



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

August 14, 2008

MEMORANDUM TO: William (Bill) T. Goodwin, PE
Project Development – Bridge Unit – Unit Head
Project Development and Environmental Analysis Branch

ATTN: Terry Harris, PE
Project Planning Engineer

FROM: Njoroge W. Wainaina, P.E.
State Geotechnical Engineer
Geotechnical Engineering Unit

TIP NO: B-4668
WBS: 38461.1.1
F.A. PROJECT: N/A
COUNTY: Watauga
DESCRIPTION: Bridge # 29 over Cove Creek on US 321

SUBJECT: **Geotechnical Pre-Scoping Report**

The Geotechnical Engineering Unit has performed a limited assessment of the above referenced project to assist in developing the scope of work necessary to provide early identification of geoenvironmental and geotechnical issues that could impact the project's planning, design, or construction.

GEOENVIRONMENTAL IMPACT EVALUATION

Purpose

This section presents the results of a geoenvironmental impact evaluation conducted along the above referenced project. The main purpose of this investigation is to identify properties within the project study area that are or may be contaminated and therefore result in increased project costs and future liability if acquired by the Department. Geoenvironmental impacts may include, but are not limited

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LOCATION:
CENTURY CENTER COMPLEX
BUILDING B
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

to, active and abandoned underground storage tank (UST) sites, hazardous waste sites, regulated landfills and unregulated dumpsites.

Techniques/Methodologies

The Geographical Information System (GIS) was consulted to identify known sites of concern in relation to the project corridor. Geotechnical Engineering Unit personnel conducted a field reconnaissance along the project corridor on August 30, 2007. A search of appropriate environmental agencies' databases was performed to assist in evaluating sites identified during this study.

Findings

Underground Storage Tank (UST) Facilities

Based on our study, three (3) sites, including a retail business, presently or formerly containing petroleum underground storage tanks (UST's) were identified within the project limits.

Hazardous Waste Sites

No Hazardous Waste Sites were identified within the project limits.

Landfills

No apparent landfills were identified within the project limits.

Other GeoEnvironmental Concerns

One (1) other geoenvironmental concern, an automotive repair facility, was identified within the project limits.

Anticipated Impacts

Three (3) possible UST facilities and one (1) automotive repair facility, were identified within the proposed project corridor. We anticipate low monetary and scheduling impacts resulting from these. (See Appendices A and B for details)

The Geotechnical Engineering Unit will provide soil and groundwater assessments on each of the above properties after identification of the selected alternative and before right of way acquisition. Please note that discovery of additional sites not recorded by regulatory agencies and not reasonably discernable during the project reconnaissance may occur. The Geotechnical Engineering Unit should be notified immediately after discovery of such sites so their potential impact(s) may be assessed.

If there are questions regarding the geoenvironmental issues, please contact Terry W. Fox, LG, at 919-250-4088.

Known and Potential GeoEnvironmental Impact Sites

1A)	Property Name U.S. Post Office 1205 US 321 N Sugar Grove, NC 28679	Property Owner: Howard Simpson, Jr. c/o Jack R. Simpson PO Box 153 Sugar Grove, NC 28679
	Facility ID #: N/A	UST Owner: N/A
	Incident #: N/A	

This active Post Office is located on the south side of US 321 across from the intersection with Old US 421. The building front is 81 feet from the US 321 median. This site apparently has always operated as a post office, however there are monitoring wells in the eastern area of the parking lot. These wells are associated with the vacant gas station (Site 2) southeast of this parcel. This property does not appear on the UST Section registry, and there is no evidence of USTs, or UST removal. **This site will have a low impact to this project.**

1B)	Property Name Vacant gas station 1193 US 321 N Sugar Grove, NC 28679	Property Owner: Colvard Oil Co. PO Box 7 West Jefferson, NC 28694
	Facility ID #: N/A	Colvard Oil Co. PO Box 7 West Jefferson, NC 28694
	Incident #:	

This vacant building is located on the south side of US 321 across from the intersection with Old US 421. The building front is 85 feet from the US 321 median. According to local residents, and verified by tax records, a gas station operated at this location. The tanks were removed several years ago. At least four (4) monitoring wells are located in the parking lot and are 20 to 30 feet from the US 321 median. This property could not be matched on the UST Section registry. There is no other evidence of USTs, or dispensers. **This site will have a low impact to this project.**

2A)	Property Name Vacant auto service garage 1171 US 321 N Sugar Grove, NC 28679	Property Owner: Michael L. & Diane J. Mast 1759 Mast Gap Rd Sugar Grove, NC 28679
	Facility ID #: N/A	UST Owner: N/A
	Incident #: N/A	

This vacant building, according to tax records once operated as an auto repair facility. The structure is located on the south side of US 321 and is 80 feet from the US 321 median. There were no vehicles, auto parts, or oil staining noted on site. The original vehicle bay has been framed in, with a window in place. This property does not appear on the UST Section registry, and there is no evidence of USTs, or UST removal. **This site will have a negligible impact to this project.**

2B)	Property Name Mountaineer Ruritan Club, Inc. 1161 US 321 N Sugar Grove, NC 28679 Facility ID #: N/A Incident #: N/A	Property Owner: Mountaineer Ruritan Club, Inc. 1161 US 321 N Sugar Grove, NC 28679 UST Owner: N/A
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This building, attached to the Site 3 vacant building, serves as a fraternal club and community center. It previously was the site of the Cove Creek Volunteer Fire Department. Four fire engine bays are located at the front of the building, which is 83 feet from the US 321 median. This property does not appear on the UST Section registry, and there is no evidence of USTs, or UST removal. **This site will have a low impact to this project.**

3)	Property Name Cove Creek Store 1182 US 321 N Sugar Grove, NC 28679 Facility ID #: 0-300808 Incident #: 13578	Property Owner: Margaret H. Gilliam, et. al. c/o Cove Creek Store Box 8 Sugar Grove, NC 28679 Cary Oil Company PO Box 5189 Cary, NC 27512
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This active gas station and convenience store is located on the north side of US 321 and west of the Old US 421 intersection. Two USTs are set back about 60 feet from the US 321 median. The two pump islands are set back 48 feet from the highway and adjacent to the present right of way. The incident number is associated with 0-200808, HGH Enterprises, Inc, of Sugar Grove from March 1995. The current USTs were installed in 1999. There is no evidence of monitoring wells, or other USTs. **This site will have a low impact to this project.**

4)	Property Name This Old Place 195 Old US 421 Sugar Grove, NC 28679 Facility ID #:N/A Incident # : N/A	Property Owner: Philip & Pamela Muncy PO Box 1274 Boone, NC 28607 UST Owner:
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This closed retail store is located on the west side of Old US 421 and 300 feet north of the US 321 intersection. the median. The storefront is set back 55 feet from the US 421 median. According to the best recollection of the property owner, this store never was used as a gas station. This was an Old Mast General Store and was built in 1903. The residence to the north has a buried propane tank. This property does not appear on the UST Section registry, and there is no evidence of USTs, or UST removal. **This site will have a low impact to this project.**

GEOTECHNICAL IMPACT EVALUATION

Techniques/Methodologies

Findings

Anticipated Impacts/Recommendations

If there are questions regarding the geotechnical issues, please contact [Name] at [Phone]

cc:

Art McMillan, PE, State Highway Design Engineer

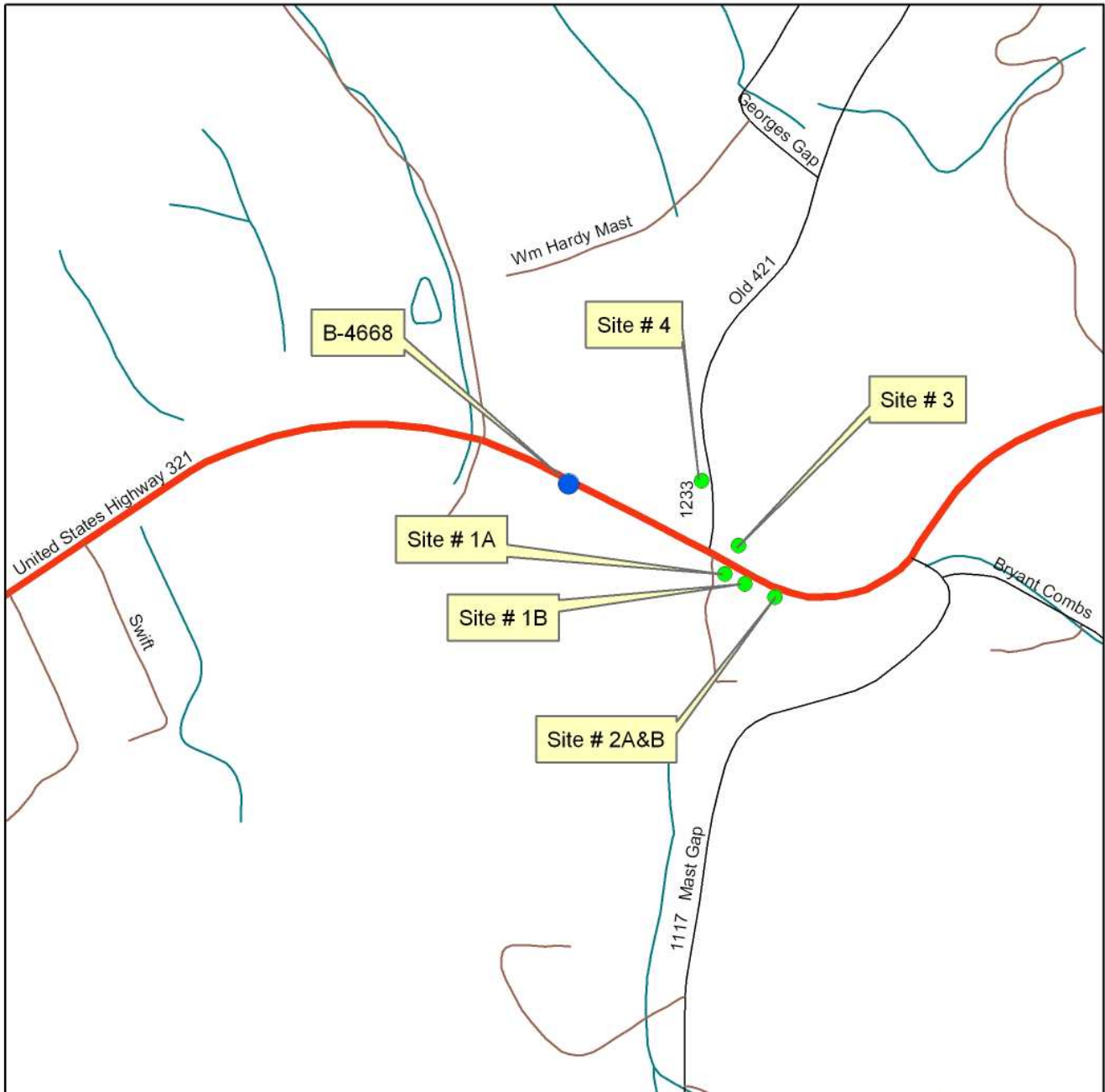
Jay Bennett, PE, State Roadway Design Engineer

Greg Perfetti, PE, State Bridge Engineer

D.R. Henderson, PE, State Hydraulics Engineer

Charles W. Brown, PE, PLS, State Location & Surveys Engineer

Locations of USTs, Landfills, & Other Potentially Contaminated Sites



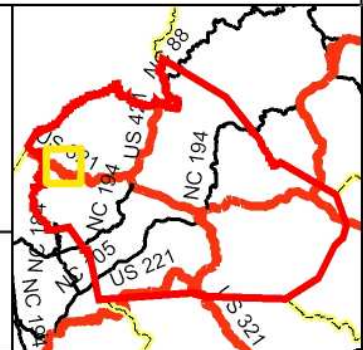
Project 384611.1 (TIP # B-4668)
 Bridge # 29 over Cove Creek on US 321
 Watauga County



500 250 0 500 Feet



NC Department of Transportation
 Geotechnical Engineering Unit
 GeoEnvironmental Section



Site Photographs
August 30, 2007



Site 1A: Sugar Grove Post Office. View to the southwest.



Site 1B: Vacant gas station. View to the southwest.



Site 2A: Vacant auto service garage in foreground. View to the southeast.



Site 2B: Mountaineer Ruritan Club building. View to the southeast.

Site Photographs
August 30, 2007



Site 3: Cove Creek Store. View to the North.



Site 4: This Old Place Store. View to the West.



BR 29 on US 321. View to the East.