



## **PRE-BID CONFERENCE – Mandatory**

**Emailed**

**NCDOT  
Dobson Equipment Shop  
Dobson, NC  
Commission No. 1308  
SCO ID No. 12-009345-02A**

**February 06, 2014**

**Copies:** All Prime Bidders, Owner, Agencies, Plan Rooms, Designers, Consultants.

### **IN ATTENDANCE**

See attached copy of Sign-up Sheet.

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### **ERSOY BRAKE APPELYARD, ARCHITECTS, P.A.**

- (EBA) David Appleyard opened the meeting thanking all those present for attending and their expressed interest in the Project.
- (EBA) David Appleyard introduced the Owners' Representatives and Consulting Engineers. Attendees were asked to state their name and company that they were representing.
- (EBA) All parties were informed that after the Pre-Bid Meeting the Owner has made the Site Area accessible to all parties that desire to visit the site immediately after the Pre-Bid meeting.
- (EBA) David Appleyard informed all parties that if they desire to visit the site after today to contact/check in with the Maintenance Facility Office upon arrival.
- (EBA) Plans and Specs are available on line at the DOT Website <http://www.ncdot.gov/doh/operations/division11/>. Those Prime Bidders without internet access and the ability to download and print, may acquire Documents by deposit for (set of Plans and Specifications) \$200.00/set with a two (2) set maximum. Deposit is refundable contingent upon return of the Bidding Documents prior to Bid Date as set forth within the Specifications manual.
- (EBA) All sub-contractors, materials suppliers, etc. requesting copies of drawings or specifications may purchase this information at a non-refundable rate directly from the printing company - Sharpe Images - located in downtown Winston-Salem, NC, on Burke Street.
- (EBA) Contract Documents are available for viewing at the Architect's office; the office of the Owner (Raleigh); at Plan Rooms for AGC (Raleigh); and McGraw Hill/Dodge (Charlotte); and Reed Construction Data (Norcross Georgia); as well as the Minority Plan Rooms (Charlotte & Raleigh).

- (EBA) Bids proposals will be received from Contractors at 1:00 PM on Thursday, February 27, 2014 in the County Maintenance Office, in Dobson; the same room that we are meeting in today. Please note the current time on the existing wall clock and adjust/coordinate your time accordingly. This will be the clock that the Owner goes by to close the receipt of Bids.
- (EBA) For the brevity of this meeting, and since Prime Bidders are no strangers to State/SCO Projects, we will not quote scripture and verse regarding Contract Requirements and how the Owner & Designers will administer this Contract/Project. However, it is strongly urged that all Contractors review the information contained within the “Instructions to Bidders”, “General Conditions”, and the “Supplementary Instructions to Bidders & General Conditions” that are included within the Specifications Manual. By entering into a Contract for this Work/Project, Contractors (including their Subs and Suppliers) are agreeing to all stated/indicated Contract Requirements.
- (EBA) The Bidding process will follow the requirements of Formal Bids pursuant to the guidelines of N.C.G.S. 143-128 and 143-129. Also to be followed on this Single Prime Bid/Contract will be N.C.G.S. 87-1.1 – Rules .0210.
- (EBA) The form of Contract will be a Single Prime - Lump Sum.
- (EBA) All Bidders must be properly and currently Licensed Contractors in North Carolina, for their respective trade.
- (EBA) Bids may not be withdrawn for a period of (90) days.
- (EBA) The Owner reserves the rights to reject any and all bids, and to waive all informalities during the bidding process.
- (EBA) All Bidders are instructed to **INCLUDE all applicable sales tax in their Bid Proposal's Lump Sum Amount.** There is No sales Tax Reimbursement.
- (EBA) A five percent (5%) Bid Bond will be required, and must be included/attached with each Bid Proposal.
- (EBA) A copy of the Form of Contract is included within the Specifications Manual.
- (EBA) 100% Performance Bonds and Payment Bonds will be required by the Contractor awarded the Contract.
- (EBA) Insurance requirements are listed within the Specifications Manual.
- (EBA) Pursuant to compliant with NC State guidelines, a verifiable Minority Participation Goal is established at ten (10%) percent. All contractors are strongly urged to review the Minority Business information, guidelines and requirements as included within the Specifications.
- (EBA) Minority Business Forms Affidavit “A” or “B” along with Minority Business Participation Listing Form must be included/attached with each Bid Proposal.
- (EBA) The Apparent Low Bidder will be required to submit their Good Faith Effort Documentation to support their Minority Documents submitted on Bid Day.
- (EBA) The Form of Proposal is included within the Specifications Manual, near the end.
- (EBA) No Substitutions of Manufacturers or Products is approved unless specifically listed as an approved substitution in an Addendum. The last day to submit products or manufacturers for review for approval is no later than 12:00 pm on Monday, February 17, 2014.
- (EBA) No Addenda have been issued to date. The last day to submit questions for inclusion in an Addendum, for clarification or resolution, is no later than 12:00 pm on Thursday, February 20, 2014.

- (EBA) A brief general description of the Scope of Work was given for the building renovations which includes, but not limited to, the following:

The Project consists of the construction of the new Dobson Equipment Shop of approximately 9,495 sq. ft. at the ground floor and 2,171 sq. ft. mezzanine. The new shop building consists of a pre-engineered metal building with architectural concrete masonry exterior walls, painted concrete masonry interior walls, metal roofing and fascia panels, concrete floor slabs at work bays, finished office areas, floor lifts and bridge crane, and plumbing, mechanical, and electrical building systems (including utility connections). Work includes rough grading of site, concrete curbs and aprons, and paving.

Installation of the below grade water/sand separator.

Relocation of the existing above ground Oil Waste Tank and Pump at the end of the project just prior to the time of the Project's Final Inspection and Acceptance.

All equipment listed in contract by GC; or provided by Owner and coordinated and installed by GC.

- (EBA) All Subgrade in Work Areas/Proposed Trenches are considered unclassified.
- (EBA) All construction parking must stay within the confines of the temporary construction limits/fencing. Fenced/enclosed staging, storage, lay-down; parking areas will be negotiated and assigned at the Pre-Construction Conference. All temporary fencing and gates are to be furnished by the Contractor. No construction parking will be allowed outside of this area or along the roadways into the site.
- (EBA) DOT operates with a No Tolerance Policy towards harassment of Staff, Employees, or Visitors. It is strongly urged that there be no contact between construction personnel and DOT related persons. The No Tolerance policy also applies towards weapons, alcohol, and illegal drugs.
- (EBA) The possession of weapon(s) on DOT property is considered a felony regardless of whether the individual possesses a conceal/carry weapon permit. Any persons observed with a weapon will be arrested and removed from the site.
- (EBA) **The Contract Completion date is 240 Consecutive Calendar Day** from the Notice to Proceed date (8-Months).
- (EBA) **Liquidated Damages** are included in the Project. If assessed, they will be **\$300 dollars per day** for each day the Project is incomplete beyond the contractual completion date.
- (EBA) Allowances for the Project are listed within Section 01230 of the Specifications.
- (EBA) Lump Sum Unit Prices are included on the Bid Forms. The unit prices are also listed within Section 01230 of the Specifications and coincide with the Allowances.
- (EBA) There are NO ALTERNATES for the Project.
- (EBA) The approval to Bid serves as the State/SCO Building Permit. The State/SCO/DOT is the local Authority Having Jurisdiction regarding NC State required Construction Inspections.
- (EBA) Construction Testing and Special Inspections services will be paid for by the Owner. The Contractor is expected to coordinate and schedule with the selected Testing Agency.
- (EBA) The GC is responsible for providing & paying for the following temporary utilities/facilities: water, electricity, cooling/heat, lighting, communications, & toilet facilities. Water for the purpose of construction.

- (EBA) Existing items/services/utilities will need to remain in-place and protected by the Contractor during the Project.

- Attendee Question(s):

- **GC:** Are the Allowances and associated quantities, along with the Unit Prices to be included in the Contract Amount? Or, just listed on the Proposal Form?

- Designer Response:** The Unit Prices that are to be indicated on the Bid Proposal Form will be multiplied by the quantity of the corresponding Allowance, and included in the Base Bid. Allowances will be listed on the Schedule of Values for tracking purposes during construction.

- **GC:** Is the Erosion Control Installer to be certified?

- Designer Response:** Yes. See Spec. Section 02350.

- **GC:** Has a Subsurface Report/Soil Borings been done for the Project?

- Designer Response:** Yes. DOT did the Subsurface Report/Soil Borings for this Project, dated 07/09/2012. It should be on the website with the other Contract Documents. If not, it will be included in ADDENDUM No. 1 as an attachment file.

- **GC:** Clarify Allowance & Unit Price “F”: Lowering of Footings, since there are two types of footings (continuous & pier)?

- Designer Response:** The description of Allowance “F” & Unit Price “F” is correct. The type of footing is only important as to how the Allowance & Unit Price is figured by the Bidder. In the past, GC’s have figured the Allowance/Unit Price based upon an average cost for lowering the different footing types on the Project; or have based the Allowance/Unit Price upon the most expensive footing condition. It is the Bidders decision on how he will figure this Allowance/Unit Price to adequately cover himself should the foundation need lowering in places due to unsuitable subsurface/soil conditions.

Also as discussed in the Pre-Bid Conf./Meeting, it is an option to undercut/remove unsuitable soil and place suitable fill material in order to re-establish the foundation bearing elevation, so as not to have to lower the foundation. In this instant, Allowances/Unit Prices “C”, “D”, & “E” may be used in combination as directed by the Owner’s Testing Lab/Geotechnical Engineer.

All the above is to give the Owner, Designer, & Contractor options based upon the conditions and circumstances at hand, and the costs or timing involved.

- **GC:** Who is to pay for the permit for the new Septic System?

- Owner Response:** The Owner has already paid for and obtained this permit from the City of Dobson.

- **GC:** Who is to pay for the Tap Fees (Permanent Fee)?

- Owner Response:** All temporary fees and permits shall be paid for by the GC. All permanent fees are paid by the State of North Carolina.

- Preferred Brand Alternates(s): None.

- Certified HUB Contractor Outreach Meeting:

- **NCDOT HUB Coordinators:** Mrs. Charlotte Boyd-Malette, & Mrs. Bonnie Tripp Simmons.
- All HUB Firms listed on the Proposal Form must be registered with the NCDOT HUB Office. Proof of registration/certification will be required as part of the backup documentation for compliance.
- The HUB Coordinators passed out a document to assist GC's in finding and contacting HUB Firms, and with documentation efforts/requirements. This Document will also be posted on the Project's DOT Website prior to receipt of Bids.

Immediately after the above meetings, the parties adjourned and reconvened at the Site to review the existing site and conditions.

If the above is not as those copied, recall or intended, please contact the undersigned in writing.

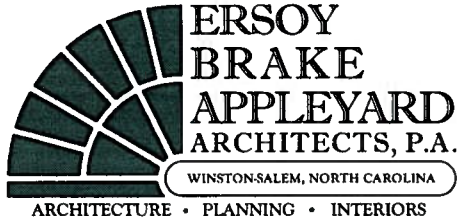
Submitted by,  
Ersoy Brake Appleyard Architects, PA

*R. David Appleyard, Jr.*

R. David Appleyard, Jr, AIA, NCARB, CSI  
Principal

Attachments:

- Meeting's Sign-Up Sheet.
- Project's Subsurface Report/Soil Borings.



# SIGN-UP SHEET

**PROJECT:** NCDOT: Dobson Equipment Shop  
 SCO ID No: 12-09354-02A / Architect Project No: 1308

**RE:** PRE-BID CONFERENCE **DATE:** 02/06/2014 **TIME:** 10:30 AM

NAME	COMPANY	EMAIL	TELE. & FAX NO'S.
01. David Appleyard	EBA Architects	dappleyard@ebaarchitects.com	725-1361 T 725-9176 F
02. Todd Frye	David Hill Bldg	tfrye@dhbinc.com	336-789-5517
03. Wilson Paschall	DAVE'S CONST SRV	WPASCHALL@DCSDAVE.COM	336-623-9906 336-1623-4216
04. KEVIN NICHOLS	MASTERCRAFT	KEVIN@MASTERCRAFTINC.COM	336-846-4466 336-846-3001
05. Darron Dotson	MasterCraft	Darron@mastercraftinc.com	336-846-4466 336-846-3001
06. VAN UTT	CARL ROSE PAVING	CARLROSEPAVING@YAHOO.COM	336-835-7506
07. Steve Carroll	Central Builders, Inc. of mebane	STEVE@CENTRALBUILDERSINC.COM	336-227-4551 336-227-0612 FAX
08. James Bogue	KMD Construction	jim@kmdconstruction.net	704/636-6560
09. Richard Brantley	NEIL STREET BUILDERS	neilstreetbuilders@icloud.com	(336)-908-6955 (813) 789-4909
10. JAROD SIMMONS	SIMCON COMPANY, LLC.	jsimmons@simconcompany.com	(336) 789-4916 336-854-0155
11. Wilbur Holden	Holden Building Co.	w.holden@holdenbuilding.com	336-856-0722
12. ROBERT C. RING	J.G. CORAM INC.	bob@jgcoram.com	336-789-6251 336-789-6423 F
13. JACO WHITE	GARANCO INC.	jacob@garanco.com	336-368-2788 336-362-6253
14. Chris Hoover	W.C. Construction Co.	chris@wcconstructionco.com	336-721-3420 336-721-3421
15. JESSE HANLIN	MBI BUILDERS	jesse@mbibuilders.com	336-923-3402 336-468-0051
16. Bob Beaver	CR BEAVER INC.	bob@crbeaver.com	336-996-8329 336-403-5089
17. ARIC BULLINGTON	TRIAD BUILDERS	abullington@triadbuilders.com	336-983-9400 336-983-7033
18. RANDY LINHART	ALANTYE+ASSOC DISTRIBUTOR - STERIL KONI	RANDY@ALANTYELISTS.COM	ALANTYELISTS. 704-790-3208
19. PAGE KUTZ	Hodgin Construction	hodgincc@triadbldr.com	336-299-5460 336-299-0163
20. JOSH MYLER	H.M. KERN CORPORATION	JMYLER@HMKERN.COM	336-668-3013 336-668-2142
21. NEIL STREET	Neil Street Builders	NEILSTREETBUILDERS@GMAIL.COM	(336) 908-6955
22. Russell Karnes	EarthTek Services LLC	RK.EARTHTEK@GMAIL.COM	(336) 448-1675

NAME	COMPANY	EMAIL	TELE. & FAX NO'S.
23. Mike Stewart	S&S Building & Development	mstewart@sandbuilding.com	P: 336 808 1328 F: 336 808 1329
24. DAVID B. Simmons	Blue Ridge Enterprises, Inc	general@bre-inc.com	P: 336 789-2134 F: 336 789-3084
25. GARY Culler	CAS	gculler@hwac-cas.com	336-366-5005 336-366-5060
26. TRAVIS HAYES	HAYCO CONSTRUCTION	THAYES@HAYCO-CONSTRUCTION.COM	336-444-4448 336-345-1343
27. Rex Gregory	CAS	rgregory@hwac-cas.com	336-566-5005
28. Tom Fulton	Lincoln Lubrication	t.fulton@shannonand	(704) 5210 8228 9704.com
29. Dave Puryear	WISITON + CARTER.	dlepuryear@wisitoncarter.com	336 444 679-2031 679 4476
30. Charlotte Boyd-Malette	NC DOT	cboyd-malette@ncdot.gov	917
31. BONNIE Inge Simmons	NC DOT	btsimmons@ncdot.gov	707-4549
32. LARRY Tibbs	NC DOT	LTibbs@ncdot.gov	336-903-9187
33. CHARLES REINHARDT	NC DOT	CREINHARDT@NC DOT.GOV	
34. Wayne Watkins	NC DOT	watkins@ncdot.gov	336-667-9111
35. RANDY ICARD	B.E.I.	vicard@brittainengineering.com	828-328-1813
36. TODD POTSET	WEST CONSULTANTS	TPOTSET@WEST-CONSULTANTS.COM	828-432-5661
37. DONNIE SMITH	FACILITIES DESIGN		NC DOT
38. TIM JOHNSON	DOT - FMD	TJOHNSON@NC DOT.GOV	336-679-2031
39. MONROE WHITT	WISITON + CARTER	MONROEWHITT@WISITONCARTER.COM	679-4436
40. RYAN KEAREY	Kearey Builders Inc	Ryan@KeareyBuilders.com	704-883-9811
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STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
GOVERNOR

EUGENE A. CONTI, JR.  
SECRETARY

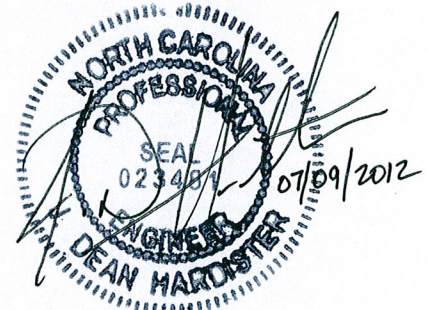
July 9, 2012

MEMORANDUM TO: Michael Mountcastle, P.E.  
Facility Structural Engineer

FROM: Dean Hardister, P.E.  
Western Regional Operations Engineer

DESCRIPTION: Proposed Surry County Equipment Shop

SUBJECT: Subsurface Exploration and Engineering Evaluation



The Geotechnical Engineering Unit (GEU) has completed the subsurface exploration and engineering evaluation for the proposed equipment shop to be located at the Surry County maintenance facility. This memorandum includes our findings and engineering recommendations.

**PROJECT INFORMATION**

The site for the proposed equipment shop is located at the existing maintenance facility in Surry County, North Carolina. The site is currently utilized as a storage yard. The equipment shop is to be a pre-engineered steel-frame structure utilizing a turned-down slab and approximately 130 by 75 feet in plan. We estimate that strip loads on the slab will be less than 4 kips per foot.

Parking areas are proposed around the shop. Both cut and fill slopes are proposed to be constructed. Maximum cut and fill depths on the order of 3 and 4 feet, respectively, are proposed.

**SUBSURFACE EXPLORATION & FINDINGS**

Using plans provided to the GEU by NCDOT General Services Division and site features and topography, the boring sites were located. Thirteen (13) borings were advanced to depths ranging between 5.5 and 15.8 feet below existing grades with a CME 550 drill rig utilizing hollow stem augers. Standard Penetration Testing (SPT) was performed in accordance with ASTM D 1586 at frequent intervals in each boring in order to determine the origin and the relative density or stiffness of the subsurface materials.

MAILING ADDRESS:  
NCDOT WESTERN REGIONAL  
GEOTECHNICAL OFFICE  
COURIER: 05-37-01

TELEPHONE: (704) 455-8902

FAX: (704) 455-8912

WEBSITE: [WWW.DOH.DOT.STATE.NC.US](http://WWW.DOH.DOT.STATE.NC.US)

LOCATION:  
WESTERN REGIONAL  
GEOTECHNICAL OFFICE  
5253 Z MAX BOULEVARD  
HARRISBURG, NC 28075



A surface layer of grass/topsoil or gravel/asphalt is present across the proposed building and parking footprint.

A layer of possible fill is present in boring B-11. The fill begins just below the surface layer and extends to a least 3 feet below grade. Since the sample below the fill was not recovered, the depth of the bottom of the fill is uncertain. The fill consists of wet, soft silty CLAY with a SPT value of 2 blows per foot (bpf).

Residual soils consisting mainly of sandy SILT silty SAND are present below the ground elevations in each boring, with the exception of B-11, and extend to at least the boring termination depths. It is likely, based upon the findings in the other boring locations, that residual soil is present below the suspected fill in boring B-11. The apparent moisture in the residual soils was generally moist, however; some samples were slightly dry to slightly wet of optimum.

Groundwater levels were measured at least 24 hours after boring completion. Groundwater was not observed in any of the borings. However, the upper sample in boring B-11 was wet.

### **GEOTECHNICAL RECOMMENDATIONS**

The recommendations below are based upon the subsurface findings and project information stated above. If any of the information included in those sections is incorrect, or if different subsurface conditions are encountered during construction, please contact us to review our recommendations and make any necessary amendments.

Seismic Site Classification: A Seismic Site Classification D may be used for design purposes. Additional deeper borings will be required to investigate for potential site classification improvement.

Site Preparation and Fill Placement: The proposed construction areas should be cleared of any existing topsoil or organic materials and soft or loose soils. Prior to placing fill and following excavation to proposed grade, the exposed subgrade should be proofrolled with a fully loaded tandem-axle dump truck or similar pneumatic-tired vehicle with two complete passes over the subgrade. Any areas that pump or rut under the wheel loads should be undercut and replaced with suitable materials.

Undercutting due to soft soils may be required in the flat area around B-9 along the toe of the proposed slope and in the parking areas around B-11 and B-12. Undercut depths of less than 2 feet are expected. If soft soils are present at the bottom of the undercut, Type 5 geotextile and 12 inches of compacted ABC stone, in accordance with the *2012 NCDOT Standard Specifications for Roads and Structures*, may be used to stabilize the undercut area prior to placing unclassified soils to proposed grade. If the bottom of the undercut is firm and dry, the undercut areas may be backfilled with suitable, unclassified soils.

Due to the clayey nature of the near-surface soils, inclement weather will cause the soils to weaken and require undercutting. Therefore, proper surface drainage within and around the construction areas will be paramount in preventing unnecessary undercutting.



Michael Mountcastle, P.E.

July 9, 2011

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Quantities of 2000 cubic yards of undercut, 2500 square yards of Type 5 geotextile, and 1500 tons of ABC stone have been estimated.

Soils used for structural fill should be free of organics and have a maximum Plasticity Index of 25. Most of the encountered on-site soils should be suitable for use as structural fill but some of the near-surface clays may warrant testing to determine plasticity. Structural fill should be placed in 8 to 10 inch loose lifts, within 2 percent of optimum moisture, and compacted to at least 95 percent of its Standard Proctor maximum dry density. One field density test per lift should be performed for every 5000 square feet of fill placed.

Shallow Foundation Recommendations: The proposed office and equipment shop additions can be supported on shallow foundations bearing on existing residual soils. An allowable bearing capacity of 2000 pounds per square foot (psf) may be used for design of the foundations. For frost protection, we recommend that the foundations bear at least 18 inches below finished grade. The total and differential settlement potentials have been estimated to be on the order of 1 inch and 0.5 inch per 30-feet of wall length.

Prior to placing concrete for the foundations, the foundation excavations should be evaluated with regard to the allowable bearing capacity by a qualified geotechnical engineer or his authorized representative. Any areas which fail to meet the required bearing capacity should be undercut and replaced to the satisfaction of the geotechnical engineer.

Floor Slab Support: A modulus of subgrade reaction (k) of the soil of 90 pounds per cubic inch (pci) may be used for design of the floor slabs. The modulus of subgrade reaction may be increased to 120 pci provided 4 inches of stone is utilized below the floor slabs.

Pavement Support: Based upon the borings and provided the Site Preparation and Fill Placement recommendations are followed, the on-site residual soils and newly-placed structural fill should be satisfactory to provide pavement support. Chemical stabilization of the soil subgrade or additional pavement thickness as a result of poor subgrade should not be necessary.

Cut and Fill Slopes: Cut and fill slopes constructed at inclinations of 2(H):1(V) or flatter should be satisfactory. Benches should be cut into existing slopes when placing fill on existing slopes. Slopes should be vegetated soon after construction to prevent surface erosion.

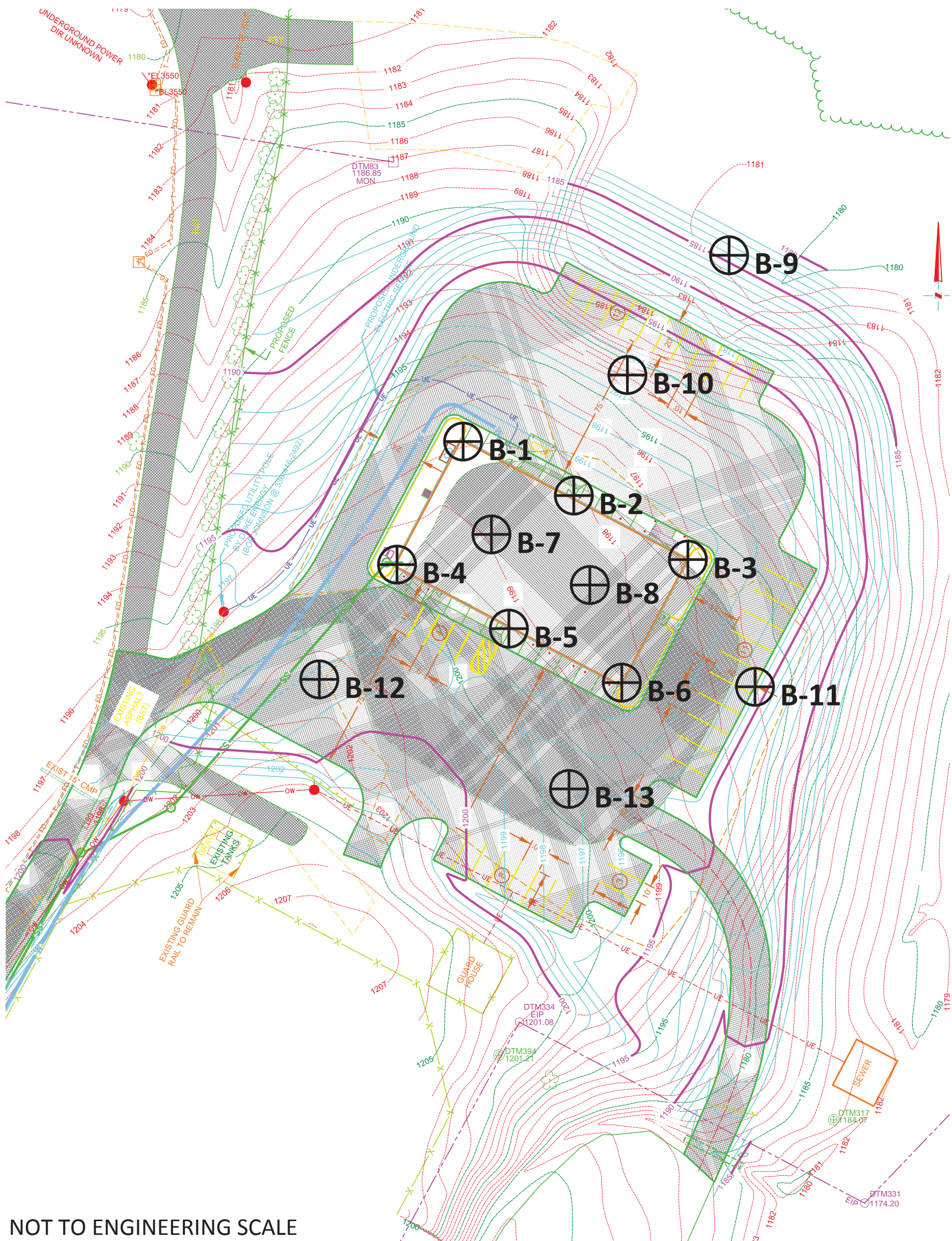
If you have any questions concerning this memorandum, please contact John L. Pilipchuk L.G., P.E. or Dean Hardister, P.E. at (704) 455-8902.

Attachments

JLP/DH

cc: File





NOT TO ENGINEERING SCALE

# BORING LOCATION DIAGRAM

## NEW SURRY MAINTENANCE EQUIPMENT SHOP

### SURRY COUNTY, NORTH CAROLINA





# NCDOT GEOTECHNICAL ENGINEERING UNIT

## BORELOG REPORT

WBS DIV 11	TIP MAINT.	COUNTY SURRY	GEOLOGIST Stickney, J. K.
SITE DESCRIPTION New Surry Maintenance Equipment Shop			GROUND WTR (ft)
BORING NO. B-1	STATION N/A	OFFSET N/A	ALIGNMENT N/A
COLLAR ELEV. 1,198.0 ft	TOTAL DEPTH 14.0 ft	NORTHING N/A	EASTING N/A
DRILL RIG/HAMMER EFF./DATE HFO0064 CME-550 88% 09/02/2009		DRILL METHOD H.S. Augers	HAMMER TYPE Automatic
DRILLER Smith, C.L.	START DATE 06/04/12	COMP. DATE 06/04/12	SURFACE WATER DEPTH N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					ELEV. (ft)	
1200																
														1,198.0	GROUND SURFACE	0.0
	1,196.5	1.5	3	4	5								M	RESIDUAL VERY STIFF RED-BROWN SLIGHTLY MICACEOUS CLAYEY FINE SANDY SILT	4.0	
1195	1,193.5	4.5	2	3	3								M	RESIDUAL MEDIUM STIFF ORANGE-BROWN MICACEOUS FINE SANDY SILT		
	1,189.5	8.5	3	2	2								M		11.0	
1185	1,185.5	12.5	4	3	3								M	RESIDUAL LOOSE ORANGE-TAN MICACEOUS SILTY FINE SAND	14.0	
														Boring Terminated at Elevation 1,184.0 ft in Residual Soil		

NCDOT BORE SINGLE 086&000\_GEO\_MISC\_SURRYEQSHOP.GPJ NC\_DOT.GDT 6/28/12



# NCDOT GEOTECHNICAL ENGINEERING UNIT

## BORELOG REPORT

WBS DIV 11	TIP MAINT.	COUNTY SURRY	GEOLOGIST Stickney, J. K.
SITE DESCRIPTION New Surry Maintenance Equipment Shop			GROUND WTR (ft)
BORING NO. B-2	STATION N/A	OFFSET N/A	ALIGNMENT N/A
COLLAR ELEV. 1,198.0 ft	TOTAL DEPTH 10.4 ft	NORTHING N/A	EASTING N/A
DRILL RIG/HAMMER EFF./DATE HFO0064 CME-550 88% 09/02/2009		DRILL METHOD H.S. Augers	HAMMER TYPE Automatic
DRILLER Smith, C.L.	START DATE 06/05/12	COMP. DATE 06/05/12	SURFACE WATER DEPTH N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION			
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)		
1200																	
	1,197.0	1.0	3	3	5	•	•	•	•	•					1,198.0	GROUND SURFACE	0.0
1195	1,194.1	3.9	1	4	4	•	•	•	•	•		M				<b>RESIDUAL</b> MEDIUM STIFF RED-BROWN SLIGHTLY MICACEOUS FINE SANDY CLAYEY SILT	
	1,191.6	6.4	4	4	4	•	•	•	•	•		M			1,192.0		6.0
1190	1,189.1	8.9	4	7	5	•	•	•	•	•		M			1,189.5	<b>RESIDUAL</b> MEDIUM STIFF TAN-BROWN MICACEOUS FINE SANDY SILT	8.5
						•	•	•	•	•		M			1,187.6	<b>RESIDUAL</b> MEDIUM DENSE TAN-BROWN MICACEOUS SILTY FINE SAND	10.4
																Boring Terminated at Elevation 1,187.6 ft in Residual Soil	

NCDOT BORE SINGLE 086&000\_GEO\_MISC\_SURRYEQSHOP.GPJ NC\_DOT.GDT 6/28/12





# NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

WBS DIV 11		TIP MAINT.		COUNTY SURRY		GEOLOGIST Stickney, J. K.										
SITE DESCRIPTION New Surry Maintenance Equipment Shop							GROUND WTR (ft)									
BORING NO. B-3		STATION N/A		OFFSET N/A		ALIGNMENT N/A	0 HR. N/A									
COLLAR ELEV. 1,197.0 ft		TOTAL DEPTH 10.0 ft		NORTHING N/A		EASTING N/A	24 HR. N/A									
DRILL RIG/HAMMER EFF./DATE HFO0064 CME-550 88% 09/02/2009				DRILL METHOD H.S. Augers		HAMMER TYPE Automatic										
DRILLER Smith, C.L.		START DATE 06/05/12		COMP. DATE 06/05/12		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
1200																
	1,196.2	0.8												1,197.0	GROUND SURFACE	0.0
1195	1,193.5	3.5	1	2	3								M	RESIDUAL MEDIUM STIFF RED-BROWN SLIGHTLY MICACEOUS SILTY CLAY (MODERATELY PLASTIC)	3.0	
	1,191.0	6.0	1	3	6								M	RESIDUAL STIFF RED-ORANGE MICACEOUS FINE SANDY SILT	8.0	
1190	1,188.5	8.5	4	4	7								M	RESIDUAL MEDIUM DENSE TAN-BROWN MICACEOUS SILTY FINE SAND	10.0	
			5	6	11								M	Boring Terminated at Elevation 1,187.0 ft in Residual Soil		

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# NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

WBS DIV 11	TIP MAINT.	COUNTY SURRY	GEOLOGIST Stickney, J. K.
SITE DESCRIPTION New Surry Maintenance Equipment Shop			GROUND WTR (ft)
BORING NO. B-4	STATION N/A	OFFSET N/A	ALIGNMENT N/A
COLLAR ELEV. 1,200.0 ft	TOTAL DEPTH 10.5 ft	NORTHING N/A	EASTING N/A
DRILL RIG/HAMMER EFF./DATE HFO0064 CME-550 88% 09/02/2009		DRILL METHOD H.S. Augers	HAMMER TYPE Automatic
DRILLER Smith, C.L.	START DATE 06/05/12	COMP. DATE 06/05/12	SURFACE WATER DEPTH N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	L O G	SOIL AND ROCK DESCRIPTION			
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)		
1200															1,200.0	GROUND SURFACE	0.0
	1,198.5	1.5	3	4	6								M		1,196.5	RESIDUAL STIFF RED-BROWN SLIGHTLY MICACEOUS FINE SANDY CLAYEY SILT	3.5
1195	1,196.0	4.0	2	6	7								M			RESIDUAL MEDIUM DENSE TO LOOSE YELLOW-TAN AND TAN-BROWN MICACEOUS SILTY FINE SAND	
	1,193.5	6.5	4	4	5								M		1,191.5		8.5
1190	1,191.0	9.0	3	1	2								M		1,189.5	RESIDUAL VERY LOOSE TAN-BROWN MICACEOUS SILTY FINE SAND	10.5
																Boring Terminated at Elevation 1,189.5 ft in Residual Soil	

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# NCDOT GEOTECHNICAL ENGINEERING UNIT

## BORELOG REPORT

WBS DIV 11			TIP MAINT.			COUNTY SURRY			GEOLOGIST Stickney, J. K.							
SITE DESCRIPTION New Surry Maintenance Equipment Shop										GROUND WTR (ft)						
BORING NO. B-5			STATION N/A			OFFSET N/A			ALIGNMENT N/A							
COLLAR ELEV. 1,199.0 ft			TOTAL DEPTH 10.5 ft			NORTHING N/A			EASTING N/A							
DRILL RIG/HAMMER EFF./DATE HFO0064 CME-550 88% 09/02/2009						DRILL METHOD H.S. Augers			HAMMER TYPE Automatic							
DRILLER Smith, C.L.			START DATE 06/05/12			COMP. DATE 06/05/12			SURFACE WATER DEPTH N/A							
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
1200																
	1,197.5	1.5	2	2	6									1,199.0	GROUND SURFACE	0.0
1195	1,195.0	4.0	2	4	4										<b>RESIDUAL</b> LOOSE YELLOW-TAN, TAN-BROWN, AND TAN-GRAY MICACEOUS SILTY FINE SAND	
	1,192.5	6.5	3	3	4											
1190	1,190.0	9.0	2	14	18									1,190.5		8.5
														1,188.5	<b>RESIDUAL</b> DENSE TAN-GRAY MICACEOUS SILTY FINE SAND	10.5
															Boring Terminated at Elevation 1,188.5 ft in Residual Soil	

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# NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

WBS DIV 11	TIP MAINT.	COUNTY SURRY	GEOLOGIST Stickney, J. K.
SITE DESCRIPTION New Surry Maintenance Equipment Shop			GROUND WTR (ft)
BORING NO. B-6	STATION N/A	OFFSET N/A	ALIGNMENT N/A
COLLAR ELEV. 1,198.0 ft	TOTAL DEPTH 10.5 ft	NORTHING N/A	EASTING N/A
DRILL RIG/HAMMER EFF./DATE HFO0064 CME-550 88% 09/02/2009		DRILL METHOD H.S. Augers	HAMMER TYPE Automatic
DRILLER Smith, C.L.	START DATE 06/05/12	COMP. DATE 06/05/12	SURFACE WATER DEPTH N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					ELEV. (ft)	
1200														1,198.0	GROUND SURFACE	0.0
	1,196.5	1.5	1	4	11	•	•	•	•	•		M	RESIDUAL STIFF RED-BROWN SLIGHTLY MICACEOUS SILTY CLAY (MODERATELY PLASTIC)	1,195.0	3.0	
1195	1,194.0	4.0	1	7	7	•	•	•	•	•		M	RESIDUAL STIFF RED-BROWN MICACEOUS FINE SANDY SILTY CLAY W/ QUARTZ FRAGMENTS	1,192.0	6.0	
	1,191.5	6.5	6	6	7	•	•	•	•	•		M				
1190	1,189.0	9.0	5	7	7	•	•	•	•	•		M	RESIDUAL MEDIUM DENSE YELLOW-TAN AND TAN-GRAY MICACEOUS SILTY FINE SAND	1,187.5	10.5	
															Boring Terminated at Elevation 1,187.5 ft in Residual Soil	

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# NCDOT GEOTECHNICAL ENGINEERING UNIT

## BORELOG REPORT

WBS DIV 11		TIP MAINT.		COUNTY SURRY		GEOLOGIST Stickney, J. K.											
SITE DESCRIPTION New Surry Maintenance Equipment Shop							GROUND WTR (ft)										
BORING NO. B-7		STATION N/A		OFFSET N/A		ALIGNMENT N/A	0 HR. N/A										
COLLAR ELEV. 1,199.0 ft		TOTAL DEPTH 10.5 ft		NORTHING N/A		EASTING N/A	24 HR. N/A										
DRILL RIG/HAMMER EFF./DATE HFO0064 CME-550 88% 09/02/2009				DRILL METHOD H.S. Augers		HAMMER TYPE Automatic											
DRILLER Smith, C.L.		START DATE 06/05/12		COMP. DATE 06/05/12		SURFACE WATER DEPTH N/A											
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION			
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)		
1200															1,199.0	GROUND SURFACE	0.0
	1,197.5	1.5	3	3	2	•	•	•	•				M		1,195.5	RESIDUAL MEDIUM STIFF RED-ORANGE SLIGHTLY MICACEOUS FINE SANDY CLAYEY SILT	3.5
1195	1,195.0	4.0	2	3	3	•	•	•	•				M		1,193.0	RESIDUAL MEDIUM STIFF YELLOW-TAN CLAYEY SILTY FINE SAND	6.0
	1,192.5	6.5	6	4	4	•	•	•	•				M			RESIDUAL LOOSE GRAY-WHITE MICACEOUS SILTY FINE SAND	
1190	1,190.0	9.0	3	4	5	•	•	•	•				M		1,188.5	Boring Terminated at Elevation 1,188.5 ft in Residual Soil	10.5

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# NCDOT GEOTECHNICAL ENGINEERING UNIT

## BORELOG REPORT

WBS DIV 11		TIP MAINT.		COUNTY SURRY		GEOLOGIST Stickney, J. K.											
SITE DESCRIPTION New Surry Maintenance Equipment Shop								GROUND WTR (ft)									
BORING NO. B-8		STATION N/A		OFFSET N/A		ALIGNMENT N/A		0 HR.	N/A								
COLLAR ELEV. 1,198.0 ft		TOTAL DEPTH 10.5 ft		NORTHING N/A		EASTING N/A		24 HR.	N/A								
DRILL RIG/HAMMER EFF./DATE HFO0064 CME-550 88% 09/02/2009				DRILL METHOD H.S. Augers		HAMMER TYPE Automatic											
DRILLER Smith, C.L.		START DATE 06/05/12		COMP. DATE 06/05/12		SURFACE WATER DEPTH N/A											
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION			
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)		
1200															1,198.0	GROUND SURFACE	0.0
	1,196.3	1.7	1	3	5												
1195	1,194.0	4.0	1	3	5								M		1,194.5	RESIDUAL MEDIUM STIFF RED-BROWN MICACEOUS FINE SANDY CLAYEY SILT	3.5
	1,191.5	6.5	5	5	5								M				
1190	1,189.0	9.0	4	4	9								M			RESIDUAL LOOSE TO MEDIUM DENSE TAN-BROWN AND TAN-GRAY MICACEOUS SILTY FINE SAND	
															1,187.5	Boring Terminated at Elevation 1,187.5 ft in Residual Soil	10.5



# NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

WBS DIV 11			TIP MAINT.			COUNTY SURRY			GEOLOGIST Stickney, J. K.							
SITE DESCRIPTION New Surry Maintenance Equipment Shop										GROUND WTR (ft)						
BORING NO. B-9			STATION N/A			OFFSET N/A			ALIGNMENT N/A							
COLLAR ELEV. 1,181.0 ft			TOTAL DEPTH 10.5 ft			NORTHING N/A			EASTING N/A							
DRILL RIG/HAMMER EFF./DATE HFO0064 CME-550 88% 09/02/2009						DRILL METHOD H.S. Augers			HAMMER TYPE Automatic							
DRILLER Smith, C.L.			START DATE 06/05/12			COMP. DATE 06/05/12			SURFACE WATER DEPTH N/A							
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)	
1185																
1180	1,179.5	1.5	2	2	2	4							M		1,181.0	GROUND SURFACE 0.0
1175	1,177.0	4.0	1	2	4	6							M	<b>RESIDUAL</b> LOOSE TO MEDIUM DENSE RED-ORANGE, YELLOW-TAN, TAN-BROWN, AND TAN-GRAY MICACEOUS SILTY FINE SAND		
	1,174.5	6.5	5	4	3	7							M			
	1,172.0	9.0	4	5	6	11							M		1,170.5	10.5
																Boring Terminated at Elevation 1,170.5 ft in Residual Soil

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# NCDOT GEOTECHNICAL ENGINEERING UNIT

## BORELOG REPORT

WBS DIV 11	TIP MAINT.	COUNTY SURRY	GEOLOGIST Stickney, J. K.
SITE DESCRIPTION New Surry Maintenance Equipment Shop			GROUND WTR (ft)
BORING NO. B-10	STATION N/A	OFFSET N/A	ALIGNMENT N/A
COLLAR ELEV. 1,194.0 ft	TOTAL DEPTH 15.8 ft	NORTHING N/A	EASTING N/A
DRILL RIG/HAMMER EFF./DATE HFO0064 CME-550 88% 09/02/2009		DRILL METHOD H.S. Augers	HAMMER TYPE Automatic
DRILLER Smith, C.L.	START DATE 06/05/12	COMP. DATE 06/05/12	SURFACE WATER DEPTH N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					ELEV. (ft)	
1195														1,194.0	GROUND SURFACE	0.0
	1,192.3	1.7	3	5	5	•	•	•	•	•		M	RESIDUAL STIFF RED-BROWN MICACEOUS FINE SANDY CLAYEY SILT	1,190.0	4.0	
1190	1,189.7	4.3	2	5	5	•	•	•	•	•		M	RESIDUAL STIFF RED-BROWN MICACEOUS FINE SANDY SILT	1,187.5	6.5	
	1,187.2	6.8	2	3	4	•	•	•	•	•		M	RESIDUAL LOOSE TAN-BROWN AND TAN-GRAY MICACEOUS SILTY FINE SAND			
1185	1,184.7	9.3	5	4	5	•	•	•	•	•		M				
1180	1,179.7	14.3	4	5	4	•	•	•	•	•				1,178.2	Boring Terminated at Elevation 1,178.2 ft in Residual Soil	15.8

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# NCDOT GEOTECHNICAL ENGINEERING UNIT

## BORELOG REPORT

WBS DIV 11		TIP MAINT.		COUNTY SURRY		GEOLOGIST Stickney, J. K.										
SITE DESCRIPTION New Surry Maintenance Equipment Shop							GROUND WTR (ft)									
BORING NO. B-11		STATION N/A		OFFSET N/A		ALIGNMENT N/A										
COLLAR ELEV. 1,196.0 ft		TOTAL DEPTH 5.5 ft		NORTHING N/A		EASTING N/A										
DRILL RIG/HAMMER EFF./DATE HFO0064 CME-550 88% 09/02/2009				DRILL METHOD H.S. Augers		HAMMER TYPE Automatic										
DRILLER Smith, C.L.		START DATE 06/05/12		COMP. DATE 06/05/12		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)	
1200																
1195	1,194.5	1.5	1	1	1										1,196.0	0.0
	1,192.0	4.0	WOH	1	2										1,193.0	3.0
															1,190.5	5.5
															NO RECOVERY (PROBABLE RESIDUAL) Boring Terminated at Elevation 1,190.5 ft in Residual Soil	

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# NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

WBS DIV 11	TIP MAINT.	COUNTY SURRY	GEOLOGIST Stickney, J. K.
SITE DESCRIPTION New Surry Maintenance Equipment Shop			GROUND WTR (ft)
BORING NO. B-12	STATION N/A	OFFSET N/A	ALIGNMENT N/A
COLLAR ELEV. 1,201.0 ft	TOTAL DEPTH 10.6 ft	NORTHING N/A	EASTING N/A
DRILL RIG/HAMMER EFF./DATE HFO0064 CME-550 88% 09/02/2009		DRILL METHOD H.S. Augers	HAMMER TYPE Automatic
DRILLER Smith, C.L.	START DATE 06/05/12	COMP. DATE 06/05/12	SURFACE WATER DEPTH N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION			
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)		
1205																	
1200															1,201.0	GROUND SURFACE	0.0
	1,199.4	1.6	1	2	1								M		1,197.0	RESIDUAL SOFT RED-BROWN SLIGHTLY MICACEOUS FINE SANDY CLAYEY SILT	4.0
	1,196.9	4.1	1	1	2								M		1,194.5	RESIDUAL SOFT RED-ORANGE-TAN MICACEOUS FINE SANDY SILT	6.5
1195	1,194.4	6.6	4	2	2								M			RESIDUAL LOOSE YELLOW-TAN MICACEOUS SILTY FINE SAND	10.6
	1,191.9	9.1	2	2	4								M		1,190.4	Boring Terminated at Elevation 1,190.4 ft in Residual Soil	

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WBS DIV 11			TIP MAINT.			COUNTY SURRY			GEOLOGIST Stickney, J. K.										
SITE DESCRIPTION New Surry Maintenance Equipment Shop										GROUND WTR (ft)									
BORING NO. B-13			STATION N/A			OFFSET N/A			ALIGNMENT N/A										
COLLAR ELEV. 1,200.0 ft			TOTAL DEPTH 10.5 ft			NORTHING N/A			EASTING N/A										
DRILL RIG/HAMMER EFF./DATE HFO0064 CME-550 88% 09/02/2009						DRILL METHOD H.S. Augers			HAMMER TYPE Automatic										
DRILLER Smith, C.L.			START DATE 06/05/12			COMP. DATE 06/05/12			SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION	DEPTH (ft)					
			0.5ft	0.5ft	0.5ft	0	25	50	75	100									
1200														1,200.0	0.0				
	1,198.5	1.5	2	5	3								<b>RESIDUAL</b> MEDIUM STIFF RED-BROWN MICACEOUS SILTY CLAYEY FINE SAND	3.5					
1195	1,196.0	4.0	1	2	4													1,196.5	
	1,193.5	6.5	6	9	8														
1190	1,191.0	9.0	4	6	13														
														1,189.5	10.5				
Boring Terminated at Elevation 1,189.5 ft in Residual Soil																			

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