

Survey Report

TIP Number:
B-5711

Project Number:
45665.1.1

Bridge# 245, Division 6, Harnett County

March 28, 2016

Submitted by:



1025 Wade Avenue | Raleigh, NC 27605

919.789.9977 | sepiengineering.com



Michael R. Jackson
03/28/2016

PROJECT DESCRIPTION

The purpose of this project was to provide survey data for Bridge #245 over East Buies Creek on SR 2054 (Marshbanks Street). The limits for this project are 300' North and South of centerline bridge along SR 2054, and 75' from centerline on each side of road. The hydrographic survey extended 100' upstream and downstream from edge of bridge. All data was collected and processed electronically following guidelines set forth by Location and Surveys unit.

Dates of survey: March 23, 2016 – March 24, 2016

CONTROL

Horizontal

Control was established on this project utilizing GPS points (BL-1, BL-2 & BL-3) established by NCDOT. The localized coordinate system developed for this project is based on the State Plane Coordinates established by NCDOT for monument B5711 BL-1 with NAD 83 NA 2011 State Plane Grid Coordinates of Northing: 600392.698 (ft.) Easting: 2079348.968 (ft.). AVCGF = 0.99987391. All linear dimensions are localized horizontal distances.

Vertical

- The vertical datum is based on NCDOT monument "B5711 BL-1" (ELEV. 154.67') NAVD 88.

BASELINE DESCRIPTIONS

- All baselines were established by NCDOT.
- Project direction is based on GPS control provided by NCDOT.

EXISTING ALIGNMENTS

Line -EL-

- Follows the centerline of SR 2054 (Marshbanks St.).
- This is a geometric best-fit representation of the existing roadway.
- No centerline points were set.

UTILITIES

- Underground utilities were marked prior to setting control rebar and SEPI Engineering collected all marked underground utilities.
- NC811 ticket was called in on 03/16/16 and listed below:
C160750601
- SEPI Engineering collected all utility poles within the project limits.

EXISTING RIGHT-OF-WAY

Existing Right-of-way as shown in FS file was determined by SEPI Engineering using the most current retrievable deed descriptions and survey plats.

PROPERTY OWNER CONTACTS

Property owners affected by this project were contacted via mailed letter produced using Propcon Reporter (Bridge Replacement Letter). No comments were received from any of the property owners contacted.

DTM SETTINGS & NOTES

Curve stroke tolerance: 0.15
Minimum linear distance: 30
Dissolve option: SIDE
Side length: 100

- SEPI merged NCDOT provided file b5711_10ft_QL2_Lidar.dgn to create the final DTM.
- Photogrammetry spots were checked against conventionally located points in obscure areas to insure vertical accuracy. Both Photogrammetry and SEPI points were used in the final DTM where they closely agreed. In areas that did not agree, only SEPI points were used for the final TIN file.
- Some connected breaklines resulted in duplicate points with the same elevation. No errors were found.

FS FILE

- For this project the edge of vegetation/scour line was used for the Jurisdictional Stream line shown in the FS file.

DELIVERABLES

B-5711_NCDOT_FS_160328.DGN

B-5711_LS_DTM_160328.DGN

B-5711_LS_GPK_160328.GPK

B-5711_LS_TNL_160328.TIN

B-5711_LS_DEEDBOOK_160328.PDF

B-5711_LS_PLATBOOK_160328.PDF

B-5711_LS_POC_160328.MDB

B-5711_LS_PDF_160328.TXT

B-5711_LEVEL LOOP_160328.PDF

B-5711_LS_SR_160328.PDF

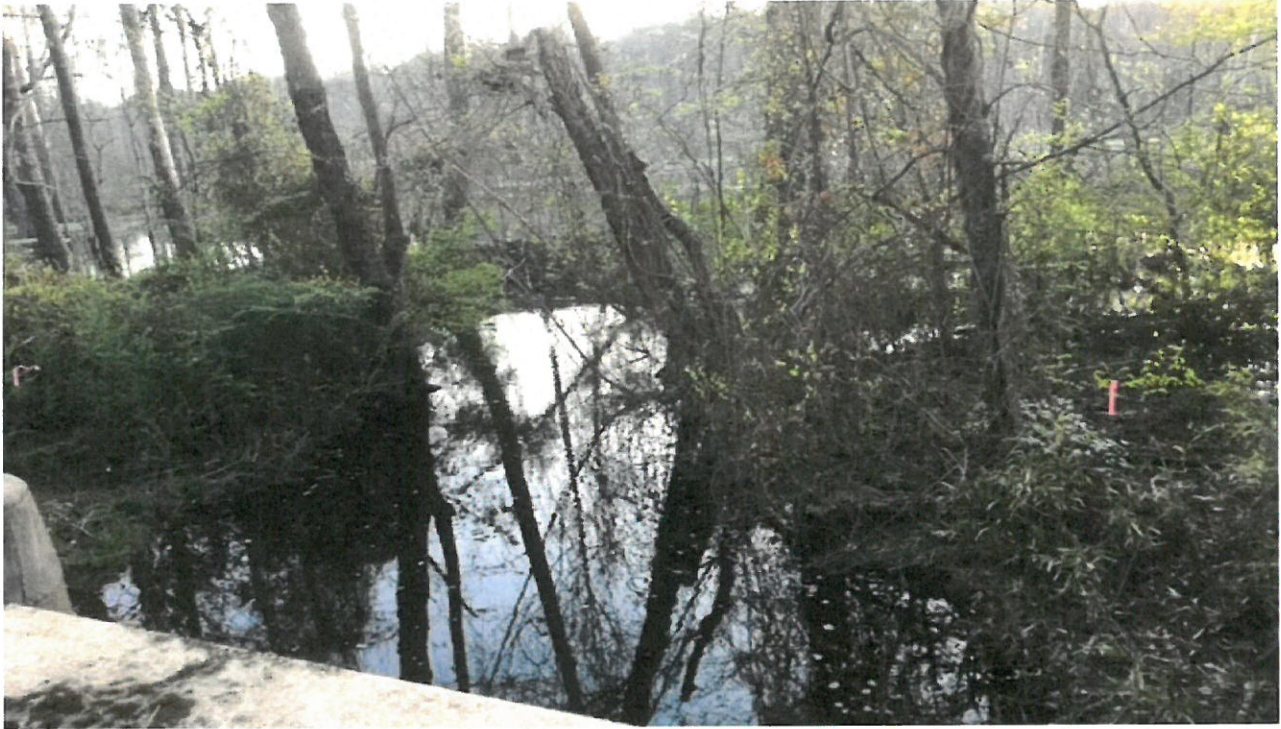
B-5711_LS_SURVEYCERT_160328.PDF



North most End of Bridge (Facing South)



South most End of Bridge (Facing North)



East Buies Creek (on bridge, facing East)



East Buies Creek (on bridge, facing West)



Underside of bridge (facing Easterly)



Underside of bridge (facing Westerly)