STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

May 6, 2021

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

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

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

DocuSigned by:
John Pilipchuk
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STATE PROJECT: 47533.1.3 (I-5987B) Turnkey

COUNTY: Robeson

DESCRIPTION: I-95 Improvements from South of NC 20 to South of Proposed I-295

SUBJECT: Pavement and Subgrade Inventory

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

I-5987 Pavement and Subgrade Inventory report has been divided into reports for I-5987A and I-5987B. Project limits of I-5987 were modified from the original request and are shown in this report.

JLP/JBB

ATTACHMENT 1: Pavement and Subgrade Inventory 130

cc: Scott Pridgen

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Website: www.ncdot.gov

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5987B	1	130

REFERENCE: I-5987B

PROJECT: 47533.1.3

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

ROADWAY SUBSURFACE INVESTIGATION

COUNTY *ROBESON*

PROJECT DESCRIPTION *I-95 FROM SOUTH OF NC 20 TO SOUTH OF PROPOSED I-295*

PAVEMENT AND SUBGRADE INVENTORY

CONTENTS

CAUTION NOTICE

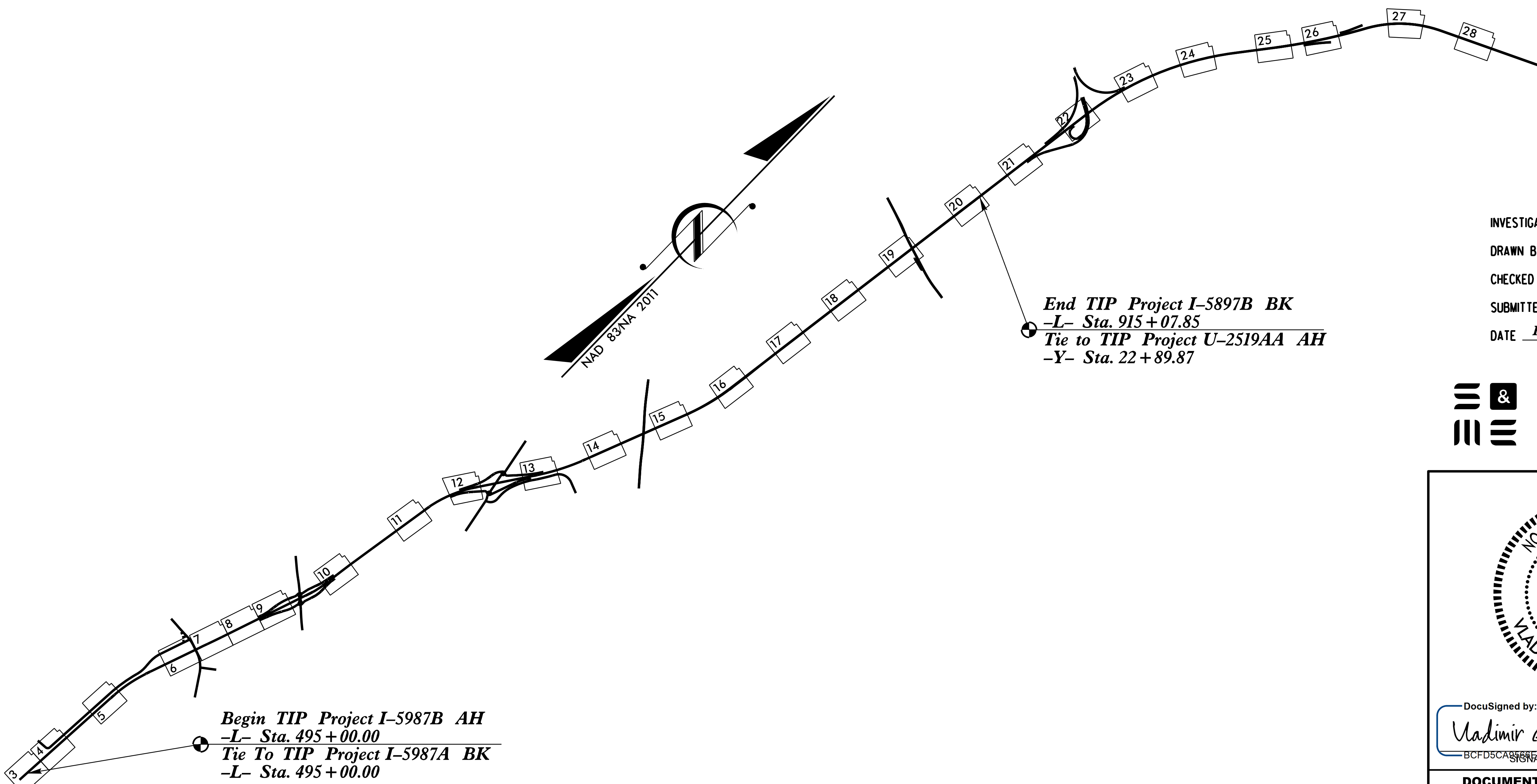
THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N. C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT (919) 707-6850. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA ARE NOT PART OF THE CONTRACT.

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

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

NOTES:

1. THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N. C. DEPARTMENT OF TRANSPORTATION AS ACCURATE NOR IS IT CONSIDERED PART OF THE PLANS, SPECIFICATIONS OR CONTRACT FOR THE PROJECT.
2. BY HAVING REQUESTED THIS INFORMATION, THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.



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DATE *FEBRUARY 2021*

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DocuSigned by:

Vladimir G. Mitchev 5/6/2021

BCFD5CA9... SIGNATURE DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION

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

SOIL LEGEND AND AASHTO CLASSIFICATION

GENERAL CLASS.	GRANULAR MATERIALS (≤ 35% PASSING #200)								SILT-CLAY MATERIALS (> 35% PASSING #200)				ORGANIC MATERIALS		
GROUP CLASS.	A-1		A-3	A-2					A-4	A-5	A-6	A-7	A-1, A-2 A-3	A-4, A-5 A-6, A-7	
	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7					A-7-5, A-7-6			
SYMBOL															
% PASSING #10	50 MX														
#40	30 MX	50 MX	51 MN												
#200	15 MX	25 MX	10 MX	35 MX	35 MX	35 MX	35 MX		36 MN	36 MN	36 MN	36 MN	GRANULAR SOILS	SILT-CLAY SOILS	MUCK, PEAT
MATERIAL PASSING #40 LL	—		—	40 MX	41 MN	40 MX	41 MN		40 MX	41 MN	40 MX	41 MN	SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER		HIGHLY ORGANIC SOILS
PI	6 MX		NP	10 MX	10 MX	11 MN	11 MN		10 MX	10 MX	11 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	UNSUITABLE

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

CONSISTENCY OR DENSENESS

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

TEXTURE OR GRAIN SIZE

U.S. STD. SIEVE SIZE	4	10	40	60	200	270
OPENING (MM)	4.76	2.00	0.42	0.25	0.075	0.053

BOULDER (BLDR.)	COBBLE (COB.)	GRAVEL (GR.)	COARSE SAND (CSE. SD.)	FINE SAND (F SD.)	SILT (SL.)	CLAY (CL.)

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

SOIL MOISTURE - CORRELATION OF TERMS

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

PLASTICITY

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

COLOR

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

GRADATION

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

ANGULARITY OF GRAINS

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

MINERALOGICAL COMPOSITION

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

COMPRESSIBILITY

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

PERCENTAGE OF MATERIAL

ORGANIC MATERIAL	GRANULAR SOILS	SILT - CLAY SOILS	OTHER MATERIAL	
TRACE OF ORGANIC MATTER	2 - 3%	3 - 5%	TRACE	1 - 10%
LITTLE ORGANIC MATTER	3 - 5%	5 - 12%	LITTLE	10 - 20%
MODERATELY ORGANIC	5 - 10%	12 - 20%	SOME	20 - 35%
HIGHLY ORGANIC	> 10%	> 20%	HIGHLY	35% AND ABOVE

GROUND WATER

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

MISCELLANEOUS SYMBOLS

- ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION
- SOIL SYMBOL
- ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT
- INFERRED SOIL BOUNDARY
- INFERRED ROCK LINE
- ALLUVIAL SOIL BOUNDARY
- 25/025 — DIP & DIP DIRECTION OF ROCK STRUCTURES
- SPT / CPT / DMT / VST / PMT — TEST BORING
- AUGER BORING
- CORE BORING
- MW — MONITORING WELL
- PIEZOMETER INSTALLATION
- SLOPE INDICATOR INSTALLATION
- CONE PENETROMETER TEST
- SOUNDING ROD
- TEST BORING WITH CORE
- SPT N-VALUE

RECOMMENDATION SYMBOLS

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

ABBREVIATIONS

AR - AUGER REFUSAL
BT - BORING TERMINATED
CL. - CLAY
CPT - CONE PENETRATION TEST
CSE. - COARSE
DMT - DILATOMETER TEST
DPT - DYNAMIC PENETRATION TEST
e - VOID RATIO
F - FINE
FOSS. - FOSSILIFEROUS
FRAC. - FRACTURED, FRACTURES
FRAGS. - FRAGMENTS
HI. - HIGHLY
MED. - MEDIUM
MICA. - MICACEOUS
MOD. - MODERATELY
NP - NON PLASTIC
ORG. - ORGANIC
PMT - PRESSUREMETER TEST
SAP. - SAPROLITIC
SD. - SAND, SANDY
SL. - SILT, SILTY
SLI. - SLIGHTLY
TCR - TRICONE REFUSAL
w - MOISTURE CONTENT
V - VERY
VST - VANE SHEAR TEST
WEA. - WEATHERED
γ - UNIT WEIGHT
γ_d - DRY UNIT WEIGHT

SAMPLE ABBREVIATIONS

S - BULK
SS - SPLIT SPOON
ST - SHELBY TUBE
RS - ROCK
RT - RECOMPACTED TRIAXIAL
CBR - CALIFORNIA BEARING RATIO

EQUIPMENT USED ON SUBJECT PROJECT

DRILL UNITS:
- [X] CME-45
- [X] CME-55
- [ ] CME-550
- [ ] VANE SHEAR TEST
- [ ] PORTABLE HOIST
- [ ] _____
- [ ] _____

ADVANCING TOOLS:
- [ ] CLAY BITS
- [ ] 6" CONTINUOUS FLIGHT AUGER
- [ ] 8" HOLLOW AUGERS
- [ ] HARD FACED FINGER BITS
- [ ] TUNG.-CARBIDE INSERTS
- [ ] CASING [ ] W/ ADVANCER
- [ ] TRICONE _____" STEEL TEETH
- [ ] TRICONE _____" TUNG.-CARB.
- [X] CORE BIT (4.0 INCH)
- [X] 3.5 inch auger

HAMMER TYPE:
- [ ] AUTOMATIC [ ] MANUAL

CORE SIZE:
- [ ] -B _____ [ ] -H _____
- [ ] -N _____

HAND TOOLS:
- [ ] POST HOLE DIGGER
- [ ] HAND AUGER
- [ ] SOUNDING ROD
- [ ] VANE SHEAR TEST
- [ ] _____

ROCK DESCRIPTION

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

WEATHERED ROCK (WR)	NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT N VALUES > 100 BLOWS PER FOOT IF TESTED.
CRYSTALLINE ROCK (CR)	FINE TO COARSE GRAIN IGNEOUS AND METAMORPHIC ROCK THAT WOULD YIELD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES GRANITE, GNEISS, GABBRO, SCHIST, ETC.
NON-CRYSTALLINE ROCK (NCR)	FINE TO COARSE GRAIN METAMORPHIC AND NON-COASTAL PLAIN SEDIMENTARY ROCK THAT WOULD YEILD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES PHYLLITE, SLATE, SANDSTONE, ETC.
COASTAL PLAIN SEDIMENTARY ROCK (CP)	COASTAL PLAIN SEDIMENTS CEMENTED INTO ROCK, BUT MAY NOT YIELD SPT REFUSAL. ROCK TYPE INCLUDES LIMESTONE, SANDSTONE, CEMENTED SHELL BEDS, ETC.

WEATHERING

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

ROCK HARDNESS

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

FRACTURE SPACING

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

BEDDING

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

INDURATION

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

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

TERMS AND DEFINITIONS

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

AQUIFER - A WATER BEARING FORMATION OR STRATA.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BENCH MARK:

ELEVATION: FEET

NOTES:

NB - Northbound Lane	OSS - Outside Shoulder
SB - Southbound Lane	ISS - Inside Shoulder
OSL - Outside Lane	GM - Grass Median
ISL - Inside Lane	OGS - Outside Grass Shoulder
CL - Center Lane	PS - Paved Shoulder
LTL - Left Turn Lane	RT LN - Right LN
CTL - Center Turn Lane	LT LN - Left Lane
RTL - Right Turn Lane	COL - Collector Lane
DECEL - Deceleration Lane	RT - Right
ACCEL - Acceleration Lane	LT - Left

DATE: 8-15-14

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	3
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE -L- STA. 489+00

MATCHLINE -L- STA. 502+00 SEE SHEET 4

$$$$SYSTIME$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE –L– STA. 502+00 SEE SHEET 03

MATCHLINE –L– STA. 514+00

N 85°38'00" E

505

15

20

50

NAD 83

–L– 508+50 SB OSS		–L– 508+50 SB ISL		–L– 508+50 SB ISS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	7"	Asphalt	11.5"	Asphalt	7.5"
STBC	7"	STBC	1"	STBC	5"

N 4°03'14.3" E
–SR4–

Y=375741.9928
X=2001394.3395
–L– 508+50 SB OSS

Y=375740.1321
X=2001420.5919
–L– 508+50 SB ISL
–L– 508+50 SB ISS

Y=375739.6979
X=2001426.7175

–L–
N 4°03'14.3" E

Y=375735.6461
X=2001483.8833
–L– 508+50 NB ISS

Y=375734.2388
X=2001503.7374
–L– 508+50 NB OSL
–L– 508+50 NB OSS

Y=375733.5477
X=2001513.4887

–L– 508+50 NB ISS		–L– 508+50 NB OSL		–L– 508+50 NB OSS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	7.5"	Asphalt	12"	Asphalt	7"
STBC	4"	STBC	4"	STBC	–

$$$$$$$$SYSTIME$$$$$$
$$$$$$$$USERNAME$$$$$$
$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

-L- 535+25 SB OSS		-L- 535+25 SB OSL		-L- 535+25 SB ISS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	7.5"	Asphalt	12"	Asphalt	8"
STBC	8"	STBC	8"	STBC	8"

-L- 535+20 NB ISS		-L- 535+20 NB ISL		-L- 535+20 NB OSS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	8"	Asphalt	11.5"	Asphalt	7"
STBC	–	STBC	3.5"	STBC	4"

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE –L– STA. 561+00

–L– 562+00 SB OSS	
Pavement Structure	
Asphalt	7"
STBC	7"

–L– 562+00 SB ISL	
Pavement Structure	
Asphalt	12"
STBC	4"

–L– 562+00 SB ISS	
Pavement Structure	
Asphalt	7"
STBC	6"

–L– 572+20 SB ISS	
Pavement Structure	
Asphalt	4"
STBC	4"

–L– 562+00 NB ISS	
Pavement Structure	
Asphalt	7.75"
STBC	–

–L– 562+00 NB OSL	
Pavement Structure	
Asphalt	12"
STBC	3.5"

–L– 562+00 NB OSS	
Pavement Structure	
Asphalt	8"
STBC	3.5"

MATCHLINE –L– STA. 574+00 SEE SHEET 7

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	7

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE -L- STA. 574+00 SEE SHEET 6

-L- 581+70 SB OSS		-L- 581+70 SB OSL	
Pavement Structure		Pavement Structure	
Asphalt	8"	Asphalt	13"
STBC	12"	STBC	3"

MATCHLINE -L- STA. 587+00 SEE SHEET 8

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE –L– STA. 587+00 SEE SHEET 7

MATCHLINE –L– STA. 600+00 SEE SHEET 9

–L– 596+90 SB OSS		–L– 596+90 SB ACCEL	
Pavement Structure		Pavement Structure	
Asphalt	14″	Asphalt	11.5″
STBC	–	STBC	–

–L– 596+90 NB ISS		–L– 596+90 NB ISL		–L– 596+90 NB OSS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	8″	Asphalt	11″	Asphalt	7″
STBC	–	STBC	4.5″	STBC	4″

$$$$$$$$SYSTIME$$$$$$
$$$$$$$$USERNAME$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE -L- STA. 600+00 SEE SHEET 8

-L- 610+70 SB ISL		-L- 610+70 SB ISS	
Pavement Structure		Pavement Structure	
Asphalt	11"	Asphalt	7"
STBC	4"	STBC	2"

-L- 600+90 NB DECEL		-L- 600+90 NB OSS	
Pavement Structure		Pavement Structure	
Asphalt	11"	Asphalt	7.5"
STBC	4"	STBC	6"

-L- 610+70 NB ISS		-L- 610+70 NB OSL		-L- 610+70 NB OSS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	7.5"	Asphalt	11.25"	Asphalt	8.25"
STBC	–	STBC	2.75"	STBC	2.75"

MATCHLINE -L- STA. 613+00

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	10

RW SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

–L– 628+05 SB GORE	
Pavement Structure	
Asphalt	6"
STBC	–

–L– 637+95 SB OSS	
Pavement Structure	
Asphalt	6"
STBC	4"

–L– 637+95 SB ISL	
Pavement Structure	
Asphalt	11"
STBC	6"

–L– 637+95 SB ISS	
Pavement Structure	
Asphalt	7"
STBC	10"

–L– 636+50 NB ISS	
Pavement Structure	
Asphalt	6.5"
STBC	–

–L– 636+50 NB ISL	
Pavement Structure	
Asphalt	11"
STBC	4"

–L– 636+50 NB ACCEL	
Pavement Structure	
Asphalt	11"
STBC	–

–L– 636+50 NB OSS	
Pavement Structure	
Asphalt	11"
STBC	–

5/14/99

$$$$$SYSTIME$$$$$
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$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	11

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

-L- 666+40 SB OSS		-L- 666+40 SB ISL		-L- 666+40 SB ISS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	7"	Asphalt	11.75"	Asphalt	6.5"
STBC	2"	STBC	3"	STBC	11"

-L- 666+40 NB ISS		-L- 666+40 NB OSL		-L- 666+40 NB OSS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	8.5"	Asphalt	11"	Asphalt	6"
STBC	3.5"	STBC	4.5"	STBC	4"

$$$$$$SYSTIME$$$$
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$$$$USERNAME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

–L– 688+25 SB OSS		–L– 688+25 SB OSL		–L– 688+25 SB ACCEL		–L– 688+25 SB ISS	
Pavement Structure		Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	15.5"	Asphalt	15"	Asphalt	15.5"	Asphalt	8.5"
STBC	1"	STBC	4"	STBC	0.5"	STBC	–

–L– 689+00 NB ISS		–L– 689+00 NB ISL		–L– 689+00 NB DECEL		–L– 689+00 NB OSS	
Pavement Structure		Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	13.5"	Asphalt	16"	Asphalt	14.25"	Asphalt	8"
STBC	5.5"	STBC	3.5"	STBC	2.5"	STBC	5"

$$$$$$$SYSTIME$$$$$$
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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	13

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

–L– 719+30 SB OSS	
Pavement Structure	
Asphalt	6.5"
STBC	3"

–L– 719+30 SB ISL	
Pavement Structure	
Asphalt	11.5"
STBC	5.5"

–L– 719+30 SB ISS	
Pavement Structure	
Asphalt	7.5"
STBC	5"

–L– 719+25 NB ISS	
Pavement Structure	
Asphalt	8.5"
STBC	–

–L– 719+25 NB OSL	
Pavement Structure	
Asphalt	11.25"
STBC	3.75"

–L– 719+25 NB ACCEL	
Pavement Structure	
Asphalt	13.25"
STBC	–

–L– 719+25 NB OSS	
Pavement Structure	
Asphalt	15.5"
STBC	–

$$$$$$SYSTIME$$$$$
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$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	14

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

MATCHLINE -L- STA. 739+00

-L- 745+65 SB OSS		-L- 745+65 SB OSL		-L- 745+65 SB ISS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	7.25"	Asphalt	12.75"	Asphalt	7.5"
STBC	3.75"	STBC	4.25"	STBC	11"

-L- 745+55 NB ISS		-L- 745+55 NB ISL		-L- 745+55 NB OSS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	6.5"	Asphalt	12"	Asphalt	6.25"
STBC	–"	STBC	4"	STBC	–

MATCHLINE -L- STA. 752+00

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE –L– STA. 766+00

MATCHLINE –L– STA. 779+00

NAD 83

770

775

–L– 772+30 SB OSS	
Pavement Structure	
Asphalt	6.5″
STBC	–

–L– 772+30 SB ISL	
Pavement Structure	
Asphalt	12″
STBC	6″

–L– 772+30 SB ISS	
Pavement Structure	
Asphalt	8″
STBC	10″

X=2009419.0959
Y=400556.6209
-L- 772+30 SB OSS

X=2009441.1312
Y=400547.7293
-L- 772+30 SB ISL
-L- 772+30 SB ISS

X=2009448.3917
Y=400544.7996

-L-
N 21° 59' 00" E

-L-
N 21° 59' 00" E

X=2009508.9002
Y=400514.9919
-L- 772+25 NB ISS

X=2009526.1722
Y=400508.0224
-L- 772+25 NB OSL
-L- 772+25 NB OSS

X=2009536.9168
Y=400503.6868

–L– 772+25 NB ISS	
Pavement Structure	
Asphalt	7.75″
STBC	5″

–L– 772+25 NB OSL	
Pavement Structure	
Asphalt	12″
STBC	3.5″

–L– 772+25 NB OSS	
Pavement Structure	
Asphalt	6.5″
STBC	–

$$$$$$$SYSTIME$$$$$$
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PROJECT REFERENCE NO.	SHEET NO.
I-5987B	16

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

-L- 798+50 SB OSS		-L- 798+50 SB OSL		-L- 798+50 SB ISS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	6"	Asphalt	12"	Asphalt	8"
STBC	5"	STBC	3"	STBC	8"

-L- 798+50 NB ISS		-L- 798+50 NB ISL		-L- 798+50 NB OSS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	7.5"	Asphalt	12"	Asphalt	8"
STBC	5"	STBC	3"	STBC	–

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	17

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

MATCHLINE -L- STA. 819+00

-L- 825+00 SB OSS		-L- 825+00 SB ISL		-L- 825+00 SB ISS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	7"	Asphalt	12"	Asphalt	8"
STBC	2"	STBC	4"	STBC	4"

-L- 825+00 NB ISS		-L- 825+00 NB OSL		-L- 825+00 NB OSS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	7.75"	Asphalt	11.5"	Asphalt	7"
STBC	2"	STBC	4"	STBC	–

MATCHLINE -L- STA. 832+00

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE –L– STA. 845+00

MATCHLINE –L– STA. 858+00

NAD 83

850

855

–L– 851+90 SB OSS	
Pavement Structure	
Asphalt	7.5″
STBC	2″

–L– 851+90 SB OSL	
Pavement Structure	
Asphalt	14″
STBC	2″

–L– 851+90 SB ISS	
Pavement Structure	
Asphalt	8″
STBC	6.5″

X=2010950.9082
Y=408320.6355
–L– 851+90 SB OSS

X=2010964.3199
Y=408318.6625
–L– 851+90 SB OSL

X=2010984.1485
Y=408315.7454
–L– 851+90 SB ISS

–L–
N 8° 21' 30.0" E

X=2011015.1868
Y=408311.1792
–L– 851+90 NB ISS

X=2011022.8815
Y=408310.0472
–L– 851+90 NB ISL

–L– 851+90 NB OSS

X=2011043.9057
Y=408306.6079

–L– 851+90 NB ISS	
Pavement Structure	
Asphalt	7.5″
STBC	3″

–L– 851+90 NB ISL	
Pavement Structure	
Asphalt	11.5″
STBC	3.5″

–L– 851+90 NB OSS	
Pavement Structure	
Asphalt	7.25″
STBC	–

$$$$$$$$SYSTIME$$$$$
$$$$$$$$USERNAME$$$$$
$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L- 878+15 SB OSS		-L- 878+15 SB ISL		-L- 878+15 SB ISS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	6.5"	Asphalt	13.5"	Asphalt	7.75"
STBC	2"	STBC	5"	STBC	5.25"

-L- 878+20 NB ISS		-L- 878+20 NB OSL		-L- 878+20 NB OSS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	7"	Asphalt	12"	Asphalt	7"
STBC	2"	STBC	3.75"	STBC	–

$$$$$$SYSTIME$$$$$
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$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	20

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

–L– 904+75 SB OSS		–L– 904+75 SB OSL		–L– 904+75 SB ISS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	7.5"	Asphalt	13"	Asphalt	7.25"
STBC	2"	STBC	2"	STBC	5.5"

–L– 904+65 NB ISS		–L– 904+65 NB ISL		–L– 904+65 NB OSS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	6.5"	Asphalt	11.5"	Asphalt	7"
STBC	5.5"	STBC	4.5"	STBC	–

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE -L- STA. 928+00

-L- 934+95 SB OSS		-L- 934+95 SB ISL		-L- 934+95 SB ISS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	8.5"	Asphalt	14"	Asphalt	9.5"
STBC	2"	STBC	4.5"	STBC	3"

-L- 934+90 NB ISS		-L- 934+90 NB OSL		-L- 934+90 NB OSS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	6"	Asphalt	12.5"	Asphalt	7"
STBC	2"	STBC	4"	STBC	2"

MATCHLINE -L- STA. 941+00

$$$$$SYSTIME$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	22

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L- 961+00 SB OSS		-L- 961+00 SB OSL		-L- 961+00 SB ISS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	8″	Asphalt	13″	Asphalt	8″
STBC	4″	STBC	3″	STBC	6″

-L- 960+95 NB ISL		-L- 960+95 NB OSS	
Pavement Structure		Pavement Structure	
Asphalt	11.5″	Asphalt	7.5″
STBC	2.5″	STBC	2.5″

5/14/99

$$$$$$SYSTIME$$$$$
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$$$$USERNAME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L- 987+25 SB OSS	
Pavement Structure	
Asphalt	4.5"
STBC	7"

-L- 987+25 SB ISL	
Pavement Structure	
Asphalt	9.5"
STBC	4"

-L- 987+25 NB OSL	
Pavement Structure	
Asphalt	9"
STBC	4"

-L- 987+50 NB OSS	
Pavement Structure	
Asphalt	3.25"
STBC	2"

$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

–L– 1010+15 SB OSS		–L– 1010+15 SB OSL		–L– 1010+15 SB ISS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	5.5″	Asphalt	11″	Asphalt	6.5″
STBC	5″	STBC	4″	STBC	6″

–L– 1010+15 NB ISS		–L– 1010+15 NB ISL		–L– 1010+15 NB OSS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	12″	Asphalt	8.5″	Asphalt	6.5″
STBC	4″	STBC	–	STBC	1.5″

$$$$$$$SYSTIME$$$$$$
$$$$$$$USERNAME$$$$$$DGN$$$$$$$$$$$$$$$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	25

RW SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

–L– 1037+30 SB OSS	
Pavement Structure	
Asphalt	12″
STBC	6″

–L– 1037+30 SB OSL	
Pavement Structure	
Asphalt	12″
STBC	6″

–L– 1037+30 SB ISL	
Pavement Structure	
Asphalt	13″
STBC	9″

–L– 1037+30 SB ISS	
Pavement Structure	
Asphalt	11″
STBC	9″

–L– 1037+10 NB OSL2	
Pavement Structure	
Asphalt	13.5″
STBC	3.5″

–L– 1037+10 NB OSL1	
Pavement Structure	
Asphalt	11″
STBC	8.5″

–L– 1037+10 NB OSS	
Pavement Structure	
Asphalt	5″
STBC	14″

–L– 1043+85 NB ISS	
Pavement Structure	
Asphalt	6.75″
STBC	12.25″

5/14/99

$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L- 1053+70 SB OSS	
Pavement Structure	
Asphalt	5"
STBC	10"

-L- 1053+70 SB OSL1	
Pavement Structure	
Asphalt	13"
STBC	6"

-L- 1053+70 SB OSL2	
Pavement Structure	
Asphalt	12"
STBC	7"

-L- 1063+70 SB ISS	
Pavement Structure	
Asphalt	13"
STBC	9"

-L- 1063+65 NB ISS	
Pavement Structure	
Asphalt	5.75"
STBC	13.25"

-L- 1063+65 NB ISL	
Pavement Structure	
Asphalt	12"
STBC	6.5"

-L- 1063+65 NB OSS	
Pavement Structure	
Asphalt	4.5"
STBC	13"

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	27
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

–L– 1091+30 SB OSS		–L– 1091+30 SB ISL		–L– 1091+30 SB ISS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	5"	Asphalt	6"	Asphalt	5.5"
STBC	14"	STBC	9"	STBC	14.5"

–L– 1091+20 NB ISS		–L– 1091+20 NB OSL		–L– 1091+20 NB OSS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	5"	Asphalt	11"	Asphalt	5"
STBC	12"	STBC	9"	STBC	13"

5/14/99

$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	*28*
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

-L- 1116+00 SB OSS		-L- 1116+00 SB ACCEL		-L- 1116+00 SB OSL		-L- 1116+00 SB ISS	
Pavement Structure		Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	3.5"	Asphalt	3.5"	Asphalt	11.5"	Asphalt	5"
STBC	14"	STBC	12"	STBC	8"	STBC	9"

-L- 1116+00 NB ISS		-L- 1116+00 NB ISL		-L- 1116+00 NB OSS	
Pavement Structure		Pavement Structure		Pavement Structure	
Asphalt	5.75"	Asphalt	12"	Asphalt	5"
STBC	13.25"	STBC	7"	STBC	12"

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$USERNAME$$$$

PAVEMENT INVESTIGATION DATA SHEET

Project:	47533.1.3	County:	Robeson	Date:	12/03/2019 - 12/19/2019
TIP:	I-5987B	Route:	I-95	Notes By:	D. Strother/J. Swartley/M. Rawls/V. Mitchev

		Width				Thickness						Subgrade						GPS Coordinates	
Position (Sta., Lane, Shldr.)	Cut/Fill (Est. Of Amount) (ft)	Lane(s) (ft)	Shoulder(s) (ft)	Offset Distance (ft)	Crown "C" or Super "S"	Gross to Top of Soil (in)	Asphalt (in)	ABC (in)	Soil Type Base Course (in)	Stabilized Soil Subgrade (in)	Pavement Layering	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (ft)	Asphalt Notes	Northing	Easting
-L- 508+50 NB ISS	5.0 Fill	11.10	4.80	1.0 EOP	C	11.50	7.50	N/A	4.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Silty Sand	REF S-199	A-2-4	M	5.00	Low Severity Fatigue Cracking and Oxidation in Travel Lane	375725.0	2001479.1
-L- 508+50 NB OSL	3.0 Fill	11.00	11.00	2.0 FWO	C	16.00	12.00	N/A	4.00	N/A	Asphalt STBC	0.0 - 3.0' = Roadway Embankment, Gray, Silty Sand 3.0 - 5.0' = Coastal Plain, Gray, Silty Sand	REF S-179 REF S-22	A-2-4 A-2-4	M M	5.00	No Distresses Present	375732.3	2001503.6
-L- 508+50 NB OSS	3.0 Fill	11.00	11.00	6.0 EOP	C	7.00	7.00	N/A	N/A	N/A	Asphalt	0.0 - 3.0' = Roadway Embankment, Gray, Silty Sand 3.0 - 5.0' = Coastal Plain, Gray, Silty Sand	S-179 (0.0 - 3.0) REF S-22	A-2-4 A-2-4	M M	5.00	No Distresses Present	375729.8	2001508.4
-L- 535+20 NB ISL	4.0 Fill	11.20	4.00	2.3 FYI	C	15.00	11.50	N/A	3.50	N/A	Asphalt STBC	0.0 - 4.0' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand 4.0 - 5.0' = Coastal Plain, Gray, Clayey Sand	REF S-56 REF S-30	A-2-4 A-2-6	M M	5.00	Low Severity Longitudinal Cracking in OWP, Moderate Severity Longitudinal Cracking at Paving Joint	378399.0	2001674.7
-L- 535+20 NB ISS	4.0 Fill	N/A	4.00	2.0 FYI	C	8.00	8.00	N/A	N/A	N/A	Asphalt	0.0 - 4.0' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand 4.0 - 5.0' = Coastal Plain, Gray, Clayey Sand	S-56 REF S-30	A-2-4 A-2-6	M M	5.00	No Distresses Present, Recently Resurfaced	378400.1	2001670.4
-L- 535+20 NB OSS	5.0 Fill	11.00	11.00	5.0 EOP	C	11.00	7.00	N/A	4.00	N/A	Asphalt STBC	0.0 -5.0' = Roadway Embankment, Orange and Gray, Clayey-Silty Sand	S-180 (0.0 - 3.0)	A-2-4	M	5.00	Minor Separation at Middle White Line	378399.4	2001698.2
-L- 562+00 NB ISS	5.0 Fill	N/A	4.00	2.8 FYI	C	7.75	7.75	N/A	N/A	N/A	Asphalt	0.0 - 4.5' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand	REF S-32	A-2-4	M	4.50	Moderate Severity Edge Cracking 6" from EOP, Low Severity Transverse Cracking	380984.5	2002281.9
-L- 562+00 NB OSL	5.0 Fill	11.50	11.00	3.0 FWO	C	15.50	12.00	N/A	3.50	N/A	Asphalt STBC	0.0 - 4.5' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand	S-32	A-2-4	M	4.50	Moderate Severity Longitudinal Cracking at Inside Pavement Joint	380976.3	2002302.4
-L- 562+00 NB OSS	5.0 Fill	N/A	11.00	4.8 FWO	C	11.50	8.00	N/A	3.50	N/A	Asphalt STBC	0.0 - 4.5' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand	REF S-32	A-2-4	M	4.50	No Distresses Present	380976.5	2002310.0
-L- 596+90 NB ISL	5.0 Fill	11.50	4.00	2.3 FYI	C	15.50	11.00	N/A	4.50	N/A	Asphalt STBC	0.0 - 2.0' = Roadway Embankment, Tan, Silty Sand 2.0 - 5.0' = Roadway Embankment, Tan and Orange, Clayey Sand	S-57 REF S-56	A-2-4 A-2-4	D M	5.00	Moderate Severity Longitudinal Cracking at Inside Paving Joint, Low Severity Transverse Cracking at Inside Paving Joint	384273.4	2003458.3
-L- 596+90 NB ISS	5.0 Fill	N/A	4.00	2.3 FYI	C	8.00	8.00	N/A	N/A	N/A	Asphalt	0.0 - 2.0' = Roadway Embankment, Tan, Silty Sand 2.0 - 5.0' = Roadway Embankment, Tan and Orange, Clayey Sand	REF S-57 REF S-56	A-2-4 A-2-4	M M	5.00	Low Severity Transverse Cracking, Core Cracked Full Depth	384275.4	2003452.2
-L- 596+90 NB OSS	5.0 Fill	11.00	11.00	5.0 EOP	C	11.00	7.00	N/A	4.00	N/A	Asphalt STBC	0.0 -5.0' = Roadway Embankment, Orange and Gray, Silty Sand	REF S-181	A-2-4	M	5.00	Minor Separation at Middle White Line	384271.9	2003483.4
-L- 600+90 NB DECEL	5.0 Fill	6.00	5.50	2.5 FWO	C	15.00	11.00	N/A	4.00	N/A	Asphalt STBC	0.0 -5.0' = Roadway Embankment, Orange, Silty Sand	REF S-181	A-2-4	M	5.00	Low Severity Fatigue Cracking	384648.0	2003614.0
-L- 600+90 NB OSS	5.0 Fill	6.00	5.50	3.0 EOP	C	13.50	7.50	N/A	6.00	N/A	Asphalt STBC	0.0 -5.0' = Roadway Embankment, Orange, Silty Sand	S-181 (0.0-3.0)	A-2-4	M	5.00	Low Severity Fatigue Cracking	384643.9	2003614.5
-L- 610+70 NB ISS	5.0 Fill	N/A	4.00	2.3 FYI	C	7.50	7.50	N/A	N/A	N/A	Asphalt	0.0 - 5.0' = Roadway Embankment, Orange and Brown, Silty-Clayey Sand	S-58	A-2-6	M	5.00	Low Severity Transverse Cracking	385573.4	2003913.5
-L- 610+70 NB OSL	5.0 Fill	11.50	11.00	3.5 FWO	C	14.00	11.25	N/A	2.75	N/A	Asphalt STBC	0.0-4.5' = Roadway Embankment, Orange and Brown, Silty-Clayey Sand	S-33	A-2-6	M	4.50	Moderate Severity Longitudinal Cracking at OWP, Core Cracked 3.0" Top Down	385564.7	2003934.2

Notes:

OSL = Outside Lane
ISL = Inside Lane
CL = Center Lane
LTL = Left Turn Lane

WP = Wheel Path
IWP = Inside Wheel Path
OWP = Outside Wheel Path
C&G = Curb & Gutter

OSS = Outside Shoulder
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GM = Grass Median
OGS = Outside Grass Shoulder

PS = Paved Shoulder
RT LN = Right Lane
LT LN = Left Lane
COL = Collector Lane

CTL = Center Turn Lane
RTL = Right Turn Lane
DECEL = Deceleration Lane
ACCEL = Acceleration Lane

RT = Right
LT = Left
(I) = Inside
(O) = Outside

NB = Northbound
SB = Southbound
FW = From White
FY = From Yellow

FCG = From Curb & Gutter
AG = At Grade
EOP = Edge of Pavement

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

PAVEMENT INVESTIGATION DATA SHEET

Project:	47533.1.3	County:	Robeson	Date:	12/03/2019 - 12/19/2019
TIP:	I-5987B	Route:	I-95	Notes By:	D. Strother/J. Swartley/M. Rawls/V. Mitchev

		Width				Thickness						Subgrade						GPS Coordinates	
Position (Sta., Lane, Shldr.)	Cut/Fill (Est. Of Amount) (ft)	Lane(s) (ft)	Shoulder(s) (ft)	Offset Distance (ft)	Crown "C" or Super "S"	Gross to Top of Soil (in)	Asphalt (in)	ABC (in)	Soil Type Base Course (in)	Stabilized Soil Subgrade (in)	Pavement Layering	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (ft)	Asphalt Notes	Northing	Easting
-L- 610+70 NB OSS	5.0 Fill	N/A	11.00	4.0 FWO	C	11.00	8.25	N/A	2.75	N/A	Asphalt STBC	0.0-4.5' = Roadway Embankment, Orange and Brown, Silty-Clayey Sand	REF S-33	A-2-6	M	4.50	No Distresses Present	385564.8	2003945.9
-L- 636+50 NB ACCEL	5.0 Fill	8.50	8.00	1.4 FWO	C	11.00	11.00	N/A	N/A	N/A	Asphalt	0.0 - 5.0' = Roadway Embankment, Orange, Clayey Sand 5.0 -6.0' = Coastal Plain, Gray, Sandy Clay with Trace Organics	REF S-180 REF S-184	A-2-4 A-6	M M	6.00	No Distresses Present, Recently Resurfaced	388057.5	2004602.4
-L- 636+50 NB ISL	5.0 Fill	11.80	3.50	2.3 FYI	C	15.00	11.00	N/A	4.00	N/A	Asphalt STBC	0.0 - 2.0' = Roadway Embankment, Orange and Brown, Silty-Clayey Sand 2.0 - 5.0' = Roadway Embankment, Gray and Brown, Silty Sand	REF S-58 S-59	A-2-6 A-2-4	M M	5.00	No Distresses Present, Recently Resurfaced	388062.8	2004573.7
-L- 636+50 NB ISS	5.0 Fill	N/A	3.50	2.0 FYI	C	6.50	6.50	N/A	N/A	N/A	Asphalt	0.0 - 2.0' = Roadway Embankment, Orange and Brown, Silty-Clayey Sand 2.0 - 5.0' = Roadway Embankment, Gray and Brown, Clayey-Silty Sand	REF S-58 REF S-59	A-2-6 A-2-4	M M	5.00	No Distresses Present, Recently Resurfaced	388064.3	2004569.1
-L- 636+50 NB OSS	5.0 Fill	8.50	8.00	5.5 EOP	C	11.00	11.00	N/A	N/A	N/A	Asphalt	0.0 -5.0' = Roadway Embankment, Orange, Silty Sand	S-182 (0.0 - 3.0)	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	388052.7	2004604.5
-L- 666+40 NB ISS	5.0 Fill	N/A	4.00	2.8 FYI	C	12.00	8.50	N/A	3.50	N/A	Asphalt STBC	0.0 - 2.0' = Roadway Embankment, Orange and Brown, Silty-Clayey Sand 2.0 - 5.0' = Roadway Embankment, Black, Sandy Silt	REF S-58 S-60	A-2-6 A-4	M M	5.00	No Distresses Present, Recently Resurfaced	390999.8	2005096.6
-L- 666+40 NB OSL	5.0 Fill	11.50	10.90	2.0 FWO	C	15.50	11.00	N/A	4.50	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange and Gray, Silty Sand	REF S-181	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	391006.5	2005123.2
-L- 666+40 NB OSS	4.0 Fill	11.50	10.90	5.8 EOP	C	10.00	6.00	N/A	4.00	N/A	Asphalt STBC	0.0 - 4.0' = Roadway Embankment, Orange, Silty Sand 4.0 - 5.0' = Coastal Plain, Gray, Sandy Clay	S-183 (0.0 - 3.0) S-184 (4.0 - 5.0)	A-2-4 A-6	M M	5.00	No Distresses Present, Recently Resurfaced	390999.3	2005127.7
-L- 689+00 NB DECEL	AG	10.00	5.00	2.0 FWO	C	16.75	14.25	N/A	2.50	N/A	Asphalt STBC	0.0-4.5' = Coastal Plain, Tan and Orange, Silty-Clayey Sand	S-34	A-2-4	M	4.50	No Distresses Present, Recently Resurfaced	393161.0	2005674.1
-L- 689+00 NB ISL	AG	11.90	3.60	2.0 FYI	C	19.50	16.00	N/A	3.50	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Orange, Silty-Clayey Sand	S-61	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	393176.4	2005658.0
-L- 689+00 NB ISS	1.0 Fill	N/A	3.60	2.3 FYI	C	19.00	13.50	N/A	5.50	N/A	Asphalt STBC	0.0 - 1.0' = Roadway Embankment, Orange and Brown, Silty-Clayey Sand 1.0 - 5.0' = Coastal Plain, Orange, Silty-Clayey Sand	S-62 REF S-61	A-2-4 A-2-4	M M	5.00	No Distresses Present, Recently Resurfaced	393180.9	2005650.0
-L- 689+00 NB OSS	AG	N/A	5.00	2.2 FWO	C	13.00	8.00	N/A	5.00	N/A	Asphalt STBC	0.0-4.5' = Coastal Plain, Tan and Orange, Silty-Clayey Sand	REF S-34	A-2-4	M	4.50	No Distresses Present, Recently Resurfaced	393159.8	2005684.7
-L- 719+25 NB ACCEL	6.0 Fill	13.00	4.20	2.2 FWO	C	13.25	13.25	N/A	N/A	N/A	Asphalt	0.0 - 4.5' = Roadway Embankment, Gray, Tan and Orange, Silty-Clayey Sand	REF S-35	A-2-4	M	4.50	No Distresses Present, Recently Resurfaced	395668.6	2007368.4
-L- 719+25 NB ISS	6.0 Fill	N/A	3.90	2.8 FYI	C	8.50	8.50	N/A	N/A	N/A	Aspahlt	0.0 - 1.0' = Roadway Embankment, Orange and Brown, Silty-Clayey Sand 1.0 - 5.0' = Roadway Embankment, Dark Gray, Silty Sand	REF S-62 S-63	A-2-4 A-2-4	M D	5.00	No Distresses Present, Recently Resurfaced	395687.3	2007339.7
-L- 719+25 NB OSL	6.0 Fill	11.50	4.20	2.4 FWO	C	15.00	11.25	N/A	3.75	N/A	Asphalt STBC	0.0 - 4.5' = Roadway Embankment, Gray, Tan and Orange, Silty-Clayey Sand	S-35	A-2-4	M	4.50	No Distresses Present, Recently Resurfaced	395674.7	2007361.1
-L- 719+25 NB OSS	6.0 Fill	N/A	4.20	2.0 FWO	C	15.50	15.50	N/A	N/A	N/A	Asphalt	0.0 - 4.5' = Roadway Embankment, Gray, Tan and Orange, Silty-Clayey Sand	REF S-35	A-2-4	M	4.50	No Distresses Present, Recently Resurfaced	395665.8	2007375.6

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S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

PAVEMENT INVESTIGATION DATA SHEET

Project:	47533.1.3	County:	Robeson	Date:	12/03/2019 - 12/19/2019
TIP:	I-5987B	Route:	I-95	Notes By:	D. Strother/J. Swartley/M. Rawls/V. Mitchev

		Width				Thickness						Subgrade						GPS Coordinates	
Position (Sta., Lane, Shldr.)	Cut/Fill (Est. Of Amount) (ft)	Lane(s) (ft)	Shoulder(s) (ft)	Offset Distance (ft)	Crown "C" or Super "S"	Gross to Top of Soil (in)	Asphalt (in)	ABC (in)	Soil Type Base Course (in)	Stabilized Soil Subgrade (in)	Pavement Layering	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (ft)	Asphalt Notes	Northing	Easting
-L- 745+55 NB ISL	5.0 Fill	11.10	4.00	2.0 FYI	C	16.00	12.00	N/A	4.00	N/A	Asphalt STBC	0.0 - 2.0' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand 2.0 - 5.0' = Roadway Embankment, Dark Gray, Silty Sand	REF S-36 REF S-63	A-2-4 A-2-4	M M	5.00	No Distresses Present, Recently Resurfaced	398038.7	2008521.6
-L- 745+55 NB ISS	5.0 Fill	N/A	4.00	2.5 FYI	C	6.50	6.50	N/A	N/A	N/A	Asphalt	0.0 - 2.0' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand 2.0 - 5.0' = Roadway Embankment, Dark Gray, Silty Sand	S-64 REF S-63	A-2-4 A-2-4	W W	5.00	No Distresses Present, Recently Resurfaced	398039.1	2008520.0
-L- 745+55 NB OSS	5.0 Fill	N/A	11.80	5.0 FWO	C	6.25	6.25	N/A	N/A	N/A	Asphalt	0.0 - 4.5' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand	S-36	A-2-4	M	4.50	No Distresses Present, Recently Resurfaced	398028.3	2008543.9
-L- 772+25 NB ISS	2.0 Cut	N/A	3.70	1.8 FYI	C	12.75	7.75	N/A	5.00	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Tan and Orange, Silty-Clayey Sand	REF S-37	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	400510.0	2009501.5
-L- 772+25 NB OSL	2.0 Cut	11.20	N/A	3.5 FWO	C	15.50	12.00	N/A	3.50	N/A	Asphalt STBC	0.0 - 4.5' = Coastal Plain, Tan and Orange, Silty-Clayey Sand	S-37	A-2-4	M	4.50	No Distresses Present, Recently Resurfaced	400507.1	2009525.8
-L- 772+25 NB OSS	2.0 Cut	N/A	10.70	6.0 FWO	C	6.50	6.50	N/A	N/A	N/A	Asphalt	0.0 - 4.5' = Coastal Plain, Tan and Orange, Silty-Clayey Sand	REF S-37	A-2-4	M	4.50	No Distresses Present, Recently Resurfaced	400506.9	2009532.6
-L- 798+50 NB ISL	8.0 Fill	12.00	3.70	2.3 FYI	C	15.00	12.00	N/A	3.00	N/A	Asphalt STBC	0.0 - 1.0' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand 1.0 - 5.0' = Roadway Embankment, Brown and Orange, Sandy-Silty Clay	S-65 S-66	A-2-6 A-6	W M	5.00	No Distresses Present, Recently Resurfaced	403025.0	2010237.1
-L- 798+50 NB ISS	8.0 Fill	N/A	3.70	2.0 FYI	C	12.50	7.50	N/A	5.00	N/A	Asphalt STBC	0.0 - 1.0' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand 1.0 - 5.0' = Roadway Embankment, Brown and Orange, Sandy-Silty Clay	REF S-65 REF S-66	A-2-6 A-6	M M	5.00	No Distresses Present, Recently Resurfaced	403025.5	2010231.6
-L- 798+50 NB OSS	8.0 Fill	N/A	11.20	5.7 FWO	C	8.00	8.00	N/A	N/A	N/A	Asphalt	0.0 - 4.5' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand	S-38	A-2-6	M	4.50	No Distresses Present, Recently Resurfaced	403024.9	2010264.1
-L- 825+00 NB ISS	5.0 Cut	N/A	4.00	2.8 FYI	C	9.75	7.75	N/A	2.00	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Orange, Silty-Clayey Sand	REF S-39	A-2-6	M	5.00	No Distresses Present, Recently Resurfaced	405642.8	2010619.6
-L- 825+00 NB OSL	5.0 Cut	11.60	N/A	3.6 FWO	C	15.50	11.50	N/A	4.00	N/A	Asphalt STBC	0.0 - 4.5' = Coastal Plain, Orange, Silty-Clayey Sand	S-39	A-2-6	M	4.50	No Distresses Present, Recently Resurfaced	405651.9	2010643.4
-L- 825+00 NB OSS	5.0 Cut	N/A	10.60	6.4 FWO	C	7.00	7.00	N/A	N/A	N/A	Asphalt	0.0 - 4.5' = Coastal Plain, Orange, Silty-Clayey Sand	REF S-39	A-2-6	M	4.50	No Distresses Present, Recently Resurfaced	405643.9	2010652.0
-L- 851+90 NB ISL	AG	12.00	3.80	2.0 FYI	C	15.00	11.50	N/A	3.50	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Tan and Brown, Clayey-Silty Sand	REF S-67	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	408312.9	2011014.1
-L- 851+90 NB ISS	AG	N/A	3.80	2.5 FYI	C	10.50	7.50	N/A	3.00	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Brown, Clayey-Silty Sand	S-67	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	408313.1	2011013.1
-L- 851+90 NB OSS	AG	N/A	10.60	5.7 FWO	C	7.25	7.25	N/A	N/A	N/A	Asphalt	0.0 - 4.5' = Coastal Plain, Tan and Orange, Silty-Clayey Sand	REF S-37	A-2-4	M	4.50	No Distresses Present, Recently Resurfaced	408306.8	2011042.6
-L- 878+20 NB ISS	AG	N/A	3.90	2.7 FYI	C	9.00	7.00	N/A	2.00	N/A	Asphalt STBC	0.0 - 1.5' = Coastal Plain, Gray, Silty Sand 1.5 - 5.0' = Coastal Plain, Brown and Tan, Silty Sand	S-68 REF S-40	A-2-4 A-2-4	M M	5.00	No Distresses Present, Recently Resurfaced	410907.5	2011391.8

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S&ME, Inc.
3201 Spring Forest Road
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PAVEMENT INVESTIGATION DATA SHEET

Project:	47533.1.3	County:	Robeson	Date:	12/03/2019 - 12/19/2019
TIP:	I-5987B	Route:	I-95	Notes By:	D. Strother/J. Swartley/M. Rawls/V. Mitchev

		Width				Thickness						Subgrade						GPS Coordinates	
Position (Sta., Lane, Shldr.)	Cut/Fill (Est. Of Amount) (ft)	Lane(s) (ft)	Shoulder(s) (ft)	Offset Distance (ft)	Crown "C" or Super "S"	Gross to Top of Soil (in)	Asphalt (in)	ABC (in)	Soil Type Base Course (in)	Stabilized Soil Subgrade (in)	Pavement Layering	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (ft)	Asphalt Notes	Northing	Easting
-L- 878+20 NB OSL	AG	11.50	N/A	2.6 FWO	C	15.75	12.00	N/A	3.75	N/A	Asphalt STBC	0.0 - 4.5' = Coastal Plain, Brown and Tan, Silty Sand	S-40	A-2-4	M	4.50	No Distresses Present, Recently Resurfaced	410911.0	2011422.2
-L- 878+20 NB OSS	0.8 Fill	N/A	10.70	4.9 FWO	C	7.00	7.00	N/A	N/A	N/A	Asphalt	0.0 - 0.8' = Roadway Embankment, Orange and Tan, Clayey Sand 0.8 - 4.5' = Coastal Plain, Brown and Tan, Silty Sand	S-41 REF S-40	A-2-4 A-2-4	M M	4.50	No Distresses Present, Recently Resurfaced	410909.7	2011425.7
-L- 904+65 NB ISL	6.0 Fill	12.00	3.90	2.0 FYI	C	16.00	11.50	N/A	4.50	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan and Brown, Clayey-Silty Sand	S-69	A-2-4	W	5.00	No Distresses Present, Recently Resurfaced	413532.8	2011784.7
-L- 904+65 NB ISS	6.0 Fill	N/A	3.90	2.5 FYI	C	12.00	6.50	N/A	5.50	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan and Brown, Clayey-Silty Sand	REF S-69	A-2-4	W	5.00	No Distresses Present, Recently Resurfaced	413533.4	2011778.6
-L- 904+65 NB OSS	6.0 Fill	N/A	10.70	6.0 FWO	C	7.00	7.00	N/A	N/A	N/A	Asphalt	0.0 - 0.8' = Roadway Embankment, Tan and Orange, Clayey Sand 0.8 - 4.5' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand	REF S-41 S-42	A-2-4 A-2-4	M M	4.50	No Distresses Present, Recently Resurfaced	413520.4	2011806.4
-L- 934+90 NB ISS	AG	N/A	3.90	2.7 FYI	C	8.00	6.00	N/A	2.00	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Brown and Tan, Silty-Clayey Sand	S-70	A-2-4	W	5.00	Low Severity Transverse Cracking in ISS and at Paving Joint, Low Severity Longitudinal Cracking at Paving Joint	416537.6	2012220.7
-L- 934+90 NB OSL	AG	11.00	10.00	3.4 FWO	C	16.50	12.50	N/A	4.00	N/A	Asphalt STBC	0.0 - 4.5' = Coastal Plain, Orange and Brown, Silty-Clayey Sand	S-42A	A-2-4	M	4.50	Moderate Severity Longitudinal Cracking at Outside Paving Joint	416530.0	2012240.1
-L- 934+90 NB OSS	AG	N/A	10.00	3.1 FWO	C	9.00	7.00	N/A	2.00	N/A	Asphalt STBC	0.0 - 4.5' = Coastal Plain, Orange and Brown, Silty-Clayey Sand	REF S-42A	A-2-4	M	4.50	Moderate Severity Longitudinal Cracking at Paving Joint	416531.1	2012249.6
-L- 960+95 NB ISL	5.0 Fill	11.30	3.80	3.5 FYI	C	14.00	11.50	N/A	2.50	N/A	Asphalt STBC	0.0 - 1.5' = Roadway Embankment, Gray and Brown, Clayey-Silty Sand 1.5 - 4.5' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand	S-71 REF S-44	A-2-4 A-2-4	W W	5.00	Low Severity Transverse Cracking at Paving Joint	419112.1	2012603.5
-L- 960+95 NB OSS	5.0 Fill	N/A	10.00	3.2 FWO	C	10.00	7.50	N/A	2.50	N/A	Asphalt STBC	0.0 - 1.0' = Roadway Embankment, Gray and Brown, Clayey-Silty Sand 1.0 - 4.5' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand	S-43 S-44	A-2-4 A-2-4	M M	4.50	Moderate Severity Longitudinal Cracking at Paving Joint	419103.4	2012627.4
-L- 987+25 NB OSL	AG	11.50	10.00	4.0 FWO	C	13.00	9.00	N/A	4.00	N/A	Asphalt STBC	0.0 - 4.5' = Coastal Plain, Orange, Gray and Brown, Silty-Clayey Sand	S-45	A-2-4	M	4.50	Moderate to High Severity Longitudinal Cracking at Both Paving Joints, Moderate Severity Transverse Cracking at Inside Paving Joint	421657.4	2013206.1
-L- 987+50 NB OSS	AG	N/A	10.00	3.3 FWO	C	5.25	3.25	N/A	2.00	N/A	Asphalt STBC	0.0 - 4.5' = Coastal Plain, Orange, Gray and Brown, Silty-Clayey Sand	REF S-45	A-2-4	M	4.50	Low Severity Longitudinal Cracking at Center of Shoulder	421685.0	2013210.7
-L- 1010+15 NB ISL	8.0 Fill	12.00	4.30	2.4 FYI	C	8.50	8.50	N/A	N/A	N/A	Asphalt	0.0 - 5.0' = Roadway Embankment, Tan and Orange, Clayey-Silty Sand	S-72	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	423734.6	2014149.9
-L- 1010+15 NB ISS	8.0 Fill	N/A	4.30	2.8 FYI	C	16.00	12.00	N/A	4.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan, Gray and Orange, Clayey-Silty Sand	REF S-72	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	423736.9	2014144.9
-L- 1010+15 NB OSS	8.0 Fill	N/A	10.50	6.0 FWO	C	8.00	6.50	N/A	1.50	N/A	Asphalt STBC	0.0 - 4.5' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand	S-46	A-2-4	W	4.50	No Distresses Present, Recently Resurfaced	423719.2	2014172.1
-L- 1037+10 NB OSL1	AG	12.00	9.70	2.8 FWO	C	19.50	11.00	N/A	8.50	N/A	Asphalt STBC	0.0 - 4.5' = Coastal Plain, Orange, Gray and Brown, Clayey-Silty Sand	REF S-47	A-2-4	M	4.50	No Distresses Present, Recently Resurfaced	425877.2	2015777.9

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Project:	47533.1.3	County:	Robeson	Date:	12/03/2019 - 12/19/2019
TIP:	I-5987B	Route:	I-95	Notes By:	D. Strother/J. Swartley/M. Rawls/V. Mitchev

		Width				Thickness						Subgrade						GPS Coordinates	
Position (Sta., Lane, Shldr.)	Cut/Fill (Est. Of Amount) (ft)	Lane(s) (ft)	Shoulder(s) (ft)	Offset Distance (ft)	Crown "C" or Super "S"	Gross to Top of Soil (in)	Asphalt (in)	ABC (in)	Soil Type Base Course (in)	Stabilized Soil Subgrade (in)	Pavement Layering	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (ft)	Asphalt Notes	Northing	Easting
-L- 1037+10 NB OSL2	AG	11.30	9.70	3.8 FWO	C	17.00	13.50	N/A	3.50	N/A	Asphalt STBC	0.0 - 4.5' = Coastal Plain, Orange, Gray and Brown, Clayey-Silty Sand	S-47	A-2-4	M	4.50	No Distresses Present, Recently Resurfaced	425886.1	2015769.4
-L- 1037+10 NB OSS	AG	12.00	10.50	5.0 EOP	C	19.00	5.00	N/A	14.00	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Orange, Clayey-Silty Sand	S-199 (0.0 - 3.0)	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	425875.5	2015789.2
-L- 1043+85 NB ISS	AG	N/A	4.20	2.1 FYI	C	19.00	6.75	N/A	12.25	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Tan and Orange, Clayey-Silty Sand	S-74	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	426425.8	2016169.0
-L- 1063+65 NB ISL	6.0 Fill	12.00	4.30	2.4 FYI	C	18.50	12.00	N/A	6.50	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange and Gray, Silty-Clayey Sand	S-75	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	428046.3	2017318.6
-L- 1063+65 NB ISS	6.0 Fill	N/A	4.30	2.7 FYI	C	19.00	5.75	N/A	13.25	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange and Gray, Silty-Clayey Sand	REF S-75	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	428047.3	2017317.0
-L- 1063+65 NB OSS	6.0 Fill	11.50	11.00	5.5 EOP	C	17.50	4.50	N/A	13.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange and Gray, Silty Sand	S-200 (0.0 - 3.0)	A-2-4	M	5.40	No Distresses Present, Recently Resurfaced	428033.5	2017337.0
-L- 1091+20 NB ISS	20.0 Fill	N/A	4.00	3.0 FYI	C	17.00	5.00	N/A	12.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Brown and Orange, Clayey-Silty Sand	S-76	A-2-6	M	5.00	No Distresses Present, Recently Resurfaced	430252.8	2018915.7
-L- 1091+20 NB OSL	20.0 Fill	11.20	11.00	2.5 FWO	C	20.00	11.00	N/A	9.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Silty Clay	REF S-201	A-7-6	M	5.00	No Distresses Present, Recently Resurfaced	430239.1	2018932.8
-L- 1091+20 NB OSS	20.0 Fill	11.20	11.00	3.5 FWO	C	18.00	5.00	N/A	13.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Silty Clay	S-201 (0.0 - 3.0)	A-7-6	M	5.00	No Distresses Present, Recently Resurfaced	430234.1	2018932.8
-L- 1116+00 NB ISL	AG	12.00	3.20	2.5 FYI	C	19.00	12.00	N/A	7.00	N/A	Asphalt STBC	0.0 - 3.0' = Coastal Plain, Brown and Orange, Clayey-Silty Sand 3.0 - 5.0' = Coastal Plain, Orange and Gray, Sandy-Silty Clay	REF S-76 S-77	A-2-6 A-6	M M	5.00	No Distresses Present, Recently Resurfaced	431430.9	2021065.9
-L- 1116+00 NB ISS	AG	N/A	3.20	1.4 FYI	C	19.00	5.75	N/A	13.25	N/A	Asphalt STBC	0.0 - 3.0' = Coastal Plain, Brown and Orange, Clayey-Silty Sand 3.0 - 5.0' = Coastal Plain, Orange and Gray, Sandy-Silty Clay	REF S-76 REF S-77	A-2-6 A-6	M M	5.00	No Distresses Present, Recently Resurfaced	431432.5	2021065.3
-L- 1116+00 NB OSS	AG	12.00	11.50	3.0 EOP	C	17.00	5.00	N/A	12.00	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Orange, Sandy Clay	REF S-77	A-6	M	5.00	No Distresses Present, Recently Resurfaced	431406.2	2021090.6
-L- 536+50 NB IES	4.0 Fill	N/A	N/A	1 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	0.0-3.0' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand	Bulk 6 IES NB	A-2-4	M	3.00	N/A	378528.7	2001654.7
-L- 589+50 NB OES	4.5 Fill	N/A	N/A	55 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	0.0-3.0' = Roadway Embankment, Orange and Gray, Silty Sand	Bulk 7 OES NB	A-2-4	M	3.00	N/A	383562.8	2003246.2
-L- 698+90 NB OES	AG	N/A	N/A	56 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	0.0-2.5' = Coastal Plain, Tan and Orange, Silty-Clayey Sand	Bulk 8 OES NB	A-2-4	M	2.50	N/A	393988.4	2006226.3
-L- 800+00 NB OES	7.0 Fill	N/A	N/A	60 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	0.0-3.83' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand	Bulk 9 OES NB	A-2-6	M	3.83	N/A	403179.9	2010305.5

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TIP:	I-5987B	Route:	I-95	Notes By:	D. Strother/J. Swartley/M. Rawls/V. Mitchev

		Width				Thickness						Subgrade						GPS Coordinates	
Position (Sta., Lane, Shldr.)	Cut/Fill (Est. Of Amount) (ft)	Lane(s) (ft)	Shoulder(s) (ft)	Offset Distance (ft)	Crown "C" or Super "S"	Gross to Top of Soil (in)	Asphalt (in)	ABC (in)	Soil Type Base Course (in)	Stabilized Soil Subgrade (in)	Pavement Layering	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (ft)	Asphalt Notes	Northing	Easting
-L- 905+95 NB OES	5.0 Fill	N/A	N/A	68 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	0.0-2.83' = Roadway Embankment, Tan and Orange, Clayey Sand	Bulk 10 OES NB	A-6	M	2.83	N/A	413660.3	2011853.1
-L- 958+70 NB IES	5.0 Fill	N/A	N/A	1 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	0.0-3.0' = Roadway Embankment, Gray and Brown, Clayey-Silty Sand	Bulk 2 IES NB	A-1-b	M	3.00	N/A	418888.2	2012551.0
-L- 1011+45 NB OES	6.5 Fill	N/A	N/A	85 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	0.0-3.58' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand	Bulk 11 OES NB	A-2-6	M	3.58	N/A	423812.5	2014278.2
-L- 1064+30 NB IES	6.0 Fill	N/A	N/A	4 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	0.0-3.25' = Roadway Embankment, Orange and Gray, Silty-Clayey Sand	Bulk 1 IES NB	A-2-4	M	3.25	N/A	428118.2	2017319.4
-L- 1117+10 NB OES	AG	N/A	N/A	99 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	0.0-2.0' = Coastal Plain, Orange and Gray, Sandy Clay	Bulk 12 OES NB	A-2-6	M	2.00	N/A	431427.5	2021198.6

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ISL = Inside Lane	IWP = Inside Wheel Path	ISS = Inside Shoulder	RT LN = Right Lane	RTL = Right Turn Lane	LT = Left	SB = Southbound	AG = At Grade		
CL = Center Lane	OWP = Outside Wheel Path	GM = Grass Median	LT LN = Left Lane	DECEL = Deceleration Lane	(I) = Inside	FW = From White	EOP = Edge of Pavement		
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		Width				Thickness							Subgrade						GPS Coordinates	
Position (Sta., Lane, Shldr.)	Cut/Fill (Est. Of Amount) (ft)	Lane(s) (ft)	Shoulder(s) (ft)	Offset Distance (ft)	Crown "C" or Super "S"	Gross to Top of Soil (in)	Asphalt (in)	Sand Drainage Base (in)	ABC (in)	Soil Type Base Course (in)	Stabilized Soil Subgrade (in)	Pavement Layering	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (ft)	Asphalt Notes	Northing	Easting
-L- 508+50 SB OSS	AG	12.00	11.00	3.5 EOP	C	14.00	7.00	N/A	N/A	7.00	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Gray, Silty Sand	S-156 (0.0-3.0)	A-2-4	M	5.00	Low Severity Longitudinal Cracking, Low Severity Transverse Cracking	375746.9	2001394.9
-L- 508+50 SB ISS	4.0 Fill	11.00	4.20	2.0 EOP	C	12.50	7.50	N/A	N/A	5.00	N/A	Asphalt STBC	0.0 - 4.0' = Roadway Embankment, Orange, Silty Sand 4.0 - 5.0' = Coastal Plain, Brown and Black, Clayey-Silty Sand	REF S-158 REF S-220	A-2-4 A-2-4	M M	5.00	Moderate Severity Transverse Cracking	375745.2	2001424.1
-L- 508+50 SB ISL	4.0 Fill	11.00	4.20	2.0 FWI	C	12.50	11.50	N/A	N/A	1.00	N/A	Asphalt STBC	0.0 - 4.0' = Roadway Embankment, Orange, Silty Sand 4.0 - 5.0' = Coastal Plain, Brown and Black, Clayey-Silty Sand	REF S-158 S-220 (4.0 - 5.0)	A-2-4 A-2-4	M M	5.00	Moderate Severity Transverse Cracking	375747.3	2001421.1
-L- 535+25 SB OSS	AG	12.00	11.00	6.0 EOP	C	15.50	7.50	N/A	N/A	8.00	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Orange, Clayey Sand	S-154 (0.0 - 3.0)	A-2-6	M	5.00	Minor Separation at Travel Lane Boundary	378408.5	2001582.8
-L- 535+25 SB OSL	AG	12.00	11.00	2.0 FWO	C	20.00	12.00	N/A	N/A	8.00	N/A	Asphalt STBC	0.0 - 2.3' = Coastal Plain, Orange, Clayey Sand 2.3 - 5.0' = Coastal Plain, Orange, Sandy Clay	REF S-154 S-155 (3.0 - 5.0)	A-2-6 A-6	M M	5.00	Low Severity Longitudinal Cracking, Minor Separation at Travel Lane Boundary	378409.9	2001589.3
-L- 535+25 SB ISS	5.0 Fill	11.00	4.20	1.5 EOP	C	16.00	8.00	N/A	N/A	8.00	N/A	Asphalt STBC	0.0 - 3.5' = Roadway Embankment, Tan and Orange, Clayey-Silty Sand 3.5 - 5.0' = Roadway Embankment, Orange, Clayey Sand	S-219 (0.0 - 3.0) REF S-221	A-2-4 A-2-6	M M	5.00	Low Severity Transverse Cracking, Minor Separation Bisecting Travel Lanes	378412.3	2001616.3
-L- 562+00 SB OSS	1.0 Cut	12.00	11.00	6.0 EOP	C	14.00	7.00	N/A	N/A	7.00	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Orange, Sandy Clay	S-153 (0.0 - 3.0)	A-6	M	5.00	Minor Separation at Travel Lane Boundary	381012.9	2002226.7
-L- 562+00 SB ISS	4.0 Cut	11.00	3.80	0.5 EOP	C	13.00	7.00	N/A	N/A	6.00	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Orange, Clayey Sand	S-218 (0.0 - 3.0)	A-2-6	M	5.00	Minor Separation at Middle White Line	381001.7	2002254.1
-L- 562+00 SB ISL	4.0 Cut	11.00	3.80	2.5 FWI	C	16.00	12.00	N/A	N/A	4.00	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Orange, Clayey Sand	REF S-218	A-2-6	M	5.00	Minor Separation at Middle White Line	381000.2	2002249.4
-L- 572+20 SB ISS	AG	11.00	3.80	0.5 EOP	C	8.00	4.00	N/A	N/A	4.00	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Tan and Brown, Clayey Sand	REF S-217	A-2-6	M	5.00	Minor Separation at Middle White Line	381957.8	2002597.9
-L- 581+70 SB OSS	8.0 Fill	11.30	11.80	7.0 EOP	C	20.00	8.00	N/A	N/A	12.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Clayey-Silty Sand	S-152 (0.0 - 3.0)	A-2-4	M	5.00	Low Severity Fatigue Cracking on Rumble Strips	382865.7	2002884.6
-L- 581+70 SB OSL	8.0 Fill	11.30	11.80	2.5 FWO	C	16.00	13.00	N/A	N/A	3.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Clayey-Silty Sand	REF S-152	A-2-4	M	5	Low Severity Longitudinal Cracking Bisecting OSL	382859.8	2002892.5
-L- 596+90 SB OSS	6.0 Fill	12.00	4.80	2.0 EOP	C	14.00	14.00	N/A	N/A	N/A	N/A	Asphalt	0.0 - 1.5' = Roadway Embankment, Brown, Gravelly-Silty Sand 1.5 - 3.4' = Roadway Embankment, Tan, Sandy Silt 3.4 - 5.0' = Roadway Embankment, Orange, Sandy Clay	REF S-150 REF S-215 S-151 (3.4 - 5.0)	A-2-4 A-4 A-6	M M M	5.00	No Distresses Present	384299.0	2003388.5
-L- 596+90 SB ACCEL	6.0 Fill	12.00	4.80	7.0 FWO	C	11.50	11.50	N/A	N/A	N/A	N/A	Asphalt	0.0 - 5.0' = Roadway Embankment, Brown, Silty Sand, Well Graded	S-150 (0.0 - 3.0)	A-2-4	M	5.00	Moderate Severity Longitudinal Cracking with Fatigue Cracking and Oxidation down the Center and LWP	384296.3	2003395.4
-L- 610+70 SB ISS	20.0 Fill	11.00	4.00	1.0 EOP	C	9.00	7.00	N/A	N/A	2.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan, Clayey Sand	S-217 (0.0 - 3.0)	A-2-6	M	5.00	Minor Separation at Middle White Line	385588.2	2003888.8
-L- 610+70 SB ISL	20.0 Fill	11.00	4.00	1.5 FWI	C	15.00	11.00	N/A	N/A	4.00	N/A	Asphalt STBC	0.0 - 3.5' = Roadway Embankment, Tan and Orange, Clayey Sand 3.5 - 5.0' = Roadway Embankment, Tan and Orange, Clayey Sand	REF S-217 REF S-216	A-2-6 A-2-6	M M	5.00	Moderate Severity Transverse Cracking, Moderate Severity Longitudinal Cracking	385590.7	2003882.8

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S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

PAVEMENT INVESTIGATION DATA SHEET

Project:	47533.1.3	County:	Robeson	Date:	12/03/2019 - 12/19/2019
TIP:	I-5987B	Route:	I-95	Notes By:	D. Strother/J. Swartley/M. Rawls/V. Mitchev

		Width				Thickness							Subgrade						GPS Coordinates	
Position (Sta., Lane, Shldr.)	Cut/Fill (Est. Of Amount) (ft)	Lane(s) (ft)	Shoulder(s) (ft)	Offset Distance (ft)	Crown "C" or Super "S"	Gross to Top of Soil (in)	Asphalt (in)	Sand Drainage Base (in)	ABC (in)	Soil Type Base Course (in)	Stabilized Soil Subgrade (in)	Pavement Layering	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (ft)	Asphalt Notes	Northing	Easting
-L- 628+05 SB GORE	6.0 Fill	12.00	28.00 gore	14.0 FWO	C	N/A	6.00	N/A	N/A	N/A	N/A	Asphalt	DCP Only	N/A	N/A	N/A	N/A	No Distresses Present, Recently Resurfaced	387240.0	2004355.9
-L- 637+95 SB OSS	5.0 Fill	12.00	11.00	3.5 EOP	C	10.00	6.00	N/A	N/A	4.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Sandy Clay	REF S-214	A-6	M	5.00	No Distresses Present, Recently Resurfaced	388211.9	2004517.2
-L- 637+95 SB ISS	6.0 Fill	12.00	4.00	3.5 EOP	C	17.00	7.00	N/A	N/A	10.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Silty Sand	REF S-158	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	388211.3	2004549.7
-L- 637+95 SB ISL	6.0 Fill	12.00	4.00	2.0 FWI	C	17.00	11.00	N/A	N/A	6.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange and Tan, Silty Sand	REF S-158	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	388215.1	2004547.0
-L- 666+40 SB OSS	5.0 Fill	12.00	11.00	4.0 EOP	C	9.00	7.00	N/A	N/A	2.00	N/A	Asphalt STBC	0.0 - 2.5' = Roadway Embankment, Orange, Sandy Clay 2.5 - 5.0' = Roadway Embankment, Gray, Sandy Clay	REF S-214 S-198 (2.5 - 5.0)	A-6 A-6	M	5.00	No Distresses Present, Recently Resurfaced	391030.9	2004971.8
-L- 666+40 SB ISS	5.0 Fill	12.00	4.00	2.0 EOP	C	17.50	6.50	N/A	N/A	11.00	N/A	Asphalt STBC	0.0 - 3.0' = Roadway Embankment, Tan, Sandy Silt 3.0 - 5.0' = Roadway Embankment, Gray, Clayey Sand	REF S-215 S-216 (3.0 - 5.0)	A-4 A-2-6	M M	5.00	No Distresses Present, Recently Resurfaced	391024.2	2005006.2
-L- 666+40 SB ISL	5.0 Fill	12.00	4.10	3.0 FYI	C	14.75	11.75	N/A	N/A	3.00	N/A	Asphalt STBC	DCP Only	N/A	N/A	N/A	N/A	No Distresses Present, Recently Resurfaced	391019.6	2004999.8
-L- 688+25 SB OSS	5.0 Fill	N/A	9.60	5.6 FWO	C	16.50	15.50	N/A	N/A	1.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand	S-228 (0.0-5.0)	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	393159.8	2005538.6
-L- 688+25 SB OSL	5.0 Fill	11.20	N/A	8.45 FWO	C	19.00	15.00	N/A	N/A	4.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand	S-229 (0.0-1.5)	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	393151.9	2005538.4
-L- 688+25 SB ISS	5.0 Fill	N/A	4.30	2.5 FYI	C	8.50	8.50	N/A	N/A	N/A	N/A	Asphalt	DCP Only	N/A	N/A	N/A	N/A	No Distresses Present, Recently Resurfaced	393131.2	2005564.0
-L- 688+25 SB ACCEL	4.0 Fill	7.65	N/A	1.7 FWO	C	16.00	15.50	N/A	N/A	0.50	N/A	Asphalt STBC	0.0 - 4.0' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand 4.0 - 5.0' = Coastal Plain, Gray, Orange and Tan, Silty-Clayey Sand	S-230 (0.0-4.0) REF-231	A-2-4 A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	393149.8	2005539.3
-L- 719+30 SB OSS	5.0 Fill	12.00	11.00	4.0 EOP	C	9.50	6.50	N/A	N/A	3.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan and Orange, Sandy Silt	S-197 (0.0-3.0)	A-4	M	5.00	No Distresses Present, Recently Resurfaced	395728.0	2007291.5
-L- 719+30 SB ISS	5.0 Fill	12.00	4.00	2.0 EOP	C	12.50	7.50	N/A	N/A	5.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan, Sandy Silt	S-215 (0.0 - 3.0)	A-4	M	5.00	No Distresses Present, Recently Resurfaced	395704.7	2007318.3
-L- 719+30 SB ISL	5.0 Fill	12.00	4.00	1.5 FWI	C	17.00	11.50	N/A	N/A	5.50	N/A	Asphalt STBC	0.0 - 3.0' = Roadway Embankment, Tan, Sandy Silt 3.0 - 5.0' = Roadway Embankment, Gray, Clayey Sand	REF S-215 REF S-216	A-4 A-2-6	M M	5.00	No Distresses Present, Recently Resurfaced	395707.6	2007313.7
-L- 745+65 SB OSS	3.0 Fill	N/A	11.40	6.8 FWO	C	11.00	7.25	N/A	N/A	3.75	N/A	Asphalt STBC	0.0 - 3.0' = Roadway Embankment, Tan and Orange, Silty Sand 3.0 - 5.0' = Coastal Plain, Gray, Clayey Sand	S-226 (0.0-3.0) REF-227	A-2-4 A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	398094.5	2008402.7
-L- 745+65 SB OSL	3.5 Fill	11.65	N/A	2.0 FWO	C	17.00	12.75	N/A	N/A	4.25	N/A	Asphalt STBC	0.0 - 3.5' = Roadway Embankment, Tan and Orange, Silty Sand 3.5 - 5.0' = Coastal Plain, Gray, Clayey Sand	REF-226 S-227 (3.5-5.0)	A-2-4 A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	398088.9	2008411.9

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S&ME, Inc.
3201 Spring Forest Road
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PAVEMENT INVESTIGATION DATA SHEET

Project:	47533.1.3	County:	Robeson	Date:	12/03/2019 - 12/19/2019
TIP:	I-5987B	Route:	I-95	Notes By:	D. Strother/J. Swartley/M. Rawls/V. Mitchev

		Width				Thickness											GPS Coordinates	
Position (Sta., Lane, Shldr.)	Cut/Fill (Est. Of Amount) (ft)	Lane(s) (ft)	Shoulder(s) (ft)	Offset Distance (ft)	Crown "C" or Super "S"	Gross to Top of Soil (in)	Asphalt (in)	Sand Drainage Base (in)	ABC (in)	Soil Type Base Course (in)	Stabilized Soil Subgrade (in)	Pavement Layering	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (ft)	Asphalt Notes	Northing	Easting
-L- 745+65 SB ISS	6.0 Fill	12.00	4.00	2.0 EOP	C	18.50	7.50	N/A	N/A	11.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan, Sandy Silt	REF S-215	A-4	M	5.00	No Distresses Present, Recently Resurfaced	398076.9	2008430.8
-L- 772+30 SB OSS	1.5 Fill	N/A	11.20	5.8 FWO	C	6.50	6.50	N/A	N/A	N/A	N/A	Asphalt	0.0 - 1.5' = Roadway Embankment, Tan and Orange, Clayey Sand 1.5 - 5.0' = Coastal Plain, Brown, Silty Sand	S-225 (0.0-1.5) REF-231	A-2-4 A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	400562.3	2009415.3
-L- 772+30 SB ISS	6.0 Fill	12.00	3.90	3.0 EOP	C	18.00	8.00	N/A	N/A	10.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Sandy Clay	S-214 (0.0 - 3.0)	A-6	M	5.00	No Distresses Present, Recently Resurfaced	400545.8	2009444.0
-L- 772+30 SB ISL	6.0 Fill	12.00	3.90	2.0 FWI	C	18.00	12.00	N/A	N/A	6.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan and Orange, Sandy Clay	REF S-214	A-6	M	5.00	No Distresses Present, Recently Resurfaced	400542.2	2009438.9
-L- 798+50 SB OSS	5.0 Fill	12.00	1.00	5.0 EOP	C	11.00	6.00	N/A	N/A	5.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Silty Clay	S-196 (0.0-3.0)	A-7-6	M	5.00	No Distresses Present, Recently Resurfaced	403038.5	2010172.1
-L- 798+50 SB OSL	5.0 Fill	12.00	11.00	3.0 FWO	C	15.00	12.00	N/A	N/A	3.00	N/A	Asphalt STBC	0.0 - 4.0' = Roadway Embankment, Orange, Sandy Clay 4.0 - 5.0' = Roadway Embankment, Orange, Silty Clay	REF S-204 REF S-196	A-7-6 A-7-6	M M	5.00	No Distresses Present, Recently Resurfaced	403036.4	2010178.1
-L- 798+50 SB ISS	7.0 Fill	11.50	4.20	3.0 EOP	C	16.00	8.00	N/A	N/A	8.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Gray and Orange, Sandy Clay	S-213 (0.0 - 3.0)	A-6	M	5.00	No Distresses Present, Recently Resurfaced	403037.7	2010203.9
-L- 825+00 SB OSS	5.0 Cut	12.00	11.00	4.0 EOP	C	9.00	7.00	N/A	N/A	2.00	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Orange and Red, Silty Sand	S-195 (0.0 - 3.5)	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	405658.5	2010554.2
-L- 825+00 SB ISS	5.0 Cut	12.00	4.00	1.5 EOP	C	12.00	8.00	N/A	N/A	4.00	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Orange, Clayey Sand	REF S-207	A-6	M	5.00	No Distresses Present	405653.3	2010588.7
-L- 825+00 SB ISL	5.0 Cut	12.00	4.00	2.0 FWI	C	16.00	12.00	N/A	N/A	4.00	N/A	Asphalt STBC	0.0 - 5.0' = Coastal Plain, Orange, Clayey Sand	S-207 (0.0 - 3.0)	A-6	M	5.00	No Distresses Present	405657.0	2010584.4
-L- 851+90 SB OSS	5.0 Fill	12.00	10.90	4.0 EOP	C	9.50	7.50	N/A	N/A	2.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan, Silty Sand	REF S-192	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	408319.9	2010950.8
-L- 851+90 SB OSL	5.0 Fill	12.00	10.90	2.0 FWO	C	16.00	14.00	N/A	N/A	2.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan, Sandy Silt	REF S-215	A-4	M	5.00	No Distresses Present, Recently Resurfaced	408318.7	2010964.3
-L- 851+90 SB ISS	2.5 Fill	12.00	4.00	2.0 FWI	C	14.50	8.00	N/A	N/A	6.50	N/A	Asphalt STBC	0.0 - 2.5' = Roadway Embankment, Brown, Sand 2.5 - 5.0' = Coastal Plain, Brown, Silty Sand	S-141 (0.0 - 2.5) REF S-140	A-2-4 A-2-4	M M	5.00	No Distresses Present, Recently Resurfaced	408322.7	2010977.3
-L- 878+15 SB OSS	5.0 Fill	12.00	10.90	4.5 EOP	C	8.50	6.50	N/A	N/A	2.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan, Silty Sand	S-194 (0.0-3.0)	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	410921.7	2011329.5
-L- 878+15 SB ISS	2.5 Fill	12.10	3.80	2.0 FWI	C	13.00	7.75	N/A	N/A	5.25	N/A	Asphalt STBC	0.0 - 2.5' = Roadway Embankment, Orange, Sand 2.5 - 5.0' = Coastal Plain, Yellow, Silty Sand	REF S-139 REF S-140	A-2-4 A-2-4	M M	5.00	No Distresses Present, Recently Resurfaced	410911.8	2011360.1
-L- 878+15 SB ISL	2.5 Fill	12.10	3.80	3.2 FWI	C	18.50	13.50	N/A	N/A	5.00	N/A	Asphalt STBC	0.0 - 2.5' = Roadway Embankment, Orange, Sand 2.5 - 5.0' = Coastal Plain, Yellow, Silty Sand	REF S-139 S-140 (2.5 - 5.0)	A-2-4 A-2-4	M M	5.00	No Distresses Present, Recently Resurfaced	410915.9	2011355.2

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Position (Sta., Lane, Shldr.)	Cut/Fill (Est. Of Amount) (ft)	Lane(s) (ft)	Shoulder(s) (ft)	Offset Distance (ft)	Crown "C" or Super "S"	Gross to Top of Soil (in)	Asphalt (in)	Sand Drainage Base (in)	ABC (in)	Soil Type Base Course (in)	Stabilized Soil Subgrade (in)	Pavement Layering	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (ft)	Asphalt Notes	Northing	Easting
-L- 904+75 SB OSS	8.0 Fill	11.00	11.00	6.0 FWO	C	9.50	7.50	N/A	N/A	2.00	N/A	Asphalt STBC	0.0 - 2.5' = Roadway Embankment, Tan, Silty Sand 2.5 - 5.0' = Roadway Embankment, Tan, Sandy Clay	REF S-192 S-193 (2.5 - 5.0)	A-2-4 A-2-6	M M	5.00	No Distresses Present, Recently Resurfaced	413543.7	2011717.8
-L- 904+75 SB OSL	8.0 Fill	11.00	11.00	2.0 FWO	C	15.00	13.00	N/A	N/A	2.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan, Silty Sand	REF S-192	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	413546.4	2011725.9
-L- 904+75 SB ISS	2.5 Fill	12.00	4.00	3.0 FWI	C	12.75	7.25	N/A	N/A	5.50	N/A	Asphalt STBC	0.0 - 2.5' = Roadway Embankment, Orange, Silty Sand 2.5 - 5.0' = Coastal Plain, Yellow, Sand	S-139 (0.0 - 2.5) REF S-140	A-2-4 A-2-4	M M	5.00	No Distresses Present, Recently Resurfaced	413546.1	2011750.6
-L- 934+95 SB OSS	6.0 Fill	12.00	8.00	3.0 FWO	C	10.50	8.50	N/A	N/A	2.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan, Silty Sand	S-192 (0.0-3.0)	A-2-4	M	5.00	Minor Separation at Outside White Line	416544.2	2012158.8
-L- 934+95 SB ISS	1.0 Fill	12.00	3.90	2.6 FWI	C	12.50	9.50	N/A	N/A	3.00	N/A	Asphalt STBC	0.0 - 1.0' = Roadway Embankment, Brown, Sand 1.0 - 5.0' = Coastal Plain, Yellow, Sand	REF S-137 REF S-140	A-1-b A-2-4	M M	5.00	Low Severity Oxidation	416543.8	2012184.0
-L- 934+95 SB ISL	2.5 Fill	12.00	3.90	2 FWI	C	18.50	14.00	N/A	N/A	4.50	N/A	Asphalt STBC	0.0 - 2.5' = Roadway Embankment, Brown, Sand 2.5 - 5.0' = Coastal Plain, Orange and Yellow, Sand	S-138 (0.4 - 2.0) REF S-140	A-1-b A-2-4	M M	5.00	Low Severity Transverse Cracking, Moderate Severity Oxidation, Low Severity Longitudinal Cracking, Core Cracked Top Down 2.5"	416545.7	2012182.0
-L- 961+00 SB OSS	6.0 Fill	12.00	8.00	4.5 EOP	C	12.00	8.00	N/A	N/A	4.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Silty Sand	S-191 (0.0 - 5.0)	A-2-4	M	5.00	Low Severity Fatigue Cracking and Oxidation in Adjacent Lane	419120.7	2012544.2
-L- 961+00 SB OSL	6.0 Fill	12.00	8.00	2.0 FWO	C	16.00	13.00	N/A	N/A	3.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Silty Sand	REF S-191	A-2-4	M	5.00	Low Severity Fatigue Cracking and Oxidation in Adjacent Lane	419119.9	2012546.4
-L- 961+00 SB ISS	2.5 Fill	12.00	3.80	3.5 FWI	C	14.00	8.00	N/A	N/A	6.00	N/A	Asphalt STBC	0.0 - 2.5' = Roadway Embankment, Brown, Sand 2.5 - 5.0' = Coastal Plain, Orange, Sand	S-137 (0.0 - 2.5) REF S-140	A-1-b A-2-4	M M	5.00	Moderate Severity Oxidation	419116.9	2012574.4
-L- 987+25 SB OSS	2.5 Fill	12.00	8.00	7.0 EOP	C	11.50	4.50	N/A	N/A	7.00	N/A	Asphalt STBC	0.0 - 2.5' = Roadway Embankment, Orange, Silty Sand 2.5 - 5.0' = Coastal Plain, Gray, Clayey Sand	S-190 (0.0 - 2.5) REF S-193	A-2-4 A-2-6	M M	5.00	Low Severity Fatigue Cracking	421687.4	2013129.6
-L- 987+25 SB ISL	2.5 Fill	11.00	4.00	4.0 FWI	C	13.50	9.50	N/A	N/A	4.00	N/A	Asphalt STBC	0.0 - 2.5' = Roadway Embankment, Tan, Silty Sand 2.5 - 4.0' = Coastal Plain, Brown, Silty Sand 4.0 - 5.0' = Coastal Plain, Brown, Silty Clay	REF S-206 REF S-206 REF S-204	A-2-4 A-2-4 A-7-6	M M M	5.00	Pothole at Center White Line	421682.4	2013143.2
-L- 1010+15 SB OSS	6.0 Fill	12.00	11.00	5.5 EOP	C	10.50	5.50	N/A	N/A	5.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Silty Sand	REF S-189	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	423772.4	2014097.7
-L- 1010+15 SB OSL	6.0 Fill	12.00	11.00	2.5 FWO	C	15.00	11.00	N/A	N/A	4.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Silty Sand	REF S-189	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	423762.8	2014101.1
-L- 1010+15 SB ISS	7.0 Fill	12.00	4.00	2.0 EOP	C	12.50	6.50	N/A	N/A	6.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan, Silty Sand	S-206 (0.0 - 3.0)	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	423753.2	2014119.6
-L- 1037+30 SB OSS	6.0 Fill	12.00	12.00	5.0 EOP	C	18.00	12.00	N/A	N/A	6.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Silty Sand	S-189 (0.0-3.0)	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	425985.3	2015670.1
-L- 1037+30 SB OSL	6.0 Fill	12.00	12.00	2.5 FWO	C	18.00	12.00	N/A	N/A	6.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Silty Sand	REF S-189	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	425977.0	2015676.5

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S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

PAVEMENT INVESTIGATION DATA SHEET

Project:	47533.1.3	County:	Robeson	Date:	12/03/2019 - 12/19/2019
TIP:	I-5987B	Route:	I-95	Notes By:	D. Strother/J. Swartley/M. Rawls/V. Mitchev

		Width				Thickness							Subgrade						GPS Coordinates	
Position (Sta., Lane, Shldr.)	Cut/Fill (Est. Of Amount) (ft)	Lane(s) (ft)	Shoulder(s) (ft)	Offset Distance (ft)	Crown "C" or Super "S"	Gross to Top of Soil (in)	Asphalt (in)	Sand Drainage Base (in)	ABC (in)	Soil Type Base Course (in)	Stabilized Soil Subgrade (in)	Pavement Layering	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (ft)	Asphalt Notes	Northing	Easting
-L- 1037+30 SB ISS	5.0 Fill	12.00	4.00	1.5 EOP	C	20.00	11.00	N/A	N/A	9.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan, Sandy Silt	REF S-205	A-4	M	5.00	No Distresses Present, Recently Resurfaced	425962.6	2015709.0
-L- 1037+30 SB ISL	5.0 Fill	12.00	4.00	1.5 FWO	C	22.00	13.00	N/A	N/A	9.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan, Sandy Silt	REF S-205	A-4	M	5.00	No Distresses Present, Recently Resurfaced	425966.5	2015698.5
-L- 1053+70 SB OSS	5.0 Fill	12.00	11.00	5.0 EOP	C	15.00	5.00	N/A	N/A	10.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Silty Sand	REF S-188	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	427301.2	2016643.6
-L- 1053+70 SB OSL2	5.0 Fill	12.00	11.00	2.5 FWO	C	19.00	12.00	N/A	N/A	7.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan and Orange, Silty Sand	REF S-188	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	427289.1	2016659.1
-L- 1053+70 SB OSL1	5.0 Fill	12.00	11.00	2.0 FWO	C	19.00	13.00	N/A	N/A	6.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan and Orange, Silty Sand	S-188 (0.0 - 3.0)	A-2-4	M	5.00	No Distresses Present, Recently Resurfaced	427295.8	2016645.4
-L- 1063+70 SB ISS	6.0 Fill	12.00	4.00	2.5 EOP	C	22.00	13.00	N/A	N/A	9.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Tan, Sandy Silty	S-205 (0.0 - 3.0)	A-4	M	5.00	No Distresses Present, Recently Resurfaced	428096.8	2017243.6
-L- 1091+30 SB OSS	30.0 Fill	12.00	12.00	6.5 EOP	C	19.00	5.00	N/A	N/A	14.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange, Clayey Sand	S-187 (0.0 - 3.0)	A-2-6	M	5.00	No Distresses Present, Recently Resurfaced	430351.8	2018848.8
-L- 1091+30 SB ISS	5.0 Fill	12.00	3.50	0.5 EOP	C	20.00	5.50	N/A	N/A	14.50	N/A	Asphalt STBC	0.0 - 2.5' = Roadway Embankment, Orange, Sandy Clay 2.5 - 5.0' = Roadway Embankment, Orange, Silty Clay	REF S-203 S-204 (2.5 - 5.0)	A-6 A-7-6	M M	5.00	No Distresses Present	430326.5	2018864.9
-L- 1091+30 SB ISL	5.0 Fill	12.00	3.50	1.0 FWO	C	15.00	6.00	N/A	N/A	9.00	N/A	Asphalt STBC	0.0 - 2.5' = Roadway Embankment, Orange, Sand Clay 2.5 - 5.0' = Roadway Embankment, Orange, Silty Clay	REF S-203 REF S-204	A-6 A-7-6	M M	5.00	No Distresses Present	430333.8	2018861.7
-L- 1116+00 SB OSS	8.0 Fill	12.00	3.50	1.0 EOP	C	17.50	3.50	N/A	N/A	14.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Gray, Sandy Clay	REF S-186	A-6	M	5.00	No Distresses Present, Recently Resurfaced	431554.6	2021019.9
-L- 1116+00 SB OSL	8.0 Fill	12.00	3.50	2.5 FWO	C	19.50	11.50	N/A	N/A	8.00	N/A	Asphalt STBC	0.0 - 5.0' = Roadway Embankment, Orange and Gray, Sandy Clay	REF S-186	A-6	M	5.00	No Distresses Present, Recently Resurfaced	431541.6	2021025.6
-L- 1116+00 SB ISS	5.0 Fill	12.00	3.50	0.5 EOP	C	14.00	5.00	N/A	N/A	9.00	N/A	Asphalt STBC	0.0 - 2.5' = Roadway Embankment, Orange, Sandy Clay 2.5 - 5.0' = Roadway Embankment, Orange, Silty Clay	S-203 (0.0 - 2.5) REF S-204	A-6 A-7-6	M M	5.00	No Distresses Present	431526.1	2021056.3
-L- 1116+00 SB ACCEL	8.0 Fill	12.00	3.50	2.0 FWO	C	15.50	3.50	N/A	N/A	12.00	N/A	Asphalt STBC	0.0 - 3.0' = Roadway Embankment, Orange, Clayey Sand 3.0 - 5.0' = Roadway Embankment, Gray and Orange, Sandy Clay	S-185 (0.0 - 3.0) S-186 (3.0-5.0)	A-2-6 A-6	M M	5.00	No Distresses Present, Recently Resurfaced	431548.2	2021021.5
-L- 590+30 SB OES	6.0 Fill	N/A	N/A	74 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	N/A	0.0-3.33' = Roadway Embankment, Orange, Clayey-Silty Sand	BULK 6 OES SB	A-2-4	M	3.33	N/A	383683.9	2003152.5
-L- 642+05 SB IES	2.0 Fill	N/A	N/A	5 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	N/A	0.0-2.5' = Roadway Embankment, Orange, Silty Sand	BULK 5 IES SB	A-2-4	M	2.50	N/A	388615.3	2004642.4
-L- 699+70 SB OES	4.0 Fill	N/A	N/A	74 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	N/A	0.0-3.25' = Roadway Embankment, Tan and Orange, Silty-Clayey Sand	BULK 5 OES SB	A-7-6	M	3.25	N/A	394127.9	2006164.8

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PAVEMENT INVESTIGATION DATA SHEET

Project:	47533.1.3	County:	Robeson	Date:	12/03/2019 - 12/19/2019
TIP:	I-5987B	Route:	I-95	Notes By:	D. Strother/J. Swartley/M. Rawls/V. Mitchev

		Width				Thickness							Subgrade						GPS Coordinates	
Position (Sta., Lane, Shldr.)	Cut/Fill (Est. Of Amount) (ft)	Lane(s) (ft)	Shoulder(s) (ft)	Offset Distance (ft)	Crown "C" or Super "S"	Gross to Top of Soil (in)	Asphalt (in)	Sand Drainage Base (in)	ABC (in)	Soil Type Base Course (in)	Stabilized Soil Subgrade (in)	Pavement Layering	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (ft)	Asphalt Notes	Northing	Easting
-L- 747+50 SB IES	AG	N/A	N/A	13 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	N/A	0.0-3.58' = Coastal Plain, Tan, Silty Sand	BULK 4 IES SB	A-4	M	3.58	N/A	398244.1	2008542.4
-L- 795+90 SB OES	4.0 Fill	N/A	N/A	68 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	N/A	0.0-2.5' = Roadway Embankment, Orange, Silty Clay	BULK 4 OES SB	A-2-4	M	2.50	N/A	402794.4	2010117.4
-L- 853+15 SB IES	2.5 Fill	N/A	N/A	7 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	N/A	0.0-2.92' = Roadway Embankment, Orange, Silty Sand	BULK 3 IES SB	A-2-4	M	2.92	N/A	408446.3	2011010.8
-L- 895+20 SB OES	7.0 Fill	N/A	N/A	70 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	N/A	0.0-4.0' = Roadway Embankment, Tan, Sandy Clay	BULK 3 OES SB	A-6	M	4.00	N/A	412618.7	2011560.7
-L- 1116+00 SB OES	7.0 Fill	N/A	N/A	129 CL	C	0.00	N/A	N/A	N/A	N/A	N/A	N/A	0.0-3.5' = Roadway Embankment, Orange and Gray, Sandy Clay	BULK 1 OES SB	A-2-4	M	3.50	N/A	431587.5	2021001.3

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CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 508+50 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	375725.0	2001479.1

Cumulative Penetration in Centimeters

0.7	40.5	62.4			
1.4	41.1	63.0			
2.0	41.6	63.7			
2.7	42.0	64.4			
3.3	42.3	65.1			
3.9	42.7	65.7			
4.7	43.0	66.4			
5.3	43.2	67.0			
6.0	43.5	67.7			
6.7	44.0	69.1			
7.3	44.5	70.4			
7.9	45.0	71.8			
8.4	45.3	72.6			
9.0	45.6	73.4			
9.6	45.8	74.3			
10.7	46.1	75.1			
11.7	46.4	75.9			
12.8	46.8	76.5			
15.9	47.2	77.0			
19.0	47.6	77.6			
19.6	48.0	78.1			
20.1	48.4	78.7			
20.7	48.8	79.2			
21.3	49.3	79.6			
21.8	49.7	80.1			
22.4	50.2	80.5			
22.9	50.6	81.0			
23.5	51.1	81.5			
24.0	51.6	82.1			
24.6	52.0	82.6			
25.3	52.5	83.2			
25.9	53.0	83.7			
26.6	53.4				
27.2	53.8				
27.9	54.2				
28.7	54.6				
29.6	55.0				
30.4	55.4				
31.1	55.7				
31.7	56.1				
32.4	56.4				
33.1	56.8				
33.9	57.2				
34.6	57.5				
35.4	57.9				
36.2	58.2				
37.0	58.6				
37.6	59.1				
38.2	59.6				
38.8	60.0				
39.2	60.5				
39.6	61.0				
40.0	61.7				

TEST LOCATION DESCRIPTION	DATE RUN
-L- 508+50 NB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	375732.3	2001503.6

Cumulative Penetration in Centimeters

1.1	10.3	18.2	31.3	43.9	56.9
1.7	10.4	18.5	31.5	44.4	57.1
2.2	10.6	18.7	31.8	44.8	57.3
2.8	10.7	19.0	32.0	45.3	57.5
3.3		19.2	32.1	45.8	57.7
3.7		19.4	32.3	46.3	57.9
4.1		19.7	32.5	46.8	58.1
4.6		19.9	32.6	47.3	58.4
4.8	0.0	20.1	32.8	47.7	58.6
5.0	1.3	20.3	33.0	48.2	58.8
5.1	1.6	20.5	33.2	48.7	59.0
5.3	1.9	20.7	33.4	49.1	
5.5	2.3	20.8	33.7	49.6	
5.6	2.6	21.0	34.0	49.9	
5.8	2.9	21.2	34.4	50.1	
6.0	3.3	21.4	34.6	50.4	
6.2	3.6	21.7	34.7	50.6	
6.3	3.8	21.9	34.9	50.8	
6.5	4.1	22.0	35.2	51.0	
6.7	4.5	22.2	35.4	51.1	
6.8	4.8	22.4	35.7	51.3	
7.0	5.2	22.6	35.9	51.4	
7.1	5.4	22.8	36.1	51.6	
7.2	5.6	23.1	36.3	51.9	
7.3	5.8	23.4	36.5	52.1	
7.4	6.1	23.7	36.6	52.3	
7.5	6.4	24.0	36.8	52.5	
7.6	6.7	24.3	37.0	52.7	
7.7	7.1	24.5	37.2	52.8	
7.8	7.5	24.8	37.5	53.0	
7.9	7.9	25.0	37.7	53.1	
8.1	8.3	25.3	37.9	53.2	
8.2	8.8	25.5	38.1	53.3	
8.3	9.2	25.8	38.3	53.4	
8.4	9.7	26.0	38.5	53.6	
8.5	10.3	26.3	38.7	53.7	
8.6	10.8	26.6	39.0	53.9	
8.7	11.4	26.9	39.2	54.1	
8.8	12.0	27.2	39.5	54.2	
8.9	12.6	27.4	39.8	54.4	
9.0	13.1	27.7	40.0	54.6	
9.1	13.6	28.0	40.3	54.7	
9.2	14.1	28.3	40.5	54.9	
9.3	14.9	28.6	40.7	55.1	
9.4	15.3	28.9	41.0	55.4	
9.5	15.5	29.2	41.3	55.6	
9.6	15.9	29.5	41.6	55.8	
9.7	16.4	29.8	41.9	55.9	
9.7	16.8	30.1	42.2	56.1	
9.8	17.1	30.4	42.5	56.2	
9.9	17.4	30.6	42.8	56.4	
10.0	17.7	30.8	43.2	56.5	
10.1	18.0	31.1	43.5	56.7	

Augered 7.6 cm

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 508+50 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	375729.8	2001508.4

Cumulative Penetration in Centimeters

1.1	29.4	53.3	76.3		
1.8	29.8	53.8	79.6		
2.5	30.2	54.3	81.0		
3.1	30.6	54.6	83.7		
3.6	30.9	55.0	87.6		
4.1	31.3	55.4	91.6		
4.8	31.6	55.8	93.0		
5.4	32.0	56.0	93.8		
6.0	32.3	56.3	94.4		
6.5	32.8	56.6	95.0		
7.1	33.2	56.9	95.6		
7.7	33.7	57.2	96.1		
8.4	34.1	57.6	96.6		
9.0	34.5	58.0			
9.6	34.9	58.4			
10.2	35.3	58.7			
10.9	35.6	59.0			
11.6	36.0	59.3			
12.4	36.4	59.6			
13.1	36.8	59.8			
13.8	37.2	60.2			
14.5	37.7	60.6			
15.3	38.2	61.0			
16.1	38.7	61.4			
16.8	39.0	61.7			
17.5	39.6	62.0			
18.2	40.2	62.3			
18.9	40.8	62.7			
19.5	41.5	63.0			
20.1	42.1	63.3			
20.7	42.7	63.6			
21.2	43.3	64.0			
21.7	43.9	64.3			
22.1	44.4	64.6			
22.6	44.9	64.9			
23.0	45.4	65.3			
23.4	45.7	65.7			
23.8	46.3	66.1			
24.2	46.9	66.5			
24.5	47.5	66.7			
24.8	48.1	67.2			
25.2	48.5	67.7			
25.5	48.9	68.2			
25.9	49.3	68.7			
26.2	49.6	69.0			
26.5	50.0	69.3			
26.8	50.4	69.6			
27.1	50.8	69.9			
27.4	51.1	70.4			
27.8	51.6	70.9			
28.2	52.1	71.4			
28.6	52.6	71.7			
29.0	52.9	73.8			

TEST LOCATION DESCRIPTION	DATE RUN
-L- 535+20 NB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	378399.0	2001674.7

Cumulative Penetration in Centimeters

1.3	13.5	24.7	36.5		
2.0	13.6	24.9	36.7		
2.4	13.8	25.1	36.9		
2.9	13.9	25.4	37.2		
3.3	14.0	25.6	37.5		
3.8	14.1	25.8	37.8		
4.2	14.2	26.0	38.1		
4.5	14.3	26.2	38.4		
4.9	14.4	26.5	38.7		
5.2	14.6	26.7	39.0		
5.6	14.8	26.9	39.3		
5.9	14.9	27.1	39.6		
6.2	15.1	27.3	39.9		
6.5	15.3	27.4	40.1		
6.9	15.5	27.6	40.3		
7.2	15.7	27.8	40.4		
7.5	16.0	28.0	40.6		
7.7	16.2	28.2	40.8		
8.0	16.4	28.3	41.0		
8.2	16.6	28.5	41.2		
8.5	16.8	28.9	41.3		
8.7	17.0	29.1	41.5		
8.9	17.2	29.3	41.7		
9.1	17.4	29.5	41.7		
9.3	17.6	29.7	41.8		
9.5	17.8	29.9	41.8		
9.7	17.9	30.2	41.9		
9.9	18.1	30.5	41.9		
10.0	18.3	30.7	41.9		
10.2	18.5	31.0	42.0		
10.3	18.8	31.3	42.0		
10.5	19.0	31.5	42.1		
10.6	19.3	31.8	42.1		
10.7	19.5	32.0			
10.9	19.7	32.3			
11.0	20.0	32.5			
11.1	20.2	32.8			
11.2	20.5	33.1			
11.3	20.7	33.3			
11.4	21.0	33.6			
11.5	21.3	33.9			
11.6	21.6	34.1			
11.7	21.9	34.4			
11.9	22.2	34.6			
12.0	22.5	34.9			
12.2	22.7	35.1			
12.3	23.0	35.3			
12.5	23.2	35.5			
12.6	23.5	35.6			
12.8	23.7	35.8			
12.9	24.0	36.0			
13.1	24.2	36.2			
13.3	24.5	36.4			

DCP REFUSAL

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 535+20 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	378400.1	2001670.4

Cumulative Penetration in Centimeters

1.4	21.4	32.0					
2.5	21.6	32.1					
3.0	21.8	32.5					
3.4	22.0	32.9					
4.8	22.2	33.2					
5.2	22.4	33.6					
5.6	22.6	34.0					
6.0	22.9	34.2					
7.2	23.1	34.4					
7.4	23.3	34.5					
8.3	23.5	34.7					
8.9	23.7	34.9					
9.5	23.9	35.1					
10.0	24.2	35.3					
10.5	24.4	35.4					
11.0	24.6	35.6					
11.5	24.8	35.8					
12.0	25.1	36.0					
12.5	25.3	36.1					
13.0	25.5	36.3					
13.4	25.7	36.4					
13.9	25.9	36.6					
14.4	26.1						
14.7	26.3						
14.9	26.5						
15.2	26.7						
15.4	26.9						
15.7	27.0						
16.0	27.2						
16.2	27.4						
16.5	27.6						
16.7	27.8						
17.0	28.0						
17.2	28.2						
17.4	28.4						
17.6	28.6						
17.8	28.8						
18.0	29.0						
18.2	29.2						
18.4	29.4						
18.7	29.6						
18.9	29.8						
19.1	30.1						
19.3	30.3						
19.5	30.5						
19.6	30.7						
19.8	30.9						
20.0	31.0						
20.2	31.2						
20.5	31.4						
20.7	31.5						
21.0	31.7						
21.2	31.8						

DCP REFUSAL

TEST LOCATION DESCRIPTION	DATE RUN
-L- 535+20 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	378399.4	2001698.2

Cumulative Penetration in Centimeters

0.8	26.0	68.4	91.0				
1.2	26.3	68.9	91.6				
1.6	26.7	69.3	92.1				
2.0	27.1	69.8	92.6				
2.4	27.6	70.2	93.0				
2.8	28.1	70.7	93.3				
3.1	28.7	71.1	93.7				
3.4	29.2	71.7	94.0				
3.8	29.9	72.0	94.4				
4.1	30.5	72.5	94.8				
4.4	31.4	73.0	95.2				
4.7	32.2	73.5	95.6				
4.9	35.2	73.9	96.0				
5.2	35.3	74.3	96.4				
5.4	35.4	74.8	96.8				
5.7	36.6	75.3	97.2				
6.4	37.6	75.8	97.6				
7.1	38.8	76.2	98.0				
7.7	39.8	76.7	98.4				
8.4	40.8	77.1	98.8				
9.1	41.9	77.5	99.1				
9.7	42.9	77.9	99.5				
10.0	44.0	78.4	99.8				
10.5	45.2	78.8	100.2				
10.9	46.6	79.3					
11.4	48.0	79.6					
11.9	49.6	80.0					
12.6	51.3	80.5					
13.3	53.4	80.8					
13.8	55.3	81.3					
14.3	56.3	81.6					
14.9	57.2	82.2					
15.5	57.9	82.6					
16.1	58.5	83.0					
16.6	59.2	83.4					
17.2	59.6	83.8					
17.7	60.1	84.1					
18.3	60.6	84.5					
18.8	61.3	84.9					
19.4	61.8	85.2					
20.0	62.3	85.6					
20.6	62.8	86.0					
21.2	63.3	86.4					
21.7	63.7	86.8					
22.2	64.1	87.2					
22.7	64.6	87.6					
23.2	65.2	88.0					
23.7	65.6	88.4					
24.1	66.1	88.8					
24.5	66.6	89.2					
24.8	67.0	89.6					
25.2	67.5	90.0					
25.6	68.0	90.5					

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 562+00 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	380984.5	2002281.9

Cumulative Penetration in Centimeters

1.7	30.0	44.5	86.0				
3.1	30.2	44.8	86.8				
3.9	30.5	45.2	87.5				
5.2	30.7	45.5	88.3				
6.2	30.9	45.9	89.1				
7.3	31.2	46.2	89.9				
8.3	31.4	46.7	90.6				
9.5	31.7	47.1	91.4				
10.9	31.9	47.6	92.2				
12.1	32.2	48.0					
13.4	32.4	48.5					
14.6	32.7	49.1					
15.4	32.9	49.6					
16.2	33.2	50.2					
16.8	33.4	50.7					
17.4	33.6	51.3					
18.0	33.8	52.0					
18.6	34.0	52.7					
19.2	34.2	53.4					
19.7	34.5	54.1					
20.1	34.7	54.8					
20.6	35.0	55.6					
21.0	35.2	56.4					
21.4	35.5	57.3					
21.8	35.7	58.1					
22.1	35.9	58.9					
22.4	36.2	61.0					
22.7	36.4	63.0					
23.0	36.6	63.2					
23.3	36.9	63.4					
23.6	37.2	64.5					
23.9	37.4	65.6					
24.2	37.7	66.7					
24.5	38.0	67.8					
24.8	38.2	68.9					
25.0	38.4	69.9					
25.3	38.7	71.0					
25.6	38.9	72.0					
25.8	39.1	73.0					
26.1	39.4	74.0					
26.4	39.8	75.0					
26.6	40.1	76.0					
26.9	40.5	76.8					
27.2	40.8	77.6					
27.5	41.2	78.5					
27.8	41.6	79.4					
28.0	42.0	80.3					
28.3	42.4	81.2					
28.5	42.8	82.2					
28.8	43.1	83.2					
29.2	43.5	83.9					
29.5	43.8	84.5					
29.7	44.2	85.3					

TEST LOCATION DESCRIPTION	DATE RUN
-L- 562+00 NB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	380976.3	2002302.4

Cumulative Penetration in Centimeters

0.9	8.6	3.8	13.4	23.4			
1.5	8.7	4.0	13.6	23.8			
1.8	8.7	4.2	13.8	24.1			
2.0	8.8	4.4	13.9	24.4			
2.3	8.9	4.7	14.1	24.7			
2.5	9.0	5.0	14.3	25.1			
2.8	9.1	5.3	14.4	25.4			
3.0	9.1	5.6	14.6	25.7			
3.3	9.2	5.9	14.7	26.3			
3.6	9.3	6.1	14.9	26.8			
3.9	9.4	6.2	15.0	27.4			
4.2	9.5	6.4	15.1	27.9			
4.5	9.6	6.5	15.3	28.5			
4.6	9.7	6.7	15.4	29.1			
4.6	9.8	6.9	15.6	29.7			
4.7	9.8	7.1	15.7	30.3			
4.8	9.9	7.3	15.8	30.9			
4.9	10.0	7.5	15.9	31.5			
4.9	10.1	7.7	16.1	32.6			
5.0	10.2	7.9	16.2	33.7			
5.1	10.3	8.0	16.3	34.8			
5.1	10.3	8.2	16.4	36.1			
5.2	10.4	8.3	16.6	37.5			
5.4	10.5	8.5	16.7	38.8			
5.5	10.6	8.7	16.9	40.1			
5.7	10.6	8.9	17.0	41.4			
5.8	10.7	9.0	17.2	42.7			
6.0	10.8	9.2	17.5	44.0			
6.1	10.8	9.4	17.7	45.2			
6.3	10.9	9.7	18.0	46.5			
6.4	10.9	9.9	18.2	47.5			
6.6	11.0	10.2	18.4	48.4			
6.7	11.0	10.4	18.6	49.4			
6.8	11.1	10.7	18.8	50.5			
7.0	11.1	10.8	19.0	51.5			
7.1	11.1	11.0	19.2	52.6			
7.2	11.2	11.1	19.4				
7.4	11.2	11.3	19.6				
7.5	11.3	11.4	19.8				
7.6	11.3	11.5	20.1				
7.7		11.6	20.4				
7.9		11.8	20.6				
8.0		11.9	20.8				
8.1		12.0	20.9				
8.1		12.2	21.1				
8.2	1.4	12.4	21.3				
8.2	2.0	12.5	21.5				
8.3	2.3	12.7	21.7				
8.3	2.6	12.9	22.0				
8.4	2.8	13.0	22.2				
8.4	3.1	13.1	22.4				
8.5	3.4	13.2	22.7				
8.5	3.6	13.3	23.1				

Augered 93 cm

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
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CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 562+00 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	380976.5	2002310.0

Cumulative Penetration in Centimeters

1.5	27.3	38.2			
2.4	27.6	38.4			
3.2	27.9	38.6			
3.5	28.1	38.8			
4.1	28.4	39.0			
4.7	28.6	39.2			
5.3	28.7	39.4			
5.8	28.9	39.6			
6.3	29.1	39.8			
6.8	29.4	40.0			
7.5	29.6	40.2			
8.3	29.8	40.4			
9.0	30.0	40.6			
10.0	30.2	40.8			
11.0	30.4	41.0			
12.0	30.6	41.2			
12.9	30.8	DCP Refusal			
13.7	31.0				
14.6	31.2				
15.0	31.4				
15.5	31.6				
15.9	31.8				
16.4	32.0				
16.8	32.2				
17.3	32.4				
17.7	32.6				
18.2	32.7				
18.6	32.9				
19.0	33.1				
19.4	33.3				
19.8	33.6				
20.2	33.8				
20.6	34.1				
21.0	34.3				
21.4	34.5				
21.7	34.7				
22.1	34.8				
22.4	35.0				
22.8	35.2				
23.1	35.4				
23.4	35.6				
23.8	35.8				
24.1	36.0				
24.4	36.2				
24.7	36.4				
25.0	36.6				
25.3	36.9				
25.7	37.1				
26.0	37.3				
26.2	37.5				
26.5	37.7				
26.7	37.8				
27.0	38.0				

TEST LOCATION DESCRIPTION	DATE RUN
-L- 596+90 NB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	384273.4	2003458.3

Cumulative Penetration in Centimeters

0.5	12.3	20.5	30.2		
1.2	12.4	20.7	30.4		
1.9	12.5	21.0	30.6		
2.7	12.6	21.2	30.7		
3.4	12.8	21.4	30.9		
4.1	12.9	21.5	31.0		
4.3	13.1	21.7	31.2		
4.4	13.2	21.8	31.4		
4.6	13.3	22.0	31.7		
4.7	13.4	22.1	31.9		
4.9	13.6	22.2	32.2		
5.1	13.7	22.4	32.4		
5.3	13.8	22.5	32.6		
5.6	13.9	22.7	32.8		
5.8	14.1	22.8	33.0		
6.0	14.2	23.0	33.2		
6.2	14.4	23.2	33.4		
6.4	14.5	23.4	33.6		
6.6	14.6	23.6	33.8		
6.8	14.8	23.8	34.0		
7.0	14.9	24.0	34.2		
7.2	15.1	24.2	34.4		
7.3	15.2	24.4	Terminate		
7.5	15.3	24.6			
7.6	15.5	24.8			
7.8	15.6	24.9			
8.0	15.8	25.1			
8.1	15.9	25.2			
8.3	16.0	25.4			
8.4	16.2	25.5			
8.6	16.3	25.7			
8.7	16.5	25.9			
8.9	16.6	26.0			
9.0	16.8	26.2			
9.2	16.9	26.4			
9.3	17.1	26.6			
9.6	17.2	26.8			
9.9	17.4	27.1			
10.1	17.6	27.3			
10.4	17.8	27.5			
10.7	17.9	27.7			
10.9	18.1	27.9			
11.0	18.3	28.2			
11.2	18.5	28.4			
11.3	18.7	28.6			
11.5	19.0	28.8			
11.6	19.2	29.0			
11.7	19.4	29.2			
11.8	19.6	29.4			
11.9	19.8	29.6			
12.0	19.9	29.8			
12.1	20.1	29.9			
12.2	20.3	30.1			

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 596+90 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	384275.4	2003452.2

Cumulative Penetration in Centimeters

1.4	36.3	55.8			
2.4	36.6	56.2			
3.7	37.0	56.7			
4.7	37.5	57.2			
5.6	37.9	57.6			
6.6	38.2	58.1			
7.5	38.6	58.6			
8.5	38.9	59.1			
9.6	39.2	59.6			
10.4	39.6	60.2			
11.3	39.9	60.7			
12.0	40.2	61.3			
12.8	40.6	61.8			
13.5	40.9	62.4			
14.2	41.2	62.9			
14.9	41.6	63.5			
15.5	41.9	64.2			
16.0	42.2	64.8			
16.6	42.6	65.4			
17.2	42.9	65.9			
17.8	43.2	66.5			
18.4	43.6	67.1			
19.1	43.9	67.7			
19.7	44.2	68.3			
20.4	44.6	68.9			
20.9	44.9	69.4			
21.3	45.3	70.0			
21.8	45.8	70.6			
22.4	46.2	71.3			
22.9	46.6	71.9			
23.5	46.9	72.5			
24.0	47.3	73.2			
24.6	47.7	73.8			
25.1	48.0	74.5			
25.7	48.4	75.1			
26.4	48.8	75.8			
27.0	49.2	76.3			
27.7	49.6	76.8			
28.3	50.0	77.3			
29.0	50.4				
29.6	50.8				
30.3	51.2				
30.9	51.7				
31.5	52.1				
32.2	52.4				
32.8	52.7				
33.3	53.0				
33.7	53.4				
34.2	53.8				
34.6	54.2				
35.1	54.6				
35.5	55.0				
35.9	55.4				

TEST LOCATION DESCRIPTION	DATE RUN
-L- 596+90 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	384271.9	2003483.4

Cumulative Penetration in Centimeters

1.6	34.4	57.3	69.4	79.6	92.5
2.7	35.0	57.5	69.6	79.9	92.8
3.6	35.6	57.8	69.9	80.1	93.0
4.4	36.2	58.1	70.1	80.3	
5.2	36.8	58.3	70.3	80.5	
6.0	37.5	58.6	70.6	80.7	
7.0	38.2	58.8	70.8	81.0	
7.9	38.9	59.0	71.0	81.2	
8.7	39.7	59.2	71.3	81.4	
9.8	40.4	59.5	71.5	81.5	
10.9	41.2	59.7	71.7	81.7	
12.0	41.8	60.0	71.9	82.1	
13.4	42.4	60.2	72.1	82.6	
14.5	43.0	60.4	72.2	83.0	
15.4	43.6	60.6	72.4	83.2	
16.2	44.1	60.8	72.5	83.5	
16.7	44.7	61.0	72.7	83.7	
17.2	45.2	61.2	72.8	84.0	
17.5	45.7	61.4	73.0	84.2	
17.9	46.2	61.7	73.2	84.5	
18.4	46.7	61.9	73.4	84.7	
18.8	47.1	62.1	73.6	84.9	
19.3	47.6	62.3	73.8	85.1	
19.7	48.0	62.5	74.0	85.4	
20.2	48.5	62.7	74.2	85.7	
20.7	48.9	62.9	74.4	86.0	
21.1	49.2	63.1	74.6	86.2	
21.6	49.6	63.3	74.8	86.3	
22.0	49.9	63.5	75.0	86.5	
22.5	50.2	63.7	75.2	86.8	
22.9	50.6	64.0	75.4	87.0	
23.4	50.9	64.3	75.6	87.3	
23.9	51.2	64.6	75.7	87.5	
24.4	51.6	64.8	75.9	87.7	
24.9	51.9	65.0	76.1	87.9	
25.3	52.2	65.2	76.3	88.1	
25.8	52.5	65.4	76.5	88.4	
26.3	52.8	65.7	76.7	88.6	
26.9	53.1	65.9	76.9	88.8	
27.4	53.4	66.1	77.1	89.0	
27.8	53.7	66.3	77.3	89.2	
28.3	54.0	66.5	77.4	89.5	
28.7	54.2	66.7	77.6	89.7	
29.2	54.5	66.9	77.8	90.0	
29.7	54.8	67.1	77.9	90.3	
30.2	55.2	67.3	78.1	90.5	
30.7	55.5	67.5	78.2	90.8	
31.1	55.8	67.7	78.4	91.0	
31.6	56.0	68.0	78.5	91.3	
32.1	56.3	68.4	78.7	91.5	
32.7	56.6	68.7	78.8	91.8	
33.2	56.8	68.9	79.0	92.0	
33.8	57.1	69.2	79.3	92.3	

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 600+90 NB DECEL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	384648.0	2003614.0

Cumulative Penetration in Centimeters

1.0	16.1	28.5	43.4	67.5	77.9
1.5	16.3	28.7	43.7	67.7	78.1
1.9	16.5	28.9	43.9	67.8	78.3
2.2	16.7	29.1	44.2	67.9	78.5
2.5	16.9	29.3	44.5	68.2	78.6
2.8	17.1	29.6	44.8	68.5	78.8
3.0	17.3	29.9	45.1	68.8	78.9
3.3	17.5	30.1	45.4	69.1	79.1
3.6	17.7	30.4	45.7	69.3	79.3
3.9	17.9	30.7	46.0	69.4	79.5
4.1	18.2	31.0	46.3	69.6	79.7
4.7	18.4	31.2	46.6	69.7	
5.3	18.7	31.5	46.9	69.9	
5.7	18.9	31.8	47.2	70.1	
6.1	19.2	32.0	47.5	70.2	
6.5	19.5	32.3	47.8	70.4	
6.9	19.7	32.5	48.2	70.6	
7.2	20.0	32.8	48.6	70.8	
7.4	20.3	33.1	49.0	71.0	
7.8	20.5	33.3	49.4	71.2	
8.1	20.8	33.6	49.9	71.4	
8.3	21.0	34.0	50.4	71.5	
8.5	21.3	34.3	50.9	71.7	
8.8	21.5	34.7	51.4	71.8	
9.1	21.8	35.0	52.8	72.0	
9.3	22.0	35.3	54.5	72.2	
9.6	22.2	35.6	56.6	72.3	
9.9	22.4	35.8	58.5	72.5	
10.1	22.6	36.1	59.8	72.7	
10.4	22.8	36.4	60.8	72.9	
10.6	23.0	36.7	61.3	73.1	
10.9	23.3	36.9	61.8	73.3	
11.2	23.5	37.2	62.3	73.5	
11.5	23.7	37.5	62.8	73.8	
11.8	23.9	37.7	63.2	74.0	
12.1	24.1	38.0	63.8	74.2	
12.4	24.3	38.2	64.2	74.4	
12.6	24.5	38.5	64.4	74.6	
12.9	24.8	38.8	64.6	74.8	
13.1	25.1	39.0	64.7	75.0	
13.3	25.4	39.3	64.9	75.2	
13.5	25.7	39.6	65.1	75.4	
13.7	25.9	39.9	65.3	75.6	
13.9	26.2	40.1	65.5	75.8	
14.1	26.4	40.4	65.7	76.0	
14.2	26.6	40.9	65.9	76.2	
14.4	26.8	41.3	66.1	76.4	
14.6	27.1	41.8	66.3	76.6	
14.9	27.3	42.2	66.5	76.8	
15.1	27.5	42.4	66.7	77.1	
15.3	27.8	42.7	67.0	77.3	
15.6	28.0	42.9	67.2	77.5	
15.8	28.3	43.1	67.4	77.7	

TEST LOCATION DESCRIPTION	DATE RUN
-L- 600+90 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	384643.9	2003614.5

Cumulative Penetration in Centimeters

0.9	22.3	38.8	58.5	88.5	
1.8	22.6	39.2	58.9	88.7	
2.5	22.9	39.5	59.4	89.0	
3.3	23.1	39.8	59.9	89.2	
3.7	23.4	40.2	60.3	89.4	
4.1	23.7	40.5	60.8	89.7	
4.5	24.0	40.9	61.2	90.1	
4.9	24.3	41.2	61.8	90.4	
5.5	24.6	41.6	62.4	90.7	
6.0	24.9	42.0	62.9	91.1	
6.5	25.2	42.4	63.5	91.5	
7.0	25.5	42.8	65.9	91.8	
7.6	25.8	43.2	69.8	92.2	
8.2	26.2	43.5	71.1	92.5	
8.8	26.7	43.9	72.2	92.7	
9.4	27.1	44.2	73.3	93.0	
10.0	27.5	44.6	74.6	93.2	
10.6	27.9	45.1	75.7		
11.2	28.3	45.5	76.6		
11.8	28.6	45.9	77.4		
12.3	29.0	46.3	78.1		
12.8	29.3	46.7	78.6		
13.2	29.7	47.0	79.1		
13.5	30.0	47.4	79.5		
13.9	30.3	47.8	79.9		
14.2	30.6	48.2	80.2		
14.6	31.0	48.5	80.5		
14.9	31.3	48.9	80.8		
15.3	31.6	49.3	81.0		
15.6	32.0	49.8	81.3		
15.9	32.3	50.2	81.6		
16.2	32.7	50.6	81.9		
16.5	33.0	51.0	82.1		
16.8	33.3	51.4	82.4		
17.1	33.7	51.8	82.7		
17.3	34.0	52.2	83.1		
17.6	34.3	52.6	83.4		
17.8	34.6	53.0	83.7		
18.1	34.9	53.4	84.0		
18.3	35.2	53.8	84.2		
18.6	35.5	54.1	84.5		
18.8	35.8	54.5	84.7		
19.1	36.1	54.8	85.0		
19.4	36.4	55.1	85.2		
19.6	36.7	55.4	85.5		
19.9	36.9	55.7	85.7		
20.2	37.2	56.0	86.1		
20.5	37.4	56.3	86.5		
20.7	37.6	56.7	86.8		
21.0	37.8	57.0	87.2		
21.3	38.1	57.4	87.5		
21.7	38.3	57.7	87.9		
22.0	38.5	58.1	88.2		

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 610+70 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	385573.4	2003913.5

Cumulative Penetration in Centimeters

1.9	45.2				
2.8	45.8				
3.7	46.3				
4.7	46.8				
5.4	47.3				
6.2	47.8				
6.9	48.6				
7.5	49.3				
8.2	50.1				
8.9	50.8				
9.5	51.4				
10.1	52.1				
10.6	52.6				
11.1	53.1				
11.7	53.6				
12.2	54.2				
12.8	54.9				
13.3	55.5				
13.8	56.2				
14.4	56.9				
14.8	57.6				
15.1	58.6				
15.4	59.7				
15.7	60.7				
16.3	61.7				
16.9	62.8				
17.5	63.8				
18.2	64.7				
19.0	65.6				
19.7	66.5				
20.4	67.3				
21.2	68.1				
21.9	68.9				
22.8	69.8				
23.6	70.7				
24.5	71.6				
25.6	72.5				
26.8	73.4				
27.9	74.3				
29.2	75.1				
30.6	75.9				
31.9	76.7				
33.2	77.5				
34.4	78.4				
35.7	79.2				
36.8	80.0				
37.8	80.7				
38.9	81.5				
40.0	82.4				
41.3	83.2				
42.4	84.1				
43.6					
44.4					

TEST LOCATION DESCRIPTION	DATE RUN
-L- 610+70 NB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	385564.7	2003934.2

Cumulative Penetration in Centimeters

0.7	14.1	47.5			
1.4	14.4	48.6			
1.7	14.6	49.5			
2.1	14.9	50.6			
2.4	15.2	51.3			
2.8	15.5	52.2			
3.1	15.9	52.9			
3.5	16.2	53.7			
3.9	16.5	54.4			
4.2	16.8	55.2			
4.6	17.2	56.0			
5.0	17.5	56.9			
5.2	17.9	57.7			
5.4	18.2	58.7			
5.7	18.6	59.6			
5.9	18.9	60.5			
6.1	19.3	61.4			
6.3	19.6	62.2			
6.4	20.0	63.2			
6.6	20.4	64.2			
6.7	20.9	65.1			
6.9	21.3	66.1			
7.1	21.8	67.0			
8.2	24.8	70.7			
8.4	25.5	71.4			
8.7	26.2	72.1			
8.9	26.9				
9.1	27.6				
9.3	28.2				
9.6	28.7				
9.8	29.3				
10.1	30.2				
10.3	31.1				
10.5	32.0				
10.7	33.1				
10.9	34.1				
11.1	35.2				
11.3	36.6				
11.5	37.4				
11.7	38.8				
12.0	39.8				
12.2	40.7				
12.4	41.6				
12.6	42.5				
12.9	43.3				
13.1	44.2				
13.4	44.8				
13.6	45.8				
13.9	46.4				

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

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CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 610+70 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	385564.8	2003945.9

Cumulative Penetration in Centimeters

2.4	39.1						
3.6	40.4						
4.6	41.4						
5.4	42.4						
6.2	43.3						
6.9	44.1						
7.5	45.0						
8.3	45.9						
9.0	46.9						
9.7	47.9						
10.4	48.9						
11.0	50.1						
11.6	51.4						
12.3	52.3						
12.8	54.2						
13.6	55.6						
14.2	56.8						
15.0	57.9						
15.7	59.0						
16.6	60.1						
17.4	61.0						
18.2	61.9						
18.7	62.8						
19.6	63.6						
20.1	64.3						
20.6	65.0						
20.9	65.8						
21.4	66.5						
21.8	67.2						
22.2	68.0						
22.6	68.6						
23.1	69.6						
23.5	70.1						
24.0	70.8						
24.4	71.6						
24.8	72.4						
25.2	73.3						
25.7	74.0						
26.1	74.8						
26.6	75.5						
27.1	76.3						
27.7	77.0						
28.2	77.9						
28.9	78.9						
29.7	79.9						
30.4	80.8						
31.2	81.9						
32.1	82.9						
32.9	83.8						
34.1	84.8						
35.2	85.9						
36.4							
37.7							

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 636+50 NB ACCEL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	388057.5	2004602.4

Cumulative Penetration in Centimeters

2.1	27.0	44.7	64.2	85.8			
3.2	27.3	45.0	64.4	86.5			
4.3	27.6	45.4	64.6	87.2			
5.2	27.9	45.7	64.9				
6.0	28.2	46.0	65.1				
6.8	28.6	46.5	65.3				
7.6	28.9	47.0	65.6				
8.2	29.2	47.4	65.8				
8.9	29.5	47.9	66.1				
9.5	29.9	48.4	66.3				
10.2	30.2	48.9	66.6				
10.9	30.6	49.4	66.9				
11.6	30.9	50.0	67.2				
12.1	31.1	50.5	67.4				
12.6	31.4	51.0	67.7				
13.1	31.6	51.7	68.0				
13.6	31.9	52.3	68.3				
14.1	32.1	53.0	68.6				
14.6	32.4	53.6	69.0				
15.1	32.7	54.2	69.3				
15.5	33.0	54.8	69.6				
16.0	33.3	55.2	69.9				
16.4	33.6	55.6	70.3				
16.9	33.9	56.0	70.6				
17.3	34.3	56.3	71.0				
17.7	34.6	56.6	71.3				
18.2	35.0	56.9	71.7				
18.6	35.3	57.2	72.1				
19.0	35.7	57.5	72.6				
19.4	36.1	57.8	73.0				
19.8	36.6	58.1	73.4				
20.1	37.0	58.4	73.8				
20.5	37.4	58.7	74.2				
20.8	37.8	59.0	74.6				
21.2	38.2	59.3	75.0				
21.7	38.7	59.6	75.4				
22.1	39.1	60.0	76.0				
22.4	39.5	60.3	76.5				
22.7	39.8	60.6	77.1				
23.0	40.2	60.9	77.6				
23.3	40.5	61.1	78.2				
23.5	40.9	61.4	78.7				
23.8	41.2	61.6	79.2				
24.1	41.5	61.9	79.7				
24.3	41.9	62.1	80.2				
24.6	42.2	62.4	80.7				
24.9	42.6	62.6	81.3				
25.2	42.9	62.9	81.9				
25.5	43.2	63.1	82.5				
25.8	43.5	63.3	83.1				
26.1	43.8	63.5	83.7				
26.4	44.1	63.8	84.4				
26.7	44.4	64.0	85.1				

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 636+50 NB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	388062.8	2004573.7

Cumulative Penetration in Centimeters

0.4	14.1	25.5	35.8				
1.4	14.2	25.7	35.9				
2.2	14.4	25.9	36.0				
2.6	14.6	26.2	DCP Refusal				
3.1	14.8	26.4					
3.5	14.9	26.6					
3.9	15.1	26.9					
4.4	15.2	27.2					
4.8	15.4	27.4					
5.1	15.6	27.7					
5.4	15.8	28.0					
5.7	16.0	28.3					
5.9	16.2	28.6					
6.2	16.4	28.9					
6.4	16.6	29.2					
6.7	16.8	29.5					
6.9	17.1	29.7					
7.2	17.3	29.9					
7.4	17.5	30.2					
7.7	17.6	30.4					
7.9	17.8	30.6					
8.1	17.9	30.8					
8.3	18.1	31.0					
8.5	18.2	31.3					
8.7	18.4	31.5					
8.8	18.7	31.7					
9.0	18.9	31.8					
9.2	19.2	32.0					
9.3	19.4	32.1					
9.5	19.7	32.3					
9.6	19.9	32.4					
9.8	20.2	32.6					
10.0	20.4	32.7					
10.2	20.7	32.9					
10.5	20.9	33.0					
10.7	21.1	33.2					
10.9	21.3	33.3					
11.1	21.5	33.5					
11.3	21.7	33.6					
11.6	22.0	33.8					
11.8	22.2	33.9					
12.0	22.5	34.1					
12.2	22.7	34.3					
12.3	23.0	34.4					
12.5	23.3	34.6					
12.6	23.5	34.8					
12.8	23.8	34.9					
13.0	24.0	35.0					
13.2	24.3	35.2					
13.3	24.5	35.3					
13.5	24.8	35.4					
13.7	25.0	35.5					
13.9	25.3	35.6					

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 636+50 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	388064.3	2004569.1

Cumulative Penetration in Centimeters

2.2	29.1	41.6	57.8				
3.3	29.4	42.0	58.0				
4.3	29.6	42.4	58.1				
5.3	29.9	42.8	58.3				
6.1	30.1	43.1	58.5				
6.8	30.3	43.5	58.7				
7.7	30.5	43.9	58.9				
8.7	30.6	44.4	59.1				
9.9	30.8	45.0	59.3				
11.1	31.0	45.5	59.5				
12.1	31.3	46.1	59.6				
13.3	31.6	46.6	59.8				
14.2	31.9	47.4	60.0				
14.9	32.2	48.3	60.2				
15.6	32.5	49.1	60.3				
16.1	32.8	49.6	60.5				
16.6	33.1	50.2	60.6				
17.0	33.3	50.7	60.8				
17.5	33.6	51.0	DCP Refusal				
18.0	33.9	51.2					
18.5	34.1	51.5					
19.0	34.3	51.8					
19.3	34.5	52.1					
19.7	34.7	52.3					
20.0	34.9	52.6					
20.4	35.1	52.9					
20.7	35.3	53.0					
21.1	35.5	53.2					
21.5	35.7	53.3					
21.9	35.9	53.5					
22.3	36.1	53.6					
22.7	36.3	53.8					
23.1	36.5	54.1					
23.4	36.7	54.3					
23.7	36.9	54.6					
24.1	37.1	54.8					
24.4	37.3	55.0					
24.7	37.6	55.1					
25.0	37.8	55.3					
25.4	38.0	55.4					
25.7	38.2	55.6					
26.1	38.4	55.8					
26.4	38.7	55.9					
26.7	38.9	56.1					
26.9	39.1	56.2					
27.2	39.3	56.4					
27.4	39.5	56.6					
27.7	39.7	56.7					
27.9	39.9	56.9					
28.2	40.1	57.0					
28.4	40.5	57.2					
28.7	40.9	57.4					
28.9	41.2	57.6					

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 636+50 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	388052.7	2004604.5

Cumulative Penetration in Centimeters

2.2	36.5	56.4					
3.6	37.1	56.9					
4.7	37.7	57.4					
5.7	38.2	57.9					
6.5	38.7	58.3					
7.2	39.2	58.8					
8.0	39.7	59.2					
8.8	40.1	59.7					
9.5	40.6	60.2					
10.3	41.0	60.7					
11.0	41.3	61.3					
11.8	41.7	61.8					
12.8	42.0	62.4					
13.9	42.4	62.9					
15.0	42.7	63.5					
16.2	43.0	64.0					
17.4	43.3	64.4					
18.4	43.6	64.8					
19.3	43.9	65.2					
20.1	44.1	65.6					
20.8	44.4	66.1					
21.4	44.7	66.5					
21.8	45.0	66.9					
22.2	45.3	67.3					
22.6	45.6	67.7					
23.0	45.9	68.2					
23.5	46.2	68.6					
23.9	46.4	69.1					
24.4	46.7	69.6					
24.9	46.9	70.2					
25.4	47.3	70.7					
25.9	47.6	71.3					
26.5	48.0	71.8					
27.1	48.3	72.4					
27.7	48.6	73.0					
28.3	48.9	73.5					
28.9	49.3	74.1					
29.5	49.7	74.8					
29.9	49.9	75.5					
30.4	50.3	76.2					
30.8	50.6	77.2					
31.2	51.0	78.2					
31.6	51.4	79.2					
32.0	51.9	80.4					
32.4	52.3	81.5					
32.7	52.7	82.7					
33.1	53.0	84.0					
33.6	53.4	85.4					
34.1	53.9	86.7					
34.6	54.4						
35.0	54.9						
35.5	55.4						
35.9	55.9						

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 666+40 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	390999.8	2005096.6

Cumulative Penetration in Centimeters

1.1	22.3	33.8	47.2				
2.2	22.5	34.1	47.4				
2.7	22.7	34.4	47.5				
3.5	22.9	34.6	47.7				
4.1	23.1	34.9	48.0				
4.7	23.3	35.2	48.2				
5.4	23.6	35.6	48.5				
6.4	23.8	35.9	48.7				
6.9	24.0	36.3	48.9				
7.8	24.2	36.6	49.1				
8.6	24.4	37.0	49.2				
9.2	24.6	37.5	49.4				
9.9	24.8	37.9	49.6				
10.6	25.0	38.4	49.8				
11.2	25.2	38.8	50.0				
12.0	25.5	39.3	50.2				
12.5	25.7	39.6	50.4				
13.0	26.0	39.9	50.6				
13.5	26.2	40.3					
13.9	26.4	40.6					
14.4	26.6	40.9					
14.6	26.9	41.1					
14.8	27.1	41.4					
15.0	27.3	41.6					
15.3	27.5	41.9					
15.7	27.8	42.1					
16.0	28.0	42.3					
16.3	28.3	42.5					
16.5	28.5	42.8					
16.8	28.7	43.0					
17.1	28.9	43.2					
17.3	29.2	43.4					
17.6	29.4	43.6					
17.9	29.6	43.7					
18.1	29.8	43.9					
18.4	30.0	44.1					
18.6	30.2	44.3					
18.9	30.4	44.5					
19.1	30.6	44.6					
19.3	30.8	44.8					
19.4	31.0	45.0					
19.6	31.2	45.2					
19.8	31.4	45.4					
20.0	31.6	45.5					
20.2	31.8	45.7					
20.4	32.0	45.9					
20.6	32.2	46.1					
20.9	32.4	46.3					
21.1	32.6	46.4					
21.4	32.8	46.6					
21.6	33.1	46.8					
21.9	33.3	46.9					
22.1	33.6	47.1					

DCP Refusal

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 666+40 NB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	391006.5	2005123.2

Cumulative Penetration in Centimeters

0.9	10.0	28.1	38.8				
1.5	10.1	28.5	38.9				
1.7	10.3	28.8	39.0				
1.9	10.5	29.2	39.2				
2.1	10.7	29.5	39.4				
2.3	11.0	29.9	39.5				
2.5	11.2	30.2	39.7				
2.6	11.5	30.5	39.9				
2.7	11.7	30.8					
2.9	11.9	31.1					
3.0	12.1	31.4					
3.1	12.3	31.6					
3.3	12.5	31.8					
3.5	12.7	32.0					
3.7	13.0	32.2					
3.9	13.3	32.4					
4.1	13.5	32.6					
4.2	13.8	32.8					
4.3	14.1	32.9					
4.5	14.4	33.1					
4.6	14.7	33.3					
4.7	15.1	33.5					
4.8	15.4	33.7					
5.0	15.7	33.8					
5.1	16.0	34.0					
5.3	16.3	34.2					
5.4	16.6	34.4					
5.6	16.9	34.6					
5.8	17.2	34.7					
5.9	17.5	34.9					
6.1	17.9	35.1					
6.3	18.2	35.3					
6.4	18.6	35.5					
6.6	18.9	35.6					
6.7	19.3	35.8					
6.9	19.7	36.0					
7.0	20.2	36.2					
7.2	20.6	36.3					
7.4	21.0	36.5					
7.6	21.4	36.6					
7.8	21.9	36.8					
8.0	22.3	37.0					
8.2	22.8	37.2					
8.3	23.2	37.3					
8.5	23.7	37.5					
8.6	24.2	37.7					
8.8	24.8	37.9					
9.0	25.3	38.0					
9.1	25.8	38.2					
9.3	26.3	38.3					
9.4	26.7	38.5					
9.6	27.2	38.6					
9.8	27.6	38.7					

Auger Refusal

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 666+40 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	390999.3	2005127.7

Cumulative Penetration in Centimeters

2.1	38.4	57.5	83.3				
3.2	38.8	58.3	83.7				
4.0	39.1	59.3	84.0				
4.9	39.5	60.3	84.4				
5.8	39.9	61.3	84.7				
6.7	40.2	62.2	85.1				
7.4	40.5	63.2	85.5				
8.7	40.7	64.1	86.0				
9.4	41.0	64.6	86.4				
10.1	41.3	65.0	86.8				
10.8	41.6	65.5	87.3				
11.7	41.8	65.9	87.7				
12.6	42.1	66.4	88.2				
13.5	42.3	66.9	88.6				
14.6	42.6	67.4	89.1				
15.7	42.9	67.9	89.6				
16.8	43.2	68.4	90.1				
18.1	43.5	68.9	90.6				
19.3	43.8	69.5	91.1				
20.6	44.1	70.1	91.6				
21.6	44.4	70.8	92.4				
22.7	44.8	71.4	93.1				
23.7	45.1	72.0	93.9				
24.3	45.5	72.4	94.6				
25.0	45.8	72.8	95.4				
25.6	46.1	73.3	96.3				
26.2	46.4	73.7	97.2				
26.8	46.6	74.1	98.1				
27.4	46.9	74.4	99.0				
27.9	47.2	74.8	99.9				
28.4	47.4	75.1					
28.9	47.7	75.5					
29.3	47.9	75.8					
29.8	48.2	76.2					
30.2	48.4	76.5					
30.6	48.8	76.9					
30.9	49.1	77.2					
31.3	49.5	77.6					
31.7	49.8	78.0					
32.1	50.2	78.3					
32.6	50.5	78.7					
33.0	50.9	79.0					
33.4	51.2	79.4					
33.8	51.6	79.7					
34.2	51.9	80.1					
34.7	52.4	80.4					
35.1	52.9	80.8					
35.5	53.5	81.1					
36.0	54.0	81.5					
36.5	54.5	81.8					
37.0	55.3	82.2					
37.5	56.0	82.5					
38.0	56.8	82.9					

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

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CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 689+00 NB DECEL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	393161.0	2005674.1

Cumulative Penetration in Centimeters

1.3	16.0	24.7			
1.7	16.2	24.9			
2.2	16.4	25.0			
2.7	16.6	25.2			
3.2	16.8	25.3			
3.7	16.9	25.5			
4.2	17.1	25.6			
4.7	17.2	25.7			
5.1	17.4	25.9			
5.6	17.6	26.0			
6.0	17.7	26.1			
6.5	17.9	26.2			
6.8	18.0	26.3			
7.2	18.2	26.5			
7.5	18.4	26.6			
7.9	18.6	26.7			
8.2	18.8				
8.5	19.0				
8.8	19.2				
9.1	19.3				
9.4	19.5				
9.7	19.6				
9.9	19.8				
10.1	19.9				
10.4	20.1				
10.6	20.3				
10.8	20.4				
11.0	20.6				
11.2	20.8				
11.4	21.0				
11.6	21.1				
11.8	21.3				
12.0	21.4				
12.3	21.6				
12.5	21.8				
12.8	22.0				
13.0	22.1				
13.2	22.3				
13.4	22.5				
13.5	22.6				
13.7	22.8				
13.9	22.9				
14.1	23.1				
14.3	23.2				
14.4	23.4				
14.6	23.6				
14.8	23.7				
15.0	23.9				
15.1	24.1				
15.3	24.2				
15.4	24.3				
15.6	24.5				
15.8	24.6				

DCP Refusal

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 689+00 NB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	393176.4	2005658.0

Cumulative Penetration in Centimeters

0.9	36.7	49.6			
1.7	37.2	49.8			
2.2	37.6	49.9			
2.8	38.1	50.1			
3.5	38.5	50.3			
4.0	38.8	50.4			
4.6	39.2	50.6			
5.1	39.6	50.7			
5.7	40.0	50.9			
6.3	40.4	51.1			
6.9	40.9	51.2			
7.5	41.3	51.4			
8.1	41.8	51.5			
8.7	42.1	51.7			
9.2	42.5	51.8			
9.8	42.8	52.0			
10.3	43.1	52.1			
10.9	43.3	52.3			
11.7	43.6	52.4			
12.4	43.8				
13.1	44.1				
13.9	44.3				
14.8	44.5				
15.9	44.7				
17.0	45.0				
18.1	45.2				
19.3	45.4				
20.5	45.6				
22.0	45.8				
23.4	46.1				
24.7	46.3				
26.0	46.5				
27.0	46.6				
27.7	46.7				
28.3	46.9				
28.7	47.0				
29.2	47.1				
29.7	47.3				
30.2	47.4				
30.6	47.6				
31.1	47.7				
31.5	47.9				
32.0	48.0				
32.5	48.2				
33.0	48.3				
33.5	48.5				
34.0	48.6				
34.5	48.7				
34.9	48.9				
35.4	49.0				
35.8	49.2				
36.1	49.3				
36.4	49.5				

DCP Refusal

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 689+00 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	393180.9	2005650.0

Cumulative Penetration in Centimeters

2.8	52.7				
4.7	53.3				
5.6	53.7				
6.2	54.1				
6.7	54.4				
7.1	54.8				
7.6	55.2				
8.1	55.5				
8.6	55.8				
9.1	56.2				
9.6	56.5				
10.5	56.8				
11.4	57.1				
12.2	57.4				
13.1	57.6				
14.0	57.9				
15.0	58.2				
16.0	58.5				
17.1	58.8				
18.1	59.2				
19.2	59.5				
20.2	59.8				
21.1	60.1				
22.0	60.3				
22.9	60.6				
23.9	60.8				
24.9	61.1				
25.9	61.3				
27.0	61.6				
28.1	61.8				
29.2	62.1				
30.6	62.3				
32.0	62.6				
33.4	62.9				
35.8	63.2				
38.2	63.5				
40.6	63.8				
42.6	64.1				
43.2	64.3				
43.8	64.6				
44.5	64.8				
45.2	65.1				
45.8	65.3				
46.5	65.6				
47.2	65.8				
47.8	66.1				
48.4	66.3				
48.9	66.6				
49.5	66.8				
50.1	67.1				
50.7	67.3				
51.4	67.6				
52.0					

TEST LOCATION DESCRIPTION	DATE RUN
-L- 689+00 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	393159.8	2005684.7

Cumulative Penetration in Centimeters

1.7	26.0	39.8	59.2		
2.7	26.4	40.0	59.6		
3.3	26.8	40.3	59.9		
4.0	27.1	40.5	60.2		
4.7	27.5	40.8	60.5		
5.1	27.8	41.0	60.8		
5.3	28.1	41.3	61.1		
5.6	28.4	41.6	61.4		
5.8	28.6	41.9	61.7		
6.1	28.9	42.1	62.1		
6.3	29.1	42.4	62.5		
6.6	29.3	42.7	62.8		
6.9	29.6	43.0	63.2		
7.1	29.8	43.2	63.6		
7.4	30.1	43.5	63.9		
7.7	30.3	43.7	64.2		
7.9	30.6	44.0	64.6		
8.2	30.8	44.3	64.9		
8.4	31.1	44.5	65.2		
8.7	31.3	44.8	65.5		
8.9	31.6	45.0	65.8		
9.2	31.9	45.3	66.1		
9.5	32.2	45.6	66.4		
9.8	32.5	45.8	66.7		
10.1	32.8	46.1	67.1		
10.4	33.1	46.3	67.4		
10.6	33.3	46.6	67.8		
10.8	33.6	46.9	68.1		
11.1	33.8	47.2	68.5		
11.3	34.1	47.4	68.9		
11.5	34.4	47.7	69.3		
11.9	34.6	48.0	69.7		
12.3	34.9	48.3	70.1		
12.8	35.1	48.6	70.5		
13.2	35.4	49.0	71.0		
13.6	35.6	49.3	71.5		
14.1	35.9	49.6	71.9		
14.5	36.1	50.1	72.4		
15.0	36.4	50.5	72.9		
15.4	36.6	51.0	73.5		
15.9	36.8	51.4	74.0		
16.8	37.1	51.9	74.6		
17.8	37.3	52.7	75.1		
18.7	37.6	53.4	75.7		
19.7	37.8	54.2	76.4		
20.6	38.0	54.9	77.1		
21.7	38.3	55.7	77.8		
22.9	38.5	56.3	78.5		
24.0	38.8	56.9	79.2		
24.5	39.0	57.4			
24.9	39.2	58.0			
25.4	39.4	58.6			
25.7	39.6	58.9			

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 719+25 NB ACCEL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	395668.6	2007368.4

Cumulative Penetration in Centimeters

3.0	36.8	58.1					
4.5	37.0	58.3					
5.7	37.3	58.5					
6.8	37.5	58.7					
7.6	37.8	58.9					
8.6	38.0	59.1					
9.5	38.3	59.3					
10.3	38.5	59.4					
11.0	38.8	59.6					
11.8	39.1	59.8					
12.4	39.3	59.9					
13.1	39.6	60.1					
13.7	39.8	60.2					
14.3	40.1	60.4					
15.0	40.4	60.5					
15.9	40.7	60.7					
16.8	41.1	60.8					
17.7	41.4	61.0					
18.5	41.7	61.1					
19.3	42.1	61.3					
20.1	42.5	61.4					
20.7	42.9	61.5					
21.4	43.3	61.6					
21.8	43.7	61.7					
22.4	44.3	61.8					
22.9	44.8	61.9					
23.6	45.4	62.1					
24.3	45.9	62.2					
25.0	46.5	62.3					
25.8	47.3	62.5					
26.6	48.0	62.6					
27.5	48.8	62.7					
28.4	49.6	62.8					
29.3	50.4	63.0					
30.2	51.2	63.1					
30.7	52.2						
31.2	53.2						
31.7	54.2						
32.2	54.5						
32.6	54.9						
33.0	55.2						
33.4	55.6						
33.6	55.9						
33.9	56.1						
34.1	56.3						
34.4	56.6						
34.6	56.8						
34.9	57.0						
35.3	57.2						
35.6	57.4						
36.0	57.5						
36.3	57.7						
36.5	57.9						

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATION DESCRIPTION	DATE RUN
-L- 719+25 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	395687.3	2007339.7

Cumulative Penetration in Centimeters

5.7	28.1	40.8					
7.7	28.3	41.0					
8.6	28.6	41.2					
9.6	28.9	41.3					
10.4	29.2	41.5					
11.2	29.5	41.7					
12.0	29.7	41.9					
12.4	30.0	42.0					
12.9	30.3	42.2					
13.5	30.5	42.3					
14.0	30.8	42.5					
14.5	31.0						
15.1	31.3						
15.5	31.5						
16.1	31.8						
16.6	32.1						
17.0	32.3						
17.3	32.6						
17.7	32.9						
18.0	33.1						
18.4	33.4						
18.7	33.6						
19.1	33.9						
19.4	34.1						
19.8	34.3						
20.1	34.6						
20.5	34.8						
20.8	35.1						
21.1	35.3						
21.5	35.6						
21.8	35.8						
22.1	36.1						
22.4	36.3						
22.6	36.6						
22.9	36.9						
23.1	37.2						
23.4	37.5						
23.7	37.8						
24.0	38.1						
24.2	38.3						
24.5	38.5						
24.8	38.7						
25.1	38.9						
25.4	39.1						
25.6	39.3						
25.9	39.5						
26.2	39.7						
26.5	39.9						
26.7	40.1						
27.0	40.2						
27.2	40.4						
27.5	40.5						
27.8	40.7						

DCP Refusal

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 719+25 NB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	395674.7	2007361.1

Cumulative Penetration in Centimeters

0.7	11.5	22.1					
1.1	11.7	22.3					
1.4	11.8	22.6					
1.8	12.0	22.8					
2.1	12.2	23.1					
2.5	12.3	23.3					
2.7	12.5	23.5					
2.9	12.7	23.8					
3.0	12.8	24.0					
3.2	13.0	24.2					
3.4	13.1	24.4					
3.5	13.3	24.6					
3.6	13.4	24.8					
3.8	13.6	25.0					
3.9	13.8	25.2					
4.0	13.9	25.4					
4.2	14.1	25.6					
4.4	14.3	25.9					
4.6	14.5	26.1					
4.8	14.7	26.3					
5.0	14.8	26.5					
5.2	15.0	26.8					
5.4	15.2	27.0					
5.5	15.4	27.3					
5.7	15.6	27.5					
5.9	15.7	27.7					
6.1	15.9	27.8					
6.4	16.1	28.0					
6.6	16.3	28.1					
6.9	16.5	28.3					
7.1	16.6	28.4					
7.3	16.8	28.5					
7.5	17.0	28.7					
7.7	17.2	28.8					
7.9	17.4	28.9					
8.1	17.6	29.0					
8.3	17.8	29.1					
8.5	18.0	29.3					
8.7	18.2	29.4					
8.9	18.4	29.5					
9.1	18.7	29.6					
9.3	18.9	29.8					
9.5	19.1	29.9					
9.8	19.4	30.1					
10.0	19.6	30.2					
10.2	19.9	30.3					
10.4	20.1	30.4					
10.6	20.4	30.6					
10.7	20.7	30.7					
10.9	21.0	30.8					
11.1	21.2						
11.2	21.5						
11.4	21.8						

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATION DESCRIPTION	DATE RUN
-L- 719+25 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	395665.8	2007375.6

Cumulative Penetration in Centimeters

2.5	57.5						
4.0	57.9						
5.0	58.2						
6.1	58.6						
7.1	59.0						
8.2	59.3						
9.1	59.6						
10.0	59.9						
10.8	60.2						
11.8	60.5						
12.7	60.9						
13.6	61.2						
14.7	61.6						
15.7	61.9						
16.8	62.3						
18.1	62.7						
19.4	63.0						
20.5	63.4						
21.6	63.7						
22.7	64.1						
23.7	64.4						
24.9	64.7						
26.3	65.1						
27.8	65.4						
29.5	65.7						
31.2	66.0						
32.8	66.3						
34.5	66.6						
36.0	66.9						
37.0	67.2						
38.0	67.5						
38.8	67.8						
39.5	68.0						
40.3	68.3						
41.0	68.6						
41.8	68.9						
42.5	69.2						
43.3	69.5						
44.2	69.8						
45.1	70.1						
46.0	70.3						
47.6	70.6						
49.2	70.8						
50.8	71.1						
52.7	71.3						
53.7	71.6						
54.4	71.8						
54.9	72.1						
55.4	72.3						
55.8	72.6						
56.3							
56.7							
57.1							

SG = Subgrade
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CTBC = Cement-Treated Base Course
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STBC = Soil Type Base Course
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CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 745+55 NB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	398038.7	2008521.6

Cumulative Penetration in Centimeters

1.1	12.1	20.1			
1.5	12.2	20.3			
1.8	12.5	20.4			
2.1	12.7	20.5			
2.4	13.0	20.6			
2.7	13.2	20.7			
3.1	13.5	20.9			
3.4	13.7	21.0			
3.7	13.8	21.1			
4.1	14.0	21.2			
4.4	14.1	21.4			
4.7	14.3	21.5			
5.1	14.4	21.7			
5.4	14.6	21.8			
5.7	14.7	21.9			
6.0	14.9	22.0			
6.3	15.0	22.2			
6.5	15.1	22.3			
6.6	15.3	22.4			
6.8	15.4	22.6			
7.0	15.6	22.7			
7.2	15.7	22.9			
7.3	15.8	23.0			
7.5	15.9	23.2			
7.7	16.0	23.3			
8.0	16.1	23.4			
8.3	16.2	23.5			
8.6	16.3	23.6			
8.9	16.4	23.7			
9.2	16.6	23.8			
9.3	16.7	23.9			
9.5	16.8	23.9			
9.6	17.0	24.0			
9.8	17.2	24.1			
9.9	17.3	24.3			
10.0	17.5	24.4			
10.1	17.7	24.6			
10.3	17.8	24.7			
10.4	18.0	24.9			
10.5	18.1	25.0			
10.6	18.3	25.2			
10.7	18.4	25.3			
10.8	18.5	25.5			
10.9	18.6	25.6			
11.0	18.7				
11.1	18.8				
11.3	18.9				
11.4	19.1				
11.6	19.3				
11.7	19.5				
11.8	19.7				
11.9	19.9				
12.0	20.0				

DCP Refusal

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 745+55 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	398039.1	2008520.0

Cumulative Penetration in Centimeters

2.7	24.6	40.5			
3.9	25.0	40.7			
4.9	25.4	41.0			
5.4	25.7	41.2			
6.3	26.0	41.5			
6.9	26.3	41.7			
7.5	26.6	42.0			
8.1	26.8	42.2			
8.6	27.1	42.5			
9.0	27.4	42.8			
9.5	27.8	43.0			
9.9	28.1	43.3			
10.4	28.4	43.5			
10.8	28.7	43.8			
11.2	29.0	44.1			
11.6	29.3	44.4			
12.0	29.7	44.8			
12.4	30.0	45.1			
12.7	30.3	45.4			
13.1	30.5	45.7			
13.5	30.8	45.9			
13.8	31.1	46.2			
14.2	31.4	46.4			
14.5	31.7	46.7			
14.9	32.0	47.0			
15.2	32.2	47.3			
15.6	32.5	47.5			
16.0	32.8	47.8			
16.4	33.1	48.1			
16.8	33.4	48.4			
17.1	33.7	48.7			
17.5	33.9	48.9			
17.8	34.2	49.2			
18.2	34.5	49.5			
18.5	34.9	49.8			
18.8	35.2	50.0			
19.2	35.5	50.3			
19.5	35.9	50.5			
19.8	36.2	50.8			
20.1	36.5				
20.4	36.8				
20.8	37.1				
21.1	37.4				
21.5	37.6				
21.8	37.9				
22.0	38.3				
22.3	38.6				
22.6	39.0				
22.9	39.2				
23.2	39.5				
23.5	39.7				
23.9	40.0				
24.2	40.2				

Terminate

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 745+55 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	398028.3	2008543.9

Cumulative Penetration in Centimeters

2.0	25.1	37.0	53.9	75.0	
3.2	25.3	37.2	54.3	75.3	
4.2	25.6	37.5	54.7	75.6	
4.9	25.9	37.7	55.0	75.9	
5.5	26.1	38.0	55.4	76.2	
6.1	26.3	38.2	55.7	76.6	
6.8	26.5	38.5	56.1	77.0	
7.6	26.7	38.7	56.4	77.4	
8.1	26.9	39.0	56.7	77.8	
8.5	27.1	39.2	57.1	78.2	
9.1	27.3	39.5	57.4	78.6	
9.8	27.6	39.8	57.8	78.9	
10.4	27.8	40.1	58.1	79.3	
11.1	28.0	40.4	58.6	79.6	
11.7	28.2	40.7	59.1	80.0	
12.4	28.4	41.0	59.6	80.4	
12.9	28.7	41.3	60.1	80.8	
13.3	28.9	41.5	60.6	81.1	
13.8	29.1	41.8	61.0	81.5	
14.3	29.3	42.0	61.5	81.9	
14.7	29.5	42.3	61.9	82.3	
15.2	29.6	42.7	62.4	82.8	
15.6	29.8	43.0	62.8	83.2	
16.0	30.0	43.4	63.3	83.7	
16.4	30.2	43.7	63.7	84.1	
16.7	30.4	44.1	64.2	84.5	
17.1	30.7	44.4	64.6	84.9	
17.4	30.9	44.7	65.1	85.4	
17.7	31.1	45.1	65.6	85.8	
18.1	31.3	45.4	66.1	86.2	
18.4	31.5	45.7	66.5	86.6	
18.7	31.8	46.0	67.0	87.1	
19.1	32.0	46.4	67.5	87.5	
19.4	32.2	46.7	67.9	88.0	
19.7	32.4	47.1	68.3	88.4	
20.1	32.7	47.4	68.8	88.9	
20.4	32.9	47.8	69.2	89.5	
20.6	33.2	48.1	69.6	90.0	
20.9	33.4	48.5	69.9	90.6	
21.1	33.6	48.8	70.3	91.1	
21.4	33.8	49.2	70.6	91.7	
21.6	34.1	49.5	71.0	92.3	
21.9	34.3	49.8	71.3	93.0	
22.2	34.5	50.2	71.6	93.6	
22.6	34.7	50.5	71.9	94.2	
22.9	35.0	50.8	72.3	95.3	
23.2	35.2	51.2	72.6	96.4	
23.5	35.5	51.5	72.9	97.5	
23.7	35.7	51.9	73.3	98.6	
24.0	36.0	52.2	73.6	99.7	
24.2	36.2	52.6	74.0		
24.5	36.5	53.0	74.3		
24.8	36.7	53.4	74.7		

TEST LOCATION DESCRIPTION	DATE RUN
-L- 772+25 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	CUT	400510.0	2009501.5

Cumulative Penetration in Centimeters

1.5	21.6	37.2	57.4	81.1	
2.4	21.8	37.8	57.7	82.0	
3.0	22.0	38.3	58.1	82.8	
3.4	22.3	38.9	58.4	83.6	
3.9	22.4	39.4	58.8		
4.3	22.6	39.9	59.1		
4.8	22.8	40.3	59.5		
5.1	23.0	40.9	59.9		
5.5	23.4	41.4	60.2		
5.9	23.6	41.8	60.7		
6.2	24.0	42.1	61.0		
6.7	24.1	42.6	61.5		
7.0	24.5	43.1	61.7		
7.2	24.9	43.5	62.1		
7.6	25.1	43.9	62.4		
7.9	25.5	44.3	62.9		
8.3	25.7	44.6	63.1		
8.6	26.1	44.8	63.3		
8.9	26.3	45.3	63.7		
9.4	26.7	45.6	64.1		
9.7	26.9	46.0	64.3		
10.0	27.1	46.3	64.6		
10.4	27.4	46.7	64.9		
10.8	27.7	47.0	65.5		
11.1	27.9	47.4	65.8		
11.4	28.0	47.9	66.3		
11.7	28.4	48.2	66.6		
12.2	28.6	48.6	66.9		
12.6	28.9	49.1	67.4		
12.9	29.0	49.5	67.8		
13.2	29.4	49.8	68.1		
13.6	29.7	50.3	68.5		
14.1	29.9	50.6	68.9		
14.4	30.2	51.1	69.3		
14.9	30.5	51.4	69.5		
15.2	30.9	51.8	69.9		
15.6	31.2	51.9	70.3		
16.1	31.5	52.4	70.9		
16.5	31.7	52.6	71.3		
16.8	32.1	52.9	71.8		
17.2	32.5	53.3	72.3		
17.5	32.7	53.7	72.8		
17.9	33.0	54.0	73.4		
18.3	33.3	54.3	73.9		
18.6	33.8	54.7	74.7		
18.9	34.1	55.0	75.1		
19.3	34.5	55.3	75.8		
19.5	34.8	55.5	76.5		
19.9	35.2	55.8	77.2		
20.2	35.5	56.1	77.8		
20.5	35.9	56.4	78.6		
20.8	36.3	56.8	79.2		
21.2	36.7	57.1	80.1		

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
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ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
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CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 772+25 NB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	CUT	400507.1	2009525.8

Cumulative Penetration in Centimeters

2.2	19.8	27.9			
3.2	20.1	28.0			
3.6	20.3	28.1			
3.9	20.6	28.2			
4.1	20.8	28.4			
4.4	21.0	28.5			
4.6	21.2	28.6			
4.9	21.4	28.8			
5.3	21.6	29.0			
5.7	21.8	29.2			
6.2	22.0	29.4			
6.6	22.1	29.6			
7.0	22.3	29.7			
7.3	22.4	29.8			
7.5	22.6	30.0			
7.8	22.7	30.1			
8.0	22.9	30.2			
8.3	23.0	30.3			
8.6	23.2	30.4			
9.0	23.3	30.6			
9.3	23.4	30.7			
9.7	23.5	30.8			
10.0	23.7	30.9			
10.5	23.8	31.0			
11.1	23.9	31.1			
11.6	24.0	31.2			
12.2	24.2	31.3			
12.7	24.3	31.5			
13.1	24.5	31.7			
13.5	24.6	31.8			
13.9	24.8	32.0			
14.3	25.0	32.2			
14.7	25.1	32.3			
15.0	25.3	32.5			
15.2	25.5	32.6			
15.5	25.6	32.8			
15.7	25.7	32.9			
16.0	25.9	33.0			
16.2	26.0	33.1			
16.5	26.1	33.2			
16.7	26.3	33.3			
17.0	26.5	33.4			
17.2	26.6				
17.4	26.8				
17.7	27.0				
17.9	27.1				
18.2	27.2				
18.4	27.4				
18.6	27.5				
18.9	27.6				
19.1	27.7				
19.4	27.8				
19.6	27.8				

DCP REFUSAL

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 772+25 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	CUT	400506.9	2009532.6

Cumulative Penetration in Centimeters

1.8	28.6	52.0	72.9
3.0	29.1	52.3	73.6
3.7	29.7	52.6	74.4
4.5	30.2	53.0	75.3
5.2	30.7	53.3	76.1
5.9	31.2	53.7	77.3
6.4	31.8	54.0	78.4
6.8	32.3	54.3	79.6
7.5	32.9	54.7	81.0
8.2	33.4	55.0	82.4
8.9	34.0	55.4	83.8
9.7	34.5	55.7	85.2
10.4	35.1	56.0	86.6
11.2	35.6	56.3	88.0
11.9	36.2	56.5	89.4
12.7	36.7	56.8	90.7
13.4	37.2	57.1	92.1
14.1	37.8	57.4	93.4
14.8	38.3	57.7	94.6
15.5	38.8	58.1	95.9
15.9	39.4	58.4	
16.3	40.0	58.7	
16.7	40.5	59.1	
17.1	41.1	59.5	
17.4	41.7	59.8	
17.8	42.1	60.2	
18.1	42.6	60.6	
18.5	43.0	60.9	
18.8	43.5	61.2	
19.1	43.9	61.5	
19.5	44.3	61.8	
19.8	44.6	62.1	
20.1	45.0	62.4	
20.5	45.3	62.7	
20.9	45.7	63.1	
21.2	46.0	63.4	
21.6	46.4	63.7	
22.0	46.7	64.1	
22.4	47.1	64.5	
22.8	47.4	64.8	
23.3	47.7	65.2	
23.7	48.0	65.6	
24.1	48.4	66.1	
24.5	48.7	66.6	
24.9	49.0	67.2	
25.3	49.4	67.7	
25.7	49.7	68.2	
26.1	50.1	68.9	
26.5	50.4	69.6	
26.9	50.8	70.2	
27.3	51.1	70.9	
27.7	51.4	71.6	
28.1	51.7	72.3	

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 798+50 NB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	403025.0	2010237.1

Cumulative Penetration in Centimeters

1.5	58.0		
2.5	58.9		
3.3	59.9		
4.0	60.9		
4.8	61.9		
5.5	62.9		
6.1	64.0		
6.8	65.2		
7.4	66.4		
7.7	67.5		
8.3	68.4		
8.9	69.5		
9.4	70.3		
9.9	71.2		
10.4	72.0		
11.1			
11.8			
12.5			
13.1			
13.8			
14.8			
15.7			
16.7			
18.0			
19.3			
20.6			
22.6			
24.6			
26.7			
28.9			
30.9			
32.9			
34.6			
36.4			
38.0			
39.5			
40.6			
42.1			
43.3			
44.7			
46.1			
47.0			
48.2			
49.1			
50.2			
51.1			
52.2			
53.1			
53.9			
54.7			
55.5			
56.3			
57.0			

TEST LOCATION DESCRIPTION	DATE RUN
-L- 798+50 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	403025.5	2010231.6

Cumulative Penetration in Centimeters

1.3	19.8	56.0	
2.0	20.1	56.7	
2.6	20.6	57.6	
3.1	21.0	58.5	
3.4	21.3	59.3	
3.8	21.7	60.6	
4.1	22.2	62.0	
4.4	22.8	63.5	
4.6	23.4	64.7	
4.9	24.1	65.8	
5.3	24.7	66.9	
5.6	25.4	68.4	
5.7	26.0	70.1	
6.0	26.5	71.5	
6.3	27.0	73.2	
6.7	27.6	74.7	
6.9	28.1	76.4	
7.2	28.8	77.9	
7.5	29.6	79.3	
7.9	30.2	80.9	
8.1	31.0		
8.3	31.6		
8.6	32.3		
8.7	32.9		
9.0	33.7		
9.4	34.2		
9.7	34.9		
10.1	35.8		
10.3	36.7		
10.7	37.5		
11.0	38.4		
11.5	39.2		
11.7	40.4		
12.2	41.6		
12.5	42.7		
12.8	44.1		
13.1	45.2		
13.4	45.8		
13.8	46.6		
14.1	47.3		
14.5	48.1		
14.8	49.0		
15.2	49.9		
15.6	50.5		
15.9	51.0		
16.4	51.6		
17.0	52.0		
17.5	52.5		
17.8	52.9		
18.4	53.5		
18.7	54.0		
19.1	54.5		
19.4	55.2		

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

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CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 798+50 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	403024.9	2010264.1

Cumulative Penetration in Centimeters

2.9	65.4														
4.9	67.4														
6.1	69.9														
7.3	72.1														
8.2	74.1														
8.9	76.1														
9.8	78.0														
10.7	79.8														
11.4	81.6														
12.0	83.2														
13.0	84.8														
13.7	86.4														
14.3	87.7														
15.2	89.0														
15.5	89.8														
16.2	90.5														
16.7															
17.5															
18.3															
19.1															
20.0															
20.9															
21.8															
22.5															
23.2															
23.9															
24.7															
25.4															
26.2															
27.3															
28.5															
29.6															
31.2															
32.9															
34.5															
36.4															
39.2															
41.6															
43.0															
44.1															
45.3															
46.7															
48.3															
49.4															
50.6															
51.7															
53.2															
54.8															
56.2															
57.8															
59.3															
61.0															
63.0															

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 825+00 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	CUT	405642.8	2010619.6

Cumulative Penetration in Centimeters

1.6	33.3	62.8	86.5												
2.7	33.8	63.2													
3.5	34.5	63.8													
4.3	35.0	64.2													
5.1	35.7	64.6													
5.8	36.5	65.1													
6.4	37.2	65.5													
7.0	37.9	66.0													
7.6	38.7	66.4													
8.2	39.6	66.9													
8.7	40.4	67.2													
9.1	41.1	67.6													
9.6	41.7	68.0													
10.4	42.2	68.4													
11.0	42.9	68.7													
11.7	43.6	69.2													
12.2	44.3	69.5													
12.6	45.0	69.9													
13.0	45.5	70.3													
13.5	46.2	70.9													
14.0	46.9	71.3													
14.5	47.6	71.6													
14.9	48.1	72.1													
15.4	48.7	72.4													
16.0	49.3	72.7													
16.4	49.9	73.2													
16.8	50.4	73.6													
17.3	51.0	74.0													
17.7	51.6	74.7													
18.3	52.1	75.1													
18.7	52.7	75.6													
19.4	53.1	75.9													
20.0	53.5	76.5													
20.6	53.9	77.0													
21.2	54.4	77.5													
21.9	54.9	77.9													
22.6	55.2	78.3													
23.3	55.6	78.7													
24.1	56.1	79.2													
24.7	56.6	79.6													
25.2	57.0	80.1													
25.8	57.5	80.6													
26.4	58.0	81.1													
27.3	58.4	81.8													
28.2	58.9	82.2													
29.1	59.2	82.6													
29.5	59.8	83.1													
30.0	60.3	83.6													
30.6	60.6	84.2													
31.1	61.1	84.6													
31.6	61.5	85.2													
32.2	61.8	85.6													
32.7	62.3	86.1													

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 825+00 NB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	CUT	405651.9	2010643.4

Cumulative Penetration in Centimeters

1.8	11.6	20.3	43.7	59.9	76.5										
2.2	11.7	20.5	44.0	60.2	76.9										
2.5	11.8	20.8	44.3	60.6	77.4										
2.9	12.1	21.0	44.6	60.9	77.9										
3.0	12.2	21.2	45.1	61.4	78.5										
3.4	12.3	21.3	45.4	61.9	78.9										
3.5	12.5	21.6	45.8	62.4	79.2										
3.7	12.6	21.8	46.3	62.7	79.7										
3.8	12.7	22.0	46.7	63.3	80.1										
3.9	13.0	22.1	47.1	63.6	80.5										
4.1	13.1	22.5	47.6	63.9	80.8										
4.5	13.2	23.1	48.0	64.1	81.0										
4.7	13.3	23.8	48.4	64.3	81.3										
4.8	13.4	24.3	48.7	64.7	81.6										
5.2	13.5	24.8	49.1	65.0	81.8										
5.4	13.7	25.3	49.5	65.5	82.1										
5.6	13.8	25.6	49.9	65.8	82.4										
5.9	13.9	26.2	50.2	66.2	82.8										
6.1	14.0	26.5	50.4	66.7	82.9										
6.4	14.2	27.0	50.8	66.9	83.3										
6.5	14.4	27.6	50.9	67.3	83.6										
6.7	14.5	28.3	51.3	67.6											
6.8	14.7	28.8	51.7	68.0											
7.1	14.9	29.4	51.8	68.3											
7.2	15.0	30.1	52.2	68.5											
7.3	15.1	31.0	52.4	68.9											
7.5	15.2	31.8	52.7	69.1											
7.7	15.3	32.6	53.0	69.3											
7.8	15.4	33.6	53.2	69.6											
8.0	15.6	34.4	53.3	70.0											
8.3	15.7	35.0	53.7	70.1											
8.5	15.8	35.5	53.9	70.5											
8.6	16.0	36.2	54.1	70.7											
8.7	16.2	36.8	54.4	71.1											
8.9	16.4	37.4	54.6	71.4											
9.0	16.5	37.8	54.9	71.7											
9.2	16.8	38.2	55.1	71.9											
9.3	17.0	38.7	55.4	72.2											
9.5	17.1	39.1	55.6	72.4											
9.6	17.2	39.6	55.9	72.8											
9.8	17.5	40.0	56.1	73.0											
10.0	17.6	40.3	56.4	73.3											
10.1	17.7	40.6	56.6	73.7											
10.2	17.8	40.9	56.9	74.1											
10.5	18.2	41.2	57.4	74.4											
10.6	18.3	41.4	57.6	74.5											
10.7	18.4	41.8	57.9	74.6											
10.8	18.7	41.9	58.1	74.8											
11.0	19.0	42.3	58.4	75.0											
11.1	19.2	42.6	58.7	75.3											
11.3	19.5	42.9	59.0	75.7											
11.4	19.8	43.1	59.2	76.0											
11.5	20.1	43.4	59.5	76.2											

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 825+00 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	CUT	405643.9	2010652.0

Cumulative Penetration in Centimeters

1.5	26.1	50.7	73.5	88.5											
2.8	26.5	51.1	73.9	88.8											
3.5	26.9	51.3	74.4	89.0											
4.2	27.3	51.6	74.7	89.3											
4.8	27.7	52.1	75.1	89.5											
5.3	28.1	52.6	75.5	89.8											
5.8	28.5	53.0	75.7	90.0											
6.2	28.8	53.3	76.1	90.2											
6.6	29.3	53.6	76.5	90.5											
7.2	29.6	54.1	76.7	90.8											
7.6	30.0	54.4	77.0	91.1											
7.9	30.5	54.6	77.2	91.2											
8.3	30.9	54.9	77.4	91.4											
8.5	31.5	55.2	77.7	91.7											
9.0	32.0	55.5	78.1	91.9											
9.5	32.6	55.8	78.3	92.2											
10.1	33.1	56.3	78.6	92.4											
10.5	33.7	56.8	78.8	92.8											
10.9	34.2	57.2	79.2	93.0											
11.3	34.7	57.8	79.4	93.3											
11.9	35.3	58.2	79.8												
12.3	35.7	58.8	80.0												
12.9	36.1	59.5	80.3												
13.5	36.4	59.9	80.6												
13.9	36.8	60.6	80.7												
14.5	37.3	61.1	81.0												
15.1	37.7	61.8	81.2												
15.6	38.2	62.3	81.7												
16.2	38.7	62.8	81.9												
16.7	39.3	63.4	82.0												
17.3	39.8	63.9	82.5												
17.7	40.4	64.4	82.6												
18.2	40.8	64.9	82.8												
18.6	41.4	65.3	83.1												
19.2	41.8	65.9	83.4												
19.7	42.2	66.3	83.7												
20.3	42.7	66.9	84.0												
20.7	43.3	67.4	84.2												
21.1	43.8	67.9	84.5												
21.5	44.2	68.3	84.9												
21.7	44.8	68.7	85.2												
22.0	45.4	69.0	85.6												
22.5	45.8	69.5	85.8												
22.8	46.5	69.8	86.2												
23.1	46.9	70.2	86.6												
23.6	47.3	70.6	86.8												
23.9	47.7	70.9	87.1												
24.2	48.1	71.3	87.3												
24.6	48.4	71.7	87.4												
24.9	48.8	72.1	87.7												
25.2	49.3	72.4	87.9												
25.5	49.8	72.8	88.1												
25.8	50.2	73.2	88.3												

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

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CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 851+90 NB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	408312.9	2011014.1

Cumulative Penetration in Centimeters

1.1	21.2	32.4						1.6	30.0	59.0	80.6				
1.8	21.5	32.5						2.6	30.8	59.5	80.9				
2.3	21.7	32.8						3.4	31.4	59.9	81.1				
2.7	21.9	32.9						4.1	32.3	60.4	81.4				
3.2	22.1	33.1						4.7	33.1	60.7	81.7				
3.5	22.4	33.2						5.4	33.9	61.2	82.1				
4.1	22.6	33.4						6.1	34.9	61.6	82.7				
4.5	22.8	33.7						6.7	35.7	61.9	82.9				
5.0	23.1	33.8						7.2	36.6	62.5	83.4				
5.3	23.4	33.9						7.9	37.5	62.9	83.8				
5.6	23.6	34.2						8.3	38.6	63.3	84.2				
5.9	23.9							9.0	39.4	63.8	84.7				
6.3	24.2							9.7	40.2	64.2	85.1				
6.6	24.5							10.3	41.1	64.5	85.4				
6.8	24.8							10.8	41.9	65.0	85.9				
7.2	24.9							11.2	42.6	65.5	86.3				
7.5	25.3							11.7	43.1	65.8	86.5				
7.9	25.6							12.2	43.7	66.1	87.1				
8.3	25.7							12.4	44.1	66.4	87.4				
8.5	26.0							12.9	44.6	66.8	87.7				
9.0	26.2							13.4	45.0	67.2	88.1				
9.3	26.4							13.6	45.5	67.5	88.4				
9.7	26.5							14.1	45.9	68.0	88.9				
10.1	26.8							14.4	46.3	68.4	89.2				
10.5	26.9							14.7	46.8	68.8					
11.0	27.2							15.1	47.2	69.2					
11.3	27.4							15.6	47.8	69.6					
11.6	27.7							15.9	48.1	70.1					
12.2	27.8							16.4	48.6	70.4					
12.5	28.0							16.8	49.0	70.8					
12.9	28.1							17.3	49.4	71.2					
13.3	28.4							17.8	49.8	71.7					
13.6	28.6							18.3	50.3	72.1					
14.0	28.7							18.7	50.8	72.6					
14.5	28.9							19.1	51.1	73.0					
15.0	29.0							19.6	51.5	73.4					
15.3	29.2							20.3	52.0	73.9					
15.7	29.5							20.8	52.3	74.3					
16.0	29.6							21.3	52.8	74.7					
16.5	29.7							21.6	53.3	75.3					
16.8	29.9							22.2	53.7	75.6					
17.1	30.1							22.8	54.0	76.1					
17.5	30.2							23.3	54.4	76.5					
17.9	30.4							23.7	54.8	76.7					
18.2	30.7							24.2	55.2	77.1					
18.5	30.8							24.8	55.6	77.5					
19.0	31.1							25.4	56.0	77.9					
19.4	31.2							26.1	56.6	78.3					
19.7	31.4							26.5	57.0	78.6					
20.0	31.6							27.2	57.4	79.2					
20.3	31.9							27.9	57.8	79.6					
20.7	32.1							28.6	58.1	79.9					
20.9	32.3							29.3	58.5	80.2					

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 851+90 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	AG	408306.8	2011042.6

Cumulative Penetration in Centimeters

2.8	26.5	49.6	70.1	92.2				1.5	39.3	57.7					
4.1	26.8	49.7	70.5	92.6				2.6	39.7	58.1					
5.4	27.1	50.1	70.8	92.9				3.5	40.1	58.4					
6.4	28.2	50.3	71.3					4.3	40.6	58.6					
6.8	29.0	50.7	71.6					5.0	41.1	58.9					
7.2	30.1	51.1	72.0					5.8	41.5	59.3					
7.9	31.0	51.6	72.3					6.3	42.0	59.6					
8.6	32.3	51.8	72.6					7.0	42.3	60.1					
9.1	33.2	52.1	72.9					7.5	42.6	60.5					
9.8	33.9	52.4	73.1					8.3	43.1	60.8					
10.4	34.4	52.8	73.5					9.1	43.5	61.2					
10.9	35.2	53.2	73.7					10.0	43.9	61.5					
11.4	35.7	53.5	74.1					10.6	44.1	61.8					
12.1	36.2	53.8	74.3					11.2	44.4	62.2					
12.4	36.6	54.1	74.8					11.9	44.8	62.5					
13.0	37.1	54.4	75.2					12.6	45.2	63.0					
13.5	37.5	54.7	75.7					13.4	45.6	63.2					
14.0	38.1	54.9	76.0					14.1	45.9	63.5					
14.5	38.4	55.3	76.2					14.9	46.3	64.0					
14.9	38.8	55.6	76.6					15.6	46.8	64.3					
15.3	39.2	55.7	77.0					16.4	47.1	64.8					
15.8	39.6	56.0	77.3					17.1	47.4	65.1					
16.3	39.9	56.4	77.7					17.8	47.9	65.5					
16.8	40.2	57.0	78.1					18.6	48.2	65.8					
17.4	40.6	57.5	78.4					19.4	48.6	66.2					
18.0	40.8	57.7	78.9					20.0	49.1	66.6					
18.4	41.2	58.0	79.3					20.8	49.3	66.8					
18.9	41.6	58.3	79.5					21.6	49.7	67.2					
19.4	41.8	58.8	80.0					22.4	50.0	67.6					
19.8	42.2	59.3	80.8					23.1	50.3	67.9					
20.3	42.5	59.7	81.6					23.9	50.8	68.3					
20.7	42.8	60.2	82.4					24.7	51.1	68.5					
20.8	43.2	60.6	83.0					25.6	51.5	69.0					
21.2	43.5	60.9	83.8					26.5	51.8	69.2					
21.5	43.8	61.5	84.4					27.7	52.2	69.6					
21.7	44.0	61.9	85.1					28.6	52.4	69.9					
21.9	44.4	62.5	85.7					29.6	52.6	70.5					
22.3	44.7	62.9	86.3					30.5	53.0	70.9					
22.6	45.0	63.4	86.6					31.4	53.3	71.3					
22.8	45.4	64.0	86.8					32.2	53.6	71.7					
23.1	45.7	64.5	87.1					32.8	53.9	72.1					
23.3	45.9	65.1	87.6					33.4	54.1	72.4					
23.5	46.3	65.5	88.0					33.8	54.4	72.7					
23.8	46.7	65.8	88.5					34.3	54.7	73.1					
24.0	46.9	66.1	88.9					34.8	54.9	73.4					
24.2	47.2	66.5	89.5					35.2	55.3						
24.5	47.6	66.9	89.9					35.7	55.7						
24.8	47.8	67.1	90.2					36.2	55.9						
25.1	48.0	67.6	90.7					36.7	56.2						
25.4	48.5	68.1	91.0					37.2	56.5						
25.6	48.7	68.8	91.3					37.7	56.7						
26.0	49.0	69.2	91.5					38.2	57.2						
26.3	49.4	69.6	91.9					38.8	57.4						

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 878+20 NB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	410911.0	2011422.2

Cumulative Penetration in Centimeters

0.8	8.8	7.7	16.7
1.2	8.9	7.9	
1.5	9.0	8.0	
1.8	9.1	8.2	
2.0	9.1	8.4	
2.3	9.2	8.6	
2.6	9.3	8.7	
2.8	9.4	8.9	
2.9	9.5	9.1	
3.1	9.6	9.3	
3.2	9.6	9.5	
3.4	9.7	9.7	
3.6	9.7	9.9	
3.8	9.8	10.1	
4.1	9.8	10.3	
4.3	9.9	10.5	
4.5	9.9	10.8	
4.6	10.0	11.0	
4.8	10.0	11.2	
4.9		11.4	
5.1		11.5	
5.2		11.7	
5.3		11.8	
5.5	0.0	12.0	
5.6	1.8	12.1	
5.8	2.5	12.3	
5.9	2.8	12.4	
6.0	3.1	12.6	
6.1	3.4	12.7	
6.1	3.6	12.9	
6.2	3.8	13.0	
6.3	4.0	13.2	
6.5	4.2	13.3	
6.7	4.4	13.5	
6.8	4.6	13.7	
7.0	4.8	13.8	
7.2	5.0	14.0	
7.3	5.2	14.1	
7.4	5.3	14.3	
7.6	5.5	14.5	
7.7	5.6	14.7	
7.8	5.8	14.9	
7.9	6.0	15.1	
8.0	6.1	15.3	
8.0	6.3	15.5	
8.1	6.4	15.7	
8.2	6.6	15.8	
8.3	6.8	16.0	
8.4	6.9	16.2	
8.4	7.1	16.3	
8.5	7.2	16.4	
8.6	7.4	16.5	
8.7	7.6	16.6	

DCP REFUSAL

Augered 5 cm

TEST LOCATION DESCRIPTION	DATE RUN
-L- 878+20 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	410909.7	2011425.7

Cumulative Penetration in Centimeters

1.9	25.8	38.9	52.7	66.5
3.0	26.2	39.2	52.9	66.9
4.0	26.5	39.5	53.2	67.2
4.7	26.8	39.8	53.4	67.5
5.2	27.2	40.1	53.7	67.8
5.8	27.5	40.4	53.9	68.2
6.4	27.8	40.6	54.1	68.5
6.9	28.1	40.9	54.3	68.8
7.5	28.4	41.2	54.6	69.2
8.1	28.7	41.5	54.8	69.7
8.6	29.0	41.8	55.0	70.1
9.2	29.3	42.2	55.2	70.6
9.7	29.5	42.5	55.4	71.0
10.3	29.7	42.8	55.6	71.4
10.8	30.0	43.1	55.8	71.9
11.4	30.2	43.4	56.0	72.3
12.0	30.4	43.8	56.2	72.8
12.5	30.6	44.1	56.5	73.2
13.1	30.8	44.4	56.7	73.6
13.7	31.1	44.6	57.0	74.0
14.1	31.3	44.9	57.2	74.5
14.6	31.5	45.1	57.5	74.9
15.0	31.7	45.4	57.8	75.3
15.5	32.0	45.6	58.2	75.8
15.9	32.2	45.8	58.5	76.2
16.3	32.5	46.0	58.8	76.7
16.7	32.7	46.3	59.1	77.1
17.1	32.9	46.5	59.3	77.6
17.5	33.2	46.7	59.6	78.2
17.9	33.4	47.0	59.8	78.7
18.2	33.7	47.3	60.1	79.3
18.5	33.9	47.6	60.3	79.8
18.9	34.1	47.9	60.5	80.4
19.2	34.3	48.2	60.8	80.9
19.5	34.5	48.4	61.0	81.5
19.8	34.7	48.7	61.2	82.0
20.1	34.9	48.9	61.5	82.6
20.4	35.1	49.2	61.7	83.1
20.7	35.3	49.4	62.0	83.7
21.0	35.4	49.6	62.2	84.4
21.4	35.6	49.8	62.5	85.0
21.7	35.8	50.0	62.8	85.7
22.1	36.1	50.2	63.1	86.3
22.4	36.4	50.4	63.5	87.1
22.8	36.6	50.6	63.8	88.0
23.1	36.9	50.9	64.1	88.8
23.4	37.2	51.1	64.4	89.7
23.7	37.4	51.4	64.7	90.5
24.0	37.6	51.6	64.9	91.4
24.3	37.9	51.8	65.2	92.3
24.7	38.1	52.0	65.5	93.1
25.1	38.3	52.3	65.8	94.0
25.4	38.6	52.5	66.2	94.9

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 904+65 NB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	413532.8	2011784.7

Cumulative Penetration in Centimeters

1.9	19.0	39.3	62.1	
2.7	19.4	39.8	62.5	
3.4	19.7	40.6	62.8	
3.9	19.9	41.3	63.3	
4.3	20.2	41.8	63.5	
4.7	20.4	42.5	64.0	
5.1	20.7	43.2	64.4	
5.5	20.9	43.6	64.8	
6.1	21.3	44.3	65.3	
6.4	21.5	44.9	65.7	
6.9	21.9	45.4	66.1	
7.1	22.1	46.0		
7.5	22.3	46.6		
7.7	22.6	47.1		
8.1	22.9	47.7		
8.4	23.4	48.3		
8.8	23.6	48.7		
9.0	23.9	49.4		
9.3	24.3	49.9		
9.7	24.4	50.2		
10.0	24.9	50.7		
10.4	25.1	50.9		
10.7	25.5	51.3		
11.1	25.9	51.6		
11.4	26.2	51.9		
11.6	26.6	52.4		
12.0	26.9	52.7		
12.2	27.3	53.3		
12.7	27.6	53.6		
12.9	28.1	54.0		
13.2	28.5	54.2		
13.4	28.8	54.6		
13.7	29.2	55.0		
13.8	29.7	55.3		
14.1	30.1	55.7		
14.3	30.6	56.0		
14.6	31.0	56.3		
14.9	31.4	56.7		
15.0	31.9	57.0		
15.3	32.5	57.3		
15.6	32.8	57.6		
15.9	33.4	58.0		
16.0	33.9	58.3		
16.3	34.4	58.7		
16.6	34.8	58.9		
16.7	35.3	59.2		
17.0	35.7	59.8		
17.2	36.1	60.0		
17.6	36.7	60.3		
17.8	37.2	60.6		
18.1	37.7	61.0		
18.4	38.2	61.3		
18.6	38.6	61.8		

TEST LOCATION DESCRIPTION	DATE RUN
-L- 904+65 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	413533.4	2011778.6

Cumulative Penetration in Centimeters

1.5	28.8	54.6	78.8	
2.3	29.3	55.2	79.2	
3.0	29.8	55.7	79.5	
3.6	30.2	56.2	79.9	
4.4	30.7	56.8	80.3	
5.0	31.1	57.3	80.7	
5.6	31.5	57.9	81.1	
6.2	32.0	58.4	81.6	
6.9	32.4	59.0	82.0	
7.5	32.9	59.5	82.4	
8.2	33.3	60.1	82.8	
8.8	33.8	60.6	83.2	
9.3	34.3	61.2	83.7	
9.9	34.8	61.6	84.1	
10.5	35.3	62.0	84.5	
11.0	35.8	62.5	84.9	
11.6	36.2	62.9	85.3	
12.1	36.6	63.3	85.8	
12.7	37.1	63.8	86.2	
13.2	37.5	64.2	86.6	
13.7	37.9	64.7	87.0	
14.3	38.4	65.1	87.4	
14.8	38.9	65.6	87.9	
15.3	39.3	66.0	88.3	
15.8	39.8	66.4	88.7	
16.3	40.3	66.7	89.1	
16.8	40.8	67.1	89.6	
17.2	41.3	67.5	90.0	
17.7	41.9	68.0	90.5	
18.2	42.4	68.5	90.9	
18.7	42.9	68.9		
19.2	43.4	69.4		
19.7	43.9	69.9		
20.1	44.5	70.3		
20.6	45.0	70.8		
21.0	45.5	71.2		
21.5	46.0	71.7		
21.9	46.5	72.1		
22.3	47.0	72.6		
22.8	47.5	73.0		
23.2	48.0	73.5		
23.6	48.5	73.9		
24.0	49.0	74.4		
24.4	49.6	74.8		
24.8	50.1	75.2		
25.3	50.6	75.5		
25.7	51.1	75.9		
26.1	51.6	76.3		
26.4	52.0	76.7		
26.8	52.5	77.1		
27.3	53.0	77.6		
27.8	53.5	78.0		
28.3	54.1	78.4		

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
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ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

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CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 904+65 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	413520.4	2011806.4

Cumulative Penetration in Centimeters

1.2	27.8	48.3	78.1
2.3	28.2	49.0	80.2
3.0	28.5	49.7	82.2
3.7	28.9	50.4	84.1
4.3	29.2	51.2	85.6
5.0	29.6	51.9	87.0
5.6	29.9	52.7	88.2
6.2	30.2	53.4	89.6
6.8	30.6	53.8	90.7
7.3	30.9	54.2	91.8
7.9	31.3	54.6	92.9
8.4	31.6	55.0	94.0
9.0	32.0	55.4	95.3
9.5	32.4	55.8	96.4
10.1	32.7	56.2	98.1
10.6	33.1	56.6	99.5
11.1	33.5	57.0	100.8
11.6	33.8	57.4	
12.1	34.2	57.8	
12.6	34.5	58.2	
13.1	34.9	58.5	
13.6	35.2	58.9	
14.1	35.6	59.3	
14.6	35.9	59.7	
15.1	36.3	60.1	
15.7	36.6	60.4	
16.2	37.0	60.8	
16.7	37.3	61.2	
17.2	37.7	61.6	
17.7	38.0	62.0	
18.2	38.4	62.5	
18.8	38.7	62.9	
19.3	39.0	63.3	
19.8	39.4	63.7	
20.2	39.7	64.1	
20.7	40.0	64.6	
21.2	40.3	65.0	
21.6	40.7	65.4	
22.1	41.0	65.9	
22.5	41.4	66.3	
23.0	41.7	66.8	
23.4	42.1	67.2	
23.8	42.5	67.7	
24.2	42.9	68.3	
24.6	43.3	68.9	
25.0	43.7	69.4	
25.3	44.2	70.0	
25.7	44.7	70.6	
26.1	45.1	71.7	
26.4	45.6	72.8	
26.8	46.1	73.9	
27.1	46.8	75.0	
27.5	47.5	76.1	

TEST LOCATION DESCRIPTION	DATE RUN
-L- 934+90 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	416537.6	2012220.7

Cumulative Penetration in Centimeters

2.4	37.2	61.4	89.1
3.5	37.7	61.9	89.6
4.5	38.1	62.4	90.1
5.4	38.4	62.8	
6.4	38.8	63.3	
7.2	39.1	64.3	
8.0	39.5	64.9	
8.8	39.9	65.5	
9.7	40.3	66.1	
10.5	40.7	66.7	
11.4	41.1	67.3	
13.0	41.4	67.9	
14.6	41.8	68.6	
16.2	42.2	69.2	
16.9	42.6	69.8	
17.5	43.0	70.4	
18.2	43.5	71.0	
18.8	43.9	71.6	
19.4	44.3	72.2	
20.0	44.7	72.8	
20.7	45.2	73.4	
21.5	45.6	74.0	
22.2	46.1	74.5	
22.7	46.5	75.1	
23.2	47.0	75.6	
23.7	47.5	76.2	
24.4	47.9	76.8	
25.0	48.4	77.3	
25.7	48.9	77.9	
26.1	49.3	78.4	
26.5	49.7	79.0	
26.9	50.2	79.4	
27.4	50.6	79.8	
27.9	51.0	80.3	
28.4	51.5	80.7	
28.9	52.0	81.1	
29.5	52.6	81.6	
30.0	53.1	82.1	
30.5	53.6	82.5	
31.1	54.1	83.0	
31.6	54.6	83.5	
32.1	55.1	83.8	
32.5	55.6	84.2	
33.0	56.1	84.5	
33.5	56.6	84.9	
34.0	57.2	85.2	
34.5	57.7	85.7	
34.9	58.3	86.2	
35.3	58.8	86.6	
35.7	59.3	87.1	
36.1	59.8	87.6	
36.4	60.4	88.1	
36.8	60.9	88.6	

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 934+90 NB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	416530.0	2012240.1

Cumulative Penetration in Centimeters

0.5		23.4	29.9
0.7	Augered 7.3 cm	23.6	30.0
1.0		23.7	30.2
1.2		23.9	30.3
1.5	0.0	24.1	30.5
1.7	13.6	24.2	30.6
1.8	14.2	24.4	
2.0	14.5	24.5	DCP REFUSAL
2.1	14.8	24.7	
2.3	15.2	24.8	
2.4	15.5	24.9	
2.5	15.8	25.1	
2.6	16.0	25.2	
2.7	16.3	25.3	
2.8	16.5	25.5	
2.9	16.8	25.7	
3.0	17.0	25.8	
3.1	17.2	26.0	
3.2	17.4	26.2	
3.3	17.6	26.3	
3.4	17.8	26.4	
3.5	18.0	26.5	
3.5	18.2	26.6	
3.6	18.4	26.7	
3.6	18.6	26.8	
3.7	18.8	26.9	
3.8	19.0	27.1	
3.8	19.2	27.2	
3.9	19.4	27.3	
3.9	19.5	27.4	
4.0	19.7	27.5	
4.1	19.9	27.7	
4.1	20.0	27.8	
4.2	20.2	27.9	
4.2	20.3	28.0	
4.3	20.5	28.1	
4.3	20.6	28.2	
4.4	20.8	28.3	
4.4	20.9	28.4	
4.5	21.1	28.5	
4.5	21.2	28.6	
4.5	21.4	28.7	
4.6	21.6	28.8	
4.6	21.8	28.9	
4.7	22.0	29.0	
4.7	22.2	29.1	
4.7	22.4	29.2	
4.8	22.5	29.3	
4.8	22.7	29.4	
4.9	22.8	29.5	
4.9	23.0	29.6	
	23.1	29.7	
	23.3	29.8	

TEST LOCATION DESCRIPTION	DATE RUN
-L- 934+90 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	416531.1	2012249.6

Cumulative Penetration in Centimeters

1.2	18.9	45.2	71.8	91.0
1.8	19.2	45.6	72.2	91.4
2.4	19.6	46.0	72.5	91.8
3.1	19.9	46.7	72.8	92.3
3.5	20.2	47.2	73.1	92.7
4.0	20.5	47.7	73.6	92.9
4.4	20.9	48.1	73.9	93.2
4.8	21.1	48.6	74.2	93.5
5.1	21.4	49.1	74.6	93.8
5.5	21.6	49.7	74.9	94.1
5.9	21.9	50.1	75.5	94.4
6.1	22.2	50.6	75.8	94.7
6.5	22.5	51.0	76.1	95.2
6.8	22.8	51.5	76.4	95.5
7.1	26.4	52.1	76.8	95.8
7.4	28.7	52.5	77.2	96.0
7.8	30.3	53.2	77.7	96.2
8.0	31.5	53.6	78.0	96.5
8.4	32.2	54.2	78.2	
8.7	32.8	54.9	78.5	
8.9	33.3	55.4	79.0	
9.3	33.7	56.0	79.5	
9.6	34.0	56.6	79.8	
9.9	34.3	57.3	80.1	
10.2	34.7	58.0	80.3	
10.5	35.8	58.6	80.7	
10.7	36.7	59.2	81.1	
11.0	37.0	59.8	81.4	
11.3	37.3	60.5	81.8	
11.5	37.6	61.1	82.1	
11.8	37.8	61.6	82.4	
12.1	38.2	62.1	82.8	
12.3	38.5	62.5	83.2	
12.6	38.8	63.1	83.7	
13.0	39.1	63.7	84.1	
13.2	39.4	64.2	84.6	
13.5	39.7	64.7	84.9	
13.9	40.1	65.2	85.2	
14.1	40.4	65.8	85.4	
14.4	40.7	66.2	85.6	
14.7	41.0	66.6	85.9	
15.0	41.4	67.0	86.3	
15.3	41.7	67.4	86.7	
15.7	41.9	67.9	87.0	
16.0	42.1	68.4	87.4	
16.3	42.3	68.7	87.9	
16.6	42.6	69.1	88.3	
16.9	43.0	69.5	88.7	
17.2	43.3	70.0	89.0	
17.6	43.6	70.5	89.3	
17.9	43.9	70.7	89.7	
18.3	44.3	71.1	90.2	
18.6	44.8	71.4	90.6	

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
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Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 960+95 NB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	419112.1	2012603.5

Cumulative Penetration in Centimeters

1.1	13.4	20.2			
2.0	13.5	20.4			
2.6	13.7	20.5			
3.0	13.9	20.7			
3.4	14.0	20.9			
3.8	14.1	21.1			
4.1	14.3	21.2			
4.3	14.4	21.4			
4.6	14.5	21.6			
4.9	14.6	21.7			
5.1	14.7	21.9			
5.4	14.9	22.0			
5.7	15.0	22.1			
5.9	15.1	22.3			
6.2	15.2	22.4			
6.4	15.3	22.5			
6.7	15.3	22.6			
7.0	15.4	22.7			
7.4	15.5	22.9			
7.8	15.7	23.0			
8.1	15.9	23.1			
8.4	16.0	23.3			
8.5	16.2	23.5			
8.7	16.4	23.6			
8.8	16.5	23.8			
9.0	16.7	24.0			
9.1	16.8	24.2			
9.3	17.0	24.4			
9.4	17.1	24.5			
9.6	17.2	24.7			
9.7	17.3	24.9			
9.9	17.5				
10.1	17.6				
10.2	17.7				
10.4	17.8				
10.5	17.9				
10.7	18.0				
10.9	18.1				
11.0	18.2				
11.2	18.3				
11.3	18.4				
11.5	18.6				
11.7	18.7				
11.8	18.8				
12.0	19.0				
12.1	19.2				
12.3	19.3				
12.4	19.5				
12.6	19.7				
12.7	19.8				
12.9	19.9				
13.0	20.0				
13.2	20.1				

DCP REFUSAL

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATION DESCRIPTION	DATE RUN
-L- 960+95 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	419103.4	2012627.4

Cumulative Penetration in Centimeters

0.9	15.5	26.6	41.4	56.5	69.6
1.3	15.7	26.8	41.7	56.8	69.9
1.8	15.9	27.0	42.0	57.0	70.2
2.2	16.2	27.2	42.2	57.2	70.5
2.7	16.4	27.5	42.5	57.5	70.9
3.1	16.7	27.7	42.8	57.7	71.3
3.6	16.9	28.0	43.1	57.9	71.6
4.0	17.1	28.2	43.5	58.2	72.0
4.4	17.3	28.4	43.8	58.4	72.4
4.8	17.6	28.7	44.1	58.7	72.8
5.2	17.8	28.9	44.4	58.9	73.2
5.5	18.0	29.2	44.7	59.2	73.6
5.9	18.1	29.4	45.0	59.4	74.0
6.2	18.3	29.7	45.3	59.6	74.4
6.7	18.4	30.0	45.6	59.9	75.0
7.2	18.6	30.3	45.8	60.1	75.6
7.7	18.7	30.6	46.0	60.3	76.1
7.9	18.8	30.9	46.3	60.5	76.7
8.1	18.9	31.2	46.5	60.7	77.3
8.3	19.1	31.5	46.7	60.9	77.9
8.4	19.2	31.7	47.0	61.1	78.4
8.5	19.3	32.0	47.3	61.3	79.0
8.7	19.5	32.3	47.6	61.5	79.6
8.8	19.6	32.6	47.9	61.8	80.2
8.9	19.8	32.8	48.2	62.0	80.8
9.1	19.9	33.1	48.5	62.3	81.3
9.4	20.1	33.3	48.7	62.5	81.9
9.6	20.4	33.6	49.0	62.8	82.4
9.8	20.6	33.9	49.2	63.1	82.9
10.1	20.9	34.2	49.5	63.4	83.5
10.3	21.1	34.4	49.8	63.7	84.0
10.5	21.4	34.7	50.1	64.0	84.5
10.7	21.7	35.0	50.3	64.2	85.1
11.0	21.9	35.3	50.6	64.4	85.6
11.2	22.2	35.6	50.9	64.7	86.1
11.4	22.4	35.8	51.3	64.9	86.7
11.7	22.7	36.1	51.6	65.1	87.2
11.9	22.9	36.4	52.0	65.4	87.8
12.2	23.2	36.7	52.3	65.6	88.3
12.4	23.4	37.0	52.7	65.9	88.9
12.6	23.7	37.4	53.0	66.1	89.5
12.9	23.9	37.7	53.2	66.4	90.0
13.1	24.2	38.0	53.5	66.6	90.6
13.4	24.4	38.3	53.7	66.9	91.2
13.6	24.7	38.6	54.0	67.1	92.8
13.8	24.9	39.0	54.2	67.4	92.9
14.0	25.1	39.3	54.5	67.6	93.1
14.2	25.3	39.6	54.7	67.9	93.9
14.4	25.6	39.9	55.0	68.2	94.6
14.6	25.8	40.2	55.2	68.4	95.6
14.8	26.0	40.5	55.5	68.7	96.5
15.0	26.2	40.8	55.8	69.0	97.5
15.3	26.4	41.1	56.2	69.3	98.4

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 987+25 NB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	421657.4	2013206.1

Cumulative Penetration in Centimeters

0.7	10.7	23.5	52.3	63.6	78.5
0.9	10.9	23.9	52.6	63.8	79.0
1.1	11.1	24.2	53.0	64.0	79.5
1.3	11.3	24.6	53.3	64.3	80.2
1.5	11.5	25.1	53.5	64.5	80.9
1.8	11.7	25.6	53.8	64.7	81.7
2.0	11.9	26.1	54.0	64.9	82.4
2.2	12.1	26.6	54.2	65.1	83.1
2.4	12.3	27.1	54.4	65.4	84.2
2.6	12.5	27.6	54.6	65.6	85.4
2.8	12.7	28.1	54.9	65.8	86.5
3.0	12.9	28.5	55.1	66.0	87.7
3.2	13.1	29.0	55.4	66.3	88.8
3.4	13.4	29.5	55.6	66.5	90.2
3.6	13.6	30.0	55.7	66.8	91.6
3.8	13.9	30.5	55.9	67.0	93.0
3.9	14.1	30.9	56.1	67.3	
4.1	14.3	31.4	56.2	67.5	
4.2	14.5	31.9	56.4	67.8	
4.4	14.6	32.5	56.6	68.0	
4.5	14.8	33.1	56.9	68.3	
4.6	15.0	33.8	57.1	68.5	
4.8	15.3	34.4	57.4	68.7	
4.9	15.6	35.0	57.6	68.9	
5.0	15.9	35.6	57.8	69.1	
5.1	16.2	36.2	58.0	69.3	
5.2	16.5	36.8	58.3	69.6	
5.4	16.8	37.4	58.5	69.8	
5.5	17.0	38.0	58.7	70.1	
5.6	17.3	38.6	58.8	70.3	
5.9	17.5	39.3	59.0	70.6	
6.1	17.8	40.1	59.1	70.9	
6.4	18.0	40.8	59.3	71.2	
6.6	18.2	41.7	59.4	71.4	
6.9	18.5	42.5	59.6	71.7	
7.1	18.7	43.4	59.8	72.0	
7.3	18.9	44.2	60.1	72.3	
7.5	19.1	45.1	60.3	72.7	
7.7	19.3	45.9	60.5	73.0	
7.9	19.5	46.5	60.7	73.4	
8.1	19.7	47.2	60.9	73.7	
8.3	19.9	47.8	61.2	74.0	
8.5	20.2	48.3	61.4	74.3	
8.7	20.5	48.9	61.6	74.5	
8.9	20.7	49.4	61.8	74.8	
9.1	21.0	49.8	61.9	75.1	
9.3	21.3	50.3	62.1	75.5	
9.4	21.6	50.7	62.2	75.9	
9.6	21.9	51.0	62.4	76.2	
9.8	22.2	51.4	62.6	76.6	
10.0	22.5	51.7	62.9	77.0	
10.2	22.8	51.9	63.1	77.5	
10.5	23.2	52.1	63.4	78.0	

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATION DESCRIPTION	DATE RUN
-L- 987+50 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	421685.0	2013210.7

Cumulative Penetration in Centimeters

0.9	16.6	40.5	74.2		
1.5	17.0	41.4	74.8		
1.9	17.3	42.3	75.4		
2.3	17.6	43.3	76.0		
2.7	17.9	44.2	76.7		
3.1	18.2	45.1	77.3		
3.5	18.6	46.6	77.9		
3.8	18.9	48.0	78.6		
4.1	19.2	49.5	79.2		
4.5	19.5	51.4	79.9		
4.8	19.8	53.3	80.5		
5.1	20.0	55.2	81.2		
5.4	20.3	55.9	82.0		
5.7	20.6	56.7	82.8		
6.0	20.9	57.4	83.5		
6.3	21.2	57.8	84.3		
6.6	21.4	58.1	85.1		
6.9	21.7	58.5	86.1		
7.1	22.0	59.0	87.1		
7.4	22.3	59.4	88.0		
7.6	22.6	59.9	89.0		
7.9	22.9	60.3	90.0		
8.2	23.2	60.7	90.9		
8.4	23.5	61.1	91.8		
8.7	23.9	61.5	92.6		
9.0	24.3	61.9	93.5		
9.2	24.6	62.3	94.4		
9.4	25.0	62.7	95.2		
9.7	25.4	63.1	96.1		
9.9	25.8	63.5	96.9		
10.2	26.3	63.9	97.8		
10.4	26.7	64.3	98.6		
10.7	27.2	64.8	99.4		
11.0	27.6	65.2	100.2		
11.2	28.1	65.6	101.1		
11.5	28.6	66.0	101.9		
11.8	29.2	66.4	102.7		
12.1	29.7	66.9	103.5		
12.4	30.2	67.3	104.3		
12.6	30.8	67.7	105.2		
12.9	31.4	68.1	106.0		
13.2	32.0	68.5	106.8		
13.5	32.6	69.0			
13.8	33.2	69.4			
14.0	33.9	69.8			
14.3	34.6	70.2			
14.6	35.2	70.7			
14.9	35.9	71.2			
15.2	36.6	71.6			
15.4	37.4	72.0			
15.7	38.2	72.6			
16.0	38.9	73.1			
16.3	39.7	73.7			

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

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CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1010+15 NB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	423734.6	2014149.9

Cumulative Penetration in Centimeters

1.3	14.5	24.9	39.3	60.0	4.5	33.4	52.1	68.6							
1.8	14.7	25.1	39.6	60.3	6.1	33.8	52.5	68.9							
2.4	14.9	25.3	40.0	60.7	7.2	34.2	52.9	69.2							
2.9	15.0	25.5	40.3	61.1	8.1	34.5	53.3	69.4							
3.3	15.2	25.8	40.7	61.6	8.8	34.9	53.6	69.7							
3.6	15.4	26.0	41.1	62.0	9.5	35.2	53.9	70.0							
4.0	15.6	26.3	41.4	62.4	10.2	35.5	54.2	70.3							
4.3	15.8	26.5	41.8	62.8	10.9	35.7	54.5	70.6							
4.6	16.0	26.7	42.1	63.3	11.6	36.0	54.8	70.8							
4.9	16.2	26.9	42.5	63.7	12.2	36.3	55.1	71.1							
5.2	16.4	27.0	42.9	64.2	13.0	36.7	55.4	71.4							
5.5	16.6	27.2	43.4	64.6	13.7	37.0	55.6	71.7							
5.8	16.9	27.4	43.8	65.2	14.6	37.3	55.9	72.0							
6.0	17.1	27.7	44.3	65.7	15.3	37.7	56.2	72.3							
6.3	17.4	28.0	44.7	66.3	16.0	38.0	56.5	72.6							
6.5	17.6	28.4	45.1	66.8	16.6	38.4	56.8	72.9							
6.7	17.8	28.7	45.5	67.4	17.0	38.7	57.2	73.2							
6.8	18.0	29.0	45.8	67.9	17.5	39.1	57.5	73.5							
7.0	18.2	29.2	46.2	68.5	18.1	39.5	57.8	73.7							
7.3	18.4	29.4	46.6	69.0	18.6	39.9	58.2	74.0							
7.6	18.6	29.6	47.1	69.6	19.1	40.3	58.6	74.3							
7.9	18.9	29.8	47.5	70.1	19.5	40.7	59.1	74.5							
8.2	19.1	30.0	48.0		20.0	41.0	59.5	74.7							
8.5	19.4	30.3	48.4		20.5	41.3	59.9	74.9							
8.7	19.6	30.6	48.9		21.0	41.6	60.2	75.1							
8.9	19.9	30.8	49.3		21.5	41.9	60.5	75.3							
9.1	20.1	31.1	49.7		21.9	42.2	60.8	75.5							
9.3	20.2	31.4	50.2		22.4	42.5	61.1	75.7							
9.5	20.4	31.7	50.6		22.8	42.8	61.4	75.8							
9.7	20.5	32.0	51.0		23.3	43.1	61.6	76.0							
9.9	20.7	32.3	51.5		23.7	43.4	61.9	76.2							
10.1	20.9	32.6	52.0		24.2	43.7	62.1	76.4							
10.3	21.1	32.9	52.4		24.6	44.0	62.4	76.6							
10.5	21.3	33.1	52.9		25.1	44.4	62.6	76.7							
10.7	21.5	33.4	53.4		25.5	44.7	63.0	76.9							
10.8	21.7	33.6	53.8		25.9	45.1	63.3	77.1							
11.0	21.9	33.9	54.2		26.4	45.4	63.7								
11.1	22.1	34.1	54.7		26.8	45.8	64.0								
11.3	22.3	34.3	55.1		27.3	46.1	64.4								
11.5	22.5	34.5	55.5		27.8	46.5	64.7								
11.7	22.7	34.7	55.9		28.3	46.8	65.0								
12.0	22.9	34.9	56.3		28.7	47.2	65.4								
12.2	23.1	35.1	56.6		29.1	47.6	65.7								
12.4	23.2	35.5	57.0		29.5	48.0	66.0								
12.6	23.4	35.9	57.4		29.9	48.3	66.3								
12.8	23.6	36.2	57.7		30.4	48.7	66.6								
13.0	23.7	36.6	58.0		30.8	49.1	66.8								
13.2	23.9	37.0	58.3		31.2	49.5	67.1								
13.4	24.0	37.4	58.6		31.6	50.0	67.4								
13.6	24.2	37.8	58.9		32.0	50.4	67.6								
13.8	24.3	38.1	59.2		32.3	50.9	67.9								
14.0	24.5	38.5	59.5		32.7	51.3	68.1								
14.2	24.7	38.9	59.7		33.0	51.7	68.4								

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1010+15 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	423736.9	2014144.9

Cumulative Penetration in Centimeters

0.8	31.8	51.4	72.0	93.2											
1.5	32.3	51.8	72.4	93.8											
2.1	32.7	52.2	72.7	94.4											
2.6	33.2	52.7	73.1	95.0											
3.2	33.6	53.1	73.4												
3.7	34.0	53.5	73.8												
4.3	34.4	53.9	74.1												
4.8	34.8	54.3	74.5												
5.3	35.1	54.7	74.8												
5.7	35.5	55.2	75.2												
6.2	35.8	55.6	75.6												
6.7	36.2	56.0	76.0												
7.2	36.5	56.5	76.3												
7.7	36.9	56.9	76.6												
8.1	37.2	57.3	76.9												
8.6	37.6	57.7	77.2												
9.1	37.9	58.1	77.5												
9.7	38.3	58.5	77.8												
10.3	38.6	59.0	78.1												
10.8	38.9	59.4	78.4												
11.4	39.3	59.8	78.7												
12.0	39.6	60.3	79.0												
12.9	40.0	60.7	79.4												
13.9	40.3	61.1	79.7												
14.8	40.7	61.6	80.0												
15.8	41.0	62.0	80.4												
16.7	41.4	62.4	80.7												
18.1	41.7	62.8	81.0												
19.4	42.0	63.2	81.4												
20.8	42.4	63.6	81.7												
21.4	42.7	64.0	82.0												
22.1	43.1	64.4	82.4												
22.7	43.4	64.8	82.7												
23.2	43.8	65.2	83.0												
23.7	44.1	65.6	83.4												
24.2	44.5	66.0	83.7												
24.6	44.8	66.3	84.1												
25.0	45.2	66.7	84.4												
25.4	45.7	67.0	84.8												
25.8	46.1	67.4	85.2												
26.2	46.4	67.7	85.6												
26.6	46.8	68.0	86.0												
27.0	47.1	68.3	86.5												
27.4	47.5	68.6	87.0												
27.8	47.9	69.0	87.5												
28.2	48.3	69.3	88.1												
28.7	48.7	69.7	88.6												
29.1	49.1	70.0	89.2												
29.5	49.5	70.4	89.9												
29.9	49.9	70.7	90.5												
30.3	50.3	71.0	91.2												
30.8	50.7	71.4	91.9												
31.3	51.1	71.7	92.5												

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATION DESCRIPTION	DATE RUN
-L- 1037+10 NB OSL1	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	425877.2	2015777.9

Cumulative Penetration in Centimeters

0.8	8.4	12.8													
1.1	8.5	13.0													
1.4	8.6	13.2													
1.6		13.4													
1.9		13.6													
2.2		13.8													
2.3		14.0													
2.4	0.0	14.2													
2.5	1.4	14.3													
2.6	1.7	14.5													
2.7	2.1	14.7													
2.8	2.4	14.9													
3.0	2.8	15.1													
3.1	3.1	15.2													
3.3	3.5	15.4													
3.4	3.9	15.6													
3.5	4.2	15.8													
3.7	4.6	15.9													
3.8	5.0	16.1													
4.0	5.4	16.2													
4.1	5.7	16.4													
4.2	6.1	16.6													
4.3	6.4	16.8													
4.5	6.8	16.9													
4.6	7.0	17.1													
4.7	7.3	17.3													
4.9	7.5														
5.1	7.8														
5.2	8.0														
5.4	8.2														
5.6	8.4														
5.7	8.7														
5.8	8.9														
6.0	9.1														
6.1	9.3														
6.2	9.5														
6.3	9.7														
6.5	9.9														
6.6	10.1														
6.8	10.3														
6.9	10.5														
7.0	10.7														
7.1	10.9														
7.2	11.1														
7.3	11.3														
7.4	11.5														
7.5	11.6														
7.6	11.8														
7.8	12.0														
7.9	12.2														
8.0	12.3														
8.1	12.5														
8.2	12.6														

Augered 21.6 cm

DCP REFUSAL

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

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3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1037+10 NB OSL2	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	425886.1	2015769.4

Cumulative Penetration in Centimeters

1.1	17.9	32.4			
2.6	18.2	32.5			
3.4	18.5	32.6			
3.7	18.8	32.7			
4.2	19.0	32.9			
4.5	19.3	33.0			
4.7	19.6	33.2			
5.0	19.9	33.4			
5.2	20.2	33.6			
5.5	20.4	33.7			
5.9	20.7	33.9			
6.3	21.0	34.1			
6.7	21.3	34.2			
7.1	21.6	34.4			
7.5	21.8	34.6			
7.8	22.1	34.7			
8.2	22.4	34.9			
8.5	22.8	35.1			
8.9	23.1	35.3			
9.2	23.5	35.4			
9.4	23.8	35.6			
9.6	24.2	35.8			
9.8	24.5	35.9			
10.0	24.8	36.1			
10.2	25.0	36.3			
10.5	25.3	36.4			
10.8	25.6	36.6			
11.0	25.8	36.8			
11.3	26.0	37.0			
11.6	26.3	37.1			
11.8	26.5	37.3			
12.0	26.7	37.5			
12.3	27.1	37.6			
12.5	27.5	37.8			
12.7	27.8	DCP REFUSAL			
13.0	28.2				
13.3	28.6				
13.5	28.9				
13.8	29.1				
14.1	29.4				
14.4	29.6				
14.7	29.9				
14.9	30.2				
15.2	30.5				
15.5	30.8				
15.8	31.1				
16.1	31.4				
16.3	31.6				
16.6	31.7				
16.9	31.9				
17.2	32.0				
17.4	32.2				
17.7	32.3				

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1037+10 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	425875.5	2015789.2

Cumulative Penetration in Centimeters

0.2	2.6	18.5	35.9	51.4	70.7
0.3	2.8	18.9	36.2	51.7	71.2
0.4	3.0	19.2	36.5	52.0	71.7
0.6	3.2	19.5	36.8	52.3	72.2
0.7	3.3	19.9	37.1	52.6	
0.9	3.5	20.2	37.4	52.9	
1.0	3.7	20.5	37.7	53.2	
1.2	3.9	20.8	38.0	53.5	
1.3	4.1	21.2	38.2	53.8	
1.5	4.3	21.5	38.5	54.1	
1.6	4.5	21.8	38.8	54.4	
1.8	4.6	22.1	39.2	54.7	
1.9	4.8	22.5	39.5	55.0	
2.1	5.1	22.8	39.8	55.4	
2.2	5.3	23.1	40.1	55.7	
2.4	5.6	23.5	40.4	56.1	
2.5	5.8	23.9	40.7	56.4	
2.7	6.1	24.2	41.0	56.7	
2.8	6.4	24.6	41.3	57.1	
2.9	6.6	24.9	41.6	57.4	
3.0	6.9	25.2	41.8	57.7	
3.2	7.1	25.5	42.1	58.0	
3.3	7.4	25.8	42.4	58.4	
3.4	7.6	26.1	42.8	58.7	
3.6	7.9	26.5	43.1	59.0	
3.7	8.2	26.8	43.4	59.3	
3.8	8.4	27.1	43.7	59.6	
3.9	8.7	27.4	44.1	59.8	
4.1	8.9	27.7	44.4	60.1	
4.2	9.2	28.0	44.7	60.4	
4.3	9.5	28.3	45.0	60.8	
4.5	9.8	28.6	45.2	61.1	
4.6	10.0	29.0	45.5	61.4	
4.7	10.3	29.3	45.7	61.8	
4.9	10.6	29.6	46.0	62.2	
5.0	11.0	29.9	46.3	62.5	
5.1	11.3	30.3	46.5	62.9	
5.2	11.6	30.6	46.8	63.3	
5.4	12.0	30.9	47.1	63.7	
5.5	12.3	31.2	47.4	64.1	
Augered 7.8 cm	12.6	31.5	47.7	64.3	
	13.0	31.8	48.0	64.7	
	13.5	32.1	48.3	65.0	
	13.9	32.5	48.6	65.4	
0.0	14.4	32.8	48.9	65.7	
0.3	14.8	33.2	49.2	66.2	
0.7	15.2	33.5	49.5	66.8	
1.0	15.7	33.8	49.7	67.3	
1.3	16.2	34.2	50.0	67.8	
1.7	16.7	34.5	50.2	68.4	
2.0	17.2	34.8	50.5	69.0	
2.3	17.7	35.2	50.8	69.6	
2.5	18.1	35.5	51.1	70.2	

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1043+85 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	426425.8	2016169.0

Cumulative Penetration in Centimeters

1.6	20.3	40.4	52.6		
2.6	20.6	40.8	52.8		
3.2	21.1	41.1	53.0		
3.7	21.5	41.4	53.1		
4.2	22.0	41.7	53.3		
4.8	22.4	41.9	53.5		
5.3	22.9	42.2	Terminate		
5.9	23.3	42.4			
6.3	23.7	42.7			
6.8	24.0	42.9			
7.2	24.4	43.1			
7.6	24.8	43.4			
8.1	25.1	43.6			
8.5	25.4	43.8			
8.9	25.8	44.0			
9.3	26.1	44.2			
9.7	26.4	44.4			
10.1	26.8	44.6			
10.4	27.1	44.8			
10.8	27.5	45.0			
11.1	27.8	45.2			
11.4	28.2	45.5			
11.6	28.5	45.7			
11.9	28.8	45.9			
12.2	29.1	46.1			
12.5	29.4	46.3			
12.8	29.7	46.6			
13.1	30.1	46.8			
13.4	30.4	47.0			
13.7	30.8	47.2			
14.0	31.1	47.4			
14.2	31.5	47.7			
14.5	31.9	47.9			
14.7	32.3	48.1			
15.0	32.8	48.3			
15.3	33.2	48.5			
15.6	33.6	48.7			
15.8	34.0	48.9			
16.1	34.4	49.1			
16.4	34.9	49.3			
16.7	35.3	49.5			
17.0	35.7	49.8			
17.2	36.1	50.0			
17.5	36.5	50.2			
17.8	36.9	50.4			
18.1	37.3	50.7			
18.3	37.7	50.9			
18.6	38.1	51.2			
18.8	38.5	51.4			
19.1	39.0	51.6			
19.4	39.4	51.9			
19.7	39.8	52.1			
20.0	40.1	52.4			

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1063+65 NB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	428046.3	2017318.6

Cumulative Penetration in Centimeters

0.9	18.1	37.6	68.9		
1.4	18.5	37.9	69.7		
1.7	18.8	38.2	70.5		
2.0	19.2	38.6	71.3		
2.4	19.6	38.9			
2.7	20.0	39.2			
3.0	20.5	39.7			
3.3	20.9	40.2			
3.7	21.3	40.8			
4.0	21.7	41.3			
4.4	22.1	41.8			
4.7	22.4	42.4			
5.0	22.8	43.1			
5.3	23.2	43.7			
5.7	23.5	44.4			
6.0	23.9	45.0			
6.3	24.2	45.6			
6.6	24.6	46.2			
6.9	24.9	46.8			
7.3	25.2	47.4			
7.6	25.6	48.0			
7.9	25.9	48.5			
8.2	26.3	49.0			
8.5	26.6	49.5			
8.9	26.9	50.0			
9.2	27.3	50.6			
9.5	27.6	51.1			
9.8	28.0	51.6			
10.1	28.3	52.0			
10.4	28.7	52.5			
10.7	29.1	53.0			
11.0	29.4	53.5			
11.3	29.8	54.0			
11.6	30.2	54.5			
11.9	30.6	55.1			
12.2	31.0	55.6			
12.5	31.3	56.2			
12.9	31.7	56.7			
13.2	32.1	57.3			
13.6	32.5	58.0			
13.9	32.9	58.7			
14.3	33.2	59.4			
14.6	33.6	60.3			
14.9	34.0	61.3			
15.2	34.3	62.2			
15.5	34.7	63.1			
15.8	35.0	64.0			
16.1	35.4	64.9			
16.4	35.7	65.6			
16.8	36.1	66.3			
17.1	36.5	67.0			
17.4	36.8	67.6			
17.8	37.2	68.3			

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

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CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1063+65 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	428047.3	2017317.0

Cumulative Penetration in Centimeters

0.7	15.9	42.9			
1.2	16.3	44.6			
1.7	16.7	45.8			
2.3	17.0	48.0			
2.8	17.4	49.9			
3.3	17.7	51.7			
3.7	18.1	53.4			
4.1	18.4	55.3			
4.6	18.7	57.5			
5.0	19.0	59.6			
5.4	19.3	62.1			
5.7	19.6	64.4			
6.0	19.9	66.4			
6.3	20.2	68.3			
6.6	20.6	70.3			
6.9	20.9	72.8			
7.1	21.3	76.4			
7.4	21.6	80.2			
7.6	21.9	83.7			
7.9	22.2	87.4			
8.1	22.4				
8.4	22.7				
8.7	23.0				
9.0	23.3				
9.3	23.6				
9.6	23.8				
9.8	24.1				
9.9	24.4				
10.1	24.7				
10.2	25.0				
10.4	25.2				
10.5	25.5				
10.6	25.8				
10.7	26.1				
10.8	26.4				
10.9	26.8				
11.2	27.1				
11.5	27.4				
11.7	27.7				
12.0	28.0				
12.3	28.3				
12.6	28.6				
12.9	28.9				
13.2	29.2				
13.5	29.5				
13.8	29.8				
14.0	30.1				
14.2	30.4				
14.4	32.3				
14.6	34.6				
14.8	36.7				
15.2	38.9				
15.6	41.0				

TEST LOCATION DESCRIPTION	DATE RUN
-L- 1063+65 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	428033.5	2017337.0

Cumulative Penetration in Centimeters

0.1	2.6	20.3	37.8	56.5	
0.2	2.8	20.7	38.1	56.8	
0.4	3.1	21.0	38.5	57.1	
0.5	3.4	21.3	38.8	57.5	
0.6	3.6	21.7	39.2	57.9	
0.7	3.9	22.1	39.5	58.3	
0.8	4.2	22.4	39.8	58.7	
1.0	4.4	22.8	40.1	59.1	
1.1	4.6	23.2	40.5	59.6	
1.2	4.9	23.6	40.8	60.0	
1.3	5.1	23.9	41.1	60.5	
1.4	5.3	24.3	41.4	60.9	
1.6	5.6	24.6	41.7	61.4	
1.7	6.0	25.0	42.1	61.8	
1.8	6.3	25.3	42.4	62.2	
1.9	6.7	25.7	42.7	62.6	
2.0	7.0	26.0	43.0	63.0	
2.2	7.3	26.4	43.3	63.4	
2.3	7.6	26.7	43.6	64.2	
2.4	8.0	27.1	43.9	64.9	
2.6	8.3	27.5	44.2	65.7	
2.7	8.6	27.8	44.5	66.4	
2.9	9.0	28.2	44.9	67.2	
3.1	9.4	28.6	45.2	67.6	
3.3	9.8	28.9	45.6	68.0	
3.4	10.2	29.2	45.9	68.3	
3.6	10.6	29.6	46.3	68.7	
3.8	11.0	29.9	46.6	69.1	
3.9	11.3	30.2	47.0	69.5	
4.1	11.7	30.6	47.3	70.0	
4.3	12.0	30.9	47.7	70.4	
4.4	12.4	31.3	48.1	70.9	
4.6	12.8	31.6	48.5	71.3	
4.8	13.2	32.0	48.9	71.7	
5.0	13.7	32.3	49.3	72.2	
5.1	14.1	32.6	49.7	72.6	
5.3	14.5	32.8	50.1	73.1	
5.5	14.9	33.1	50.5	73.5	
5.6	15.2	33.4	51.0	74.2	
5.8	15.6	33.7	51.4	74.9	
	15.9	34.0	51.8	75.6	
	16.3	34.4	52.2	76.3	
	16.6	34.7	52.6	77.0	
	16.9	35.0	53.0		
0.0	17.3	35.3	53.4		
0.3	17.6	35.6	53.8		
0.7	17.9	36.0	54.1		
1.0	18.3	36.3	54.5		
1.4	18.6	36.6	54.8		
1.7	19.0	36.8	55.2		
1.9	19.3	37.1	55.5		
2.1	19.7	37.3	55.8		
2.4	20.0	37.6	56.1		

Augered 4.4 cm

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1091+20 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	430252.8	2018915.7

Cumulative Penetration in Centimeters

1.2	15.5	31.5	82.3		
2.1	15.7	32.1	83.0		
3.0	16.0	32.8	83.7		
3.7	16.3	33.4	84.3		
4.2	16.5	34.2	85.0		
4.5	16.8	35.1	85.7		
4.9	17.1	35.9	86.4		
5.2	17.3	36.8	87.1		
5.6	17.5	37.7	87.8		
5.9	17.6	38.6			
6.2	17.8	39.4			
6.5	18.0	40.1			
6.7	18.2	40.9			
7.0	18.4	42.6			
7.3	18.7	44.4			
7.6	18.9	46.1			
7.9	19.1	47.4			
8.1	19.3	48.6			
8.4	19.6	49.9			
8.7	19.8	51.4			
8.9	20.1	52.1			
9.1	20.3	53.0			
9.3	20.5	53.9			
9.5	20.7	54.8			
9.7	20.9	55.7			
9.9	21.1	56.6			
10.1	21.3	57.6			
10.4	21.5	58.8			
10.6	21.7	60.2			
10.8	21.8	61.5			
10.9	22.0	62.8			
11.0	22.2	64.1			
11.1	22.5	65.2			
11.2	22.8	66.2			
11.3	23.1	67.2			
11.5	23.4	67.9			
11.7	23.7	68.7			
11.9	24.0	69.3			
12.1	24.3	70.2			
12.3	24.7	71.1			
12.5	25.0	72.0			
12.7	25.3	72.9			
12.9	25.7	73.8			
13.1	26.1	74.8			
13.3	26.6	75.8			
13.6	27.0	76.6			
13.9	27.4	77.4			
14.1	28.0	78.2			
14.4	28.5	79.1			
14.7	29.1	79.7			
14.9	29.6	80.4			
15.1	30.2	81.2			
15.3	30.8	81.8			

TEST LOCATION DESCRIPTION	DATE RUN
-L- 1091+20 NB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	430239.1	2018932.8

Cumulative Penetration in Centimeters

0.5	1.1	45.5			
1.1	1.4	46.5			
1.6	1.8	47.3			
2.2	2.2	48.0			
2.7	2.7	48.8			
2.9	3.1	49.6			
3.1	3.5	50.3			
3.4	4.1	51.1			
3.6	4.8	52.2			
3.8	5.4	53.3			
4.0	6.1	54.4			
4.2	6.7	55.8			
4.3	7.5	57.3			
4.5	8.2	58.7			
4.7	9.0	59.8			
4.9	9.7	60.9			
5.1	10.5	62.0			
5.4	11.2	62.9			
5.6	11.9	63.9			
5.8	12.6	64.9			
6.0	13.3	65.8			
6.2	14.0	66.6			
6.3	14.6	67.5			
6.5	15.2	68.6			
6.7	15.7	69.8			
6.9	16.3	70.9			
7.1	16.9				
7.3	17.5				
7.5	18.2				
7.7	18.8				
7.9	19.5				
8.1	20.1				
8.3	21.5				
8.5	22.9				
8.7	24.3				
8.9	25.7				
9.1	27.1				
9.3	28.6				
9.5	30.2				
9.7	31.7				
9.9	32.4				
10.1	33.2				
10.3	33.9				
10.5	34.7				
10.7	35.8				
	36.7				
	38.0				
	39.3				
	40.6				
0.0	41.6				
0.3	42.7				
0.6	43.7				
0.8	44.6				

Augered 7.5 cm

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1091+20 NB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	430234.1	2018932.8

Cumulative Penetration in Centimeters

0.2	16.6	32.9	87.9																
0.4	17.1	33.4	89.1																
0.6	17.2	33.9	90.3																
0.8	17.4	34.2	91.5																
1.0	17.5	34.7	92.5																
1.2	17.7	35.3	93.5																
1.4	17.8	35.8	94.5																
1.6	18.2	36.4	95.4																
1.8	18.6	36.9	96.9																
2.0	19.1	37.7	98.4																
2.2	19.5	38.4	99.3																
2.4	19.9	39.2	100.1																
2.6	20.2	39.9	101.3																
2.8	20.5	40.7	102.4																
3.0	20.9	41.4																	
3.2	21.2	42.2																	
3.5	21.5	42.9																	
3.7	21.7	43.7																	
4.0	21.8	44.4																	
4.2	22.0	45.6																	
4.4	22.1	46.7																	
4.7	22.3	47.8																	
4.9	22.7	48.8																	
5.2	23.1	50.2																	
5.4	23.5	51.5																	
5.8	23.9	53.2																	
6.2	24.3	54.8																	
6.5	24.6	56.6																	
6.9	24.9	57.7																	
7.3	25.3	58.4																	
7.8	25.6	59.2																	
8.3	25.9	60.0																	
8.8	26.2	60.8																	
9.3	26.4	61.9																	
9.8	26.7	62.9																	
10.2	26.9	64.5																	
10.7	27.2	66.0																	
11.1	27.4	67.7																	
11.6	27.7	69.4																	
12.0	27.9	71.0																	
12.3	28.2	72.5																	
12.6	28.4	73.7																	
12.9	28.8	74.8																	
13.2	29.1	75.9																	
13.5	29.5	76.9																	
13.8	29.9	78.0																	
14.0	30.3	79.0																	
14.3	30.6	80.2																	
14.5	31.0	81.4																	
14.8	31.4	82.8																	
15.3	31.7	84.1																	
15.7	32.1	85.4																	
16.2	32.5	86.6																	

TEST LOCATION DESCRIPTION	DATE RUN
-L- 1116+00 NB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	431430.9	2021065.9

Cumulative Penetration in Centimeters

0.6	35.0	64.7																	
1.1	35.6	65.3																	
1.6	36.3	65.8																	
2.0	37.0	66.4																	
2.5	37.6	66.9																	
3.0	38.3	67.4																	
3.3	39.0	67.9																	
3.7	39.6	68.4																	
4.0	40.3	68.9																	
4.4	40.8	69.4																	
4.7	41.3																		
5.1	41.8																		
5.4	42.3																		
5.8	42.9																		
6.1	43.4																		
6.5	44.0																		
7.0	44.5																		
7.5	45.1																		
8.1	45.6																		
8.6	46.2																		
9.1	46.7																		
9.7	47.3																		
10.2	47.8																		
10.8	48.4																		
11.3	49.0																		
11.9	49.5																		
12.6	50.1																		
13.4	50.6																		
14.1	51.1																		
14.8	51.6																		
15.5	52.2																		
16.2	52.8																		
17.0	53.4																		
17.7	54.0																		
18.5	54.5																		
19.5	55.1																		
20.4	55.6																		
21.4	56.1																		
22.4	56.6																		
23.3	57.2																		
24.3	57.7																		
25.3	58.3																		
26.2	58.9																		
27.2	59.4																		
28.2	60.0																		
29.1	60.5																		
30.1	61.1																		
30.8	61.6																		
31.5	62.1																		
32.2	62.6																		
32.9	63.1																		
33.6	63.6																		
34.3	64.2																		

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1116+00 NB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	431432.5	2021065.3

Cumulative Penetration in Centimeters

0.6		26.2	54.7																
0.9		26.9	55.2																
1.2		27.5	55.6																
1.4		28.2	56.1																
1.7	0.0	28.9	56.5																
2.0	1.1	29.5	57.0																
2.2	1.7	30.2	57.6																
2.4	2.1	30.8	58.1																
2.5	2.5	31.5	58.5																
2.7	2.9	32.1	58.9																
2.9	3.2	32.6	59.3																
3.1	3.6	33.2	59.8																
3.3	4.0	33.7	60.3																
3.5	4.6	34.2	60.8																
3.7	5.1	34.8																	
3.9	5.7	35.3																	
4.1	6.2	35.8																	
4.3	6.8	36.4																	
4.5	7.4	36.9																	
4.7	7.9	37.4																	
4.9	8.5	37.9																	
5.0	9.0	38.4																	
5.1	9.6	38.9																	
5.2	10.2	39.3																	
5.3	10.7	39.8																	
5.4	11.3	40.3																	
5.5	11.8	40.8																	
5.7	12.4	41.3																	
5.8	12.8	41.8																	
6.0	13.3	42.3																	
6.1	13.7	42.8																	
6.2	14.2	43.3																	
6.3	14.6	43.8																	
6.4	15.0	44.3																	
6.4	15.3	44.8																	
6.5	15.7	45.2																	
6.7	16.0	45.7																	
6.8	16.4	46.3																	
7.0	16.8	46.8																	
7.1	17.2	47.4																	
7.3	17.7	47.9																	
7.4	18.1	48.4																	
7.4	18.5	48.9																	
7.5	19.1	49.4																	
7.5	19.8	50.0																	
7.6	20.4	50.5																	
7.6	21.1	51.0																	
7.8	21.7	51.6																	
7.9	22.4	52.1																	
8.1	23.2	52.6																	
8.2	23.9	53.2																	
	24.7	53.7																	
	25.4	54.2																	

Augered 19.6 cm

0.2	35.4	93.1																	
0.4	36.8																		
0.6	38.0																		
0.8	39.2																		
1.0	40.4																		
1.2	41.6																		
1.4	42.8																		
1.6	44.0																		
1.8	45.1																		
2.0	46.1																		
2.2	47.1																		
2.4	48.0																		
2.7	49.0																		
2.9	50.0																		
3.1	50.9																		
3.3	51.7																		
3.5	52.6																		
3.7	53.4																		
3.9	54.3																		
4.1	55.1																		
4.3	56.3																		
4.6	57.5																		
4.8	58.6																		
5.1	59.6																		
5.3	61.0																		
5.5	62.4																		
5.8	63.9																		
6.0	65.3																		
6.3	66.6																		
6.5	67.9																		
6.9	69.3																		
7.3	70.7																		
7.7	72.0																		
8.1	73.3																		
8.5	74.6																		
9.8	75.8																		
11.0	77.1																		
11.3	78.3																		
11.7	79.3																		
12.0	80.2																		
12.4	81.2																		
12.7	82.2																		
14.8	83.1																		
16.2	83.9																		
18.0	84.7																		
20.0	85.4																		
24.4	86.2																		
26.2	87.0																		
27.9	87.9																		
29.5	88.7																		
31.0	89.7																		
32.5	90.6																		
34.0	91.9																		

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET	TIP	PROJECT I.D.	ROUTE

TEST LOCATIONS DESCRIPTION	DATE RUN

DATUM	CUT/ FILL	NORTHING	EASTING

Cumulative Penetration in Centimeters									

TEST LOCATION DESCRIPTION	DATE RUN

DATUM	CUT/ FILL	NORTHING	EASTING

Cumulative Penetration in Centimeters									

CONE PENETROMETER DATA CODE SHEET	TIP	PROJECT I.D.	ROUTE
	I-5987B	47533.1.3	I-95
	COUNTY	ENGINEER	TECHNICIANS
	Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN

DATUM	CUT/ FILL	NORTHING	EASTING

Cumulative Penetration in Centimeters									

TEST LOCATION DESCRIPTION	DATE RUN
-L- 508+50 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	375746.9	2001394.9

Cumulative Penetration in Centimeters				
3.3	33.5	56.3	74.3	87.0
4.2	33.8	57.0	74.5	87.3
5.2	34.1	57.8	74.8	87.5
6.0	34.6	58.1	74.9	87.8
6.8	35.1	58.5	75.4	87.9
7.5	35.7	58.9	75.5	88.0
8.2	36.3	59.2	75.7	88.2
8.9	36.5	59.6	76.0	88.5
9.5	36.9	59.9	76.1	88.9
10.0	37.3	60.3	76.3	89.4
10.7	37.6	60.8	76.5	89.8
11.5	38.0	61.2	76.9	90.2
12.0	38.3	61.5	77.1	90.6
12.6	38.7	61.8	77.5	90.7
13.4	39.2	62.1	77.8	91.0
14.1	39.5	62.5	78.0	91.1
14.8	40.0	62.7	78.3	91.4
15.5	40.5	63.0	78.6	91.5
16.2	40.9	63.2	78.8	91.7
16.8	41.5	63.5	79.1	92.1
17.4	42.0	63.8	79.5	92.3
18.0	42.5	64.1	79.6	92.5
18.4	43.1	64.5	79.9	92.8
19.0	43.7	64.8	80.1	
19.7	44.2	65.2	80.3	
20.2	44.6	65.3	80.5	
21.2	45.0	65.8	80.9	
22.3	45.8	66.0	81.0	
23.3	46.5	66.4	81.3	
24.2	46.9	66.6	81.6	
24.6	47.0	66.9	82.0	
25.0	47.3	67.1	82.3	
25.3	47.8	67.5	82.5	
25.8	48.0	67.9	82.8	
26.2	48.4	68.2	83.1	
26.7	48.6	68.4	83.3	
27.2	49.0	68.7	83.5	
27.5	49.4	69.0	83.8	
28.1	49.8	69.2	84.0	
28.7	50.2	69.4	84.2	
29.1	50.5	69.6	84.5	
29.6	50.9	70.0	84.8	
30.1	51.3	70.2	85.0	
30.5	51.7	70.4	85.2	
30.7	52.0	70.6	85.3	
31.0	52.4	71.1	85.5	
31.5	52.8	71.3	85.6	
31.8	53.2	71.5	85.9	
32.1	53.5	71.7	86.0	
32.5	54.0	72.1	86.4	
32.7	54.5	72.4	86.5	
33.0	54.7	72.8	86.7	
	55.0	73.0	86.8	

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

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Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION			DATE RUN
-L- 508+50 SB ISS			12/3 to 12/19/2019
DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	375745.2	2001424.1

Cumulative Penetration in Centimeters

1.7	29.2	47.0			
3.0	29.6	47.3			
3.9	30.0	47.5			
4.3	30.5	47.7			
5.4	30.8	47.9			
5.9	31.1	48.0			
6.6	31.4	48.5			
7.6	31.7	48.9			
8.1	32.0	49.0			
8.8	32.3	49.5			
9.3	32.8	49.9			
9.7	33.0	50.1			
10.4	33.4	50.3			
10.8	33.8	50.5			
11.3	34.0	50.6			
11.8	34.5	50.9			
12.3	34.8	51.2			
12.7	35.1	51.4			
13.1	35.6	51.7			
13.7	35.9	52.0			
14.2	36.5	52.4			
14.7	36.8	52.8			
15.0	37.2	53.0			
15.5	37.6	53.1			
16.0	37.8	53.3			
16.5	38.0	53.7			
16.9	38.2	53.9			
17.3	38.4	54.1			
17.6	38.7	54.5			
18.0	39.0	54.8			
18.4	39.3	55.1			
18.6	39.7	55.4			
19.0	40.2	55.6			
19.3	40.9	55.9			
19.7	41.0	56.0			
20.3	41.4	56.3			
20.8	41.7	56.6			
21.2	42.0	56.9			
21.7	42.7	57.0			
22.1	42.9	57.2			
22.8	43.1				
23.2	43.5				
23.7	43.9				
24.2	44.2				
24.7	44.7				
25.8	44.9				
26.2	45.1				
26.7	45.4				
27.2	45.8				
27.7	46.0				
28.3	46.2				
28.7	46.5				
28.8	46.8				

TEST LOCATIONS DESCRIPTION			DATE RUN
-L- 508+50 SB ISL			12/3 to 12/19/2019
DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	375747.3	2001421.1

Cumulative Penetration in Centimeters

0.6	11.7	23.0			
1.1	11.9	23.1			
1.7	12.1	23.2			
2.0	12.3	23.3			
2.2	12.4	23.6			
2.8	12.8	23.8			
3.1	13.0	23.9			
3.3	13.2	24.0			
3.5	13.4	24.2			
3.7	13.5	24.5			
3.9	13.6	24.8			
4.0	13.7	24.9			
4.1	13.8	25.1			
4.2	14.0	25.2			
4.3	14.2	25.4			
4.5	14.4	25.7			
4.7	14.6	25.8			
4.8	14.8	25.9			
4.9	15.0	26.0			
5.1	15.3	26.3			
5.5	15.7	26.4			
5.8	16.0	26.6			
6.0	16.2	26.7			
6.1	16.3	26.8			
6.3	16.5				
6.5	16.7				
6.7	16.8				
6.9	17.0				
7.0	17.2				
7.2	17.4				
7.4	17.5				
7.6	17.6				
7.7	17.9				
7.9	18.1				
8.0	18.3				
8.2	18.5				
8.5	19.0				
8.7	19.3				
8.9	19.5				
9.3	19.9				
9.5	20.5				
9.6	21.1				
9.7	21.2				
9.8	21.3				
9.9	21.4				
10.1	21.5				
10.3	21.7				
10.4	21.9				
10.6	22.0				
10.8	22.1				
11.0	22.3				
11.3	22.5				
11.5	22.8				

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION			DATE RUN
-L- 535+25 SB OSS			12/3 to 12/19/2019
DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	378408.5	2001582.8

Cumulative Penetration in Centimeters

1.4	23.1	43.9	66.8		
2.9	23.4	44.1	68.0		
3.4	23.9	44.5	70.4		
4.0	24.2	44.9	71.6		
4.5	24.4	45.3	72.6		
5.2	24.8	45.8	74.0		
5.6	25.1	46.5	75.1		
5.8	25.4	46.9	76.0		
6.3	25.8	47.2	77.5		
6.7	26.3	47.5	78.2		
7.0	26.7	47.9	79.5		
7.5	27.0	48.0	80.3		
7.9	27.3	48.2	81.3		
8.3	27.6	48.5	82.5		
8.6	27.9	49.0	83.4		
8.9	28.2	49.3	84.5		
9.4	28.6	49.5	85.1		
9.9	28.9	49.7	86.2		
10.3	29.1	50.0	87.3		
10.6	29.5	50.3	88.7		
11.0	29.8	50.6	89.5		
11.4	30.2	51.0	90.3		
11.8	30.4	51.2	91.0		
12.1	30.9	51.5	92.5		
12.6	31.2	51.8	93.6		
12.9	31.7	52.1	94.0		
13.2	32.1	52.3	94.6		
13.6	32.5	52.5			
14.2	33.1	52.8			
14.6	33.5	53.0			
14.8	34.0	53.3			
14.9	34.4	53.4			
15.0	35.0	53.6			
15.2	35.7	54.0			
15.6	36.5	54.3			
16.0	37.3	54.7			
16.5	38.0	55.0			
16.9	38.5	55.6			
17.3	39.0	56.2			
17.8	39.4	56.8			
18.2	39.8	57.2			
18.6	40.2	57.6			
19.1	40.6	58.1			
19.4	40.9	58.5			
19.9	41.1	59.0			
20.3	41.3	59.6			
20.6	41.6	60.0			
21.0	41.7	60.6			
21.4	42.0	61.1			
21.7	42.4	61.5			
22.1	42.8	62.0			
22.4	43.0	62.5			
22.8	43.3	63.0			

TEST LOCATIONS DESCRIPTION			DATE RUN
-L- 535+25 SB OSL			12/3 to 12/19/2019
DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	378409.9	2001589.3

Cumulative Penetration in Centimeters

1.3	Auger	58.1	68.5	79.1	
1.6		58.3	68.6	79.3	
2.0		58.5	68.8	79.4	
2.2	40.6	58.7	69.0	79.5	
2.4	41.2	58.9	69.2	79.7	
2.5	41.9	59.0	69.4	79.9	
2.6	42.3	59.2	69.6	80.0	
2.7	43.2	59.4	69.9	80.2	
2.9	43.8	59.5	70.0	80.3	
3.1	44.5	59.6	70.3	80.6	
3.3	45.1	59.8	70.5	80.7	
3.5	45.9	60.0	70.8	81.0	
3.8	46.5	60.2	71.0	81.3	
4.0	47.0	60.3	71.3	81.6	
4.1	47.4	60.4	71.4	82.0	
4.2	47.8	60.5	71.9	82.2	
4.3	48.3	60.7	72.1	82.5	
4.5	48.7	60.9	72.3	82.8	
4.7	48.9	61.0	72.5	83.1	
4.9	49.1	61.1	72.8	83.4	
5.0	49.2	61.3	73.1	83.6	
5.1	49.5	61.5	73.3	83.7	
5.3	49.8	61.8	73.5	84.0	
5.5	50.1	61.9	73.8	84.1	
5.6	51.0	62.1	74.0	84.4	
5.8	51.3	62.4	74.1	84.5	
6.0	51.6	62.5	74.2	84.7	
6.1	51.8	62.8	74.4	84.9	
6.3	52.0	63.1	74.5	85.3	
6.5	52.6	63.4	74.6	85.5	
6.7	52.9	63.7	74.9	85.7	
6.9	53.0	64.0	75.0		
7.1	53.5	64.2	75.1		
7.2	53.9	64.5	75.3		
7.3	54.5	64.6	75.5		
7.4	54.8	64.7	75.6		
7.4	55.0	65.0	75.7		
7.5	55.1	65.2	75.9		
7.7	55.3	65.5	76.1		
7.8	55.6	65.6	76.2		
7.9	55.9	65.8	76.6		
8.1	56.0	66.0	76.8		
8.3	56.2	66.2	76.9		
8.5	56.4	66.4	77.2		
8.6	56.7	66.6	77.4		
8.7	56.9	66.9	77.5		
8.8	57.1	67.0	77.8		
9.0	57.3	67.2	78.0		
9.2	57.4	67.5	78.1		
9.3	57.5	67.6	78.4		
9.5	57.7	67.9	78.6		
9.7	57.9	68.0	78.7		
9.9	58.0	68.2	78.9		

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 535+25 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	378412.3	2001616.3

Cumulative Penetration in Centimeters

1.3	31.9	51.4	71.0
2.2	32.0	51.9	71.4
2.7	32.3	52.3	71.8
3.4	32.5	52.6	72.3
4.2	32.9	52.9	72.9
4.8	33.5	53.1	73.7
5.4	34.2	53.5	74.0
6.7	34.6	53.9	74.3
7.0	34.9	54.6	74.8
8.2	35.5	54.9	75.3
9.1	36.0	55.3	75.8
9.9	36.6	55.7	76.1
10.1	36.9	56.1	76.5
11.2	37.4	56.5	77.0
11.9	38.0	56.9	77.3
12.5	38.4	57.4	77.7
13.4	38.7	57.9	
14.0	39.0	58.3	
14.9	39.3	58.7	
15.4	39.8	59.0	
15.9	40.1	59.4	
16.7	40.5	59.8	
17.3	40.9	60.2	
17.8	41.3	60.7	
18.4	41.7	61.1	
19.0	41.9	61.4	
19.8	42.2	61.7	
20.3	42.5	62.5	
20.7	42.8	63.1	
21.0	43.0	63.5	
21.9	43.4	63.9	
22.4	43.8	64.5	
22.8	44.1	65.0	
23.3	44.4	65.4	
23.9	44.8	65.9	
24.5	45.0	66.1	
25.0	45.2	66.3	
25.9	45.5	66.5	
26.4	45.8	66.7	
26.8	46.0	66.9	
27.1	46.4	67.2	
27.6	46.9	67.5	
27.9	47.3	67.8	
28.1	47.6	68.0	
28.6	47.9	68.3	
28.8	48.3	68.6	
29.1	48.6	68.9	
29.5	48.9	69.1	
29.9	49.2	69.3	
30.1	49.6	69.8	
30.8	50.0	70.0	
31.3	50.5	70.4	
31.7	50.9	70.7	

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 562+00 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	CUT	381012.9	2002226.7

Cumulative Penetration in Centimeters

1.8	25.0	42.7	70.5	96.1
2.3	25.3	43.3	70.9	96.4
3.1	25.5	44.0	71.2	96.7
3.6	25.7	44.7	71.7	97.1
4.2	26.0	45.4	72.0	97.6
4.6	26.3	46.1	72.3	
5.1	26.5	47.4	72.8	
5.6	26.6	48.9	73.1	
6.2	26.9	50.1	73.4	
6.7	27.1	51.2	73.9	
7.1	27.4	51.8	74.5	
7.8	27.5	52.3	74.9	
8.2	27.9	52.8	75.2	
8.6	28.0	53.1	75.8	
9.1	28.2	53.6	76.5	
9.5	28.4	54.2	76.9	
9.9	28.5	54.7	77.2	
10.3	28.8	55.2	77.5	
10.8	29.0	55.6	78.0	
11.4	29.1	56.0	78.8	
11.8	29.5	56.4	79.5	
12.2	29.7	57.0	80.0	
12.7	30.0	57.4	80.4	
13.3	30.4	57.6	80.8	
13.9	30.8	57.9	81.1	
14.4	31.1	58.4	81.5	
14.9	31.5	58.8	82.0	
15.4	31.8	59.3	82.6	
16.0	32.1	59.6	83.3	
16.5	32.5	60.0	83.6	
17.0	33.0	60.3	84.0	
17.3	33.4	60.7	84.5	
17.8	33.8	61.1	85.0	
18.3	34.2	61.5	85.6	
18.7	34.6	61.9	86.3	
19.2	35.1	62.3	86.7	
19.8	35.6	62.6	87.1	
20.0	36.3	63.0	87.5	
20.4	36.7	63.5	88.0	
20.7	37.3	63.8	88.4	
21.1	37.8	64.2	89.0	
21.6	38.1	64.5	89.7	
21.9	38.6	65.0	90.3	
22.2	38.9	65.4	90.7	
22.7	39.2	66.0	91.2	
22.9	39.5	66.4	91.6	
23.3	39.9	66.8	92.0	
23.7	40.1	67.3	92.7	
23.9	40.4	67.7	93.2	
24.1	40.9	68.0	93.7	
24.2	41.2	68.7	94.0	
24.6	41.6	69.5	94.8	
24.8	42.1	70.0	95.4	

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 562+00 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	CUT	381001.7	2002254.1

Cumulative Penetration in Centimeters

1.8	32.9	55.0	
2.5	33.3	55.6	
3.9	33.7	56.1	
5.3	34.0	56.7	
6.0	34.4	57.4	
6.8	34.9	58.1	
7.9	35.2	59.2	
8.7	35.7	60.1	
9.6	35.9	60.8	
10.4	36.2	61.7	
10.9	36.6	62.8	
12.5	36.9	63.7	
13.0	37.2	64.4	
13.9	37.8	65.2	
14.6	38.0	66.3	
15.3	38.3	68.4	
15.9	38.7	70.5	
16.6	39.1	72.0	
17.7	39.5	73.5	
18.5	39.9	75.2	
19.0	40.3	76.5	
19.7	40.6	78.1	
20.2	40.8	79.3	
20.9	41.3	81.3	
21.4	41.7	82.1	
21.9	42.1	83.5	
22.5	42.6	84.6	
23.0	42.9	85.7	
23.8	43.2	86.8	
24.2	43.5	88.1	
24.5	43.9	89.4	
24.9	44.3		
25.6	44.6		
26.0	45.3		
26.6	45.9		
26.9	46.4		
27.3	47.1		
27.9	47.4		
28.1	47.8		
28.3	48.1		
28.9	48.5		
29.1	48.9		
29.4	49.5		
29.8	49.9		
30.3	50.3		
30.6	50.7		
30.8	51.2		
31.0	51.8		
31.4	52.5		
31.7	53.0		
32.1	53.4		
32.4	53.8		
32.6	54.2		

TEST LOCATION DESCRIPTION	DATE RUN
-L- 562+00 SB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	CUT	381000.2	2002249.4

Cumulative Penetration in Centimeters

0.2	16.2	36.3	
0.3	16.4	36.7	
0.5	16.7	37.1	
0.6	16.9	37.7	
0.7	17.1	37.9	
0.8	17.5	38.4	
1.0	17.8	38.8	
1.2	18.1	39.5	
1.5	18.5	40.4	
1.7	18.8	40.9	
1.9	19.0	41.4	
2.2	19.1	41.6	
2.6	19.3	42.1	
3.1	19.6	43.4	
3.9	19.8	43.9	
4.2	20.1	44.5	
4.5	20.5	44.9	
4.8	20.9	45.6	
6.0	21.3	46.5	
6.2	21.8	46.9	
6.5	22.0	47.5	
6.8	22.1	48.1	
7.1	22.4	49.3	
7.9	22.9	50.2	
8.5	23.2	50.8	
8.8	23.5	51.4	
9.1	23.9	52.5	
9.3	24.2	53.6	
9.5	25.1	54.2	
9.9	25.6	54.9	
10.3	25.9	55.4	
10.5	26.2	55.9	
10.8	26.4	57.3	
11.0	26.7	58.8	
11.3	27.0	59.8	
11.6	27.6	61.2	
12.0	28.9	63.6	
12.2	29.4	64.8	
12.4	29.8	66.1	
12.7	30.1	67.0	
12.9	30.8	68.1	
13.2	31.3	70.0	
13.6	31.6	71.3	
13.7	32.0	72.1	
13.9	32.4	72.9	
14.2	32.9	73.4	
14.5	33.6	73.9	
14.8	33.9	74.6	
14.9	34.3		
15.0	34.8		
15.2	35.0		
15.6	35.5		
15.9	35.9		

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

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CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 572+20 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	AG	381957.8	2002597.9

Cumulative Penetration in Centimeters

1.0	30.0	53.9					
1.9	30.4	54.5					
2.8	30.8	54.8					
3.5	31.0	55.0					
5.0	31.6	55.6					
6.1	32.2	55.9					
6.8	33.0	56.4					
7.2	33.4	56.8					
7.9	33.9	57.4					
8.6	34.3	57.9					
9.4	34.8	58.3					
10.0	35.7	58.8					
10.5	36.1	59.3					
11.2	36.6	59.6					
12.0	37.2	60.0					
12.5	37.7	60.4					
13.2	38.1	60.8					
13.8	38.5	61.2					
14.2	38.9	61.8					
15.3	39.4	62.2					
15.6	39.7	62.6					
16.2	40.0	62.9					
16.6	40.3	63.5					
17.0	40.8	64.3					
17.4	41.1	64.9					
17.9	41.4	65.3					
18.2	41.7	65.8					
18.6	42.0	66.5					
19.2	42.4	67.0					
19.5	42.8	67.4					
19.8	43.2	67.9					
20.3	43.7	68.4					
20.6	44.1	68.7					
20.9	44.4	69.1					
21.5	44.8	69.5					
21.8	45.5	69.9					
22.0	46.2	70.2					
22.5	46.6	71.1					
22.8	46.9	72.5					
23.4	47.4	72.9					
23.8	47.9	73.5					
24.0	48.6	73.8					
24.4	48.9	74.7					
24.9	49.4	75.5					
25.6	49.6						
25.9	49.9						
26.3	50.7						
26.7	51.4						
27.6	51.7						
28.2	51.9						
28.8	52.5						
29.5	53.1						
29.8	53.6						

TEST LOCATION DESCRIPTION	DATE RUN
-L- 581+70 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	382865.7	2002884.6

Cumulative Penetration in Centimeters

1.5	30.8	50.0	78.8				
2.1	31.2	50.3	79.5				
3.2	31.6	50.7	80.4				
3.9	32.0	51.2	81.0				
4.3	32.2	51.6	81.8				
4.8	32.7	52.0	82.5				
5.2	33.0	52.2	83.7				
5.8	33.4	52.7	84.5				
6.5	33.7	53.1	85.2				
7.1	34.1	53.3	85.9				
7.6	34.4	53.7	86.6				
8.3	34.9	54.1	87.5				
9.0	35.3	54.6	88.2				
9.5	35.8	55.0	89.3				
10.1	35.9	55.4	90.5				
10.9	36.4	55.9	91.4				
11.5	36.7	56.2	92.0				
12.2	37.2	56.6	92.8				
12.8	37.5	57.0	93.5				
13.5	37.9	57.5	94.2				
14.5	38.2	57.9	95.0				
15.0	38.6	58.2	96.0				
15.6	39.0	58.6	96.5				
16.5	39.3	59.0	97.1				
17.1	39.7	59.5	98.0				
18.0	40.0	60.0	99.0				
18.5	40.5	60.7					
19.2	40.8	61.2					
20.0	40.9	61.9					
20.5	41.2	62.5					
21.0	41.5	63.0					
21.6	42.0	63.5					
22.0	42.1	64.1					
22.4	42.6	64.8					
22.6	43.0	65.4					
22.9	43.2	65.9					
23.6	43.5	66.5					
24.3	43.8	66.9					
24.9	44.1	67.4					
25.3	44.6	68.0					
25.8	45.0	68.8					
26.2	45.5	69.4					
26.5	45.8	70.0					
26.9	46.1	70.7					
27.3	46.4	71.6					
27.6	46.9	72.4					
28.2	47.2	73.4					
28.5	47.7	74.0					
28.8	48.0	74.6					
29.1	48.5	75.4					
29.6	48.8	76.2					
30.0	49.2	76.9					
30.3	49.6	77.8					

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 581+70 SB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	382859.8	2002892.5

Cumulative Penetration in Centimeters

0.7	8.8	20.6	47.5	60.9			
1.1	8.9	20.7	48.3	61.0			
1.5	9.1	20.8	48.5	61.2			
1.7	9.1	21.0	48.9	61.3			
2.0	9.2	21.2	49.2	61.5			
2.3	9.2	21.3	49.6	61.7			
2.6	9.3	21.5	49.8	61.9			
2.9	9.4	21.6	50.2	62.2			
3.0	9.5	21.7	50.5	62.5			
3.2	9.5	21.8	50.8	62.9			
3.4	9.6	22.0	51.1	63.1			
3.6	9.8	22.3	51.2	63.6			
3.8	9.8	22.5	51.5	64.1			
4.1	10.0	22.7	51.8	64.5			
4.3	10.0	22.9	51.9	64.9			
4.4	10.2	22.9	52.2	65.2			
4.5	10.4	22.9	52.5	65.7			
4.6	10.6	23.0	52.7	66.2			
4.7	10.7	23.0	52.8	66.7			
4.9	10.8	23.0	53.1	67.3			
5.0	10.9	23.2	53.3	67.8			
5.1	11.0	23.4	53.5	68.4			
5.4	11.0	23.4	53.8	68.8			
5.5	11.1	23.7	54.1	69.3			
5.6	11.1	23.8	54.3	69.5			
5.7	11.1	23.9	54.5	70.0			
5.8	11.3	24.0	54.8	70.7			
6.0	11.3	24.0	55.0	71.3			
6.1	11.4	24.0	55.2	71.9			
6.2	11.7	24.2	55.3	72.7			
6.3	11.8	24.3	55.5	73.4			
6.3	Auger	24.4	55.7	74.2			
6.4		24.4	55.9	74.8			
6.5		24.5	56.1	75.6			
6.5	16.4	24.6	56.2	76.3			
6.6	16.7	24.7	56.7	77.0			
6.9	16.9	24.7	56.8	77.4			
7.0	17.2	24.8	57.0	78.2			
7.0	17.4	24.8	57.1	79.1			
7.2	17.7	25.0	57.2	79.7			
7.2	17.8	25.1	57.6	80.0			
7.2	17.8	25.4	57.8	80.6			
7.4	17.8	25.5	58.2	81.0			
7.5	18.0	25.6	58.5	81.5			
7.6	18.0	25.8	58.8	82.1			
7.8	18.5	25.9	59.0	82.6			
7.9	18.8	26.0	59.2				
8.1	19.0	26.0	59.5				
8.3	19.4	26.1	59.8				
8.4	19.6	26.1	60.1				
8.5	19.8	Auger	60.3				
8.6	20.2		60.6				
8.7	20.5		60.8				

TEST LOCATION DESCRIPTION	DATE RUN
-L- 596+90 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	384299.0	2003388.5

Cumulative Penetration in Centimeters

4.0	76.5						
5.7	76.8						
7.0	77.1						
8.1	77.5						
9.2	78.1						
9.5	78.6						
10.5	79.0						
11.4	79.3						
12.5							
13.2							
14.0							
15.0							
15.9							
16.5							
17.1							
18.1							
19.2							
19.8							
21.0							
21.8							
22.8							
23.5							
24.4							
25.3							
26.0							
27.1							
28.6							
30.5							
32.6							
35.0							
38.4							
50.0							
54.6							
58.0							
61.8							
63.6							
65.0							
66.1							
67.2							
68.0							
68.6							
69.3							
70.0							
71.2							
71.6							
72.5							
72.8							
73.5							
74.0							
74.5							
75.0							
75.5							
76.1							

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 596+90 SB ACCEL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	384296.3	2003395.4

Cumulative Penetration in Centimeters

1.6	21.3	38.5	54.0	68.8	82.8
2.8	21.6	38.8	54.3	69.3	82.9
3.6	21.8	39.0	54.7	69.6	83.1
4.5	22.1	39.3	55.0	69.9	83.3
5.1	22.3	39.6	55.2	70.0	83.4
5.8	22.5	39.8	55.6	70.3	83.5
6.4	22.9	39.9	55.8	70.6	83.7
6.8	23.2	40.0	55.9	70.7	84.0
7.5	23.5	40.2	56.0	71.0	84.3
8.1	23.6	40.5	56.3	71.2	84.5
8.7	24.0	40.7	56.5	71.6	84.7
9.2	24.3	41.0	56.6	71.9	84.9
9.7	24.7	41.2	56.9	72.1	85.1
10.1	25.0	41.4	57.1	72.3	85.3
10.3	25.4	41.8	57.5	72.7	85.4
10.5	25.7	42.1	57.8	73.0	85.7
10.8	26.0	42.3	58.0	73.4	
11.0	26.3	42.7	58.5	73.8	
11.3	26.8	42.9	58.8	74.2	
11.5	27.0	43.0	59.0	74.6	
11.7	27.3	43.2	59.4	74.8	
12.0	27.6	43.5	59.8	75.1	
12.3	28.0	44.1	60.1	75.2	
12.5	28.3	44.5	60.2	75.5	
12.9	28.6	44.8	60.6	75.8	
13.3	28.9	45.0	60.8	76.0	
13.7	29.4	45.2	61.0	76.2	
14.1	29.7	45.5	61.3	76.4	
14.5	30.1	45.9	61.4	76.6	
14.6	30.5	46.2	61.7	76.9	
14.7	30.7	46.6	61.8	77.1	
14.7	31.1	46.8	62.1	77.4	
14.8	31.4	47.0	62.4	77.5	
14.9	31.8	47.3	62.6	77.8	
15.2	32.2	47.5	63.0	78.0	
15.6	32.5	47.8	63.3	78.3	
16.0	32.9	48.1	63.6	78.4	
16.2	33.4	48.2	63.9	78.8	
16.4	33.8	48.4	64.2	79.0	
16.6	34.2	48.9	64.4	79.3	
17.2	34.5	49.5	64.8	79.4	
17.5	34.8	50.0	65.1	79.7	
18.0	35.2	50.3	65.3	79.8	
18.4	35.6	50.6	65.7	80.1	
18.6	35.9	51.1	66.0	80.4	
18.9	36.1	51.6	66.2	80.7	
19.3	36.5	51.9	66.5	80.9	
19.5	36.8	52.4	66.7	81.3	
19.9	37.3	52.7	67.0	81.5	
20.1	37.7	52.9	67.4	81.8	
20.4	37.8	53.2	67.6	82.0	
20.6	38.0	53.5	68.0	82.3	
20.9	38.2	53.7	68.4	82.5	

TEST LOCATION DESCRIPTION	DATE RUN
-L- 610+70 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	385588.2	2003888.8

Cumulative Penetration in Centimeters

1.5	29.2	57.0			
2.6	29.4	57.8			
3.4	29.6	58.7			
4.2	30.0	59.4			
5.0	30.4	60.1			
5.7	30.6	60.9			
6.5	31.0	61.8			
7.3	31.5	62.5			
8.0	31.8	62.9			
8.7	32.3	63.5			
9.3	32.7	63.8			
9.9	33.1	64.3			
10.3	33.5	64.8			
10.9	33.7	65.4			
11.6	34.2	66.0			
12.0	34.4	66.6			
12.7	34.7	67.3			
13.4	35.2	67.9			
13.9	35.5	68.7			
14.6	35.8	69.4			
15.2	36.2	70.1			
15.8	36.6	70.9			
16.5	37.2	71.5			
17.1	37.6	72.1			
17.6	38.1	72.7			
18.2	38.7	73.2			
18.6	39.3	73.7			
19.2	39.9	74.2			
19.6	40.3	74.9			
20.1	41.0	75.6			
20.6	41.5	76.4			
21.0	42.4	77.3			
21.4	43.1	78.0			
21.8	44.0	78.9			
22.2	44.8	79.9			
22.6	45.7	80.7			
22.9	46.3	81.7			
23.1	46.8	82.5			
23.6	47.5	83.6			
24.0	47.8	84.5			
24.6	48.5	85.3			
25.0	49.1	86.2			
25.4	49.7				
25.9	50.3				
26.1	50.9				
26.3	51.5				
26.7	52.2				
27.1	52.6				
27.5	53.4				
27.8	53.9				
28.2	54.6				
28.5	55.4				
28.9	56.2				

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 610+70 SB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	385590.7	2003882.8

Cumulative Penetration in Centimeters

0.3	16.7	33.5	57.2		
0.8	17.0	33.7	57.7		
1.1	17.4	33.9	58.3		
1.6	17.6	34.2	58.9		
1.9	17.9	34.7	59.6		
2.4	18.2	35.0	60.3		
2.8	18.6	35.3	61.0		
3.1	18.8	35.7	61.6		
3.6	19.1	36.1	62.1		
4.1	19.5	36.5	62.8		
4.4	19.6	37.1	63.6		
4.9	20.0	37.5	64.2		
5.1	20.5	38.0	65.0		
5.5	20.7	38.5	65.5		
6.0	21.2	38.7	66.0		
6.3	21.6	39.1	66.8		
6.6	22.0	39.5	67.5		
6.9	22.3	39.9	68.1		
7.2	22.8	40.1	68.7		
7.5	23.3	40.3	69.3		
7.8	23.6	40.6	70.0		
7.9	24.0	40.9	71.1		
8.2	24.3	41.3	72.3		
8.5	24.7	41.6	72.9		
8.6	24.9	41.9	73.6		
8.9	25.2	42.4	74.4		
9.0	25.6	42.7	75.1		
9.3	25.9	43.1			
9.4	26.3	43.5			
9.6	26.7	43.9			
10.0	26.9	44.3			
10.1	27.3	44.8			
10.5	27.5	45.3			
10.8	27.8	45.7			
11.1	28.0	46.2			
11.5	28.2	46.7			
11.7	28.5	47.2			
12.0	28.8	47.6			
12.1	28.9	48.2			
12.5	29.2	48.6			
12.8	29.3	49.1			
12.9	29.6	49.8			
13.2	29.9	50.2			
13.4	30.2	50.7			
13.6	30.5	51.4			
14.0	31.0	52.1			
14.2	31.2	52.7			
14.7	31.5	53.3			
14.9	31.8	54.0			
15.3	32.2	54.7			
15.6	32.5	55.3			
16.0	32.9	56.0			
16.3	33.2	56.6			

TEST LOCATION DESCRIPTION	DATE RUN
-L- 628+05 SB GORE	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	387240.0	2004355.9

Cumulative Penetration in Centimeters

0.2	9.6				
0.5	9.9				
0.7	10.2				
1.0	10.5				
1.2	10.9				
1.4	11.2				
1.5	11.5				
1.7					
1.8					
2.0					
2.2					
2.4					
2.6					
2.8					
3.0					
3.2					
3.4					
3.6					
3.8					
4.0					
4.1					
4.3					
4.4					
4.6					
4.7					
4.8					
5.0					
5.1					
5.3					
5.4					
5.5					
5.6					
5.7					
5.8					
6.0					
6.1					
6.2					
6.3					
6.4					
6.5					
6.7					
6.9					
7.0					
7.2					
7.4					
7.6					
7.8					
7.9					
8.1					
8.3					
8.6					
8.9					
9.3					

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
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Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 637+95 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	388211.9	2004517.2

Cumulative Penetration in Centimeters

1.6	28.3	49.8	80.4
3.2	28.9	50.1	80.9
3.9	29.4	50.3	81.3
4.6	29.9	50.6	81.8
5.1	30.4	51.0	82.2
5.5	30.9	51.3	82.7
6.1	31.4	51.7	83.2
6.7	32.1	52.0	83.7
7.0	32.8	52.4	84.3
7.3	33.5	52.9	84.8
7.7	34.2	53.5	85.3
8.2	34.9	54.0	85.9
8.6	35.4	54.6	86.6
9.1	35.9	55.1	87.2
9.5	36.4	55.4	87.9
9.9	36.9	55.7	88.5
10.2	37.4	56.0	89.1
10.6	37.9	56.3	89.7
10.9	38.3	56.6	90.4
11.3	38.8	57.0	91.0
11.7	39.2	57.4	91.6
12.1	39.7	57.9	
12.6	40.1	58.3	
13.0	40.4	58.7	
13.4	40.8	59.3	
13.9	41.1	59.9	
14.3	41.5	60.4	
14.8	41.8	61.0	
15.2	42.1	61.6	
15.7	42.4	62.5	
16.2	42.7	63.4	
16.6	43.0	64.3	
17.1	43.3	65.2	
17.5	43.6	66.1	
18.0	43.9	67.0	
18.5	44.2	67.9	
19.0	44.5	68.9	
19.5	44.8	69.8	
20.0	45.1	70.7	
20.5	45.5	71.4	
21.0	45.8	72.0	
21.5	46.1	72.7	
21.9	46.5	73.3	
22.4	46.8	74.0	
22.9	47.2	74.6	
23.5	47.5	75.2	
24.1	47.9	75.9	
24.8	48.2	76.5	
25.4	48.5	77.1	
26.0	48.7	77.8	
26.6	49.0	78.4	
27.2	49.3	79.1	
27.7	49.6	79.7	

TEST LOCATION DESCRIPTION	DATE RUN
-L- 637+95 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	388211.3	2004549.7

Cumulative Penetration in Centimeters

0.7	17.8	37.1	58.9
1.5	18.0	37.3	59.4
2.1	18.2	37.6	59.9
2.5	18.4	37.8	60.4
2.9	18.6	38.1	60.6
3.4	18.9	38.4	61.0
4.0	19.3	38.6	61.2
4.5	19.7	38.9	61.4
5.1	20.2	39.3	61.7
5.3	20.5	39.7	61.8
5.4	20.8	40.2	62.2
5.7	21.1	40.5	62.3
6.0	21.5	40.7	62.5
6.4	21.7	40.9	62.8
6.8	22.0	41.1	63.1
7.0	22.4	41.2	63.3
7.4	22.7	41.5	63.5
7.6	23.1	41.8	63.7
7.9	23.2	42.0	64.0
8.2	23.6	42.4	64.2
8.5	24.1	42.7	64.4
8.9	24.5	42.9	64.7
9.2	24.8	43.2	64.9
9.4	25.1	43.7	65.1
9.8	25.6	44.0	65.2
10.0	26.0	44.4	65.3
10.4	26.4	44.7	65.4
10.6	26.9	45.1	65.5
10.9	27.2	45.6	65.7
11.1	27.7	46.0	66.0
11.4	28.1	46.5	66.3
11.6	28.5	47.0	66.4
11.9	29.0	47.5	66.7
12.2	29.6	48.1	67.0
12.6	30.0	48.4	67.2
12.7	30.5	48.9	67.5
13.2	31.1	49.5	67.6
13.4	31.5	50.2	68.0
13.7	31.9	50.6	68.1
14.2	32.5	51.2	68.3
14.3	33.0	51.8	68.6
14.8	33.3	52.3	68.8
15.1	33.8	52.9	69.0
15.3	34.1	53.4	69.2
15.6	34.6	54.1	69.5
15.7	35.0	54.4	69.6
15.9	35.3	55.1	69.8
16.2	35.7	55.6	69.9
16.5	35.9	56.2	70.1
16.8	36.3	56.9	
17.1	36.5	57.3	
17.3	36.7	58.0	
17.6	36.9	58.5	

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 637+95 SB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	388215.1	2004547.0

Cumulative Penetration in Centimeters

0.3	14.4	28.4	
0.7	14.7	28.6	
1.1	15.0	28.8	
1.4	15.4	29.0	
1.6	15.8	29.1	
1.9	16.1	29.4	
2.1	16.5	29.6	
2.4	16.8	29.7	
2.6	17.2	30.0	
3.0	17.6	30.2	
3.3	18.0	30.3	
3.5	18.3	30.7	
3.7	18.6	30.8	
4.0	18.9	31.1	
4.2	19.1	31.4	
4.5	19.4	31.5	
4.7	19.7	31.6	
4.8	20.1	31.8	
5.0	20.5	32.0	
5.2	20.8	32.3	
5.5	21.2	32.6	
5.7	21.5	32.9	
5.9	21.7	33.3	
6.1	22.0	33.6	
6.4	22.3		
6.6	22.6		
6.8	22.8		
6.9	23.1		
7.1	23.3		
7.3	23.4		
7.5	23.7		
7.8	23.9		
8.0	24.2		
8.2	24.3		
8.5	24.7		
8.8	24.8		
9.2	25.0		
9.5	25.2		
9.8	25.4		
10.2	25.6		
10.6	25.9		
10.8	26.1		
11.1	26.3		
11.5	26.5		
11.7	26.6		
12.0	26.9		
12.3	27.0		
12.6	27.2		
13.1	27.5		
13.4	27.7		
13.6	27.9		
13.9	28.0		
14.1	28.2		

TEST LOCATION DESCRIPTION	DATE RUN
-L- 666+40 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	391030.9	2004971.8

Cumulative Penetration in Centimeters

1.2	39.7	70.6	
2.4	40.2	71.8	
3.2	40.7	72.6	
3.9	41.1	73.5	
5.1	41.8	74.7	
6.2	42.0	75.5	
7.1	42.3	76.6	
7.9	42.6	77.5	
8.5	43.1	78.9	
9.2	43.8	80.5	
10.3	44.3	85.0	
11.3	44.8	88.1	
11.9	45.1	90.6	
12.5	45.7		
14.6	46.2		
15.2	46.8		
15.9	47.4		
16.6	47.9		
17.0	48.2		
17.7	48.7		
18.1	49.0		
18.8	49.9		
19.3	50.3		
19.6	50.9		
20.3	51.4		
20.8	51.8		
21.3	52.1		
21.9	52.9		
22.2	53.4		
22.5	53.9		
22.9	54.3		
23.5	54.9		
24.0	55.5		
24.6	56.0		
25.0	56.6		
25.8	57.1		
26.4	57.9		
27.3	58.4		
28.7	59.0		
29.3	59.8		
30.4	60.3		
32.1	60.9		
33.2	61.8		
33.9	62.3		
34.8	62.9		
35.7	63.8		
36.2	64.4		
36.8	64.9		
37.1	66.2		
37.9	66.9		
38.5	67.8		
38.9	68.8		
39.1	69.7		

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 666+40 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	391024.2	2005006.2

Cumulative Penetration in Centimeters

0.8	25.6	53.8	87.8
1.7	26.2	54.2	88.4
2.3	26.9	54.6	89.0
2.9	27.5	54.8	89.6
3.3	28.1	55.2	
3.8	28.9	55.6	
4.2	29.4	55.9	
4.5	30.1	56.3	
4.8	30.9	56.8	
5.3	31.5	57.1	
5.7	32.1	57.6	
6.3	32.8	57.9	
6.8	33.4	58.3	
7.2	34.1	58.6	
7.5	34.8	59.0	
7.8	35.6	59.3	
8.3	36.2	59.8	
8.7	36.9	60.2	
9.0	37.6	60.5	
9.4	38.2	60.9	
9.7	39.0	61.7	
10.1	39.6	62.5	
10.6	40.2	63.1	
11.1	40.5	63.9	
11.4	40.9	64.8	
11.9	41.2	65.3	
12.4	41.7	65.7	
12.8	42.0	66.3	
13.1	42.4	66.8	
13.5	43.0	67.2	
14.0	43.4	67.7	
14.4	43.8	68.4	
14.7	44.4	68.9	
15.2	44.7	69.4	
15.5	45.1	70.0	
15.9	45.4	70.8	
16.3	45.9	71.5	
16.8	46.2	72.2	
17.3	46.6	73.1	
17.8	47.0	73.9	
18.2	47.3	74.9	
18.7	47.6	75.8	
19.4	48.0	76.8	
19.9	48.4	77.8	
20.5	48.6	78.7	
21.0	49.0	79.7	
21.5	49.3	80.8	
22.0	49.7	82.0	
22.7	50.4	83.0	
23.2	51.3	84.3	
23.7	52.0	85.3	
24.2	52.7	86.6	
24.9	53.4	87.2	

TEST LOCATION DESCRIPTION	DATE RUN
-L- 666+40 SB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	391019.6	2004999.8

Cumulative Penetration in Centimeters

1.1	10.5	28.9	
1.3	10.7	29.3	
1.5	11.0	29.7	
1.9	11.4	30.1	
2.1	11.8	30.4	
2.3	12.2	30.7	
2.4	12.6	31.0	
2.5	12.9	31.1	
2.6	13.4	31.5	
2.7	13.6	31.7	
2.9	13.9	32.0	
3.1	14.3	32.2	
3.4	14.6	32.6	
3.6	14.9	32.7	
3.8	15.2	32.9	
4.0	15.4	33.2	
4.1	15.8	33.5	
4.2	16.1	33.7	
4.3	16.5	33.8	
4.4	16.8	34.1	
4.5	17.1	34.3	
4.6	17.4	34.6	
4.7	17.7	34.7	
4.9	18.0	35.0	
5.1	18.2	35.2	
5.2	18.7	35.5	
5.4	18.9		
5.7	19.3		
5.9	19.7		
6.1	20.0		
6.3	20.2		
6.4	20.6		
6.7	21.0		
6.8	21.3		
7.0	21.7		
7.1	21.9		
7.4	22.4		
7.6	22.7		
7.9	23.1		
8.1	23.4		
8.4	23.9		
8.5	24.1		
8.5	24.5		
8.6	24.9		
8.7	25.3		
8.8	25.6		
8.9	26.1		
9.1	26.5		
9.3	26.9		
9.4	27.2		
9.7	27.8		
10.0	28.2		
10.2	28.5		

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 688+25 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	393159.8	2005538.6

Cumulative Penetration in Centimeters

2.5	48.5		
3.8	49.0		
5.2	49.6		
6.5	50.3		
8.9	51.0		
11.2	51.5		
13.5	52.2		
14.7	52.8		
15.7	53.7		
16.9	54.3		
17.8	55.1		
18.6	55.9		
19.6	56.6		
20.4	57.5		
21.3	58.1		
22.1	59.0		
22.7	59.9		
23.5	60.8		
24.1	61.7		
24.7	62.7		
25.5	63.5		
26.2	64.5		
27.0	65.5		
27.6	66.5		
28.4	67.4		
29.2	68.4		
30.1	69.3		
30.8	70.3		
31.8			
32.8			
33.9			
34.7			
35.6			
36.1			
36.6			
37.3			
37.8			
38.5			
39.2			
39.9			
40.5			
41.2			
42.0			
42.6			
43.3			
43.8			
44.2			
44.8			
45.5			
46.0			
46.7			
47.2			
47.8			

TEST LOCATION DESCRIPTION	DATE RUN
-L- 688+25 SB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	393151.9	2005538.4

Cumulative Penetration in Centimeters

0.3	7.8	18.5	
0.6	7.9	18.6	
1.0	8.0	18.7	
1.2	Auger	18.8	
1.4		19.0	
1.7		19.3	
1.9	9.7	19.6	
2.0	9.8	19.8	
2.1	9.9	20.0	
2.2	10.0	20.1	
2.4	10.1	20.2	
2.5	10.2	20.3	
2.7	10.4	20.4	
2.8	10.6	20.5	
2.9	10.8	20.6	
3.0	11.0	20.7	
3.1	11.3	20.8	
3.2	11.4	20.9	
3.3	11.8	21.1	
3.4	12.0	21.2	
3.5	12.2	21.3	
3.6	12.3	21.4	
3.7	12.5	21.5	
3.9	12.7	21.6	
4.0	12.8	21.7	
4.2	12.9	21.8	
4.3	13.2	21.9	
4.5	13.5	22.1	
4.7	13.7	22.2	
4.8	13.9	22.3	
5.0	14.3	22.4	
5.1	14.4	22.5	
5.2	14.6	22.6	
5.3	14.9	22.7	
5.4	15.1	22.8	
5.5	15.4	22.9	
5.6	15.6	23.0	
5.7	15.8	23.1	
5.9	16.0	23.2	
6.0	16.2	23.3	
6.1	16.4	23.4	
6.2	16.5	23.5	
6.3	16.6	23.6	
6.4	16.7	23.7	
6.6	17.0	23.8	
6.7	17.1	23.9	
6.8	17.3	24.0	
6.9	17.5	24.1	
7.0	17.8	24.1	
7.1	17.9		
7.3	18.0		
7.5	18.2		
7.7	18.3		

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
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Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 688+25 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	393131.2	2005564.0

Cumulative Penetration in Centimeters

2.4	17.8	39.4			
3.0	18.2	39.9			
3.6	18.5	40.3			
3.9	18.8	40.8			
4.2	19.3	41.3			
4.5	19.6	42.0			
4.8	19.9	42.5			
5.0	20.4	43.1			
5.4	20.9	43.6			
5.7	21.3	44.0			
6.1	21.7	44.7			
6.4	22.1	45.3			
6.7	22.3	45.7			
7.1	22.7	46.1			
7.3	22.9	46.7			
7.7	23.2	47.1			
7.8	23.5	47.6			
8.2	23.8	48.1			
8.5	23.9	48.4			
8.8	24.2	48.8			
8.9	24.5	49.1			
9.1	24.8	49.6			
9.3	25.4	50.0			
9.6	25.6	50.3			
9.9	26.0	50.7			
10.2	26.5	50.9			
10.4	26.8	51.1			
10.8	27.3	51.5			
11.0	27.7	51.9			
11.2	28.1	52.2			
11.5	28.5	52.5			
11.6	29.0	52.8			
11.9	29.6	53.2			
12.0	30.2	53.5			
12.3	30.8	53.9			
12.6	31.3	54.3			
12.9	31.9	54.8			
13.2	32.5	55.1			
13.4	33.0	55.4			
13.8	33.7	55.9			
14.1	34.2	56.3			
14.4	34.6	56.7			
14.7	35.0	57.0			
15.0	35.4	57.3			
15.3	35.8	57.7			
15.6	36.2	58.1			
15.9	36.6	58.4			
16.1	37.0	58.7			
16.4	37.3				
16.7	37.7				
17.0	38.1				
17.2	38.5				
17.5	38.9				

TEST LOCATION DESCRIPTION	DATE RUN
-L- 688+25 SB ACCEL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	393149.8	2005539.3

Cumulative Penetration in Centimeters

1.9	20.7	32.2	42.6	54.6
2.7	20.9	32.4	42.7	54.7
3.3	21.1	32.7	42.7	55.1
3.9	21.2	32.9	42.8	55.3
4.6	21.4	33.1	43.1	55.5
5.4	21.7	33.4	43.2	55.8
5.9	22.0	33.5	43.6	56.0
6.4	22.1	33.8	43.7	56.3
6.9	22.4	34.1	44.0	56.5
7.5	22.6	34.3	44.2	56.8
7.8	22.9	34.5	44.3	57.1
8.4	23.1	34.7	44.4	57.4
8.9	23.2	34.8	44.5	57.6
9.2	23.5	35.1	44.8	57.8
9.5	23.7	35.3	45.0	58.0
9.9	23.9	35.5	45.4	58.3
10.3	24.0	35.6	45.6	58.5
10.7	24.3	35.7	45.8	58.8
11.0	24.4	35.8	46.2	59.0
11.5	24.6	35.8	46.4	59.4
11.8	25.0	35.9	46.8	59.8
12.2	25.1	35.9	46.9	60.1
12.5	25.4	36.2	47.2	60.5
12.9	25.6	36.5	47.5	60.9
13.2	25.9	36.7	47.6	61.4
13.6	26.1	37.0	48.0	61.8
13.9	26.2	37.1	48.1	62.2
14.2	26.5	37.3	48.4	
14.4	26.6	37.4	48.6	
14.7	26.9	37.7	48.8	
14.9	27.0	37.9	49.2	
15.2	27.3	38.0	49.5	
15.5	27.5	38.2	49.7	
15.9	27.8	38.3	50.0	
16.2	28.1	38.5	50.3	
16.4	28.2	38.8	50.6	
16.8	28.3	38.9	50.8	
17.1	28.6	39.2	50.9	
17.4	28.7	39.3	51.2	
17.7	29.0	39.6	51.4	
17.9	29.3	39.7	51.6	
18.2	29.5	40.0	51.8	
18.4	29.7	40.2	51.9	
18.6	30.0	40.4	52.2	
18.7	30.3	40.6	52.5	
18.9	30.4	40.8	52.7	
19.1	30.5	41.0	52.9	
19.3	30.7	41.3	53.2	
19.5	30.9	41.5	53.5	
19.9	31.1	41.7	53.7	
20.1	31.3	42.0	53.9	
20.3	31.6	42.4	54.2	
20.5	31.9	42.5	54.4	

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 719+30 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	395728.0	2007291.5

Cumulative Penetration in Centimeters

1.1	26.4	50.4	65.6	81.3
2.4	26.7	50.7	65.8	81.6
3.7	27.4	51.0	66.0	82.0
5.2	27.8	51.2	66.3	82.5
5.9	28.1	51.5	66.6	82.9
6.5	28.6	51.7	66.8	83.4
7.0	29.1	52.0	67.1	83.9
7.6	29.6	52.3	67.4	84.4
7.9	30.1	52.6	67.7	84.9
8.2	30.8	52.8	67.9	85.4
8.6	31.3	53.1	68.2	85.8
9.0	31.9	53.4	68.4	86.2
9.4	32.4	53.7	68.7	86.7
9.8	33.0	54.0	69.0	87.1
10.2	33.5	54.2	69.2	87.5
10.6	34.0	54.5	69.5	
11.0	34.5	54.8	69.7	
11.4	34.9	55.1	70.0	
11.7	35.4	55.4	70.3	
12.0	35.9	55.7	70.6	
12.3	36.6	56.0	70.9	
12.6	37.2	56.3	71.2	
12.9	37.9	56.7	71.5	
13.2	38.5	57.0	71.7	
13.5	39.2	57.4	72.0	
13.8	39.9	57.7	72.2	
14.1	40.6	58.0	72.5	
14.4	41.4	58.2	72.7	
14.7	42.1	58.5	73.0	
15.0	42.8	58.7	73.3	
15.2	43.3	59.0	73.5	
15.5	43.8	59.3	73.8	
15.8	44.4	59.6	74.1	
16.2	44.9	60.0	74.4	
16.6	45.4	60.3	74.6	
17.1	45.7	60.6	74.9	
17.5	46.0	60.9	75.1	
17.9	46.2	61.2	75.4	
18.5	46.5	61.4	75.7	
19.1	46.8	61.7	76.0	
19.6	47.1	62.0	76.4	
20.2	47.3	62.3	76.7	
20.8	47.6	62.6	77.0	
21.3	47.8	62.8	77.4	
21.8	48.1	63.1	77.8	
22.2	48.4	63.4	78.3	
22.7	48.6	63.6	78.7	
23.2	48.9	63.9	79.1	
23.7	49.1	64.1	79.5	
24.2	49.4	64.4	79.8	
24.8	49.6	64.6	80.2	
25.3	49.9	64.9	80.5	
25.8	50.1	65.3	80.9	

TEST LOCATION DESCRIPTION	DATE RUN
-L- 719+30 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	395704.7	2007318.3

Cumulative Penetration in Centimeters

0.4	26.0	44.3	58.0	
0.9	26.5	44.7	58.1	
1.3	26.9	44.9	58.5	
1.8	27.2	45.1	58.7	
2.2	27.6	45.3	58.9	
2.8	28.1	45.6	59.1	
3.3	28.5	46.0	59.3	
3.9	28.8	46.1	59.4	
4.5	29.4	46.5	59.5	
5.1	29.6	46.8	59.6	
5.8	30.0	47.1	59.8	
6.3	30.4	47.4	60.0	
6.9	30.8	47.8	60.3	
7.8	31.1	48.0	60.5	
8.3	31.6	48.4	60.6	
8.8	32.0	48.6	60.8	
9.4	32.4	48.9	61.0	
9.9	32.8	49.2	61.2	
10.3	33.0	49.6	61.5	
10.9	33.4	49.9	61.6	
11.4	33.6	50.4	61.8	
11.7	34.0	50.6	62.0	
12.2	34.5	51.0	62.1	
12.7	34.8	51.4	62.3	
13.0	35.2	51.6	62.4	
13.4	35.6	52.0	62.5	
14.0	36.0	52.3		
14.5	36.2	52.4		
15.0	36.7	52.7		
15.4	37.1	53.0		
15.9	37.4	53.2		
16.2	37.7	53.4		
16.6	38.1	53.7		
17.1	38.2	54.0		
17.6	38.5	54.3		
18.1	38.8	54.4		
18.3	39.2	54.5		
18.8	39.6	54.7		
19.2	39.9	55.0		
19.6	40.0	55.3		
20.2	40.3	55.5		
20.6	40.7	55.7		
21.0	41.0	56.0		
21.5	41.2	56.2		
22.0	41.5	56.3		
22.4	41.7	56.6		
22.9	42.0	56.7		
23.3	42.3	56.9		
23.7	42.7	57.1		
24.2	43.0	57.3		
24.6	43.1	57.5		
25.1	43.5	57.7		
25.5	43.8	57.9		

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 719+30 SB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	395707.6	2007313.7

Cumulative Penetration in Centimeters

0.4	32.2	52.5									
0.9	32.8	52.8									
1.3	33.5	53.1									
1.7	34.1	53.3									
2.1	34.6	53.6									
2.6	35.2	53.7									
3.4	35.6	54.0									
3.8	36.0	54.3									
4.6	36.6	54.4									
5.1	37.0	54.7									
5.5	37.4	54.8									
5.9	37.7	55.1									
6.3	38.1	55.3									
6.6	38.5	55.6									
7.1	38.8	55.7									
7.6	39.3	55.8									
8.4	39.8	56.1									
9.0	40.2	56.2									
9.7	40.6	56.4									
10.3	41.1	56.6									
10.9	41.6	56.8									
11.5	42.0	57.0									
11.9	42.3	57.1									
12.4	42.8	57.3									
13.0	43.1	57.5									
13.5	43.6	57.7									
14.0	44.2	57.8									
14.3	44.9	58.0									
14.9	45.4	58.1									
15.3	45.7	58.2									
15.6	46.2	58.4									
16.1	46.5	58.5									
16.4	47.1	58.6									
16.8	47.4	58.7									
17.1	47.7	58.9									
17.9	48.1	59.1									
18.6	48.4	59.2									
19.5	48.7										
20.2	48.9										
21.0	49.3										
21.9	49.6										
22.5	49.8										
23.3	50.0										
24.0	50.3										
24.8	50.5										
25.8	50.8										
26.7	51.0										
27.7	51.2										
28.7	51.5										
29.5	51.6										
30.4	51.8										
30.9	52.1										
31.6	52.3										

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 745+65 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	398094.5	2008402.7

Cumulative Penetration in Centimeters

0.9	24.8	43.2	65.0								
2.0	25.2	43.7	65.6								
2.7	25.6	44.0	66.1								
3.4	26.0	44.3	66.7								
4.3	26.3	44.8	67.3								
4.9	26.5	45.2	67.9								
5.6	26.8	45.7	68.4								
6.1	27.2	46.2	68.9								
6.6	27.5	46.7	69.6								
7.0	27.8	47.1	70.1								
7.4	28.4	47.5	70.6								
8.0	28.7	48.0	70.9								
8.4	28.9	48.4	71.5								
8.9	29.1	48.8	72.0								
9.3	29.6	49.1	72.4								
9.7	29.7	49.2	72.8								
10.0	30.0	49.7	73.2								
10.3	30.4	49.8	73.7								
10.8	30.6	50.1	74.0								
11.0	31.0	50.5	74.5								
11.6	31.2	50.8	75.0								
12.1	31.6	51.3	75.5								
12.6	31.8	51.6	76.1								
13.0	32.2	52.1	76.6								
13.5	32.5	52.6	77.1								
13.9	32.7	52.8	77.7								
14.3	33.0	53.2	78.0								
14.6	33.4	53.6	78.3								
15.0	33.7	53.9	78.9								
15.4	34.1	54.3	79.1								
15.8	34.5	54.5	79.5								
16.1	34.8	54.8	80.0								
16.6	35.0	55.2	80.3								
17.0	35.4	55.6	80.7								
17.3	35.8	56.2	81.2								
17.6	36.1	56.7	81.6								
17.9	36.4	57.1	82.1								
18.2	36.7	57.7	82.6								
18.6	37.1	58.2	83.1								
19.1	37.5	58.6	83.5								
19.6	37.8	58.9	84.0								
20.2	38.2	59.3	84.4								
20.7	38.5	59.7	84.9								
21.3	38.9	60.1	85.5								
21.7	39.3	60.7	86.0								
22.0	39.7	61.1	86.5								
22.4	40.0	61.6	87.0								
22.8	40.5	62.1	87.6								
23.3	41.0	62.7	88.2								
23.6	41.4	63.2	89.0								
23.9	42.0	63.7	89.5								
24.1	42.4	64.1									
24.4	42.8	64.5									

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 745+65 SB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	398088.9	2008411.9

Cumulative Penetration in Centimeters

1.1	10.7	21.4	32.9	40.9	52.1						
1.3	10.8	21.7	33.0	41.0	52.2						
1.6	10.9	21.9	33.2	41.1	52.3						
1.7	11.2	22.2	33.3	41.2	52.4						
2.0	11.3	22.4	33.4	41.4	52.5						
2.5	11.5	22.7	33.5	41.7	52.6						
2.8	11.7	23.0	33.6	41.8	52.7						
3.1	11.8	23.1	33.9	42.0	52.8						
3.4	11.9	23.3	34.1	42.1	52.9						
3.5	12.2	23.5	34.2	42.2	53.0						
3.7	12.3	23.7	34.4	42.3	53.0						
3.8	12.5	23.8	34.5	42.4	53.1						
4.1	12.6	23.9	34.7	42.5	53.5						
4.3	12.8	24.1	34.8	42.7	53.7						
4.4	13.0	24.2	35.0	42.9	53.8						
4.7	13.1	24.4	35.1	43.2	54.1						
4.8	13.2	24.6	35.2	43.3	54.4						
4.9	13.4	24.8	35.3	43.6	54.5						
5.2	13.7	25.0	35.4	43.9	54.7						
5.4	14.0	25.2	35.5	44.2	54.9						
5.6	14.3	25.4	35.6	44.4	55.1						
5.8	14.5	25.7	35.9	44.7	55.4						
5.9	14.7	25.9	36.0	44.9	55.5						
6.1	14.9	26.2	36.2	45.1	55.6						
6.3	15.2	26.5	36.5	45.3	55.7						
6.4	15.3	26.8	36.6	45.7	56.0						
6.5	15.5	27.1	36.7	45.9	56.4						
6.6	15.7	27.4	36.9	46.1	56.8						
6.9	16.0	27.7	37.0	46.4	57.1						
7.0	16.2	27.9	37.2	46.8	57.4						
7.1	16.5	28.3	37.3	47.2	57.7						
7.3	16.7	28.4	37.4	47.5	57.8						
7.4	17.0	28.7	37.5	47.8	58.1						
7.5	17.2	28.9	37.7	48.0	58.2						
7.7	17.5	29.2	37.8	48.2	58.4						
7.8	17.9	29.4	37.9	48.5	58.6						
8.1	18.1	29.7	38.2	48.8							
8.2	18.2	30.1	38.3	49.1							
8.4	18.4	30.4	38.6	49.2							
8.5	18.7	30.5	38.7	49.6							
8.7	18.9	30.6	38.8	49.8							
8.8	19.0	30.8	39.0	50.0							
8.9	19.2	30.9	39.2	50.2							
9.2	19.5	31.0	39.3	50.4							
9.3	19.6	31.2	39.4	50.5							
9.5	19.8	31.5	39.6	50.6							
9.6	20.1	31.6	39.9	50.8							
9.7	20.2	31.9	40.0	51.0							
10.0	20.4	32.2	40.1	51.2							
10.1	20.7	32.4	40.3	51.3							
10.3	20.8	32.5	40.5	51.5							
10.4	21.0	32.7	40.7	51.9							
10.5	21.2	32.8	40.8	52.0							

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 745+65 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	398076.9	2008430.8

Cumulative Penetration in Centimeters

0.7	24.3	40.3	60.7	75.7							
1.3	24.6	40.8	60.9	76.0							
1.9	24.9	41.4	61.3	76.3							
2.5	25.2	41.9	61.6	76.7							
3.1	25.5	42.7	61.8	76.9							
3.8	25.7	43.4	62.0	77.4							
4.3	26.0	44.2	62.3	77.6							
4.9	26.3	44.8	62.6	78.0							
5.6	26.6	45.7	63.0	78.4							
6.1	26.9	46.3	63.3	78.9							
6.6	27.2	46.9	63.7	79.4							
7.2	27.5	47.5	64.0	79.8							
7.7	27.8	48.2	64.2	80.3							
8.2	28.0	48.8	64.3								
8.7	28.2	49.2	64.6								
9.0	28.5	49.7	64.7								
9.4	28.6	50.0	65.0								
10.0	28.8	50.4	65.2								
10.4	29.1	50.8	65.5								
10.8	29.5	51.2	65.7								
11.2	29.8	51.4	66.1								
11.6	30.0	51.6	66.4								
11.9	30.4	51.9	66.8								
12.5	30.6	52.3	67.1								
12.8	30.9	52.6	67.4								
13.2	31.3	53.1	67.7								
13.9	31.5	53.5	68.0								
14.3	31.7	53.8	68.1								
14.8	32.0	54.2	68.3								
15.4	32.2	54.5	68.5								
15.8	32.5	54.8	68.8								
16.3	32.8	55.1	69.2								
16.8	33.0	55.6	69.5								
17.2	33.2	55.8	69.8								
17.7	33.5	56.0	70.3								
18.1	33.8	56.2	70.5								
18.5	34.0	56.6	70.8								
19.1	34.3	56.7	70.9								
19.5	34.7	57.0	71.4								
19.9	35.0	57.2	71.6								
20.3	35.3	57.5	71.8								
20.7	35.7	57.8	72.1								
21.1	36.0	58.0	72.5								
21.3	36.5	58.3	72.9								
21.7	36.8	58.6	73.0								
22.0	37.1	58.8	73.4								
22.3	37.4	59.0	73.8								
22.7	37.7	59.2	74.0								
23.0	38.3	59.5	74.2								
23.4	38.6	60.1	74.5								
23.6	39.0	60.3	74.9								
23.9	39.5	60.4	75.1								
24.1	39.9	60.6	75.4								

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

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CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 772+30 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
SG	FILL	400562.3	2009415.3

Cumulative Penetration in Centimeters

1.4	24.6	59.3			
2.3	25.4	59.8			
3.0	26.2	60.2			
3.5	26.9	60.7			
4.1	27.8	61.2			
4.5	28.7	61.7			
4.9	29.5	62.2			
5.5	30.3	62.8			
6.0	31.2	63.3			
6.4	32.0	63.9			
6.8	32.9	64.5			
7.1	34.0	65.2			
7.5	34.9	65.7			
7.8	35.9	66.3			
8.2	36.5	67.0			
8.6	37.5	67.7			
9.0	38.3	68.2			
9.3	39.3	68.9			
9.8	40.0	69.5			
10.1	40.7	70.2			
10.5	41.4	70.9			
10.9	42.0	71.7			
11.4	42.6	72.4			
11.9	43.2	73.2			
12.3	43.9	73.9			
12.7	44.3	74.5			
13.0	44.7	75.4			
13.6	45.0	76.1			
14.1	45.5	76.9			
14.5	45.9	77.6			
14.8	46.5	78.4			
15.2	47.0	79.0			
15.5	47.5	80.0			
15.9	48.0	81.1			
16.3	48.6	82.0			
16.9	49.4	82.8			
17.3	49.9	83.8			
17.7	50.5	84.8			
18.0	51.2	85.8			
18.3	51.7	86.6			
18.8	52.2	87.7			
19.2	52.9	88.6			
19.5	53.5	89.4			
19.8	54.0	90.4			
20.3	54.6	91.2			
20.6	55.0	92.1			
21.1	55.5	93.1			
21.5	56.2	94.1			
22.0	56.8	95.0			
22.5	57.2	96.0			
22.9	57.8				
23.4	58.2				
24.0	58.8				

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 772+30 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	400545.8	2009444.0

Cumulative Penetration in Centimeters

0.5	22.6	41.1	57.2	79.1	
1.1	23.1	41.5	57.5	79.6	
1.7	23.4	41.8	57.9	80.3	
2.3	23.8	42.1	58.2		
2.8	24.3	42.5	58.6		
3.4	24.8	43.0	58.9		
4.0	25.1	43.5	59.3		
4.5	25.6	43.9	59.7		
4.9	25.8	44.4	60.0		
5.5	26.2	44.8	60.5		
6.0	26.6	45.2	60.8		
6.5	27.0	45.9	61.1		
6.8	27.4	46.2	61.6		
7.4	27.7	46.7	61.8		
7.8	28.0	47.0	62.2		
8.4	28.4	47.3	62.6		
8.8	28.7	47.8	63.0		
9.2	28.9	48.0	63.4		
9.8	29.4	48.4	63.9		
10.3	29.7	48.6	64.1		
10.7	29.9	48.8	64.6		
11.0	30.2	49.2	65.0		
11.4	30.6	49.4	65.5		
11.7	31.0	49.6	65.9		
12.2	31.3	49.8	66.3		
12.5	31.6	50.0	66.7		
12.9	32.0	50.2	67.2		
13.1	32.2	50.4	67.4		
13.4	32.7	50.6	67.9		
13.8	33.0	51.0	68.5		
14.1	33.3	51.3	68.8		
14.4	33.7	51.4	69.3		
14.8	34.0	51.8	69.7		
15.2	34.3	52.0	70.0		
15.5	34.6	52.3	70.5		
15.9	34.9	52.7	70.9		
16.3	35.1	52.9	71.2		
16.6	35.4	53.3	71.5		
17.0	35.8	53.6	72.0		
17.4	36.1	53.7	72.2		
17.7	36.4	53.8	72.6		
18.0	36.8	54.0	73.0		
18.3	37.2	54.1	73.7		
18.6	37.4	54.2	74.0		
19.0	37.8	54.6	74.4		
19.3	38.2	54.8	75.0		
19.7	38.5	55.1	75.5		
20.1	39.0	55.4	76.0		
20.4	39.2	55.7	76.7		
20.8	39.7	56.0	77.2		
21.3	40.0	56.3	77.8		
21.7	40.4	56.6	78.2		
22.2	40.8	56.9	78.7		

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 772+30 SB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	400542.2	2009438.9

Cumulative Penetration in Centimeters

0.4	30.5	46.9	68.3		
0.9	31.0	47.1	68.8		
1.3	31.5	47.3	69.5		
1.8	32.1	47.5	69.9		
2.2	32.6	47.7	70.5		
2.8	33.1	48.0	71.1		
3.4	33.7	48.4	71.6		
4.0	34.2	48.6	72.2		
4.6	34.6	48.9	72.6		
5.1	35.3	49.2	73.2		
6.1	35.7	49.5	73.7		
7.1	36.3	49.8	74.2		
8.1	36.6	50.0	74.6		
8.8	37.0	50.3	75.0		
9.4	37.4	50.5	75.4		
10.1	38.0	50.8	75.9		
11.9	38.3	51.1			
13.0	38.5	51.5			
13.7	38.9	51.7			
14.4	39.1	52.0			
14.8	39.4	52.2			
15.5	39.8	52.5			
15.9	40.1	52.9			
16.4	40.3	53.2			
16.9	40.6	53.5			
17.4	40.7	54.0			
18.0	41.0	54.5			
18.4	41.2	54.8			
19.0	41.4	55.2			
19.4	41.5	55.7			
19.9	41.8	56.2			
20.3	42.0	56.4			
20.9	42.3	57.0			
21.3	42.4	57.4			
21.7	42.6	57.8			
22.1	42.9	58.3			
22.7	43.2	58.7			
23.1	43.5	59.2			
23.6	43.6	59.6			
24.0	43.8	60.3			
24.5	44.0	60.8			
24.8	44.1	61.5			
25.2	44.3	62.1			
25.8	44.5	62.8			
26.2	44.7	63.3			
26.6	44.9	63.8			
27.1	45.1	64.4			
27.5	45.3	65.0			
28.1	45.6	65.5			
28.5	45.9	66.1			
29.0	46.0	66.6			
29.6	46.3	67.2			
30.1	46.7	67.7			

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 798+50 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	403038.5	2010172.1

Cumulative Penetration in Centimeters

1.4	48.4				
2.3	50.2				
3.0	51.3				
3.7	52.6				
4.5	53.7				
5.1	54.9				
5.5	56.1				
5.9	57.8				
6.6	59.3				
6.8	62.2				
7.5	64.7				
7.9	67.2				
8.4	69.8				
9.4	72.6				
10.2	75.1				
10.4	77.4				
10.6	80.0				
11.0	82.4				
11.6	84.8				
12.5	86.8				
12.9	88.7				
13.6	90.1				
14.5	91.6				
15.1					
16.0					
17.0					
18.2					
19.0					
20.2					
21.1					
22.4					
23.2					
24.8					
26.0					
27.2					
28.3					
29.7					
31.1					
32.8					
33.7					
34.9					
35.8					
36.5					
37.3					
38.0					
38.8					
39.5					
40.2					
41.2					
42.3					
43.4					
44.9					
46.5					

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 798+50 SB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	403036.4	2010178.1

Cumulative Penetration in Centimeters

0.4		21.0		74.9						20.1		73.4							
0.6		21.8		76.1						20.4		73.8							
0.9		22.3		77.3						20.7		74.2							
1.1		22.5		78.2						21.0		74.6							
1.3		23.3		79.4						21.3		75.0							
1.5		23.9		80.3						21.6		75.4							
1.7		24.6		81.3						21.9		75.8							
2.0		25.0		82.2						22.2		76.2							
2.2		25.8		83.4						22.5		76.6							
2.4		26.4								22.8		77.0							
2.7		26.9								23.1		77.4							
2.9		27.7								23.4		77.8							
3.1		28.1								23.7		78.2							
3.4		28.8								24.0		78.6							
3.7		29.7								24.3		79.0							
3.9		30.1								24.6		79.4							
4.2		30.8								24.9		79.8							
4.5		31.5								25.2		80.2							
4.8		32.6								25.5		80.6							
5.1		33.0								25.8		81.0							
5.3		34.1								26.1		81.4							
5.6		35.3								26.4		81.8							
5.9		36.4								26.7		82.2							
6.3		37.6								27.0		82.6							
6.7		39.1								27.3		83.0							
7.0		40.9								27.6		83.4							
7.3		42.1								27.9		83.8							
7.7		43.2								28.2		84.2							
8.0		43.9								28.5		84.6							
8.3		44.8								28.8		85.0							
8.7		45.2								29.1		85.4							
9.2		46.5								29.4		85.8							
9.5		47.0								29.7		86.2							
9.8		47.8								30.0		86.6							
10.2		48.4								30.3		87.0							
10.6		49.9								30.6		87.4							
10.9		51.3								30.9		87.8							
11.4		52.9								31.2		88.2							
11.8		53.3								31.5		88.6							
12.2		56.8								31.8		89.0							
12.9		58.3								32.1		89.4							
13.3		60.5								32.4		89.8							
13.7		62.5								32.7		90.2							
14.0		63.9								33.0		90.6							
14.4		65.5								33.3		91.0							
14.6		66.9								33.6		91.4							
15.9		68.0								33.9		91.8							
16.2		69.1								34.2		92.2							
16.8		70.1								34.5		92.6							
17.5		71.0								34.8		93.0							
18.4		72.0								35.1		93.4							
18.8		72.8								35.4		93.8							
20.1		73.4								19.6		65.3							

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 798+50 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	403037.7	2010203.9

Cumulative Penetration in Centimeters

0.8		20.4		66.3						19.6		65.3							
1.7		21.0		67.2						19.9		65.7							
2.5		21.7		68.2						20.2		66.1							
3.2		22.4		69.0						20.5		66.5							
3.4		23.0		69.9						20.8		66.9							
3.8		23.7		70.7						21.1		67.3							
4.1		24.3		71.3						21.4		67.7							
4.2		25.2		72.2						21.7		68.1							
4.6		25.9		73.0						22.0		68.5							
4.7		26.6		73.8						22.3		68.9							
5.1		27.3		74.5						22.6		69.3							
5.2		28.1		75.4						22.9		69.7							
5.5		28.7		76.1						23.2		70.1							
5.7		29.7		77.0						23.5		70.5							
6.0		30.4		77.9						23.8		70.9							
6.1		31.1		78.7						24.1		71.3							
6.2		31.9		79.6						24.4		71.7							
6.5		32.5		80.4						24.7		72.1							
6.7		33.4								25.0		72.5							
6.8		34.1								25.3		72.9							
7.0		34.9								25.6		73.3							
7.3		35.6								25.9		73.7							
7.5		36.3								26.2		74.1							
7.6		37.0								26.5		74.5							
7.9		37.7								26.8		74.9							
8.3		38.5								27.1		75.3							
8.6		39.3								27.4		75.7							
8.9		40.2								27.7		76.1							
9.2		41.1								28.0		76.5							
9.6		41.8								28.3		76.9							
9.9		42.7								28.6		77.3							
10.3		44.0								28.9		77.7							
10.8		45.1								29.2		78.1							
11.1		46.3								29.5		78.5							
11.4		47.5								29.8		78.9							
11.9		48.7								30.1		79.3							
12.2		49.9								30.4		79.7							
12.6		51.0								30.7		80.1							
12.9		52.1								31.0		80.5							
13.1		53.3								31.3		80.9							
13.5		54.4								31.6		81.3							
13.9		55.5								31.9		81.7							
14.2		56.3								32.2		82.1							
14.4		57.3								32.5		82.5							
14.9		58.3								32.8		82.9							
15.4		59.4								33.1		83.3							
16.0		60.3								33.4		83.7							
16.3		61.1								33.7		84.1							
16.9		61.9								34.0		84.5							
17.5		62.6								34.3		84.9							
18.4		63.5								34.6		85.3							
18.9		64.4								34.9		85.7							
19.6		65.3								35.2		86.1							

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 825+00 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	CUT	405658.5	2010554.2

Cumulative Penetration in Centimeters

0.6		23.8		60.7						23.2		59.7							
1.1		24.3		61.6						23.5		60.1							
1.6		24.9		62.4						23.8		60.5							
2.0		25.5		62.8						24.1		60.9							
2.5		25.9		63.4						24.4		61.3							
2.8		26.5		63.9						24.7		61.7							
3.3		27.1		64.4						25.0		62.1							
3.8		27.6		65.1						25.3		62.5							
4.2		28.3		65.8						25.6		62.9							
4.6		28.6		66.4						25.9		63.3							
5.0		29.3		67.1						26.2		63.7							
5.4		29.8		67.7						26.5		64.1							
5.8		30.3		68.5						26.8		64.5							
6.3		30.6		69.3						27.1		64.9							
6.7		31.1		70.1						27.4		65.3							
7.2		31.7		70.8						27.7		65.7							
7.8		32.0		71.7						28.0		66.1							
8.2		32.4		72.4						28.3		66.5							
8.6		32.8		73.2						28.6		66.9							
9.1		33.3		73.8						28.9		67.3							
9.6		33.5		74.5						29.2		67.7							
9.9		34.0		75.3						29.5		68.1							
10.3		34.5		75.9						29.8		68.5							
10.8		34.8		76.8						30.1		68.9							
11.2		35.3		77.5						30.4		69.3							
11.5		35.6		78.0						30.7		69.7							
11.9		36.0		78.6						31.0		70.1							
12.3		36.6		79.2						31.3		70.5							
12.7		37.3		79.9						31.6		70.9							
13.0		37.8		80.6						31.9		71.3							
13.4		38.5		81.4						32.2		71.7							
13.8		39.1		82.1						32.5		72.1							
14.2		40.2		82.8						32.8		72.5							
14.5		41.3		83.5						33.1		72.9							
14.9		42.3		84.4						33.4		73.3							
15.2		43.9		85.0						33.7		73.7							
15.7		45.2		85.9						34.0		74.1							
16.0		46.7		86.7						34.3		74.5							
16.3		47.8		87.5						34.6		74.9							
16.7		48.7		88.4						34.9		75.3							
17.2		49.5		89.0						35.2		75.7							
17.6		50.2		89.9						35.5		76.1							
18.1		51.0		90.5						35.8		76.5							
18.5		52.0		91.2						36.1		76.9							
19.0		52.7		91.7						36.4		77.3							
19.4		53.5		92.3						36.7		77.7							
20.1		54.3								37.0		78.1							
20.7		55.1								37.3		78.5							
21.1		55.9								37.6		78.9							
21.6		56.8								37.9		79.3							
22.1		57.8								38.2		79.7							
22.6		58.7								38.5		80.1							
23.2		59.7								24.4		49.5							

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 825+00 SB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	CUT	405657.0	2010584.4

Cumulative Penetration in Centimeters

1.8	20.8			
3.2	21.1			
3.9	21.5			
4.7	22.1			
5.5	22.6			
6.0	23.2			
6.5	24.0			
7.0	24.6			
7.4	25.4			
7.7	26.0			
8.0	26.8			
8.3	27.6			
8.8	28.5			
9.1	29.3			
9.3	30.2			
9.5	31.1			
9.8	32.0			
10.1	32.8			
10.4	33.6			
10.6	34.5			
10.8	35.2			
11.1	35.9			
11.4	36.6			
11.6	37.7			
11.8	38.6			
12.0	39.7			
12.6	40.9			
13.0	42.2			
13.1	43.4			
13.4	44.1			
13.6	44.9			
13.8	45.6			
14.1	46.1			
14.4	46.3			
14.7	46.7			
15.0	47.3			
15.2	47.8			
15.4	48.4			
15.8				
16.0				
16.1				
16.4				
16.7				
17.0				
17.3				
17.7				
18.1				
18.5				
18.9				
19.2				
19.7				
20.0				
20.4				

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 851+90 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	408319.9	2010950.8

Cumulative Penetration in Centimeters

0.6	21.1	35.5	48.1	63.7
1.1	21.4	35.8	48.4	64.1
1.7	21.8	35.9	48.6	64.5
2.2	22.0	36.0	48.9	64.7
2.6	22.5	36.2	49.1	65.2
3.0	22.7	36.4	49.4	65.5
3.5	23.1	36.7	49.6	65.8
3.8	23.3	36.8	49.8	66.4
4.2	23.6	37.0	50.0	66.9
4.7	24.0	37.3	50.3	67.3
5.0	24.2	37.6	50.4	67.8
5.3	24.5	37.9	50.7	68.4
5.8	24.8	38.2	51.0	68.8
6.2	25.1	38.4	51.3	69.4
6.4	25.3	38.6	51.5	69.8
6.8	25.6	38.7	51.9	70.3
7.0	26.1	39.0	52.1	70.7
7.5	26.3	39.4	52.4	71.3
7.8	26.4	39.6	52.7	71.7
8.2	26.7	40.0	52.8	72.3
8.7	26.9	40.2	53.0	72.9
9.0	27.1	40.4	53.2	73.5
9.5	27.6	40.8	53.5	74.0
9.8	28.1	41.0	53.8	74.5
10.3	28.5	41.4	54.1	74.8
10.7	29.0	41.5	54.5	75.4
11.3	29.2	41.8	54.9	75.8
11.6	29.6	41.9	55.1	76.7
12.2	29.7	42.1	55.5	77.4
12.6	30.0	42.3	55.8	78.3
12.9	30.3	42.7	56.2	79.2
13.4	30.5	42.9	56.4	79.8
13.7	30.7	43.2	56.9	80.6
13.9	30.9	43.4	57.3	81.4
14.4	31.1	43.7	57.6	82.1
14.9	31.5	43.9	58.0	82.8
15.2	31.6	44.1	58.4	83.2
15.7	31.9	44.4	58.7	83.7
16.0	32.1	44.6	59.1	84.4
16.4	32.3	44.9	59.4	85.3
16.8	32.5	45.0	59.6	86.2
17.2	32.7	45.3	60.0	87.0
17.5	32.9	45.5	60.3	87.9
17.8	33.2	45.7	60.6	88.7
18.1	33.4	46.0	60.8	89.4
18.4	33.6	46.3	61.2	90.2
18.8	33.9	46.5	61.5	90.8
19.2	34.0	46.6	61.8	
19.6	34.4	46.9	62.1	
19.8	34.6	47.1	62.4	
20.2	34.7	47.4	62.6	
20.5	35.0	47.7	63.0	
20.8	35.2	47.9	63.3	

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 851+90 SB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	408318.7	2010964.3

Cumulative Penetration in Centimeters

0.5	19.5	22.6	24.9	27.5	30.3
0.8	19.5	22.6	24.9	27.5	30.4
1.0	19.6	22.7	25.0	27.6	30.4
1.1	19.6	22.7	25.0	27.6	30.5
1.2	19.7	22.7	25.1	27.7	30.5
1.3	19.8	22.8	25.1	27.7	30.5
1.5	19.8	22.8	25.2	27.8	30.6
1.8	19.9	22.9	25.2	27.8	30.6
2.0	20.0	22.9	25.3	27.9	30.7
2.1	20.1	22.9	25.3	27.9	30.7
2.3	20.1	23.0	25.4	28.0	30.7
2.5	20.2	23.0	25.4	28.0	30.8
2.6	20.3	23.1	25.5	28.1	30.8
2.8	20.4	23.1	25.5	28.1	30.8
3.0	20.5	23.2	25.6	28.2	30.9
3.2	20.6	23.2	25.7	28.3	30.9
3.3	20.6	23.2	25.7	28.4	31.0
3.5	20.7	23.3	25.8	28.4	31.0
3.6	20.8	23.3	25.8	28.5	31.1
3.7	20.9	23.4	25.9	28.5	31.1
3.7	20.9	23.4	25.9	28.6	31.2
3.8	21.0	23.4	26.0	28.6	31.2
4.1	21.1	23.5	26.0	28.7	31.3
4.2	21.1	23.5	26.1	28.7	31.3
4.3	21.2	23.6	26.1	28.8	31.4
4.4	21.2	23.6	26.2	28.9	31.4
4.5	21.3	23.6	26.3	29.0	31.4
4.6	21.3	23.6	26.3	29.0	31.4
4.6	21.3	23.7	26.4	29.0	31.5
4.7	21.4	23.7	26.4	29.1	31.5
4.7	21.4	23.7	26.5	29.1	31.5
4.8	21.4	23.8	26.5	29.2	31.5
4.9	21.4	23.8	26.5	29.3	31.5
4.9	21.5	23.8	26.6	29.3	31.5
5.0	21.5	23.9	26.6	29.4	
5.0	21.5	23.9	26.7	29.4	
5.1	21.6	23.9	26.7	29.5	
5.2	21.6	24.0	26.7	29.5	
5.2	21.7	24.0	26.8	29.6	
5.3	21.7	24.0	26.8	29.6	
5.4	21.7	24.1	26.8	29.7	
5.4	21.8	24.1	26.9	29.7	
5.5	21.8	24.2	26.9	29.8	
5.6	21.9	24.2	26.9	29.8	
5.7	21.9	24.2	27.0	29.9	
Auger	22.0	24.3	27.0	29.9	
	22.1	24.3	27.1	30.0	
	22.2	24.4	27.1	30.0	
19.2	22.3	24.4	27.2	30.1	
19.2	22.3	24.5	27.3	30.1	
19.3	22.4	24.6	27.3	30.2	
19.3	22.5	24.7	27.4	30.3	
19.4	22.5	24.9	27.4	30.3	

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 851+90 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	408322.7	2010977.3

Cumulative Penetration in Centimeters

1.5	13.8	22.1	33.4	
2.1	14.1	22.4	33.5	
2.6	14.2	22.7	33.7	
3.1	14.4	22.9	33.8	
3.6	14.6	23.0	34.2	
4.0	14.8	23.4	34.3	
4.2	15.0	23.5	34.5	
4.5	15.1	23.8	34.6	
4.9	15.2	24.0	35.0	
5.2	15.4	24.2	35.2	
5.4	15.5	24.4	35.3	
5.8	15.6	24.6	35.6	
5.9	15.8	24.8	35.7	
6.4	16.0	25.0	35.8	
6.6	16.2	25.3	35.9	
6.9	16.4	25.4	36.1	
7.3	16.6	25.6	36.3	
7.5	16.7	26.0	36.4	
7.8	16.8	26.1	36.6	
8.1	16.9	26.2	36.7	
8.4	17.0	26.4	36.9	
8.6	17.1	26.7	37.0	
8.9	17.3	26.8	37.2	
9.2	17.4	27.1	37.4	
9.5	17.5	27.3	37.6	
9.7	17.7	27.5	37.7	
9.8	17.8	27.7	37.9	
10.0	17.9	27.8	38.1	
10.2	17.9	28.1	38.3	
10.3	18.0	28.3	38.6	
10.4	18.0	28.5	38.7	
10.5	18.0	28.6	38.9	
10.8	18.1	28.8	39.1	
11.0	18.3	29.1	39.2	
11.1	18.4	29.2	39.3	
11.4	18.5	29.4	39.4	
11.5	18.6	29.7	39.5	
11.7	18.7	29.9	39.6	
11.9	18.9	30.3	39.7	
12.0	19.1	30.5	39.8	
12.2	19.2	30.7	39.9	
12.3	19.3	30.9	40.0	
12.6	19.6	31.0	40.2	
12.7	19.7	31.3	40.3	
12.9	20.1	31.5	40.4	
13.0	20.3	31.7	40.5	
13.1	20.5	32.1	40.7	
13.1	20.8	32.3		
13.1	20.9	32.5		
13.2	21.3	32.8		
13.3	21.5	33.0		
13.4	21.7	33.2		
13.6	21.9	33.3		

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

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Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 878+15 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	410921.7	2011329.5

Cumulative Penetration in Centimeters

0.4	27.6	45.7	60.6	78.2
0.8	28.8	46.0	60.9	78.6
1.1	29.4	46.3	61.2	78.9
1.8	30.2	46.6	61.5	79.4
2.4	30.6	46.8	61.8	79.9
3.2	31.1	47.0	62.1	80.3
3.6	31.6	47.3	62.4	80.7
4.0	32.1	47.5	62.7	81.3
4.5	32.5	47.7	62.9	81.7
4.8	32.9	48.1	63.2	82.2
5.0	33.2	48.2	63.5	82.5
5.4	33.5	48.5	63.8	82.9
5.8	33.7	48.8	64.0	83.4
6.2	34.1	49.1	64.2	83.7
6.5	34.3	49.2	64.6	84.2
6.9	34.6	49.5	64.9	84.7
7.3	35.1	49.8	65.2	85.1
7.7	35.5	50.1	65.5	85.7
8.1	36.1	50.2	65.9	86.2
8.6	36.6	50.6	66.2	86.7
9.2	36.9	50.9	66.5	87.2
9.6	37.2	51.1	66.8	87.8
10.2	37.5	51.4	67.1	88.3
10.5	37.7	51.7	67.4	88.8
11.0	38.1	52.0	67.8	89.2
11.4	38.3	52.3	68.0	89.8
12.0	38.7	52.6	68.4	90.1
12.6	39.1	52.8	68.7	90.5
13.1	39.2	53.0	69.1	90.8
13.6	39.5	53.5	69.5	91.1
14.1	39.8	53.8	69.8	91.6
14.7	40.0	54.0	70.3	92.2
15.1	40.3	54.3	70.5	92.8
15.6	40.7	54.5	71.1	93.3
16.0	41.0	54.8	71.4	93.7
16.4	41.3	55.1	71.7	94.2
16.9	41.7	55.4	72.1	94.8
17.4	41.8	55.8	72.3	95.2
17.8	42.1	56.2	72.7	
18.4	42.5	56.4	72.9	
18.8	42.7	56.7	73.4	
19.4	43.0	57.0	73.6	
19.9	43.3	57.3	74.0	
20.2	43.5	57.7	74.5	
20.8	43.7	58.0	75.0	
21.4	43.9	58.3	75.5	
21.9	44.1	58.5	75.9	
22.5	44.4	58.8	76.1	
23.1	44.5	59.1	76.5	
24.1	44.8	59.3	76.9	
24.7	45.1	59.7	77.2	
25.6	45.3	59.9	77.6	
26.5	45.5	60.3	77.9	

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 878+15 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	410911.8	2011360.1

Cumulative Penetration in Centimeters

1.4	24.0	38.6		
1.9	24.3	38.9		
2.6	24.4	39.2		
3.9	24.7	39.4		
5.3	24.8	39.8		
6.6	25.0	40.0		
7.6	25.2	40.5		
9.0	25.5	40.9		
10.0	25.8	41.3		
10.9	26.0	41.7		
11.8	26.3	42.2		
12.4	26.5	42.5		
12.9	27.0	42.9		
13.4	27.1	43.3		
13.8	27.5	43.7		
14.0	27.8	44.1		
14.4	27.9	44.3		
14.7	28.1	44.8		
15.1	28.3	45.1		
15.5	28.5	45.4		
15.7	28.7	45.6		
16.1	28.9	46.0		
16.5	29.1	46.2		
16.8	29.4	46.5		
17.0	29.7	46.9		
17.3	30.0	47.2		
17.6	30.2	47.5		
17.8	30.5	47.7		
18.1	30.6	48.1		
18.3	31.0	48.4		
18.6	31.3	48.8		
18.7	31.4	49.0		
18.8	31.7	49.4		
19.1	32.0	49.6		
19.4	32.2	49.9		
19.7	32.4	50.2		
19.9	32.7	50.7		
20.2	33.0	51.4		
20.5	33.3	51.9		
20.6	33.7	52.4		
20.9	34.0	53.0		
21.1	34.5	53.5		
21.3	34.7	53.8		
21.5	35.2	54.1		
21.7	35.6	54.6		
22.0	35.8	55.0		
22.4	36.2	55.5		
22.5	36.6	56.1		
22.8	36.9	56.6		
23.1	37.2	56.9		
23.4	37.6	57.5		
23.5	37.9			
23.9	38.3			

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 878+15 SB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	410915.9	2011355.2

Cumulative Penetration in Centimeters

1.0	13.2			
1.3	13.5			
1.5	13.8			
1.7	14.0			
2.1	14.2			
2.4	14.5			
2.8	14.7			
3.1	15.0			
3.5	15.3			
3.7	15.5			
4.0	15.7			
4.1	16.0			
4.4	16.1			
4.7	16.2			
4.9	16.3			
5.1	16.4			
5.4	16.5			
5.5	16.7			
5.7	16.9			
6.0	17.2			
6.2	17.3			
6.4	17.6			
6.6	17.8			
6.9	17.9			
7.0	18.0			
7.2	18.1			
7.3	18.3			
7.5	18.4			
7.7	18.5			
7.9	18.6			
8.2	18.8			
8.5	19.0			
8.7	19.1			
9.0	19.3			
9.2	19.4			
9.4	19.5			
9.7	19.6			
9.8	19.8			
9.9	19.9			
10.2	20.2			
10.3	20.3			
10.5	20.5			
10.8	20.6			
10.9	20.7			
11.2	20.8			
11.4	20.9			
11.5	21.0			
11.7				
12.1				
12.2				
12.5				
12.7				
13.0				

Rejected

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 904+75 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	413543.7	2011717.8

Cumulative Penetration in Centimeters

1.1	31.5	68.5		
1.8	32.0	70.3		
2.5	32.8	71.6		
2.9	33.5	73.3		
3.8	34.6	74.2		
4.4	35.2	75.5		
5.0	36.3	76.6		
5.7	37.2	77.8		
6.2	38.1	79.3		
6.6	39.0	80.9		
7.1	39.8	82.5		
7.8	40.9	84.5		
8.3	41.7	86.6		
8.9	42.9	88.7		
9.4	43.7	90.5		
9.9	44.8	92.4		
10.4	45.8	93.9		
10.9	46.6			
11.5	47.0			
12.0	47.6			
12.5	48.2			
13.1	48.7			
13.6	49.1			
14.1	49.6			
14.4	50.0			
14.9	50.5			
15.3	51.1			
15.7	51.7			
16.1	52.1			
16.7	52.7			
17.2	53.5			
17.7	54.0			
18.0	54.6			
18.3	54.9			
18.9	55.0			
19.5	55.7			
19.9	56.1			
20.5	56.7			
21.6	57.2			
22.1	57.9			
23.6	58.5			
24.7	59.1			
25.8	59.8			
26.7	60.5			
27.2	60.9			
27.9	61.4			
28.1	62.0			
28.8	62.7			
29.2	63.5			
29.6	64.1			
30.0	64.8			
30.5	65.8			
30.9	67.1			

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

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Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 904+75 SB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	413546.4	2011725.9

Cumulative Penetration in Centimeters

1.5	27.7	47.0																	
2.7	28.0	47.2																	
3.8	28.4	47.5																	
4.4	28.9	47.8																	
4.8	29.3	48.1																	
5.2	29.7	48.4																	
5.6	30.4	48.8																	
6.0	30.8	49.4																	
6.4	31.1	50.4																	
6.7	31.4	50.7																	
6.9	31.7	50.9																	
7.2	32.2	51.0																	
7.5	32.8	51.2																	
7.9	33.2	51.4																	
8.4	33.5	51.8																	
8.9	33.7	52.1																	
9.2	33.9	52.6																	
9.6	34.1	53.4																	
10.0	34.3	53.9																	
10.3	34.8	54.3																	
10.6	35.3	54.7																	
10.9	35.6	55.0																	
11.4	35.9	55.5																	
11.7	36.3	55.8																	
12.0	36.8	56.1																	
12.5	37.5	56.3																	
13.0	37.8	57.2																	
13.4	38.0	57.9																	
13.8	38.2	58.6																	
14.2	38.6	58.8																	
14.8	39.1	60.0																	
15.0	39.3	60.2																	
15.4	39.7	60.5																	
15.7	39.9	60.9																	
16.4	40.4	61.3																	
17.0	40.8	62.1																	
17.8	41.1	62.7																	
18.3	41.4	63.5																	
19.0	41.8	63.9																	
19.7	42.0	64.5																	
20.3	42.8	65.0																	
20.9	43.1	67.1																	
21.4	43.5	68.2																	
22.0	43.8	68.9																	
23.1	44.1	69.8																	
23.9	44.5	70.7																	
24.2	44.8	72.1																	
25.0	45.1	74.9																	
25.5	45.3	76.9																	
25.9	45.8	78.6																	
26.5	46.1	80.9																	
26.9	46.4	82.5																	
27.3	46.7	84.1																	

TEST LOCATION DESCRIPTION	DATE RUN
-L- 904+75 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	413546.1	2011750.6

Cumulative Penetration in Centimeters

1.4	24.0	38.6																	
1.9	24.2	38.9																	
2.6	24.4	39.3																	
3.9	24.6	39.4																	
5.3	24.8	39.8																	
6.6	25.0	40.0																	
7.6	25.3	40.5																	
9.0	25.5	40.9																	
10.0	25.9	41.3																	
10.8	26.1	41.8																	
11.8	26.3	42.2																	
12.3	26.6	42.6																	
12.8	27.0	43.0																	
13.4	27.2	43.3																	
13.8	27.5	43.8																	
14.1	27.8	44.1																	
14.5	28.0	44.4																	
14.7	28.2	44.7																	
15.1	28.3	45.0																	
15.4	28.5	45.2																	
15.8	28.7	45.6																	
16.1	29.0	46.0																	
16.4	29.2	46.2																	
16.8	29.5	46.5																	
17.0	29.7	46.8																	
17.4	29.9	47.2																	
17.5	30.2	47.4																	
17.8	30.4	47.8																	
18.1	30.8	48.1																	
18.3	30.9	48.5																	
18.5	31.3	48.8																	
18.8	31.5	49.0																	
18.9	31.7	49.3																	
19.1	32.0	49.6																	
19.4	32.1	50.0																	
19.6	32.5	50.2																	
19.9	32.7	50.8																	
20.2	33.1	51.3																	
20.5	33.3	51.9																	
20.7	33.7	52.5																	
20.9	34.1	53.0																	
21.0	34.4	53.3																	
21.3	34.8	53.8																	
21.5	35.2	54.3																	
21.7	35.6	54.6																	
21.9	35.8	55.0																	
22.2	36.2	55.5																	
22.5	36.5	56.0																	
22.8	36.9	56.6																	
23.0	37.2	56.9																	
23.2	37.5	57.5																	
23.5	37.9																		
23.7	38.2																		

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 934+95 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	416544.2	2012158.8

Cumulative Penetration in Centimeters

0.2	30.0	52.0																	
0.4	30.1	52.5																	
0.7	30.1	52.9																	
0.9	30.3	53.3																	
1.1	30.5	53.9																	
1.3	30.8	54.2																	
1.6	31.2	54.8																	
1.7	31.6	55.1																	
1.9	31.9	55.4																	
2.0	32.4	55.9																	
2.2	32.7	56.7																	
2.5	33.0	57.1																	
2.6	33.2	57.7																	
2.7	33.6	58.1																	
2.8	33.9	58.6																	
3.0	34.3	59.1																	
3.1	34.8	59.7																	
3.4	35.4	60.2																	
3.5	35.7	60.8																	
3.6	35.9	61.1																	
3.7	36.5	61.7																	
3.7	37.0	62.2																	
3.8	37.5	63.0																	
3.8	37.8	63.8																	
3.9	38.2	64.3																	
3.9	38.6	65.1																	
4.0	39.2	65.6																	
4.0	39.7	66.1																	
4.1	40.0	66.9																	
4.1	40.3	67.7																	
4.2	40.7	68.2																	
4.2	41.1	69.5																	
4.3	41.4	70.3																	
4.3	41.8	70.9																	
4.4	42.2	72.2																	
4.4	42.7	73.1																	
4.5	43.2	74.3																	
4.5	43.7	75.1																	
4.6	44.3	76.0																	
4.6	44.8	77.2																	
Auger	45.6	78.1																	
	46.1	79.0																	
	46.9	80.2																	
25.2	47.5	81.1																	
26.3	47.9	82.9																	
27.0	48.6	84.4																	
27.3	49.1	86.1																	
27.7	49.8	88.2																	
27.9	50.1	90.4																	
28.2	50.5	92.5																	
28.5	50.8																		
28.7	51.1																		
28.9	51.6																		

TEST LOCATION DESCRIPTION	DATE RUN
-L- 934+95 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	416543.8	2012184.0

Cumulative Penetration in Centimeters

2.2	24.5	48.6																	
3.3	25.0	49.1																	
4.0	25.6	49.5																	
4.8	26.0	50.0																	
5.2	26.6	50.4																	
5.6	27.1	51.1																	
6.1	27.6	51.5																	
6.6	28.2	51.9																	
7.0	28.5	52.5																	
7.5	29.0	53.0																	
7.8	29.6	53.6																	
8.1	30.0	54.1																	
8.3	30.4	54.6																	
8.6	30.9	55.2																	
9.0	31.4	57.9																	
9.5	31.8	58.5																	
9.8	32.3	59.0																	
10.3	32.8	59.6																	
10.7	33.2	60.1																	
11.1	33.7	60.6																	
11.4	34.1	61.1																	
11.9	34.6	61.7																	
12.1	35.1	62.3																	
12.6	35.4	62.8																	
12.8	35.9	63.4																	
14.1	37.7	65.8																	
14.5	38.1	66.5																	
14.9	38.6																		
15.3	39.0																		
15.8	39.5																		
16.1	39.8																		
16.6	40.2																		
17.1	40.6																		
17.4	41.0																		
17.9	41.4																		
18.2	41.8																		
18.6	42.3																		
18.9	42.5																		
19.4	43.0																		
19.8	43.5																		
20.2	43.9																		
20.6	44.3																		
21.0	44.8																		
21.4	45.2																		
21.8	45.6																		
22.3	46.1																		
22.7	46.5																		
23.1	47.0																		
23.6	47.4																		
24.0	48.0																		

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 934+95 SB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	416545.7	2012182.0

Cumulative Penetration in Centimeters

0.5		21.9					
1.1	Auger	22.0					
1.7		22.3					
2.0		22.4					
2.2	9.6	22.5					
2.5	10.3	22.8					
2.7	10.7	23.0					
3.0	10.8	23.1					
3.1	11.2	23.2					
3.5	14.6	23.2					
3.6	14.9	23.3					
3.8	15.0	23.3					
4.0	15.1	23.5					
4.1	15.3	23.6					
4.3	15.5	23.7					
4.4	15.6	23.8					
4.5	16.0	24.0					
4.6	16.1	24.2					
4.7	16.4	24.4					
5.0	16.5	24.6					
5.1	16.7	24.9					
5.4	16.9	25.0					
5.5	17.2	25.2					
5.6	17.3	25.3					
5.7	17.6	25.6					
5.7	17.8	25.8					
5.8	17.9	25.9					
5.8	18.0						
5.8	18.1	Refusal					
5.9	18.2						
5.9	18.3						
6.0	18.4						
6.0	18.6						
6.1	18.9						
6.2	19.0						
6.3	19.2						
6.4	19.4						
6.5	19.6						
6.6	19.8						
6.7	19.9						
6.8	20.0						
7.0	20.1						
7.2	20.2						
7.3	20.3						
7.4	20.4						
7.5	20.5						
7.6	20.7						
7.8	20.9						
7.9	21.2						
8.1	21.3						
8.2	21.5						
8.4	21.7						
8.5	21.8						

TEST LOCATION DESCRIPTION	DATE RUN
-L- 961+00 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	419120.7	2012544.2

Cumulative Penetration in Centimeters

0.9	22.1	39.7	65.7				
1.6	22.5	40.2	66.4				
2.1	22.7	40.5	67.2				
2.7	23.0	40.9	68.0				
3.3	23.4	41.4	68.7				
4.0	23.6	41.7	69.6				
4.4	24.0	42.0	70.3				
4.8	24.2	42.5	71.2				
5.3	24.5	42.8	72.1				
5.7	24.9	43.2	72.8				
6.2	25.2	43.5	73.5				
6.6	25.5	43.9	74.4				
7.1	25.9	44.4	75.5				
7.6	26.2	44.8	76.5				
8.0	26.7	45.2	77.6				
8.5	27.0	45.6	78.6				
8.9	27.2	46.0	79.6				
9.5	27.5	46.4	80.8				
9.8	27.8	46.9	82.1				
9.9	28.1	47.2	83.0				
10.1	28.4	47.7	84.0				
10.5	28.7	48.0	84.8				
10.8	29.1	48.5	85.5				
11.3	29.4	48.8	85.9				
11.6	29.8	49.2	86.5				
12.0	30.2	49.6	87.1				
12.4	30.4	50.1	87.6				
12.8	30.6	50.6					
13.2	31.1	51.1					
13.5	31.6	51.5					
13.9	32.0	52.1					
14.2	32.4	52.5					
14.6	32.6	52.8					
15.0	33.0	53.3					
15.5	33.5	53.6					
15.8	33.8	54.0					
16.3	34.2	54.6					
16.6	34.4	55.1					
17.0	34.8	55.5					
17.2	35.1	56.0					
17.6	35.3	56.5					
18.0	35.7	57.1					
18.4	36.0	57.6					
18.7	36.4	58.3					
19.0	36.7	58.8					
19.4	37.2	59.4					
19.8	37.4	59.9					
20.1	38.0	60.7					
20.5	38.2	61.4					
20.7	38.5	62.0					
21.1	38.8	62.5					
21.5	39.1	63.1					
21.7	39.4	63.6					

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 961+00 SB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	419119.9	2012546.4

Cumulative Penetration in Centimeters

0.3	7.4	12.4	16.4	19.9	23.8
0.7	7.5	12.5	16.4	19.9	23.9
1.0	7.6	12.6	16.5	20.0	24.0
1.1	7.8	12.7	16.6	20.1	24.1
1.2	8.0	12.8	16.7	20.1	24.2
1.4	8.1	12.9	16.8	20.2	24.3
1.5	8.2	13.0	16.8	20.3	24.5
1.7	8.3	13.1	16.9	20.3	24.6
1.8	8.4	13.1	16.9	20.4	24.7
2.0	8.5	13.2	17.0	20.4	24.8
2.2	8.6	13.2	17.0	20.5	24.9
2.4	8.7	13.3	17.0	20.6	25.0
2.5	8.8	13.3	17.1	20.6	25.1
2.8	8.9	13.4	17.1	20.7	25.3
2.9	9.0	13.4	17.1	20.8	25.4
3.0	9.1	13.5	17.2	20.8	25.5
3.1	9.2	13.5	17.2	20.9	25.6
3.2	9.3	13.6	17.2	20.9	25.7
3.3	9.4	13.6	17.3	21.0	25.8
3.4	9.5	13.7	17.3	21.0	25.9
3.6	9.6	13.7	17.4	21.1	26.0
3.7	9.7	13.8	17.4	21.1	26.1
3.9	9.8	13.9	17.4	21.2	26.2
4.0	9.9	13.9	17.5	21.3	26.3
4.1	10.0	14.0	17.5	21.3	26.4
4.2	10.1	14.0	17.6	21.4	
4.3	10.2	14.1	17.6	21.4	
4.5	10.3	14.1	17.6	21.5	
4.6	10.3	14.2	17.7	21.6	
4.7	10.4	14.3	17.7	21.7	
4.8	10.4	14.3	17.8	21.8	
4.9	10.5	14.4	17.9	21.9	
5.0	10.6	14.4	18.0	22.0	
5.1	10.6	14.5	18.1	22.1	
5.2	10.7	14.6	18.2	22.2	
5.3	10.8	14.7	18.3	22.3	
5.4	10.8	14.8	18.4	22.4	
5.5	10.9	14.9	18.5	22.5	
5.6	11.0	15.0	18.6	22.5	
5.7	11.1	15.1	18.7	22.6	
5.9	11.2	15.2	18.8	22.7	
6.1	11.3	15.3	18.9	22.8	
6.2	11.4	15.4	19.0	22.9	
6.4	11.5	15.5	19.1	22.9	
6.5	11.6	15.6	19.2	23.0	
6.6	11.7	15.7	19.3	23.1	
6.7	11.8	15.8	19.4	23.2	
6.8	11.9	15.9	19.4	23.3	
6.9	12.0	16.0	19.5	23.4	
7.0	12.1	16.1	19.5	23.5	
7.1	12.2	16.2	19.6	23.6	
7.2	12.3	16.2	19.7	23.7	
7.3	12.4	16.3	19.8	23.7	

TEST LOCATION DESCRIPTION	DATE RUN
-L- 961+00 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	419116.9	2012574.4

Cumulative Penetration in Centimeters

1.3	27.3	43.2	60.1		
2.0	27.6	43.5	60.5		
2.6	28.0	43.8	61.0		
3.3	28.3	44.0	61.4		
3.8	28.6	44.2	61.9		
4.3	29.0	44.4	62.3		
5.0	29.3	44.7	62.8		
5.5	29.6	45.0	63.2		
6.1	30.0	45.2	63.8		
6.6	30.3	45.5	64.1		
7.3	30.7	45.7	64.6		
7.9	31.0	46.1	65.1		
8.6	31.3	46.3	65.6		
9.2	31.8	46.7	66.0		
9.9	32.1	47.0	66.6		
10.8	32.3	47.2	67.1		
11.5	32.7	47.5	67.5		
12.3	33.0	47.8	68.0		
13.2	33.2	48.1	68.4		
14.0	33.5	48.3	68.9		
14.6	33.9	48.6	69.4		
15.0	34.1	48.8	69.8		
15.4	34.4	49.1	70.4		
16.0	34.8	49.3	70.9		
16.5	35.1	49.6	71.5		
17.0	35.4	49.9	72.0		
17.4	35.7	50.1	72.5		
17.8	36.0	50.4	72.8		
18.4	36.2	50.8	73.4		
18.8	36.4	51.0	73.8		
19.2	36.7	51.4	74.1		
19.7	37.0	51.6	74.6		
20.2	37.2	52.0	75.2		
20.5	37.6	52.3	75.7		
21.0	37.9	52.7	76.2		
21.3	38.2	53.1	76.8		
21.6	38.5	53.4	77.2		
22.0	38.8	53.9	77.7		
22.1	39.1	54.2	78.4		
22.5	39.3	54.6	78.9		
22.8	39.8	54.9	79.5		
23.2	40.0	55.4	80.1		
23.4	40.3	55.5	80.6		
23.8	40.5	56.0	81.0		
24.1	40.7	56.3	81.5		
24.5	40.9	56.7	81.8		
24.8	41.2	57.1	82.3		
25.2	41.5	57.6	83.0		
25.6	41.7	57.9	83.4		
26.0	42.0	58.4	84.0		
26.3	42.3	58.9	84.5		
26.7	42.6	59.3	85.2		
27.0	42.9	59.7			

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
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CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 987+25 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	421687.4	2013129.6

Cumulative Penetration in Centimeters

1.1	20.5	39.5	54.3	68.5	0.9	11.7	19.3	26.5						
2.0	20.8	39.8	54.5	68.9	1.6	11.9	19.6	26.6						
2.7	22.1	40.2	54.8	69.0	2.4	12.0	19.8	26.7						
3.3	22.5	40.3	55.0	69.4	2.9	12.1	20.0	26.8						
3.8	22.8	40.6	55.2	69.8	3.3	12.3	20.1	27.0						
4.2	23.3	41.0	55.3	70.0	3.6	12.5	20.2	27.1						
4.7	23.6	41.4	55.6	70.4	3.9	12.6	20.3	27.2						
5.2	24.0	41.5	55.9	70.6	4.2	12.7	20.4	27.3						
5.6	24.3	41.8	56.0	70.9	4.5	12.8	20.6	27.4						
6.1	24.6	42.3	56.3	71.2	4.8	13.1	20.7	27.6						
6.6	25.0	42.5	56.6	71.6	5.1	13.2	20.8	27.7						
6.8	25.3	42.7	56.9	71.9	5.2	13.3	20.9							
6.9	25.6	42.8	57.2	72.3	5.3	13.4	21.0							
7.2	25.8	43.1	57.5	72.7	5.4	13.6	21.1							
7.4	26.2	43.4	57.8	73.2	5.6	13.7	21.2							
7.6	26.5	43.5	58.1	73.5	5.7	13.8	21.3							
7.9	26.8	43.8	58.3	73.8	6.0	14.0	21.5							
8.2	27.0	44.1	58.7	74.3	6.3	14.2	21.6							
8.7	27.3	44.5	58.9	74.8	6.6	14.4	21.7							
9.0	27.7	44.7	59.3	75.1	6.9	14.5	21.9							
9.4	28.0	45.1	59.4	75.5	7.1	14.6	22.1							
9.9	28.3	45.3	59.8	76.2	7.3	14.8	22.2							
10.2	28.6	45.6	59.9	77.0	7.4	15.0	22.4							
10.5	29.0	45.9	60.3	77.5	7.5	15.1	22.5							
10.8	29.1	46.2	60.5	78.4	7.6	15.3	22.7							
11.3	29.6	46.4	60.9	79.0	7.8	15.4	22.8							
11.7	29.9	46.7	61.1	79.7	8.0	15.5	23.0							
11.9	30.2	47.2	61.4	80.4	8.3	15.6	23.3							
12.3	30.7	47.4	61.7	81.0	8.6	15.8	23.4							
12.6	31.0	47.8	61.9	81.5	8.8	15.9	23.5							
13.0	31.4	48.2	62.2	82.2	9.0	16.2	23.8							
13.3	31.9	48.5	62.4	84.0	9.0	16.3	23.9							
13.7	32.3	48.9	62.7	85.7	9.1	16.5	24.0							
14.0	32.9	49.1	63.0	87.9	9.2	16.6	24.2							
14.3	33.3	49.5	63.3	90.2	9.3	16.8	24.3							
14.6	33.7	49.8	63.5	93.0	9.4	17.0	24.4							
15.0	34.2	50.0	63.6	96.1	9.5	17.1	24.5							
15.3	34.8	50.2	63.9	98.6	9.6	17.2	24.6							
15.7	35.2	50.4	64.1	100.7	9.7	17.3	24.7							
16.2	35.4	50.6	64.3	103.5	9.9	17.4	24.8							
16.5	35.6	51.0	64.6		10.0	17.5	24.9							
16.8	36.1	51.1	65.0		10.1	17.6	25.0							
17.1	36.3	51.3	65.2		10.2	17.7	25.1							
17.5	36.6	51.6	65.5		10.4	17.8	25.1							
17.7	36.9	51.9	65.9		10.5	17.9	25.3							
18.1	37.1	52.2	66.2		10.6	18.0	25.4							
18.5	37.5	52.5	66.4		10.8	18.1	25.6							
18.8	37.8	52.7	66.6		10.9	18.3	25.7							
19.2	38.0	52.9	67.0		11.0	18.4	25.8							
19.4	38.4	53.3	67.3		11.1	18.5	25.9							
19.8	38.5	53.6	67.6		11.3	18.7	26.0							
20.0	38.9	53.8	67.9		11.4	18.9	26.1							
20.2	39.2	54.1	68.2		11.6	19.1	26.4							

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1010+15 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	423772.4	2014097.7

Cumulative Penetration in Centimeters

0.6	33.5	53.7	81.4		0.3	12.7	21.3	27.7	33.4					
1.2	33.9	54.0	81.8		0.8	13.0	21.4	27.8	33.5					
1.7	34.1	54.5	82.2		1.0	13.4	21.6	27.9	33.6					
2.3	34.6	55.0	82.5		1.4	13.7	21.7	28.1	33.7					
2.9	34.8	55.6	83.0		1.8	14.0	21.8	28.2	33.8					
3.5	35.3	56.0	83.5		2.1	14.4	21.9	28.3	33.9					
4.1	35.5	56.2	84.0		2.6	14.7	22.0	28.4	34.0					
4.6	35.8	56.5	84.4		2.9	14.9	22.2	28.5	34.1					
5.0	36.2	57.0	85.0		3.2	15.0	22.3	28.6	34.2					
5.5	36.5	57.5	85.4		3.5	15.2	22.4	28.7	34.3					
6.1	36.8	58.1	86.0		3.8	15.5	22.6	28.8	34.4					
6.5	37.1	58.5	86.4		4.0	15.7	22.7	28.9	34.6					
7.0	37.5	59.0	86.9		4.2	15.8	22.8	29.0	34.7					
7.5	37.7	59.5	87.3		4.5	16.0	22.9	29.1	34.8					
8.1	38.0	59.9	87.7		4.9	16.3	23.0	29.2	34.9					
8.6	38.2	60.5	88.2		5.0	16.4	23.2	29.3	35.0					
9.2	38.5	61.0	88.6		5.5	16.6	23.4	29.4	35.0					
9.6	38.7	61.7	89.1		5.8	16.8	23.5	29.5	35.1					
10.1	39.0	62.2	89.5		5.9	16.9	23.7	29.6	35.2					
10.6	39.3	62.8	89.8		6.3	17.1	23.8	29.6	35.3					
11.3	39.7	63.4	90.2		6.5	17.2	23.9	29.7	35.3					
11.7	40.0	63.9	90.6		6.8	17.3	24.0	29.8	35.4					
12.1	40.4	64.6	91.0		7.0	17.4	24.2	29.9	35.5					
12.5	40.8	65.2	91.5		7.1	17.5	24.3	30.0	35.6					
13.1	41.2	65.9	91.9		7.4	17.6	24.5	30.1	35.7					
13.7	41.5	66.5	92.6		7.6	17.7	24.6	30.2	35.7					
14.2	41.7	67.1	93.0		7.8	17.9	24.7	30.3	35.8					
14.5	42.0	67.8	93.4		8.0	18.0	24.8	30.4	35.9					
15.2	42.6	68.4	94.0		8.3	18.1	24.9	30.5	36.0					
15.5	43.4	69.1	94.3		8.5	18.2	25.0	30.6	36.1					
16.1	43.9	69.7	94.6		8.8	18.3	25.1	30.7	36.2					
16.6	44.2	70.3	95.0		9.0	18.4	25.2	30.8	36.2					
17.1	44.5	70.9	95.5		9.1	18.5	25.3	30.9	36.3					
17.7	44.8	71.5	95.9		9.2	18.6	25.4	31.0						
18.3	45.1	72.0	96.4		9.3	18.7	25.5	31.2						
18.9	45.3	72.7	96.7		9.4	18.8	25.6	31.3						
19.4	45.6	73.5	97.0		9.5	18.9	25.7	31.4						
20.1	46.2	74.3	97.6		9.6	19.0	25.8	31.6						
20.6	46.9	74.8	98.0		9.8	19.1	25.9	31.7						
21.3	47.5	75.1	98.6		9.9	19.3	26.0	31.8						
21.8	48.0	75.6	99.2		10.2	19.4	26.1	32.0						
22.5	48.5	76.1	99.7		10.3	19.5	26.2	32.1						
23.1	49.0	76.6			10.5	19.6	26.3	32.2						
23.6	49.3	77.1			10.8	19.7	26.4	32.3						
24.2	49.8	77.6			10.9	19.8	26.6	32.5						
25.0	50.2	78.2			11.2	20.0	26.7	32.6						
25.7	50.7	78.6			11.4	20.1	26.9	32.7						
26.6	51.2	79.1			11.5	20.2	27.0	32.8						
27.9	51.6	79.4			11.8	20.4	27.1	32.9						
29.3	52.0	79.9			12.0	20.6	27.2	33.0						
30.7	52.5	80.3			12.1	20.8	27.3	33.1						
32.1	52.9	80.6			12.2	21.0	27.4	33.2						
32.8	53.3	81.0			12.4	21.1	27.6	33.3						

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1010+15 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	423753.2	2014119.6

Cumulative Penetration in Centimeters

5.4	30.0	44.7	57.3
8.5	30.1	45.0	57.6
11.6	30.2	45.3	57.9
14.2	30.6	45.6	58.2
15.6	30.7	45.9	58.4
16.4	31.2	46.2	58.8
17.3	31.4	46.4	59.1
18.1	31.8	46.5	59.3
18.5	32.1	46.8	59.5
19.0	32.3	47.0	59.8
19.5	32.7	47.3	60.0
19.9	33.0	47.6	60.2
20.3	33.2	47.9	60.5
20.6	33.5	48.1	60.7
21.2	33.7	48.5	60.9
21.7	34.0	48.7	61.2
22.2	34.3	49.0	61.4
22.5	34.6	49.1	61.8
22.8	34.8	49.4	62.2
23.1	35.2	49.5	62.5
23.3	35.4	49.8	62.7
23.7	35.8	50.0	63.1
23.9	36.0	50.2	63.4
24.0	36.2	50.5	63.7
24.1	36.5	50.7	64.1
24.2	36.6	51.0	64.4
24.4	37.0	51.2	64.7
24.7	37.2	51.5	
24.8	37.5	51.6	
24.9	37.7	51.9	
25.2	37.9	52.1	
25.4	38.2	52.2	
25.6	38.5	52.5	
25.7	38.8	52.7	
26.0	39.1	52.8	
26.2	39.4	53.1	
26.4	39.7	53.4	
26.5	40.0	53.6	
26.8	40.2	53.8	
26.9	40.5	54.0	
27.2	40.7	54.1	
27.3	40.9	54.5	
27.4	41.2	54.7	
27.7	41.5	54.8	
27.9	41.8	55.1	
28.0	42.2	55.3	
28.4	42.4	55.6	
28.6	42.7	55.8	
29.0	43.0	56.1	
29.2	43.4	56.4	
29.6	43.8	56.7	
29.8	44.1	56.8	
29.9	44.4	57.1	

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1037+30 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	425985.3	2015670.1

Cumulative Penetration in Centimeters

0.6	14.1	28.0	40.4	53.7	70.6
1.1	14.4	28.2	40.6	53.8	71.0
1.8	14.6	28.6	40.8	54.2	71.3
2.1	14.9	28.7	41.0	54.5	71.7
2.2	15.2	28.9	41.3	54.6	72.0
2.6	15.6	29.3	41.6	54.8	72.4
2.8	15.8	29.6	41.8	55.1	72.6
3.0	16.1	29.7	42.2	55.3	72.8
3.1	16.4	29.9	42.5	55.7	73.2
3.3	16.7	30.0	42.8	56.2	73.5
3.5	17.0	30.3	43.0	56.8	73.7
3.6	17.2	30.6	43.3	57.3	74.1
3.8	17.5	30.8	43.5	57.8	74.3
4.0	17.9	31.0	43.7	58.2	74.7
4.4	18.1	31.1	44.0	58.5	75.2
4.5	18.4	31.3	44.2	58.7	75.6
4.9	18.6	31.5	44.5	59.0	76.0
5.0	19.0	31.7	44.9	59.3	
5.2	19.2	31.8	45.1	59.5	
5.5	19.5	32.1	45.3	59.8	
5.7	19.8	32.4	45.6	60.2	
5.8	20.0	32.6	45.8	60.4	
6.0	20.4	32.9	46.1	60.6	
6.3	20.7	33.0	46.2	60.7	
6.6	21.0	33.3	46.4	61.0	
6.7	21.1	33.6	46.7	61.3	
7.0	21.5	33.9	47.0	61.5	
7.1	21.7	34.1	47.3	61.8	
7.4	21.8	34.2	47.7	62.2	
7.6	21.9	34.4	47.9	62.5	
7.8	22.1	34.7	48.1	62.8	
8.1	22.2	34.9	48.4	63.2	
8.3	22.5	35.2	48.5	63.5	
8.7	22.8	35.4	48.7	63.6	
9.0	23.0	35.6	49.0	64.0	
9.2	23.2	35.8	49.1	64.1	
9.5	23.6	36.1	49.4	64.3	
9.6	23.8	36.4	49.7	64.6	
10.1	24.1	36.7	50.0	64.8	
10.3	24.3	36.9	50.1	65.2	
10.6	24.7	37.1	50.4	65.5	
10.8	25.0	37.3	50.7	65.9	
11.1	25.2	37.5	51.0	66.1	
11.3	25.3	37.7	51.3	66.5	
11.5	25.6	37.9	51.6	66.8	
11.7	25.8	38.2	51.9	67.2	
12.0	26.0	38.5	52.2	67.6	
12.1	26.2	38.8	52.4	68.2	
12.4	26.6	39.2	52.8	68.5	
12.7	26.7	39.4	52.9	68.7	
13.2	27.0	39.6	53.2	69.0	
13.5	27.3	39.8	53.3	69.2	
13.7	27.7	40.2	53.5	69.5	

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1037+30 SB OSL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	425977.0	2015676.5

Cumulative Penetration in Centimeters

0.6	15.0	27.0	36.7
0.9	15.3	27.1	36.9
1.5	15.6	27.4	37.1
1.7	15.9	27.6	37.4
2.0	16.1	27.8	37.6
2.1	16.4	27.9	37.7
2.4	16.6	28.1	37.8
2.8	16.9	28.2	38.1
3.3	17.2	28.3	38.2
3.7	17.5	28.6	38.5
4.0	17.8	28.7	38.6
4.3	18.3	28.9	38.7
4.6	18.5	29.0	38.9
4.8	18.9	29.2	39.1
5.0	19.0	29.5	39.3
5.3	19.2	29.6	39.4
5.4	19.4	29.7	39.5
5.8	19.6	29.9	39.7
6.0	19.8	30.2	
6.3	20.2	30.4	
6.6	20.4	30.7	
6.7	20.7	30.8	
7.1	20.9	31.0	
7.3	21.2	31.3	
7.7	21.4	31.4	
8.0	21.7	31.7	
8.2	22.0	31.9	
8.5	22.1	32.2	
8.6	22.3	32.4	
8.9	22.4	32.5	
9.1	22.6	32.7	
9.3	22.8	32.9	
9.5	23.1	33.0	
9.8	23.3	33.2	
10.1	23.5	33.4	
10.2	23.7	33.6	
10.3	23.9	33.8	
10.6	24.0	33.9	
10.7	24.2	34.1	
11.0	24.3	34.3	
11.3	24.5	34.5	
11.7	24.8	34.7	
12.0	25.1	34.8	
12.3	25.2	35.1	
12.5	25.4	35.2	
12.8	25.5	35.4	
13.0	25.8	35.6	
13.4	25.9	35.7	
13.6	26.1	35.9	
13.9	26.3	36.0	
14.3	26.4	36.2	
14.6	26.5	36.5	
14.8	26.9	36.6	

DCP

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1037+30 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	425962.6	2015709.0

Cumulative Penetration in Centimeters

0.5	27.7	40.0			
0.9	27.9	40.2			
1.3	28.2	40.4			
1.7	28.3	40.7			
2.1	28.6	40.9			
2.5	28.8	41.3			
3.0	29.0	41.5			
3.3	29.3	41.8			
3.8	29.5	41.9			
4.3	29.8	42.1			
5.6	30.0	42.4			
6.8	30.3	42.5			
7.3	30.5	42.6			
7.8	30.8				
8.4	31.1				
8.9	31.4				
9.4	31.6				
10.1	31.7				
10.6	32.0				
11.2	32.3				
12.0	32.5				
12.6	32.6				
13.2	32.8				
13.9	32.9				
14.5	33.0				
15.1	33.2				
15.6	33.4				
16.2	33.7				
16.8	34.0				
17.4	34.3				
18.1	34.5				
18.8	34.8				
19.4	35.1				
20.0	35.3				
20.6	35.6				
21.3	36.0				
21.8	36.3				
22.5	36.5				
23.2	36.6				
23.7	36.8				
23.9	37.0				
24.2	37.3				
24.7	37.6				
25.0	37.8				
25.3	37.9				
25.6	38.2				
25.9	38.5				
26.2	38.7				
26.5	38.9				
26.8	39.1				
27.0	39.3				
27.2	39.6				
27.4	39.8				

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
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ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

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CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION: -L- 1037+30 SB ISL — **DATE RUN:** 12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	425966.5	2015698.5

Cumulative Penetration in Centimeters

0.5	23.4	35.9			
0.8	23.8	36.1			
1.3	24.2	36.3			
1.7	24.6	36.4			
2.0	25.1	36.7			
2.5	25.6	36.9			
2.8	26.0	37.0			
3.2	26.5	37.2			
3.6	26.9	37.3			
3.9	27.2	37.5			
4.3	27.6	37.6			
4.8	28.0	37.8			
5.1	28.3	38.0			
5.6	28.5	38.2			
6.0	28.7	38.3			
6.4	28.9	38.5			
6.9	29.2	38.8			
7.4	29.5	38.9			
8.0	29.6				
8.5	29.9				
9.0	30.2				
9.4	30.4				
9.7	30.5				
10.1	30.8				
10.5	31.0				
10.9	31.2				
11.1	31.3				
11.5	31.4				
11.7	31.6				
11.9	31.7				
12.2	31.8				
12.7	31.9				
13.2	32.2				
13.6	32.3				
14.1	32.6				
14.6	32.7				
15.2	32.9				
15.7	33.2				
16.3	33.4				
16.8	33.7				
17.4	33.9				
17.8	34.0				
18.4	34.1				
18.9	34.2				
19.3	34.3				
19.8	34.4				
20.3	34.7				
20.8	34.8				
21.0	35.1				
21.5	35.4				
22.0	35.5				
22.4	35.6				
22.8	35.7				

TEST LOCATIONS DESCRIPTION: -L- 1053+70 SB OSS — **DATE RUN:** 12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	427301.2	2016643.6

Cumulative Penetration in Centimeters

0.9	11.8	16.5	22.2	28.9	35.7
1.7	11.9	16.6	22.3	29.0	35.8
2.0	12.0	16.7	22.4	29.1	36.0
2.3	12.2	16.8	22.5	29.1	36.1
2.7	12.3	16.9	22.6	29.2	36.3
3.0	12.5	17.2	22.7	29.3	36.4
3.3	12.6	17.4	22.8	29.4	36.6
3.6	12.7	17.5	22.9	29.5	36.8
4.0	12.8	17.7	23.0	29.6	36.9
4.2	13.0	17.8	23.1	29.7	37.0
4.5	13.1	17.9	23.2	29.8	37.1
5.0	13.2	18.0	23.3	29.9	37.4
5.3	13.3	18.1	23.4	30.1	37.5
5.5	13.5	18.2	23.5	30.2	37.6
5.9	13.5	18.3	23.6	30.3	37.7
6.3	13.5	18.3	23.7	30.3	37.7
6.5	13.6	18.4	23.8	30.5	37.7
6.6	13.6	18.5	23.9	30.6	37.8
7.0	13.6	18.5	24.0	30.7	37.9
7.1	13.7	18.6	24.1	30.8	38.0
7.3	13.7	18.7	24.3	30.9	37.9
7.6	13.7	18.7	24.4	31.0	38.0
7.8	13.8	18.8	24.7	31.2	38.1
7.9	13.8	18.9	24.8	31.3	38.2
8.1	13.8	19.0	25.1	31.4	38.4
8.2	13.9	19.1	25.2	31.5	38.5
8.3	14.0	19.1	25.3	31.6	38.7
8.4	14.1	19.2	25.4	31.8	38.8
8.6	14.2	19.3	25.6	32.0	38.9
8.7	14.3	19.4	25.7	32.1	39.0
8.8	14.3	19.5	25.9	32.2	39.1
9.0	14.4	19.6	26.2	32.3	39.3
9.1	14.5	19.6	26.3	32.4	39.4
9.3	14.5	19.7	26.5	32.7	39.5
9.6	14.6	19.8	26.6	32.8	39.7
9.8	14.7	19.9	26.7	32.9	39.9
10.0	14.8	20.0	27.0	33.0	40.1
10.1	14.9	20.1	27.1	33.2	40.2
10.2	15.0	20.2	27.3	33.4	40.4
10.3	15.1	20.3	27.5	33.5	40.6
10.4	15.2	20.4	27.6	33.7	40.7
10.5	15.2	20.5	27.7	34.0	41.0
10.7	15.3	20.5	27.8	34.2	41.1
10.8	15.4	20.7	27.9	34.3	41.3
10.9	15.5	20.8	28.0	34.5	41.5
11.0	15.6	21.0	28.1	34.6	
11.1	15.7	21.1	28.3	34.7	
11.2	15.8	21.3	28.4	34.8	
11.3	15.9	21.4	28.6	34.9	
11.4	16.0	21.6	28.7	35.1	
11.5	16.2	21.8	28.8	35.2	
11.6	16.4	22.0	28.8	35.4	
11.7	16.5	22.1	28.9	35.5	

DCP Refusal

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION: -L- 1053+70 SB OSL2 — **DATE RUN:** 12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	427289.1	2016659.1

Cumulative Penetration in Centimeters

1.2	15.5	27.3	34.5		
2.2	15.7	27.5	34.7		
2.7	16.1	27.7	34.8		
3.3	16.5	27.8	34.9		
3.5	16.7	28.0	35.0		
3.8	17.0	28.1	35.1		
4.1	17.2	28.4	35.2		
4.4	17.4	28.5	35.3		
4.6	17.6	28.7	35.4		
4.8	17.7	28.9	35.5		
5.0	17.9	29.1	35.6		
5.3	18.1	29.2	35.7		
5.6	18.2	29.5	35.8		
5.8	18.4	29.6	35.9		
6.1	18.5	29.7	36.0		
6.4	18.7	29.9	36.1		
6.8	19.0	30.0	36.2		
7.2	19.3	30.1	36.3		
7.4	19.5	30.3	36.4		
7.6	19.7	30.4	36.5		
7.9	20.0	30.5	36.6		
8.1	20.3	30.6	36.7		
8.4	20.4	30.7	36.8		
8.5	20.6	30.8	36.9		
8.7	21.0	30.9	37.0		
8.9	21.2	31.0			
9.2	21.4	31.1			
9.4	21.5	31.3			
9.7	21.7	31.4			
10.0	21.9	31.5			
10.2	22.1	31.6			
10.6	22.5	31.8			
10.9	22.8	31.9			
11.2	23.2	32.0			
11.4	23.5	32.1			
11.6	23.9	32.2			
11.9	24.0	32.5			
12.1	24.3	32.6			
12.2	24.5	32.8			
12.4	24.6	32.9			
12.5	24.8	33.0			
12.9	25.0	33.1			
13.0	25.2	33.2			
13.2	25.4	33.3			
13.6	25.5	33.4			
14.0	25.7	33.7			
14.3	25.9	33.8			
14.6	26.2	33.9			
15.0	26.4	34.0			
15.1	26.5	34.1			
15.2	26.8	34.2			
15.3	27.0	34.3			
15.4	27.1	34.4			

DCP Refusal

TEST LOCATIONS DESCRIPTION: -L- 1053+70 SB OSL1 — **DATE RUN:** 12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	427295.8	2016645.4

Cumulative Penetration in Centimeters

0.4	13.9	27.7	40.2	53.6	68.3
0.9	14.1	28.0	40.4	53.8	68.4
1.4	14.4	28.3	40.6	54.0	68.6
1.7	14.7	28.4	40.9	54.2	68.8
1.9	15.1	28.6	41.0	54.3	69.1
2.2	15.4	28.9	41.3	54.5	69.5
2.4	15.6	29.2	41.5	54.7	69.8
2.7	15.9	29.4	41.7	54.9	69.9
2.9	16.2	29.6	42.0	55.2	70.3
3.1	16.4	29.8	42.3	55.5	70.7
3.3	16.6	30.0	42.7	55.7	71.0
3.5	17.0	30.2	42.9	56.0	71.2
3.6	17.2	30.5	43.2	56.3	71.6
3.8	17.7	30.6	43.6	56.6	71.9
4.0	18.0	30.8	43.8	57.0	72.3
4.3	18.3	31.1	44.1	57.3	72.7
4.4	18.4	31.3	44.4	57.6	73.0
4.6	18.8	31.5	44.5	58.0	73.2
4.8	19.0	31.8	44.7	58.1	73.4
5.1	19.3	32.0	45.0	58.5	73.8
5.4	19.6	32.3	45.1	58.8	74.0
5.6	19.7	32.5	45.3	59.2	74.4
5.9	20.0	32.6	45.5	59.4	74.8
6.1	20.2	32.9	45.8	59.7	75.2
6.3	20.6	33.1	46.0	60.0	75.5
6.5	20.7	33.3	46.2	60.2	
6.7	21.0	33.5	46.5	60.4	
6.9	21.2	33.6	46.7	60.7	
7.0	21.5	33.9	47.0	61.0	
7.3	21.7	34.1	47.3	61.2	
7.6	21.9	34.3	47.4	61.5	
8.0	22.0	34.6	47.7	61.7	
8.1	22.2	34.7	48.0	62.0	
8.4	22.5	35.0	48.4	62.3	
8.8	22.6	35.2	48.6	62.6	
9.0	23.0	35.4	49.0	62.9	
9.2	23.2	35.8	49.3	63.2	
9.5	23.6	36.0	49.4	63.4	
9.8	23.9	36.3	49.7	63.6	
10.0	24.1	36.4	49.9	63.9	
10.3	24.4	36.6	50.1	64.1	
10.5	24.7	36.9	50.4	64.3	
10.7	25.0	37.3	50.8	64.5	
11.0	25.1	37.5	51.1	64.7	
11.3	25.4	37.8	51.4	65.0	
11.4	25.5	38.0	51.7	65.4	
11.7	25.7	38.2	51.8	65.7	
11.9	25.9	38.4	52.0	66.1	
12.3	26.3	38.8	52.3	66.5	
12.6	26.4	39.0	52.6	66.9	
12.9	26.7	39.3	52.9	67.2	
13.3	27.0	39.6	53.2	67.6	
13.5	27.4	39.9	53.5	68.0	

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1063+70 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	428096.8	2017243.6

Cumulative Penetration in Centimeters

0.2	14.4	31.2	42.8		
0.6	15.0	31.4	43.0		
0.7	15.6	31.7	43.2		
1.0	16.1	31.8	43.4		
1.3	16.4	32.1	43.5		
1.5	16.8	32.3	43.7		
1.8	16.9	32.5	44.0		
1.9	17.3	32.7	44.2		
2.3	17.6	32.9	44.4		
2.5	17.9	33.1	44.6		
2.8	18.4	33.4	44.7		
3.1	18.8	33.7	44.9		
3.4	19.1	33.9	45.1		
3.5	19.5	34.1	45.2		
3.9	19.8	34.4	45.4		
4.2	20.1	34.6	45.8		
4.5	20.5	34.9	46.0		
4.6	21.0	35.1	46.2		
4.9	21.3	35.3	46.3		
5.2	21.7	35.5	46.6		
5.5	21.8	35.7	46.7		
5.6	22.1	35.9	46.9		
5.7	22.5	36.0	47.2		
5.9	22.7	36.3			
6.2	23.0	36.4			
6.3	23.4	36.6			
6.4	23.8	36.9			
6.6	24.1	37.1			
6.7	24.5	37.2			
7.0	24.9	37.4			
7.2	25.2	37.7			
7.5	25.5	38.0			
7.7	25.8	38.2			
8.1	26.2	38.4			
8.3	26.4	38.7			
8.5	26.5	38.8			
8.7	26.7	39.0			
9.0	26.8	39.2			
9.1	27.0	39.4			
9.4	27.4	39.7			
9.6	27.8	39.8			
9.8	28.0	40.1			
10.1	28.3	40.4			
10.3	28.7	40.5			
10.5	29.0	40.7			
10.7	29.2	41.0			
10.9	29.5	41.1			
11.2	29.7	41.4			
11.4	29.8	41.6			
11.5	30.1	41.8			
12.2	30.3	42.0			
13.0	30.7	42.3			
13.7	31.0	42.6			

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATION DESCRIPTION	DATE RUN
-L- 1091+30 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	430351.8	2018848.8

Cumulative Penetration in Centimeters

0.3	20.0	26.3	45.9	86.0	
0.6	20.4	26.5	46.5	87.1	
0.8	20.6	26.7	47.4	88.1	
1.0	20.7	26.9	48.7	89.6	
1.1	20.8	27.1	49.6	90.3	
1.3	20.9	27.3	50.5	91.2	
1.5	21.0	27.5	51.3	92.7	
1.6	21.1	27.7	52.0	93.8	
1.8	21.2	27.9	52.8	95.1	
2.0	21.4	28.1	53.3	96.5	
2.1	21.5	28.2	53.9	97.4	
2.2	21.6	28.4	54.6	99.1	
2.5	21.7	28.5	55.0	100.3	
2.6	21.8	28.6	55.5	101.6	
2.7	21.9	28.8	55.9	102.4	
2.8	22.0	29.2	56.4	103.1	
3.0	22.1	29.3	56.8	104.5	
3.1	22.2	29.5	57.3		
3.2	22.3	29.6	57.7		
3.4	22.4	29.8	58.1		
3.6	22.5	29.9	58.6		
3.8	22.6	30.2	59.0		
3.9	22.7	30.4	59.6		
4.1	22.8	30.5	60.0		
4.2	22.9	30.7	60.7		
4.3	23.1	31.3	61.1		
4.5	23.2	31.7	61.8		
4.7	23.3	31.9	62.0		
4.9	23.4	32.1	62.4		
5.0	23.5	32.4	63.0		
5.1	23.6	32.6	63.6		
5.2	23.8	32.8	64.1		
5.3	23.9	33.1	65.1		
5.4	24.0	33.7	65.7		
5.4	24.1	34.2	66.7		
5.5	24.2	34.9	67.4		
5.7	24.3	35.3	68.3		
5.9	24.4	35.7	68.9		
6.1	24.5	36.0	69.8		
6.3	24.6	36.5	70.6		
6.4	24.6	36.9	71.6		
6.5	24.7	37.4	72.3		
6.6	24.8	37.9	73.1		
6.7	24.9	38.3	73.9		
6.9	25.0	38.9	74.8		
7.0	25.1	39.3	75.7		
7.2	25.2	41.0	76.4		
7.3	25.3	41.6	77.8		
7.5	25.5	42.0	79.0		
7.6	25.7	42.7	80.5		
7.7	25.9	43.3	82.0		
Auger	26.0	44.6	83.5		
	26.2	45.0	84.8		

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1091+30 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	430326.5	2018864.9

Cumulative Penetration in Centimeters

0.2	11.3	19.4	43.5	75.2	
0.6	11.5	19.6	44.0	75.8	
0.8	11.6	19.7	44.4	76.6	
1.2	11.7	20.0	44.9	77.2	
1.4	11.7	20.2	45.3	78.0	
1.5	11.7	20.3	45.7	79.1	
1.8	11.8	20.4	46.2	80.0	
2.1	12.0	20.6	46.6	80.8	
2.2	12.1	20.8	47.2	81.7	
2.5	12.3	21.0	47.6	83.0	
2.7	12.5	21.2	48.0	84.3	
3.0	12.6	21.5	48.5	85.5	
3.1	12.7	21.7	48.9	86.8	
3.4	12.8	21.9	49.2	88.0	
3.6	13.0	22.3	49.6	89.2	
3.7	13.2	22.5	50.1	90.3	
4.1	13.3	22.6	50.5	91.3	
4.3	13.5	22.8	50.9	92.5	
4.4	13.6	23.1	51.2	93.6	
4.6	13.8	23.4	51.7		
4.8	14.0	23.9	52.0		
5.3	14.1	24.2	52.3		
5.6	14.3	24.6	52.7		
5.8	14.4	24.9	53.2		
6.1	14.5	25.4	53.7		
6.3	14.6	25.7	54.0		
6.5	14.8	26.2	54.5		
6.6	14.9	26.6	55.2		
6.7	15.1	27.1	55.8		
6.9	15.3	27.4	56.5		
7.2	15.4	28.1	57.1		
7.5	15.6	29.0	57.8		
7.7	15.7	29.8	58.7		
8.0	15.9	30.6	59.5		
8.3	16.2	31.4	60.5		
8.4	16.3	32.2	61.3		
8.5	16.4	32.8	62.1		
8.6	16.7	33.6	63.1		
8.7	16.9	34.4	64.1		
8.8	17.0	35.2	65.0		
8.9	17.2	35.9	65.9		
9.0	17.4	36.7	66.8		
9.3	17.5	37.3	67.4		
9.4	17.6	38.1	68.2		
9.5	17.9	38.8	68.8		
9.6	18.0	39.3	69.5		
9.8	18.1	40.0	70.1		
9.9	18.4	40.4	70.8		
10.0	18.5	41.0	71.6		
10.2	18.8	41.6	72.4		
10.3	18.9	42.2	73.1		
10.7	19.1	42.6	73.8		
11.0	19.2	43.0	74.5		

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	**ENGINEER**	**TECHNICIANS**
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATION DESCRIPTION	DATE RUN
-L- 1091+30 SB ISL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	430333.8	2018861.7

Cumulative Penetration in Centimeters

0.1	8.1	11.3	16.5	25.8	51.7
0.5	8.2	11.4	16.6	26.4	52.2
0.7	8.3	11.5	16.7	27.1	52.7
0.8	8.4	11.6	16.8	27.6	53.2
1.1	8.5	11.7	16.9	28.2	53.6
1.3	8.6	11.8	17.0	28.8	54.1
1.5	8.7	11.9	17.1	29.6	54.5
1.9	8.8	12.0	17.2	30.3	55.0
2.2	8.9	12.1	17.3	31.0	55.4
2.3	9.0	12.2	17.5	31.8	55.8
2.6	9.1	12.3	17.6	32.5	56.3
2.7	9.1	12.4	17.7	33.2	56.6
2.9	9.2	12.5	17.8	34.1	57.1
3.0	9.2	12.6	18.0	34.9	57.9
3.2	9.3	12.7	18.1	35.6	58.6
3.4	9.4	12.8	18.2	36.4	59.4
3.7	9.5	12.9	18.3	37.0	60.2
3.8	9.6	13.0	18.4	37.6	61.0
4.1	9.6	13.1	18.5	38.2	61.5
4.2	9.7	13.2	18.6	38.8	61.9
4.3	9.7	13.3	18.8	39.3	62.4
4.5	9.7	13.4	19.0	39.6	63.0
4.6	9.8	13.5	19.2	40.1	63.4
4.9	9.9	13.6	19.3	40.3	63.9
5.0	9.9	13.7	19.5	40.8	64.3
5.2	10.0	13.8	19.7	41.1	64.6
5.3	10.0	13.9	19.8	41.5	65.1
5.4	10.1	14.0	20.0	42.1	65.6
5.7	10.2	14.1	20.1	42.5	65.9
5.8	10.2	14.2	20.3	43.1	66.4
5.9	10.3	14.3	20.5	43.6	66.8
6.0	10.3	14.4	20.6	44.0	67.2
6.1	10.4	14.5	20.7	44.4	67.5
6.2	10.4	14.6	20.9	44.8	68.1
6.2	10.5	14.7	21.0	45.1	68.6
6.3	10.5	14.8	21.2	45.4	69.2
6.4	10.5	14.9	21.3	45.7	69.8
6.5	10.6	15.0	21.5	46.0	70.3
6.6	10.7	15.1	21.7	46.3	71.0
6.7	10.8	15.2	21.9	46.6	71.5
6.8	10.8	15.3	22.1	47.0	72.1
6.9	10.9	15.4	22.3	47.3	72.8
7.0	10.9	15.6	22.6	47.7	73.3
7.1	11.0	15.6	22.8	48.0	74.8
7.2	11.0	15.7	23.3	48.4	76.4
7.3	11.1	15.8	23.6	48.7	78.0
7.4	11.1	15.9	23.8	48.9	78.9
7.5	11.1	16.0	24.0	49.3	79.9
7.6	11.2	16.1	24.3	49.8	80.8
7.7	11.2	16.2	24.5	50.0	81.8
7.8	11.2	16.3	24.9	50.4	82.6
7.9	11.3	16.4	25.3	50.8	
8.0	11.3	16.5	25.6	51.4	

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

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CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1116+00 SB OSS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	431554.6	2021019.9

Cumulative Penetration in Centimeters

0.4			77.5					0.6	13.7		55.6				
0.8		Auger	78.0					1.0	13.9		56.1				
1.3			78.9					1.3	14.1		56.7				
1.5			79.5					1.7	14.4		57.1				
1.6		30.2	80.3					1.8	14.9		57.6				
1.7		30.9	81.1					1.9	15.3		58.1				
1.9		31.2	81.9					2.0	16.0		58.7				
2.3		31.6	82.3					2.2	16.7		59.0				
2.5		32.2	83.0					2.4	17.0		59.4				
2.6		32.6	84.5					2.8	17.4		59.9				
2.8		33.0	85.0					3.0	17.7		60.3				
2.9		34.2	86.4					3.2	18.0		60.9				
3.1		35.6	86.9					3.5	18.6		61.5				
3.3		36.7	87.5					3.8	19.0		62.0				
3.5		37.1	88.3					4.0	19.6		62.7				
3.8		38.0	88.7					4.2	20.0		63.1				
4.0		38.8	89.5					4.5	20.9		63.7				
4.2		39.6	90.2					4.7	21.2		64.1				
4.4		41.2	90.6					4.9	22.1		64.6				
4.6		42.9	91.4					5.0	22.9		65.0				
4.7		44.5	92.0					5.3	23.5		65.7				
4.8		45.9	92.7					5.5	24.4		66.4				
4.8		47.2	93.3					5.7	25.5		67.1				
4.9		48.3	94.0					5.8	26.7		67.8				
5.0		49.6	95.0					6.0	27.7		68.7				
5.2		50.8	95.7					6.1	29.3		69.2				
5.2		51.8	96.6					6.3	30.2		69.8				
5.3		53.0	97.6					6.4	31.3		70.5				
5.3		54.1	98.3					6.7	32.5		71.0				
5.4		55.0	99.0					6.9	33.8		72.3				
5.4		56.0	99.5					7.0	34.6		73.5				
5.5		57.1	100.3					7.2	35.6		74.6				
5.6		58.0	100.8					7.4	37.0		75.0				
5.7		59.1	101.5					7.6	38.0		76.2				
5.8		60.0	102.2					7.8	39.1		77.1				
5.9		61.1	103.0					8.0	40.0		77.9				
6.0		62.2	103.8					8.4	41.0		78.7				
6.2		62.8	104.4					8.9	42.1		79.3				
6.3		63.7	105.4					9.2	43.2		80.0				
6.4		64.5	106.3					9.7	44.4		80.9				
6.6		65.3	107.0					9.9	45.6		81.9				
6.7		66.0	107.5					10.2	46.7		82.6				
6.8		67.1	108.0					10.5	47.8		83.2				
6.9		68.8	109.3					10.8	48.5		83.8				
7.0		69.5						11.1	49.5		84.8				
7.2		70.4						11.7	50.4		85.7				
7.3		71.7						11.9	51.3		86.6				
7.4		72.5						12.1	52.1						
7.5		73.1						12.3	53.2						
7.7		74.6						12.6	53.8						
7.8		75.4						12.9	54.0						
7.9		76.1						13.2	54.5						
8.0		76.8						13.5	55.0						

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATIONS DESCRIPTION	DATE RUN
-L- 1116+00 SB ISS	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	431526.1	2021056.3

Cumulative Penetration in Centimeters

0.4		12.7		23.2		62.3									
0.6		12.9		23.5		62.6									
0.8		13.0		23.7		63.0									
1.1		13.3		23.9		63.3									
1.2		13.5		24.3		63.8									
1.5		13.6		24.9		64.2									
1.8		13.8		25.4		64.8									
2.0		14.2		25.8		65.5									
2.2		14.3		26.3		66.0									
2.5		14.5		27.0		66.4									
2.7		14.8		28.0		67.0									
3.0		15.1		28.8		67.6									
3.4		15.2		29.6		68.0									
3.6		15.5		30.5		68.7									
3.8		15.8		31.9		69.3									
4.1		16.0		33.4		69.8									
4.3		16.1		34.5		70.6									
4.4		16.4		35.7		71.1									
4.9		16.6		36.6		71.9									
5.0		16.7		37.5		72.4									
5.3		16.9		38.1		73.2									
5.6		17.2		38.9		73.8									
5.8		17.4		39.9		74.6									
6.0		17.6		40.7		75.4									
6.2		17.7		41.6		76.0									
6.5		17.9		42.6		76.8									
6.6		18.1		43.5		77.5									
6.9		18.2		44.5		78.2									
7.1		18.3		45.3		78.9									
7.4		18.5		46.0		79.6									
7.6		18.7		46.9		80.2									
7.7		18.9		47.7		80.9									
8.0		19.0		48.4		81.5									
8.1		19.1		49.2		82.1									
8.3		19.2		49.9		82.8									
8.4		19.4		50.5		83.5									
8.6		19.6		51.1		84.2									
8.8		19.8		51.7		84.7									
9.0		19.9		52.5		85.3									
9.2		20.1		53.3		85.9									
9.3		20.2		54.0		86.5									
9.4		20.3		54.8		86.9									
9.6		20.4		55.6		87.6									
9.8		20.7		56.3		88.1									
10.2		20.9		57.0		88.6									
10.3		21.0		57.5		89.2									
10.5		21.2		58.2		89.7									
10.7		21.4		58.8		90.2									
10.8		21.7		59.4											
10.9		22.0		60.1											
11.2		22.4		60.7											
11.8		22.7		61.2											
12.2		23.0		61.7											

CONE PENETROMETER DATA CODE SHEET

TIP	PROJECT I.D.	ROUTE
I-5987B	47533.1.3	I-95
COUNTY	ENGINEER	TECHNICIANS
Robeson	VLAD MITCHEV	D. Strother/J. Swartley

TEST LOCATION DESCRIPTION	DATE RUN
-L- 1116+00 SB ACCEL	12/3 to 12/19/2019

DATUM	CUT/ FILL	NORTHING	EASTING
STBC	FILL	431548.2	2021021.5

Cumulative Penetration in Centimeters

0.6		8.6		17.1		53.1		101.1							
1.0		8.7		17.2		54.2		101.9							
1.3		8.9		17.3		55.0		102.8							
1.8		8.9		17.4		55.9		103.5							
2.0		9.0		17.5		56.6									
2.3		9.0				57.4									
2.8		9.1		Auger		58.1									
3.0		9.2				58.9									
3.2		9.3				59.4									
3.4		9.4		22.8		60.0									
3.6		9.5		23.1		60.8									
3.7		9.6		23.5		61.3									
3.9		9.6		23.9		62.0									
4.2		9.7		24.1		62.8									
4.4		9.8		24.3		63.7									
4.5		9.8		24.5		64.2									
4.7				24.9		64.7									
4.9		Auger		25.1		65.5									
5.0				25.6		66.1									
5.1				25.9		67.4									
5.2		13.5		26.2		68.8									
5.3		13.7		26.4		70.2									
5.4		13.9		26.8		71.2									
5.5		14.0		27.0		72.0									
5.7		14.1		27.1		73.2									
5.8		14.2		27.4		74.6									
6.0		14.3		27.8		75.7									
6.2		14.4		28.0		77.0									
6.4		14.5		28.4		78.2									
6.5		14.6		28.9		79.3									
6.6		14.7		29.2		80.3									
6.7		14.9		30.5		81.2									
6.8		15.0		32.4		82.3									
6.9		15.1		34.9		83.4									
7.0		15.2		36.0		85.5									
7.1		15.2		37.4		86.4									
7.2		15.3		38.8		87.2									
7.3		15.4		39.7		88.0									
7.4		15.5		40.6		89.0									
7.5		15.6		41.6		90.0									
7.5		15.7		42.6		90.8									
7.6		15.8		43.5		91.7									
7.7		15.9		44.5		92.3									
7.7		16.1		45.0		93.1									
7.8		16.2		45.9		94.0									
7.9		16.3		46.6		94.9									
8.0		16.4		47.4		95.5									
8.1		16.5		48.0		96.3									
8.2		16.6		48.7		97.0									
8.3		16.7		49.6		97.8									
8.4		16.8		50.4		98.6									
8.5		16.9		51.3		99.5									
8.6		17.0		52.0		100.4									

SG = Subgrade
SS = Stabilized Soil
CTBC = Cement-Treated Base Course
ABC = Aggregate Base Course
ESG = Estimated Subgrade
AG = At Grade

RGDL = Rounded Gravel Drainage Layer
STBC = Soil Type Base Course
SDB = Sand Drainage Base

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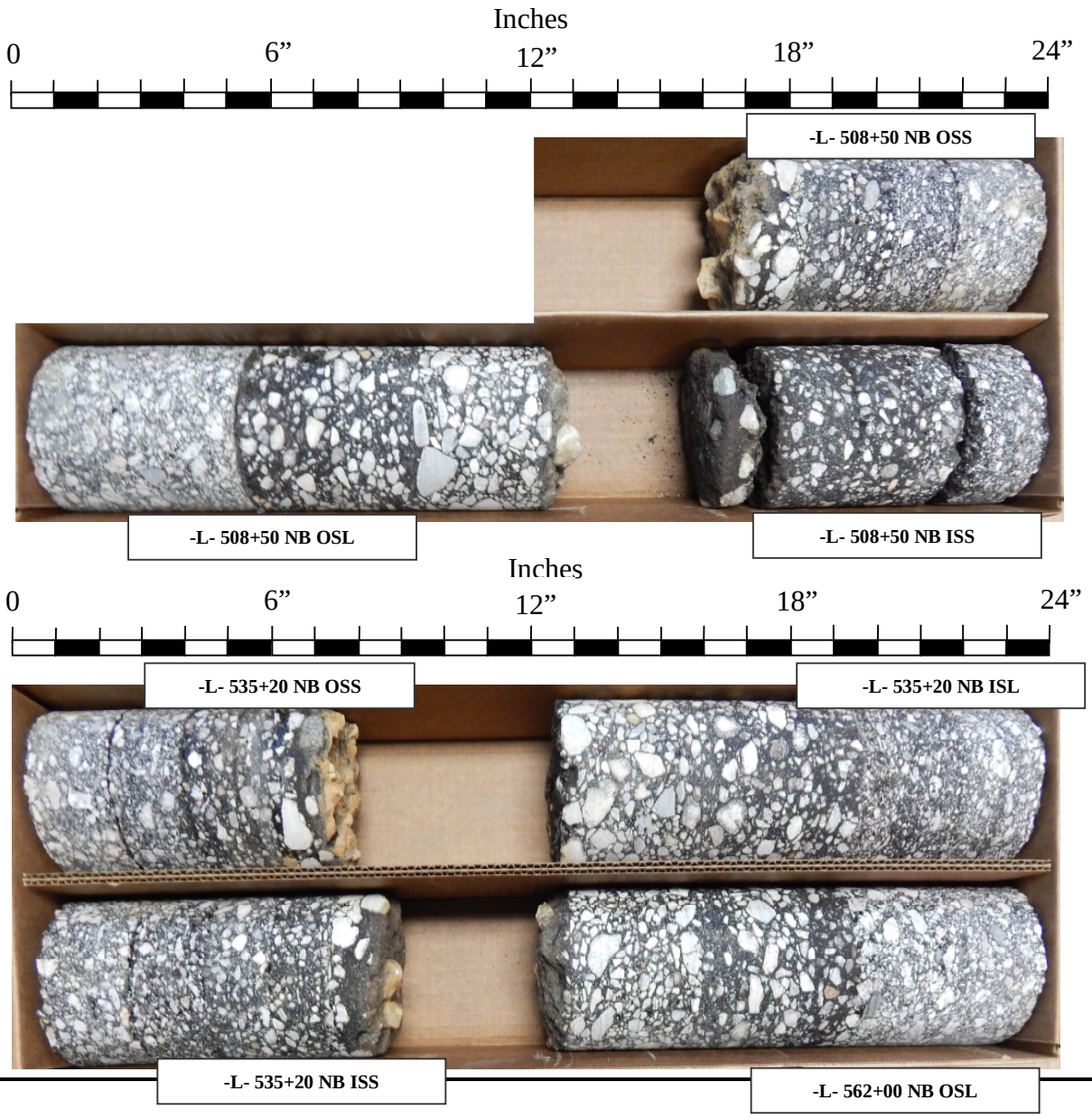
Geologist / Engineer: Darin Strother, Jarett Swartley, Mary Rawls, Vladimir Mitchev			



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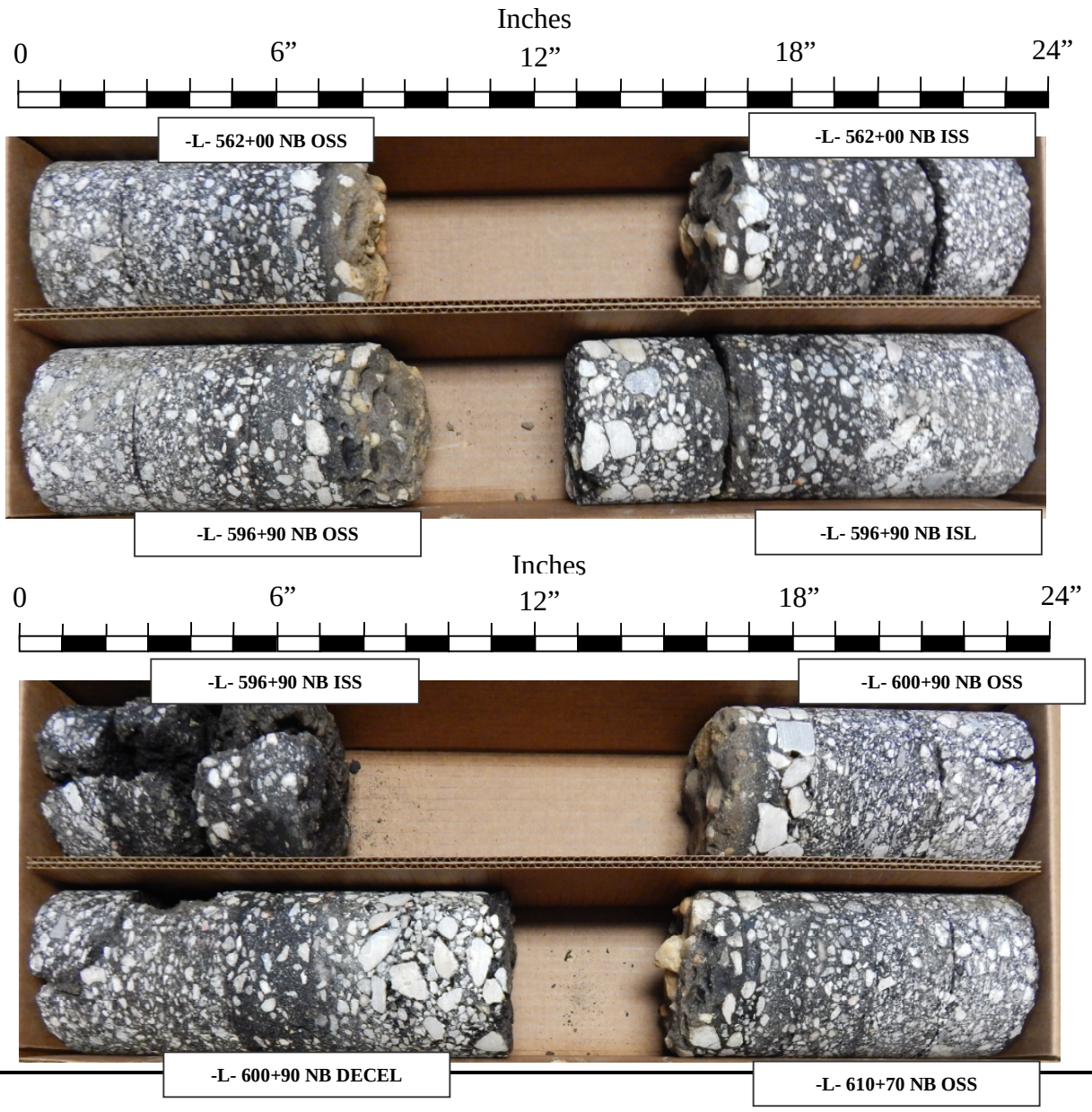

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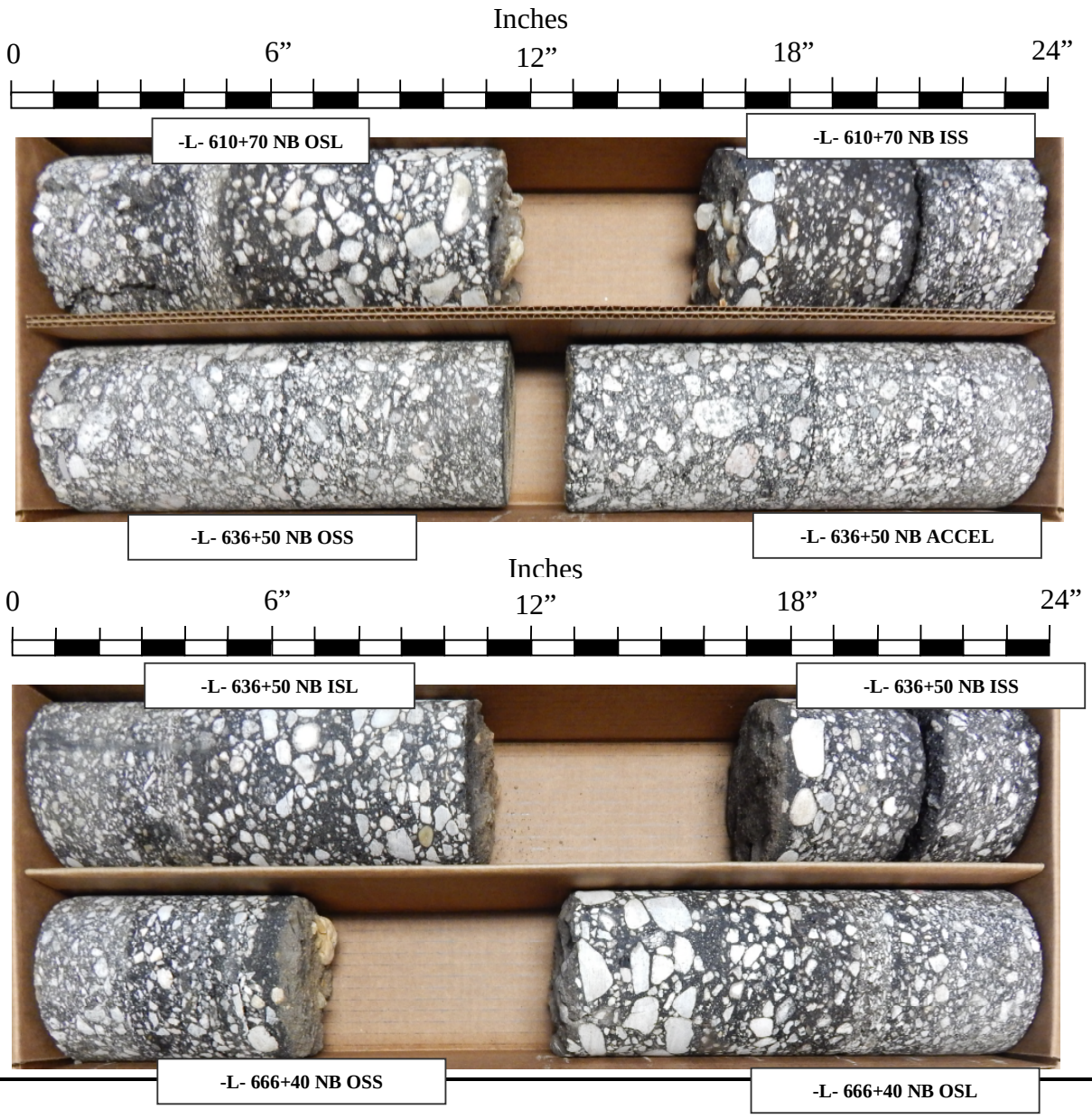

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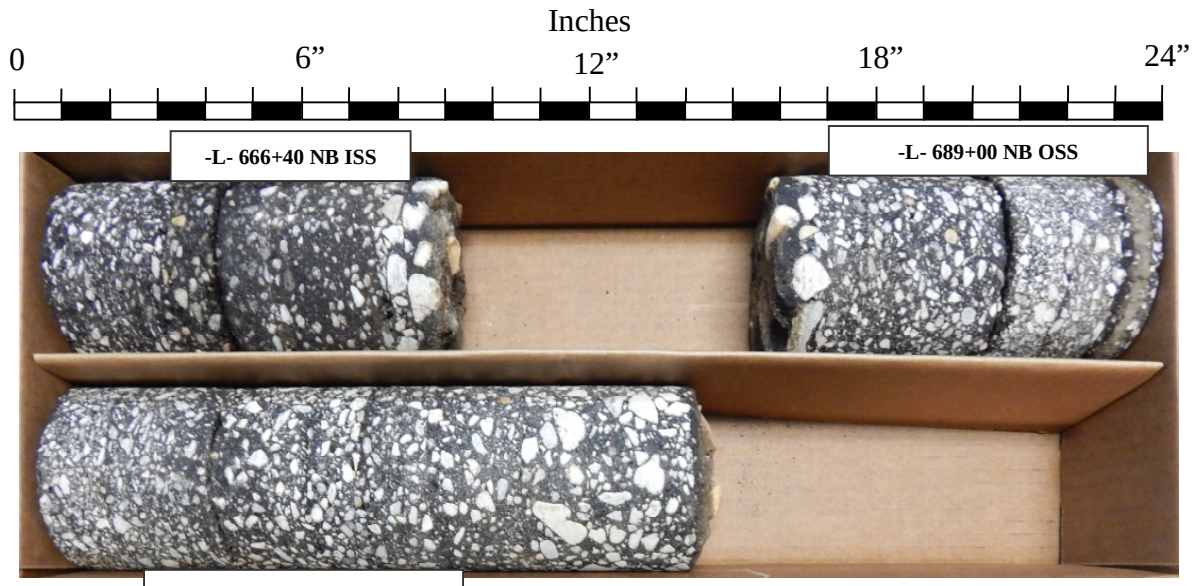

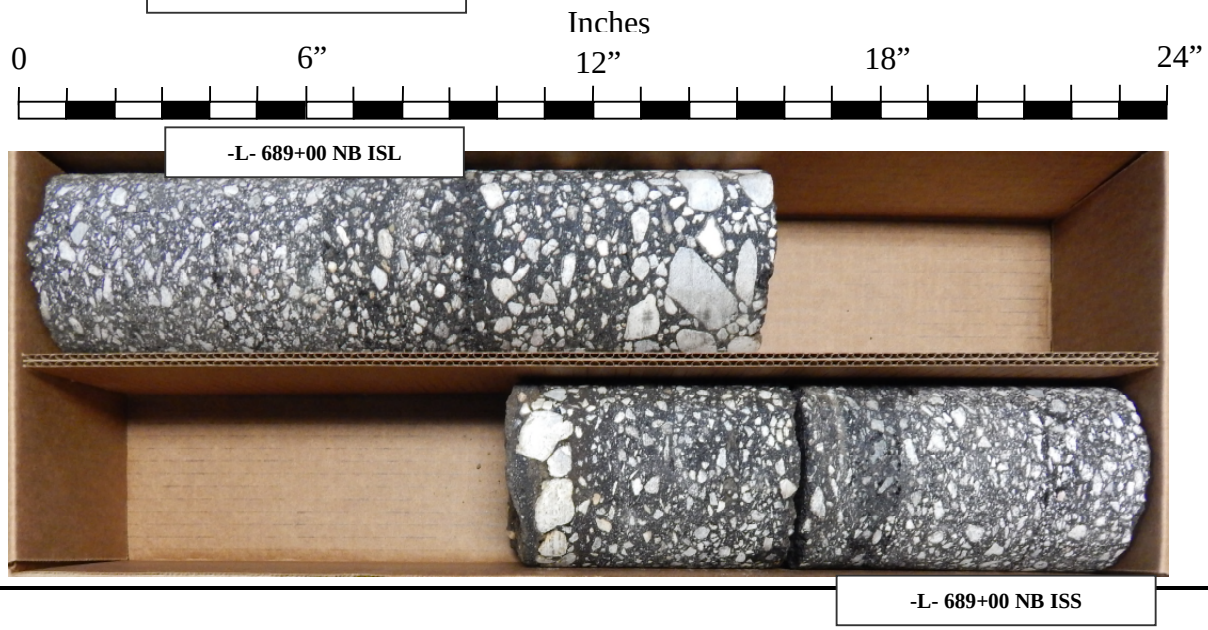

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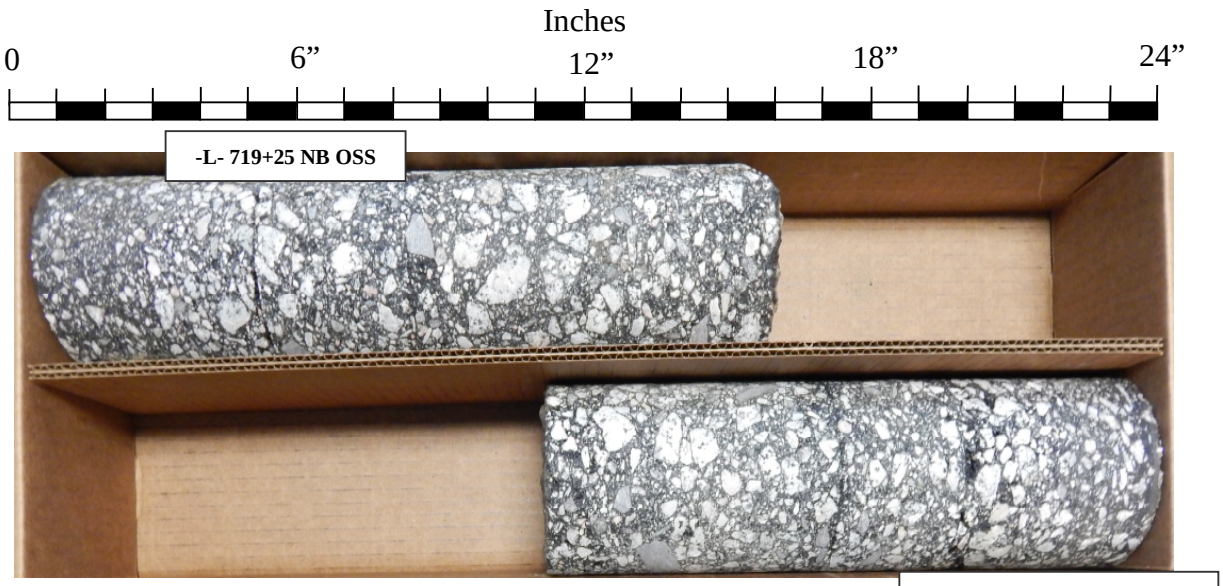

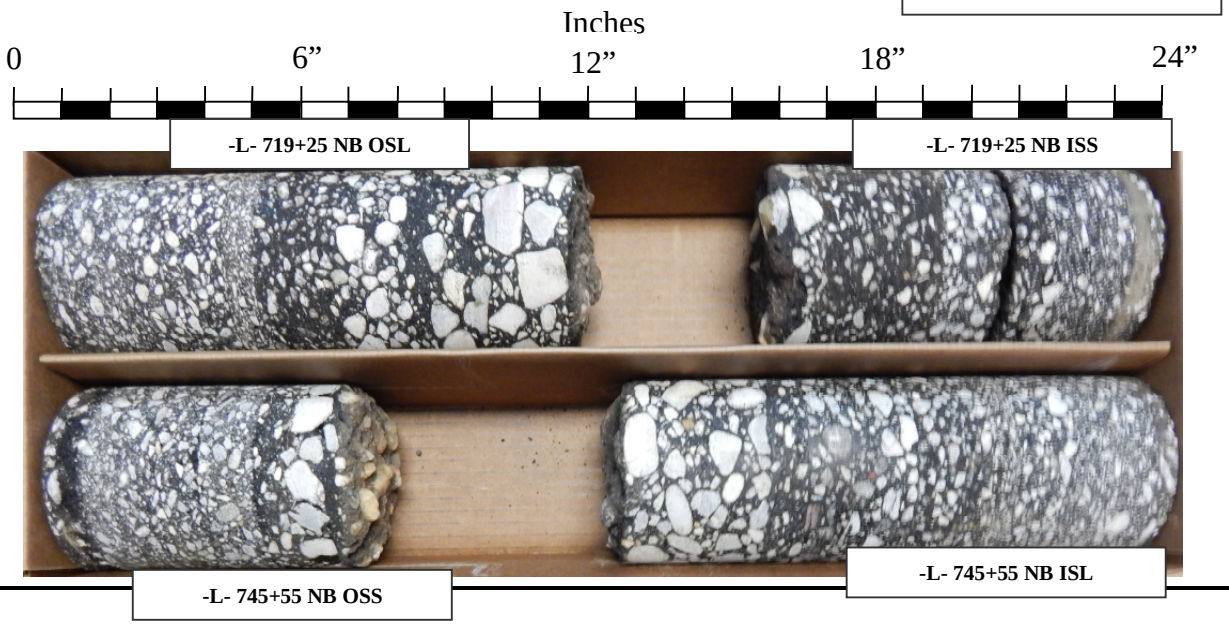

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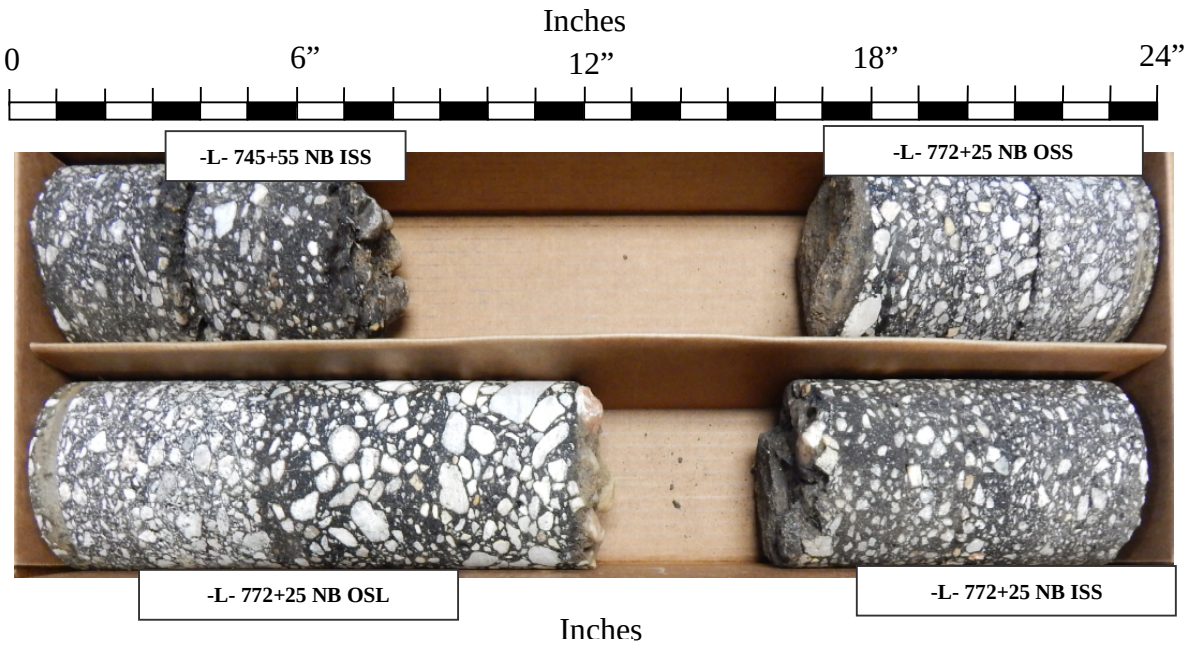

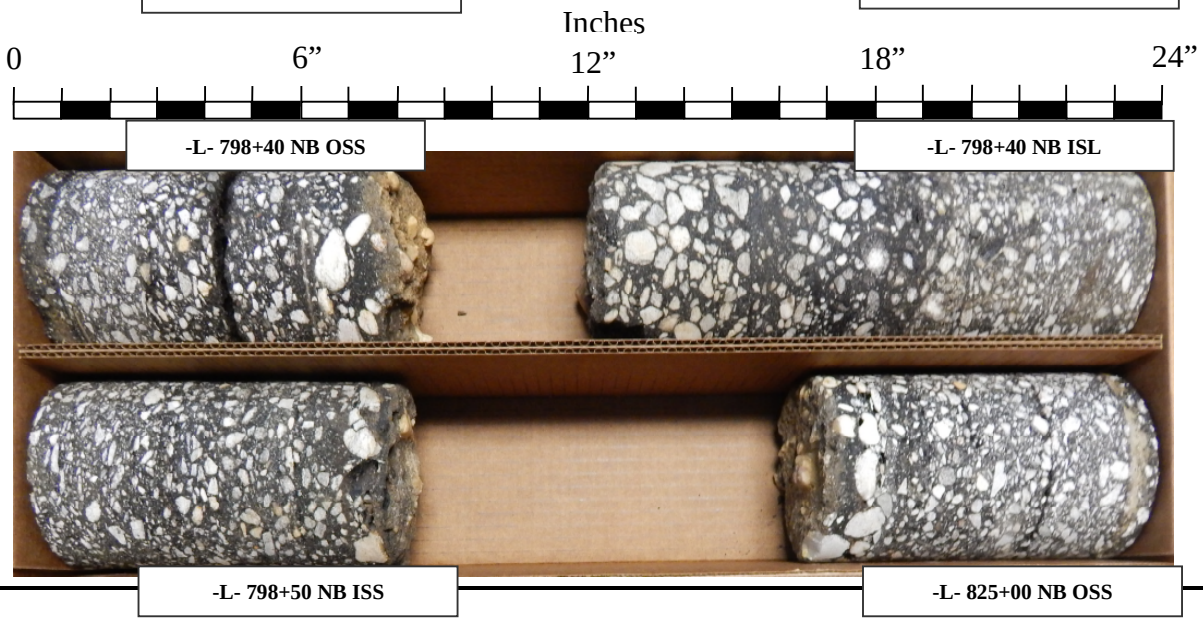

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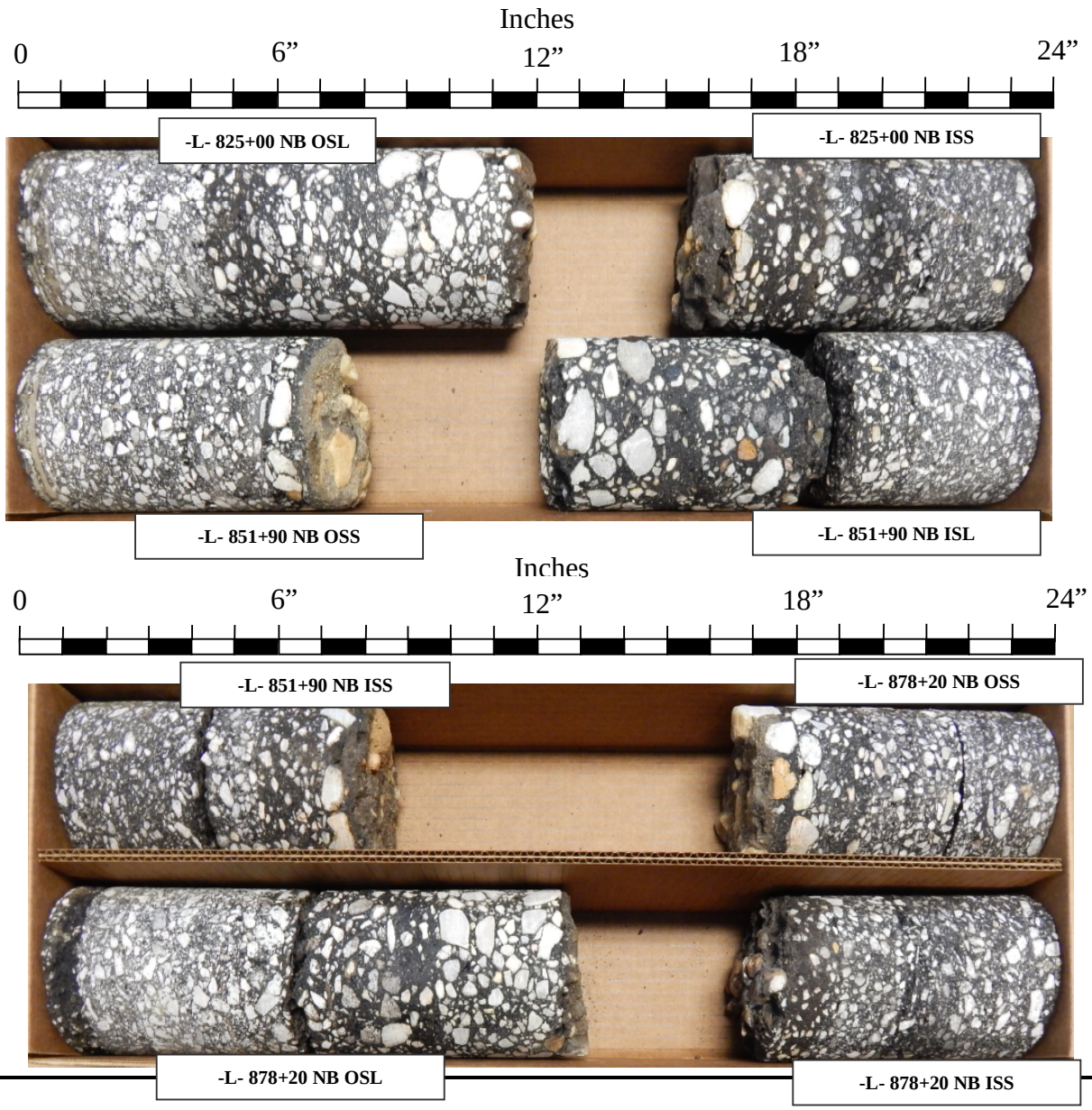

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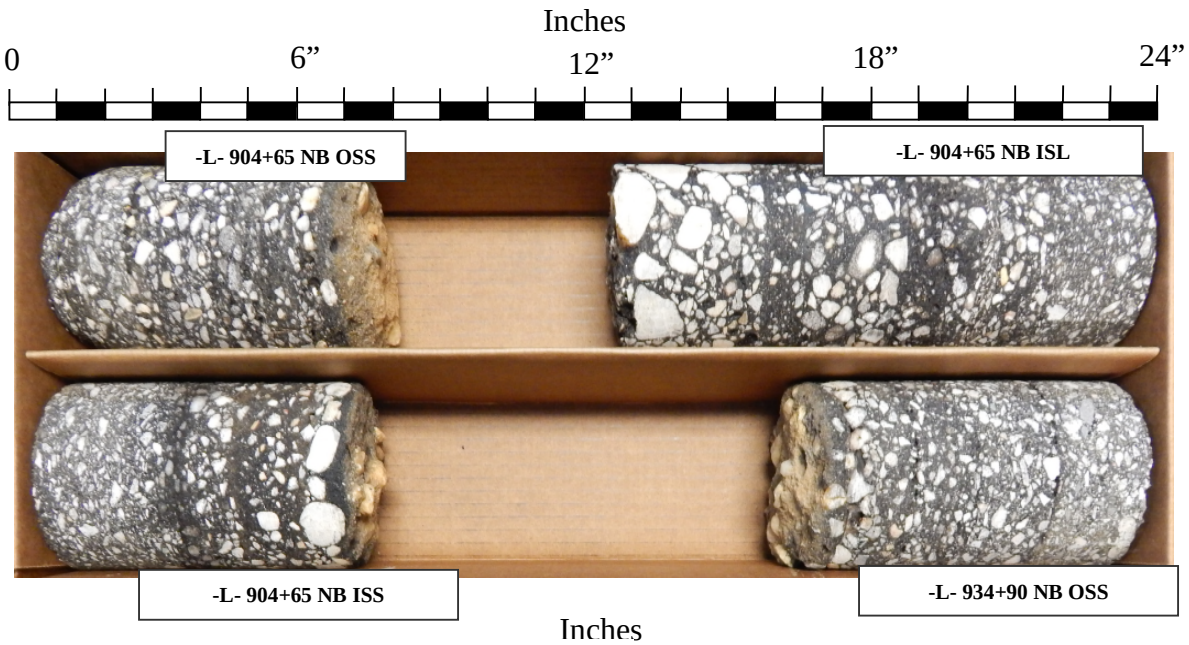

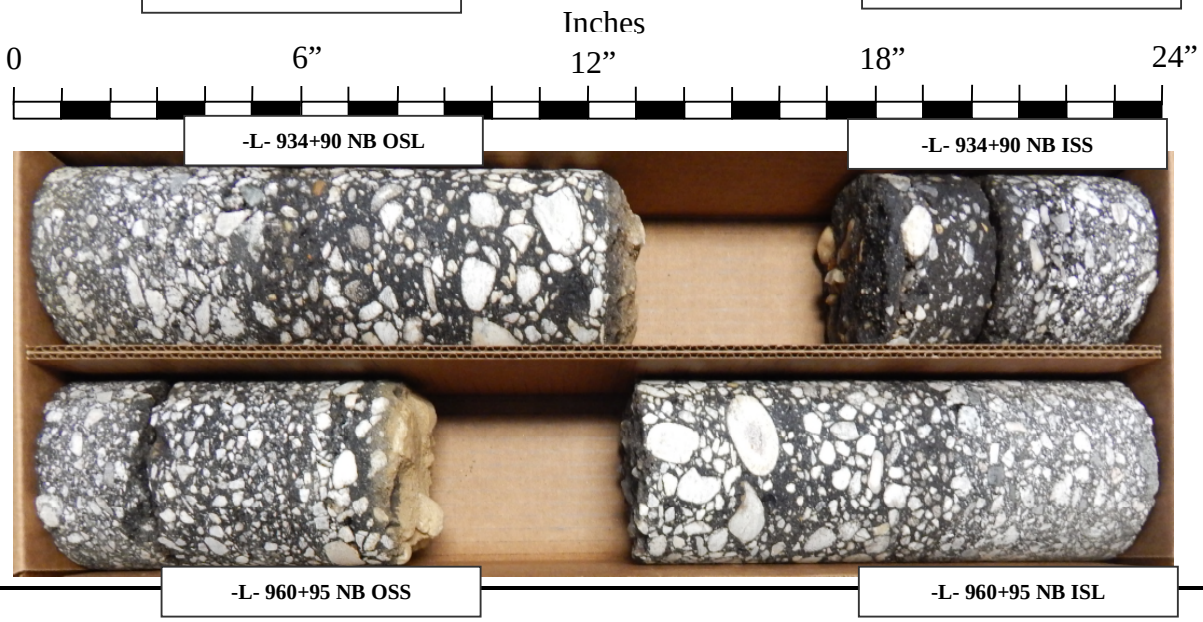

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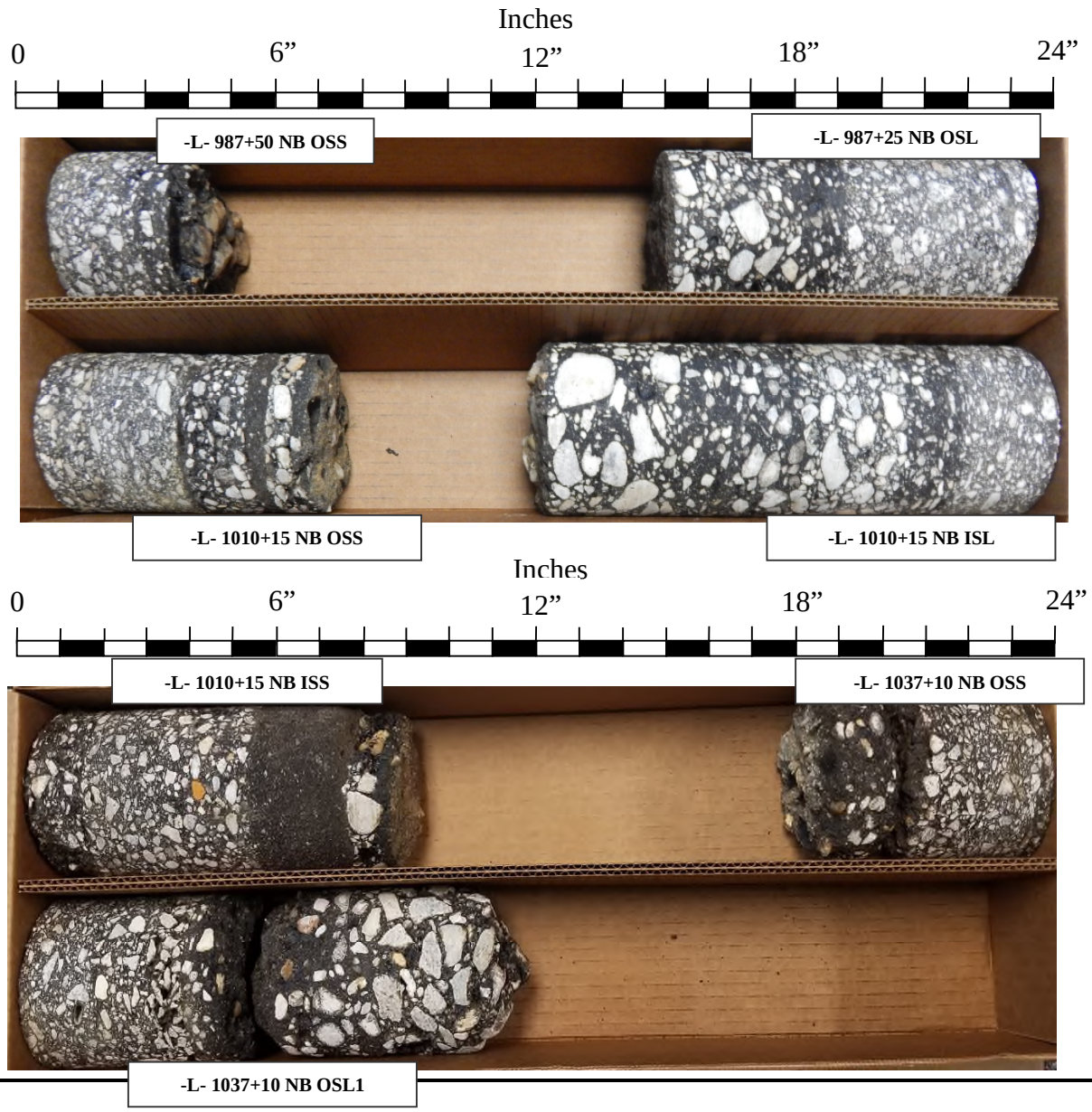

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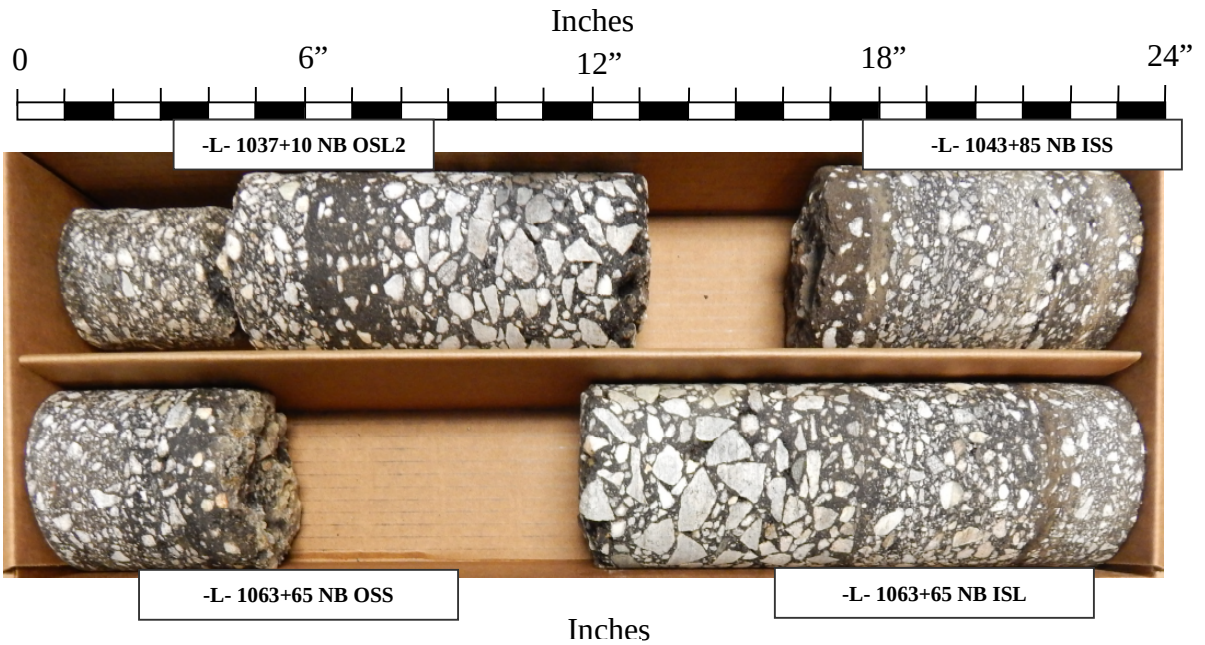

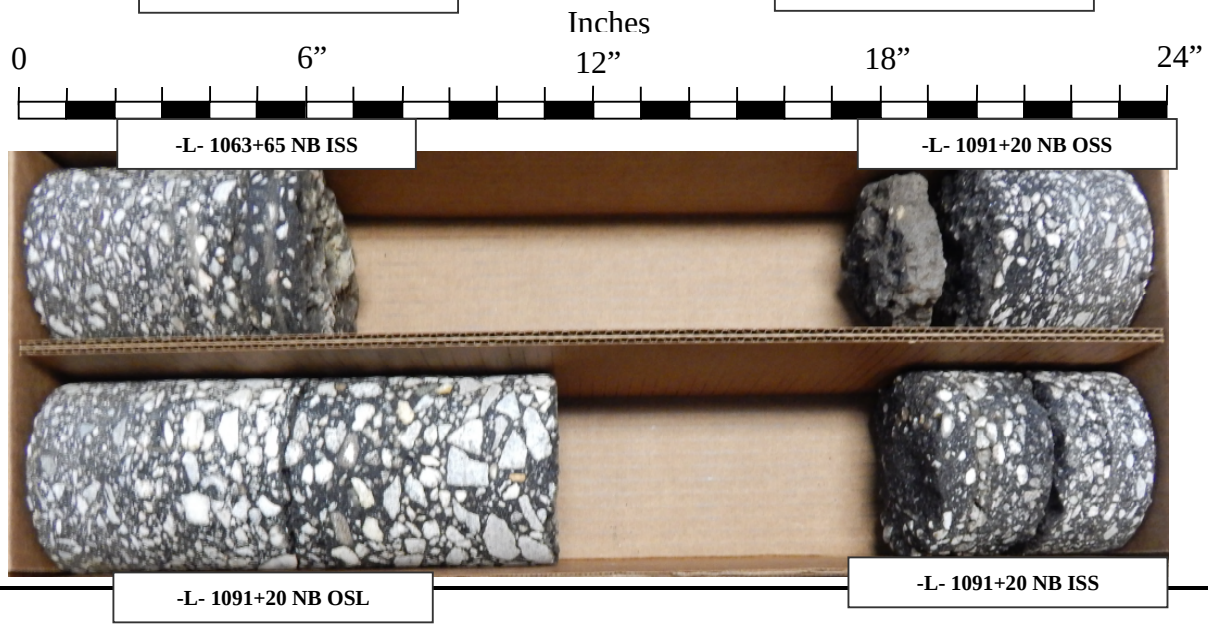

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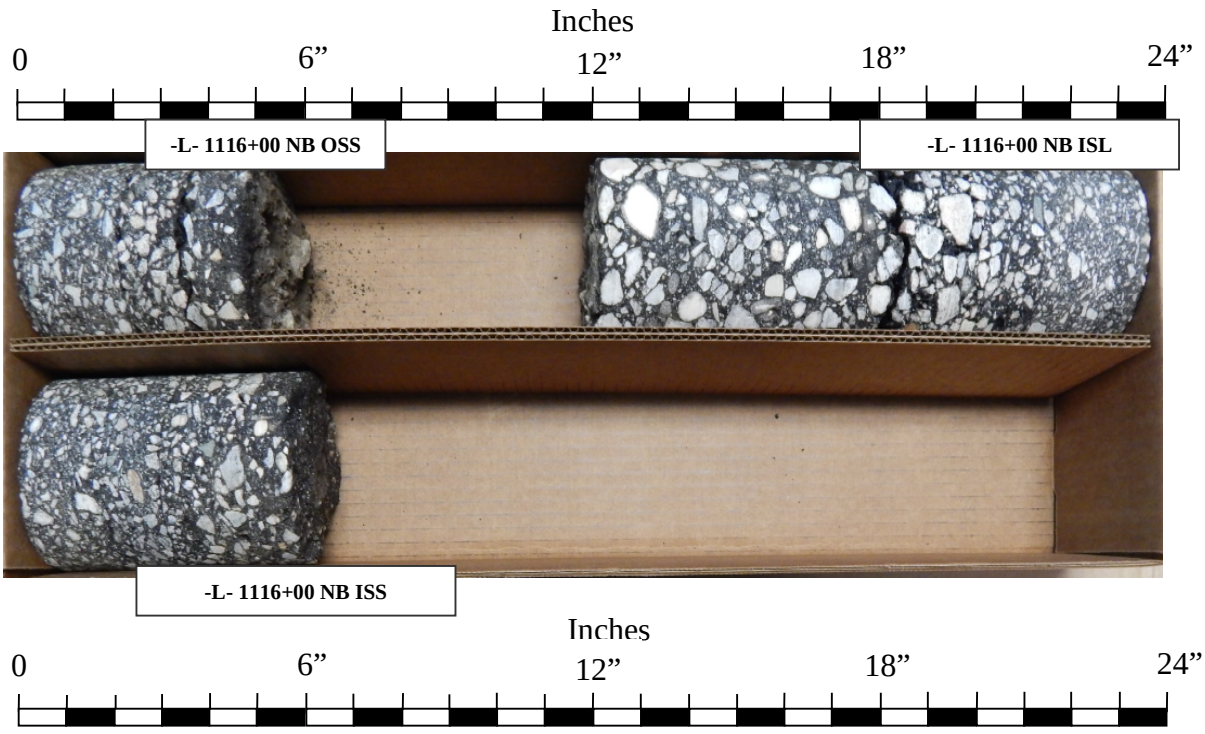

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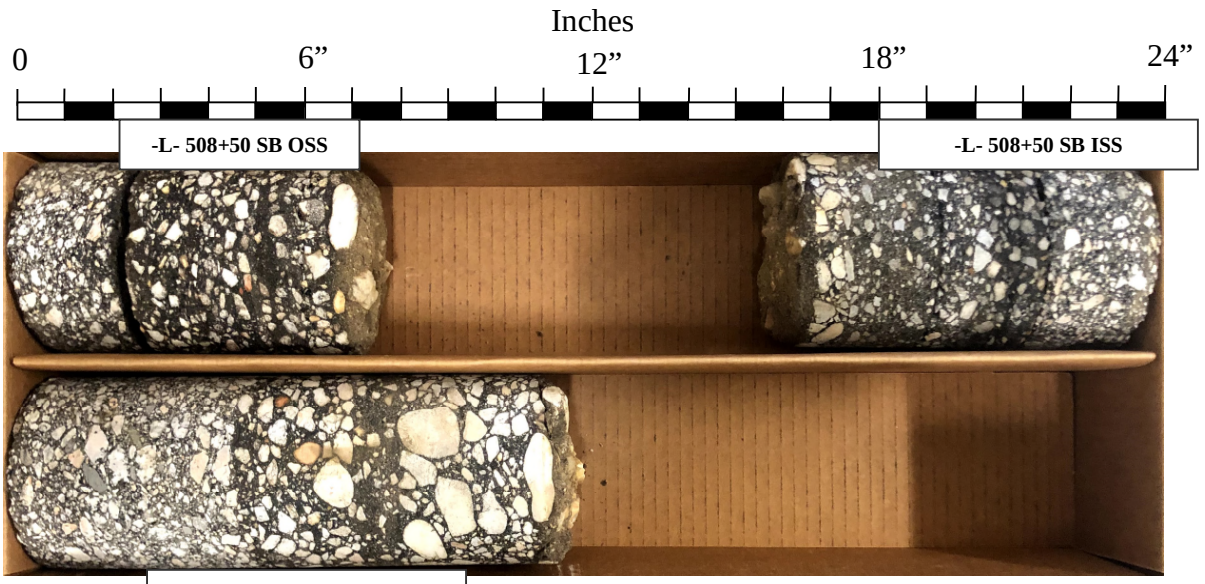

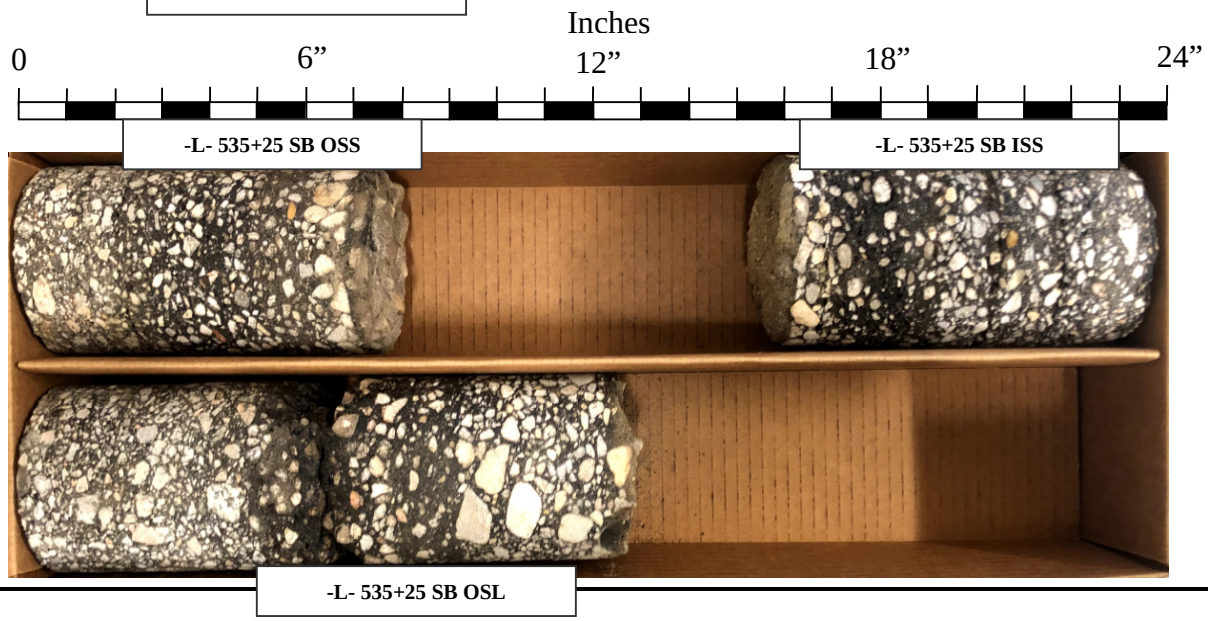

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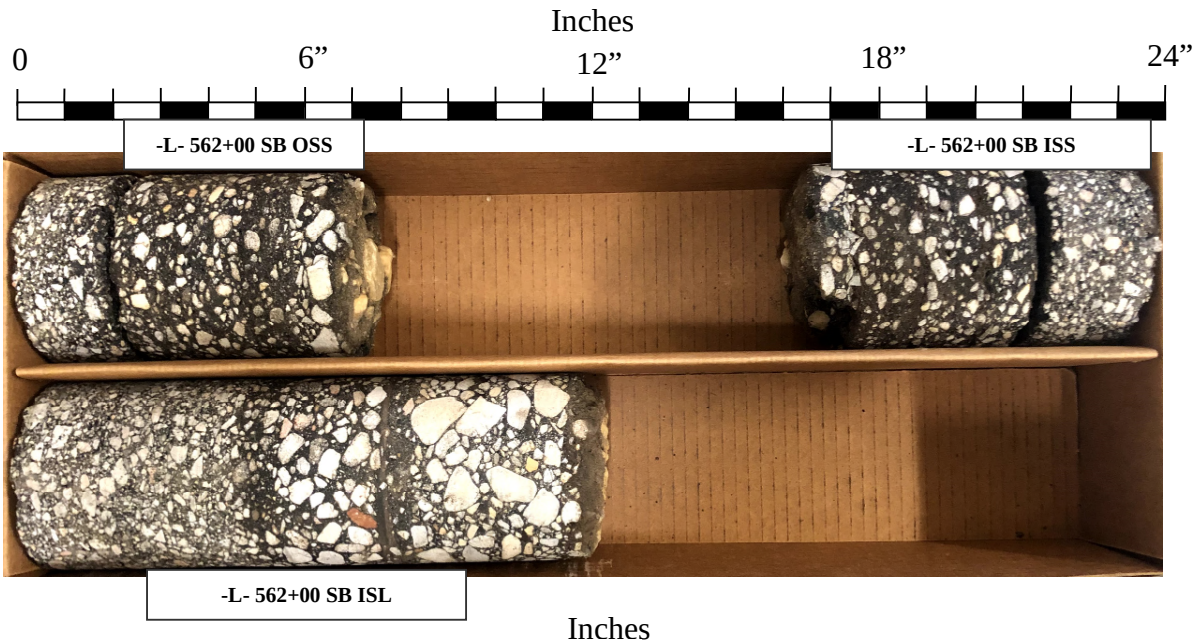

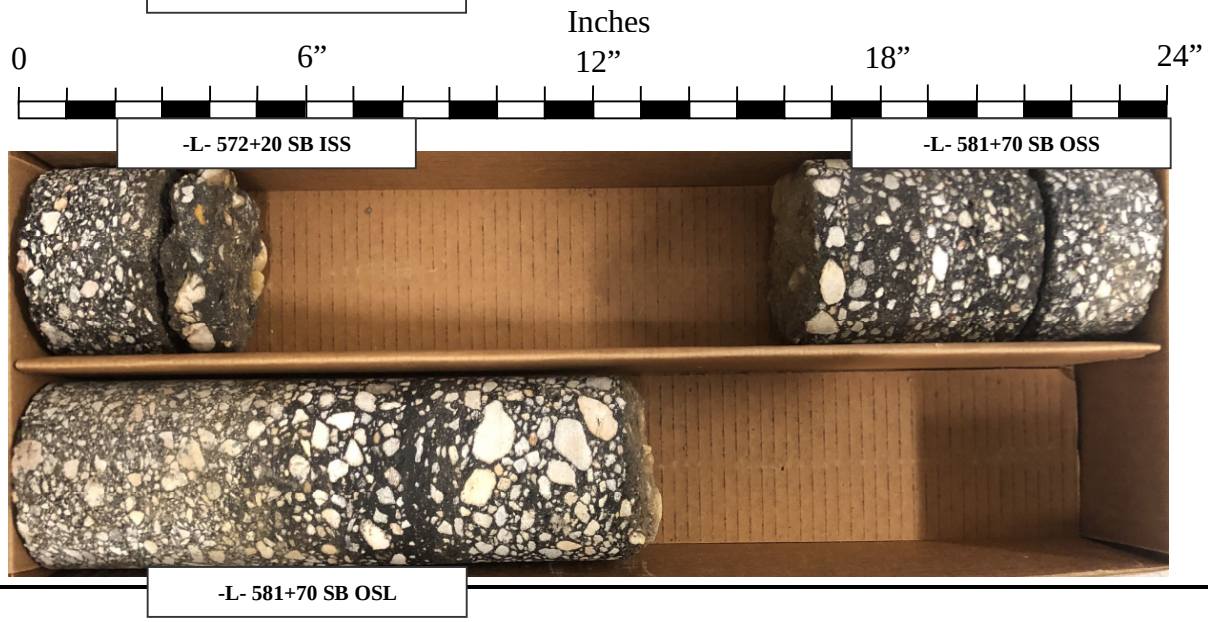

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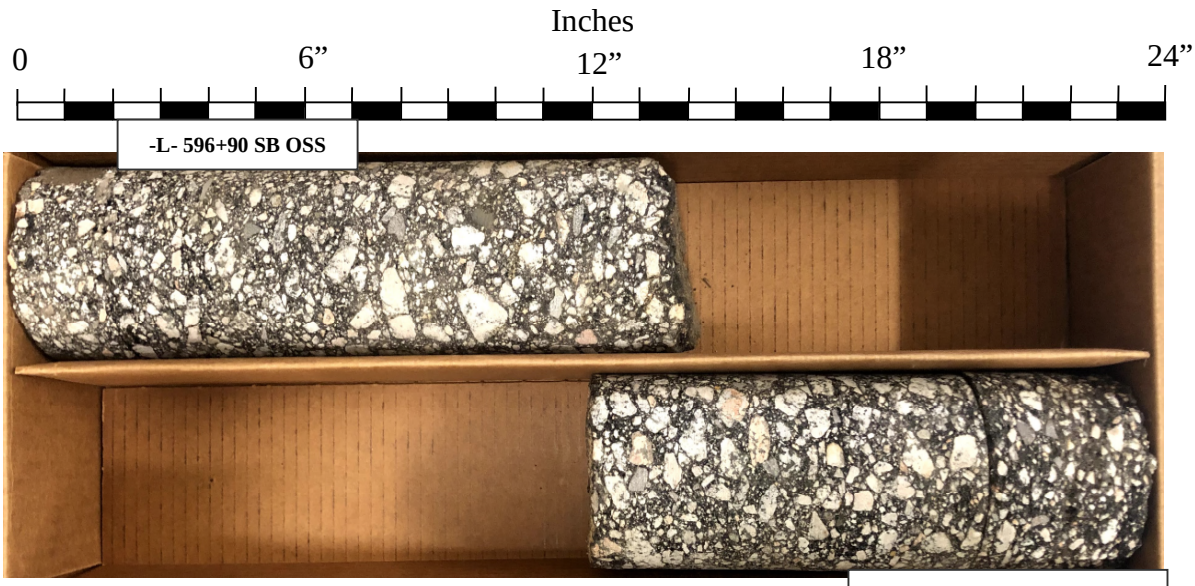

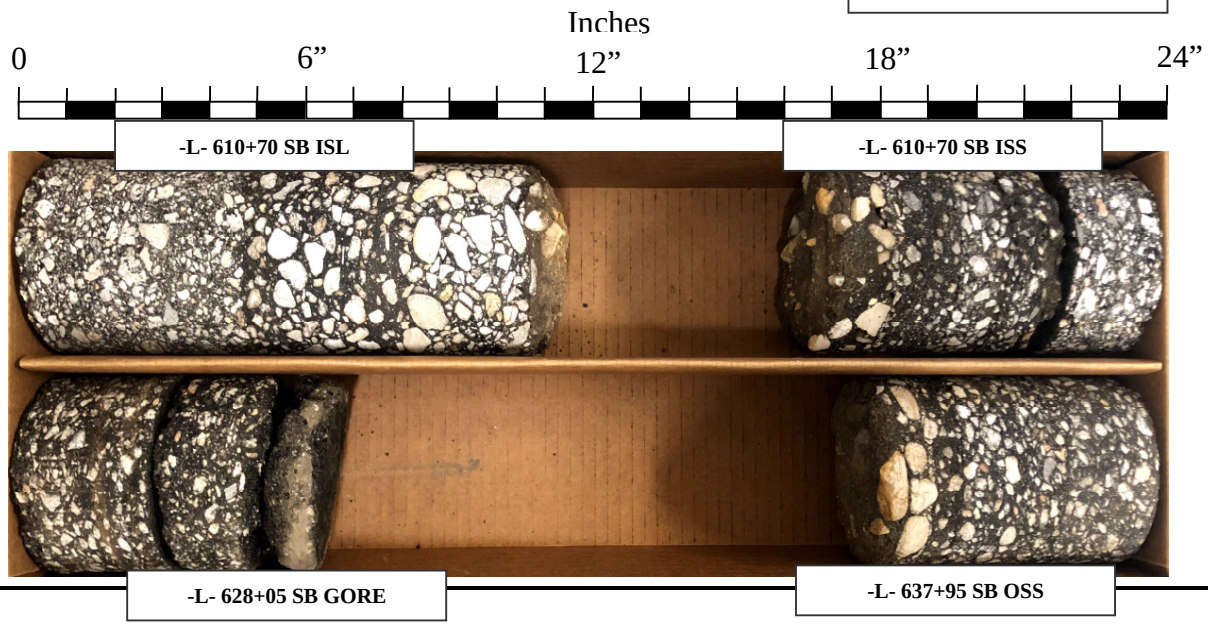

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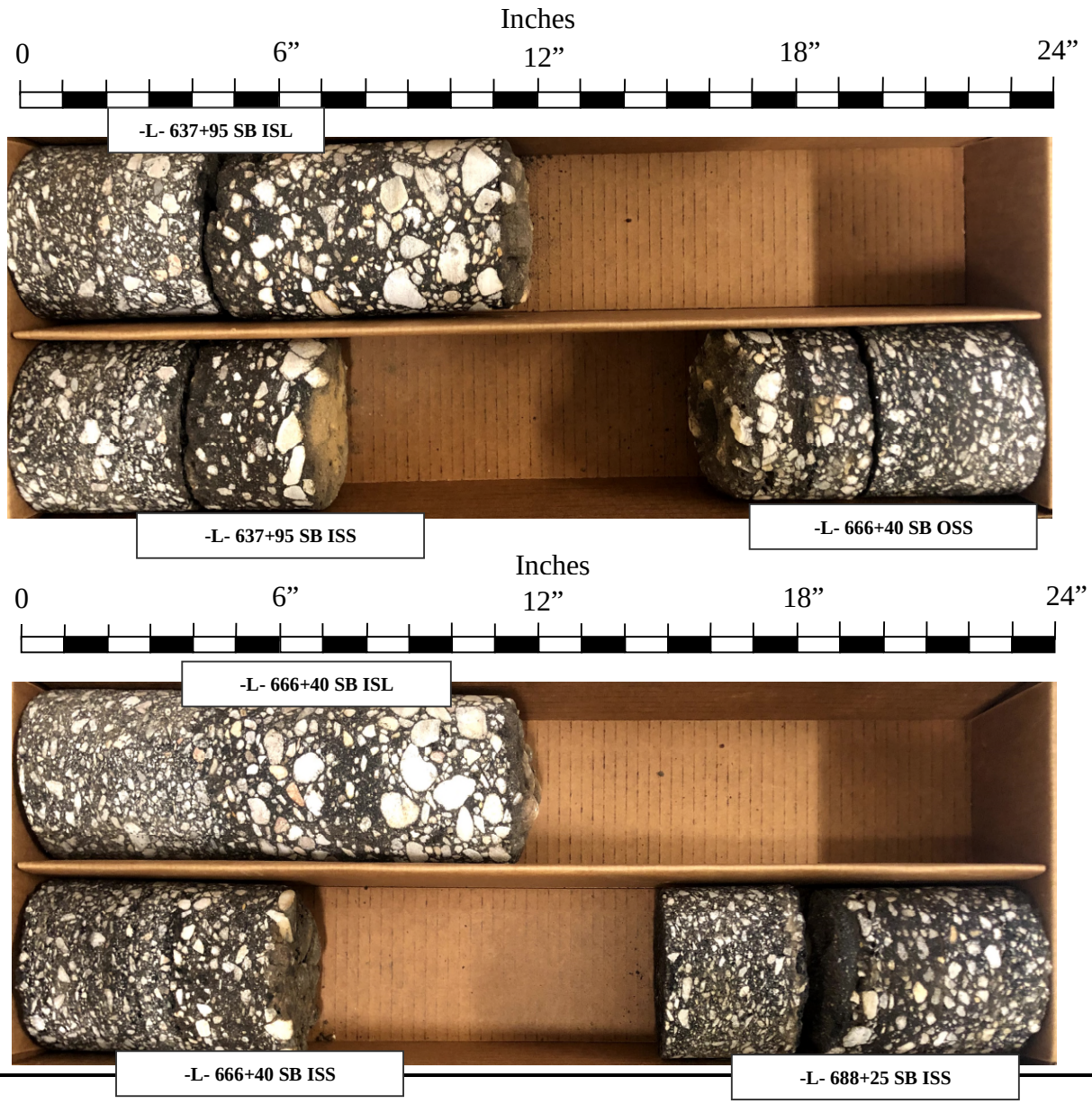
S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

Project No.: 47533.1.3	*I.D. No.*: I-5987B	*County*: Robeson	*Dates:12/3/19-12/19/19*
Site Description: I-95 from South of NC 20 to South of Proposed I-295			
Consultant: S&ME, Inc.	*Core Size*: 4 - inch	*Drill Machine:* CME-55	
Geologist / Engineer: Darin Strother, Jarett Swartley, Mary Rawls, Vladimir Mitchev			



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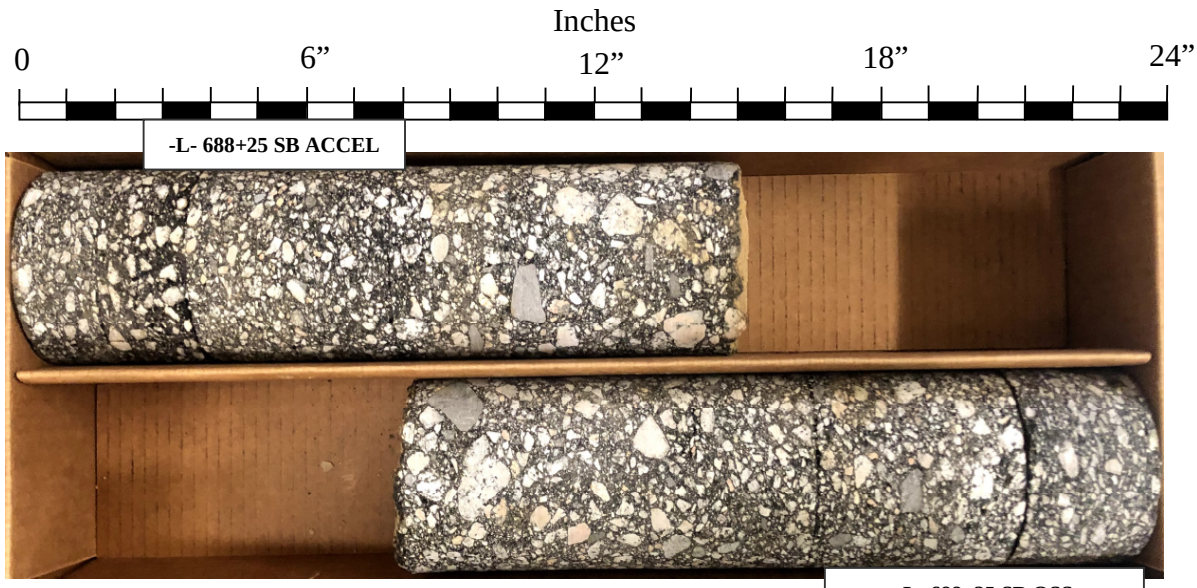

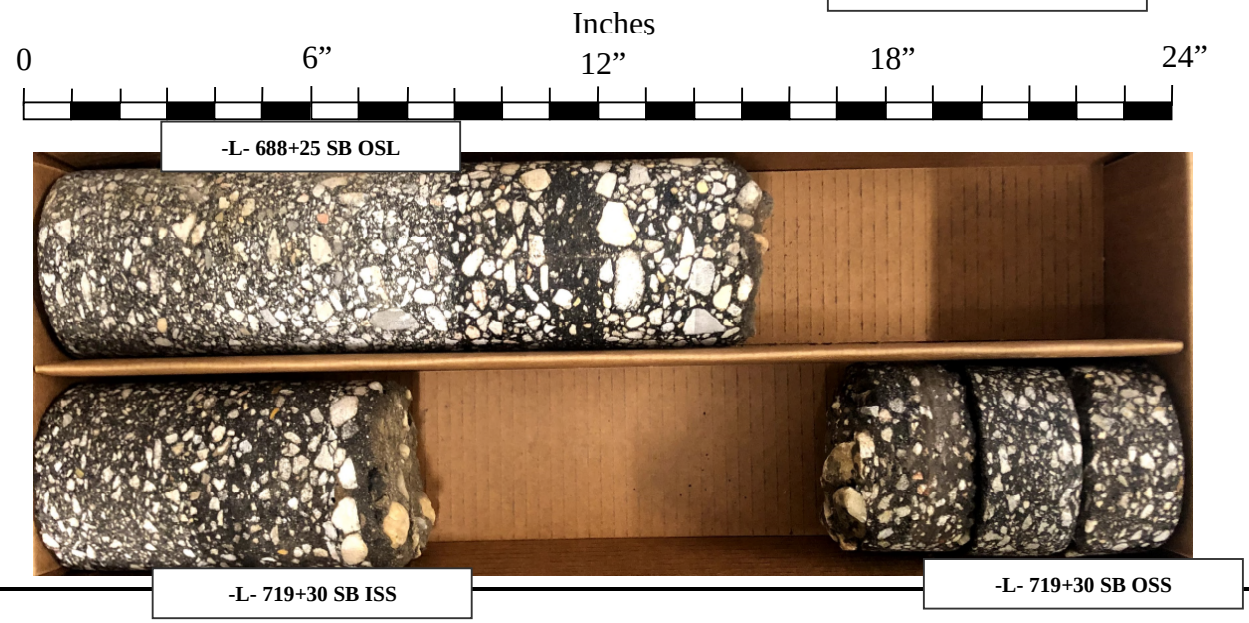

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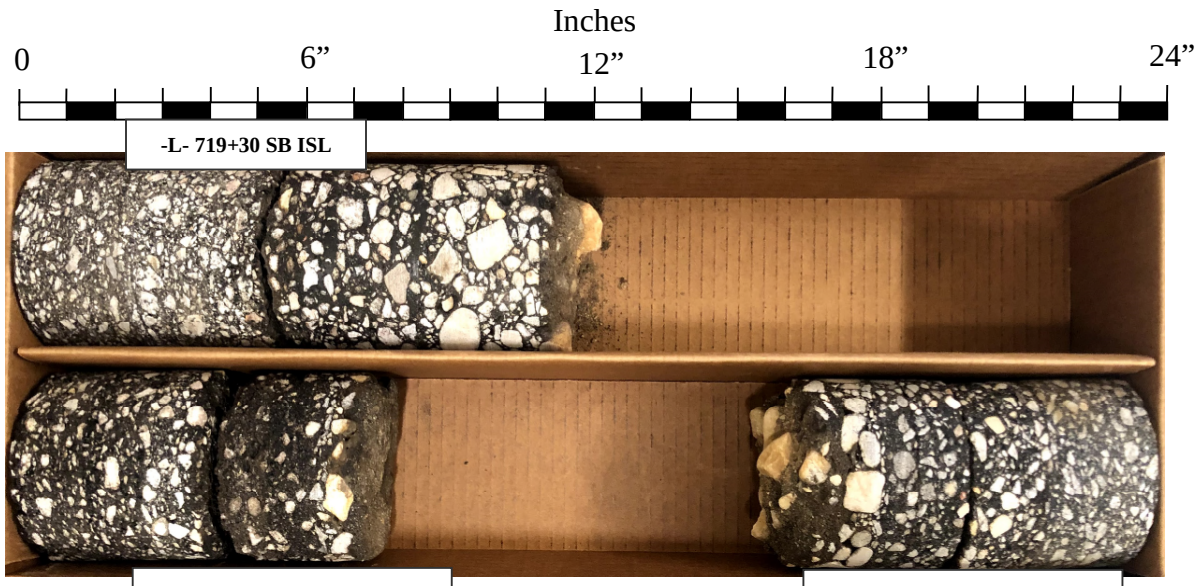

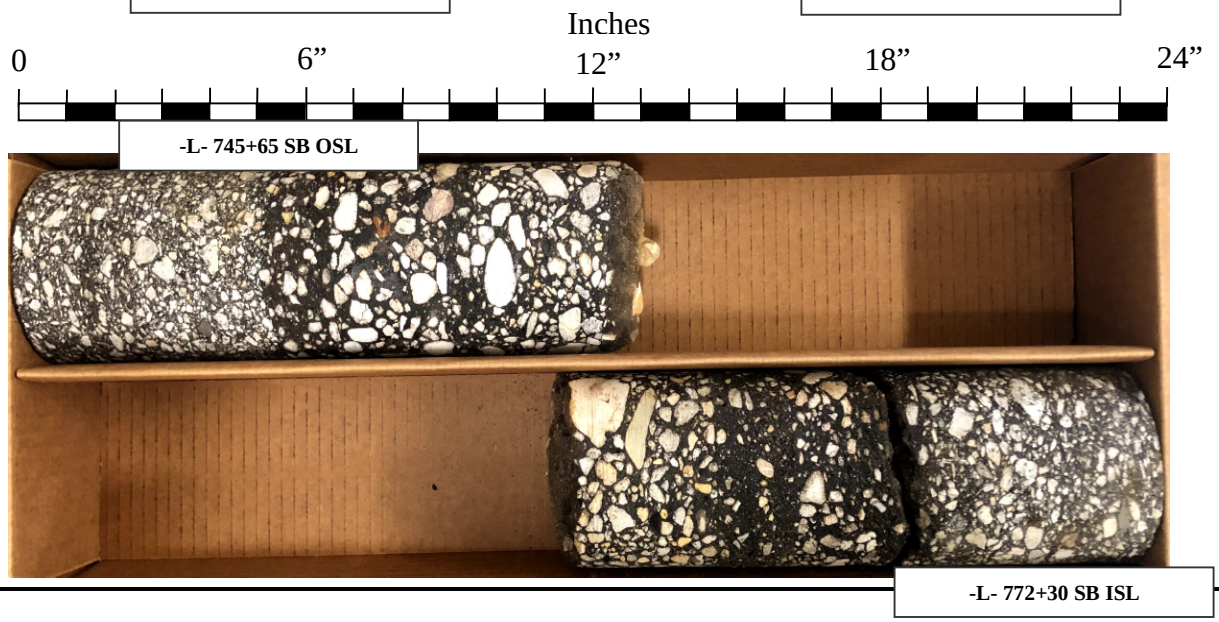

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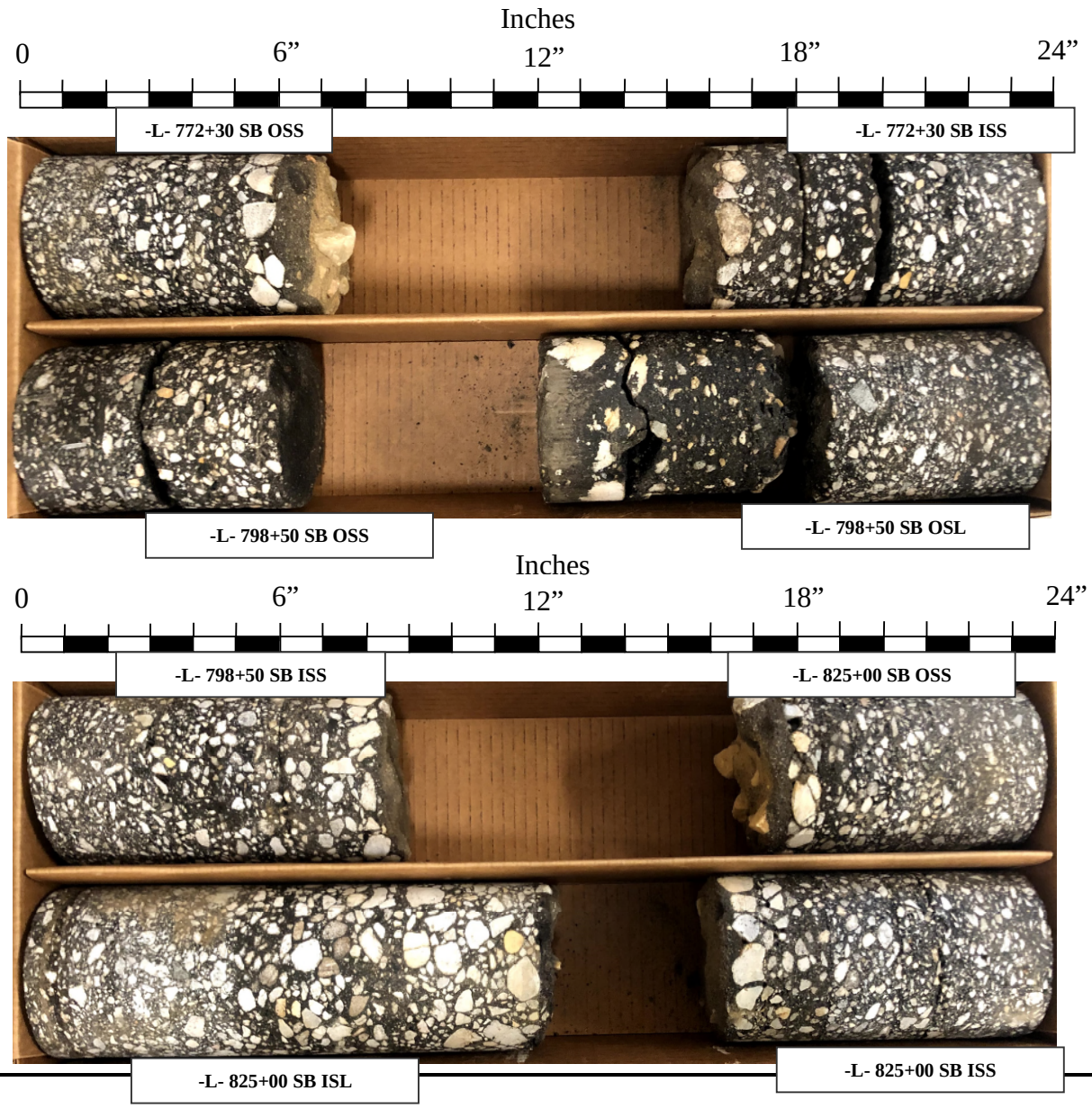

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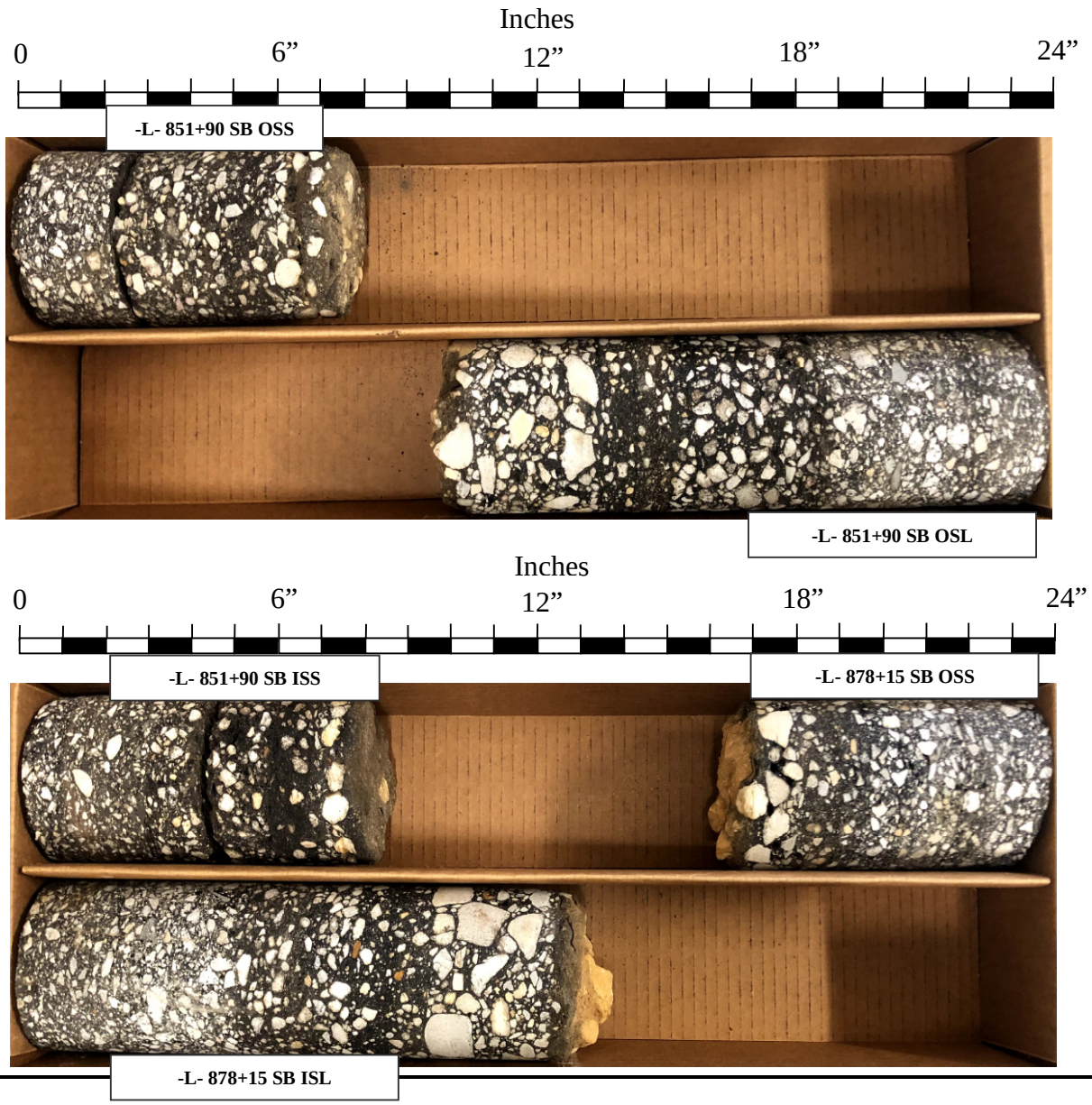

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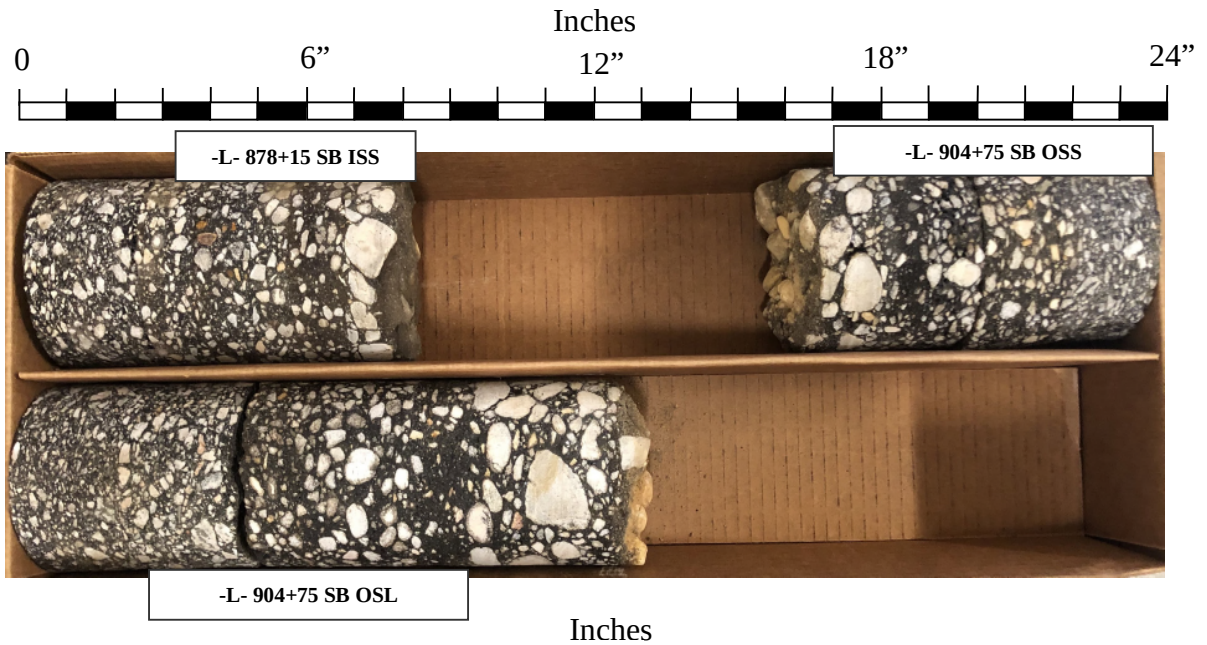

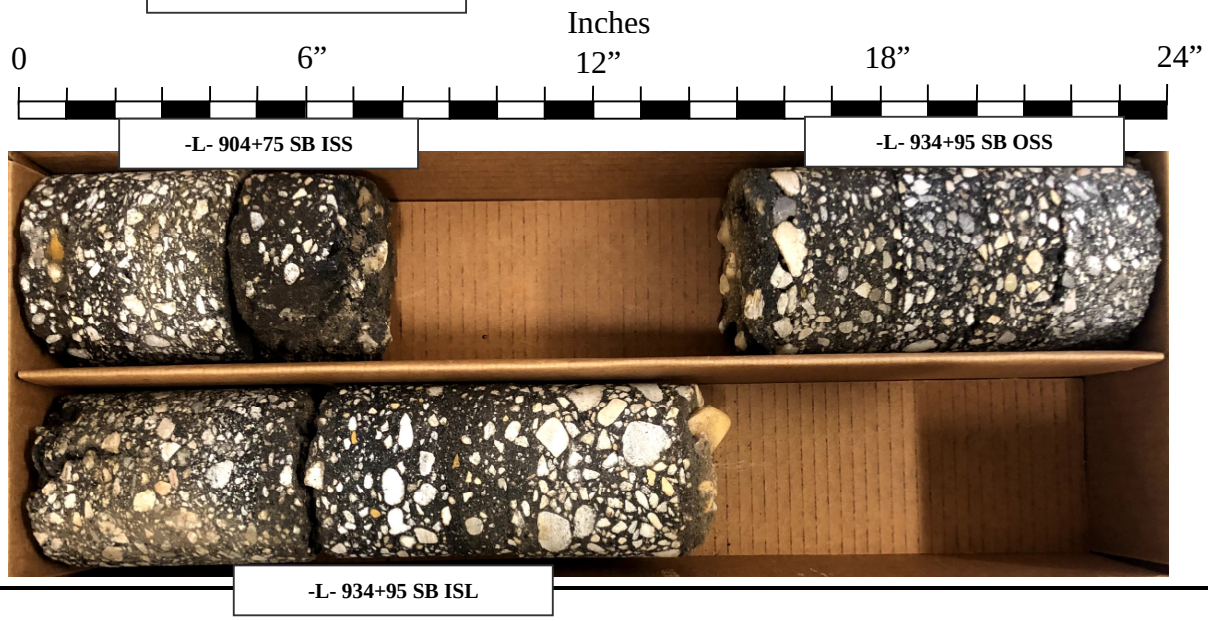

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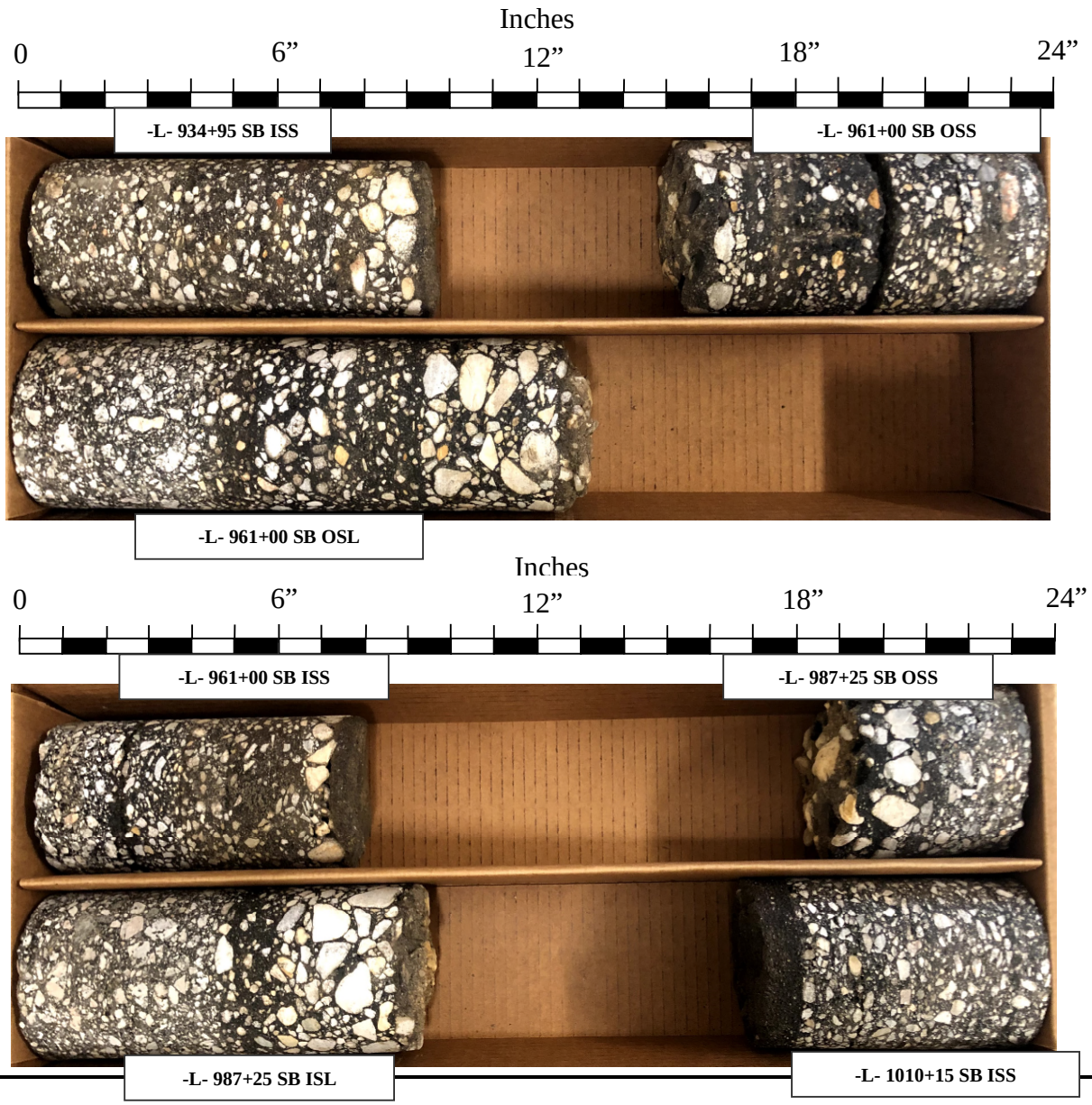

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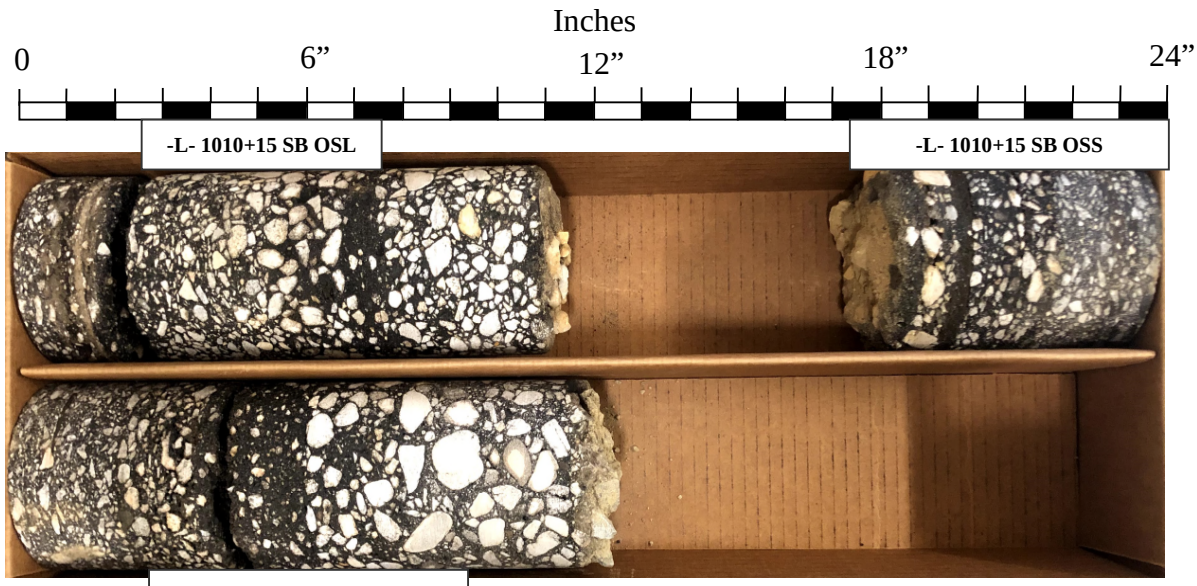

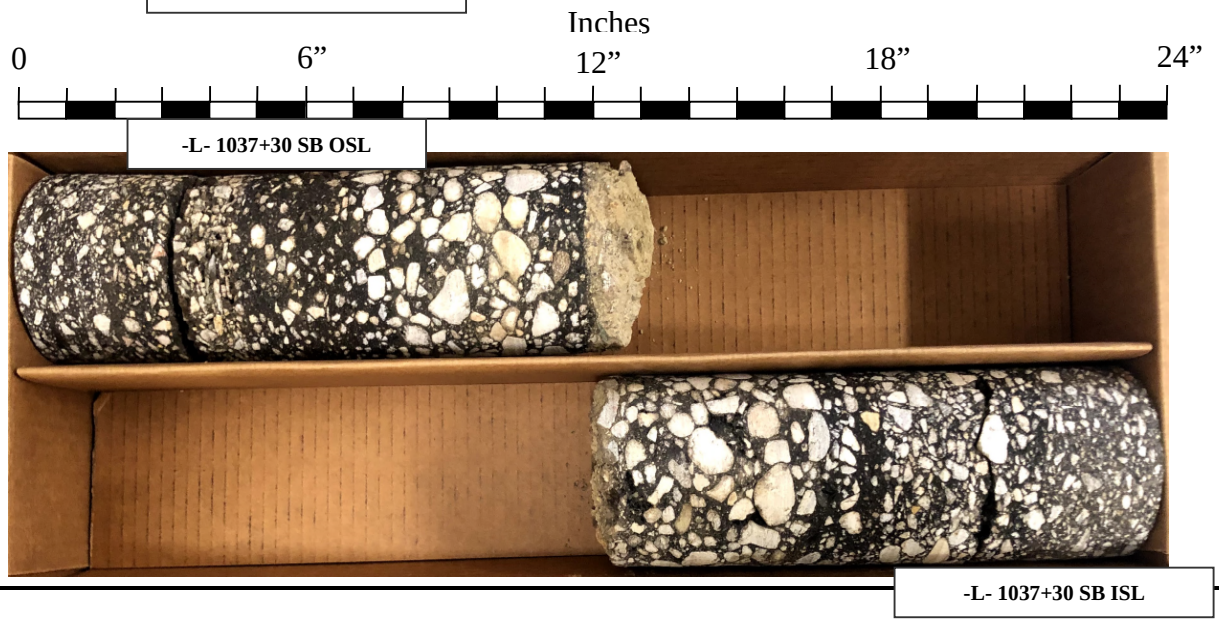

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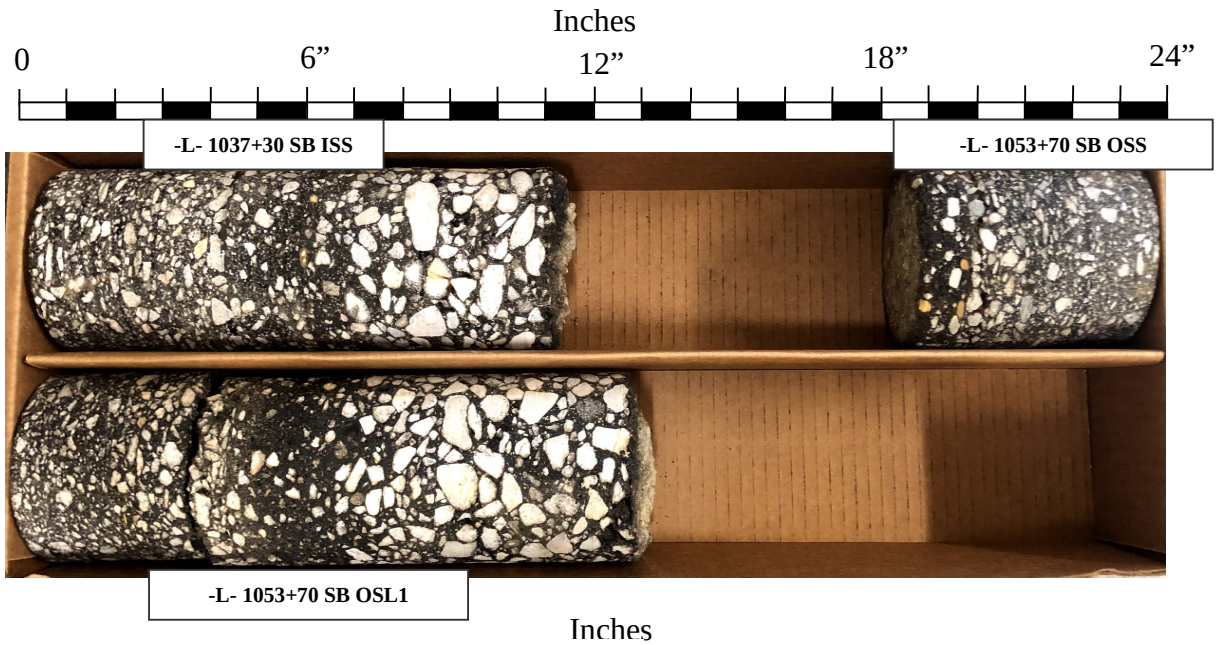

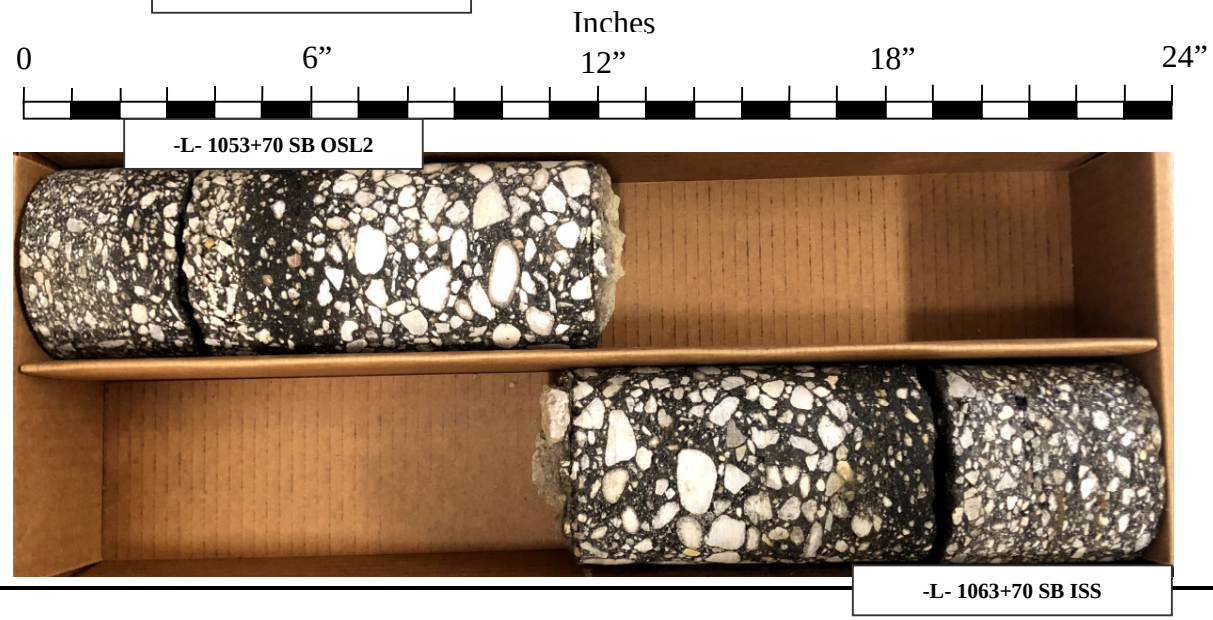

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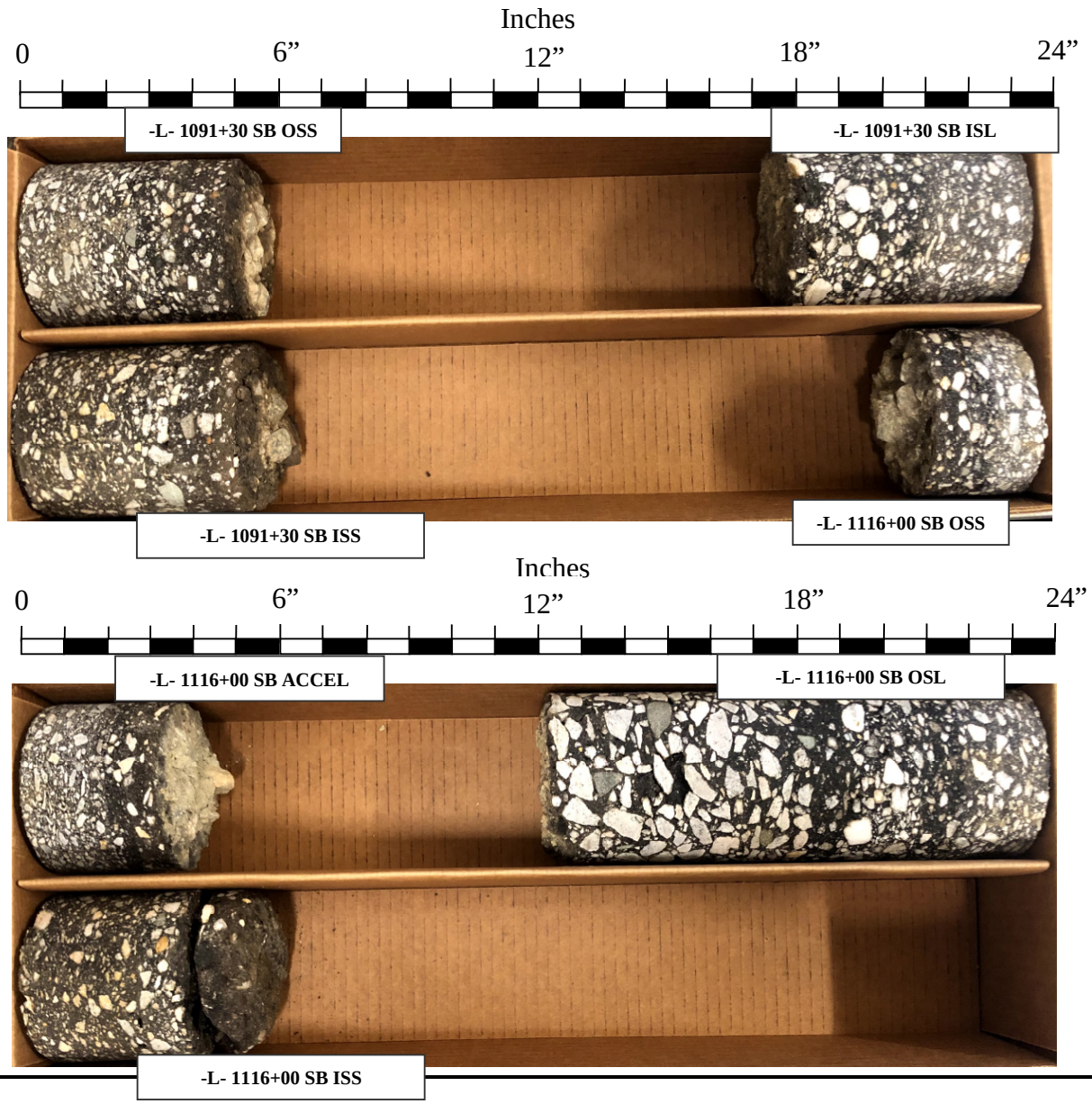

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S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

SUMMARY OF LABORATOTY TEST DATA

Soil Classification and Gradation

S&ME, Inc. Raleigh, 3201 Spring Forest Road, Raleigh, North Carolina 27616

S&ME Project #:	210986			Date Report	12/30/2019
State Project No.:	47533.1.3	County:	Robeson	Date Tested	12/6 - 12/30/19
Federal ID No.:		TIP No.:	I-5987B		
Project Name:	I-95 from South of NC 20 to South of Proposed I-295				
Client Name:	NCDOT	Client Address:	Raleigh, NC		

Station No.	Sample No.	Boring No.	Offset	Alignment	Sample Depth (ft)	AASHTO Classification		Total % Passing Sieve #				Total Mortar Fraction (%)				LL	PL	PI	Moist. %
								10	40	60	200	Coarse Sand	Fine Sand	Silt	Clay				
562+00 NB OSS	S-32	NB-24 OSL	N/A	-L-	0.0-4.5	A-2-4	(0)	94	61	47	25.8	50	26	7	17	19	12	7	8.5
610+70 NB OSL	S-33	NB-27 OSL	N/A	-L-	0.0-4.5	A-2-6	(0)	95	65	47	28.5	51	22	3	24	28	16	12	12.9
689+00 NB DECEL	S-34	NB-30 DECEL	N/A	-L-	0.0-4.5	A-2-4	(0)	97	54	36	11.3	63	26	2	9	N.P	N.P	N.P	11.9
719+25 NB OSL	S-35	NB-31 OSL	N/A	-L-	0.0-4.5	A-2-4	(0)	98	68	49	27.5	51	25	4	20	22	13	9	9.5
745+55 NB OSS	S-36	NB-32 OSS	N/A	-L-	0.0-4.5	A-2-4	(0)	98	68	51	26.8	48	28	6	18	19	13	6	8.2
772+25 NB OSL	S-37	NB-33 OSL	N/A	-L-	0.0-4.5	A-2-4	(0)	97	61	42	24.9	57	20	2	21	24	15	9	12.2
798+50 NB OSS	S-38	NB-34 OSS	N/A	-L-	0.0-4.5	A-2-6	(0)	99	66	51	29.3	49	25	2	24	29	16	13	11.4
825+00 NB OSL	S-39	NB-35 OSL	N/A	-L-	0.0-4.5	A-2-6	(0)	95	61	48	32.7	50	18	3	29	35	22	13	12.5
878+20 NB OSL	S-40	NB-37 OSL	N/A	-L-	0.0-4.5	A-2-4	(0)	98	52	30	13.6	69	19	2	10	N.P	N.P	N.P	4.3
878+20 NB OSS	S-41	NB-37 OSS	N/A	-L-	0.0-0.8	A-2-4	(0)	99	60	42	22.2	58	22	3	17	18	14	4	8.0
904+65 NB OSS	S-42	NB-38 OSS	N/A	-L-	0.8-4.5	A-2-4	(0)	100	58	36	20.9	64	17	6	13	18	14	4	12.5
934+90 NB OSL	S-42A	NB-39 OSL	N/A	-L-	0.0-4.5	A-2-4	(0)	88	53	39	20.8	56	24	10	10	N.P	N.P	N.P	5.9
960+95 NB OSS	S-43	NB-40 OSS	N/A	-L-	0.0-1.0	A-2-4	(0)	93	53	37	19.2	60	22	11	7	N.P	N.P	N.P	5.6
960+95 NB OSS	S-44	NB-40 OSS	N/A	-L-	1.0-4.5	A-2-4	(0)	98	56	38	19.6	61	21	7	11	18	14	4	10.5
987+25 NB OSL	S-45	NB-41 OSL	N/A	-L-	0.0-4.5	A-2-4	(0)	100	75	56	30.9	44	29	12	15	16	13	3	9.7
1010+15 NB OSS	S-46	NB-42 OSS	N/A	-L-	0.0-4.5	A-2-4	(0)	99	53	35	16.0	64	22	7	7	16	14	2	12.4
1037+10 NB OSL2	S-47	NB-43 OSL2	N/A	-L-	0.0-4.5	A-2-4	(0)	79	61	45	23.3	43	32	11	14	18	14	4	8.9
535+20 NB ISS	S-56	NB-23 ISS	N/A	-L-	0.0-4.0	A-2-4	(0)	96	62	45	22.8	53	27	7	13	19	14	5	10.5
596+90 NB ISL	S-57	NB-25 ISL	N/A	-L-	0.0-2.0	A-2-4	(0)	95	68	49	24.0	48	30	10	12	N.P	N.P	N.P	6.0

SUMMARY OF LABORATOTY TEST DATA

Soil Classification and Gradation

S&ME, Inc. Raleigh, 3201 Spring Forest Road, Raleigh, North Carolina 27616

S&ME Project #:	210986			Date Report	12/30/2019
State Project No.:	47533.1.3	County:	Robeson	Date Tested	12/6 - 12/30/19
Federal ID No.:		TIP No.:	I-5987B		
Project Name:	I-95 from South of NC 20 to South of Proposed I-295				
Client Name:	NCDOT	Client Address:	Raleigh, NC		

Station No.	Sample No.	Boring No.	Offset	Alignment	Sample Depth (ft)	AASHTO Classification		Total % Passing Sieve #				Total Mortar Fraction (%)				LL	PL	PI	Moist. %
								10	40	60	200	Coarse Sand	Fine Sand	Silt	Clay				
610+70 NB ISS	S-58	NB-27 ISS	N/A	-L-	0.0-5.0	A-2-6	(0)	100	70	54	33.0	46	23	8	23	32	18	14	11.5
636+50 NB ISL	S-59	NB-28 ISL	N/A	-L-	2.0-5.0	A-2-4	(0)	99	73	56	30.0	44	29	8	19	21	16	5	8.6
666+40 NB ISS	S-60	NB-29 ISS	N/A	-L-	2.0-5.0	A-4	(0)	99	70	55	38.3	44	20	16	20	21	14	7	10.1
689+00 NB ISL	S-61	NB-30 ISL	N/A	-L-	0.0-5.0	A-2-4	(0)	92	63	48	26.6	48	26	8	18	24	18	6	10.3
689+00 NB ISS	S-62	NB-30 ISS	N/A	-L-	0.0-1.0	A-2-4	(0)	98	66	47	27.0	52	23	7	18	26	17	9	12.1
719+25 NB ISS	S-63	NB-31 ISS	N/A	-L-	1.0-5.0	A-2-4	(0)	100	74	50	25.3	50	29	7	14	N.P	N.P	N.P	6.5
745+55 NB ISS	S-64	NB-32 ISS	N/A	-L-	0.0-2.0	A-2-4	(0)	99	66	45	19.8	55	27	7	11	N.P	N.P	N.P	12.6
798+50 NB ISL	S-65	NB-34 ISL	N/A	-L-	0.0-1.0	A-2-6	(0)	95	68	49	25.7	49	27	4	20	28	17	11	13.4
798+50 NB ISL	S-66	NB-34 ISL	N/A	-L-	1.0-5.0	A-6	(3)	98	71	56	36.1	43	23	5	29	40	19	21	15.3
851+90 NB ISS	S-67	NB-36 ISS	N/A	-L-	0.0-5.0	A-2-4	(0)	100	68	42	22.0	58	23	6	13	N.P	N.P	N.P	9.8
878+20 NB ISS	S-68	NB-37 ISS	N/A	-L-	0.0-1.5	A-2-4	(0)	100	61	40	19.8	60	23	9	8	N.P	N.P	N.P	10.0
904+65 NB ISL	S-69	NB-38 ISL	N/A	-L-	0.0-5.0	A-2-4	(0)	94	55	39	18.1	59	25	6	10	N.P	N.P	N.P	11.6
934+90 NB ISS	S-70	NB-39 ISS	N/A	-L-	0.0-5.0	A-2-4	(0)	99	52	31	14.4	69	19	3	9	N.P	N.P	N.P	13.2
960+95 NB ISL	S-71	NB-40 ISL	N/A	-L-	0.0-1.5	A-2-4	(0)	98	61	36	17.9	63	21	6	10	N.P	N.P	N.P	11.2
1010+15 NB ISL	S-72	NB-42 ISL	N/A	-L-	0.0-5.0	A-2-4	(0)	100	73	45	20.1	56	27	4	13	N.P	N.P	N.P	11.8
1043+85 NB ISS	S-74	NB-43 ISS	N/A	-L-	0.0-5.0	A-2-4	(0)	99	74	50	22.2	50	31	10	9	N.P	N.P	N.P	6.5
1063+65 NB ISL	S-75	NB-44 ISL	N/A	-L-	0.0-5.0	A-2-4	(0)	97	70	45	24.0	53	24	5	18	23	16	7	11.0
1091+20 NB ISS	S-76	NB-45 ISS	N/A	-L-	0.0-5.0	A-2-6	(0)	98	69	55	30.3	44	27	5	24	33	17	16	11.7
1116+00 NB ISL	S-77	NB-46 ISL	N/A	-L-	3.0-5.0	A-6	(2)	98	80	64	39.8	35	27	6	32	39	23	16	16.9

SUMMARY OF LABORATOTY TEST DATA

Soil Classification and Gradation

S&ME, Inc. Raleigh, 3201 Spring Forest Road, Raleigh, North Carolina 27616

S&ME Project #:	210986			Date Report	12/30/2019
State Project No.:	47533.1.3	County:	Robeson	Date Tested	12/6 - 12/30/19
Federal ID No.:		TIP No.:	I-5987B		
Project Name:	I-95 from South of NC 20 to South of Proposed I-295				
Client Name:	NCDOT	Client Address:	Raleigh, NC		

Station No.	Sample No.	Boring No.	Offset	Alignment	Sample Depth (ft)	AASHTO Classification		Total % Passing Sieve #				Total Mortar Fraction (%)				LL	PL	PI	Moist. %
								10	40	60	200	Coarse Sand	Fine Sand	Silt	Clay				
508+50 NB OSS	S-179	NB-22 OSS	N/A	-L-	0.0-3.0	A-2-4	(0)	100	74	53	27.8	47	28	9	16	16	14	2	10.6
535+20 NB OSS	S-180	NB-23 OSS	N/A	-L-	0.0-3.0	A-2-4	(0)	96	61	46	24.4	52	26	9	13	N.P	N.P	N.P	11.2
600+90 NB OSS	S-181	NB-26 OSS	N/A	-L-	0.0-3.0	A-2-4	(0)	99	66	48	28.2	51	23	9	17	20	15	5	8.1
636+50 NB OSS	S-182	NB-28 OSS	N/A	-L-	0.0-3.0	A-2-4	(0)	100	73	55	27.9	45	31	6	18	21	17	4	10.0
666+40 NB OSS	S-183	NB-29 OSS	N/A	-L-	0.0-3.0	A-2-4	(0)	99	69	51	27.1	49	27	8	16	N.P	N.P	N.P	9.6
666+40 NB OSS	S-184	NB-29 OSS	N/A	-L-	4.0-5.0	A-6	(1)	99	68	54	37.1	45	20	11	24	27	14	13	13.4
1037+10 NB OSS	S-199	NB-43 OSS	N/A	-L-	0.0-3.0	A-2-4	(0)	98	77	56	30.6	43	30	13	14	17	10	7	9.4
1063+65 NB OSS	S-200	NB-44 OSS	N/A	-L-	0.0-3.0	A-2-4	(0)	96	75	58	34.5	39	29	15	17	18	12	6	7.9
1091+20 NB OSS	S-201	NB-45 OSS	N/A	-L-	0.0-3.0	A-7-6	(4)	99	79	63	36.4	36	29	5	30	43	15	28	16.5
1064+30 NB IES	Bulk-1 IES NB	N/A	N/A	-L-	0-3.25	A-2-4	(0)	95	63	32	13.9	66	20	3	11	N.P.	N.P.	N.P.	9.3
958+70 NB IES	Bulk-2 IES NB	N/A	N/A	-L-	0-3.0	A-1-b	(1)	98	47	28	7.9	72	21	1	6	N.P.	N.P.	N.P.	24.3
536+50 NB IES	Bulk-6 IES NB	N/A	N/A	-L-	0-3.0	A-2-4	(0)	98	61	42	15.7	57	29	3	11	N.P.	N.P.	N.P.	10.6
589+50 NB OES	Bulk-7 OES NB	N/A	N/A	-L-	1.5-3.0	A-2-4	(0)	99	64	42	20.0	57	25	4	14	22	18	4	14.0
698+90 NB OES	Bulk-8 OES NB	N/A	N/A	-L-	0-2.5	A-2-4	(0)	99	64	44	22.7	56	24	5	15	20	14	6	10.1
800+00 NB OES	Bulk-9 OES NB	N/A	N/A	-L-	0-3.83	A-2-6	(0)	100	66	47	29.0	53	20	5	22	28	15	13	17.2
905+95 NB OES	Bulk-10 OES NB	N/A	N/A	-L-	0-2.83	A-6	(2)	98	67	52	35.6	47	18	5	30	38	19	19	16.2
1011+45 NB OES	Bulk-11 OES NB	N/A	N/A	-L-	0-3.58	A-2-6	(0)	100	67	44	26.2	56	20	3	21	33	18	15	17.9
1117+10 NB OES	Bulk-12 OES NB	N/A	N/A	-L-	0-2.0	A-2-6	(3)	100	80	63	34.4	37	32	10	21	38	13	25	10.6

SUMMARY OF LABORATOTY TEST DATA

Soil Classification and Gradation

S&ME, Inc. Raleigh, 3201 Spring Forest Road, Raleigh, North Carolina 27616

S&ME Project #:	210986			Date Report	12/30/2019
State Project No.:	47533.1.3	County:	Robeson	Date Tested	12/6 - 12/30/19
Federal ID No.:		TIP No.:	I-5987B		
Project Name:	I-95 from South of NC 20 to South of Proposed I-295				
Client Name:	NCDOT	Client Address:	Raleigh, NC		

Station No.	Sample No.	Boring No.	Offset	Alignment	Sample Depth (ft)	AASHTO Classification		Total % Passing Sieve #				Total Mortar Fraction (%)				LL	PL	PI	Moist. %
								10	40	60	200	Coarse Sand	Fine Sand	Silt	Clay				

References / Comments / Deviations: NP=Non-Plastic

AASHTO T88: Particle Size Analysis of Soils as Modified by the NCDOT

AASHTO T89: Determining the Liquid Limit of Soils

AASHTO T90: Determining the Plastic Limit & Plasticity Index of Soils

AASHTO T265: Laboratory Determination of Moisture Content of Soils

AASHTO M145: The Classification of Soils and Soil Aggregate Mixtures for Highway Construction Purposes

Mal Krajan, ET		104-01-0703	Vlad Mitchev, P.E.	Project Manager
Technician Name:	Signature	Certification #	Technical Responsibility:	Position

SUMMARY OF LABORATOTY TEST DATA

Soil Classification and Gradation

S&ME, Inc. Raleigh, 3201 Spring Forest Road, Raleigh, North Carolina 27616

S&ME Project #:	210986			Date Report	1/3-7/2020
State Project No.:	47533.1.3	County:	Robeson	Date Tested	12/16/19-1/7/20
Federal ID No.:		TIP No.:	I-5987B		
Project Name:	I-95 from South of NC 20 to South of Proposed I-295				
Client Name:	NCDOT	Client Address:	Raleigh, NC		

Station No.	Sample No.	Boring No.	Offset	Alignment	Sample Depth (ft)	AASHTO Classification		Total % Passing Sieve #				Total Mortar Fraction (%)				LL	PL	PI	Organic	Moist. %
								10	40	60	200	Coarse Sand	Fine Sand	Silt	Clay					
1116+00 SB ACCEL	S-185	SB-1 ACCEL	NI	-L-	0-3	A-2-6	(1)	97	79	66	35.0	32	35	10	23	30	14	16	NI	11.9
1116+00 SB ACCEL	S-186	SB-1 ACCEL	NI	-L-	3-5	A-6	(4)	100	83	69	43.8	31	28	9	32	34	17	17	NI	17.3
1116+00 SB OSL	OS-6	SB-1 OSL	NI	-L-	ABC	A-1-b	(0)	42	27	23	15.6	45	23	20	12	21	18	3	NI	9.5
1091+30 SB OSS	S-187	SB-2 OSS	NI	-L-	0-3	A-2-6	(0)	97	79	63	33.6	36	33	12	19	23	12	11	NI	9.6
1053+70 SB OSL1	S-188	SB-3 OSL1	NI	-L-	0-3	A-2-4	(0)	100	69	47	24.8	54	24	12	10	NP	NP	NP	NI	6.8
1037+30 SB OSS	S-189	SB-4 OSS	NI	-L-	0-3	A-2-4	(0)	99	56	37	19.5	63	20	9	9	NP	NP	NP	NI	9.8
987+25 SB OSS	S-190	SB-6 OSS	NI	-L-	0-2.5	A-2-4	(0)	98	64	43	22.0	56	25	10	10	NP	NP	NP	NI	9.2
961+00 SB OSS	S-191	SB-7 OSS	NI	-L-	0-5	A-2-4	(0)	96	51	31	17.0	68	16	9	7	NP	NP	NP	NI	14.7
1116+00 SB OES	Bulk-1	BULK-1 SB OES	NI	-L-	0-3.5	A-2-4	(0)	100	83	66	26.1	34	43	6	17	19	15	4	NI	ND
895+20 SB OES	Bulk-3	BULK-3 SB OES	NI	-L-	0-4.0	A-6	(4)	100	72	62	41.9	38	25	21	16	38	18	20	NI	14.9
795+90 SB OES	Bulk-4	BULK-4 SB OES	NI	-L-	0-2.5	A-2-4	(0)	100	82	54	12.7	46	44	7	3	NP	NP	NP	NI	17.0
961+00 SB ISS	S-137	SB-7 ISS	NI	-L-	0.0-2.5	A-1-b	(0)	96	40	26	10.9	73	17	3	6	NP	NP	NP	NI	7.6
934+95 SB ISL	S-138	SB-8 ISL	NI	-L-	0.4-2.0	A-1-b	(1)	98	38	19	7.5	81	13	1	6	NP	NP	NP	NI	10.4
904+75 SB ISS	S-139	SB-9 ISS	NI	-L-	0-2.5	A-2-4	(0)	93	52	36	18.7	61	21	7	11	18	14	4	NI	12.3
878+15 SB ISL	S-140	SB-10 ISL	NI	-L-	2.5-5	A-2-4	(0)	99	58	40	24.2	60	18	12	10	14	12	2	NI	7.2
851+90 SB ISS	S-141	SB-11 ISS	NI	-L-	0-2.5	A-2-4	(0)	99	6	41	22.3	59	22	9	11	NP	NP	NP	NI	7.5
508+50 SB OSS	S-156	SB-27-OSS	NI	-L-	0-3.0	A-2-4	(0)	98	70	49	24.1	50	28	10	12	NP	NP	NP	NI	11.6
482+45 SB OSS	S-157	SB-28 OSS	NI	-L-	0-3.0	A-2-6	(0)	96	63	47	29.9	51	20	8	21	28	17	11	NI	13.4
454+50 SB OSS	S-158	SB-29 OSS	NI	-L-	0-3.0	A-2-4	(0)	99	67	50	30.1	50	23	9	19	24	15	9	NI	10.0
535+25 SB OSL	S-155	SB-26 OSL	NI	-L-	3.0-5.0	A-6	(3)	99	74	61	43.9	38	21	9	32	34	18	16	NI	16.3
535+25 SB OSS	S-154	SB-26 OSS	NI	-L-	0-3.0	A-2-6	(0)	99	70	54	34.5	46	22	10	22	27	16	11	NI	12.1
562+00 SB OSS	S-153	SB-25 OSS	NI	-L-	0-3.0	A-6	(0)	99	69	52	36.6	47	18	8	27	31	20	11	NI	12.3
581+70 SB OSS	S-152	SB-24 OSS	NI	-L-	0-3.0	A-2-4	(0)	98	70	53	27.0	46	30	12	12	21	16	5	NI	11.0
596+90 SB OSS	S-151	SB-23 OSS	NI	-L-	3.4-5.0	A-6	(3)	98	73	56	35.7	43	22	3	31	39	17	22	NI	16.3

SUMMARY OF LABORATOTY TEST DATA

Soil Classification and Gradation

S&ME, Inc. Raleigh, 3201 Spring Forest Road, Raleigh, North Carolina 27616

S&ME Project #:	210986			Date Report	1/3-7/2020
State Project No.:	47533.1.3	County:	Robeson	Date Tested	12/16/19-1/7/20
Federal ID No.:		TIP No.:	I-5987B		
Project Name:	I-95 from South of NC 20 to South of Proposed I-295				
Client Name:	NCDOT	Client Address:	Raleigh, NC		

Station No.	Sample No.	Boring No.	Offset	Alignment	Sample Depth (ft)	AASHTO Classification		Total % Passing Sieve #				Total Mortar Fraction (%)				LL	PL	PI	Organic	Moist. %
								10	40	60	200	Coarse Sand	Fine Sand	Silt	Clay					
596+90 SB ACCEL	S-150	SB-23 ACCEL	NI	-L-	0-3.0	A-2-4	(0)	100	72	49	19.5	51	33	6	11	NP	NP	NP	NI	9.3
508+50 SB ISL	S-220	SB-27 ISL	NI	-L-	4.0-5.0	A-2-4	(0)	100	72	53	30.0	48	26	10	16	15	11	4	NI	8.1
535+25 SB ISS	S-219	SB-26 ISS	NI	-L-	0-3.0	A-2-4	(0)	100	69	52	32.7	48	23	14	16	19	13	6	NI	8.4
562+00 SB ISS	S-218	SB-25 ISS	NI	-L-	0-3.0	A-2-6	(0)	99	68	49	32.1	50	20	10	20	27	15	12	NI	9.5
610+70 SB ISS	S-217	SB-22 ISS	NI	-L-	0-3.0	A-2-6	(0)	98	60	45	28.8	54	18	6	21	32	15	17	NI	12.4
666+40 SB ISS	S-216	SB-19 ISS	NI	-L-	3.0-5.0	A-2-6	(0)	99	65	50	32.6	49	20	11	19	23	11	12	NI	16.1
719+30 SB ISS	S-215	SB-16 ISS	NI	-L-	0-3.0	A-4	(0)	99	77	62	38.8	37	28	20	14	14	12	2	NI	7.6
772+30 SB ISS	S-214	SB-14 ISS	NI	-L-	0-3.0	A-6	(1)	99	82	65	36.5	35	32	12	21	25	13	12	NI	9.6
798+50 SB ISS	S-213	SB-13 ISS	NI	-L-	0-3.0	A-6	(1)	99	66	53	36.2	47	19	8	26	32	17	15	NI	12.9
934+95 SB OSS	S-192	SB-8 OSS	NI	-L-	0-3.0	A-2-4	(0)	99	58	36	16.5	64	22	7	7	NP	NP	NP	NI	7.4
904+75 SB OSS	S-193	SB-9 OSS	NI	-L-	2.5-5.0	A-2-6	(1)	99	65	50	31.4	50	21	7	22	32	15	17	NI	13.8
825+00 SB OSS	S-195	SB-12 OSS	NI	-L-	0-3.5	A-2-4	(0)	99	66	46	30.3	54	17	7	22	29	21	8	NI	11.9
878+15 SB OSS	S-194	SB-10 OSS	NI	-L-	0-3.0	A-2-4	(0)	100	67	48	24.0	52	27	11	10	NP	NP	NP	NI	3.9
1091+30 SB ISS	S-204	SB-2 ISS	NI	-L-	2.5-5	A-7-6	(3)	99	72	58	35.5	42	24	2	32	44	19	25	NI	15.9
1010+15 SB ISS	S-206	SB-5 ISS	NI	-L-	0-3.0	A-2-4	(0)	100	82	63	35.0	38	32	15	16	18	13	5	NI	10.2
825+00 SB ISL	S-207	SB-12 ISL	NI	-L-	0-3.0	A-6	(6)	96	68	51	35.8	47	18	6	29	40	19	21	NI	14.5
1063+70 SB ISS	S-205	SB-3 ISS	NI	-L-	0-3.0	A-4	(0)	100	83	65	37.8	35	33	18	15	14	12	2	NI	9.3
719+30 SB OSS	S-197	SB-16 OSS	NI	-L-	0-3.0	A-4	(0)	100	80	62	36.6	38	31	20	12	13	12	1	NI	8.4
1116+00 SB ISS	S-203	SB-1 ISS	NI	-L-	0-2.5	A-6	(2)	96	75	63	38.3	35	28	9	28	28	13	15	NI	10.9
666+40 SB OSS	S-198	SB-19 OSS	NI	-L-	2.5-5	A-6	(1)	99	73	57	37.7	42	23	11	24	27	14	13	NI	13.5
688+25 SB ACCEL	S-230	SB-18 ACCEL	NI	-L-	0-4.0	A-2-4	(0)	99	63	42	20.7	57	25	8	10	NP	NP	NP	NI	10.4
688+25 SB OSL	S-229	SB-18 OSL	NI	-L-	0-1.5	A-2-4	(0)	99	63	46	25.6	53	24	11	12	NP	NP	NP	NI	7.8
688+25 SB OSS	S-228	SB-18 OSS	NI	-L-	0-5.0	A-2-4	(0)	97	54	37	21.3	62	18	7	14	18	13	5	NI	9.6
745+65 SB OSS	S-226	SB-15 OSS	NI	-L-	0-3.0	A-2-4	(0)	100	57	33	17.6	67	18	7	9	NP	NP	NP	NI	9.9

SUMMARY OF LABORATOTY TEST DATA

Soil Classification and Gradation

S&ME, Inc. Raleigh, 3201 Spring Forest Road, Raleigh, North Carolina 27616

S&ME Project #:	210986			Date Report	1/3-7/2020
State Project No.:	47533.1.3	County:	Robeson	Date Tested	12/16/19-1/7/20
Federal ID No.:		TIP No.:	I-5987B		
Project Name:	I-95 from South of NC 20 to South of Proposed I-295				
Client Name:	NCDOT	Client Address:	Raleigh, NC		

Station No.	Sample No.	Boring No.	Offset	Alignment	Sample Depth (ft)	AASHTO Classification		Total % Passing Sieve #				Total Mortar Fraction (%)				LL	PL	PI	Organic	Moist. %
								10	40	60	200	Coarse Sand	Fine Sand	Silt	Clay					
772+30 SB OSS	S-225	SB-14 OSS	NI	-L-	0-1.5	A-2-4	(0)	98	68	47	24.7	52	25	7	16	20	13	7	NI	10.7
745+65 SB OSL	S-227	SB-15 OSL	NI	-L-	3.5-5	A-2-4	(0)	95	63	42	22.5	55	24	12	9	NP	NP	NP	NI	8.4
798+50 SB OSS	S-196	SB-13 OSS	NI	-L-	0-3	A-7-6	(5)	100	75	61	42.0	39	22	5	34	41	18	23	NI	16.5
699+70 SB OES	Bulk 5	BULK-5 SB-OES	NI	-L-	0-3.25	A-7-6	(5)	100	80	65	45.4	35	22	8	34	41	20	21	NI	17.3
590+30 SB OES	Bulk 6	BULK-6 SB-OES	NI	-L-	0-3.33	A-2-4	(0)	100	87	62	16.1	38	50	8	4	NP	NP	NP	NI	13.2
853+15 SB IES	Bulk 3	BULK-3 SB IES	NI	-L-	0-2.92	A-2-4	(0)	100	68	42	19.3	58	26	7	10	NP	NP	NP	NI	8.1
642+05 SB IES	Bulk 5	BULK-5 SB IES	NI	-L-	0-2.5	A-2-4	(0)	99	56	37	20.2	62	19	4	14	19	14	5	NI	12.8
747+50 SB IES	Bulk 4	BULK-4 SB IES	NI	-L-	0-3.58	A-4	(0)	99	76	64	35.6	36	33	12	20	27	22	5	NI	20.5

References / Comments / Deviations: ND=Not Detemined.

AASHTO T88: Particle Size Analysis of Soils as Modified by the NCDOT

AASHTO T89: Determining the Liquid Limit of Soils

AASHTO T90: Determining the Plastic Limit & Plasticity Index of Soils

AASHTO T265: Laboratory Determination of Moisture Content of Soils

AASHTO M145: The Classification of Soils and Soil Aggregate Mixtures for Highway Construction Purposes

Technician Name: _____ Signature _____ Certification # _____ Technical Responsibility: Project Manager

Position

Form No. TR-D698-2
Revision No. : 1
Revision Date: 07/25/17

MOISTURE - DENSITY REPORT

Quality Assurance

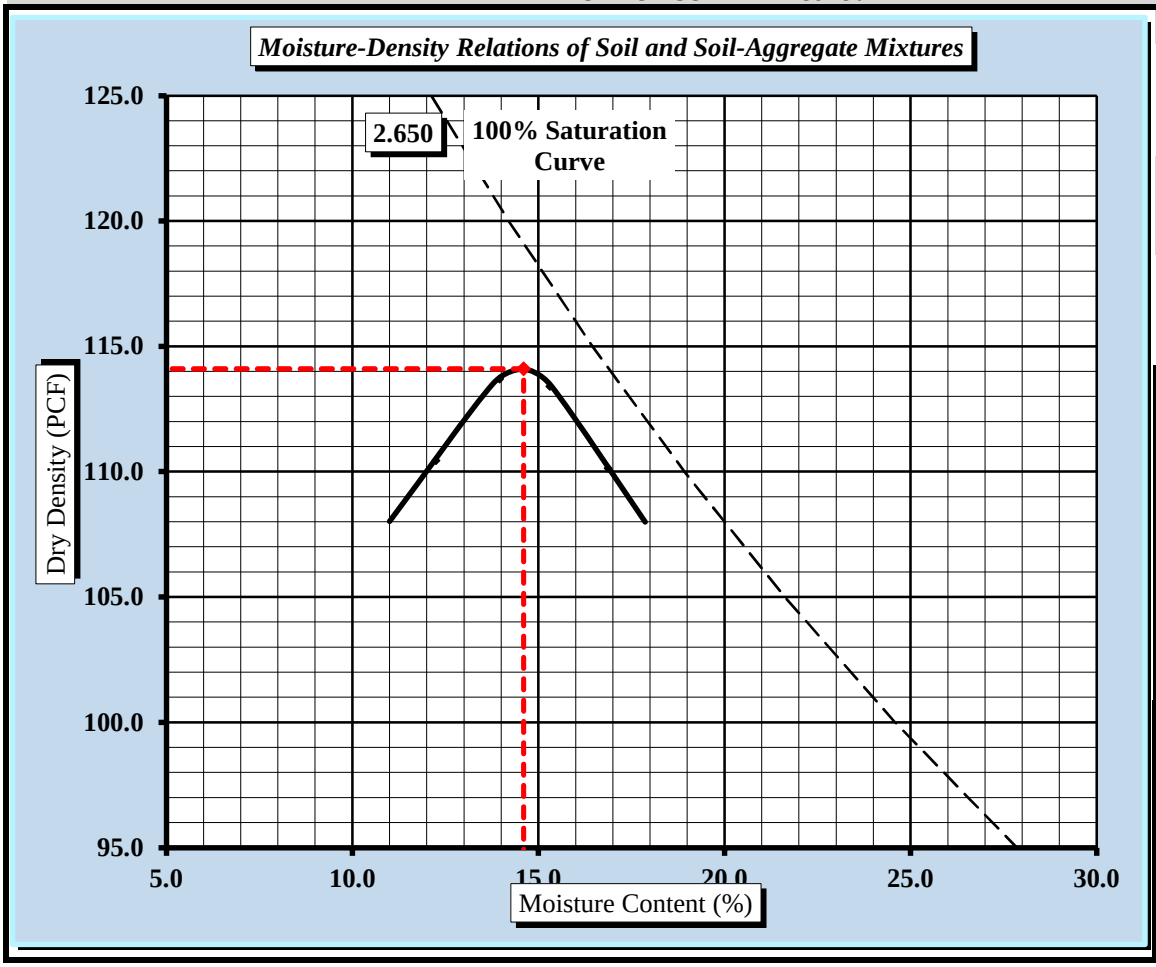
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

S&ME Project #:	210986	Report Date:	1/20/2020
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s):	1/16 - 1/20/20
Client Name:	NCDOT		
Client Address:			

Boring #:	N/A	Sample #:	Bulk 10 OES NB	Sample Date:	1/15/2020
Location:	-L- 905+95 NB OES	Offset:	N/A	Depth (ft):	N/A
Sample Description:	Tan-Brown Fine to Coarse Sandy Silty CLAY (A-6) (2)				

Maximum Dry Density 114.1 PCF. Optimum Moisture Content 14.6%

AASHTO T99 - - Method A



Soil Properties	
Natural Moisture Content	16.2%
Assumed Specific Gravity	2.650
Liquid Limit	38
Plastic Limit	19
Plastic Index	19
% Passing	
3/4"	100.0%
3/8"	100.0%
#4	100.0%
#10	98.0%
#40	67.0%
#60	52.0%
#200	35.6%

Oversize Fraction
Bulk Gravity
% Moisture
% Oversize
MDD
Opt. MC

Moisture-Density Curve Displayed: Fine Fraction ☒ Corrected for Oversize Fraction (ASTM D 4718) ☐

Sieve Size used to separate the Oversize Fraction: #4 Sieve ☒ 3/8 inch Sieve ☐ 3/4 inch Sieve ☐

Mechanical Rammer ☐ Manual Rammer ☒ Moist Preparation ☐ Dry Preparation ☒

References / Comments / Deviations:

AASHTO T265: Laboratory Determination of Moisture Content of Soils

AASHTO T 99: Moisture-Density Relations of Soil Using a 5.5 Lb. Rammer and a 12" Drop

Mal Krajan, ET		Laboratory Manager	1/20/2020
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D698-2
Revision No. : 1
Revision Date: 07/25/17

MOISTURE - DENSITY REPORT

Quality Assurance

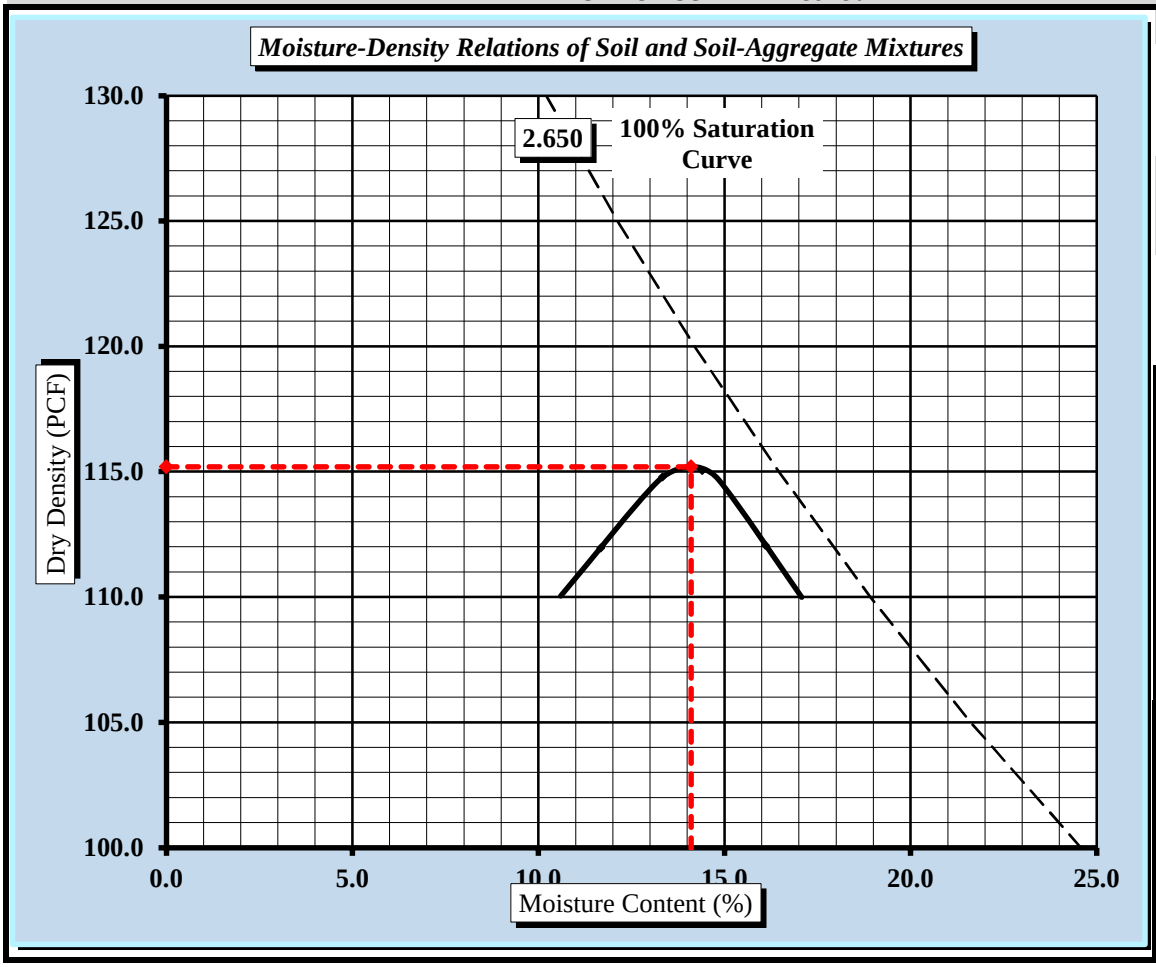
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

S&ME Project #:	210986	Report Date:	1/19/20
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s):	1/17 - 1/19/20
Client Name:	NCDOT		
Client Address:			

Boring #:	N/A	Sample #:	Bulk 11 OES NB	Sample Date:	1/15/2020
Location:	-L- 1011+45 NB OES	Offset:	N/A	Depth (ft):	N/A
Sample Description:	Tan-Brown Silty Clayey Fine to Coarse SAND (A-2-6) (0)				

Maximum Dry Density 115.2 PCF. Optimum Moisture Content 14.1%

AASHTO T99 - - Method A



Soil Properties	
Natural Moisture Content	17.9%
Assumed Specific Gravity	2.650
Liquid Limit	33
Plastic Limit	18
Plastic Index	15
% Passing	
3/4"	100.0%
3/8"	100.0%
#4	100.0%
#10	100.0%
#40	67.0%
#60	44.0%
#200	26.2%
Oversize Fraction	
Bulk Gravity	
% Moisture	
% Oversize	
MDD	
Opt. MC	

Moisture-Density Curve Displayed: Fine Fraction ☒ Corrected for Oversize Fraction (ASTM D 4718) ☐

Sieve Size used to separate the Oversize Fraction: #4 Sieve ☒ 3/8 inch Sieve ☐ 3/4 inch Sieve ☐

Mechanical Rammer ☐ Manual Rammer ☒ Moist Preparation ☐ Dry Preparation ☒

References / Comments / Deviations:

AASHTO T265: Laboratory Determination of Moisture Content of Soils

AASHTO T 99: Moisture-Density Relations of Soil Using a 5.5 Lb. Rammer and a 12" Drop

Mal Krajan, ET		Laboratory Manager	1/20/2020
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D698-2
Revision No. : 1
Revision Date: 07/25/17

MOISTURE - DENSITY REPORT

Quality Assurance

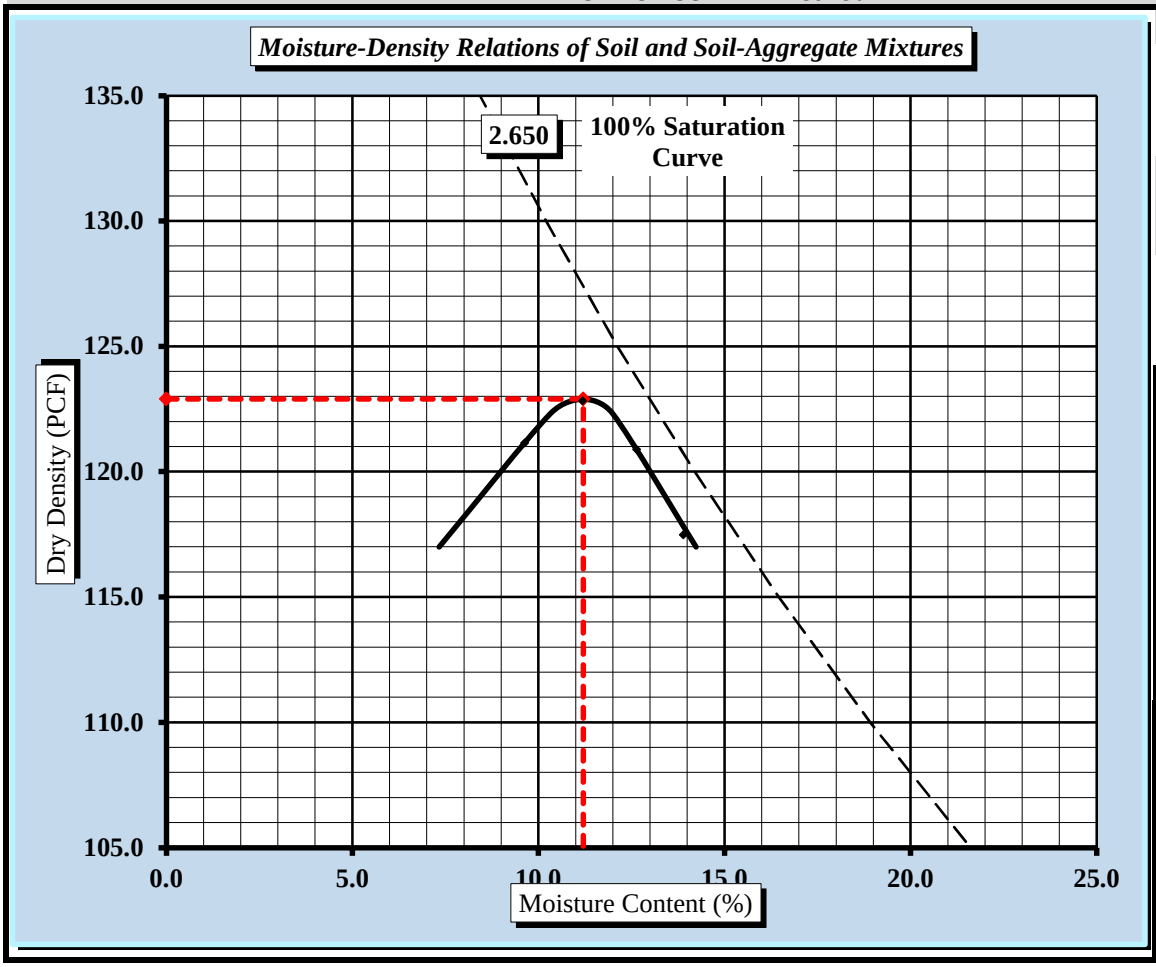
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

S&ME Project #:	210986	Report Date:	1/21/2020
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s):	1/17 - 1/21/20
Client Name:	NCDOT		
Client Address:			

Boring #:	N/A	Sample #:	Bulk 12 OES NB	Sample Date:	1/15/2020
Location:	-L- 1117+10 NB OES	Offset:	N/A	Depth (ft):	N/A
Sample Description:	Gray Silty Clayey Fine to Coarse SAND (A-2-6) (3)				

Maximum Dry Density 122.9 PCF. Optimum Moisture Content 11.2%

AASHTO T99 - - Method A



Soil Properties	
Natural Moisture Content	10.6%
Assumed Specific Gravity	2.650
Liquid Limit	38
Plastic Limit	13
Plastic Index	25

% Passing	
3/4"	100.0%
3/8"	100.0%
#4	100.0%
#10	100.0%
#40	80.0%
#60	63.0%
#200	34.4%

Oversize Fraction
Bulk Gravity
% Moisture
% Oversize
MDD
Opt. MC

Moisture-Density Curve Displayed: Fine Fraction ☒ Corrected for Oversize Fraction (ASTM D 4718) ☐

Sieve Size used to separate the Oversize Fraction: #4 Sieve ☒ 3/8 inch Sieve ☐ 3/4 inch Sieve ☐

Mechanical Rammer ☐ Manual Rammer ☒ Moist Preparation ☐ Dry Preparation ☒

References / Comments / Deviations:

AASHTO T265: Laboratory Determination of Moisture Content of Soils

AASHTO T 99: Moisture-Density Relations of Soil Using a 5.5 Lb. Rammer and a 12" Drop

Mal Krajan, ET		Laboratory Manager	1/21/2020
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D698-2
Revision No. : 1
Revision Date: 07/25/17

MOISTURE - DENSITY REPORT

Quality Assurance

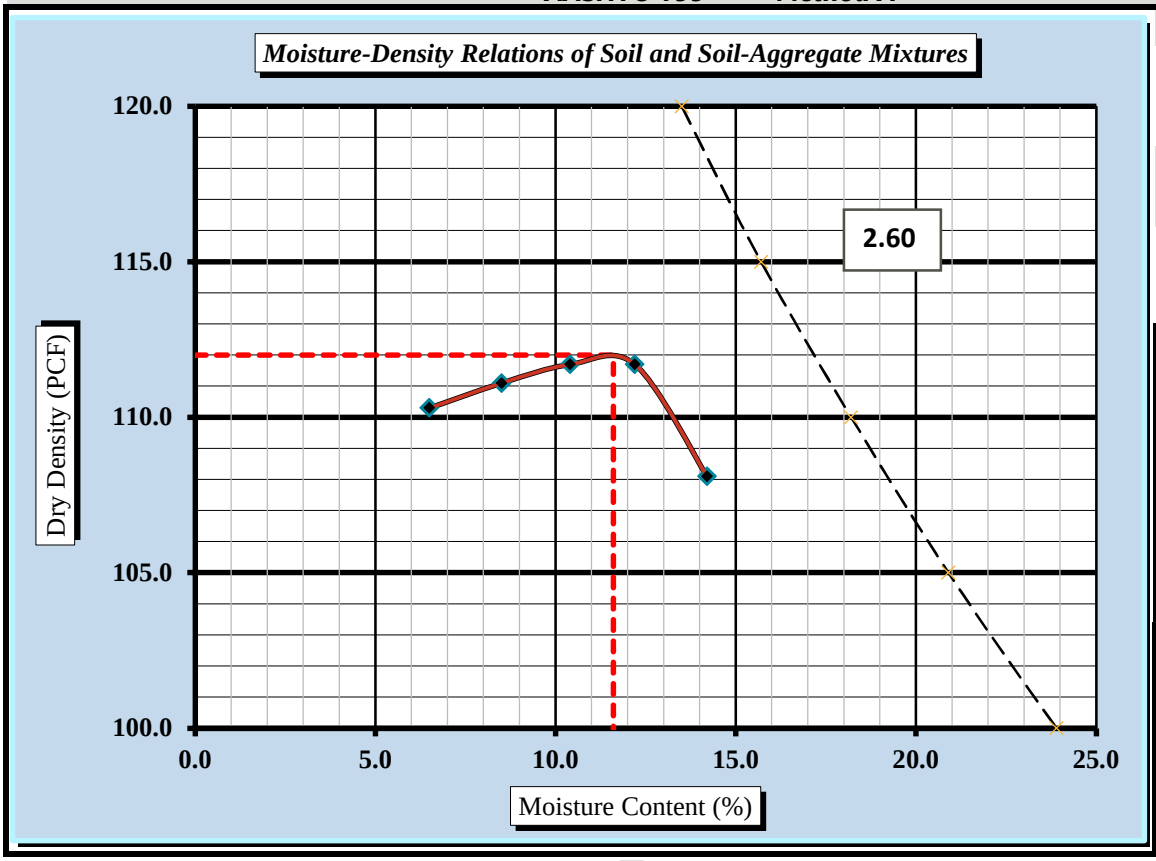
S&ME, Inc. Charlotte: 9751 Southern Pine Boulevard, Charlotte, NC 28273

S&ME Project #:	210986	Report Date:	1/14/20
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s):	1/3-14/20
Client Name:	NCDOT		
Client Address:	Raleigh, NC		

Boring #:	NI	Sample #:	BULK 6 OES SB	Sample Date:	12/11/2019
Location:	-L- 590+30 SB OES	Offset:	NI	Depth:	0-40"
Sample Description:	A-2-4 (0)				

Maximum Dry Density **112.0** **PCF.** **Optimum Moisture Content** **11.6%**

AASHTO T99 - - Method A



Soil Properties	
Natural Moisture Content	13.2%
Specific Gravity of Soil	ND
Liquid Limit	NP
Plastic Limit	NP
Plastic Index	NP

% Passing	
#4	100.0%
#10	100.0%
#20	98.0%
#40	87.0%
#60	62.0%
#100	35.0%
#200	16.1%
#270	12.3%

Oversize Fraction

Moisture-Density Curve Displayed: Fine Fraction ☒ Corrected for Oversize Fraction (ASTM D 4718) ☐

Sieve Size used to separate the Oversize Fraction: #4 Sieve ☒ 3/8 inch Sieve ☐ 3/4 inch Sieve ☐

Mechanical Rammer ☒ Manual Rammer ☐ Moist Preparation ☐ Dry Preparation ☒

References / Comments / Deviations: ND: Not Determined NI: No Information Provided

AASHTO T 99: Moisture-Density Relations of Soil Using a 5.5 Lb. Rammer and a 12" Drop

Vlad Mitchev		Project Manager	
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D698-2
Revision No. : 1
Revision Date: 07/25/17

MOISTURE - DENSITY REPORT

Quality Assurance

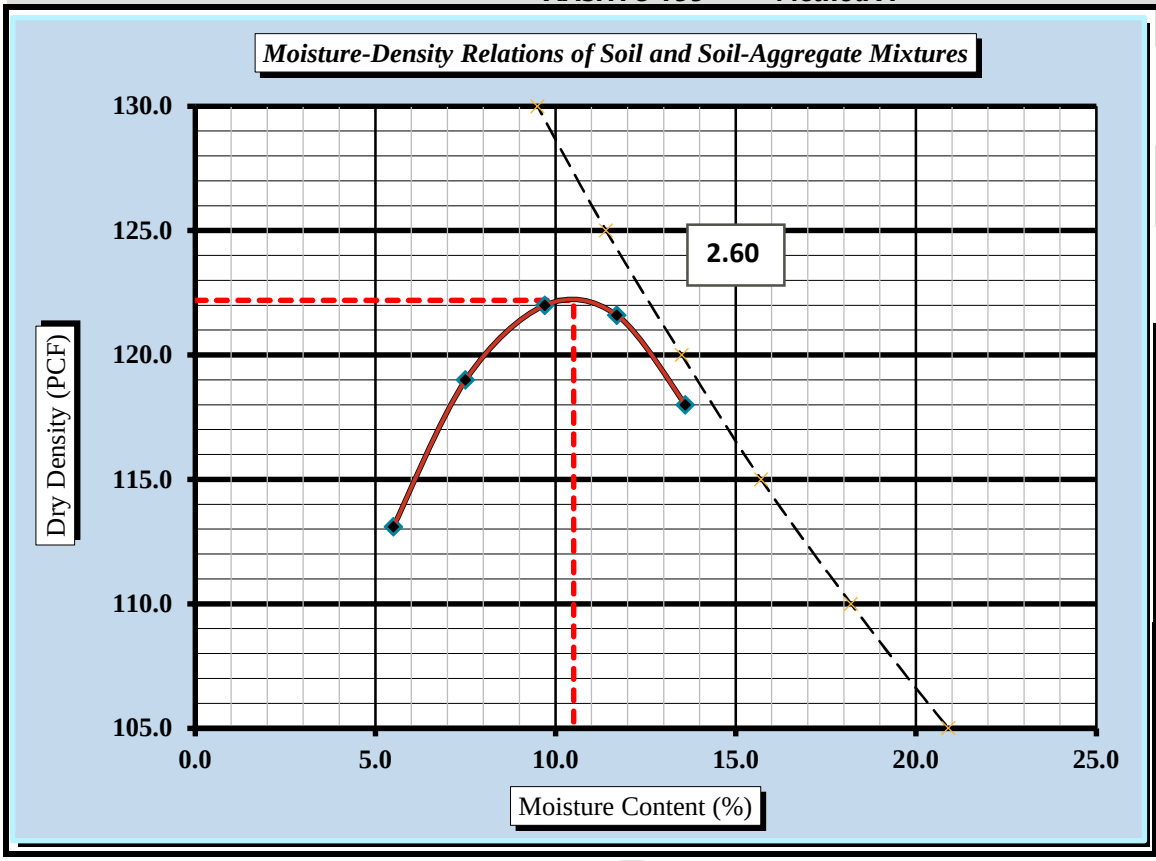
S&ME, Inc. Charlotte: 9751 Southern Pine Boulevard, Charlotte, NC 28273

S&ME Project #:	210986	Report Date:	1/15/20
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s):	1/10-15/20
Client Name:	NCDOT		
Client Address:	Raleigh, NC		

Boring #:	NI	Sample #:	BULK 5 IES SB	Sample Date:	12/15/2019
Location:	-L- 642+05 SB IES	Offset:	NI	Depth:	0-30"
Sample Description:					A-2-4(0)

Maximum Dry Density **122.2** **PCF.** **Optimum Moisture Content** **10.5%**

AASHTO T99 - - Method A



Soil Properties	
Natural Moisture Content	12.8%
Specific Gravity of Soil	ND
Liquid Limit	19
Plastic Limit	14
Plastic Index	5
% Passing	
#4	100.0%
#10	99.0%
#20	86.0%
#40	56.0%
#60	37.0%
#100	26.0%
#200	20.2%
#270	18.1%
Oversize Fraction	

Moisture-Density Curve Displayed: Fine Fraction ☒ Corrected for Oversize Fraction (ASTM D 4718) ☐

Sieve Size used to separate the Oversize Fraction: #4 Sieve ☒ 3/8 inch Sieve ☐ 3/4 inch Sieve ☐

Mechanical Rammer ☒ Manual Rammer ☐ Moist Preparation ☐ Dry Preparation ☒

References / Comments / Deviations: ND: Not Determined NI: No Information Provided

AASHTO T 99: Moisture-Density Relations of Soil Using a 5.5 Lb. Rammer and a 12" Drop

Vlad Mitchev		Project Manager	
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D698-2
Revision No. : 1
Revision Date: 07/25/17

MOISTURE - DENSITY REPORT

Quality Assurance

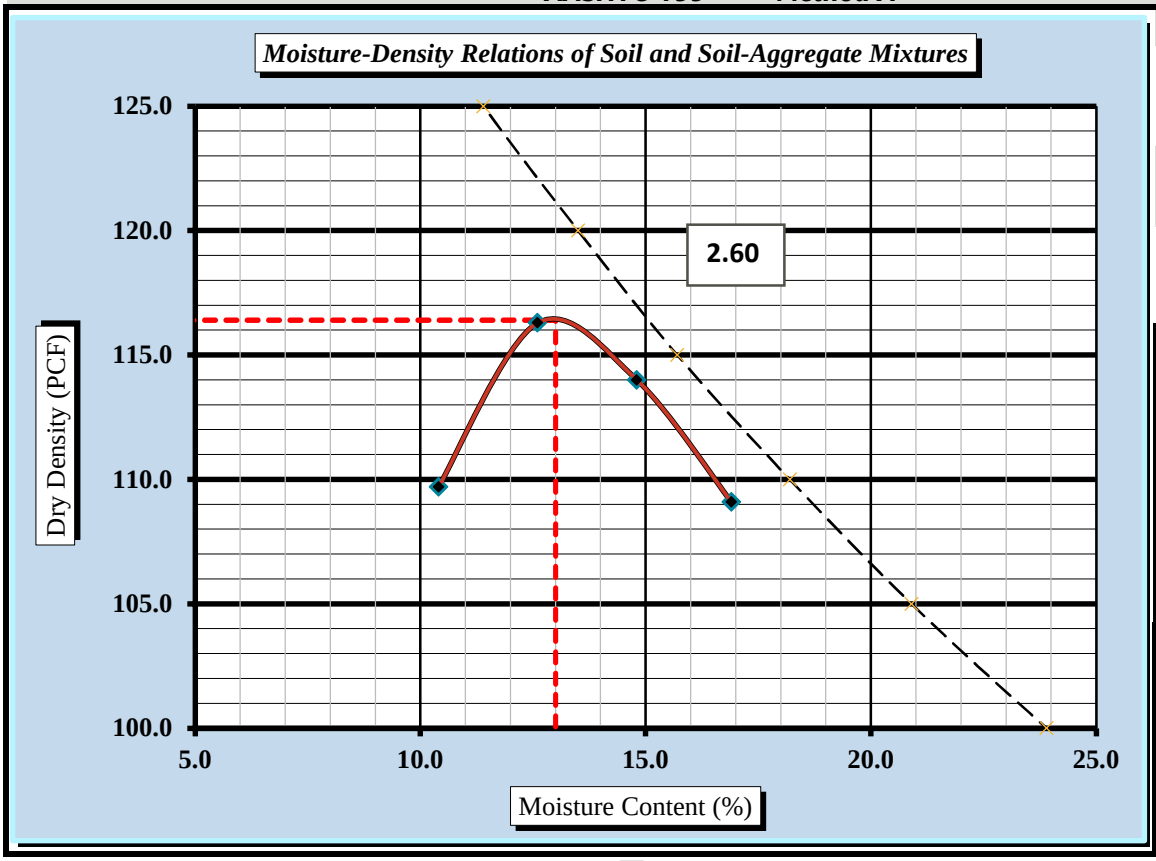
S&ME, Inc. Charlotte: 9751 Southern Pine Boulevard, Charlotte, NC 28273

S&ME Project #:	210986	Report Date:	1/15/20
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s):	1/10-15/20
Client Name:	NCDOT		
Client Address:	Raleigh, NC		

Boring #:	NI	Sample #:	BULK 5 OES SB	Sample Date:	12/15/2019
Location:	-L- 699+70 SB OES	Offset:	NI	Depth:	0-39"
Sample Description:	A-7-6 (5)				

Maximum Dry Density **116.4** **PCF.** **Optimum Moisture Content** **13.0%**

AASHTO T99 - - Method A



Soil Properties	
Natural Moisture Content	17.3%
Specific Gravity of Soil	ND
Liquid Limit	41
Plastic Limit	20
Plastic Index	21
% Passing	
#4	100.0%
#10	100.0%
#20	95.0%
#40	80.0%
#60	65.0%
#100	54.0%
#200	45.4%
#270	42.8%
Oversize Fraction	

Moisture-Density Curve Displayed: Fine Fraction ☒ Corrected for Oversize Fraction (ASTM D 4718) ☐

Sieve Size used to separate the Oversize Fraction: #4 Sieve ☒ 3/8 inch Sieve ☐ 3/4 inch Sieve ☐

Mechanical Rammer ☒ Manual Rammer ☐ Moist Preparation ☐ Dry Preparation ☒

References / Comments / Deviations: ND: Not Determined NI: No Information Provided

AASHTO T 99: Moisture-Density Relations of Soil Using a 5.5 Lb. Rammer and a 12" Drop

Vlad Mitchev		Project Manager	
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D698-2
Revision No. : 1
Revision Date: 07/25/17

MOISTURE - DENSITY REPORT

Quality Assurance

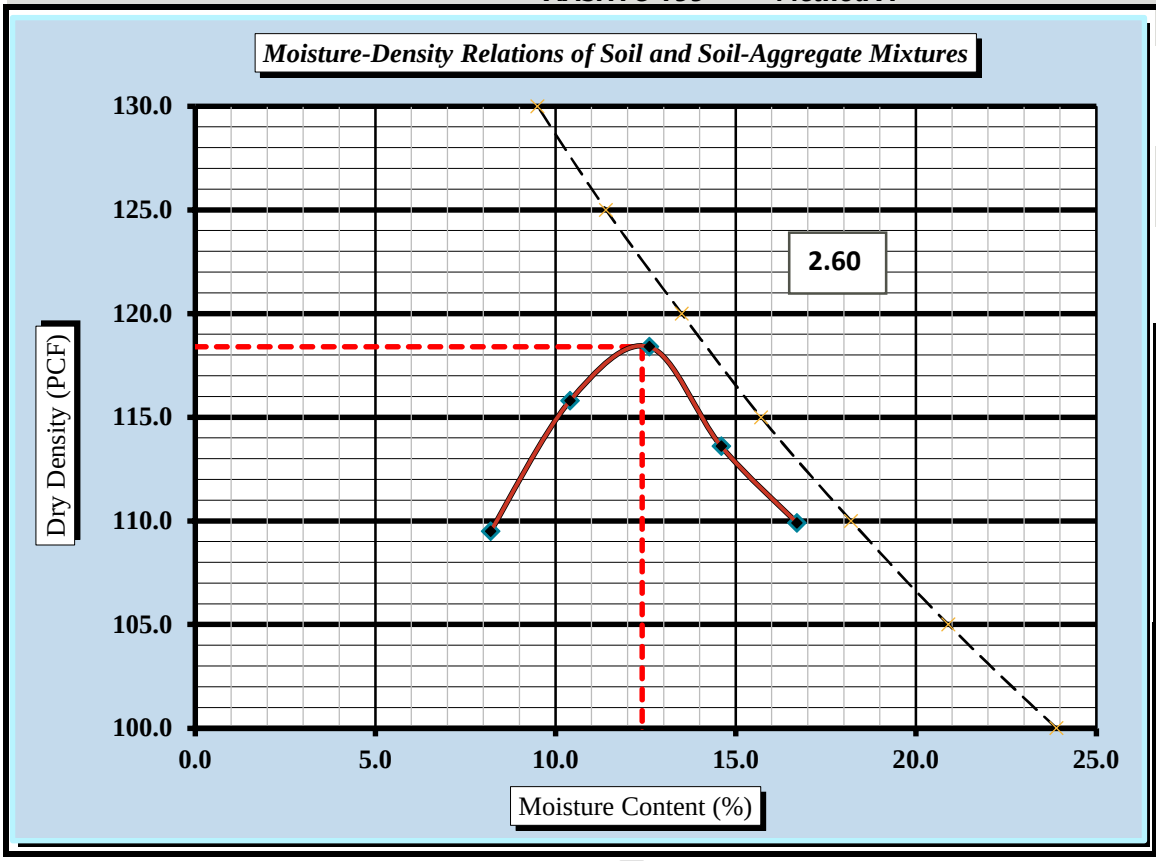
S&ME, Inc. Charlotte: 9751 Southern Pine Boulevard, Charlotte, NC 28273

S&ME Project #:	210986	Report Date:	1/16/20
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s):	1/10-16/20
Client Name:	NCDOT		
Client Address:	Raleigh, NC		

Boring #:	NI	Sample #:	BULK 4 IES SB	Sample Date:	12/15/2019
Location:	-L- 747+50 SB IES	Offset:	NI	Depth:	0-43"
Sample Description:					A-4 (0)

Maximum Dry Density **118.4** **PCF.** **Optimum Moisture Content** **12.4%**

AASHTO T99 - - Method A



Soil Properties	
Natural Moisture Content	20.5%
Specific Gravity of Soil	ND
Liquid Limit	27
Plastic Limit	22
Plastic Index	5
% Passing	
#4	99.0%
#10	99.0%
#20	91.0%
#40	76.0%
#60	64.0%
#100	50.0%
#200	35.6%
#270	31.3%
Oversize Fraction	

Moisture-Density Curve Displayed: Fine Fraction ☒ Corrected for Oversize Fraction (ASTM D 4718) ☐

Sieve Size used to separate the Oversize Fraction: #4 Sieve ☒ 3/8 inch Sieve ☐ 3/4 inch Sieve ☐

Mechanical Rammer ☒ Manual Rammer ☐ Moist Preparation ☐ Dry Preparation ☒

References / Comments / Deviations: ND: Not Determined NI: No Information Provided

AASHTO T 99: Moisture-Density Relations of Soil Using a 5.5 Lb. Rammer and a 12" Drop

Vlad Mitchev		Project Manager	
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D698-2
Revision No. : 1
Revision Date: 07/25/17

MOISTURE - DENSITY REPORT

Quality Assurance

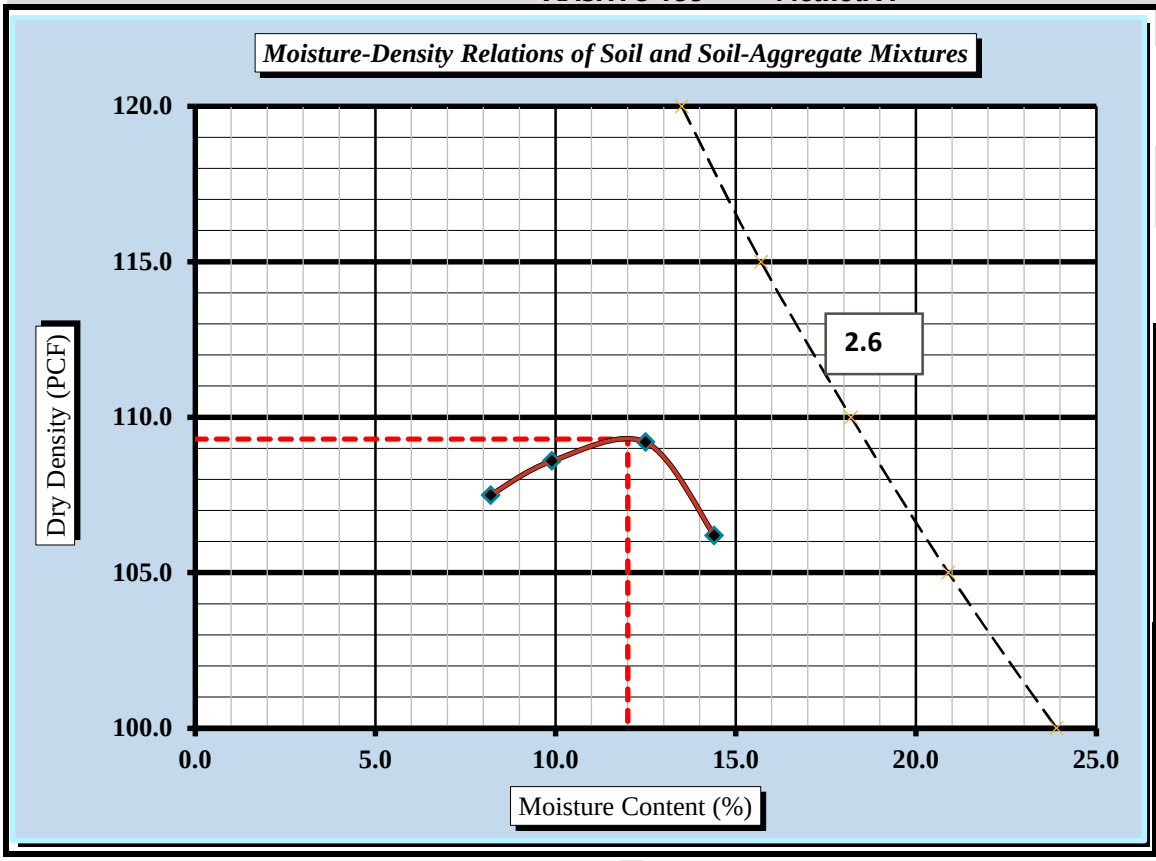
S&ME, Inc. Charlotte: 9751 Southern Pine Boulevard, Charlotte, NC 28273

S&ME Project #:	210986	Report Date:	1/2/20
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s):	12/16-30/19
Client Name:	NCDOT		
Client Address:	Raleigh, NC		

Boring #:	NI	Sample #:	BULK 4 OES SB	Sample Date:	12/11/2019
Location:	-L- 795+90 SB OES	Offset:	NI	Depth:	0-30"
Sample Description:					A-2-4 (0)

Maximum Dry Density **109.3** **PCF.** **Optimum Moisture Content** **12.0%**

AASHTO T99 - - Method A



Soil Properties	
Natural Moisture Content	17.0%
Specific Gravity of Soil	ND
Liquid Limit	NP
Plastic Limit	NP
Plastic Index	NP
% Passing	
#4	100.0%
#10	100.0%
#20	96.0%
#40	82.0%
#60	54.0%
#100	28.0%
#200	12.7%
#270	10.1%
Oversize Fraction	

Moisture-Density Curve Displayed: Fine Fraction ☒ Corrected for Oversize Fraction (ASTM D 4718) ☐

Sieve Size used to separate the Oversize Fraction: #4 Sieve ☒ 3/8 inch Sieve ☐ 3/4 inch Sieve ☐

Mechanical Rammer ☒ Manual Rammer ☐ Moist Preparation ☐ Dry Preparation ☒

References / Comments / Deviations: ND: Not Determined NI: No Information Provided

AASHTO T 99: Moisture-Density Relations of Soil Using a 5.5 Lb. Rammer and a 12" Drop

Vlad Mitchev		Project Manager	
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D698-2
Revision No. : 1
Revision Date: 07/25/17

MOISTURE - DENSITY REPORT

Quality Assurance

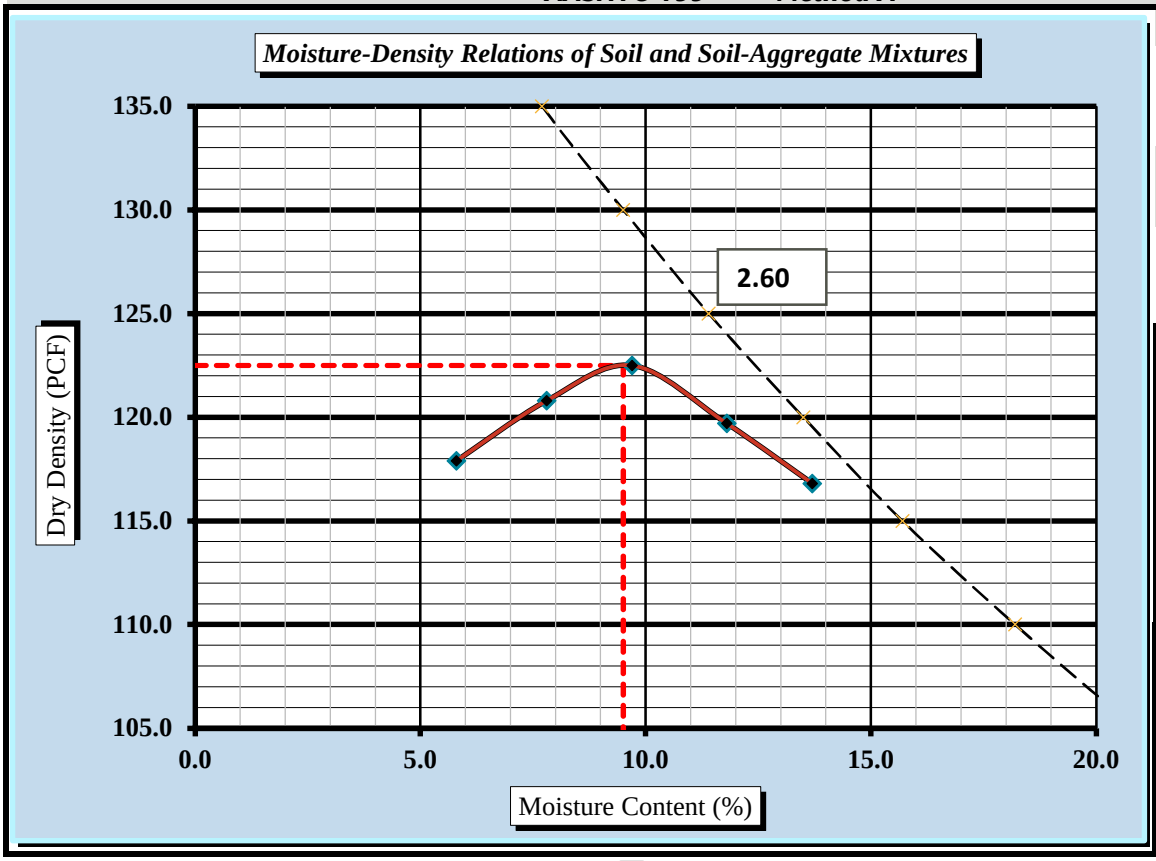
S&ME, Inc. Charlotte: 9751 Southern Pine Boulevard, Charlotte, NC 28273

S&ME Project #:	210986	Report Date:	1/15/20
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s):	1/10-15/20
Client Name:	NCDOT		
Client Address:	Raleigh, NC		

Boring #:	NI	Sample #:	BULK 3 IES SB	Sample Date:	12/15/2019
Location:	-L- 853+15 SB IES	Offset:	NI	Depth:	0-35"
Sample Description:	A-2-4 (0)				

Maximum Dry Density **122.5** **PCF.** **Optimum Moisture Content** **9.5%**

AASHTO T99 - - Method A



Soil Properties	
Natural Moisture Content	8.1%
Specific Gravity of Soil	ND
Liquid Limit	NP
Plastic Limit	NP
Plastic Index	NP
% Passing	
#4	
#10	
#20	
#40	
#60	
#100	
#200	
#270	
Oversize Fraction	

Moisture-Density Curve Displayed: Fine Fraction ☒ Corrected for Oversize Fraction (ASTM D 4718) ☐

Sieve Size used to separate the Oversize Fraction: #4 Sieve ☒ 3/8 inch Sieve ☐ 3/4 inch Sieve ☐

Mechanical Rammer ☒ Manual Rammer ☐ Moist Preparation ☐ Dry Preparation ☒

References / Comments / Deviations: ND: Not Determined NI: No Information Provided

AASHTO T 99: Moisture-Density Relations of Soil Using a 5.5 Lb. Rammer and a 12" Drop

Vlad Mitchev		Project Manager	
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D698-2
Revision No. : 1
Revision Date: 07/25/17

MOISTURE - DENSITY REPORT

Quality Assurance

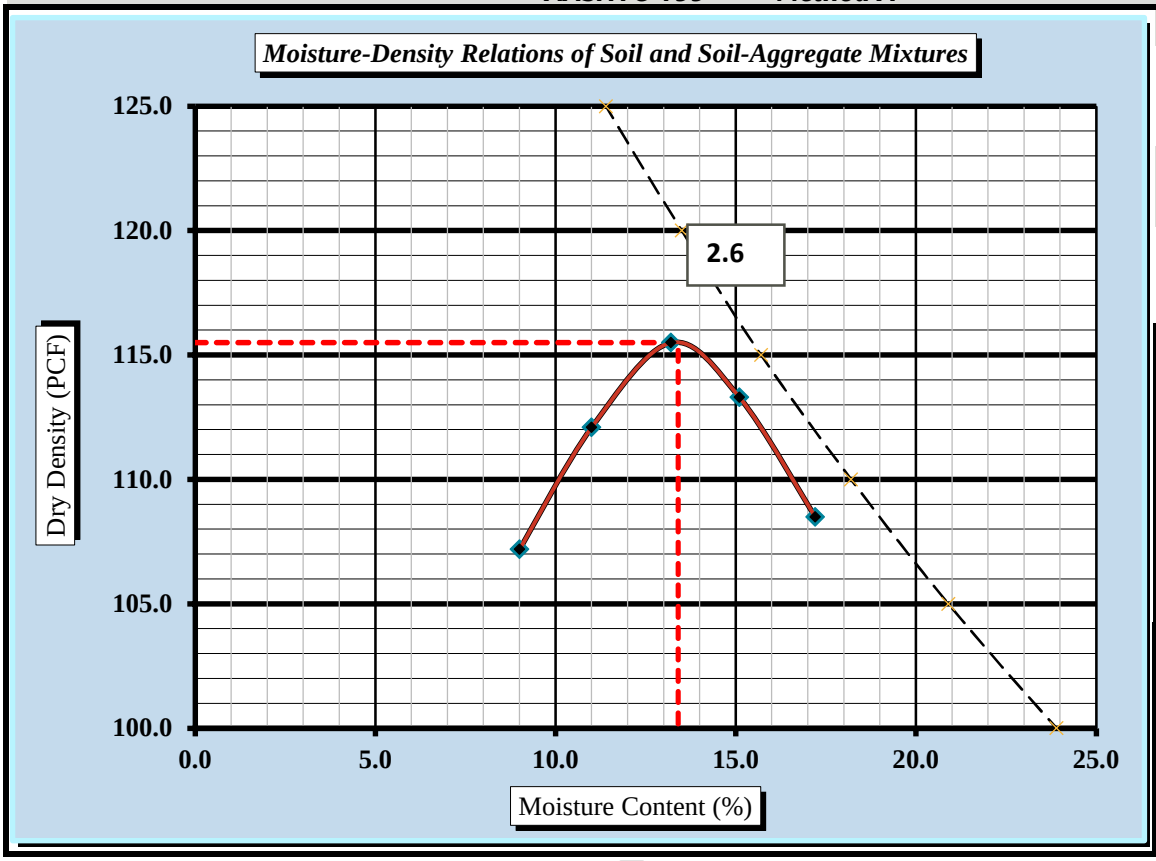
S&ME, Inc. Charlotte: 9751 Southern Pine Boulevard, Charlotte, NC 28273

S&ME Project #:	210986	Report Date:	1/2/20
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s):	12/16-28/19
Client Name:	NCDOT		
Client Address:	Raleigh, NC		

Boring #:	NI	Sample #:	BULK 3 OES SB	Sample Date:	12/11/2019
Location:	-L- 895+20 SB OES	Offset:	NI	Depth:	0-48"
Sample Description:					A-6 (4)

Maximum Dry Density **115.5** **PCF.** **Optimum Moisture Content** **13.4%**

AASHTO T99 - - Method A



Soil Properties	
Natural Moisture Content	14.9%
Specific Gravity of Soil	ND
Liquid Limit	38
Plastic Limit	18
Plastic Index	20
% Passing	
#4	100.0%
#10	100.0%
#20	87.0%
#40	72.0%
#60	62.0%
#100	53.0%
#200	41.9%
#270	37.0%
Oversize Fraction	

Moisture-Density Curve Displayed: Fine Fraction ☒ Corrected for Oversize Fraction (ASTM D 4718) ☐

Sieve Size used to separate the Oversize Fraction: #4 Sieve ☒ 3/8 inch Sieve ☐ 3/4 inch Sieve ☐

Mechanical Rammer ☒ Manual Rammer ☐ Moist Preparation ☐ Dry Preparation ☒

References / Comments / Deviations: ND: Not Determined NI: No Information Provided

AASHTO T 99: Moisture-Density Relations of Soil Using a 5.5 Lb. Rammer and a 12" Drop

Vlad Mitchev		Project Manager	
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D698-2
Revision No. : 1
Revision Date: 07/25/17

MOISTURE - DENSITY REPORT

Quality Assurance

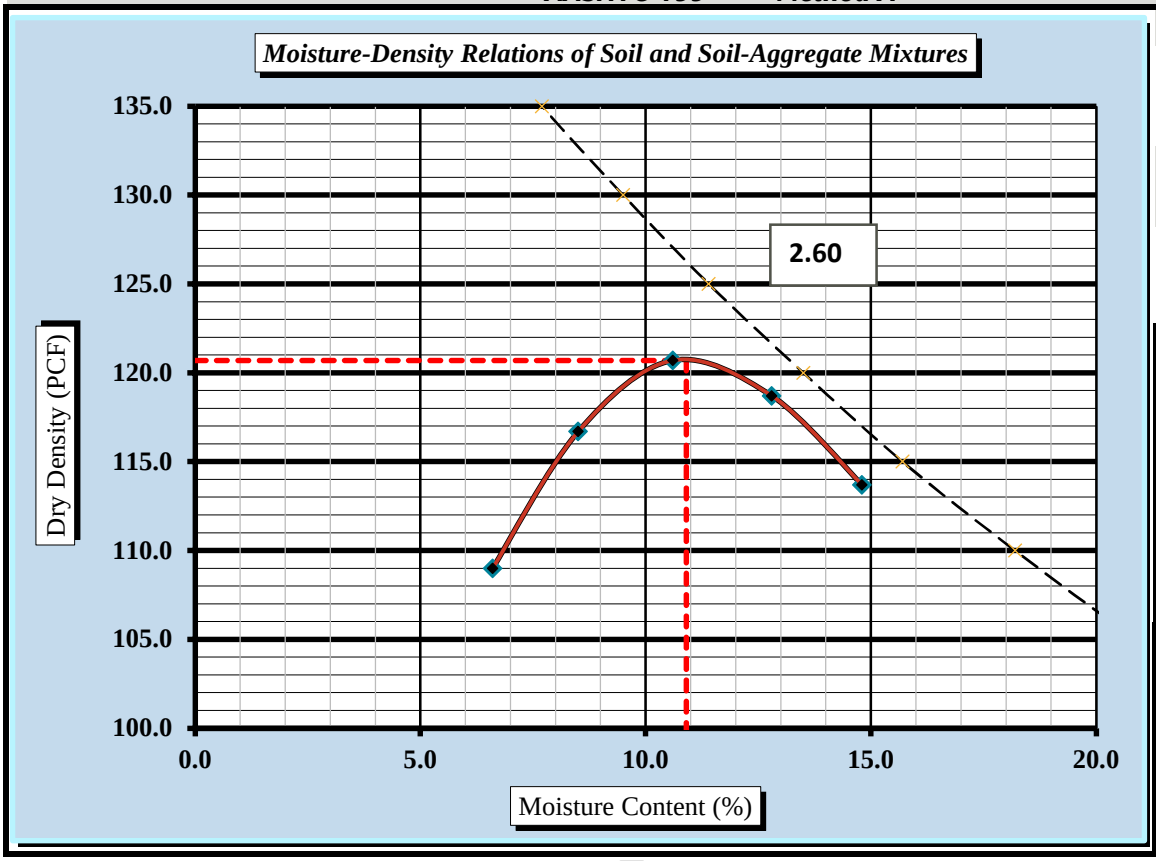
S&ME, Inc. Charlotte: 9751 Southern Pine Boulevard, Charlotte, NC 28273

S&ME Project #:	210986	Report Date:	12/28/19
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s):	12/9-28/19
Client Name:	NCDOT		
Client Address:	Raleigh		

Boring #:	NI	Sample #:	BULK 1 OES SB	Sample Date:	12/6/2019
Location:	-L- 1116+00 SB OES	Offset:	NI	Depth:	0-42"
Sample Description:					A-2-4 (0)

Maximum Dry Density **120.7** **PCF.** **Optimum Moisture Content** **10.9%**

AASHTO T99 - - Method A



Soil Properties	
Natural Moisture Content	ND
Specific Gravity of Soil	ND
Liquid Limit	19
Plastic Limit	15
Plastic Index	4
% Passing	
#4	100.0%
#10	100.0%
#20	97.0%
#40	83.0%
#60	66.0%
#100	40.0%
#200	26.1%
#270	22.8%
Oversize Fraction	

Moisture-Density Curve Displayed: Fine Fraction ☒ Corrected for Oversize Fraction (ASTM D 4718) ☐

Sieve Size used to separate the Oversize Fraction: #4 Sieve ☒ 3/8 inch Sieve ☐ 3/4 inch Sieve ☐

Mechanical Rammer ☒ Manual Rammer ☐ Moist Preparation ☐ Dry Preparation ☒

References / Comments / Deviations: ND: Not Determined NI: No Information Provided

AASHTO T 99: Moisture-Density Relations of Soil Using a 5.5 Lb. Rammer and a 12" Drop

Vlad Michev		Project Manager	
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D1883-T193-3
Revision No. 2
Revision Date: 08/11/17

CBR (CALIFORNIA BEARING RATIO) OF LABORATORY COMPACTED SOIL

AASHTO T 193

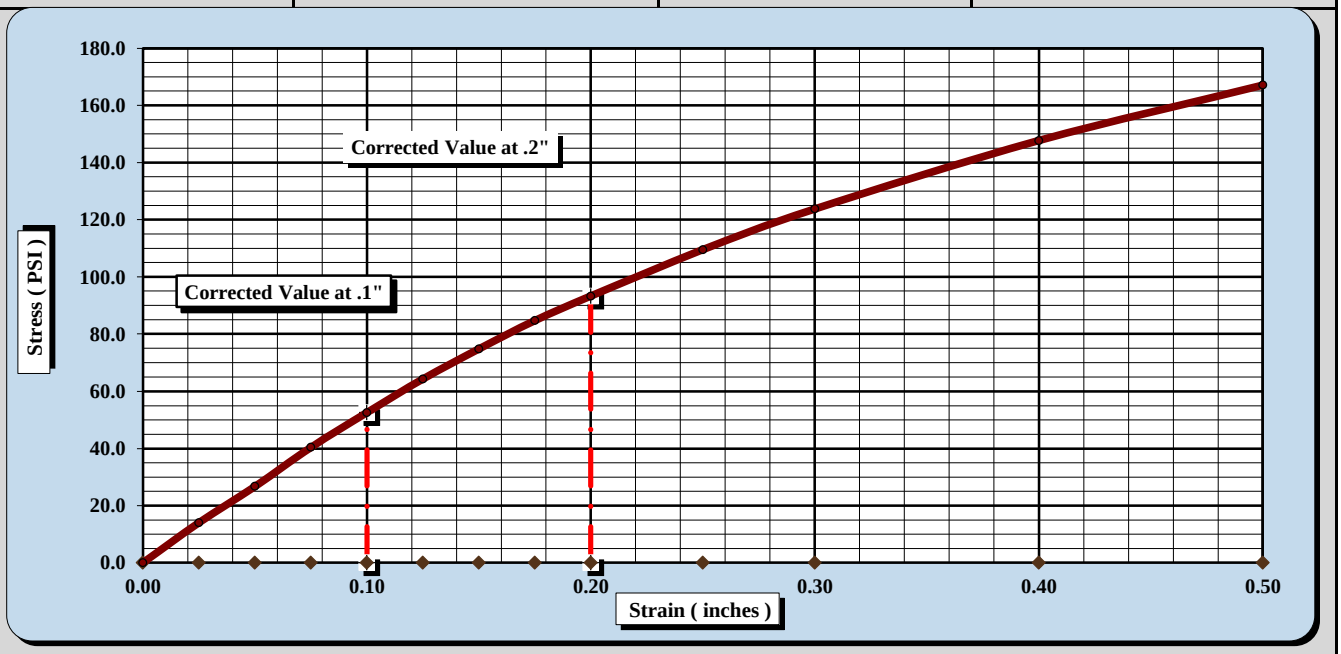
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	210986	Report Date:	1/28/2020
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s)	1/22 - 1/28/20
Client Name:	NCDOT		
Client Address:			
Boring #:	N/A	Sample #: Bulk 10 OES NB	Sample Date: 1/15/2020
Location:	-L- 905+95 NB OES	Offset: N/A	Depth (ft): N/A
Sample Description:	Tan-Brown Fine to Coarse Sandy Silty CLAY (A-6) (2)		

AASHTO T99 *Method A* Maximum Dry Density: 114.1 PCF Optimum Moisture Content: 14.6%

Compaction Test performed on grading complying with CBR spec. % Retained on the 3/4" sieve: 0.0%

Uncorrected CBR Values		Corrected CBR Values	
CBR at 0.1 in. 5.3	CBR at 0.2 in. 6.2	CBR at 0.1 in. 5.3	CBR at 0.2 in. 6.2



CBR Sample Preparation:

The entire gradation was used and compacted in a 6" CBR mold in accordance with AASHTO T 193, Section 5.1.1

Before Soaking		*After Soaking*	
Compactive Effort (Blows per Layer)	56	Final Dry Density (PCF)	112.0
Initial Dry Density (PCF)	114.3	Average Final Moisture Content	15.8%
Moisture Content of the Compacted Specimen	15.2%	Moisture Content (top 1" after soaking)	16.2%
Percent Compaction	100.2%	Percent Swell	2.3%

Soak Time:	96 hrs.	Surcharge Weight	10.0	Surcharge Wt. per sq. Ft.	50.9
Liquid Limit	38	Plastic Index	19		

Notes/Deviations/References:

Test specimen compacted to 100% at optimum moisture.

Mal Krajan, ET		Laboratory Manager	2/2/2020
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D1883-T193-3
Revision No. 2
Revision Date: 08/11/17

CBR (CALIFORNIA BEARING RATIO) OF LABORATORY COMPACTED SOIL

AASHTO T 193

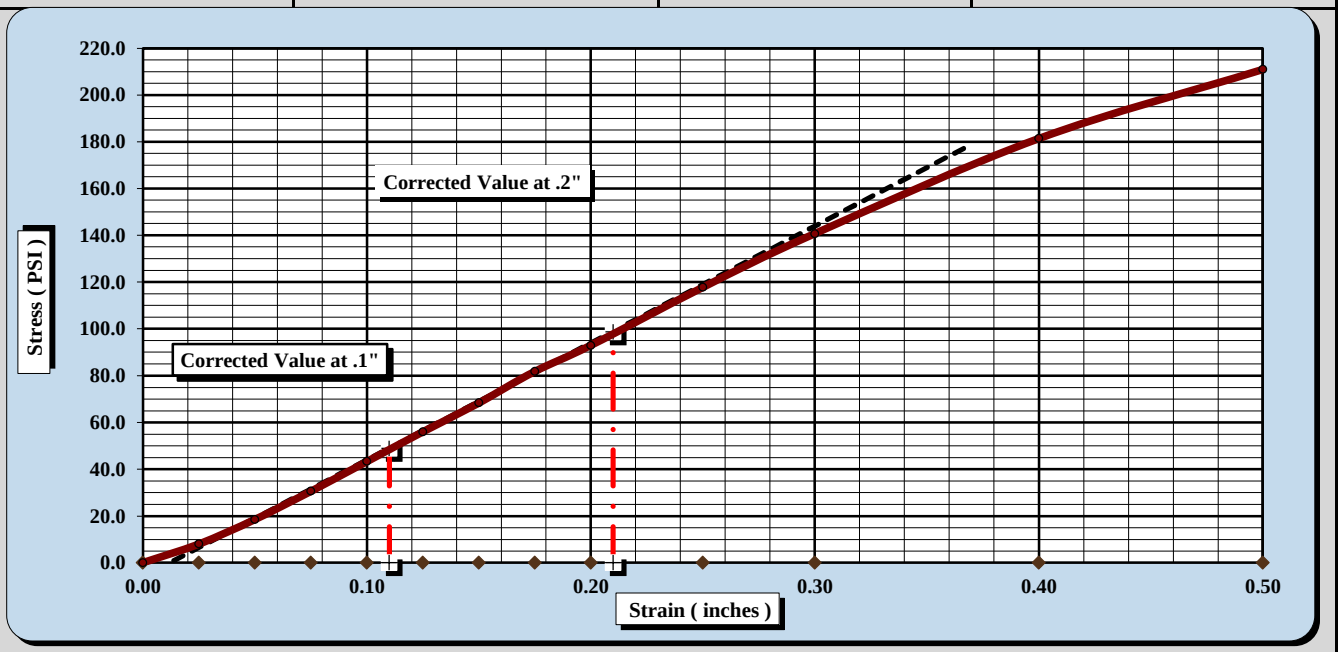
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	210986	Report Date:	1/25/2020
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s)	1/19 - 1/25/2020
Client Name:	NCDOT		
Client Address:			
Boring #:	N/A	Sample #: Bulk 11 OES NB	Sample Date: 1/15/2020
Location:	-L- 1011+45 NB OES	Offset: N/A	Depth (ft): N/A
Sample Description:	Tan-Brown Silty Clayey to Fine to Coarse SAND (A-2-6) (0)		

AASHTO T99 *Method A* Maximum Dry Density: 115.2 PCF Optimum Moisture Content: 14.1%

Compaction Test performed on grading complying with CBR spec. % Retained on the 3/4" sieve: 0.0%

Uncorrected CBR Values		Corrected CBR Values	
CBR at 0.1 in. 4.3	CBR at 0.2 in. 6.2	CBR at 0.1 in. 4.9	CBR at 0.2 in. 6.6



CBR Sample Preparation:

The entire gradation was used and compacted in a 6" CBR mold in accordance with AASHTO T 193, Section 5.1.1

Before Soaking		*After Soaking*	
Compactive Effort (Blows per Layer)	56	Final Dry Density (PCF)	115.3
Initial Dry Density (PCF)	115.1	Average Final Moisture Content	15.2%
Moisture Content of the Compacted Specimen	14.5%	Moisture Content (top 1" after soaking)	15.4%
Percent Compaction	99.9%	Percent Swell	0.1%

Soak Time:	96 hrs.	Surcharge Weight	10.0	Surcharge Wt. per sq. Ft.	50.9
Liquid Limit	33	Plastic Index	15		

Notes/Deviations/References:

Test specimen compacted to 100% at optimum moisture.

Mal Krajan, ET		Laboratory Manager	1/25/2020
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D1883-T193-3
Revision No. 2
Revision Date: 08/11/17

CBR (CALIFORNIA BEARING RATIO) OF LABORATORY COMPACTED SOIL

ASTM D 1883

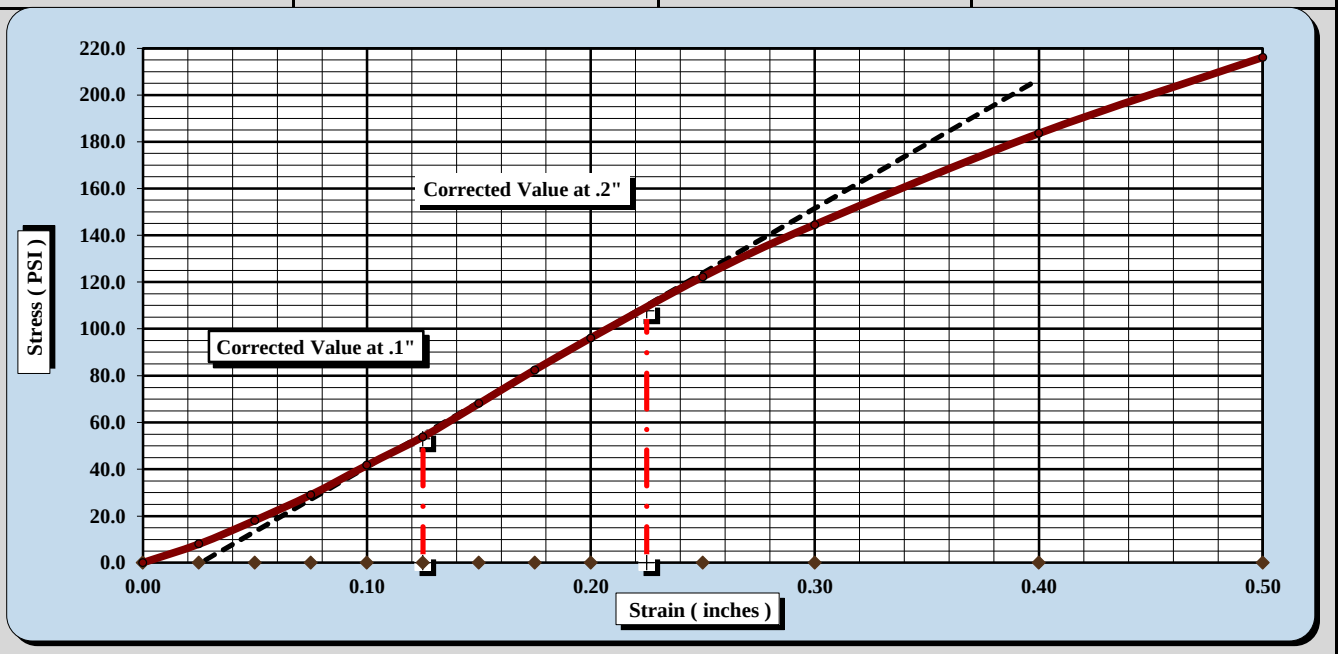
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	210986	Report Date:	1/28/2020
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s)	1/22 - 1/28/2020
Client Name:	NCDOT		
Client Address:			
Boring #:	N/A	Sample #: Bulk 12 OES NB	Sample Date: 1/15/20
Location:	-L- 1117+10 NB OES	Offset: N/A	Depth (ft): N/A
Sample Description:	Gray Silty Clayey Fine to Coarse Sandy SAND (A-2-6) (3)		

AASHTO T99 *Method A* Maximum Dry Density: 122.9 PCF Optimum Moisture Content: 11.2%

Compaction Test performed on grading complying with CBR spec. % Retained on the 3/4" sieve: 0.0%

Uncorrected CBR Values		Corrected CBR Values	
CBR at 0.1 in. 4.2	CBR at 0.2 in. 6.4	CBR at 0.1 in. 5.3	CBR at 0.2 in. 7.2



CBR Sample Preparation:

The entire gradation was used and compacted in a 6" CBR mold in accordance with AASHTO T 193, Section 5.1.1

Before Soaking		*After Soaking*	
Compactive Effort (Blows per Layer)	56	Final Dry Density (PCF)	122.9
Initial Dry Density (PCF)	122.7	Average Final Moisture Content	11.7%
Moisture Content of the Compacted Specimen	11.5%	Moisture Content (top 1" after soaking)	12.2%
Percent Compaction	99.8%	Percent Swell	0.0%

Soak Time: 96 hrs. Surcharge Weight 10.0 Surcharge Wt. per sq. Ft. 50.9
Liquid Limit 38 Plastic Index 25

Notes/Deviations/References:

Test specimen compacted to 100% at optimum moisture.

Mal Krajan, ET		Laboratory Manager	1/28/2020
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D1883-T193-3
Revision No. 2
Revision Date: 08/11/17

CBR (CALIFORNIA BEARING RATIO) OF LABORATORY COMPACTED SOIL

AASHTO T 193

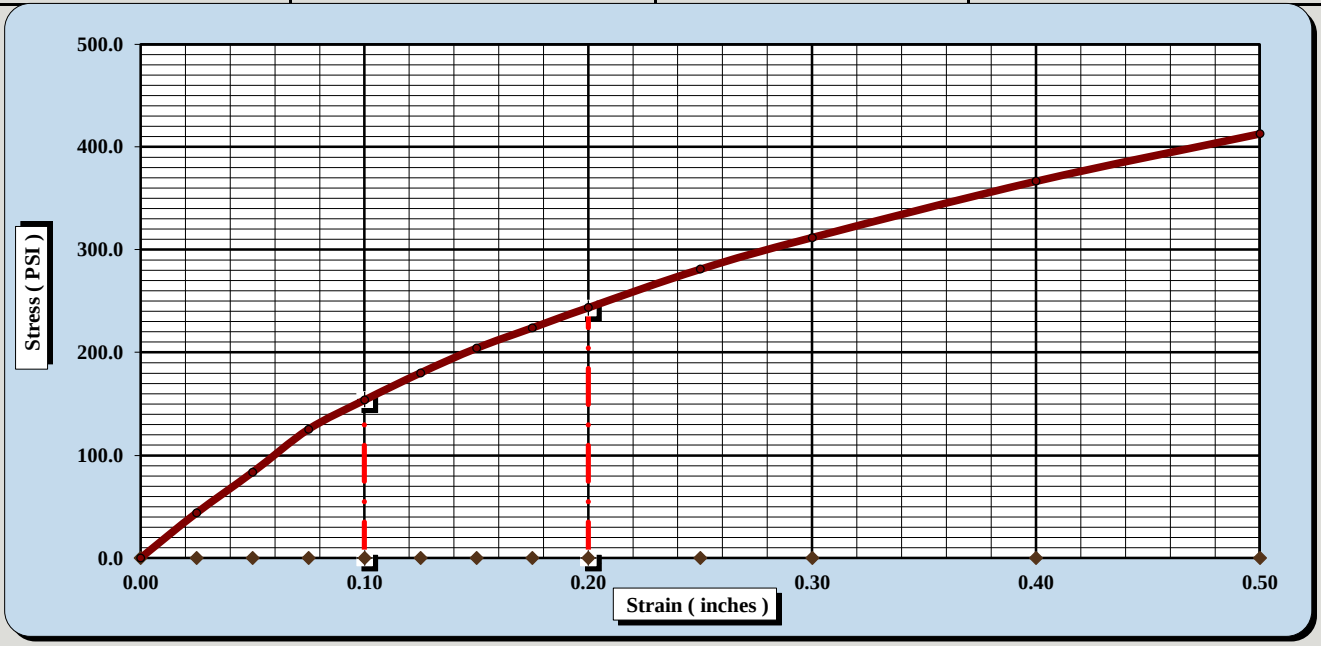
S&ME, Inc. Charlotte: 9751 Southern Pine Boulevard, Charlotte, NC 28273

Project #:	210986	Report Date:	1/22/20
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s)	1/3-21/20
Client Name:	NCDOT		
Client Address:	Raleigh, NC		
Boring #:	NI	Sample #: BULK 5 OES (A)	Sample Date: 12/11/19
Location:	-L- 699+70 SB OES	Offset: NI	Elevation: 0-39"
Sample Description:	A-7-6 (5)		

AASHTO T99 *Method A* Maximum Dry Density: 116.4 PCF Optimum Moisture Content: 13.0%

% Retained on the 3/4" sieve: 0.0%

Uncorrected CBR Values		Corrected CBR Values	
CBR at 0.1 in. 15.4	CBR at 0.2 in. 16.2	CBR at 0.1 in. 15.4	CBR at 0.2 in. 16.2



CBR Sample Preparation:

The entire gradation was used and compacted in a 6" CBR mold in accordance with

Before Soaking		*After Soaking*	
Compactive Effort (Blows per Layer)	56		
Initial Dry Density (PCF)	117.4	Final Dry Density (PCF)	117.1
Moisture Content of the Compacted Specimen	13.0%	Moisture Content (top 1" after soaking)	12.4%
Percent Compaction	100.9%	Percent Swell	0.0%

Soak Time:	96 Hrs.	Surcharge Weight	10.0	Surcharge Wt. per sq. Ft.	50.9
Liquid Limit	41	Plastic Index	21	Assumed Apparent Relative Density	2.600

Notes/Deviations/References:

Test Performed as Modified by NCDOT

Vlad Mitchev — *Technical Responsibility*
_____ — *Signature*
Project Manager — *Position*
_____ — *Date*

Form No. TR-D1883-T193-3
Revision No. 2
Revision Date: 08/11/17

CBR (CALIFORNIA BEARING RATIO) OF LABORATORY COMPACTED SOIL

AASHTO T 193

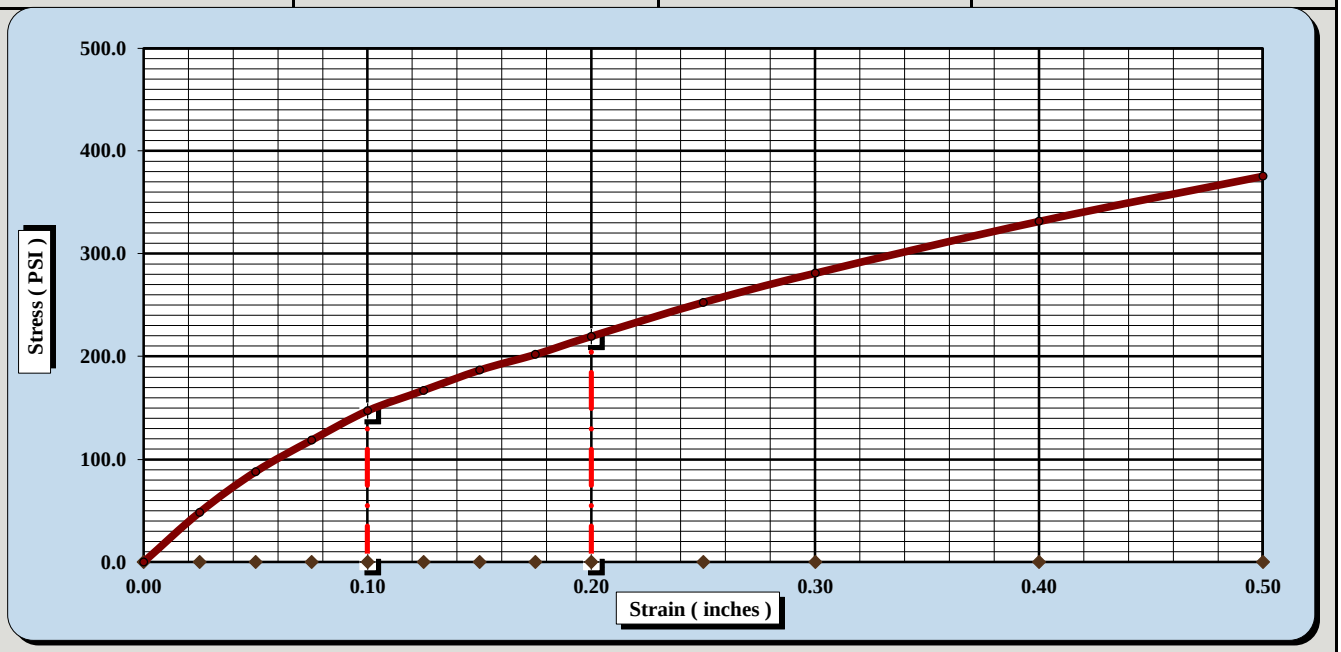
S&ME, Inc. Charlotte: 9751 Southern Pine Boulevard, Charlotte, NC 28273

Project #:	210986	Report Date:	1/22/20
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s)	1/3-21/20
Client Name:	NCDOT		
Client Address:	Raleigh, NC		
Boring #:	NI	Sample #: BULK 5 OES (B)	Sample Date: 12/11/19
Location:	-L- 699+70 SB OES	Offset: NI	Elevation: 0-39"
Sample Description:	A-7-6 (5)		

AASHTO T99 *Method A* Maximum Dry Density: 116.4 PCF Optimum Moisture Content: 13.0%

% Retained on the 3/4" sieve: 0.0%

Uncorrected CBR Values		Corrected CBR Values	
CBR at 0.1 in. 14.7	CBR at 0.2 in. 14.6	CBR at 0.1 in. 14.7	CBR at 0.2 in. 14.6



CBR Sample Preparation:

The entire gradation was used and compacted in a 6" CBR mold in accordance with

Before Soaking		*After Soaking*	
Compactive Effort (Blows per Layer)	56		
Initial Dry Density (PCF)	115.9	Final Dry Density (PCF)	115.9
Moisture Content of the Compacted Specimen	13.0%	Moisture Content (top 1" after soaking)	14.7%
Percent Compaction	99.6%	Percent Swell	0.0%

Soak Time:	96 Hrs.	Surcharge Weight	10.0	Surcharge Wt. per sq. Ft.	50.9
Liquid Limit	41	Plastic Index	21	Assumed Apparent Relative Density	2.600

Notes/Deviations/References:

Test Performed as Modified by NCDOT

Vlad Mitchev — *Technical Responsibility*
_____ — *Signature*
Project Manager — *Position*
_____ — *Date*

Form No. TR-D1883-T193-3
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CBR (CALIFORNIA BEARING RATIO) OF LABORATORY COMPACTED SOIL

AASHTO T 193

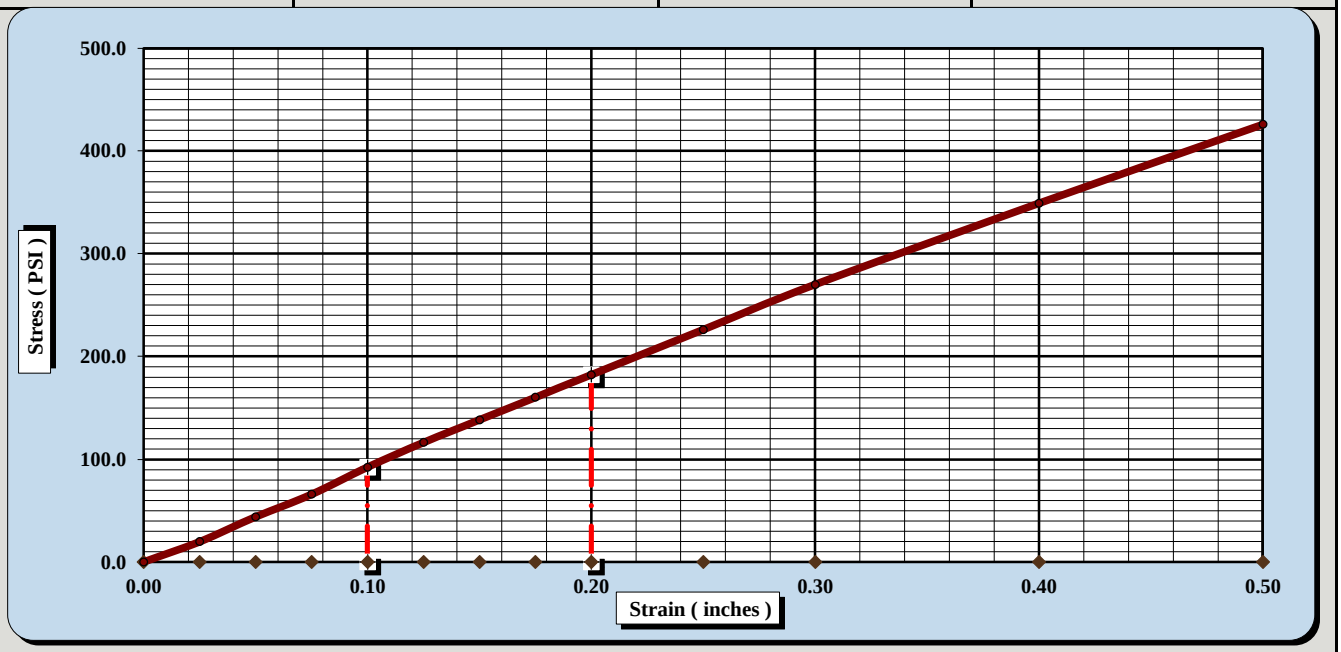
S&ME, Inc. Charlotte: 9751 Southern Pine Boulevard, Charlotte, NC 28273

Project #:	210986	Report Date:	1/2/20
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s)	12/12-1/2/20
Client Name:	NCDOT		
Client Address:	Raleigh, NC		
Boring #:	NI	Sample #: BULK 3 OES (A)	Sample Date: 12/11/19
Location:	-L- 895+20 SB OES	Offset: NI	Elevation: 0-48"
Sample Description:	A-6 (4)		

AASHTO T99 *Method A* Maximum Dry Density: 115.5 PCF Optimum Moisture Content: 13.4%

% Retained on the 3/4" sieve: 0.0%

Uncorrected CBR Values		Corrected CBR Values	
CBR at 0.1 in. 9.2	CBR at 0.2 in. 12.1	CBR at 0.1 in. 9.2	CBR at 0.2 in. 12.1



CBR Sample Preparation:

The entire gradation was used and compacted in a 6" CBR mold in accordance with

Before Soaking		*After Soaking*	
Compactive Effort (Blows per Layer)	56		
Initial Dry Density (PCF)	116.9	Final Dry Density (PCF)	116.6
Moisture Content of the Compacted Specimen	13.4%	Moisture Content (top 1" after soaking)	14.1%
Percent Compaction	101.2%	Percent Swell	0.0%

Soak Time:	96 Hrs.	Surcharge Weight	10.0	Surcharge Wt. per sq. Ft.	50.9
Liquid Limit	38	Plastic Index	20	Assumed Apparent Relative Density	2.600

Notes/Deviations/References:

Test Performed as Modified by NCDOT

Vlad Mitchev — *Technical Responsibility*
_____ — *Signature*
Project Manager — *Position*
_____ — *Date*

Form No. TR-D1883-T193-3
Revision No. 2
Revision Date: 08/11/17

CBR (CALIFORNIA BEARING RATIO) OF LABORATORY COMPACTED SOIL

AASHTO T 193

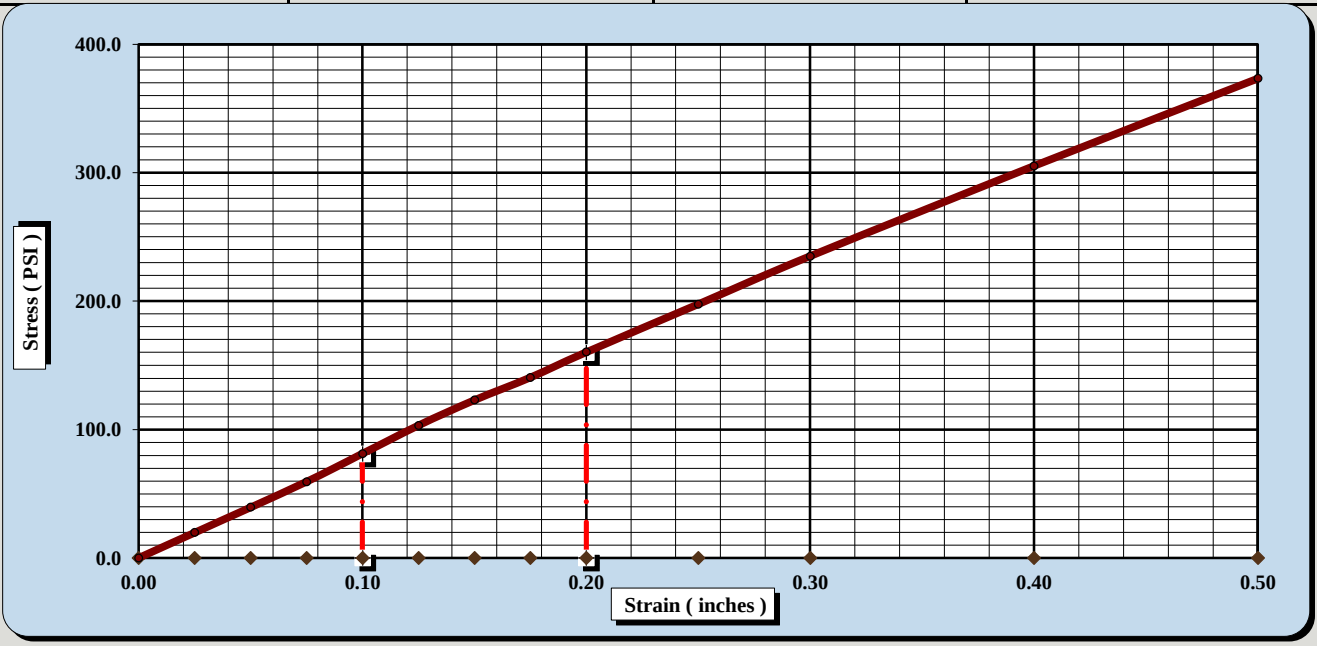
S&ME, Inc. Charlotte: 9751 Southern Pine Boulevard, Charlotte, NC 28273

Project #:	210986	Report Date:	1/2/20
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s)	12/12-1/2/20
Client Name:	NCDOT		
Client Address:	Raleigh, NC		
Boring #:	NI	Sample #: BULK 3 OES (B)	Sample Date: 12/11/19
Location:	-L- 895+20 SB OES	Offset: NI	Elevation: 0-48"
Sample Description:	A-6 (4)		

AASHTO T99 *Method A* Maximum Dry Density: 115.5 PCF Optimum Moisture Content: 13.4%

% Retained on the 3/4" sieve: 0.0%

Uncorrected CBR Values				Corrected CBR Values			
CBR at 0.1 in.	8.1	CBR at 0.2 in.	10.7	CBR at 0.1 in.	8.1	CBR at 0.2 in.	10.7



CBR Sample Preparation:

The entire gradation was used and compacted in a 6" CBR mold in accordance with

Before Soaking		*After Soaking*	
Compactive Effort (Blows per Layer)	56		
Initial Dry Density (PCF)	116.2	Final Dry Density (PCF)	116.0
Moisture Content of the Compacted Specimen	13.5%	Moisture Content (top 1" after soaking)	14.3%
Percent Compaction	100.6%	Percent Swell	0.1%

Soak Time:	96 Hrs.	Surcharge Weight	10.0	Surcharge Wt. per sq. Ft.	50.9
Liquid Limit	38	Plastic Index	20	Assumed Apparent Relative Density	2.600

Notes/Deviations/References:

Test Performed as Modified by NCDOT

Vlad Mitchev — *Technical Responsibility*
_____ — *Signature*
Project Manager — *Position*
_____ — *Date*

Form No. TR-D1883-T193-3
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Revision Date: 08/11/17

CBR (CALIFORNIA BEARING RATIO) OF LABORATORY COMPACTED SOIL

AASHTO T 193

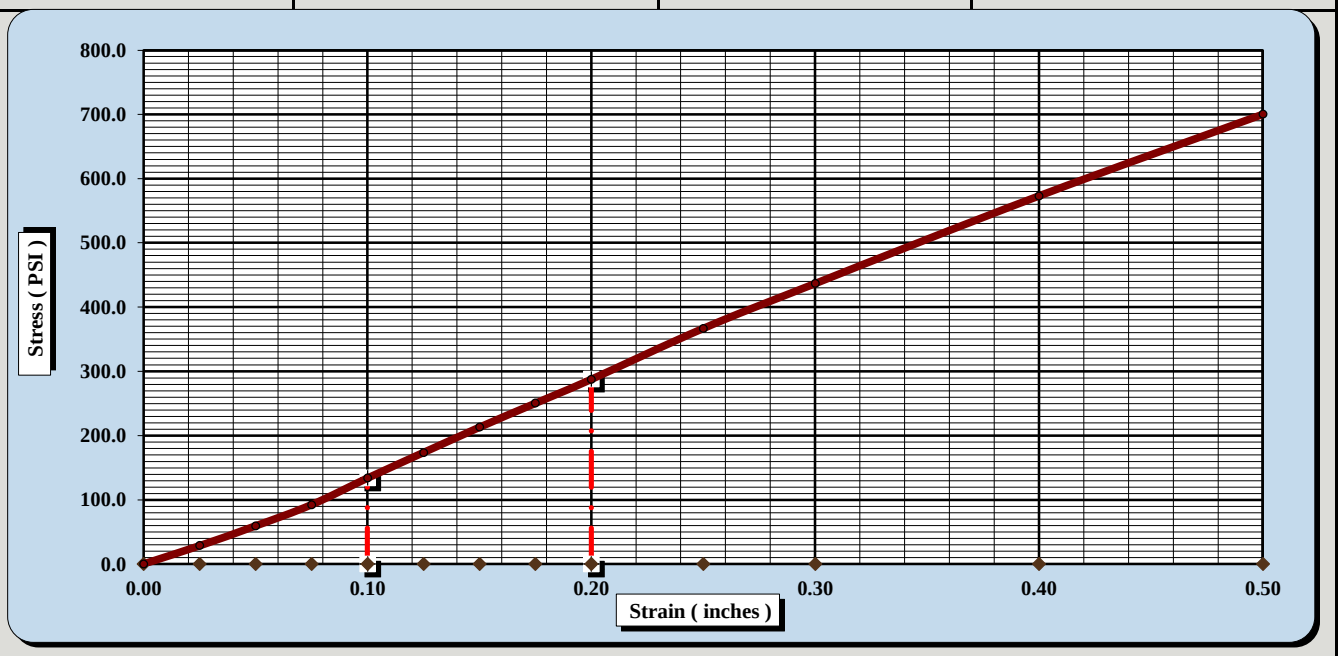
S&ME, Inc. Charlotte: 9751 Southern Pine Boulevard, Charlotte, NC 28273

Project #:	210986	Report Date:	12/28/19
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s)	12/6-28/19
Client Name:	NCDOT		
Client Address:	Raleigh, NC		
Boring #:	NI	Sample #: BULK 1 OES (A)	Sample Date: 12/6/19
Location:	-L- 1116+00 SB OES	Offset: NI	Elevation: 0-42"
Sample Description:	A-2-4		

AASHTO T99 *Method A* Maximum Dry Density: 120.7 PCF Optimum Moisture Content: 10.9%

% Retained on the 3/4" sieve: 0.0%

Uncorrected CBR Values		Corrected CBR Values	
CBR at 0.1 in. 13.4	CBR at 0.2 in. 19.2	CBR at 0.1 in. 13.4	CBR at 0.2 in. 19.2



CBR Sample Preparation:

The entire gradation was used and compacted in a 6" CBR mold in accordance with

Before Soaking		*After Soaking*	
Compactive Effort (Blows per Layer)	56		
Initial Dry Density (PCF)	122.5	Final Dry Density (PCF)	122.1
Moisture Content of the Compacted Specimen	11.0%	Moisture Content (top 1" after soaking)	11.9%
Percent Compaction	101.5%	Percent Swell	0.1%

Soak Time:	96 Hrs.	Surcharge Weight	10.0	Surcharge Wt. per sq. Ft.	50.9
Liquid Limit	19	Plastic Index	4	Apparent Relative Density	2.600

Notes/Deviations/References:

Test Performed as Modified by NCDOT

Vlad Mitchev — *Technical Responsibility*
_____ — *Signature*
Project Manager — *Position*
_____ — *Date*

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CBR (CALIFORNIA BEARING RATIO) OF LABORATORY COMPACTED SOIL

AASHTO T 193

S&ME, Inc. Charlotte: 9751 Southern Pine Boulevard, Charlotte, NC 28273

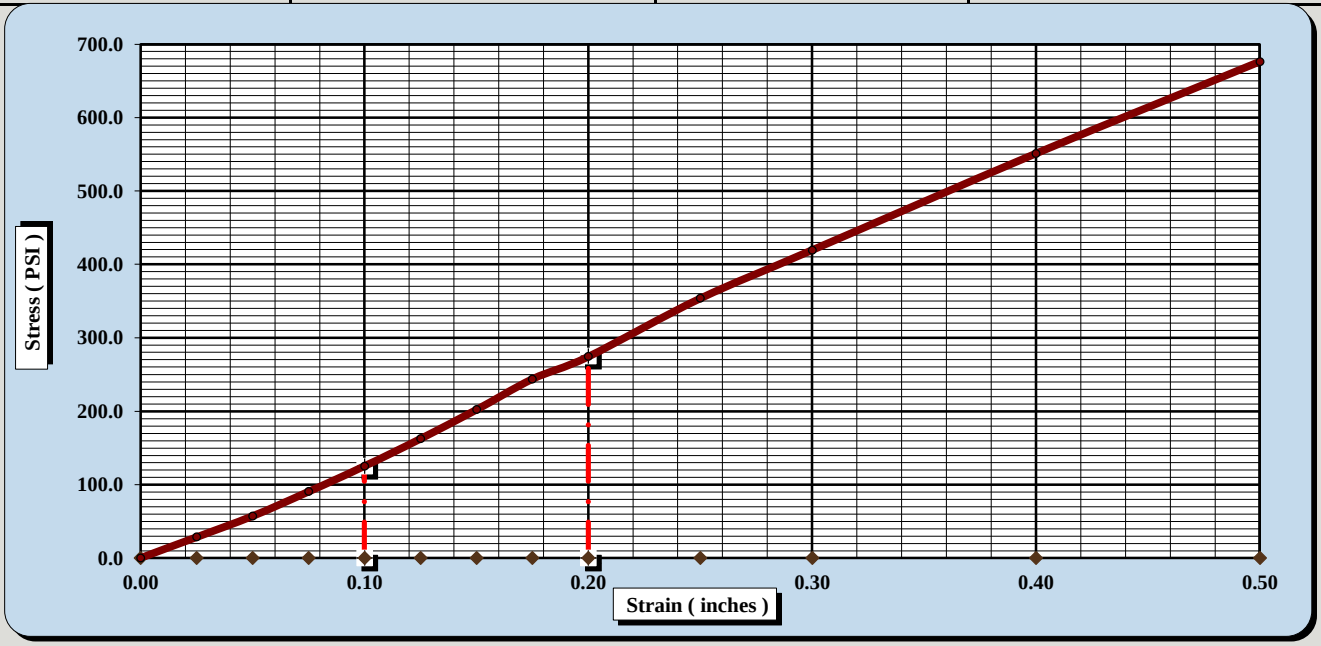
Project #:	210986	Report Date:	12/28/19
Project Name:	I-95 from North of NC 211 to South of NC 20	Test Date(s)	12/6-28/19
Client Name:	NCDOT		
Client Address:	Raleigh, NC		

Boring #:	NI	Sample #:	BULK 1 OES (B)	Sample Date:	12/6/19
Location:	-L- 1116+00 SB OES	Offset:	NI	Elevation:	0-42"
Sample Description:	A-2-4				

AASHTO T99 *Method A* Maximum Dry Density: 120.7 PCF Optimum Moisture Content: 10.9%

% Retained on the 3/4" sieve: 0.0%

Uncorrected CBR Values				Corrected CBR Values			
CBR at 0.1 in.	12.5	CBR at 0.2 in.	18.3	CBR at 0.1 in.	12.5	CBR at 0.2 in.	18.3



CBR Sample Preparation:

The entire gradation was used and compacted in a 6" CBR mold in accordance with

Before Soaking		*After Soaking*	
Compactive Effort (Blows per Layer)	56		
Initial Dry Density (PCF)	122.5	Final Dry Density (PCF)	122.5
Moisture Content of the Compacted Specimen	10.9%	Moisture Content (top 1" after soaking)	11.9%
Percent Compaction	101.5%	Percent Swell	0.1%

Soak Time:	96 Hrs.	Surcharge Weight	10.0	Surcharge Wt. per sq. Ft.	50.9
Liquid Limit	19	Plastic Index	4	Apparent Relative Density	2.600

Notes/Deviations/References:

Test Performed as Modified by NCDOT

Vlad Mitchev — *Technical Responsibility*
_____ — *Signature*
Project Manager — *Position*
_____ — *Date*