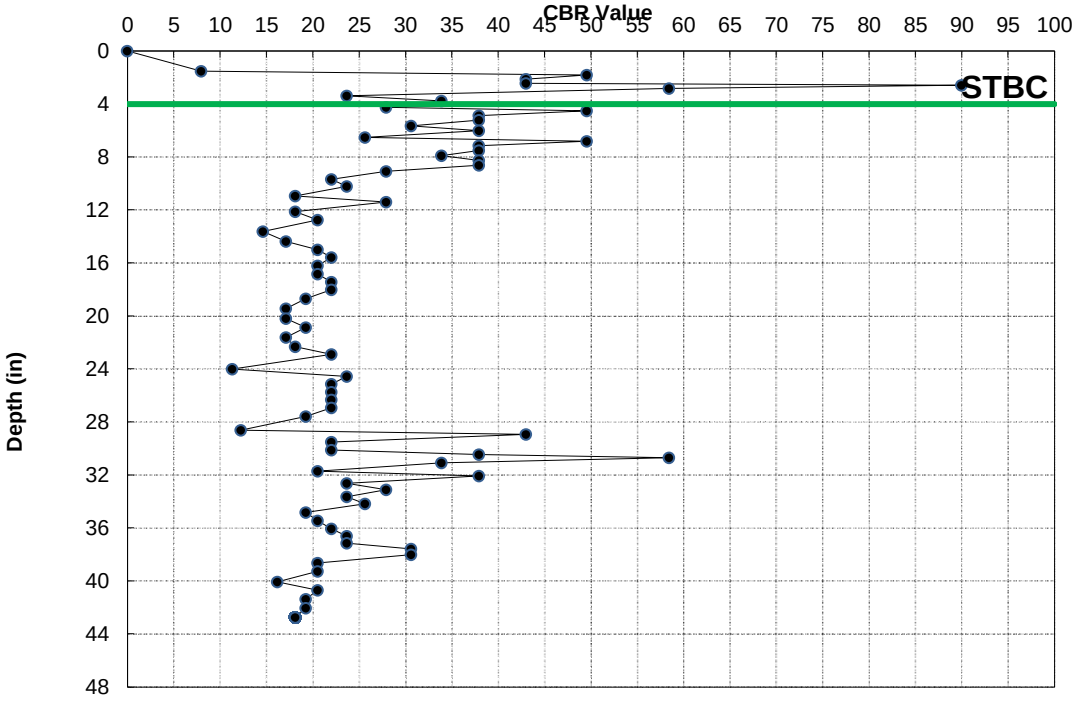


C-42 Y Sta. 58+86 EB OSL 4.8 FT LT FW 2

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 4.3	
# of Values	9
Avg CBR	41.9
Wghtd Avg.	27.9
Max CBR	90.0
Min CBR	7.9

Interval 4.3 to 42.8	
# of Values	68
Avg CBR	25.6
Wghtd Avg.	23.0
Max CBR	58.4
Min CBR	11.3



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

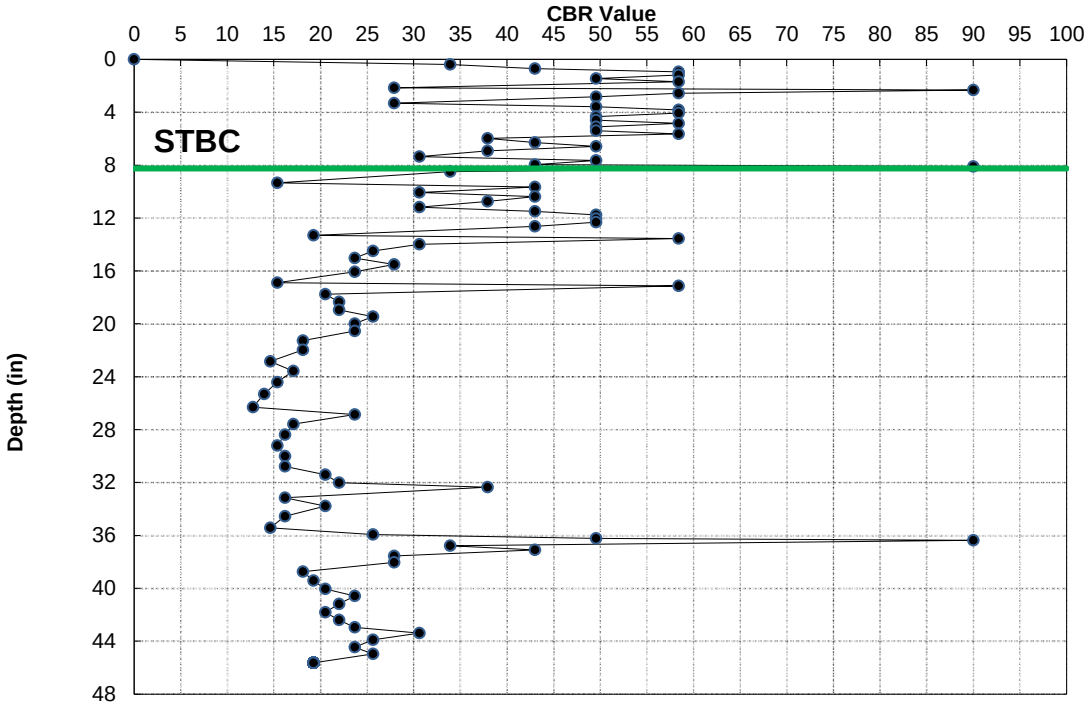
FILE	I2513AA_AB DCP Graphs 3

C-43 Y Sta. 58+86 EB OSS 3.5 FT RT FW 3

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 8.1	
# of Values	28
Avg CBR	50.7
Wghtd Avg.	47.0
Max CBR	90.0
Min CBR	27.9

Interval 8.1 to 45.6	
# of Values	67
Avg CBR	27.5
Wghtd Avg.	23.3
Max CBR	90.0
Min CBR	12.8

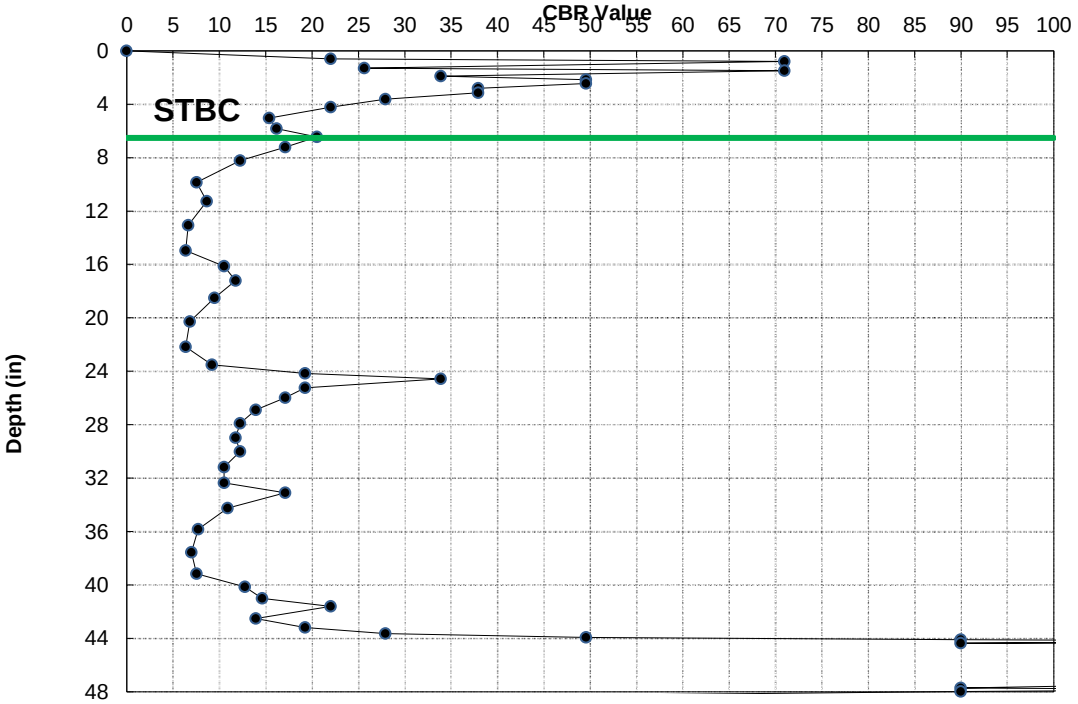


C-44 Y Sta. 63+48 EB OSS 8.3 FT RT FW 4

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 6.5	
# of Values	14
Avg CBR	35.7
Wghtd Avg.	28.6
Max CBR	70.9
Min CBR	15.4

Interval 6.5 to 50.3	
# of Values	81
Avg CBR	93.4
Wghtd Avg.	24.1
Max CBR	100+
Min CBR	6.4



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

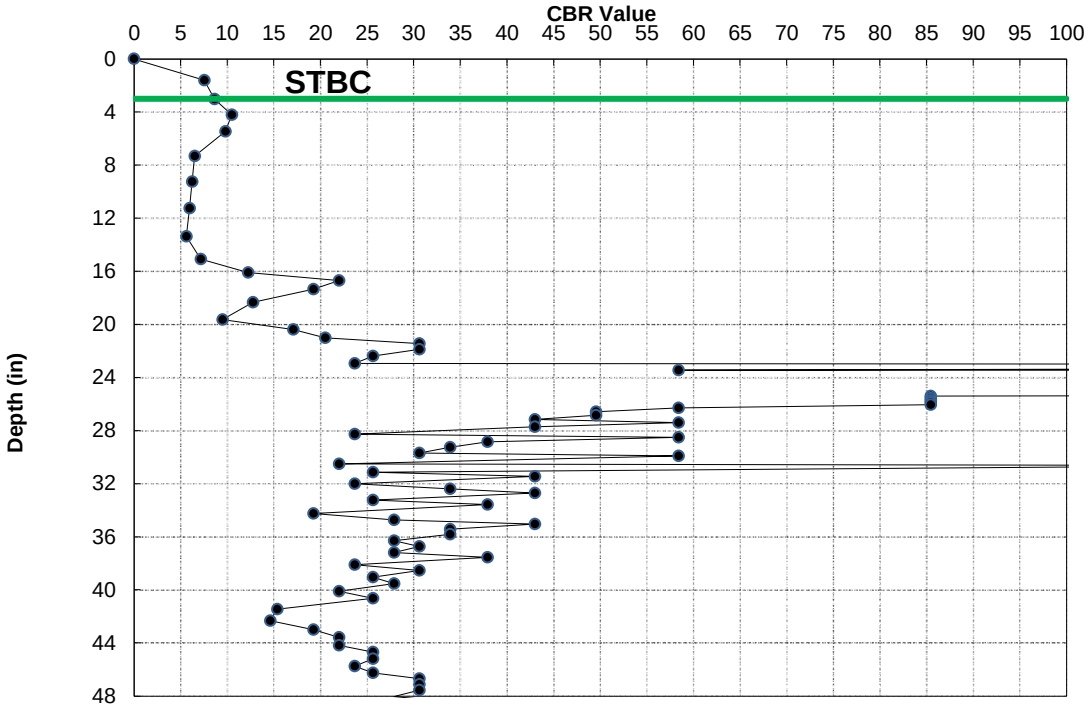
FILE	I2513AA_AB DCP Graphs 3

C-45 Y Sta. 68+28 EB OSS 3.8 FT RT FW 5

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 3.0	
# of Values	2
Avg CBR	8.1
Wghtd Avg.	8.1
Max CBR	8.6
Min CBR	7.5

Interval 3.0 to 49.0	
# of Values	112
Avg CBR	100+
Wghtd Avg.	32.4
Max CBR	100+
Min CBR	5.6

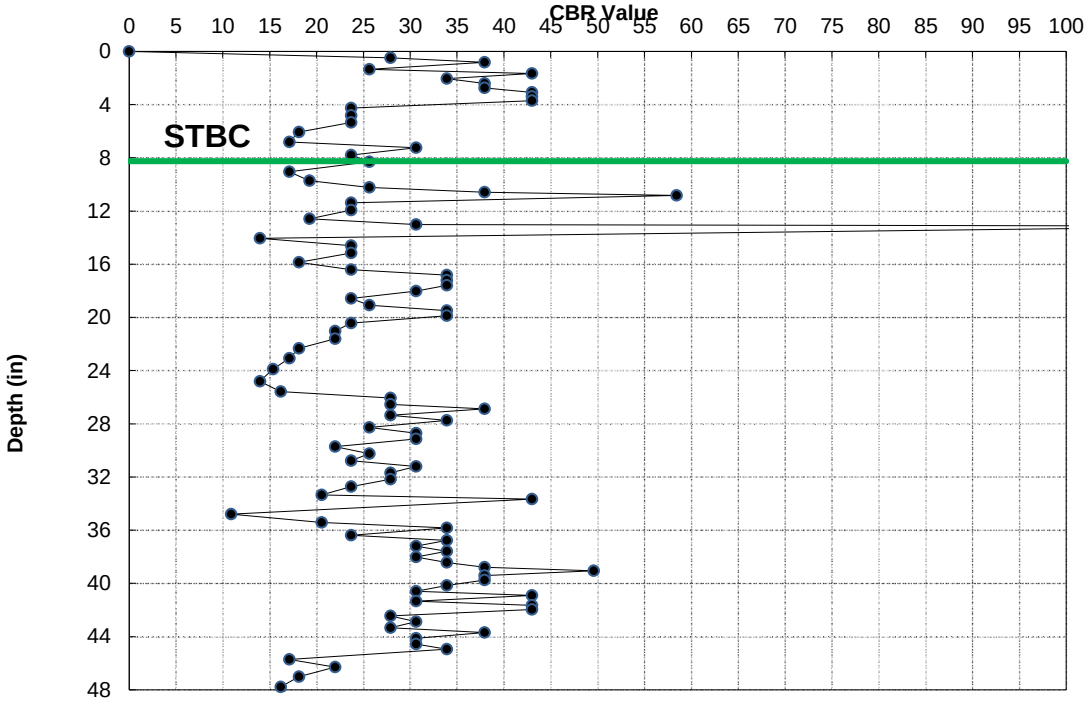


C-46 Y Sta. 75+08 EB OSS 8.2 FT RT FW 6

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 8.3	
# of Values	18
Avg CBR	31.1
Wghtd Avg.	28.6
Max CBR	43.0
Min CBR	17.1

Interval 8.3 to 51.0	
# of Values	84
Avg CBR	29.2
Wghtd Avg.	25.8
Max CBR	100+
Min CBR	10.9



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

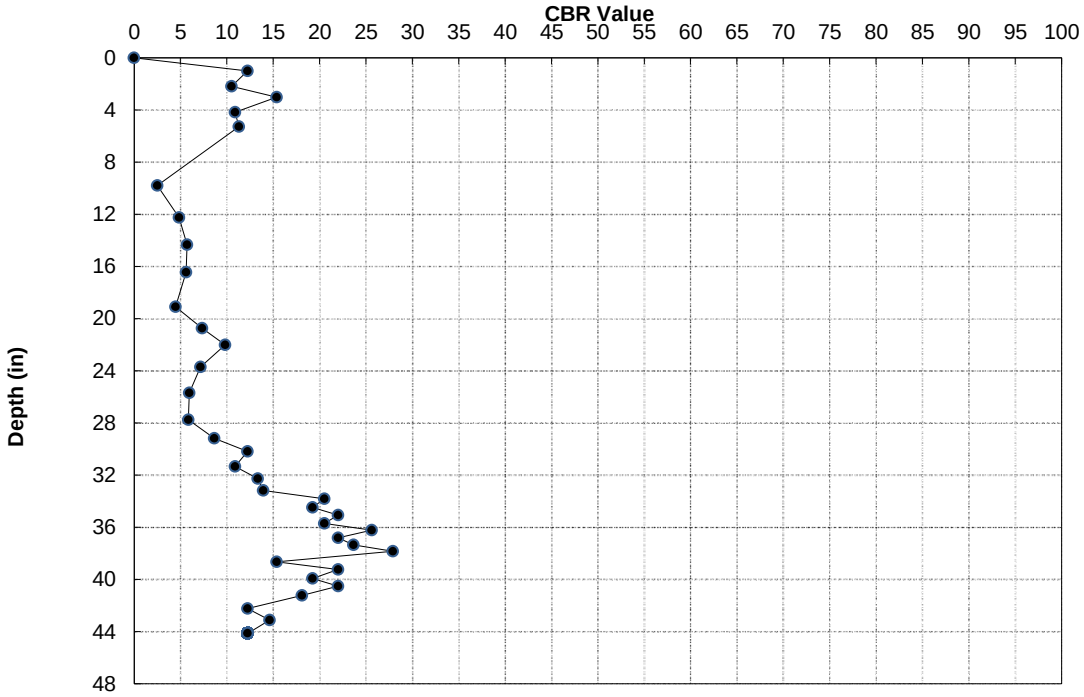
FILE	I2513AA_AB DCP Graphs 3

C-47 Y Sta. 80+18 EB OSS 4.0 FT RT FW 7

Datum = SHOULDER DR.
RAW
CUT
10/11/21

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

Interval 0.0 to 44.1	
# of Values	36
Avg CBR	13.8
Wghtd Avg.	10.1
Max CBR	27.9
Min CBR	2.5

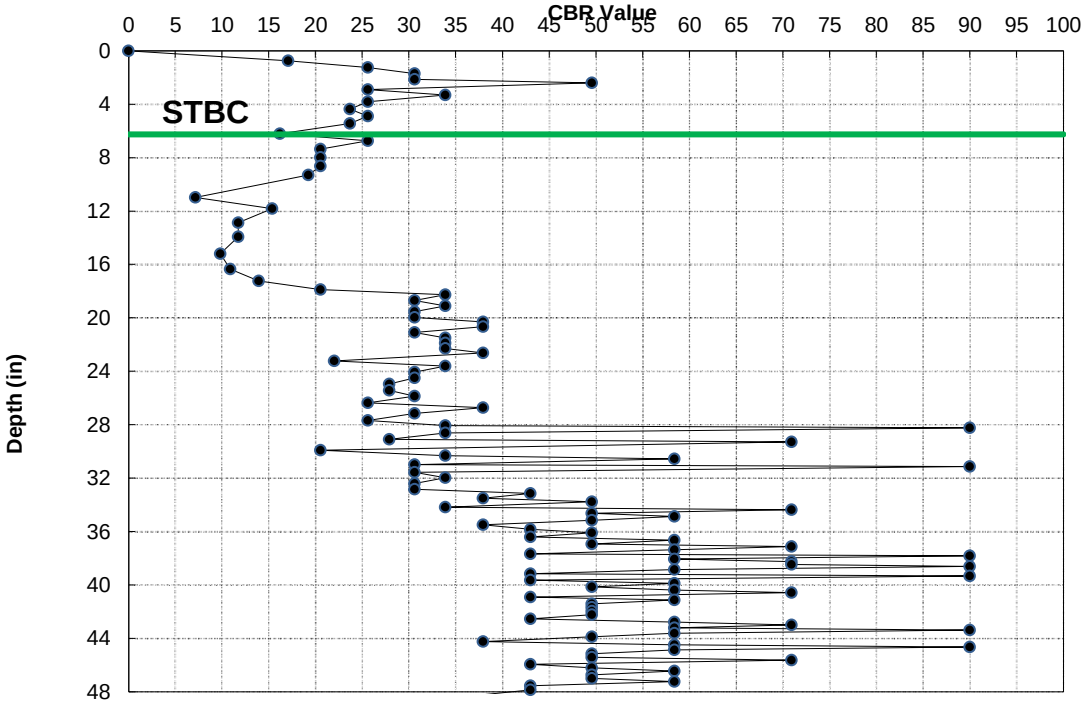


C-48 Y Sta. 85+43 EB OSS 9.5 FT RT FW 8

Datum = STBC
RAW
CUT
10/11/21

Interval 0.0 to 6.2	
# of Values	12
Avg CBR	#DIV/0!
Wghtd Avg.	#DIV/0!
Max CBR	0.0
Min CBR	0.0

Interval 6.2 to 50.5	
# of Values	116
Avg CBR	44.2
Wghtd Avg.	35.0
Max CBR	90.0
Min CBR	7.2



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

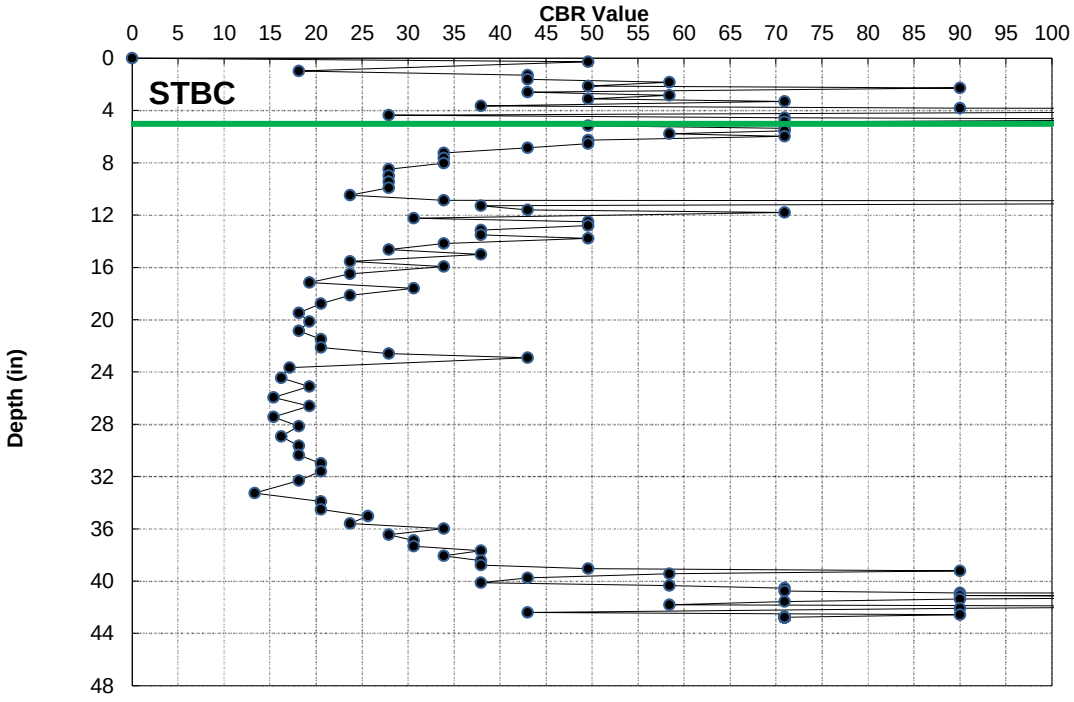
FILE	I2513AA_AB DCP Graphs 3

C-49 Y Sta. 87+83 EB ISS 4.0 FT LT FY 9

Datum = STBC
RAW
CUT
10/11/21

Interval 0.0 to 4.9	
# of Values	18
Avg CBR	65.7
Wghtd Avg.	50.4
Max CBR	100+
Min CBR	18.1

Interval 4.9 to 42.8	
# of Values	90
Avg CBR	46.5
Wghtd Avg.	31.6
Max CBR	100+
Min CBR	13.3

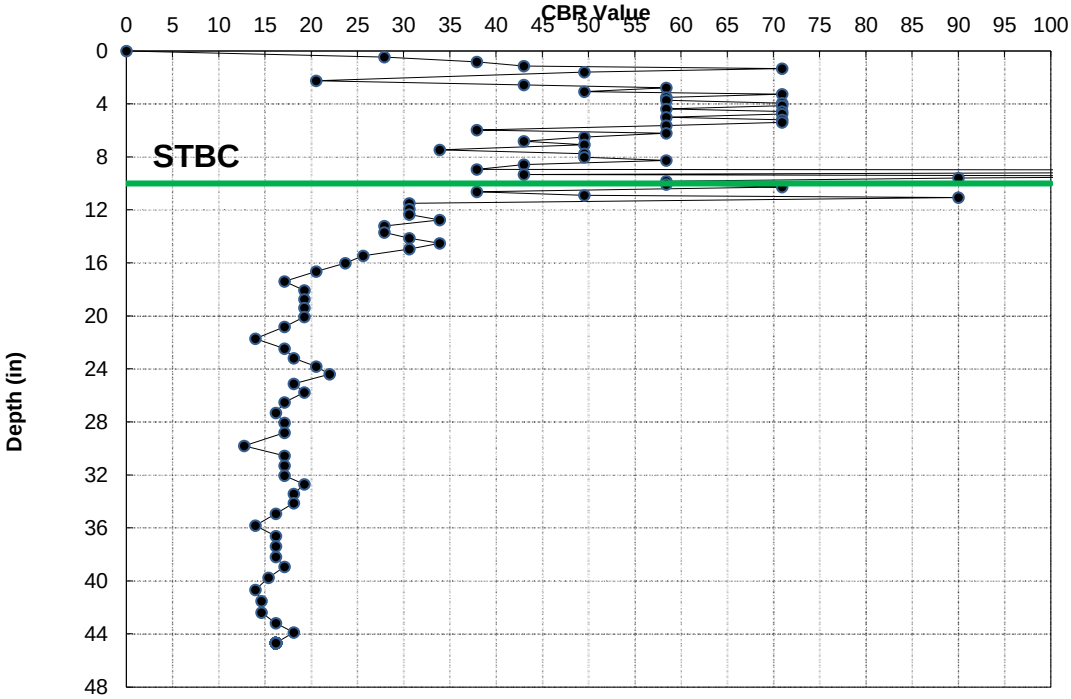


C-50 Y Sta. 87+83 EB ISL 5.5 FT RT FY 10

Datum = STBC
RAW
CUT
10/11/2021

Interval 0.0 to 10.1	
# of Values	38
Avg CBR	59.5
Wghtd Avg.	51.6
Max CBR	100+
Min CBR	20.5

Interval 10.1 to 44.7	
# of Values	53
Avg CBR	23.1
Wghtd Avg.	19.8
Max CBR	90.0
Min CBR	12.8



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

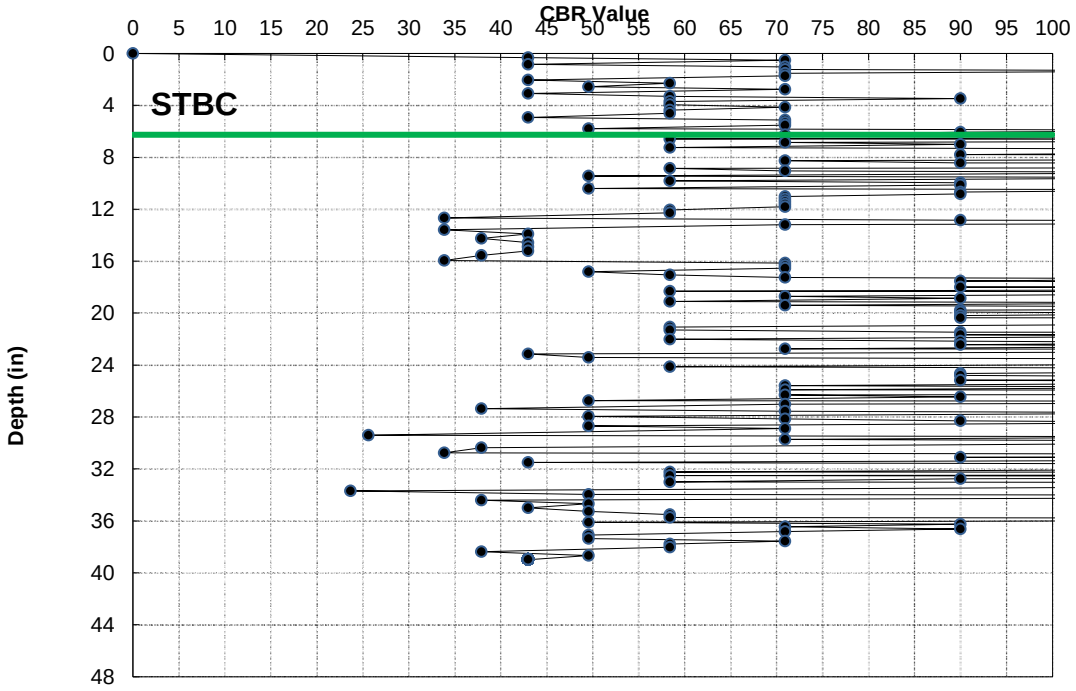
FILE	I2513AA_AB DCP Graphs 3

C-51 Y Sta. 87+84 EB ISML 16.3 FT RT FW 11

Datum = STBC
RAW
CUT
10/11/21

Interval 0.0 to 6.3	
# of Values	28
Avg CBR	66.8
Wghtd Avg.	61.9
Max CBR	100+
Min CBR	43.0

Interval 6.3 to 39.0	
# of Values	184
Avg CBR	100+
Wghtd Avg.	79.1
Max CBR	100+
Min CBR	23.7

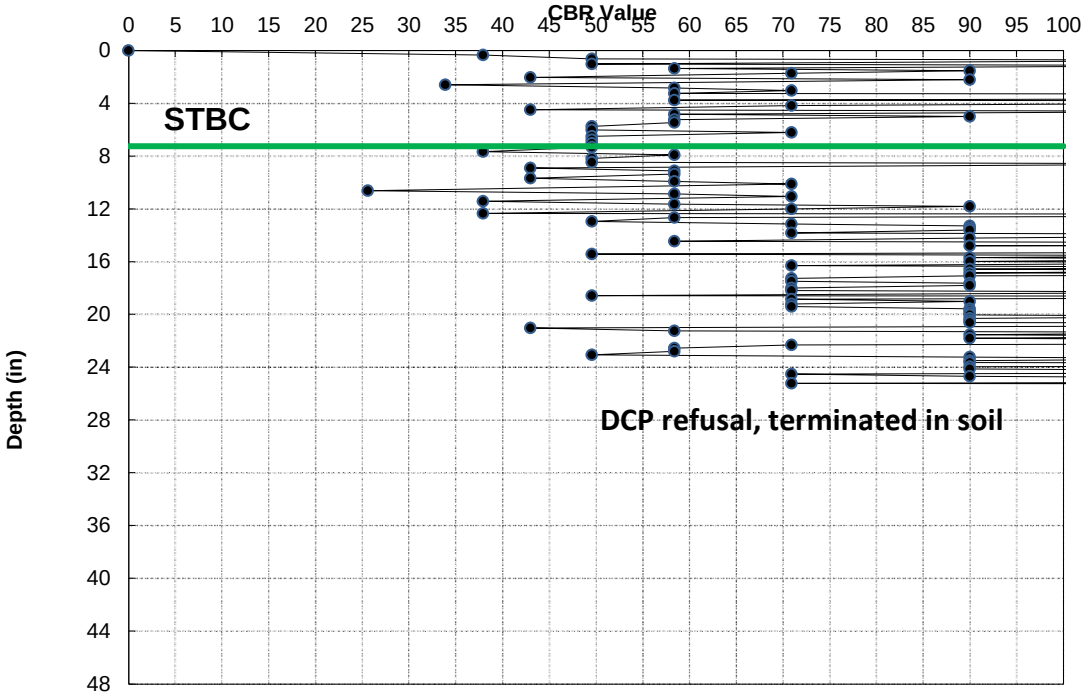


C-52 Y Sta. 87+84 EB OSML 13.5 FT LT FW 12

Datum = STBC
RAW
CUT
10/11/21

Interval 0.0 to 7.3	
# of Values	34
Avg CBR	79.2
Wghtd Avg.	64.5
Max CBR	100+
Min CBR	33.9

Interval 7.3 to 28.7	
# of Values	159
Avg CBR	100+
Wghtd Avg.	100+
Max CBR	100+
Min CBR	25.6



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

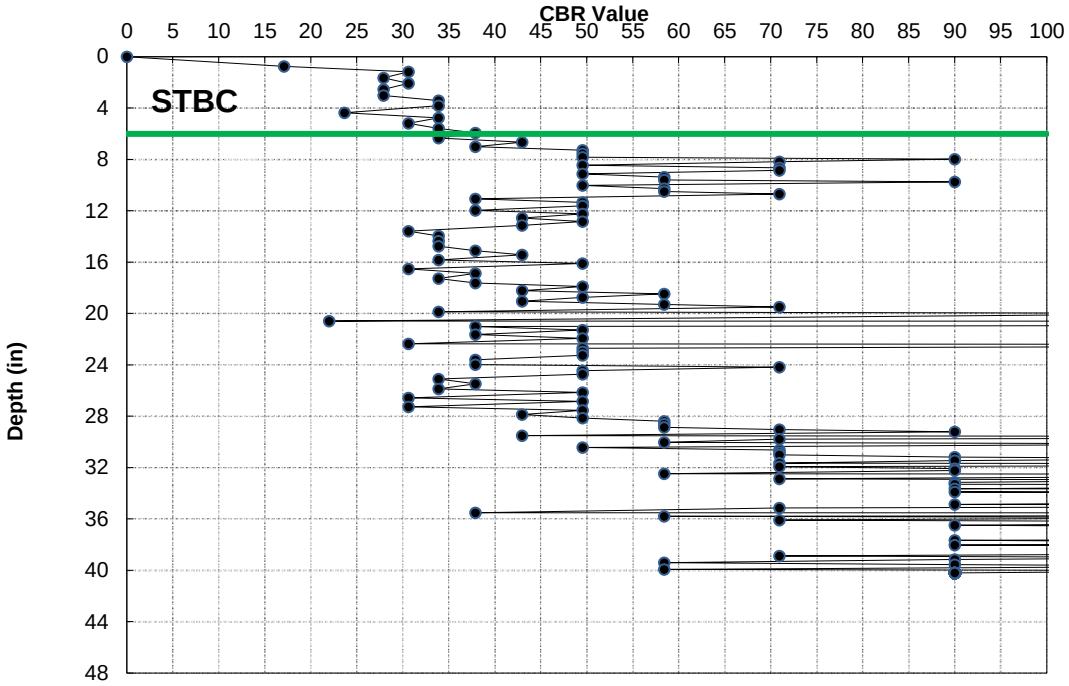
FILE	I2513AA_AB DCP Graphs 3

C-53 Y Sta. 87+84 EB OSL 2.8 FT LT FW 13

Datum = STBC
RAW
CUT
10/11/21

Interval 0.0 to 6.3	
# of Values	14
Avg CBR	30.3
Wghtd Avg.	29.2
Max CBR	37.9
Min CBR	17.1

Interval 6.3 to 40.2	
# of Values	156
Avg CBR	88.9
Wghtd Avg.	63.9
Max CBR	100+
Min CBR	22.0

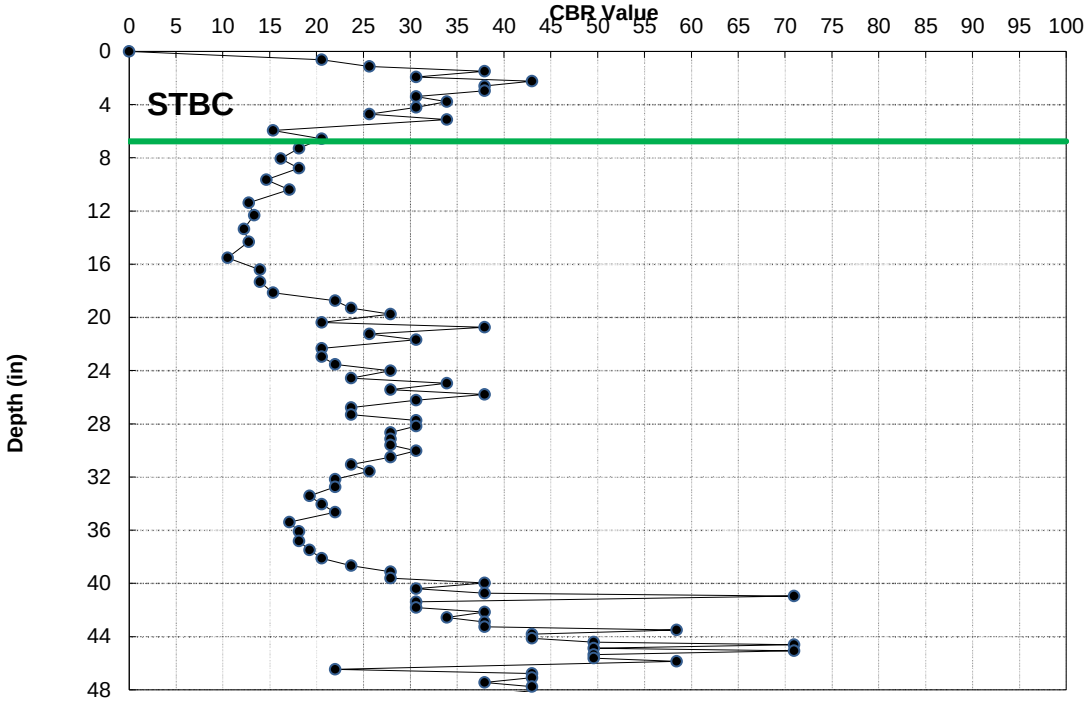


C-54 Y Sta. 87+84 EB OSS 8.2 FT RT FW 14

Datum = STBC
RAW
CUT
10/11/21

Interval 0.0 to 6.6	
# of Values	14
Avg CBR	30.3
Wghtd Avg.	28.1
Max CBR	43.0
Min CBR	15.4

Interval 6.6 to 51.3	
# of Values	89
Avg CBR	31.8
Wghtd Avg.	26.1
Max CBR	90.0
Min CBR	10.5



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

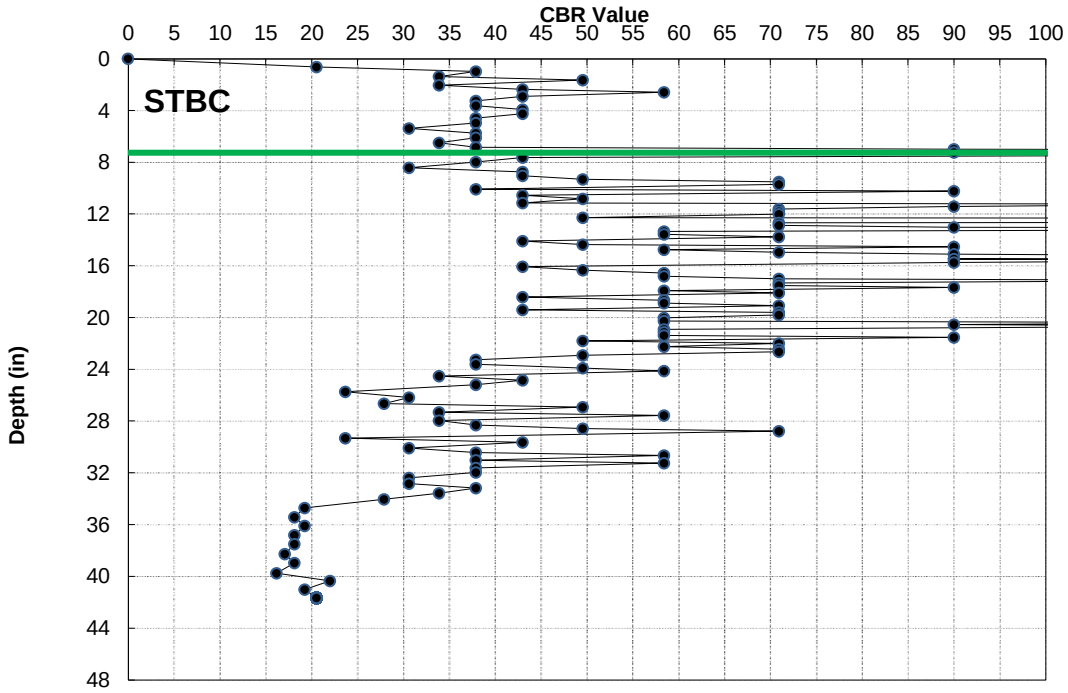
FILE	I2513AA_AB DCP Graphs 3

C-55 Y_EB Sta. 10+59 EB OSS 4.0 FT RT FW — 15

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 7.2	
# of Values	22
Avg CBR	50.2
Wghtd Avg.	41.0
Max CBR	100+
Min CBR	20.5

Interval 7.2 to 41.7	
# of Values	116
Avg CBR	64.0
Wghtd Avg.	45.8
Max CBR	100+
Min CBR	16.2

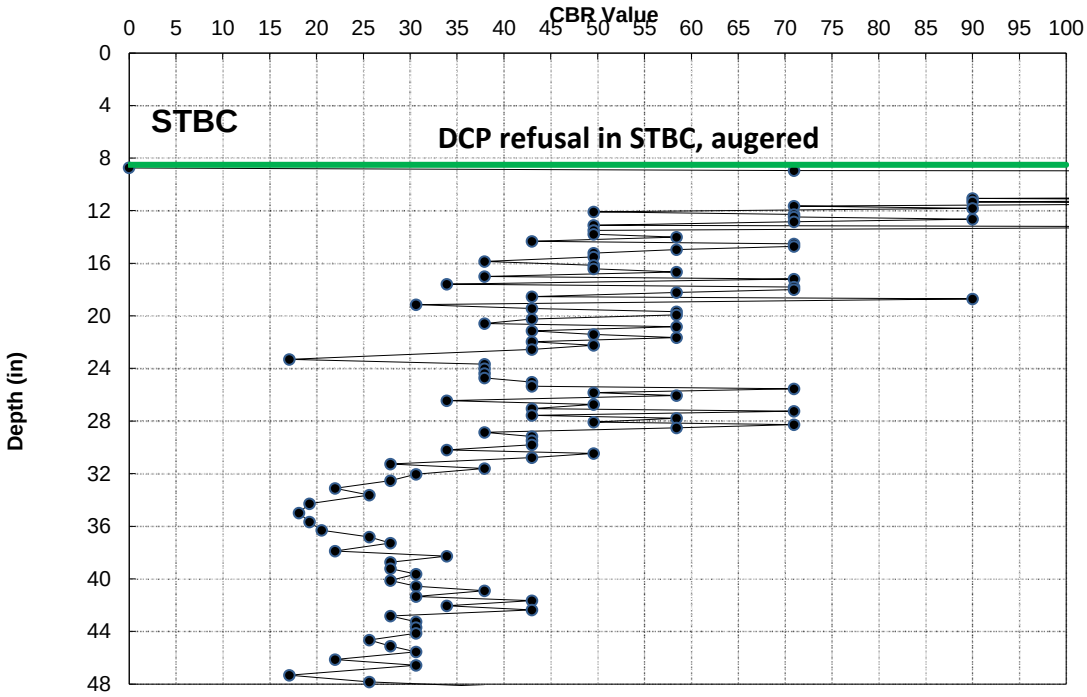


C-56 Y_EB Sta. 15+85 EB ISS 1.7 FT LT FY — 16

Datum = STBC
RAW
CUT
10/11/21

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

Interval 8.7 to 48.8	
# of Values	145
Avg CBR	100+
Wghtd Avg.	49.4
Max CBR	100+
Min CBR	17.1



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

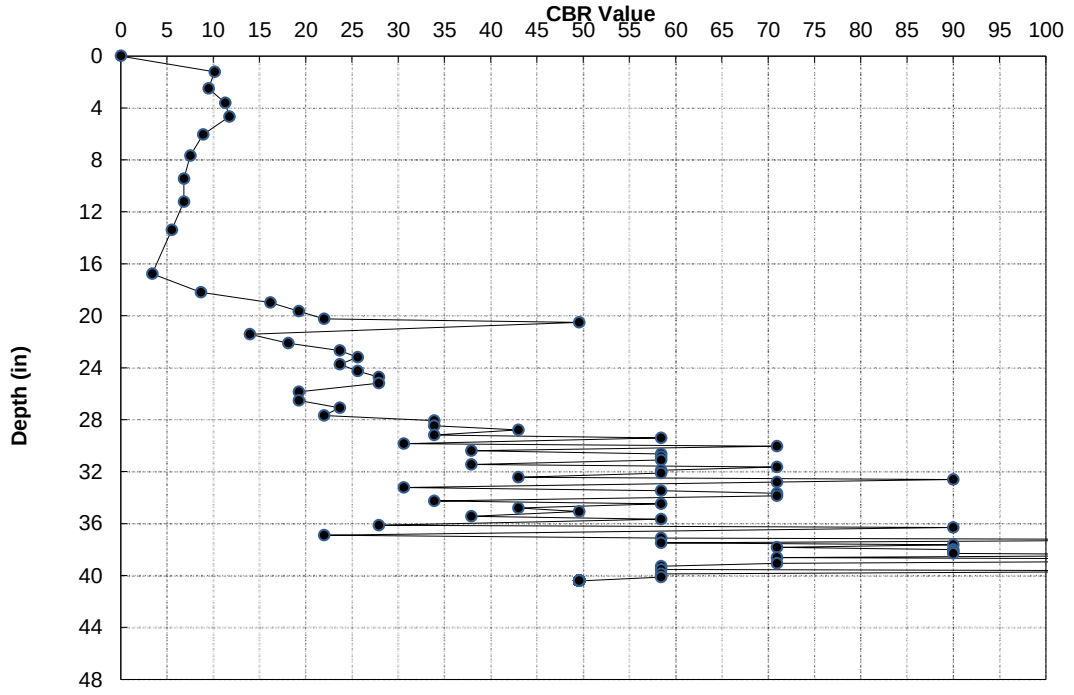
FILE	I2513AA_AB DCP Graphs 3

C-57 Y_EB Sta. 15+83 EB OSS 10.0 FT RT FW — 17

Datum = SG
RAW
CUT
10/11/21

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

Interval 0.0 to 40.4	
# of Values	77
Avg CBR	47.4
Wghtd Avg.	25.0
Max CBR	100+
Min CBR	3.4

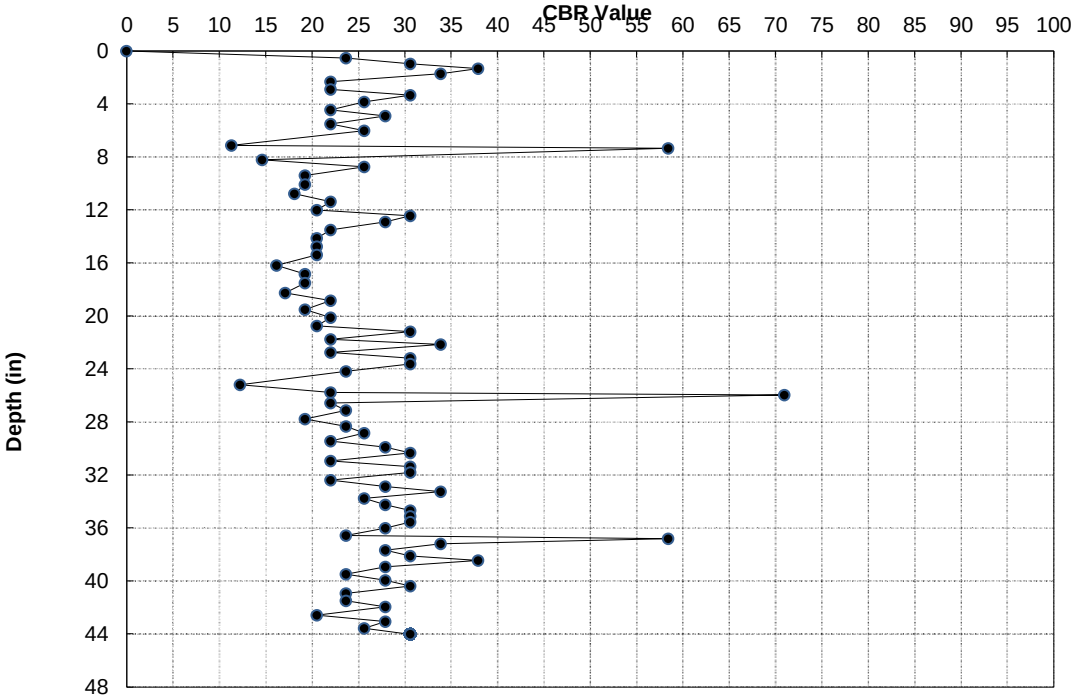


C-58 Y_EB Sta. 20+58 EB ISS 1.5 FT LT FY — 18

Datum = SG
RAW
CUT
10/11/21

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

Interval 0.0 to 44.0	
# of Values	82
Avg CBR	26.4
Wghtd Avg.	24.3
Max CBR	70.9
Min CBR	11.3



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

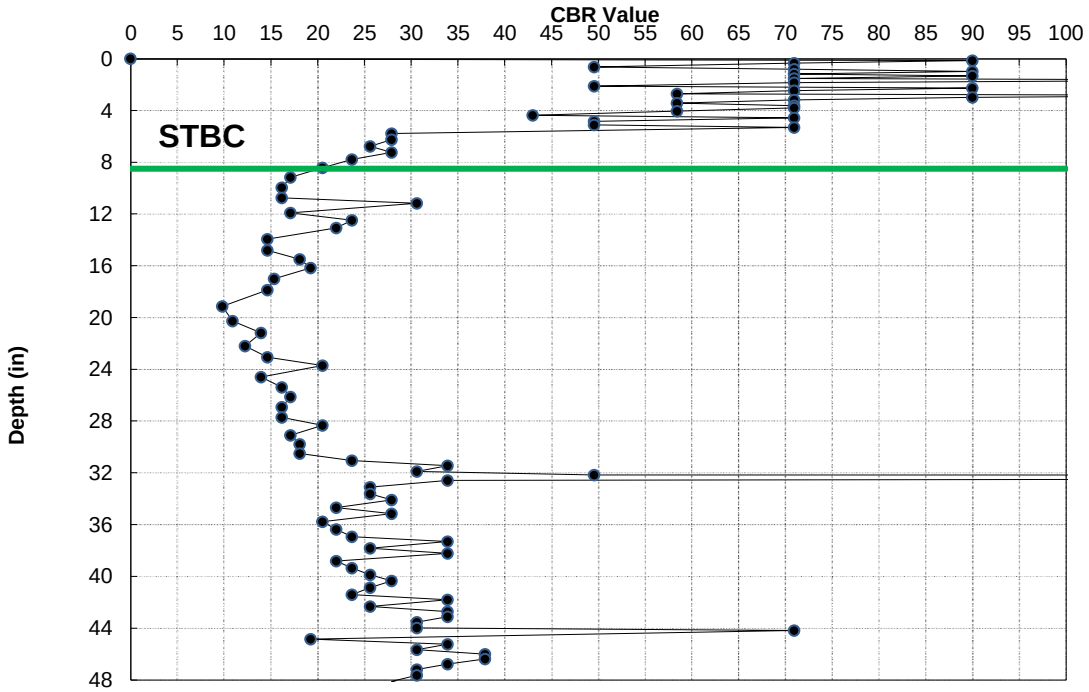
FILE	I2513AA_AB DCP Graphs 3

C-59 Y_EB Sta. 20+65 EB OSS 5.5 FT RT FW — 19

Datum = STBC
RAW
CUT
10/11/21

Interval 0.0 to 8.4	
# of Values	32
Avg CBR	63.9
Wghtd Avg.	52.0
Max CBR	100+
Min CBR	20.5

Interval 8.4 to 50.4	
# of Values	73
Avg CBR	30.7
Wghtd Avg.	22.6
Max CBR	100+
Min CBR	9.8

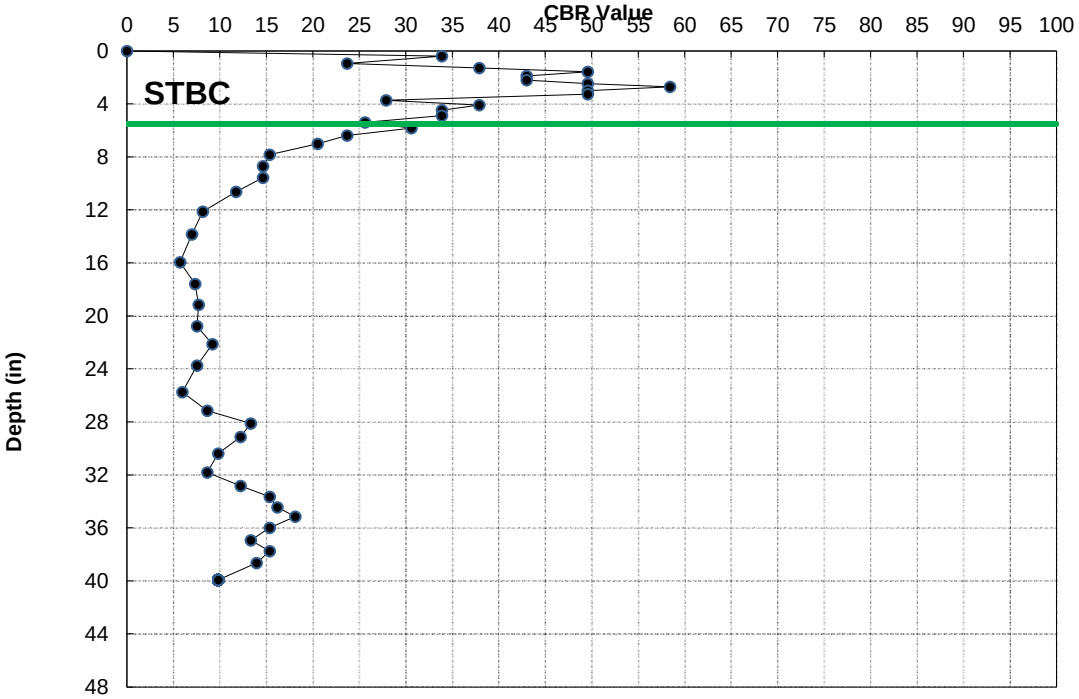


C-60 Y_EB Sta. 25+61 EB ISS — 20

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 5.4	
# of Values	15
Avg CBR	39.8
Wghtd Avg.	#DIV/0!
Max CBR	58.4
Min CBR	23.7

Interval 5.4 to 39.9	
# of Values	30
Avg CBR	12.7
Wghtd Avg.	10.8
Max CBR	30.6
Min CBR	5.7



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA/AB
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

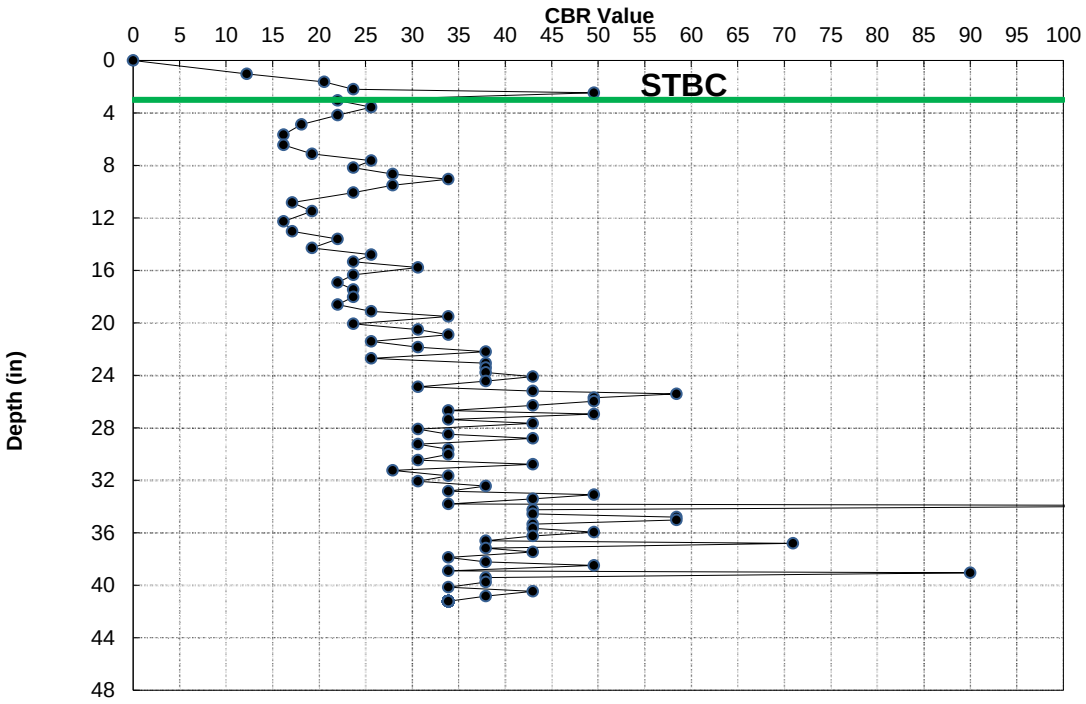
FILE	I2513AA_AB DCP Graphs 4

C-61 Y_EB Sta. 25+60 EB ISL 6.5 FT RT FY 1

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 3.1	
# of Values	5
Avg CBR	25.6
Wghtd Avg.	21.1
Max CBR	49.6
Min CBR	12.2

Interval 3.1 to 41.2	
# of Values	90
Avg CBR	35.7
Wghtd Avg.	31.3
Max CBR	100+
Min CBR	16.2

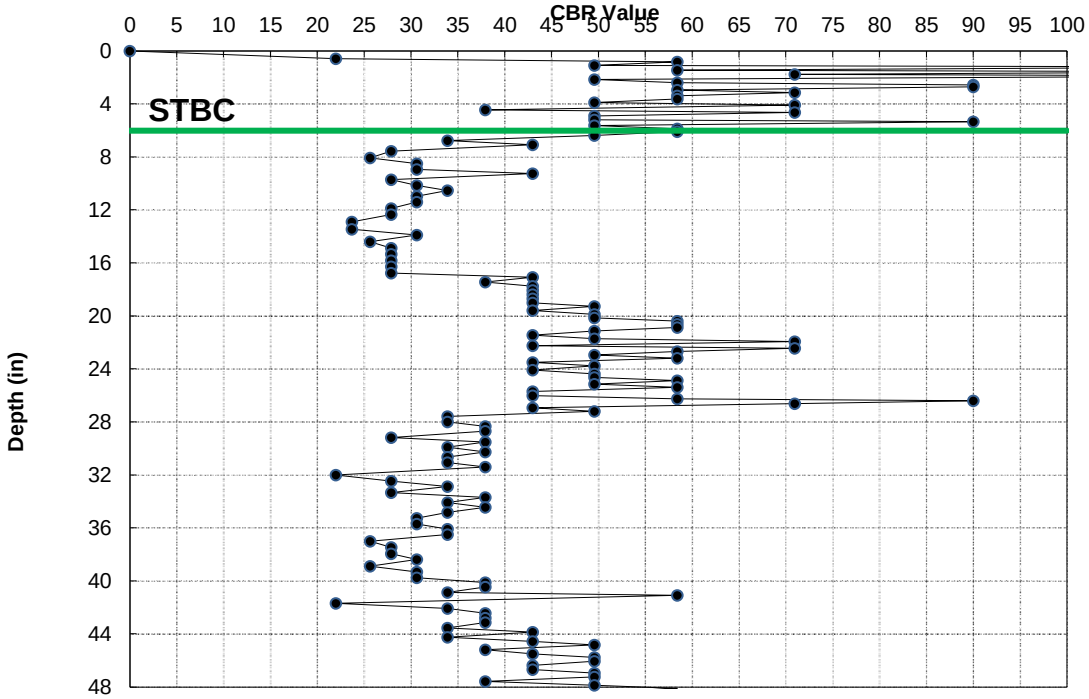


C-62 Y_EB Sta. 25+60 EB ISML 17.3 FT RT FY 2

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 5.9	
# of Values	25
Avg CBR	67.5
Wghtd Avg.	58.8
Max CBR	100+
Min CBR	22.0

Interval 5.9 to 52.3	
# of Values	136
Avg CBR	45.3
Wghtd Avg.	39.5
Max CBR	100+
Min CBR	22.0



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA/AB
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

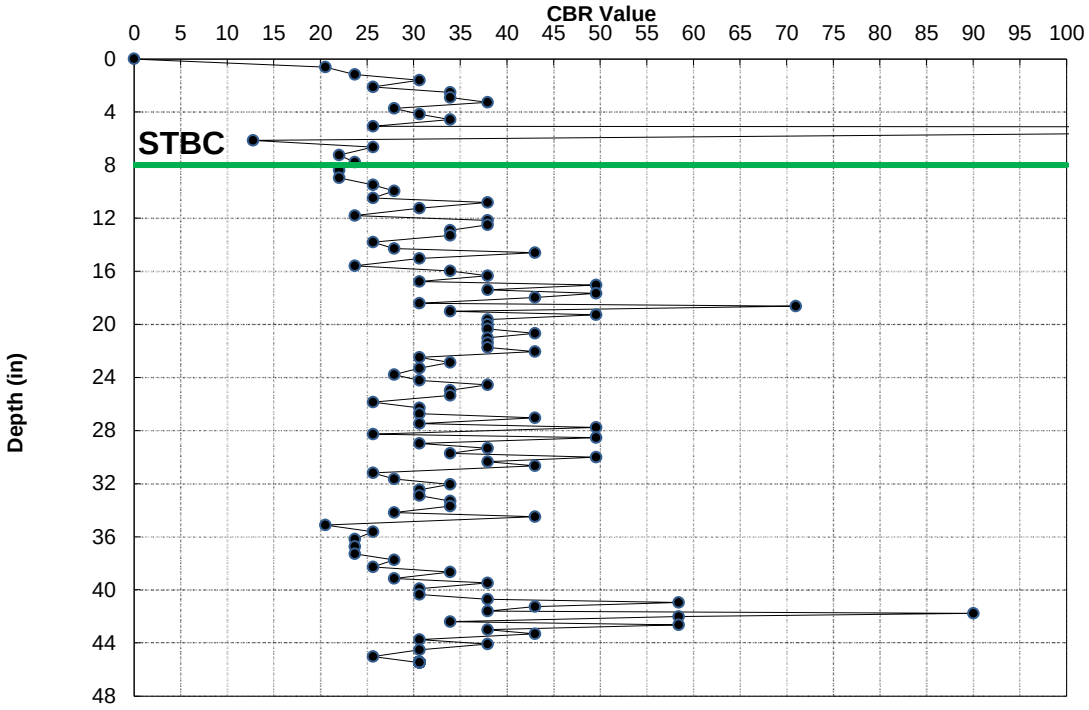
FILE	I2513AA_AB DCP Graphs 4

C-63 Y_EB Sta. 25+61 EB OSML 16.8 FT LT FW 3

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 7.8	
# of Values	16
Avg CBR	37.3
Wghtd Avg.	27.0
Max CBR	100+
Min CBR	12.8

Interval 7.8 to 45.5	
# of Values	94
Avg CBR	35.5
Wghtd Avg.	33.2
Max CBR	90.0
Min CBR	20.5

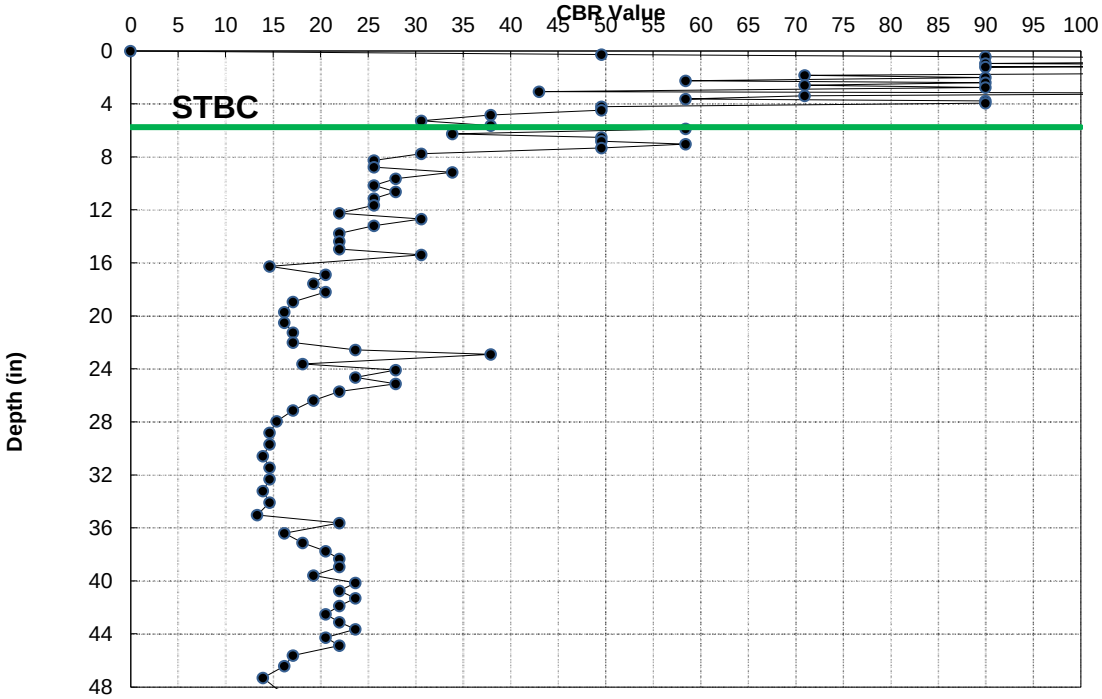


C-64 Y_EB Sta. 25+61 EB OSL 4.7 FT LT FW 4

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 5.9	
# of Values	30
Avg CBR	85.8
Wghtd Avg.	71.4
Max CBR	100+
Min CBR	30.6

Interval 5.9 to 48.9	
# of Values	69
Avg CBR	23.1
Wghtd Avg.	20.8
Max CBR	58.4
Min CBR	13.3



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA/AB
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

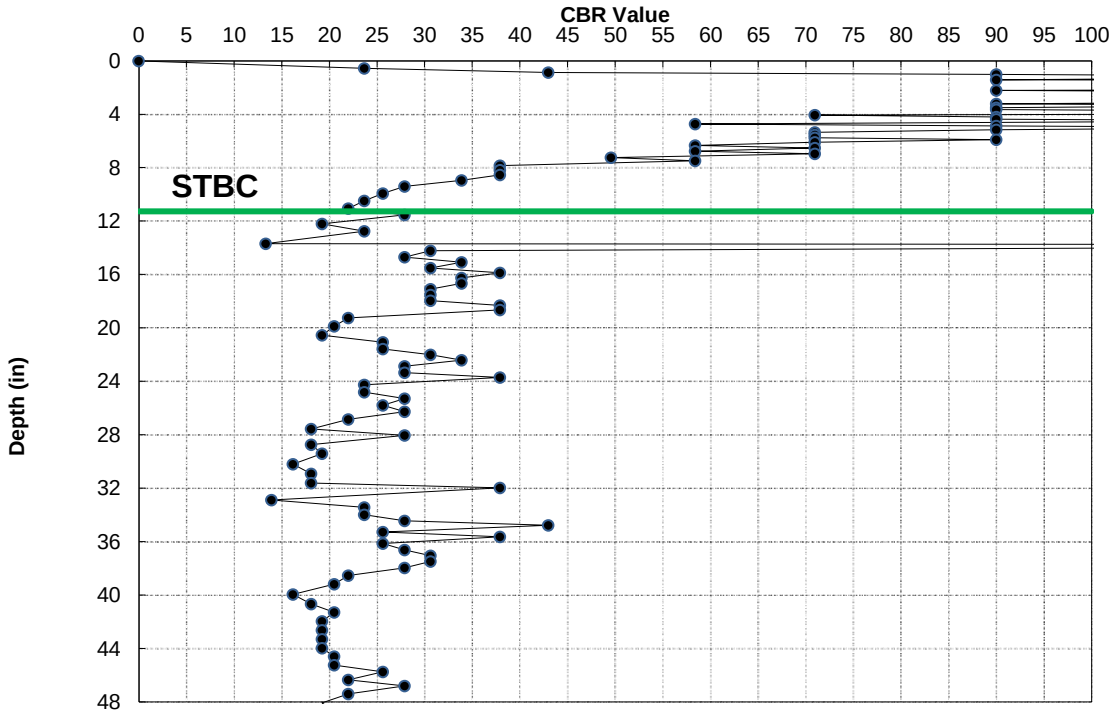
FILE	I2513AA_AB DCP Graphs 4

C-65 Y_EB Sta. 25+60 EB OSS 3.0 FT RT FW 5

Datum = STBC
RAW
CUT
10/11/21

Interval 0.0 to 11.1	
# of Values	54
Avg CBR	92.3
Wghtd Avg.	68.0
Max CBR	100+
Min CBR	22.0

Interval 11.1 to 56.4	
# of Values	82
Avg CBR	26.8
Wghtd Avg.	23.6
Max CBR	100+
Min CBR	13.3

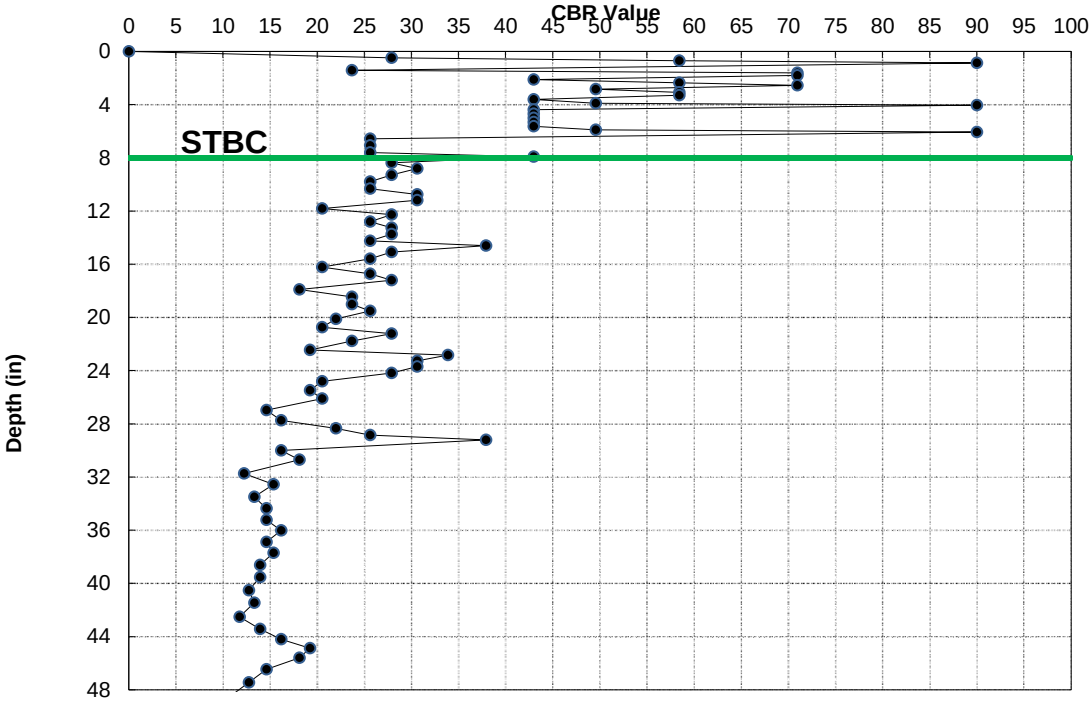


C-66 Y_EB Sta. 31+04 EB ISS 4.0 FT LT FY 6

Datum = STBC
RAW
CUT
10/11/21

Interval 0.0 to 7.9	
# of Values	26
Avg CBR	51.4
Wghtd Avg.	44.6
Max CBR	90.0
Min CBR	23.7

Interval 7.9 to 51.4	
# of Values	66
Avg CBR	21.7
Wghtd Avg.	19.6
Max CBR	37.9
Min CBR	10.5



PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA/AB
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

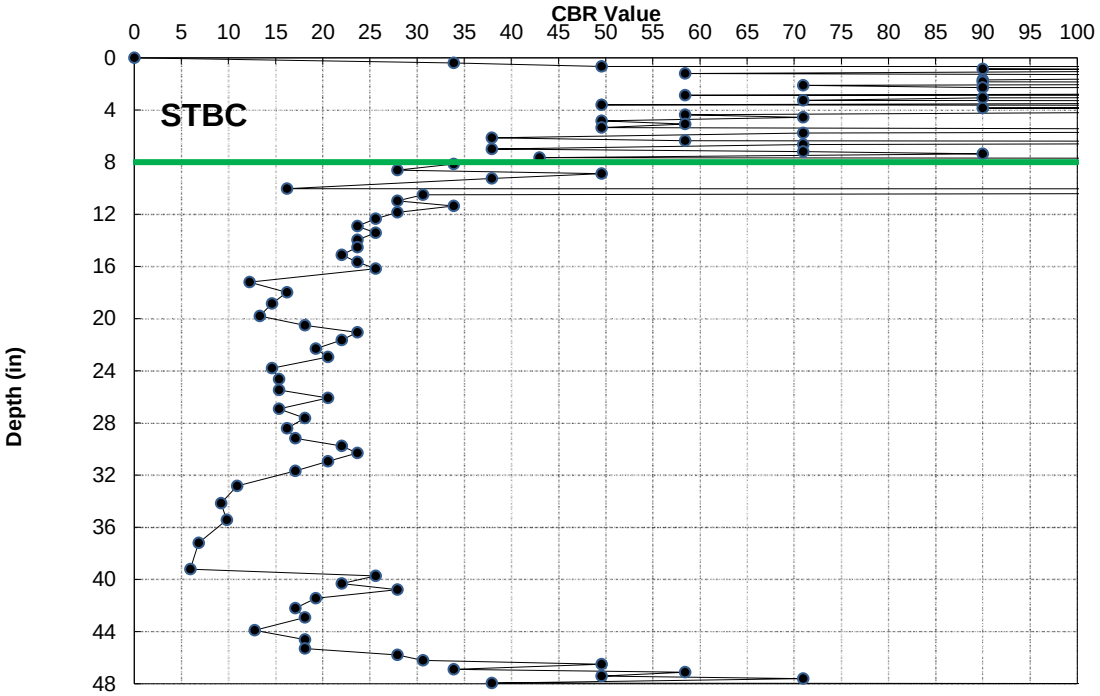
FILE	I2513AA_AB DCP Graphs 4

C-67 Y_EB Sta. 31+04 EB OSS 7.5 FT RT FY 7

Datum = STBC
RAW
AT GRADE
10/11/21

Interval 0.0 to 8.1	
# of Values	48
Avg CBR	100+
Wghtd Avg.	83.1
Max CBR	100+
Min CBR	33.9

Interval 8.1 to 53.3	
# of Values	91
Avg CBR	53.5
Wghtd Avg.	26.5
Max CBR	100+
Min CBR	6.0

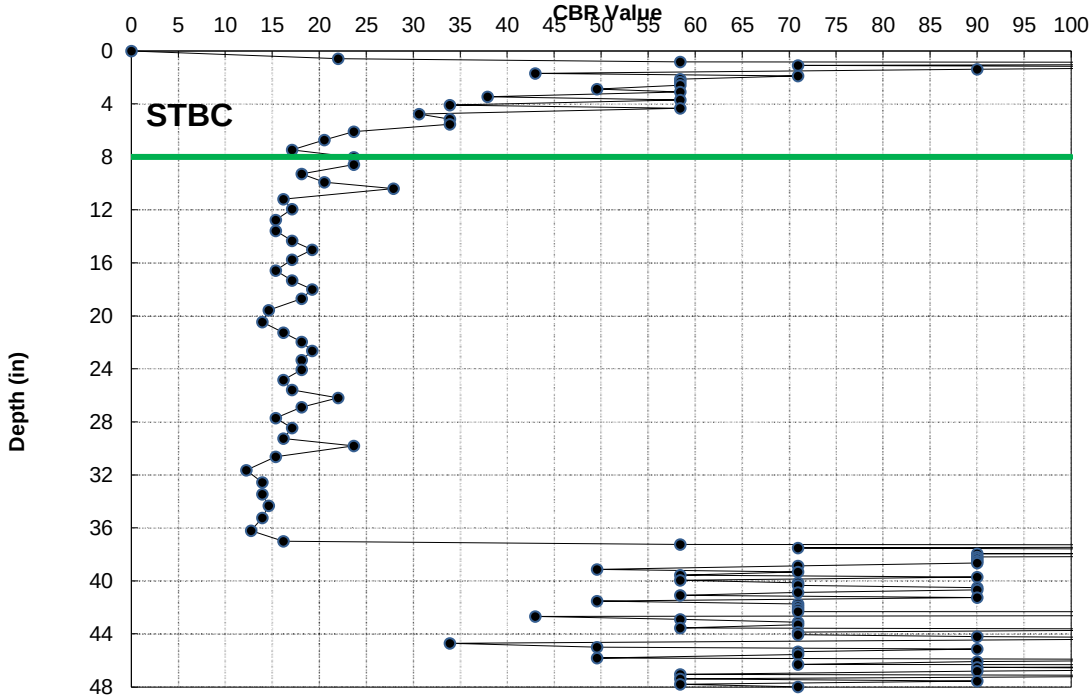


C-68 Y_EB Sta. 36+17 EB ISS 1.7 FT LT FY 8

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 8.0	
# of Values	24
Avg CBR	100+
Wghtd Avg.	83.1
Max CBR	100+
Min CBR	33.9

Interval 8.0 to 50.3	
# of Values	109
Avg CBR	63.6
Wghtd Avg.	34.4
Max CBR	100+
Min CBR	12.2



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA/AB
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

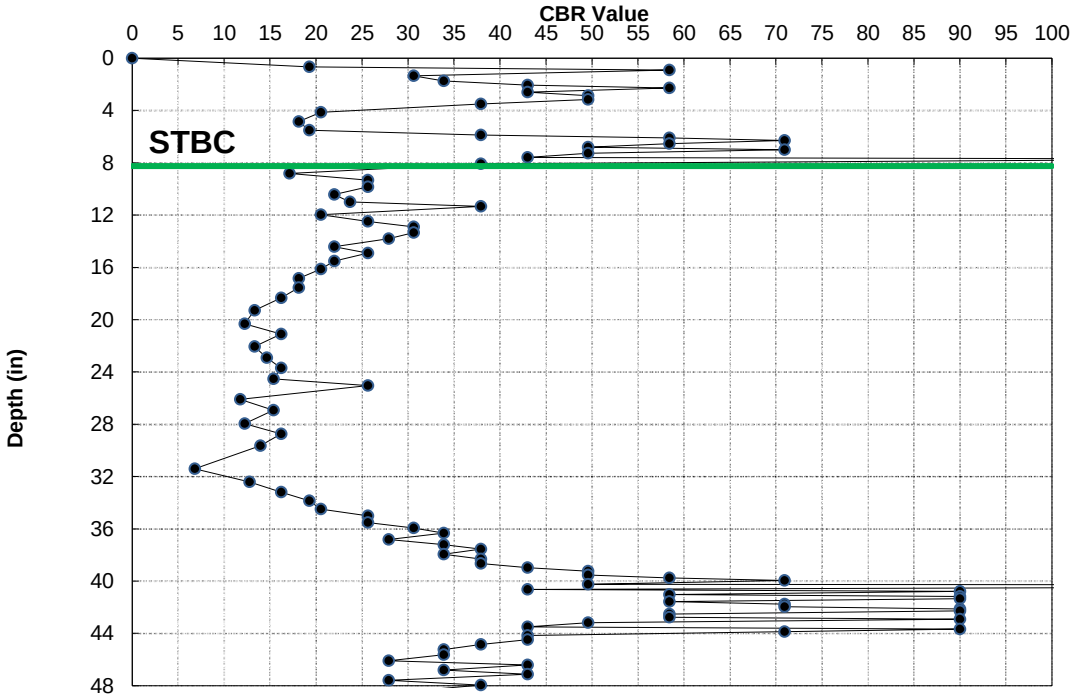
FILE	I2513AA_AB DCP Graphs 4

C-69 Y_EB Sta. 36+18 EB OSS 1.7 FT LT FY 9

Datum = STBC
RAW
AT GRADE
10/11/21

Interval 0.0 to 8.1	
# of Values	23
Avg CBR	47.0
Wghtd Avg.	38.3
Max CBR	100+
Min CBR	18.1

Interval 8.1 to 52.0	
# of Values	92
Avg CBR	38.6
Wghtd Avg.	27.6
Max CBR	100+
Min CBR	6.8

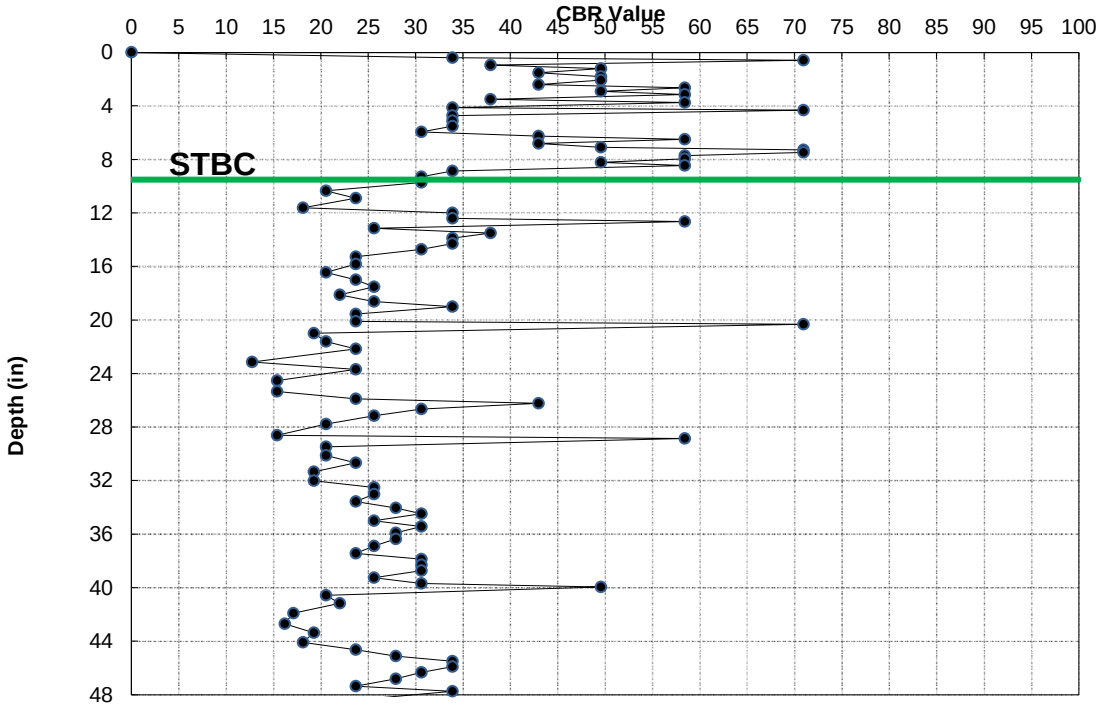


C-70 Y_EB Sta. 41+01 EB ISS 6.5 FT RT FW 10

Datum = STBC
RAW
FILL
10/11/2021

Interval 0.0 to 9.7	
# of Values	32
Avg CBR	47.9
Wghtd Avg.	44.7
Max CBR	70.9
Min CBR	30.6

Interval 9.7 to 53.9	
# of Values	85
Avg CBR	28.1
Wghtd Avg.	25.2
Max CBR	70.9
Min CBR	12.8



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA/AB
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

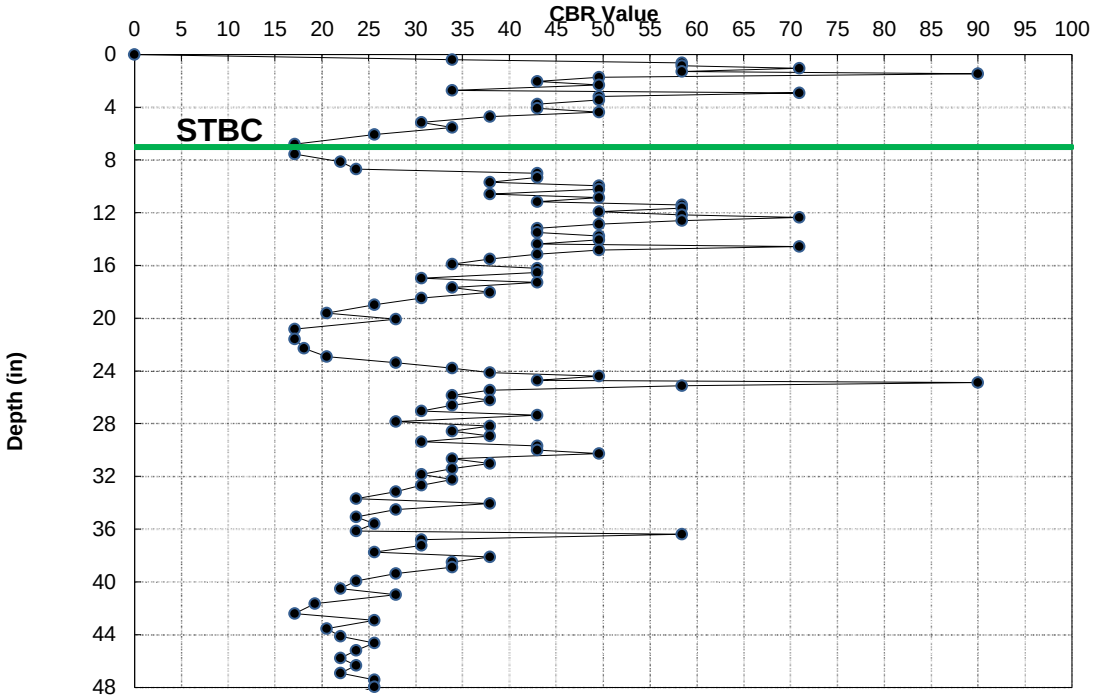
FILE	I2513AA_AB DCP Graphs 4

C-71 Y_EB Sta. 41+02 EB OSS 2.5 FT LT FY 11

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 6.8	
# of Values	21
Avg CBR	47.5
Wghtd Avg.	41.7
Max CBR	90.0
Min CBR	17.1

Interval 6.8 to 53.1	
# of Values	110
Avg CBR	35.3
Wghtd Avg.	31.5
Max CBR	90.0
Min CBR	17.1

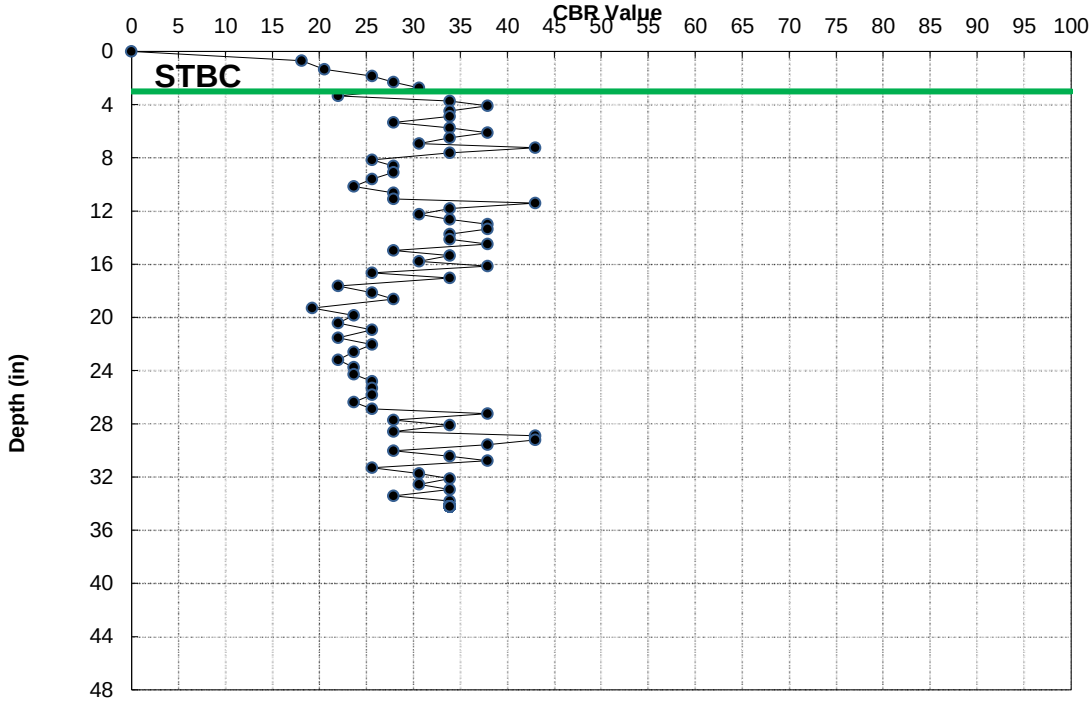


C-72 Y Sta. 20+96 WB OSS 4.0 FT RT FW 12

Datum = STBC
RAW
CUT
10/11/21

Interval 0.0 to 2.8	
# of Values	5
Avg CBR	24.6
Wghtd Avg.	23.7
Max CBR	30.6
Min CBR	18.1

Interval 2.8 to 34.2	
# of Values	70
Avg CBR	30.5
Wghtd Avg.	29.4
Max CBR	43.0
Min CBR	19.2



PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA/AB
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

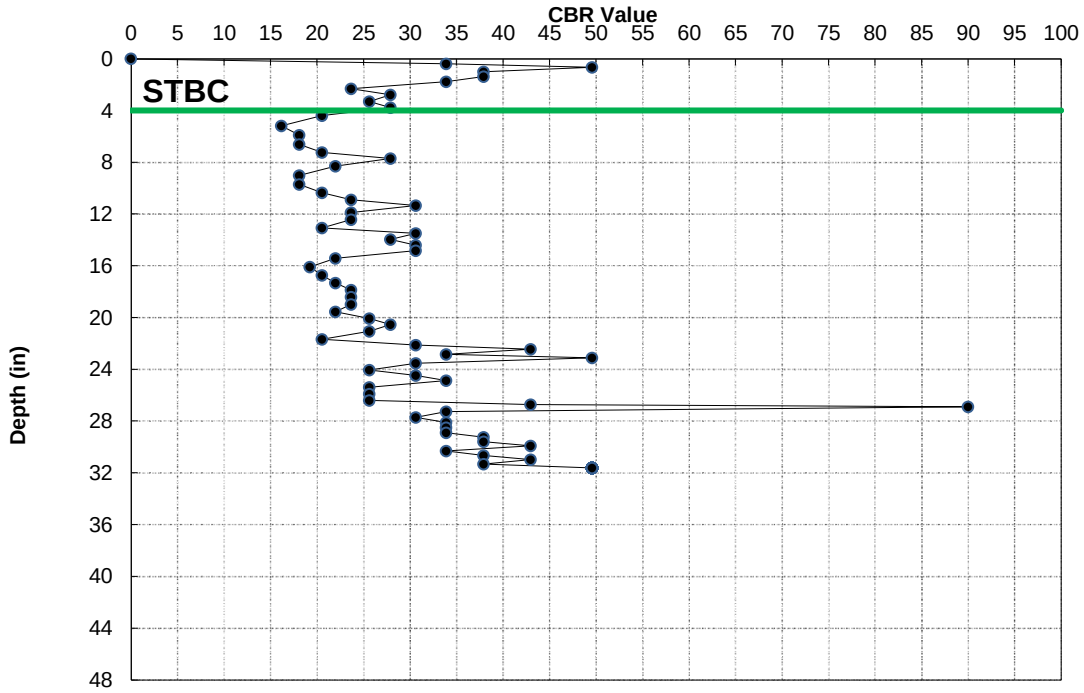
FILE	I2513AA_AB DCP Graphs 4

C-73 Y Sta. 20+96 WB OSL 4.0 FT LT FW 13

Datum = STBC
RAW
CUT
10/11/21

Interval 0.0 to 3.8	
# of Values	9
Avg CBR	33.1
Wghtd Avg.	31.6
Max CBR	49.6
Min CBR	23.7

Interval 3.8 to 31.6	
# of Values	57
Avg CBR	29.7
Wghtd Avg.	26.9
Max CBR	90.0
Min CBR	16.2

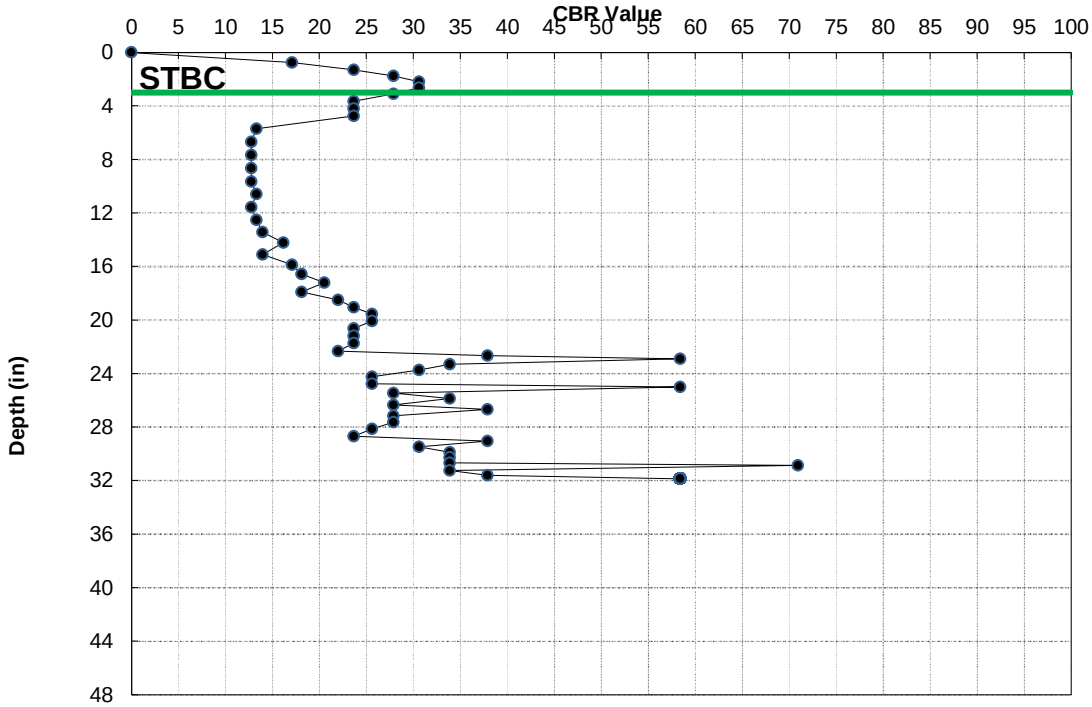


C-75 Y Sta. 20+96 WB ISL (O) 9.5 FT RT FY 14

Datum = STBC
RAW
CUT
10/11/21

Interval 0.0 to 3.1	
# of Values	6
Avg CBR	26.3
Wghtd Avg.	25.3
Max CBR	30.6
Min CBR	17.1

Interval 3.1 to 31.9	
# of Values	50
Avg CBR	27.1
Wghtd Avg.	22.6
Max CBR	70.9
Min CBR	12.8



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA/AB
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

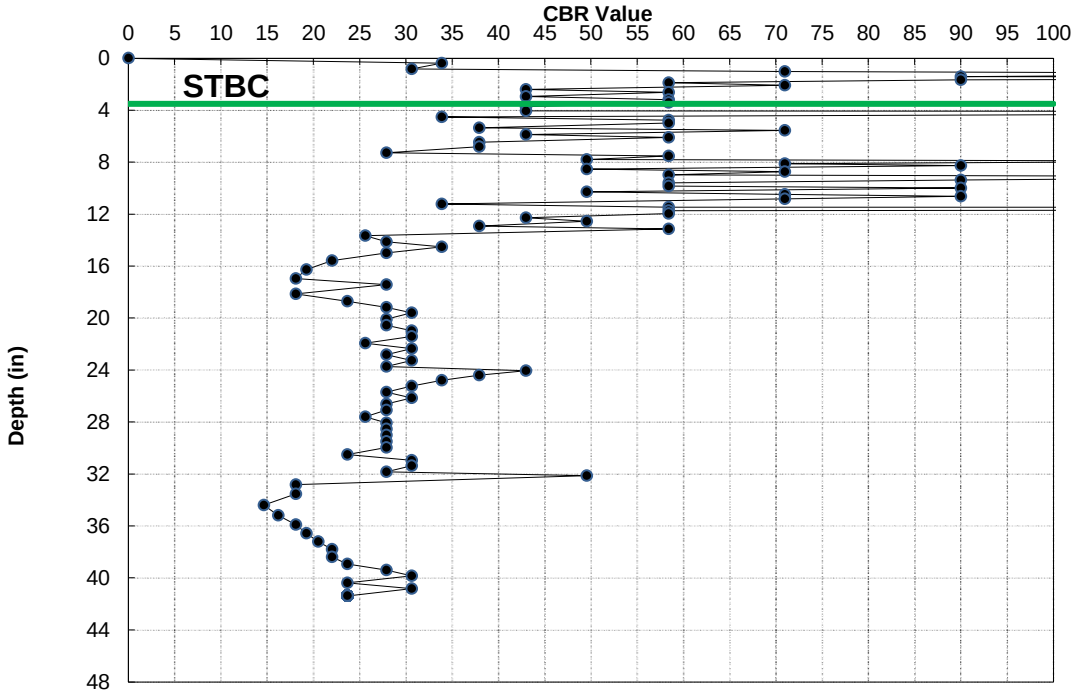
FILE	I2513AA_AB DCP Graphs 4

C-76 Y Sta. 20+96 WB ISL (I) 1.8 FT RT FY 15

Datum = STBC
RAW
CUT
10/11/21

Interval 0.0 to 3.4	
# of Values	15
Avg CBR	75.9
Wghtd Avg.	60.6
Max CBR	100+
Min CBR	30.6

Interval 3.4 to 41.4	
# of Values	95
Avg CBR	46.3
Wghtd Avg.	33.4
Max CBR	100+
Min CBR	14.6

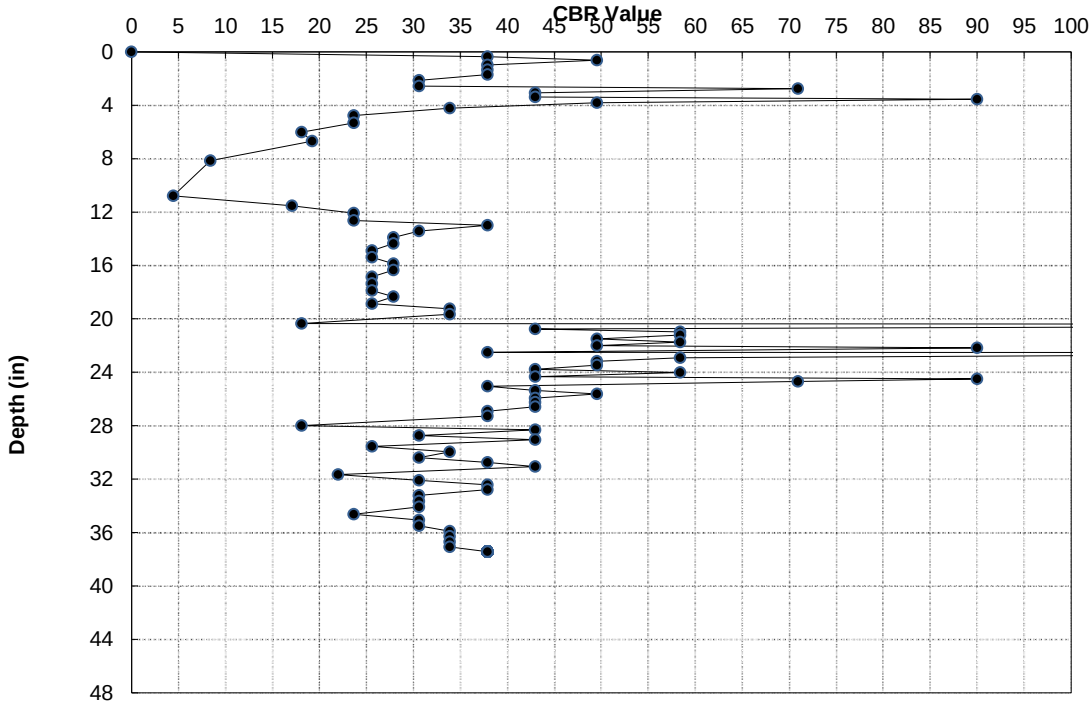


C-77 Y Sta. 20+96 WB ISS 2.3 FT LT FY 16

Datum = SHOULDER D
RAW
CUT
10/11/21

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

Interval 0.0 to 37.4	
# of Values	89
Avg CBR	44.2
Wghtd Avg.	31.6
Max CBR	100+
Min CBR	4.5



PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA/AB
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

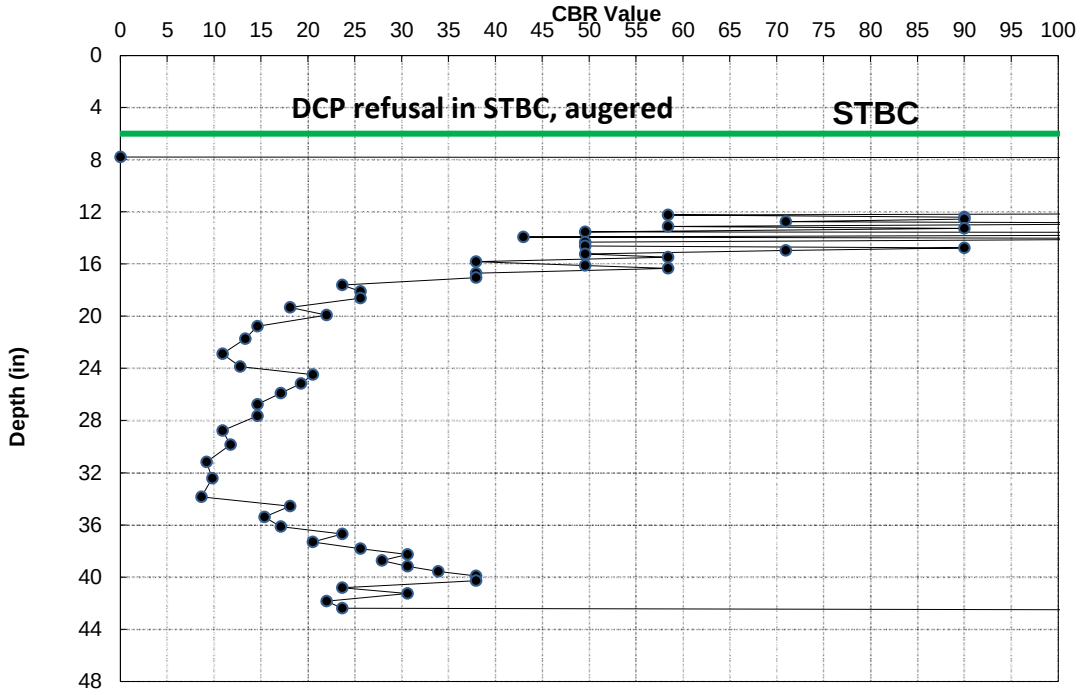
FILE	I2513AA_AB DCP Graphs 4

C-78 Y Sta. 26+00 WB OSS 11.8 FT RT FW 17

Datum = STBC
RAW
CUT
10/11/21

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

Interval 7.8 to 42.5	
# of Values	100
Avg CBR	88.6
Wghtd Avg.	38.7
Max CBR	100+
Min CBR	8.6

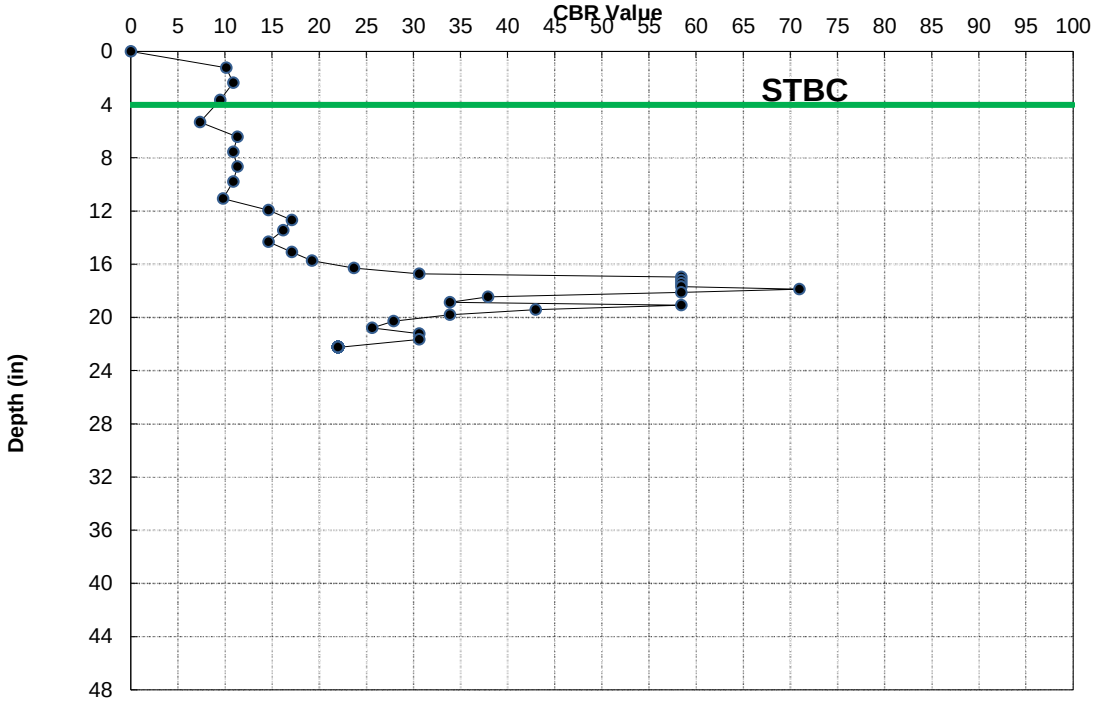


C-79 Y Sta. 28+56 WB MERGE LANE 2.0 FT LT FW 18

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 3.7	
# of Values	3
Avg CBR	10.2
Wghtd Avg.	10.1
Max CBR	10.9
Min CBR	9.5

Interval 3.7 to 22.2	
# of Values	30
Avg CBR	30.7
Wghtd Avg.	20.9
Max CBR	70.9
Min CBR	7.3



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA/AB
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

FILE	I2513AA_AB DCP Graphs 4

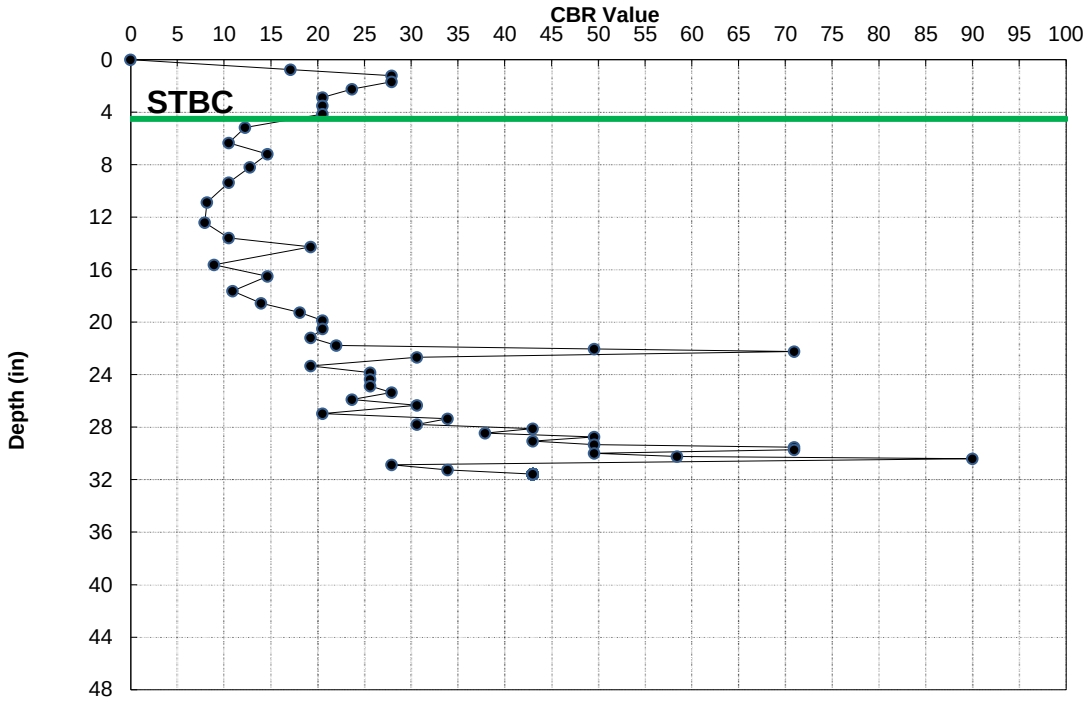
C-80 Y Sta. 31+41 WB OSS 4.7 FT RT FW

19

Datum = SAND
RAW
FILL
10/11/21

Interval 0.0 to 4.1	
# of Values	7
Avg CBR	22.6
Wghtd Avg.	22.0
Max CBR	27.9
Min CBR	17.1

Interval 4.1 to 31.6	
# of Values	44
Avg CBR	30.4
Wghtd Avg.	20.8
Max CBR	90.0
Min CBR	7.9



CONE PENETROMETER RESULTS
NCDOT. GEOTECHNICAL ENGINEERING UNIT

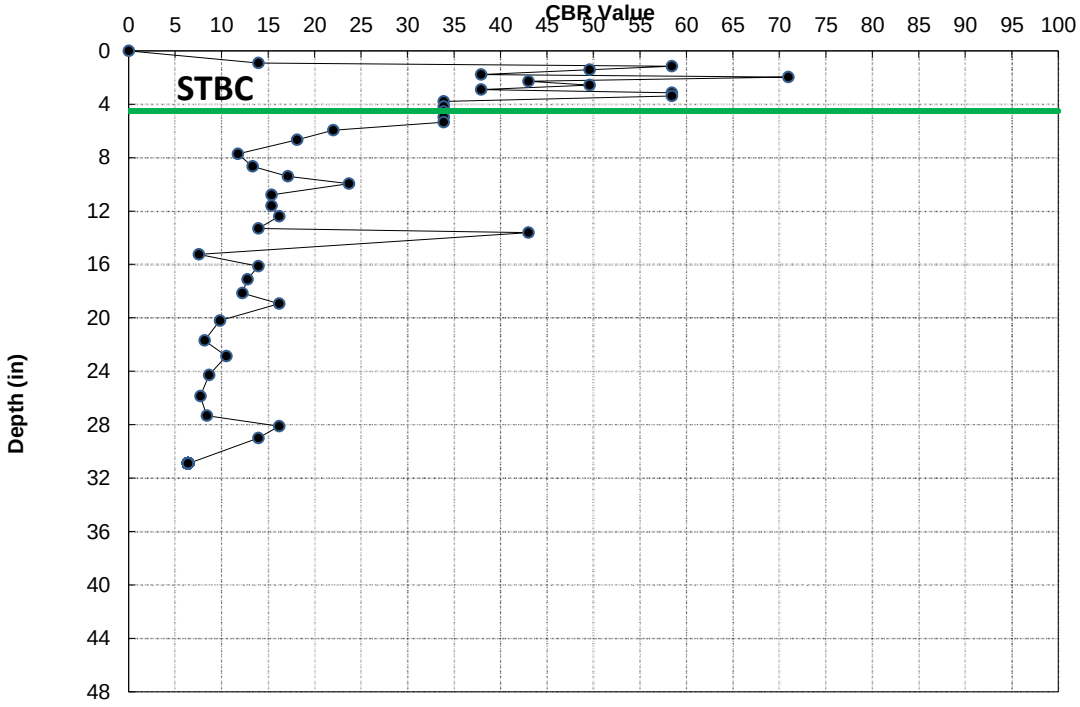
C-82 Y Sta. 37+45 WB OSS 9.5 FT RT FW

2

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 4.6	
# of Values	13
Avg CBR	44.6
Wghtd Avg.	38.3
Max CBR	70.9
Min CBR	13.9

Interval 4.6 to 30.9	
# of Values	27
Avg CBR	15.9
Wghtd Avg.	12.9
Max CBR	43.0
Min CBR	6.4



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

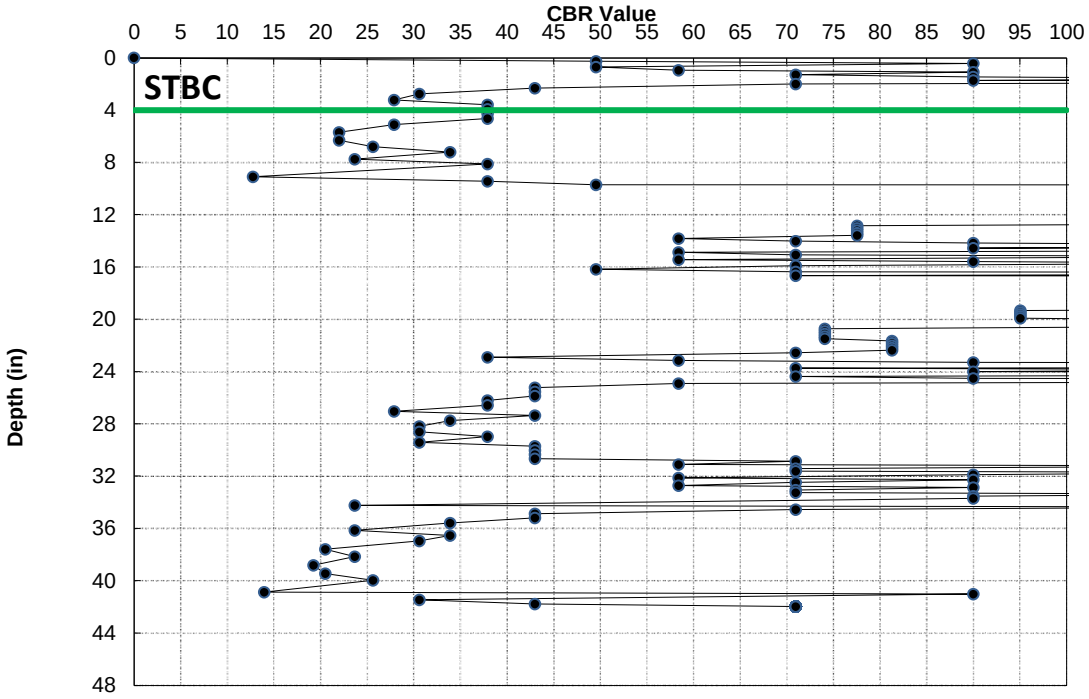
FILE	I2513AA_AB DCP Graphs 5

C-83 Y Sta. 41+94 WB OSS 9.4 FT RT FW 3

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 3.9	
# of Values	16
Avg CBR	71.7
Wghtd Avg.	55.9
Max CBR	100+
Min CBR	27.9

Interval 3.9 to 42.0	
# of Values	187
Avg CBR	100+
Wghtd Avg.	68.5
Max CBR	100+
Min CBR	12.8

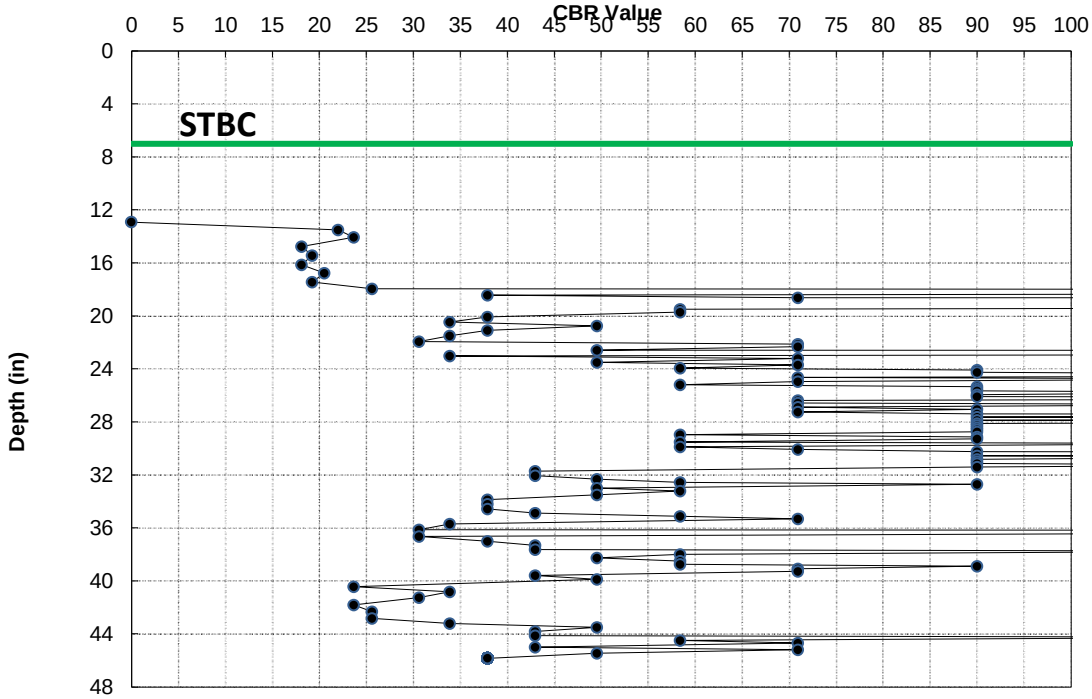


C-84 Y Sta. 50+37 WB OSS 6.5 FT RT FW 4

Datum = STBC
RAW
FILL
10/11/21

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

Interval 12.9 to 45.8	
# of Values	137
Avg CBR	92.6
Wghtd Avg.	57.4
Max CBR	100+
Min CBR	18.1



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

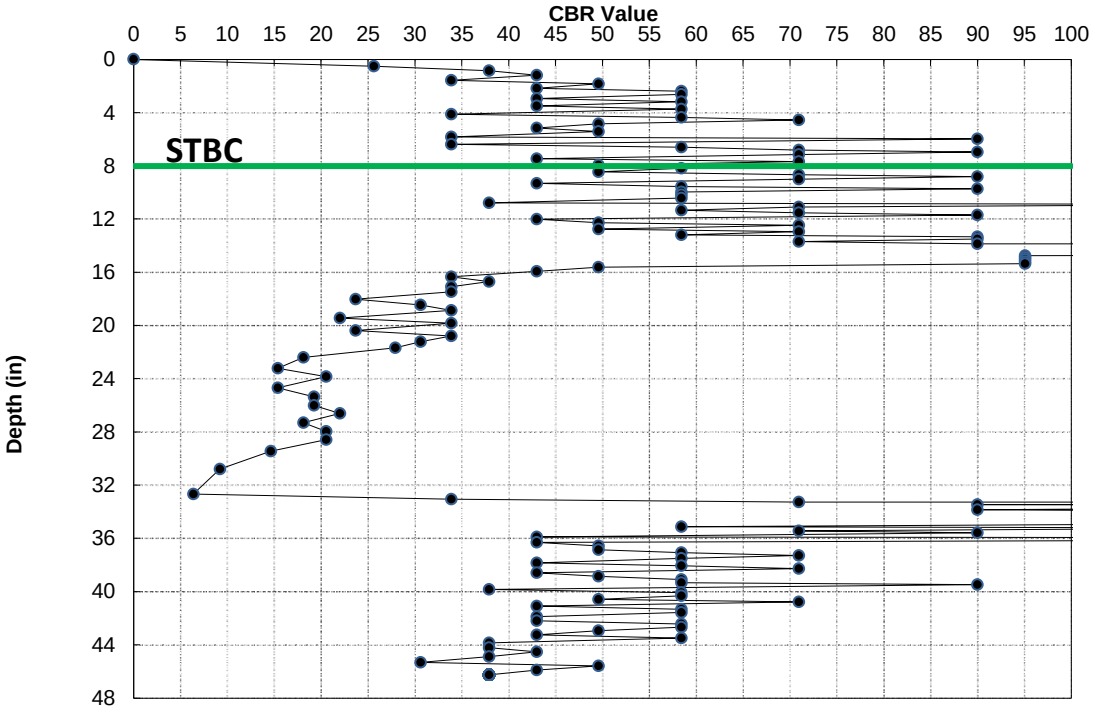
FILE	I2513AA_AB DCP Graphs 5

C-85 Y Sta. 58+51 WB OSS 6.2 FT RT FW 5

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 8.0	
# of Values	28
Avg CBR	52.5
Wghtd Avg.	48.0
Max CBR	90.0
Min CBR	25.6

Interval 8.0 to 46.3	
# of Values	133
Avg CBR	86.0
Wghtd Avg.	47.3
Max CBR	100+
Min CBR	6.4

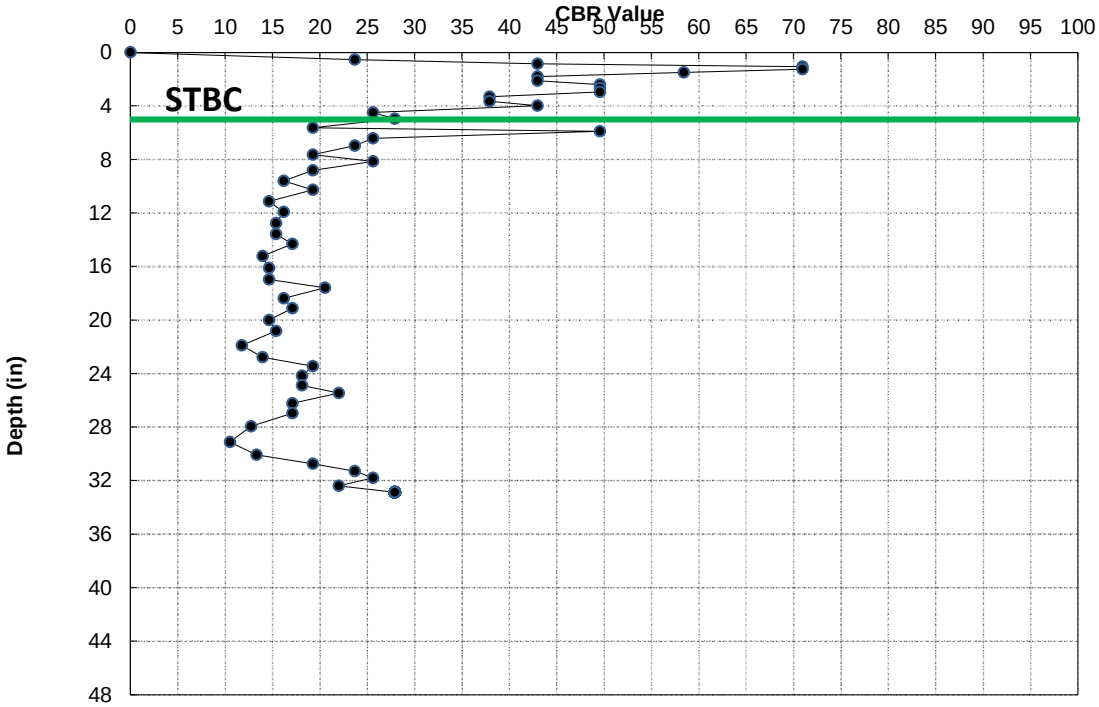


C-86 Y Sta. 58+50 WB OSL 5.5 FT LT FW 6

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 5.0	
# of Values	15
Avg CBR	44.9
Wghtd Avg.	40.8
Max CBR	70.9
Min CBR	23.7

Interval 5.0 to 32.9	
# of Values	38
Avg CBR	18.8
Wghtd Avg.	17.4
Max CBR	49.6
Min CBR	10.5



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

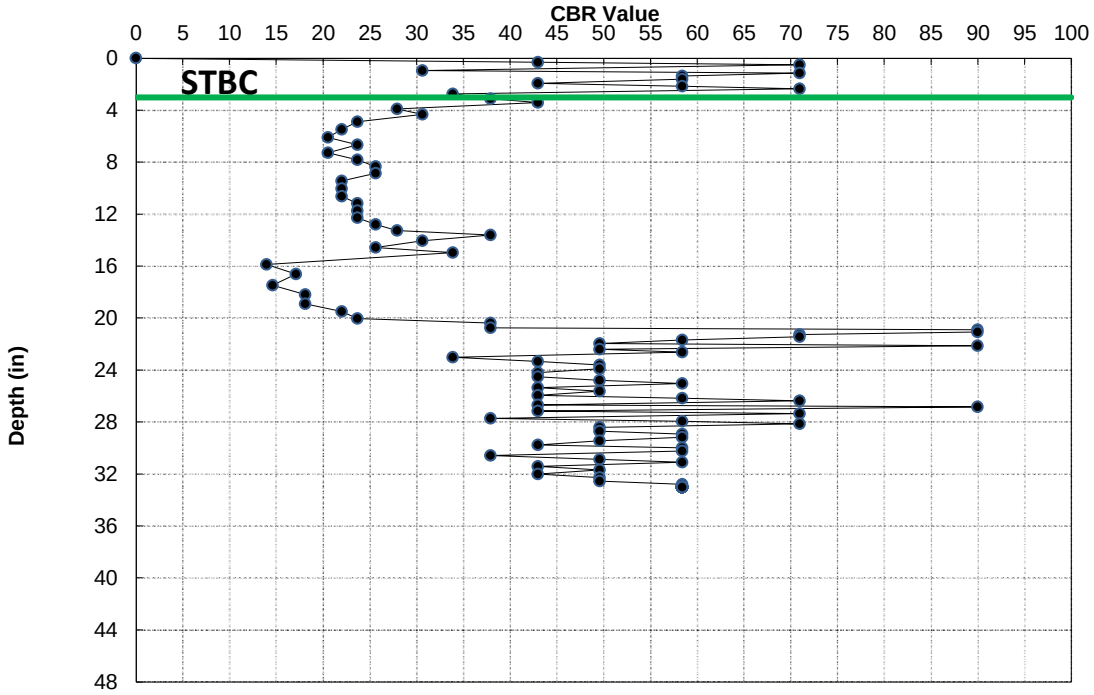
FILE	I2513AA_AB DCP Graphs 5

C-87 Y Sta. 58+51 WB OSML 15.5 FT LT FW 7

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 3.1	
# of Values	11
Avg CBR	52.4
Wghtd Avg.	48.2
Max CBR	70.9
Min CBR	30.6

Interval 3.1 to 33.0	
# of Values	79
Avg CBR	43.1
Wghtd Avg.	35.3
Max CBR	90.0
Min CBR	13.9

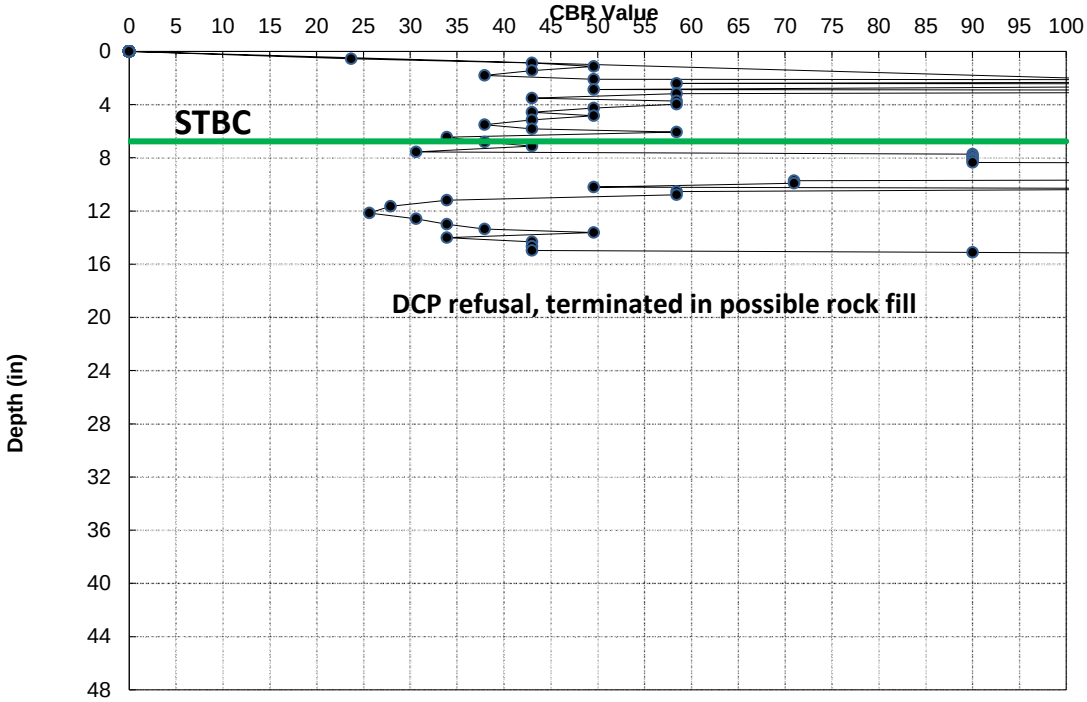


C-88 Y Sta. 63+40 WB OSS 6.6 FT RT FW 8

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 6.8	
# of Values	25
Avg CBR	52.4
Wghtd Avg.	48.2
Max CBR	70.9
Min CBR	30.6

Interval 6.8 to #####	
# of Values	139
Avg CBR	#VALUE!
Wghtd Avg.	#VALUE!
Max CBR	#VALUE!
Min CBR	#VALUE!



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

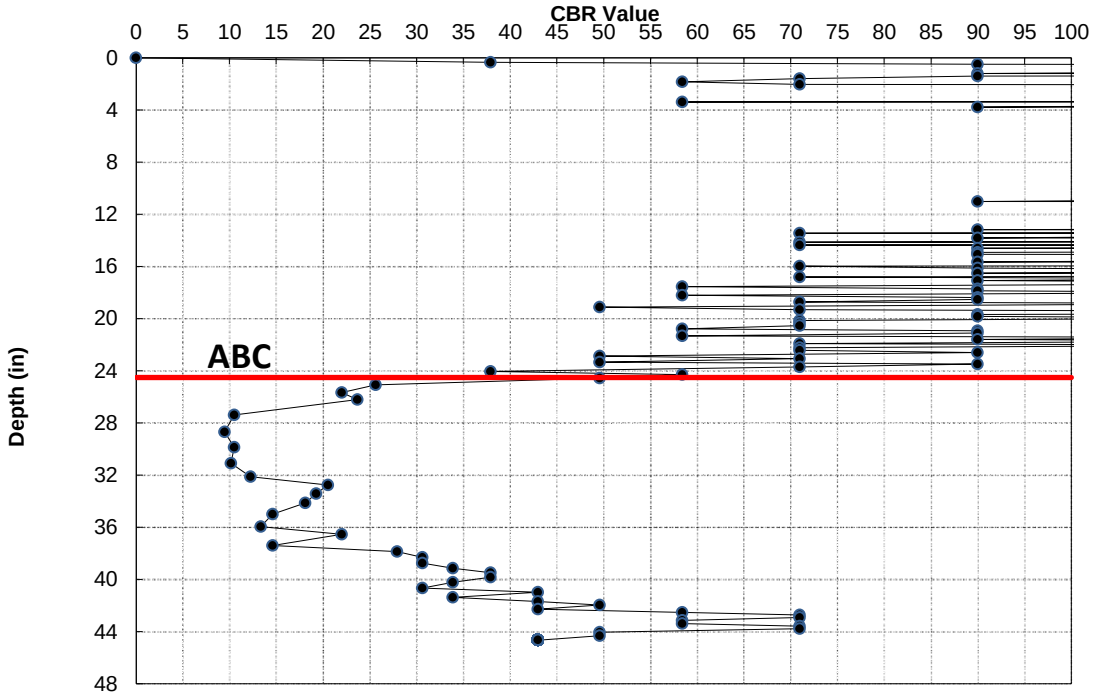
FILE	I2513AA_AB DCP Graphs 5

C-89 Y Sta. 68+54 WB OSS 5.5 FT RT FW 9

Datum = ABC
RAW
FILL
10/11/21

Interval 0.0 to 24.6	
# of Values	252
Avg CBR	100+
Wghtd Avg.	100+
Max CBR	100+
Min CBR	37.9

Interval 24.6 to 44.6	
# of Values	38
Avg CBR	34.8
Wghtd Avg.	24.8
Max CBR	70.9
Min CBR	9.5

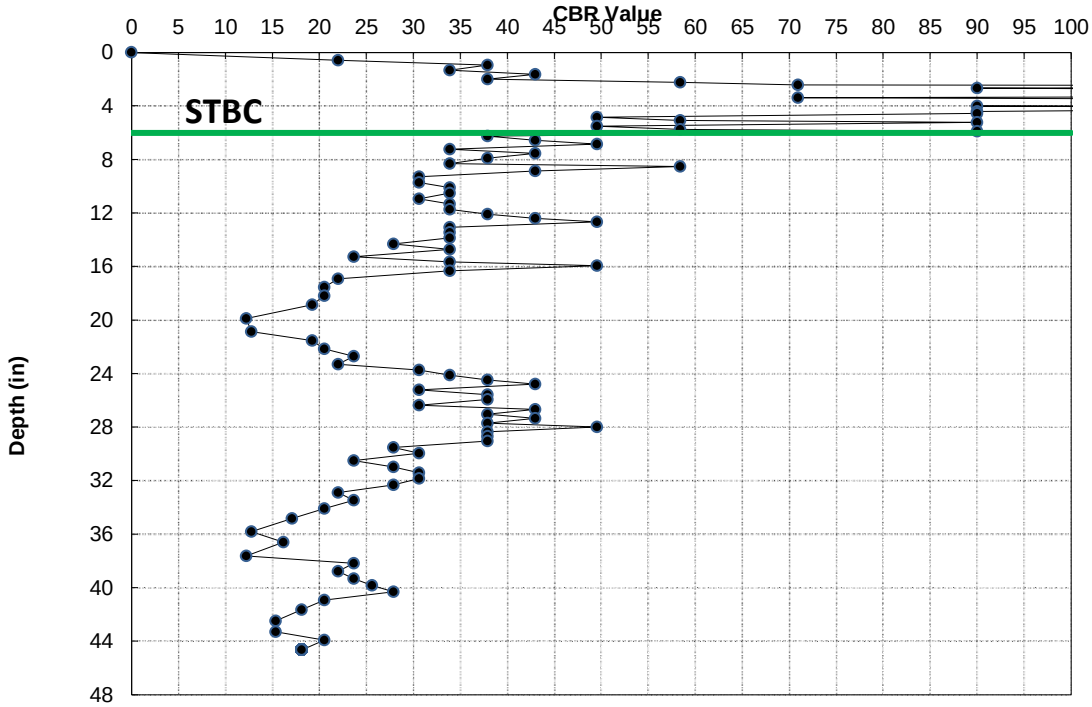


C-90 Y Sta. 75+02 WB OSS 6.0 FT RT FW 10

Datum = STBC
RAW
FILL
10/11/2021

Interval 0.0 to 5.9	
# of Values	31
Avg CBR	100+
Wghtd Avg.	73.5
Max CBR	100+
Min CBR	22.0

Interval 5.9 to 44.6	
# of Values	79
Avg CBR	30.3
Wghtd Avg.	26.8
Max CBR	58.4
Min CBR	12.2



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

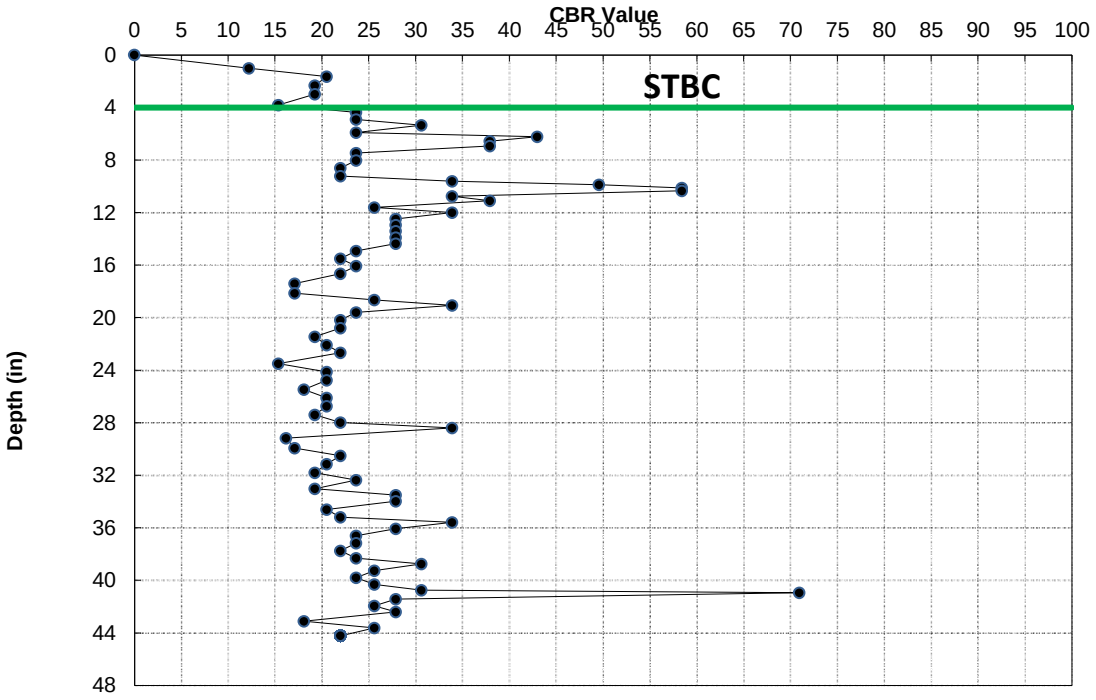
FILE	I2513AA_AB DCP Graphs 5

C-91 Y Sta. 80+09 WB OSS 6.0 FT RT FW 11

Datum = STBC
RAW
CUT
10/11/21

Interval 0.0 to 3.8	
# of Values	5
Avg CBR	17.3
Wghtd Avg.	16.7
Max CBR	20.5
Min CBR	12.2

Interval 3.8 to 44.2	
# of Values	76
Avg CBR	26.8
Wghtd Avg.	24.6
Max CBR	70.9
Min CBR	15.4

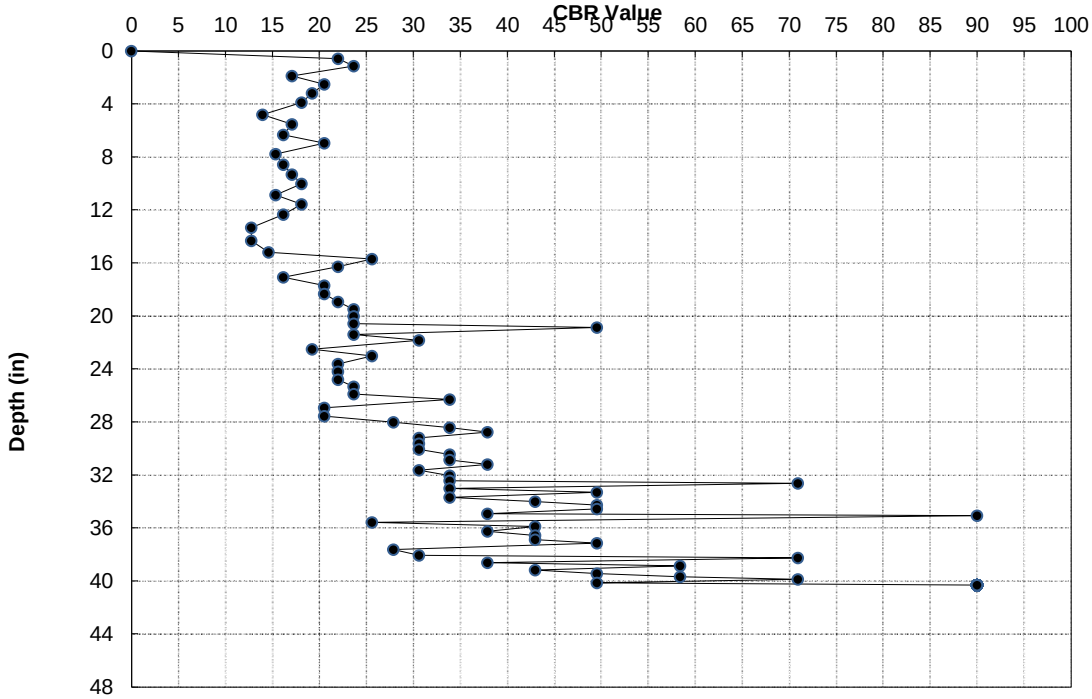


C-92 Y Sta. 85+47 WB OSS 5.8 FT RT FW 12

Datum = CSS
RAW
CUT
10/11/21

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

Interval 0.0 to 40.3	
# of Values	80
Avg CBR	32.0
Wghtd Avg.	26.0
Max CBR	90.0
Min CBR	12.8



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

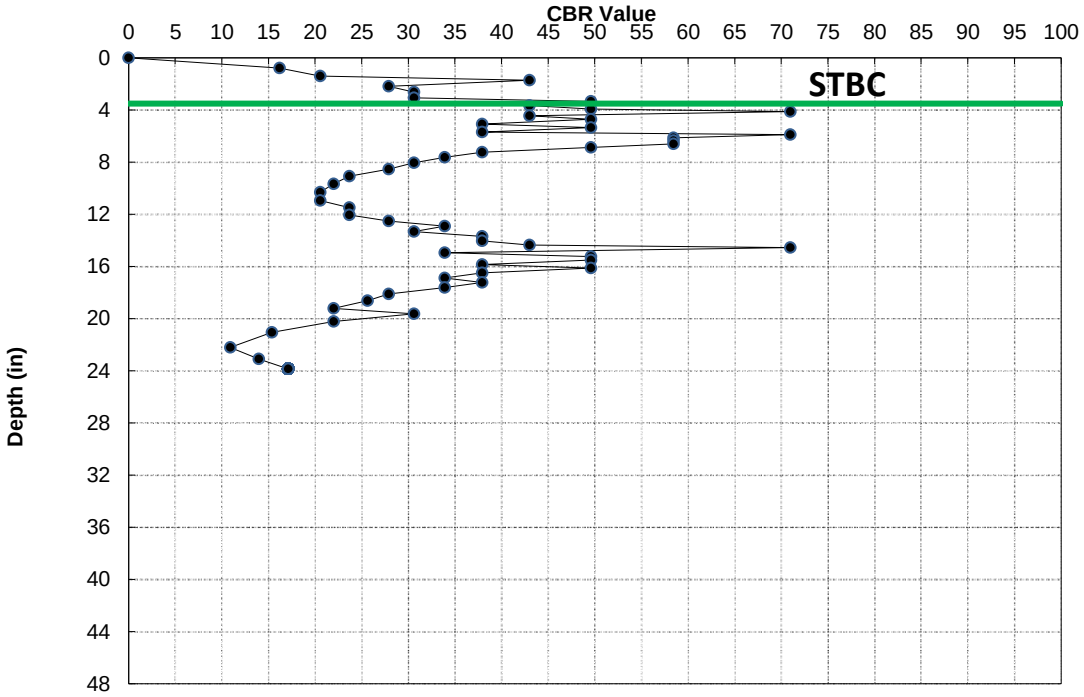
FILE	I2513AA_AB DCP Graphs 5

C-93 Y Sta. 88+85 WB OSS 6.3 FT RT FW 13

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 3.7	
# of Values	8
Avg CBR	32.7
Wghtd Avg.	28.9
Max CBR	49.6
Min CBR	16.2

Interval 3.7 to 23.9	
# of Values	47
Avg CBR	36.8
Wghtd Avg.	30.9
Max CBR	70.9
Min CBR	10.9

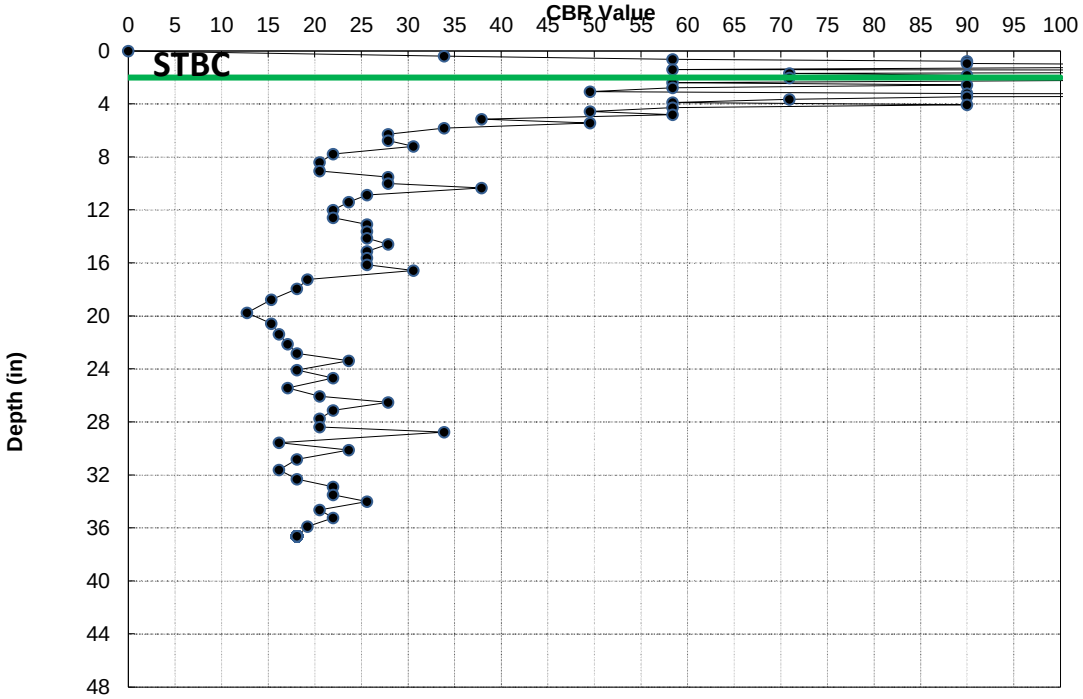


C-94 Y Sta. 88+74 WB OSL 5.7 FT LT FW 14

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 2.0	
# of Values	11
Avg CBR	90.5
Wghtd Avg.	75.3
Max CBR	100+
Min CBR	33.9

Interval 2.0 to 36.6	
# of Values	68
Avg CBR	35.3
Wghtd Avg.	25.8
Max CBR	100+
Min CBR	12.8



PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

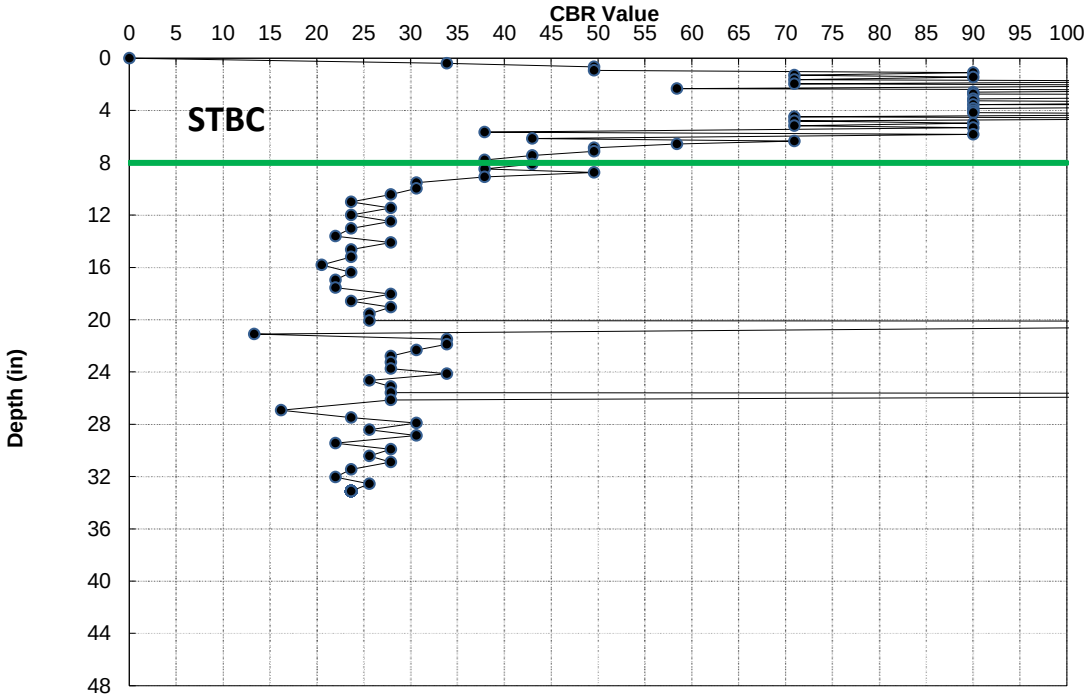
FILE	I2513AA_AB DCP Graphs 5

C-96 Y Sta. 88+75 WB ISL 2.4 FT RT FY 15

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 8.1	
# of Values	42
Avg CBR	90.0
Wghtd Avg.	72.4
Max CBR	100+
Min CBR	33.9

Interval 8.1 to 33.1	
# of Values	51
Avg CBR	33.3
Wghtd Avg.	26.8
Max CBR	100+
Min CBR	13.3

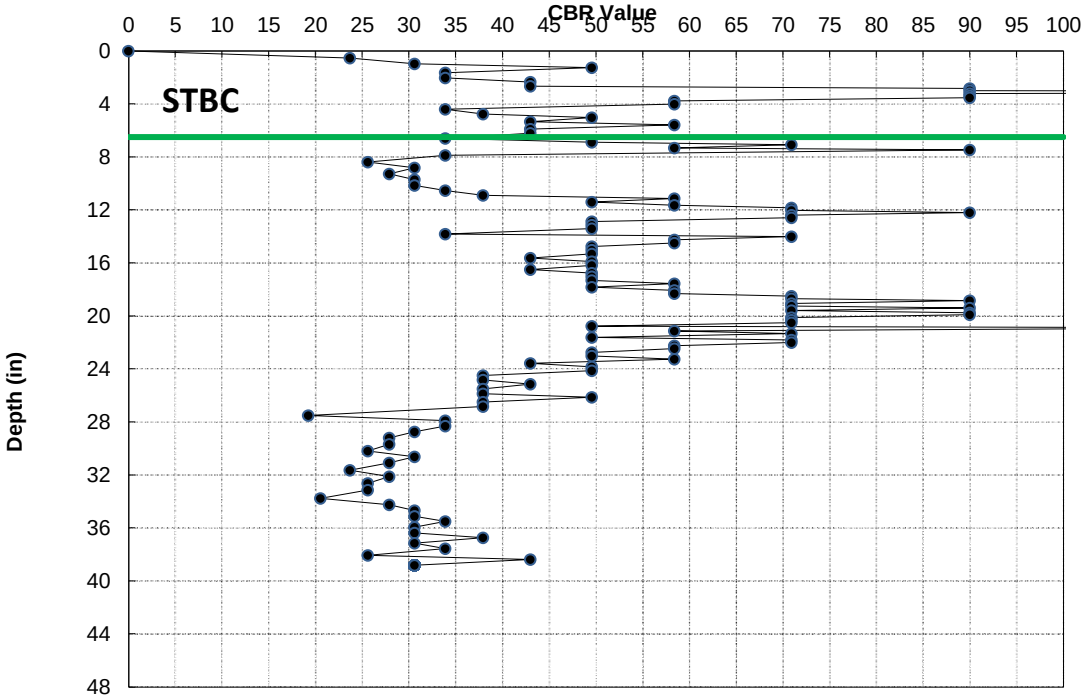


C-97 Y Sta. 88+75 WB ISS 3.7 FT LT FY 16

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 6.6	
# of Values	23
Avg CBR	58.9
Wghtd Avg.	47.4
Max CBR	100+
Min CBR	23.7

Interval 6.6 to 38.8	
# of Values	102
Avg CBR	49.6
Wghtd Avg.	42.9
Max CBR	100+
Min CBR	19.2



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

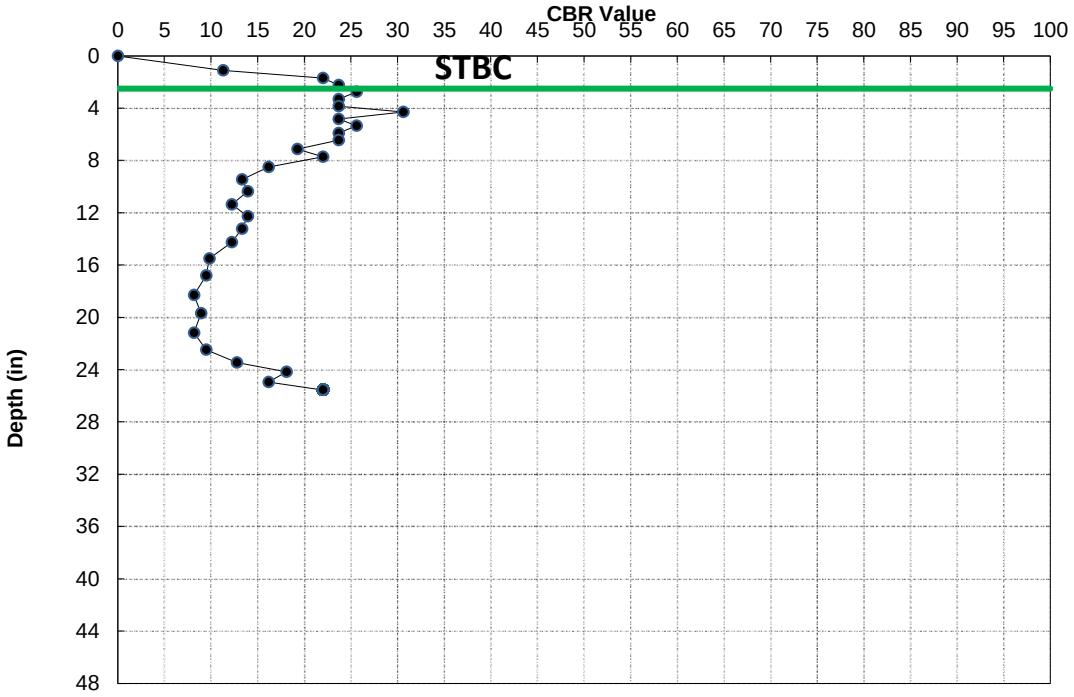
FILE	I2513AA_AB DCP Graphs 5

C-98 Y_WB Sta. 10+69 WB OSS 2.1 FT RT FW — 17

Datum = STBC
RAW
FILL
10/11/21

Interval 0.0 to 2.8	
# of Values	4
Avg CBR	20.6
Wghtd Avg.	18.7
Max CBR	25.6
Min CBR	11.3

Interval 2.8 to 25.6	
# of Values	26
Avg CBR	16.7
Wghtd Avg.	14.4
Max CBR	30.6
Min CBR	8.2

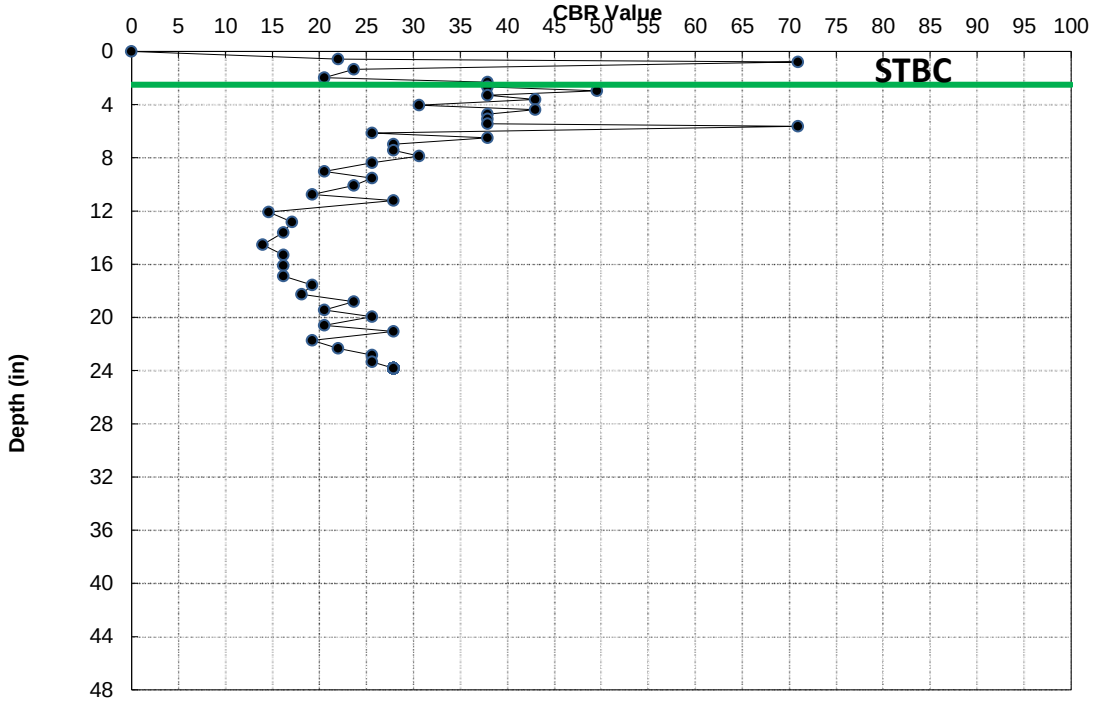


C-99 Y_WB Sta. 15+88 WB OSS 6.0 FT RT FW — 18

Datum = STBC
RAW
CUT
10/11/21

Interval 0.0 to 2.7	
# of Values	6
Avg CBR	35.5
Wghtd Avg.	29.7
Max CBR	70.9
Min CBR	20.5

Interval 2.7 to 23.8	
# of Values	39
Avg CBR	27.4
Wghtd Avg.	24.1
Max CBR	70.9
Min CBR	13.9



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

FILE	I2513AA_AB DCP Graphs 5

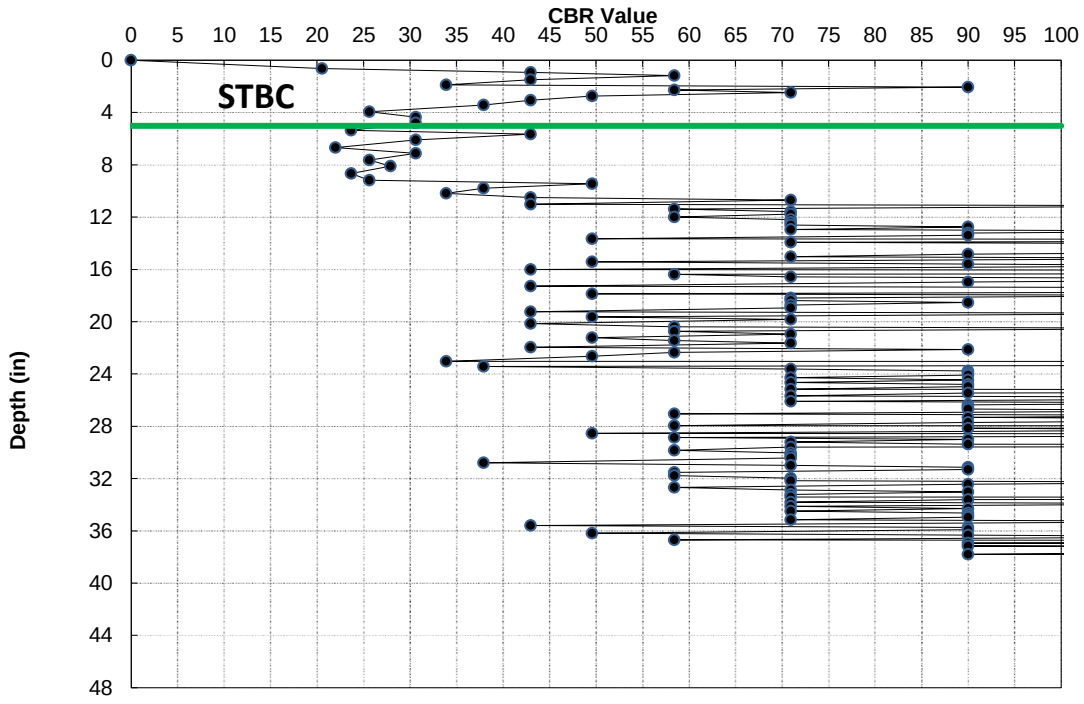
C-100 Y_WB Sta. 15+88 WB ISS 1.5 FT LT FY

19

Datum = STBC
RAW
CUT
10/11/21

Interval 0.0 to 4.8	
# of Values	14
Avg CBR	45.4
Wghtd Avg.	39.2
Max CBR	90.0
Min CBR	20.5

Interval 4.8 to 38.0	
# of Values	171
Avg CBR	96.5
Wghtd Avg.	72.1
Max CBR	100+
Min CBR	22.0



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA/AB
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

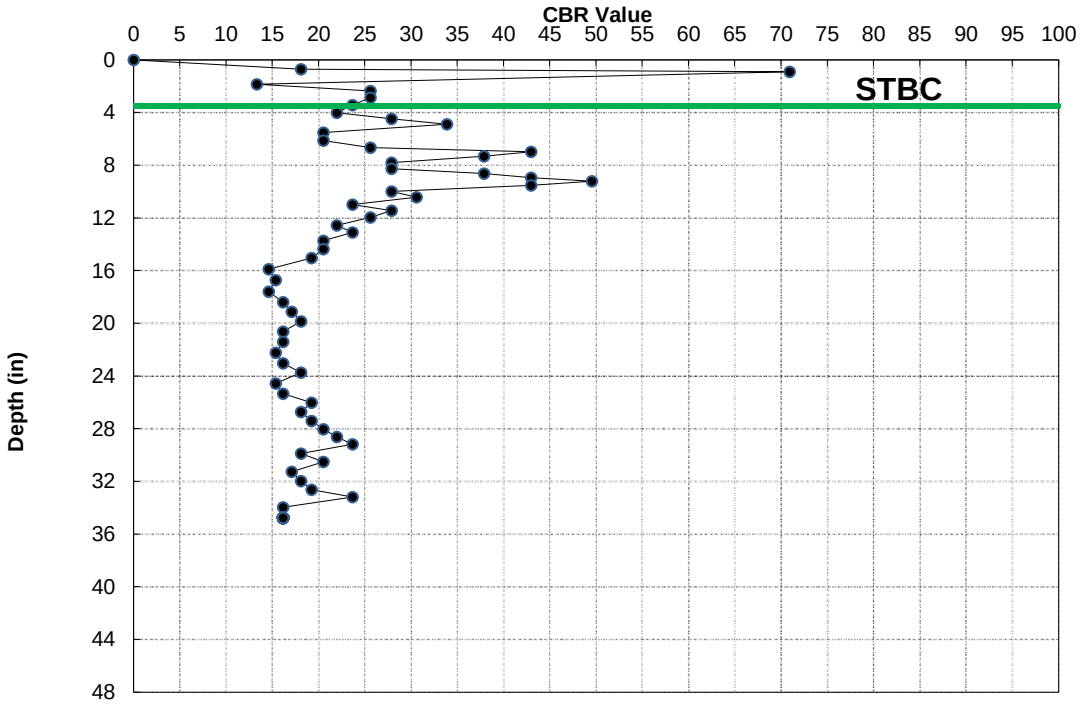
FILE	I2513AA_AB DCP Graphs 4

C-101 Y_WB Sta. 20+65 WB OSS 6.2 FT RT FW 1

Datum = STBC
RAW
CUT
10/13/21

Interval 0.0 to 3.4	
# of Values	6
Avg CBR	29.5
Wghtd Avg.	22.8
Max CBR	70.9
Min CBR	13.3

Interval 3.4 to 34.8	
# of Values	51
Avg CBR	23.2
Wghtd Avg.	21.1
Max CBR	49.6
Min CBR	14.6

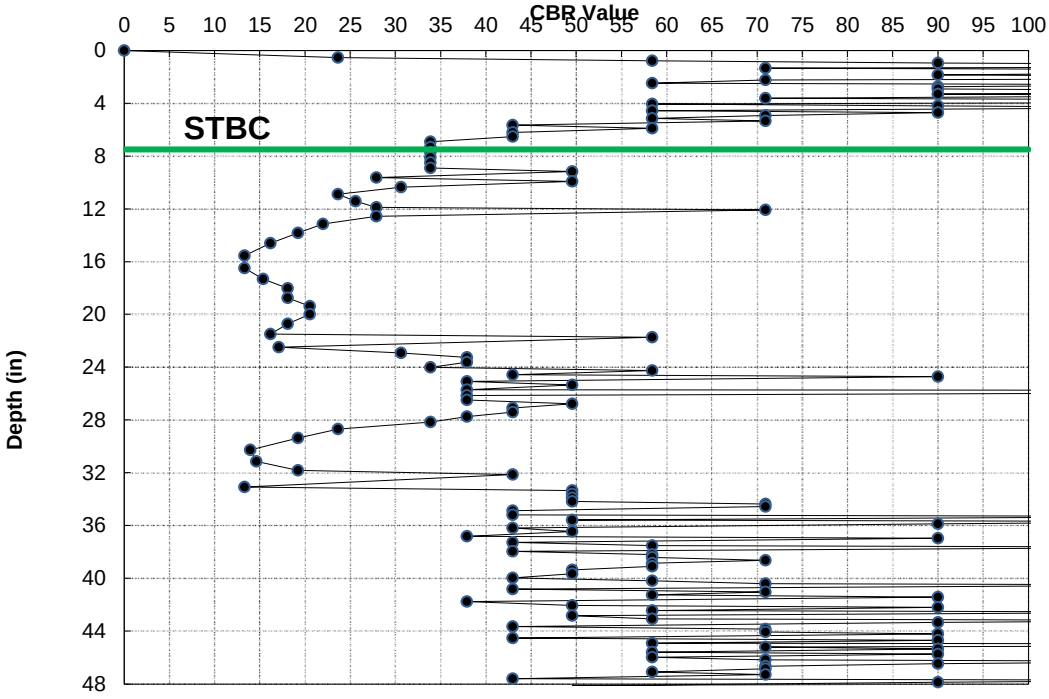


C-102 Y_WB Sta. 20+65 WB ISS 4.5 FT LT FY 2

Datum = STBC
RAW
CUT
10/13/21

Interval 0.0 to 7.3	
# of Values	38
Avg CBR	91.2
Wghtd Avg.	72.6
Max CBR	100+
Min CBR	23.7

Interval 7.3 to 49.3	
# of Values	126
Avg CBR	56.5
Wghtd Avg.	40.5
Max CBR	100+
Min CBR	13.3



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA/AB
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

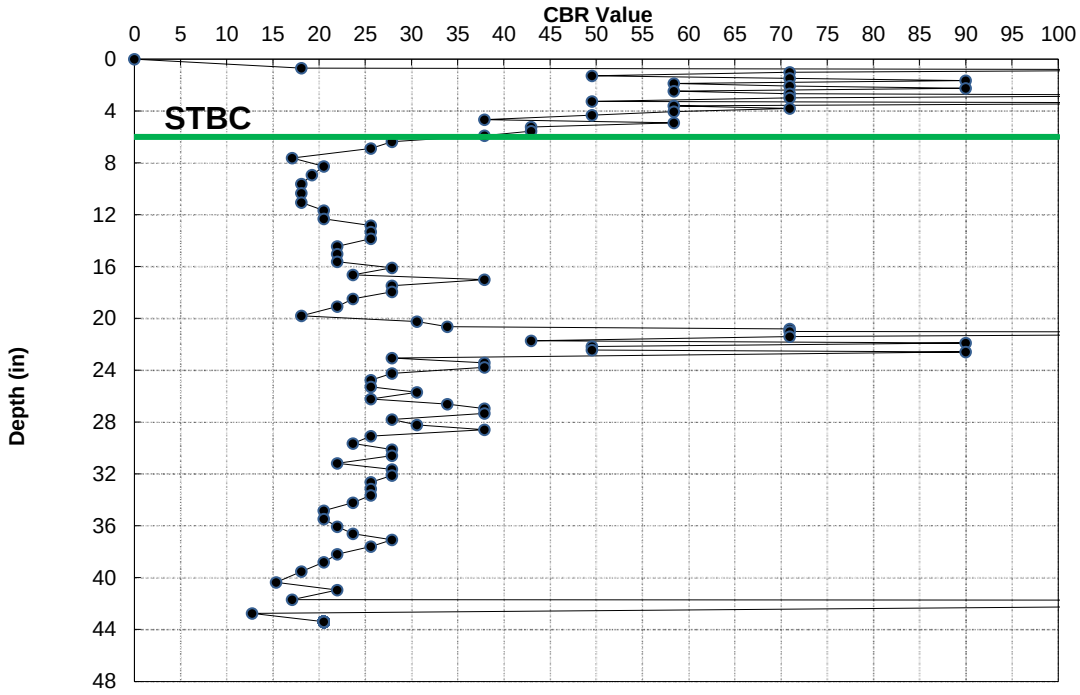
FILE	I2513AA_AB DCP Graphs 4

C-103 Y_WB Sta. 27+11 WB OSS 6.0 FT RT FW 3

Datum = STBC
RAW
FILL
10/13/21

Interval 0.0 to 5.9	
# of Values	24
Avg CBR	66.4
Wghtd Avg.	55.9
Max CBR	100+
Min CBR	18.1

Interval 5.9 to 43.4	
# of Values	76
Avg CBR	35.2
Wghtd Avg.	26.7
Max CBR	100+
Min CBR	12.8

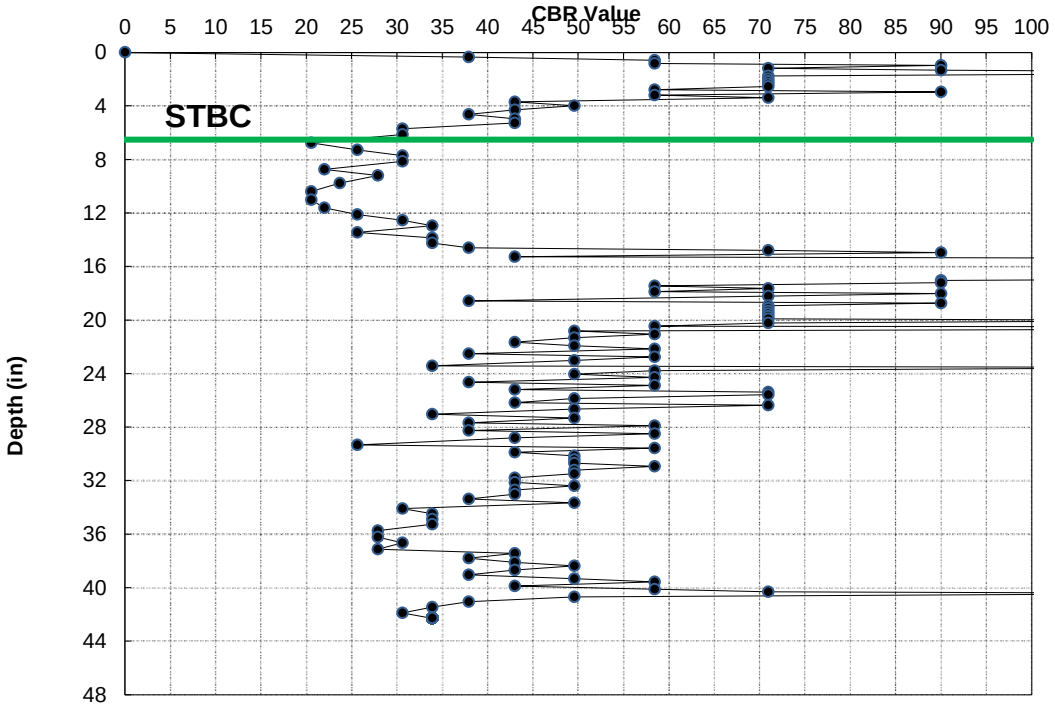


C-104 Y_WB Sta. 27+12 WB OSL 1.6 FT LT FW 4

Datum = STBC
RAW
FILL
10/13/21

Interval 0.0 to 6.1	
# of Values	25
Avg CBR	64.1
Wghtd Avg.	56.0
Max CBR	100+
Min CBR	30.6

Interval 6.1 to 42.3	
# of Values	126
Avg CBR	63.2
Wghtd Avg.	47.5
Max CBR	100+
Min CBR	20.5



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA/AB
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

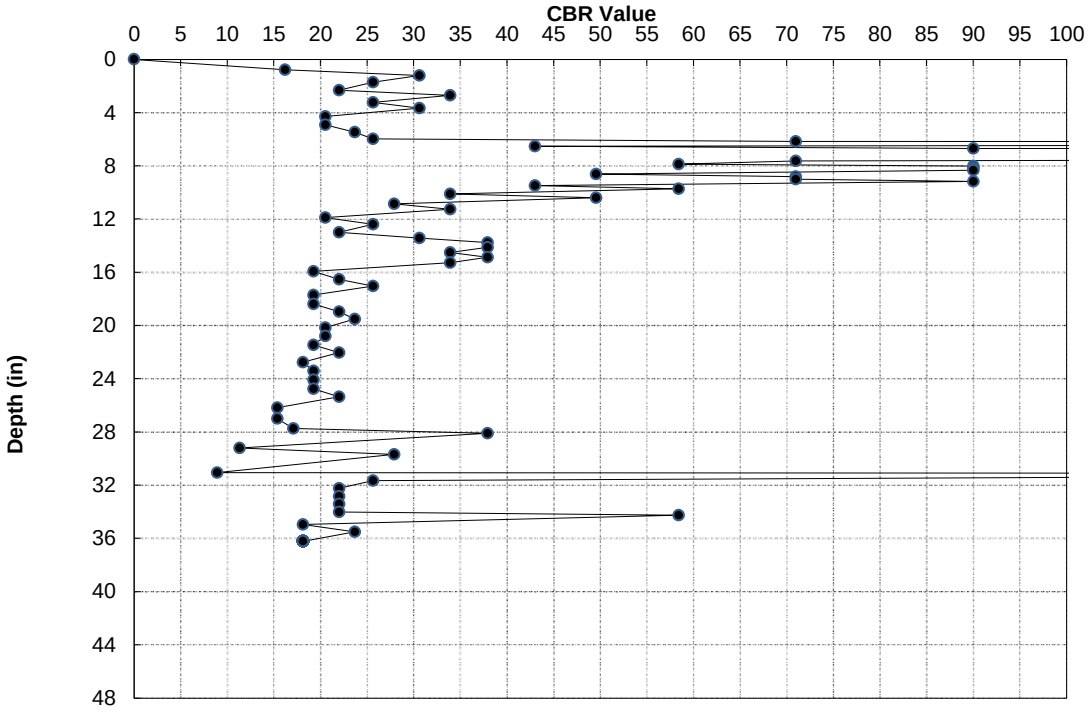
FILE	I2513AA_AB DCP Graphs 4

C-105 Y_WB Sta. 27+11 WB MID-LANE 15.5 FT LT FW 5

Datum = Drainage SAND
RAW
FILL
10/13/21

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

Interval 0.0 to 36.2	
# of Values	86
Avg CBR	85.6
Wghtd Avg.	31.5
Max CBR	100+
Min CBR	8.9

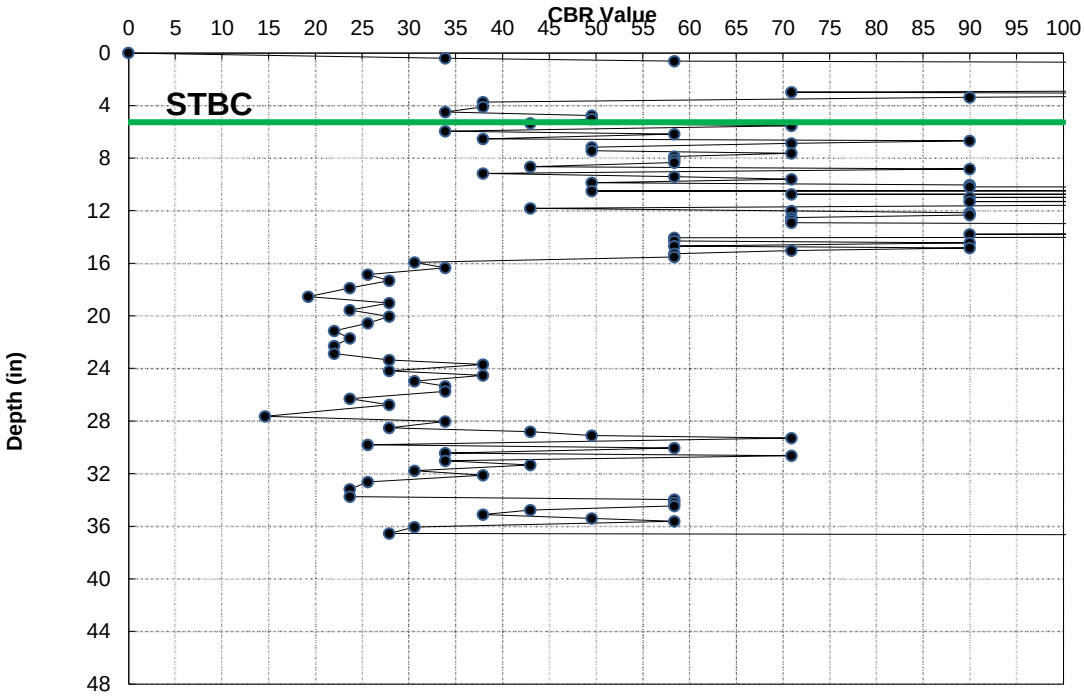


C-106 Y_WB Sta. 27+11 WB ISL 4.2 FT RT FY 6

Datum = STBC
RAW
CUT
10/13/21

Interval 0.0 to 5.4	
# of Values	68
Avg CBR	100+
Wghtd Avg.	100+
Max CBR	100+
Min CBR	33.9

Interval 5.4 to 36.7	
# of Values	107
Avg CBR	81.1
Wghtd Avg.	46.5
Max CBR	100+
Min CBR	14.6



CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA/AB
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

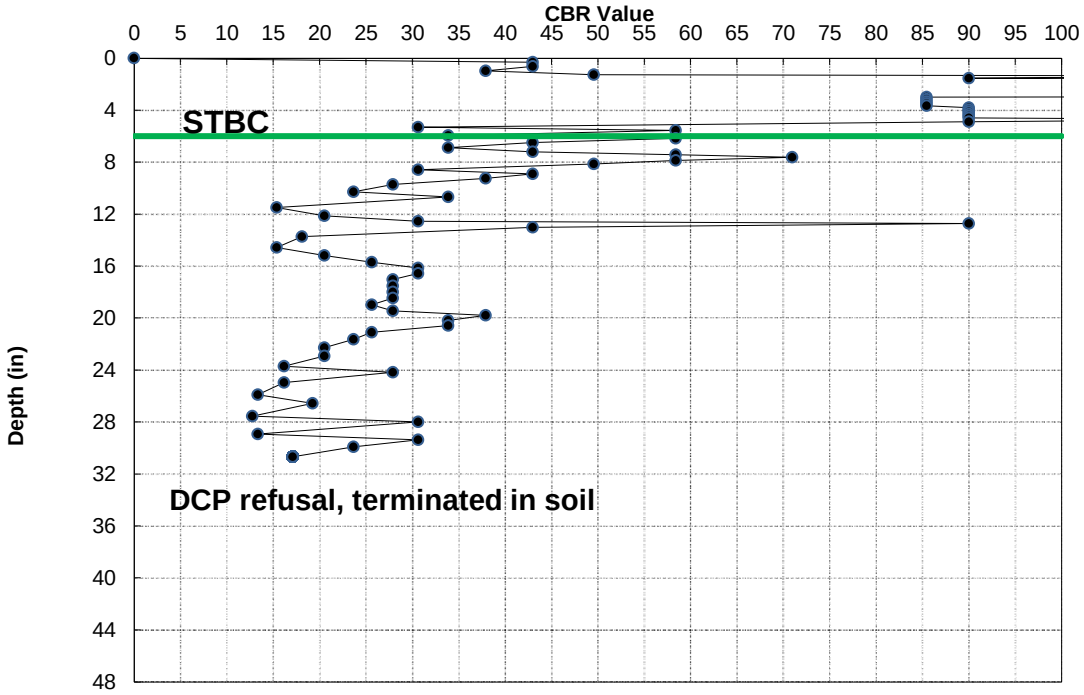
FILE	I2513AA_AB DCP Graphs 4

C-107 Y_WB Sta. 27+12 WB ISS 1.7 FT LT FY 7

Datum = STBC
RAW
CUT
10/13/21

Interval 0.0 to 5.9	
# of Values	46
Avg CBR	100+
Wghtd Avg.	100+
Max CBR	100+
Min CBR	30.6

Interval 5.9 to 30.7	
# of Values	49
Avg CBR	31.3
Wghtd Avg.	26.0
Max CBR	90.0
Min CBR	12.8

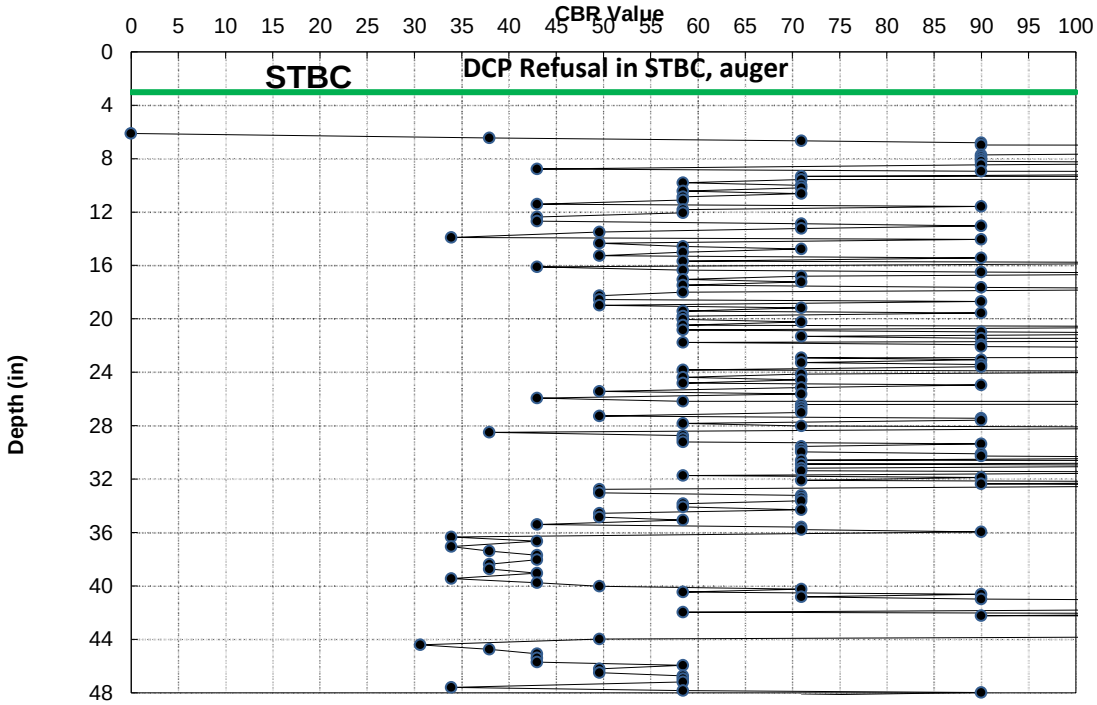


C-108 Y_WB Sta. 32+51 WB OSS 6.0 FT RT FW 8

Datum = STBC
RAW
CUT
10/13/21

Interval 0.0 to 0.0	
# of Values	0
Avg CBR	100+
Wghtd Avg.	100+
Max CBR	100+
Min CBR	30.6

Interval 6.1 to 50.4	
# of Values	232
Avg CBR	96.0
Wghtd Avg.	73.2
Max CBR	100+
Min CBR	30.6



PROJECT NO.	34165.1.6
PROJECT ID	I-2513 AA/AB
ROUTE	I-26 FROM I-40 TO SR 3548
COUNTY	BUNCOMBE

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

FILE	I2513AA_AB DCP Graphs 4

C-109 Y_WB Sta. 32+52 WB ISS 1.5 FT LT FY 9

Datum = STBC
RAW
CUT
10/13/21

Interval 0.0 to 6.0	
# of Values	13
Avg CBR	50.8
Wghtd Avg.	28.5
Max CBR	100+
Min CBR	14.6

Interval 6.0 to 22.5	
# of Values	191
Avg CBR	100+
Wghtd Avg.	100+
Max CBR	100+
Min CBR	49.6