

NOTES

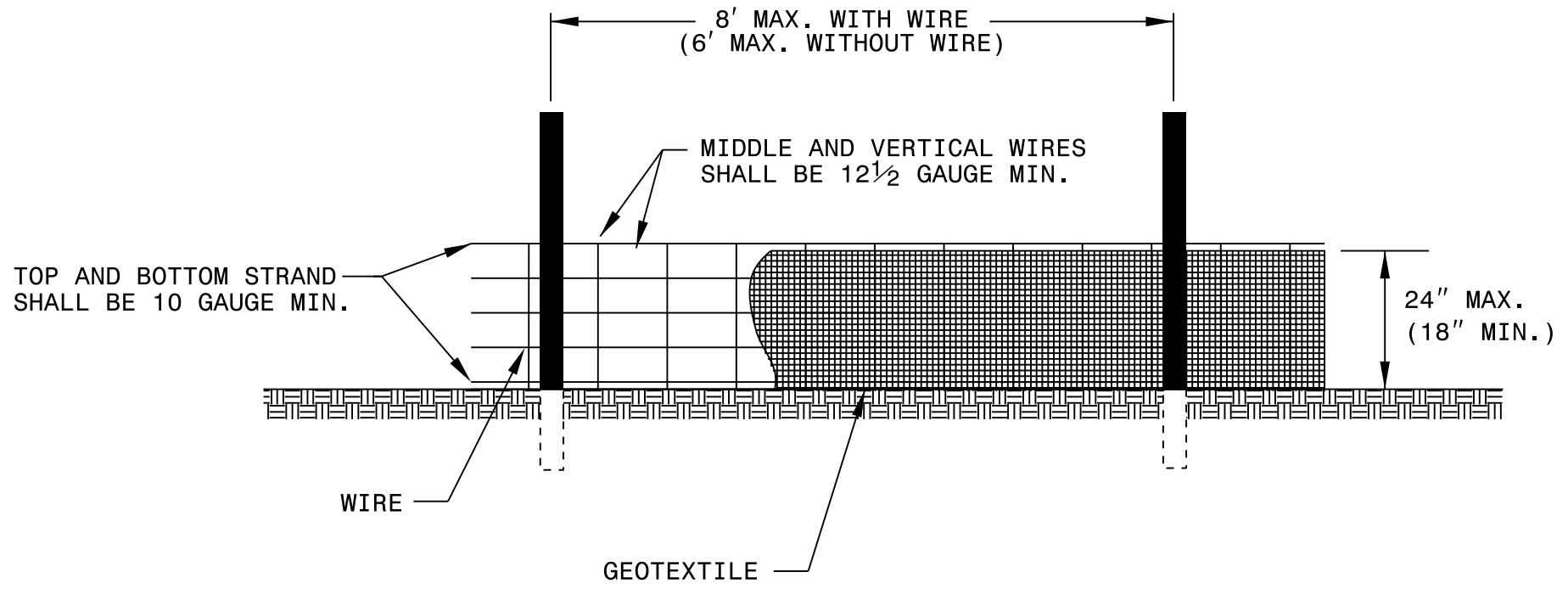
INSTALL RAILROAD EROSION CONTROL MEASURES PRIOR TO PERFORMING ANY WORK IN THE RAILROAD RIGHT-OF-WAY.

ADDITIONAL EROSION CONTROL MEASURES FOR PROTECTION OF RAILROAD DITCHES MAY BE REQUIRED AS DIRECTED.

MAKE NO SEPARATE PAYMENT FOR RAILROAD EROSION CONTROL MEASURES.

EXTEND LIMITS OF SILT FENCE AND GEOTEXTILE FOR DRAINAGE PARALLEL TO RAILROAD A MINIMUM OF 10'-0" OUTSIDE EDGE OF SUPERSTRUCTURE OR TOE OF SLOPE ON CONSTRUCTION. A GREATER LENGTH OF SILT FENCE OR FILTRATION GEOTEXTILE MAY BE REQUIRED AS DIRECTED.

NAIL GEOTEXTILE FOR DRAINAGE TO TIMBER RAIL TIES WITH PRIME SOURCE "GRIP CAP" OR EQUIVALENT. SECURE GEOTEXTILE FOR DRAINAGE ON SHOULDER AS DIRECTED BY THE RAILROAD AND NCDOT.



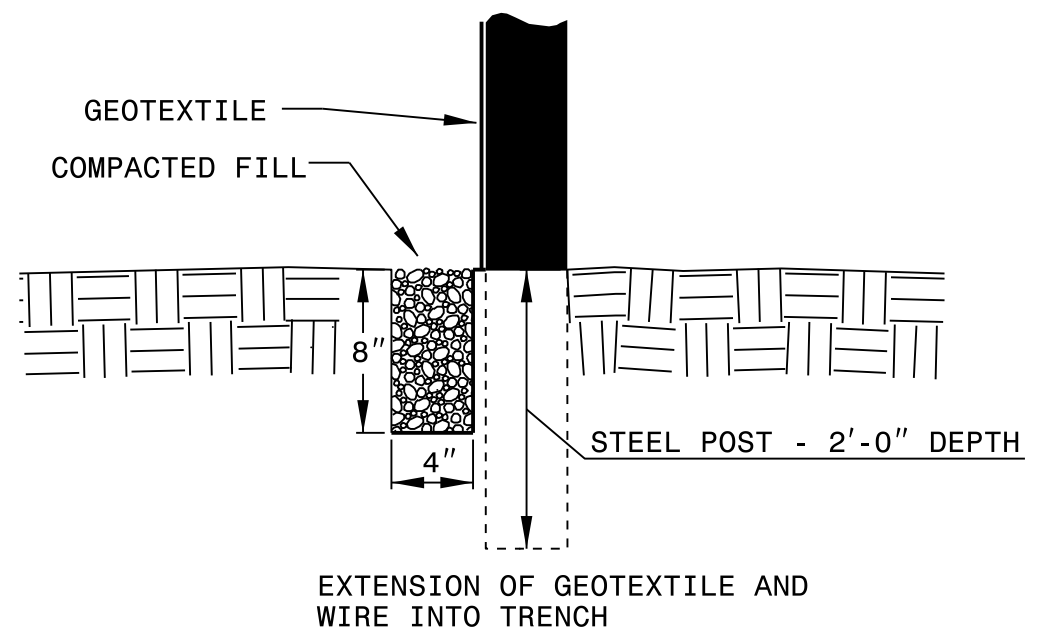
NOTES

USE GEOTEXTILE A MINIMUM OF 36" IN WIDTH AND FASTEN ADEQUATELY TO THE POSTS AND WIRE AS DIRECTED.

USE WIRE A MINIMUM OF 32" IN WIDTH AND WITH A MINIMUM OF 5 LINE WIRES WITH 12" VERTICAL SPACING.

PROVIDE 5'-0" STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE.

FOR MECHANICAL SLICING METHOD INSTALLATION, GEOTEXTILE SHALL BE A MAXIMUM OF 18" ABOVE GROUND SURFACE.



NOTES

USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.

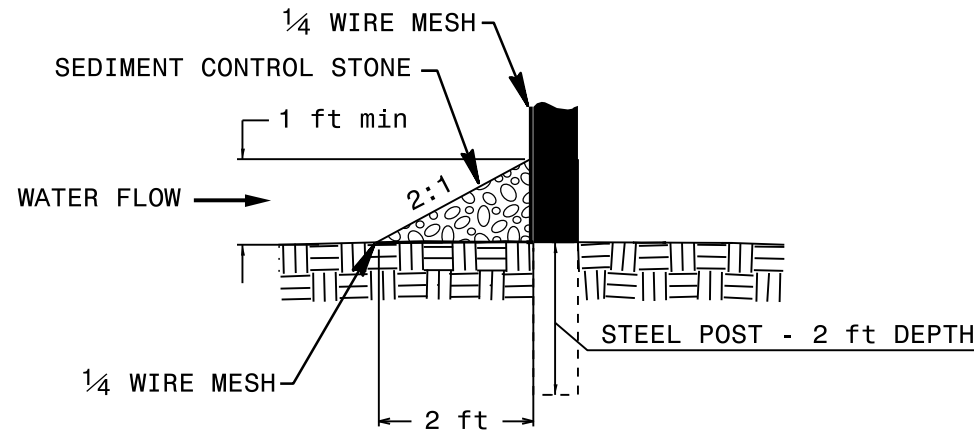
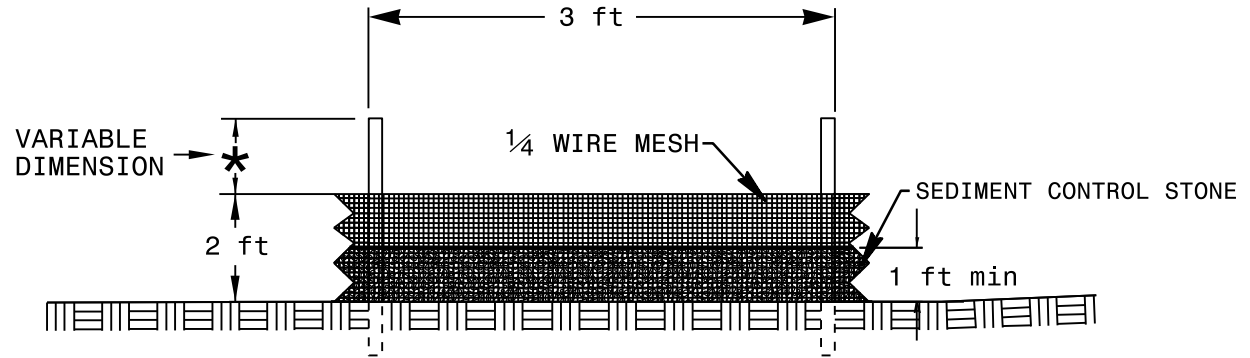
USE HARDWARE CLOTH 24 GAUGE WIRE MESH WITH 1/4 INCH MESH OPENINGS.

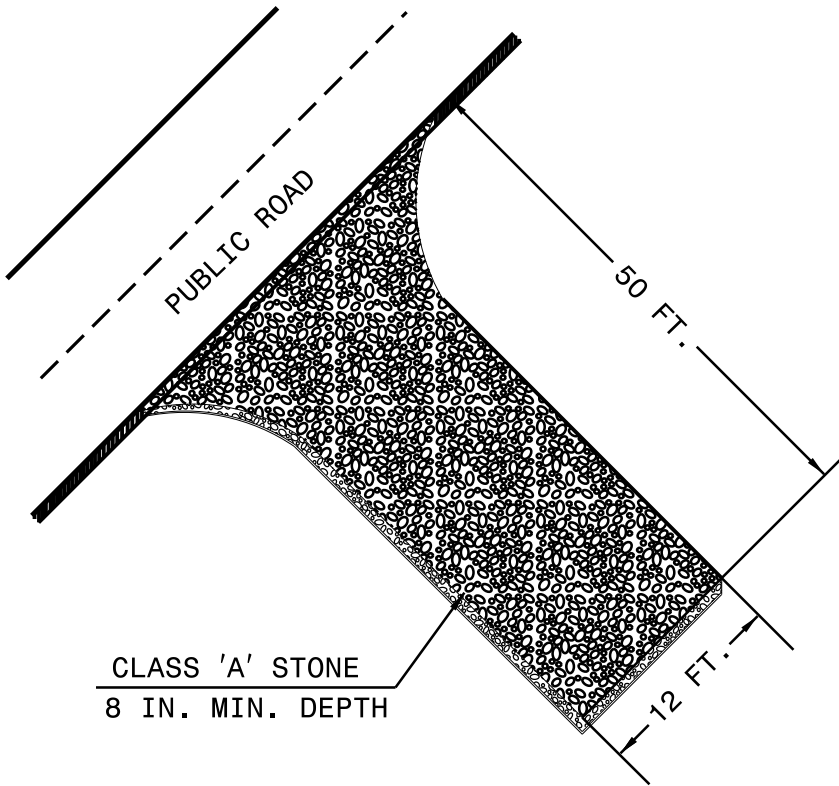
INSTALL 5 FT. SELF FASTENER ANGLE STEEL POST 2 FT. DEEP MINIMUM.

ATTACH HARDWARE CLOTH TO POSTS WITH WIRE STAPLE OR OTHER ACCEPTABLE METHODS.

SPACE POSTS A MAXIMUM OF 3 FT.

FOR INSTALLATION BETWEEN SECTIONS OF SILT FENCE, EXTEND SEDIMENT CONTROL STONE A MINIMUM OF 12" ON EACH SIDE OF SPECIAL SEDIMENT CONTROL FENCE SECTION.





NOTES

1. PROVIDE TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS.
2. LOCATE ENTRANCES TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
4. ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
5. LOCATE GRAVEL CONSTRUCTION ENTRANCE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. PROVIDE FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE.
6. NUMBER AND LOCATION OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY THE ENGINEER.
7. USE CLASS 'A' STONE OR OTHER COARSE AGGREGATE APPROVED BY THE ENGINEER.
8. INSTALL CONSTRUCTION ENTRANCES IN A WAY TO PREVENT VEHICLES FROM BYPASSING CONSTRUCTION ENTRANCE LEAVING PROJECT SITE.

NOTE: PLACE GEOTEXTILE FOR DRAINAGE BENEATH STONE

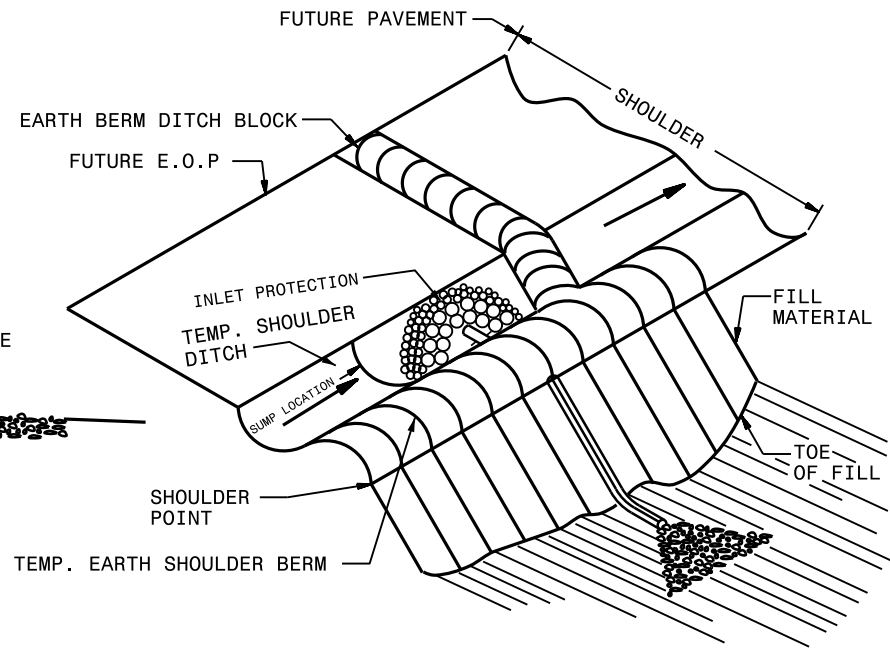
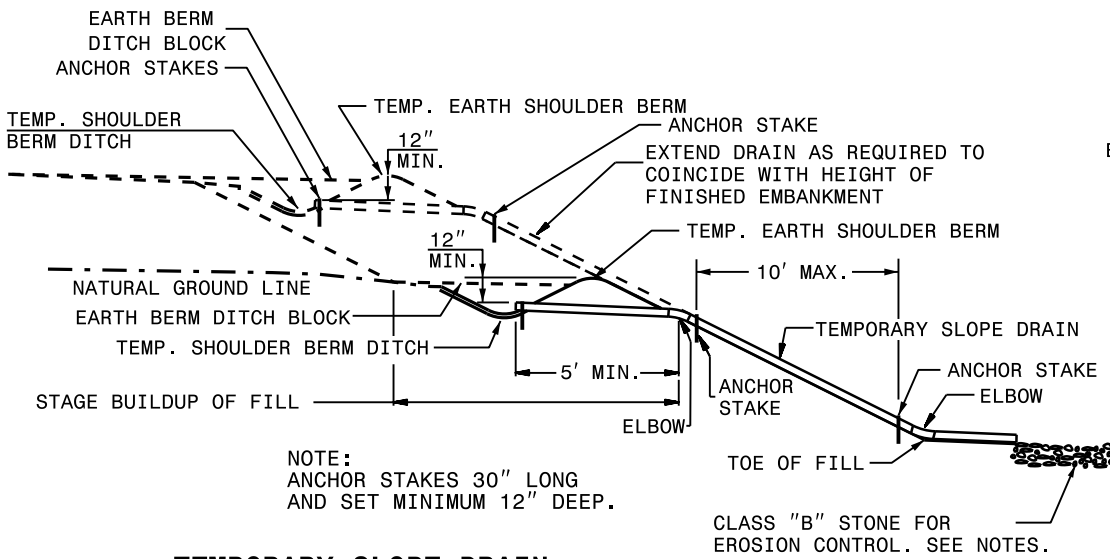
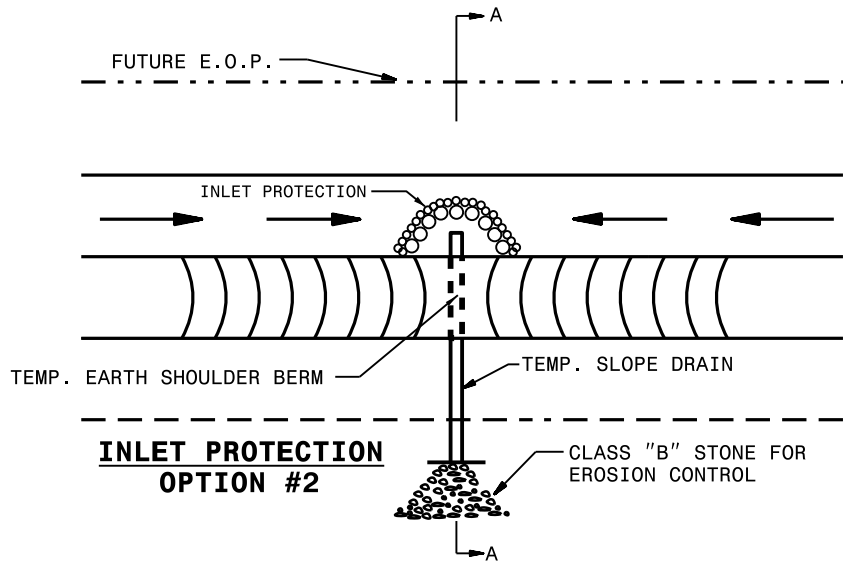
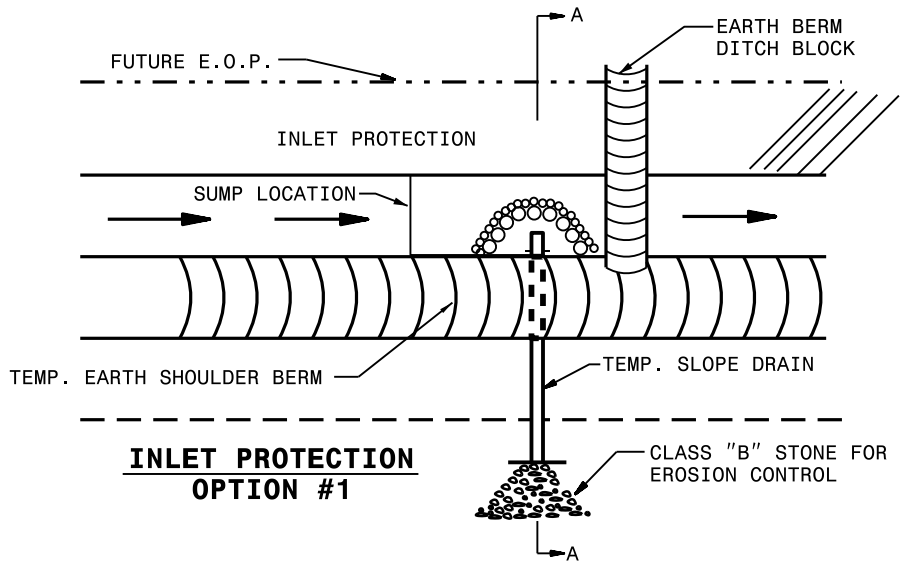
1-18

STATE OF  
NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**GRAVEL CONSTRUCTION ENTRANCE**

SHEET 1 OF 1

**1607.01**

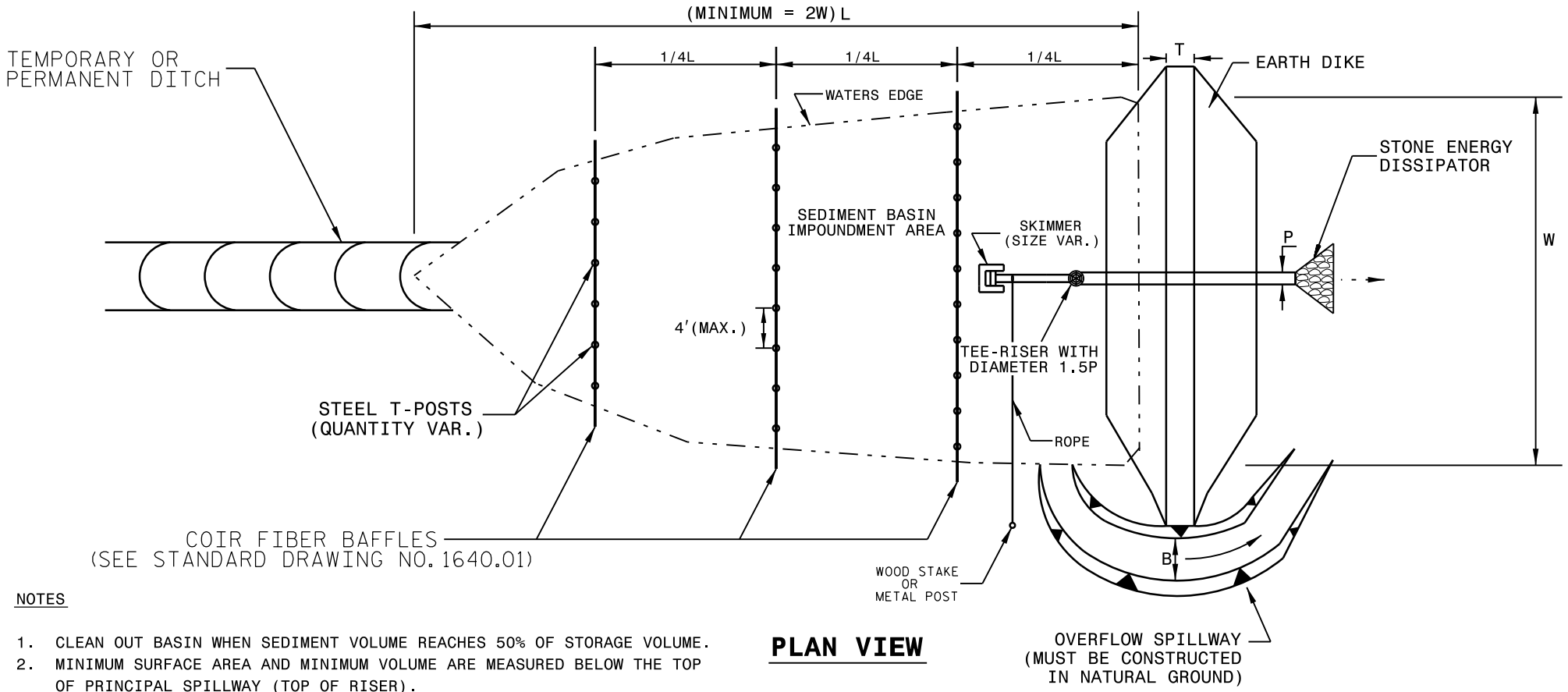


**NOTES**

1. OPEN END PIPE WITH SUMP AND MINIMUM SETBACK AND PROPER COMPACTION IS AN ACCEPTABLE INLET TREATMENT FOR STAGED CONSTRUCTION WHEN NOT LEFT IN PLACE FOR MORE THAN 30 DAYS.
2. AT INLETS A STANDARD T-SECTION MAY BE INSTALLED FOR MULTI-DIRECTION FLOW AND ELBOWS FOR SINGLE-DIRECTION FLOW AS DIRECTED.
3. EXTEND SLOPE DRAINS TO BOTTOM OF SLOPE, SEDIMENT BASINS AND EROSION CONTROL MEASURES.
4. USE CLASS B STONE FOR EROSION CONTROL AT OUTLET LOCATIONS.
5. USE MAXIMUM SLOPE DRAIN SPACING OF 200 FT MEASURED ALONG TOP OF SLOPE.

**ISOMETRIC VIEW  
OPTION #1**

**RISER BASIN**



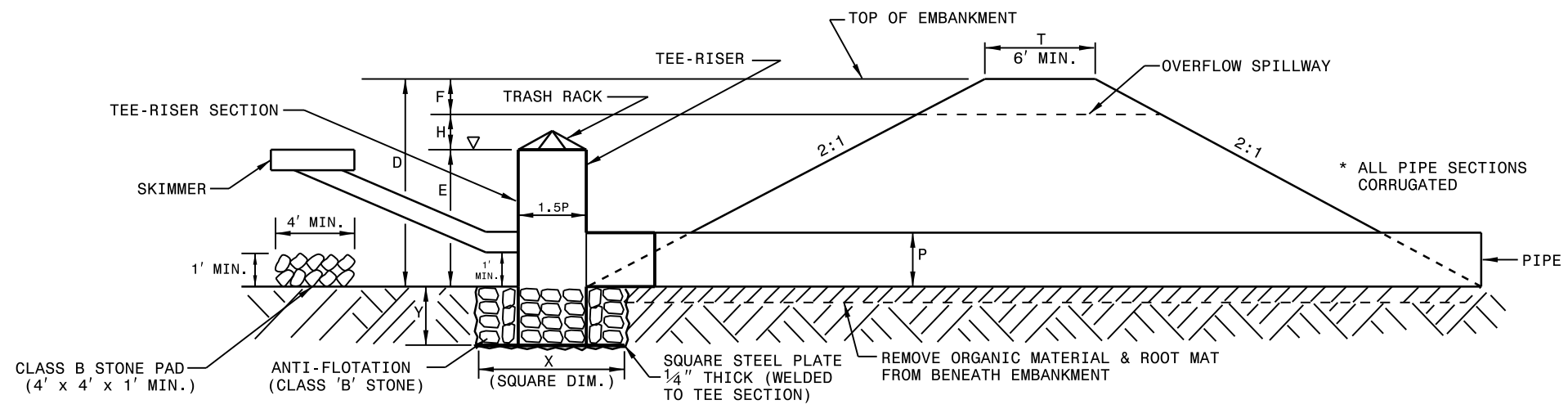
**NOTES**

1. CLEAN OUT BASIN WHEN SEDIMENT VOLUME REACHES 50% OF STORAGE VOLUME.
2. MINIMUM SURFACE AREA AND MINIMUM VOLUME ARE MEASURED BELOW THE TOP OF PRINCIPAL SPILLWAY (TOP OF RISER).
3. MINIMUM SURFACE AREA SHALL BE 435 FT<sup>2</sup> PER CFS OF Q<sub>10</sub> PEAK INFLOW, AND MINIMUM SEDIMENT STORAGE VOLUME SHALL BE 1800 FT<sup>3</sup> PER ACRE OF DISTURBED AREA.
4. THE EARTH DIKE MAY BE CONSTRUCTED ALONG ONE OR MORE SIDES. EXCAVATION MAY BE REQUIRED TO PROVIDE MINIMUM SURFACE AREA AND/OR MINIMUM STORAGE VOLUME.
5. CONSTRUCT THE DIKE OF MATERIAL SUITABLE FOR AND MEETING ROADWAY EMBANKMENT SPECIFICATIONS.
6. TO FACILITATE DETERMINATION OF MAINTENANCE CLEANOUT REQUIREMENT, PLACE A MARKER IN THE BASIN INDICATING THE 50% VOLUME LEVEL.
7. THE MINIMUM RISER PIPE DIAMETER IS 1.5 TIMES THE BARREL PIPE DIAMETER.
8. ATTACH SKIMMER TO RISER PIPE A MINIMUM OF 1 FOOT FROM BOTTOM OF BASIN.
9. PROVIDE A STONE ENERGY DISSIPATOR PAD AT THE OUTLET OF THE RISER BARREL IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 876.02 FOR PIPE OUTLET WITHOUT DITCH.
10. SEED AND PLACE MATTING FOR EROSION CONTROL ON ALL INTERIOR AND EXTERIOR SLOPES OF BASIN.

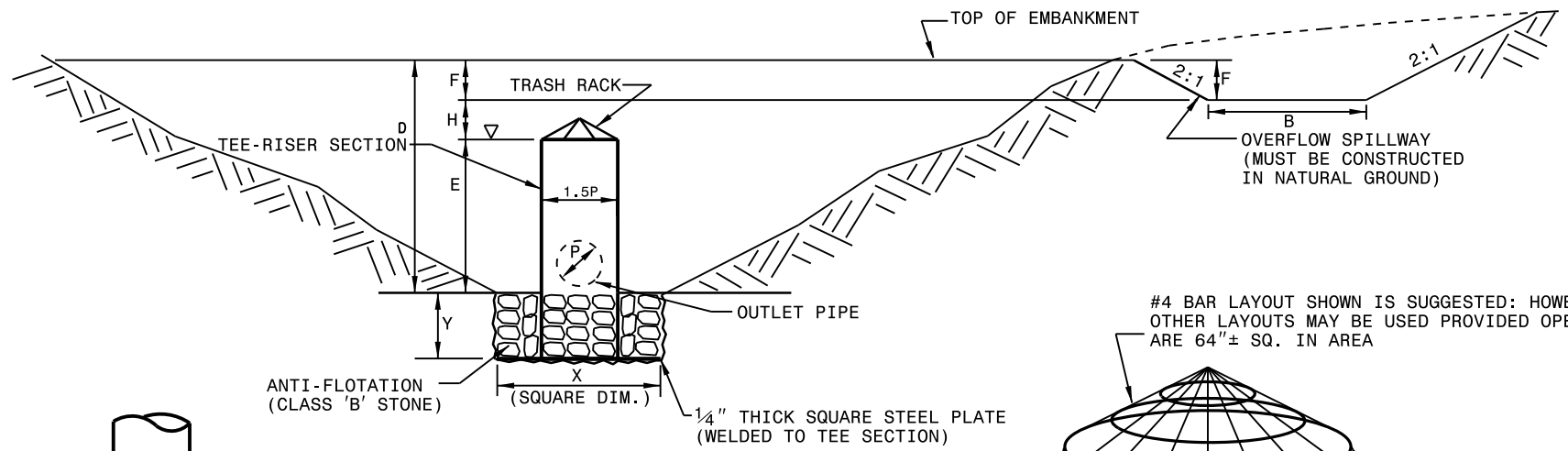
STANDARD BASIN DIMENSIONS										
P	H	T (MIN)	D*	E	F	B (MIN)	X (MIN)	Y (MIN)	X1 (MIN)	Y1 (MIN)
IN.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.
15	1.0	6.0	6.0	4.0	1.0	3.0	2.7	1.0	2.5	1.0
18	1.0	6.0	6.5	4.5	1.0	4.0	3.5	1.0	3.2	1.0
24	1.0	6.0	8.0	6.0	1.0	8.0	5.5	1.0	5.0	1.0
30	1.0	6.0	9.5	7.0	1.5	8.0	7.6	1.0	6.9	1.0

\* SHALL NOT EXCEED 12'

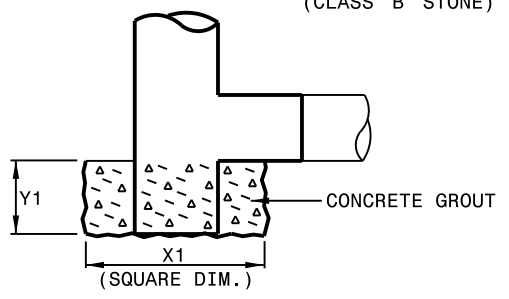
NOT TO SCALE



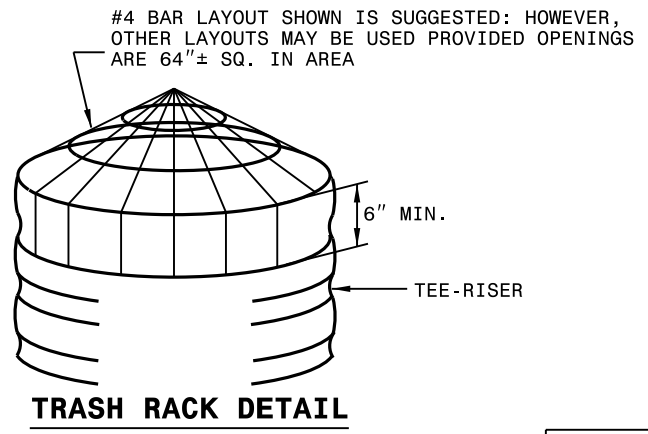
**SECTIONAL VIEW**



**PROFILE VIEW**

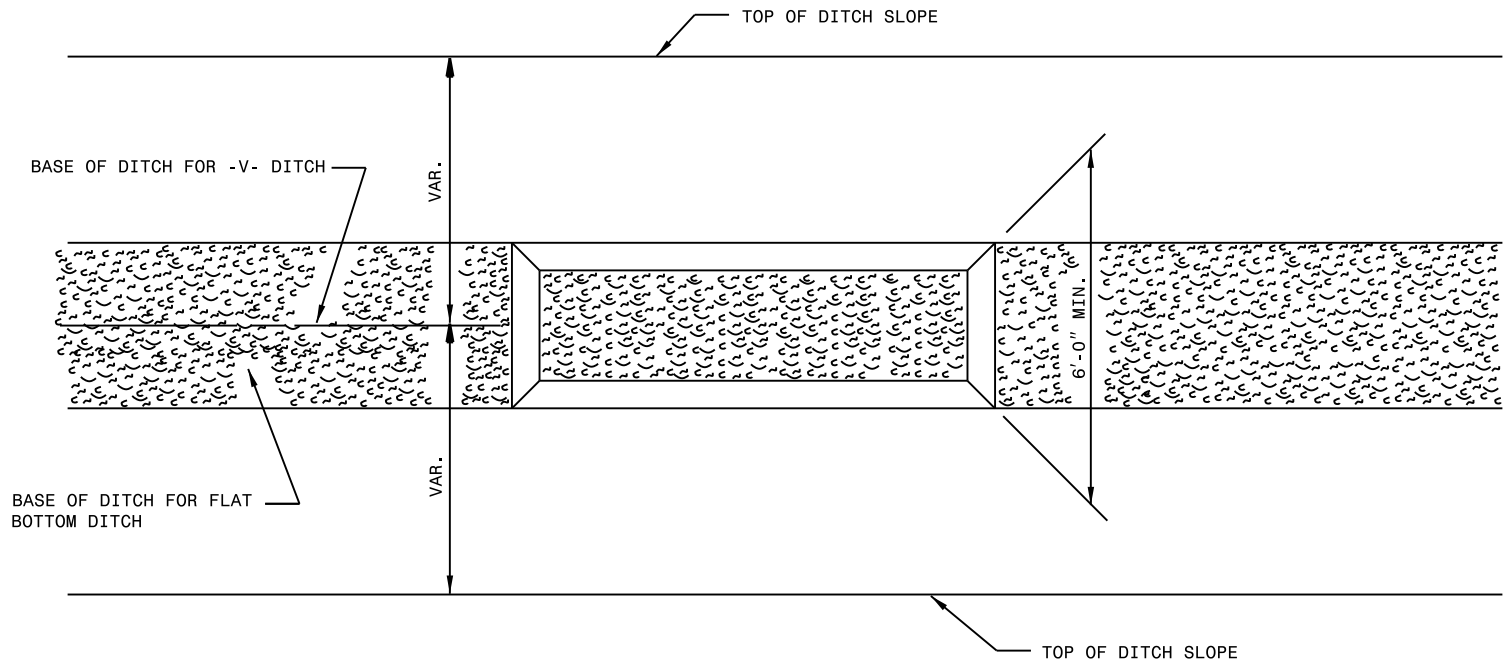


**ALTERNATE ANTI-FLOTATION METHOD**

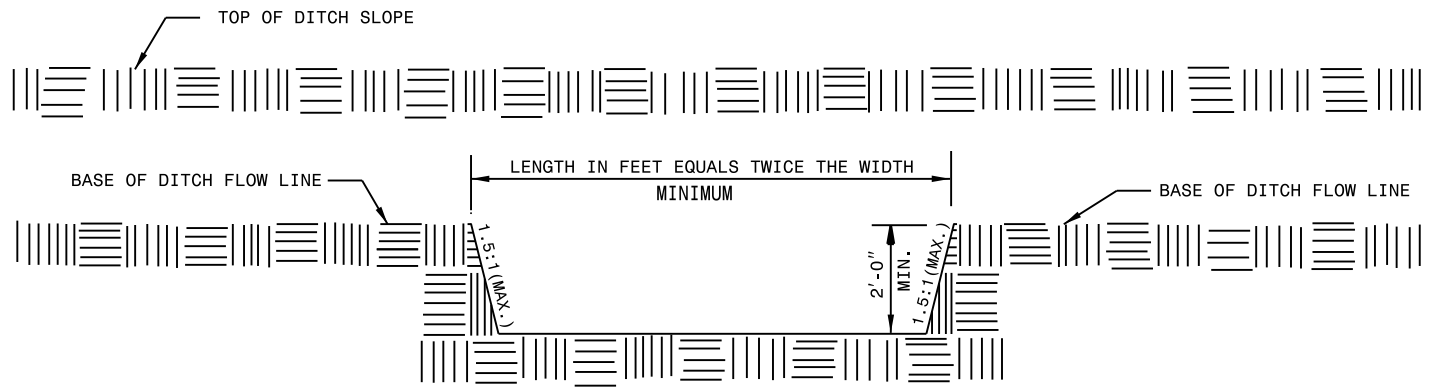


**TRASH RACK DETAIL**

NOT TO SCALE



PLAN



ELEVATION

NOTES

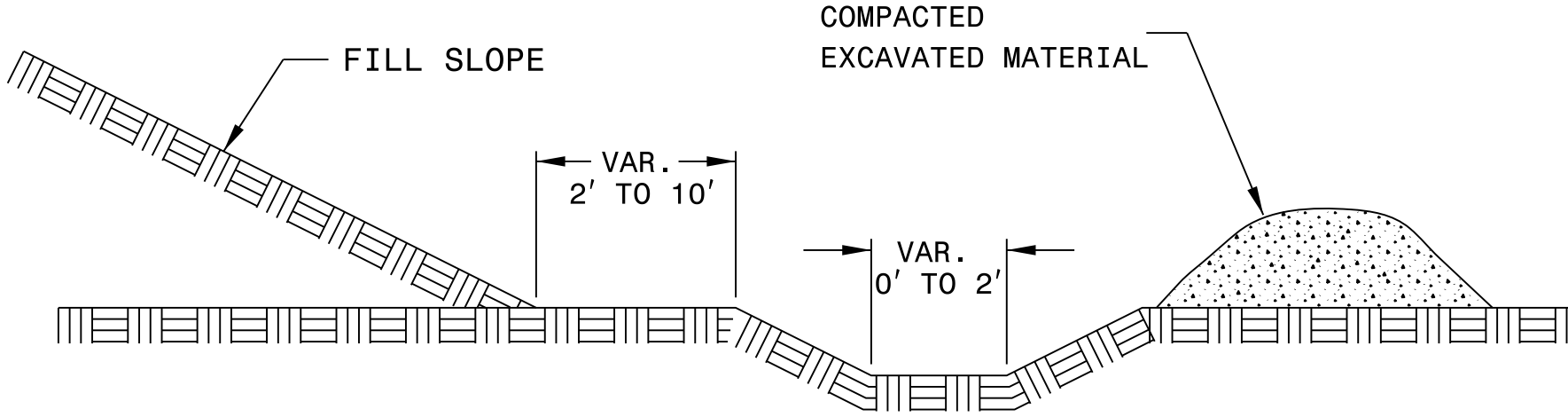
INSTALL COIR FIBER BAFFLES IN ACCORDANCE WITH STANDARD DRAWING NO. 1640.01 FOR SILT BASINS AT OUTLETS OR ADJACENT TO DRAINAGE INLETS.



NOTES

EXCAVATE TEMPORARY SILT DITCH WITH NON-VERTICAL SIDE SLOPES AND NOT GREATER THAN 1.5:1 SLOPE.

STABILIZE TEMPORARY SILT DITCH AS DIRECTED.



CROSS SECTIONAL VIEW

UNCLASSIFIED  
EARTH MATERIAL

**NOTES**

INSTALL COIR FIBER BAFFLES IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1640.01.

INSTALL THE TOP OF THE COIR FIBER BAFFLE A MINIMUM OF 6" LOWER THAN THE TOP OF THE STILLING BASIN BERMS.

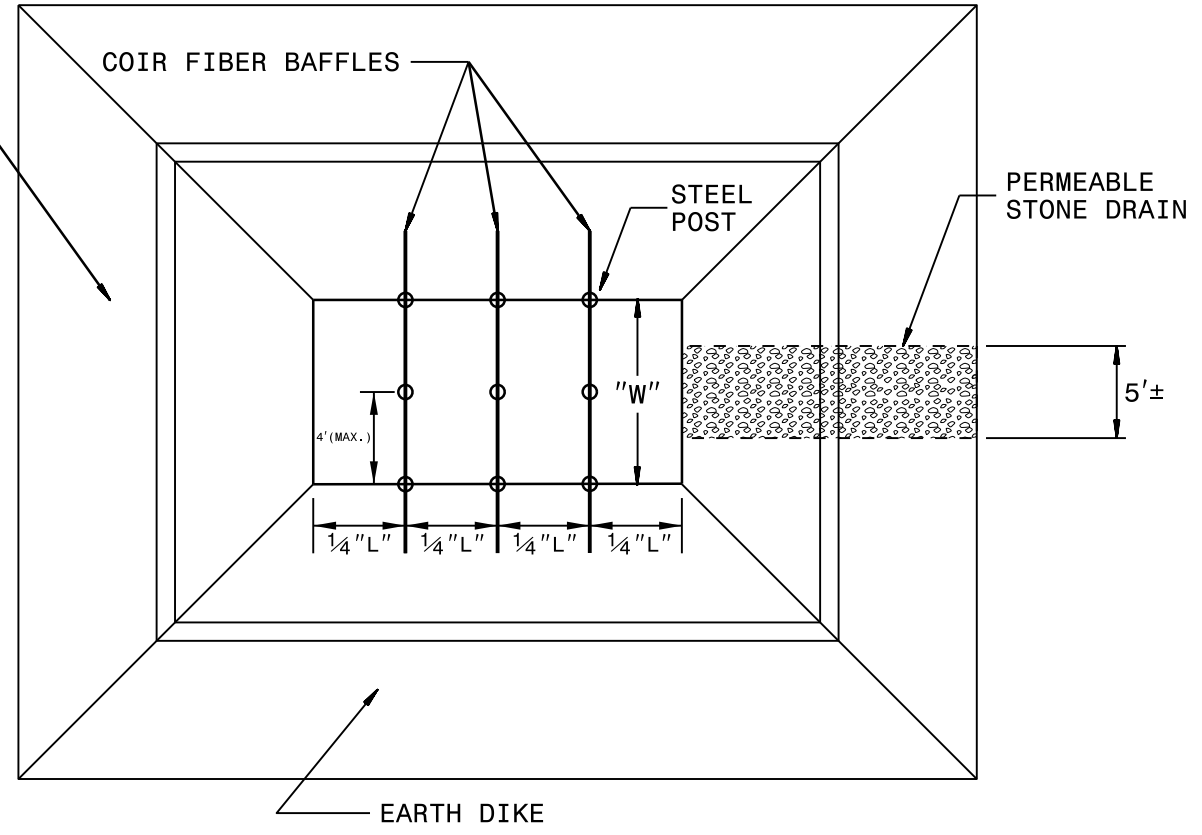
USE THE TYPICAL SECTION SHOWN FOR THE STILLING BASIN AS A GUIDE. THE BASIN MAY DEVIATE FROM TYPICAL DUE TO SITE CONDITIONS AS LONG AS SUFFICIENT VOLUME IS PROVIDED AND PROVISIONS ARE MADE FOR A PERMEABLE STONE DRAIN.

DO NOT EXCEED 5 FT. IN HEIGHT FOR THE EARTH EMBANKMENT REQUIRED FOR STILLING BASINS. ADDITIONAL DEPTHS MAY BE ATTAINED BY EXCAVATING BELOW THE NATURAL GROUND LEVEL.

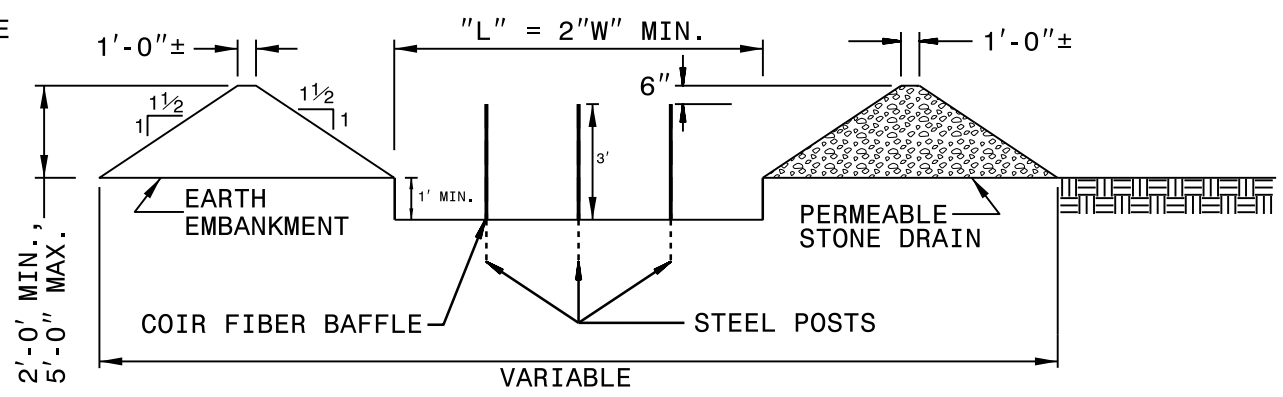
THE STILLING BASIN SIZE IS VARIABLE AND DEPENDENT ON SPECIFIC SITE REQUIREMENTS AS WELL AS PROPOSED CONSTRUCTION OPERATIONS.

SUBMIT THE SIZE, LOCATION AND PERMEABLE STONE DRAIN MATERIAL FOR APPROVAL PRIOR TO CONSTRUCTION.

PUMP THE EFFLUENT INTO THE STILLING BASIN TO A MAXIMUM DEPTH OF 3 FEET.



**PLAN VIEW**

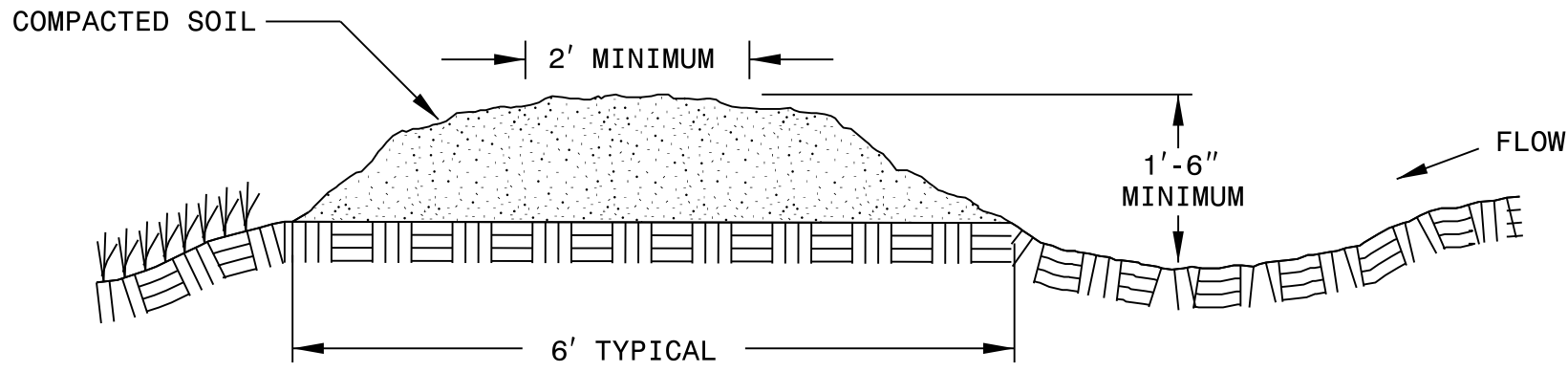


**TYPICAL SECTION VIEW**

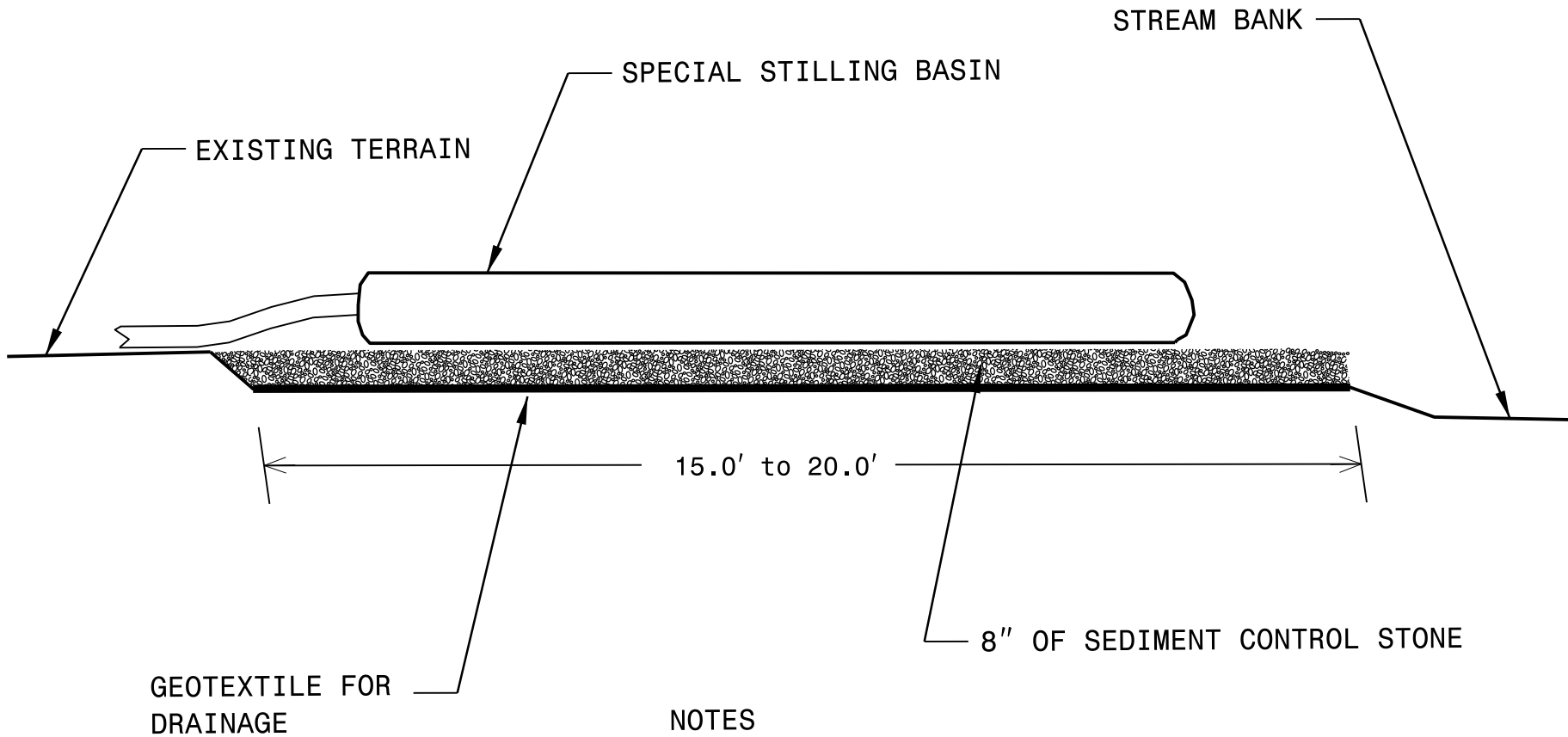
NOTES

EXCAVATE TEMPORARY DIVERSION WITH NON-VERTICAL SIDE SLOPES AND NOT GREATER THAN 1.5:1 SLOPE.

STABILIZE TEMPORARY DIVERSION AS DIRECTED.



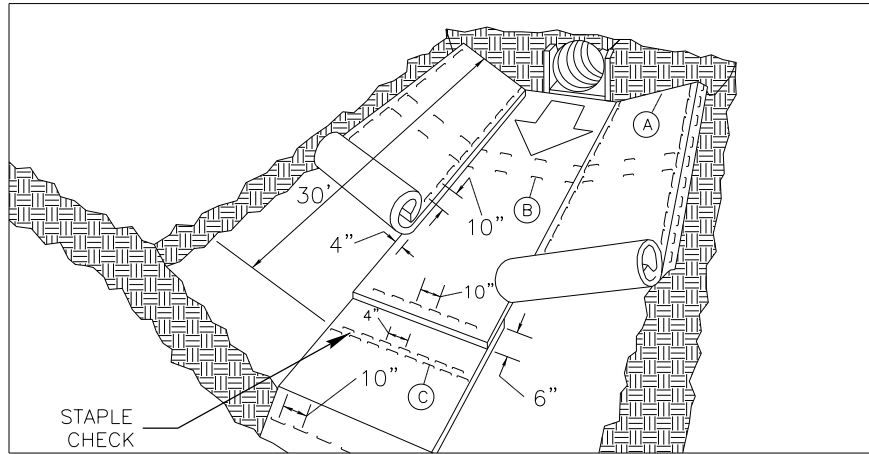
CROSS SECTIONAL VIEW



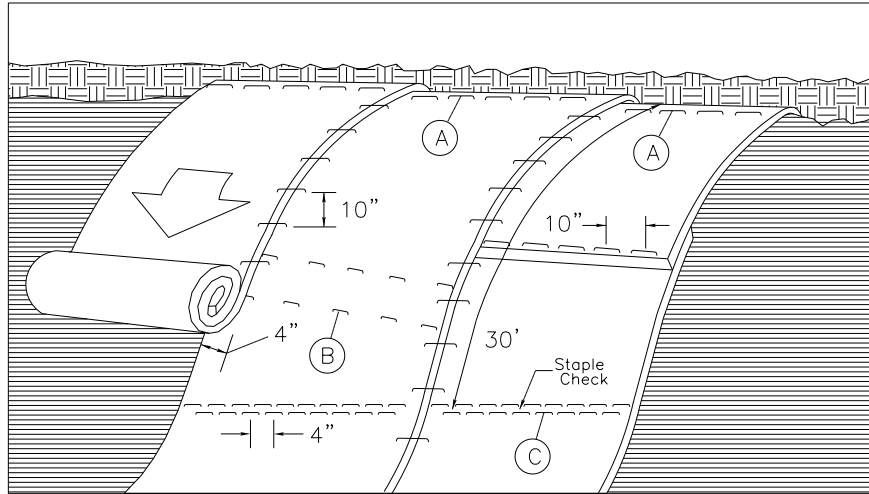
**NOTES**

- USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.
- PROVIDE STABILIZED OUTLET TO STREAM BANK.
- WOOD PALLETS MAY BE USED IN LIEU OF STONE AND GEOTEXTILE AS DIRECTED. A SUFFICIENT NUMBER OF PALLETS MUST BE PROVIDED TO ELEVATE THE ENTIRE SPECIAL STILLING BASIN ABOVE NATURAL GROUND.

NOT TO SCALE



**MATTING IN DITCHES**



**MATTING ON SLOPES**

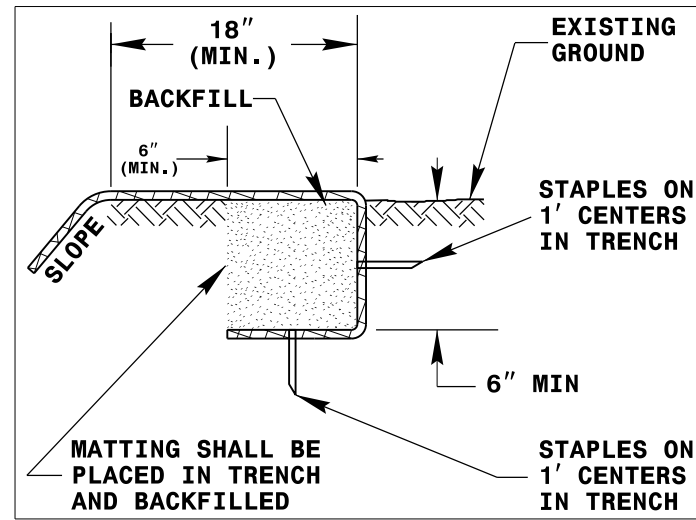


DIAGRAM (A)

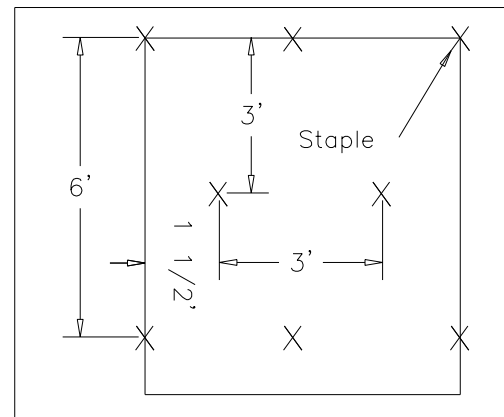


DIAGRAM (B)

Staple Check Pattern

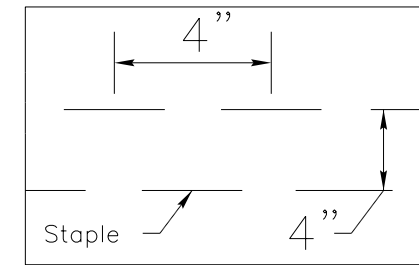


DIAGRAM (C)

**NOTES**

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

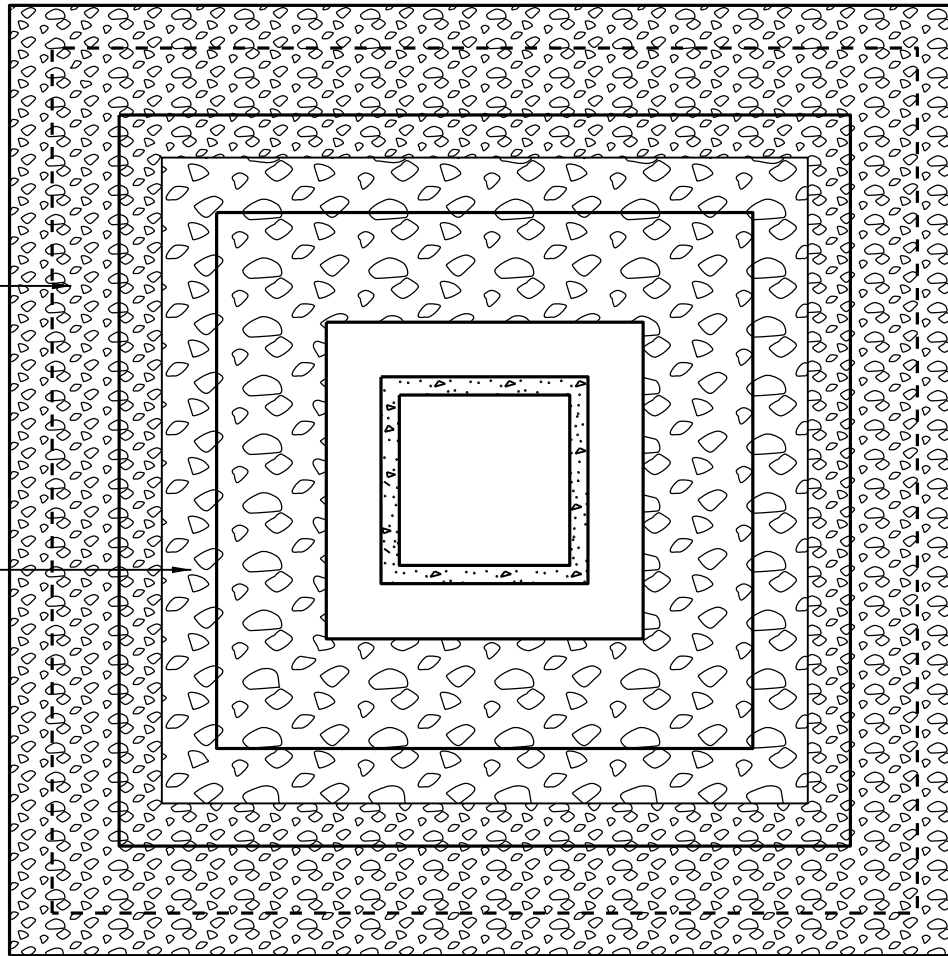
STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

NOT TO SCALE

SEDIMENT CONTROL STONE

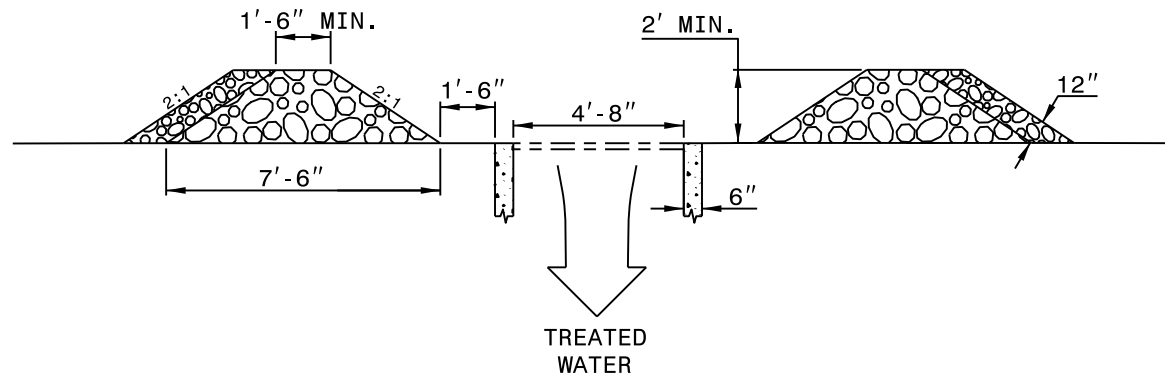
A

STRUCTURAL STONE

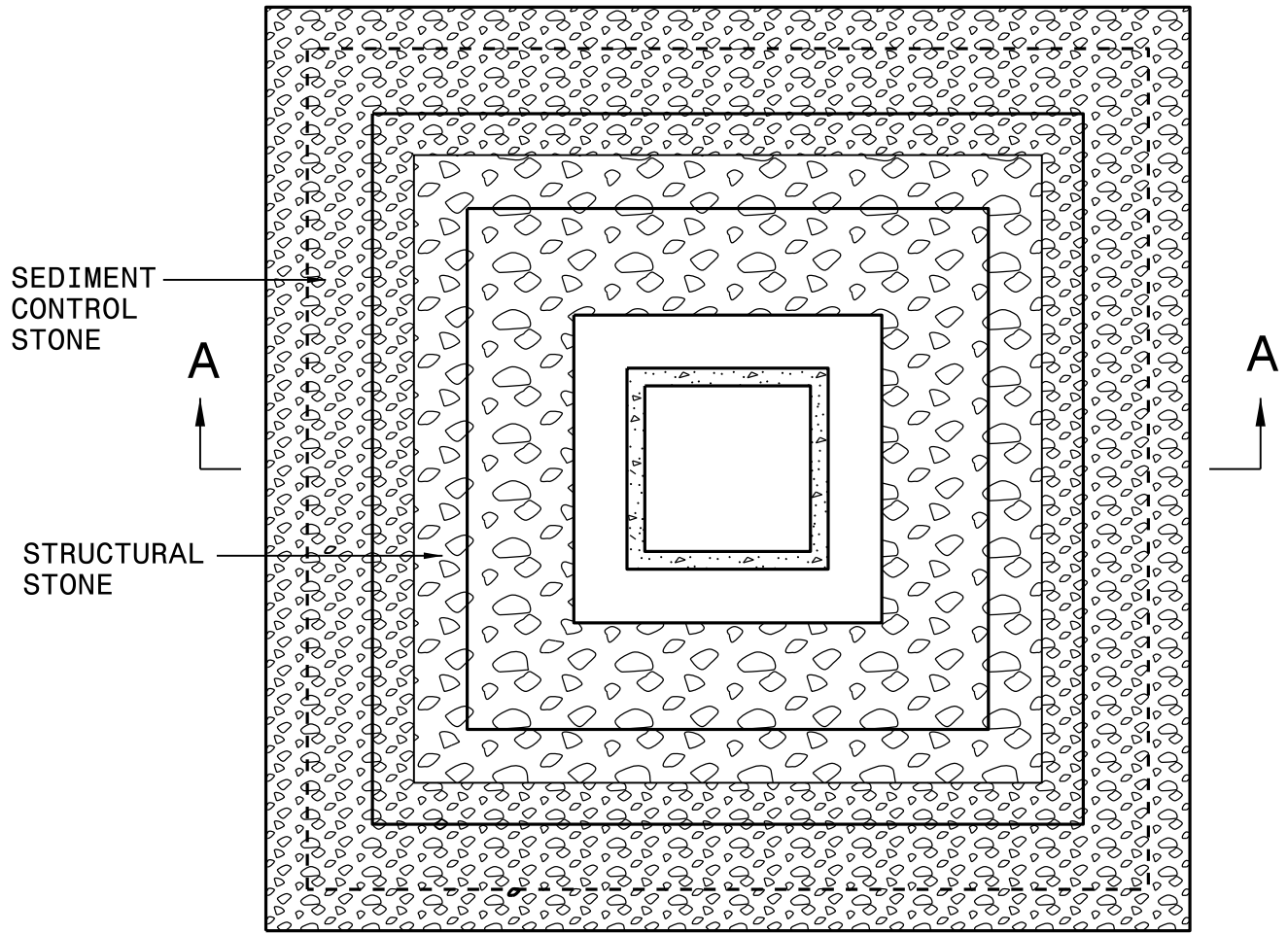


NOTES

- CLEAN SEDIMENT WHEN  $\frac{1}{2}$  FULL AND AS DIRECTED.
- USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.
- USE CLASS B STONE FOR STRUCTURAL STONE.
- CONSTRUCT TOP OF BERM A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERSION POINT.

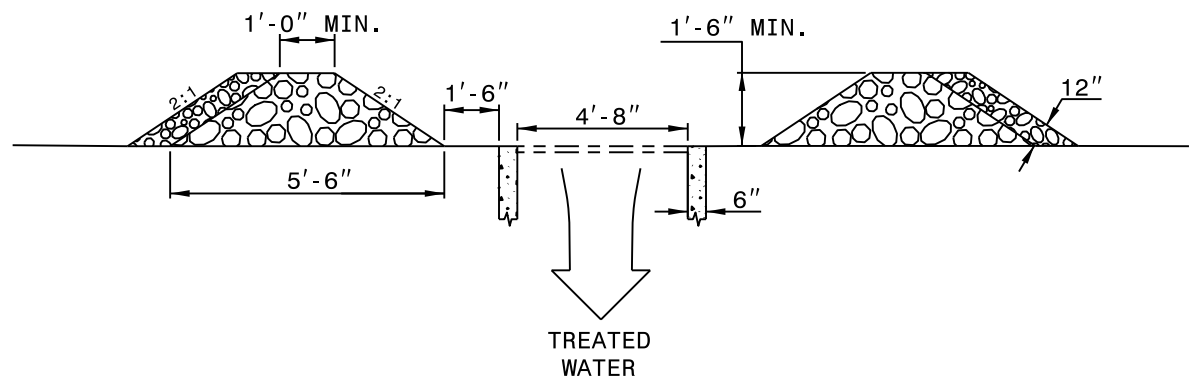


**SECTION A-A**



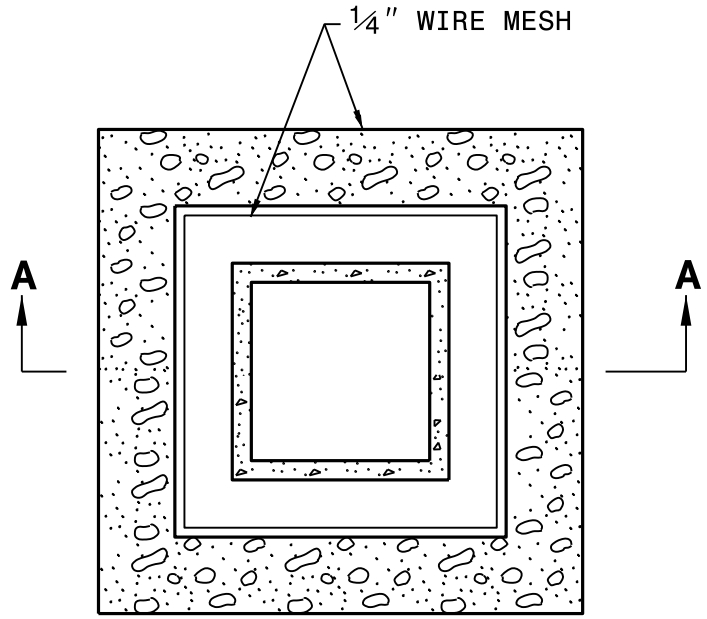
NOTES

CLEAN SEDIMENT WHEN  
 1/2 FULL AND AS DIRECTED.  
 USE NO. 5 OR NO. 57 STONE  
 FOR SEDIMENT CONTROL STONE.  
 USE CLASS A STONE FOR  
 STRUCTURAL STONE.  
 CONSTRUCT TOP OF BERM  
 A MINIMUM OF ONE FOOT  
 BELOW THE SHOULDER OR  
 ANY DIVERSION POINT.

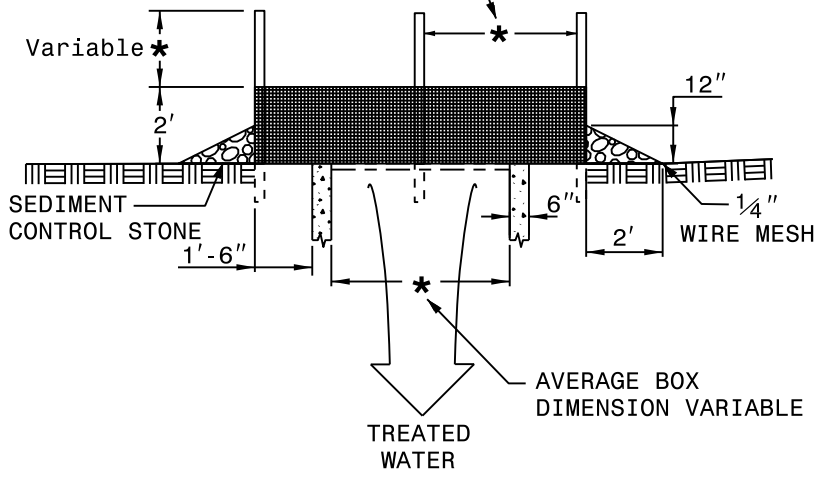


**SECTION A-A**

1-18

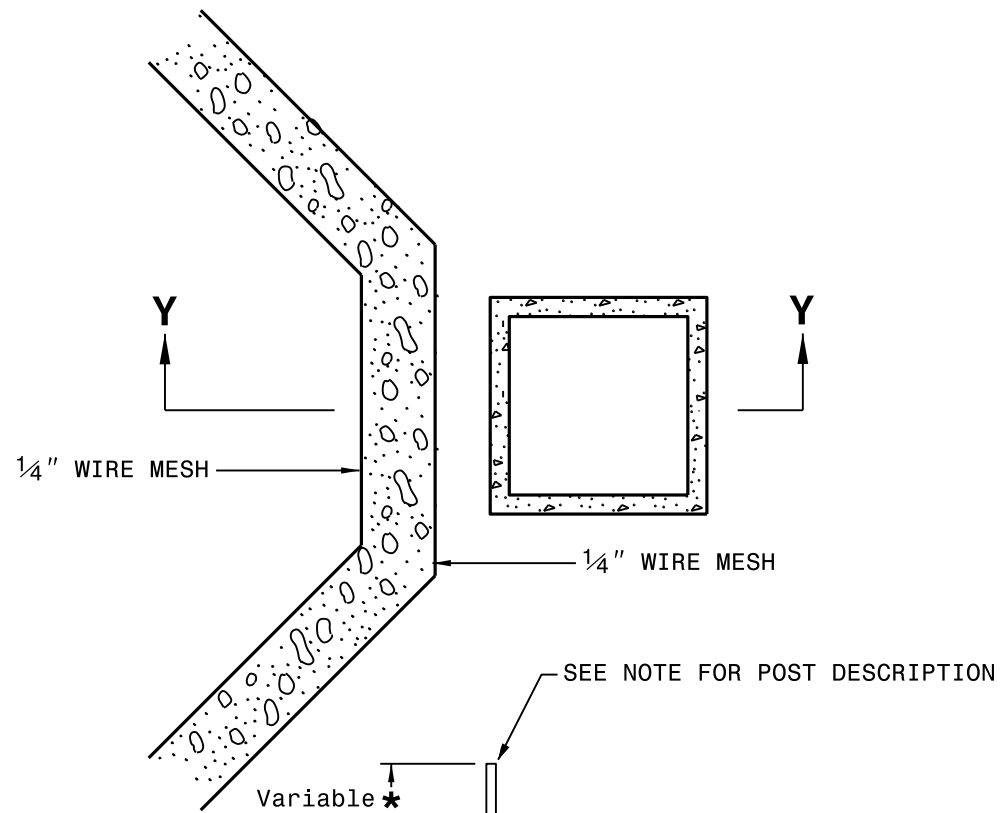


MAXIMUM POST SPACING 4 FT.

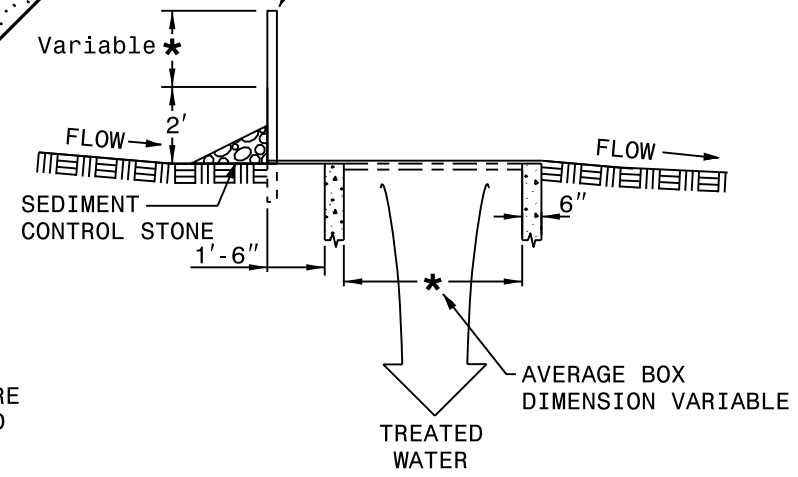


**SECTION A-A**

**MULTI-DIRECTIONAL FLOW**



SEE NOTE FOR POST DESCRIPTION



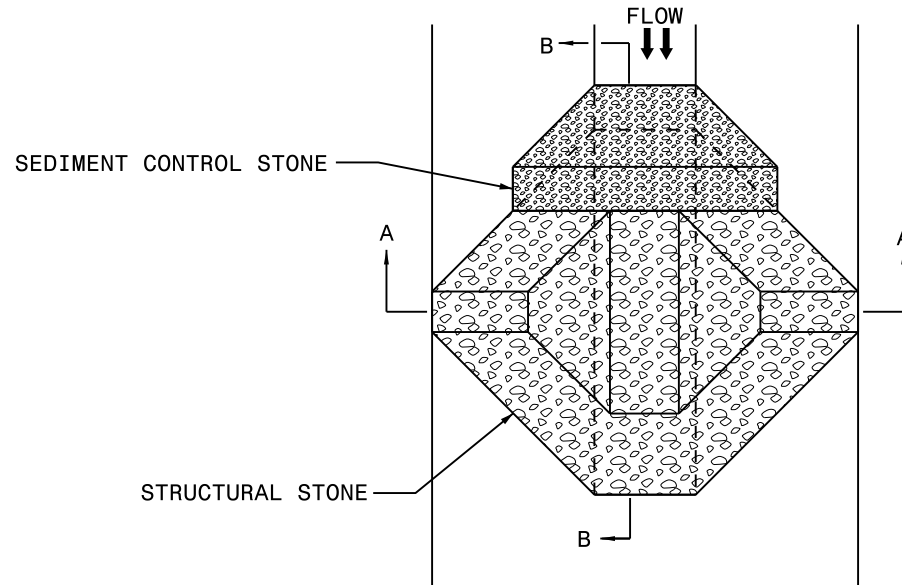
**SECTION Y-Y**

**SINGLE-DIRECTIONAL FLOW**

**NOTES**

- USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.
- USE 24 GAUGE MINIMUM WIRE MESH HARDWARE CLOTH WITH 1/4 INCH MESH OPENINGS.
- PLACE TOP OF WIRE MESH A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERSION POINT.
- ATTACH HARDWARE CLOTH TO POSTS WITH PLASTIC TIES, WIRE FASTENERS, OR OTHER APPROVED ATTACHMENT DEVICE.
- INSTALL WIRE MESH UNDER SEDIMENT CONTROL STONE.
- USE 5' STEEL POST, INSTALLED 2' DEEP MINIMUM, AND OF THE SELF-FASTENER ANGLE STEEL TYPE.
- SPACE POST A MAXIMUM OF 4'.



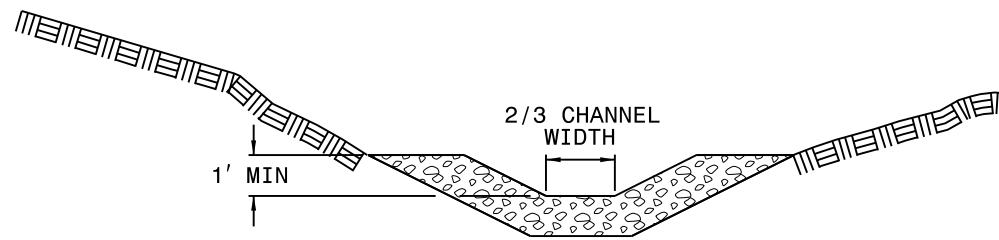


PLAN

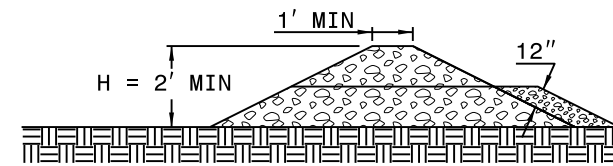
NOTES

USE CLASS B EROSION CONTROL STONE FOR STRUCTURAL STONE.

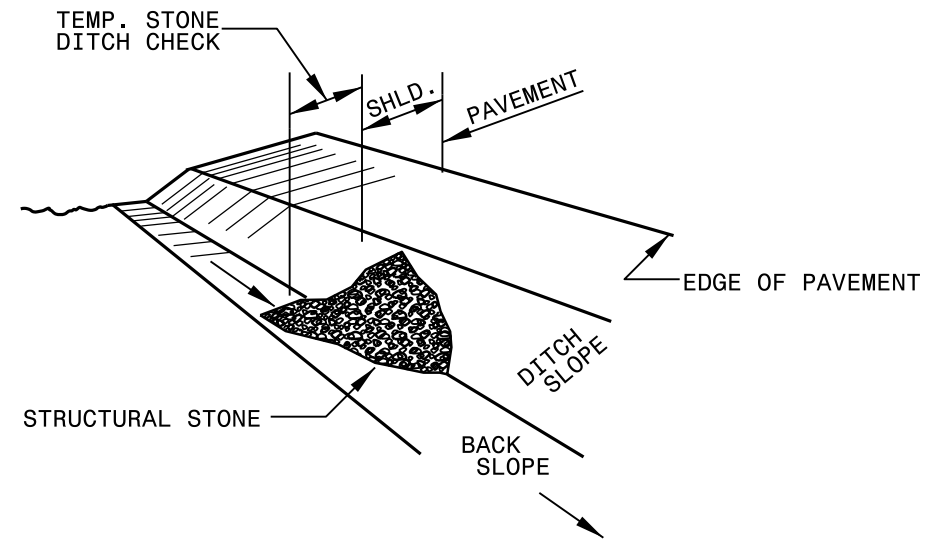
USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.



SECTION A-A



SECTION B-B

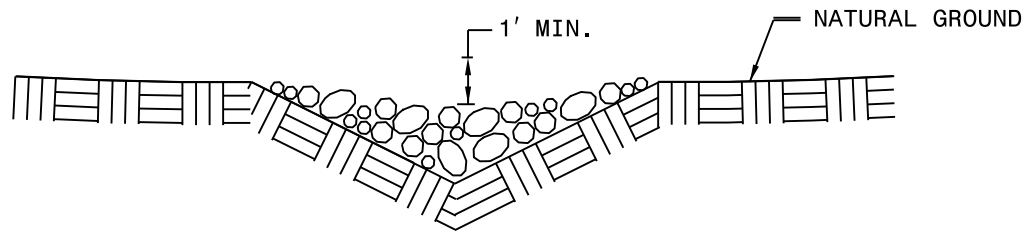


**ISOMETRIC VIEW**

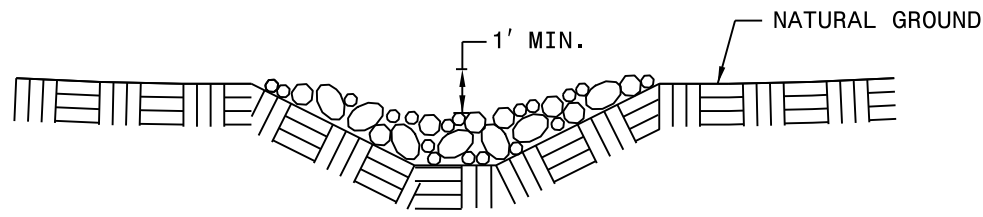
**NOTES**

USE CLASS B EROSION CONTROL STONE FOR STRUCTURAL STONE.

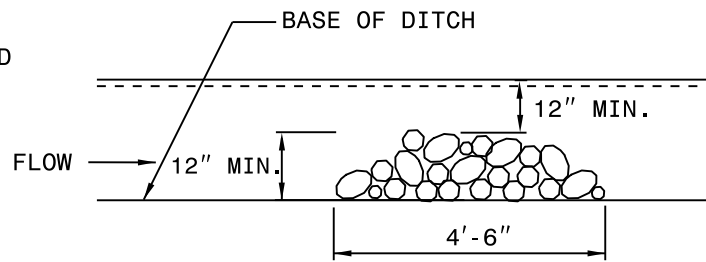
THE ENGINEER MAY DIRECT THE OPTION OF CLASS A STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



**CROSS SECTION VEE DITCH**



**CROSS SECTION TRAPEZOIDAL DITCH**



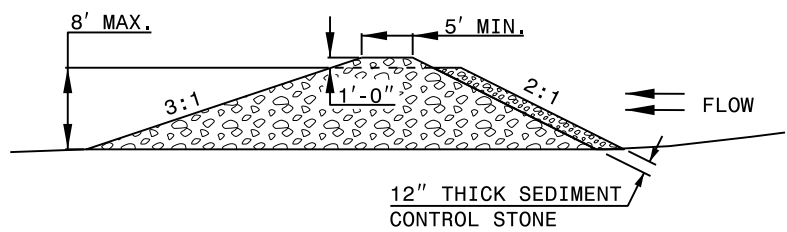
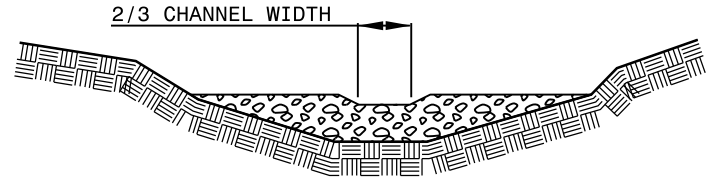
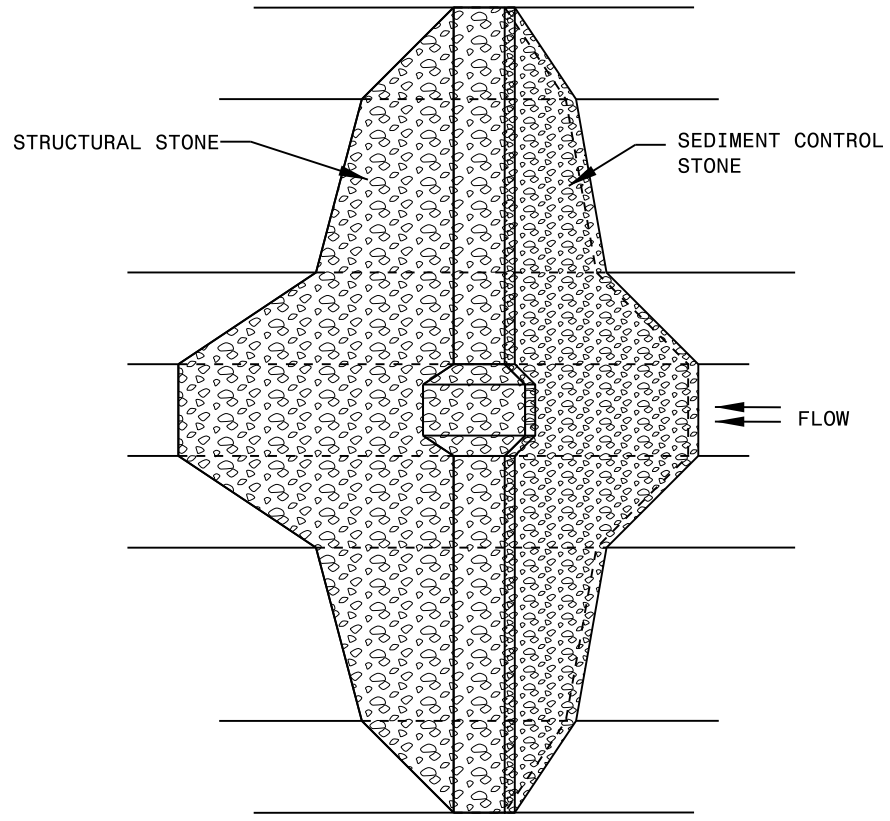
**ELEVATION VIEW**

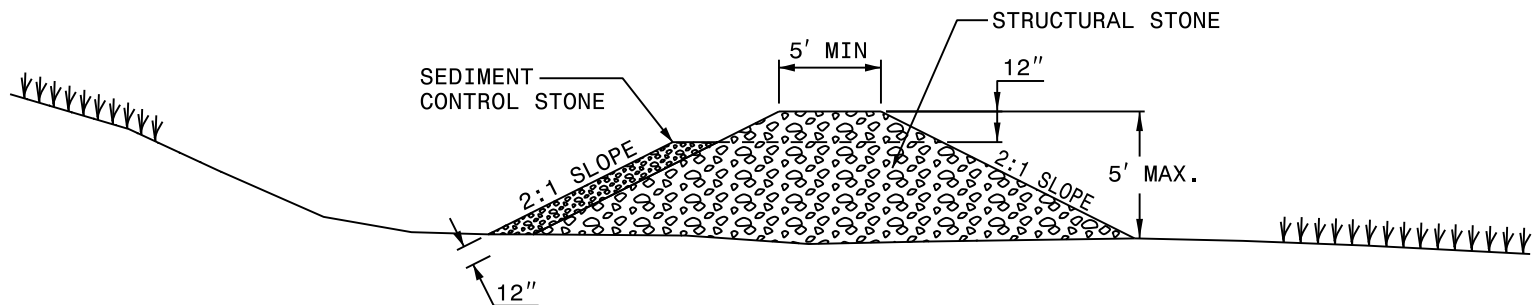
NOTES

USE CLASS I RIP RAP FOR STRUCTURAL STONE.

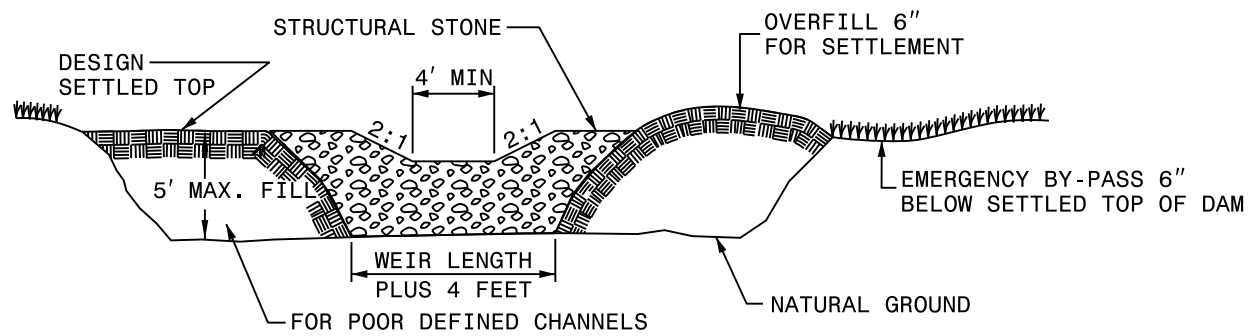
USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.

INSTALL 3 COIR FIBER BAFFLES ON UPSTREAM SIDE OF SEDIMENT DAM IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1640.01.





**PROFILE SECTION**



**CROSS SECTION**

**NOTES**

- USE CLASS B EROSION CONTROL STONE FOR STRUCTURAL STONE.
- USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.
- DIKE MAY EXTEND ALONG MORE THAN ONE SIDE OF THE TRAP AREA. PROVIDE A TOTAL SEDIMENT STORAGE VOLUME OF 3600± CUBIC FEET PER ACRE OF DISTURBED AREA. SOME OF THE REQUIRED VOLUME MAY BE PROVIDED BY OTHER UP OR DOWNSTREAM CONTROLS.
- AN UNDERLAY OF STRUCTURAL STONE WITH FILTRATION GEOTEXTILE MAY BE REQUIRED AS DIRECTED.
- INSTALL COIR FIBER BAFFLES ON THE UPSTREAM SIDE OF THE DAM IN ACCORDANCE WITH STANDARD DRAWING NO. 1640.01.
- SEED AND PLACE MATTING FOR EROSION CONTROL ON ALL INTERIOR AND EXTERIOR SLOPES OF SEDIMENT BASIN AS DIRECTED.

STATE OF  
NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**TEMPORARY ROCK SEDIMENT DAM TYPE B**

NOTES

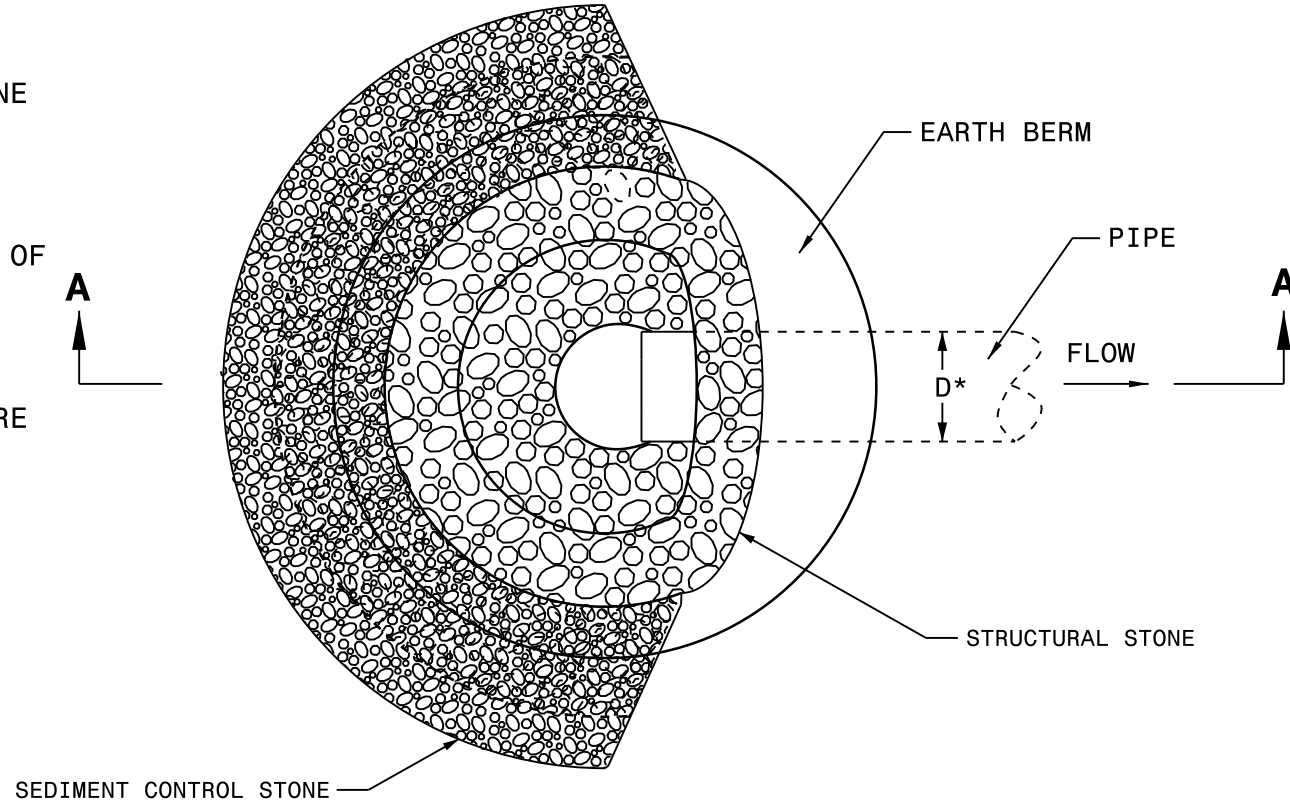
USE CLASS B EROSION CONTROL STONE FOR STRUCTURAL STONE.

USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.

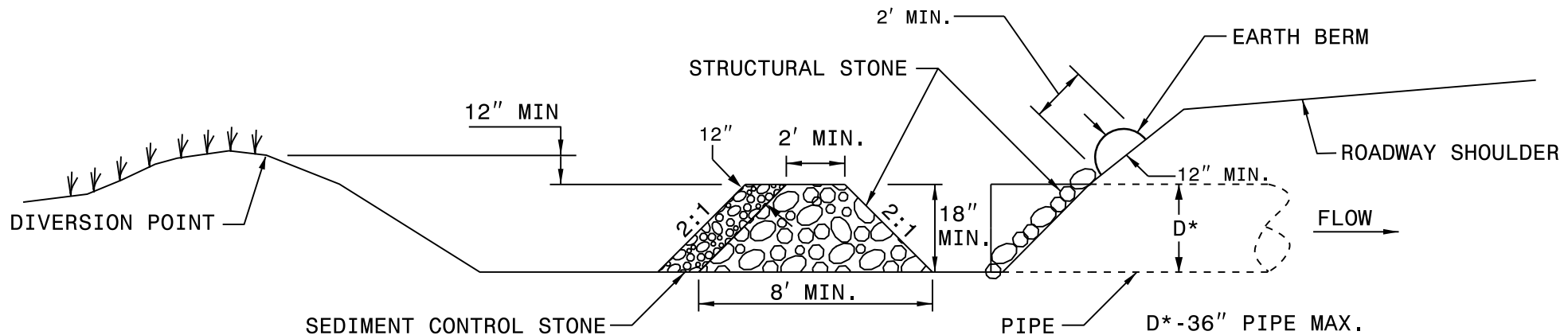
CONSTRUCT TOP OF BERM A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR DIVERSION POINT.

PROVIDE A TOTAL SEDIMENT TRAP VOLUME OF 3600± CUBIC FEET PER ACRE OF DISTURBED AREA. SOME OF THE REQUIRED VOLUME MAY BE PROVIDED BY UP OR DOWNSTREAM CONTROLS.

DO NOT INSTALL WHEN DEVICE WILL BE WITHIN 30 FEET OF VEHICULAR TRAVEL LANE.



**PLAN**



**SECTION A-A**

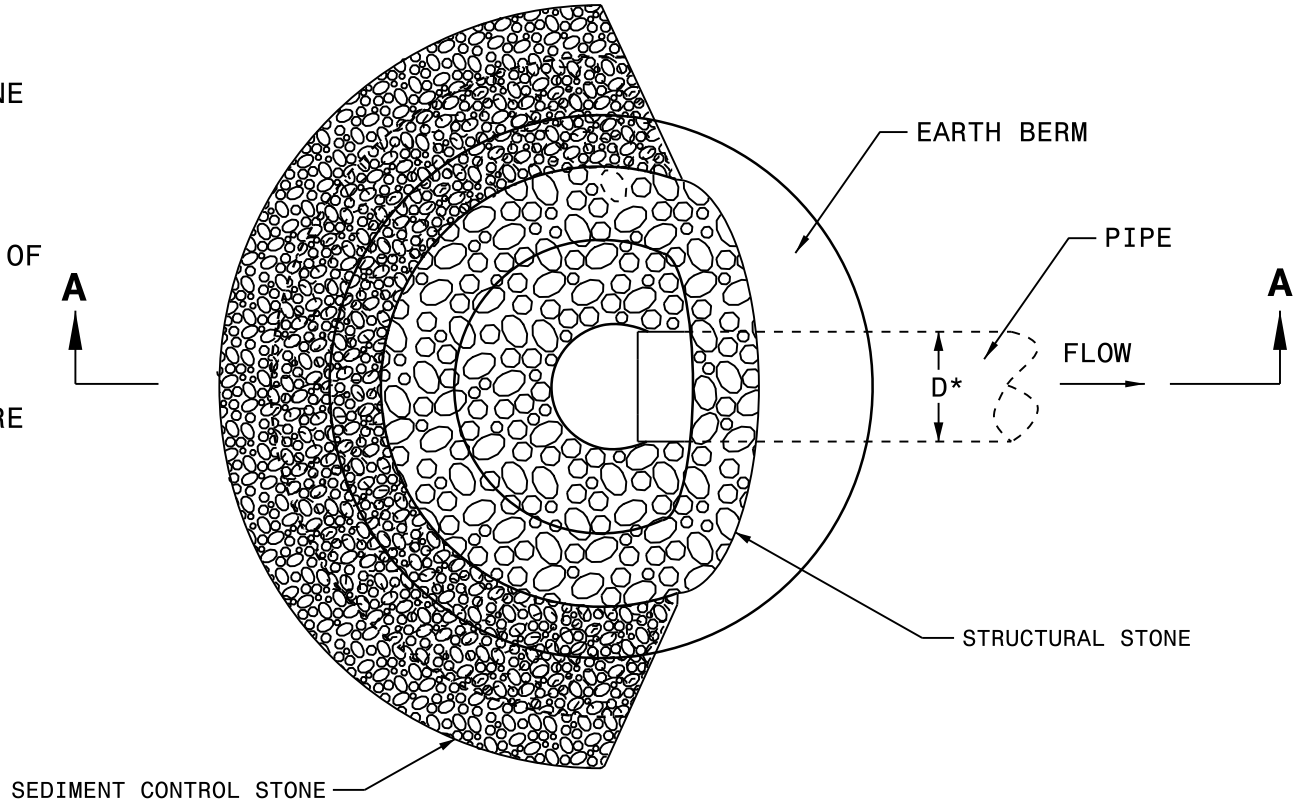
NOTES

USE CLASS A EROSION CONTROL STONE FOR STRUCTURAL STONE.

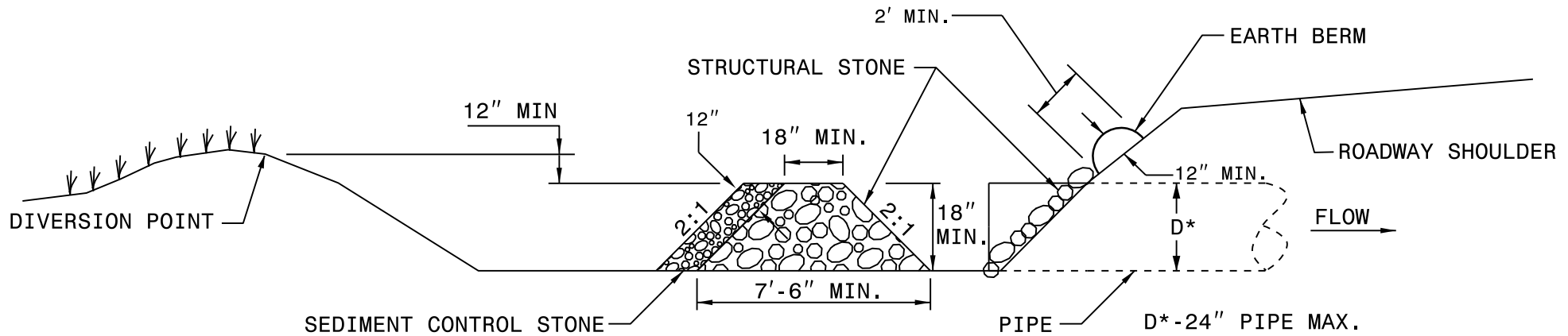
USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.

CONSTRUCT TOP OF BERM A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR DIVERSION POINT.

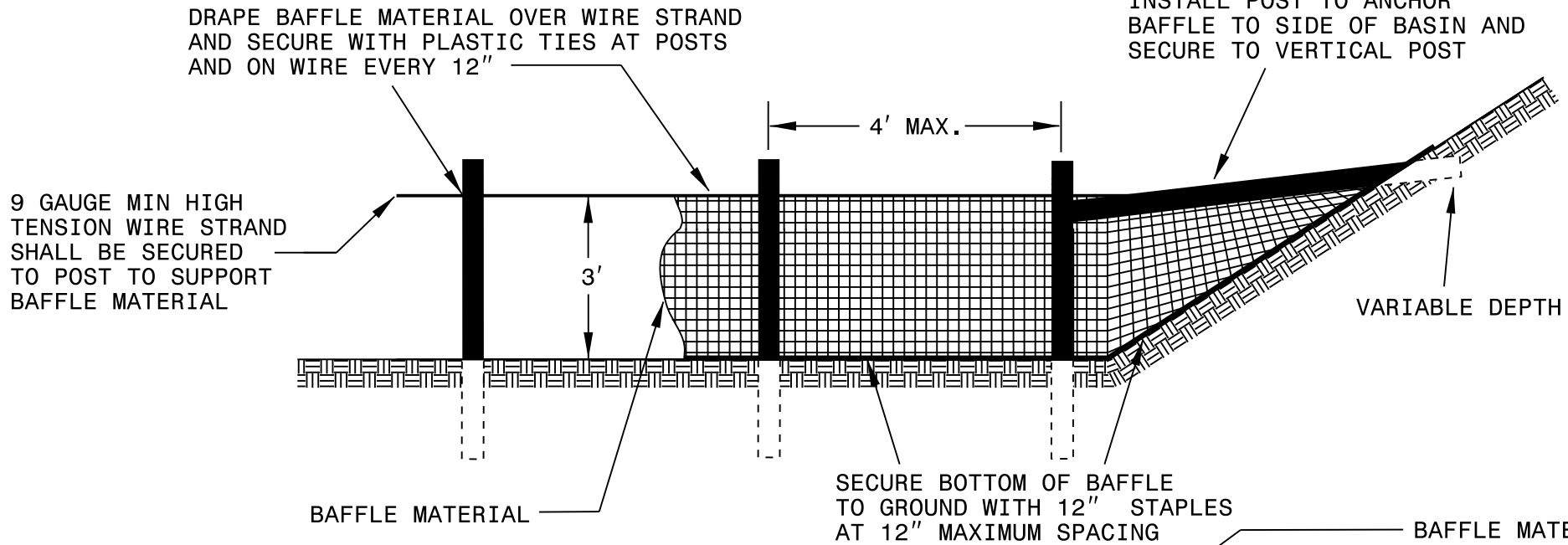
PROVIDE A TOTAL SEDIMENT TRAP VOLUME OF  $3600 \pm$  CUBIC FEET PER ACRE OF DISTURBED AREA. SOME OF THE REQUIRED VOLUME MAY BE PROVIDED BY UP OR DOWNSTREAM CONTROLS.



**PLAN**

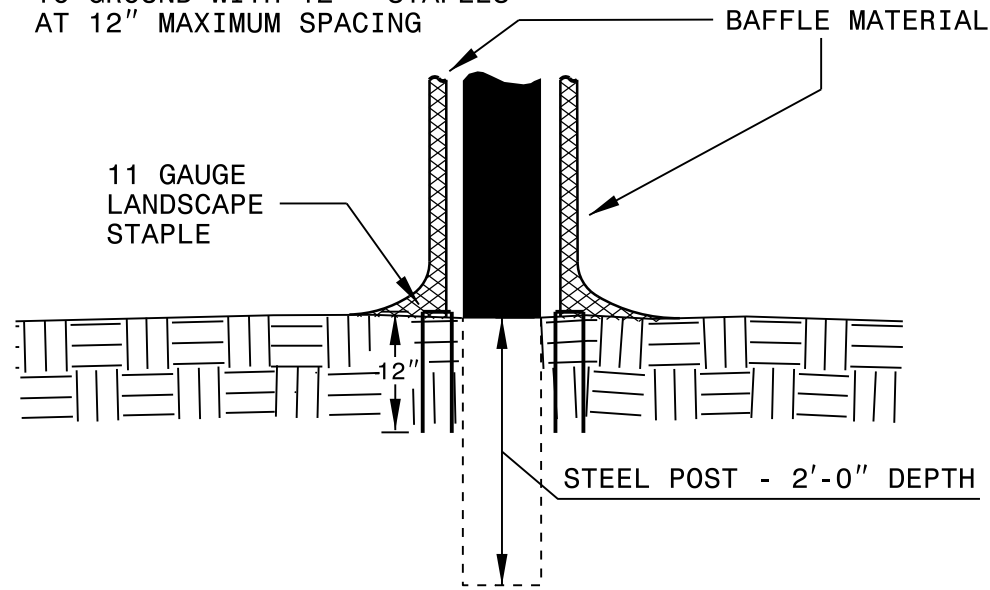


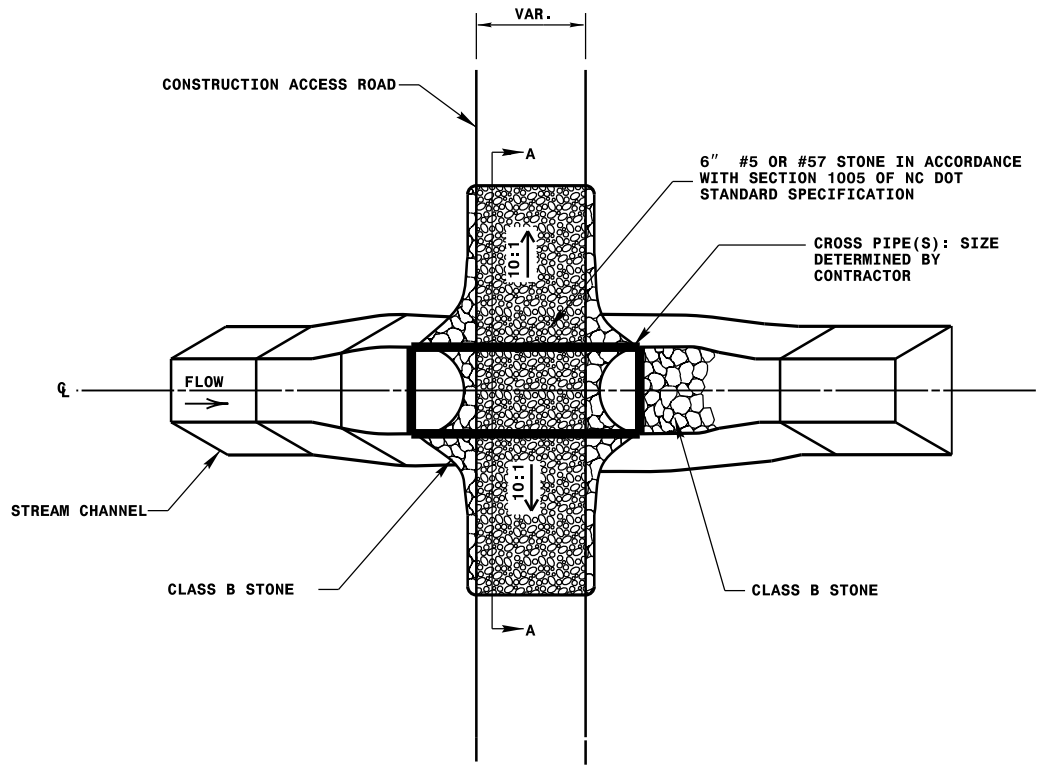
**SECTION A-A**



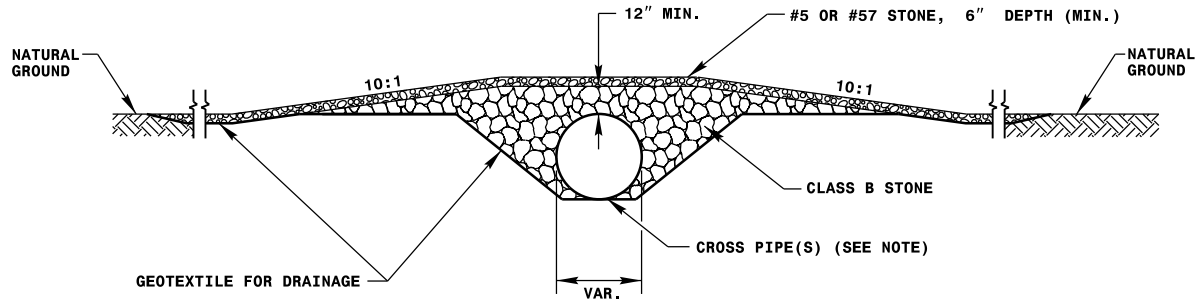
**NOTES:**

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 SPILLWAY ELEVATION.





**PLAN VIEW**



**SECTION A-A**

NOT TO SCALE

**NOTES**

PIPE(S) FOR TEMPORARY STREAM CROSSING SHALL BE DESIGNED TO PASS THE PEAK OR BANKFULL FLOW, WHICHEVER IS LESS, FROM A 2-YEAR PEAK STORM, WITHOUT OVER TOPPING.