

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
 - 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: Jason Dilday
Who is submitting the information?

Email Address: * jldilday@ncdot.gov

Project Information

Existing ID #: * 20191252
20170001 (no dashes)

Existing Version: * 1

Project Name: * Bridge 9 over South River Overflow on US 13 (B-4635) 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-4635

WBS#:

38446.1.2

(Applies to DOT projects only)

County (ies) *

Sampson

Please upload all files that need to be submitted.

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

| | |
|------------------------------------|----------|
| B-4635 Additional - RW - CF 06.pdf | 117.88KB |
| B4635_Permit Drawings_20191209.pdf | 5.91MB |

Only pdf or kmz files are accepted.

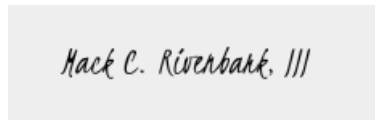
Describe the attachments:

The attached revised drawings result in a decrease in the temporary fill, excavation, and hand clearing in wetlands. The amount of mechanized clearing increases with the revision. The overall changes results in an increase of 0.32 acre of mechanized clearing (See attached DMS acceptance for the additional mitigable impact). These changes were made to address constructability issues with the design of the project, in particular the onsite detour. Mechanized clearing was needed at the base of the fill slope to the -L- line which reduced the area of temporary fill and handclearing. Additional, handclearing was inadvertently shown at the base of the fill slope on the northside as well, contrary to Division 3's preference of mechanized clearing. These drawings correct this issue.

* 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:

Is filled in automatically once submitted.



NORTH CAROLINA
Environmental Quality

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

TIM BAUMGARTNER
Director

December 12, 2019

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

Dear Mr. Harris:

Subject: DMS Mitigation Acceptance Letter:

B-4635, Replace Bridge 9 over the South River Overflow on US 13, Sampson County

Reference: USACE 404 General Permit 31 issued November 26, 2019 (USACE ID 2015-01191)

The purpose of this letter is to notify you that the Division of Mitigation Services (DMS) will provide the additional compensatory wetland mitigation for the subject project. Based on the information supplied by you on December 12, 2019, the impacts are located in CU 03030006 of the Cape Fear River basin in the Southern Inner Coastal Plain (SICP) Eco-Region, and are as follows:

Table 1 – Additional Impacts (feet / acres)

| Cape Fear 03030006 SICP | Stream | | | Wetlands | | | Buffer (Sq. Ft.) | |
|-------------------------------|--------|------|------|----------|--------------|---------------|------------------|--------|
| | Cold | Cool | Warm | Riparian | Non-Riparian | Coastal Marsh | Zone 1 | Zone 2 |
| Impacts (feet/acres) | 0 | 0 | 0 | 0.32 | 0 | 0 | 0 | 0 |

*NOTE: Some of the wetland impacts may be proposed to be mitigated at a 1:1 mitigation ratio. See permit application for details.

This additional impact and associated mitigation needs were not projected by the NCDOT in the 2019 impact data. DMS is currently providing riparian wetland mitigation for the impacts associated with this project located in cataloging unit 03030006 of the Cape Fear River basin as required by the permits issued in 2019, as shown in the below table (in mitigation credits):



Mr. Harris
TIP B-4635
December 12, 2019
Page Two

Table 2 – Current Permitted Impacts and Associated Mitigation Requirements provided by DMS (based on the Mitigation Responsibility Transfer form signed December 3, 2019) and Revised Anticipated Impacts (based on mitigation request)

| Impact Type | Total Permitted Impacts (feet / acre / sq ft) | Mitigation Provided by DMS per Issued Permits (Credits) | Additional Impact (for approval) | Revised Total Impacts* |
|------------------|-----------------------------------------------|---------------------------------------------------------|----------------------------------|------------------------|
| Riparian Wetland | 1.364 | 0.947 | 0.32 | 1.684 |

*Some of the additional wetland impacts may be proposed to be mitigated at a 1:1 mitigation ratio. See permit application for details. DMS will provide the amount of mitigation as determined by the regulatory agencies.

This mitigation acceptance letter replaces the mitigation acceptance letter issued on November 12, 2019. DMS commits to implementing additional sufficient compensatory wetland mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies using the delivery timeline listed in Section F.3.c.iii of the In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from DMS.

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

Sincerely,



James B. Stanfill
DMS Asset Management Supervisor

cc: Mr. Monte Matthews, USACE – Raleigh Regulatory Field Office
Mr. Brad Shaver, USACE – Wilmington Regulatory Field Office
Ms. Amy Chapman, Division of Water Resources, Wetlands/401 Unit
File: B-4635 Additional





North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS



(Version 2.08; Released April 2018)

WBS Element: 38446.1.2 TIP No.: B-4635 County(ies): SAMPSON Page 1 of 1

General Project Information

| | | | | | | | |
|---------------------------------|-----------------------------------------------------------------------|-------------|------------------------|-----------------------------------------------------------------------|--------------------|-------|-----------|
| WBS Element: | 38446.1.2 | TIP Number: | B-4635 | Project Type: | Bridge Replacement | Date: | 2/26/2019 |
| NCDOT Contact: | Structures Management Unit/ Dan Duffield PE | | Contractor / Designer: | Steve Bondor | | | |
| Address: | 1020 Birch Ridge Drive Room #16 Raleigh NC 27610 | | Address: | Dewberry 2610 Wycliff Rd Suite 410 Raleigh NC 27607 | | | |
| | Phone: (919) 707-6611 | | | Phone: 919-636-6334 | | | |
| | Email: dcduffield@ncdot.gov | | | Email: sbondor@dewberry.com | | | |
| City/Town: | | | County(ies): | Sampson | | | |
| River Basin(s): | Cape Fear | | CAMA County? | No | | | |
| Wetlands within Project Limits? | Yes | | | | | | |

Project Description

| | | | | | | | | |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------|----------------------------------------|-----------|------|-------|------|
| Project Length (lin. miles or feet): | 0.3 mi | Surrounding Land Use: | Woods/Rural | | | | | |
| | Proposed Project | | Existing Site | | | | | |
| Project Built-Up Area (ac.) | 1.5 | ac. | 1.0 | ac. | | | | |
| Typical Cross Section Description: | 12' travel lanes with 8'-0" shoulders. 40'-0" clear roadway with 0.02 cross slope normal crown. Detour - 11' travel lanes with varying shoulders between 4'-10'. | | | 0.02 cross slope with 11' travel lanes | | | | |
| Annual Avg Daily Traffic (veh/hr/day): | Design/Future: | 6104 | Year: | 2039 | Existing: | 4184 | Year: | 2019 |

General Project Narrative:
(Description of Minimization of Water Quality Impacts)

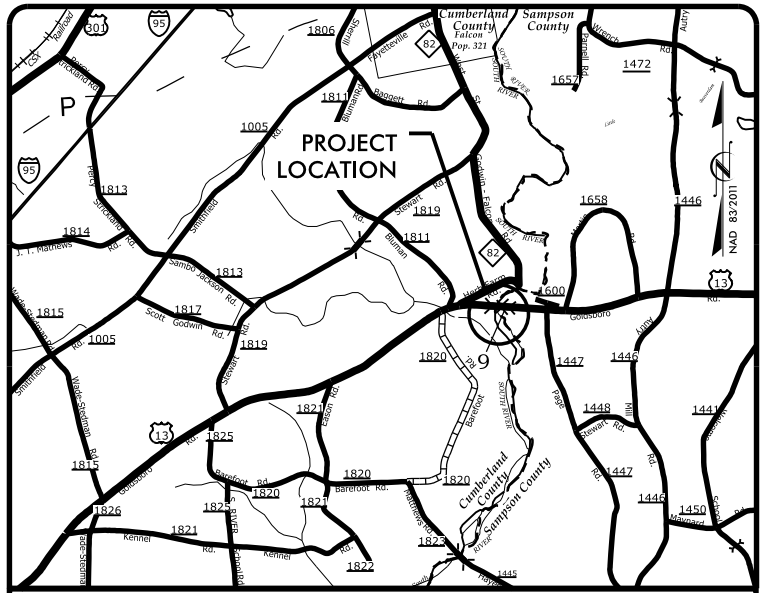
B-4635 involves replacement of existing bridge structure number 810009 on US 13 over South River in Sampson County. The existing bridge is overall in length 139' with reinforced concrete caps with timber piles with steel crutch bents. The proposed bridge is three span @55' with 36" girder bridge and 4' end bent caps. The proposed roadway is comprised of 12' travel lanes with 8'-0" shoulders. 40'-0" clear roadway with 0.02 cross slope normal crown. The project also contains detour that has 11' travel lanes with varying shoulder of 4'-10'. The detour bridge will have vertical abutments and deck drains that will begin at station 16+30 spaced every 40' on center to 18+70 left. The permanent drainage includes inlets on all four corners of the bridge that will discharge into the wetlands. The temporary drainage include 18" cross pipes to drain the runoff between the proposed fill and temporary fill for the detour bridge.

Waterbody Information

| | | | | | | | |
|------------------------------------------------------------------|------------------------------|------------------------------------------------------------------|-------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------|-----|
| Surface Water Body (1): | South River Overflow | | NCDWR Stream Index No.: | | | | |
| NCDWR Surface Water Classification for Water Body | Primary Classification: | | Class C | | | | |
| | Supplemental Classification: | | Swamp Waters (Sw) | | | | |
| Other Stream Classification: | | | | | | | |
| Impairments: | | | | | | | |
| Aquatic T&E Species? | Comments: | | | | | | |
| NRTR Stream ID: | | | | | | 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) | | | | | | | |

09/08/99

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



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SAMPSON COUNTY

LOCATION: REPLACE BRIDGE #9 OVER SOUTH RIVER OVERFLOW ON US 13

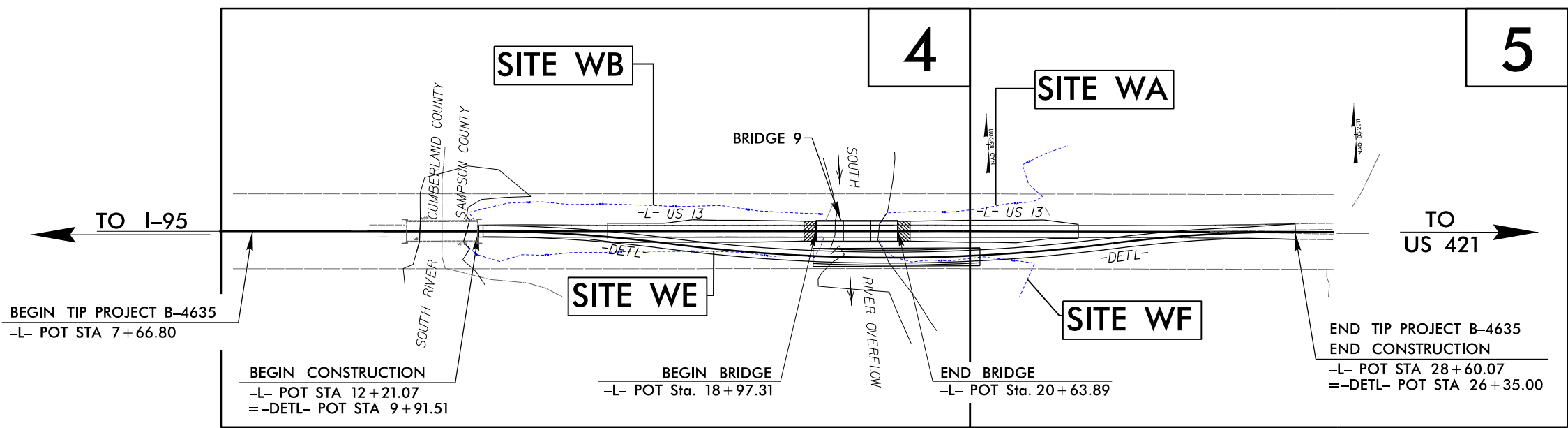
TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE

WETLAND AND SURFACE WATER IMPACTS PERMIT

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-----------------|-----------------------------|-------------|--------------|
| N.C. | B-4635 | 1 | |
| STATE PROJ. NO. | F.A. PROJ. NO. | DESCRIPTION | |
| 38446.1.2 | | P.E. | |
| 38446.2.1 | | R/W | |
| 38446.3.1 | | CONST. | |

PERMIT DRAWING
SHEET 1 OF 12

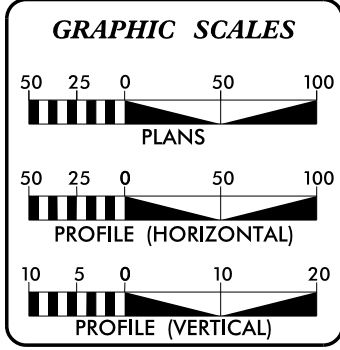
TIP PROJECT: B-4635



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

NCDOT CONTACT: DAVID STUTTS, PE

CONTRACT:



DESIGN DATA

| | |
|---------------|----------------|
| ADT 2019 = | 4,184 |
| ADT 2039 = | 6,104 |
| K = | 9 % |
| D = | 60 % |
| T = | 19 % * |
| V = | 60 MPH |
| * TTST = | 14 DUAL 5 |
| FUNC CLASS = | MINOR ARTERIAL |
| REGIONAL TIER | |

PROJECT LENGTH

| | |
|------------------------------------------|--------------------|
| LENGTH ROADWAY TIP PROJECT B-4635 = | 0.364 MILES |
| LENGTH STRUCTURE TIP PROJECT B-4635 = | 0.032 MILES |
| TOTAL LENGTH TIP PROJECT B-4635 = | 0.396 MILES |

PLANS PREPARED FOR NCDOT BY:

2610 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607
PHONE: 919.881.9939
NC COA No. F-0929

RIGHT OF WAY DATE:
APRIL 3, 2019

LETTING DATE:
OCTOBER 15, 2019

DENNIS J. MORY, P.E.
PROJECT ENGINEER

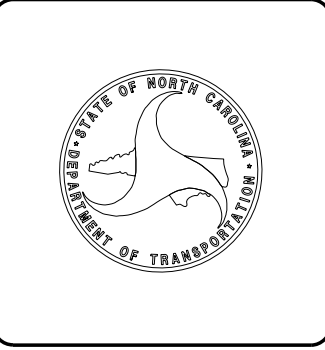
ANNE MARIE PRIETO, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



2/25/2019
DEWBERRY
B4635_Permit Drawings_20190225.pdf

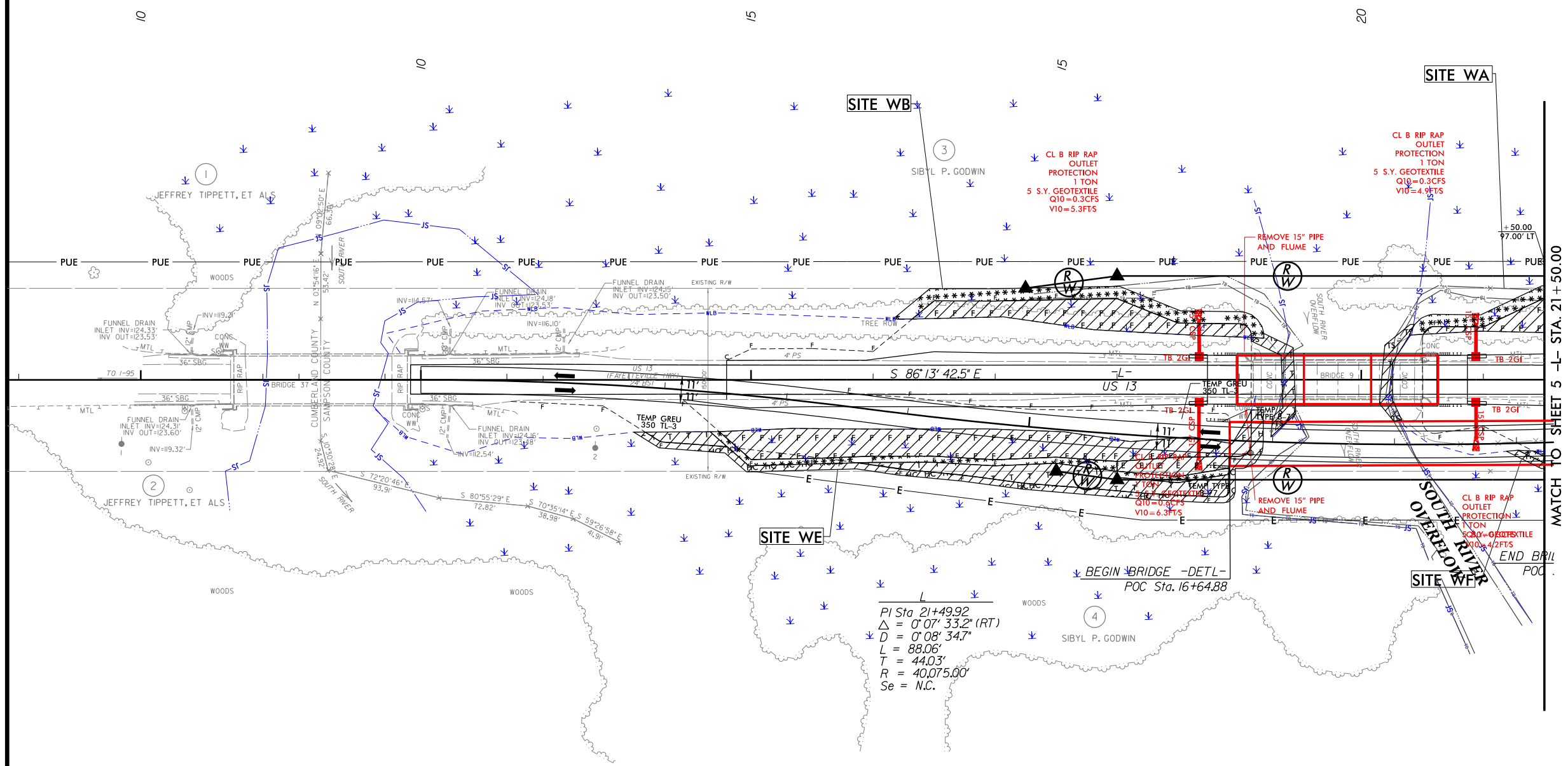
5/14/99

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



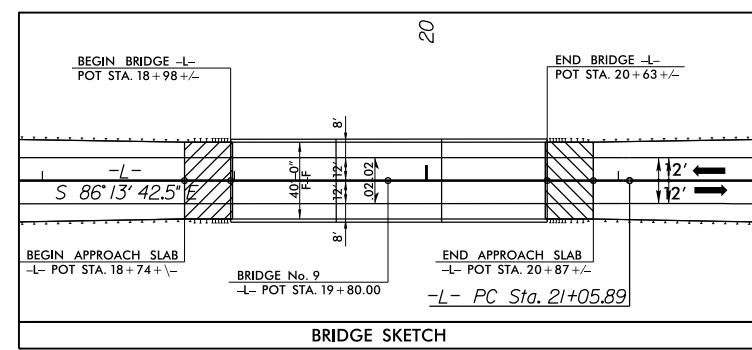
PERMIT DRAWING SHEET 2 OF 18

NAD 83/2011

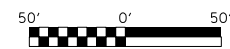


MATCH TO SHEET 5 -L- STA. 21+50.00

$PI\ Sta\ 21+49.92$
 $\Delta = 0^\circ 07' 33.2" (RT)$
 $D = 0^\circ 08' 34.7"$
 $L = 88.06'$
 $T = 44.03'$
 $R = 40,075.00'$
 $Se = N.C.$



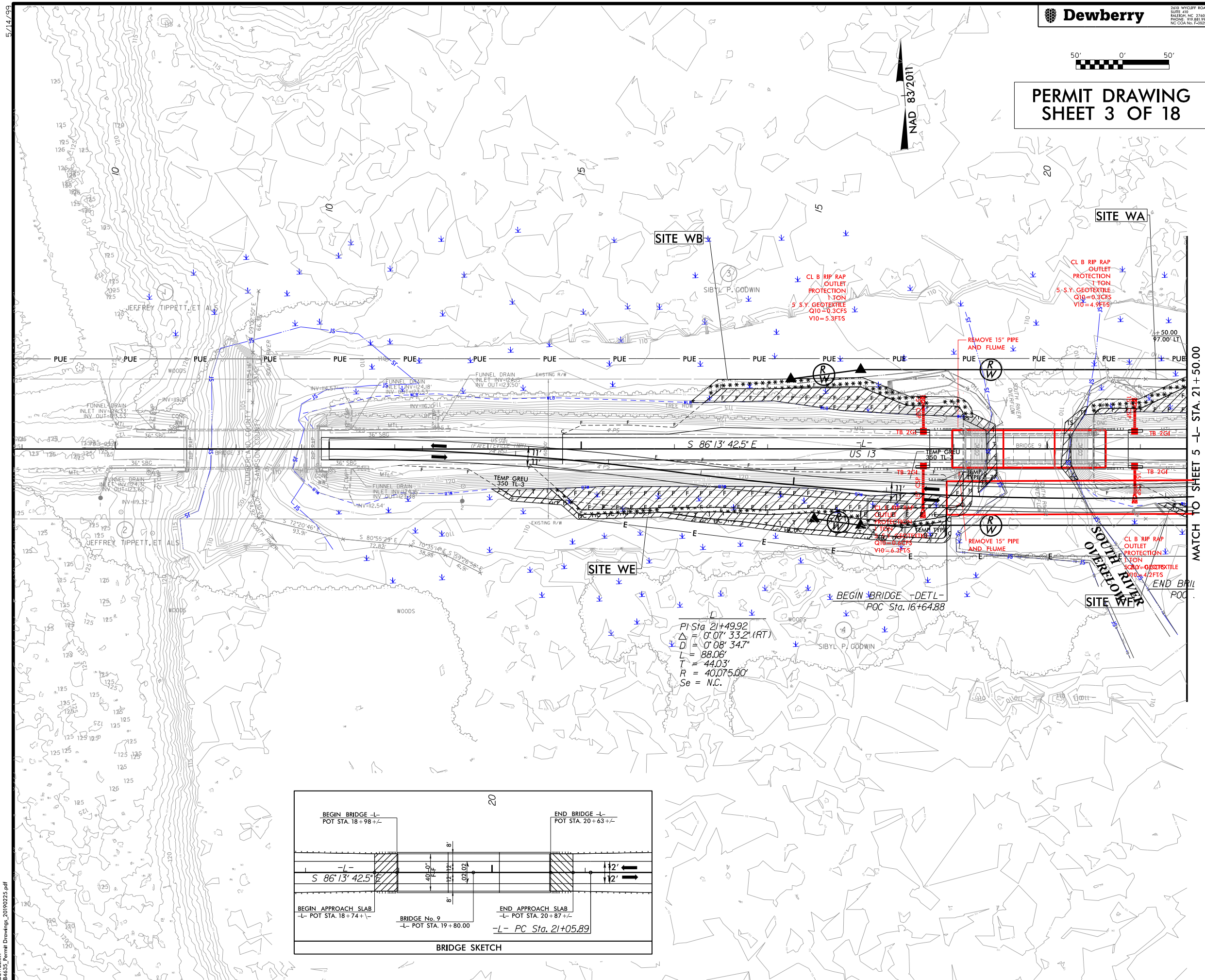
SEE SHEET 8 FOR -L- PROFILE



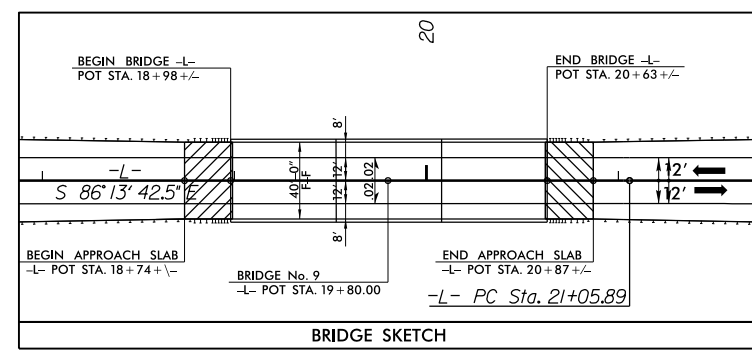
**PERMIT DRAWING
SHEET 3 OF 18**

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

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



$PI\ Sta\ 21+49.92$
 $\Delta = 0'07'33.2\ (RT)$
 $D = 0'08'34.7\ (RT)$
 $L = 88.06'$
 $T = 44.03'$
 $R = 40,075.00'$
 $Se = N.C.$

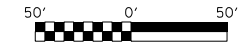


SEE SHEET 8 FOR -L- PROFILE

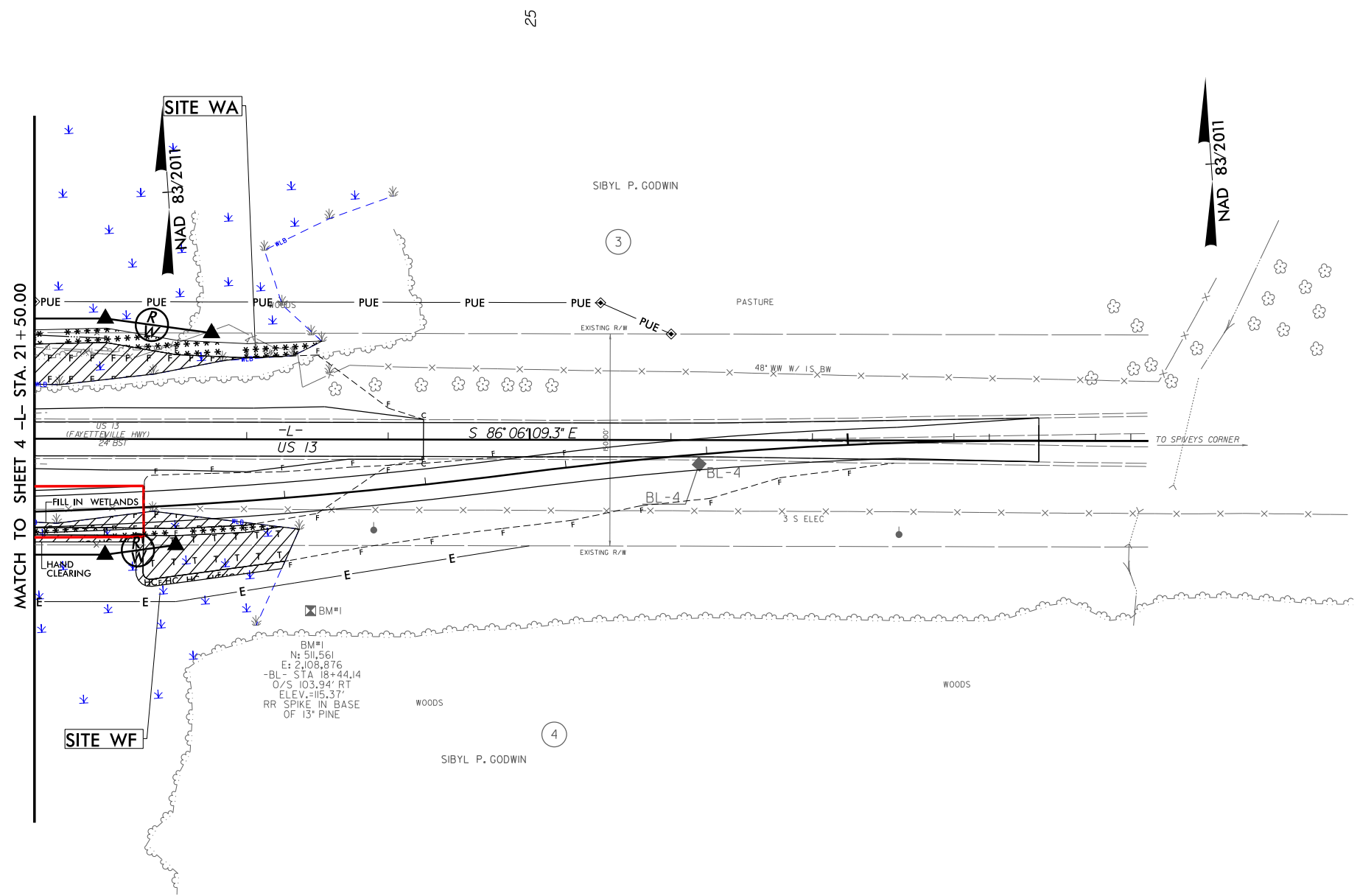
5/14/99

| RW SHEET NO. | |
|-------------------------|---------------------|
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

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



**PERMIT DRAWING
SHEET 4 OF 18**



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

MATCH TO SHEET 4 -L- STA. 21+50.00

BM#1
 N: 511.561
 E: 2,108,876
 -BL- STA 18+44.14
 O/S 103.94' RT
 ELEV. = 115.37'
 RR SPIKE IN BASE
 OF 13" PINE

B4635-102

5/14/09

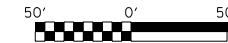


2610 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607
PHONE: 919.881.9929
NC CDA No. F-0029

| | |
|-----------------------|-----------|
| PROJECT REFERENCE NO. | SHEET NO. |
| B-4635 | 5 |

| | |
|-------------------------|---------------------|
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

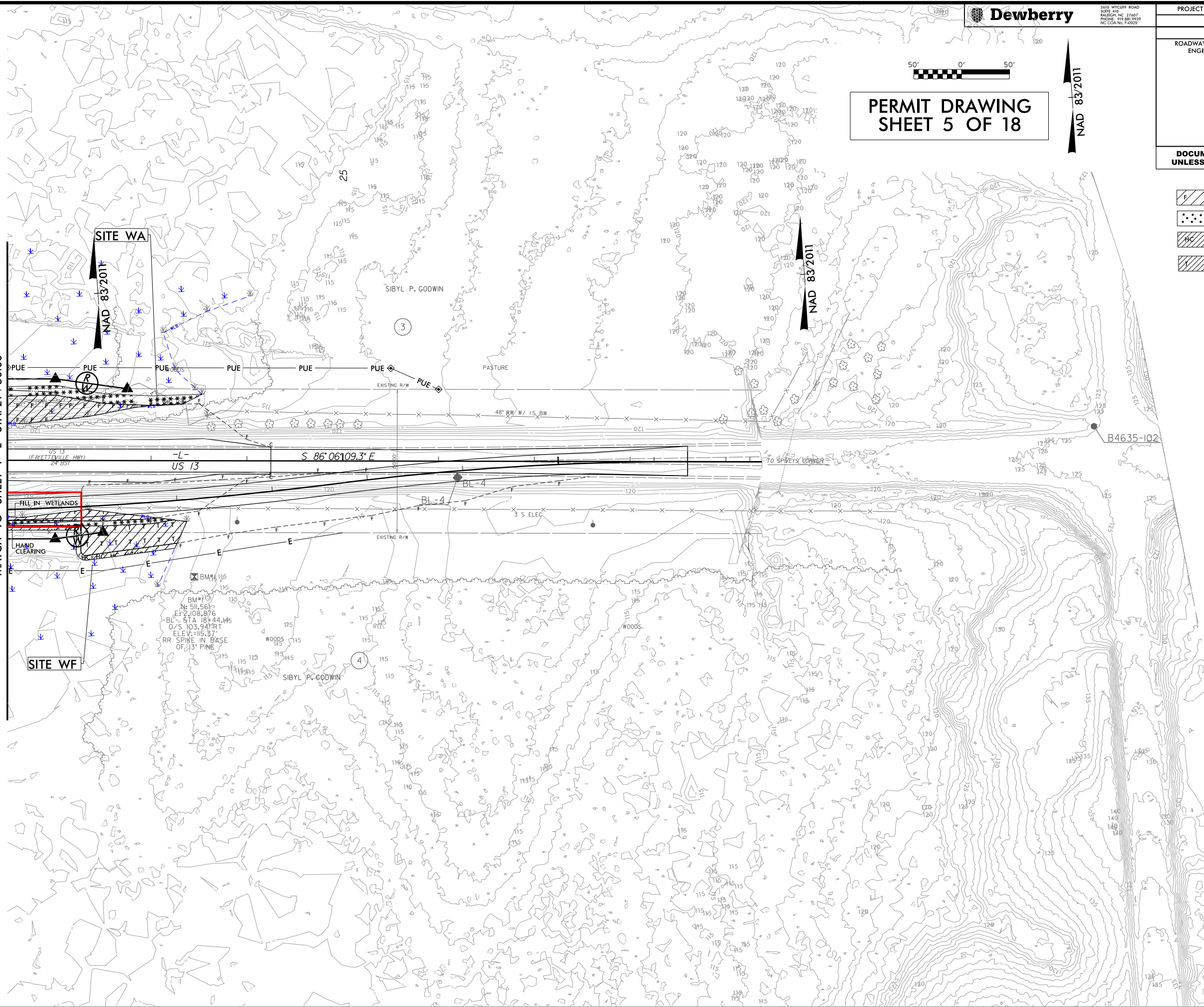


PERMIT DRAWING SHEET 5 OF 18

NAD 83/2011

NAD 83/2011

MATCH TO SHEET 4 -L- STA. 21+50.00



SITE WA

SITE WF

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

| | |
|---------------------------------|---------------------|
| PROJECT REFERENCE NO. B-4635 | SHEET NO. 8 |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

**PERMIT DRAWING
SHEET 6 OF 12**

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

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE = 6560 CFS
DESIGN FREQUENCY = 50 YRS
DESIGN HW ELEVATION = 118J FT
BASE DISCHARGE = 7820 CFS
BASE FREQUENCY = 100 YRS
BASE HW ELEVATION = 119J FT
OVERTOPPING DISCHARGE = 500+ CFS
OVERTOPPING FREQUENCY = 19260 YRS
OVERTOPPING ELEVATION = 124.5 FT

DATE OF SURVEY = 6/25/2018
W.S. ELEVATION AT DATE OF SURVEY = 110.4 FT

-L-

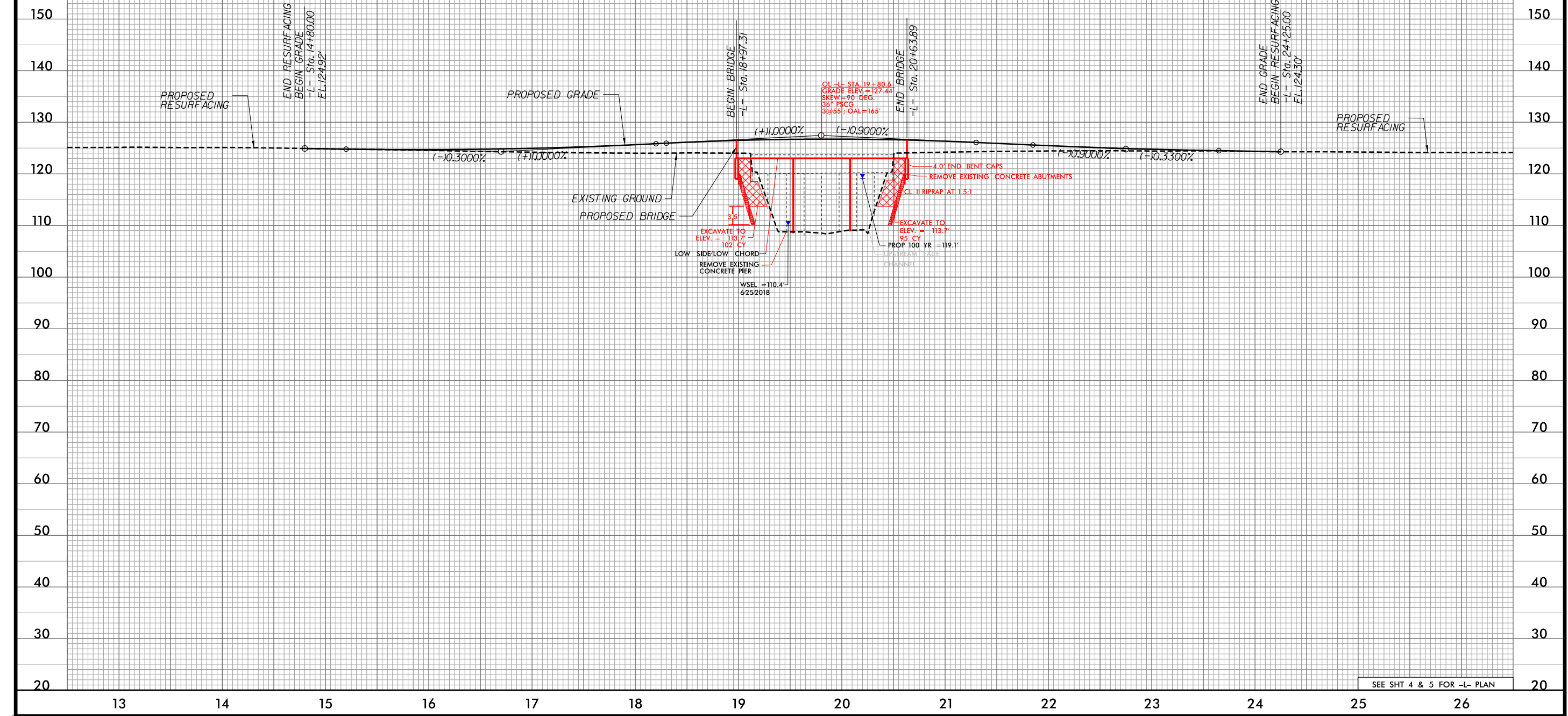
BM #1
-L- STA 23+45.41
121.21' RIGHT
ELEV. 115.37'
RR SPIKE IN BASE OF 13" PINE

PI = 16+70.00
EL = 124.35'
VC = 300'
K = 231
DS = > 60 MPH

PI = 19+80.00
EL = 127.45'
VC = 300'
K = 158
DS = 60 MPH

PI = 22+75.00
EL = 124.79'
VC = 180'
K = 316
DS = > 60 MPH

5/14/19



6/23/16



PROJ. REFERENCE NO. B-4635 SHEET NO. X-1

PERMIT DRAWING SHEET 7 OF 18

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

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

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

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

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

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

WETLAND

WETLAND

WETLAND

BEGIN GRADE
14 + 80.00

BEGIN PROJECT
12 + 21.07

-DETL-
STA 13 + 71.52

-DETL-
STA 13 + 21.14

16 + 00.00

15 + 50.00

15 + 00.00

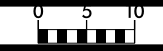
14 + 50.00

BEGIN PROJECT
12 + 21.07

| | |
|--|---------------------------|
| | UNDERCUT EXCAVATION |
| | DETOUR REMOVAL EXCAVATION |

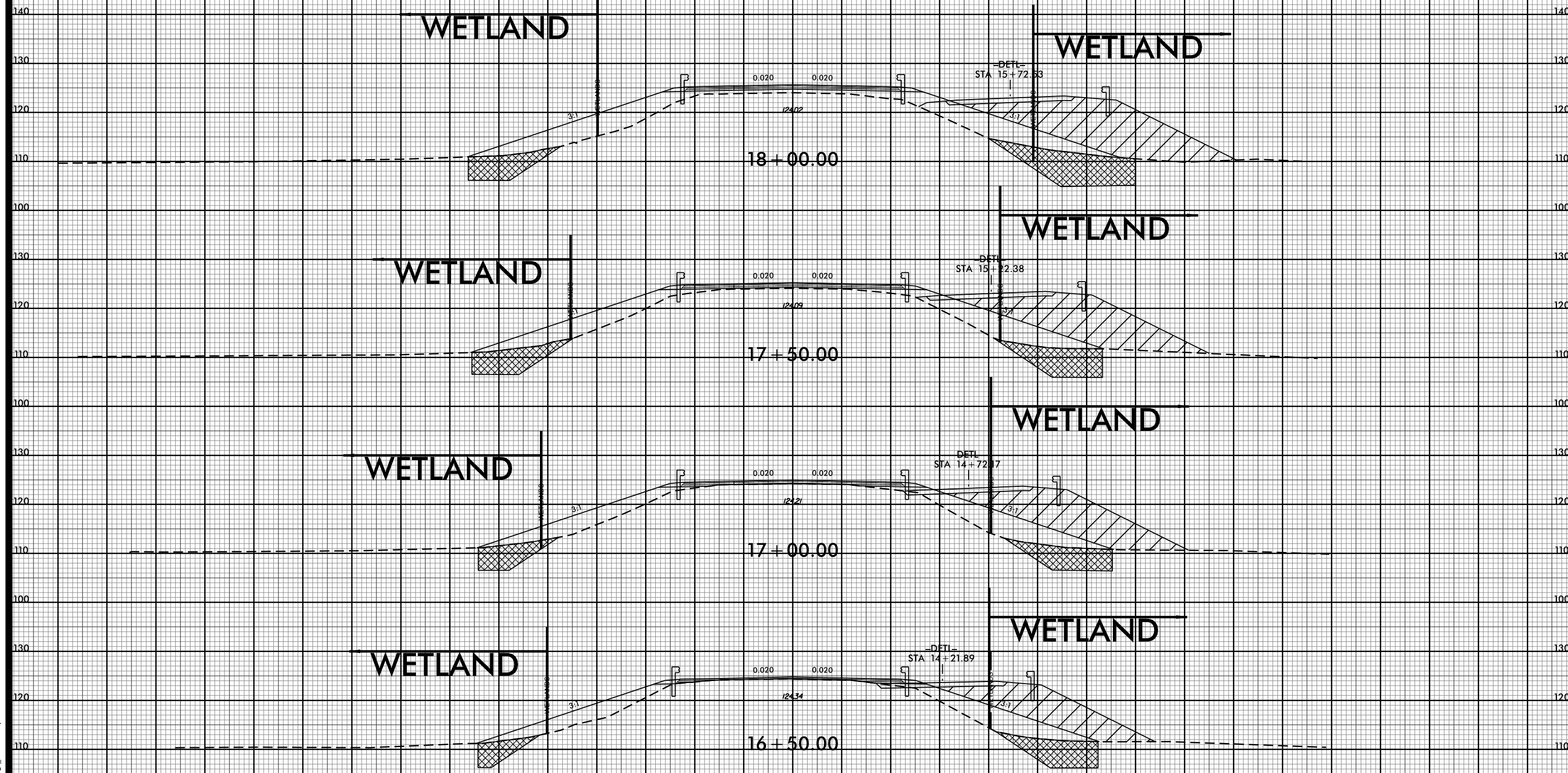
2/25/2019 DEWBERRY B4635_Permit Drawings_20190225.pdf

6/23/16



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

PERMIT DRAWING
SHEET 8 OF 18



| | |
|--|---------------------------|
| | UNDERCUT EXCAVATION |
| | DETOUR REMOVAL EXCAVATION |

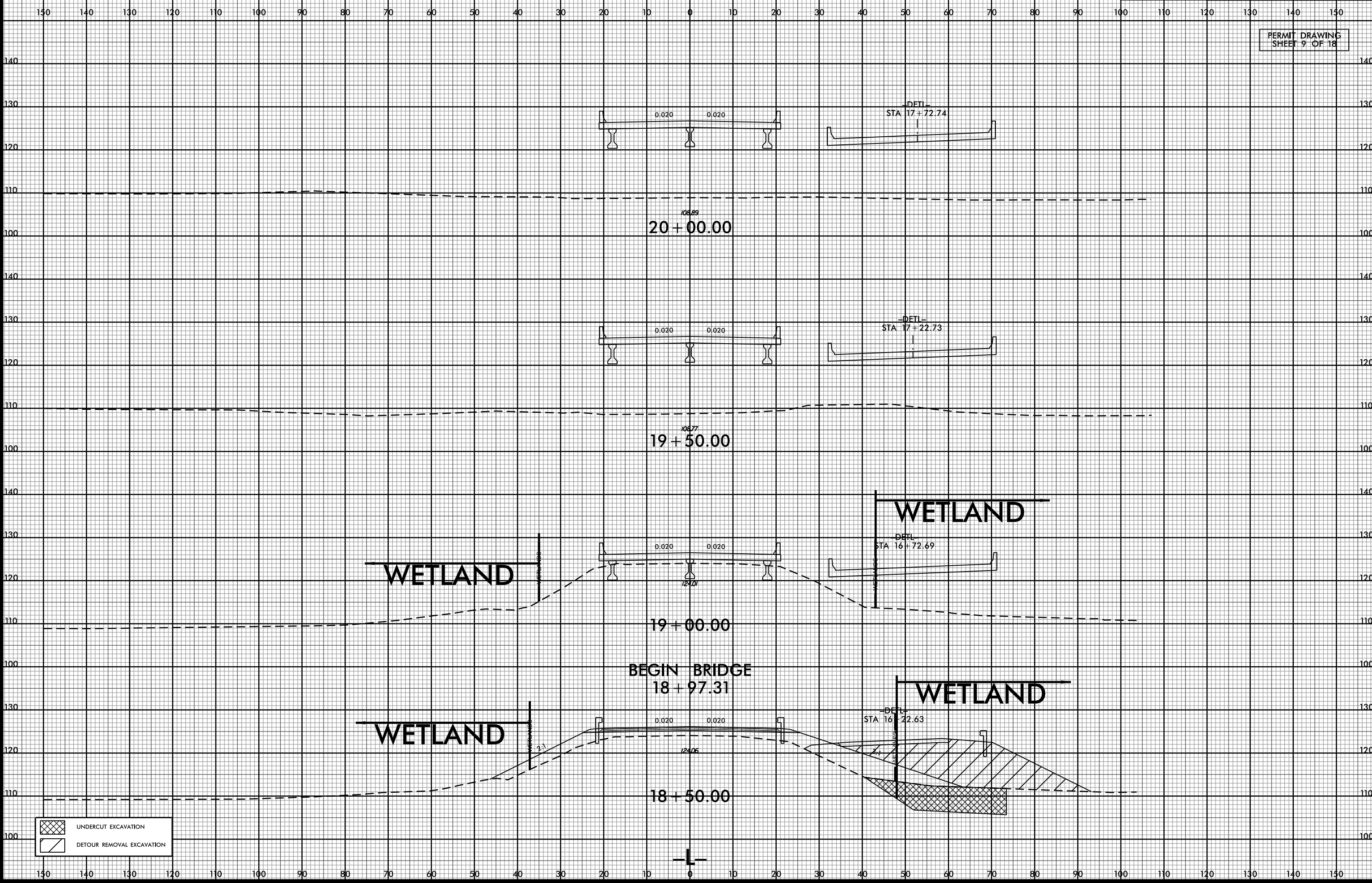
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

2/25/2019
DEWBERRY
B4635_Permit Drawings_20190225.pdf

6/23/16



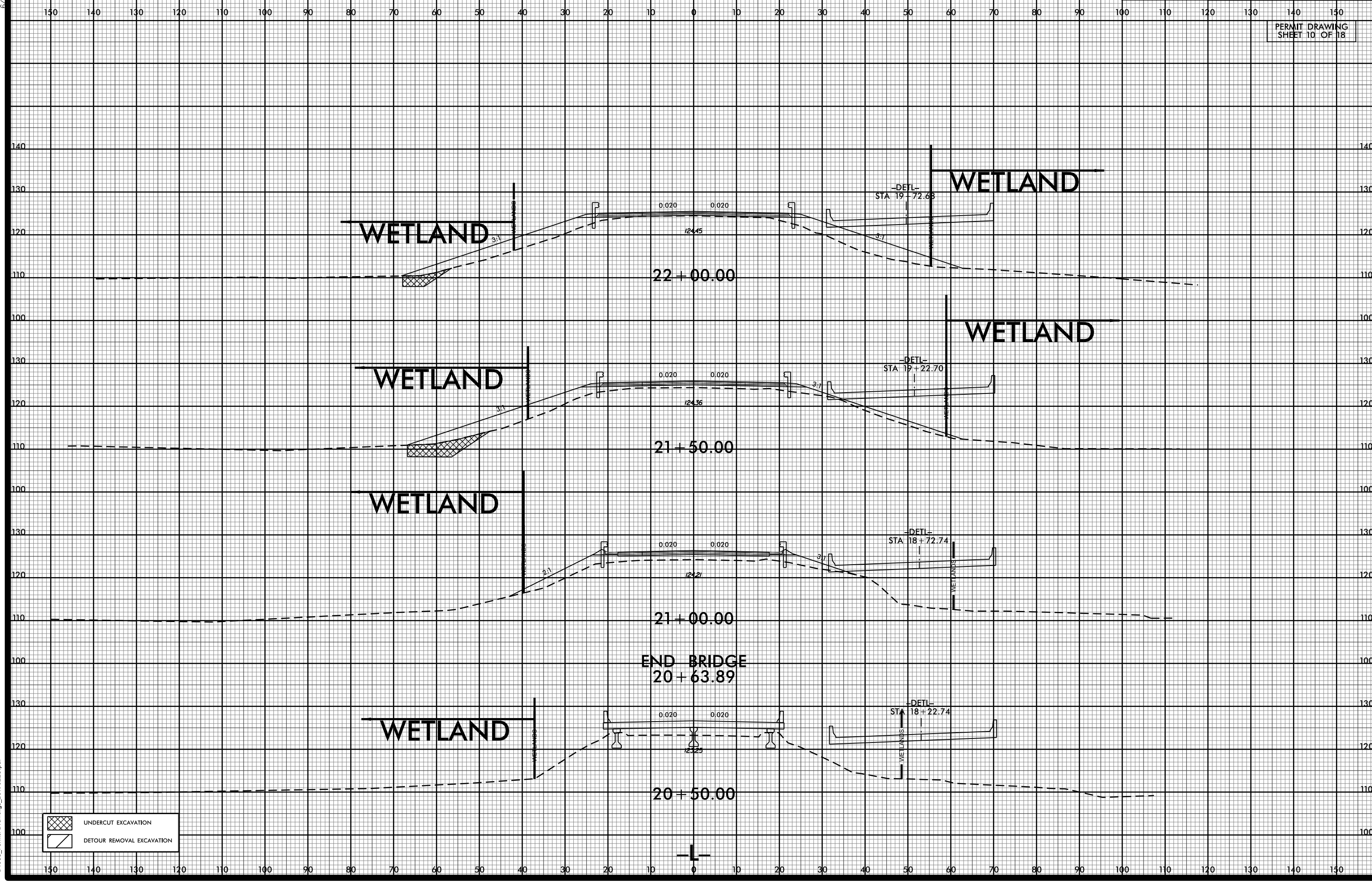
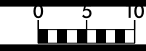
PERMIT DRAWING
SHEET 9 OF 18



| | |
|--|---------------------------|
| | UNDERCUT EXCAVATION |
| | DETOUR REMOVAL EXCAVATION |

2/25/2019
DEWBERRY
B4635_Permit Drawings_20190225.pdf

6/23/16



| | |
|--|---------------------------|
| | UNDERCUT EXCAVATION |
| | DETOUR REMOVAL EXCAVATION |

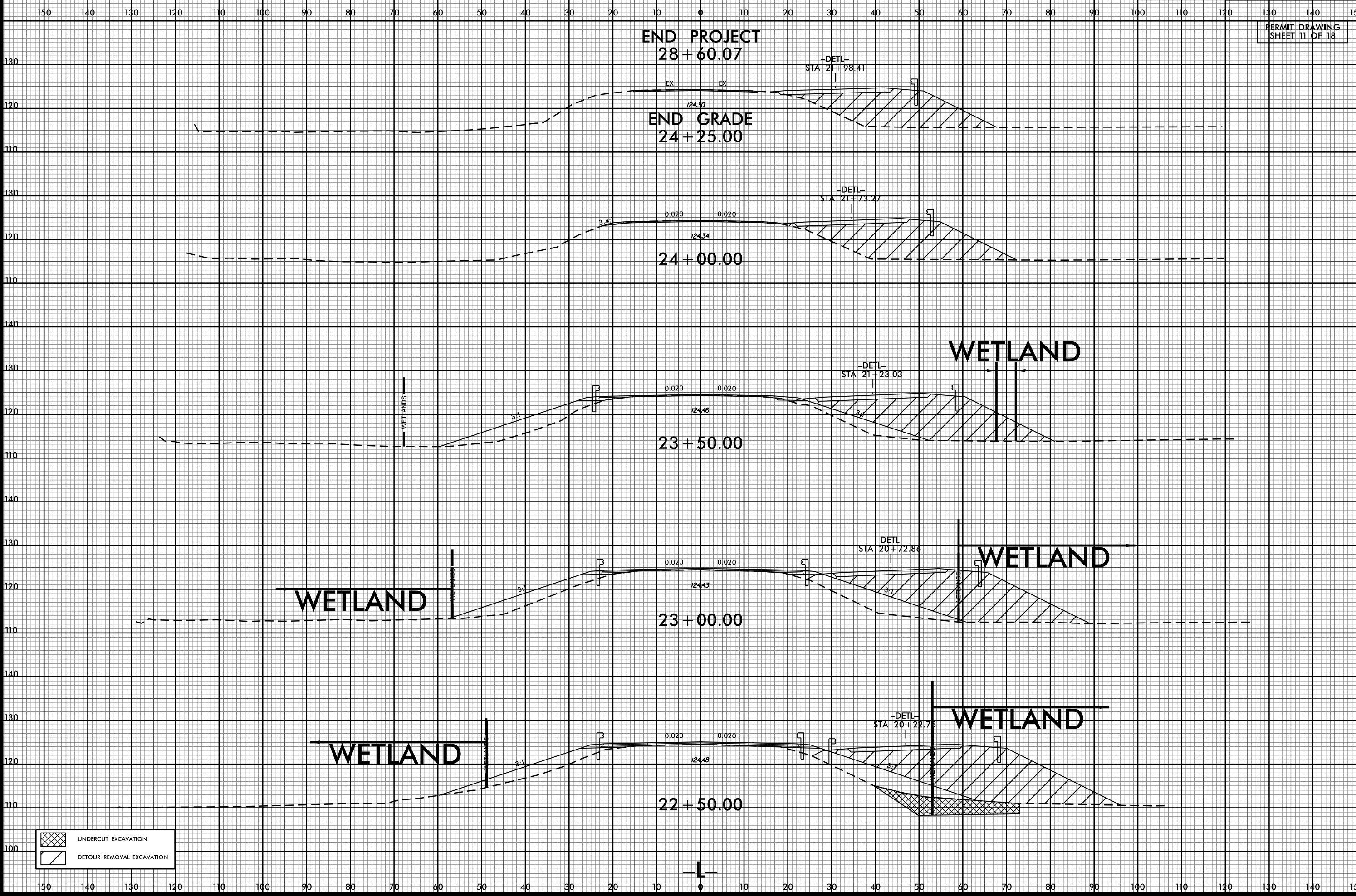
2/25/2019 DEWBERRY B4635_Permit Drawings_20190225.pdf

6/23/16



PROJ. REFERENCE NO. B-4635 SHEET NO. X-5

PERMIT DRAWING SHEET 11 OF 18



END PROJECT
28 + 60.07

END GRADE
24 + 25.00

24 + 00.00

23 + 50.00

23 + 00.00

22 + 50.00

WETLAND

WETLAND

WETLAND

| | |
|--|---------------------------|
| | UNDERCUT EXCAVATION |
| | DETOUR REMOVAL EXCAVATION |

2/25/2019 DEWBERRY B:\4635-Permit Drawings-2\16160925.dwg

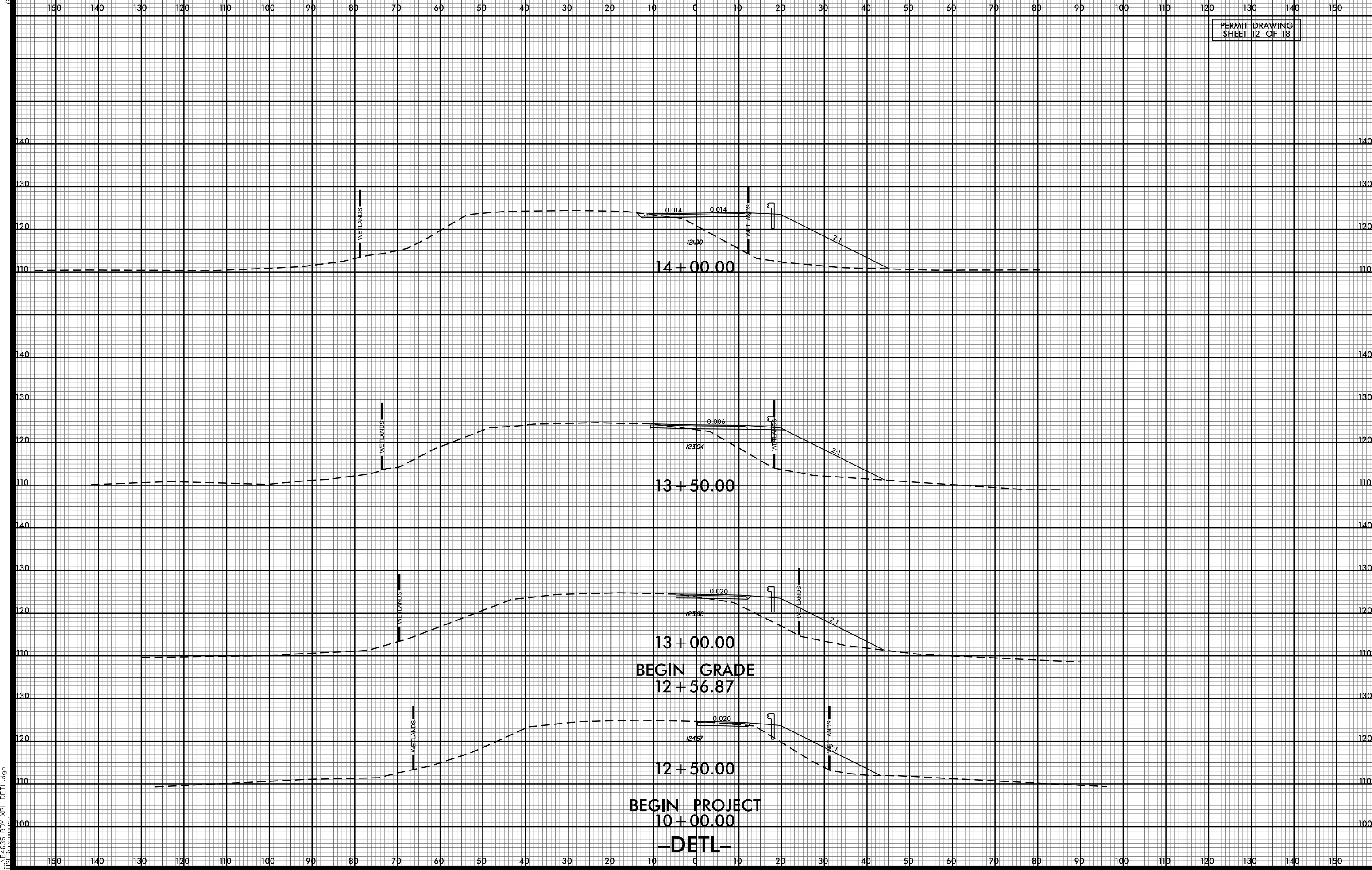
6/23/16



PROJ. REFERENCE NO.
B-4635

SHEET NO.
X-6

PERMIT DRAWING
SHEET 12 OF 18



12/3/2019 3:40:12 PM
I:\B-4635-RDY_XPL_DETL.dgn

BEGIN PROJECT
10+00.00
-DETL-

BEGIN GRADE
12+56.87

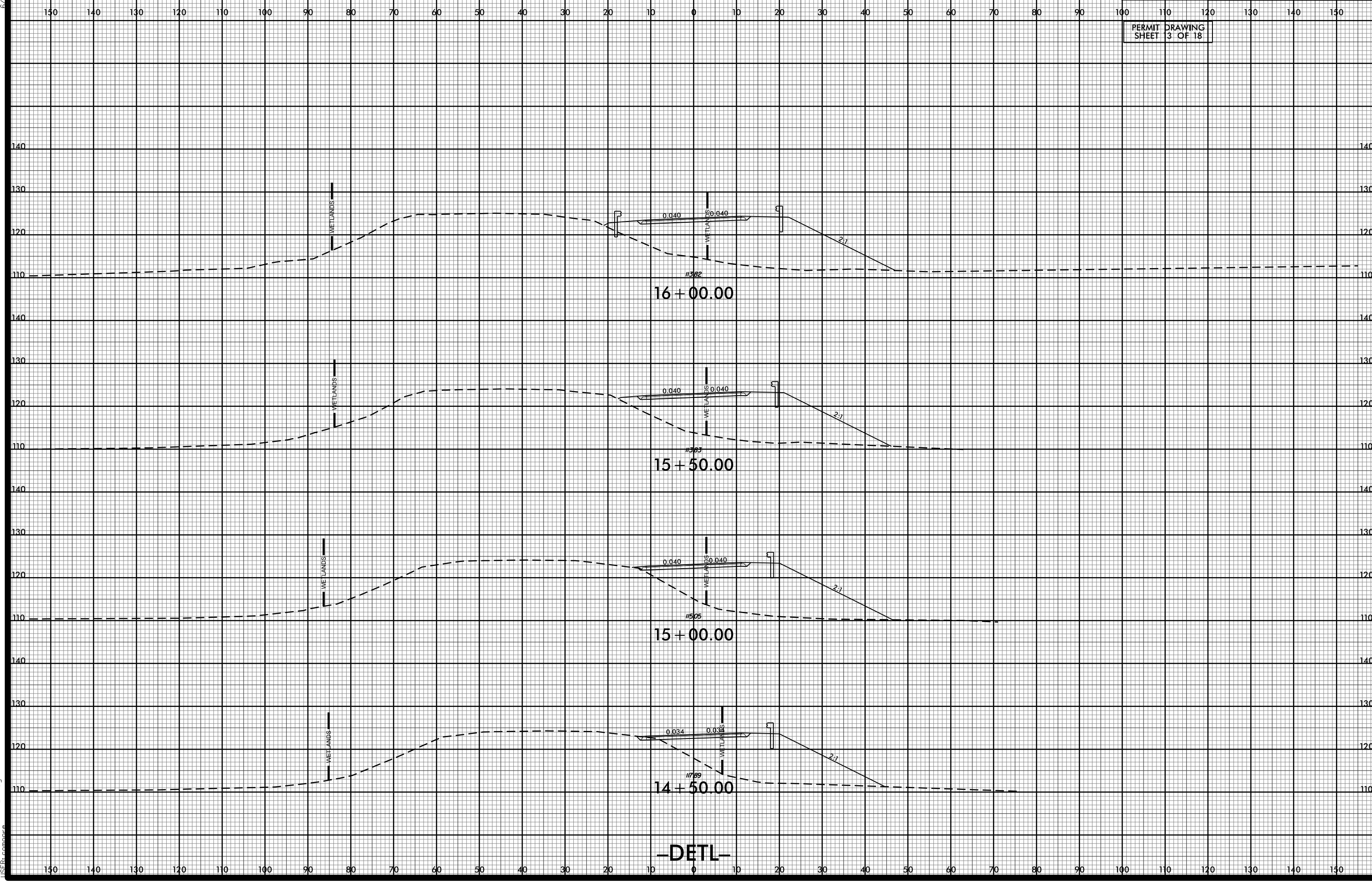
13+00.00

13+50.00

14+00.00

6/23/16

| | | |
|--------------|---------------------|-----------|
| 0 5 10 | PROJ. REFERENCE NO. | SHEET NO. |
| | B-4635 | X-7 |
| PERMIT SHEET | DRAWING | |
| | 3 OF 18 | |

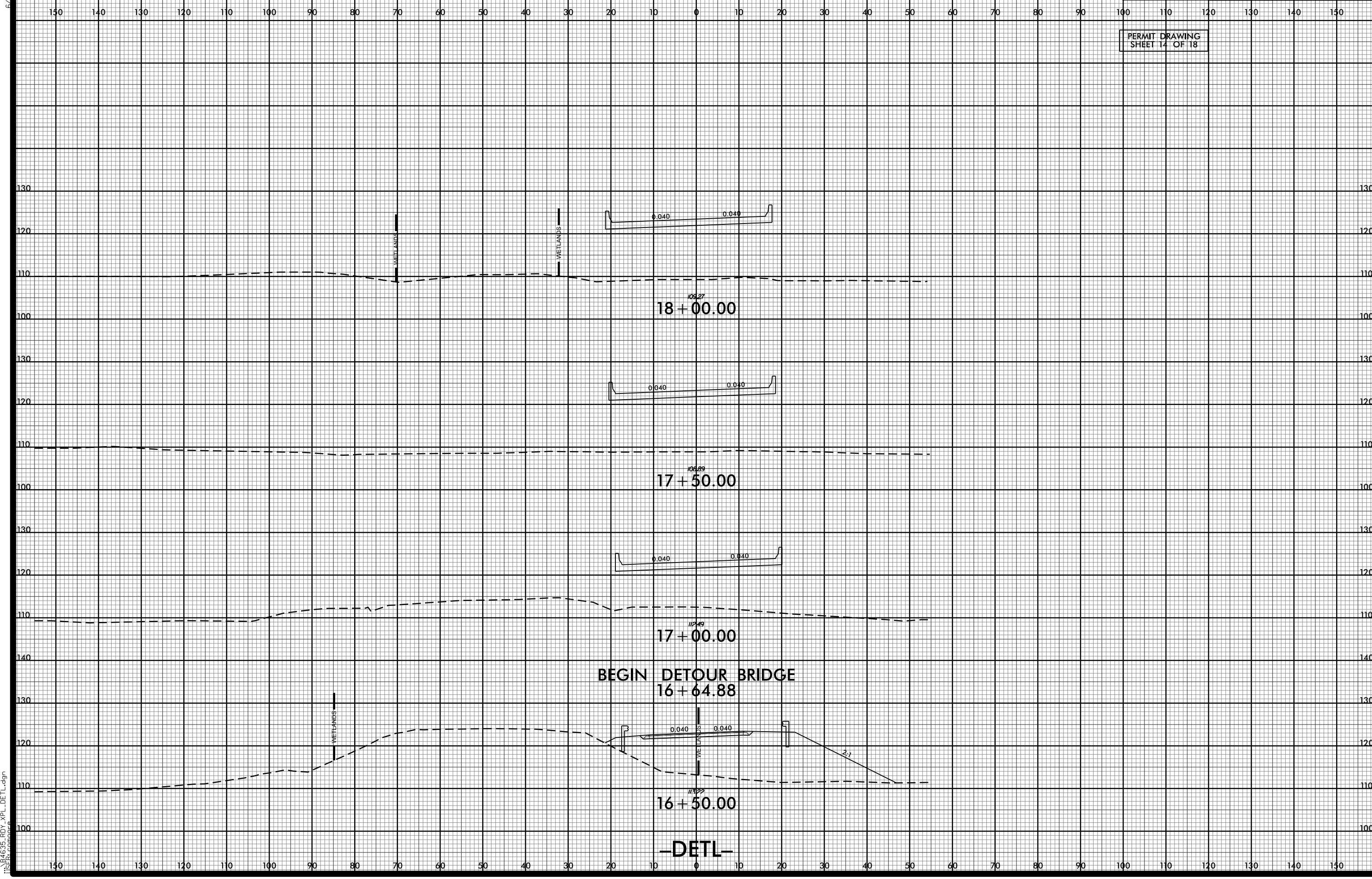


12/3/2019 3:40:14 PM
I:\B-4635-RDY_XPL_DETL.dgn
I:\B-4635-RDY_XPL_DETL.dgn

-DET-

6/23/16

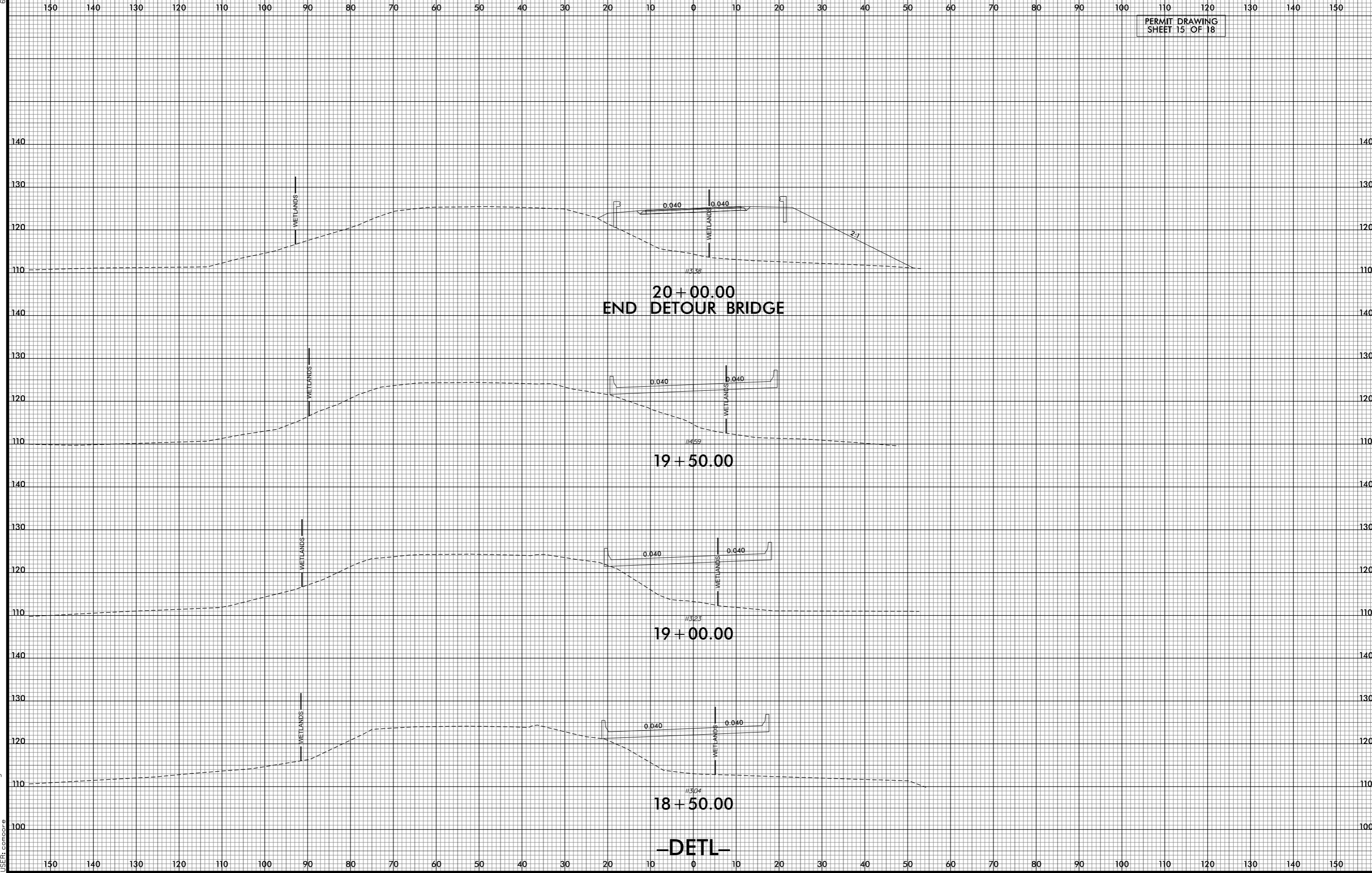
PERMIT DRAWING
SHEET 14 OF 18



12/3/2019 3:40:16 PM
I:\B4635-RDY_XPL_DETL.dgn
I:\B4635-RDY_XPL_DETL.dgn

6/23/16

PERMIT DRAWING
SHEET 15 OF 18



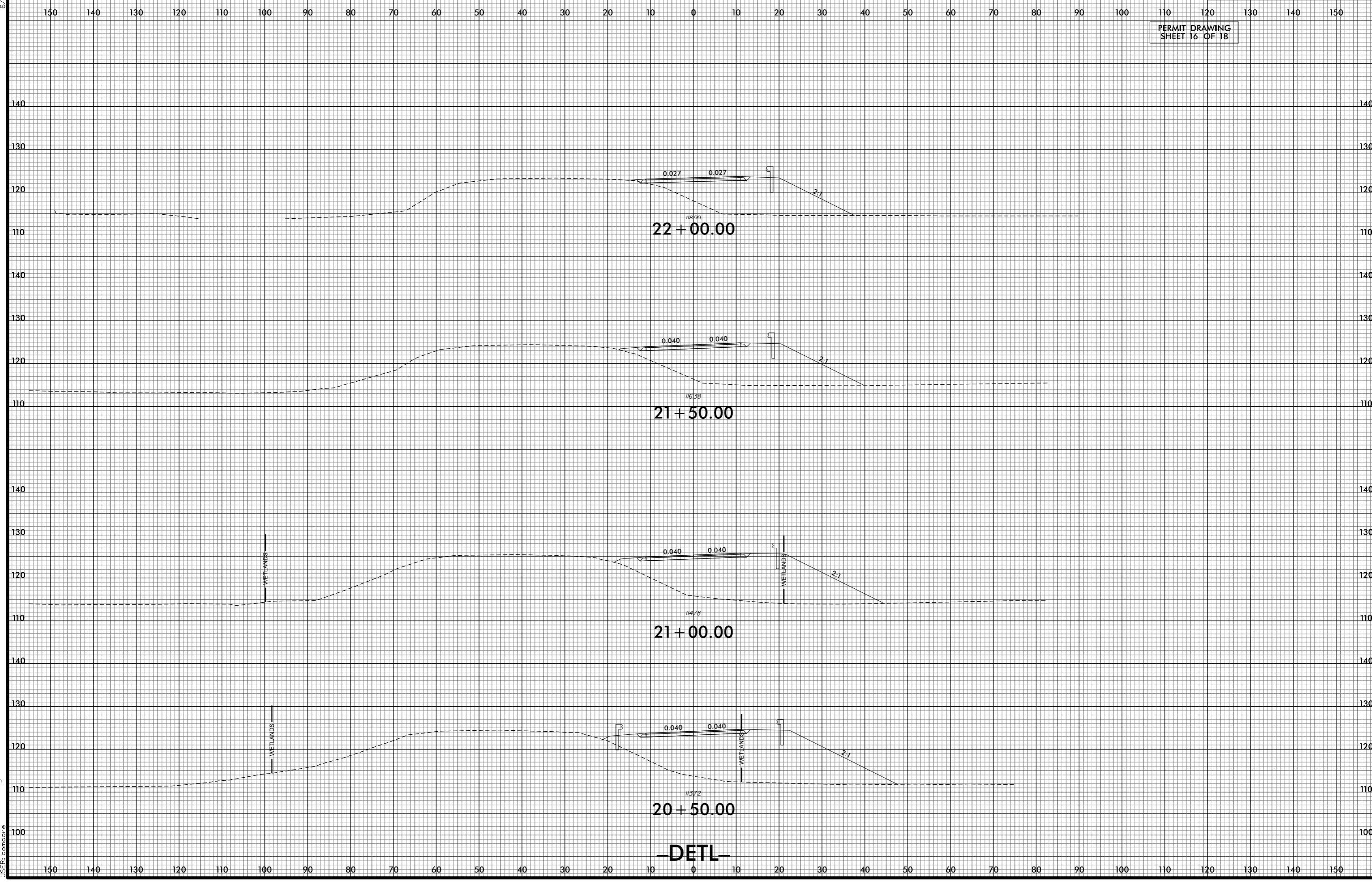
12/3/2019 4:26:52 PM
j:\B4635-RDY_XPL_DC.L_dgn
USER:comore

-DET-

6/23/16

| | | |
|--------|-------------------------------|-------------------|
| 0 5 10 | PROJ. REFERENCE NO. B-4635 | SHEET NO. X-10 |
|--------|-------------------------------|-------------------|

PERMIT DRAWING
SHEET 16 OF 18



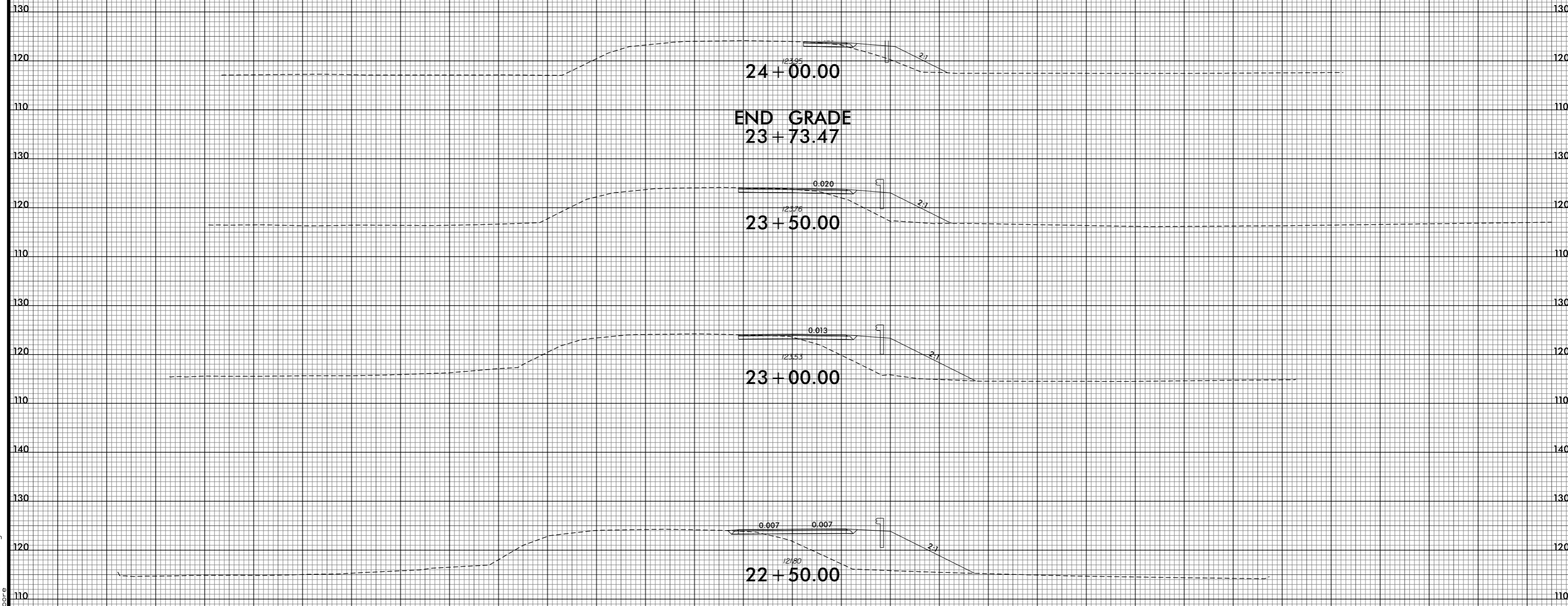
-DETL-

12/3/2019 4:25:26 PM
J:\B4635-RDY_XPL_DCL.dgn
USER:cmoore

6/23/16

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

PERMIT DRAWING
SHEET 17 OF 18



-DETL-

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

12/3/2019 4:25:55 PM
j:\B4635-RDY_XPL_DCTL.dgn
USER:comore

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) |
| WB | L 15+85 TO 19+20 LT | ROADWAY FILL | 0.10 | | | 0.07 | | | | | | |
| WA | L 20+40 TO 23+53 LT | ROADWAY FILL | 0.08 | | | 0.07 | | | | | | |
| WE | L 14+09 TO 19+17 RT | ROADWAY FILL | 0.20 | | 0.03 | 0.15 | | | | | | |
| WE | DETL 11+67 TO 16+66 RT | TEMPORARY FILL | | 0.08 | | 0.02 | 0.07 | | | | | |
| WF | L 21+19 TO 23+37 RT | ROADWAY FILL | 0.02 | | | | | | | | | |
| WF | DETL 20+00 TO 21+08 RT | TEMPORARY FILL | | 0.06 | | | 0.03 | | 0.02 | | 100 | |
| WB | L 19+20 LT/RT | IMPERVIOUS DIKE | | | | | | | 0.02 | | 86 | |
| WA | L 20+19 LT/RT | IMPERVIOUS DIKE | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| TOTALS*: | | | 0.41 | 0.14 | 0.03 | 0.31 | 0.10 | | 0.04 | 0 | 186 | 0 |

*Rounded totals are sum of actual impacts

NOTES:

* Impervious dikes included due to the request of roadside environmental

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 12/6/2019
 SAMPSON COUNTY
 B-4635
 38446.1.2
 SHEET 18 OF 18