



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

March 20, 2013

MEMORANDUM TO: Mr. Mike Mills, PE
Division 7 Engineer

FROM: Philip S. Harris, III, P.E., Section Head
Natural Environment Section
Project Development and Environmental Analysis Unit

SUBJECT: Guilford County, Replace Bridge No. 56 over
Richland Creek on SR 1193, Federal Aid No.
BRSTP-1193(8); WBS No. 40149.1.1, **TIP B-4957**.

A handwritten signature in blue ink, appearing to read "E. J. Fushk", is written over the "FROM:" field of the memorandum.

Attached is the N.C. Division of Water Quality (NCDWQ) Riparian Buffer Authorization. This constitutes the final (only) environmental permit required for construction of this project.

A copy of this permit package is posted on the NCDOT website at:
<http://www.ncdot.gov/doh/preconstruct/pe/neu/permit.html>.

Cc:
Mr. Randy Garris, P.E. State Contract Officer
Mr. Jerry Parker, Division Environ. Officer
Mr. Majed Alghandour, P. E., Programming and TIP
Mr. Jay Bennett, P.E., Roadway Design
Mr. Art McMillan, P.E., Hydraulics
Mr. Tom Koch, P.E., Structure Design
Mr. Mark Staley, Roadside Environmental
Mr. Ron Hancock, P.E., State Roadway Construction Engineer
Mr. Bill Goodwin, P.E., PDEA Bridge Unit
Ms. Beth Harmon, EEP
Mr. Phillip Ayscue, Office of Inspector General

PROJECT COMMITMENTS

T.I.P. Project No B-4957
Replacement of Bridge No. 56 over Richland Creek
On SR 1193 (Baker Road)
Guilford County
Federal Aid Project No. BRSTP-1193(8)
W.B.S. No. 40149.1.1

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

Division 7 Construction

In order to allow Emergency Management Services (EMS) time to prepare for road closure, the NCDOT Resident Engineer will notify the Director of the Guilford County EMS at (336) 641-2278 of the bridge removal 30 days prior to road closure.

In order to allow Guilford County Schools to prepare for road closure, the NCDOT Resident Engineer will notify the Transportation Director at (336) 370-8920 of the bridge removal 30 days prior to road closure.

This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structures(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

Structure Design Unit

Bicycle safe railing to be included in the design.

Hydraulic Unit – FEMA Coordination

The Hydraulics Unit will coordinate with FEMA to determine if a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of map Revision (LOMR) are required for this project.

Roadside Environmental

This project is located in the Randleman Watershed of the Cape Fear River basin and is subject to the Randleman Buffer Rules. Sedimentation and erosion control measures shall adhere to Design Standards in Sensitive Watersheds within the project area.

COMMITMENTS FROM PERMITTING

No special conditions developed during permitting.



North Carolina Department of Environment and Natural Resources

Division of Water Quality
Charles Wakild, P. E.
Director

Pat McCrory
Governor

John E. Skvarla, III
Secretary

March 7, 2013
Guilford County
NCDWQ Project No. 20121034
(Bridge 56) SR 1193
TIP No. B-4957

APPROVAL of RANDLEMAN BUFFER AUTHORIZATION with ADDITIONAL CONDITIONS

Mr. Greg Thorpe, PhD.
NCDOT PDEA
1598 Mail Service Center
Raleigh, NC 27699-1598

Dear Mr. Thorpe:

You have our approval, in accordance with the conditions listed below, for the following impacts for the purpose of replacing bridge no. 56 over Richland Creek on SR 1193 (Baker Road) in Guilford County:

Randleman Riparian Buffer Impacts

Table with 9 columns: Site, Zone 1 Impact (sq ft), minus Wetlands in Zone 1 (sq ft), = Zone 1 Buffers (not wetlands) (sq ft), Zone 1 Buffer Mitigation Required (using 3:1 ratio), Zone 2 Impact (sq ft), minus Wetlands in Zone 2 (sq ft), = Zone 2 Buffers (not wetlands) (sq ft), Zone 2 Buffer Mitigation Required (using 1.5:1 ratio). Rows include Bridge, Road Crossing, Roadway (parallel), and Totals.

Total Buffer Impact for Project: 7848 square feet.

The project shall be constructed in accordance with your revised application dated received February 22, 2013 additional information dated received, and February 26, 2013. This approval is valid for the Randleman Lake Riparian Buffer Rules (15A NCAC 2B .0259). In addition, you should acquire any other federal, state or local permits before you proceed with your project including (but not limited to) Sediment and Erosion Control, Non-Discharge and Water Supply Watershed regulations. This approval will expire five years from the date issued.

This approval is valid solely for the purpose and design described in your application (unless modified below). Should your project change, you must notify the NCDWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If total wetland fills for this project (now or in the future) exceed one acre, or of total impacts to streams (now or in the future) exceed 150 linear feet, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). Additional buffer impacts may require compensatory mitigation as described in 15A NCAC .0252. For this approval to remain valid, you must adhere to the conditions below.

Transportation and Permitting Unit
1650 Mail Service Center, Raleigh, North Carolina 27699-1617
Location: 512 N. Salisbury St. Raleigh, North Carolina 27604
Phone: 919-807-6300 \ FAX: 919-807-6492
Internet: www.ncwaterquality.org



Condition(s) of Certification:

Project Specific Conditions

1. Compensatory mitigation for impacts to 3938 square feet of protected riparian buffers in Zone 2 shall be required. We understand that you have chosen to perform compensatory mitigation for impacts to protected buffers through use of the North Carolina Ecosystem Enhancement Program (EEP). Mitigation for unavoidable impacts to Randleman Riparian Buffers shall be provided in the Randleman Lake Basin and done in accordance with 15A NCAC 2B .0252. EEP has indicated in a letter dated February 12, 2013 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the North Carolina Department of Environment and Natural Resources' Ecosystem Enhancement Program In-Lieu Fee Instrument signed July 28, 2010. All stormwater runoff shall be directed as sheetflow through stream buffers at nonerosive velocities, unless otherwise approved by this certification.
2. All riparian buffers impacted by the placement of temporary fill or clearing activities shall be restored to the preconstruction contours and revegetated. Maintained buffers shall be permanently revegetated with non-woody species by the end of the growing season following completion of construction. For the purpose of this condition, maintained buffer areas are defined as areas within the transportation corridor that will be subject to regular NCDOT maintenance activities including mowing. The area with non-maintained buffers shall be permanently revegetated with native woody species before the next growing season following completion of construction.
3. Pursuant to 15A NCAC 2B .250, sediment and erosion control devices shall not be placed in Zone 1 of any Randleman Buffer without prior approval by NCDWQ. At this time, NCDWQ has approved no sediment and erosion control devices in Zone 1, outside of the approved project impacts, anywhere on this project. Moreover, sediment and erosion control devices shall be allowed in Zone 2 of the buffers provided that Zone 1 is not compromised and that discharge is released as diffuse flow.
4. Strict adherence to the most recent version of NCDOT's Best Management Practices For Bridge Demolition and Removal approved by the US Army Corps of Engineers is a condition of the 401 Water Quality Certification.
5. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of *Stormwater Best Management Practices*.
6. Bridge piles and bents shall be constructed using driven piles (hammer or vibratory) or drilled shaft construction methods. More specifically, jetting or other methods of pile driving are prohibited without prior written approval from NCDWQ first.
7. No drill slurry or water that has been in contact with uncured concrete shall be allowed to enter surface waters. This water shall be captured, treated, and disposed of properly.

General Conditions

1. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.
2. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers.
3. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval.
4. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as

sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.

- 5 Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream.
6. All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials.
- 7 No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification.
8. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
- 9 The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If NCDWQ determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, NCDWQ may reevaluate and modify this certification.
10. A copy of this Water Quality Certification shall be maintained on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager.
11. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification.
12. The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.
13. The Permittee shall report any violations of this certification to the Division of Water Quality within 24 hours of discovery.
14. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer shall complete and return the enclosed "Certification of Completion Form" to notify NCDWQ when all work included in the 401 Certification has been completed.
15. Native riparian vegetation must be reestablished in the riparian areas within the construction limits of the project by the end of the growing season following completion of construction.
16. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites, or access roads to waste or borrow sites, be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities.
- 17 Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards:
 - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.

- b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
 - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
 - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
18. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification.

If you wish to contest any statement in the attached Certification you must file a petition for an administrative hearing. You may obtain the petition form from the office of Administrative hearings. You must file the petition with the office of Administrative Hearings within sixty (60) days of receipt of this notice. A petition is considered filed when it is received in the office of Administrative Hearings during normal office hours. The Office of Administrative Hearings accepts filings Monday through Friday between the hours of 8:00am and 5:00pm, except for official state holidays. The original and one (1) copy of the petition must be filed with the Office of Administrative Hearings.

The petition may be faxed-provided the original and one copy of the document is received by the Office of Administrative Hearings within five (5) business days following the faxed transmission. The mailing address for the Office of Administrative Hearings is:

Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6714
Telephone: (919)-431-3000, Facsimile: (919)-431-3100

A copy of the petition must also be served on DENR as follows:

Mr. Lacy Presnell, General Counsel
Department of Environment and Natural Resources
1601 Mail Service Center

This letter completes the review of the Division of Water Quality under Section 401 of the Clean Water Act. If you have any questions, please contact Amy Euliss at (336) 771-4959 or amy.euliss@ncdenr.gov.

Sincerely,



 Charles Wakild
Director

cc: Jerry Parker, Division 7 DEO (electronic copy only)
Andy Williams, US Army Corps of Engineers, Raleigh Field Office (electronic copy only)
Beth Harmon, Ecosystem Enhancement Program (electronic copy only)
Transportation Permitting Unit (electronic copy only)
File Copy



North Carolina Department of Environment and Natural Resources

Division of Water Quality
Charles Wakild, P. E.
Director

Pat McCrory
Governor

John E. Skvarla, III
Secretary

NCDWQ Project No.: _____ County: _____

Applicant: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: _____

Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Transportation Permitting Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650. This form may be returned to NCDWQ by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Engineer's Certification

_____ Partial _____ Final

I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature _____ Registration No. _____

Date _____

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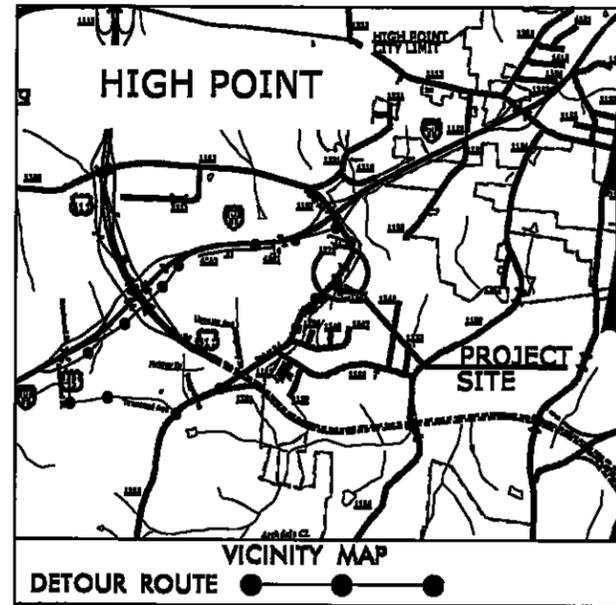
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

GUILFORD COUNTY

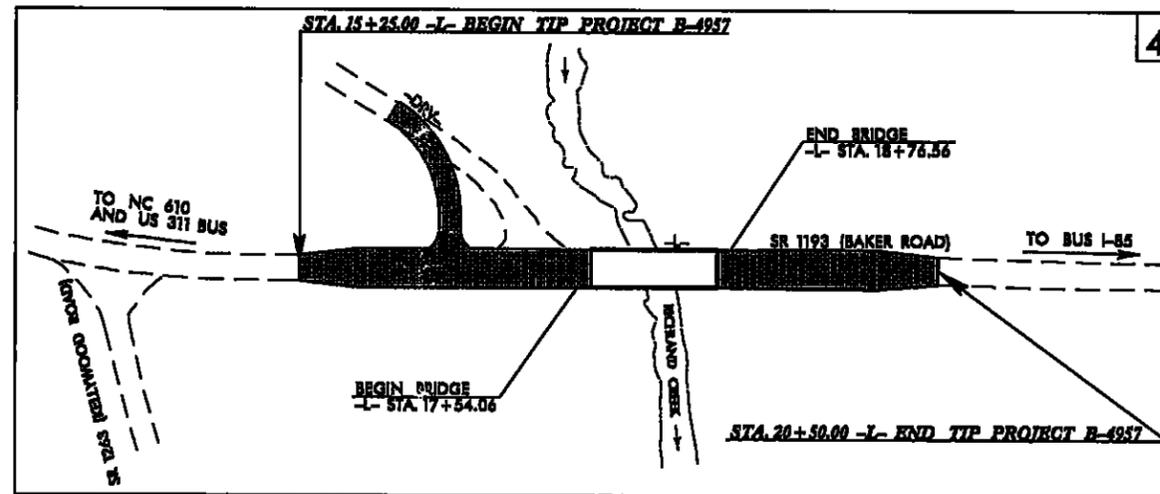
LOCATION: BRIDGE #56 OVER RICHLAND CREEK
ON SR 1193 (BAKER ROAD)

STATE	STATE PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
N.C.	B-4957	1	
STATE PRIME NO.	S.A. NUMBER	DESCRIPTION	
40149.1.1	BRSTP-1193(B)	P.E.	
40149.2.1	BRSTP-1193(B)	RW & UTIL	

Buffer Drawing
Sheet 1 of 6

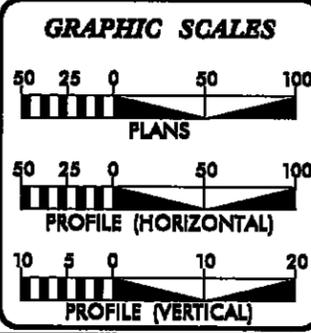


BUFFER IMPACTS



PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF HIGH POINT.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.



DESIGN DATA

ADT 2007 =	4500
ADT 2035 =	5900
DHV =	10 %
D =	55 %
T =	11 % *
V =	40 MPH
*TTST	5% DUAL 6%

FUNC CLASS - MINOR ARTERIAL
SUBREGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-4957 =	0.076 MILE
LENGTH OF STRUCTURE TIP PROJECT B-4957 =	0.023 MILE
TOTAL LENGTH OF TIP PROJECT B-4957 =	0.099 MILE

Prepared in the Office of
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2004 STANDARD SPECIFICATIONS

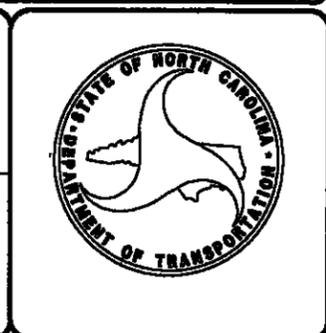
RIGHT OF WAY DATE: MAY 1, 2012	JAMES A. SPEER, PE PROJECT ENGINEER
LETTING DATE: JUNE 18, 2013	ALLISON K. WHITE PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE _____ P.E.



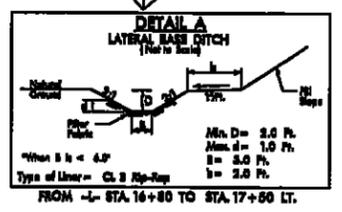
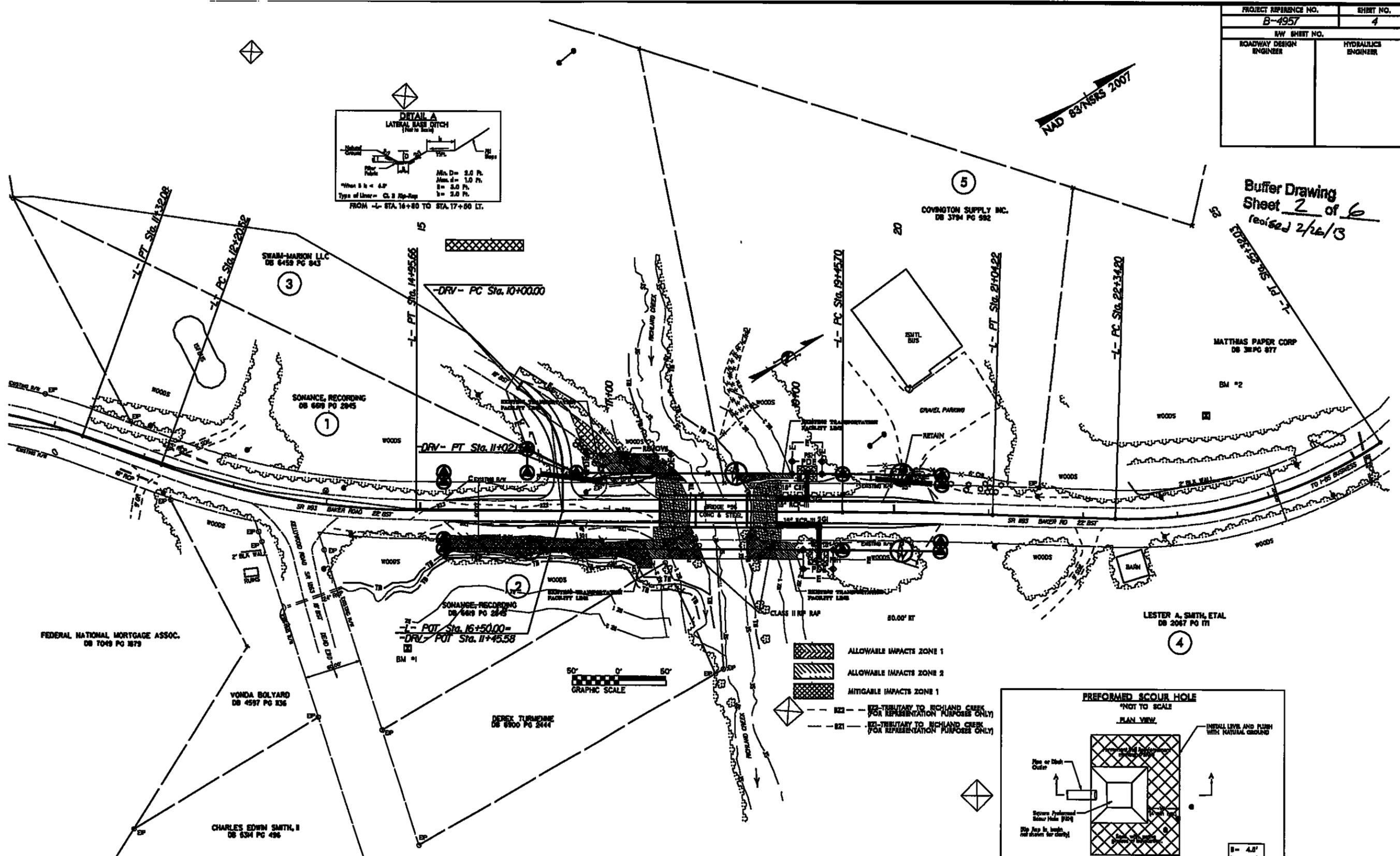
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CONTRACT: C203159

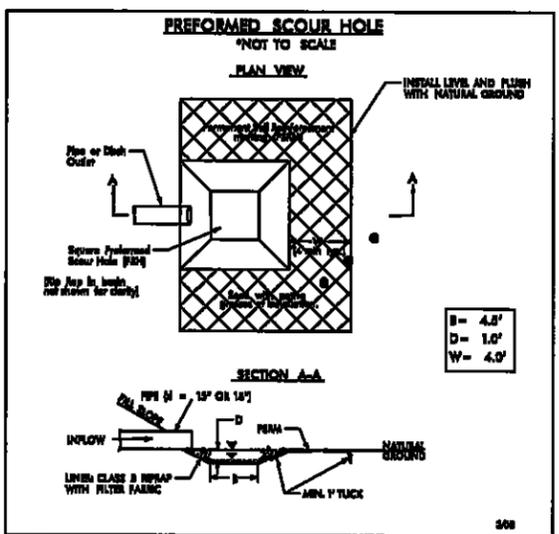
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*****SUDGN*****
*****USER NAME*****

NAD 83/NBS 2007

Buffer Drawing
Sheet 2 of 6
revised 2/16/13



- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2
- MITIGABLE IMPACTS ZONE 1
- 822 - TRI-BUTARY TO RICHLAND CREEK FOR REPRESENTATION PURPOSES ONLY
- 821 - TRI-BUTARY TO RICHLAND CREEK FOR REPRESENTATION PURPOSES ONLY



-L-				-DRV-	
PI Sta 10+66.36	PI Sta 13+59.46	PI Sta 20+24.96	PI Sta 23+88.09	PI Sta 10+56.04	
$\Delta = 13^{\circ} 45' 31.7$ (RT)	$\Delta = 19^{\circ} 42' 21.5$ (LT)	$\Delta = 1^{\circ} 35' 36.2$ (RT)	$\Delta = 35^{\circ} 33' 03.4$ (LT)	$\Delta = 58^{\circ} 31' 45.5$ (RT)	
D = 10' 25' 04.7	D = 7' 09' 43.1	D = 1' 07' 18.7	D = 11' 56' 11.8	D = 57' 17' 44.8	
L = 132.08	L = 276.15	L = 158.52	L = 297.83	L = 102.15	
T = 66.36	T = 138.95	T = 79.26	T = 153.88	T = 56.04	
R = 550.00	R = 800.00	R = 5700.00	R = 480.00	R = 100.00	

FROM STA. 18+18 RL TO STA. 18+20 RL

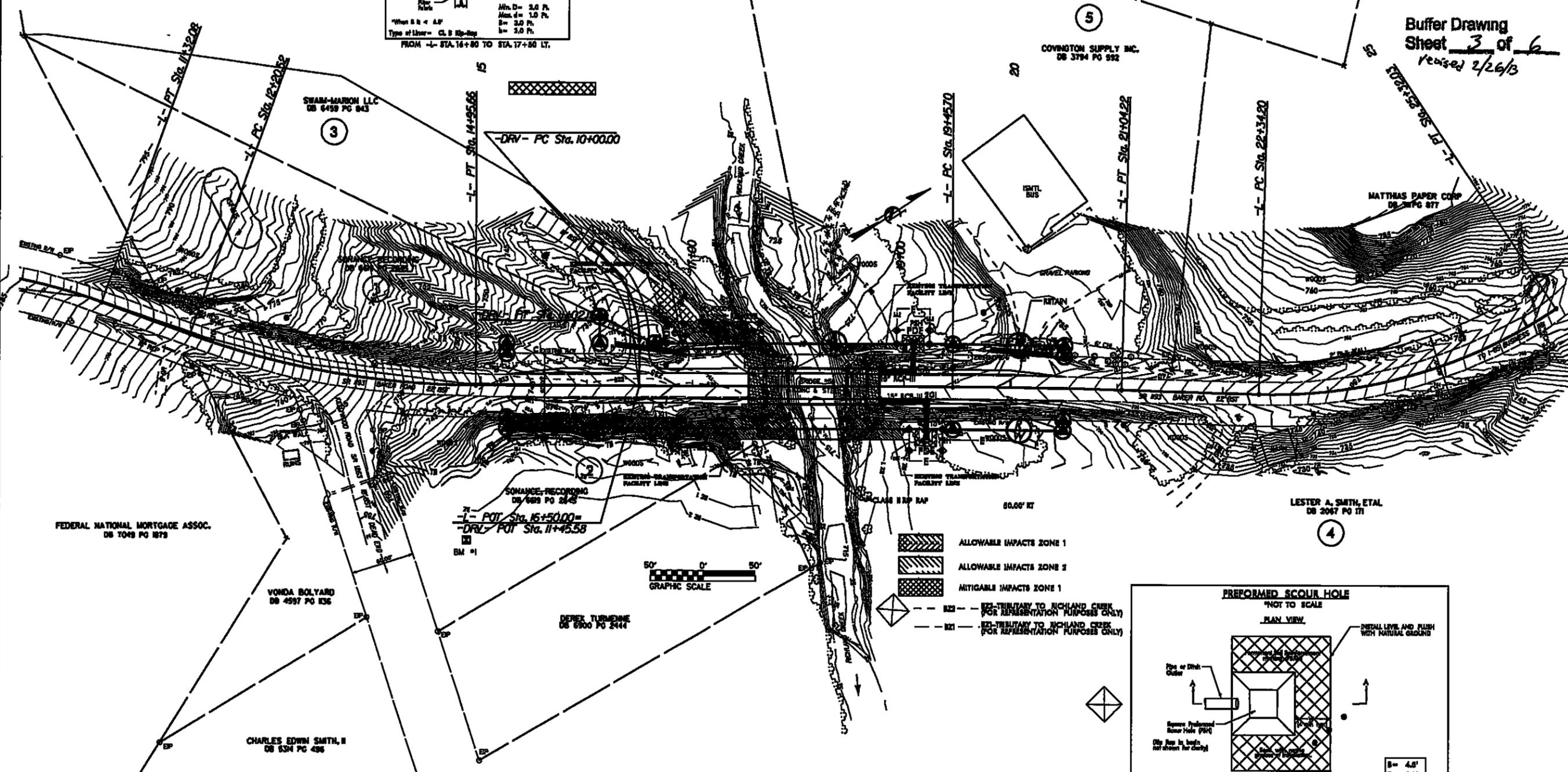
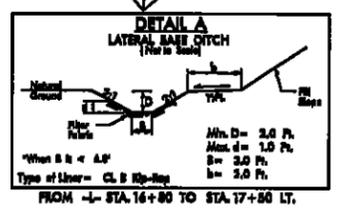
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 *****DOWNS*****
 *****LUSK*****

8/17/99

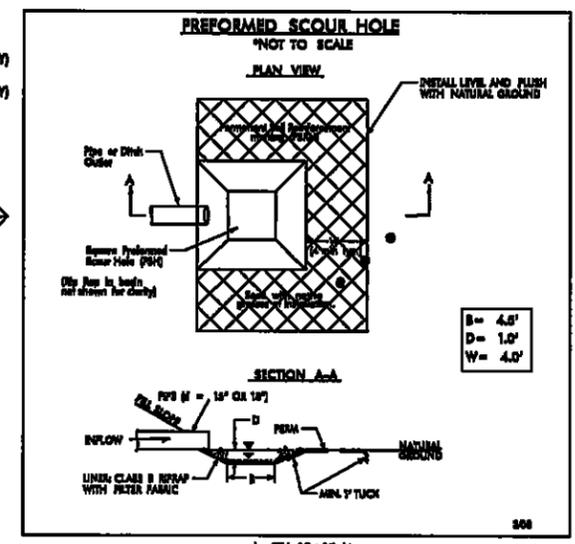
PROJECT REFERENCE NO. B-4957	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NSRS 2007

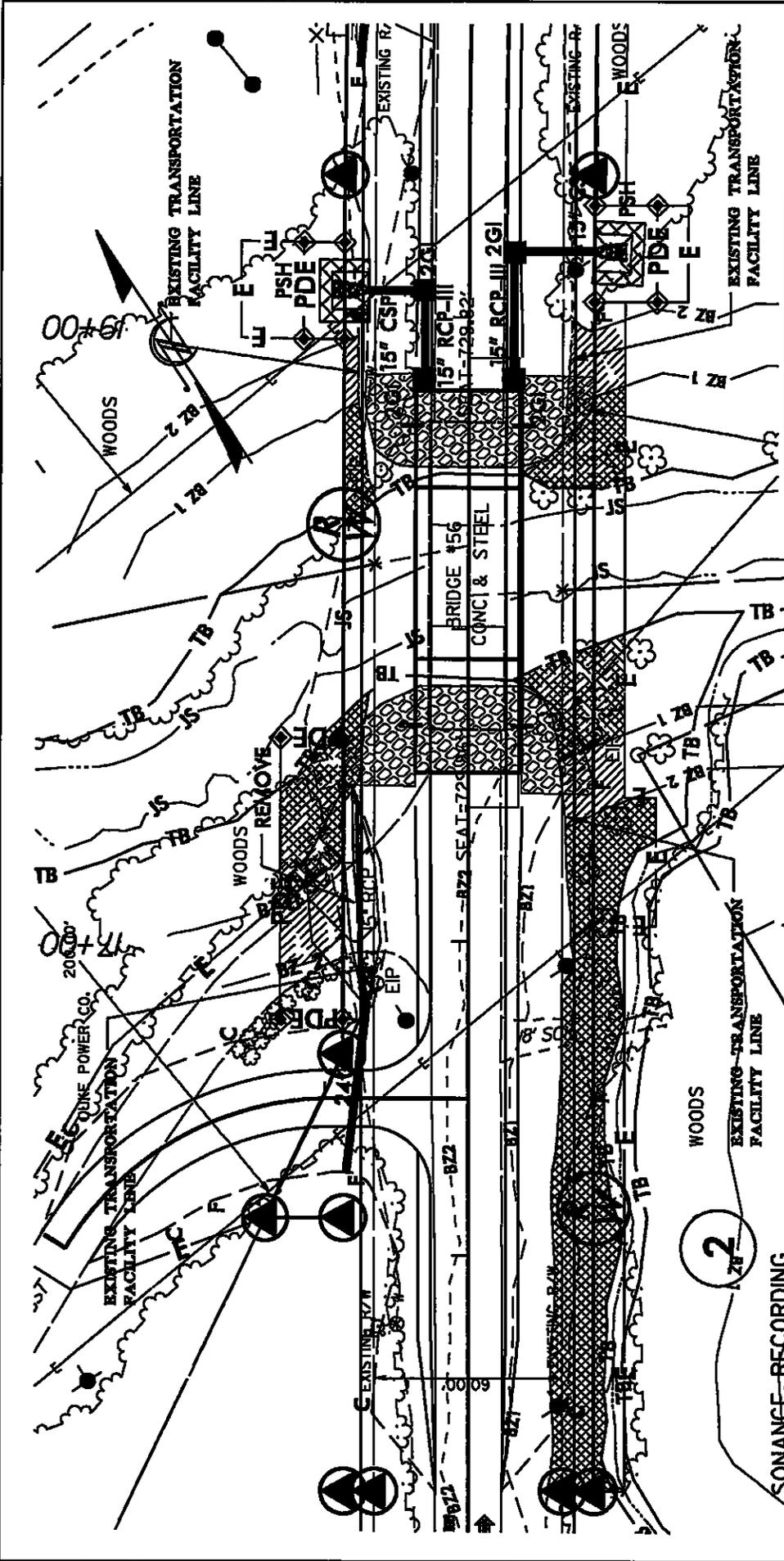
Buffer Drawing Sheet 3 of 6
Revised 2/26/13



-L-				-DRV-
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$\Delta = 13^{\circ} 45' 31.7$ (RT)	$\Delta = 19^{\circ} 42' 21.5$ (LT)	$\Delta = 1^{\circ} 35' 36.2$ (RT)	$\Delta = 35^{\circ} 33' 03.4$ (LT)	$\Delta = 58^{\circ} 31' 45.5$ (RT)
D = 10' 25" 04"	D = 7' 03" 43"	D = 1' 00" 18"	D = 11' 56" 11.8"	D = 57' 17" 44.8"
L = 132.06'	L = 275.15'	L = 158.52'	L = 297.83'	L = 102.15'
T = 66.36'	T = 138.95'	T = 79.28'	T = 153.88'	T = 56.04'
R = 550.00'	R = 800.00'	R = 5700.00'	R = 480.00'	R = 100.00'



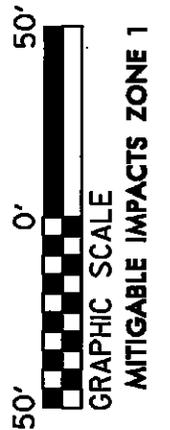
STA. 18+18 to STA. 18+20 R.



N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 WBS No. 40149.1.1 (B-4957)
 REPLACE BRIDGE No. 56 OVER
 RICHLAND CREEK ON SR 1195
 (BAKER ROAD)

SHEET 4 OF 6
 Revised 2/24/13

PLAN VIEW ENLARGEMENT



- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2

SONANGE, RECORDING
 DB/6619 PG 2845

2

PROPERTY OWNERS
NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
1,2	Sonace, Recording	374 Cook Rd. Denton, NC 27239
3	Swaim-Marion LLC	1907 Baker Rd. High Point, NC 27263
4	Lester A. Smith, et. al.	6009 Muddy Creek Rd. High Point, NC 27263
5	Covington Supply, Inc.	819 Baker Rod High Point, NC 27263

NCDOT

DIVISION OF HIGHWAYS
GUILFORD COUNTY
PROJECT: 40149.1.1 (B-4957)
REPLACE BRIDGE No.56
OVER RICHLAND CREEK
ON SR 1193 (BAKER ROAD)

