

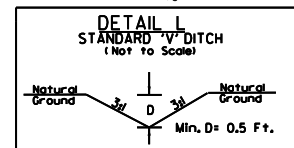
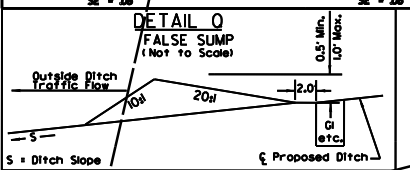
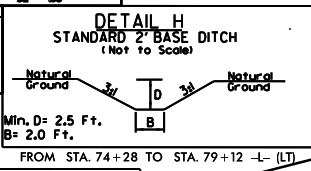
**PERMIT DRAWINGS
SHEET 20 OF 93**

PROJECT REFERENCE NO. 17-258
 COUNTY: HARRIS
 ENGINEER: [Signature]
INCOMPLETE PLANS
 TO BE USED FOR CONSTRUCTION
PRELIMINARY PLANS
 TO NOT BE USED FOR CONSTRUCTION

REVISIONS

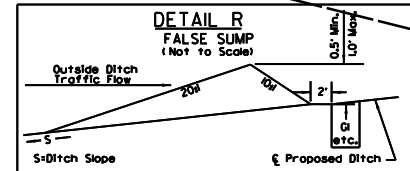
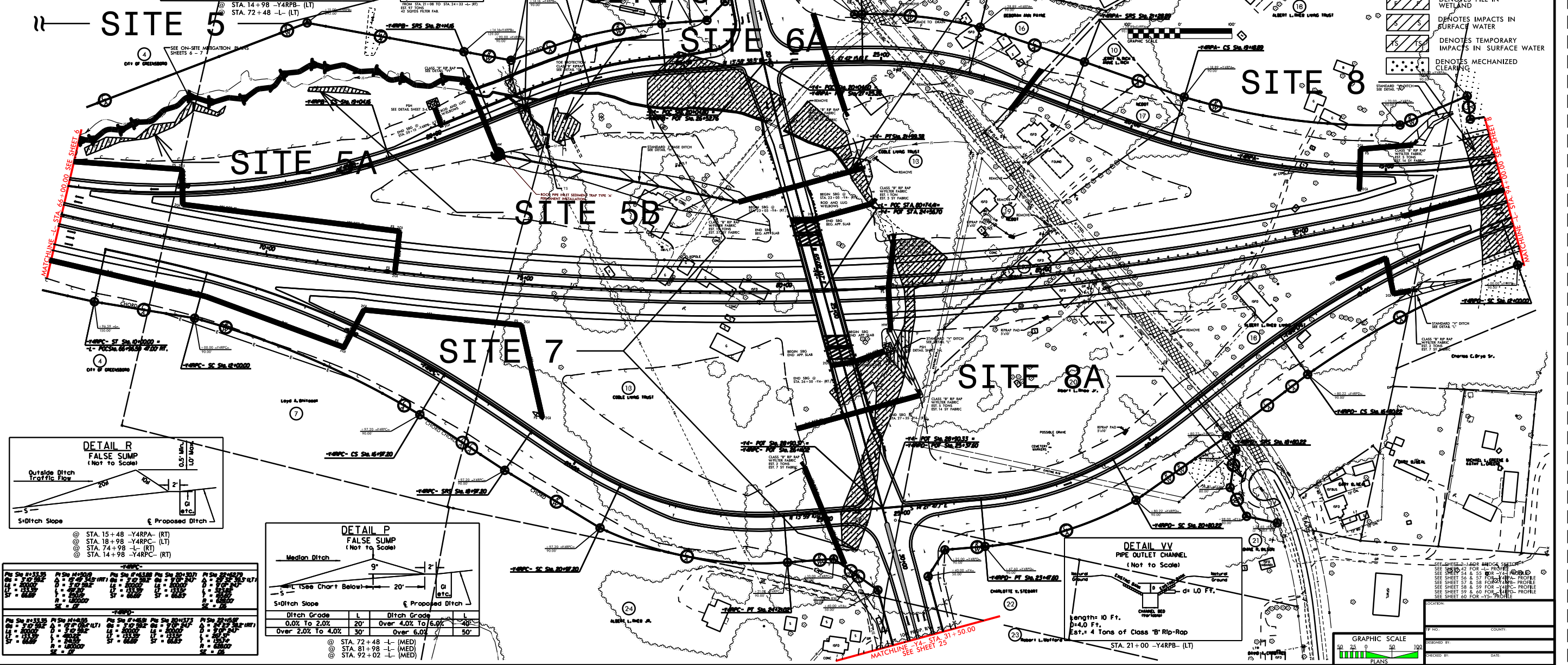
NO.	DATE	DESCRIPTION

STATION	INVERT	GRADE	WIDTH	DEPTH	LENGTH
12+77	1.00	1.50	2.0	0.5	10
13+36	1.00	1.50	2.0	0.5	10
14+16	1.00	1.50	2.0	0.5	10
14+45	1.00	1.50	2.0	0.5	10
25+72	1.00	1.50	2.0	0.5	10
27+00	1.00	1.50	2.0	0.5	10



FROM STA. 12+77 TO STA. 14+16 -Y4RPD- (LT)
 FROM STA. 13+36 TO STA. 14+45 -Y4RPA- (RT)
 FROM STA. 25+72 TO STA. 27+00 -Y4- (LT)

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

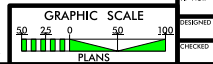
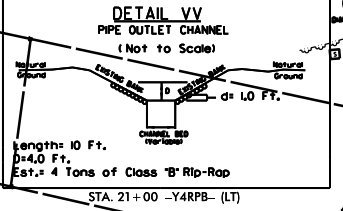


**DETAIL P
FALSE SUMP**
(Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

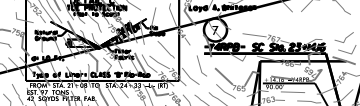
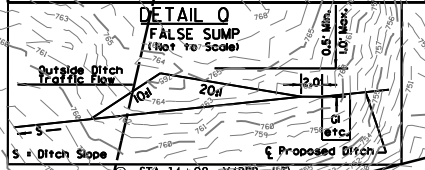
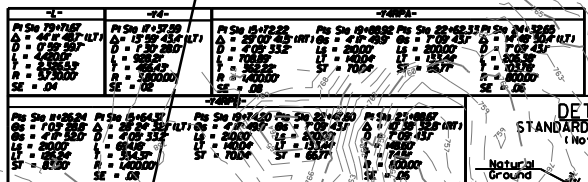
@ STA. 15+48 -Y4RPA- (RT)
 @ STA. 18+98 -Y4RPC- (LT)
 @ STA. 74+98 -L- (RT)
 @ STA. 14+98 -Y4RPC- (RT)

STATION	INVERT	GRADE	WIDTH	DEPTH	LENGTH
15+48	1.00	1.50	2.0	0.5	10
18+98	1.00	1.50	2.0	0.5	10
74+98	1.00	1.50	2.0	0.5	10
14+98	1.00	1.50	2.0	0.5	10



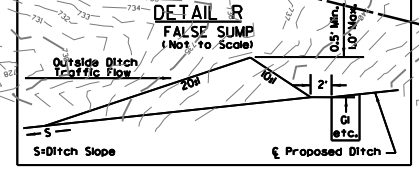
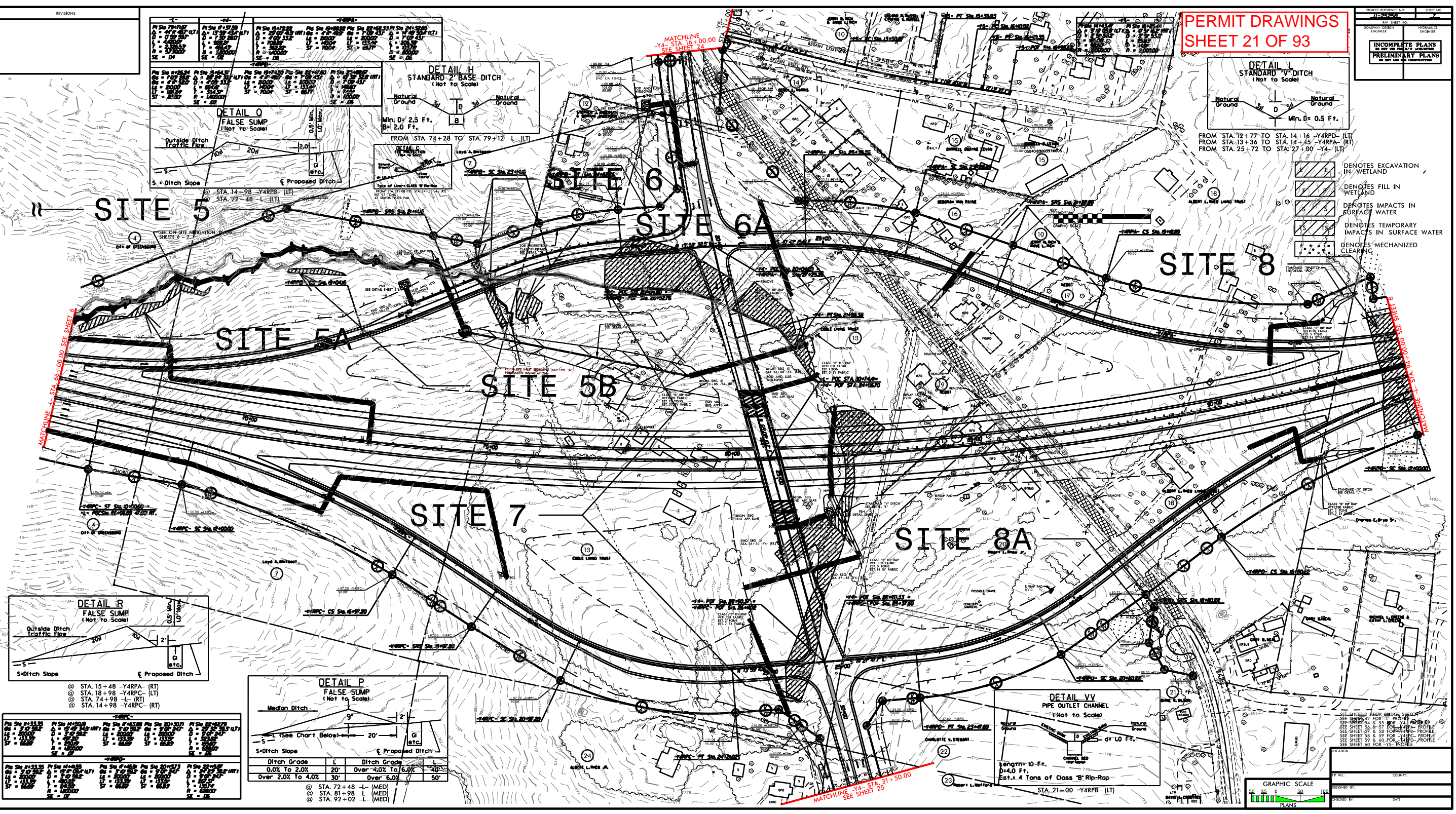
SEE SHEET 42 FOR...
 SEE SHEET 54 & 57 FOR...
 SEE SHEET 57 & 58 FOR...
 SEE SHEET 58 & 59 FOR...
 SEE SHEET 59 & 60 FOR...
 SEE SHEET 60 FOR...
 DATE: _____

REVISIONS	



PERMIT DRAWINGS
SHEET 21 OF 93

PROJECT NO. 172420
SHEET NO. 21 OF 93
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



-7.00%	
Sta. 15+48	15.48
Sta. 18+98	18.98
Sta. 74+98	74.98
Sta. 14+98	14.98

-7.00%	
Sta. 15+48	15.48
Sta. 18+98	18.98
Sta. 74+98	74.98
Sta. 14+98	14.98

DETAIL P
FALSE SUMP
(Not to Scale)

Median Ditch

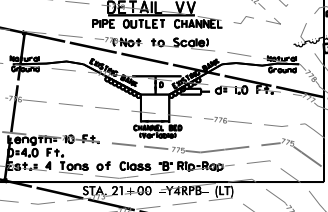
L (See Chart Below)

S₁ Ditch Slope

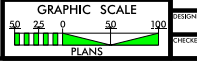
Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

Proposed Ditch

② STA. 72+48 -L- (MED)
② STA. 81+98 -L- (MED)
② STA. 92+02 -L- (MED)



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

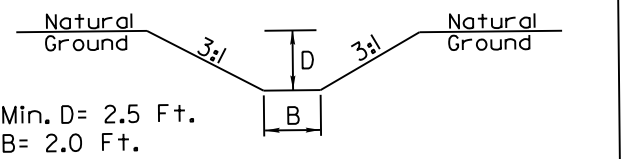


DATE: _____
DRAWN BY: _____
CHECKED BY: _____

PERMIT DRAWINGS
SHEET 22 OF 93

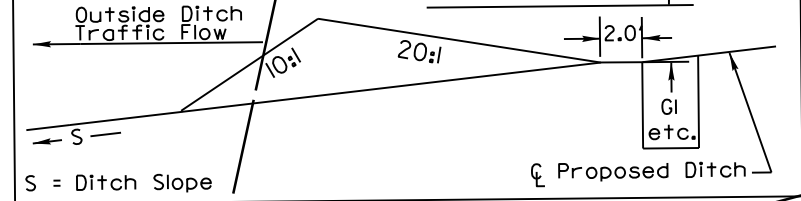
$R = 5,730.00'$ $SE = .04$	$R = 3,800.00'$ $SE = .02$	$R = 1,400.00'$ $SE = .08$
-Y4RPB-		
$PIs Sta 11+26.24$ $\Theta_s = 1'03'' 28.8'$ $\Delta = 28' 24'' 32.1'$ (LT) $\Theta_s = 4'17'' 52.0'$ $L_s = 210.00'$ $LT = 126.24'$ $ST = 83.90'$	$PIs Sta 15+64.37$ $\Delta = 28' 24'' 32.1'$ (LT) $D = 4'05'' 33.2'$ $L = 694.16'$ $T = 354.37'$ $R = 1,400.00'$ $SE = .08$	$PIs Sta 19+74.20$ $\Theta_s = 4'17'' 49.9'$ $L_s = 210.00'$ $LT = 140.04'$ $ST = 70.04'$
$PIs Sta 22+47.60$ $\Theta_s = 7'09'' 43.1'$ $L_s = 200.00'$ $LT = 133.44'$ $ST = 66.77'$	$PIs Sta 23+88.67$ $\Delta = 10' 38'' 32.8'$ (RT) $D = 7'09'' 43.1'$ $L = 148.60'$ $T = 74.51'$ $R = 800.00'$ $SE = .06$	

DETAIL H STANDARD 2' BASE DITCH (Not to Scale)

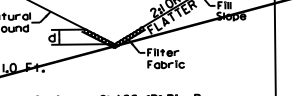


FROM STA. 74+28 TO STA. 79+12 -L- (LT)

DETAIL Q FALSE SUMP (Not to Scale)



DETAIL C TOE PROTECTION (Not to Scale)



Type of Liner: CLASS "B" Rip-Rap
FROM STA. 21+08 TO STA. 24+33 -L- (RT)
EST. 97 TONS
42 SQYDS FILTER FAB.

SITE 5

SEE ON-SITE MITIGATION PLANS SHEETS 6 - 7
CITY OF GREENSBORO

STA. 14+98 -Y4RPB- (LT)
STA. 72+48 -L- (LT)

SITE 5A

SITE 5B

SITE 6

SITE 6A

SITE 7

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

Y4RPC- ST Sta. 10+00.00 =
- POC Sta. 66+96.50 47.00' RT.

Y4RPC- SC Sta. 12+00.00



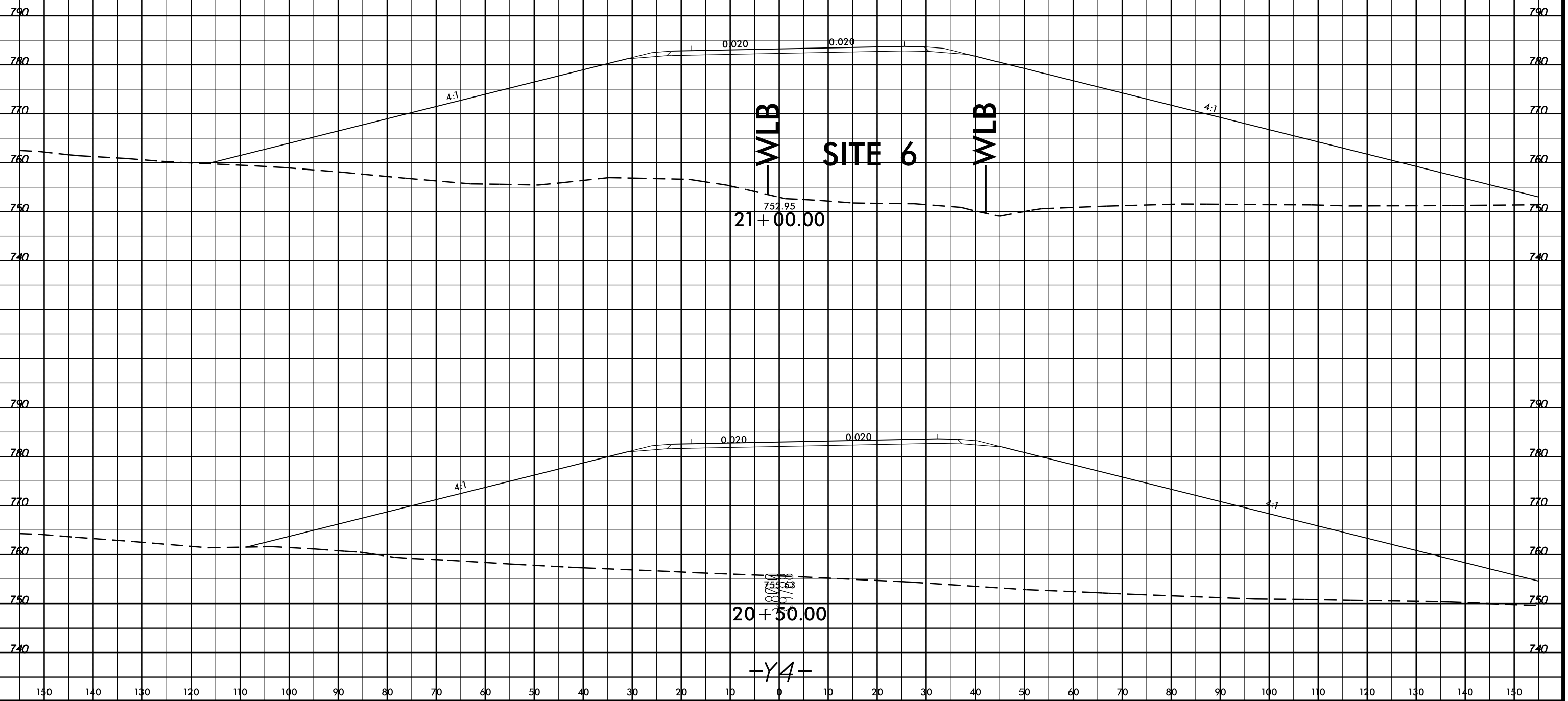
8/23/99



PROJ. REFERENCE NO. U-2525B SHEET NO. X-223

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 DRAWINGS SHEET 23 OF 93



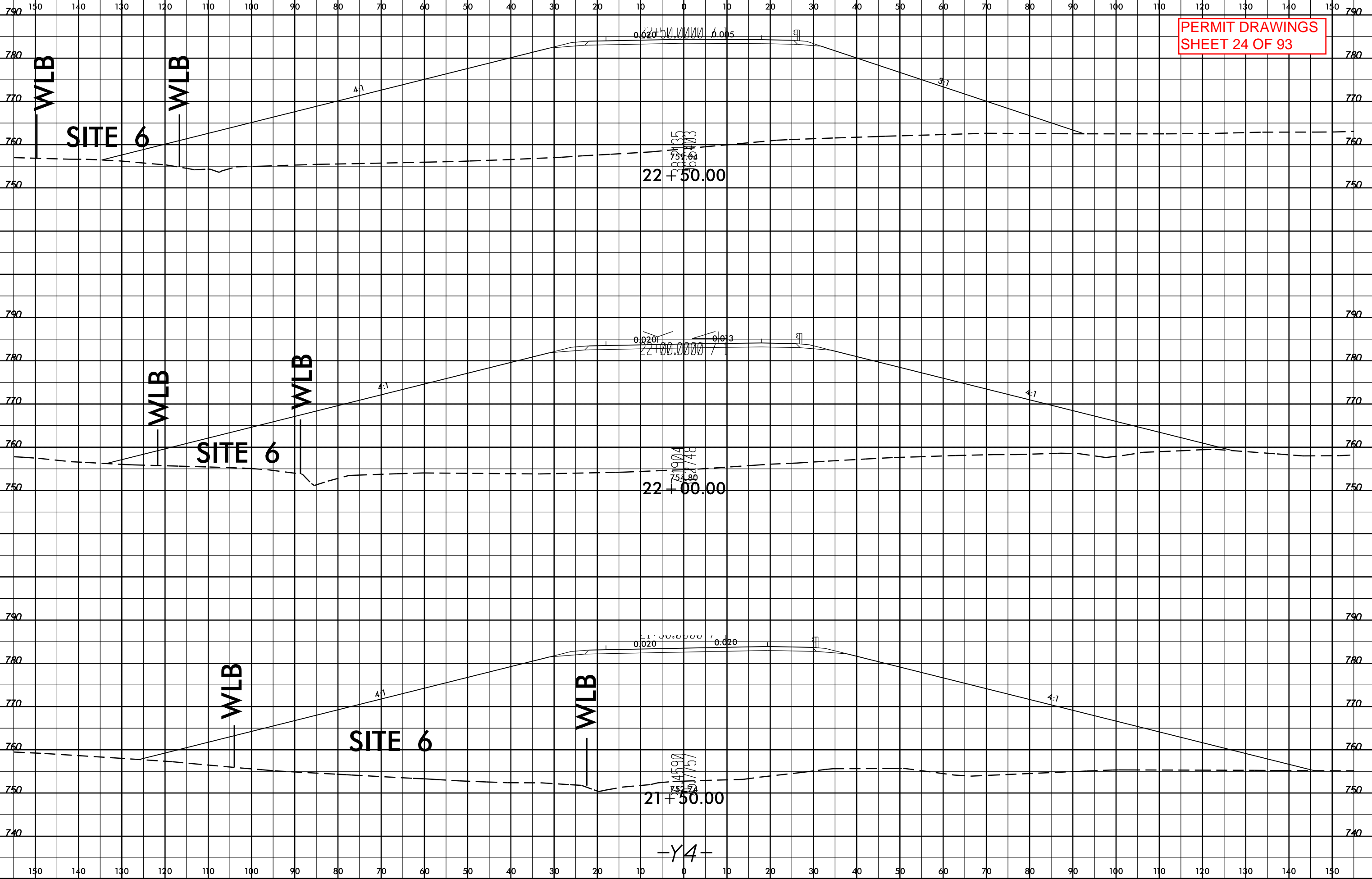
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\$\$\$SYCDN\$\$\$
\$\$\$SYUSER\$\$\$

8/23/99



PROJ. REFERENCE NO.
U-2525B

SHEET NO.
X-224



PERMIT DRAWINGS
SHEET 24 OF 93

\$\$\$SYTIME\$\$\$
\$\$\$CDN\$\$\$
\$\$\$SUBUSERNAME\$\$\$

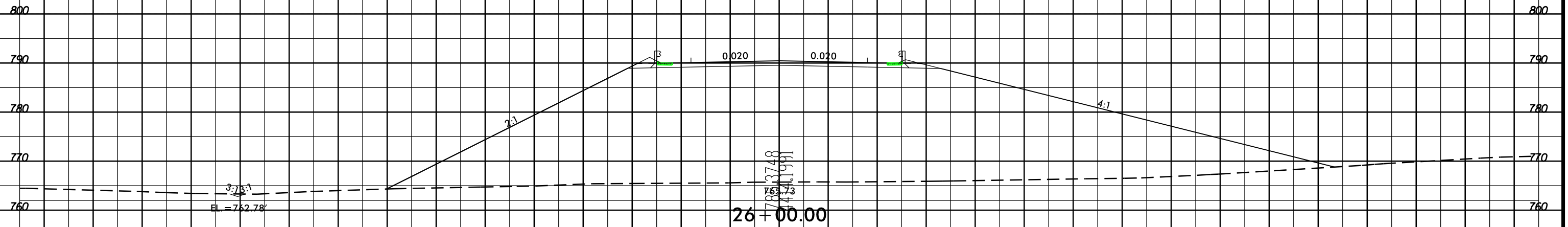
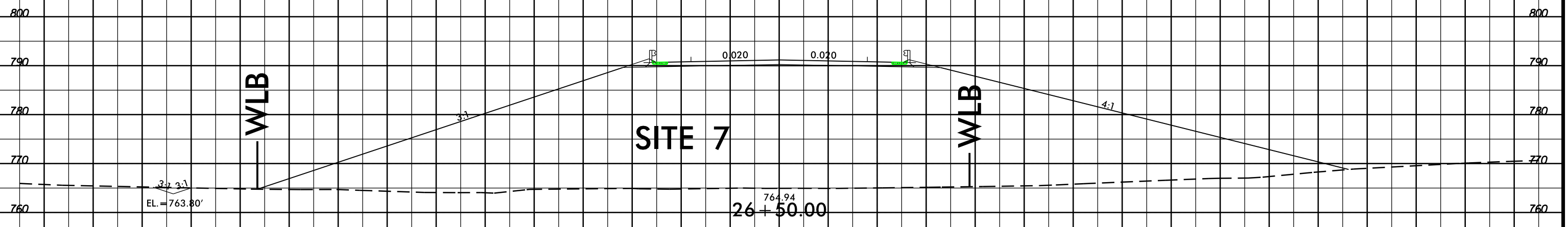
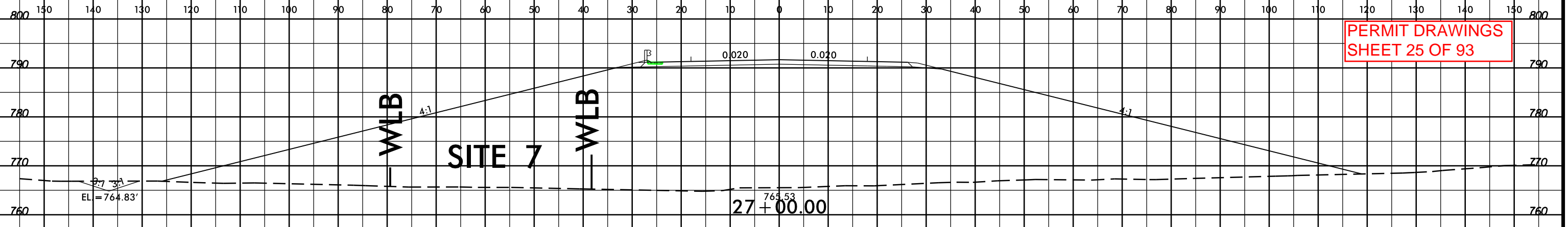
-Y4-

8/23/99



PROJ. REFERENCE NO. U-2525B SHEET NO. X-227

PERMIT DRAWINGS SHEET 25 OF 93



-Y4-

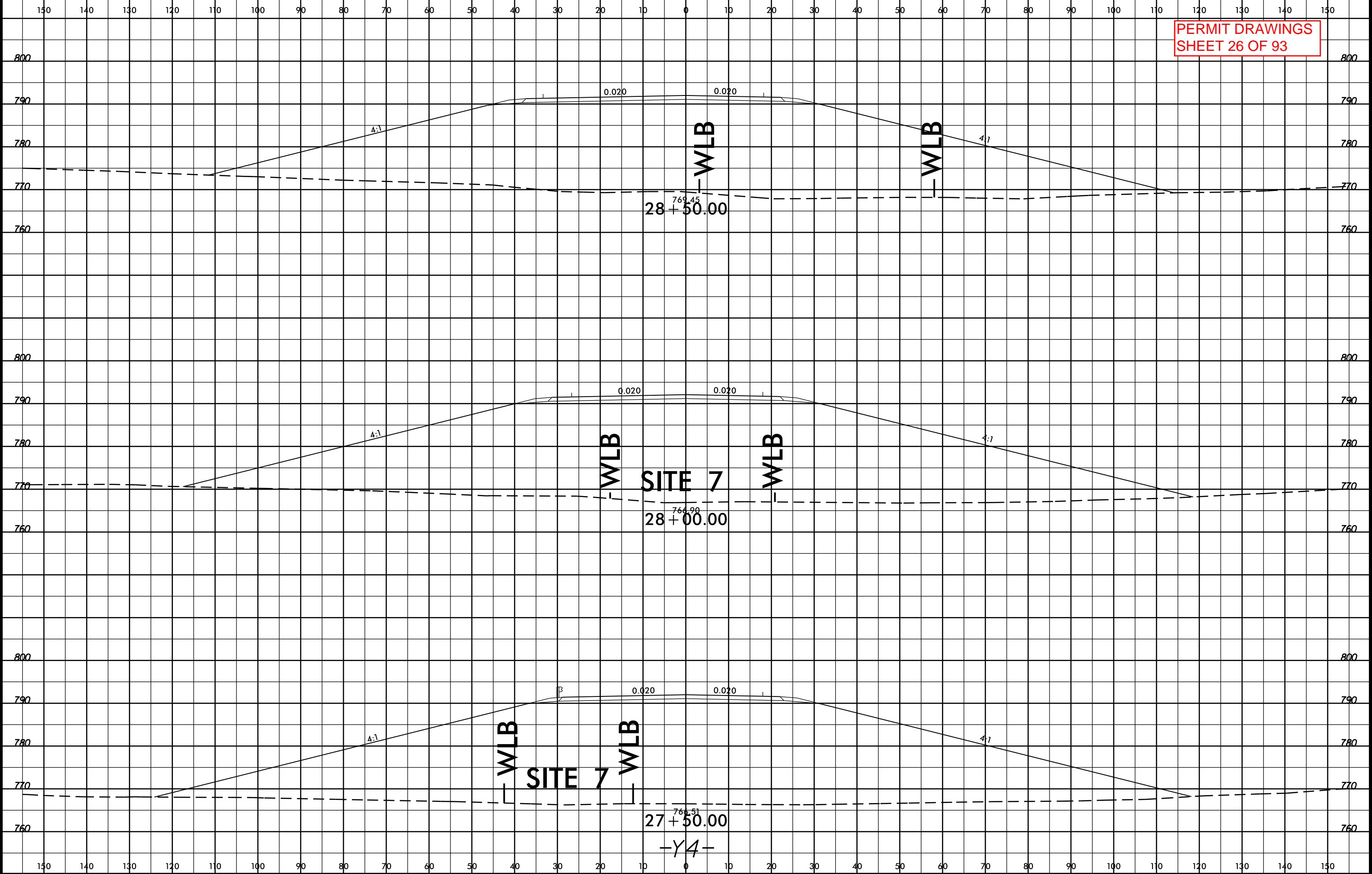
SYTIME
DRAWN
SUB

8/23/99



PROJ. REFERENCE NO.
U-2525B

SHEET NO.
X-228



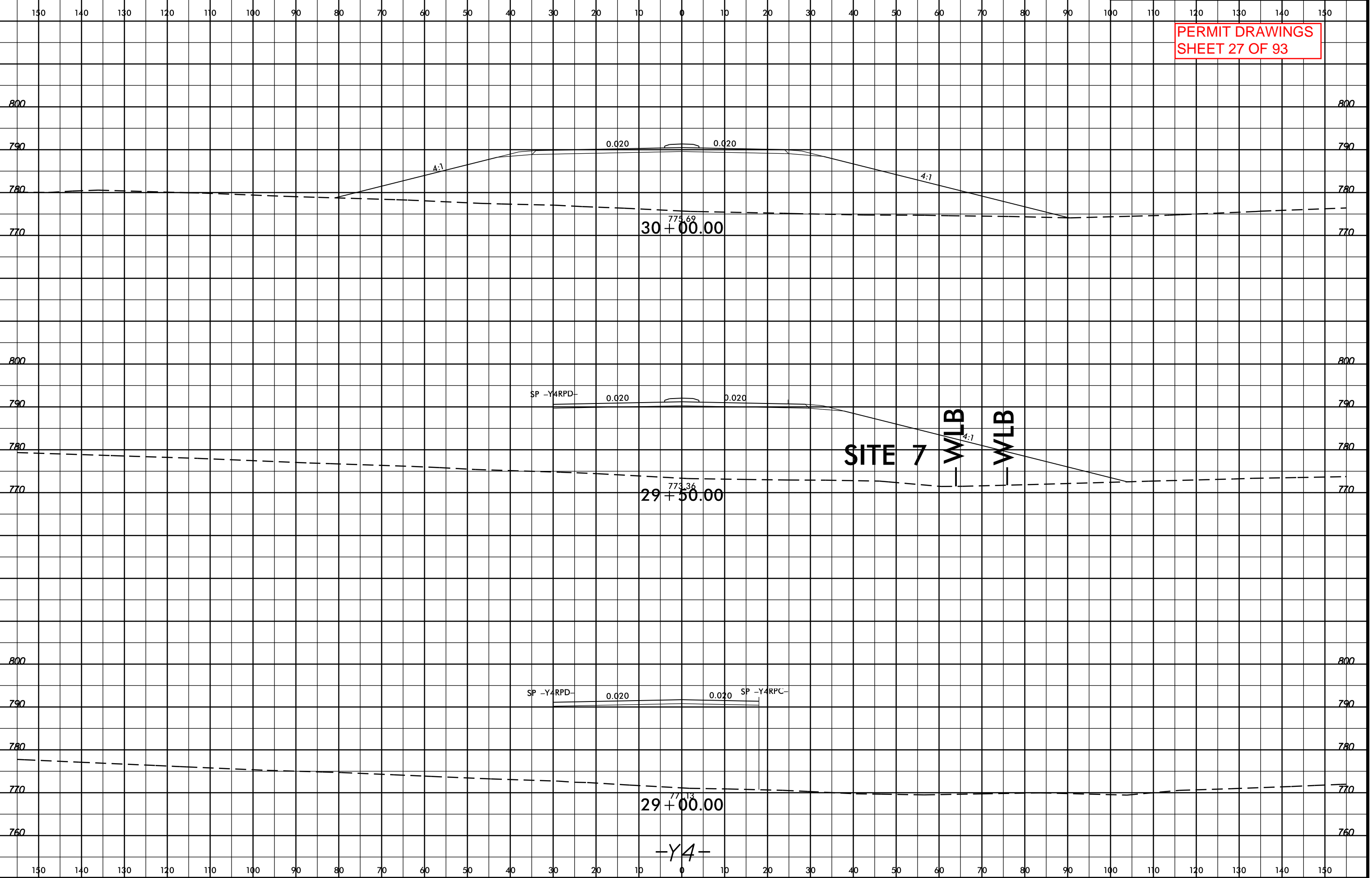
PERMIT DRAWINGS
SHEET 26 OF 93

\$\$\$SYTIME\$\$\$
\$\$\$V-DIMENSION\$\$\$
\$\$\$USERNAME\$\$\$

8/23/99



PERMIT DRAWINGS
SHEET 27 OF 93



\$\$\$SYTIME\$\$\$
\$\$\$V-DIMENSION\$\$\$
\$\$\$USERNAME\$\$\$

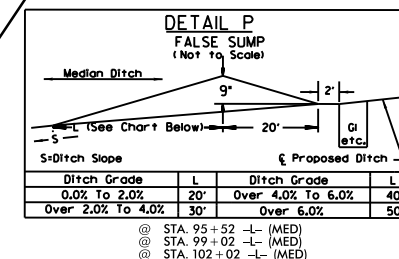
5/14/99

PERMIT DRAWINGS
SHEET 28 OF 93

PROJECT REFERENCE NO. U-2525B	SHEET NO. 8
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

Revised 10/15/13

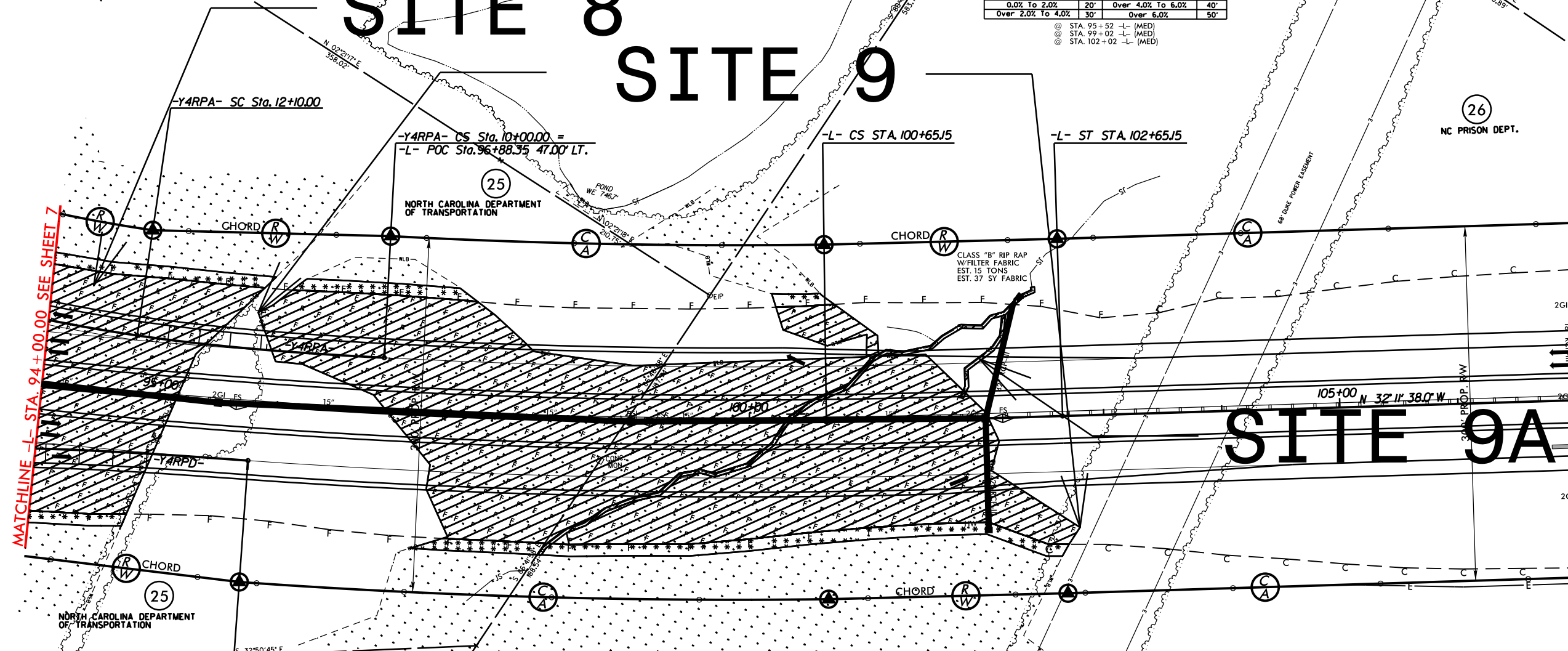
-L-		-Y4RPA-	
PI Sta 79+71.67	PIs Sta 101+31.82	PIs Sta 11+26.24	PI Sta 15+72.22
$\Delta = 44^{\circ}11'48.7"$ (LT)	$\Theta_s = 0^{\circ}59'59.7"$	$\Theta_s = 1^{\circ}03'28.8"$	$\Delta = 29^{\circ}00'41.5"$ (RT)
$D = 0^{\circ}59'59.7"$	$L_s = 200.00'$	$\Theta_s = 4^{\circ}17'52.0"$	$D = 4^{\circ}05'33.2"$
$L = 4,420.01'$	$LT = 133.34'$	$L_s = 210.00'$	$L = 708.89'$
$T = 2,326.53'$	$ST = 66.67'$	$LT = 126.24'$	$T = 362.22'$
$R = 5,730.00'$		$ST = 83.90'$	$R = 1,400.00'$
$SE = .04$			$SE = .08$



SITE 8 SITE 9

MATCHLINE -L- STA. 94+00.00 SEE SHEET 7

MATCHLINE -L- STA. 107+00.00 SEE SHEET 9



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



-Y4RPD-	
PIs Sta 11+33.35	PI Sta 14+41.55
$\Theta_s = 3^{\circ}10'59.2"$	$\Delta = 15^{\circ}17'09.4"$ (LT)
$L_s = 200.00'$	$D = 3^{\circ}10'59.2"$
$LT = 133.35'$	$L = 480.22'$
$ST = 66.69'$	$T = 241.55'$
	$R = 1,800.00'$
	$SE = .07$

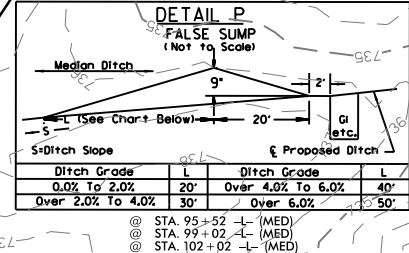
SEE SHEET 43 FOR -L- PROFILE
 SEE SHEET 56 FOR -Y4RPA- PROFILE
 SEE SHEET 59 FOR -Y4RPD- PROFILE

PROJECT REFERENCE NO. U-2525B	SHEET NO. 8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PERMIT DRAWINGS
SHEET 29 OF 93

Revised
10/15/13

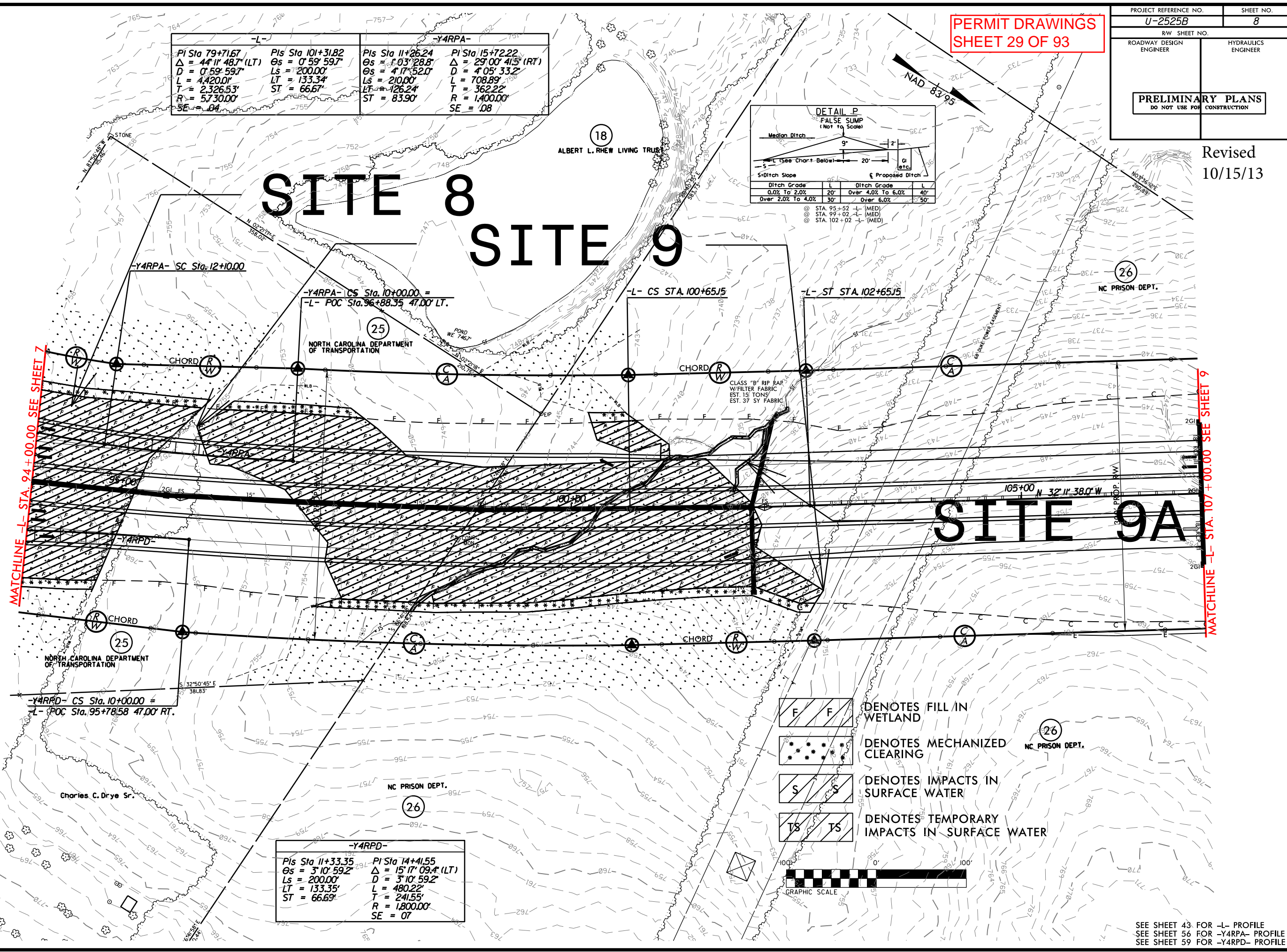
-L-		-Y4RPA-	
PI Sta 79+71.67 Δ = 44° 11' 48.7" (LT) D = 0' 59' 59.7" L = 4420.01' T = 2326.53' R = 5730.00' SE = .04	PI Sta 101+31.82 Θs = 0° 59' 59.7" Ls = 200.00' LT = 133.34' ST = 66.67'	PI Sta 11+26.24 Θs = 1° 03' 28.8" D = 4' 17' 52.0" Ls = 210.00' LT = 126.24' ST = 83.90'	PI Sta 15+72.22 Δ = 29° 00' 41.3" (RT) D = 4' 05' 33.2" L = 708.89' T = 362.22' R = 1400.00' SE = .08



SITE 8 SITE 9

MATCHLINE -L- STA. 94+00.00 SEE SHEET 7

MATCHLINE -L- STA. 107+00.00 SEE SHEET 9



SITE 9A

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



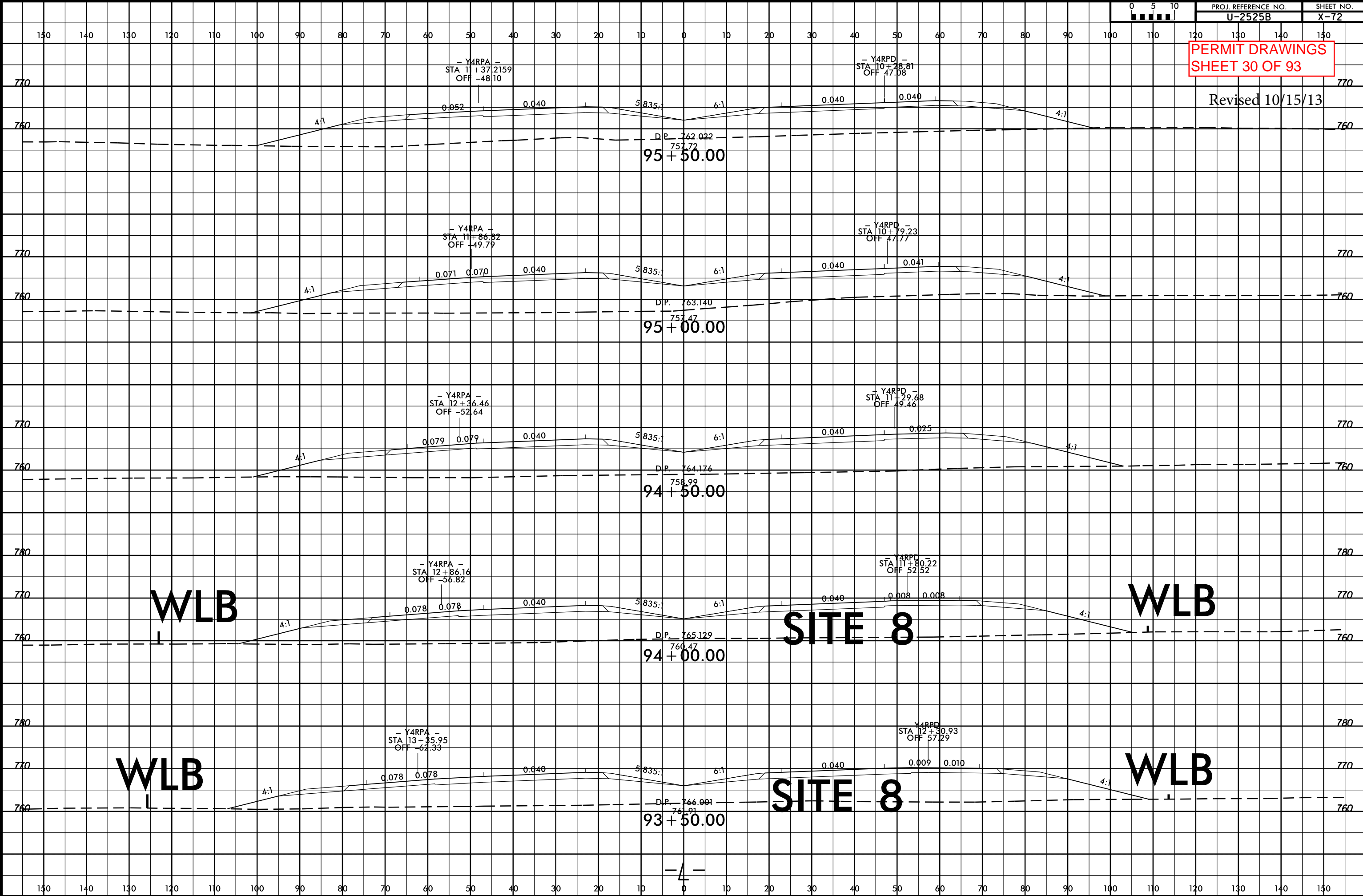
-Y4RPD-	
PI Sta 11+33.35 Θs = 3° 10' 59.2" Ls = 200.00' LT = 133.35' ST = 66.69'	PI Sta 14+41.55 Δ = 15° 17' 09.4" (LT) D = 3° 10' 59.2" L = 480.22' T = 241.55' R = 1800.00' SE = .07

8/23/99



PERMIT DRAWINGS
SHEET 30 OF 93

Revised 10/15/13



WLB

WLB

SITE 8

WLB

WLB

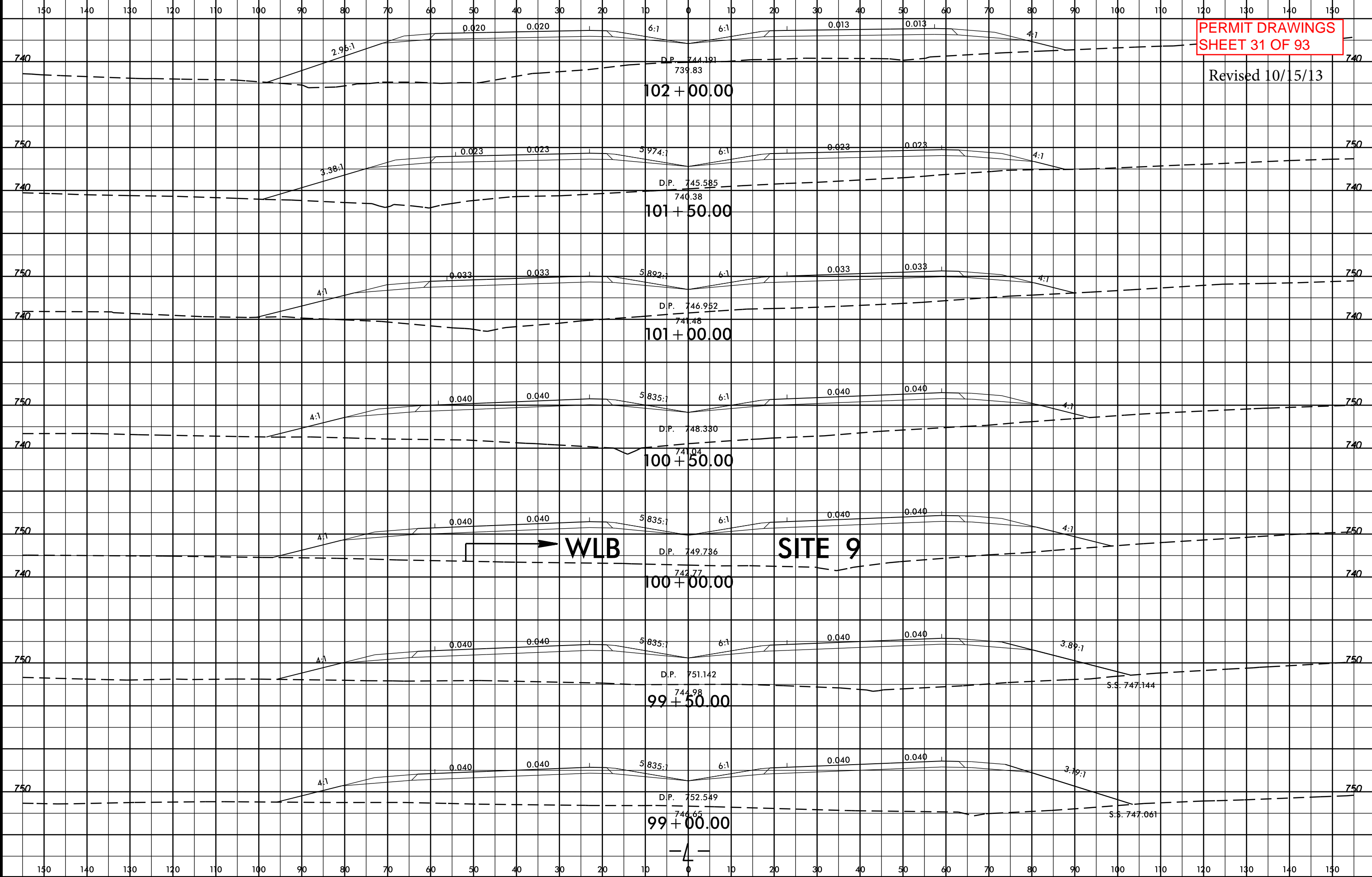
SITE 8

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$SECTION\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

8/23/99



PROJ. REFERENCE NO. U-2525B SHEET NO. X-74



PERMIT DRAWINGS
SHEET 31 OF 93

Revised 10/15/13

WLB

SITE 9

-4-

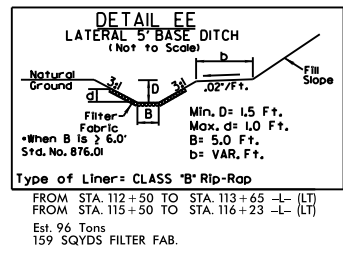
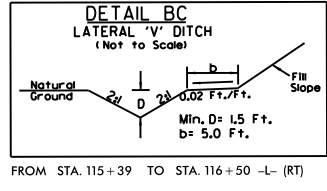
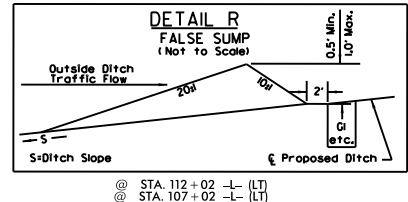
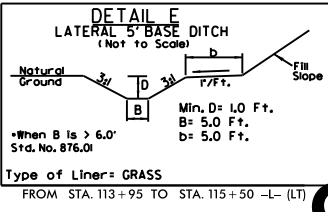
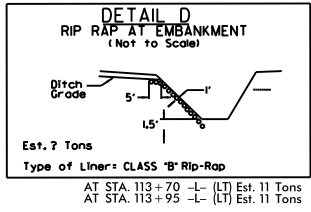
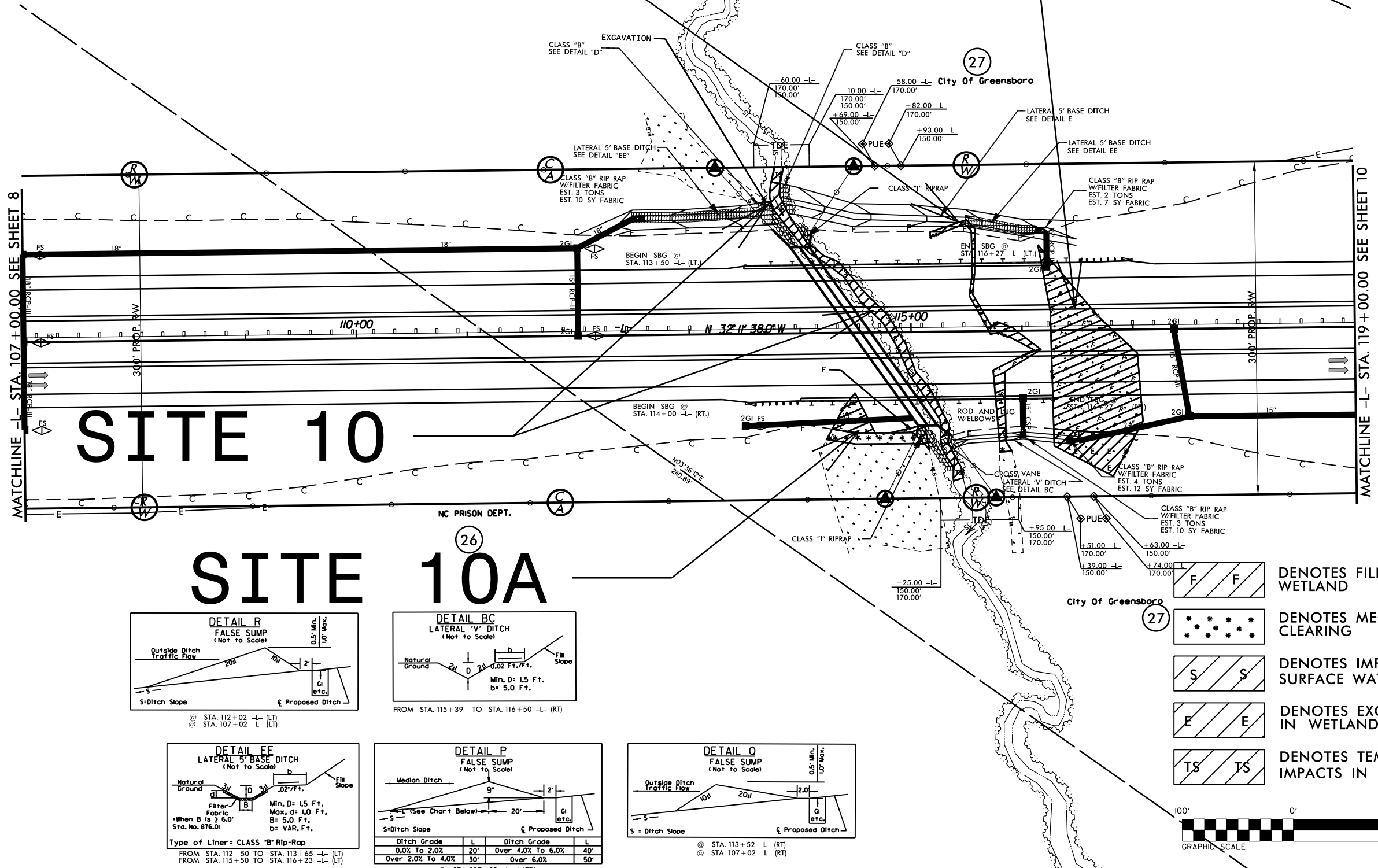
SYSTEMS SECTION
DUPLICATE

PERMIT DRAWINGS
SHEET 32 OF 93

Revised 9/24/13

SITE 10B SITE 10C

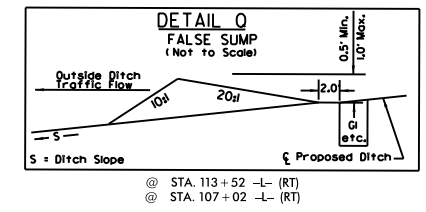
SITE 10 SITE 10A



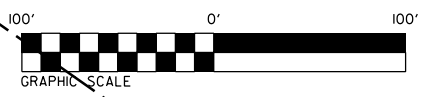
DETAIL P
FALSE SUMP
(Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

@ STA. 107+02 -L- (MED)
@ STA. 112+02 -L- (MED)



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



SEE SHEET 43 FOR -L- PROFILE
SEE SHEETS C-1 THRU C-?? FOR CULVERT PLANS

6-24-13 R/W REVISION (DWG) - ADDED PUE AT -L- STA. 114+75.00 LT. AND -L- STA. 116+57.00 RT. ON PARCEL 27 (CITY OF GREENSBORO).
REVISIONS

5/14/99

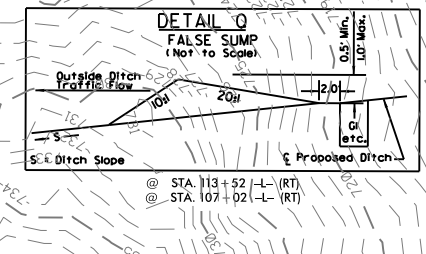
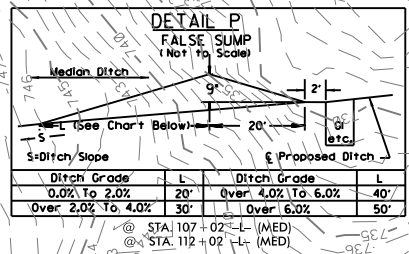
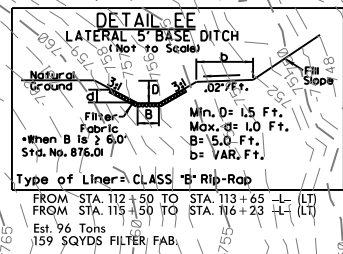
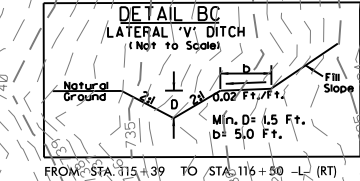
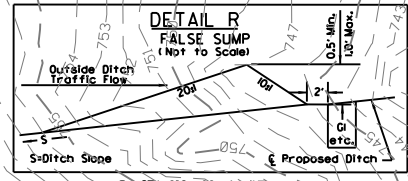
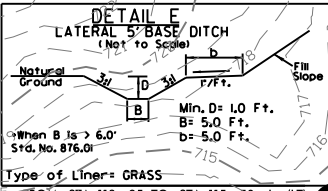
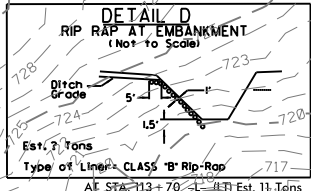
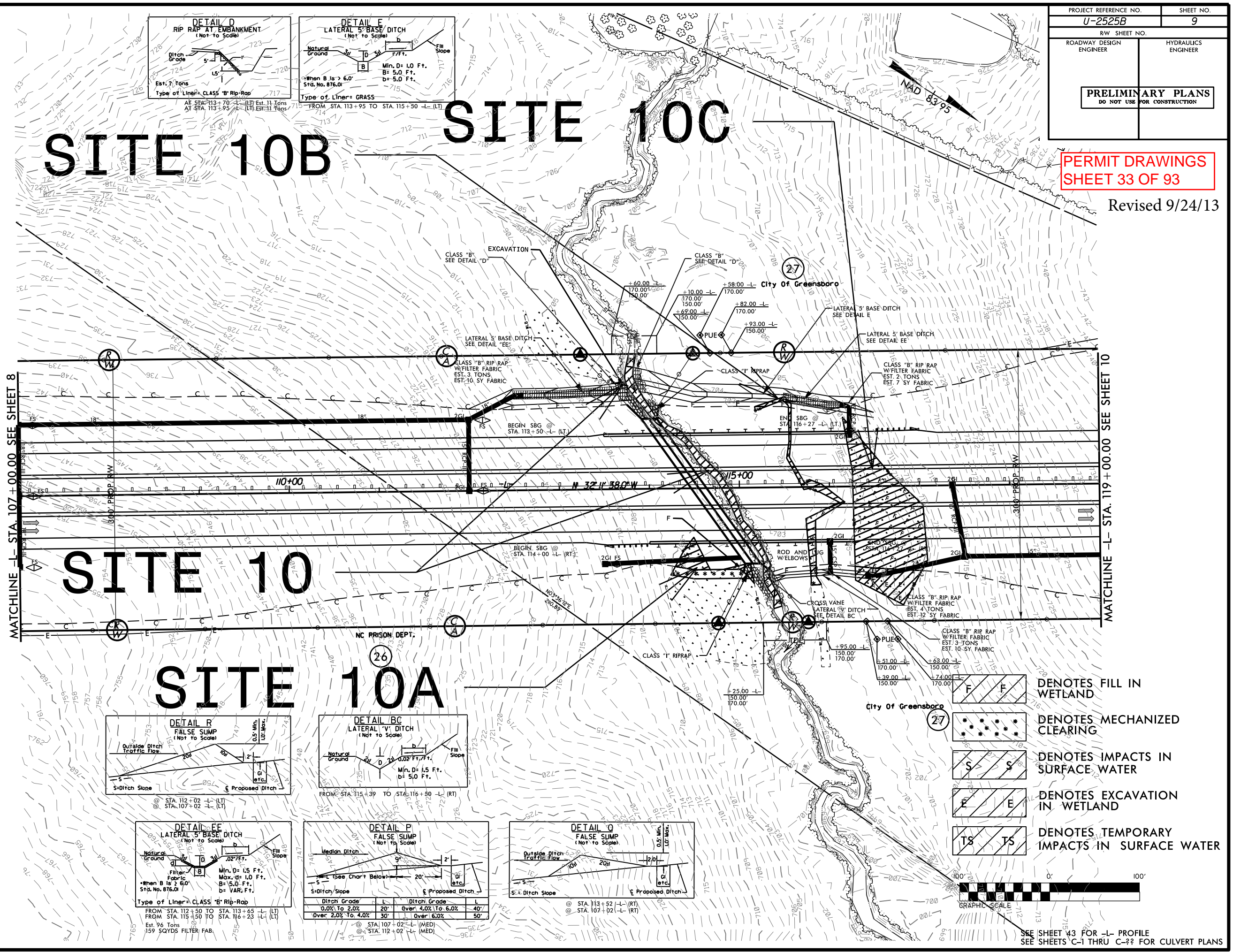
PROJECT REFERENCE NO. U-2525B	SHEET NO. 9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PERMIT DRAWINGS
SHEET 33 OF 93

Revised 9/24/13

6-24-13 R.W. REVISION (WGL) - ADDED PUE AT -L- STA. 114+75.00 LT. AND -L- STA. 116+57.00 RT. ON PARCEL 27. CITY OF GREENSBORO.

5/14/99

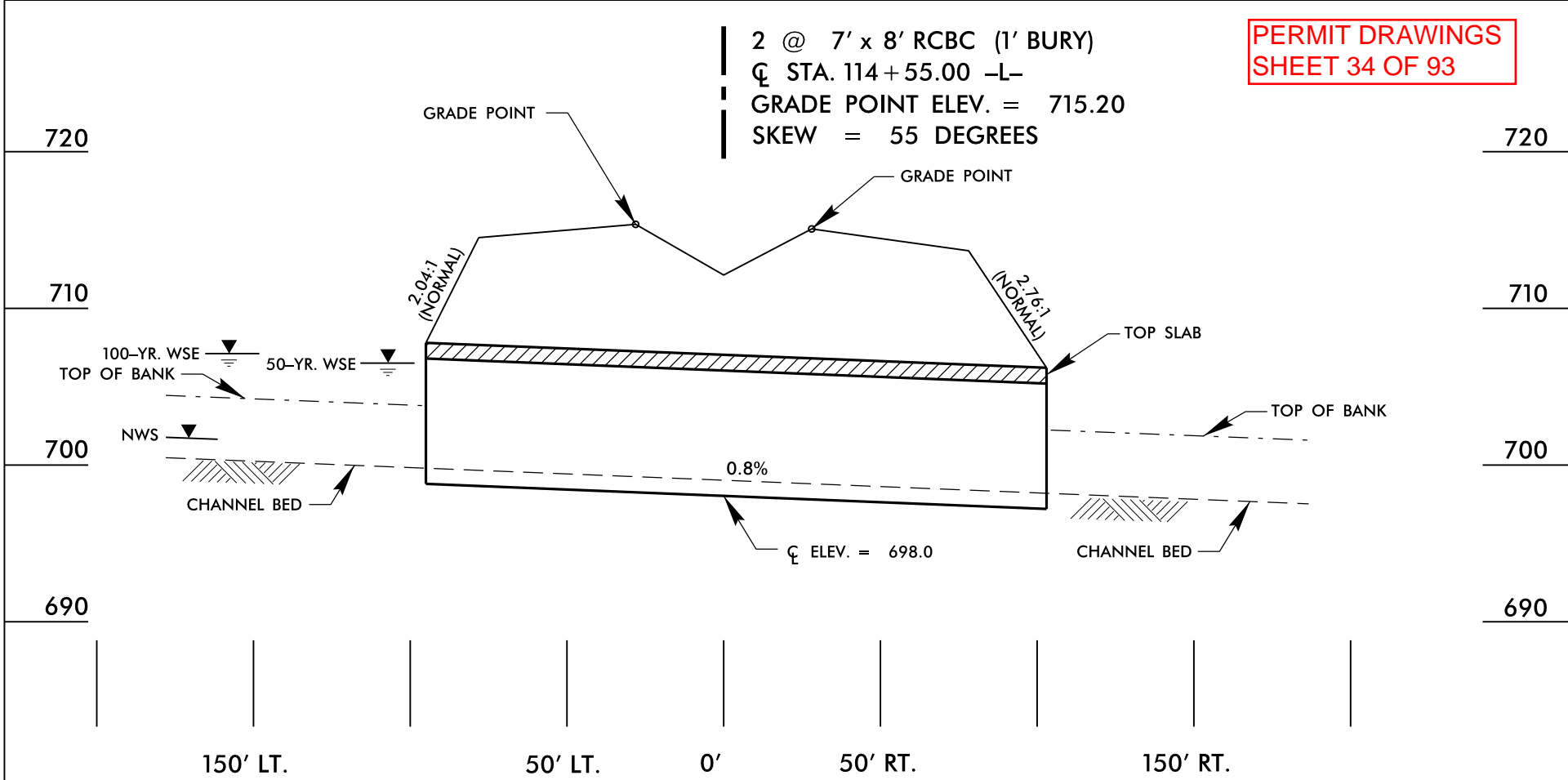


- DENOTES FILL IN WETLAND
- DENOTES MECHANIZED CLEARING
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES EXCAVATION IN WETLAND
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER



SEE SHEET 43 FOR -L- PROFILE
SEE SHEETS C-1 THRU C-?? FOR CULVERT PLANS

2 @ 7' x 8' RCBC (1' BURY)
CL STA. 114+55.00 -L-
GRADE POINT ELEV. = 715.20
SKEW = 55 DEGREES



PROFILE

NCDOT
DIVISION OF HIGHWAYS
GUILFORD COUNTY
PROJECT: 34821.1.1 (U-2525B)
GREENSBORO EASTERN LOOP
FROM NORTH OF US 70
RELOCATION TO US 29 NORTH
OF GREENSBORO
SHEET OF 03 / 08 / 13

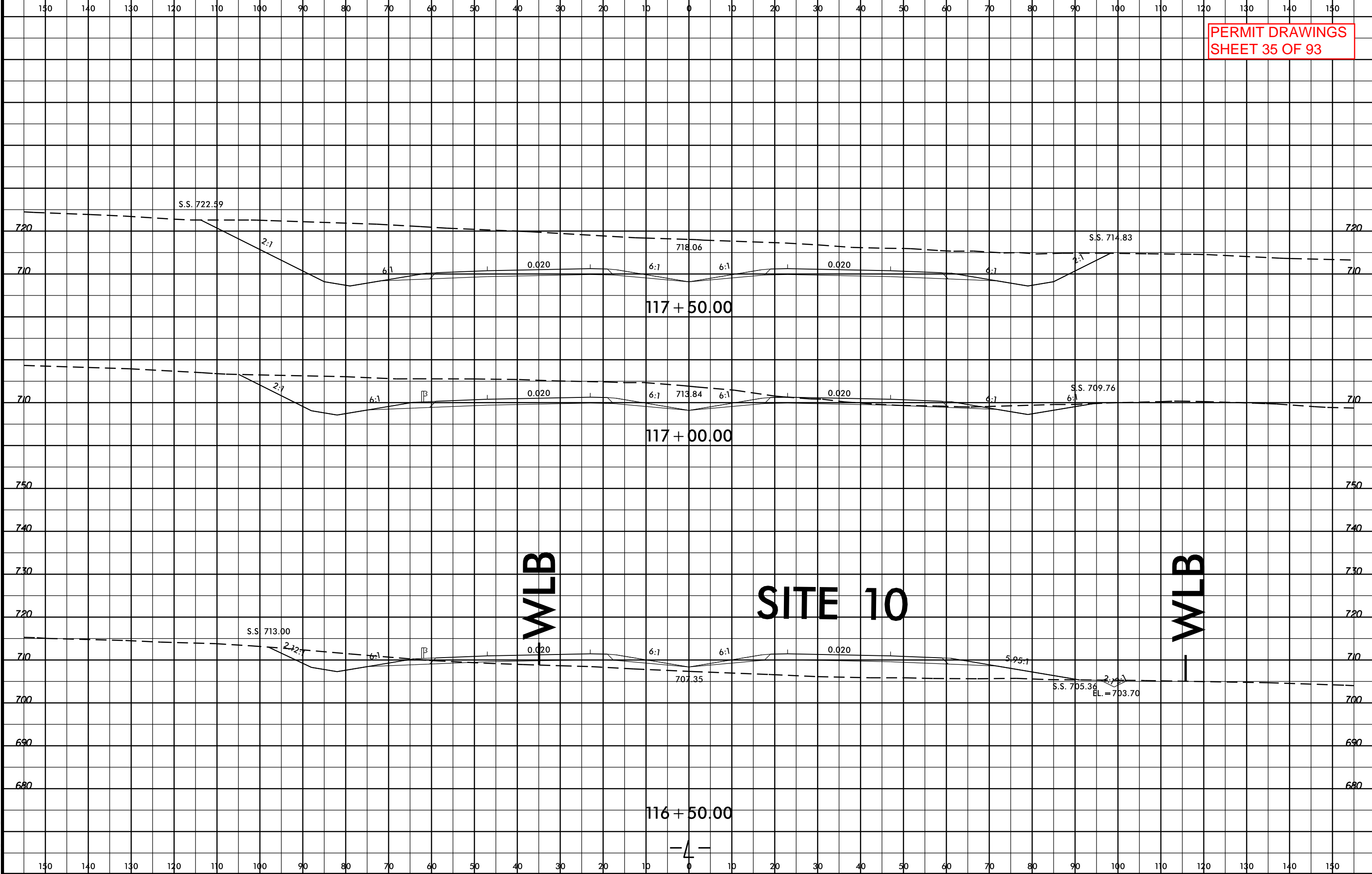
8/23/99



PROJ. REFERENCE NO.
U-2525B

SHEET NO.
X-83

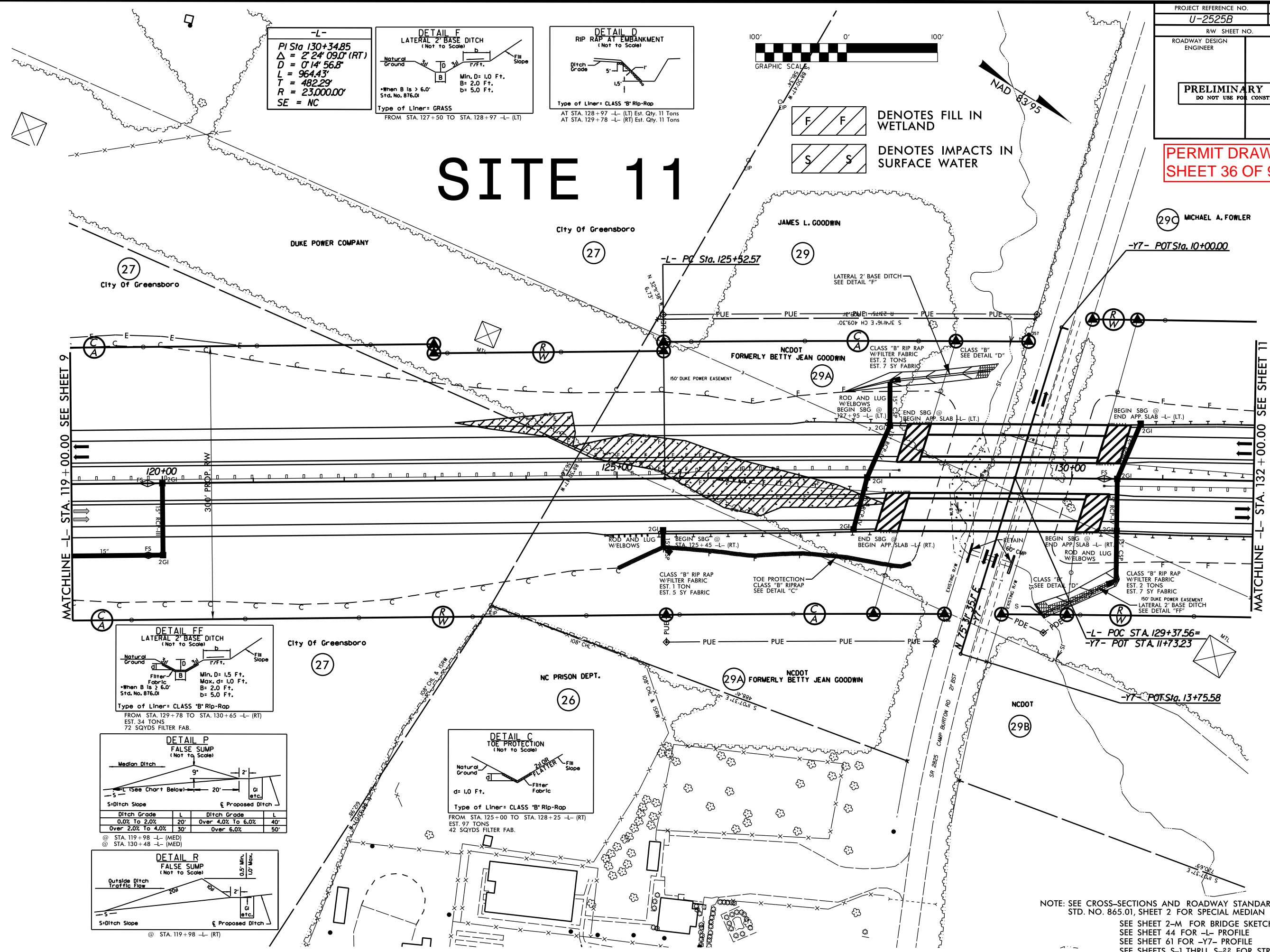
PERMIT DRAWINGS
SHEET 35 OF 93



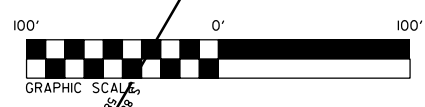
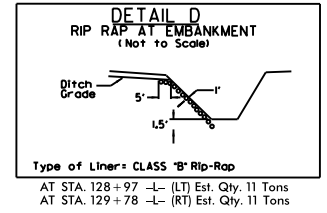
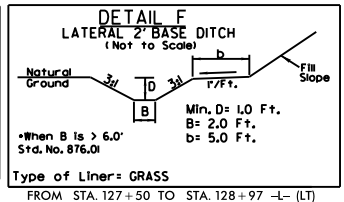
SYTIME
V-DIM
C:\P
D:\S
E:\R
KAME
E

PERMIT DRAWINGS
SHEET 36 OF 93

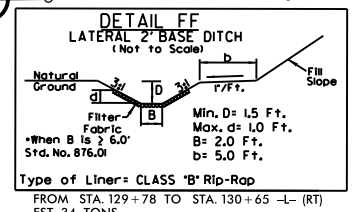
SITE 11



-L-
 PI Sta 130+34.85
 $\Delta = 2' 24" 09.0" (RT)$
 $D = 0' 14" 56.8"$
 $L = 964.43'$
 $T = 482.29'$
 $R = 23,000.00'$
 SE = NC



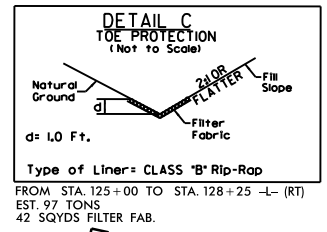
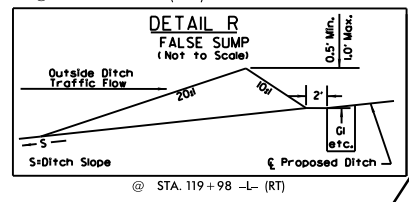
F F DENOTES FILL IN WETLAND
S S DENOTES IMPACTS IN SURFACE WATER



DETAIL P
 FALSE SUMP
 (Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

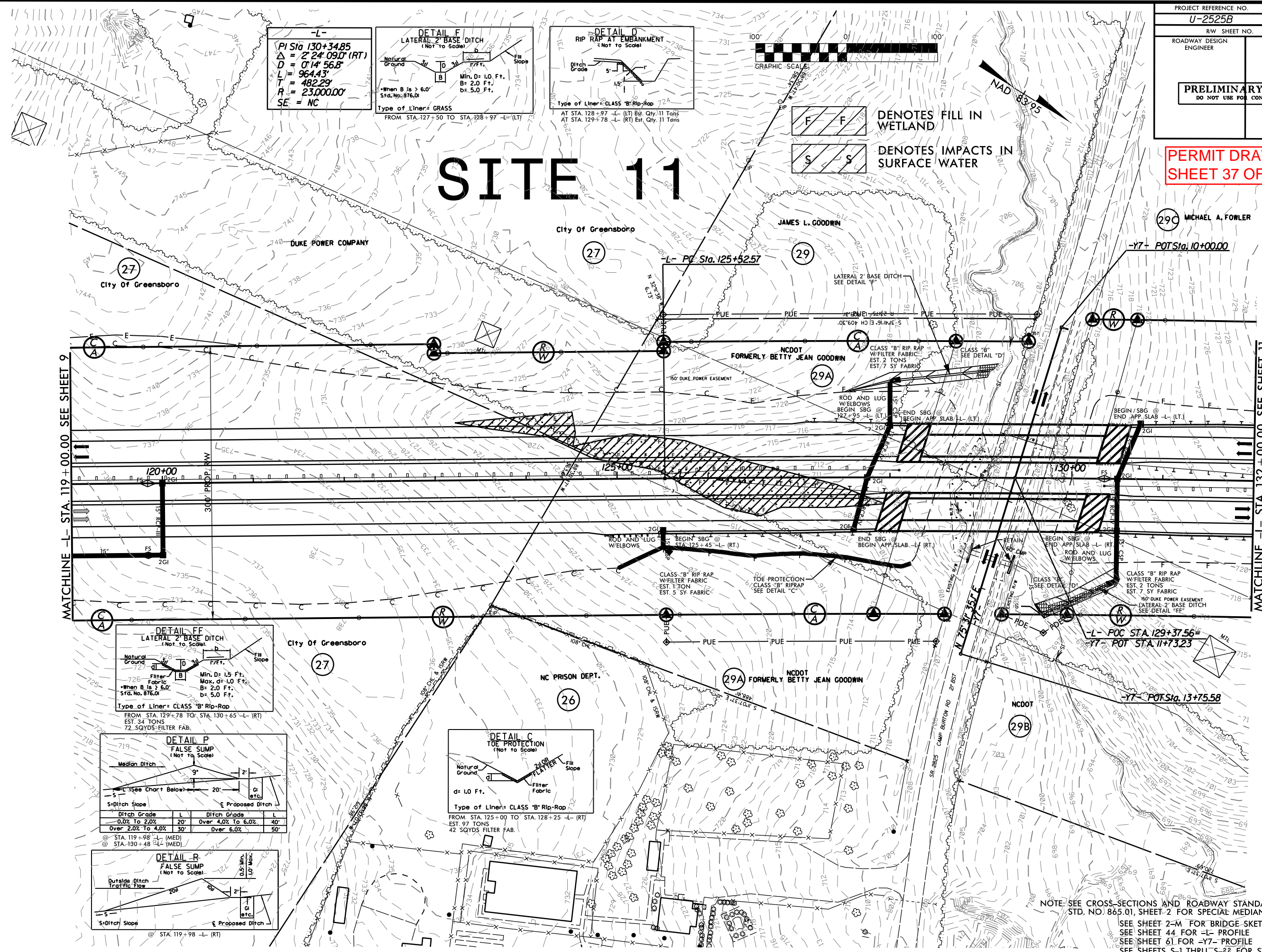
© STA. 119+98 -L- (MED)
 © STA. 130+48 -L- (MED)



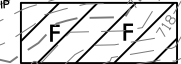
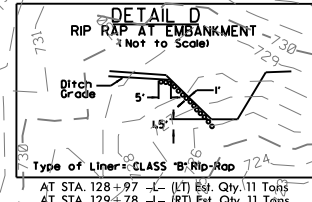
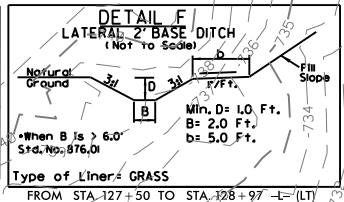
REVISIONS
 03-19-13 R/W REVISION (DMG) - PARCEL 29 (JAMES L. GOODWIN) WAS SUBDIVIDED, ADDING PARCEL 29A (NCDOT FORMERLY BETTY JEAN GOODWIN) PARCEL 29B (NCDOT), AND PARCEL 29C (MICHAEL A. FOWLER). CHANGED THE NORTHERN PROPERTY LINE ON PARCEL 29A AND THE SOUTHERN PROPERTY LINE ON PARCEL 29B TO R/W. DELETED PARCEL 28 (DUKE POWER COMPANY) DUE TO PROPERTY LINE DELINEATION CHANGING TO EASEMENT. REVISED THE NORTHERN PROPERTY LINE ON PARCEL 27 (CITY OF GREENSBORO) AND THE ADJOINING SOUTHERN PROPERTY LINES ON PARCELS 26 (NC PRISON DEPT.), 29 (JAMES L. GOODWIN), AND 29A (NCDOT FORMERLY BETTY JEAN GOODWIN). REVISED THE LOCATION OF THE R/W AND C/A TO THE WESTERN PROPERTY LINE ON PARCEL 29B (NCDOT).
 5/14/95

NOTE: SEE CROSS-SECTIONS AND ROADWAY STANDARD DRAWINGS, STD. NO. 865.01, SHEET 2 FOR SPECIAL MEDIAN GRADING.
 SEE SHEET 2-M FOR BRIDGE SKETCH
 SEE SHEET 44 FOR -L- PROFILE
 SEE SHEET 61 FOR -Y7- PROFILE
 SEE SHEETS S-1 THRU S-?? FOR STRUCTURE PLANS

PERMIT DRAWINGS
SHEET 37 OF 93



-L-
 $PI Sta 130+34.85$
 $\Delta = 2' 24' 09.0" (RT)$
 $D = 0' 14' 56.8"$
 $L = 964.43'$
 $T = 482.29'$
 $R = 23,000.00'$
 $SE = NC$



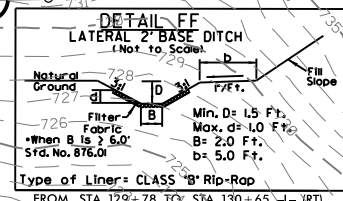
DENOTES FILL IN WETLAND



DENOTES IMPACTS IN SURFACE WATER

MATCHLINE -L- STA. 119+00.00 SEE SHEET 9

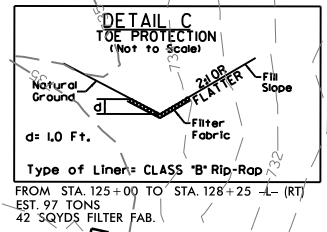
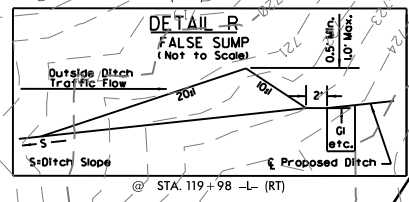
MATCHLINE -L- STA. 132+00.00 SEE SHEET 11



DETAIL P
FALSE SUMP
(Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

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© STA. 130+48 -L- (MED)



REVISIONS
 03-19-13 R/W REVISION (DMG) - PARCEL 29 (JAMES L. GOODWIN) WAS SUBDIVIDED, ADDING PARCEL 29A (NCDOT FORMERLY BETTY JEAN GOODWIN), PARCEL 29B (NCDOT), AND PARCEL 29C (MICHAEL A. FOWLER). CHANGED THE NORTHERN PROPERTY LINE ON PARCEL 29A AND THE SOUTHERN PROPERTY LINE ON PARCEL 29B TO R/W. DELETED PARCEL 28 (DUKE POWER COMPANY) DUE TO PROPERTY LINE DELINEATION CHANGING TO EASEMENT. REVISED THE NORTHERN PROPERTY LINE ON PARCEL 27 (CITY OF GREENSBORO) AND THE ADJOINING SOUTHERN PROPERTY LINES ON PARCELS 26 (NC PRISON DEPT.), 29 (JAMES L. GOODWIN), AND 29A (NCDOT FORMERLY BETTY JEAN GOODWIN), REVISED THE LOCATION OF THE R/W AND C/A TO THE WESTERN PROPERTY LINE ON PARCEL 29B (NCDOT).

NOTE: SEE CROSS-SECTIONS AND ROADWAY STANDARD DRAWINGS, STD. NO. 865.01, SHEET 2 FOR SPECIAL MEDIAN GRADING.
 SEE SHEET 2-M FOR BRIDGE SKETCH
 SEE SHEET 44 FOR -L- PROFILE
 SEE SHEET 61 FOR -Y7- PROFILE
 SEE SHEETS S-1 THRU S-?? FOR STRUCTURE PLANS