

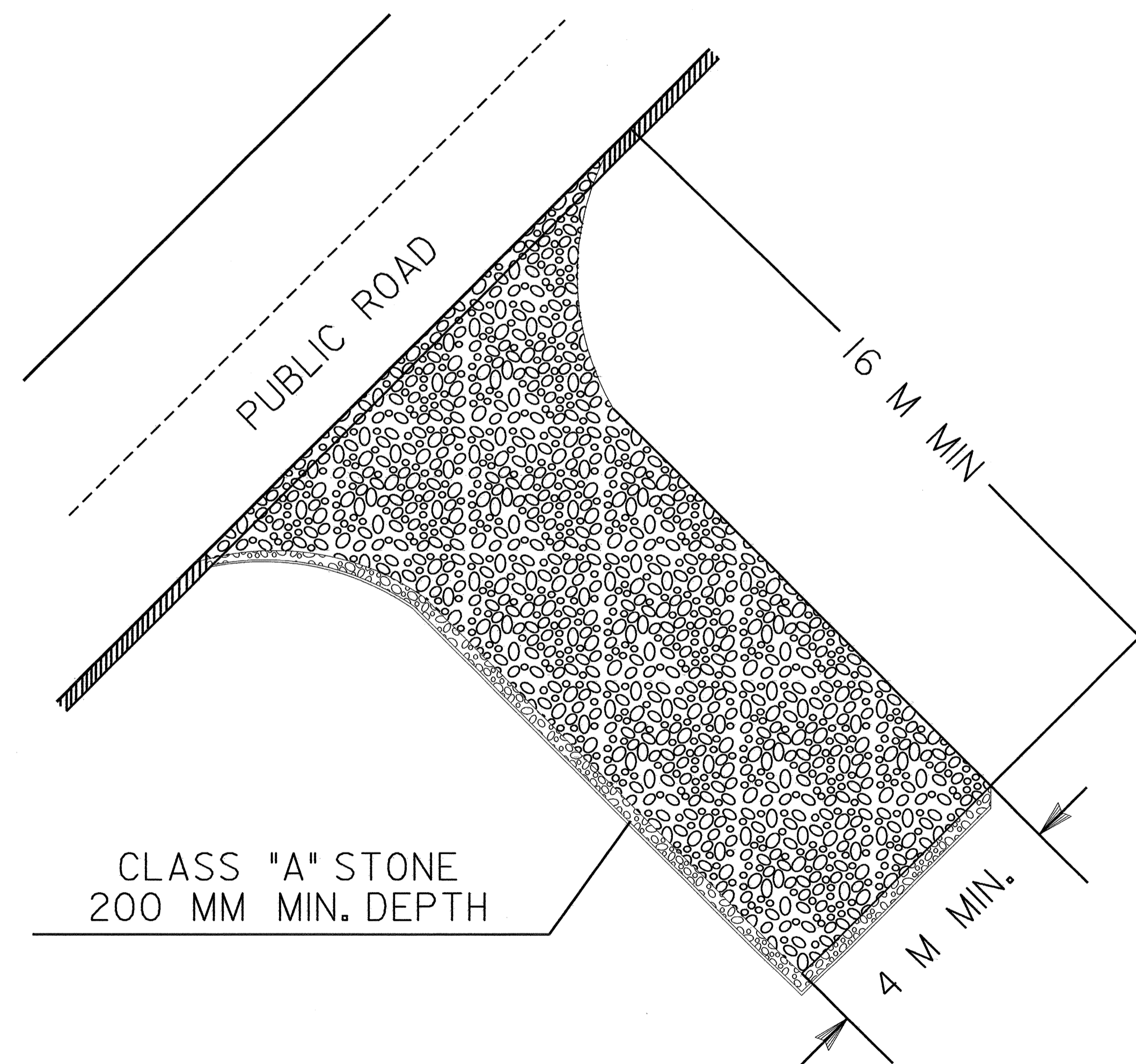


PROJECT REFERENCE NO. R-2414A	SHEET NO. EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

NOTES:

1. TURNING RADIUS SUFFICIENT TO ACCOMODATE LARGE TRUCKS SHALL BE PROVIDED.
2. ENTRANCE(S) SHOULD BE LOCATED TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
4. ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
5. GRAVEL CONSTRUCTION ENTRANCE SHALL BE LOCATED AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE MUST BE PROVIDED.
6. NUMBER AND LOCATION OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY THE ENGINEER

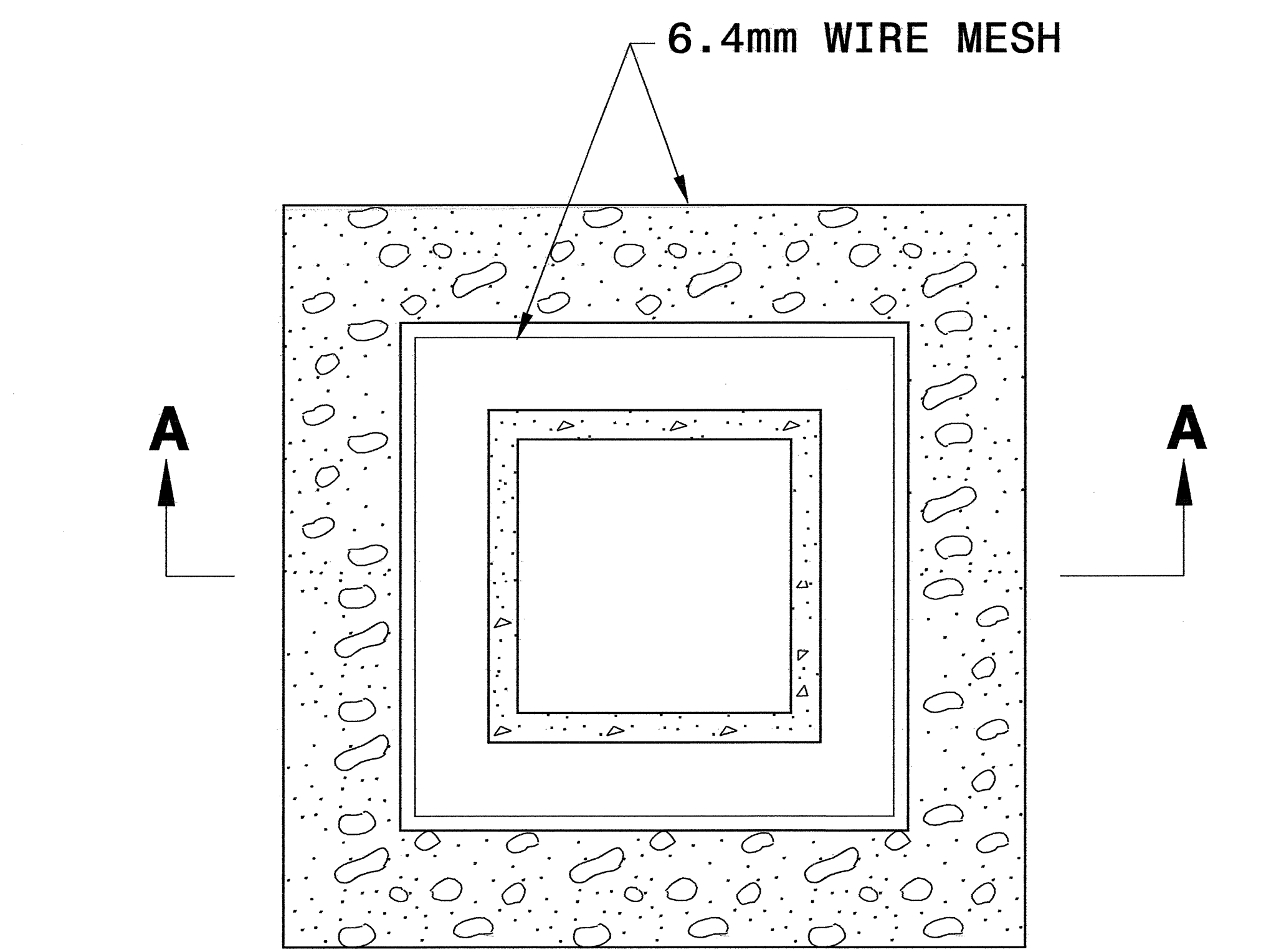


NOTE: FILTER FABRIC TO BE PLACED BENEATH STONE

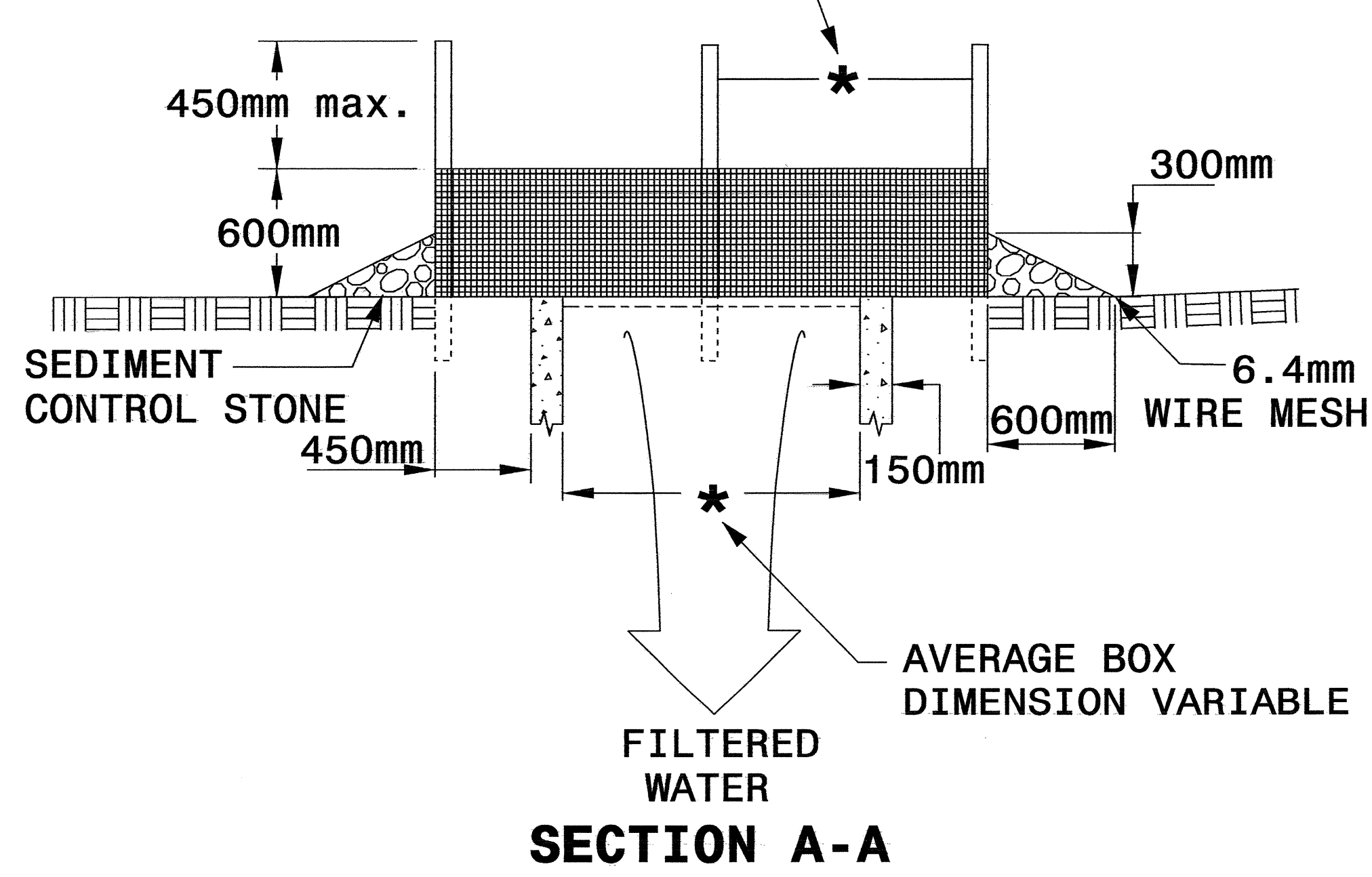


PROJECT REFERENCE NO. R-2414A	SHEET NO. EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

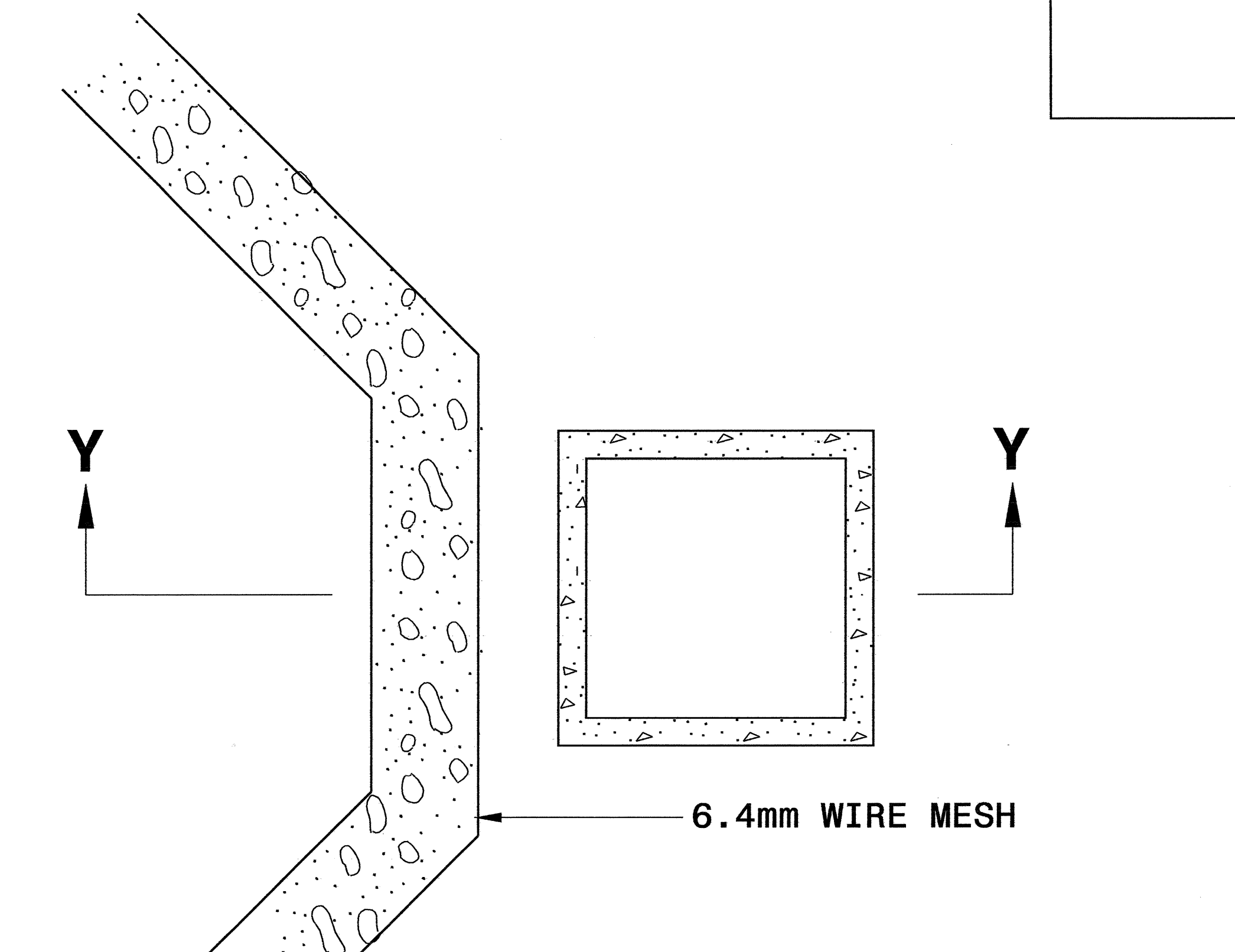
ROCK INLET SEDIMENT TRAP TYPE 'C' DETAIL



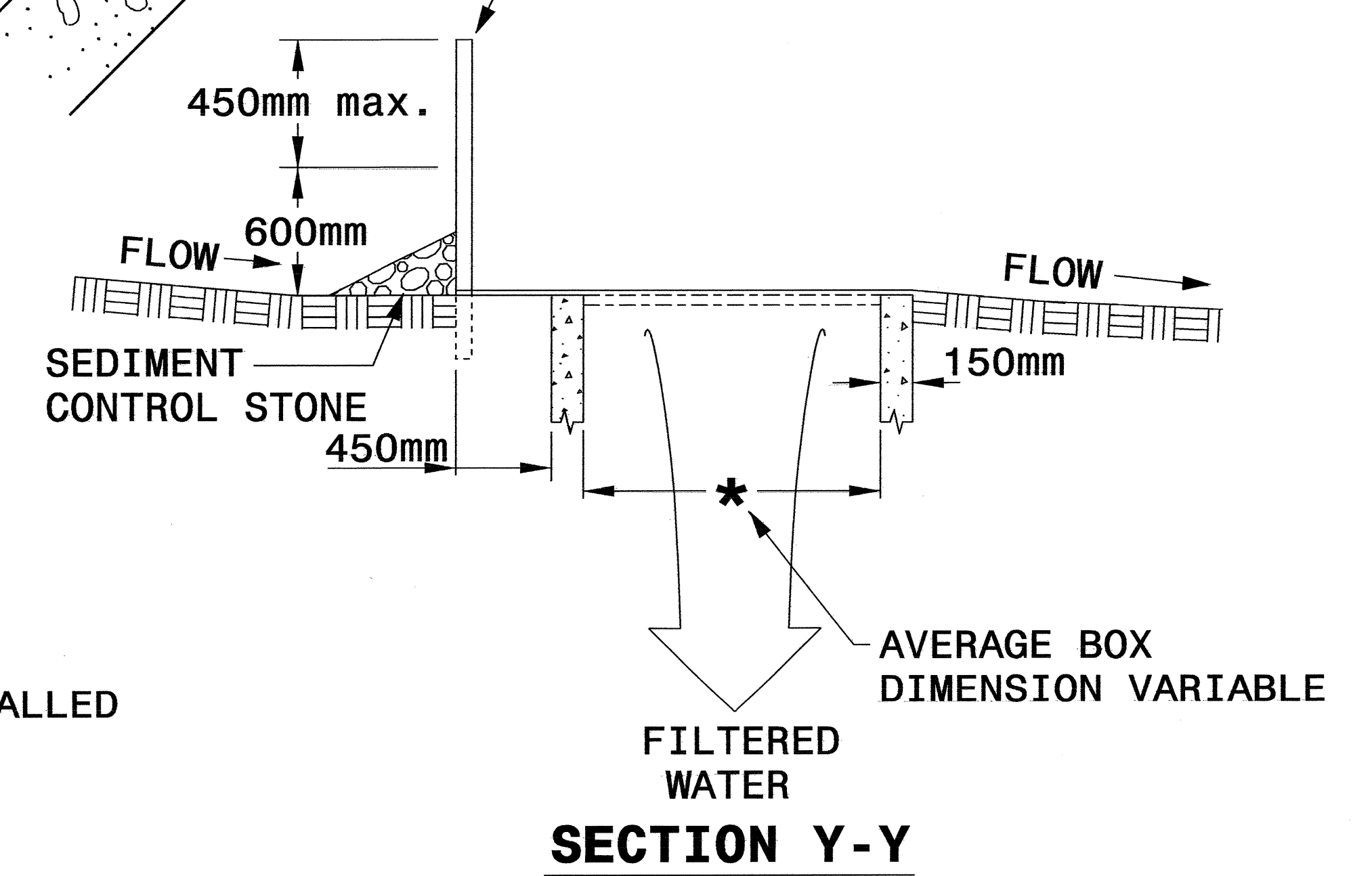
MAXIMUM POST SPACING 1.2m



MULTI-DIRECTIONAL FLOW



SEE NOTE FOR POST DESCRIPTION



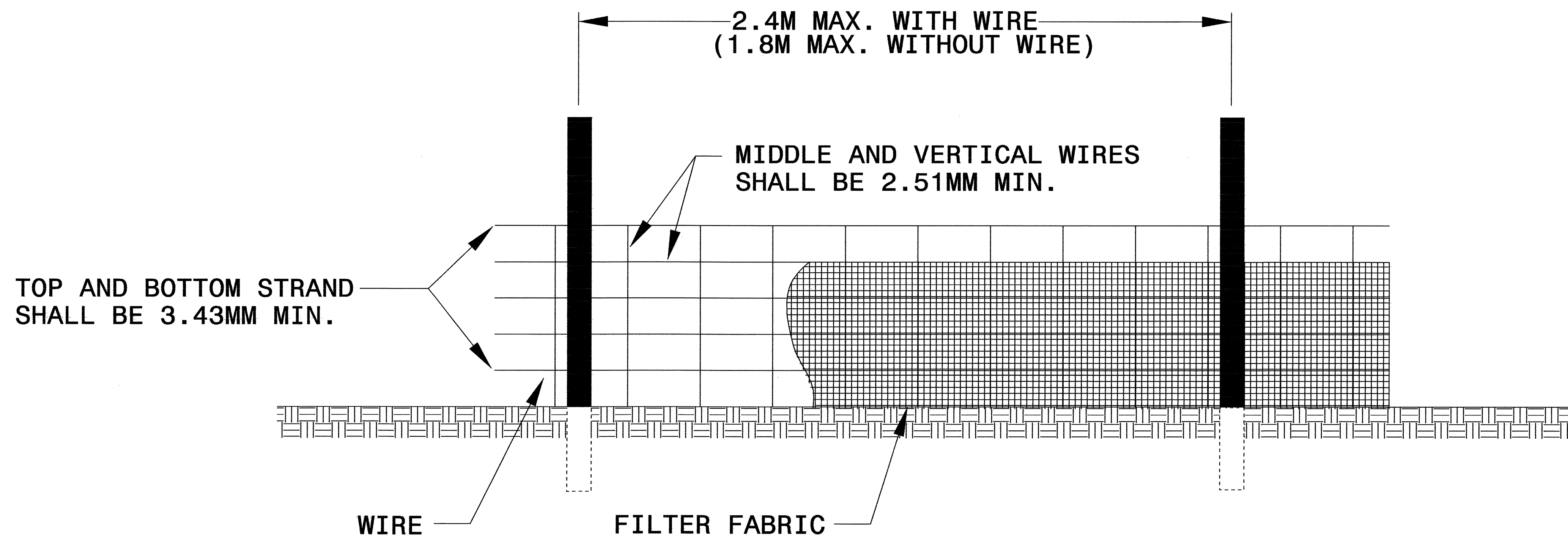
SINGLE-DIRECTIONAL FLOW

NOTE
 USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL.
 USE HARDWARE CLOTH 0.65mm WIRE MESH WITH 6.4mm MESH OPENINGS.
 PLACE TOP OF WIRE MESH A MINIMUM OF 300mm BELOW THE SHOULDER OR ANY DIVERSION POINT.
 INSTALL WIRE MESH UNDER SEDIMENT CONTROL STONE.
 USE 1.5m STEEL POST, INSTALLED 450mm DEEP MINIMUM, AND OF THE SELF-FASTENER ANGLE STEEL TYPE.
 SPACE POST A MAXIMUM OF 1.2m.



PROJECT REFERENCE NO. R-244A	SHEET NO. EC-2B
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY SILT FENCE DETAIL

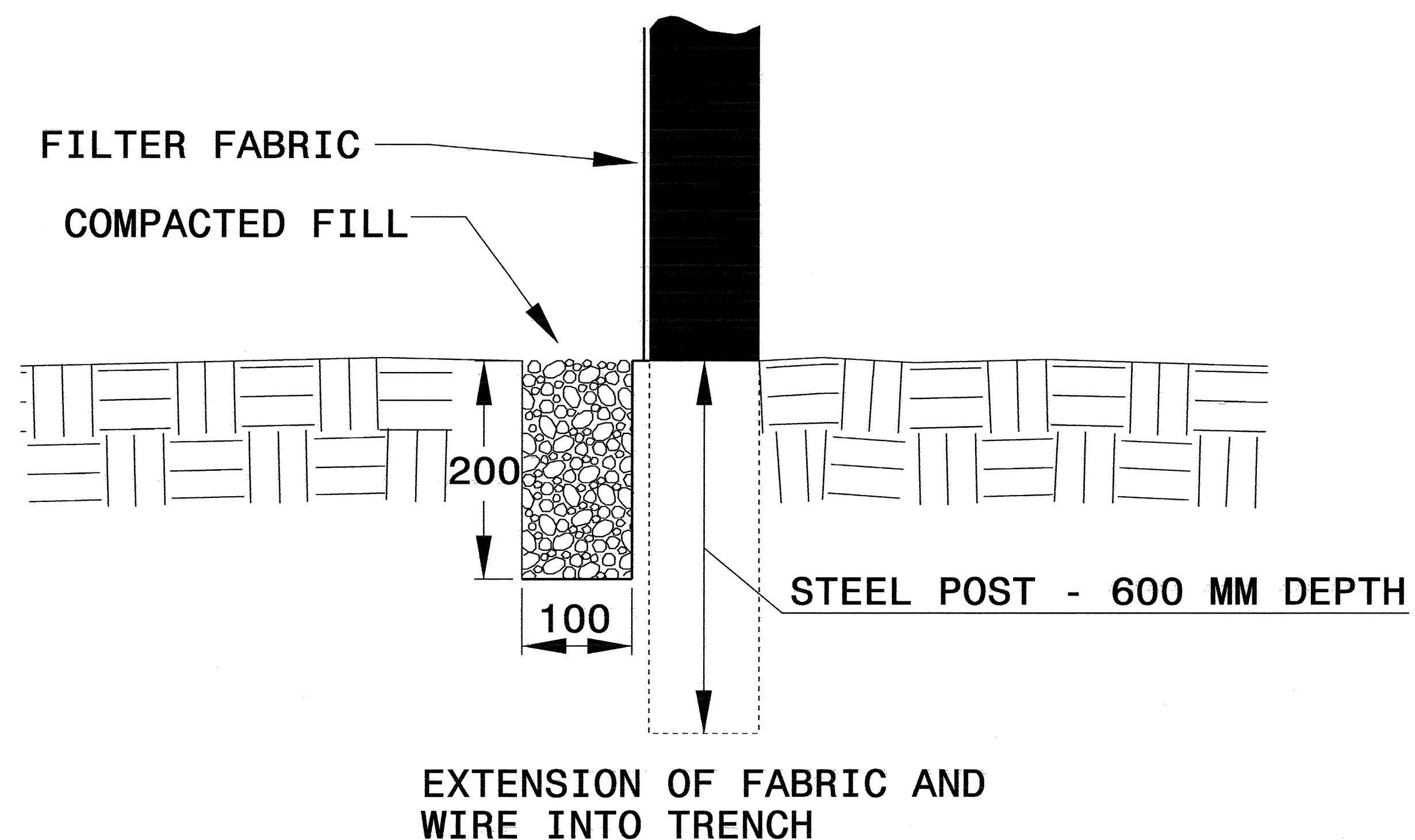


NOTES

USE WIRE A MINIMUM OF 800MM IN WIDTH AND WITH A MINIMUM OF 6 LINE WIRES WITH 300MM STAY SPACING.

USE FILTER FABRIC A MINIMUM OF 900MM IN WIDTH AND FASTEN ADEQUATELY TO THE WIRE AS DIRECTED BY THE ENGINEER.

PROVIDE 1.5M STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE. ANGLE STEEL TYPE.





PROJECT REFERENCE NO. R-2414A	SHEET NO. EC-2C
R / W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SPECIAL SEDIMENT CONTROL FENCE DETAIL

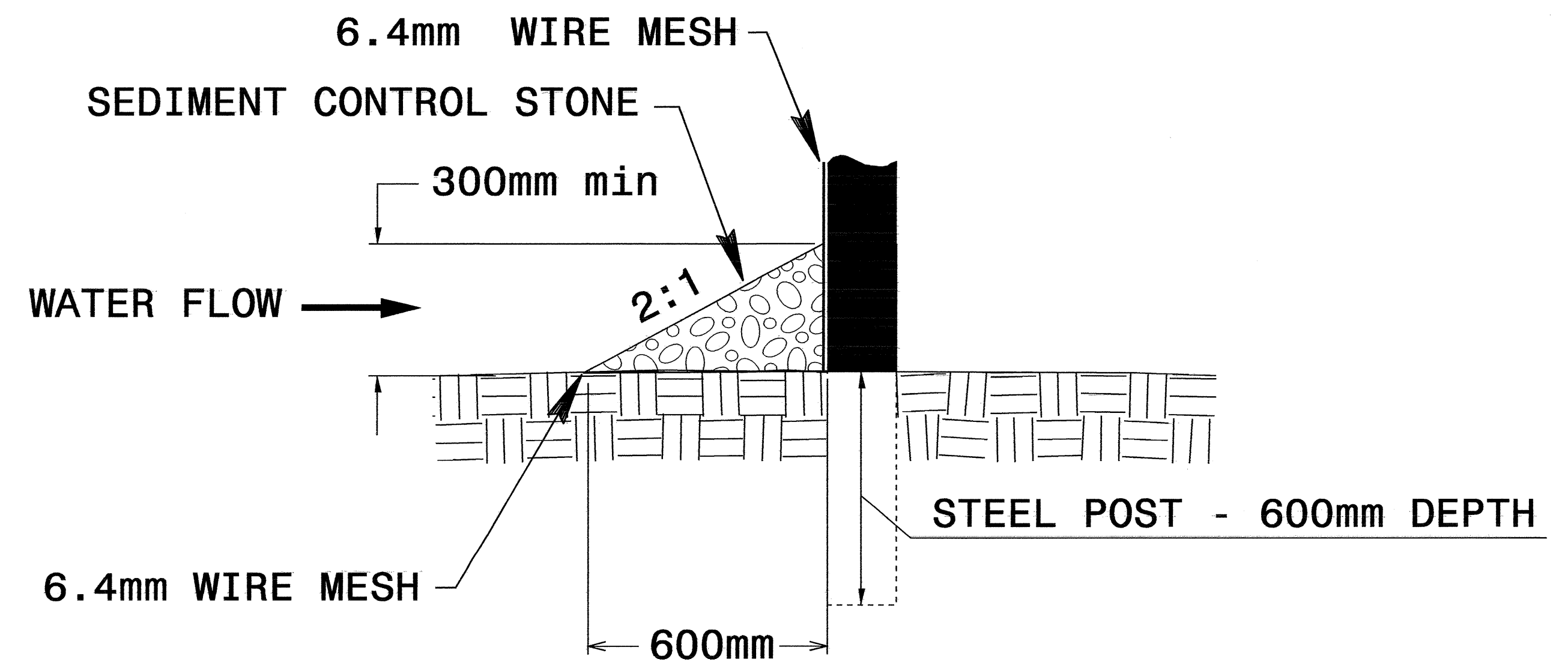
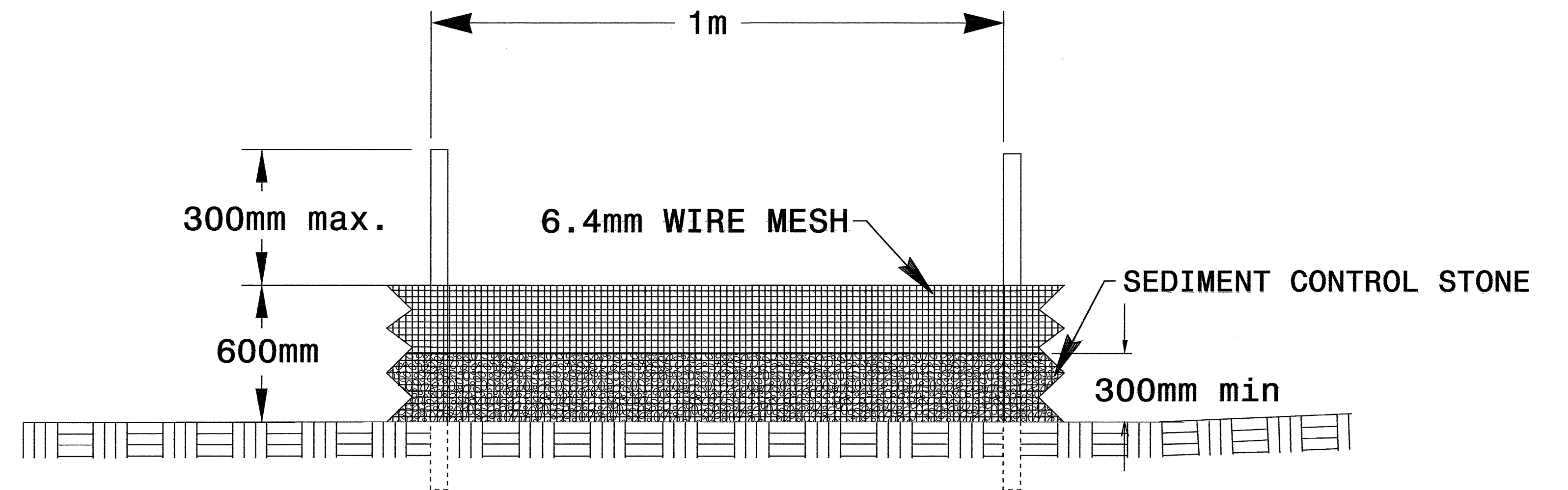
GENERAL NOTES:

USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL.

USE 0.65mm HARDWARE CLOTH WIRE MESH WITH 6.4 mm MESH OPENINGS.

INSTALL 1.5m SELF FASTENER ANGLE STEEL POST 600mm DEEP MINIMUM.

SPACE POST A MAXIMUM OF 1m.





PROJECT REFERENCE NO. R-2414A	SHEET NO. EC-2D
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

STILLING BASIN

GENERAL NOTES:
CONSTRUCT THE COIR FIBER BAFFLES WITH A MATERIAL THAT MEETS THE SPECIFICATIONS OF THE COIR FIBER MAT SPECIAL PROVISION PROVIDED IN THE CONTRACT.

PROVIDE 1.5M STEEL POSTS OF THE SELF-FASTENER ANGLE STEEL TYPE. INSTALL STEEL POSTS WITH NO MORE THAN 0.9M OF THE POST APPEARING ABOVE THE GROUND.

ATTACH THE COIR FIBER MAT TO THE STEEL POSTS WITH WIRE OR OTHER ACCEPTABLE MEANS AND STAPLED INTO THE BOTTOM AND SIDE SLOPES OF THE STILLING BASIN WITH 12" STAPLES.

INSTALL THE TOP OF THE COIR FIBER BAFFLE A MINIMUM OF 300MM LOWER THAN THE TOP OF THE STILLING BASIN BERMS.

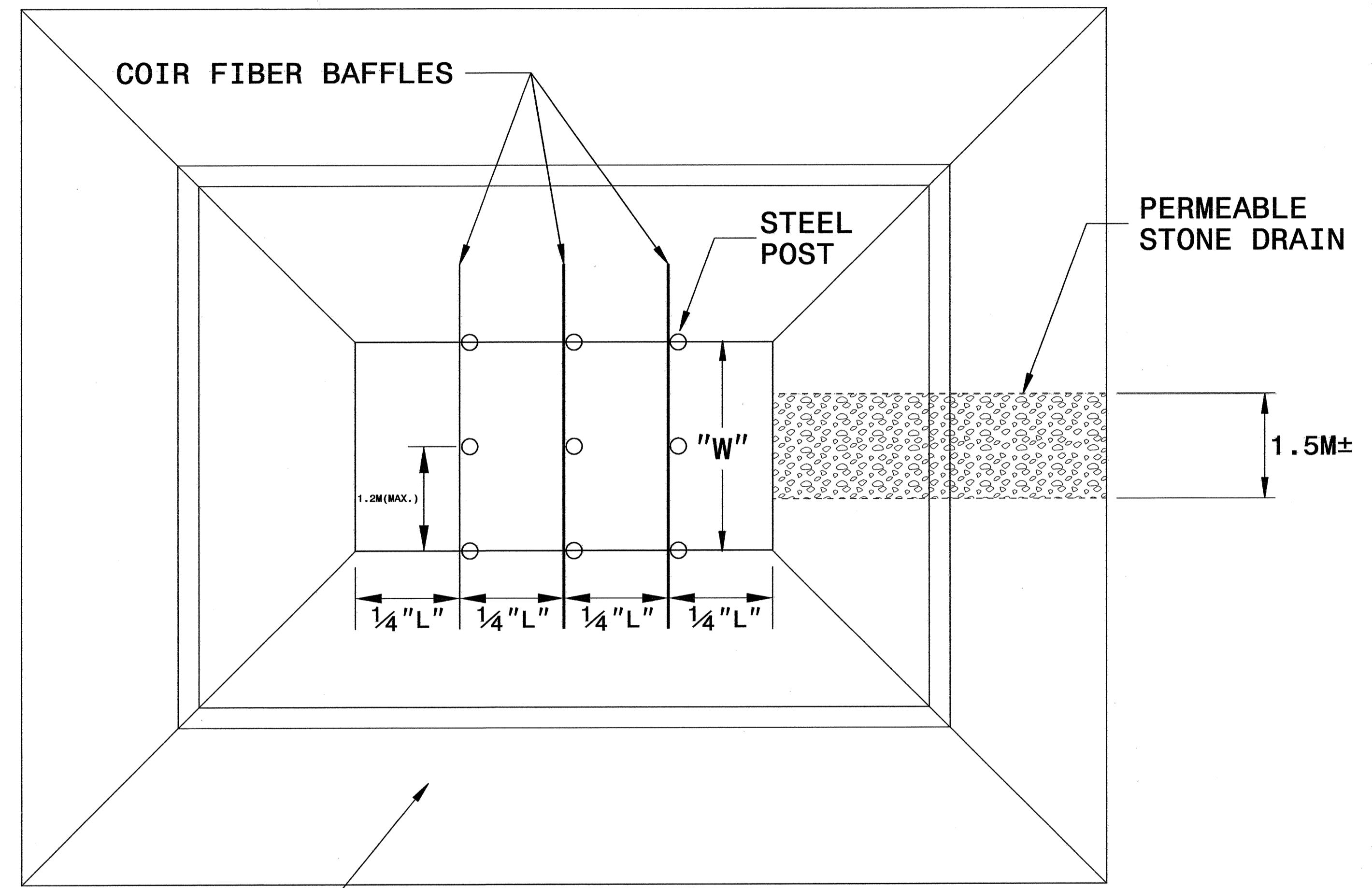
USE THE TYPICAL SECTION SHOWN FOR THE STILLING BASIN AS A GUIDE. THE BASIN MAY HAVE ANY TYPE CONFIGURATION AS LONG AS SUFFICIENT VOLUME IS PROVIDED AND PROVISIONS ARE MADE FOR A PERMEABLE STONE DRAIN.

DO NOT EXCEED 1.5M IN HEIGHT FOR THE EARTH DIKES REQUIRED FOR STILLING BASINS. ADDITIONAL DEPTHS MAY BE ATTAINED BY EXCAVATING BELOW THE NATURAL GROUND LEVEL.

THE STILLING BASIN SIZE IS VARIABLE AND DEPENDENT ON SPECIFIC SITE REQUIREMENTS AS WELL AS PROPOSED CONSTRUCTION OPERATIONS.

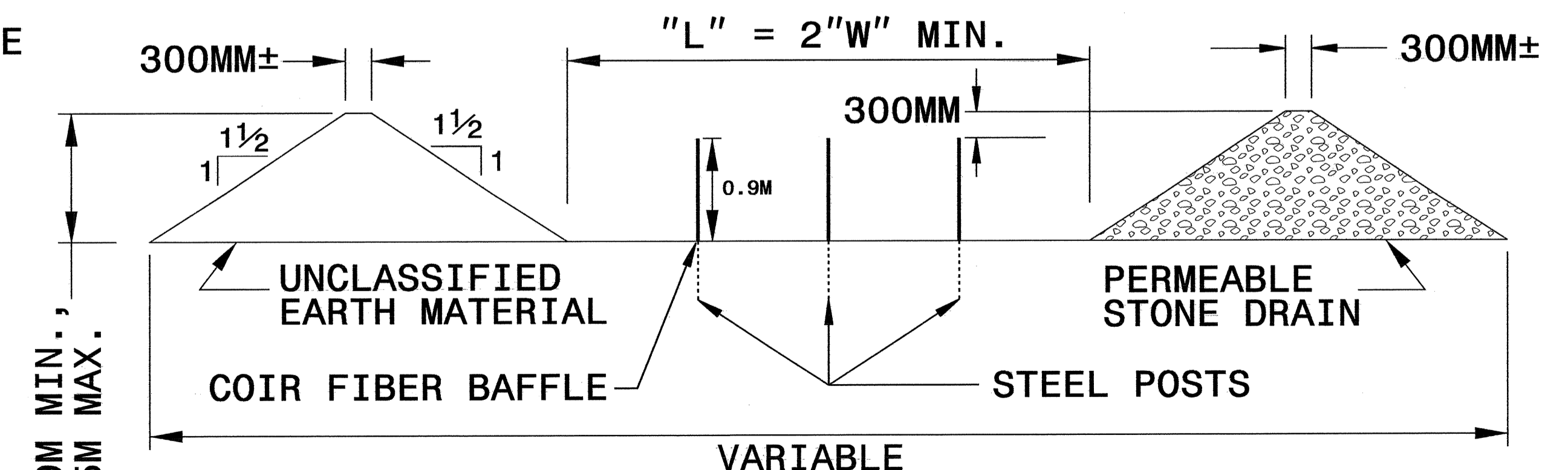
SUBMIT THE SIZE, LOCATION AND PERMEABLE STONE DRAIN MATERIAL FOR APPROVAL PRIOR TO CONSTRUCTION.

PUMP THE EFFLUENT INTO THE STILLING BASIN TO A MAXIMUM DEPTH OF 0.9 METERS.



EARTH DIKE

PLAN

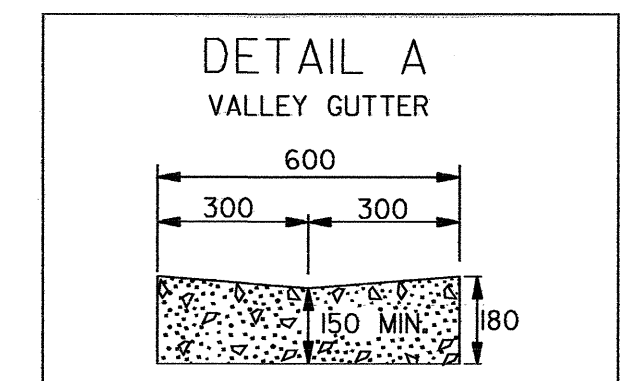


TYPICAL SECTION VIEW

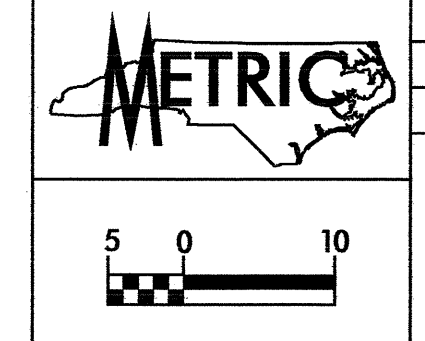
PROJECT REFERENCE NO.	SHEET NO.
R-2414A	EC-3
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**THIS SHEET
INTENTIONALLY
LEFT BLANK**

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4



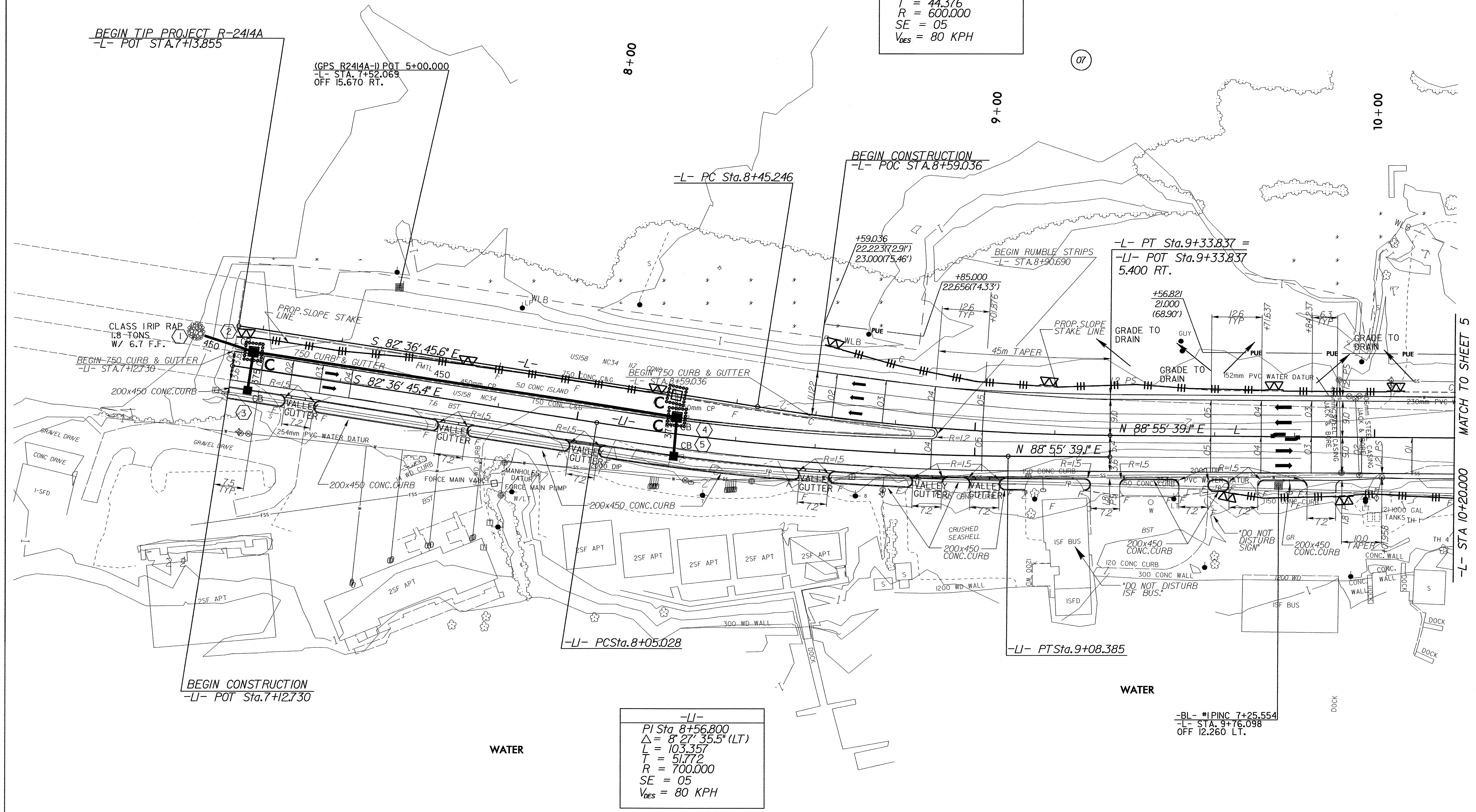
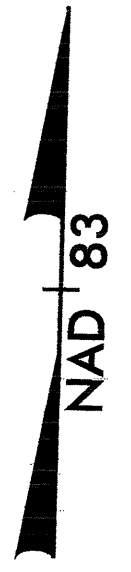
- LI- RT 7+25.6 TO 7+35.9
- LI- RT 7+64.5 TO 7+74.7
- LI- RT 7+97.8 TO 8+08.0
- LI- RT 8+55.3 TO 8+65.4
- LI- RT 8+83.3 TO 8+93.5
- LI- RT 8+97.6 TO 9+07.7



CONST. REV.
R / W REV.

PROJECT REFERENCE NO. R-2414A	SHEET NO. EC-4/CONST.4
R / W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-
PI Sta. 8+89.622
 $\Delta = 8' 27' 35.5" (LT)$
L = 88.591
T = 44.376
R = 600.000
SE = 05
V_{DES} = 80 KPH

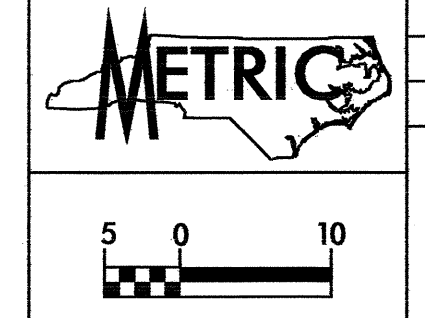


-L-
PI Sta. 8+56.800
 $\Delta = 8' 27' 35.5" (LT)$
L = 103.357
T = 51.772
R = 700.000
SE = 05
V_{DES} = 80 KPH

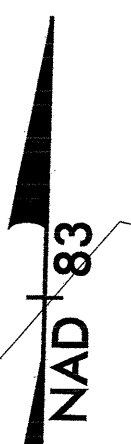
-BL- #1 PINC 7+25.554
-L- STA. 9+76.098
OFF 12.260 LT.

MATCH TO SHEET 5
-L- STA 10+20.000

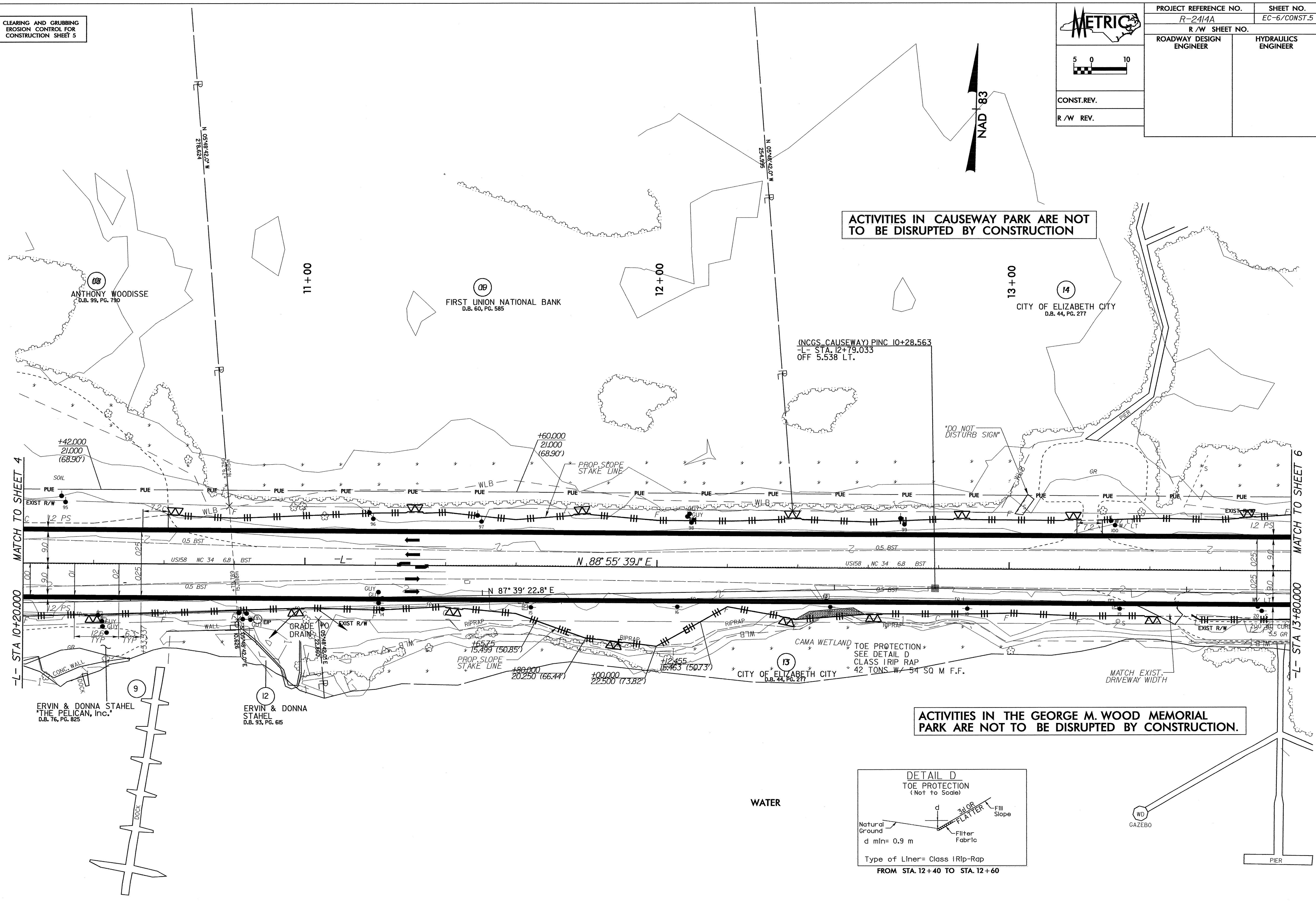
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5



PROJECT REFERENCE NO. R-2414A	SHEET NO. EC-67/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST. REV.	
R/W REV.	



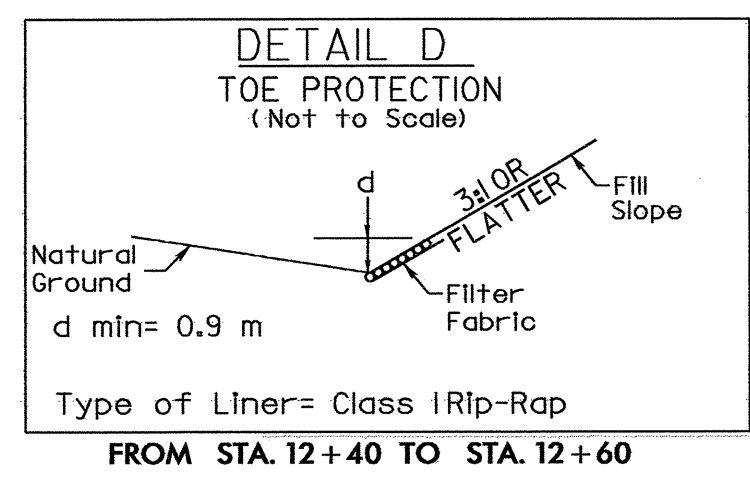
ACTIVITIES IN CAUSEWAY PARK ARE NOT TO BE DISRUPTED BY CONSTRUCTION



MATCH TO SHEET 4
-L- STA 10+20.000

MATCH TO SHEET 6
-L- STA 13+80.000


ACTIVITIES IN THE GEORGE M. WOOD MEMORIAL PARK ARE NOT TO BE DISRUPTED BY CONSTRUCTION.



FROM STA. 12+40 TO STA. 12+60

m.auglach AT RENV221592

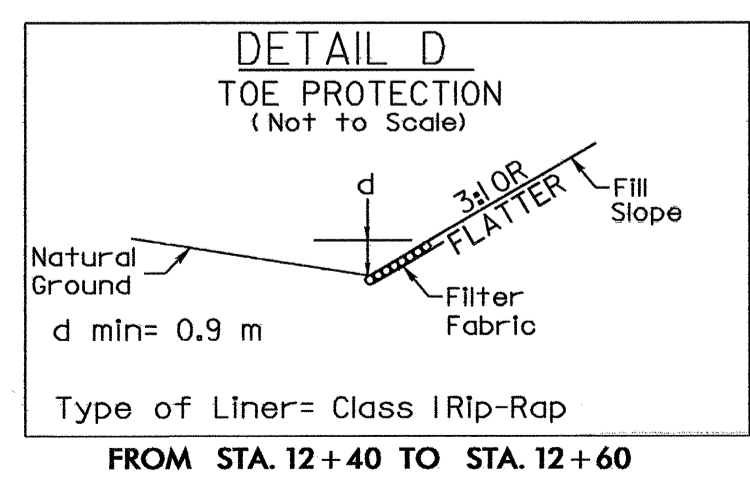
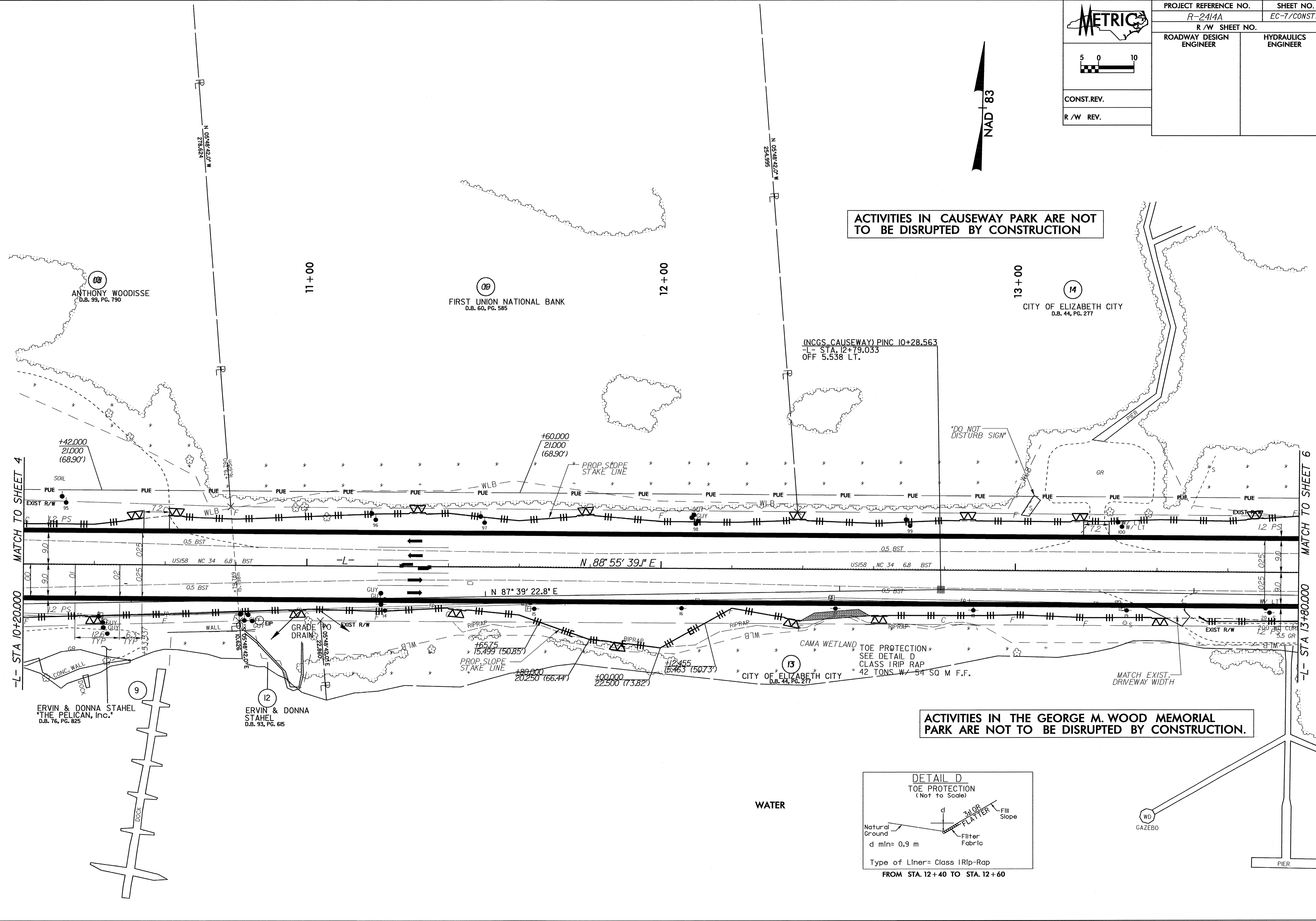
8/17/99
 mlaugteach AT RENV221592

 5 0 10 CONST. REV. R/W REV.	PROJECT REFERENCE NO. R-2414A	SHEET NO. EC-7/CONST.5
	R/W SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



ACTIVITIES IN CAUSEWAY PARK ARE NOT TO BE DISRUPTED BY CONSTRUCTION

ACTIVITIES IN THE GEORGE M. WOOD MEMORIAL PARK ARE NOT TO BE DISRUPTED BY CONSTRUCTION.

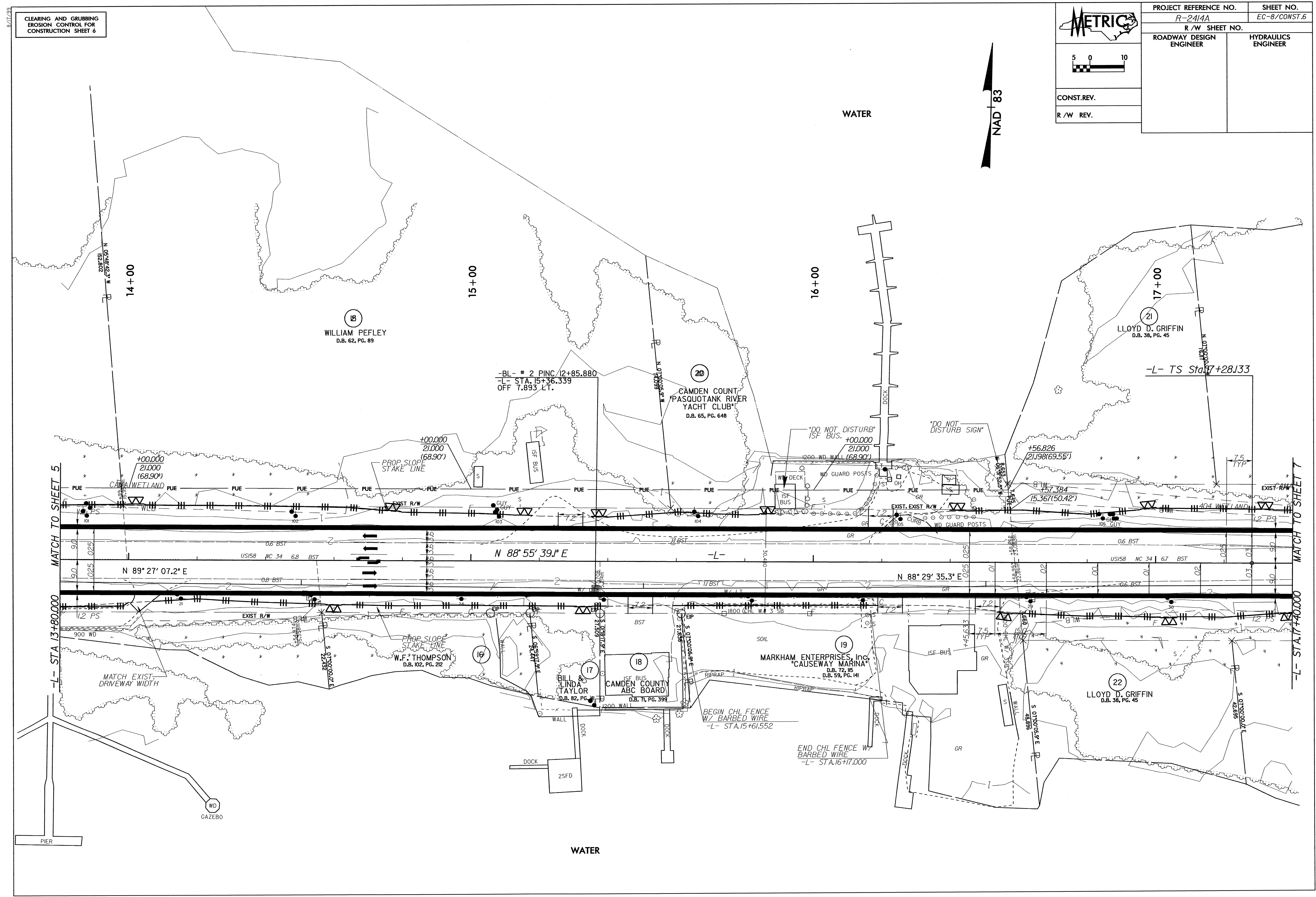
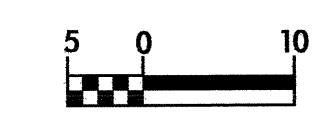


FROM STA. 12+40 TO STA. 12+60

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6



PROJECT REFERENCE NO. R-2414A	SHEET NO. EC-8/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST. REV.	
R/W REV.	



REVISIONS

MATCH TO SHEET 5

MATCH TO SHEET 7

-L- STA 13+80.000

-L- STA 17+40.000

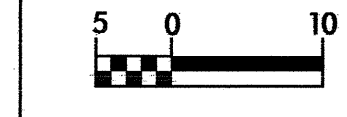
WATER

WATER

8/17/99

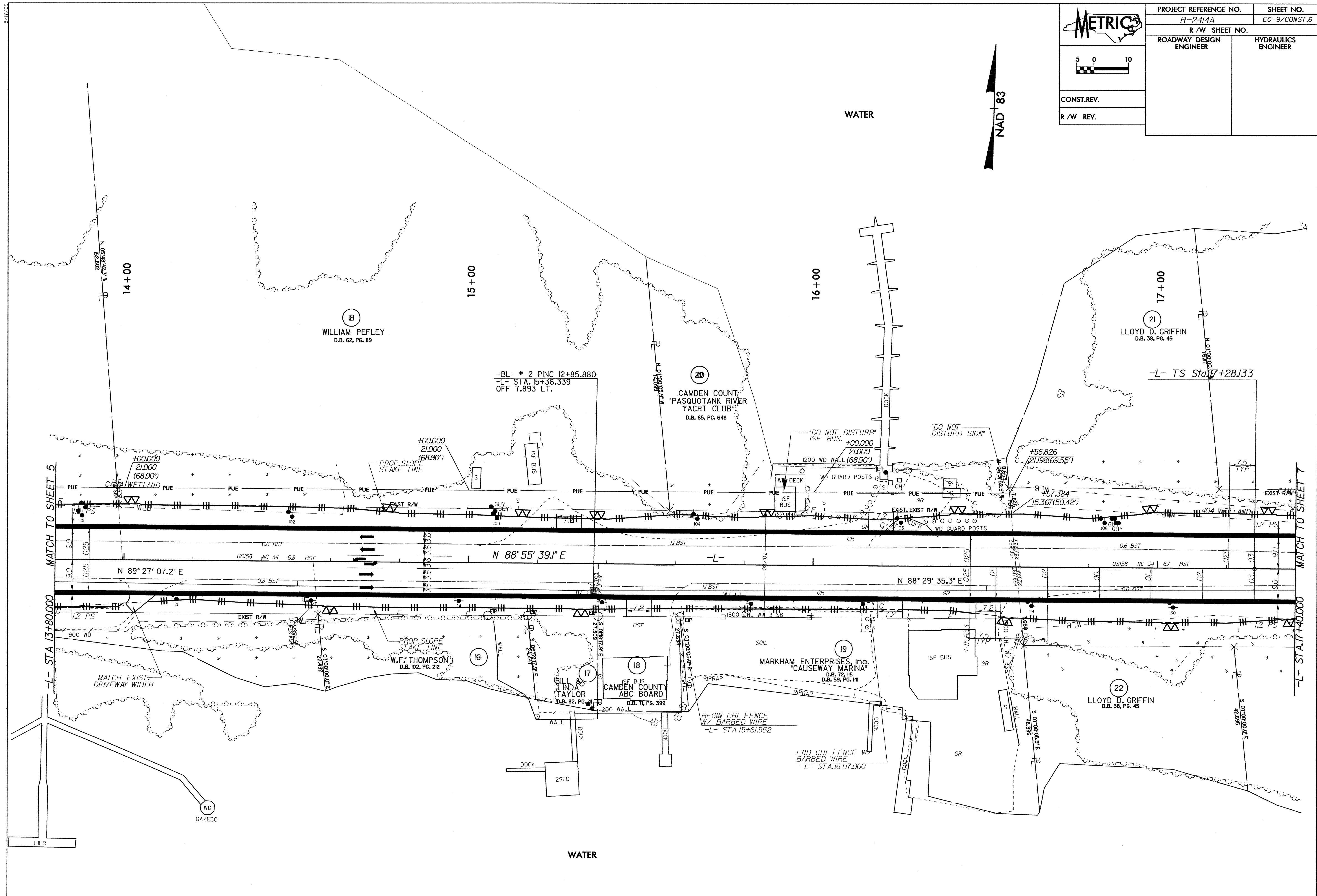


PROJECT REFERENCE NO. R-2414A	SHEET NO. EC-9/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST. REV.	
R/W REV.	



WATER

REVISIONS

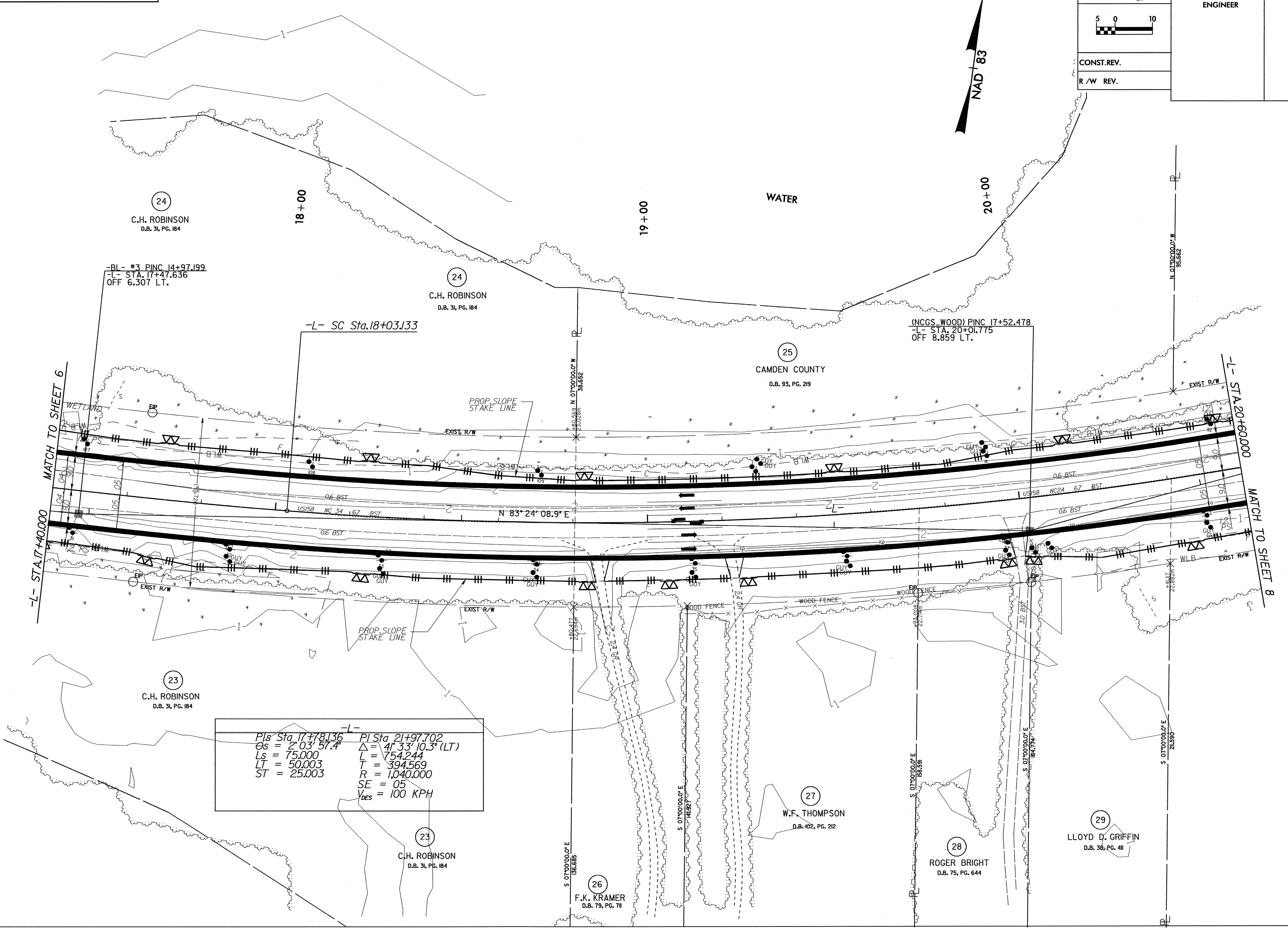
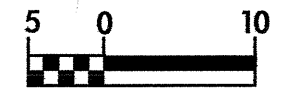


WATER

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.



PROJECT REFERENCE NO. R-2414A	SHEET NO. EC-10/CONST.7
R / W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST. REV.	
R / W REV.	



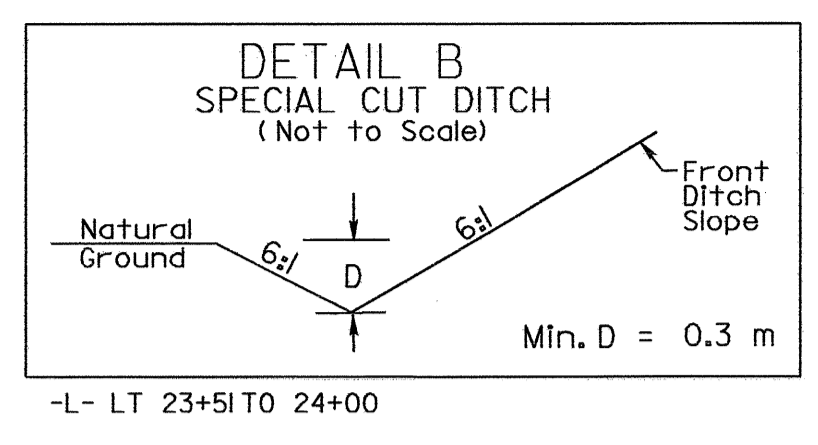
PI Sta 17+78.136	PI Sta 21+97.702
$\Delta s = 2^{\circ} 03' 57.4"$	$\Delta = 41^{\circ} 33' 10.3" (LT)$
$Ls = 75.000$	$L = 754.244$
$LT = 50.003$	$R = 394.569$
$ST = 25.003$	$R = 1,040.000$
	$SE = 05$
	$V_{DES} = 100 \text{ KPH}$

8/17/99
 04-DEC-2008 12:33
 m:\projects\2414a\REV\2414a.ec.07_pah.dgn

8/17/99

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

INSTALL DRIVEWAY PIPE DURING
CLEARING AND GRUBBING PHASE.



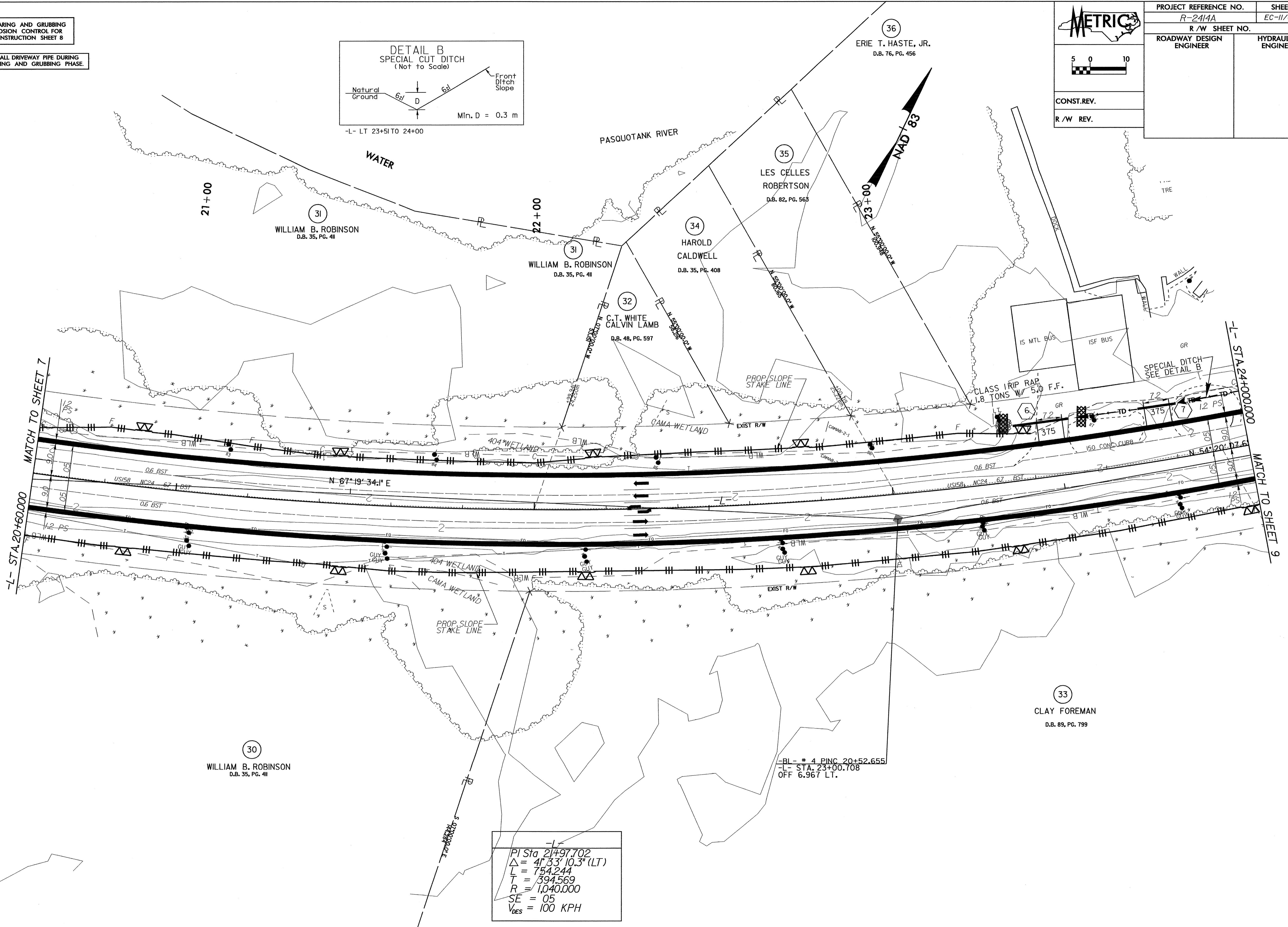
METRIC

5 0 10

CONST. REV.

R/W REV.

PROJECT REFERENCE NO. R-2114A	SHEET NO. EC-II/CONST.B
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



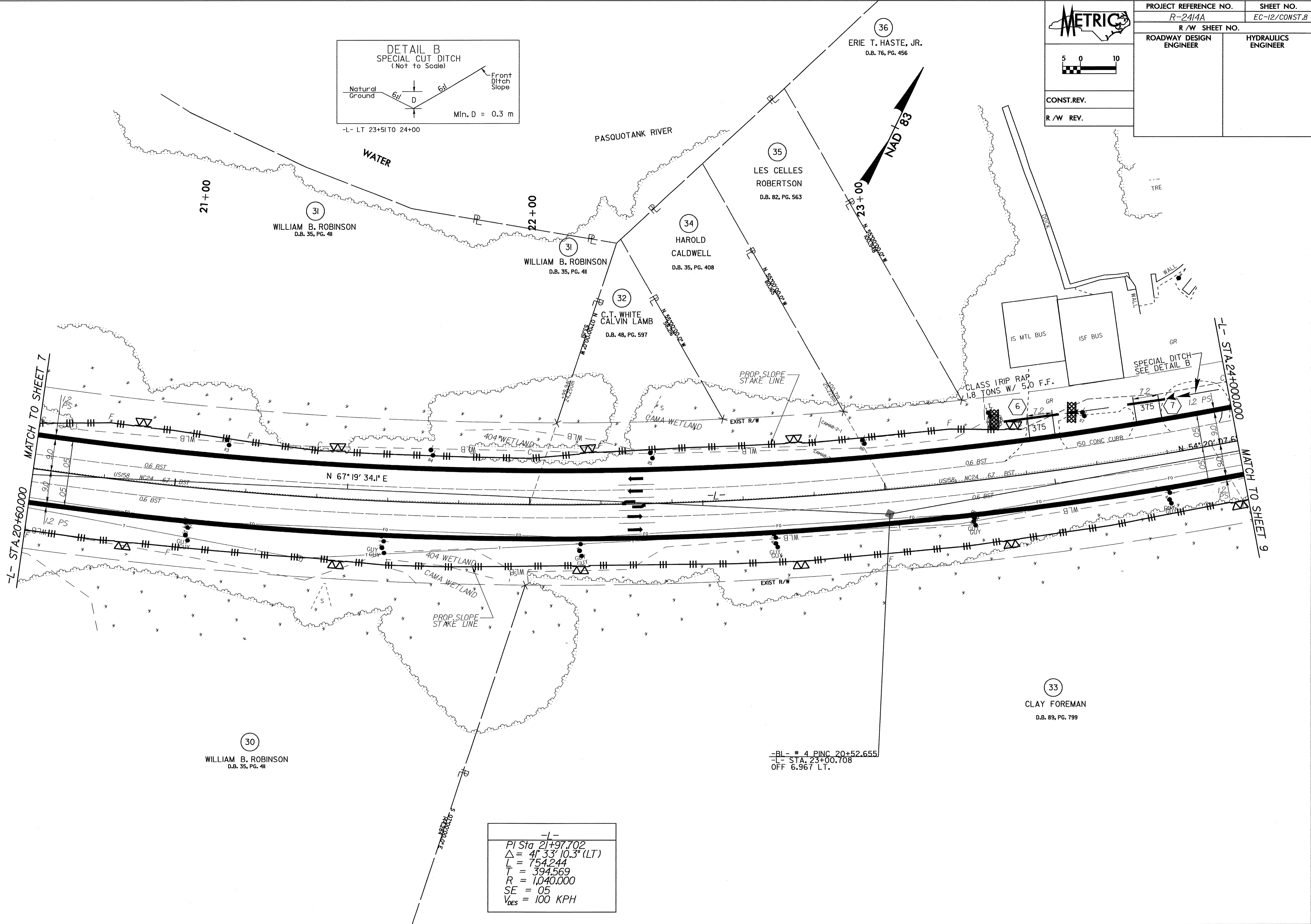
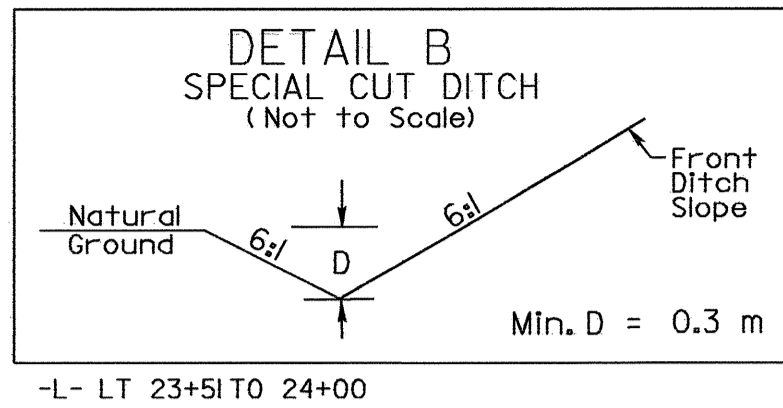
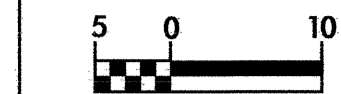
-L-
PI Sta 21+97.702
Δ = 41° 33' 10.3" (LT)
L = 754.244
T = 394.569
R = 1,040.000
SE = 05
V_{DES} = 100 KPH

-BL- # 4 PINC 20+52.655
-L- STA. 23+00.708
OFF 6.967 LT.

8/17/99



PROJECT REFERENCE NO. R-2414A		SHEET NO. EC-12/CONST.B	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
CONST.REV.			
R/W REV.			



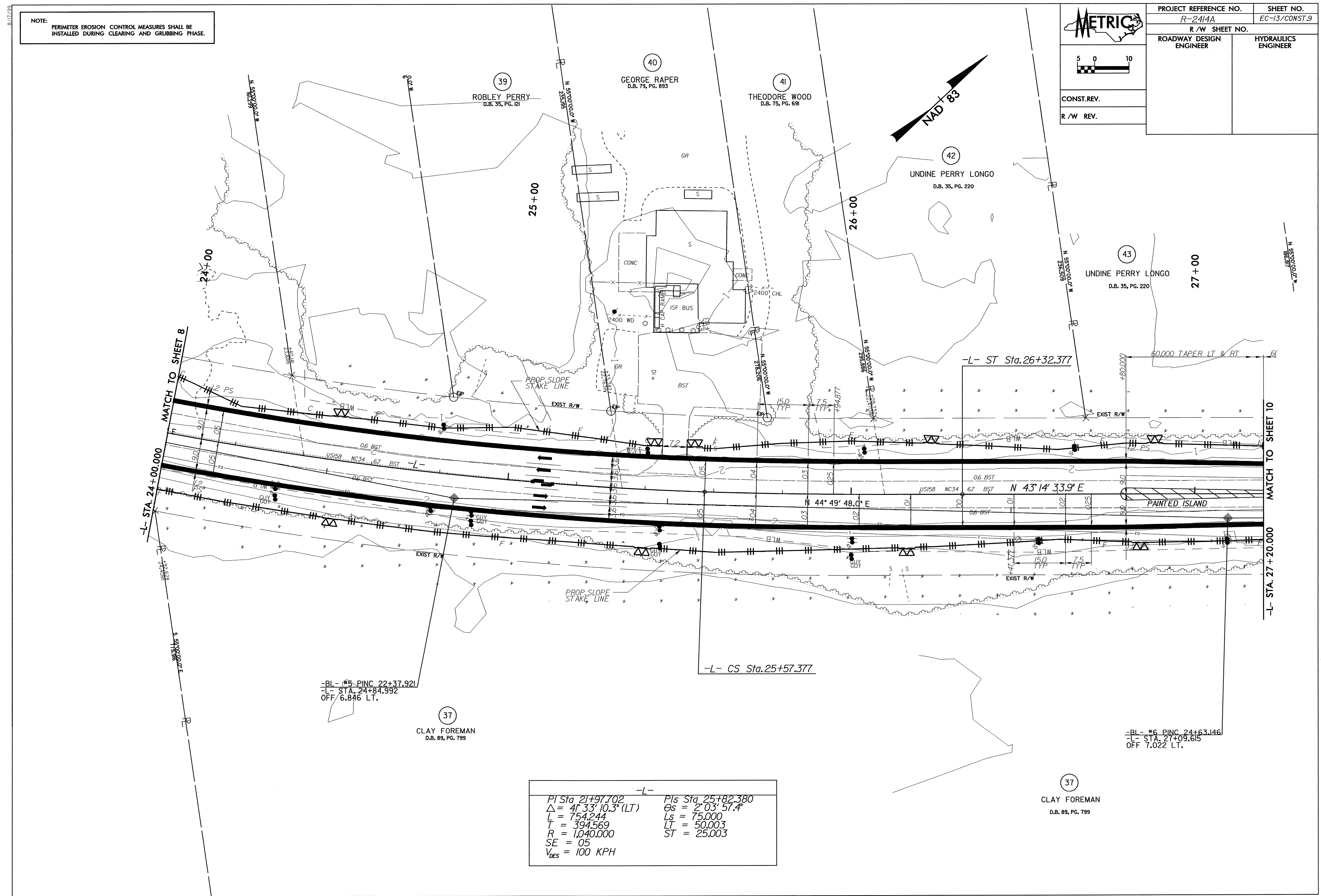
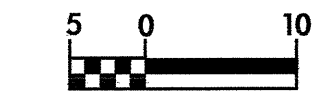
-L-
PI Sta 21+97.702
$\Delta = 41^{\circ} 33' 10.3''$ (LT)
L = 754.244
T = 394.569
R = 1,040.000
SE = 05
V _{DES} = 100 KPH

-BL- # 4 PINC 20+52.655
-L- STA. 23+00.708
OFF 6.967 LT.

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.



PROJECT REFERENCE NO. R-2414A	SHEET NO. EC-13/CONST.9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST. REV.	
R/W REV.	



-L-	
PI Sta 21+97.702	PIs Sta 25+82.380
$\Delta = 41^{\circ} 33' 10.3''$ (LT)	$\Theta_s = 2^{\circ} 03' 57.4''$
L = 754.244	Ls = 75.000
T = 394.569	LT = 50.003
R = 1,040.000	ST = 25.003
SE = 05	
V _{DES} = 100 KPH	

-BL- #5 PINC 22+37.921
-L- STA. 24+84.992
OFF 6.846 LT.

(37)
CLAY FOREMAN
D.B. 89, PG. 799

-L- CS Sta. 25+57.377

-L- ST Sta. 26+32.377

-BL- #6 PINC 24+63.146
-L- STA. 27+09.615
OFF 7.022 LT.

(37)
CLAY FOREMAN
D.B. 89, PG. 799

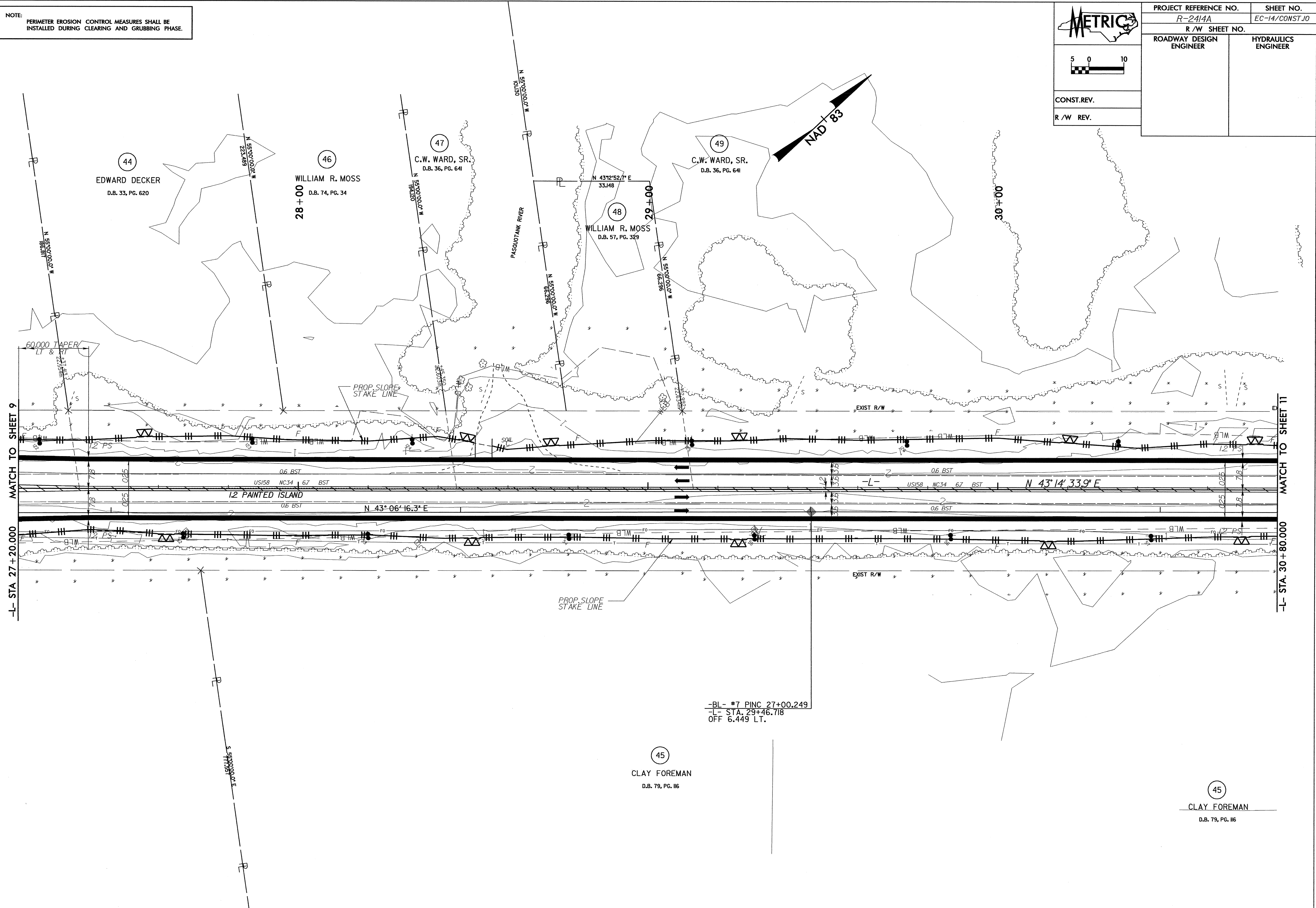
8.17.99

NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

METRICS

CONST. REV.
R/W REV.

PROJECT REFERENCE NO. R-2414A	SHEET NO. EC-14/CONST.10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCH TO SHEET 9
-L- STA 27 + 20.000

MATCH TO SHEET 11
-L- STA. 30 + 80.000

-BL- #7 PINC. 27+00.249
-L- STA. 29+46.718
OFF 6.449 LT.

44
EDWARD DECKER
D.B. 33, PG. 620

46
WILLIAM R. MOSS
D.B. 74, PG. 34

47
C.W. WARD, SR.
D.B. 36, PG. 641


48
WILLIAM R. MOSS
D.B. 57, PG. 329

49
C.W. WARD, SR.
D.B. 36, PG. 641

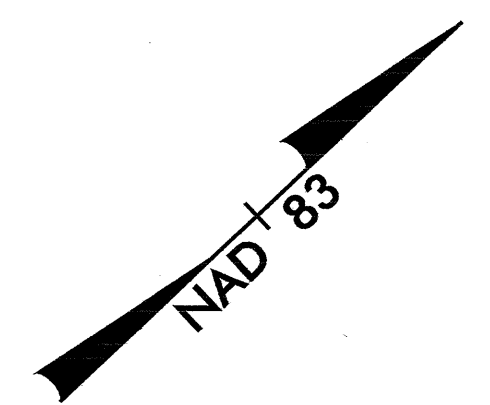
45
CLAY FOREMAN
D.B. 79, PG. 116

45
CLAY FOREMAN
D.B. 79, PG. 116

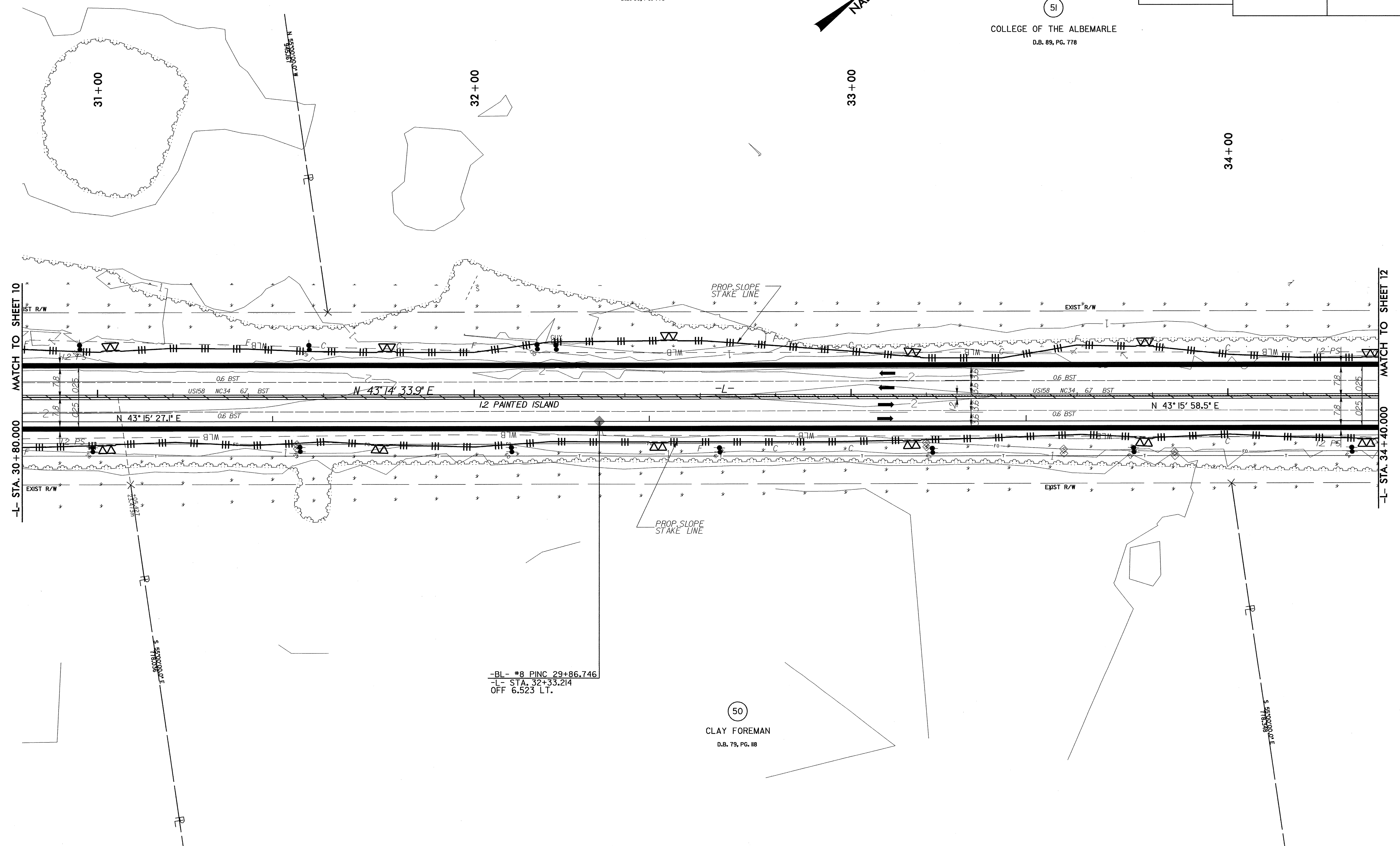
NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.

 5 0 10 CONST.REV. R/W REV.	PROJECT REFERENCE NO. R-2414A	SHEET NO. EC-15/CONST.II
	R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	

51
COLLEGE OF THE ALBEMARLE
D.B. 89, PG. 778



51
COLLEGE OF THE ALBEMARLE
D.B. 89, PG. 778



REVISIONS

MATCH TO SHEET 10
-L- STA. 30+80.000

MATCH TO SHEET 12
-L- STA. 34+40.000

-BL- #8 PINC 29+86.746
-L- STA. 32+33.214
OFF 6.523 LT.

50
CLAY FOREMAN
D.B. 79, PG. 118

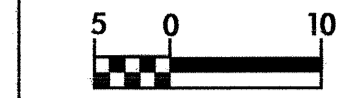
S 55°00'00" E
86.5000 FT

8/17/98

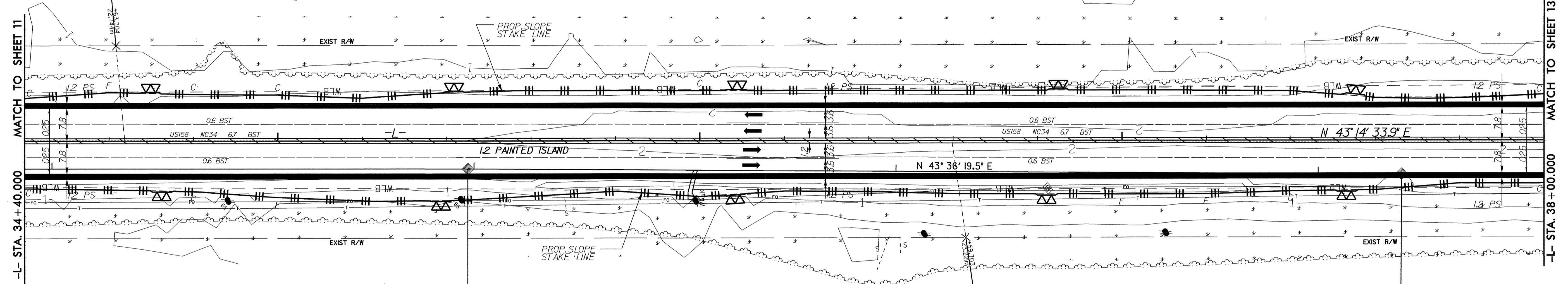
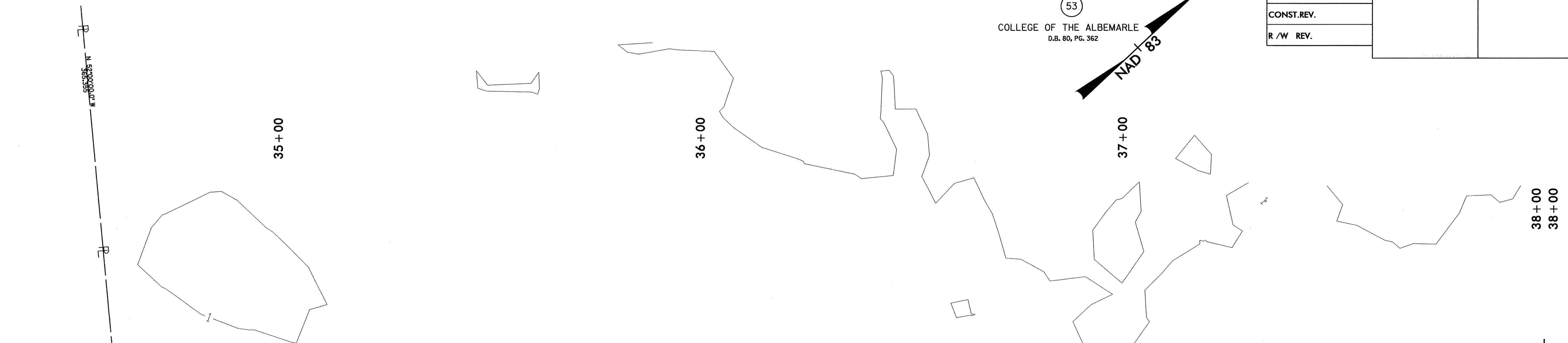
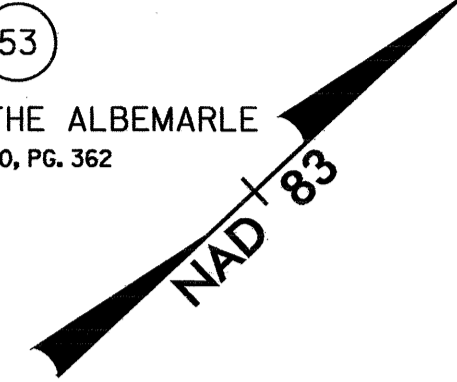
NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.



PROJECT REFERENCE NO. R-2414A		SHEET NO. EC-16/CONST.12	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
CONST. REV.			
R/W REV.			



53
COLLEGE OF THE ALBEMARLE
D.B. 80, PG. 362



MATCH TO SHEET 11
-L- STA. 34+40.000

MATCH TO SHEET 13
-L- STA. 38+00.000

-BL- #9 PINC 32+98.544
-L- STA. 35+45.012
OFF 6.651 LT.

52

W.B. ROBINSON
NO DEED REFERENCE AVAILABLE

-BL- #10 PINC 35+19.790
-L- STA. 37+66.254
OFF 8.051 LT.

54

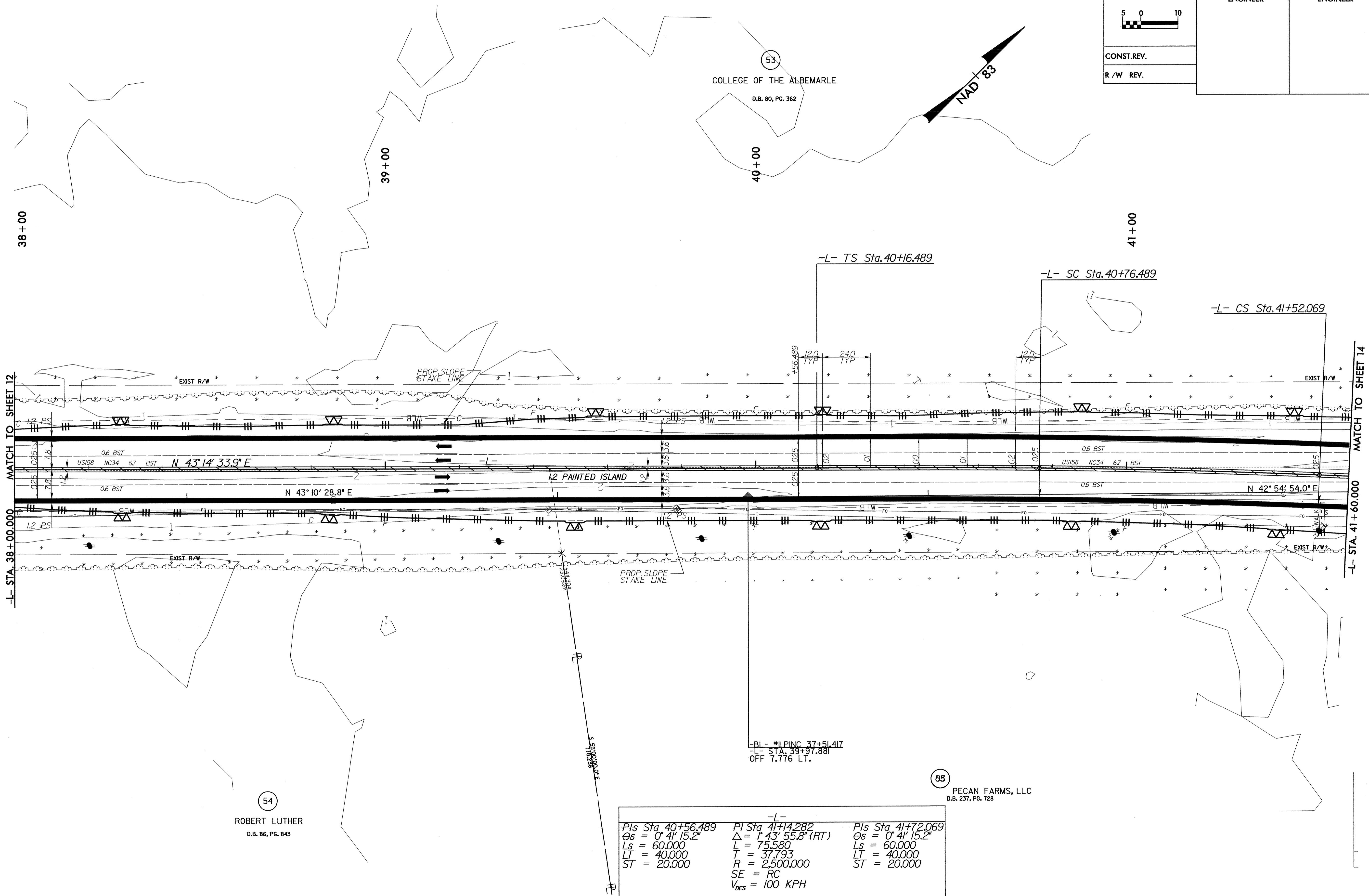
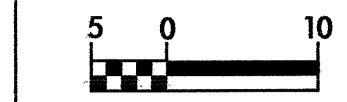
ROBERT LUTHER
D.B. 86, PG. 843

8/17/23

NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.



PROJECT REFERENCE NO. R-2414A	SHEET NO. EC-17/CONST J3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R/W REV.	



MATCH TO SHEET 12
-L- STA. 38+00.000

MATCH TO SHEET 14
-L- STA. 41+60.000

54
ROBERT LUTHER
D.B. 86, PG. 843

Pls Sta. 40+56.489 Os = 0° 41' 15.2" Ls = 60.000 LT = 40.000 ST = 20.000	PI Sta. 41+14.282 Δ = 1° 43' 55.8" (RT) L = 75.580 T = 37.793 R = 2,500.000 SE = RC V _{DES} = 100 KPH	Pls Sta. 41+72.069 Os = 0° 41' 15.2" Ls = 60.000 LT = 40.000 ST = 20.000
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-BL- #11 PINE 37+51.417
-L- STA. 39+97.881
OFF 7.776 LT.

85
PECAN FARMS, LLC
D.B. 237, PG. 728

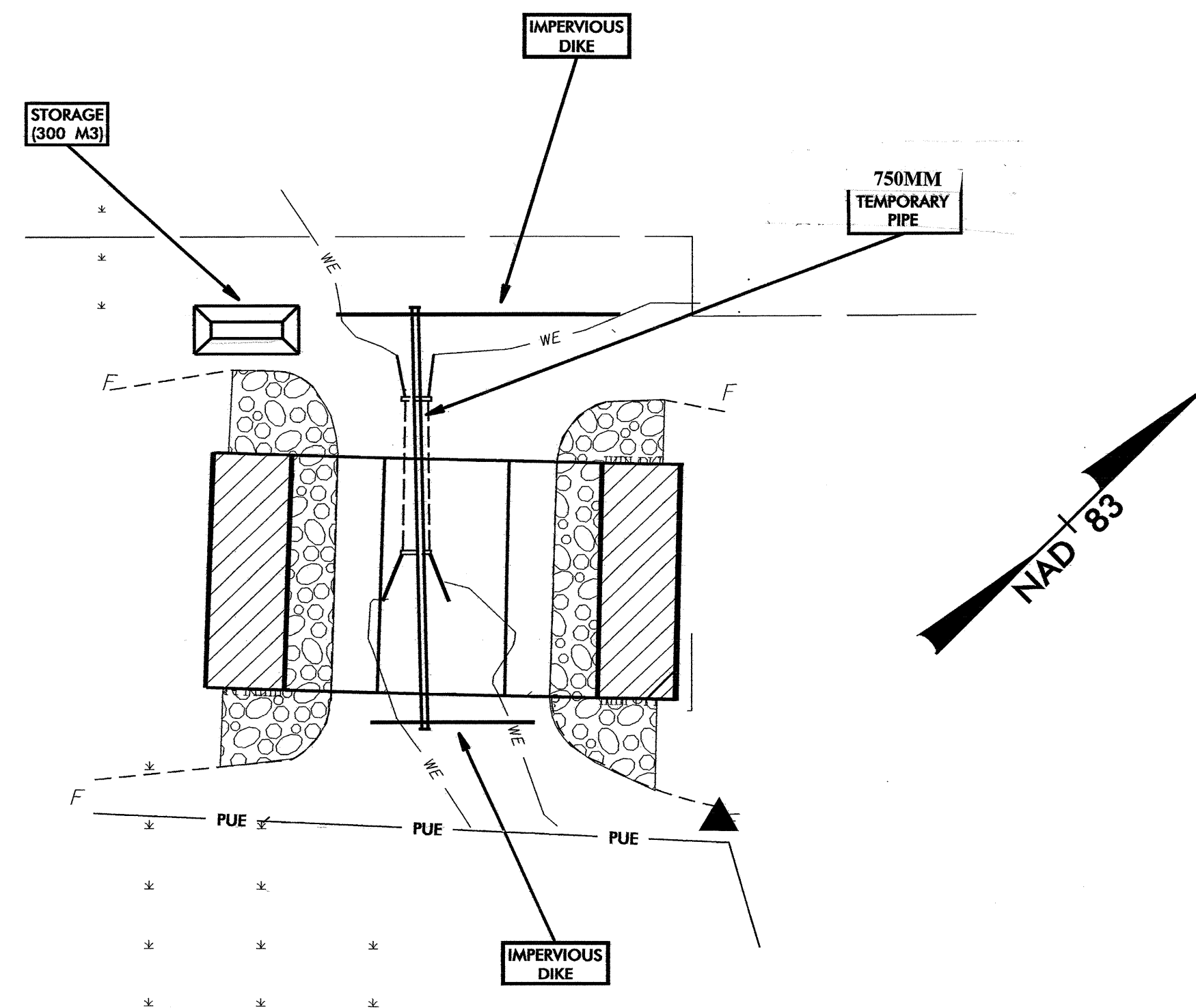


PROJECT REFERENCE NO. R-2414A	SHEET NO. EC-18A/CONST.14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT REMOVAL SEQUENCE STA. 43+10 -L-

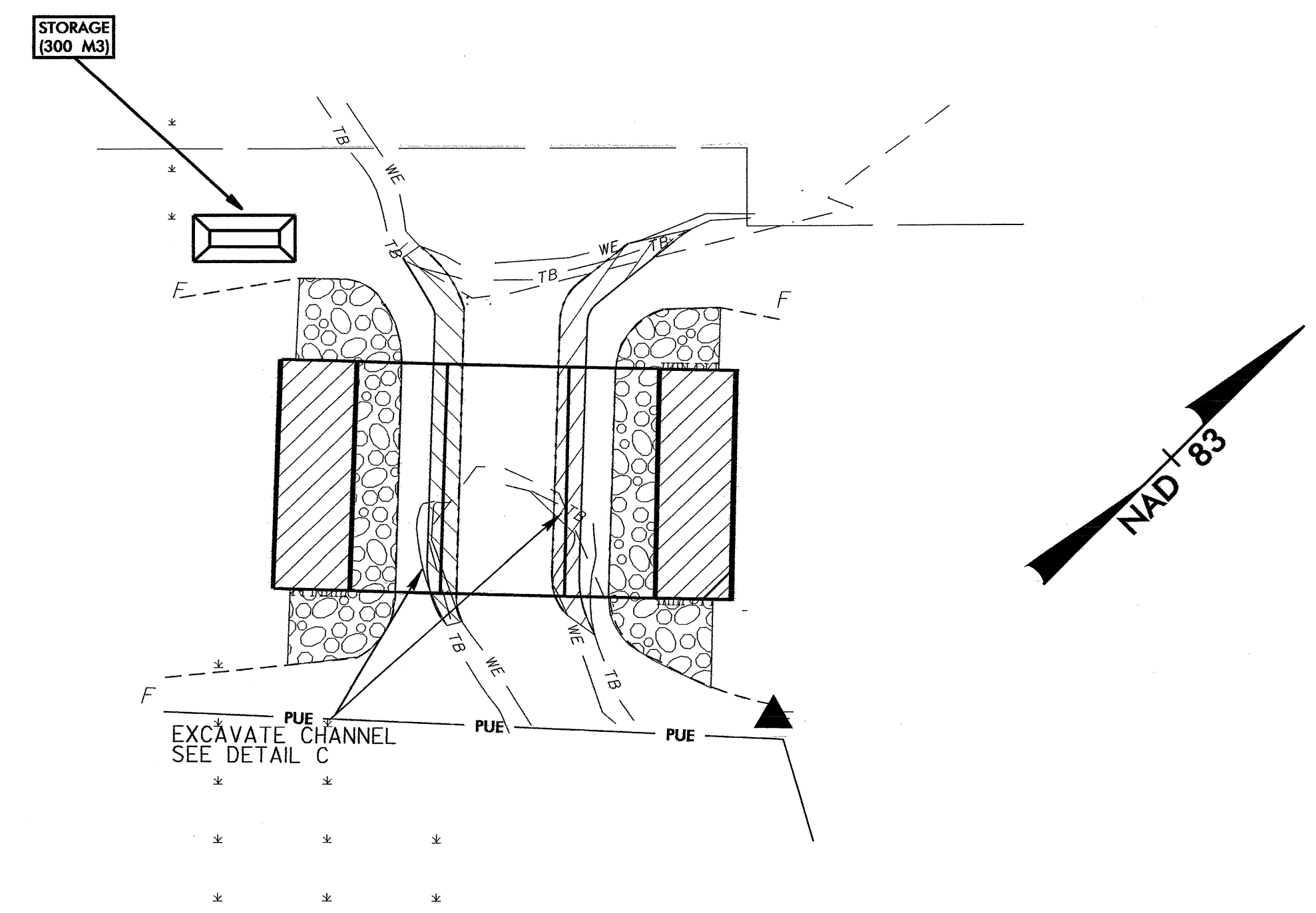
PHASE I

- 1.) INSTALL STILLING BASIN (300 CM).
- 2.) INSTALL IMPERVIOUS DIKES AND 750MM TEMPORARY PIPE.
- 3.) REMOVE UPSTREAM WINGWALLS OF EXISTING CULVERT.
- 4.) CONSTRUCT EASTBOUND LANE OF PROPOSED BRIDGE AND DIVERT TRAFFIC.



PHASE II

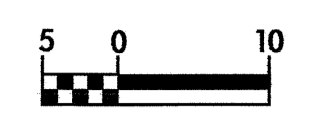
- 5.) REMOVE REMAINDER OF CULVERT AND EXISTING EMBANKMENT.
- 6.) STABILIZE CHANNEL EMBANKMENT WITH COIR FIBER MATTING.
- 7.) REMOVE IMPERVIOUS DIKES AND 750MM TEMPORARY PIPE UPON ESTABLISHMENT OF VEGETATION.
- 8.) COMPLETE BRIDGE AND ROADWAY CONSTRUCTION.



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 15

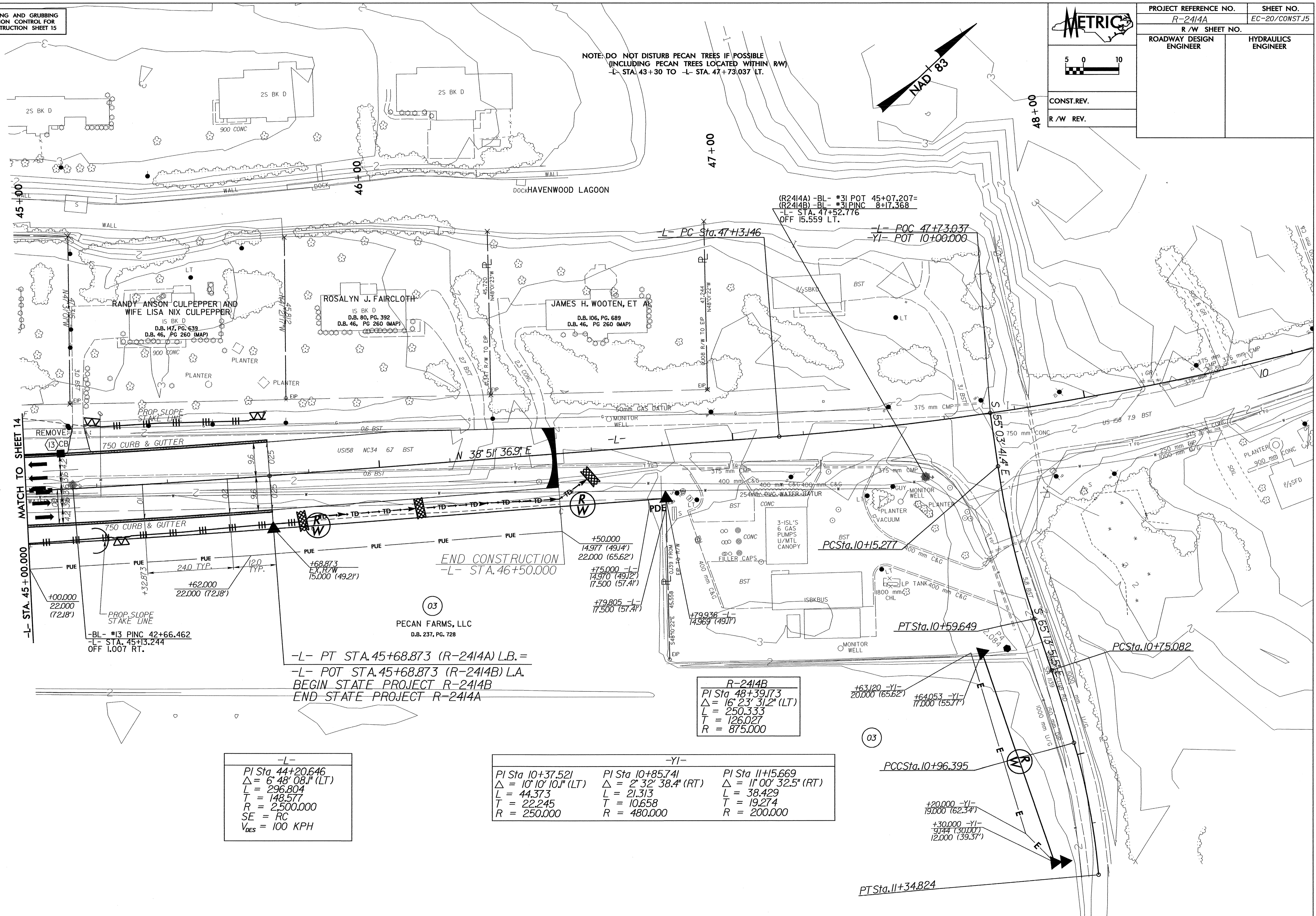
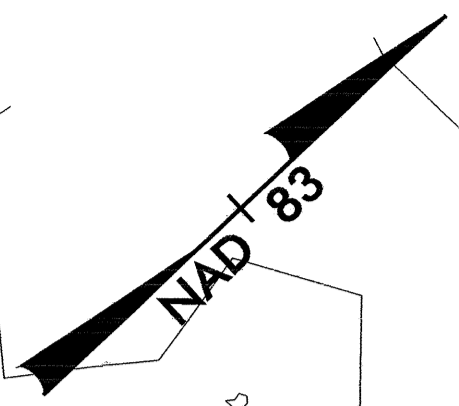


PROJECT REFERENCE NO. R-2414A	SHEET NO. EC-20/CONST.15
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



CONST. REV.
R/W REV.

NOTE: DO NOT DISTURB PECAN TREES IF POSSIBLE
(INCLUDING PECAN TREES LOCATED WITHIN RW)
-L- STA. 43+30 TO -L- STA. 47+73.037 LT.



MATCH TO SHEET 14
-L- STA. 45+00.000

-BL- #13 PINC 42+66.462
-L- STA. 45+13.244
OFF 1.007 RT.

-L- PT STA. 45+68.873 (R-2414A) L.B. =
-L- POT STA. 45+68.873 (R-2414B) L.A.
BEGIN STATE PROJECT R-2414B
END STATE PROJECT R-2414A

END CONSTRUCTION
-L- STA. 46+50.000

R-2414B
PI Sta 48+39.173
Δ = 16' 23' 31.2" (LT)
L = 250.333
T = 126.027
R = 875.000

-L-
PI Sta 44+20.646
Δ = 6' 48' 08.1" (LT)
L = 296.804
T = 148.577
R = 2,500.000
SE = RC
V_{DES} = 100 KPH

PI Sta 10+37.521 Δ = 10' 10' 10.1" (LT) L = 44.373 T = 22.245 R = 250.000	PI Sta 10+85.741 Δ = 2' 32' 38.4" (RT) L = 21.313 T = 10.658 R = 480.000	PI Sta 11+15.669 Δ = 11' 00' 32.5" (RT) L = 38.429 T = 19.274 R = 200.000
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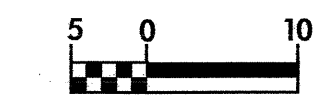
+20.000 -YI-
19,000 (62.34')
+30.000 -YI-
9,144 (30,000)
12,000 (39.37')

PTSta. 11+34.824

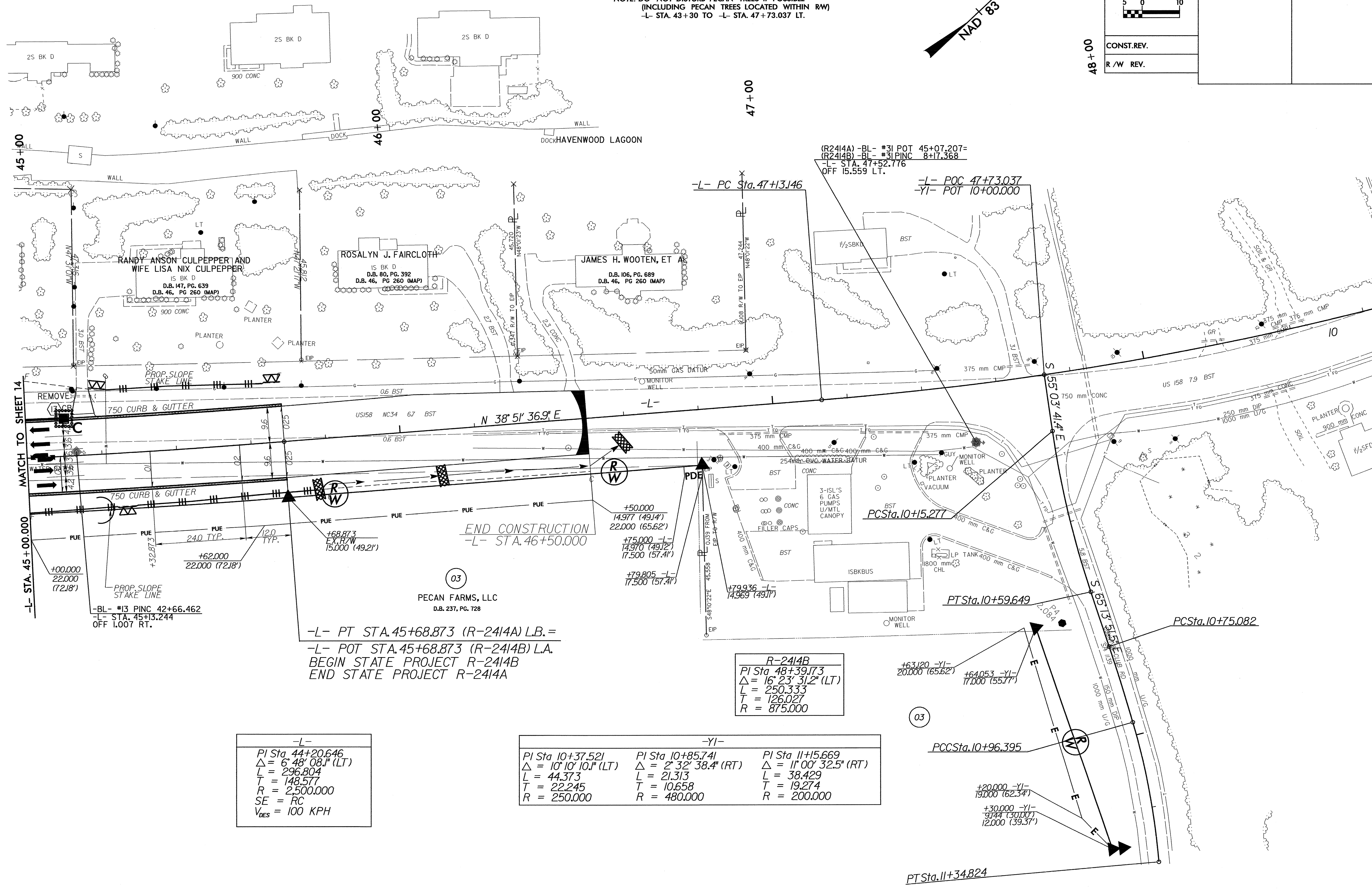
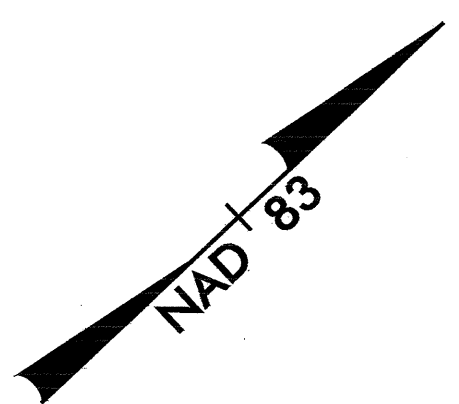
8/17/99



PROJECT REFERENCE NO. R-2414A		SHEET NO. EC-21/CONST.15
R/W SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
CONST. REV.		
R/W REV.		



NOTE: DO NOT DISTURB PECAN TREES IF POSSIBLE
(INCLUDING PECAN TREES LOCATED WITHIN RW)
-L- STA. 43+30 TO -L- STA. 47+73.037 LT.



-L- PT STA. 45+68.873 (R-2414A) L.B. =
-L- POT STA. 45+68.873 (R-2414B) L.A.
BEGIN STATE PROJECT R-2414B
END STATE PROJECT R-2414A

R-2414B
PI Sta 48+39.173
Δ = 16° 23' 31.2" (LT)
L = 250.333
T = 126.027
R = 875.000

-L-
PI Sta 44+20.646
Δ = 6° 48' 08.1" (LT)
L = 296.804
T = 148.577
R = 2,500.000
SE = RC
V_{DES} = 100 KPH

-L-	-YI-	
PI Sta 10+37.521	PI Sta 10+85.741	PI Sta 11+15.669
Δ = 10° 10' 10.1" (LT)	Δ = 2° 32' 38.4" (RT)	Δ = 11° 00' 32.5" (RT)
L = 44.373	L = 21.313	L = 38.429
T = 22.245	T = 10.658	T = 19.274
R = 250.000	R = 480.000	R = 200.000

+63.120 -YI-
20.000 (65.62')

+20.000 -YI-
19.000 (62.34')

PT Sta. 11+34.824