REVISIONS

7/13/2018 -
PARCEL 4 - REVISED TCE STATION -Y3- 59+00 TO 61+00 LT
PARCEL 4 - ADDED TCE STATION -Y3RPD- 15+92 TO 16+62 LT
PARCEL 4 - CHANGED PDE TO PDE AND REVISED AREA STATION -Y3RPD- 16+62 TO 17+62 LT
PARCEL 4 - ADDED TCE STATION -Y3RPD- 17+62 TO 20+23 LT
PARCEL 4 - ADDED TCE STATION -Y3RPA- 13+45 TO 13+48 RT
PARCEL 4 - ADDED PDE STATION -Y3RPA- 13+48 TO 15+87 RT
PARCEL 4 - ADDED TCE STATION -Y3RPA- 15+87 RT TO -Y3- 45+00 LT
PARCEL 4 - ADDED TCE STATION -Y3RPB- 18+62 LT TO -Y3- 45+08 RT
8/14/2018
PARCEL 4 - REVISED PUE AND TCE STATION -Y3- 45+05 RT
12/29/2018 -
PARCEL 4 - REVISED PUE AT STATION -Y3- 45+00 TO 45+33 RT

E E — DENOTES EXCAVATION IN WETLAND
F F — DENOTES FILL IN WETLAND
DENOTES MECHANIZED CLEARING
S S — DENOTES IMPACTS IN SURFACE WATER
TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC — (4) DENOTES HAND CLEARING
T T — DENOTES TEMPORARY FILL IN WETLAND

SITE 15
SEE ENLARGEMENTS
SITE 14
SITE 13
SITE 16
SITE 17
SITE 18
SITE 19
SITE 20
SITE 21

W9
W10
W11
S6
S7
A
B
C
D

Q10 = 31CFS
V10 = 2.0CFS

EXCAVATION
Q10 = 8.85cfs
V10 = 1.64fps

MATCH LINE STA. 220+00 SEE SHEET 16
MATCH LINE -Y3- STA. 45+00 SEE SHEET 43
MATCH LINE STA. 254+00 SEE SHEET 18
MATCH LINE STA. 61+00 SEE SHEET 44
MATCH LINE STA. 254+00 SEE SHEET 18

ONLY IMPACTS DUE TO CONSTRUCTION OF PERMANENT ALIGNMENT ARE SHOWN ON THIS SHEET. FOR ADDITIONAL IMPACTS DUE TO DETOUR SEE PSH 2B-2 (PERMIT DRAWING SHEET 4 OF 167).

PERMIT DRAWING
SHEET 59 OF 167

PROJECT REFERENCE NO. R-205 | SHEET NO. 17
R/W SHEET NO.
ROADWAY DESIGN ENGINEER — PRELIMINARY NOT FOR CONSTRUCTION — SEAL 015869
HYDRAULICS ENGINEER — PRELIMINARY NOT FOR CONSTRUCTION — SEAL 032581

LOCATION: US 70 (HAVELOCK BYPASS) FROM SOUTH OF EASTERN DRIVEWAY COUNTY LINE (SR 1005) OF SR 1172 (GARDNER FERRY BLVD)
TIP NO. R-2015 COUNTY: CRAVEN
DESIGNED BY: DGM
CHECKED BY: TRR DATE: 8/19/2018

GRAPHIC SCALE
50 25 0 50 100
PLANS

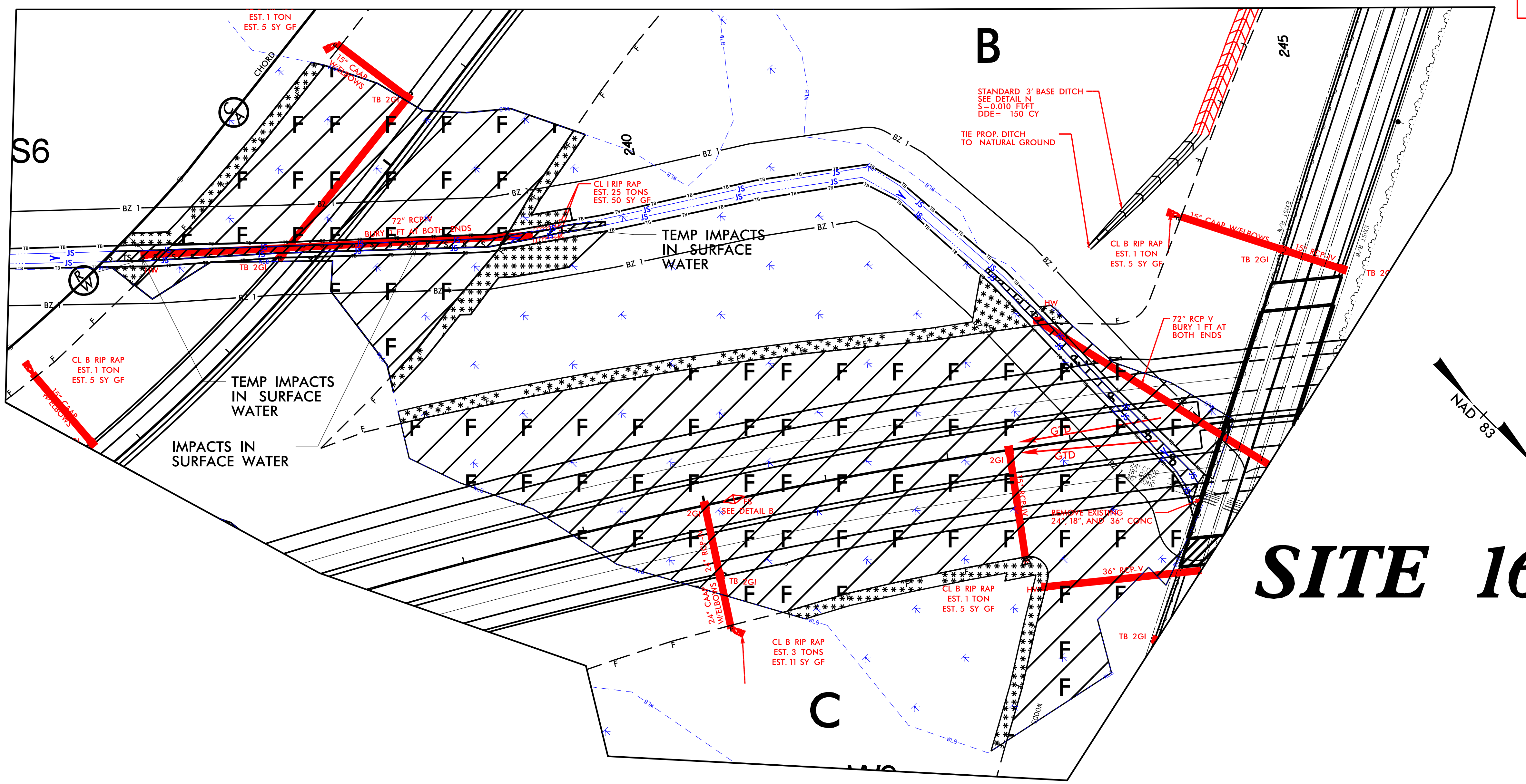
PROJECT REFERENCE NO.	SHEET NO.
R-1015	
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PERMIT DRAWING
SHEET 60 OF 167

ENLARGEMENT

SITE 14



SITE 16

100' 0' 100'
GRAPHIC SCALE

T T DENOTES TEMPORARY FILL IN WETLAND

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

HC HC DENOTES HAND CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

REVISIONS

8/17/99

$$$$SYSTIME$$$$
$$$$$DGN$$$$$
$$$$USERNAME$$$$

11/15/2018
mgberry
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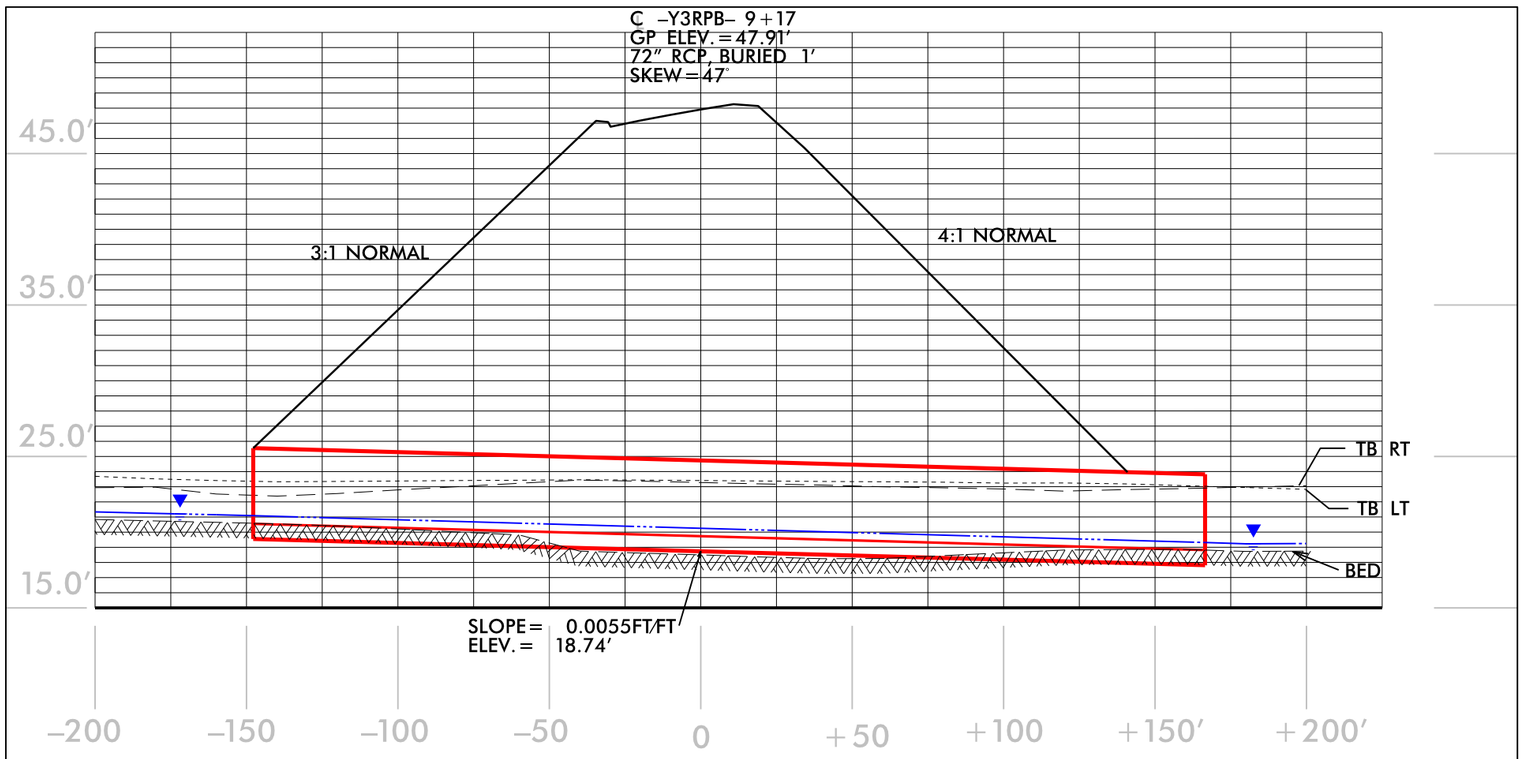


PROFILE

SITE 14

NCDOT
DIVISION OF HIGHWAYS
CRAVEN COUNTY
PROJECT: 34360.1.2 (R-1015)
US 70 (HAVELOCK BYP)
FROM SOUTH OF CARTERET
/CRAVEN COUNTY LINE
TO SOUTH OF SR 1176

SHEET 61 OF 167 08/01/2018

8/1/2018
mgberry
R:\Hydraulics\PERMITS_Environmental\Drawings\Wetland & Stream\R1015_Hyd_prm_wet_site14_profile.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-1015	17

RW SHEET NO.

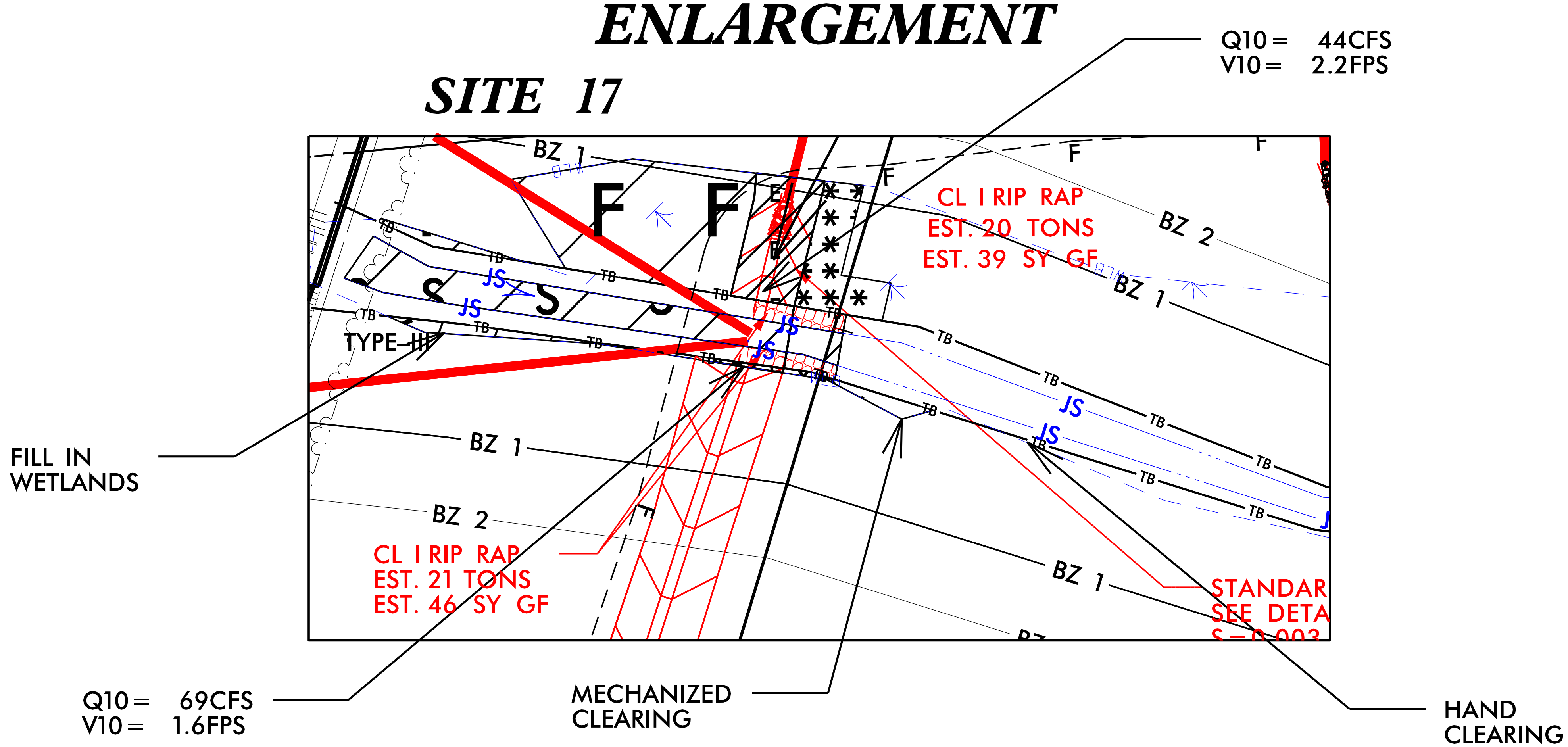
ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PERMIT DRAWING
SHEET 62 OF 167

ENLARGEMENT

SITE 17



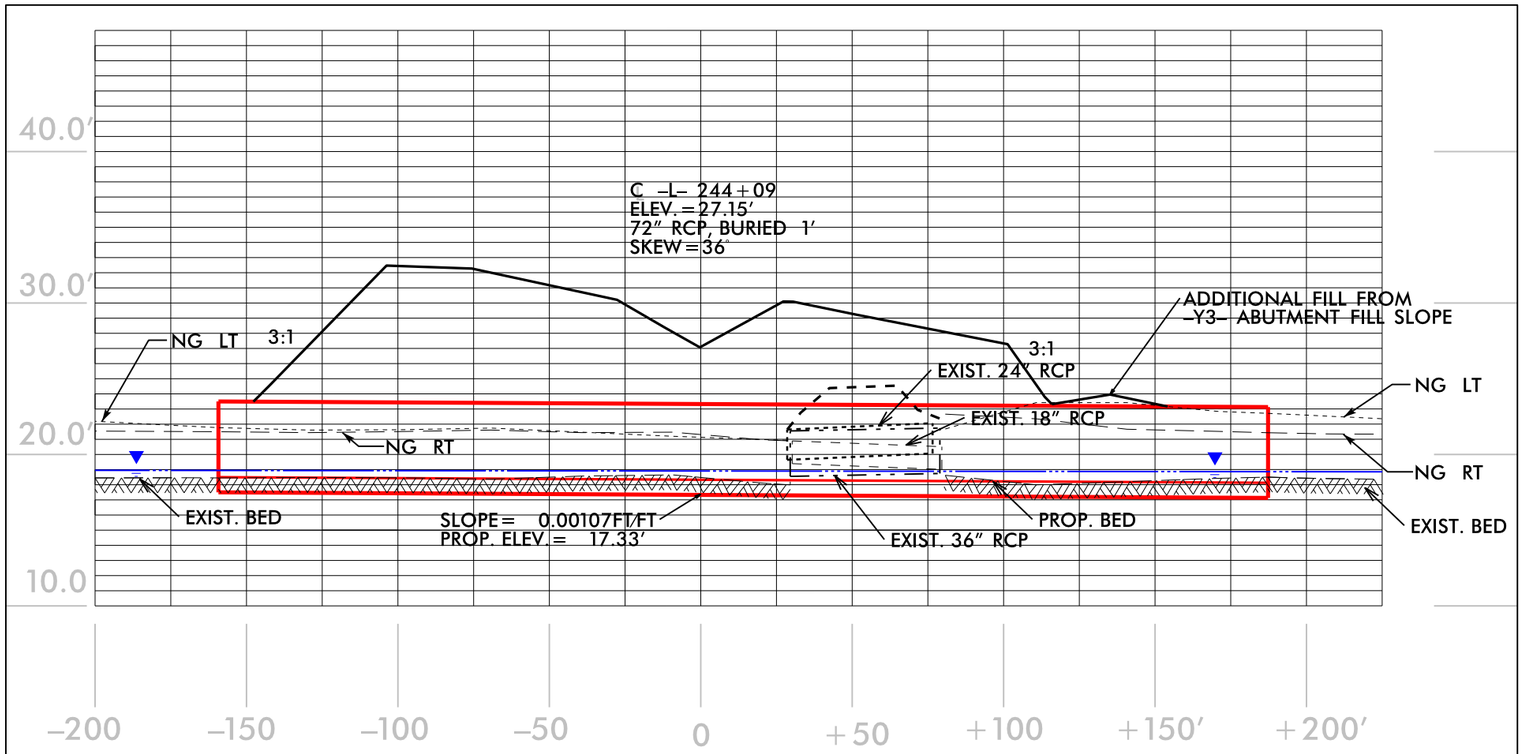
HC	DENOTES HAND CLEARING
TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
F	DENOTES FILL IN WETLAND
S	DENOTES IMPACTS IN SURFACE WATER
T	DENOTES TEMPORARY FILL IN WETLAND
*	DENOTES MECHANIZED CLEARING

40′ 0′ 40′
GRAPHIC SCALE

REVISIONS

8/17/99

11/5/2018
mgberry
R:\Hydraulics\PERMITS_Environmental\Drawings\Wetland & Stream\r-1015_Hyd_prm_wet_psh17_enlarge site 17.dgn



PROFILE

SITE 16 & 17

NCDOT

DIVISION OF HIGHWAYS
CRAVEN COUNTY
PROJECT: 34360.1.2 (R-1015)
US 70 (HAVELOCK BYP)
FROM SOUTH OF CARTERET
/CRAVEN COUNTY LINE
TO SOUTH OF SR 1176

SHEET 63 OF 167 **08/01/2018**

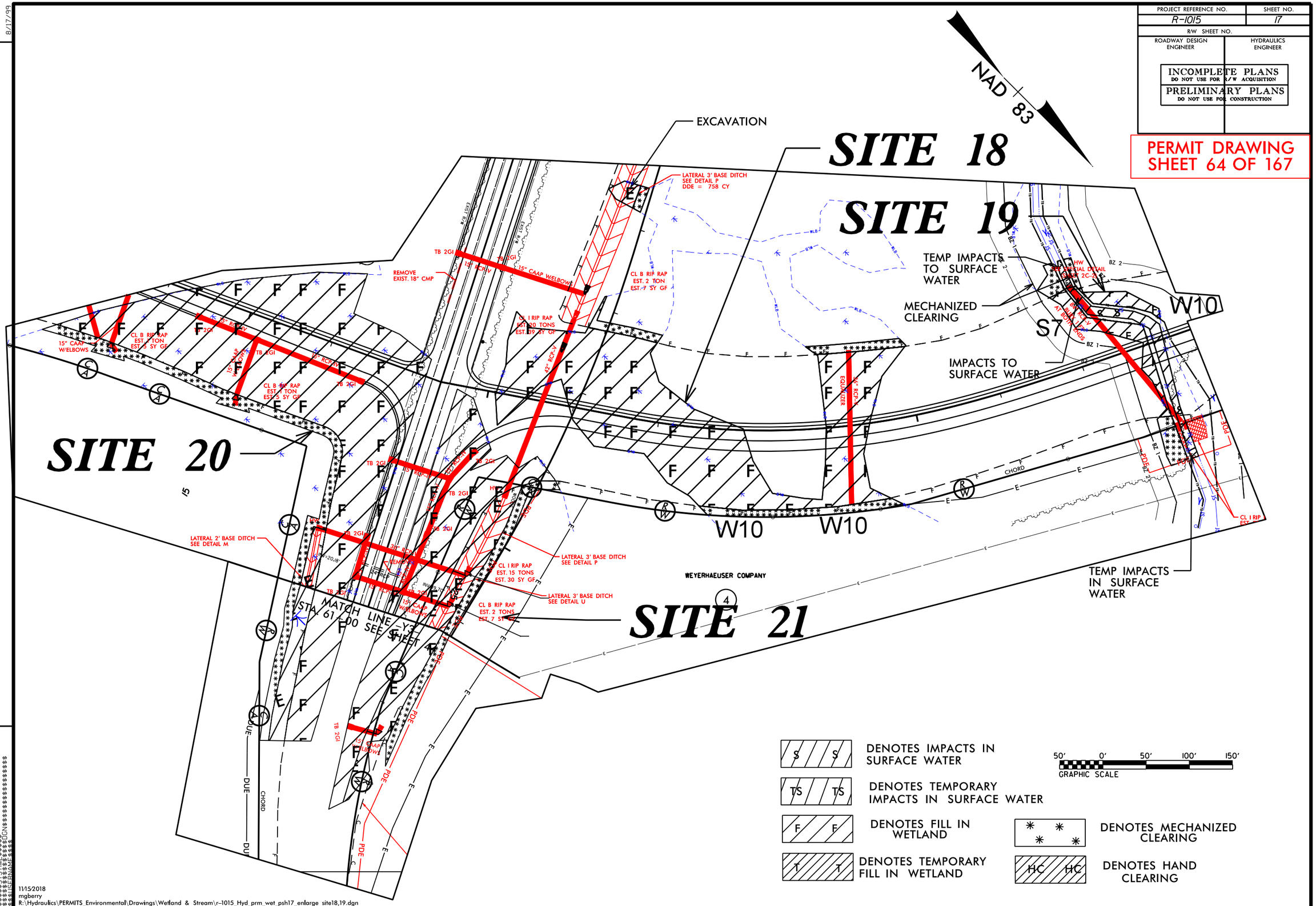
8/1/2018
mgberry
R:\Hydraulics\PERMITS_Environmental\Drawings\Wetland & Stream\R1015_Hyd_prm_wet_site16_17_profile.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-1015	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PERMIT DRAWING
SHEET 64 OF 167



8/17/99

REVISIONS

11/15/2018
mgberry
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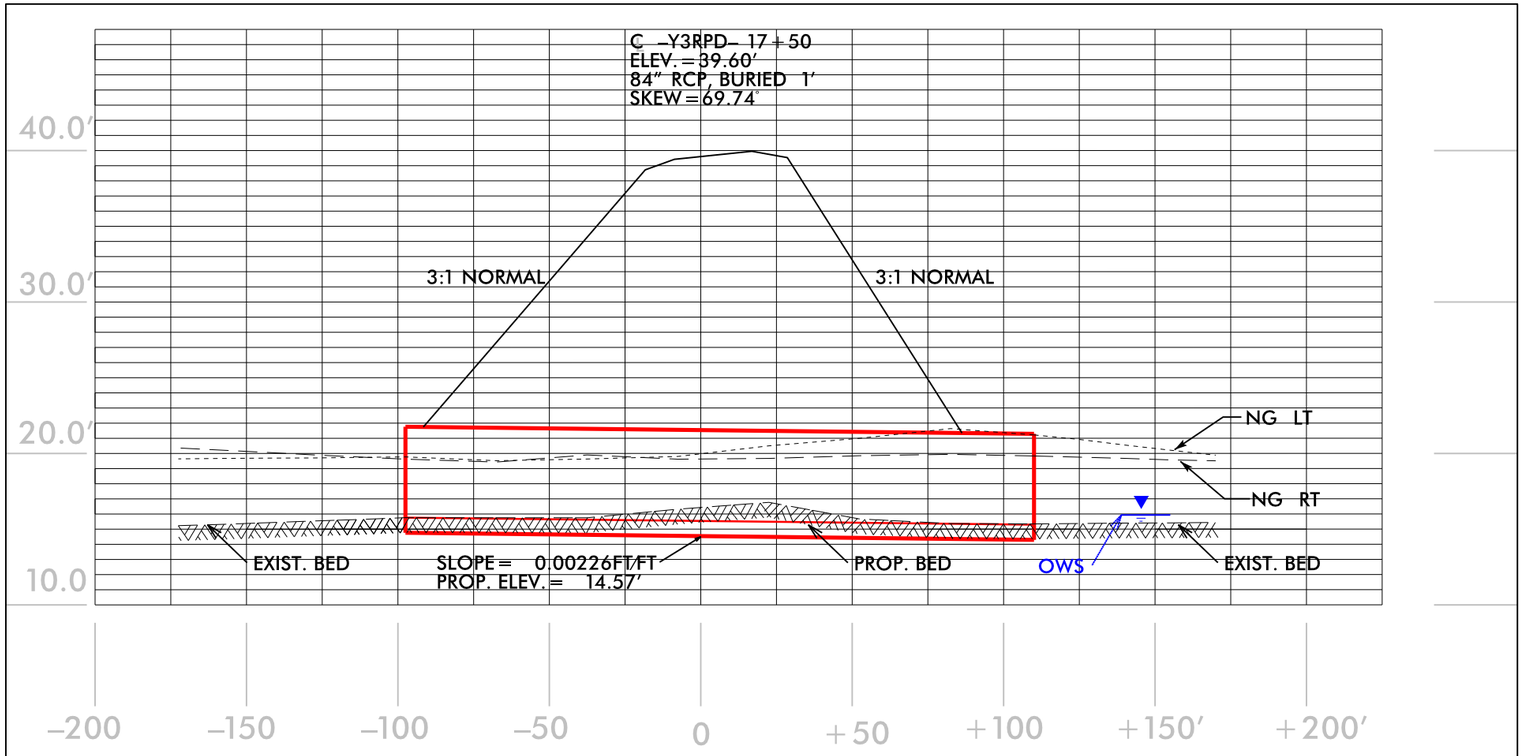


PROFILE

SITE 19

NCDOT
DIVISION OF HIGHWAYS
CRAVEN COUNTY
PROJECT: 34360.1.2 (R-1015)
US 70 (HAVELOCK BYP)
FROM SOUTH OF CARTERET
/CRAVEN COUNTY LINE
TO SOUTH OF SR 1176

SHEET 65 OF 167 **08/01/2018**

8/1/2018
mgberry
R:\Hydraulics\PERMITS_Environmental\Drawings\Wetland & Stream\R1015_Hyd_prm_wet_site19_profile.dgn

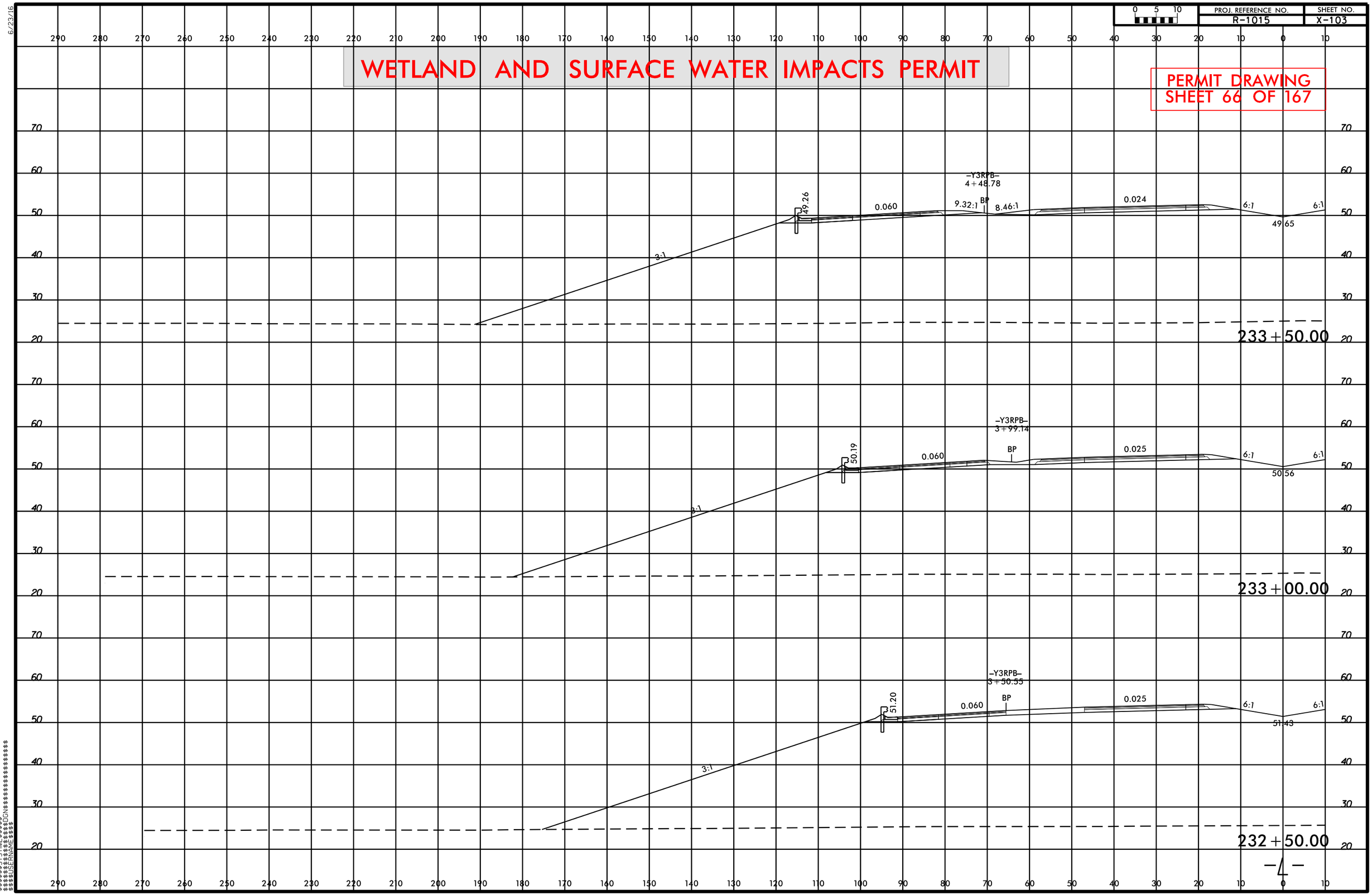
6/23/16

PROJ. REFERENCE NO.	SHEET NO.
R-1015	X-103

0 5 10

WETLAND AND SURFACE WATER IMPACTS PERMIT

PERMIT DRAWING
SHEET 66 OF 167



8/2/2018
mgberry
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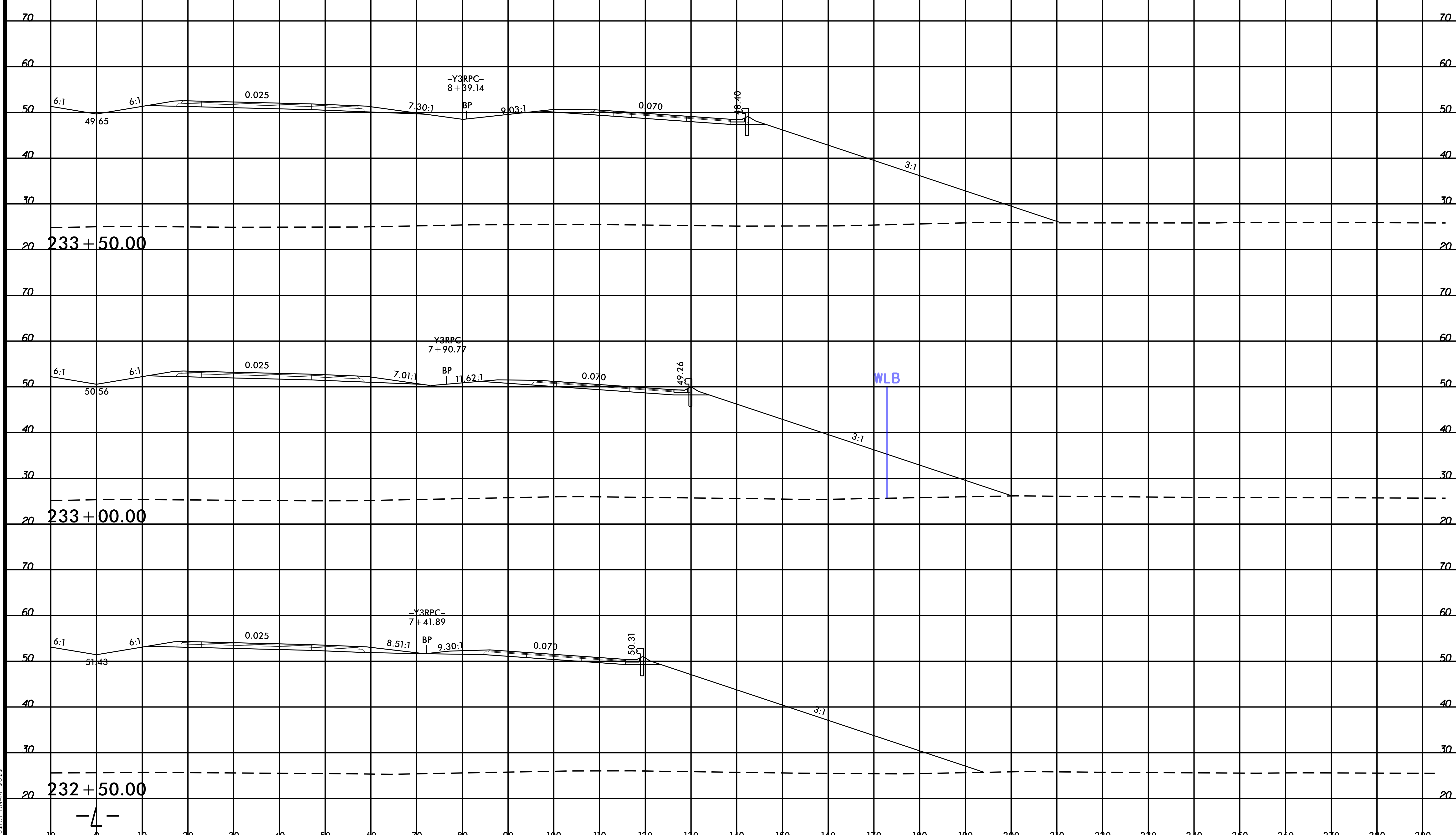
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$DGNNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
R-1015	X-120

WETLAND AND SURFACE WATER IMPACTS PERMIT

PERMIT DRAWING
SHEET 67 OF 167



6/23/16

8/2/2018
mgberry
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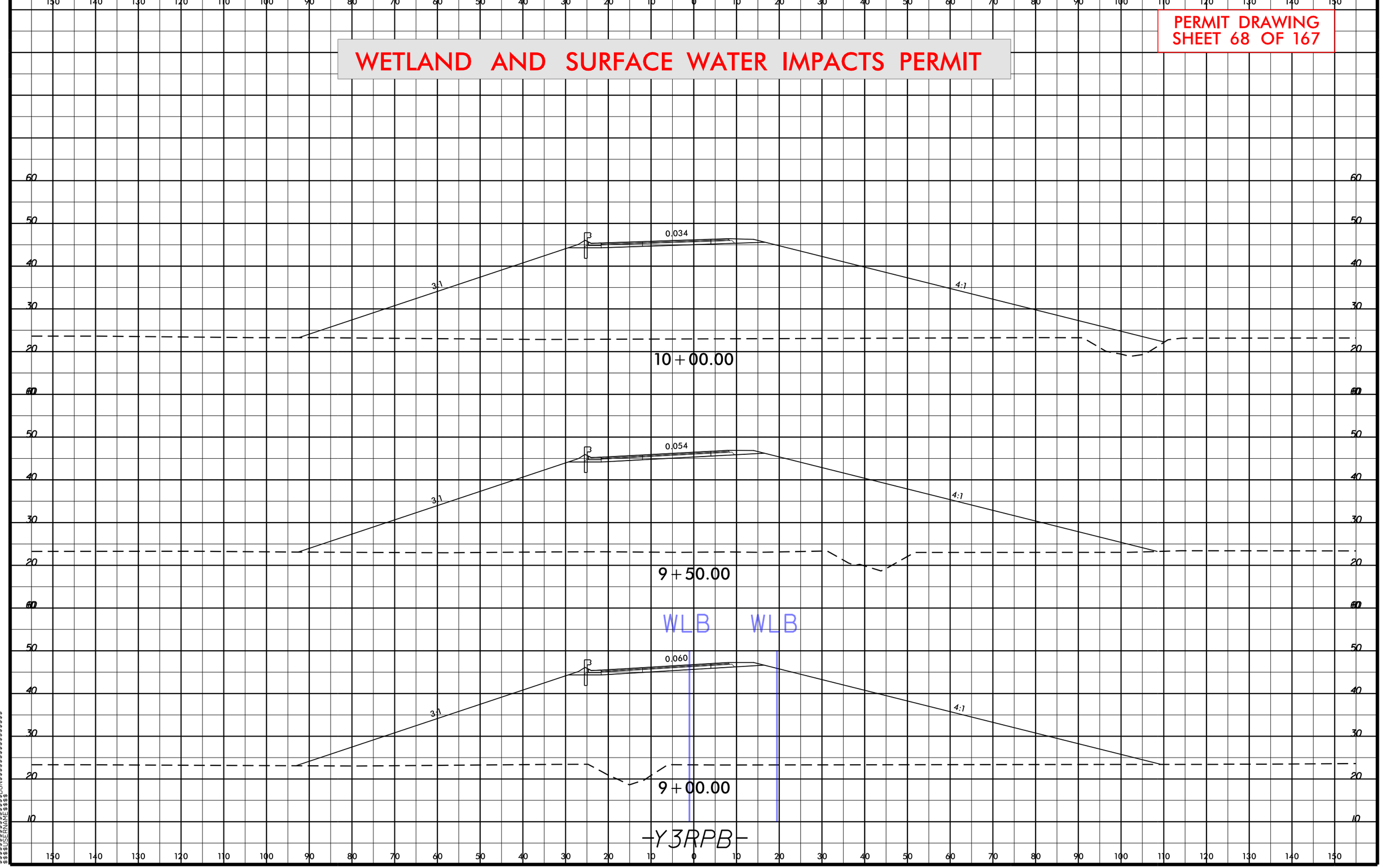
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-1015	X-357

PERMIT DRAWING
SHEET 68 OF 167

WETLAND AND SURFACE WATER IMPACTS PERMIT



8/2/2018
mgberry
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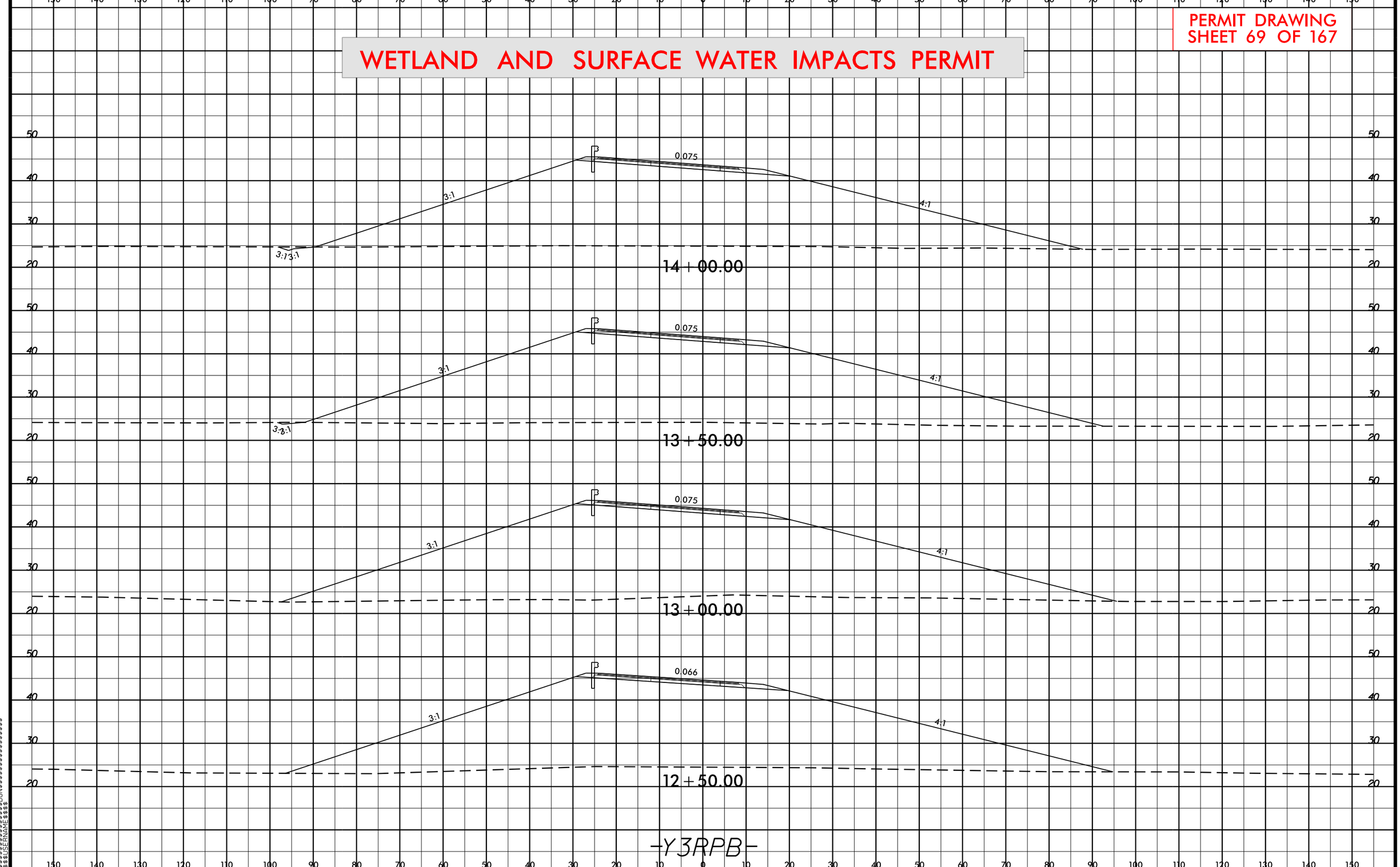
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-1015	X-359

PERMIT DRAWING
SHEET 69 OF 167

WETLAND AND SURFACE WATER IMPACTS PERMIT



-Y3RPB-

8/2/2018
mpowell
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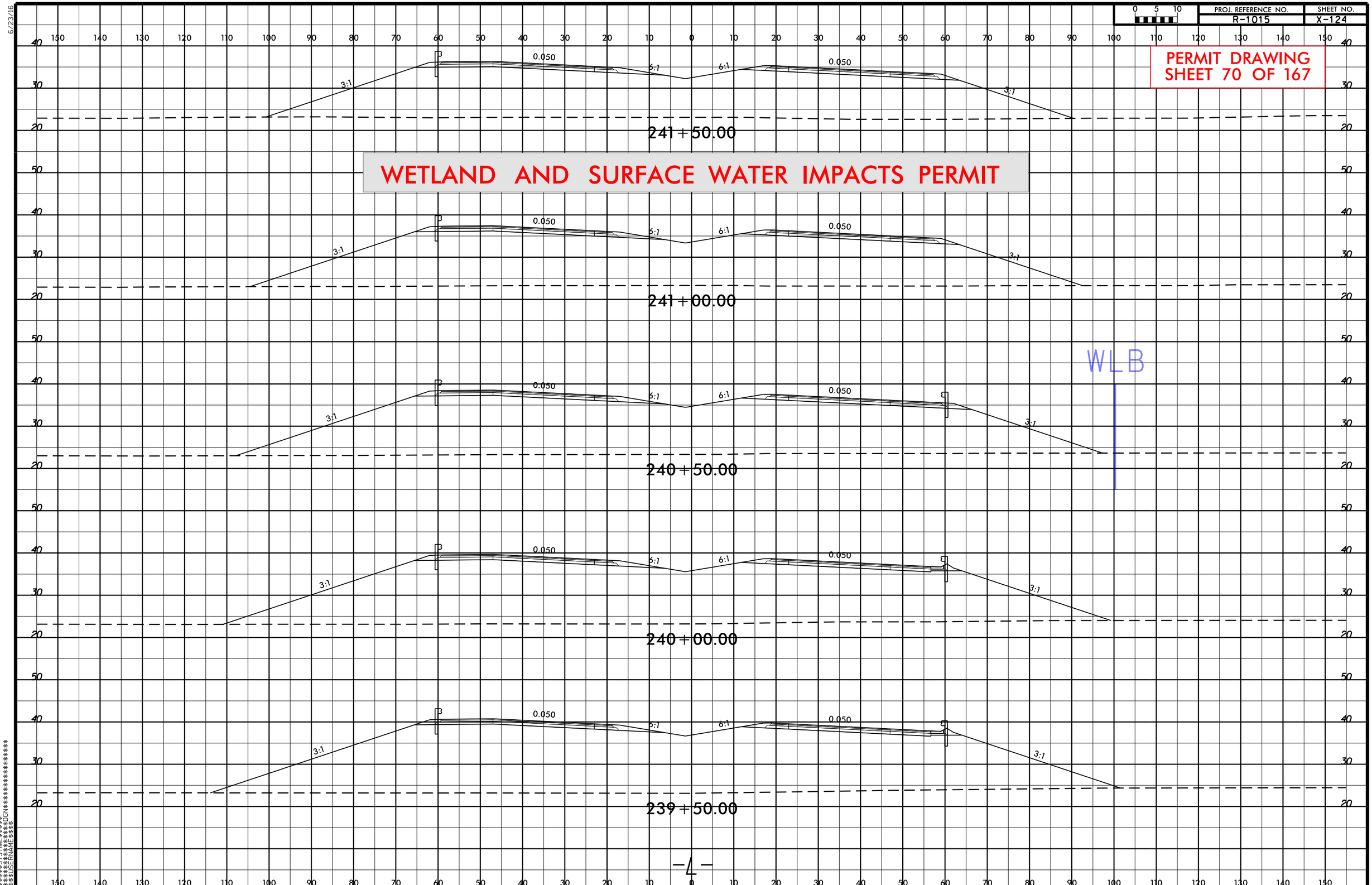
$$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-1015	X-124

PERMIT DRAWING
SHEET 70 OF 167

WETLAND AND SURFACE WATER IMPACTS PERMIT



8/2/2018
mgberry
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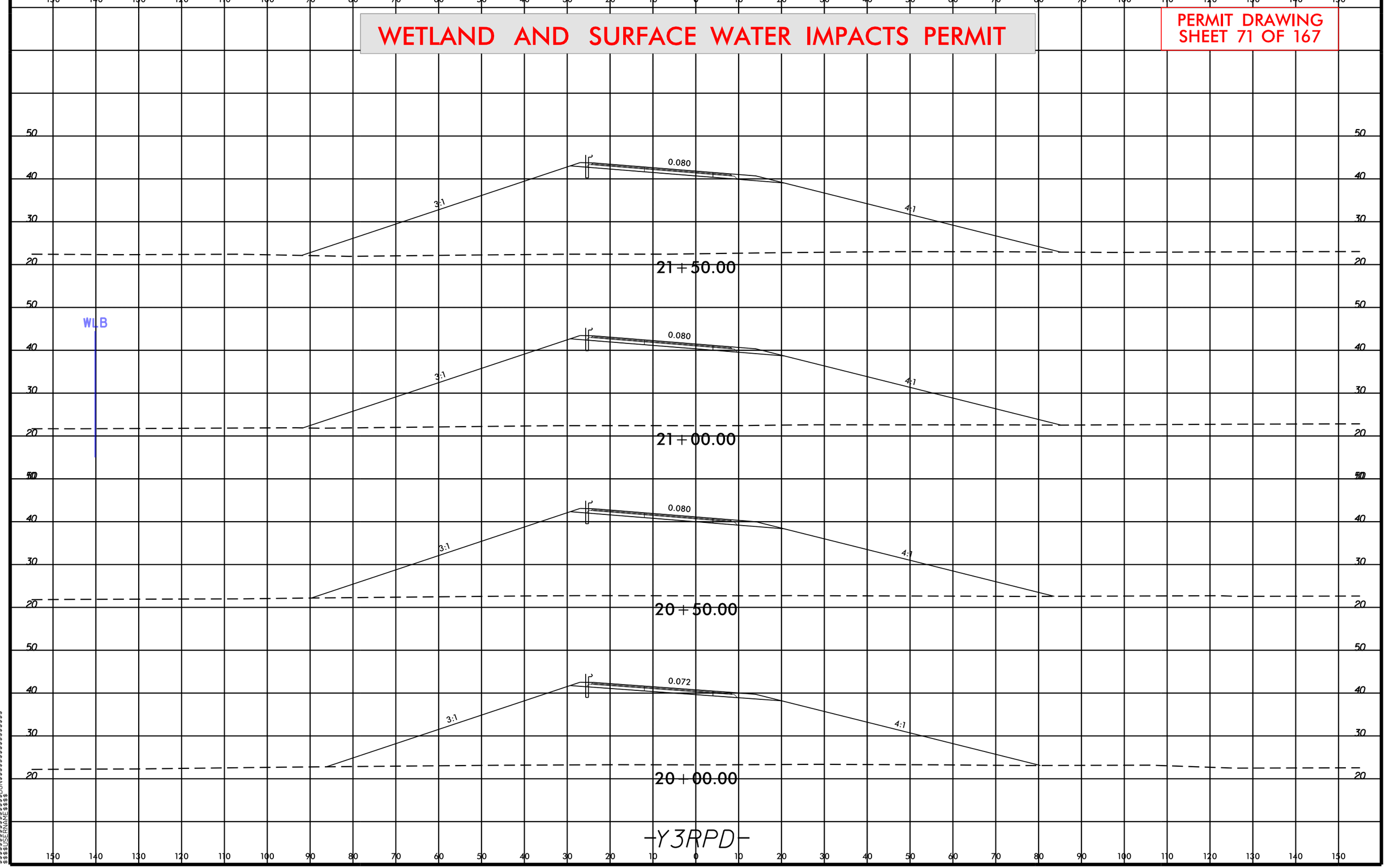
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
R-1015	X-372

WETLAND AND SURFACE WATER IMPACTS PERMIT

PERMIT DRAWING
SHEET 71 OF 167



8/2/2018
mgberry
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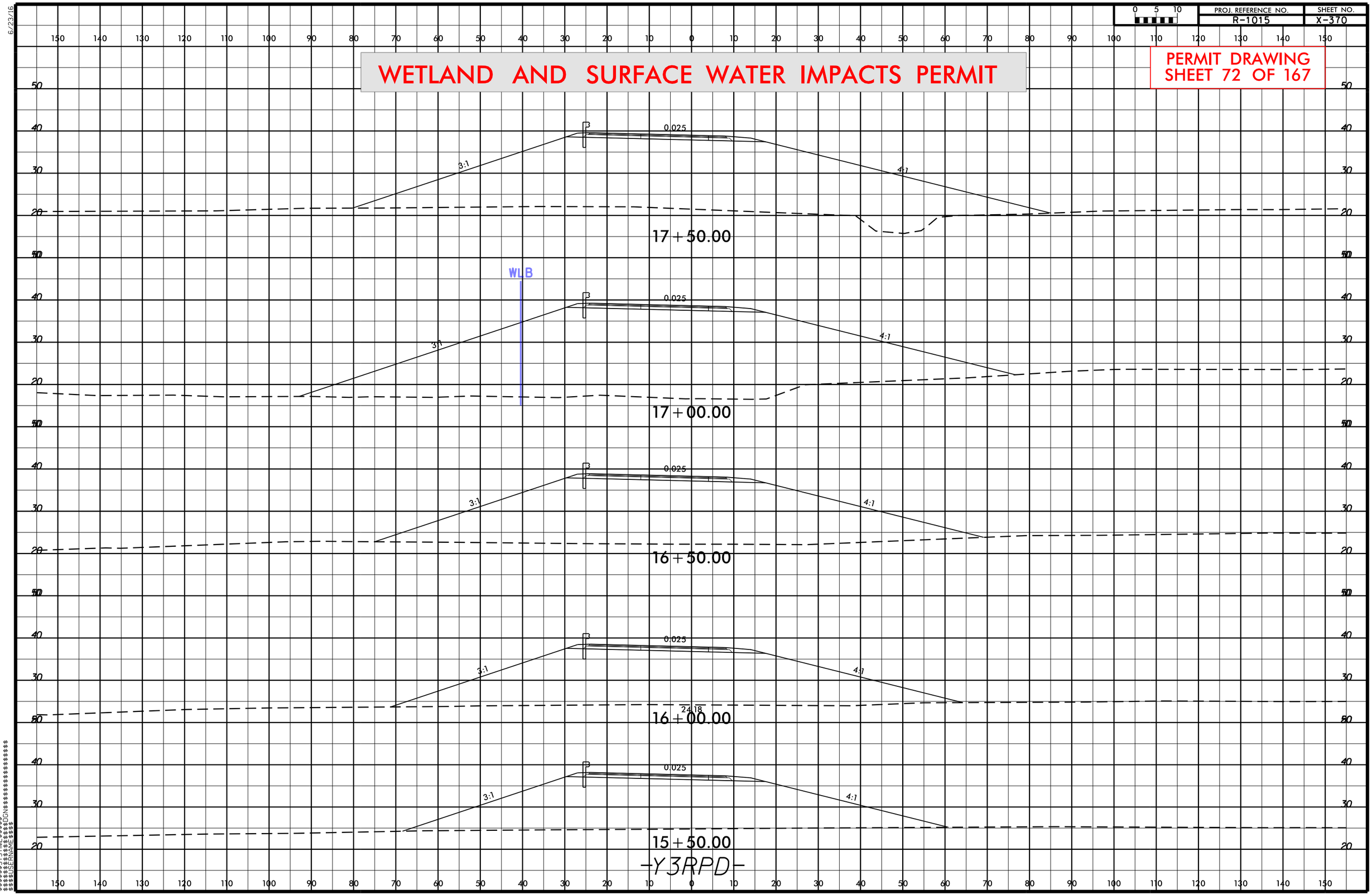
$$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-1015	X-370

WETLAND AND SURFACE WATER IMPACTS PERMIT

PERMIT DRAWING
SHEET 72 OF 167



8/2/2018
mgberry
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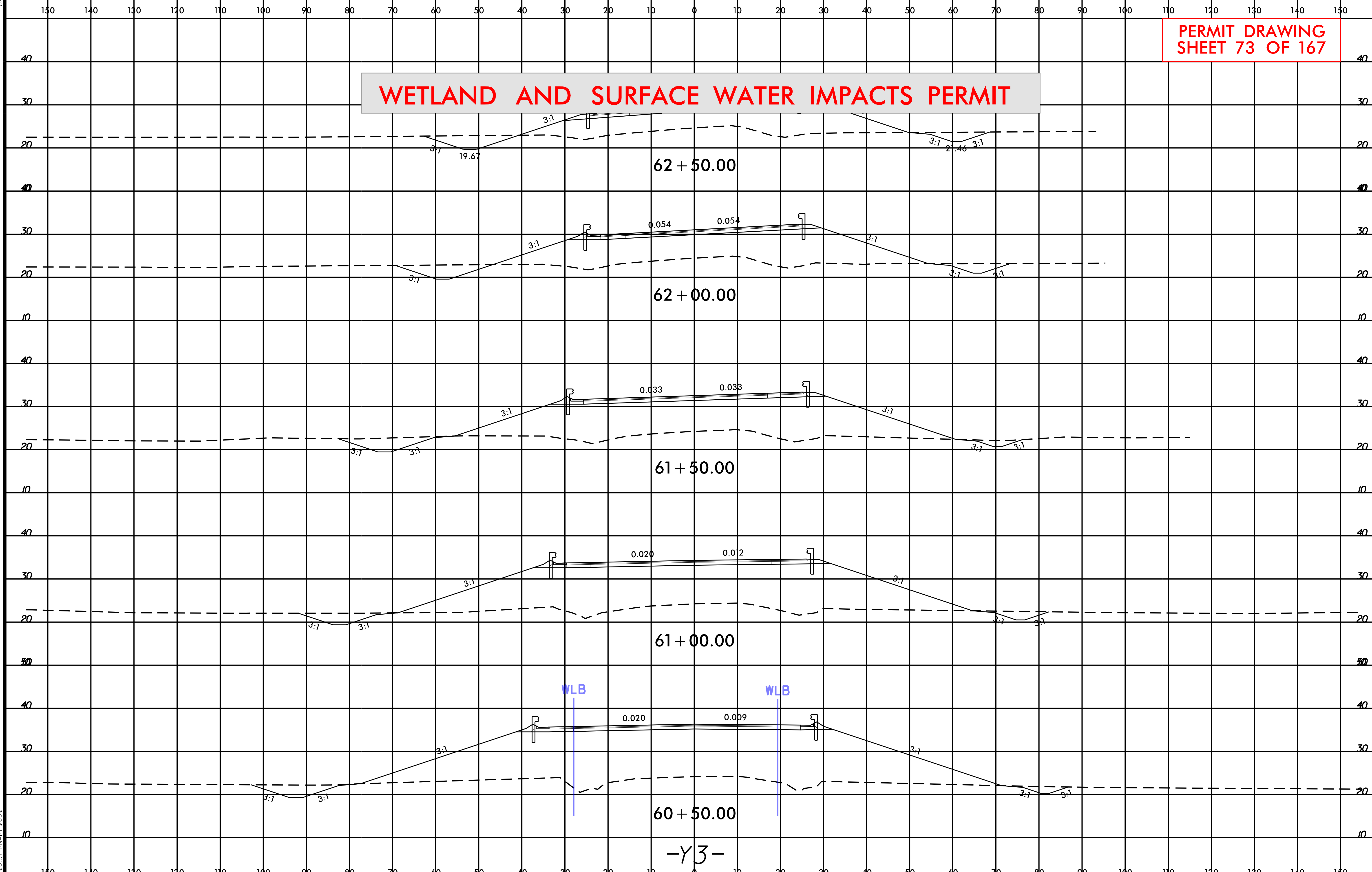
$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
R-1015	X-346

PERMIT DRAWING
SHEET 73 OF 167

WETLAND AND SURFACE WATER IMPACTS PERMIT



8/2/2018
mgberry
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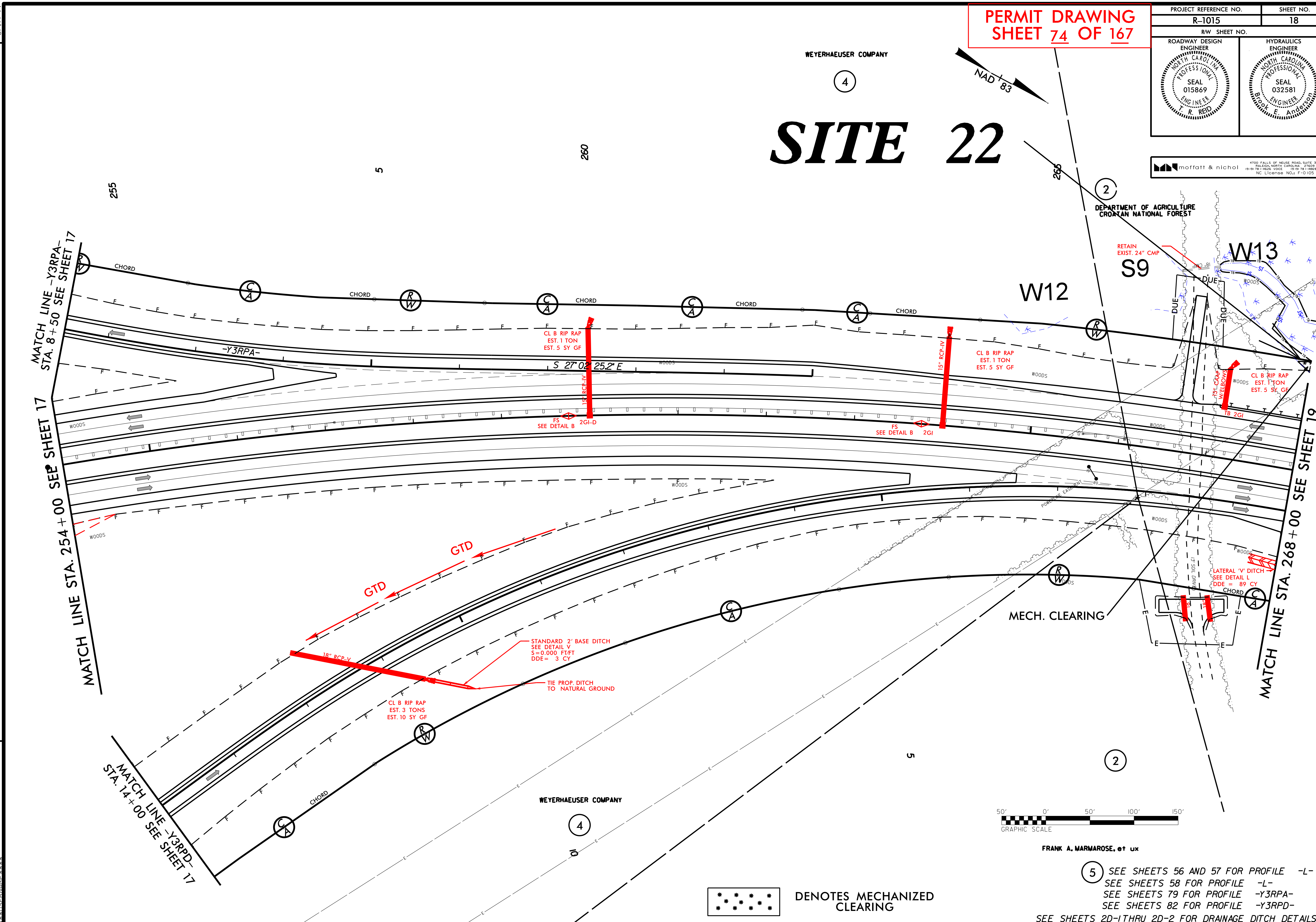
6/23/16



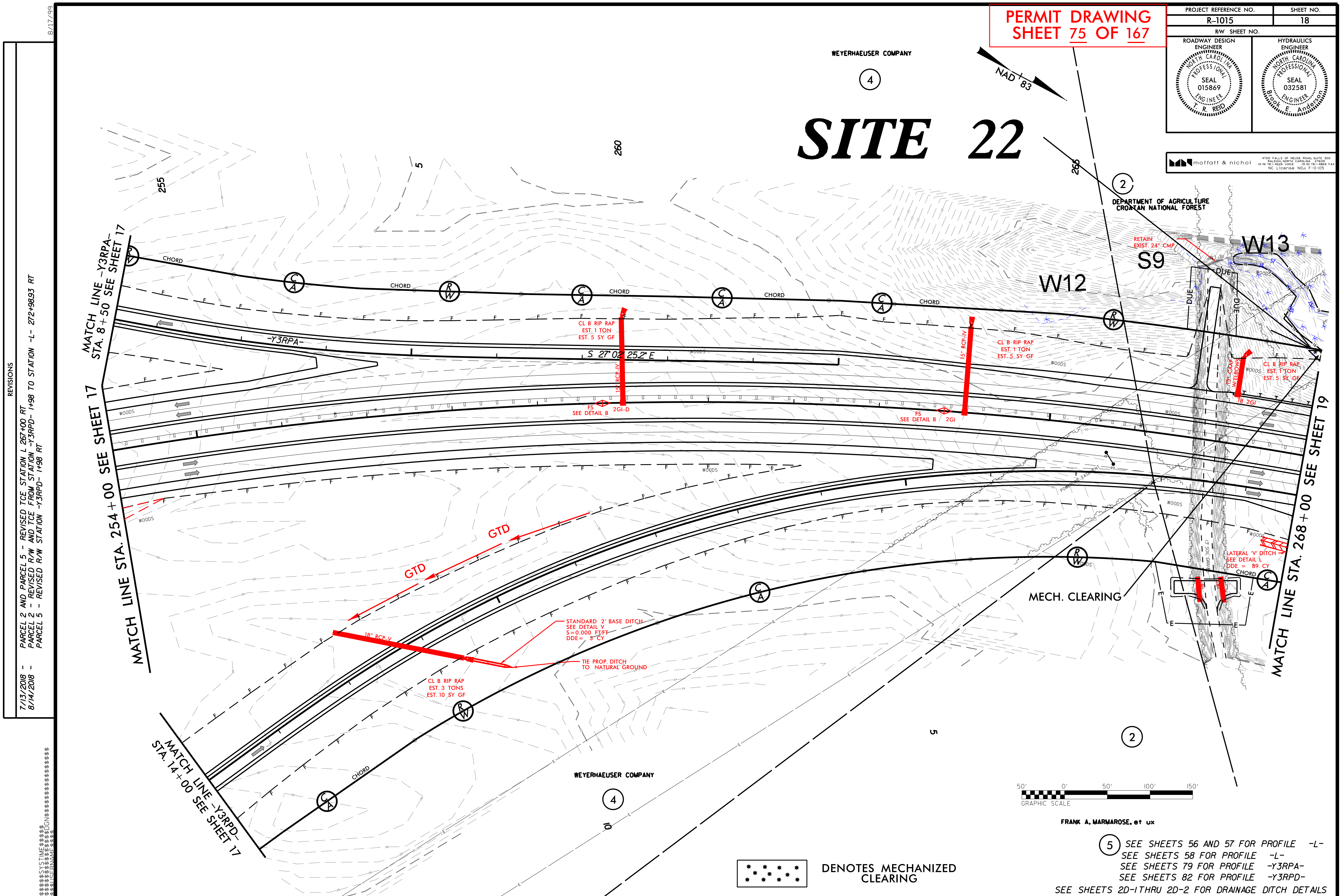
REVISIONS

7/13/2018 - PARCEL 2 AND PARCEL 5 - REVISED TCE STATION L 267+00 RT
8/14/2018 - PARCEL 2 - REVISED R/W AND TCE FROM STATION -Y3RPD- 1+98 TO STATION -L- 272+98.93 RT
PARCEL 5 - REVISED R/W STATION -Y3RPD- 1+98 RT

8/17/99

(5) SEE SHEETS 56 AND 57 FOR PROFILE -L-
SEE SHEETS 58 FOR PROFILE -L-
SEE SHEETS 79 FOR PROFILE -Y3RPA-
SEE SHEETS 82 FOR PROFILE -Y3RPD-
SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

$$$$$SYSTIME$$$$$ $$$$$DGN$$$$$ $$$$USERNAME$$$$


PERMIT DRAWING
SHEET 75 OF 167
PROJECT REFERENCE NO.
R-1015
SHEET NO.
18
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 015869 ENGINEER T. R. REID
HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 032581 ENGINEER Brook E. Anderson
moffatt & nichol
4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4869 FAX
NC License NO.: F-0105
SITE 22
NAD 83
WEYERHAEUSER COMPANY
DEPARTMENT OF AGRICULTURE
CROATAN NATIONAL FOREST
RETAIN EXIST. 24" CMP
S9
W12
W13
CHORD
-Y3RPA-
S 27° 02' 25.2" E
CL B RIP RAP
EST. 1 TON
EST. 5 SY GF
15" RCP-IV
FS
SEE DETAIL B
2GI-D
2GI
15" CAAP W/ELBOWS
TB 2GI
WOODS
POWERLINE EASEMENT
GTD
18" RCP-V
STANDARD 2' BASE DITCH
SEE DETAIL V
S=0.000 FT/FT
DDE= 3 CY
TIE PROP. DITCH TO NATURAL GROUND
CL B RIP RAP
EST. 3 TONS
EST. 10 SY GF
LATERAL 'V' DITCH
SEE DETAIL L
DDE = 89 CY
13' SOIL DRIVE
MECH. CLEARING
MATCH LINE -Y3RPA- STA. 8+50 SEE SHEET 17
MATCH LINE STA. 254+00 SEE SHEET 17
MATCH LINE -Y3RPD- STA. 14+00 SEE SHEET 17
MATCH LINE STA. 268+00 SEE SHEET 19
255
260
265
FRANK A. MARMAROSE, et ux
50' 0' 50' 100' 150'
GRAPHIC SCALE
DENOTES MECHANIZED CLEARING
SEE SHEETS 56 AND 57 FOR PROFILE -L-
SEE SHEETS 58 FOR PROFILE -L-
SEE SHEETS 79 FOR PROFILE -Y3RPA-
SEE SHEETS 82 FOR PROFILE -Y3RPD-
SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS
REVISIONS
7/13/2018 - PARCEL 2 AND PARCEL 5 - REVISED TCE STATION L 267+00 RT
8/14/2018 - PARCEL 2 - REVISED R/W AND TCE FROM STATION -Y3RPD- 1+98 TO STATION -L- 272+98.93 RT
PARCEL 5 - REVISED R/W STATION -Y3RPD- 1+98 RT
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-1015	19

RW SHEET NO.

ROADWAY DESIGN ENGINEER — SEAL 015869 — T. R. REID

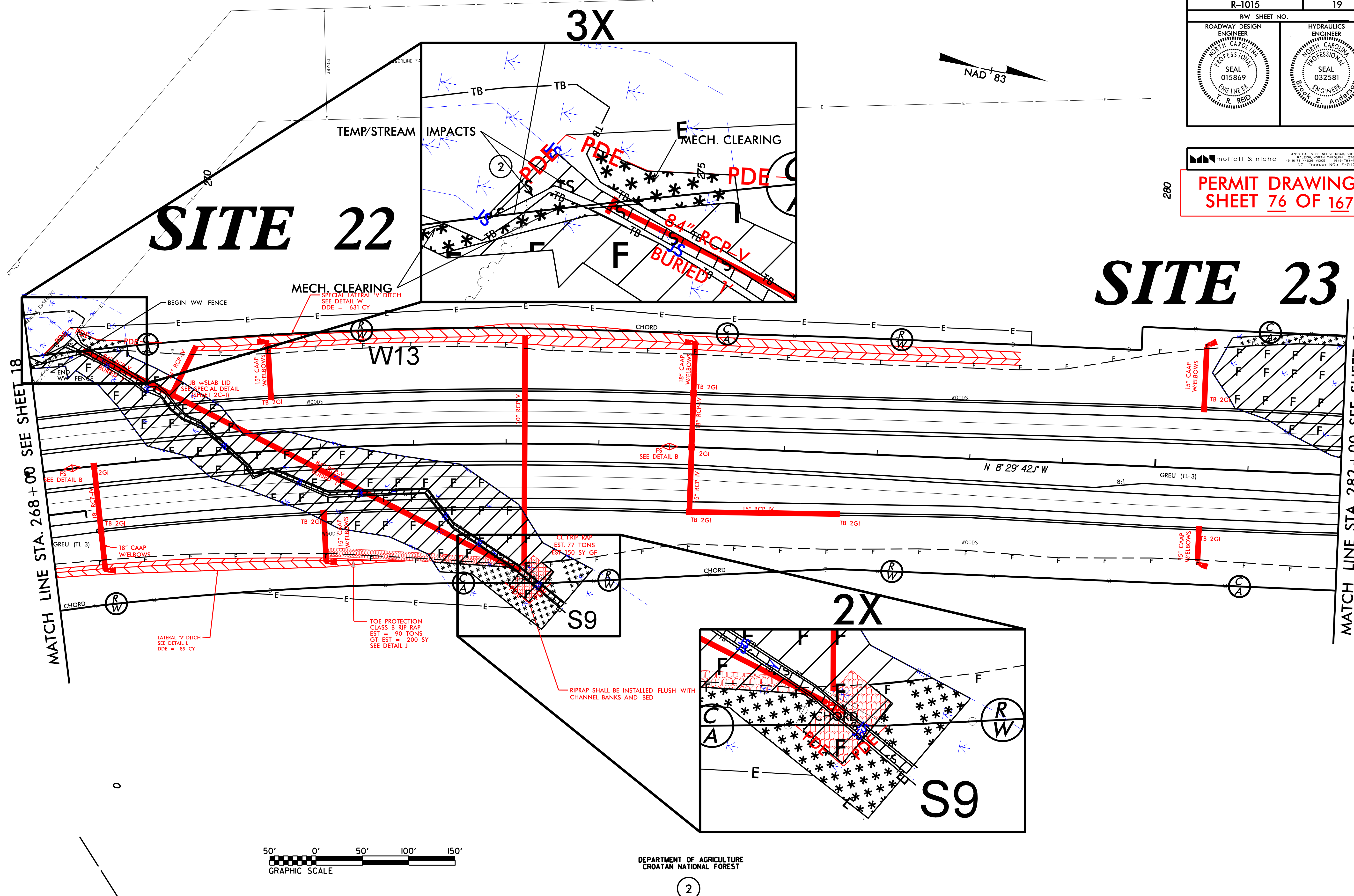
HYDRAULICS ENGINEER — SEAL 032581 — Brook E. Anderson

moffatt & nichol — 4700 FALLS OF NEUSE ROAD, SUITE 300, RALEIGH, NORTH CAROLINA 27609 — NC License No.: F-0105

PERMIT DRAWING
SHEET 76 OF 167

REVISIONS

7/13/2018 - PARCEL 2 - ADDED TCE STATION -L- 270+00 TO 273+85 RT
PARCEL 2 - REVISED PDE STATION -L- 272+99 TO 273+50 RT
PARCEL 2 - ADDED PDE STATION -L- 268+15 TO 269+40 LT
PARCEL 2 - ADDED PDE STATION -L- 268+46 TO 278+61 LT
8/14/2018 - PARCEL 2 - REVISED R/W, TCE AND PDE FROM STATION -Y3RPD- 1+98 TO -L- 273+50 ADDED R/W MONUMENT
-Y3RPD- STATION 0+00 -L- STATION 268+40.75 RT
PARCEL 2 - REVISED MONUMENT TO MATCH STATION AND OFFSET -L- 272+98.83 RT
PARCEL 2 - REVISED PDE -L- STATION 268+13 LT



GRAPHIC SCALE: 50' 0' 50' 100' 150'

DENOTES MECHANIZED CLEARING

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN SURFACE WATER

DENOTES FILL IN WETLAND

SEE SHEET 55 FOR PROFILE -L-
SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

11/15/2018
mgberry
R:\Hydraulics\PERMITS_Environmental\Drawings\Wetland & Stream\r-1015_Hyd_prm_wet_psh19.dgn

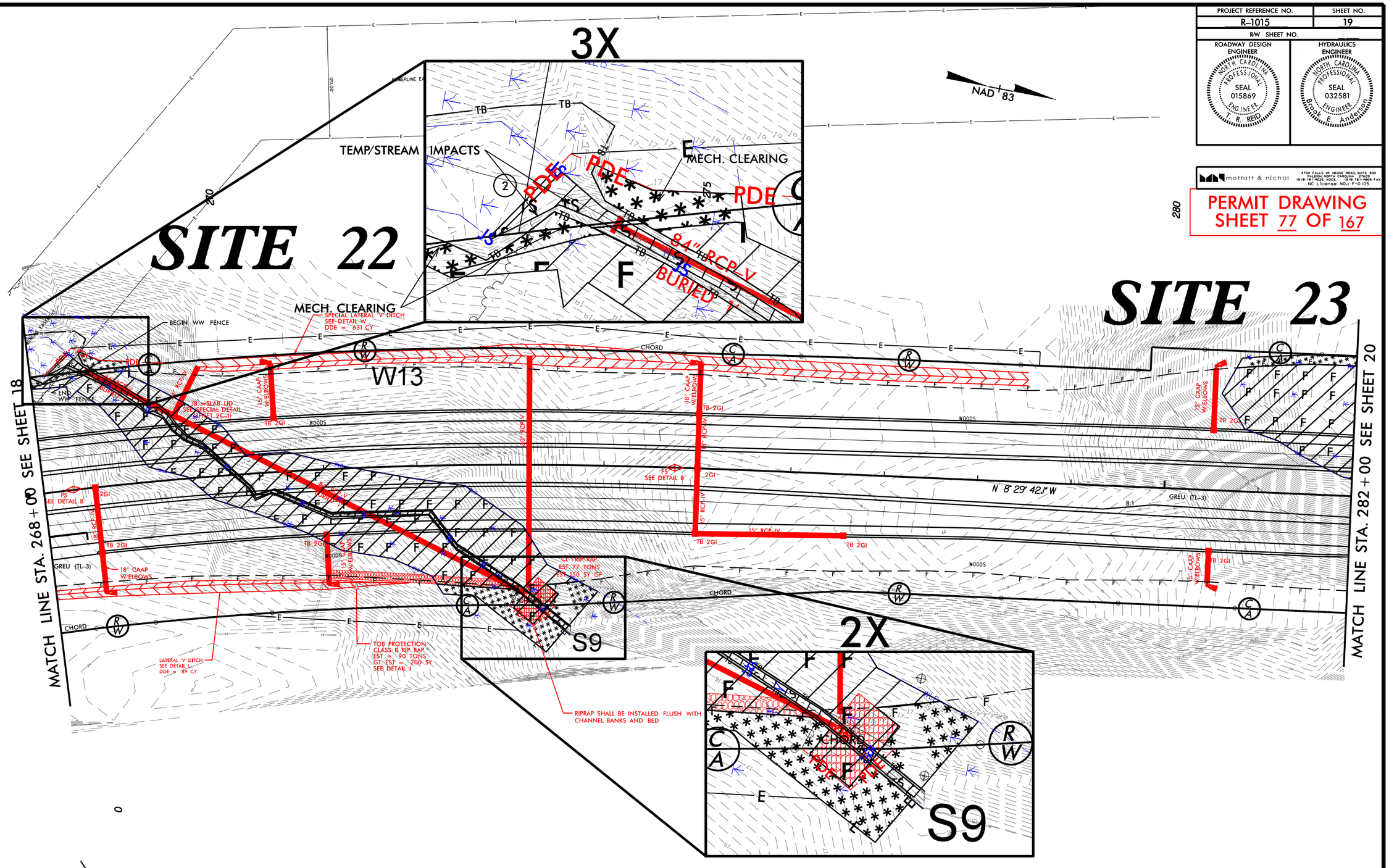
PROJECT REFERENCE NO.	SHEET NO.
R-1015	19
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 015869 ENGINEER T. R. REID

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 032581 ENGINEER Brock E. Anderson

moffatt & nichol — 4700 FALLS OF NEUSE ROAD, SUITE 300, RALEIGH, NORTH CAROLINA 27609 (919) 781-4626 VOICE (919) 781-4869 FAX NC License NO.: F-0105

PERMIT DRAWING SHEET 77 OF 167



DEPARTMENT OF AGRICULTURE
CROATAN NATIONAL FOREST

(2)

DENOTES MECHANIZED CLEARING

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN SURFACE WATER

DENOTES FILL IN WETLAND

SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

REVISIONS

7/13/2018 - PARCEL 2 - ADDED TCE STATION -L- 270+00 TO 273+85 RT
PARCEL 2 - REVISED PDE STATION -L- 270+00 TO 273+50 RT
PARCEL 2 - ADDED PDE STATION -L- 268+15 TO 269+40 LT
PARCEL 2 - ADDED TCE STATION -L- 268+46 TO 278+61 LT

8/14/2018 - PARCEL 2 - REVISED R/W, TCE AND PDE FROM STATION -Y3RPD- 0+98 TO -L- 273+50 ADDED R/W MONUMENT
-Y3RPD- STATION 0+00 -L- STATION 268+40.75 RT
PARCEL 2 - REVISED MONUMENT TO MATCH STATION AND OFFSET -L- 272+98.83 RT
PARCEL 2 - REVISED PDE -L- STATION 268+73 LT

8/17/99

11/15/2018
mgberry
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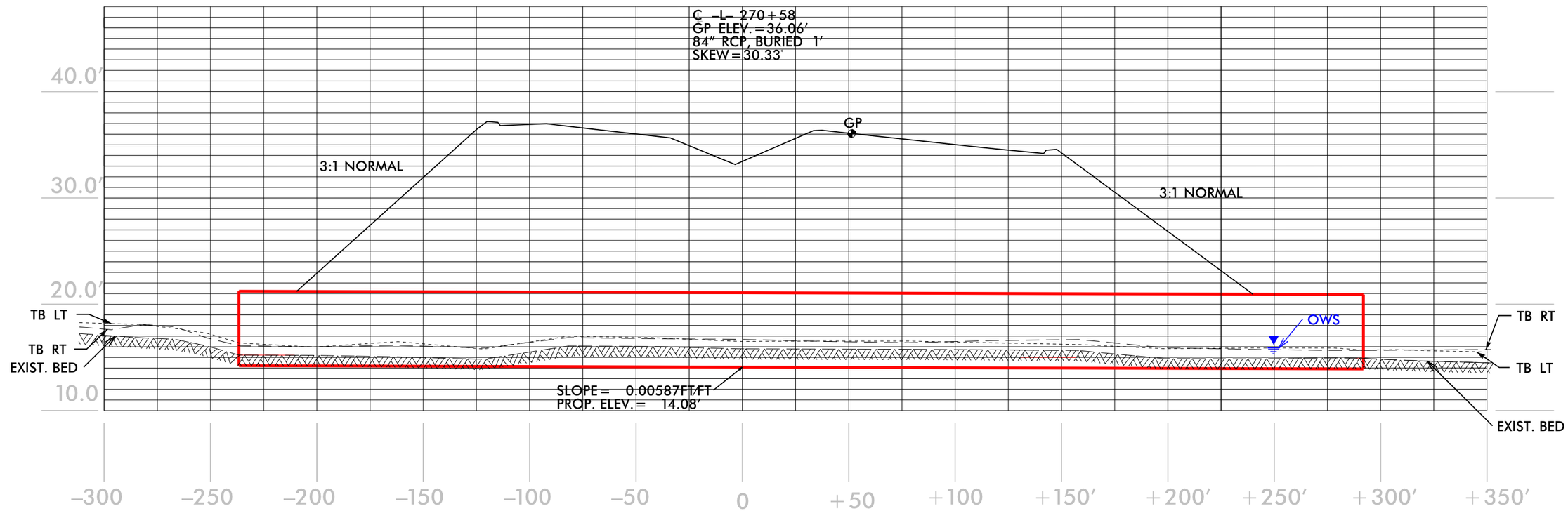


PROFILE

SITE 22

NCDOT
DIVISION OF HIGHWAYS
CRAVEN COUNTY
PROJECT: 34360.1.2 (R-1015)
US 70 (HAVELOCK BYP)
FROM SOUTH OF CARTERET
/CRAVEN COUNTY LINE
TO SOUTH OF SR 1176

SHEET 78 OF 167 **08/01/2018**

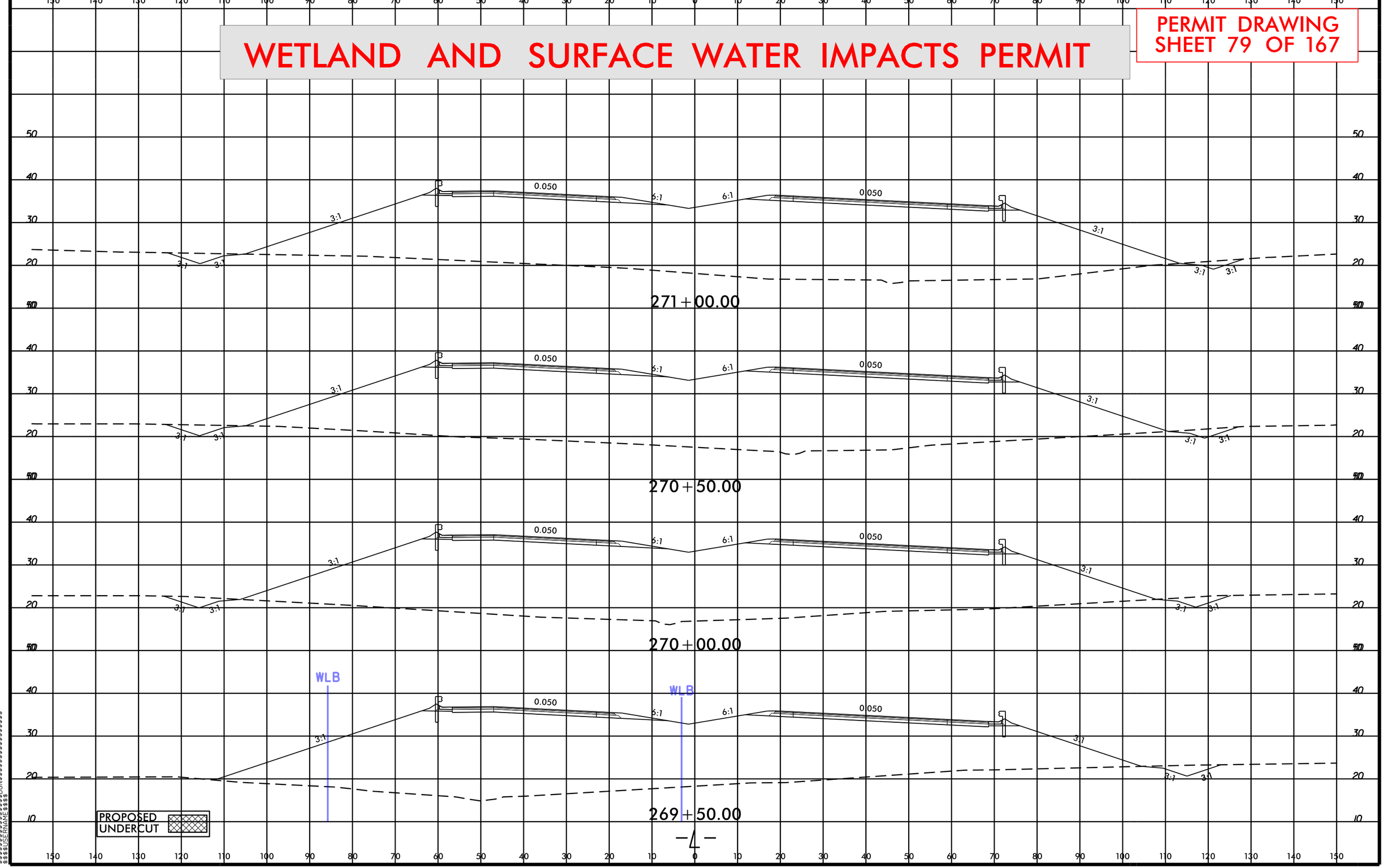
8/1/2018
mgberry
R:\Hydraulics\PERMITS_Environmental\Drawings\Wetland & Stream\R1015_Hyd_prm_wet_site22_profile.dgn

6/23/16

PROJ. REFERENCE NO.	SHEET NO.
R-1015	X-136

WETLAND AND SURFACE WATER IMPACTS PERMIT

PERMIT DRAWING
SHEET 79 OF 167



8/2/2018
mgberry
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$$$$$$$$$$$$$$$$DGNS$$$$$$$$$$$$$$$$$$$$
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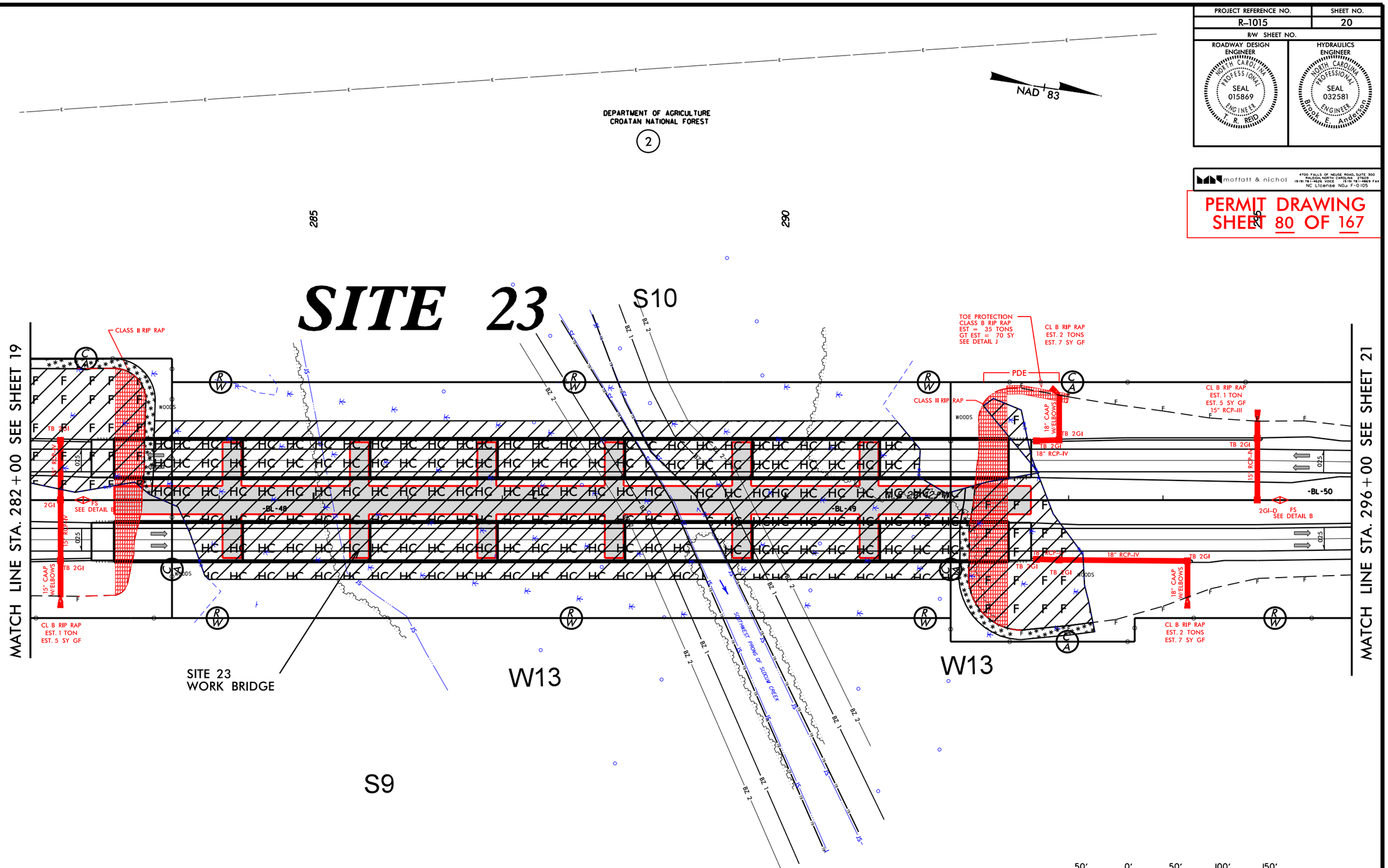
PROJECT REFERENCE NO.	SHEET NO.
R-1015	20
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 015869 ENGINEER T. R. REID

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 032581 ENGINEER Brock E. Anderson

moffatt & nichol
4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4869 FAX
NC License NO.: F-0105

PERMIT DRAWING
SHEET 80 OF 167



F F DENOTES FILL IN WETLAND

HC HC DENOTES HAND CLEARING

TEMP. WORK BRIDGE

DENOTES MECHANIZED CLEARING

DEPARTMENT OF AGRICULTURE
CROATAN NATIONAL FOREST
2

SEE SHEETS 59 FOR PROFILE -L-
SEE SHEET 2B-8 SKETCH 6 FOR PROPOSED BRIDGE SKETCH
SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

REVISIONS
7/13/2018 - PARCEL 2 - REMOVED TOE STATION -L- 292+10 TO 292+65 RT

8/17/99

11/15/2018
mgberry
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PROJECT REFERENCE NO.	SHEET NO.
R-1015	20
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 015869 ENGINEER T. R. REID

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 032581 ENGINEER Brock E. Anderson

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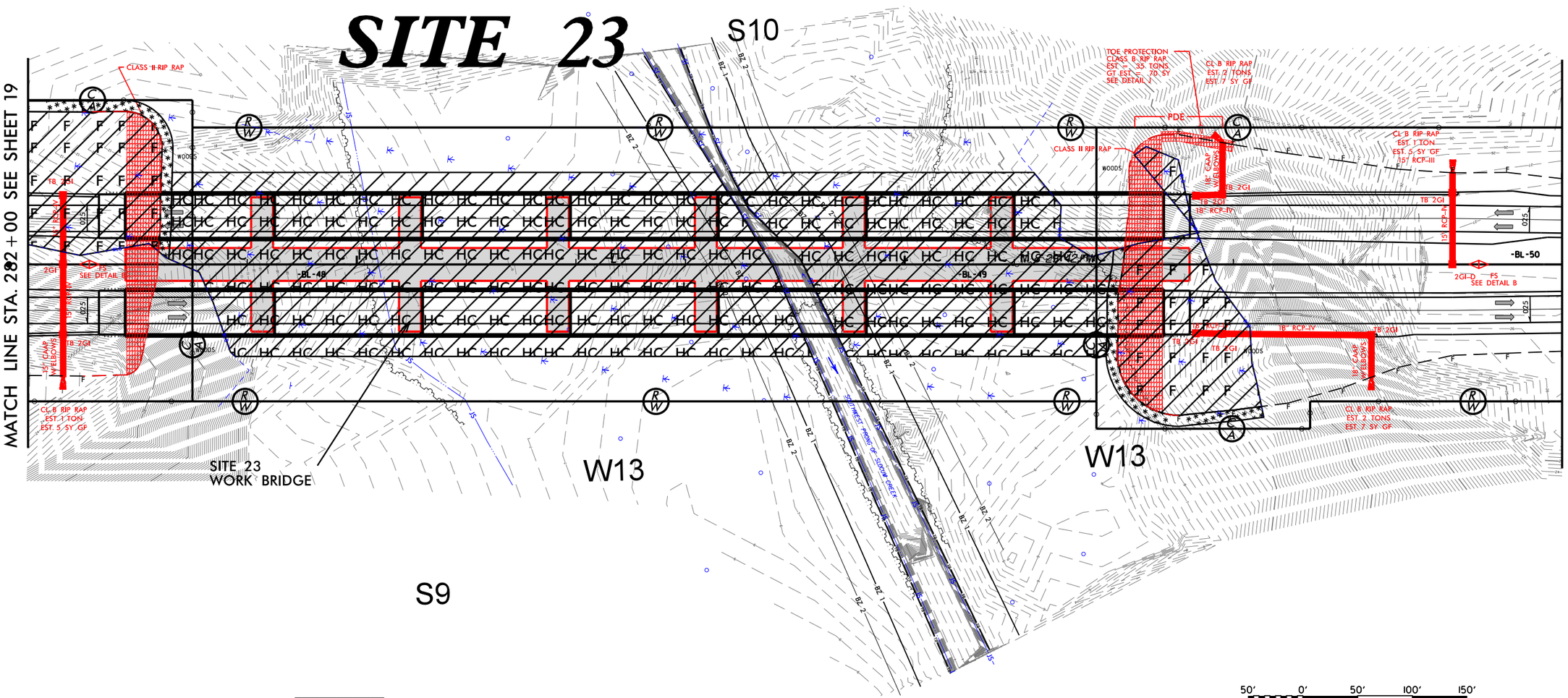
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4869 FAX
NC License NO.: F-0105

PERMIT DRAWING
SHEET 81 OF 167

SITE 23



F F DENOTES FILL IN WETLAND

HC HC DENOTES HAND CLEARING

TEMP. WORK BRIDGE

DENOTES MECHANIZED CLEARING

DEPARTMENT OF AGRICULTURE
CROATAN NATIONAL FOREST
2

50' 0' 50' 100' 150'
GRAPHIC SCALE

SEE SHEETS 59 FOR PROFILE -L-
SEE SHEET 2B-8 SKETCH 6 FOR PROPOSED BRIDGE SKETCH
SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

REVISIONS
7/13/2018 - PARCEL 2 - REMOVED TOE STATION -L- 292+10 TO 292+65 RT

8/17/99

11/15/2018
mgberry
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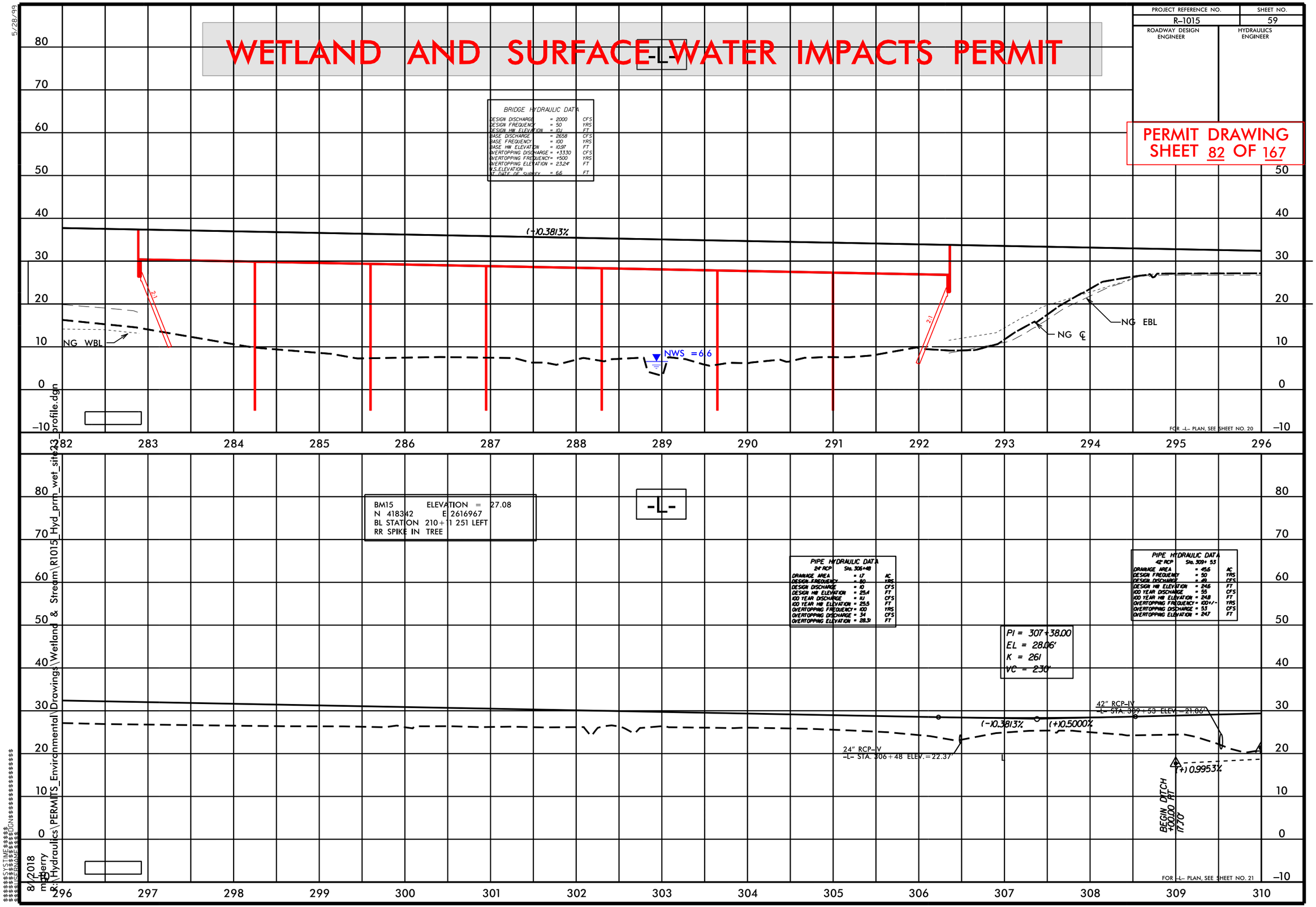
WETLAND AND SURFACE WATER IMPACTS PERMIT

PROJECT REFERENCE NO.	SHEET NO.
R-1015	59
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

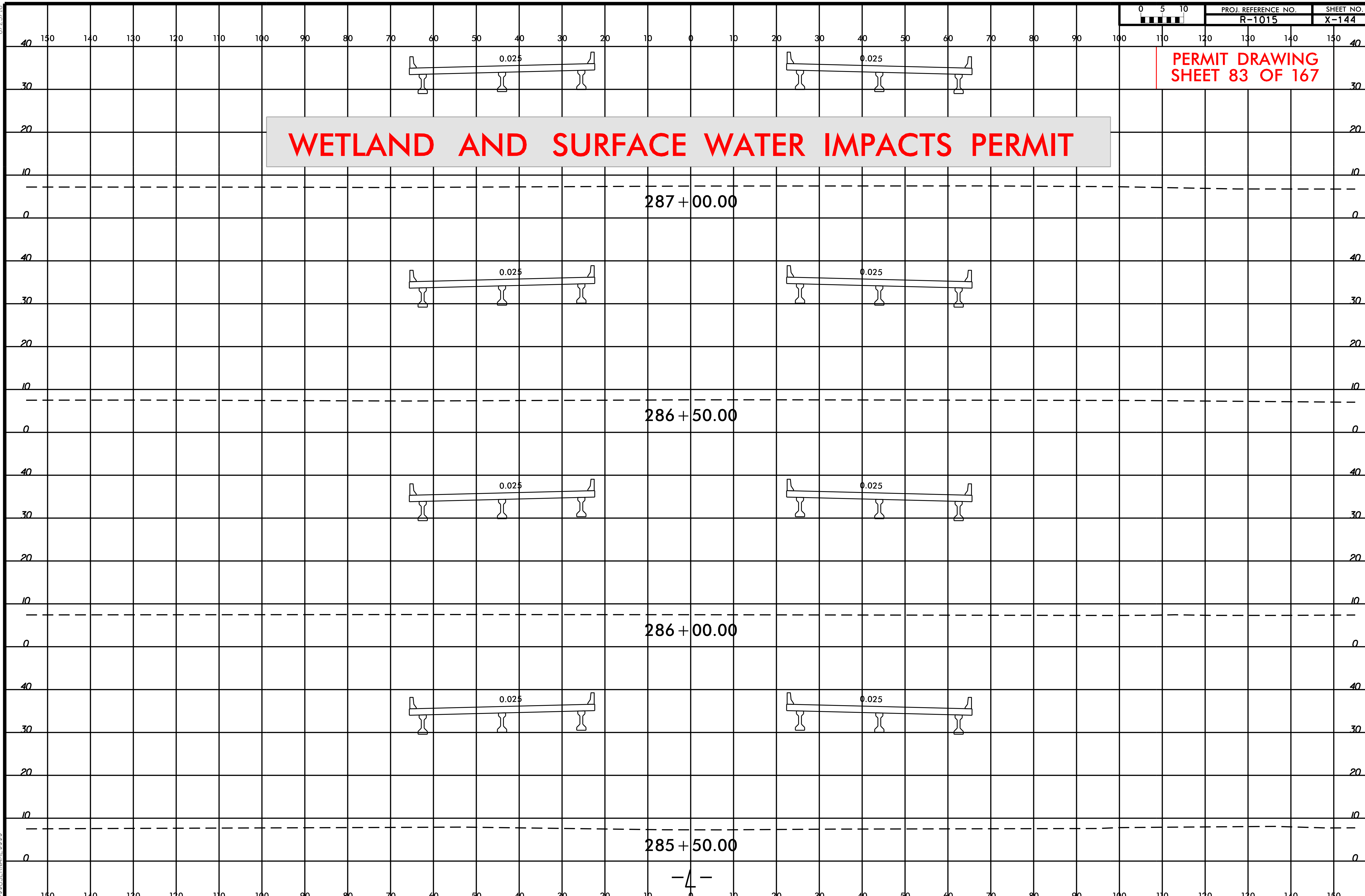
PERMIT DRAWING
SHEET 82 OF 167



PROJ. REFERENCE NO.	SHEET NO.
R-1015	X-144

PERMIT DRAWING
SHEET 83 OF 167

WETLAND AND SURFACE WATER IMPACTS PERMIT



PROJECT REFERENCE NO.	SHEET NO.
R-1015	21
R/W SHEET NO.	

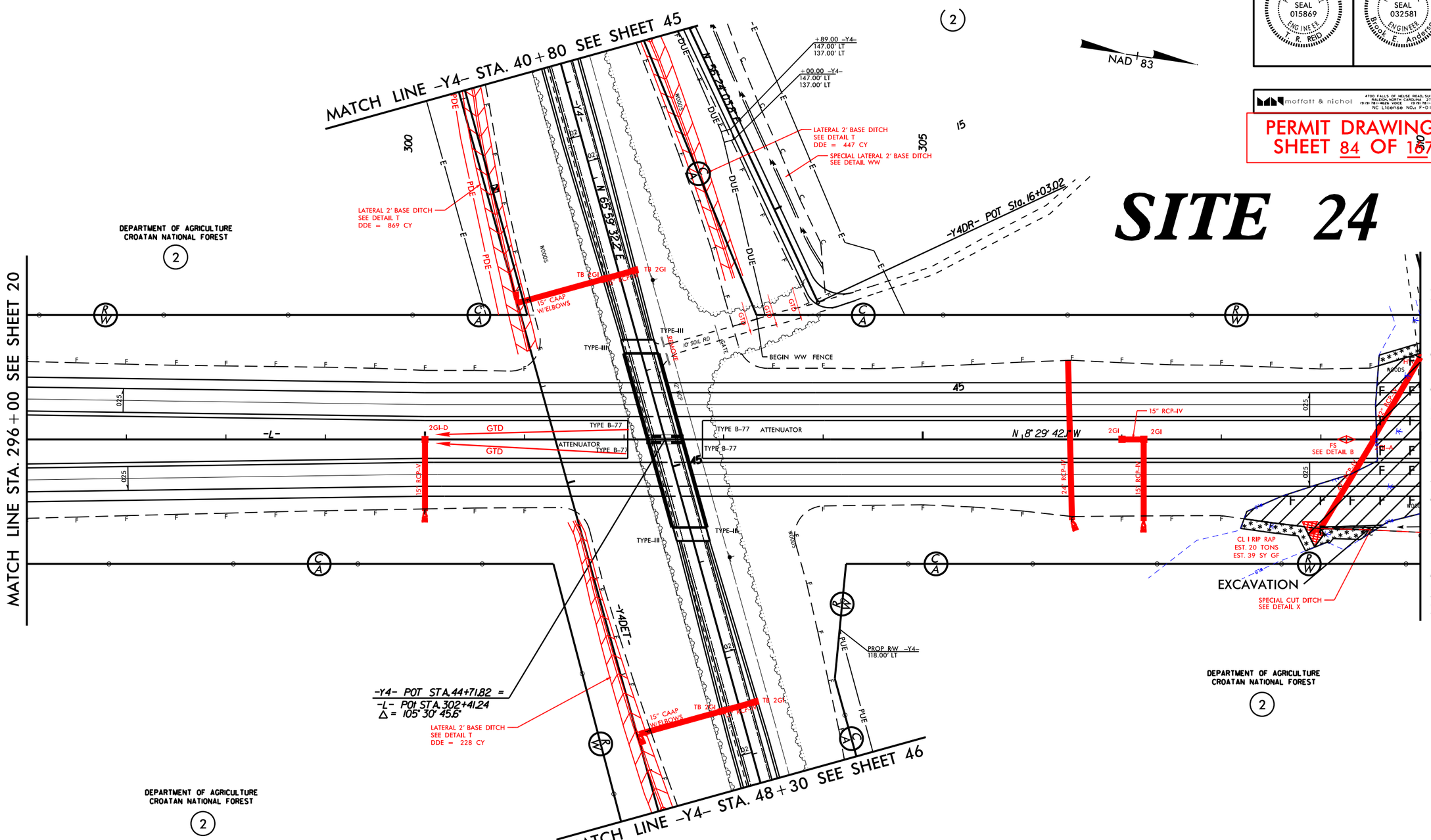
ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 015869 ENGINEER T. R. REID

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 032581 ENGINEER Brock E. Anderson

moffatt & nichol
4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4869 FAX
NC License NO.: F-0105

PERMIT DRAWING
SHEET 84 OF 107

SITE 24



SEE SHEET 59 FOR PROFILE -L-
SEE SHEET 83 FOR PROFILE -Y4-
SEE SHEET 90 FOR PROFILE -Y4DR-
SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

REVISIONS

7/13/2018 - PARCEL 2 - REMOVED PDE STATION -Y4- 41+19 TO 48+70 LT
PARCEL 2 - CHANGED PDE TO DUE STATION -Y4- 40+80 TO 41+16 LT
PARCEL 2 - CHANGED PDE STATION -L- 300+00 TO 303+33 LT
PARCEL 2 - ADDED PDE STATION -Y4- 41+16 LT TO -L- 303+33 LT
PARCEL 2 - REVISED TCE STATION -Y4- 40+80 TO 43+00 RT
PARCEL 2 - ADDED PDE STATION -Y4- 40+80 RT TO -L- 300+74 LT

10/29/2018 - PARCEL 2 - REVISED DUE AND PDE STATION -Y4- 41+16 LT
PARCEL 2 - REVISED PDE -Y4- STA LT 40+80 TO STA 43+76 AND -Y4- STA 47+45 TO STA 48+30
TIED PDE TO PROP R/W -Y4- STA 47+02.34 LT

8/17/99

11/15/2018
mgberry
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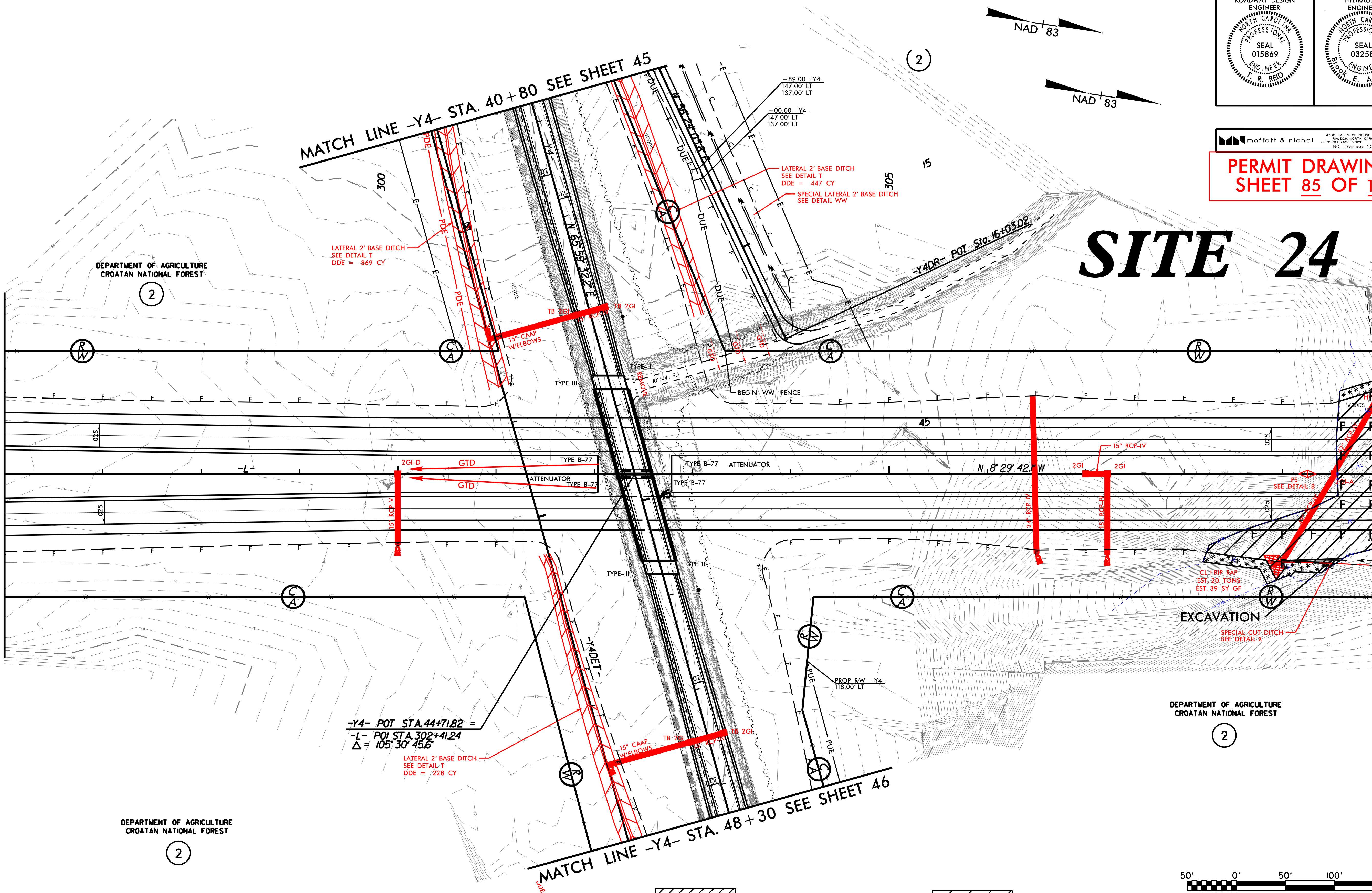
PROJECT REFERENCE NO.	SHEET NO.
R-1015	21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

moffatt & nichol

PERMIT DRAWING SHEET 85 OF 167

SITE 24



E / E	DENOTES EXCAVATION IN WETLAND
F / F	DENOTES FILL IN WETLAND
* *	DENOTES MECHANIZED CLEARING

50' 0' 50' 100' 150'
GRAPHIC SCALE

SEE SHEET 59 FOR PROFILE -L-
SEE SHEET 83 FOR PROFILE -Y4-
SEE SHEET 90 FOR PROFILE -Y4DR-
SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

REVISIONS

7/13/2018 - PARCEL 2- REMOVED PDE STATION -Y4- 47+49 TO 48+70 LT
PARCEL 2 - CHANGED PUE TO DUE STATION -Y4- 40+80 TO 41+16 LT
PARCEL 2 - REVISED TCE STATION -Y4- 40+80 LT TO -L- 304+82 LT
PARCEL 2 - ADDED PDE STATION -Y4- 41+16 LT TO -L- 303+33 LT
PARCEL 2 - REVISED TCE STATION -Y4- 40+80 TO 43+00 RT
PARCEL 2 - ADDED PDE STATION -Y4- 40+80 RT TO -L- 300+74 LT
8/14/2018 - PARCEL 2 - REVISED DUE AND PDE STATION -Y4- 41+16 LT
10/29/2018 - PARCEL 2 - REVISED PUE -Y4- STA LT 40+80 TO STA 43+78 AND -Y4- STA 47+04.51 TO -Y4- STA 48+30
TIED PUE TO PROP R/W -Y4- STA 47+02.34 LT

8/17/99

11/5/2018
mgberry
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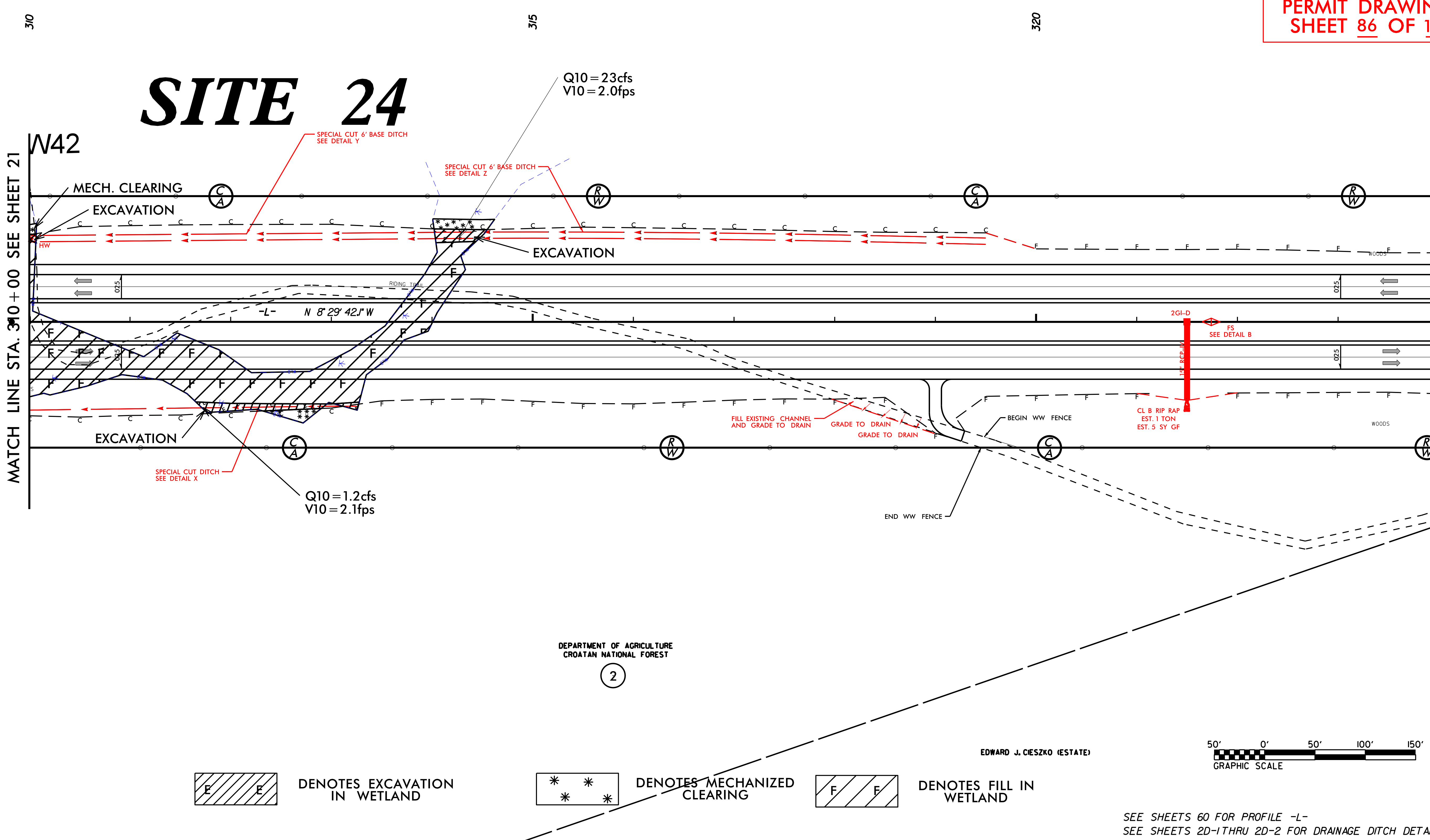
PROJECT REFERENCE NO.	SHEET NO.
R-1015	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 015869 ENGINEER T. R. REID	NORTH CAROLINA PROFESSIONAL SEAL 032581 ENGINEER Brook E. Anderson

moffatt & nichol
4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4869 FAX
NC License NO.: F-0105

PERMIT DRAWING
SHEET 86 OF 167

SITE 24



DENOTES EXCAVATION IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES FILL IN WETLAND

50' 0' 50' 100' 150'
GRAPHIC SCALE

SEE SHEETS 60 FOR PROFILE -L-
SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

REVISIONS

8/17/99

11/15/2018
mgberry
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$$$$USERNAME$$$$
$$$$DGN$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-1015	22
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 015869 ENGINEER T. R. REID

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 032581 ENGINEER Brock E. Anderson

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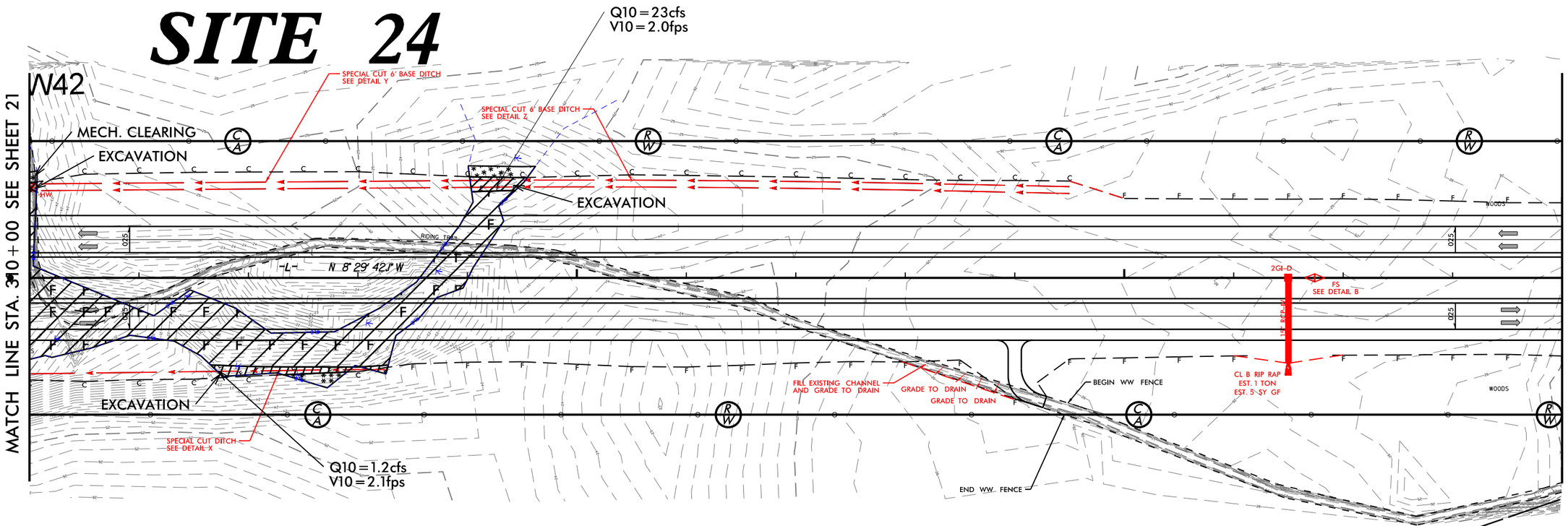
NC License NO.: F-0105

PERMIT DRAWING
SHEET 87 OF 167

SITE 24



DENOTES EXCAVATION IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES FILL IN WETLAND

SEE SHEETS 60 FOR PROFILE -L-
SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

REVISIONS

8/17/99

11/15/2018
mgberry
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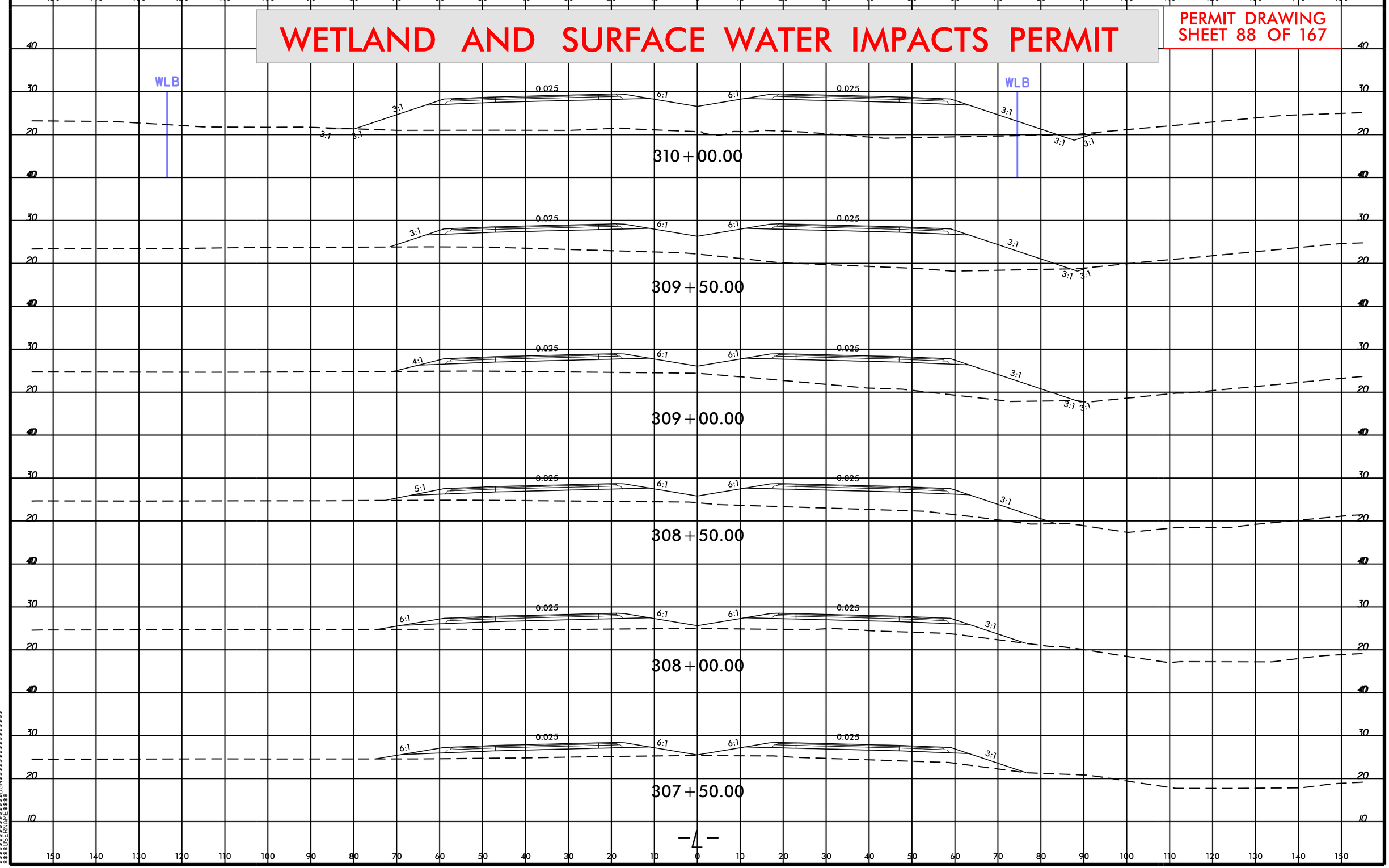
PROJ. REFERENCE NO.	SHEET NO.
R-1015	X-153

WETLAND AND SURFACE WATER IMPACTS PERMIT

PERMIT DRAWING
SHEET 88 OF 167



6/23/16
8/2/2018
mgberry
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PROJECT REFERENCE NO.	SHEET NO.
R-1015	23
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 015869 ENGINEER T. R. REID

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 032581 ENGINEER Brock E. Anderson

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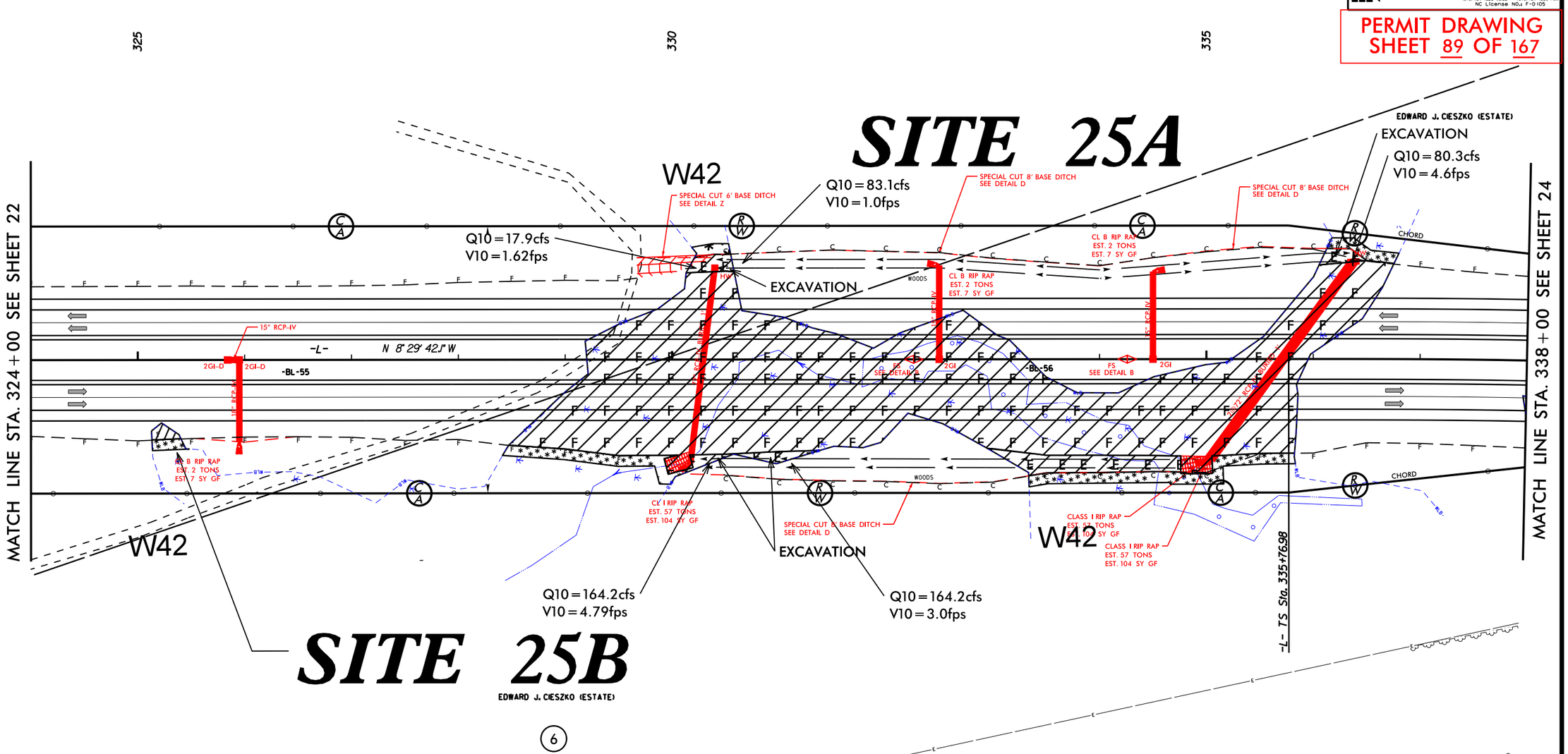
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4869 FAX
NC License No. F-0105

PERMIT DRAWING
SHEET 89 OF 167



DENOTES EXCAVATION IN WETLAND

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

50' 0' 50' 100' 150'
GRAPHIC SCALE

SEE SHEET 60 FOR PROFILE -L-
SEE SHEET 59 FOR PROFILE -L-
SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

REVISIONS
7/13/2018 - PARCEL 6 - ELIMINATED PDE STATION -L- 329+85 TO 335+46 RT

8/17/99

11/15/2018
mgberry
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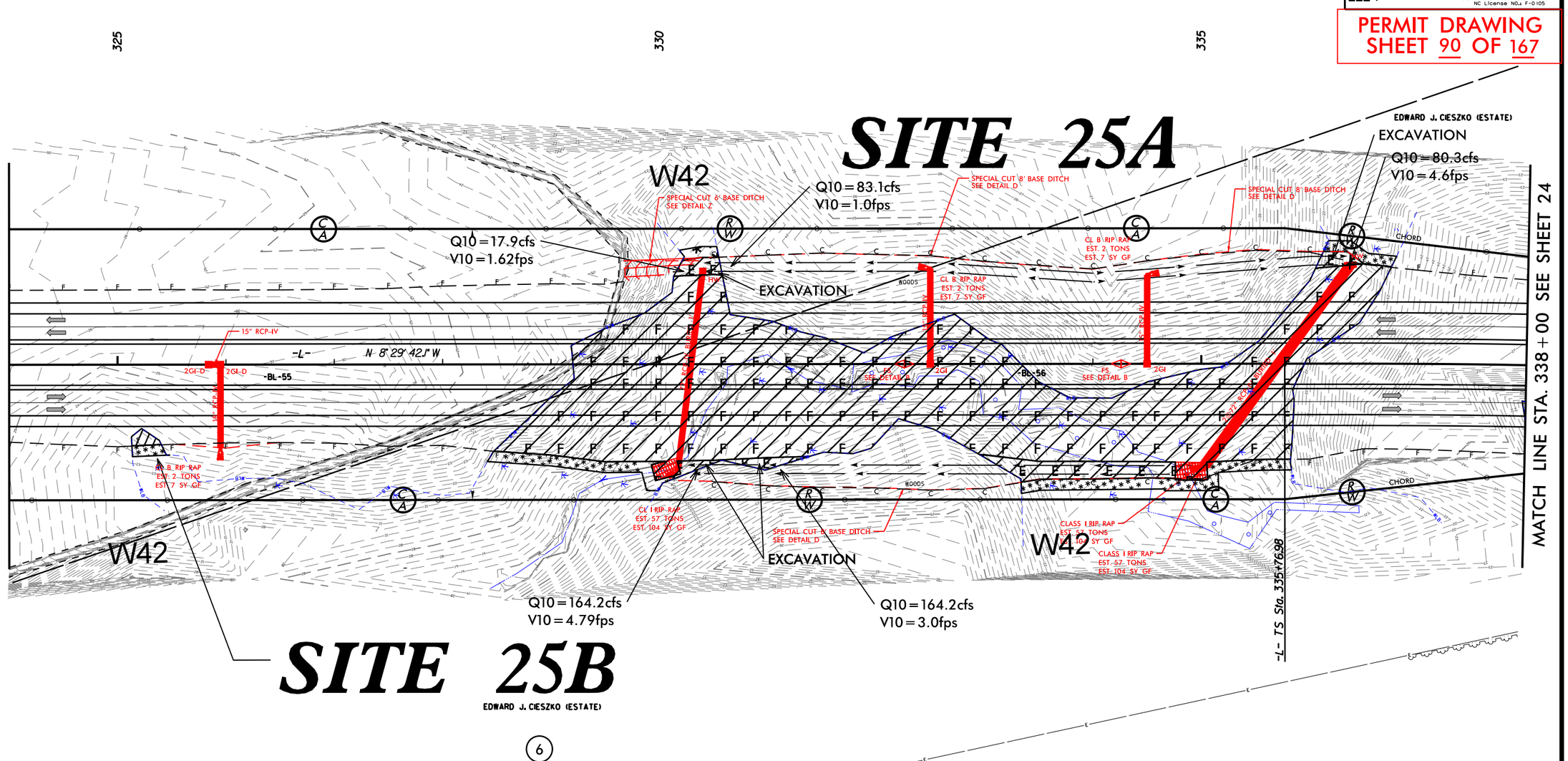
PROJECT REFERENCE NO.	SHEET NO.
R-1015	23
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 015869 ENGINEER T. R. REID

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 032581 ENGINEER Brock E. Anderson

moffatt & nichol
4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4869 FAX
NC License NO.: F-0105

PERMIT DRAWING
SHEET 90 OF 167



DENOTES EXCAVATION IN WETLAND

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

50' 0' 50' 100' 150'
GRAPHIC SCALE

SEE SHEET 60 FOR PROFILE -L-
SEE SHEET 59 FOR PROFILE -L-
SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

REVISIONS
7/13/2018 - PARCEL 6 - ELIMINATED PDE STATION -L- 329+85 TO 335+46 RT

8/17/99

11/15/2018
mgberry
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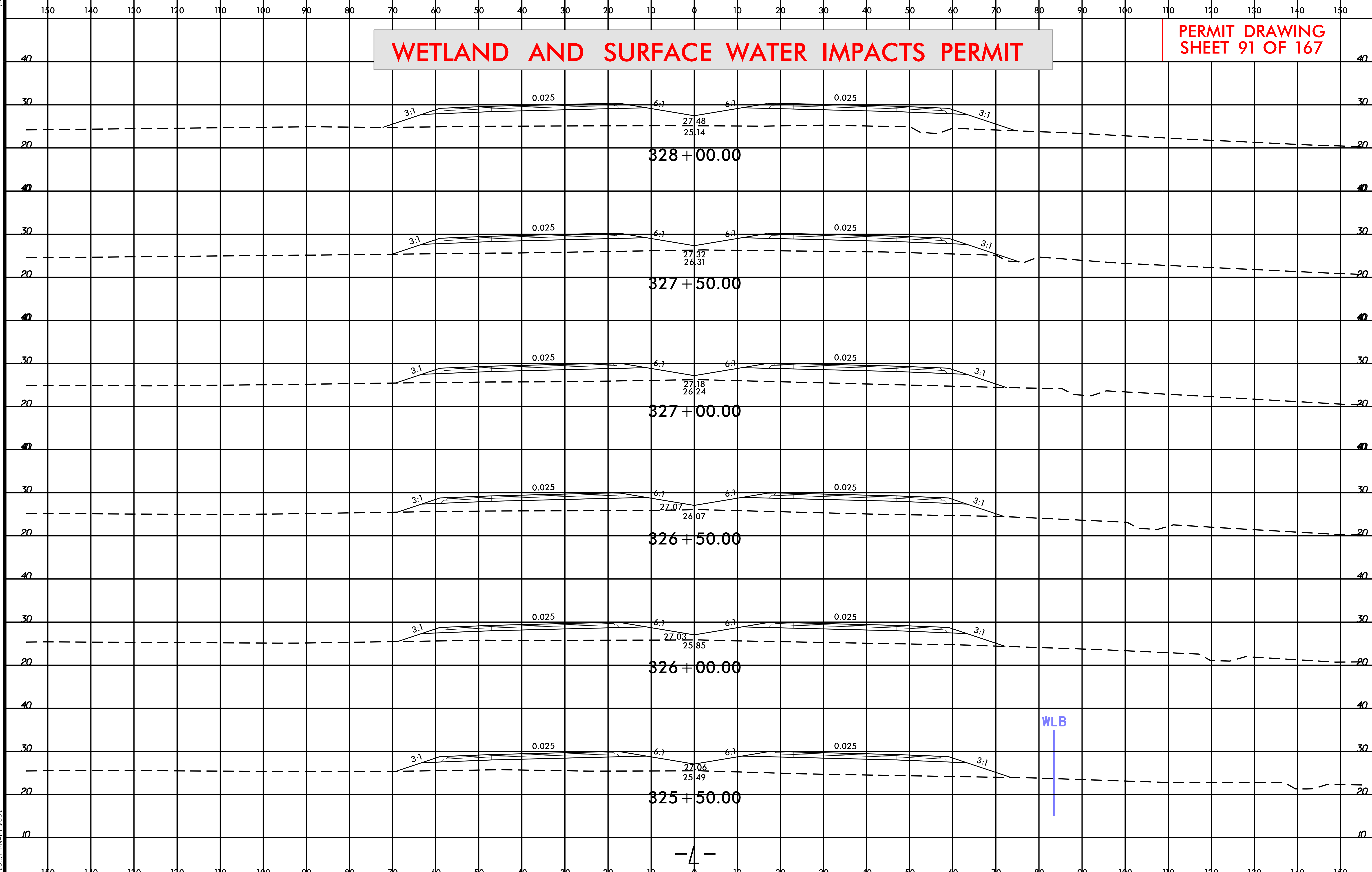
PROJ. REFERENCE NO.	SHEET NO.
R-1015	X-159

WETLAND AND SURFACE WATER IMPACTS PERMIT

PERMIT DRAWING
SHEET 91 OF 167



-4-

6/23/16
8/2/2018
mgberry
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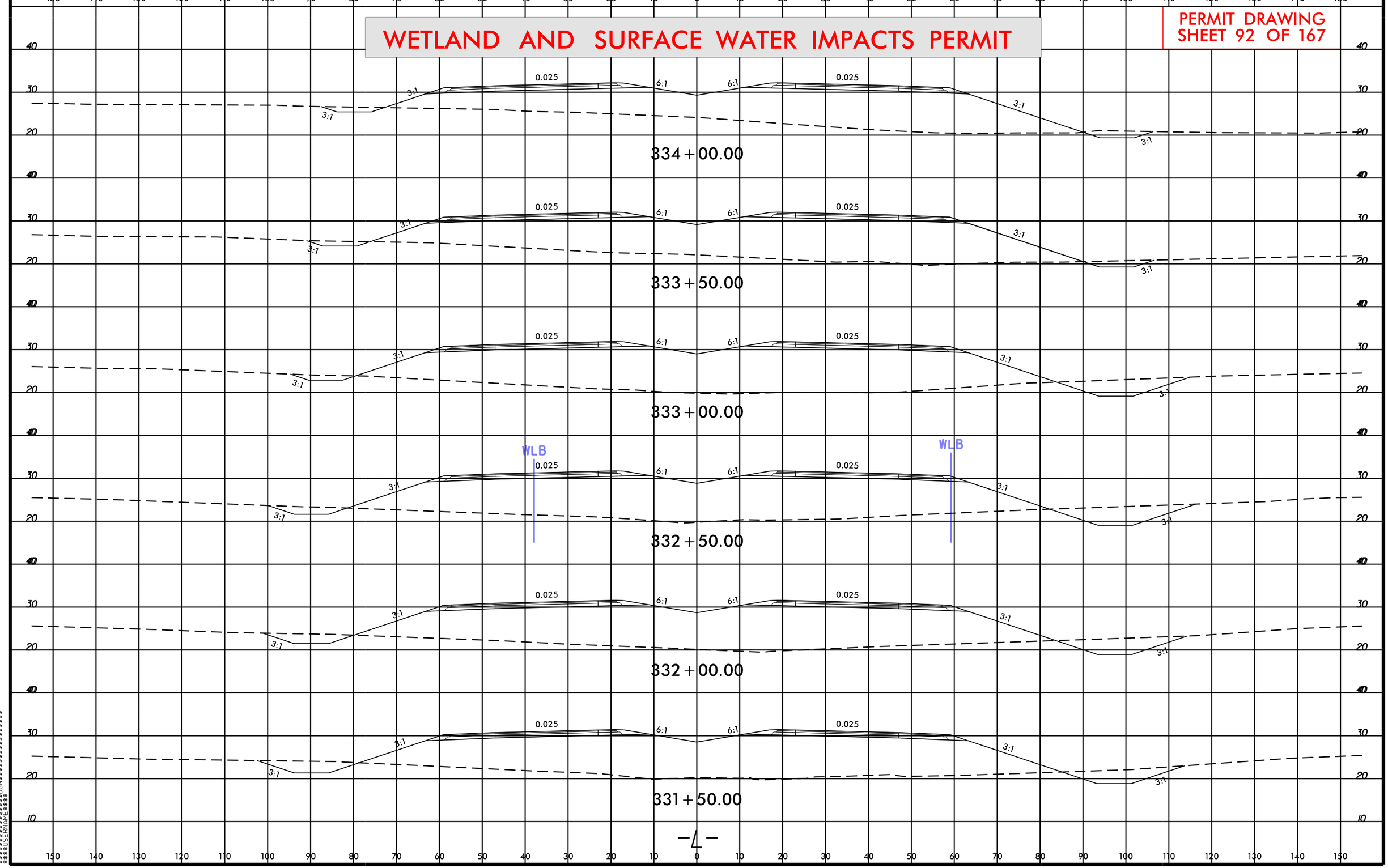
$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-1015	X-161

WETLAND AND SURFACE WATER IMPACTS PERMIT

PERMIT DRAWING
SHEET 92 OF 167



8/2/2018
mgberry
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$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

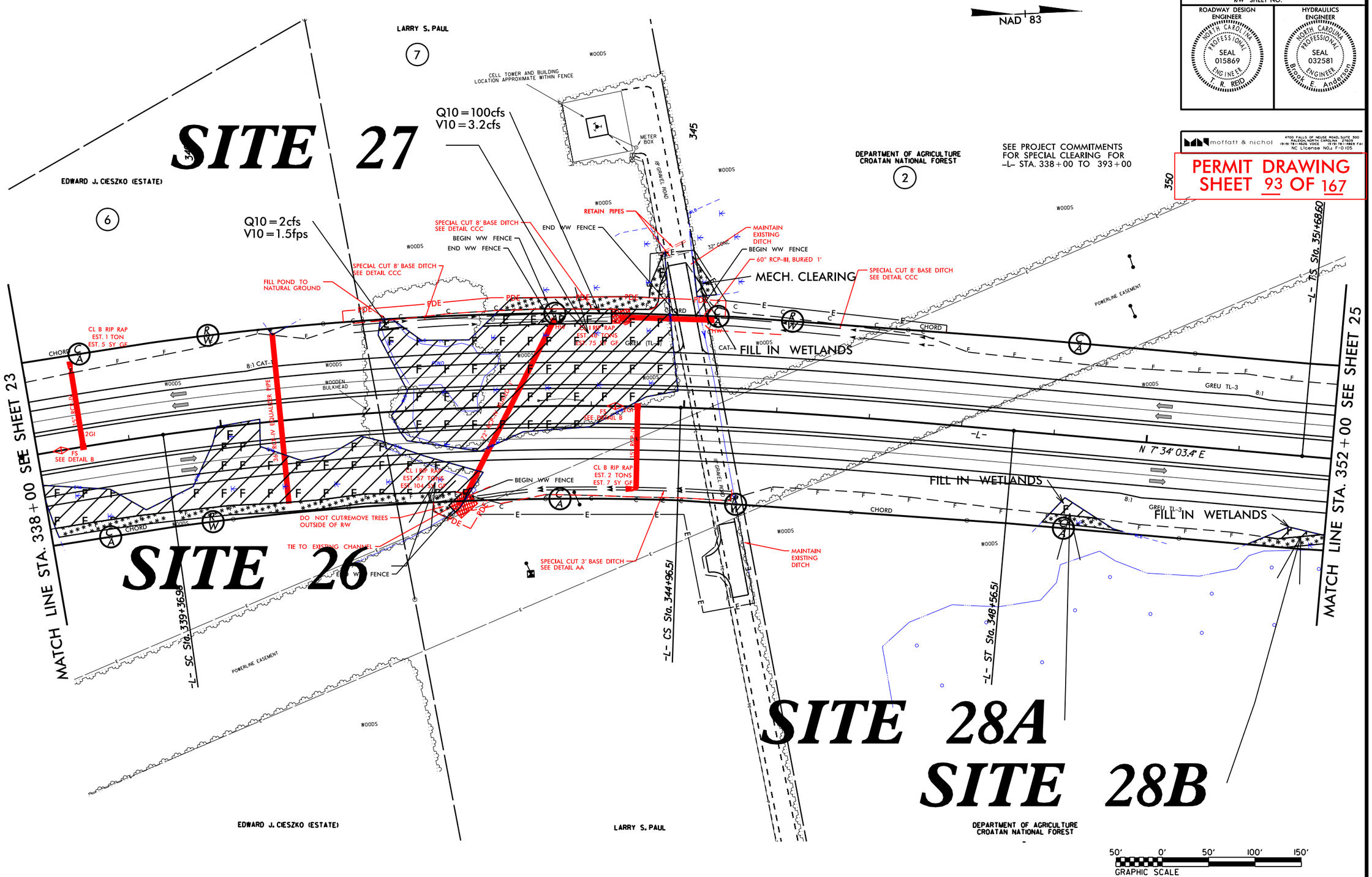
PROJECT REFERENCE NO.	SHEET NO.
R-1015	24
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 015869 ENGINEER T. R. REID

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 032581 ENGINEER Brock E. Anderson

moffatt & nichol — 4700 FALLS OF NEUSE ROAD, SUITE 300, RALEIGH, NORTH CAROLINA 27609 (919) 781-4626 VOICE (919) 781-4869 FAX NC License NO. F-0105

PERMIT DRAWING SHEET 93 OF 167



E E DENOTES EXCAVATION IN WETLAND

DENOTES MECHANIZED CLEARING

F F DENOTES FILL IN WETLAND

SEE SHEETS 61 FOR PROFILE -L-

SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

11/15/2018
mgberry
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8/17/99

REVISIONS

$$$$$SYSTIME$$$$$
$$$$$USERNAME$$$$$ $$$$$DGN$$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-1015	24
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 015869 ENGINEER T. R. REID

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 032581 ENGINEER Brock E. Anderson

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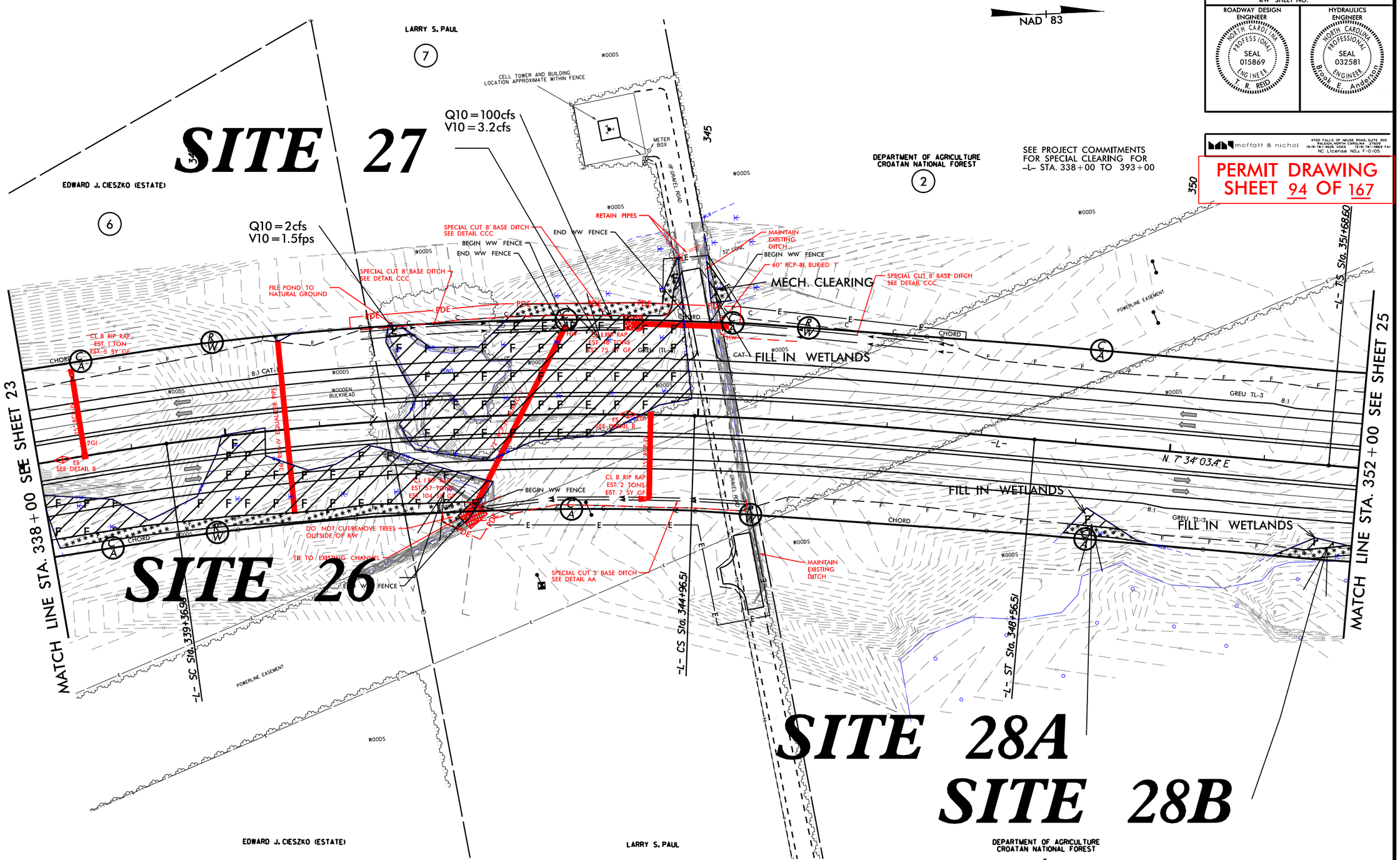
PERMIT DRAWING SHEET 94 OF 167



E E DENOTES EXCAVATION IN WETLAND

* * DENOTES MECHANIZED CLEARING

F F DENOTES FILL IN WETLAND

SEE SHEETS 61 FOR PROFILE -L-

SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

11/15/2018
mgberry
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8/17/99

REVISIONS

$$$$$SYSTIME$$$$$
$$$$$DGNS$$$$$
$$$$$USERNAME$$$$$