



## 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:\***

Bertie

**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-4916

**WBS #\***

40089.3.1

(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:**

23 - Categorical Exclusions

**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?\***

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

FILETYPE MUST BE PDF

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

Yes  No

**1i. Is the project located within a NC DCM Area of Environmental Concern (AEC)? \***

Yes  No  Unknown

**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? \***

Gordon Cashin

**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  Applicant (other than owner)  
(Check all that apply)

**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

27610

State / Province / Region

NC

Country

USA

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

(xxx)xxx-xxxx

(919)707-6107

**2f. Fax Number:**

(xxx)xxx-xxxx

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

gcashin@ncdot.gov

**C. Project Information and Prior Project History**

**1. Project Information**

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

B-4916 Replacement of Bridge No. 57 over Quioccoson Swamp on US 13 (Central)

**1b. Subdivision name:**

(if appropriate)

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

Powellsville

## 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

Postal / Zip Code

State / Province / Region

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: \*

36.200622  
ex: 34.208504

#### Longitude: \*

-76.950994  
-77.796371

## 3. Surface Waters

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

Quioccoson Swamp

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

C; NSW

[Surface Water Lookup](#)

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

Chowan

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

030102030303

[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: \*

The project is in a rural area of Bertie County. Land use in the project vicinity consists of agriculture, forestland along stream corridors, and low density rural residences.

### 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:

1.87

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

(intermittent and perennial)

200

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

Replacement of a substandard 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 the existing alignment. Traffic will be maintained using an on-site detour during construction. The onsite temporary detour will be south of the existing bridge. Standard road building equipment 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](#)

B4916 utilities.pdf

1.12MB

B-4916 permit drawings.pdf

3.3MB

File type must be pdf

## 5. Jurisdictional Determinations

### 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): Veronica Barnes and Tyler Stanton

Agency/Consultant Company: NCDOT staff

Other:

5d1. Jurisdictional determination upload

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

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 fill & excavation	P	Riverine Swamp Forest	WA	Yes	Both	0.005 (acres)
1	roadway fill & excavation	P	Non-Tidal Freshwater Marsh	WB	No	Both	0.039 (acres)
1	roadway fill & excavation	T	Non-Tidal Freshwater Marsh	WB	No	Both	0.193 (acres)
2	roadway fill & excavation	P	Riverine Swamp Forest	WA	Yes	Both	0.008 (acres)
2	roadway fill & excavation	T	Riverine Swamp Forest	WA	Yes	Both	0.009 (acres)
2	roadway fill & excavation	P	Non-Tidal Freshwater Marsh	WB	No	Both	0.002 (acres)
2	roadway fill & excavation	T	Non-Tidal Freshwater Marsh	WB	No	Both	0.111 (acres)
UT-2	utility relocation	P	Riverine Swamp Forest	WB	Yes	Both	0.010 (acres)

2g. Total Temporary Wetland Impact

0.313

2g. Total Permanent Wetland Impact

0.064

2g. Total Wetland Impact

0.377

2h. Comments:

Utility relocations will require an additional 0.28 acre of hand clearing. A portion of this hand clearing will occur in the temporary detour area.

#### 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 (?)	4d. Activity type <sup>*</sup>	4e. Waterbody type <sup>*</sup>	4f. Impact area <sup>*</sup>
3	bridge replacement	T	Quioccoson Swamp	Bridge	Tributary	0.01 (acres)

4g. Total temporary open water impacts:

0.01

4g. Total permanent open water impacts:

0.00

4g. Total open water impacts:

0.01

4h. Comments:

### 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:<sup>\*</sup>

The bridge will be replaced on the existing alignment, and 3:1 slopes are used adjacent to wetlands.

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

Best Management Practices for Construction and Maintenance Activities will be adhered to. The temporary detour excavation/fill will be restored to pre-construction contours and then replanted.

#### 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

2b. If this project DOES NOT require Compensatory Mitigation, explain why:

Permanent impacts are minimal.

NC Stream Temperature Classification Maps can be found under the Mitigation Concepts tab on the Wilmington District's RIBITS website.

### 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

For a list of options to meet the diffuse flow requirements, click [here](#).

#### 2. Stormwater Management Plan

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

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?<sup>\*</sup>

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)?<sup>\*</sup>

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

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

## 4. Sewage Disposal (DWR Requirement)

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

Yes  No  NA

## 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

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? \*

USFWS County list, GIS data, site visits.

#### 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? \*

NOAA online database

## 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/>)

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

### 8b. If yes, explain how project meets FEMA requirements:

Hydraulics Unit coordination with FEMA.

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

FEMA floodplain mapping.

## 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

*Mack C. Rivenbark, III*

### Date

1/23/2019



North Carolina Department of Transportation

Highway Stormwater Program  
STORMWATER MANAGEMENT PLAN  
FOR NCDOT PROJECTS



(Version 2.08; Released April 2018)

WBS Element: 40089.1.2      TIP No.: B-4916      County(ies): Bertie      Page 1 of 3

General Project Information

WBS Element:	40089.1.2	TIP Number:	B-4916	Project Type:	Bridge Replacement	Date:	Jan 2019
NCDOT Contact:	Dan Duffield, PE			Contractor / Designer:	Leah Young, PE		
Address:	1020 Birch Ridge Dr Raleigh, NC 27610			Address:	4505 Falls of Neuse Road Suite 400 Raleigh, NC 27609		
	Phone:	(919) 707-6611			Phone:	(919) 783-9214	
	Email:	dcduffield@ncdot.gov			Email:	Leah.Young@kci.com	
City/Town:	N/A			County(ies):	Bertie		
River Basin(s):	Chowan			CAMA County?	Yes		
Wetlands within Project Limits?	Yes						

Project Description

Project Length (lin. miles or feet):	0.152 miles	Surrounding Land Use:	Forest/Agriculture/Swamp					
	Proposed Project			Existing Site				
Project Built-Upon Area (ac.)	0.8	ac.	0.6 ac.					
Typical Cross Section Description:	-L- STA. 10+86.50 TO STA. 11+50.00 and -L- STA. 19+70.00 TO STA. 20+33.50 have 11-12' lanes at existing slope, while -L- STA. 11+50.00 TO STA. 15+17.10 and -L- STA. 16+02.10 TO STA. 19+70.00 have 12' lanes and 8' shoulders. The bridge section (L- STA. 15+17.14 TO STA. 16+02.14) has 12' lanes with 8' shoulders with TL-3 guardrail			21' paved roadway with 3' paved shoulder				
Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	5400	Year:	2040	Existing:	3700	Year:	2015
General Project Narrative: (Description of Minimization of Water Quality Impacts)	<p>The project will replace Bertie County Bridge #57 and its approaches. The proposed replacement is 85' long with a clear roadway width of 40'. This structure provides 2 - 12' travel lanes with 8' shoulders. The proposed bridge will have 1.5:1 abutments and 4' caps at the end bents. Placement and construction of the proposed bridge end bents, caps and associated roadway fill will result in both temporary and permanent wetland impact. There will be a permanent channel change located upstream LOB of the existing bridge. An on-site detour bridge will be built before construction of the proposed structure. We will use reforestation to restore areas of temporary wetland impacts.</p> <p>There are wetlands within the proposed project limits. Fill activities will result in 0.04 AC of permanent fill in wetlands and 0.10 AC of temporary fill in wetlands. Wetland impacts have been minimized by steepening fill slopes where appropriate. There will be a permanent channel change that will result in 0.02 AC of permanent fill in wetlands impacts at -L- STA 13+69 RT to 15+36 RT. The total project impacts will result in 0.04 AC of permanent fill in wetlands, 0.10 AC of temporary fill in wetlands, 0.02 AC of permanent excavation in wetlands, 0.21 AC of temporary excavation in wetlands, and 0.01 AC of temporary surface water impacts. Riparian buffer rules do not apply for the Chowan River Basin.</p> <p>STORMWATER CONTROLS: The proposed bridge project does not utilize deck drains. The deck runoff on the left (west) side of the bridge discharges to through an inlet/pipe system to an existing ditch. The ditch terminates just prior to a wetland at the existing wetland elevation. Flow from the ditch enters the wetland at with non-erosive velocities. The deck runoff on the right (east) side of the bridge discharges to through an inlet/pipe system to an existing vegetated base ditch with 3:1 or flatter side slopes. The riprap pad discharges just outside of the wetland and flow enters the wetland at non-erosive velocities. The drainage area to each ditch does not change from existing to proposed conditions. The entire length of the proposed left side (west) ditch is being claimed for treatment and are listed as such on the "Swales" summary sheet. Roadway runoff is treated via vegetated roadway shoulders and existing/proposed vegetated swales prior to entering the stream.</p>							

Waterbody Information

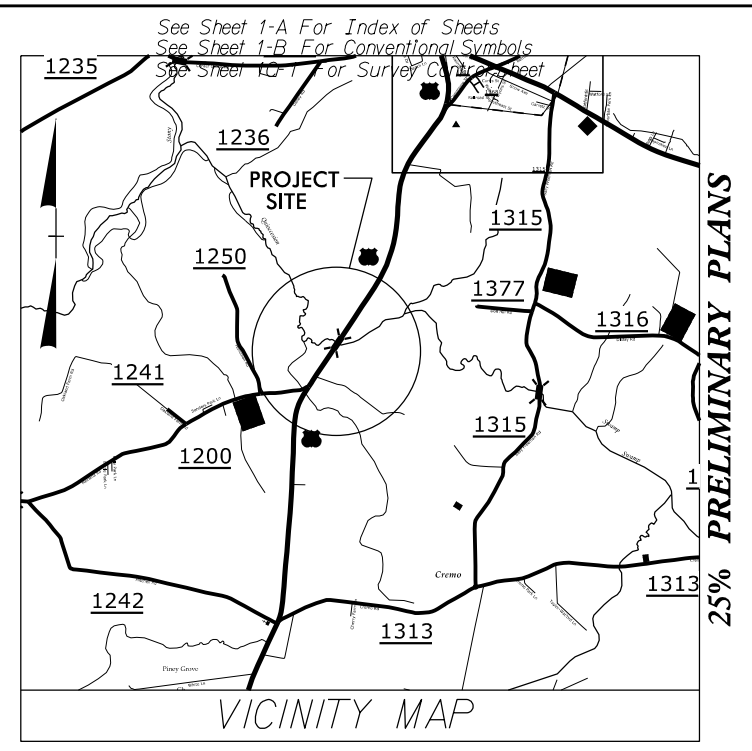
Surface Water Body (1):	Quioccosin Swamp		NCDWR Stream Index No.:	25-14-1-6-2			
2	Primary Classification:		Class C				
	Supplemental Classification:		Nutrient Sensitive Waters (NSW)				
Other Stream Classification:	None						
Impairments:	None						
Aquatic T&E Species?	No	Comments: N/A					
NRTR Stream ID:	N/A		Buffer Rules in Effect:		N/A		
Project Includes Bridge Spanning Water Body?	Yes	Deck Drains Discharge Over Buffer?	No	Dissipator Pads Provided in Buffer?		N/A	
Deck Drains Discharge Over Water Body?	No	(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)			
(If yes, provide justification in the General Project Narrative)							







09/08/19



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

PERMIT DRAWING  
SHEET 1 OF 24

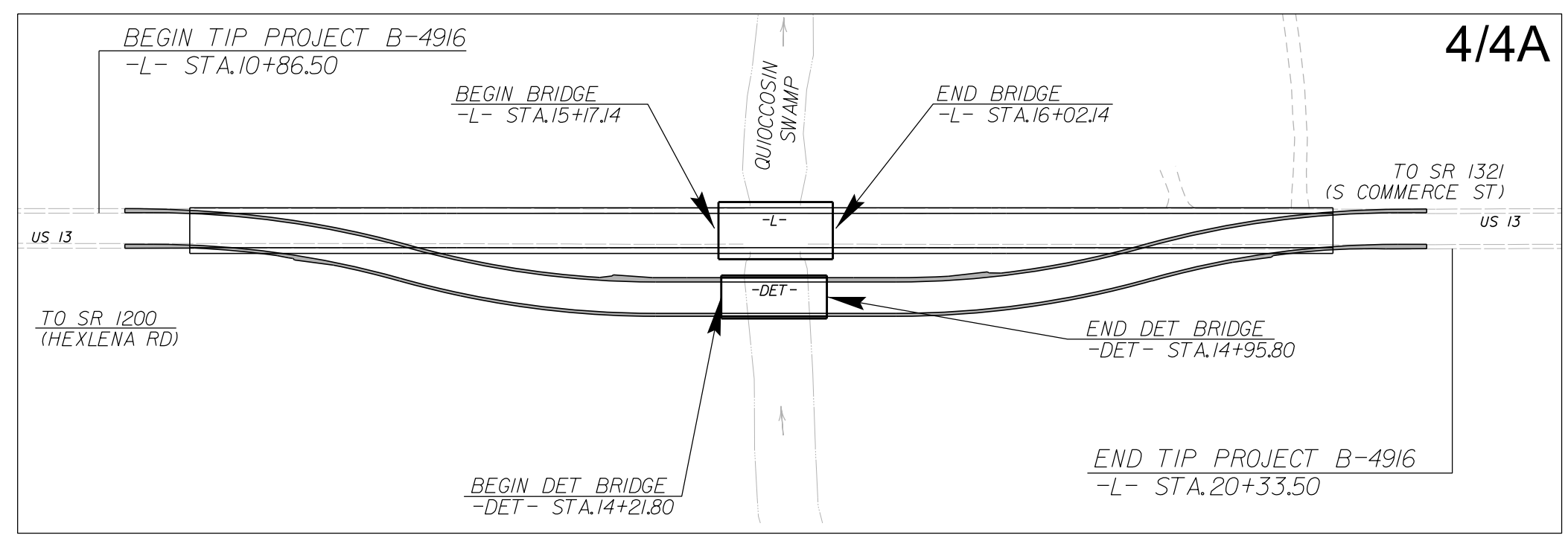
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4916	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
40089.1.2		P.E.	

**BERTIE COUNTY**

LOCATION: REPLACE BRIDGE NO. 57 OVER QUIOCCOSIN SWAMP ON US 13

TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE

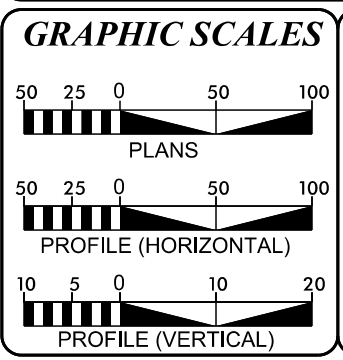
**WETLAND AND SURFACE WATER IMPACTS PERMIT**



1/21/2019  
S:\USER\NAME\5  
SFILES

THIS PROJECT IS NOT WITHIN MUNICIPAL BOUNDARIES.  
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



**DESIGN DATA**

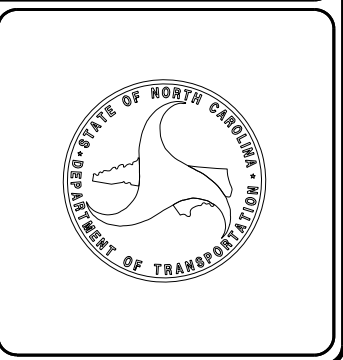
ADT 2015 =	3700
ADT 2040 =	5400
K =	9 %
D =	55 %
T =	17 % *
V =	60 MPH
* TTST =	6% DUAL 11%
FUNC CLASS =	MINOR ARTERIAL
REGIONAL TIER	

**PROJECT LENGTH**

LENGTH OF ROADWAY TIP PROJECT B-4916	=	.163 MILES
LENGTH OF STRUCTURE TIP PROJECT B-4916	=	.016 MILES
TOTAL LENGTH OF TIP PROJECT B-4916	=	.179 MILES



Prepared in the Office of:  KCI Associates of N.C., P.A. 4505 Falls of Neuse Road, Suite 400 Raleigh, NC 27609 Phone (919) 783-9214 Fax (919) 783-9266	Plans Prepared For: <b>DIVISION OF HIGHWAYS</b> 1000 Birch Ridge Dr. Raleigh NC, 27610
2012 STANDARD SPECIFICATIONS	<b>DEWAYNE L. SYKES, P.E.</b> PROJECT ENGINEER
<b>RIGHT OF WAY DATE:</b>	<b>BRYAN E. HOUGH, P.E.</b> PROJECT DESIGN ENGINEER
<b>LETTING DATE:</b> APRIL 20, 2019	<b>DAVID STUTTS, PE</b> STRUCTURES MANAGEMENT UNIT
<b>NCDOT CONTACT:</b>	

<b>HYDRAULICS ENGINEER</b>	
SIGNATURE: _____	P.E.
<b>ROADWAY DESIGN ENGINEER</b>	
SIGNATURE: _____	P.E.

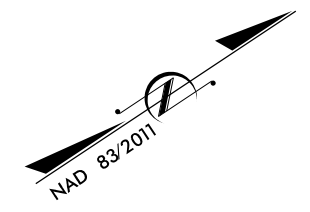








1/21/2019  
M:\2018\251801945.06 B-4916\Hydraulics\PERMITS-Environmental\B4916\_Hyd\_tsh.dgn  
Sawyer, Walters

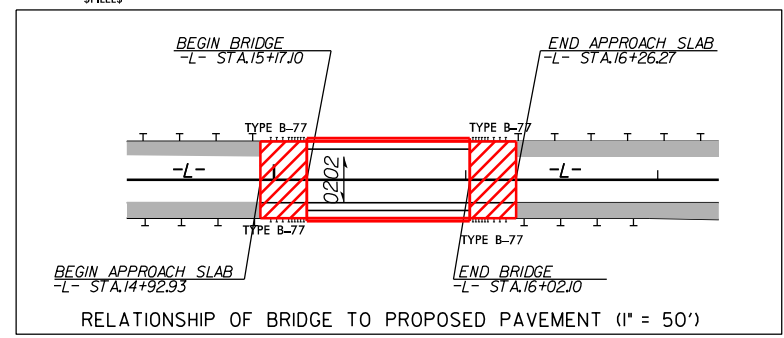
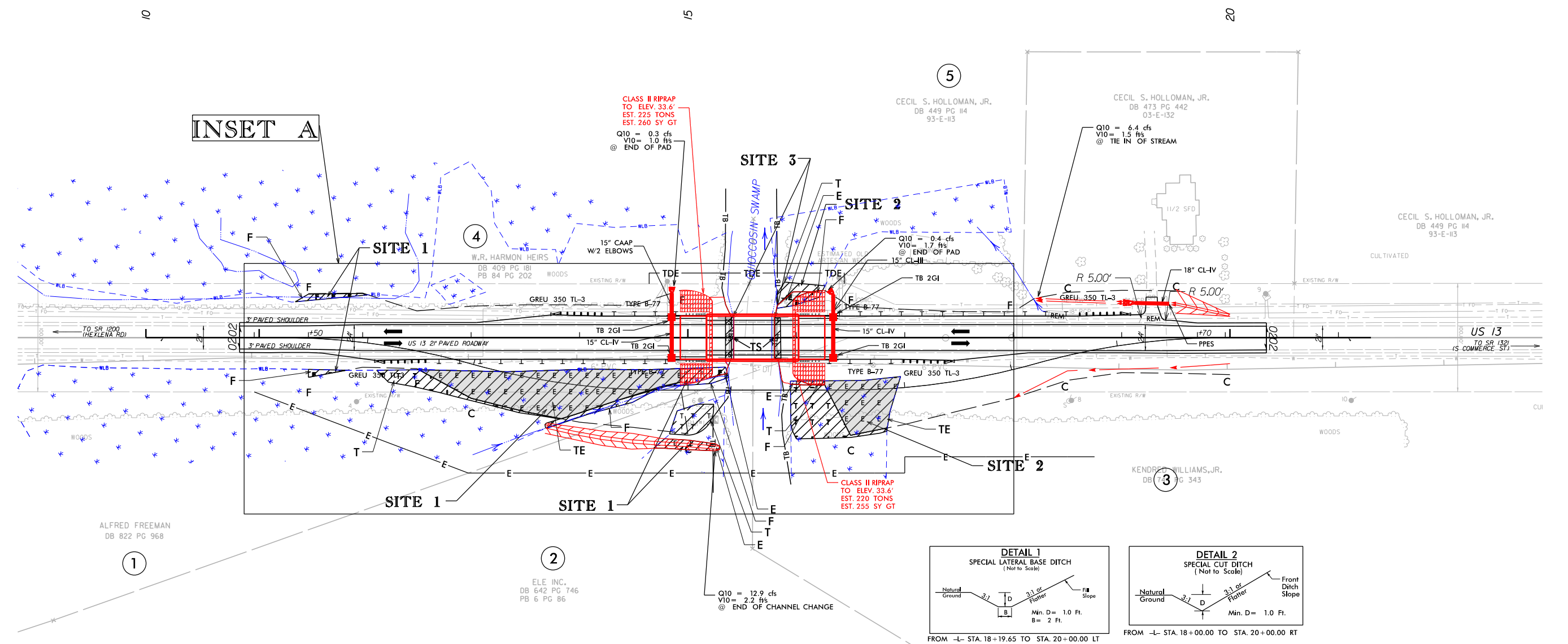
**CONTRACT: C204206**

PROJECT REFERENCE NO. B-4916	SHEET NO. 4
R/W SHEET NO. 1	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 036853 BRYAN E. HOLSCH	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
 KCI <small>Engineers • Planners • Scientists • Construction Managers          4515 Falls of Neuse Road, Suite 400          Raleigh, NC 27609          Phone (919) 783-9214 • Fax (919) 783-9266</small>	

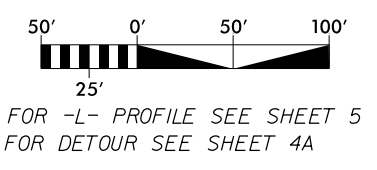
**PERMIT DRAWING  
SHEET 2 OF 24**



-  DENOTES EXCAVATION IN WETLAND
-  DENOTES FILL IN WETLAND
-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY FILL IN WETLAND
-  DENOTES TEMPORARY EXCAVATION IN WETLAND




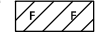
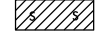
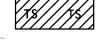


NOTE:  
 ① NO DECK DRAINS TO BE USED

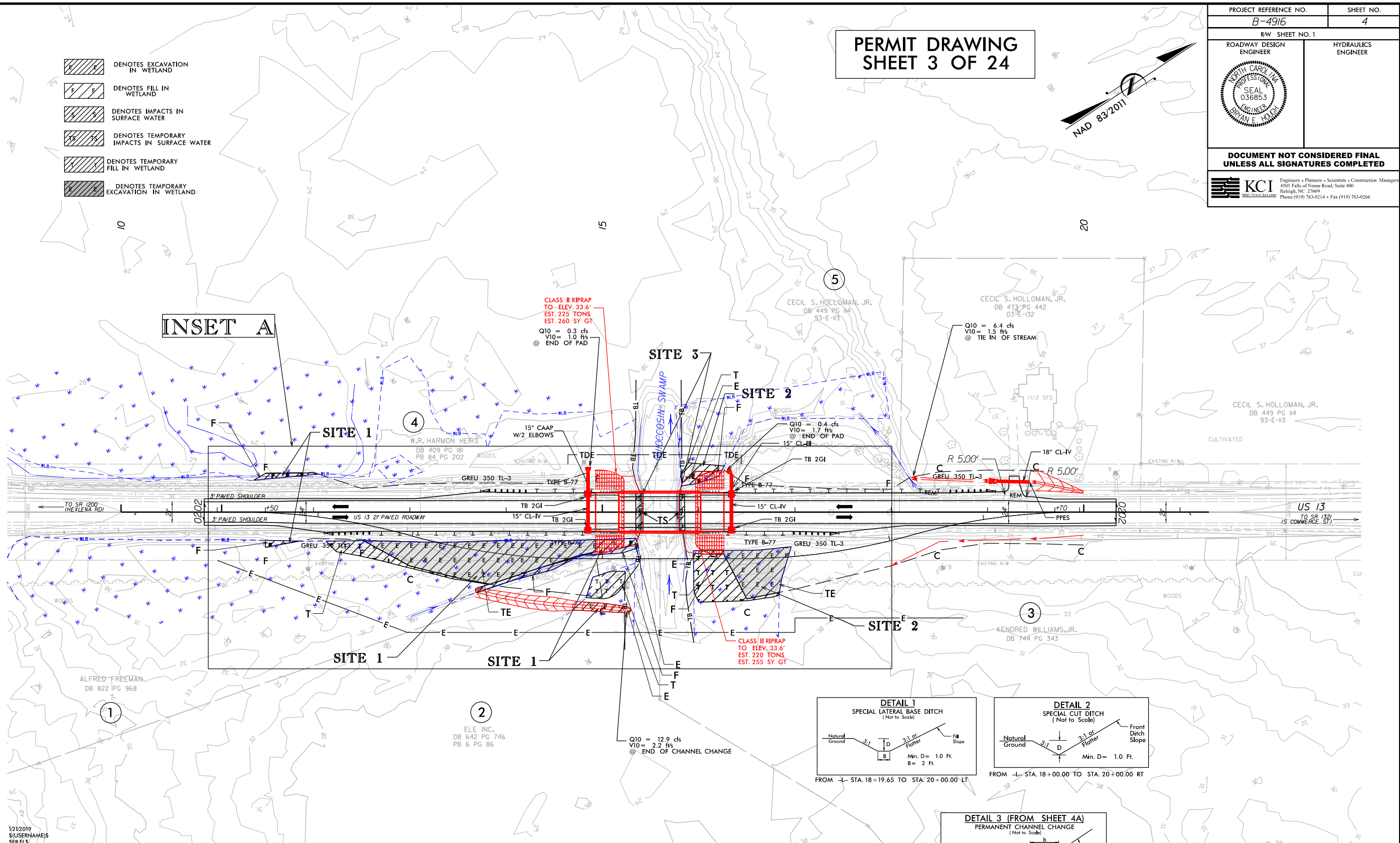


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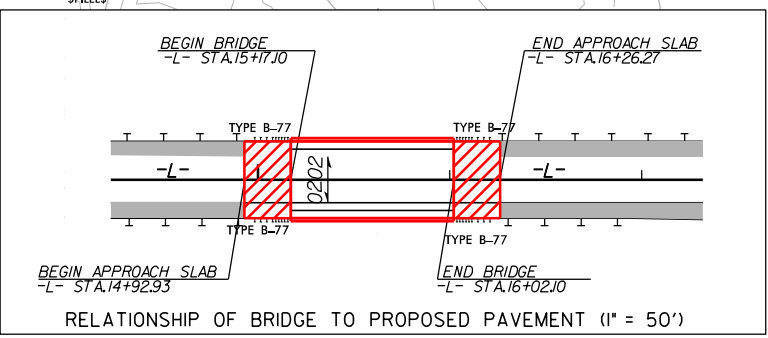
**PERMIT DRAWING  
SHEET 3 OF 24**



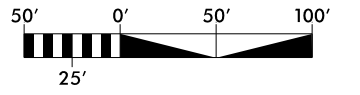
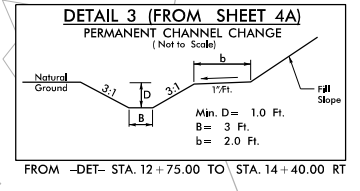
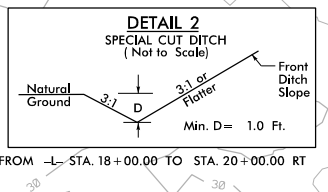
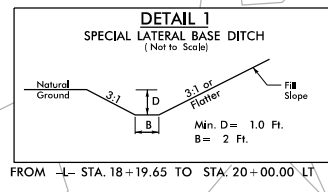
-  DENOTES EXCAVATION IN WETLAND
-  DENOTES FILL IN WETLAND
-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY FILL IN WETLAND
-  DENOTES TEMPORARY EXCAVATION IN WETLAND



**INSET A**



**NOTE:**  
 ① NO DECK DRAINS TO BE USED



FOR -L- PROFILE SEE SHEET 5  
 FOR DETOUR SEE SHEET 4A

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8/17/09



KCI Associates of N.C., P.A.  
4505 Falls of Neuse Road, Suite 400  
Raleigh, NC 27609  
Phone (919) 783-9214  
Fax (919) 783-9266

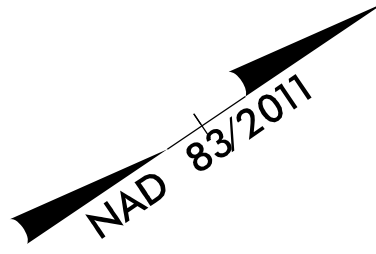
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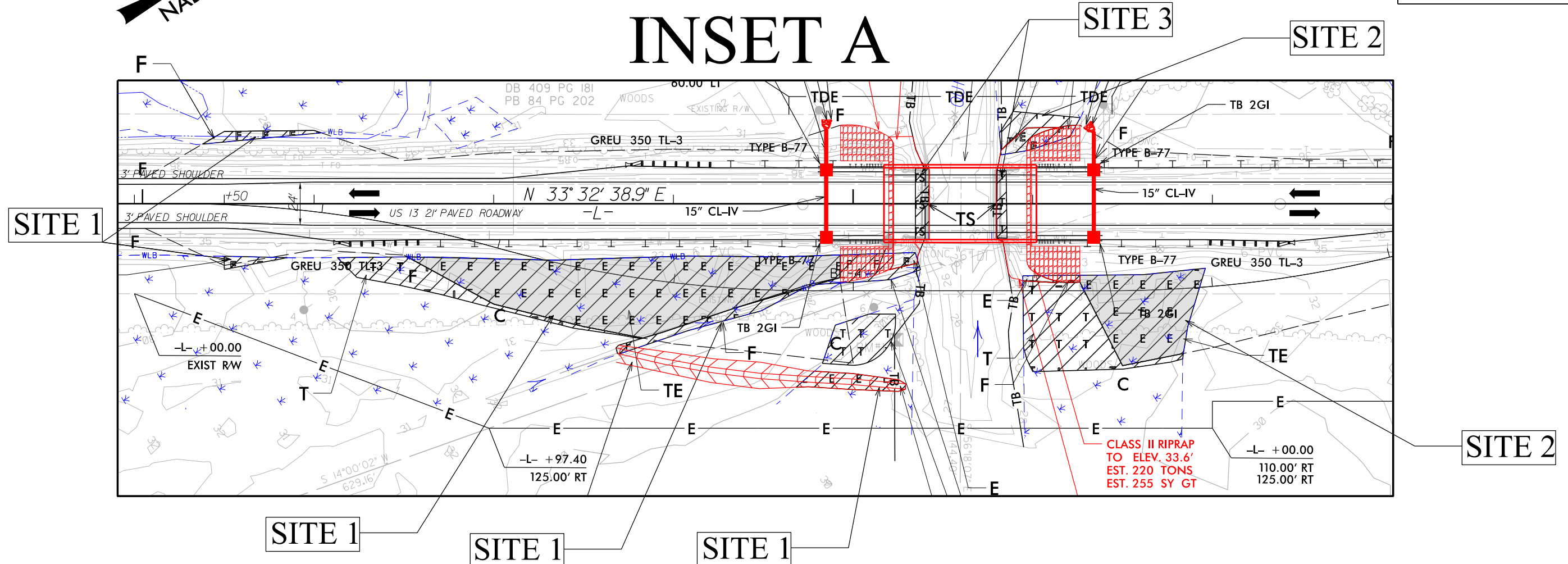
PERMIT DRAWING  
SHEET 4 OF 24

INCOMPLETE PLANS  
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

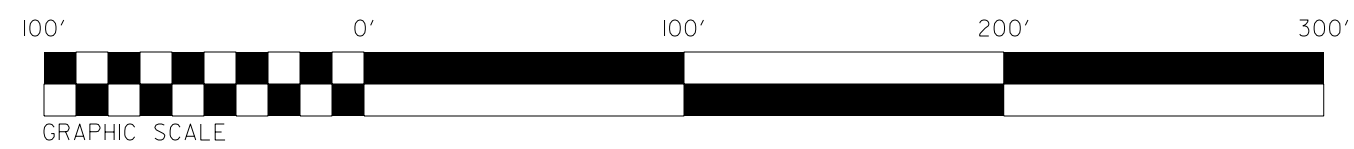


# INSET A



## IMPACTS LEGEND

	DENOTES TEMPORARY FILL IN WETLAND		DENOTES EXCAVATION IN WETLAND
	DENOTES FILL IN WETLAND		DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY EXCAVATION IN WETLAND		DENOTES TEMPORARY IMPACTS IN SURFACE WATER



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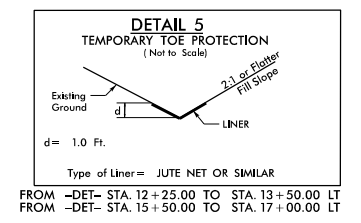
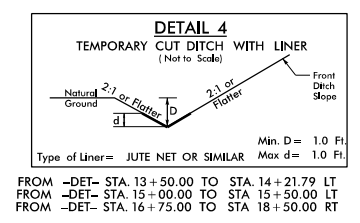
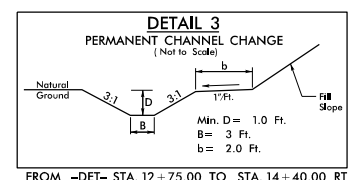
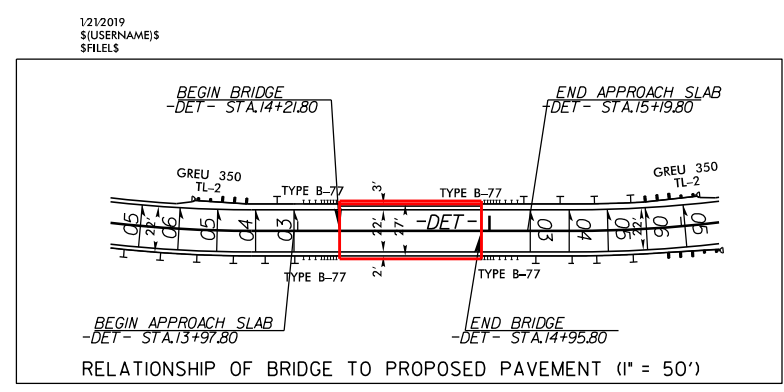
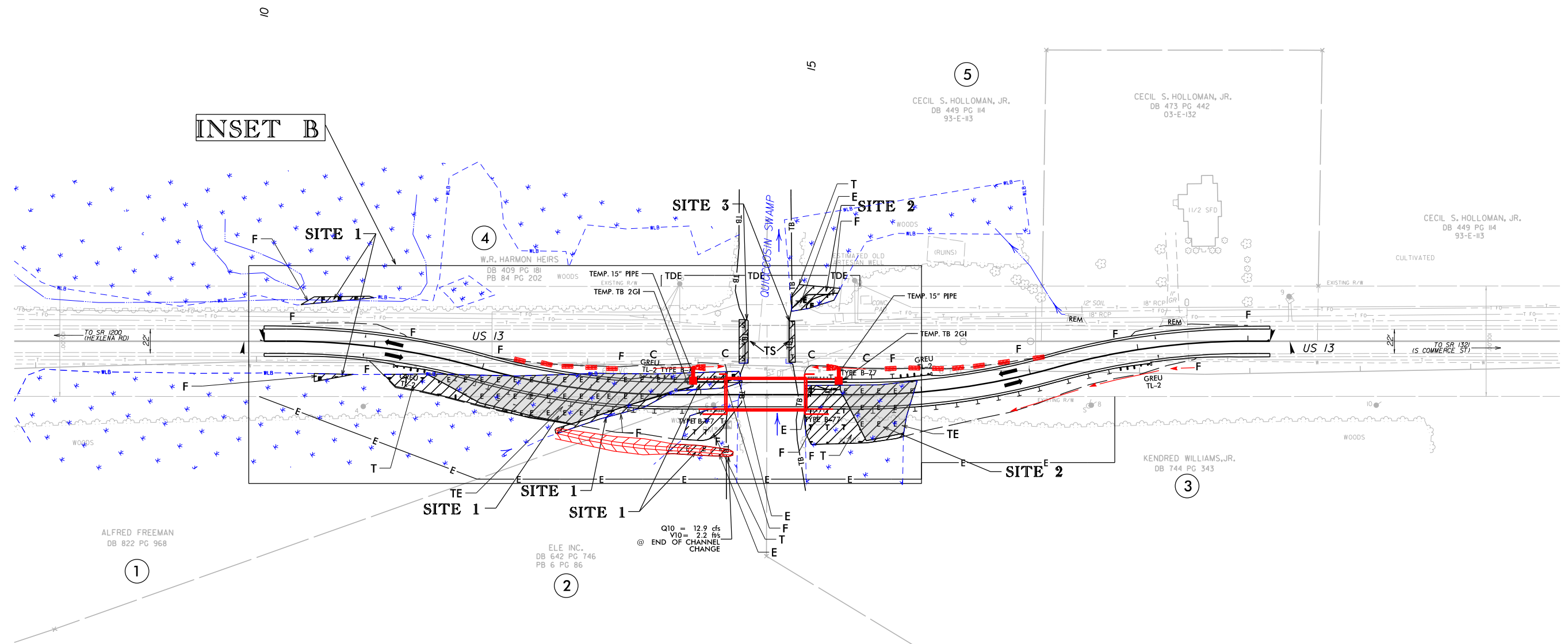
8/17/99

# PERMIT DRAWING SHEET 5 OF 24

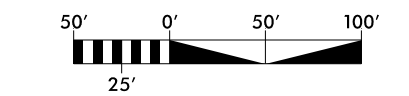


PROJECT REFERENCE NO. <b>B-4916</b>	SHEET NO. <b>4A</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

- DENOTES EXCAVATION IN WETLAND
- DENOTES FILL IN WETLAND
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY FILL IN WETLAND
- DENOTES TEMPORARY EXCAVATION IN WETLAND



NOTE:  
① NO DECK DRAINS TO BE USED.



FOR -DET- PROFILE SEE SHEET 5A  
FOR -L- DESIGN SEE SHEET 4

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PROJECT REFERENCE NO. B-4916 SHEET NO. PRM-7

ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

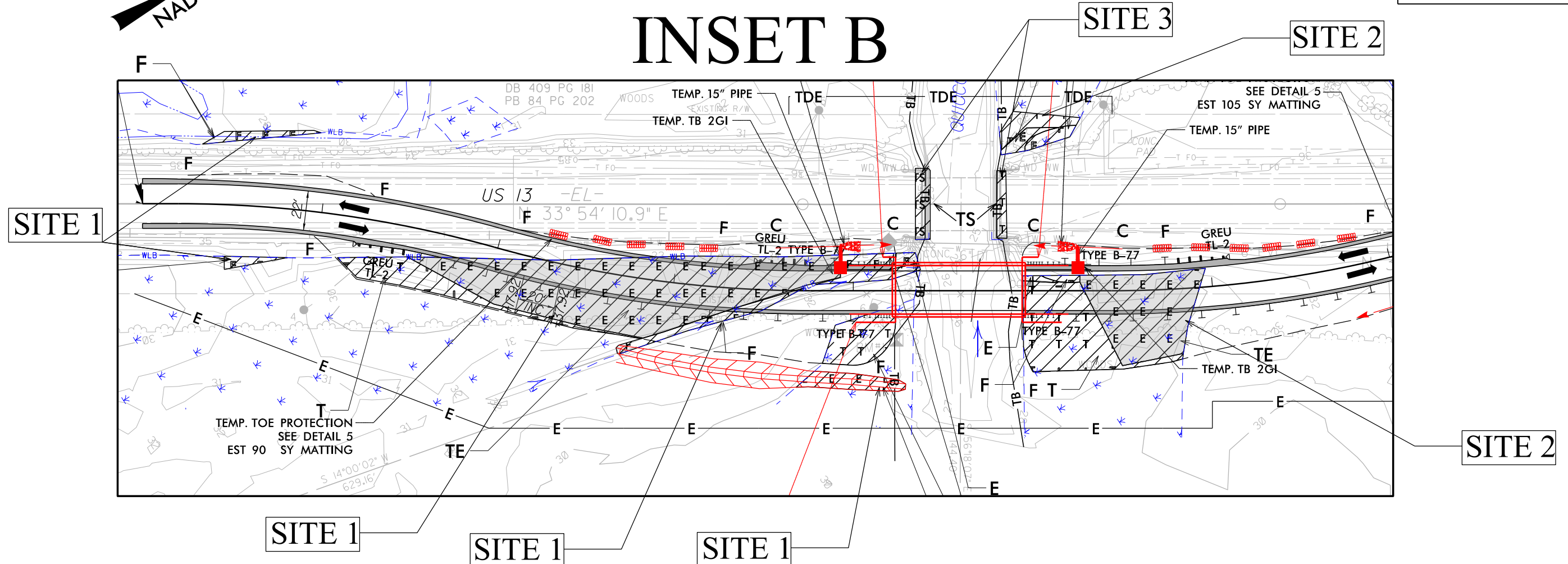
PERMIT DRAWING  
SHEET 7 OF 24

INCOMPLETE PLANS  
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

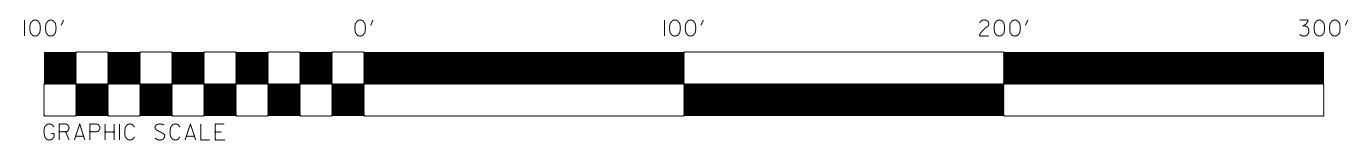


# INSET B



## IMPACTS LEGEND

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	DENOTES FILL IN WETLAND		DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY EXCAVATION IN WETLAND		DENOTES TEMPORARY IMPACTS IN SURFACE WATER



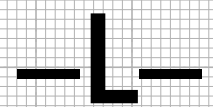
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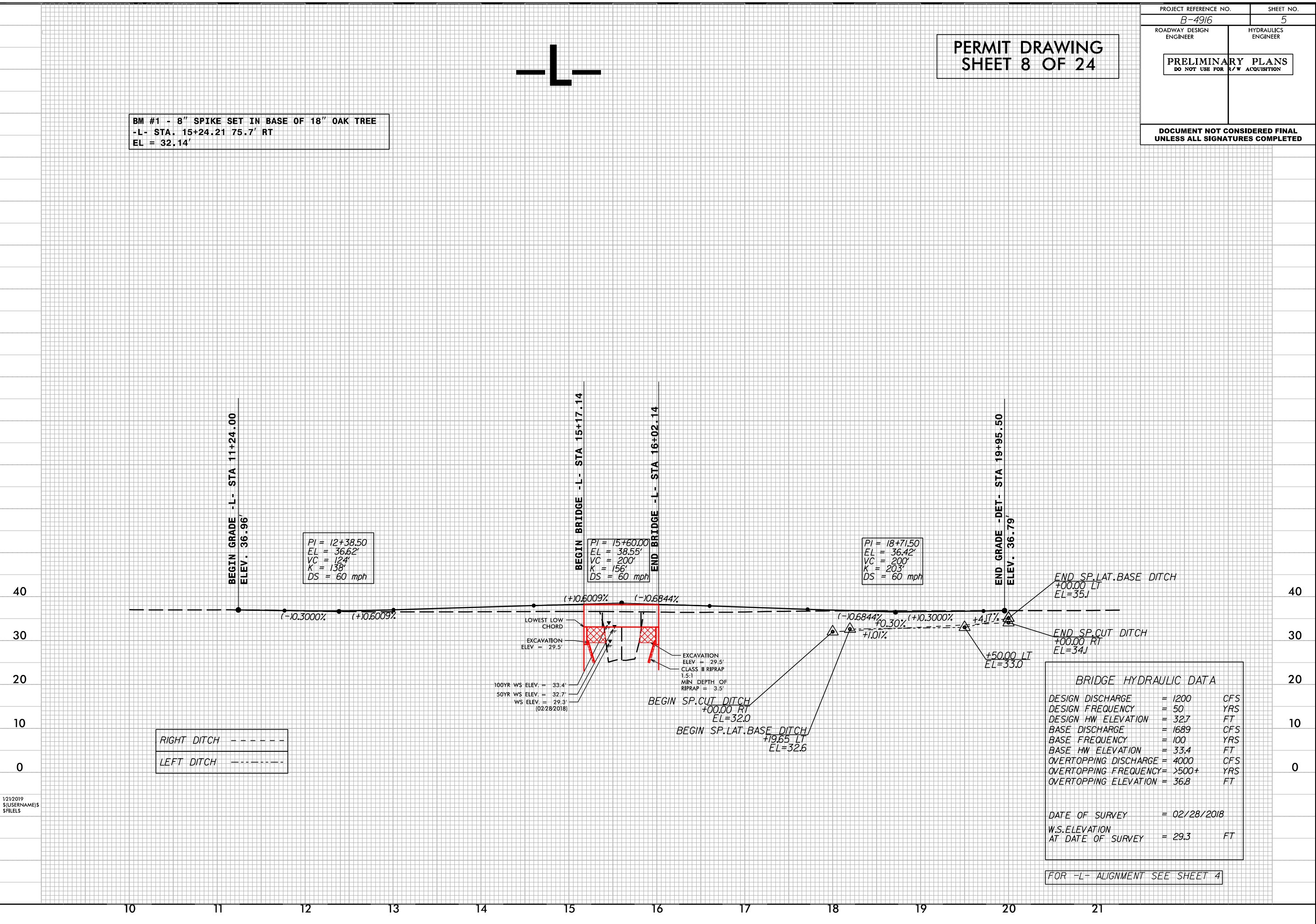
PROJECT REFERENCE NO. B-4916	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

**PERMIT DRAWING  
SHEET 8 OF 24**

**BM #1 - 8" SPIKE SET IN BASE OF 18" OAK TREE**  
 -L- STA. 15+24.21 75.7' RT  
 EL = 32.14'



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RIGHT DITCH - - - - -  
 LEFT DITCH - - - - -


**BRIDGE HYDRAULIC DATA**

DESIGN DISCHARGE	= 1200	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 32.7	FT
BASE DISCHARGE	= 1689	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 33.4	FT
OVERTOPPING DISCHARGE	= 4000	CFS
OVERTOPPING FREQUENCY	= >500+	YRS
OVERTOPPING ELEVATION	= 36.8	FT

DATE OF SURVEY = 02/28/2018  
 W.S. ELEVATION AT DATE OF SURVEY = 29.3 FT

FOR -L- ALIGNMENT SEE SHEET 4

5/14/99

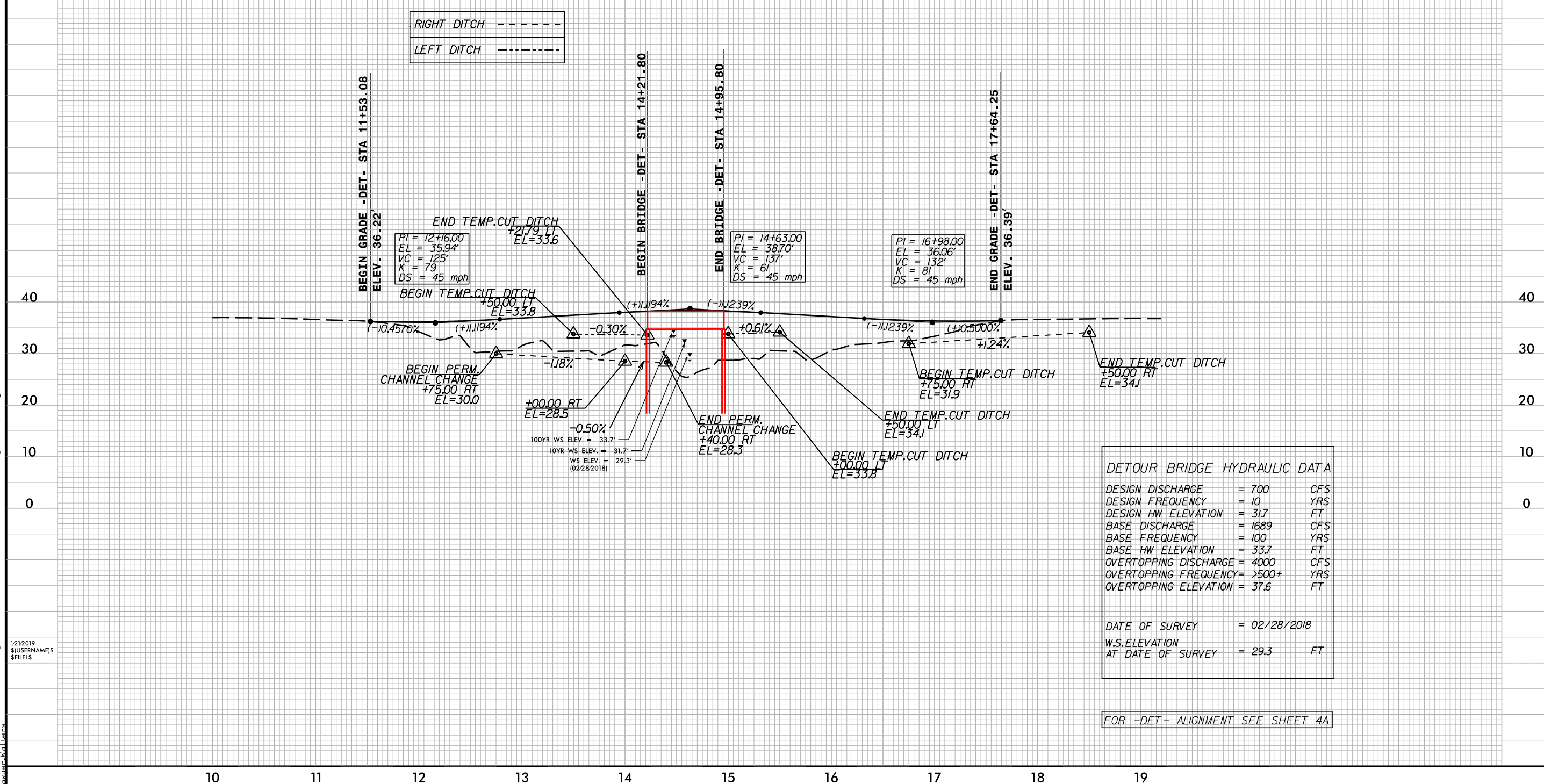
PROJECT REFERENCE NO. B-4916	SHEET NO. 5A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

**PERMIT DRAWING  
SHEET 9 OF 24**

# -DET-

BM #1 - 8" SPIKE SET IN BASE OF 18" OAK TREE  
-DET- STA. 14+24.13, 27.47' RT  
EL = 32.14'

RIGHT DITCH - - - - -  
LEFT DITCH - - - - -

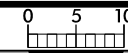


DETOUR BRIDGE HYDRAULIC DATA		
DESIGN DISCHARGE	= 700	CFS
DESIGN FREQUENCY	= 10	YRS
DESIGN HW ELEVATION	= 31.7	FT
BASE DISCHARGE	= 1689	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 33.7	FT
OVERTOPPING DISCHARGE	= 4000	CFS
OVERTOPPING FREQUENCY	= >500+	YRS
OVERTOPPING ELEVATION	= 37.6	FT
DATE OF SURVEY	= 02/28/2018	
W.S. ELEVATION AT DATE OF SURVEY	= 29.3	FT

FOR -DET- ALIGNMENT SEE SHEET 4A

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Sawyer, Walters

6/23/16

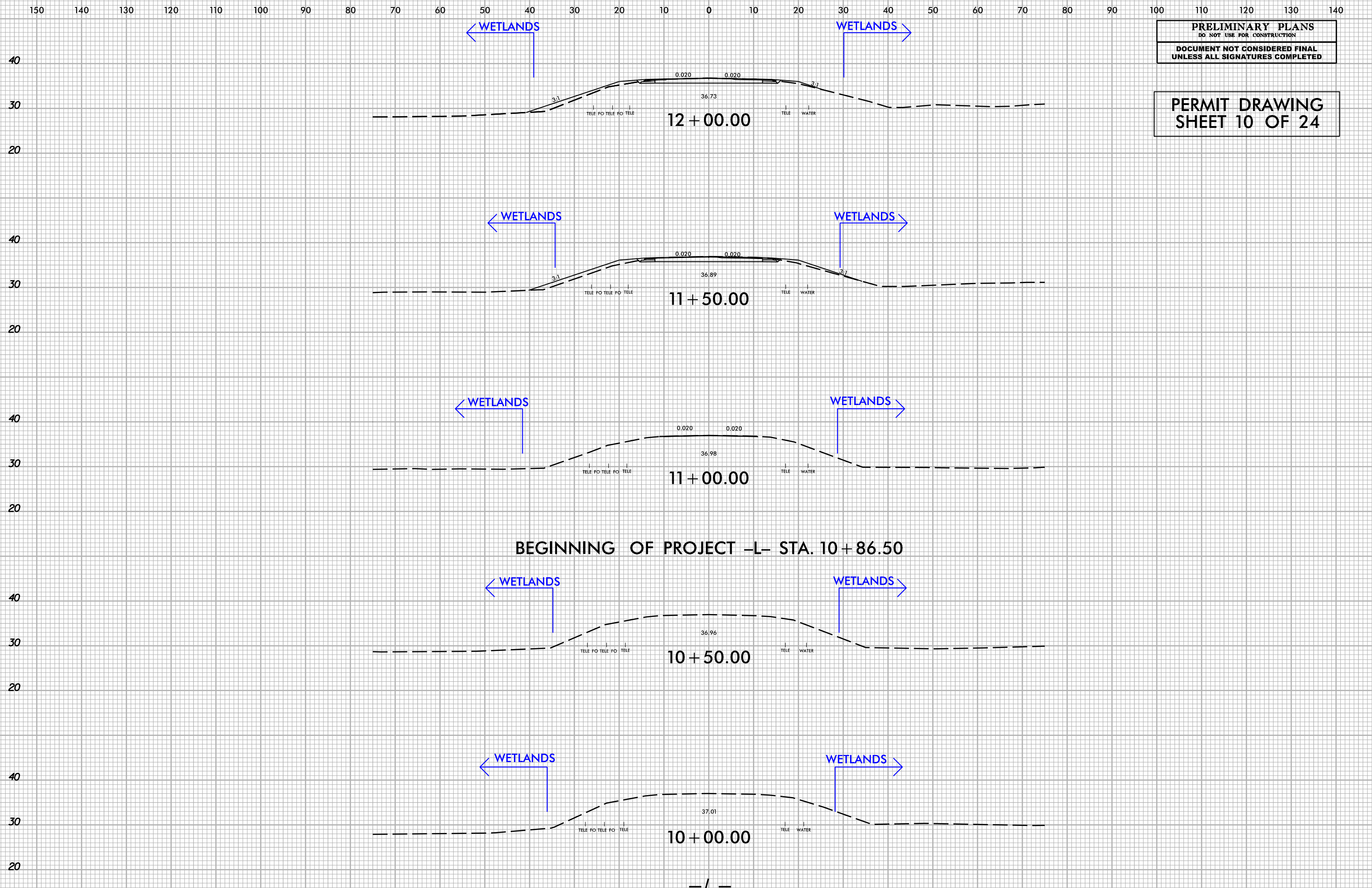


PROJ. REFERENCE NO.  
B-4916

SHEET NO.  
X-1

**PRELIMINARY PLANS**  
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**PERMIT DRAWING**  
**SHEET 10 OF 24**

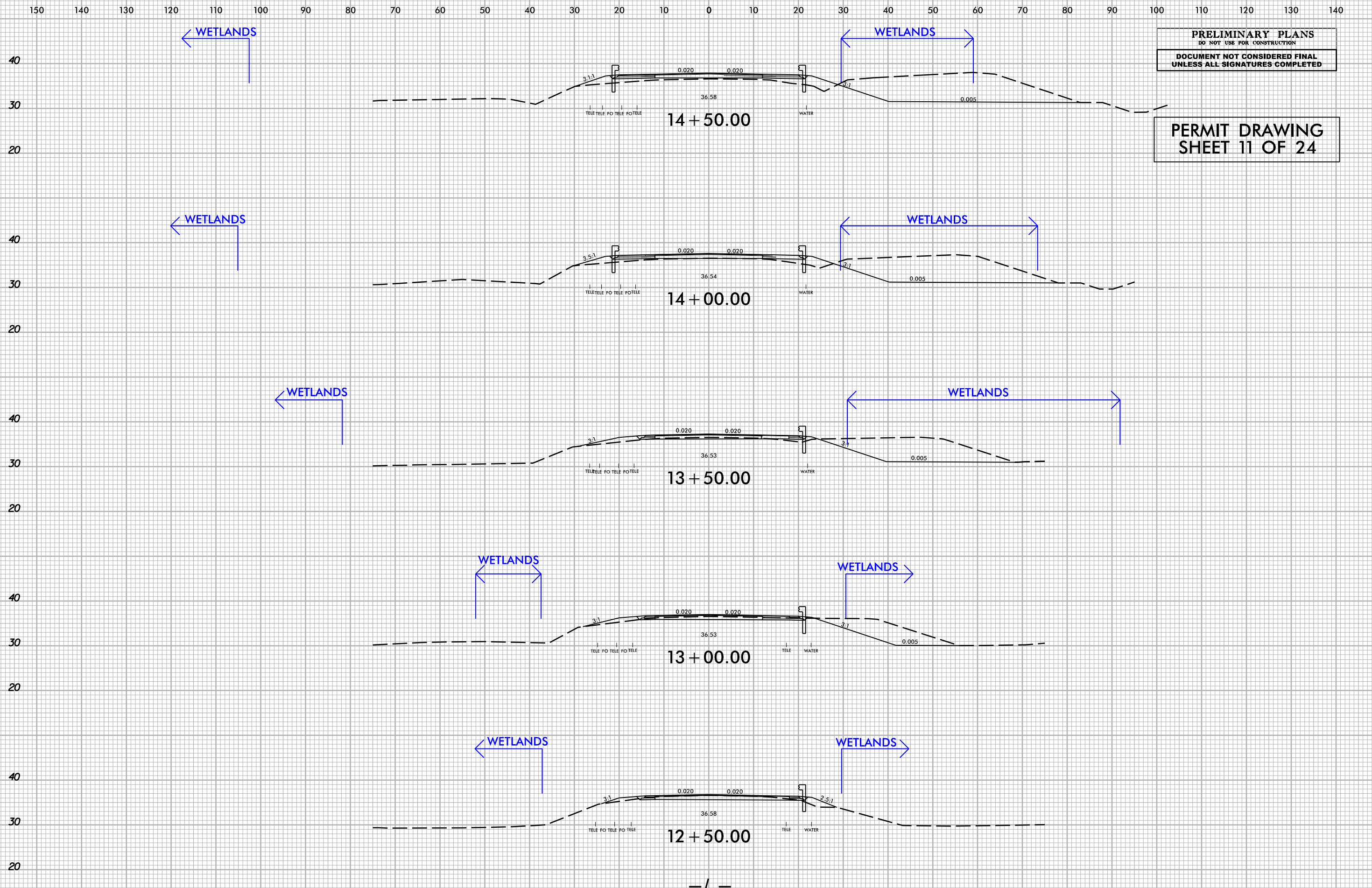


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Elizabeth Shelton

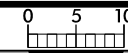
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Elizabeth Shelton

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**PERMIT DRAWING**  
**SHEET 11 OF 24**



6/23/16



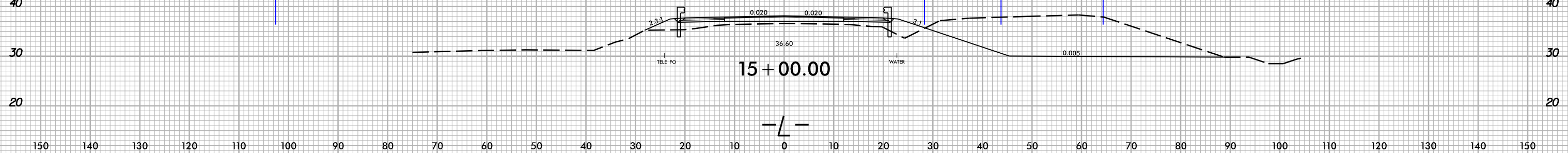
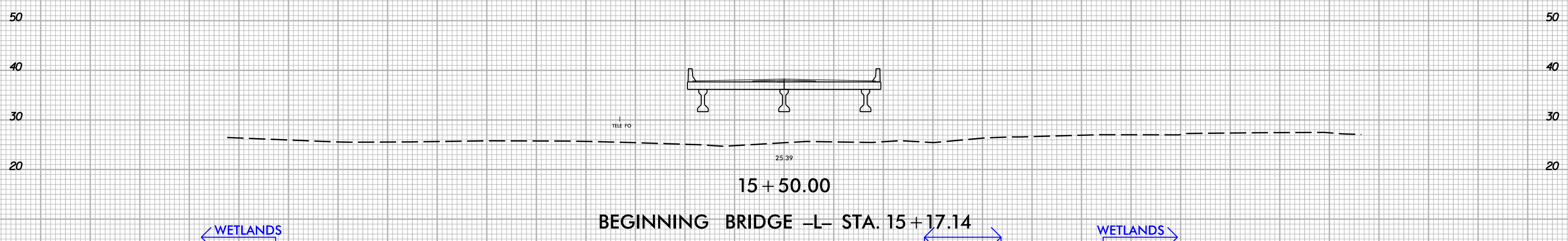
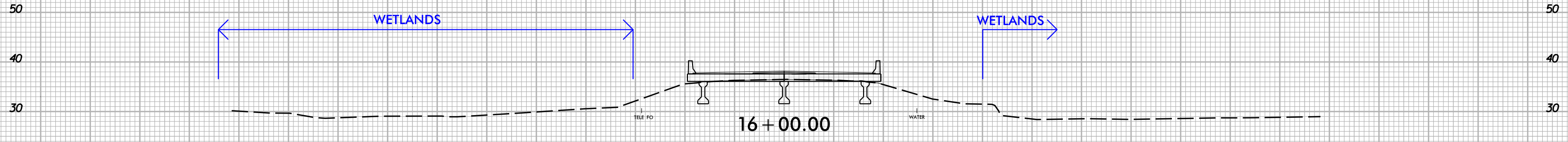
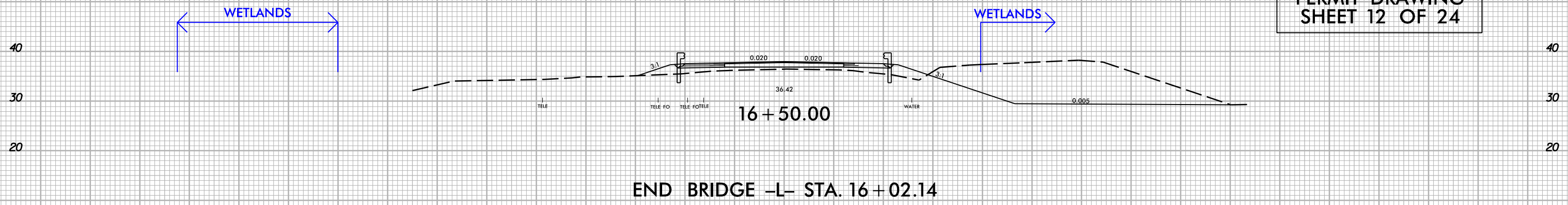
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B-4916

SHEET NO.  
X-3

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UNLESS ALL SIGNATURES COMPLETED

**PERMIT DRAWING**  
**SHEET 12 OF 24**



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Elizabeth.Sheridan

6/23/16



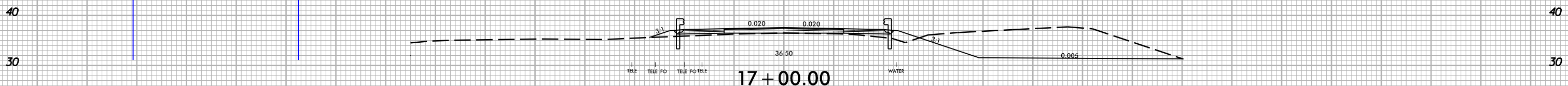
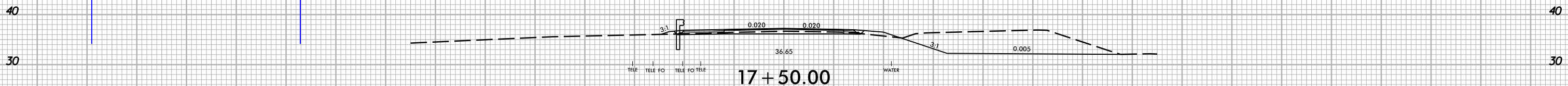
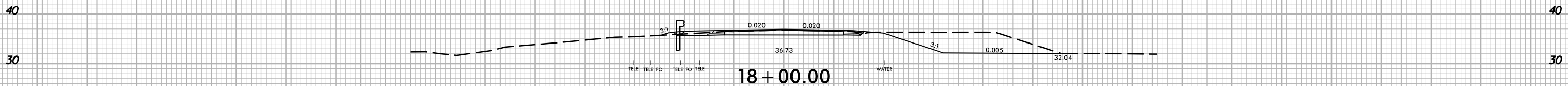
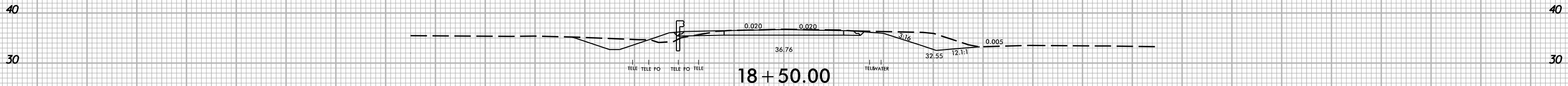
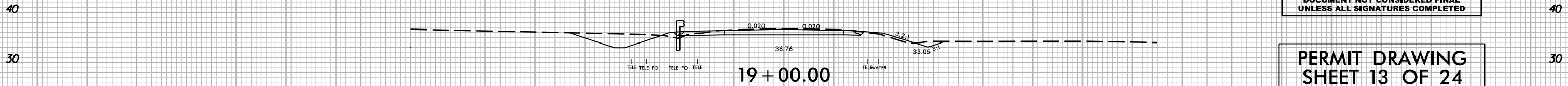
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B-4916

SHEET NO.  
X-4

**PRELIMINARY PLANS**  
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**PERMIT DRAWING**  
**SHEET 13 OF 24**

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



WETLANDS

WETLANDS

-L-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Elizabeth.Shelton

6/23/16



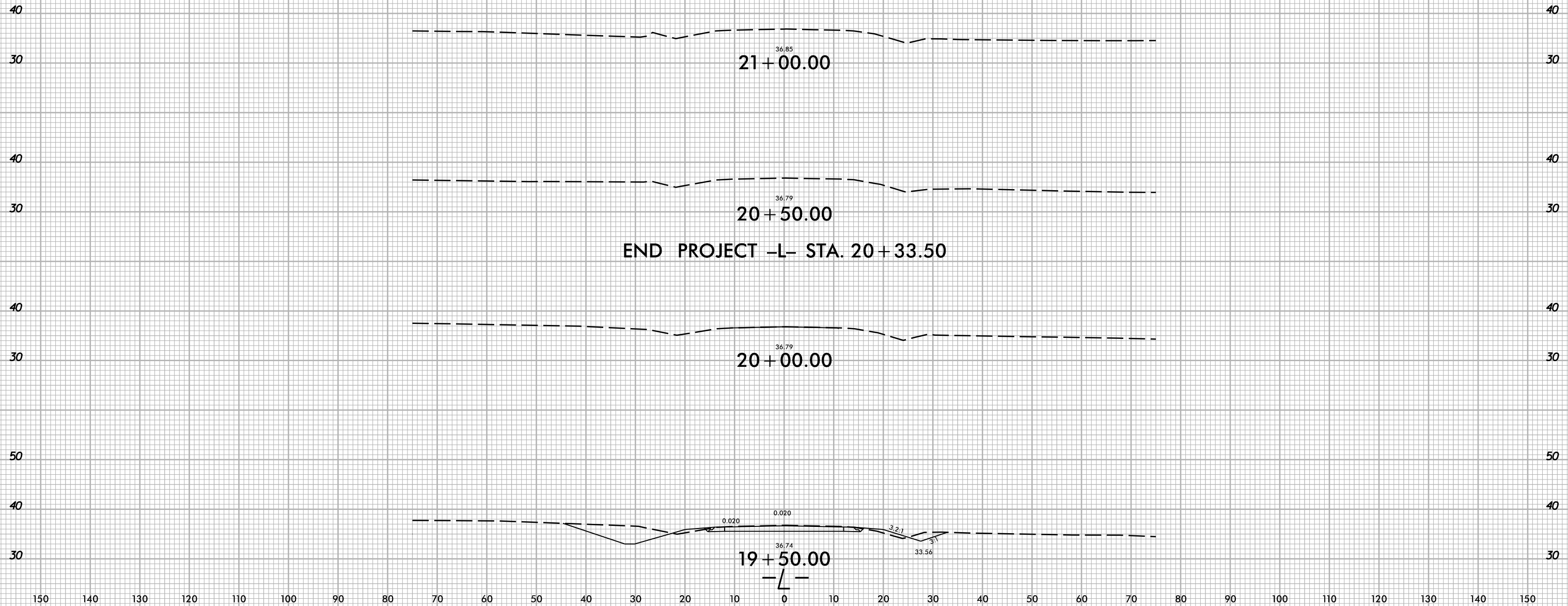
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B-4916

SHEET NO.  
X-5

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**PRELIMINARY PLANS**  
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**DOCUMENT NOT CONSIDERED FINAL**  
**UNLESS ALL SIGNATURES COMPLETED**

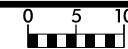
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**SHEET 14 OF 24**



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Elizabeth Shelton



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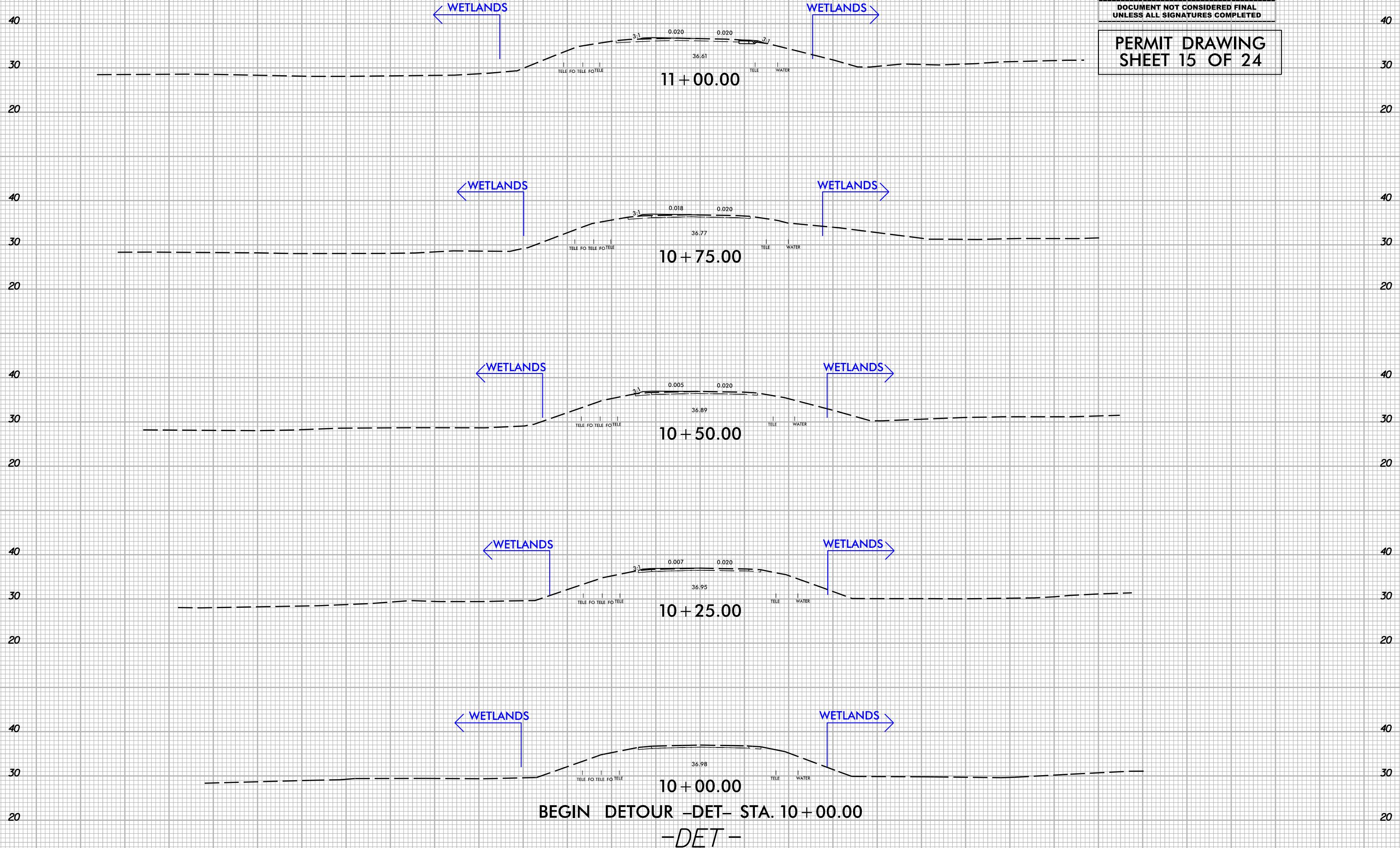
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PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING  
SHEET 15 OF 24

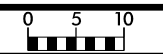


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Elizabeth Shelton

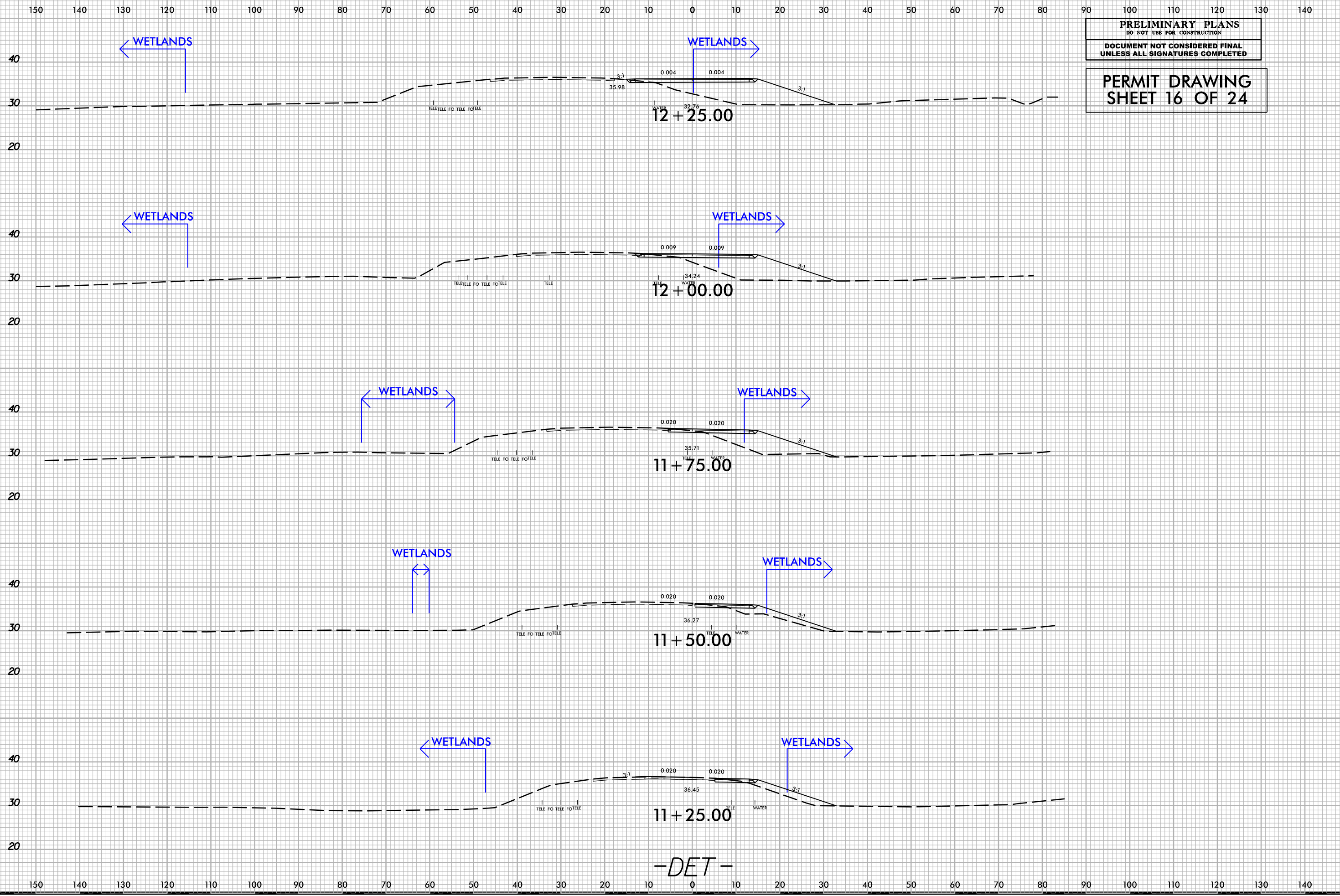
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Elizabeth Shelton



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**DOCUMENT NOT CONSIDERED FINAL**  
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**PERMIT DRAWING**  
**SHEET 16 OF 24**



6/23/16



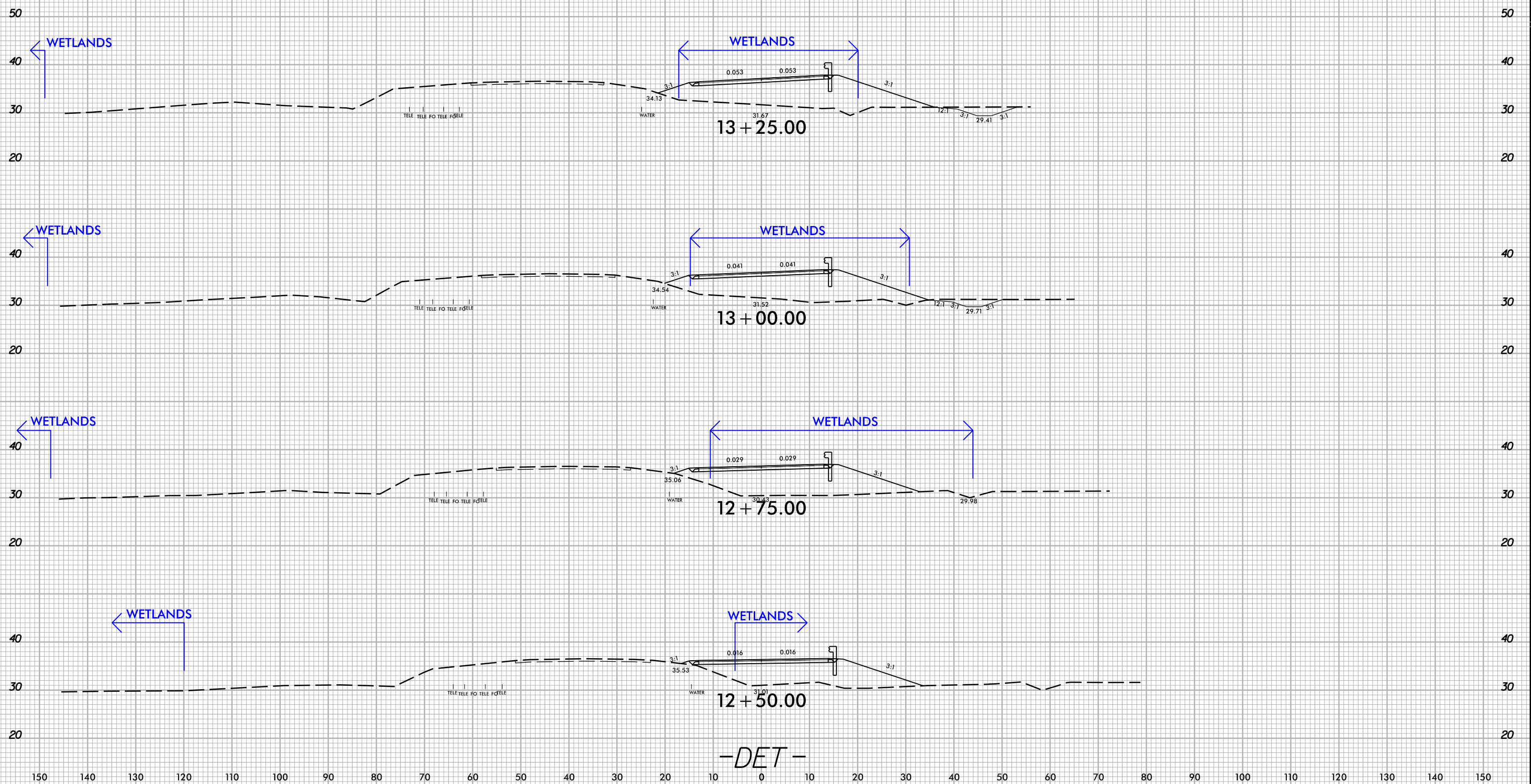
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SHEET NO.  
X-8

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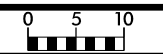
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**PERMIT DRAWING**  
**SHEET 17 OF 24**



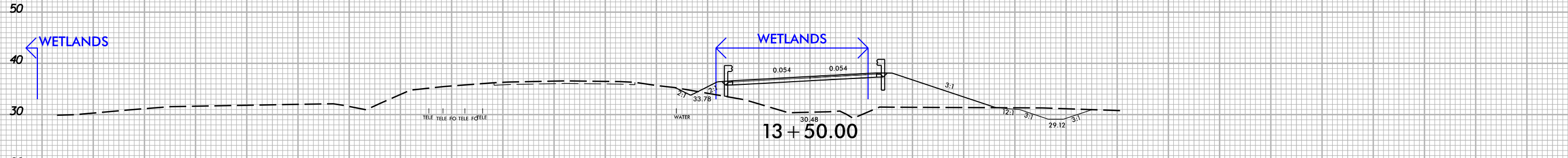
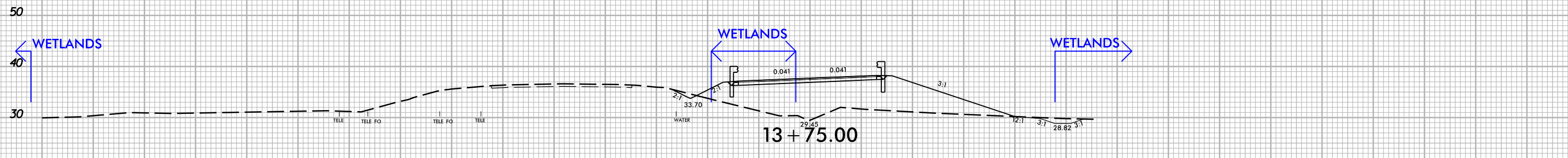
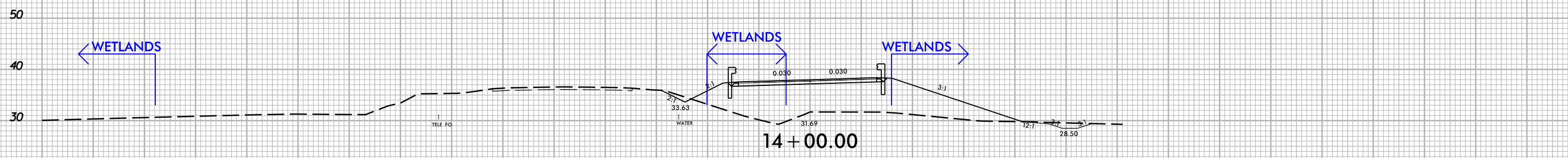
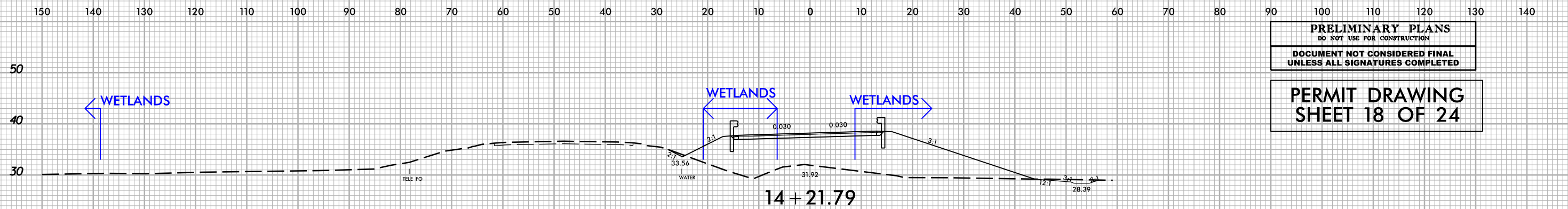
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Elizabeth Shelton

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**PERMIT DRAWING**  
**SHEET 18 OF 24**



-DET-

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Elizabeth Shelton

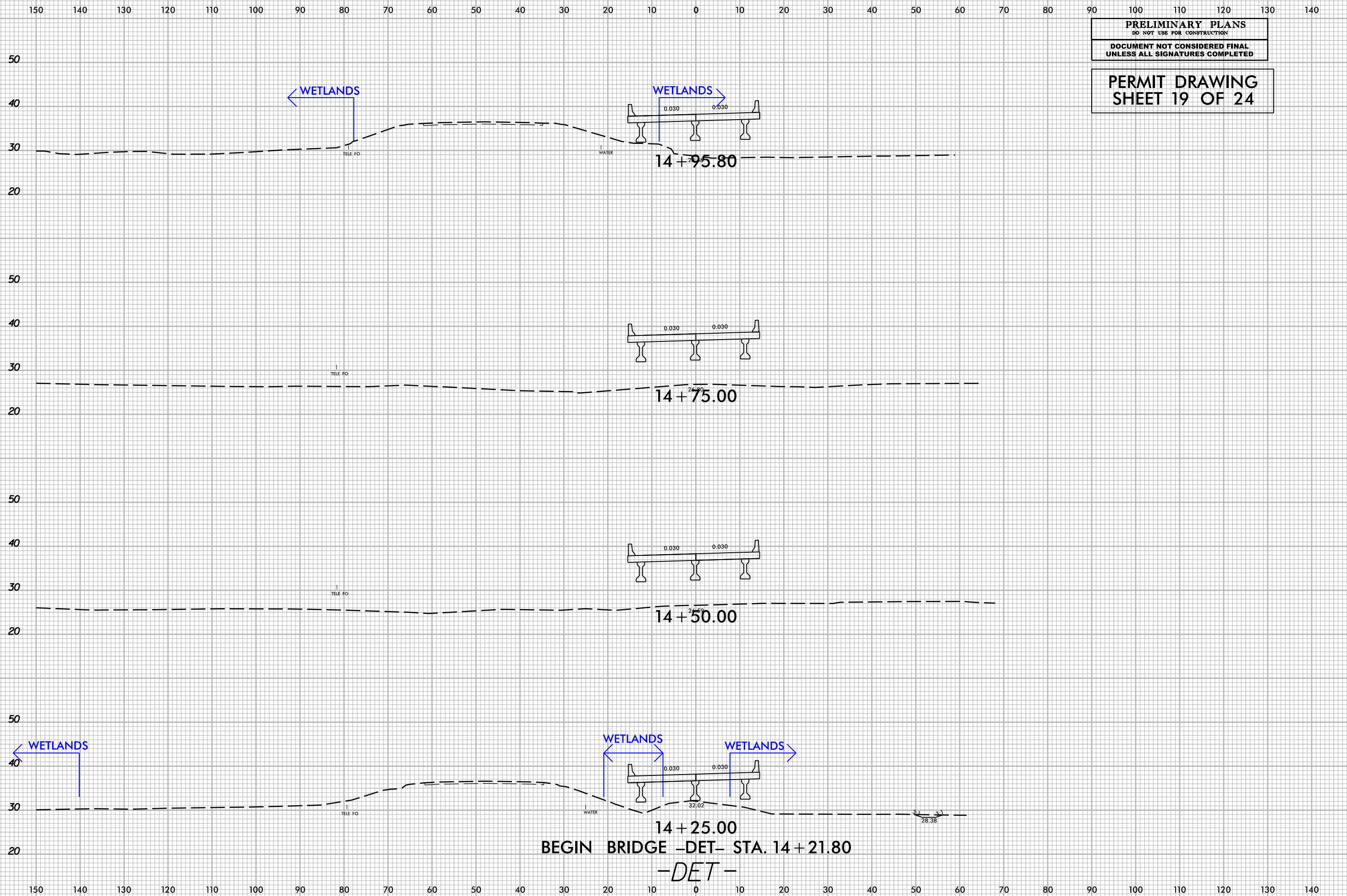
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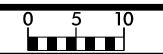
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**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION  
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**PERMIT DRAWING**  
**SHEET 19 OF 24**



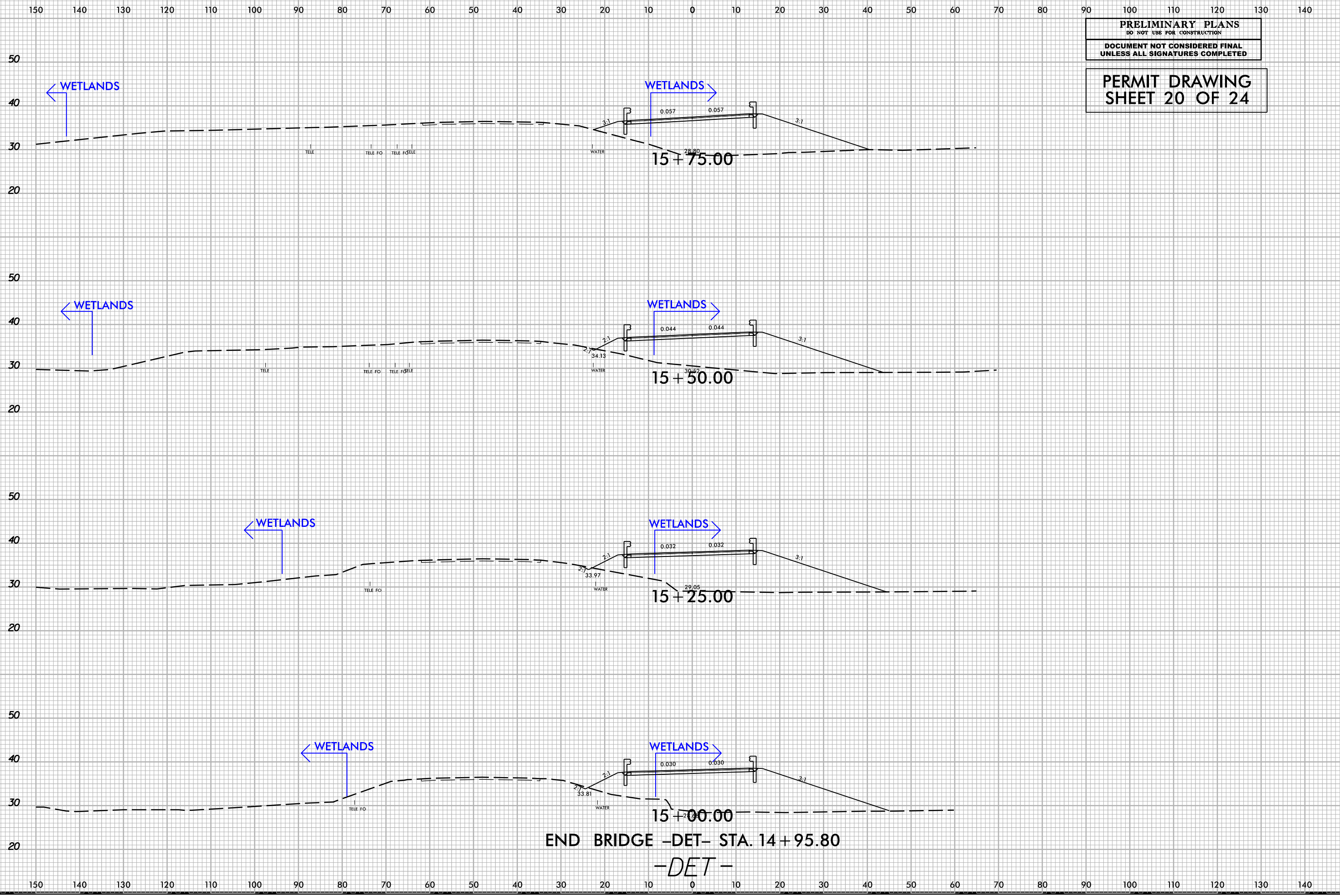
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Elizabeth Shelton

6/23/16  
1/21/2018  
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Elizabeth.Sheridan



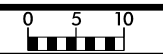
**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION  
**DOCUMENT NOT CONSIDERED FINAL**  
UNLESS ALL SIGNATURES COMPLETED

**PERMIT DRAWING**  
**SHEET 20 OF 24**





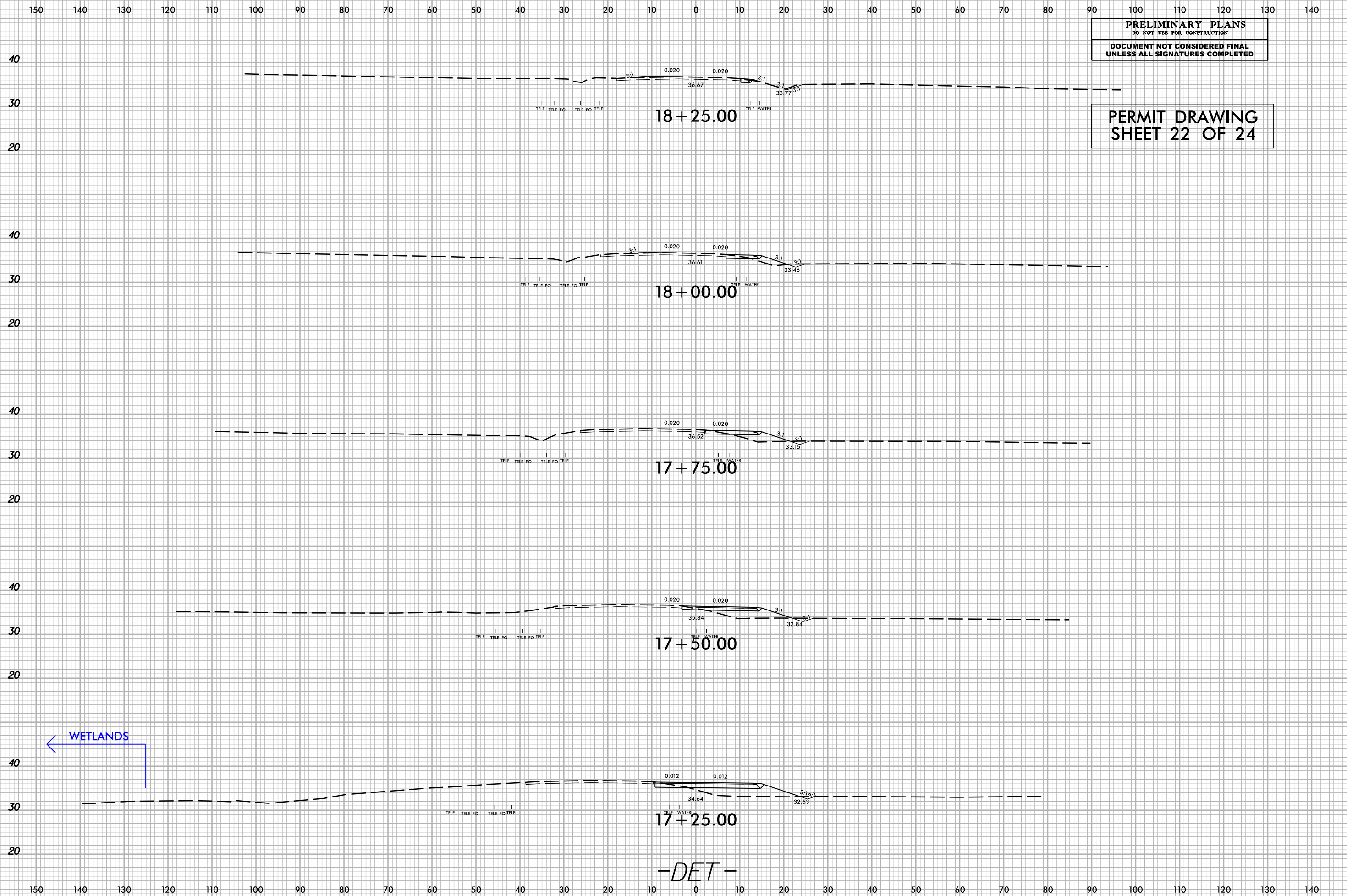
6/23/16



PROJ. REFERENCE NO. B-4916 SHEET NO. X-13

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION  
DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING  
SHEET 22 OF 24

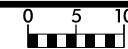


-DET-

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6/23/16



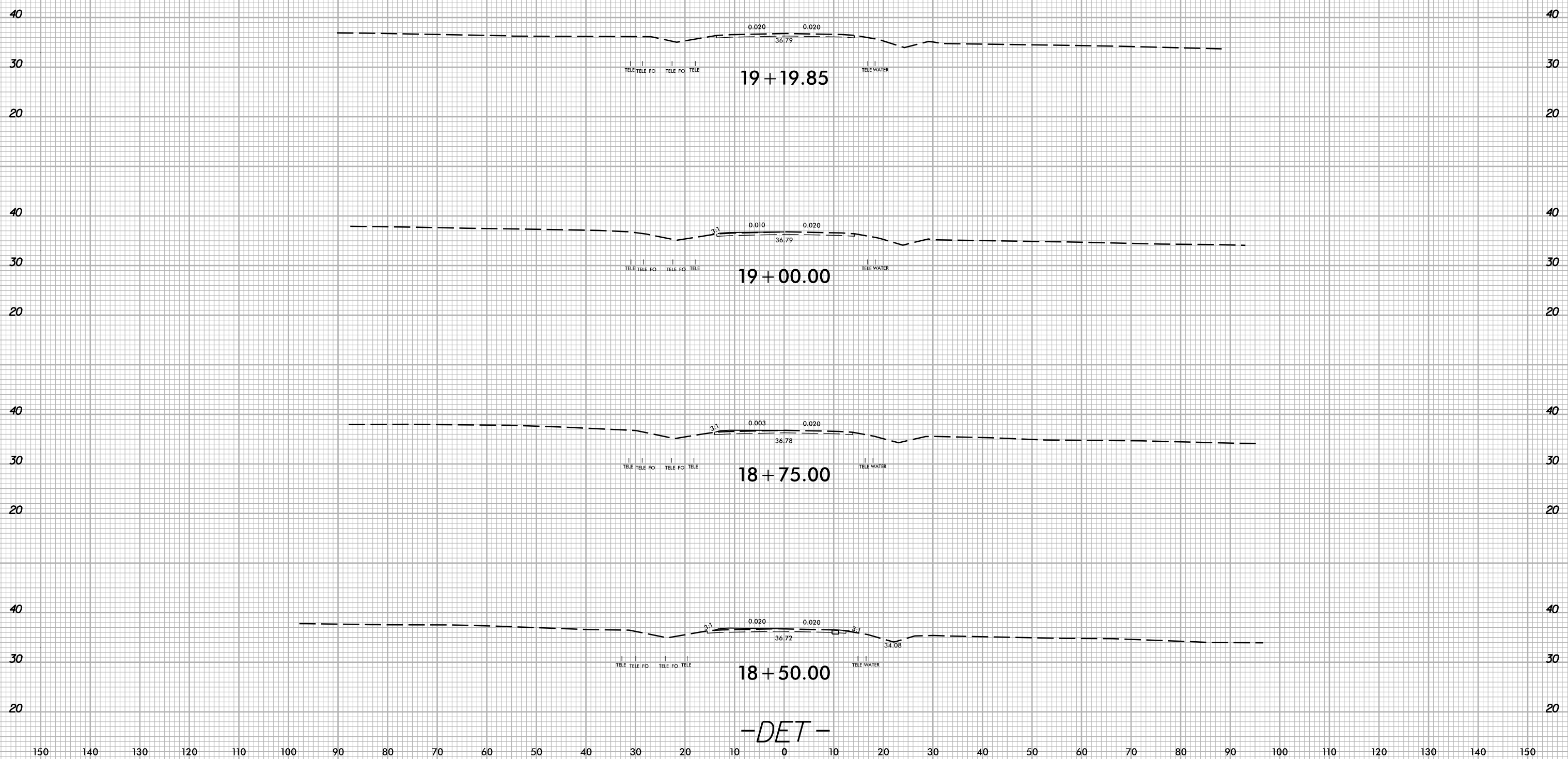
PROJ. REFERENCE NO.  
B-4916

SHEET NO.  
X-14

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION  
**DOCUMENT NOT CONSIDERED FINAL**  
UNLESS ALL SIGNATURES COMPLETED  
**PERMIT DRAWING**  
**SHEET 23 OF 24**

**END DETOUR -DET- STA. 19+19.85**



**-DET-**

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Elizabeth Shelton

**WETLAND PERMIT IMPACT 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)	Temp. 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- 11+38 LT TO 12+04 LT	WETLAND FILL, EXCAVATION DUE TO ROADWAY, & PERMANENT STREAM RELOCATION	< 0.01										
	-L- 11+50 RT TO 15+36 RT		0.03	0.04	0.01	0.15							
2	-L- 15+81 LT TO 16+26 LT	WETLAND FILL & EXCAVATION DUE TO ROADWAY	< 0.01	< 0.01	< 0.01								
3	-L- 15+35 CL TO 15+85 CL	BRIDGE #57 REPLACEMENT; 1 @ 85' - 45" GIRDER; 40' CLEAR ROADWAY WIDTH	< 0.01	0.05		0.06							
									0.01				
<b>TOTALS*:</b>			0.04	0.10	0.02	0.21	0.00	0.00		0.01	0	0	0

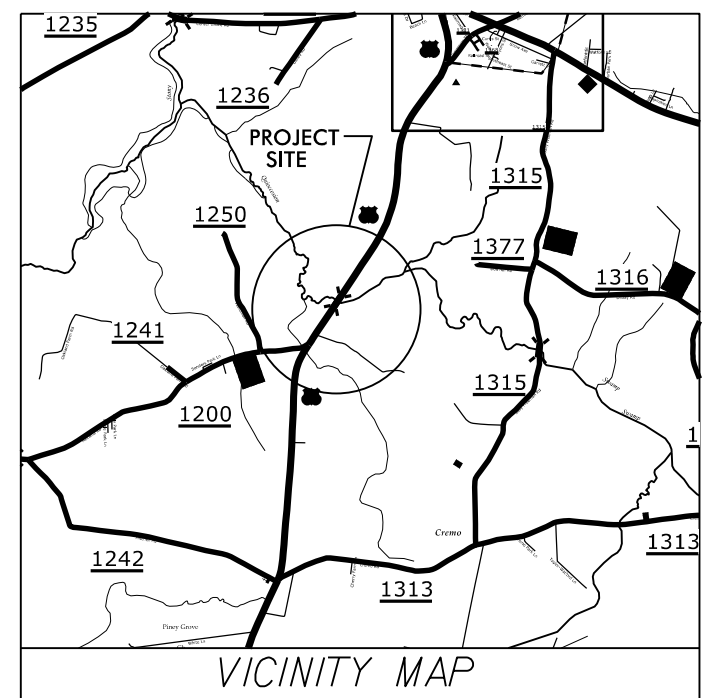
\*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 Jan 2019  
 Bertie  
 B-4916  
 40089.1.2  
 SHEET 24 OF 24

09.08/99

**TIP PROJECT: B-4916**



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

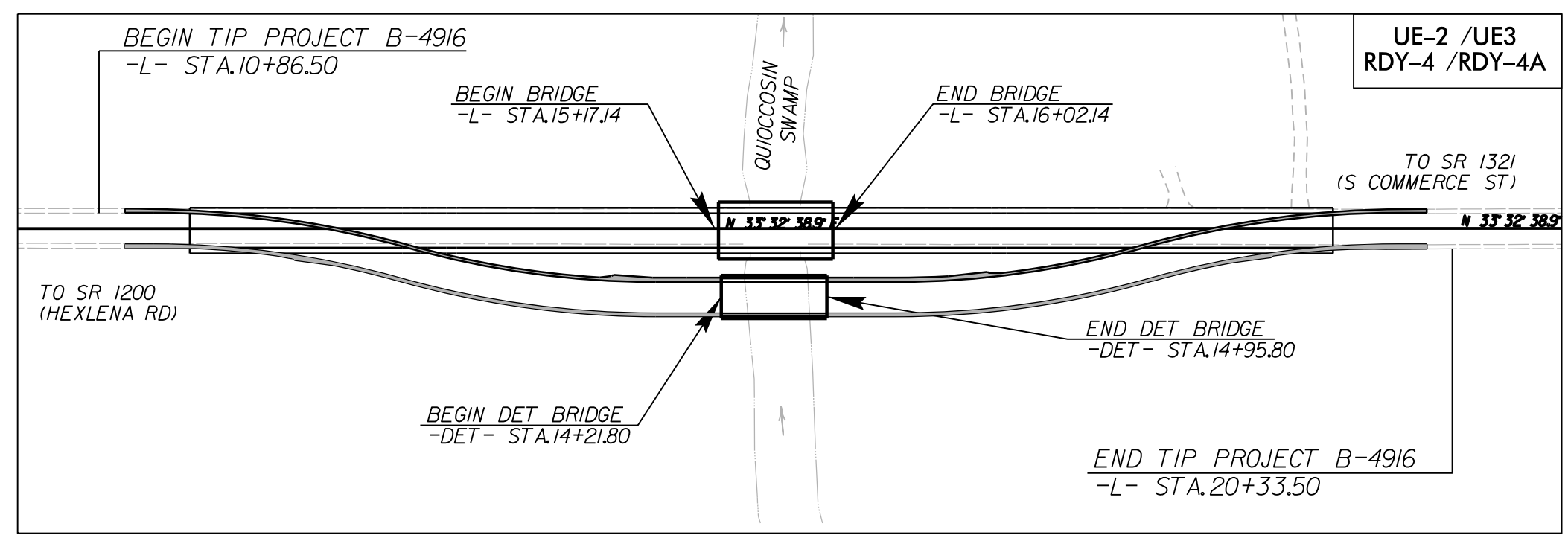
**NEU ENVIRONMENTAL  
PERMIT PLANS  
BERTIE COUNTY**

**LOCATION: REPLACE BRIDGE NO. 57. OVER QUIOCCOSION SWAMP ON US 13**

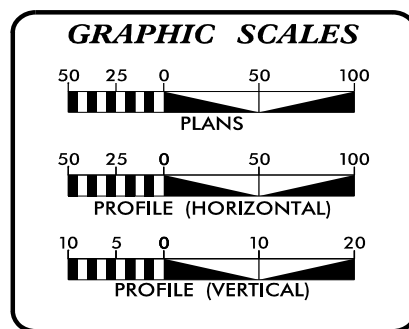
**TYPE OF WORK: AERIAL POWER, TELEPHONE & WATERLINE RELOCATION**

T.I.P. NO.	SHEET NO.
B-4916	UE-1

NOTE:  
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.  
NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION



SHEET NO.:	DESCRIPTION:
UE-1	TITLE SHEET
UE-2 THRU UE-3	UE PLAN SHEETS
UE-4	WATERLINE PROFILE

**UTILITY OWNERS WITH CONFLICTS**

(A) POWER - DOMINION POWER  
(B) COMMUNICATIONS - CENTURYLINK  
(C) BERTIE COUNTY - WATER

PREPARED IN THE OFFICE OF:

**KCI ASSOCIATES OF N.C.**  
CIVIL ENGINEERS  
ENVIRONMENTAL - CEI  
LAND SURVEYING  
SUBSURFACE UTILITY ENGINEERING  
4505 FALLS OF NEUSE RD  
SUITE 400  
RALEIGH, NORTH CAROLINA 27609  
(919) 783-8214  
WWW.KCI.COM

**JOHN FAISON** UTILITY PROJECT MANAGER  
**JOHN FAISON** PROJECT UTILITY COORDINATOR  
**SAWYER WALTERS, EI** PROJECT UTILITY DESIGNER

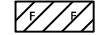


**DIVISION OF HIGHWAYS  
UTILITIES UNIT**  
1555 MAIL SERVICES CENTER  
RALEIGH, NC 27699-1555  
PHONE (919) 707-6690  
FAX (919) 250-4151

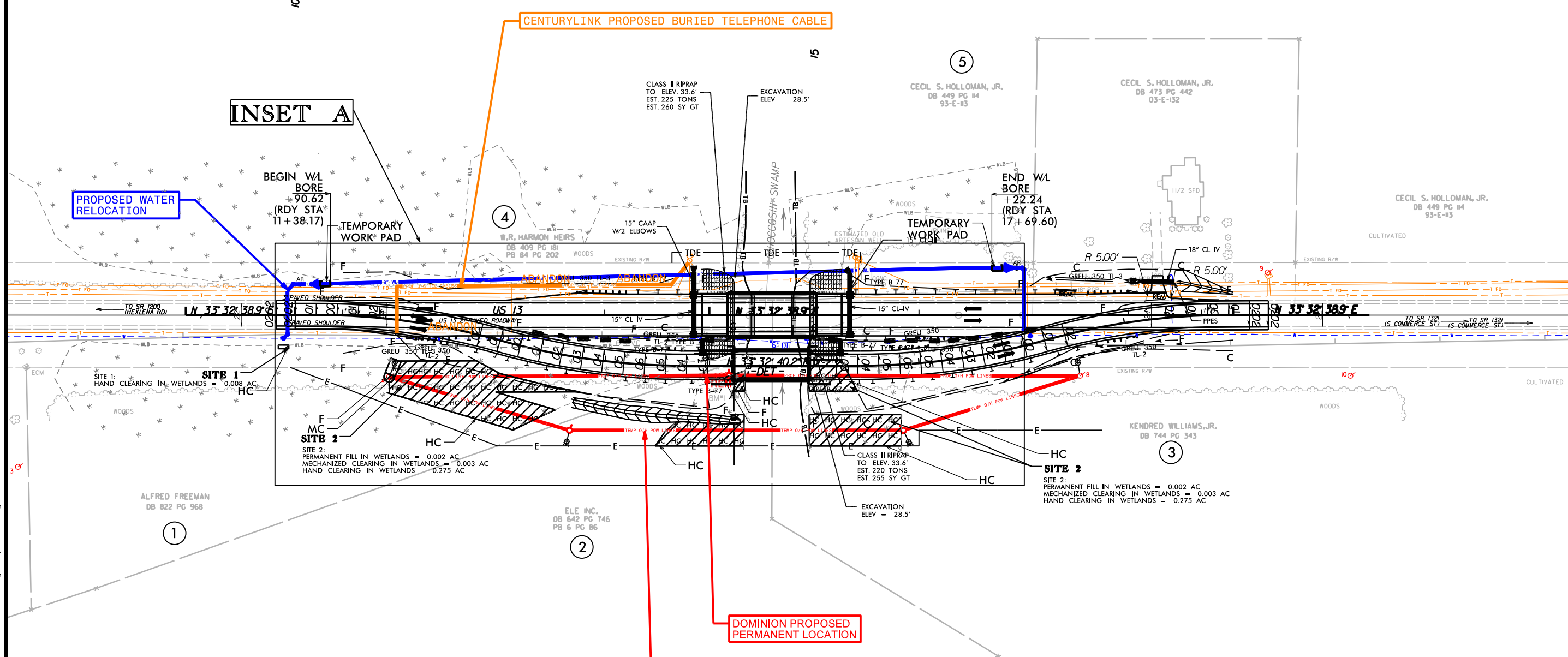
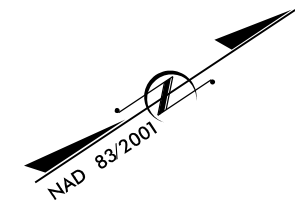
**NABIL HAMDAN** UTILITIES REGIONAL MANAGER  
**KELVIN MARTIN** UTILITIES PROJECT ENGINEER  
**KYLE PLEASANT** AREA UTILITIES COORDINATOR  
**LARRY M. JAMES JR.** UTILITIES COORDINATOR

12/14/2018  
M:\2018\251801945.06 B-4916\Hydraulics\PERMITS\_Environmental\PERMITS\_UTILITY\_IMPACTS\B4916\_Hyd.tsh\_UTL.dgn  
Sawyer, Walters

### UTILITIES BY OTHERS

NOTE:  
ALL UTILITY WORK SHOWN ON THIS SHEET IS DONE BY OTHERS.  
NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

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



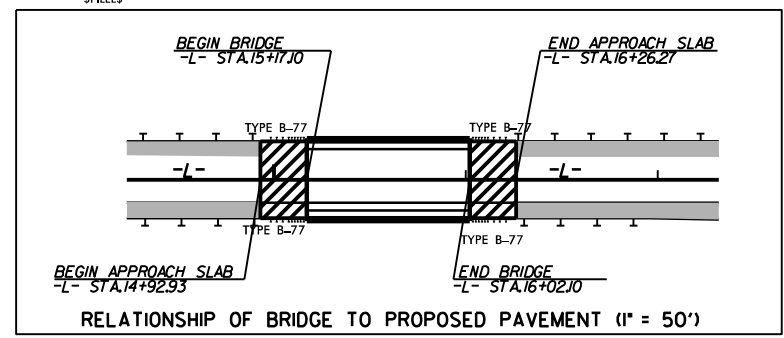
**INSET A**

**PROPOSED WATER RELOCATION**

**CENTURYLINK PROPOSED BURIED TELEPHONE CABLE**

**DOMINION PROPOSED PERMANENT LOCATION**

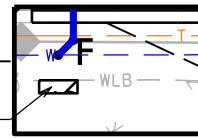
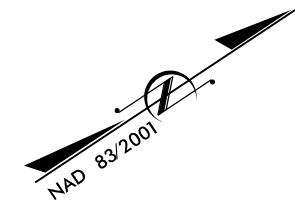
**DOMINION TEMPORARY AERIAL POWER RELOCATION**



12/17/2018  
S:\USER\NAME\SFILES

UTILITIES BY OTHERS

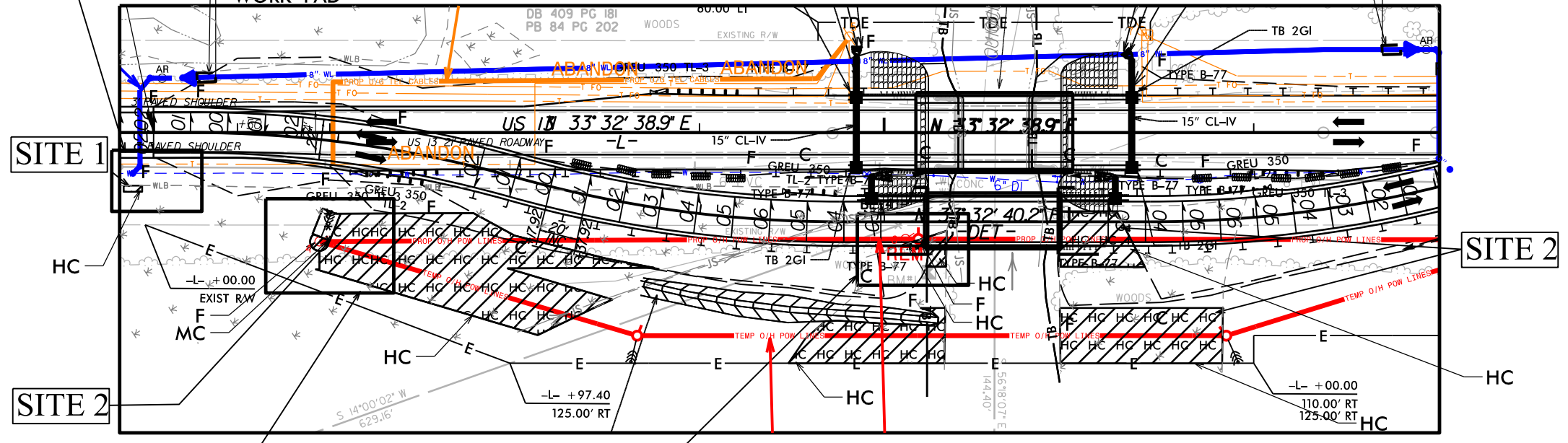
NOTE:  
 ALL UTILITY WORK SHOWN ON THIS SHEET IS DONE BY OTHERS.  
 NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



HC  
 BEGIN WL BORE  
 +90.62  
 (RDY STA 11+38.17)  
 TEMPORARY WORK PAD

INSET A

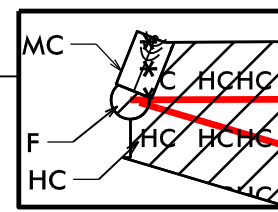
END WL BORE  
 +22.24  
 (RDY STA 17+69.60)  
 TEMPORARY WORK PAD



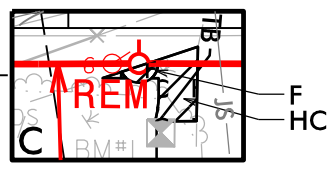
SITE 1

SITE 2

SITE 2



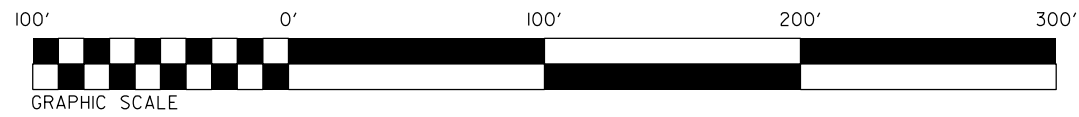
INSET 2-A



INSET 2-B

IMPACTS LEGEND

	DENOTES FILL IN WETLAND		DENOTES MECHANIZED CLEARING
	DENOTES HAND CLEARING		



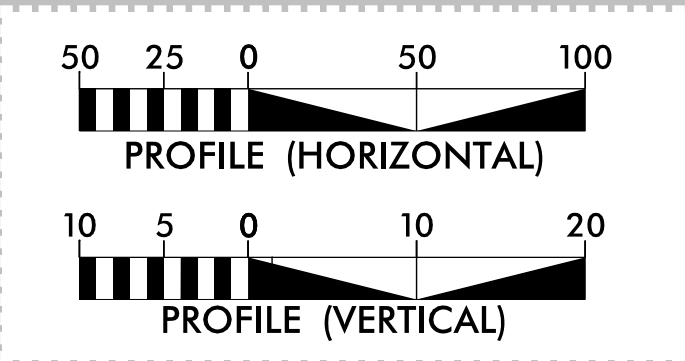
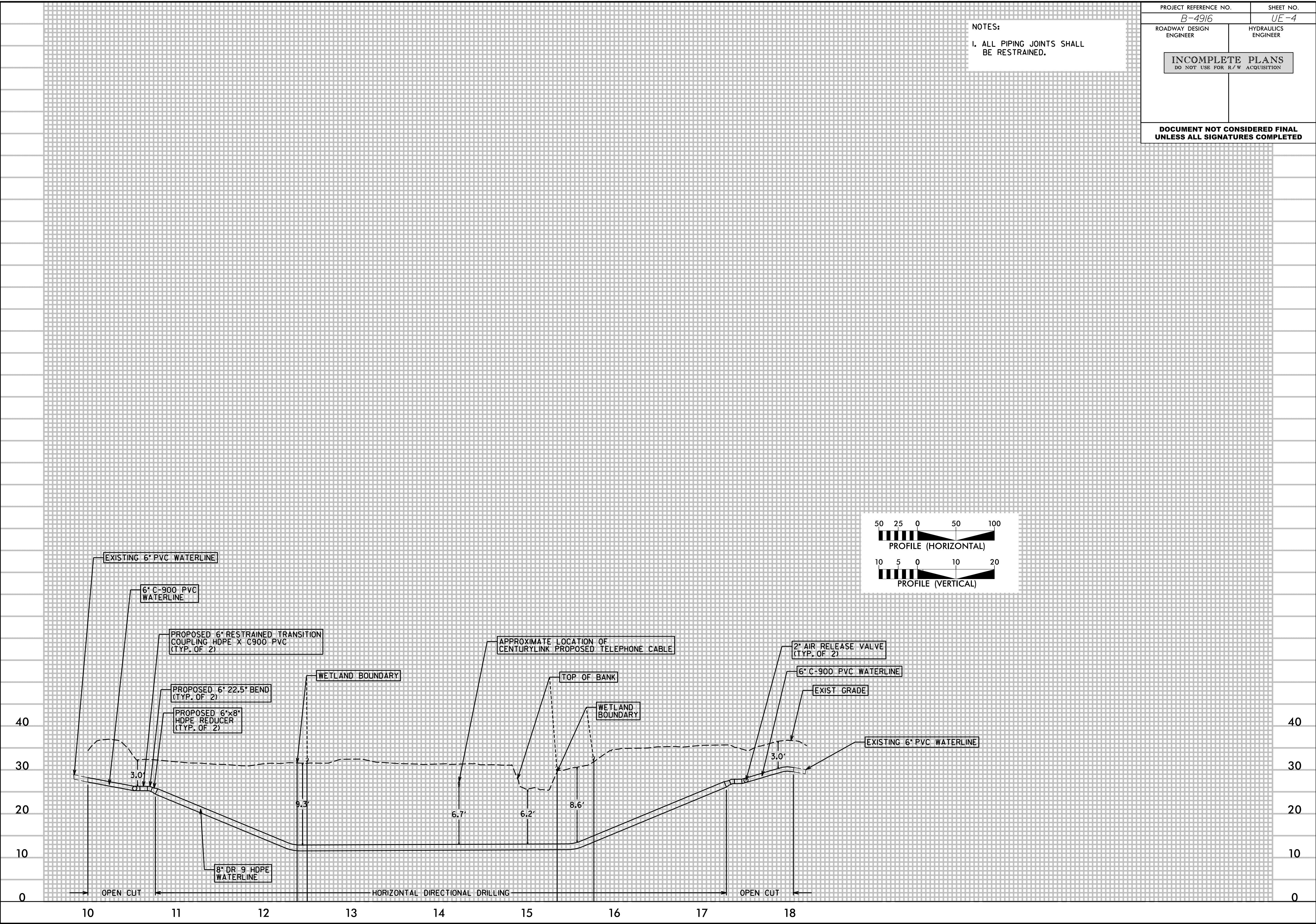
5/14/99  
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5/14/99

PROJECT REFERENCE NO. B-4916	SHEET NO. UE-4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

NOTES:  
1. ALL PIPING JOINTS SHALL BE RESTRAINED.

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 12/16/2016 10:50:16 AM  
 12/16/2016 10:50:16 AM



**WETLAND PERMIT IMPACT 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- 10+88 RT	WATER LINE IMPACTS					< 0.01					
	TO 10+98 RT											
2	-L- 11+90 RT	TEMPORARY POWERLINE RELOCATION	< 0.01			< 0.01	0.27					
	TO 16+82 RT											
<b>TOTALS*:</b>			< 0.01			< 0.01	0.28			0	0	0

\*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 Nov 2018  
 Bertie  
 B-4916  
 40089.1.2  
 SHEET 1 OF 1