



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

March 25, 2010

U. S. Army Corps of Engineers
Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

ATTENTION: Ms. Liz Hair
NCDOT Coordinator

Dear Madam:

SUBJECT: **Request for Modifications to Nationwide Permit 13 & 14, Section 401 Certification and Catawba Buffer Authorization** for the widening of Brawley School Road and new interchange with I-77 from SR 1109 (Centre Church Road) to just east of I-77 in Iredell County. TIP No. R-3833 B; State Project No. 8.1823301; Federal Project No. STP-150(1). Debit WBS Element 34554.1.1 \$570.00.

Please reference the previously issued Nationwide Permit 13 & 14 Action ID SAW-2008-1982 issued August 5, 2008, and NC DWQ Water Quality Certification No. 08-0999 issued August 26, 2008.

Please see the enclosed revised Pre-Construction Notification form, Ecosystem Enhancement Program (EEP) mitigation acceptance letter, and revised permit drawings for the above mentioned project. During construction field visits, discrepancies were found between the permitted drawings and actual field conditions causing constructability concerns.

IMPACTS TO WATERS OF THE UNITED STATES

Stream Impacts:

Each impact is described in detail below. The Site and station numbers correspond with the permit (hydraulic) drawings included in this application, or previously referenced permit drawings.

Site 1 (11+40 -Y1-)

Original Impacts/ Currently Permitted:

A triple 60" corrugated metal pipe carrying a UT to the Catawba River will be extended to accommodate a wider roadway required due to its proximity to the intersection. This activity will result in <0.01 acre of temporary impact, and 140 linear feet of permanent stream impact broken down as follows:

20 feet of impact for the pipe extensions,

70 feet of impact on the inlet side for the creation of a high flow bench, and

50 feet on the outlet side for bank stabilization. (See Details 11 & 12 on Permit Drawing Sheet 5 of 23).

Modification Requested:

The need for pipe extensions at the inlet of this crossing has been eliminated. At the inlet, the impacts have been removed as "permanent" and replaced as "temporary" as channel work may be required to phase flow to outlet pipe extensions.

The outlet extension will remain, resulting in 10 feet of permanent surface water impacts.

Site 1 Impact Total Summary:

Temporary surface water impacts have increased from <0.01 acre (or 14 feet) to 0.02 acre (or 94 feet).

Permanent surface water impacts have decreased from 140 feet to 60 feet broken down as follows:

10 feet of impact for pipe extensions

50 feet of impact for bank stabilization

Site 2 (265+08 -L-)

Original Impacts/ Currently Permitted:

The 40-foot bridge crossing a UT to Catawba River will be replaced with a triple barrel 12' x 8' reinforced concrete box culvert. This activity will result in 0.02 acre (or 85 feet) of temporary stream impacts, and 252 linear feet of permanent stream impacts broken down as follows:

135 feet of impact for the box culvert,

117 feet of impact on the outlet side of the culvert for bank stabilization.

Also at Site 2, a UT coming in from the northwest (the same UT impacted at Site 1) will have to be relocated in a 6-foot base ditch, as its current confluence will be occupied by the new culvert. This relocation will result in 65 feet of permanent stream impact.

Modification Requested:

For the UT impacted at Site 2, detail 3 for this site was revised to include coir matting.

There are no changes in the impact totals for Site 2.

Site 3 (15+00 –Y6-)

Original Impacts/ Currently Permitted:

A 54” corrugated metal pipe carrying a UT to Catawba River will be extended to accommodate the new deceleration lanes from I-77 to the new interchange with Brawley School Road. This activity will result in 65 linear feet of permanent stream impact and <0.01 acre (or 30 feet) of temporary stream impact.

Modification Requested:

The drainage has been revised to remove the existing concrete ditch and replace it with rip rap and add additional toe protection coverage to reduce the velocity of stormwater entering the system. Embankment rip rap has also been added. On the drawings, Detail 1 and Detail 24 have been revised to display these revisions.

Also, as this pipe extension is extending a perched pipe, it should have been noted that the pipe outlet extension will not be buried.

There are no changes in the impact totals for Site 3.

Site 4 (40+22 -Y- 6)

Original Impacts/ Currently Permitted:

A 6’ x 6’ reinforced concrete box culvert will be extended to accommodate the new acceleration and deceleration lanes from I-77 to the new interchange with Brawley School Road. This activity will result in 78 linear feet of permanent stream impact and 0.02 acre (or 75 feet) of temporary stream impact.

Modification Requested:

As this culvert extension is extending a perched culvert, it should have been noted that the culvert outlet extension will not be buried.

There are no changes in the impact totals for Site 4.

Site 5 (24+00 -Y4-)

Original Impacts/ Currently Permitted:

Due to the relocation of the current Gibbs Road (resulting from the new interchange with I-77) the new alignment of Gibbs Road will cross the UT to Catawba River south (downstream) of the Brawley School Road crossing. The UT to Catawba River will be traversed with a 210 foot, 5 span bridge. This activity results in 25 linear feet of bank stabilization to the UT to Catawba River from a base ditch created to handle storm water from the project.

Modification Requested:

1. The original application inaccurately depicted the original 25 feet of impact as bank stabilization. This impact is actually permanent stream impact as the ditch will tie in to the UT to Catawba River at the same elevation, and should have been 21 feet.
2. Per the request of DWQ and Division 12, 92 feet of rip rap has been added on the stream banks under the bridge. This activity is reflected on Detail 23.

Site 5 Impact Total Summary:

This modification increases the temporary surface water from no impact to <0.01 acre (or 10 feet), for the installation of the rip rap.

This modification corrects the original misidentified impact of 25 feet of bank stabilization to 21 feet of permanent impact to surface waters, and adds an additional 113 feet of bank stabilization for the addition of the rip-rap.

Site 6 (27+09 -Y4-)

Original Impacts/ Currently Permitted:

Due to the relocation of the current Gibbs Road (resulting from the new interchange with I-77), the new alignment of Gibbs Road will cross a UT to a UT to Catawba River using a 36" Reinforced Concrete Pipe. This activity results in 174 feet of permanent stream impacts.

Modification Requested:

The stream originally identified as Site 6 was in the incorrect location. The actual perennial system was relocated and corrected on the drawings.

Site 6 Impact Total Summary:

The revision increases the temporary surface water impact from no impact to <0.01 acre (or 24 feet) for the installation of the pipe.

This revision decreases the permanent surface water impact from 174 feet to 128 feet.

This revision now occurs within the Catawba Buffer.

Zone 1 will have 9,189 ft², Zone 2, 5,667ft² for a total of 14,856 ft² of mitigable buffer impacts.

Summary of Impacts

Due to these changes, the total impacts for the project have been revised. The total temporary surface water impacts will remain 0.06 acre. The total permanent surface water impacts will decrease from 799 feet to 761 feet. For mitigation purposes, NCDOT does not propose mitigation for the bank stabilization added at Site 5. Therefore, the total mitigatable impact for this project is 669 feet.

The total mitigatable Catawba Buffer Impacts have increased from 26,280 to 41,136 square feet. (16,997 to 26,186 in Zone 1, and from 9,283 to 14,950 in Zone 2.) The EEP has been requested to provide this additional amount. Their acceptance has been attached to this modification.

REGULATORY APPROVALS

Section 404 Permit & 401 Catawba Buffer Certification:

NCDOT is, therefore, requesting the modification of the Nationwide Permit 14, and 13, and corresponding 401 General Certifications. In compliance with Section 143-215.3D(e) of the NCAC, we will provide \$570.00 to act as payment for processing the Section 401, and Catawba Buffer certification application (debit WBS element 34948.1.1). We are providing five copies of this application to the North Carolina Department of Environment and Natural Resources, Division of Water Quality for their approval.

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Michael Turchy at maturchy@ncdot.gov or (919) 431-6696.

Sincerely,



for Gregory J. Thorpe, Ph.D., Environmental Management Director
Project Development and Environmental Analysis Branch

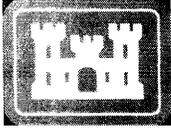
W/attachment

Mr. Brian Wrenn, NCDWQ (5 Copies)
Ms. Marella Buncick, USFWS
Ms. Marla Chambers, NCWRC

W/o attachment (see website for attachments)

Dr. David Chang, P.E., Hydraulics
Mr. Greg Perfetti, P.E., Structure Design
Mr. Victor Barbour, P.E., Project Services Unit Engineer
Mr. Mark Staley, Roadside Environmental
Mr. M.L. Holder, P.E., Division 12
Ms. Trish Simon, Division 12 DEO
Mr. Jay Bennett, P.E., Roadway Design

Mr. Todd Jones, NCDOT External Audit Branch
Ms. Beth Harmon, EEP
Ms. Kristina Solberg, Project Planning
Mr. Scott McLendon, USACE, Wilmington
Mr. Art McMillan, P.E., Highway Design
Mr. Majed Alghandour, P. E., Programming and TIP



Office Use Only:
 Corps action ID no. _____
 DWQ project no. _____
 Form Version 1.3 Dec 10 2008

Pre-Construction Notification (PCN) Form

A. Applicant Information

1. Processing

1a. Type(s) of approval sought from the Corps:	<input checked="" type="checkbox"/> Section 404 Permit	<input type="checkbox"/> Section 10 Permit
1b. Specify Nationwide Permit (NWP) number: 13 14 or General Permit (GP) number:		
1c. Has the NWP or GP number been verified by the Corps?	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1d. Type(s) of approval sought from the DWQ (check all that apply):		
<input checked="" type="checkbox"/> 401 Water Quality Certification – Regular <input type="checkbox"/> Non-404 Jurisdictional General Permit <input type="checkbox"/> 401 Water Quality Certification – Express <input type="checkbox"/> Riparian Buffer Authorization		
1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	For the record only for Corps Permit: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1f. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If so, attach the acceptance letter from mitigation bank or in-lieu fee program.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

2. Project Information

2a. Name of project:	Widening of Brawley School Road and new interchange with I-77 from SR 1109 (Centre Church Road) to just east of I-77 in Iredell County
2b. County:	Iredell
2c. Nearest municipality / town:	Mooreville
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no:	R-3833 B

3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	<i>not applicable</i>
3c. Responsible Party (for LLC if applicable):	<i>not applicable</i>
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699-1598
3f. Telephone no.:	(919) 431-6696
3g. Fax no.:	(919) 431-2002
3h. Email address:	maturchy@ncdot.gov

4. Applicant Information (if different from owner)	
4a. Applicant is:	<input type="checkbox"/> Agent <input type="checkbox"/> Other, specify:
4b. Name:	<i>not applicable</i>
4c. Business name (if applicable):	
4d. Street address:	
4e. City, state, zip:	
4f. Telephone no.:	
4g. Fax no.:	
4h. Email address:	
5. Agent/Consultant Information (if applicable)	
5a. Name:	<i>not applicable</i>
5b. Business name (if applicable):	
5c. Street address:	
5d. City, state, zip:	
5e. Telephone no.:	
5f. Fax no.:	
5g. Email address:	

B. Project Information and Prior Project History	
1. Property Identification	
1a. Property identification no. (tax PIN or parcel ID):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 35.579639 (DD.DDDDDD) Longitude: - 80.859118 (-DD.DDDDDD)
1c. Property size:	approximately 25 acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	UT to Catawba River
2b. Water Quality Classification of nearest receiving water:	WS-IV & B CA.
2c. River basin:	Broad
3. Project Description	
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: Suburban residential.	
3b. List the total estimated acreage of all existing wetlands on the property:	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 800	
3d. Explain the purpose of the proposed project: Increase capacity and connectivity to I-77.	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves widening an existing 2-lane structure to a 4-lane curb and gutter facility and create an interchange with Interstate 77. Standard road building equipment, such as trucks, dozers, and cranes will be used.	
4. Jurisdictional Determinations	
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	<input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): Steve Lund	Agency/Consultant Company: USACE Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. August 5, 2008	
5. Project History	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions. Nationwide Permit 13 & 14 Action ID SAW-2008-1982 issued August 5, 2008, NC DWQ Water Quality Certification No. 08-0999 issued August 26, 2008.	
6. Future Project Plans	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, explain.	

C. Proposed Impacts Inventory

1. Impacts Summary

1a. Which sections were completed below for your project (check all that apply):

- Wetlands Streams - tributaries Buffers
 Open Waters Pond Construction

2. Wetland Impacts

If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.

2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)
Site 1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
2g. Total wetland impacts					X Permanent X Temporary

2h. Comments:

3. Stream Impacts

If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.

3a. Stream impact number - Permanent (P) or Temporary (T)	3b. Type of impact	3c. Stream name	3d. Perennial (PER) or intermittent (INT)?	3e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	3f. Average stream width (feet)	3g. Impact length (linear feet)
Site 1 <input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> T	Extend 3@ 60" CMP	UT to Catawba River	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	2	60 Perm 94 Temp
Site 2 <input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> T	Const 3@ 12x 8 RCBC	UT to Catawba River	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	10	317 Perm 85 Temp
Site 3 <input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> T	Extend 54" CMP	UT to Catawba River	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	4	65 Perm 30 Temp
Site 4 <input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> T	Extend 6x6 RCBC	UT to Catawba River	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	6	78 Perm 75 Temp
Site 5 <input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> T	Const Bridge	UT to Catawba River	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	15	113 Perm 10 Temp
Site 6 <input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> T	36" RCP	UT to Catawba River	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	3	128 Perm 24 Temp
3h. Total stream and tributary impacts						761 Perm 318 Temp

3i. Comments:

4. Open Water Impacts

If there are proposed impacts to lakes, ponds, estuaries, tributaries, sounds, the Atlantic Ocean, or any other open water of the U.S. then individually list all open water impacts below.

4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact	4d. Waterbody type	4e. Area of impact (acres)
O1 <input type="checkbox"/> P <input type="checkbox"/> T				
O2 <input type="checkbox"/> P <input type="checkbox"/> T				
O3 <input type="checkbox"/> P <input type="checkbox"/> T				
O4 <input type="checkbox"/> P <input type="checkbox"/> T				
4f. Total open water impacts				X Permanent X Temporary

4g. Comments:

5. Pond or Lake Construction

If pond or lake construction proposed, then complete the chart below.

5a. Pond ID number	5b. Proposed use or purpose of pond	5c. Wetland Impacts (acres)			5d. Stream Impacts (feet)			5e. Upland (acres)
		Flooded	Filled	Excavated	Flooded	Filled	Excavated	Flooded
P1								
P2								
5f. Total								

5g. Comments:

5h. Is a dam high hazard permit required?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, permit ID no:
5i. Expected pond surface area (acres):			
5j. Size of pond watershed (acres):			
5k. Method of construction:			

6. Buffer Impacts (for DWQ)

If project will impact a protected riparian buffer, then complete the chart below. If yes, then individually list all buffer impacts below. If any impacts require mitigation, then you **MUST** fill out Section D of this form.

6a. Project is in which protected basin?			<input type="checkbox"/> Neuse <input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Other: <input checked="" type="checkbox"/> Catawba <input type="checkbox"/> Randleman		
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)
B1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Const 3 @ 12' x 8' RCBC	UT to Catawba	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	16997	9283
B2 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Const Bridge	UT to Catawba	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8137	5451
B3 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Const 36" RCP	UT to Catawba	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9189	5667
6h. Total buffer impacts				34323	20401
6i. Comments:					

D. Impact Justification and Mitigation		
1. Avoidance and Minimization		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. A bridge was used to span the UT to the Catawba River on the Gibbs Road relocation. Construction limits were shortened to eliminate or reduce impacts at Site 1.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques.		
2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, explain:	
2b. If yes, mitigation is required by (check all that apply):	<input checked="" type="checkbox"/> DWQ <input checked="" type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input checked="" type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
3. Complete if Using a Mitigation Bank		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
4. Complete if Making a Payment to In-lieu Fee Program		
4a. Approval letter from in-lieu fee program is attached.	<input checked="" type="checkbox"/> Yes	
4b. Stream mitigation requested:	729 linear feet	
4c. If using stream mitigation, stream temperature:	<input checked="" type="checkbox"/> warm <input type="checkbox"/> cool <input type="checkbox"/> cold	
4d. Buffer mitigation requested (DWQ only):	41136 square feet	
4e. Riparian wetland mitigation requested:	acres	
4f. Non-riparian wetland mitigation requested:	0 acres	
4g. Coastal (tidal) wetland mitigation requested:	0 acres	
4h. Comments:		
5. Complete if Using a Permittee Responsible Mitigation Plan		
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.		

6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ

6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation? Yes No

6b. If yes, then identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required.

Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1	Construct Bridge & Pipe Stream	26186	3 (2 for Catawba)	52372
Zone 2	Construct Bridge & Pipe Stream	14950	1.5	22425
6f. Total buffer mitigation required:				74797

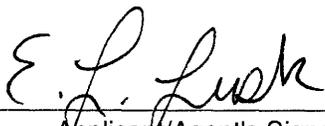
6g. If buffer mitigation is required, discuss what type of mitigation is proposed (e.g., payment to private mitigation bank, permittee responsible riparian buffer restoration, payment into an approved in-lieu fee fund).

EEP

6h. Comments:

E. Stormwater Management and Diffuse Flow Plan (required by DWQ)	
1. Diffuse Flow Plan	
1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b. If yes, then is a diffuse flow plan included? If no, explain why. Comments: if yes, see attached permit drawings.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Stormwater Management Plan	
2a. What is the overall percent imperviousness of this project?	N/A
2b. Does this project require a Stormwater Management Plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why:	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: Modifications do not require a stormwater plan.	
2e. Who will be responsible for the review of the Stormwater Management Plan?	<input type="checkbox"/> Certified Local Government <input type="checkbox"/> DWQ Stormwater Program <input type="checkbox"/> DWQ 401 Unit
3. Certified Local Government Stormwater Review	
3a. In which local government's jurisdiction is this project?	not applicable
3b. Which of the following locally-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Phase II <input type="checkbox"/> NSW <input type="checkbox"/> USMP <input type="checkbox"/> Water Supply Watershed <input type="checkbox"/> Other:
3c. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. DWQ Stormwater Program Review	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Coastal counties <input type="checkbox"/> HQW <input type="checkbox"/> ORW <input type="checkbox"/> Session Law 2006-246 <input type="checkbox"/> Other:
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
5. DWQ 401 Unit Stormwater Review	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5b. Have all of the 401 Unit submittal requirements been met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

F. Supplementary Information	
1. Environmental Documentation (DWQ Requirement)	
1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) Comments:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Violations (DWQ Requirement)	
2a. Is the site in violation of DWQ Wetland Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), DWQ Surface Water or Wetland Standards, or Riparian Buffer Rules (15A NCAC 2B .0200)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2b. Is this an after-the-fact permit application?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2c. If you answered "yes" to one or both of the above questions, provide an explanation of the violation(s):	
3. Cumulative Impacts (DWQ Requirement)	
3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3b. If you answered "yes" to the above, submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent DWQ policy. If you answered "no," provide a short narrative description. Due to the minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary.	
4. Sewage Disposal (DWQ Requirement)	
4a. Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge) of wastewater generated from the proposed project, or available capacity of the subject facility. not applicable	

5. Endangered Species and Designated Critical Habitat (Corps Requirement)		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input type="checkbox"/> Raleigh <input type="checkbox"/> Asheville	
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? NHP, USFWS, NCDOT Field surveys		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS County Index		
7. Historic or Prehistoric Cultural Resources (Corps Requirement)		
7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
8. Flood Zone Designation (Corps Requirement)		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
8b. If yes, explain how project meets FEMA requirements: NCDOT Hydraulics Unit coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		
<u>Dr. Gregory J. Thorpe, Ph D</u> Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	<u>3-25-10</u> Date



March 23, 2010

Ms. Liz Hair
 U. S. Army Corps of Engineers
 Asheville Regulatory Field Office
 151 Patton Avenue, Room 208
 Asheville, North Carolina 28801-5006

Dear Ms. Hair:

Subject: EEP Mitigation Acceptance Letter:

R-3833B, SR 1101 (Brawley School Road) Widening from SR 1109 (Centre Church Road) to I-77 and New Interchange with I-77, Iredell County

References: USACE 404 Nationwide Permit Numbers 13 and 14 issued August 5, 2008 (USACE Action ID 2008-01982)

NCDWQ 401 Water Quality Certification issued August 26, 2008 (NCDWQ Project ID 2008-0999)

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide the additional stream and buffer mitigation for the unavoidable impacts associated with the above referenced project. Based on the information supplied by the NCDOT on March 17, 2010, the additional impacts are located in CU 03050101 of the Catawba River Basin in the Central Piedmont (CP) Eco-Region, and the anticipated mitigation credits needed to offset the impacts are as follows:

Catawba 03050101 CP	Stream			Wetlands			Buffer (Sq. Ft.)	
	Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh	Zone 1 (3:1)	Zone 2 (1.5:1)
Impacts (feet/acres)	0	0	32	0	0	0	9,265	18,530
Mitigation Units (Credits-up to 2:1)	0	0	64	0	0	0	5,807	8,711

EEP is currently providing stream and buffer mitigation for the impacts associated with this project located in Catawba 03050101 as required by the 404 and 401 permits that were issued August 5, 2008 and August 26, 2008, respectively, as shown in the below table (in mitigation credits):

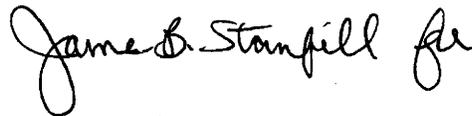
Impact Type	Permitted Impacts	Mitigation Required (Credits)	Additional Impact (for approval)	Anticipated Additional Mitigation (Credits)	Revised Total Impacts	Revised Total Anticipated Mitigation (Credits)
Stream	729.0	1,458.0	332.0	64.0	761.0	1,522.0
Riparian	0	0	0	0	0	0
Non-riparian	0	0	0	0	0	0
Buffer-Zone 1	16,921.0	33,842.0	9,265.0	18,530.0	26,186.0	52,372.0
Buffer-Zone 2	9,143.0	13,715.0	5,807.0	11,711.0	14,950.0	22,425.0
Buffer-Total	26,064.0	47,557.0	15,072.0	27,241.0	41,136.0	74,797.0

If the stream or buffer impacts or the amount of mitigation required from EEP increases for this project, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required. All buffer mitigation requests and approvals are administrated through the Riparian Restoration Buffer Fund (Fund 2982). The NCDOT will be responsible to ensure that the appropriate compensation for the additional buffer mitigation will be provided in the agreed upon method of fund transfer. Upon receipt of the NCDWQ's Buffer Authorization Certification, EEP will transfer funds from Fund 2984 (Tri-Party MOA Account) into Fund 2982 and commit to provide the appropriate buffer mitigation to offset the impacts associated with this project.

Mitigation associated with this project will be provided in accordance with Section X of Amendment No. 2 to the Memorandum of Agreement between the N. C. Department of Environment and Natural Resources, the N. C. Department of Transportation, and the U. S. Army Corps of Engineers fully executed on March 8, 2007 (Tri-Party MOA). EEP commits to implement sufficient compensatory stream mitigation in the appropriate cataloging unit in the amount listed in the above table to offset the impacts associated with this project by the end of the MOA year in which this project is permitted. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from EEP.

If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-715-1929.

Sincerely,



William D. Gilmore, P.E.
 EEP Director

Cc: Mr. Gregory J. Thorpe, Ph.D., NCDOT – PDEA
 Mr. Brian Wrenn, NC Division of Water Quality
 File: R-3833B Additional

Restoring... Enhancing... Protecting Our State





March 23, 2010

Mr. Gregory J. Thorpe, Ph.D.
 Environmental Management Director
 Project Development and Environmental Analysis Branch
 North Carolina Department of Transportation
 1548 Mail Service Center
 Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

Subject: EEP Mitigation Acceptance Letter:

R-3833B, SR 1101 (Brawley School Road) Widening from SR 1109 (Centre Church Road) to I-77 and New Interchange with I-77, Iredell County

References: USACE 404 Nationwide Permit Numbers 13 and 14 issued August 5, 2008 (USACE Action ID 2008-01982)

NCDWQ 401 Water Quality Certification issued August 26, 2008 (NCDWQ Project ID 2008-0999)

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide the additional stream and buffer mitigation for the subject project. Based on the information supplied by you on March 17, 2010, the additional impacts are located in CU 03050101 of the Catawba River Basin in the Central Piedmont (CP) Eco-Region, and are as follows:

Catawba 03050101 CP	Stream			Wetlands			Buffer (Sq. Ft.)	
	Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh	Zone 1 (3:1)	Zone 2 (1.5:1)
Impacts (feet/acres)	0	0	32	0	0	0	9,265	18,530
Mitigation Units (Credits-up to 2:1)	0	0	64	0	0	0	5,807	8,711

EEP is currently providing stream and buffer mitigation for the impacts associated with this project located in Catawba 03050101 as required by the 404 and 401 permits that were issued August 5, 2008 and August 26, 2008, respectively, as shown in the below table (in mitigation credits):

Impact Type	Permitted Impacts	Mitigation Required (Credits)	Additional Impact (for approval)	Anticipated Additional Mitigation (Credits)	Revised Total Impacts	Revised Total Anticipated Mitigation (Credits)
Stream	729	1,458	32	64	761	1,522
Riparian	0	0	0	0	0	0
Non-riparian	0	0	0	0	0	0
Buffer-Zone 1	16,921	33,842	9,265	18,530	26,186	52,372
Buffer-Zone 2	9,143	13,715	5,807	8,711	14,950	22,425
Buffer-TOTAL	26,064	47,557	15,072	27,241	41,136	74,797

Also, appropriate payment into the Riparian Buffer Restoration Fund has occurred for the above referenced permitted buffer impact and referenced mitigation credits required.

All buffer mitigation requests and approvals are administrated through the Riparian Restoration Buffer Fund. The NCDOT will be responsible to ensure that appropriate compensation for the additional buffer mitigation will be provided in the agreed upon method of fund transfer. Upon receipt of the NCDWQ's Buffer Authorization Certification, EEP will transfer funds from Tri-Party MOA Fund into the Riparian Restoration Buffer Fund. Upon completion of transfer payment, NCDOT will have completed its additional riparian buffer mitigation responsibility for R-3833B Additional. Subsequently, EEP will conduct a review of current MOA mitigation projects in the river basin to determine if available buffer mitigation credits exist. If there are buffer mitigation credits available, then the Riparian Restoration Buffer Fund will purchase the appropriate amount of buffer mitigation credits from Tri-Party MOA Fund.

EEP commits to implementing sufficient compensatory stream mitigation credits to offset the additional impacts associated with this project by the end of the MOA Year in which the additional impact is permitted, in accordance with Section X of the Amendment No. 2 to the Memorandum of Agreement between the North Carolina Department of Environment and Natural Resources, the North Carolina Department of Transportation, and the U. S. Army Corps of Engineers, fully executed on March 8, 2007. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from EEP.

If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-715-1929.

Sincerely,



William D. Gilmore, P.E.
 EEP Director

Cc: Ms. Liz Hair, USACE – Asheville Regulatory Field Office
 Mr. Brian Wrenn, NC Division of Water Quality
 File: R-3833B Additional

Restoring... Enhancing... Protecting Our State



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

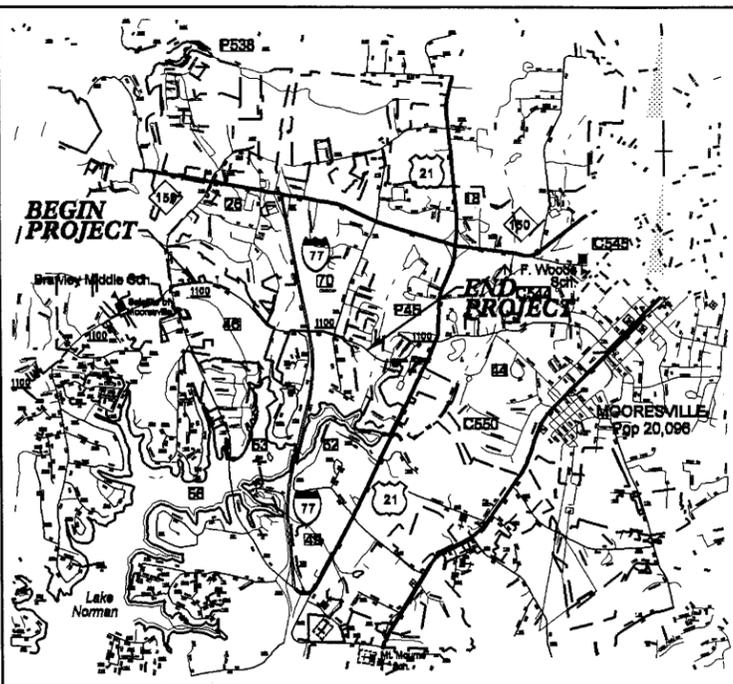
IREDELL COUNTY

LOCATION: SR 1100 (BRAWLEY SCHOOL ROAD) FROM EAST OF SR 1109 (WILLIAMSON ROAD) TO EAST OF WINGHAVEN COURT

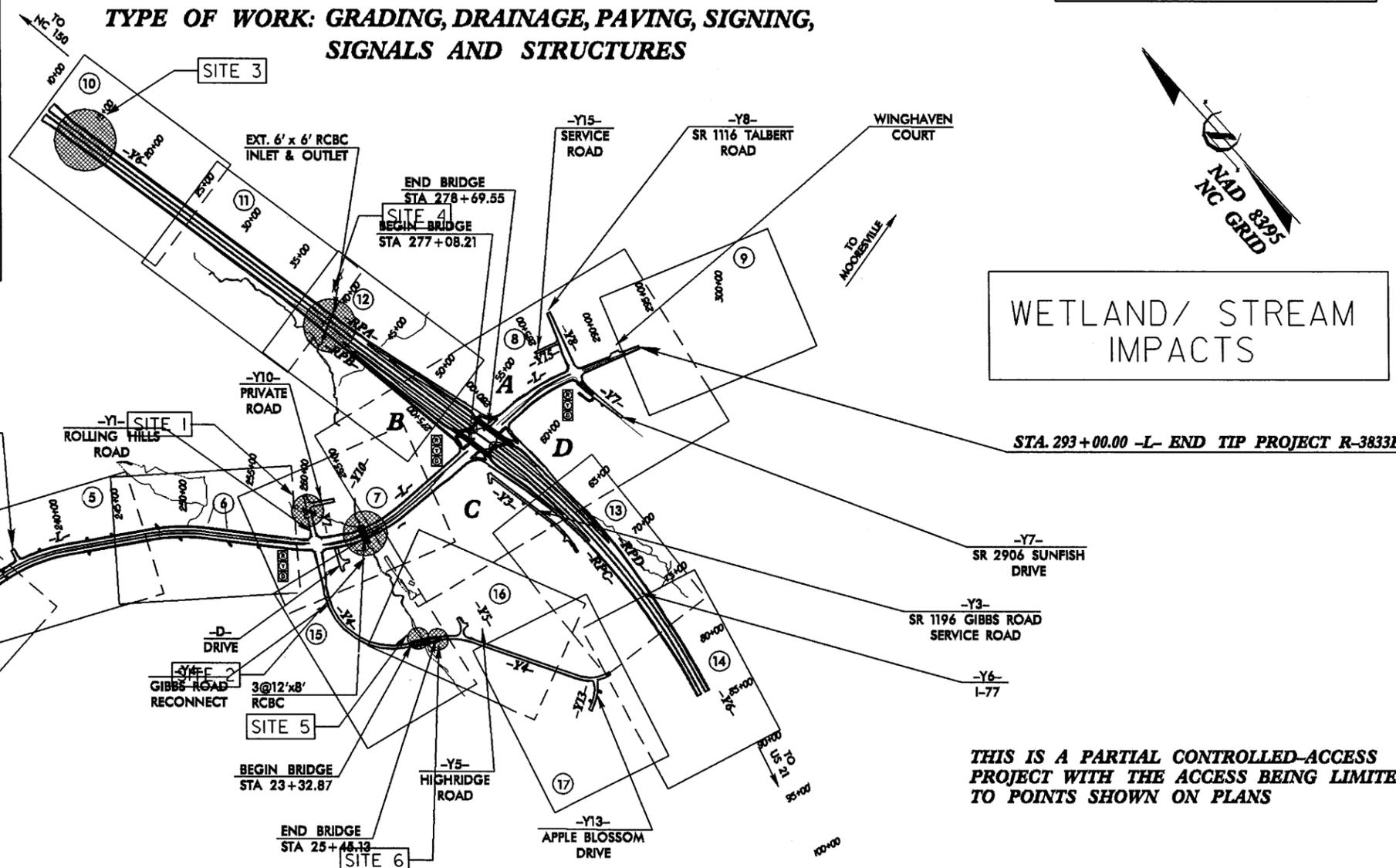
TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNING, SIGNALS AND STRUCTURES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-3833B	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34554.1.1	STP-150(11)	P.E.	
34554.2.3	STP-1100(20)	R/W, UTL	
34554.3.2	STP-1100(24)	CONST.	

DESIGN EXCEPTION
SAG VERTICAL CURVE
(K-VALUE & VERTICAL SSD)



VICINITY MAP



WETLAND/ STREAM IMPACTS

STA. 229+50.00 -L- END TIP PROJECT R-3833A
STA. 229+50.00 -L- BEGIN TIP PROJECT R-3833B

STA. 293+00.00 -L- END TIP PROJECT R-3833B

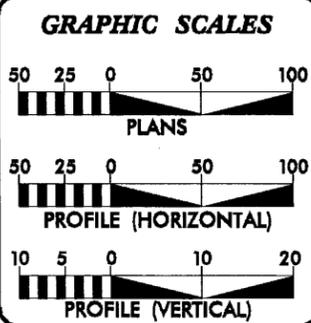
PROPOSED SIGNAL

NCDOT CONTACT: B. DOUG TAYLOR, P.E.

THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH THE ACCESS BEING LIMITED TO POINTS SHOWN ON PLANS

TIP PROJECT: R-3833B

CONTRACT: C202068



DESIGN DATA

ADT 2009 =	24,880
ADT 2029 =	33,790
DHV =	9 %
D =	60 %
T =	9 % *
V =	50 MPH

* (TTST 3% + DUAL 6%)

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-3833B	=	1.166 MI
LENGTH STRUCTURES TIP PROJECT R-3833B	=	0.037 MI
TOTAL LENGTH OF TIP PROJECT R-3833B	=	1.203 MI

Prepared for NCDOT in the Office of:
MOFFATT & NICHOL
1616 EAST MILLBROOK ROAD, SUITE 150
RALEIGH, NORTH CAROLINA 27609
919.781.4625 VOICE 919.781.4629 FAX

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: MAY 19, 2006

LETTING DATE:

HYDRAULICS ENGINEER
SDG
Sungate Design Group, P.A.
Engineering - Landscape Architecture - Drafting
915-A Jones Franklin Rd.
Raleigh, N.C. 27606

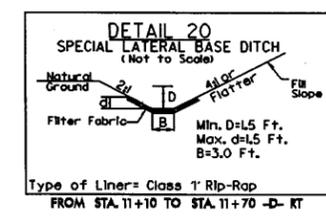
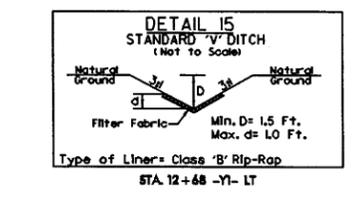
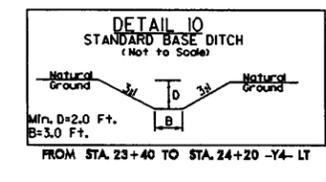
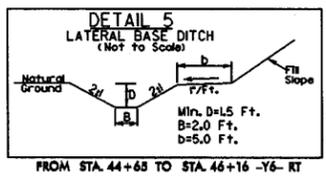
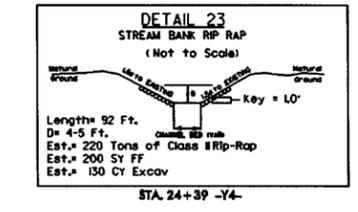
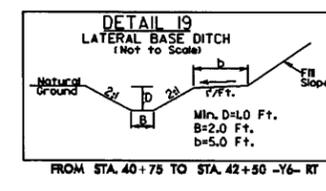
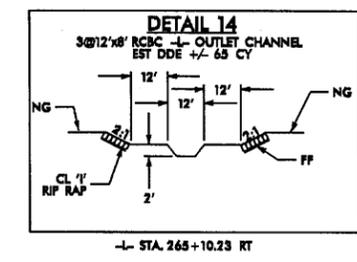
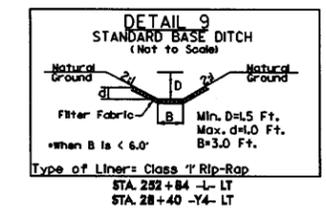
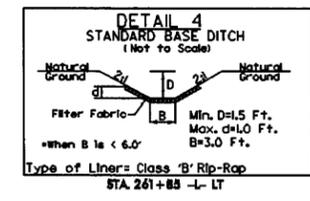
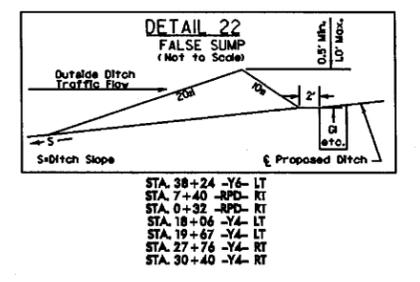
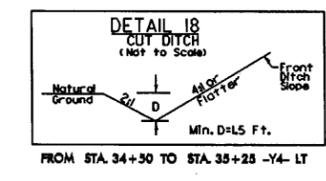
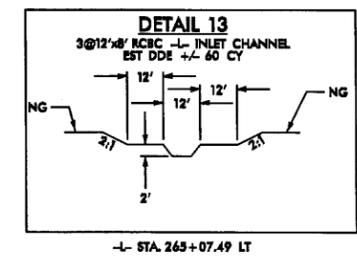
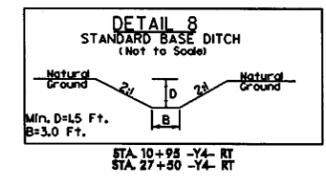
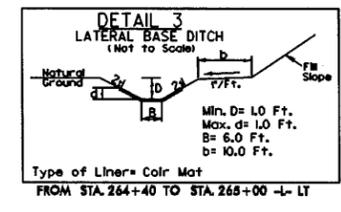
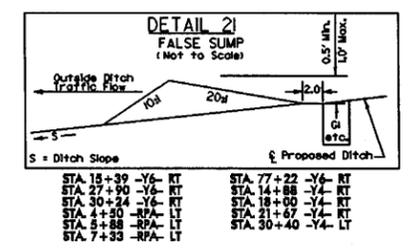
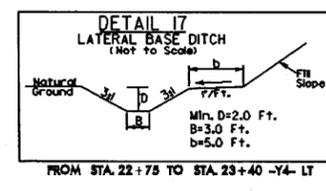
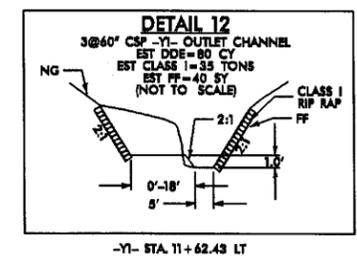
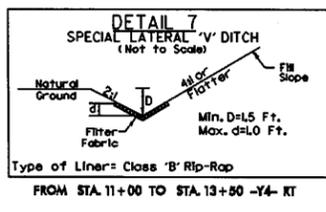
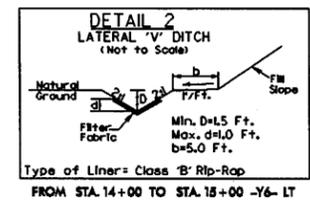
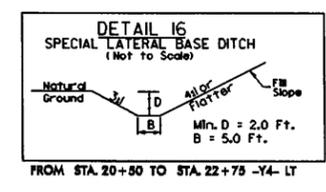
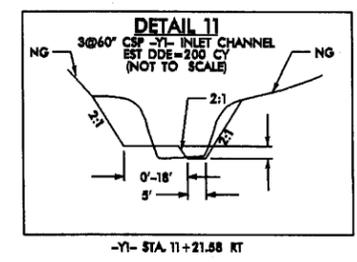
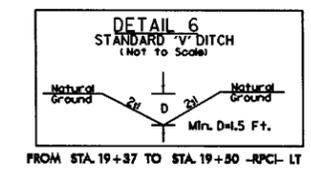
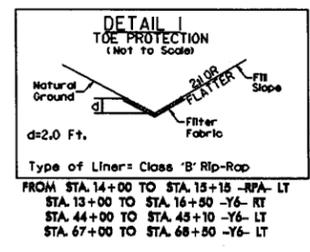
SIGNATURE: _____

ROADWAY DESIGN ENGINEER
MOFFATT & NICHOL
1616 EAST MILLBROOK ROAD, SUITE 150
RALEIGH, NORTH CAROLINA 27609
919.781.4625 VOICE 919.781.4629 FAX

SIGNATURE: _____

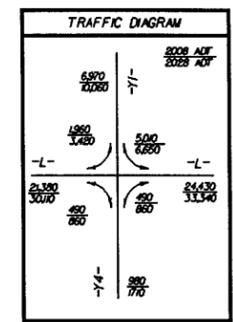
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER



5/14/99
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Revised
Permit Drawing
Sheet 6 of 23
February 2010



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PI Sta 14+95.40
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D = 17'06"11.6"
L = 387.54'
T = 218.72'
R = 335.00'
DS = 30mph

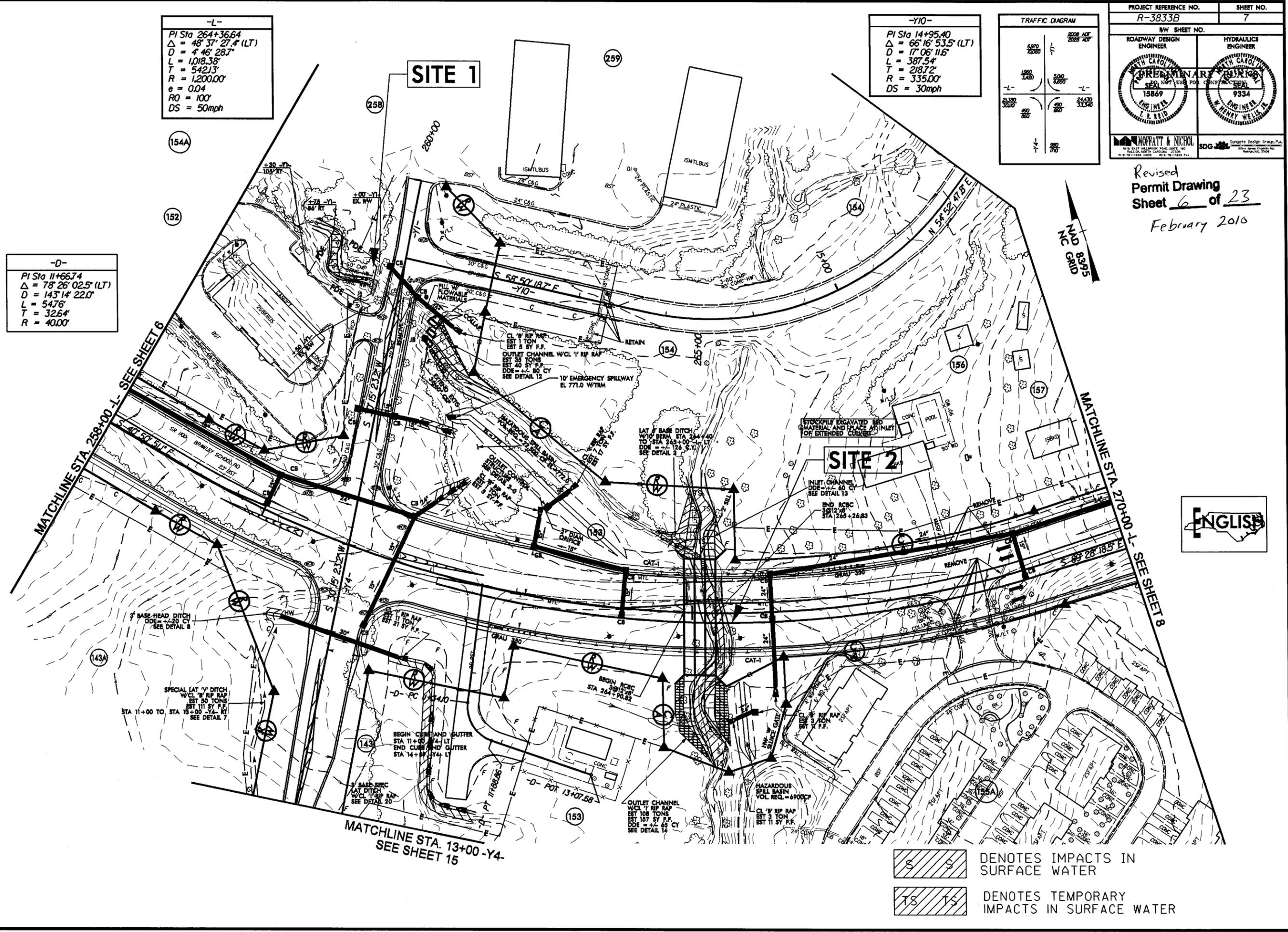
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D = 4'46"28.7"
L = 1018.38'
T = 542.13'
R = 1200.00'
e = 0.04
RO = 100'
DS = 50mph

-D-
PI Sta 11+66.74
Δ = 78°26'02.5" (LT)
D = 143'14"22.0"
L = 547.6'
T = 32.64'
R = 40.00'

REVISIONS

DATE: 01/26/2007 -REVISED R/W FOR PARCELS 153 & 155
DATE: 02/21/2008 -ADDED PARCEL 143, REVISED PARCEL 143 TO 143A, UPDATED DEED BOOK AND PAGE
DATE: 08/05/2008 -REVISED R/W AND CONSTRUCTION EASEMENT FOR PARCELS 143 & 153

18 FEB 2010 13:04 PERMITS - Enviro.commental\Drawings\3-081410-143-153.dwg



DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER



8/17/99

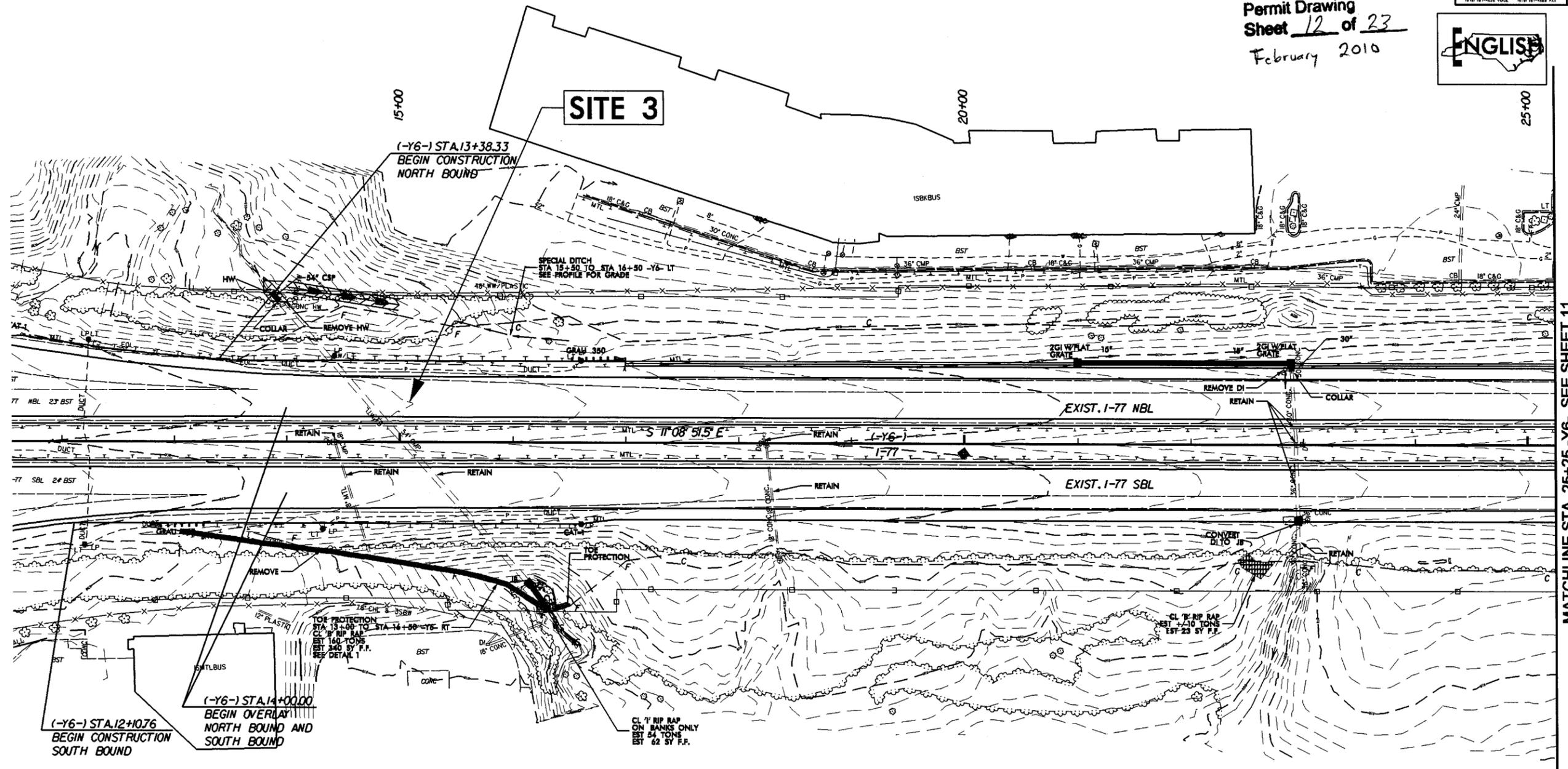
PROJECT REFERENCE NO. R-3833B		SHEET NO. 10
HW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
MORRITT & NICHOL		SDG

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER



Revised
Permit Drawing
Sheet 12 of 23
February 2010



MATCHLINE STA. 25+25 -Y6- SEE SHEET 11

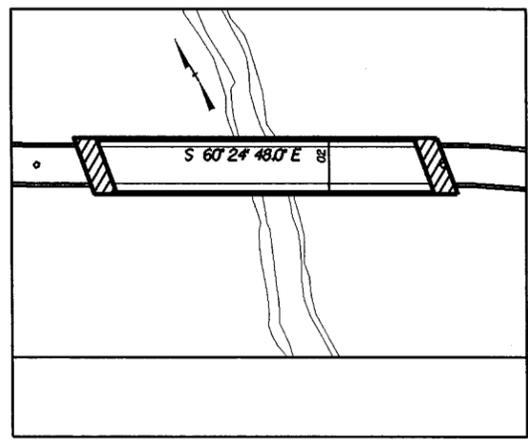
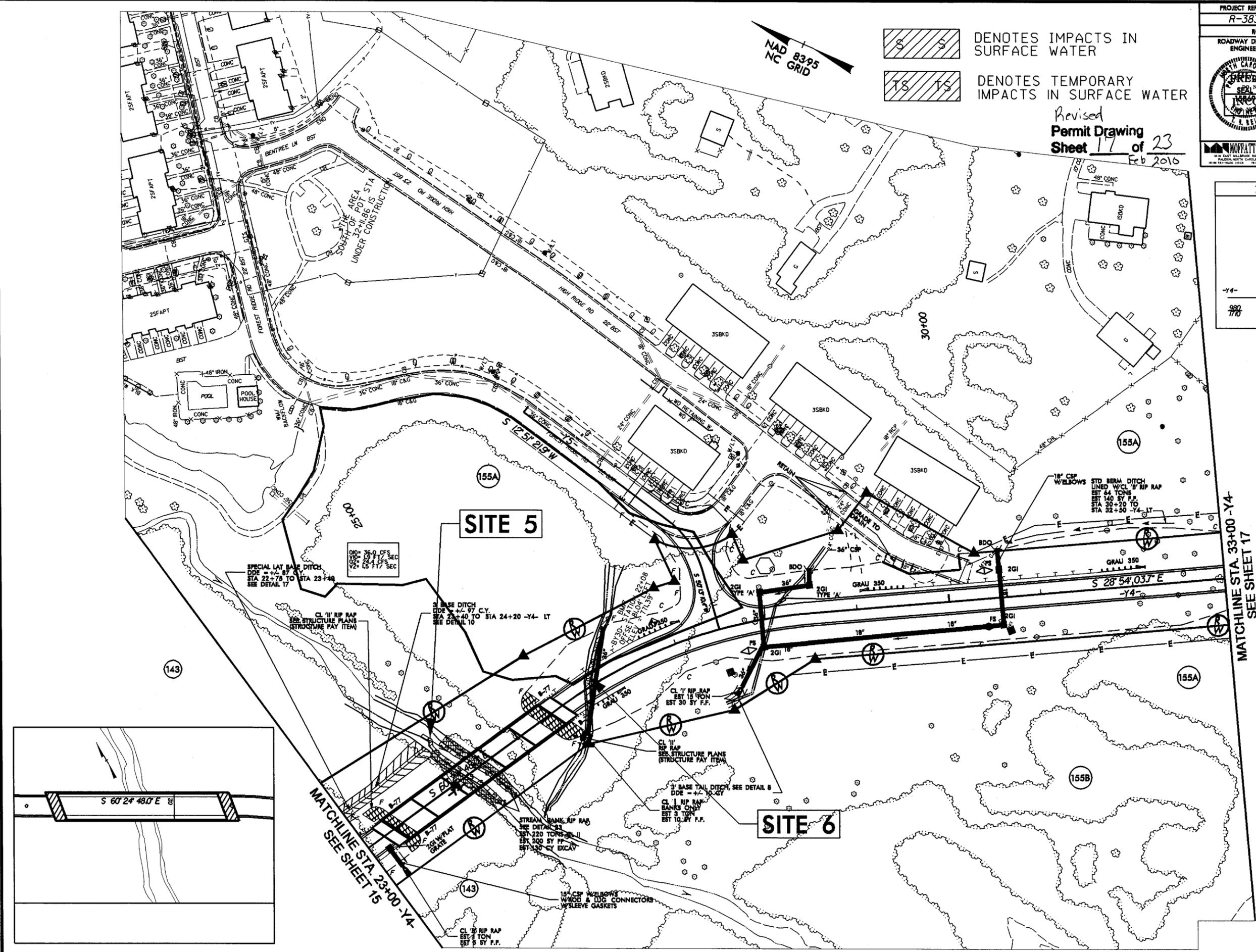
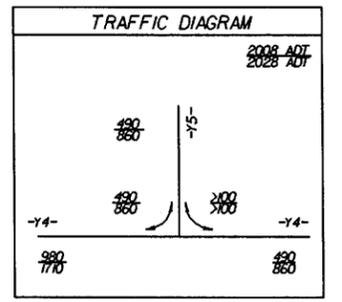
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PROJECT REFERENCE NO. R-3833B	SHEET NO. 16
RDW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY DO NOT USE FOR CONSTRUCTION INCOMPLETE PLANS NOT TO BE USED FOR PERMITS	
MOPFATT & NICHOL	Surrogate Design Group, P.A.

Revised
 Permit Drawing
 Sheet 17 of 23
 Feb 2016

DENOTES IMPACTS IN SURFACE WATER
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NAD 8395
 NC GRID



REVISIONS

DATE: 01/08/2008 -REVISED PARCELS 155A & 155B
 DATE: 02/21/2008 -REVISED PARCEL 143 OWNER NAME AND UPDATED DEED BOOK AND PAGE
 DATE: 06/25/2009 -REVISED POWER EASEMENT

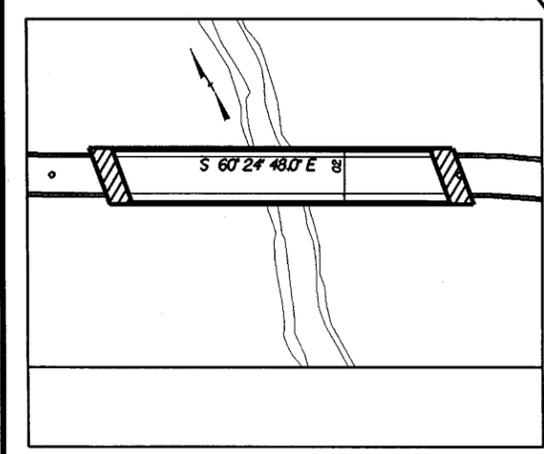
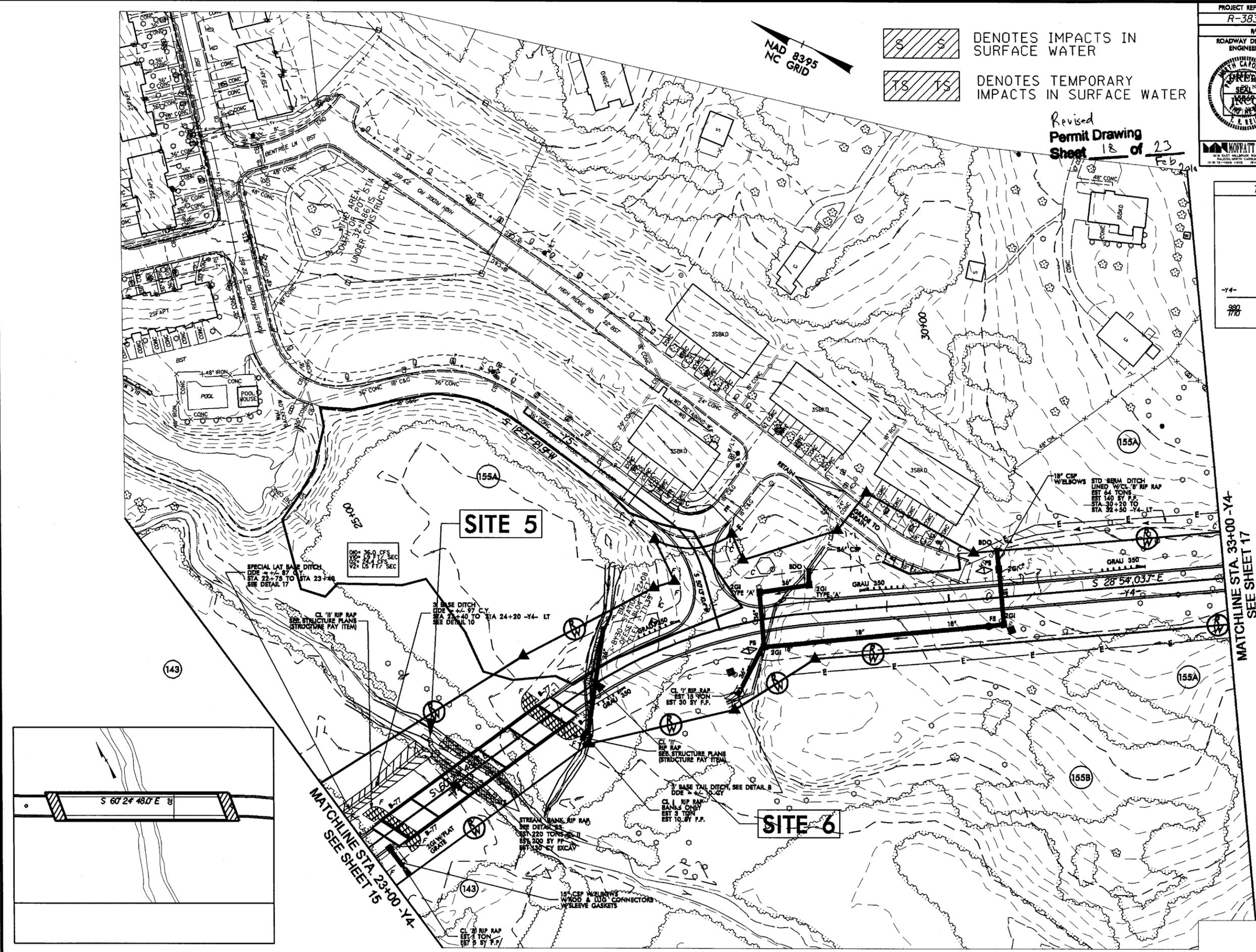
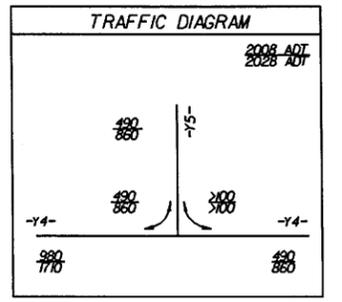
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MATCHLINE STA. 33+00 -Y4
 SEE SHEET 17

MATCHLINE STA. 23+00 -Y4
 SEE SHEET 15

Revised
Permit Drawing
Sheet 18 of 23
Feb 2011

DENOTES IMPACTS IN SURFACE WATER
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER



MATCHLINE STA. 33+00 -Y4
SEE SHEET 17

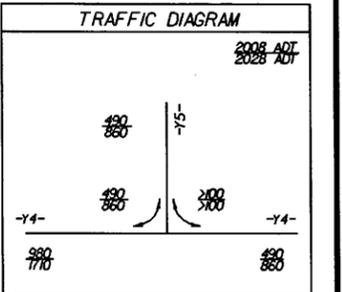
MATCHLINE STA. 23+00 -Y4
SEE SHEET 15

REVISIONS

DATE: 01/08/2008 -REVISED PARCELS 155A & 155B
DATE: 02/21/2008 -REVISED PARCEL 143 OWNER NAME AND UPDATED DEED BOOK AND PAGE
DATE: 02/21/2008 -REVISED PARCEL 143 OWNER NAME AND UPDATED DEED BOOK AND PAGE
DATE: 02/21/2008 -REVISED PARCEL 143 OWNER NAME AND UPDATED DEED BOOK AND PAGE

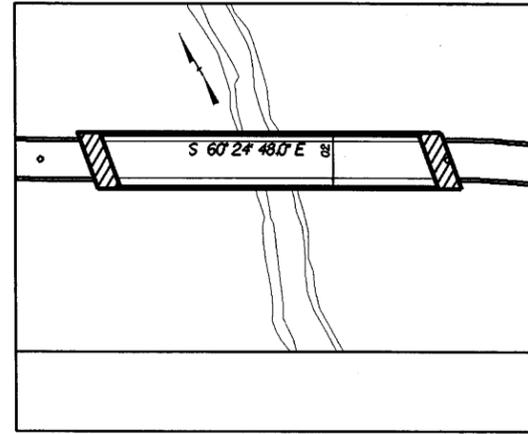
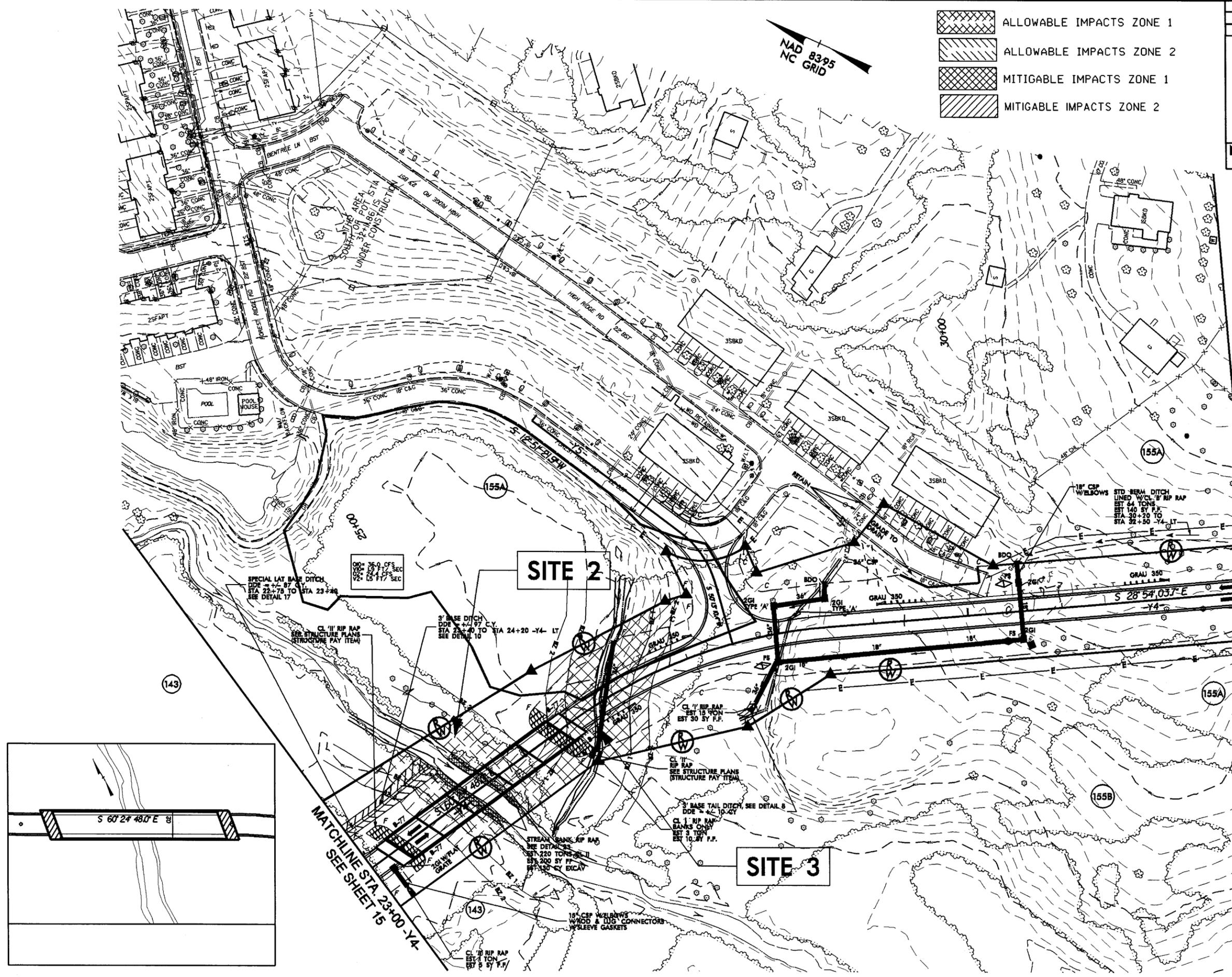
18-FEB-2010 13:55
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R:\Hydro\sub\13555\PERMITS_Environmental\Drawings\3833B\18-REVISED DUKE POWER EASEMENT.dwg

- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2
- MITIGABLE IMPACTS ZONE 1
- MITIGABLE IMPACTS ZONE 2



Revised
Buffer Drawing
Sheet 9 of 11
February 2010

MATCHLINE STA. 33+00 -Y4
SEE SHEET 17



REVISIONS
 DATE: 01/08/2008 -REVISED PARCELS 155A & 155B
 DATE: 02/21/2008 -REVISED PARCEL 143 OWNER NAME AND UPDATED DEED BOOK AND PAGE
 DATE: 06/18/2009 -RECEIVED REVISED DUKE POWER EASEMENT
 18-FEB-2010 14:02
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