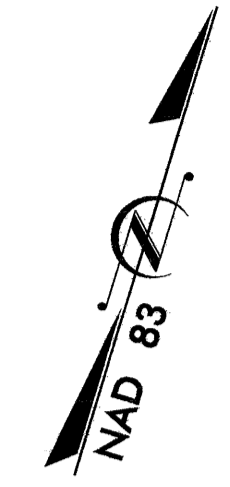
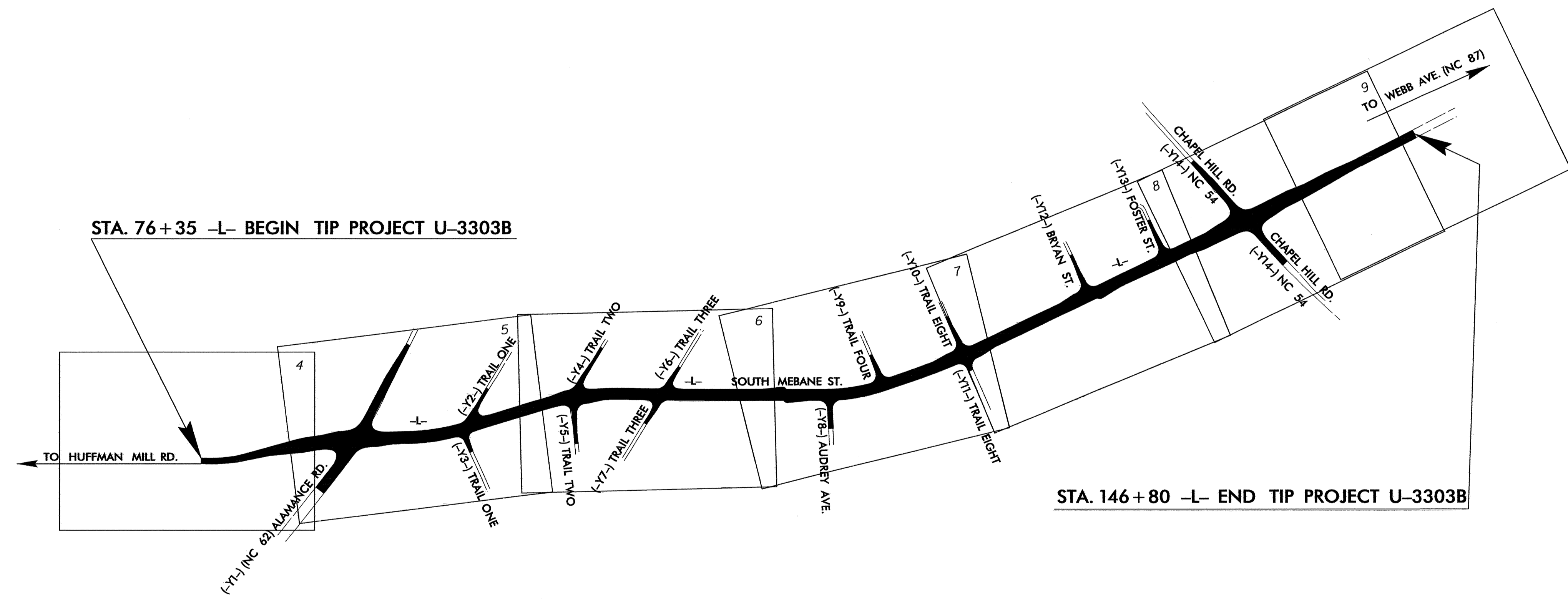


TIP PROJECT: U-3303B

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL
ALAMANCE COUNTY



*LOCATION: BURLINGTON - SR 1306-1363 (SOUTH MEBANE ST.) FROM NC 62 TO NC 54 (CHAPEL HILL RD.)
 TYPE OF WORK: GRADING, DRAINAGE, WIDENING, PAVING, CURB & GUTTER, SIDEWALK, SIGNALS, AND SIGNING*



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-3303B	EC-1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	

EROSION AND SEDIMENT CONTROL MEASURES

Sed. #	Description	Symbol
1630.05	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	—
1630.01	Riser Basin	⊙
1630.01	Silt Basin Type B	▨
1633.01	Temporary Rock Silt Check Type-A	▨
1633.01	Temporary Rock Silt Check Type-B	▨
1633.01	Wattle	—
1634.01	Temporary Rock Sediment Dam Type-A	▨
1634.02	Temporary Rock Sediment Dam Type-B	▨
1635.01	Rock Pipe Inlet Sediment Trap Type-A	⊙
1635.02	Rock Pipe Inlet Sediment Trap Type-B	⊙
1630.04	Stilling Basin	▭
1630.06	Special Stilling Basin	▭
1632.01	Rock Inlet Sediment Trap Type A	A
1632.02	Rock Inlet Sediment Trap Type B	B
1632.03	Rock Inlet Sediment Trap Type C	C
1630.06	Skimmer Basin	▭
1630.06	Tiered Skimmer Basin	▭
1630.06	Infiltration Basin	▭

THIS PROJECT CONTAINS
 EROSION CONTROL PLANS
 FOR CLEARING AND
 GRUBBING PHASE OF
 CONSTRUCTION.

GRAPHIC SCALE

0

PLANS

0

PROFILE (HORIZONTAL)

0

PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
 DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA

Prepared In the Office of:
ROADSIDE ENVIRONMENTAL UNIT
 1 South Wilmington St.
 Raleigh, NC 27611
2006 STANDARD SPECIFICATIONS

Roadway Standard Drawings

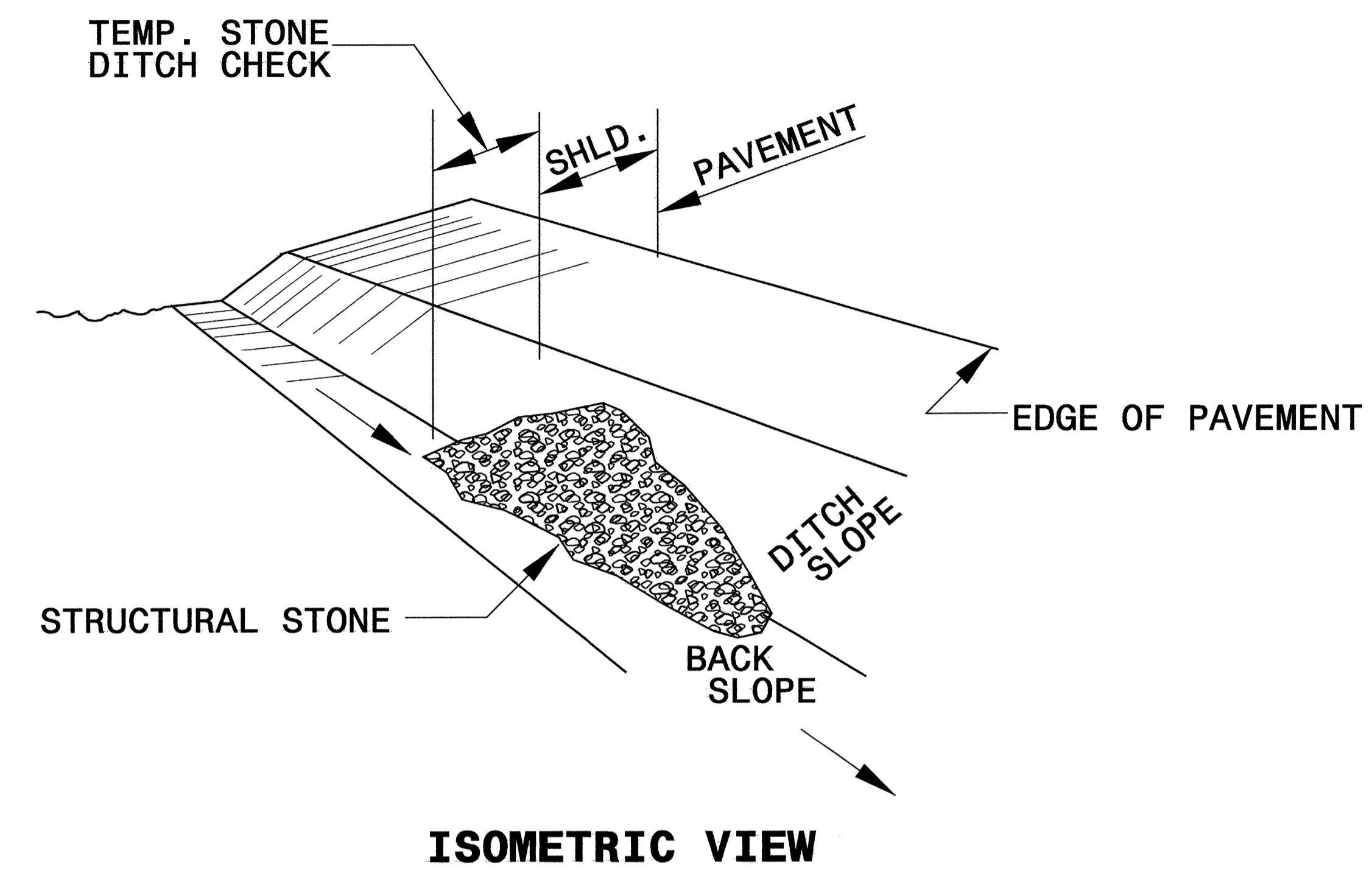
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 18, 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1630.05 Temporary Diversion	1635.02 Rock Pipe Inlet Sediment Trap Type B

26-NOV-2006 16:51 d:\p1\22280\3303B.ec.tch
 Jemmi.Farr-Parrish

PROJECT REFERENCE NO. <i>U-3303B</i>	SHEET NO. <i>EC-2</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

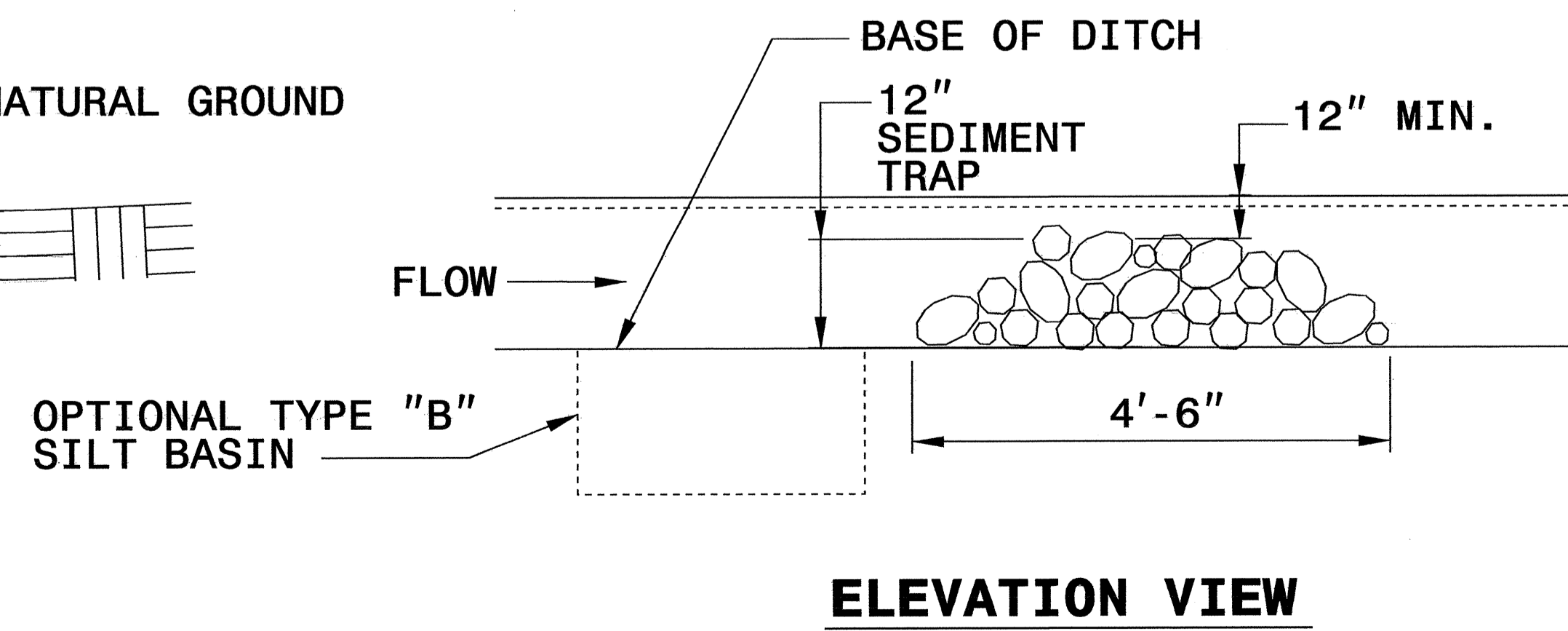
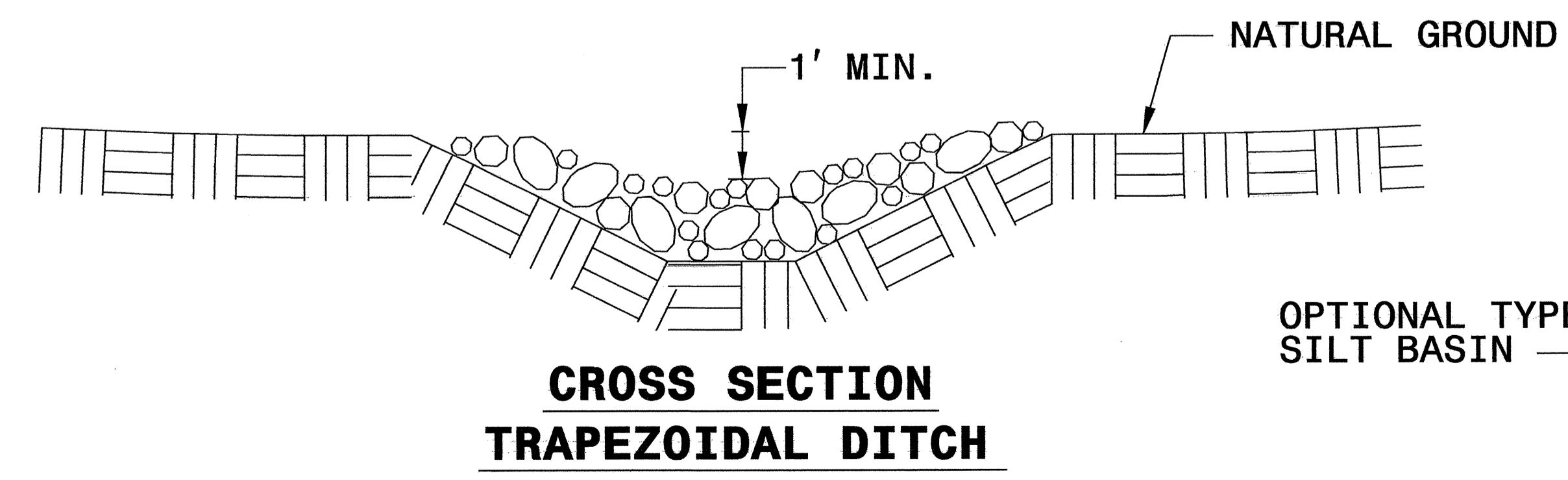
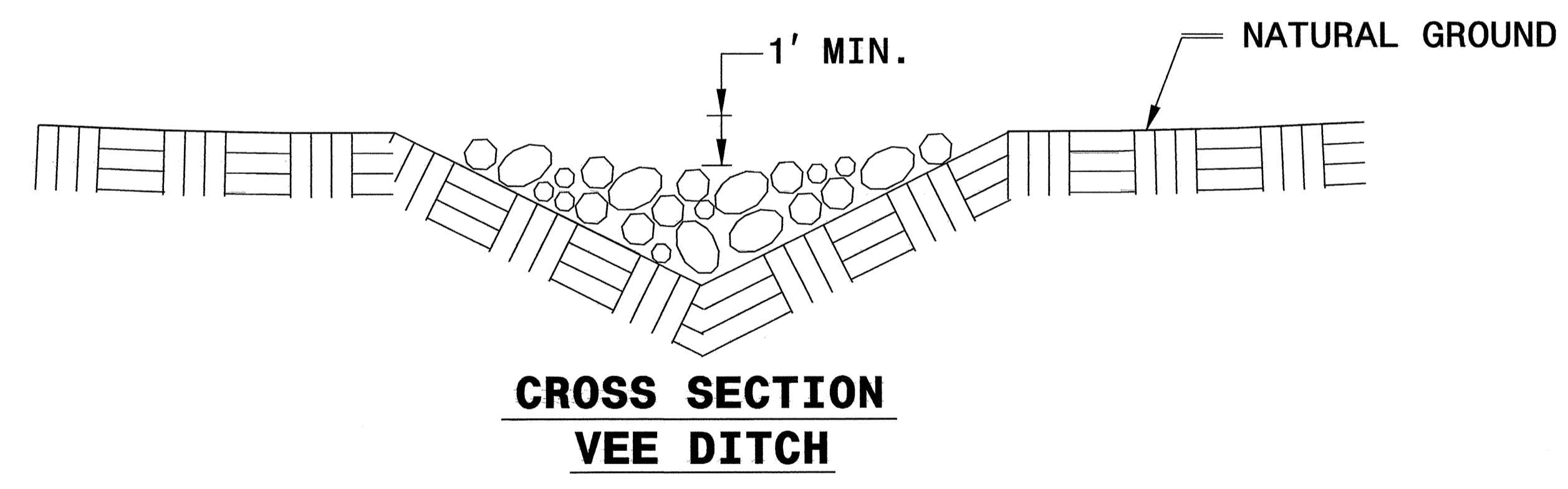
TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL



NOTES:

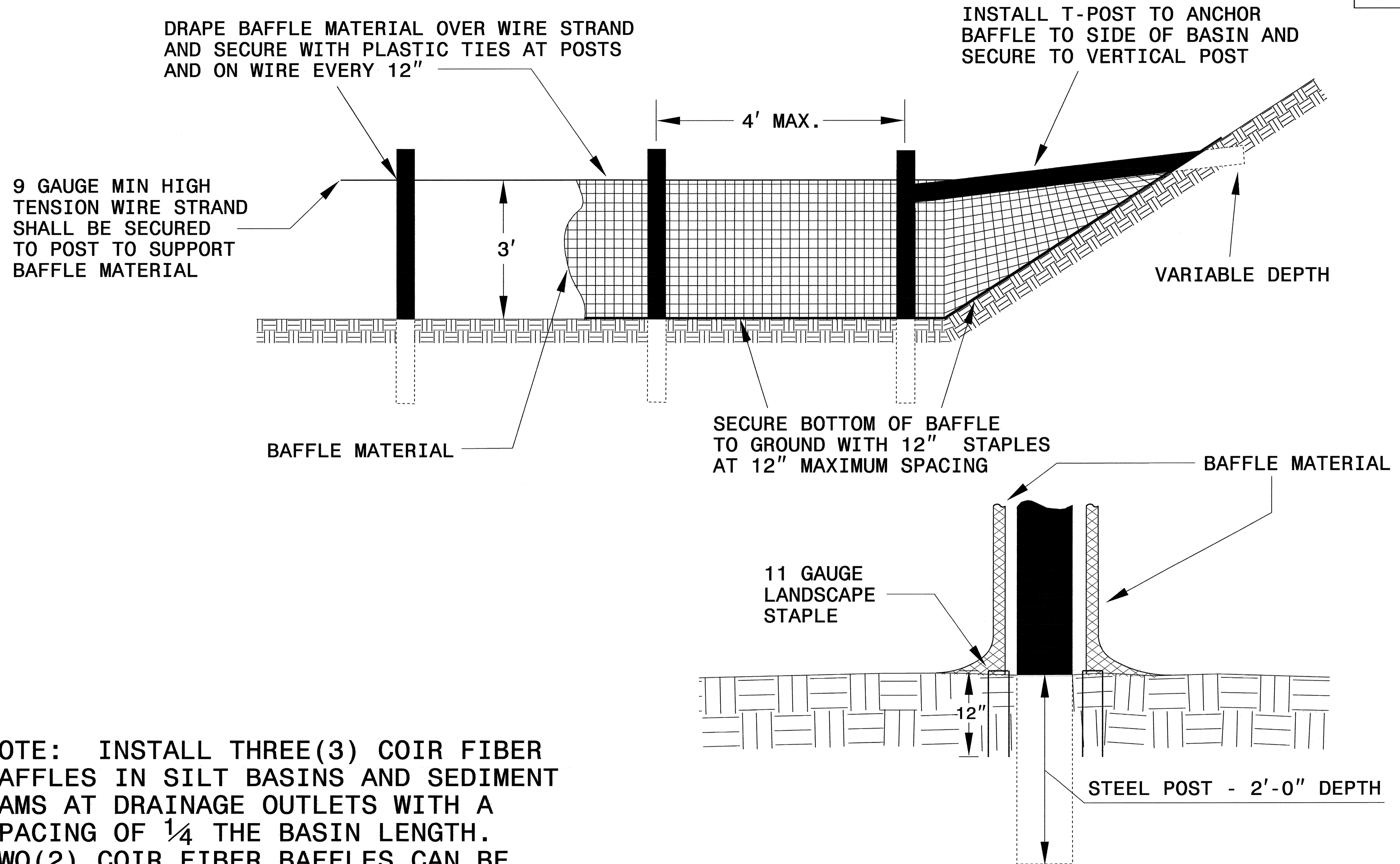
USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.

THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



PROJECT REFERENCE NO. U-3303B	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL

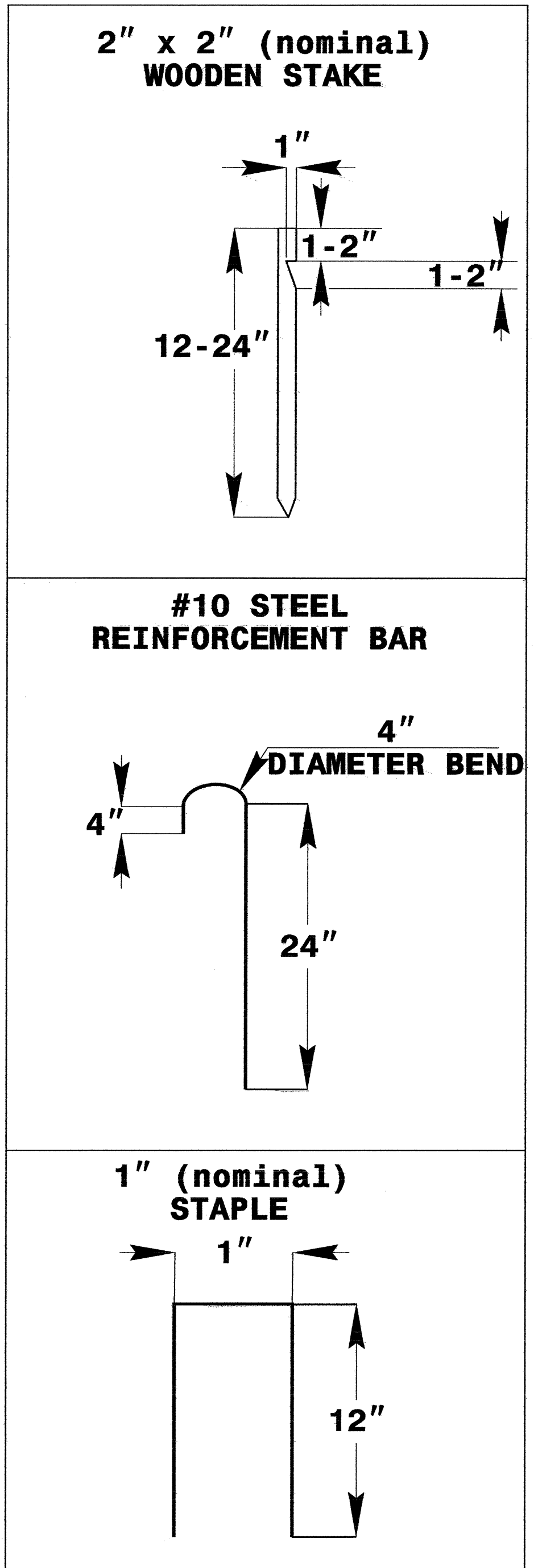
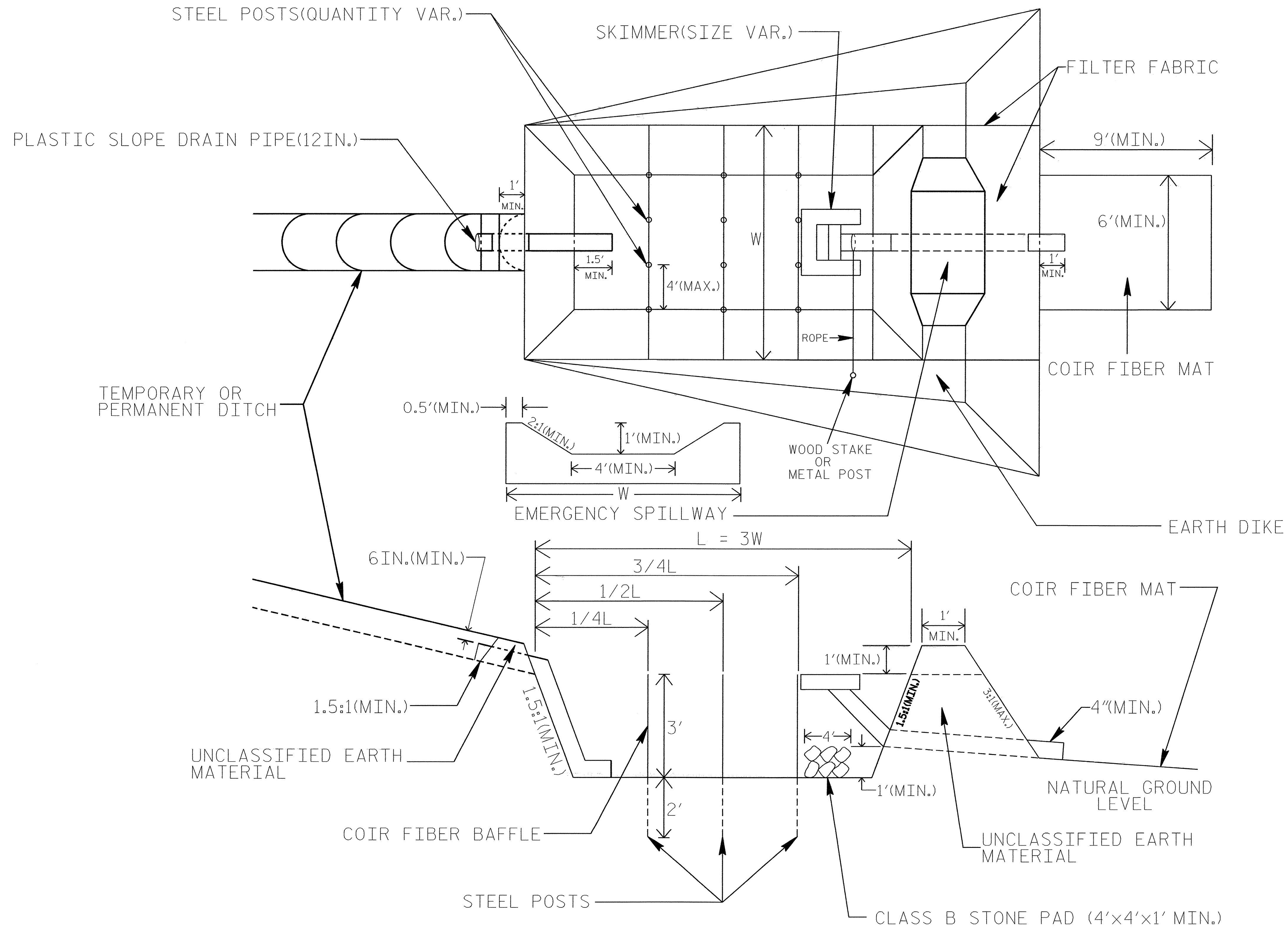


NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF $\frac{1}{4}$ THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF $\frac{1}{3}$ THE BASIN LENGTH.

BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12" LANDSCAPE STAPLES

SKIMMER BASIN WITH BAFFLES DETAIL

PROJECT REFERENCE NO. U-3303B	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



COIR FIBER MAT ANCHOR OPTIONS

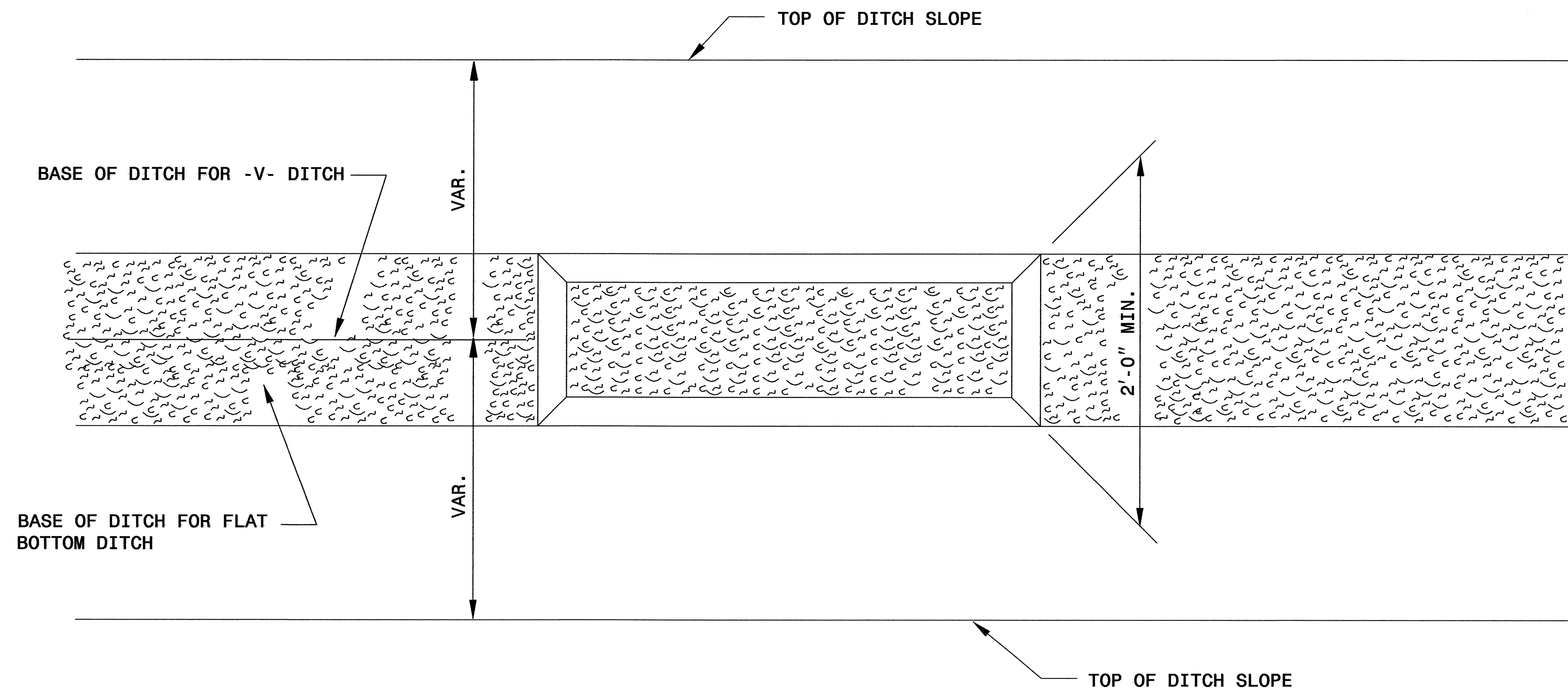
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE EMERGENCY SPILLWAY LENGTH (FT.) USING $Q/0.8$, WHERE Q IS FLOW RATE (CFS) INTO BASIN.

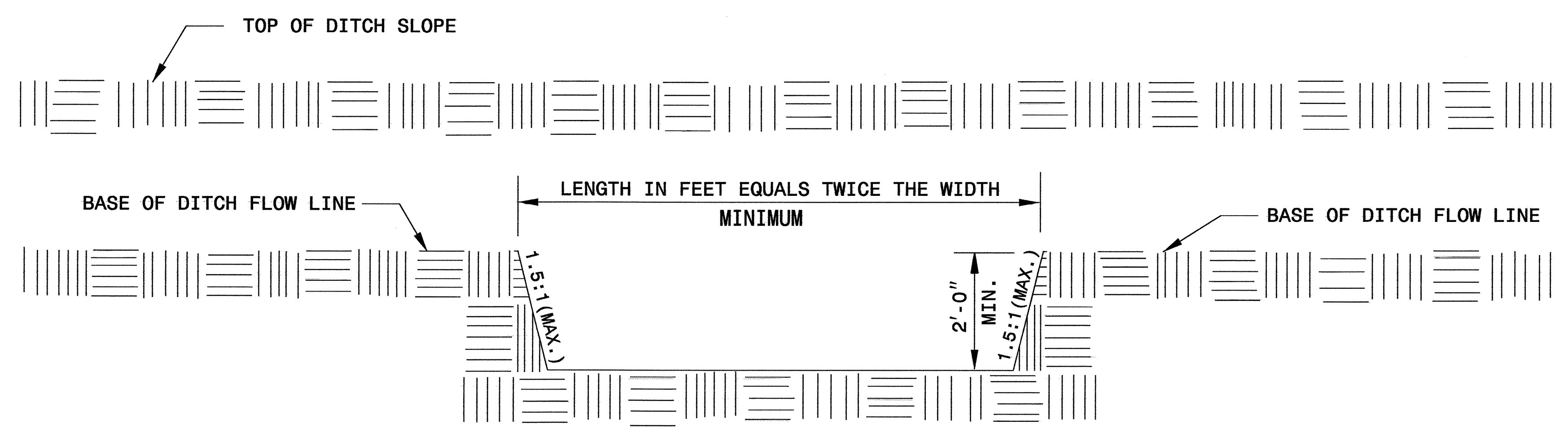
NOT TO SCALE

PROJECT REFERENCE NO. <i>U-3303B</i>	SHEET NO. <i>EC-2C</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT BASIN 'B' DETAIL



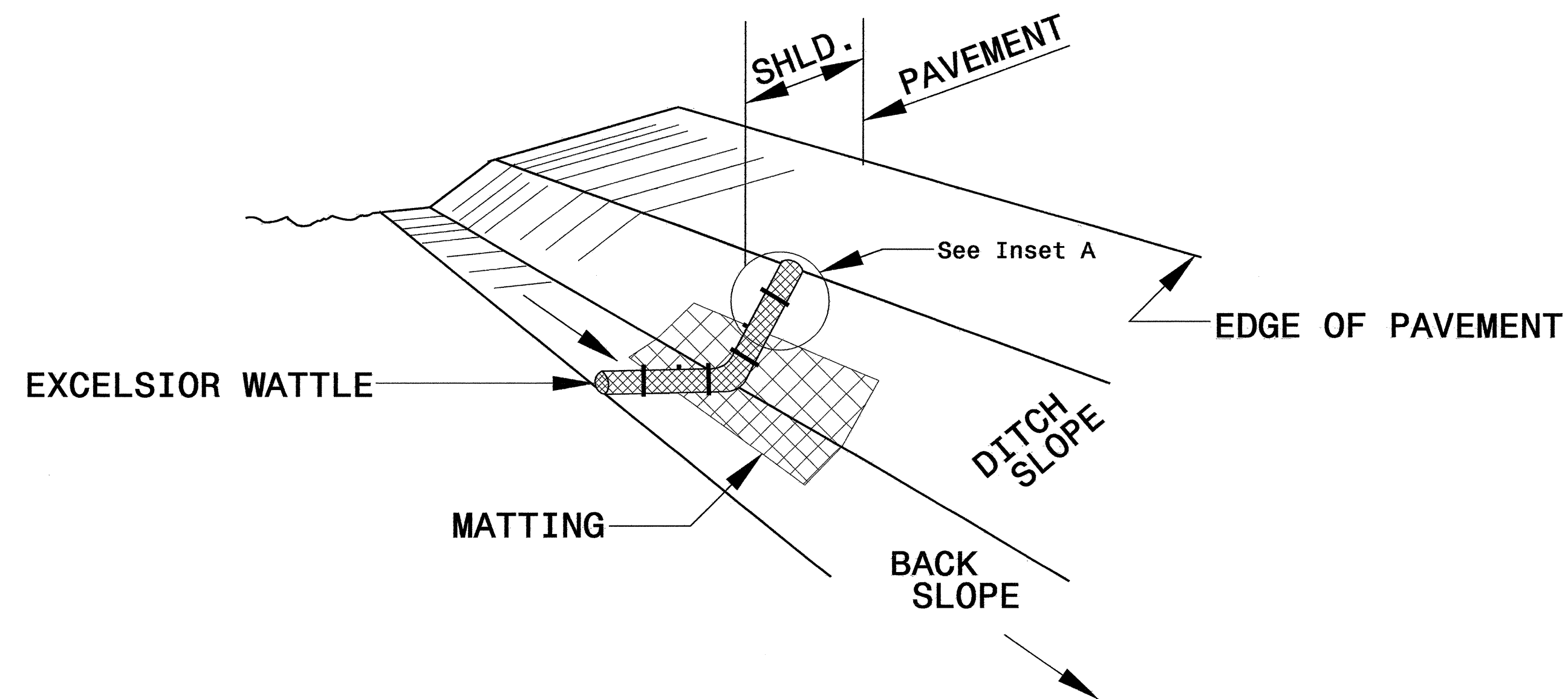
PLAN



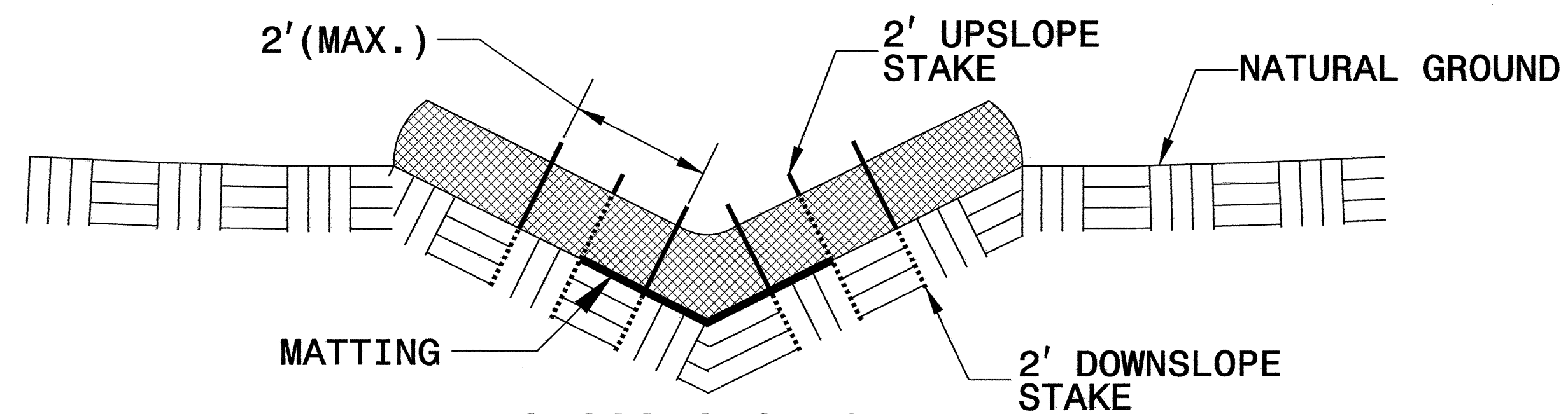
ELEVATION

PROJECT REFERENCE NO. <i>U-3303B</i>	SHEET NO. <i>EC-2D</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

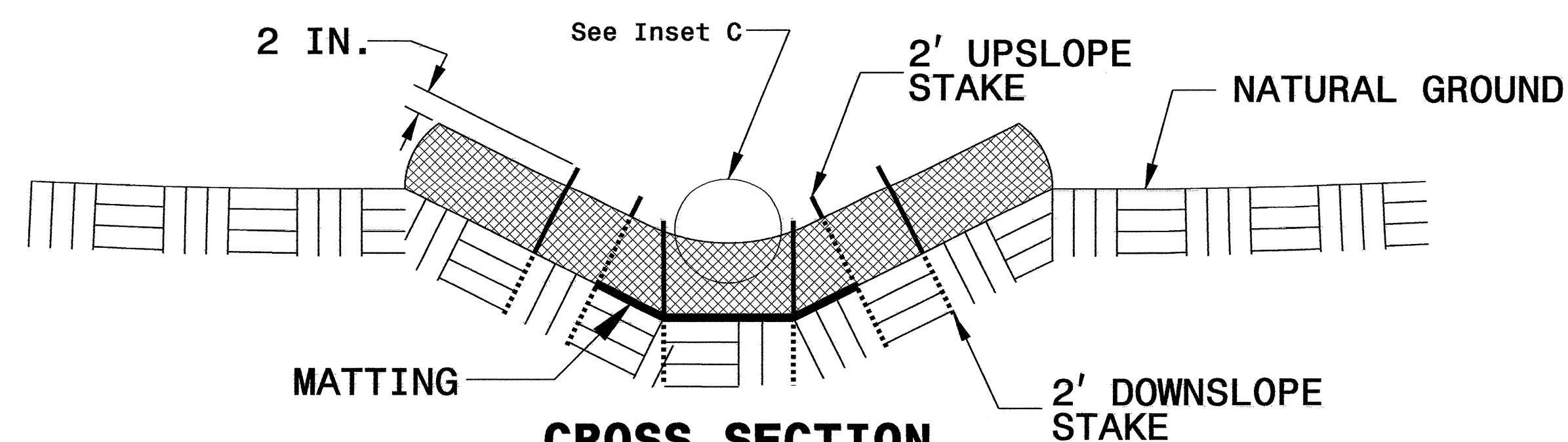
WATTLE WITH POLYACRYLAMIDE DETAIL



ISOMETRIC VIEW



**CROSS SECTION
VEE DITCH**



**CROSS SECTION
TRAPEZOIDAL DITCH**

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. CROSS SECTION.

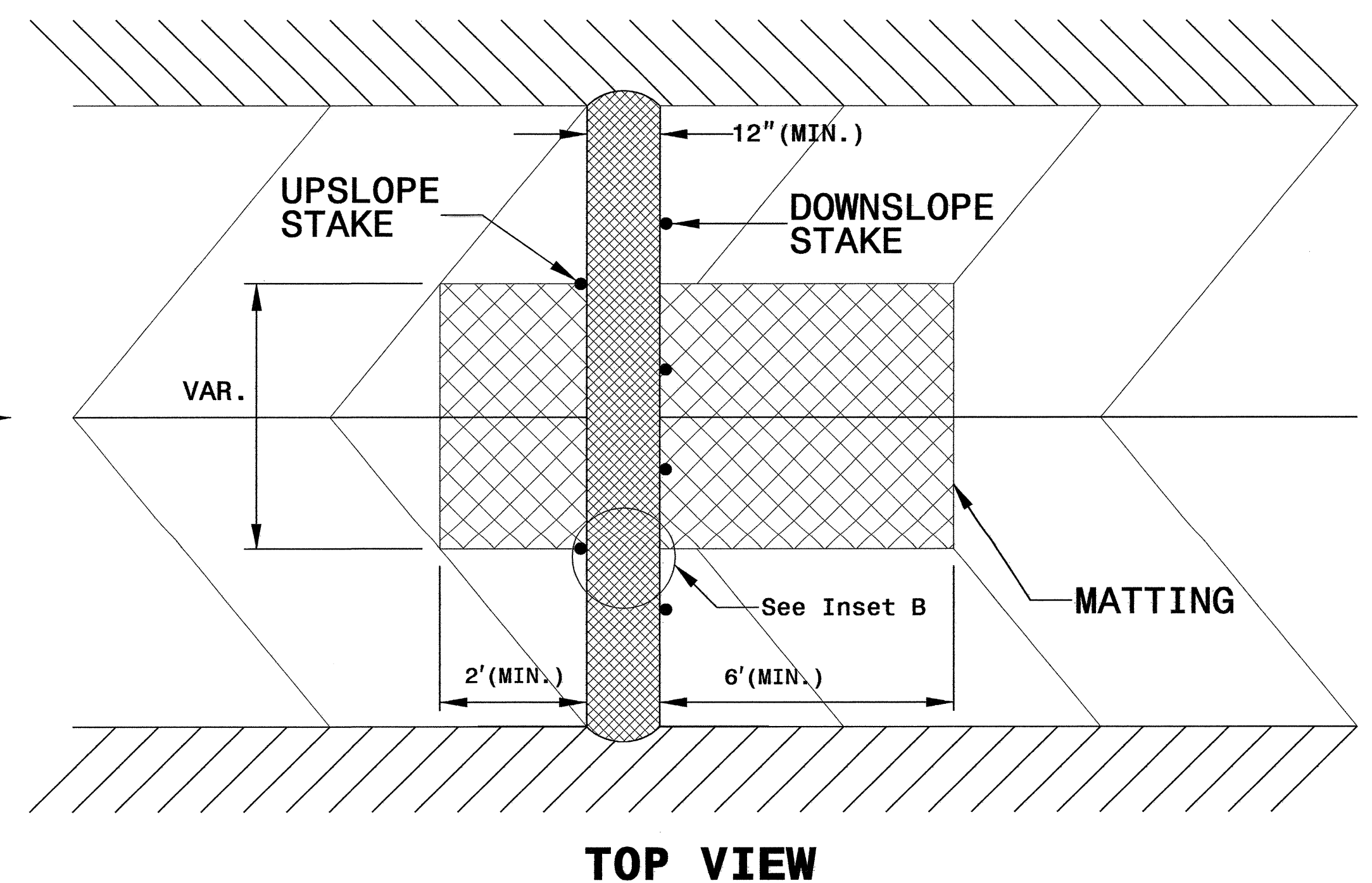
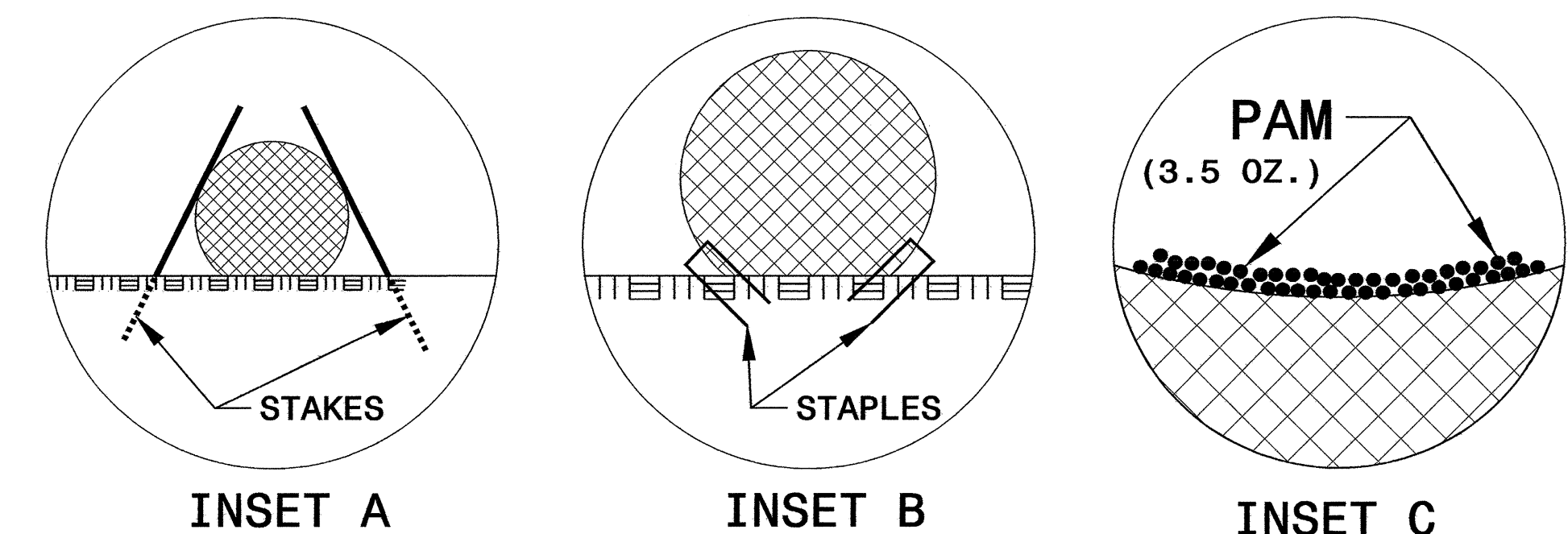
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

INITIALLY APPLY 3.5 OUNCES OF ANIONIC OR NEUTRALLY CHARGED POLYACRYLAMIDE (PAM) OVER WATTLE WHERE WATER WILL FLOW AND AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.25 IN.



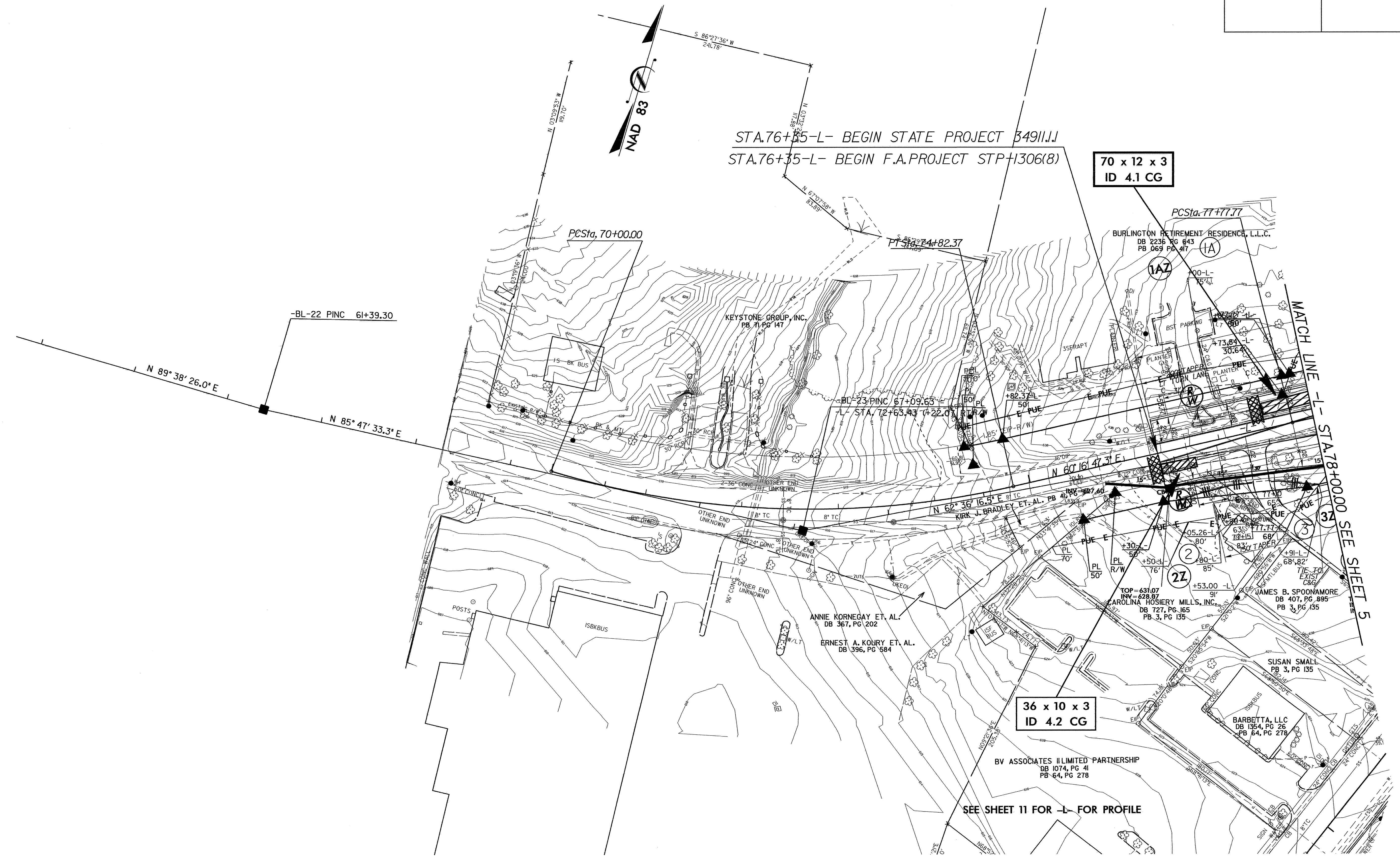
TOP VIEW

8/17/99

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

PROJECT REFERENCE NO. U-3303B		SHEET NO. EC-4/CONST.4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



STA. 76+05-L- BEGIN STATE PROJECT 34911.1
STA. 76+35-L- BEGIN F.A. PROJECT STP+1306(8)

70 x 12 x 3
ID 4.1 CG

-BL-22 PINC 61+39.30

N 89° 38' 26.0" E

N 85° 47' 33.3" E

PCSta. 70+00.00

PT 52+74+82.37

PCSta. 77+77.77

KEYSTONE GROUP, INC.
PB 71, PG 147

-BL-23 PINC 67+09.63

-L- STA. 72+63.43 (+22.0) PIR 2W

BURLINGTON RETIREMENT RESIDENCE, L.L.C.
DB 2236 PG 643
PB 069 PG 417

1AZ

MATCH LINE -L- STA. 78+00.00 SEE SHEET 5

N 60° 16' 47.3" E

N 62° 36' 16.5" E 81 TC

ANNIE KORNEGAY ET. AL.
DB 367, PG 202

ERNEST A. KOURY ET. AL.
DB 396, PG 584

JAMES B. SPOONAMORE
DB 407, PG 895
PB 3, PG 135

36 x 10 x 3
ID 4.2 CG

BV ASSOCIATES II LIMITED PARTNERSHIP
DB 1074, PG 41
PB 64, PG 278

SEE SHEET 11 FOR -L- FOR PROFILE

SUSAN SMALL
PB 3, PG 135

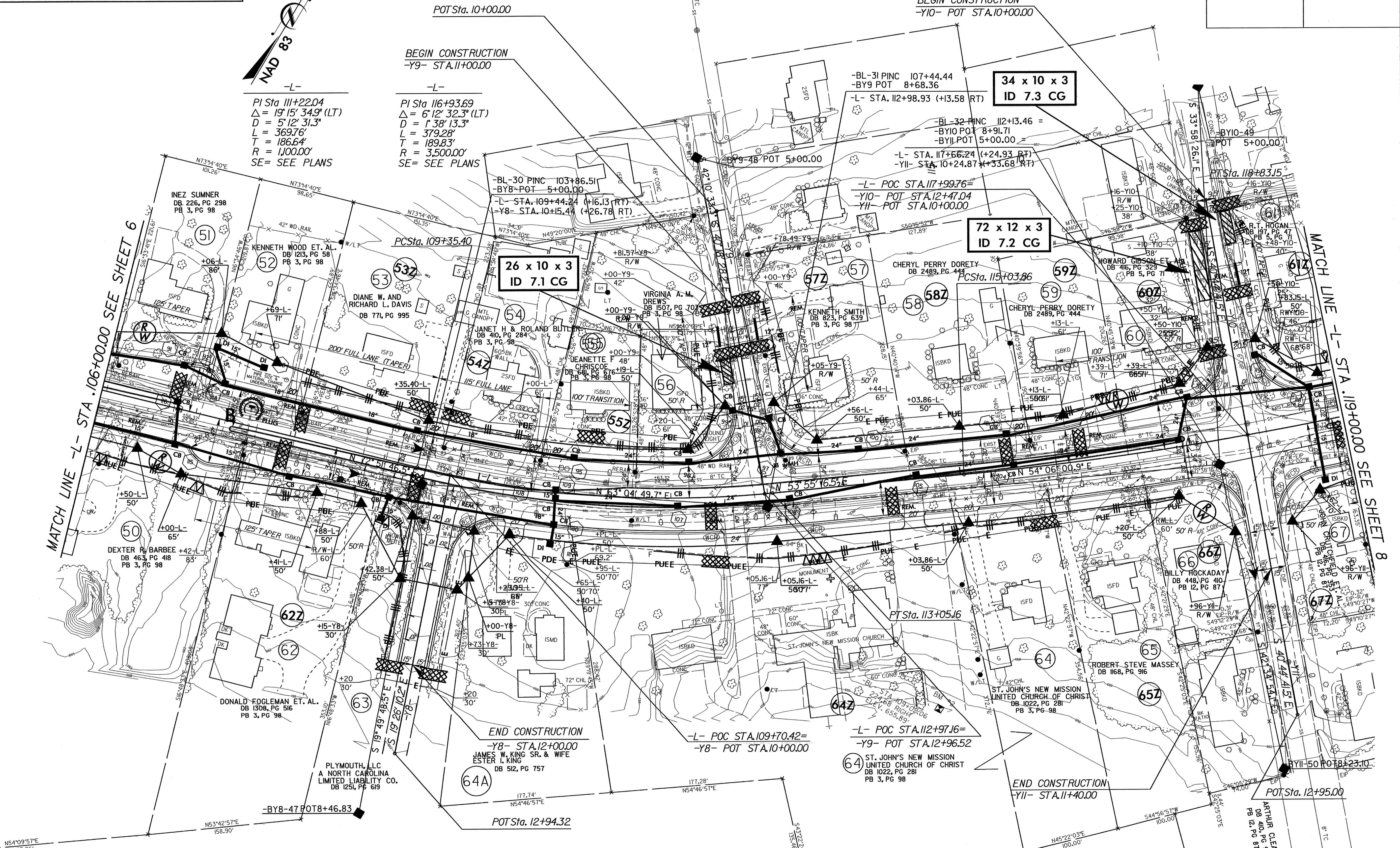
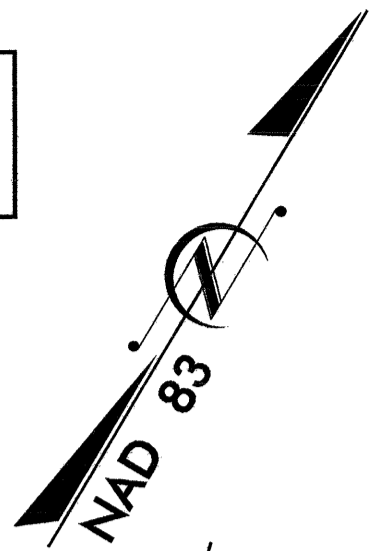
BARBETTA, LLC
DB 1354, PG 26
PB 64, PG 278

25 NOV 2008 16:28
c:\p1\proj\ec01\design\3303b.ec.4.psh
jennifere@ash

PROJECT REFERENCE NO.	SHEET NO.
U-3303B	EC-7/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.



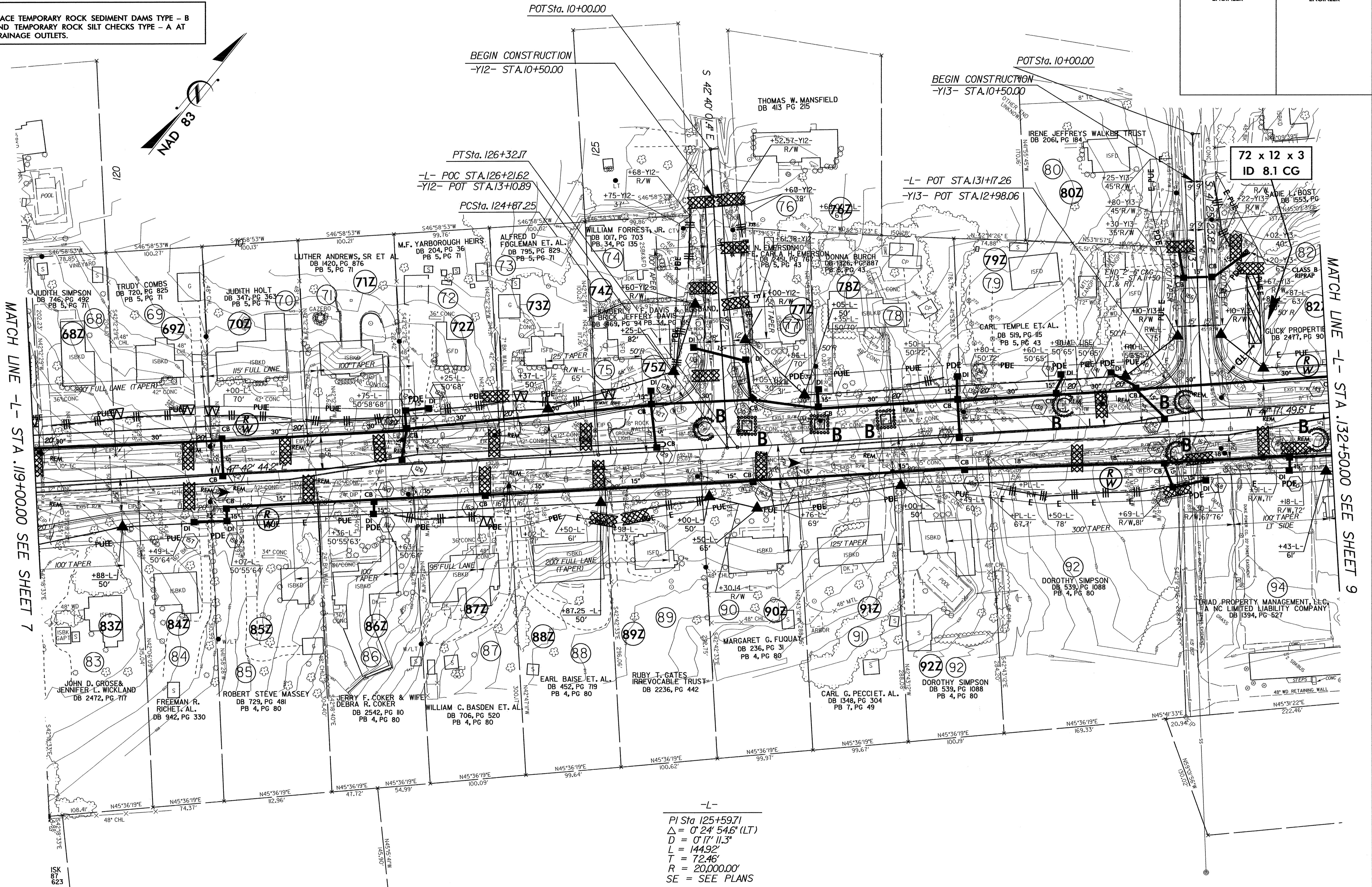
8/17/99
01-DEC-2008 14:35
P:\environmental\cgs\1230303.ec.7.psh
c:\temp\1230303

8/17/99

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

PROJECT REFERENCE NO.	SHEET NO.
U-3303B	EC-8/CONST.8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCH LINE -L- STA. 119+00.00 SEE SHEET 7

MATCH LINE -L- STA. 132+50.00 SEE SHEET 9

-L-

PI Sta 125+59.71
 $\Delta = 0' 24' 54.6\"$ (LT)
 $D = 0' 17' 11.3\"$
 $L = 144.92'$
 $T = 72.46'$
 $R = 20,000.00'$
 $SE = \text{SEE PLANS}$

SEE SHEET 2-J FOR -Y12- & -Y13- INTERSECTION DETAIL
 SEE SHEET 12 & 13 FOR -L- PROFILE
 SEE SHEET 16 FOR -Y12- & -Y13- PROFILES

01-DEC-2008 15:38
 L:\proj\103303b.ec-8.psh
 L:\proj\103303b.ec-8.psh

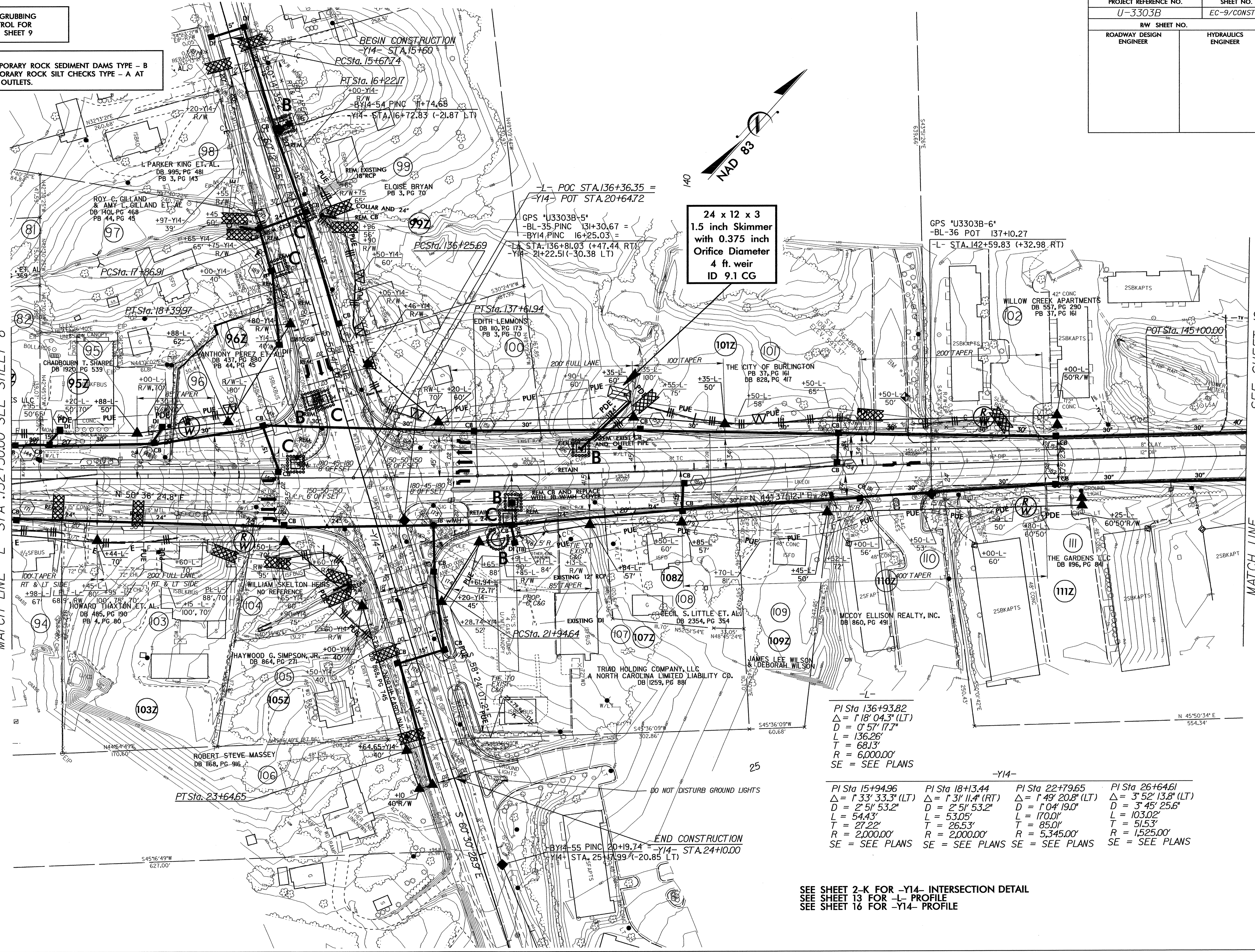
PROJECT REFERENCE NO.	SHEET NO.
U-3303B	EC-9/CONST-9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

MATCH LINE -L- STA. 132+50.00 SEE SHEET 8

SEE SHEET 10
MATCH LINE



24 x 12 x 3
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
4 ft. weir
ID 9.1 CG

PI Sta 136+93.82
Δ = 1' 18" 04.3" (LT)
D = 0' 57' 17.7"
L = 136.26'
T = 68.13'
R = 6,000.00'
SE = SEE PLANS

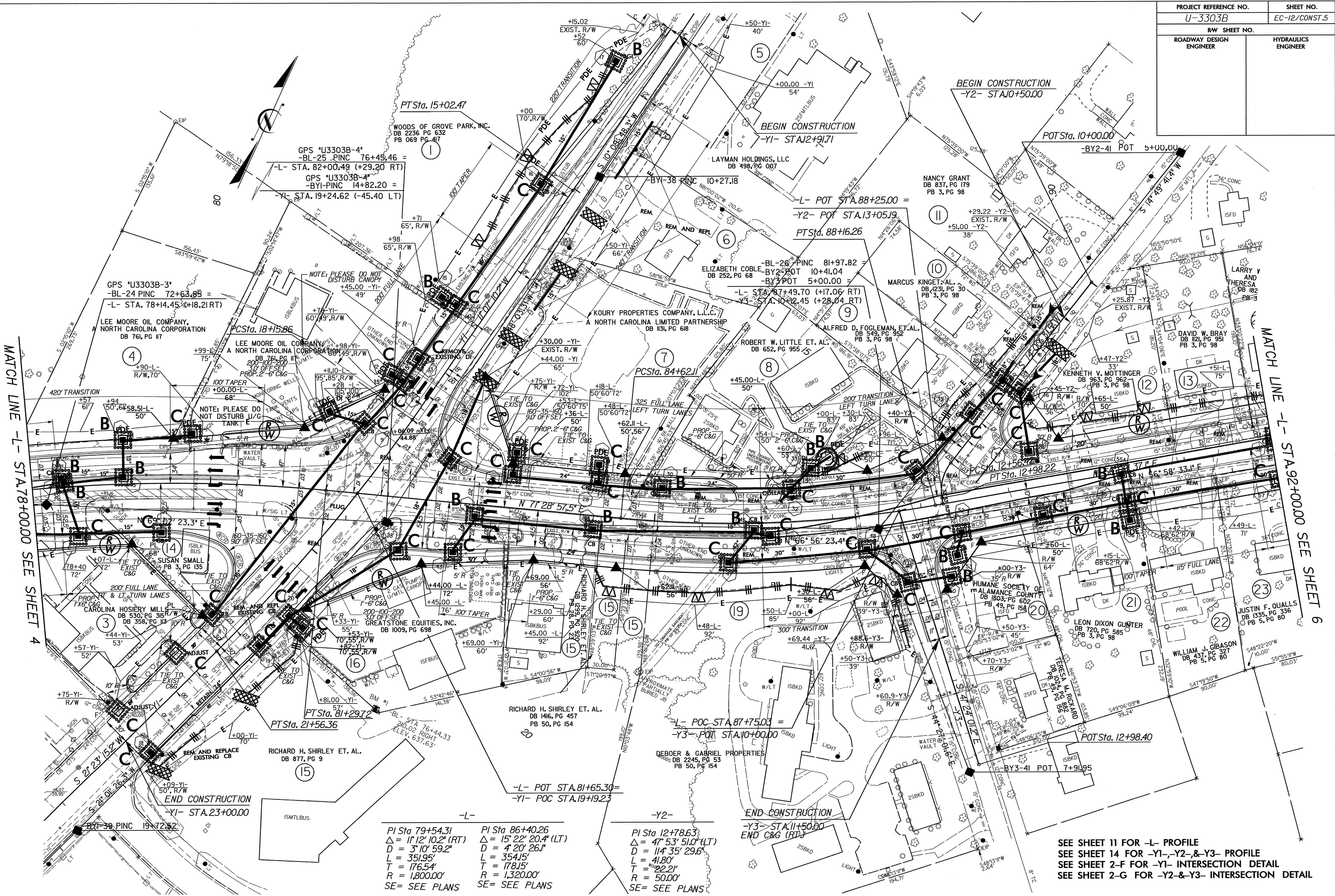
PI Sta 15+94.96 Δ = 1' 33' 33.3" (LT) D = 2' 51' 53.2" L = 54.43' T = 27.22' R = 2,000.00' SE = SEE PLANS	PI Sta 18+13.44 Δ = 1' 31' 11.4" (RT) D = 2' 51' 53.2" L = 53.05' T = 26.53' R = 2,000.00' SE = SEE PLANS	PI Sta 22+79.65 Δ = 1' 49' 20.8" (LT) D = 1' 04' 19.0" L = 170.01' T = 85.01' R = 5,345.00' SE = SEE PLANS	PI Sta 26+64.61 Δ = 3' 52' 13.8" (LT) D = 3' 45' 25.6" L = 103.02' T = 51.53' R = 1,525.00' SE = SEE PLANS
---	---	--	--

SEE SHEET 2-K FOR -Y14- INTERSECTION DETAIL
SEE SHEET 13 FOR -L- PROFILE
SEE SHEET 16 FOR -Y14- PROFILE

8/17/99
01-DEC-2008 14:33
L:\miller\p2003\sh\design\U3303B.ec_9.rps
L:\miller\p2003\sh\design\U3303B.ec_9.rps

8/17/99

PROJECT REFERENCE NO.		SHEET NO.	
U-3303B		EC-12/CONST.5	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

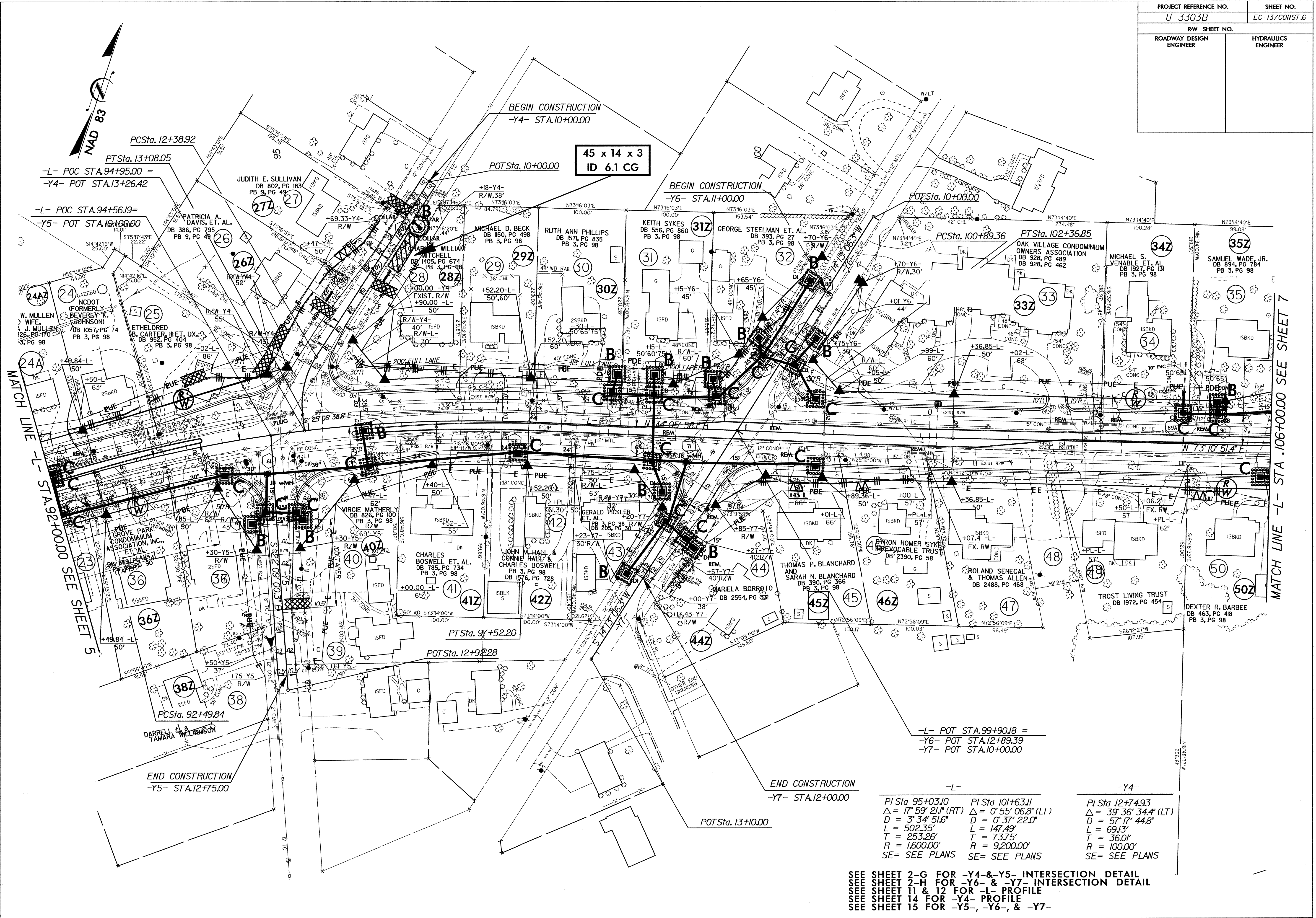


-L- PI Sta 79+54.31 $\Delta = 11' 12' 10.2" (RT)$ $D = 3' 10' 59.2"$ $L = 351.95'$ $T = 176.54'$ $R = 1,800.00'$ SE= SEE PLANS	-L- PI Sta 86+40.26 $\Delta = 15' 22' 20.4" (LT)$ $D = 4' 20' 26.1"$ $L = 354.15'$ $T = 178.15'$ $R = 1,320.00'$ SE= SEE PLANS	-Y2- PI Sta 12+78.63 $\Delta = 47' 53' 51.0" (LT)$ $D = 11' 35' 29.6"$ $L = 41.80'$ $T = 22.21'$ $R = 50.00'$ SE= SEE PLANS
---	---	--

SEE SHEET 11 FOR -L- PROFILE
 SEE SHEET 14 FOR -Y1-, -Y2-, & -Y3- PROFILE
 SEE SHEET 2-F FOR -Y1- INTERSECTION DETAIL
 SEE SHEET 2-G FOR -Y2- & -Y3- INTERSECTION DETAIL

01-DEC-2008 14:33: design\13303b.ec.5.psh
 14:33: design\13303b.ec.5.psh
 14:33: design\13303b.ec.5.psh

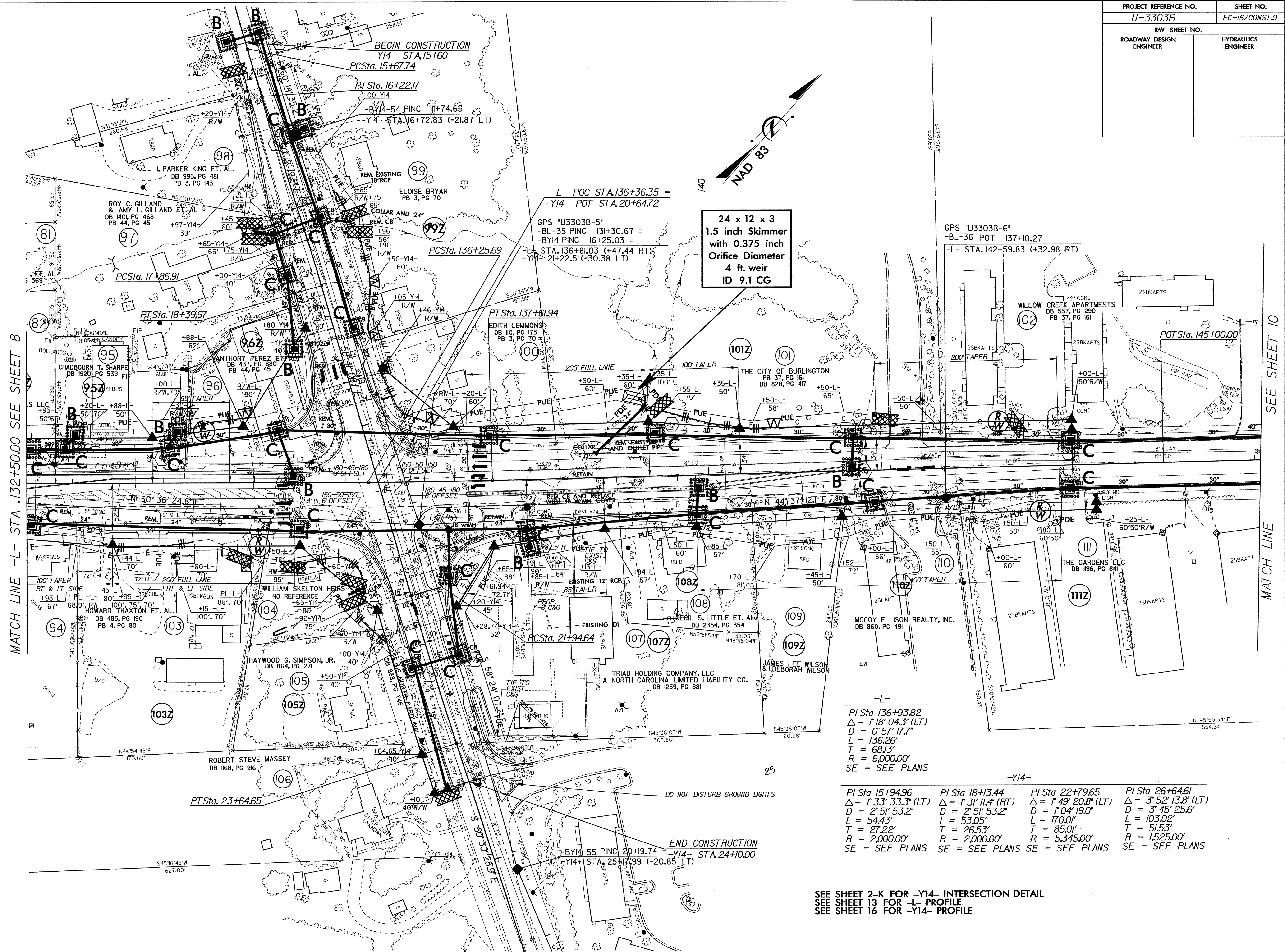
PROJECT REFERENCE NO.		SHEET NO.	
U-3303B		EC-13/CONST.6	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



01-DEC-2008 14:34
 C:\Users\jg\Documents\U-3303B.ec_6.psh
 JG

SEE SHEET 2-G FOR -Y4- & -Y5- INTERSECTION DETAIL
 SEE SHEET 2-H FOR -Y6- & -Y7- INTERSECTION DETAIL
 SEE SHEET 11 & 12 FOR -L- PROFILE
 SEE SHEET 14 FOR -Y4- PROFILE
 SEE SHEET 15 FOR -Y5-, -Y6-, & -Y7-

PROJECT REFERENCE NO.		SHEET NO.	
U-3303B		EC-16/CONST.9	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



24 x 12 x 3
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
4 ft. weir
ID 9.1 CG

-L-
PI Sta 136+93.82
Δ = 1' 18" 04.3" (LT)
D = 0' 57" 17.7"
L = 136.26'
T = 68.13'
R = 6,000.00'
SE = SEE PLANS

-Y14-
PI Sta 15+94.96 Δ = 1' 33" 33.3" (LT) D = 2' 51" 53.2" L = 54.43' T = 27.22' R = 2,000.00' SE = SEE PLANS
PI Sta 18+3.44 Δ = 1' 31" 11.4" (RT) D = 2' 51" 53.2" L = 53.05' T = 26.53' R = 2,000.00' SE = SEE PLANS
PI Sta 22+79.65 Δ = 1' 49" 20.8" (LT) D = 1' 04" 19.0" L = 170.01' T = 85.01' R = 5,345.00' SE = SEE PLANS
PI Sta 26+64.61 Δ = 3' 52" 13.8" (LT) D = 3' 45" 25.6" L = 103.02' T = 51.53' R = 1,525.00' SE = SEE PLANS

SEE SHEET 2-K FOR -Y14- INTERSECTION DETAIL
SEE SHEET 13 FOR -L- PROFILE
SEE SHEET 16 FOR -Y14- PROFILE

8/17/09

01-DEC-2008 15:39
C:\Users\jgiles\Documents\U3303B.ec_9.psh
JGILES

MATCH LINE -L- STA. 132+50.00 SEE SHEET 8

SEE SHEET 10

MATCH LINE

PROJECT REFERENCE NO.	SHEET NO.
U-3303B	EC-17/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

