



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

December 18, 2014

Mr. Tom Steffens
U.S. Army Corps of Engineers
Regulatory Field Office
2407 West 5th St.
Washington, NC 27889

Mr. Stephen Lane
N.C. Dept. of Environment and
Natural Resources
Division of Coastal Management
400 Commerce Avenue
Morehead City, NC 28557

Dear Sirs:

Subject: Permit Modification Request for the Section 404 Nationwide Permit 23, Section 401 Water Quality Certification and CAMA Major Development Permit for the proposed replacement of Bridge No. 33 over the North River on US 70 in Carteret County, North Carolina; TIP No. B-4722B; Federal Aid Project No. BRNHS-0070(84); Debit \$240 (NCDWR) and \$100 (NCDCM) from WBS No. 38496.1.1

Reference: Section 404 NW 23 No. SAW-2014-01560, issued August 27, 2014
Section 401 General Certification No. 20140723, issued August 15, 2014
CAMA Major Development Permit No. 95-14, issued October 30, 2014

Please see the enclosed revised permit and utility drawings for the above referenced project. Portions of the existing causeway will need to be retained with rip rap to protect the power poles on the south side of the bridge. This will result in an additional 0.01 acre of rip rap in surface water to provide adequate stabilization. Additionally, CenturyLink has elected to attach a 4" conduit on the south side of the proposed bridge rather than directional boring the telephone line. This will not result in any additional impacts to jurisdictional resources.

Regulatory Approvals

Section 404 Permit: We are hereby requesting modification to the NW 23 issued August 27, 2014 for the activities described above.

Section 401 Permit: We are hereby requesting modification to the 401 General Certification issued August 15, 2014 for the activities described above.

CAMA Major Permit: We are hereby requesting modification to the CAMA Major Development Permit issued October 30, 2014 for the activities described above.

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS
1548 MAIL SERVICE CENTER
RALEIGH NC 27699-1548

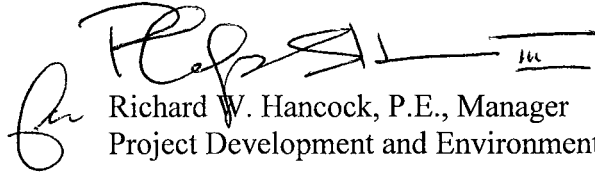
TELEPHONE: 919-707-6000
FAX: 919-250-4224

WEBSITE: WWW.NCDOT.GOV/DOH/PRECONSTRUCT/PE/

LOCATION:
CENTURY CENTER, BUILDING A
1000 BIRCH RIDGE DRIVE
RALEIGH NC 27610

A copy of this permit modification application and its distribution list will be posted at the NCDOT Website at <https://connect.ncdot.gov/resources/Environmental>. If you have any questions or need additional information, please contact Tyler Stanton at tstanton@ncdot.gov or (919) 707-6156.

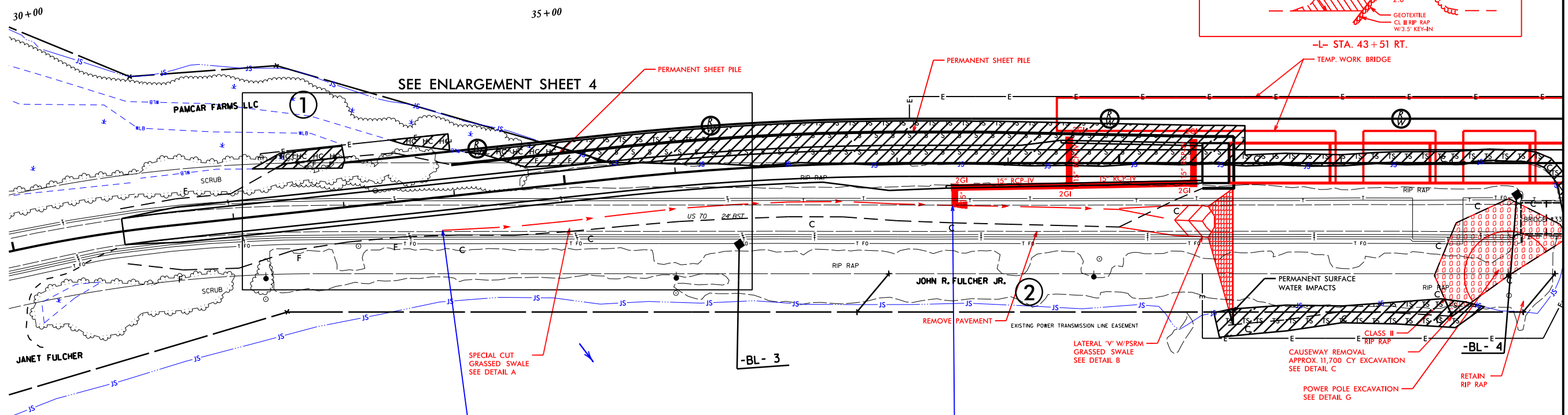
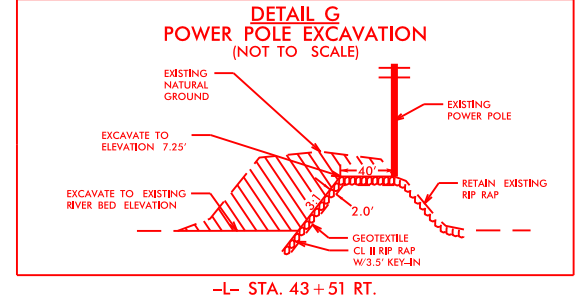
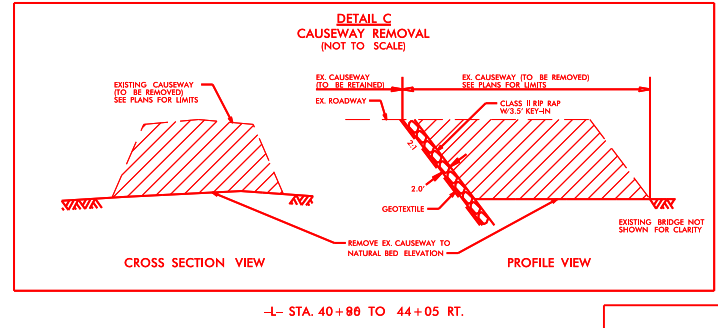
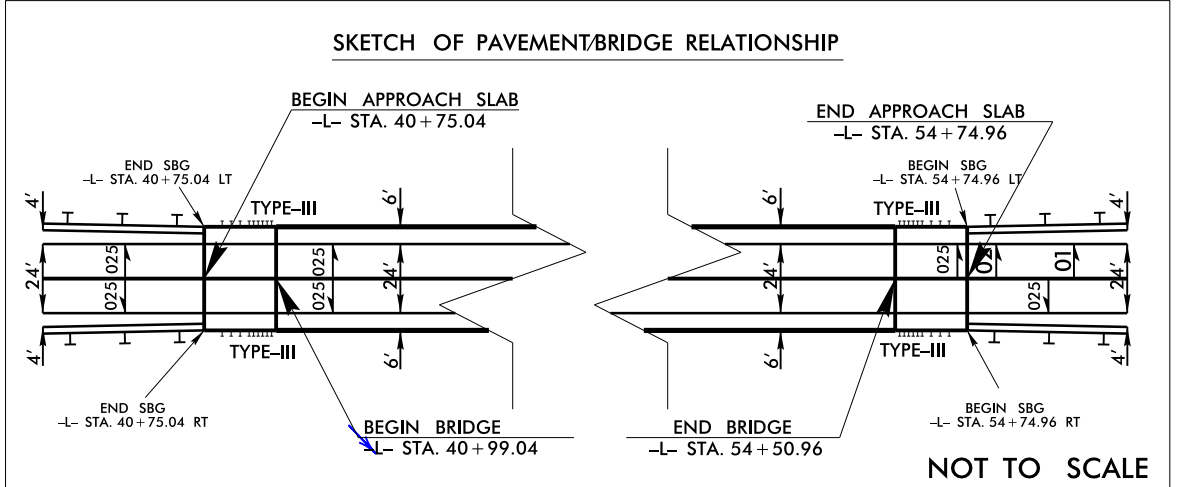
Sincerely,


Richard W. Hancock, P.E., Manager
Project Development and Environmental Analysis Unit

cc: NCDOT Permit Application Standard Distribution List

PROJECT REFERENCE NO.	SHEET NO.
B-4722B	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING
SHEET 2 OF 11
Revised 12/8/14



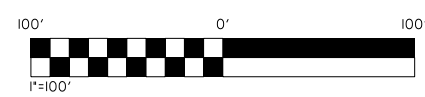
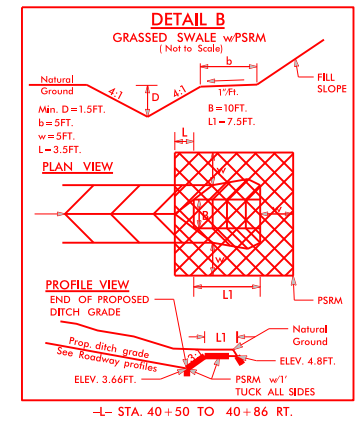
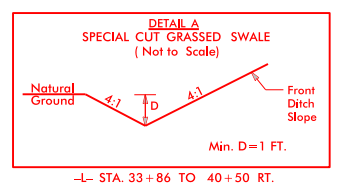
- DENOTES FILL IN WETLAND
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES HAND CLEARING
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SPECIAL CUT SEE DETAIL A GRASSED SWALE DATA

-L- STA. 33+86 TO 38+50 RT.
 DA=0.61 ACRES C=0.58
 Q₁=CIA=(0.58)(5.42)(0.61)=1.9CFPS
 Q₂=(0.58)(7.06)(0.61)=2.5CFPS
 SLOPE: FRONT=4:1 BACK=4:1
 LONGITUDINAL=0.3%
 REQUIRED LENGTH=61FT.
 ACTUAL LENGTH=464FT.
 V₁=1.1FPS V₂=1.2FPS
 d₁=0.7FT. d₂=0.7FT.

SPECIAL CUT SEE DETAIL A LATERAL 'V' SEE DETAIL B GRASSED SWALE DATA

-L- STA. 38+50 TO 40+86 RT.
 TOTAL DA=1.53 ACRES
 ADDITIONAL DA TO BE TREATED=0.92 ACRES C=0.79
 Q₁=CIA=(0.79)(5.42)(0.92)+1.9=6.0CFPS
 Q₂=(0.79)(7.06)(0.92)+2.5=8.0CFPS
 SLOPE: FRONT=4:1 BACK=4:1
 LONGITUDINAL=0.3%
 REQUIRED LENGTH=92FT.
 ACTUAL LENGTH=236FT.
 V₁=1.5FPS V₂=1.6FPS
 d₁=1.1FT. d₂=1.2FT.

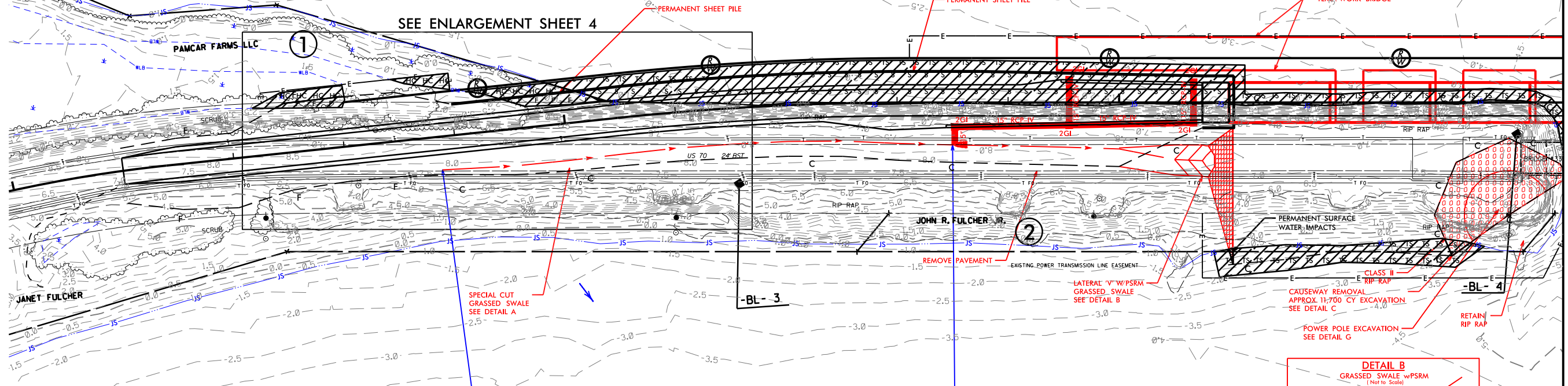
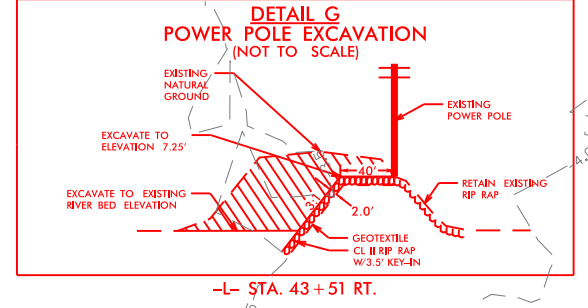
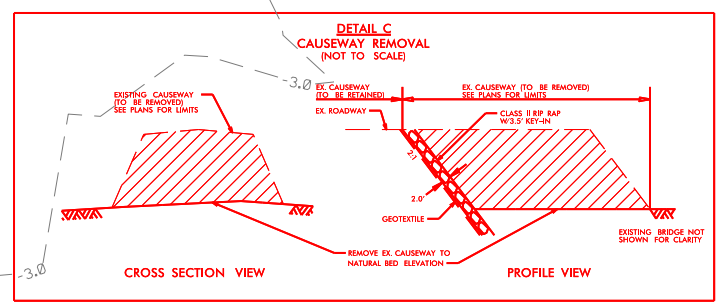
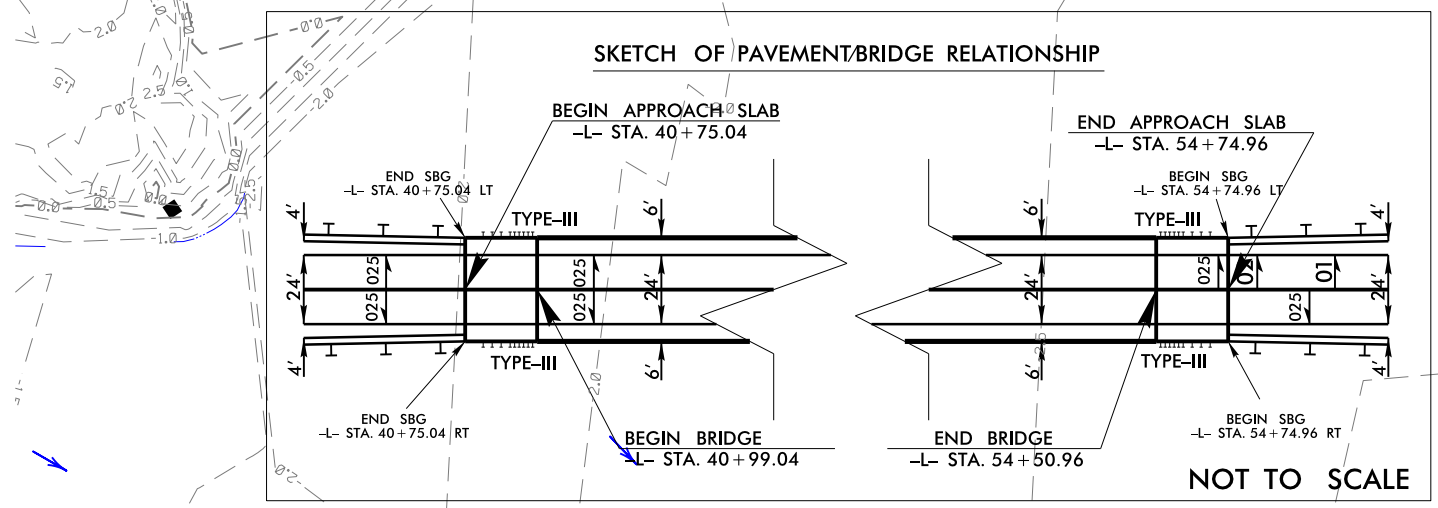


- NOTES**
- FOR -L- PROFILE, SEE SHEET 7
 - FOR STRUCTURE PLANS, SEE SHEETS S-1 TO S-?

SITE 1

REVISIONS
 12/8/2014
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 \$\$\$\$\$\$DESIGNED\$\$\$\$\$\$
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 \$\$\$\$\$\$CHECKED\$\$\$\$\$\$
 \$\$\$\$\$\$DATE\$\$\$\$\$\$

**PERMIT DRAWING
SHEET 3 OF 11**
Revised 12/8/14



F F DENOTES FILL IN WETLAND

S S DENOTES IMPACTS IN SURFACE WATER

HC HC DENOTES HAND CLEARING

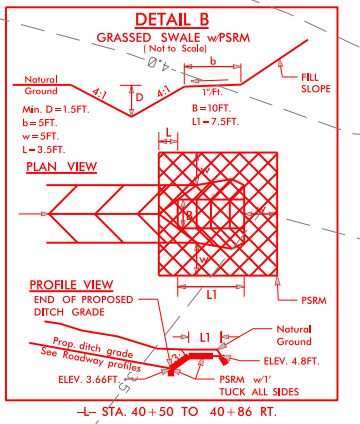
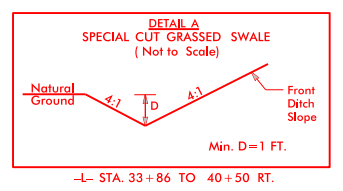
TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

**SPECIAL CUT
SEE DETAIL A
GRASSED SWALE DATA**

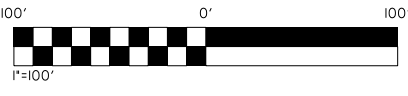
-L- STA. 33+86 TO 38+50 RT.
DA=0.61 ACRES C=0.58
Q_p C IA = (0.58)(5.42)(0.61) = 1.9 CFS
Q_p (0.58)(7.06)(0.61) = 2.5 CFS
SLOPE: FRONT = 4:1 BACK = 4:1
LONGITUDINAL = 0.3%
REQUIRED LENGTH = 61 FT.
ACTUAL LENGTH = 46 FT.
V_p = 1.1 FPS V_g = 1.2 FPS
d_p = 0.7 FT. d_g = 0.7 FT.

**SPECIAL CUT
SEE DETAIL A
LATERAL 'V'
GRASSED SWALE DATA**

-L- STA. 38+50 TO 40+86 RT.
TOTAL DA = 1.53 ACRES
ADDITIONAL DA TO BE TREATED = 0.92 ACRES C = 0.79
Q_p C IA = (0.79)(5.42)(0.92) + 1.9 = 6.0 CFS
Q_p (0.79)(7.06)(0.92) + 2.5 = 8.0 CFS
SLOPE: FRONT = 4:1 BACK = 4:1
LONGITUDINAL = 0.3%
REQUIRED LENGTH = 92 FT.
ACTUAL LENGTH = 236 FT.
V_p = 1.5 FPS V_g = 1.6 FPS
d_p = 1.1 FT. d_g = 1.2 FT.



SITE 1



PAVEMENT REMOVAL

NOTES

1) FOR -L- PROFILE, SEE SHEET 7

2) FOR STRUCTURE PLANS, SEE SHEETS S-1 TO S-7

REVISIONS

12/8/2014
R:\projects\PERMITS_Environmental\Drawings\3-B4722B_Hyd_perm\et_PSH_4_CONTOURS.dgn
S:\projects\PERMITS_Environmental\Drawings\3-B4722B_Hyd_perm\et_PSH_4_CONTOURS.dgn

MATCH LINE SEE SHEET 5 -L- STA. 44+00.00

8/17/99

PROJECT REFERENCE NO. B-4722B	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



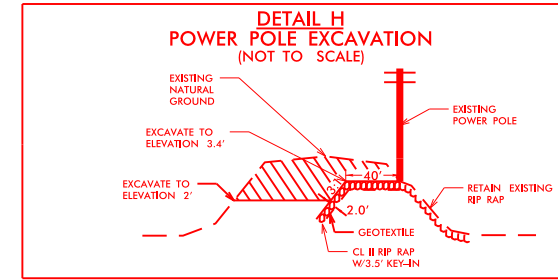
SITE 1



DENOTES IMPACTS IN SURFACE WATER



DENOTES TEMPORARY IMPACTS IN SURFACE WATER



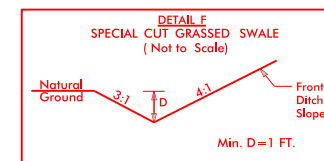
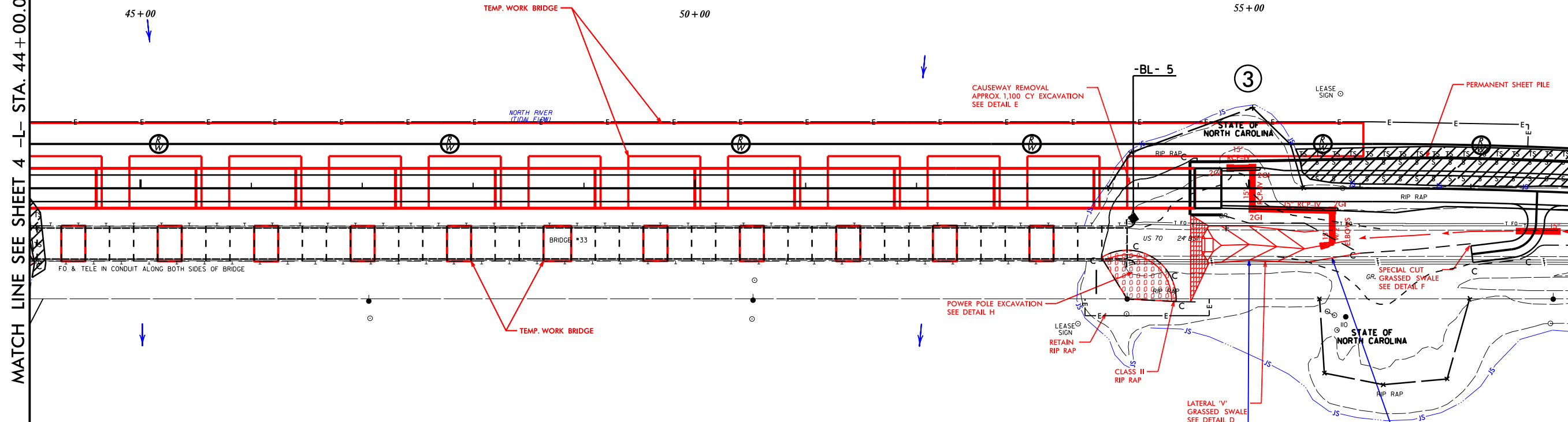
-L- STA. 53+90 RT.

**PERMIT DRAWING
SHEET 7 OF 11**

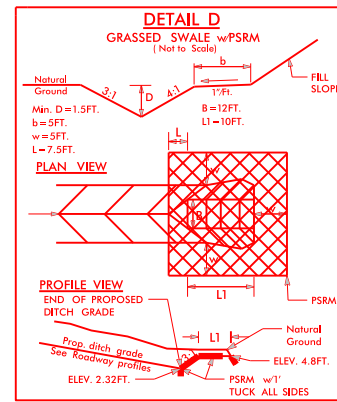
Revised 12/8/14

MATCH LINE SEE SHEET 4 -L- STA. 44+00.00

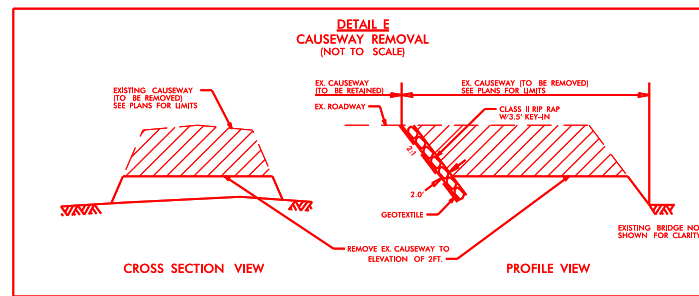
MATCH LINE SEE SHEET 6 -L- STA. 58+00.00



-L- STA. 55+50 TO 64+50 RT.



-L- STA. 54+57 TO 55+50 RT.



-L- STA. 53+62 TO 54+68 RT.

LATERAL 'V'
SEE DETAIL D
GRASSED SWALE DATA

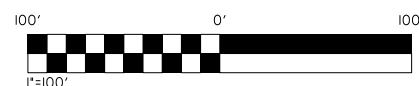
-L- STA. 54+57 TO 55+00 RT.
TOTAL DA=1.72 ACRES
ADDITIONAL DA TO BE TREATED=0.03 ACRES C=0.3
 $Q = CIA = (0.3)(5.42)(0.03) + 6.1 = 6.1\text{CFS}$
 $Q = (0.3)(7.06)(0.03) + 8.0 = 8.0\text{CFS}$
SLOPE: FRONT=4:1 BACK=3:1
LONGITUDINAL=0.6%
REQUIRED LENGTH=3FT.
ACTUAL LENGTH=58FT.
 $V = 2.00\text{FPS}$ $V_p = 2.10\text{FPS}$
 $d = 1.00\text{FT}$ $d_p = 1.10\text{FT}$

SPECIAL CUT
SEE DETAIL F
LATERAL 'V'
SEE DETAIL D
GRASSED SWALE DATA

-L- STA. 55+00 TO 55+75 RT.
TOTAL DA=1.69 ACRES
ADDITIONAL DA TO BE TREATED=0.67 ACRES C=0.85
 $Q = CIA = (0.85)(5.42)(0.67) + 3.0 = 6.1\text{CFS}$
 $Q = (0.85)(7.06)(0.67) + 3.9 = 8.0\text{CFS}$
SLOPE: FRONT=4:1 BACK=3:1
LONGITUDINAL=0.3%
REQUIRED LENGTH=67FT.
ACTUAL LENGTH=75FT.
 $V = 1.50\text{FPS}$ $V_p = 1.60\text{FPS}$
 $d = 1.10\text{FT}$ $d_p = 1.20\text{FT}$

PAVEMENT REMOVAL

- NOTES
- FOR -L- PROFILE, SEE SHEET 7
 - FOR STRUCTURE PLANS, SEE SHEETS S-? TO S-?



REVISIONS

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	32+21 TO 63+45 LT	1350 FT. BRIDGE	0.03				0.04	0.59	0.51			
TOTALS*:			0.03				0.04	0.59	0.51	0	0	0

*Rounded totals are sum of actual impacts

NOTES:
 All wetlands associated with this project are CAMA wetlands.
 <0.01 acres of Temporary Fill in Wetlands in the Hand Clearing areas for erosion control measures.

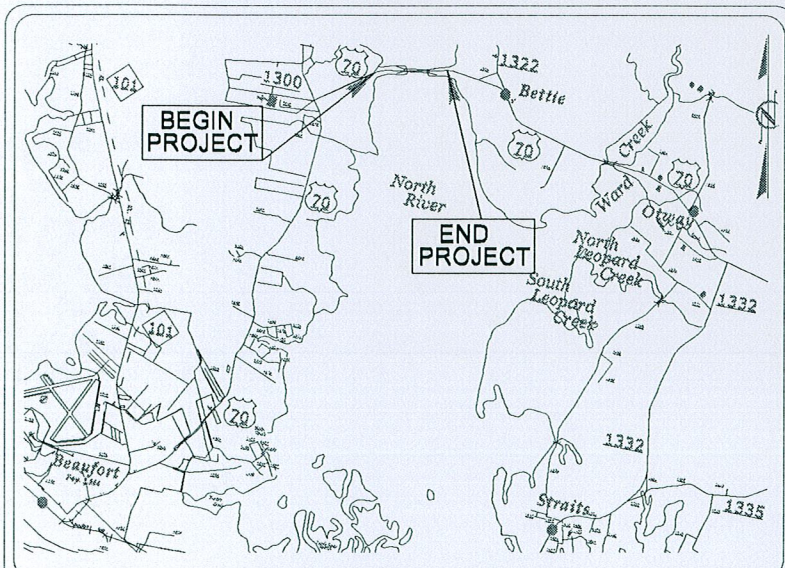
NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 B-4722B
 CARTERET COUNTY
 BRIDGE 33 ON US 70
 OVER NORTH RIVER
 SHEET 11 OF 11 Revised 12/5/2014

09/08/99

TIP PROJECT: B-4722B

C203563

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



VICINITY MAP
NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

NEU PERMIT PLANS
CARTERET COUNTY

LOCATION: BRIDGE NO. 33 OVER THE NORTH
RIVER ON US 70

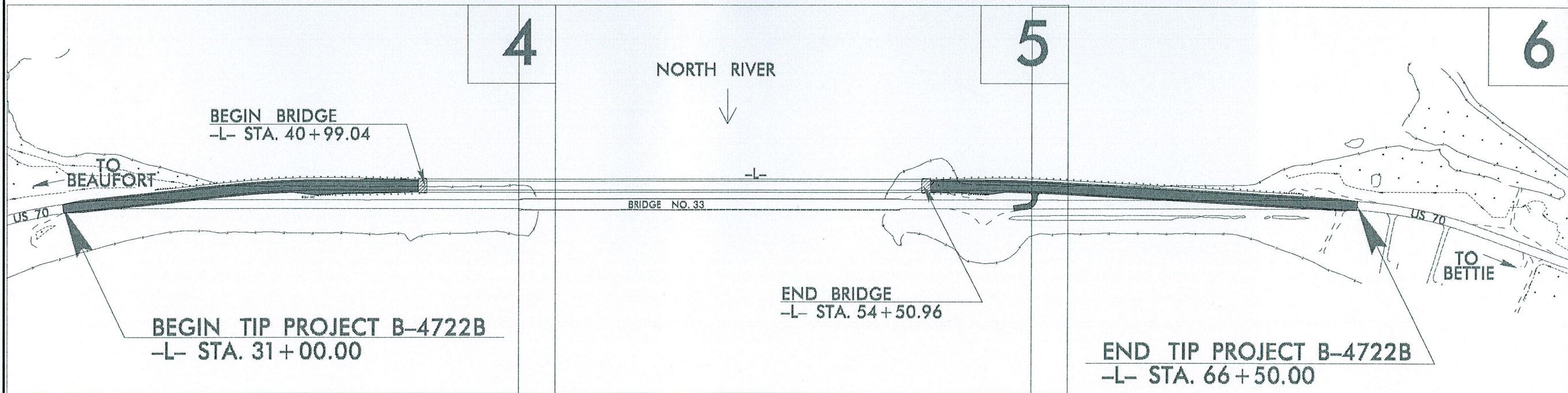
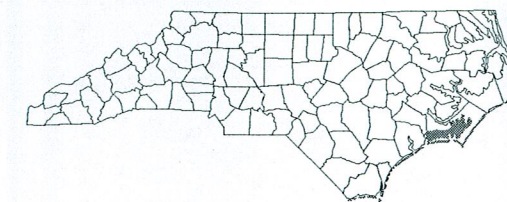
TYPE OF WORK: RELOCATION OF FIBER OPTIC CABLE

T.I.P. NO.	SHEET NO.
B-4722B	1

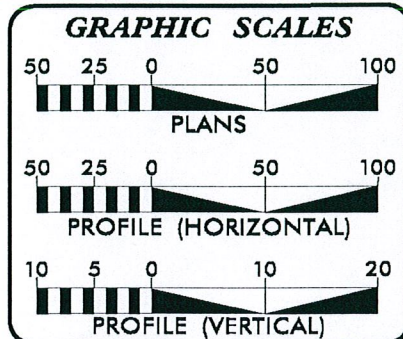
Utility Permit Drawing
Sheet 1 of 16

REVISION 11/17/14

NAD 83/
NSRS 2007



INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



SHEET NO.	DESCRIPTION
1	TITLE SHEET
4 THRU 6	PLAN SHEETS

UTILITY OWNERS ON PROJECT
(A) DUKE PROGRESS
(B) CENTURY LINK

PREPARED IN THE OFFICE OF:
DIVISION OF HIGHWAYS
UTILITIES UNIT
UTILITIES ENGINEERING

1555 MAIL SERVICES CENTER
 RALEIGH NC 27699-1555
 PHONE (919) 707-6690
 FAX (919) 250-4151

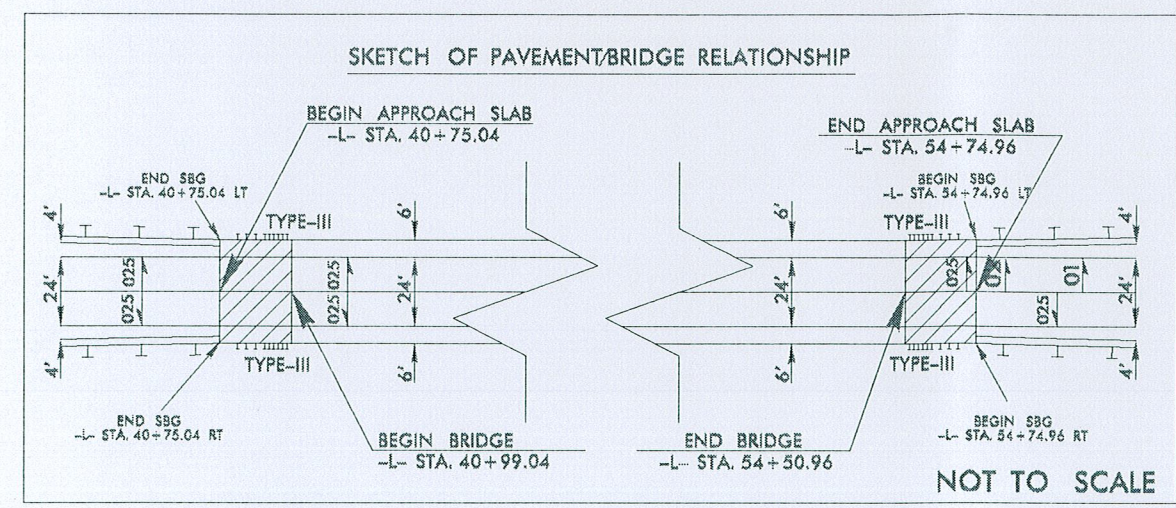
Roger Worthington, P.E. UTILITIES SECTION ENGINEER
Corey Bousquet, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER
Mariho Hafeez UTILITIES PROJECT DESIGNER

I:\7-NOV-2014 11:16 R:\Utilities\Engineering\NEUPermit Plans and Narrative\B-4722B.Ut._tsh_UEI_psh.dgn \$\$\$USERNAME\$\$\$

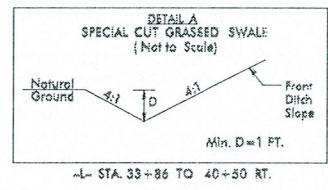
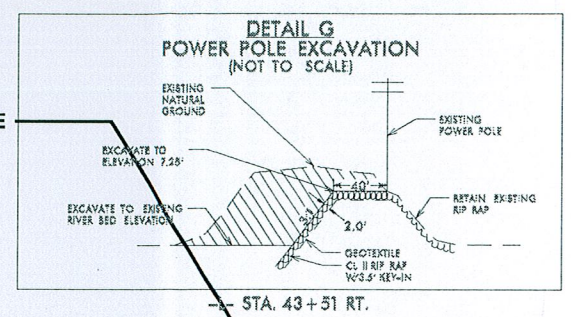
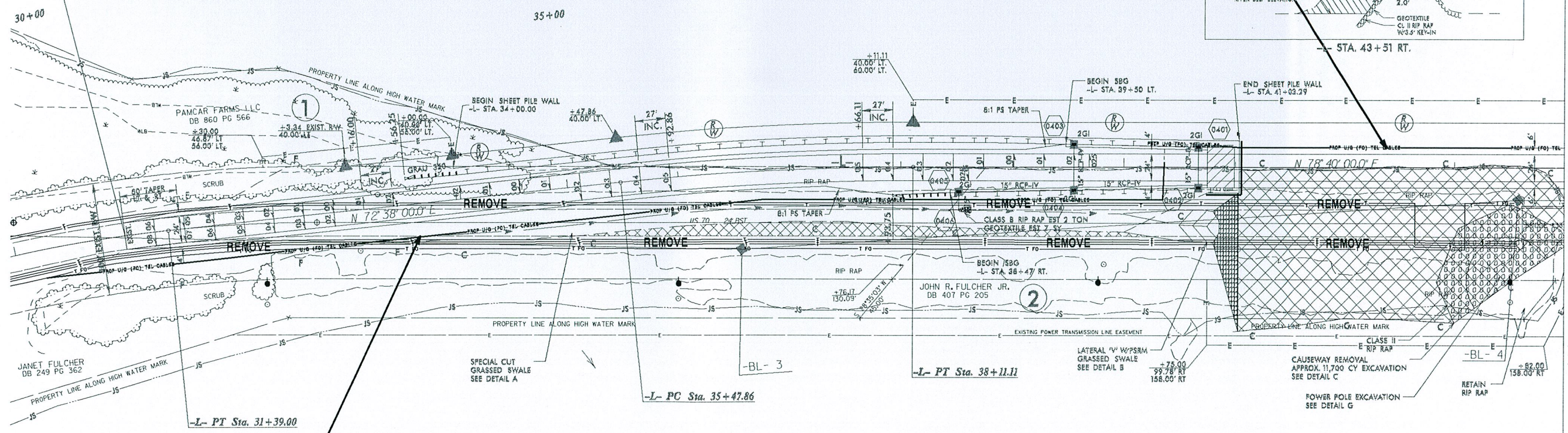
PROJECT REFERENCE NO. B-4722B	SHEET NO. 4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Utility Permit Drawing
Sheet 2 of 16
REV. 11/17/14

NAD 83 NSRS 2007



BEGIN TIP PROJECT B-4722B
-L- POC Sta. 31+00.00



-L-	
PI Sta 29+39.23	PI Sta 36+79.61
$\Delta = 18' 07' 56.7'' (RT)$	$\Delta = 6' 02' 00.0'' (RT)$
$D = 4' 30' 00.5''$	$D = 2' 17' 30.6''$
$L = 402.93'$	$L = 263.25'$
$T = 203.16'$	$T = 131.75'$
$R = 1,273.20'$	$R = 2,500.00'$

PAYEMENT REMOVAL

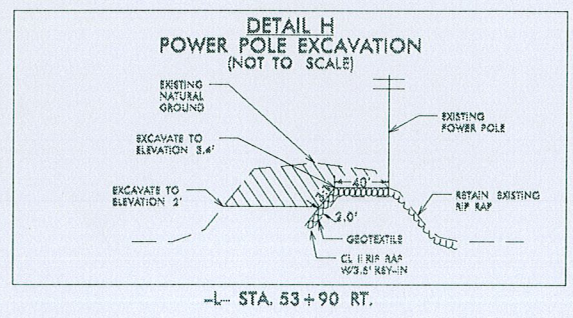
NOTES
1) FOR -L- PROFILE, SEE SHEET 7
2) FOR STRUCTURE PLANS, SEE SHEETS S-1 TO S-7

MATCH LINE SEE SHEET 5 -L- STA. 44+00.00

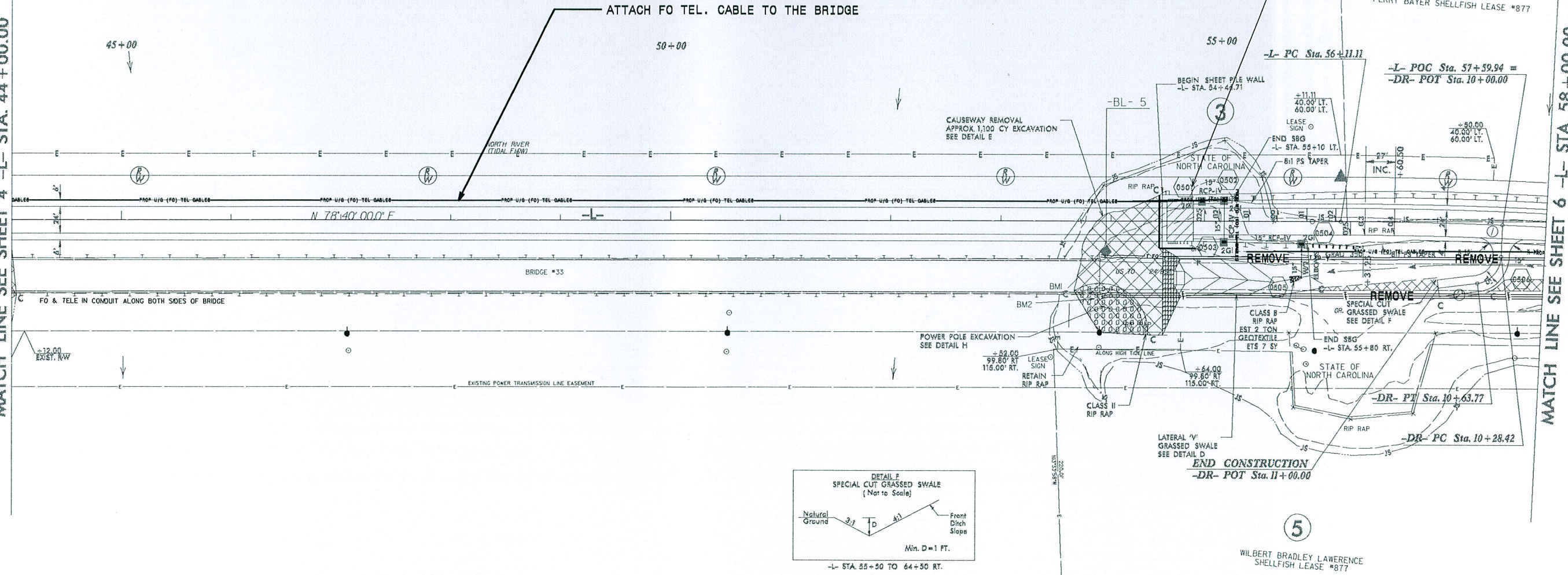
REVISIONS

8/17/99
17-NOV-2014 ih4
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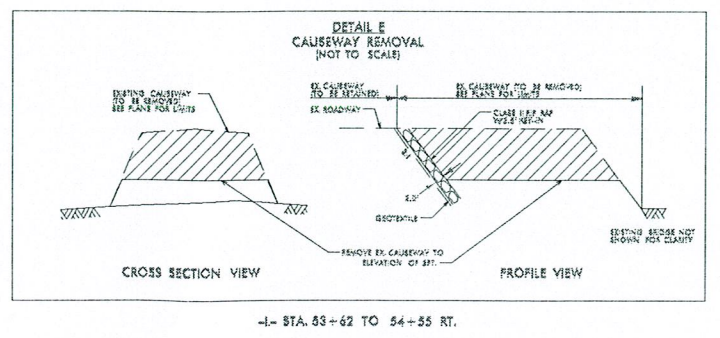
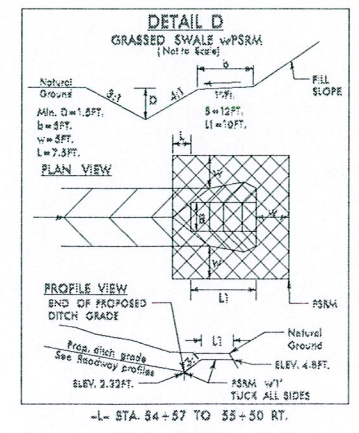
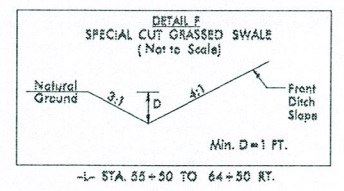
NAD 83/NSRS 2007



MATCH LINE SEE SHEET 4 -L- STA. 44+00.00



MATCH LINE SEE SHEET 6 -L- STA. 58+00.00



-DR-
PI Sta 10+49.78
Δ = 81° 0' 17.0" (RT)
D = 229° 10' 59.2"
L = 35.35'
T = 21.36'
R = 2500'
① S 91° 18' 32.0" E
② S 71° 42' 45.0" W

-L-
PI Sta 57+24.59
Δ = 3° 15' 00.0" (RT)
D = 1° 25' 56.6"
L = 226.89'
T = 113.48'
R = 4000.00'

DENOTES IMPACTS IN SURFACE WATER

PAVEMENT REMOVAL

NOTES

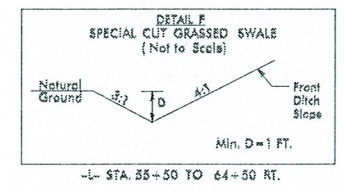
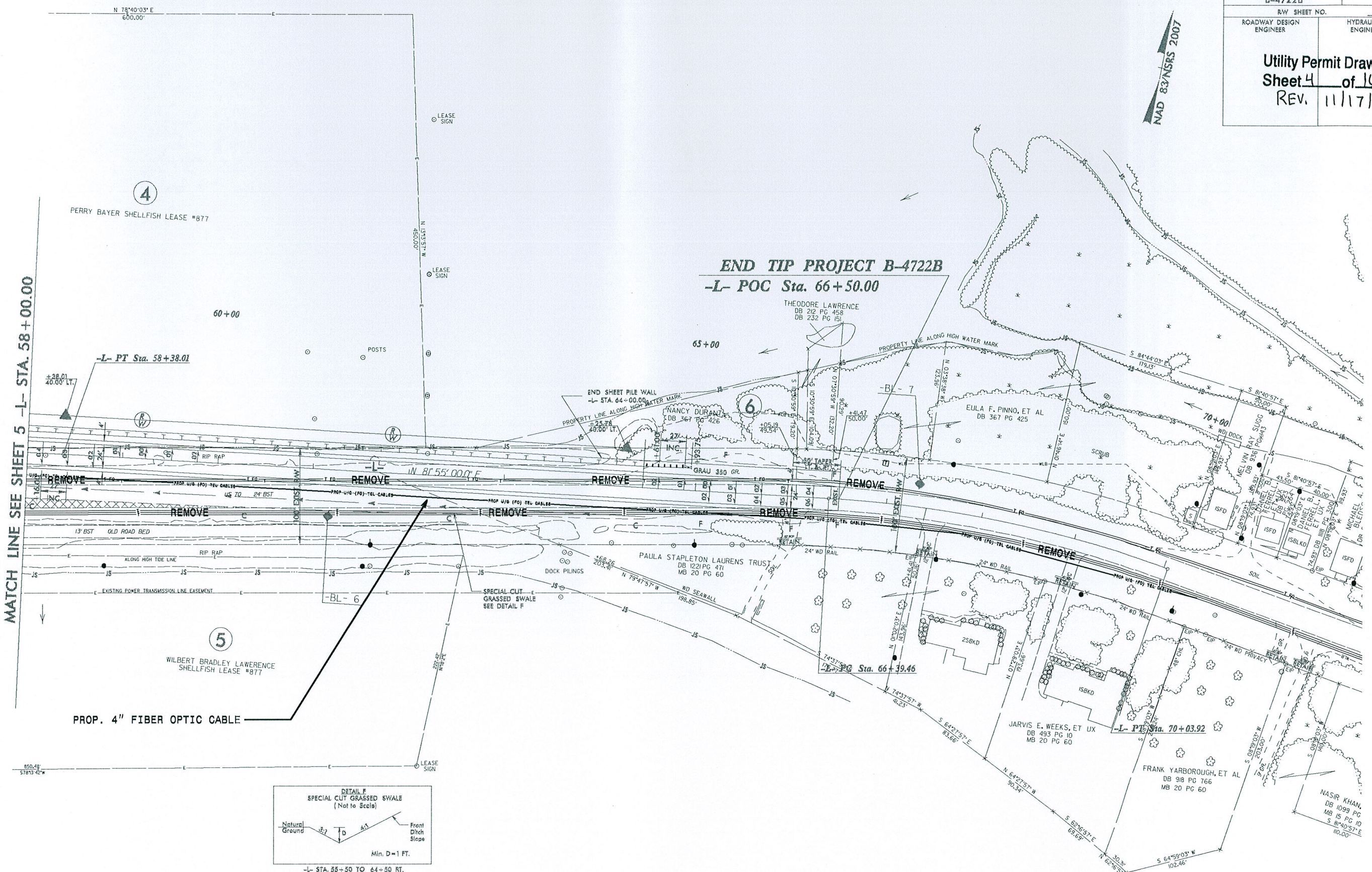
- 1) FOR -L- PROFILE, SEE SHEET 7
- 2) FOR STRUCTURE PLANS, SEE SHEETS 5-? TO 5-?

REVISIONS
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 \$\$\$USERNAME\$\$\$

8/17/99

NAD 83/NRS 2007

8/17/99
REVISIONS
17-NOV-2014 09:48 R:\Utilities\Engineering\NEUN\Permit Plans and Narratives\B-4722B_U.L.cdy_sht6_LUE.lnes_permit_sht6_L.pah.dgn \$\$\$USERNAME\$\$\$



PI Sta 57+24.59	PI Sta 68+22.94
$\Delta = 3' 15'' 00.0''$ (RT)	$\Delta = 16' 24'' 03.3''$ (RT)
$D = 1' 25'' 56.6''$	$D = 4' 30'' 00.5''$
$L = 226.89'$	$L = 364.45'$
$T = 113.48'$	$T = 183.48'$
$R = 4,000.00'$	$R = 1,273.20'$

PAVEMENT REMOVAL

NOTES
1) FOR -L- PROFILE, SEE SHEETS 7 AND 8