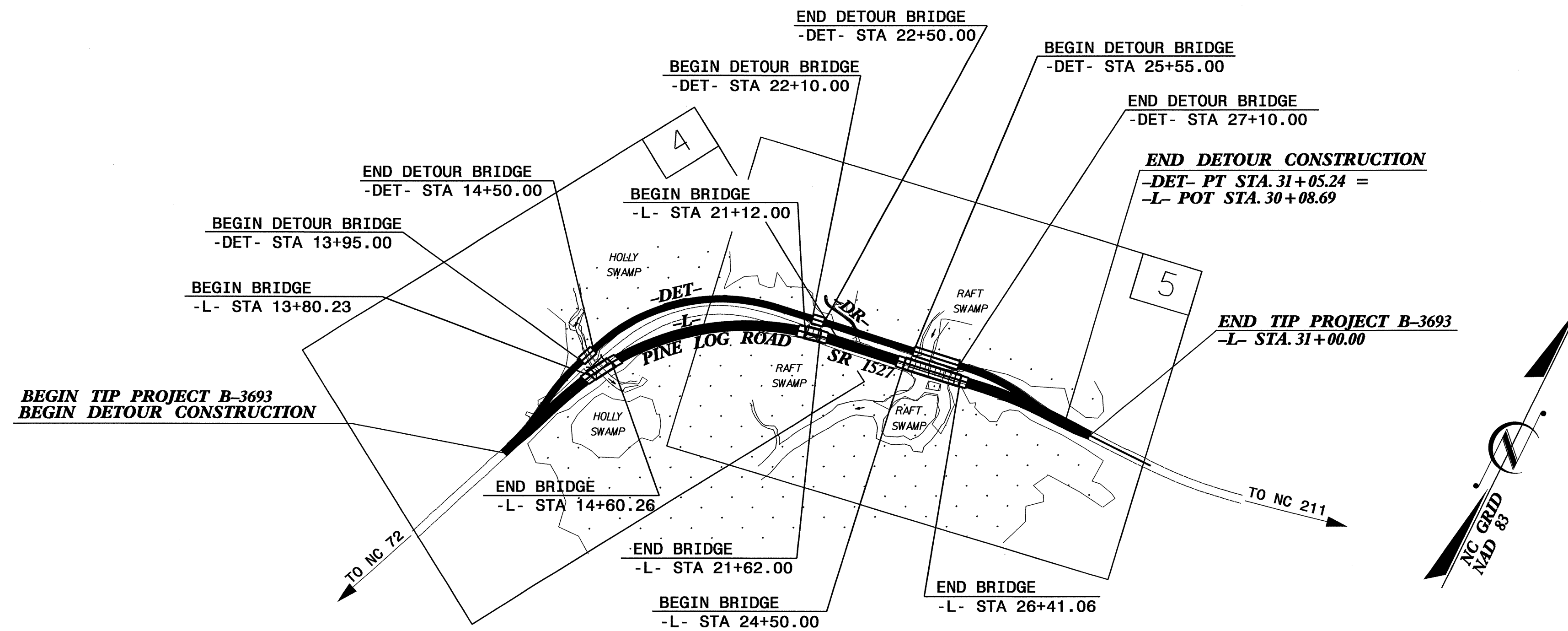


TIP PROJECT: B-3693

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

**LOCATION: BRIDGE NO. 207 OVER HOLLY SWAMP AND BRIDGE
 NOS. 210 AND 211 OVER RAFT SWAMP ON SR 1527**

TYPE OF WORK: GRADING, DRAINAGE, PAVING & STRUCTURES

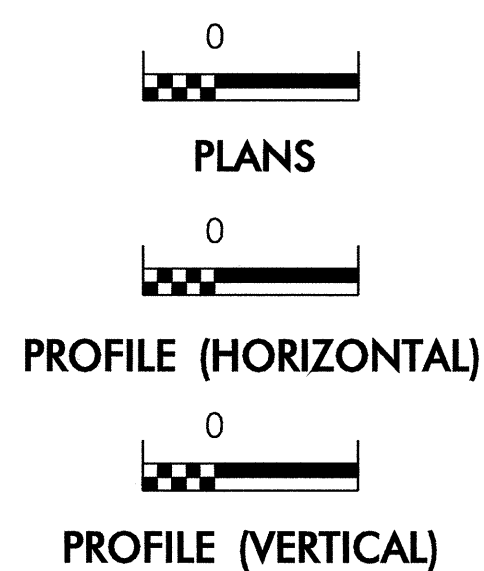


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3693	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

Std. #	Description	Symbol
1630.05	Temporary Silt Ditch	---TSD---
1630.05	Temporary Diversion	---TD---
1605.01	Temporary Silt Fence	---SIF---
1606.01	Special Sediment Control Fence	---SCF---
1622.01	Temporary Berms and Slope Drains	---TBSD---
1633.01	Silt Basin Type B	---SIB---
1633.01	Temporary Rock Silt Check Type-A	---TRSCA---
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	---TRSCA/PAM---
	Temporary Rock Silt Check Type-B	---TRSCB---
	Wattle / Coir Fiber Wattle	---WCFW---
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	---WCFW/PAM---
1634.01	Temporary Rock Sediment Dam Type-A	---TRSDA-A---
1634.02	Temporary Rock Sediment Dam Type-B	---TRSDA-B---
1635.01	Rock Pipe Inlet Sediment Trap Type-A	---RPIST-A---
1635.02	Rock Pipe Inlet Sediment Trap Type-B	---RPIST-B---
1630.04	Stilling Basin	---SB---
1630.06	Special Stilling Basin	---SSB---
	Rock Inlet Sediment Trap:	
1632.01	Type A	---RIA-A---
1632.02	Type B	---RIA-B---
1632.03	Type C	---RIA-C---
	Skimmer Basin	---SKB---
	Tiered Skimmer Basin	---TSKB---
	Infiltration Basin	---IB---

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

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

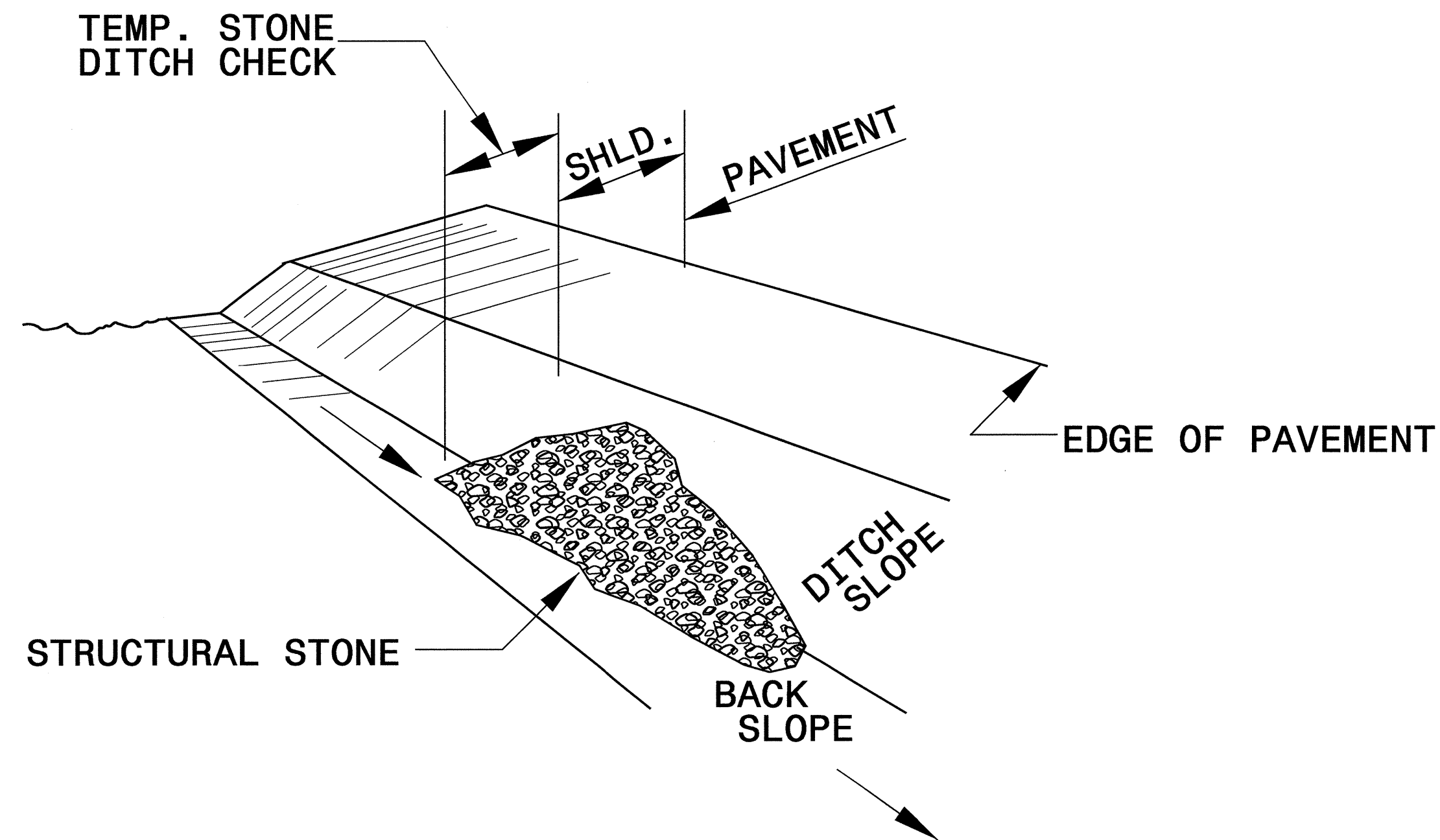
Roadway Standard Drawings

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 | 1632.03 Rock Inlet Sediment Trap Type C |
| 1606.01 Special Sediment Control Fence | 1633.01 Temporary Rock Silt Check Type A |
| 1607.01 Gravel Construction Entrance | 1634.02 Temporary Rock Sediment Dam Type B |
| 1622.01 Temporary Berms and Slope Drains | |
| 1630.05 Temporary Diversion | |

PROJECT REFERENCE NO. <i>B-3693</i>	SHEET NO. <i>EC-2</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

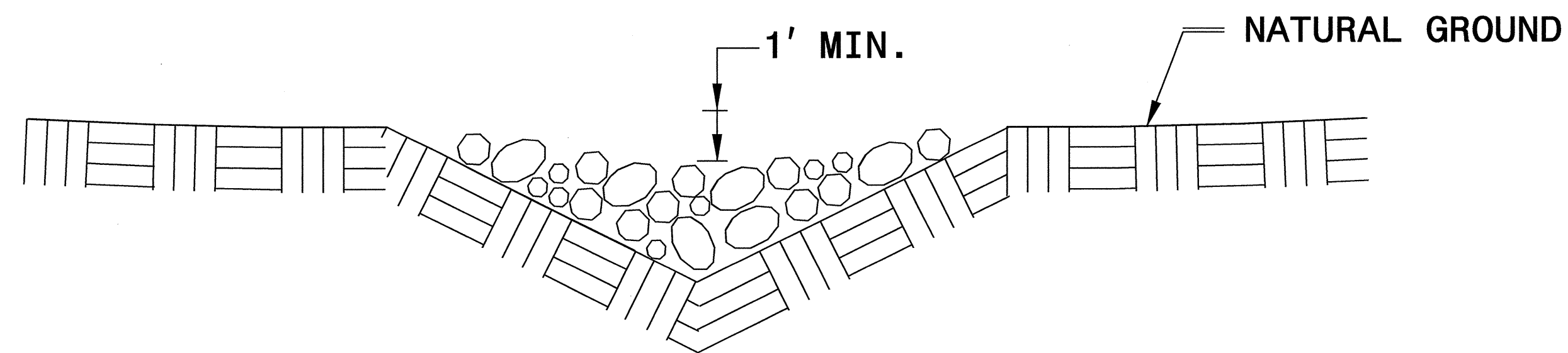


ISOMETRIC VIEW

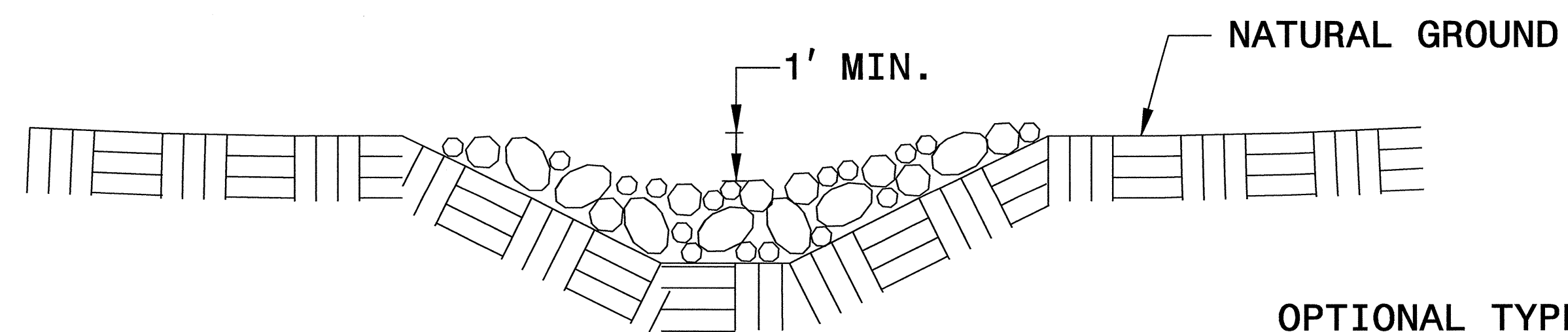
NOTES:

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

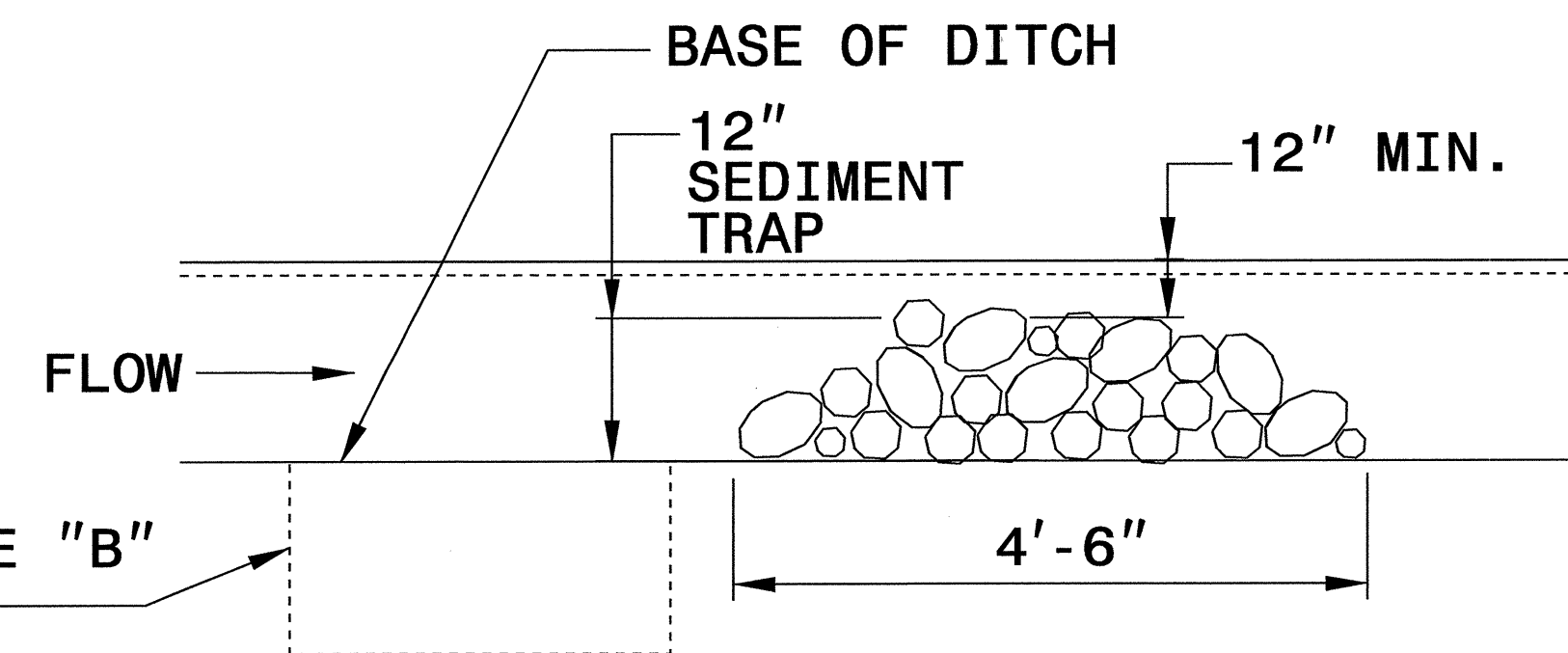
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



**CROSS SECTION
VEE DITCH**



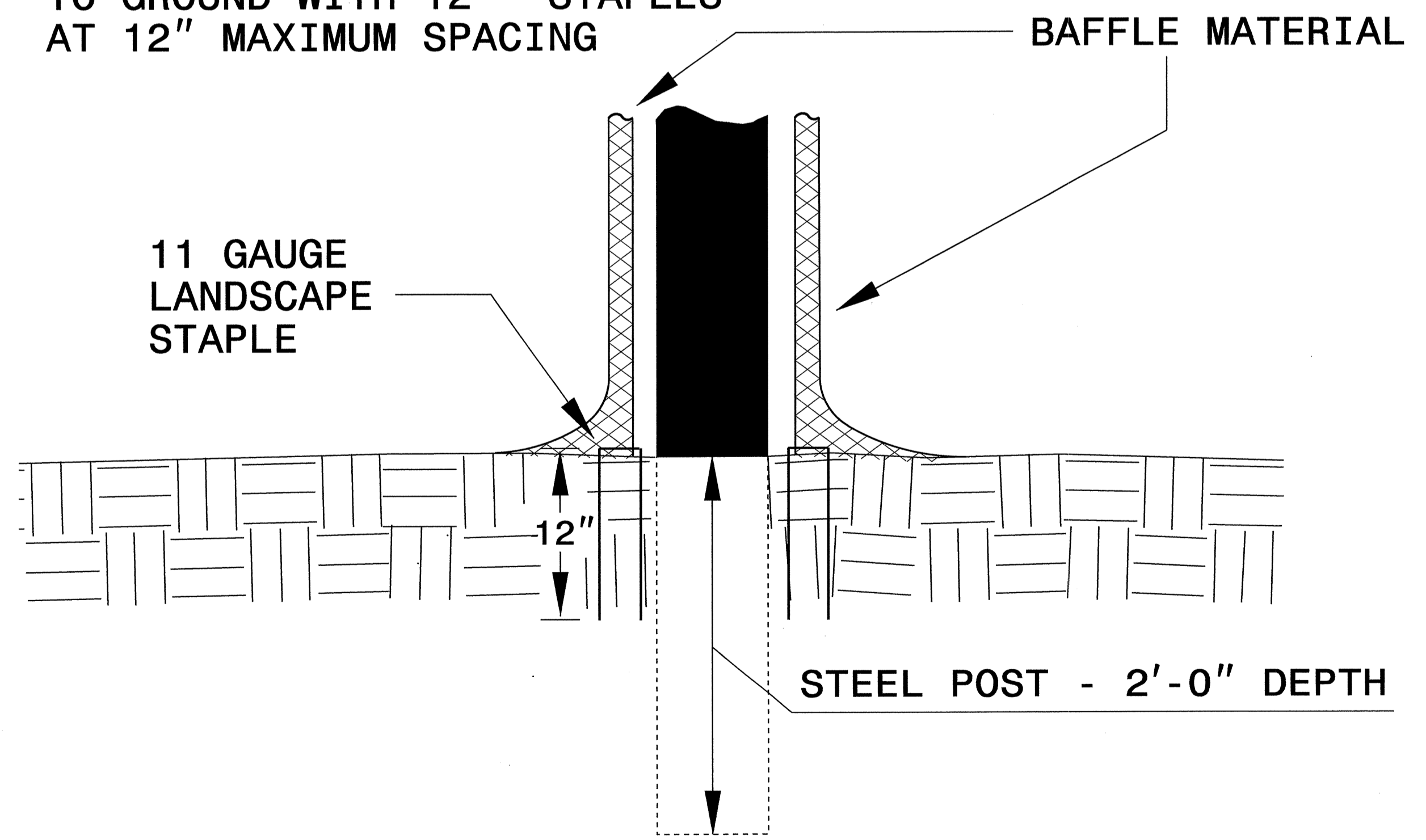
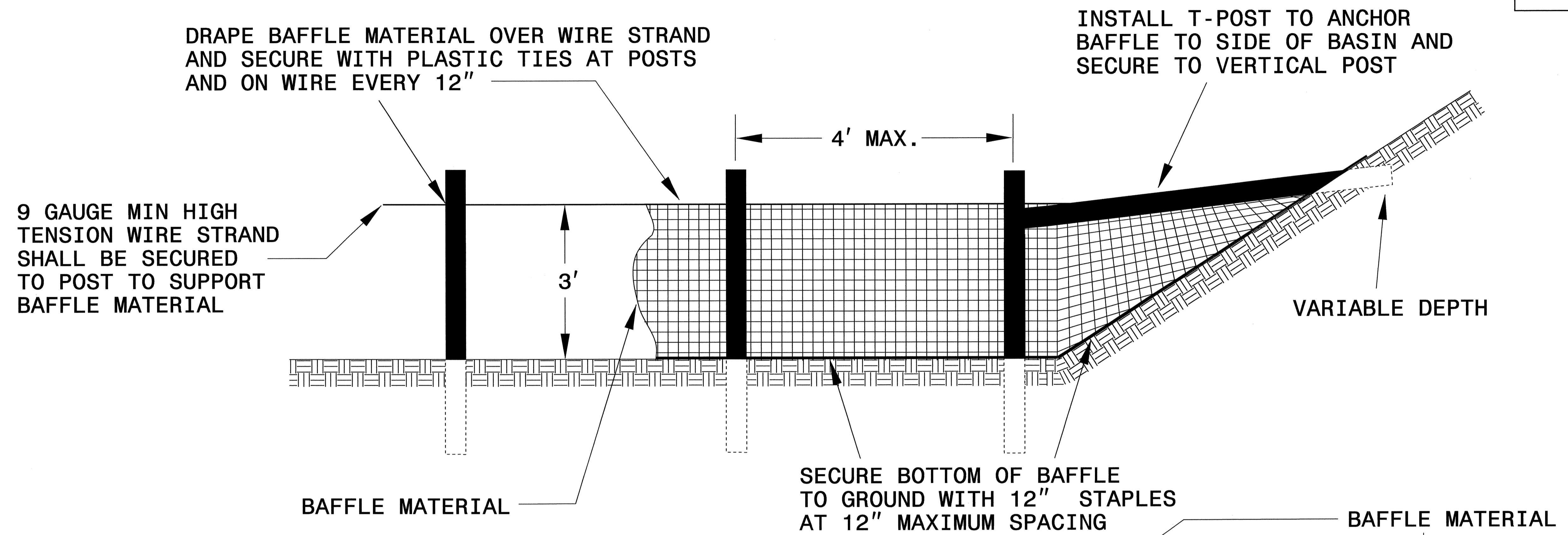
**CROSS SECTION
TRAPEZOIDAL DITCH**



ELEVATION VIEW

PROJECT REFERENCE NO. B-3693	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL



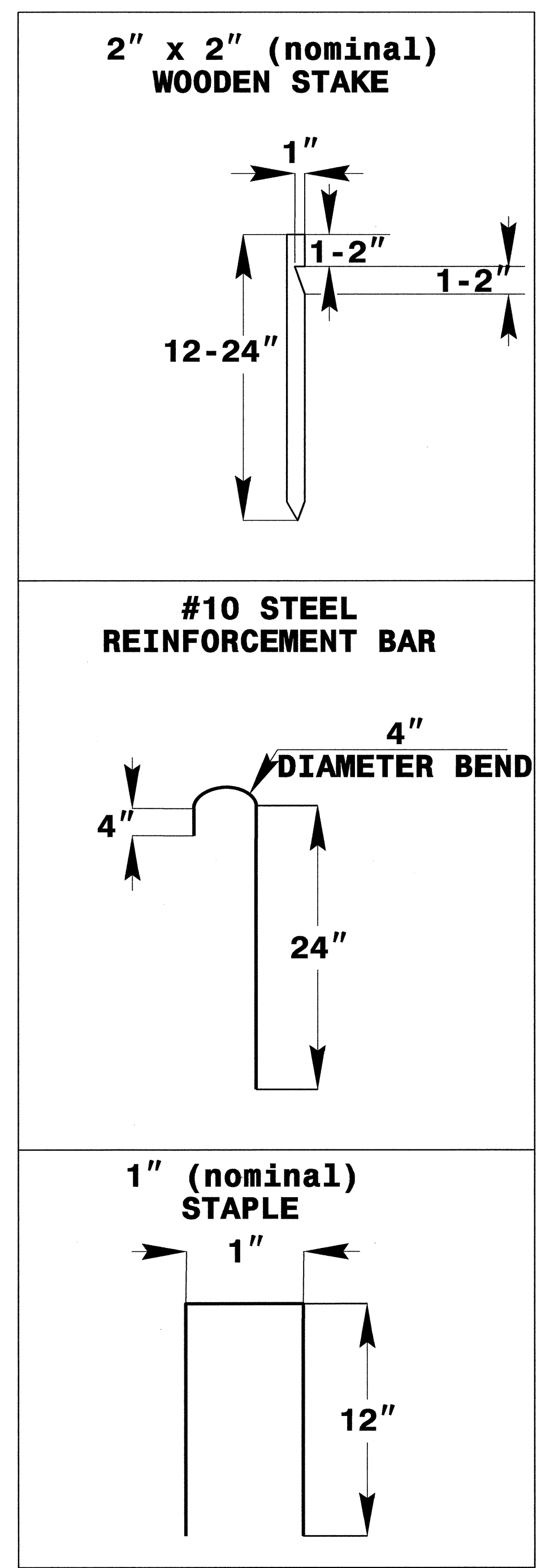
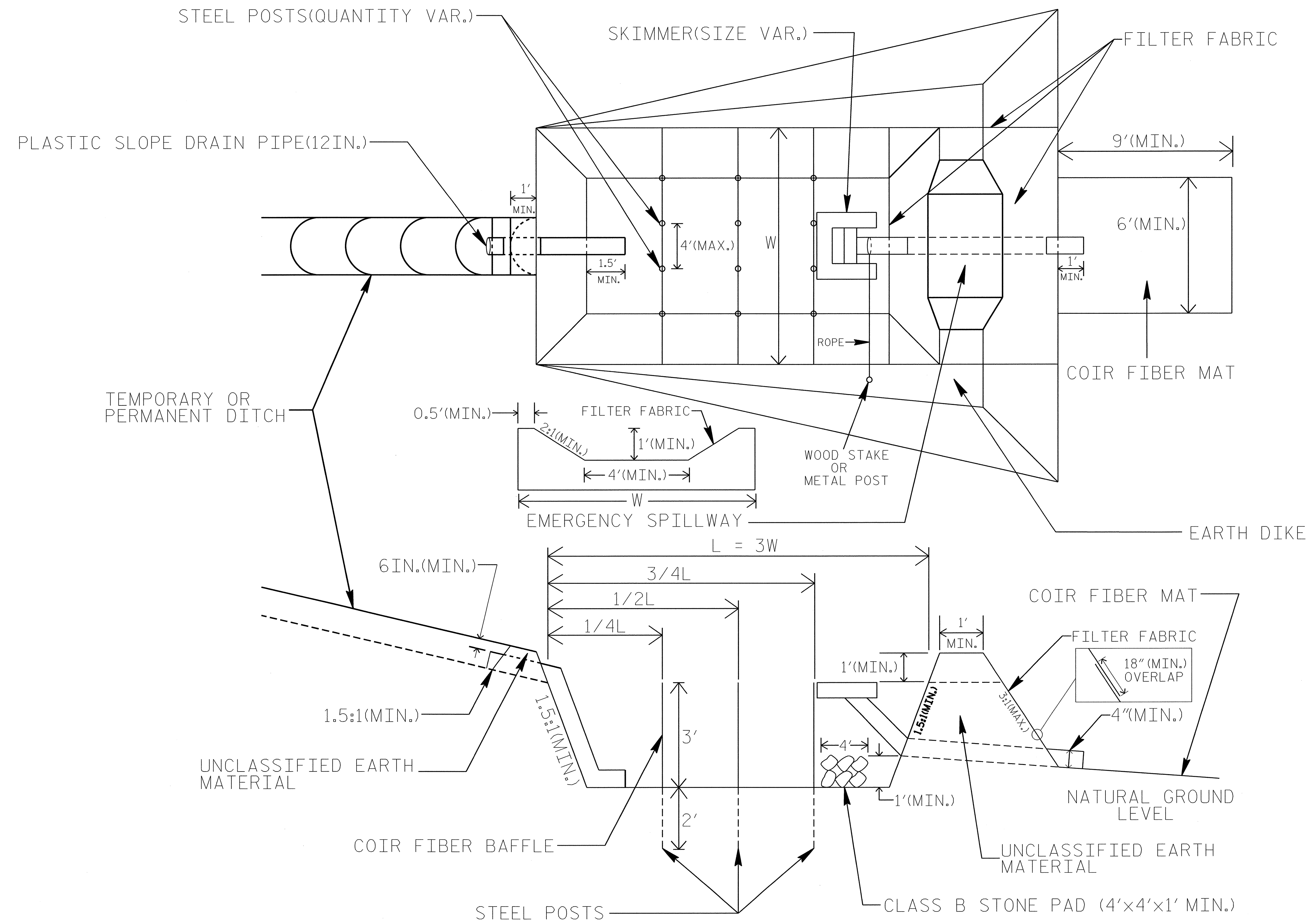
NOTES:

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-3693	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



COIR FIBER MAT ANCHOR OPTIONS

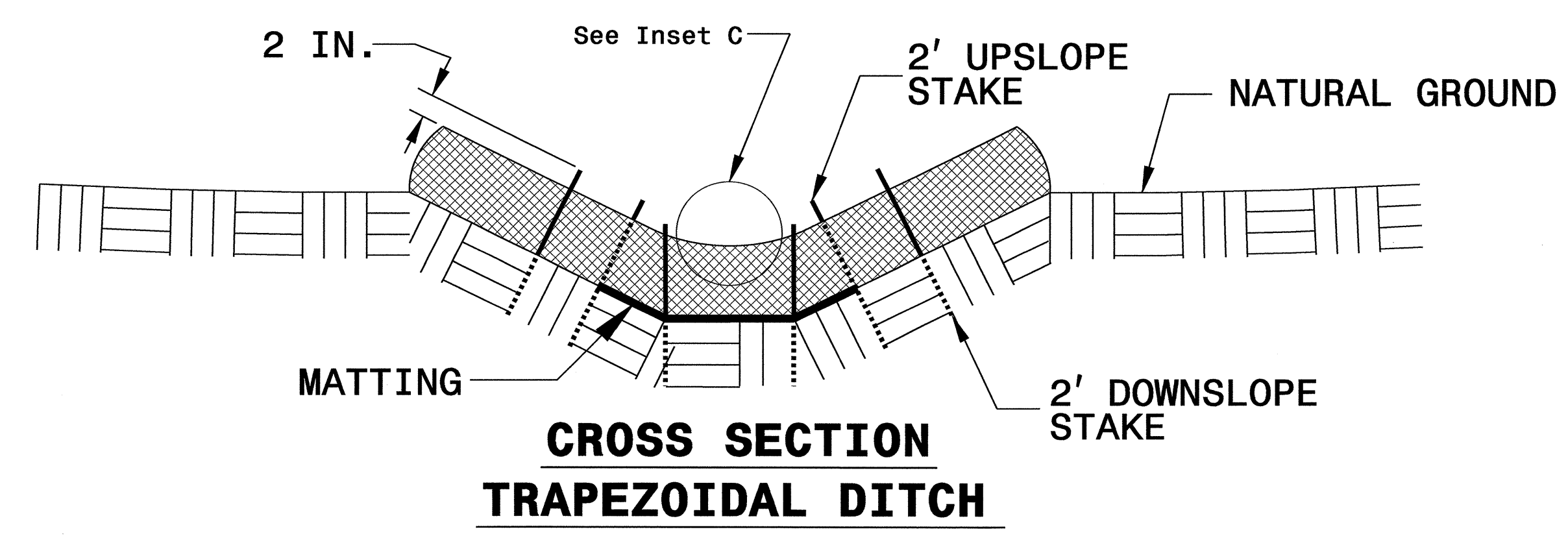
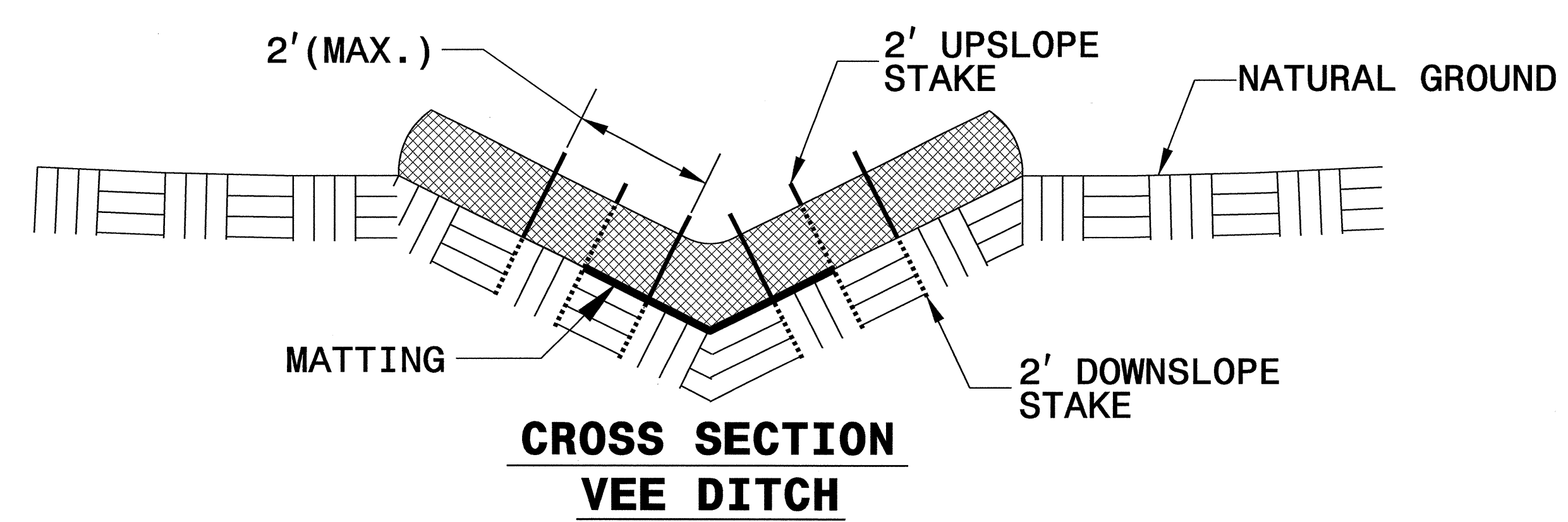
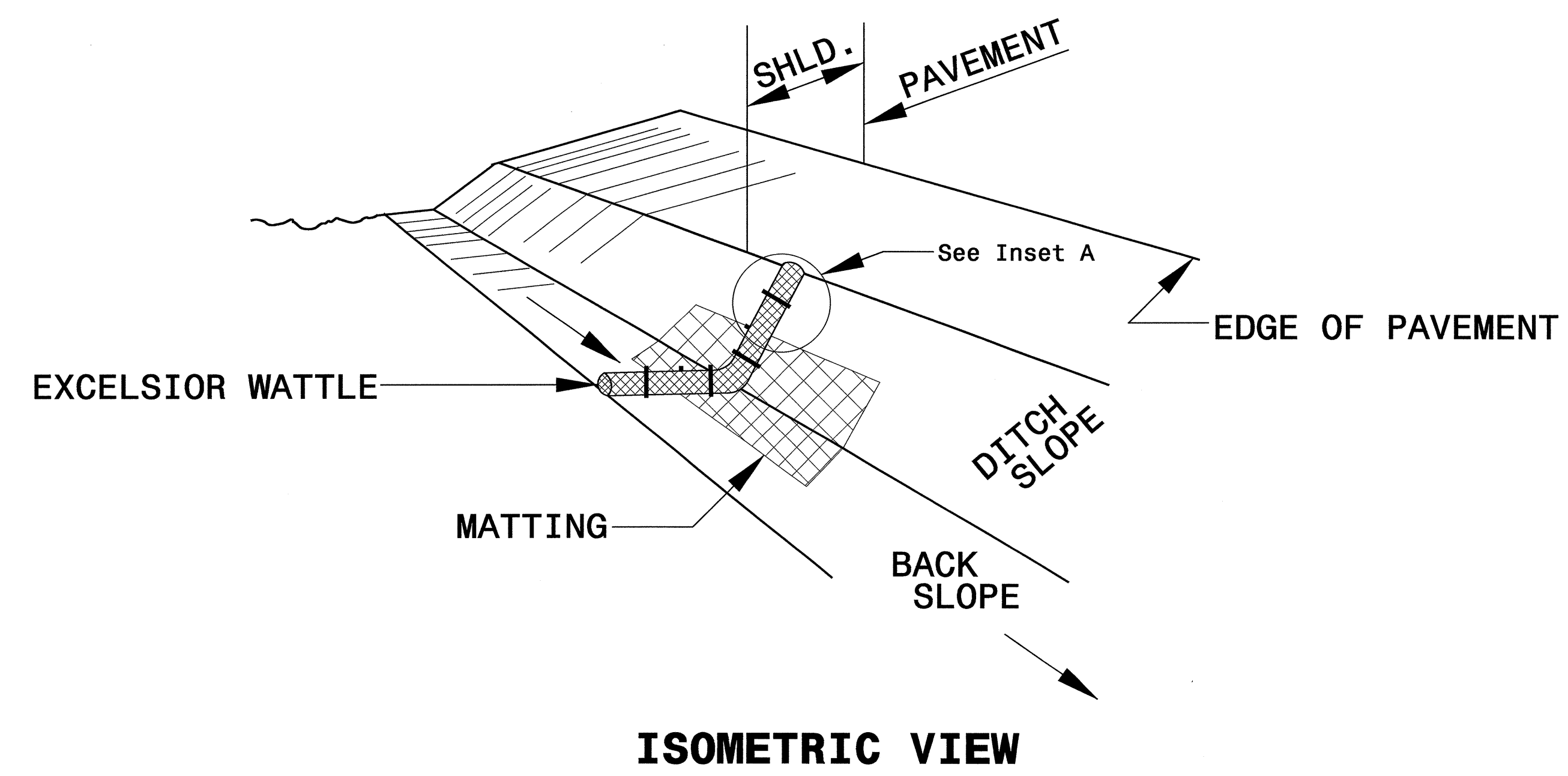
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR 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.

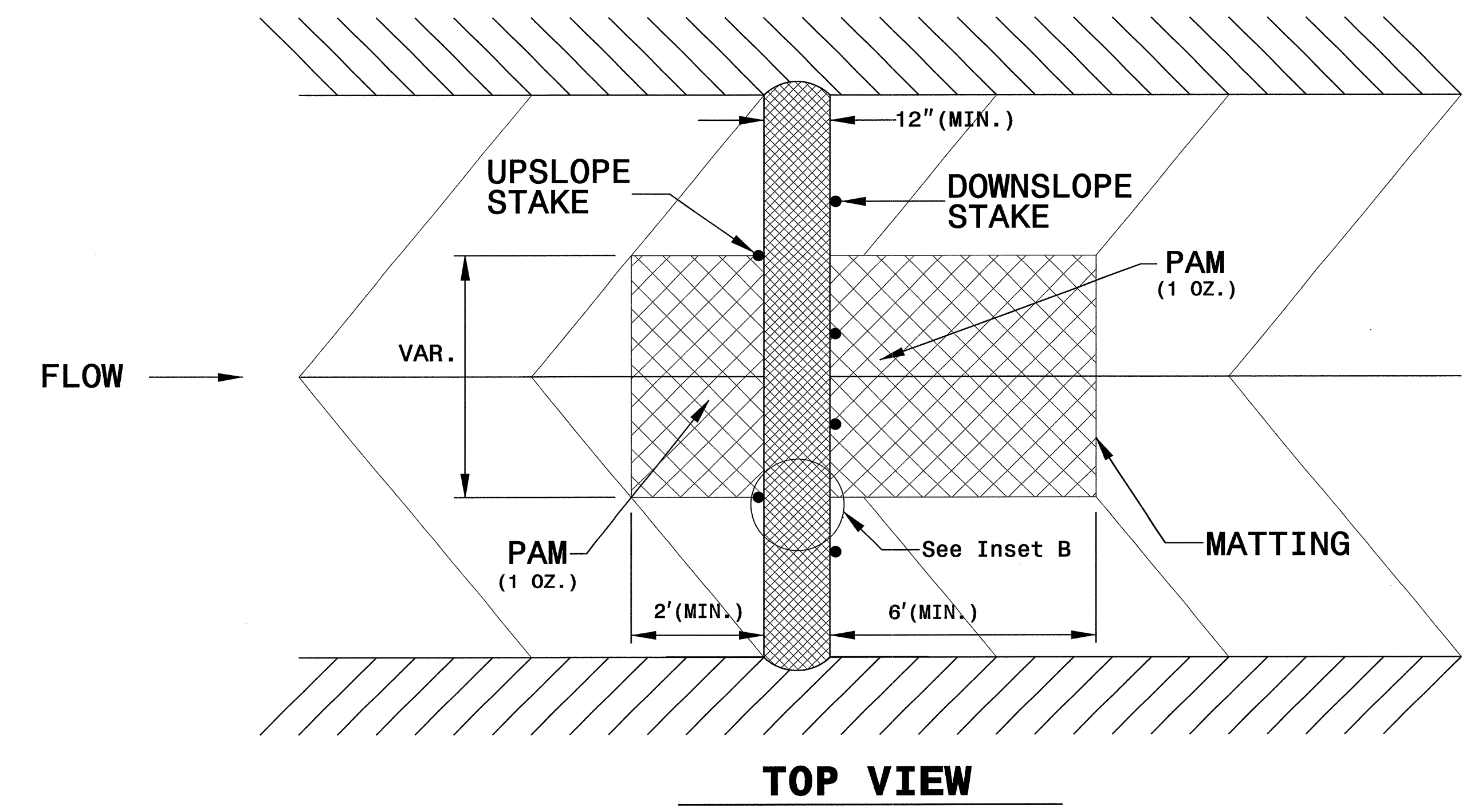
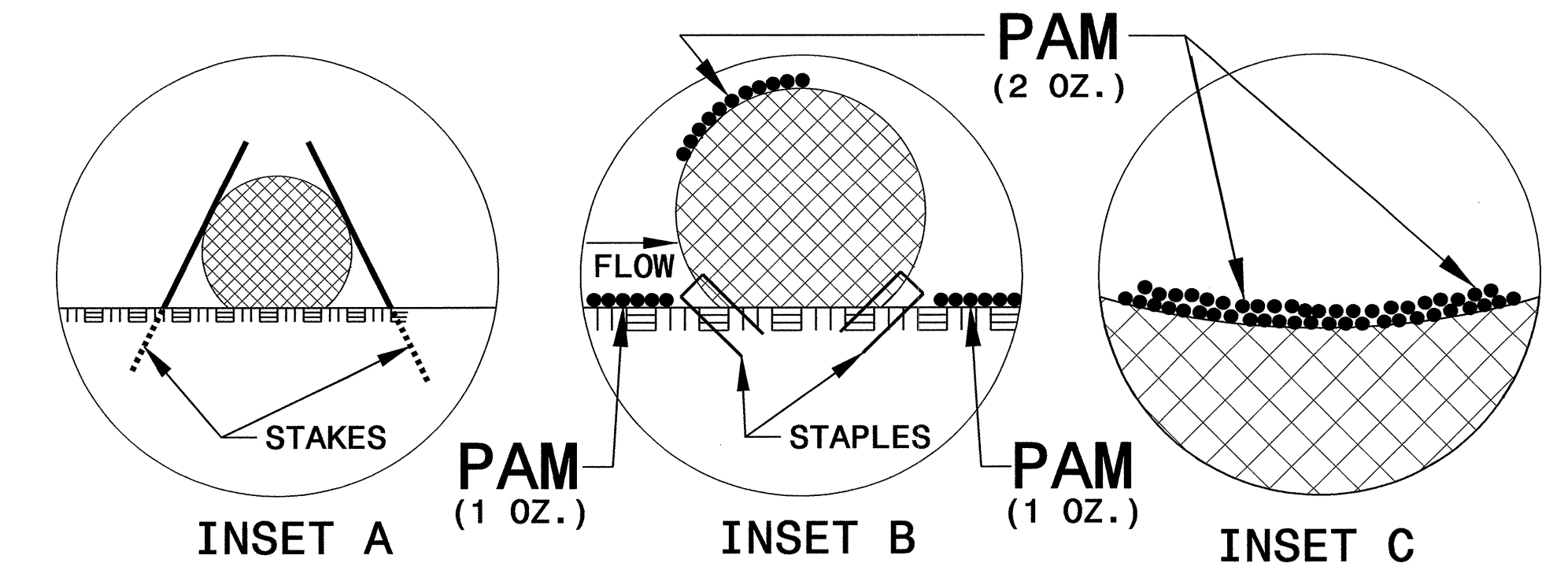
NOT TO SCALE

PROJECT REFERENCE NO. B-3693	SHEET NO. EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

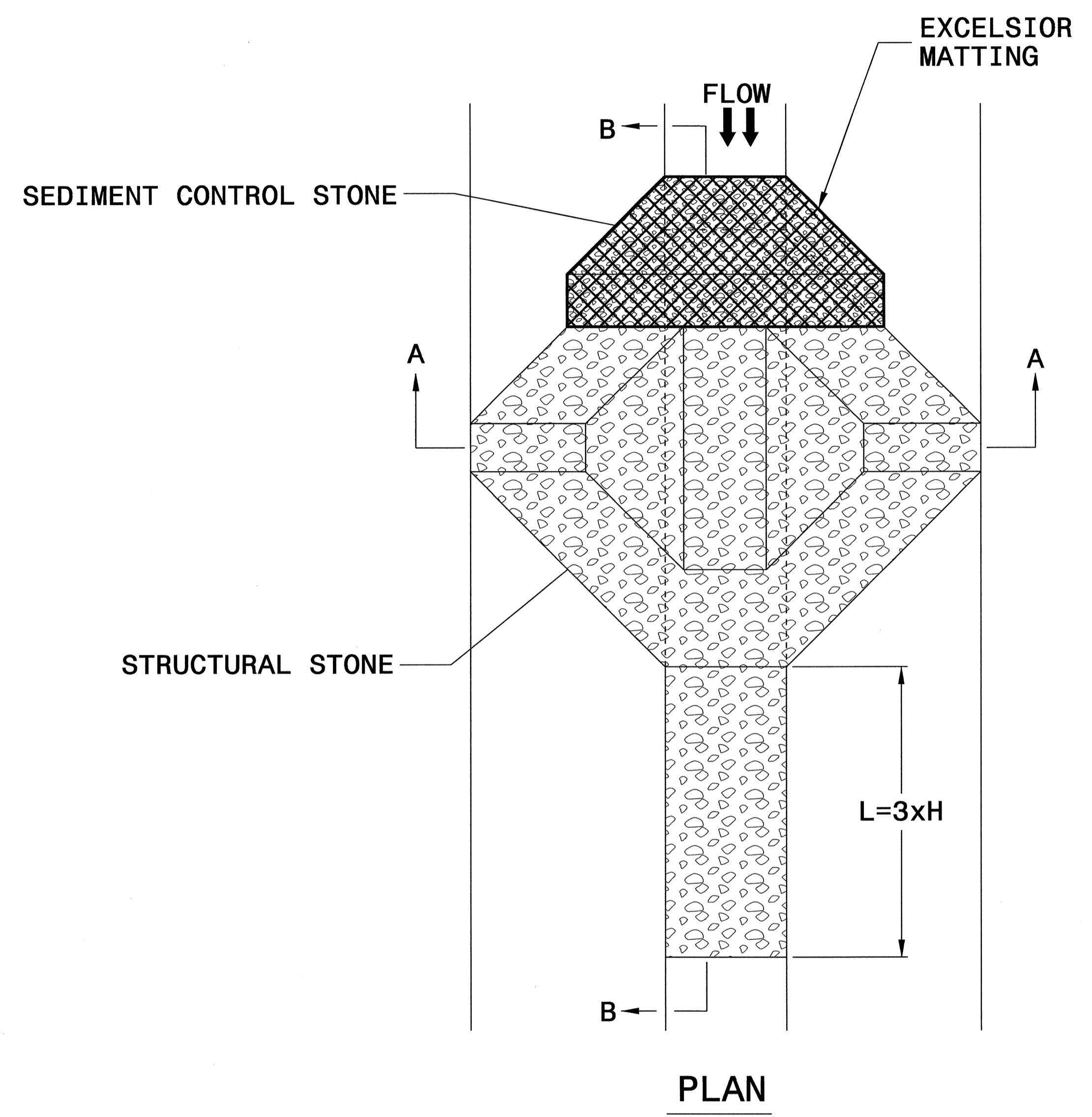


- NOTES:
- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
 - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
 - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
 - INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE 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-3693	SHEET NO. EC-2D
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

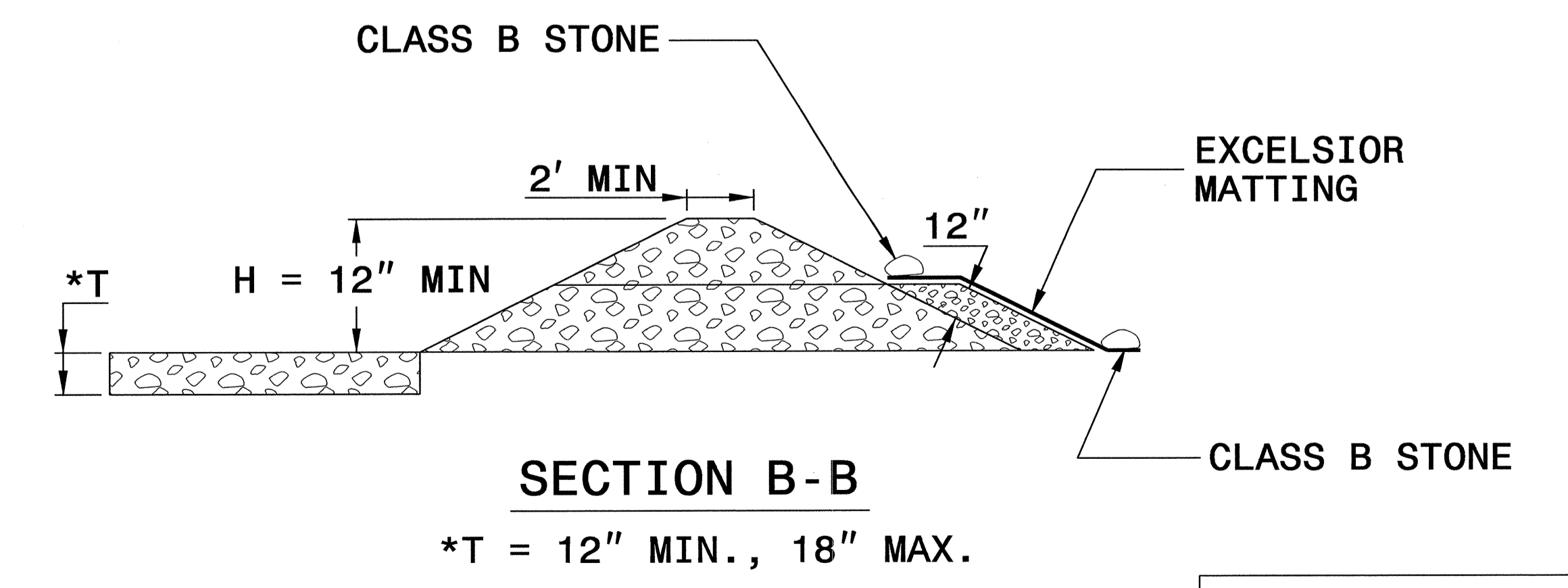
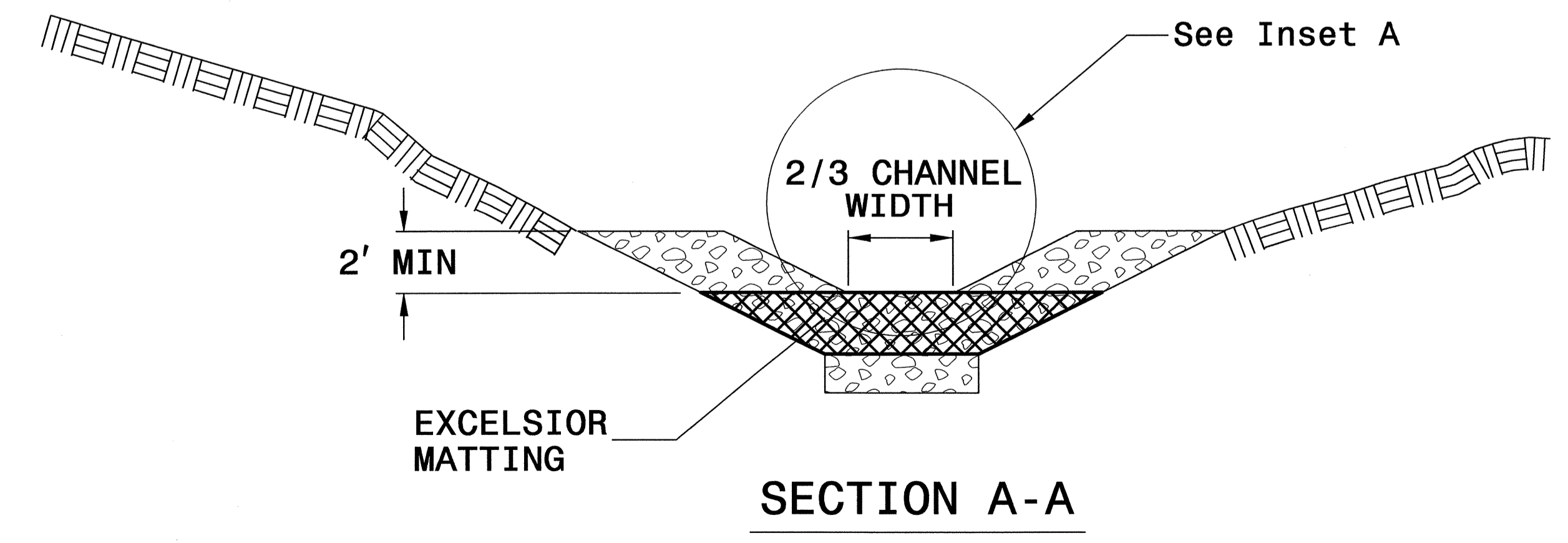
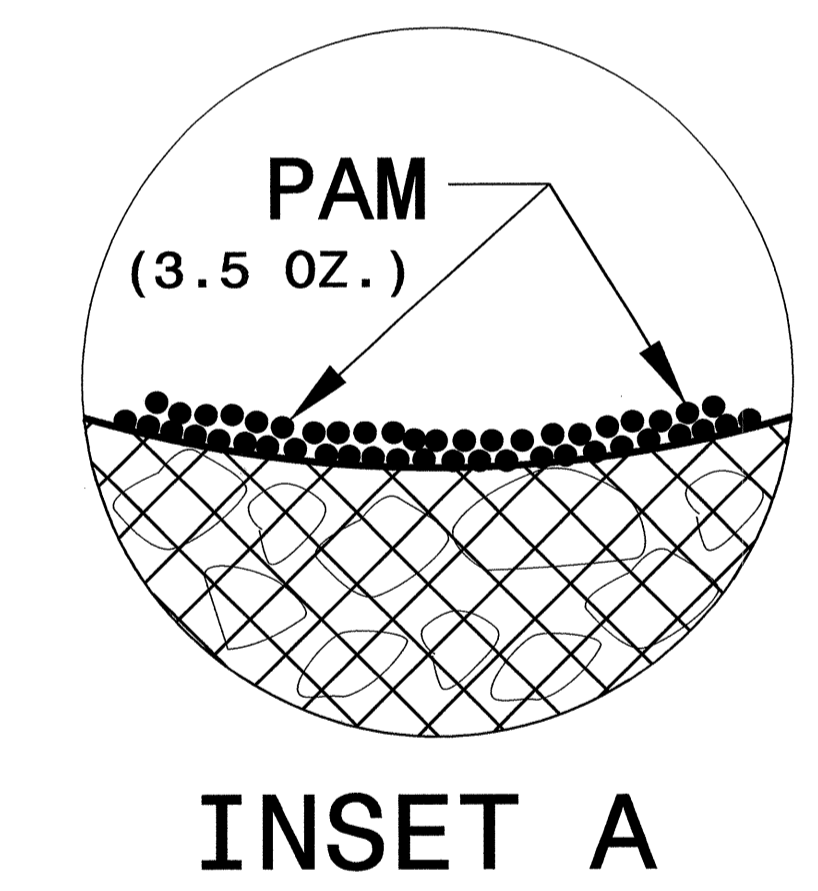


NOTES

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.

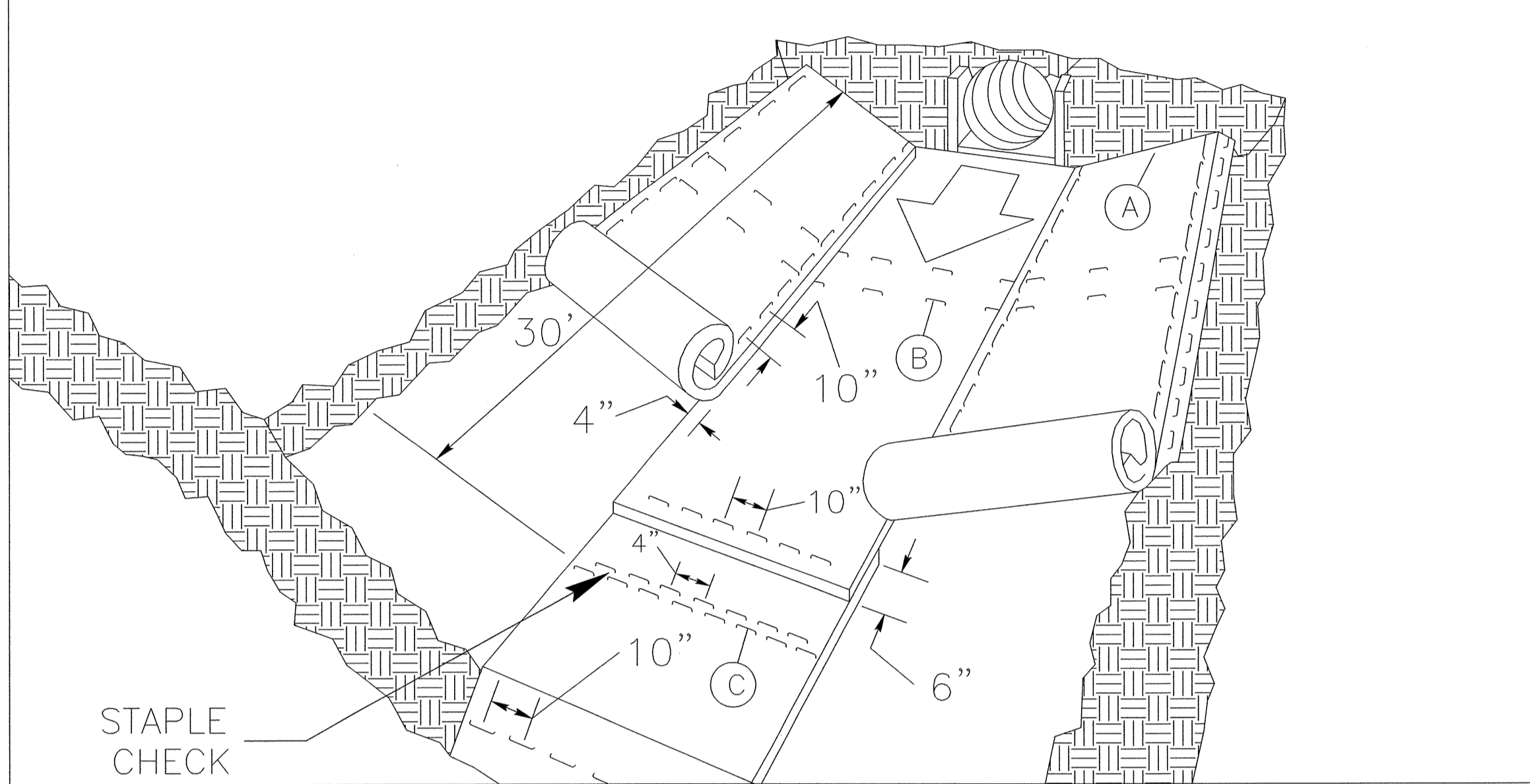
INITIALLY APPLY 3.5 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



NOT TO SCALE

PROJECT REFERENCE NO. B-3693	SHEET NO. EC-2E
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATTING INSTALLATION DETAIL



MATTING IN DITCHES

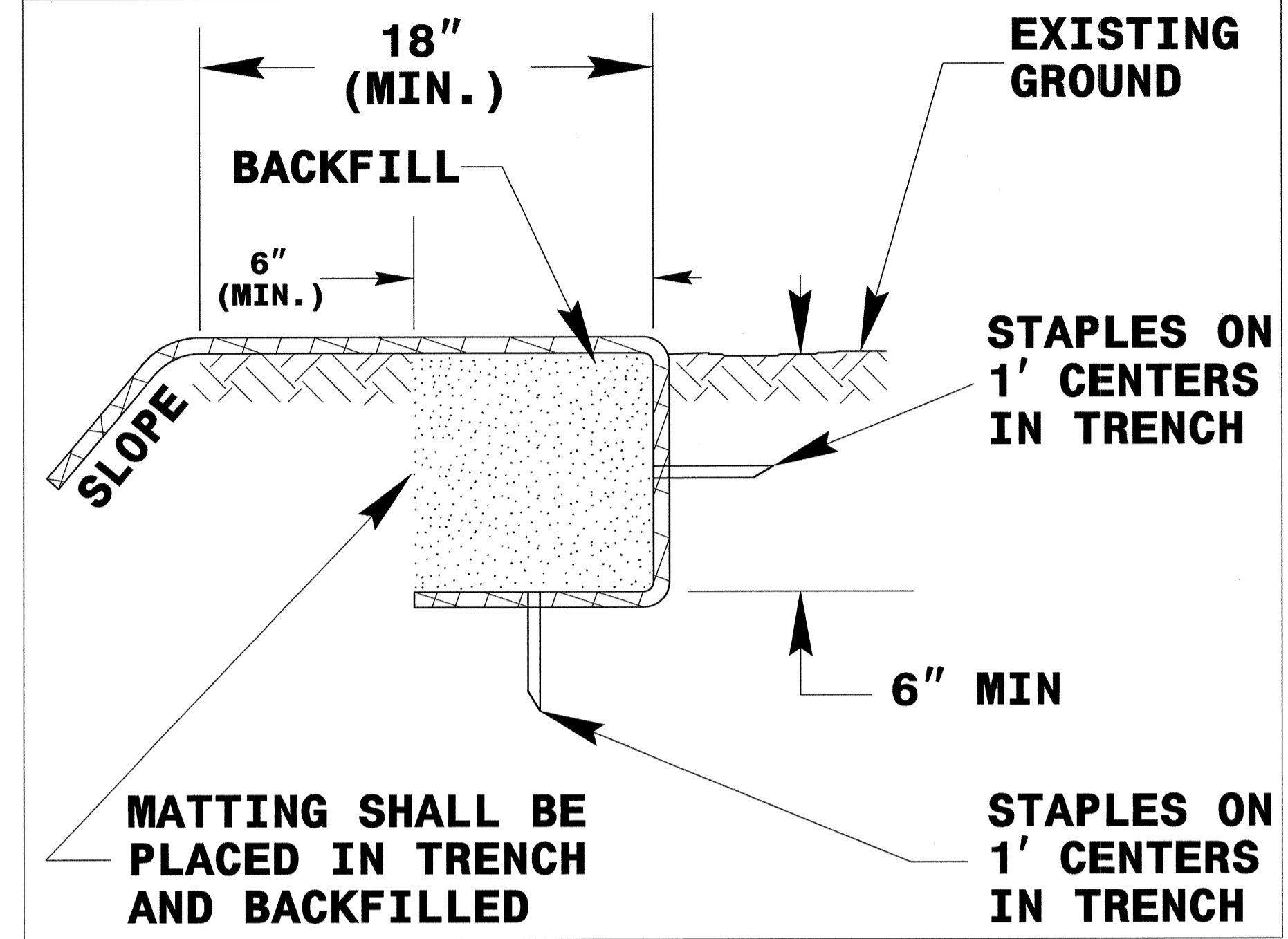
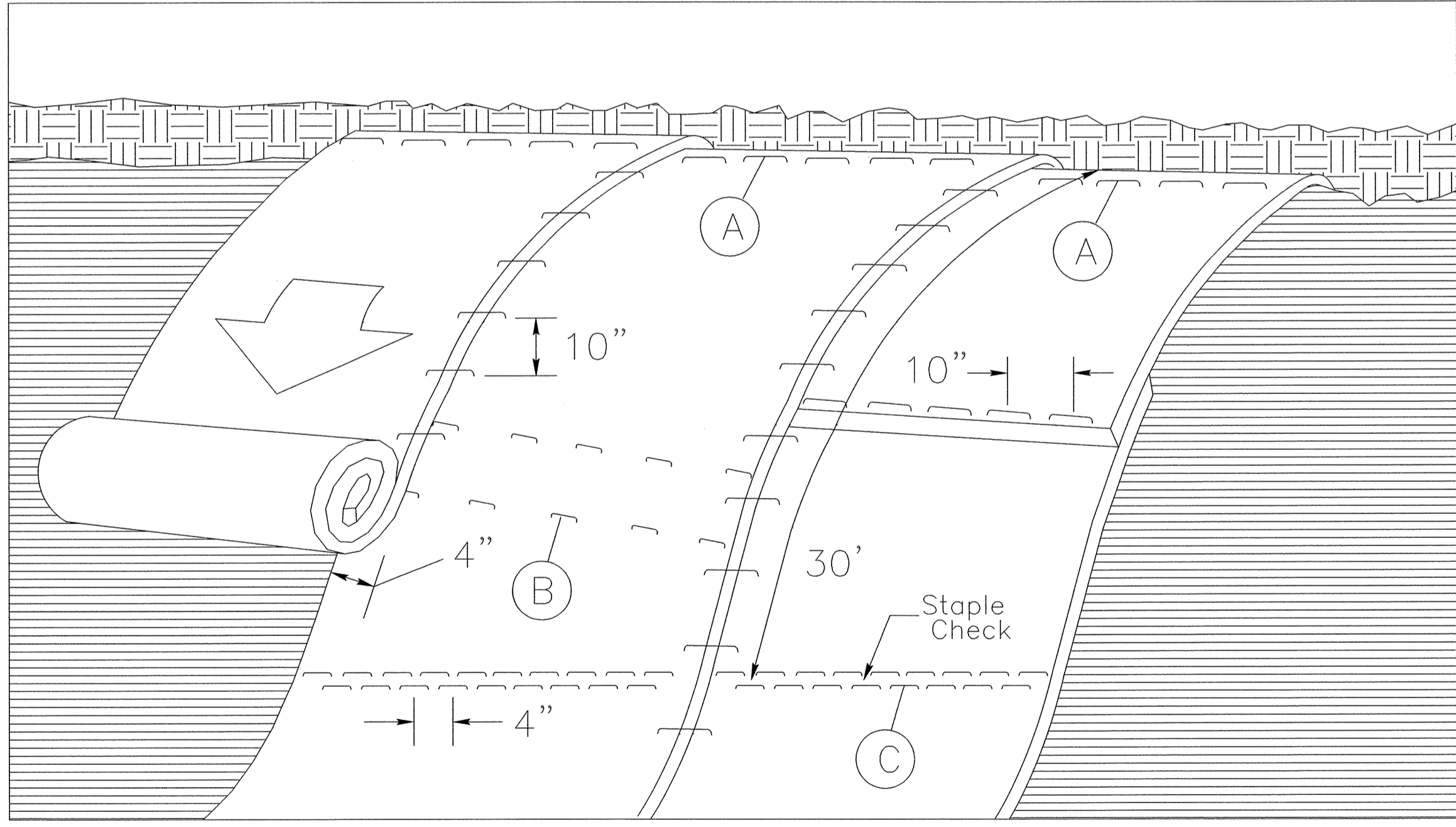


DIAGRAM (A)



MATTING ON SLOPES

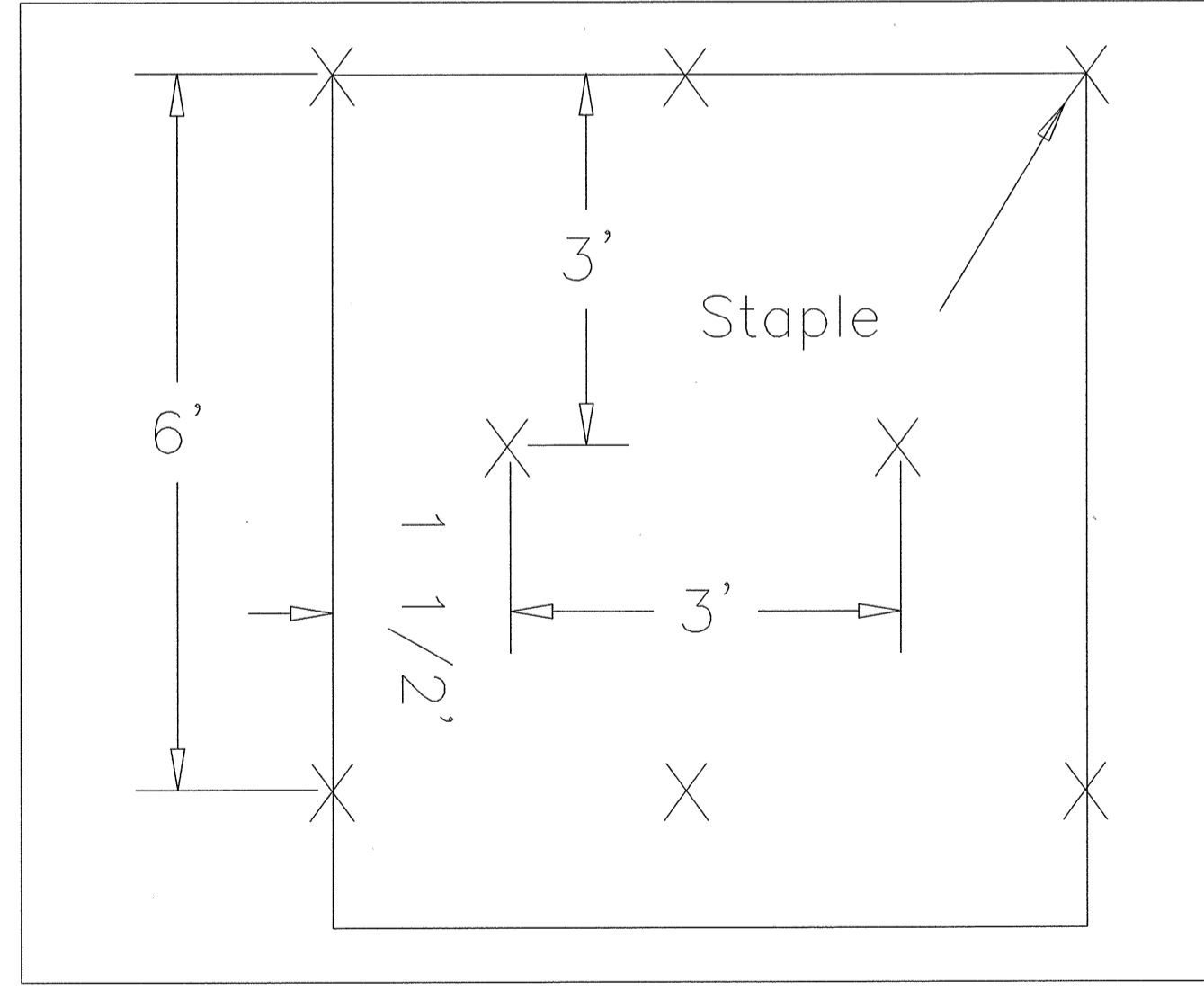


DIAGRAM (B)

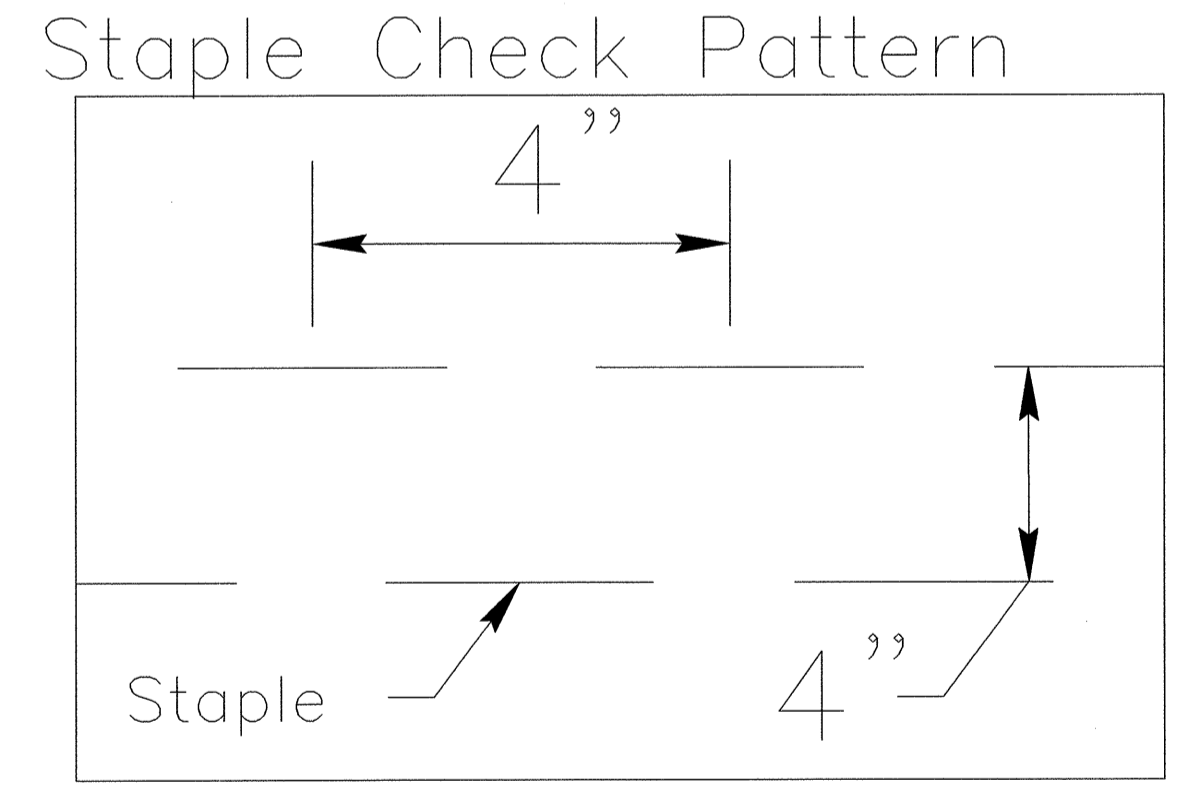


DIAGRAM (C)

NOTES:

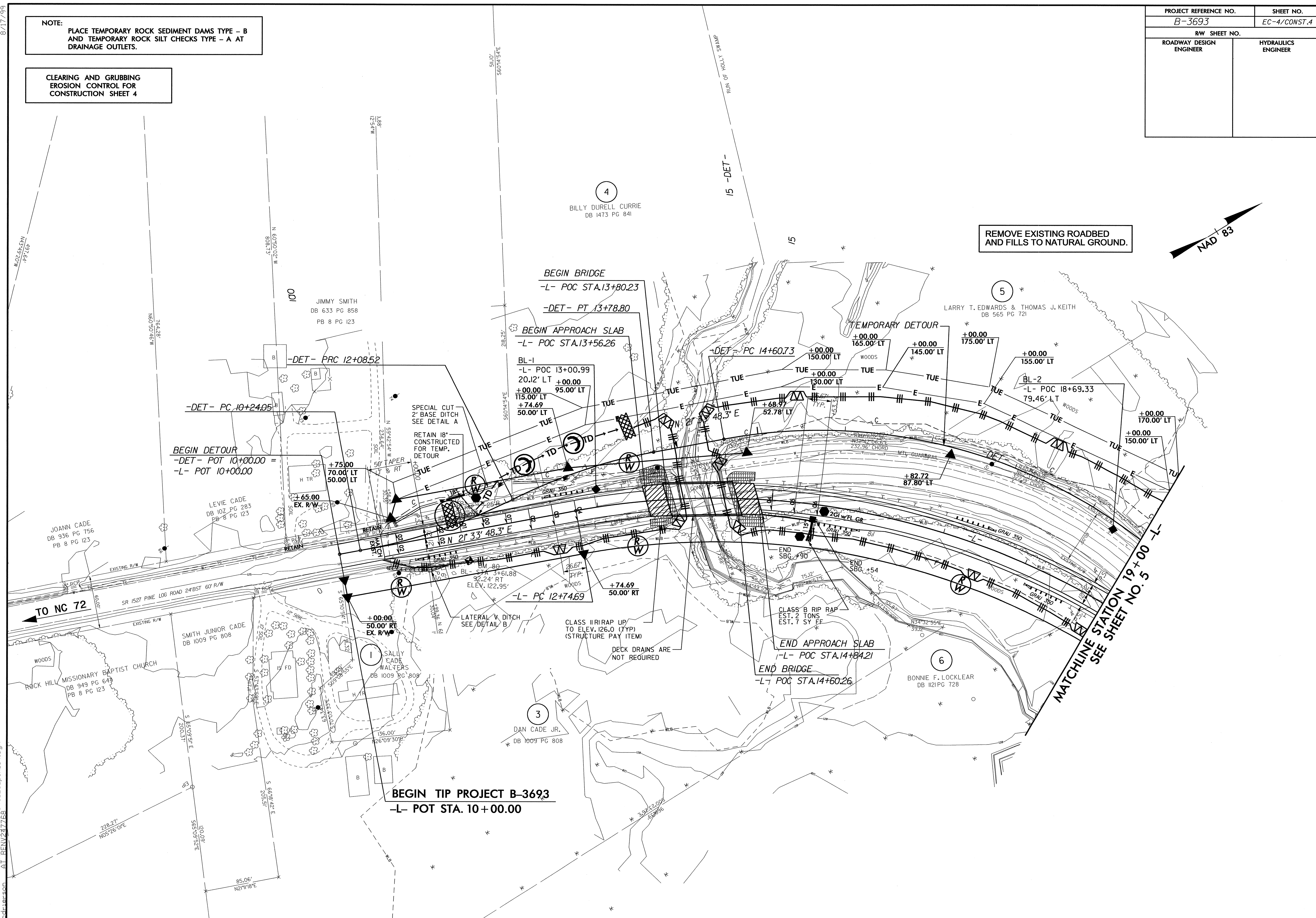
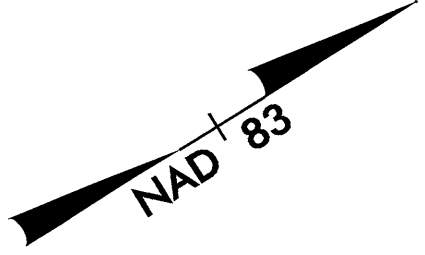
THIS DETAIL APPLIES TO STRAW, EXCELSIOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.
 STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

NOT TO SCALE

PROJECT REFERENCE NO. <i>B-3693</i>	SHEET NO. <i>EC-4/CONST.4</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 4



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PROJECT REFERENCE NO.		SHEET NO.	
B-3693		EC-5/CONST.5	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

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 5

NOTE:
UTILIZE TEMPORARY ROCK SEDIMENT DAM TYPE - B AS STILLING BASIN WHERE APPLICABLE.

REMOVE EXISTING ROADBED AND FILLS TO NATURAL GROUND.

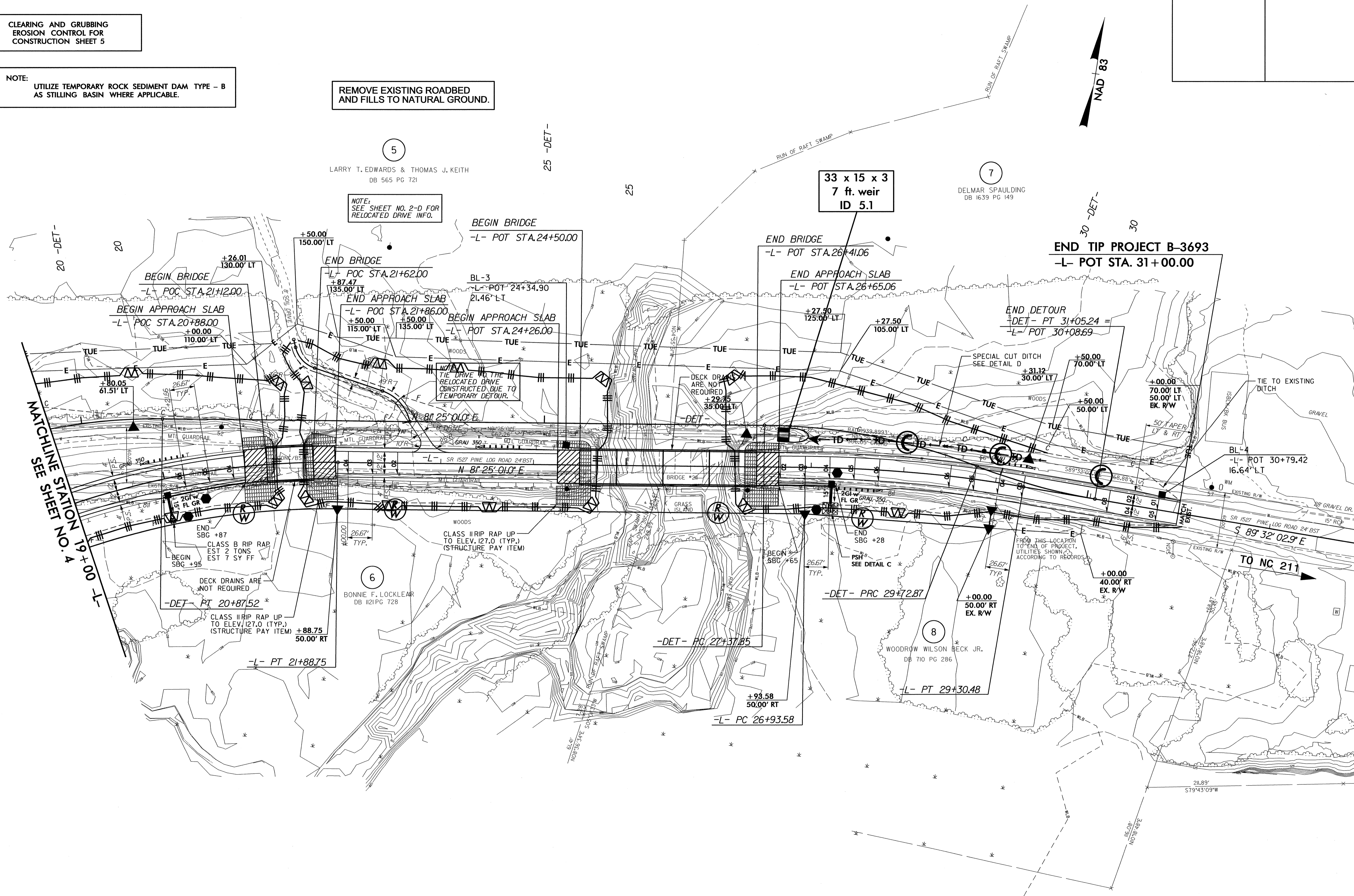
LARRY T. EDWARDS & THOMAS J. KEITH
DB 565 PG 721

NOTE:
SEE SHEET NO. 2-D FOR
RELOCATED DRIVE INFO.

DELMAR SPAULDING
DB 1639 PG 149

BONNIE F. LOCKLEAR
DB 1121 PG 728

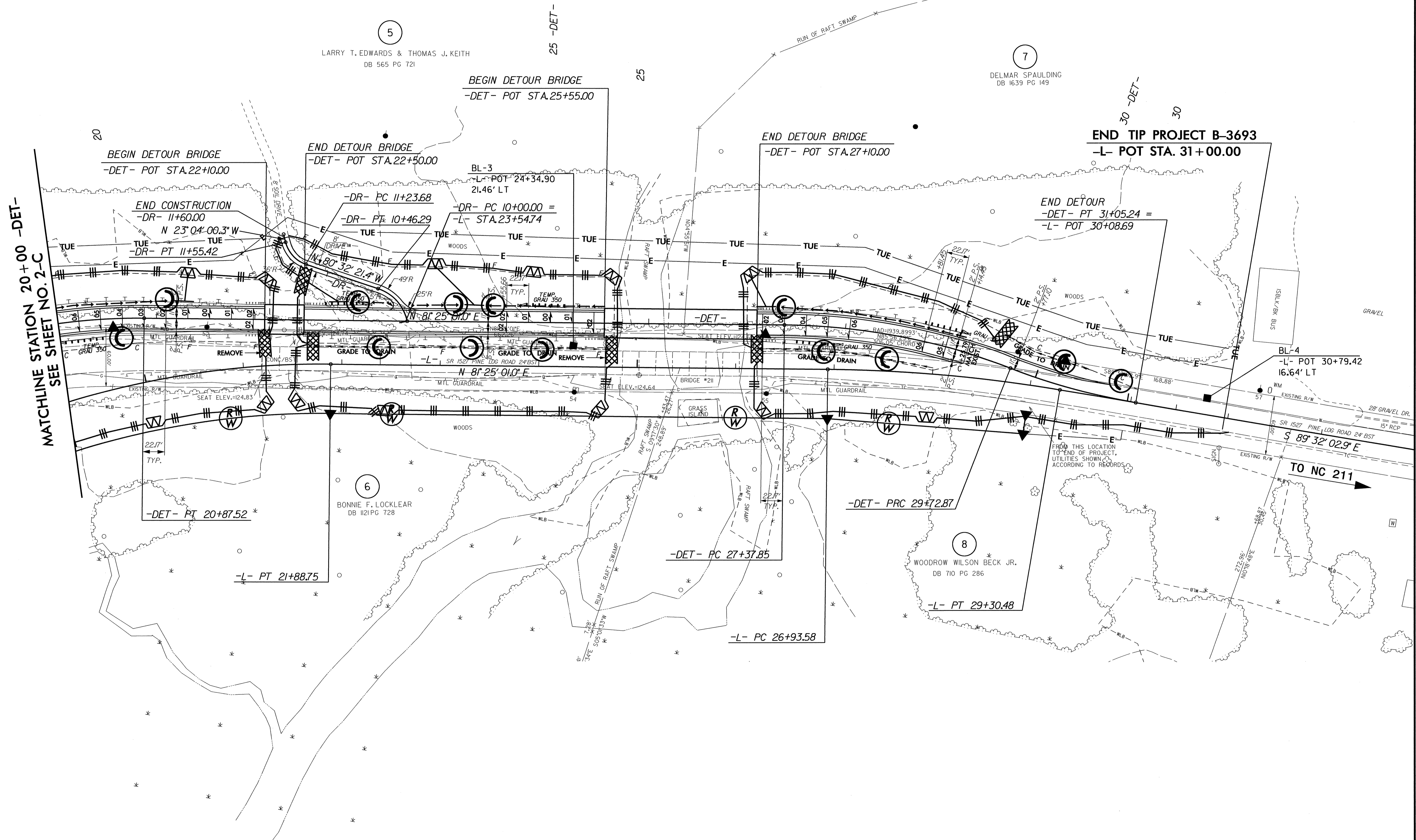
WOODROW WILSON BECK JR.
DB 710 PG 286



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PROJECT REFERENCE NO.	SHEET NO.
B-3693	EC-7/CONST.2-D
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DETOUR



5
LARRY T. EDWARDS & THOMAS J. KEITH
DB 565 PG 721

7
DELMAR SPAULDING
DB 1639 PG 149

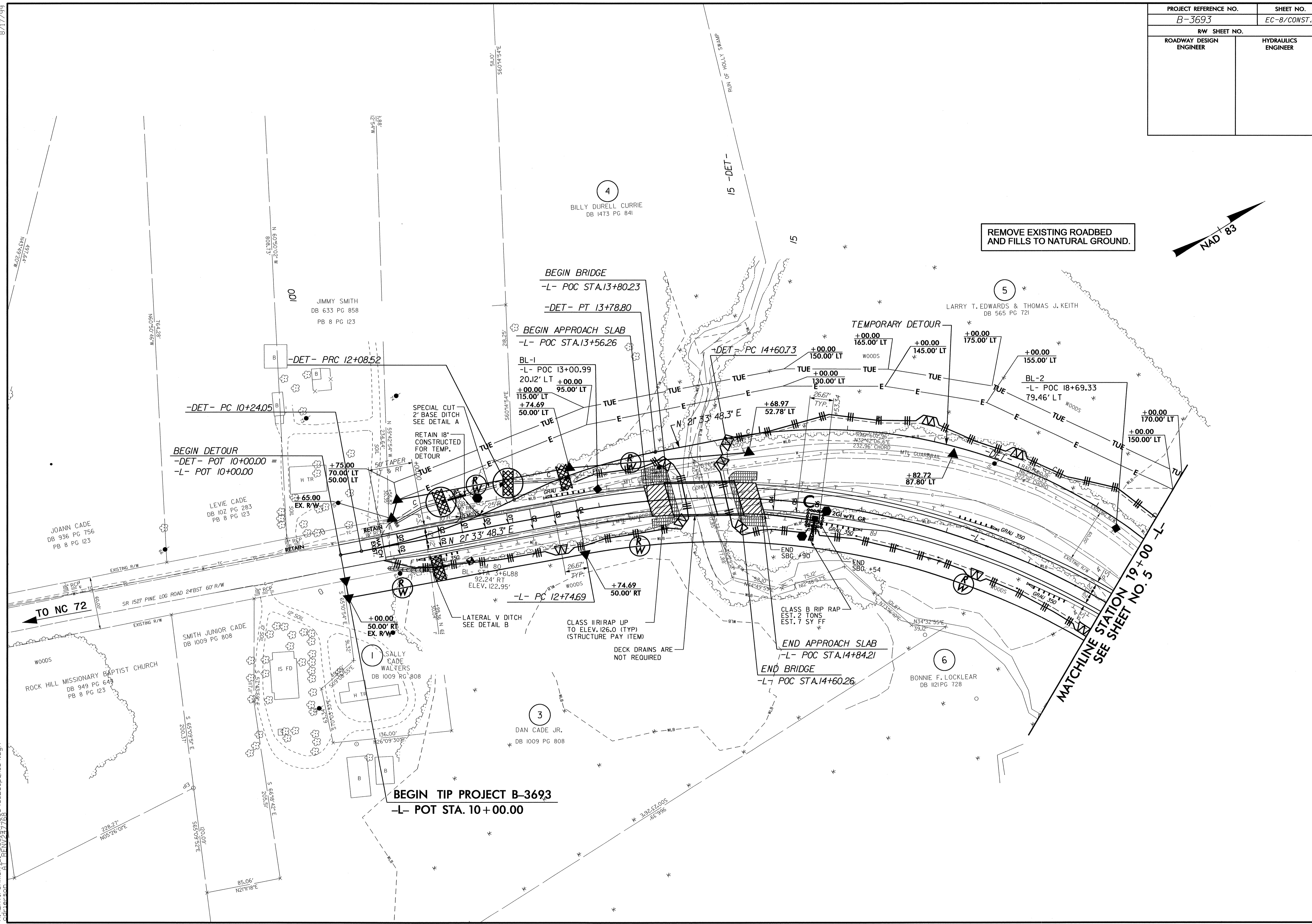
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BONNIE F. LOCKLEAR
DB 1121 PG 728

8
WOODROW WILSON BECK JR.
DB 710 PG 286

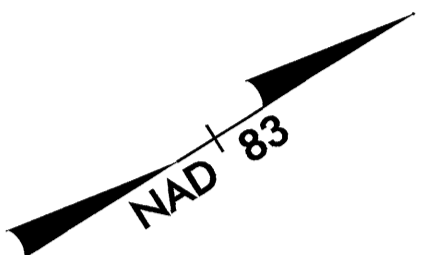
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PROJECT REFERENCE NO.	SHEET NO.
B-3693	EC-8/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 11/27/2008
 11/27/2008



REMOVE EXISTING ROADBED AND FILLS TO NATURAL GROUND.



BEGIN TIP PROJECT B-3693
 -L- POT STA. 10+00.00

MATCHLINE STATION 19+00 -L-
 SEE SHEET NO. 5

PROJECT REFERENCE NO.		SHEET NO.	
B-3693		EC-9/CONST.5	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

NOTE: UTILIZE TEMPORARY ROCK SEDIMENT DAM TYPE - B AS STILLING BASIN WHERE APPLICABLE.

REMOVE EXISTING ROADBED AND FILLS TO NATURAL GROUND.

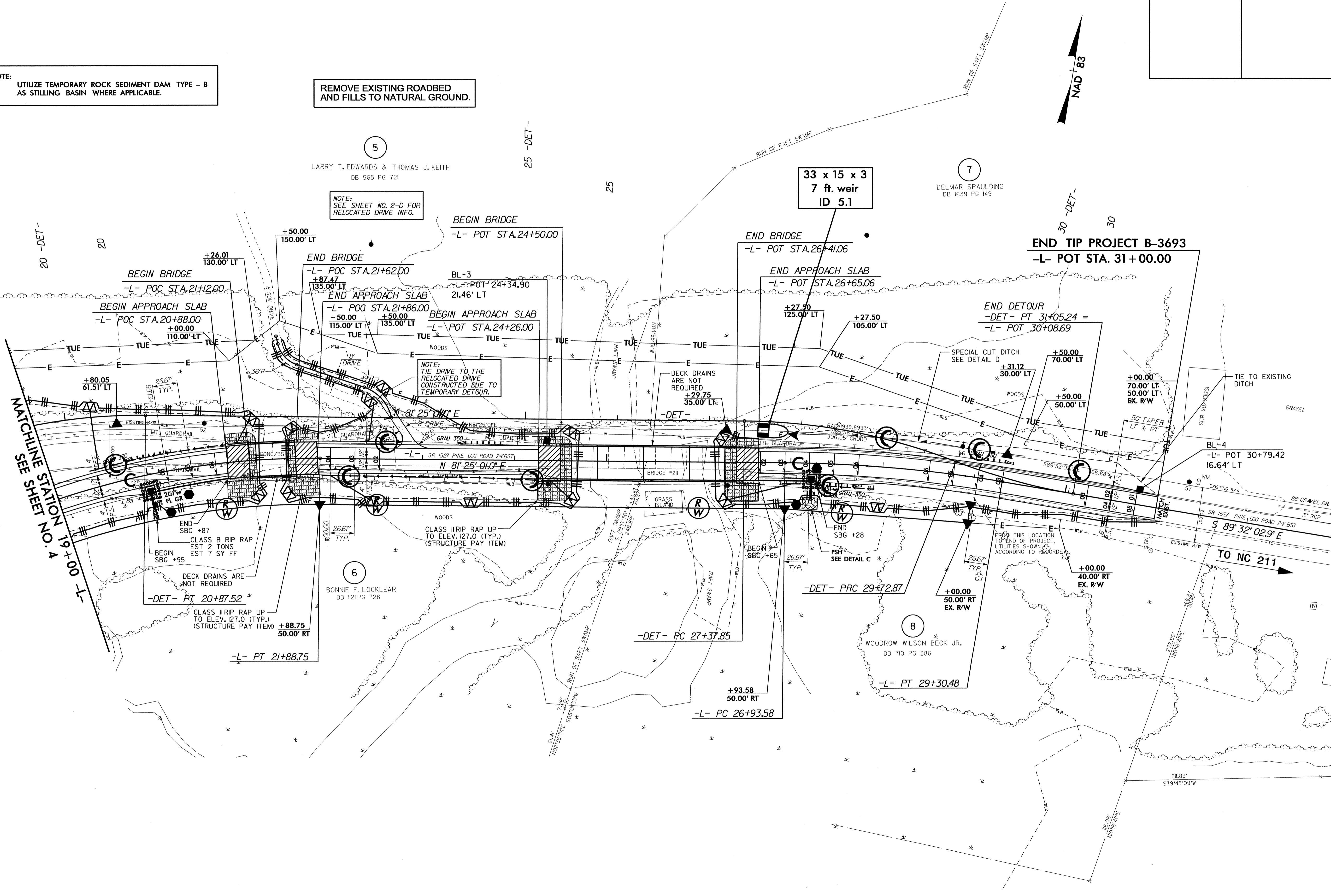
LARRY T. EDWARDS & THOMAS J. KEITH
DB 565 PG 721

NOTE: SEE SHEET NO. 2-D FOR RELOCATED DRIVE INFO.

33 x 15 x 3
7 ft. weir
ID 5.1

7
DELMAR SPAULDING
DB 1639 PG 149

END TIP PROJECT B-3693
-L- POT STA. 31+00.00



MATCHLINE SEE SHEET NO. 4

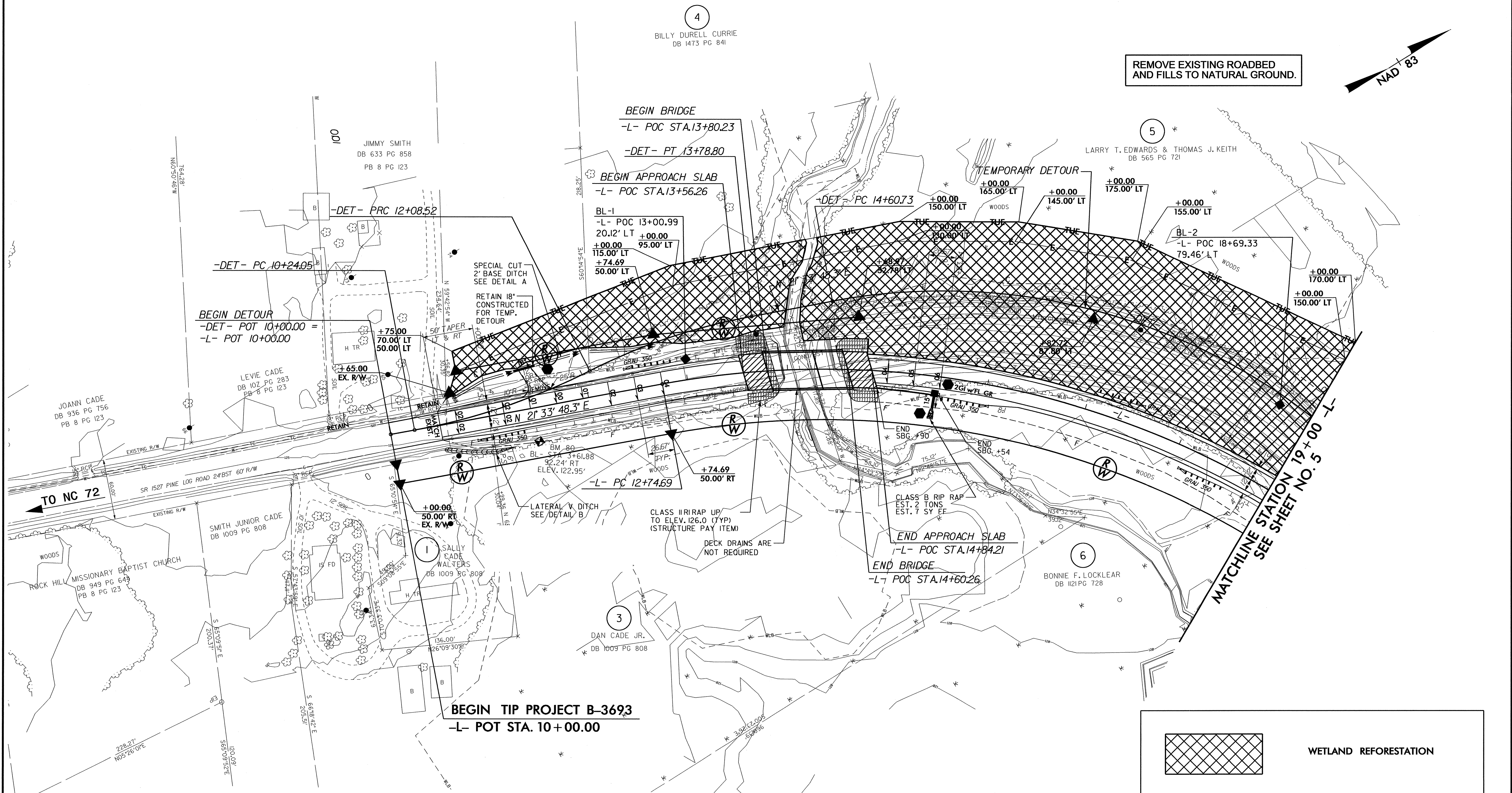
TO NC 211

8/17/99

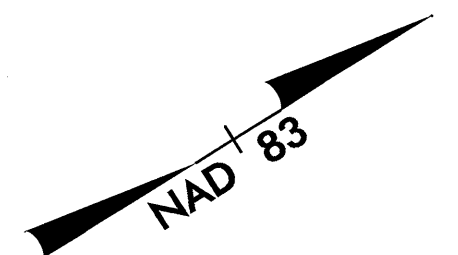
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WETLAND REFORESTATION

PROJECT REFERENCE NO. B-3693		SHEET NO. EC-10/CONST.4	
RW SHEET NO. ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



REMOVE EXISTING ROADBED AND FILLS TO NATURAL GROUND.



WETLAND REFORESTATION

SEE RF-1 AND PROJECT SPECIAL PROVISIONS

