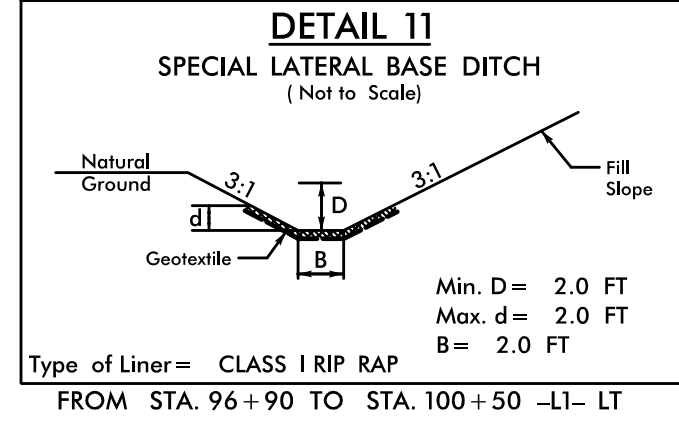
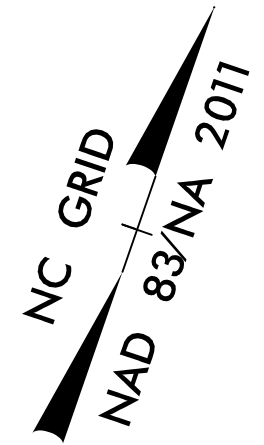


**This electronic collection of documents is provided
for the convenience of the user
and is Not a Certified Document –**

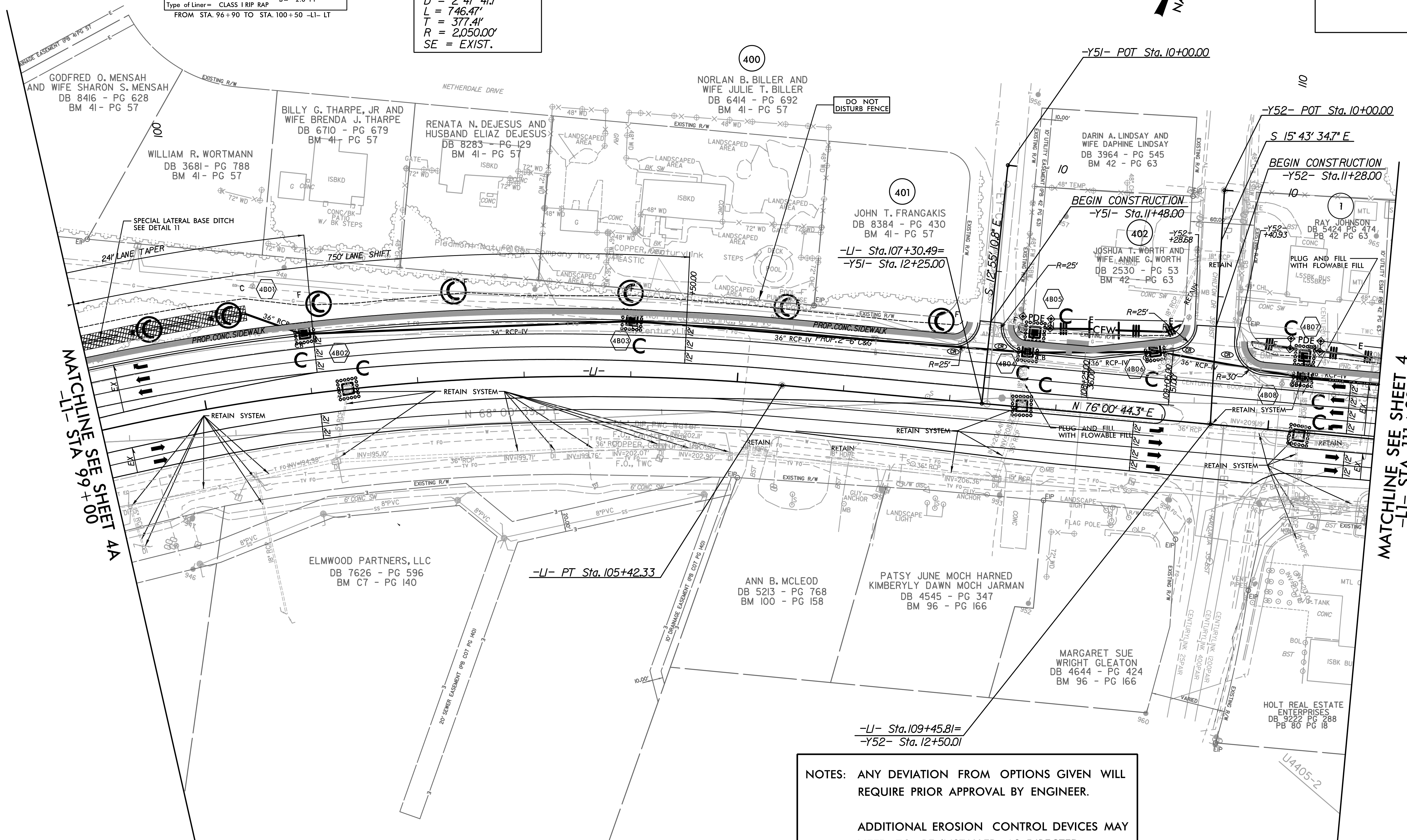
**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

**This file or an individual page
shall not be considered a certified document.**

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-40/CONST. 4B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L1-
PI Sta 101+73.28
 $\Delta = 20' 51" 47.4" (RT)$
D = 2' 47" 41.7"
L = 746.47'
T = 377.41'
R = 2,050.00'
SE = EXIST.



MATCHLINE SEE SHEET 4A
-L1- STA 99+00

MATCHLINE SEE SHEET 4
-L1- STA 111+00

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

NOTE: SEE SHEET 52 FOR -L1- PROFILE

REVISIONS

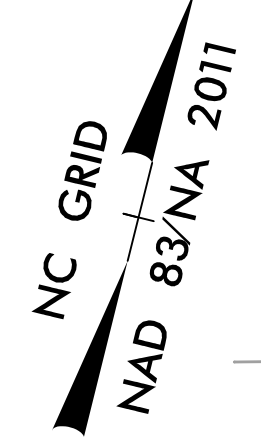
8/17/99
10:32:53 AM
R:\Environmental\Design\4405_REU_EC_psh_04B\F.inel.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-41/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

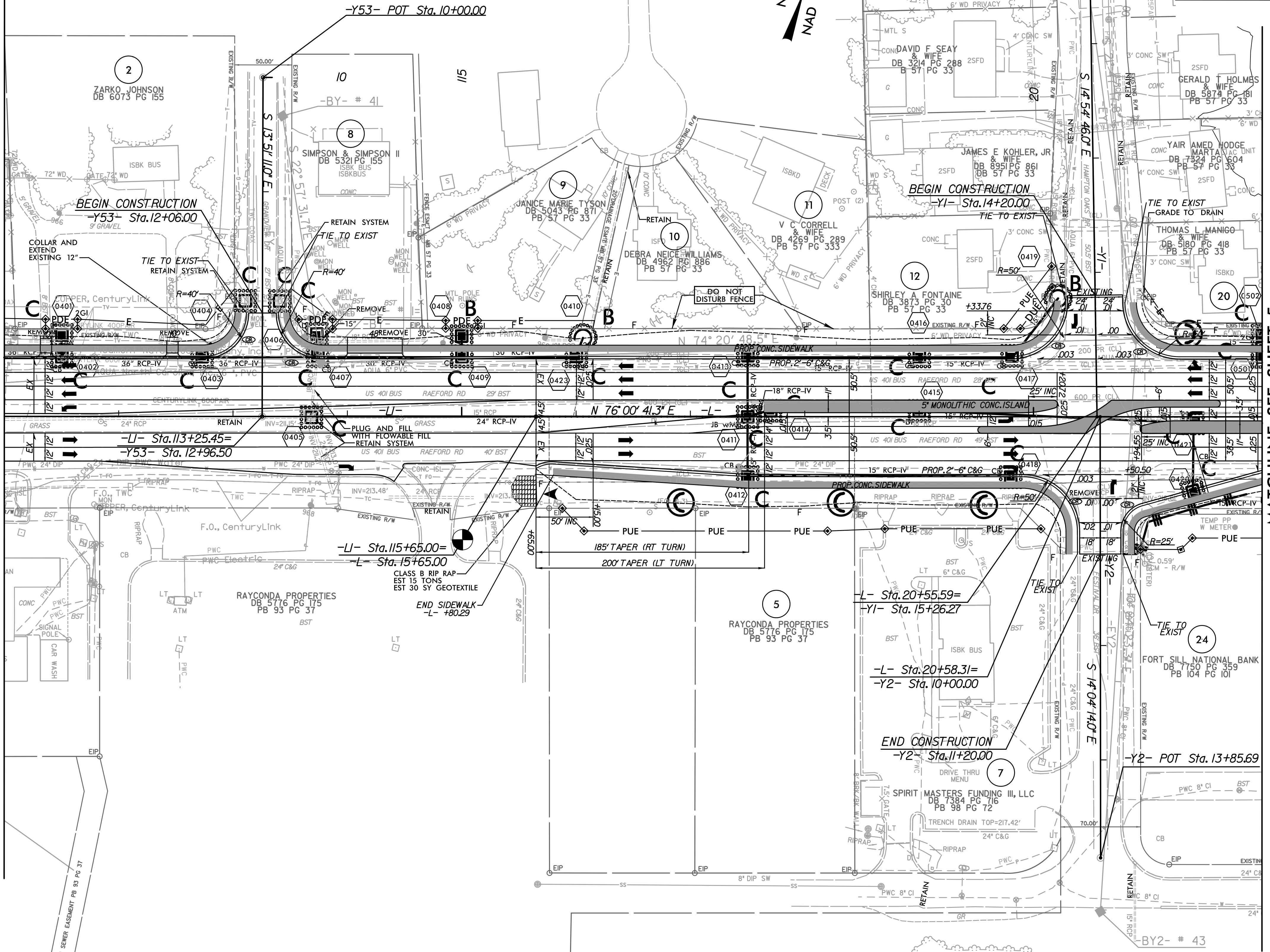
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC



MATCHLINE SEE SHEET 4B
-L1- STA 11+00

MATCHLINE SEE SHEET 5
-L- STA 22+00



REVISIONS

PROP CONC SIDEWALK

NOTE: SEE SHEET 33 FOR -L- PROFILE
SEE SHEET 46 FOR -Y1- PROFILE
SEE SHEET 46 FOR -Y2- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-42/CONST.05
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

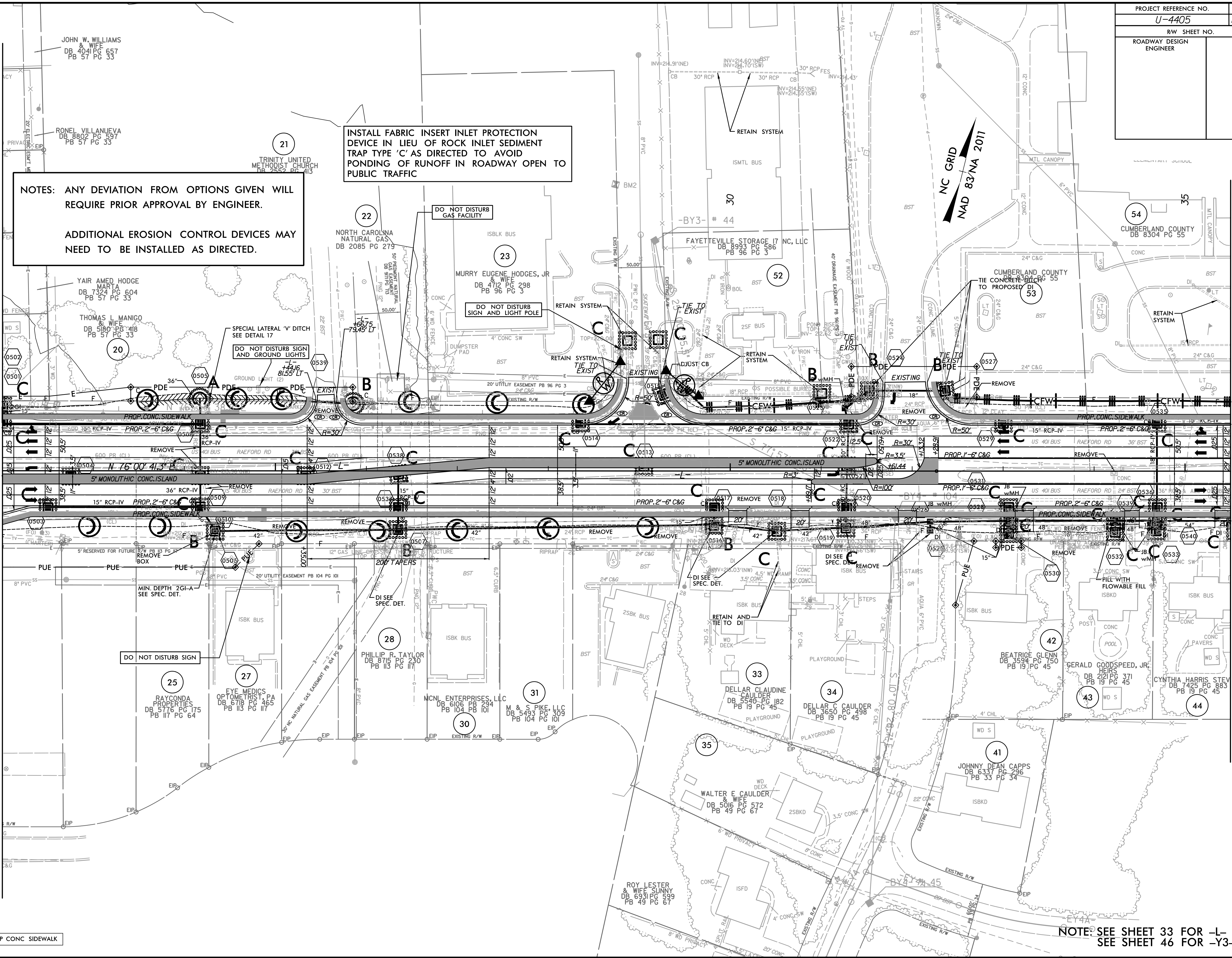
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

MATCHLINE SEE SHEET 4
-L- STA 22 + 00

MATCHLINE SEE SHEET 6
-L- STA 35 + 50



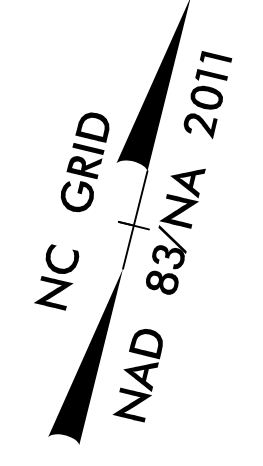
PROP CONC SIDEWALK

NOTE: SEE SHEET 33 FOR -L- PROFILE
SEE SHEET 46 FOR -Y3- PROFILE

REVISIONS

8/17/99
10:33:29 AM
R:\Environmental\Design\4405.REU.EC.psh_05_1.mxd
ec

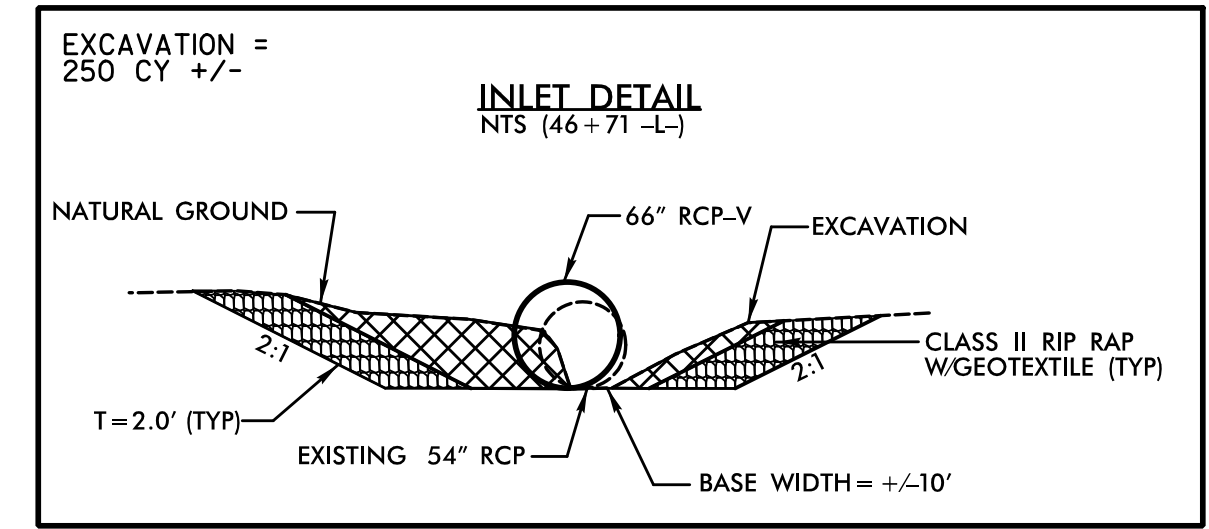
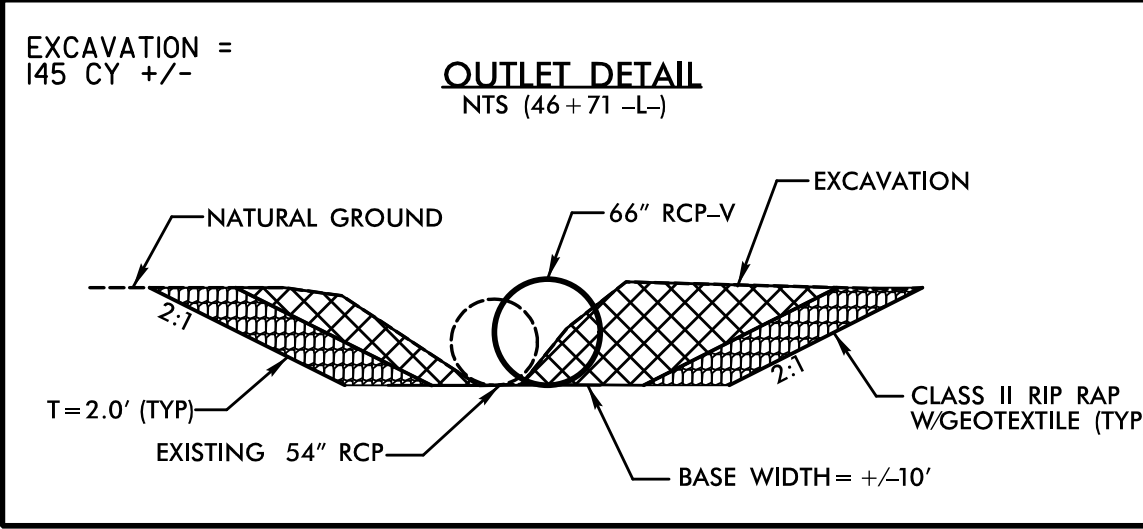
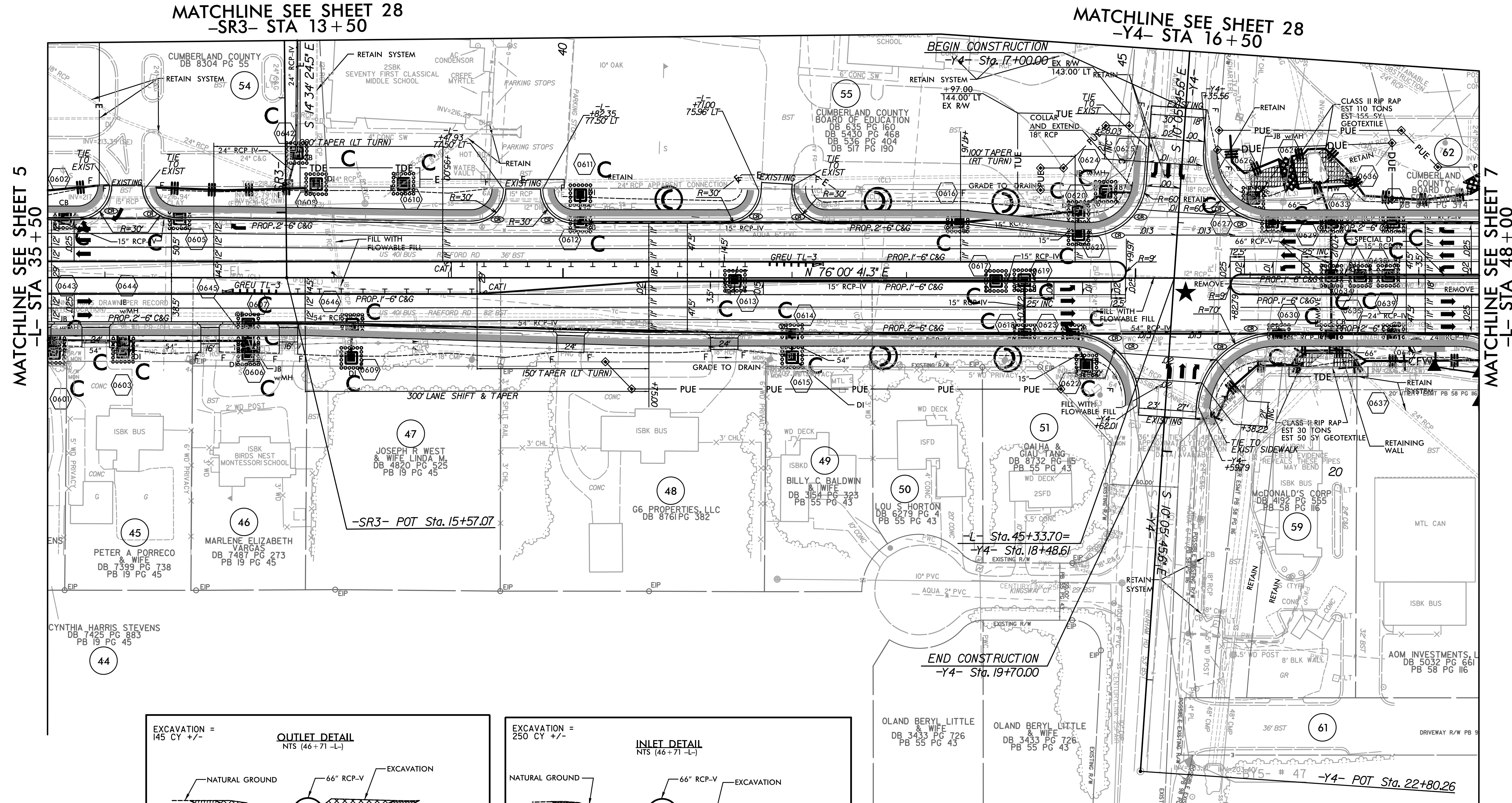
PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-43/CONST.06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC



- ★ PROPOSED SIGNAL
- ▬ PROP CONC SIDEWALK

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

NOTE: SEE SHEET 33&34 FOR -L- PROFILE
SEE SHEET 46 FOR -Y4- PROFILE

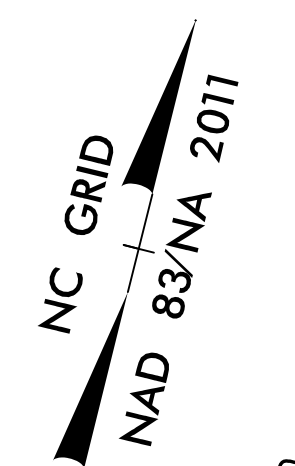
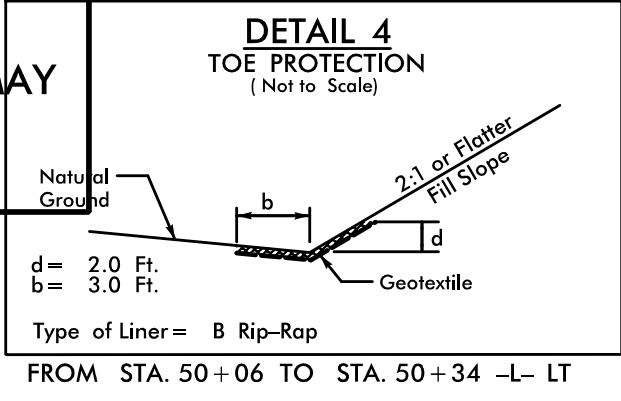
8/17/99
 REVISIONS
 10:33:44 AM
 R:\Environmental\Design\4405.REU.LC.psh_06_11.mxd
 10:33:44 AM
 R:\Environmental\Design\4405.REU.LC.psh_06_11.mxd

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-44/CONST.07
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

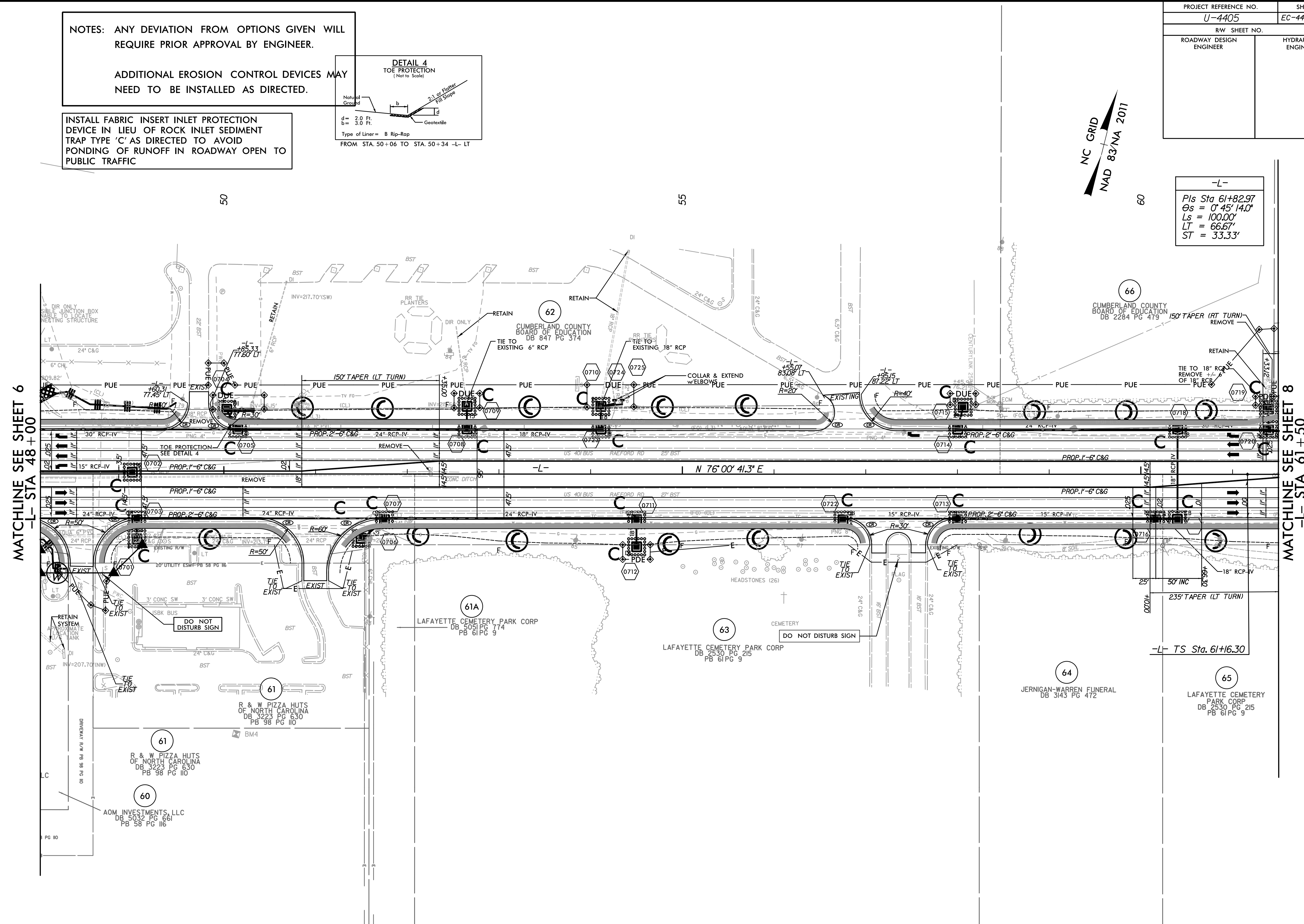
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC



-L-
Pls Sta 61+82.97
Os = 0' 45" 14.0"
Ls = 100.00'
LT = 66.67'
ST = 33.33'



MATCHLINE SEE SHEET 6
-L- STA 48+00

MATCHLINE SEE SHEET 8
-L- STA 61+50

8/17/99
10:34:03 AM
R:\Environmental\Design\4405_REU_EC_psh_07_11.mxd
10/31/2011

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

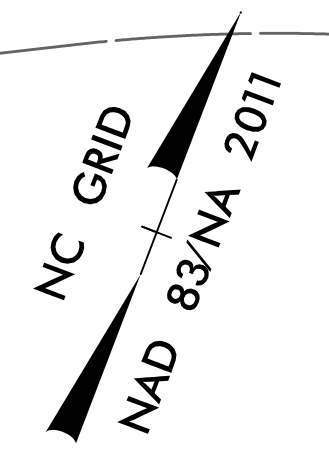
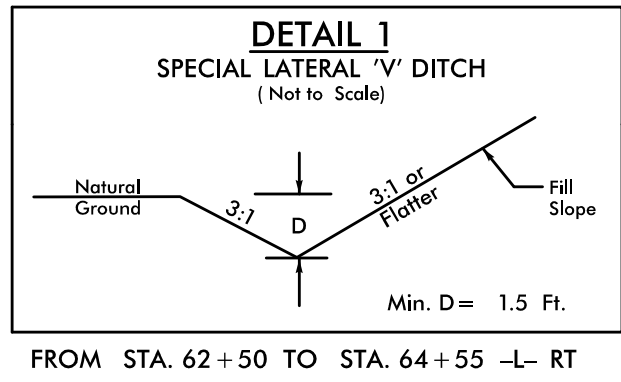
NOTE: SEE SHEET 34 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-45/CONST.08
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC



8/17/99

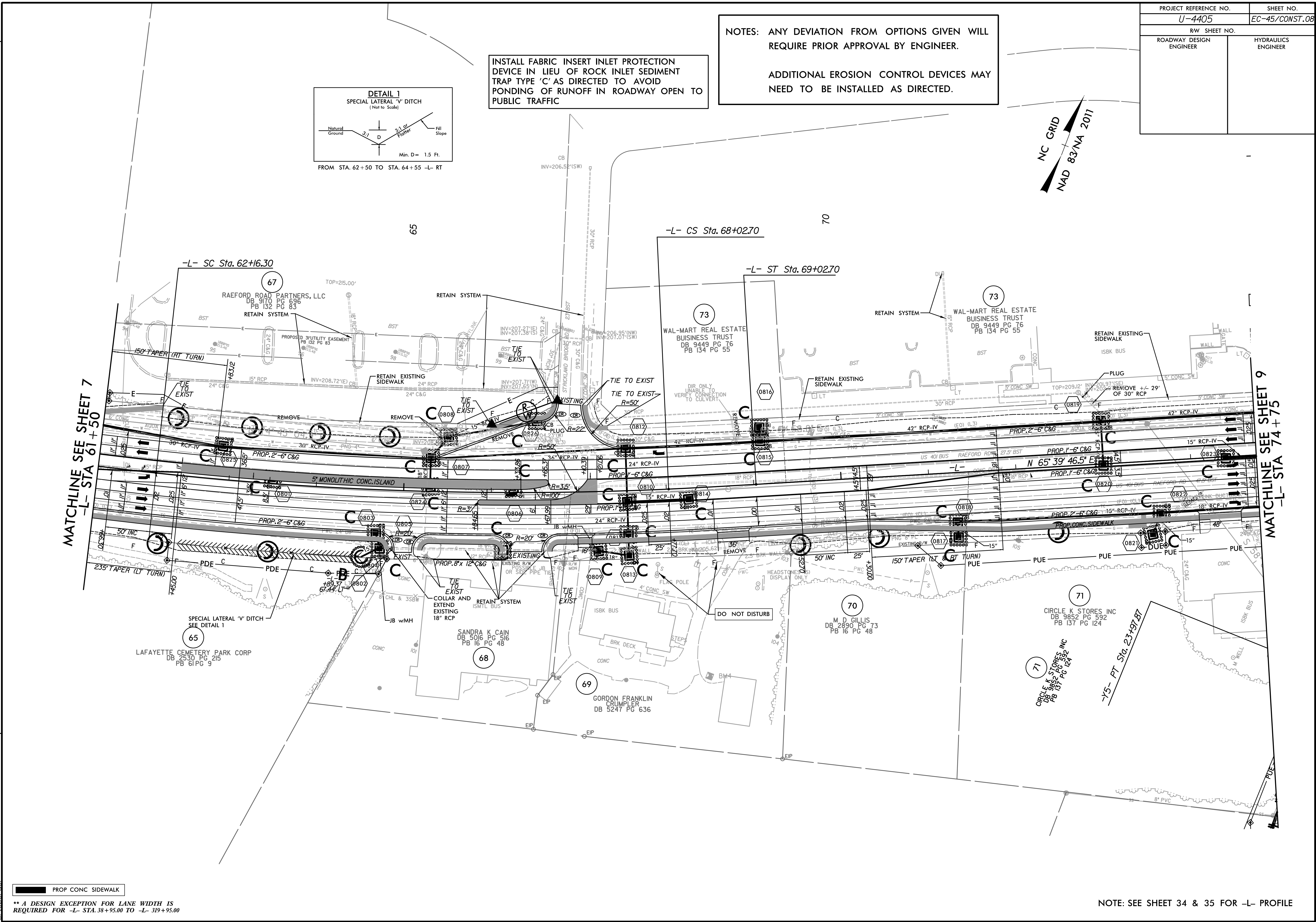
REVISIONS

10:34:19 AM
R:\Environmental\Design\4405_REU_EC_psh_08_11.mxd

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

PROP CONC SIDEWALK

NOTE: SEE SHEET 34 & 35 FOR -L- PROFILE



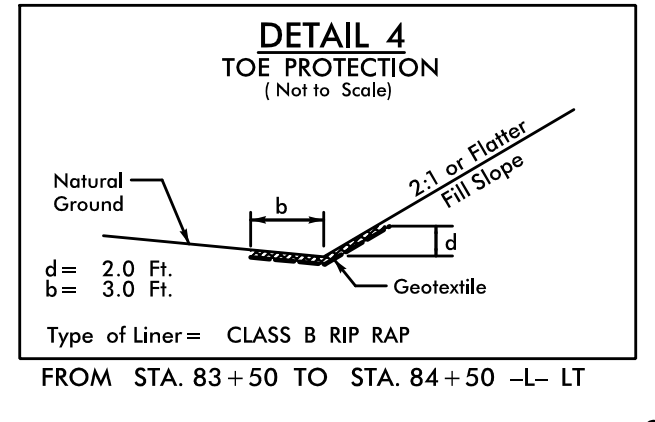
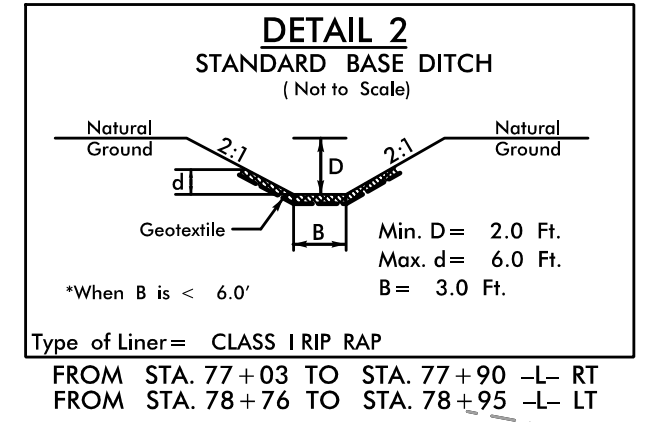
PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-46/CONST.09
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-
 PIs Sta 81+21.39
 $\Delta = 0' 27' 17.0"$
 $L_s = 100.00'$
 $LT = 66.67'$
 $ST = 33.33'$

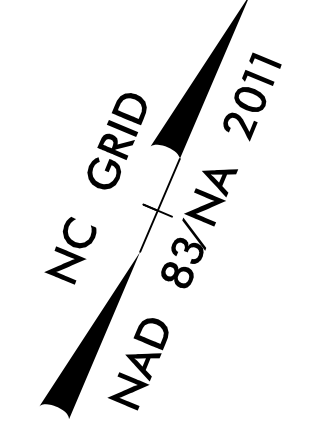
Pi Sta 84+71.94
 $\Delta = 5' 45' 54.2"$ (RT)
 $D = 0' 54' 34.0"$
 $L = 633.90'$
 $T = 317.22'$
 $R = 6,300.00'$
 $SE = 0.025$

PIs Sta 88+21.95
 $\Delta = 0' 27' 17.0"$
 $L_s = 100.00'$
 $LT = 66.67'$
 $ST = 33.33'$

-Y5-
 PI Sta 15+94.46
 $\Delta = 34' 10' 44.0"$ (RT)
 $D = 10' 44' 58.8"$
 $L = 317.95'$
 $T = 163.86'$
 $R = 533.00'$



40 x 20 x 3
 1.5 inch Skimmer
 with 0.75 inch
 Orifice Diameter
 4 ft. weir
 ID 9.1



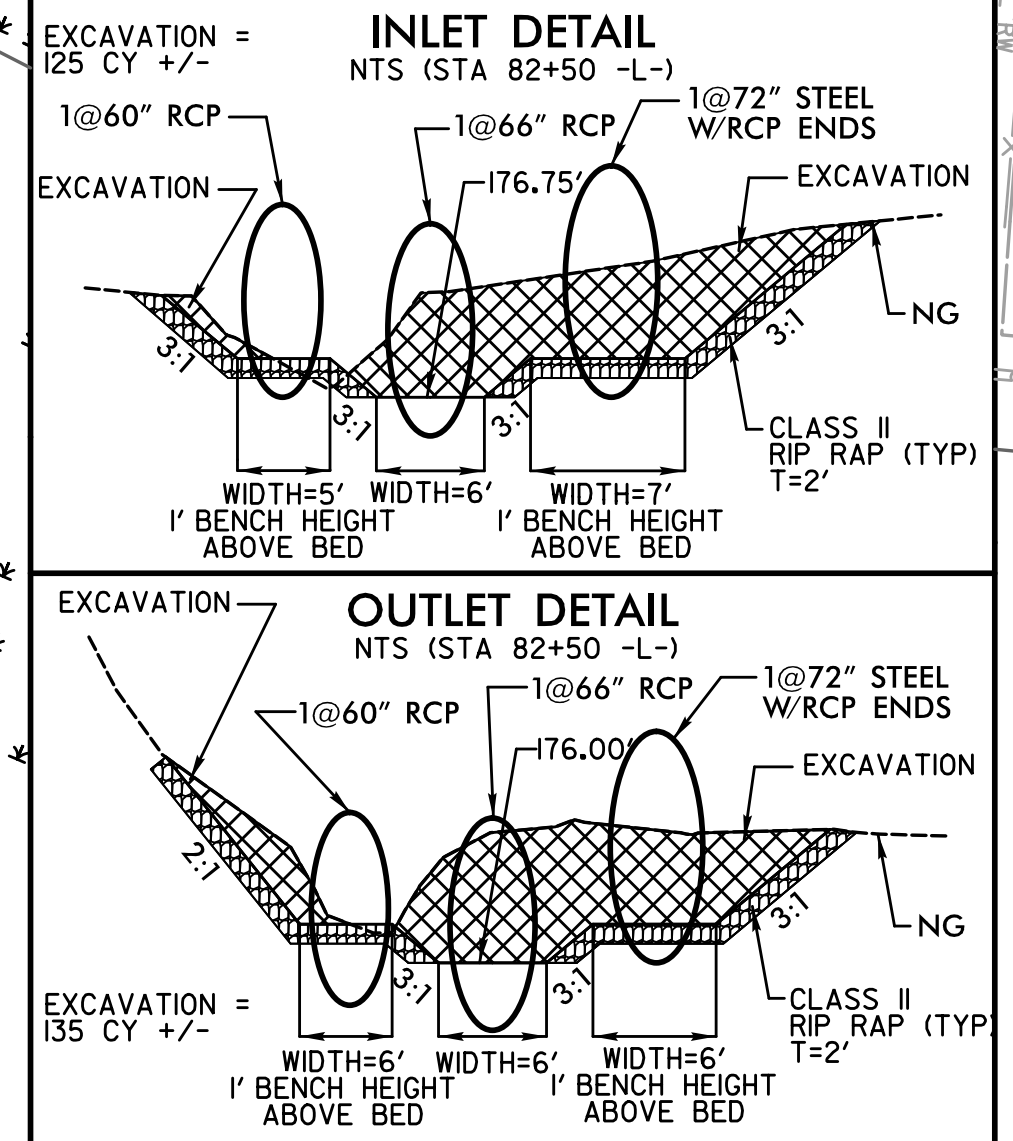
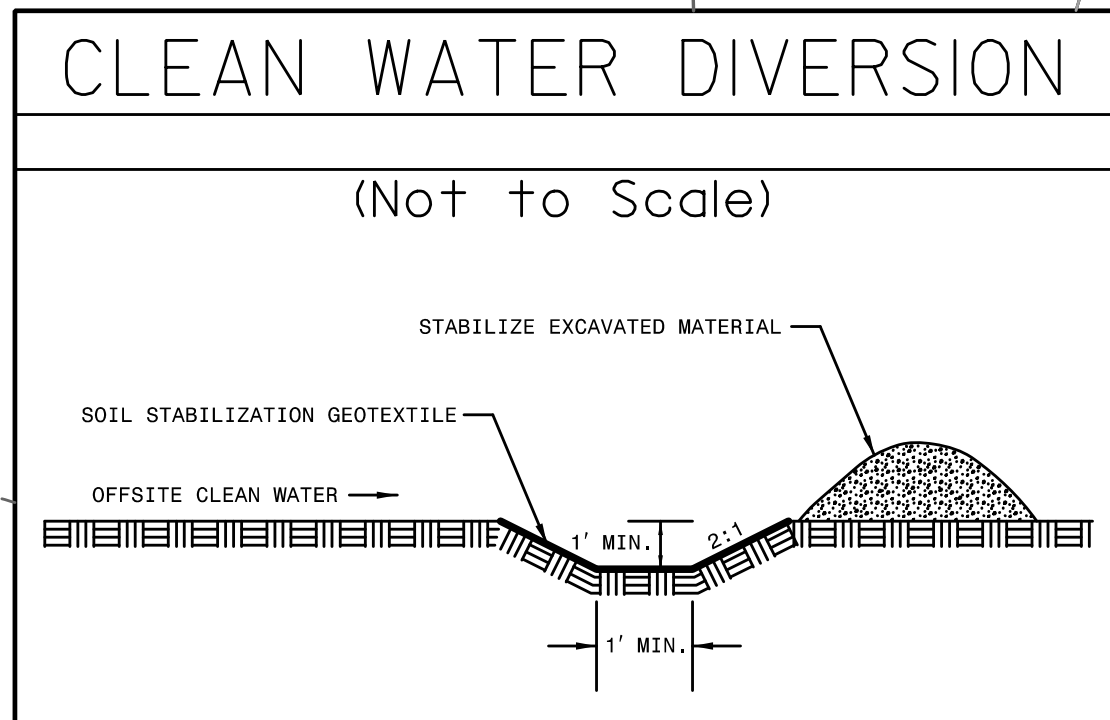
MATCHLINE SEE SHEET 8
-L- STA 74+75

MATCHLINE SEE SHEET 10
-L- STA 88+00

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC



-Y5-
 PI Sta 22+82.12
 $\Delta = 25' 18' 13.3"$ (RT)
 $D = 10' 44' 58.8"$
 $L = 235.39'$
 $T = 119.65'$
 $R = 533.00'$
 $SE = 0.02$

- ★ PROPOSED SIGNAL
- ▬ PROP CONC SIDEWALK

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

NOTE: SEE SHEET 35 FOR -L- PROFILE
 SEE SHEET 46 FOR -Y5- PROFILE

REVISIONS

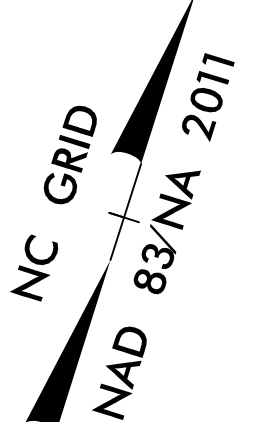
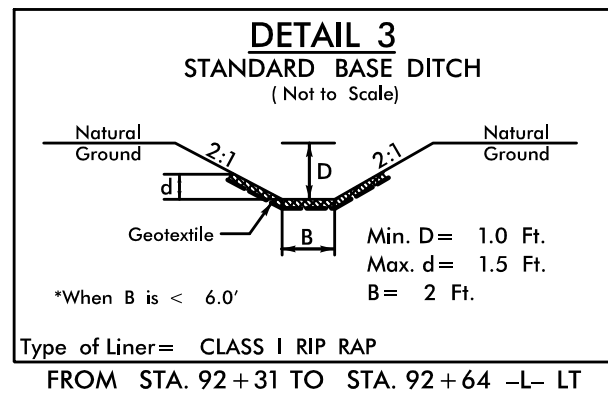
8/17/99
 10:34:40 AM
 R:\Environmental\Design\4405_REU_EC_psh_09_1\1.mxd

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-47/CONST.10
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC



-Y7-
 PI Sta 12+57.36
 $\Delta = 20^\circ 39' 00.6''$ (RT)
 $D = 6^\circ 30' 00.0''$
 $L = 317.69'$
 $T = 160.59'$
 $R = 881.47'$

-L-
 PIs Sta 88+21.95
 $\Theta_s = 0^\circ 27' 17.0''$
 $L_s = 100.00'$
 $LT = 66.67'$
 $ST = 33.33'$

STANDARD BASE DITCH
 W/CLASS 1 RIP RAP
 SEE DETAIL 3
 EST 65 TONS
 EST 120 CY GEOTEXTILE
 EST DDE = 30 CY
 SLOPE = 6.0%

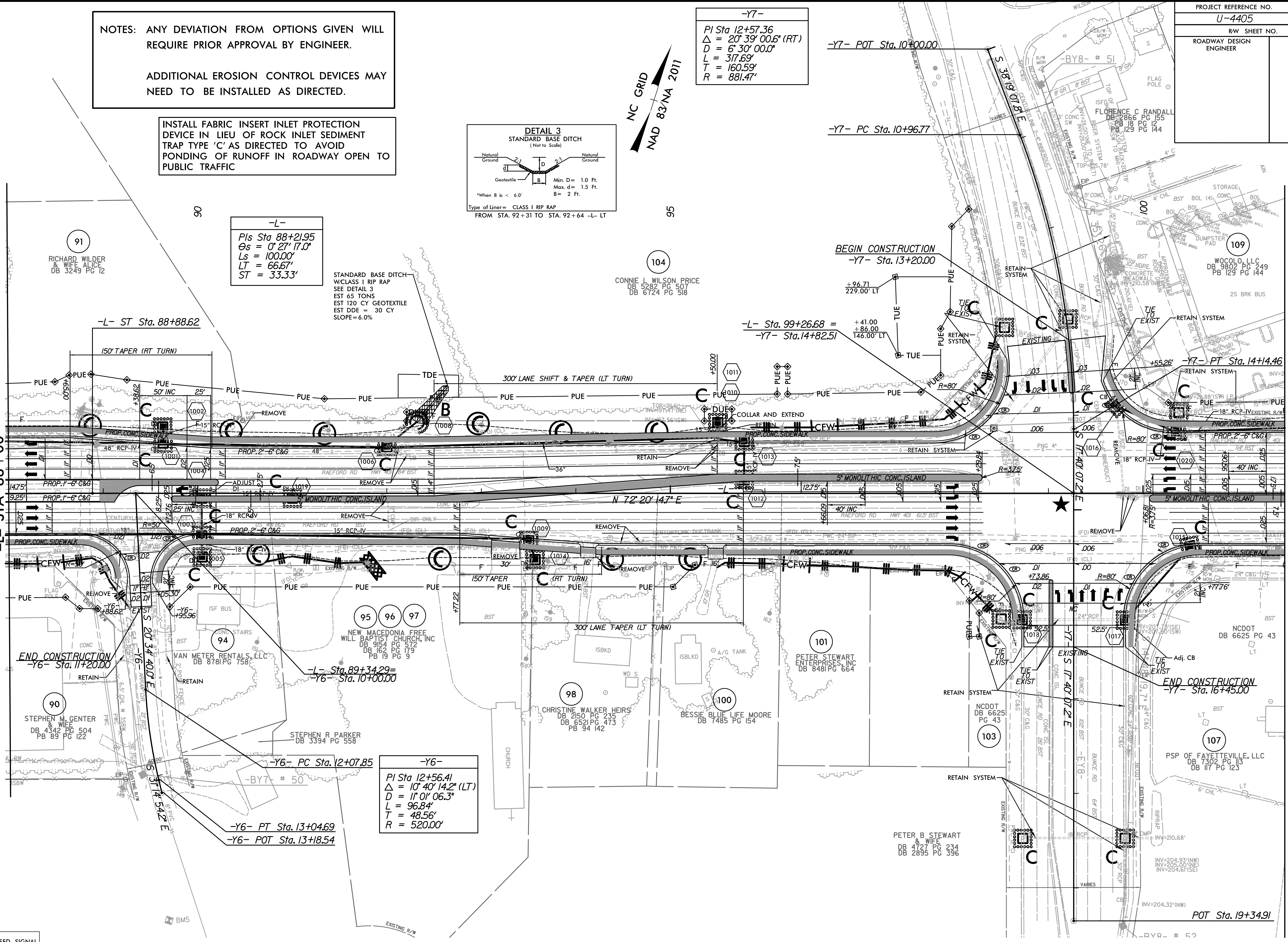
-Y6-
 PI Sta 12+56.41
 $\Delta = 10^\circ 40' 14.2''$ (LT)
 $D = 1^\circ 0' 06.3''$
 $L = 96.84'$
 $T = 48.56'$
 $R = 520.00'$

8/17/99
 10:35:08 AM
 R:\Environmental\Design\4405.REU.EC_psh.10.Final.dgn
 ricl@carroll.com

REVISIONS

MATCHLINE SEE SHEET 9
 -L- STA 88+00

MATCHLINE SEE SHEET 11
 -L- STA 101+50



- ★ PROPOSED SIGNAL
- ▬ PROP CONC SIDEWALK

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

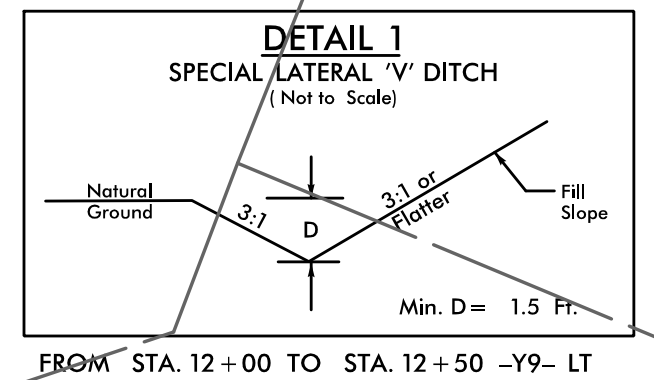
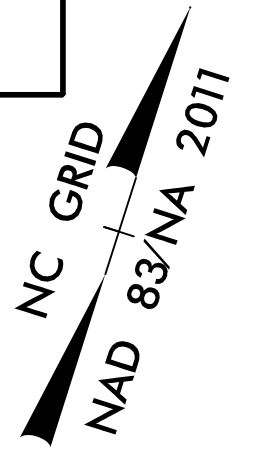
NOTE: SEE SHEET 35&36 FOR -L- PROFILE
 SEE SHEET 47 FOR -Y6- PROFILE
 SEE SHEET 47 FOR -Y7- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-48/CONST.II
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC



MATCHLINE SEE SHEET 10
-L- STA 101 + 50

MATCHLINE SEE SHEET 12
-L- STA 115 + 00

8/17/99

REVISIONS

★ PROPOSED SIGNAL

▬ PROP CONC SIDEWALK

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

NOTE: SEE SHEET 36 FOR -L- PROFILE
SEE SHEET 47 FOR -Y9- PROFILE
SEE SHEET 47 FOR -Y10- PROFILE

10:35:28 AM
R:\Environmental\Design\4405_REU_EC_psh.11\F_inel.dgn

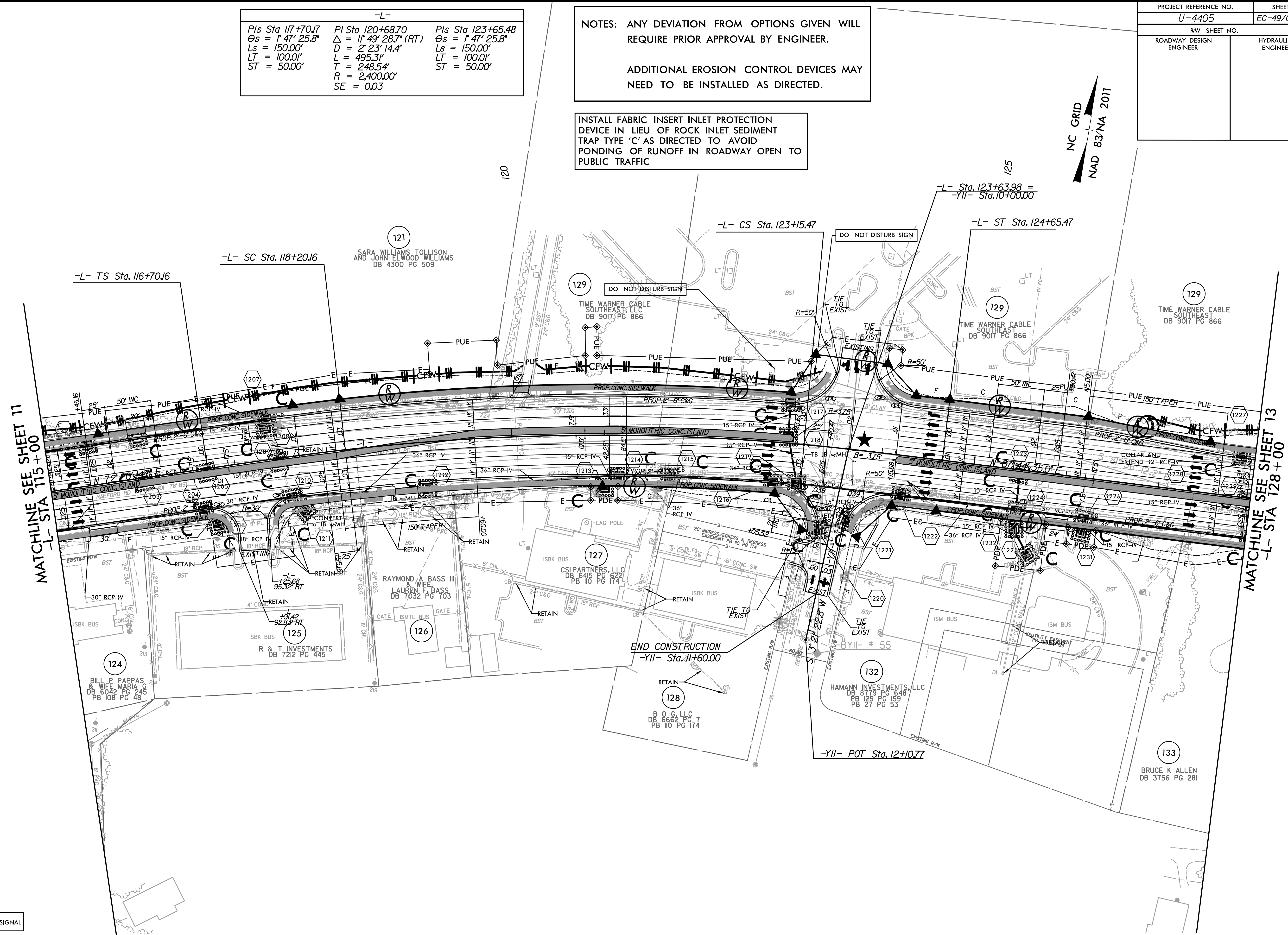
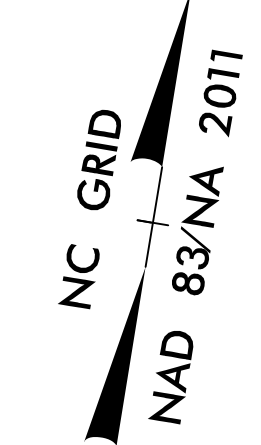
PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-49/CONST.12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-		
PIs Sta 117+70.17	PI Sta 120+68.70	PIs Sta 123+65.48
$\theta_s = 1' 47" 25.8"$	$\Delta = 11' 49" 28.7" (RT)$	$\theta_s = 1' 47" 25.8"$
$L_s = 150.00'$	$D = 2' 23" 14.4"$	$L_s = 150.00'$
$LT = 100.00'$	$L = 495.31'$	$LT = 100.00'$
$ST = 50.00'$	$T = 248.54'$	$ST = 50.00'$
	$R = 2,400.00'$	
	$SE = 0.03$	

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC



MATCHLINE SEE SHEET 11
-L- STA 115 + 00

MATCHLINE SEE SHEET 13
-L- STA 128 + 00

★ PROPOSED SIGNAL

▬ PROP CONC SIDEWALK

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

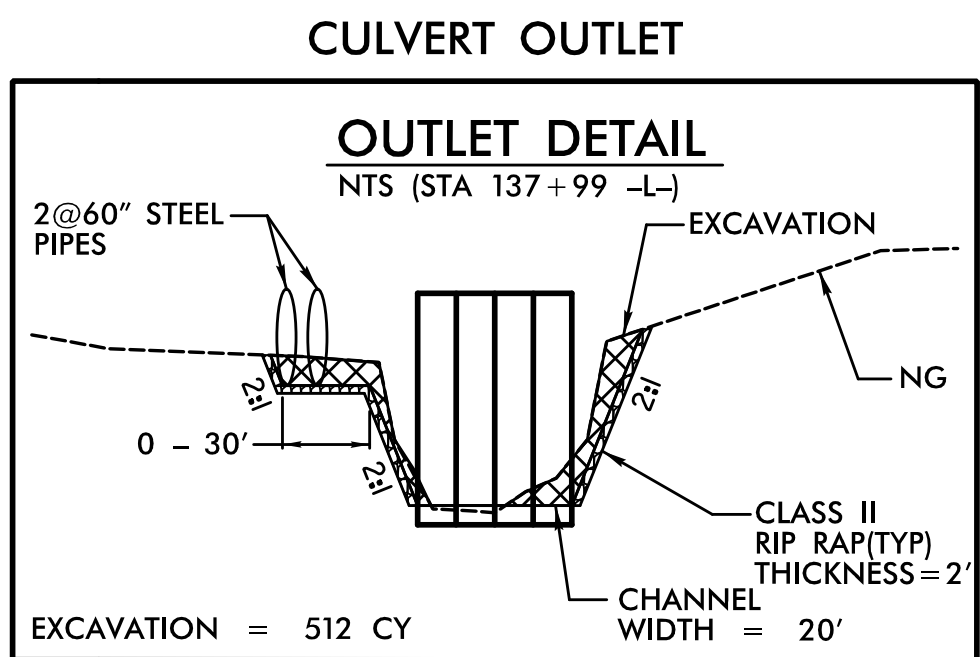
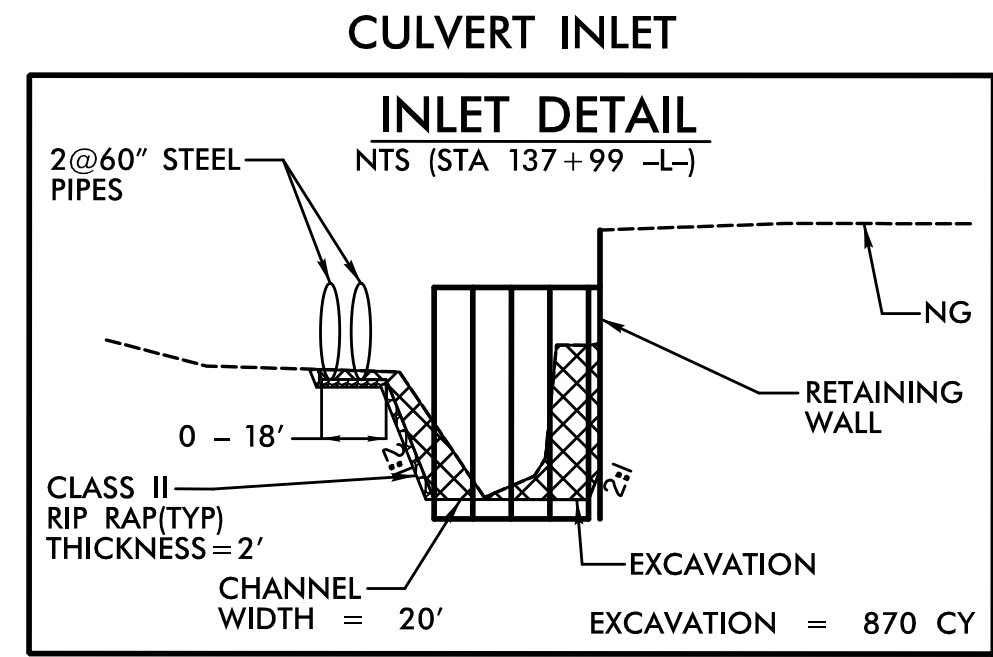
NOTE: SEE SHEET 36 & 37 FOR -L- PROFILE
SEE SHEET 47 FOR -YII- PROFILE

REVISIONS

8/17/99
10:35:44 AM
R:\Environmental\Design\4405_REU_EC_psh_12_Final.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-50/CONST.13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-
 PIs Sta 139+95.56 PI Sta 144+71.01
 $\Delta s = 1' 43' 07.9"$ $\Delta = 19' 18' 58.8" (RT)$
 $Ls = 150.00'$ $D = 2' 17' 30.6"$
 $LT = 100.00'$ $L = 842.83'$
 $ST = 50.00'$ $T = 425.45'$
 $R = 2,500.00'$
 $SE = 0.03$



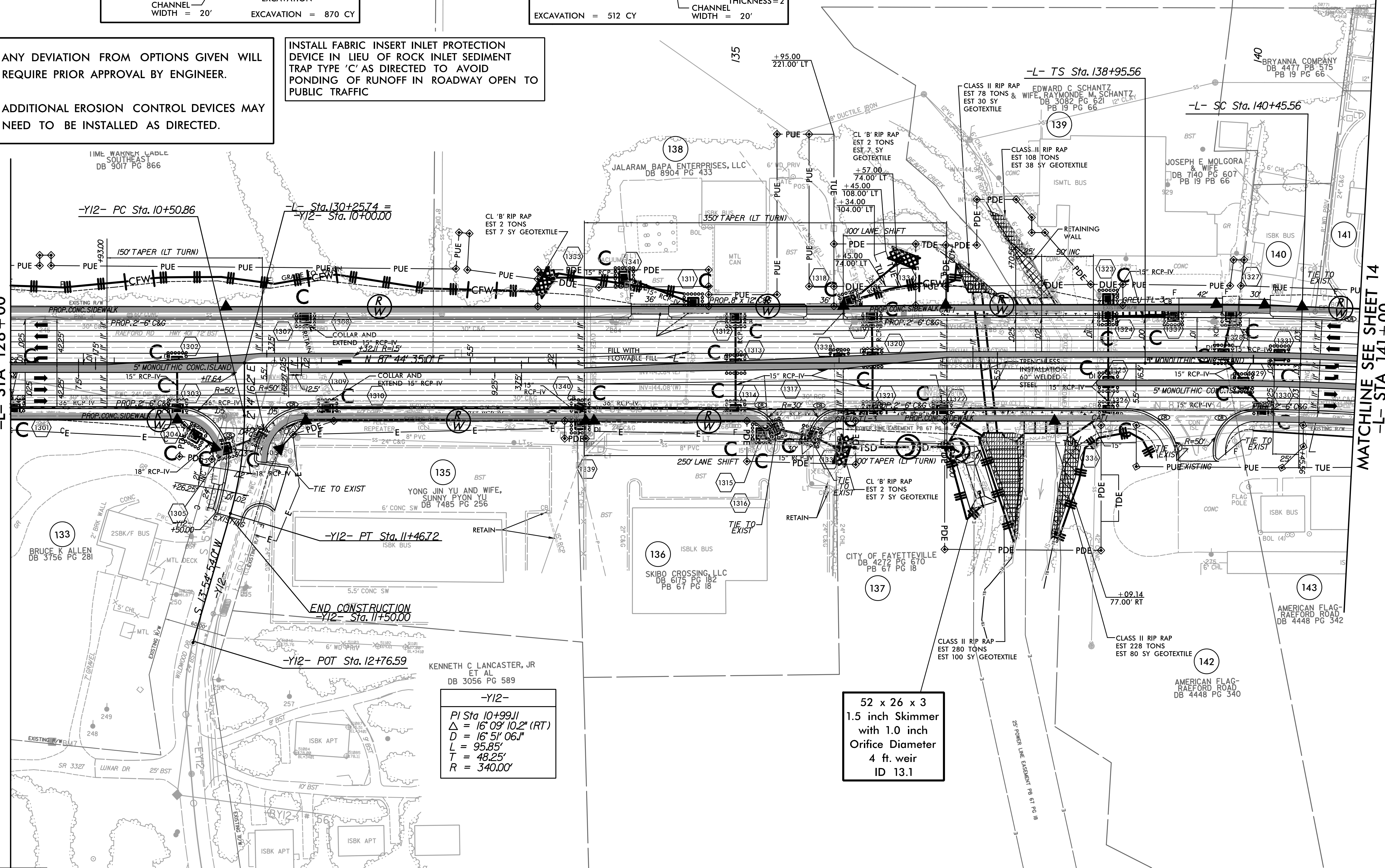
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

MATCHLINE SEE SHEET 12 -L- STA 128+00

MATCHLINE SEE SHEET 14 -L- STA 141+00



-Y12-
 PI Sta 10+99.11
 $\Delta = 16' 09' 10.2" (RT)$
 $D = 16' 51' 06.1"$
 $L = 95.85'$
 $T = 48.25'$
 $R = 340.00'$

52 x 26 x 3
 1.5 inch Skimmer
 with 1.0 inch
 Orifice Diameter
 4 ft. weir
 ID 13.1

NOTE: SEE SHEET 37 FOR -L- PROFILE
 SEE SHEET 47 FOR -Y12- PROFILE

REVISIONS

8/17/99
 I:\36102 AM
 R:\Environmental\Design\4405_REU_EC_psh_13_Final.dgn
 10/36/02 AM
 R:\Environmental\Design\4405_REU_EC_psh_13_Final.dgn

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-51/CONST.14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

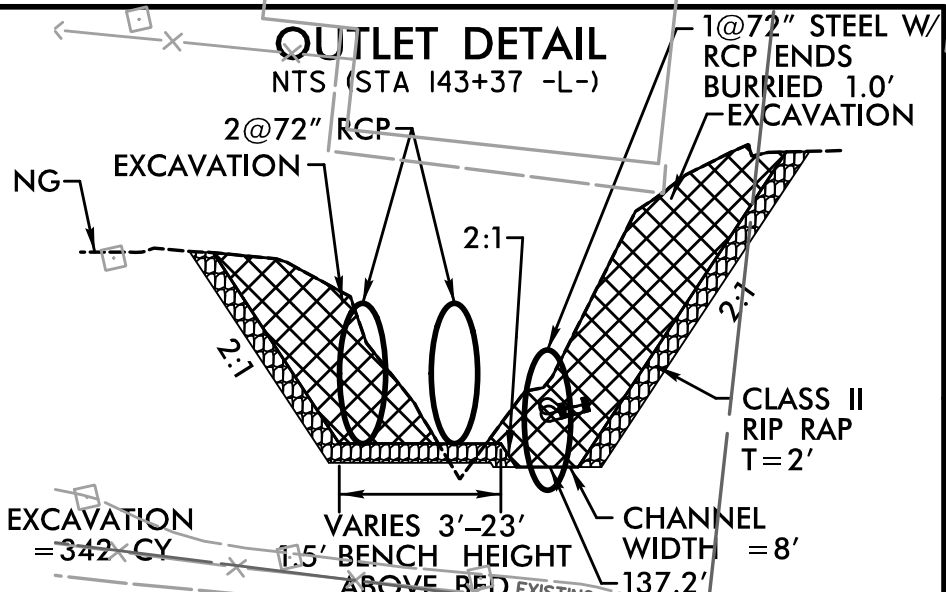
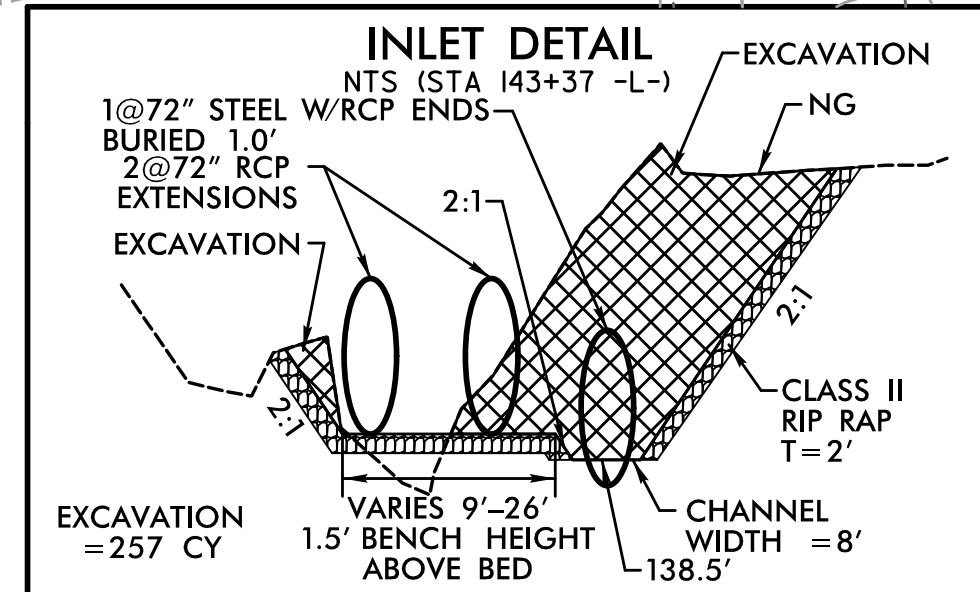
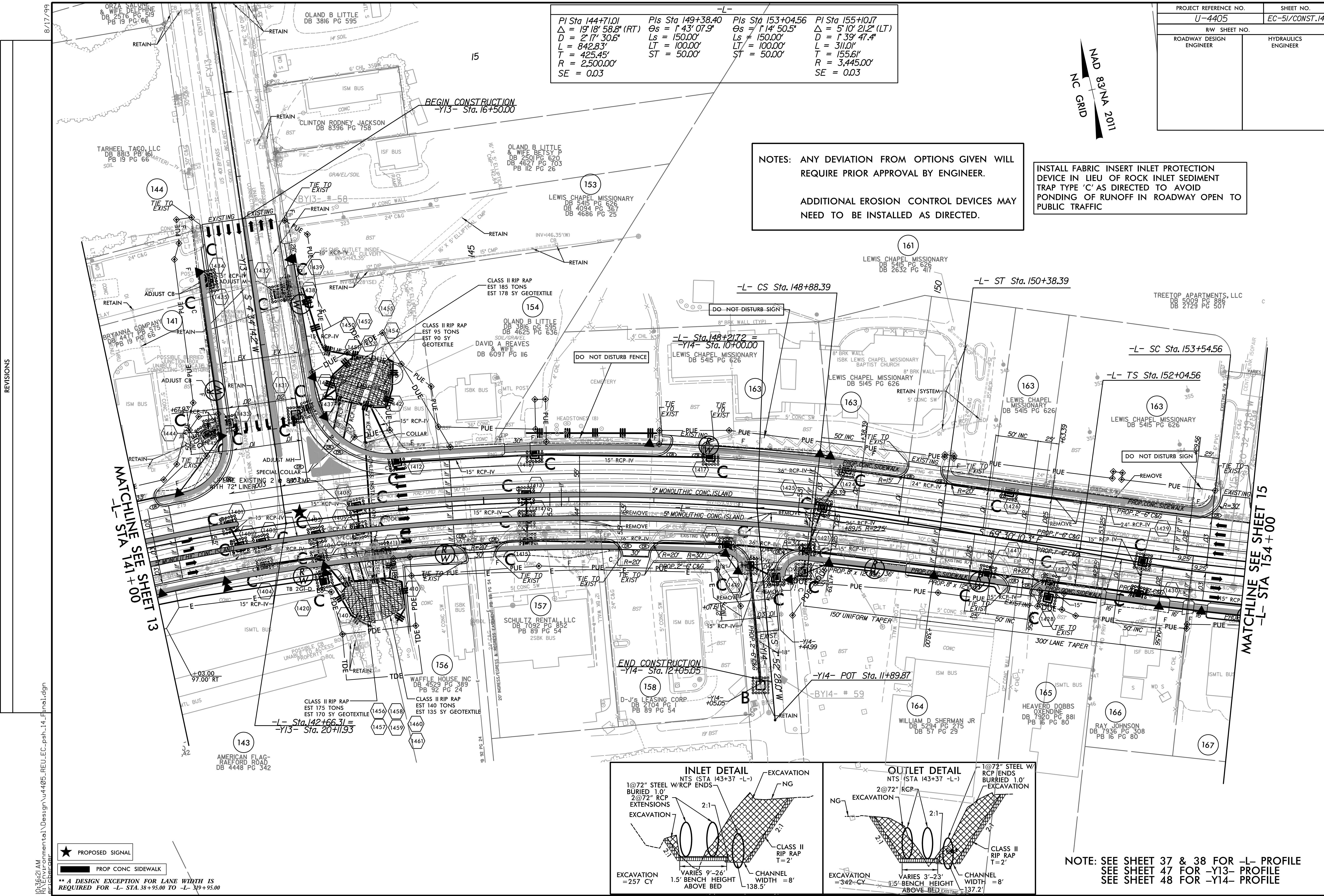
PI Sta 144+71.01 $\Delta = 19' 18" 58.8" (RT)$ $D = 2' 17" 30.6"$ $L = 842.83'$ $T = 425.45'$ $R = 2,500.00'$ $SE = 0.03$	Pls Sta 149+38.40 $\Theta_s = 1' 43" 07.9"$ $Ls = 150.00'$ $LT = 100.00'$ $ST = 50.00'$	Pls Sta 153+04.56 $\Theta_s = 1' 14" 50.5"$ $Ls = 150.00'$ $LT = 100.00'$ $ST = 50.00'$	PI Sta 155+10.17 $\Delta = 5' 10" 21.2" (LT)$ $D = 1' 39" 47.4"$ $L = 311.01'$ $T = 155.61'$ $R = 3,445.00'$ $SE = 0.03$
---	---	---	--

NAD 83/NA 2011
NC GRID

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC



NOTE: SEE SHEET 37 & 38 FOR -L- PROFILE
SEE SHEET 47 FOR -Y13- PROFILE
SEE SHEET 48 FOR -Y14- PROFILE

REVISIONS

★ PROPOSED SIGNAL

▬ PROP CONC SIDEWALK

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

I:\03621AM\Environmental\Design\4405.REU.LC.psh_14_Final.dgn

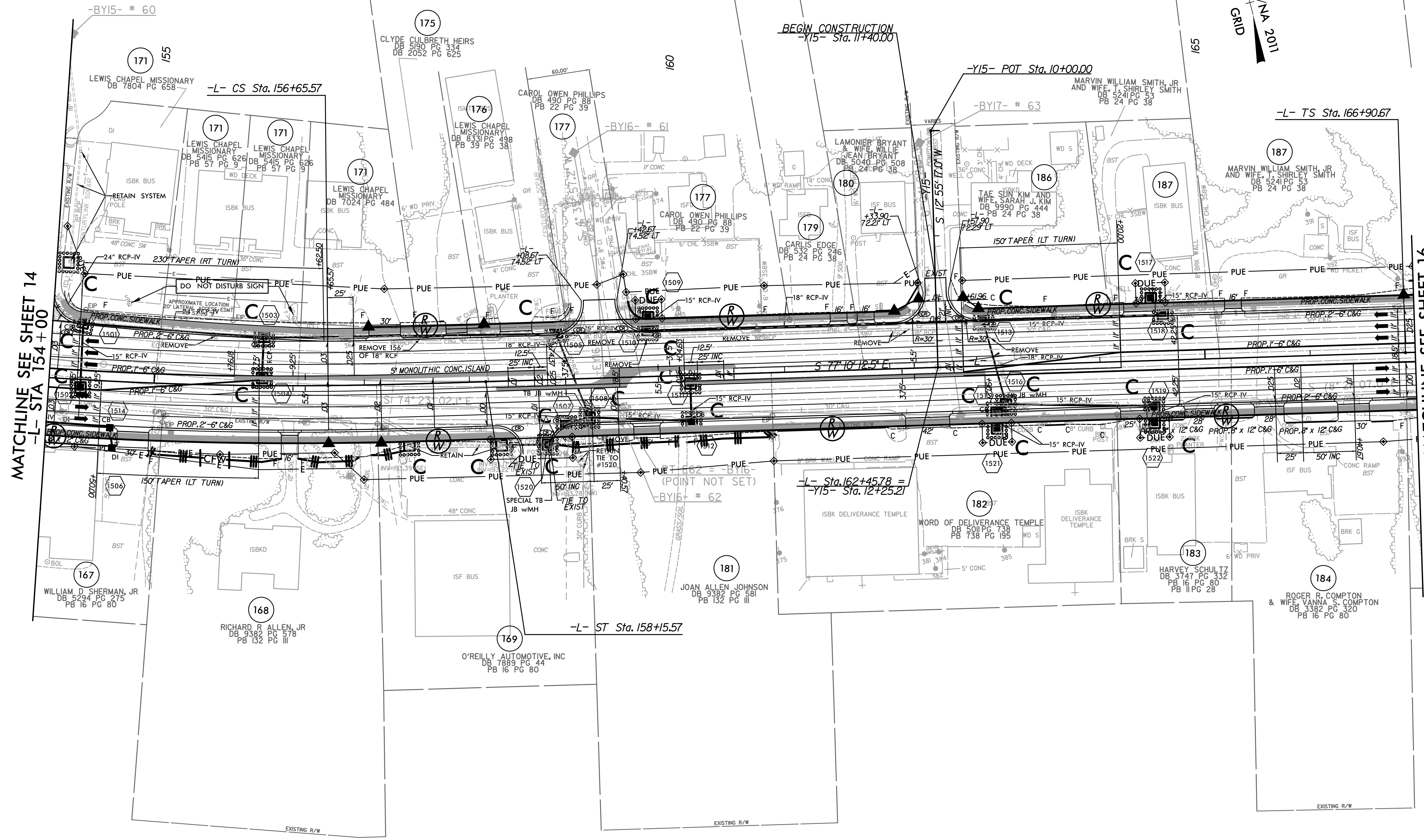
PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-52/CONST.15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-		
PI Sta 155+10.7	Pls Sta 157+15.57	Pls Sta 167+90.68
$\Delta = 5' 10" 21.2" (LT)$	$\Theta_s = 1' 14" 50.5"$	$\Theta_s = 2' 14" 59.4"$
$D = 1' 39" 47.4"$	$L_s = 150.00'$	$L_s = 150.00'$
$L = 311.0'$	$LT = 100.00'$	$LT = 100.00'$
$T = 155.6'$	$ST = 50.00'$	$ST = 50.00'$
$R = 3,445.00'$		
$SE = 0.03$		

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

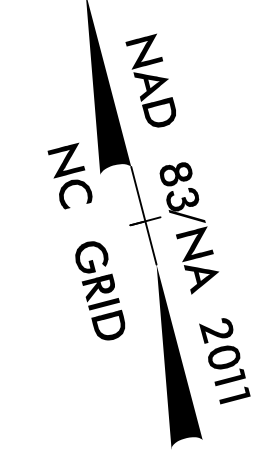
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC



MATCHLINE SEE SHEET 14
-L- STA 154+00

MATCHLINE SEE SHEET 16
-L- STA 167+00



REVISIONS

PROP CONC SIDEWALK

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

NOTE: SEE SHEET 38 FOR -L- PROFILE
SEE SHEET 48 FOR -Y15- PROFILE

8/17/99
I:\036140 AM
R:\Environmental\Design\4405_REU_EC_psh_15_Final.dgn

NAD 83/NA 2011
NC GRID

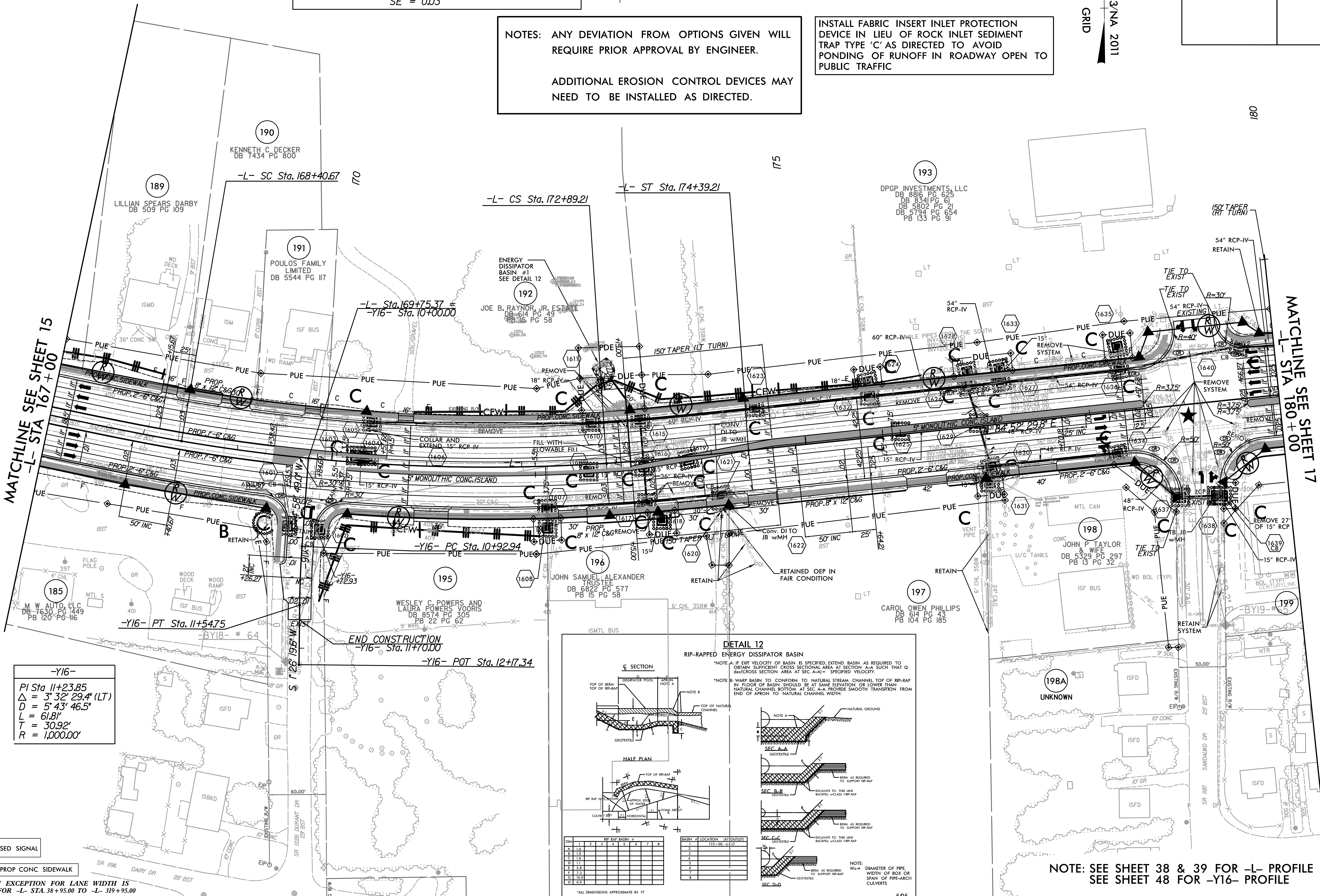
-L-

Pls Sta 167+90.68	PI Sta 170+65.98	Pls Sta 173+39.22
$\Theta_s = 2' 14" 59.4"$	$\Delta = 13' 27" 18.9" (LT)$	$\Theta_s = 2' 14" 59.4"$
$L_s = 150.00'$	$D = 2' 59" 59.2"$	$L_s = 150.00'$
$LT = 100.01'$	$L = 448.54'$	$LT = 100.01'$
$ST = 50.01'$	$T = 225.31'$	$ST = 50.01'$
	$R = 1,910.00'$	
	$SE = 0.03$	

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

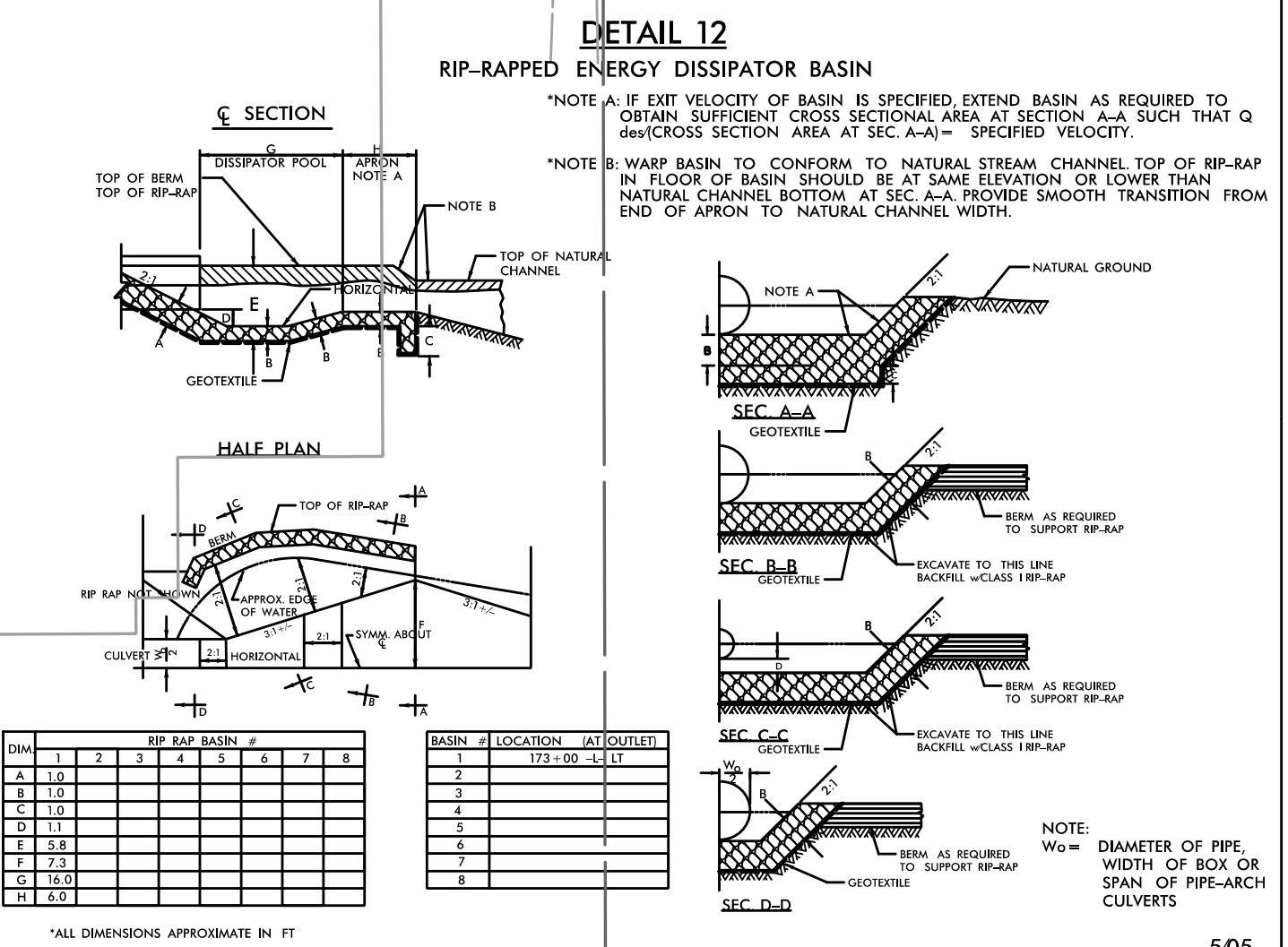


MATCHLINE SEE SHEET 15
-L- STA 167+00

MATCHLINE SEE SHEET 17
-L- STA 180+00

-Y16-

PI Sta 11+23.85
$\Delta = 3' 32" 29.4" (LT)$
$D = 5' 43" 46.5"$
$L = 61.81'$
$T = 30.92'$
$R = 1,000.00'$



NOTE: SEE SHEET 38 & 39 FOR -L- PROFILE
SEE SHEET 48 FOR -Y16- PROFILE

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

★ PROPOSED SIGNAL

▬ PROP CONC SIDEWALK

REVISIONS

8/17/99
10:36:57 AM
R:\Environmental\Design\4405_REU_EC_psh_16_Final.dgn

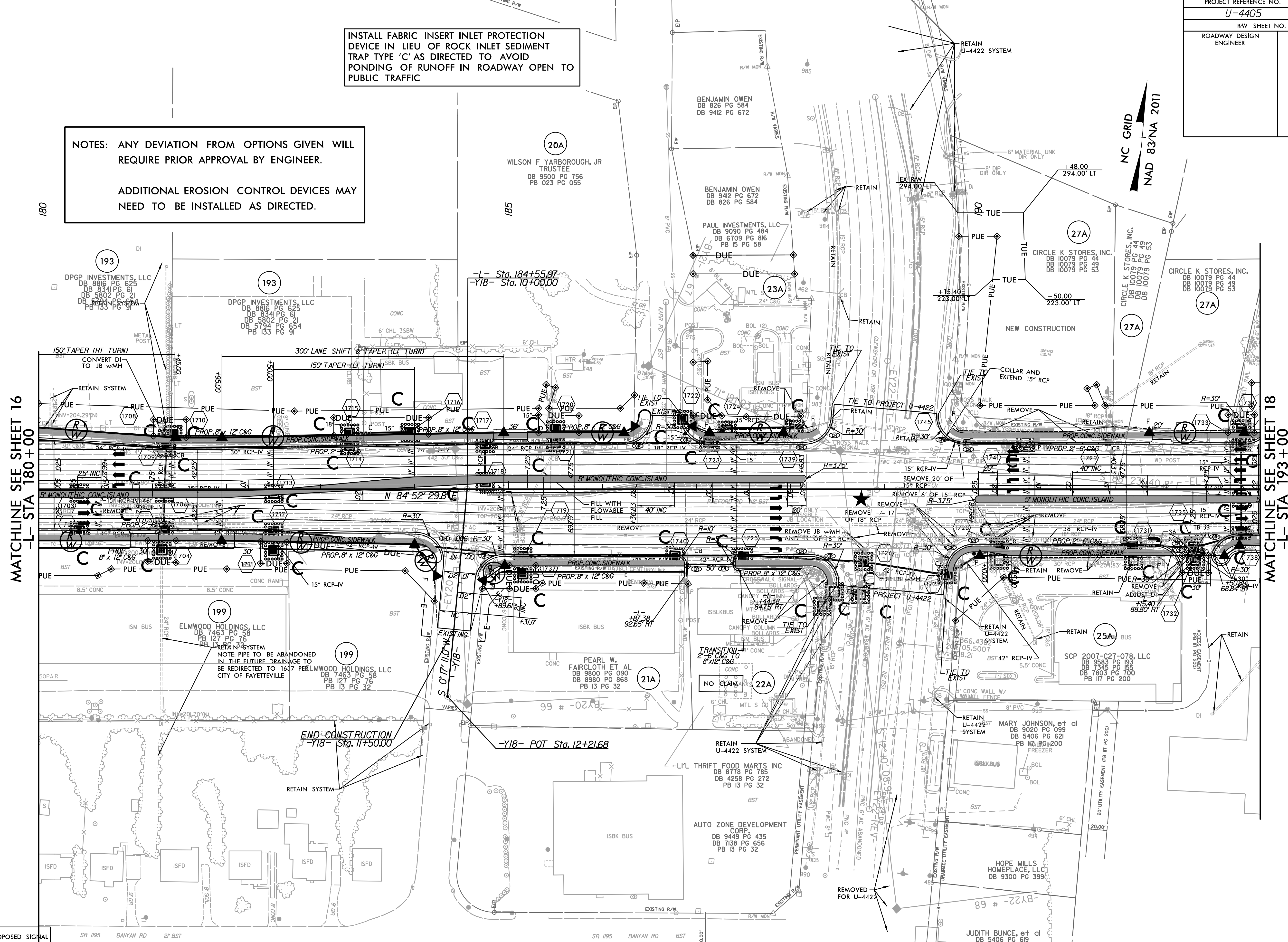
PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-54/CONST.17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

NC GRID
NAD 83/NA 2011



MATCHLINE SEE SHEET 16
-L- STA 180+00

MATCHLINE SEE SHEET 18
-L- STA 193+00

REVISIONS

★ PROPOSED SIGNAL

▬ PROP CONC SIDEWALK

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

NOTE: SEE SHEET 39 FOR -L- PROFILE
SEE SHEET 48 FOR -Y18- PROFILE

8/17/99
10:37:22 AM
R:\Environmental\Design\4405.REU.EC.psh.17_Final.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-55/CONST.18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

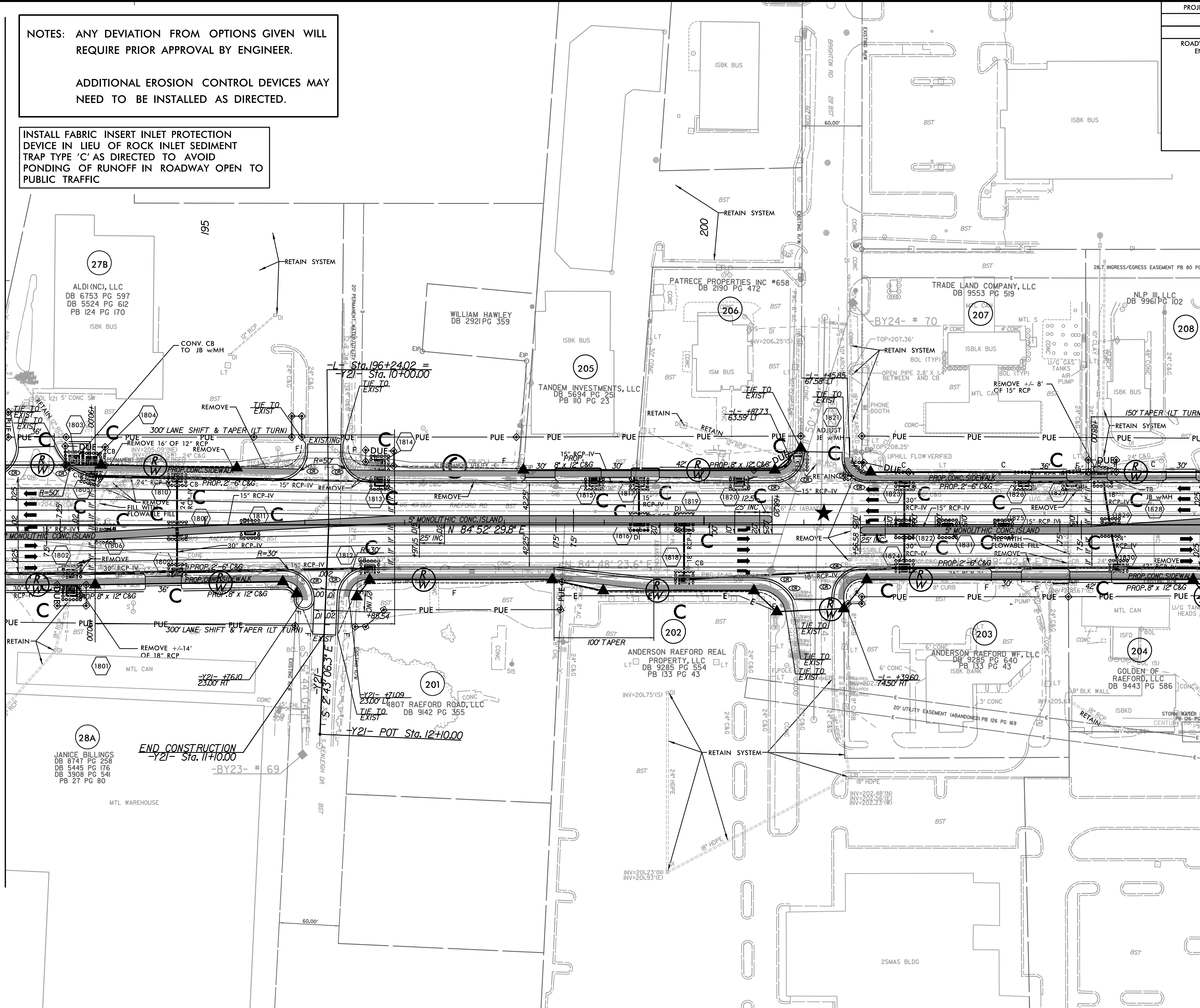
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

NC GRID
NAD 83/NA 2011

MATCHLINE SEE SHEET 17
-L- STA 193+00

MATCHLINE SEE SHEET 19
-L- STA 205+00



REVISIONS

★ PROPOSED SIGNAL

■ PROP CONC SIDEWALK

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

NOTE: SEE SHEET 39 FOR -L- PROFILE
SEE SHEET 48 FOR -Y21- PROFILE

8/17/99

I0:37:38 AM
R:\Environmental\Design\4405_REU_EC_psh_18_Final.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-56/CONST.19
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

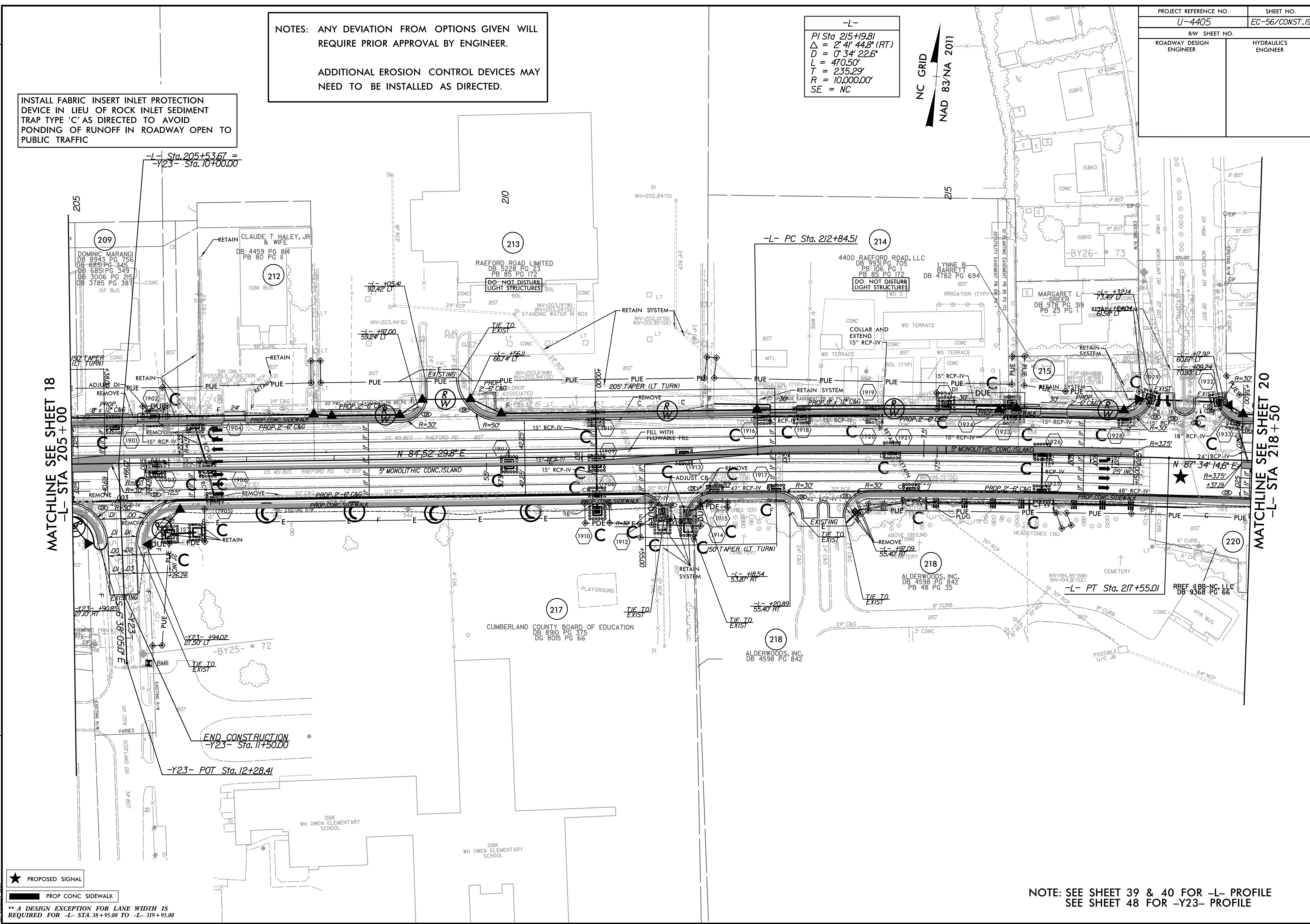
-L-
 PI Sta 215+19.81
 $\Delta = 2' 4" 44.8" (RT)$
 $D = 0' 34' 22.6"$
 $L = 470.50'$
 $T = 235.29'$
 $R = 10,000.00'$
 $SE = NC$

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

8/17/99

10:37:52 AM
 R:\Environmental\Design\4405_REU_EC_psh_19_Final.dgn
 ricobarcel

★ PROPOSED SIGNAL
 █ PROP CONC SIDEWALK
 ** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00



MATCHLINE SEE SHEET 18
 -L- STA 205+00

MATCHLINE SEE SHEET 20
 -L- STA 218+50

NOTE: SEE SHEET 39 & 40 FOR -L- PROFILE
 SEE SHEET 48 FOR -Y23- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-57/CONST.20
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

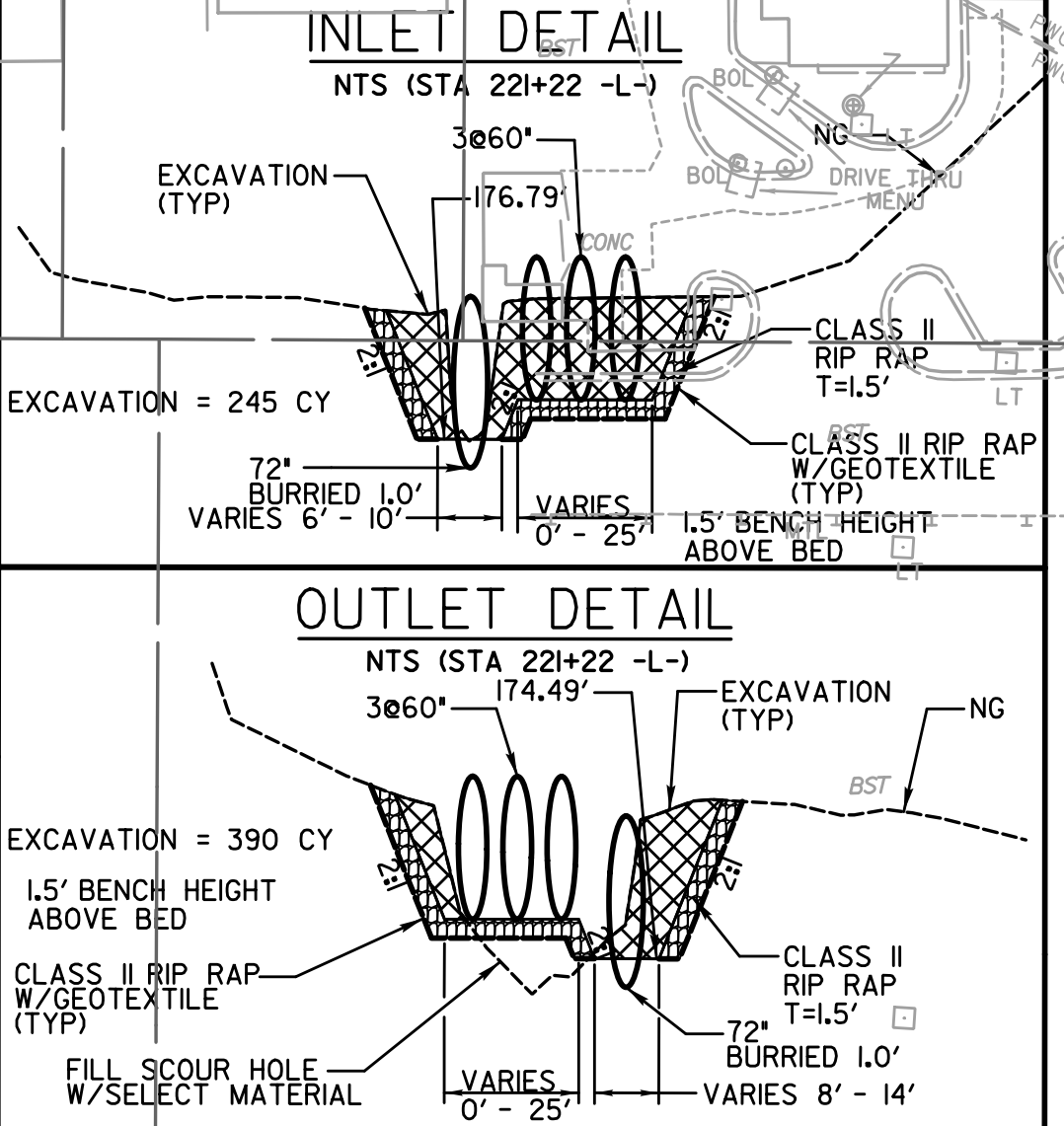
INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

NC GRID
NAD 83/NA 2011

-L-
PI Sta 220+67.31
 $\Delta = 1^{\circ}04'31.9"$ (LT)
D = 0'34'22.6"
L = 187.71'
T = 93.86'
R = 10,000.00'
SE = NC

35 x 75 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
5 ft. weir
ID 20.1



MATCHLINE SEE SHEET 19
-L- STA 218+50

MATCHLINE SEE SHEET 21
-L- STA 231+50

★ PROPOSED SIGNAL
██ PROP CONC SIDEWALK
** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

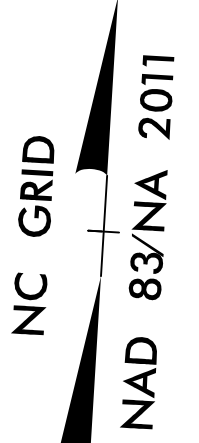
NOTE: SEE SHEET 40 FOR -L- PROFILE
SEE SHEET 48 FOR -Y25- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-58/CONST.21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

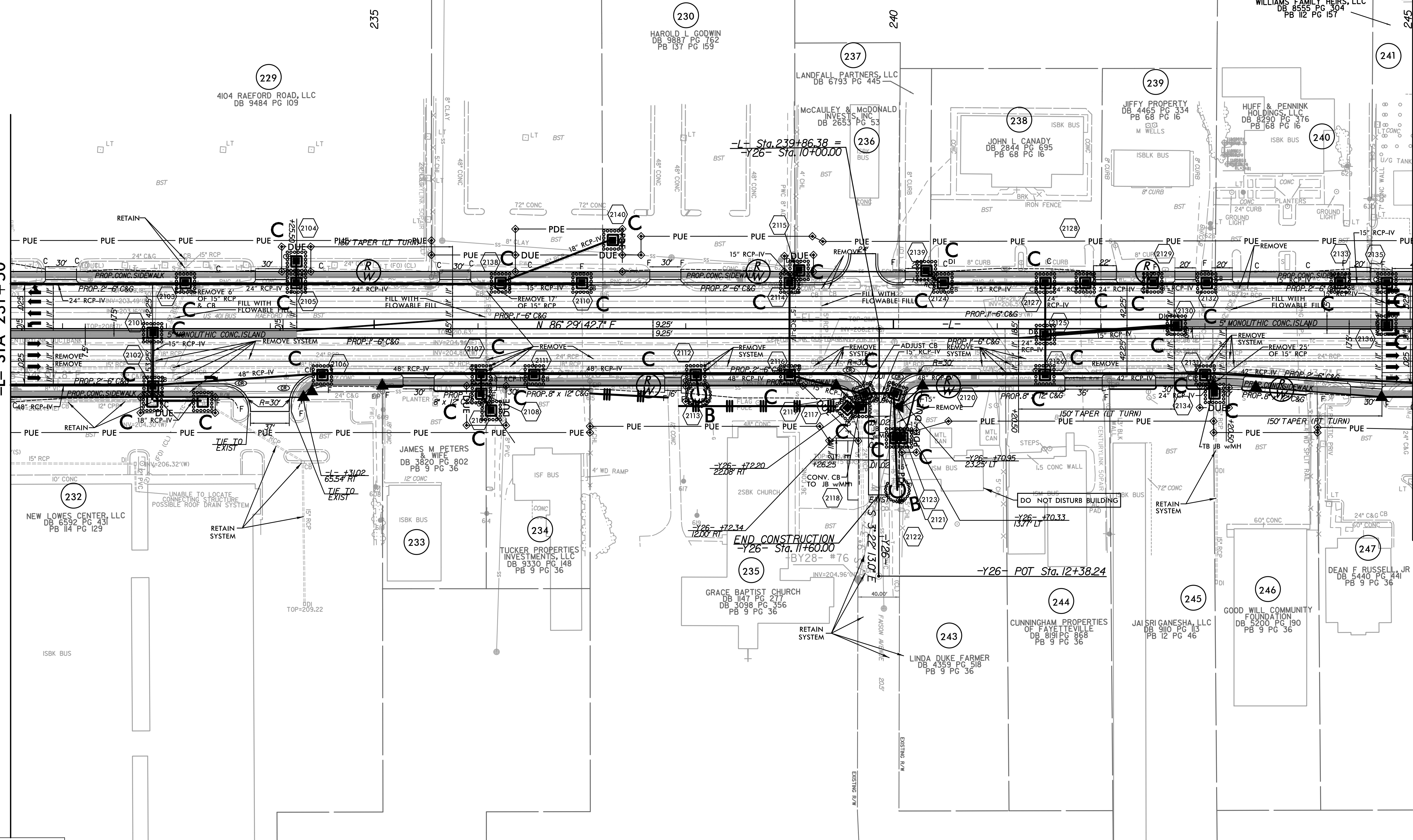
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC



MATCHLINE SEE SHEET 20
-L- STA 231+50

MATCHLINE SEE SHEET 22
-L- STA 245+00



PROP CONC SIDEWALK

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA 338+95.00 TO -L- 319+95.00

NOTE: SEE SHEET 40 & 41 FOR -L- PROFILE
SEE SHEET 48 FOR -Y26- PROFILE

REVISIONS

8/17/99
R:\Environmental\Design\4405_REU\EC_psh_21_Final.dgn
ENCLOSURE

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-59/CONST.22
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

-L-
 Pls Sta 257+51.40
 $\Delta s = 0' 31' 15.1''$
 $Ls = 100.00'$
 $LT = 66.67'$
 $ST = 33.33'$

Pl Sta 258+20.74
 $\Delta = 0' 45' 00.9''$ (LT)
 $D = 1' 02' 30.3''$
 $L = 72.02'$
 $T = 36.01'$
 $R = 5,500.00'$
 $SE = 0.025$

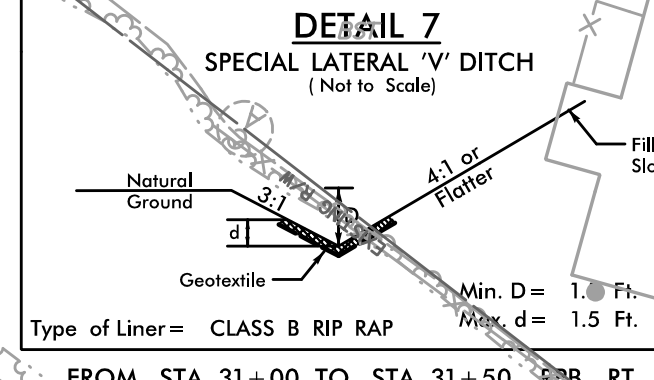
-RPB-
 Pl Sta 31+40.19
 $\Delta = 14' 06' 13.2''$ (RT)
 $D = 6' 21' 58.3''$
 $L = 221.54'$
 $T = 111.33'$
 $R = 900.00'$
 $SE = 0.08$

-AA-
 Pls Sta 37+96.65
 $\Delta s = 5' 00' 00.0''$
 $Ls = 400.00'$
 $LT = 266.77'$
 $ST = 133.43'$

NC GRID
 NAD 83/NA 2011

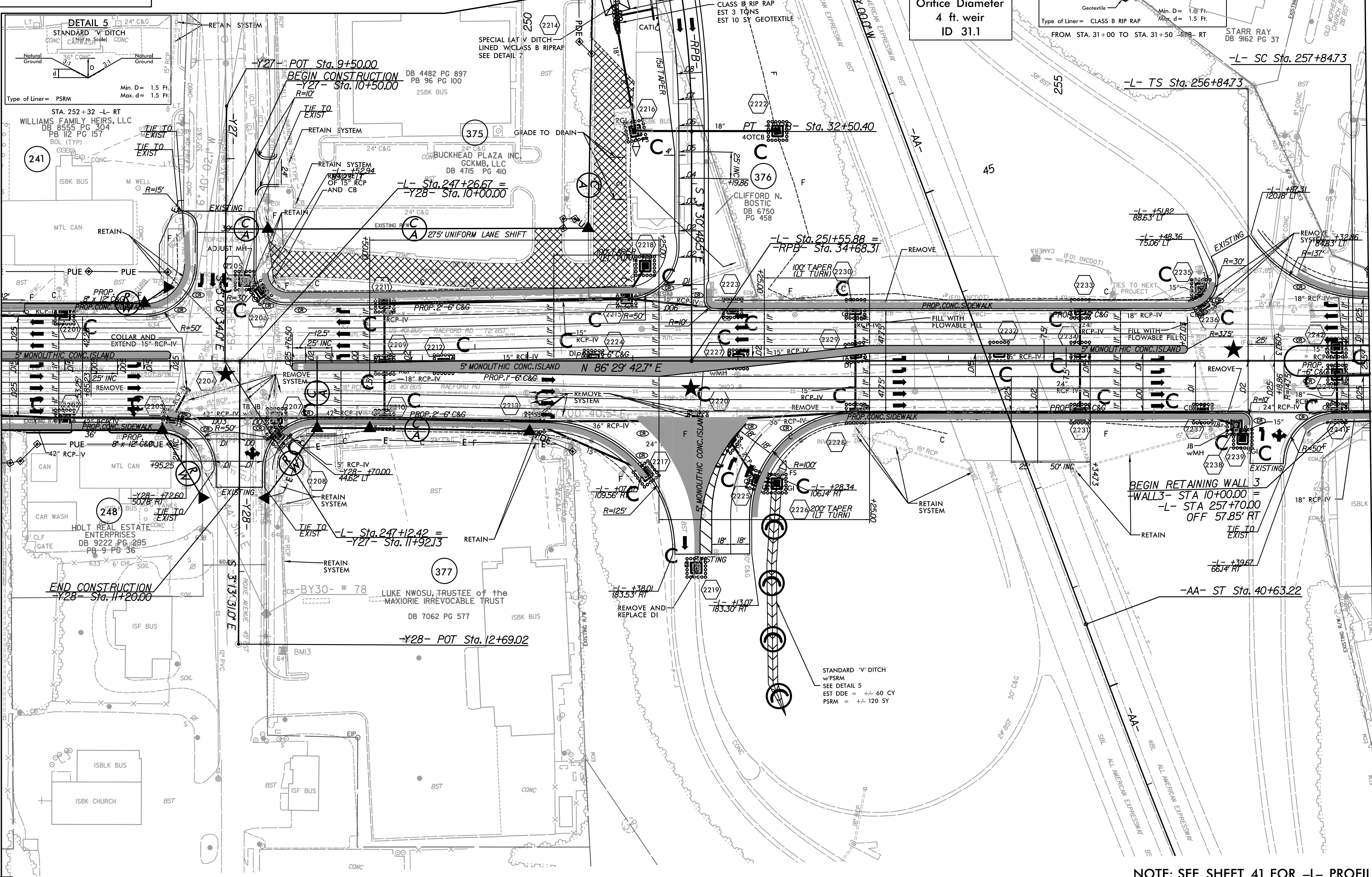
MATCHLINE SEE SHEET 31
 -RPB- STA 31+00

48 x 24 x 3
 1.5 inch Skimmer
 with 0.875 inch
 Orifice Diameter
 4 ft. weir
 ID 31.1



MATCHLINE SEE SHEET 21
 -L- STA 245+00

MATCHLINE SEE SHEET 23
 -L- STA 258+00



NOTE: SEE SHEET 41 FOR -L- PROFILE
 SEE SHEET 49 FOR -Y28- PROFILE
 SEE SHEET 45 FOR -RPB- PROFILE

★ PROPOSED SIGNAL
 ■ PROP CONC SIDEWALK

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

REVISIONS

8/17/99
 I:\03841\AM
 R:\Environmental\Design\4405.REU.EC_psh_22_1.mxd
 10:38:41 AM

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-60/CONST.23
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

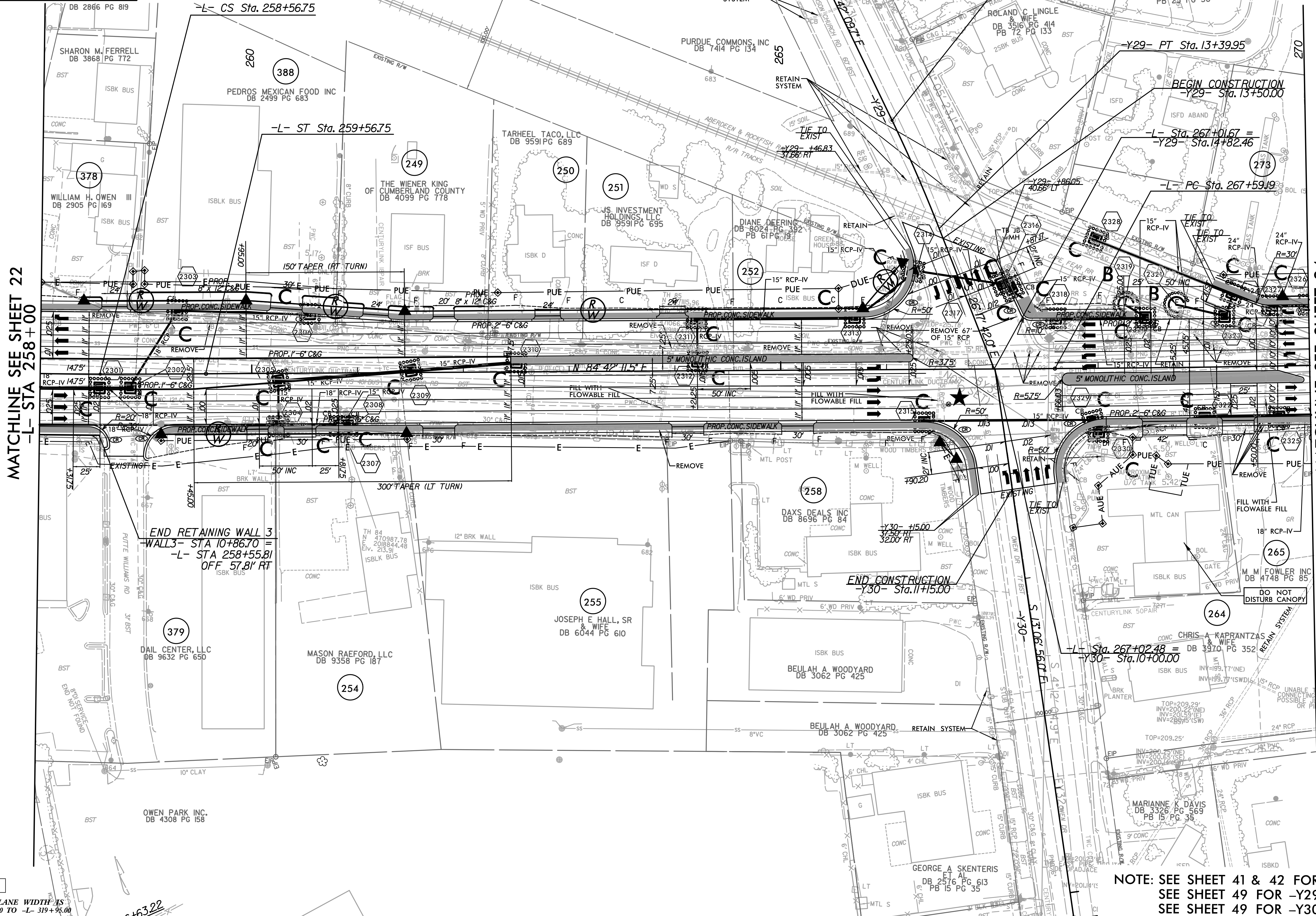
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

-L-
 Pls Sta 258+90.08
 $\theta_s = 0^\circ 31' 15.1''$
 $L_s = 100.00'$
 $LT = 66.67'$
 $ST = 33.33'$

-Y29-
 PI Sta 12+84.20
 $\Delta = 4^\circ 24' 27.7''$ (RT)
 $D = 3^\circ 57' 05.2''$
 $L = 111.55'$
 $T = 55.80'$
 $R = 1,450.00'$



NC GRID
 NAD 83/NA 2011

MATCHLINE SEE SHEET 22
 -L- STA 258+00

MATCHLINE SEE SHEET 24
 -L- STA 270+00

- ★ PROPOSED SIGNAL
- ▬ PROP CONC SIDEWALK

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

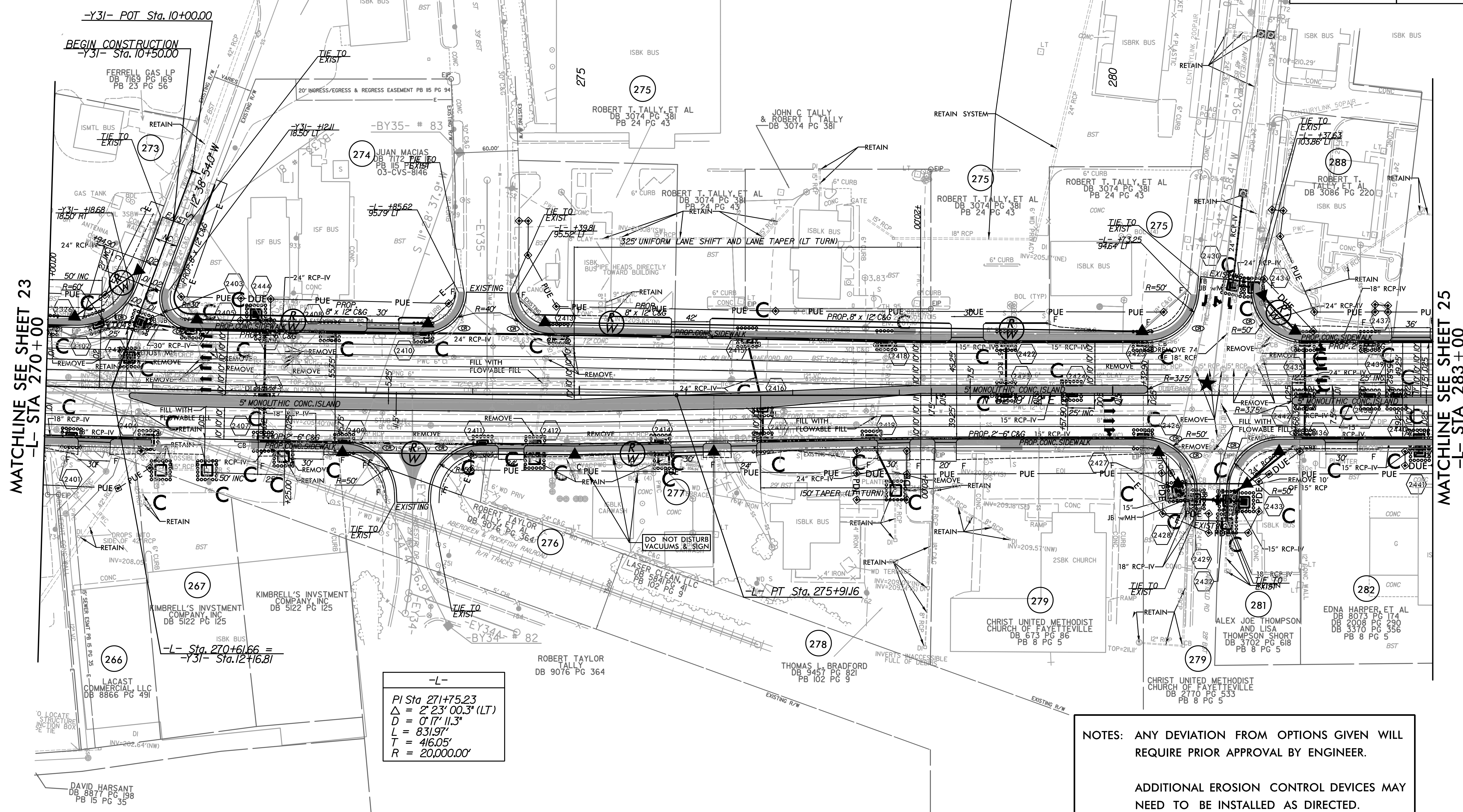
NOTE: SEE SHEET 41 & 42 FOR -L- PROFILE
 SEE SHEET 49 FOR -Y29- PROFILE
 SEE SHEET 49 FOR -Y30- PROFILE

REVISIONS

8/17/99
 10:38:58 AM
 R:\Environmental\Design\4405.REU.EC.psh_23.fina1.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-61/CONST.24
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NC GRID
NAD 83/NA 2011



MATCHLINE SEE SHEET 23
-L- STA 270+00

MATCHLINE SEE SHEET 25
-L- STA 283+00

-L-
 PI Sta 271+75.23
 $\Delta = 2' 23'' 00.3''$ (LT)
 $D = 0' 17'' 11.3''$
 $L = 831.97'$
 $T = 416.05'$
 $R = 20,000.00'$

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

NOTE: SEE SHEET 42 FOR -L- PROFILE
SEE SHEET 49 FOR -Y31- PROFILE

★ PROPOSED SIGNAL

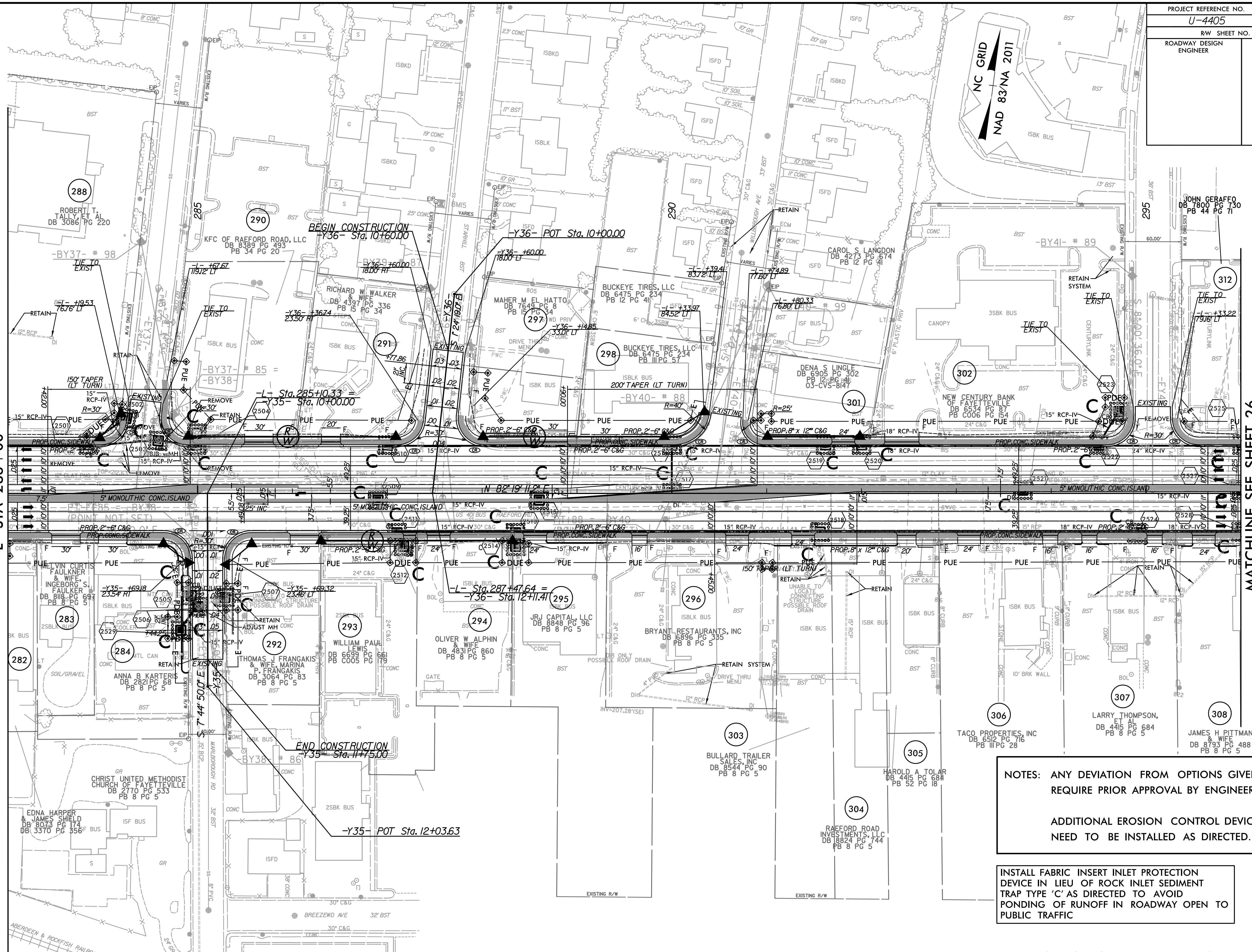
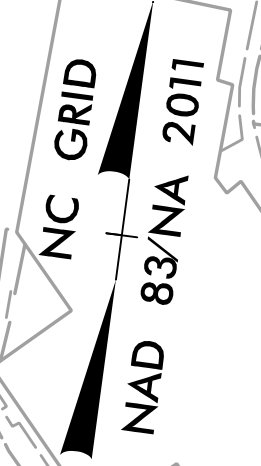
▬ PROP CONC SIDEWALK

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

REVISIONS

8/17/99
 I:\039144.AM
 R:\Environmental\Design\4405.REU.EC_psh_24_1.mxd
 10/10/10

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-62/CONST. 25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE SEE SHEET 24
-L- STA 283+00

MATCHLINE SEE SHEET 26
-L- STA 296+00

REVISIONS

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

NOTE: SEE SHEET 42 & 43 FOR -L- PROFILE
SEE SHEET 49 FOR -Y35- PROFILE
SEE SHEET 49 FOR -Y36- PROFILE

PROP CONC SIDEWALK

**** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00**

8/17/99
I:\039\31\AM
R:\Environmental\Design\4405.REU.EC_psh_25_1.mxd
10/31/01

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-63/CONST.26
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

8/17/99

REVISIONS

10:39:50 AM R:\Environmental\Design\4405_REU_EC_psh_26_1.rvt

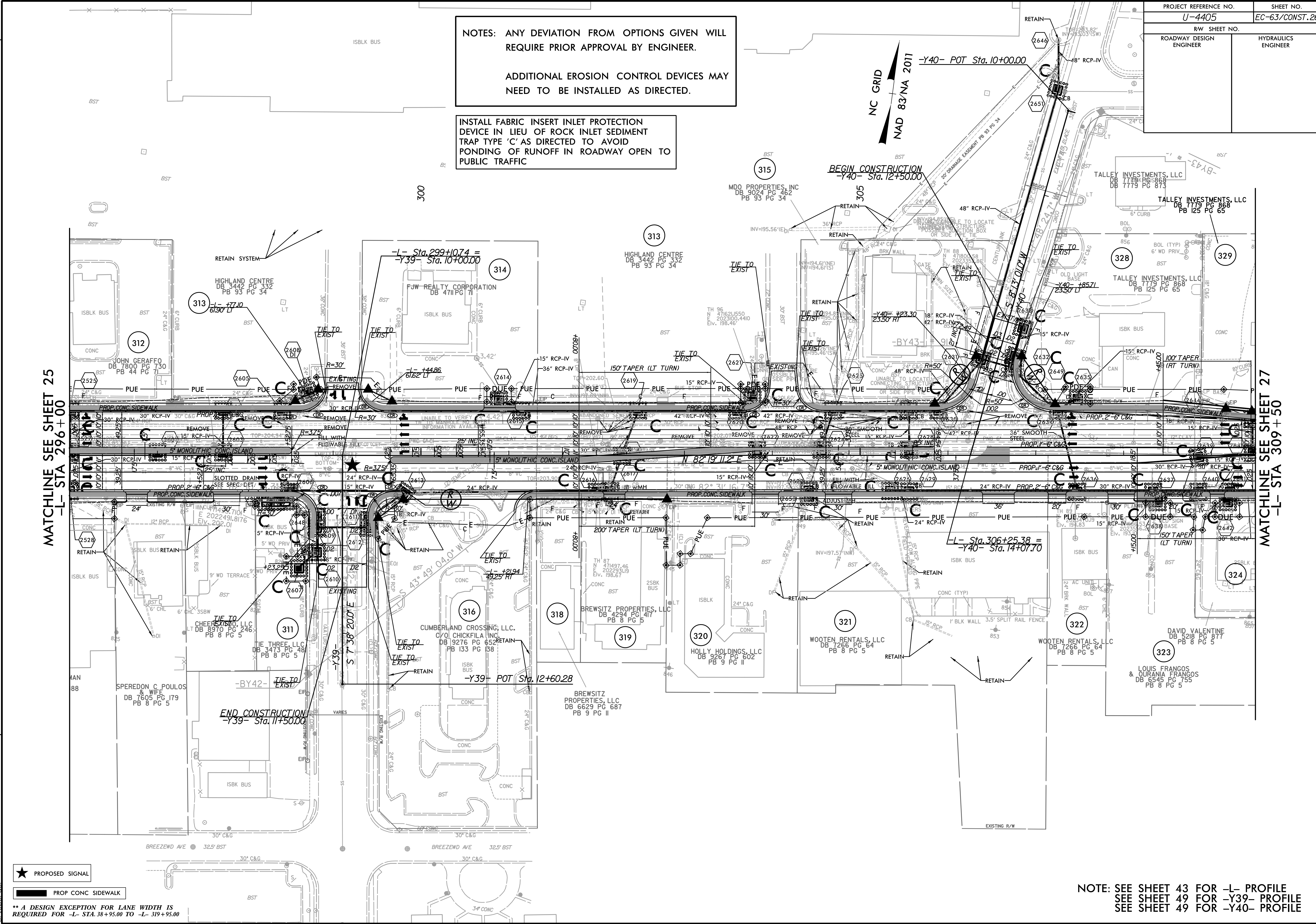
MATCHLINE SEE SHEET 25
-L- STA 296+00

MATCHLINE SEE SHEET 27
-L- STA 309+50

- ★ PROPOSED SIGNAL
- ▬ PROP CONC SIDEWALK

** A DESIGN EXCEPTION FOR LANE WIDTH IS REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

NOTE: SEE SHEET 43 FOR -L- PROFILE
SEE SHEET 49 FOR -Y39- PROFILE
SEE SHEET 49 FOR -Y40- PROFILE



8/17/99

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-64/CONST.27
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NC GRID
NAD 83/NA 2011

END TIP PROJECT U-4405
-L- Sta. 324+00.00

-L-
 PI Sta 320+13.00
 $\Delta = 43^{\circ} 34' 29.9" (LT)$
 $D = 8' 00" 48.2"$
 $L = 543.78'$
 $T = 285.80'$
 $R = 715.00'$
 $SE = 0.04$

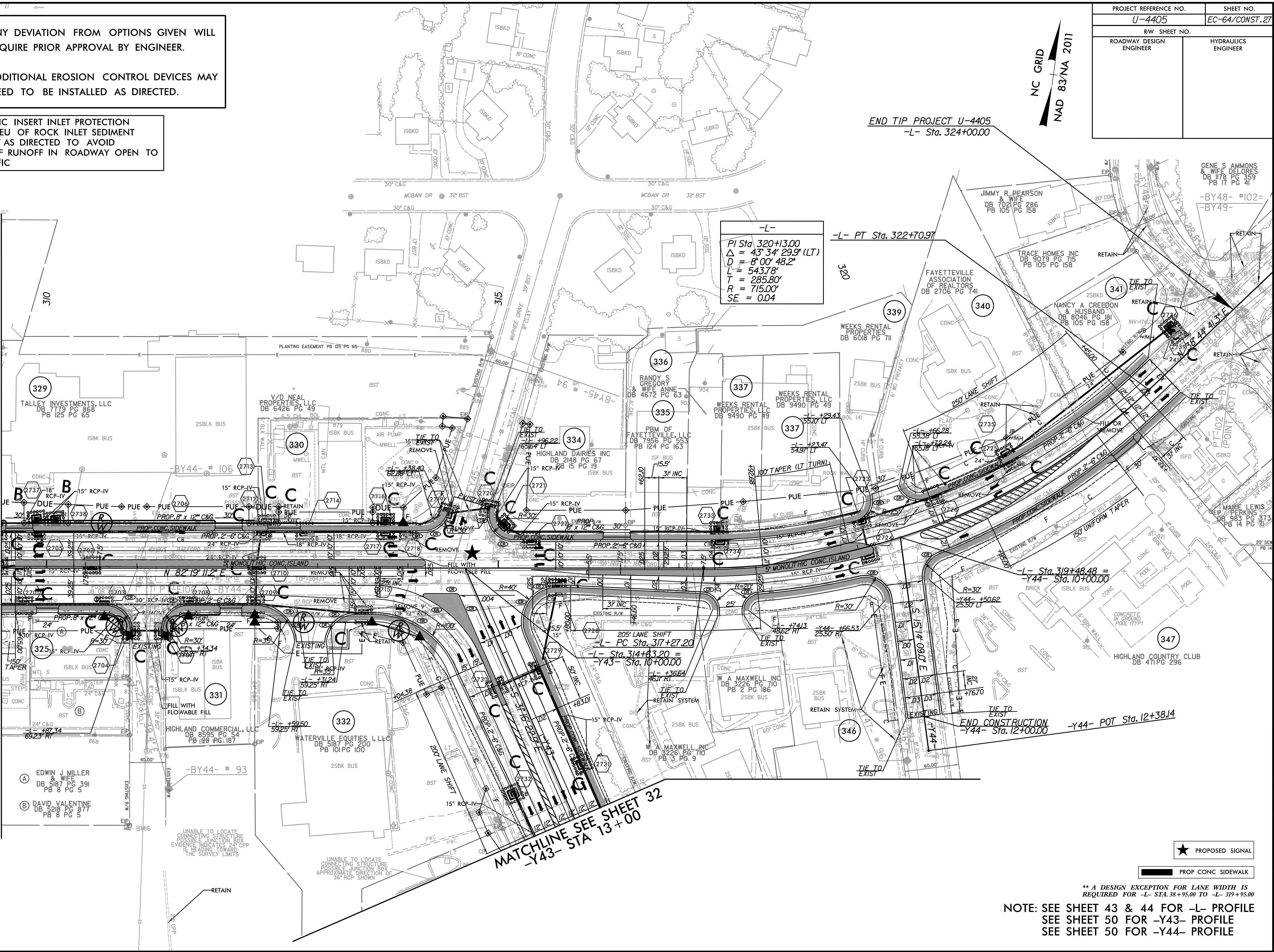
-L- PT Sta. 322+70.97

-L- Sta. 319+48.48 =
-Y44- Sta. 10+00.00

END CONSTRUCTION
-Y44- Sta. 12+00.00
-Y44- POT Sta. 12+38.14

MATCHLINE SEE SHEET 26
-L- STA 309+50

MATCHLINE SEE SHEET 32
-Y43- STA 13+00



- (A) EDWIN J MILLER
DB 5187 PG 391
PB 8 PG 5
- (B) DAVID VALENTINE
DB 5218 PG 877
PB 8 PG 5

UNABLE TO LOCATE
CONNECTING STRUCTURE
POSSIBLE JUNCTION BOX
EVIDENCE INDICATES 24\"/>

UNABLE TO LOCATE
CONNECTING STRUCTURE
POSSIBLE JUNCTION BOX
APPROXIMATE DIRECTION OF
56\"/>

★ PROPOSED SIGNAL

PROP CONC SIDEWALK

** A DESIGN EXCEPTION FOR LANE WIDTH IS
REQUIRED FOR -L- STA. 38+95.00 TO -L- 319+95.00

NOTE: SEE SHEET 43 & 44 FOR -L- PROFILE
SEE SHEET 50 FOR -Y43- PROFILE
SEE SHEET 50 FOR -Y44- PROFILE

REVISIONS

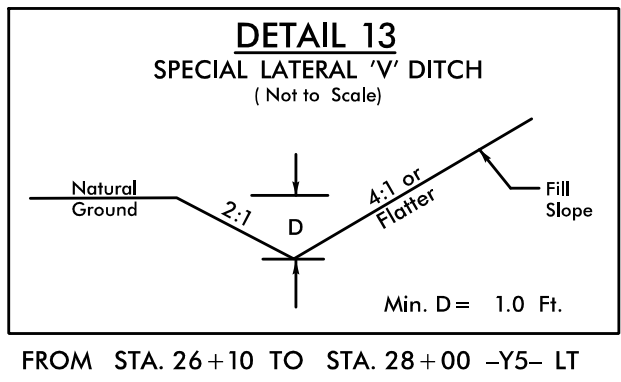
I040407 AM
R:\Environmental\Design\4405.REU.EC.psh_27.plt\1.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-66/CONST.29
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

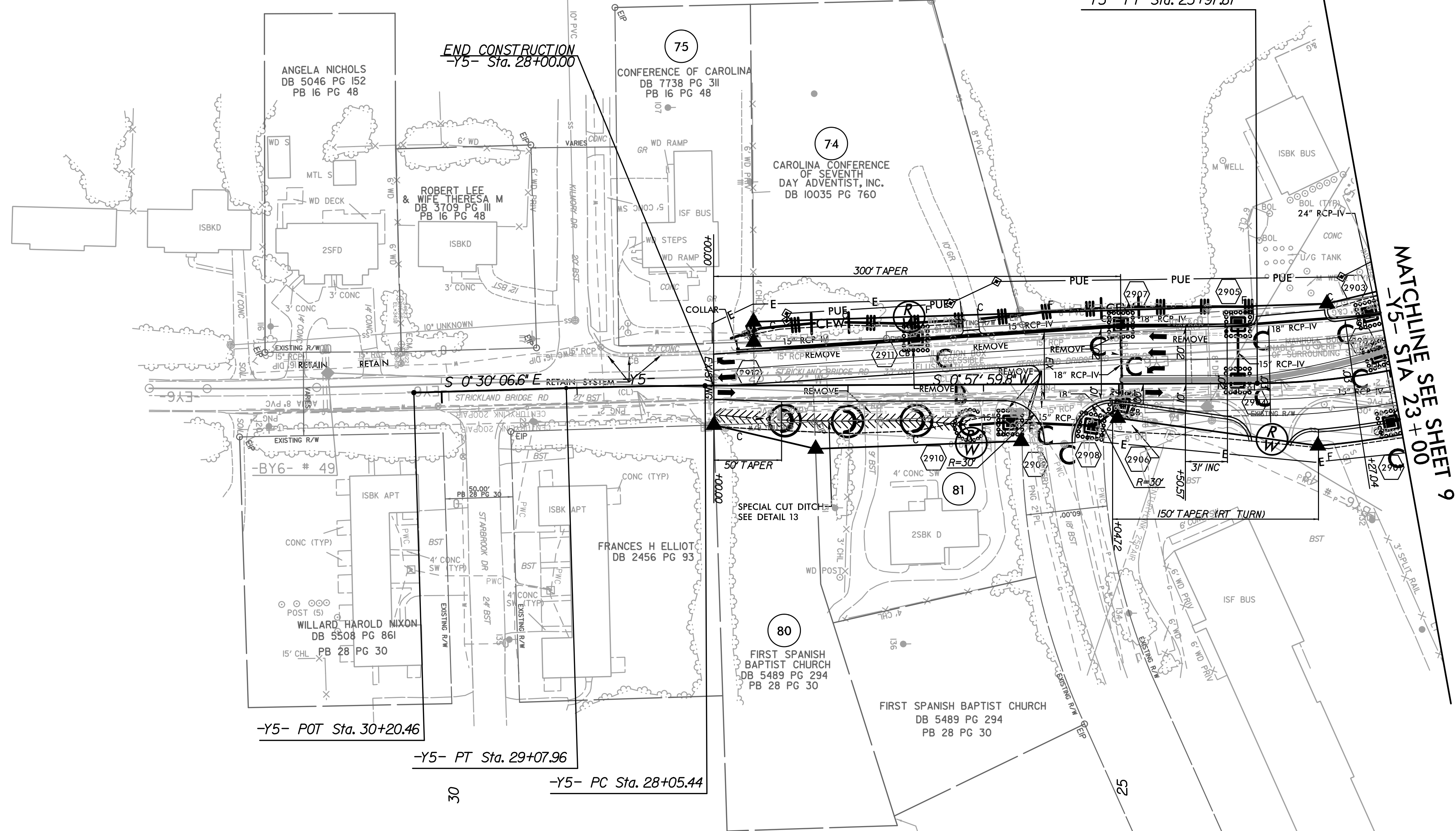


NC GRID
NAD 83/NA 2011

71
CIRCLE K STORES INC
DB 9852 PG 592
PB 137 PG 124

-Y5- PT Sta. 23+97.87

END CONSTRUCTION
-Y5- Sta. 28+00.00



MATCHLINE SEE SHEET 9
-Y5- STA 23+00

-Y5-	
PI Sta 28+56.71	PI Sta 22+82.12
$\Delta = 1' 28' 06.4''$ (LT)	$\Delta = 25' 18' 13.3''$ (RT)
$D = 1' 25' 56.6''$	$D = 10' 44' 58.8''$
$L = 102.52'$	$L = 235.39'$
$T = 51.26'$	$T = 119.65'$
$R = 4,000.00'$	$R = 533.00'$
	SE = 0.02

-Y5-
PI Sta 22+82.12
$\Delta = 10' 44' 58.8''$
$L = 235.39'$
$R = 533.00'$
SE = 0.02

NOTE: SEE SHEET 46 FOR -Y5- PROFILE

REVISIONS

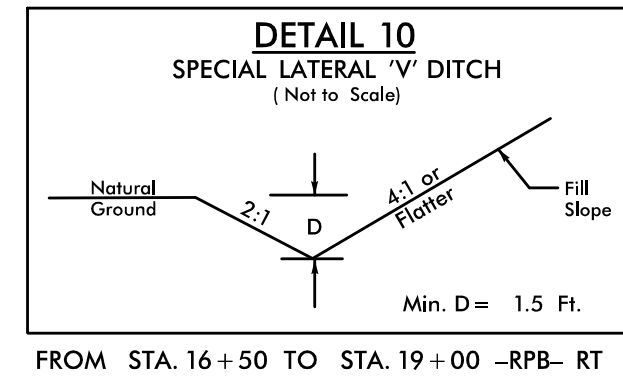
8/17/99
10:40:43 AM
R:\Environmental\Design\4405_REU_EC_psh_29_final.dgn
arlobarcel

8/17/99

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

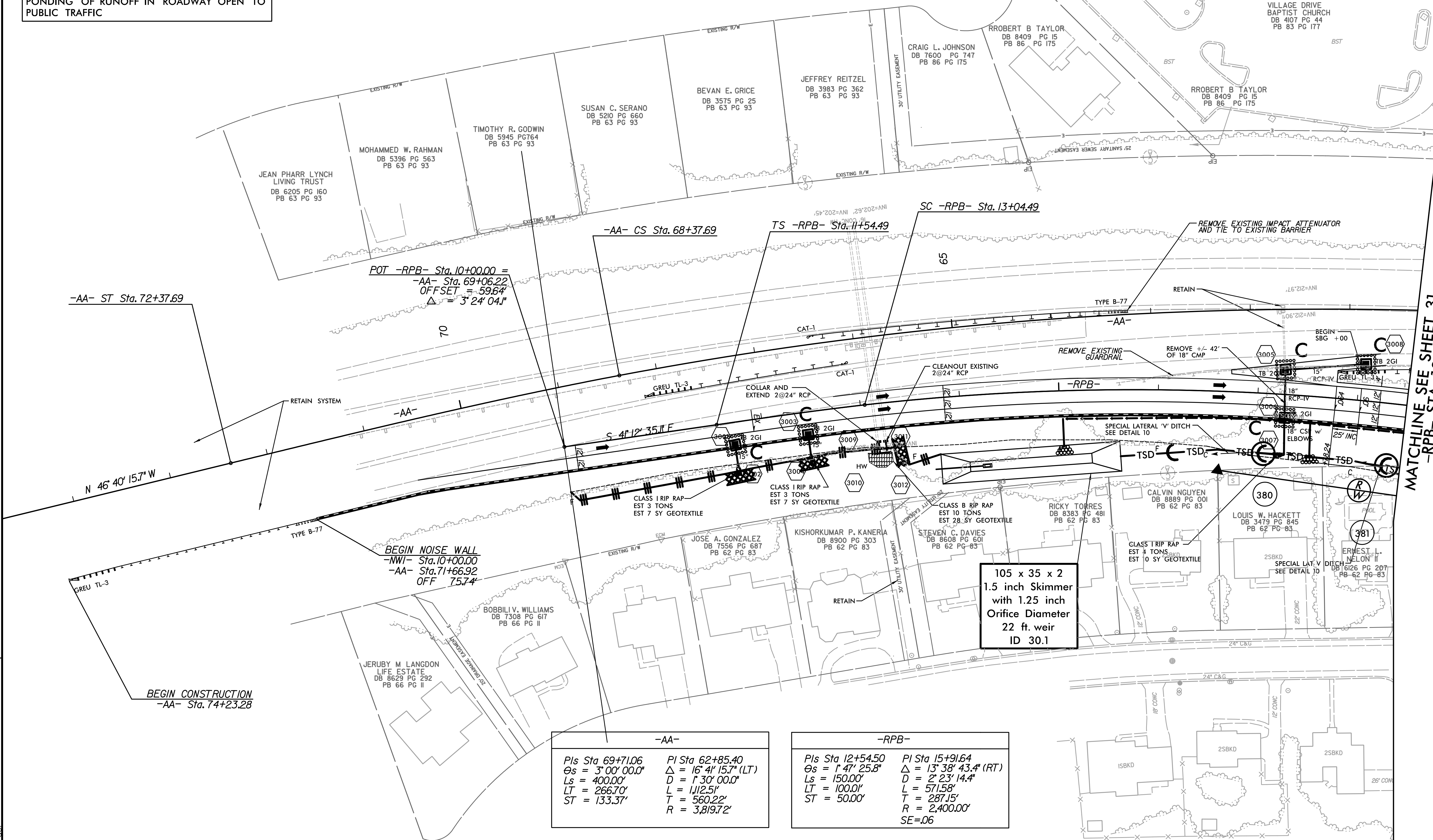
INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC



NC GRID
NAD 83/NA 2011

PROJECT REFERENCE NO. U-4405	SHEET NO. EC-67/CONST. 30
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

REVISIONS



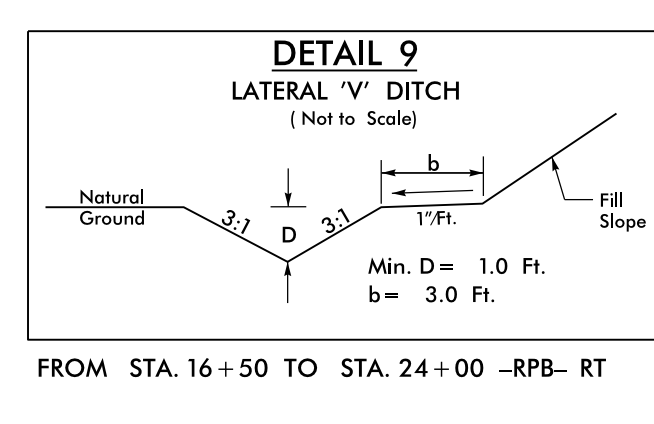
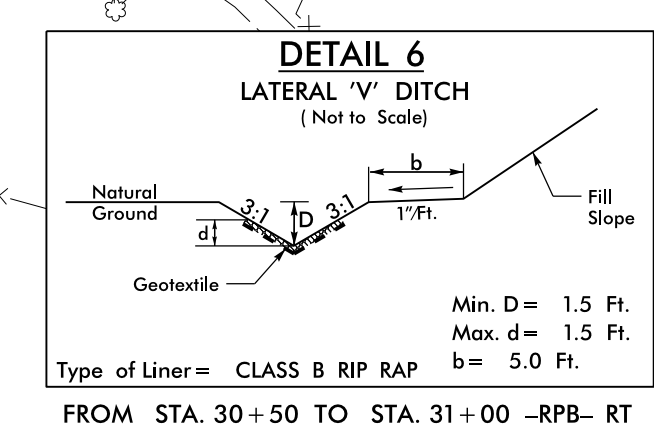
105 x 35 x 2
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
22 ft. weir
ID 30.1

-AA-	
Pls Sta 69+71.06	PI Sta 62+85.40
Os = 3' 00' 00.0"	Δ = 16' 41' 15.7" (LT)
Ls = 400.00'	D = 1' 30' 00.0"
LT = 266.70'	L = 1112.5'
ST = 133.37'	T = 560.22'
	R = 3,819.72'

-RPB-	
Pls Sta 12+54.50	PI Sta 15+91.64
Os = 1' 47' 25.8"	Δ = 13' 38' 43.4" (RT)
Ls = 150.00'	D = 2' 23' 14.4"
LT = 100.00'	L = 571.58'
ST = 50.00'	T = 287.15'
	R = 2,400.00'
	SE=.06

NOTE: SEE SHEET 45 FOR -RPB- PROFILE

10/4/14 AM
R:\Environmental\Design\4405.REU.EC.psh_30_1.mxd
R:\Environmental\Design\4405.REU.EC.psh_30_1.mxd



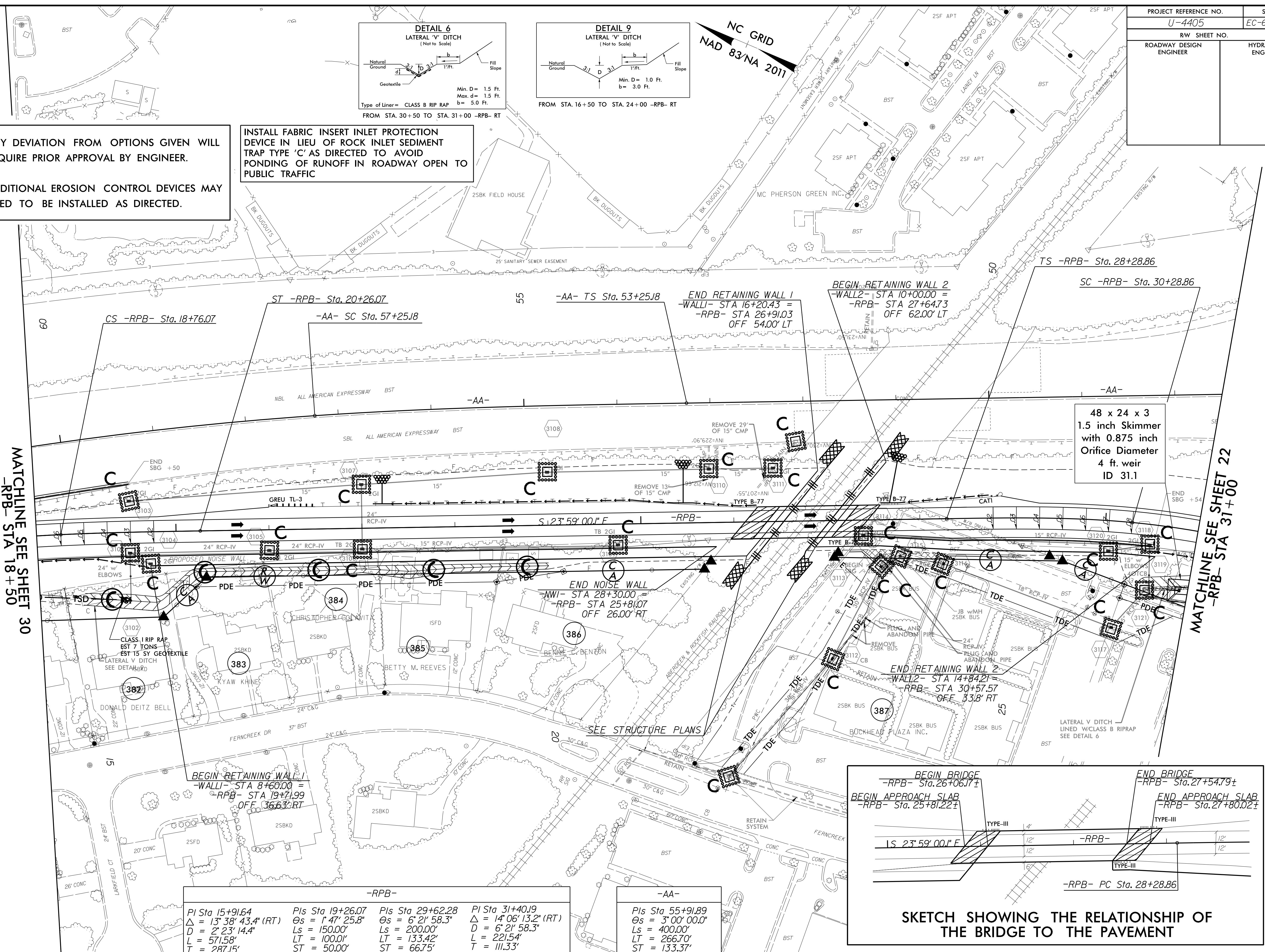
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

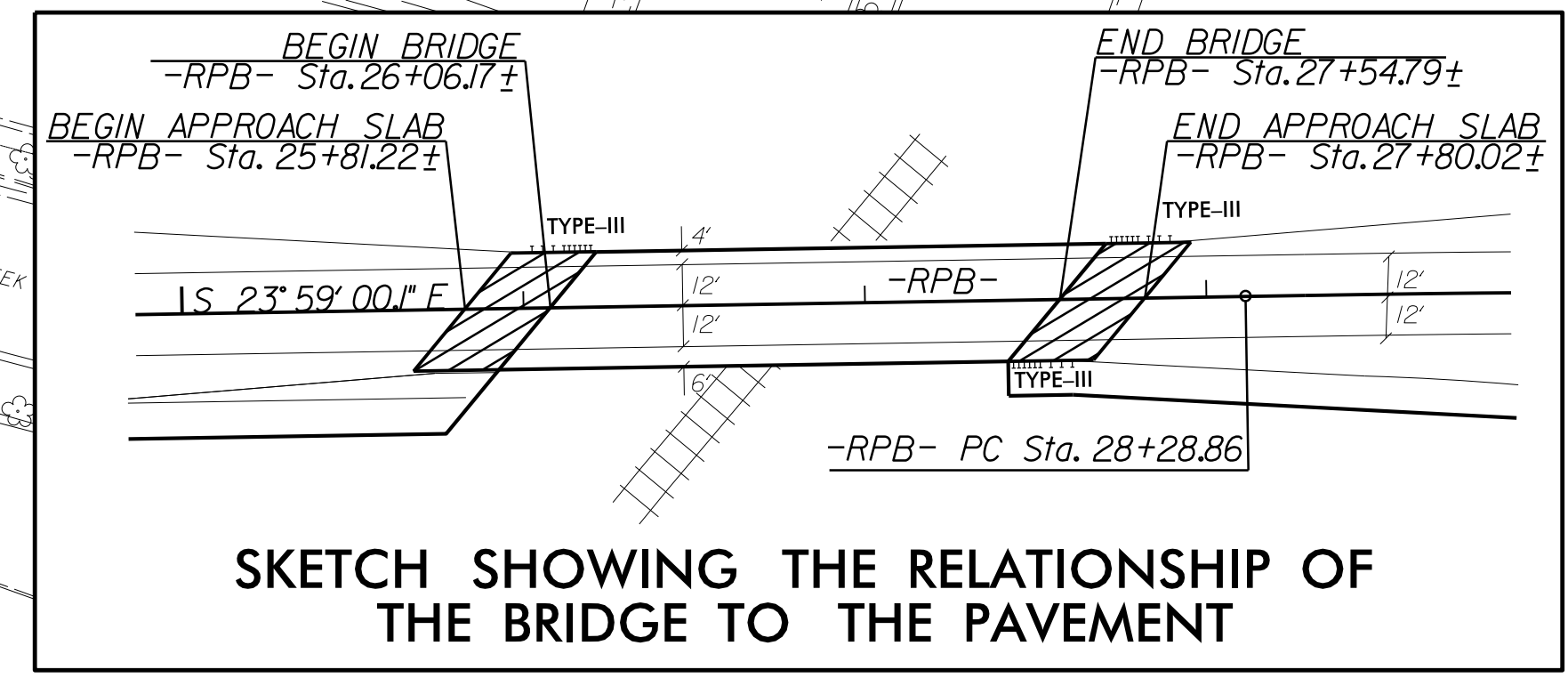
INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

MATCHLINE SEE SHEET 30 -RPB- STA 18+50

MATCHLINE SEE SHEET 22 -RPB- STA 31+00



48 x 24 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 31.1



-RPB-			
PI Sta 15+91.64	PIs Sta 19+26.07	PIs Sta 29+62.28	PI Sta 31+40.19
$\Delta = 13^{\circ} 38' 43.4\" (RT)$	$\Theta_s = 1^{\circ} 47' 25.8\"$	$\Theta_s = 6^{\circ} 21' 58.3\"$	$\Delta = 14^{\circ} 06' 13.2\" (RT)$
$D = 2^{\circ} 23' 14.4\"$	$L_s = 150.00'$	$L_s = 200.00'$	$D = 6^{\circ} 21' 58.3\"$
$L = 571.58'$	$LT = 100.01'$	$LT = 133.42'$	$L = 221.54'$
$T = 287.15'$	$ST = 50.00'$	$ST = 66.75'$	$T = 111.33'$
$R = 2,400.00'$			$R = 900.00'$
$SE = .06$			$SE = .08$

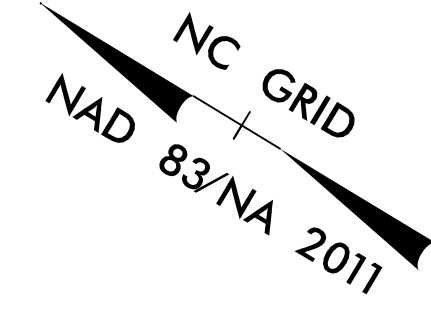
-AA-	
PIs Sta 55+91.89	$\Theta_s = 3^{\circ} 00' 00.0\"$
$L_s = 400.00'$	$LT = 266.70'$
$ST = 133.37'$	

NOTE: SEE SHEET 45 FOR -RPB- PROFILE

REVISIONS

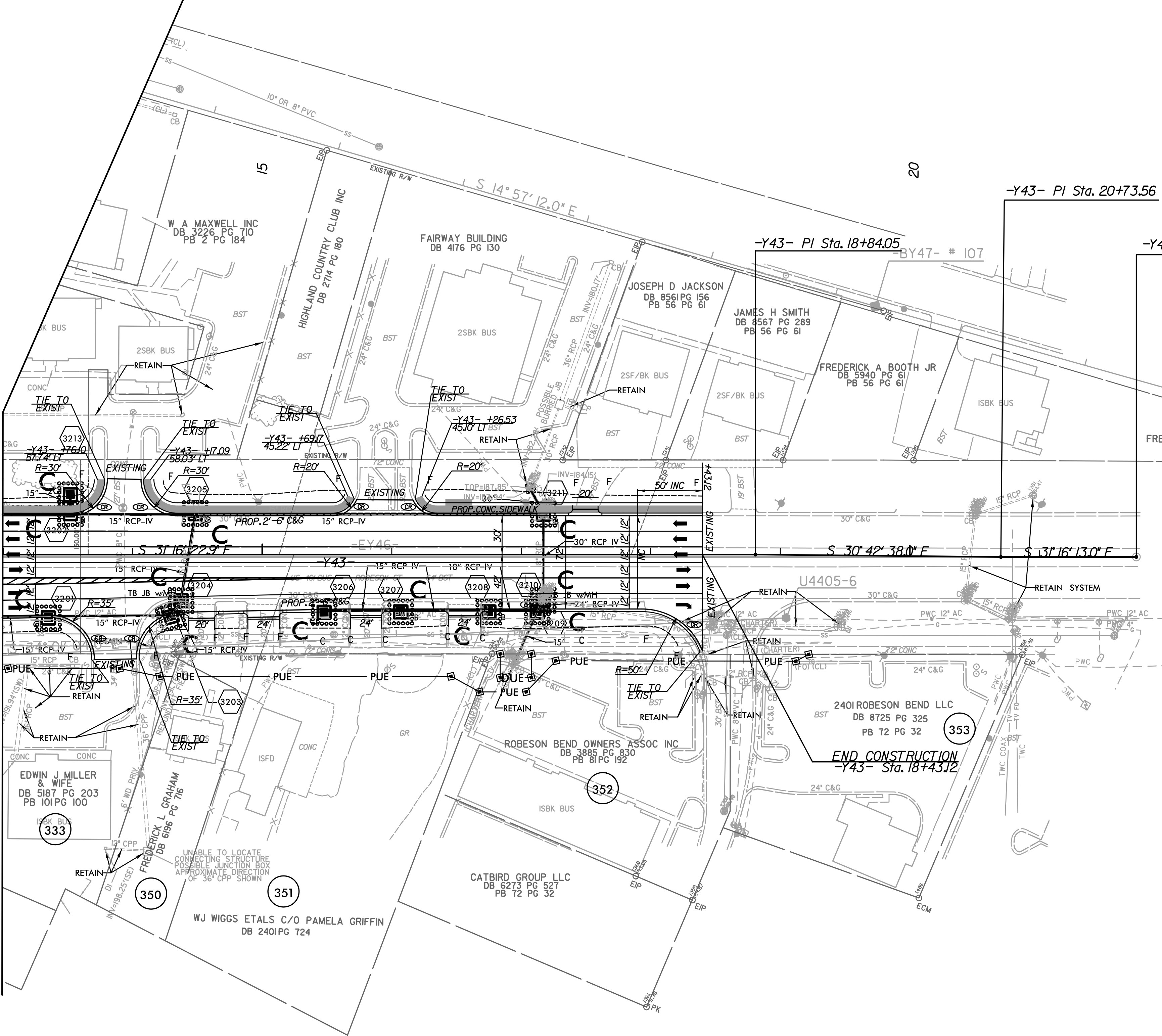
8/17/99
15 MAY 2016 10:03
R:\V\A\Design\Submittal\04-06-2018\Microstation Design Files\U4405-REU\EC_psh_31.F.mcd.dgn
Microstation (AT) 2018

PROJECT REFERENCE NO.	SHEET NO.
U-4405	EC-69/CONST.32
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-Y43-	
PI Sta 18+97.74	PI Sta 21+77.77
$\Delta = 0^{\circ} 29' 06.2''$ (RT)	$\Delta = 0^{\circ} 28' 56.2''$ (LT)
$D = 1' 25' 56.6''$	$D = 1' 25' 56.6''$
$L = 33.86'$	$L = 33.67'$
$T = 16.93'$	$T = 16.83'$
$R = 4,000.00'$	$R = 4,000.00'$

MATCHLINE SEE SHEET 27
-Y43- STA 13+00



NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

NOTE: SEE SHEET 50 FOR -Y43- PROFILE

REVISIONS

8/17/99

I04j48 AM
R:\Environmental\Design\4405_REU_EC_psh_32.dwg
8/17/99