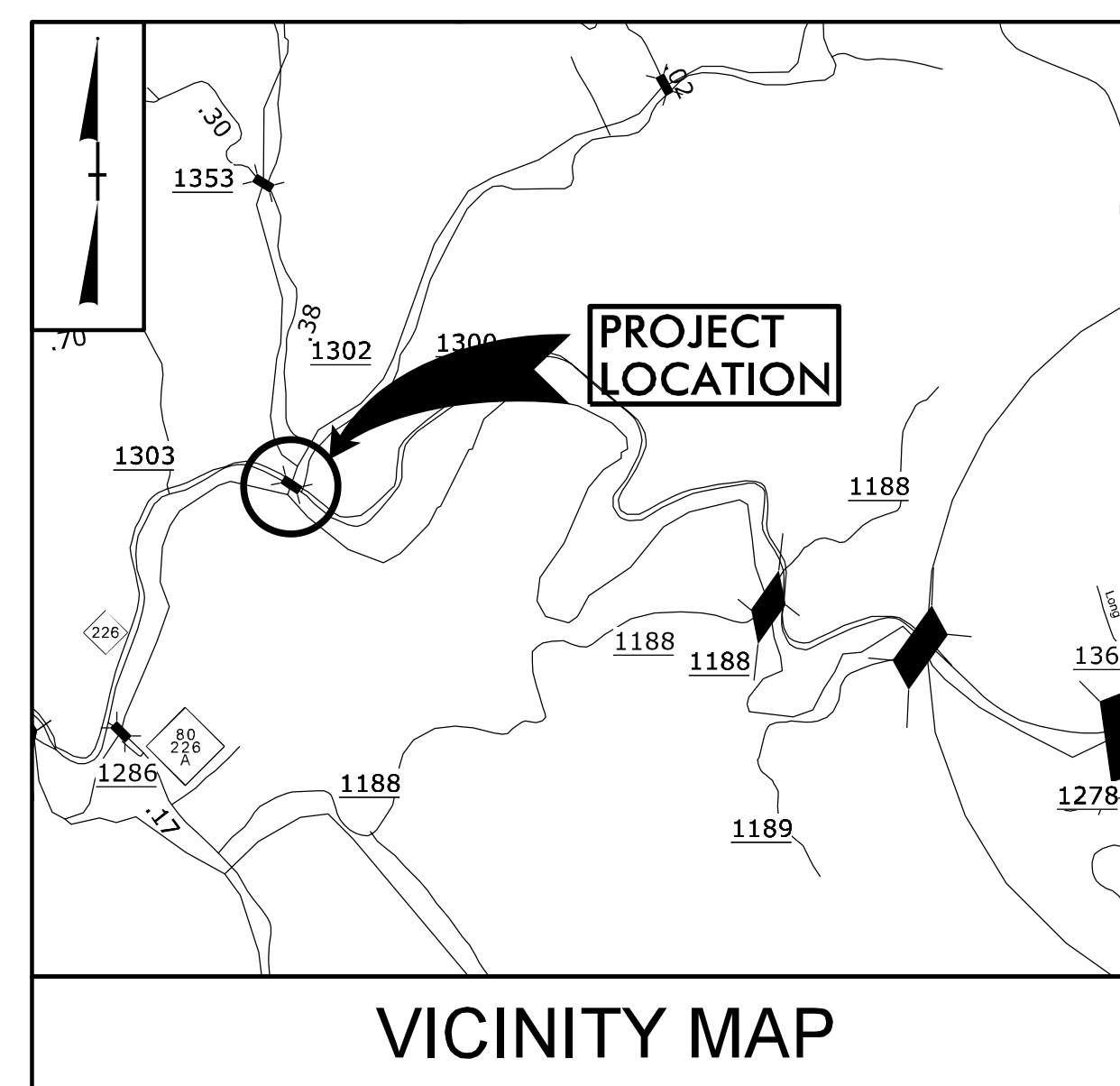


**TIP PROJECT: B-5893**

See Sheet 1A For Index of Sheets (Not Included)  
See Sheet 1B For Symbology Sheet



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

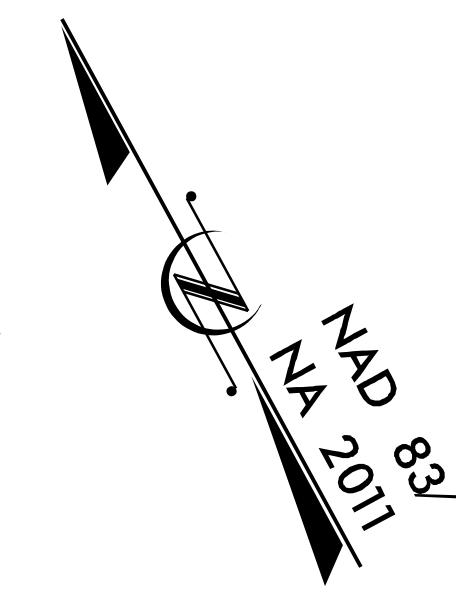
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PLAN FOR PROPOSED  
HIGHWAY EROSION CONTROL

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**MITCHELL COUNTY**

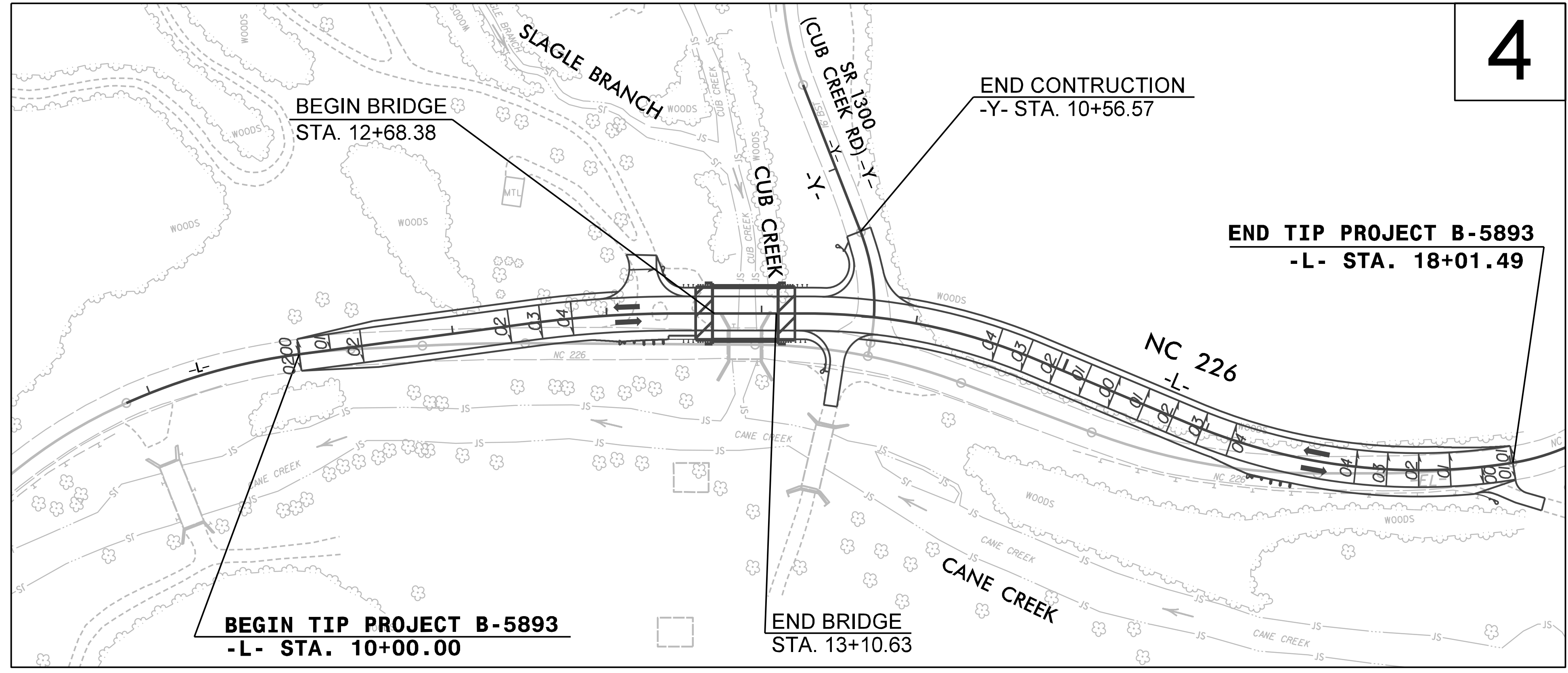
**LOCATION: REPLACE BRIDGE No. 19  
OVER CUB CREEK ON NC 226**  
**TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE**



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5893	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

**EROSION AND SEDIMENT CONTROL MEASURES**

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	— m —
1630.05	Temporary Diversion	— T —
1605.01	Temporary Silt Fence	— III — III — III —
1606.01	Special Sediment Control Fence	— ZZZZZ —
1622.01	Temporary Berms and Slope Drains	— T —
1630.02	Silt Basin Type B	— [Symbol] —
1633.01	Temporary Rock Silt Check Type-A	— [Symbol] —
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	— [Symbol] —
1633.02	Temporary Rock Silt Check Type-B	— [Symbol] —
	Wattle / Coir Fiber Wattle	— [Symbol] —
	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	— [Symbol] —
1632.02	Type B	— [Symbol] —
1632.03	Type C	— [Symbol] —
	Skimmer Basin	— [Symbol] —
	Tiered Skimmer Basin	— [Symbol] —
	Infiltration Basin	— [Symbol] —

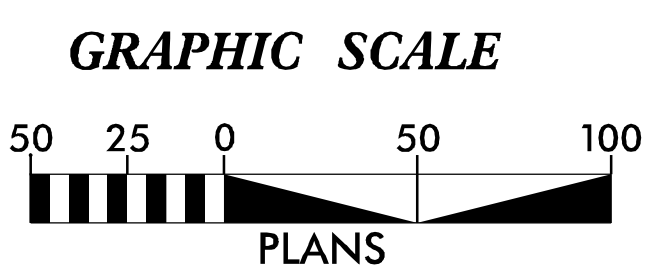


**TO BAKERSVILLE**

**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.*



**THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.**



1001 Morehead Square Drive, Suite 610  
Charlotte, NC 28203 - 704.342.5401  
www.wsp.com  
LICENSE NO. F-0891

Prepared in the Office of:

**WSP**

1001 Morehead Square Dr, Suite 610  
Charlotte, NC 28203  
NC LIC NO. F-0891

Designed by:

**Owen Britt, PE**  
NAME

**4228**  
LEVEL III CERTIFICATION NO.

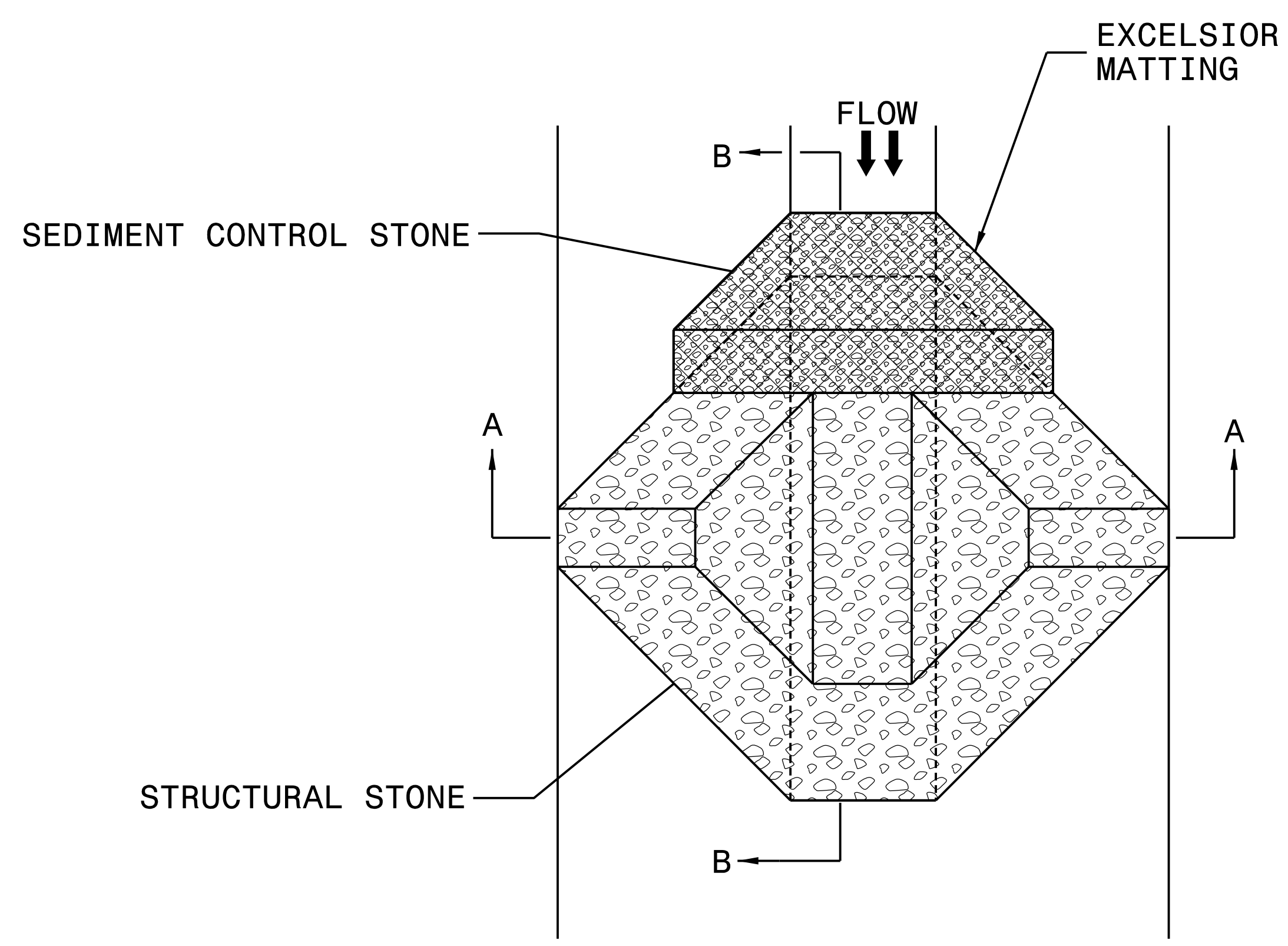
**Roadway Standard Drawings**

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
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	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	1640.01 Coir Fiber Baffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

PROJECT REFERENCE NO. <i>B-5893</i>	SHEET NO. <i>EC-2</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN

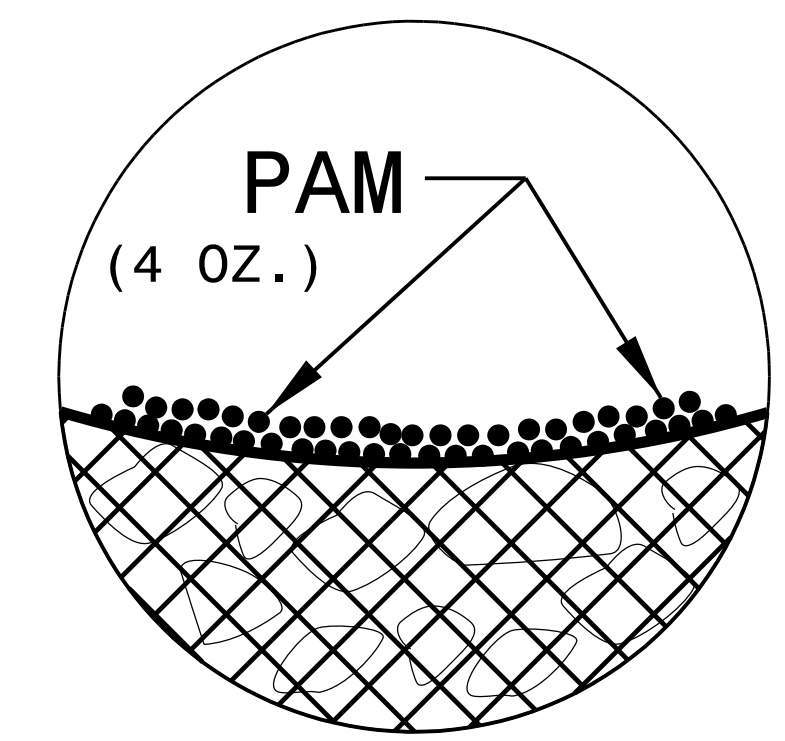
NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

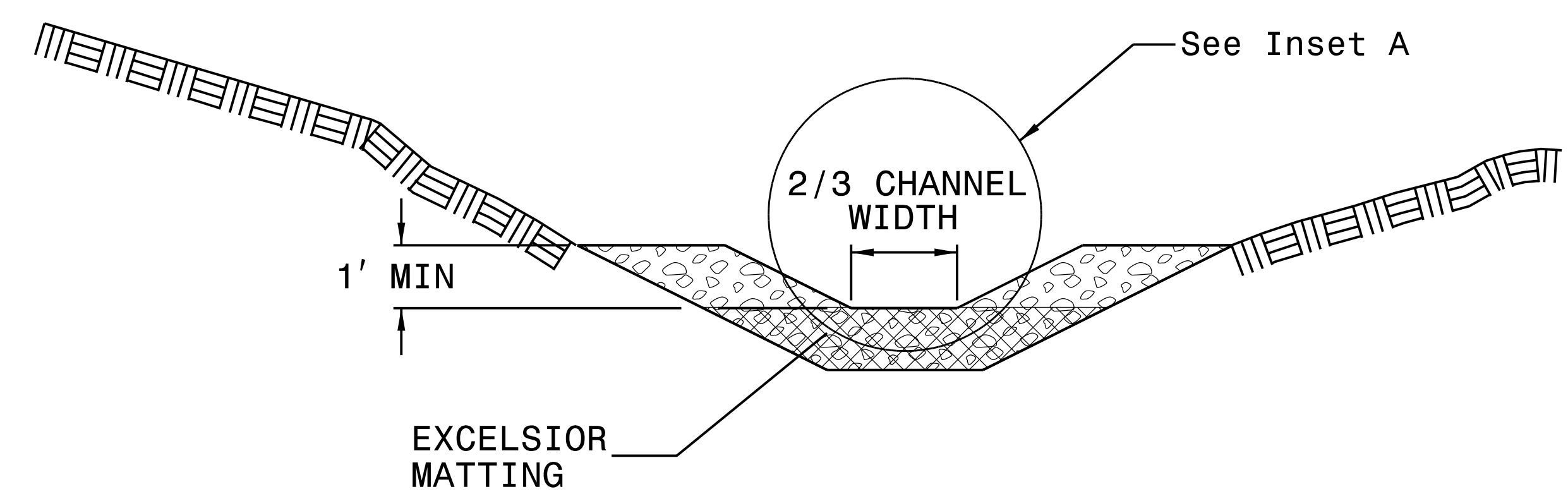
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

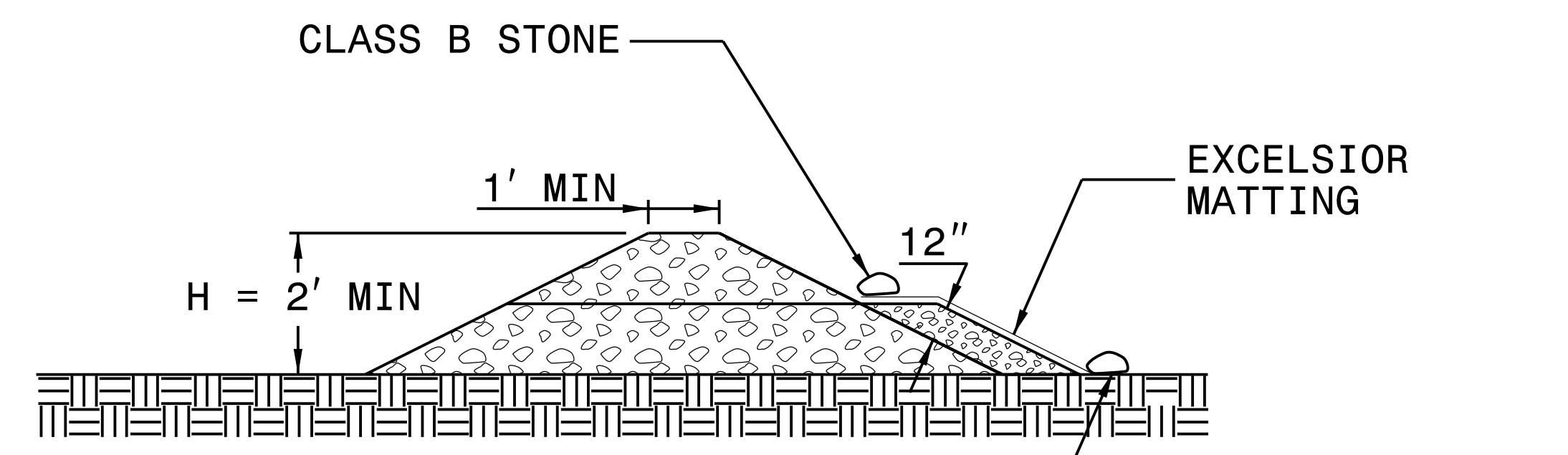
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A

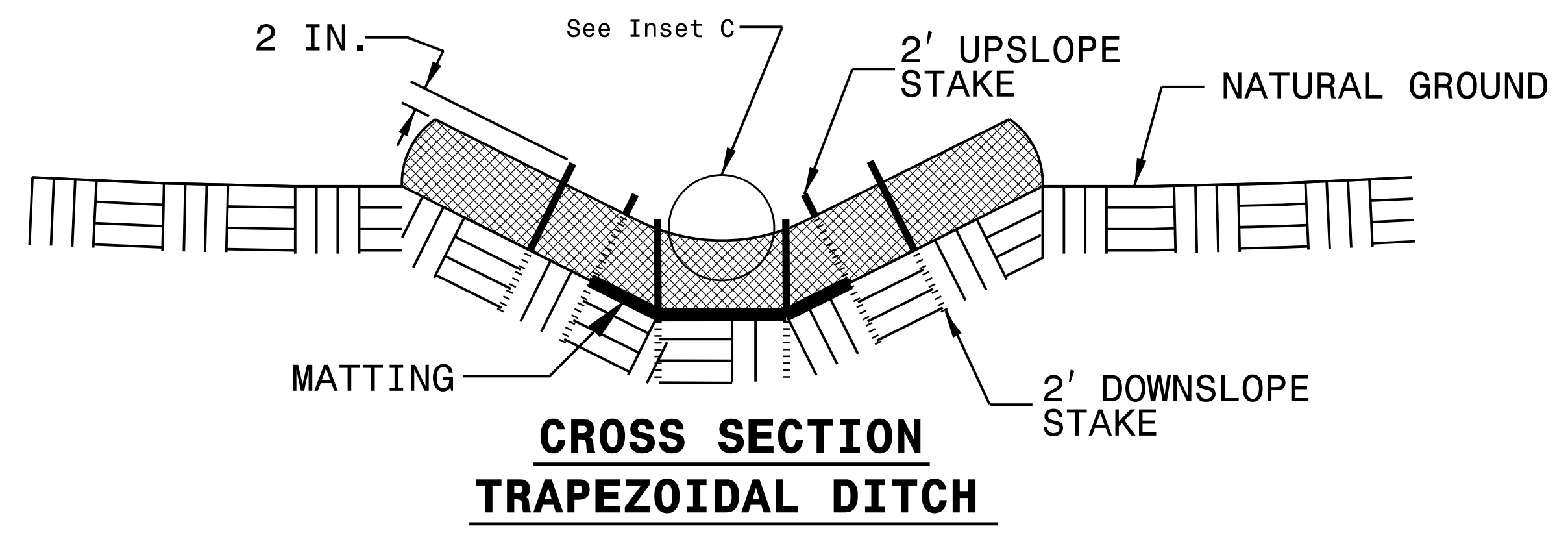
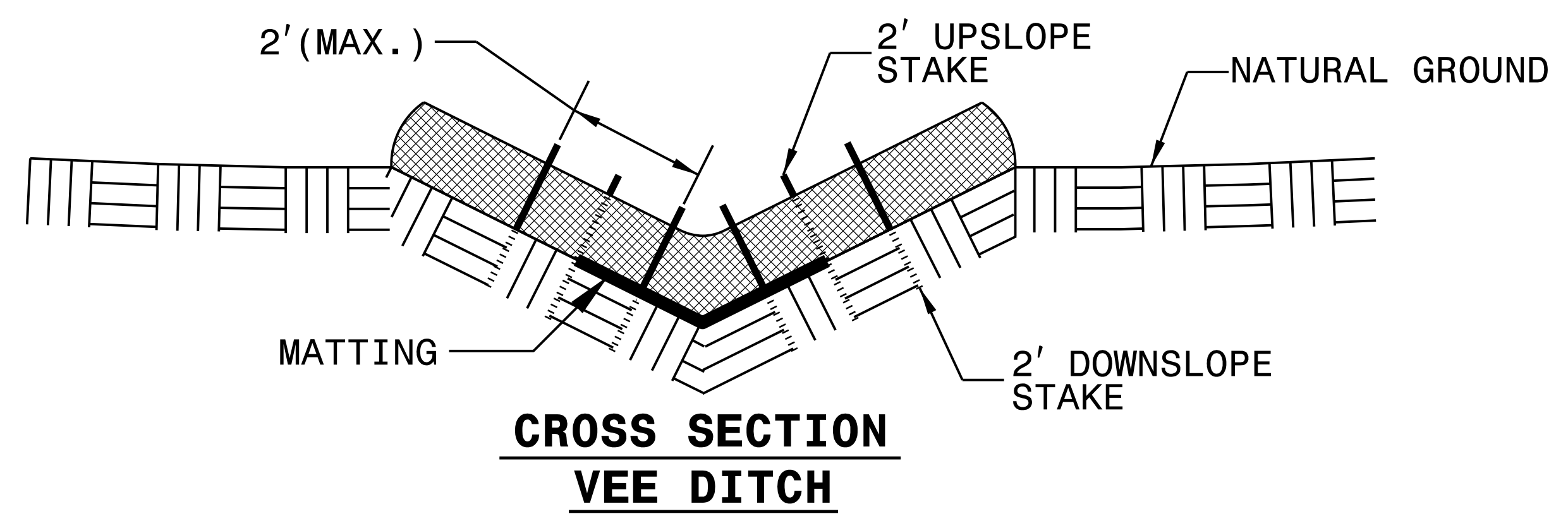
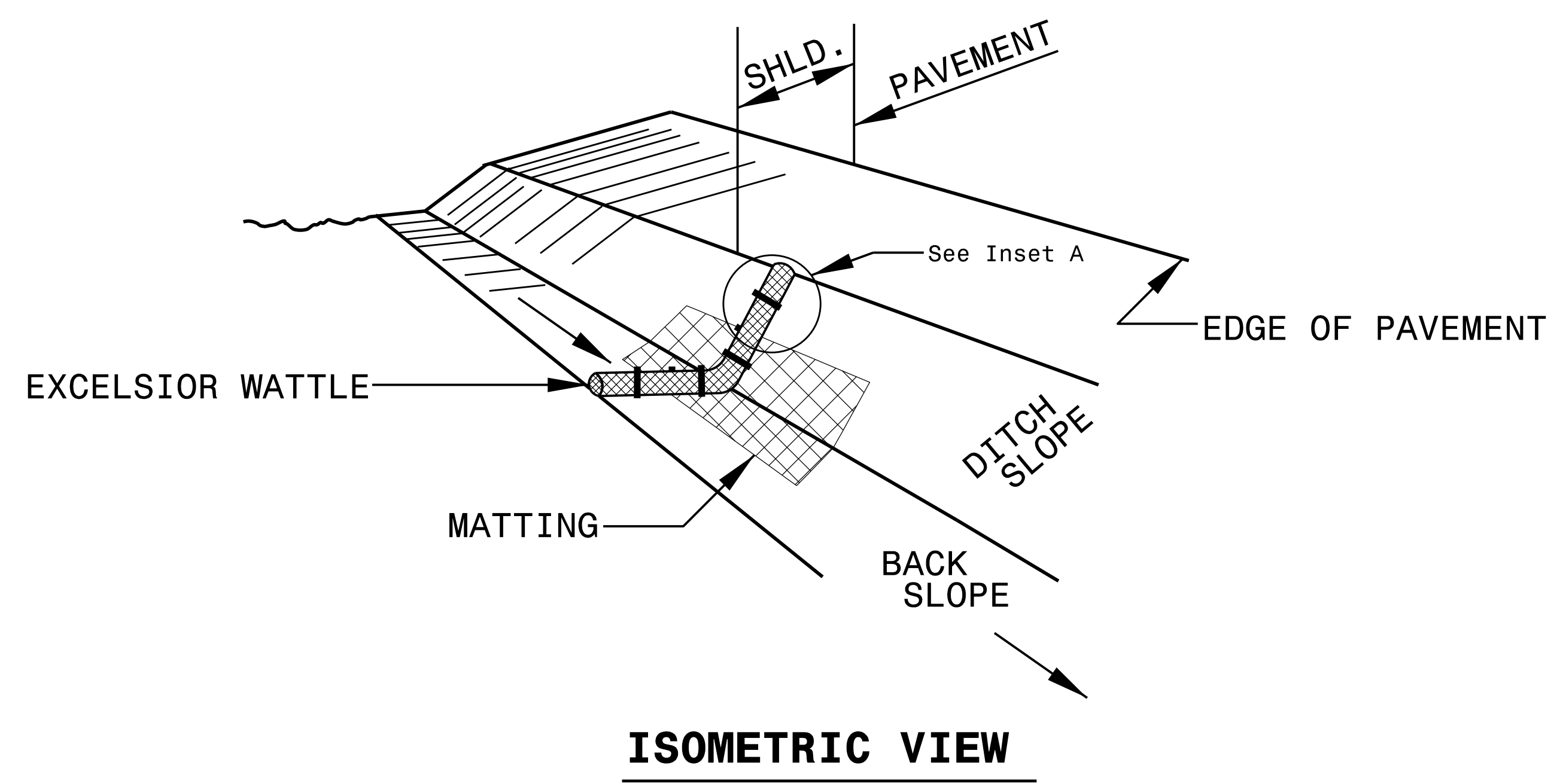


SECTION B-B

NOT TO SCALE

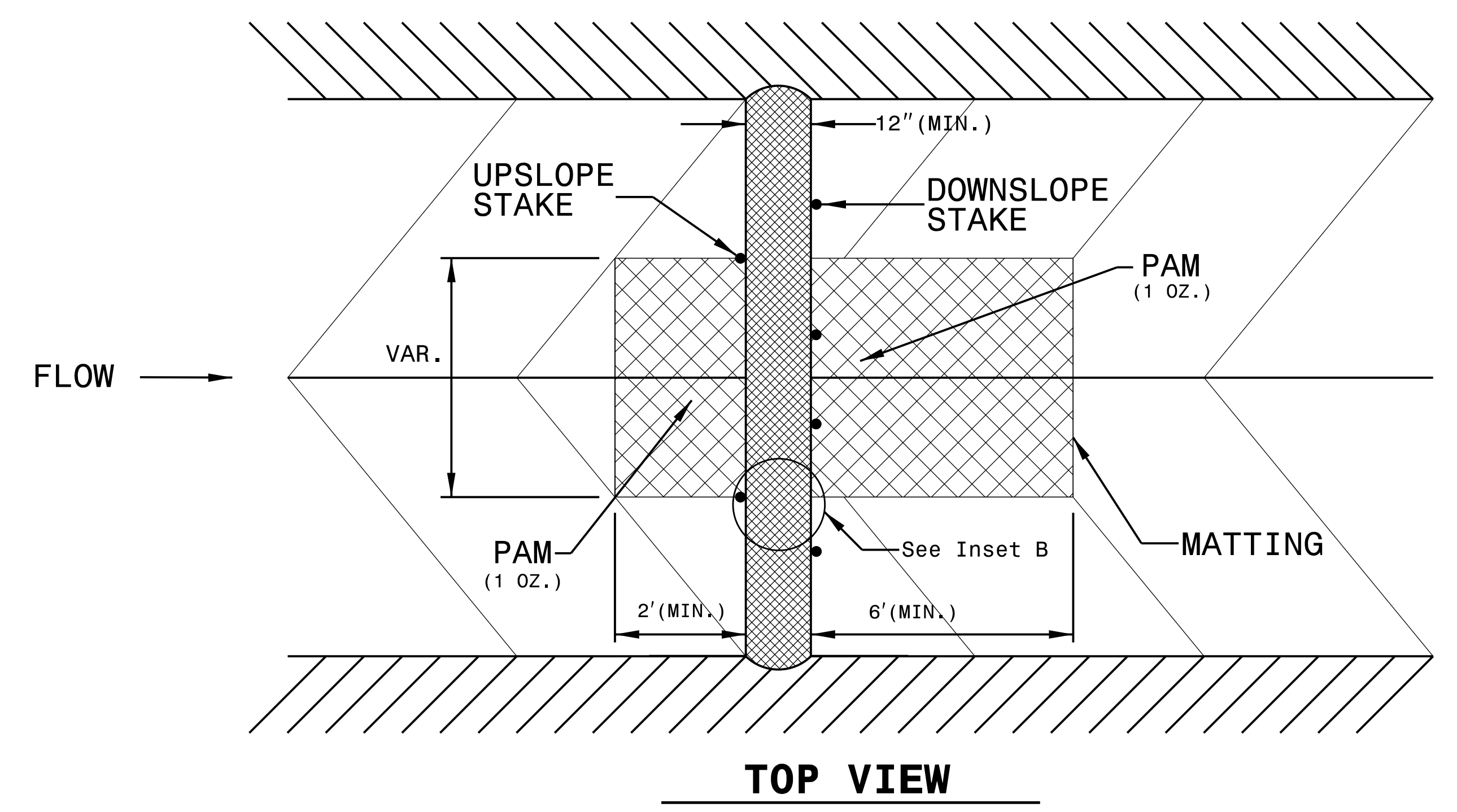
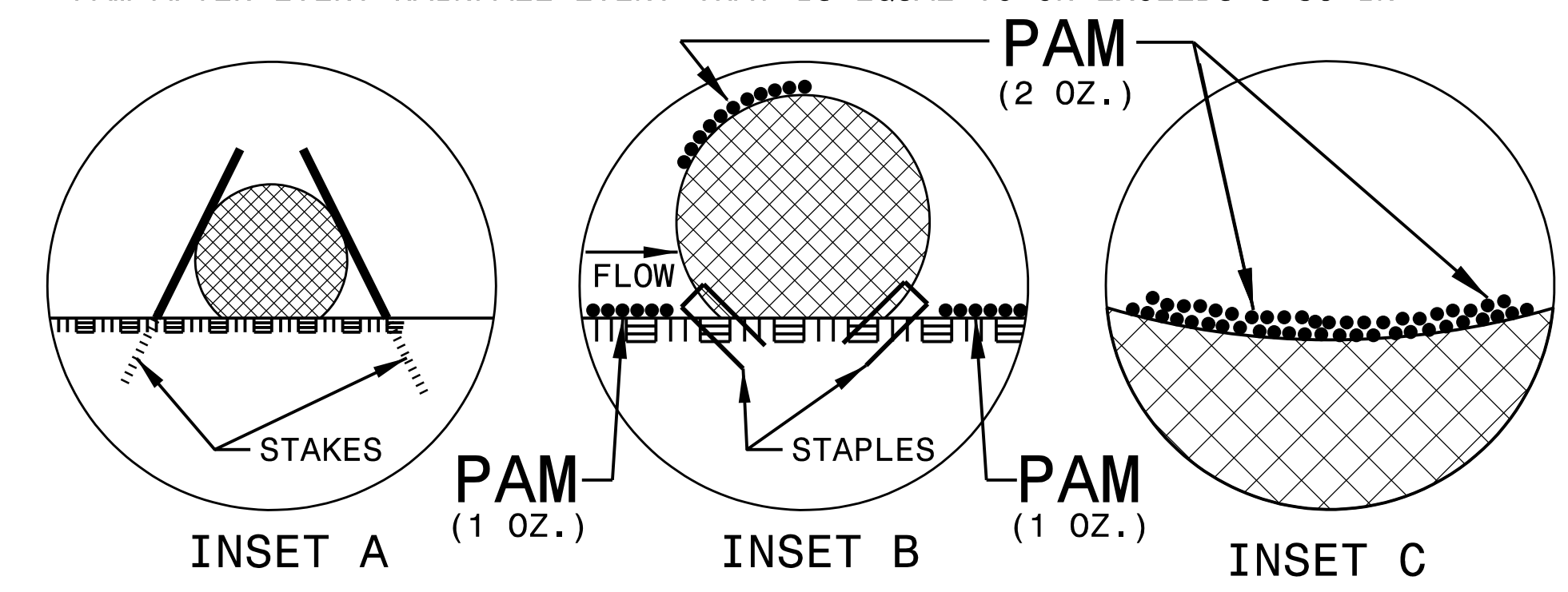
PROJECT REFERENCE NO. <b>B-5893</b>	SHEET NO. <b>EC-2A</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



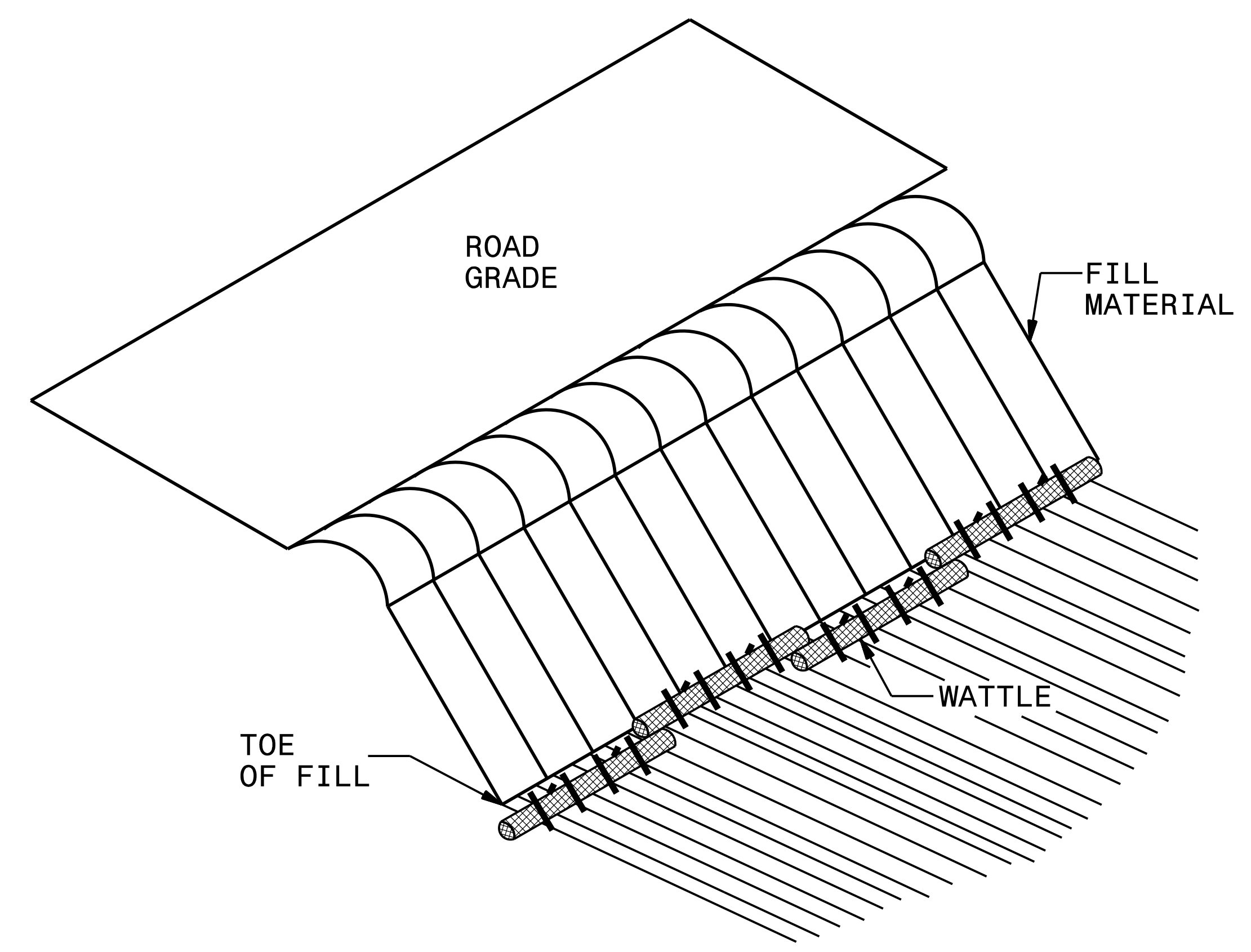
**NOTES:**

- 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 EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

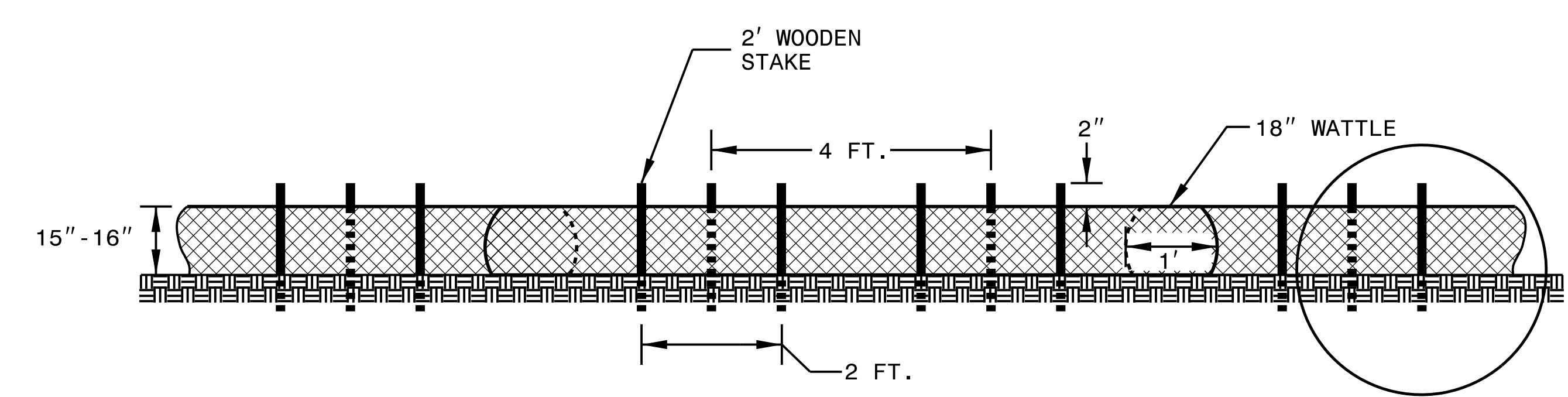


PROJECT REFERENCE NO. <i>B-5893</i>	SHEET NO. <i>EC-2B</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

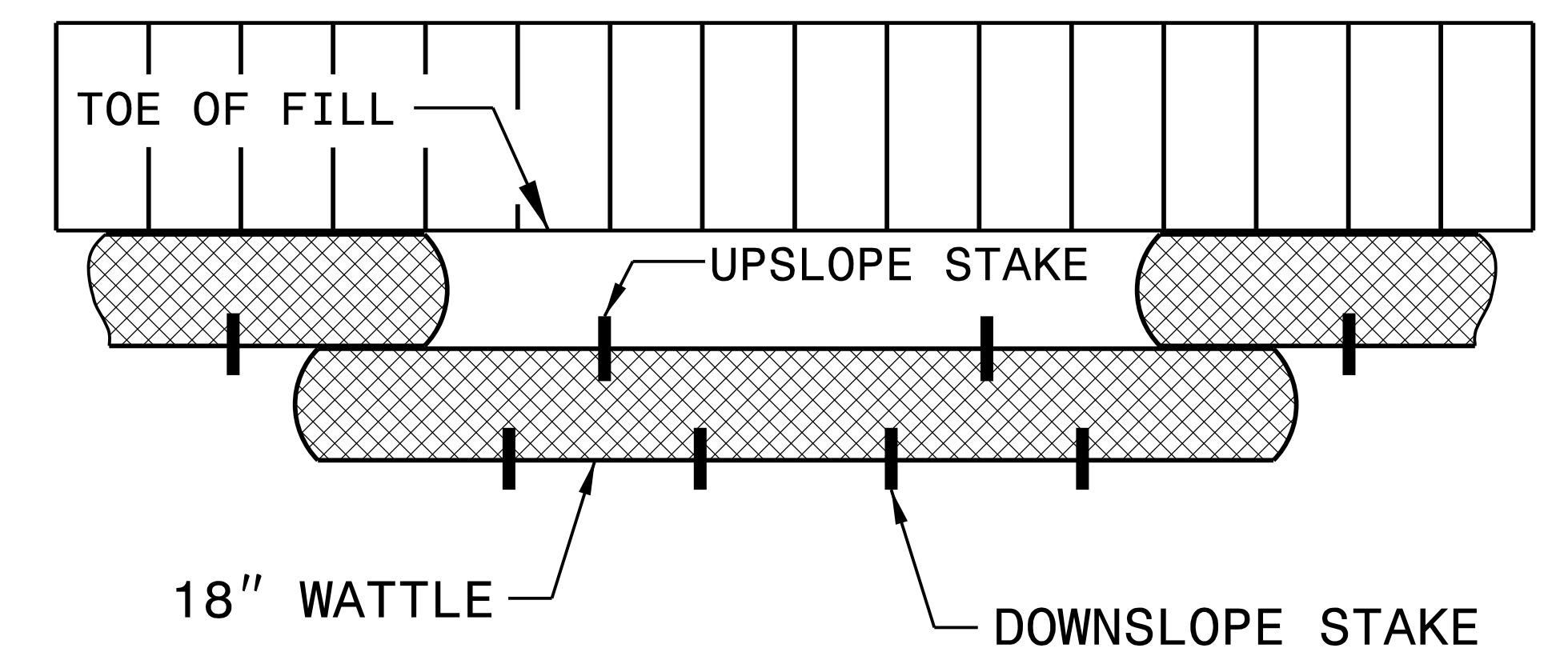
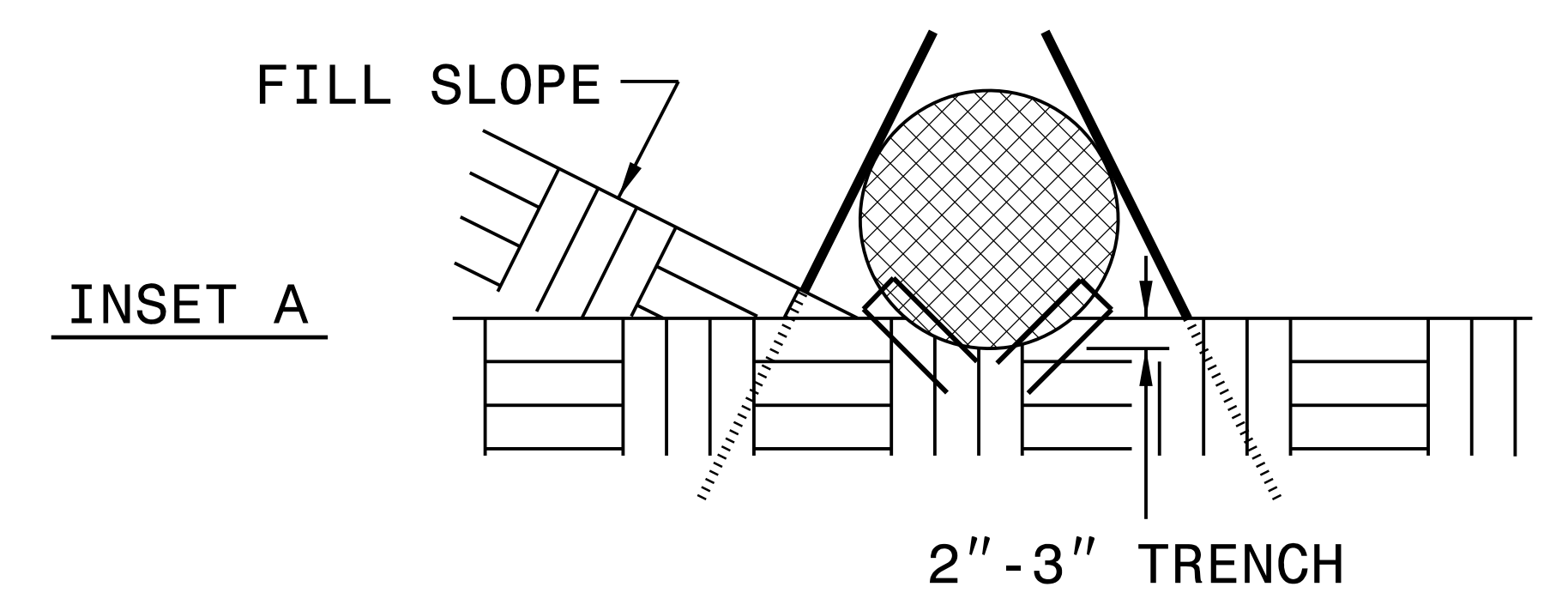
# WATTLE BARRIER DETAIL



**ISOMETRIC VIEW**



**FRONT VIEW**



**TOP VIEW**

**NOTES:**

- USE MINIMUM 18 IN. NOMINAL DIAMETER EXCELSIOR WATTLE AND LENGTH OF 10 FT.
- EXCAVATE A 2 TO 3 INCH TRENCH FOR WATTLE TO BE PLACED.
- DO NOT PLACE WATTLES ON TOE OF SLOPE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.
- 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.
- FOR BREAKS ALONG LARGE SLOPES, USE MAXIMUM SPACING OF 25 FT.



DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

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PROJECT REFERENCE NO. <i>B-5893</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

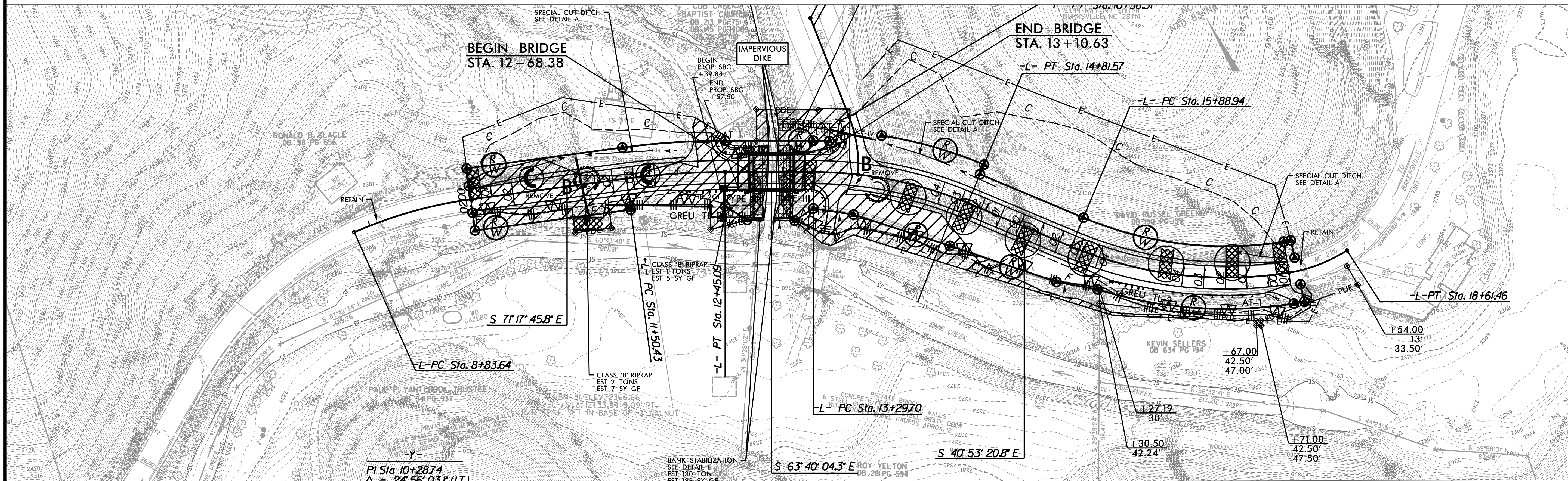
# *SOIL STABILIZATION TIMEFRAMES*

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

# EROSION CONTROL PLAN

PROJECT REFERENCE NO. <b>B-5893</b>	SHEET NO. <b>EC-4/CONST.4</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 4



 ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS

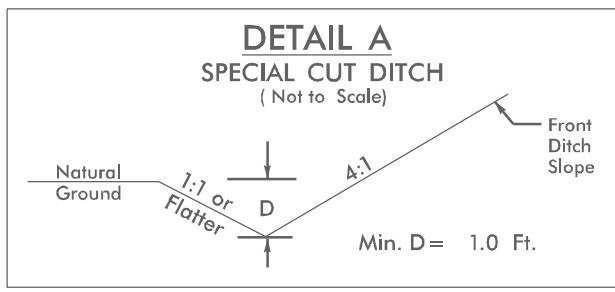
NOTE:  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B  
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT  
DRAINAGE OUTLETS.

BRIDGE REMOVAL AND BRIDGE CONSTRUCTION SHALL BE PER  
REQUIREMENTS IN THE NCDOT BEST MANAGEMENT PRACTICES  
FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL

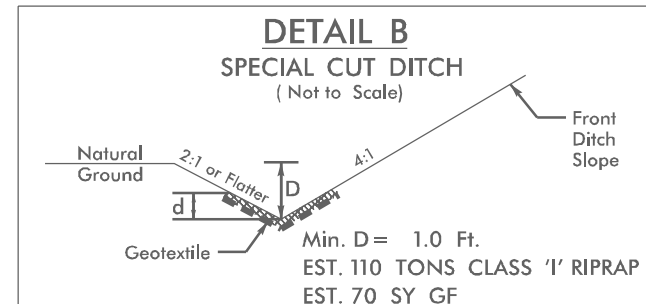
CONTRACTOR SHALL INSTALL AN ONSITE CONCRETE WASHOUT  
STRUCTURE PER THE NCDOT DETAIL AND SPECIAL PROVISIONS.  
ACTUAL LOCATION OF THE STRUCTURE SHALL BE DETERMINED  
IN THE FIELD. CONCRETE WASHOUT STRUCTURE SHALL BE  
MAINTAINED BY THE CONTRACTOR. ALL CONCRETE TRUCKS SHALL  
USE THE CONCRETE WASHOUT STRUCTURE. NO WASHOUT OF  
CONCRETE TRUCKS SHALL BE ALLOWED EXCEPT IN THE CONCRETE  
WASHOUT STRUCTURE.

# EROSION CONTROL PLAN

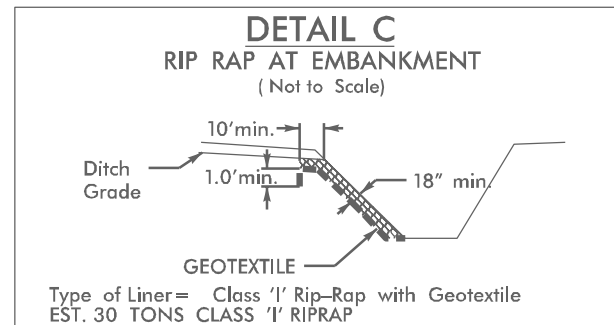
PROJECT REFERENCE NO. <b>B-5893</b>	SHEET NO. <b>EC-5/CONST.A</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



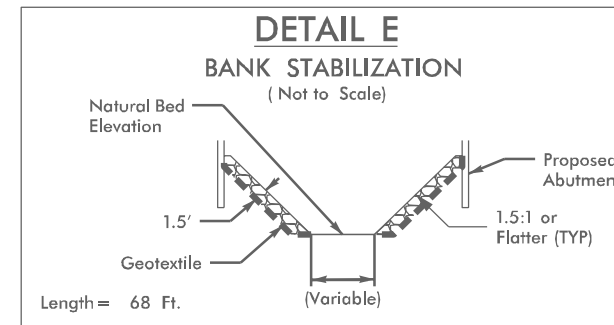
FROM -L- STA. 13+81 TO STA. 15+00 LT  
 FROM -L- STA. 17+50 TO STA. 18+00 LT  
 FROM -L- STA. 10+50 TO STA. 12+05 LT



FROM -L- STA. 13+06 TO STA. 13+45 LT



FROM -L- STA. 12+96 TO STA. 13+06 LT



FROM -L- STA. 12+71 TO 13+08 RT

**INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.**  
 -L- STA 10+50 TO STA 12+05 LT  
 -L- STA 13+81 TO STA 18+00 LT

**PLACE MATTING FOR EROSION CONTROL ON SLOPE AS WORK ALLOWS.**  
 -L- STA 10+00 TO STA 12+05 LT  
 -L- STA 13+81 TO STA 18+00 LT

