



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

February 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

STATE PROJECT: 34165.1.6 (I-2513AB)

COUNTY: Buncombe

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

SUBJECT: Pavement and Subgrade Investigation Report

DocuSigned by:

John Pilipchuk

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The Pavement and Subgrade Investigation Graphics Report (PSIGR) for I-2513AA and I-2513AB were combined due to several adjoining alignments between the two projects. The PSIGR is a resubmittal of the report that was issued for I-2513AA. The Geotechnical Engineering Unit has completed the evaluation of the pavement and subgrade for alignments: -RPC-, -L1 EB-, -L1 WB-, -RPDB-, -RPD-, -Y5RPB- associated with I-2513AB, and presents the following.

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 encountered less frequently were 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 pavement condition for the alignments investigated were fair to good. Transverse and longitudinal cracks were the most common distresses reported in the pavement and ranged in severity from low to high. Shoulders were reported to have minimal distress and are generally 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:

No wet soils were observed onsite.

JLP/JBB

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DocuSigned by:

Jeffrey Brian Barfield 02/21/2022

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REFERENCE: I-2513AA/AB

PROJECT: 34165.1.6

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

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



DocuSigned by:
D. Matthew Brewer 02/14/2022
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SIGNATURE DATE

**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT
SUBSURFACE INVESTIGATION
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

| SOIL DESCRIPTION

 | | | | | | | | | | GRADATION | | | | | | | | | | ROCK DESCRIPTION | | | | | | | | | | TERMS AND DEFINITIONS
 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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<p>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, <i>VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6</i></p>

 | | | | | | | | | | <p>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.</p> | | | | | | | | | | <p>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:</p> | | | | | | | | | | <p>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 DISLOGGED 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 (IN 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 (SROD) - 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.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p style="text-align: center;">SOIL LEGEND AND AASHTO CLASSIFICATION</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th rowspan="2">GENERAL CLASS.</th> <th colspan="5">GRANULAR MATERIALS (≤ 35% PASSING #200)</th> <th colspan="5">SILT-CLAY MATERIALS (> 35% PASSING #200)</th> <th colspan="5">ORGANIC MATERIALS</th> </tr> <tr> <th>A-1</th> <th>A-3</th> <th>A-2</th> <th>A-4</th> <th>A-5</th> <th>A-6</th> <th>A-7</th> <th>A-1, A-2</th> <th>A-3</th> <th>A-4, A-5</th> <th>A-6, A-7</th> <th></th> <th></th> <th></th> <th></th> </tr> <tr> <td>GROUP CLASS.</td> <td>A-1-a</td> <td>A-1-b</td> <td>A-2-4</td> <td>A-2-5</td> <td>A-2-6</td> <td>A-2-7</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>SYMBOL</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>% PASSING #10 #40 #200</td> <td>50 MX 30 MX 15 MX</td> <td>50 MX 25 MX</td> <td>51 MN 35 MX 35 MX</td> <td>40 MX 35 MX</td> <td>41 MN 35 MX</td> <td>41 MN 35 MX</td> <td>40 MX 36 MN</td> <td>41 MN 36 MN</td> <td>40 MX 36 MN</td> <td>41 MN 36 MN</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MATERIAL PASSING #40 LL PI</td> <td>-</td> <td>-</td> <td>40 MX 10 MX</td> <td>41 MN 10 MX</td> <td>41 MN 11 MN</td> <td>40 MX 11 MN</td> <td>40 MX 11 MN</td> <td>40 MX 11 MN</td> <td>40 MX 11 MN</td> <td>41 MN 11 MN</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>GROUP INDEX</td> <td>0</td> <td>0</td> <td>0</td> <td>4 MX</td> <td>8 MX</td> <td>12 MX</td> <td>16 MX</td> <td>NO MX</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>USUAL TYPES OF MAJOR MATERIALS</td> <td>STONE FRAGS. GRAVEL, AND SAND</td> <td>FINE SAND</td> <td>SILTY OR CLAYEY GRAVEL AND SAND</td> <td>SILTY SOILS</td> <td>CLAYEY SOILS</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>GEN. RATING AS SUBGRADE</td> <td colspan="5">EXCELLENT TO GOOD</td> <td colspan="5">FAIR TO POOR</td> <td>FAIR TO POOR</td> <td>POOR</td> <td>UNSATURABLE</td> <td></td> <td></td> </tr> <tr> <td colspan="10">PI OF A-7-5 SUBGROUP IS ≤ LL - 30 ; PI OF A-7-6 SUBGROUP IS > LL - 30</td> <td colspan="10"></td> <td colspan="10"></td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">CONSISTENCY OR DENSENESS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>PRIMARY SOIL TYPE</th> <th>COMPACTNESS OR CONSISTENCY</th> <th>RANGE OF STANDARD PENETRATION RESISTANCE (N-VALUE)</th> <th>RANGE OF UNCONFINED COMPRESSIVE STRENGTH (TONS/FT²)</th> </tr> <tr> <td>GENERALLY GRANULAR MATERIAL (NON-COHESSIVE)</td> <td>VERY LOOSE
LOOSE
MEDIUM DENSE
DENSE
VERY DENSE</td> <td>< 4
4 TO 10
10 TO 30
30 TO 50
> 50</td> <td>N/A</td> </tr> <tr> <td>GENERALLY SILT-CLAY MATERIAL (COHESIVE)</td> <td>VERY SOFT
SOFT
MEDIUM STIFF
STIFF
VERY STIFF
HARD</td> <td>< 2
2 TO 4
4 TO 8
8 TO 15
15 TO 30
> 30</td> <td>< 0.25
0.25 TO 0.5
0.5 TO 1.0
1 TO 2
2 TO 4
> 4</td> </tr> </table> </td> <td colspan="10"> <p style="text-align: center;">MISCELLANEOUS SYMBOLS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td>ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION</td> <td></td> <td>DIP & DIP DIRECTION OF ROCK STRUCTURES</td> <td></td> <td>SOIL SYMBOL</td> <td></td> <td>ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT</td> <td></td> <td>INFERRED SOIL BOUNDARY</td> <td></td> <td>INFERRED ROCK LINE</td> <td></td> <td>ALLUVIAL SOIL BOUNDARY</td> </tr> <tr> <td></td> <td>SPT TEST BORING</td> <td></td> <td>AUGER BORING</td> <td></td> <td>CORE BORING</td> <td></td> <td>MONITORING WELL</td> <td></td> <td>PIEZOMETER INSTALLATION</td> <td></td> <td>SLOPE INDICATOR INSTALLATION</td> <td></td> <td>CONE PENETROMETER TEST</td> </tr> <tr> <td></td> <td>SOUNDING ROD</td> <td></td> <td>TEST BORING WITH CORE</td> <td></td> <td>SPT N-VALUE</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> </td> <td colspan="10"> <p style="text-align: center;">ROCK HARDNESS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>TERMINOLOGY</th> <th>DESCRIPTION</th> </tr> <tr> <td>VERY HARD</td> <td>CANNOT BE SCRATCHED BY KNIFE OR SHARP PICK. BREAKING OF HAND SPECIMENS REQUIRES SEVERAL HARD BLOWS OF THE GEOLOGIST'S PICK.</td> </tr> <tr> <td>HARD</td> <td>CAN BE SCRATCHED BY KNIFE OR PICK ONLY WITH DIFFICULTY. HARD HAMMER BLOWS REQUIRED TO DETACH HAND SPECIMEN.</td> </tr> <tr> <td>MODERATELY HARD</td> <td>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.</td> </tr> <tr> <td>MEDIUM HARD</td> <td>CAN BE GROUDED OR GOUGED 0.05 INCHES DEEP BY FIRM PRESSURE OF KNIFE OR PICK POINT. CAN BE EXCAVATED IN SMALL CHIPS TO PIECES 1 INCH MAXIMUM SIZE BY HARD BLOWS OF THE POINT OF A GEOLOGIST'S PICK.</td> </tr> <tr> <td>SOFT</td> <td>CAN BE GROUDED 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.</td> </tr> <tr> <td>VERY SOFT</td> <td>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 FINGER NAIL.</td> </tr> </table> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">TEXTURE OR GRAIN SIZE</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>U.S. STD. SIEVE SIZE OPENING (MM)</th> <th>4</th> <th>10</th> <th>40</th> <th>60</th> <th>200</th> <th>270</th> </tr> <tr> <td></td> <td>4.75</td> <td>2.00</td> <td>0.42</td> <td>0.25</td> <td>0.075</td> <td>0.053</td> </tr> <tr> <td>BOULDER (BLDR.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>COBBLE (COB.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>GRAVEL (GR.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>COARSE SAND (CS. SD.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>FINE SAND (F SD.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>SILT (SL.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CLAY (CL.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>GRAIN SIZE</td> <td>305</td> <td>75</td> <td>2.0</td> <td>0.25</td> <td>0.05</td> <td>0.005</td> </tr> <tr> <td>MM</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>IN.</td> <td>12</td> <td>3</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> </td> <td colspan="10"> <p style="text-align: center;">RECOMMENDATION SYMBOLS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td>UNDERCUT</td> <td></td> <td>UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE</td> <td></td> <td>UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN THE TOP 3 FEET OF EMBANKMENT OR BACKFILL</td> </tr> <tr> <td></td> <td>SHALLOW UNDERCUT</td> <td></td> <td>UNCLASSIFIED EXCAVATION - ACCEPTABLE DEGRADABLE ROCK</td> <td></td> <td></td> </tr> </table> </td> <td colspan="10"> <p style="text-align: center;">ABBREVIATIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>AR - AUGER REFUSAL</td> <td>CL - CLAY</td> <td>CPT - CONE PENETRATION TEST</td> <td>CSE - COARSE</td> <td>DMT - DILATOMETER TEST</td> <td>DPT - DYNAMIC PENETRATION TEST</td> <td>e - VOID RATIO</td> <td>F - FINE</td> <td>FOSS. - FOSSILIFEROUS</td> <td>FRAC. - FRACTURED, FRACTURES</td> <td>FRAGS. - FRAGMENTS</td> <td>HI. - HIGHLY</td> <td>MED. - MEDIUM</td> <td>MICA - MICACEOUS</td> <td>MOD. - MODERATELY</td> <td>NP - NON PLASTIC</td> <td>ORG. - ORGANIC</td> <td>PMT - PRESSUREMETER TEST</td> <td>SAP. - SAPROLITIC</td> <td>SD. - SAND, SANDY</td> <td>SL. - SILT, SILTY</td> <td>SLI. - SLIGHTLY</td> <td>TCR - TRICONE REFUSAL</td> <td>w - MOISTURE CONTENT</td> <td>V - VERY</td> <td>VST - VANE SHEAR TEST</td> <td>WEA. - WEATHERED</td> <td>W - UNIT WEIGHT</td> <td>W_g - DRY UNIT WEIGHT</td> </tr> <tr> <td>BT - BORING TERMINATED</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">SOIL MOISTURE - CORRELATION OF TERMS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>SOIL MOISTURE SCALE (ATTERBERG LIMITS)</th> <th>FIELD MOISTURE DESCRIPTION</th> <th>GUIDE FOR FIELD MOISTURE DESCRIPTION</th> </tr> <tr> <td>LL - LIQUID LIMIT</td> <td>- SATURATED - (SAT.)</td> <td>USUALLY LIQUID; VERY WET, USUALLY FROM BELOW THE GROUND WATER TABLE</td> </tr> <tr> <td>PLASTIC RANGE (PI)</td> <td>- WET - (W)</td> <td>SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE</td> </tr> <tr> <td>PL - PLASTIC LIMIT</td> <td>- MOIST - (M)</td> <td>SOLID; AT OR NEAR OPTIMUM MOISTURE</td> </tr> <tr> <td>OM - OPTIMUM MOISTURE SHRINKAGE LIMIT</td> <td>- DRY - (D)</td> <td>REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE</td> </tr> </table> </td> <td colspan="10"> <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td><input type="checkbox"/> CME-45C</td> <td><input type="checkbox"/> CLAY BITS</td> <td><input
type="checkbox"/> AUTOMATIC</td> <td><input type="checkbox"/> MANUAL</td> </tr> <tr> <td><input type="checkbox"/> CME-55</td> <td><input type="checkbox"/> 6" CONTINUOUS FLIGHT AUGER</td> <td colspan="2">CORE SIZE:</td> </tr> <tr> <td><input checked="" type="checkbox"/> CME-550X</td> <td><input checked="" type="checkbox"/> 4" SOLID STEM AUGERS</td> <td><input type="checkbox"/> -B</td> <td><input type="checkbox"/> -H</td> </tr> <tr> <td><input type="checkbox"/> VANE SHEAR TEST</td> <td><input type="checkbox"/> HARD FACED FINGER BITS</td> <td><input type="checkbox"/> -N</td> <td></td> </tr> <tr> <td><input type="checkbox"/> PORTABLE HOIST</td> <td><input type="checkbox"/> TUNG-CARBIDE INSERTS</td> <td colspan="2">HAND TOOLS:</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/> CASING <input type="checkbox"/> W/ ADVANCER</td> <td><input type="checkbox"/> POST HOLE DIGGER</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/> TRICONE *STEEL TEETH</td> <td><input type="checkbox"/> HAND AUGER</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/> TRICONE *TUNG-CARB.</td> <td><input type="checkbox"/> SOUNDING ROD</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/> CORE BIT (4-INCH DIAMETER)</td> <td><input type="checkbox"/> VANE SHEAR TEST</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td></td> <td><input checked="" type="checkbox"/> DUAL MASS DCP</td> <td></td> </tr> </table> </td> <td colspan="10"> <p style="text-align: center;">FRACTURE SPACING</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>TERM</th> <th>SPACING</th> </tr> <tr> <td>VERY WIDE</td> <td>MORE THAN 10 FEET</td> </tr> <tr> <td>WIDE</td> <td>3 TO 10 FEET</td> </tr> <tr> <td>MODERATELY CLOSE</td> <td>1 TO 3 FEET</td> </tr> <tr> <td>CLOSE</td> <td>0.16 TO 1 FOOT</td> </tr> <tr> <td>VERY CLOSE</td> <td>LESS THAN 0.16 FEET</td> </tr> </table> </td> <td colspan="10"> <p style="text-align: center;">BEDDING</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>TERM</th> <th>THICKNESS</th> </tr> <tr> <td>VERY THICKLY BEDDED</td> <td>4 FEET</td> </tr> <tr> <td>THICKLY BEDDED</td> <td>1.5 - 4 FEET</td> </tr> <tr> <td>THINLY BEDDED</td> <td>0.16 - 1.5 FEET</td> </tr> <tr> <td>VERY THINLY BEDDED</td> <td>0.03 - 0.16 FEET</td> </tr> <tr> <td>THICKLY LAMINATED</td> <td>0.008 - 0.03 FEET</td> </tr> <tr> <td>THINLY LAMINATED</td> <td>< 0.008 FEET</td> </tr> </table> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">PLASTICITY</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>PLASTICITY INDEX (PI)</th> <th>DRY STRENGTH</th> </tr> <tr> <td>NON PLASTIC</td> <td>0-5</td> <td>VERY LOW</td> </tr> <tr> <td>SLIGHTLY PLASTIC</td> <td>6-15</td> <td>SLIGHT</td> </tr> <tr> <td>MODERATELY PLASTIC</td> <td>16-25</td> <td>MEDIUM</td> </tr> <tr> <td>HIGHLY PLASTIC</td> <td>26 OR MORE</td> <td>HIGH</td> </tr> </table> </td> <td colspan="10"> <p style="text-align: center;">INDURATION</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>TERMINOLOGY</th> <th>DESCRIPTION</th> </tr> <tr> <td>FRIABLE</td> <td>RUBBING WITH FINGER FREES NUMEROUS GRAINS; GENTLE BLOW BY HAMMER DISINTEGRATES SAMPLE.</td> </tr> <tr> <td>MODERATELY INDURATED</td> <td>GRAINS CAN BE SEPARATED FROM SAMPLE WITH STEEL PROBE; BREAKS EASILY WHEN HIT WITH HAMMER.</td> </tr> <tr> <td>INDURATED</td> <td>GRAINS ARE DIFFICULT TO SEPARATE WITH STEEL PROBE; DIFFICULT TO BREAK WITH HAMMER.</td> </tr> <tr> <td>EXTREMELY INDURATED</td> <td>SHARP HAMMER BLOWS REQUIRED TO BREAK SAMPLE; SAMPLE BREAKS ACROSS GRAINS.</td> </tr> </table> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">COLOR</p> <p>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.</p> </td> <td colspan="10"> <p style="text-align: center;">RECOMMENDATION SYMBOLS</p> <p><input type="checkbox"/> UNDERCUT</p> <p><input type="checkbox"/> SHALLOW UNDERCUT</p> <p><input type="checkbox"/> UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE</p> <p><input type="checkbox"/> UNCLASSIFIED EXCAVATION - ACCEPTABLE DEGRADABLE ROCK</p> </td> <td colspan="10"> <p style="text-align: center;">ROCK HARDNESS</p> <p>VERY HARD</p> <p>HARD</p> <p>MODERATELY HARD</p> <p>MEDIUM HARD</p> <p>SOFT</p> <p>VERY SOFT</p> </td> <td colspan="10"> <p style="text-align: center;">TERMS AND DEFINITIONS</p> <p>ALLUVIUM (ALLUV.)</p> <p>AQUIFER</p> <p>ARENACEOUS</p> <p>ARGILLACEOUS</p> <p>ARTESIAN</p> <p>CALCAREOUS (CALC.)</p> <p>COLLUVIUM</p> <p>CORE RECOVERY (REC.)</p> <p>DIKE</p> <p>DIP</p> <p>DIP DIRECTION (DIP AZIMUTH)</p> <p>FAULT</p> <p>FISSILE</p> <p>FLOAT</p> <p>FLOOD PLAIN (FP)</p> <p>FORMATION (FM)</p> <p>JOINT</p> <p>LEDGE</p> <p>LENS</p> <p>MOTTLED (MOT.)</p> <p>PERCHED WATER</p> <p>RESIDUAL (RES.) SOIL</p> <p>ROCK QUALITY DESIGNATION (RQD)</p> <p>SAPROLITE (SAP.)</p> <p>SILL</p> <p>SLICKENSIDE</p> <p>STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT)</p> <p>STRATA CORE RECOVERY (SREC.)</p> <p>STRATA ROCK QUALITY DESIGNATION (SROD)</p> <p>TOPSOIL (TS.)</p> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">PLASTICITY</p> </td> <td colspan="10"> <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> </td> <td colspan="10"> <p style="text-align: center;">FRACTURE SPACING</p> </td> <td colspan="10"> <p style="text-align: center;">BEDDING</p> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">PLASTICITY</p> </td> <td colspan="10"> <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> </td> <td colspan="10"> <p style="text-align: center;">FRACTURE SPACING</p> </td> <td colspan="10"> <p style="text-align: center;">BEDDING</p> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">PLASTICITY</p> </td> <td colspan="10"> <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> </td> <td colspan="10"> <p style="text-align: center;">FRACTURE SPACING</p> </td> <td colspan="10"> <p style="text-align: center;">BEDDING</p> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">PLASTICITY</p> </td> <td colspan="10"> <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> </td> <td colspan="10"> <p style="text-align: center;">FRACTURE SPACING</p> </td> <td colspan="10"> <p style="text-align: center;">BEDDING</p> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">PLASTICITY</p> </td> <td colspan="10"> <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> </td> <td colspan="10"> <p style="text-align: center;">FRACTURE SPACING</p> </td> <td colspan="10"> <p style="text-align: center;">BEDDING</p> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">PLASTICITY</p> </td> <td colspan="10"> <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> </td> <td colspan="10"> <p style="text-align: center;">FRACTURE SPACING</p> </td> <td colspan="10"> <p style="text-align: center;">BEDDING</p> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">PLASTICITY</p> </td> <td colspan="10"> <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> </td> <td colspan="10"> <p style="text-align: center;">FRACTURE SPACING</p> </td> <td colspan="10"> <p style="text-align: center;">BEDDING</p> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">PLASTICITY</p> </td> <td colspan="10"> <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> </td> <td colspan="10"> <p style="text-align: center;">FRACTURE SPACING</p> </td> <td colspan="10"> <p style="text-align: center;">BEDDING</p> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">PLASTICITY</p> </td> <td colspan="10"> <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> </td> <td colspan="10"> <p style="text-align: center;">FRACTURE SPACING</p> </td> <td colspan="10"> <p style="text-align: center;">BEDDING</p> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">PLASTICITY</p> </td> <td colspan="10"> <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> </td> <td colspan="10"> <p style="text-align: center;">FRACTURE SPACING</p> </td> <td colspan="10"> <p style="text-align: center;">BEDDING</p> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">PLASTICITY</p> </td> <td colspan="10"> <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> </td> <td colspan="10"> <p style="text-align: center;">FRACTURE SPACING</p> </td> <td colspan="10"> <p style="text-align: center;">BEDDING</p> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">PLASTICITY</p> </td> <td colspan="10"> <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> </td> <td colspan="10"> <p style="text-align: center;">FRACTURE SPACING</p> </td> <td colspan="10"> <p style="text-align: center;">BEDDING</p> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">PLASTICITY</p> </td> <td colspan="10"> <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> </td> <td colspan="10"> <p style="text-align: center;">FRACTURE SPACING</p> </td> <td colspan="10"> <p style="text-align: center;">BEDDING</p> </td> </tr> <tr> <td colspan="10"> <p style="text-align: center;">PLASTICITY</p> </td> <td colspan="10"> <p style="text-align: center;">EQUIPMENT USED ON
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 | A-6 | A-7 | A-1, A-2 | A-3 | A-4, A-5 | A-6, A-7 | | | | | GROUP CLASS. | A-1-a | A-1-b | A-2-4 | A-2-5 | A-2-6 | A-2-7 | | | | | | | | | | SYMBOL | | | | | | | | | | | | | | | | % PASSING #10 #40 #200 | 50 MX 30 MX 15 MX | 50 MX 25 MX | 51 MN 35 MX 35 MX | 40 MX 35 MX | 41 MN 35 MX | 41 MN 35 MX | 40 MX 36 MN | 41 MN 36 MN | 40 MX 36 MN | 41 MN 36 MN | | | | | | MATERIAL PASSING #40 LL PI | - | - | 40 MX 10 MX | 41 MN 10 MX | 41 MN 11 MN | 40 MX 11 MN | 40 MX 11 MN | 40 MX 11 MN | 40 MX 11 MN | 41 MN 11 MN | | | | | | 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 | UNSATURABLE | | | PI OF A-7-5 SUBGROUP IS ≤ LL - 30 ; PI OF A-7-6 SUBGROUP IS > LL - 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | <p style="text-align: center;">CONSISTENCY OR DENSENESS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>PRIMARY SOIL TYPE</th> <th>COMPACTNESS OR CONSISTENCY</th> <th>RANGE OF STANDARD PENETRATION RESISTANCE (N-VALUE)</th> <th>RANGE OF UNCONFINED COMPRESSIVE STRENGTH (TONS/FT²)</th> </tr> <tr> <td>GENERALLY GRANULAR MATERIAL (NON-COHESSIVE)</td> <td>VERY LOOSE
LOOSE
MEDIUM DENSE
DENSE
VERY DENSE</td> <td>< 4
4 TO 10
10 TO 30
30 TO 50
> 50</td> <td>N/A</td> </tr> <tr> <td>GENERALLY SILT-CLAY MATERIAL (COHESIVE)</td> <td>VERY SOFT
SOFT
MEDIUM STIFF
STIFF
VERY STIFF
HARD</td> <td>< 2
2 TO 4
4 TO 8
8 TO 15
15 TO 30
> 30</td> <td>< 0.25
0.25 TO 0.5
0.5 TO 1.0
1 TO 2
2 TO 4
> 4</td> </tr> </table> | | | | | | | | | | PRIMARY SOIL TYPE | COMPACTNESS OR CONSISTENCY | RANGE OF STANDARD PENETRATION RESISTANCE (N-VALUE) | RANGE OF UNCONFINED COMPRESSIVE STRENGTH (TONS/FT ²) | GENERALLY GRANULAR MATERIAL (NON-COHESSIVE) | 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 | <p style="text-align: center;">MISCELLANEOUS SYMBOLS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td>ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION</td> <td></td> <td>DIP & DIP DIRECTION OF ROCK STRUCTURES</td> <td></td> <td>SOIL SYMBOL</td> <td></td> <td>ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT</td> <td></td> <td>INFERRED SOIL BOUNDARY</td> <td></td> <td>INFERRED ROCK LINE</td> <td></td> <td>ALLUVIAL SOIL BOUNDARY</td> </tr> <tr> <td></td> <td>SPT TEST BORING</td> <td></td> <td>AUGER BORING</td> <td></td> <td>CORE BORING</td> <td></td> <td>MONITORING WELL</td> <td></td> <td>PIEZOMETER INSTALLATION</td> <td></td> <td>SLOPE INDICATOR INSTALLATION</td> <td></td> <td>CONE PENETROMETER TEST</td> </tr> <tr> <td></td> <td>SOUNDING ROD</td> <td></td> <td>TEST BORING WITH CORE</td> <td></td> <td>SPT N-VALUE</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | | | | | | | | | | | ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION | | DIP & DIP DIRECTION OF ROCK STRUCTURES | | SOIL SYMBOL | | ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT | | INFERRED SOIL BOUNDARY | | INFERRED ROCK LINE | | ALLUVIAL SOIL BOUNDARY | | SPT TEST BORING | | AUGER BORING | | CORE BORING | | MONITORING WELL | | PIEZOMETER INSTALLATION | | SLOPE INDICATOR INSTALLATION | | CONE PENETROMETER TEST | | SOUNDING ROD | | TEST BORING WITH CORE | | SPT N-VALUE | | | | | | | | <p style="text-align: center;">ROCK HARDNESS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>TERMINOLOGY</th> <th>DESCRIPTION</th> </tr> <tr> <td>VERY HARD</td> <td>CANNOT BE SCRATCHED BY KNIFE OR SHARP PICK. 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SIEVE SIZE OPENING (MM)</th> <th>4</th> <th>10</th> <th>40</th> <th>60</th> <th>200</th> <th>270</th> </tr> <tr> <td></td> <td>4.75</td> <td>2.00</td> <td>0.42</td> <td>0.25</td> <td>0.075</td> <td>0.053</td> </tr> <tr> <td>BOULDER (BLDR.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>COBBLE (COB.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>GRAVEL (GR.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>COARSE SAND (CS. SD.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>FINE SAND (F SD.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>SILT (SL.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CLAY (CL.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>GRAIN SIZE</td> <td>305</td> <td>75</td> <td>2.0</td> <td>0.25</td> <td>0.05</td> <td>0.005</td> </tr> <tr> <td>MM</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>IN.</td> <td>12</td> <td>3</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | | | | | | | | | | U.S. STD. SIEVE SIZE OPENING (MM) | 4 | 10 | 40 | 60 | 200 | 270 | | 4.75 | 2.00 | 0.42 | 0.25 | 0.075 | 0.053 | BOULDER (BLDR.) | | | | | | | COBBLE (COB.) | | | | | | | GRAVEL (GR.) | | | | | | | COARSE SAND (CS. SD.) | | | | | | | FINE SAND (F SD.) | | | | | | | SILT (SL.) | | | | | | | CLAY (CL.) | | | | | | | GRAIN SIZE | 305 | 75 | 2.0 | 0.25 | 0.05 | 0.005 | MM | | | | | | | IN. | 12 | 3 | | | | | <p style="text-align: center;">RECOMMENDATION SYMBOLS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td>UNDERCUT</td> <td></td> <td>UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE</td> <td></td> <td>UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN THE TOP 3 FEET OF EMBANKMENT OR BACKFILL</td> </tr> <tr> <td></td> <td>SHALLOW UNDERCUT</td> <td></td> <td>UNCLASSIFIED EXCAVATION - ACCEPTABLE DEGRADABLE ROCK</td> <td></td> <td></td> </tr> </table> | | | | | | | | | | | UNDERCUT | | UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE | | UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN THE TOP 3 FEET OF EMBANKMENT OR BACKFILL | | SHALLOW UNDERCUT | | UNCLASSIFIED EXCAVATION - ACCEPTABLE DEGRADABLE ROCK | | | <p style="text-align: center;">ABBREVIATIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>AR - AUGER REFUSAL</td> <td>CL - CLAY</td> <td>CPT - CONE PENETRATION TEST</td> <td>CSE - COARSE</td> <td>DMT - DILATOMETER TEST</td> <td>DPT - DYNAMIC PENETRATION TEST</td> <td>e - VOID RATIO</td> <td>F - FINE</td> <td>FOSS. - FOSSILIFEROUS</td> <td>FRAC. - FRACTURED, FRACTURES</td> <td>FRAGS. - FRAGMENTS</td> <td>HI. - HIGHLY</td> <td>MED. - MEDIUM</td> <td>MICA - MICACEOUS</td> <td>MOD. - MODERATELY</td> <td>NP - NON PLASTIC</td> <td>ORG. - ORGANIC</td> <td>PMT - PRESSUREMETER TEST</td> <td>SAP. - SAPROLITIC</td> <td>SD. - SAND, SANDY</td> <td>SL. - SILT, SILTY</td> <td>SLI. - SLIGHTLY</td> <td>TCR - TRICONE REFUSAL</td> <td>w - MOISTURE CONTENT</td> <td>V - VERY</td> <td>VST - VANE SHEAR TEST</td> <td>WEA. - WEATHERED</td> <td>W - UNIT WEIGHT</td> <td>W_g - DRY UNIT WEIGHT</td> </tr> <tr> <td>BT - BORING TERMINATED</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | | | | | | | | | | AR - AUGER REFUSAL | 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. -
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MODIFIERS SUCH AS LIGHT, DARK, STREAKED, ETC. ARE USED TO DESCRIBE APPEARANCE.</p> | | | | | | | | | | <p style="text-align: center;">RECOMMENDATION SYMBOLS</p> <p><input type="checkbox"/> UNDERCUT</p> <p><input type="checkbox"/> SHALLOW UNDERCUT</p> <p><input type="checkbox"/> UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE</p> <p><input type="checkbox"/> UNCLASSIFIED EXCAVATION - ACCEPTABLE DEGRADABLE ROCK</p> | | | | | | | | | | <p style="text-align: center;">ROCK HARDNESS</p> <p>VERY HARD</p> <p>HARD</p> <p>MODERATELY HARD</p> <p>MEDIUM HARD</p> <p>SOFT</p> <p>VERY SOFT</p> | | | | | | | | | | <p style="text-align: center;">TERMS AND DEFINITIONS</p> <p>ALLUVIUM (ALLUV.)</p> <p>AQUIFER</p> <p>ARENACEOUS</p> <p>ARGILLACEOUS</p> <p>ARTESIAN</p> <p>CALCAREOUS (CALC.)</p> <p>COLLUVIUM</p> <p>CORE RECOVERY (REC.)</p> <p>DIKE</p> <p>DIP</p> <p>DIP DIRECTION (DIP AZIMUTH)</p> <p>FAULT</p> <p>FISSILE</p> <p>FLOAT</p> <p>FLOOD PLAIN (FP)</p> <p>FORMATION (FM)</p> <p>JOINT</p> <p>LEDGE</p> <p>LENS</p> <p>MOTTLED (MOT.)</p> <p>PERCHED WATER</p> <p>RESIDUAL (RES.) SOIL</p> <p>ROCK QUALITY DESIGNATION (RQD)</p> <p>SAPROLITE (SAP.)</p> <p>SILL</p> <p>SLICKENSIDE</p> <p>STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT)</p> <p>STRATA CORE RECOVERY (SREC.)</p> <p>STRATA ROCK QUALITY DESIGNATION (SROD)</p> <p>TOPSOIL (TS.)</p> | | | | | | | | | | <p style="text-align: center;">PLASTICITY</p> | | | | | | | | | | <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> | | | | | | | | | | <p style="text-align: center;">FRACTURE SPACING</p> | | | | | | | | | | <p style="text-align: center;">BEDDING</p> | | | | | | | | | |
<p style="text-align: center;">PLASTICITY</p> | | | | | | | | | | <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> | | | | | | | | | | <p style="text-align: center;">FRACTURE SPACING</p> | | | | | | | | | | <p style="text-align: center;">BEDDING</p> | | | | | | | | | | <p style="text-align: center;">PLASTICITY</p> | | | | | | | | | | <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> | | | | | | | | | | <p style="text-align: center;">FRACTURE SPACING</p> | | | | | | | | | | <p style="text-align: center;">BEDDING</p> | | | | | | | | | | <p style="text-align: center;">PLASTICITY</p> | | | | | | | | | | <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> | | | | | | | | | | <p style="text-align: center;">FRACTURE SPACING</p> | | | | | | | | | | <p style="text-align: center;">BEDDING</p> | | | | | | | | | | <p style="text-align: center;">PLASTICITY</p> | | | | | | | | | | <p style="text-align: center;">EQUIPMENT USED ON SUBJECT 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| GENERAL CLASS.

 | GRANULAR MATERIALS (≤ 35% PASSING #200) | | | | | SILT-CLAY MATERIALS (> 35% PASSING #200) | | | | | ORGANIC MATERIALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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 | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p style="text-align: center;">CONSISTENCY OR DENSENESS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>PRIMARY SOIL TYPE</th> <th>COMPACTNESS OR CONSISTENCY</th> <th>RANGE OF STANDARD PENETRATION RESISTANCE (N-VALUE)</th> <th>RANGE OF UNCONFINED COMPRESSIVE STRENGTH (TONS/FT²)</th> </tr> <tr> <td>GENERALLY GRANULAR MATERIAL (NON-COHESSIVE)</td> <td>VERY LOOSE
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> 4 | <p style="text-align: center;">MISCELLANEOUS SYMBOLS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td>ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION</td> <td></td> <td>DIP & DIP DIRECTION OF ROCK STRUCTURES</td> <td></td> <td>SOIL SYMBOL</td> <td></td> <td>ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT</td> <td></td> <td>INFERRED SOIL BOUNDARY</td> <td></td> <td>INFERRED ROCK LINE</td> <td></td> <td>ALLUVIAL SOIL BOUNDARY</td> </tr> <tr> <td></td> <td>SPT TEST BORING</td> <td></td> <td>AUGER BORING</td> <td></td> <td>CORE BORING</td> <td></td> <td>MONITORING WELL</td> <td></td> <td>PIEZOMETER INSTALLATION</td> <td></td> <td>SLOPE INDICATOR INSTALLATION</td> <td></td> <td>CONE PENETROMETER TEST</td> </tr> <tr> <td></td> <td>SOUNDING ROD</td> <td></td> <td>TEST BORING WITH CORE</td> <td></td> <td>SPT N-VALUE</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p style="text-align: center;">TEXTURE OR GRAIN SIZE</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>U.S. STD. SIEVE SIZE OPENING (MM)</th> <th>4</th> <th>10</th> <th>40</th> <th>60</th> <th>200</th> <th>270</th> </tr> <tr> <td></td> <td>4.75</td> <td>2.00</td> <td>0.42</td> <td>0.25</td> <td>0.075</td> <td>0.053</td> </tr> <tr> <td>BOULDER (BLDR.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>COBBLE (COB.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>GRAVEL (GR.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>COARSE SAND (CS. SD.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>FINE SAND (F SD.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>SILT (SL.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CLAY (CL.)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>GRAIN SIZE</td> <td>305</td> <td>75</td> <td>2.0</td> <td>0.25</td> <td>0.05</td> <td>0.005</td> </tr> <tr> <td>MM</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>IN.</td> <td>12</td> <td>3</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>

 | | | | | | | | | | U.S. STD. SIEVE SIZE OPENING (MM) | 4 | 10 | 40 | 60 | 200 | 270 | | 4.75 | 2.00 | 0.42 | 0.25 | 0.075 | 0.053 | BOULDER (BLDR.) | | | | | |
 | COBBLE (COB.) | | | | | | | GRAVEL (GR.) | | | | | | | COARSE SAND (CS. SD.) | | | | | | | FINE SAND (F SD.) | | | | | | | SILT (SL.) | | | | | | | CLAY (CL.) | | | | | | | GRAIN SIZE | 305 | 75 | 2.0 | 0.25 | 0.05 | 0.005 | MM | | | | | | | IN. | 12 | 3 | | | | | <p style="text-align: center;">RECOMMENDATION SYMBOLS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td>UNDERCUT</td> <td></td> <td>UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE</td> <td></td> <td>UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN THE TOP 3 FEET OF EMBANKMENT OR BACKFILL</td> </tr> <tr> <td></td> <td>SHALLOW UNDERCUT</td> <td></td> <td>UNCLASSIFIED EXCAVATION - ACCEPTABLE DEGRADABLE ROCK</td> <td></td> <td></td> </tr> </table> | | | | | | | | | | | UNDERCUT | | UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE | | UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN THE TOP 3 FEET OF EMBANKMENT OR BACKFILL | | SHALLOW UNDERCUT | | UNCLASSIFIED EXCAVATION - ACCEPTABLE DEGRADABLE ROCK | | | <p style="text-align: center;">ABBREVIATIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>AR - AUGER REFUSAL</td> <td>CL - CLAY</td> <td>CPT - CONE PENETRATION TEST</td> <td>CSE - COARSE</td> <td>DMT - DILATOMETER TEST</td> <td>DPT - DYNAMIC PENETRATION TEST</td> <td>e - VOID RATIO</td> <td>F - FINE</td> <td>FOSS. - FOSSILIFEROUS</td> <td>FRAC. - FRACTURED, FRACTURES</td> <td>FRAGS. - FRAGMENTS</td> <td>HI. - HIGHLY</td> <td>MED. - MEDIUM</td> <td>MICA - MICACEOUS</td> <td>MOD. - MODERATELY</td> <td>NP - NON PLASTIC</td> <td>ORG. - ORGANIC</td> <td>PMT - PRESSUREMETER TEST</td> <td>SAP. - SAPROLITIC</td> <td>SD. - SAND, SANDY</td> <td>SL. - SILT, SILTY</td> <td>SLI. - SLIGHTLY</td> <td>TCR - TRICONE REFUSAL</td> <td>w - MOISTURE CONTENT</td> <td>V - VERY</td> <td>VST - VANE SHEAR TEST</td> <td>WEA. - WEATHERED</td> <td>W - UNIT WEIGHT</td> <td>W_g - DRY UNIT WEIGHT</td> </tr> <tr> <td>BT - BORING TERMINATED</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | | | | | | | | | | AR - AUGER REFUSAL | 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 | W - UNIT WEIGHT | W _g - DRY UNIT WEIGHT | BT - BORING TERMINATED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| U.S. STD. SIEVE SIZE OPENING (MM)

 | 4 | 10 | 40 | 60 | 200 | 270 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p style="text-align: center;">SOIL MOISTURE - CORRELATION OF TERMS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>SOIL MOISTURE SCALE (ATTERBERG LIMITS)</th> <th>FIELD MOISTURE DESCRIPTION</th> <th>GUIDE FOR FIELD MOISTURE DESCRIPTION</th> </tr> <tr> <td>LL - LIQUID LIMIT</td> <td>- SATURATED - (SAT.)</td> <td>USUALLY LIQUID; VERY WET, USUALLY FROM BELOW THE GROUND WATER TABLE</td> </tr> <tr> <td>PLASTIC RANGE (PI)</td> <td>- WET - (W)</td> <td>SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE</td> </tr> <tr> <td>PL - PLASTIC LIMIT</td> <td>- MOIST - (M)</td> <td>SOLID; AT OR NEAR OPTIMUM MOISTURE</td> </tr> <tr> <td>OM - OPTIMUM MOISTURE SHRINKAGE LIMIT</td> <td>- DRY - (D)</td> <td>REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE</td> </tr> </table>

 | | | | | | | | | | SOIL MOISTURE SCALE (ATTERBERG LIMITS) | FIELD MOISTURE DESCRIPTION | GUIDE FOR FIELD MOISTURE DESCRIPTION | LL - LIQUID LIMIT | - SATURATED - (SAT.) | USUALLY LIQUID; VERY WET, USUALLY FROM BELOW THE GROUND WATER TABLE | PLASTIC RANGE (PI) | - WET - (W) | SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE | PL - PLASTIC LIMIT | - MOIST - (M) | SOLID; AT OR NEAR OPTIMUM MOISTURE | OM - OPTIMUM MOISTURE SHRINKAGE LIMIT | - DRY - (D) | REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE | <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td><input type="checkbox"/> CME-45C</td> <td><input type="checkbox"/> CLAY BITS</td> <td><input type="checkbox"/> AUTOMATIC</td> <td><input type="checkbox"/> MANUAL</td> </tr> <tr> <td><input type="checkbox"/> CME-55</td> <td><input type="checkbox"/> 6" CONTINUOUS FLIGHT AUGER</td> <td colspan="2">CORE SIZE:</td> </tr> <tr> <td><input checked="" type="checkbox"/> CME-550X</td> <td><input checked="" type="checkbox"/> 4" SOLID STEM AUGERS</td> <td><input type="checkbox"/> -B</td> <td><input type="checkbox"/> -H</td> </tr> <tr> <td><input type="checkbox"/> VANE SHEAR TEST</td> <td><input type="checkbox"/> HARD FACED FINGER BITS</td> <td><input type="checkbox"/> -N</td> <td></td> </tr> <tr> <td><input type="checkbox"/> PORTABLE HOIST</td> <td><input type="checkbox"/> TUNG-CARBIDE INSERTS</td> <td colspan="2">HAND TOOLS:</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/> CASING <input type="checkbox"/> W/ ADVANCER</td> <td><input type="checkbox"/> POST HOLE DIGGER</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/> TRICONE *STEEL TEETH</td> <td><input type="checkbox"/> HAND AUGER</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/> TRICONE *TUNG-CARB.</td> <td><input type="checkbox"/> SOUNDING ROD</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/> CORE BIT (4-INCH DIAMETER)</td> <td><input type="checkbox"/> VANE SHEAR TEST</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td></td> <td><input checked="" type="checkbox"/> DUAL MASS DCP</td> <td></td> </tr> </table> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
 | | | | | <input type="checkbox"/> CME-45C | <input type="checkbox"/> CLAY BITS | <input type="checkbox"/> AUTOMATIC | <input type="checkbox"/> MANUAL | <input type="checkbox"/> CME-55 | <input type="checkbox"/> 6" CONTINUOUS FLIGHT AUGER | CORE SIZE: | | <input checked="" type="checkbox"/> CME-550X | <input checked="" type="checkbox"/> 4" SOLID STEM AUGERS | <input type="checkbox"/> -B | <input type="checkbox"/> -H | <input type="checkbox"/> VANE SHEAR TEST | <input type="checkbox"/> HARD FACED FINGER BITS | <input type="checkbox"/> -N | | <input type="checkbox"/> PORTABLE HOIST | <input type="checkbox"/> TUNG-CARBIDE INSERTS | HAND TOOLS: | | <input type="checkbox"/> | <input type="checkbox"/> CASING <input type="checkbox"/> W/ ADVANCER | <input type="checkbox"/> POST HOLE DIGGER | | <input type="checkbox"/> | <input type="checkbox"/> TRICONE *STEEL TEETH | <input type="checkbox"/> HAND AUGER | | <input type="checkbox"/> | <input type="checkbox"/> TRICONE *TUNG-CARB. | <input type="checkbox"/> SOUNDING ROD | | <input type="checkbox"/> | <input checked="" type="checkbox"/> CORE BIT (4-INCH DIAMETER) | <input type="checkbox"/> VANE SHEAR TEST | | <input type="checkbox"/> | | <input checked="" type="checkbox"/> DUAL MASS DCP | | <p style="text-align: center;">FRACTURE SPACING</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>TERM</th> <th>SPACING</th> </tr> <tr> <td>VERY WIDE</td> <td>MORE THAN 10 FEET</td> </tr> <tr> <td>WIDE</td> <td>3 TO 10 FEET</td> </tr> <tr> <td>MODERATELY CLOSE</td> <td>1 TO 3 FEET</td> </tr> <tr> <td>CLOSE</td> <td>0.16 TO 1 FOOT</td> </tr> <tr> <td>VERY CLOSE</td> <td>LESS THAN 0.16 FEET</td> </tr> </table> | | | | | | | | | | 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 | <p style="text-align: center;">BEDDING</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>TERM</th> <th>THICKNESS</th> </tr> <tr> <td>VERY THICKLY BEDDED</td> <td>4 FEET</td> </tr> <tr> <td>THICKLY BEDDED</td> <td>1.5 - 4 FEET</td> </tr> <tr> <td>THINLY BEDDED</td> <td>0.16 - 1.5 FEET</td> </tr> <tr> <td>VERY THINLY BEDDED</td> <td>0.03 - 0.16 FEET</td> </tr> <tr> <td>THICKLY LAMINATED</td> <td>0.008 - 0.03 FEET</td> </tr> <tr> <td>THINLY LAMINATED</td> <td>< 0.008 FEET</td> </tr> </table> | | | | | | | | | | 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 | | | | | | | | | | | | | | | | | | | | | | | | | |
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| OM - OPTIMUM MOISTURE SHRINKAGE LIMIT

 | - DRY - (D) | REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p style="text-align: center;">COLOR</p> <p>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.</p>

 | | | | | | | | | | <p style="text-align: center;">RECOMMENDATION SYMBOLS</p> <p><input type="checkbox"/> UNDERCUT</p> <p><input type="checkbox"/> SHALLOW UNDERCUT</p> <p><input type="checkbox"/> UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE</p> <p><input type="checkbox"/> UNCLASSIFIED EXCAVATION - ACCEPTABLE DEGRADABLE ROCK</p> | | | | | | | | | | <p style="text-align: center;">ROCK HARDNESS</p> <p>VERY HARD</p> <p>HARD</p> <p>MODERATELY HARD</p> <p>MEDIUM HARD</p> <p>SOFT</p> <p>VERY SOFT</p> | | | | | | | | | | <p style="text-align: center;">TERMS AND DEFINITIONS</p> <p>ALLUVIUM (ALLUV.)</p> <p>AQUIFER</p> <p>ARENACEOUS</p> <p>ARGILLACEOUS</p> <p>ARTESIAN</p> <p>CALCAREOUS (CALC.)</p> <p>COLLUVIUM</p> <p>CORE RECOVERY (REC.)</p> <p>DIKE</p> <p>DIP</p> <p>DIP DIRECTION (DIP AZIMUTH)</p> <p>FAULT</p> <p>FISSILE</p> <p>FLOAT</p> <p>FLOOD PLAIN (FP)</p> <p>FORMATION (FM)</p> <p>JOINT</p> <p>LEDGE</p> <p>LENS</p> <p>MOTTLED (MOT.)</p> <p>PERCHED WATER</p> <p>RESIDUAL (RES.) SOIL</p> <p>ROCK QUALITY DESIGNATION (RQD)</p> <p>SAPROLITE (SAP.)</p> <p>SILL</p> <p>SLICKENSIDE</p> <p>STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT)</p> <p>STRATA CORE RECOVERY (SREC.)</p> <p>STRATA ROCK QUALITY DESIGNATION (SROD)</p> <p>TOPSOIL (TS.)</p>
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| <p style="text-align: center;">PLASTICITY</p>

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| <p style="text-align: center;">PLASTICITY</p>

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| <p style="text-align: center;">PLASTICITY</p>

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| <p style="text-align: center;">PLASTICITY</p>

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| <p style="text-align: center;">PLASTICITY</p>

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| <p style="text-align: center;">PLASTICITY</p>

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| <p style="text-align: center;">PLASTICITY</p>

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| <p style="text-align: center;">PLASTICITY</p>

 | | | | | | | | | | <p style="text-align: center;">EQUIPMENT USED ON SUBJECT PROJECT</p> | | | | | | | | | | <p style="text-align: center;">FRACTURE SPACING</p> | | | | | | | | | | <p style="text-align: center;">BEDDING</p>
 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p style="text-align: center;">PLASTICITY</p>

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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

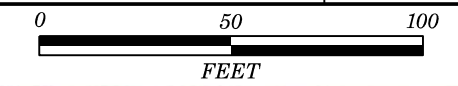
SG = Subgrade

SAND = Drainage Sand (see pavement layering on PIDS)

I-2513AA/AB

3

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



-RPD- PC Sta. 12+40
BEARING BK = N 27°01'22"

-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)



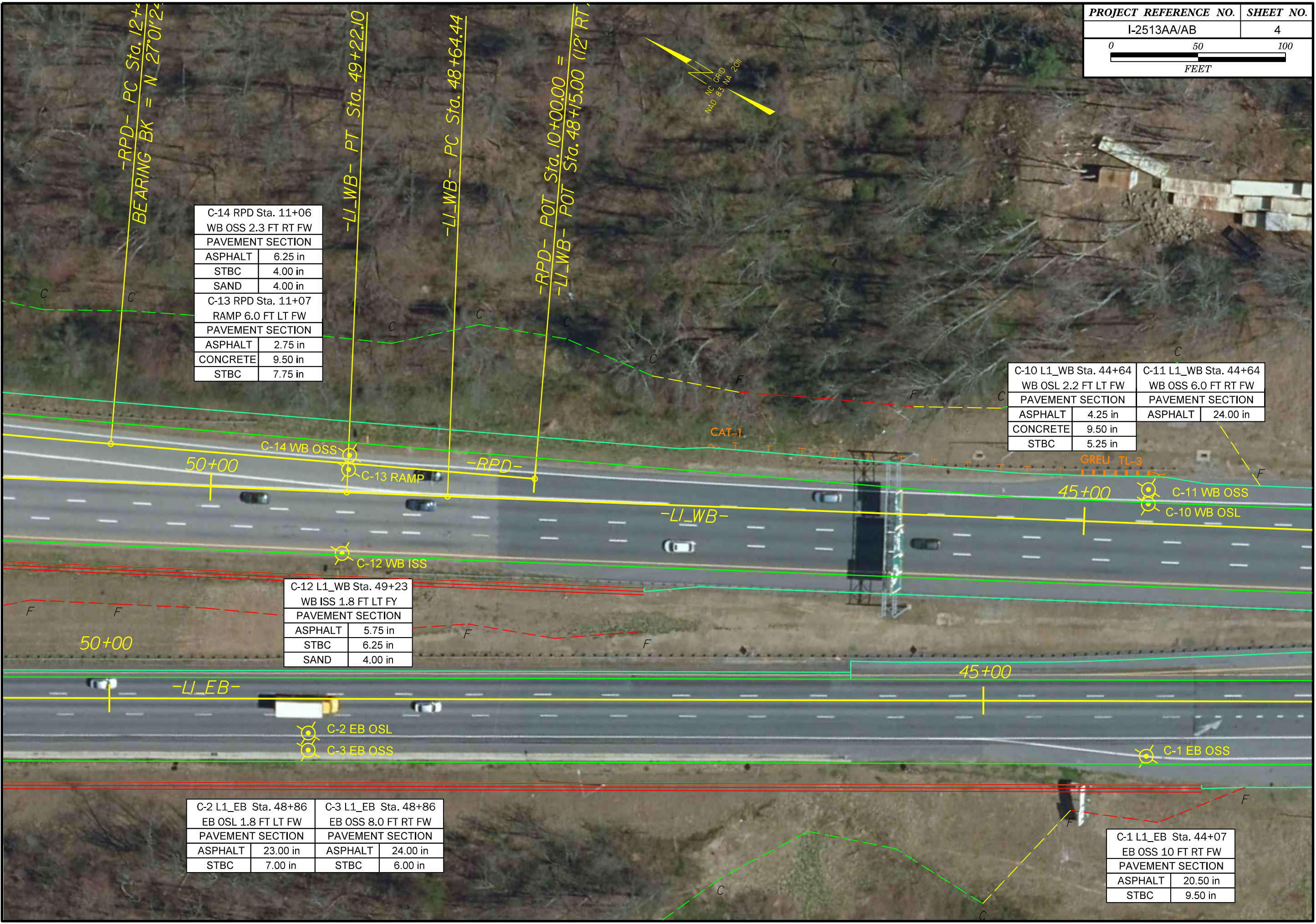
C-14 RPD Sta. 11+06	
WB OSS 2.3 FT RT FW	
PAVEMENT SECTION	
ASPHALT	6.25 in
STBC	4.00 in
SAND	4.00 in
C-13 RPD Sta. 11+07	
RAMP 6.0 FT LT FW	
PAVEMENT SECTION	
ASPHALT	2.75 in
CONCRETE	9.50 in
STBC	7.75 in

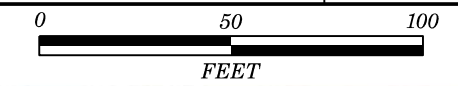
C-10 L1_WB Sta. 44+64		C-11 L1_WB Sta. 44+64	
WB OSL 2.2 FT LT FW		WB OSS 6.0 FT RT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	4.25 in	ASPHALT	24.00 in
CONCRETE	9.50 in		
STBC	5.25 in		

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		C-3 L1_EB Sta. 48+86	
EB OSL 1.8 FT LT FW		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





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

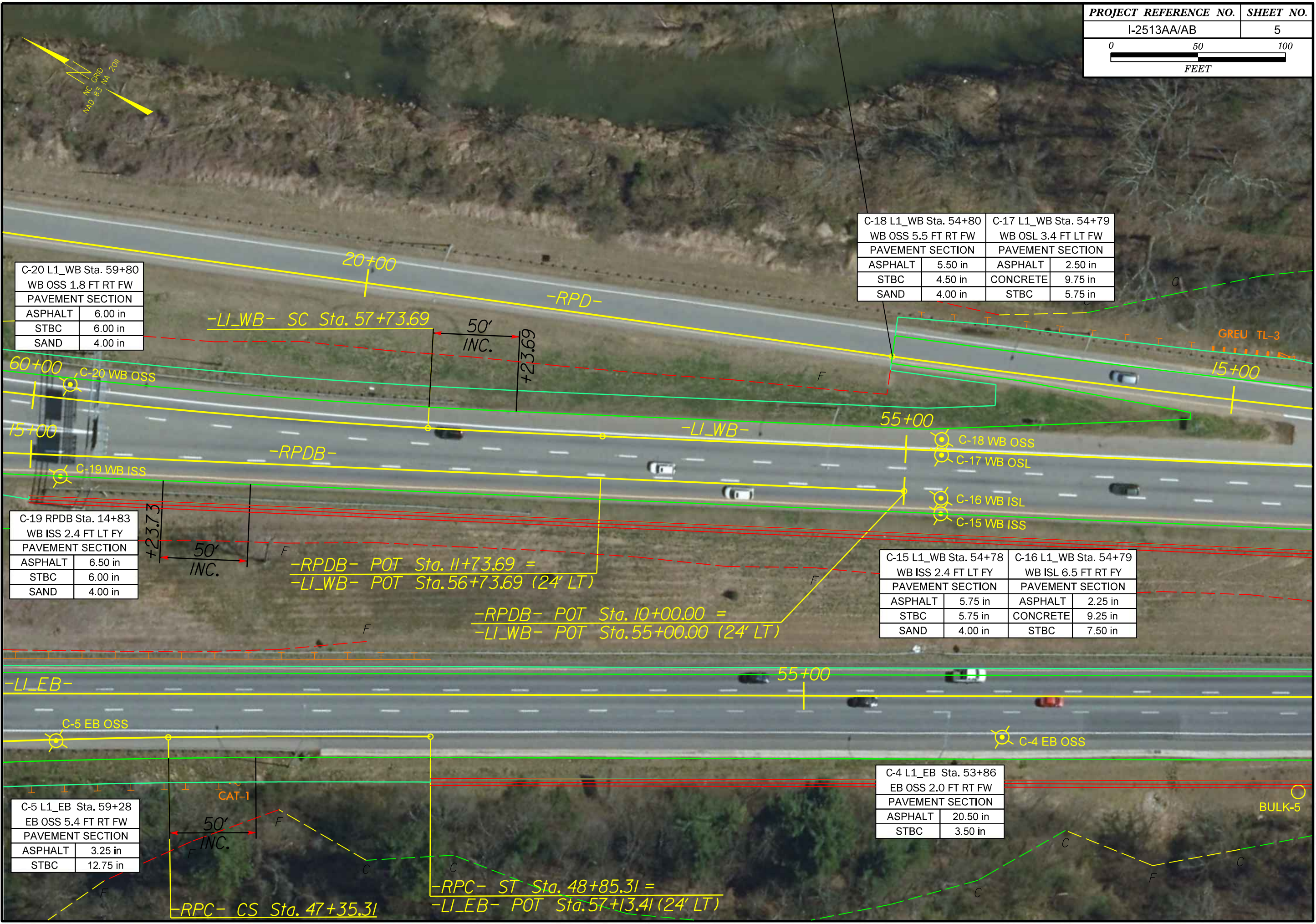
C-18 L1_WB Sta. 54+80		C-17 L1_WB Sta. 54+79	
WB OSS 5.5 FT RT FW		WB OSL 3.4 FT LT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	5.50 in	ASPHALT	2.50 in
STBC	4.50 in	CONCRETE	9.75 in
SAND	4.00 in	STBC	5.75 in

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



-LI_WB- SC Sta. 57+73.69

50' INC.

+23.69

-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)

-RPC- ST Sta. 48+85.31 =
-LI_EB- POT Sta. 57+13.41 (24' LT)

-RPC- CS Sta. 47+35.31

GREU TL-3

BULK-5

C-25 L1_WB Sta. 65+83		C-26 L1_WB Sta. 65+83	
WB ISS 2.3 FT LT FY		WB OSL 1.9 FT LT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	6.25 in	ASPHALT	3.00 in
STBC	5.75 in	CONCRETE	9.00 in
SAND	4.00 in	STBC	6.50 in

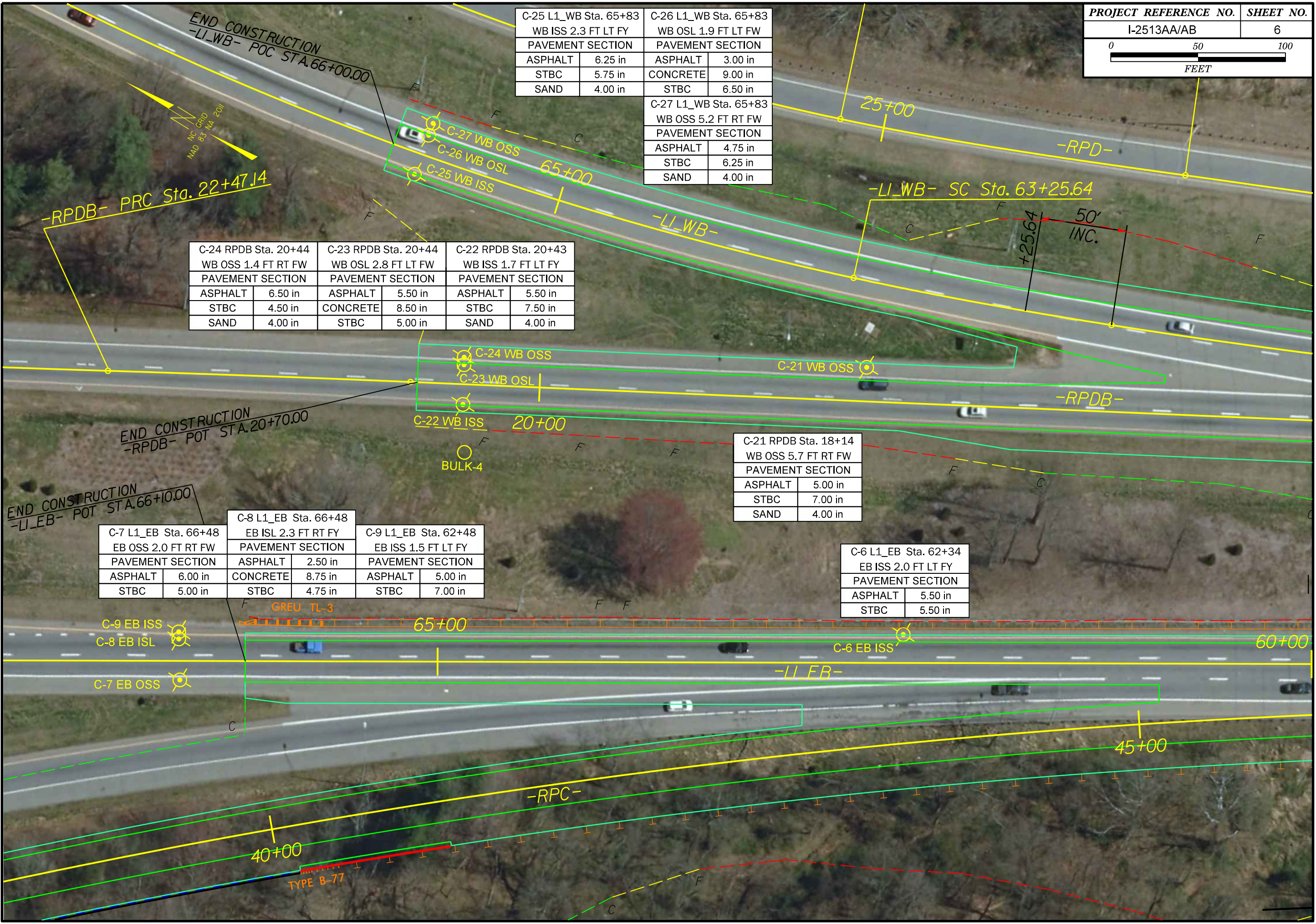
C-27 L1_WB Sta. 65+83	
WB OSS 5.2 FT RT FW	
PAVEMENT SECTION	
ASPHALT	4.75 in
STBC	6.25 in
SAND	4.00 in

C-24 RPDB Sta. 20+44		C-23 RPDB Sta. 20+44		C-22 RPDB Sta. 20+43	
WB OSS 1.4 FT RT FW		WB OSL 2.8 FT LT FW		WB ISS 1.7 FT LT FY	
PAVEMENT SECTION		PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	6.50 in	ASPHALT	5.50 in	ASPHALT	5.50 in
STBC	4.50 in	CONCRETE	8.50 in	STBC	7.50 in
SAND	4.00 in	STBC	5.00 in	SAND	4.00 in

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

C-7 L1_EB Sta. 66+48		C-8 L1_EB Sta. 66+48		C-9 L1_EB Sta. 62+48	
EB OSS 2.0 FT RT FW		EB ISL 2.3 FT RT FY		EB ISS 1.5 FT LT FY	
PAVEMENT SECTION		PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	6.00 in	CONCRETE	8.75 in	ASPHALT	5.00 in
STBC	5.00 in	STBC	4.75 in	STBC	7.00 in

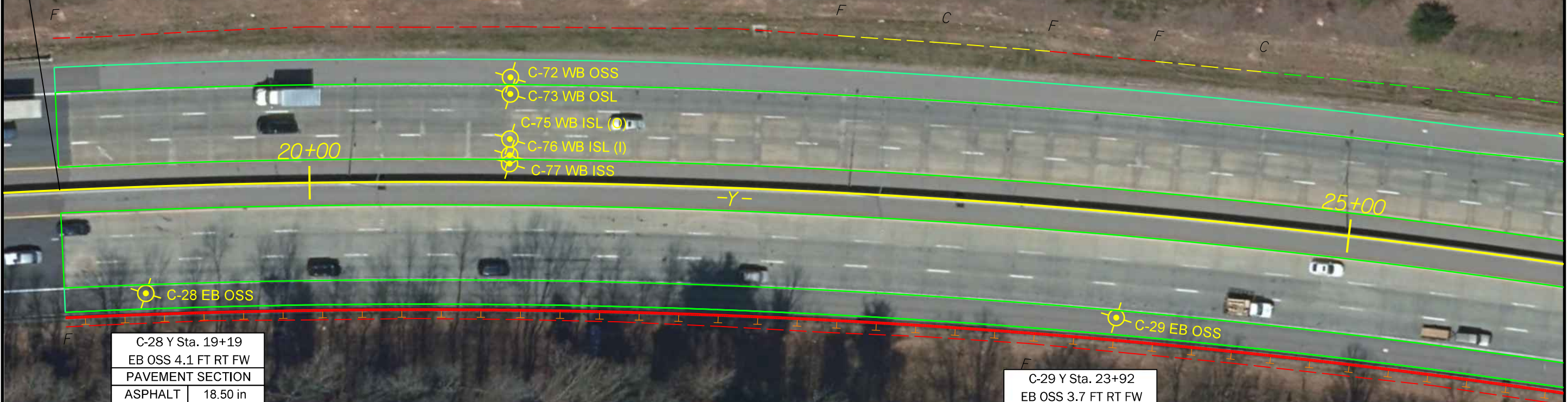
C-6 L1_EB Sta. 62+34	
EB ISS 2.0 FT LT FY	
PAVEMENT SECTION	
ASPHALT	5.50 in
STBC	5.50 in





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		C-76 Y Sta. 20+96 WB ISL (I) 1.8 FT RT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
CONCRETE	14.50 in	CONCRETE	14.50 in
ASPHALT	4.00 in	ASPHALT	4.00 in
CONCRETE	9.50 in	STBC	10.00 in
STBC	4.00 in	SAND	3.50 in
C-75 Y Sta. 20+96 WB ISL (O) 9.5 FT RT FY		C-77 Y Sta. 20+96 WB ISS 2.3 FT LT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
CONCRETE	14.25 in	ASPHALT	21.50 in
ASPHALT	10.75 in	SHOULDER DRAIN	
STBC	3.00 in		
SAND	3.00 in		

BEGIN CONSTRUCTION
-Y- STA. 18+80.00



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

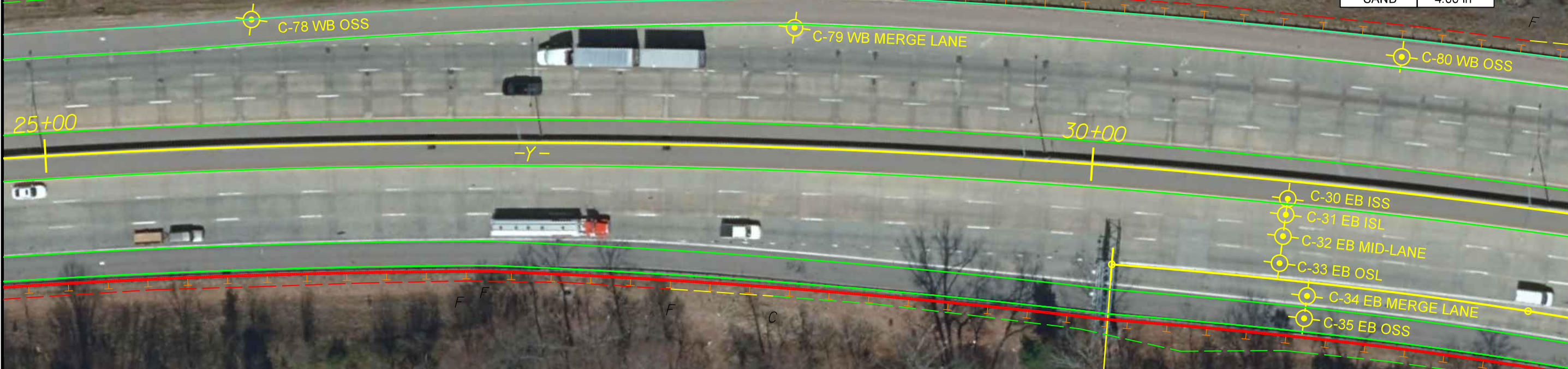
C-29 Y Sta. 23+92 EB OSS 3.7 FT RT FW	
PAVEMENT SECTION	
ASPHALT	23.50 in
STBC	4.50 in
SAND	4.00 in



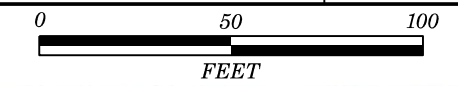
C-78 Y Sta. 26+00	
WB OSS 11.8 FT RT FW	
PAVEMENT SECTION	
ASPHALT	17.00 in
STBC	6.00 in
ASPHALT	8.00 in
SAND	4.00 in

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



C-30 Y Sta. 30+95		C-33 Y Sta. 30+94	
EB ISS 2.0 FT LT FY		EB OSL 6.6 FT LT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	16.50 in	CONCRETE	14.50 in
STBC	6.00 in	ASPHALT	14.00 in
ASPHALT	9.50 in	FABRIC	-
STBC	4.00 in	STBC	4.00 in
C-31 Y Sta. 30+95		C-34 Y Sta. 31+09 EB	
EB ISL 5.6 FT RT FY		MERGE LANE 4.0 FT LT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
CONCRETE	15.25 in	CONCRETE	15.00 in
ASPHALT	14.50 in	ASPHALT	4.25 in
STBC	5.25 in	CONCRETE	9.75 in
C-32 Y Sta. 30+94 EB		STBC	
MID-LANE 19.6 FT LT FW		C-35 Y Sta. 31+09	
PAVEMENT SECTION		EB OSS 6.8 FT RT FW	
CONCRETE	14.25 in	PAVEMENT SECTION	
ASPHALT	3.50 in	ASPHALT	24.00 in
CONCRETE	9.25 in	SHOULDER DRAIN	10.00 in
STBC	7.00 in		

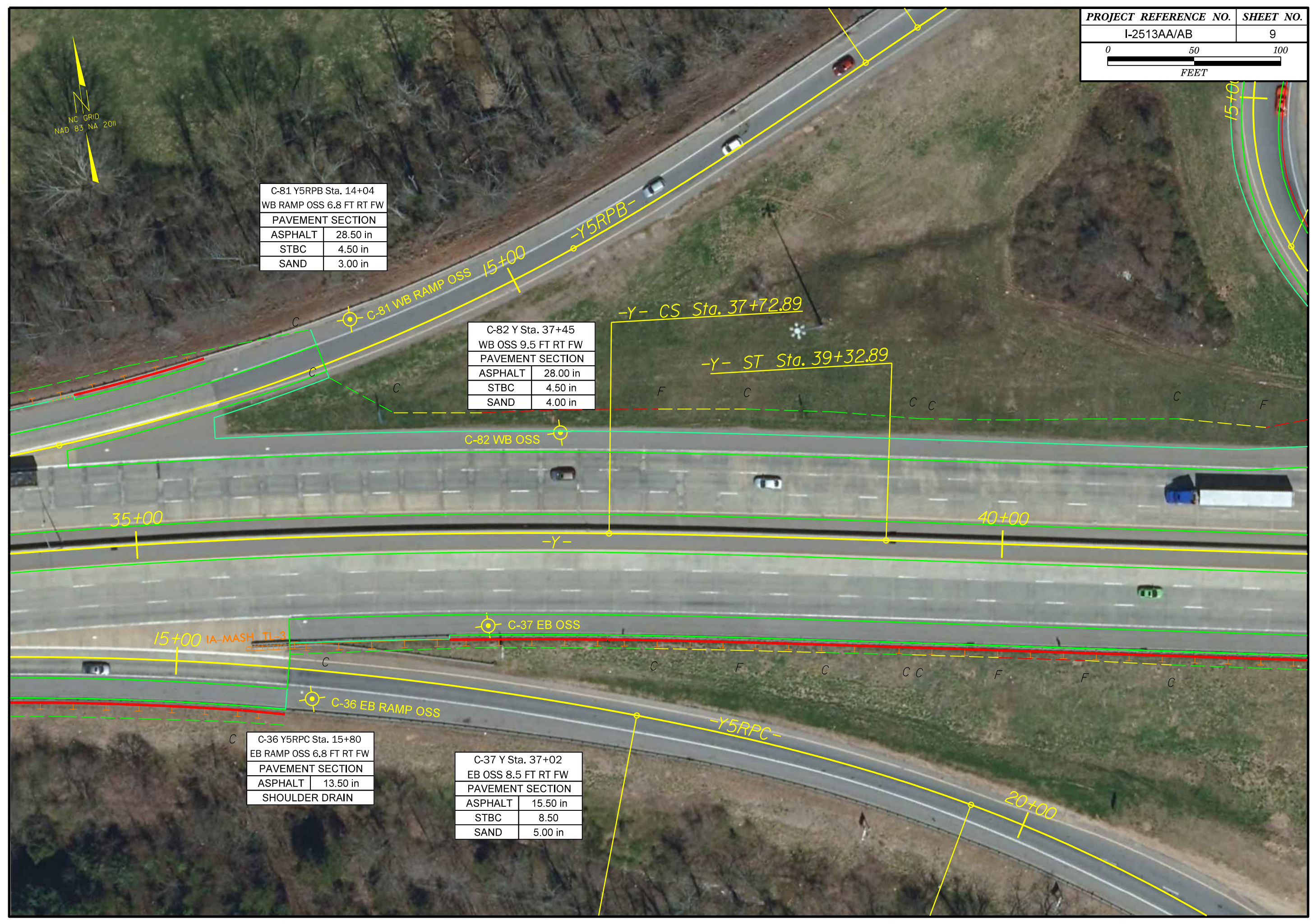


C-81 Y5RPB Sta. 14+04	
WB RAMP OSS 6.8 FT RT FW	
PAVEMENT SECTION	
ASPHALT	28.50 in
STBC	4.50 in
SAND	3.00 in

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



-Y5LPB- PCC Sta. 14+10.16

-Y5LPB- ST Sta. 19+04.12

-Y5LPB- SC Sta. 13+25.00

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

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

-EY5- PC Sta. 26+42.50

-EY5- PT Sta. 27+58

-Y5LPB- POT Sta. 22+7

C-83 WB OSS

45+00

25+00
W 42° 35' 05.6" F

C-38 EB OSL
C-39 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

-EY5- PC Sta. 23+19.06

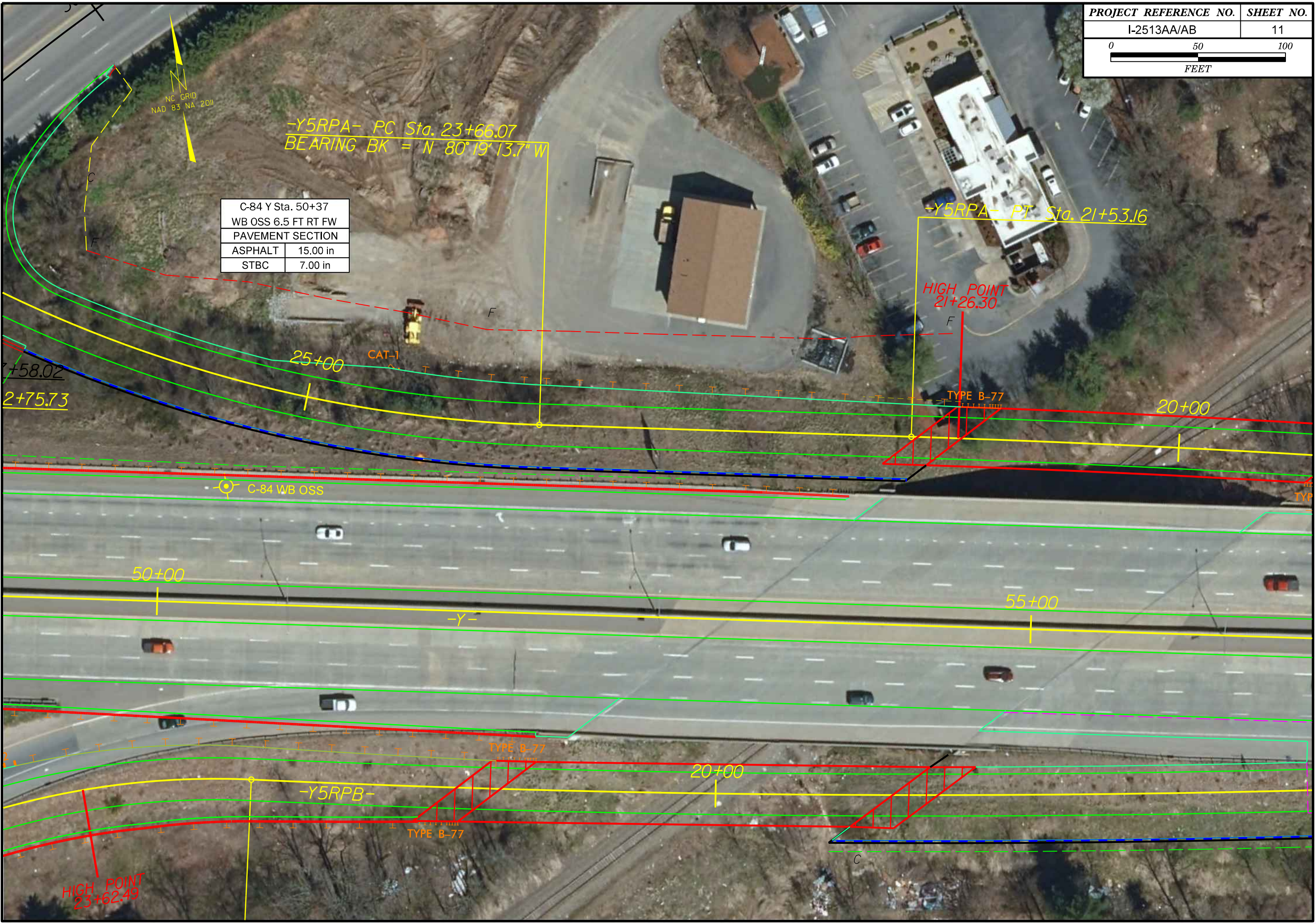
C-40 Y Sta. 48+83	
EB OSS 4.0 FT RT FW	
PAVEMENT SECTION	
ASPHALT	20.00 in
SHOULDER DRAIN	8.00 in

C-40 EB OSS

-EY5- PT Sta. 24+38.98

25+00

GREU T1-2



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

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

-Y5RPA- PT Sta. 21+53.16

HIGH POINT
 21+26.30

2+58.02
 2+75.73

C-84 WB OSS

50+00

55+00

-Y-

-Y5RPB-

20+00

HIGH POINT
 23+62.49

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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		C-87 Y Sta. 58+51	
WB OSL 5.5 FT LT FW		WB OSML 15.5 FT LT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
CONCRETE	15.25 in	CONCRETE	14.50 in
ASPHALT	11.75 in	ASPHALT	4.00 in
STBC	5.00 in	CONCRETE	8.50 in
SAND	3.00 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	C-43 Y Sta. 58+86	
STBC	5.50 in	EB OSS 3.5 FT RT FW	
C-42 Y Sta. 58+86		PAVEMENT SECTION	
EB OSL 4.8 FT LT FW		ASPHALT	14.75 in
PAVEMENT SECTION		STBC	8.25 in
		SHOULDER DRAIN	8.00 in
CONCRETE	15.00 in		
ASPHALT	3.75 in		
CONCRETE	8.25 in		
STBC	4.00 in		

C-44 Y Sta. 63+48	
EB OSS 8.3 FT RT FW	
PAVEMENT SECTION	
ASPHALT	14.50 in
STBC	6.50 in

NC GRID
NAD 83 NA 2011

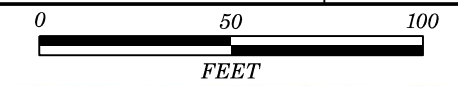
C-89 Y Sta. 68+54	
WB OSS 5.5 FT RT FW	
PAVEMENT SECTION	
ASPHALT	15.50 in
ABC	24.50 in
FABRIC	-

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



C-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



MC GRID
NAD 83 NA 20M

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

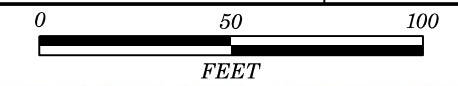
C-47 EB OSS

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

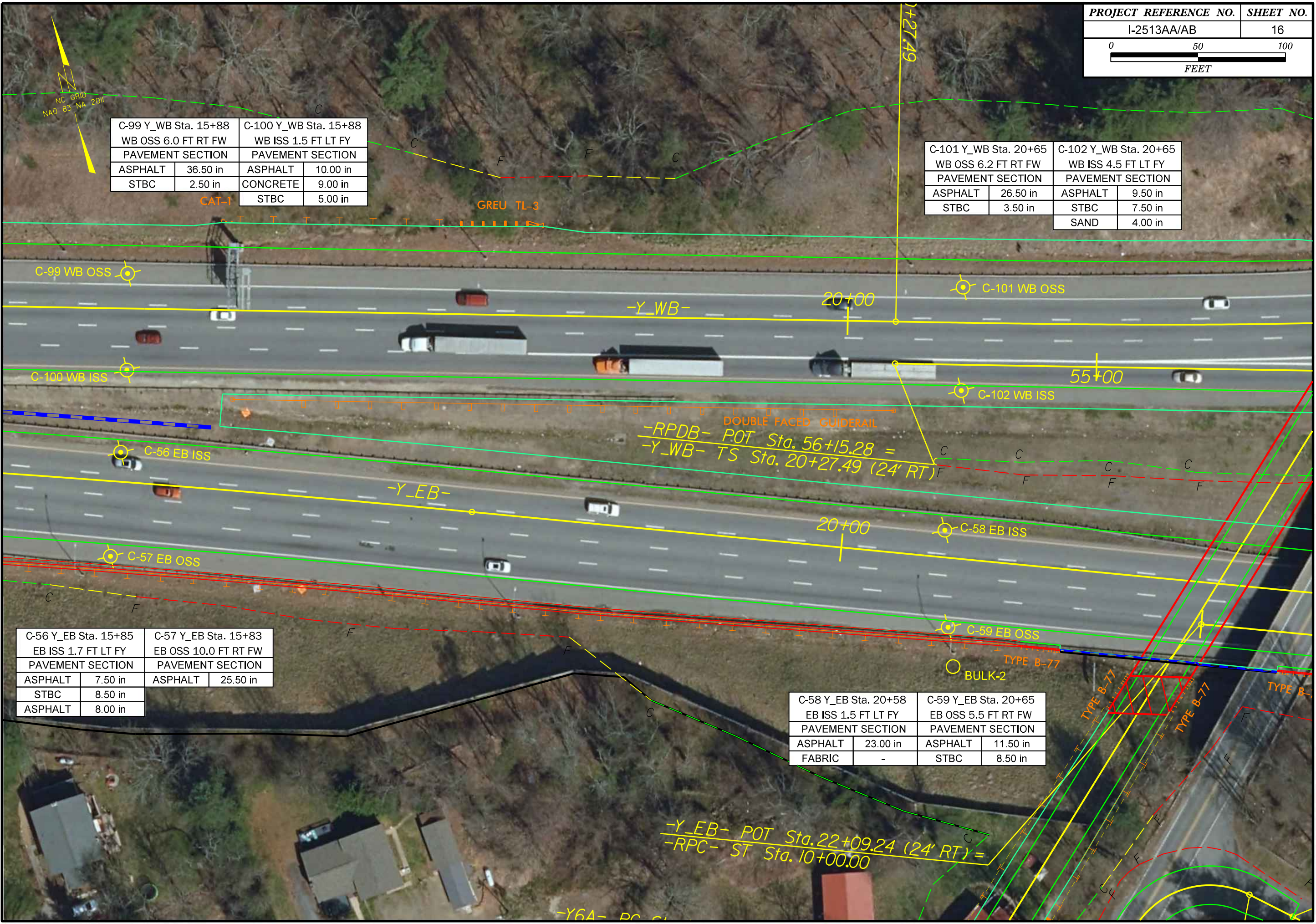
C-48 Y Sta. 85+43	
EB OSS 9.5 FT RT FW	
PAVEMENT SECTION	
ASPHALT	16.75 in
STBC	6.25 in



NC GRID
NAD 83 NA 2011

C-99 Y_WB Sta. 15+88		C-100 Y_WB Sta. 15+88	
WB OSS 6.0 FT RT FW		WB ISS 1.5 FT LT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	36.50 in	ASPHALT	10.00 in
STBC	2.50 in	CONCRETE	9.00 in
		STBC	5.00 in

C-101 Y_WB Sta. 20+65		C-102 Y_WB Sta. 20+65	
WB OSS 6.2 FT RT FW		WB ISS 4.5 FT LT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	26.50 in	ASPHALT	9.50 in
STBC	3.50 in	STBC	7.50 in
		SAND	4.00 in



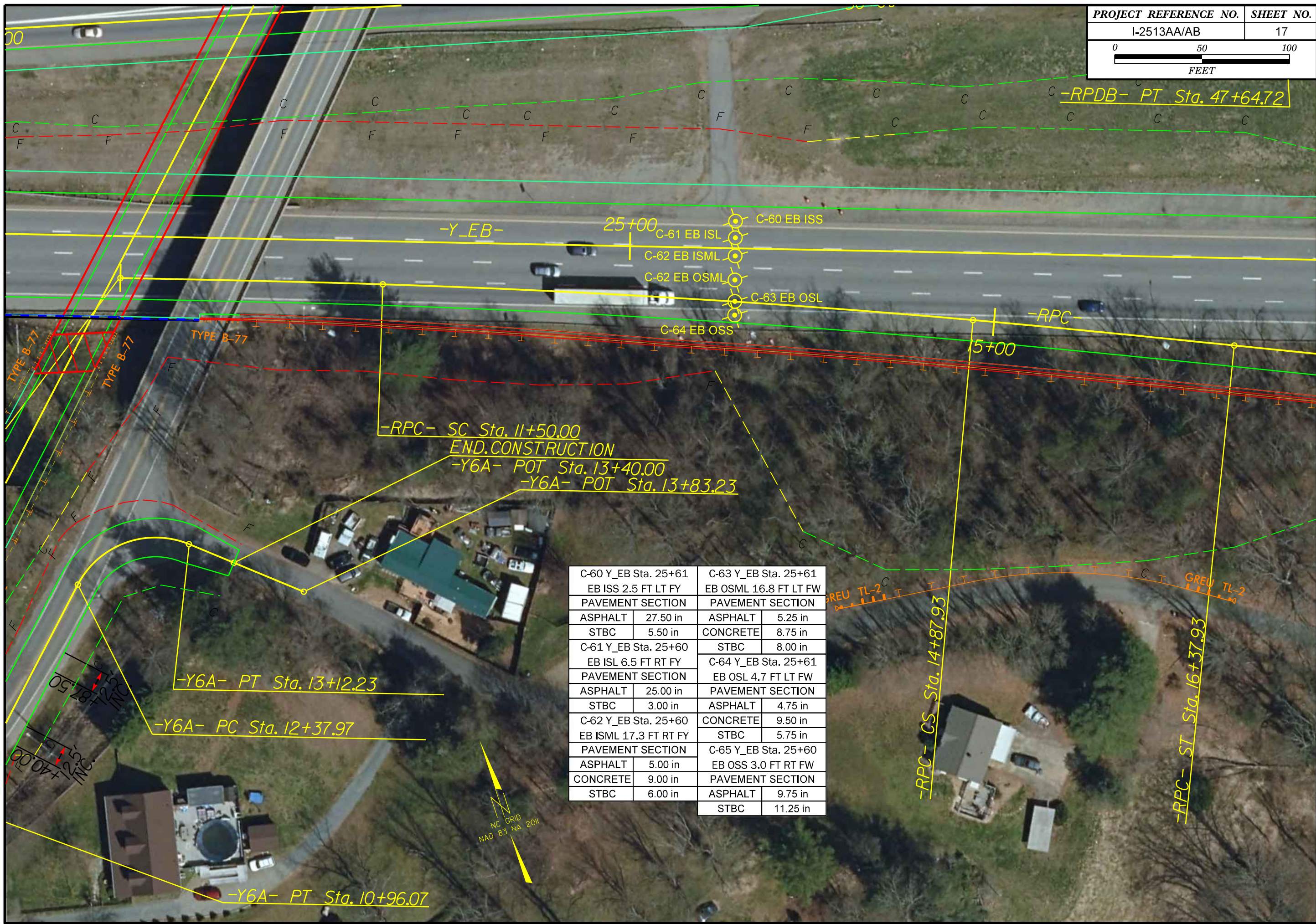
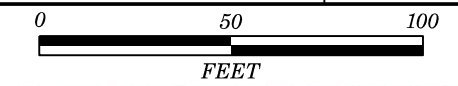
C-56 Y_EB Sta. 15+85		C-57 Y_EB Sta. 15+83	
EB ISS 1.7 FT LT FY		EB OSS 10.0 FT RT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	7.50 in	ASPHALT	25.50 in
STBC	8.50 in		
ASPHALT	8.00 in		

C-58 Y_EB Sta. 20+58		C-59 Y_EB Sta. 20+65	
EB ISS 1.5 FT LT FY		EB OSS 5.5 FT RT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	23.00 in	ASPHALT	11.50 in
FABRIC	-	STBC	8.50 in

DOUBLE FACED GUIDERAIL
 -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

-Y6A- PC CI



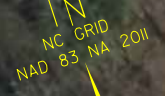
-RPC- SC Sta. 11+50.00
END.CONSTRUCTION
-Y6A- POT Sta. 13+40.00
-Y6A- POT Sta. 13+83.23

-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	C-63 Y_EB Sta. 25+61 EB OSML 16.8 FT LT FW
PAVEMENT SECTION	PAVEMENT SECTION
ASPHALT 27.50 in	ASPHALT 5.25 in
STBC 5.50 in	CONCRETE 8.75 in
C-61 Y_EB Sta. 25+60 EB ISL 6.5 FT RT FY	STBC 8.00 in
PAVEMENT SECTION	C-64 Y_EB Sta. 25+61 EB OSML 4.7 FT LT FW
ASPHALT 25.00 in	PAVEMENT SECTION
STBC 3.00 in	ASPHALT 4.75 in
C-62 Y_EB Sta. 25+60 EB ISML 17.3 FT RT FY	CONCRETE 9.50 in
PAVEMENT SECTION	STBC 5.75 in
ASPHALT 5.00 in	C-65 Y_EB Sta. 25+60 EB OSS 3.0 FT RT FW
CONCRETE 9.00 in	PAVEMENT SECTION
STBC 6.00 in	ASPHALT 9.75 in
	STBC 11.25 in



-RPC- CS Sta. 14+87.93

-RPC- ST Sta. 16+37.93

GREU TL-2

TYPE B-77

TYPE B-77

-Y_EB-

25+00

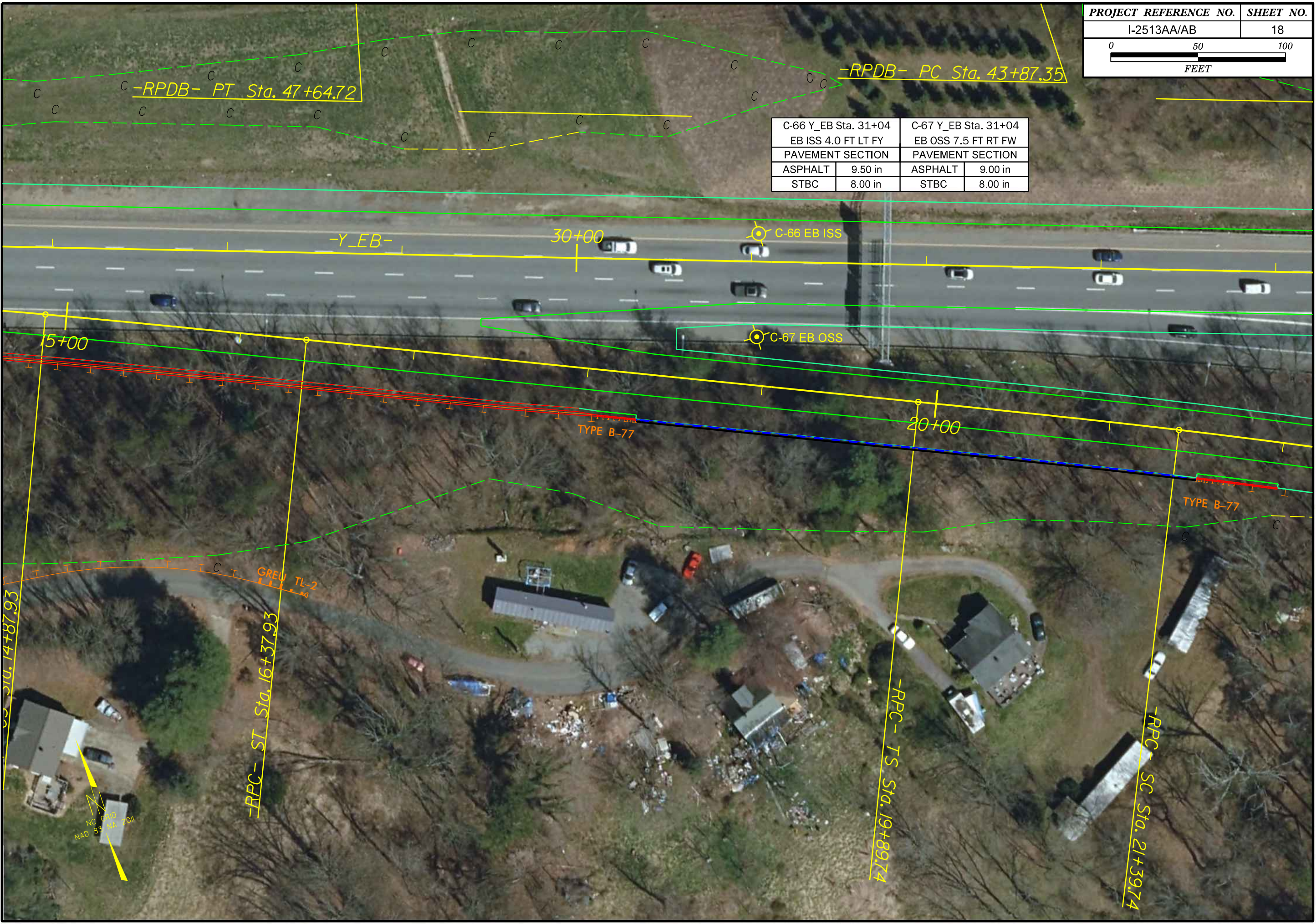
- C-60 EB ISS
- C-61 EB ISL
- C-62 EB ISML
- C-62 EB OSML
- C-63 EB OSL
- C-64 EB OSS

15+00

-RPC

00

-RPDB- PT Sta. 47+64.72

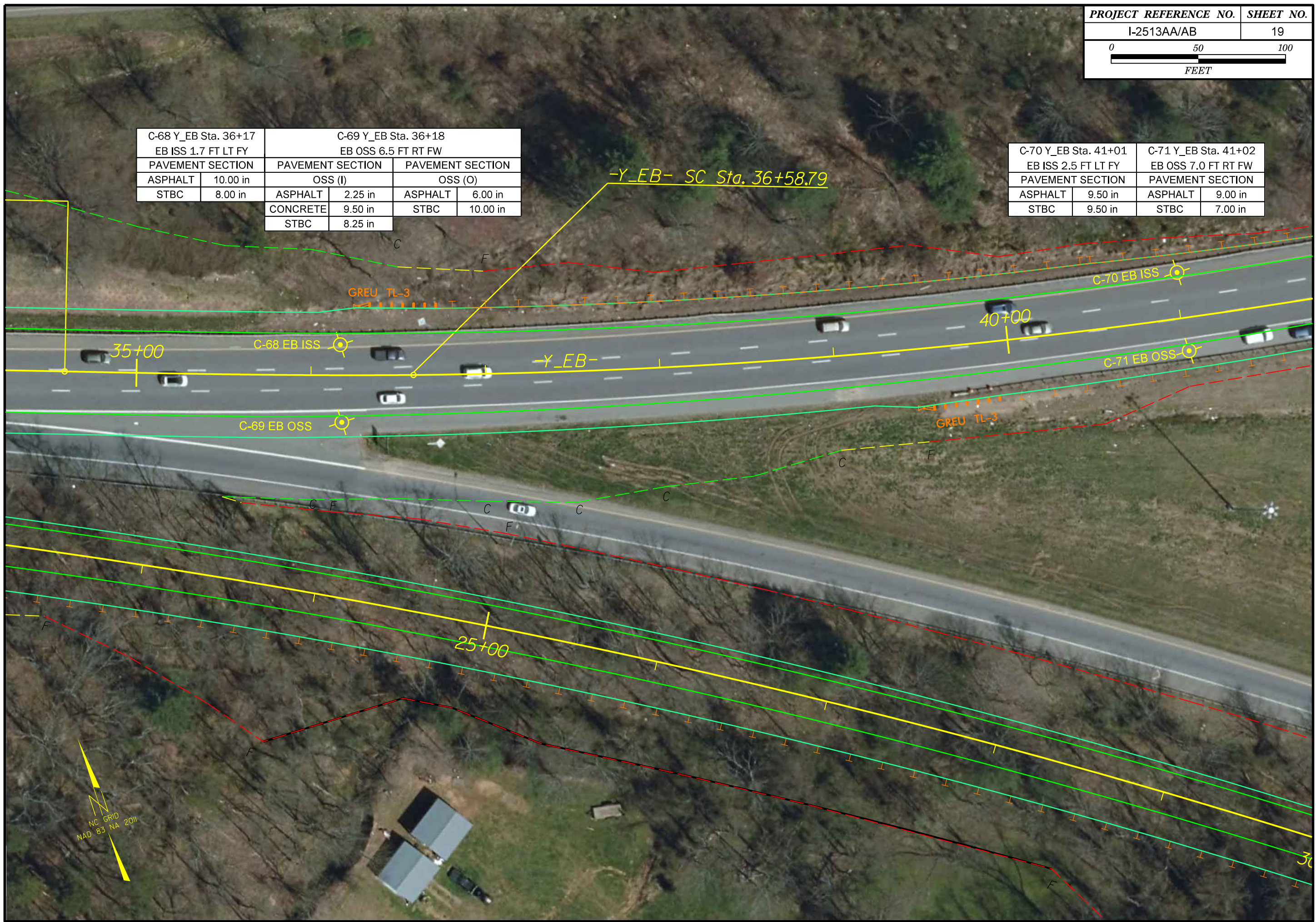


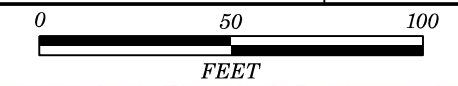
C-66 Y_EB Sta. 31+04		C-67 Y_EB Sta. 31+04	
EB ISS 4.0 FT LT FY		EB OSS 7.5 FT RT FW	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	9.50 in	ASPHALT	9.00 in
STBC	8.00 in	STBC	8.00 in

NC GRID
NAD 83 NA 2011

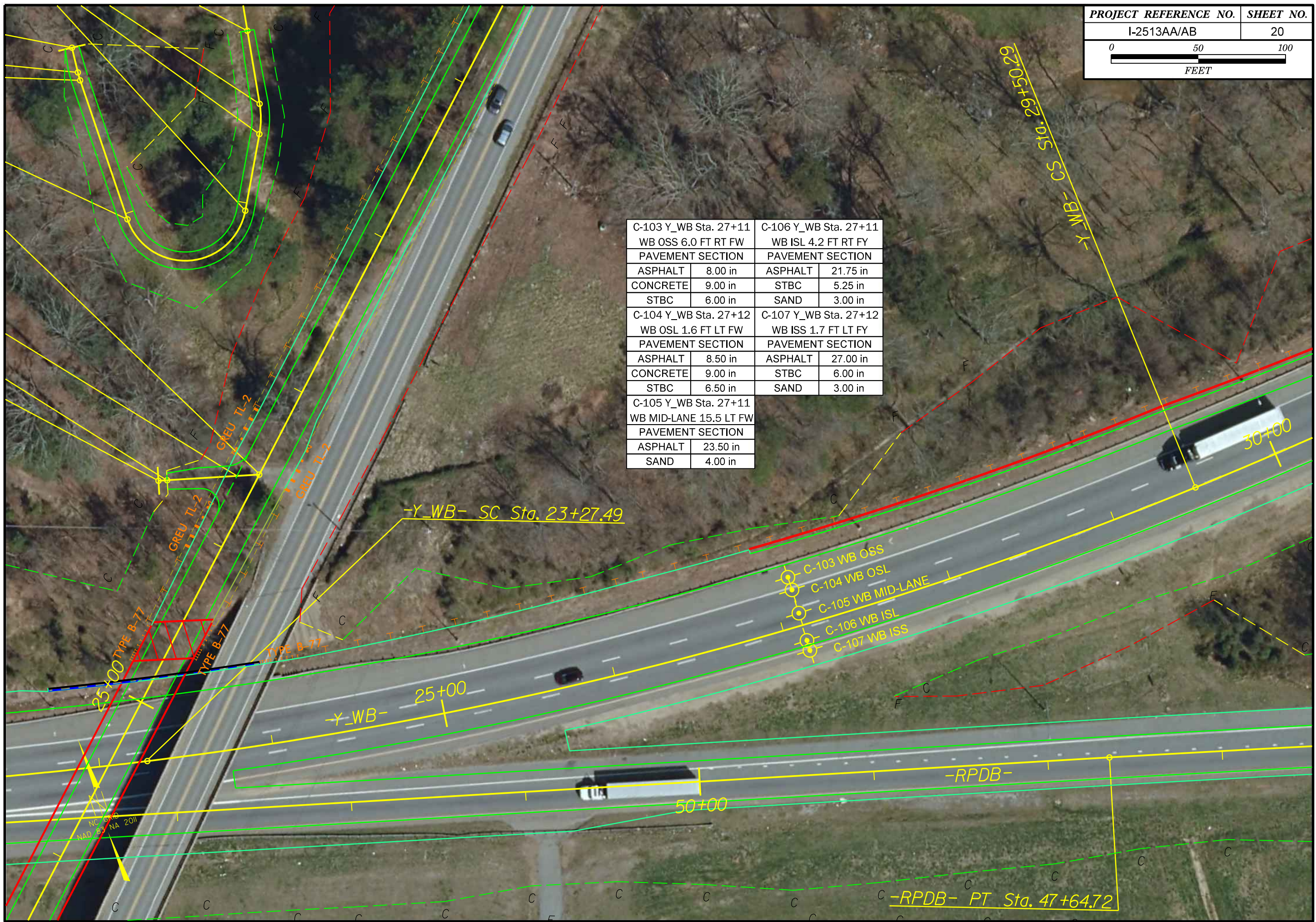
C-68 Y_EB Sta. 36+17		C-69 Y_EB Sta. 36+18	
EB ISS 1.7 FT LT FY		EB OSS 6.5 FT RT FW	
PAVEMENT SECTION		PAVEMENT SECTION	PAVEMENT SECTION
ASPHALT	10.00 in	OSS (I)	OSS (O)
STBC	8.00 in	ASPHALT	2.25 in
		CONCRETE	9.50 in
		STBC	10.00 in
		STBC	8.25 in

C-70 Y_EB Sta. 41+01		C-71 Y_EB Sta. 41+02	
EB ISS 2.5 FT LT FY		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





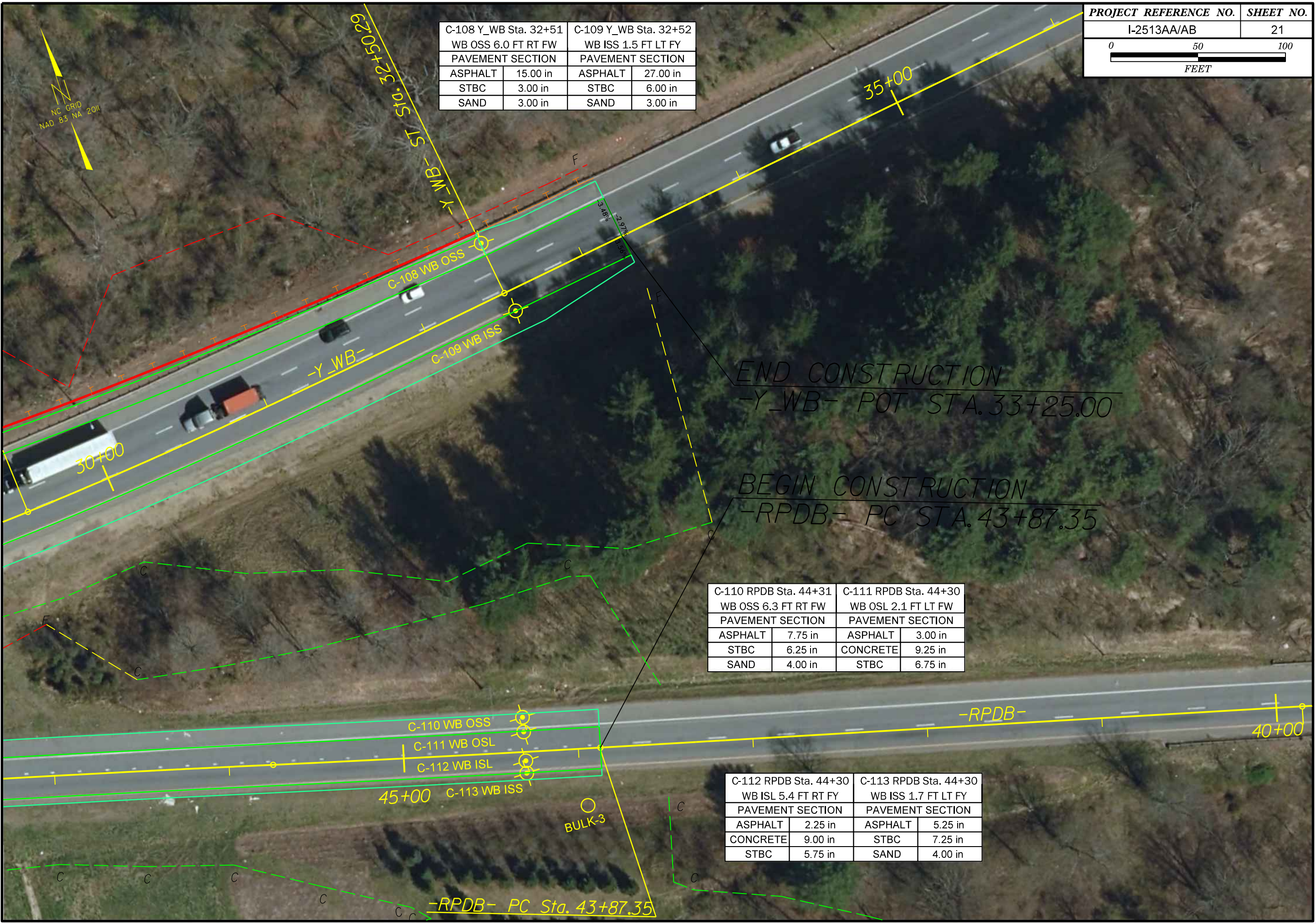
C-103 Y_WB Sta. 27+11		C-106 Y_WB Sta. 27+11	
WB OSS 6.0 FT RT FW		WB ISL 4.2 FT RT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	8.00 in	ASPHALT	21.75 in
CONCRETE	9.00 in	STBC	5.25 in
STBC	6.00 in	SAND	3.00 in
C-104 Y_WB Sta. 27+12		C-107 Y_WB Sta. 27+12	
WB OSL 1.6 FT LT FW		WB ISS 1.7 FT LT FY	
PAVEMENT SECTION		PAVEMENT SECTION	
ASPHALT	8.50 in	ASPHALT	27.00 in
CONCRETE	9.00 in	STBC	6.00 in
STBC	6.50 in	SAND	3.00 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-108 Y_WB Sta. 32+51		C-109 Y_WB Sta. 32+52	
WB OSS 6.0 FT RT FW		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

C-110 RPDB Sta. 44+31		C-111 RPDB Sta. 44+30	
WB OSS 6.3 FT RT FW		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-112 RPDB Sta. 44+30		C-113 RPDB Sta. 44+30	
WB ISL 5.4 FT RT FY		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



NC GRID
NAD 83 NA 2011

END CONSTRUCTION
-Y_WB- POT STA. 33+25.00

BEGIN CONSTRUCTION
-RPDB- PC STA. 43+87.35

-RPDB- PC Sta. 43+87.35

BULK-3

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

Test Location	Cut/Fill (Est. of Amount) (ft)	Width (ft)		Offset Distance (See Notes)	(ft)	(in)	Thickness (in)					Pavement Layering	SG					Asphalt Notes	GPS Coordinates		
		Lane	Shoulder				Gross to Top of Soil	Asphalt	ABC/STBC	Shoulder Drain Drainage Sand CSS (Chemical)	Concrete		Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)		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 Slightly 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 Longitudinal 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 joint 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

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				

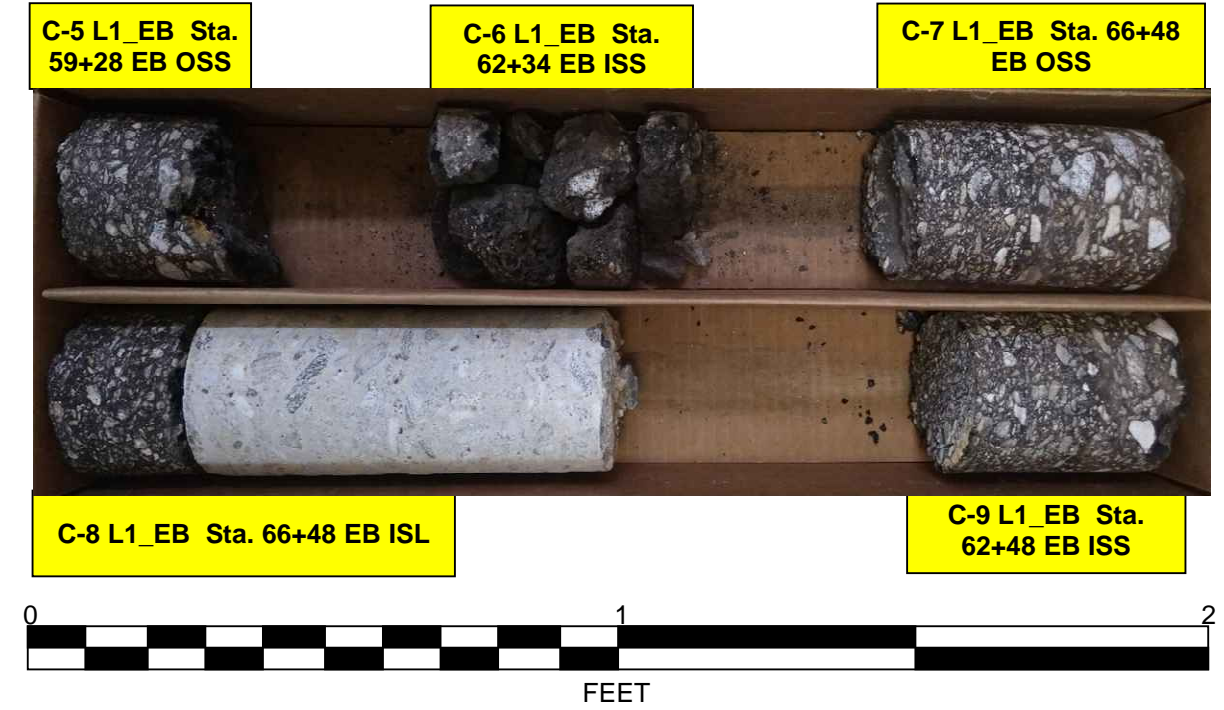
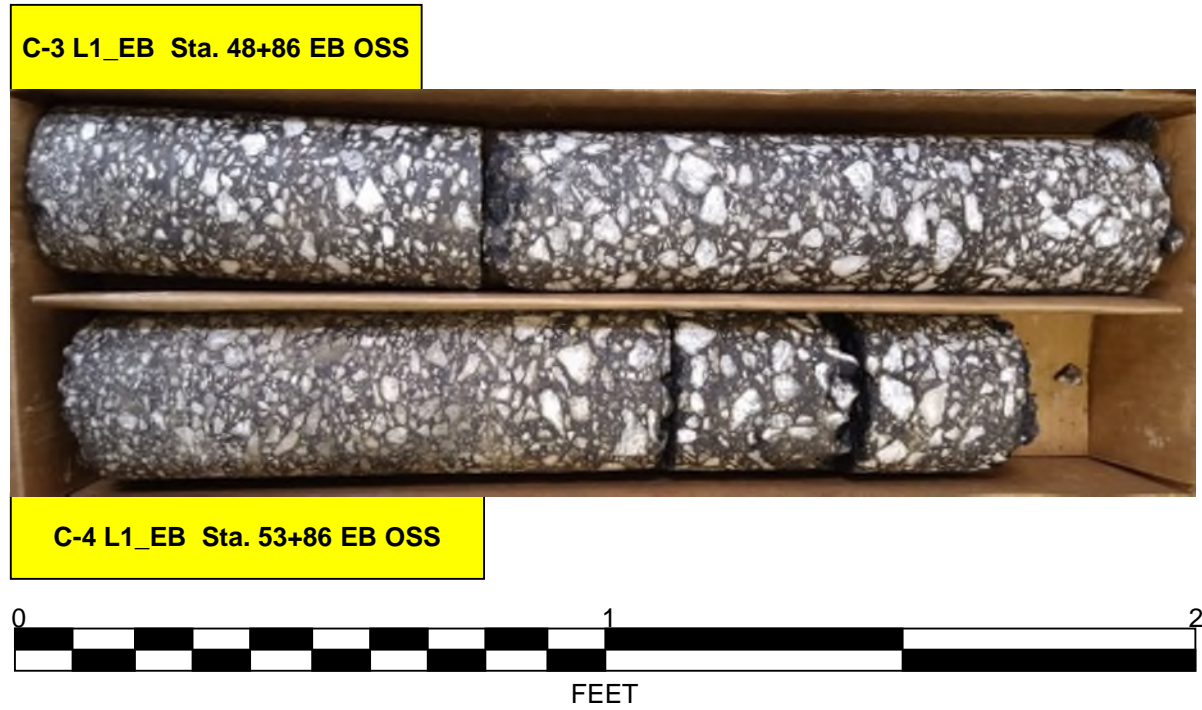
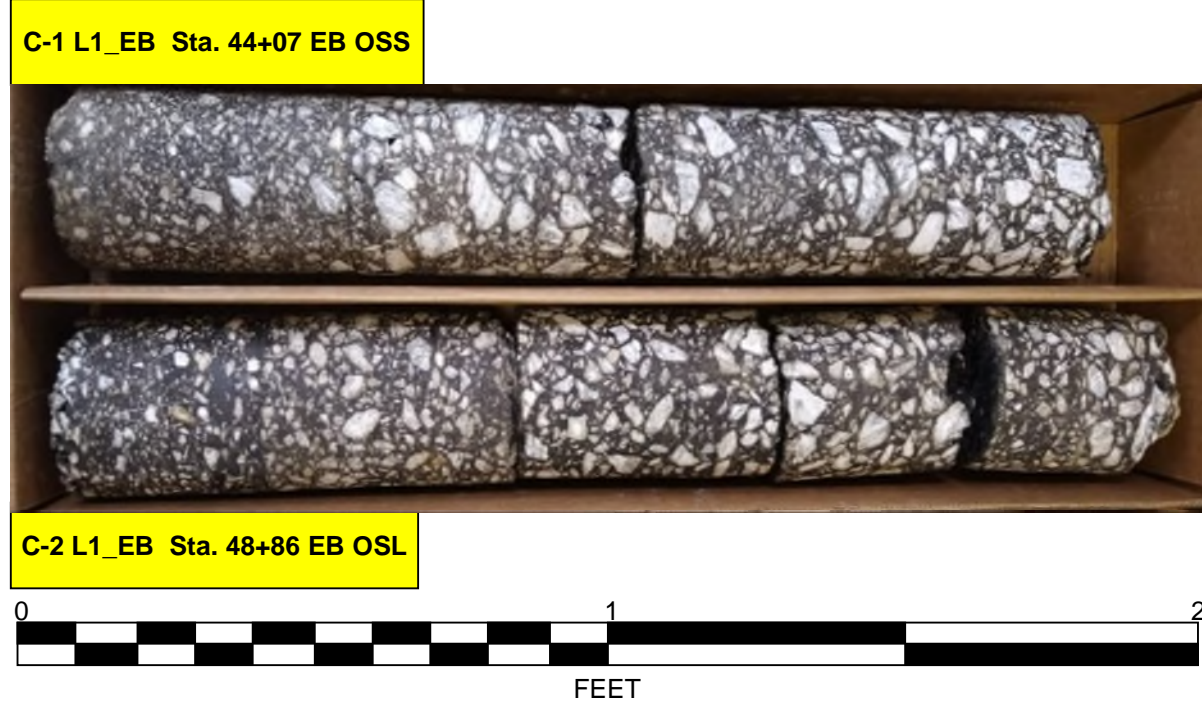
DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET							WBS NO.	PROJECT TIP I.D.	ROUTE
							34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)
							COUNTY	FIELD PROFESSIONAL	FIELD CREW
							Haywood	M. Brewer	C. Odom/D. Underwood
Test Location							Date Run	Test Location	Date Run
C-3 L1_EB 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			

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				

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

Pavement Core Photographs



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

Test Location	Cut/Fill (Est. of Amount) (ft)	Width (ft)		Offset Distance (See Notes)	(in)	Gross to Top of Soil	Thickness (in)				Pavement Layering	SG					Asphalt Notes	GPS Coordinates	
		Lane	Shoulder				Asphalt	ABC/STBC	Shoulder Drain Drainage Sand CSS (Chemical)	Concrete		Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)		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 Longitudinal 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 Longitudinal 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

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				

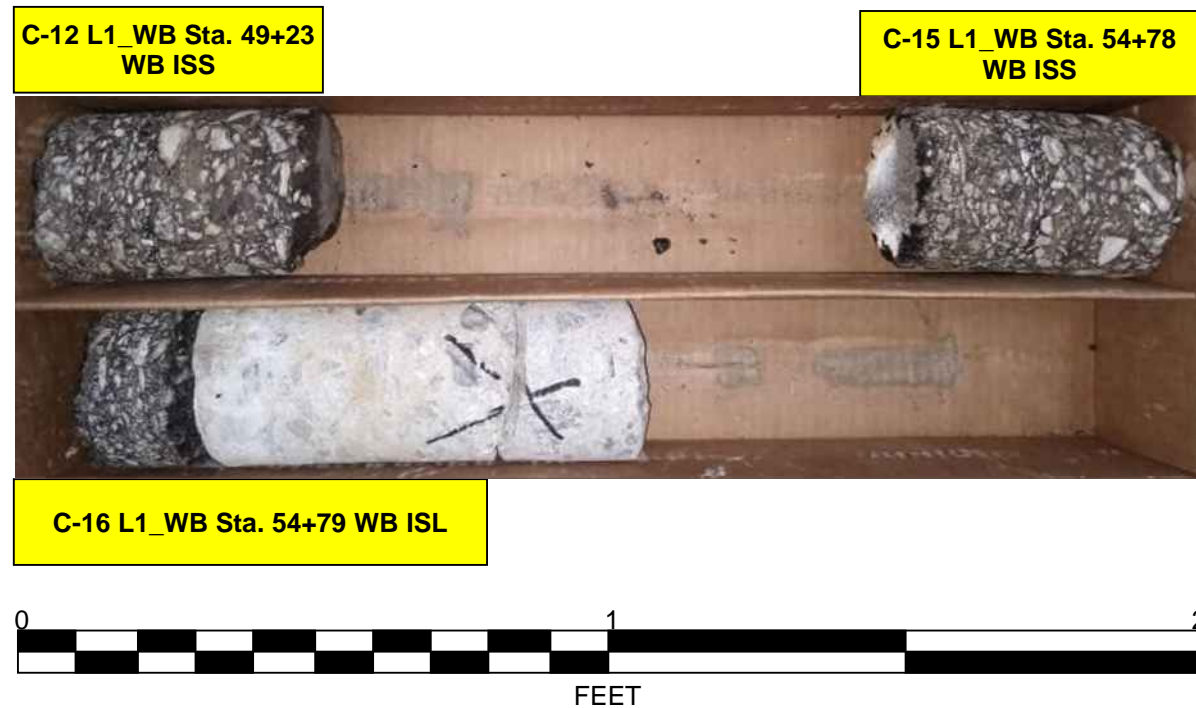
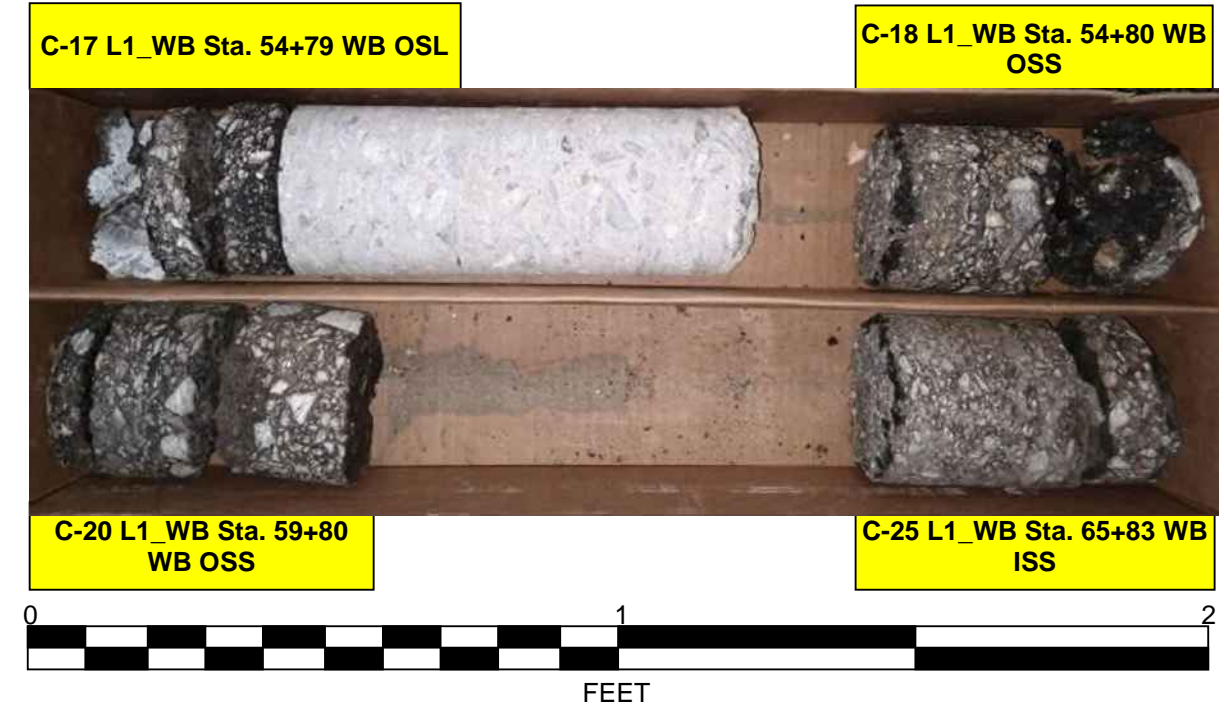
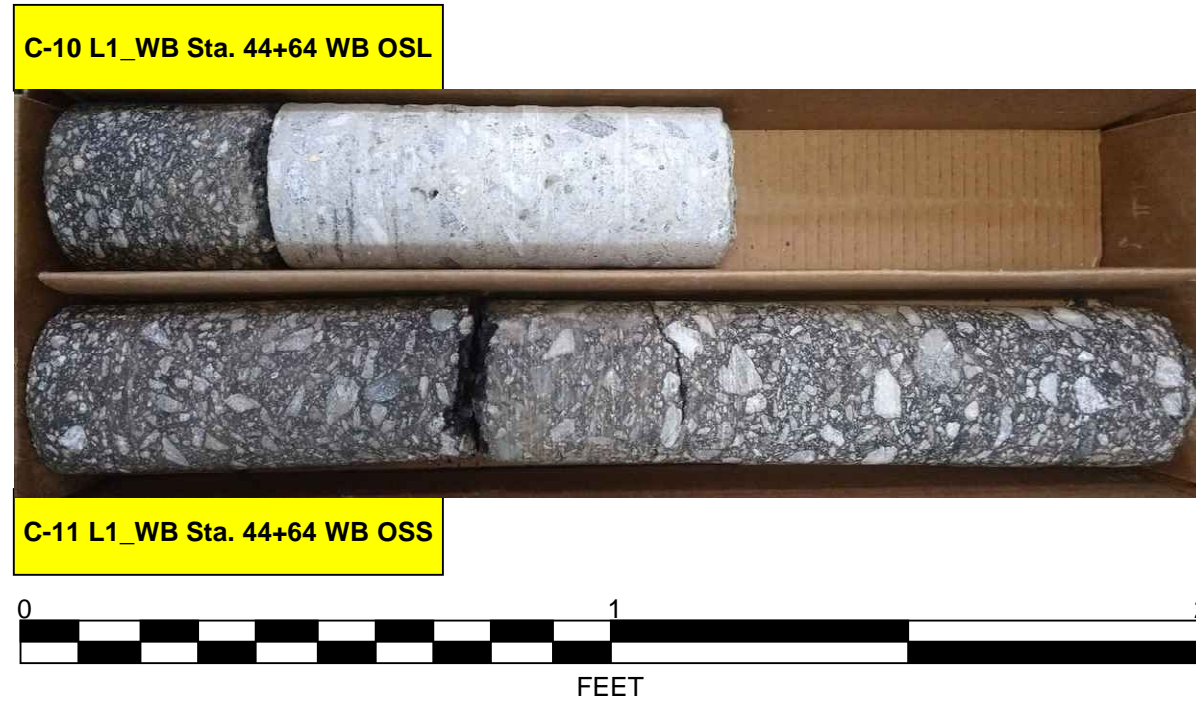
DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET				WBS NO.	PROJECT TIP I.D.	ROUTE			
				34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)			
				COUNTY	FIELD PROFESSIONAL	FIELD CREW			
				Haywood	M. Brewer	C. Odom/D. Underwood			
Test Location				Date Run	Test Location				Date Run
C-12 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		

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-16 L1_WB Sta. 54+79 WB ISL 6.5 FT RT FY				9/27-10/1, 10/11-10/13	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	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	DCP	Cumulative cm per blow	STBC	20.0 ft Cut
3.40	26.66			0.80	35.52	57.50	92.20	117.10			
6.10	26.84			1.30	35.76	58.30	92.60	117.60			
7.50	27.02			1.70	36.00	58.90	92.70	118.20			
8.70	27.20			2.40	36.18	59.60	93.20	118.70			
9.40	27.36			2.80	36.36	60.00	93.30	119.20			
10.40	27.52			3.00	36.54	60.50	93.70	119.80			
10.80	27.68			3.50	36.72	61.30	94.30	120.10			
11.60	27.84			4.20	36.90	61.70	94.60	120.60			
12.20	28.00			4.80	37.06	62.30	94.80	120.90			
12.80	28.10			5.50	37.22	63.10	95.00	121.20			
13.40	28.20			6.80	37.38	63.70	95.10	121.70			
13.90	28.30			7.80	37.54	64.30	95.40	122.40			
14.40	28.40			8.90	37.70	64.90	95.80	122.80			
14.90	28.50			10.30	37.90	65.40	96.20				
15.50	28.64			11.60	38.10	66.20	96.40				
16.00	28.78			12.60	38.30	66.70	96.60				
16.30	28.92			13.60	38.50	67.30	97.10				
16.60	29.06			14.90	38.70	68.00	97.60				
16.90	29.20			16.40	38.90	68.40	98.00				
17.40	29.26			17.90	39.10	69.20	98.40				
17.70	29.32			19.50	39.30	69.80	98.70				
18.10	29.38			20.80	39.50	70.30	99.00				
18.30	29.44			21.60	39.70	71.20	99.20				
18.40	29.50			22.30	39.90	71.50	99.70				
18.70	29.56			22.80	40.40	72.10	100.10				
19.00	29.62			23.00	40.60	72.60	100.30				
19.30	29.68			23.50	41.00	73.20	100.70				
19.70	29.74			24.20	41.30	73.70	101.00				
20.10	29.80			24.40	41.60	74.30	101.26				
20.40	29.90			24.80	41.80	74.80	101.52				
20.60	30.00			25.40	41.90	75.50	101.78				
20.90	30.10			25.80	42.30	76.20	102.04				
21.00	30.20			26.20	42.60	76.80	102.30				
21.20	30.30			26.50	42.70	77.10	102.70				
21.30	30.40			26.90	43.00	78.20	103.20				
21.40	30.50			27.40	43.22	78.90	103.40				
21.60	30.60			27.70	43.44	79.20	103.90				
21.70	30.70			28.00	43.66	80.30	104.20				
21.90	30.80			28.50	43.88	81.00	104.70				
22.00	30.93			28.90	44.10	81.60	104.90				
22.20	31.06			29.10	44.54	82.10	105.30				
22.30	31.19			29.70	44.98	82.70	105.60				
22.40	31.32			30.00	45.42	83.40	105.90				
22.50	31.45			30.40	45.86	83.90	106.40				
22.70	31.58			30.50	46.30	84.10	106.80				
23.00	31.71			30.80	46.64	84.40	107.20				
23.10	31.84			30.90	46.98	85.10	107.70				
23.20	31.97			31.30	47.32	85.40	108.00				
23.40	32.10			31.54	47.66	85.80	108.60				
23.50	50/2.4*			31.78	48.00	86.40	108.90				
23.70	DCP REF			32.02	48.40	86.80	109.50				
23.80				32.26	49.00	87.10	109.70				
23.90				32.50	49.50	87.60	110.30				
24.00				32.70	50.00	88.00	110.70				
24.30				32.90	50.50	88.60	111.30				
24.50				33.20	51.00	88.90	111.70				
24.70				33.50	51.60	89.30	112.30				
24.80				33.70	52.10	89.70	112.80				
24.90				33.80	52.80	90.00	113.30				
25.30				34.10	53.40	90.50	113.80				
25.40				34.30	54.30	90.60	114.30				
25.70				34.60	54.90	91.10	114.90				
25.80				34.80	55.40	91.20	115.40				
26.30				35.04	56.10	91.70	116.10				
26.48				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	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	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	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	DCP	Cumulative cm per blow	STBC	20.0 ft Cut
0.90	52.50	104.70		1.30	44.20						
1.40	53.10	106.40		1.80	44.25						
1.90	53.50	107.90		2.30	44.30						
2.60	53.90	109.40		2.90	44.35						
3.40	54.20	110.70		3.30	44.40						
3.90	54.90	112.10		3.60	44.45						
4.40	55.40	113.60		4.10	44.50						
4.90	56.10	115.00		4.50	44.55						
5.50	56.80	116.40		4.80	44.60						
5.80	57.30	117.80		5.20	44.68						
6.50	57.70	119.20		5.60	44.76						
7.10	58.30	120.20		6.00	44.84						
7.50	58.60	121.40		7.10	44.92						
8.20	58.80	122.40		7.60	45.00						
9.10	59.20	123.70		8.10	45.08						
10.00	59.60	124.90		8.60	45.16						
10.90	59.70	126.00		8.90	45.24						
11.60	60.00	127.10		9.50	45.32						
12.60	60.40	128.40		10.20	45.40						
13.30	61.10	129.60		10.80	45.47						
14.20	61.30	130.70		11.30	45.54						
15.30	61.60	131.70		11.80	45.61						
16.50	62.10	132.90		12.40	45.68						
17.60	62.50	133.80		13.10	45.75						
19.20	63.20	134.90		13.80	45.82						
21.40	63.80	135.90		14.70	45.89						
24.10	64.50	137.10		16.50	45.96						
27.10	65.10	138.00		17.60	46.03						
29.80	65.40	138.90		18.70	46.10						
31.70	65.90	140.00		19.90	46.15						
33.30	66.30	141.00		21.50	46.20						
34.40	66.80			23.50	46.25						
35.70	67.50			26.00	46.30						
38.10	68.10			28.20	46.35						
39.10	68.40			29.90	46.40						
39.90	69.30			31.50	46.45						
40.60	69.60			33.20	46.50						
41.20	70.20			34.30	46.55						
41.70	70.90			35.30	46.60						
41.90	71.90			36.40	50/1.25*						
42.40	73.00			37.50	DCP REF						
42.90	73.80			38.20							
43.30	74.80			39.20							
43.60	75.60			40.40							
43.90	76.60			41.30							
44.50	77.80			42.00							
44.90	78.60			42.30							
45.10	79.70			42.50							
45.50	80.80			42.70							
45.90	81.90			42.80							
46.30	83.10			43.10							
46.80	84.40			43.30							
47.00	85.70			43.40							
47.60	86.80			43.50							
47.90	88.00			43.56							
48.00	89.20			43.62							
48.10	90.50			43.68							
49.10	92.20			43.74							
49.40	93.50			43.80							
50.00	95.00			43.86							
50.30	96.60			43.92							
50.50	98.30			43.98							
51.30	100.10			44.04							
51.60	101.70			44.10							
52.00	103.30			44.15							

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

Pavement Core Photographs



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

Test Location	Cut/Fill (Est. of Amount) (ft)	Width (ft)		Offset Distance (See Notes)	(ft)	(in)	Thickness (in)					Pavement Layering	SG					Asphalt Notes	GPS Coordinates		
		Lane	Shoulder				Gross to Top of Soil	Asphalt	ABC/STBC	Shoulder Drain Drainage Sand CSS (Chemical)	Concrete		Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)		Northing	Easting	
C-14 RPDB 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 RPDB 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 Severity 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 Ravelling 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 Ravelling 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 Ravelling 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

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			

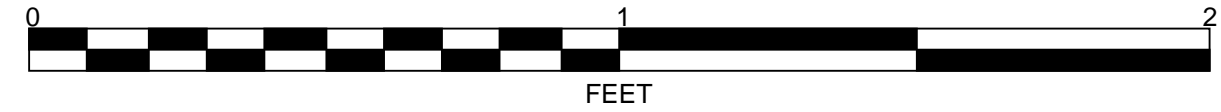
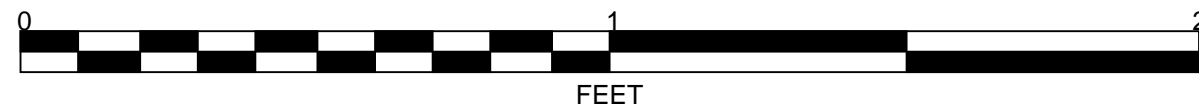
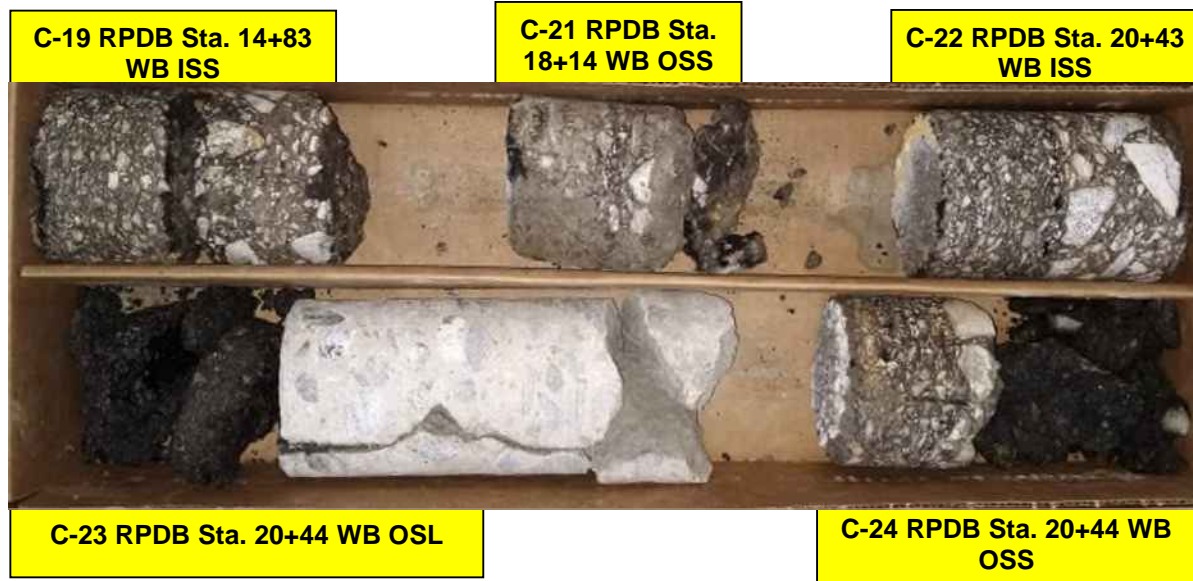
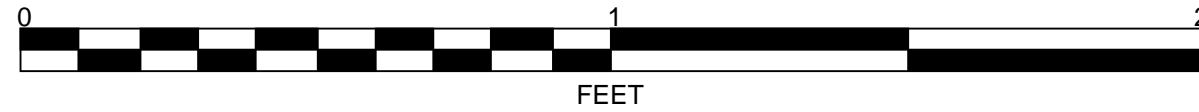
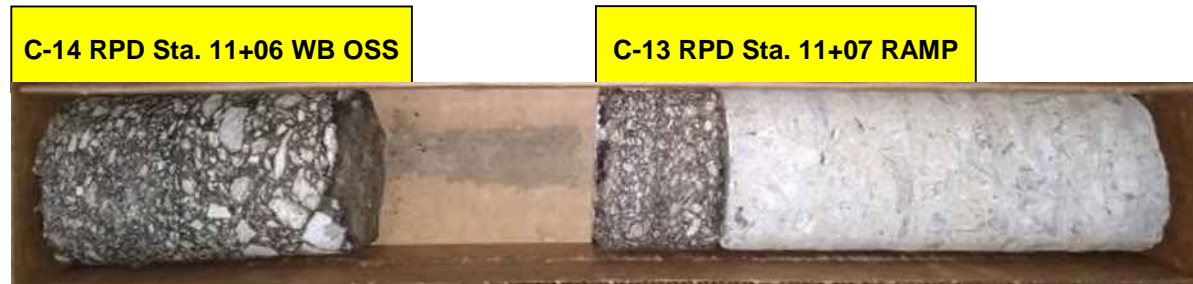
DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET				WBS NO.	PROJECT TIP I.D.	ROUTE					
				34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)					
				COUNTY	FIELD PROFESSIONAL	FIELD CREW					
				Haywood	M. Brewer	C. Odom/D. Underwood					
Test Location				Date Run	Test Location				Date Run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

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	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	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							

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

Pavement Core Photographs



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

Test Location	Cut/Fill (Est. of Amount) (ft)	Width (ft)		Offset Distance (See Notes)	(ft)	(in)	Thickness (in)					Pavement Layering	SG					Asphalt Notes	GPS Coordinates	
		Lane	Shoulder				Gross to Top of Soil	Asphalt	ABC/STBC	Shoulder Drain Drainage Sand CSS (Chemical)	Concrete		Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)		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	-	-	Asphalt STBC/Asphalt STBC/SG	3.0-5.0: RE - Brown-Red, Fine to Coarse Sandy SILT, trace mica Augered through 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

Test Location	Cut/Fill (Est. of Amount) (ft)	Width (ft)		(ft)	(in)	Thickness (in)					Pavement Layering	SG					Asphalt Notes	GPS Coordinates	
		Lane	Shoulder			Offset Distance (See Notes)	Crown "C" or Super "S"	Gross to Top of Soil	Asphalt	ABC/STBC		Shoulder Drain Drainage Sand CSS (Chemical)	Concrete	Description (Depth - ft)	Soil Sample Number	AASHTO Classification		Soil Moisture	Boring Depth (ft)
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) 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	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

Test Location	Cut/Fill (Est. of Amount) (ft)	Width (ft)		Offset Distance (See Notes)	(ft)	(in)	Thickness (in)					Pavement Layering	SG					Asphalt Notes	GPS Coordinates	
		Lane	Shoulder				Gross to Top of Soil	Asphalt	ABC/STBC	Shoulder Drain Drainage Sand CSS (Chemical)	Concrete		Description (Depth - ft)	Soil Sample Number	AASHTO Classification	Soil Moisture	Boring Depth (ft)		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 Degradation 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 Outside/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 10.00 STBC	-	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 fragment	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

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 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		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				

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						

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	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	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	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	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							

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	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	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							

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	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	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	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	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						

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						

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	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	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							

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	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	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						

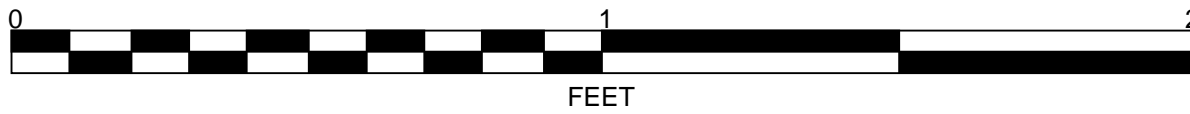
I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

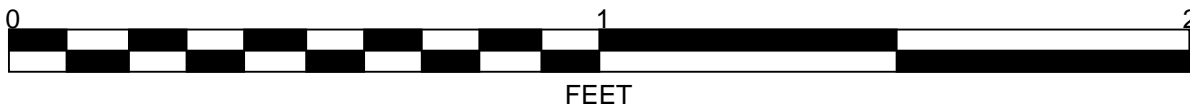
C-28 Y Sta. 19+19 EB OSS



C-29 Y Sta. 23+92 EB OSS



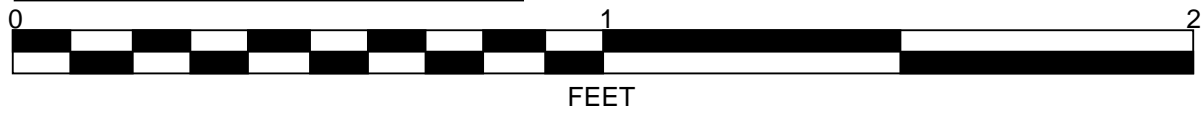
C-32 Y Sta. 30+94 EB MID-LANE



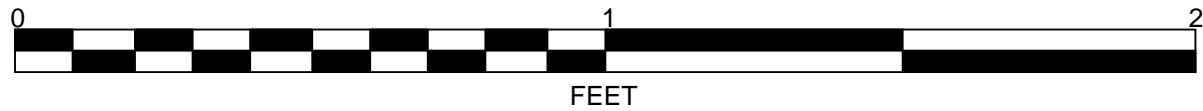
C-33 Y Sta. 30+94 EB OSL



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

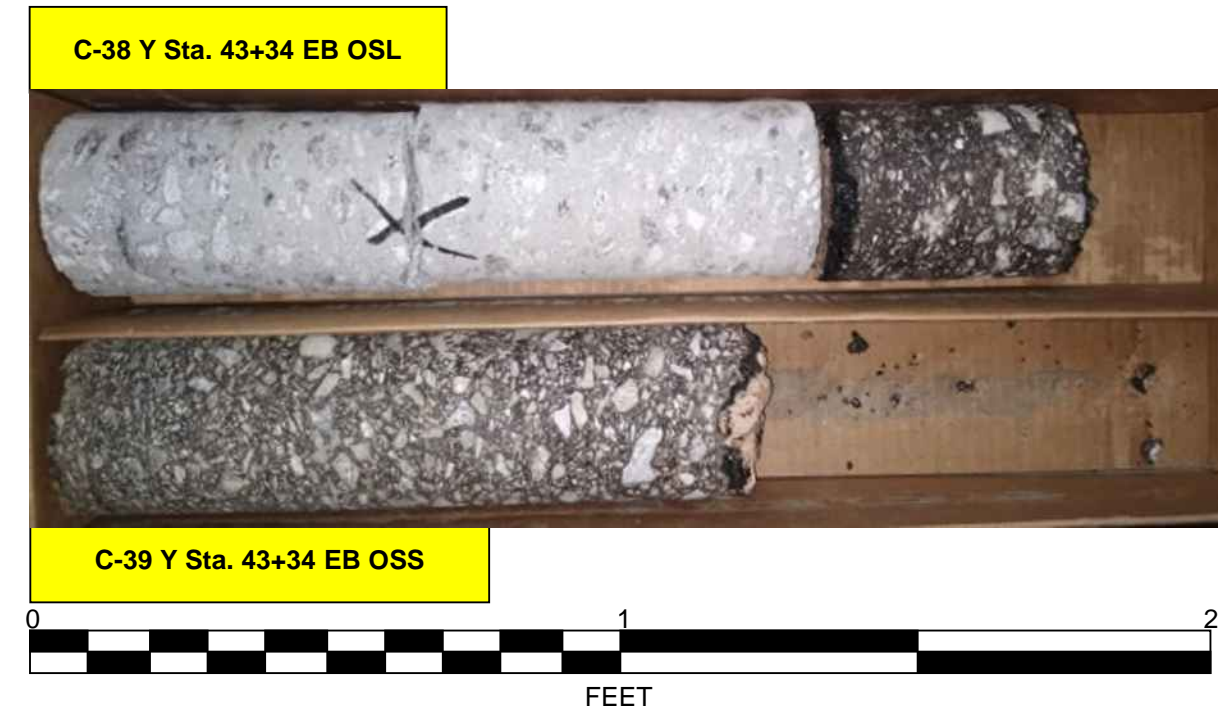
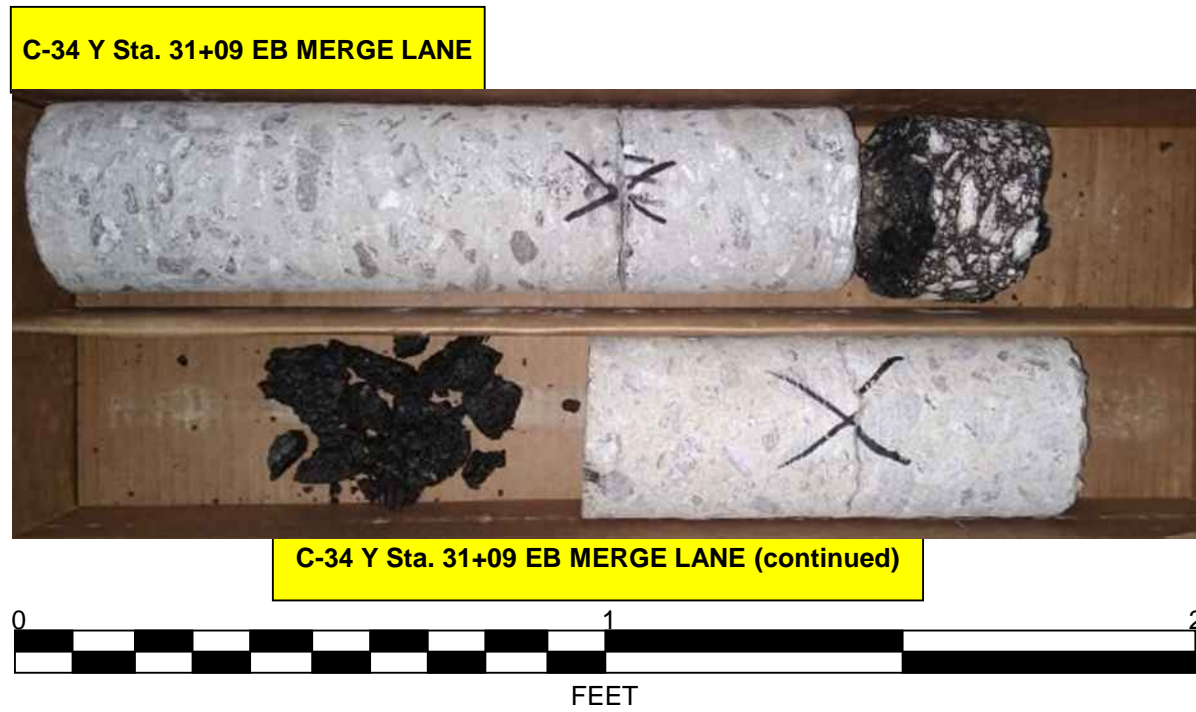
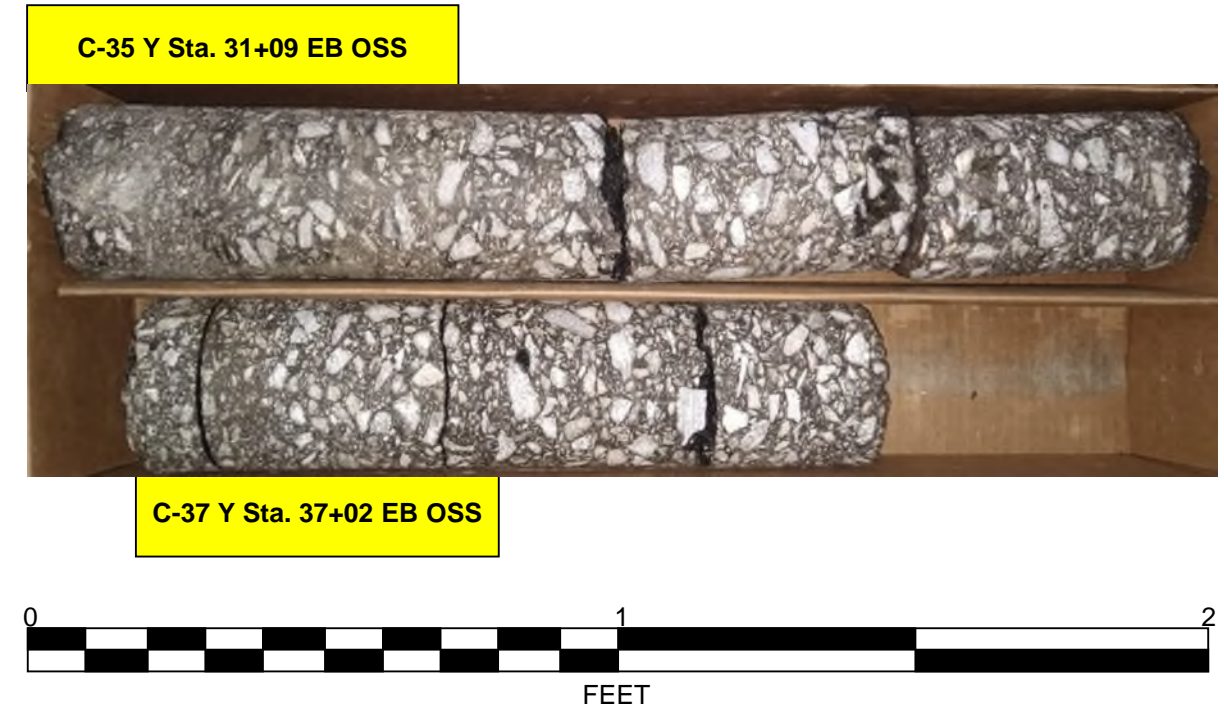
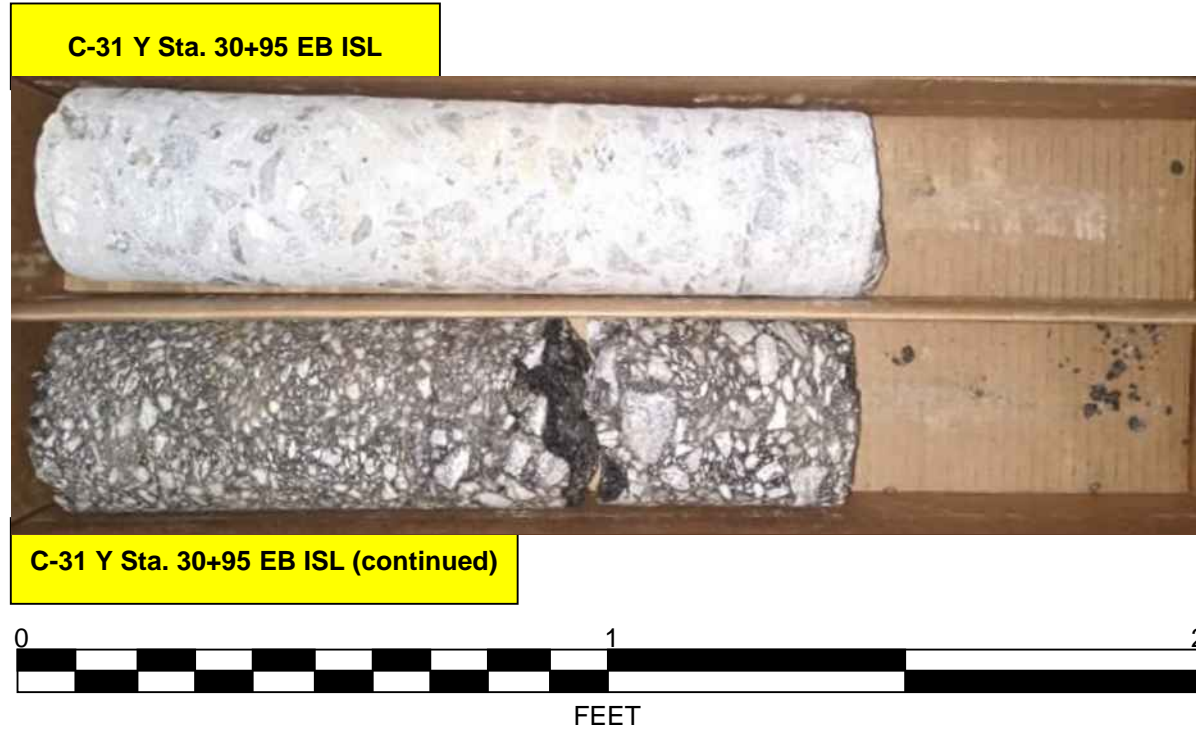


C-30 Y Sta. 30+95 EB ISS



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

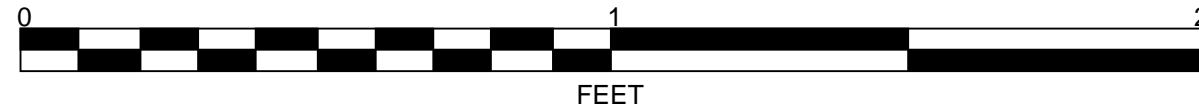
Pavement Core Photographs



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

Pavement Core Photographs

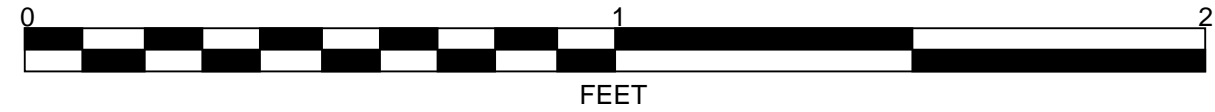
C-40 Y Sta. 48+83 EB OSS



C-42 Y Sta. 58+86 EB OSL



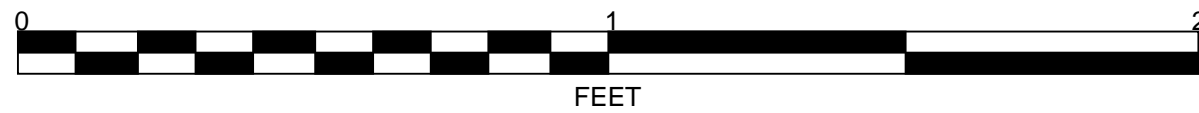
C-42 Y Sta. 58+86 EB OSL (continued)



C-41 Y Sta. 58+86 EB OSML



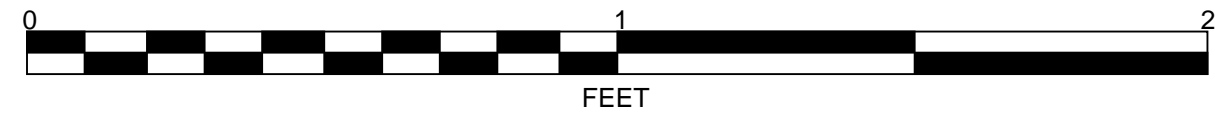
C-41 Y Sta. 58+86 EB OSML (continued)



C-43 Y Sta. 58+86 EB OSS



C-44 Y Sta. 63+48 EB OSS



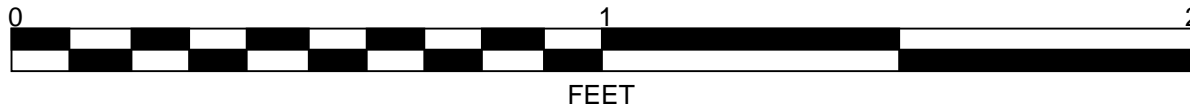
I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

C-45 Y Sta. 68+28 EB OSS



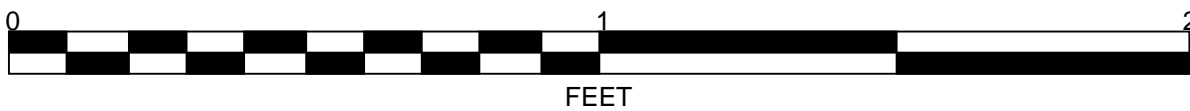
C-46 Y Sta. 75+08 EB OSS



C-47 Y Sta. 80+18 EB OSS



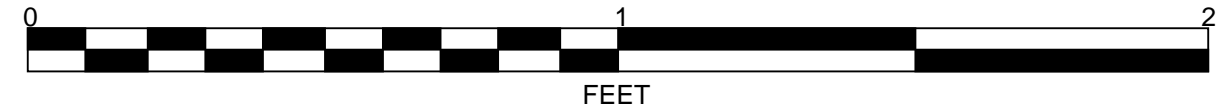
C-48 Y Sta. 85+43 EB OSS



C-49 Y Sta. 87+83 EB ISS



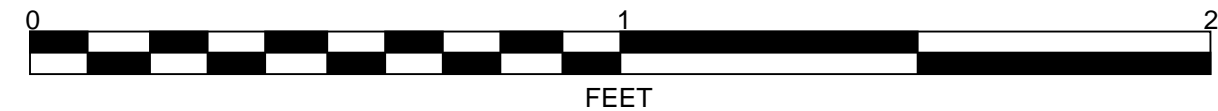
C-50 Y Sta. 87+83 EB ISL



C-51 Y Sta. 87+84 EB ISML

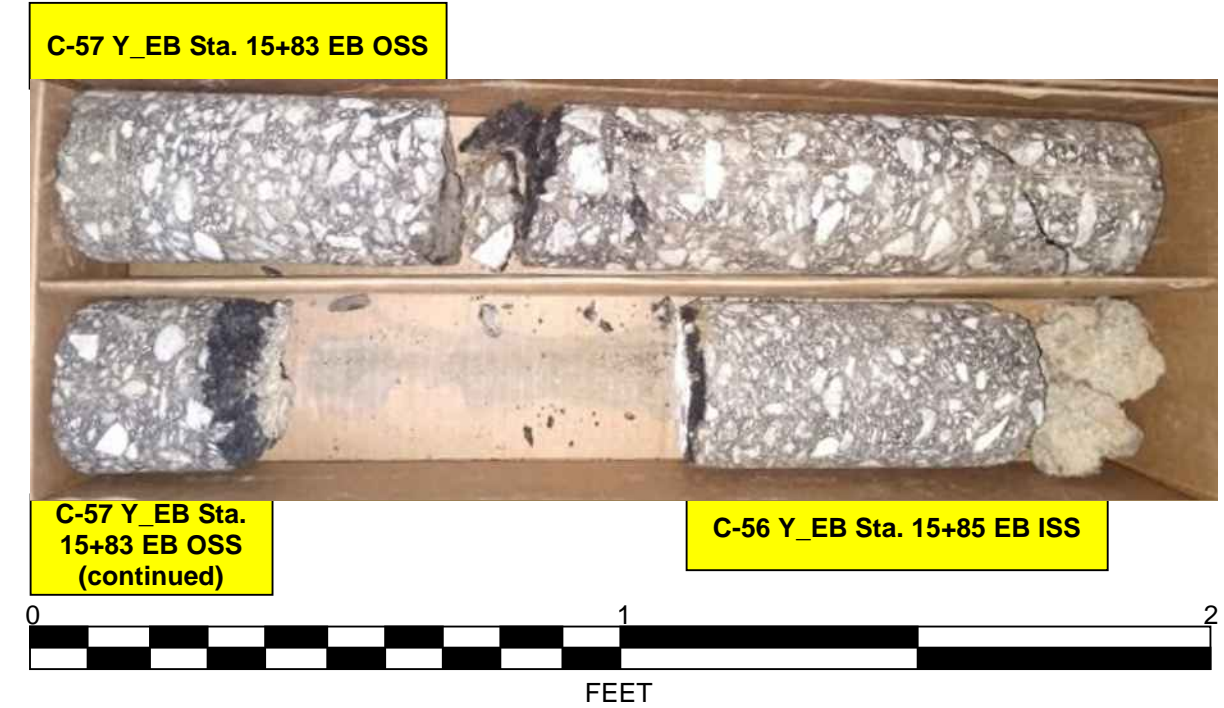
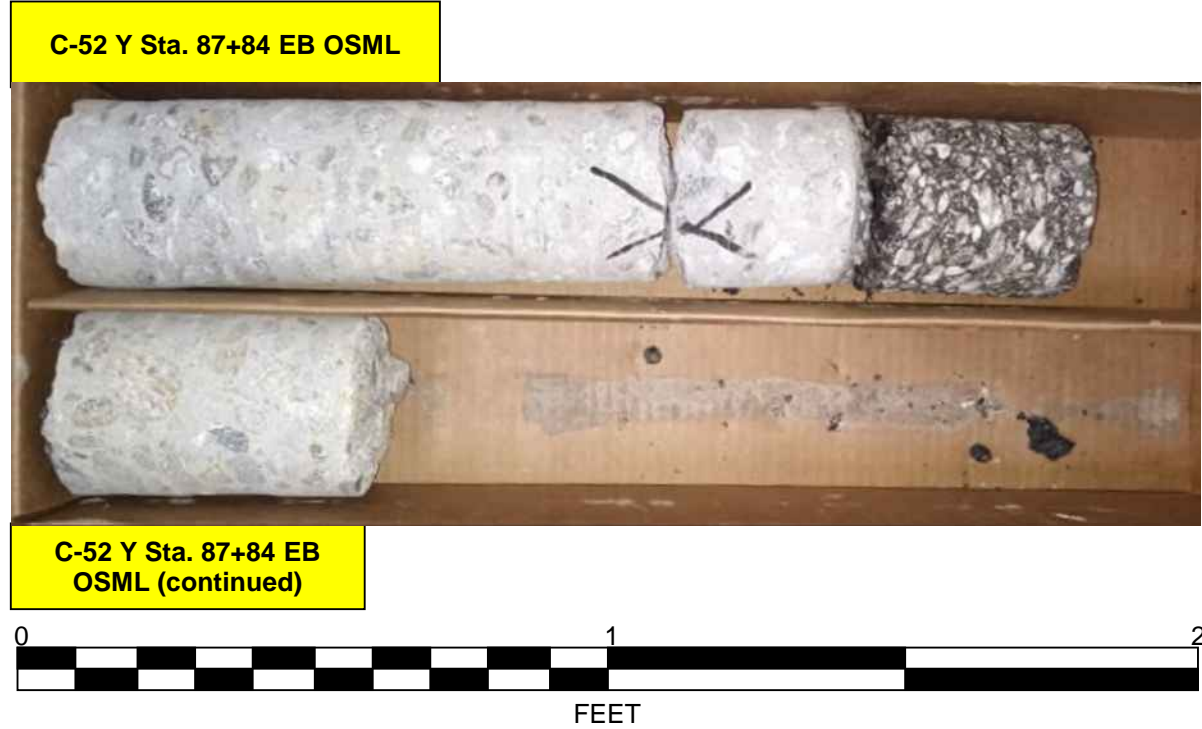


C-51 Y Sta. 87+84 EB ISML (continued)



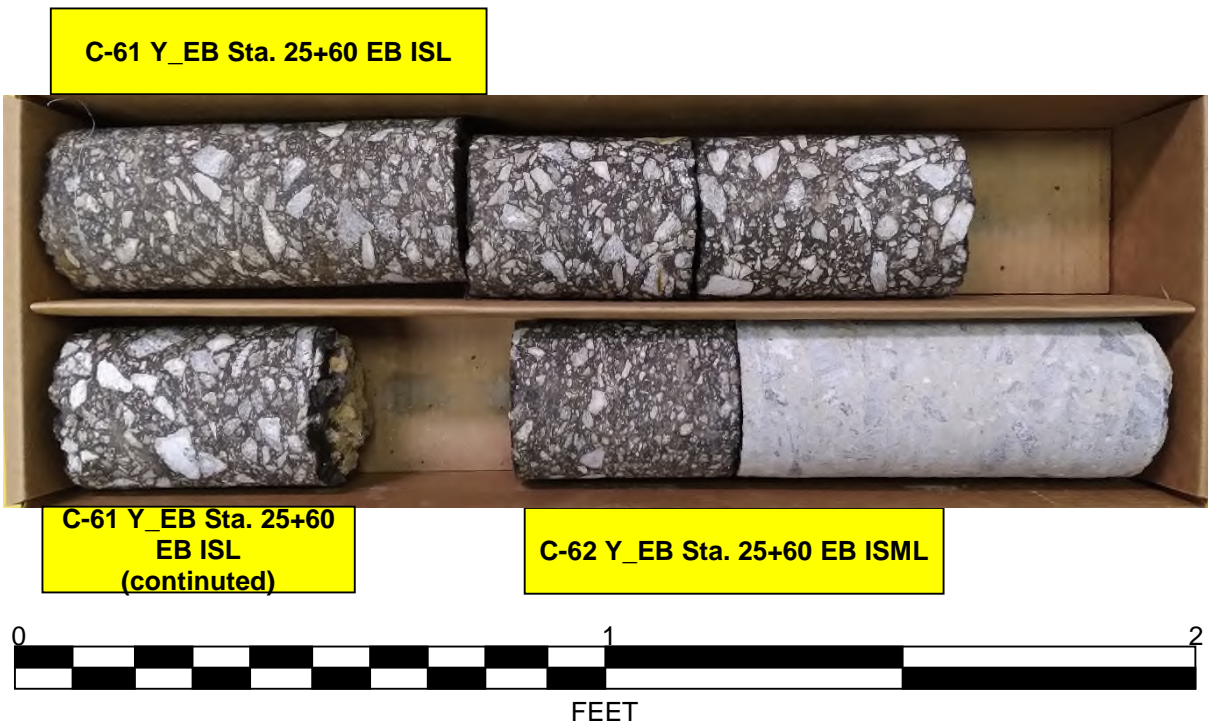
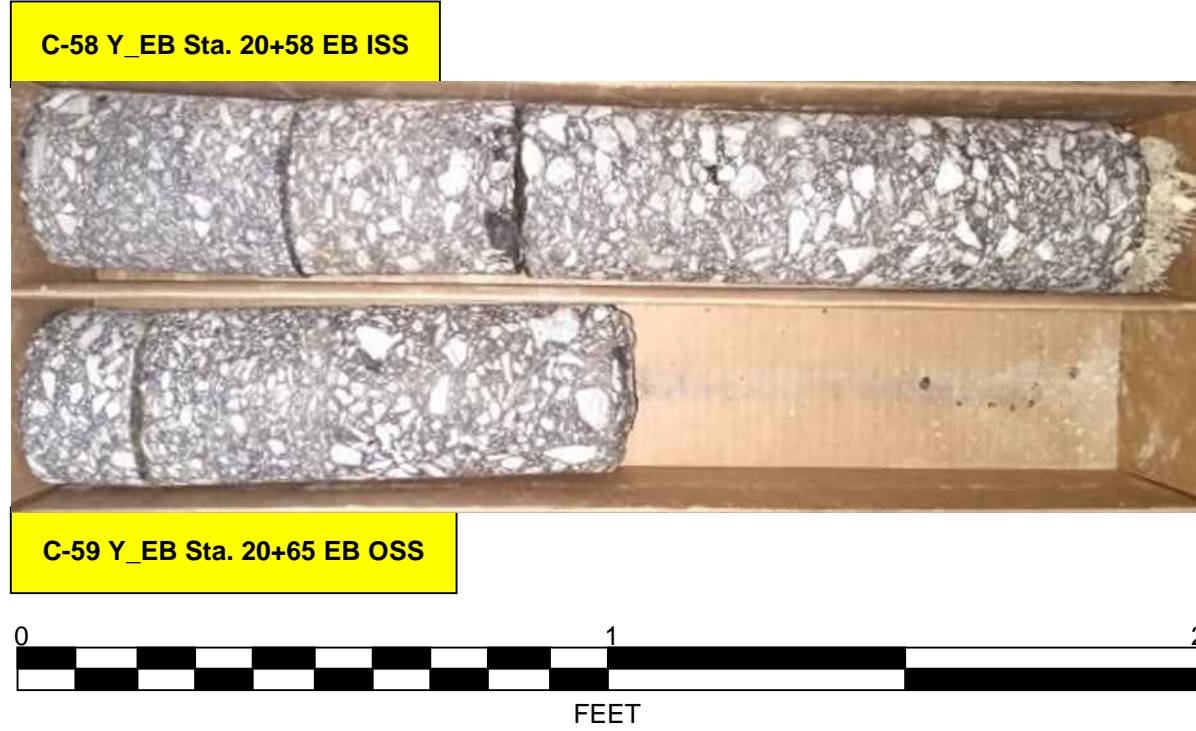
I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs



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

Pavement Core Photographs



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

Pavement Core Photographs

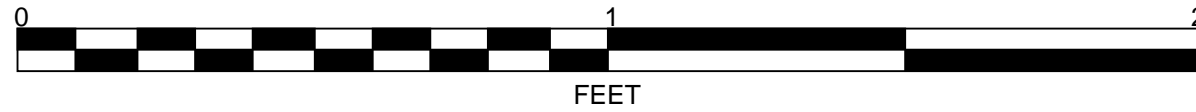
C-66 Y_EB Sta. 31+04 EB ISS

C-67 Y_EB Sta. 31+04 EB OSS



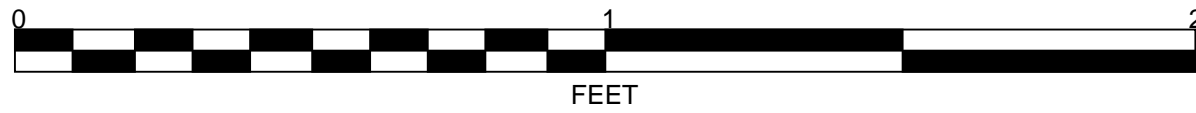
C-68 Y_EB Sta. 36+17 EB ISS

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

Test Location	Cut/Fill (Est. of Amount) (ft)	Width (ft)		(ft)	(in)	Thickness (in)					Pavement Layering	SG					Asphalt Notes	GPS Coordinates	
		Lane	Shoulder			Offset Distance (See Notes)	Crown "C" or Super "S"	Gross to Top of Soil	Asphalt	ABC/STBC		Shoulder Drain Drainage Sand CSS (Chemical)	Concrete	Description (Depth - ft)	Soil Sample Number	AASHTO Classification		Soil Moisture	Boring Depth (ft)
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 disintegrated 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

Test Location	Cut/Fill (Est. of Amount) (ft)	Width (ft)		(ft)	(in)	Thickness (in)					Pavement Layering	SG					Asphalt Notes	GPS Coordinates	
		Lane	Shoulder			Offset Distance (See Notes)	Crown "C" or Super "S"	Gross to Top of Soil	Asphalt	ABC/STBC		Shoulder Drain Drainage Sand CSS (Chemical)	Concrete	Description (Depth - ft)	Soil Sample Number	AASHTO Classification		Soil Moisture	Boring Depth (ft)
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 Severity 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 Transverse 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

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	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	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	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	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							

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)					
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	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)					
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	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							

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	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	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						

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	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	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				

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	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	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						

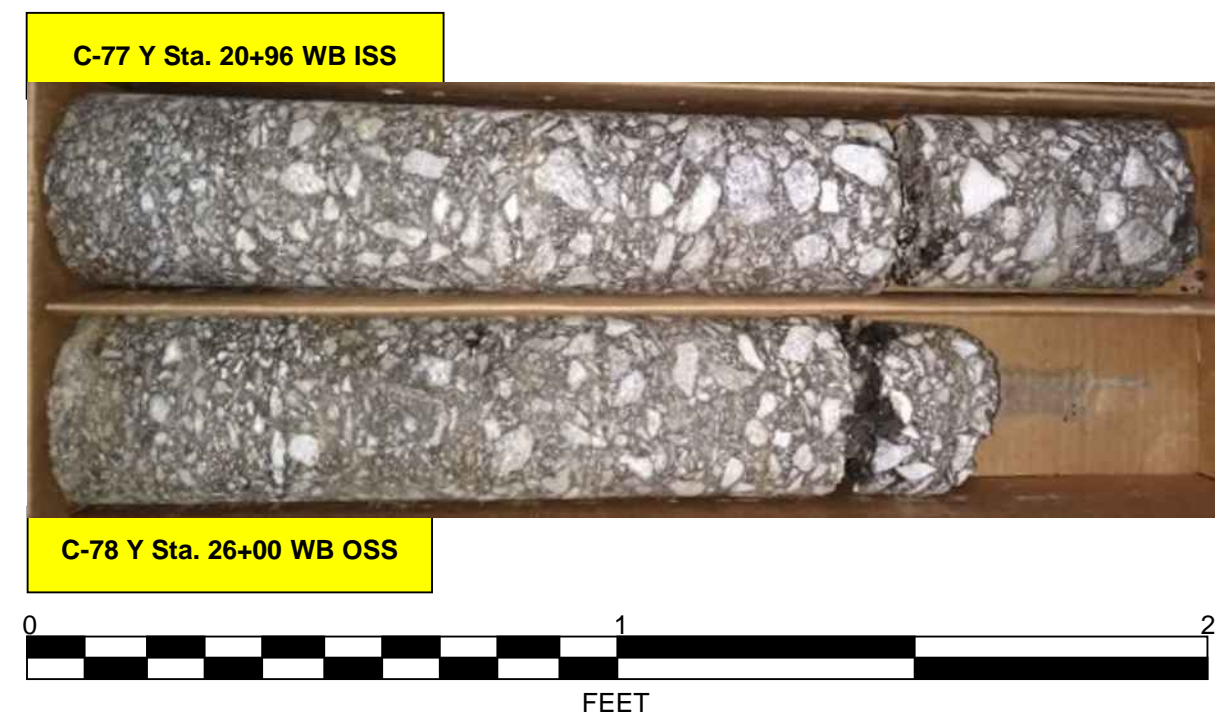
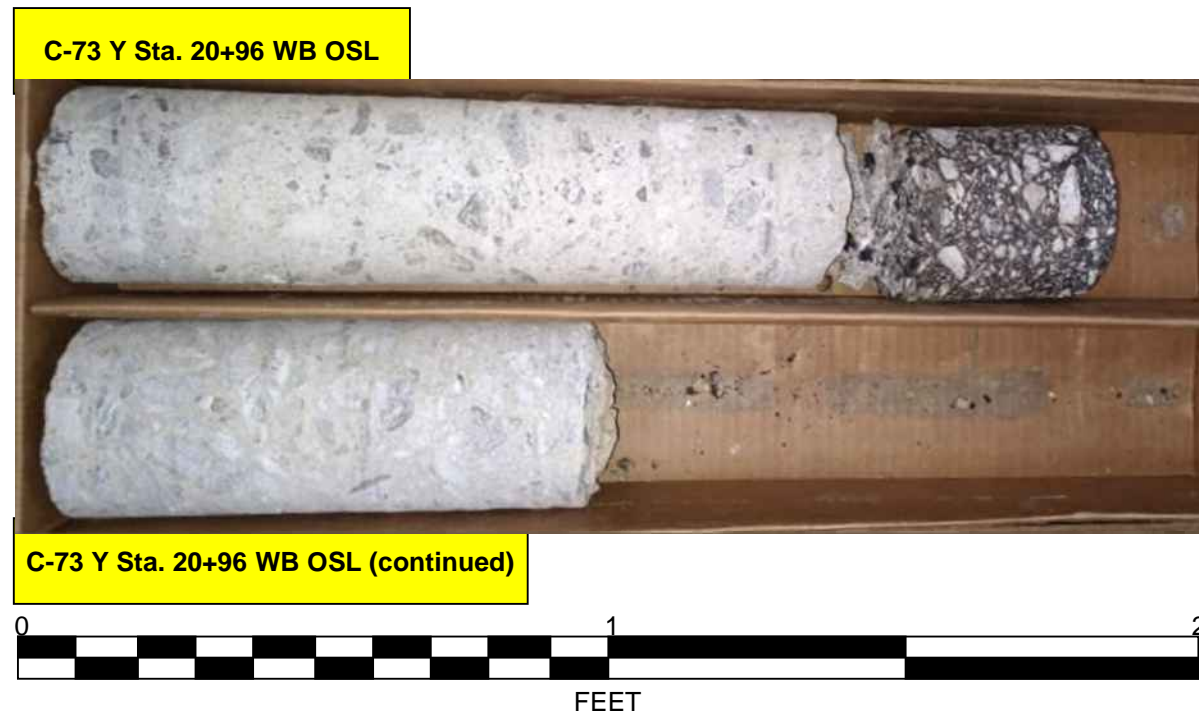
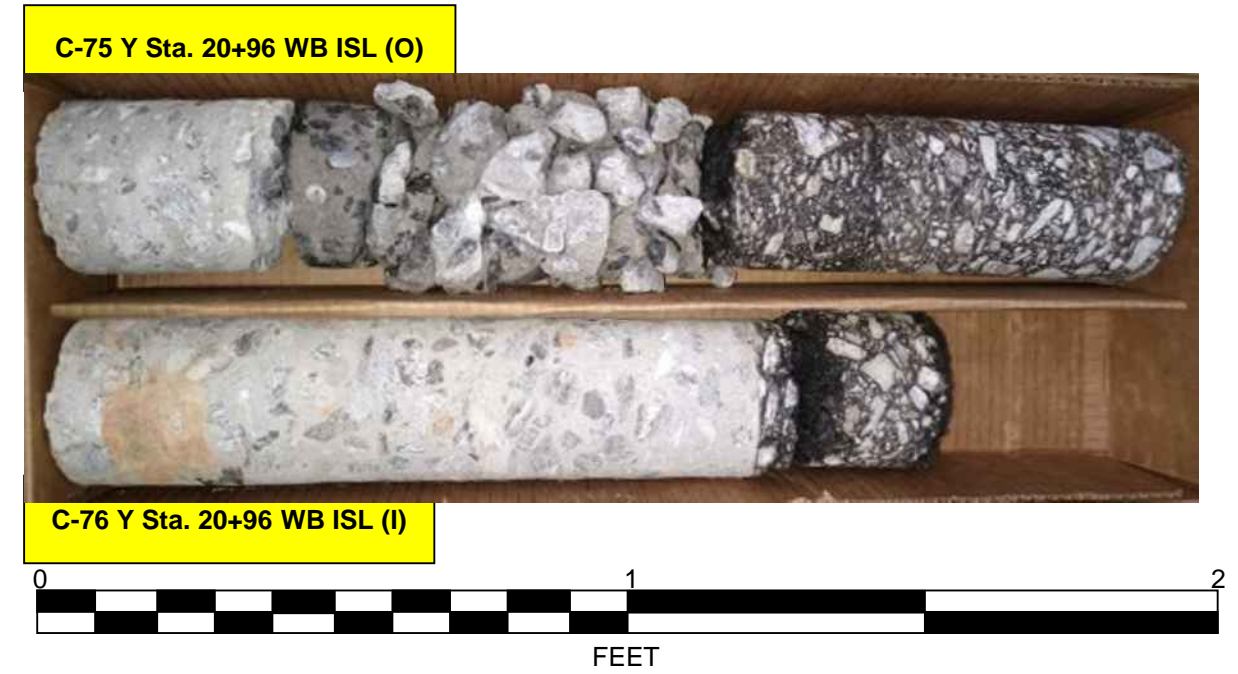
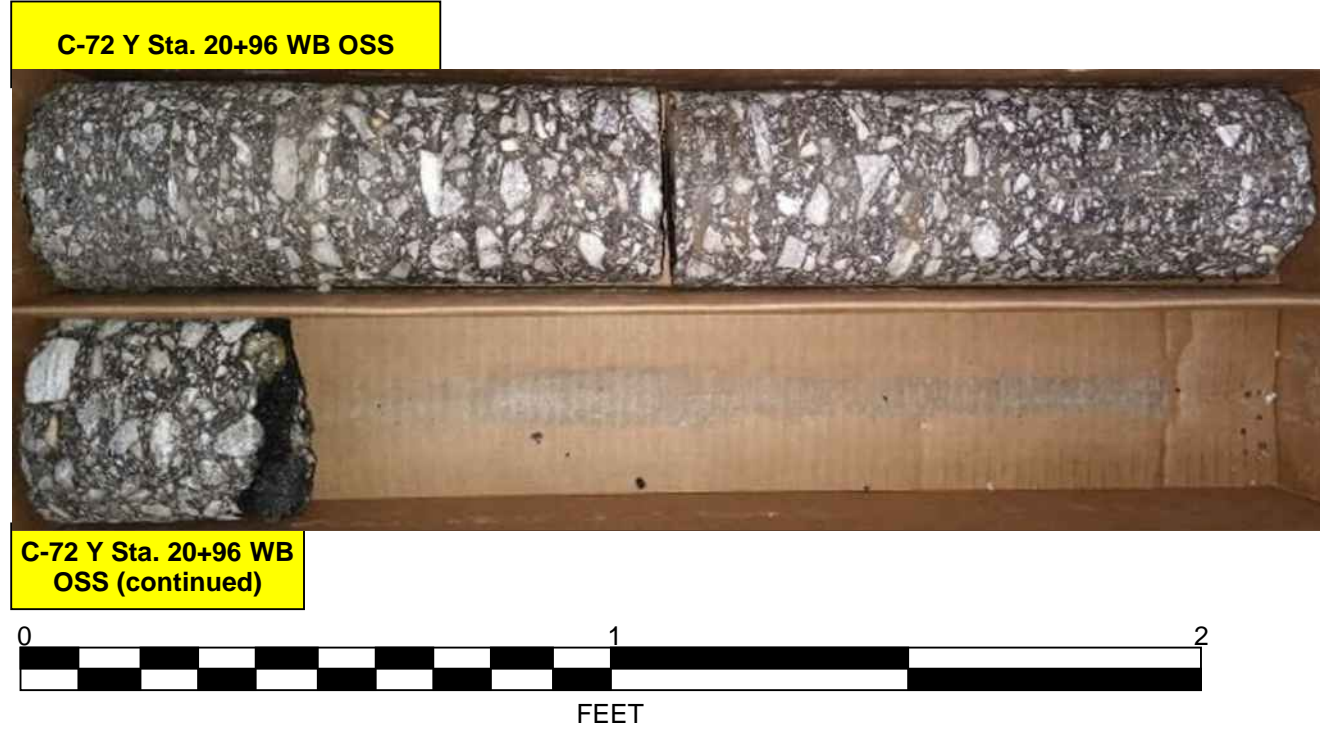
DUAL MASS DYNAMIC CONE PENETROMETER DATA SHEET				WBS NO.	PROJECT TIP I.D.	ROUTE					
				34165.1.6	I-2513AA/AB	I-26 from I-40 to SR 3548 (Haywood Road)					
				COUNTY	FIELD PROFESSIONAL	FIELD CREW					
				Haywood	M. Brewer	C. Odom/D. Underwood					
Test Location				Date Run	Test Location				Date Run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

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						

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

Pavement Core Photographs



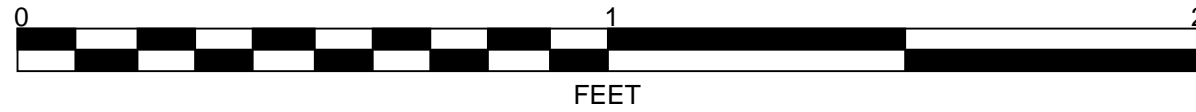
I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

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



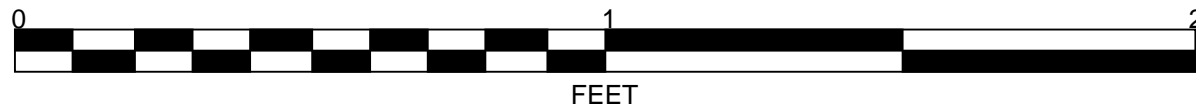
C-79 Y Sta. 28+56 WB MERGE LANE (continued)



C-80 Y Sta. 31+41 WB OSS



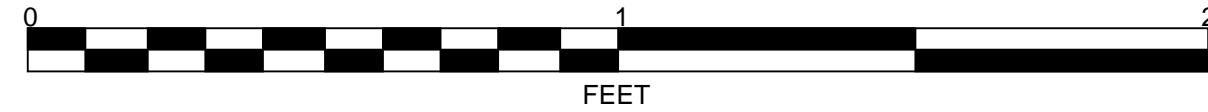
C-80 Y Sta. 31+41 WB OSS (continued)



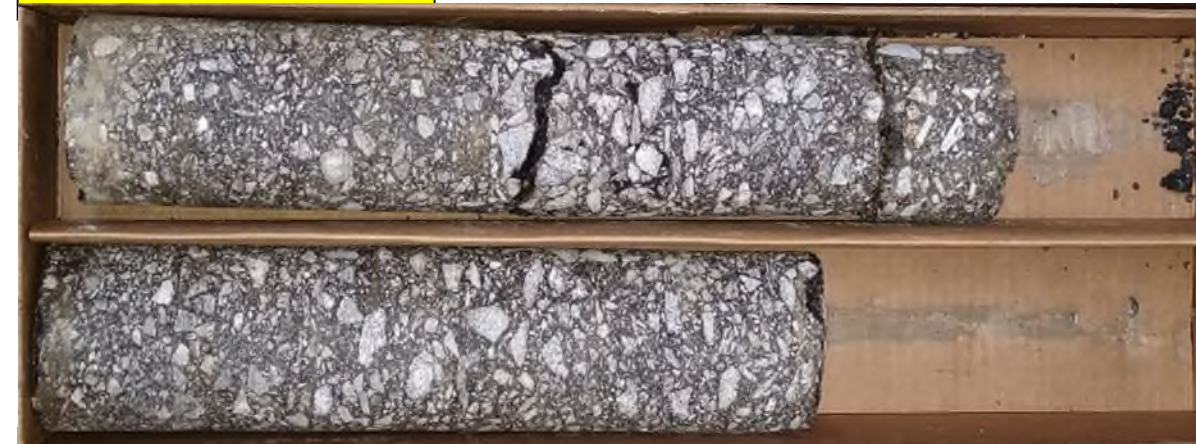
C-82 Y Sta. 37+45 WB OSS



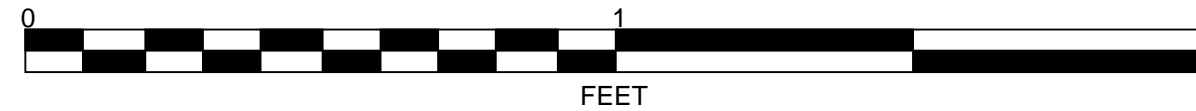
C-82 Y Sta. 37+45 WB OSS (continued)



C-83 Y Sta. 41+94 WB OSS

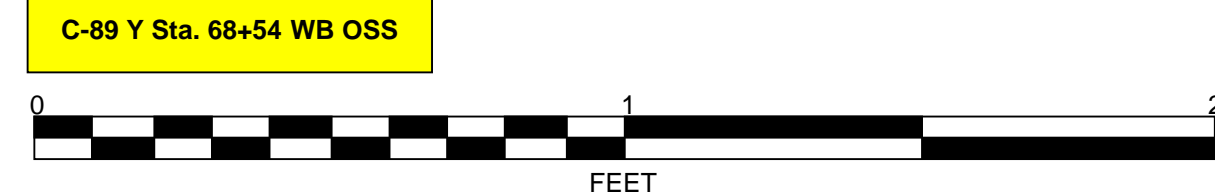
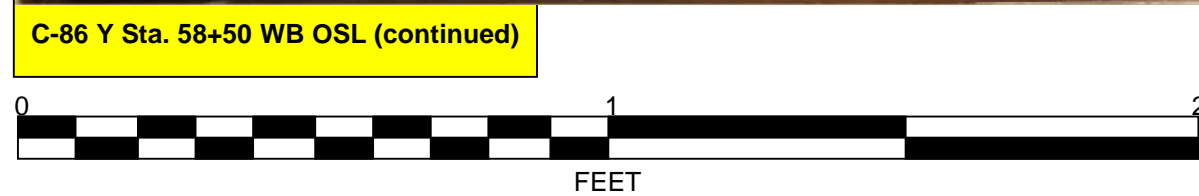
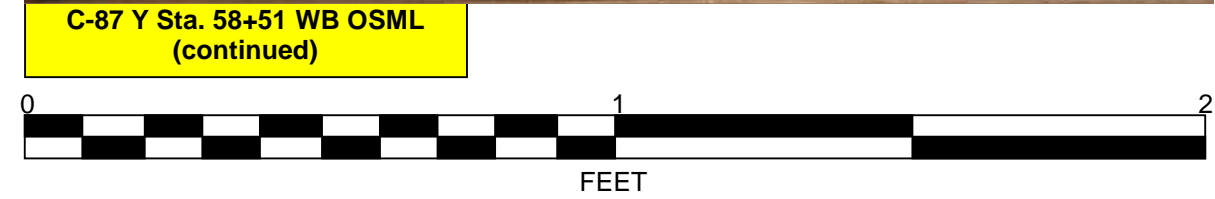
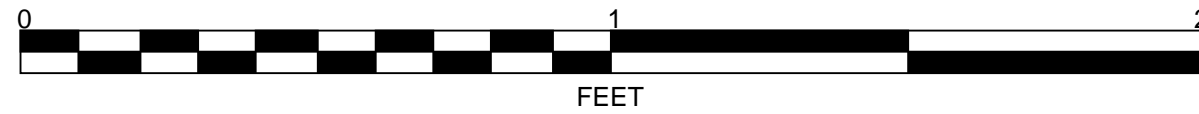


C-84 Y Sta. 50+37 WB OSS



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

Pavement Core Photographs



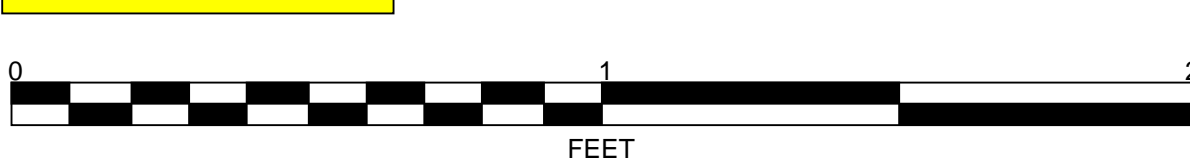
I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

C-90 Y Sta. 75+02 WB OSS



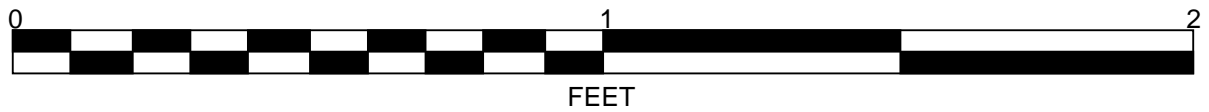
C-91 Y Sta. 80+09 WB OSS



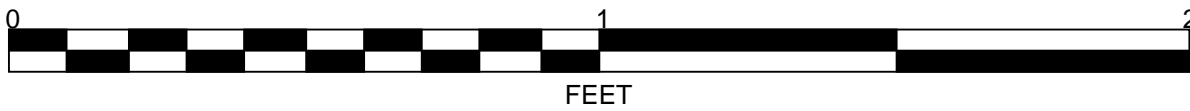
C-93 Y Sta. 88+85 WB OSS



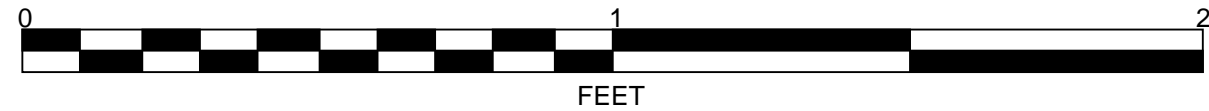
C-93 Y Sta. 88+85 WB OSS
(continued)



C-92 Y Sta. 85+47 WB OSS

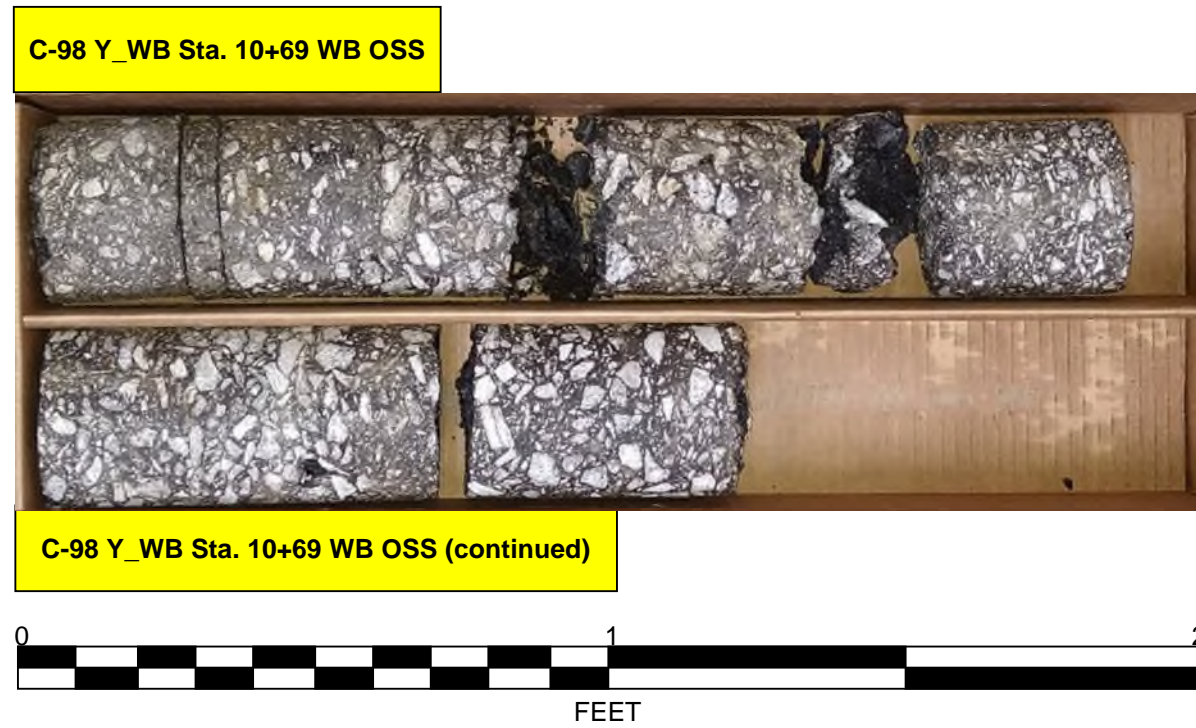
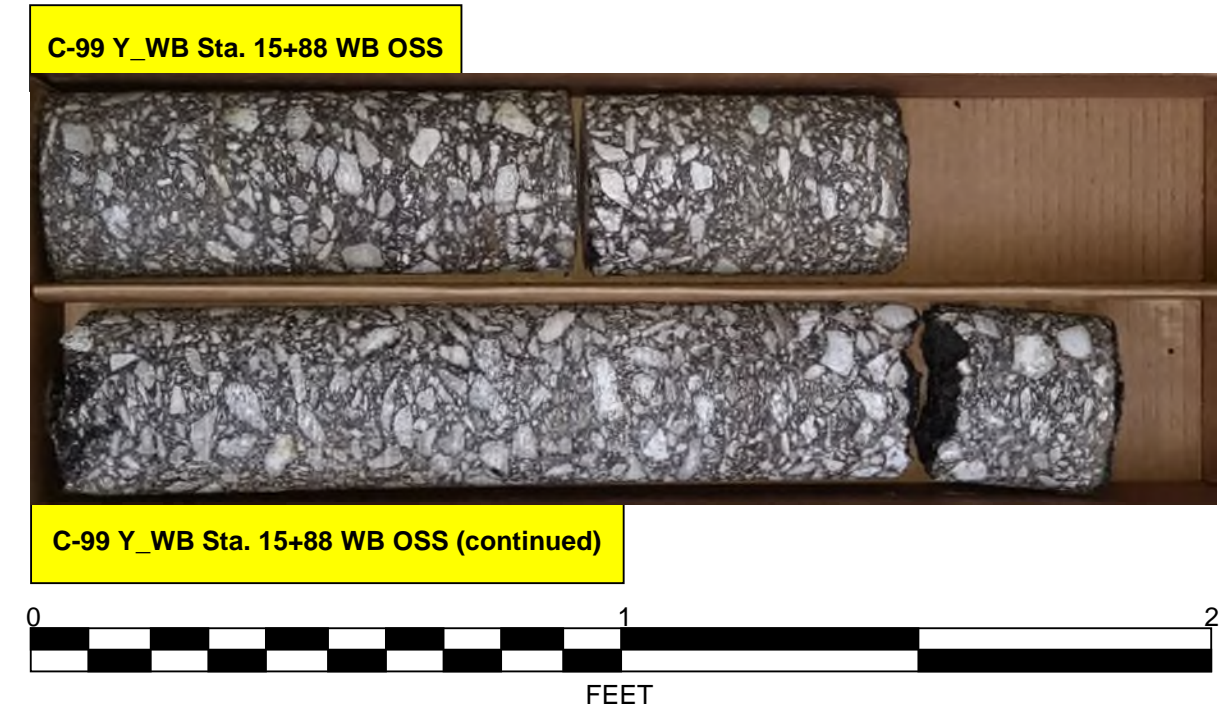
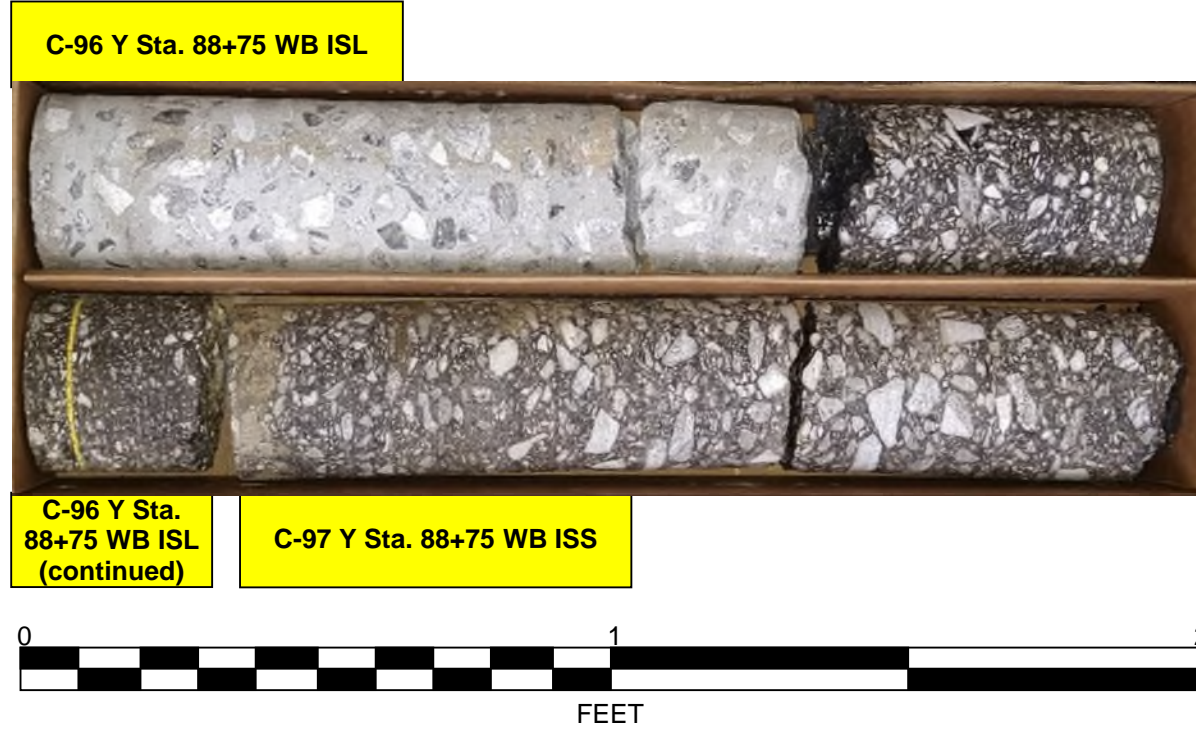


C-94 Y Sta. 88+74 WB OSL



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

Pavement Core Photographs



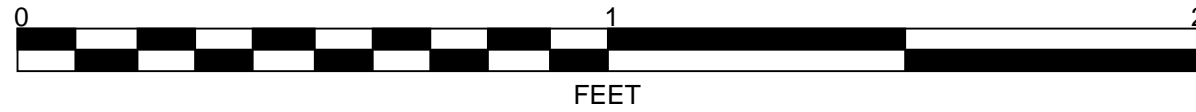
I-2513AA/AB - I-26 from I-40 to SR 3548 (Haywood Road)

Pavement Core Photographs

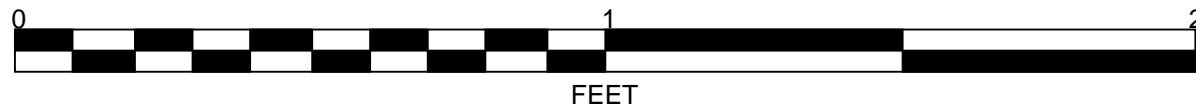
C-101 Y_WB Sta. 20+65 WB OSS



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



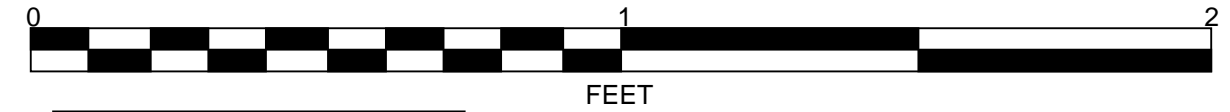
C-102 Y_WB Sta. 20+65 WB ISS



C-103 Y_WB Sta. 27+11 WB OSS



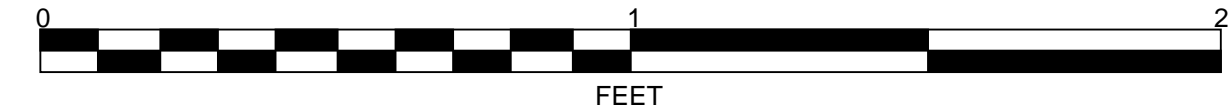
C-105 Y_WB Sta. 27+11 WB MID-LANE



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)

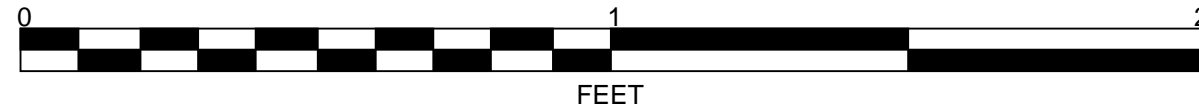
Pavement Core Photographs

C-107 Y_WB Sta. 27+12 WB ISS



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

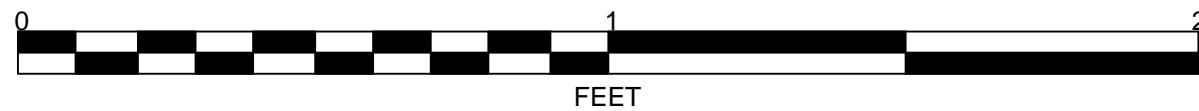
C-108 Y_WB Sta. 32+51 WB
OSS



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)

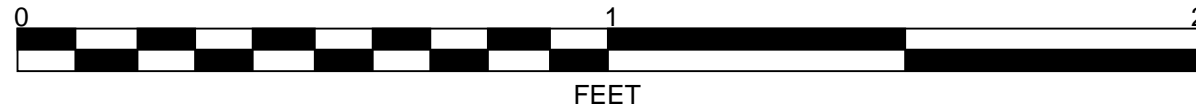
Prepared in the Office of:

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NCDOT LAB CERT. NO. 132-0212

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

Pavement Core Photographs

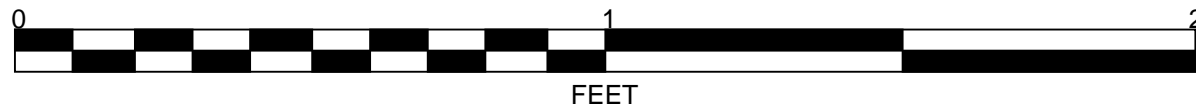
C-36 Y5RPC Sta. 15+80 EB RAMP OSS



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



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

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT
SUBSURFACE INVESTIGATION
LABORATORY TEST RESULTS (CHEMICAL)

REFERENCE: I-2513AA/AB

PROJECT: 34165

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

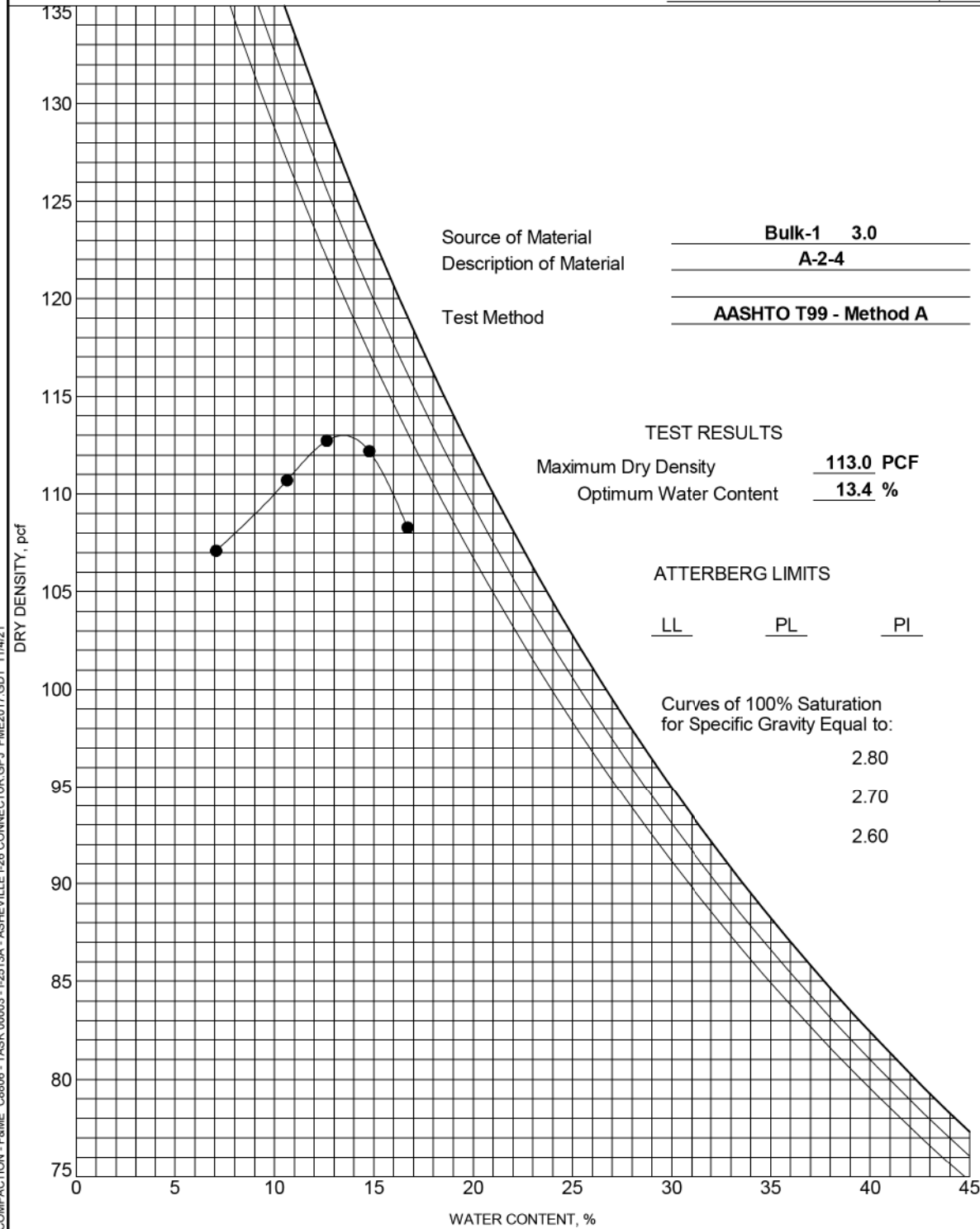


MOISTURE-DENSITY RELATIONSHIP

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



I-2513AA/AB

REV 08/2021

**CALIFORNIA BEARING RATIO (CBR)
AASHTO T193**

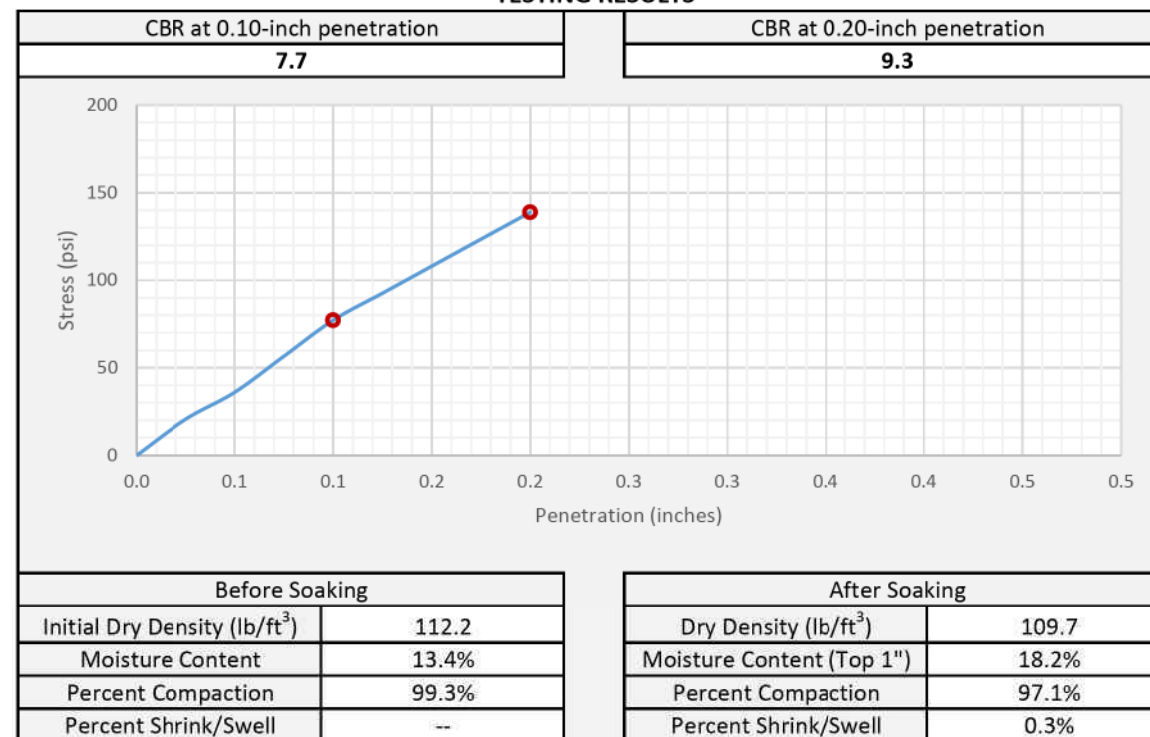
SAMPLE INFORMATION

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



ADDITIONAL COMMENTS

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



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

Jerry P. Davis
Reviewed By

130-04-0212
NCDOT Certification No.
10/22/21
Date

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REV 08/2021

**CALIFORNIA BEARING RATIO (CBR)
AASHTO T193**

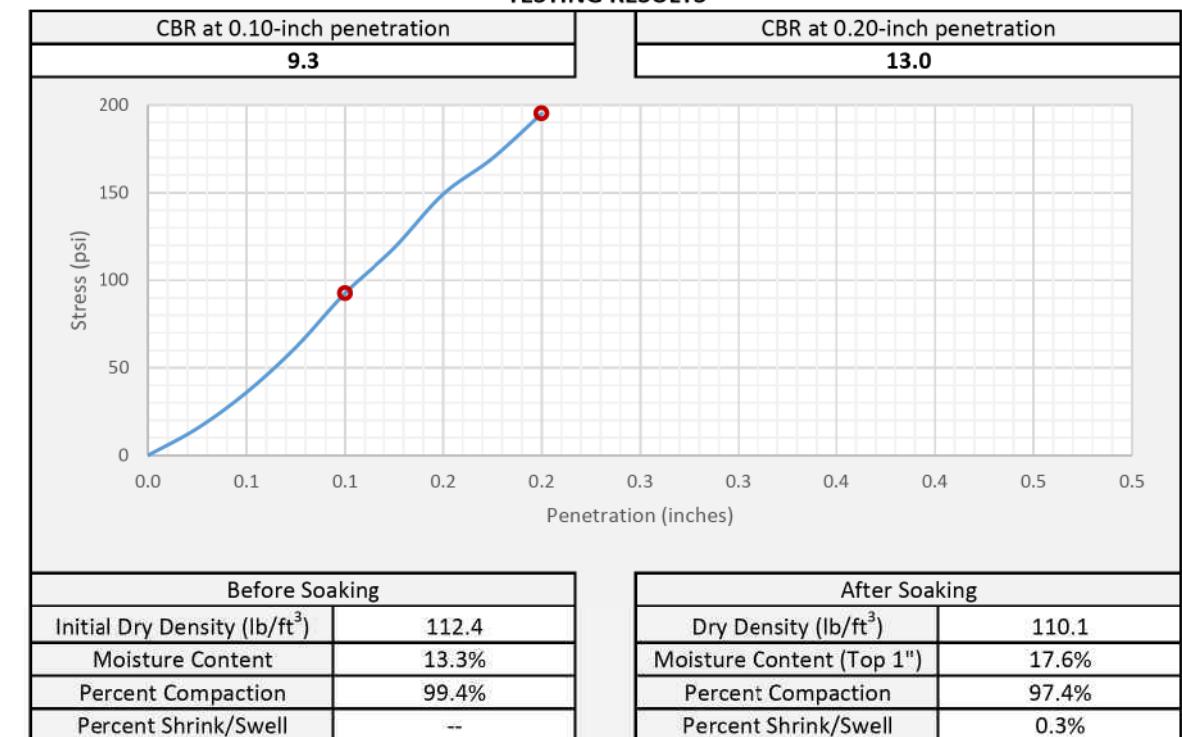
SAMPLE INFORMATION

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



ADDITIONAL COMMENTS

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

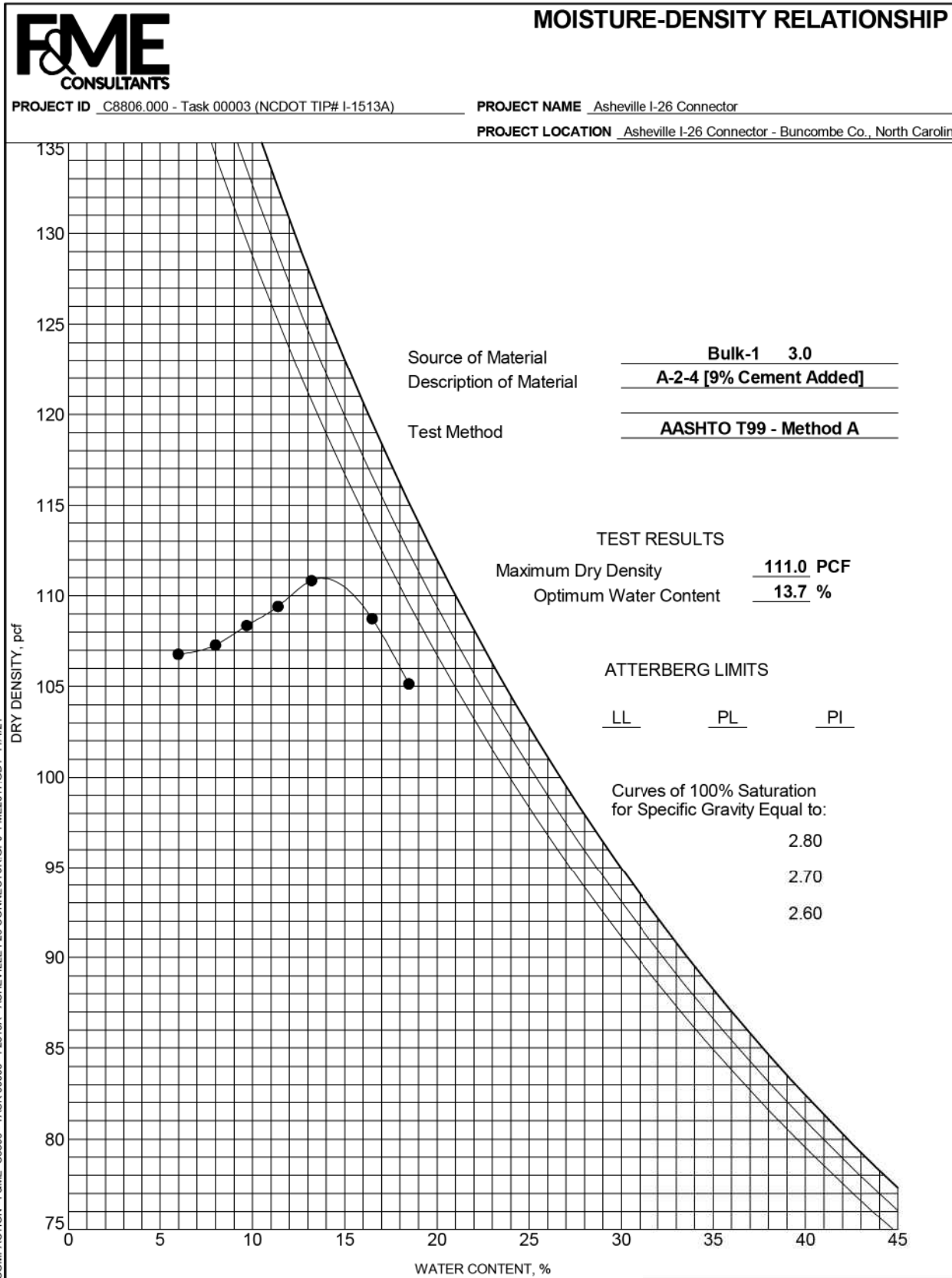


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REV 08/2021

**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)	Average 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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	Date	11/03/21

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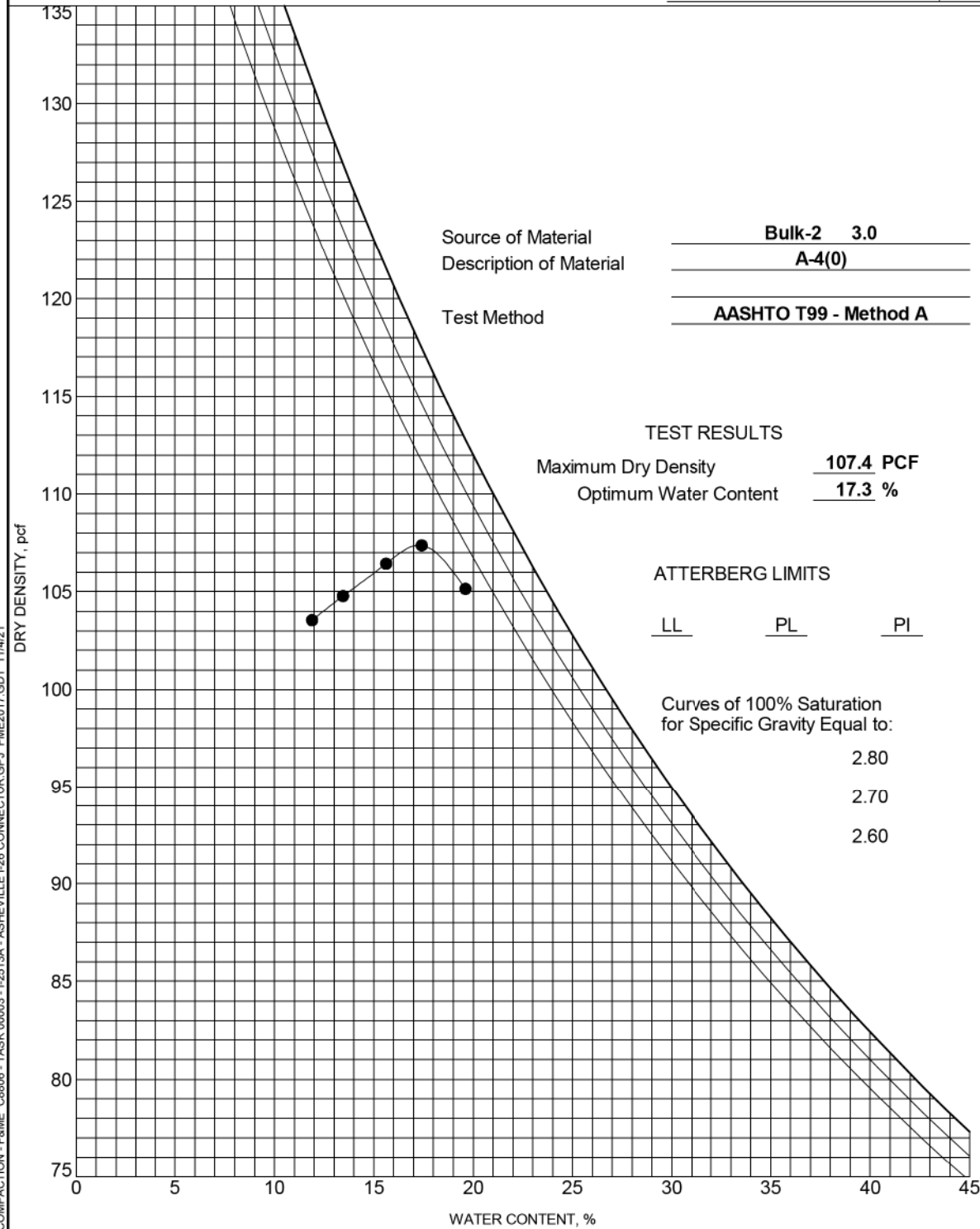


MOISTURE-DENSITY RELATIONSHIP

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



REV 08/2021

**CALIFORNIA BEARING RATIO (CBR)
AASHTO T193**

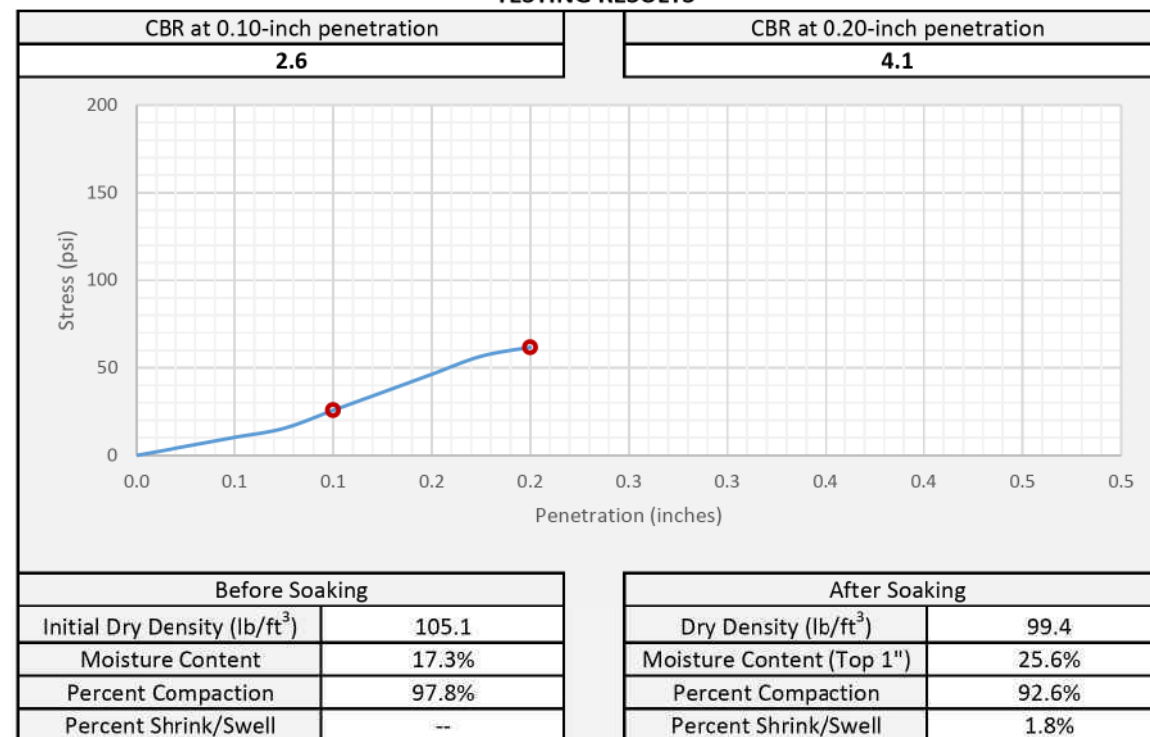
SAMPLE INFORMATION

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



ADDITIONAL COMMENTS

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



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130-04-0212
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10/22/21
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**CALIFORNIA BEARING RATIO (CBR)
AASHTO T193**

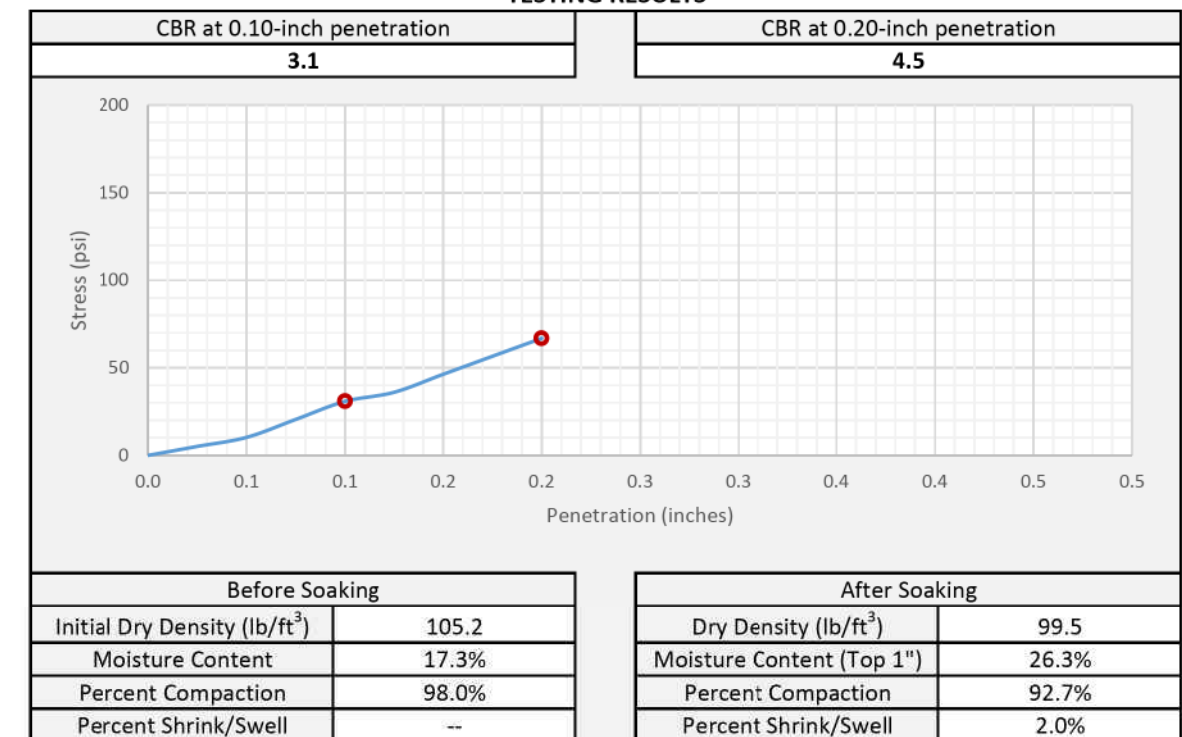
SAMPLE INFORMATION

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



ADDITIONAL COMMENTS

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

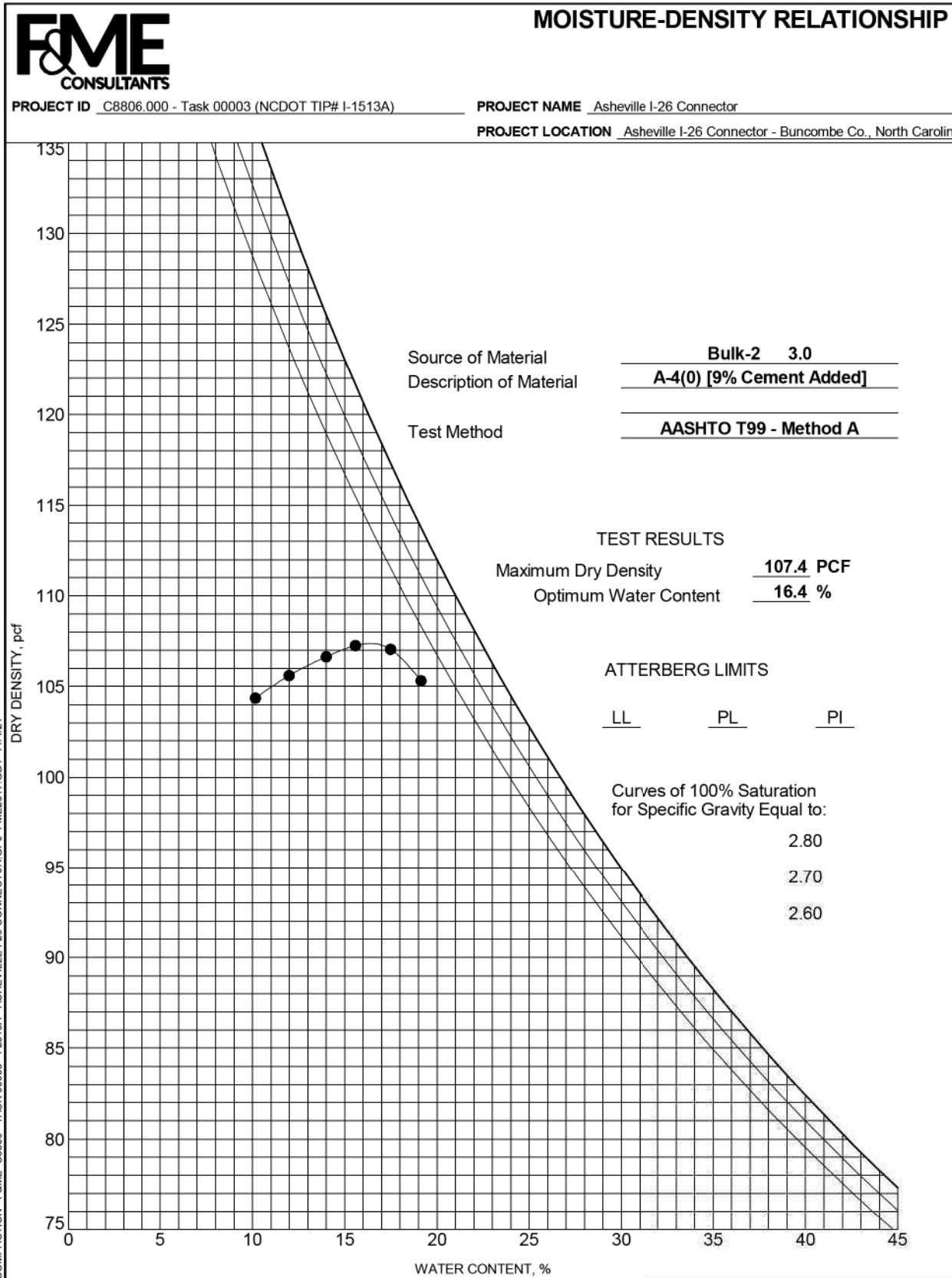


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REV 08/2021

**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)	Average 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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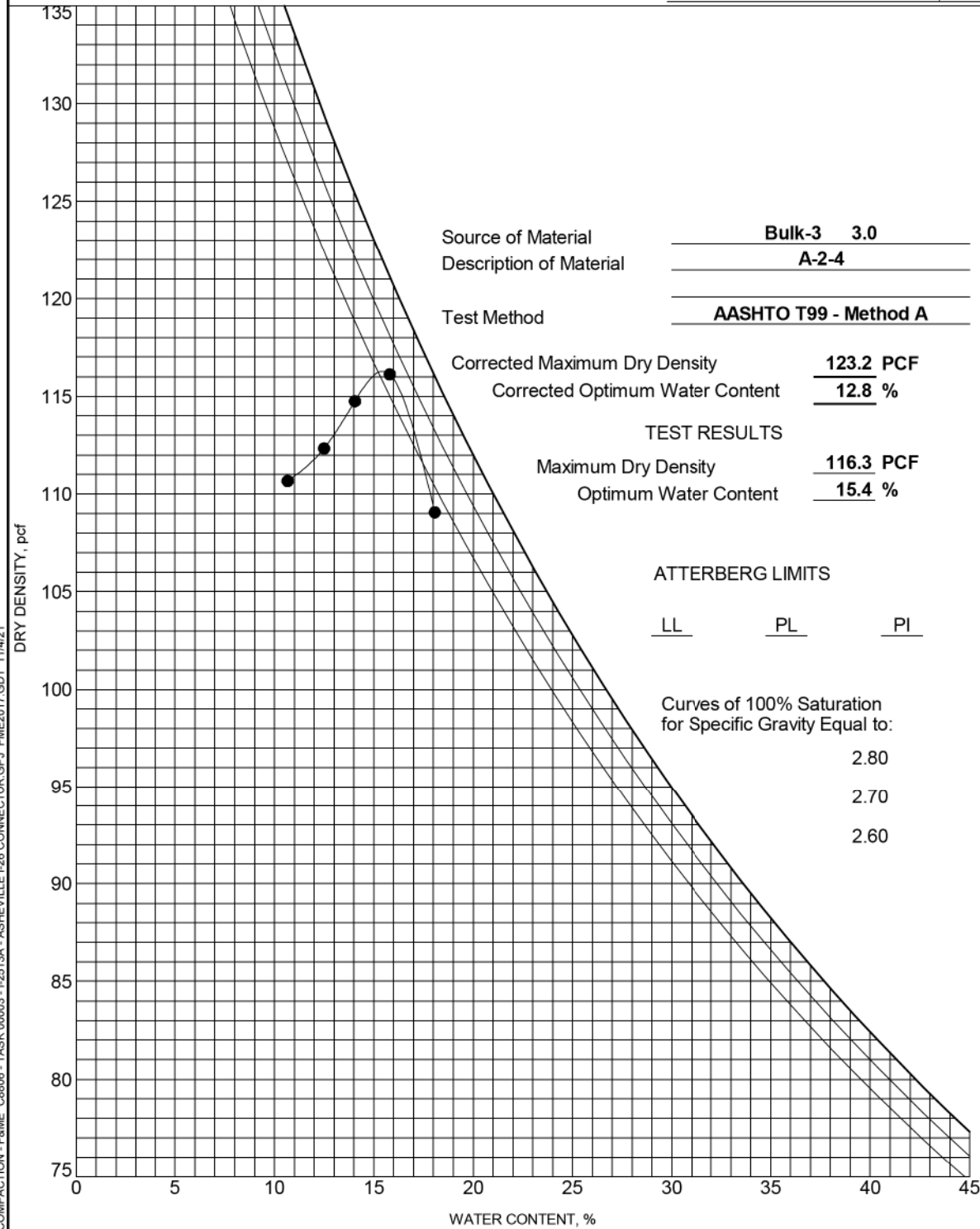


MOISTURE-DENSITY RELATIONSHIP

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

**CALIFORNIA BEARING RATIO (CBR)
AASHTO T193**

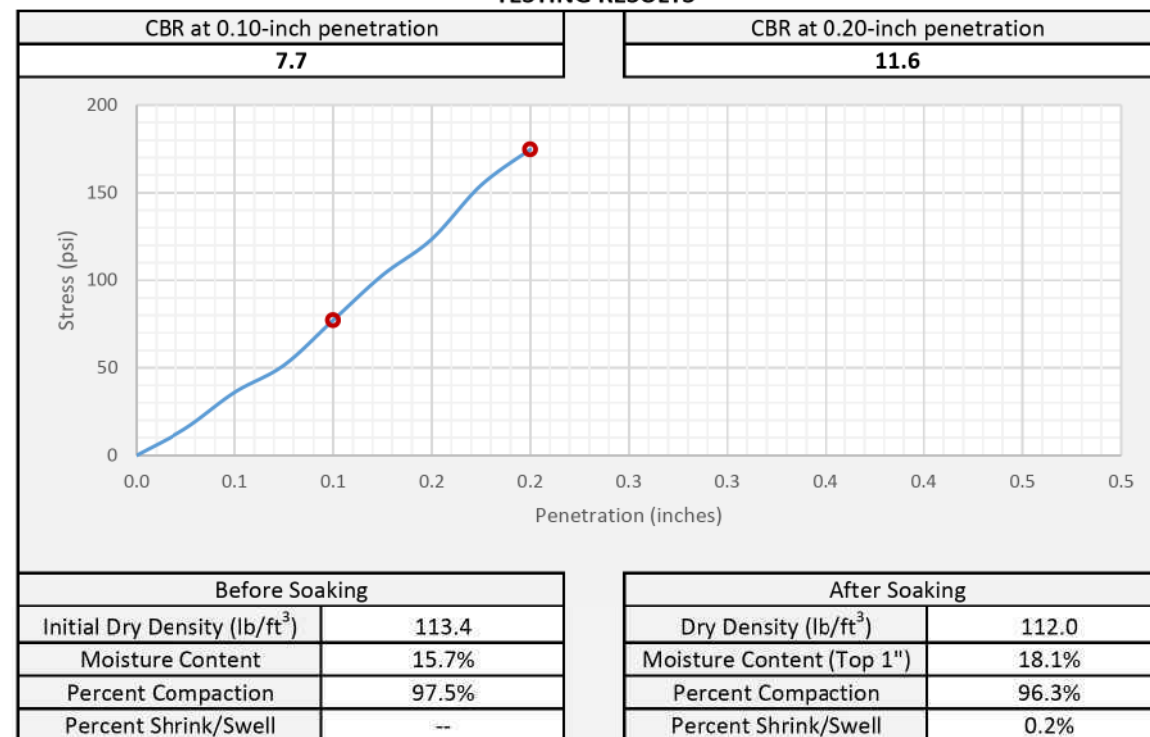
SAMPLE INFORMATION

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



ADDITIONAL COMMENTS

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



F&ME Consultants, Inc.
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**CALIFORNIA BEARING RATIO (CBR)
AASHTO T193**

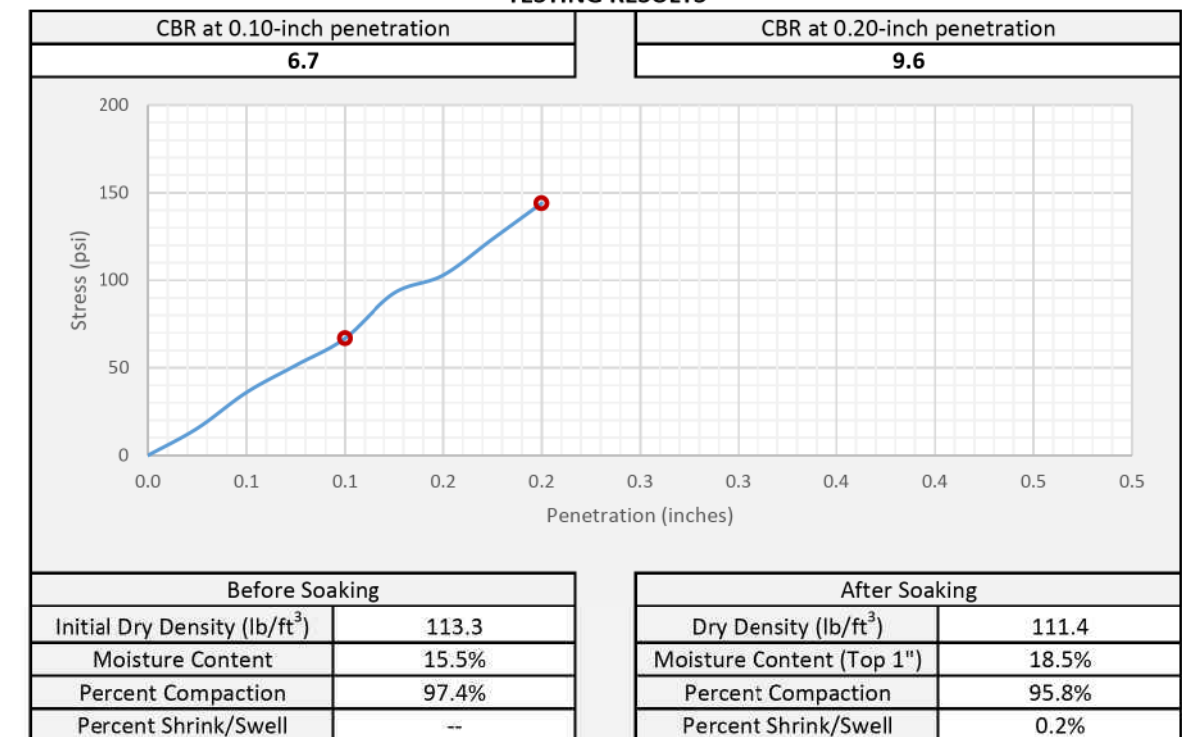
SAMPLE INFORMATION

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



ADDITIONAL COMMENTS

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

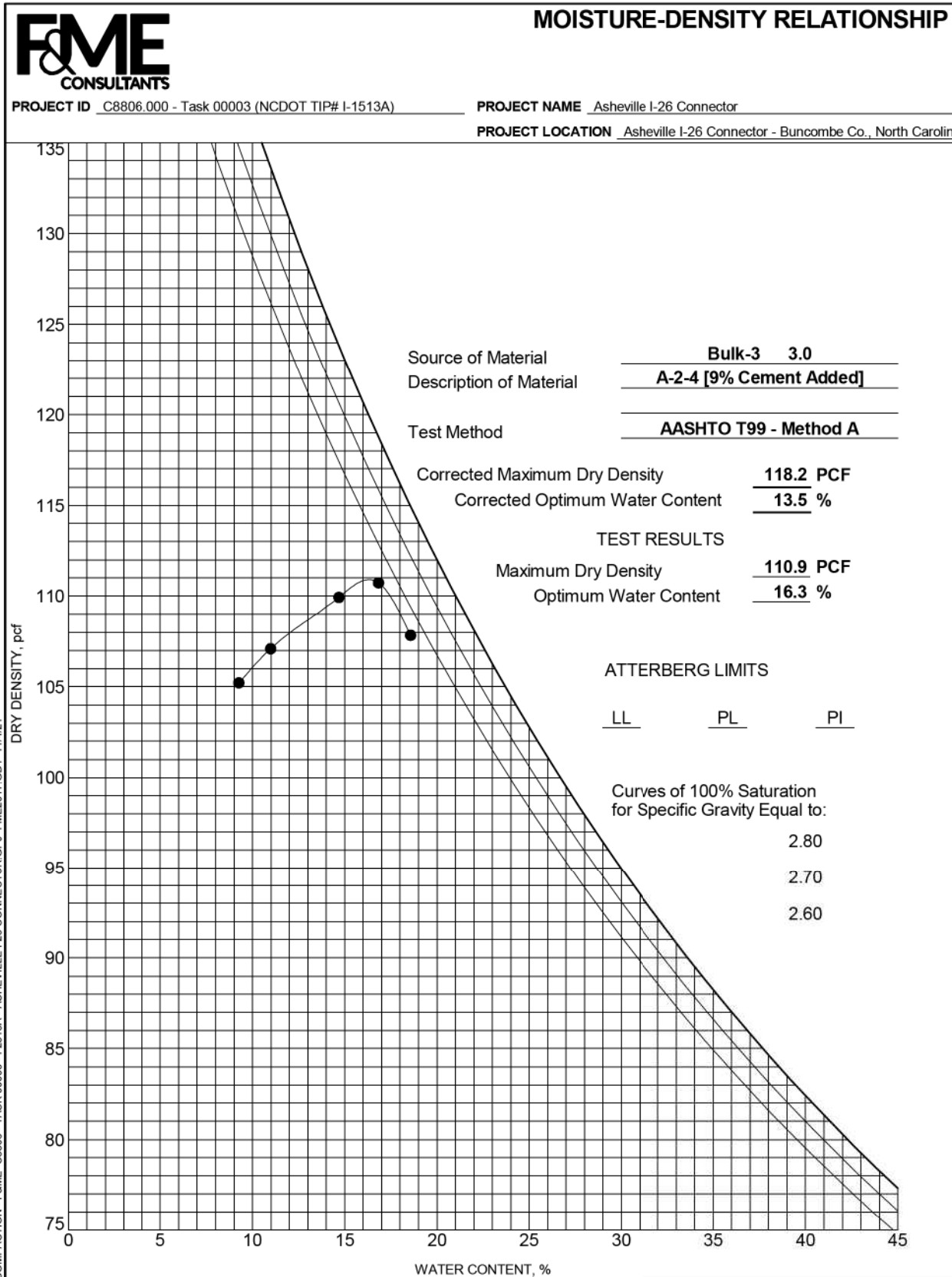


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REV 08/2021

**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)	Average 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%

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	Date	11/03/21 Date

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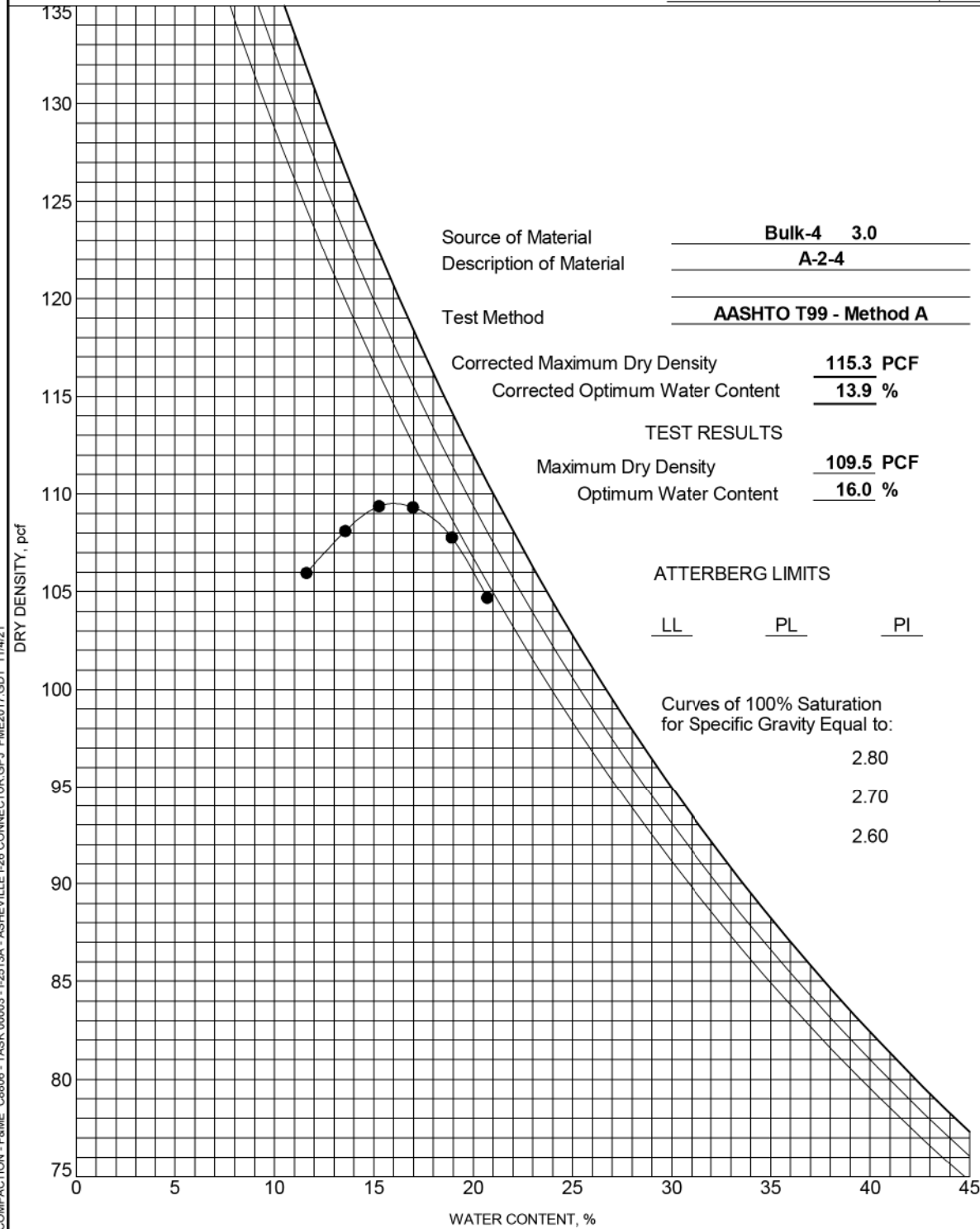


MOISTURE-DENSITY RELATIONSHIP

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



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**

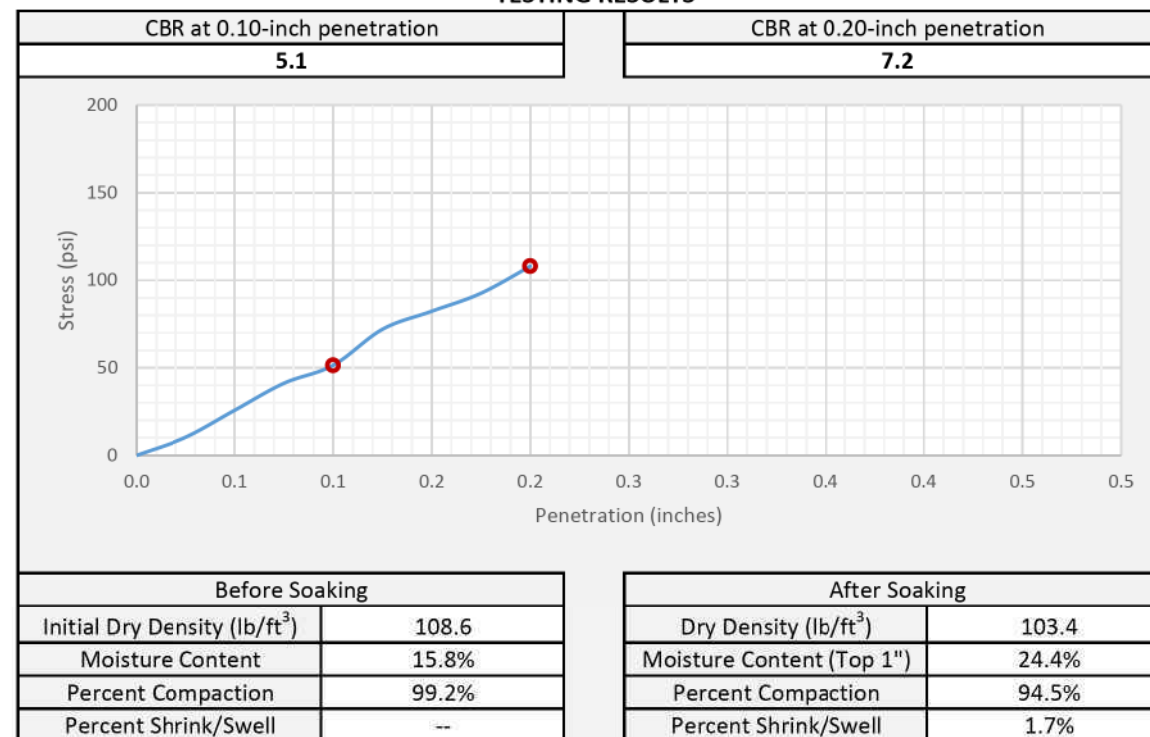
SAMPLE INFORMATION

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



ADDITIONAL COMMENTS

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



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

Jerry P. Davis
Reviewed By

130-04-0212
NCDOT Certification No.
10/22/21
Date

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REV 08/2021

**CALIFORNIA BEARING RATIO (CBR)
AASHTO T193**

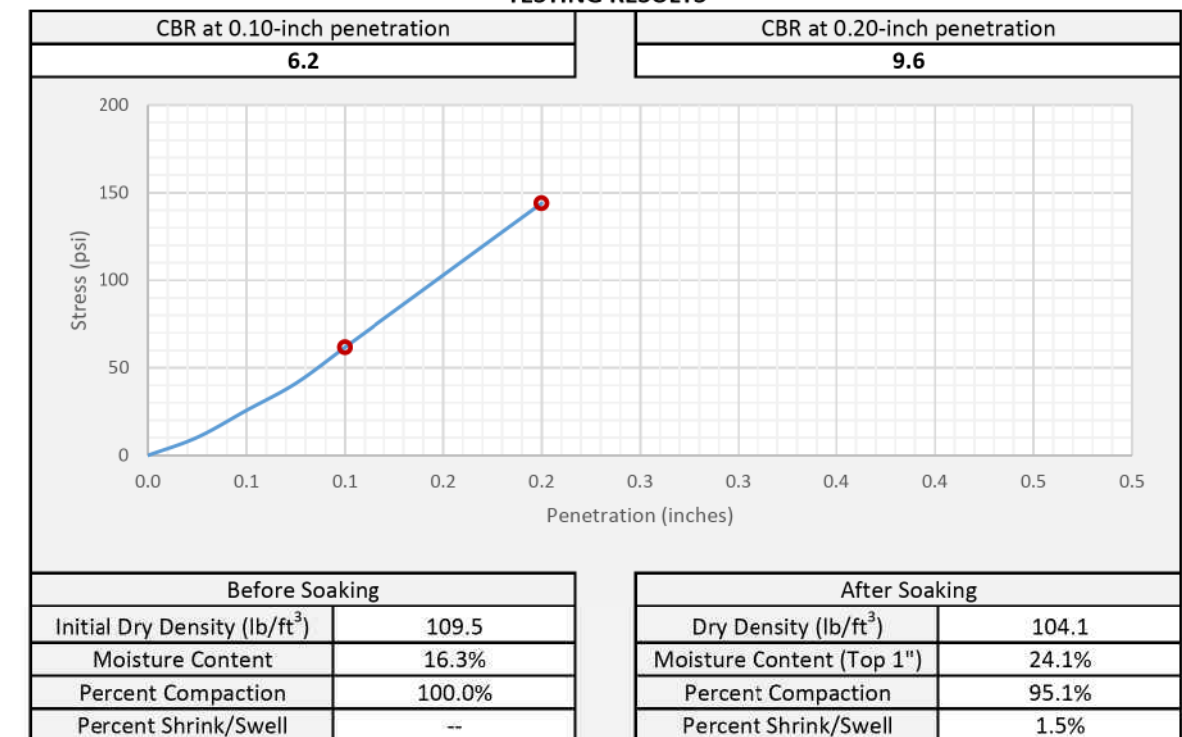
SAMPLE INFORMATION

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



ADDITIONAL COMMENTS

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

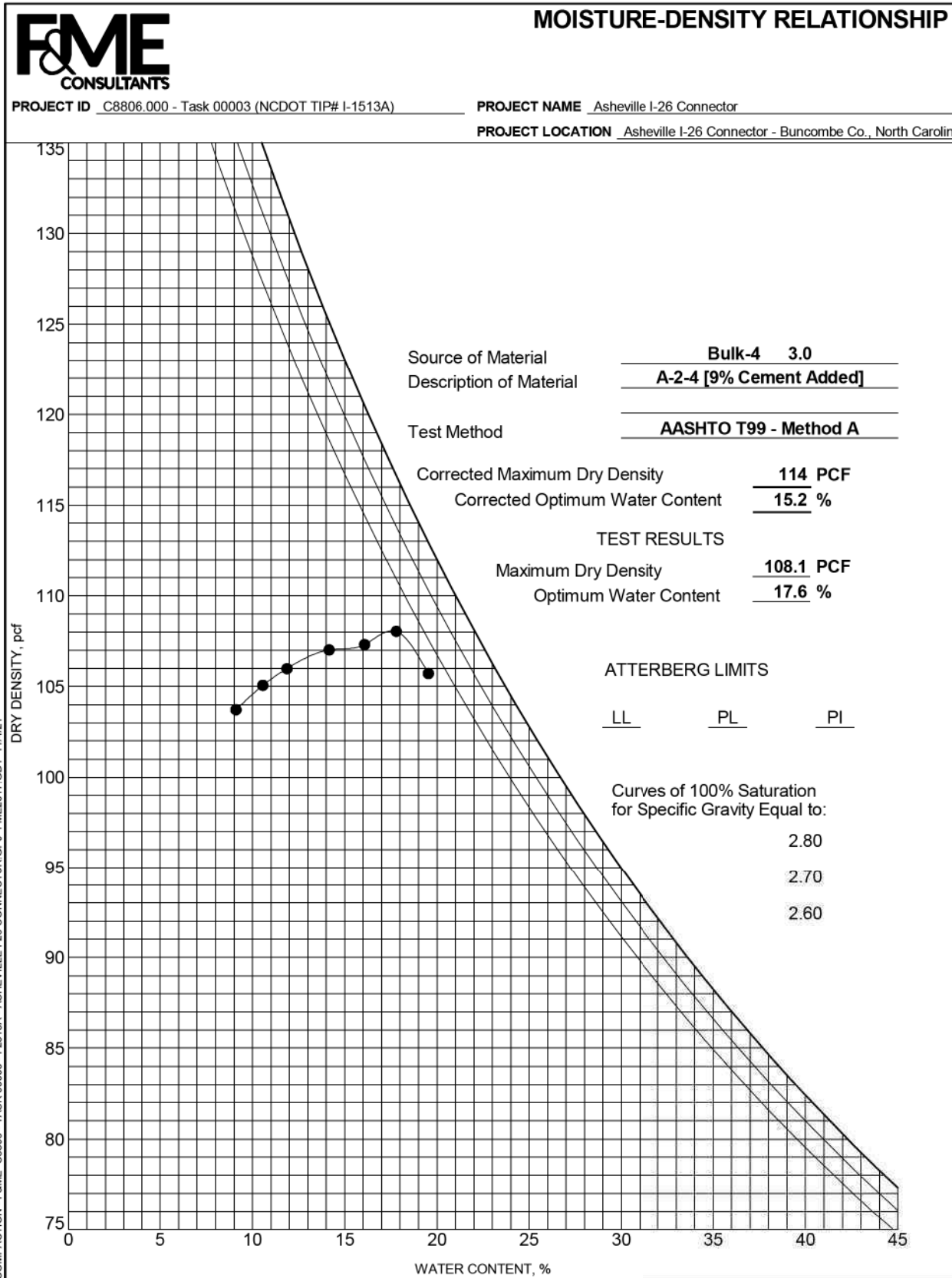


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REV 08/2021

**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)	Average 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	<i>Jerry P. Davis</i> Reviewed By	130-04-0212 NCDOT Certification No
			11/03/21 Date

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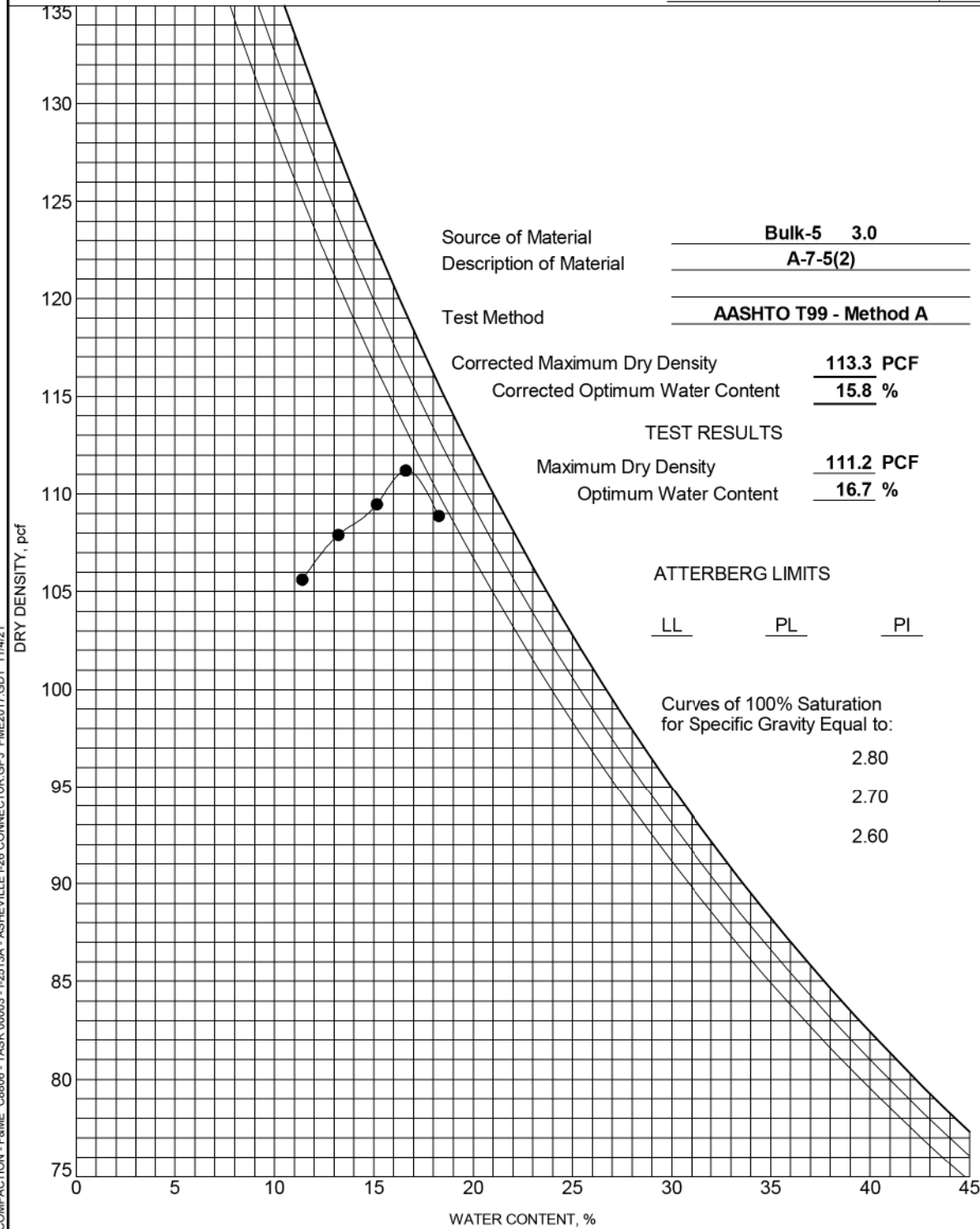


MOISTURE-DENSITY RELATIONSHIP

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



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**

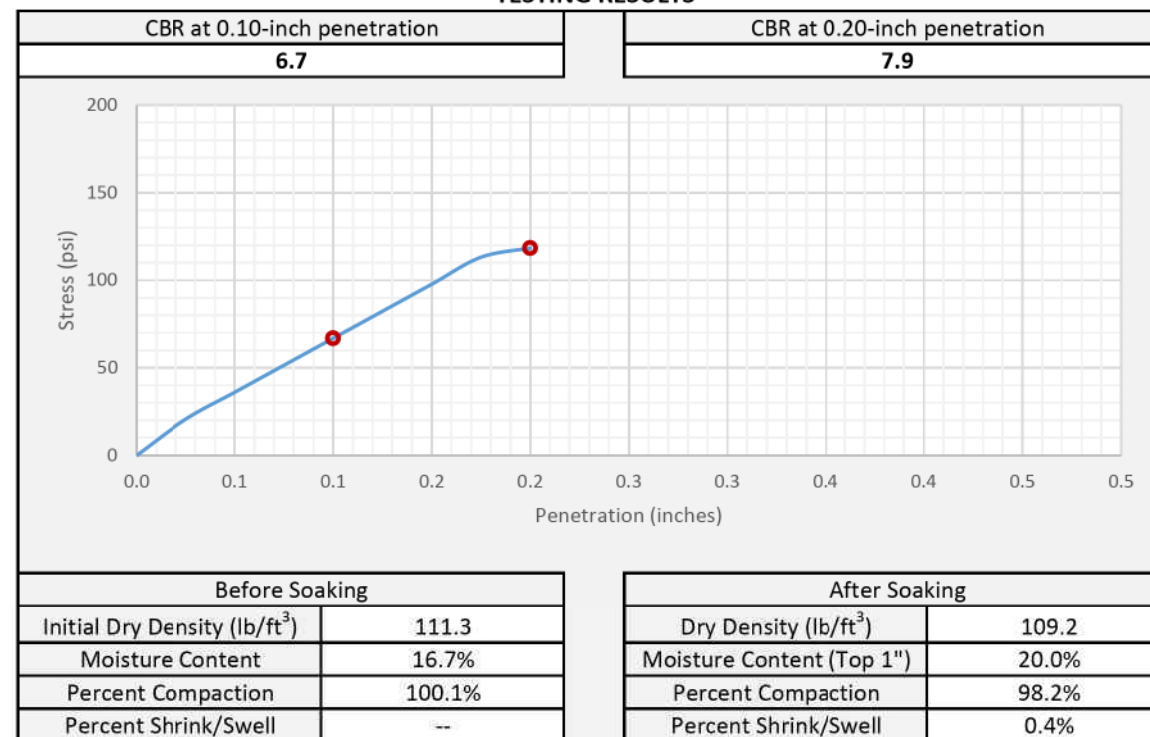
SAMPLE INFORMATION

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



ADDITIONAL COMMENTS

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



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

Jerry P. Davis
Reviewed By

130-04-0212
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10/22/21
Date

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REV 08/2021

**CALIFORNIA BEARING RATIO (CBR)
AASHTO T193**

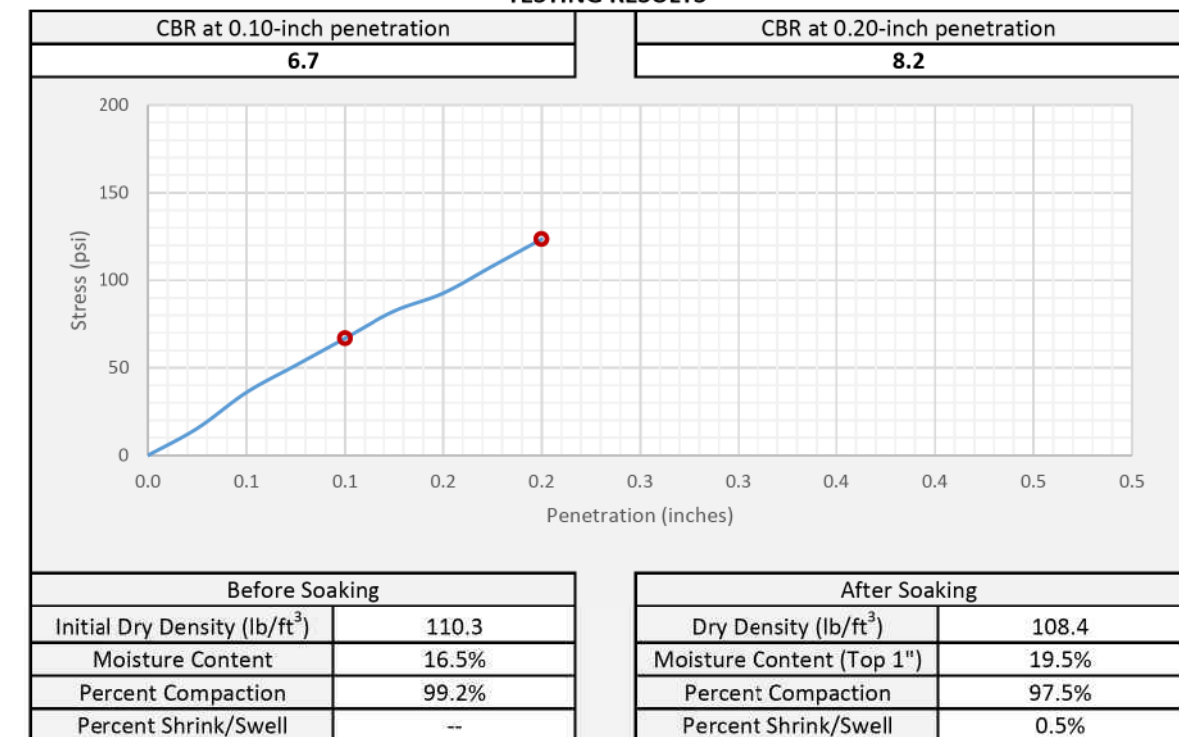
SAMPLE INFORMATION

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



ADDITIONAL COMMENTS

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



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

Jerry P. Davis
Reviewed By

130-04-0212
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10/22/21
Date

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REFERENCE: I-2513AA/AB

PROJECT: 34165

**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT
SUBSURFACE INVESTIGATION**

PHOTOGRAPHS



#1: EXAMPLE DRAINAGE SAND PHOTO - C-94



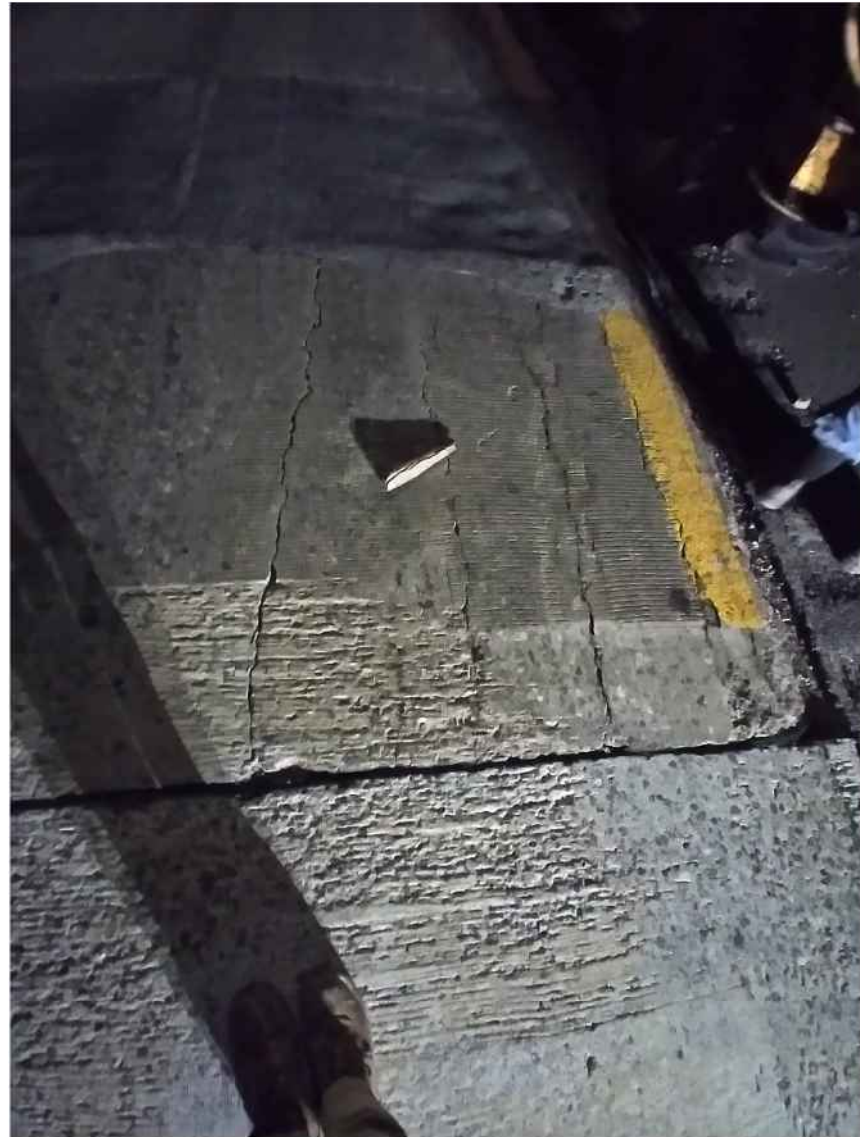
#3: EXAMPLE STBC - C-13



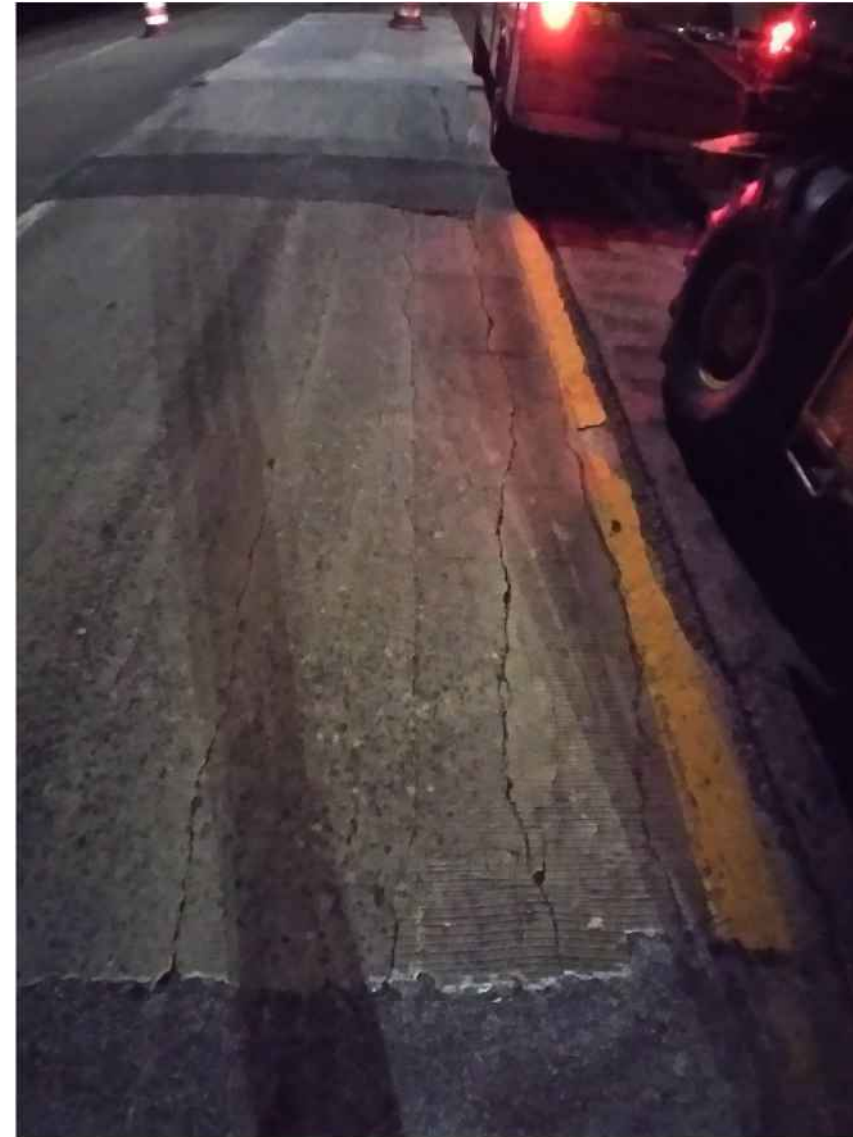
#2: EXAMPLE STBC - C-28



#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



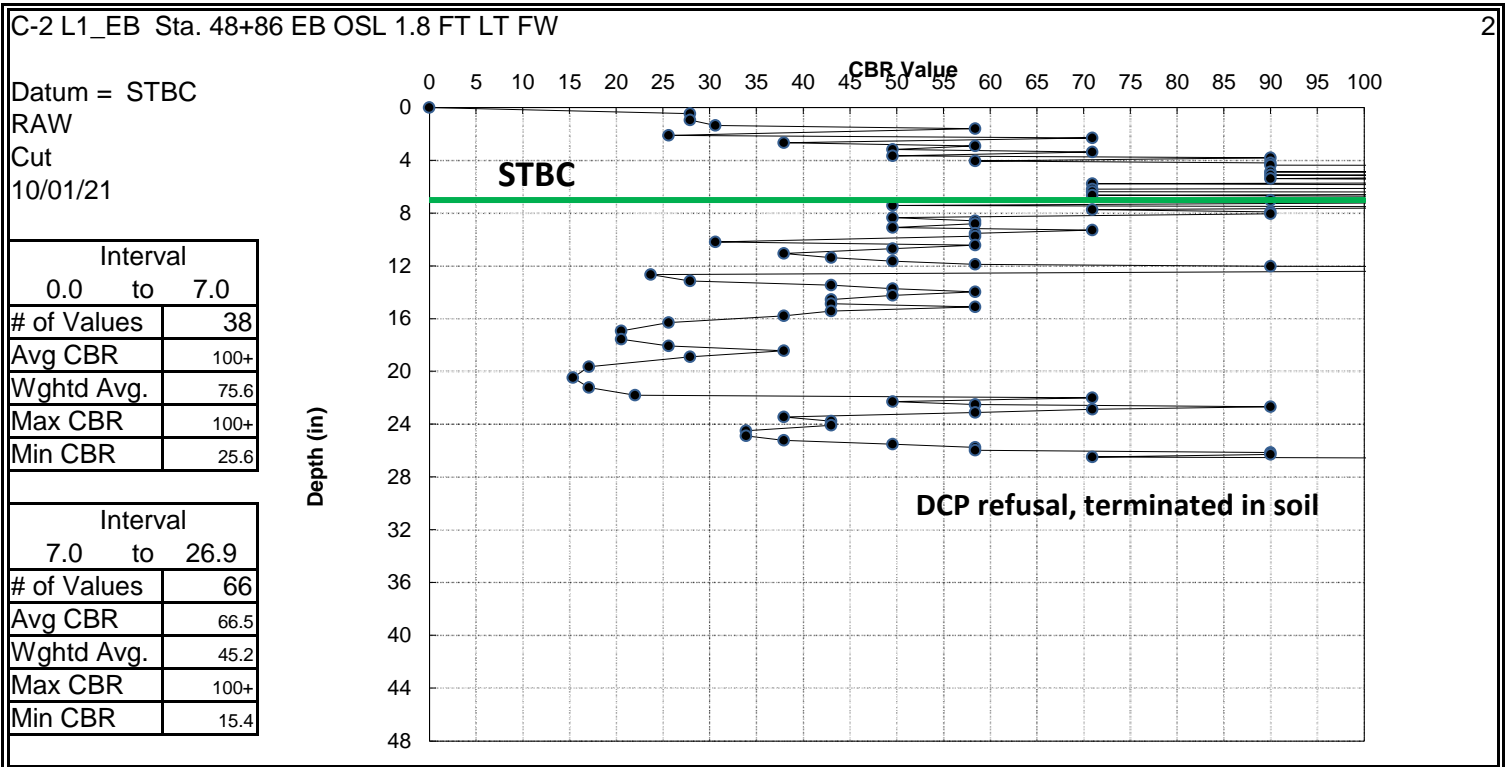
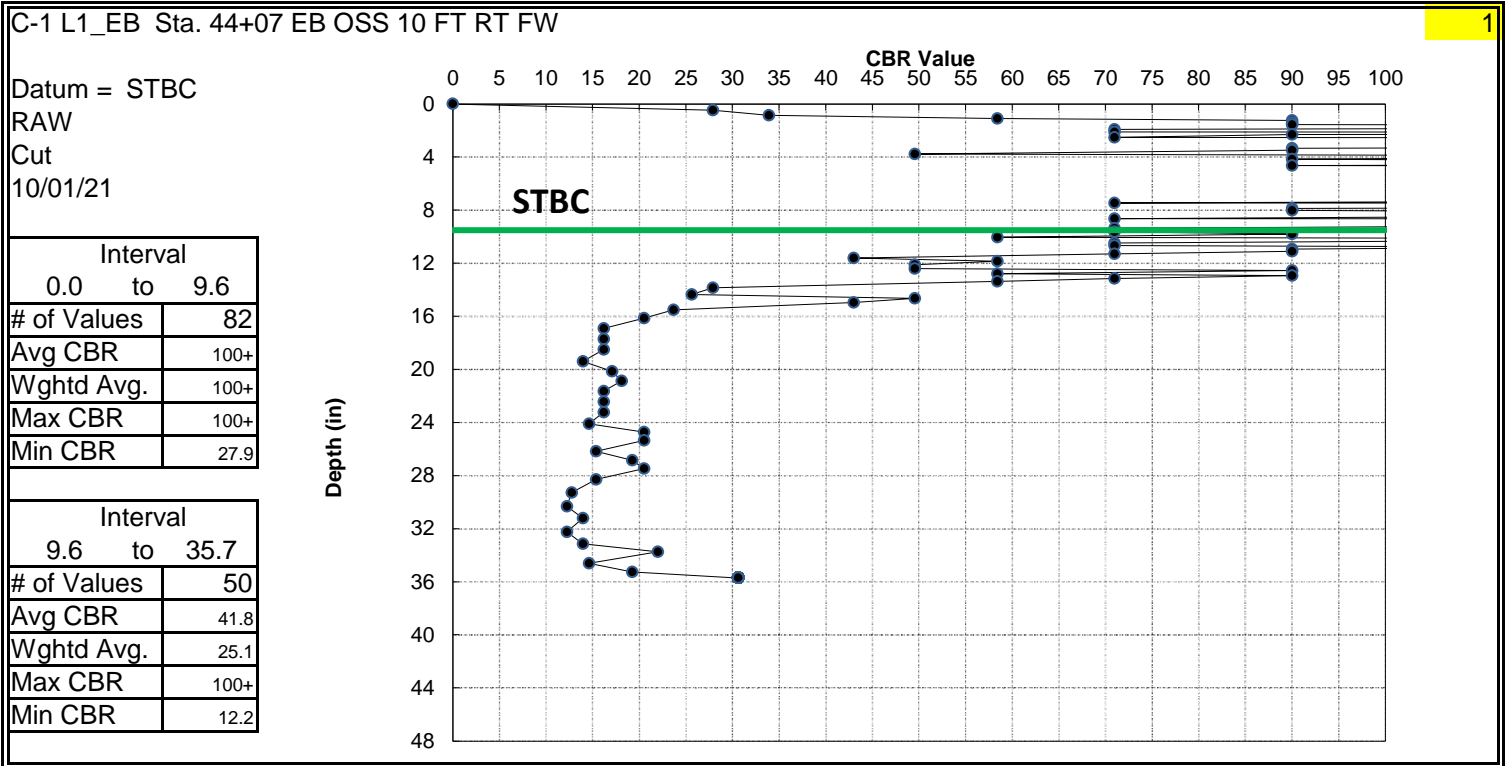
#13: REFLECTIVE CRACKING AT LONGITUDINAL AND TRANSVERSE JOINTS, SEVERE DEGRADATION OF OVERLAY, TYPICAL

**CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT**

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

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

FILE	I2513AA_AB DCP Graphs
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**CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT**

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

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

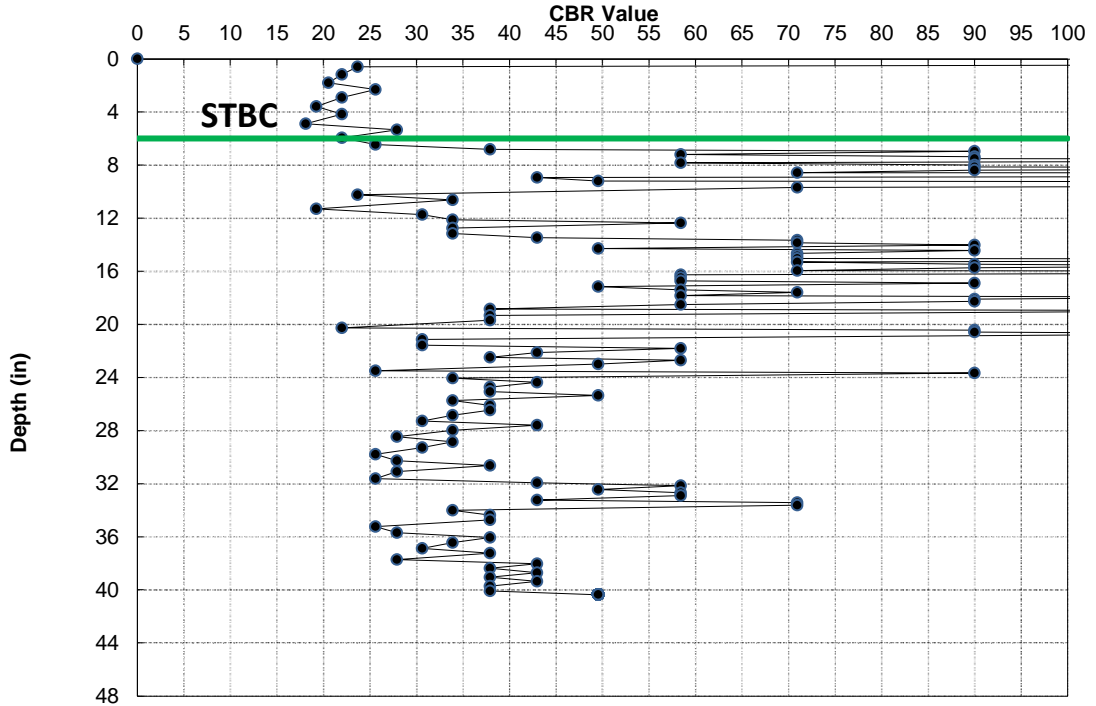
FILE	I2513AA_AB DCP Graphs
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C-3 L1_EB Sta. 48+86 EB OSS 8.0 FT RT FW **3**

Datum = STBC
RAW
Cut
10/01/21

Interval	
0.0	to 5.9
# of Values	11
Avg CBR	56.1
Wghtd Avg.	24.2
Max CBR	100+
Min CBR	18.1

Interval	
5.9	to 40.4
# of Values	119
Avg CBR	63.8
Wghtd Avg.	47.1
Max CBR	100+
Min CBR	19.2

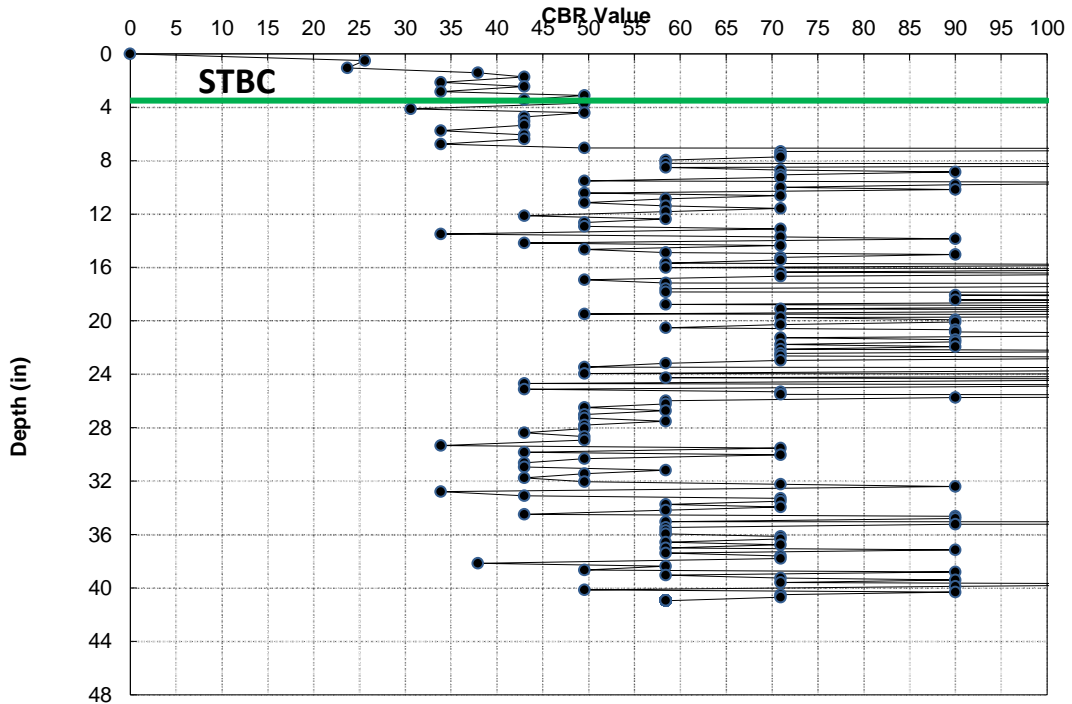


C-4 L1_EB Sta. 53+86 EB OSS 2.0 FT RT FW **4**

Datum = STBC
RAW
Cut
10/01/21

Interval	
0.0	to 3.4
# of Values	9
Avg CBR	37.1
Wghtd Avg.	35.1
Max CBR	49.6
Min CBR	23.7

Interval	
3.4	to 40.9
# of Values	175
Avg CBR	76.9
Wghtd Avg.	64.8
Max CBR	100+
Min CBR	30.6



**CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT**

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

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

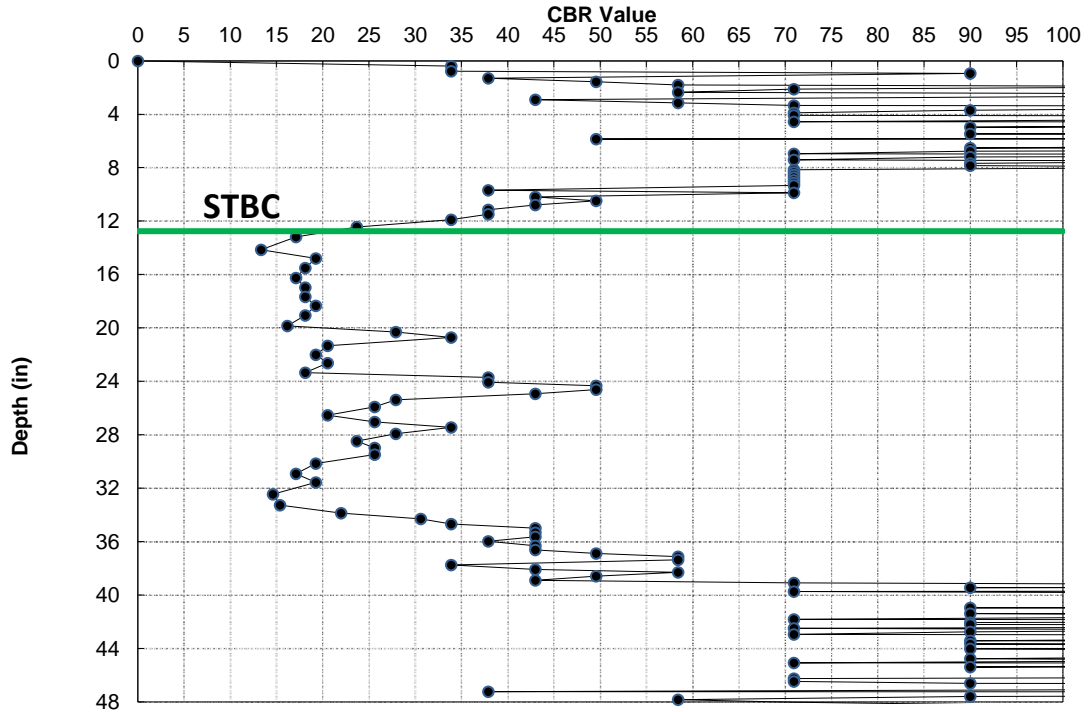
FILE	I2513AA_AB DCP Graphs
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C-5 L1_EB Sta. 59+28 EB OSS 5.4 FT RT FW **5**

Datum = STBC
RAW
Fill
10/01/21

Interval	
0.0	to 13.2
# of Values	68
Avg CBR	100+
Wghtd Avg.	72.1
Max CBR	100+
Min CBR	17.1

Interval	
13.2	to 56.3
# of Values	176
Avg CBR	100+
Wghtd Avg.	56.1
Max CBR	100+
Min CBR	13.3

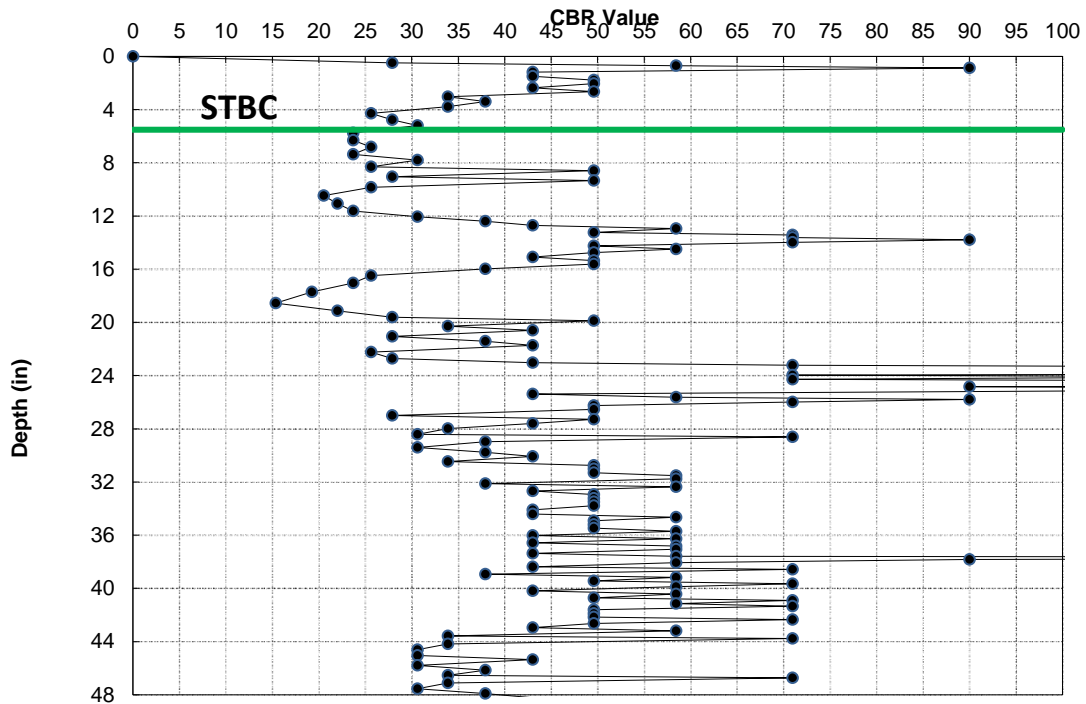


C-6 L1_EB Sta. 62+34 EB ISS 2.0 FT LT FY **6**

Datum = STBC
RAW
Fill
10/01/21

Interval	
0.0	to 5.7
# of Values	16
Avg CBR	41.7
Wghtd Avg.	37.4
Max CBR	90.0
Min CBR	23.7

Interval	
5.7	to 53.1
# of Values	156
Avg CBR	55.3
Wghtd Avg.	44.7
Max CBR	100+
Min CBR	15.4



**CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT**

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

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

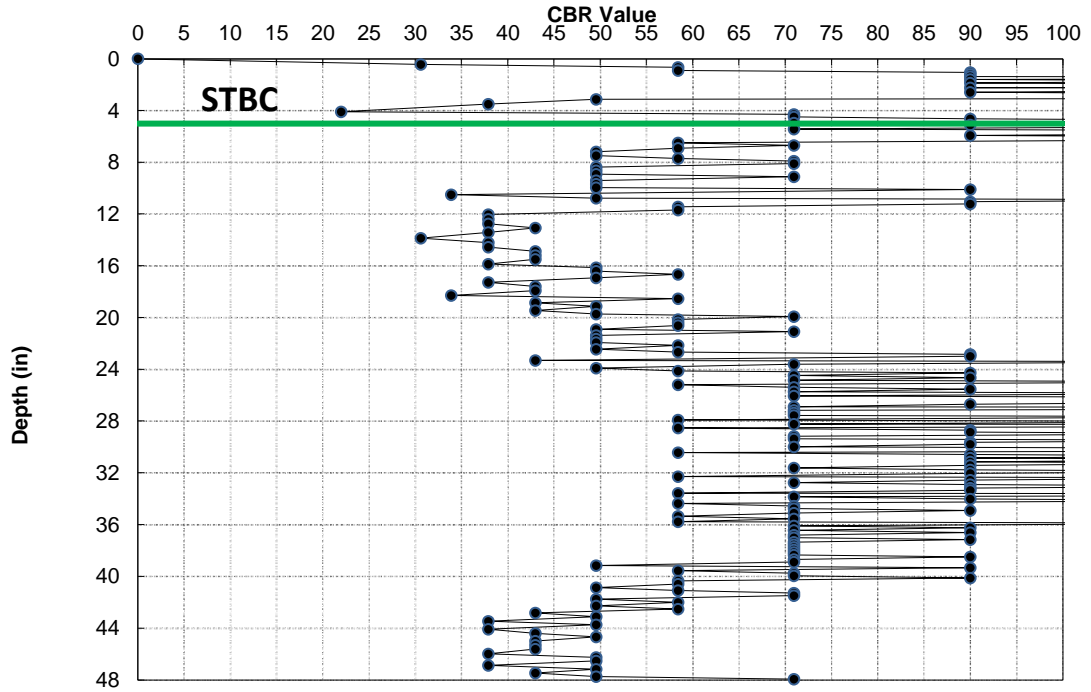
FILE	I2513AA_AB DCP Graphs
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C-7 L1_EB Sta. 66+48 EB OSS 2.0 FT RT FW **7**

Datum = STBC
RAW
Fill
10/01/21

Interval 0.0 to 5.0	
# of Values	28
Avg CBR	100+
Wghtd Avg.	79.4
Max CBR	100+
Min CBR	22.0

Interval 5.0 to 51.3	
# of Values	217
Avg CBR	74.7
Wghtd Avg.	65.0
Max CBR	100+
Min CBR	30.6

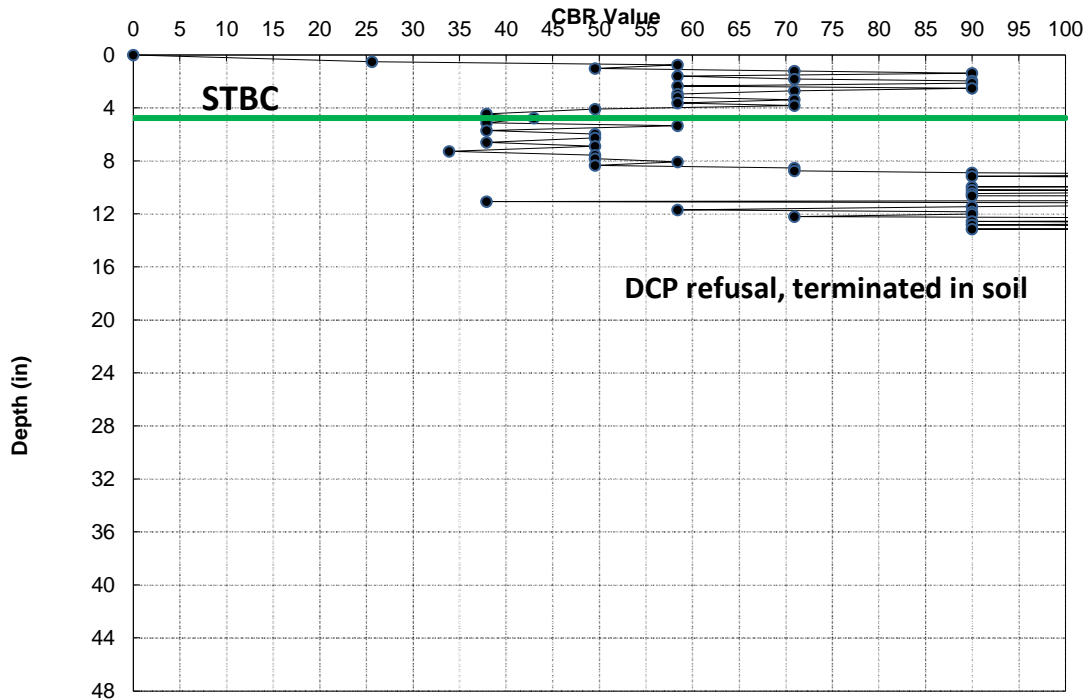


C-8 L1_EB Sta. 66+48 EB ISL 2.3 FT RT FY **8**

Datum = STBC
RAW
Fill
10/01/21

Interval 0.0 to 4.8	
# of Values	20
Avg CBR	100+
Wghtd Avg.	79.4
Max CBR	100+
Min CBR	22.0

Interval 4.8 to 14.2	
# of Values	103
Avg CBR	100+
Wghtd Avg.	100+
Max CBR	100+
Min CBR	33.9



**CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT**

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

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

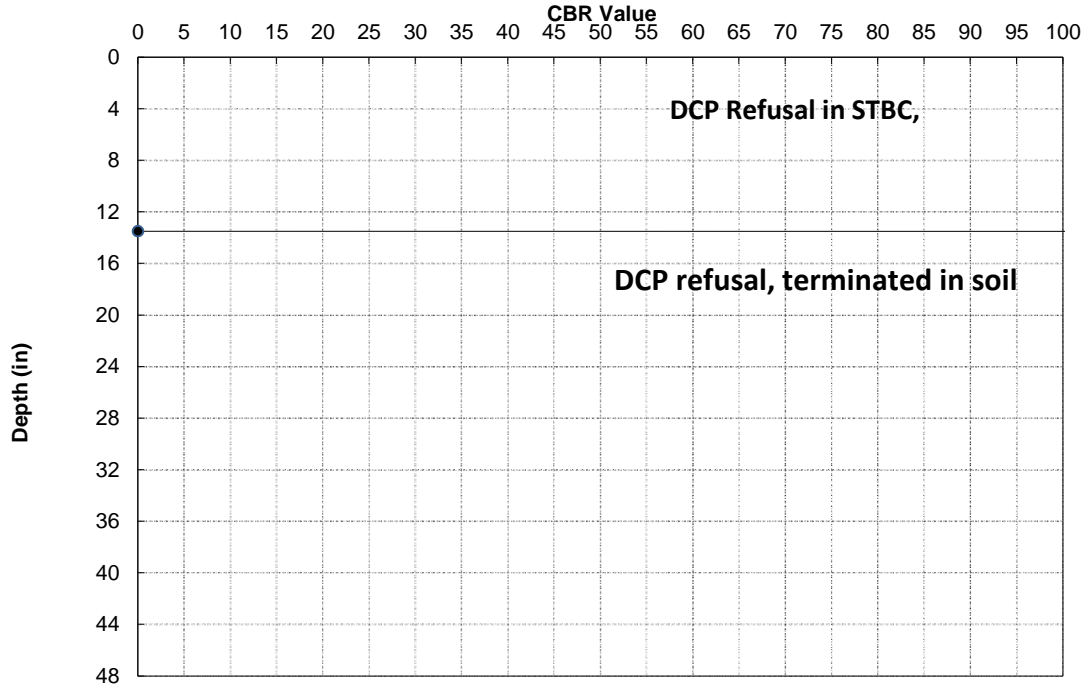
FILE	I2513AA_AB DCP Graphs
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C-9 L1_EB Sta. 62+48 EB ISS 1.5 FT LT FY **9**

Datum = STBC
RAW
Fill
10/01/21

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	
13.5	to 15.1
# of Values	70
Avg CBR	100+
Wghtd Avg.	100+
Max CBR	100+
Min CBR	100+

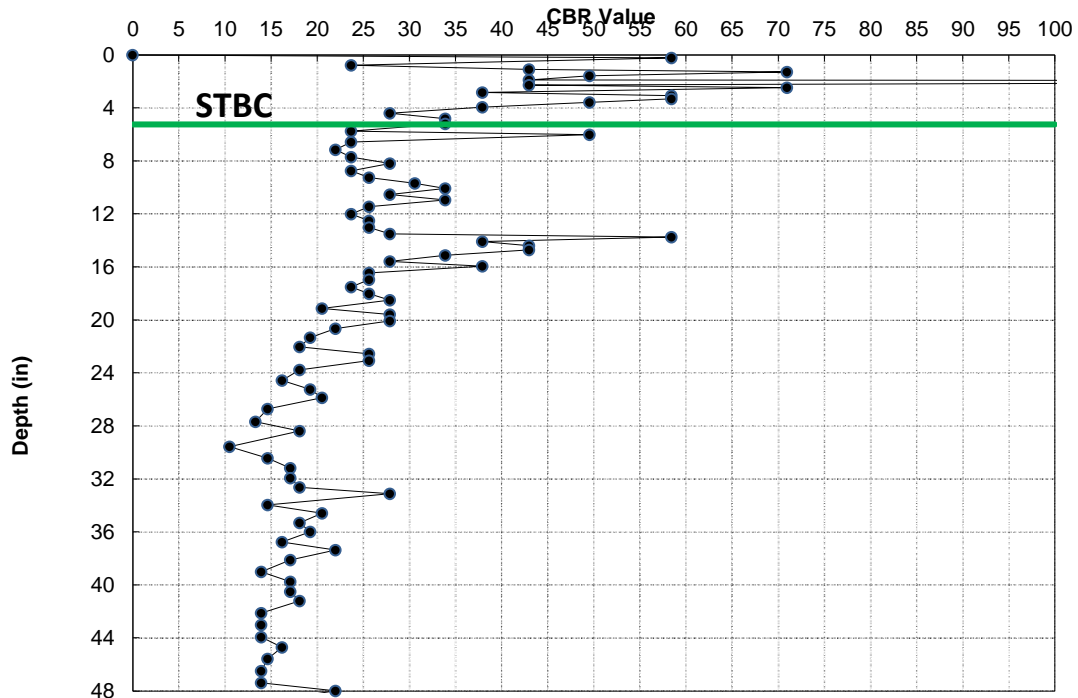


C-10 L1_WB Sta. 44+64 WB OSL 2.2 FT LT FW **10**

Datum = STBC
RAW
Cut
10/1/2021

Interval	
0.0	to 5.2
# of Values	17
Avg CBR	54.6
Wghtd Avg.	44.4
Max CBR	100+
Min CBR	23.7

Interval	
5.2	to 54.8
# of Values	115
Avg CBR	100+
Wghtd Avg.	30.7
Max CBR	100+
Min CBR	10.5



**CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT**

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

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

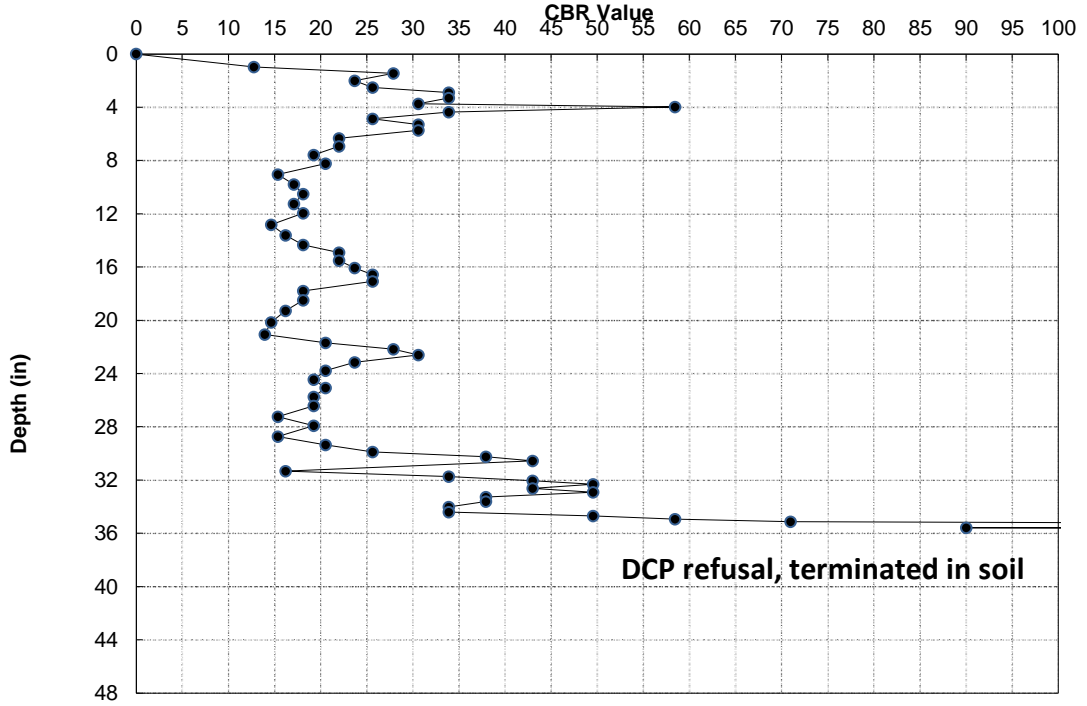
FILE	I2513AA_AB DCP Graphs
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C-11 L1_WB Sta. 44+64 WB OSS 6.0 FT RT FW

Datum = SG
RAW
Cut
10/01/21

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 37.5	
# of Values	117
Avg CBR	100+
Wghtd Avg.	42.2
Max CBR	100+
Min CBR	12.8

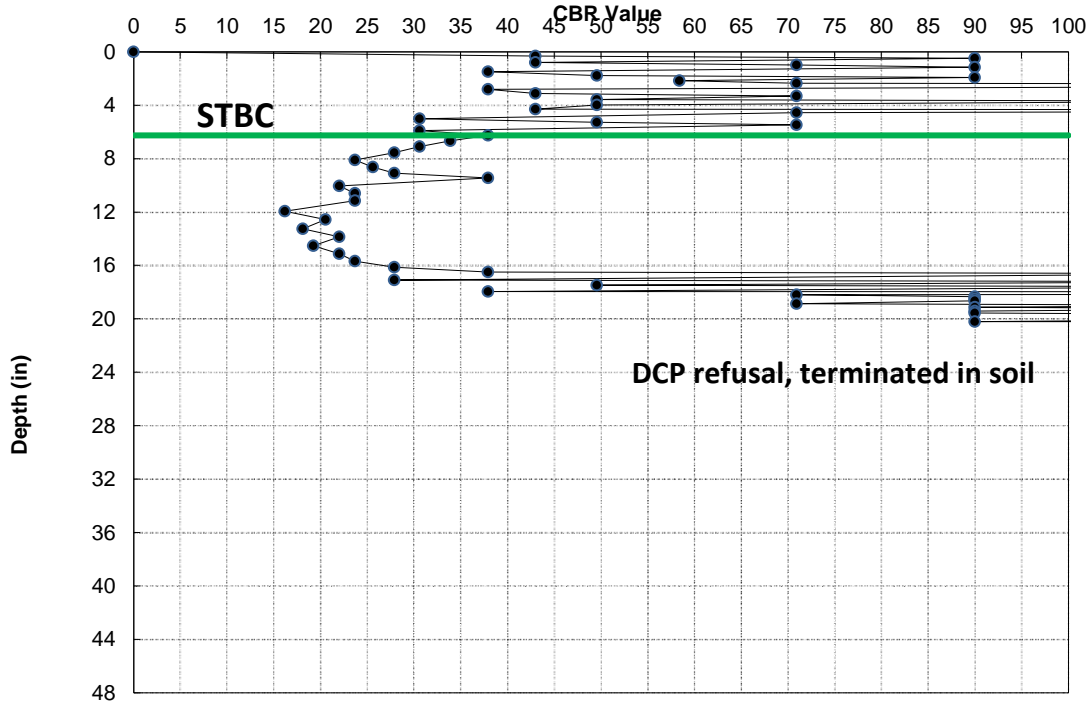


C-12 L1_WB Sta. 49+23 WB ISS 1.8 FT LT FY

Datum = STBC
RAW
Cut
10/01/21

Interval 0.0 to 6.3	
# of Values	25
Avg CBR	69.1
Wghtd Avg.	54.9
Max CBR	100+
Min CBR	30.6

Interval 6.3 to 21.0	
# of Values	95
Avg CBR	100+
Wghtd Avg.	91.3
Max CBR	100+
Min CBR	16.2



**CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT**

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

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

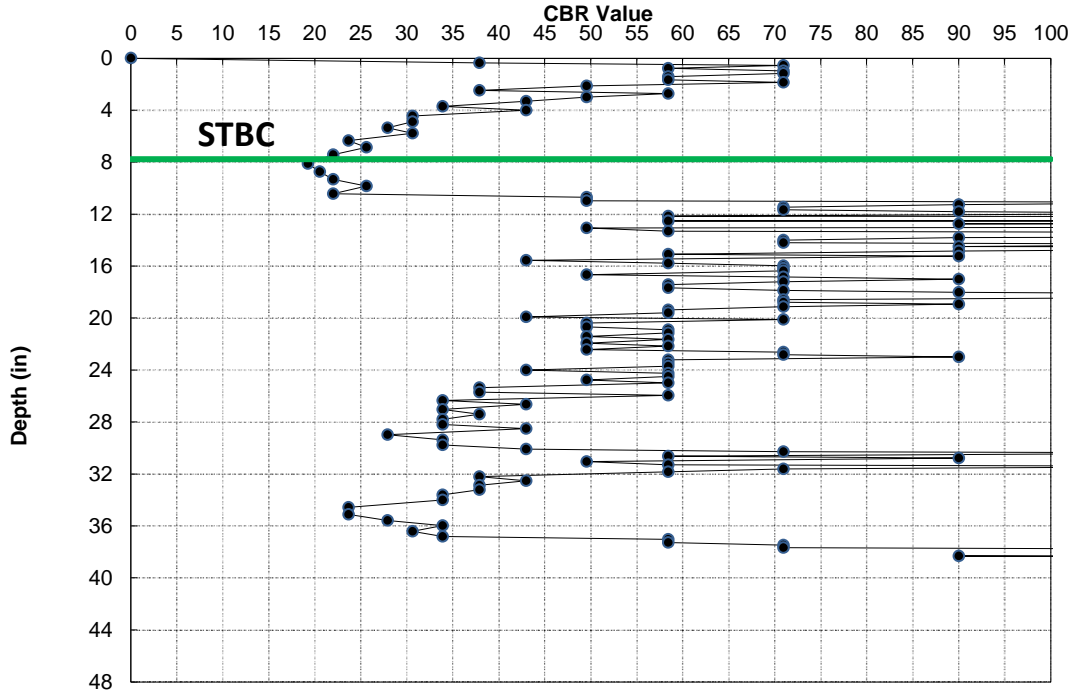
FILE	I2513AA_AB DCP Graphs
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C-13 RPD Sta. 11+07 RAMP

Datum = STBC
RAW
Cut
10/01/21

Interval	
0.0	to 8.1
# of Values	23
Avg CBR	44.5
Wghtd Avg.	38.1
Max CBR	70.9
Min CBR	19.2

Interval	
8.1	to 39.6
# of Values	175
Avg CBR	100+
Wghtd Avg.	77.9
Max CBR	100+
Min CBR	20.5

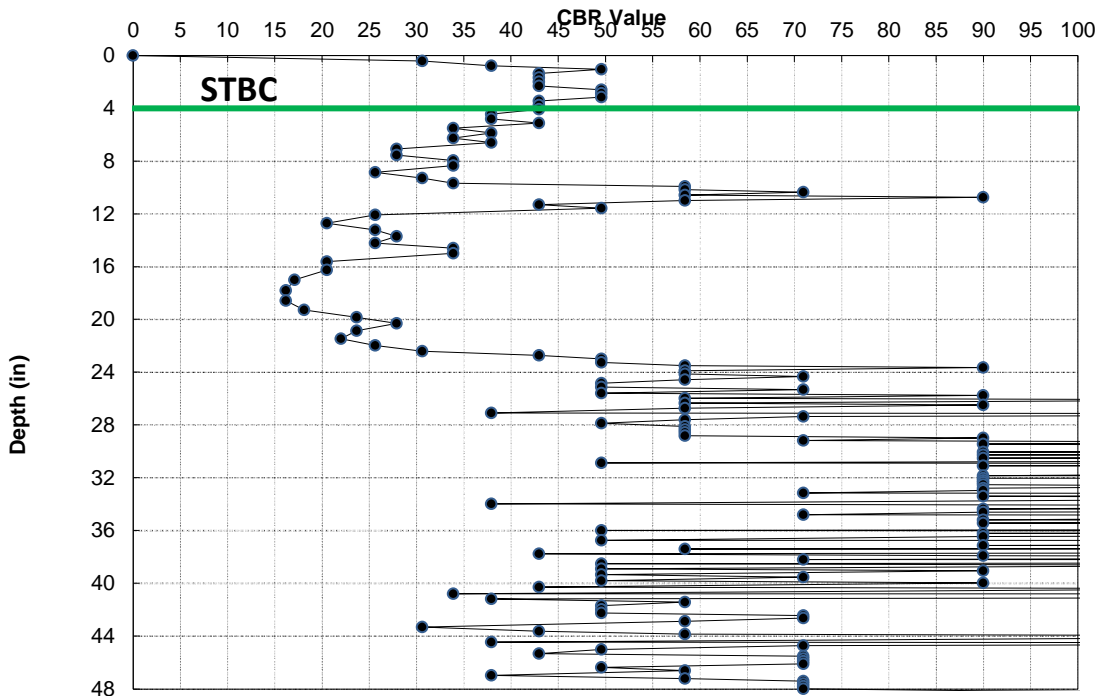


C-14 RPD Sta. 11+06 WB OSS

Datum = STBC
RAW
Cut
10/01/21

Interval	
0.0	to 4.1
# of Values	13
Avg CBR	43.7
Wghtd Avg.	43.0
Max CBR	49.6
Min CBR	30.6

Interval	
4.1	to 51.3
# of Values	208
Avg CBR	98.7
Wghtd Avg.	60.9
Max CBR	100+
Min CBR	16.2



**CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT**

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

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

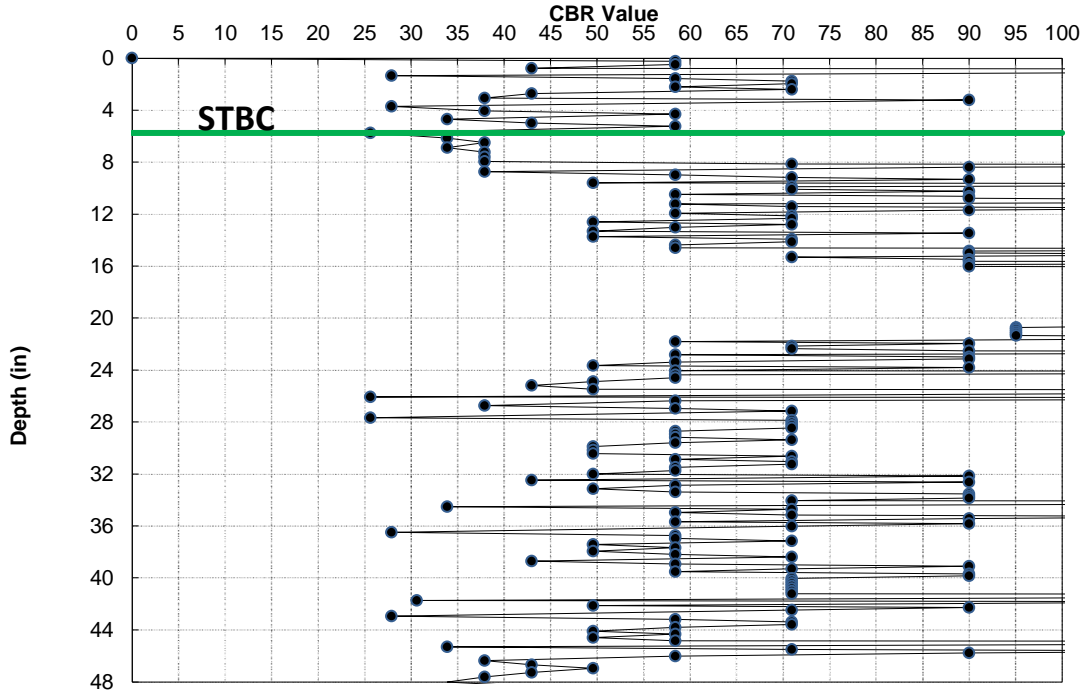
FILE	I2513AA_AB DCP Graphs
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C-15 L1_WB Sta. 54+78 WB ISS 2.4 FT LT FY **15**

Datum = STBC
RAW
Cut
10/01/21

Interval	
0.0	to 5.7
# of Values	20
Avg CBR	58.1
Wghtd Avg.	47.4
Max CBR	100+
Min CBR	25.6

Interval	
5.7	to 53.7
# of Values	229
Avg CBR	83.3
Wghtd Avg.	66.4
Max CBR	100+
Min CBR	16.2

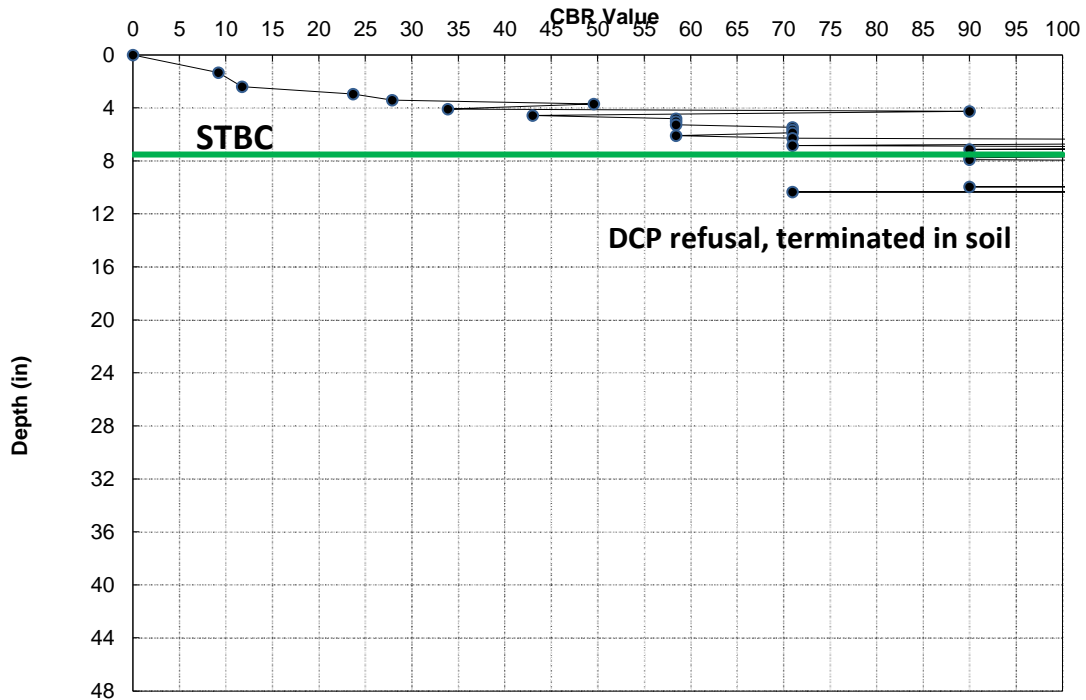


C-16 L1_WB Sta. 54+79 WB ISL 6.5 FT RT FY **16**

Datum = STBC
RAW
Cut
10/01/21

Interval	
0.0	to 7.5
# of Values	26
Avg CBR	87.8
Wghtd Avg.	47.3
Max CBR	100+
Min CBR	9.2

Interval	
7.5	to 12.6
# of Values	88
Avg CBR	100+
Wghtd Avg.	100+
Max CBR	100+
Min CBR	70.9



**CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT**

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

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

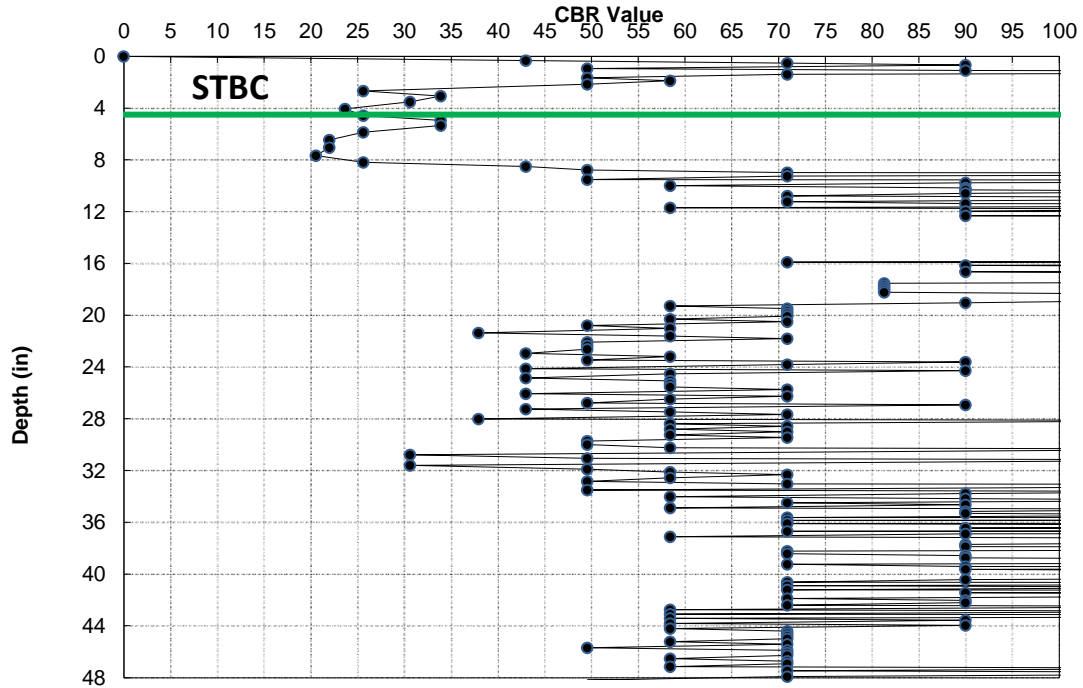
FILE	I2513AA_AB DCP Graphs
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C-17 L1_WB Sta. 54+79 WB OSL 3.4 FT LT FW **17**

Datum = STBC
RAW
Cut
10/01/21

Interval	
0.0	to 4.6
# of Values	15
Avg CBR	60.0
Wghtd Avg.	44.6
Max CBR	100+
Min CBR	23.7

Interval	
4.6	to 48.3
# of Values	258
Avg CBR	100+
Wghtd Avg.	83.1
Max CBR	100+
Min CBR	20.5

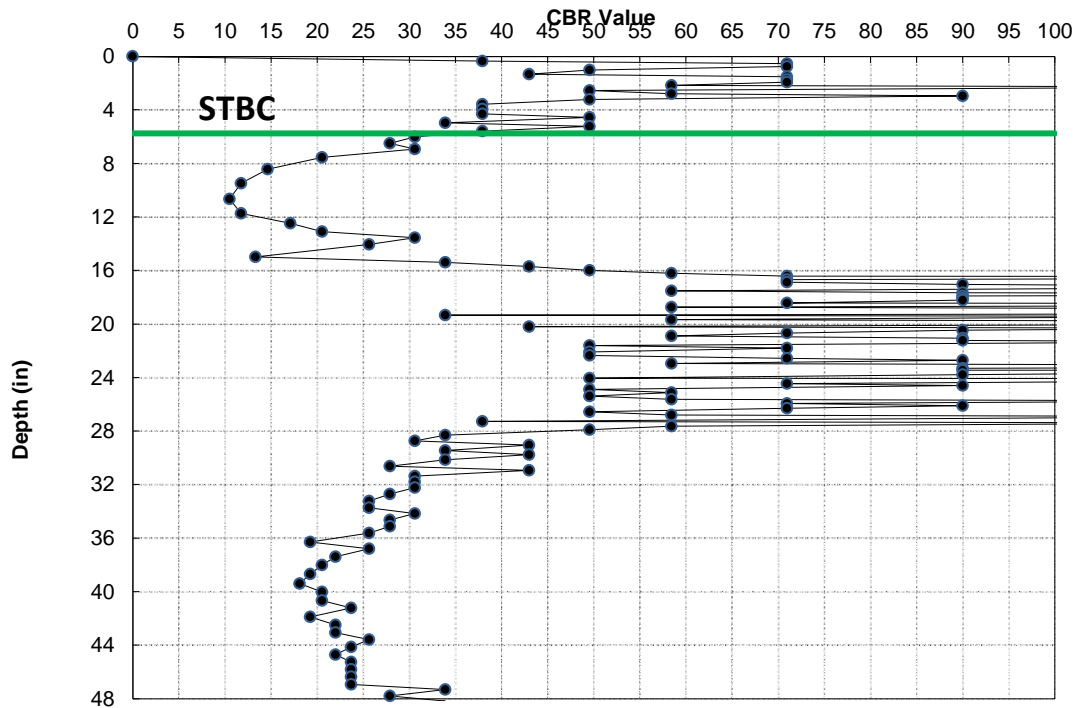


C-18 L1_WB Sta. 54+80 WB OSS 5.5 FT RT FW **18**

Datum = STBC
RAW
Cut
10/01/21

Interval	
0.0	to 5.6
# of Values	21
Avg CBR	57.0
Wghtd Avg.	51.4
Max CBR	100+
Min CBR	33.9

Interval	
5.6	to 55.5
# of Values	140
Avg CBR	64.1
Wghtd Avg.	37.7
Max CBR	100+
Min CBR	10.5



**CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT**

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

GEOLOGIST	L. M. Howard
GEOTECHS	CG2

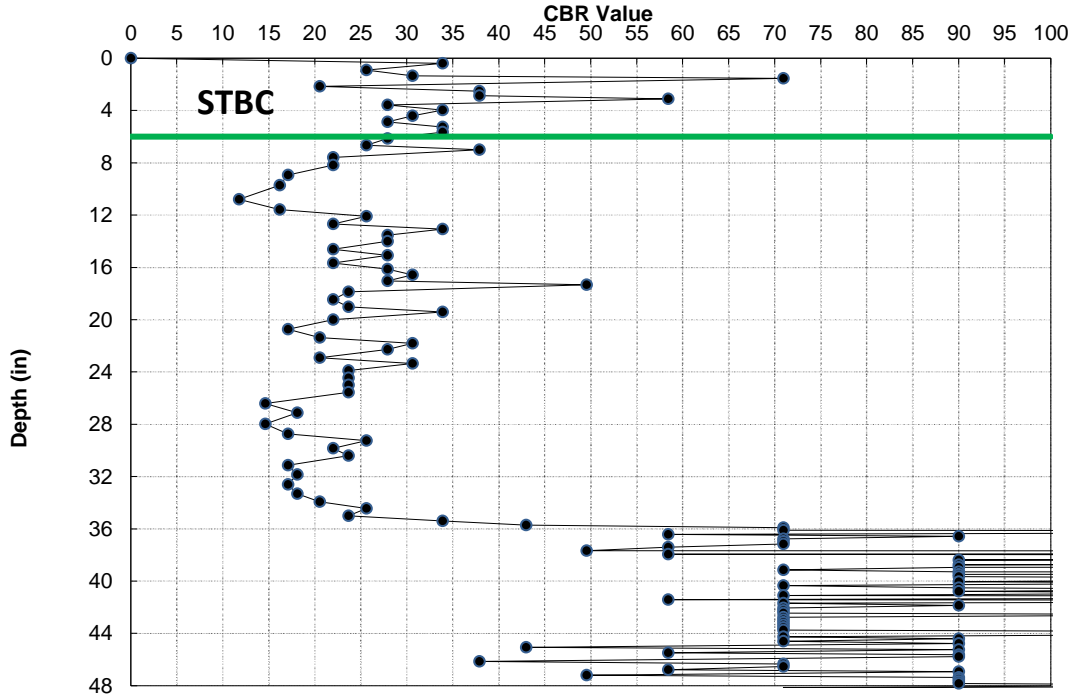
FILE	I2513AA_AB DCP Graphs
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C-19 RPDB Sta. 14+83 WB ISS

Datum = STBC
RAW
Cut
10/01/21

Interval	
0.0	to 6.1
# of Values	15
Avg CBR	35.5
Wghtd Avg.	32.5
Max CBR	70.9
Min CBR	20.5

Interval	
6.1	to 50.5
# of Values	143
Avg CBR	79.1
Wghtd Avg.	43.7
Max CBR	100+
Min CBR	11.8

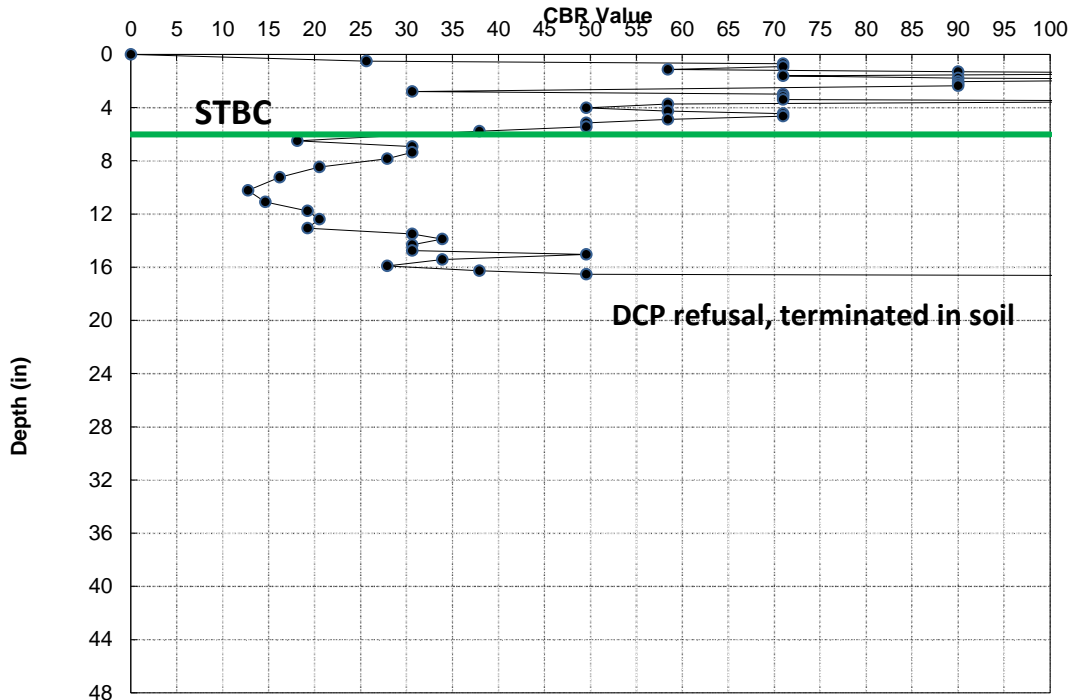


C-20 L1_WB Sta. 59+80 WB OSS 1.8 FT RT FW

Datum = STBC
RAW
Cut
10/01/21

Interval	
0.0	to 5.8
# of Values	26
Avg CBR	71.6
Wghtd Avg.	44.6
Max CBR	100+
Min CBR	25.6

Interval	
5.8	to 18.3
# of Values	78
Avg CBR	100+
Wghtd Avg.	87.9
Max CBR	100+
Min CBR	12.8

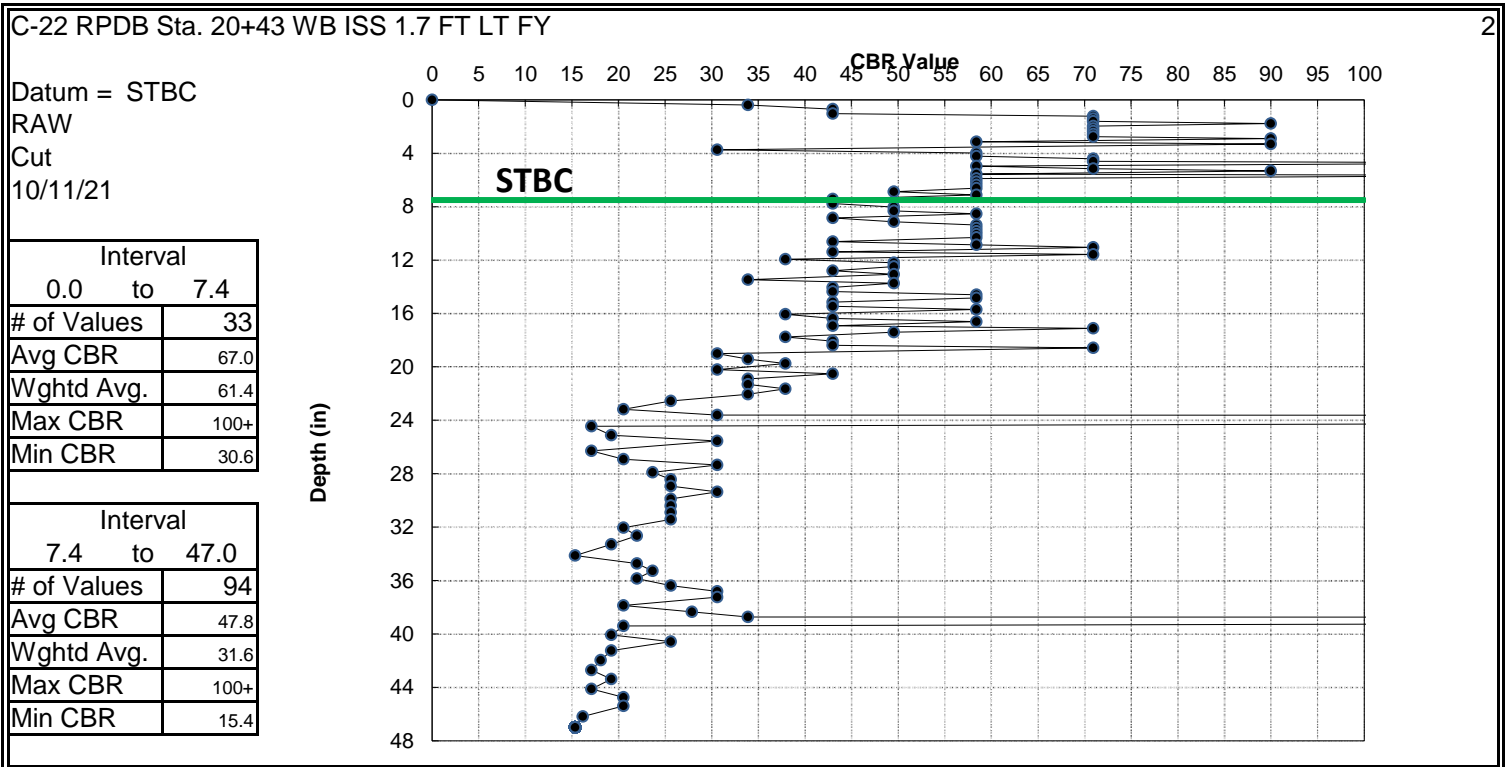
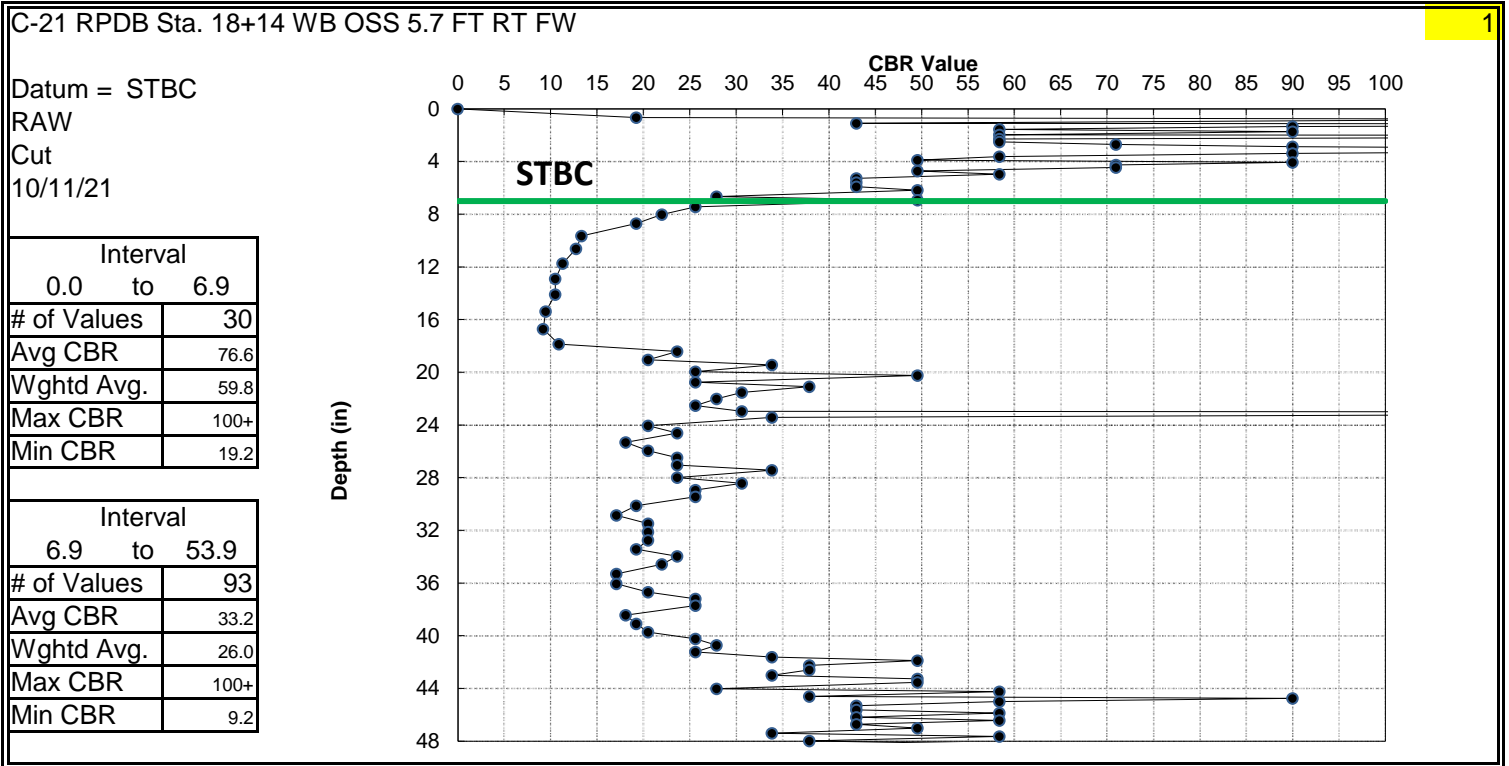


**CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT**

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
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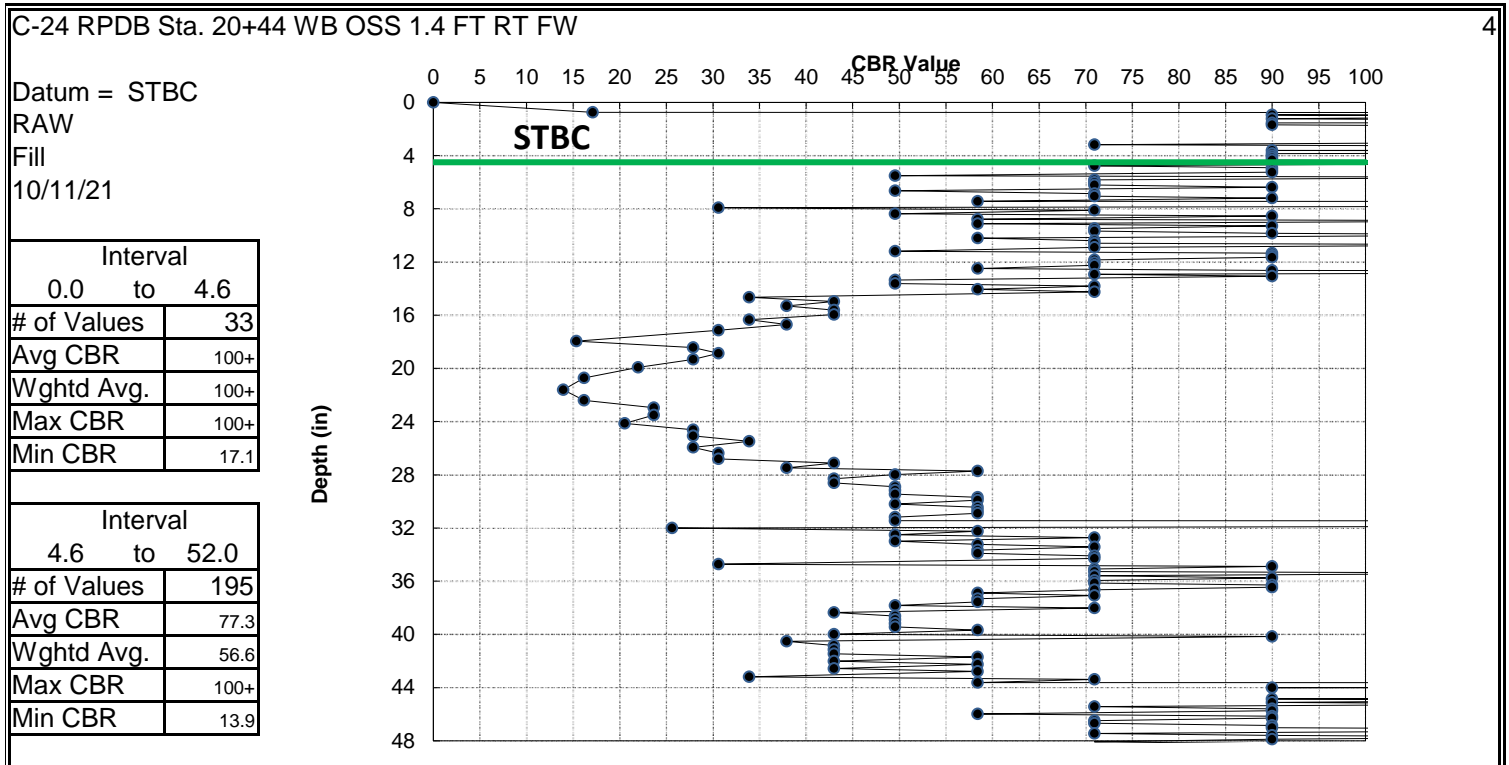
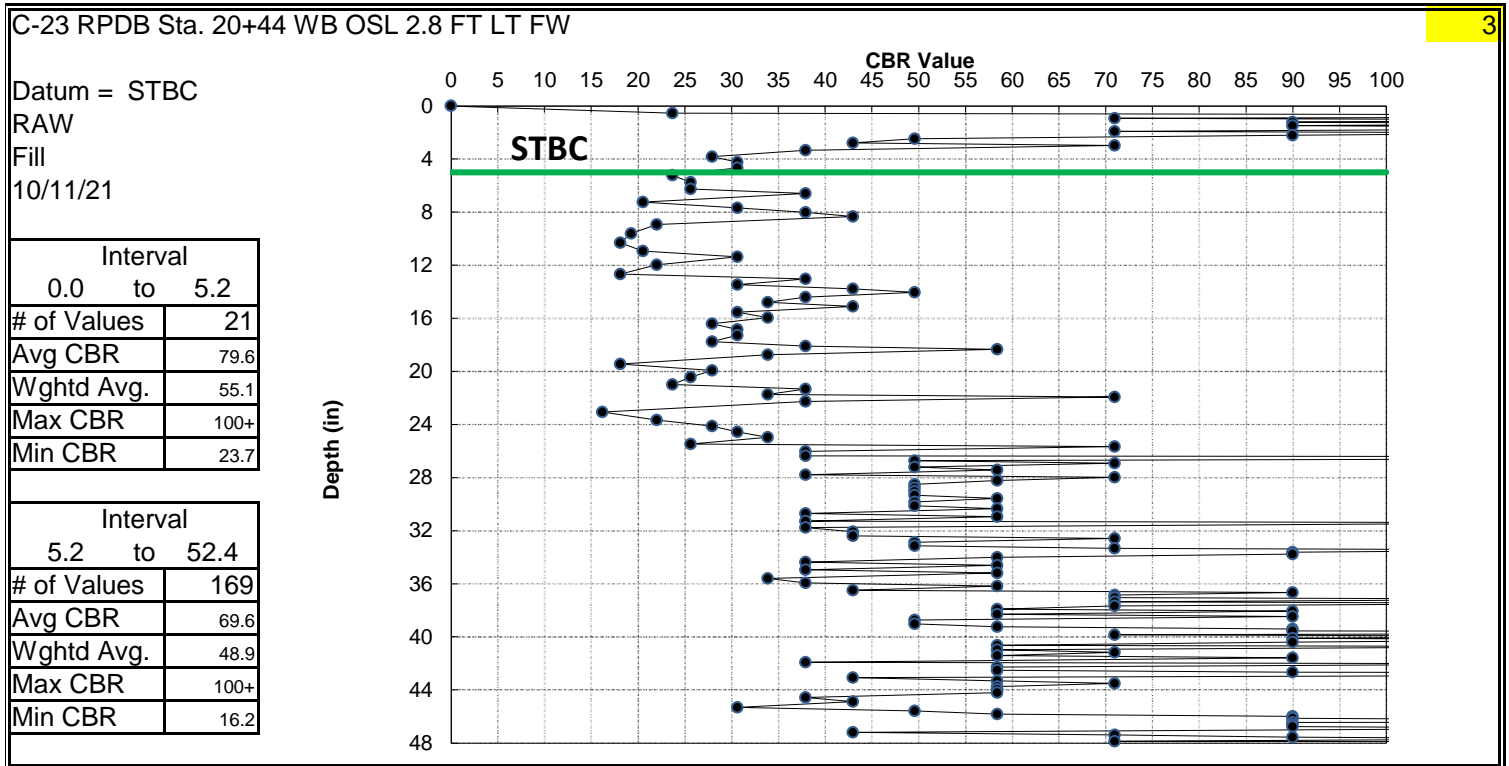


**CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT**

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
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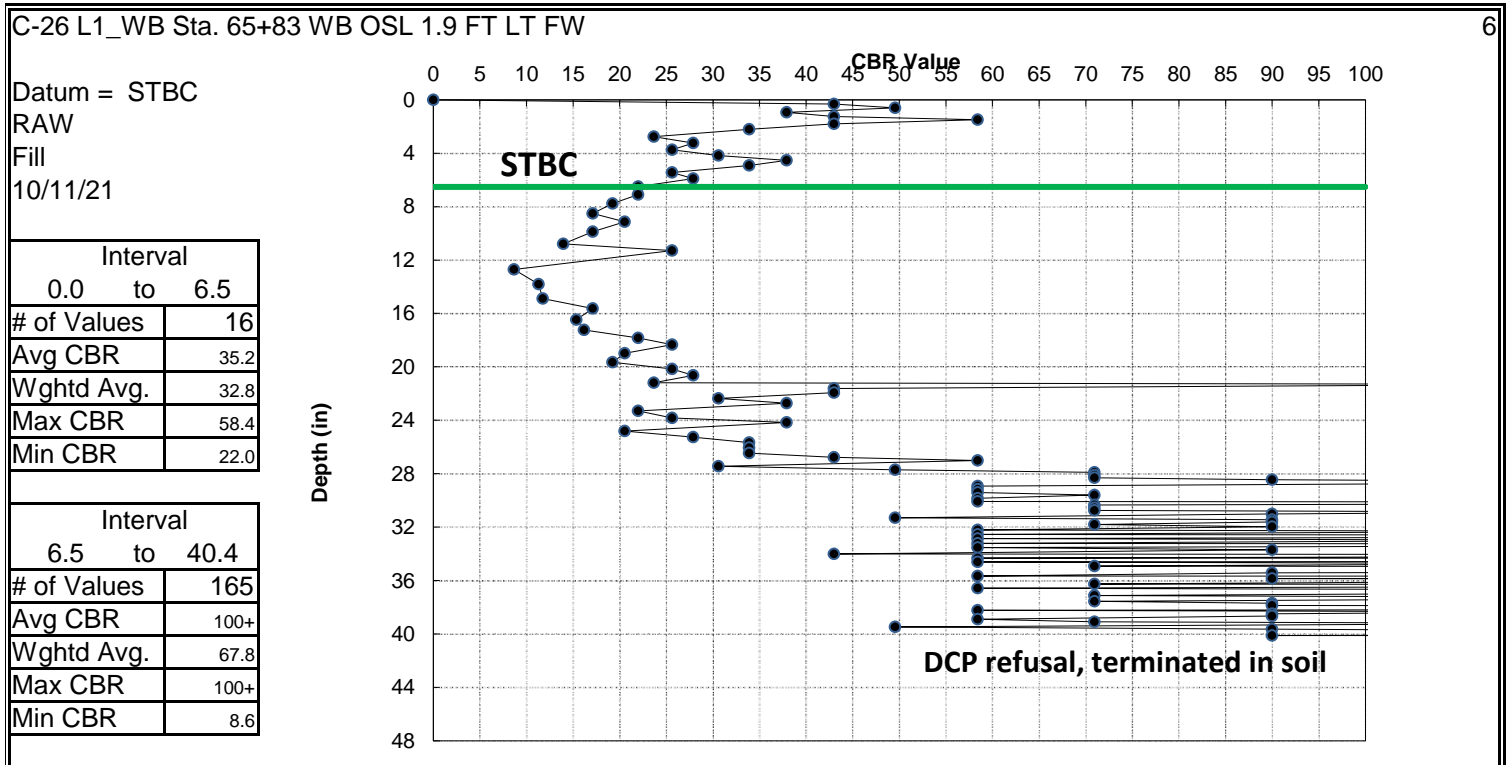
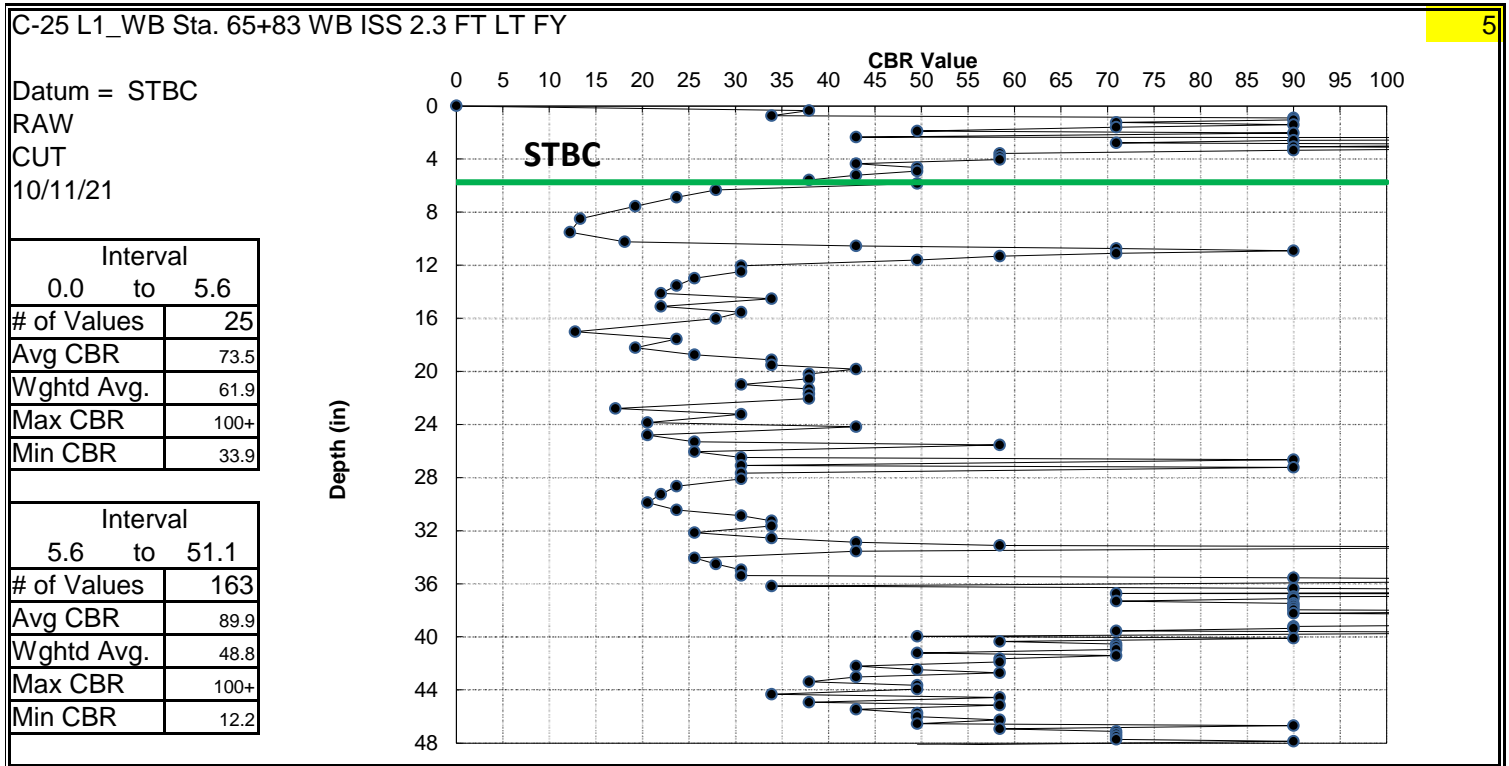


**CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT**

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
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**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
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C-27 L1_WB Sta. 65+83 WB OSS 5.2 FT RT FW

Datum = STBC

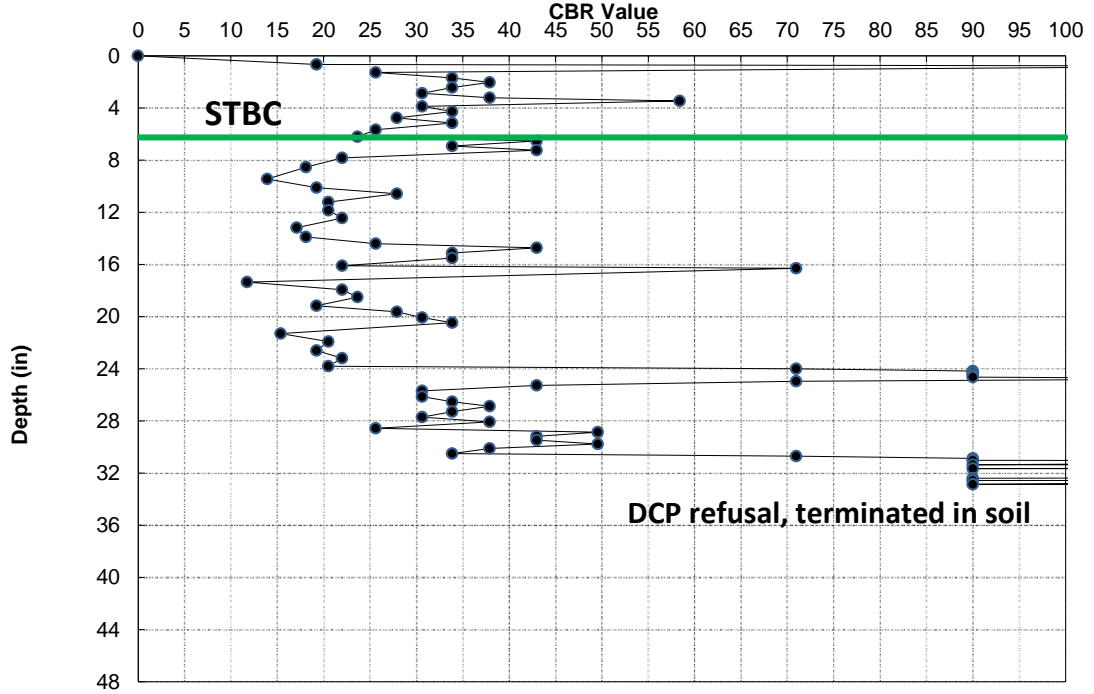
RAW

Fill

10/11/21

Interval	
0.0	to 6.2
# of Values	15
Avg CBR	38.4
Wghtd Avg.	32.1
Max CBR	100+
Min CBR	19.2

Interval	
6.2	to 34.2
# of Values	129
Avg CBR	100+
Wghtd Avg.	63.9
Max CBR	100+
Min CBR	11.8

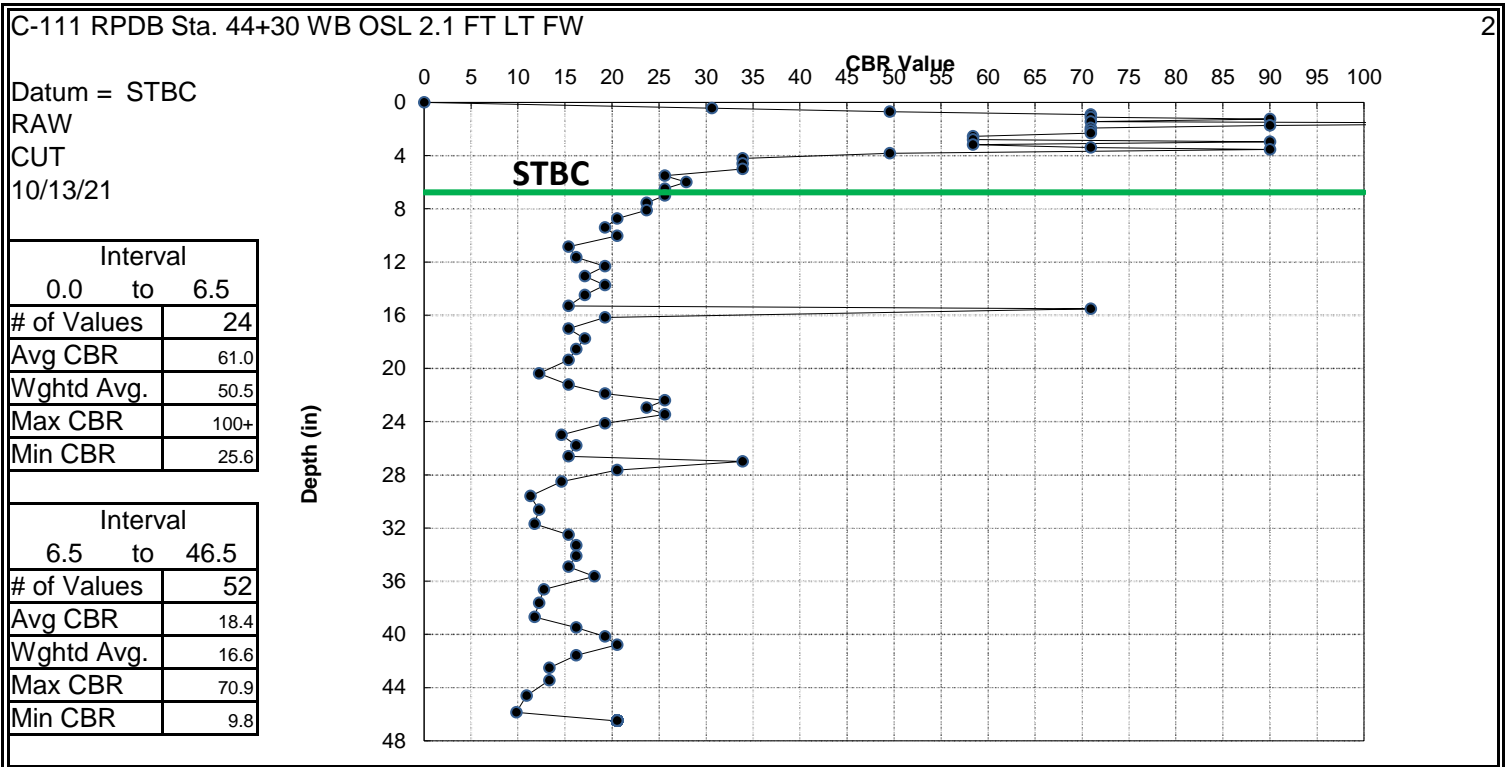
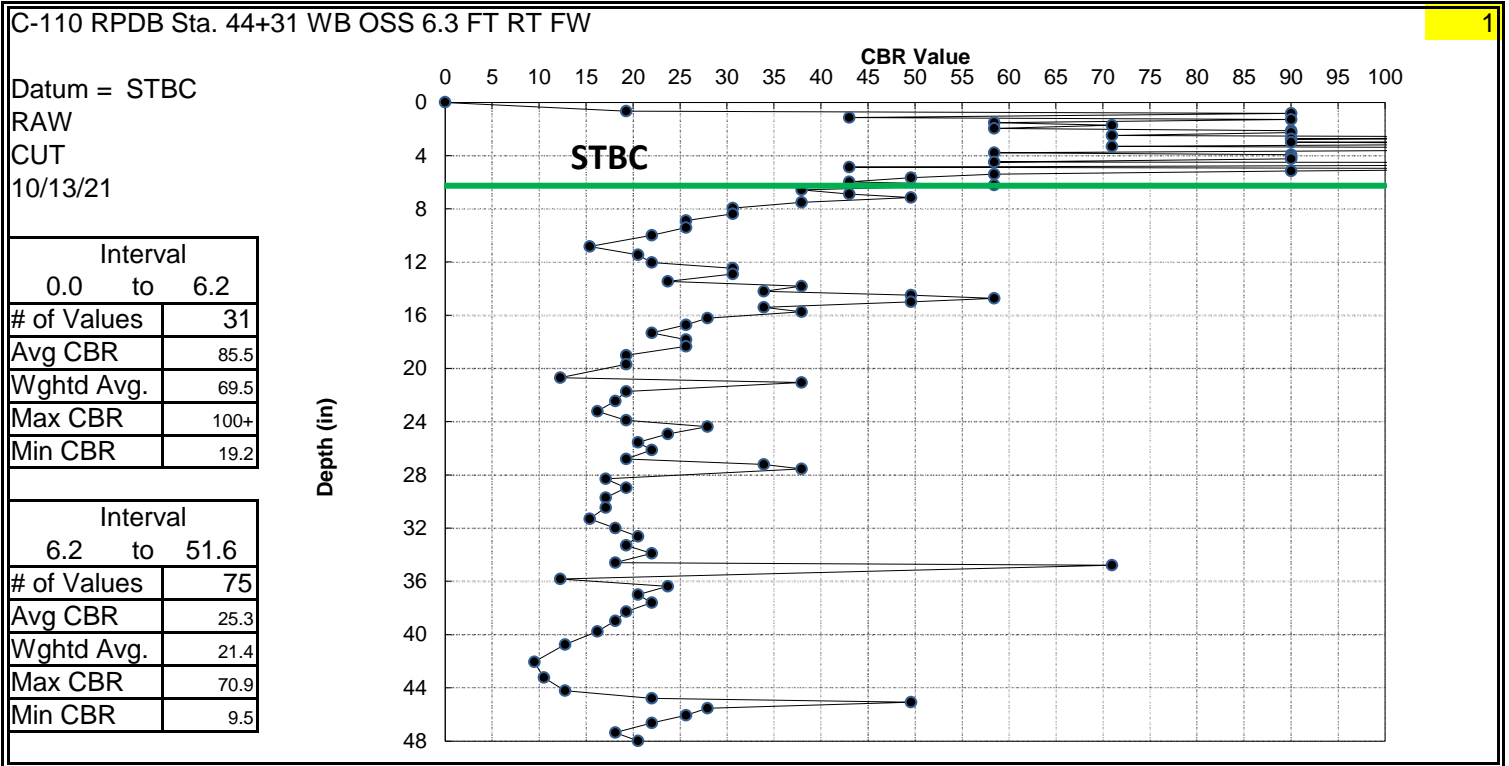


**CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT**

PROJECT NO.	34165.1.6
PROJECT ID	I-2513AB
ROUTE	-RPDB-, -Y5 RPB-
COUNTY	BUNCOMBE

GEOLOGIST	J. B. BARFIELD
GEOTECHS	CG2

FILE	I-2513_DCP_Graphs_7
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**CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT**

PROJECT NO.	34165.1.6
PROJECT ID	I-2513AB
ROUTE	-RPDB-, -Y5 RPB-
COUNTY	BUNCOMBE

GEOLOGIST	J. B. BARFIELD
GEOTECHS	CG2

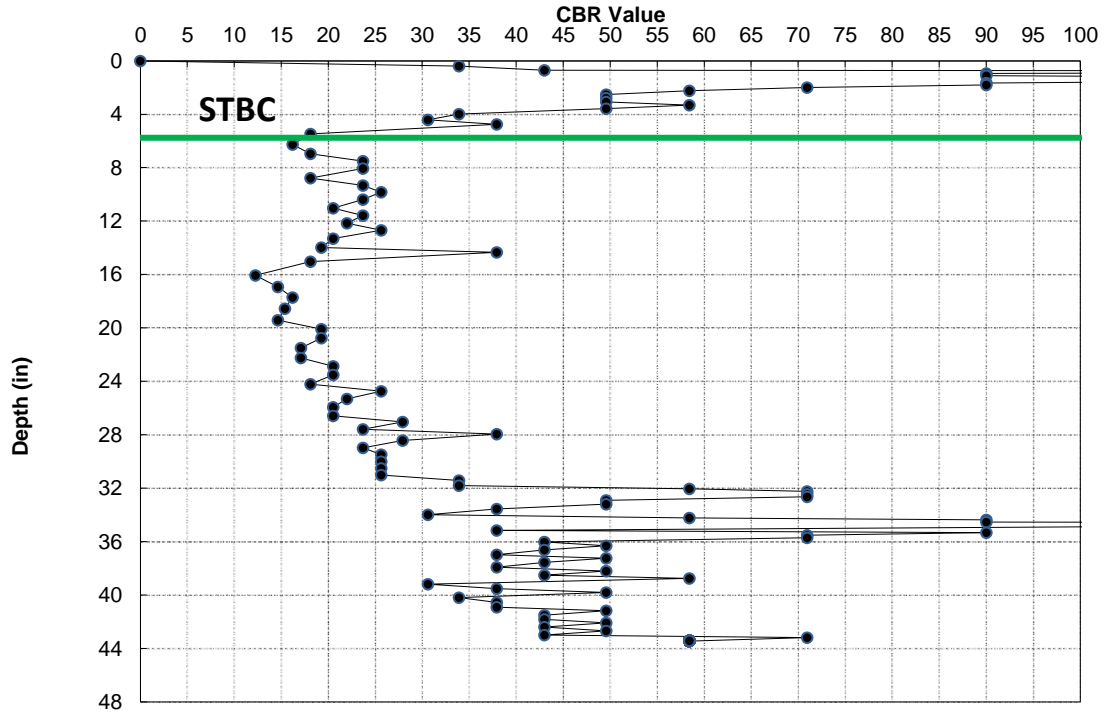
FILE	I-2513_DCP_Graphs_7
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C-112 RPDB Sta. 44+30 WB ISL 5.4 FT RT FY

Datum = STBC
RAW
CUT
10/13/21

Interval	
0.0	to 5.5
# of Values	22
Avg CBR	86.0
Wghtd Avg.	55.3
Max CBR	100+
Min CBR	18.1

Interval	
5.5	to 43.4
# of Values	86
Avg CBR	41.2
Wghtd Avg.	30.0
Max CBR	100+
Min CBR	12.2

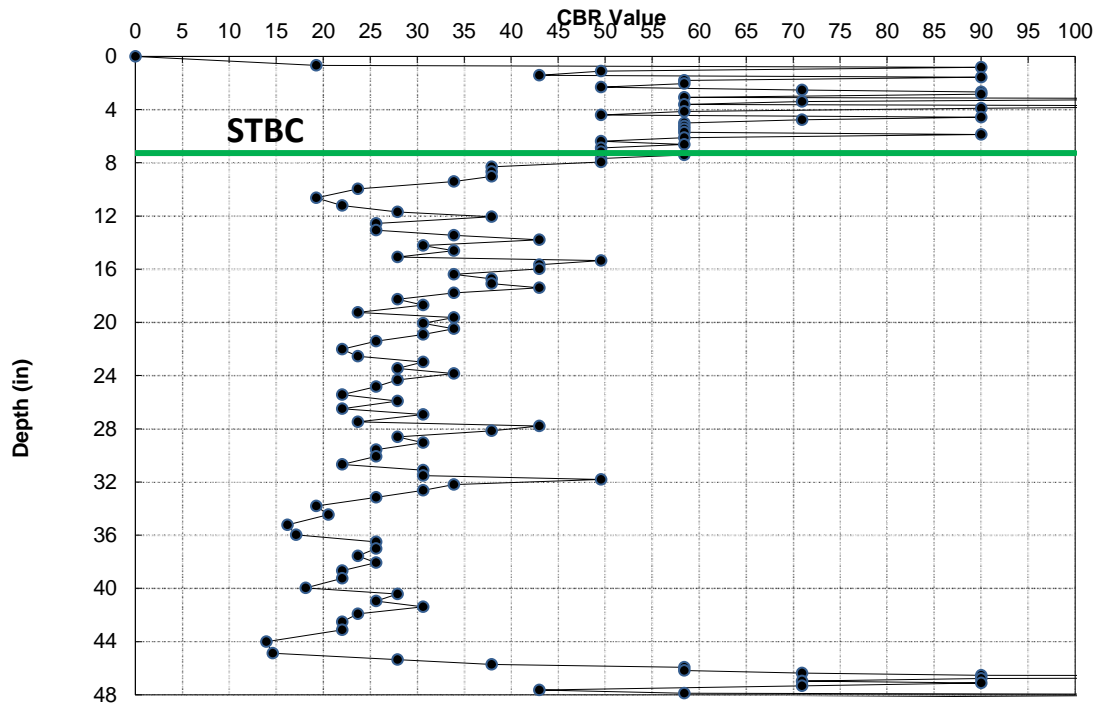


C-113 RPDB Sta. 44+30 WB ISS 1.7 FT LT FY

Datum = STBC
RAW
CUT
10/13/21

Interval	
0.0	to 7.2
# of Values	31
Avg CBR	67.4
Wghtd Avg.	59.8
Max CBR	100+
Min CBR	19.2

Interval	
7.2	to 51.0
# of Values	102
Avg CBR	37.3
Wghtd Avg.	30.8
Max CBR	100+
Min CBR	13.9



**CONE PENETROMETER RESULTS
NCDOT, GEOTECHNICAL ENGINEERING UNIT**

PROJECT NO.	34165.1.6
PROJECT ID	I-2513AB
ROUTE	-RPDB-, -Y5 RPB-
COUNTY	BUNCOMBE

GEOLOGIST	J. B. BARFIELD
GEOTECHS	CG2

FILE	I-2513_DCP_Graphs_7
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C-81 Y5RPB Sta. 14+04 WB RAMP OSS 6.8 FT RT FW

Datum = STBC

RAW

FILL

10/11/21

Interval	
0.0	to 4.5
# of Values	17
Avg CBR	53.6
Wghtd Avg.	51.9
Max CBR	70.9
Min CBR	33.9

Interval	
4.5	to 30.0
# of Values	51
Avg CBR	30.8
Wghtd Avg.	26.3
Max CBR	90.0
Min CBR	12.8

