

TIP PROJECT: B-4211

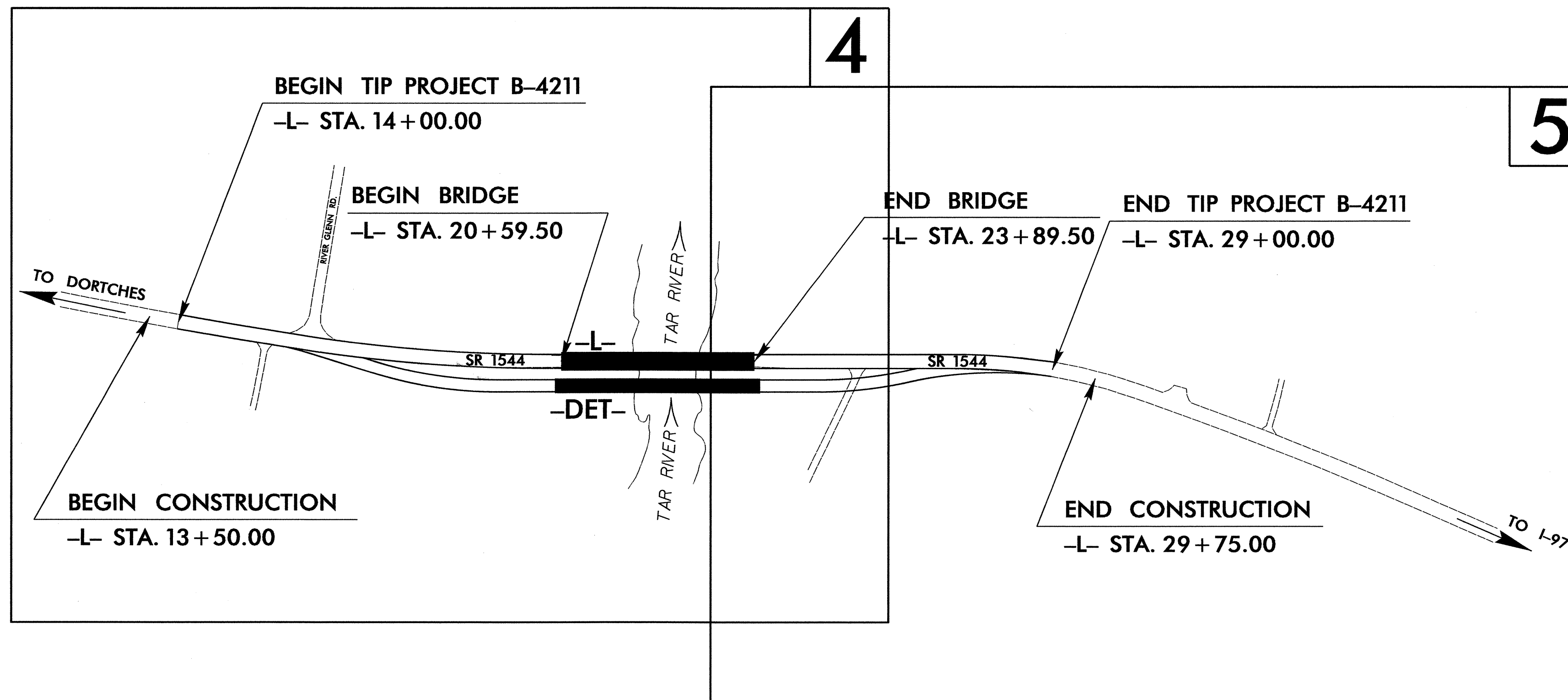
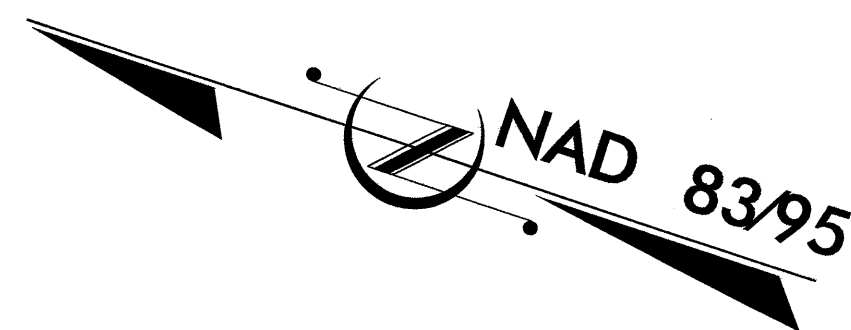
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

NASH COUNTY

LOCATION: BRIDGE NO. 56 OVER TAR RIVER ON SR 1544 (S. HALIFAX RD.)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4211	EC-1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	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	[Symbol]
1633.01	Temporary Rock Silt Check Type-A	[Symbol]
1633.01	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	[Symbol]
1633.01	Temporary Rock Silt Check Type-B	[Symbol]
1633.01	Wattle / Coir Fiber Wattle	[Symbol]
1633.01	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	[Symbol]
1634.01	Temporary Rock Sediment Dam Type-A	[Symbol]
1634.02	Temporary Rock Sediment Dam Type-B	[Symbol]
1635.01	Rock Pipe Inlet Sediment Trap Type-A	[Symbol]
1635.02	Rock Pipe Inlet Sediment Trap Type-B	[Symbol]
1630.04	Stilling Basin	[Symbol]
1630.06	Special Stilling Basin	[Symbol]
Rock Inlet Sediment Trap:		
1632.01	Type A	A [Symbol]
1632.02	Type B	B [Symbol]
1632.03	Type C	C [Symbol]
	Skimmer Basin	[Symbol]
	Tiered Skimmer Basin	[Symbol]
	Infiltration Basin	[Symbol]

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

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

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

GRAPHIC SCALE

0 [Scale Bar]

PLANS

0 [Scale Bar]

PROFILE (HORIZONTAL)

0 [Scale Bar]

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

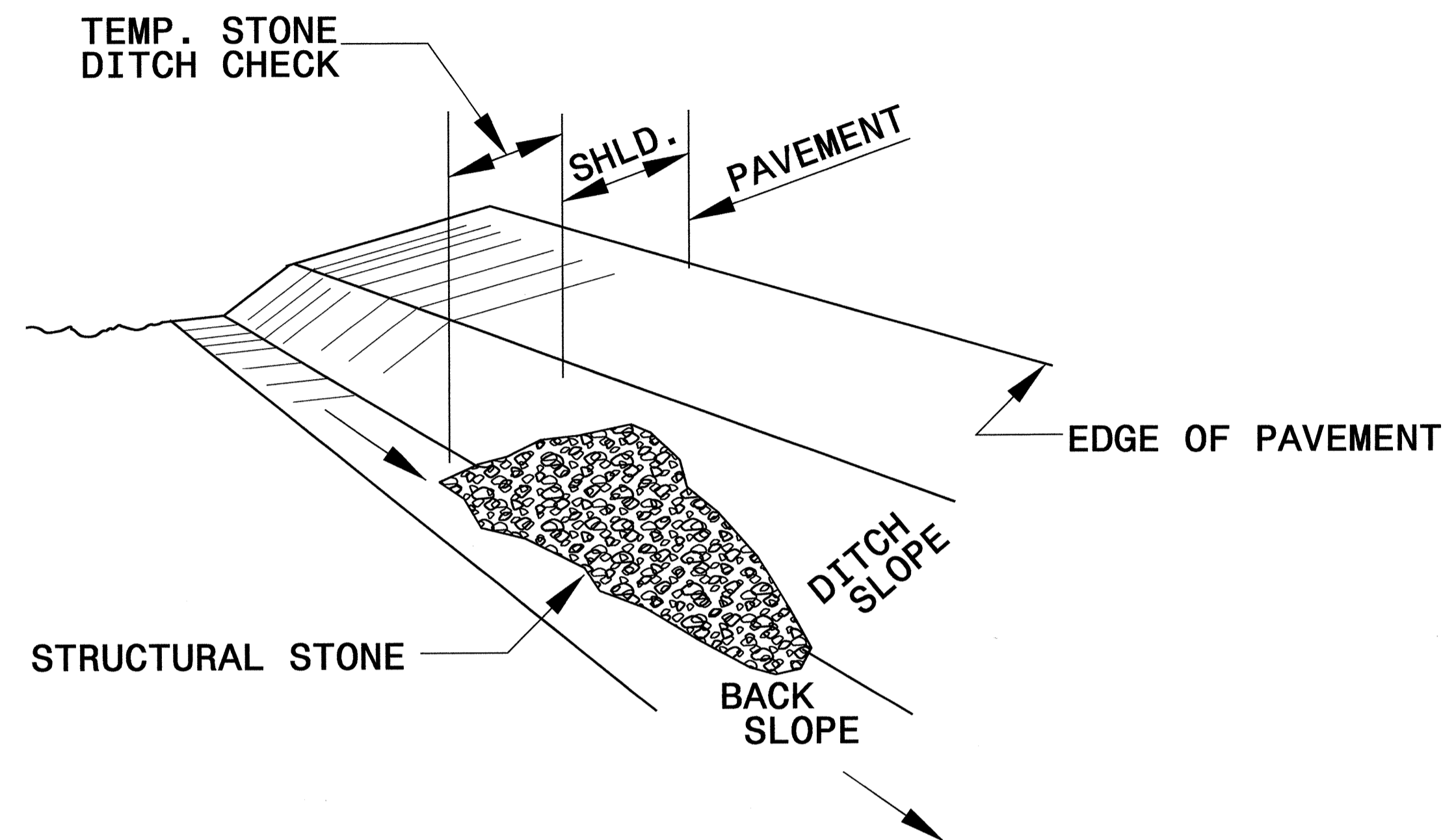
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 18, 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01 Temporary Silt Fence	1630.06 Special Stilling Basin
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
1622.01 Temporary Berms and Slope Drains	
1630.05 Temporary Diversion	

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PROJECT REFERENCE NO. <i>B-4211</i>	SHEET NO. <i>EC-2</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

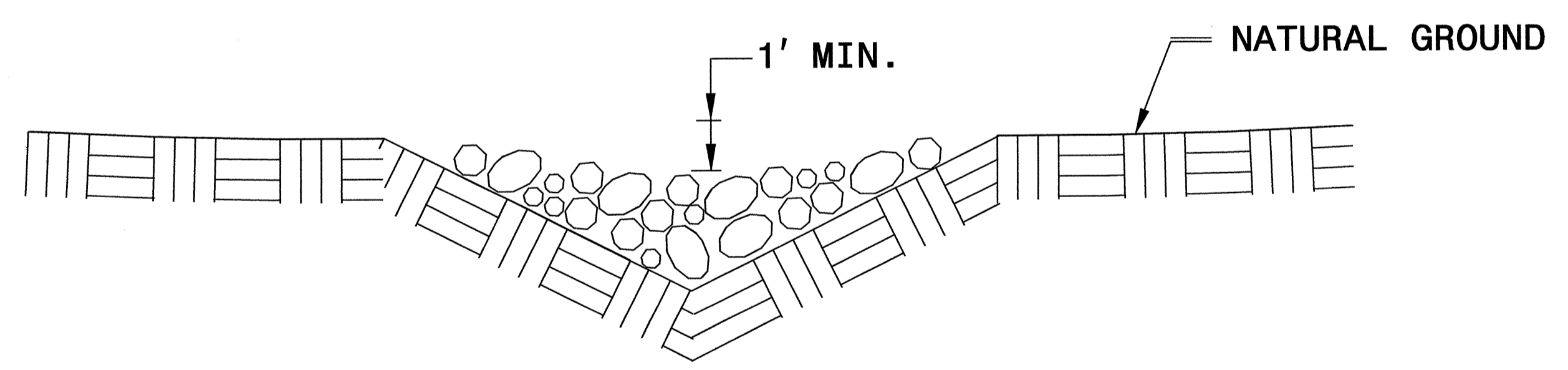


ISOMETRIC VIEW

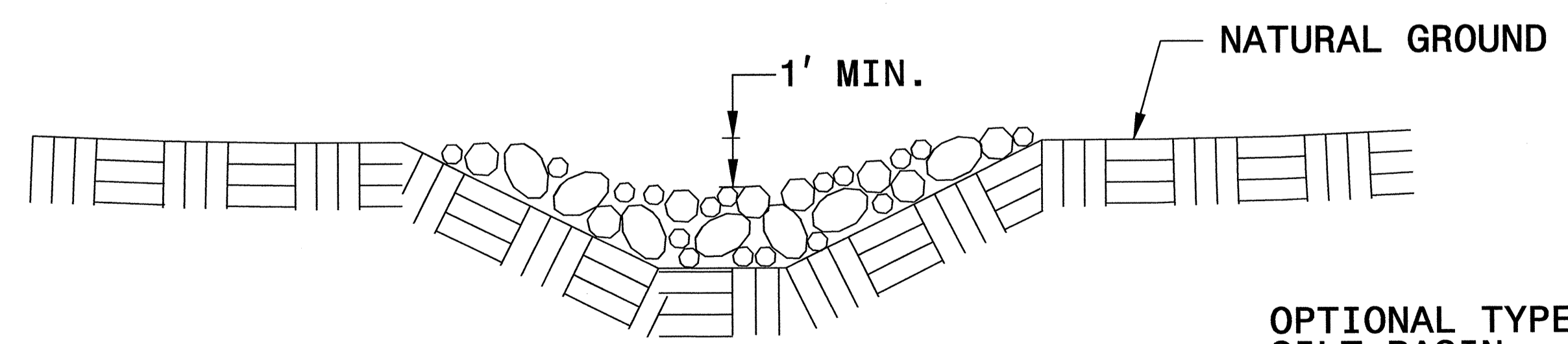
NOTES:

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

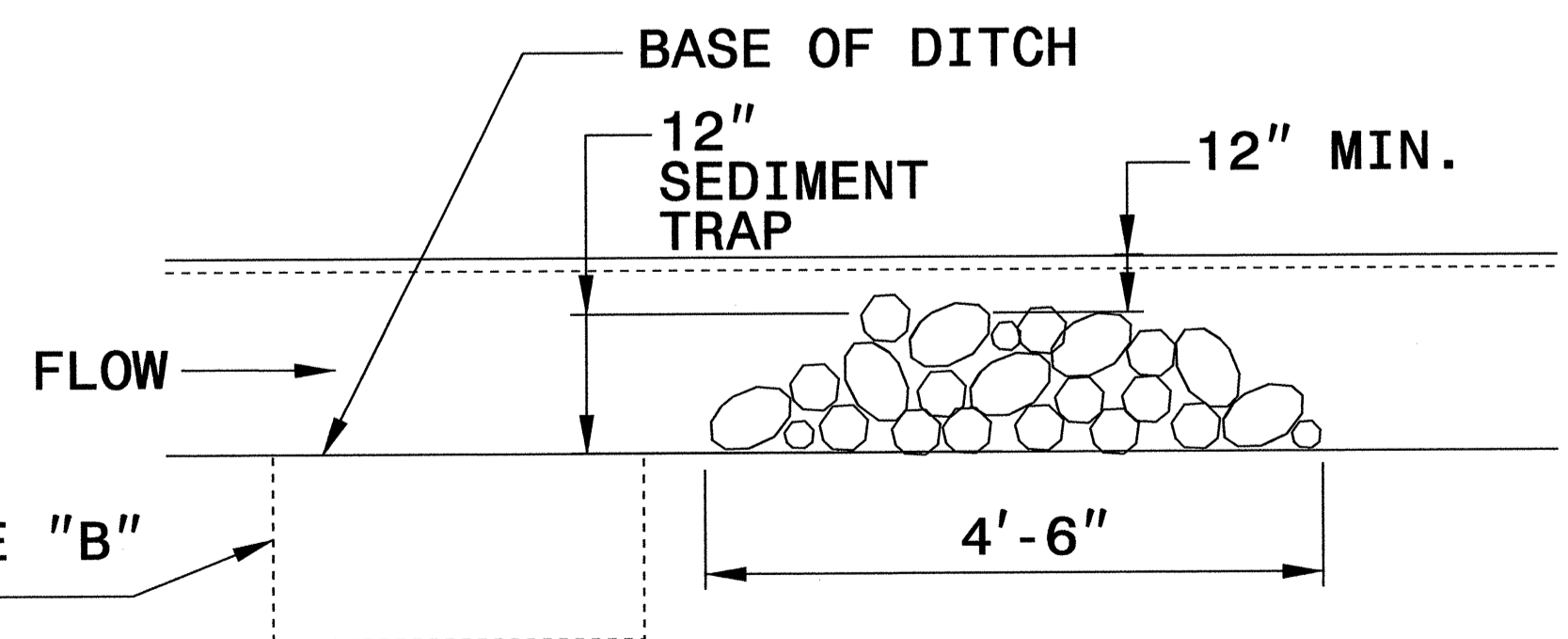
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



CROSS SECTION VEE DITCH



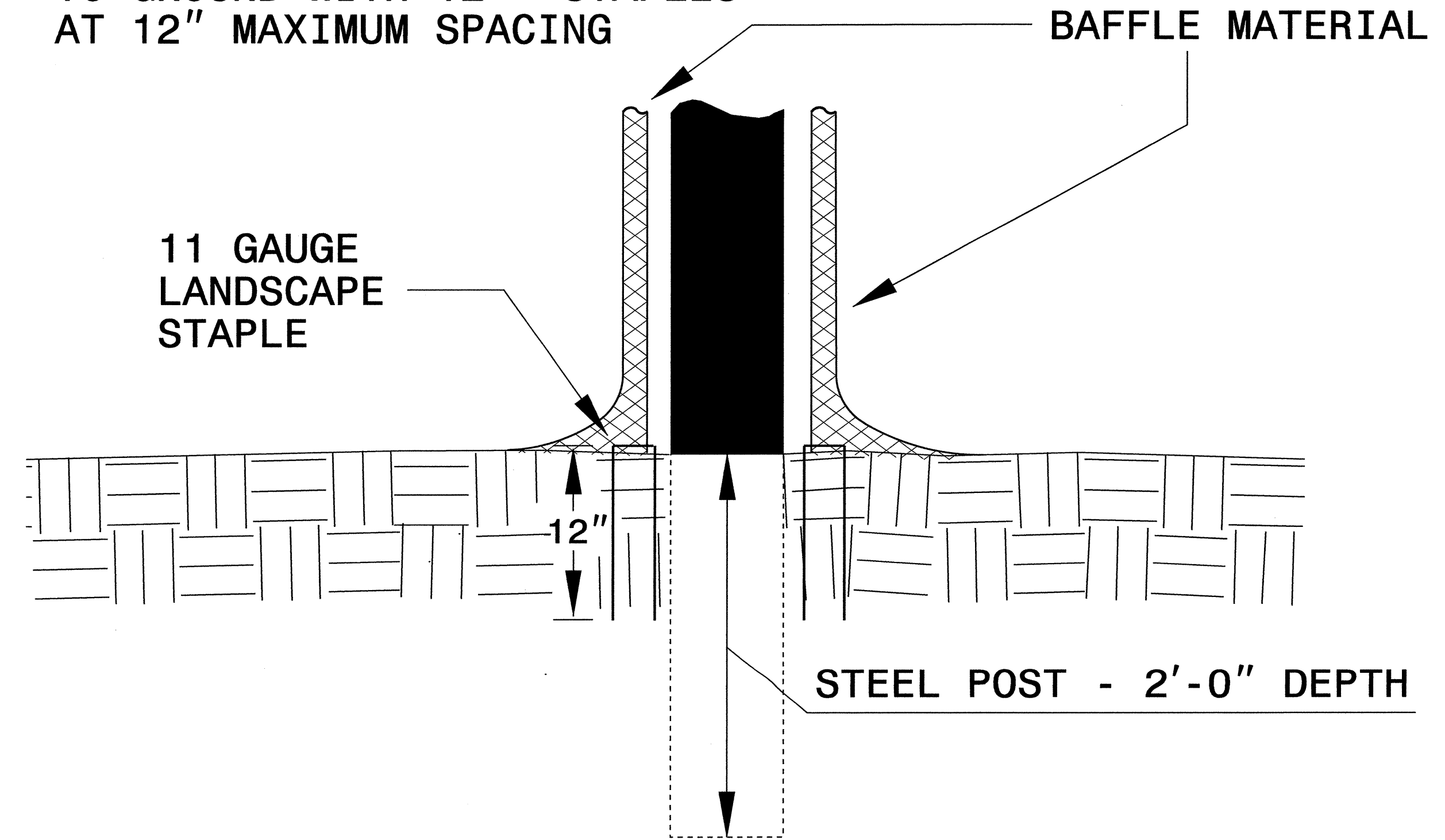
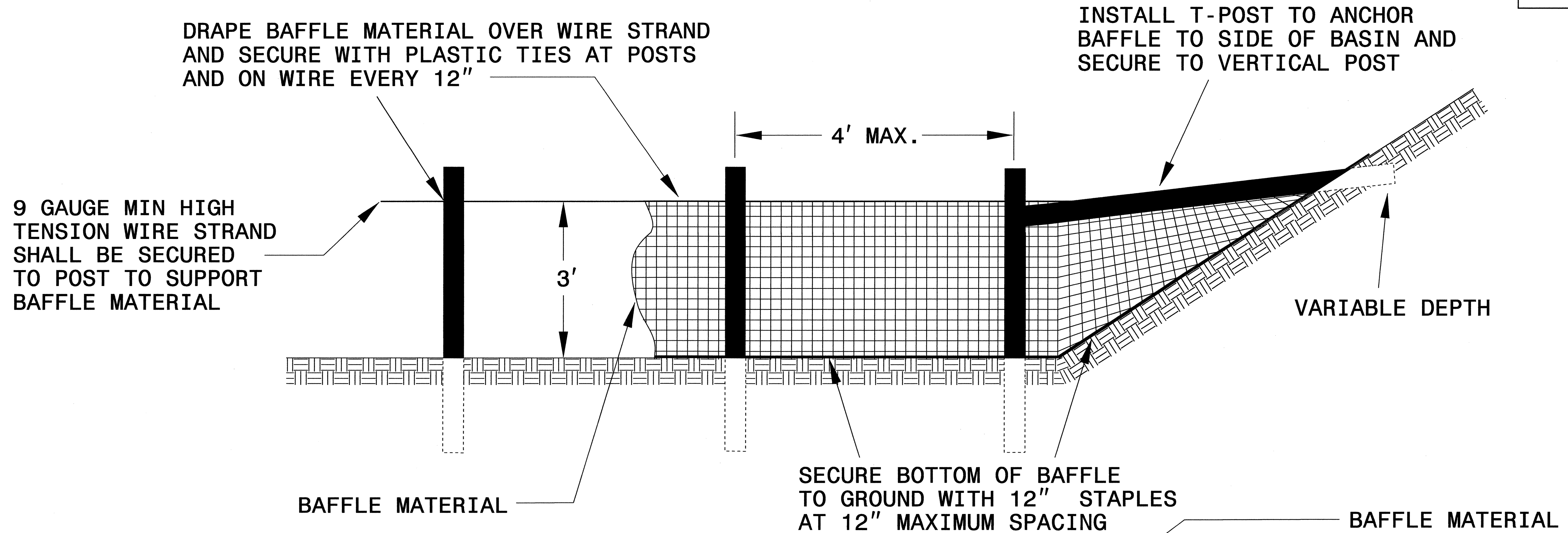
CROSS SECTION TRAPEZOIDAL DITCH



ELEVATION VIEW

PROJECT REFERENCE NO. B-4211	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL



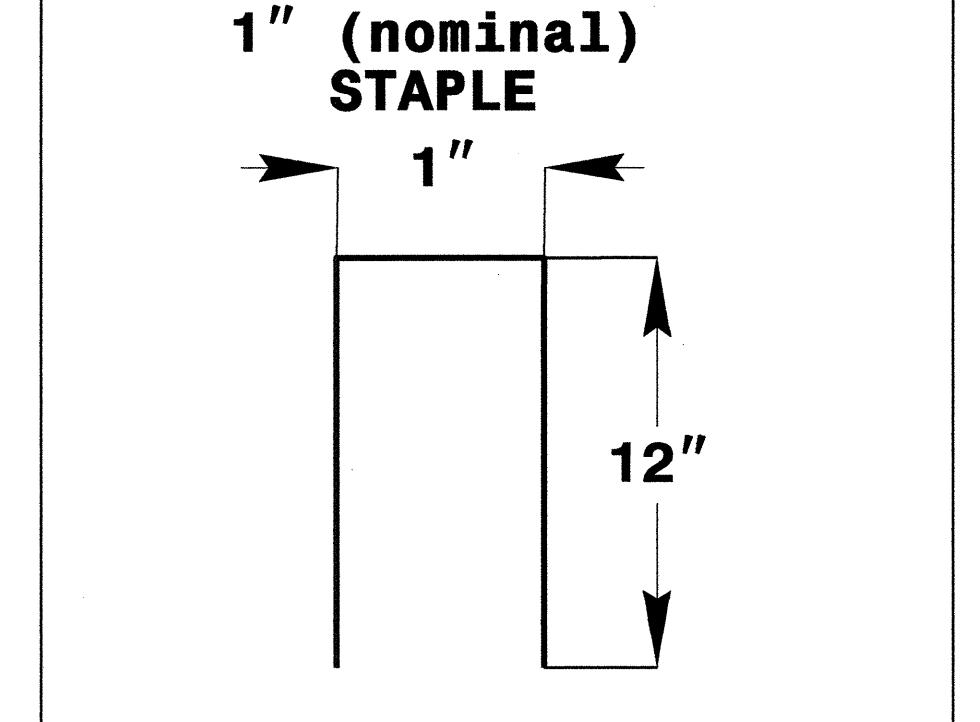
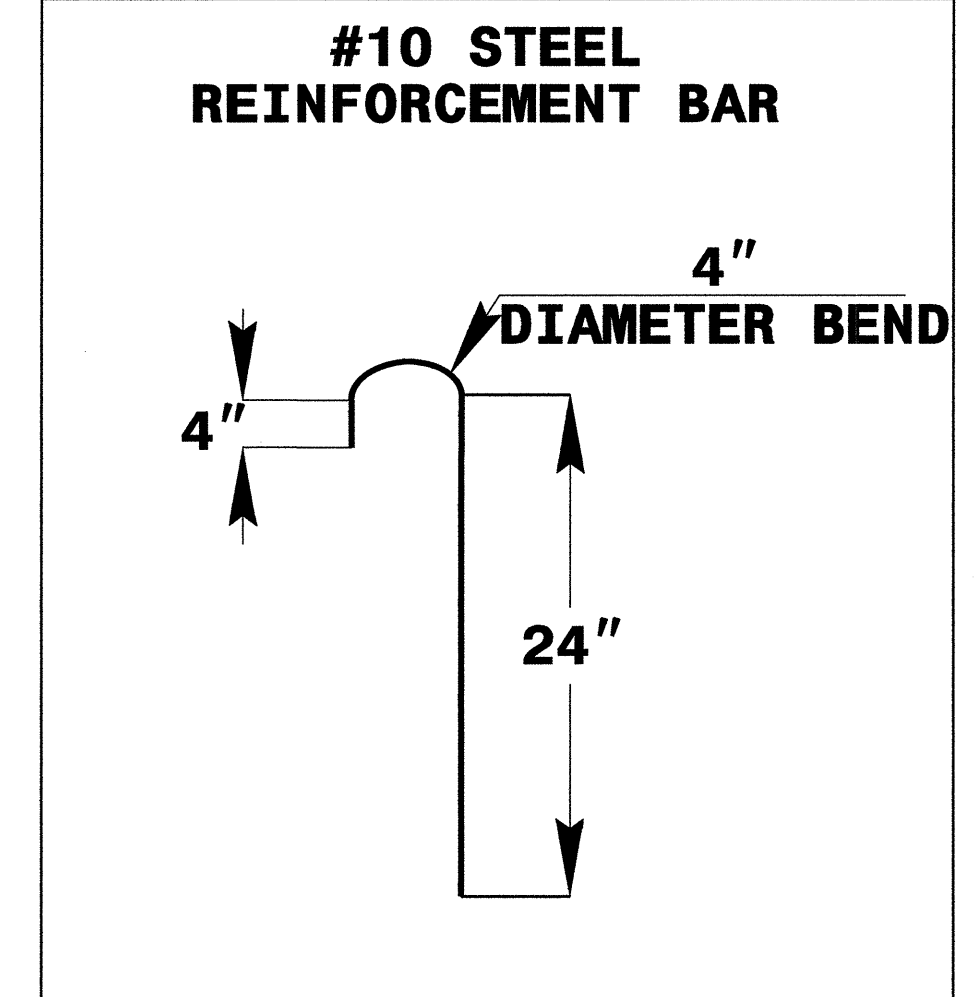
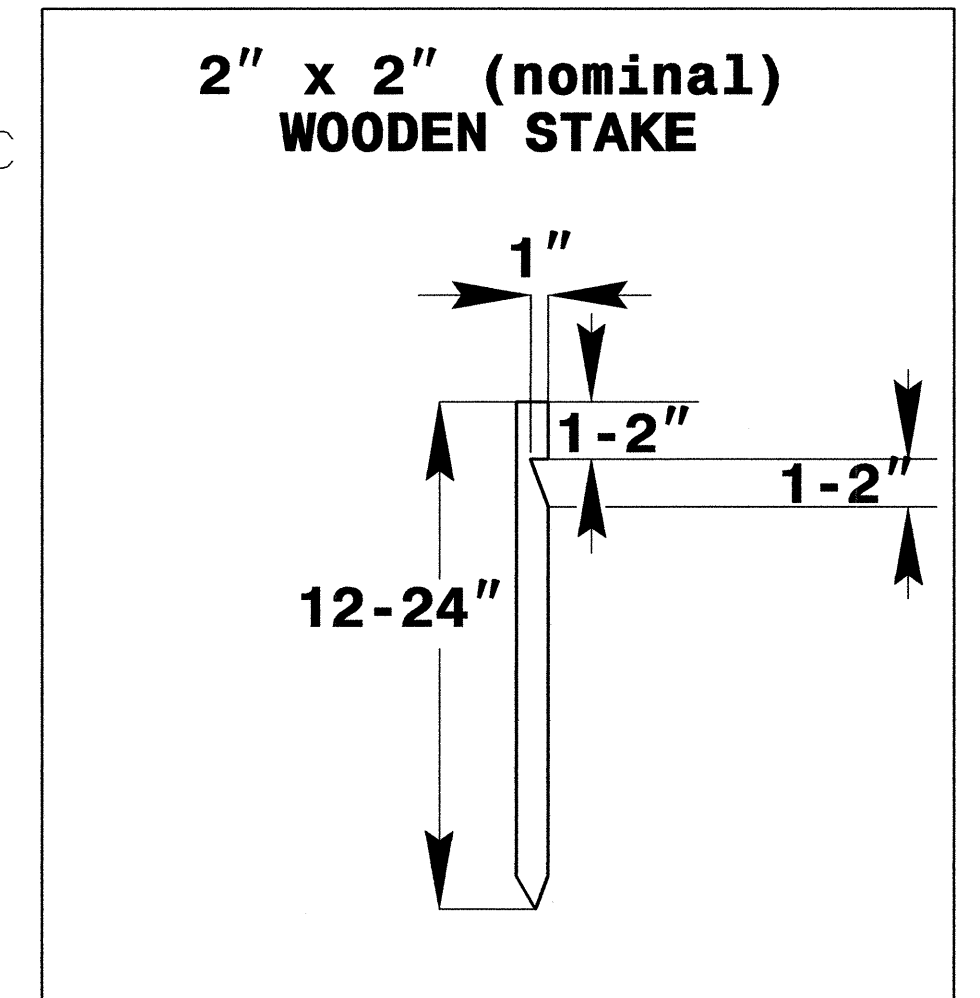
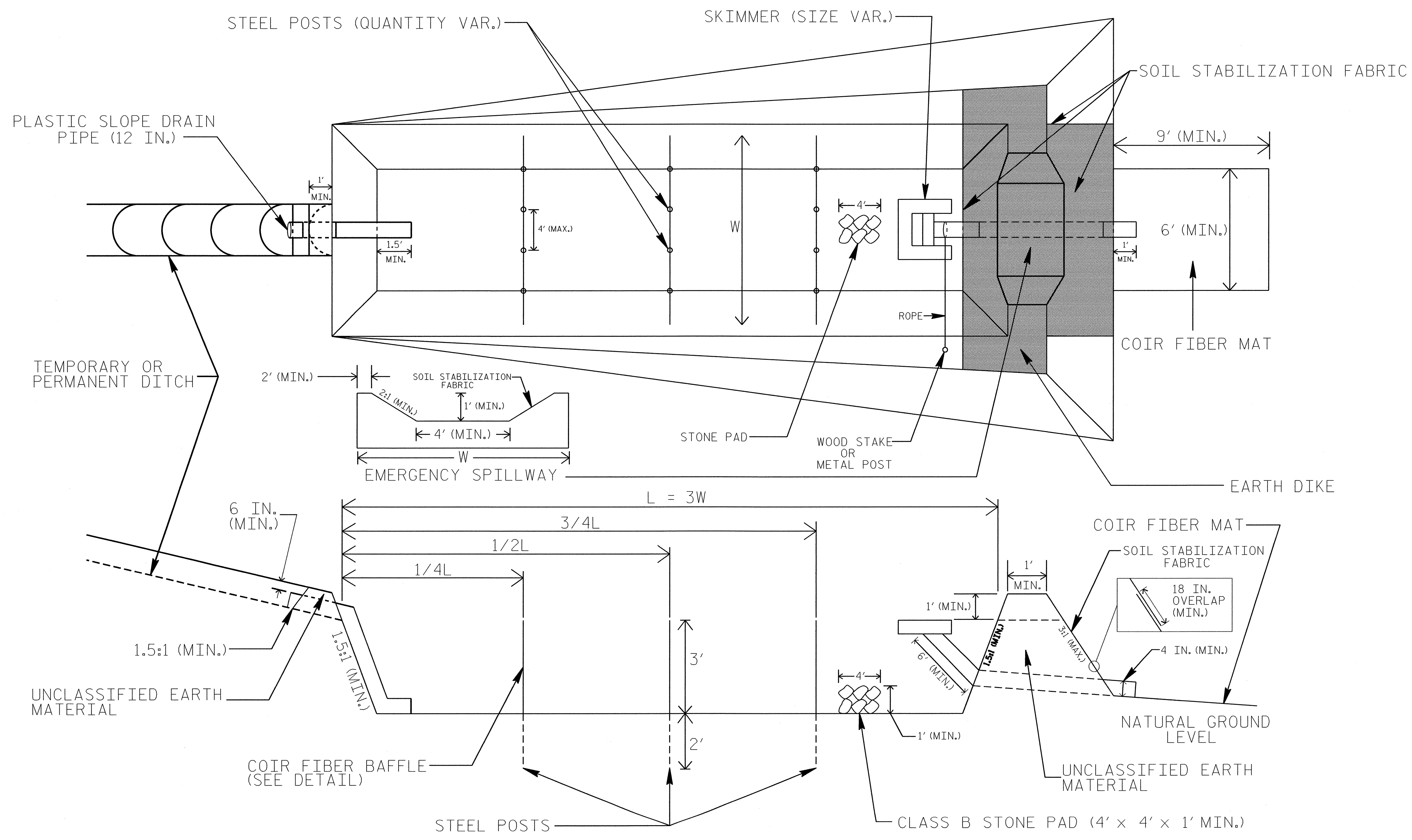
NOTES:

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

PROJECT REFERENCE NO. B-4211	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL



COIR FIBER MAT ANCHOR OPTIONS

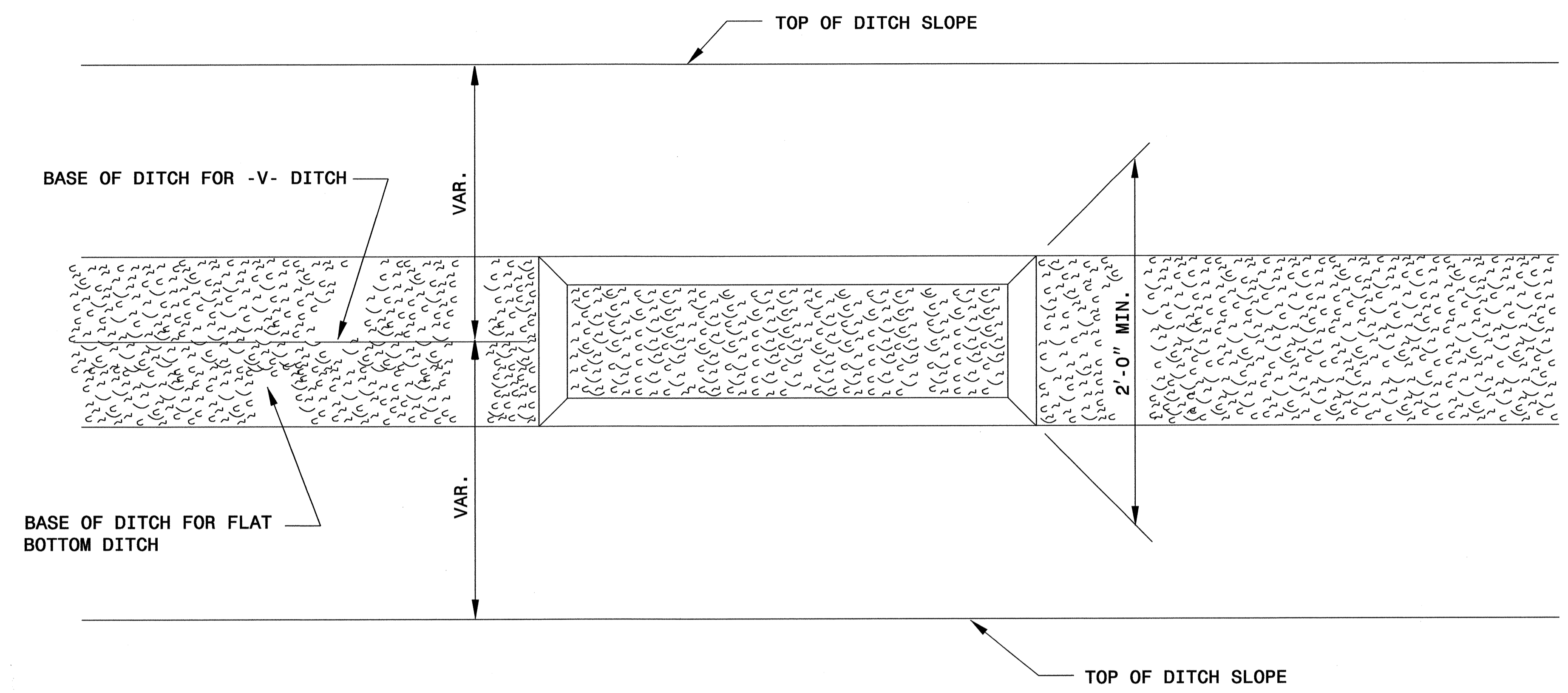
NOTES

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. SOIL STABILIZATION FABRIC FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

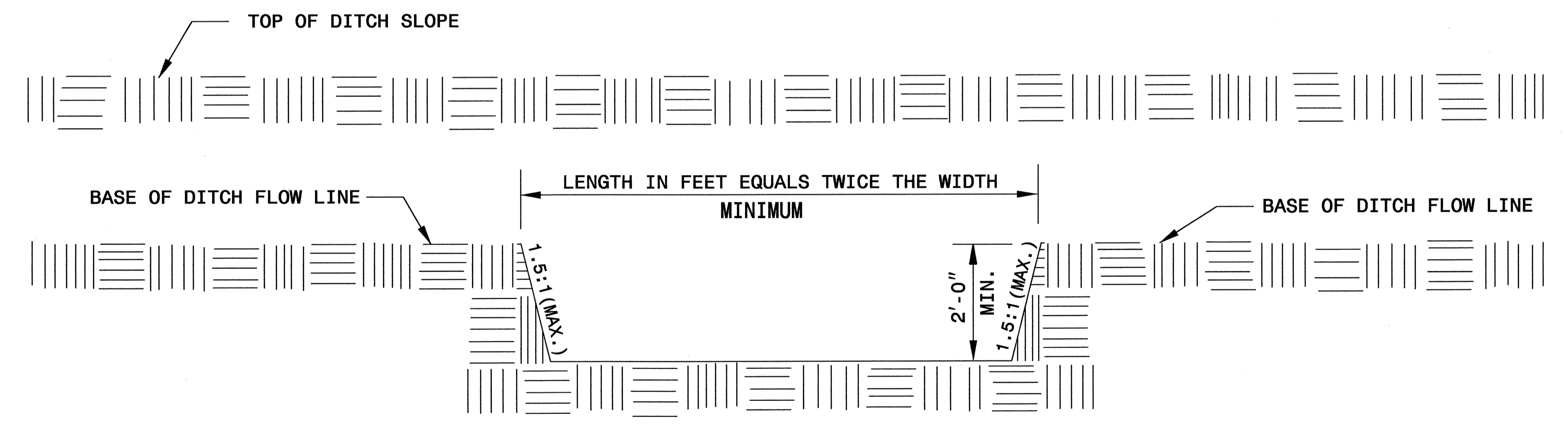
NOT TO SCALE

PROJECT REFERENCE NO. B-4211	SHEET NO. EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT BASIN 'B' DETAIL



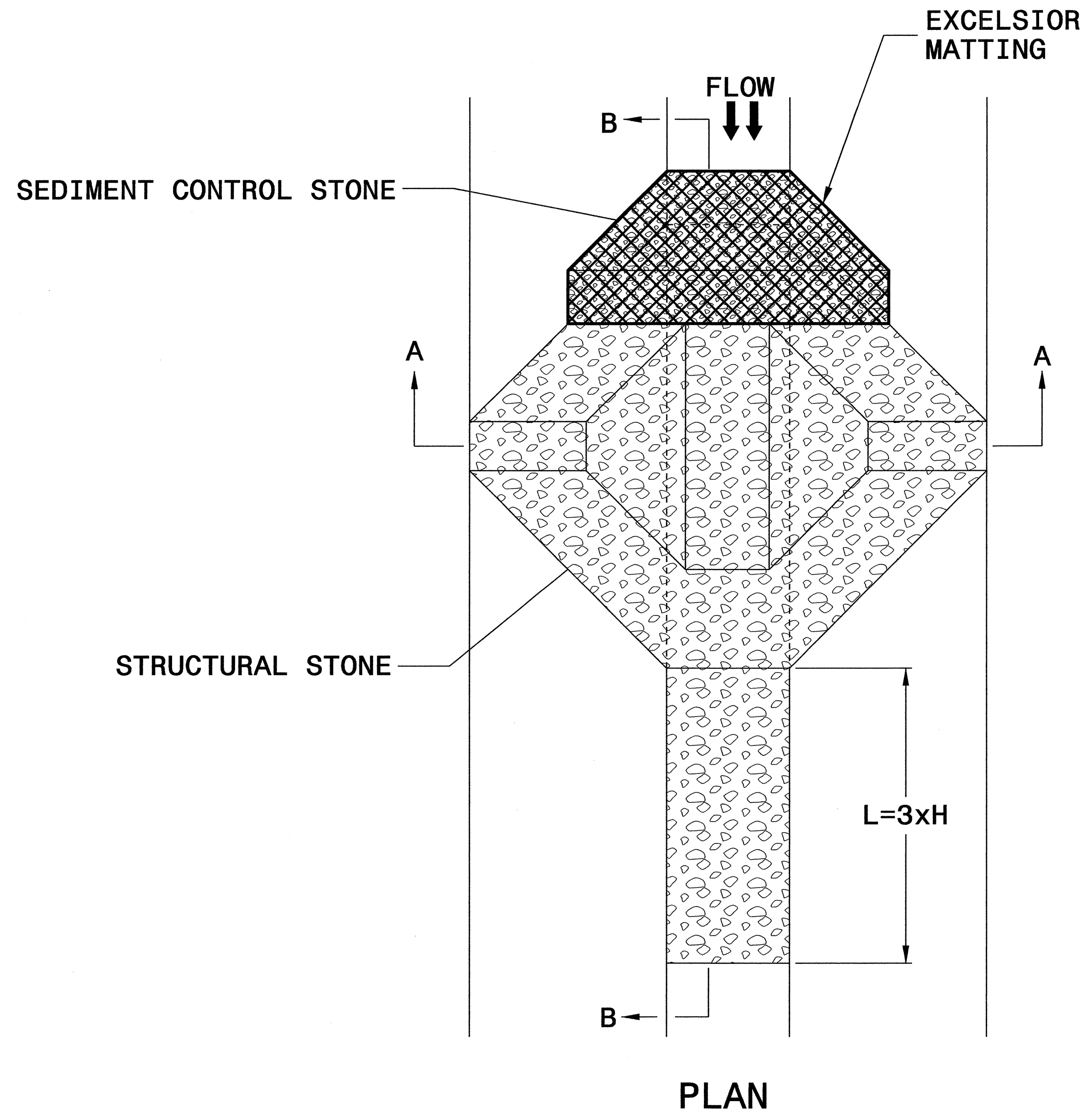
PLAN



ELEVATION

PROJECT REFERENCE NO. B-4211	SHEET NO. EC-2D
RAW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

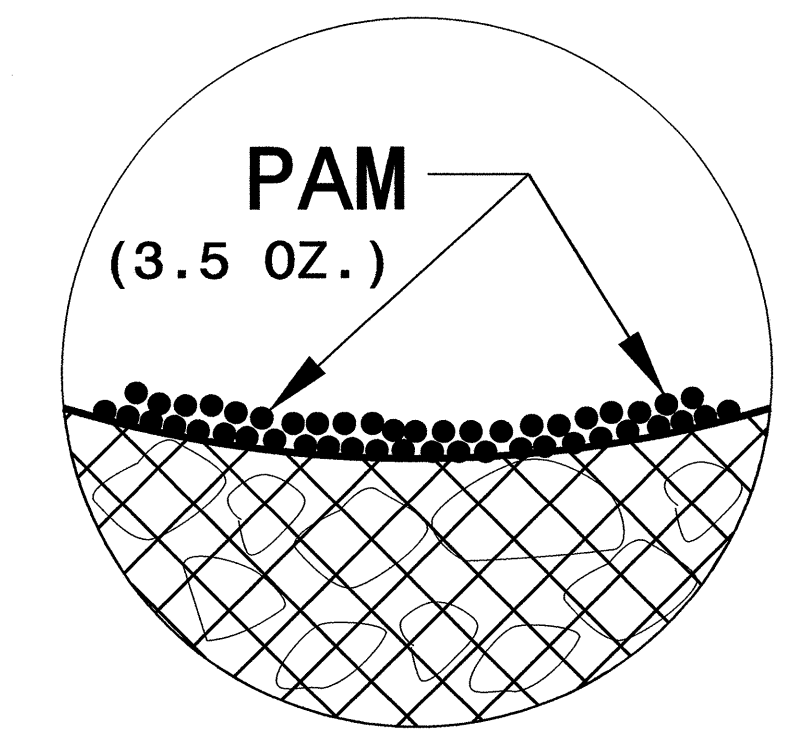


NOTES

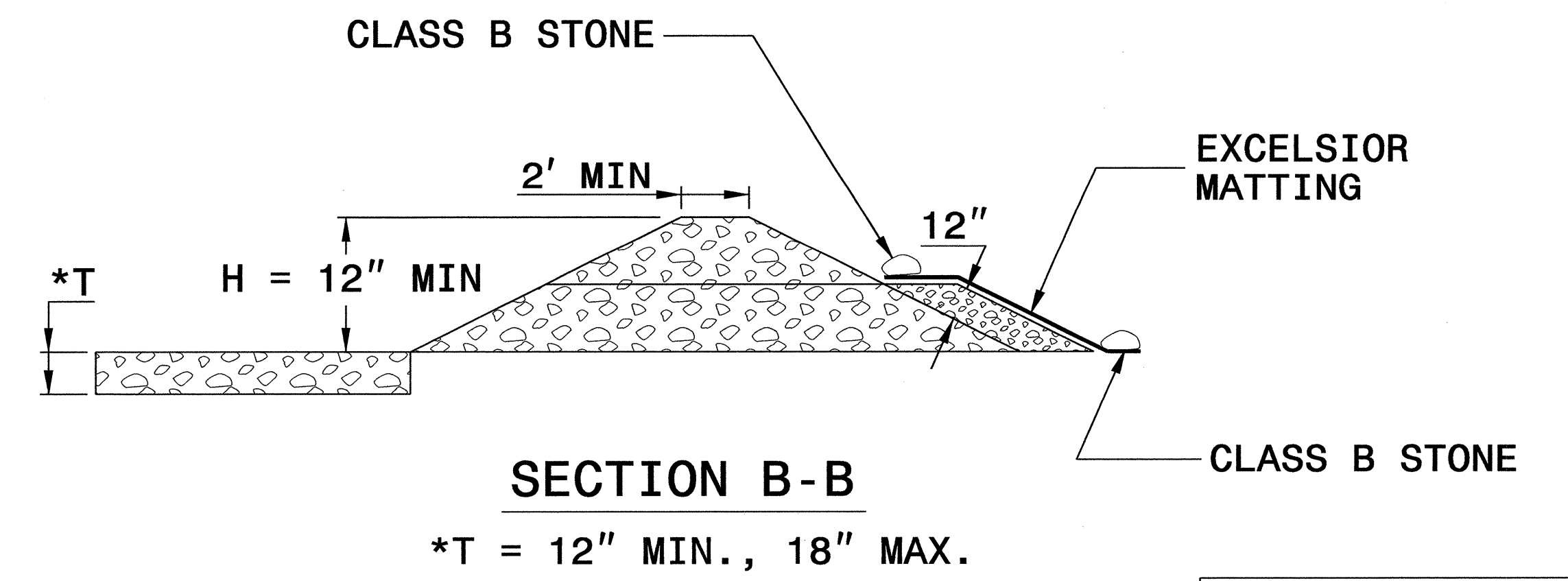
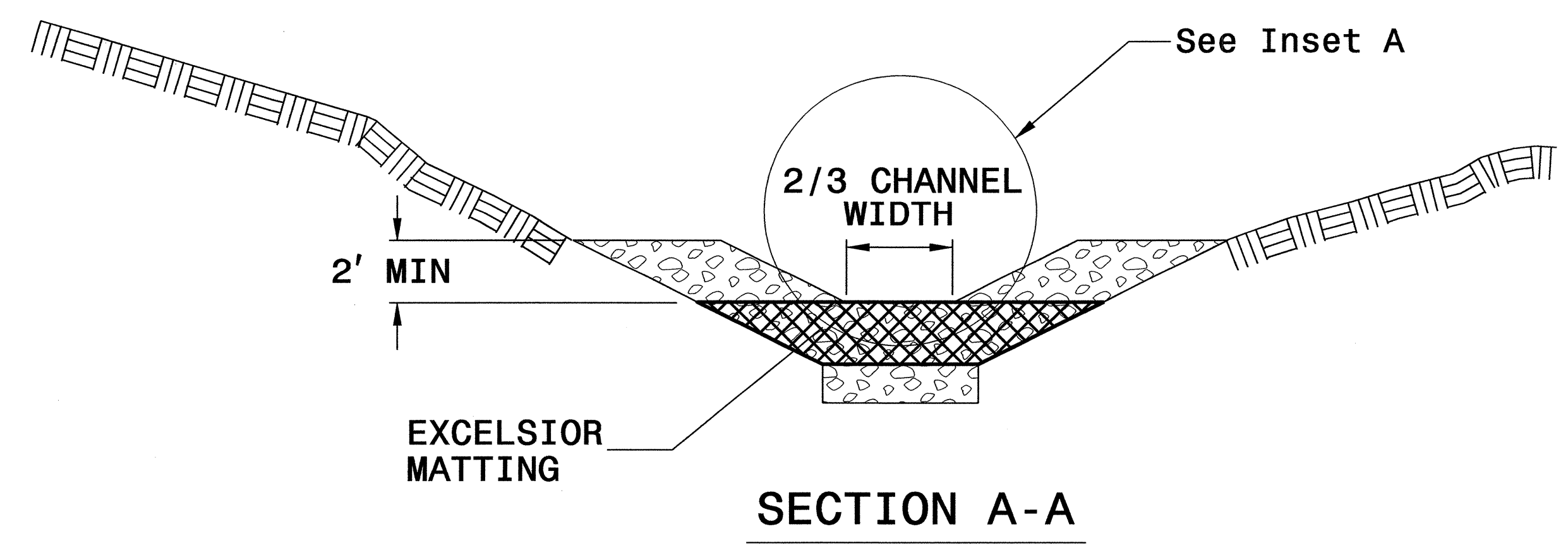
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.



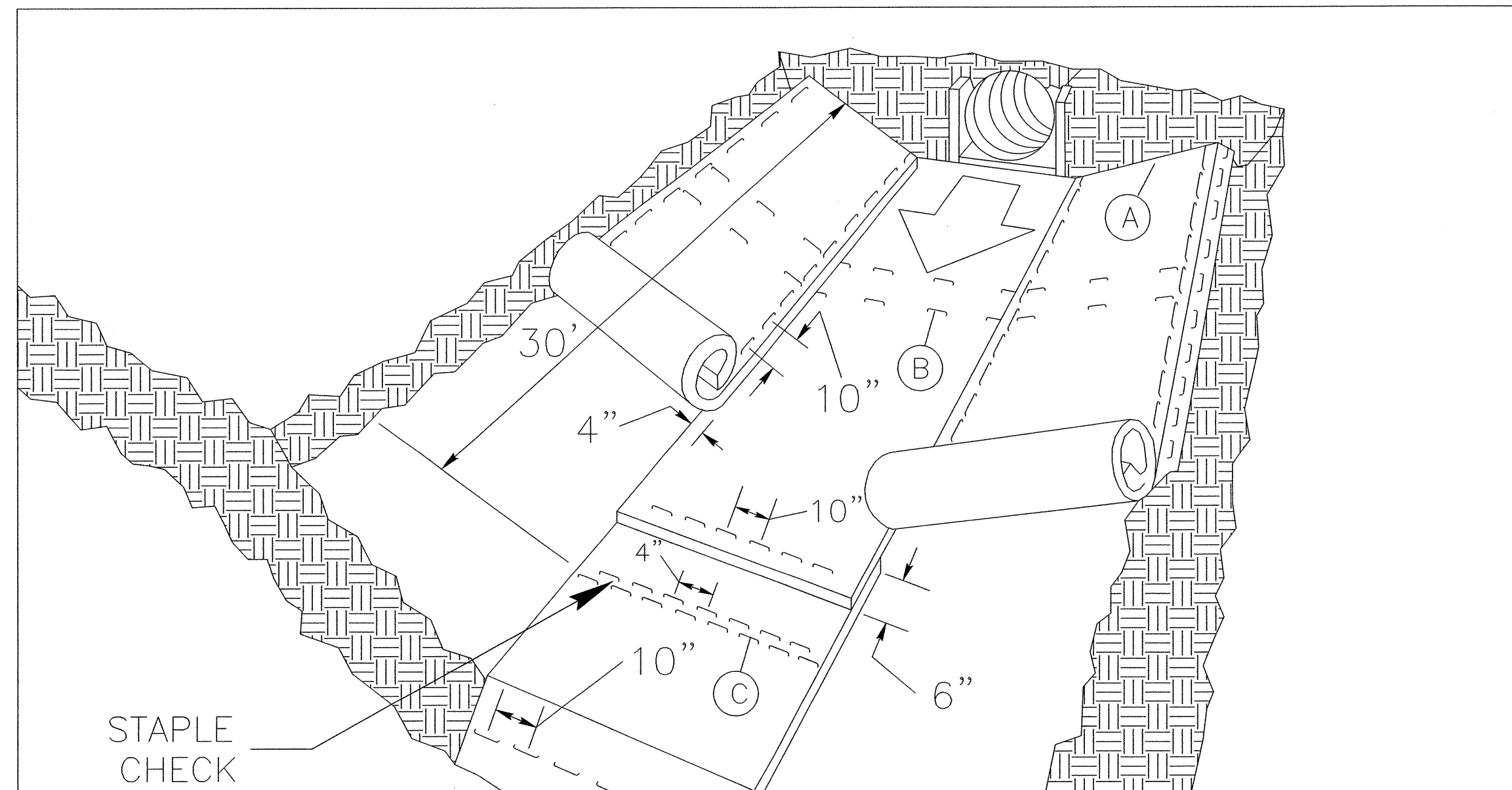
INSET A



NOT TO SCALE

PROJECT REFERENCE NO. B-4211	SHEET NO. EC-2E
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATTING INSTALLATION DETAIL



MATTING IN DITCHES

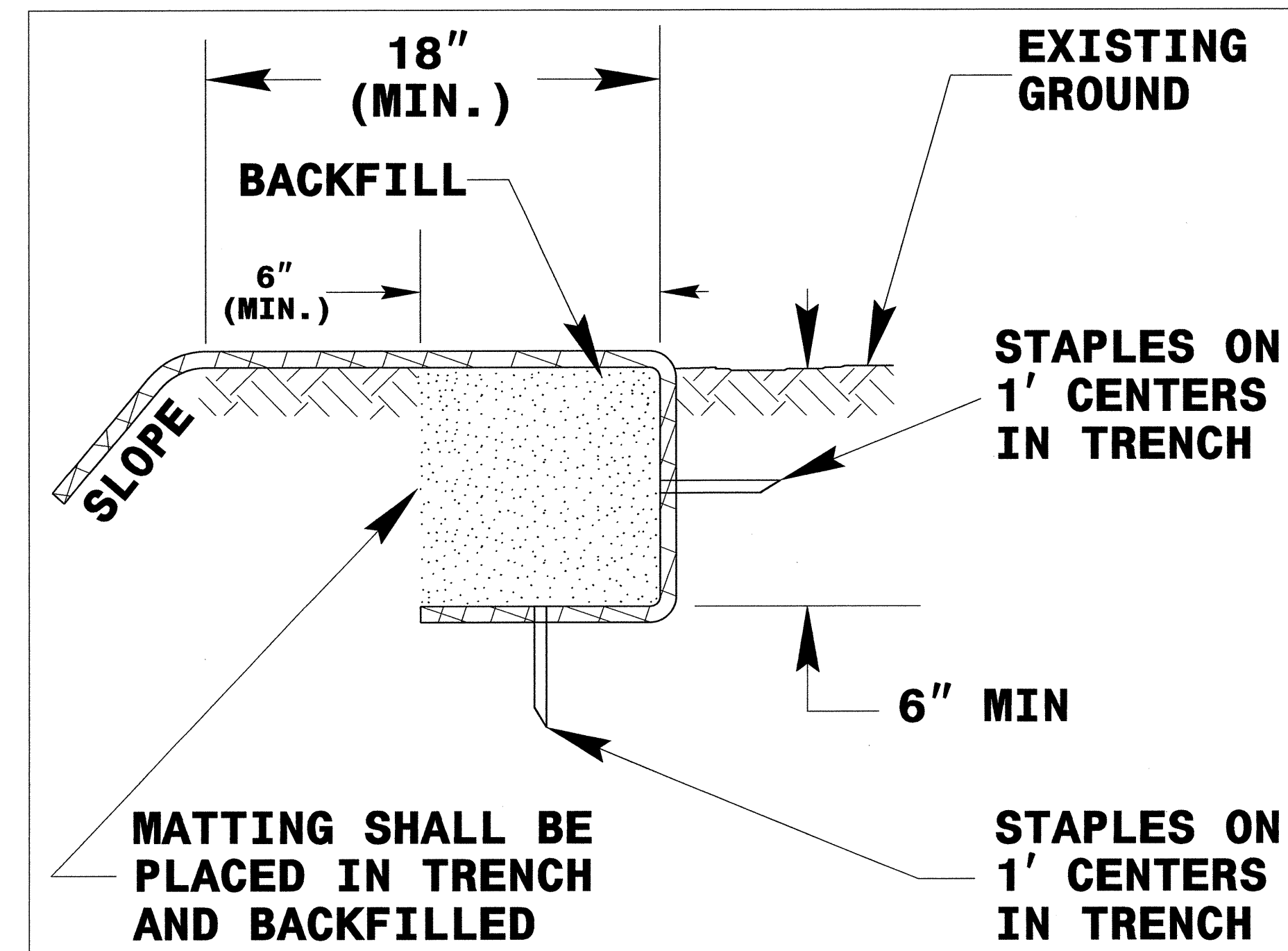
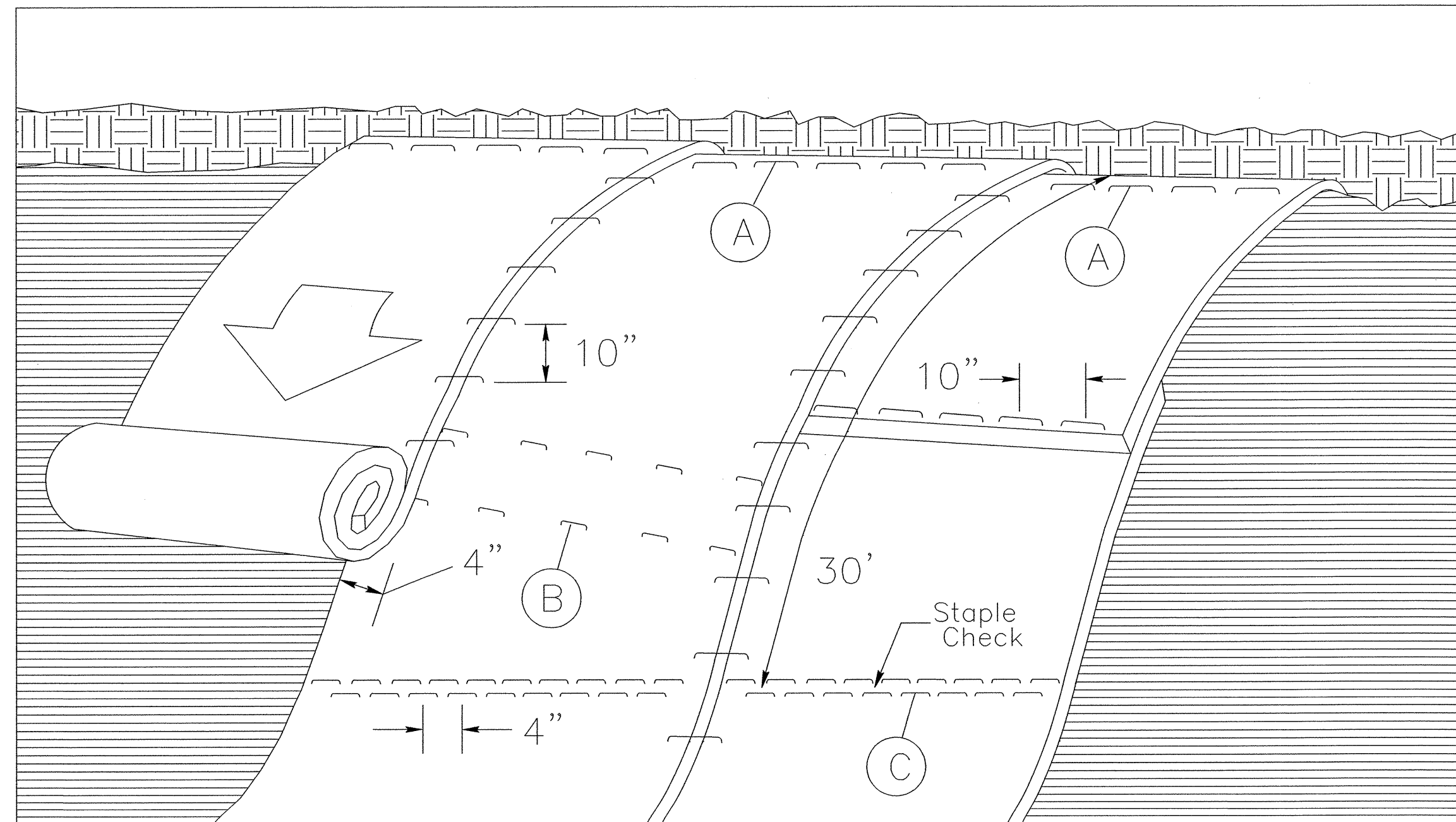


DIAGRAM (A)



MATTING ON SLOPES

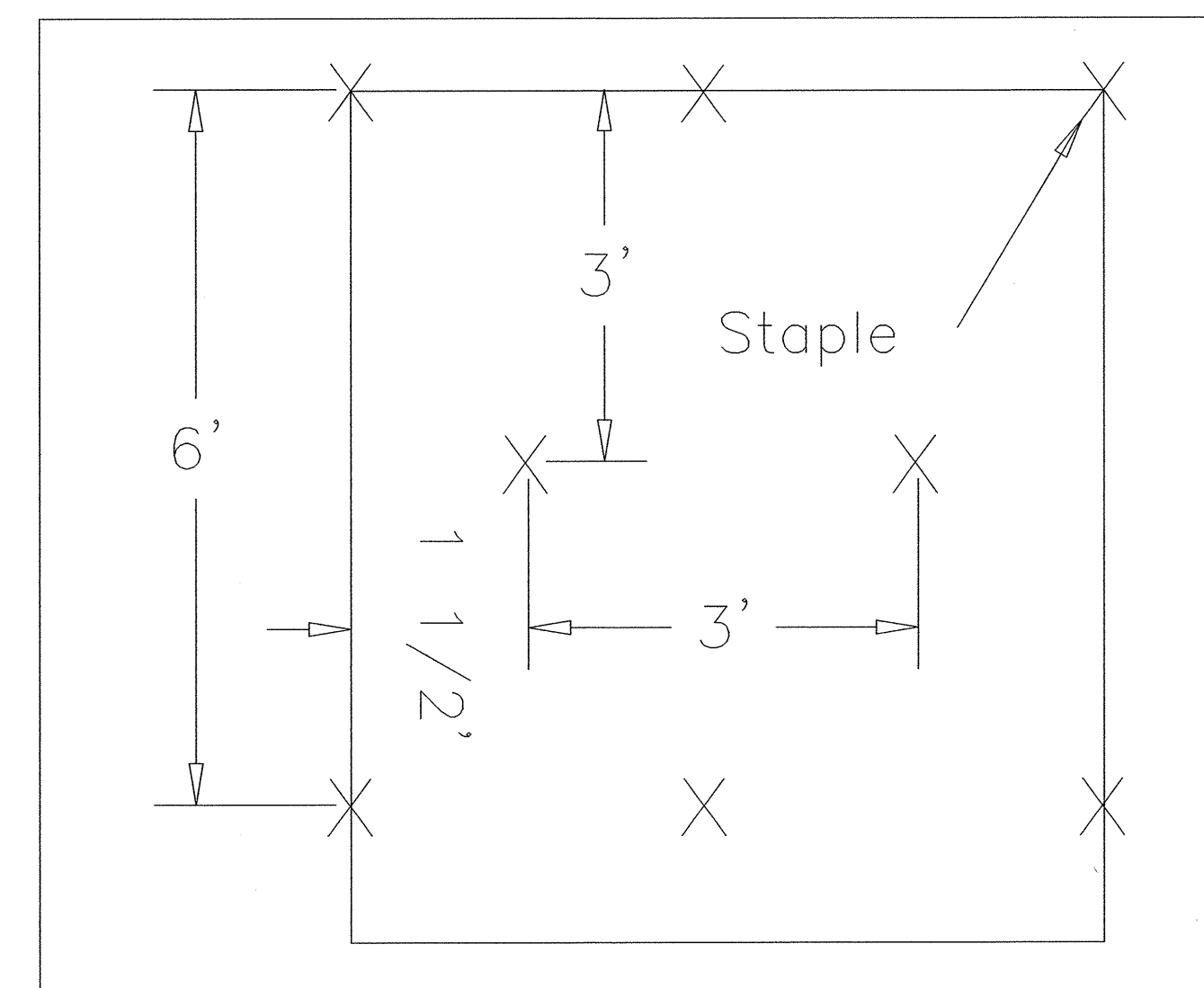


DIAGRAM (B)

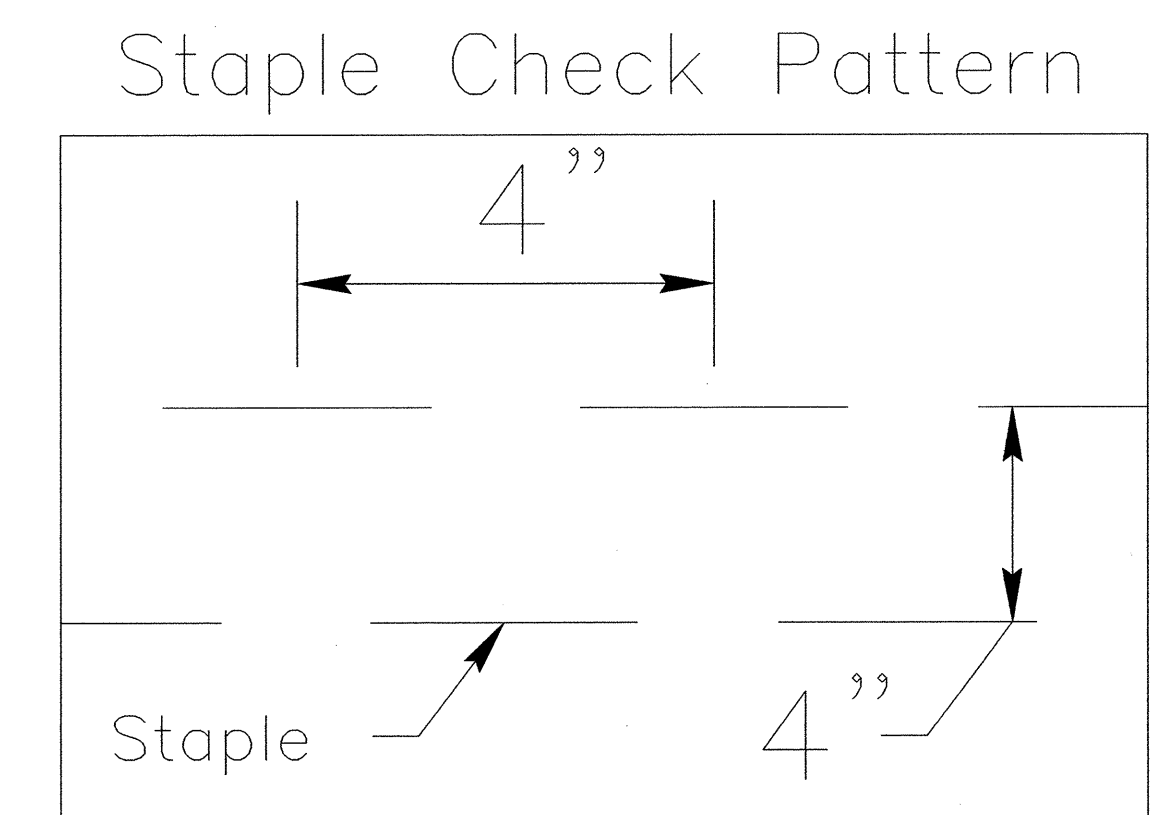


DIAGRAM (C)

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

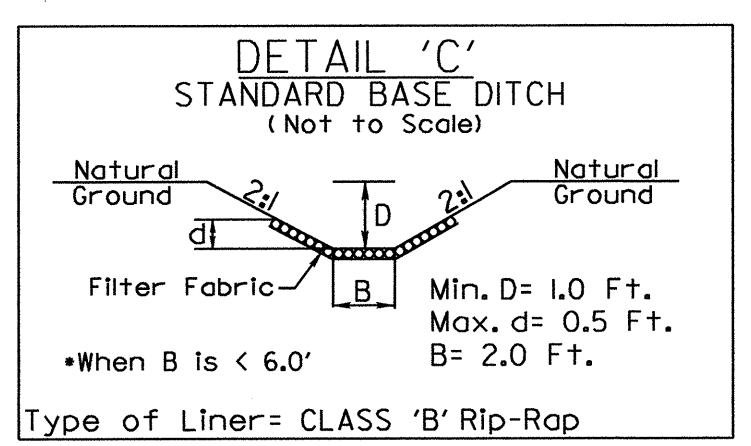
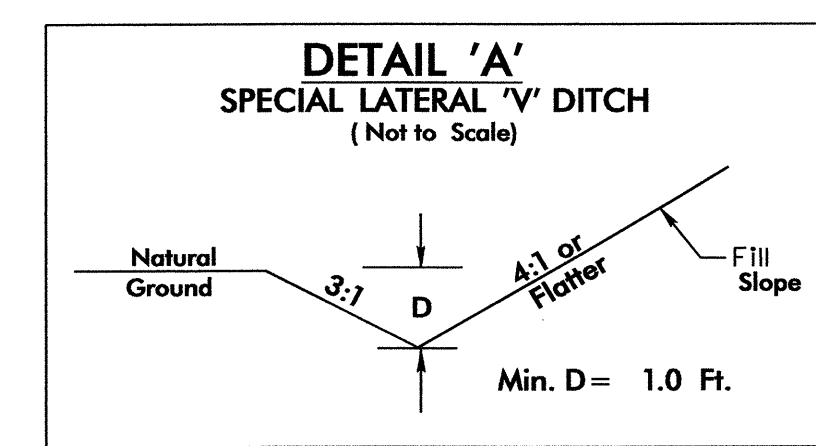
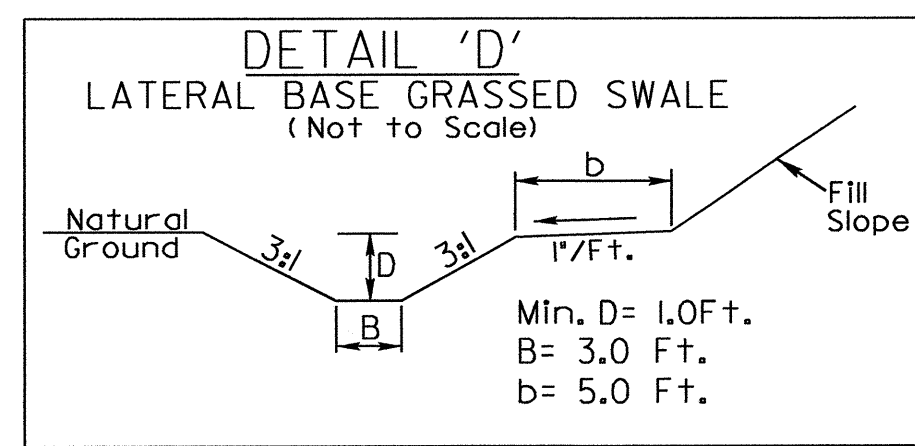
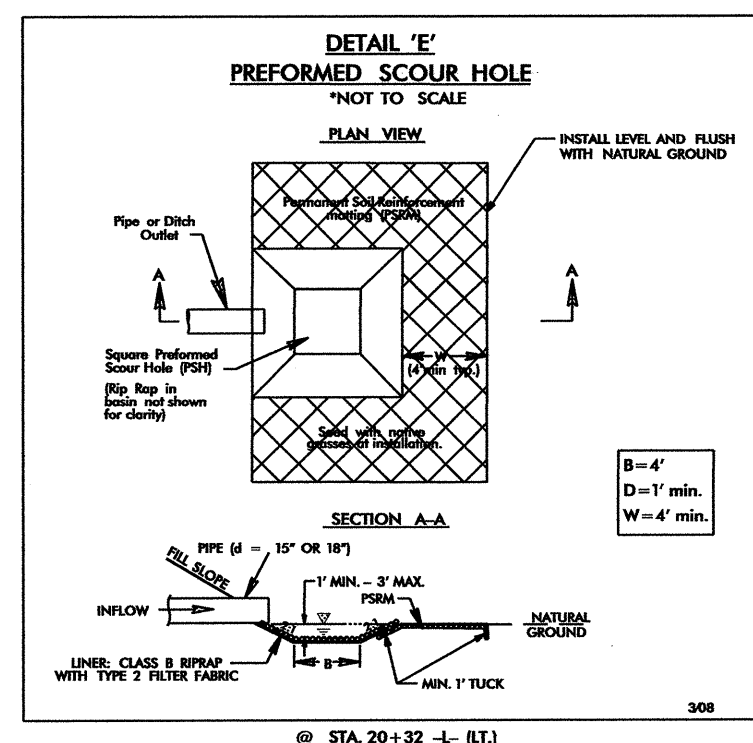
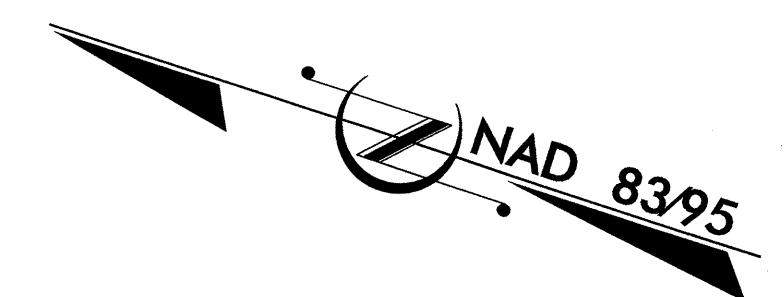
PROJECT REFERENCE NO.	SHEET NO.
B-4211	EC-4/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

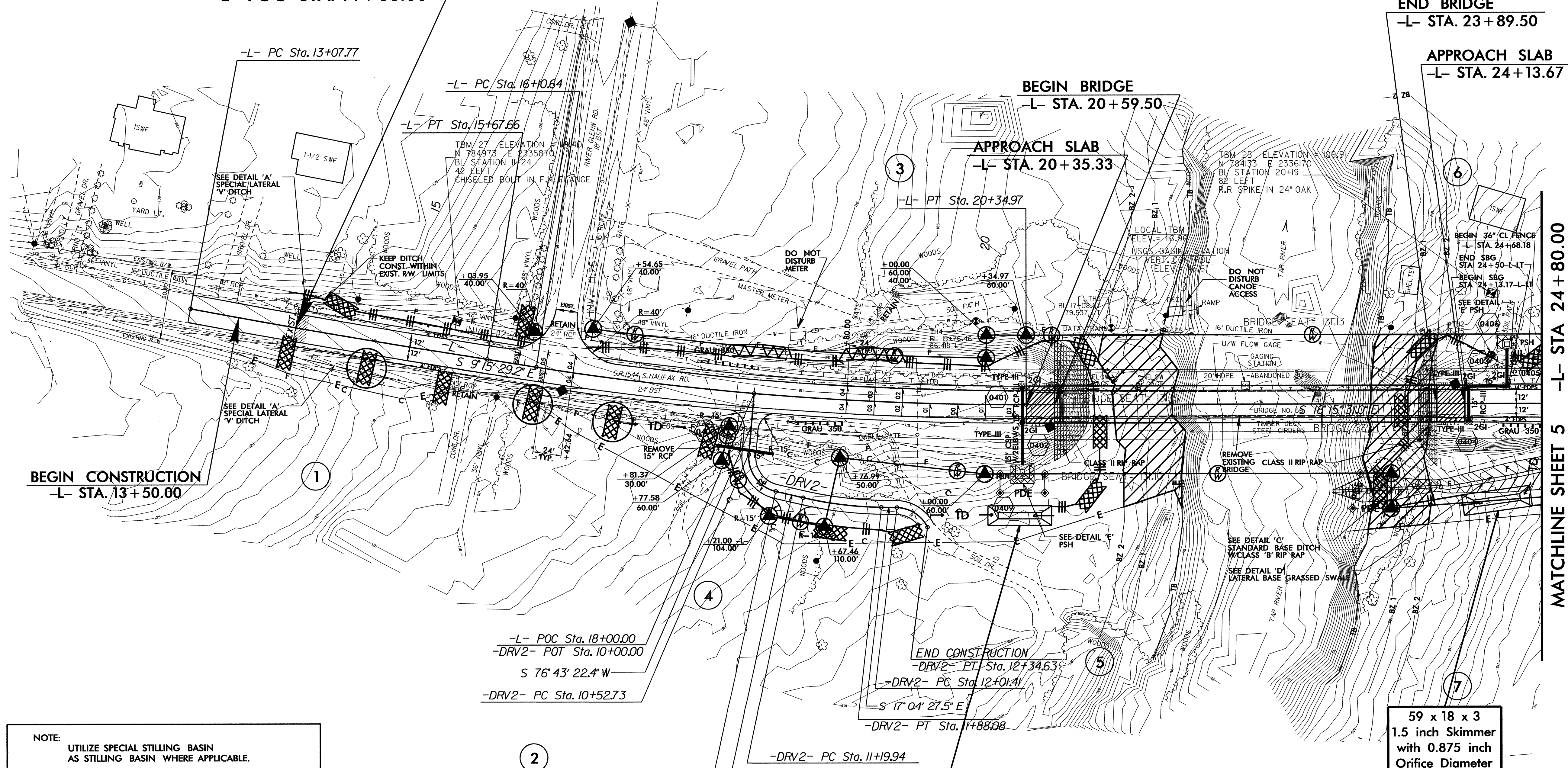
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

END BRIDGE
-L- STA. 23+89.50

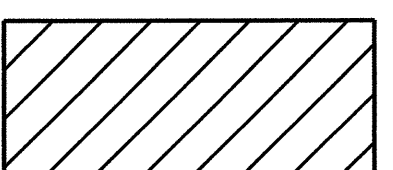
APPROACH SLAB
-L- STA. 24+13.67



BEGIN TIP PROJECT B-4211
-L- POC STA. 14+00.00



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

 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

55 x 17 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
9 ft. weir
ID 4.2B

59 x 18 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
10 ft. weir
ID 4.3C

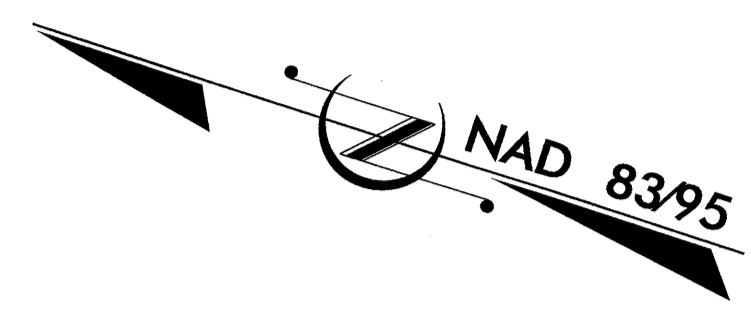
NOTE:
SEE SHEET No.6 FOR DET ALIGNMENT
SEE SHEET No.7 FOR -L- & -DET- PROFILE
SEE SHEET S-1 THRU S- FOR STRUCTURE PLANS

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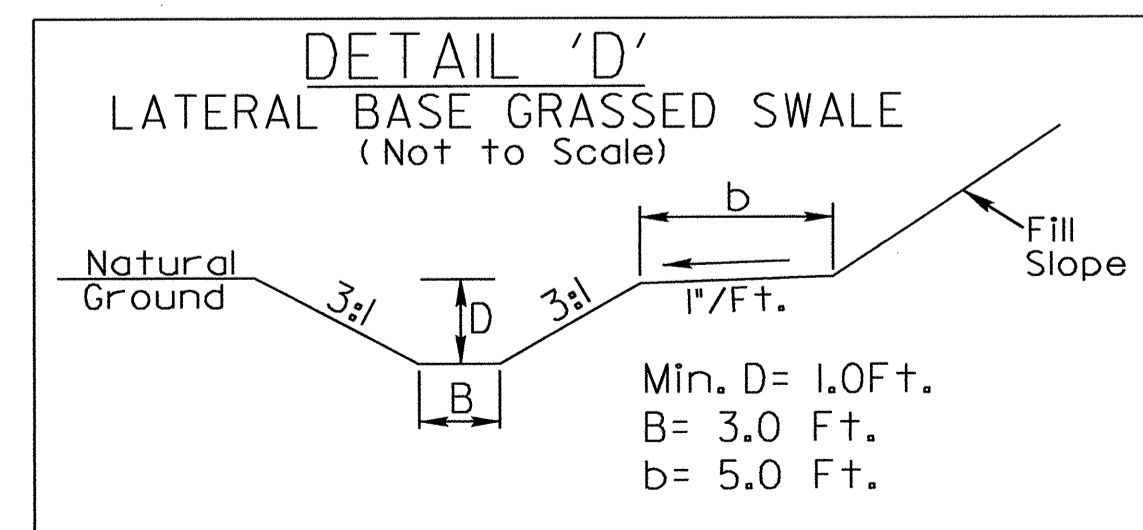
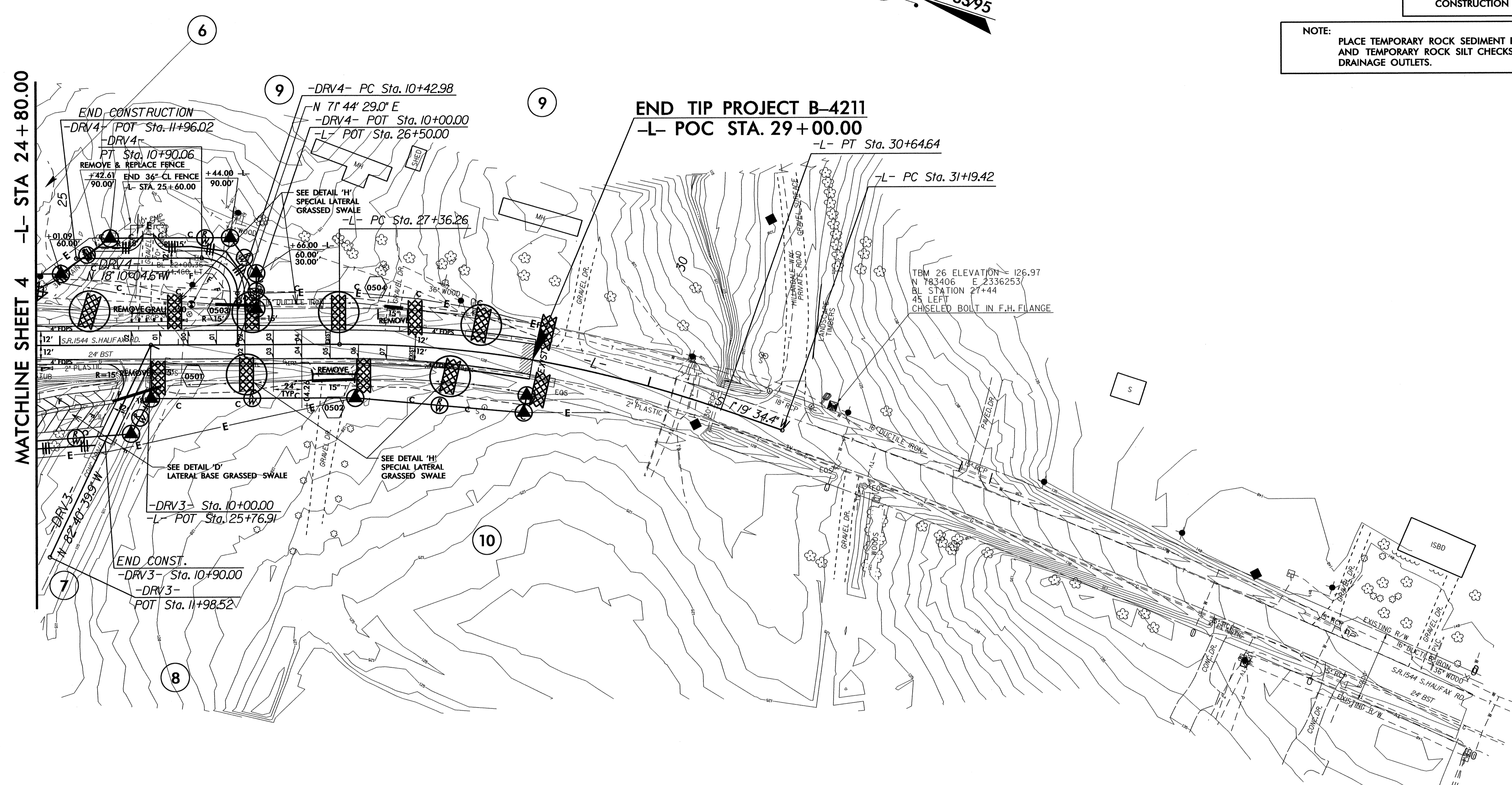
PROJECT REFERENCE NO. B-4211	SHEET NO. EC-5/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

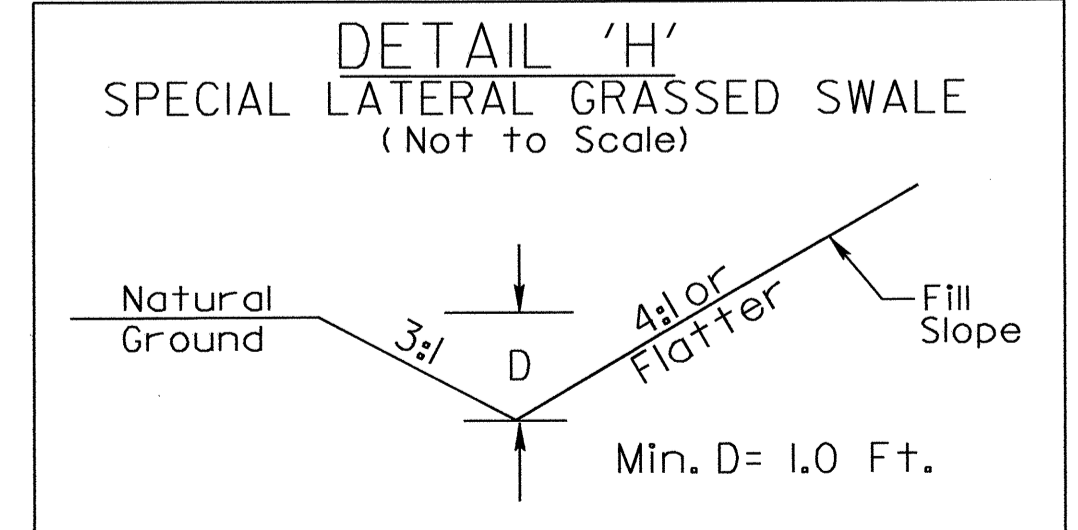
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.



MATCHLINE SHEET 4 -L- STA 24+80.00



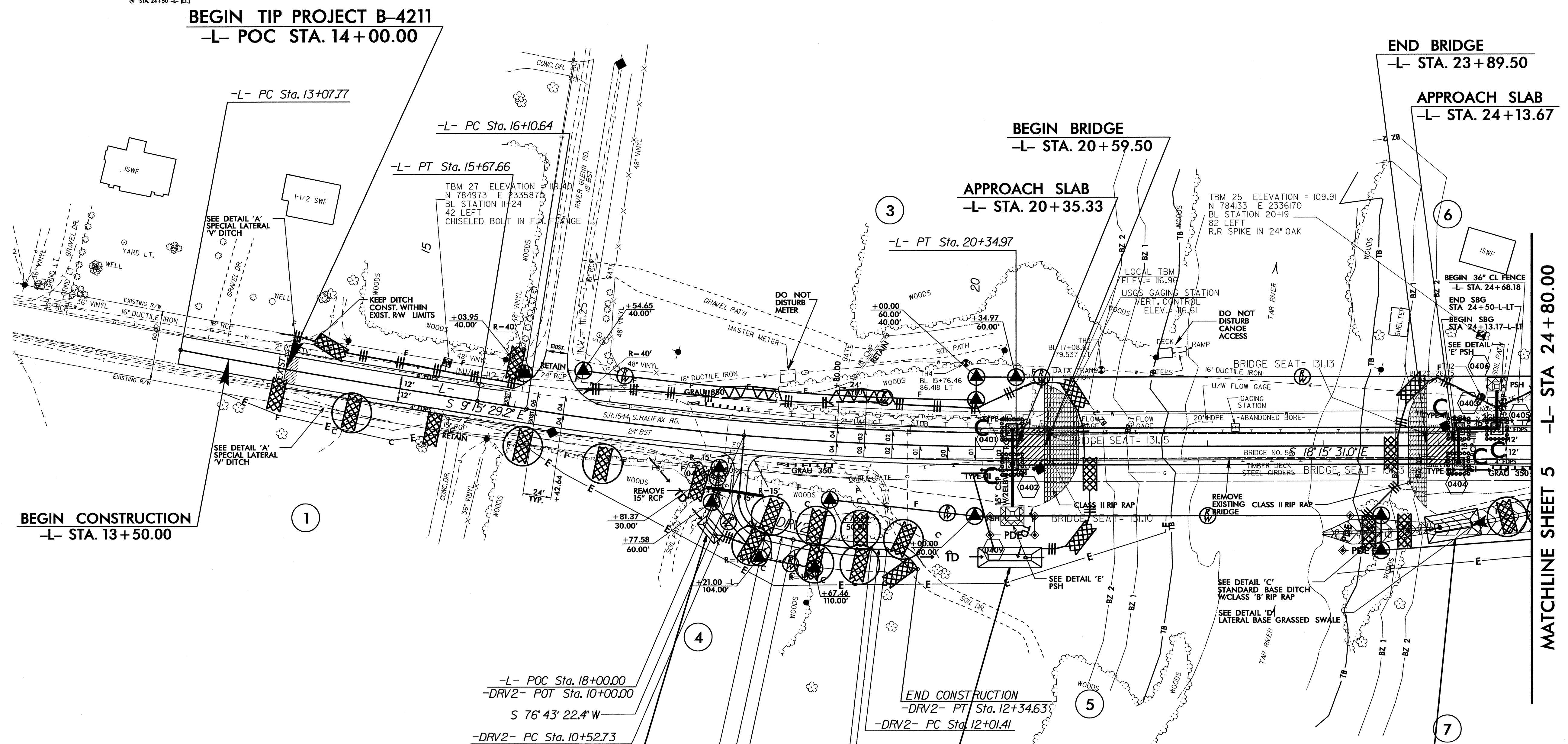
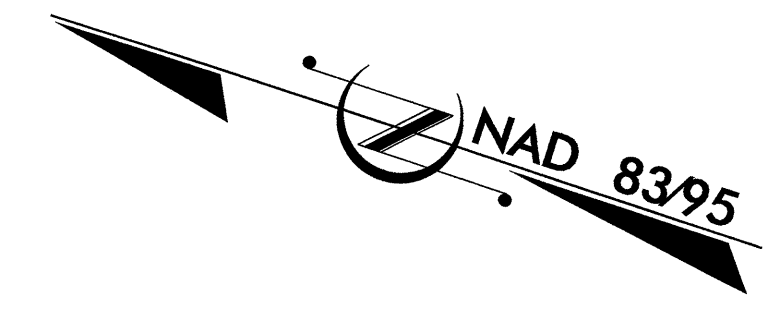
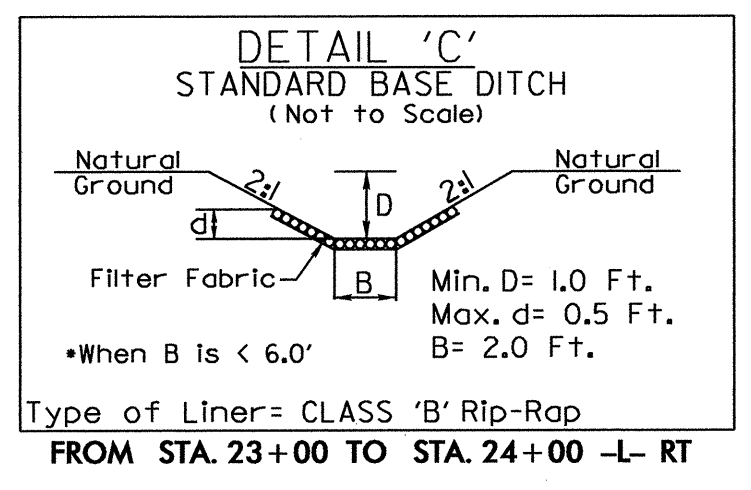
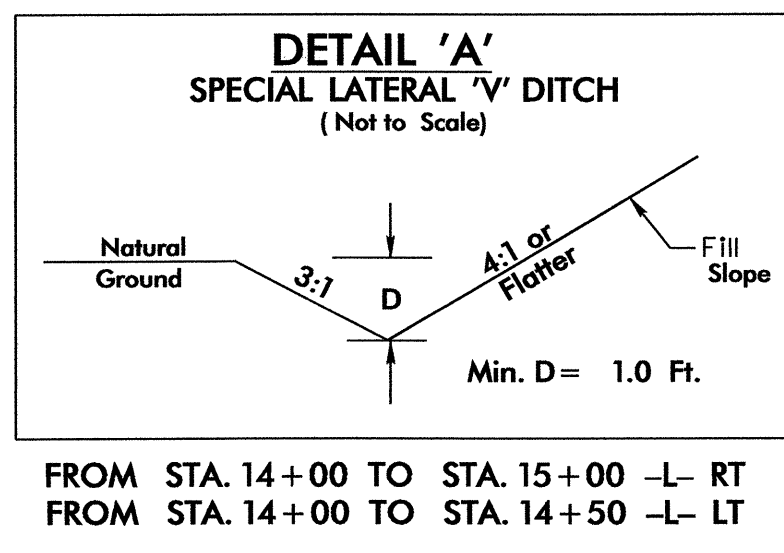
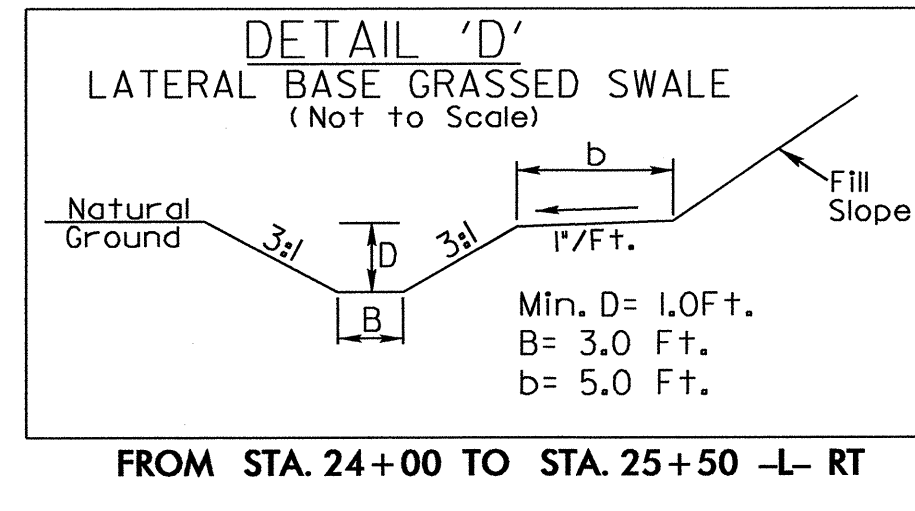
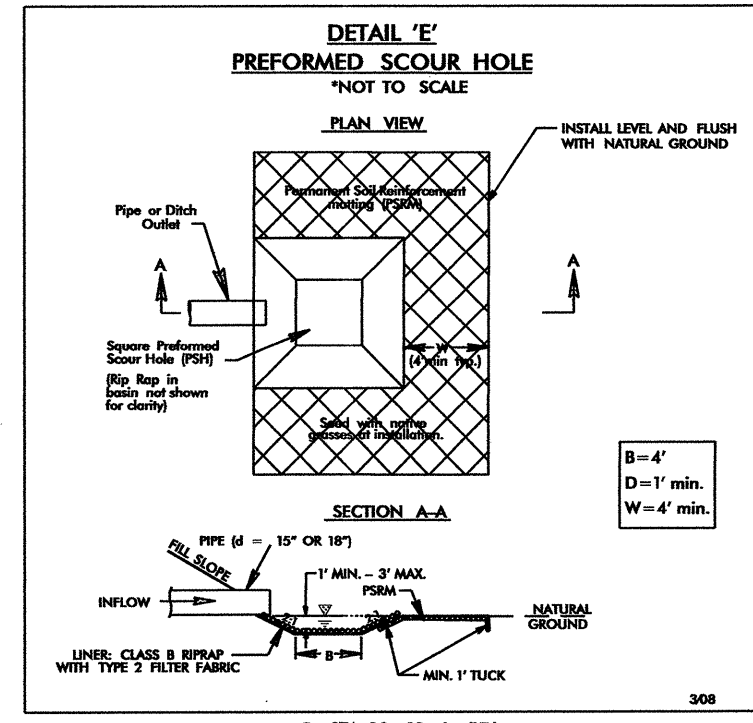
FROM STA. 24+00 TO STA. 25+50 -L- RT



FROM STA. 25+85 TO STA. 29+00 -L- RT
FROM STA. 25+00 TO STA. 28+50 -L- LT

NOTE: SEE SHEET No.6 FOR DET ALIGNMENT
SEE SHEET No.7 FOR -L- & -DET- PROFILE
SEE SHEET S-1 THRU S- FOR STRUCTURE PLANS

PROJECT REFERENCE NO.	SHEET NO.
B-4211	EC-6/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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

22 x 11 x 3
1.5 inch Skimmer
with 0.25 inch
Orifice Diameter
4 ft. weir
ID 4.1F

55 x 17 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
9 ft. weir
ID 4.2B

46 x 23 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
15 ft. weir
ID 4.4F

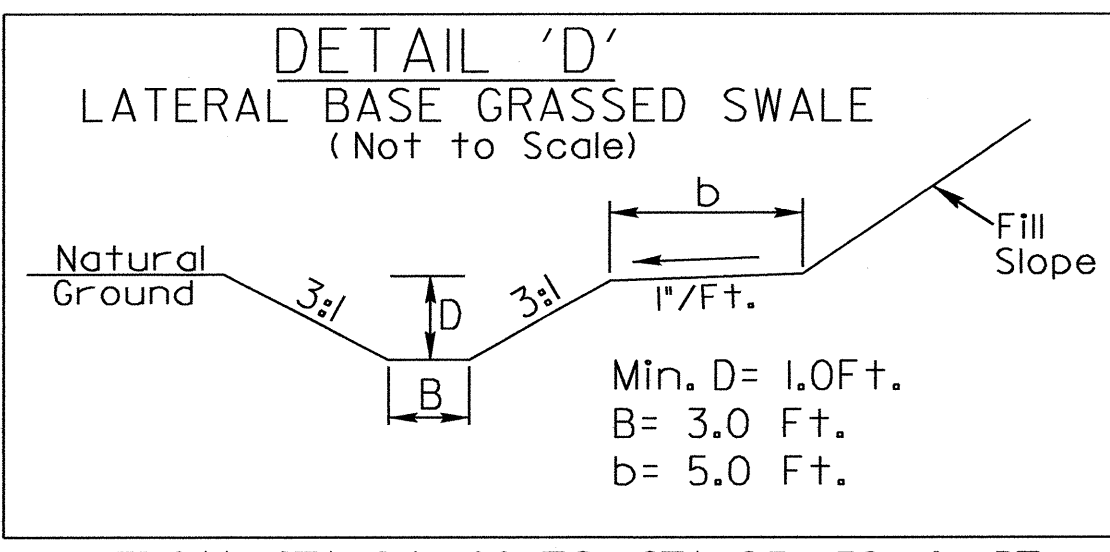
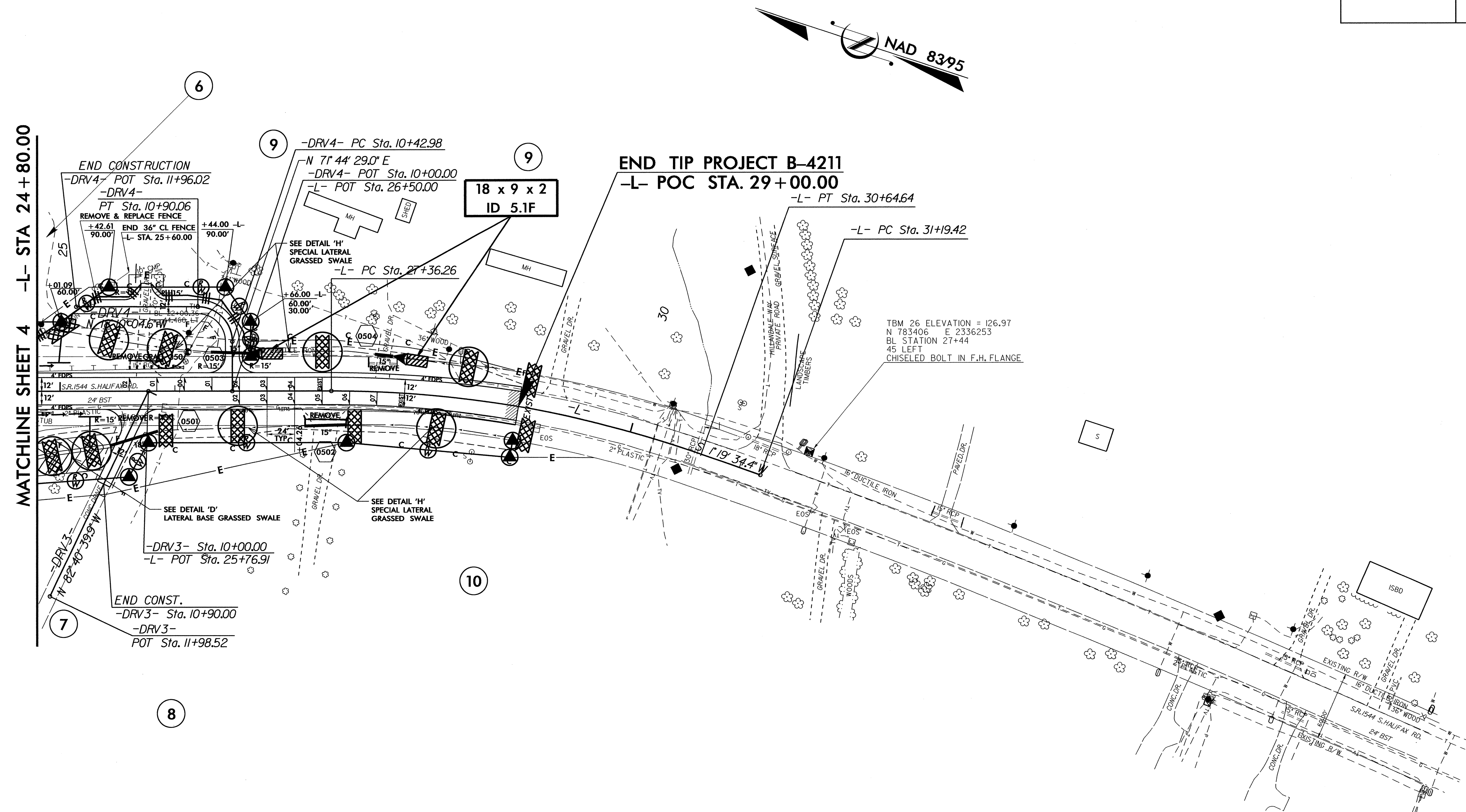
NOTE:
SEE SHEET No.6 FOR DET ALIGNMENT
SEE SHEET No.7 FOR -L- & -DET- PROFILE
SEE SHEET S-1 THRU S- FOR STRUCTURE PLANS

MATCHLINE SHEET 5 -L- STA 24 + 80.00

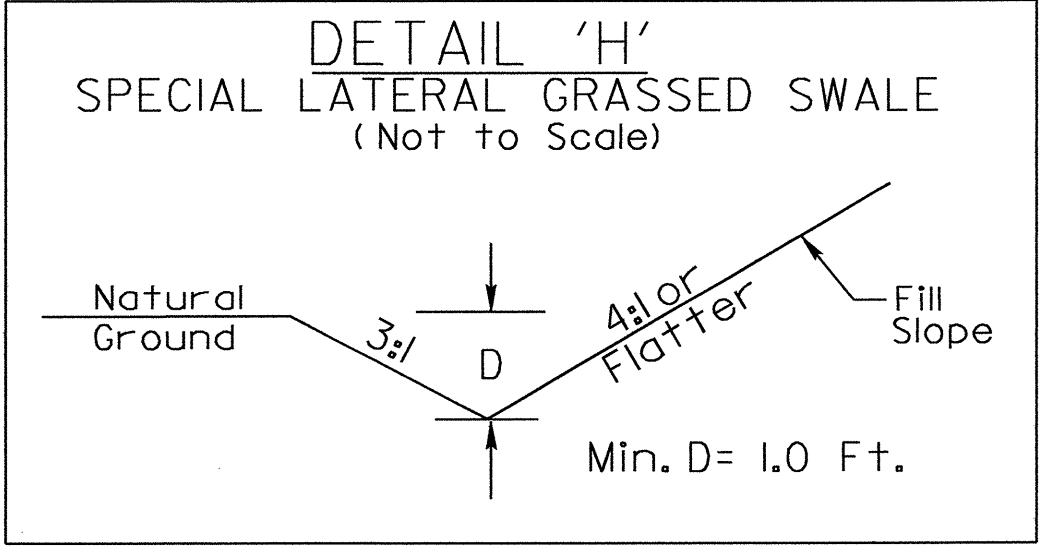
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PROJECT REFERENCE NO.	SHEET NO.
B-4211	EC-7/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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FROM STA. 24+00 TO STA. 25+50 -L- RT

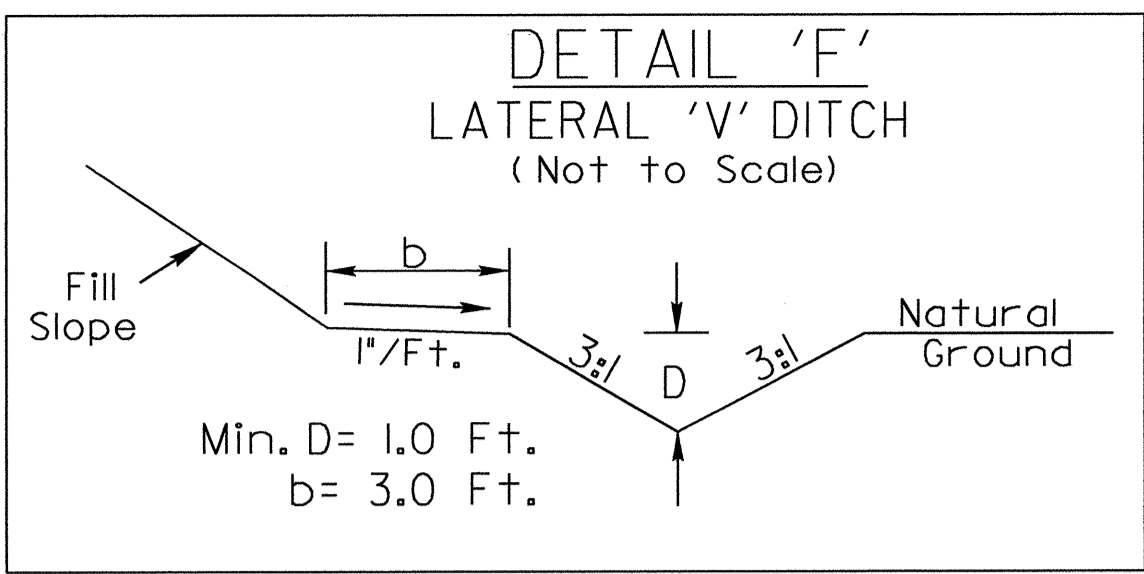


FROM STA. 25+85 TO STA. 29+00 -L- RT
 FROM STA. 25+00 TO STA. 28+50 -L- LT

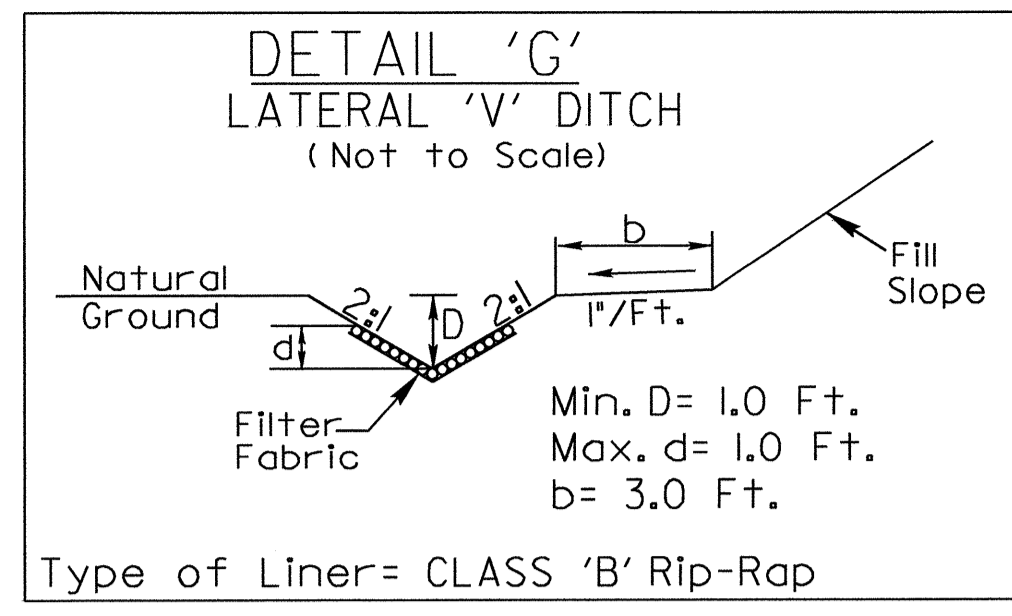
NOTE: SEE SHEET No.6 FOR DET ALIGNMENT
 SEE SHEET No.7 FOR -L- & -DET- PROFILE
 SEE SHEET S-1 THRU S- FOR STRUCTURE PLANS

PROJECT REFERENCE NO.	SHEET NO.
B-4211	EC-8/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



FROM STA. 11+50 TO STA. 13+00 -DET- RT



FROM STA. 18+50 TO STA. 20+50 -DET- RT

BEGIN CONSTRUCTION
-DET- PC STA. 10+00.00
-L- POC STA. 15+37.37

END CONSTRUCTION
-DET- STA. 23+72.46
-L- STA. 29+00.00

DETOUR

