

Final Survey Report August 24, 2016

TIP #: B-5664
Project #: 45916.1.1
LS #: 04-16-084
Project ID #: B-5664-con-gel-2
Johnston County

Description: Bridge # 145 on SR 1555 (Barber Mill Road) over Swift Creek

Field Surveys:

Project was surveyed between 7/8/16 and 8/25/16.

GEL performed the following surveys by conventional methods:

- Property
- Pavement DTM's
- Planimetric features
- Full DTM's
- Hydrographic surveys
- Level "B" SUE designation (non-gravity utilities)
- Microstation Files were mapped at 1" = 50' scale

Control:

Five additional base line points were set. BL-99 was set on the South end of Barber Mill Road (SR 1555). BL-101 and BL-102 were set on the North end of Barber Mill Road (SR 1555). BL-103 was set as a standalone control point near the vicinity of the proposed bridge, BY-121 was set on the North end of Government Road (SR 1555). All control points set were established using conventional survey methods.

BM 1 was set at the south end of the project. BM 2 (previous BM 50) is set near the Bridge over Swift Creek.

Existing R/W:

R/W was mapped based on deeds and plats. No R/W abstract was provided by NCDOT.

Existing Alignment:

An existing alignment was computed using pavement splits of pavement located within project limits. This existing alignments were stored as chain EL and chain EY.

Property:

Property information requested was based limits of survey area. Property owner and property information was obtained from Johnston County GIS and Johnston County Register of Deeds.

Utility Information:

SUE information was designated and collected by GEL at LOS B.

Hydro Information:

Approximately 280' of Swift Creek was surveyed and mapped. Top of bank, bottom of bank, centerline of creek and random underwater shots were obtained. Ground shot were obtained 25' from the top of the bank.

DTM & TIN Files:

The DTM file is a product of conventional topo (pavement, supplemental, and hydrographic dtm's performed by GEL). Curve stroke tolerance was set at 0.15' with a minimum length of 30' and a side dissolve option with a side length of 100'.

Adjacent land usage and traffic:

- Undeveloped wooded tracts.
- Moderate and Speeding traffic observed during work hours.

Deliverables:

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|------------------------|------------------------------------|
| • Survey Report | B5664_ls_sr_160830.pdf |
| • Baseline Text File | B5664_ls_bln_160830.txt |
| • Project GPK file | B5664_ls_gpk_160830.gpk |
| • Final Survey File | B5664_NCDOT_FS_160830.dgn |
| • DTM File | B5664_ls_dtl_160830.dtm |
| • TIN File | B5664_ls_tnl_160830.tin |
| • Propcon Database | B5664_ls_poc_160830.mdb |
| • Deed Book (digital) | B5664_ls_deeds_160830.pdf |
| • Plat Book (digital) | B5664_ls_plats_160830.pdf |
| • Certification Letter | B5664-con-gel Certification Letter |
| • SUE Contact Letter | B5664-con-gel Utility Owner Letter |