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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-4786 | 1 | 5 |

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| 1 | TITLE SHEET |
| 2 | LEGEND (SOIL & ROCK) |
| 3 | ROADWAY TITLE SHEET |
| 4 | INVENTORY REPORT |
| 5 | BORE LOGS |

**ROADWAY
SUBSURFACE INVESTIGATION**

COUNTY PITT
PROJECT DESCRIPTION REPLACE BRIDGE NO. 38 ON
-L- (US 13) OVER THE TAR RIVER IN GREENVILLE

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

C.J. CORENTE

S.N. ZIMARINO

R.E. SMITH

J.M. EDMONDSON

INVESTIGATED BY T.C. BOTTOMS

DRAWN BY T.C. BOTTOMS

CHECKED BY D.N. ARGENBRIGHT

SUBMITTED BY D.N. ARGENBRIGHT

DATE OCTOBER 2017



DocuSigned by:

Tyler C. Bottoms

11/15/2017

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SIGNATURE

DATE

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

REFERENCE: B-4786

PROJECT: 38222

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

Table with 4 main columns: SOIL DESCRIPTION, GRADATION, ROCK DESCRIPTION, and TERMS AND DEFINITIONS. It contains detailed technical specifications, classification charts, and symbols for soil and rock analysis.

09/08/99

See Sheet 1A For Index of Sheets
 See Sheet 1B For Conventional Plan Sheet Symbols
 See Sheet 1C-1 Through 1C-? For Survey Control Sheets

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

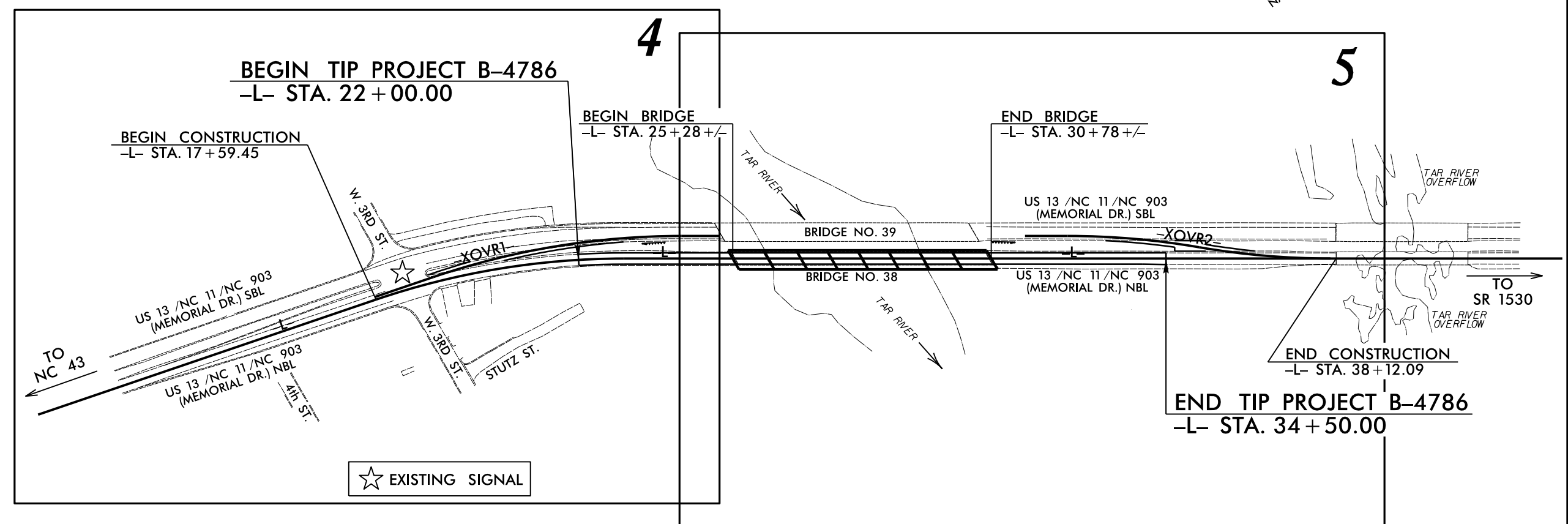
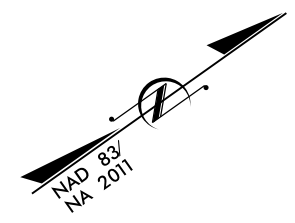
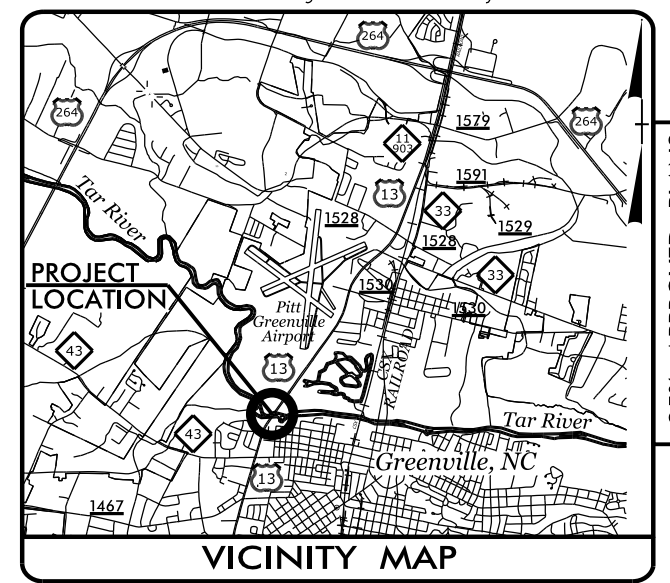
PITT COUNTY

**LOCATION: REPLACE BRIDGE NO. 38 OVER THE TAR RIVER
 ON US 13 IN GREENVILLE**

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-----------------|-----------------------------|-------------|--------------|
| N.C. | B-4786 | 3 | 5 |
| STATE PROJ. NO. | F.A. PROJ. NO. | DESCRIPTION | |
| 38222.1.FR2 | BRSTP-0013(41) | PE | |
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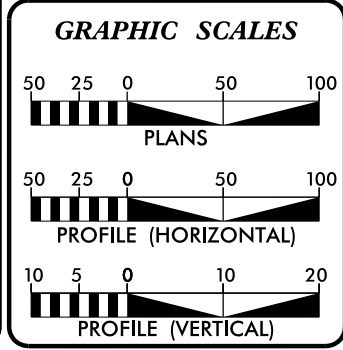
TIP PROJECT: B-4786



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

INCOMPLETE PLANS
 DO NOT USE FOR R/W ACQUISITION
 DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

CONTRACT:



DESIGN DATA

| | |
|--------------|--------------------|
| ADT 2019 = | 13800 NBL |
| | 14740 SBL |
| ADT 2039 = | 17250 NBL |
| K = | 8 % |
| D = | 55 % |
| T = | 6 % * |
| V = | 50 MPH |
| * TTST = | 3% DUAL 3% |
| FUNC CLASS = | PRINCIPAL ARTERIAL |
| | REGIONAL TIER |

PROJECT LENGTH

| | | |
|--------------------------------------|---|----------------|
| LENGTH ROADWAY TIP PROJECT B-5302 | = | 0.133 mile +/- |
| LENGTH STRUCTURES TIP PROJECT B-5302 | = | 0.104 mile +/- |
| TOTAL LENGTH TIP PROJECT B-5302 | = | 0.237 mile +/- |

Prepared For:
DIVISION OF HIGHWAYS
 1000 Birch Ridge Dr., Raleigh NC, 27610

By:
 TGS ENGINEERS
 706 HILLSBOROUGH ST
 SUITE 200
 RALEIGH, NC 27603

PH (919) 773-8887
 CORP. LICENSE NO.: C-0275

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
 MARCH 16, 2018

LETTING DATE:
 MARCH 19, 2019

V. MARCUS LOWERY, PE
 PROJECT ENGINEER

TRAVIS COOK, EI
 PROJECT DESIGN ENGINEER

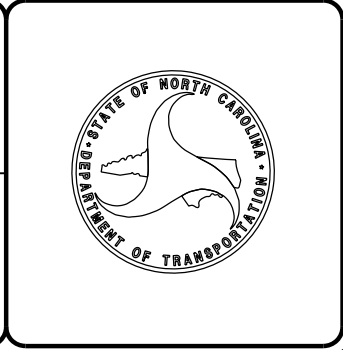
DAVID STUTTS, PE
 NCDOT CONTACT

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

October 16, 2017

State Project: 38222.1.FR2 (B-4786)
F.A. Project: BRSTP-0013(41)
County: Pitt
Description: Bridge No. 38 on -L- (US 13) over the Tar River

Subject: Geotechnical Inventory Report

Project Description

This project lies within the city limits of Greenville in Pitt County, north of the intersection of 4th Street and US 13 and extends north along US 13 for approximately 1250 feet across the Tar River. This geotechnical investigation was confined to the areas of proposed construction.

Fieldwork was conducted in October of 2017. Hand auger borings were completed at various offsets along the project corridor. Representative soil samples were collected for visual classification in the field and but were not submitted to the lab for testing.

The following alignment was investigated. No profile or cross sections are included in this report.

| <u>Line</u> | <u>Station(±)</u> |
|-------------|-------------------|
| -L- | 17+59 to 38+12 |
| -XOVR1- | 11+30 to 15+44 |
| -XOVR2- | 11+71 to 14+90 |

Areas of Special Geotechnical Interest

- 1) The entire project was found to exhibit seasonal high ground water.
- 2) The following sections 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- | 27+59 to 31+25 |

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 ranged from 5± to 28± feet above sea level.

Surficial soils in this area are generally classified as alluvial sediments.

Ground Water

Ground water data was collected in October of 2017. Ground water elevations ranged from 6± to 11± foot above sea level.

Soils

Soils encountered within this project area have been divided into two categories: Roadway Embankment and alluvial soils.

Roadway embankment soils were found along the existing US 13. Where encountered it was composed of 1± to 6± feet of very loose to loose sand (A-2-4, A-1-b) and 0.5± to 1± feet of medium stiff clay (A-7-6).

Soils identified as alluvial are composed of 2± to 3± feet of medium dense sand and 6± or more feet of soft to medium stiff sandy and silty clay (A-7-6).

Respectfully Submitted,

Tyler C. Bottoms, L.G.
Project Engineering Geologist

