

# Project Submittal Interim Form



Updated September 4, 2020

*Please note: fields marked with a red asterisk \* below are required. You will not be able to submit the form until all mandatory questions are answered.*

**Project Type: \***

- For the Record Only (Courtesy Copy)
- New Project
- Modification/New Project with Existing ID
- More Information Response
- Other Agency Comments
- Pre-Application Submittal
- Re-Issuance\Renewal Request
- Stream or Buffer Appeal

**Submittal Type: \***

401 Application

## Project Contact Information

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**Name:** NCDOT  
*Who is submitting the information?*

**Email Address: \*** jldilday@ncdot.gov

## Project Information

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**Project Name: \*** US 401 at SR 2044 (Ligon Mill Road) / SR 2224 (Mitchell Mill Road)

**Is this a public transportation project? \***

- Yes
- No

**Is this a DOT project? \***

- Yes
- No

**Is the project located within a NC DCM Area of Environmental Concern (AEC)? \***

- Yes
- No
- Unknown

**TIP#:**  
U-5748

**WBS#:**  
50168.1.1  
*(Applies to DOT projects only)*

**County (ies) \***

Wake

**Please upload all files that need to be submitted.**

Click the upload button or drag and drop files here to attach document

U-5748 signed PJD.pdf	24.57MB
U5748_PERMIT DRAWINGS_2021.11.02.pdf	28.31MB
U5748_PERMIT DRAWINGS_BUFFER_2021.11.02.pdf	9.1MB
U5748_PERMIT DRAWINGS_BUFFER_UTILITIES_2021.11.01.pdf	2.89MB
NOAA.pdf	174.35KB
U-5748 Combined Mitigation.pdf	632.71KB
U-5748 EPCN Printed.pdf	2.02MB

Only pdf or kmz files are accepted.

**Describe the attachments or add comments:**

Due to technical issues with the ECPN form, please find the pdf of the form, permit drawings, buffer drawings, utility buffer drawings, Section 7 documentation, and compensatory mitigation information.

\*  By checking the box and signing box below, I certify that:

- I, the project proponent, hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief.
- I, the project proponent, hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.
- I agree that submission of this online form is a "transaction" subject to Chapter 66, Article 40 of the NC General Statutes (the "Uniform Electronic Transactions Act");
- I agree to conduct this transaction by electronic means pursuant to Chapter 66, Article 40 of the NC General Statutes (the "Uniform Electronic Transactions Act");
- I understand that an electronic signature has the same legal effect and can be enforced in the same way as a written signature; AND
- I intend to electronically sign and submit the online form.

**Signature: \***



**Submittal Date:** 11/5/2021

Is filled in automatically once submitted.



## Pre-Construction Notification (PCN) Form

For Nationwide Permits and Regional General Permits  
(along with corresponding Water Quality Certifications)

June 1, 2021 Ver 4.1

*Please note: fields marked with a red asterisk \* below are required. You will not be able to submit the form until all mandatory questions are answered.*

*Also, if at any point you wish to print a copy of the E-PCN, all you need to do is right-click on the document and you can print a copy of the form.*

Below is a link to the online help file.

<https://edocs.deq.nc.gov/WaterResources/0/edoc/624704/PCN%20Help%20File%202018-1-30.pdf> (<https://edocs.deq.nc.gov/WaterResources/0/doc/603610/Page1.aspx>)

### A. Processing Information

**County (or Counties) where the project is located: \***

Wake

[Add additional county](#)

**Is this a NCDMS Project? \***

Yes  No

Click Yes, only if NCDMS is the applicant or co-applicant.

**Is this project a public transportation project? \***

Yes  No

This is any publicly funded by municipal, state or federal funds road, rail, airport transportation project.

**Is this a NCDOT Project? \***

Yes  No

**(NCDOT only) T.I.P. or state project number:**

U-5748

**WBS # \***

50168.1.1

(for NCDOT use only)

**1a. Type(s) of approval sought from the Corps: \***

- Section 404 Permit (wetlands, streams and waters, Clean Water Act)  
 Section 10 Permit (navigable waters, tidal waters, Rivers and Harbors Act)

**Has this PCN previously been submitted? \***

Yes  
 No

**1b. What type(s) of permit(s) do you wish to seek authorization? \***

- Nationwide Permit (NWP)  
 Regional General Permit (RGP)  
 Standard (IP)

1c. Has the NWP or GP number been verified by the Corps? \*

Yes  No

Regional General Permit (RGP) Number:

201902350 - Work associated with bridge construction, widening, replaceme

Add additional RGP

RGP Numbers (for multiple RGPs):

[Empty text input field]

List all RGP numbers you are applying for not on the drop down list.

1d. Type(s) of approval sought from the DWR: \*

check all that apply

- 401 Water Quality Certification - Regular
- Non-404 Jurisdictional General Permit
- Individual 401 Water Quality Certification
- 401 Water Quality Certification - Express
- Riparian Buffer Authorization

### Pre-Filing Meeting Information

Before submitting this form please ensure you have submitted the Pre-Filing Meeting Request Form as we will not be able to accept your application without this important first step. The Pre-Filing Meeting Request Form is used in accordance with 40 C.F.R. Section 121.4(a) "At least 30 days prior to submitting a certification request, the project proponent shall request a pre-filing meeting with the certifying agency" and in accordance with 40 C.F.R. Section 121.5(b)(7), and (c)(5) all certification requests shall include documentation that a pre-filing meeting request was submitted to the certifying authority at least 30 days prior to submitting the certification request. Click [here](https://www.epa.gov/sites/production/files/2020-07/documents/clean_water_act_section_401_certification_rule.pdf) to read more information on when this form is needed prior to application submission or [here](https://edocs.deq.nc.gov/Forms/DWR-Pre-Filing-Meeting-Request) to view the form.

Is this a courtesy copy notification? \*

Yes  No

ID#

20210926

Version

1

Pre-filing Meeting or Request Date \*

5/11/2021

Attach documentation of Pre-Filing Meeting Request here: \*

Click the upload button or drag and drop files here to attach document

Upload

File type must be PDF

1e. Is this notification solely for the record because written approval is not required? \*

For the record only for DWR 401 Certification:  Yes  No

For the record only for Corps Permit:  Yes  No

1f. Is this an after-the-fact permit application? \*

Yes  No

1g. 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.

Yes  No

Acceptance Letter Attachment

Click the upload button or drag and drop files here to attach document

Upload

Accept\_U-5748.pdf

195.11KB



FILE TYPE MUST BE PDF

1h. Is the project located in any of NC's twenty coastal counties? \*

- Yes No

1j. Is the project located in a designated trout watershed? \*

- Yes No

Link to trout information: http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/Trout.aspx

B. Applicant Information

1a. Who is the Primary Contact? \*

NCDOT

1b. Primary Contact Email: \*

jdilday@ncdot.gov

1c. Primary Contact Phone: \*

(xxx)xxx-xxxx

(919)707-6111

1d. Who is applying for the permit? \*

- Owner Applicant (other than owner)

1e. Is there an Agent/Consultant for this project? \*

- Yes No

2. Owner Information

2a. Name(s) on recorded deed: \*

NCDOT

2b. Deed book and page no.:

2c. Contact Person:

(for Corporations)

2d. Address \*

Street Address

1000 Birch Ridge Drive

Address Line 2

City

Raleigh

State / Province / Region

NC

Postal / Zip Code

27610

Country

USA

2e. Telephone Number: \*

(xxx)xxx-xxxx

(919)707-6000

2f. Fax Number:

(xxx)xxx-xxxx

2g. Email Address: \*

[Add another owner](#)

## C. Project Information and Prior Project History

### 1. Project Information

1a. Name of project: \*

1b. Subdivision name:

(if appropriate)

1c. Nearest municipality / town: \*

### 2. Project Identification

2a. Property Identification Number:

(tax PIN or parcel ID)

2b. Property size:

(in acres)

2c. Project Address

Street Address

Address Line 2

City

State / Province / Region

Postal / Zip Code

Country

2d. Site coordinates in decimal degrees

Please collect site coordinates in decimal degrees. Use between 4-6 digits (unless you are using a survey-grade GPS device) after the decimal place as appropriate, based on how the location was determined. (For example, most mobile phones with GPS provide locational precision in decimal degrees to map coordinates to 5 or 6 digits after the decimal place.)

Latitude: \*

ex: 34.208504

Longitude: \*

-77.796371

### 3. Surface Waters

3a. Name of the nearest body of water to proposed project: \*

3b. Water Resources Classification of nearest receiving water: \*

Surface Water Lookup (<https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=6e125ad7628f494694e259c80dd64265>)

**3c. What river basin(s) is your project located in? \***

Neuse

[Add another river basin](#)

**3d. Please provide the 12-digit HUC in which the project is located. \***

030202010704

River Basin Lookup (<https://ncdenr.maps.arcgis.com/apps/PublicInformation/index.html?appid=ad3a85a0c6d644a0b97cd069db238ac3>)

## 4. Project Description and History

**4a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: \***

Land use in the vicinity consisted predominately of residential development, commercial businesses and forested communities along the river floodplain.

**4b. Have Corps permits or DWR certifications been obtained for this project (including all prior phases) in the past? \***

Yes  No  Unknown

**4f. List the total estimated acreage of all existing wetlands on the property:**

7.5

**4g. List the total estimated linear feet of all existing streams on the property:**

(intermittent and perennial)

11,000

**4h. Explain the purpose of the proposed project: \***

The purpose of the proposed project is to reduce the traffic congestion and improve the operation of the intersection. The current intersection of US 401 with Ligon Mill Road and Mitchell Mill Road operates at a poor level of service due to large peak AM traffic volumes traveling southbound.

4i. Describe the overall project in detail, including indirect impacts and the type of equipment to be used: \*

An offset continuous flow interchange (CFI) will be constructed for Ligon Mill Road and Mitchell Mill Road at US 401. This will be accomplished by shifting the intersection of Ligon Mill Road with US 401 approximately 1500 feet north of its current location. The existing intersection would be closed. This new intersection would be signalized. A fourth southbound lane would be added to US401 to accommodate additional traffic, as well as dual northbound left turn lanes, dual eastbound left turn lanes and dual eastbound right turn lanes. A CFI interchange will be constructed at Mitchell Mill Road at its existing location and signalized. This new interchange will require the building of a fourth northbound lane, as well as dual southbound left turn lanes. The addition of the fourth travel lanes on US 401 will require the widening of the existing bridges over the Neuse River. Standard road building equipment, such as trucks, dozers and cranes will be used.

5. Jurisdictional Determinations

5a. Have the wetlands or streams been delineated on the property or proposed impact areas? \*

- Yes  No  Unknown

Comments:

[Empty text box for comments]

5b. If the Corps made a jurisdictional determination, what type of determination was made? \*

- Preliminary  Approved  Not Verified  Unknown  N/A

Corps AID Number:

Example: SAW-2017-99999

SAW-2017-00321

5c. If 5a is yes, who delineated the jurisdictional areas?

Name (if known): Ron Johnson
Agency/Consultant Company: AECOM
Other: [Empty text box]

5d. List the dates of the Corp jurisdiction determination or State determination if a determination was made by the Corps or DWR.

Field visit with USACE held on 3/10/2020 (J. Lassiter).

6. Future Project Plans

6a. Is this a phased project? \*

- Yes  No

Are any other NWP(s), regional general permit(s), or individual permits(s) used, or intended to be used, to authorize any part of the proposed project or related activity? This includes other separate and distant crossing for linear projects that require Department of the Army authorization but don't require pre-construction notification.

[Empty text box for future project plans]

D. Proposed Impacts Inventory

### 1. Impacts Summary

1a. Where are the impacts associated with your project? (check all that apply):

- Wetlands
- Open Waters
- Streams-tributaries
- Pond Construction
- Buffers

### 2. Wetland Impacts

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

"W." will be used in the table below to represent the word "wetland".

2a. Site #* (?)	2a1 Reason* (?)	2b. Impact type* (?)	2c. Type of W.*	2d. W. name*	2e. Forested*	2f. Type of Jurisdiction* (?)	2g. Impact area*
1	Fill-Toe Protec	P	Bottomland Hardwood For	WC	Yes	Both	0.001 <small>(acres)</small>
1	Mech. Clearing	P	Bottomland Hardwood For	WC	Yes	Both	0.080 <small>(acres)</small>
3	Fill	P	Bottomland Hardwood For	WE	Yes	Both	0.030 <small>(acres)</small>
3	Mech. Clearing	P	Bottomland Hardwood For	WE	Yes	Both	0.010 <small>(acres)</small>
6	Fill	P	Headwater Forest	WI	Yes	Both	0.100 <small>(acres)</small>
6	Mech. Clearing	P	Headwater Forest	WI	Yes	Both	0.030 <small>(acres)</small>
8	Fill-Pipe Install	P	Headwater Forest	WG	Yes	Both	0.001 <small>(acres)</small>
8	Mech. Clearing	P	Headwater Forest	WG	Yes	Both	0.020 <small>(acres)</small>
10	Fill-Pipe Install	P	Headwater Forest	WF	Yes	Both	0.040 <small>(acres)</small>
10	Mech. Clearing	P	Headwater Forest	WF	Yes	Both	0.001 <small>(acres)</small>
12	Fill-Toe Protec	P	Headwater Forest	WI	Yes	Both	0.030 <small>(acres)</small>
12	Mech. Clearing	P	Headwater Forest	WI	Yes	Both	0.010 <small>(acres)</small>
							<small>(acres)</small>

Add

2g. Total Temporary Wetland Impact

0.000

2g. Total Permanent Wetland Impact

0.353

2g. Total Wetland Impact

0.353

2i. 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.

"S." will be used in the table below to represent the word "stream".

	3a. Reason for impact* (?)	3b. Impact type*	3c. Type of impact*	3d. S. name*	3e. Stream Type* (?)	3f. Type of Jurisdiction*	3g. S. width*	3h. Impact length*
S1	S2-Workpad	Temporary	Workpad/Causewa	Neuse River	Perennial	Both	150 <small>Average (feet)</small>	171 <small>(linear feet)</small>
S2	S2-Bank Stabiliza	Permanent	Bank Stabilization	Neuse River	Perennial	Both	150 <small>Average (feet)</small>	91 <small>(linear feet)</small>
S3	S4-Pipe Installatio	Permanent	Fill	SB	Perennial	Both	3 <small>Average (feet)</small>	34 <small>(linear feet)</small>
S4	S4-Pipe Installatio	Temporary	Dewatering	SB	Perennial	Both	3 <small>Average (feet)</small>	14 <small>(linear feet)</small>
S5	S5-Pipe Installatio	Permanent	Rip Rap Fill	SC	Perennial	Both	3 <small>Average (feet)</small>	30 <small>(linear feet)</small>
S6	S5-Pipe Installatio	Temporary	Dewatering	SC	Perennial	Both	3 <small>Average (feet)</small>	19 <small>(linear feet)</small>
S7	S6-Pipe Installatio	Permanent	Culvert	SB	Perennial	Both	3 <small>Average (feet)</small>	241 <small>(linear feet)</small>
S8	S6-Pipe Installatio	Temporary	Dewatering	SB	Perennial	Both	3 <small>Average (feet)</small>	153 <small>(linear feet)</small>
S9	S7-Pipe Installatio	Permanent	Fill	SE	Intermittent	Both	2 <small>Average (feet)</small>	110 <small>(linear feet)</small>
S10	S7-Pipe Installatio	Temporary	Dewatering	SE	Intermittent	Both	2 <small>Average (feet)</small>	3 <small>(linear feet)</small>
S11	S8-Pipe Outfall	Permanent	Bank Stabilization	SB	Perennial	Both	3 <small>Average (feet)</small>	6 <small>(linear feet)</small>
S12	S8-Pipe Outfall	Temporary	Dewatering	SB	Perennial	Both	3 <small>Average (feet)</small>	39 <small>(linear feet)</small>
S13	S9-Pipe Installatio	Permanent	Fill	SB	Perennial	Both	3 <small>Average (feet)</small>	97 <small>(linear feet)</small>
S14	S9-Stabilization	Permanent	Rip Rap Fill	SB	Perennial	Both	3 <small>Average (feet)</small>	30 <small>(linear feet)</small>
S15	S9-Stabilization	Temporary	Dewatering	SB	Perennial	Both	3 <small>Average (feet)</small>	26 <small>(linear feet)</small>

S16	S10-Pipe Installati	Permanent	Fill	SC	Perennial	Both	3 <small>Average (feet)</small>	118 <small>(linear feet)</small>
S17	S10-Pipe Installati	Temporary	Dewatering	SC	Perennial	Both	3 <small>Average (feet)</small>	16 <small>(linear feet)</small>
S18	S11-Riprap Ditch	Permanent	Rip Rap Fill	SC	Perennial	Both	3 <small>Average (feet)</small>	31 <small>(linear feet)</small>
S19	S11-Riprap Ditch	Temporary	Dewatering	SC	Perennial	Both	3 <small>Average (feet)</small>	12 <small>(linear feet)</small>
S20	S13-Pipe Installati	Permanent	Rip Rap Fill	SB	Perennial	Both	3 <small>Average (feet)</small>	20 <small>(linear feet)</small>
S21	S13-Pipe Installati	Temporary	Dewatering	SB	Perennial	Both	3 <small>Average (feet)</small>	29 <small>(linear feet)</small>

[Add another impact](#)

\*\* All Perennial or Intermittent streams must be verified by DWR or delegated local government.

**3i. Total jurisdictional ditch impact in square feet:**

0

**3i. Total permanent stream impacts:**

808

**3i. Total temporary stream impacts:**

482

**3i. Total stream and ditch impacts:**

1290

**3j. 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. Site # <sup>*(?)</sup>	4a1. Impact Reason	4b. Impact type <sup>*(?)</sup>	4c. Name of waterbody <sup>(?)</sup>	4d. Activity type <sup>*</sup>	4e. Waterbody type <sup>*</sup>	4f. Impact area <sup>*</sup>
10	Drain Pond	P	PE	Dewatering	Pond	1.14 <small>(acres)</small>

[Add another impact](#)

**4g. Total temporary open water Impacts:**

0.00

**4g. Total permanent open water impacts:**

1.14

**4g. Total open water impacts:**

1.14

4h. Comments:

**6. Buffer Impacts (for DWR)**

If project will impact a protected riparian buffer, then complete the chart below. Individually list all buffer impacts below.

6a. Project is in which protect basin(s)? \*

Check all that apply.

- Neuse
- Catawba
- Goose Creek
- Other
- Tar-Pamlico
- Randleman
- Jordan Lake

6b. Impact Type* (?)	6c. Per or Temp* (?)	6d. Stream name*	6e. Buffer mitigation required?*	6f. Zone 1 impact* <small>(square feet)</small>	6g. Zone 2 impact* <small>(square feet)</small>
2-Bridge-Allowable	P	Neuse River	No	11,170 <small>(square feet)</small>	7,735 <small>(square feet)</small>
4-RoadCrossing-Allowable	P	SB	No	2,625 <small>(square feet)</small>	1,836 <small>(square feet)</small>
5-RoadCrossing-Allowable	P	SC	No	2,854 <small>(square feet)</small>	1,504 <small>(square feet)</small>
6-Parallel-Mitigable	P	SB	Yes	18,329 <small>(square feet)</small>	11,898 <small>(square feet)</small>
12-RoadCrossing-Allowable	P	SB	No	3,447 <small>(square feet)</small>	2,184 <small>(square feet)</small>
7-RoadCrossing-Allowable	P	SE	No	6,586 <small>(square feet)</small>	3,856 <small>(square feet)</small>
8-RoadCrossing-Mitigable	P	SB	Yes	2,640 <small>(square feet)</small>	1,782 <small>(square feet)</small>
9-RoadCrossing-Allowable	P	SB	No	8,674 <small>(square feet)</small>	5,347 <small>(square feet)</small>
10-RoadCrossing-Mitigable	P	SC	Yes	48,553 <small>(square feet)</small>	33,525 <small>(square feet)</small>
11-RoadCrossing-Mitigable	P	SC	Yes	2,570 <small>(square feet)</small>	1,528 <small>(square feet)</small>
13-Parallel-Mitigable	P	SB	Yes	1,876 <small>(square feet)</small>	792 <small>(square feet)</small>
2-Utility-Allowable	P	Neuse River	No	828 <small>(square feet)</small>	494 <small>(square feet)</small>

[Add another impact](#)

**6h. Total buffer impacts:**

Zone 1

Zone 2

Total Temporary impacts:	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
--------------------------	-----------------------------------	-----------------------------------

	<b>Zone 1</b>	<b>Zone 2</b>
Total Permanent impacts:	<input type="text" value="110,152.00"/>	<input type="text" value="72,481.00"/>

	<b>Zone 1</b>	<b>Zone 2</b>
Total combined buffer impacts:	<input type="text" value="110,152.00"/>	<input type="text" value="72,481.00"/>

**6i. Comments:**

Mitigable impacts total Zone 1: 73,968 sqft, Zone 2: 49,525 sqft.  
 Wetlands in buffers Zone 1: 12,070 sqft  
 Utility buffer impact due to clearing for overhead utilities.

## E. Impact Justification and Mitigation

### 1. Avoidance and Minimization

**1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing the project: \***

NCDOT Design Standards in Sensitive Watersheds will be employed. See Stormwater Management Plan for additional measures. The existing bridges over the Neuse River will be retained, but widened.

**1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques: \***

Existing drainage patterns were maintained as best possible. Roadway fill slopes were steepened where possible in an effort to minimize wetland impacts. Riprap energy dissipators are used at pipe outlets to reduce discharge velocity to non-erosive levels.

### 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?**

Yes  No

**2c. If yes, mitigation is required by (check all that apply):**

DWR  Corps

**2d. If yes, which mitigation option(s) will be used for this project?**

Mitigation bank  Payment to in-lieu fee program  Permittee Responsible Mitigation

### 4. Complete if Making a Payment to In-lieu Fee Program

**4a. Approval letter from in-lieu fee program is attached.**

Yes  No

**4b. Stream mitigation requested:**

(linear feet)

**4c. If using stream mitigation, what is the stream temperature:**

NC Stream Temperature Classification Maps can be found under the Mitigation Concepts tab on the Wilmington District's RIBITS ([https://ribits.usace.army.mil/ribits\\_apex/f?p=107:27:2734709611497::NO:RP:P27\\_BUTTON\\_KEY:0](https://ribits.usace.army.mil/ribits_apex/f?p=107:27:2734709611497::NO:RP:P27_BUTTON_KEY:0)) website.

4d. Buffer mitigation requested (DWR only):

(square feet)  
111423

4e. Riparian wetland mitigation requested:

(acres)  
0

4f. Non-riparian wetland mitigation requested:

(acres)  
0

4g. Coastal (tidal) wetland mitigation requested:

(acres)  
0

4h. Comments

Buffer mitigation supplied by NCDMS.

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 including mitigation credits generated.

Mitigation to cover impacts to jurisdictional wetlands and streams will provided through existing NCDOT credits at Oakwood Cemetery, Jeffrey's Warehouse, and Pancho sites. See attached documentation for additional detail.

6. Buffer mitigation (State Regulated Riparian Buffer Rules) - required by DWR

6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation? If yes, you must fill out this entire form - please contact DWR for more information.

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 in the table below.

	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)	
Zone 1	Parallel Impacts/Road Crossing	61,898	3	185,694	

Zone 2 Parallel Impacts/Road Crossing 49,525 1.5 74,288

6f. Total buffer mitigation required

296192

6g. If buffer mitigation is required, is payment to a mitigation bank or NC Division of Mitigation Services proposed?

Yes  No

6j. Comments:

Impacts to buffer provided by NCDMS. See attached acceptance letter.

F. Stormwater Management and Diffuse Flow Plan (required by DWR)

\*\*\* Recent changes to the stormwater rules have required updates to this section .\*\*\*

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?**

Yes  No

1b. All buffer impacts and high ground impacts require diffuse flow or other form of stormwater treatment. If the project is subject to a state implemented riparian buffer protection program, include a plan that fully documents how diffuse flow will be maintained.

All Stormwater Control Measures (SCM)s must be designed in accordance with the NC Stormwater Design Manual (<https://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permit-guidance/stormwater-bmp-manual>). Associated supplement forms and other documentation shall be provided.

**What type of SCM are you providing?**

- Level Spreader  
 Vegetated Conveyance (lower SHWT)  
 Wetland Swale (higher SHWT)  
 Other SCM that removes minimum 30% nitrogen  
 Proposed project will not create concentrated stormwater flow through the buffer  
(check all that apply)

For a list of options to meet the diffuse flow requirements, click here

(<https://files.nc.gov/ncdeq/Water%20Quality/Surface%20Water%20Protection/401/Buffer%20Clarification%20Memos/Options%20for%20Meeting%20Diffuse%20Flow%20Provisions%20C>)

## 2. Stormwater Management Plan

**2a. Is this a NCDOT project subject to compliance with NCDOT's Individual NPDES permit NCS000250? \***

Yes  No

**Comments:**

## G. Supplementary Information

### 1. Environmental Documentation

**1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land? \***

Yes  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)? \***

Yes  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.) \***

Yes  No

### 2. Violations (DWR Requirement)

**2a. Is the site in violation of DWR Water Quality Certification Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), or DWR Surface Water or Wetland Standards or Riparian Buffer Rules (15A NCAC 2B .0200)? \***

Yes  No

### 3. Cumulative Impacts (DWR Requirement)

3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality? \*

- Yes
- No

3b. If you answered "no," provide a short narrative description.

Implementation of the proposed Build Alternative would not contribute, in conjunction with past, present, or future projects, to substantial adverse cumulative effects on resources in the study areas.

### 4. Sewage Disposal (DWR Requirement)

4a. Is sewage disposal required by DWR for this project? \*

- Yes
- No
- N/A

### 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? \*

- Yes
- No

5b. Have you checked with the USFWS concerning Endangered Species Act impacts? \*

- Yes
- No

5c. If yes, indicate the USFWS Field Office you have contacted.

Raleigh

5d. Is another Federal agency involved? \*

- Yes
- No
- Unknown

What Federal Agency is involved?

NMFS

5e. Is this a DOT project located within Division's 1-8? \*

- Yes
- No

5j. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? \*

Identified Stream Reach for Neuse River waterdog, madtom, dwarf wedgemussel and Atlantic pigtoe. Critical habitat for waterdog. Construction will adhere to the PBO and payment will be made to the NC Nongame Aquatic Species Fund for being critical habitat for Neuse River waterdog. PBO for NLEB.

### 6. Essential Fish Habitat (Corps Requirement)

6a. Will this project occur in or near an area designated as an Essential Fish Habitat? \*

- Yes
- No

6b. What data sources did you use to determine whether your site would impact an Essential Fish Habitat? \*

NMFS county index

### 7. Historic or Prehistoric Cultural Resources (Corps Requirement)

Link to the State Historic Preservation Office Historic Properties Map (does not include archaeological data: <http://gis.ncdcr.gov/hpweb/> (<http://gis.ncdcr.gov/hpweb/>))

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)? \*

- Yes
- 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)

Link to the FEMA Floodplain Maps: <https://msc.fema.gov/portal/search> (<https://msc.fema.gov/portal/search>)

8a. Will this project occur in a FEMA-designated 100-year floodplain? \*

Yes  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

Miscellaneous

Comments

Empty text box for comments.

Please use the space below to attach all required documentation or any additional information you feel is helpful for application review. Documents should be combined into one file when possible, with a Cover Letter, Table of Contents, and a Cover Sheet for each Section preferred.

Click the upload button or drag and drop files here to attach document

Upload

File must be PDF or KMZ

Signature

\*

By checking the box and signing below, I certify that:

- The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief; and
- The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.
- I have given true, accurate, and complete information on this form;
- I agree that submission of this PCN form is a "transaction" subject to Chapter 66, Article 40 of the NC General Statutes (the "Uniform Electronic Transactions Act");
- I agree to conduct this transaction by electronic means pursuant to Chapter 66, Article 40 of the NC General Statutes (the "Uniform Electronic Transactions Act");
- I understand that an electronic signature has the same legal effect and can be enforced in the same way as a written signature; AND
- I intend to electronically sign and submit the PCN form.

Full Name: \*

Signature \*

Date

Date will be captured on form submission

Save as Draft

**U.S. ARMY CORPS OF ENGINEERS**  
**WILMINGTON DISTRICT**

Action Id. SAW-2017-00321 County: Wake U.S.G.S. Quad: NC- Wake Forest

**NOTIFICATION OF JURISDICTIONAL DETERMINATION**

Requestor: ACOM  
Ron Johnson  
Address: 701 Corporate Center Dr., suite 475  
Raleigh, NC 27607  
Telephone Number: 919-854-6210  
E-mail: ron.johnson@aecom.com

Size (acres)	<u>372</u>	Nearest Town	<u>Raleigh</u>
Nearest Waterway	<u>Neuse River</u>	River Basin	<u>Neuse</u>
USGS HUC	<u>03020201</u>	Coordinates	Latitude: <u>35.8860</u> Longitude: <u>-78.5258</u>

Location description: The project site encompasses 374 acres as depicted on the attached PJD maps, and is identified as NCODT project U-5748, Mitchell Mill Road/Louisburg Road intersection, near the town of Raleigh, Wake County, North Carolina.

**Indicate Which of the Following Apply:**

**A. Preliminary Determination**

- There appear to be **waters, including wetlands** on the above described project area/property, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). The **waters, including wetlands** have been delineated, and the delineation has been verified by the Corps to be sufficiently accurate and reliable. The approximate boundaries of these waters are shown on the enclosed delineation map dated 3/10/2020. Therefore this preliminary jurisdiction determination may be used in the permit evaluation process, including determining compensatory mitigation. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands that would be affected in any way by the permitted activity on the site as if they are jurisdictional waters of the U.S. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331). However, you may request an approved JD, which is an appealable action, by contacting the Corps district for further instruction.
- There appear to be **waters, including wetlands** on the above described project area/property, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). However, since the **waters, including wetlands** have not been properly delineated, this preliminary jurisdiction determination may not be used in the permit evaluation process. Without a verified wetland delineation, this preliminary determination is merely an effective presumption of CWA/RHA jurisdiction over all of the **waters, including wetlands** at the project area, which is not sufficiently accurate and reliable to support an enforceable permit decision. We recommend that you have the **waters, including wetlands** on your project area/property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.

**B. Approved Determination**

- There are Navigable Waters of the United States within the above described project area/property subject to the permit requirements of Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403) and Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- There are **waters, including wetlands** on the above described project area/property subject to the permit requirements of Section 404 of the Clean Water Act (CWA) (33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- We recommend you have the **waters, including wetlands** on your project area/property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.
- The **waters, including wetlands** on your project area/property have been delineated and the delineation has been verified by the Corps. The approximate boundaries of these waters are shown on the enclosed delineation map dated DATE. We strongly

**SAW-2017-00321**

suggest you have this delineation surveyed. Upon completion, this survey should be reviewed and verified by the Corps. Once verified, this survey will provide an accurate depiction of all areas subject to CWA jurisdiction on your property which, provided there is no change in the law or our published regulations, may be relied upon for a period not to exceed five years.

- The **waters, including wetlands** have been delineated and surveyed and are accurately depicted on the plat signed by the Corps Regulatory Official identified below on **DATE**. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- There are no waters of the U.S., to include wetlands, present on the above described project area/property which are subject to the permit requirements of Section 404 of the Clean Water Act (33 USC 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- The property is located in one of the 20 Coastal Counties subject to regulation under the Coastal Area Management Act (CAMA). You should contact the Division of Coastal Management in **Morehead City, NC, at (252) 808-2808** to determine their requirements.

Placement of dredged or fill material within waters of the US, including wetlands, without a Department of the Army permit may constitute a violation of Section 301 of the Clean Water Act (33 USC § 1311). Placement of dredged or fill material, construction or placement of structures, or work within navigable waters of the United States without a Department of the Army permit may constitute a violation of Sections 9 and/or 10 of the Rivers and Harbors Act (33 USC § 401 and/or 403). If you have any questions regarding this determination and/or the Corps regulatory program, please contact **James Lastinger** at **919-554-4884 ext 32** or **James.C.Lastinger@usace.army.mil**.

**C. Basis For Determination: Basis For Determination: See the preliminary jurisdictional determination form dated 4/30/2020.**

**D. Remarks: None.**

**E. Attention USDA Program Participants**

This delineation/determination has been conducted to identify the limits of Corps' Clean Water Act jurisdiction for the particular site identified in this request. The delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA Program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.

**F. Appeals Information (This information applies only to approved jurisdictional determinations as indicated in B. above)**

This correspondence constitutes an approved jurisdictional determination for the above described site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and request for appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the following address:

US Army Corps of Engineers  
South Atlantic Division  
Attn: Phillip Shannin, Review Officer  
60 Forsyth Street SW, Room 10M15  
Atlanta, Georgia 30303-8801

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by **Not applicable**.

\*\*It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this correspondence.\*\*

Corps Regulatory Official: \_\_\_\_\_



Date of JD: **4/30/2020**      Expiration Date of JD: **Not applicable**

**SAW-2017-00321**

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at [http://corpsmapu.usace.army.mil/cm\\_apex/f?p=136:4:0](http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0)

Copy furnished:

Property Owner: **NCDOT**  
**Chris Rivenbark**  
Address: **1598 Mail Service Center**  
**Raleigh, NC 27699**  
Telephone Number: **919-707-6152**  
E-mail: **crivenbark@ncdot.gov**

**NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND  
REQUEST FOR APPEAL**

Applicant: **ACOM, Ron Johnson**

File Number: **SAW-2017-00321**

Date: **4/30/2020**

Attached is:

See Section below

<input type="checkbox"/>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
<input type="checkbox"/>	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
<input type="checkbox"/>	PERMIT DENIAL	C
<input type="checkbox"/>	APPROVED JURISDICTIONAL DETERMINATION	D
<input checked="" type="checkbox"/>	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx> or the Corps regulations at 33 CFR Part 331.

**A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.**

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

**B: PROFFERED PERMIT: You may accept or appeal the permit**

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**C: PERMIT DENIAL:** You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**D: APPROVED JURISDICTIONAL DETERMINATION:** You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the district engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**E: PRELIMINARY JURISDICTIONAL DETERMINATION:** You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

**SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT**

**REASONS FOR APPEAL OR OBJECTIONS:** (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

**ADDITIONAL INFORMATION:** The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

**POINT OF CONTACT FOR QUESTIONS OR INFORMATION:**

If you have questions regarding this decision and/or the appeal process you may contact:

**District Engineer, Wilmington Regulatory Division  
Attn: James Lastinger  
Raleigh Regulatory Office  
U.S Army Corps of Engineers  
3331 Heritage Trade Drive, Suite 105  
Wake Forest, North Carolina 27587**

If you only have questions regarding the appeal process you may also contact:

**Mr. Phillip Shannin, Administrative Appeal Review Officer  
CESAD-PDO  
U.S. Army Corps of Engineers, South Atlantic Division  
60 Forsyth Street, Room 10M15  
Atlanta, Georgia 30303-8801  
Phone: (404) 562-5137**

**RIGHT OF ENTRY:** Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

_____	Date:	Telephone number:
Signature of appellant or agent.		

*For appeals on Initial Proffered Permits send this form to:*

**District Engineer, Wilmington Regulatory Division, Attn: James Lastinger , 69 Darlington Avenue, Wilmington, North Carolina 28403**

*For Permit denials, Proffered Permits and Approved Jurisdictional Determinations send this form to:*

**Division Engineer, Commander, U.S. Army Engineer Division, South Atlantic, Attn: Mr. Phillip Shannin, Administrative Appeal Officer, CESAD-PDO, 60 Forsyth Street, Room 10M15, Atlanta, Georgia 30303-8801  
Phone: (404) 562-5137**

**PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM**

**BACKGROUND INFORMATION**

- A. REPORT COMPLETION DATE FOR PJD:** 4/30/2020
- B. NAME AND ADDRESS OF PERSON REQUESTING PJD:** ACOM, Ron Johnson, 701 Corporate Center Dr., suite 475, Raleigh, NC 27607
- C. DISTRICT OFFICE, FILE NAME, AND NUMBER:** Wilmington District, U-5748, SAW-2017-00321
- D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:** The project site encompasses 374 acres as depicted on the attached PJD maps, and is identified as NCODT project U-5748, Mitchell Mill Road/Louisburg Road intersection, near the town of Raleigh, Wake County, North Carolina.

**(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)**

State: NC County: Wake City: Raleigh  
 Center coordinates of site (lat/long in degree decimal format): Latitude: 35.8860 Longitude: -78.5258

Universal Transverse Mercator:

Name of nearest waterbody: Neuse River

**E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

- Office (Desk) Determination. Date:
- Field Determination. Date(s): March 10, 2020

**TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION**

Site Number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resources in review area (acreage and linear feet, if applicable)	Type of aquatic resources (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
WA (PFO)	35.88111900	-78.53039800	0.38 acre	Wetland	Section 404
WA (PEM)	35.88111900	-78.53039800	1.53 acres	Wetland	Section 404
WB	35.88311400	-78.52742200	0.07 acre	Wetland	Section 404
WC (PFO)	35.88392000	-78.52964400	1.08 acre	Wetland	Section 404
WC (PEM)	35.88392000	-78.52964400	0.28 acre	Wetland	Section 404
WD (PFO)	35.88495900	-78.52803400	1.56 acre	Wetland	Section 404
WD (PEM)	35.88495900	-78.52803400	0.68 acre	Wetland	Section 404
WE	35.88396700	-78.52651800	0.37 acre	Wetland	Section 404
WF	35.89086700	-78.52453800	0.19 acre	Wetland	Section 404
WG	35.89027100	-78.51931600	0.23 acre	Wetland	Section 404
WH	35.88816400	-78.52091100	0.06 acre	Wetland	Section 404
WI	35.88683200	-78.52414200	0.30 acre	Wetland	Section 404
WJ	35.88694300	-78.52284400	0.59 acre	Wetland	Section 404
WK	35.88438100	-78.51323300	0.10 acre	Wetland	Section 404
Neuse River	35.88424700	-78.52808500	1,498 LF	Non-wetland	Section 404
SA (Per)	35.89053900	-78.52846700	246 LF	Non-wetland	Section 404
SA (Int)	35.89107900	-78.52814100	263 LF	Non-wetland	Section 404

SB	35.88488300	-78.52851700	3938 LF	Non-wetland	Section 404
SC	35.88682200	-78.52585400	2163 LF	Non-wetland	Section 404
SD	35.88937100	-78.51992600	630 LF	Non-wetland	Section 404
SE	35.88866300	-78.52077400	342 LF	Non-wetland	Section 404
SF (Int)	35.88703800	-78.52390500	260 LF	Non-wetland	Section 404
SG (Per)	35.88705100	-78.52163500	1180 LF	Non-wetland	Section 404
SG (Int)	35.88596600	-78.51814300	103 LF	Non-wetland	Section 404
SH	35.88632700	-78.52061900	116 LF	Non-wetland	Section 404
SK	35.88418800	-78.51328300	409 LF	Non-wetland	Section 404
PA	35.88809300	-78.52903600	0.80 acres	Non-wetland	Section 404
PB	35.88955400	-78.52877700	0.12 acre	Non-wetland	Section 404
PC	35.89193500	-78.52765000	0.93 acres	Non-wetland	Section 404
PD	35.89336300	-78.52312000	0.20 acre	Non-wetland	Section 404
PE	35.88960700	-78.52582000	1.31 acre	Non-wetland	Section 404

1. The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit

denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "may be" waters of the U.S. and/or that there "may be" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

**SUPPORTING DATA. Data reviewed for PJD (check all that apply)** Checked items are included in the administrative record and are appropriately cited:

Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:

Map: **attached delineation map dated March 2020**

Data sheets prepared/submitted by or on behalf of the PJD requestor. Datasheets:

Office concurs with data sheets/delineation report.

Office does not concur with data sheets/delineation report. Rationale: \_\_\_\_\_

Data sheets prepared by the Corps: \_\_\_\_\_

Corps navigable waters' study:

U.S. Geological Survey Hydrologic Atlas:

USGS NHD data:

USGS 8 and 12 digit HUC maps:

U.S. Geological Survey map(s). Cite scale & quad name: **Raleigh East, Wake Forest Quads**

Natural Resources Conservation Service Soil Survey. Citation: **NRCS websoil survey**

National wetlands inventory map(s). Cite name: **USFWS NWI**

State/local wetland inventory map(s): \_\_\_\_\_

FEMA/FIRM maps: **NC FIRM maps**

100-year Floodplain Elevation is: \_\_\_\_\_ (National Geodetic Vertical Datum of 1929)

Photographs:  Aerial (Name & Date): **NC One Map 2015**

or  Other (Name & Date):

Previous determination(s). File no. and date of response letter: \_\_\_\_\_

Other information (please specify):

**IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.**



\_\_\_\_\_  
Signature and date of Regulatory  
staff member completing PJD  
4/30/2020

\_\_\_\_\_  
Signature and date of person requesting PJD  
(REQUIRED, unless obtaining the signature is  
impracticable)<sup>1</sup>

<sup>1</sup> Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.



Div:	5	TIP#	U-5748	Figure	3-1
Date:	March 2020				

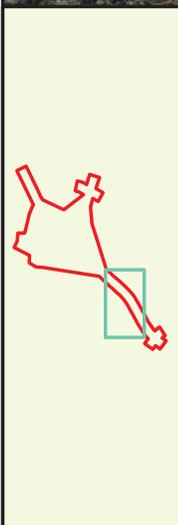
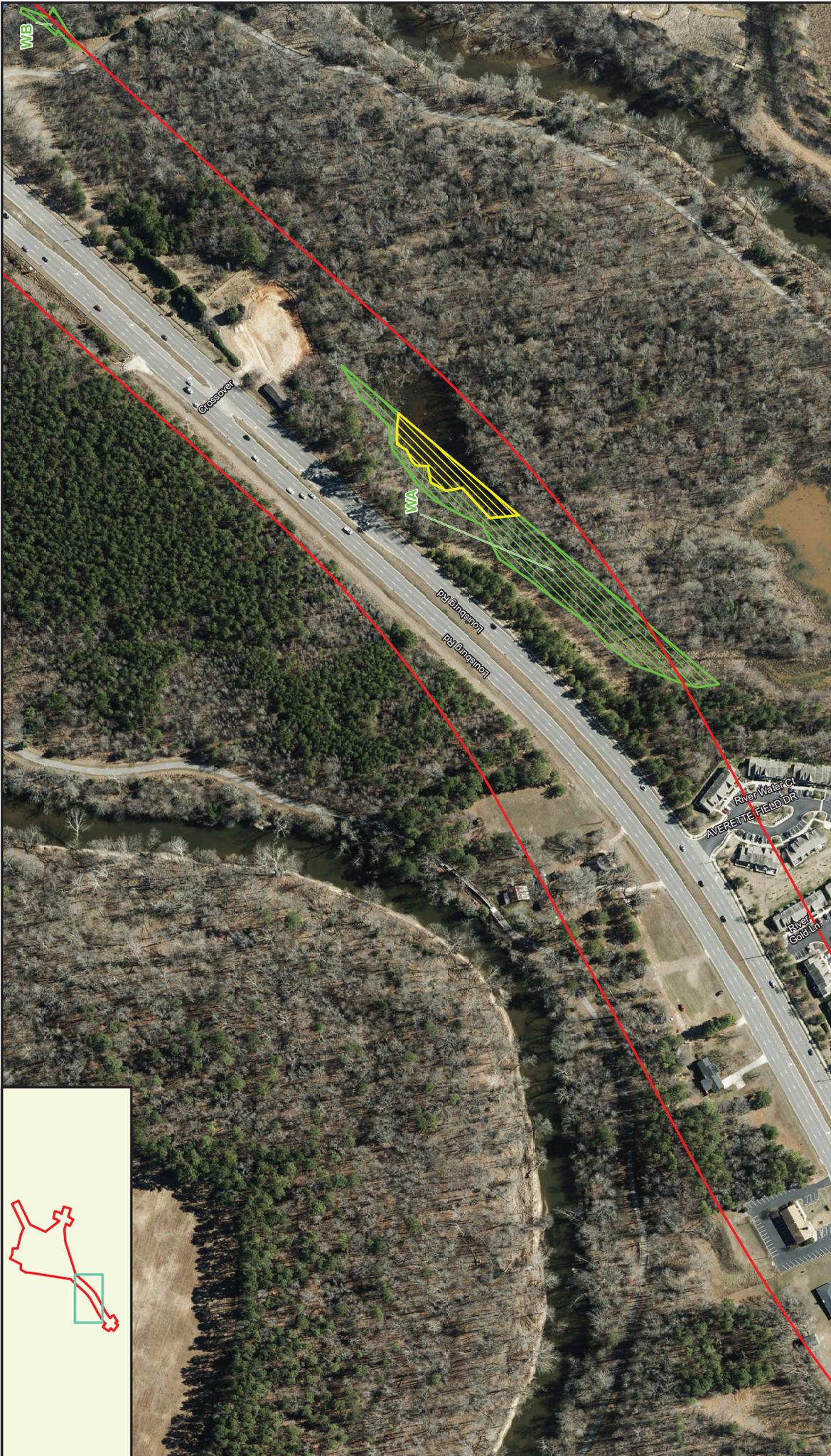


**JURISDICTIONAL FEATURES AERIAL MAP**  
 Intersection Upgrade of US 401 at  
 Ligon Mill Rd/Mitchell Mill Rd in Wake County, NC  
 TIP Project U-5748

**Legend**

	Study Area		Palustrine Emergent Wetland (PEM)		Intermittent Stream		Culvert
	Pond		Palustrine Forested Wetland (PFO)		Perennial Stream		

NORTH CAROLINA DEPARTMENT  
 OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 PROJECT DEVELOPMENT AND  
 ENVIRONMENTAL ANALYSIS UNIT



Div: 5  
 TIP#: U-5748  
 Date: March 2020

Neuse River  
 HUC 03020201

0 100 200 Feet

**Legend**

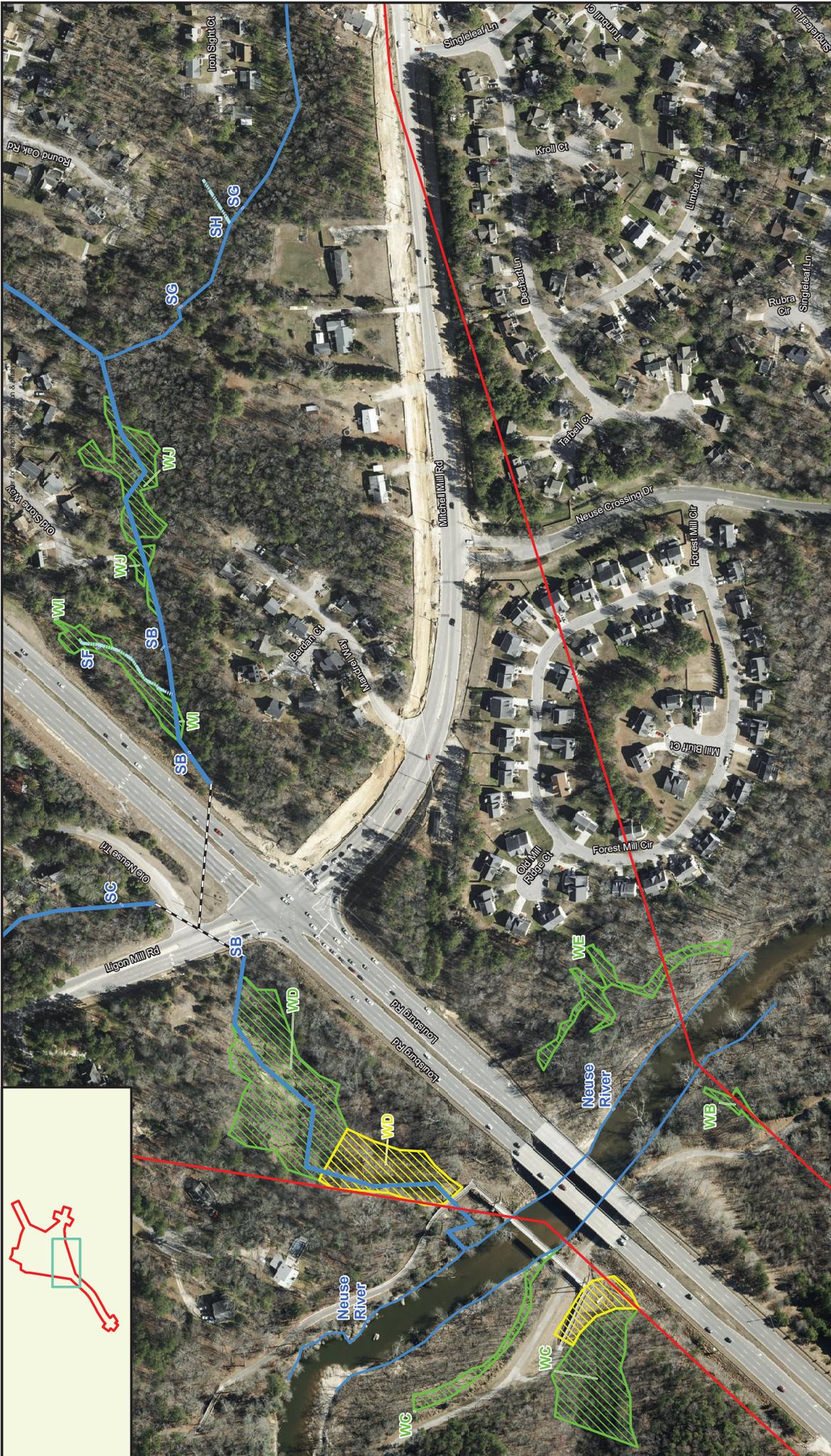
- Study Area
- Palustrine Emergent Wetland (PEM)
- Palustrine Forested Wetland (PFC)
- Pond
- Intermittent Stream
- Perennial Stream
- Culvert

**JURISDICTIONAL FEATURES AERIAL MAP**  
 Intersection Upgrade of US 401 at  
 Ligon Mill Rd/Mitchell Mill Rd in Wake County, NC  
 TIP Project U-5748

NORTH CAROLINA DEPARTMENT  
 OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 PROJECT DEVELOPMENT AND  
 ENVIRONMENTAL ANALYSIS UNIT



Figure  
**3-2**



**JURISDICTIONAL FEATURES AERIAL MAP**  
 Intersection Upgrade of US 401 at  
 Ligon Mill Rd/Mitchell Mill Rd in Wake County, NC  
 TIP Project U-5748

**Figure 3-3**

Div: 5    TIP#: U-5748  
 Date: March 2020

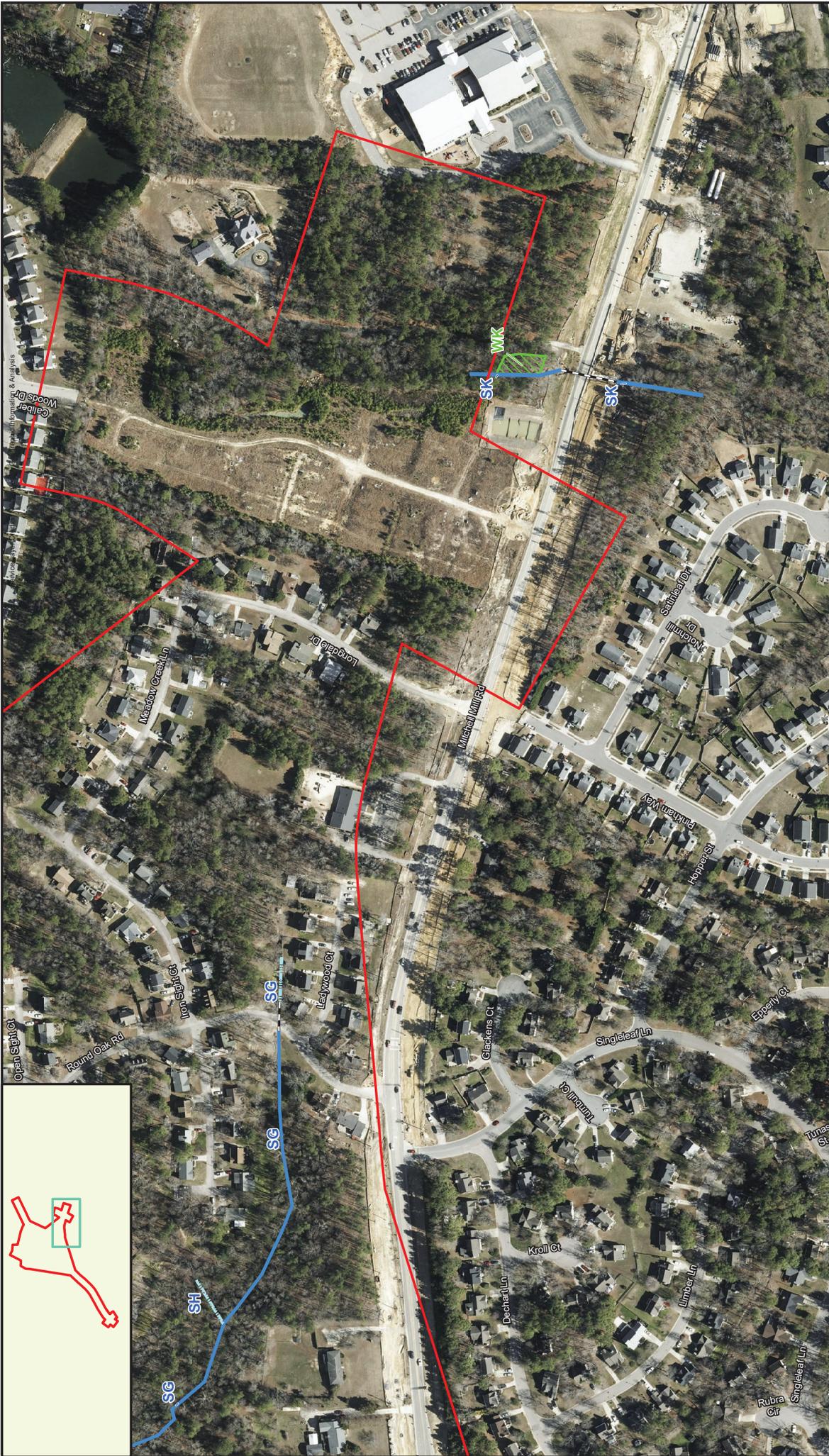
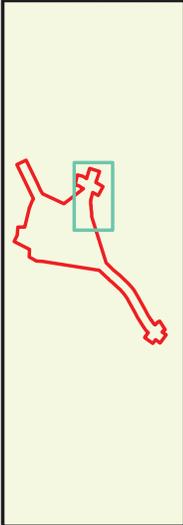
**Legend**

- Study Area
- Pond
- Palustrine Emergent Wetland (PEM)
- Palustrine Forested Wetland (PFC)
- Intermittent Stream
- Perennial Stream
- Culvert

Neuse River  
 HUC 03020201

0 100 200 Feet

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS UNIT



<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS UNIT</p>	<p><b>JURISDICTIONAL FEATURES AERIAL MAP</b> Intersection Upgrade of US 401 at Ligon Mill Rd/Mitchell Mill Rd in Wake County, NC</p>		<p><b>Legend</b></p> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid red; margin-right: 5px;"></span> Study Area</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: lightblue; margin-right: 5px;"></span> Pond</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px dashed yellow; margin-right: 5px;"></span> Palustrine Emergent Wetland (PEM)</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px dashed green; margin-right: 5px;"></span> Palustrine Forested Wetland (PFC)</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px dotted blue; margin-right: 5px;"></span> Intermittent Stream</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid blue; margin-right: 5px;"></span> Perennial Stream</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; margin-right: 5px;"></span> Culvert</li> </ul>	<p><b>Neuse River</b> HUC 03020201</p> <p>0 100 200 Feet</p>	<p>Div: 5 TIP# U-5748 Date: March 2020</p> <p><b>Figure 3-4</b></p>
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Div: 5  
 TIP#: U-5748  
 Date: March 2020

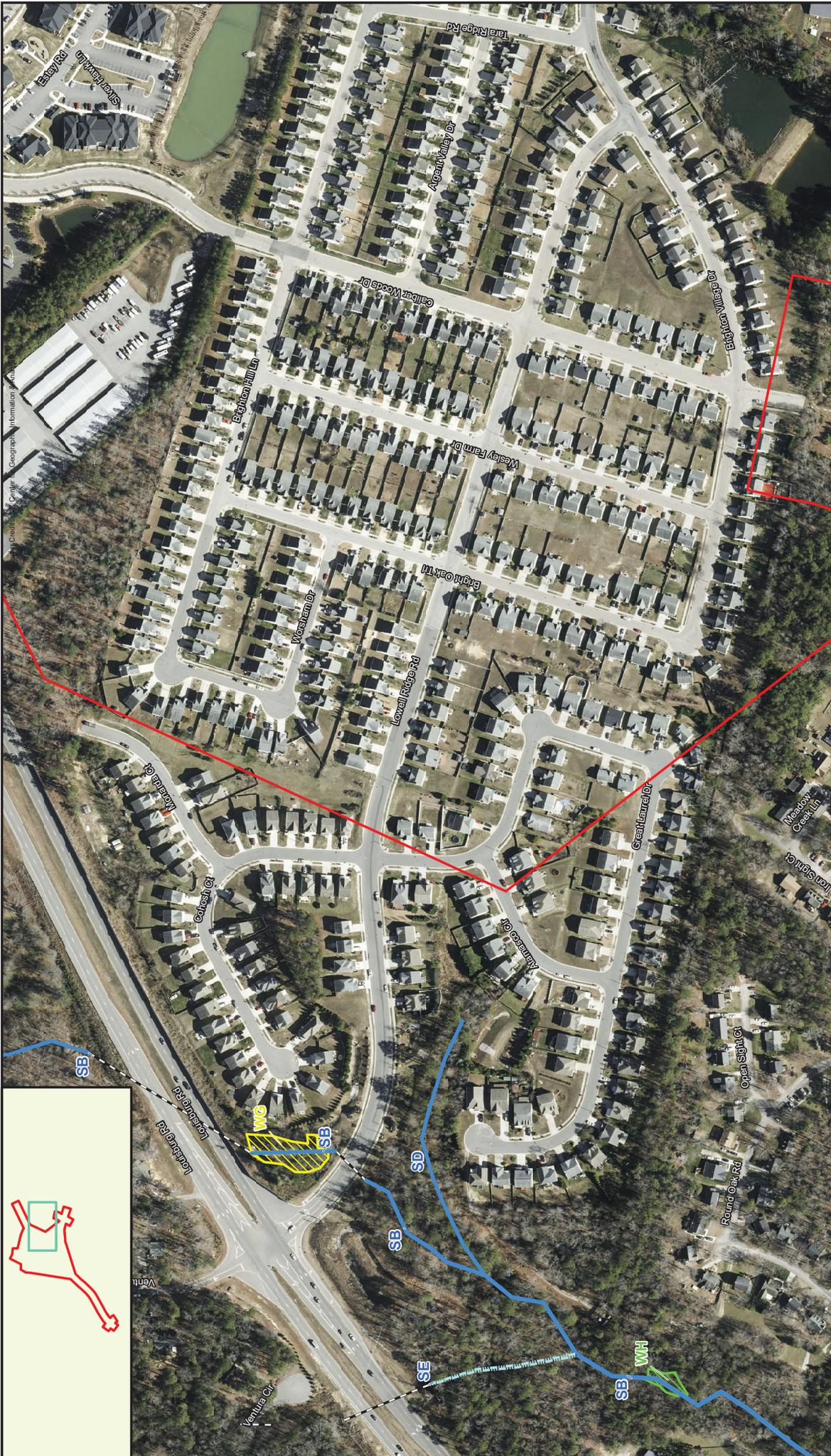
North Arrow  
 Neuse River  
 HUC 03020201  
 Scale: 0 100 200 Feet

**Legend**  
 Study Area (Red outline)  
 Pond (Blue fill)  
 Palustrine Emergent Wetland (PEM) (Yellow hatched)  
 Palustrine Forested Wetland (PFC) (Green hatched)  
 Intermittent Stream (Dotted line)  
 Perennial Stream (Solid blue line)  
 Culvert (Dashed line)

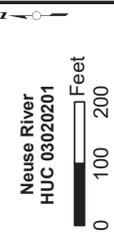
**JURISDICTIONAL FEATURES AERIAL MAP**  
 Intersection Upgrade of US 401 at  
 Ligon Mill Rd/Mitchell Mill Rd in Wake County, NC  
 TIP Project U-5748

NORTH CAROLINA DEPARTMENT  
 OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 PROJECT DEVELOPMENT AND  
 ENVIRONMENTAL ANALYSIS UNIT





Div:	5	TIP#	U-5748
Date:	March 2020	Figure	3-6

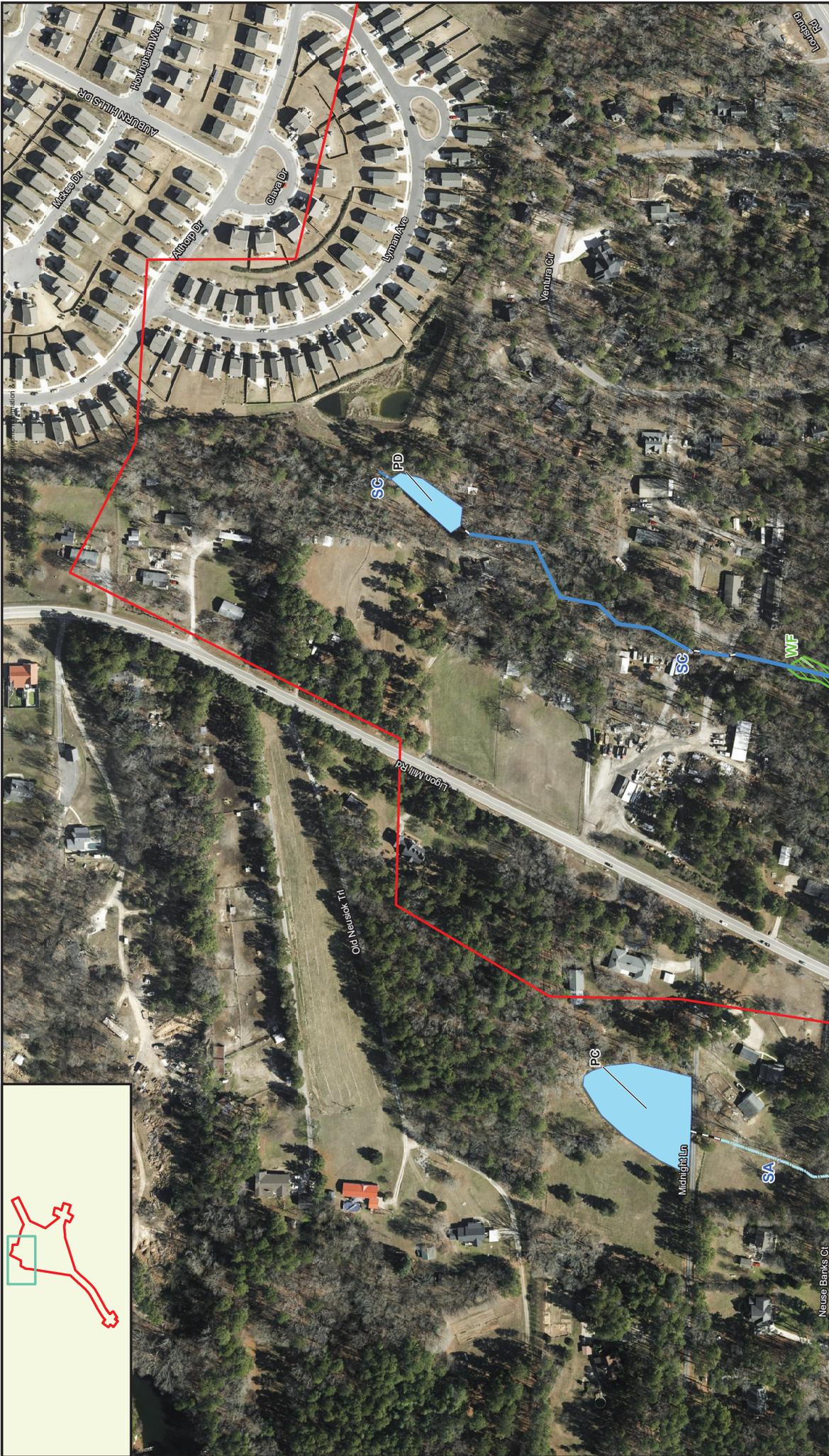
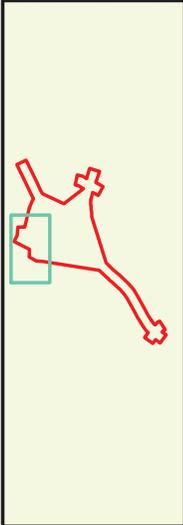


**Neuse River**  
HUC 03020201

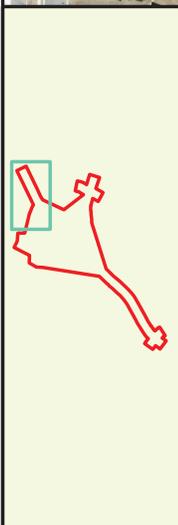
	Study Area		Palustrine Emergent Wetland (PEM)		Intermittent Stream		Culvert
	SB		Palustrine Forested Wetland (PFO)		Perennial Stream		
	Pond						

**JURISDICTIONAL FEATURES AERIAL MAP**  
 Intersection Upgrade of US 401 at  
 Ligon Mill Rd/Mitchell Mill Rd in Wake County, NC  
 TIP Project U-5748

NORTH CAROLINA DEPARTMENT  
 OF TRANSPORTATION  
 PROJECT DEVELOPMENT AND  
 ENVIRONMENTAL ANALYSIS UNIT



		<b>JURISDICTIONAL FEATURES AERIAL MAP</b> Intersection Upgrade of US 401 at Ligon Mill Rd/Mitchell Mill Rd in Wake County, NC TIP Project U-5748	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS UNIT		<b>Legend</b> <ul style="list-style-type: none"> <li><span style="border: 1px solid red; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Study Area</li> <li><span style="background-color: lightblue; border: 1px solid blue; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Pond</li> <li><span style="background-color: yellow; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Palustrine Emergent Wetland (PEM)</li> <li><span style="background-color: lightgreen; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Palustrine Forested Wetland (PFO)</li> <li><span style="border-bottom: 1px dotted blue; width: 15px; display: inline-block; margin-right: 5px;"></span> Intermittent Stream</li> <li><span style="border-bottom: 1px solid blue; width: 15px; display: inline-block; margin-right: 5px;"></span> Perennial Stream</li> <li><span style="border-bottom: 1px dashed black; width: 15px; display: inline-block; margin-right: 5px;"></span> Culvert</li> </ul>	
Div: 5	TIP#: U-5748	Neuse River HUC 03020201	
Date: March 2020			Figure <b>3-7</b>



Div:	5	TIP#	U-5748	Figure	3-8
Date:	March 2020				

Neuse River  
HUC 03020201

0 100 200 Feet

**Legend**

- Study Area (Red outline)
- Pond (Blue fill)
- Palustrine Emergent Wetland (PEM) (Yellow hatched)
- Palustrine Forested Wetland (PFO) (Green hatched)
- Intermittent Stream (Blue dashed line)
- Perennial Stream (Blue solid line)
- Culvert (Black dashed line)

**JURISDICTIONAL FEATURES AERIAL MAP**  
 Intersection Upgrade of US 401 at  
 Ligon Mill Rd/Mitchell Mill Rd in Wake County, NC  
 TIP Project U-5748

NORTH CAROLINA DEPARTMENT  
 OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 PROJECT DEVELOPMENT AND  
 ENVIRONMENTAL ANALYSIS UNIT

## Rivenbark, Chris

---

**Subject:** FW: [External] Re: U-5748 Atlantic sturgeon concurrence

---

**From:** Fritz Rohde - NOAA Federal <[fritz.rohde@noaa.gov](mailto:fritz.rohde@noaa.gov)>  
**Sent:** Tuesday, November 2, 2021 10:20 AM  
**To:** Dilday, Jason L <[jldilday@ncdot.gov](mailto:jldilday@ncdot.gov)>  
**Subject:** [External] Re: U-5748 Atlantic sturgeon concurrence

**CAUTION:** External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [Report Spam](#).

All of those constraints should cover sturgeon concerns  
Fritz

Sent from my iPhone

On Nov 1, 2021, at 9:36 AM, Dilday, Jason L <[jldilday@ncdot.gov](mailto:jldilday@ncdot.gov)> wrote:

Fritz,  
I had spoken to you awhile back about the Neuse River and the removal of the Milburnie Dam. The critical habitat as defined stops at the location of the former dam, but now with it gone, there are no obvious impediments to upstream movements. We are currently working on the permit application for the improvements of Ligon Mill Road and Mitchell Mill Road with US401 in Wake County. Along with this work, the bridges over the Neuse River on US401 will be widened. This will result in an additional four bents in the water to accommodate the widening. Currently due to the Neuse being within an Identified Stream Reach (ISR) for numerous freshwater mussel species, as well as the Neuse waterdog and Carolina madtom, NCDOT has agreed to abide by construction conditions from the USFWS Programmatic Biological Opinions for freshwater mussels and Neuse River waterdog/Carolina madtom. Also, WRC has asked for an in-water work moratorium from February 15-June 30.

Are there any additional measures NCDOT should implement in regards to Atlantic sturgeon?

Jason

**Jason Dilday**  
Environmental Program Consultant  
Environmental Coordination & Permitting  
North Carolina Department of Transportation

919 707 6111 office  
[jldilday@ncdot.gov](mailto:jldilday@ncdot.gov)

1598 Mail Service Center  
Raleigh, NC 27699-1598

1000 Birch Ridge Drive  
Raleigh, NC 27610

ROY COOPER  
Governor  
ELIZABETH S. BISER  
Secretary



October 26, 2021

Mr. Philip S. Harris, P.E., CPM  
Environmental Analysis Unit  
North Carolina Department of Transportation  
1598 Mail Service Center  
Raleigh, North Carolina 27699-1598

Dear Mr. Harris:

Subject: Mitigation Acceptance Letter:

**U-5748**, US 401 Intersection Improvements at SR 2044 (Ligon Mill Road), SR 2224 (Mitchell Mill Road) and SR 2006 (Perry Creek Road), Wake County

The purpose of this letter is to notify you that the North Carolina Department of Environmental Quality – Division of Mitigation Services (NCDEQ-DMS) will provide the buffer mitigation for the subject project. Based on the information received from you on October 26, 2021, the impacts are located in CU 03020201 of the Neuse River basin in the Central Piedmont (CP) Eco-Region, and are as follows:

Neuse 03020201 CP	Stream			Wetlands			Buffer (Sq. Ft.)	
	Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh	Zone 1	Zone 2
Impacts (feet/acres)	0	0	0	0	0	0	65,105.000	51,170.000

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 buffer mitigation will be provided in the agreed upon method of fund transfer. Upon receipt of the NCDWR's Buffer Authorization Certification, DMS will transfer funds from the NCDOT 2984 Fund into the Riparian Restoration Buffer Fund. Upon completion of the transfer payment, NCDOT will have complete its riparian buffer mitigation responsibility for TIP Number U-5748 in Wake County. Subsequently, DMS will conduct a review of current NCDOT ILF Program mitigation projects in the river basin to determine if available buffer mitigation credits exist prior to procuring new buffer assets. If there are buffer mitigation credits available, then the Riparian Restoration Buffer Fund will purchase the appropriate amount of buffer mitigation credits from the NCDOT ILF Program.

If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-707-8420.

Sincerely,

A handwritten signature in cursive script that reads "Elizabeth Harmon".

James B. Stanfill  
DMS Asset Management Supervisor

cc: Ms. Amy Chapman, NCDWR – Raleigh  
File: U-5748



North Carolina Department of Environmental Quality | Division of Mitigation Services  
217 West Jones Street | 1652 Mail Service Center | Raleigh, North Carolina 27699-1652  
919.707.8976

Jeffrey's Warehouse Mitigation Site  
ONEID 096-003

The Jeffrey's Warehouse Mitigation Site is located in Wayne County within the USGS hydrologic unit 03020201 of the Neuse River. NCDOT acquired the 93.16 acre site to mitigate for unavoidable, jurisdictional impacts associated with TIP R-1030AA. Monitoring requirements were performed from 2007 to 2011 and the site was closed out in 2012. Table 1 shows the final mitigation quantities approved for the site. The site has been placed on the NCDOT On-site Debit Ledger for use within HUC 03020201. Tables 2-6 indicate all mitigation debits that have occurred per regulatory agency approval.

In order to offset unavoidable impacts affiliated with U-5748, the Jeffrey's Warehouse Mitigation Site will be debited 1105 linear ft of credit to offset 552.5 linear feet of impacts associated with this project. Debits are shown below.

Table 1. Mitigation Quantities Approved

Mitigation Type	Debit Amount	Starting Amount	Notes
3020201	Non Riparian Wetland Restoration	16.23	
3020201	Riparian Wetland Preservation	12.36	
3020201	Riparian Wetland Restoration	3.66	
3020201	Stream Restoration	3731	
3020201	Buffer Restoration	316507	

Table 2. Mitigation Debits – Non Riparian Wetlands

Mitigation Type	Debit Amount	Status	Site TIP	Action ID#	Notes
Non Riparian Restoration	2.76	Close Out	R-2719A	2008-02460	
Non Riparian Restoration	0.92	Close Out	B-4304	2004-20510	
Non Riparian Restoration	1.96	Close Out	R-2814A&B	2008-01316	

Table 3. Mitigation Debits – Riparian Wetland Preservation

Mitigation Type	Debit Amount	Status	Site TIP	Action ID#	Notes
Riparian Wetland Preservation	3.05	Close Out	R-2814A&B	2008-01316	
Riparian Wetland Preservation	8.61	Close Out	R-2554A	2008-00252	

Table 4. Mitigation Debits – Riparian Wetland Restoration

Mitigation Type	Debit Amount	Status	Site TIP	Action ID#	Notes
Riparian Wetland Restoration	2.49	Close Out	R-2814A&B	2008-01316	
Riparian Wetland Restoration	0.21	Close Out	R-2554A		
Riparian Wetland Restoration	0.22	Close Out	B-4659	2009-01781	2:1 Ratio
Riparian Wetland Restoration	0.3	Close Out	I-3318BB		Proposed Debit. NCDOT was required to mitigate at a 2:1 ratio
Riparian Wetland Restoration	0.44		W-5600		0.44 impacts at 1:1 ratio

Table 5. Mitigation Debits – Stream Restoration

Mitigation Type	Debit Amount	Status	Site TIP	Action ID#	Notes
Stream Restoration	452	Close Out	B-3528 226ft@2:1	2008-00153	226ft@2:1
Stream Restoration	61	Close Out	U-4011	2005-20914	
Stream Restoration	25	Close Out	U-3344A	2003-20445	
Stream Restoration	279	Close Out	EB-4993	2011-00602	
Stream Restoration	174	Close Out	R-3825a	2011-01695	
Stream Restoration	20	Close Out	I-5311/I-5338	2013-00068	

Mitigation Type	Debit Amount	Status	Site TIP	Action ID#	Notes
Stream Restoration	151	Close Out	I-5506		Debit from the permit application
Stream Restoration	83	Close Out	Bridge 277 over Black Creek on Old stage Rd (SR 1006)		Unable to find documentation to confirm
Stream Restoration	1222	Close Out	I-5700		611 @ 2:1
Stream Restoration	1105	Close Out	U-5748		552.5 ft of impacts at 2:1 ratio

Table 6. Mitigation Debits – Buffer Restoration

Mitigation Type	Debit Amount	Status	Site TIP	Action ID#	Notes
Buffer Restoration	38648	Close Out	B-4300	2004-20705	
Buffer Restoration	161453	Close Out	R-2719A	2008-02460	
Buffer Restoration	3653	Close Out	B-4304	2004-20510	
Buffer Restoration	16398	Close Out	B-4592	2008-02056	
Buffer Restoration	24458	Close Out	U-4703	2005-20126	
Buffer Restoration	45558	Close Out	U-3344A	2003-20445	
Buffer Restoration	11393	Close Out	Div Proj. SR 1340	2010-00420	

Mitigation Type	Debit Amount	Status	Site TIP	Action ID#	Notes
Buffer Restoration	2199	Close Out	DIV Proj SR1204	No action ID due to a non-reporting NWP14	
Buffer Restoration	3861	Close Out	I-5311/I5338	2013-00068	

Oakwood Cemetery Mitigation Site  
ONEID 092-006

The Oakwood Cemetery Site is located in Wake County within the USGS hydrologic unit 03020101 of the Neuse River. NCDOT acquired the site to mitigate for unavoidable, jurisdictional impacts associated with TIP R-2000ER-2000EA/EB. Table 1 shows the final mitigation quantities approved for the site. Table 2 indicates all mitigation debits that have occurred per regulatory agency approval.

To offset unavoidable impacts associated with U-5748, the Oakwood Cemetery mitigation site will be debited 329 linear of credit to offset 164.5 linear ft of impacts. The table below reflects the debits

Table 1. Mitigation Quantities Approved

HUC	Mitigation Type	Starting Amount	Additional Notes
3020101	Stream Restoration	1300	

Table 2. Mitigation Debits – Stream Restoration

Mitigation Type	Debit Amount	Status	SITE TIP	Action ID#	Notes
Stream Restoration	519	Close Out	R-2000ER-2000EA/EB	199601917	
Stream Restoration	329	Close Out	U-5748		164.5 ft of impacts at 2:1 ratio

## Pancho Wetland

The Pancho Stream and Wetland mitigation site is located on the North and South sides of Stevens Mill Road, northeast of Newton Grove and South west of Princeton in Wayne County NC. The mitigation site is adjacent to and including Kennedy Mill Branch, within the Neuse River Basin, Hydrologic Code (HUC) 03020201.

NCDOT has acquired 4.482 acres of riparian wetland credit to offset the impacts associated with future TIP's. U-4758 has 0.20 acres of impacts that will be debited at a 2:1 ratio and 0.17 acres of impacts that will be debited at a 1:1 ratio. This total of 0.57 acres of mitigation is shown in the table below and will be debited from the Pancho Wetland Mitigation site.

Debits:

Site Name	TIP	Debit Amount	Permit Date	Notes	Links
Pancho Wetland	I3306A	0.36		0.18 IMPACTS @ 2:1	
Pancho Wetland	u-4758	0.57		0.20 ac @2:1 0.17 ac @1:1(IMPACTS)	



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

JAMES H. TROGDON, III  
SECRETARY

February 5, 2020

Ms. Tiffani Bylow  
Restoration Systems, LLC  
1101 Haynes St. Suite 211  
Raleigh, North Carolina

RE: Pancho Stream & Wetland Mitigation Bank Contracts Performance Bond  
Mitigation Credit Agreement Purchase Contracts #7700002153 & #7700002000  
(formerly #6300050227)

Dear Ms. Bylow:

We have received your request for the release in the Contract Performance Bond regarding the above referenced Contracts. We have the signed Credit Release letter and Transfer of Credit Affidavits for all purchased credits and the contracts have been fulfilled. The bond may be released.

Sincerely,

*LeiLani Paugh*

LeiLani Paugh  
Mitigation and Modeling Group Supervisor  
NCDOT EAU



**PANCHO STREAM AND WETLAND MITIGATION BANK  
TRANSFER OF CREDIT AFFIDAVIT**

Permittee: NC DEPARTMENT OF TRANSPORTATION  
Project Name: Transportation Improvement Projects

**Compensatory Mitigation Credits:** 4.482 riparian wetland credits  
**Mitigation Site Debited:** Pancho Stream & Wetland Mitigation Bank

Mitigation Site Info: Located in Wayne County, Neuse River Basin, and Cataloging Unit 03020201 and authorized by the Interagency Review Team (IRT) pursuant to the Pancho Stream & Wetland Mitigation Bank "Mitigation Banking Instrument" (MBI) approved April 12, 2012 (Bank).

**Statement of Mitigation Liability Acceptance:** I, the undersigned, verify that I am authorized to approve mitigation transactions for the Mitigation Sponsor shown below, and I certify that the Sponsor agrees to accept full responsibility for providing the mitigation identified in this document, associated with the USACE Permittee shown. I also verify that released credits, as approved by the USACE, are currently available at the mitigation site identified above.

**Mitigation Sponsor Name:** Restoration Systems, LLC

**Name of Sponsor's Authorized Representative:** John Preyer

  
\_\_\_\_\_  
Signature of Sponsor's Authorized Representative

2/21/2018  
\_\_\_\_\_  
Date of Signature

Submitted 11/5/2021

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**WAKE COUNTY**

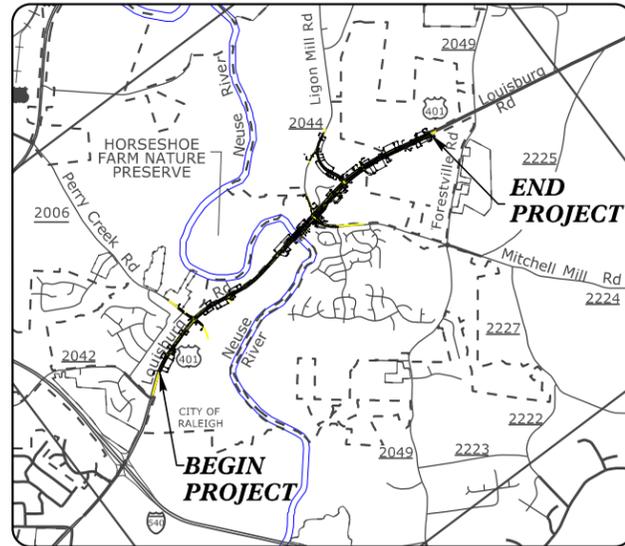
**LOCATION: US 401 (LOUISBURG RD) AT SR 2044 (LIGON MILL RD) /  
SR 2224 (MITCHELL MILL RD) AND SR 2006 (PERRY CREEK  
ROAD) INTERSECTION IMPROVEMENTS**  
**TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNALS, AND STRUCTURES**

**WETLAND AND SURFACE WATER IMPACTS PERMIT**

**NOVEMBER 2021**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5748	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
50168.1.1		PE	
50168.2.1		RW	

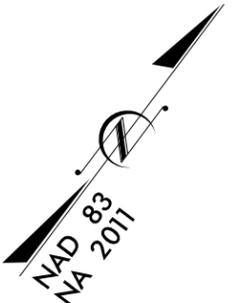
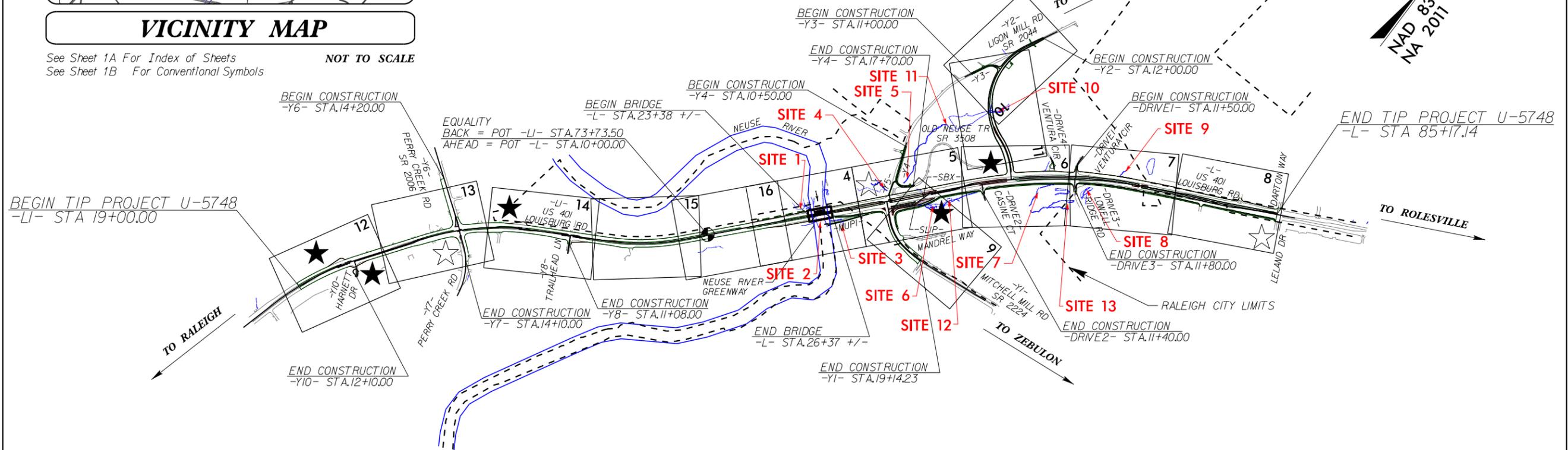
DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



**VICINITY MAP**

See Sheet 1A For Index of Sheets  
See Sheet 1B For Conventional Symbols

NOT TO SCALE



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

CLEARING ON THE PROJECT SHALL BE TO THE LIMITS ESTABLISHED USING METHOD III.

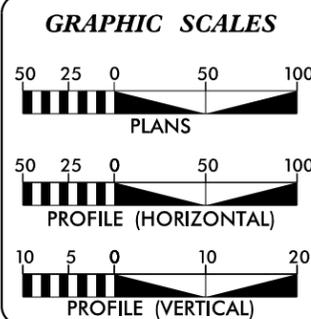
A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF RALEIGH.

**SUBMITTAL:** 25% ROADWAY PLANS  
**DATE:** JULY 27, 2021

**PERMIT DRAWING  
SHEET 1 OF 27**

★ PROPOSED SIGNAL  
☆ EXISTING SIGNAL

**CONTRACT:**



**DESIGN DATA**

ADT 2022 =	38,425
ADT 2042 =	58,842
K =	10 %
D =	55 %
T =	3% % *
V =	50 MPH
* TTST =	1% DUAL 2%
FUNC CLASS =	PRINCIPAL ARTERIAL REGIONAL TIER

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT U-5748 =	2.460 MI
LENGTH STRUCTURE TIP PROJECT U-5748 =	0.057 MI
TOTAL LENGTH TIP PROJECT U-5748 =	2.403 MI

Prepared In the Office of:

**AECOM**  
2018 STANDARD SPECIFICATIONS

NC FIRM LICENSE No: F-0342  
5438 Wade Park Blvd., Suite 200  
Raleigh, NC 27607  
(919) 854-6200 - (919) 854-6259(FAX)

**RIGHT OF WAY DATE:**  
FEBRUARY 19, 2021

**LETTING DATE:**  
OCTOBER 18, 2022

**NEIL J. DEAN, P.E.**  
PROJECT ENGINEER

**ELIZABETH WARGO, P.E.**  
PROJECT DESIGN ENGINEER

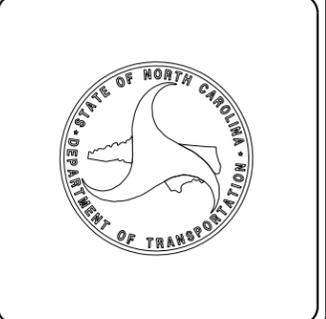
**JENNIFER EVANS, P.E.**  
NCDOT PROJECT ENGINEER

**HYDRAULICS ENGINEER**

SIGNATURE: \_\_\_\_\_ P.E.

**ROADWAY DESIGN ENGINEER**

SIGNATURE: \_\_\_\_\_ P.E.



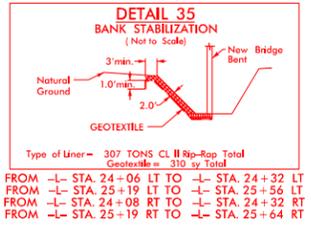
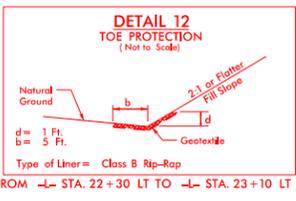
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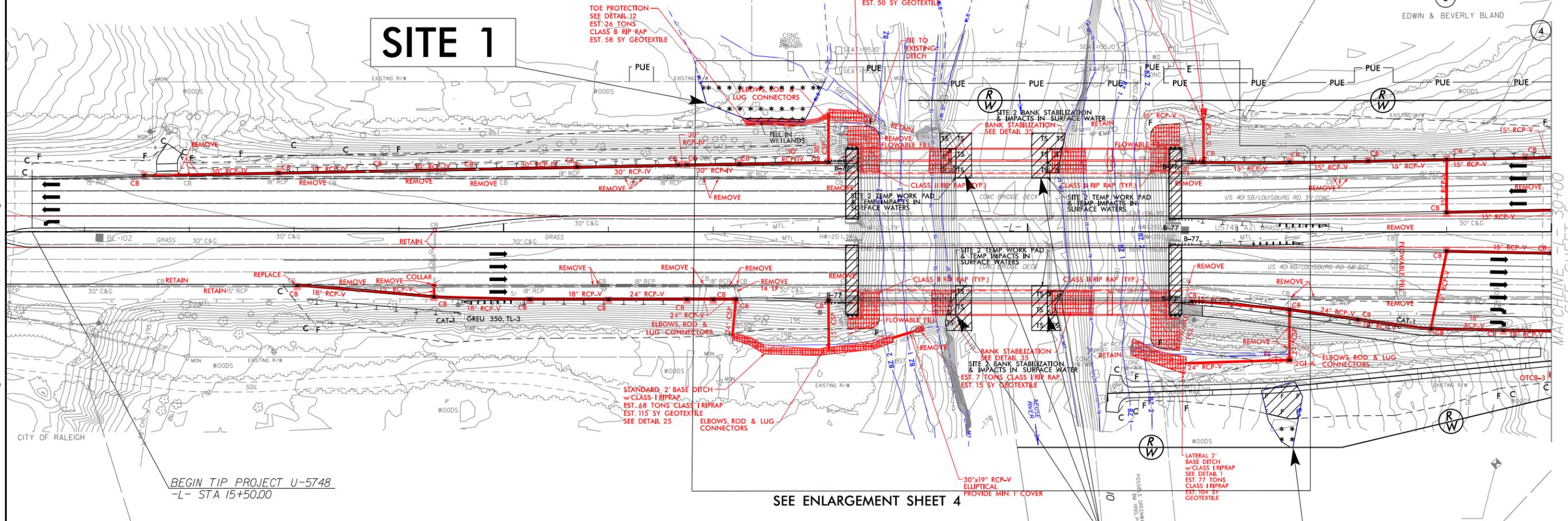
PERMIT DRAWING SHEET 3 OF 27

PROJECT REFERENCE NO. U-5748	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Prepared in the Office of: <b>AECOM</b> NC FIRM LICENSE No F-0342 70 Corporate Center Drive, Suite 475 Raleigh, NC 27607 (919) 854-6200 • (919) 854-6259 (fax)	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

MARY MURRAY

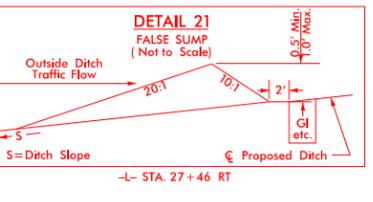
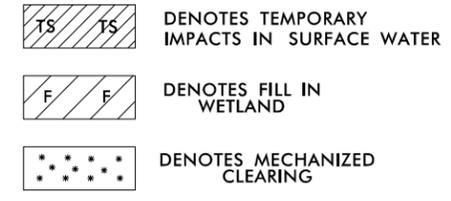
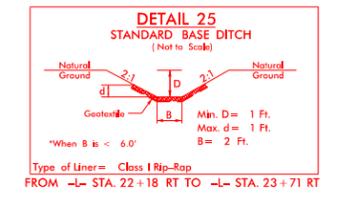
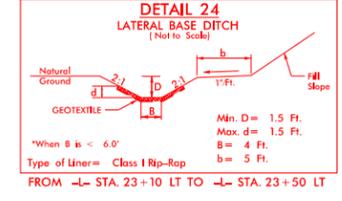
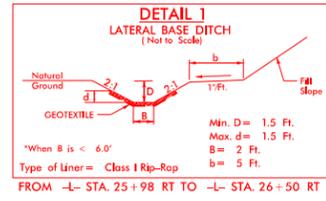


SITE 1



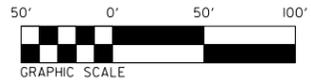
BEGIN TIP PROJECT U-5748 -L- STA 15+50.00

SEE ENLARGEMENT SHEET 4



SITE 2

SITE 3



FOR -L- PROFILE, SEE SHEET NO. 12 FOR -MUP- PROFILE, SEE SHEET NO. 22

5/14/99  
REVISIONS  
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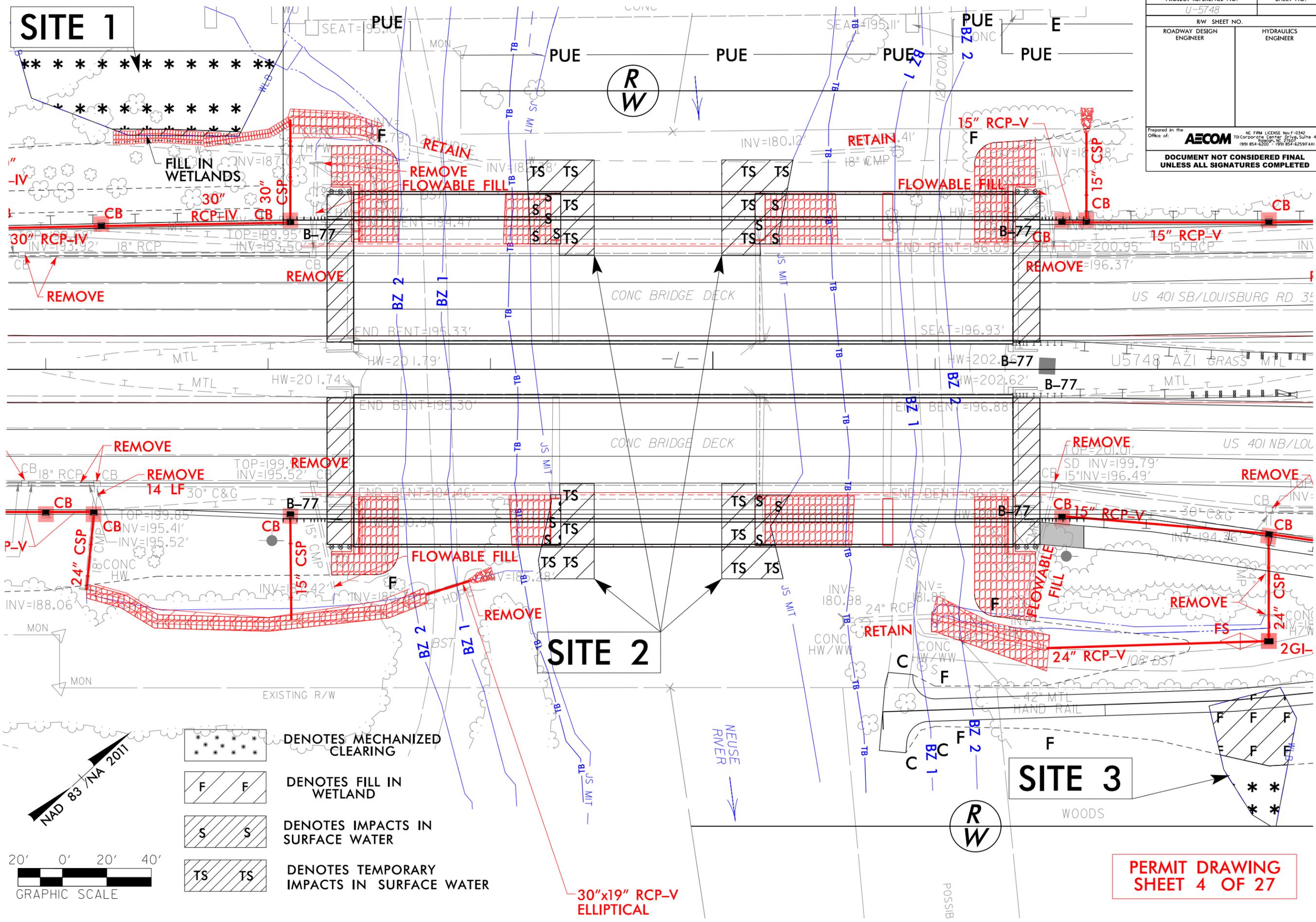
MATCHLINE 30+00 SEE SHEET 5

PROJECT REFERENCE NO. U-5748		SHEET NO.	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER		
<small>Prepared in the Office of:</small> <b>AECOM</b>			
<small>NC FIRM LICENSE No. F-0342  701 Corporate Center Drive, Suite 415  Raleigh, NC 27607  (919) 854-6200 • (919) 854-6259 (fax)</small>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

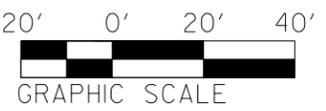
**SITE 1**

**SITE 2**

**SITE 3**



-  DENOTES MECHANIZED CLEARING
-  DENOTES FILL IN WETLAND
-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER

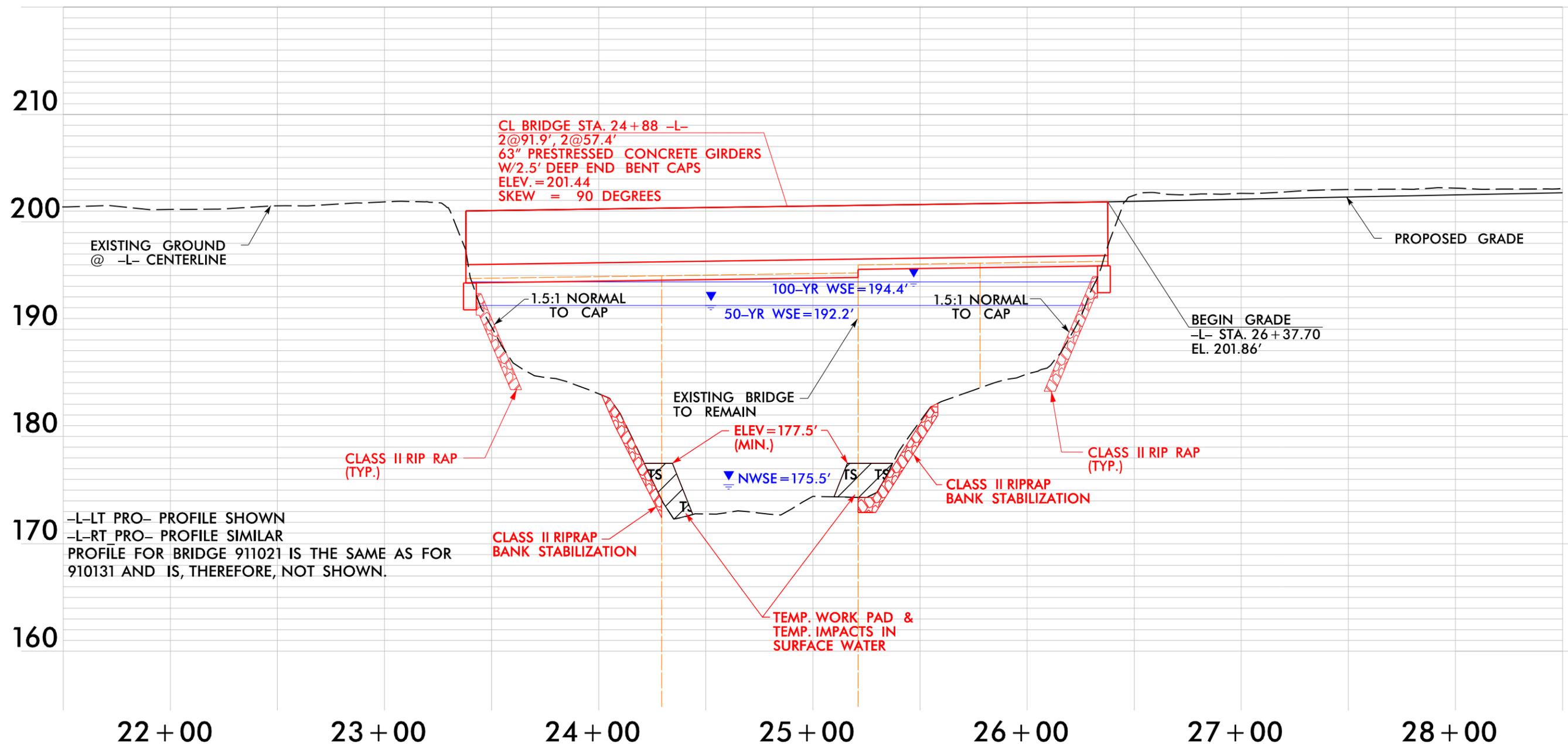


PERMIT DRAWING  
SHEET 4 OF 27

REVISIONS

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5/14/99  
AECOM

# SITE 2 – PROFILE VIEW ALONG STRUCTURE



-L-LT PRO- PROFILE SHOWN  
-L-RT PRO- PROFILE SIMILAR  
PROFILE FOR BRIDGE 911021 IS THE SAME AS FOR  
910131 AND IS, THEREFORE, NOT SHOWN.

## PROFILE

SCALE  
VERT. 1" = 10'  
HORIZ. 1" = 50'

PERMIT DRAWING  
SHEET 5 OF 27

NCDOT

DIVISION OF HIGHWAYS  
WAKE COUNTY

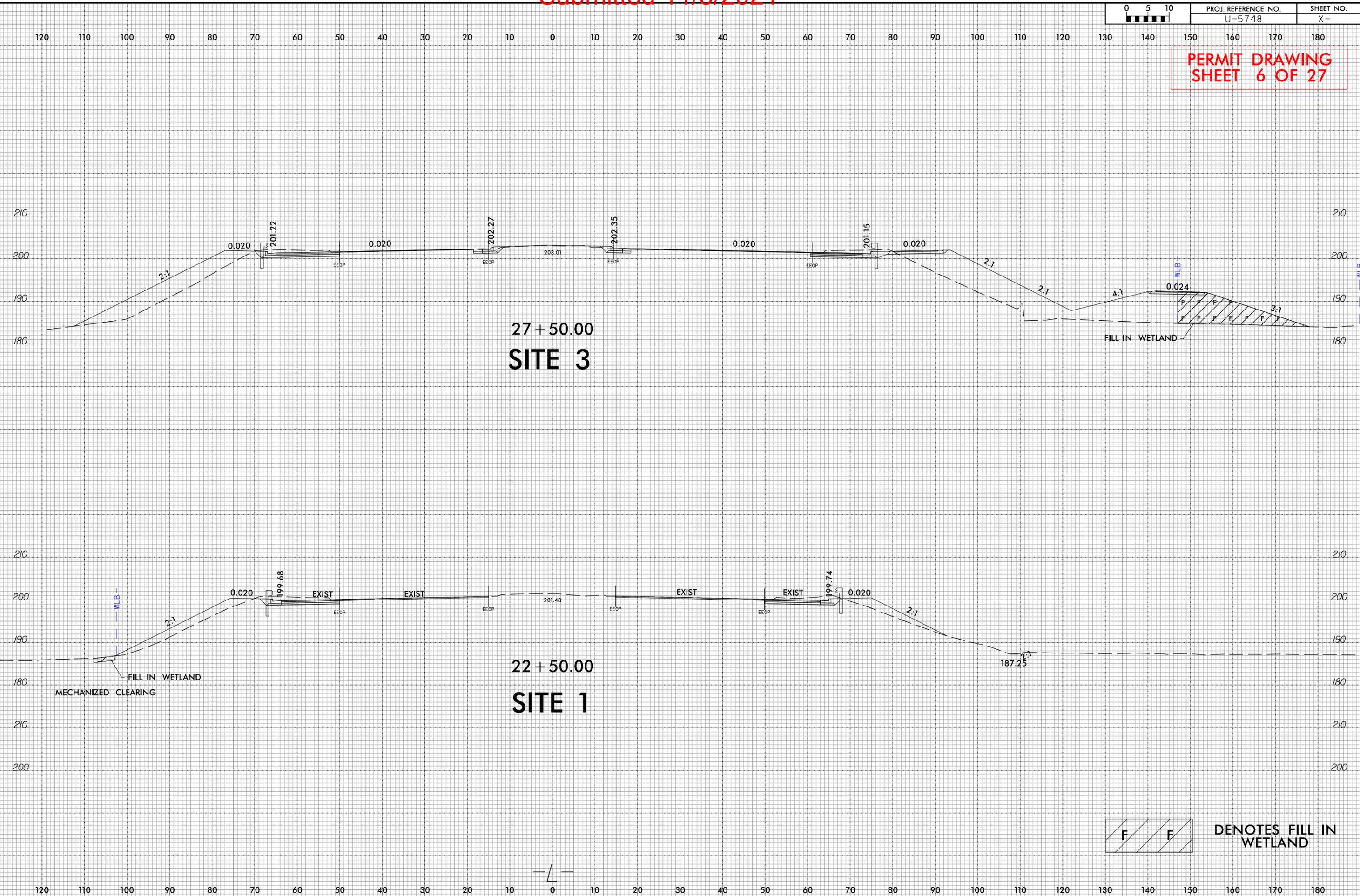
PROJECT: 50168.1.1 (U-5748)  
US 401 FROM SOUTH OF SR 2044//  
SR 2224 (LIGON MILL RD) TO LELAND DR



PROJ. REFERENCE NO.	SHEET NO.
U-5748	X-

6/23/16

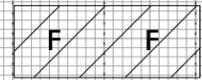
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PERMIT DRAWING SHEET 6 OF 27

27 + 50.00  
SITE 3

22 + 50.00  
SITE 1



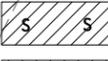
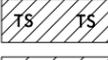
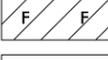
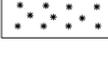
DENOTES FILL IN WETLAND



PERMIT DRAWING SHEET 7 OF 27

TRAFFIC DIAGRAM	
65,800 US-401	32,800 US 401
18,200 24,000	700 T-100
22,200 25,900	2021 ADT
	2041 ADT
	MITCHELL MILL RD

PROJECT REFERENCE NO.	SHEET NO.
U-5748	5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Prepared in the Office of: <b>AECOM</b> NC FIRM LICENSE No. F-0342 701 Corporate Center Drive, Suite 475 Raleigh, NC 27607 (919) 854-6200 • (919) 854-6259 (FAX)	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

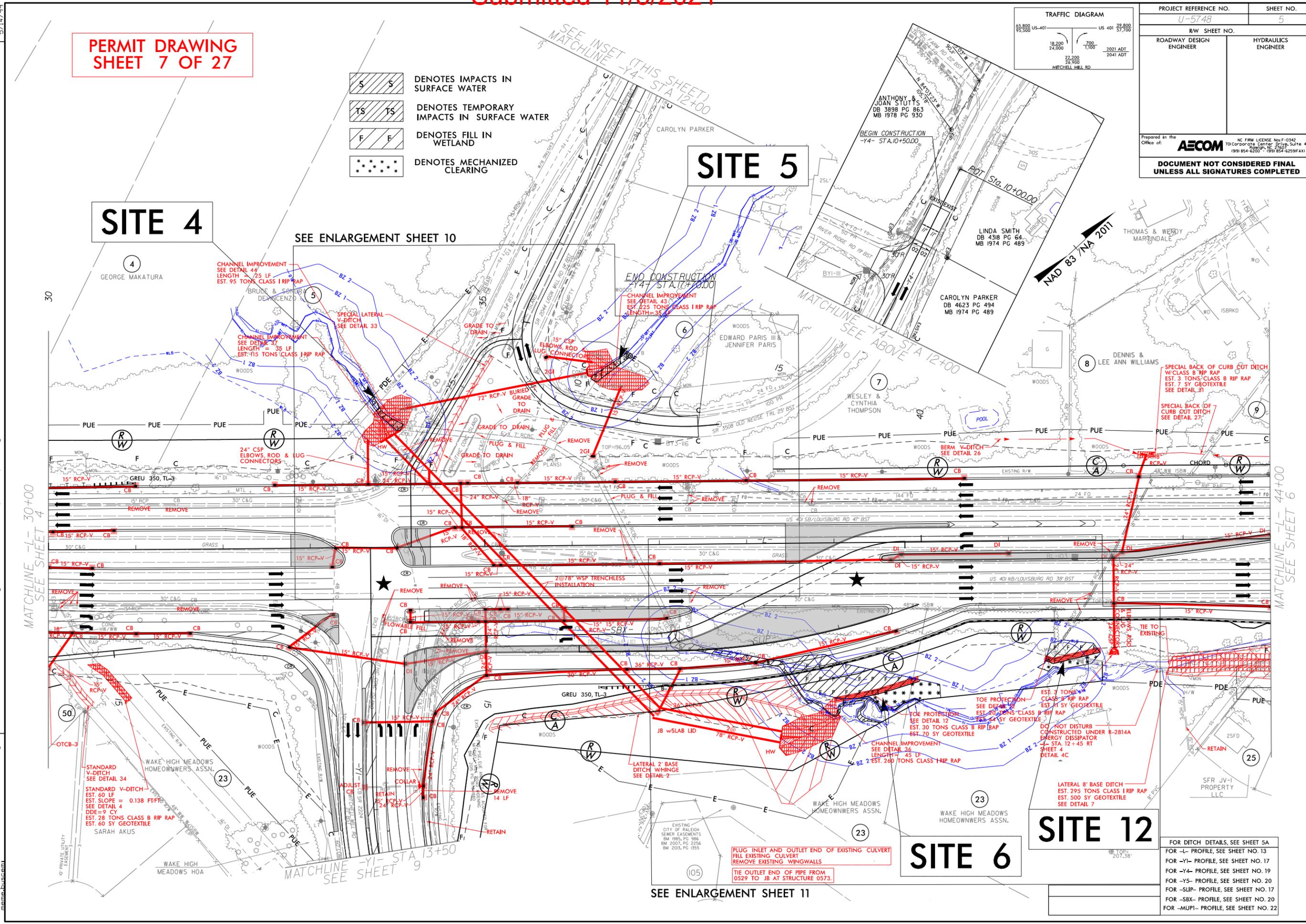
-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES FILL IN WETLAND
-  DENOTES MECHANIZED CLEARING

SITE 4

SITE 5

SITE 12

SITE 6



REVISIONS  
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STANDARD V-DITCH  
SEE DETAIL 34  
EST. 60 LF  
EST. SLOPE = 0.138 FT/FT  
SEE DETAIL 4  
DDE = 9 CY  
EST. 28 TONS CLASS B RIP RAP  
EST. 60 SY GEOTEXTILE  
SARAH AKUS

WAKE HIGH MEADOWS HOMEOWNERS ASSN.  
WAKE HIGH MEADOWS HOA

CREU 350, TL-3  
15\"/>

CHANNEL IMPROVEMENT  
SEE DETAIL 44  
LENGTH = 25 LF  
EST. 95 TONS CLASS I RIP RAP

CHANNEL IMPROVEMENT  
SEE DETAIL 37  
LENGTH = 35 LF  
EST. 115 TONS CLASS I RIP RAP

SEE ENLARGEMENT SHEET 10

END CONSTRUCTION  
-Y4- STA. 17+00.00

CHANNEL IMPROVEMENT  
SEE DETAIL 43  
EST. 225 TONS CLASS I RIP RAP  
LENGTH = 35 LF

SEE ENLARGEMENT SHEET 11

PLUG INLET AND OUTLET END OF EXISTING CULVERT  
FILL EXISTING CULVERT  
REMOVE EXISTING WINGWALLS  
TIE OUTLET END OF PIPE FROM 0529 TO JB AT STRUCTURE 0573.

TOE PROTECTION  
SEE DETAIL 12  
EST. 30 TONS CLASS B RIP RAP  
EST. 70 SY GEOTEXTILE

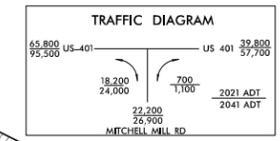
CHANNEL IMPROVEMENT  
SEE DETAIL 36  
LENGTH = 45 LF  
EST. 260 TONS CLASS I RIP RAP

DO NOT DISTURB CONSTRUCTION UNDER R-2814A ENERGY DISSIPATOR  
-L- STA. 12+45 RT  
SHEET 4  
DETAIL 4C

LATERAL 8\"/>

FOR DITCH DETAILS, SEE SHEET 5A  
FOR -L- PROFILE, SEE SHEET NO. 13  
FOR -Y1- PROFILE, SEE SHEET NO. 17  
FOR -Y4- PROFILE, SEE SHEET NO. 19  
FOR -Y5- PROFILE, SEE SHEET NO. 20  
FOR -SLIP- PROFILE, SEE SHEET NO. 17  
FOR -SBX- PROFILE, SEE SHEET NO. 20  
FOR -MUP- PROFILE, SEE SHEET NO. 22

PERMIT DRAWING SHEET 8 OF 27



PROJECT REFERENCE NO. U-5748	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Prepared in the Office of: <b>AECOM</b>	
NC FIRM LICENSE No. F-0342 70 Corporate Center Drive, Suite 475 Raleigh, NC 27607 (919) 854-6200 • (919) 854-6259 (FAX)	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

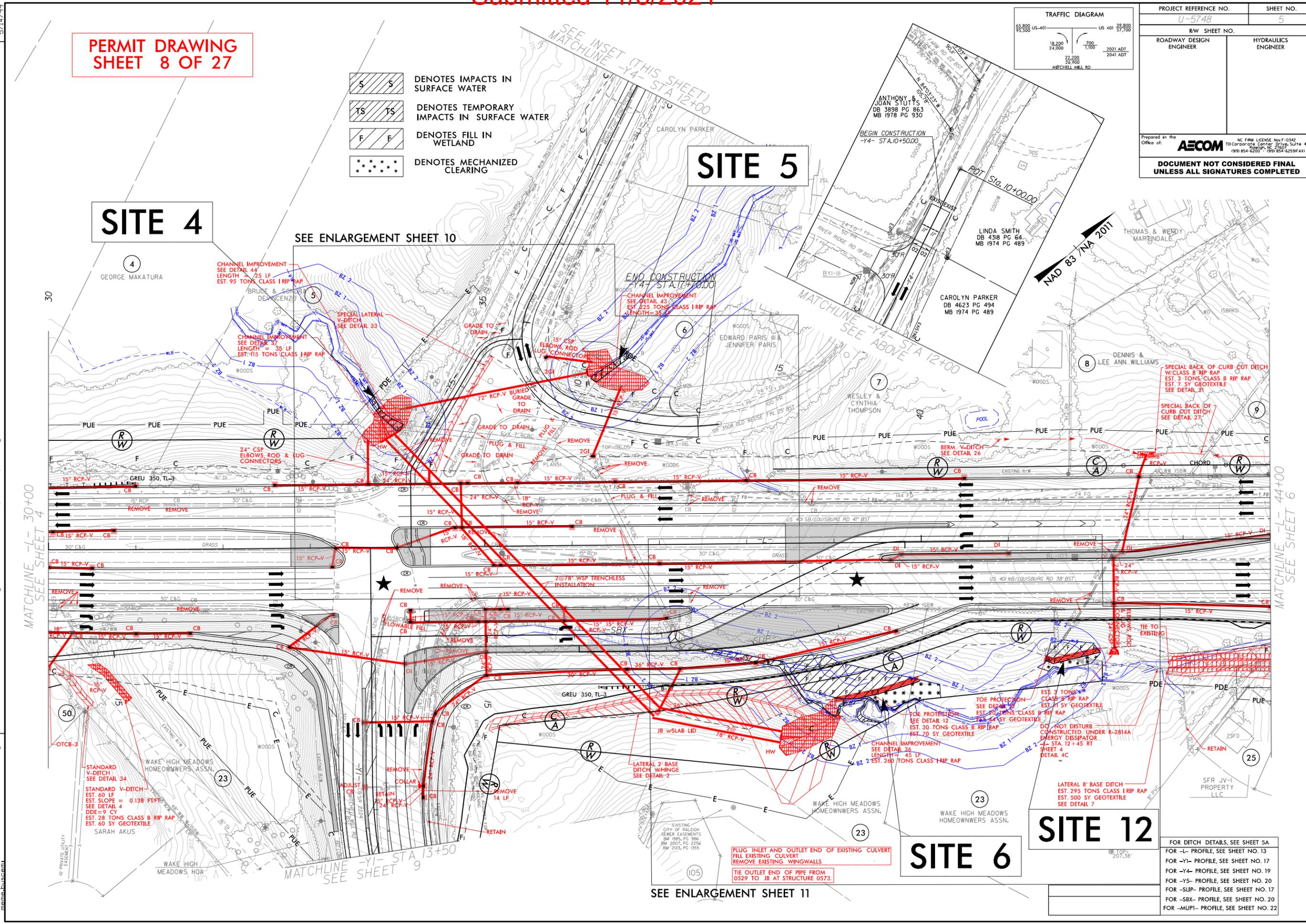
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES FILL IN WETLAND
- DENOTES MECHANIZED CLEARING

SITE 4

SITE 5

SITE 6

SITE 12



REVISIONS  
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5/14/99

MATCHLINE -L- 30+00  
SEE SHEET 4

SEE ENLARGEMENT SHEET 10

END CONSTRUCTION  
-Y4- STA. 17+00.00

BEGIN CONSTRUCTION  
-Y4- STA. 10+50.00

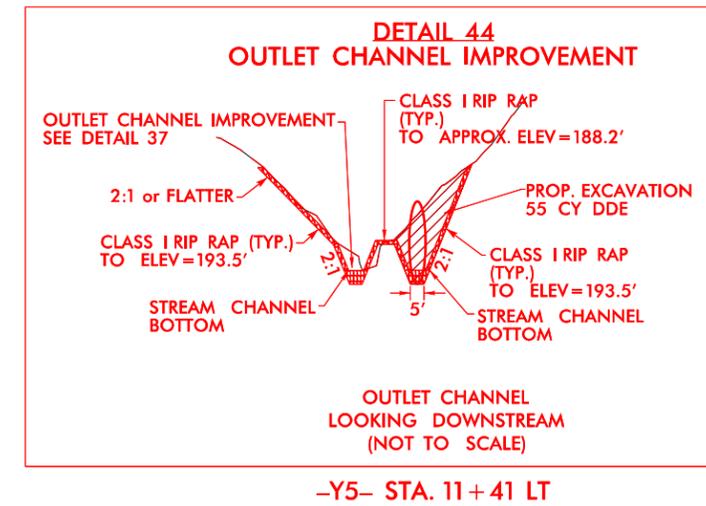
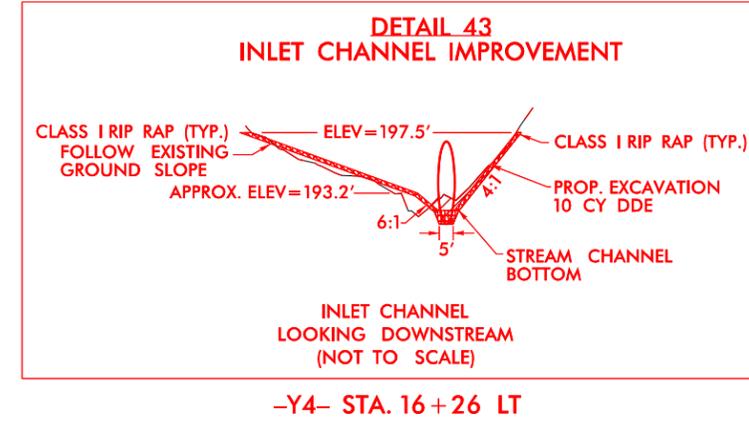
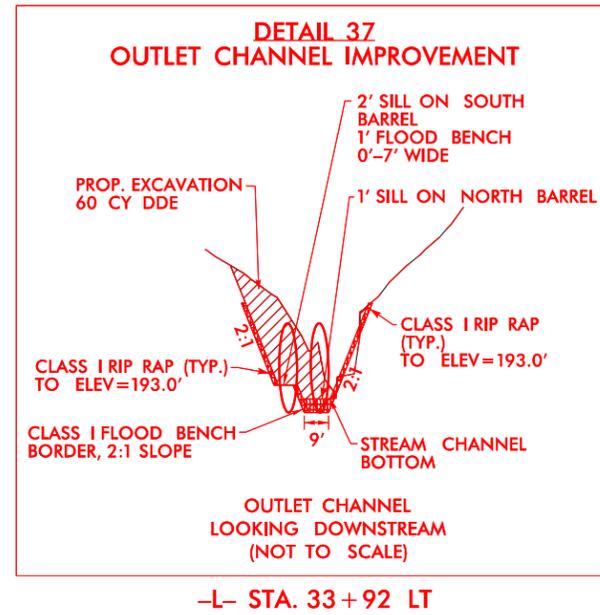
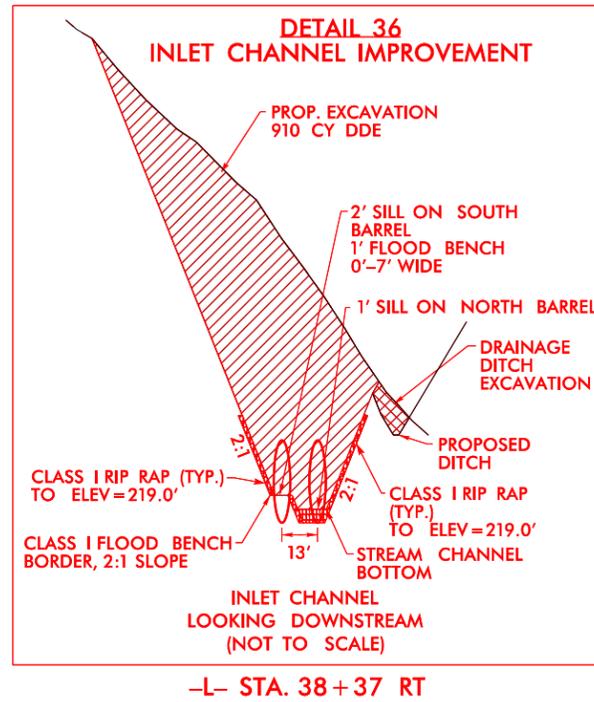
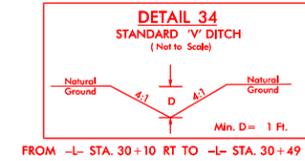
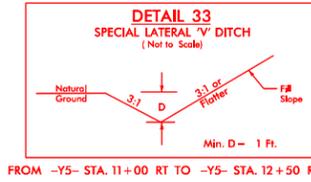
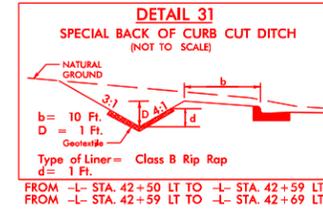
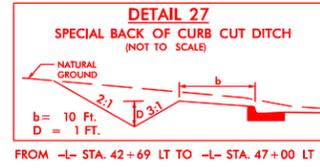
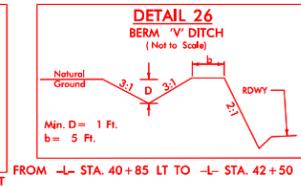
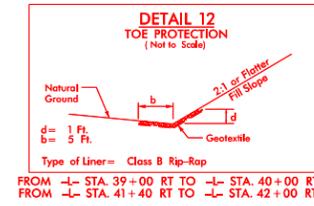
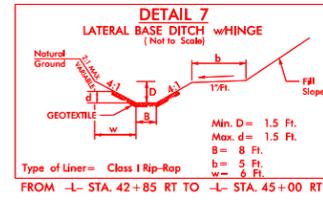
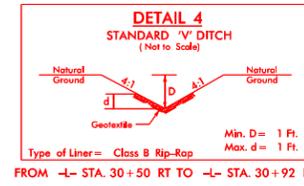
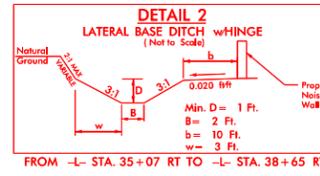
SEE ENLARGEMENT SHEET 11

MATCHLINE -L- 44+00  
SEE SHEET 6

FOR DITCH DETAILS, SEE SHEET 5A  
FOR -L- PROFILE, SEE SHEET NO. 13  
FOR -Y1- PROFILE, SEE SHEET NO. 17  
FOR -Y4- PROFILE, SEE SHEET NO. 19  
FOR -Y5- PROFILE, SEE SHEET NO. 20  
FOR -SLIP- PROFILE, SEE SHEET NO. 17  
FOR -SBX- PROFILE, SEE SHEET NO. 20  
FOR -MUPI- PROFILE, SEE SHEET NO. 22

PROJECT REFERENCE NO. U-5748	SHEET NO. 5A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Prepared in the Office of: <b>AECOM</b> <small>NC FIRM LICENSE No F-0342 70 Corporate Center Drive, Suite 475 Raleigh, NC 27607 (919) 854-6200 • (919) 854-6259(FAX)</small>	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

**PERMIT DRAWING  
SHEET 9 OF 27**

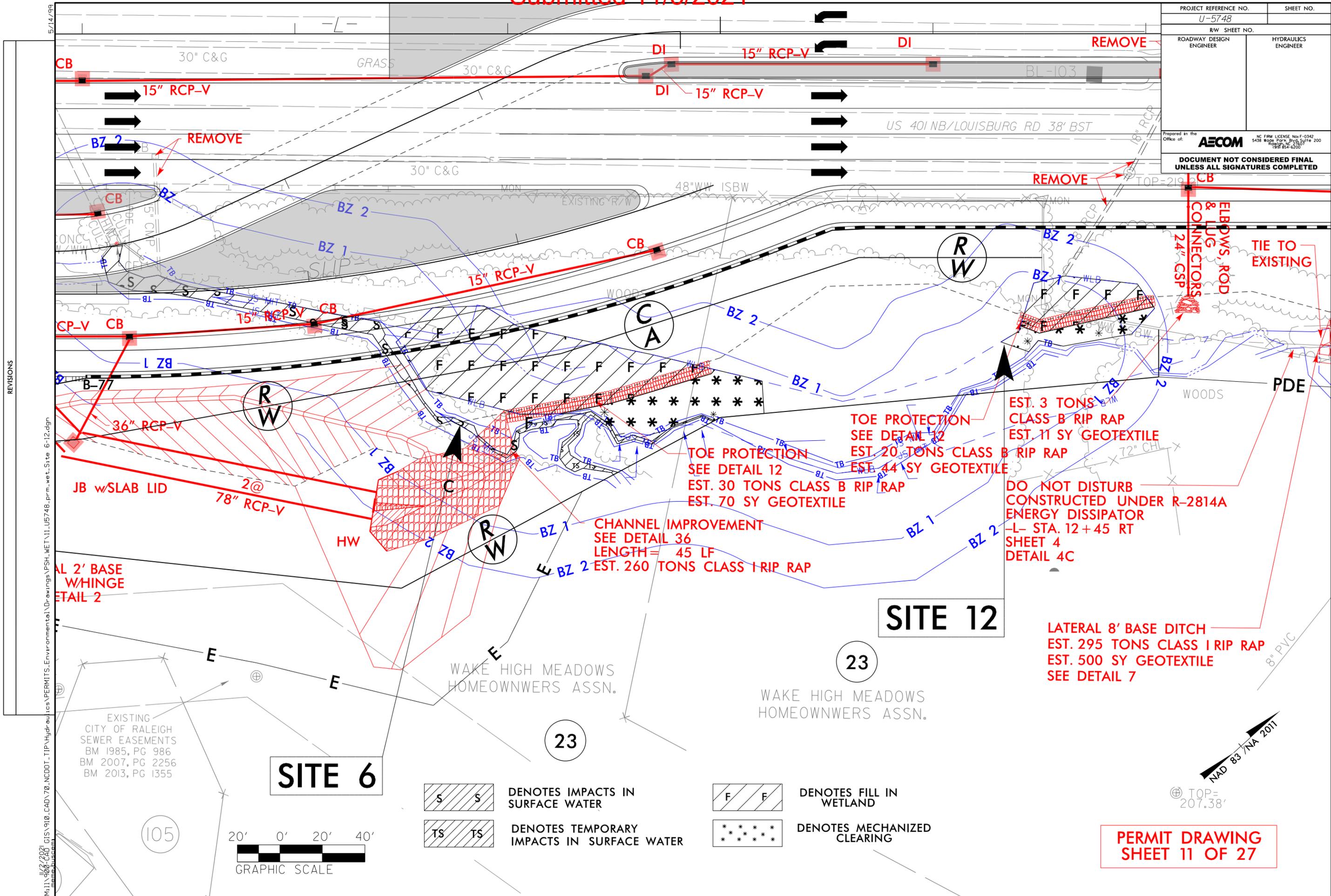


REVISIONS

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PROJECT REFERENCE NO. U-5748		SHEET NO.	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
Prepared in the Office of: <b>AECOM</b> NC FIRM LICENSE No F-0342 5438 Wood Park Blvd, Suite 200 Raleigh, NC 27607 1997 854-6200			
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			

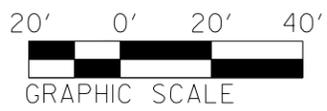


REVISIONS

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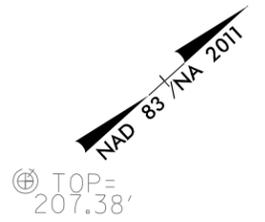
**SITE 6**

**SITE 12**

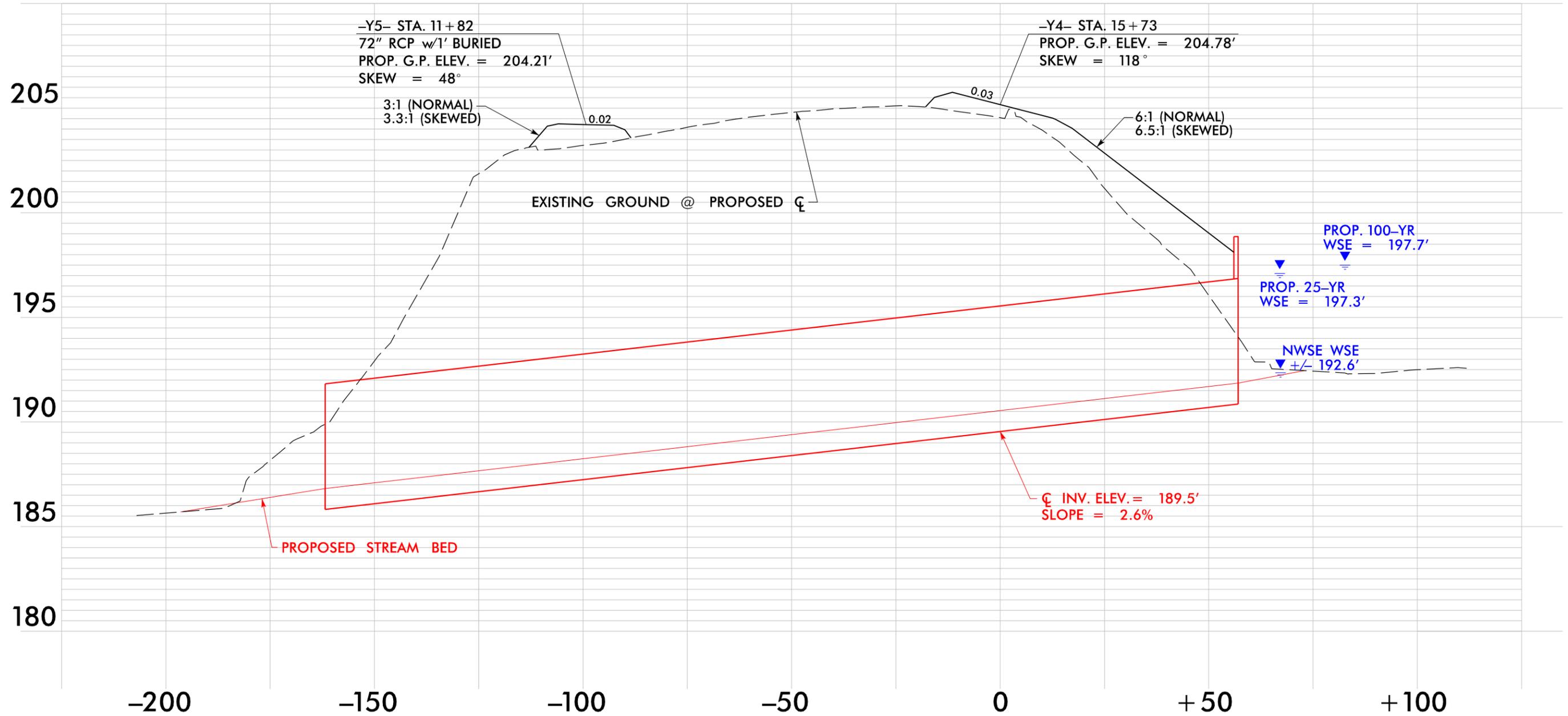


- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES FILL IN WETLAND
- DENOTES MECHANIZED CLEARING

PERMIT DRAWING  
 SHEET 11 OF 27



# SITES 4 & 5 – PROFILE VIEW ALONG STRUCTURE

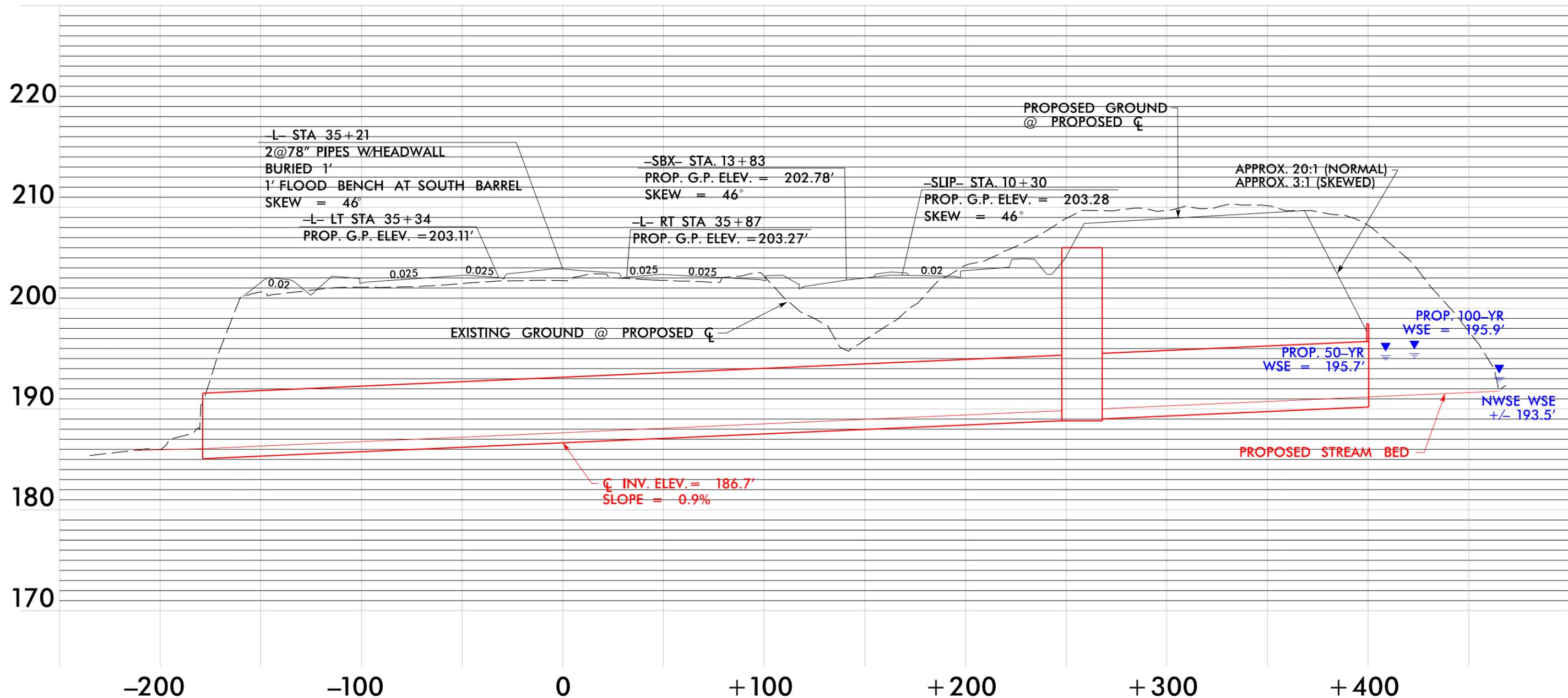


PROFILE  
SCALE  
VERT. 1" = 5'  
HORIZ. 1" = 50'

NCDOT  
DIVISION OF HIGHWAYS  
WAKE COUNTY  
PROJECT: 50168.1.1 (U-5748)  
US 401 FROM SOUTH OF SR 2044 //  
SR 2224 (LIGON MILL RD) TO LELAND DR

PERMIT DRAWING  
SHEET 12 OF 27

# SITES 4 & 6 – PROFILE VIEW ALONG STRUCTURE



NOTE:  
 CULVERT PLACED IN NEW LOCATION.  
 NO EXISTING TOP OF BANK.  
 REMOVE EXISTING 6x7 RCBC

## PROFILE

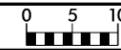
SCALE  
 VERT. 1" = 10'  
 HORIZ. 1" = 50'

NCDOT

DIVISION OF HIGHWAYS  
 WAKE COUNTY

PROJECT: 50168.1.1 (U-5748)  
 US 401 FROM SOUTH OF SR 2044//  
 SR 2224 (LIGON MILL RD) TO LELAND DR

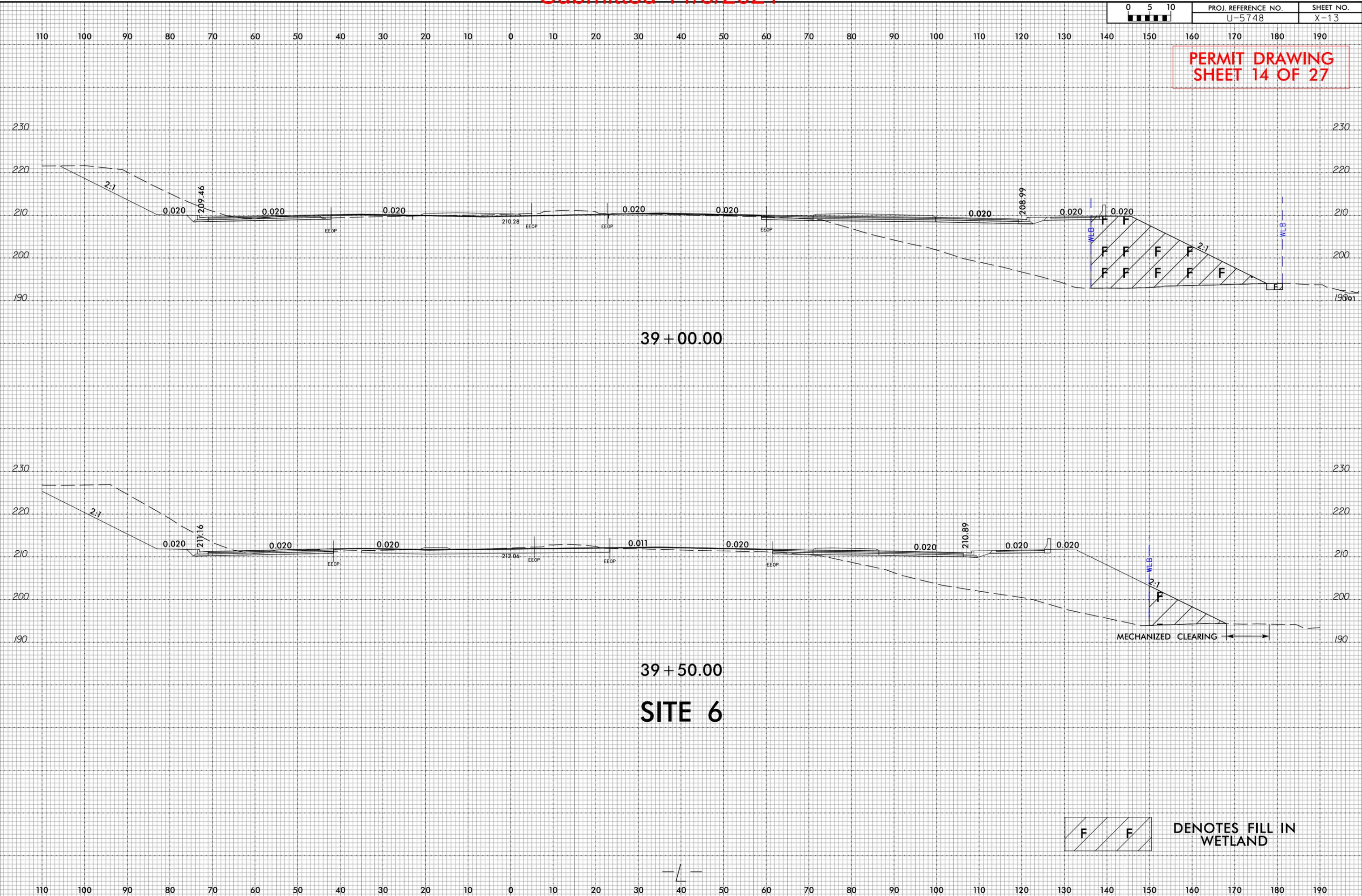
**PERMIT DRAWING  
 SHEET 13 OF 27**



PROJ. REFERENCE NO.	SHEET NO.
U-5748	X-13

PERMIT DRAWING  
SHEET 14 OF 27

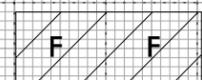
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39 + 00.00

39 + 50.00

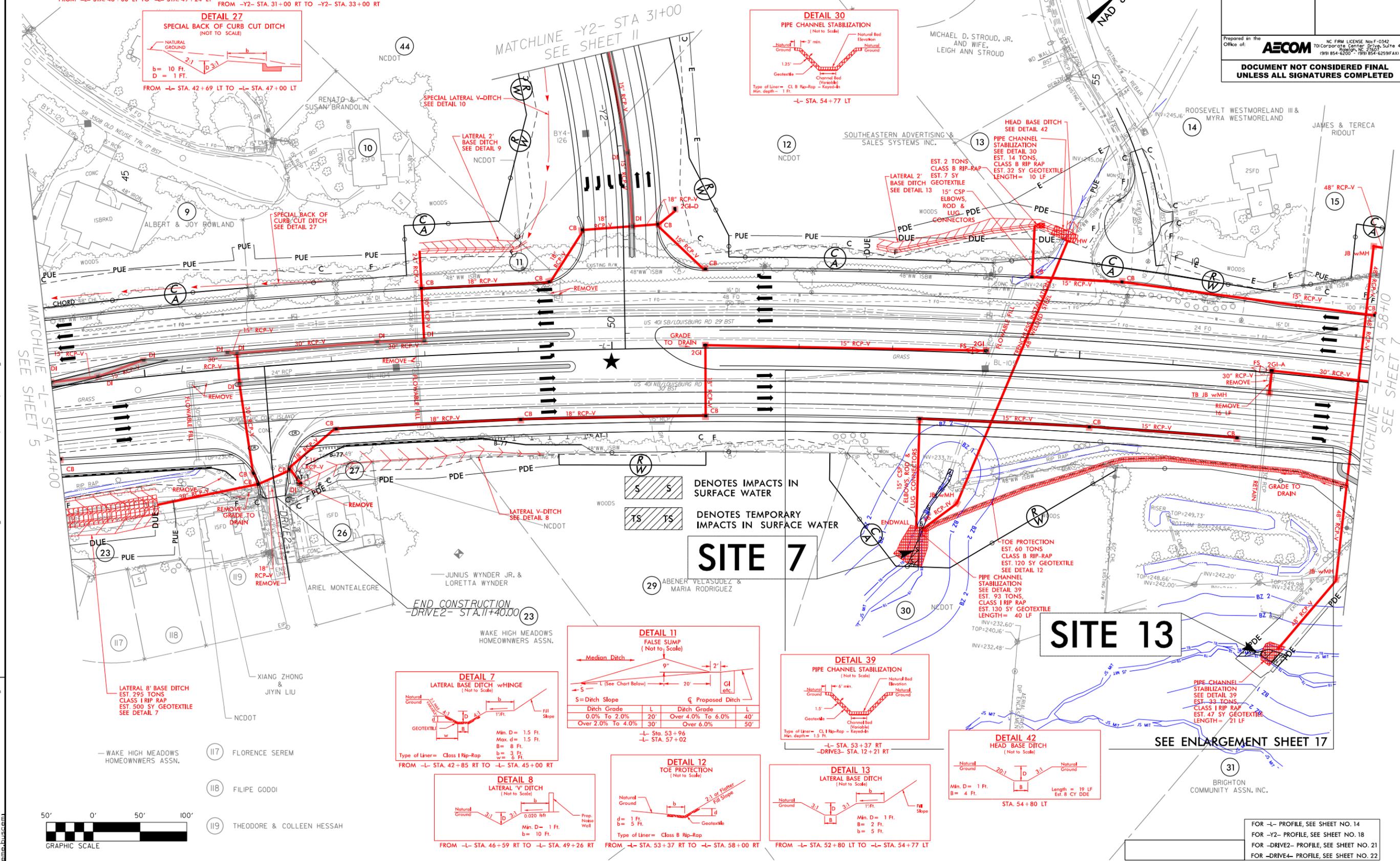
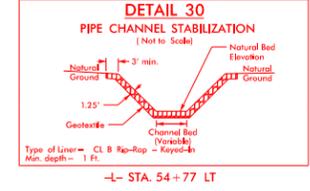
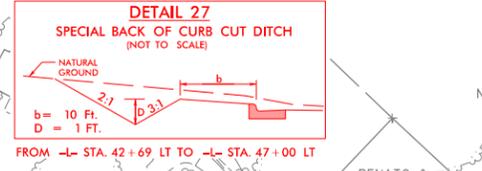
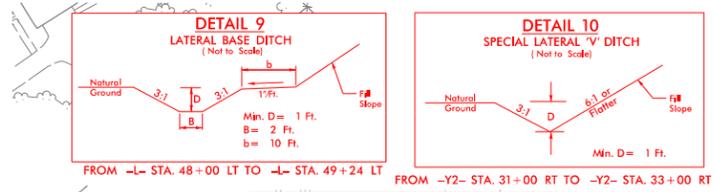
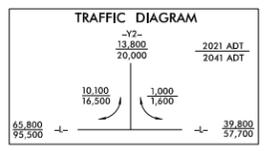
SITE 6



DENOTES FILL IN  
WETLAND

PROJECT REFERENCE NO. U-5748	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Prepared in the Office of: <b>AECOM</b> <small>NC FIRM LICENSE No. F-0342          70 Corporate Center Drive, Suite 475          Raleigh, NC 27607          (919) 854-6200 • (919) 854-6259 (fax)</small>	
<b>DOCUMENT NOT CONSIDERED FINAL          UNLESS ALL SIGNATURES COMPLETED</b>	

# PERMIT DRAWING SHEET 15 OF 27

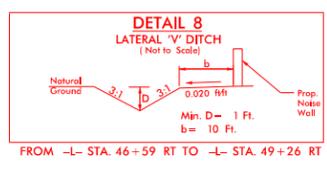
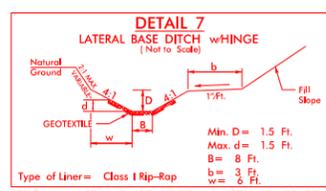
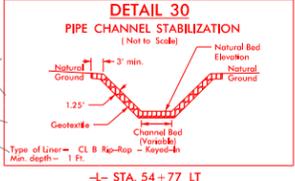
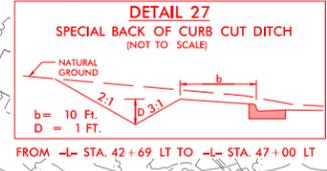
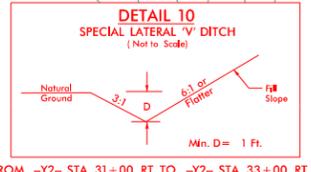
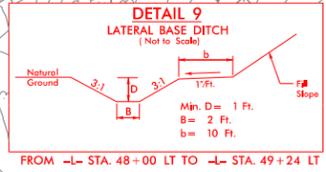
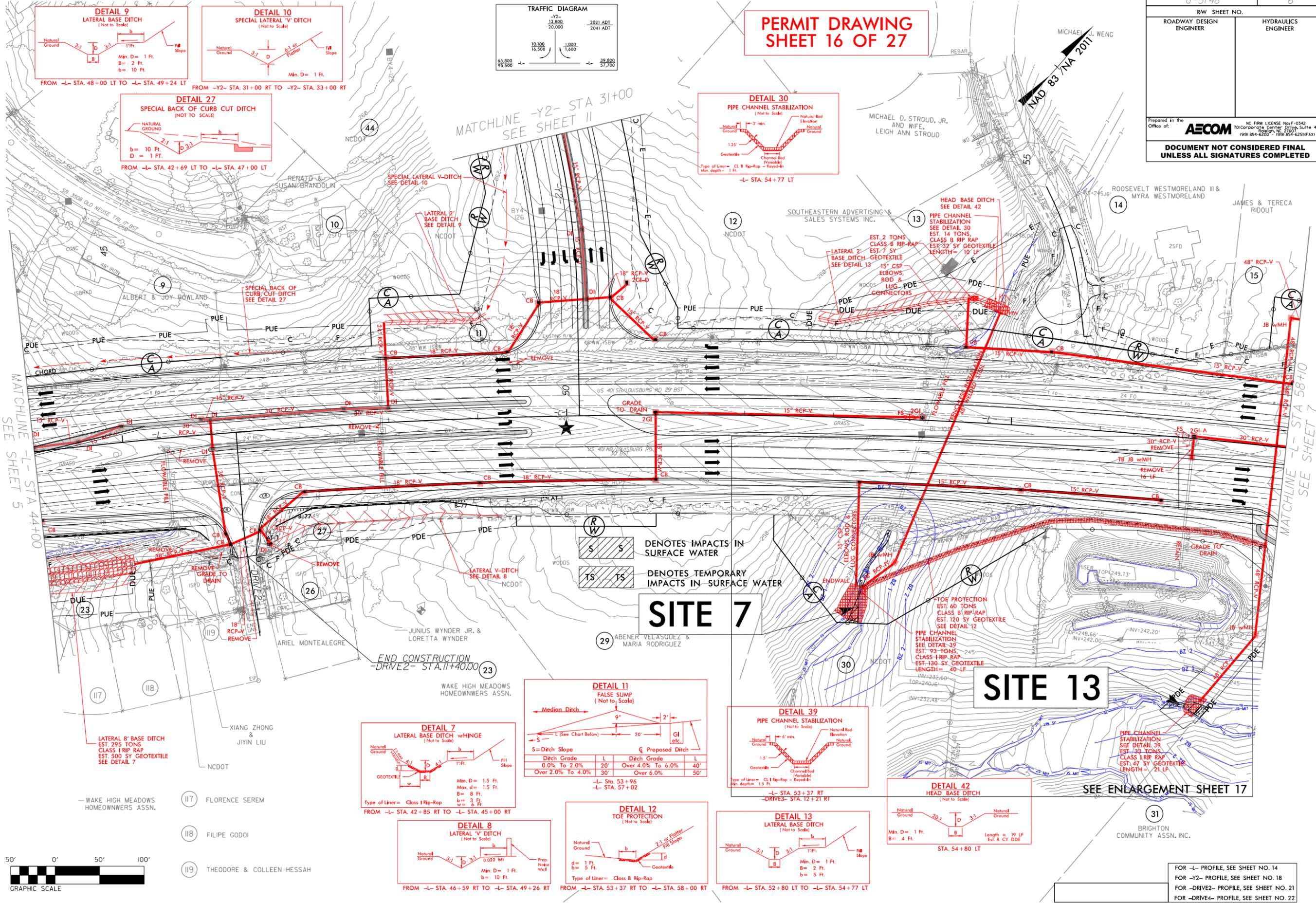
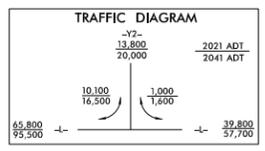


- 117 FLORENCE SEREM
- 118 FILIPE GODDI
- 119 THEODORE & COLLEEN HESSAH

REVISIONS  
 MATCHLINE -L- STA 44+00 SEE SHEET 5  
 MATCHLINE -L- STA 58+10 SEE SHEET 7  
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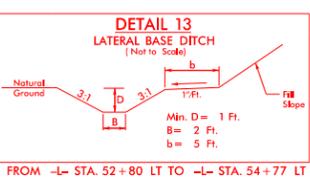
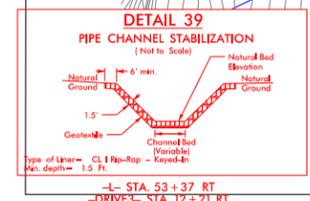
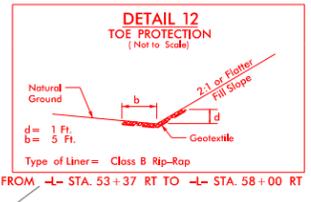
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RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Prepared in the Office of: <b>AECOM</b> NC FIRM LICENSE No. F-0342 70 Corporate Center Drive, Suite 475 Raleigh, NC 27607 (919) 854-6200 • (919) 854-6259 (fax)	
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# PERMIT DRAWING SHEET 16 OF 27

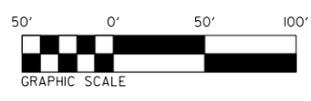


DETAIL 11: FALSE SUMP (Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

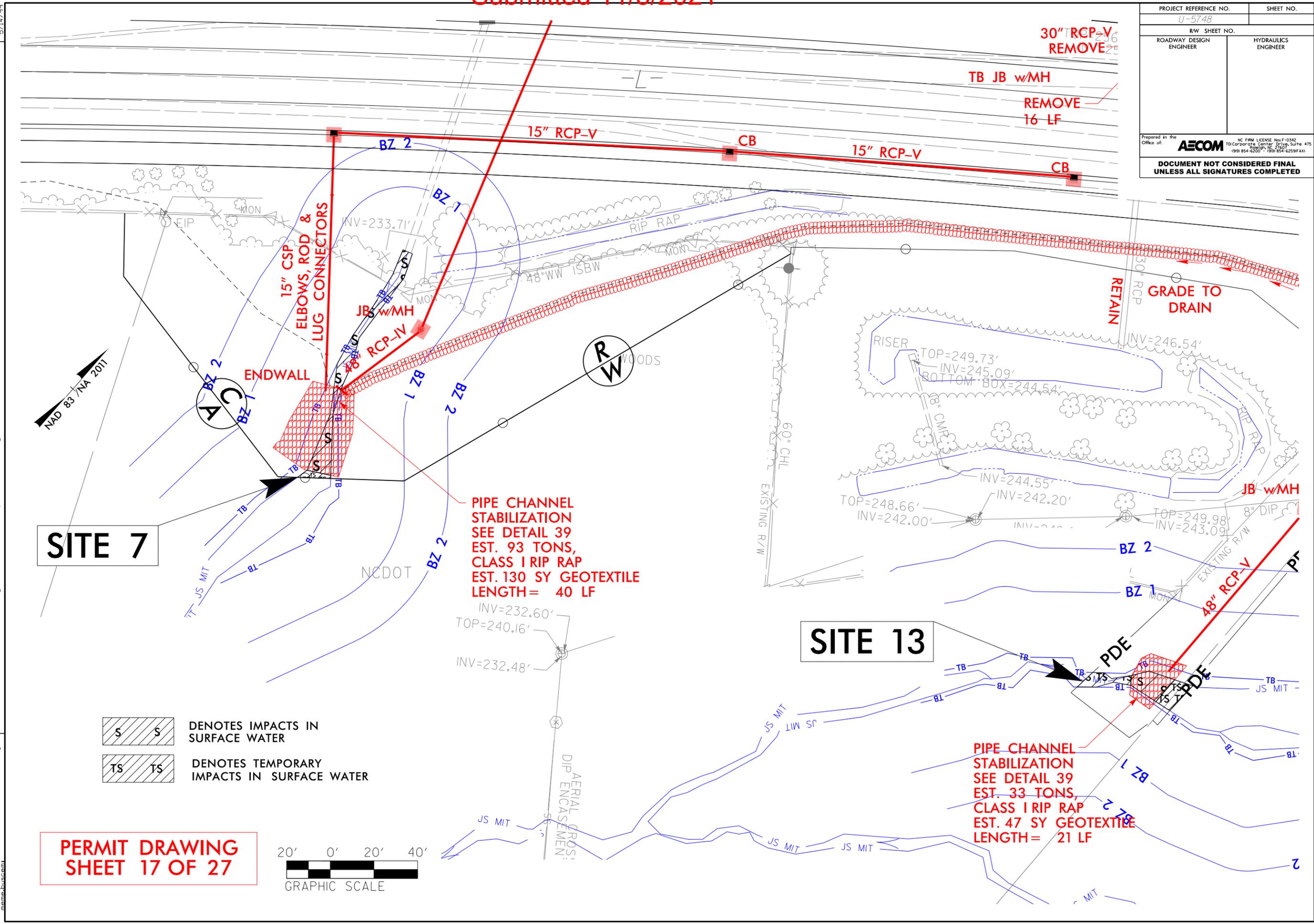


REVISIONS



FOR -L- PROFILE, SEE SHEET NO. 14  
 FOR -Y2- PROFILE, SEE SHEET NO. 18  
 FOR -DRIVE2- PROFILE, SEE SHEET NO. 21  
 FOR -DRIVE4- PROFILE, SEE SHEET NO. 22

PROJECT REFERENCE NO. U-5748		SHEET NO.	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
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**SITE 7**

**SITE 13**

 DENOTES IMPACTS IN SURFACE WATER  
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

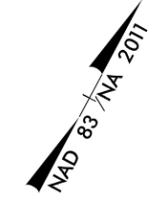
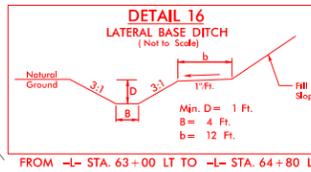
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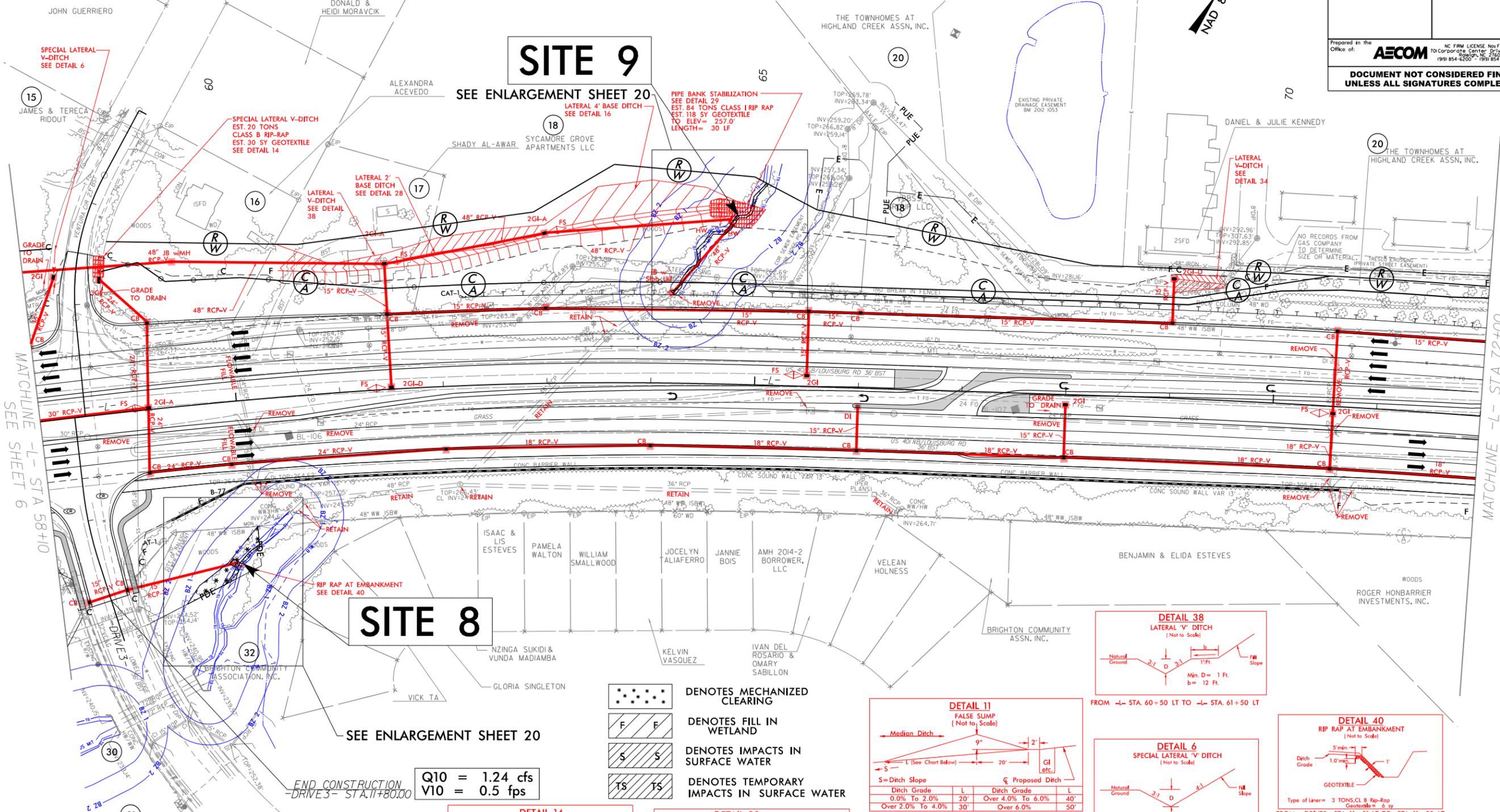
REVISIONS

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PERMIT DRAWING  
SHEET 18 OF 27

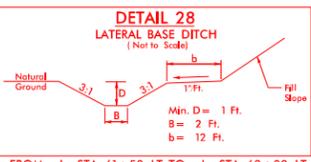
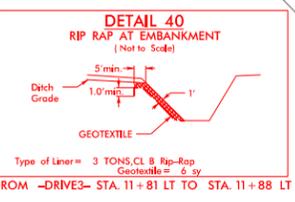
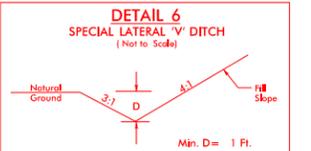
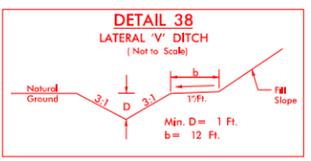
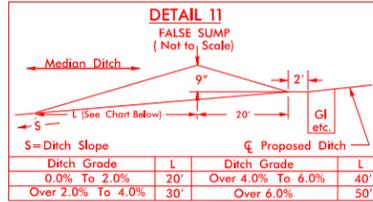
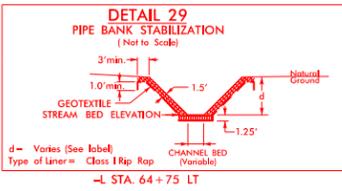
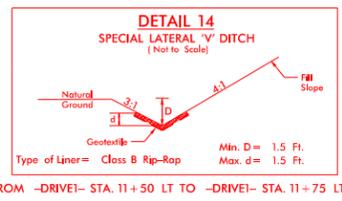
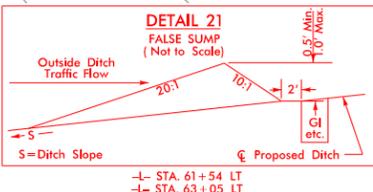


PROJECT REFERENCE NO. U-5748	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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- DENOTES MECHANIZED CLEARING
- DENOTES FILL IN WETLAND
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

Q10 = 1.24 cfs  
V10 = 0.5 fps



FOR -L- PROFILE, SEE SHEET NO. 15  
FOR -DRIVE1- PROFILE, SEE SHEET NO. 20  
FOR -DRIVE3- PROFILE, SEE SHEET NO. 21

REVISIONS

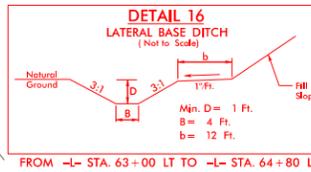
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MATCHLINE -L- STA 58+10  
SEE SHEET 6

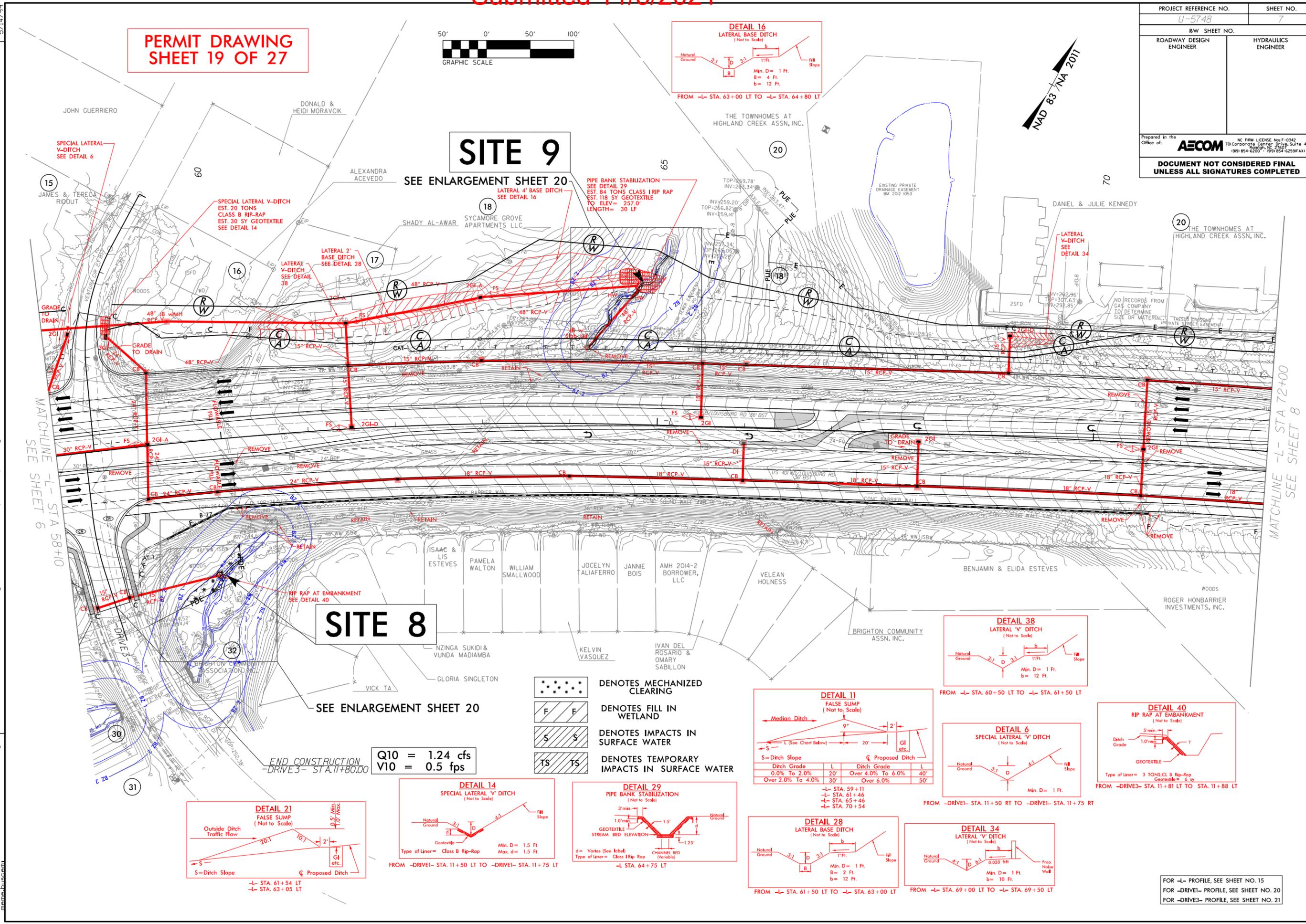
MATCHLINE -L- STA 72+00  
SEE SHEET 8

END CONSTRUCTION  
-DRIVE3- STA. 11+80.00

PERMIT DRAWING  
SHEET 19 OF 27



PROJECT REFERENCE NO. U-5748	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

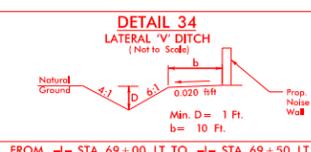
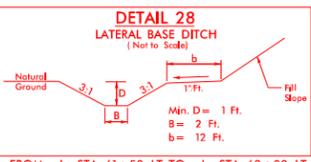
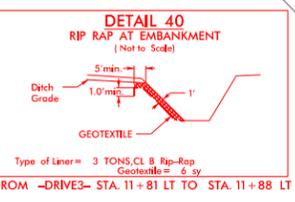
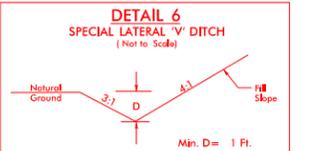
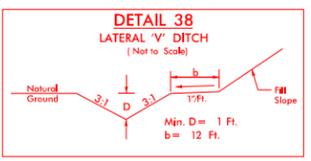
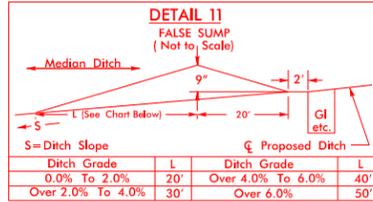
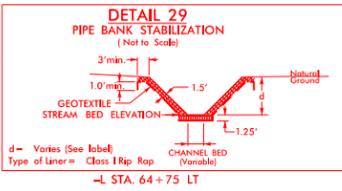
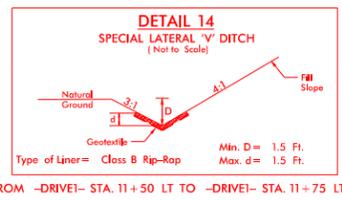
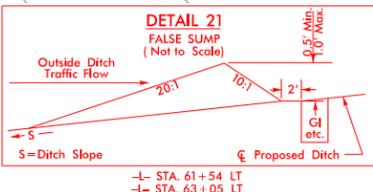


**SITE 9**  
SEE ENLARGEMENT SHEET 20

**SITE 8**  
SEE ENLARGEMENT SHEET 20

- DENOTES MECHANIZED CLEARING
- DENOTES FILL IN WETLAND
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

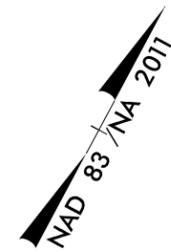
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V10 = 0.5 fps



FOR -L- PROFILE, SEE SHEET NO. 15  
FOR -DRIVE1- PROFILE, SEE SHEET NO. 20  
FOR -DRIVE3- PROFILE, SEE SHEET NO. 21

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 MATCHLINE -L- STA 72+00 SEE SHEET 8

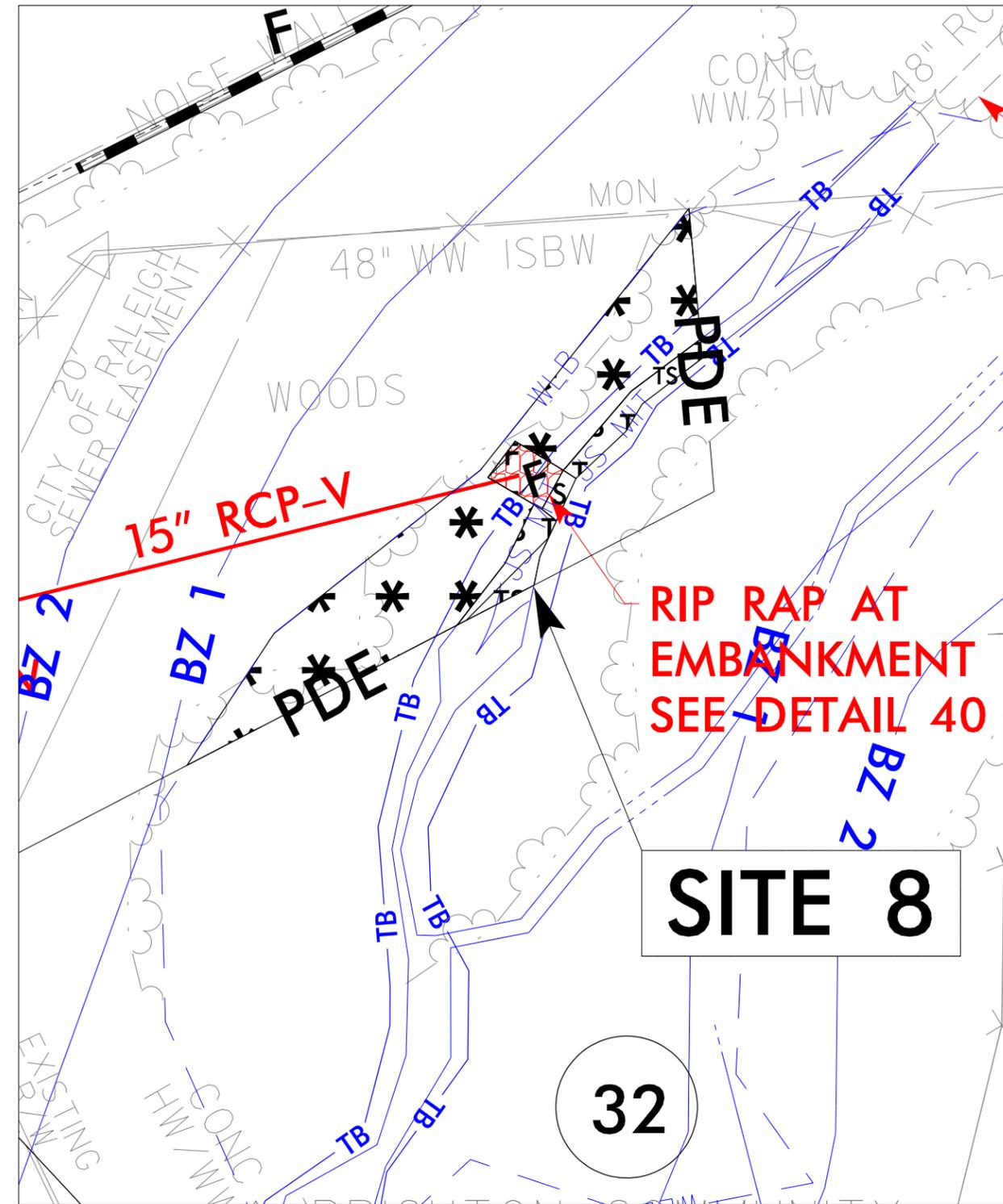
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ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<small>Prepared in the Office of:</small> <b>AECOM</b>			
<small>NC FIRM LICENSE No F-0342        701 Corporate Center Drive, Suite 415        Raleigh, NC 27607        (919) 854-6200 • (919) 854-6259(FAX)</small>			
<b>DOCUMENT NOT CONSIDERED FINAL        UNLESS ALL SIGNATURES COMPLETED</b>			



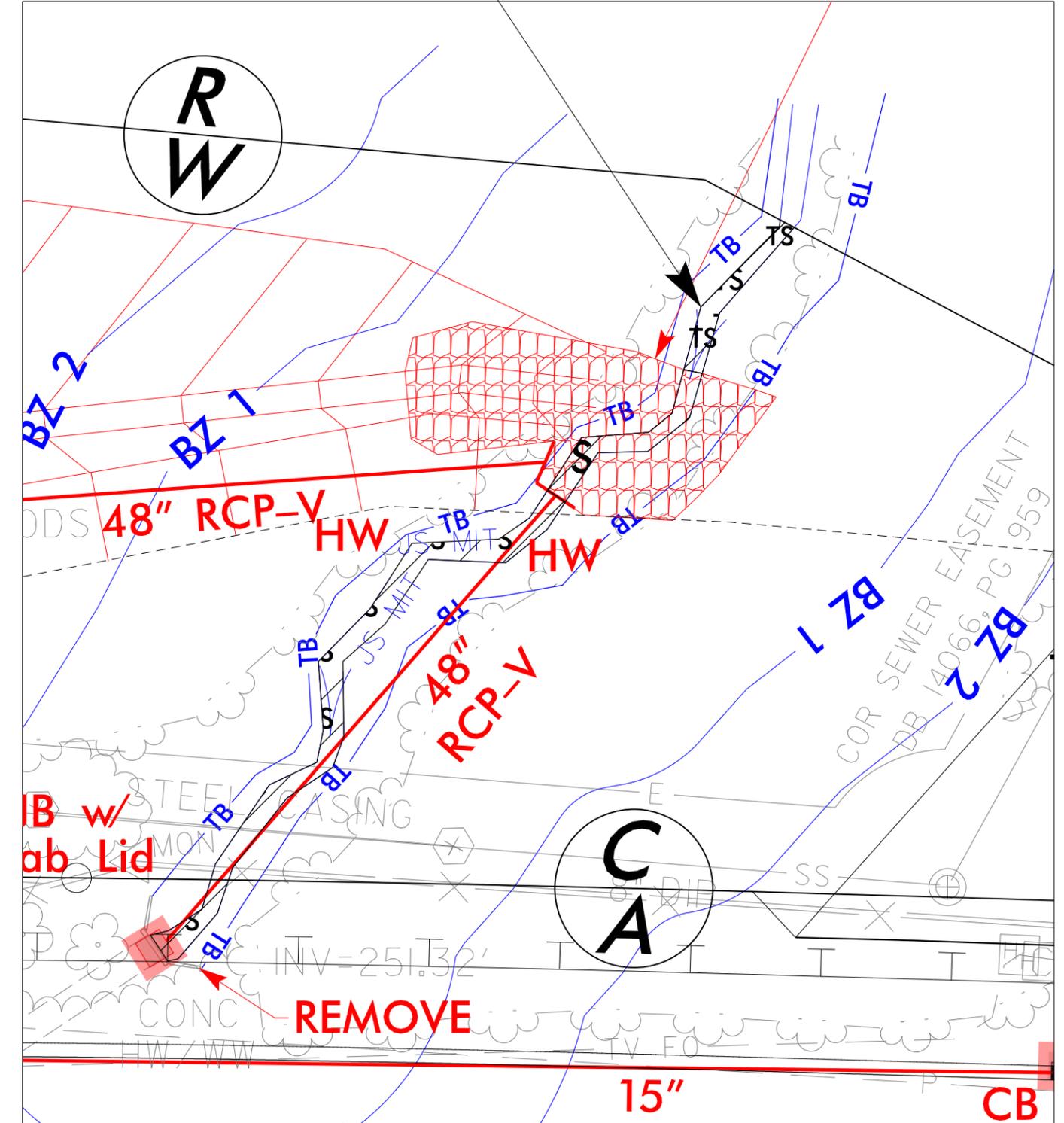
**PERMIT DRAWING  
SHEET 20 OF 27**

- DENOTES FILL IN WETLAND
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES MECHANIZED CLEARING
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

**SITE 9**



**SITE 8**



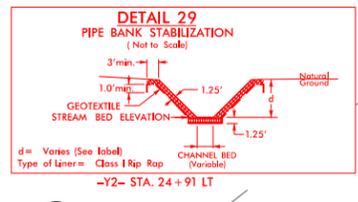
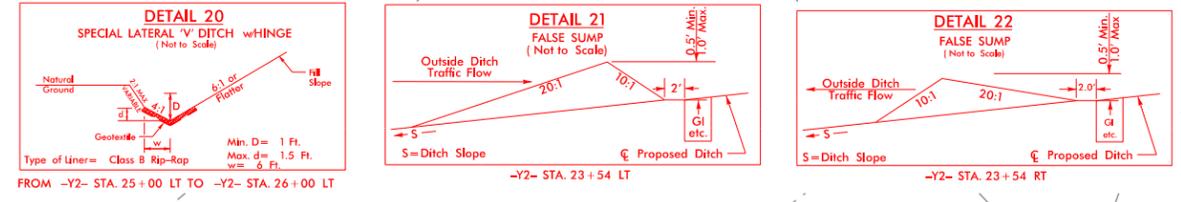
**CA**

REVISIONS

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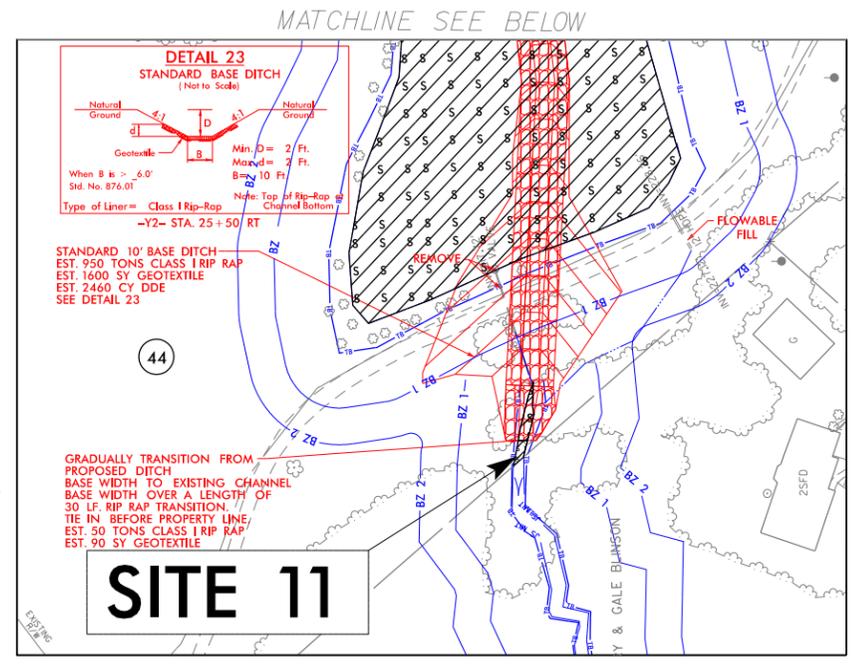
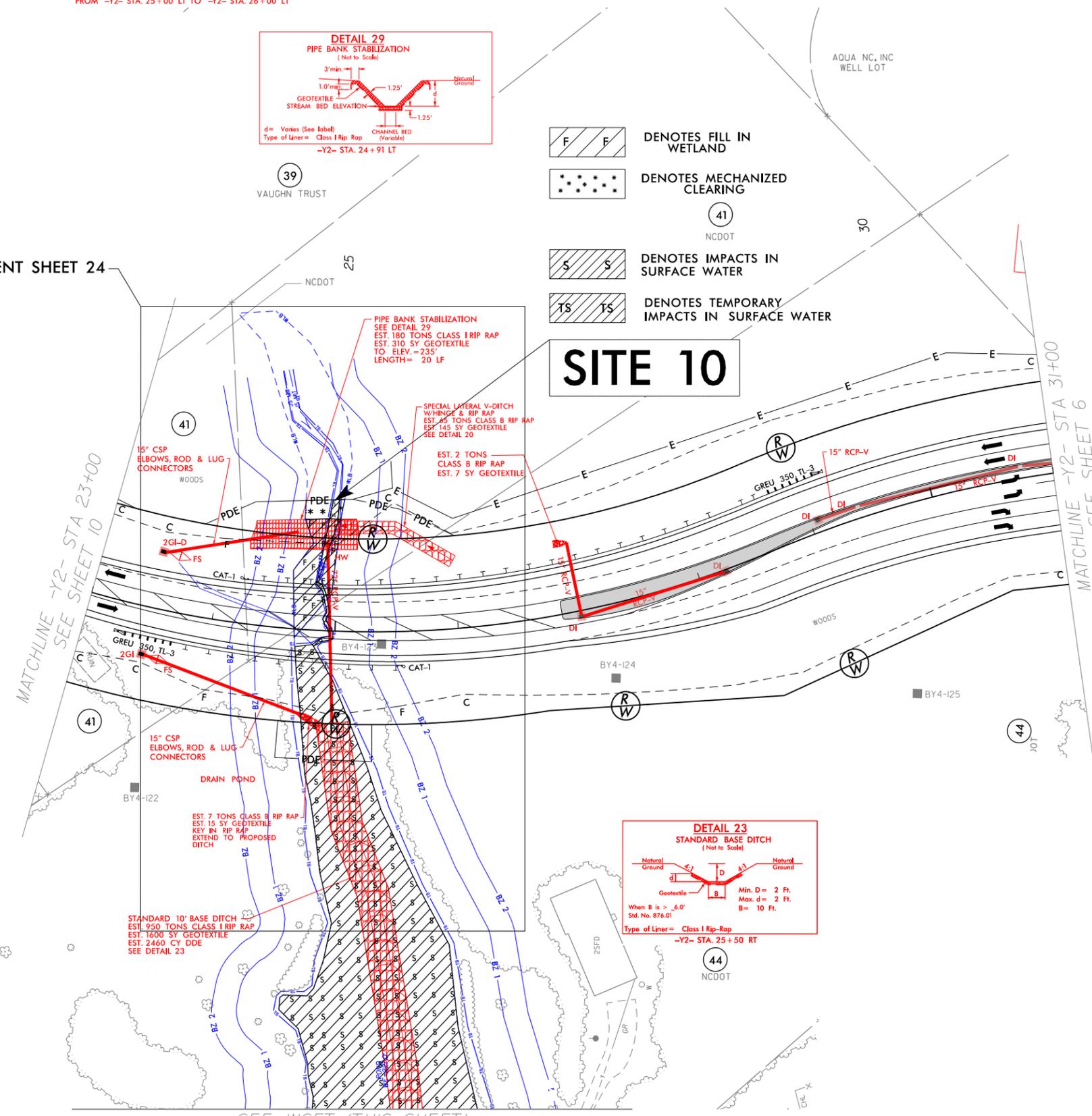


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RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
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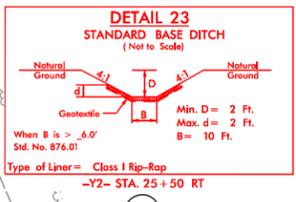
- DENOTES FILL IN WETLAND
- DENOTES MECHANIZED CLEARING
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SEE ENLARGEMENT SHEET 24



**SITE 11**

SEE ENLARGEMENT SHEET 24



**PERMIT DRAWING SHEET 22 OF 27**



FOR -Y2- PROFILE, SEE SHEET NO. 18

REVISIONS

5/14/99  
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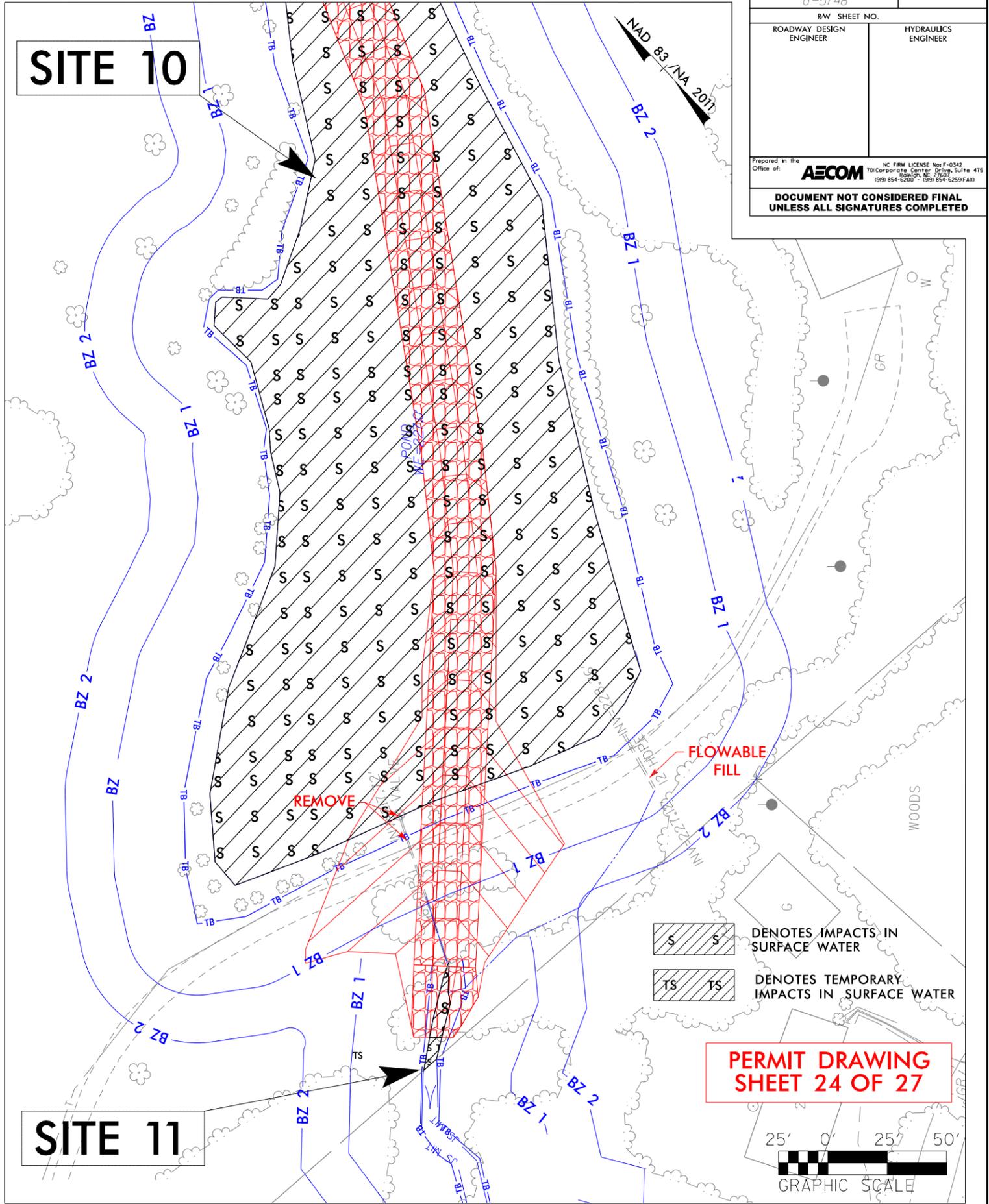
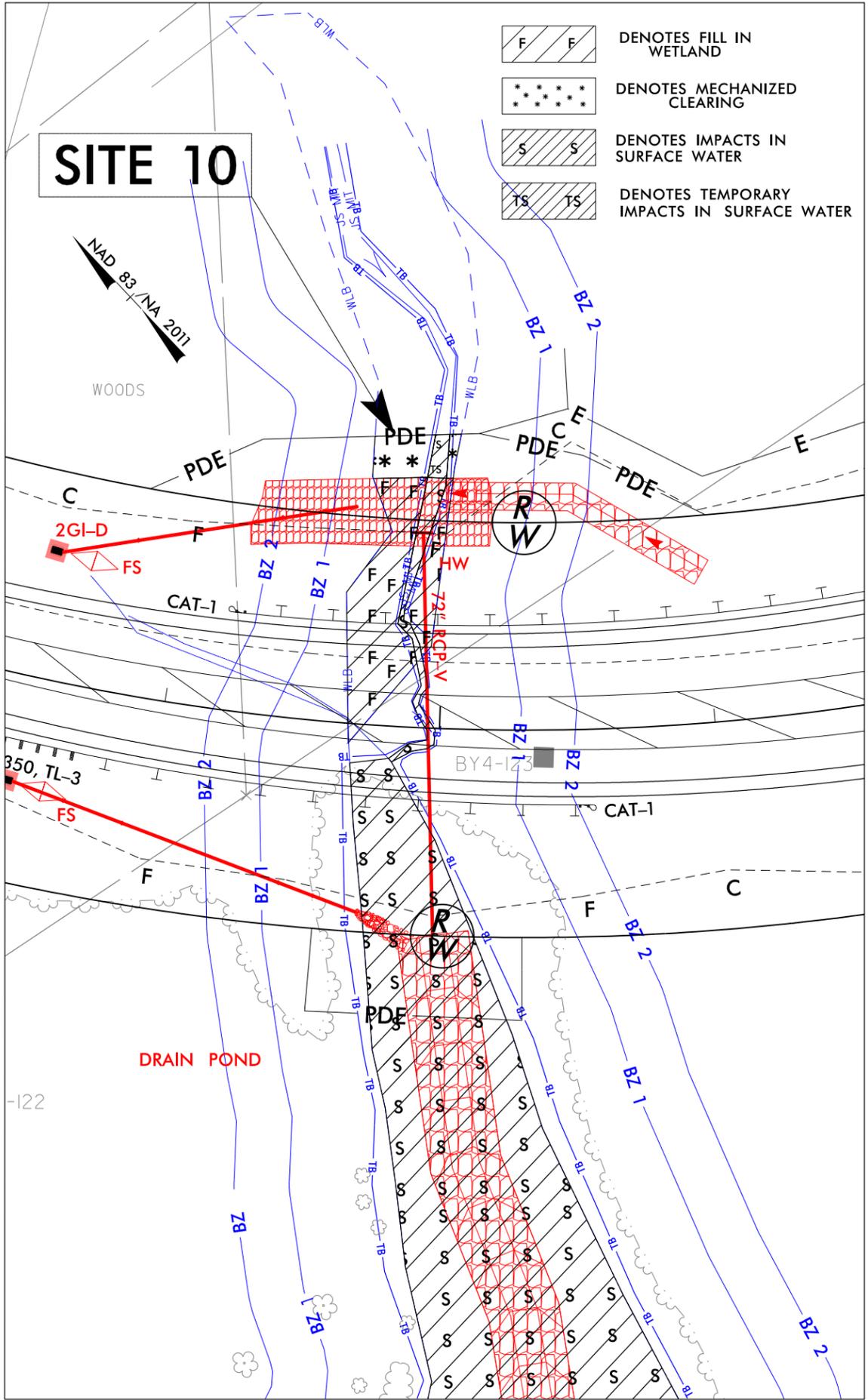


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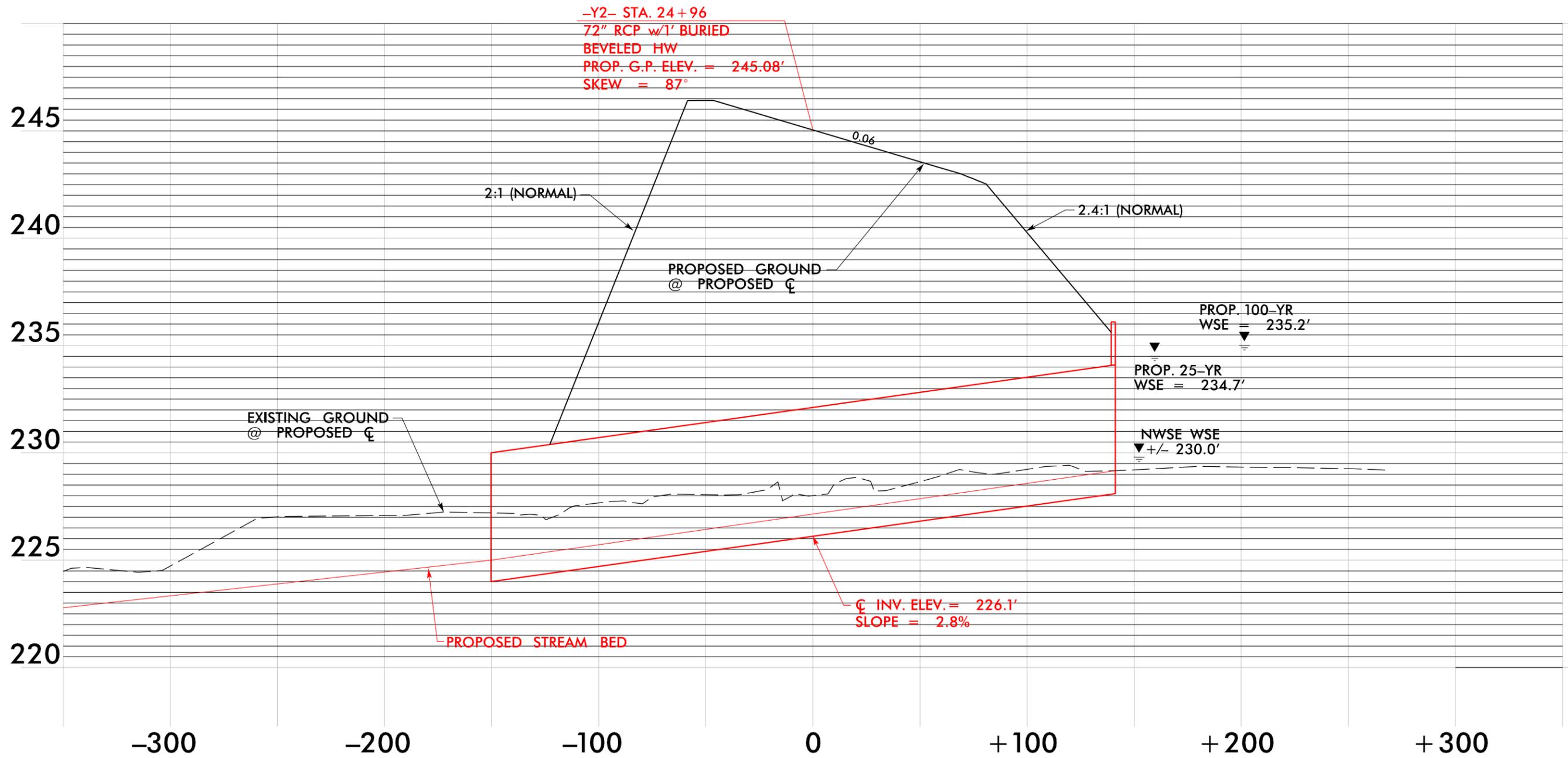
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RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Prepared in the Office of: <b>AECOM</b> <small>NC FIRM LICENSE No: F-0542          TDI Corporation, Center Drive, Suite 415          (919) 854-6200 / (919) 854-6299(FAX)</small>	
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# SITE 10 – PROFILE VIEW ALONG STRUCTURE



## PROFILE

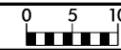
SCALE  
VERT. 1" = 5'  
HORIZ. 1" = 50'

PERMIT DRAWING  
SHEET 25 OF 27

NCDOT

DIVISION OF HIGHWAYS  
WAKE COUNTY

PROJECT: 50168.1.1 (U-5748)  
US 401 FROM SOUTH OF SR 2044 //  
SR 2224 (LIGON MILL RD) TO LELAND DR



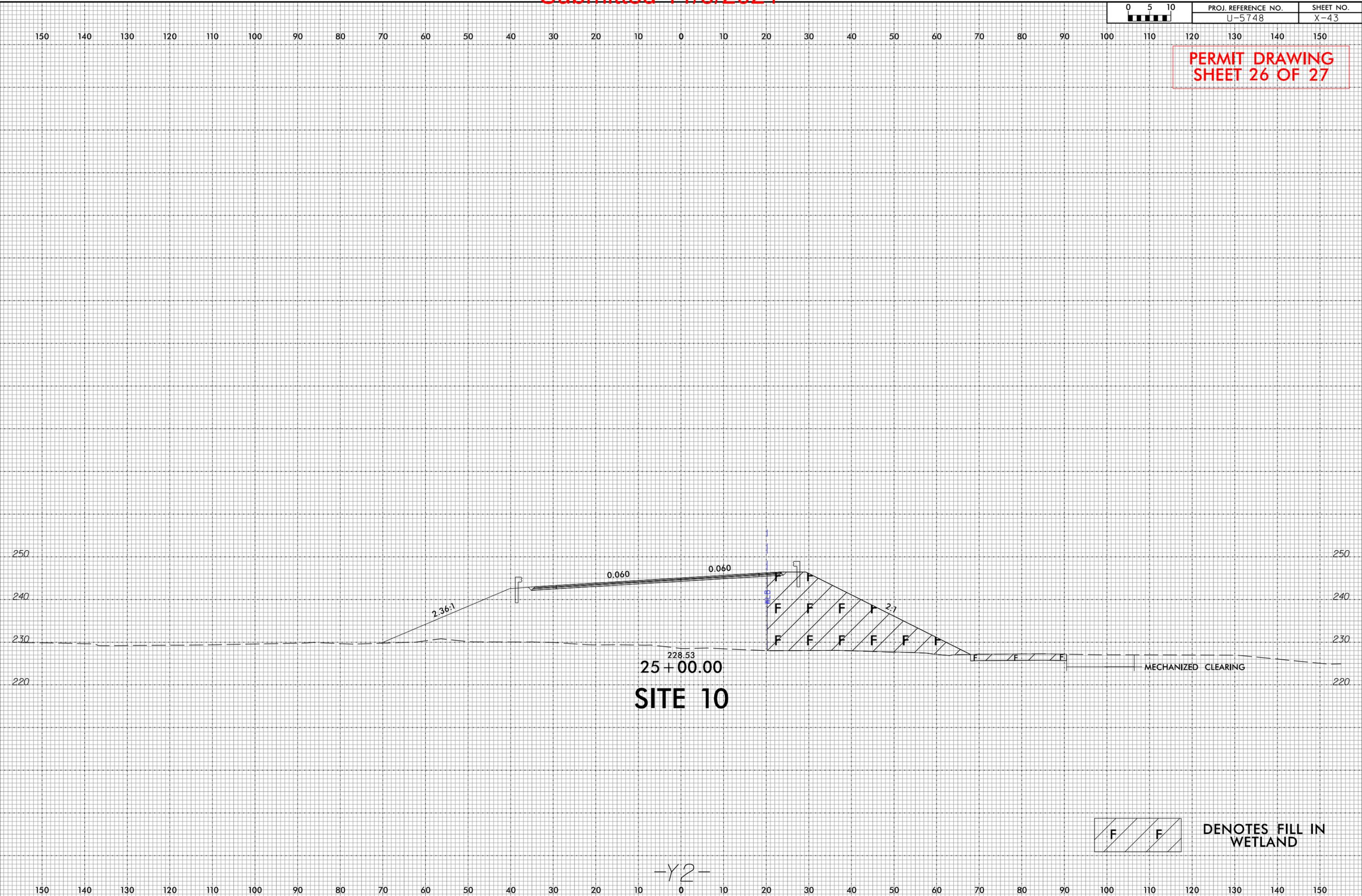
PROJ. REFERENCE NO.  
U-5748

SHEET NO.  
X-43

PERMIT DRAWING  
SHEET 26 OF 27

6/23/16

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228.53  
25 + 00.00  
SITE 10

MECHANIZED CLEARING



DENOTES FILL IN WETLAND

-Y2-

**WETLAND AND SURFACE WATER IMPACTS SUMMARY**

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-L- 21+88 - 23+06 LT	Prop. Rdwy Fill / Toe Protection	< 0.01			0.08						
2	-L- 24+16 - 25+36	Bridge Widening Temporary Work Pad						0.08			171	
		Bridge Widening / Bank Stabilization						0.02		91		
3**	-L- 27+23 - 27+63 RT	Proposed Roadway Fill	0.02			0.01						
4	-L- 33+61 - 34+17 LT	2 @ 78" Pipe Trenchless						< 0.01	< 0.01	34	14	
5	-Y4- 16+39 - 16+71 LT	72" Pipe / Bank Stabilization						< 0.01	< 0.01	30	19	
6	-L- 37+08 - 40+21 RT	2 @ 78" Pipe Trenchless	0.10			0.03		0.03	< 0.01	241	153	
7	-L- 53+19 - 53+70 RT	48" Pipe, 15" Pipe						0.01	< 0.01	110	3	
8	-L- 59+73 - 60+10 RT	15" Pipe	< 0.01			0.02		< 0.01	< 0.01	6	39	
9	-L- 64+18 - 65+08 LT	48" Pipe						< 0.01		97		
		Bank Stabilization						< 0.01	< 0.01	30	26	
10	-Y2- 24+69 - 25+98	72" Pipe / Riprap Ditch	0.04			< 0.01		< 0.01	< 0.01	118	16	
		Existing Pond Draining						1.14				
11	-Y2- 25+38 - 25+45 RT	Riprap Ditch						< 0.01	< 0.01	31	12	
12	-L- 41+32 - 42+04 RT	Toe Protection	0.03			0.01						
13	-L- 56+97 - 57+47 RT	48" Pipe						< 0.01	< 0.01	20	29	
<b>TOTALS*:</b>			0.20			0.17		1.23	0.10	808	482	0

\*Rounded totals are sum of actual impacts

NOTES:

\*\* Isolated Wetland

Bridge Pier Permanent Impact Area = 127 sq. ft. (Eight 4.5 ft. diameter piers)

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 11/02/2021  
 WAKE COUNTY  
 U-5748  
 50168.1.1

Submitted 11/5/2021

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**WAKE COUNTY**

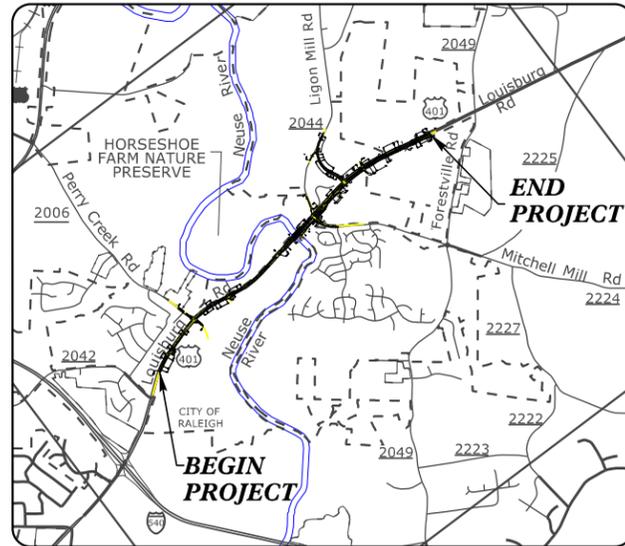
**LOCATION: US 401 (LOUISBURG RD) AT SR 2044 (LIGON MILL RD) /  
SR 2224 (MITCHELL MILL RD) AND SR 2006 (PERRY CREEK  
ROAD) INTERSECTION IMPROVEMENTS**  
**TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNALS, AND STRUCTURES**

**BUFFER IMPACTS PERMIT**

**NOVEMBER 2021**

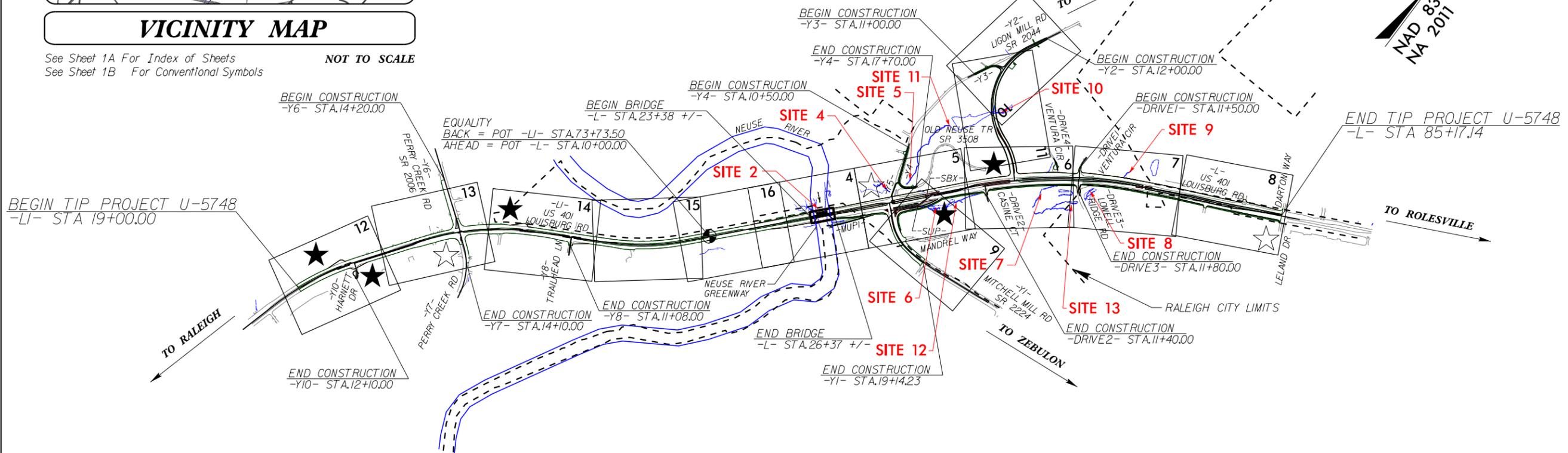
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5748	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
50168.1.1		PE	
50168.2.1		RW	

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



**VICINITY MAP**

See Sheet 1A For Index of Sheets  
See Sheet 1B For Conventional Symbols  
**NOT TO SCALE**



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

CLEARING ON THE PROJECT SHALL BE TO THE LIMITS ESTABLISHED USING METHOD III.

A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF RALEIGH.

**SUBMITTAL:** 25% ROADWAY PLANS  
**DATE:** JULY 27, 2021

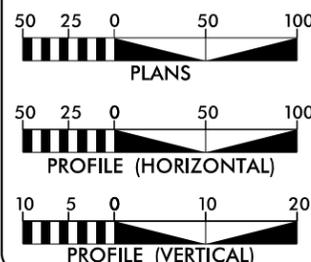
**BUFFER DRAWING  
SHEET 1 OF 9**

★ PROPOSED SIGNAL  
☆ EXISTING SIGNAL

**TIP PROJECT: U-5748**

**CONTRACT:**

**GRAPHIC SCALES**



**DESIGN DATA**

ADT 2022 = 38,425  
ADT 2042 = 58,842  
K = 10 %  
D = 55 %  
T = 3% % \*  
V = 50 MPH  
\* TTST = 1% DUAL 2%  
FUNC CLASS =  
PRINCIPAL ARTERIAL  
REGIONAL TIER

**PROJECT LENGTH**

**LENGTH ROADWAY TIP PROJECT U-5748 = 2.460 MI**  
**LENGTH STRUCTURE TIP PROJECT U-5748 = 0.057 MI**  
**TOTAL LENGTH TIP PROJECT U-5748 = 2.403 MI**

**AECOM**

Prepared In the Office of:  
NC FIRM LICENSE No: F-0342  
5438 Wade Park Blvd., Suite 200  
Raleigh, NC 27607  
(919) 854-6200 - (919) 854-6259(FAX)

2018 STANDARD SPECIFICATIONS

**RIGHT OF WAY DATE:**  
FEBRUARY 19, 2021

**LETTING DATE:**  
OCTOBER 18, 2022

**NEIL J. DEAN, P.E.**  
PROJECT ENGINEER

**ELIZABETH WARGO, P.E.**  
PROJECT DESIGN ENGINEER

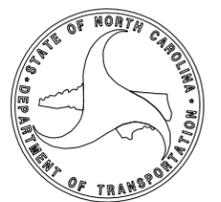
**JENNIFER EVANS, P.E.**  
NCDOT PROJECT ENGINEER

**HYDRAULICS ENGINEER**

SIGNATURE: \_\_\_\_\_ P.E.

**ROADWAY DESIGN  
ENGINEER**

SIGNATURE: \_\_\_\_\_ P.E.

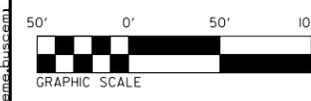
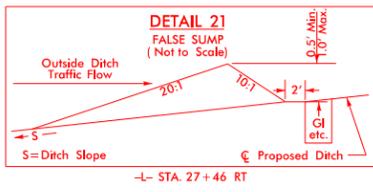
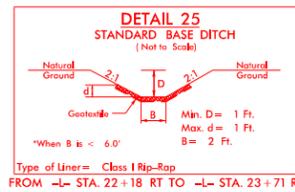
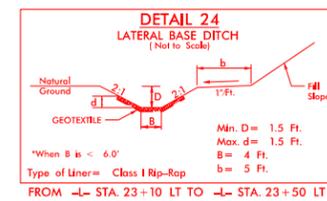
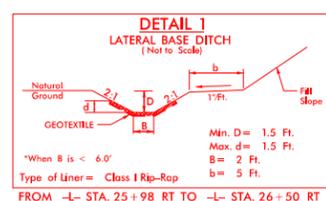
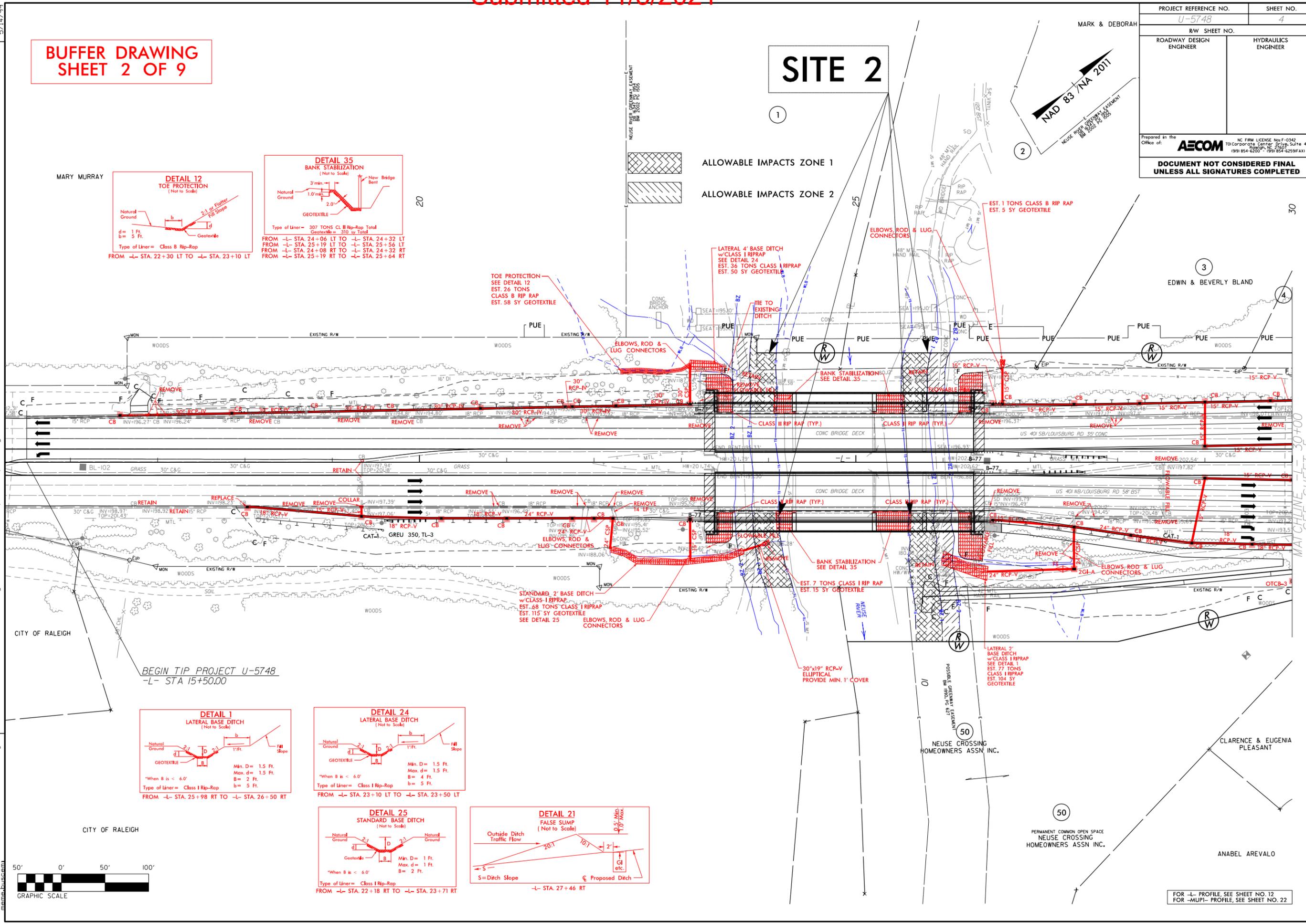
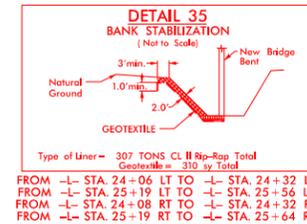
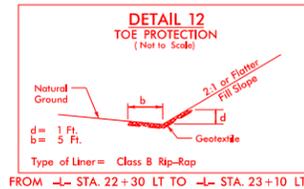


**BUFFER DRAWING SHEET 2 OF 9**

**SITE 2**

PROJECT REFERENCE NO. U-5748	SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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NC FIRM LICENSE No. F-0342 70 Corporate Center Drive, Suite 475 Raleigh, NC 27607 (919) 854-6200 • (919) 854-6259 (FAX)	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

MARY MURRAY



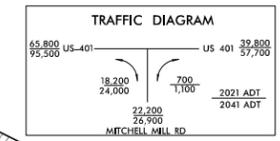
FOR -L- PROFILE, SEE SHEET NO. 12  
FOR -MUP- PROFILE, SEE SHEET NO. 22

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REVISIONS

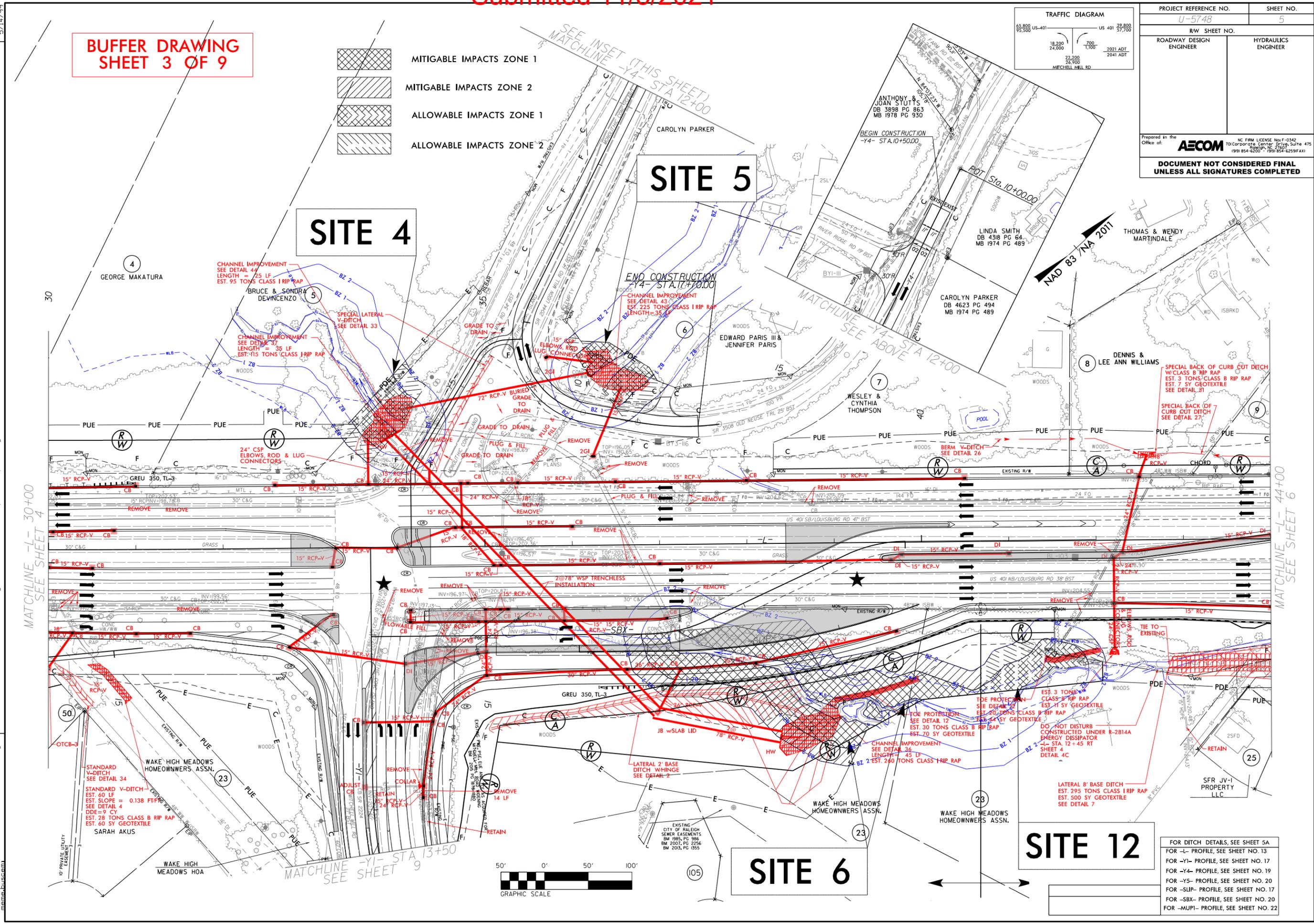
MATCHLINE 30+00 SEE SHEET 5

**BUFFER DRAWING SHEET 3 OF 9**



PROJECT REFERENCE NO. U-5748	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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- MITIGABLE IMPACTS ZONE 1
- MITIGABLE IMPACTS ZONE 2
- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2



REVISIONS

11/10/2021 GIS:910\_CAD:70\_NCDOT\_TIP\Hydro\Utilities\PERMITS\_Environmental\Drawings\PSH\_BUF\_03\_U5748\_prrm\_buf\_psh05.dgn

MATCHLINE -L- 30+00 SEE SHEET 4

MATCHLINE -Y1- STA 13+50 SEE SHEET 9

MATCHLINE -L- 44+00 SEE SHEET 6



FOR DITCH DETAILS, SEE SHEET 5A  
 FOR -L- PROFILE, SEE SHEET NO. 13  
 FOR -Y1- PROFILE, SEE SHEET NO. 17  
 FOR -Y4- PROFILE, SEE SHEET NO. 19  
 FOR -Y5- PROFILE, SEE SHEET NO. 20  
 FOR -SLIP- PROFILE, SEE SHEET NO. 17  
 FOR -SBX- PROFILE, SEE SHEET NO. 20  
 FOR -MUP- PROFILE, SEE SHEET NO. 22

STANDARD V-DITCH  
 SEE DETAIL 34  
 EST. 60 LF  
 EST. SLOPE = 0.138 FT/FT  
 SEE DETAIL 4  
 DDE = 9 CY  
 EST. 28 TONS CLASS B RIP RAP  
 EST. 60 SY GEOTEXTILE  
 SARAH AKUS

WAKE HIGH MEADOWS HOMEOWNERS ASSN.

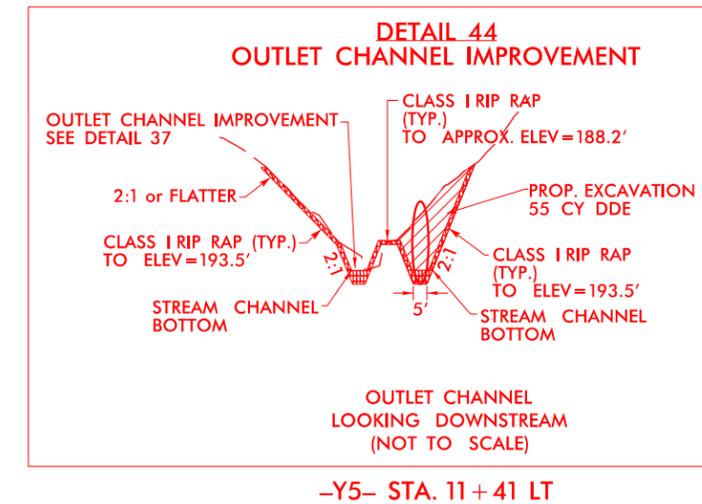
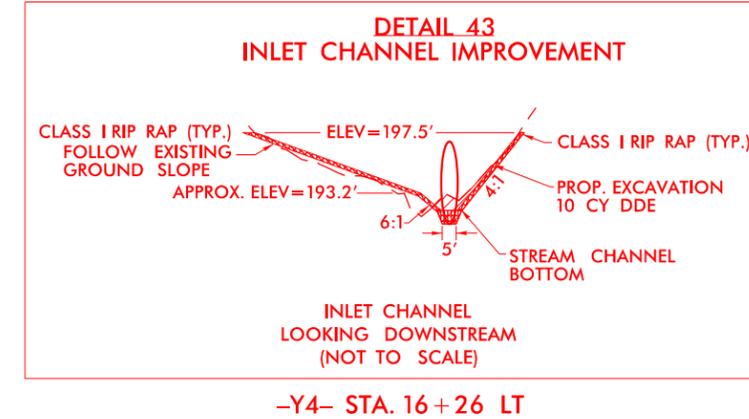
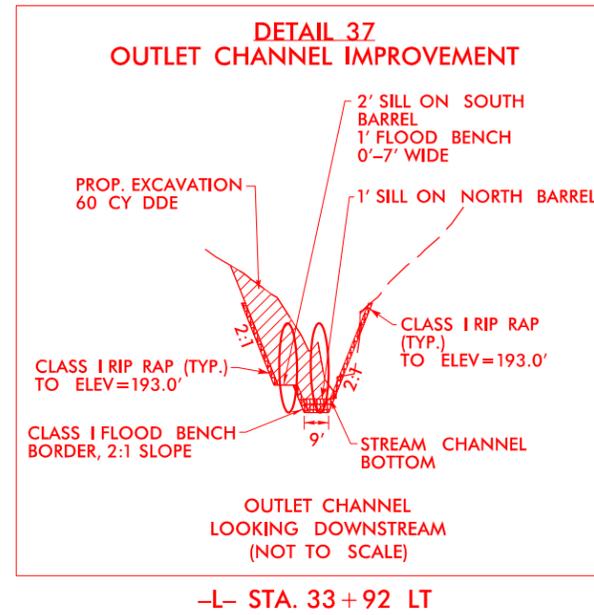
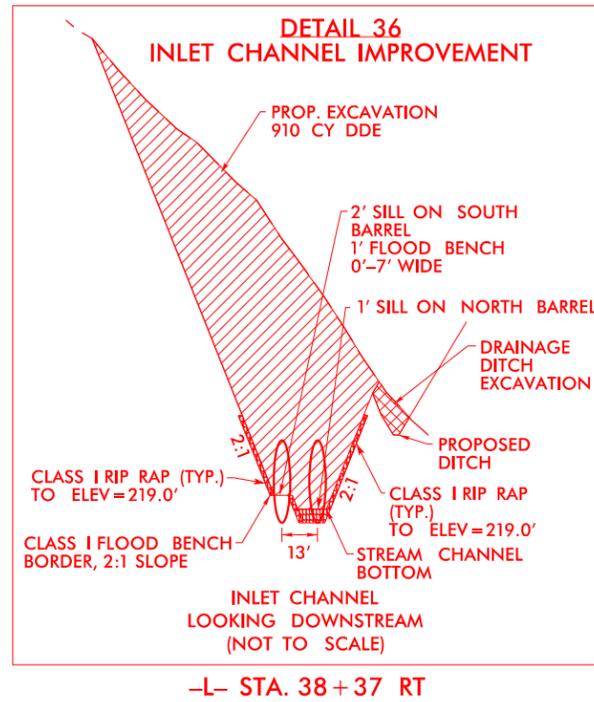
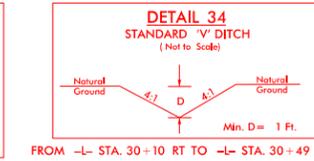
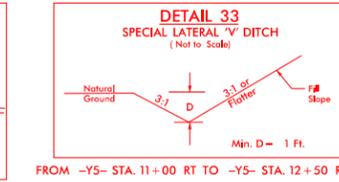
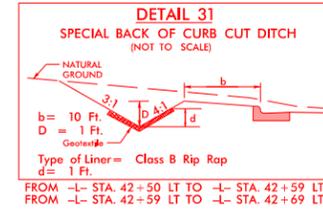
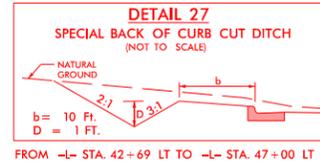
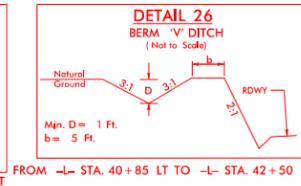
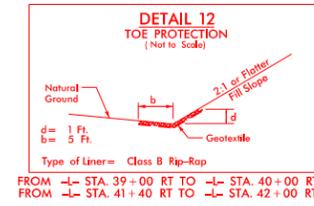
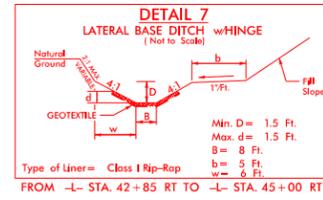
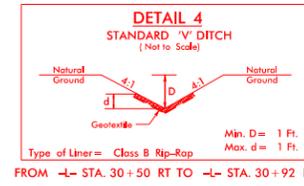
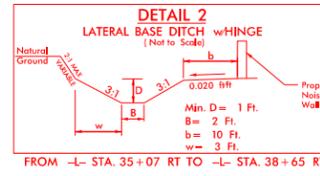
WAKE HIGH MEADOWS HOA

OTCB-3

WAKE HIGH MEADOWS HOMEOWNERS ASSN.

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ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
Prepared in the Office of: <b>AECOM</b> NC FIRM LICENSE No F-0342 70 Corporate Center Drive, Suite 475 Raleigh, NC 27607 (919) 854-6200 • (919) 854-6259(FAX)			
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			

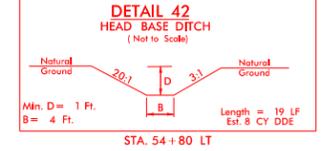
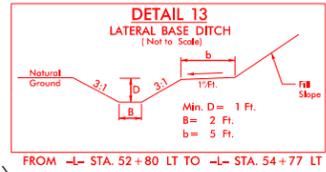
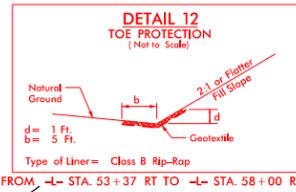
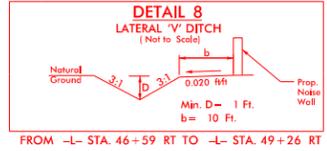
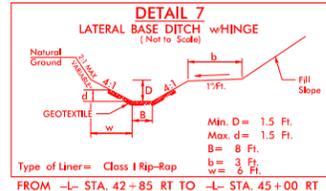
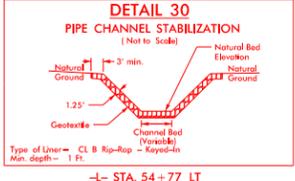
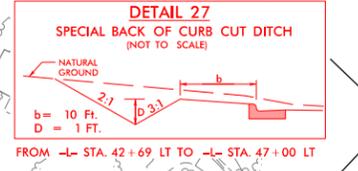
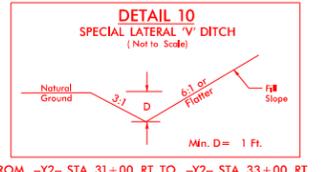
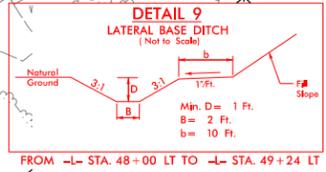
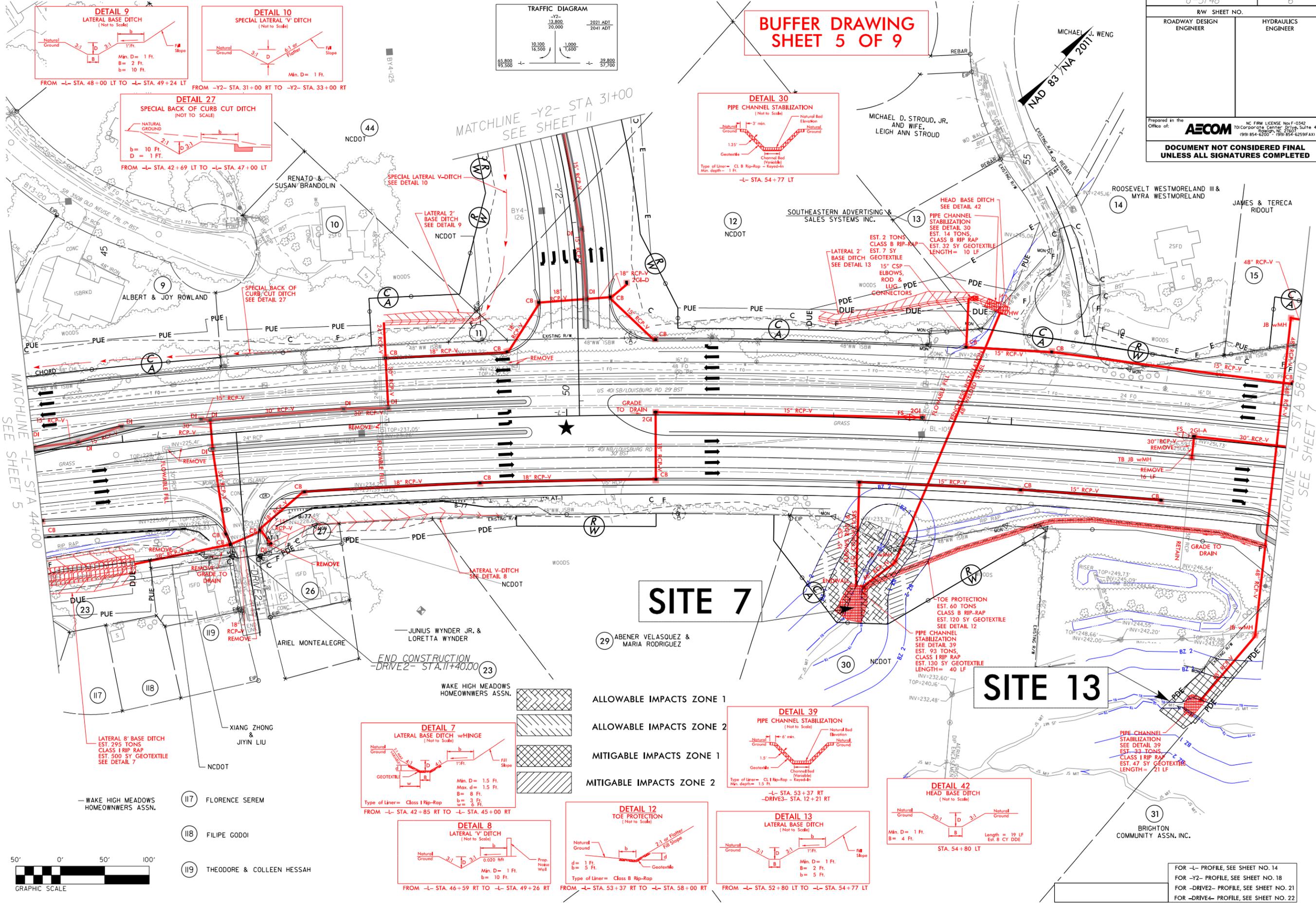
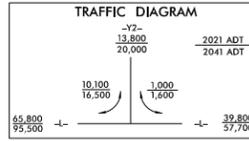
**BUFFER DRAWING  
SHEET 4 OF 9**



REVISIONS

PROJECT REFERENCE NO. U-5748	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

**BUFFER DRAWING SHEET 5 OF 9**



**SITE 7**

**SITE 13**

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

MATCHLINE -L- STA. 44+00 SEE SHEET 5

MATCHLINE -L- STA. 58+00 SEE SHEET 7



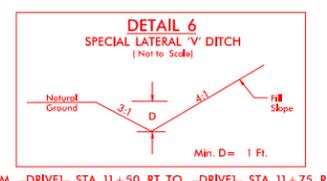
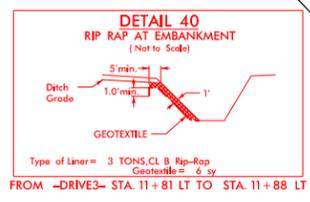
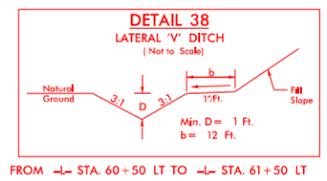
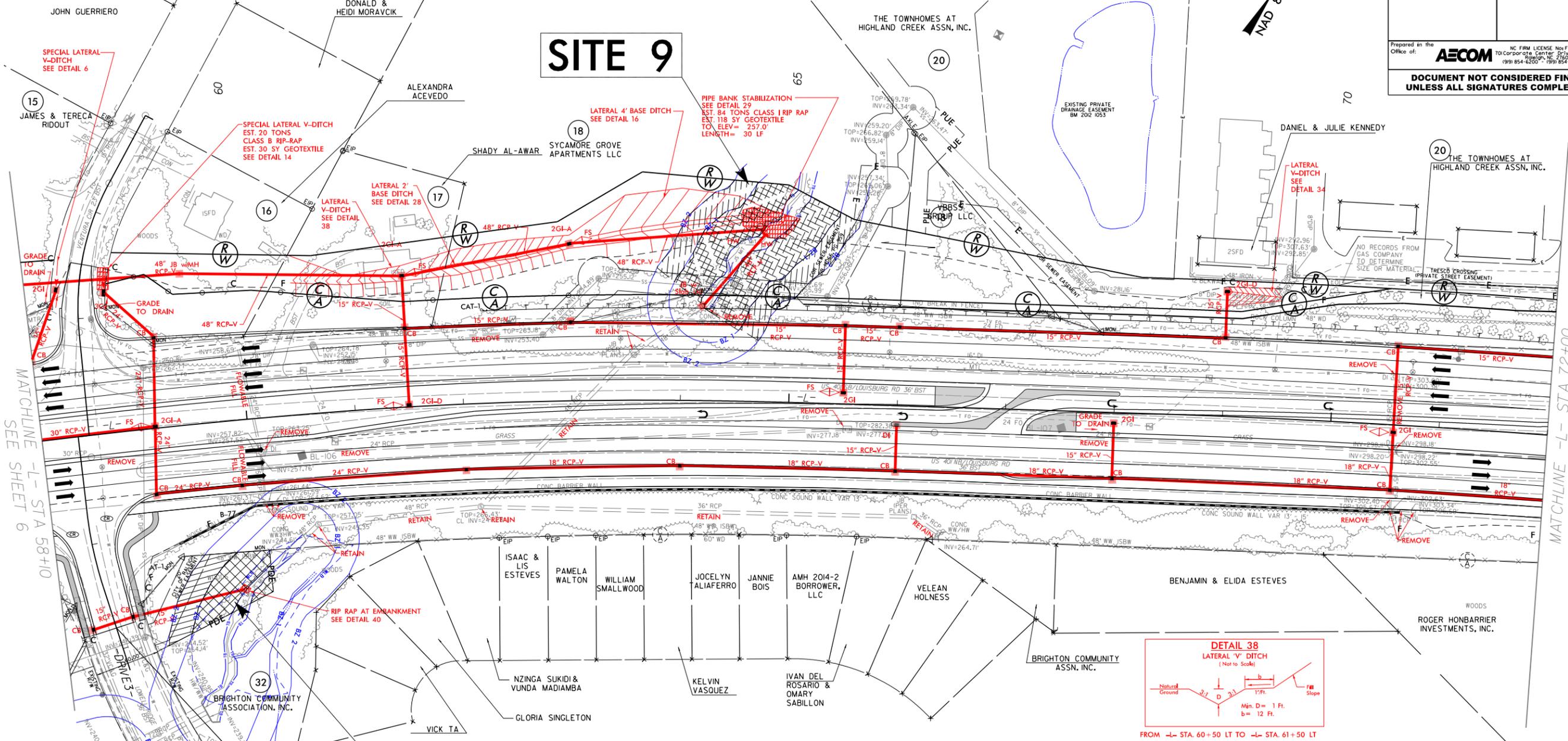
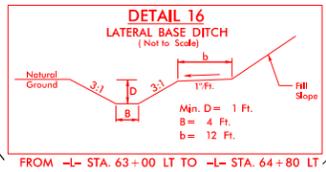
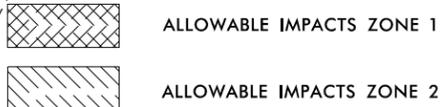
FOR -L- PROFILE, SEE SHEET NO. 14  
 FOR -Y2- PROFILE, SEE SHEET NO. 18  
 FOR -DRIVE2- PROFILE, SEE SHEET NO. 21  
 FOR -DRIVE4- PROFILE, SEE SHEET NO. 22

5/14/99  
 REVISIONS  
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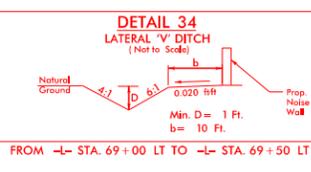
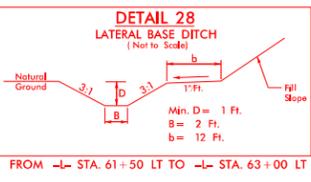
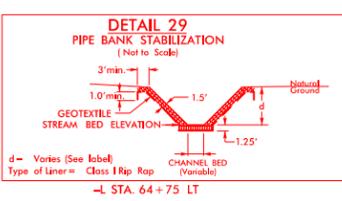
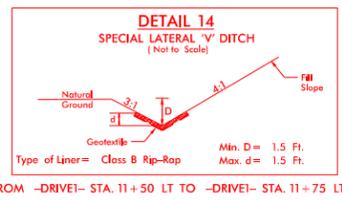
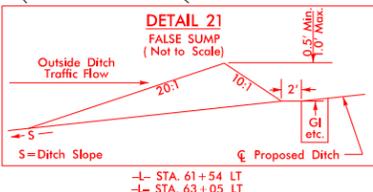
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RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
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**BUFFER DRAWING SHEET 6 OF 9**

**SITE 9**



**SITE 8**



FOR -L- PROFILE, SEE SHEET NO. 15  
FOR -DRIVE1- PROFILE, SEE SHEET NO. 20  
FOR -DRIVE3- PROFILE, SEE SHEET NO. 21

REVISIONS

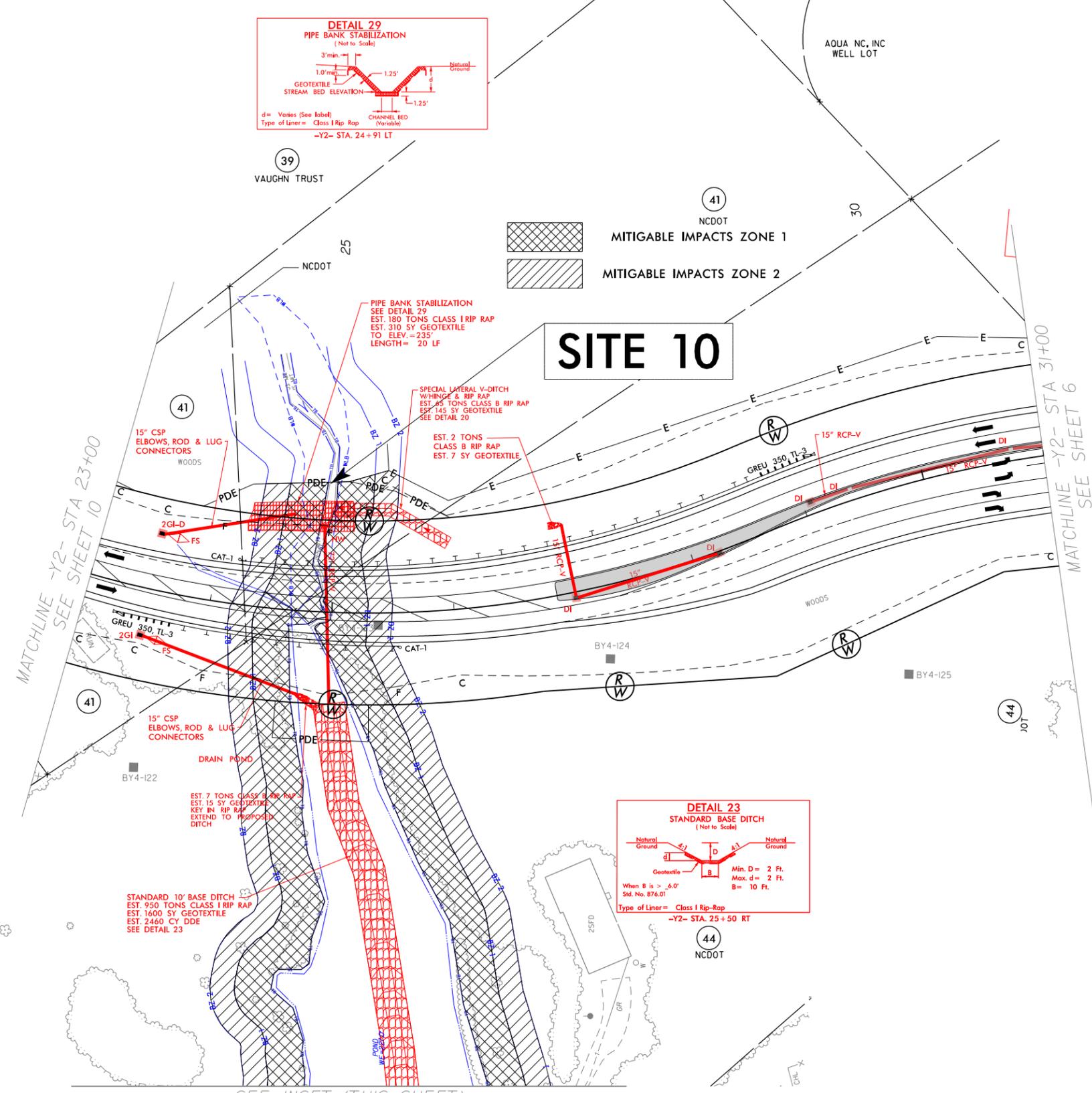
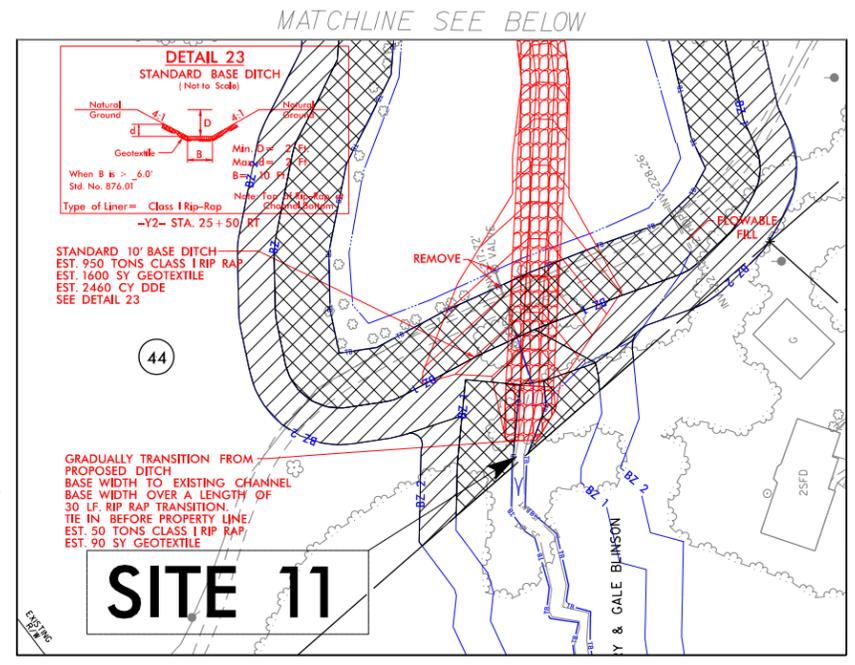
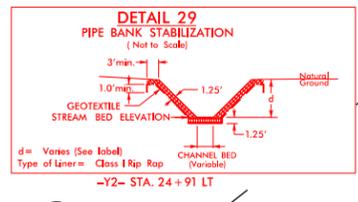
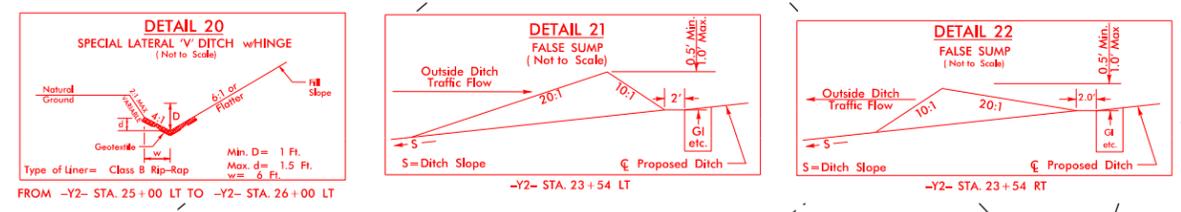
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mamebuscum

MATCHLINE -L- STA 58+10  
SEE SHEET 6

MATCHLINE -L- STA 72+00  
SEE SHEET 8

END CONSTRUCTION  
-DRIVE3- STA. 11+80.00

PROJECT REFERENCE NO. U-5748	SHEET NO. 11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Prepared in the Office of: <b>AECOM</b>	
NC FIRM LICENSE No. F-0342 70 Corporate Center Drive, Suite 475 Raleigh, NC 27607 (919) 854-6200 • (919) 854-6259 (FAX)	
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**SITE 10**

**SITE 11**

**BUFFER DRAWING  
SHEET 7 OF 9**



REVISIONS  
 5/14/99  
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 mamebussem

SEE INSET (THIS SHEET)

MATCHLINE -Y2- STA 23+00  
SEE SHEET 10

MATCHLINE -Y2- STA 31+00  
SEE SHEET 6

SEE ENLARGEMENT SHEET 24





I:\11\2021\p\aeom-na-pw.bentley.com\AECOM\_DS2L\_NA\_2020\Documents\60609754-U-5748 Ligon Mill\900-CAD GIS\910-CAD\70\_NCDOT\_TIP\Hydraulics\PERMITS\_Environmental\Drawings\PSH\_UTL\01\_U5748\_UTL\_09\08/99

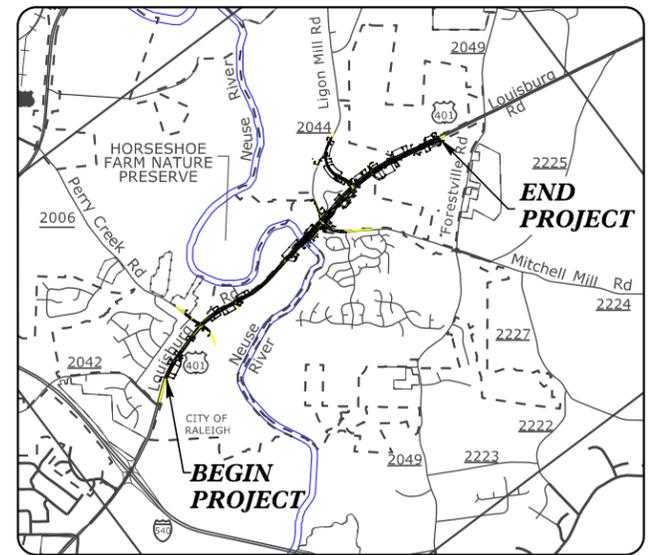
**TIP PROJECT: U-5748**

**CONTRACT:**

T.I.P. NO.	SHEET NO.
U-5748	UE-1

**PERMIT DRAWING  
SHEET 1 OF 3  
UTILITIES**

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



**VICINITY MAP**

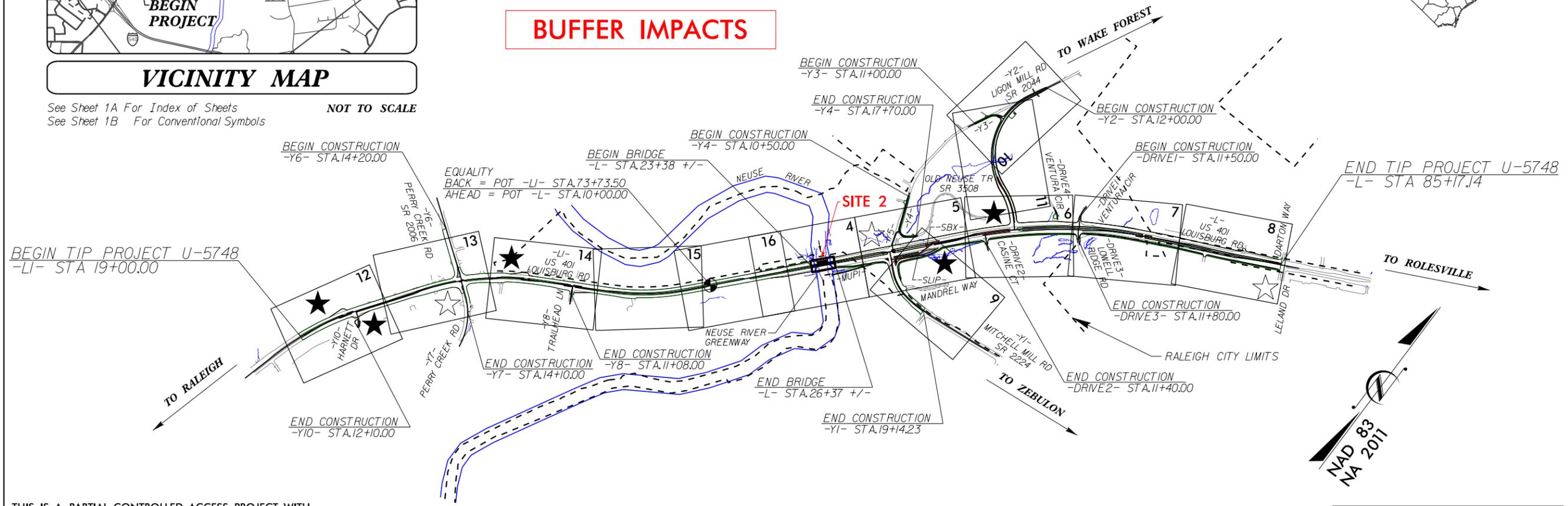
See Sheet 1A For Index of Sheets  
 See Sheet 1B For Conventional Symbols  
 NOT TO SCALE

# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

## UTILITY PERMIT DRAWINGS WAKE COUNTY

**LOCATION: US 401 (LOUISBURG RD) FROM SOUTH OF SR 2044  
 (LIGON MILL RD) /SR 2224 (MITCHELL MILL RD) TO LELAND DR**

### BUFFER IMPACTS



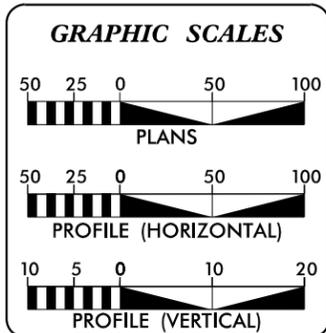
THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS LIMITED TO POINTS AS SHOWN ON THE PLANS.

CLEARING ON THE PROJECT SHALL BE TO THE LIMITS ESTABLISHED USING METHOD III.

A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF RALEIGH.

**SUBMITTAL:** 25% ROADWAY PLANS  
**DATE:** JULY 27, 2021

★ PROPOSED SIGNAL  
 ☆ EXISTING SIGNAL



SHEET NO.:	DESCRIPTION:
UE-1	WETLAND IMPACTS TITLE SHEET
UE-2 THRU UE-3	UTILITY WETLAND IMPACTS

UTILITY OWNERS WITH CONFLICTS
(A) POWER DISTRIBUTION - DUKE ENERGY
(B) POWER DISTRIBUTION - WAKE EMC
(C) CATV - CHARTER
(D) TELECOM - AT&T
(E) NATURAL GAS - DOMINION ENERGY

PREPARED IN THE OFFICE OF:

## AECOM

AECOM TECHNICAL SERVICES OF NORTH CAROLINA, INC.  
 5438 WADE PARK BLVD, SUITE 200, RALEIGH, NC 27607  
 919-854-8200  
 F - 0342

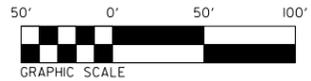
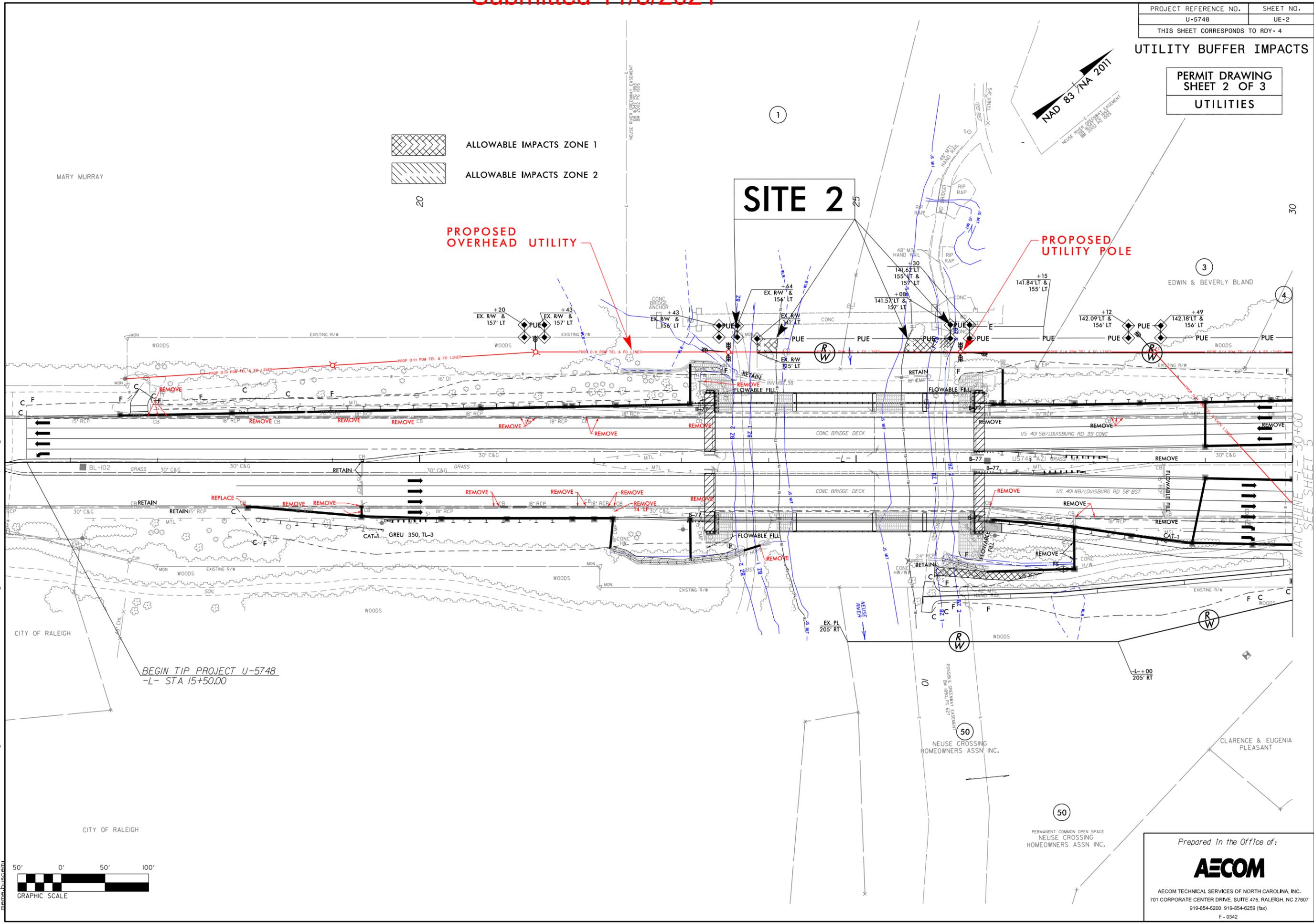
Gary Swinson PROJECT UTILITY COORDINATOR

**DIVISION OF HIGHWAYS  
UTILITIES UNIT**  
 1555 MAIL SERVICES CENTER  
 RALEIGH NC 27699-1555  
 PHONE (919) 707-6690  
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Tucker Martin, PE	UTILITIES REGIONAL ENGINEER
Ali Kochecki, PE	UTILITIES ENGINEER
Dayton Martin	UTILITIES AREA COORDINATOR
Tanga Sampson	UTILITIES COORDINATOR

UTILITY BUFFER IMPACTS

PERMIT DRAWING  
SHEET 2 OF 3  
UTILITIES



Prepared In the Office of:

**AECOM**

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919-854-6200 919-854-6259 (fax)  
F - 0342

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 mamebussem

MATCHLINE - SEE SHEET 5

**UTILITY BUFFER IMPACTS SUMMARY**

Site No.	Station (From/To)	Structure Size / Type	IMPACTS									BUFFER REPLACEMENT	
			TYPE			ALLOWABLE			MITIGABLE			ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )
			ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )	TOTAL (ft <sup>2</sup> )	ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )	TOTAL (ft <sup>2</sup> )		
2	-L- 23+60 - 26+15 RT	Overhead Utility				828	494	1322					
<b>TOTALS*:</b>						<b>828</b>	<b>494</b>	<b>1322</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

NOTES:

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 11/01/2021  
 WAKE COUNTY  
 U-5748  
 50168.1.1  
 SHEET 3 OF 3