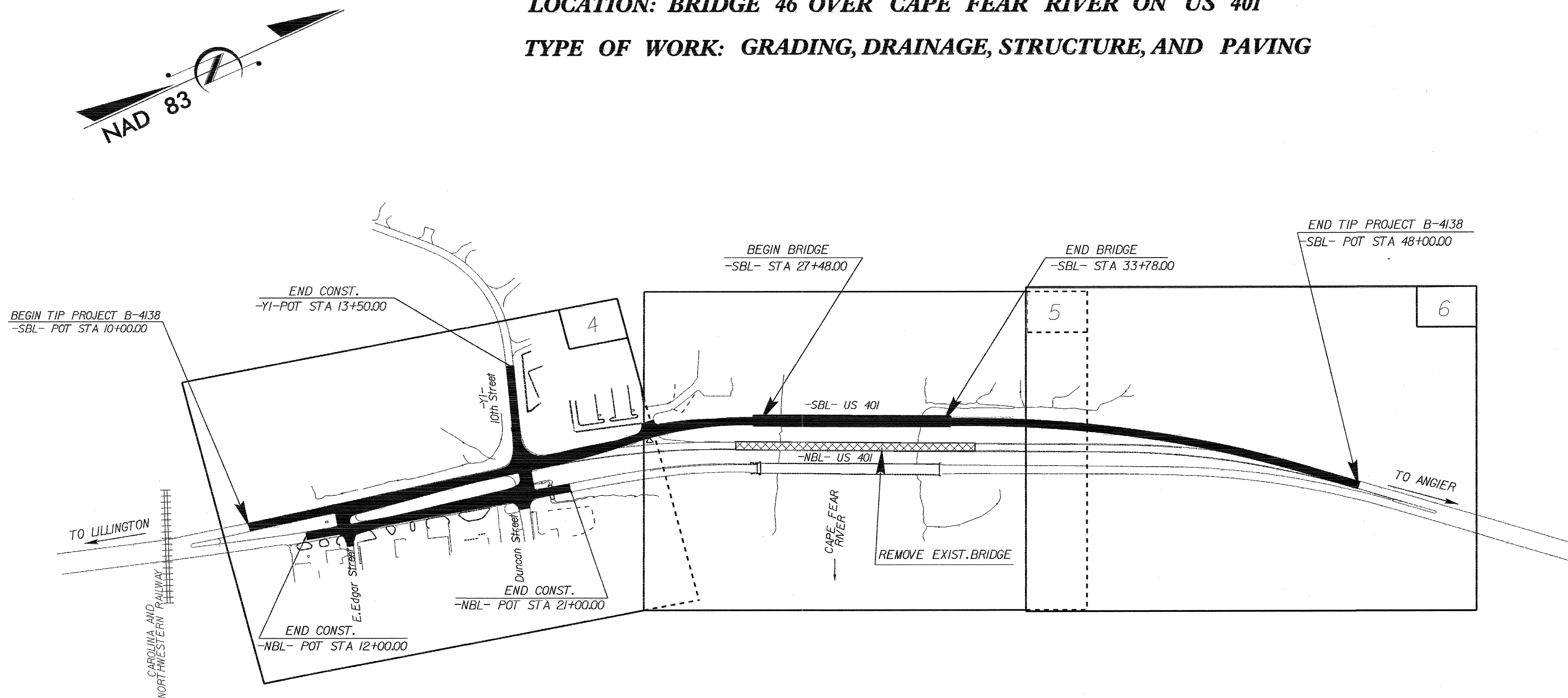


**TIP PROJECT: B-4138**

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

LOCATION: BRIDGE 46 OVER CAPE FEAR RIVER ON US 401  
 TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE, AND PAVING



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4138	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

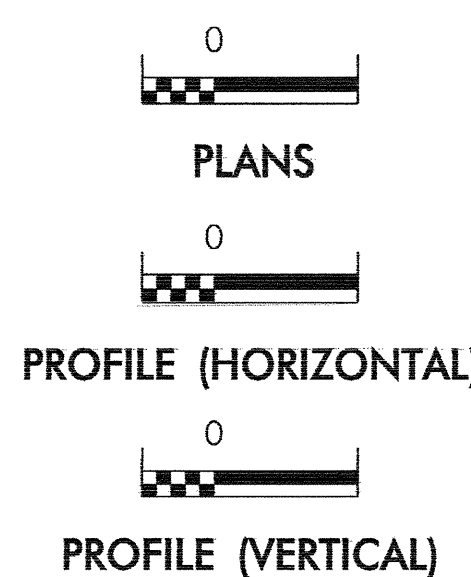
**EROSION AND SEDIMENT CONTROL MEASURES**

Std. #	Description	Symbol
1630.05	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	III III III
1622.01	Temporary Berms and Slope Drains	III III III
	Silt Basin Type B	III III III
1635.01	Temporary Rock Silt Check Type-A	III III III
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	III III III
	Temporary Rock Silt Check Type-B	III III III
	Wattle / Coir Fiber Wattle	III III III
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	III III III
1634.01	Temporary Rock Sediment Dam Type-A	III III III
1634.02	Temporary Rock Sediment Dam Type-B	III III III
1635.01	Rock Pipe Inlet Sediment Trap Type-A	III III III
1635.02	Rock Pipe Inlet Sediment Trap Type-B	III III III
1630.04	Stilling Basin	III III III
1630.06	Special Stilling Basin	III III III
	Rock Inlet Sediment Trap:	
1632.01	Type A	III III III
1632.02	Type B	III III III
1632.03	Type C	III III III
	Skimmer Basin	III III III
	Tiered Skimmer Basin	III III III
	Infiltration Basin	III III III

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

**ENVIRONMENTALLY  
 SENSITIVE AREA(S) EXIST  
 ON THIS PROJECT**  
 Refer To E. C. Special Provisions  
 for Special Considerations.

**GRAPHIC SCALE**



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**

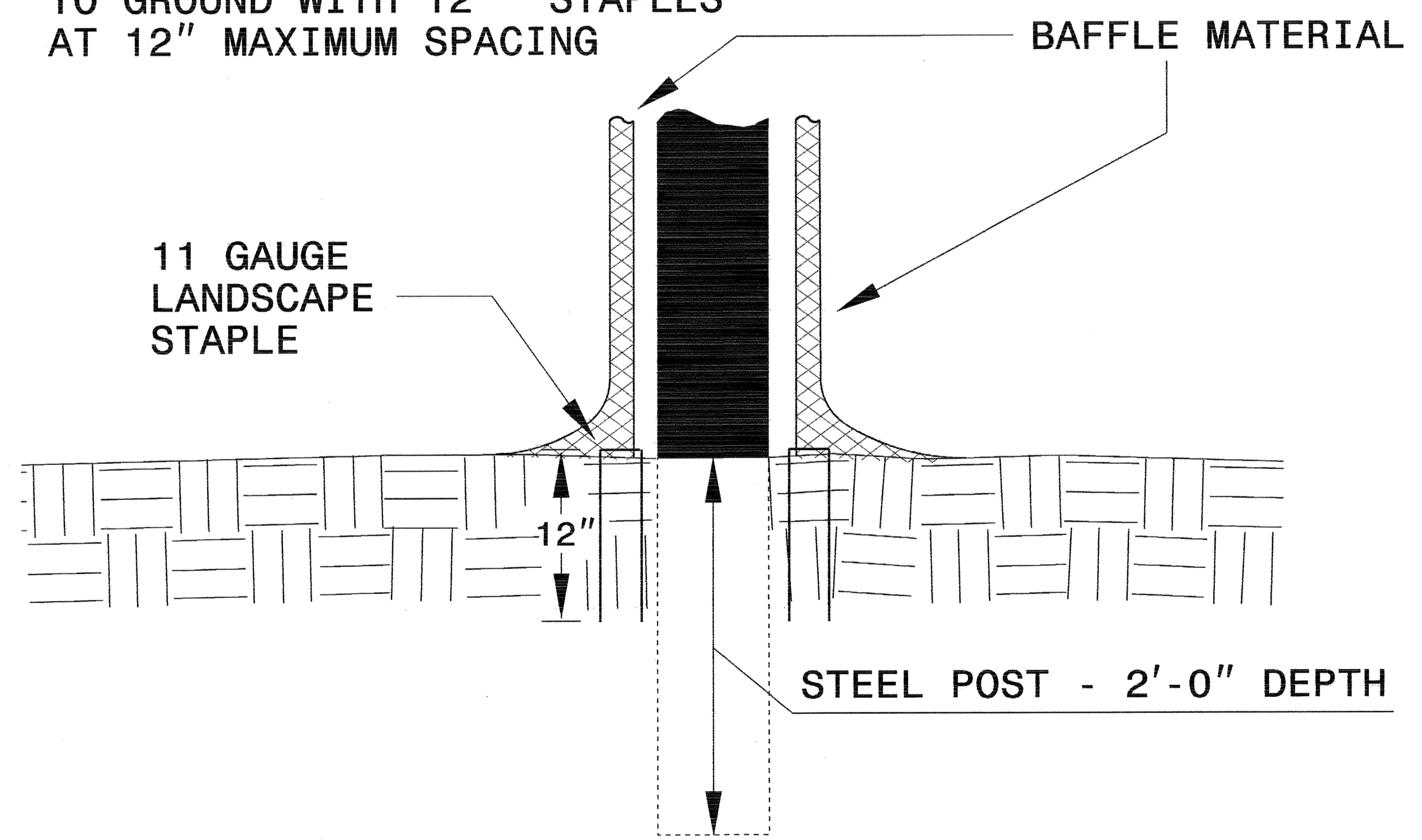
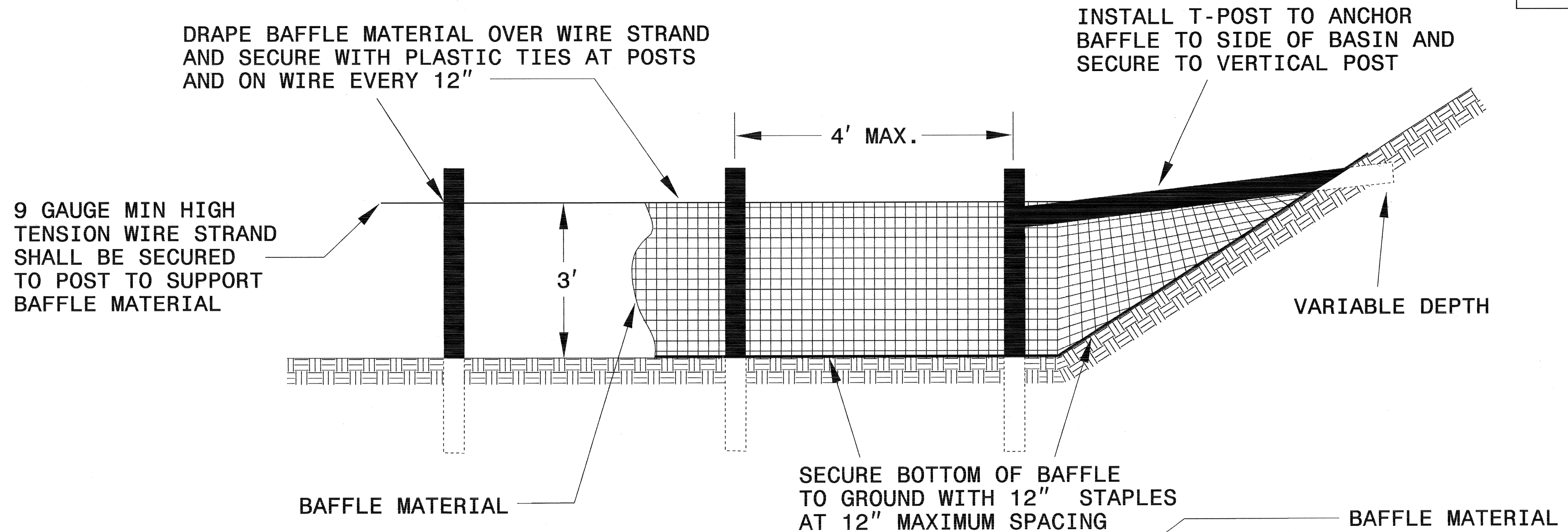
**Roadway Standard Drawings**

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             | 1632.01 Rock Inlet Sediment Trap Type A      |
| 1606.01 Special Sediment Control Fence   | 1632.02 Rock Inlet Sediment Trap Type B      |
| 1607.01 Gravel Construction Entrance     | 1632.03 Rock Inlet Sediment Trap Type C      |
| 1622.01 Temporary Berms and Slope Drains | 1633.01 Temporary Rock Silt Check Type A     |
| 1630.03 Temporary Silt Ditch             | 1634.01 Temporary Rock Sediment Dam Type A   |
| 1630.05 Temporary Diversion              | 1635.01 Rock Pipe Inlet Sediment Trap Type A |
| 1630.06 Special Stilling Basin           |  |

PROJECT REFERENCE NO. B-4138	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# COIR FIBER BAFFLE DETAIL



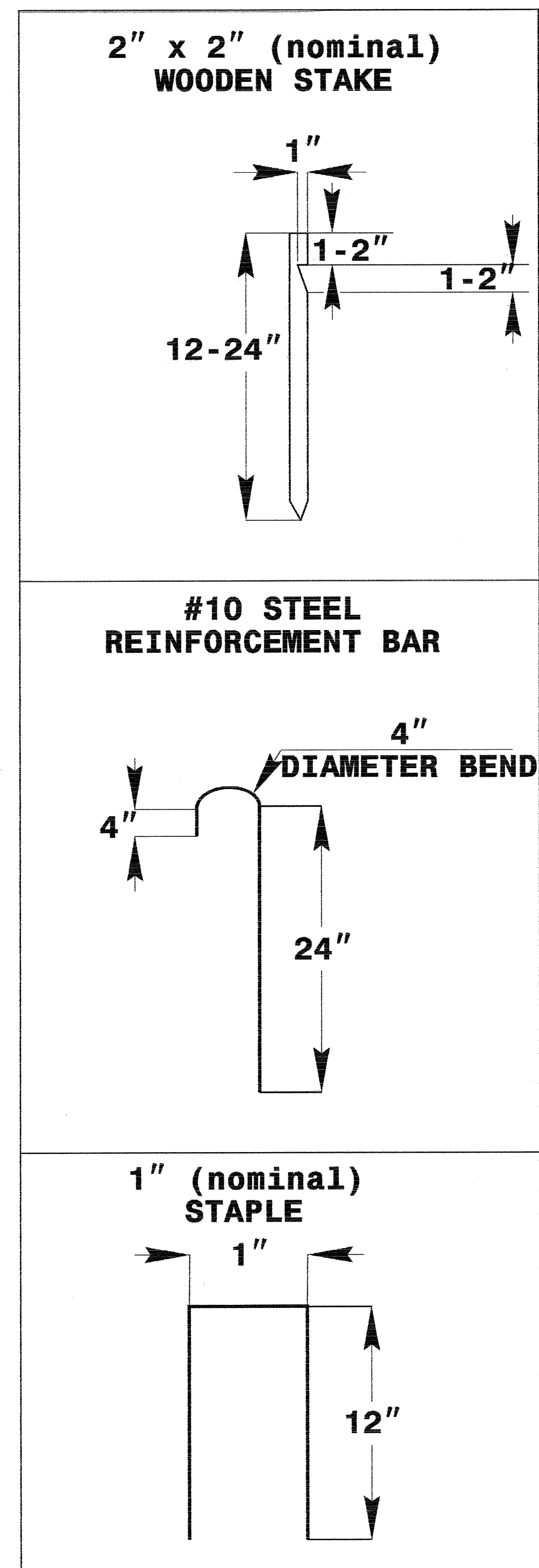
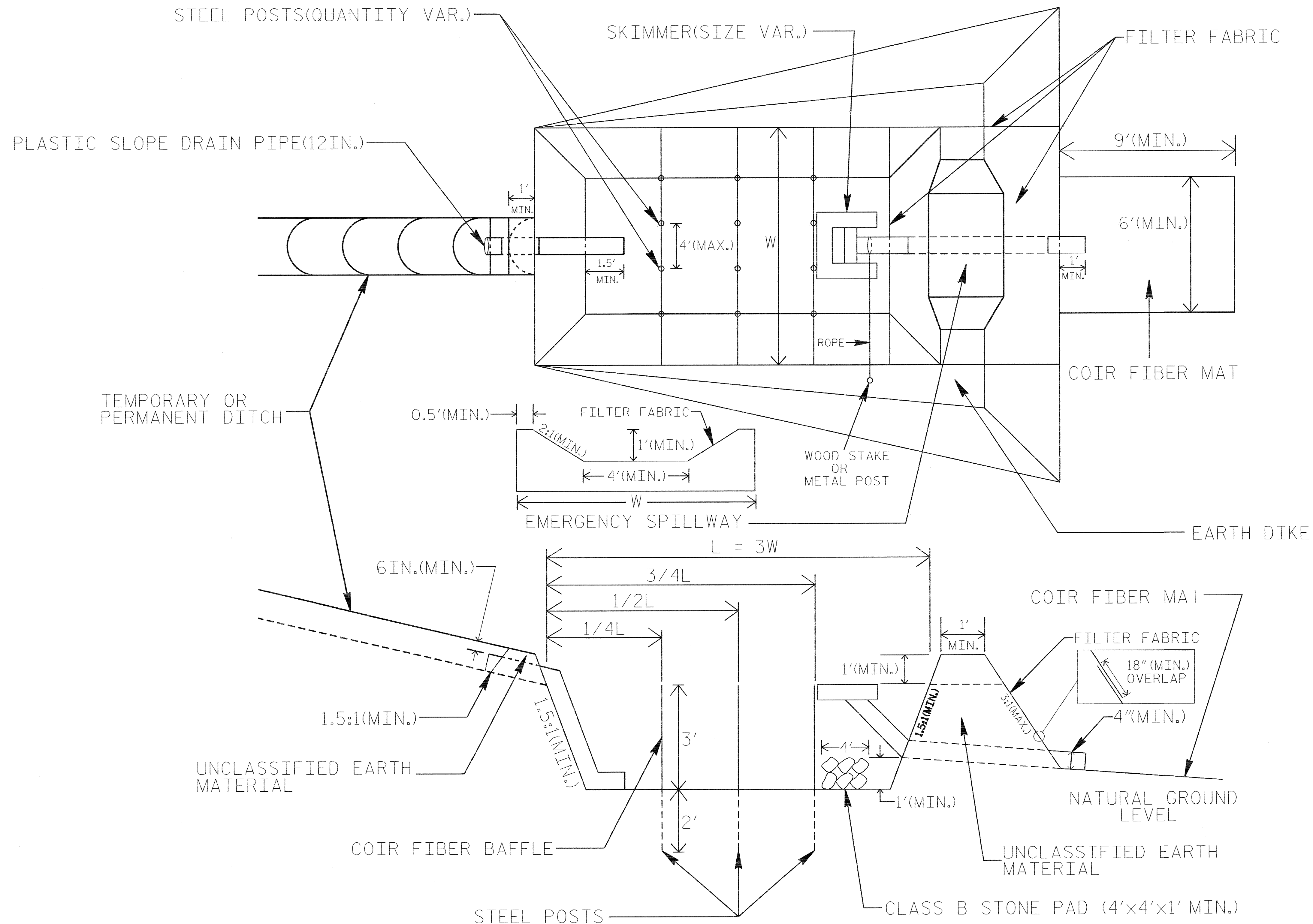
**NOTES:**

1. 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.
2. 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.
3. TOP HEIGHT OF COIR FIBER BAFFLES SHALL NOT BE BELOW BASE OF EMERGENCY SPILLWAY ELEVATION.

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

# SKIMMER BASIN WITH BAFFLES DETAIL

PROJECT REFERENCE NO. B-4138	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



## COIR FIBER MAT ANCHOR OPTIONS

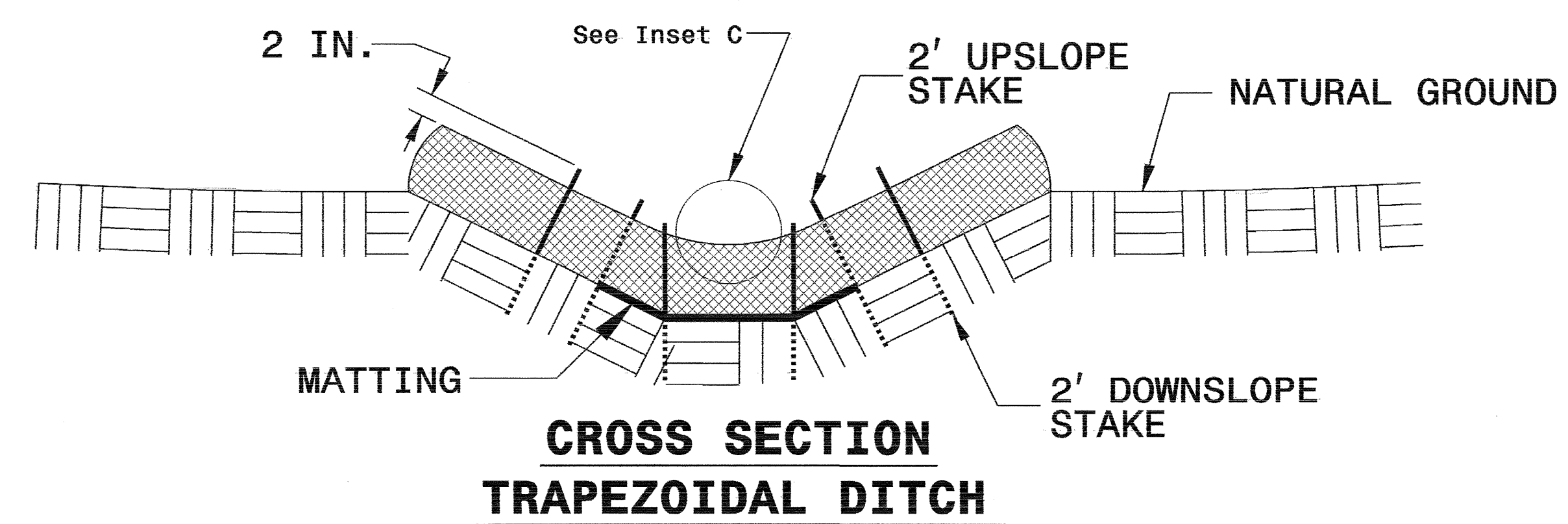
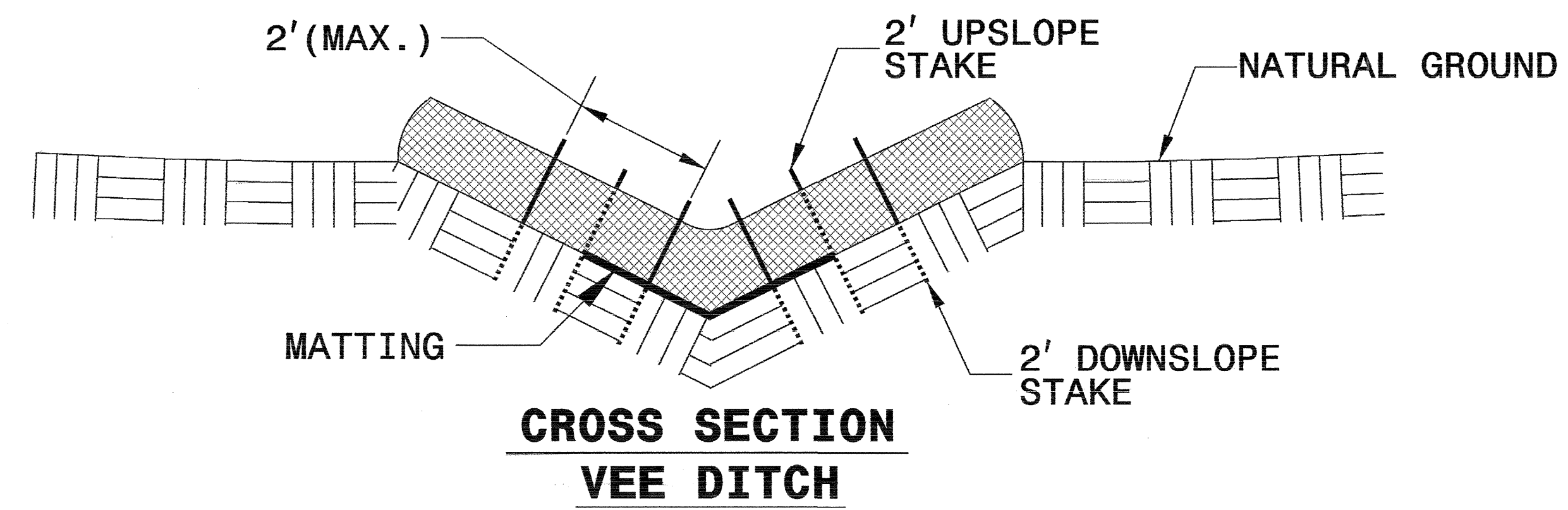
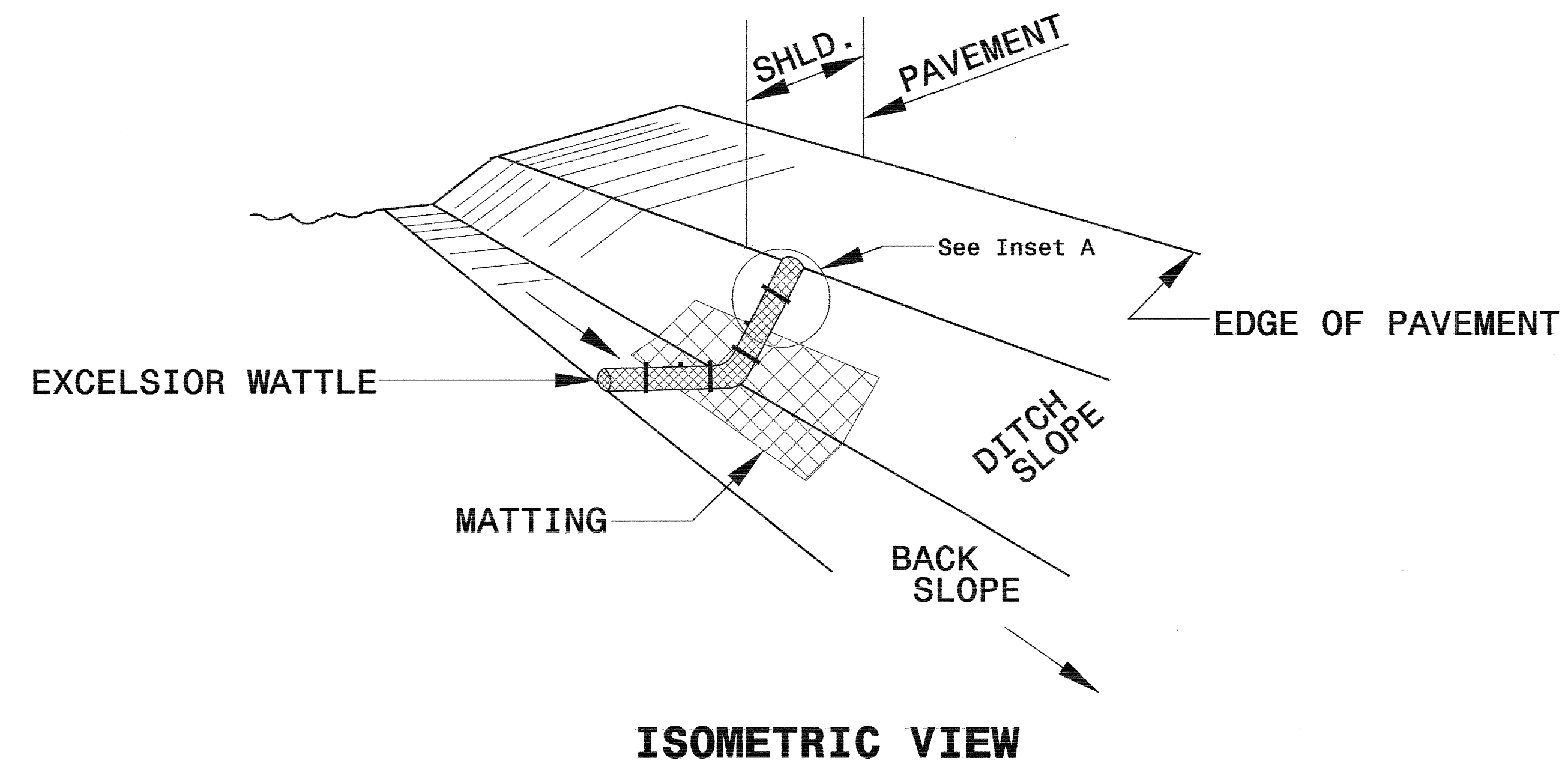
### NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., 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.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTER FABRIC AS DIRECTED.
6. FILTER FABRIC FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18" (MIN.) AS SHOWN.

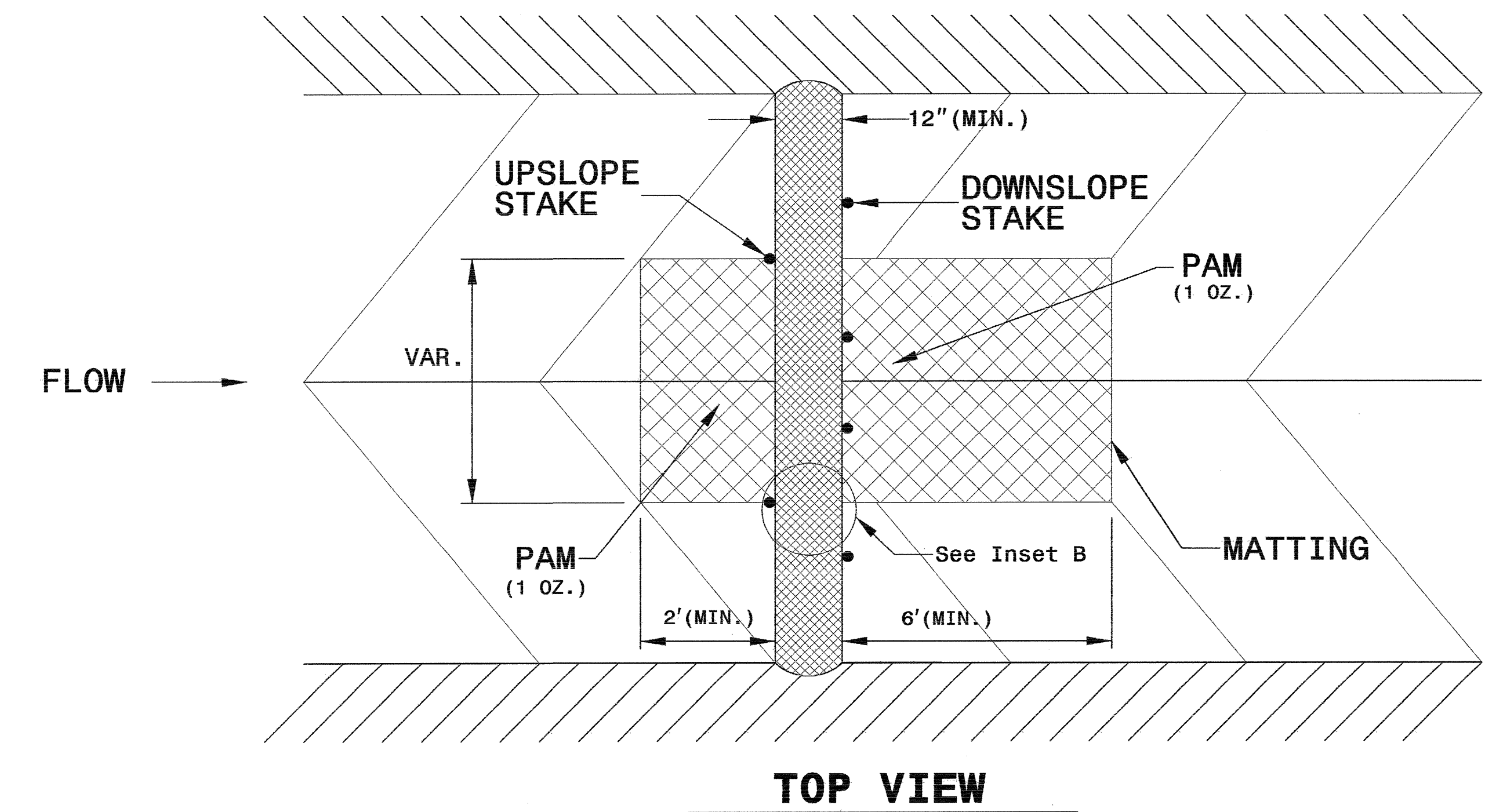
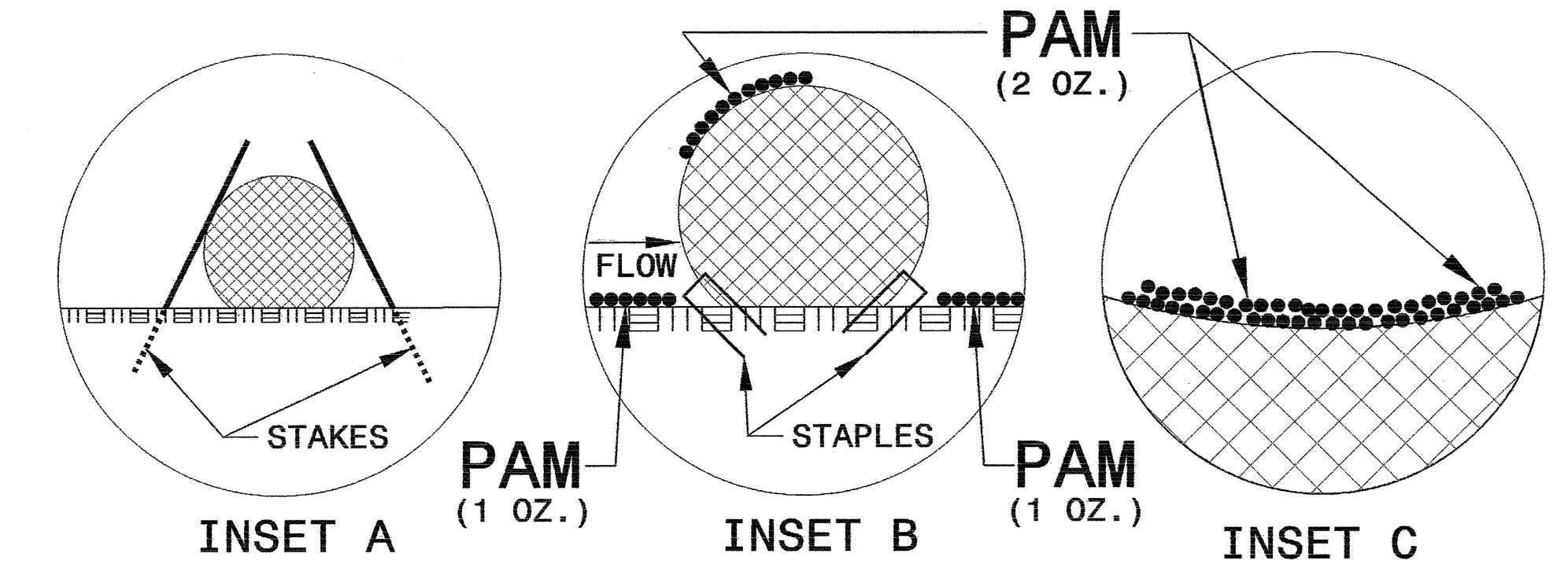
NOT TO SCALE

PROJECT REFERENCE NO. B-4138	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

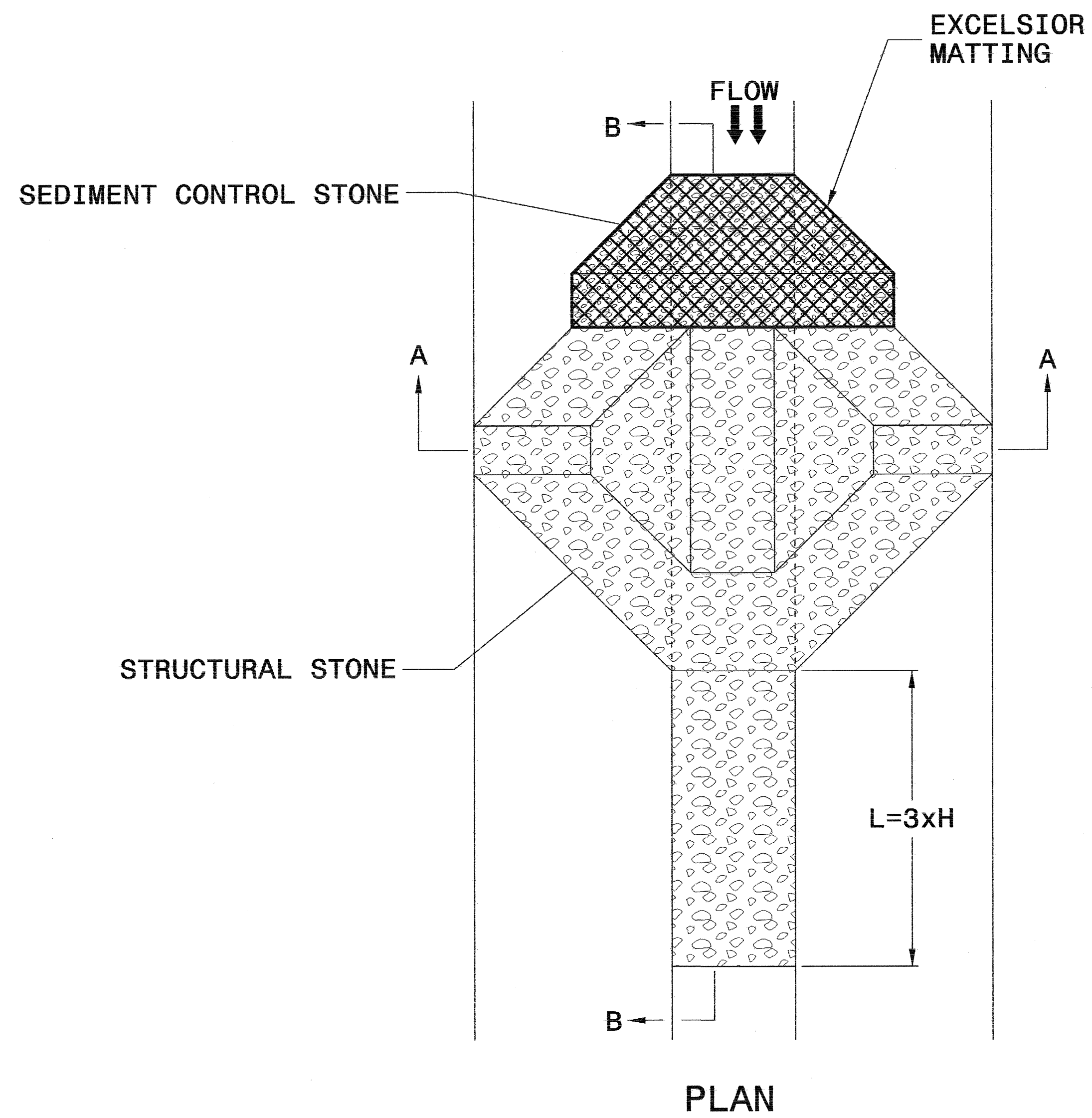


- NOTES:
- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
  - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
  - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
  - INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 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.
  - PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.
  - INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



PROJECT REFERENCE NO. B-4138	SHEET NO. EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)

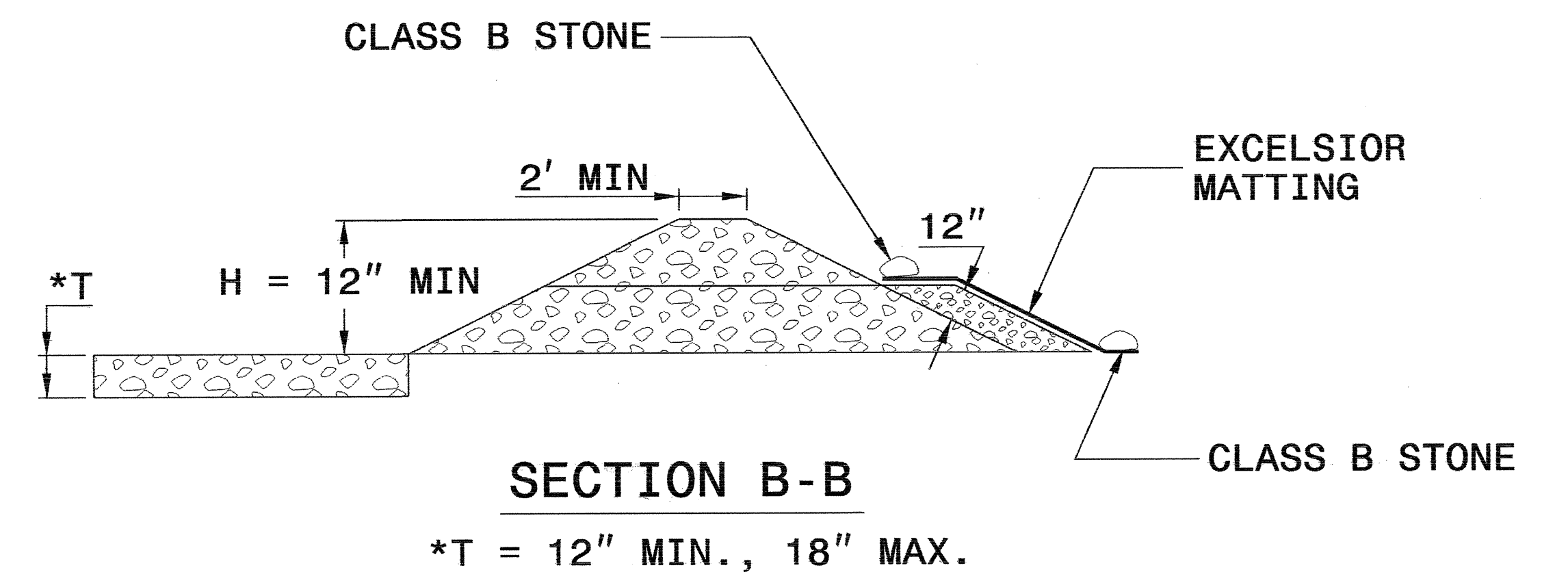
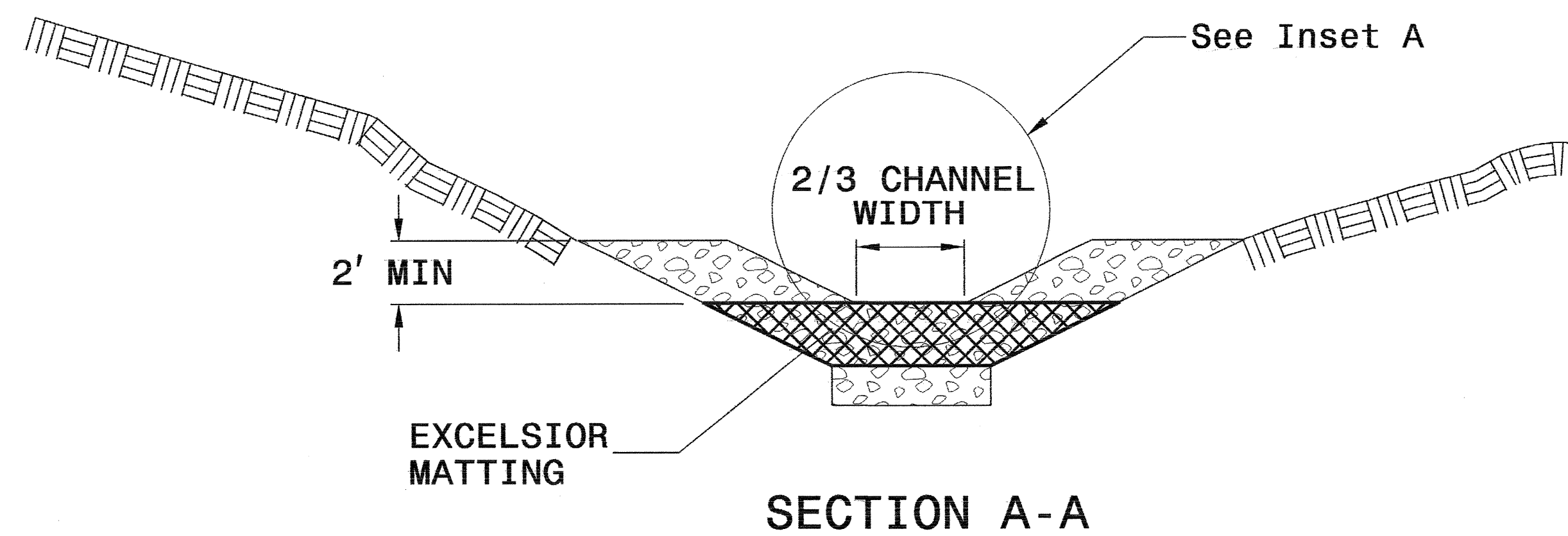
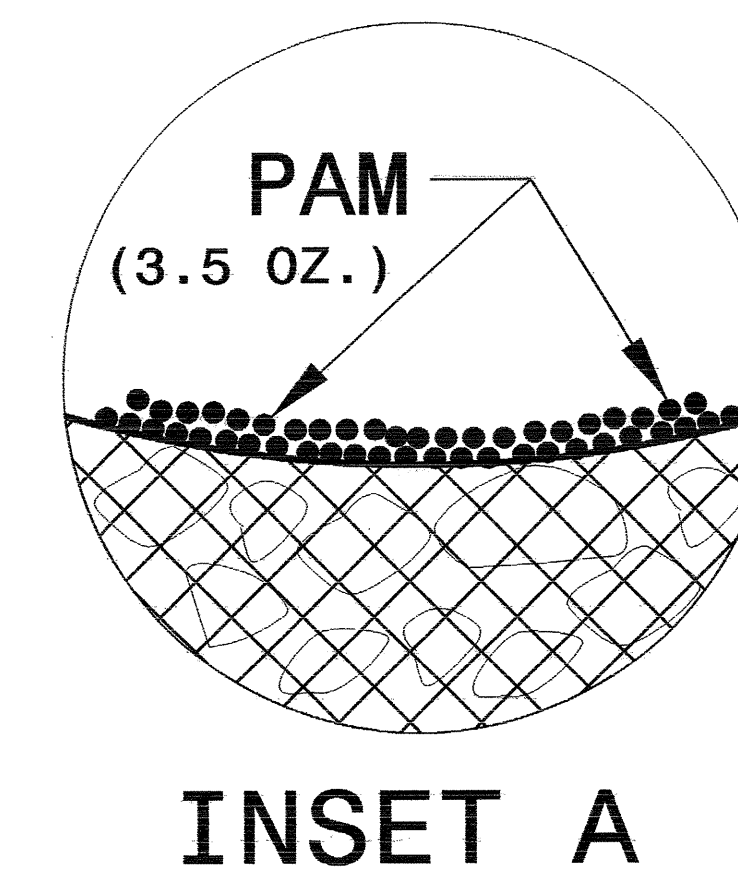


## NOTES

USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

INITIALLY APPLY 3.5 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



NOT TO SCALE

# BORROW PIT DEWATERING BASIN DETAIL

PROJECT REFERENCE NO. B-4138	SHEET NO. EC-2D
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

## GENERAL NOTES:

DETERMINE BORROW PIT DEWATERING BASIN SIZE USING  $V = 8.0203 * Q * T$ , WHERE V IS VOLUME (FT<sup>3</sup>), Q IS PUMP FLOW RATE (GPM), AND T IS DEWATERING TIME (HR). USE MAXIMUM FLOW RATE OF 1000 GPM AND A MINIMUM DEWATERING TIME OF 2 HOURS.

RISER SHALL BE A NON-PERFORATED, SMOOTH OR CORRUGATED MATERIAL WITH A FLASHBOARD OPTION.

CONSTRUCT THE COIR FIBER BAFFLE WITH A MATERIAL THAT MEETS THE SPECIFICATIONS OF THE COIR FIBER MAT SPECIAL PROVISION PROVIDED IN THE CONTRACT.

PROVIDE 5' STEEL POSTS OF THE SELF-FASTENER ANGLE STEEL TYPE. INSTALL STEEL POSTS WITH NO MORE THAN 3' 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 BASIN WITH 12" STAPLES.

INSTALL TYPE 2 FILTER FABRIC ON SIDESLOPES AND BOTTOM OF BASIN AT INLET AS SHOWN IN THE DETAIL.

USE THE TYPICAL SECTION SHOWN FOR THE BORROW PIT DEWATERING BASIN AS A GUIDE. THE BASIN MAY HAVE ANY TYPE CONFIGURATION AS LONG AS SUFFICIENT VOLUME IS PROVIDED AND PROVISIONS ARE MADE FOR A NON-PERFORATED RISER.

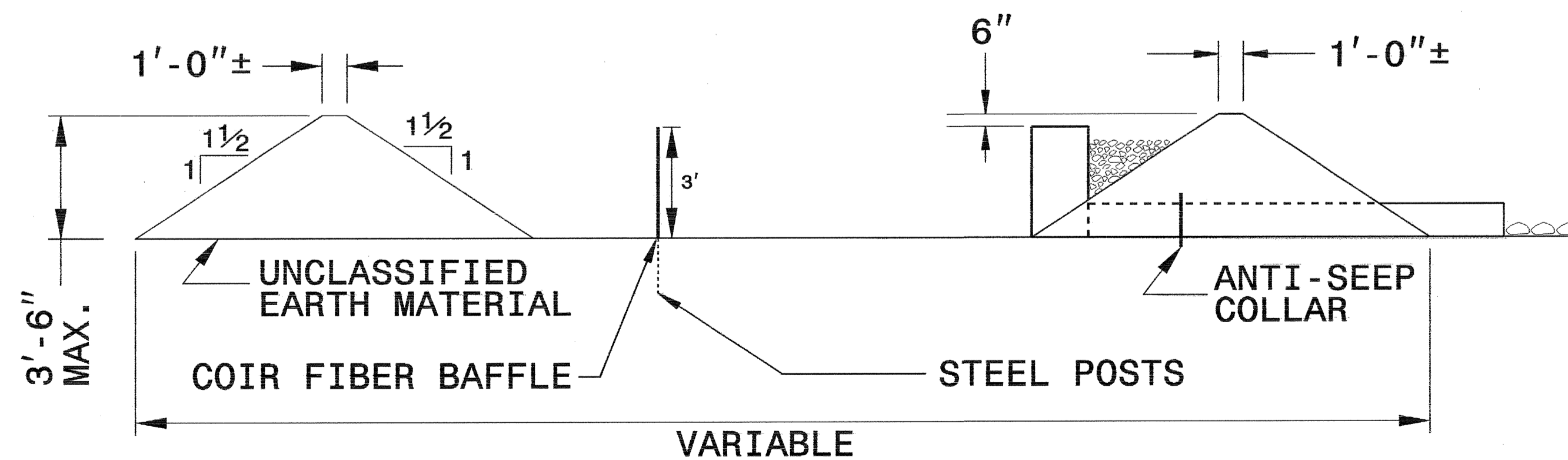
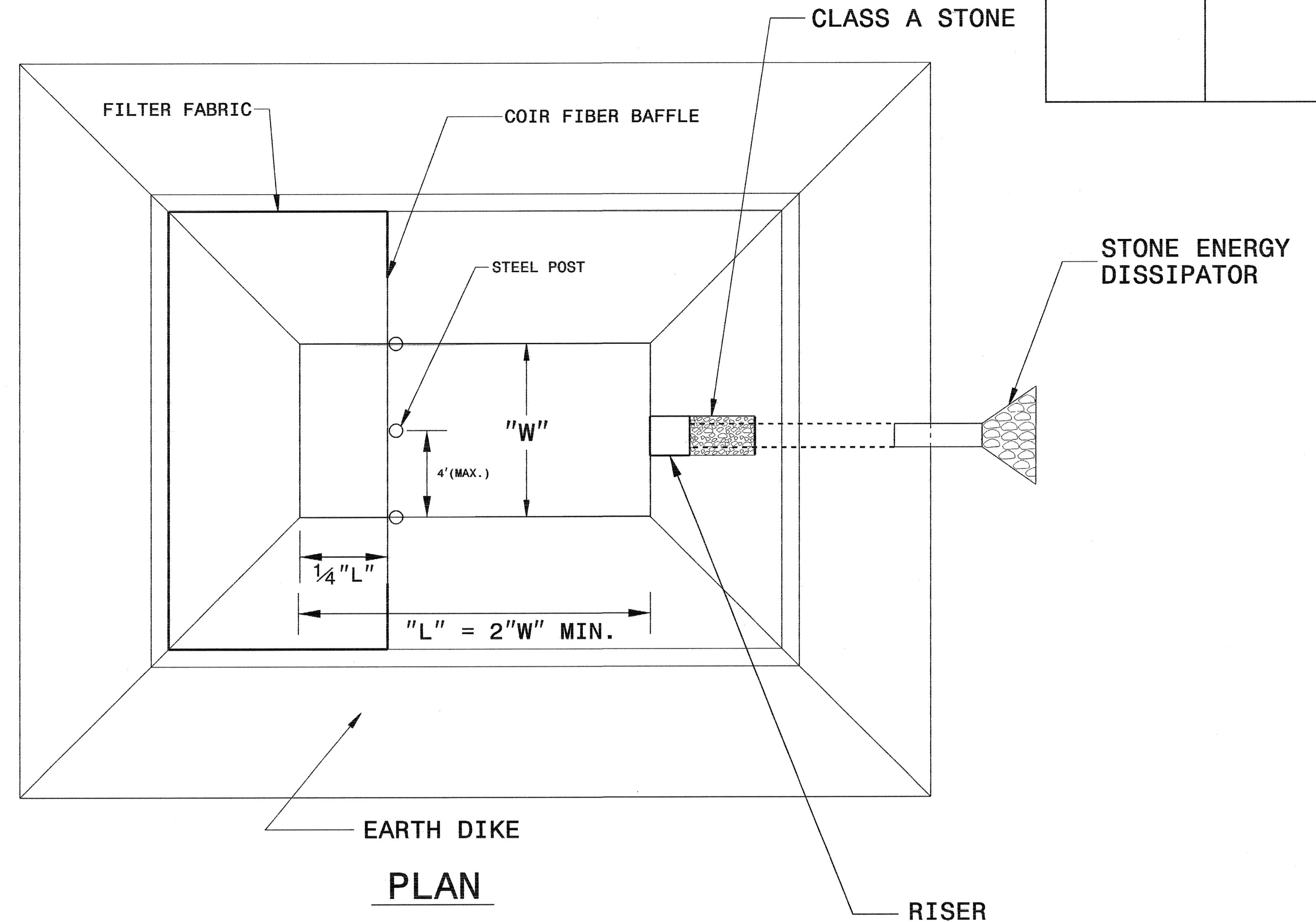
DO NOT EXCEED 3½ FT. IN HEIGHT FOR THE EARTH DIKES REQUIRED FOR BORROW PIT DEWATERING BASIN.

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

SUBMIT THE SIZE, LOCATION AND RISER PIPE MATERIAL FOR APPROVAL PRIOR TO CONSTRUCTION.

PUMP THE EFFLUENT INTO THE BORROW PIT DEWATERING BASIN TO A MAXIMUM DEPTH OF 6 IN. BELOW TOP OF EARTH DIKE.

PROVIDE A STONE ENERGY DISSIPATOR PAD AT THE OUTLET OF THE PUMP DISCHARGE HOSE AND OUTLET OF THE RISER BARREL IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 876.02 FOR OUTLET W/O DITCH.

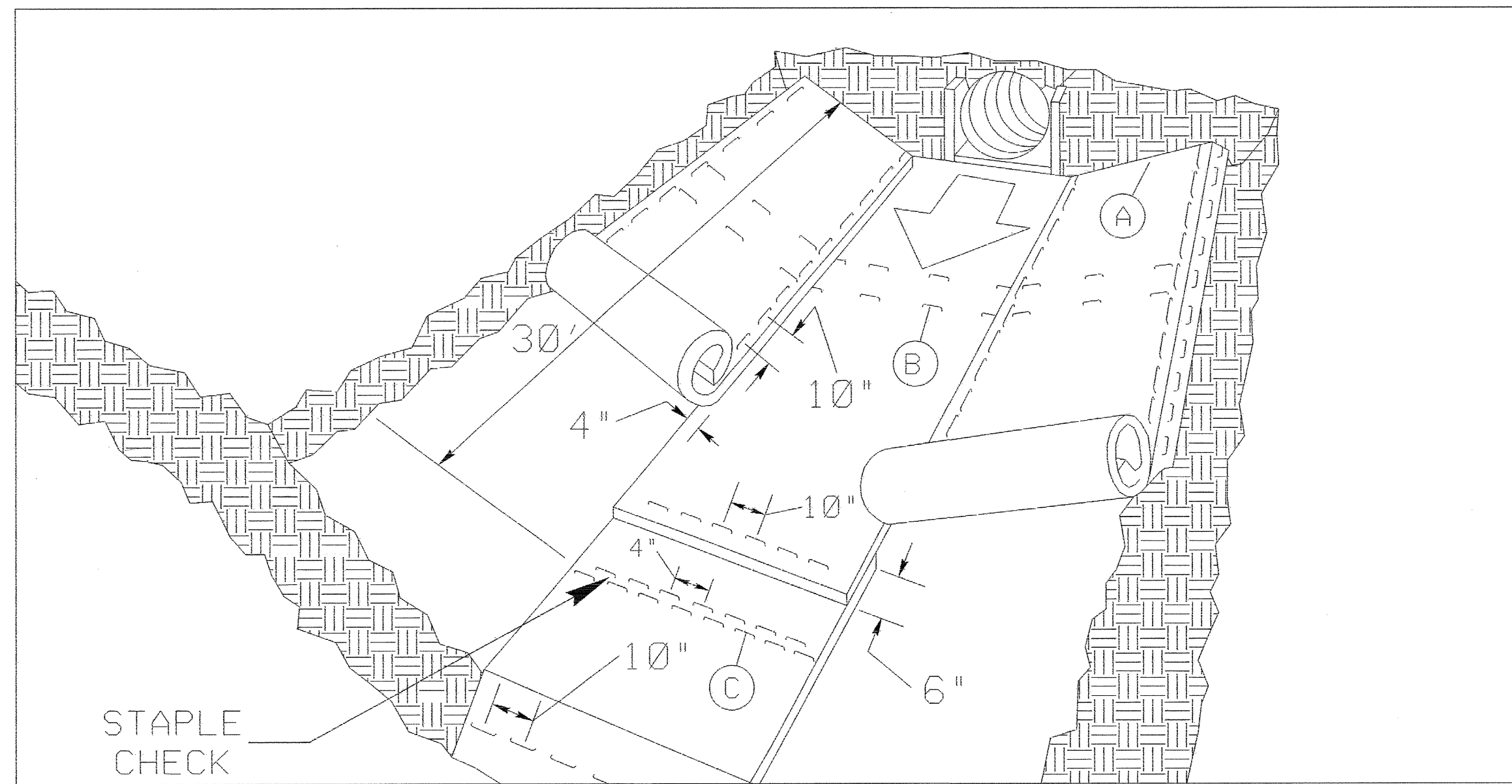


TYPICAL SECTION VIEW

NOT TO SCALE

PROJECT REFERENCE NO. B-4138	SHEET NO. EC-2E
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# MATTING INSTALLATION DETAIL



**MATTING IN DITCHES**

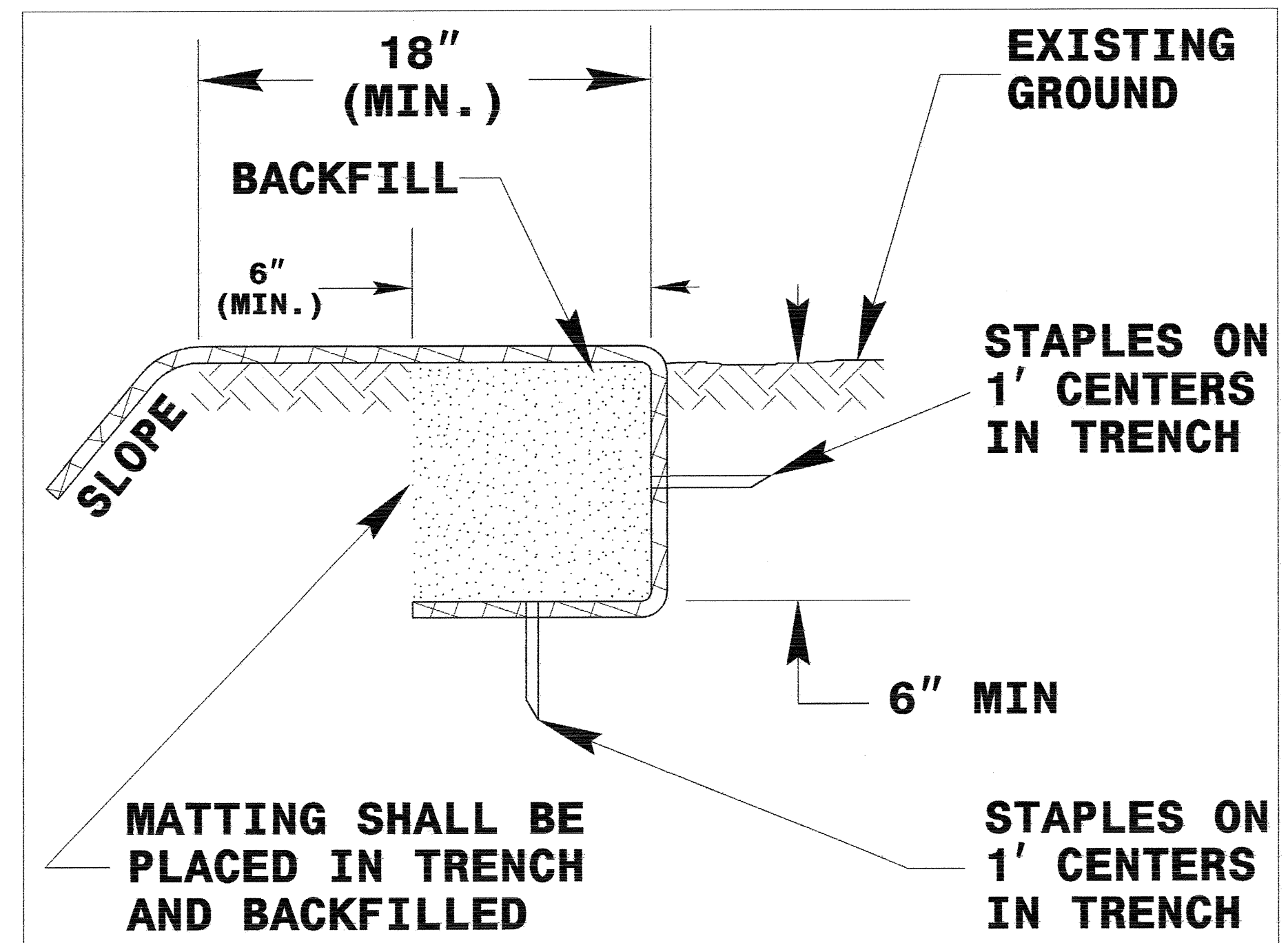
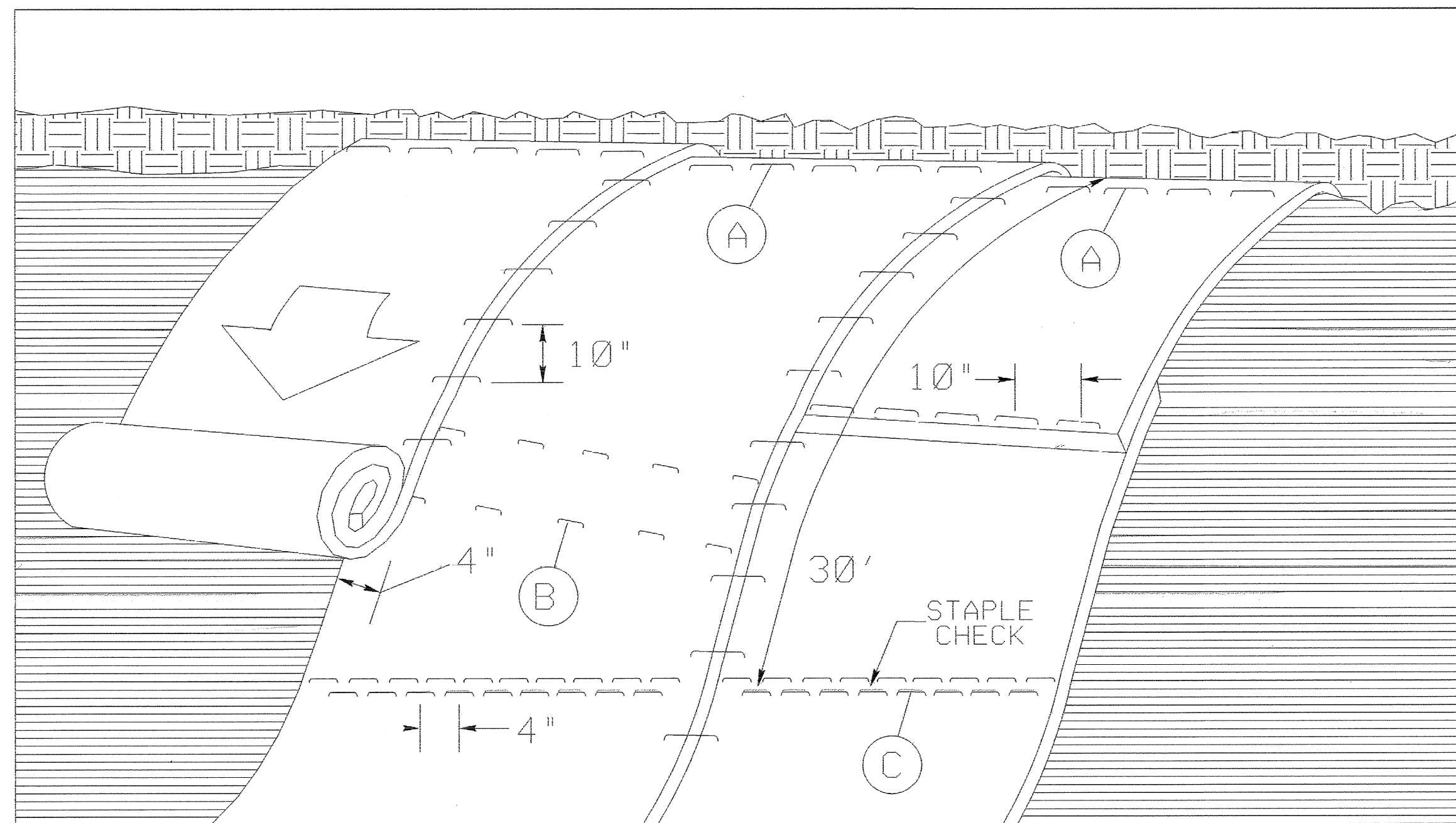


DIAGRAM (A)



**MATTING ON SLOPES**

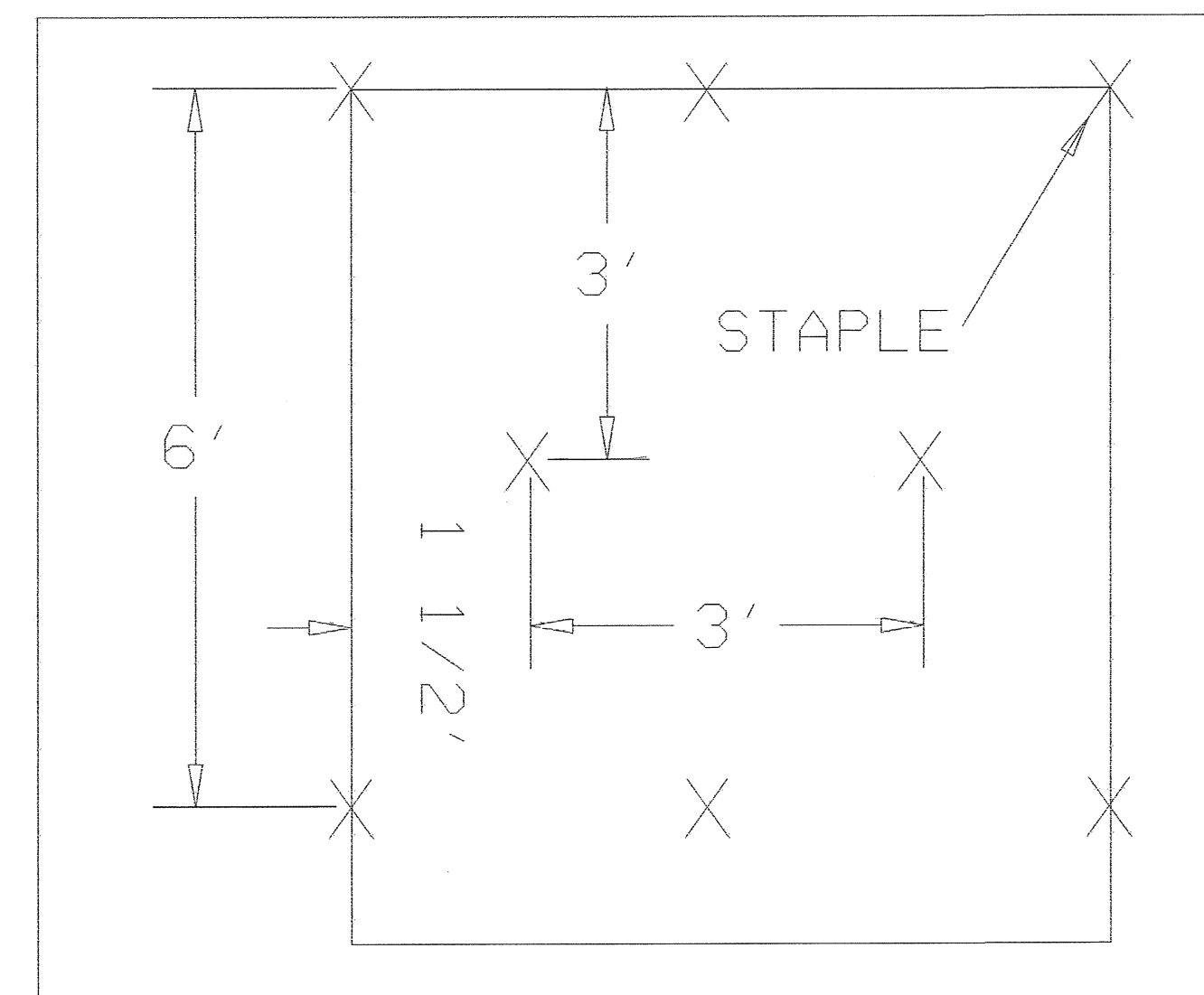


DIAGRAM (B)

STAPLE CHECK PATTERN

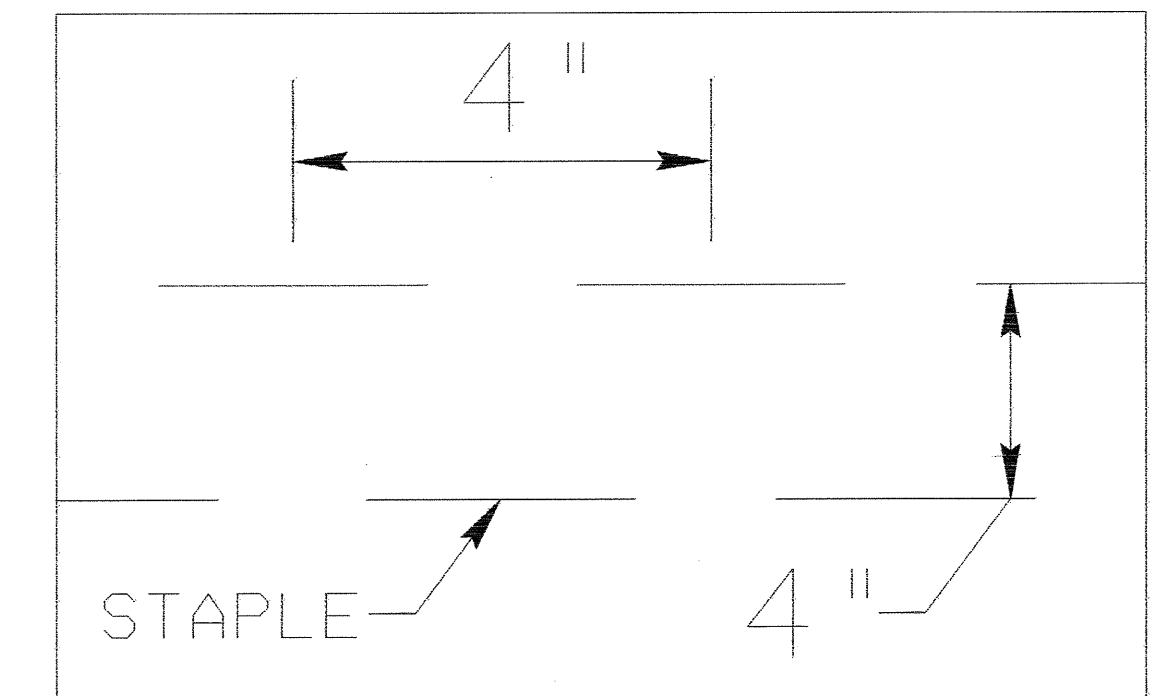


DIAGRAM (C)

**NOTES:**

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.

STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

NOT TO SCALE





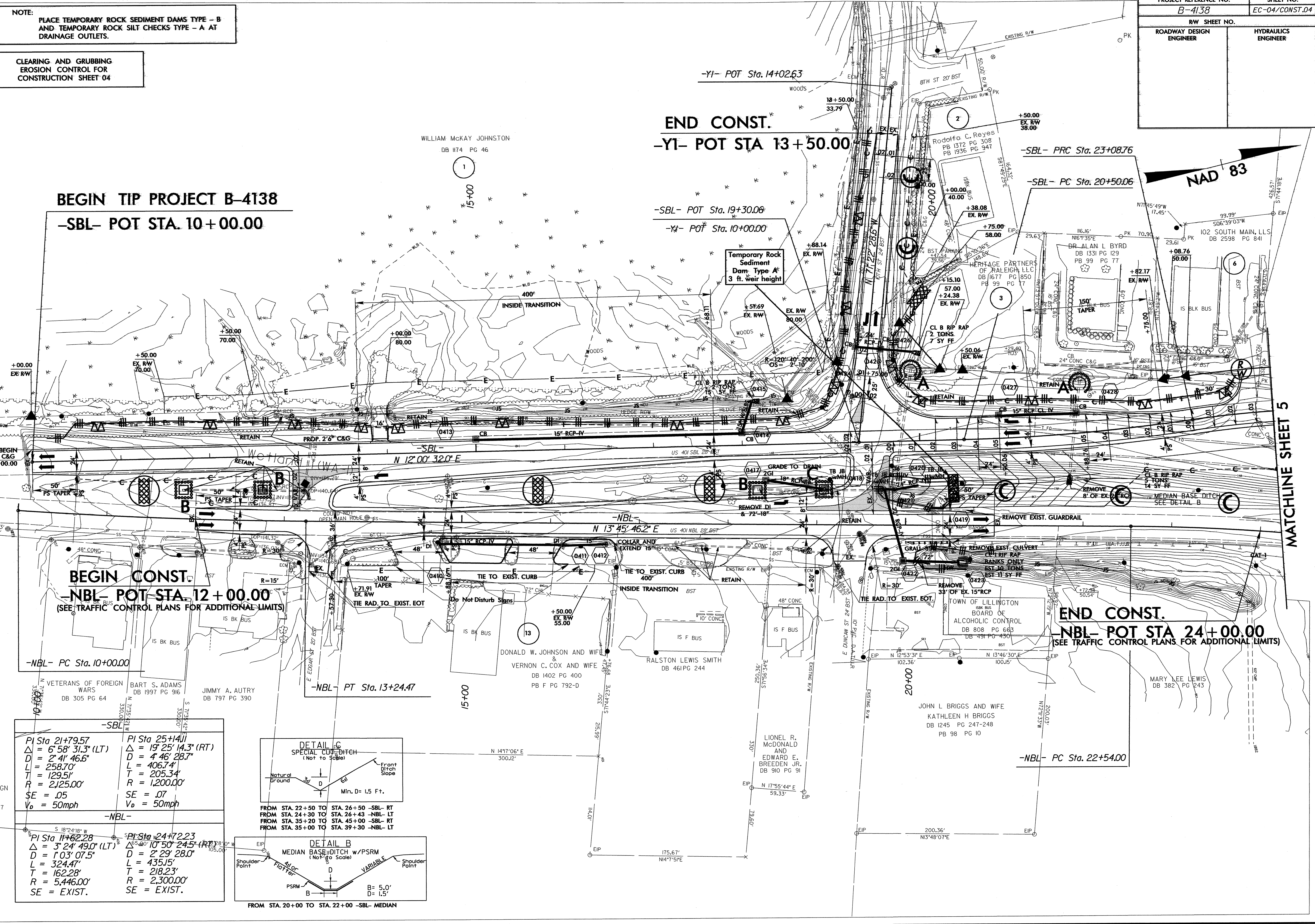
NOTE:  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 04

BEGIN TIP PROJECT B-4138  
-SBL- POT STA. 10+00.00

END CONST.  
-YI- POT STA 13+50.00

-SBL- PRC Sta. 23+08.76  
-SBL- PC Sta. 20+50.06

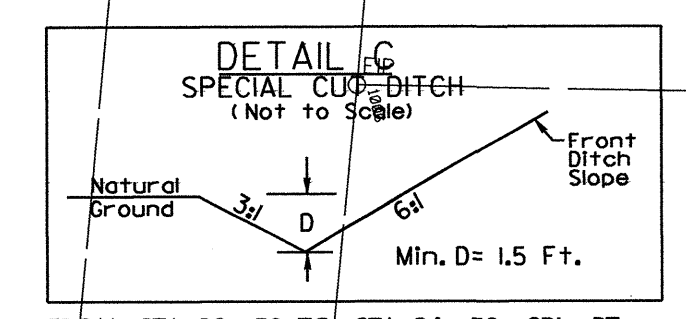


BEGIN CONST.  
-NBL- POT STA. 12+00.00  
(SEE TRAFFIC CONTROL PLANS FOR ADDITIONAL LIMITS)

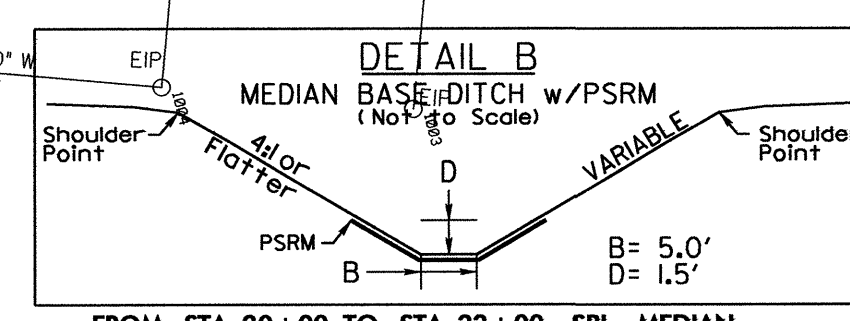
END CONST.  
-NBL- POT STA 24+00.00  
(SEE TRAFFIC CONTROL PLANS FOR ADDITIONAL LIMITS)

<p>-SBL-</p> <p>PI Sta 21+79.57 Δ = 6° 58' 31.3" (LT) D = 2' 41' 46.6" L = 258.70' T = 129.51' R = 2,125.00' SE = .05 V<sub>o</sub> = 50mph</p>	<p>PI Sta 25+14.11 Δ = 19° 25' 14.3" (RT) D = 4' 46' 28.7" L = 406.74' T = 205.34' R = 1,200.00' SE = .07 V<sub>o</sub> = 50mph</p>
---	---

<p>-NBL-</p> <p>PI Sta 11+62.28 Δ = 3° 24' 49.0" (LT) D = 1' 03' 07.5" L = 324.47' T = 162.28' R = 5,446.00' SE = EXIST.</p>	<p>PI Sta 24+72.23 Δ = 10° 50' 24.5" (RT) D = 2' 29' 28.0" L = 435.15' T = 218.23' R = 2,300.00' SE = EXIST.</p>
--	--



FROM STA. 22+50 TO STA. 26+50 -SBL- RT  
FROM STA. 24+30 TO STA. 26+43 -NBL- LT  
FROM STA. 35+20 TO STA. 45+00 -SBL- RT  
FROM STA. 35+00 TO STA. 39+30 -NBL- LT



FROM STA. 20+00 TO STA. 22+00 -SBL- MEDIAN

MATCHLINE SHEET 5

26-MAY-2010 09:46 R:\Environment\B-4138-EC-4\psm.dgn

8/17/99

NOTE: UTILIZE SKIMMER BASIN OR SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE.

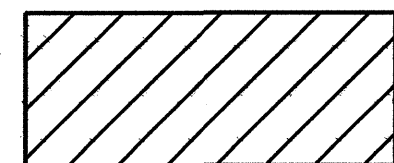
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 05

J DAVID AVRETTE AND WIFE CYNTHIA W AVRETTE DB 941 PG 829-830

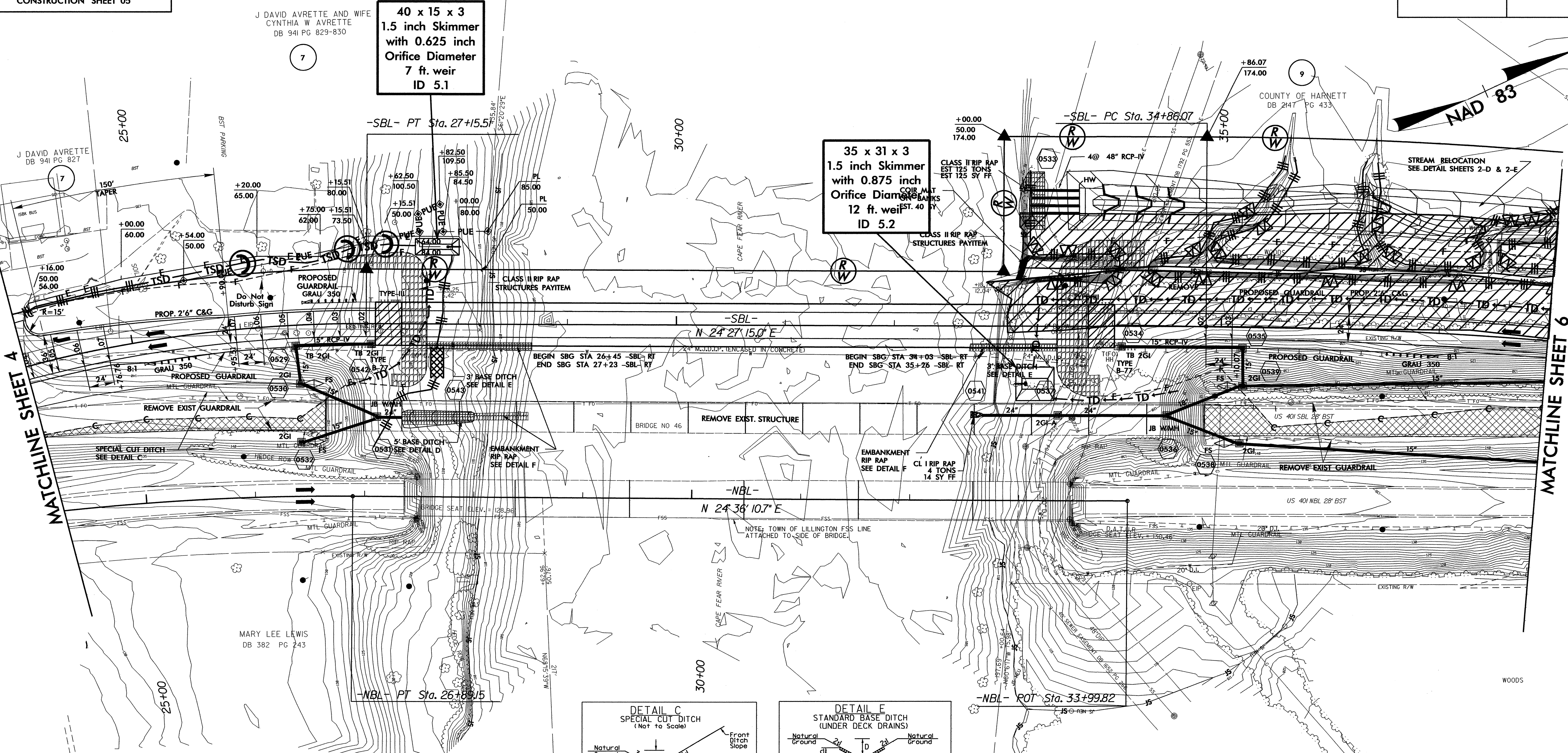
40 x 15 x 3 1.5 inch Skimmer with 0.625 inch Orifice Diameter 7 ft. weir ID 5.1

35 x 31 x 3 1.5 inch Skimmer with 0.875 inch Orifice Diameter 12 ft. weir ID 5.2



ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

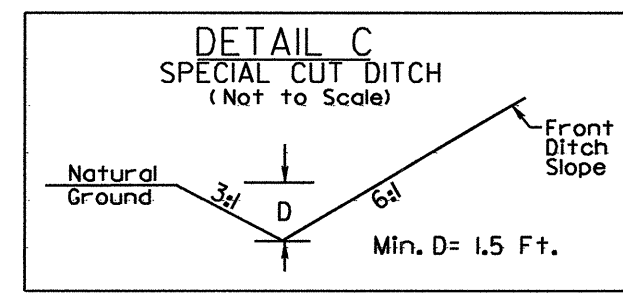
PROJECT REFERENCE NO. B-4138	SHEET NO. EC-05/CONST.05
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



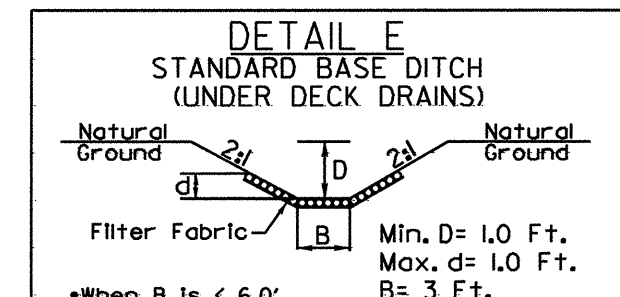
MATCHLINE SHEET A

MATCHLINE SHEET 6

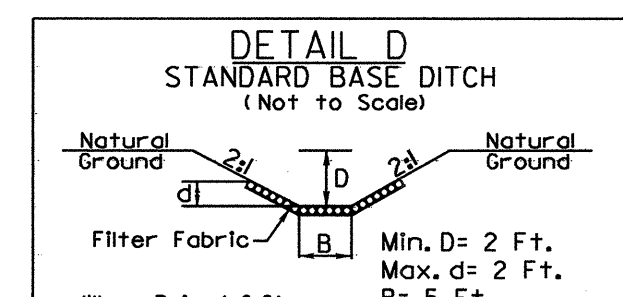
<p>-SBL-</p> <p>PI Sta 25+14.11 Δ = 19' 25" 14.3" (RT) D = 4' 46" 28.7" L = 406.74' T = 205.34' R = 1,200.00' SE = .07 V<sub>0</sub> = 50mph</p>	<p>PI Sta 40+64.88 Δ = 16' 28" 02.4" (RT) D = 1' 25" 56.6" L = 1,149.64' T = 578.81' R = 4,000.00' SE = .03 V<sub>0</sub> = 50mph</p>
<p>-NBL-</p> <p>PI Sta 24+72.23 Δ = 10' 50" 24.5" (RT) D = 2' 29" 28.0" L = 435.15' T = 218.23' R = 2,300.00' SE = EXIST.</p>	



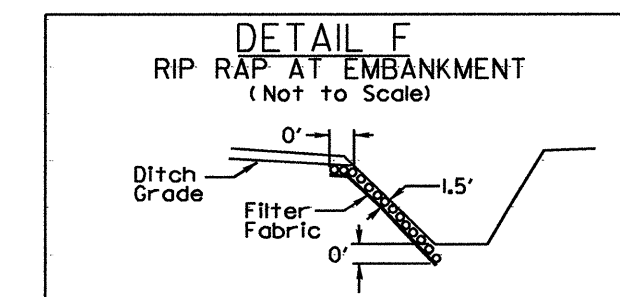
FROM STA. 22+00 TO STA. 26+30 -SBL- RT  
FROM STA. 24+30 TO STA. 26+30 -NBL- LT  
FROM STA. 35+20 TO STA. 45+00 -SBL- RT  
FROM STA. 35+00 TO STA. 39+30 -NBL- LT



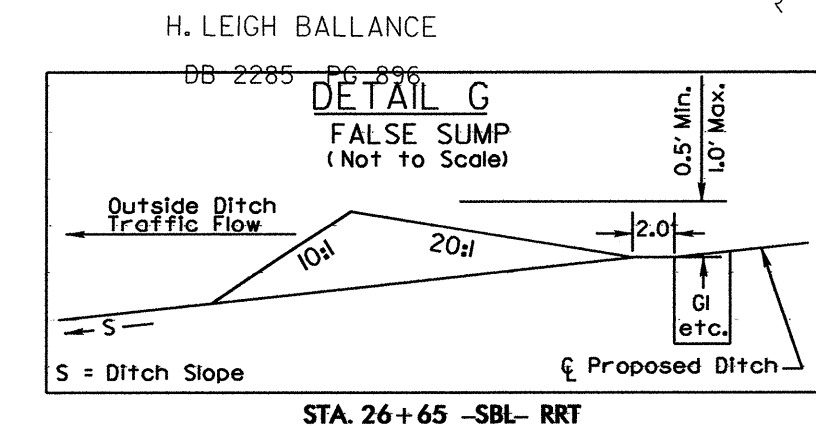
FROM STA. 27+71 TO STA. 28+14 -SBL- RT  
FROM STA. 33+06 TO STA. 33+50 -SBL- RT  
EST. 50 TONS EST. 80 SY FF  
DDE = 12 CY



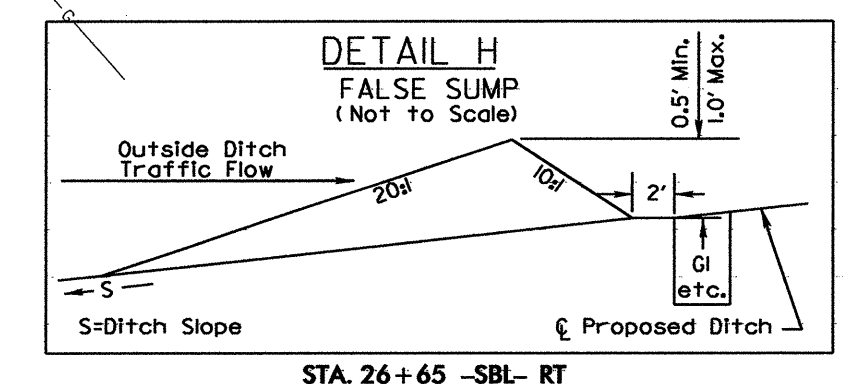
FROM STA. 27+50 TO STA. 28+15 -SBL- RT  
EST. 85 TONS EST. 105 SY FF  
DDE = 50 CY



FROM STA. 28+14 TO STA. 28+69 -SBL- RT  
FROM STA. 28+15 TO STA. 28+68 -SBL- RRT  
FROM STA. 32+69 TO STA. 33+06 -SBL- RT



FROM STA. 26+65 -SBL- RRT  
FROM STA. 35+30 -SBL- RT



FROM STA. 26+65 -SBL- RT  
FROM STA. 35+30 -SBL- RT

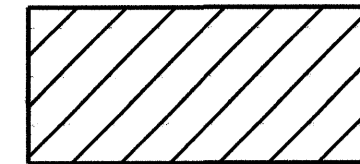
PAVEMENT REMOVAL

26-MAY-2010 09:55 [D:\p09\B-4138-EC-5psh.dgn] User: [REDACTED]

8/17/99

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

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 6



ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO. B-4138	SHEET NO. EC-06/CONST.06
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

38 x 28 x 3  
1.5 inch Skimmer  
with 0.875 inch  
Orifice Diameter  
12 ft. weir  
ID 5.3

STREAM RELOCATION  
SEE DETAIL SHEETS 2-D & 2-E

+50.00  
50.00  
95.00  
174.00

COUNTY OF HARNETT  
DB 2447 PG 433

+23.21  
50.00

45+00

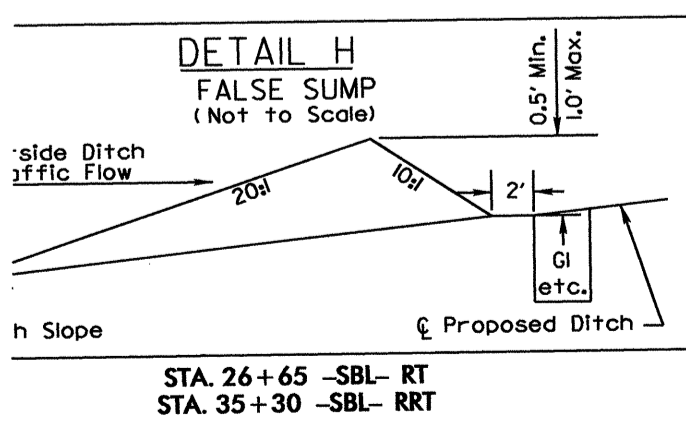
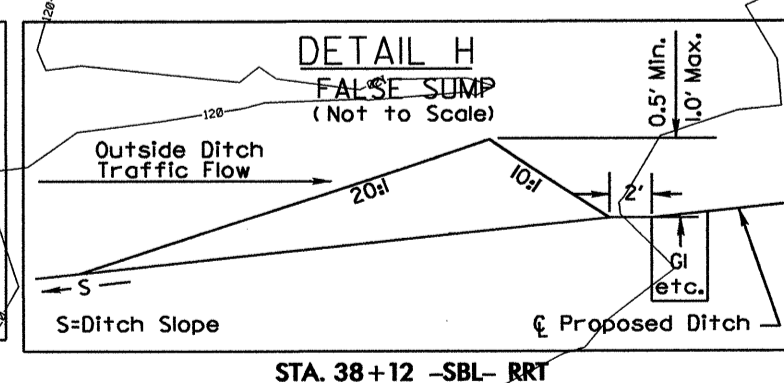
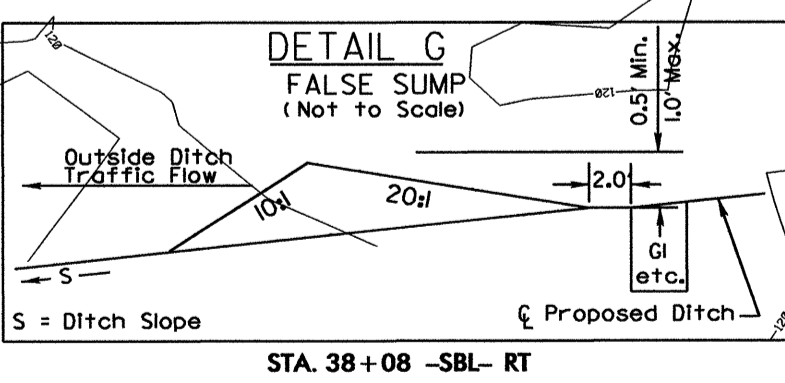
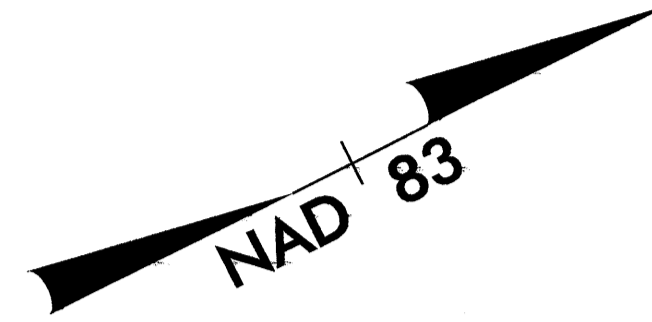
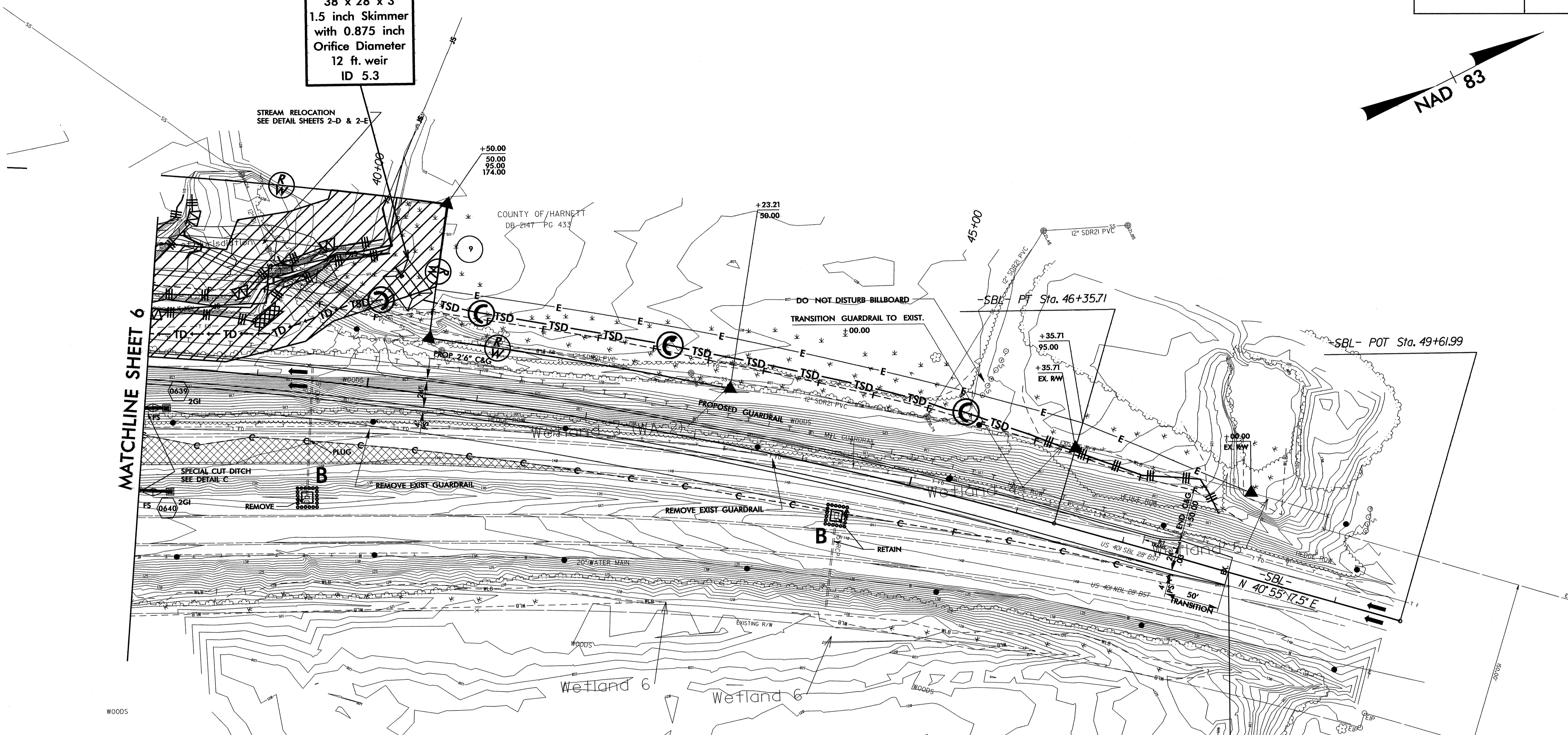
12" SDR21 PVC

-SBL- Pt Sta. 46+35.71

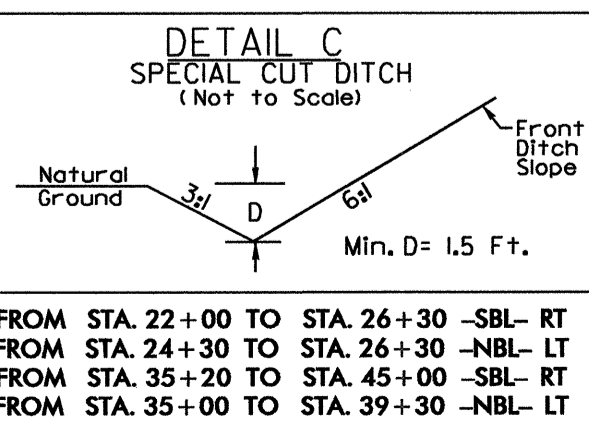
+35.71  
95.00  
+35.71  
EX. R/W

-SBL- POT Sta. 49+61.99

MATCHLINE SHEET 6



-SBL-  
PI Sta 40+64.88  
 $\Delta = 16' 28' 02.4''$  (RT)  
 $D = 1' 25' 56.6''$   
 $L = 1,149.64'$   
 $T = 578.8'$   
 $R = 4,000.00'$   
 $SE = .03$   
 $V_0 = 50\text{mph}$

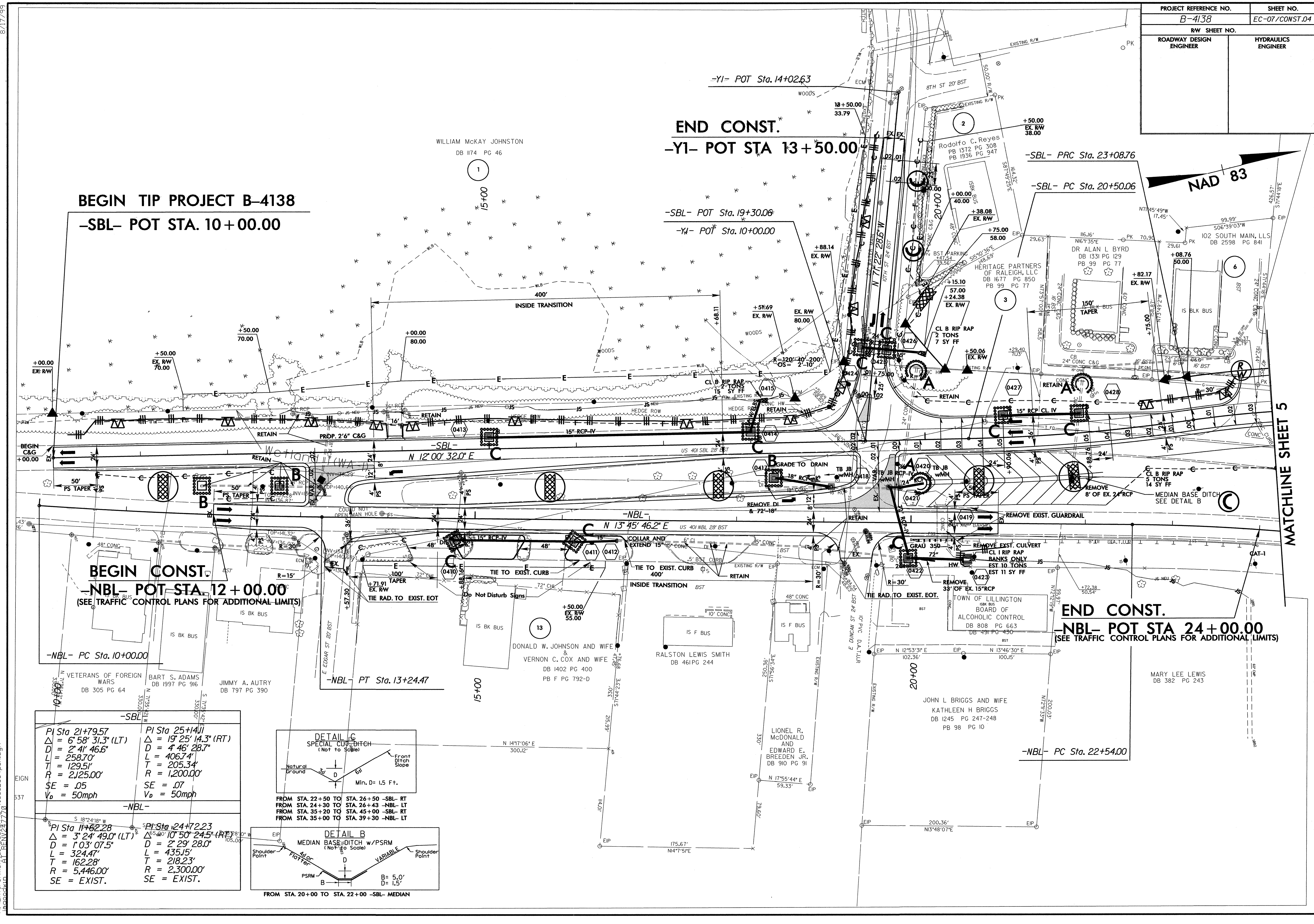


END TIP PROJECT B-4138  
-SBL- POT 48+00.00  
(SEE TRAFFIC CONTROL PLANS FOR ADDITIONAL LIMITS)

PAVEMENT REMOVAL

26-MAY-2010 09:55 D:\env\environmental\B-4138-EC-6psh.dgn

PROJECT REFERENCE NO. B-4138		SHEET NO. EC-07/CONST.04	
RW SHEET NO. ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



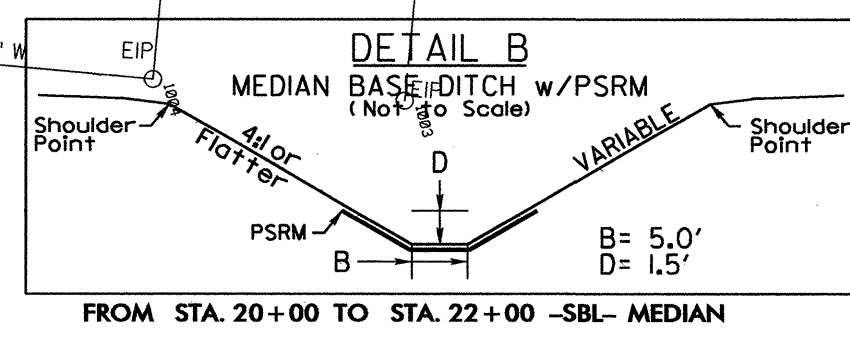
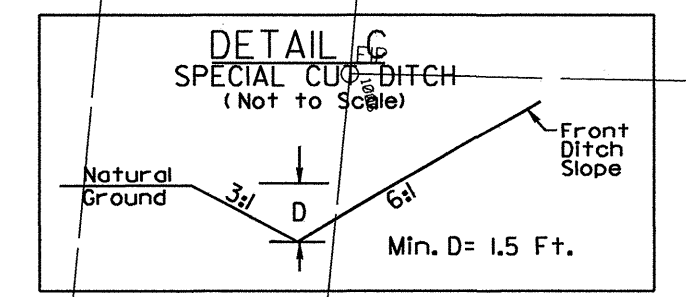
**BEGIN TIP PROJECT B-4138**  
-SBL- POT STA. 10+00.00

**END CONST.**  
-YI- POT STA 13+50.00

**BEGIN CONST.**  
-NBL- POT STA. 12+00.00  
(SEE TRAFFIC CONTROL PLANS FOR ADDITIONAL LIMITS)

**END CONST.**  
-NBL- POT STA 24+00.00  
(SEE TRAFFIC CONTROL PLANS FOR ADDITIONAL LIMITS)

-SBL- PI Sta 21+79.57 $\Delta = 6' 58" 31.3" (LT)$ $D = 2' 41" 46.6"$ $L = 258.70'$ $T = 129.51'$ $R = 2,125.00'$ $SE = .05$ $V_o = 50\text{mph}$	PI Sta 25+14.11 $\Delta = 19' 25" 14.3" (RT)$ $D = 4' 46" 28.7"$ $L = 406.74'$ $T = 205.34'$ $R = 2,000.00'$ $SE = .07$ $V_o = 50\text{mph}$
-NBL- PI Sta 11+62.28 $\Delta = 3' 24" 49.0" (LT)$ $D = 1' 03" 07.5"$ $L = 324.47'$ $T = 162.28'$ $R = 5,446.00'$ $SE = \text{EXIST.}$	PI Sta 24+72.23 $\Delta = 10' 50" 24.5" (RT)$ $D = 2' 29" 28.0"$ $L = 435.15'$ $T = 218.23'$ $R = 2,300.00'$ $SE = \text{EXIST.}$

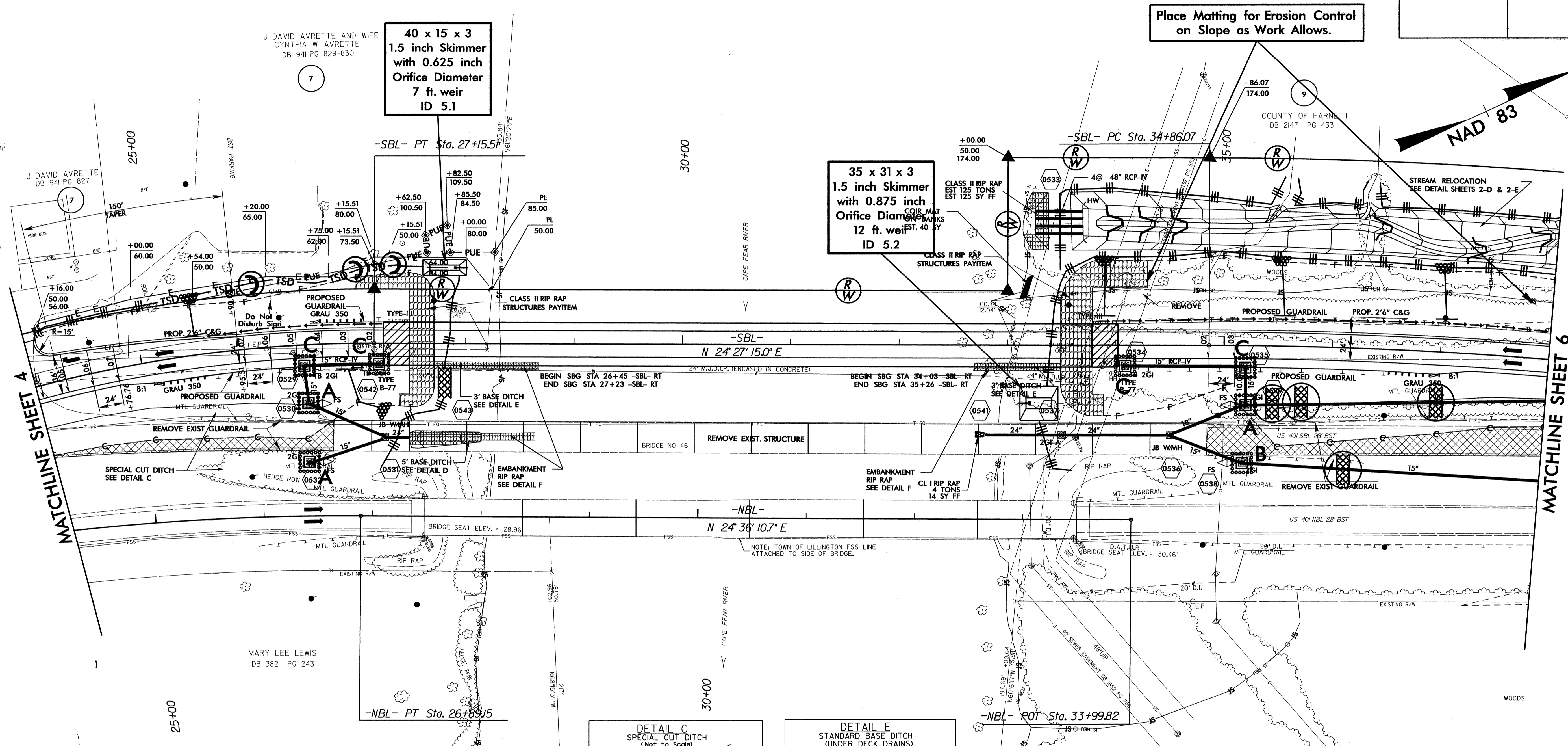


MATCHLINE SHEET 5

8/17/99  
26-MAY-2010 09:47  
R:\Environment\Projects\B-4138-EC-4\psd.dgn  
EIGN  
337

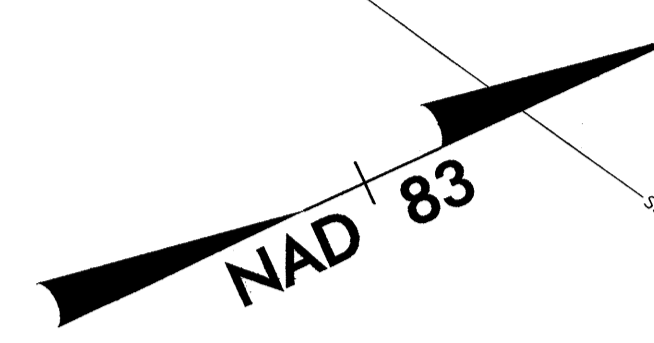
NOTE: UTILIZE SKIMMER BASIN OR SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE.

PROJECT REFERENCE NO. B-4138		SHEET NO. EC-08/CONST.05	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

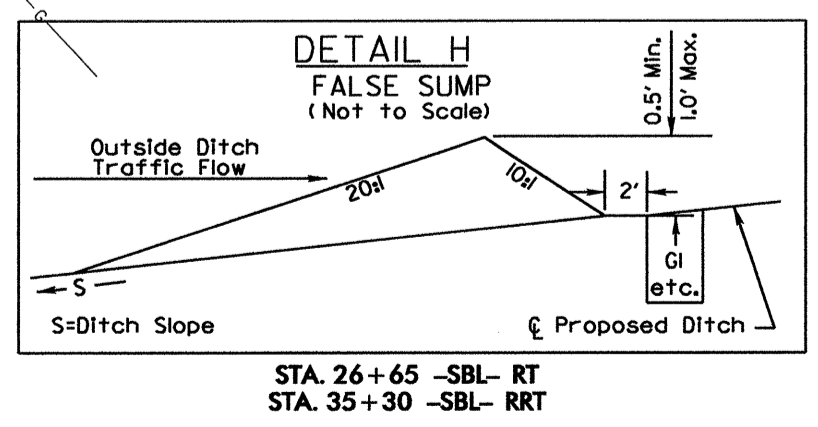
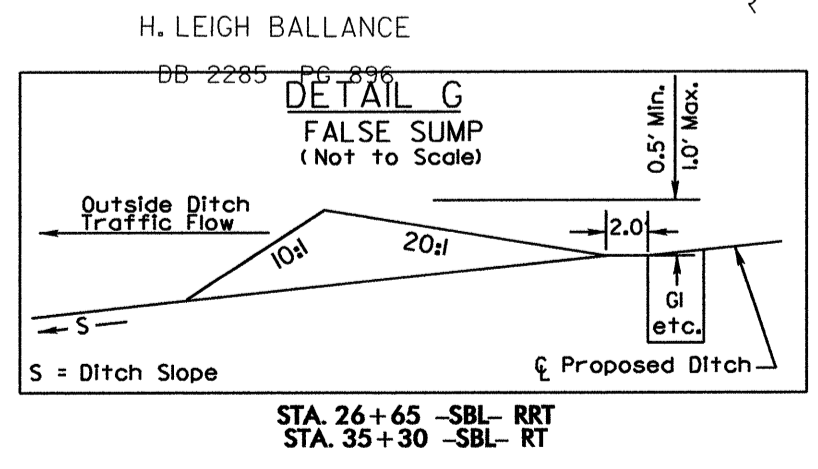
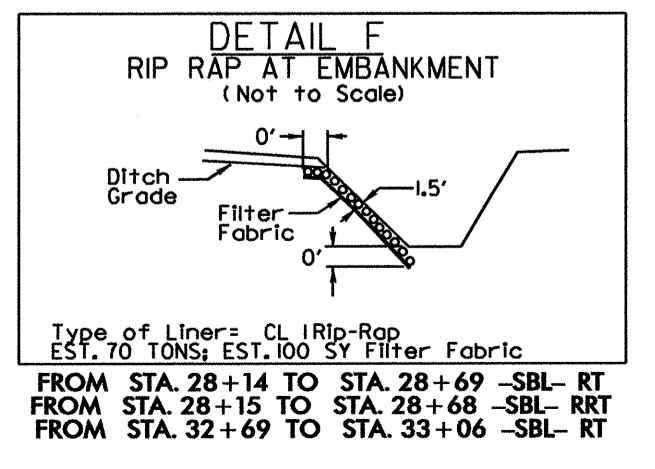
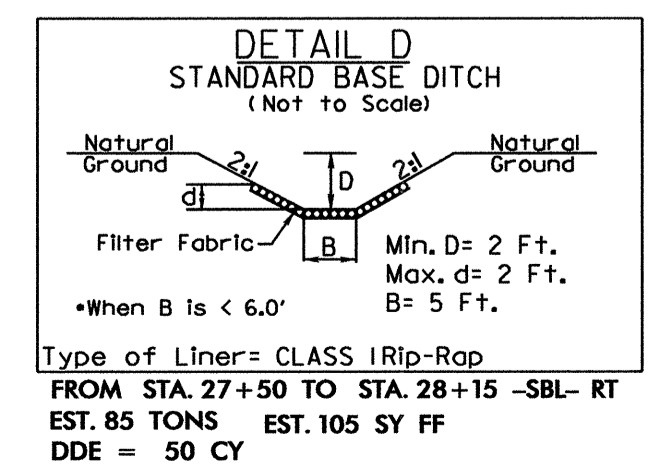
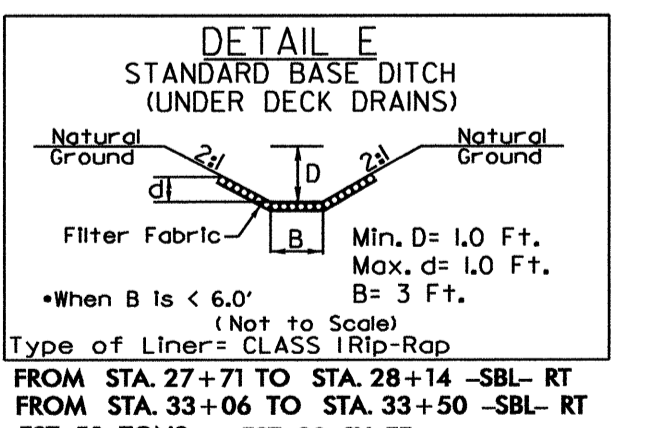
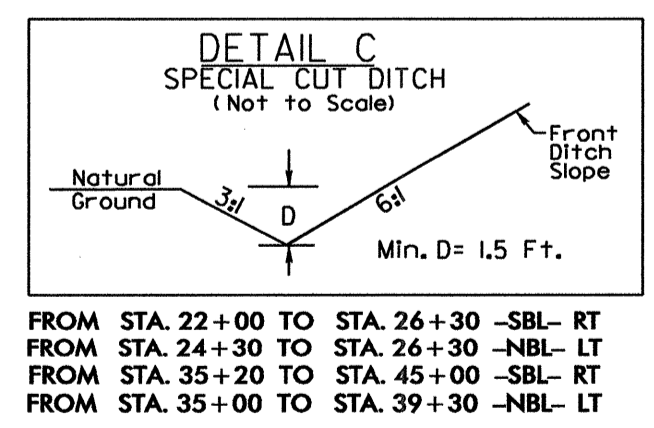


MATCHLINE SHEET A

MATCHLINE SHEET 6



-SBL-	
PI Sta 25+14.11 Δ = 19° 25' 14.3" (RT) D = 4' 46" 28.7" L = 406.74' T = 205.34' R = 1,200.00' SE = .07 V <sub>o</sub> = 50mph	PI Sta 40+64.88 Δ = 16° 28' 02.4" (RT) D = 1' 25' 56.6" L = 1,149.64' T = 578.81' R = 4,000.00' SE = .03 V <sub>o</sub> = 50mph
-NBL-	
PI Sta 24+72.23 Δ = 10° 50' 24.5" (RT) D = 2' 29' 28.0" L = 435.15' T = 218.23' R = 2,300.00' SE = EXIST.	



PAVEMENT REMOVAL

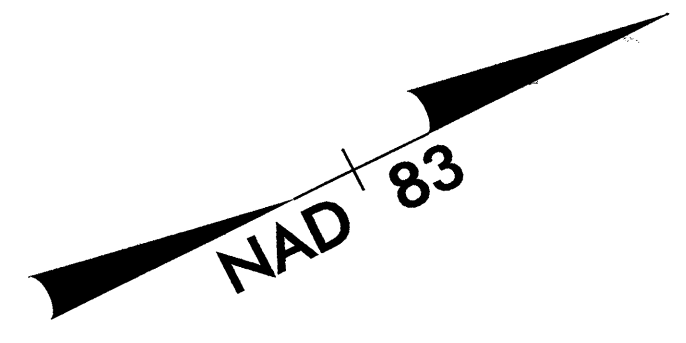
PROJECT REFERENCE NO. B-4138		SHEET NO. EC-09/CONST.06	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

Place Matting for Erosion Control on Slope as Work Allows.

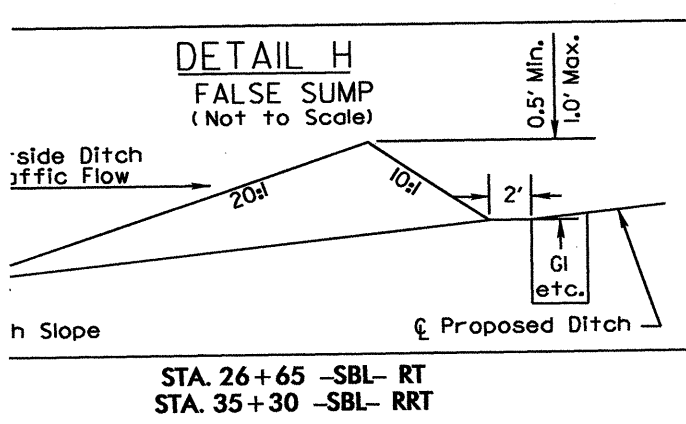
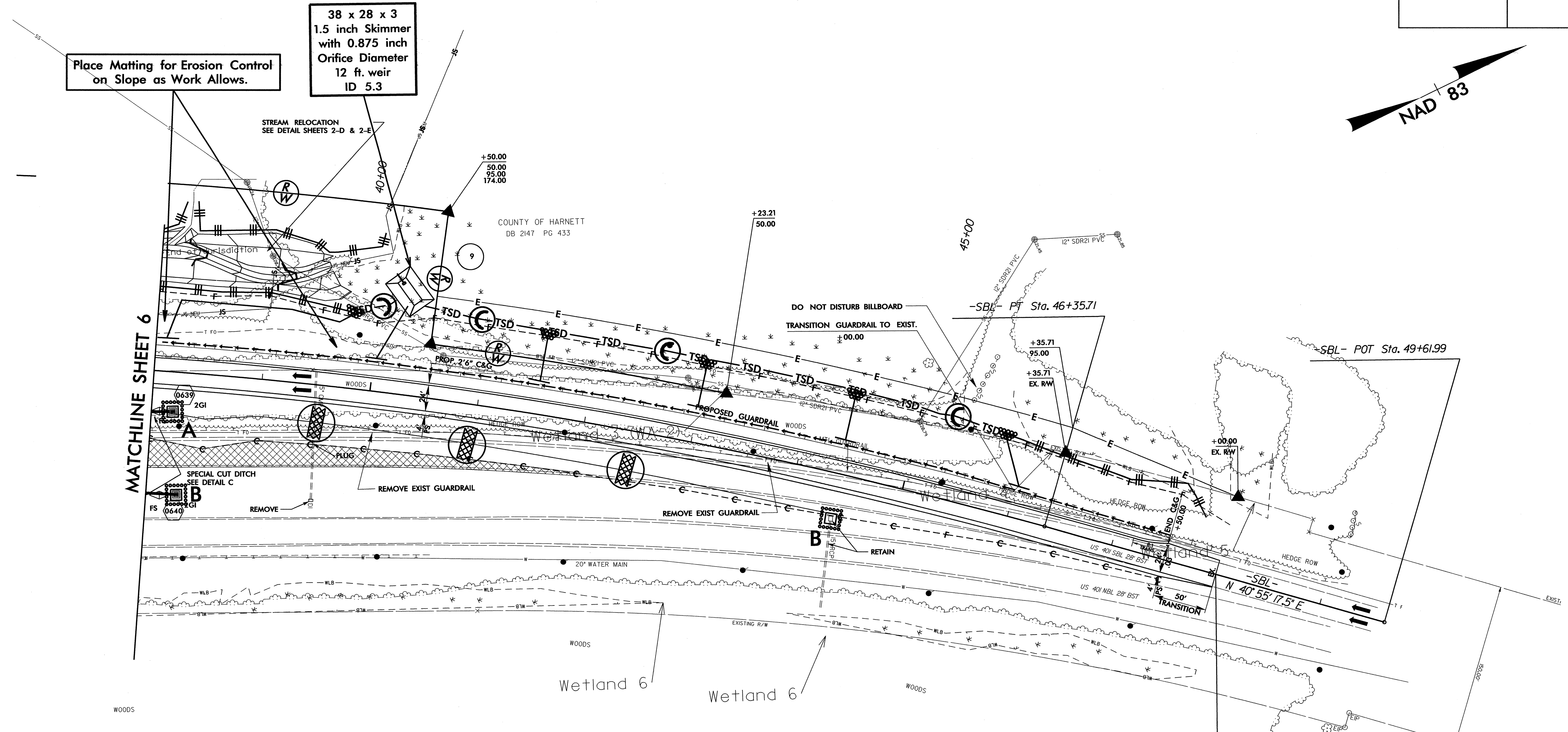
38 x 28 x 3  
1.5 inch Skimmer  
with 0.875 inch  
Orifice Diameter  
12 ft. weir  
ID 5.3

STREAM RELOCATION  
SEE DETAIL SHEETS 2-D & 2-E

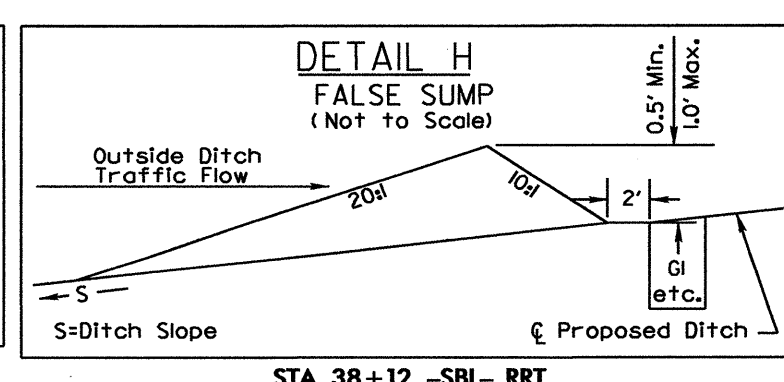
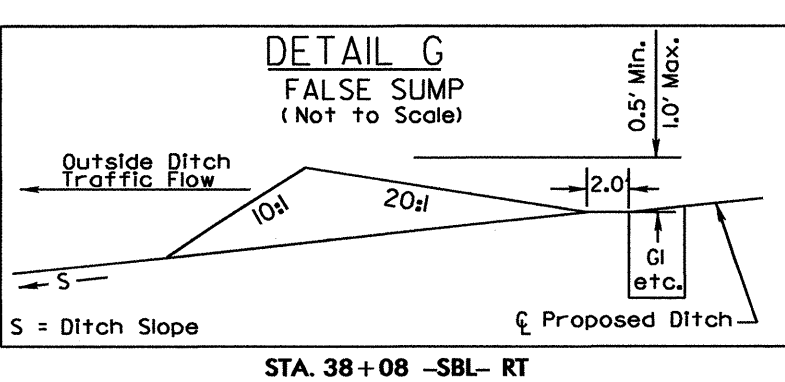
COUNTY OF HARNETT  
DB 2147 PG 433



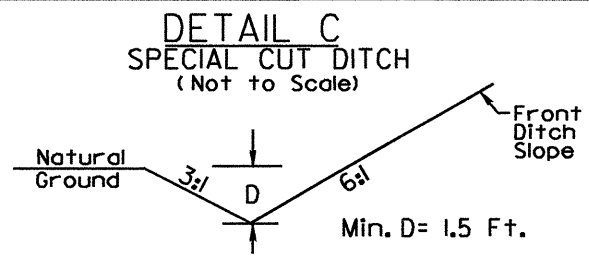
MATCHLINE SHEET 6



H. LEIGH BALLANCE  
DB 2285 PG 896



-SBL-  
PI Sta 40+64.88  
 $\Delta = 16' 28'' 02.4''$  (RT)  
 $D = 1' 25' 56.6''$   
 $L = 1,149.64'$   
 $T = 578.81'$   
 $R = 4,000.00'$   
 $SE = .03$   
 $V_D = 50\text{mph}$



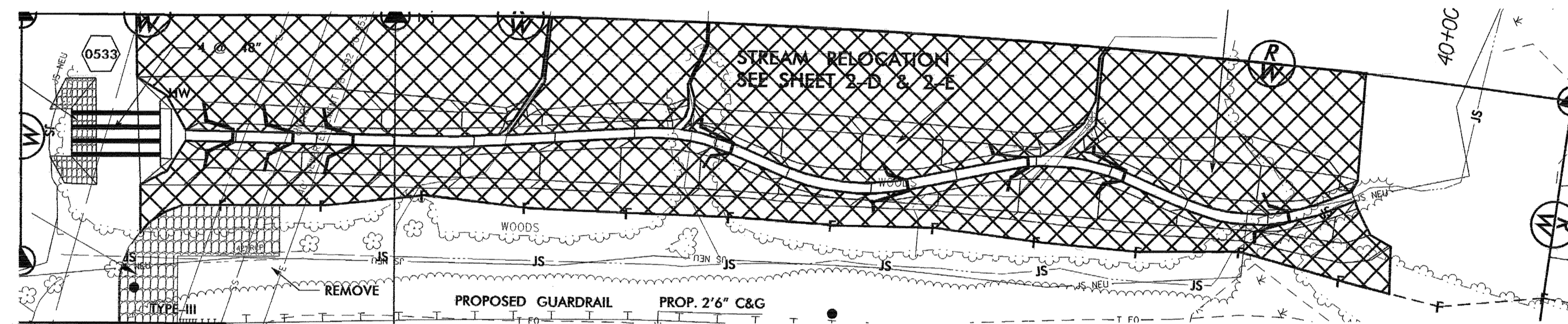
FROM STA. 22+00 TO STA. 26+30 -SBL- RT  
FROM STA. 24+30 TO STA. 26+30 -NBL- LT  
FROM STA. 35+20 TO STA. 45+00 -SBL- RT  
FROM STA. 35+00 TO STA. 39+30 -NBL- LT

**END TIP PROJECT B-4138**  
**-SBL- POT 48+00.00**  
(SEE TRAFFIC CONTROL PLANS FOR ADDITIONAL LIMITS)

PAVEMENT REMOVAL

PROJECT REFERENCE NO.	SHEET NO.
B-4158	EC-10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# 1.27 ACRE STREAMBANK REFORESTATION



SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS