

TIP PROJECT: B-4318

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

WATAUGA COUNTY

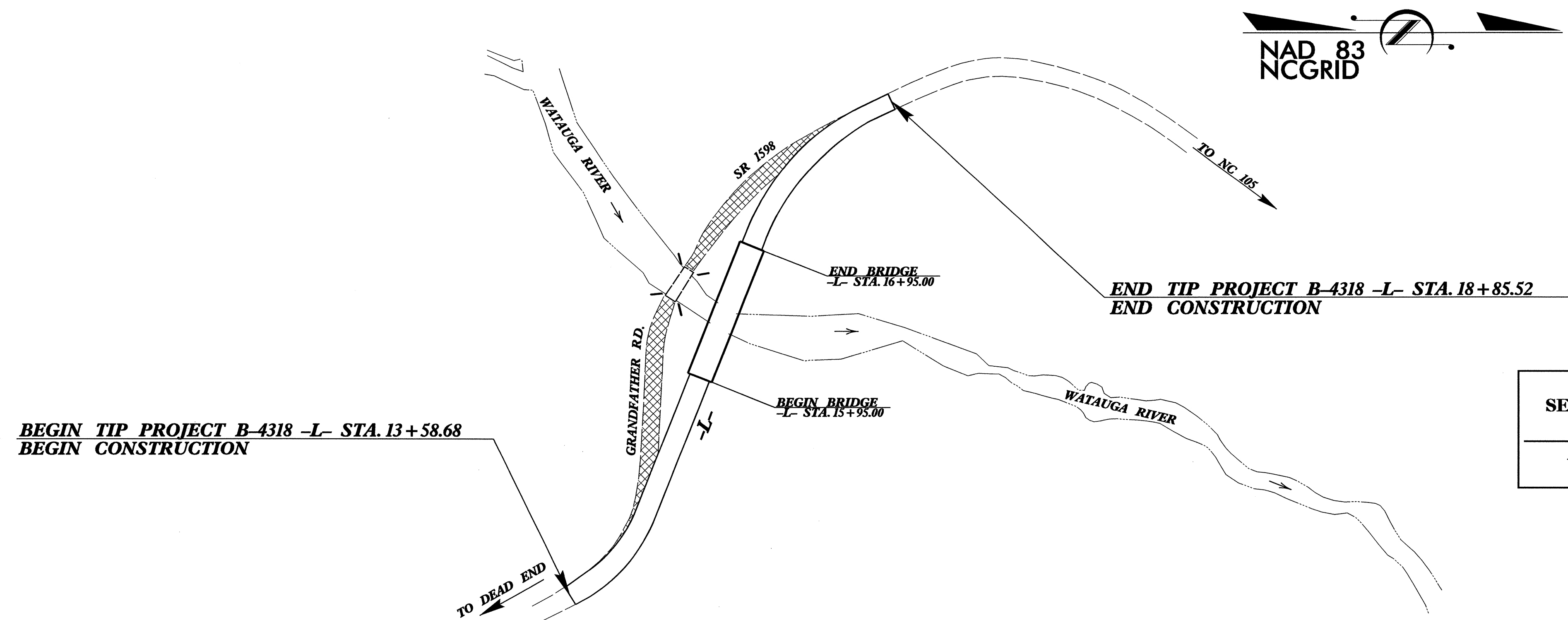
**LOCATION: BRIDGE NO. 321 OVER WATAUGA RIVER ON SR 1598
(GRANDFATHER ROAD)**

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4318	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	TD
1630.01	Riser Basin	RB
	Silt Basin Type B	SB
1633.01	Temporary Rock Silt Check Type-A	TRSCA
	Temporary Rock Silt Check Type-B	TRSCB
	Wattle	W
1634.01	Temporary Rock Sediment Dam Type-A	TRSDA
1634.02	Temporary Rock Sediment Dam Type-B	TRSDB
1635.01	Rock Pipe Inlet Sediment Trap Type-A	RPISTA
1635.02	Rock Pipe Inlet Sediment Trap Type-B	RPISTB
1630.04	Stilling Basin	SB
1630.06	Special Stilling Basin	SSB
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	SKB
	Tiered Skimmer Basin	TSKB
	Infiltration Basin	IB



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

**ENVIRONMENTALLY
SENSITIVE AREA(S) EXIST
ON THIS PROJECT**

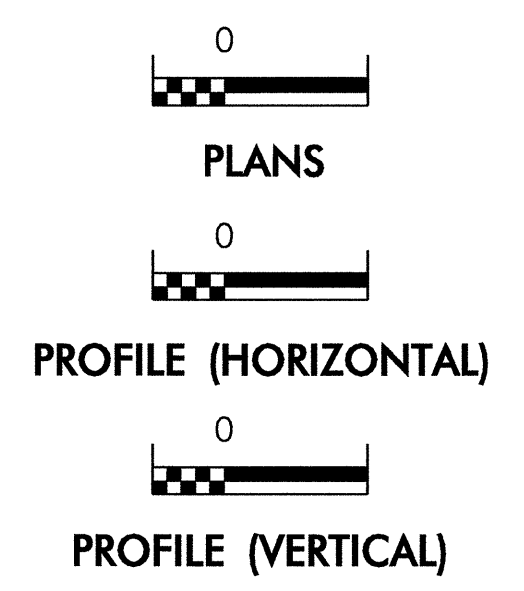
*Refer To E. C. Special Provisions
for Special Considerations.*

**THIS PROJECT HAS
BEEN DESIGNED TO
SENSITIVE WATERSHED
STANDARDS.**

**HIGH QUALITY WATER(S) EXIST
ON THIS PROJECT**

*High Quality Water Zone(s) Exist
From Sta. Beginning
to Sta. End
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

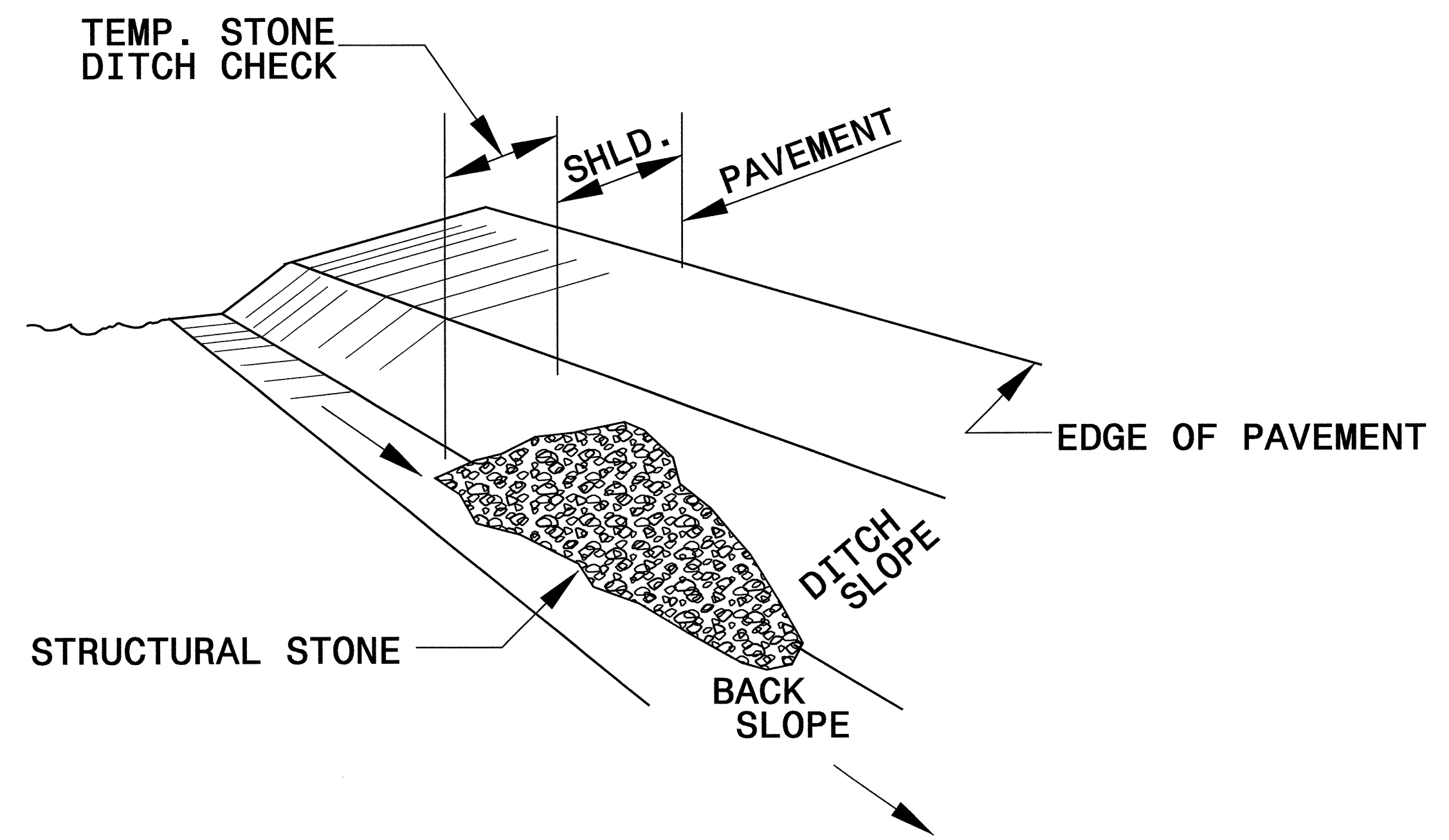
Roadway Standard Drawings
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 18, 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered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

1605.01 Temporary Silt Fence
1607.01 Gravel Construction Entrance
1633.01 Temporary Rock Silt Check Type A

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PROJECT REFERENCE NO. <i>B-4318</i>	SHEET NO. <i>EC-2</i>
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

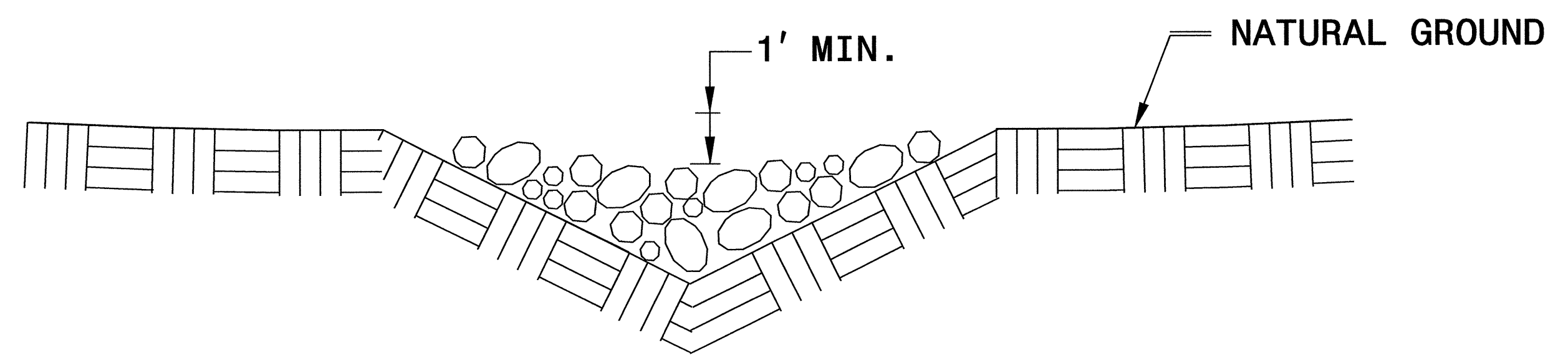


ISOMETRIC VIEW

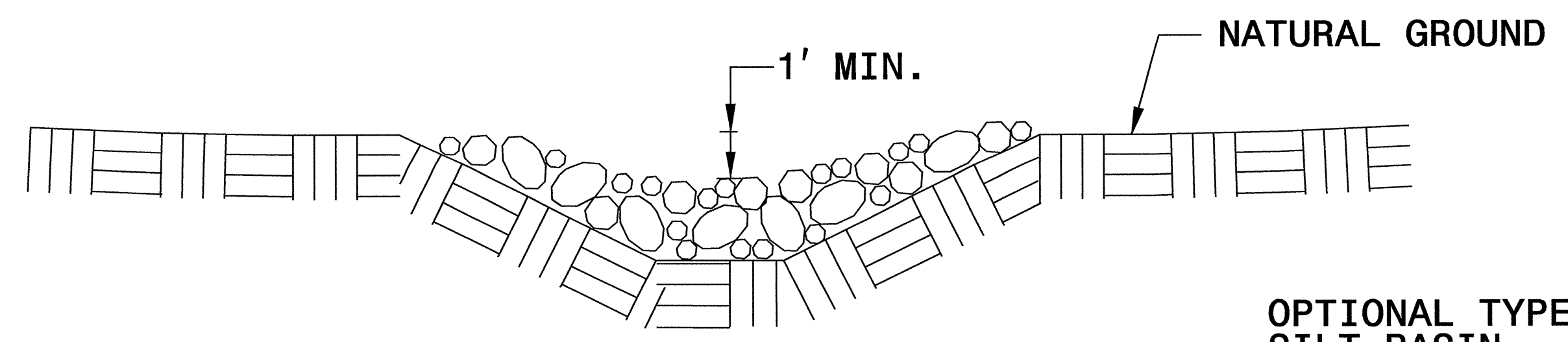
NOTES:

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

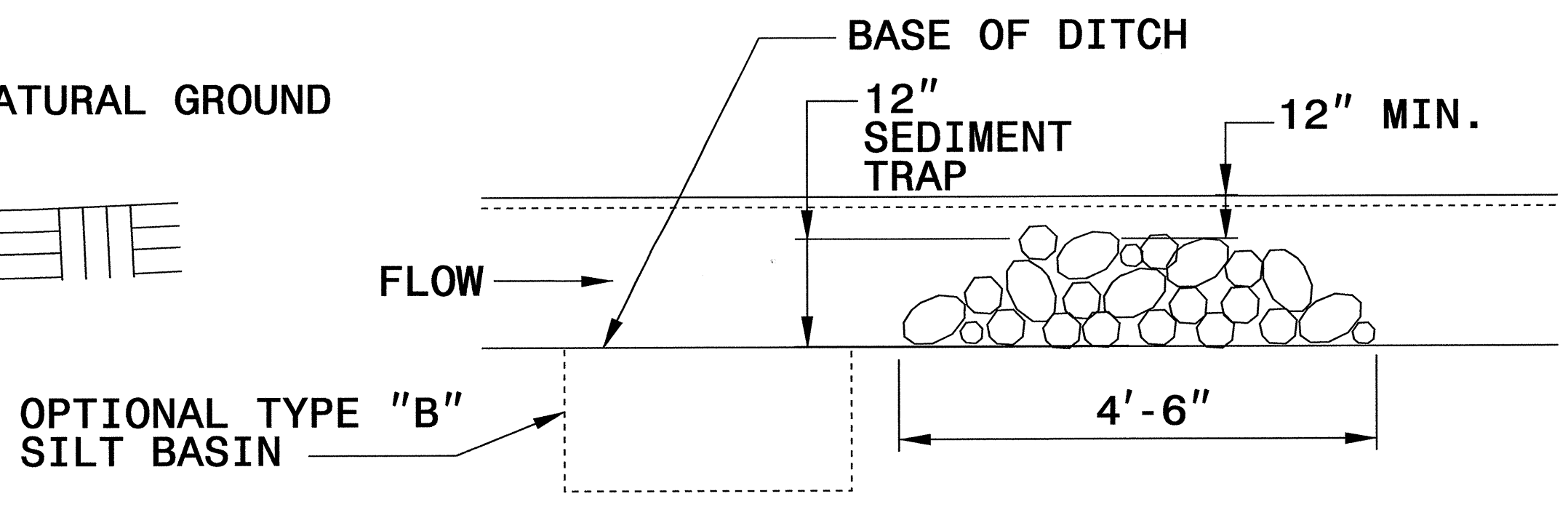
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



CROSS SECTION VEE DITCH



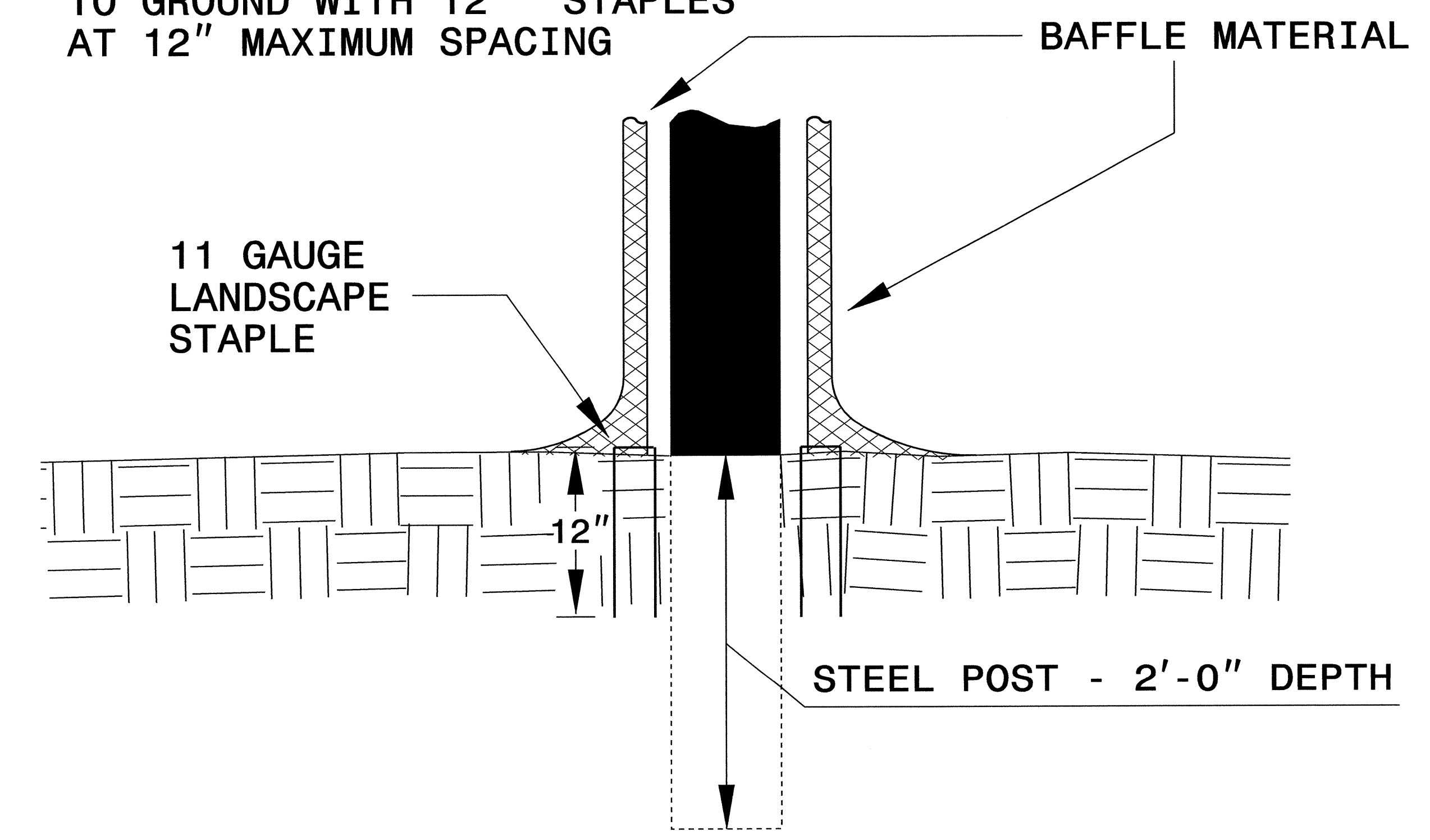
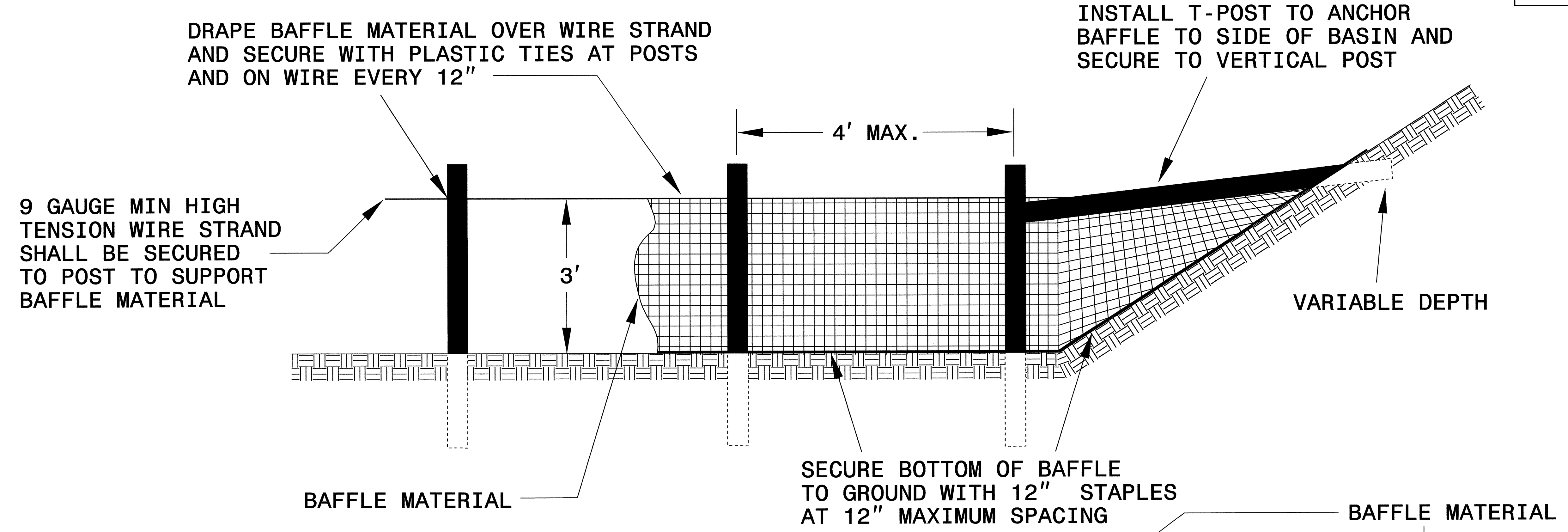
CROSS SECTION TRAPEZOIDAL DITCH



ELEVATION VIEW

PROJECT REFERENCE NO. B-4318	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL

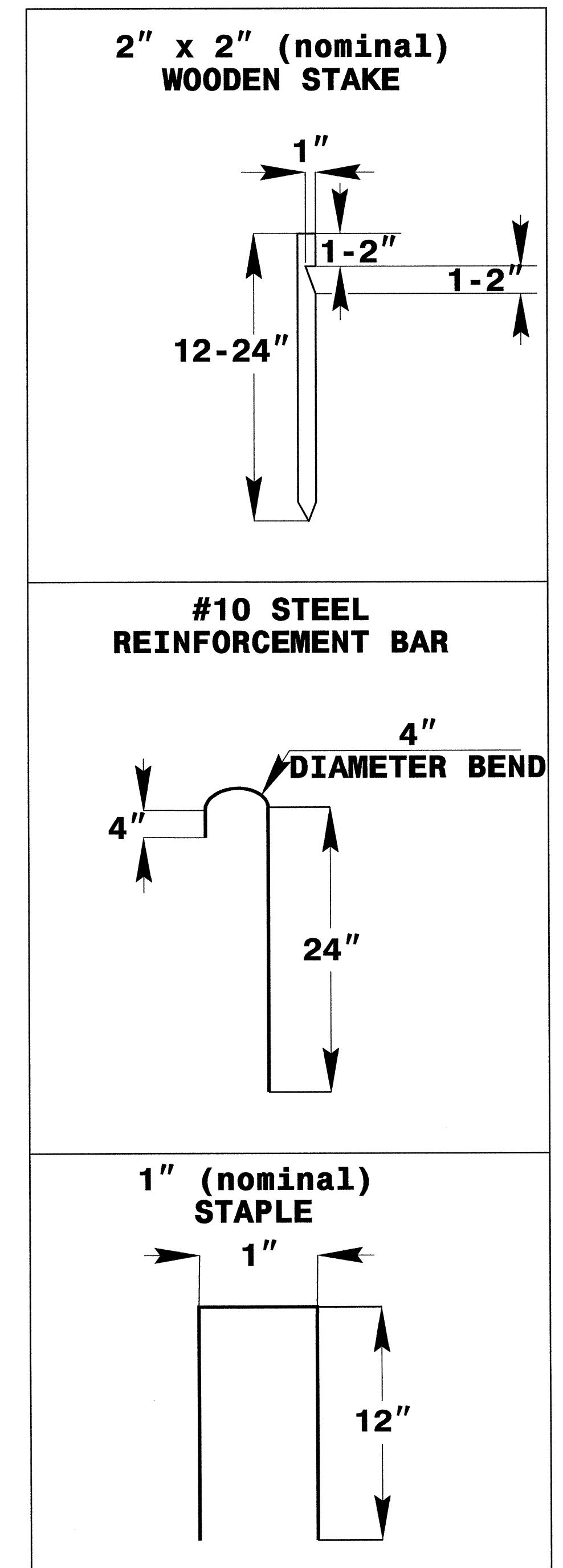
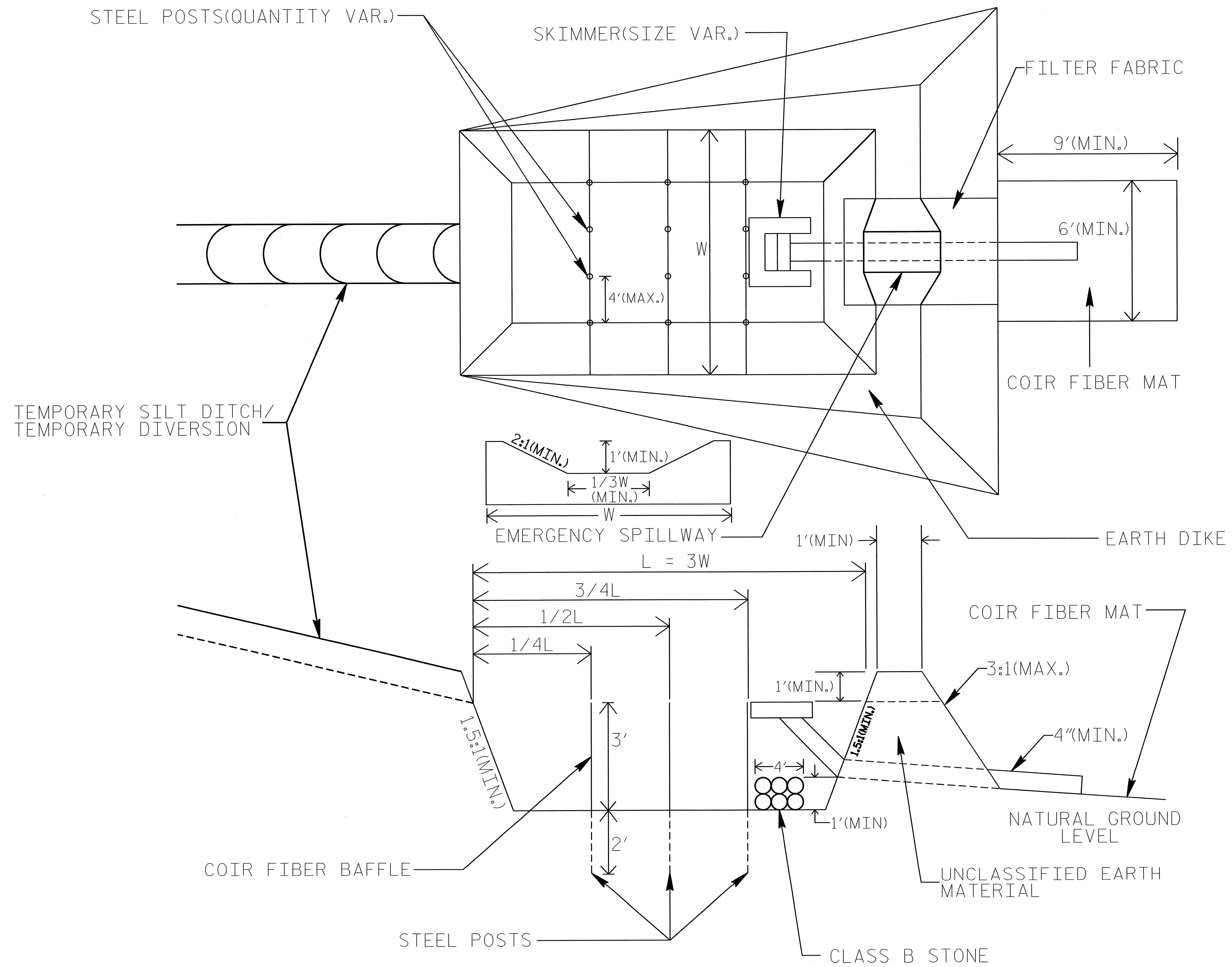


NOTE: INSTALL THREE (3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF $\frac{1}{4}$ THE BASIN LENGTH. TWO (2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF $\frac{1}{3}$ THE BASIN LENGTH.

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

SKIMMER BASIN WITH BAFFLES DETAIL

PROJECT REFERENCE NO. B-4318	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



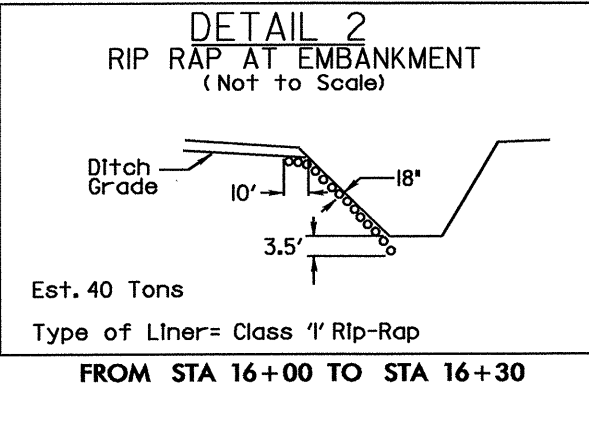
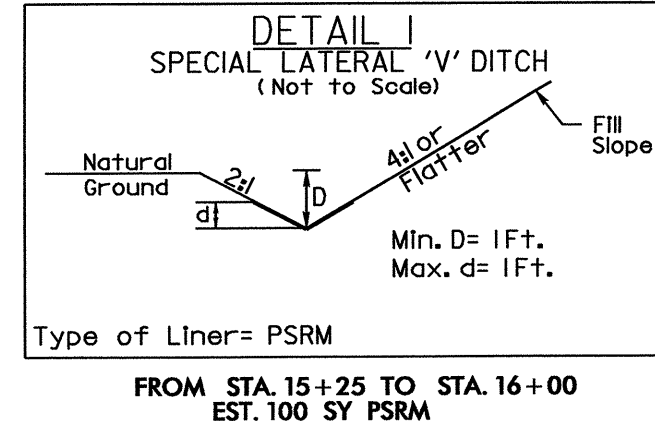
COIR FIBER MAT ANCHOR OPTIONS

NOTES:

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.

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PROJECT REFERENCE NO. B-4318	SHEET NO. 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.

NOTE:
UTILIZE TEMPORARY ROCK SILT CHECK TYPE - A
AND SKIMMER BASIN AS STILLING
BASIN WHERE APPLICABLE.



END TIP PROJECT B-4318 -L- STA.18+85.52
END CONSTRUCTION

-L-

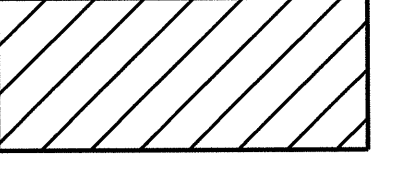
PI Sta 14+20.49 Δ = 32° 49' 07.6" (LT) D = 45° 50' 11.8" L = 71.60' T = 36.81' R = 125.00' *SE = 0.02 RO = 40'	PI Sta 17+91.44 Δ = 40° 22' 06.9" (RT) D = 27° 56' 57.0" L = 144.44' T = 75.36' R = 205.00' *SE = 0.02 RO = 40'
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31 x 14 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
8 ft. weir
ID 4.3B

53 x 10 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
8 ft. weir
ID 4.2C

24 x 11 x 3
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
4 ft. weir
ID 4.4B

20 x 10 x 3
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
4 ft. weir
ID 4.1B

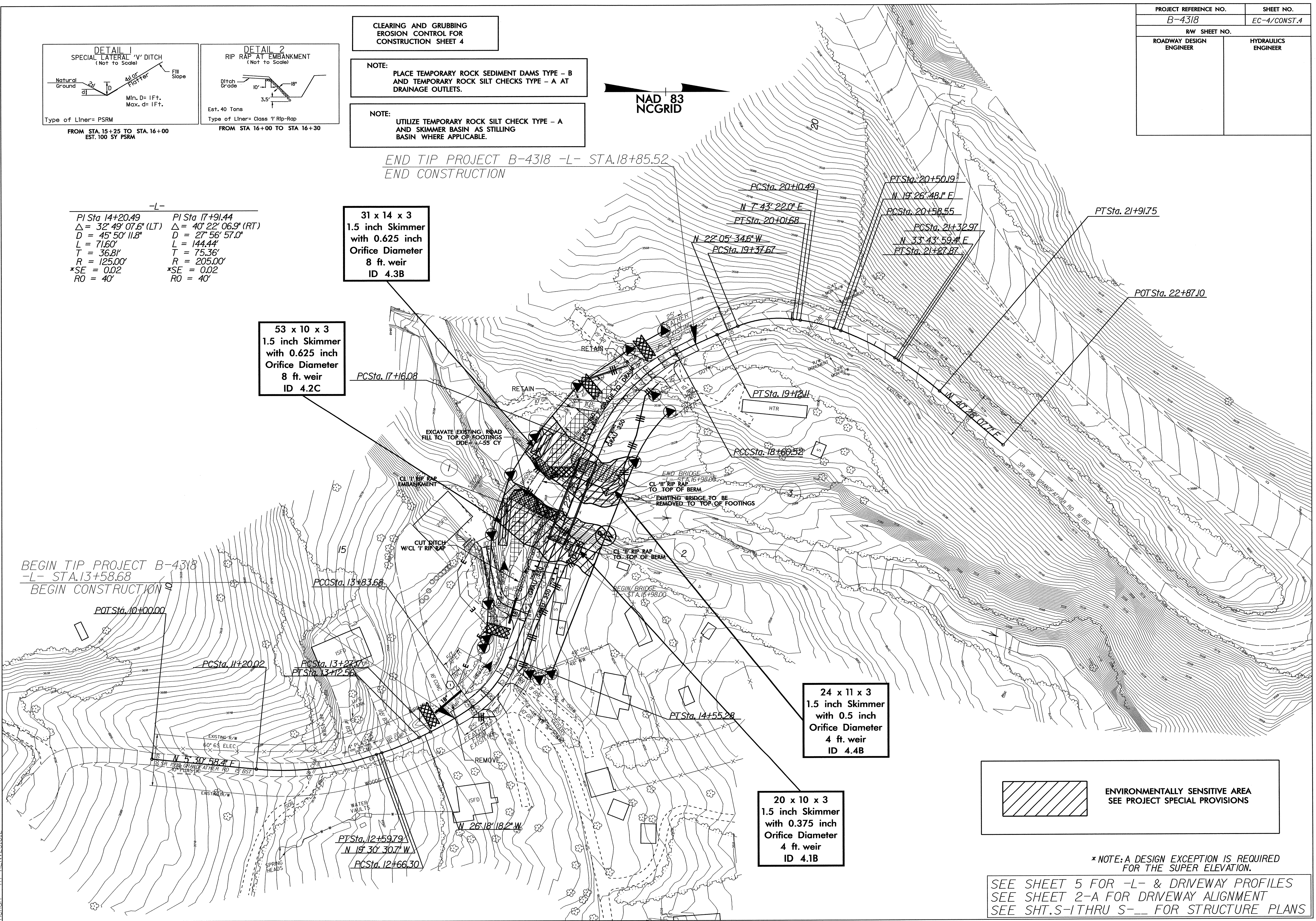
 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

* NOTE: A DESIGN EXCEPTION IS REQUIRED
FOR THE SUPER ELEVATION.

SEE SHEET 5 FOR -L- & DRIVEWAY PROFILES
SEE SHEET 2-A FOR DRIVEWAY ALIGNMENT
SEE SHT.S-1 THRU S-___ FOR STRUCTURE PLANS

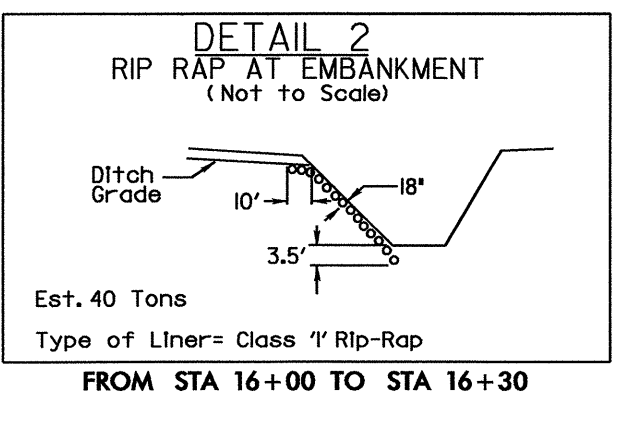
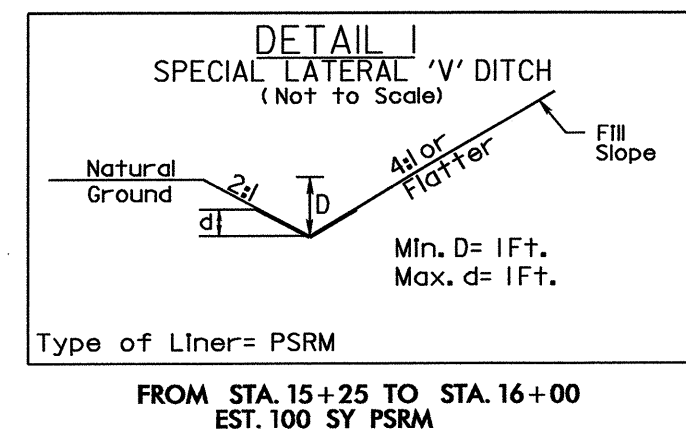
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PROJECT REFERENCE NO.		SHEET NO.	
B-4318		EC-5/CONST.4	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



NOTE:
UTILIZE TEMPORARY ROCK SILT CHECK TYPE - A AND SKIMMER BASIN AS STILLING BASIN WHERE APPLICABLE.

NAD 83
NCGRID

END TIP PROJECT B-4318 -L- STA.18+85.52
END CONSTRUCTION

-L-
PI Sta 14+20.49 PI Sta 17+91.44
Δ = 32° 49' 07.6" (LT) Δ = 40° 22' 06.9" (RT)
D = 45° 50' 11.8" D = 27° 56' 57.0"
L = 71.60' L = 144.44'
T = 36.81' T = 75.36'
R = 125.00' R = 205.00'
*SE = 0.02 *SE = 0.02
RO = 40' RO = 40'

31 x 14 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
8 ft. weir
ID 4.3B

32 x 16 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
8 ft. weir
ID 4.1F

24 x 11 x 3
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
4 ft. weir
ID 4.4B

20 x 10 x 3
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
4 ft. weir
ID 4.1B

BEGIN TIP PROJECT B-4318
-L- STA.13+58.68
BEGIN CONSTRUCTION

*NOTE: A DESIGN EXCEPTION IS REQUIRED FOR THE SUPER ELEVATION.

SEE SHEET 5 FOR -L- & DRIVEWAY PROFILES
SEE SHEET 2-A FOR DRIVEWAY ALIGNMENT
SEE SHT.S-1 THRU S-___ FOR STRUCTURE PLANS

REVISIONS

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