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Via 2nd Day FedEx

November 11, 2008

North Carolina Department of Transportation
Geotechnical Unit
GeoEnvironmental Section
1589 Mail Service Center
Raleigh, NC 27699-1589

Attention: Mr. Ethan Caldwell, LG

Re: Geophysical Anomaly Investigation Report
TIP: R-2408B
WBS: 34427.1.1
Guy Duval Property, Parcel #39
Franklin, North Carolina
H&H Job No. ROW-152

Dear Ethan:

1.0 Introduction and Background Information

Hart and Hickman, PC (H&H) has completed investigation of geophysical anomalies identified at the Guy Duval property (NC DOT Parcel #39) located at 1716 Bryson City Road, Franklin, Macon County, North Carolina. The site is located northwest of the intersection of Bryson City Road and Hughes Lane. This investigation was conducted on behalf of the North Carolina Department of Transportation (NC DOT) in accordance with the scope of work outlined in our September 9, 2008 proposal. A site location map is provided as Figure 1.

H&H conducted a Preliminary Site Assessment (PSA) on Parcel 39 in May 2008. Results of the PSA were documented in the PSA Report dated July 14, 2008. As part of the PSA, geophysical work, including the use of ground penetrating radar (GPR), was conducted by Schnabel Engineering (Schnabel). During the GPR survey, two anomalies were identified in the existing

DOT right-of-way on the southern portion of the property north of Hughes Lane. The anomalies were interpreted to be a potential UST of unspecified size and possible buried metal debris. The two anomalies were located at the base of a steep slope in the DOT right of way. No surficial evidence of a UST or metal debris was apparent during visual inspection. As reported in the PSA, no soil impacts were detected in soil samples collected by H&H in the area of the suspected UST and buried debris. A site map depicting the location of the two anomalies is included as Figure 2. The Schnabel report is included in Appendix A.

2.0 UST Investigation Activities

On September 23, 2008, H&H mobilized to the site to conduct exploratory excavation and potential UST removal activities. H&H contracted Soil Solutions, Inc. (SSI) of Winston-Salem, North Carolina to perform the excavation activities. Excavations were conducted at each anomaly location. Excavated soil was stockpiled adjacent to each excavation pit. The western excavation (possible buried metal) dimensions were 14.5 ft by 10.5 ft and 7.5 ft deep. The eastern excavation (possible UST) dimensions were 14 ft by 6.5 ft and 7.5 ft deep. During excavation activities, no USTs were encountered; however, several pieces of concrete, asphalt, and metal were found buried approximately 2 to 7.5 feet below the ground surface in each excavation area. As shown in the photographs in Appendix B, the amount of buried debris appears to be minor. The debris likely caused the GPR data to be misinterpreted as a potential UST in the eastern excavation. The excavation areas are shown on Figure 2.

During excavation activities, soils from the sidewalls and base of the excavation were field screened for potential impacts using a photoionization detector (PID). Based on field screening with the PID, no impacted soils were encountered in the excavations. In addition, H&H did not observe any visual staining or petroleum odors. Because there was no evidence of a UST and no suspected soil impacts, post-excavation soil samples were not collected for laboratory analysis.

The excavations were backfilled with the excavated soil and compacted in lifts to match existing grade. Disturbed areas were seeded and covered with straw.

3.0 Conclusions

No UST or significant buried debris was encountered during exploratory excavations conducted in two areas on the Guy Duval property (NC DOT Parcel #39). Pieces of buried concrete, asphalt, and metal debris likely caused GPR data to be misinterpreted as a potential UST. Upon completion of excavation activities, the areas were backfilled with the excavated soil and disturbed areas were seeded and covered with straw. Based on the results of excavation activities, only minor debris is expected to be encountered in this area of the Guy Duval property during proposed NC DOT road work.

Please contact us if you have any questions or comments.

Very truly yours,

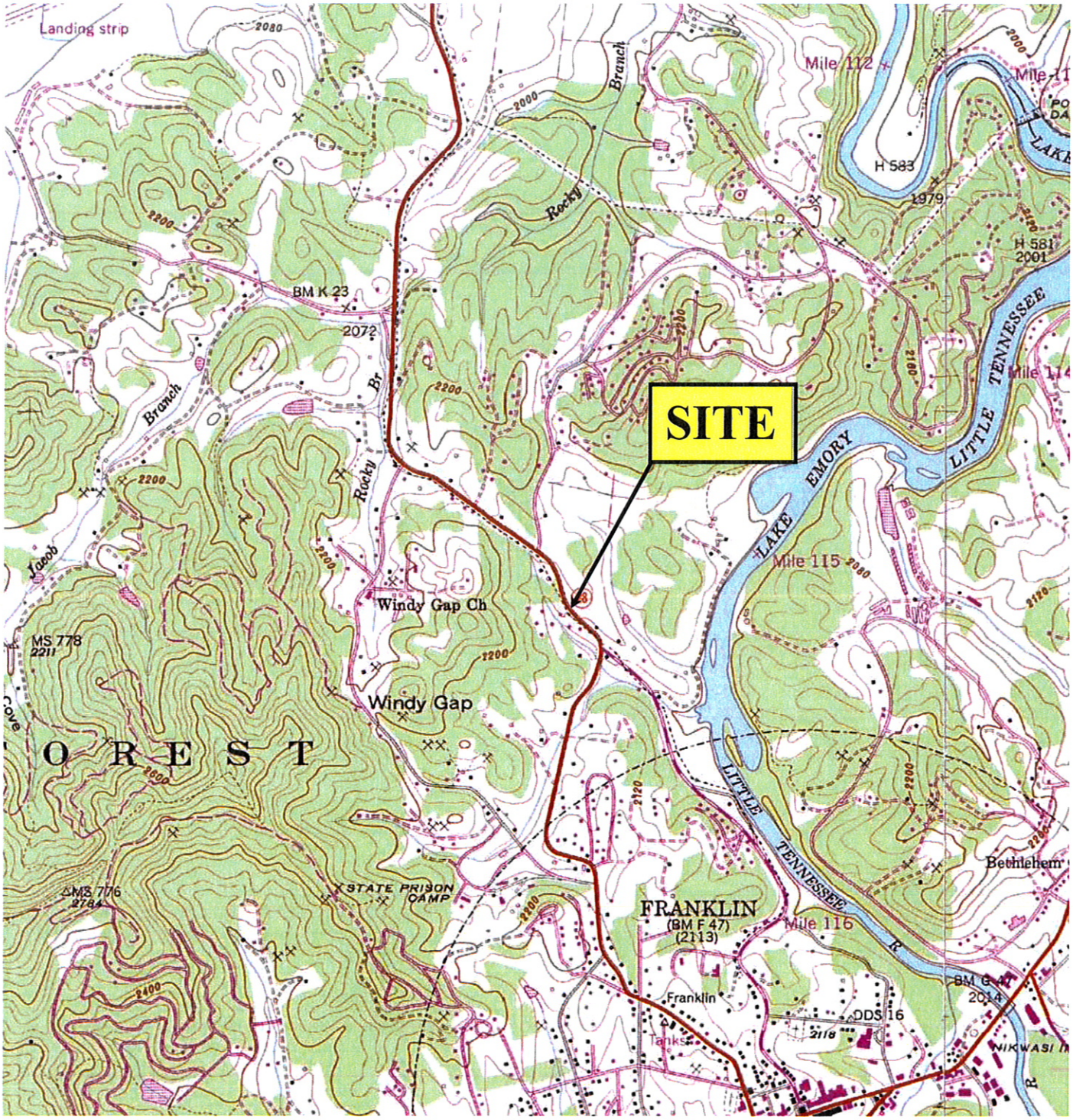
Hart & Hickman, PC

David Graham (MB)
David Graham
Project Geologist

Matt Bramblett
Matt Bramblett, PE
Principal and Project Manager

DBG/MVB

Attachments



N

APPROXIMATE

0 2000 4000

SCALE IN FEET

U.S.G.S. QUADRANGLE MAP

FRANKLIN, NC 1946
PHOTOREVISED 1978

QUADRANGLE
7.5 MINUTE SERIES (TOPOGRAPHIC)

TITLE	SITE LOCATION MAP
PROJECT	GUY DUVALL PROPERTY; PARCEL 39 FRANKLIN, NORTH CAROLINA

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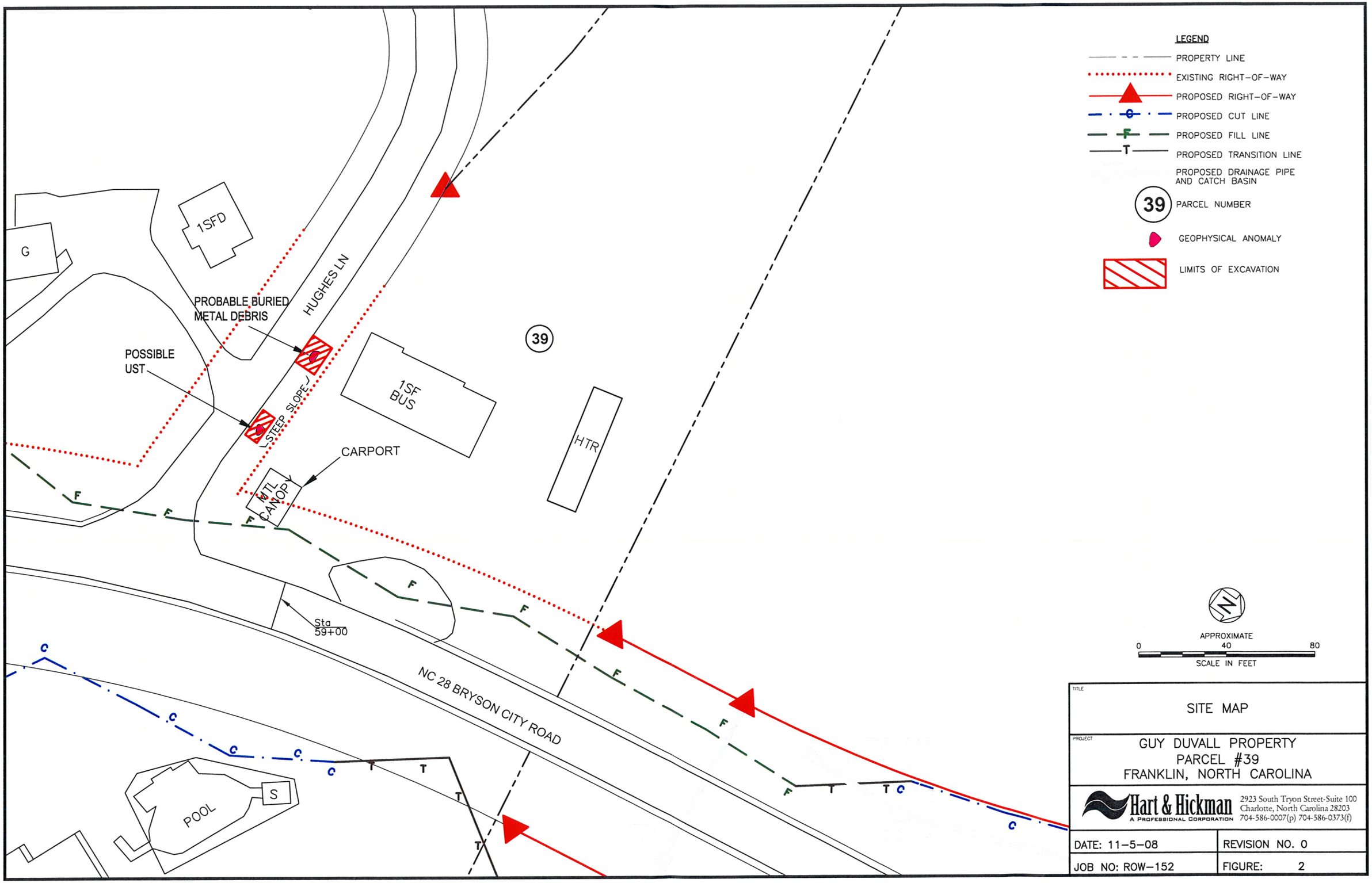
DATE:	9-26-08	REVISION NO:	0
JOB NO:	ROW-150	FIGURE NO:	1



TITLE

SITE MAP

PROJECT

GUY DUVALL PROPERTY
PARCEL #39
FRANKLIN, NORTH CAROLINA

Hart & Hickman
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2923 South Tryon Street-Suite 100
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704-586-0007(p) 704-586-0373(f)

DATE: 11-5-08	REVISION NO. 0
JOB NO: ROW-152	FIGURE: 2

S:\AAA-Master Projects\NC DOT Right-of-Way -ROW\ROW-152 Franklin 39 UST\Report\Excavation Letter\2008-11-05_Ex Ltr Figure 2_ROW-152.dwg, 39

Appendix A

Schnabel Geophysical Investigation Report

Schnabel Engineering South

11-A Oak Branch Drive
Greensboro, NC 27407

Phone (336) 274-9456
Fax (336) 274-9486
www.schnabel-eng.com

June 5, 2008

Mr. Matt Bramblett, PE
Hart & Hickman, PC
2923 South Tryon Street, Suite 100
Charlotte, NC 28203

Via email (pdf)

cc: Mr. Cyrus Parker, NCDOT

State Project:	R-2408A and B
WBS Element:	34427.1.1
County:	Macon
Description:	Riverview Street (SR 1323) and Bryson City Road (NC 28) from Depot Street Extension (SR 1729) to Bennett Road (SR 1378)

SUBJECT: **Parcel #39, Guy Duvall Property**
Report on Geophysical Surveys to Locate Possible UST's
Schnabel Engineering Project No. 07210023.10

Dear Mr. Bramblett:

This letter contains our report on the geophysical surveys we conducted on the subject property. We understand this letter report will be included as an appendix in your report to the NCDOT. The report includes one 8.5x11 color figure and two 11x17 color figures.

1.0 INTRODUCTION

Schnabel Engineering conducted geophysical surveys on May 21 and May 27, 2008, in the accessible areas of the proposed right-of-way (ROW) section of Parcel 24 (Guy Duvall Property) under our 2007 contract with the NCDOT. Parcel 39 is located at the northwest corner of the intersection of NC 28 (Bryson City Road) and Hughes Lane. A site photo of the parcel is shown in Figure 1. The work was conducted at the locations indicated by Hart & Hickman to support their environmental assessment of the subject parcel. The purpose of the geophysical surveys was to locate possible metal

underground storage tanks (UST's) and associated metal product lines in the accessible areas of the site, and to investigate planned boring locations for the presence of buried utilities.

2.0 FIELD METHODOLOGY

Locations of geophysical data points were obtained using a sub-meter Trimble Pro-XRS DGPS system. References to direction and location in this report are based on the US State Plane 1983 system, North Carolina 3200 zone, using the NAD 83 datum, with units in US survey feet. The locations of existing site features (building, curbs, signs, etc.) were recorded for later correlation with the geophysical data and for location references to the NCDOT drawings. The geophysical investigation consisted of an electromagnetic (EM) induction survey using a Geonics EM61-MK2 instrument, and a Ground-Penetrating Radar (GPR) survey using a Geophysical Survey Systems SIR-3000 system equipped with a 400 MHz antenna.

The EM61 data were collected along parallel survey lines spaced about 2.5 feet apart. The EM61 and DGPS data were recorded digitally using a field computer and later transferred to a desktop computer for data processing. The GPR data were collected over selected EM61 anomalies and over the planned boring locations.

3.0 DISCUSSION OF RESULTS

The contoured EM61 data are shown on Figures 2 and 3. The EM61 early time gate results are plotted on Figure 2. The early time gate data provide the most sensitive detection of metal object targets, regardless of size. Figure 3 shows the difference between the response of the top and bottom coils of the EM61 instrument (differential response). The difference is taken to remove the effect of surface and very shallowly buried metallic objects. Typically, the differential response emphasizes anomalies from deeper and larger objects such as UST's.

The early time gate and differential results show several anomalies attributed to known site features, and two anomalies not attributed to known site features (Figures 3 and 4). GPR data were collected over the two anomalies not attributed to known site features, and around and under the metal canopy in the corner of the parcel. The anomaly at Easting 688,294, Northing 557,132 appears to be caused by buried metal debris. The GPR data collected in the area of the anomaly at Easting 688,340, Northing 557,131 was inconclusive. Due to the high amplitude of this anomaly, we cannot rule out the possible presence of a metal UST at this location.

4.0 CONCLUSIONS

Our evaluation of the geophysical data collected on Parcel 39 of Project R-2408A and B in Franklin, NC indicates the following:

- The geophysical data indicate the possible presence of a metal UST at Easting 688,294, Northing 557,132.

5.0 LIMITATIONS

These services have been performed and this report prepared for Hart & Hickman and the North Carolina Department of Transportation in accordance with generally accepted guidelines for conducting geophysical surveys. It is generally recognized that the results of geophysical surveys are non-unique and may not represent actual subsurface conditions.

Thank you for the opportunity to serve you on this project. Please call if you need additional information or have any questions.

Sincerely,

SCHNABEL ENGINEERING SOUTH, P.C.

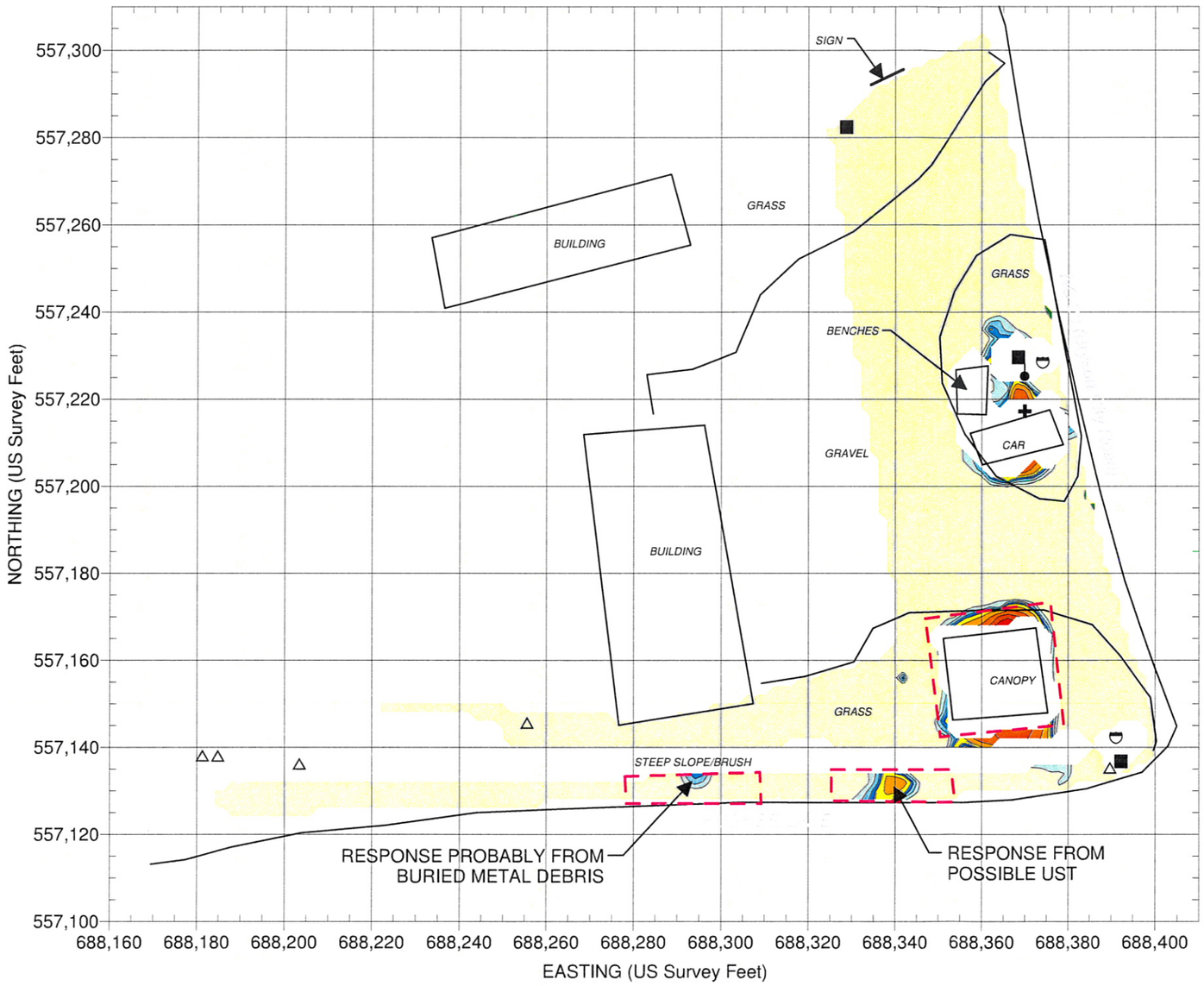
Jeremy S. Strohmeyer, L.G.
Project Manager

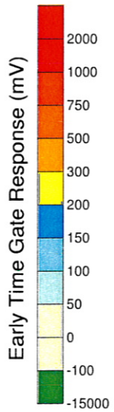
Edward D. Billington, L.G.
Senior Vice President

JS/NB
Attachment: Figures (3)
FILE: G:\2007 PROJECTS\07210023 (NCDOT 2007 GEOPHYSICAL SERVICES)\PHASE 10 (R-2408A AND B - FRANKLIN AND MACON CO)\REPORT\PARCEL 39\REPORT ON PARCEL 39.DOC

Parcel 39 – Guy Duvall Property, looking northwest

Schnabel Engineering	NC Department of Transportation Geotechnical Engineering Unit	**PARCEL 39** **SITE PHOTO**
	State Project No. R-2408A and B Macon County, North Carolina	FIGURE 1





EXPLANATION

- UTILITY POLE
- GUY WIRE
- UST LID
- UTILITY LID
- METALLIC OBJECT
- METAL DRUM
- NCDOT ROW/EASEMENT MARKER
- SIGN
- MONITORING WELL
- ELECTRIC BOX
- TELEPHONE
- AIR PUMP
- GPR SURVEY AREA

Scale in US Survey Feet

0 30 60 90

Note: The contour plot shows the earliest and most sensitive time gate of the EM61 bottom coil/channel in millivolts (mV). The EM data were collected on May 21, 2008, using a Geonics EM61-MK2 instrument. Positioning for EM61 survey provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the US State Plane 1983 System, North Carolina Zone 3200, using the NAD 1983 datum. GPR data were acquired on May 27, 2008, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.

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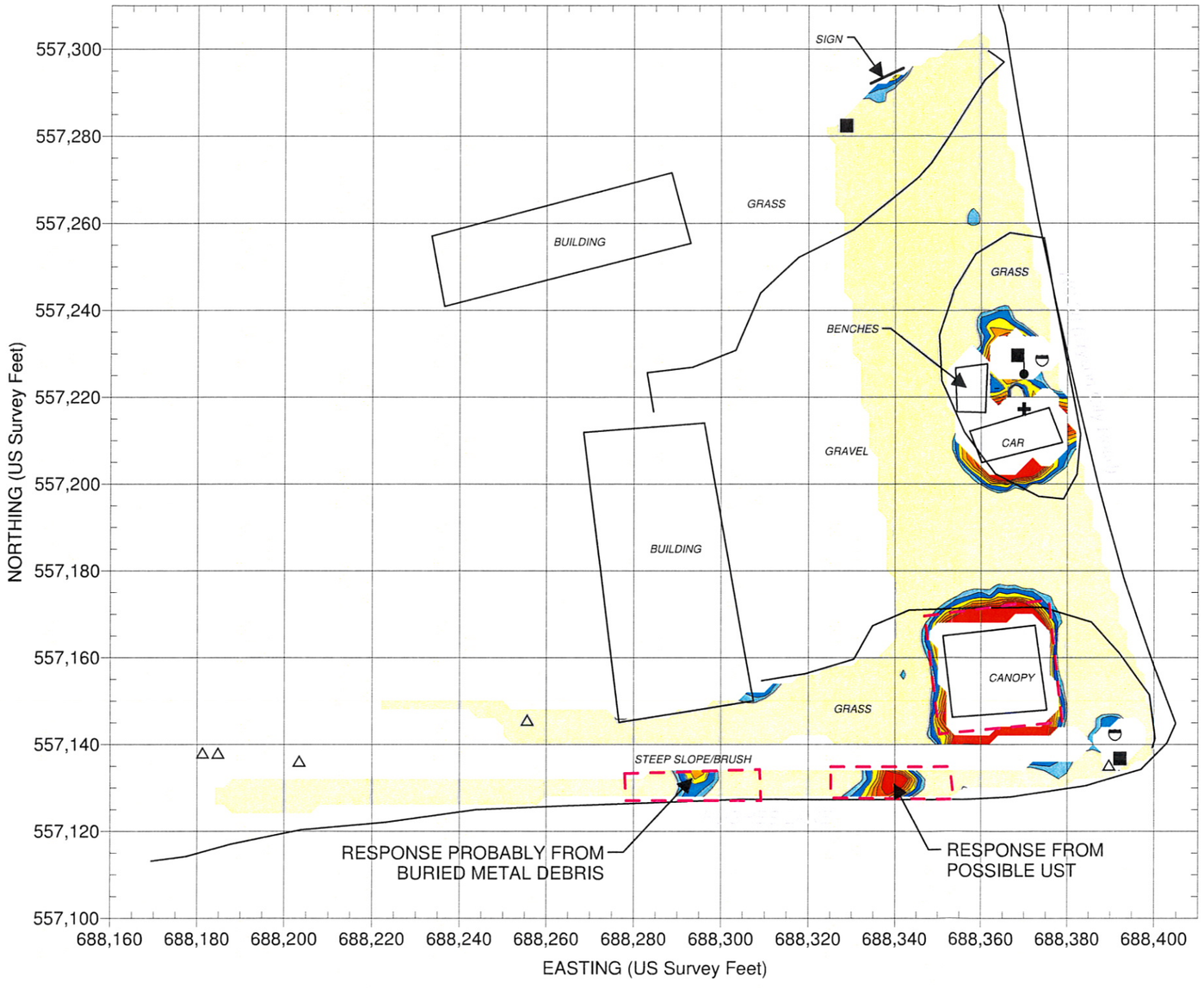
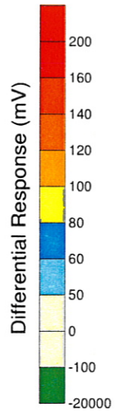
State Project R-2408A and B
Macon County, NC

PARCEL 39
EM61 EARLY TIME GATE RESULTS

FIGURE 2





EXPLANATION

- UTILITY POLE
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- GPR SURVEY AREA

Scale in US Survey Feet

0 30 60 90

Note: The contour plot shows the difference, in millivolts (mV), between the readings from the top and bottom coils of the EM61. The difference is taken to reduce the effect of shallow metal objects and emphasize anomalies caused by deeper metallic objects, such as pipes and tanks. The EM data were collected on May 21, 2008, using a Geonics EM61-MK2 instrument. Positioning for the EM61 survey provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the US State Plane 1983 System, North Carolina 3200 Zone, using the NAD 1983 datum. GPR data were acquired on May 27, 2008, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.

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State Project R-2408A and B
Macon County, NC

PARCEL 39
EM61 DIFFERENTIAL RESULTS

FIGURE 3

Appendix B

Site Photographs

Photograph 1: Excavation location prior to work

Photograph 2: Minor debris buried in soil

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DUVAL PARCEL #39
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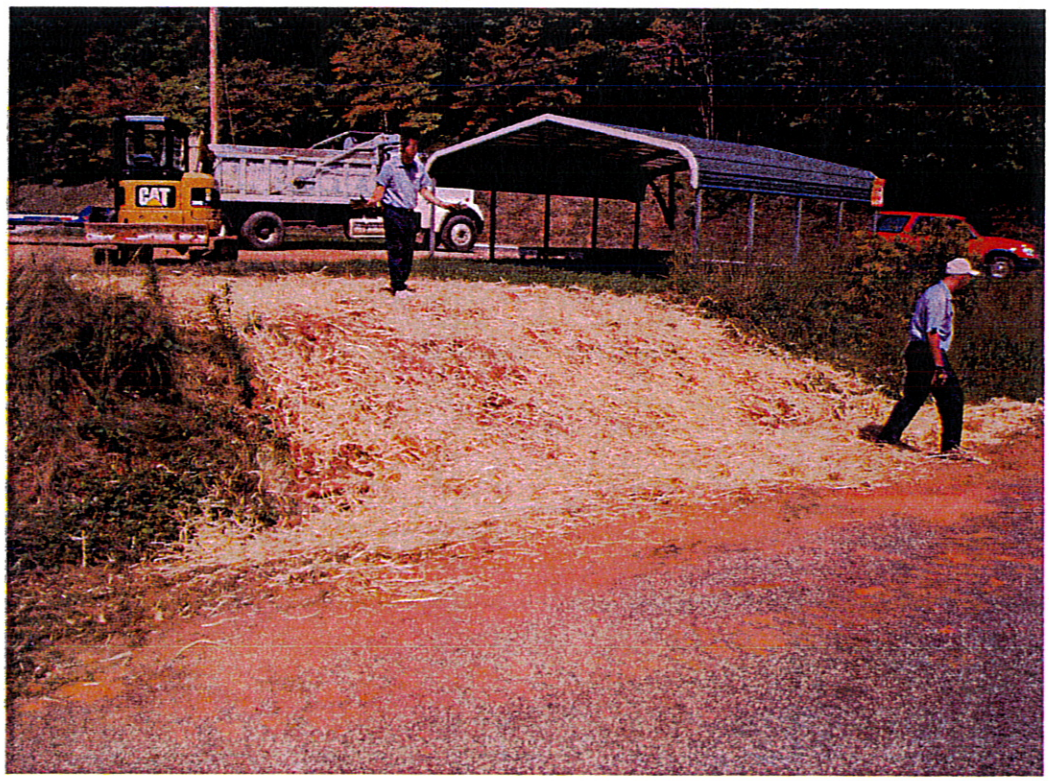
Photograph 3: Soil excavation and stockpile



Photograph 4: View of area after exploratory excavation

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