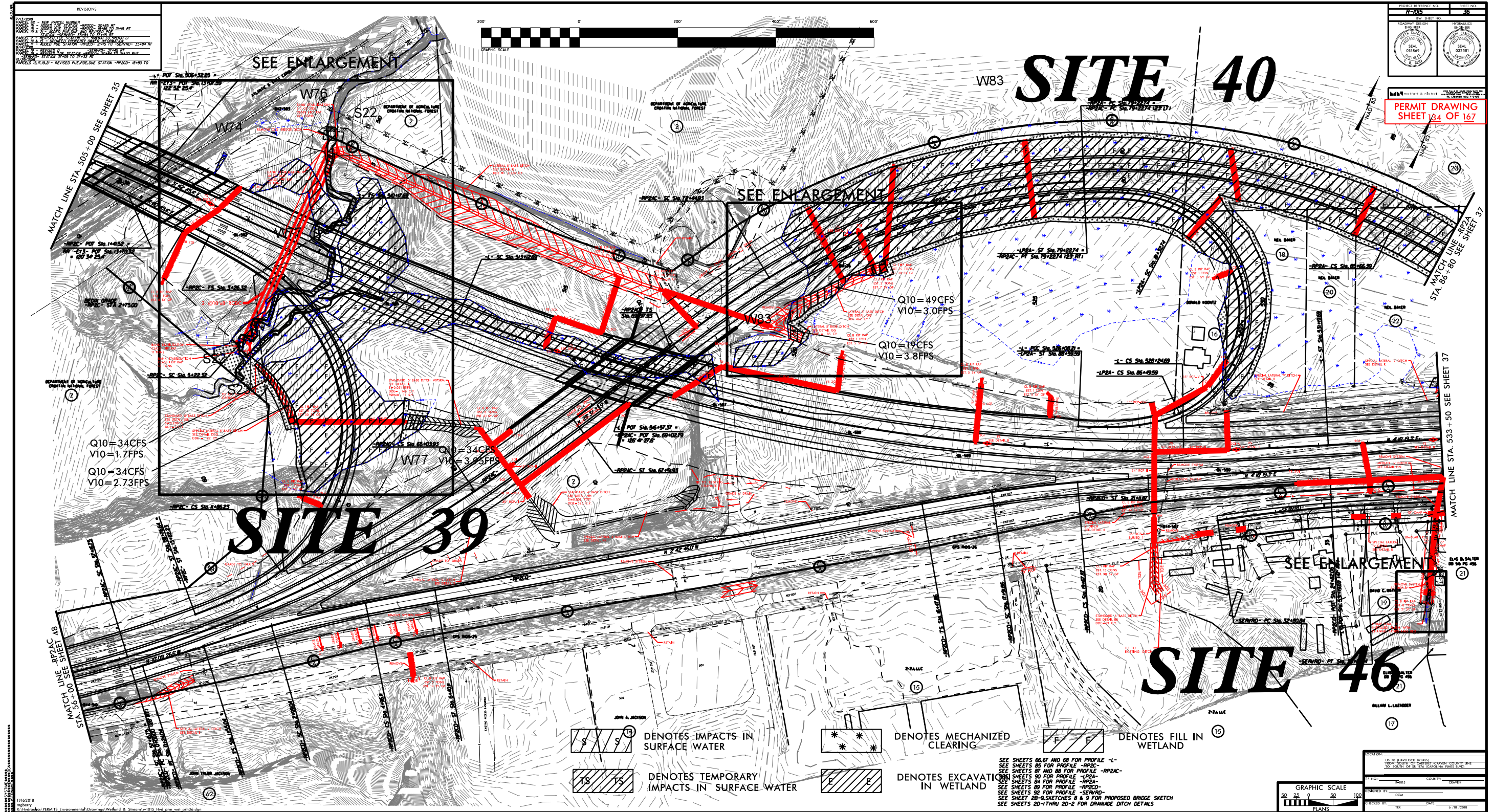




Q10 = 34 CFS
V10 = 3.95 FPS

A rectangular block with diagonal hatching (lines from top-left to bottom-right). Inside the block, there are two 'S' symbols, one on the left and one on the right.

TS TS

A diagram showing a rectangular domain with diagonal lines. The domain is divided into three regions by two parallel diagonal lines. The two outer regions are labeled 'F'.

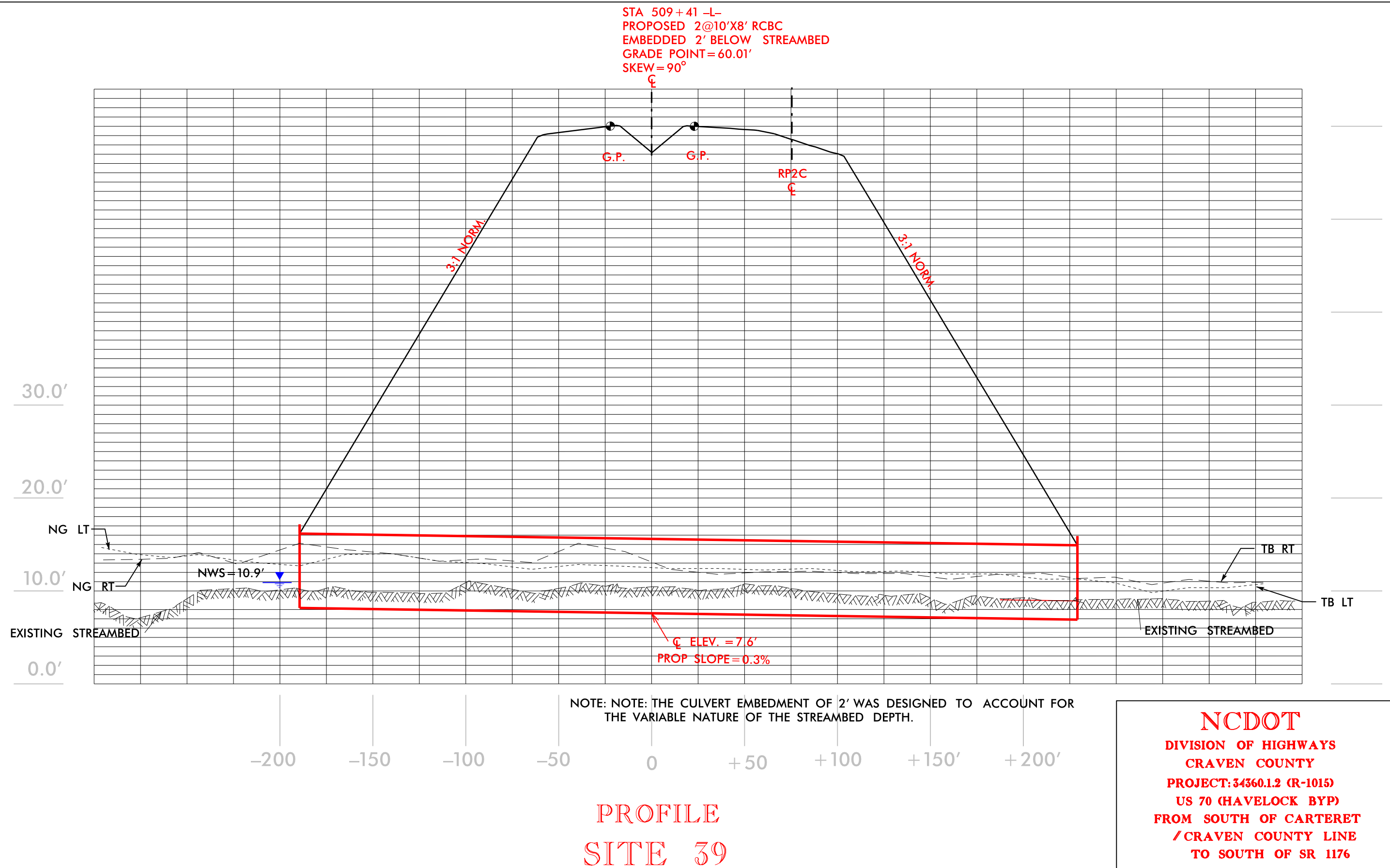
A rectangular block with diagonal hatching (lines from top-left to bottom-right). The letter 'E' is written in the center of the block.

H. CLEARING

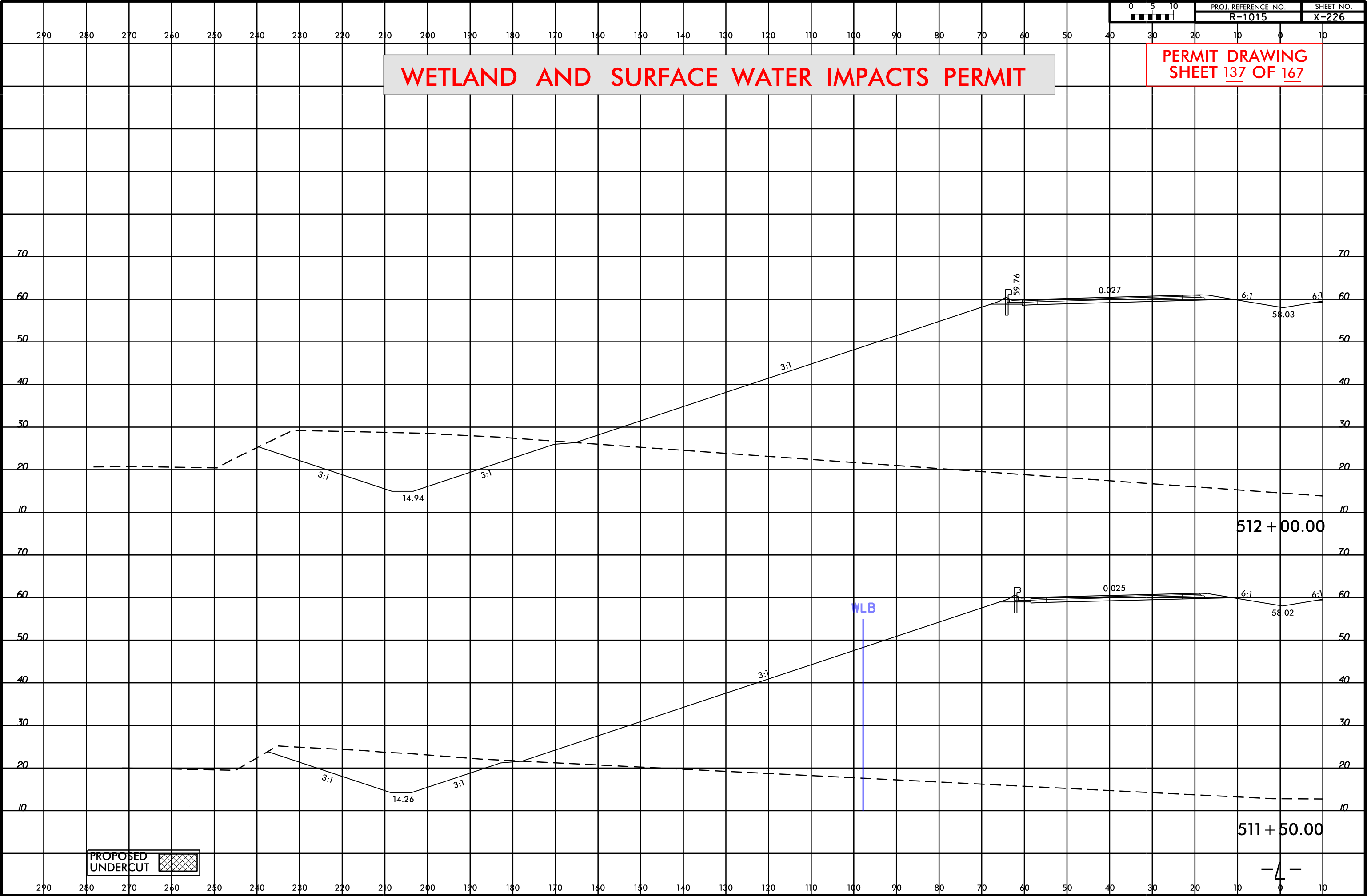
Q10=19CFS
V10=3.8FPS

50' 0' 50' 100' 150'

GRAPHIC SCALE



6/23/16
5/22/18
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\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$SYSDON\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$



WETLAND AND SURFACE WATER IMPACTS PERMIT

PERMIT DRAWING
SHEET 137 OF 167

PROPOSED
UNDERCUT

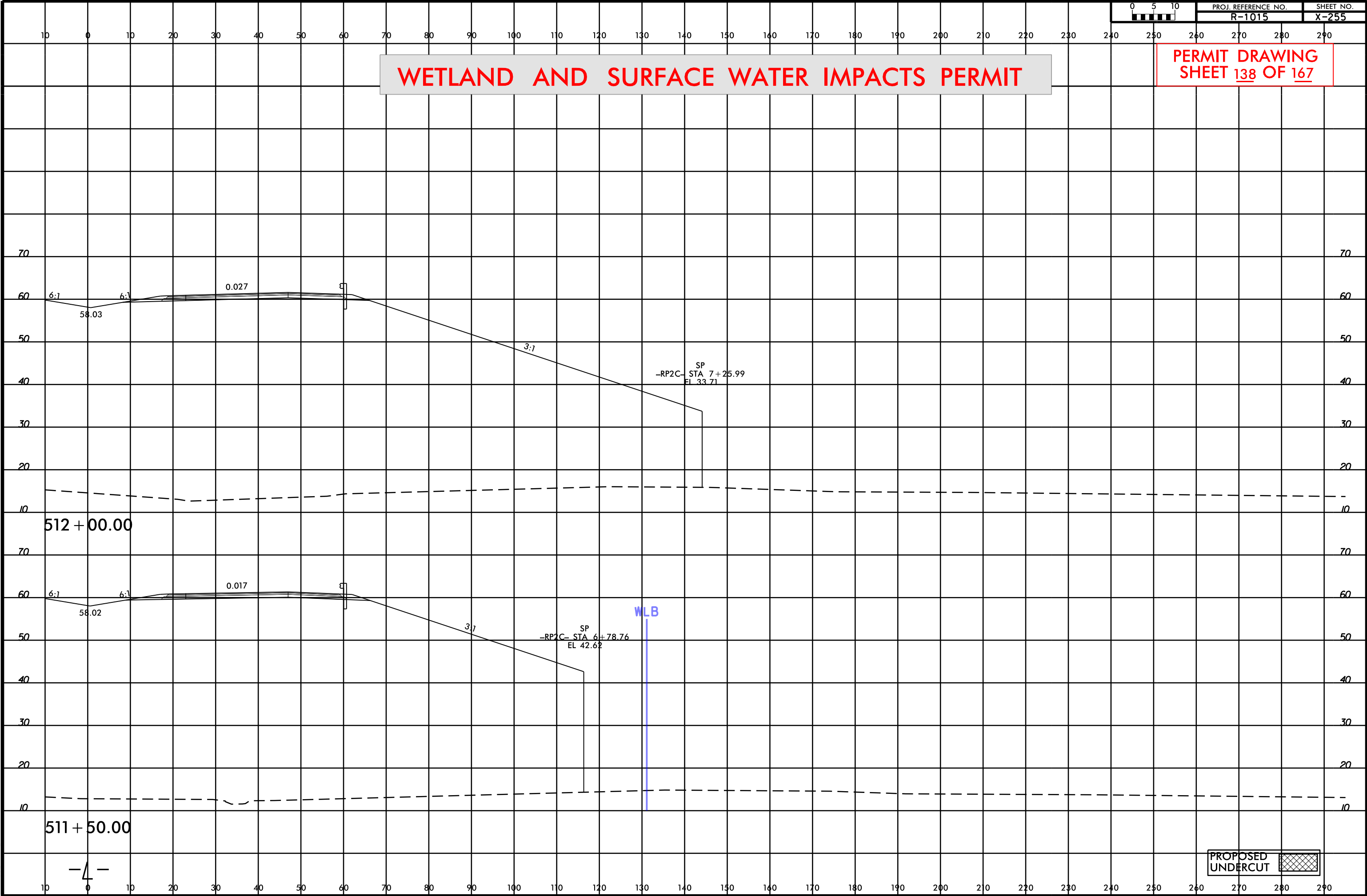
6/23/16
9/2/2018
R:\Hydraulics\PERMITS Environmental Drawings\XPL\10105_Hyd_XPL_39.dgn
\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$SYSDON\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

WETLAND AND SURFACE WATER IMPACTS PERMIT

0510

PROJ. REFERENCE NO.
R-1015

SHEET NO.
X-255

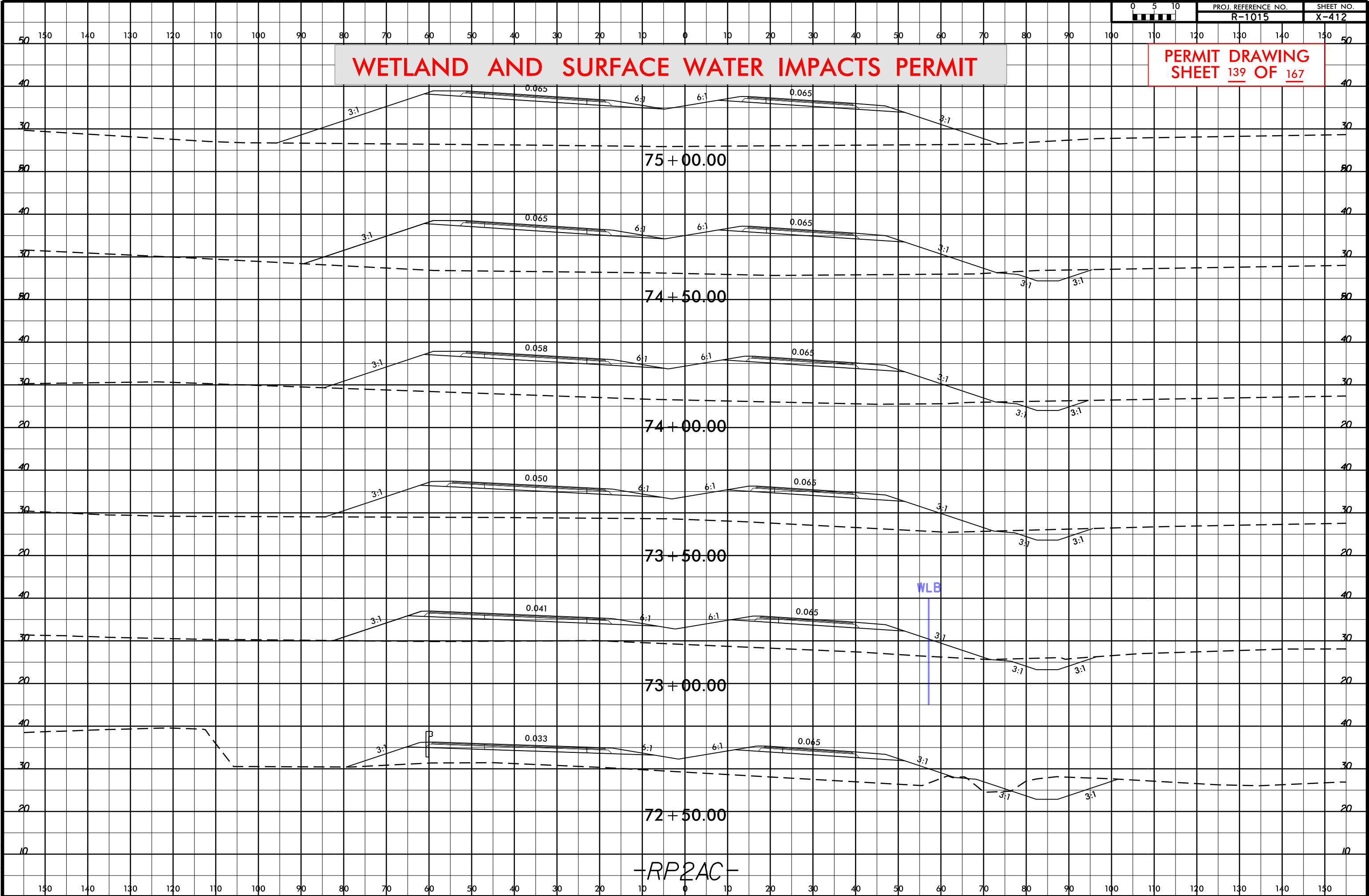


PROPOSED UNDERCUT

6/23/16

WETLAND AND SURFACE WATER IMPACTS PERMIT

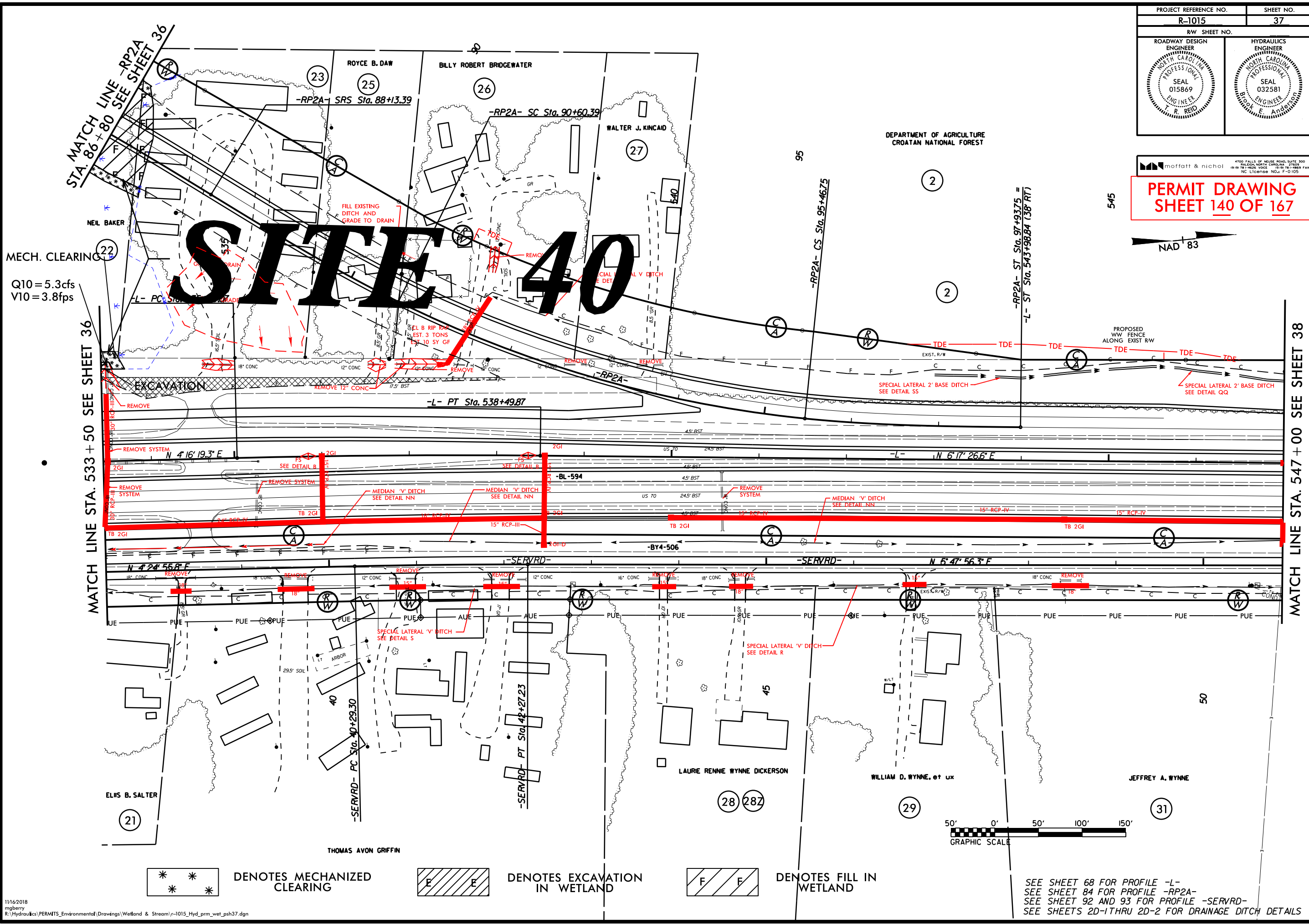
PERMIT DRAWING
SHEET 139 OF 167



REVISIONS	
7/13/2018	PARCEL 26 - REVISED TDE STATION -RP2A- 9710 TO 9755 LT
	PARCEL 2 - ADDED TDE STATION -L- 542+68 TO 546+50 LT
	PARCELS 29, 30 - ELIMINATED PARCEL 30 COMBINED WITH PARCEL 29
	PARCEL 29 - UPDATED PROPERTY OWNER INFORMATION
	PARCELS 31, 32, 33 - ELIMINATED PARCELS 32 AND 33 COMBINED WITH PARCEL 31
	PARCEL 31 - UPDATED PROPERTY OWNER INFORMATION
	PARCELS 21, 24, 28, 29, 31 - ADDED PUE STATION -SERV- 37+45 TO 50+90 RT

8/17/99

11/16/2018
mgberry
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PROJECT REFERENCE NO.	
R-1015	
SHEET NO.	
37	
RW SHEET NO.	
1015	
ROADWAY DESIGN ENGINEER	
NORTH CAROLINA PROFESSIONAL SEAL 015869 T. R. REID	
HYDRAULICS ENGINEER	
NORTH CAROLINA PROFESSIONAL SEAL 032581 Brook E. Anderson	

4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27617
(919) 781-4826 VOICE (919) 781-4826 FAX
NC LICENSE NO. A-F-105

PERMIT DRAWING
SHEET 140 OF 167

SEE SHEET 68 FOR PROFILE -L-
SEE SHEET 84 FOR PROFILE -RP2A-
SEE SHEET 92 AND 93 FOR PROFILE -SERV-
SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

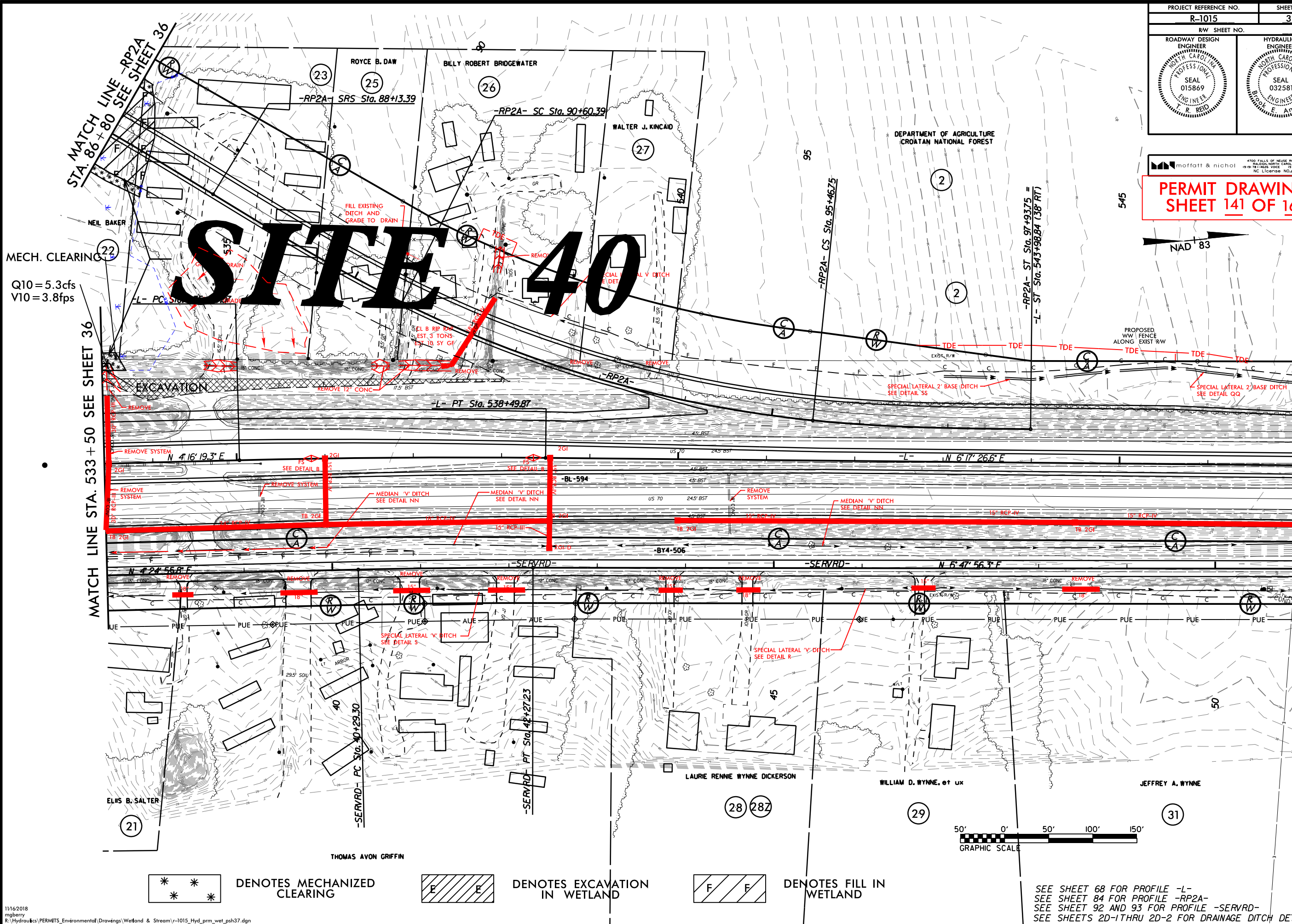
PROJECT REFERENCE NO.	SHEET NO.
R-1015	37
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 

 **moffatt & nichol** 4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4669 FAX
NC License No.: F-0105

PERMIT DRAWING
SHEET 141 OF 167



MATCH LINE STA. 547+00 SEE SHEET 38



SEE SHEET 68 FOR PROFILE -L-
SEE SHEET 84 FOR PROFILE -RP2A-
SEE SHEET 92 AND 93 FOR PROFILE -SERVRD-
SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

REVISIONS		
7/15/2018 -	PARCEL 26 - REVISED PUE STATION -HP2A- 9440 TO 9455 LI	10/29/2018- PARCELS 21,24,28,287,29 & 31- ADDED PUE STATION
	PARCEL 2 - ADDED TDE STATION -J- 542+68 TO 546+50 LT	-SERVAD- 37+45 TO 50+88 RT
	PARCELS 29, 30 - ELIMINATED PARCEL 30, COMBINED WITH PARCEL 29	-ADDED AUE TO -SERVAD- STATION 41+04 TO 42+75 RT
	PARCEL 29 - UPDATED PROPERTY OWNER INFORMATION	
	PARCELS 31, 32, 33 - ELIMINATED PARCELS 32 AND 33, COMBINED WITH PARCEL 31	
	PARCEL 31 - UPDATED PROPERTY OWNER INFORMATION	
	PARCELS 21, 24, 28, 29, 31- ADDED PUE STATION -SERVAD- 37+45 TO 50+80 RT	

8/17/99

\$\$\$SYTIME\$\$\$\$\$
 \$\$\$DCN\$\$\$\$\$
 \$\$\$USERNAME\$\$\$\$\$

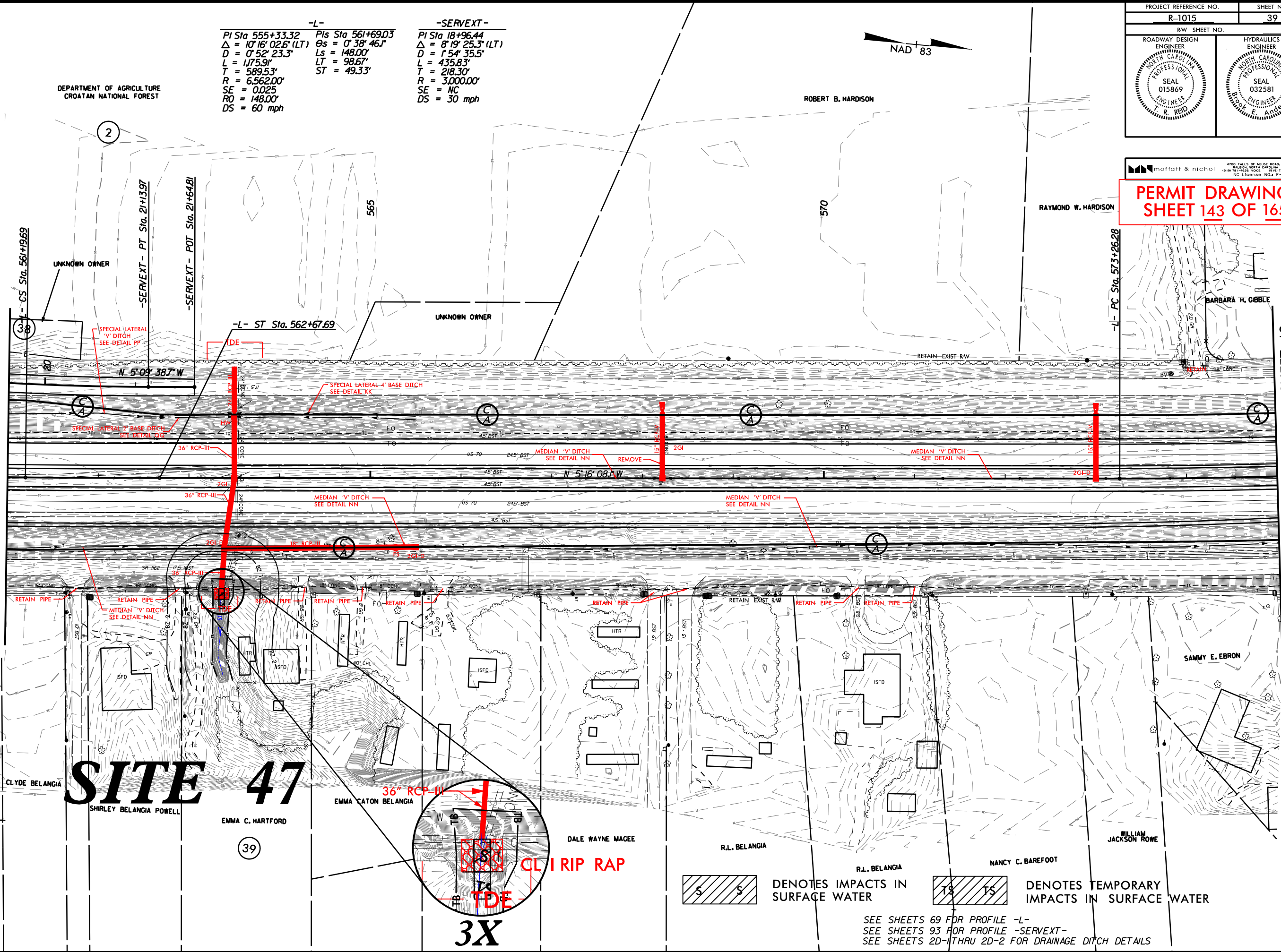
11/16/2018
mgberry
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7/13/2018 - PARCEL 38 - REVISED TDE STATION -L- 563+14 TO 563+64 RT
PARCEL 38 - ADDED TCE STATION -L- 561+00 TO 561+18 LT

REVISIONS

8/17/99

MATCH LINE STA. 561+00 SEE SHEET 38



PROJECT REFERENCE NO. R-1015		SHEET NO. 39	
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 015869 T. R. REID		HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 032581 Book E. Anderson	

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(919) 781-4626 VOICE (919) 781-1884 FAX
NC LICENSE NO. F-0105

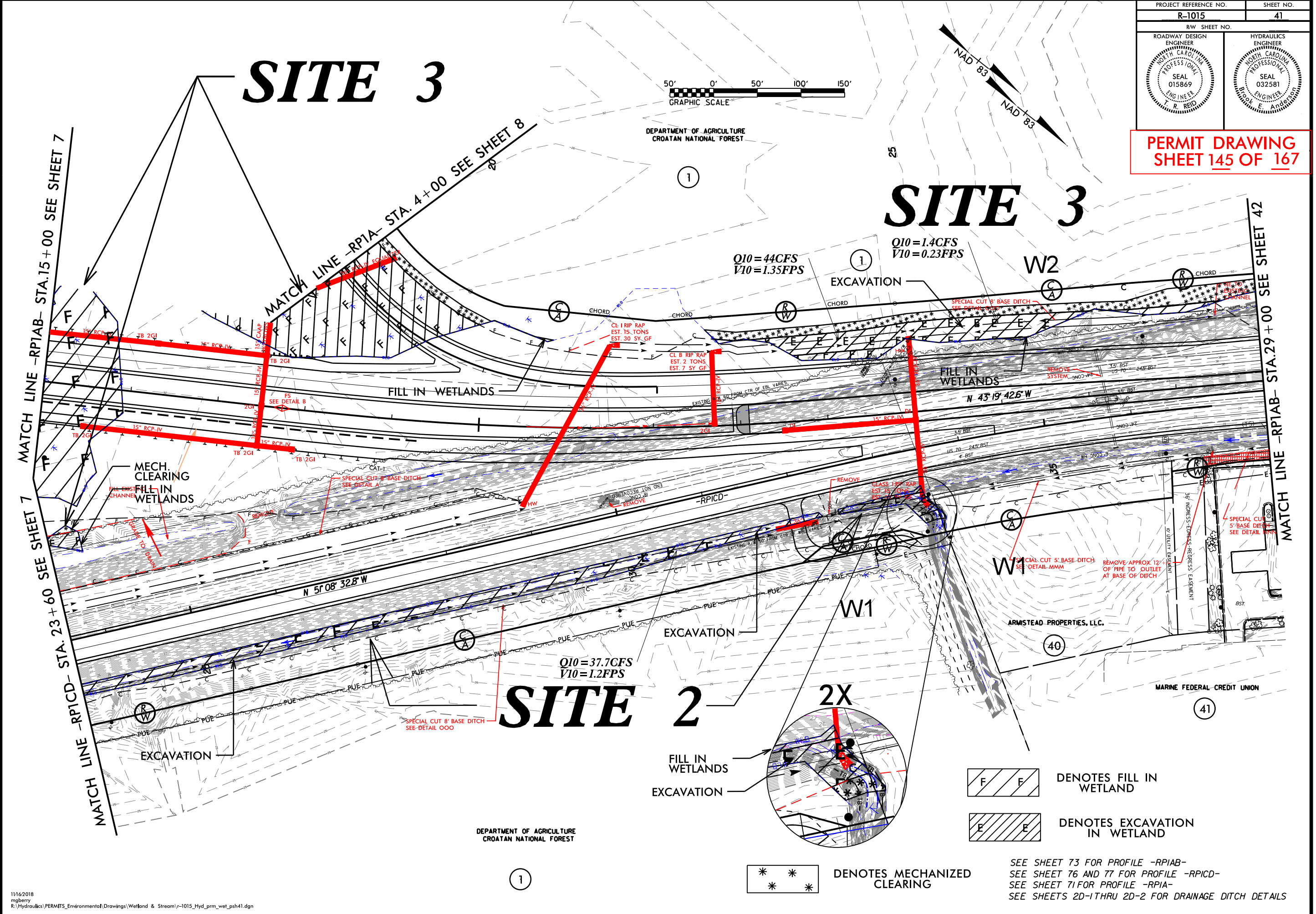
PERMIT DRAWING
SHEET 143 OF 165

MATCH LINE STA. 575+00 SEE SHEET 40

SEE SHEETS 69 FOR PROFILE -L-
SEE SHEETS 93 FOR PROFILE -SERVEXT-
SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

REVISIONS

7/13/2018	-	PARCEL 1 - ADDED TCE STATION -RPICD- 24+20 TO 33+70 RT PARCEL 1 - REMOVED PIPE STATION -RPICD- 32+95 TO 33+77 RT PARCEL 1 - REVISED RW STATION -RPICD- 30+64 TO 29+00 RT PARCEL 40 - STOPPED CA AND STARTED RW STATION -RPICD- 36+39.40 RT PARCEL 41 - CHANGED CA TO RW
8/14/2018	-	PARCELS 40 & 41 - REMOVED PUE PARCELS 40 & 41 - ADDED PUE PARCELS 40 & 41 - REVISED PUE - RPICD- STATION 23+60 TO 32+80 RT PARCEL 1 - REMOVED TCE - RPICD- STATION 24+20 TO 32+80 RT



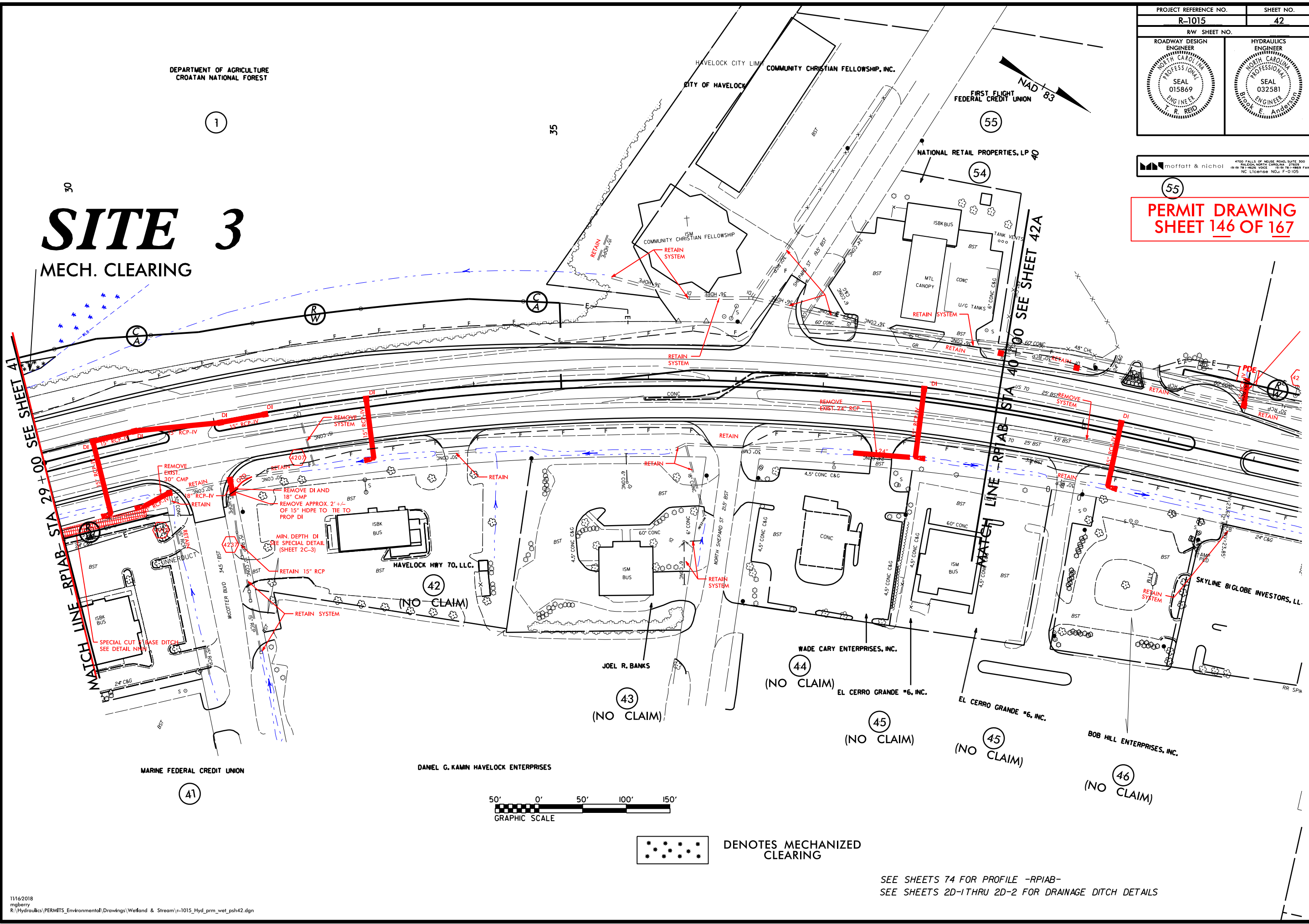
7/13/2018 - PARCEL 41 - REVISED RW STATION - RPIAB- 29+00 TO 30+25 RT
PARCEL 41 - CHANGED CA TO RW
PARCELS 42,43,44,45 - REMOVED RW STATION 31+00 TO 40+00 RT
PARCELS 42,43,44,45 - REMOVED RPIAB- 35+00 TO 35+77 LT
PARCEL 41 - REVISED TCE STATION - RPIAB- 37+90 TO 38+30 LT
PARCEL 54 - NEW PARCEL NUMBER, ADDED TCE STATION - RPIAB- 37+90 TO 38+30 LT

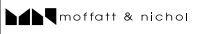
REVISIONS

8/14/2018 - PARCELS 41,42,43,44 & 45 - REMOVED PUE
PARCEL 41 - ADDED TCE

8/17/99

SYTIME
ngberry
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PROJECT REFERENCE NO. R-1015		SHEET NO. 42	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER 		HYDRAULICS ENGINEER 	
 4700 FALLS OF NEUSE ROAD, SUITE 300 RALEIGH, NORTH CAROLINA 27607 (919) 781-4626 VOICE (919) 781-4664 FAX NC LICENSE NO. F-0105			
PERMIT DRAWING SHEET 146 OF 167			

SEE SHEETS 74 FOR PROFILE -RPIAB-
SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

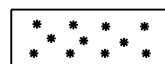
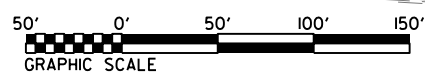
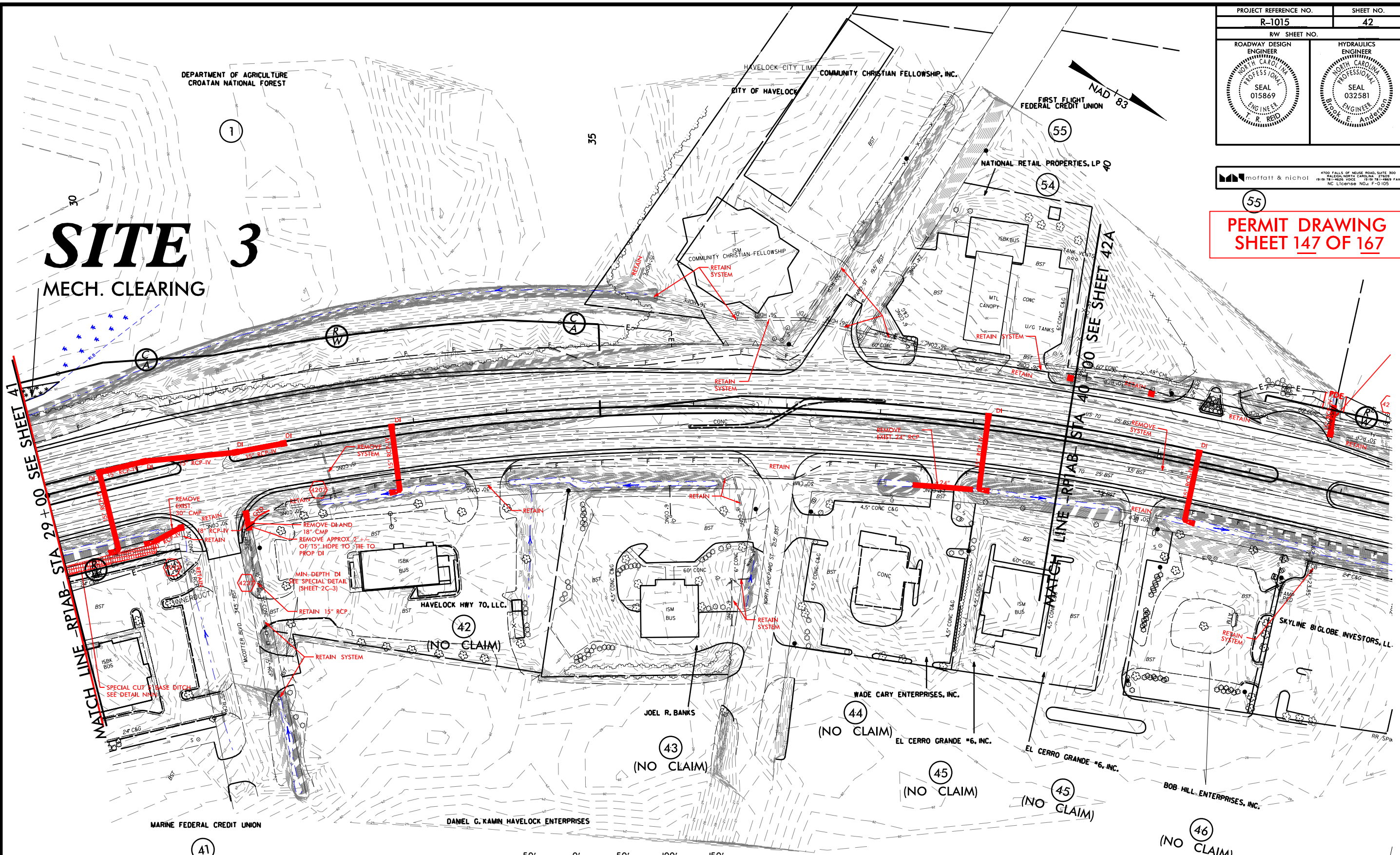
7/13/2018 - PARCEL 41 - REVISED RW STATION -RPIAB- 29+00 TO 30+25 RT
PARCEL 41 - CHANGED CA TO RW
PARCELS 42,43,44,45 - REMOVED RW STATION 31+00 TO 40+00 RT
PARCELS 42,43,44,45 - REMOVED RPIAB- 35+00 TO 35+77 LT
PARCEL 41 - REVISED TCE STATION -RPIAB- 37+90 TO 38+30 LT
PARCEL 54 - NEW PARCEL NUMBER, ADDED TCE STATION -RPIAB- 37+90 TO 38+30 LT

REVISIONS

8/17/99

SITE 3

MECH. CLEARING



DENOTES MECHANIZED CLEARING

SEE SHEETS 74 FOR PROFILE -RPIAB-
SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

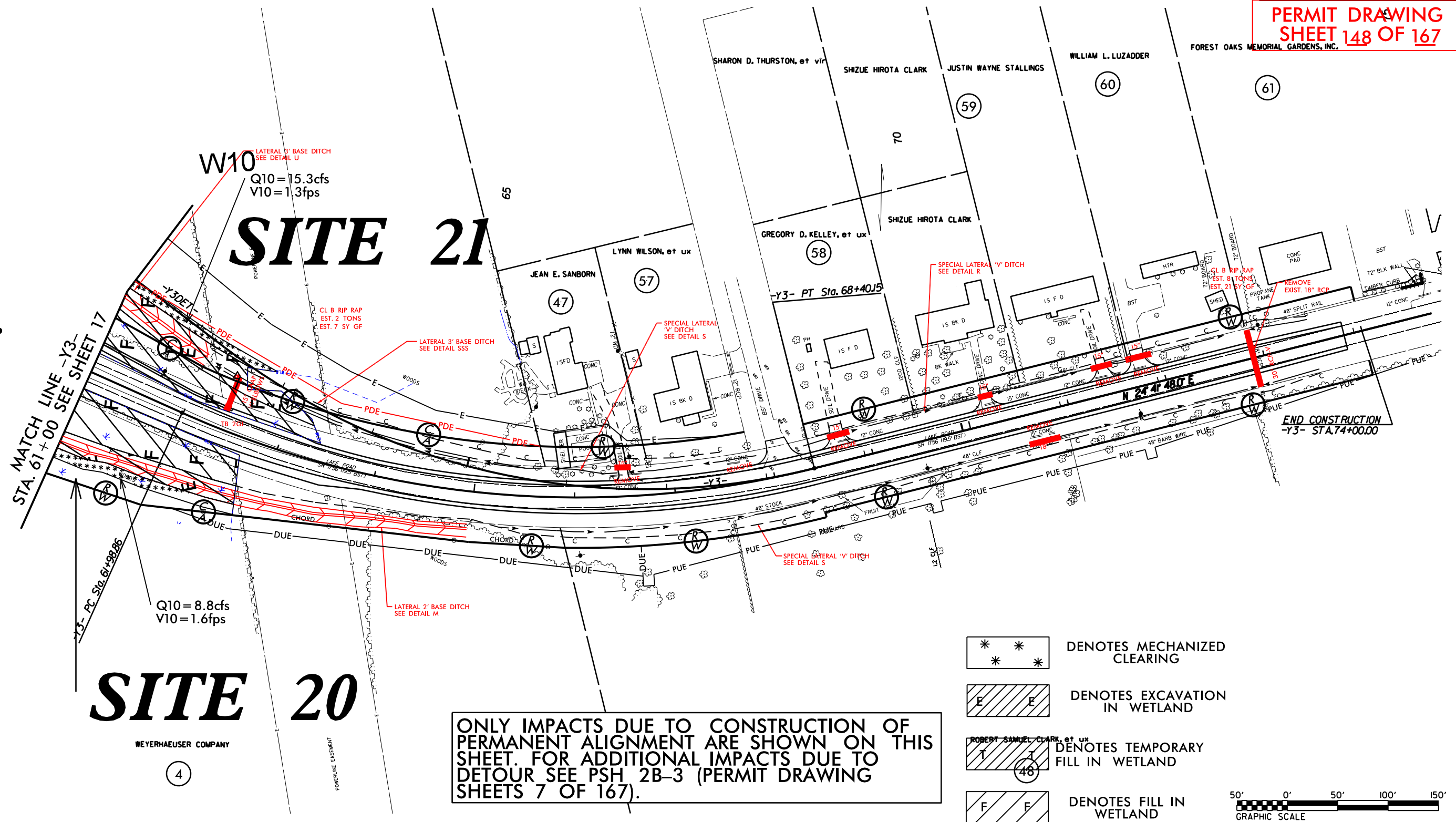
PROJECT REFERENCE NO. R-1015		SHEET NO. 42	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		SEAL 015869 T. R. REID	
NORTH CAROLINA PROFESSIONAL ENGINEER		SEAL 032581 Book E. A. Anderson	

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(919) 781-4824 VOICE (919) 781-4884 FAX
NC LICENSE NO. F-0105

PERMIT DRAWING
SHEET 147 OF 167

PROJECT REFERENCE NO.	SHEET NO.
R-1015	44
RW. SHEET NO.	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 

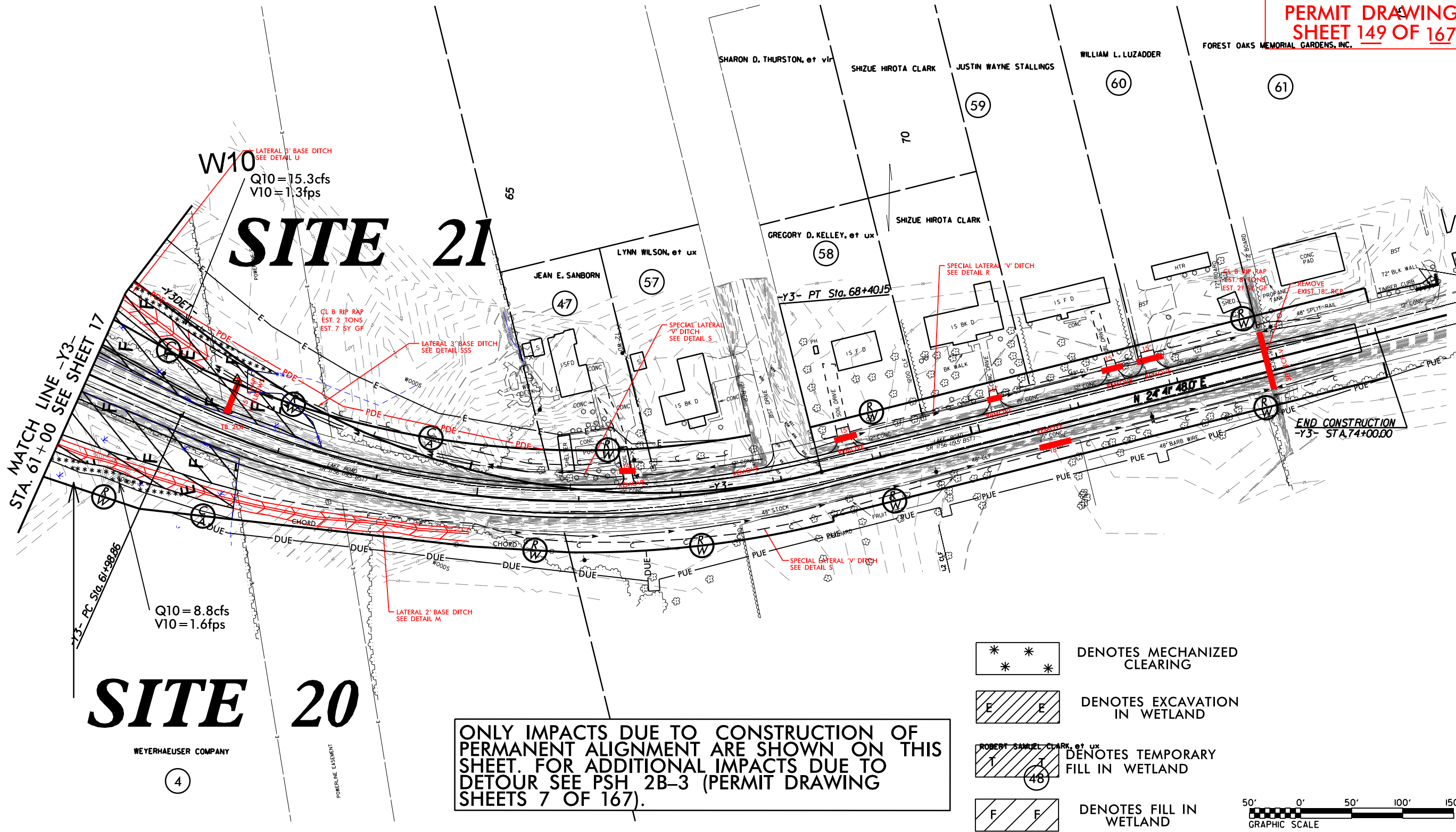
**PERMIT DRAWING
SHEET 148 OF 167**



REVISIONS	
7/13/2018	PARCELS 4.48 - CHANGED PUE TO DUE AND REVISED AREA STATION -Y3- 62+32 TO 66+40 RT. 8/14/2018 - PARCELS 4.48 - REVISED DUE
PARCELS 4.48	ADDED RM AND REMOVED TCE STATION -Y3- 61+00 TO 66+70 LT
PARCELS 4.47	REVISED TCE STATION -Y3- 61+00 TO 65+64 LT
PARCELS 4	ADDED PUE STATION -Y3- 61+00 TO 65+64 LT
PARCEL 5	ADDED PUE NUMBER 500+00 TO 601+00
PARCELS 58-59-60-61	NEW PARCEL NUMBERS ADDED RW STATION -Y3- 66+72 TO 67+78 LT
PARCELS 58-59-60-61	NEW PARCEL NUMBERS ADDED RW STATION -Y3- 68+16 TO 69+10 LT

8/17/99

SYTIME\$\$\$\$\$
 \$\$\$\$\$\$DESIGN\$\$\$\$\$
 \$\$\$\$\$\$DRAWING\$\$\$\$\$
 \$\$\$\$\$\$DATE\$\$\$\$\$



PROJECT REFERENCE NO.	SHEET NO.
R-1015	44
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING
SHEET 149 OF 167

4700 FALLS OF NEUSE ROAD, SUITE 300
 RALEIGH, NORTH CAROLINA 27607
 (919) 781-4826 VOICE (919) 781-4884 FAX
 NC LICENSE NO. F-0105

ONLY IMPACTS DUE TO CONSTRUCTION OF PERMANENT ALIGNMENT ARE SHOWN ON THIS SHEET. FOR ADDITIONAL IMPACTS DUE TO DETOUR SEE PSH 2B-3 (PERMIT DRAWING SHEETS 7 OF 167).

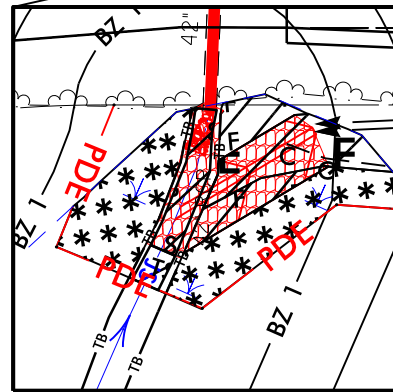
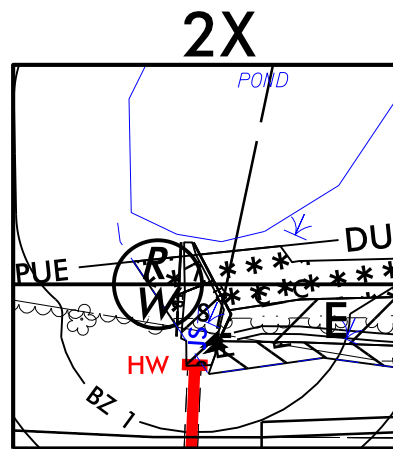
- DENOTES MECHANIZED CLEARING
- DENOTES EXCAVATION IN WETLAND
- DENOTES TEMPORARY FILL IN WETLAND
- DENOTES FILL IN WETLAND

SEE SHEET 79 FOR PROFILE -Y3-
 SEE SHEETS 2D-1 THRU 2D-2 FOR DRAINAGE DITCH DETAILS

REVISIONS	
7/13/2018 - PARCELS 2.49 - ADDED PDE STATION -Y4- 33+95 TO 40+80 RT	8/14/2018 - PARCEL 50Z - REVISED DUE
PARCELS 2.49 - REVISED PDE STATION -Y4- 36+20 TO 40+80 RT	PARCEL 51 - REVISED DUE AND PUE
PARCEL 2 - CHANGED PUE TO DUE STATION -Y4- 37+68 TO 37+79 R/WISIONS	PARCEL 2 - REVISED DUE STATION -Y4- 35+33 TO 40+80 LT
PARCELS 2.50.51 - REVISED PUE TO DUE STATION -Y4- 10+60 TO 13+05 LT	PARCEL 2 - REVISED DUE AND PUE AND TCE STATION -Y4- 37+72 RT
PARCELS 2.50.51 - CHANGED PUE TO DUE STATION -Y4- 33+50 TO 40+80 LT	PARCELS 2.8-51 - REVISED DUE FROM -Y4- STA 33+59.50 TO 40+80 LT
	PARCELS 51 & 2 - ADDED PUE
	PARCEL 2 - REVISED PUE, DUE, PDE AND TCE

8/17/99

SYTIME
DESIGN
11/16/2018
mgherry
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DENOTES FILL IN WETLAND



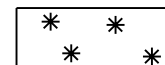
DENOTES TEMPORARY IMPACTS IN SURFACE WATER



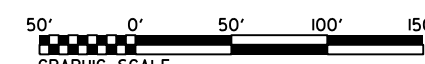
DENOTES EXCAVATION IN WETLAND



DENOTES IMPACTS IN SURFACE WATER



DENOTES MECHANIZED CLEARING

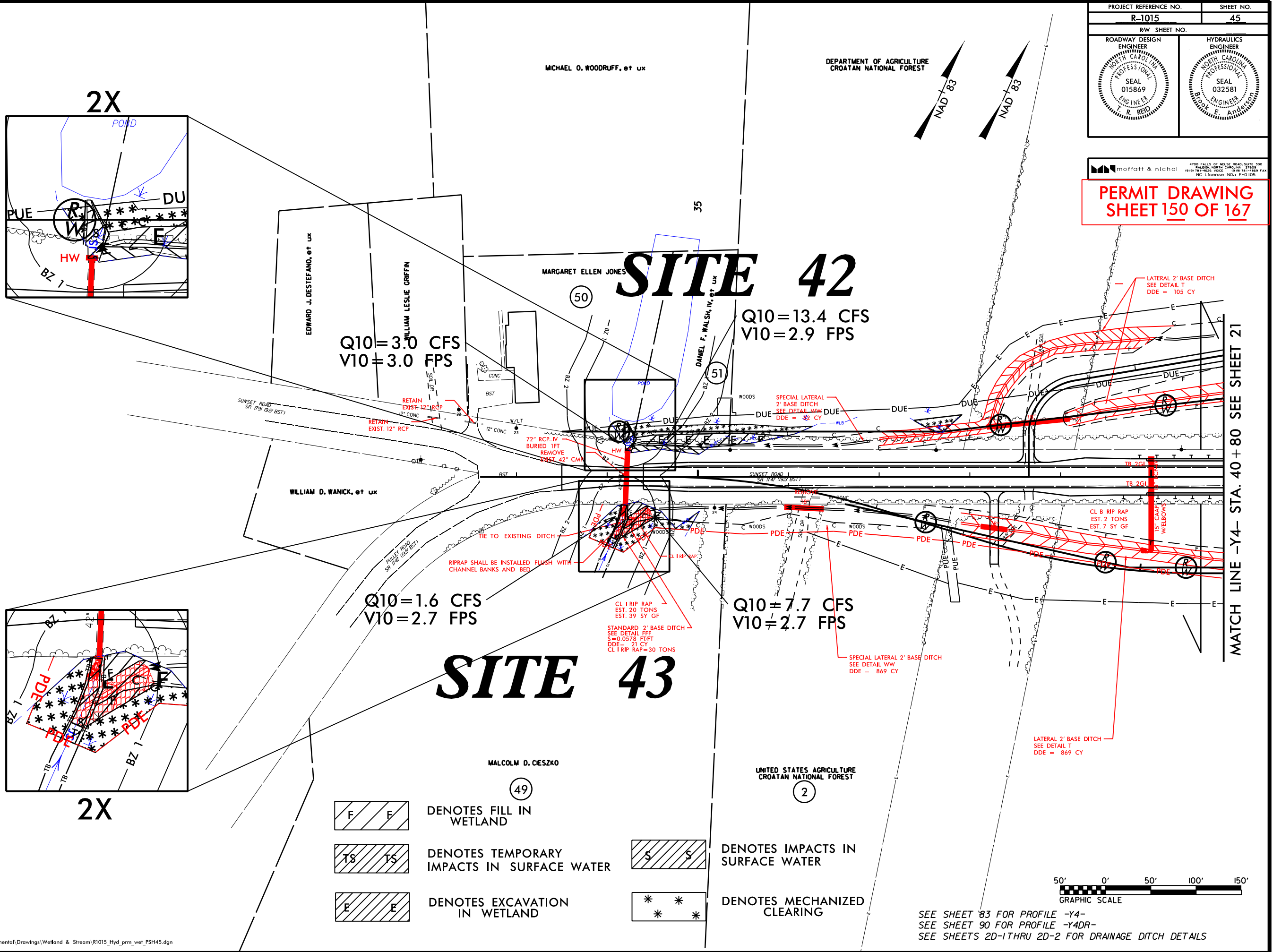


SEE SHEET 83 FOR PROFILE -Y4-
SEE SHEET 90 FOR PROFILE -Y4DR-
SEE SHEETS 2D-1THRU 2D-2 FOR DRAINAGE DITCH DETAILS

PROJECT REFERENCE NO.		SHEET NO.	
R-1015		45	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		NORTH CAROLINA PROFESSIONAL SEAL 015869 T. R. REID	
		NORTH CAROLINA PROFESSIONAL SEAL 032581 Book E. Anderson	

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RALEIGH, NORTH CAROLINA 27607
(919) 781-4624 VOICE (919) 781-4664 FAX
NC LICENSE NO. F-0105

PERMIT DRAWING
SHEET 150 OF 167

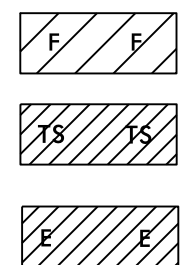
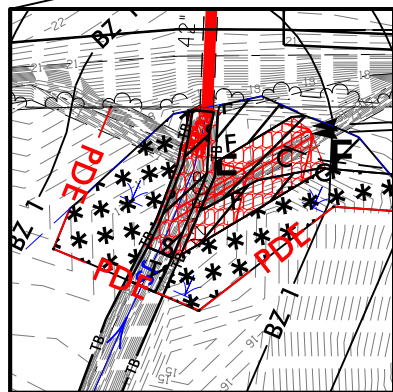
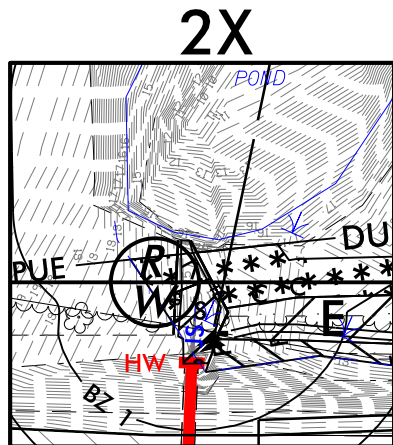


MATCH LINE -Y4- STA. 40 + 80 SEE SHEET 21

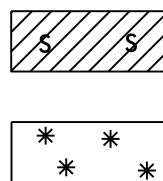
REVISIONS	
7/13/2018 - PARCELS 2.49 - ADDED PDE STATION -Y4- 33+95 TO 40+80 RT	8/14/2018 - PARCEL 50Z - REVISED DUE
PARCELS 2.49 - REVISED ICE STATION -Y4- 36+20 TO 40+80 RT	PARCEL 51 - REVISED DUE AND PUE
PARCEL 2 - CHANGED PUE TO DUE STATION -Y4- 37+68 TO 37+79 R/W	PARCEL 2 - REVISED DUE STATION -Y4- 35+33 TO 40+80 LT
PARCEL 2 - REVISED ICE STATION -Y4- 37+68 TO 37+79 LT	PARCEL 2 - REVISED DUE AND PUE STATION -Y4- 37+72 RT
PARCELS 2.50.51 - CHANGED PUE TO DUE STATION -Y4- 33+50 TO 40+80 LT	PARCELS 2.8-51 - REVISED DUE FROM -Y4- STA.33+59.50 TO 40+80 LT
	PARCELS 51& 2 - ADDED PUE
	PARCEL 2 - REVISED PUE, DUE, PDE AND TCE

8/17/99

11/16/2018
mgherry
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F F DENOTES FILL IN WETLAND
 TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER
 E E DENOTES EXCAVATION IN WETLAND



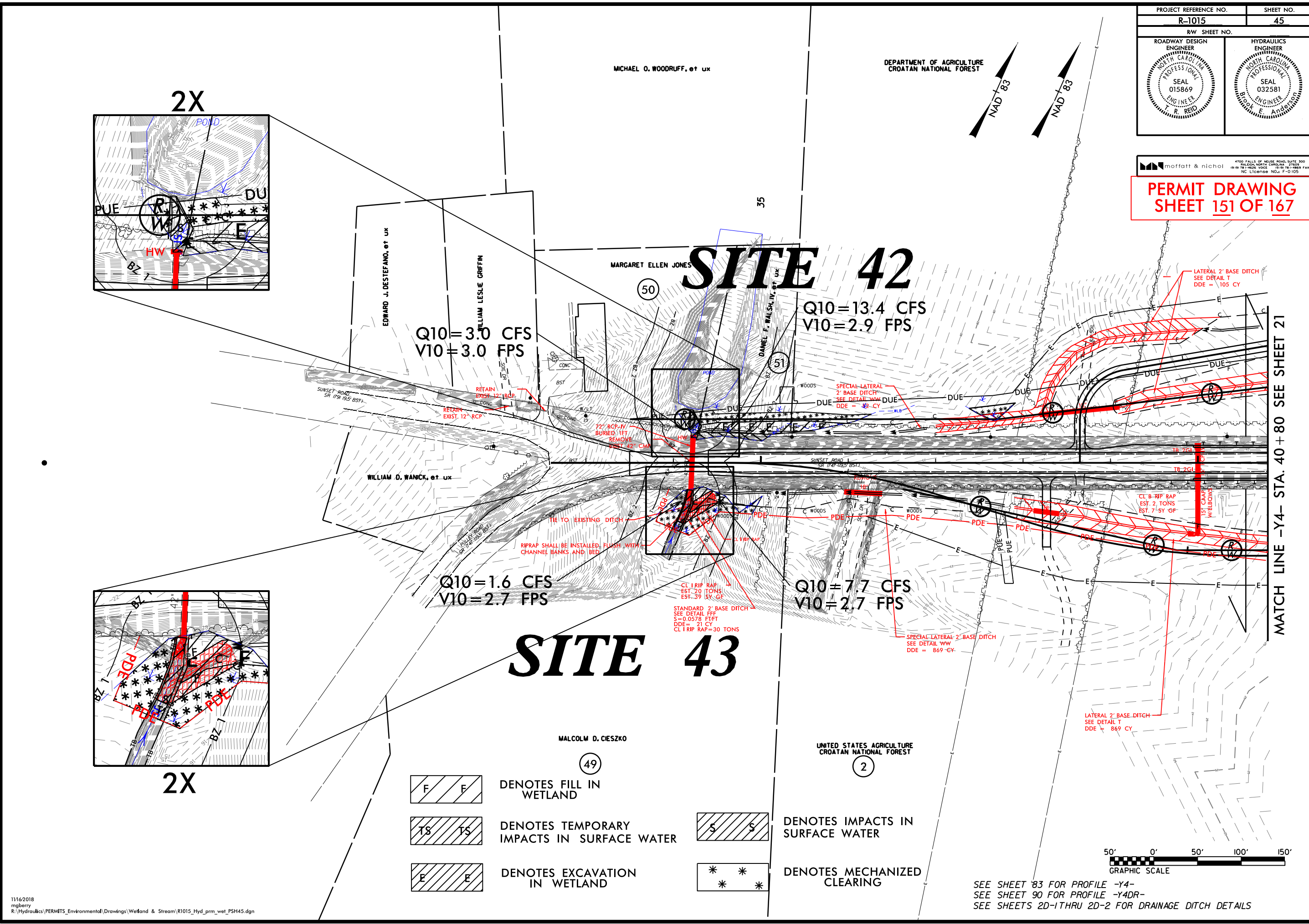
S S DENOTES IMPACTS IN SURFACE WATER
 * * DENOTES MECHANIZED CLEARING

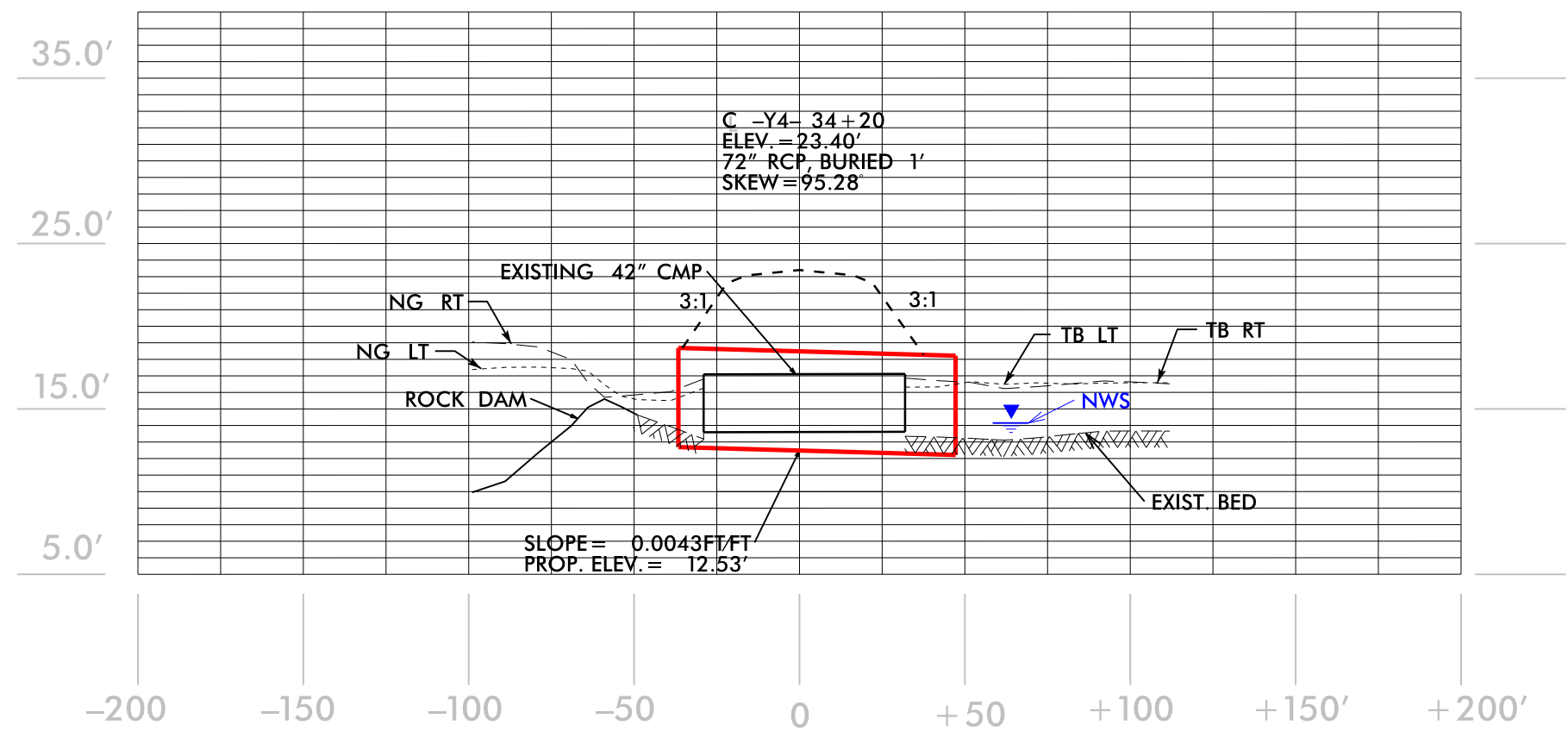


SEE SHEET 83 FOR PROFILE -Y4-
 SEE SHEET 90 FOR PROFILE -Y4DR-
 SEE SHEETS 2D-1THRU 2D-2 FOR DRAINAGE DITCH DETAILS

PROJECT REFERENCE NO. R-1015		SHEET NO. 45
RW SHEET NO.		HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER		

PERMIT DRAWING
SHEET 151 OF 167





PROFILE

SITE 42 & 43

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 152 OF 167 08/01/2018

6/23/16



PROJ. REFERENCE NO.	SHEET NO.
R-1015	X-375

WETLAND AND SURFACE WATER IMPACTS PERMIT

PERMIT DRAWING
SHEET 153 OF 167

