

SEE SHEET 3 FOR PLAN SHEET LAYOUT
AT TIME OF INVESTIGATION

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5307	1	5

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**ROADWAY
SUBSURFACE INVESTIGATION**

COUNTY SAMPSON
PROJECT DESCRIPTION BRIDGE NO. 376 ON SR 1838
OVER BEAVERDAM CREEK

INVENTORY

CAUTION NOTICE

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

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

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

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

PERSONNEL

JK CRENSHAW

JR EDMONSON

INVESTIGATED BY JK CRENSHAW

DRAWN BY JK CRENSHAW

CHECKED BY DN ARGENBRIGHT

SUBMITTED BY DN ARGENBRIGHT

DATE APRIL 7, 2016



DocuSigned by:

Joseph L. Stone

4/21/2016

1330580A87A24F5...
SIGNATURE

DATE

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

REFERENCE: B-5307

PROJECT: 46021

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

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

Table containing 14 main columns: SOIL DESCRIPTION, GRADATION, ROCK DESCRIPTION, TERMS AND DEFINITIONS, SOIL LEGEND AND AASHTO CLASSIFICATION, MINERALOGICAL COMPOSITION, COMPRESSIBILITY, PERCENTAGE OF MATERIAL, GROUND WATER, MISCELLANEOUS SYMBOLS, RECOMMENDATION SYMBOLS, ABBREVIATIONS, SOIL MOISTURE - CORRELATION OF TERMS, PLASTICITY, COLOR, EQUIPMENT USED ON SUBJECT PROJECT, FRACTURE SPACING, BEDDING, INDURATION, and BENCH MARK. Includes various symbols, scales, and descriptive text for geotechnical engineering.

See Sheet 1A For Index of Sheets
 See Sheet 1B for Conventional Symbols
 See Sheet 1C-1 for Survey Control Sheet

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

SAMPSON COUNTY

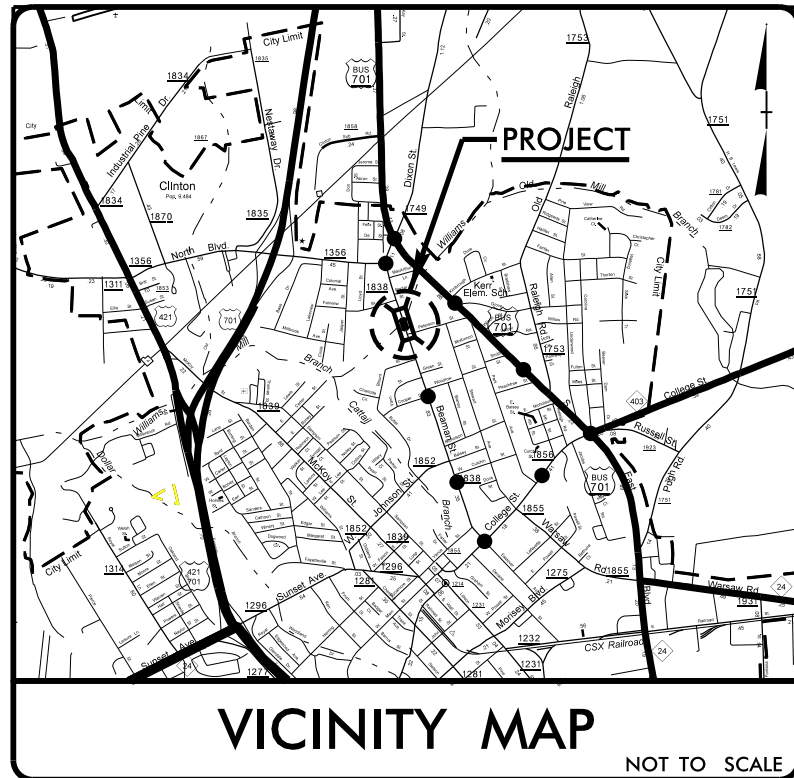
**LOCATION: REPLACE BRIDGE 376 OVER BEAVER DAM BRANCH ON
 SR 1838 (BEAMAN ST.)**

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5307	3	5
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46021.1.1	BRSTP-1838(4)	P.E.	

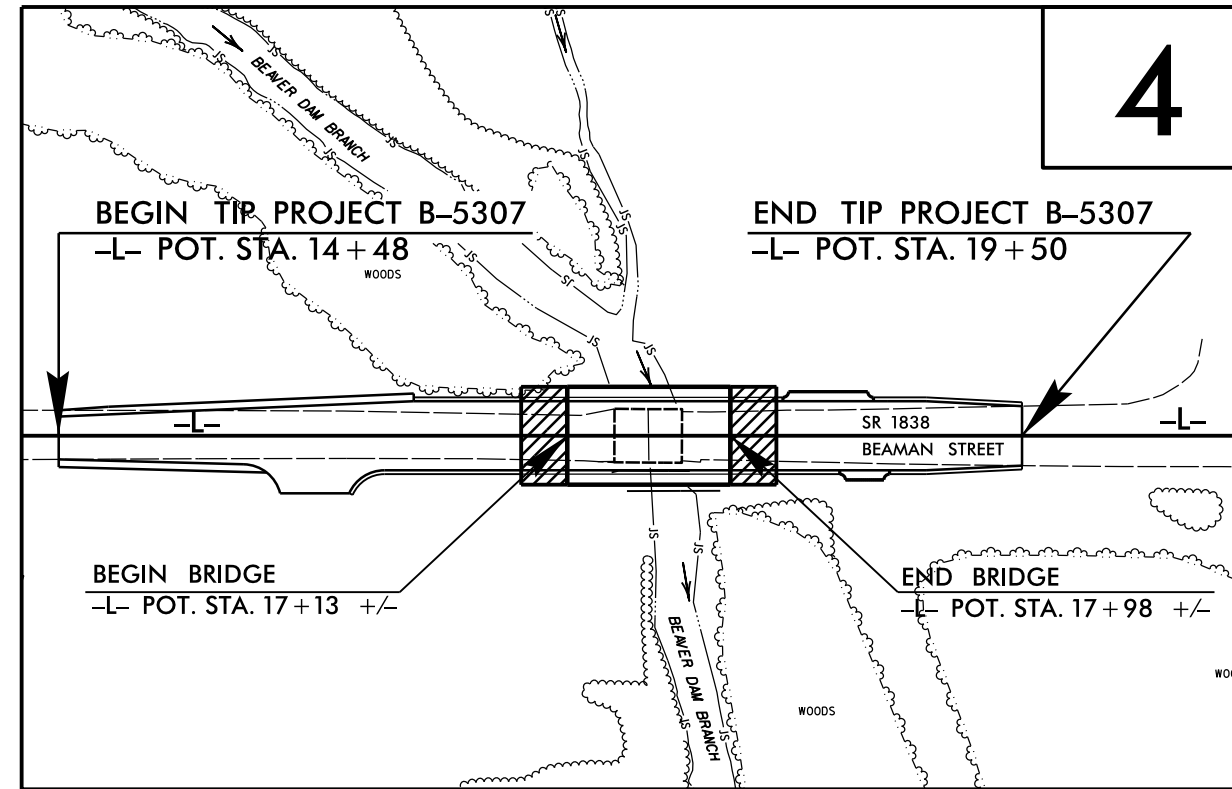


STRUCTURE RECOMMENDATIONS



OFF SITE DETOUR —●—●—●—

← TO US-701 BUS.



TO COLLEGE ST. →

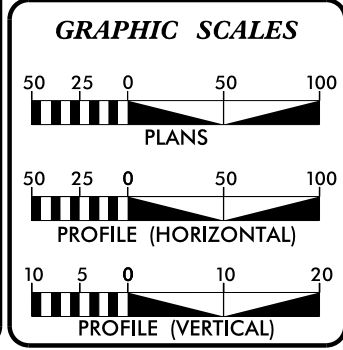
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF CLINTON.
 CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD ____.

INCOMPLETE PLANS
 DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

TIP PROJECT: B-5307

CONTRACT:



DESIGN DATA

ADT 2018 =	7,950
ADT 2038 =	10,950
K =	10 %
D =	55 %
T =	4 % *
V =	40 MPH
* TTST =	1 DUAL 3
FUNC CLASS =	MAJOR COLLECTOR

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5307	=	0.079 MILES
LENGTH STRUCTURE TIP PROJECT B-5307	=	0.016 MILES
TOTAL LENGTH TIP PROJECT B-5307	=	0.095 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
 1000 Birch Ridge Dr., Raleigh, NC 27610

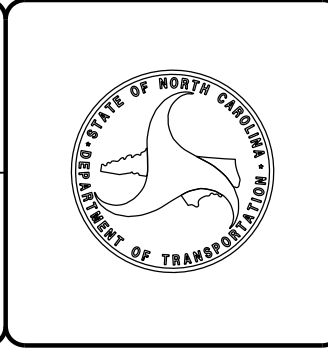
2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE:	FEBRUARY 17, 2017
LETTING DATE:	FEBRUARY 20, 2018
	GARY LOVERING, PE PROJECT ENGINEER
	VACANT PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



07-APR-2016 13:11 L:\ERO\Greenville_investigation\TIP\B5307_GEO_RDWY\CADD_GEO\TECH\PlanPro\B5307_Rdy_1.sh.dgn \$\$\$USERNAME\$\$\$



PAT McCrory
Governor
NICHOLAS J. TENNYSON
Secretary

Physiography and Geology

This project corridor is located within the Coastal Plain Physiographic Province. Topography along the project is nearly flat to gently sloping. Natural ground elevations range from 106± to 128± feet above sea level along the existing SR 1838 embankment.

Surficial soils in this area are generally classified as coastal plain sediments.

Ground Water

Ground water data was collected in April of 2014, during a time of normal precipitation. Ground water elevations ranged from 107± to 114± feet above sea level.

Soils

Soils within this project area have been divided into three categories: artificial fill, alluvial, and coastal plain sediments.

Artificial fill was encountered along existing SR 1838. These soils are comprised of 2± feet of loose sand and gravel (A-1-b).

Alluvial soils were encountered beneath the artificial fill and at the surface. They are comprised of 6± or more feet of loose sand (A-2-4, A-3), loose clayey sand (A-2-6), and soft silt (A-4).

Coastal plain sediments of the Black Creek Formation were encountered below the alluvial sediments. They were comprised of stiff clay (A-7).

April 6, 2016

STATE PROJECT: 46021.1.1 (B-5307)
F.A. PROJECT: BRSTP-1838 (4)
COUNTY: Sampson
DESCRIPTION: Bridge No. 376 on SR 1838 over Beaverdam Creek

SUBJECT: Geotechnical Inventory

Project Description

This project is located in Sampson County ±240 feet south of the intersection of SR 1838 and Fairview Street, and extends along SR1838 for approximately 500 feet. Proposed construction consists widening the existing approach to accommodate the bridge replacement. This geotechnical investigation was confined to the areas of proposed construction.

Fieldwork for this project was conducted during March of 2016. Hand auger borings were completed and representative soil samples were collected for visual classification in the field.

The following alignments were investigated. No plans, profiles or cross sections will be included in this report.

<u>Line</u>	<u>Station(±)</u>
-L-	14+48 to 19+50

Areas of Special Geotechnical Interest

- 1) The entire project was found to exhibit seasonal high ground water.
- 2) The following areas contain cohesive soils which have the potential to cause embankment/subgrade and or slope stability problems during construction.

<u>Line</u>	<u>Station(±)</u>
-L-	16+50 to 19+50

