

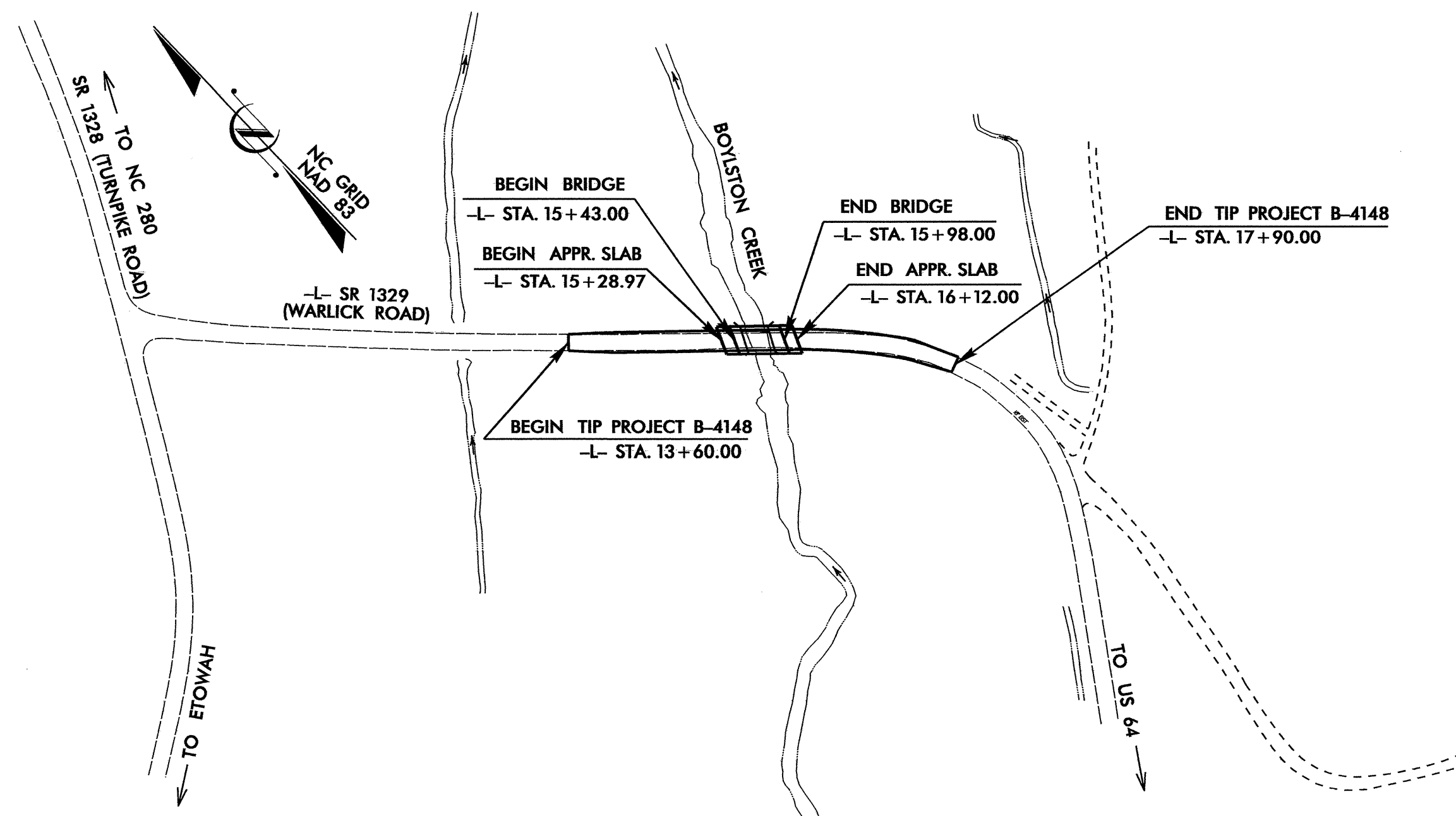
**TIP PROJECT: B-4148**

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

**HENDERSON COUNTY**

**LOCATION: BRIDGE NO. 12 OVER BOYLSTON CREEK  
 ON SR 1329 (WARLICK ROAD)**

**TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE**



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4148	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	TBD
1630.01	Riser Basin	⊙
	Silt Basin Type B	▨
1633.01	Temporary Rock Silt Check Type-A	▨
	Temporary Rock Silt Check Type-B	▨
	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	▭
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	▭
	Tiered Skimmer Basin	▭
	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

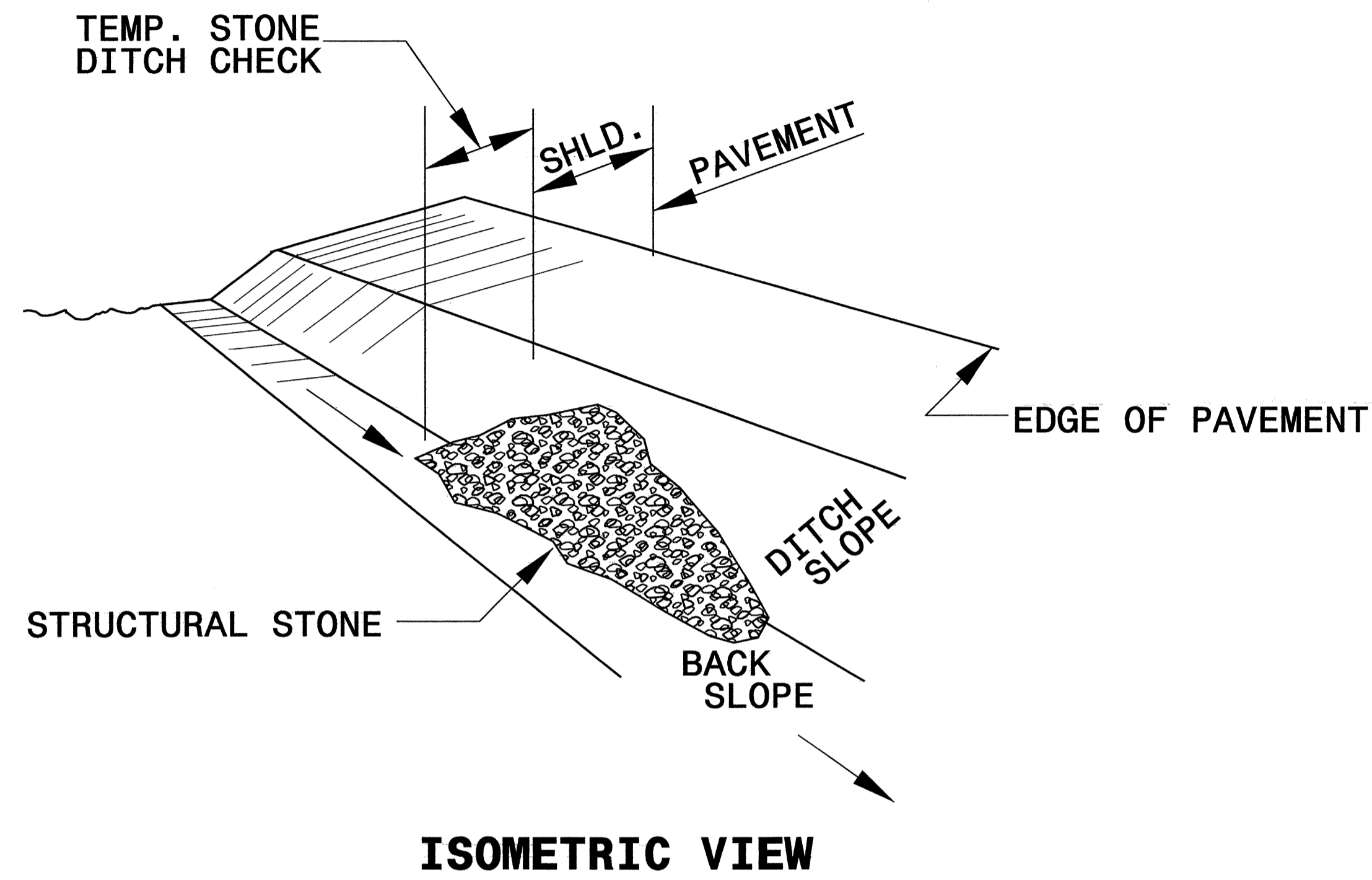
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 18, 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01 Temporary Silt Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1630.03 Temporary Silt Ditch	
1630.05 Temporary Diversion	

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PROJECT REFERENCE NO. B-4148	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

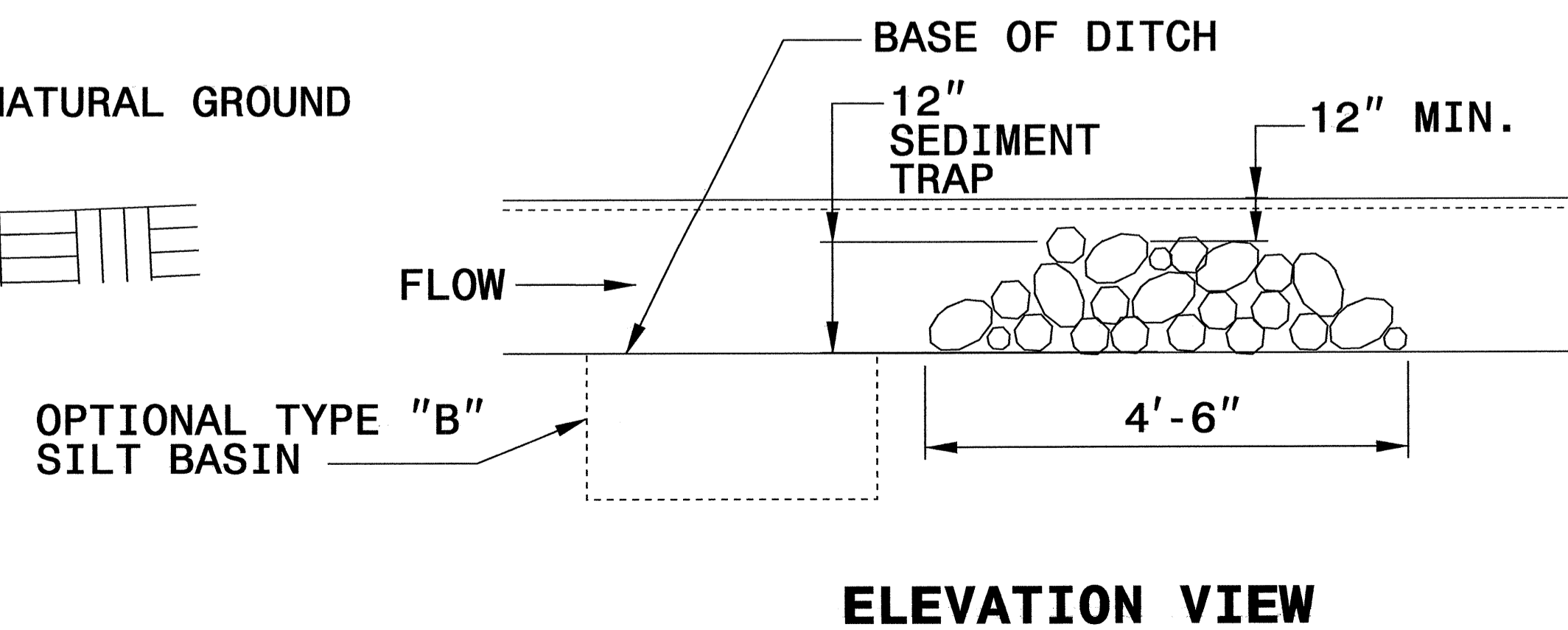
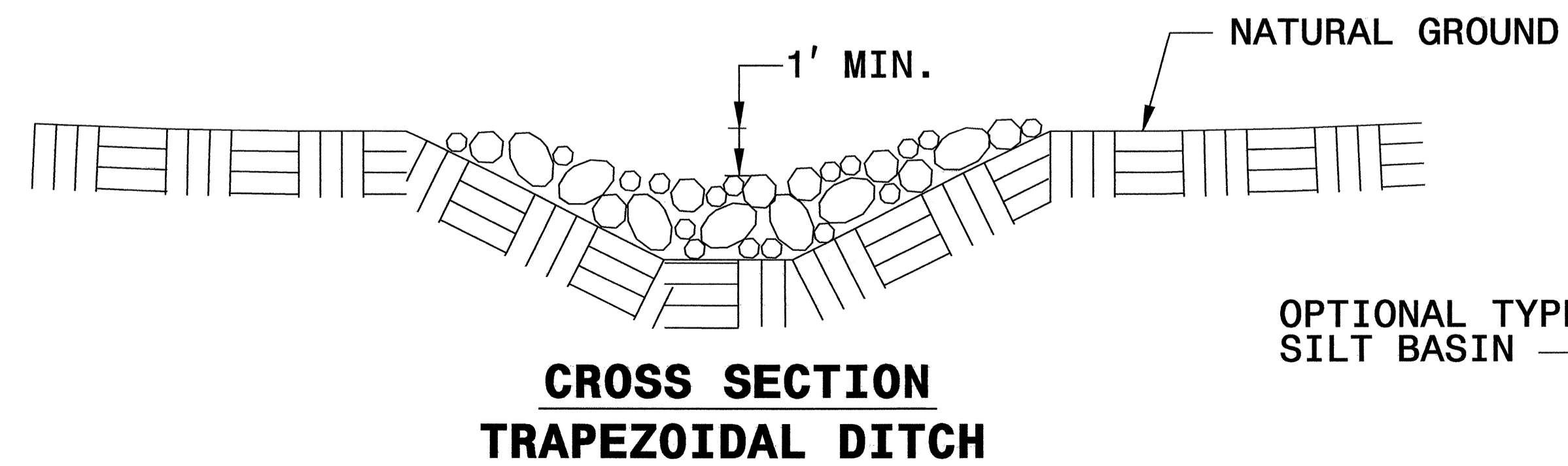
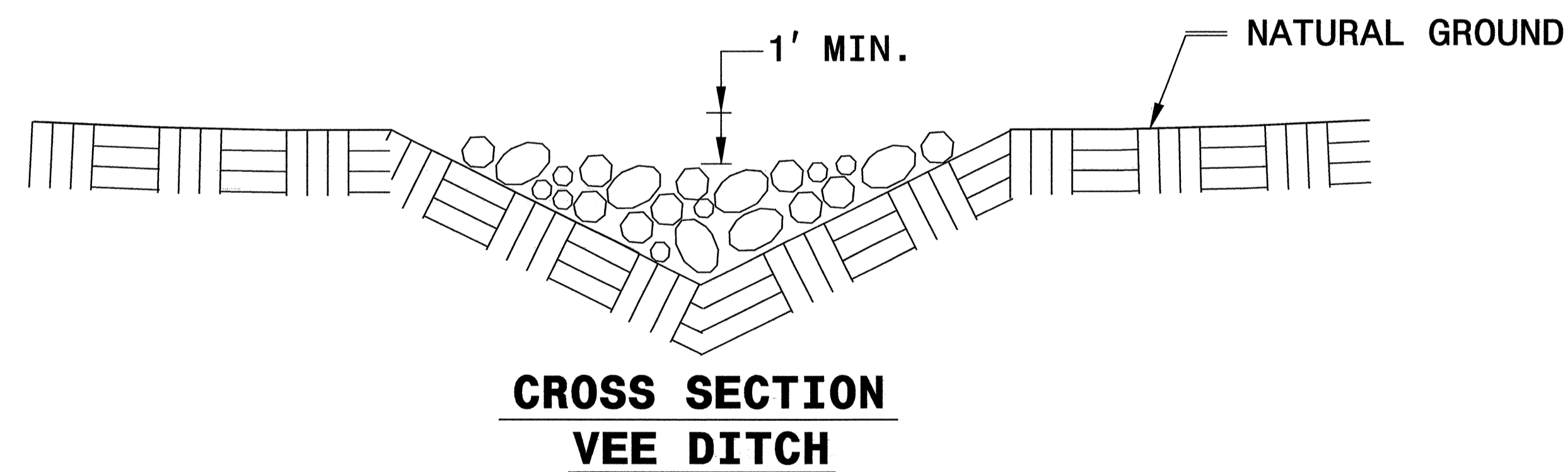
# TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL



**NOTES:**

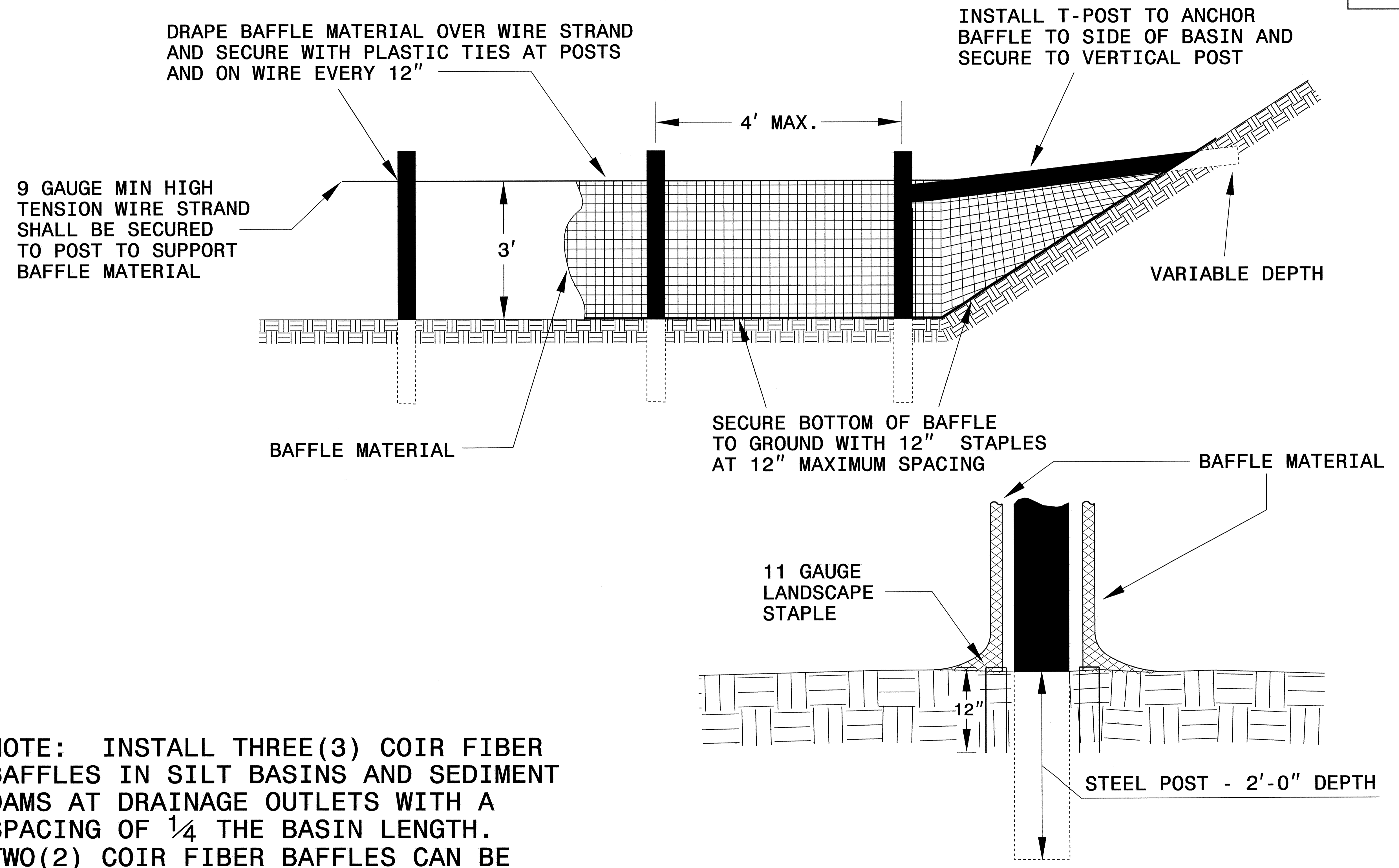
USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.

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. B-4148	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# COIR FIBER BAFFLE DETAIL

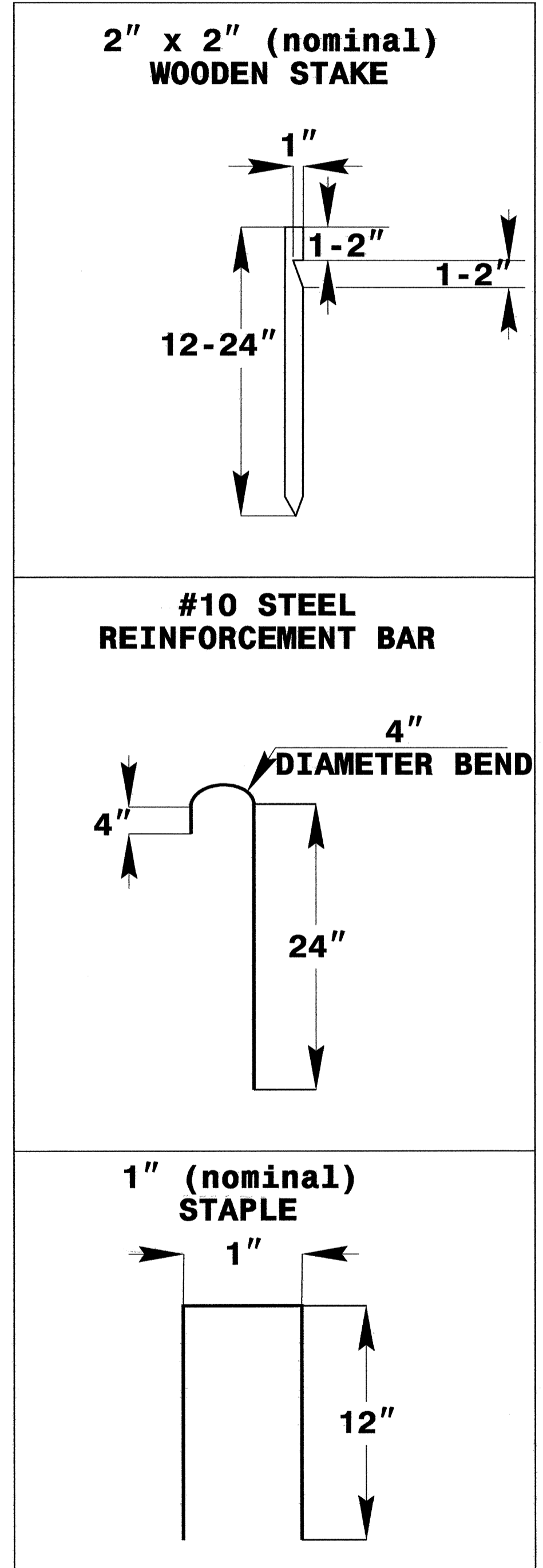
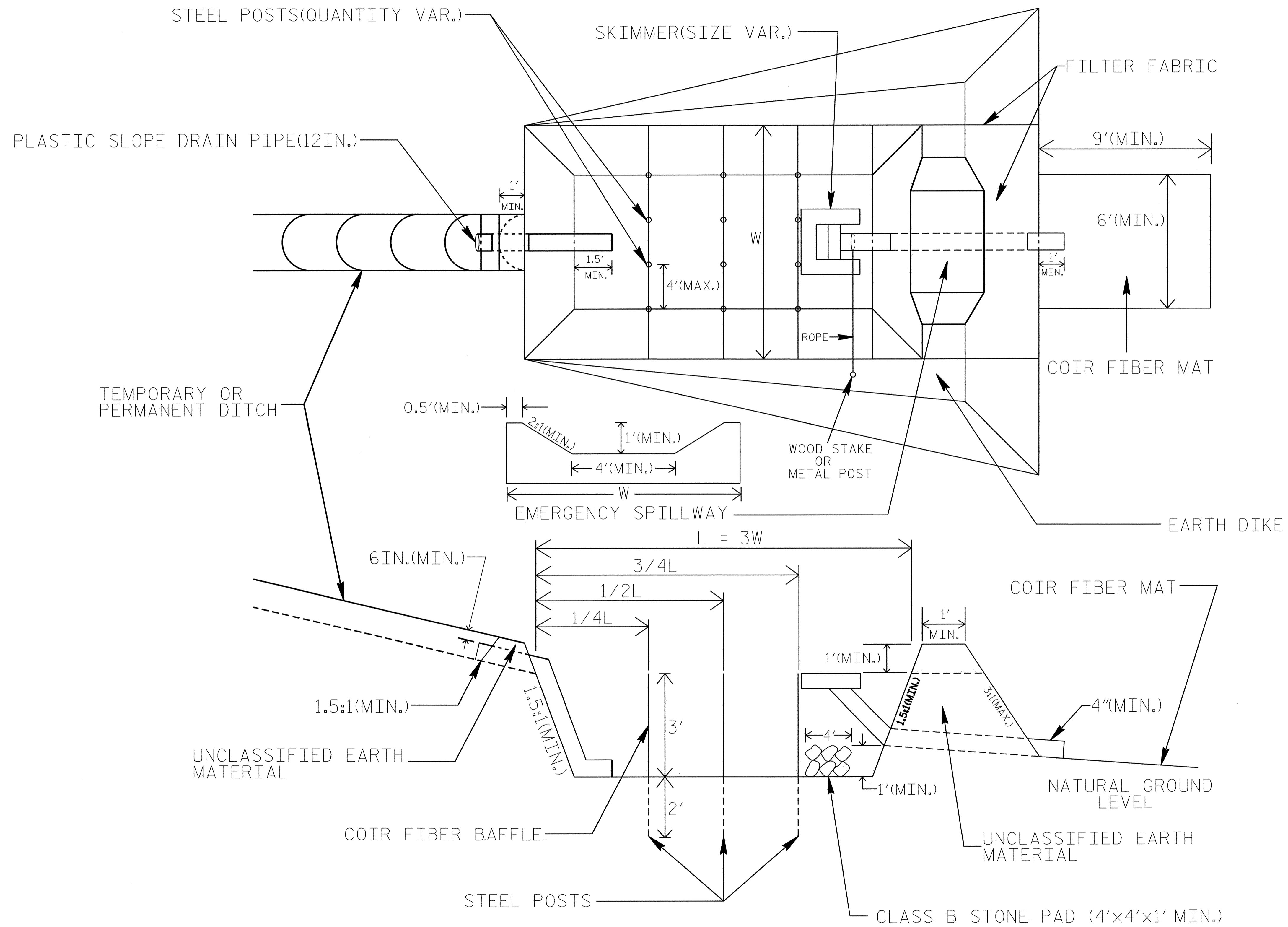


NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF  $\frac{1}{4}$  THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF  $\frac{1}{3}$  THE BASIN LENGTH.

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-4148	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



## COIR FIBER MAT ANCHOR OPTIONS

### NOTES

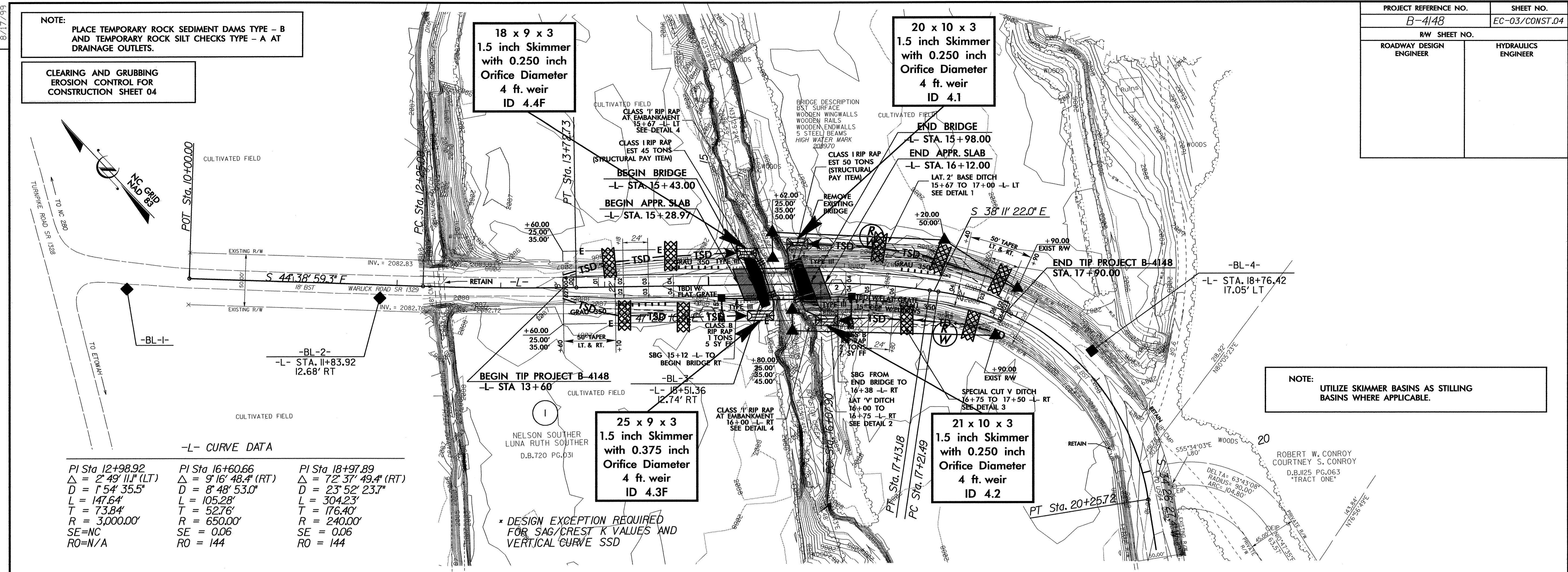
1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE EMERGENCY SPILLWAY LENGTH (FT.) USING  $Q/0.8$ , WHERE Q IS FLOW RATE (CFS) INTO BASIN.

NOT TO SCALE

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

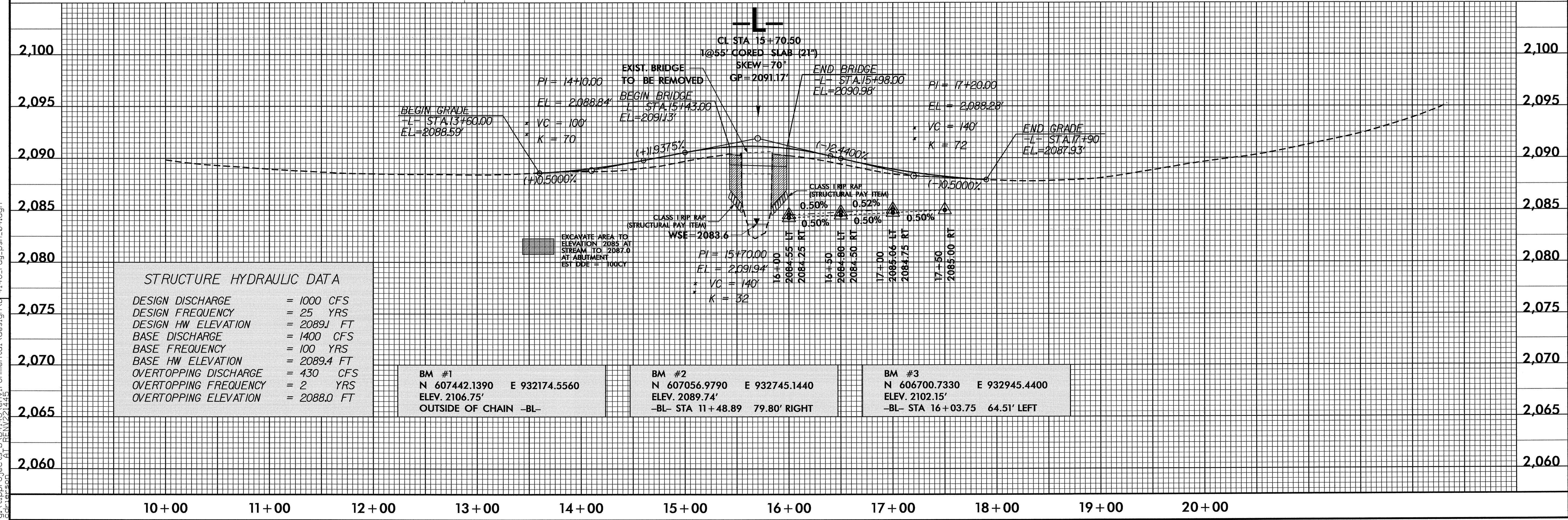
NOTE: UTILIZE SKIMMER BASINS AS STILLING BASINS WHERE APPLICABLE.



-L- CURVE DATA

PI Sta 12+98.92 Δ = 2° 49' 11" (LT) D = 1° 54' 35.5" L = 147.64' T = 73.84' R = 3,000.00' SE=NC RO=N/A	PI Sta 16+60.66 Δ = 9° 16' 48.4" (RT) D = 8° 48' 53.0" L = 105.28' T = 52.76' R = 650.00' SE = 0.06 RO = 144	PI Sta 18+97.89 Δ = 7° 37' 49.4" (RT) D = 2° 52' 23.7" L = 304.23' T = 176.40' R = 240.00' SE = 0.06 RO = 144
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\* DESIGN EXCEPTION REQUIRED FOR SAG/CREST K VALUES AND VERTICAL CURVE SSD



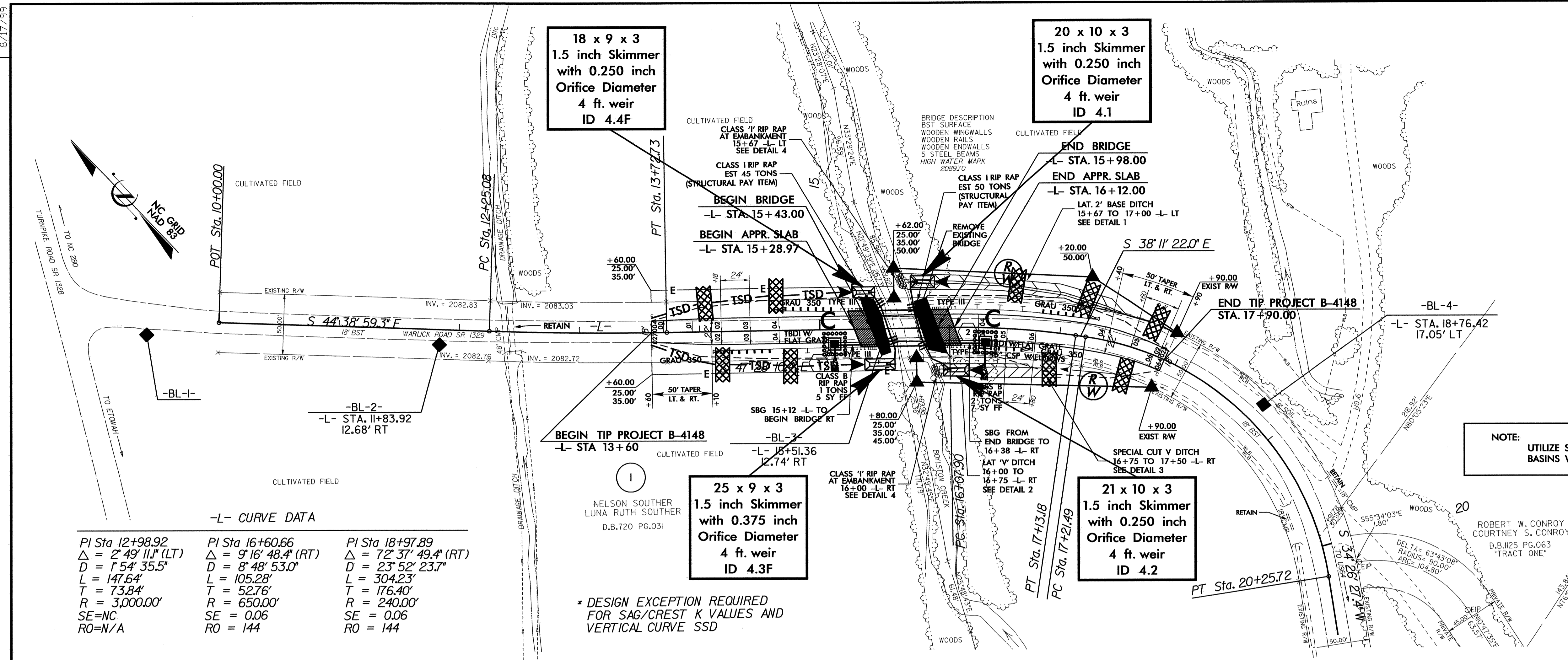
STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	= 1000 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 2089.1 FT
BASE DISCHARGE	= 1400 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 2089.4 FT
OVERTOPPING DISCHARGE	= 430 CFS
OVERTOPPING FREQUENCY	= 2 YRS
OVERTOPPING ELEVATION	= 2088.0 FT

BM #1 N 607442.1390 E 932174.5560 ELEV. 2106.75' OUTSIDE OF CHAIN -BL-	BM #2 N 607056.9790 E 932745.1440 ELEV. 2089.74' -BL- STA 11+48.89 79.80' RIGHT	BM #3 N 606700.7330 E 932945.4400 ELEV. 2102.15' -BL- STA 16+03.75 64.51' LEFT
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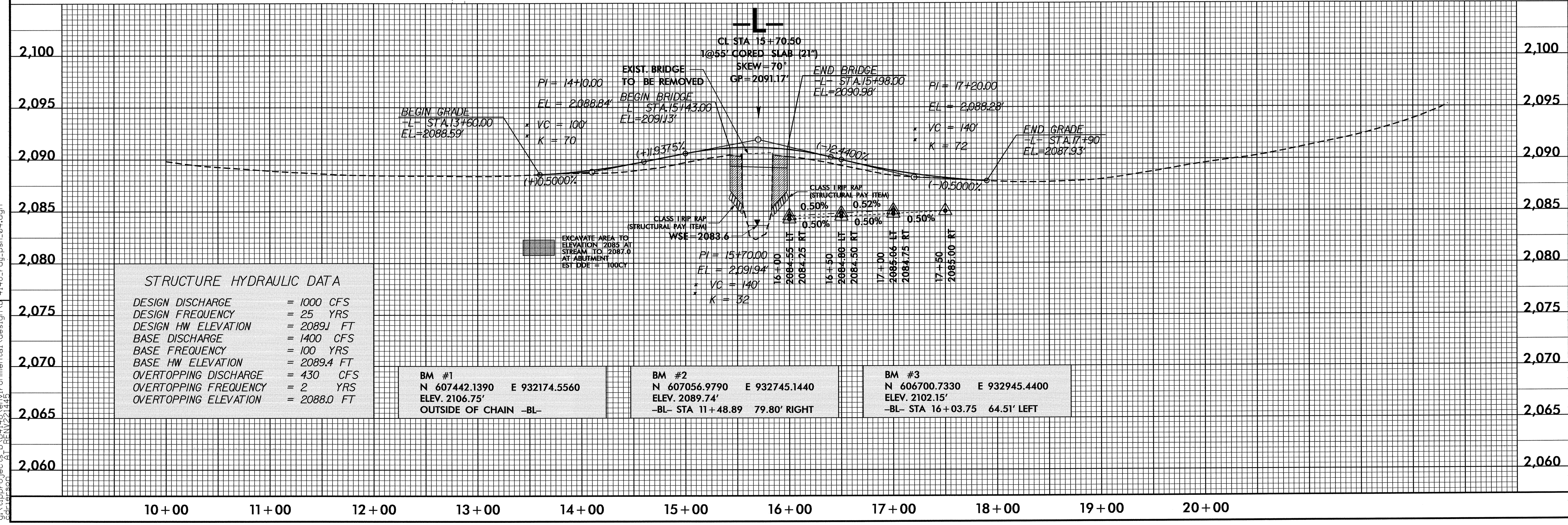
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B-4148	EC-04/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L- CURVE DATA

PI Sta 12+98.92 Δ = 2° 49' 11" (LT) D = 154' 35.5" L = 147.64' T = 73.84' R = 3,000.00' SE=NC RO=N/A	PI Sta 16+60.66 Δ = 9° 16' 48.4" (RT) D = 8' 48' 53.0" L = 105.28' R = 650.00' SE = 0.06 RO = 144	PI Sta 18+97.89 Δ = 7° 37' 49.4" (RT) D = 23' 52' 23.7" L = 304.23' R = 240.00' SE = 0.06 RO = 144
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