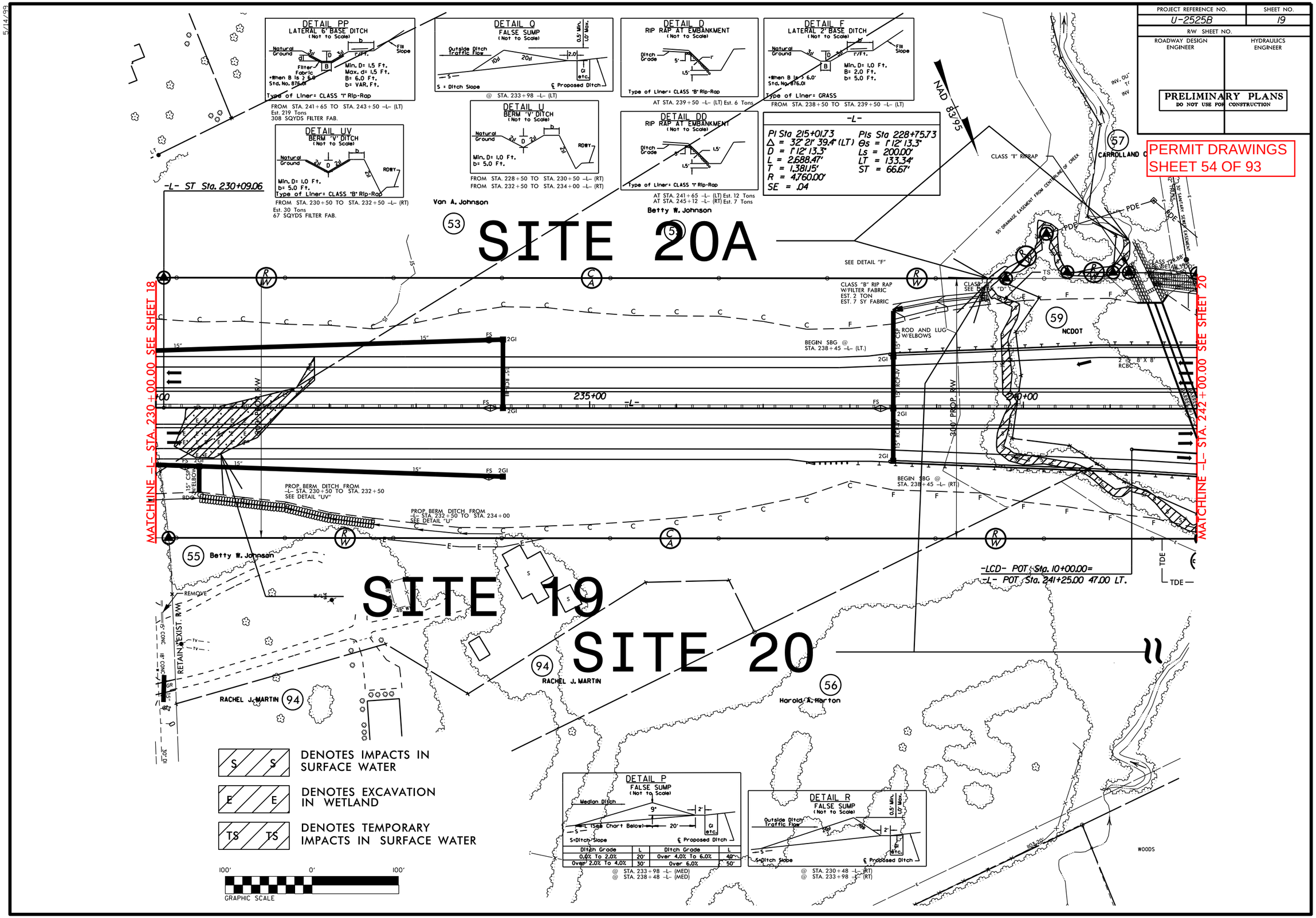


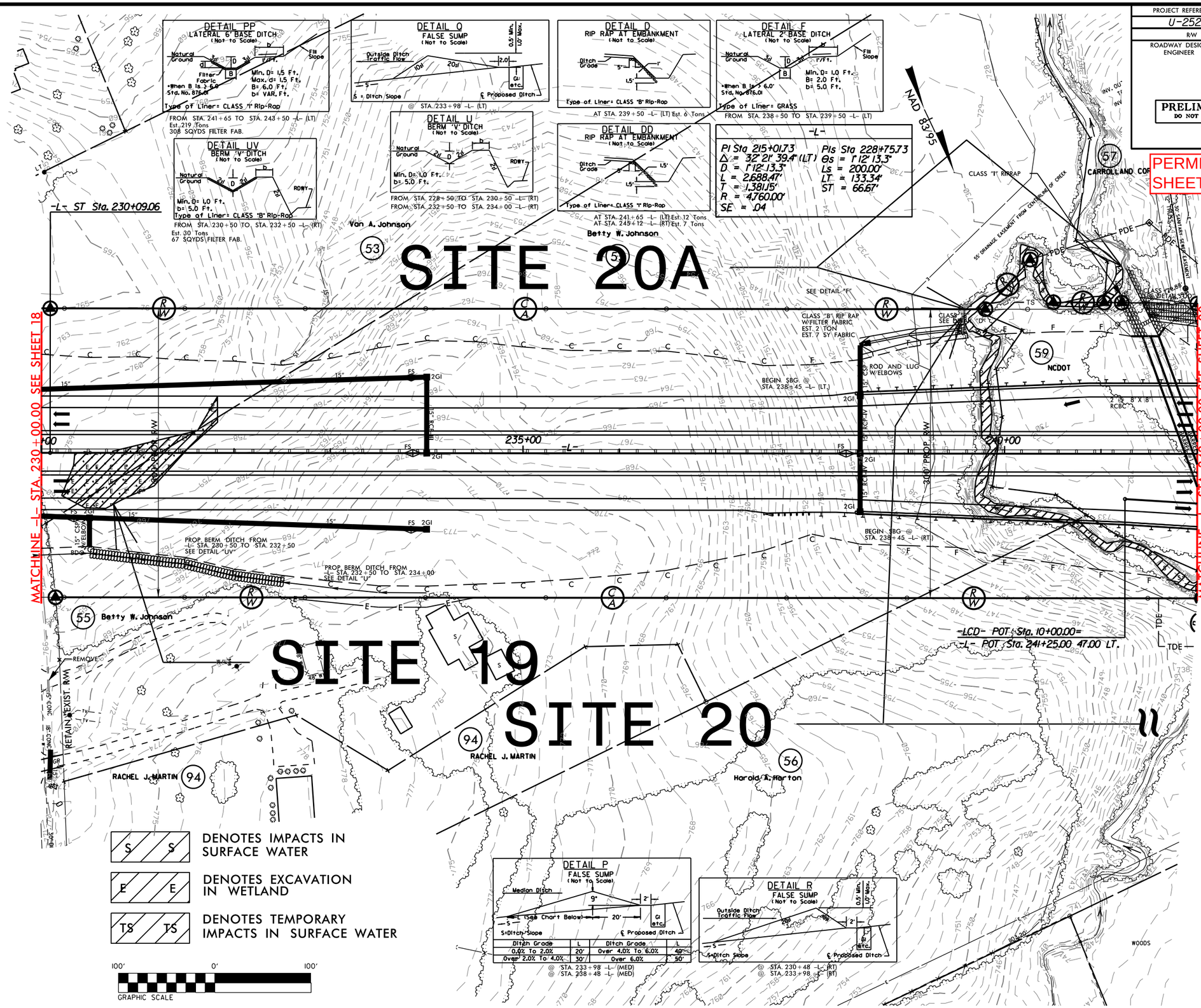
PROJECT REFERENCE NO.
U-2525B
SHEET NO.
19
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
PERMIT DRAWINGS
SHEET 54 OF 93
DETAIL PP
LATERAL 6' BASE DITCH
(Not to Scale)
Type of Liner: CLASS "I" Rip-Rap
FROM STA. 241+65 TO STA. 243+50 -L- (LT)
Est. 219 Tons
308 SQYDS FILTER FAB.
DETAIL Q
FALSE SUMP
(Not to Scale)
@ STA. 233+98 -L- (LT)
DETAIL D
RIP RAP AT EMBANKMENT
(Not to Scale)
Type of Liner: CLASS "B" Rip-Rap
AT STA. 239+50 -L- (LT) Est. 6 Tons
DETAIL F
LATERAL 2' BASE DITCH
(Not to Scale)
Type of Liner: GRASS
FROM STA. 238+50 TO STA. 239+50 -L- (LT)
DETAIL UV
BERM 'V' DITCH
(Not to Scale)
Type of Liner: CLASS "B" Rip-Rap
FROM STA. 230+50 TO STA. 232+50 -L- (RT)
Est. 30 Tons
67 SQYDS FILTER FAB.
DETAIL U
BERM 'V' DITCH
(Not to Scale)
FROM STA. 228+50 TO STA. 230+50 -L- (RT)
FROM STA. 232+50 TO STA. 234+00 -L- (RT)
DETAIL DD
RIP RAP AT EMBANKMENT
(Not to Scale)
Type of Liner: CLASS "I" Rip-Rap
AT STA. 241+65 -L- (LT) Est. 12 Tons
AT STA. 245+12 -L- (RT) Est. 7 Tons
-L-
PI Sta 215+01.73
Δ = 32° 21' 39.4" (LT)
D = 1° 12' 13.3"
L = 2,688.47'
T = 1,381.15'
R = 4,760.00'
SE = .04
PIs Sta 228+75.73
θs = 1° 12' 13.3"
Ls = 200.00'
LT = 133.34'
ST = 66.67'
-L- ST Sta. 230+09.06
Van A. Johnson
Betty W. Johnson
SITE 20A
SITE 19
SITE 20
NAD 83/95
CARROLLAND C
NCDOT
Betty W. Johnson
RACHEL J. MARTIN
Harold A. Horton
MATCHLINE -L- STA. 230+00.00 SEE SHEET 18
MATCHLINE -L- STA. 242+00.00 SEE SHEET 20
235+00
240+00
-LCD- POT Sta. 10+00.00=
-L- POT Sta. 241+25.00 47.00 LT.
DETAIL P
FALSE SUMP
(Not to Scale)
Median Ditch
Ditch Grade
0.0% To 2.0%
Over 2.0% To 4.0%
Over 4.0% To 6.0%
Over 6.0%
@ STA. 233+98 -L- (MED)
@ STA. 238+48 -L- (MED)
DETAIL R
FALSE SUMP
(Not to Scale)
Outside Ditch Traffic Flow
@ STA. 230+48 -L- (RT)
@ STA. 233+98 -L- (RT)
DENOTES IMPACTS IN SURFACE WATER
DENOTES EXCAVATION IN WETLAND
DENOTES TEMPORARY IMPACTS IN SURFACE WATER
GRAPHIC SCALE

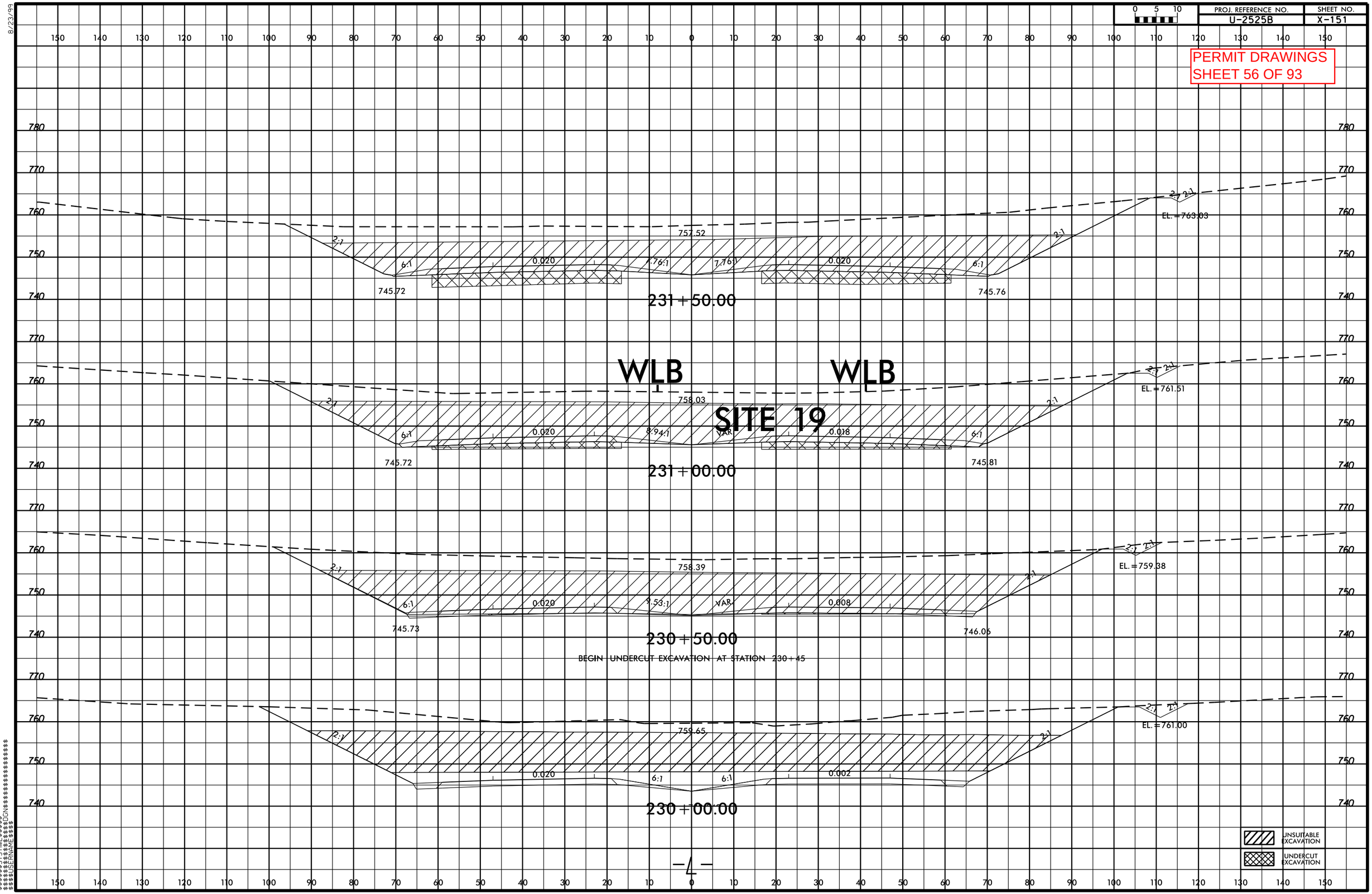
5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PERMIT DRAWINGS
SHEET 55 OF 93





PROJ. REFERENCE NO.
U-2525B
SHEET NO.
X-151
PERMIT DRAWINGS
SHEET 56 OF 93
WLB
WLB
SITE 19
757.52
745.72
745.76
EL. = 763.03
231 + 50.00
758.03
745.72
745.81
EL. = 761.51
231 + 00.00
758.39
745.73
746.06
EL. = 759.38
230 + 50.00
BEGIN UNDERCUT EXCAVATION AT STATION 230 + 45
759.65
EL. = 761.00
230 + 00.00
UNSUITABLE EXCAVATION
UNDERCUT EXCAVATION

5/14/99

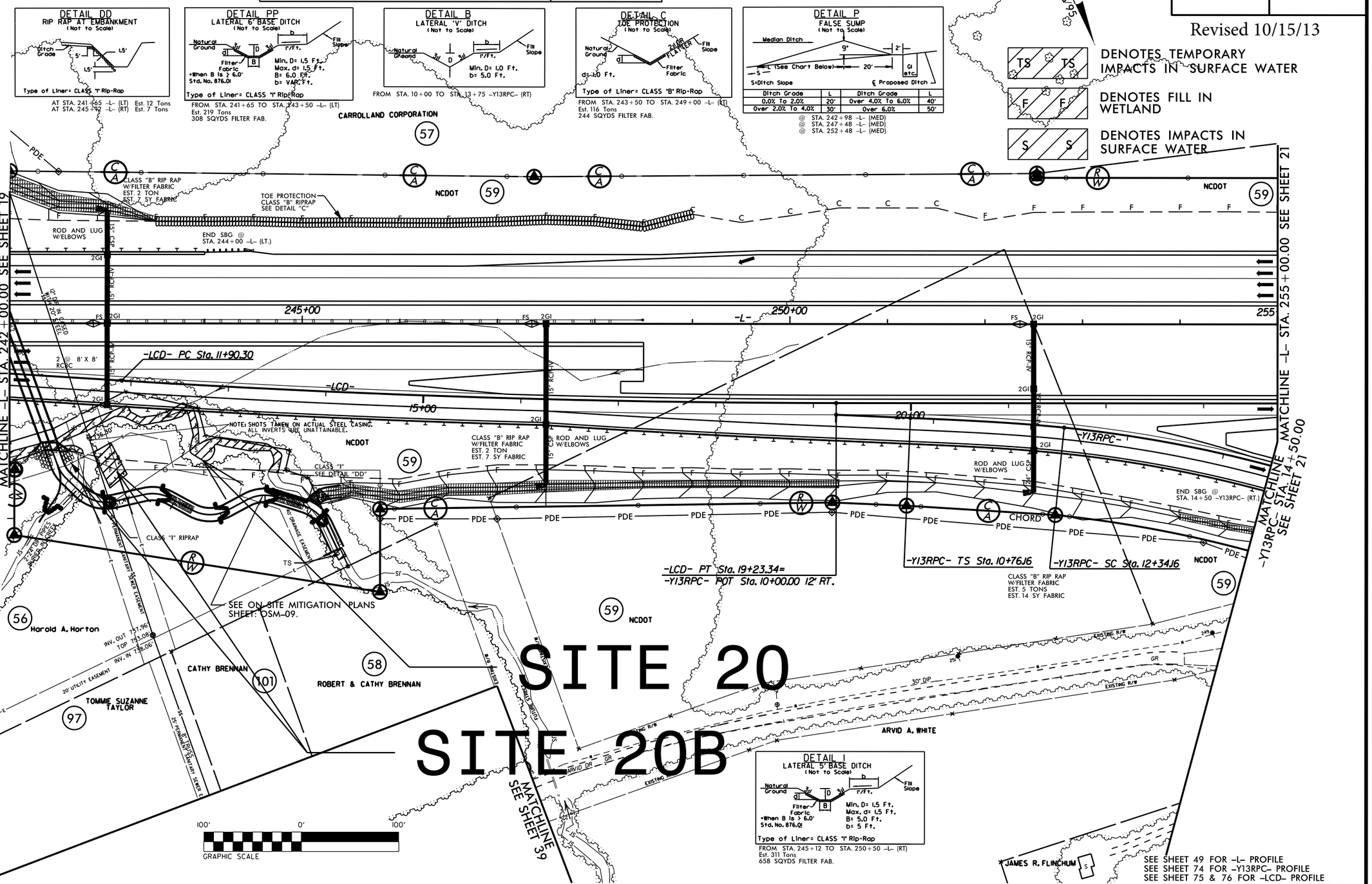
PERMIT DRAWINGS
SHEET 57 OF 93

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Revised 10/15/13

-Y13RPC-			-LCD-
PIs Sta 11+81.52	PI Sta 22+25.70	PIs Sta 29+93.79	PI Sta 15+56.93
Θs = 3° 22' 49.5"	Δ = 73° 02' 24.8" (RT)	Θs = 3° 22' 49.5"	Δ = 3° 30' 00.0" (LT)
Ls = 158.00'	D = 4° 16' 44.4"	Ls = 158.00'	D = 0° 28' 38.9"
LT = 105.35'	L = 1,706.95'	LT = 105.35'	L = 733.04'
ST = 52.68'	T = 991.54'	ST = 52.68'	T = 366.63'
	R = 1,339.00'		R = 12,000.00'
	SE = .07		SE = NC
	RO = 158'		



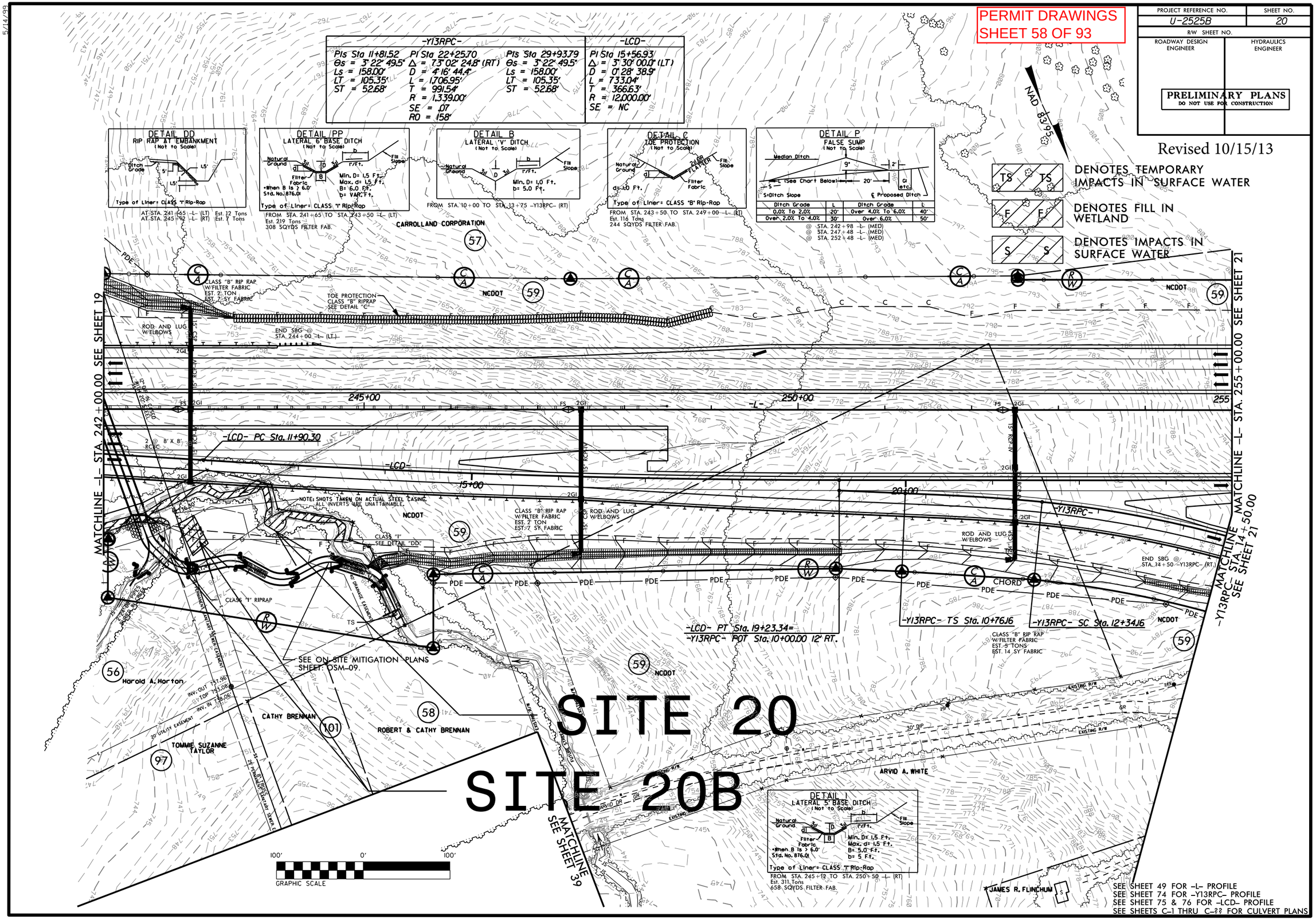
PERMIT DRAWINGS
SHEET 58 OF 93

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

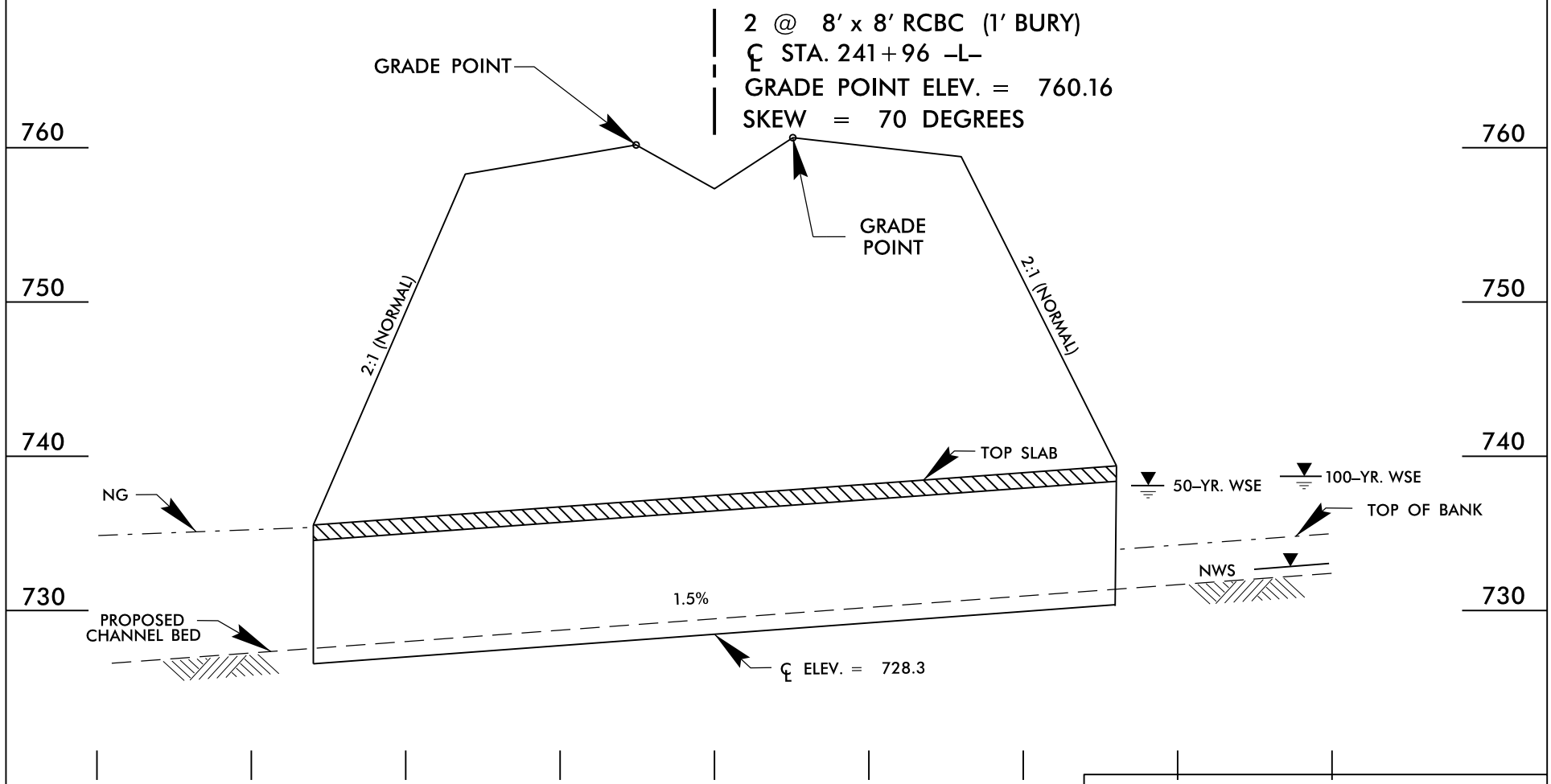
Revised 10/15/13

5/14/99



SEE SHEET 49 FOR -L- PROFILE
SEE SHEET 74 FOR -Y13RPC- PROFILE
SEE SHEET 75 & 76 FOR -LCD- PROFILE
SEE SHEETS C-1 THRU C-?? FOR CULVERT PLANS

PERMIT DRAWINGS
SHEET 59 OF 93

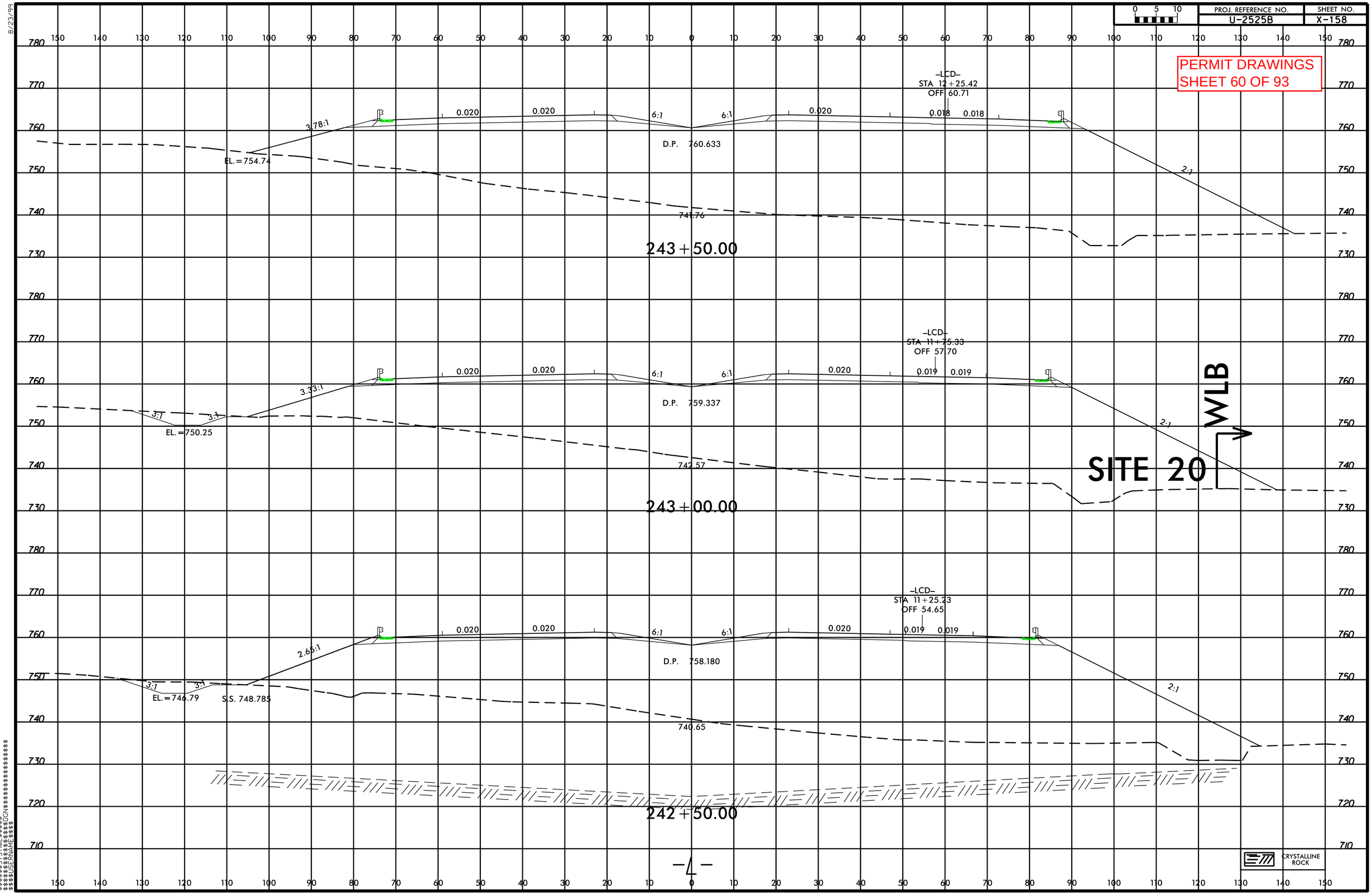


PROFILE

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

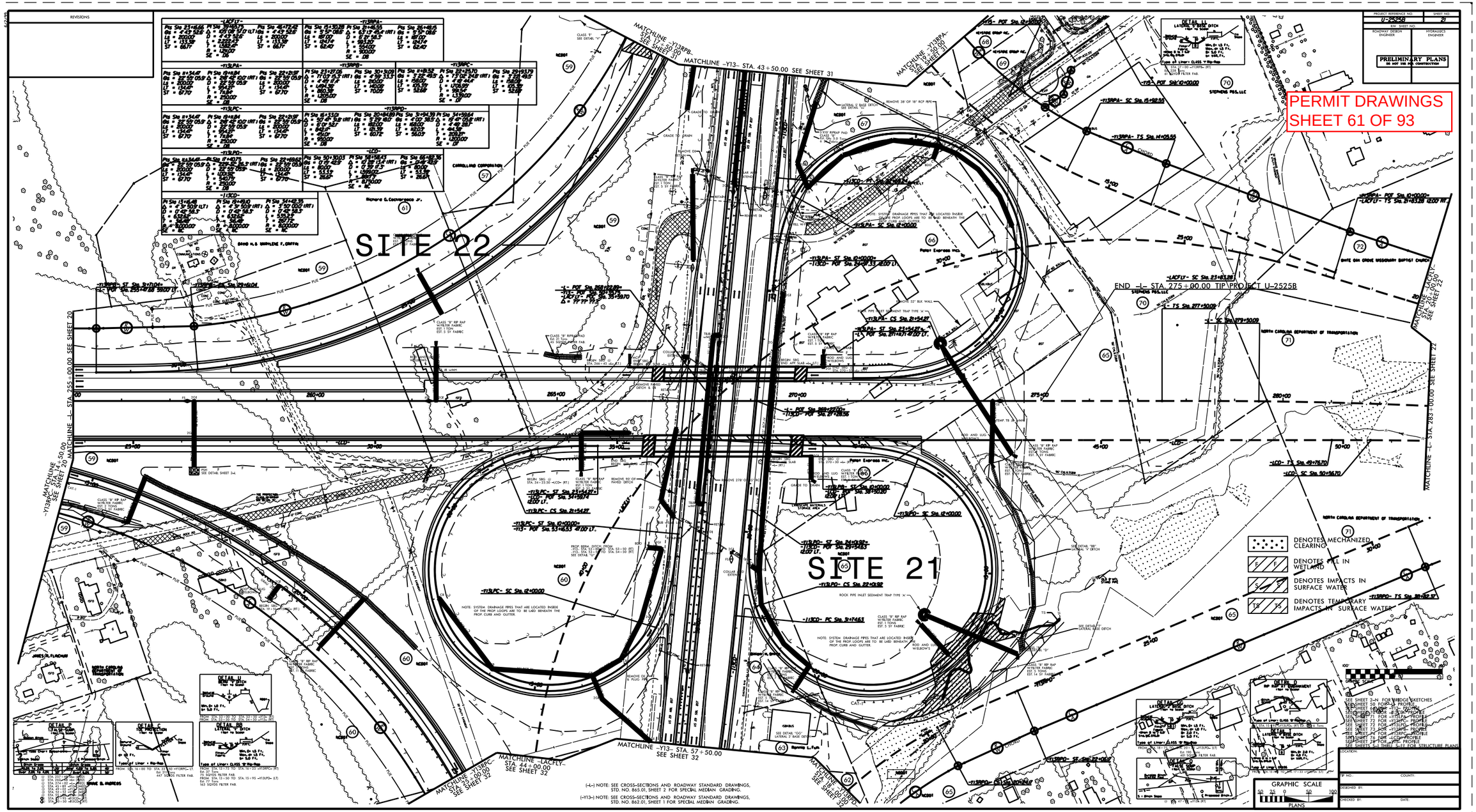
PERMIT DRAWINGS
SHEET 60 OF 93



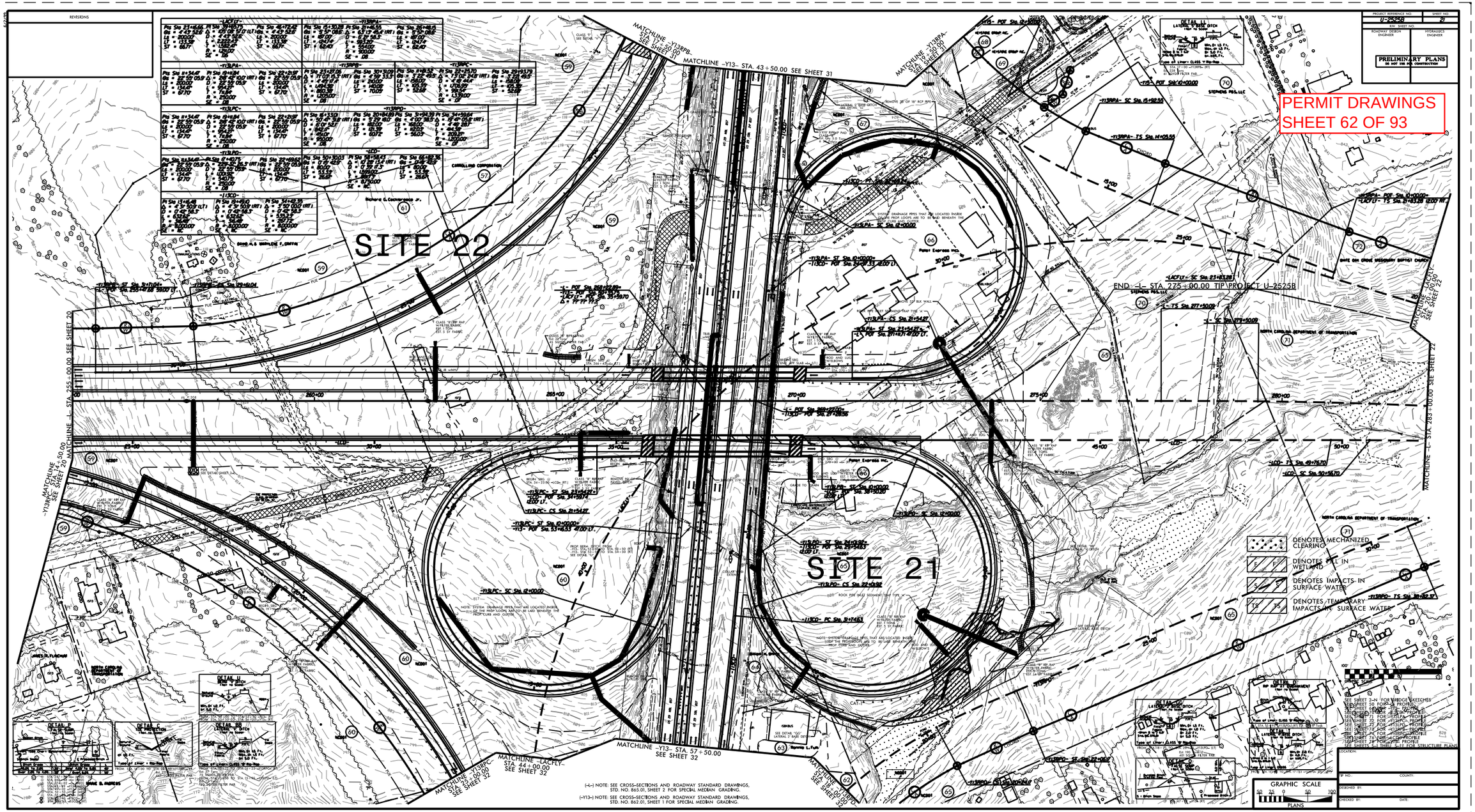
8/23/99

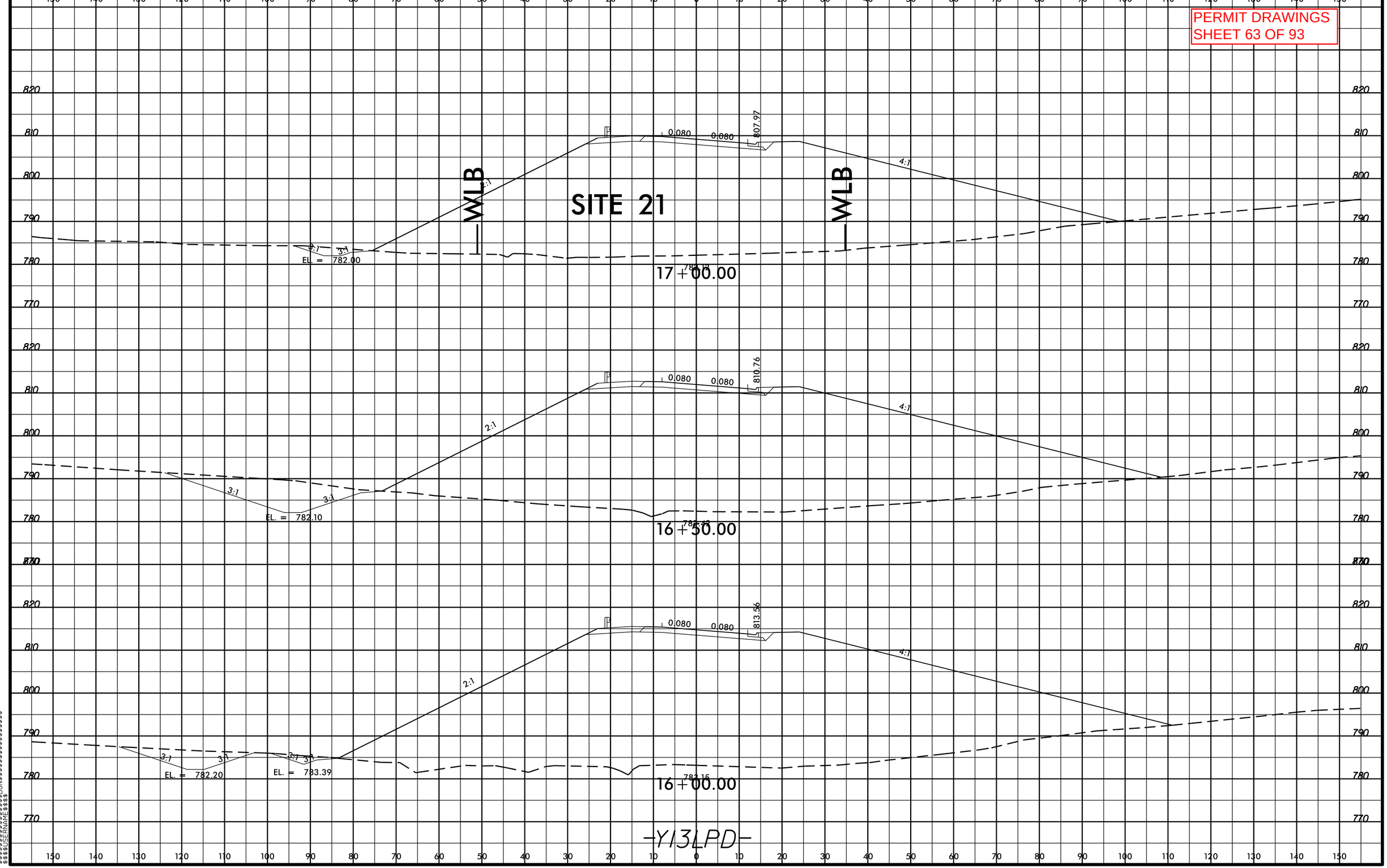
$$$$$$$SYSTIME$$$$$
$$$$$$$

PERMIT DRAWINGS
SHEET 61 OF 93



PERMIT DRAWINGS
SHEET 62 OF 93

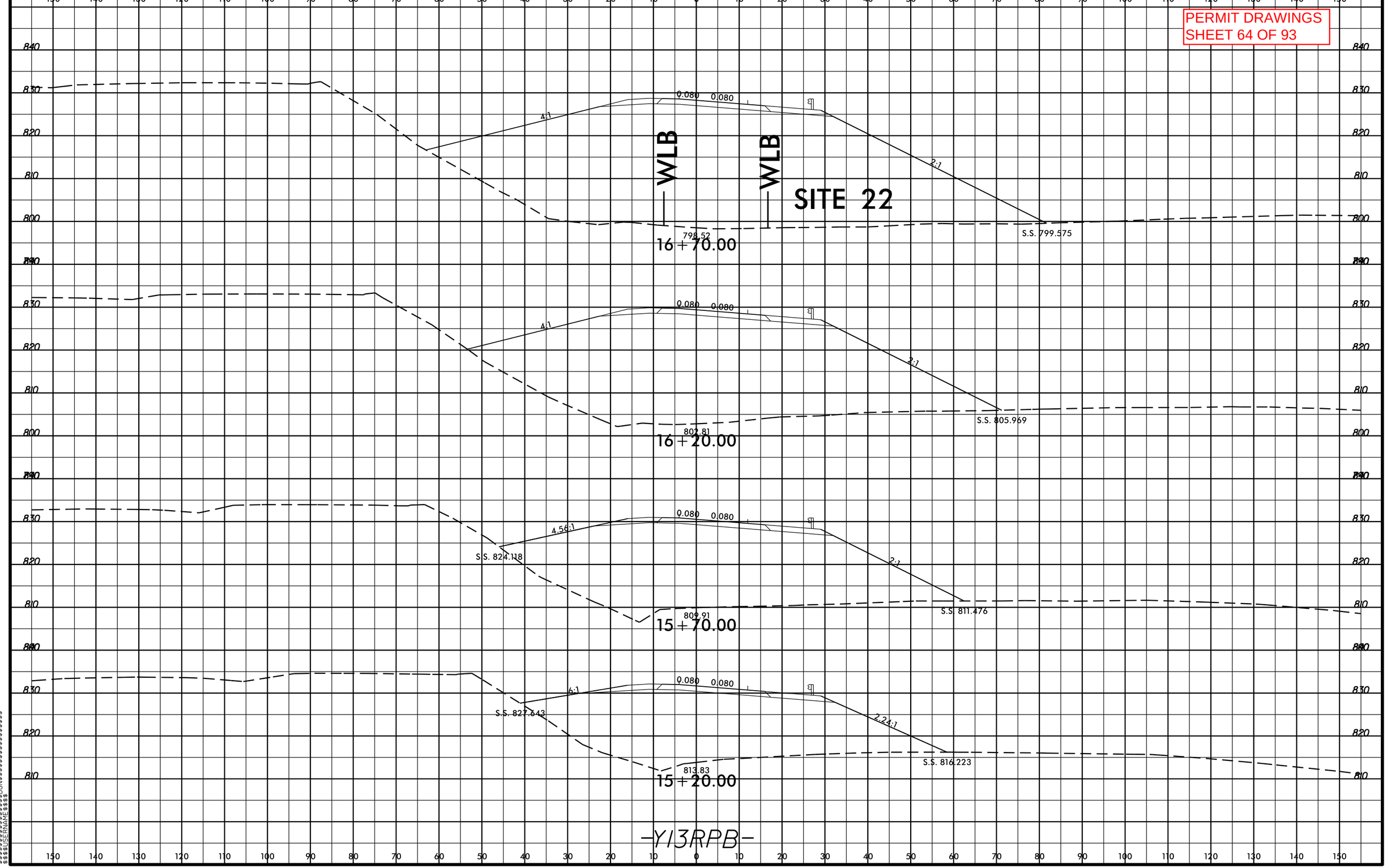




PROJ. REFERENCE NO.
U-2525B
SHEET NO.
X-372
PERMIT DRAWINGS
SHEET 63 OF 93
SITE 21
WLB
WLB
0.080
0.080
807.97
4:1
2:1
3:1
3:1
EL. = 782.00
17+00.00
0.080
0.080
810.76
4:1
2:1
3:1
3:1
EL. = 782.10
16+50.00
0.080
0.080
813.56
4:1
2:1
3:1
3:1
3:1
3:1
EL. = 782.20
EL. = 783.39
16+00.00
-Y13LPD-

PROJ. REFERENCE NO.	SHEET NO.
U-2525B	X-376

PERMIT DRAWINGS
SHEET 64 OF 93



$$$$$$SYSTIME$$$$$
$$$$$$

PERMIT DRAWINGS
SHEET 65 OF 93

REVISIONS

03-19-13 R/W REVISION (DWG) - REVISED THE R/W,C/A, AND ADDED TCE ON PARCEL 106 (JAMES H.SCALES) FOR THE NEW -Y14- SERVICE ROAD.
REVISED THE R/W AND PUE ON PARCEL 108 (MARSHALL F.SCALES).
REVISED THE PROPERTY OWNER NAME ON PARCEL 112 (COMMON AREA SOUTHEAST LAND COMPANY,LLC) TO (QUAIL OAKS HOMEOWNERS ASSOCIATION).

PROJECT REFERENCE NO.	SHEET NO.
U-2559	31
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 1983/95

-Y13RPB-

Pc Sta 13+46.74	Pt Sta 23+27.06
Bs = 4°59' 33.3"	Δ = 71°03' 9.3" (RT)
Lc = 24.00'	D = 4°29' 17.4"
LT = 14.00'	L = 1494.56'
ST = 70.09'	T = 860.38'
	R = 1275.00'
	SE = DB

-L13CD-

Pt Sta 13+46.48	Pt Sta 15+49.10
Δ = 4°34' 50.9" (LT)	Δ = 4°34' 50.9" (RT)
D = 17°45' 34.5"	D = 17°45' 34.5"
L = 632.64'	L = 632.64'
T = 316.49'	T = 316.49'
R = 322.00'	R = 322.00'
SE = NC	SE = NC

-SAV-

Pt Sta 23+77.16
Δ = 67°12' 27.8" (RT)
D = 19°09' 54.9"
L = 350.15'
T = 197.33'
R = 300.00'
SE = D4
RD = SEE PLANS

-Y14-

Pt Sta 25+97.56
Δ = 9°02' 41.5" (LT)
D = 2°17' 30.6"
L = 394.88'
T = 197.78'
R = 2,500.00'
SE = 12
RD = 4"

-Y13RPA-

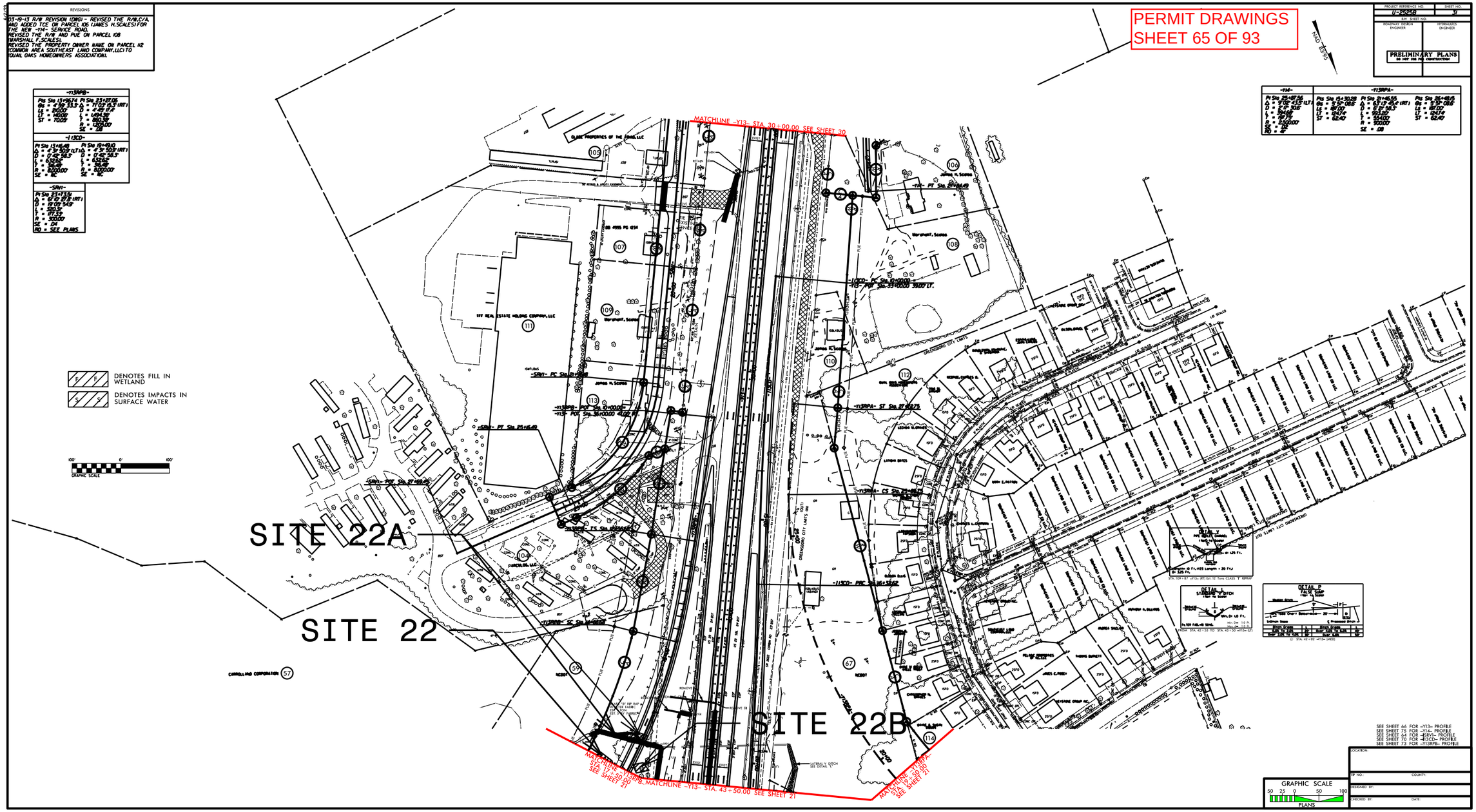
Pc Sta 15+70.28	Pt Sta 21+46.55
Bs = 3°51' 08.6"	Δ = 63°12' 48.4" (RT)
Lc = 19.00'	D = 6°27' 58.3"
LT = 12.47'	L = 1,183.80'
ST = 6.60'	T = 664.00'
	R = 90.00'
	SE = DB

Pc Sta 26+48.15
Bs = 3°51' 08.6"
Lc = 19.00'
LT = 12.47'
ST = 6.60'

DENOTES FILL IN WETLAND

DENOTES IMPACTS IN SURFACE WATER

GRAPHIC SCALE 100' 0' 100'



SEE SHEET 66 FOR -Y13- PROFILE
SEE SHEET 75 FOR -Y13A- PROFILE
SEE SHEET 64 FOR -L13CV- PROFILE
SEE SHEET 70 FOR -L13CD- PROFILE
SEE SHEET 73 FOR -Y13RPB- PROFILE

GRAPHIC SCALE
50 25 0 50 100
PLANS

LOCATION:

TIP NO.: COUNTY:

DESIGNED BY:

CHECKED BY: DATE:

PERMIT DRAWINGS
SHEET 66 OF 93

REVISIONS

03-19-13 R/W REVISION (DWG) - REVISED THE R/W,C/A, AND ADDED TCE ON PARCEL 106 (JAMES H.SCALES) FOR THE NEW -Y14- SERVICE ROAD. REVISED THE R/W AND PUE ON PARCEL 108 (MARSHALL F.SCALES). REVISED THE PROPERTY OWNER NAME ON PARCEL 112 (COMMON AREA SOUTHEAST LAND COMPANY,LLC) TO (QUAIL OAKS HOMEOWNERS ASSOCIATION).

PROJECT REFERENCE NO.	SHEET NO.
U-2509	31
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 1983

-Y13RPB-	
PCs Sta 13+46.74	PT Sta 23+27.06
Qs = 4°59' 33.3"	Δ = 11°03' 9.3" (RT)
Ls = 240.00'	D = 4°29' 17.4"
LT = 140.00'	L = 1,494.56'
ST = 70.09'	T = 860.38'
	R = 1,275.00'
	SE = DB

-L13CD-	
PI Sta 13+46.48	PI Sta 15+49.10
Δ = 4°34' 50.9" (LT)	Δ = 4°34' 50.9" (RT)
D = 17°45' 34.5"	D = 17°45' 34.5"
L = 632.54'	L = 632.54'
T = 316.49'	T = 316.49'
R = 322.00'	R = 322.00'
SE = NC	SE = NC

-SAV-
PI Sta 23+17.95
Δ = 67°12' 27.8" (RT)
D = 19°09' 54.9"
L = 350.74'
T = 197.33'
R = 300.00'
SE = D4
RD = SEE PLANS

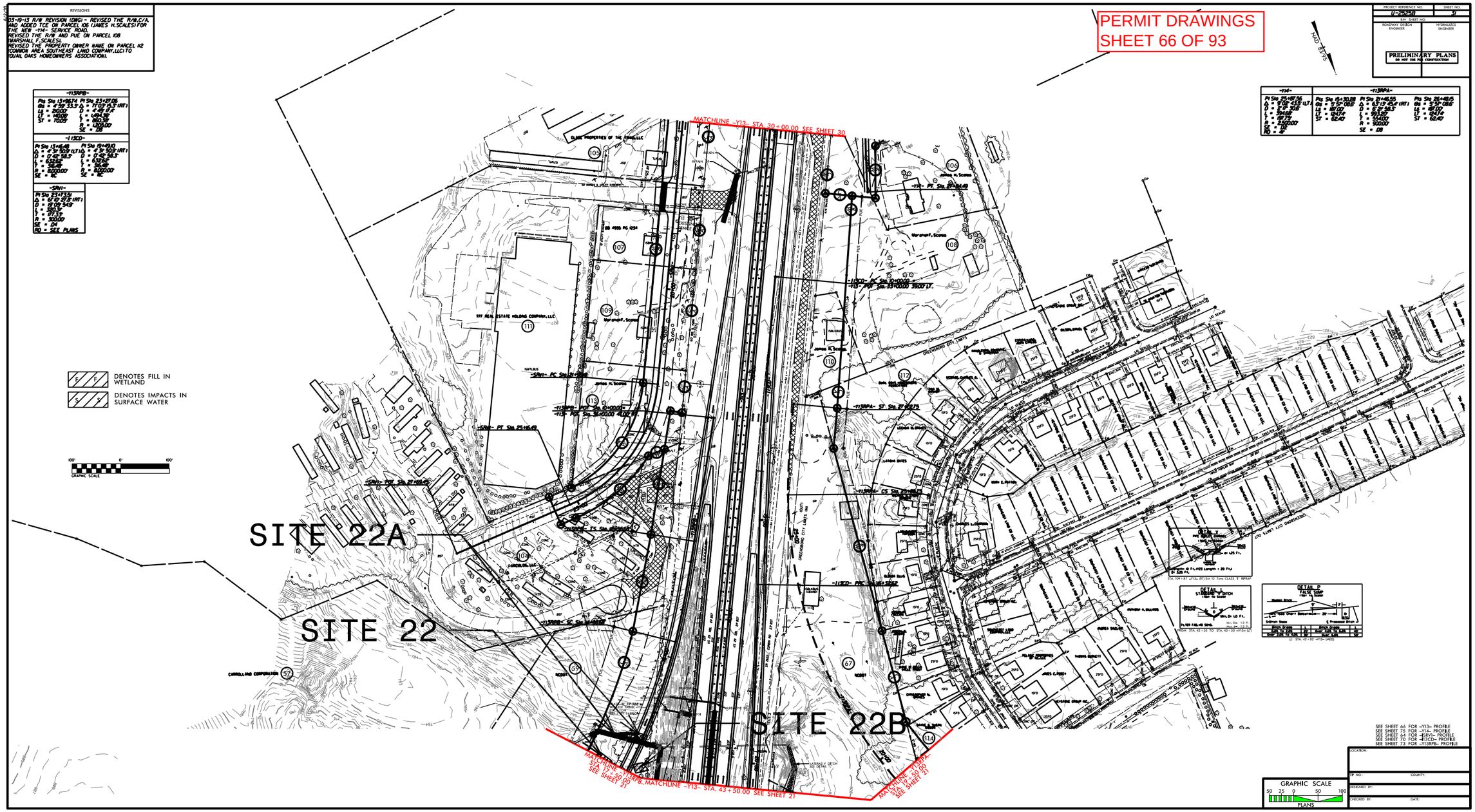
-Y14-	-Y13RPA-	
PI Sta 25+97.56	PCs Sta 15+70.28	PI Sta 21+45.55
Δ = 5°02' 41.5" (LT)	Qs = 2°57' 08.6"	Δ = 63°12' 45.4" (RT)
D = 2°18' 30.6"	D = 6°18' 58.3"	Qs = 2°57' 08.6"
L = 219.48'	L = 91.00'	D = 6°18' 58.3"
T = 109.78'	LT = 124.74'	L = 1,183.80'
R = 2,500.00'	ST = 62.40'	T = 554.00'
SE = DB		R = 900.00'
RD = 4"		SE = DB

	PCs Sta 21+82.15
	Qs = 2°57' 08.6"
	LT = 124.74'
	ST = 62.40'

DENOTES FILL IN WETLAND

DENOTES IMPACTS IN SURFACE WATER

GRAPHIC SCALE 100' 0' 100'



SEE SHEET 66 FOR -Y13- PROFILE
SEE SHEET 75 FOR -Y13A- PROFILE
SEE SHEET 64 FOR -L8XY1- PROFILE
SEE SHEET 70 FOR -Y13CD- PROFILE
SEE SHEET 73 FOR -Y13RPB- PROFILE

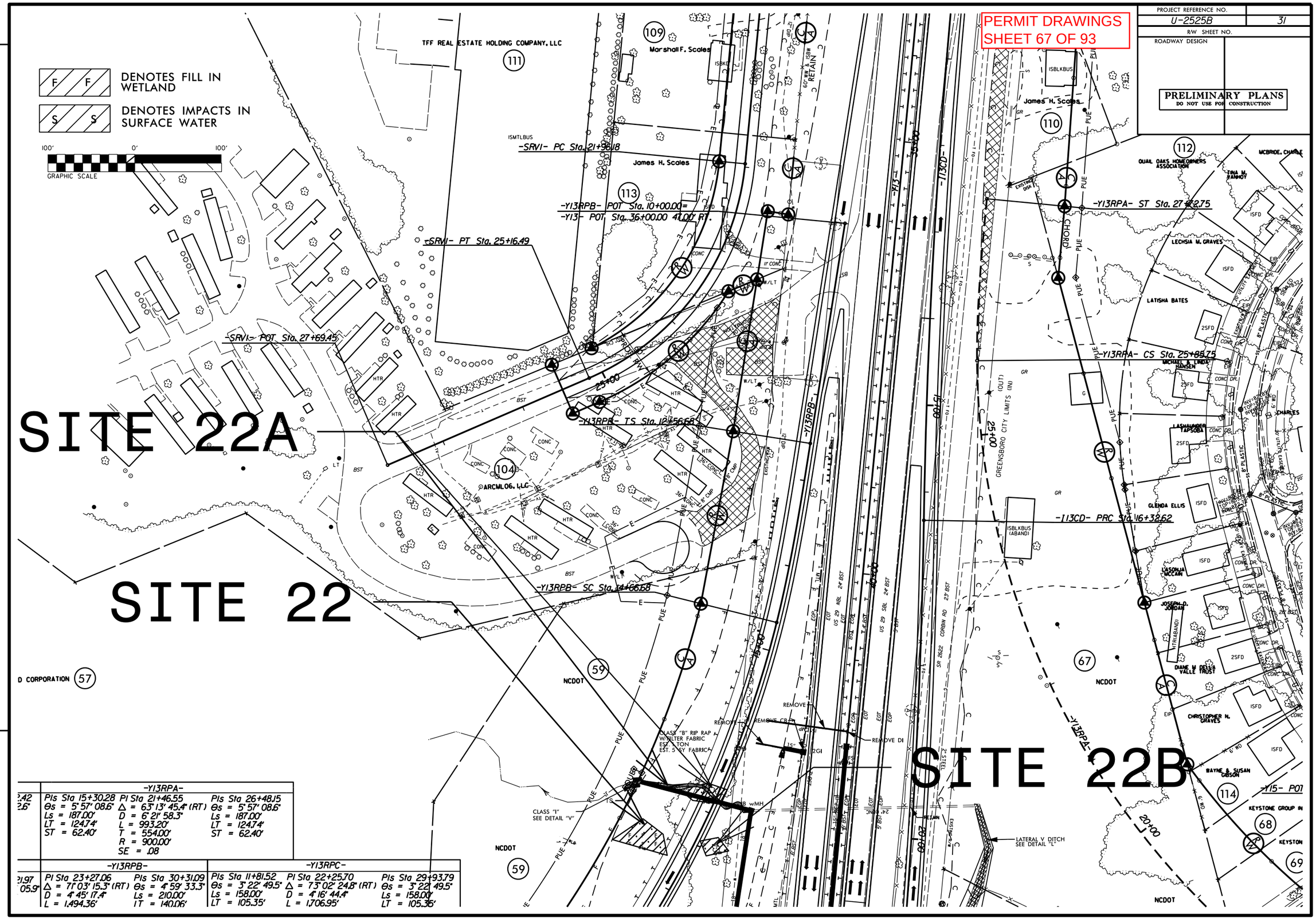
GRAPHIC SCALE
50 25 0 50 100
PLANS

LOCATION:
TIP NO. COUNTY:
DESIGNED BY:
CHECKED BY: DATE:

PERMIT DRAWINGS
SHEET 67 OF 93

PROJECT REFERENCE NO.	
U-2525B	31
R/W SHEET NO.	
ROADWAY DESIGN	

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



	-Y13RPA-		
.42	PIs Sta 15+30.28	PI Sta 21+46.55	PIs Sta 26+48.15
2.6'	Θs = 5° 57' 08.6"	Δ = 63° 13' 45.4" (RT)	Θs = 5° 57' 08.6"
	Ls = 187.00'	D = 6° 21' 58.3"	Ls = 187.00'
	LT = 124.74'	L = 993.20'	LT = 124.74'
	ST = 62.40'	T = 554.00'	ST = 62.40'
		R = 900.00'	
		SE = .08	

	-Y13RPB-		-Y13RPC-		
21.97	PI Sta 23+27.06	PIs Sta 30+31.09	PIs Sta 11+81.52	PI Sta 22+25.70	PIs Sta 29+93.79
05.9'	Δ = 71° 03' 15.3" (RT)	Θs = 4° 59' 33.3"	Θs = 3° 22' 49.5"	Δ = 73° 02' 24.8" (RT)	Θs = 3° 22' 49.5"
	D = 4° 45' 17.4"	Ls = 210.00'	Ls = 158.00'	D = 4° 16' 44.4"	Ls = 158.00'
	L = 1,494.36'	LT = 140.06'	LT = 105.35'	L = 1,706.95'	LT = 105.35'