

REFERENCE: I-6011A

PROJECT: 48690

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

STRUCTURE  
SUBSURFACE INVESTIGATION

COUNTY ROBESON

PROJECT DESCRIPTION US 74 CONVERT AT GRADE  
INTERSECTION OF US 74 AND SR 2225 (CREEK RD)  
TO GRADE SEPARATION

SITE DESCRIPTION BRIDGE ON SR 2225 (CREEK RD)  
OVER US 74 BETWEEN NC 130 AND NC 72

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-------|-----------------------------|-----------|--------------|
| N.C.  | I-6011A                     | 1         | 7            |

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 PERFORM INDEPENDENT SUBSURFACE INVESTIGATIONS AND MAKE INTERPRETATIONS AS NECESSARY TO CONFIRM CONDITIONS ENCOUNTERED ON THE PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

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

PERSONNEL

GOODNIGHT, D. J.

ESTEP, E.

TRIGON EXP.

INVESTIGATED BY FALCON ENG.

DRAWN BY HUNSBERGER, W. S.

CHECKED BY CROCKETT, S. C.

SUBMITTED BY FALCON ENG.

DATE AUGUST 2025



Signed by:

W. Scott Hunsberger

8/22/2025

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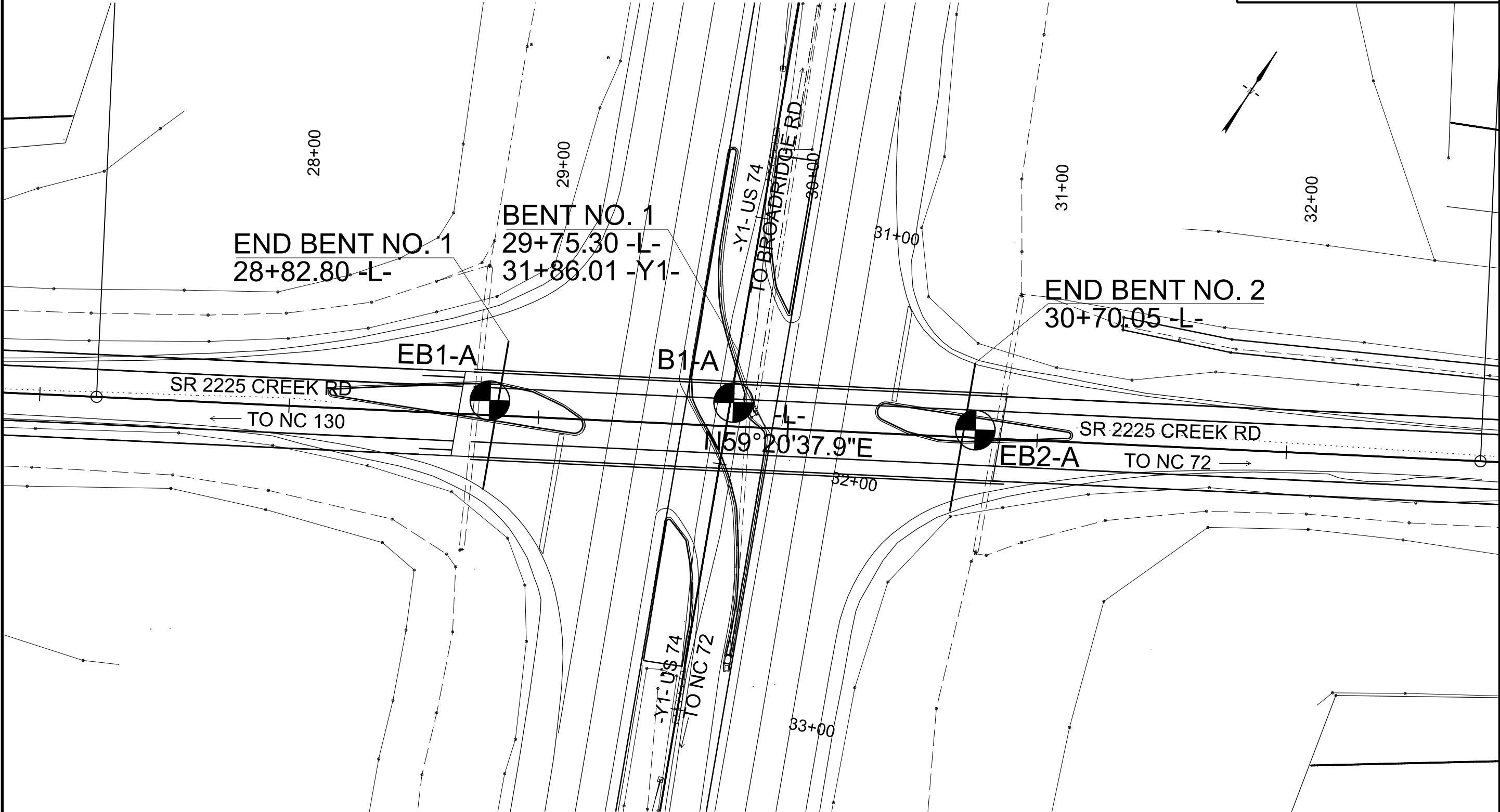
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DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

| SOIL DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               |                                                                  |           |                                                                     |                                             | GRADATION                                                                                                                                                                                                                                                         |       |                    |              | ROCK DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |              |             | TERMS AND DEFINITIONS                                                                                                                                                                                                                                                                                                                                 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| 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:<br>CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. FOR EXAMPLE,<br><i>VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6</i> |                               |                                                                  |           |                                                                     |                                             | WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE.<br>UNIFORMLY GRADED - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE.<br>GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLE SIZES OF TWO OR MORE SIZES. |       |                    |              | 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 60 BLows 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: |       |              |             | ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER.<br>AQUIFER - A WATER BEARING FORMATION OR STRATA.<br>ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND.<br>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.<br>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.<br>CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE.<br>COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE.<br>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.<br>DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CUTS MASSIVE ROCK.<br>DIP - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL.<br>DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH.<br>FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.<br>FISSE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES.<br>FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLOGGED FROM PARENT MATERIAL.<br>FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM.<br>FORMATION (FM) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD.<br>JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED.<br>LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT.<br>LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS.<br>MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS, MOTTLING IN SOILS USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE.<br>PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENING IMPERVIOUS STRATUM.<br>RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK.<br>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.<br>SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK.<br>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 INTRODUCED ROCKS.<br>SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE.<br>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 60.1 FOOT PER 60 BLOWS.<br>STRATA CORE RECOVERY (SRCR) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE.<br>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.<br>TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER. |                      |  |  |  |
| SOIL LEGEND AND AASHTO CLASSIFICATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                               |                                                                  |           |                                                                     |                                             |                                                                                                                                   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| GENERAL CLASS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                               | GRANULAR MATERIALS<br>(≤ 3% PASSING #200)                        |           |                                                                     | SILT-CLAY MATERIALS<br>(> 35% PASSING #200) |                                                                                                                                                                                                                                                                   |       | ORGANIC MATERIALS  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       |              |             |                                                                                                                                                                                                                                                                                                                                                       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| GROUP CLASS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | A-1-a                         | A-1-b                                                            | A-3       | A-2                                                                 | A-2-5                                       | A-2-6                                                                                                                             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                                                                                                                                                                                                                                                                                                                                                                                 | A-6, A-7             |  |  |  |
| SYMBOL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                               |                                                                  |           |                                                                     |                                             |                                                                                                                                   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| % PASSING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 50 MX                         | 30 MX                                                            | 50 MX     | 51 MN                                                               | 35 MX                                       | 35 MX                                                                                                                                                                                                                                                             | 35 MX | 35 MX              | 36 MN        | 36 MN                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 36 MN | 36 MN        | 36 MN       |                                                                                                                                                                                                                                                                                                                                                       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| MATERIAL PASSING #40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | —                             | —                                                                | 40 MX     | 41 MN                                                               | 40 MX                                       | 41 MN                                                                                                                                                                                                                                                             | 40 MX | 41 MN              | 40 MX        | 41 MN                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 41 MN |              |             |                                                                                                                                                                                                                                                                                                                                                       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| LL PI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 6 MX                          | NP                                                               | 40 MX     | 41 MN                                                               | 40 MX                                       | 41 MN                                                                                                                                                                                                                                                             | 40 MX | 41 MN              | 40 MX        | 41 MN                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 41 MN |              |             |                                                                                                                                                                                                                                                                                                                                                       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| GROUP INDEX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0                             | 0                                                                | 0         | 4 MX                                                                | 8 MX                                        | 12 MX                                                                                                                                                                                                                                                             | 16 MX | NO MX              |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       |              |             |                                                                                                                                                                                                                                                                                                                                                       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| USUAL TYPES OF MAJOR MATERIALS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | STONE FRAGS, GRAVEL, AND SAND |                                                                  | FINE SAND | SILTY OR CLAYEY GRAVEL AND SAND                                     |                                             | SILTY SOILS                                                                                                                                                                                                                                                       |       | CLAYEY SOILS       |              | SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER                                                                                                                                                                                                                                                                                                                                                                                                       |       |              |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | HIGHLY ORGANIC SOILS |  |  |  |
| GEN. RATING AS SUBGRADE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | EXCELLENT TO GOOD             |                                                                  |           |                                                                     | FAIR TO POOR                                |                                                                                                                                                                                                                                                                   |       |                    | FAIR TO POOR |                                                                                                                                                                                                                                                                                                                                                                                                                                                               | POOR  |              | UNSATURABLE |                                                                                                                                                                                                                                                                                                                                                              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| PI OF A-7-5 SUBGROUP IS ≤ LL - 30 ; PI OF A-7-6 SUBGROUP IS > LL - 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                               |                                                                  |           |                                                                     |                                             |                                                                                                                                   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| CONSISTENCY OR DENSENESS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                               |                                                                  |           |                                                                     |                                             |                                                                                                                                   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| PRIMARY SOIL TYPE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                               | COMPACTNESS OR CONSISTENCY                                       |           | RANGE OF STANDARD PENETRATION RESISTANCE (N-VALUE)                  |                                             | RANGE OF UNCONFINED COMPRESSIVE STRENGTH (TONS/F <sup>2</sup> )                                                                                                                                                                                                   |       |                    |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       |              |             |                                                                                                                                                                                                                                                                                                                                                       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| GENERALLY GRANULAR MATERIAL (NON-COHESIVE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               | VERY LOOSE<br>LOOSE<br>MEDIUM DENSE<br>DENSE<br>VERY DENSE       |           | < 4<br>4 TO 10<br>10 TO 30<br>30 TO 50<br>> 50                      |                                             | N/A                                                                                                                               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| GENERALLY SILT-CLAY MATERIAL (COHESIVE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                               | VERY SOFT<br>SOFT<br>MEDIUM STIFF<br>STIFF<br>VERY STIFF<br>HARD |           | < 2<br>2 TO 4<br>4 TO 8<br>8 TO 15<br>15 TO 30<br>> 30              |                                             | < 0.25<br>0.25 TO 0.5<br>0.5 TO 1.0<br>1 TO 2<br>2 TO 4<br>> 4                                                                    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| TEXTURE OR GRAIN SIZE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                               |                                                                  |           |                                                                     |                                             |                                                                                                                                   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| U.S. STD. SIEVE OPENING (MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                               | 4<br>4.76                                                        |           | 10<br>2.00                                                          |                                             | 40<br>0.42                                                                                                                                                                                                                                                        |       | 60<br>0.25         |              | 200<br>0.075                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       | 270<br>0.053 |             |                                                                                                                                                                                                                                                                                                                                                                   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| BOULDER (BLDR.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                               | COBBLE (COB.)                                                    |           | GRAVEL (GR.)                                                        |                                             | COARSE SAND (CSE. SD.)                                                                                                                                                                                                                                            |       | FINE SAND (F. SD.) |              | SILT (SL.)                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       | CLAY (CL.)   |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      |  |  |  |
| GRAIN SIZE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               | 305<br>12                                                        |           | 75<br>3                                                             |                                             | 2.0                                                                                                                               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| SOIL MOISTURE - CORRELATION OF TERMS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                               |                                                                  |           |                                                                     |                                             |                                                                                                                                   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| SOIL MOISTURE SCALE (ATTERBERG LIMITS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                               | FIELD MOISTURE DESCRIPTION                                       |           | GUIDE FOR FIELD MOISTURE DESCRIPTION                                |                                             |                                                                                                                                   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| LL — LIQUID LIMIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                               | - SATURATED - (SAT.)                                             |           | USUALLY LIQUID; VERY WET, USUALLY FROM BELOW THE GROUND WATER TABLE |                                             |                                                                                                                                   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| PL — PLASTIC LIMIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                               | - WET - (W)                                                      |           | SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE               |                                             |                                                                                                                                   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| OM — OPTIMUM MOISTURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                               | - MOIST - (M)                                                    |           | SOLID; AT OR NEAR OPTIMUM MOISTURE                                  |                                             |                                                                                                                                   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| SL — SHRINKAGE LIMIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                               | - DRY - (D)                                                      |           | REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE                |                                             |                                                                                                                                   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| PLASTICITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |                                                                  |           |                                                                     |                                             |                                                                                                                                   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| PLASTICITY INDEX (PI)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                               | DRY STRENGTH                                                     |           |                                                                     |                                             |                                                                                                                                   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|                                            |           |
|--------------------------------------------|-----------|
| PROJECT REFERENCE NO.                      | SHEET NO. |
| I-6011A                                    | 3         |
| SITE PLAN                                  |           |
| <div><div>04080</div><div>FEET</div></div> |           |



BRIDGE SKEW: 97°5'57.3"

|                                                                                  |  |                 |  |            |  |                   |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        |                                                                                                          |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
|----------------------------------------------------------------------------------|--|-----------------|--|------------|--|-------------------|--|--|----------------|---------------------|--|-------------|-----|--|-------------------------|--|--|---------|-----------|---------------------|--|--|-----|----------|-----------------------|--------|----------------------------------------------------------------------------------------------------------|--|--|-------------------------|--|---------|--|--|--|-----------|------------|--|-----------|--|--|-----------|--|--|--------------|--|--|--------|--|--|-----|--|--|
| WBS                                                                              |  |                 |  |            |  | 48690.1.2         |  |  |                |                     |  |             | TIP |  |                         |  |  |         | I-6011A   |                     |  |  |     |          |                       | COUNTY |                                                                                                          |  |  |                         |  | ROBESON |  |  |  |           |            |  | GEOLOGIST |  |  |           |  |  | GOODNIGHT, D |  |  |        |  |  |     |  |  |
| SITE DESCRPTION BRIDGE ON SR 2225 (CREEK RD) OVER US 74 BETWEEN NC 130 AND NC 72 |  |                 |  |            |  |                   |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        |                                                                                                          |  |  | GROUND WTR (ft)         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
| BORING NO.                                                                       |  |                 |  |            |  | EB1-A             |  |  |                |                     |  | STATION     |     |  |                         |  |  | 28+80   |           |                     |  |  |     | OFFSET   |                       |        |                                                                                                          |  |  | 6 ft LT                 |  |         |  |  |  | ALIGNMENT |            |  |           |  |  | -L-       |  |  |              |  |  | 0 HR.  |  |  | 6.3 |  |  |
| COLLAR ELEV.                                                                     |  |                 |  |            |  | 122.8 ft          |  |  |                |                     |  | TOTAL DEPTH |     |  |                         |  |  | 75.0 ft |           |                     |  |  |     | NORTHING |                       |        |                                                                                                          |  |  | 265,930                 |  |         |  |  |  | EASTING   |            |  |           |  |  | 2,003,526 |  |  |              |  |  | 24 HR. |  |  | 6.0 |  |  |
| DRILL RIG/HAMMER EFF./DATE TRI8016 MOBILE B-57 88% 05/13/2024                    |  |                 |  |            |  |                   |  |  |                |                     |  |             |     |  | DRILL METHOD Mud Rotary |  |  |         |           |                     |  |  |     |          | HAMMER TYPE Automatic |        |                                                                                                          |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
| DRILLER Estep, J. E.                                                             |  |                 |  |            |  |                   |  |  |                | START DATE 01/16/25 |  |             |     |  |                         |  |  |         |           | COMP. DATE 01/17/25 |  |  |     |          |                       |        |                                                                                                          |  |  | SURFACE WATER DEPTH N/A |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
| ELEV (ft)                                                                        |  | DRIVE ELEV (ft) |  | DEPTH (ft) |  | BLOW COUNT        |  |  | BLOWS PER FOOT |                     |  |             |     |  |                         |  |  |         | SAMP. NO. |                     |  |  | MOI |          | LOG                   |        | SOIL AND ROCK DESCRIPTION                                                                                |  |  |                         |  |         |  |  |  |           | DEPTH (ft) |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
|                                                                                  |  |                 |  |            |  | 0.5ft 0.5ft 0.5ft |  |  | 0 25 50 75 100 |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        |                                                                                                          |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
| 125                                                                              |  |                 |  |            |  |                   |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        |                                                                                                          |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
| 120                                                                              |  | 121.0           |  | 1.8        |  | 12 12 12          |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        | 122.8 0.0<br>121.1 1.7                                                                                   |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
|                                                                                  |  | 119.3           |  | 3.5        |  | 8 9 11            |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        | ROADWAY EMBANKMENT<br>TAN AND BROWN, LOOSE TO MEDIUM DENSE, SILTY SAND (A-2-4), WITH TRACE GRAVEL        |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
| 115                                                                              |  | 116.8           |  | 6.0        |  | 4 3 3             |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        |                                                                                                          |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
|                                                                                  |  | 114.3           |  | 8.5        |  | 1 0 1             |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        | UNDIVIDED COASTAL PLAIN<br>TAN AND BROWN AND GRAY, HIGHLY PLASTIC, VERY SOFT TO SOFT, SILTY CLAY (A-7-6) |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
| 110                                                                              |  | 109.3           |  | 13.5       |  | 1 1 2             |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        |                                                                                                          |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
|                                                                                  |  | 104.3           |  | 18.5       |  | 2 1 2             |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        |                                                                                                          |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
| 105                                                                              |  | 99.3            |  | 23.5       |  | 1 2 1             |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        | SS-15 55%                                                                                                |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
|                                                                                  |  | 94.3            |  | 28.5       |  | WOH 1 0           |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        | W Sat.                                                                                                   |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
| 90                                                                               |  | 89.3            |  | 33.5       |  | WOH 2 3           |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        | Sat.                                                                                                     |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
|                                                                                  |  | 84.3            |  | 38.5       |  | 12 26 47          |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        | 85.8 37.0                                                                                                |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
| 85                                                                               |  | 79.3            |  | 43.5       |  | 10 12 15          |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        | W                                                                                                        |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
|                                                                                  |  | 74.3            |  | 48.5       |  | 7 8 11            |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        | W                                                                                                        |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
| 75                                                                               |  | 69.3            |  | 53.5       |  | 16 29 34          |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        | W                                                                                                        |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
|                                                                                  |  | 64.3            |  | 58.5       |  | 7 15 18           |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        | W                                                                                                        |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
| 65                                                                               |  | 59.3            |  | 63.5       |  | 11 15 20          |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        | M                                                                                                        |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
|                                                                                  |  | 54.3            |  | 68.5       |  | 10 10 16          |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        | M                                                                                                        |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
| 50                                                                               |  | 49.3            |  | 73.5       |  | 10 14 17          |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        | M                                                                                                        |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
|                                                                                  |  |                 |  |            |  |                   |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        |                                                                                                          |  |  |                         |  |         |  |  |  |           | 47.8 75.0  |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |
| Boring Terminated at Elevation 47.8 ft IN COASTAL PLAIN (DUPLIN FORMATION):      |  |                 |  |            |  |                   |  |  |                |                     |  |             |     |  |                         |  |  |         |           |                     |  |  |     |          |                       |        |                                                                                                          |  |  |                         |  |         |  |  |  |           |            |  |           |  |  |           |  |  |              |  |  |        |  |  |     |  |  |

[illegible]

|                                                                                          |                                |                       |                   |              |              |                            |           |           |           |            |                      |                                |              |                                                                               |                   |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
|------------------------------------------------------------------------------------------|--------------------------------|-----------------------|-------------------|--------------|--------------|----------------------------|-----------|-----------|-----------|------------|----------------------|--------------------------------|--------------|-------------------------------------------------------------------------------|-------------------|-------------------|--|--------------------------------|----------------|--|--|------------------------|--|-------------------|------------------------|--|--|--|--|--|
| WBS                                                                                      |                                |                       |                   |              |              | 48690.1.2                  |           |           |           |            |                      |                                | TIP I-6011A  |                                                                               |                   |                   |  |                                | COUNTY ROBESON |  |  |                        |  |                   | GEOLOGIST GOODNIGHT, D |  |  |  |  |  |
| <b>SITE DESCRIPTION</b> BRIDGE ON SR 2225 (CREEK RD) OVER US 74 BETWEEN NC 130 AND NC 72 |                                |                       |                   |              |              |                            |           |           |           |            |                      |                                |              |                                                                               |                   |                   |  |                                |                |  |  | <b>GROUND WTR (ft)</b> |  |                   |                        |  |  |  |  |  |
| <b>BORING NO.</b> B1-A                                                                   |                                |                       |                   |              |              | <b>STATION</b> 29+78       |           |           |           |            |                      | <b>OFFSET</b> 10 ft LT         |              |                                                                               |                   |                   |  | <b>ALIGNMENT</b> -L-           |                |  |  |                        |  | <b>0 HR.</b> 5.0  |                        |  |  |  |  |  |
| <b>COLLAR ELEV.</b> 122.5 ft                                                             |                                |                       |                   |              |              | <b>TOTAL DEPTH</b> 85.0 ft |           |           |           |            |                      | <b>NORTHING</b> 265,983        |              |                                                                               |                   |                   |  | <b>EASTING</b> 2,003,608       |                |  |  |                        |  | <b>24 HR.</b> 5.5 |                        |  |  |  |  |  |
| <b>DRILL RIG/HAMMER EFF./DATE</b> TRI8016 MOBILE B-57 88% 05/13/2024                     |                                |                       |                   |              |              |                            |           |           |           |            |                      | <b>DRILL METHOD</b> Mud Rotary |              |                                                                               |                   |                   |  | <b>HAMMER TYPE</b> Automatic   |                |  |  |                        |  |                   |                        |  |  |  |  |  |
| <b>DRILLER</b> Estep, J. E.                                                              |                                |                       |                   |              |              | <b>START DATE</b> 01/23/25 |           |           |           |            |                      | <b>COMP. DATE</b> 01/24/25     |              |                                                                               |                   |                   |  | <b>SURFACE WATER DEPTH</b> N/A |                |  |  |                        |  |                   |                        |  |  |  |  |  |
| <b>ELEV<br/>(ft)</b>                                                                     | <b>DRIVE<br/>ELEV<br/>(ft)</b> | <b>DEPTH<br/>(ft)</b> | <b>BLOW COUNT</b> |              |              | <b>BLOWS PER FOOT</b>      |           |           |           |            | <b>SAMP.<br/>NO.</b> |                                | <b>L O G</b> | <b>SOIL AND ROCK DESCRIPTION</b>                                              | <b>DEPTH (ft)</b> |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
|                                                                                          |                                |                       | <b>0.5ft</b>      | <b>0.5ft</b> | <b>0.5ft</b> | <b>0</b>                   | <b>25</b> | <b>50</b> | <b>75</b> | <b>100</b> |                      |                                |              |                                                                               |                   | <b>ELEV. (ft)</b> |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
| 125                                                                                      |                                |                       |                   |              |              |                            |           |           |           |            |                      |                                |              |                                                                               | 122.5             | 0.0               |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
| 120                                                                                      | 120.8                          | 1.7                   | 15                | 15           | 17           |                            |           |           |           |            |                      | M                              |              | ROADWAY EMBANKMENT<br>TAN AND GRAY, DENSE, FINE SAND (A-3)                    | 3.0               |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
|                                                                                          | 119.0                          | 3.5                   | 11                | 13           | 14           |                            |           |           |           |            |                      | M                              |              | UNDIVIDED COASTAL PLAIN<br>TAN AND GRAY, MEDIUM DENSE, FINE SAND (A-3)        |                   |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
| 115                                                                                      | 116.5                          | 6.0                   | 8                 | 7            | 6            |                            |           |           |           |            |                      | W                              |              |                                                                               | 114.5             | 8.0               |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
|                                                                                          | 114.0                          | 8.5                   | 1                 | 1            | 1            |                            |           |           |           |            | SS-16                | 53%                            |              | TAN AND GRAY, HIGHLY PLASTIC,<br>SOFT, SILTY CLAY (A-7-6)                     |                   |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
| 110                                                                                      |                                |                       |                   |              |              |                            |           |           |           |            |                      |                                |              |                                                                               |                   |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
|                                                                                          | 109.0                          | 13.5                  | 1                 | 1            | 1            |                            |           |           |           |            |                      | W                              |              |                                                                               |                   |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
| 105                                                                                      | 104.0                          | 18.5                  | WOH               | 1            | 1            |                            |           |           |           |            | SS-17                | 46%                            |              |                                                                               |                   |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
|                                                                                          | 99.0                           | 23.5                  | 1                 | 1            | 1            |                            |           |           |           |            | Sat.                 |                                |              |                                                                               |                   |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
| 95                                                                                       | 94.0                           | 28.5                  | 1                 | 1            | 1            |                            |           |           |           |            |                      | W                              |              |                                                                               |                   |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
|                                                                                          | 89.0                           | 33.5                  | WOH               | 1            | 2            |                            |           |           |           |            | Sat.                 |                                |              | COASTAL PLAIN<br>DK. GRAY, VERY LOOSE, CLAYEY SAND (A-2-6) (DUPLIN FORMATION) | 32.0              |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
| 85                                                                                       | 84.0                           | 38.5                  | 5                 | 5            | 6            |                            |           |           |           |            |                      | W                              |              |                                                                               | 85.5              | 37.0              |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
|                                                                                          | 79.0                           | 43.5                  | 4                 | 9            | 13           |                            |           |           |           |            |                      | Sat.                           |              |                                                                               |                   |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
| 80                                                                                       | 74.0                           | 48.5                  | 4                 | 6            | 5            |                            |           |           |           |            |                      | Sat.                           |              |                                                                               | 80.5              | 42.0              |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
|                                                                                          | 69.0                           | 53.5                  | 13                | 24           | 26           |                            |           |           |           |            |                      | Sat.                           |              |                                                                               |                   |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
| 65                                                                                       | 64.0                           | 58.5                  | 21                | 26           | 23           |                            |           |           |           |            |                      | Sat.                           |              |                                                                               | 60.5              | 62.0              |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
|                                                                                          | 59.0                           | 63.5                  | 8                 | 9            | 14           |                            |           |           |           |            |                      | W                              |              |                                                                               |                   |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
| 55                                                                                       | 54.0                           | 68.5                  | 15                | 24           | 27           |                            |           |           |           |            |                      | M                              |              |                                                                               |                   |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
|                                                                                          | 49.0                           | 73.5                  | 6                 | 10           | 12           |                            |           |           |           |            |                      | M                              |              |                                                                               |                   |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |
| 45                                                                                       |                                |                       |                   |              |              |                            |           |           |           |            |                      |                                |              |                                                                               |                   |                   |  |                                |                |  |  |                        |  |                   |                        |  |  |  |  |  |

|                                                                                   |                       |               |                     |       |       |                         |    |    |                         |              |     |        |                           |                                                        |      |                                                                                         |
|-----------------------------------------------------------------------------------|-----------------------|---------------|---------------------|-------|-------|-------------------------|----|----|-------------------------|--------------|-----|--------|---------------------------|--------------------------------------------------------|------|-----------------------------------------------------------------------------------------|
| WBS 48690.1.2                                                                     |                       |               | TIP I-6011A         |       |       | COUNTY ROBESON          |    |    | GEOLOGIST GOODNIGHT, D  |              |     |        |                           |                                                        |      |                                                                                         |
| SITE DESCRIPTION BRIDGE ON SR 2225 (CREEK RD) OVER US 74 BETWEEN NC 130 AND NC 72 |                       |               |                     |       |       |                         |    |    | GROUND WTR (ft)         |              |     |        |                           |                                                        |      |                                                                                         |
| BORING NO. B1-A                                                                   |                       |               | STATION 29+78       |       |       | OFFSET 10 ft LT         |    |    | ALIGNMENT -L-           |              |     | 0 HR.  | 5.0                       |                                                        |      |                                                                                         |
| COLLAR ELEV. 122.5 ft                                                             |                       |               | TOTAL DEPTH 85.0 ft |       |       | NORTHING 265,983        |    |    | EASTING 2,003,608       |              |     | 24 HR. | 5.5                       |                                                        |      |                                                                                         |
| DRILL RIG/HAMMER EFF./DATE TRI8016 MOBILE B-57 88% 05/13/2024                     |                       |               |                     |       |       | DRILL METHOD Mud Rotary |    |    | HAMMER TYPE Automatic   |              |     |        |                           |                                                        |      |                                                                                         |
| DRILLER Estep, J. E.                                                              |                       |               | START DATE 01/23/25 |       |       | COMP. DATE 01/24/25     |    |    | SURFACE WATER DEPTH N/A |              |     |        |                           |                                                        |      |                                                                                         |
| ELEV<br>(ft)                                                                      | DRIVE<br>ELEV<br>(ft) | DEPTH<br>(ft) | BLOW COUNT          |       |       | BLOWS PER FOOT          |    |    |                         | SAMP.<br>NO. | MOI | LOG    | SOIL AND ROCK DESCRIPTION |                                                        |      |                                                                                         |
|                                                                                   |                       |               | 0.5ft               | 0.5ft | 0.5ft | 0                       | 25 | 50 | 75                      | 100          |     |        |                           |                                                        |      |                                                                                         |
| 45                                                                                |                       |               |                     |       |       | Match Line              |    |    |                         |              |     |        |                           |                                                        |      |                                                                                         |
|                                                                                   | 44.0                  | 78.5          |                     | 9     | 12    | 20                      |    |    |                         |              |     | M      |                           | GRAY, VERY STIFF TO HARD, SANDY CLAY (A-6) (continued) |      |                                                                                         |
| 40                                                                                |                       |               |                     |       |       |                         |    |    |                         |              |     |        |                           | 40.5                                                   | 82.0 |                                                                                         |
|                                                                                   | 39.0                  | 83.5          |                     | 17    | 28    | 36                      |    |    |                         |              |     | M      |                           |                                                        |      | GRAY, VERY DENSE, CLAYEY SAND (A-2-6)                                                   |
|                                                                                   |                       |               |                     |       |       |                         |    |    |                         |              |     |        |                           | 37.5                                                   | 85.0 | Boring Terminated at Elevation 37.5 ft IN COASTAL PLAIN (DUPLIN FORMATION): CLAYEY SAND |

[illegible][illegible]



**LABORATORY TEST RESULTS**  
**US 74 Grade Separation**  
**Robeson County, NC**  
**NCDOT Project: I-6011A**  
**Falcon Engineering Project No: G24075.00**

| NO.   | SAMPLE LOCATION | DEPTH INTERVAL | AASHTO CLASS. | ATTERBERG LIMITS |    | PERCENT BY WEIGHT |        |      |      | PERCENT PASSING SIEVE |     |      | MOISTURE (%) | BULK DENSITY (pcf) | ORGANICS (%) |
|-------|-----------------|----------------|---------------|------------------|----|-------------------|--------|------|------|-----------------------|-----|------|--------------|--------------------|--------------|
|       |                 |                |               | LL               | PI | C.SAND            | F.SAND | SILT | CLAY | #10                   | #40 | #200 |              |                    |              |
| SS-15 | EB1-A           | 18.5-20.0      | A-7-6(72)     | 92               | 66 | 0                 | 11     | 20   | 69   | 100                   | 100 | 95   | 55           | N/A                | N/A          |
| SS-16 | B1-A            | 8.5-10.0       | A-7-6(55)     | 81               | 54 | 2                 | 10     | 20   | 68   | 100                   | 99  | 90   | 53           | N/A                | 1.8%         |
| SS-17 | B1-A            | 18.5-20.0      | A-7-6(22)     | 54               | 37 | 1                 | 49     | 13   | 37   | 100                   | 100 | 65   | 46           | N/A                | N/A          |
| SS-18 | EB2-A           | 13.5-15.0      | A-7-6(51)     | 76               | 48 | 1                 | 8      | 14   | 77   | 100                   | 100 | 92   | 63           | N/A                | 2.4%         |

**Reviewed By**