

# Project Submittal Interim Form



Updated June 20, 2017

*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: \***
- New Project
  - New Project with Existing ID
  - Pre-Application Submittal
  - More Information Response
  - Other Agency Comments
  - For the Record Only (Courtesy Copy)
  - Stream or Buffer Appeal

**Is this supplemental information that needs to be sent to the Corps? \***

- Yes  No

**New Project** - Please check the new project type if you are trying to submit a new project that needs an official approval decision.

**Pre-Application Submittal** - Please check the pre-application submittal if you just want feedback on your submittal and do not have the expectation that your submittal will be considered a complete application requiring a formal decision.

**More Information Response** - Please check this type if you are responding to a request for information from staff and you have an ID# and version for this response.

**Other Agency Comments** - Please check this if you are submitting comments on an existing project.

## Project Contact Information

**Name:** Chris Rivenbark  
*Who is submitting the information?*

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

## Project Information

**Existing ID #: \*** 20200220  
*20170001 (no dashes)*

**Existing Version: \*** 1

**Project Name: \*** Bridge No. 87 on NC 33 over Norfolk Southern Railroad, (B-5301 Central)

**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#:**

B-5301

**WBS#:**

46015.1.1

(Applies to DOT projects only)

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**County (ies) \***

Pitt

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

[Click the upload button or drag and drop files here to attach document](#)

B-5301 Revised permit drawings.pdf	5.88MB
B-5301_wetland forms.pdf	278.38KB
Mildred Woods Mitigation_B-5301.pdf	168.76KB
EPCN B-5301 Nationwide Pitt April 15 2020.pdf	1.96MB

Only pdf or kmz files are accepted.

**Describe the attachments:**

All buffer impacts have been removed due to the feature at Site 2 not being buffered. The attached ECPN has been edited in pdf format to show the changes. There are no longer buffer impacts for bridge or utilities and the permit drawings no longer have buffers shown. Linear stream impacts are no longer provided though the man made ditch is still has surface water impacts shown in ac and is potential tributary to Waters of the US. Previously provided wetland data forms and Mildred Woods Debit Ledger are provided again, though they have not changed.

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

- o I have given true, accurate, and complete information on this form;
- o I agree that submission of this form is a "transaction" subject to Chapter 66, Article 40 of the NC General Statutes (the "Uniform Electronic Transactions Act")
- o 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");
- o I understand that an electronic signature has the same legal effect and can be enforced in the same way as a written signature; AND
- o I intend to electronically sign and submit the online form."

**Signature: \***



**Submittal Date:**

4/15/2020

Is filled in automatically once submitted.



## Pre-Construction Notification (PCN) Form

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

September 29, 2018 Ver 3

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>

### A. Processing Information

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

Pitt

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:

B-5301

WBS # \*

46015.1.1

(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)

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

Nationwide Permit (NWP)

Regional General Permit (RGP)

Standard (IP)

This form may be used to initiate the standard/individual permit process with the Corps. Please contact your Corps representative concerning submittals for standard permits. All required items that are not provided in the E-PCN can be added to the miscellaneous upload area located at the bottom of this form.

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

Yes  No

Nationwide Permit (NWP) Number:

Nationwide Permit (NWP) Number:

NWP Numbers (for multiple NWPS):

List all NW 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 Permit

401 Water Quality Certification - Express

Riparian Buffer Authorization

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? \*

~~23 - Categorical Exclusions~~  
~~12 - Utility Lines~~



Now, no buffer impacts to any jurisdictional resources

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

Mildred Woods Mitigation\_B-5301.pdf

168.76KB

FILETYPE 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: \***

gcashin@ncdot.gov

**1c. Primary Contact Phone: \***

(xxx)xxx-xxxx  
(919)707-6107

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

Owner

(Check all that apply)

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. Responsible party:**

(for Corporations)

**2d. Address \***

Street Address

1000 Birch Ridge Drive

Address Line 2

City

Raleigh

Postal / Zip Code

27604

State / Province / Region

NC

Country

USA

**2e. Telephone Number: \***

(xxx)xxx-xxxx

(919)707-6107

**2f. Fax Number:**

(xxx)xxx-xxxx

**2g. Email Address: \***

pharris@ncdot.gov

## C. Project Information and Prior Project History

### 1. Project Information

**1a. Name of project: \***

Bridge No. 87 on NC 33 over Norfolk Southern Railroad, (B-5301 Central)

**1b. Subdivision name:**

(if appropriate)

**1c. Nearest municipality / town: \***

Grimesland

## 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: \*

35.569888  
ex: 34.208504

#### Longitude: \*

-77.203997  
-77.796371

## 3. Surface Waters

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

Chicod Creek

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

C; NSW

[Surface Water Lookup](#)

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

Tar-Pamlico

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

030201030604 / 030201030605

[River Basin Lookup](#)

## 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 project vicinity consists primarily of agricultural fields interspersed with forestland along the stream corridor.

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

Yes  No  Unknown

### 4d. Attach an 8 1/2 X 11 excerpt from the most recent version of the USGS topographic map indicating the location of the project site. (for DWR)

[Click the upload button or drag and drop files here to attach document](#)

File type must be pdf

### 4e. Attach an 8 1/2 X 11 excerpt from the most recent version of the published County NRCS Soil Survey map depicting the project site. (for DWR)

[Click the upload button or drag and drop files here to attach document](#)

File type must be pdf

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

0.44

### 4g. List the total estimated linear feet of all existing wetlands on the property:

(intermittent and perennial)

100

drawings updated to no longer show the buffers

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

The purpose of this project is to replace a structurally deficient bridge.

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

The bridge will be replaced on a new roadway alignment east of the existing bridge. The existing bridge will be used to maintain traffic during construction of the new bridge and roadway. The new bridge will be a three-span bridge approximately 240 feet long, with two 12-foot lanes and 4-foot shoulders. The roadway grade will be raised 4.5 - 4.75 feet from the existing structure to provide required clearance. Standard road building equipment, such as trucks, dozers and cranes will be used.

### 4j. Please upload project drawings for the proposed project.

[Click the upload button or drag and drop files here to attach document](#)

B-5301 Wetland Permit Drawings.pdf

11MB

B-5301 Buffer Permit Drawings.pdf

3.24MB

B-5301\_Utility Buffer.pdf

2.45MB

File type must be pdf

## 5. Jurisdictional Determinations

all buffer impacts are removed

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

Yes  No  Unknown

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

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

Name (if known): Chris Manley, Tyler Stanton, John Merritt

Agency/Consultant Company: NCDOT

Other:

5d1. Jurisdictional determination upload

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

B-5301\_wetland forms.pdf

278.38KB

File type must be PDF

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.

D. Proposed Impacts Inventory

1. Impacts Summary

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

Wetlands  Streams-tributaries  Buffers  
 Open Waters  Pond Construction

2. Wetland Impacts

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

"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	Roadway and toe protection	P	Hardwood Flat	Wetland	Yes	Both	0.679 (acres)
1	Mechanized clearing	P	Hardwood Flat	Wetland	Yes	Both	0.067 (acres)
3	Mechanized clearing	P	Hardwood Flat	Wetland	Yes	Both	0.002 (acres)

2g. Total Temporary Wetland Impact

0.000

2g. Total Permanent Wetland Impact

0.748

2g. Total Wetland Impact

0.748

2h. Comments:

There will be 0.26 acre of hand clearing due to bridge construction.

Per DWR, Site 2 feature is no longer a stream. Now accounted for as surface water (ac) only assuming USACE will claim it as a tributary to Waters of the US.

3. Stream Impacts

If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, the

"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* <small>Average (feet)</small>	3h. Impact length* <small>(linear feet)</small>
S1	RCP installation	Permanent	Culvert	Site 2	Perennial	Both	2 <small>Average (feet)</small>	15 <small>(linear feet)</small>
S2	RCP installation	Temporary	Culvert	Site 2	Perennial	Both	2 <small>Average (feet)</small>	14 <small>(linear feet)</small>
S3	Bank stabilization	Permanent	Bank Stabilization	Site 2	Perennial	Both	2 <small>Average (feet)</small>	42 <small>(linear feet)</small>

\*\* 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:**

57

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

14

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

71

**3j. 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

No longer any buffer impacts

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>
Pipe installation/earthwork	P	Unnamed trib	No	1,924 <small>(square feet)</small>	953 <small>(square feet)</small>
Swale excavation in buffer	P	Unnamed trib	No	2,432 <small>(square feet)</small>	1,331 <small>(square feet)</small>
Temp. disturbance for construction	T	Unnamed trib	No	1,182 <small>(square feet)</small>	1,075 <small>(square feet)</small>
Site OH Utilities	P	Unnamed trib	No	82 <small>(square feet)</small>	0 <small>(square feet)</small>
Site 2 Utilities	P	Unnamed trib	No	0 <small>(square feet)</small>	1,436 <small>(square feet)</small>
Site 3 Utilities	P	Unnamed trib	No	640 <small>(square feet)</small>	0 <small>(square feet)</small>

**6h. Total buffer impacts:**

	Zone 1	Zone 2
Total Temporary impacts:	1,182.00	1,075.00

	Zone 1	Zone 2
Total Permanent impacts:	5,078.00	3,720.00

	Zone 1	Zone 2
Total combined buffer impacts:	6,260.00	4,795.00

**6i. Comments:**

**Supporting Documentation - i.e. Impact Maps, Plan Sheet, etc.**

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

File must be PDF

## E. Impact Justification and Mitigation



### 1. Avoidance and Minimization

1a. Specifically describe measures taken to avoid or minimize the project impacts on riparian buffers.

The new alignment alternative was selected to minimize impacts on riparian buffers.

1b. Specifically describe measures taken to avoid or minimize the project impacts on riparian buffers.

NCDOT's Design Standards in Sensitive Watersheds will be adhered to. See

DSSW removed due to no buffers. BMPs for Construction and Maintenance Activities will be adhered to.

### 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

Shouldn't have been checked originally. NCDOT site Mildred Woods from the debit ledger is the only source of 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 website.

4d. Buffer mitigation requested (DWR only):

(square feet)

4e. Riparian wetland mitigation requested:

(acres)

4f. Non-riparian wetland mitigation requested:

(acres)

4g. Coastal (tidal) wetland mitigation requested:

(acres)

.75

4h. Comments

### 5. Complete if Using a Permittee Responsible Mitigation Plan

5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan including mitigation credits generated.

5b. Mitigation Plan Upload

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

File type must be pdf

5c. If no, then discuss what type of mitigation is proposed.

Proposed buffer impacts do not exceed the mitigation threshold.

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



\*\*\* Recent changes to the stormwater rules have re

No buffered streams

### 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. 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](#).

#### Diffuse Flow Documentation

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

File type must be PDF

## 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

#### NEPA or SEPA Final Approval Letter

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

FILETYPE MUST BE PDF

### 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.

Due to minimal transportation impact resulting from the bridge replacement the project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary.

### 4. Sewage Disposal (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?

NOAA Fisheries

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? \*

NC Natural Heritage Program database, USFWS Raleigh Field Office website, Biological Conclusions of "No Effect" were reached for the red-cockaded woodpecker, West Indian manatee, dwarf wedgemussel, Tar River spiny mussel, yellow lance, and Atlantic sturgeon. The Northern long-eared bat will be addressed by the Programmatic Biological Conclusion.

Consultation Documentation Upload

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

File type must be PDF

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/hpoweb/>)

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

7c. Historic or Prehistoric Information Upload

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

File must be PDF

8. Flood Zone Designation (Corps Requirement)

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

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

Yes  No

8c. What source(s) did you use to make the floodplain determination? \*

FEMA maps

Miscellaneous

Comments

Miscellaneous attachments not previously requested.

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

File must be PDF or KMZ

Signature

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

- 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: \*

Mack Christopher Rivenbark, III

Signature



Date

2/11/2020

Digitally signed  
by Chris  
Rivenbark  
Date: 2020.04.15  
11:31:44 -04'00'

Mildred Woods Mitigation Site  
ONEID 033-001

The Mildred Woods Mitigation Site is located in Edgecombe County within the USGS hydrologic unit 03020103 of the Pamlico River. NCDOT acquired the 598.31 acre site to mitigate for unavoidable, jurisdictional impacts associated with TIP R-2111/R-2112A. Monitoring requirements were performed from 1996 to 2003 and the site was closed out in 2005. The 2002 Monitoring Report and Closeout Letters state that there is a total of 379.1 acres of total wetlands on the site. NCDOT sent EEP numbers based off of a starting amount of 369 acres of restoration and 23 acres of preservation. However, these should have been a starting amount of 356.1 acres of restoration and 23 acres of preservation. 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 03020103. Tables 2-3 indicate all mitigation debits that have occurred per regulatory agency approval.

In order to offset unavoidable impacts associated with B-5301, NCDOT will be debiting the onsite debit ledger 0.75 acres from Mildred Woods mitigation site to cover the impacts associated with this project.

Table 1. Mitigation Quantities Approved

HUC	Mitigation Type	Starting Amount (Ac.)	Additional Notes
3020103	Non-Riparian Restoration	356.1	
3020103	Non-Riparian Preservation	23	

Table 2. Mitigation Debts – Non-Riparian Restoration

TYPE	DEBITAMOUNT	Status	SITE TIP	Action ID#	Notes
NRW_REST	-100	Close Out	EEP		EEP ledger indicates that 100 acres were transferred from EEP to NCDOT
NRW_REST	0	Close Out	Alterations		Issues with hydrology during monitoring were resolved at closeout says Jim Hauser. Was originally 23.5 ac
NRW_REST	0	Close Out	B-4020	2007-04084	Was originally 0.46 acres. But the mitigation was not needed due to a reduction in impacts for B-4020. The on-site restoration at Tranter's Creek was sufficient to cover the impacts.
NRW_REST	0	Close Out	B-4021	2007-04082	Was originally 0.25 acres. But EEP will provide mitigation for impacts to 0.124 acres of riverine wetlands.
NRW_REST	1.86	Close Out	U-3826	2009-00101	0.62 acres @ 3:1

TYPE	DEBITAMOUNT	Status	SITE TIP	Action ID#	Notes
NRW_REST	9.2	Close Out	P-3309AB	2008-01789	4.62 acres @ 2:1
NRW_REST	23	Close Out	R-2112B	199601404	
NRW_REST	116.1	Close Out	EEP		Credits Transferred to EEP
NRW_REST	217	Close Out	R-2111, & R-2112A	199400662	
NRW_REST	0.75	Close Out	B-5301		

Table 3. Mitigation Debits – Non-Riparian Preservation

TYPE	DEBITAMOUNT	Status	SITE TIP	Action ID#	Notes
NRW_PRES	8	Close Out	EEP		Credits Transferred to EEP
NRW_PRES	15	Close Out	R-2112B	199601404	

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: B-5301 City/County: Grimesland/Pitt Sampling Date: 5-8-2012  
 Applicant/Owner: NCDOT State: NC Sampling Point: Wetland  
 Investigator(s): CM, TS, JM Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks:	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> ___ Surface Water (A1)                      ___ Aquatic Fauna (B13) ___ High Water Table (A2)                    ___ Marl Deposits (B15) (LRR U) ___ Saturation (A3)                            ___ Hydrogen Sulfide Odor (C1) ___ Water Marks (B1)                          ___ Oxidized Rhizospheres along Living Roots (C3) ___ Sediment Deposits (B2)                    ___ Presence of Reduced Iron (C4) ___ Drift Deposits (B3)                        ___ Recent Iron Reduction in Tilled Soils (C6) ___ Algal Mat or Crust (B4)                    ___ Thin Muck Surface (C7) ___ Iron Deposits (B5)                         ___ Other (Explain in Remarks) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9)	<p><u>Secondary Indicators (minimum of two required)</u></p> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) ___ Sphagnum moss (D8) (LRR T, U)
<p><b>Field Observations:</b></p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: Wetland

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Liquidambar styraciflua</i>	20	Y	FAC+
2. <i>Quercus nigra</i>	15	Y	FAC
3. <i>Pinus taeda</i>	10	N	FAC
4. <i>Acer rubrum</i>	10	N	FAC
5. _____			
6. _____			
7. _____			
8. _____			

55 = Total Cover  
 50% of total cover: 0 20% of total cover: 2

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Liquidambar styraciflua</i>	10	Y	FAC+
2. <i>Quercus nigra</i>	10	Y	FAC
3. <i>Acer rubrum</i>	10	Y	FAC
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			

\_\_\_\_\_ = Total Cover  
 50% of total cover: 3 20% of total cover: 0

Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Eupatorium sp.</i>	50	Y	FACW
2. <i>Arundinaria gigantea</i>	30	N	FACW
3. <i>Woodwardia arcolata</i>	5	N	OBL
4. <i>Boehmeria cylindrica</i>	5	N	FACW+
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			

\_\_\_\_\_ = Total Cover  
 50% of total cover: 1 20% of total cover: 1

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Smilax rotundifolia</i>	15	Y	FAC
2. <i>Vitis labrusca</i>	15	Y	FAC+
3. _____			
4. _____			
5. _____			

30 = Total Cover  
 50% of total cover: 2 20% of total cover: 0

Remarks: (If observed, list morphological adaptations below).

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 13 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤3.0<sup>1</sup>
- Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes  No

**SOIL**

Sampling Point: Wetland

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10yr 4/1	90	10yr 6/6	10	C	M		Sandy Clay loam
10-16	10yr 2/1	100			C	M		Loamy sand

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**
- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)   |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)  |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T)  |
| <input type="checkbox"/> Stratified Layers (A5)                | <input checked="" type="checkbox"/> Depleted Matrix (F3)                            | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 153B)   |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Very Shallow Dark Surface (TF12)   |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Other (Explain in Remarks)   |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   |   |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |   |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  | <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |   |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |   |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |   |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |   |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |   |

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: B-5301 City/County: Grimesland/Pitt Co. Sampling Date: 5-8-2012  
 Applicant/Owner: NC DOT State: NC Sampling Point: Upland  
 Investigator(s): CM, TS, JM Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks:	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ Aquatic Fauna (B13) ___ High Water Table (A2)      ___ Marl Deposits (B15) (LRR U) ___ Saturation (A3)      ___ Hydrogen Sulfide Odor (C1) ___ Water Marks (B1)      ___ Oxidized Rhizospheres along Living Roots (C3) ___ Sediment Deposits (B2)      ___ Presence of Reduced Iron (C4) ___ Drift Deposits (B3)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Algal Mat or Crust (B4)      ___ Thin Muck Surface (C7) ___ Iron Deposits (B5)      ___ Other (Explain in Remarks) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ FAC-Neutral Test (D5) ___ Sphagnum moss (D8) (LRR T, U)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	



VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: upland

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Pinus taeda</u>	<u>70</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
2. <u>Liquidambar styraciflua</u>	<u>40</u>		<u>FAC+</u>
3. <u>Sassafras albidum</u>	<u>15</u>		<u>FACU</u>
4. <u>Acer rubrum</u>	<u>15</u>		<u>FAC</u>
5. _____			
6. _____			
7. _____			
8. _____			

140 = Total Cover  
50% of total cover: 1 20% of total cover: 1

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Liquidambar styraciflua</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC+</u>
2. <u>Acer rubrum</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
3. <u>Sassafras albidum</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			

45 = Total Cover  
50% of total cover: \_\_\_\_\_ 20% of total cover: 3

Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Arundinaria gigantea</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			

10 = Total Cover  
50% of total cover: 1 20% of total cover: \_\_\_\_\_

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Smilax rotundifolia</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
2. <u>Vitis labrusca</u>	<u>10</u>		<u>FAC+</u>
3. _____			
4. _____			
5. _____			

35 = Total Cover  
50% of total cover: 1 20% of total cover: 1

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____	(A) _____ (B) _____

Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes  No

Remarks: (If observed, list morphological adaptations below).

SOIL

Sampling Point: upland

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10yr 3/1						sand	Coatings < 70%



<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)	<input type="checkbox"/> 1 cm Muck (A9) (LRR O)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)	<input type="checkbox"/> 2 cm Muck (A10) (LRR S)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)	<input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T)
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 153B)
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Muck Presence (A8) (LRR U)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Marl (F10) (LRR U)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)	
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)	<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)	
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)	
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)	<input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	

Restrictive Layer (if observed):  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:

		North Carolina Department of Transportation Highway Stormwater Program <b>STORMWATER MANAGEMENT PLAN</b> FOR NCDOT PROJECTS					
(Version 2.08; Released April 2018)							
WBS Element: 46015.1.1		TIP No.: B-5301		County(ies): Pitt		Page 1 of 2	
General Project Information							
WBS Element:		46015.1.1		TIP Number: B-5301		Date: 9/6/2019	
NCDOT Contact:		David Stutts, PE		Contractor / Designer:		Andy Howell, PE	
		Address: Structures Management Unit 1581 Mail Service Center Raleigh, NC 27699-1581				Address: SEPI Engineering 1 Glenwood Ave., Ste. 600 Raleigh, NC 27603	
		Phone: 919-707-6442				Phone: 919-747-5839	
		Email: <a href="mailto:dstutts@ncdot.gov">dstutts@ncdot.gov</a>				Email: <a href="mailto:ahowell@sepiinc.com">ahowell@sepiinc.com</a>	
City/Town:		Grimesland		County(ies):		Pitt	
River Basin(s):		Tar-Pamlico		CAMA County?		No	
Wetlands within Project Limits?		Yes					
Project Description							
Project Length (lin. miles or feet):		0.587 miles		Surrounding Land Use: Rural Coastal Plain, Primarily Agricultural. Urban at End Project Limits.			
		Proposed Project			Existing Site		
Project Built-Up Area (ac.):		3.9 ac.			3.1 ac.		
Typical Cross Section Description:		NC 33 (-L-), 2-lane, 2-way traffic with 287-ft bridge structure on new location north of existing alignment. Roadway project is primarily in an approach fill section with shoulder berm gutter and ditches at the toe of slope. Travel lanes are 12-ft wide with 4-ft full depth paved shoulders. Grassed shoulders are 4-ft wide (7-ft with guardrail) on both sides. Proposed approach fill sideslopes are 3:1.			NC 33 (-L-), 2-lane, 2-way traffic with +/- 211-ft bridge structure. Roadway project is primarily in an approach fill section with existing open shoulders and ditches at the toe of slope. Travel lane width varies 10 to 11-ft. No existing paved shoulders. Existing 6-ft grassed shoulders on bridge approaches with guardrail on both sides. Existing approach fill sideslopes are variable up to 1:1.		
Annual Avg Daily Traffic (veh/hr/day):		Design/Future: 13,200 Year: 2040		Existing: 9,300 Year: 2020			
General Project Narrative: (Description of Minimization of Water Quality Impacts)		<p>The B-5301 project proposes to replace existing Bridge #87, NC 33 over Norfolk Southern Railroad near Grimesland in Pitt County with a new bridge structure. The bridge is proposed to be constructed on new location to the north of existing. This will result in substantial impact to wetlands located to the northeast of the existing crossing.</p> <p>A "replace in place" strategy was investigated to construct the proposed bridge on approximate existing alignment with an offsite detour. However, an environmental justice issue was identified precluding this alternative from being selected. The bridge over Norfolk Southern serves as the only access point to the community of Grimesland for multiple residences located in the southwest quadrant of the existing overpass. The offsite detour was found to impose an unreasonable burden on this community.</p> <p>The geotechnical recommendation for this site in Pitt County was to provide 3:1 sideslopes on the approach fill. This required the bridge to both be shifted further away from the existing alignment and result in higher impacts to existing wetlands in the northeast quadrant of the existing overpass. Multiple alternatives were considered to steepen up the sideslopes and minimize these impacts. However, it was determined that no practical alternative existed to providing 3:1 sideslopes. Stability of the proposed approach fill and long term maintenance of NC 33 required the use of 3:1 slopes.</p> <p>Given the project commitments and technical constraints, no practical alternative exists to replace Bridge #87 other than as proposed herein.</p> <p>An existing cross pipe at Station 40+07 is proposed for replacement. The proposed pipe will be longer than existing due to the improved typical section. The proposed pipe requires a headwall on the upstream end which must be located outside of the roadway clear recovery zone. The existing channel up and downstream of the crossing exhibits some signs of instability, and therefore rip rap bank stabilization has been proposed within right-of-way and permanent drainage easement. In order to minimize impacts to the existing channel, effective pipe grades and elevations have been maintained to the extent practicable.</p>					
Waterbody Information							
Surface Water Body (1):		Chicod Creek		NCDWR Stream Index No.:		28-101	
NCDWR Surface Water Classification for Water Body		Primary Classification:		Class C			
		Supplemental Classification:		Nutrient Sensitive Waters (NSW)			
Other Stream Classification:		None					
Impairments:		dissolved oxygen (DO)					
Aquatic T&E Species?		No Comments:					
NRTR Stream ID:		None Available					
Project Includes Bridge Spanning Water Body?		No		Deck Drains Discharge Over Buffer?		N/A	
Deck Drains Discharge Over Water Body?		N/A		Dissipator Pads Provided in Buffer?		N/A	
(If yes, provide justification in the General Project Narrative)		(If yes, provide justification in the General Project Narrative)			(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)		

Revised April 15, 2020

See Sheet 1A For Index of Sheets  
See Sheet 1B For Conventional symbols  
See Sheet 1C For Survey Control Sheet

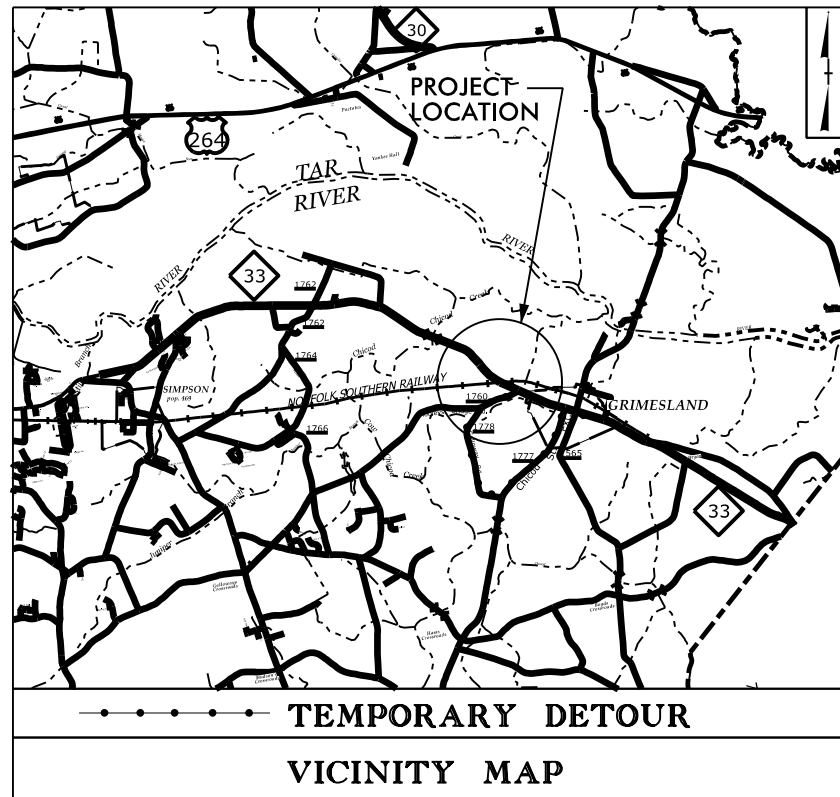
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**PITT COUNTY**

LOCATION: BRIDGE NO. 87 OVER NORFOLK SOUTHERN RAILROAD  
ON NC 33

TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE & PAVING

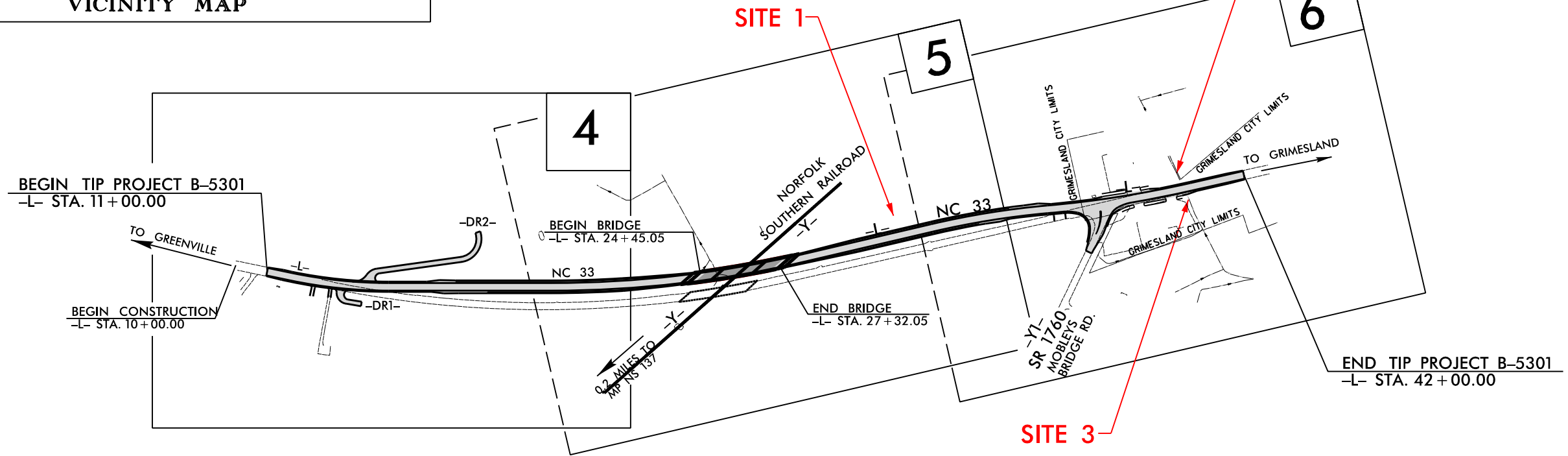
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5301	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46015.1.1	BRSTP-033(13)	PE	
46015.2.1		RW & UTIL.	
46015.3.1		CONST.	



90% PLANS

**WETLAND AND SURFACE WATER IMPACTS PERMIT**

PERMIT DRAWING  
SHEET 1 OF 15

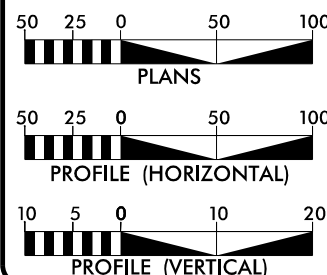


DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

TIP PROJECT: B-5301

CONTRACT: C204414

GRAPHIC SCALES



DESIGN DATA

ADT 2020 = 9,300  
ADT 2040 = 13,200  
K = 11%  
D = 60%  
T = 8% \*  
\* (TTST 3% + DUAL 5%)  
V = 60 MPH  
CLASS = MAJOR COLLECTOR  
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5301 = 0.533 MILES  
LENGTH STRUCTURE TIP PROJECT B-5301 = 0.054 MILES  
TOTAL LENGTH TIP PROJECT B-5301 = 0.587 MILES

Prepared In the Office of:



1 Glenwood Avenue  
Raleigh, NC 27603  
Tel: 919.788.9977  
Fax: 919.788.9991  
License: 02191

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
MAY 16, 2019

LETTING DATE:  
FEBRUARY 18, 2020

BEN CRAWFORD, PE  
PROJECT ENGINEER

I. T. YOUNIS  
PROJECT DESIGN ENGINEER

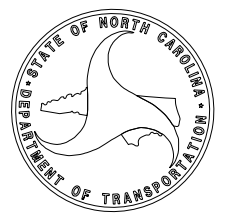
DAVID STUTTS, PE  
NCDOT CONTACT

HYDRAULICS ENGINEER

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

ROADWAY DESIGN ENGINEER

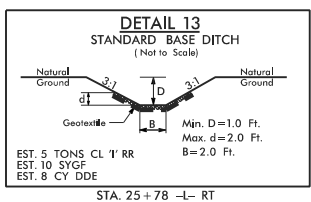
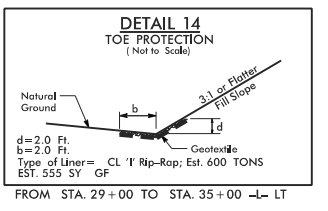
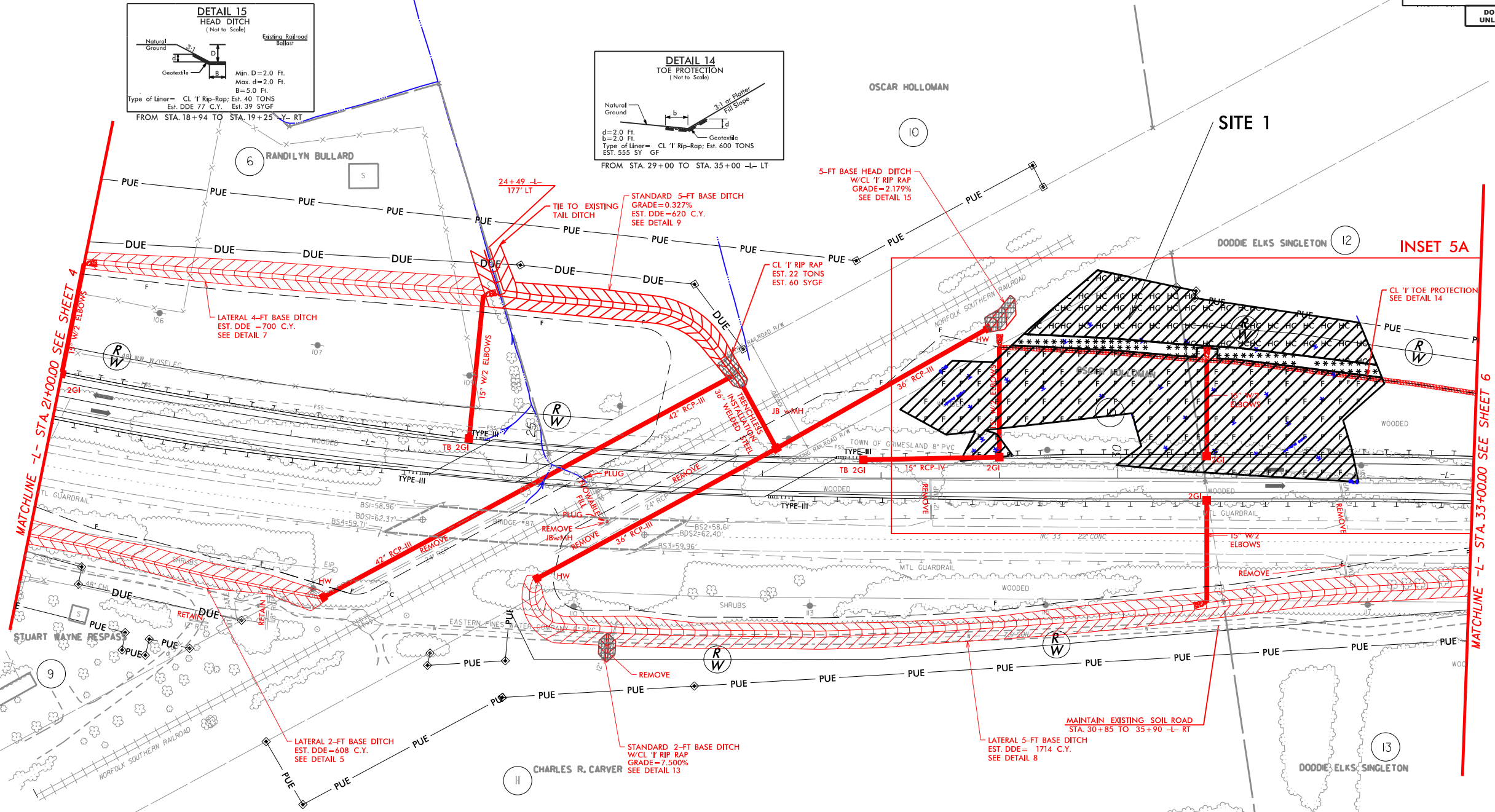
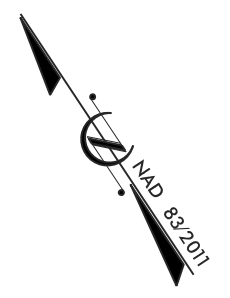
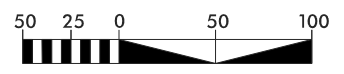
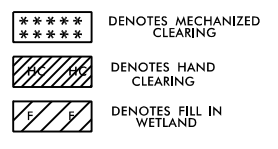
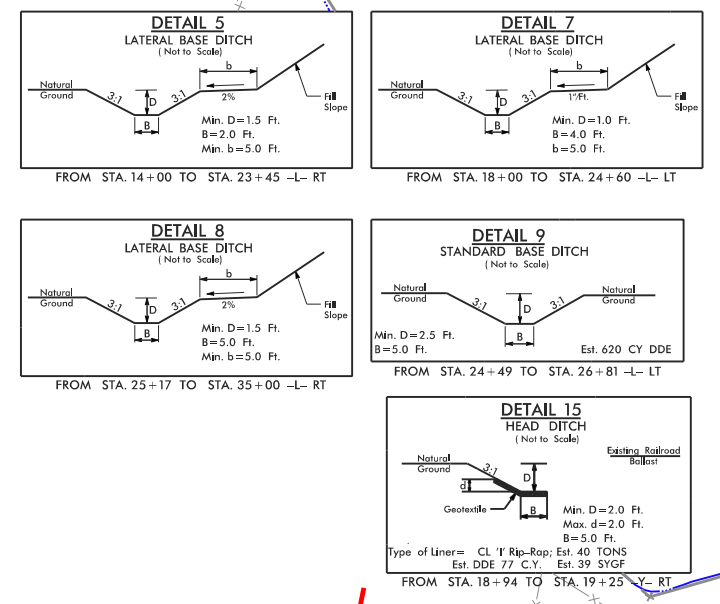
SIGNATURE: \_\_\_\_\_ P.E.



\$\$\$\$\$SYTIME\$\$\$\$\$  
\$\$\$\$\$DDN\$\$\$\$\$  
\$\$\$\$\$SERNAME\$\$\$\$\$

PROJECT REFERENCE NO. <b>B-5301</b>	SHEET NO. <b>5</b>
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>SEPI</b> Engineering & Construction, Inc.	
1 Glenwood Avenue Raleigh, NC 27603 Tel: 919.789.9977 Fax: 919.789.9591 License: C-2197	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

**PERMIT DRAWING  
SHEET 2 OF 15**




NOTE: SEE PLAN SHEET 7 FOR PROFILE  
 NOTE: SEE SHEETS S- THRU S- FOR STRUCTURE PLANS

REVISIONS

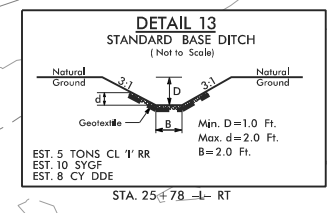
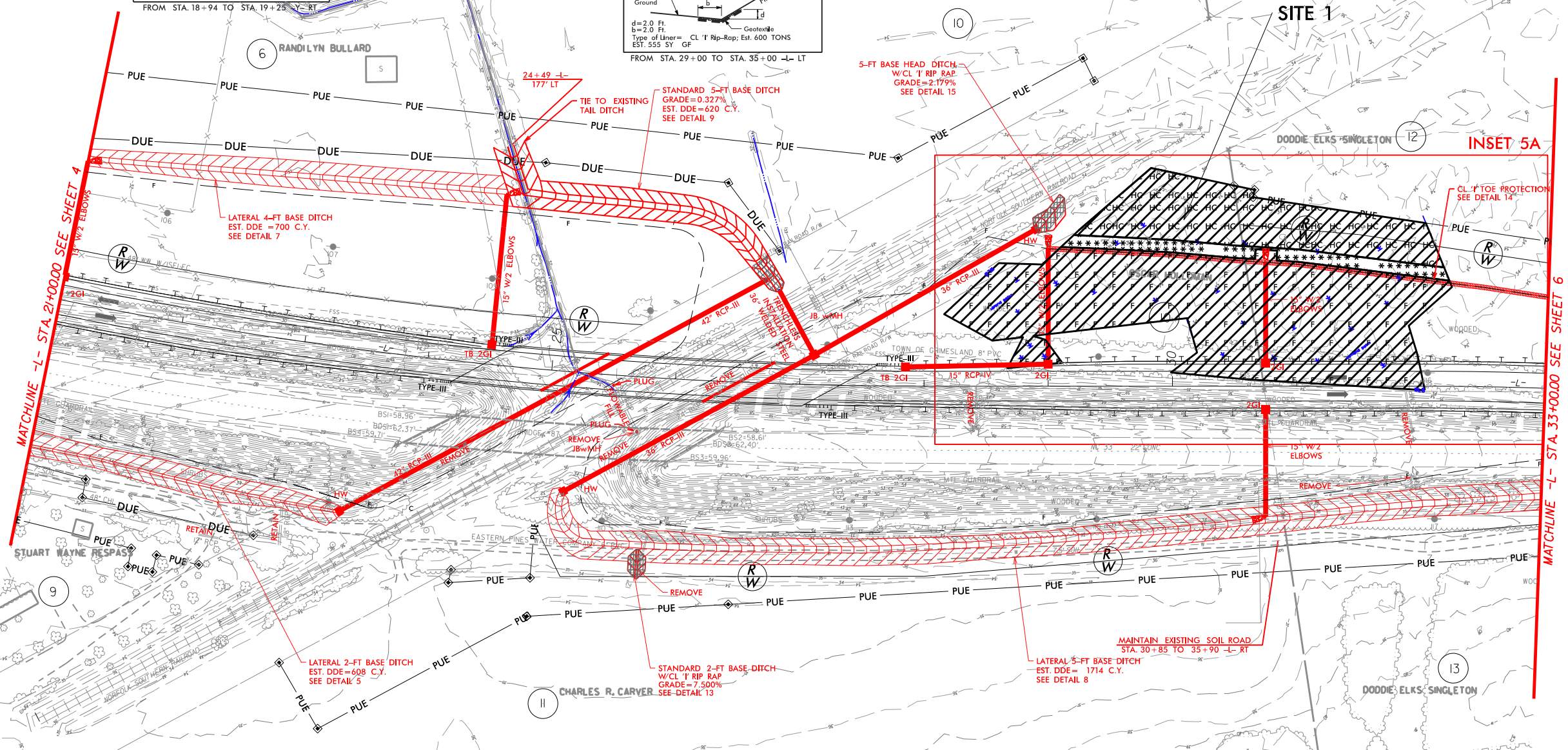
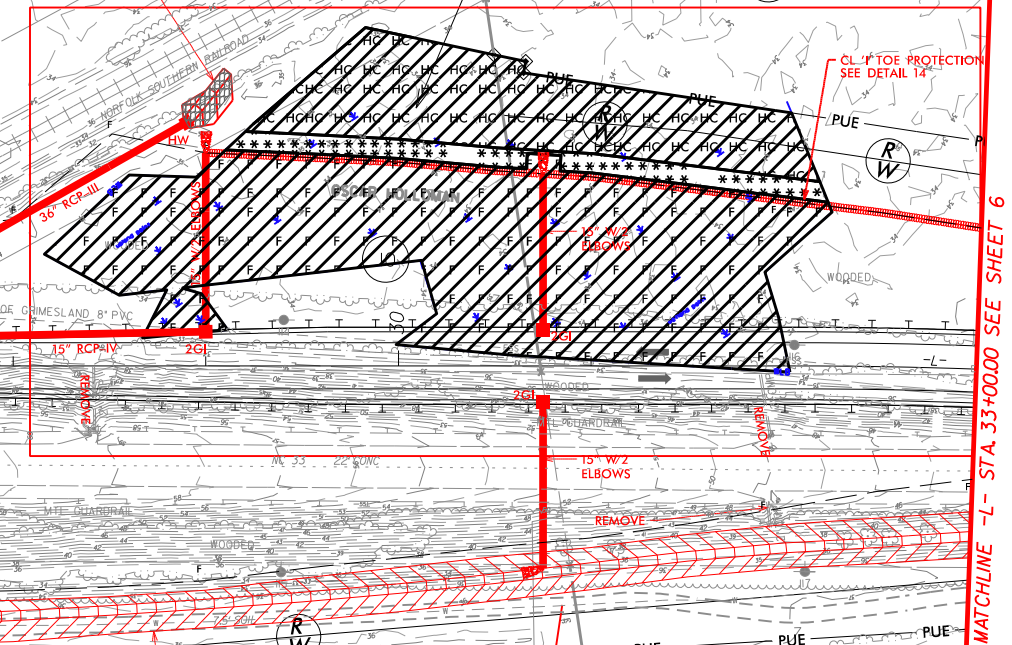
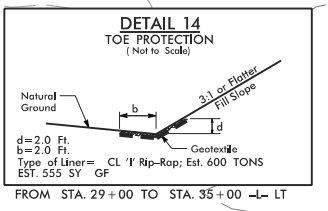
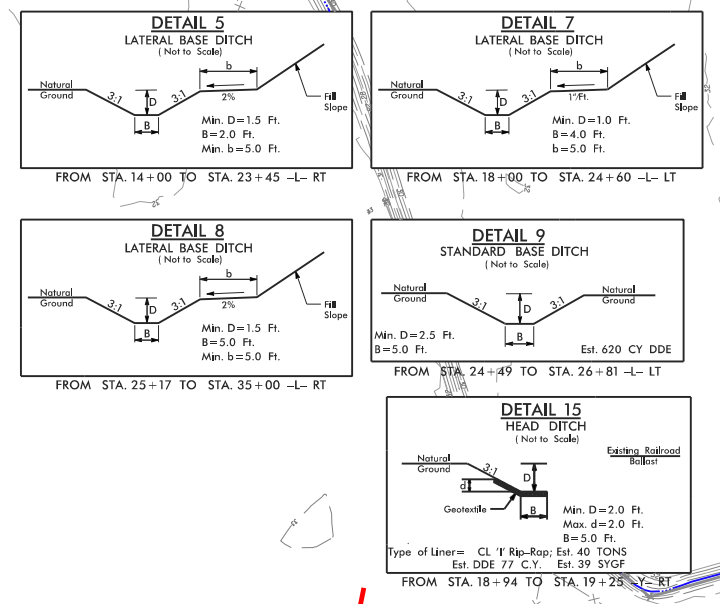
8/17/99  
 10/7/2009  
 B-5301\_hyd\_prm\_we\_t.psh5.dgn  
 11/15/2011

Revised April 15, 2020

PROJECT REFERENCE NO. <b>B-5301</b>		SHEET NO. <b>5</b>	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
		1 Glenwood Avenue Raleigh, NC 27603 Tel: 919.789.9977 Fax: 919.789.9591 License: C-2197	
		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

**PERMIT DRAWING  
SHEET 3 OF 15**


- \*\*\*\*\* DENOTES MECHANIZED CLEARING
- ////// DENOTES HAND CLEARING
- W W DENOTES FILL IN WETLAND

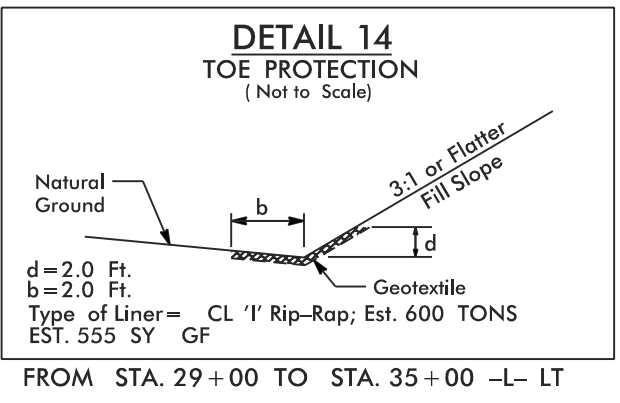


NOTE: SEE PLAN SHEET 7 FOR PROFILE  
 NOTE: SEE SHEETS S- THRU S- FOR STRUCTURE PLANS

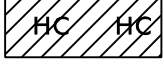
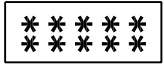
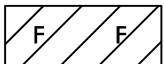
REVISIONS

8/17/99  
 10/7/2009  
 B-5301\_hyd\_prm\_wet\_psh5\_contours.dgn  
 15:58:47

PROJECT REFERENCE NO. <b>B-5301</b>	SHEET NO. <b>5A</b>
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
	
1 Glenwood Avenue Raleigh, NC 27603 Tel: 919.789.9977 Fax: 919.789.9591 License: C-2197	

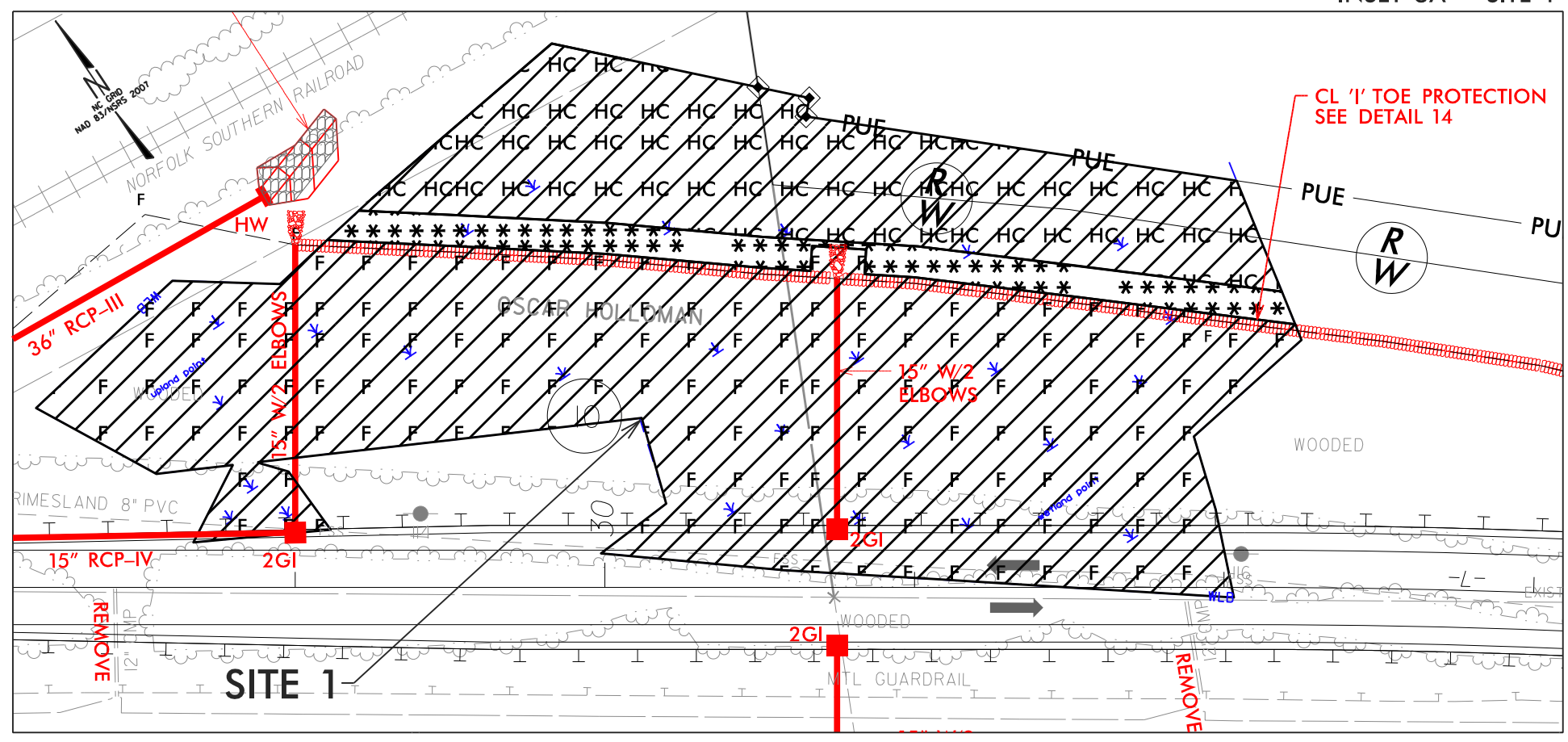


**PERMIT DRAWING  
SHEET 4 OF 15**

-  DENOTES HAND CLEARING
-  DENOTES MECHANIZED CLEARING
-  DENOTES FILL IN WETLAND




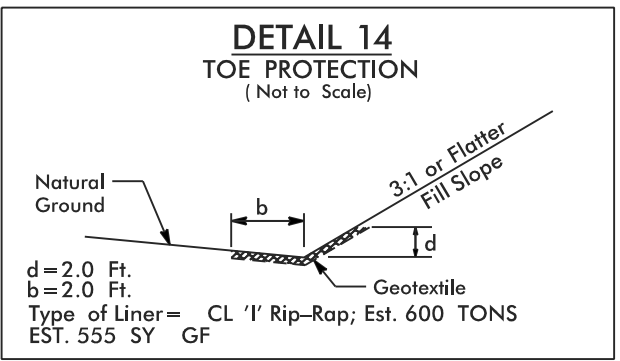
INSET 5A - SITE 1



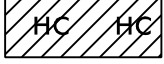
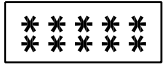
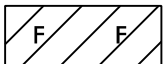
6/2/2019

10/7/2019 hyd\_prm\_wet\_psh5A.dgn

PROJECT REFERENCE NO. <b>B-5301</b>	SHEET NO. <b>5A</b>
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
	
1 Glenwood Avenue Raleigh, NC 27603 Tel: 919.789.9977 Fax: 919.789.9591 License: C-2197	



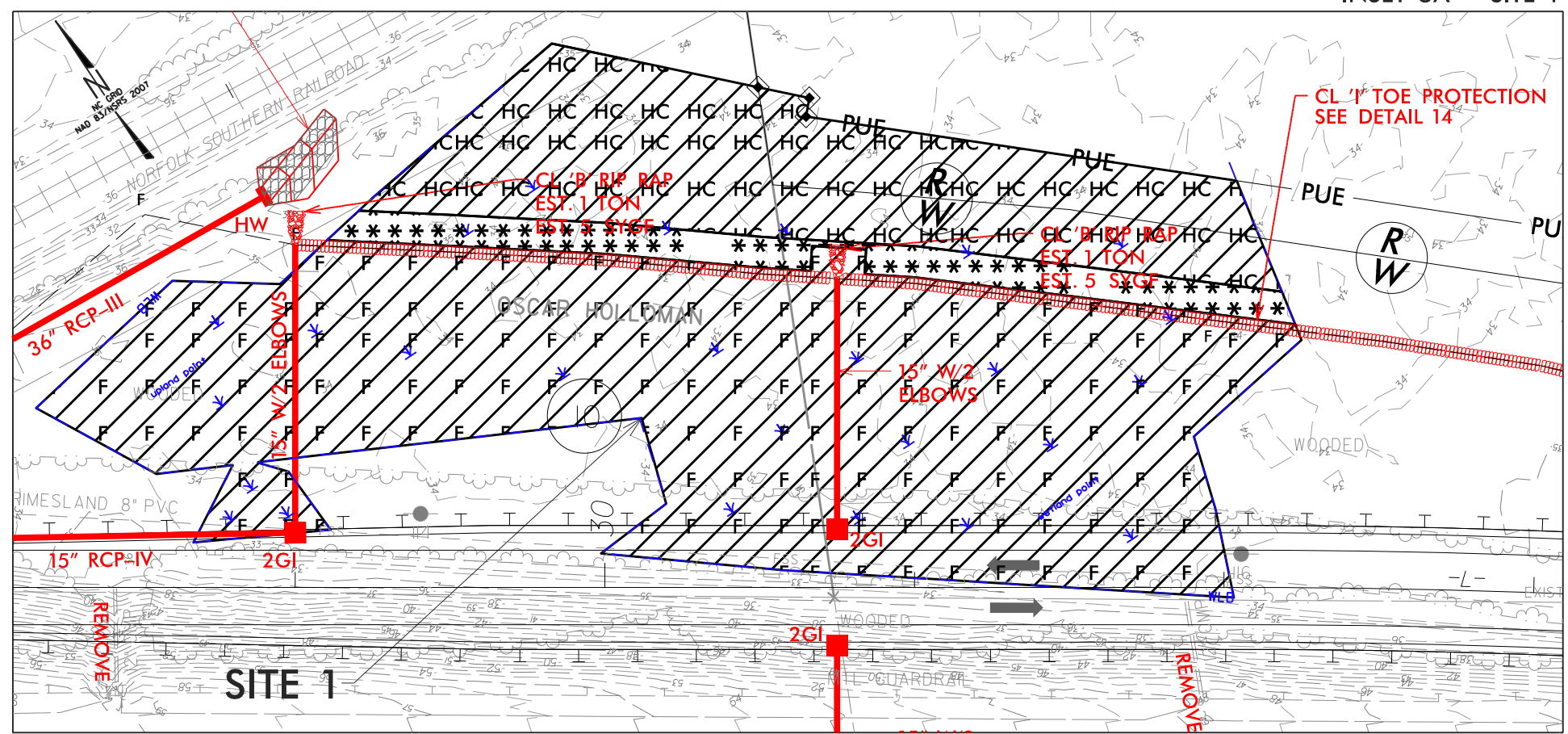
**PERMIT DRAWING**  
**SHEET 5 OF 15**

-  DENOTES HAND CLEARING
-  DENOTES MECHANIZED CLEARING
-  DENOTES FILL IN WETLAND



FROM STA. 29+00 TO STA. 35+00 -L- LT

INSET 5A - SITE 1



6/2/99

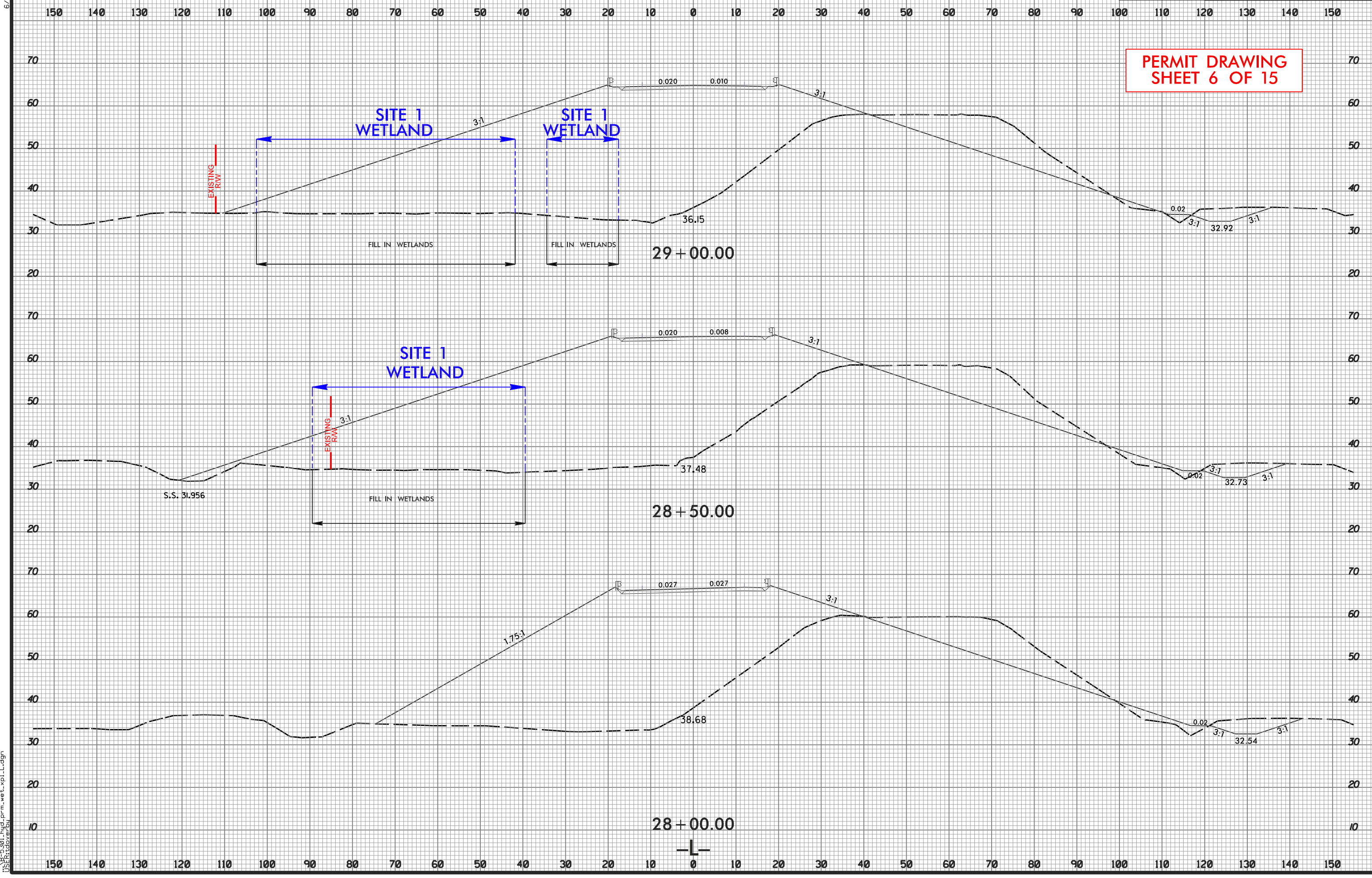
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Revised April 15, 2020

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	B-5301	X-12

6/23/16

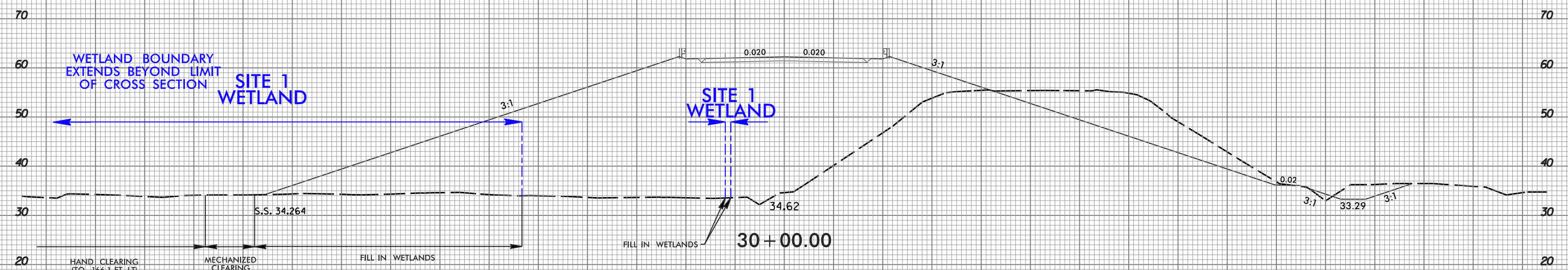
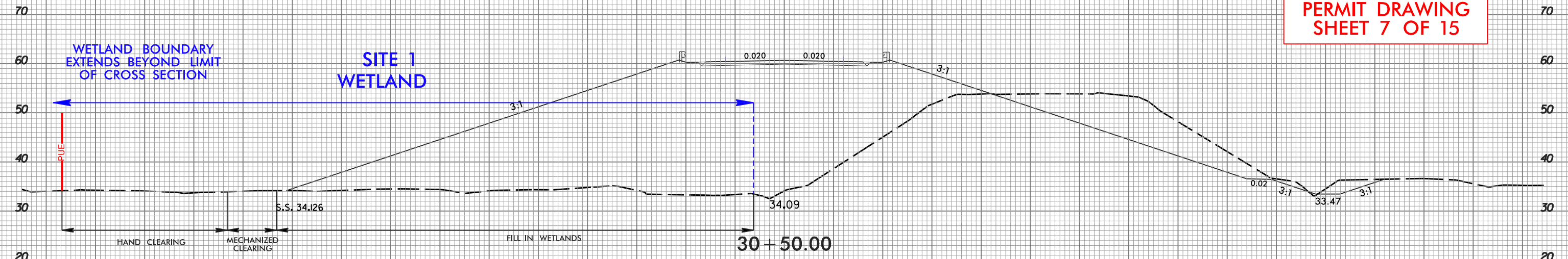


9/9/2018 10:53:01 AM hyd\_perm\_wet\_xpl.L.dgn USFritloverbu

6/23/16

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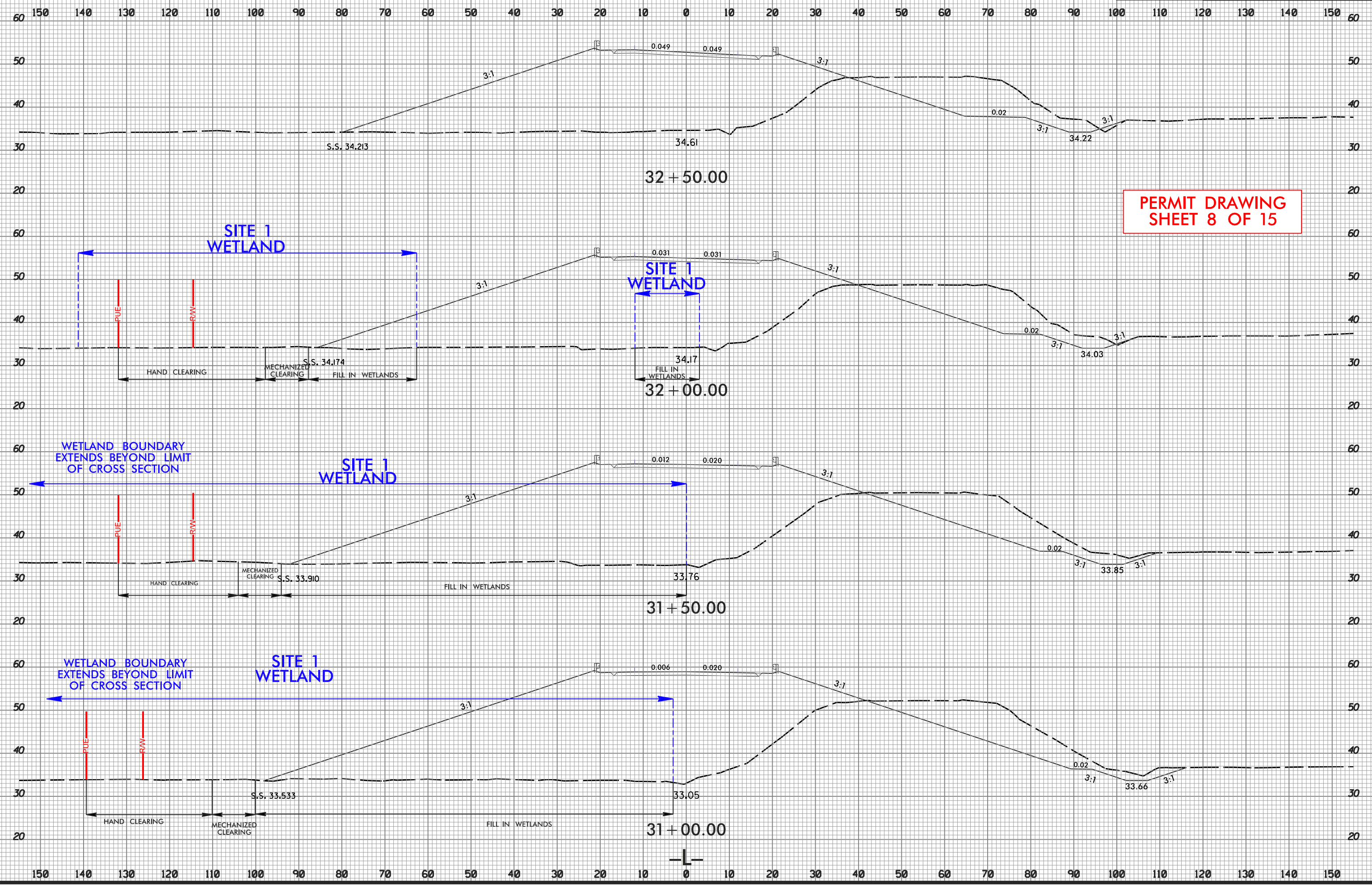
PERMIT DRAWING  
SHEET 7 OF 15



9/9/2018  
\\B-5301-hyd-prm-wet-xpl.L.dgn  
USFritoloverbu

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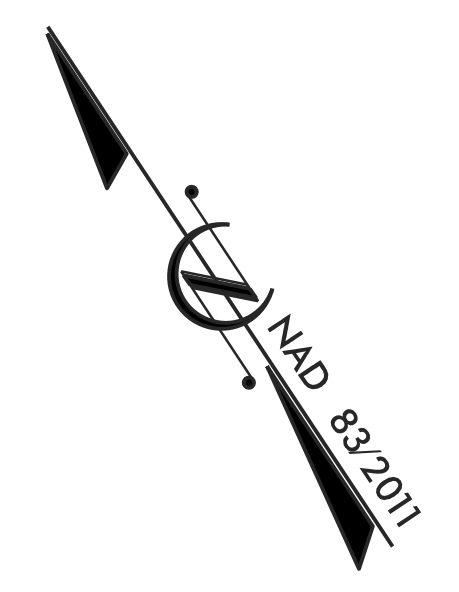
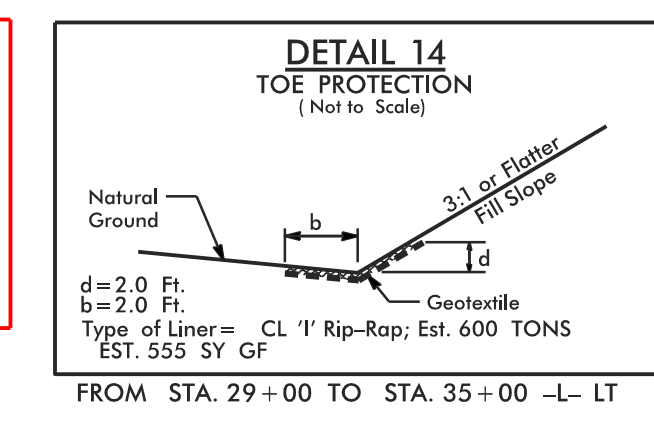
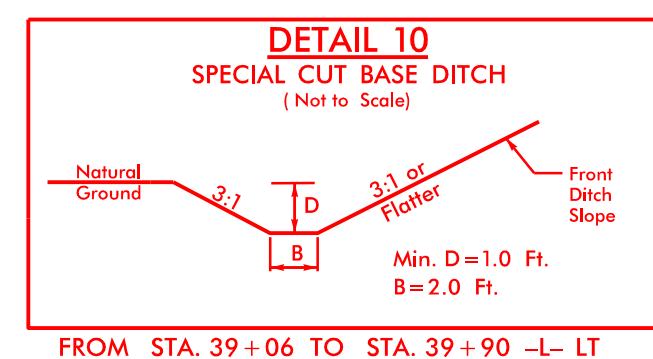
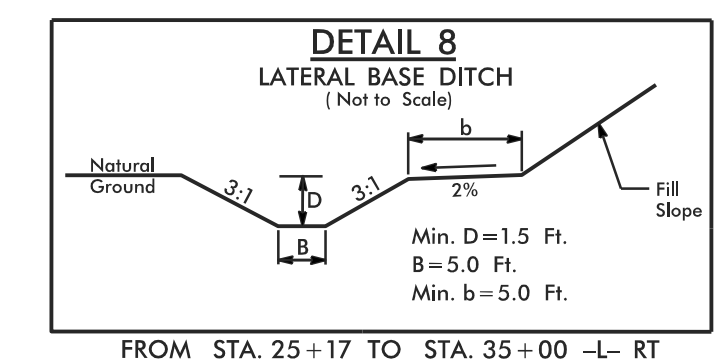
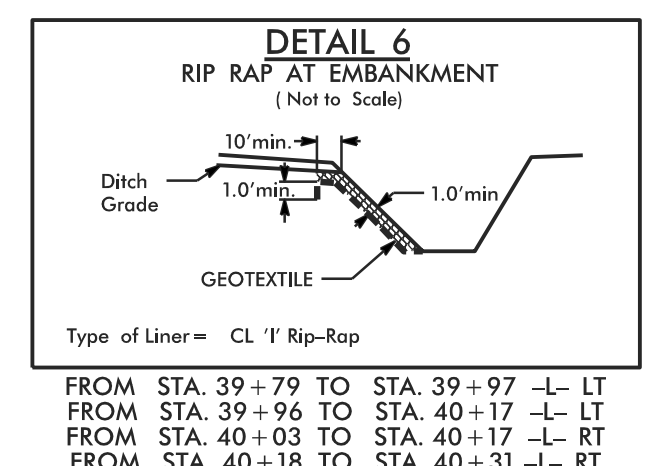
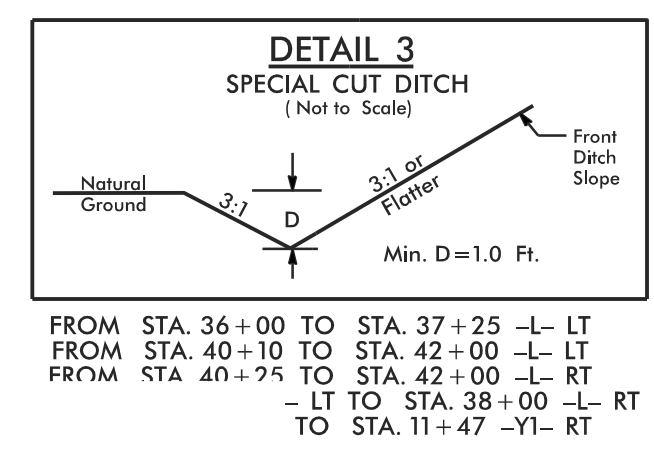
6/23/16



PERMIT DRAWING SHEET 8 OF 15

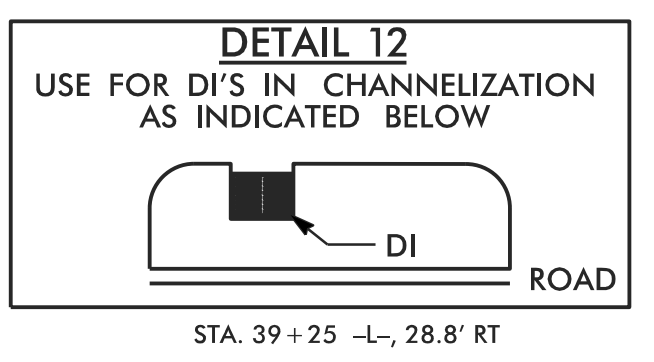
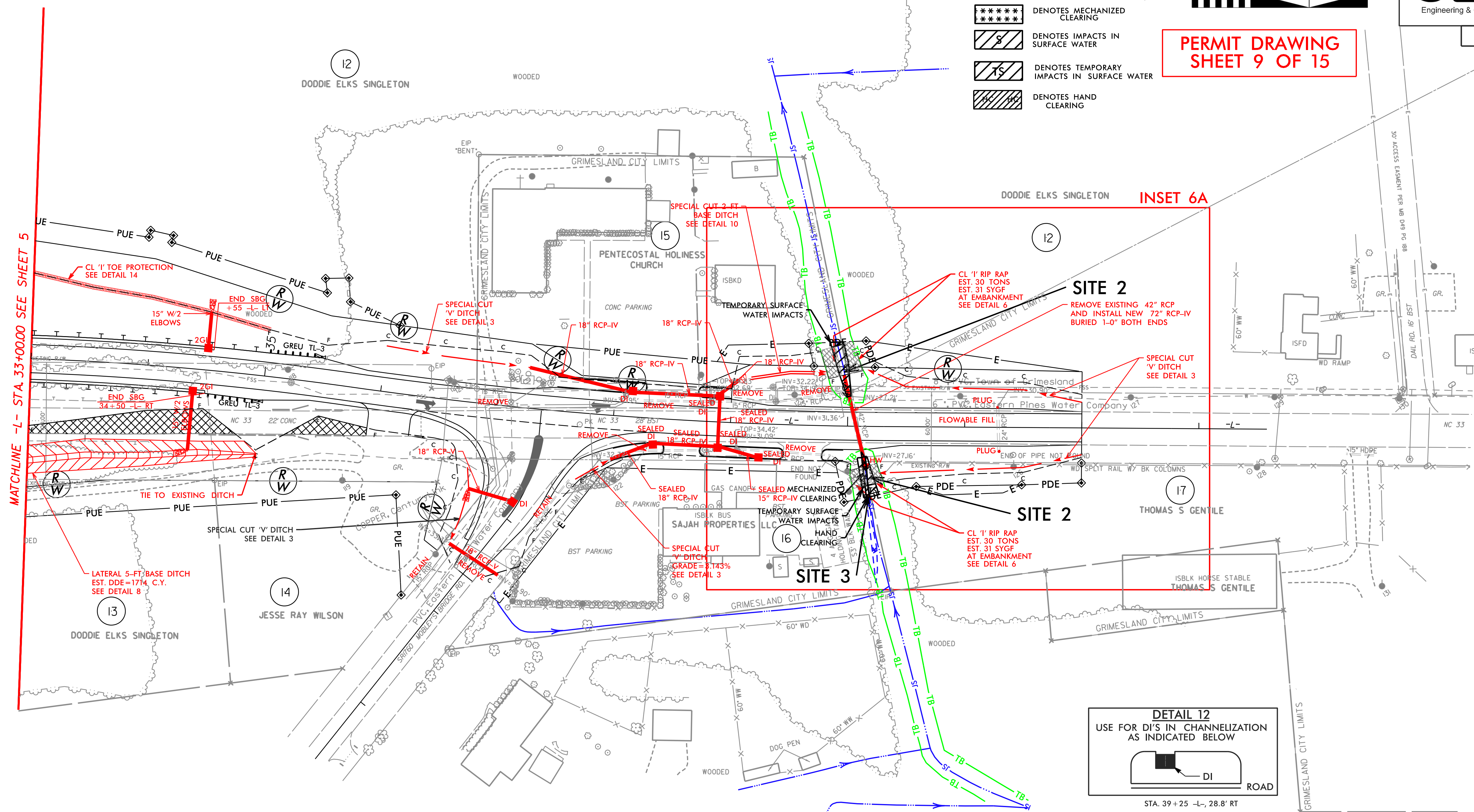
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PROJECT REFERENCE NO. <b>B-5301</b>	SHEET NO. <b>6</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>SEPI</b> Engineering & Construction, Inc.	
1 Glenwood Avenue Raleigh, NC 27603 Tel: 919.789.9977 Fax: 919.789.9591 License: C-2197	



**PERMIT DRAWING**  
**SHEET 9 OF 15**

- \*\*\*\*\* DENOTES MECHANIZED CLEARING
- ▨ DENOTES IMPACTS IN SURFACE WATER
- ▨ DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- ▨ DENOTES HAND CLEARING

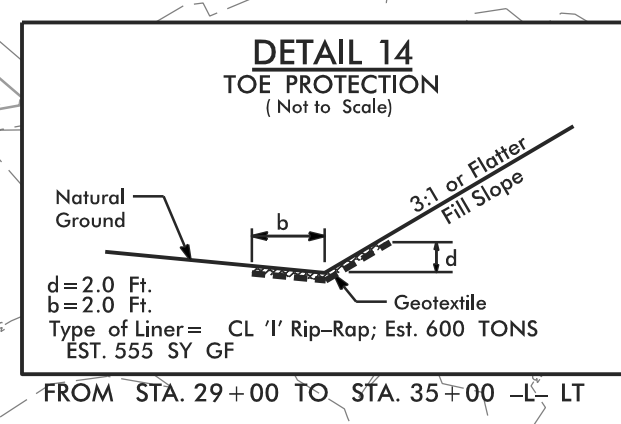
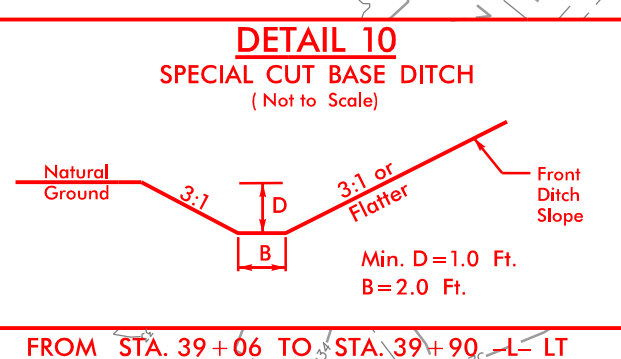
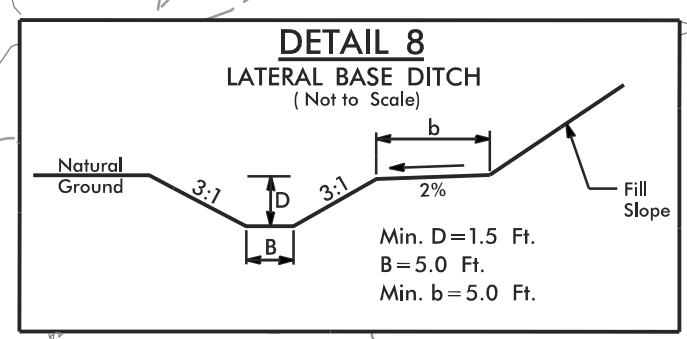
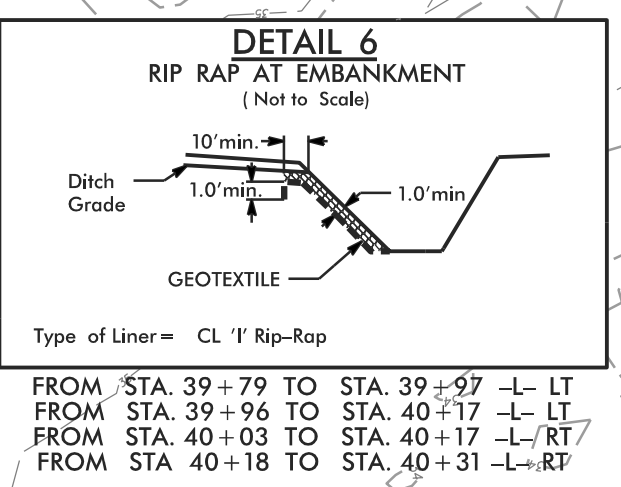
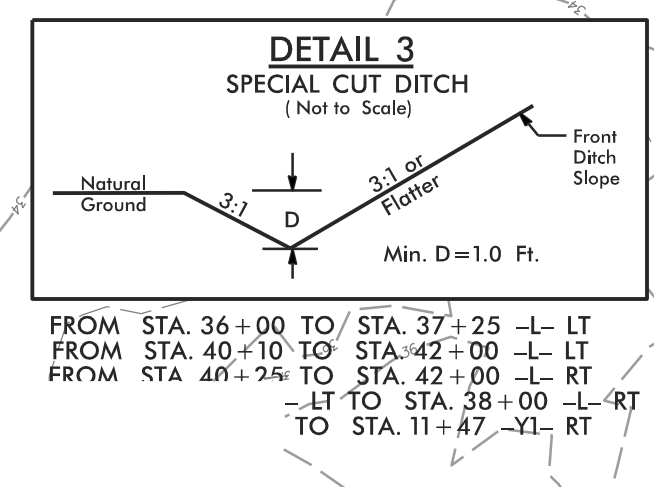


5" MONLITHIC CONCRETE ISLAND

SEE SHEET 2B-1 FOR INTERSECTION DETAIL

NOTE: SEE PLAN SHEET 7 & 8 FOR PROFILES

4/1/2020 4:53:01 PM 41-hyd\_prm\_wet\_psh6.dgn

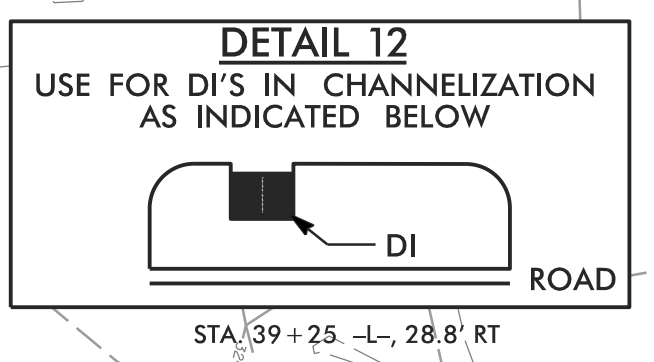
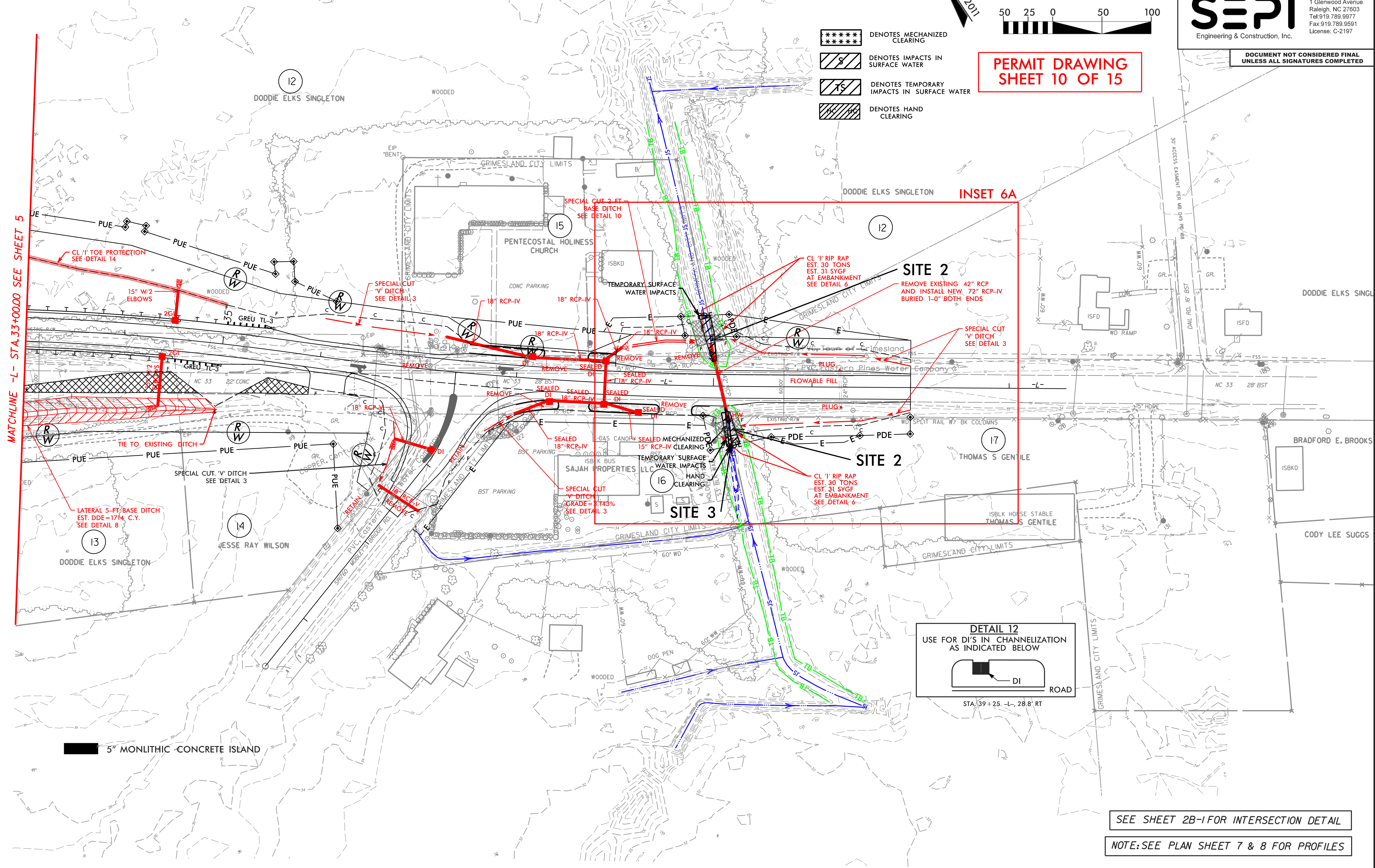


PERMIT DRAWING SHEET 10 OF 15

- \*\*\*\*\* DENOTES MECHANIZED CLEARING
- //// DENOTES IMPACTS IN SURFACE WATER
- //// DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- //// DENOTES HAND CLEARING

MATCHLINE -L- STA. 33+00.00 SEE SHEET 5

INSET 6A




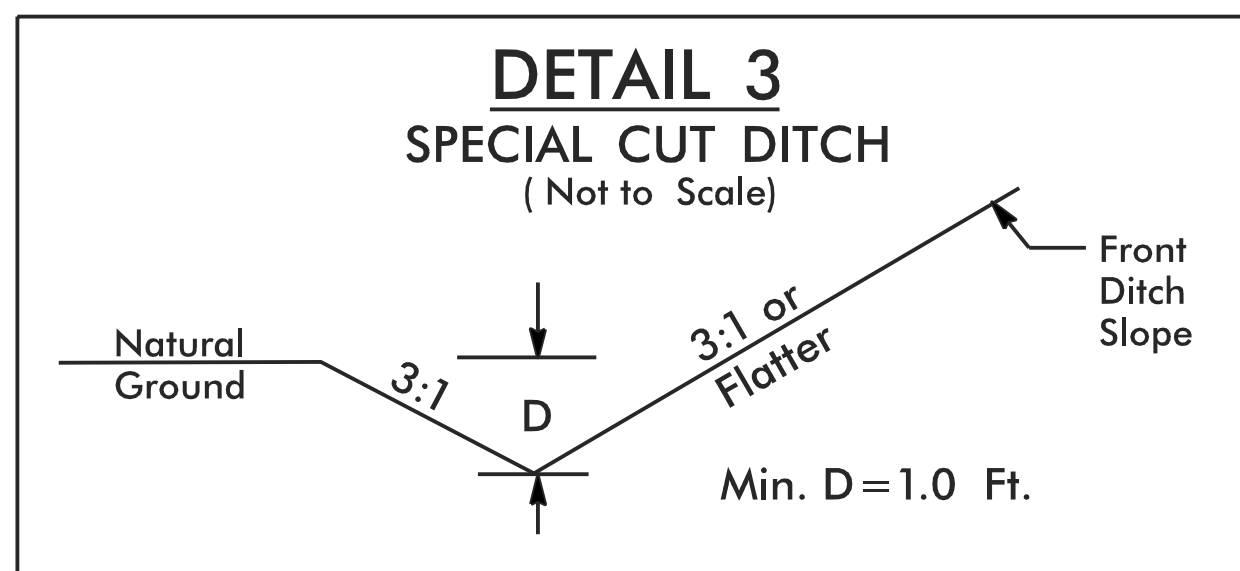
SEE SHEET 2B-1 FOR INTERSECTION DETAIL

NOTE: SEE PLAN SHEET 7 & 8 FOR PROFILES

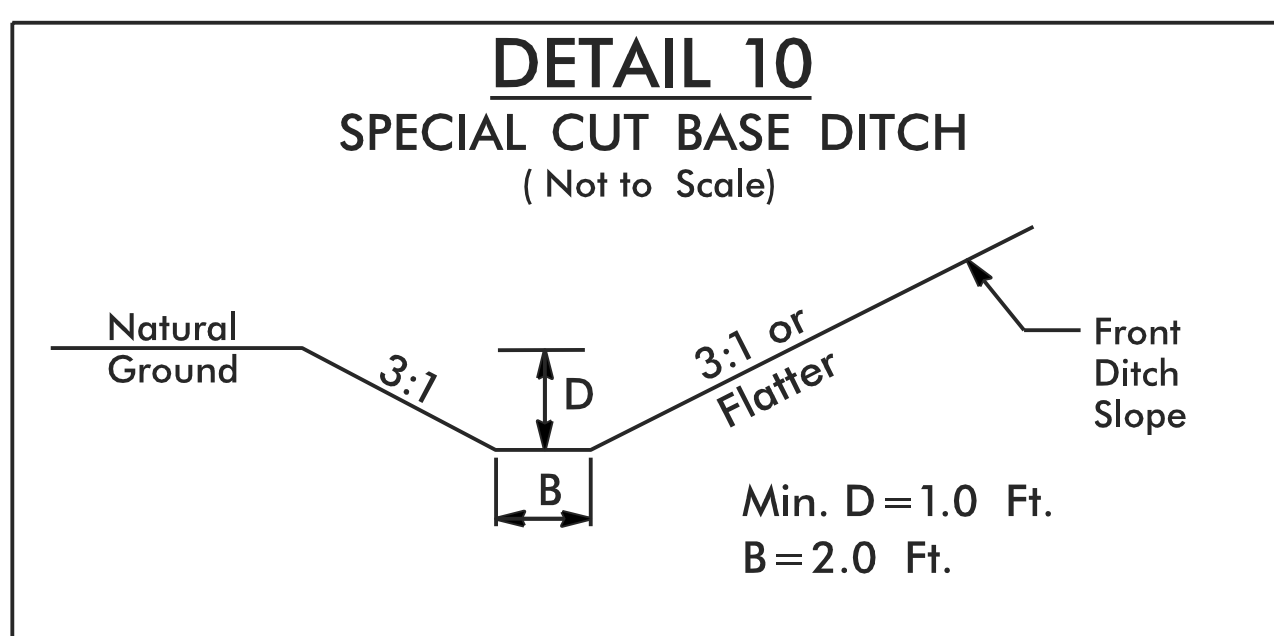
REVISIONS

4/15/2020 B-5301\_hyd\_prm\_wet\_psh6\_contours.dgn

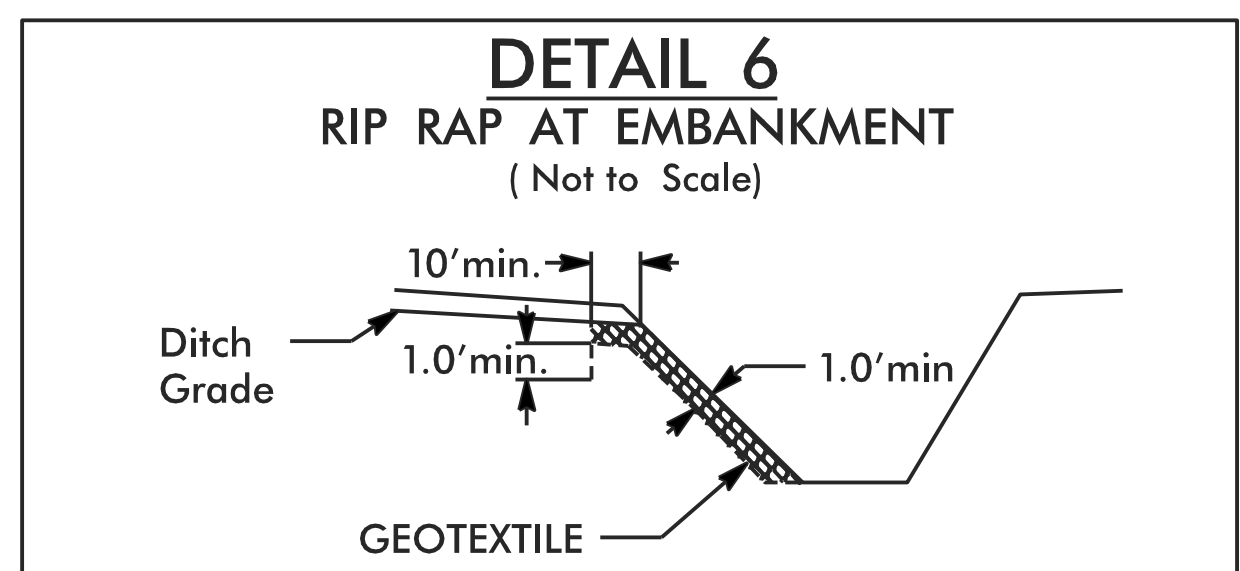
PROJECT REFERENCE NO. <b>B-5301</b>	SHEET NO. <b>6A</b>
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
	
1 Glenwood Avenue Raleigh, NC 27603 Tel: 919.789.9577 Fax: 919.789.9591 License: C-2197	



FROM STA. 36+00 TO STA. 37+25 -L- LT  
 FROM STA. 40+10 TO STA. 42+00 -L- LT  
 FROM STA. 40+25 TO STA. 42+00 -L- RT



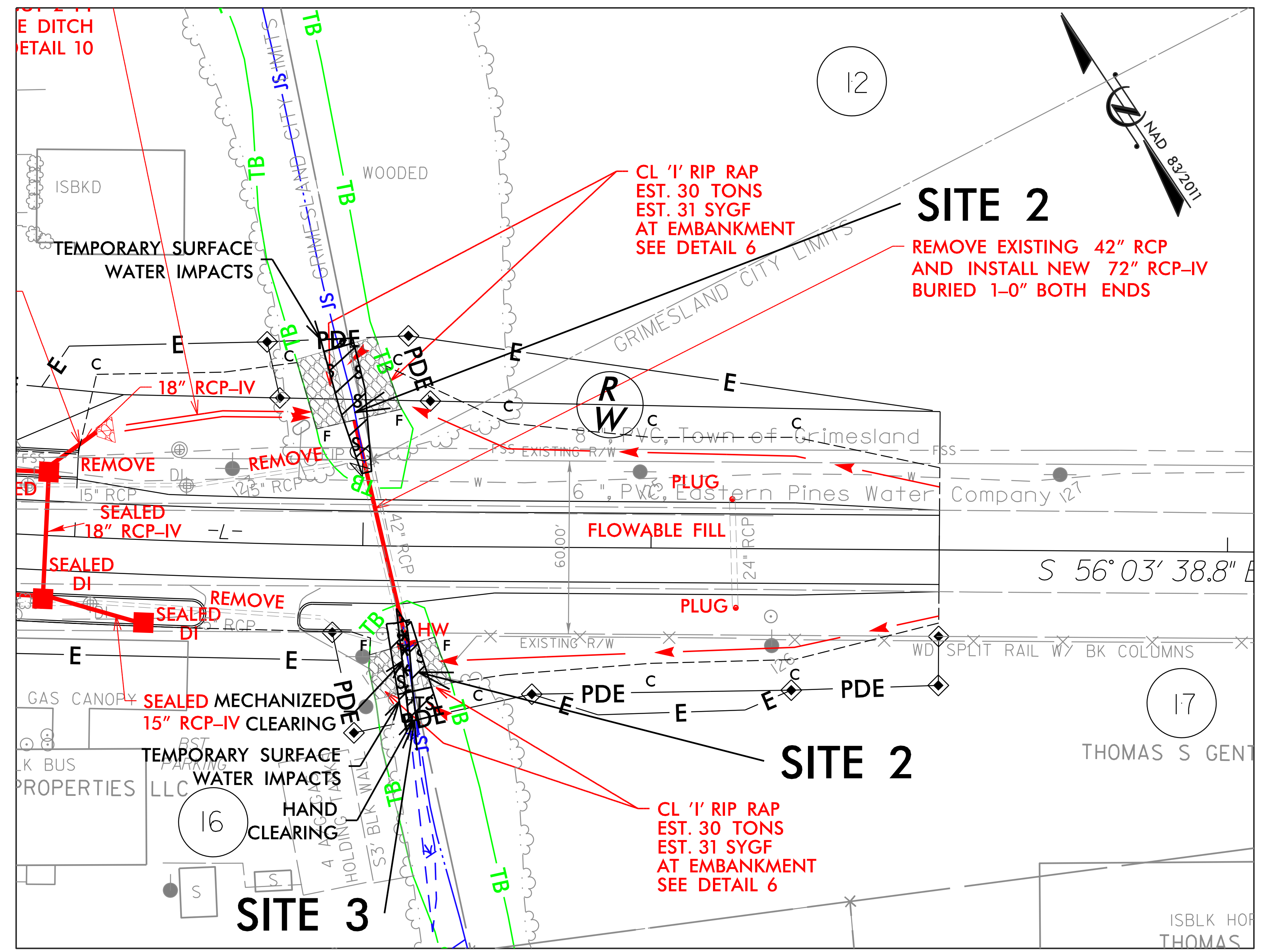
FROM STA. 39+06 TO STA. 39+90 -L- LT

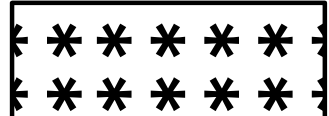

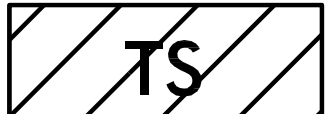



Type of Liner=60 Tons CL '1' Rip-Rap (Total All Locations)  
 Geotextile=62sy (Total All Locations)

FROM STA. 39+79 TO STA. 39+97 -L- LT  
 FROM STA. 39+96 TO STA. 40+17 -L- LT  
 FROM STA. 40+03 TO STA. 40+17 -L- RT  
 FROM STA. 40+18 TO STA. 40+31 -L- RT

**INSET 6A - SITES 2 & 3**




-  DENOTES MECHANIZED CLEARING
-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES HAND CLEARING

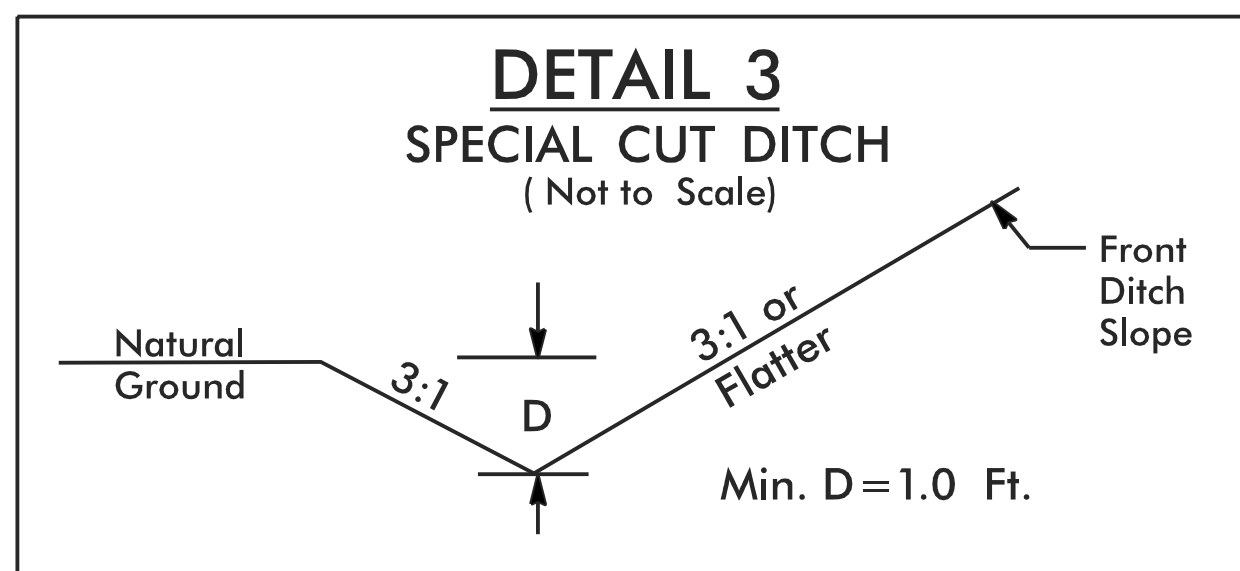
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SHEET 11 OF 15**



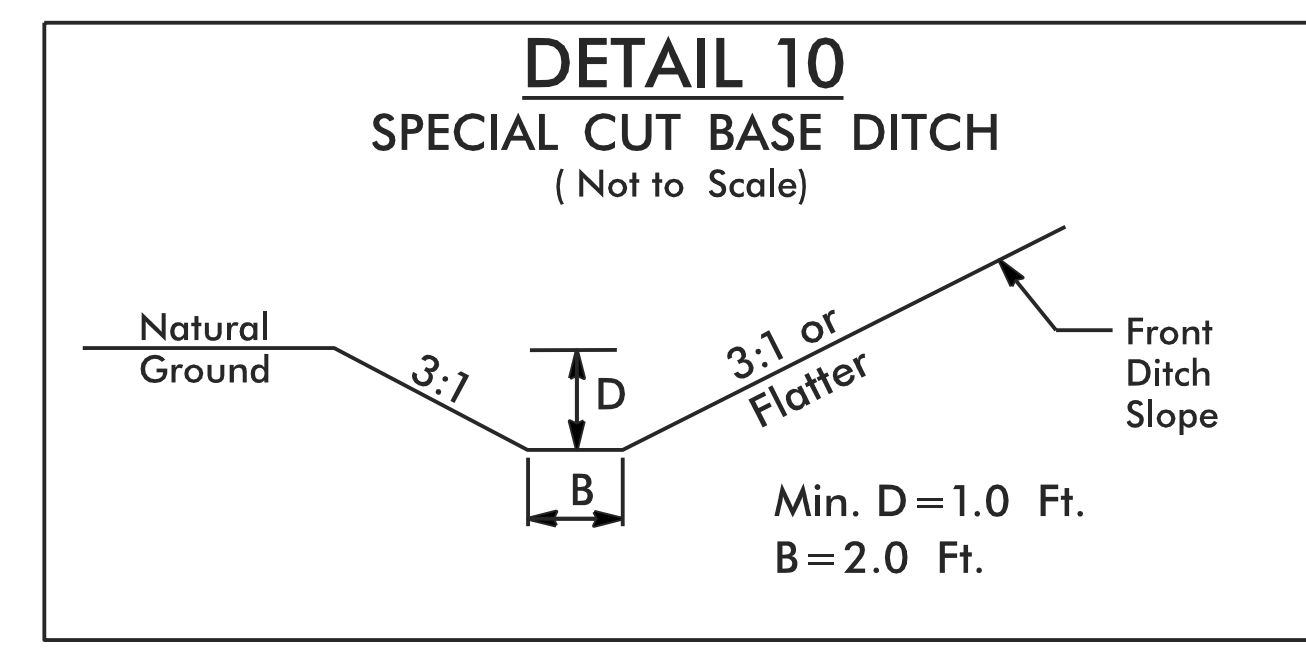
6/2/2019

4/15/2020 hyd-prm-wet-psh6A.dgn

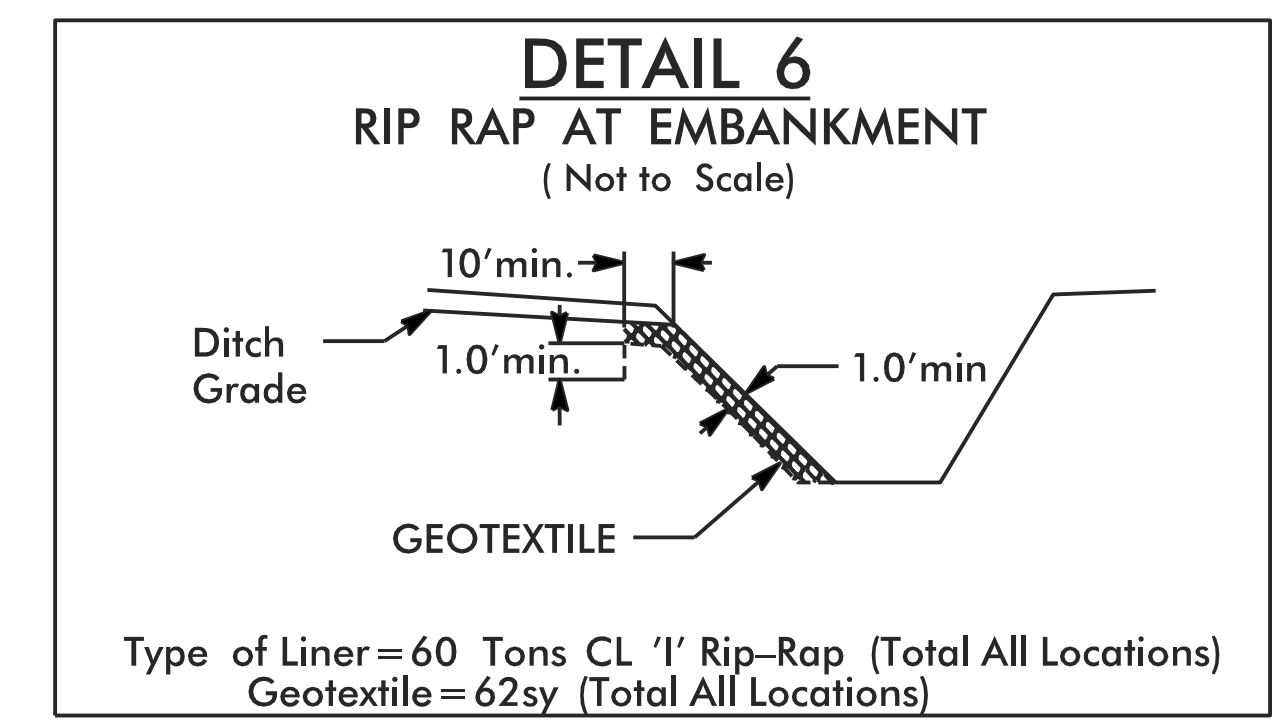
PROJECT REFERENCE NO. <b>B-5301</b>	SHEET NO. <b>6A</b>
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
	
1 Glenwood Avenue Raleigh, NC 27603 Tel: 919.789.9577 Fax: 919.789.9591 License: C-2197	



FROM STA. 36+00 TO STA. 37+25 -L- LT  
 FROM STA. 40+10 TO STA. 42+00 -L- LT  
 FROM STA. 40+25 TO STA. 42+00 -L- RT

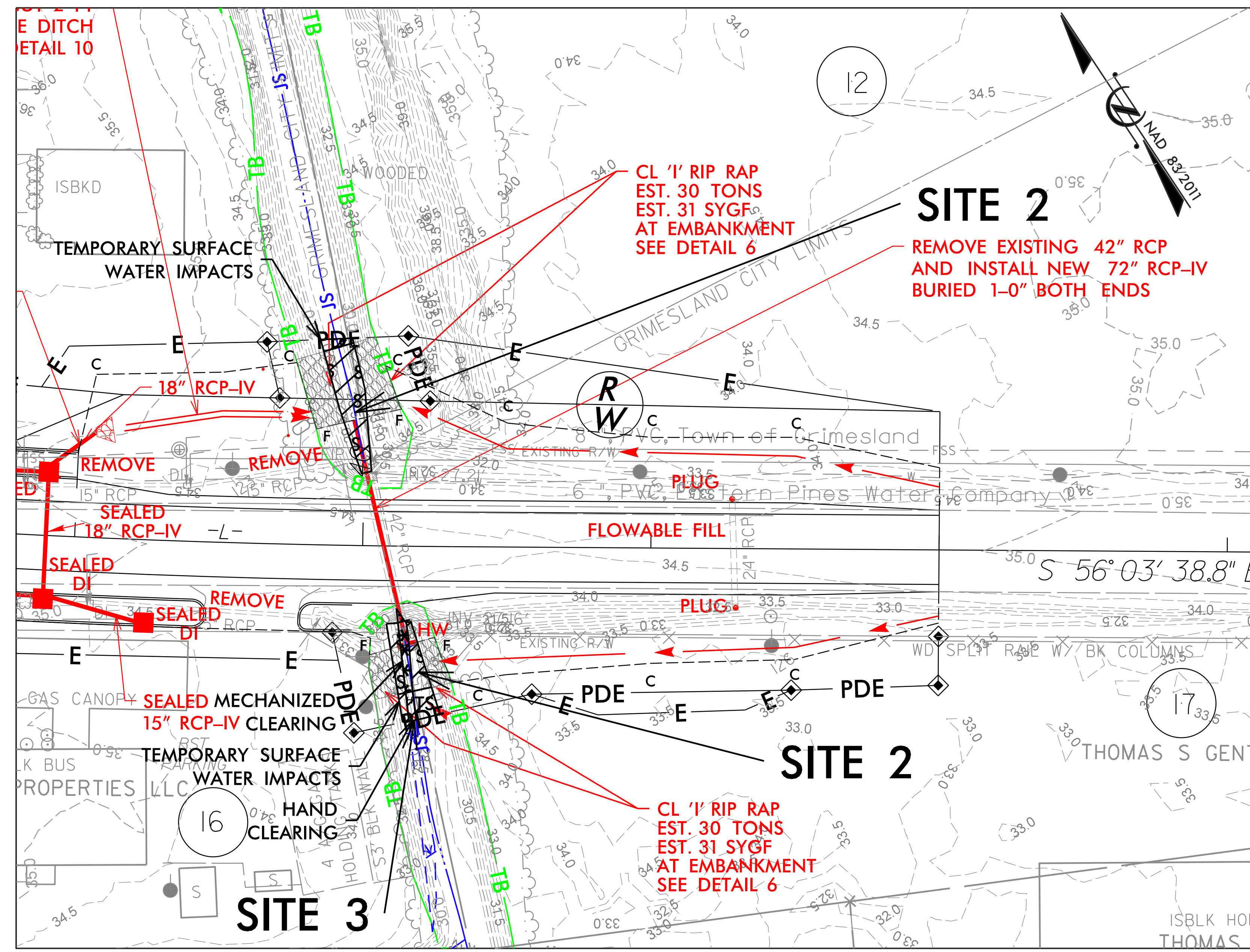


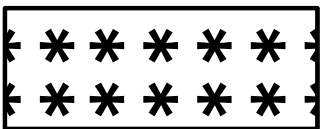

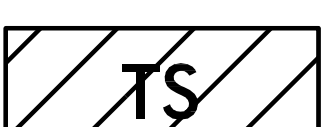

FROM STA. 39+06 TO STA. 39+90 -L- LT



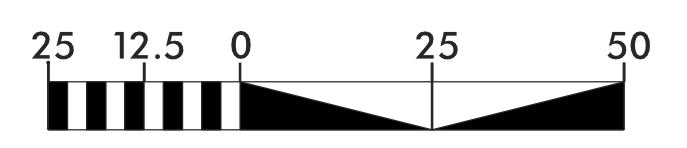
FROM STA. 39+79 TO STA. 39+97 -L- LT  
 FROM STA. 39+96 TO STA. 40+17 -L- LT  
 FROM STA. 40+03 TO STA. 40+17 -L- RT  
 FROM STA. 40+18 TO STA. 40+31 -L- RT

**INSET 6A - SITES 2 & 3**



-  DENOTES MECHANIZED CLEARING
-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES HAND CLEARING

**PERMIT DRAWING  
SHEET 12 OF 15**



6/2/2019

4/15/2020 hyd\_prm\_wet\_psh6A\_contours.dgn

Revised April 15, 2020

PROJECT REFERENCE NO. SHEET NO.

B-530/

ROADWAY DESIGN ENGINEER

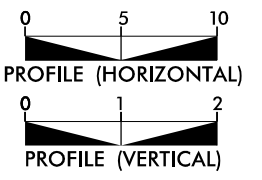
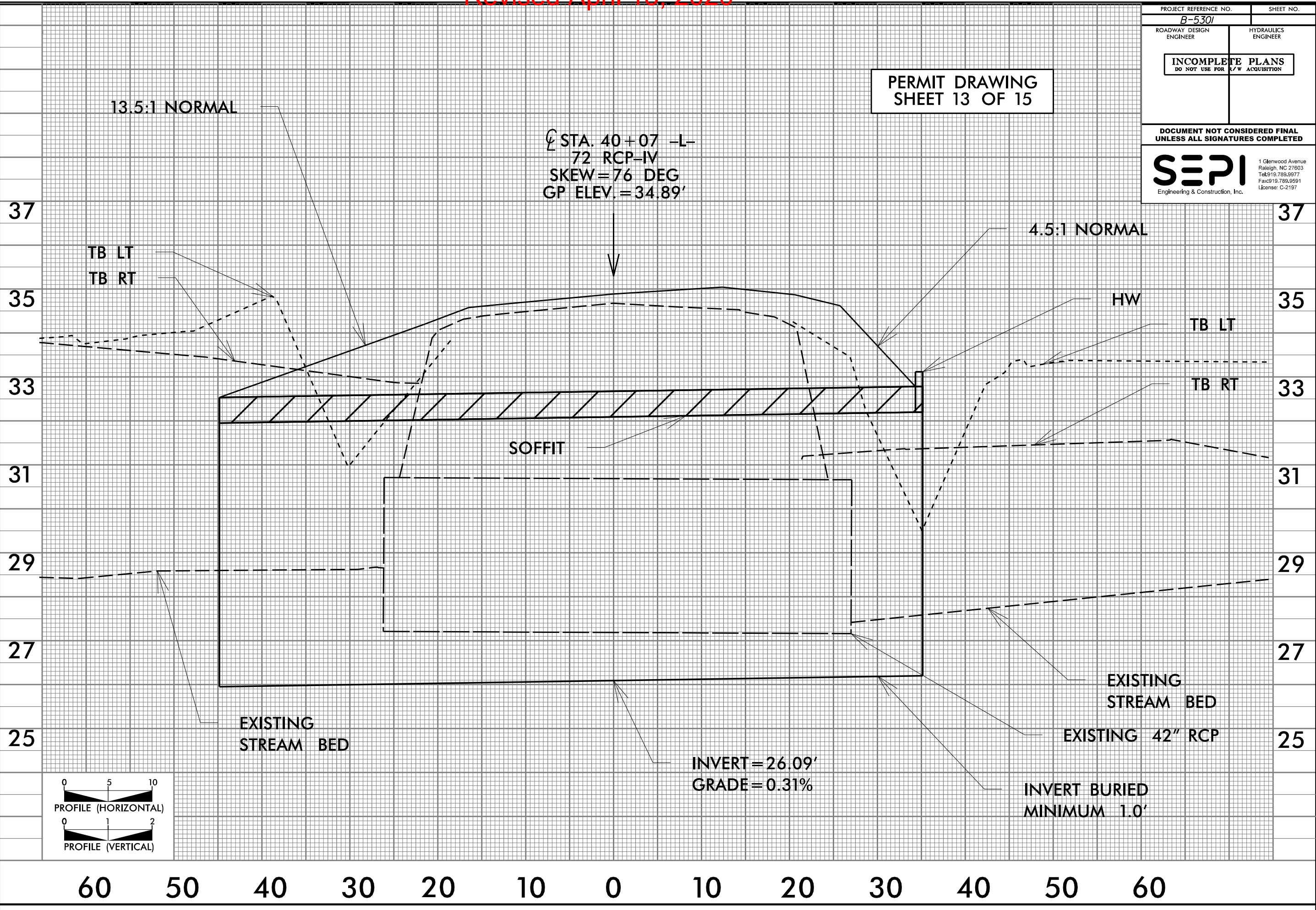
HYDRAULICS ENGINEER

INCOMPLETE PLANS  
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

**SEPI**  
Engineering & Construction, Inc.  
1 Glenwood Avenue  
Raleigh, NC 27603  
Tel: 919.788.9977  
Fax: 919.788.9991  
License: C-2197

PERMIT DRAWING  
SHEET 13 OF 15



5/14/99  
9/19/2019  
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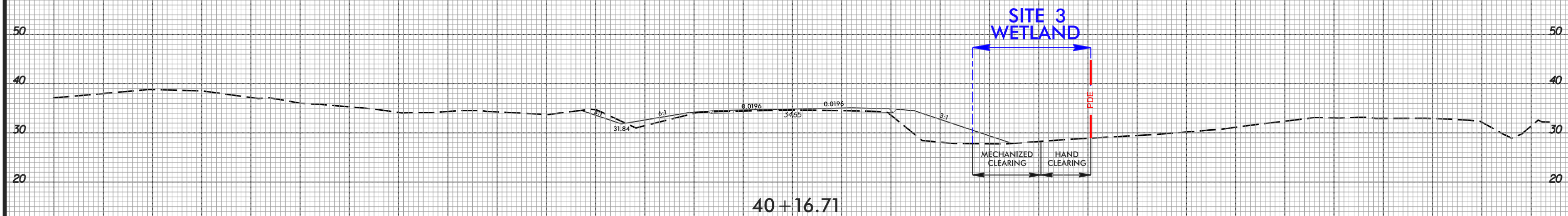
Revised April 15, 2020



PROJ. REFERENCE NO. B-5301 SHEET NO.

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6/23/16



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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	28+16 - 32+25 -L- LT	Roadway Fill	0.662									
1	29+08 - 32+23 -L- LT	Rip Rap Toe Protection	0.017			0.067						
1	29+20 - 32+18 -L- LT	Hand Clearing in ROW/PUE					0.258					
2	39+92 - 40+03 -L- LT	72" RCP						0.009				
2	39+85 - 40+00 -L- LT	Rip Rap Bank Stabilization						0.003				
2	39+83 - 39+96 -L- LT	Dewatering for pipe installation							0.001			
2	40+08 - 40+20 -L- RT	72" RCP						0.002				
2	40+10 - 40+23 -L- RT	Rip Rap Bank Stabilization						0.004				
2	40+13 - 40+27 -L- RT	Dewatering for pipe installation							0.002			
3	40+16 - 40+19-L- RT	Pipe Installation				0.002						
3	40+16 - 40+19-L- RT	Hand Clearing inside PDE					0.001					
TOTALS*:			0.68	0.00	0.00	0.07	0.26	0.02	<0.01	0	0	0

\*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

4/1/2020

Pitt County

B-5301

46015.1.1

SHEET

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OF

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