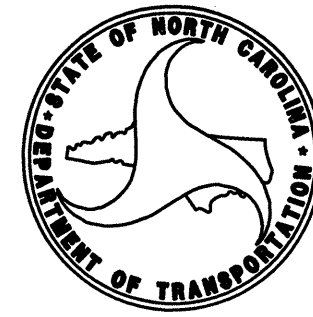


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TIP PROJECT: I-2304AE

C203210

CONTRACT:

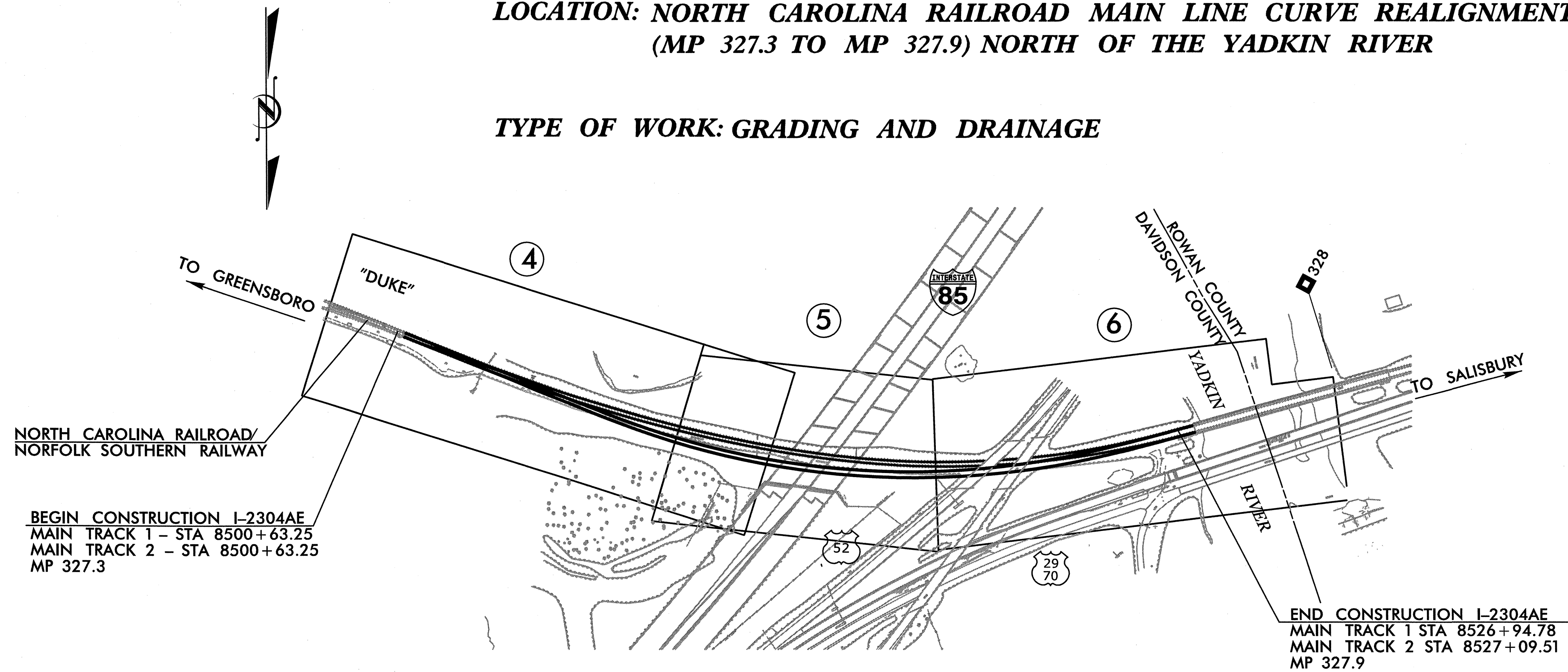


STATE OF NORTH CAROLINA  
RAIL DIVISION

PLAN FOR PROPOSED  
HIGHWAY AND RAIL EROSION CONTROL  
**DAVIDSON COUNTY**

LOCATION: NORTH CAROLINA RAILROAD MAIN LINE CURVE REALIGNMENT  
(MP 327.3 TO MP 327.9) NORTH OF THE YADKIN RIVER

TYPE OF WORK: GRADING AND DRAINAGE

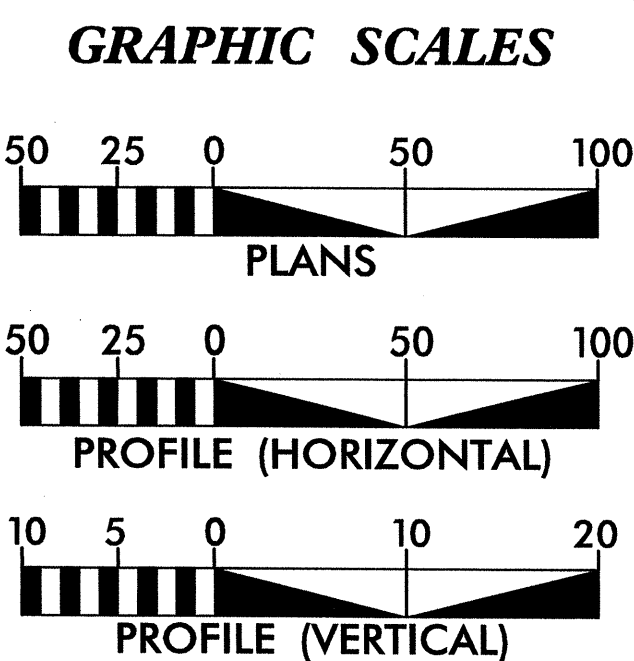


BEGIN CONSTRUCTION I-2304AE  
MAIN TRACK 1 - STA 8500+63.25  
MAIN TRACK 2 - STA 8500+63.25  
MP 327.3

END CONSTRUCTION I-2304AE  
MAIN TRACK 1 STA 8526+94.78  
MAIN TRACK 2 STA 8527+09.51  
MP 327.9

THIS PROJECT CONTAINS 303(d) IMPAIRED WATER(S) IMPAIRED FOR TURBIDITY FROM STORMWATER-RELATED IMPACTS, OR THE PROJECT IS WITHIN ONE MILE AND DRAINS TO WATER(S) LISTED ON THE 303(d) LIST FOR TURBIDITY IMPAIRMENT. THE CONTRACTOR SHALL ADHERE TO ALL CONDITIONS AND REGULATIONS REQUIRED FOR IMPACTS TO THESE WATERS.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.



ROADSIDE ENVIRONMENTAL UNIT  
DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:  
**AECOM** NC FIRM LICENSE No: F-0342  
701 Corporate Center Drive, Suite 475  
Raleigh, NC 27607  
(919) 854-6200 - (919) 854-6259(FAX)

2012 STANDARD SPECIFICATIONS

EROSION CONTROL  
LEVEL III  
CERTIFICATION # 3135  
RENE REMY, CPESC, CPSWQ

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 2012 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		



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-2304AE	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
53000.1.STROITIA		PE	
53000.3.STROIT4	FRA-FR-HSR-0006-10-01-00	CONST, CONST UTIL	

EROSION AND SEDIMENT CONTROL MEASURES

Sed. #	Description	Symbol
1630.03	Temporary Silt Ditch	
1630.05	Temporary Diversion	
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle/Coir Fiber Wattle	
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	
1632.02	Type B	
1632.03	Type C	
	Skimmer Basin	

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

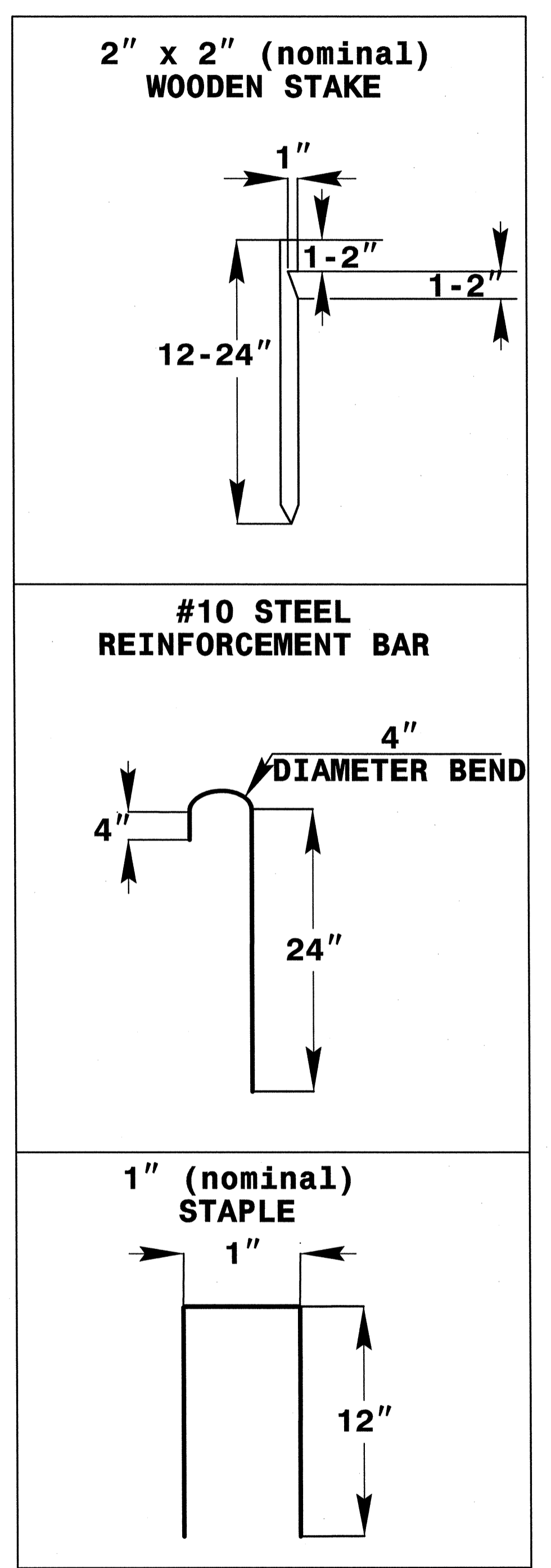
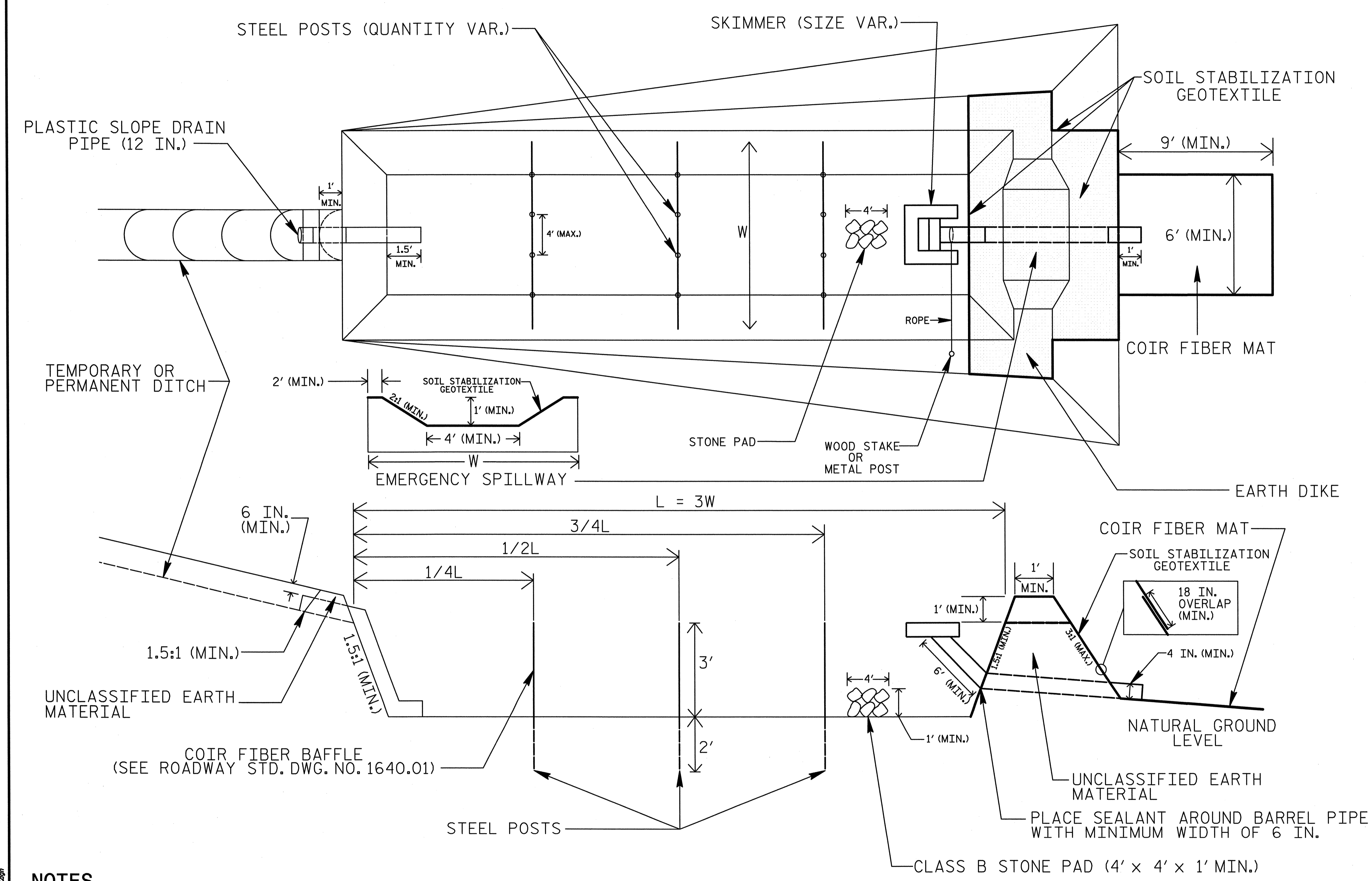
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

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.

# SKIMMER BASIN WITH BAFFLES DETAIL



## COIR FIBER MAT ANCHOR OPTIONS

### NOTES

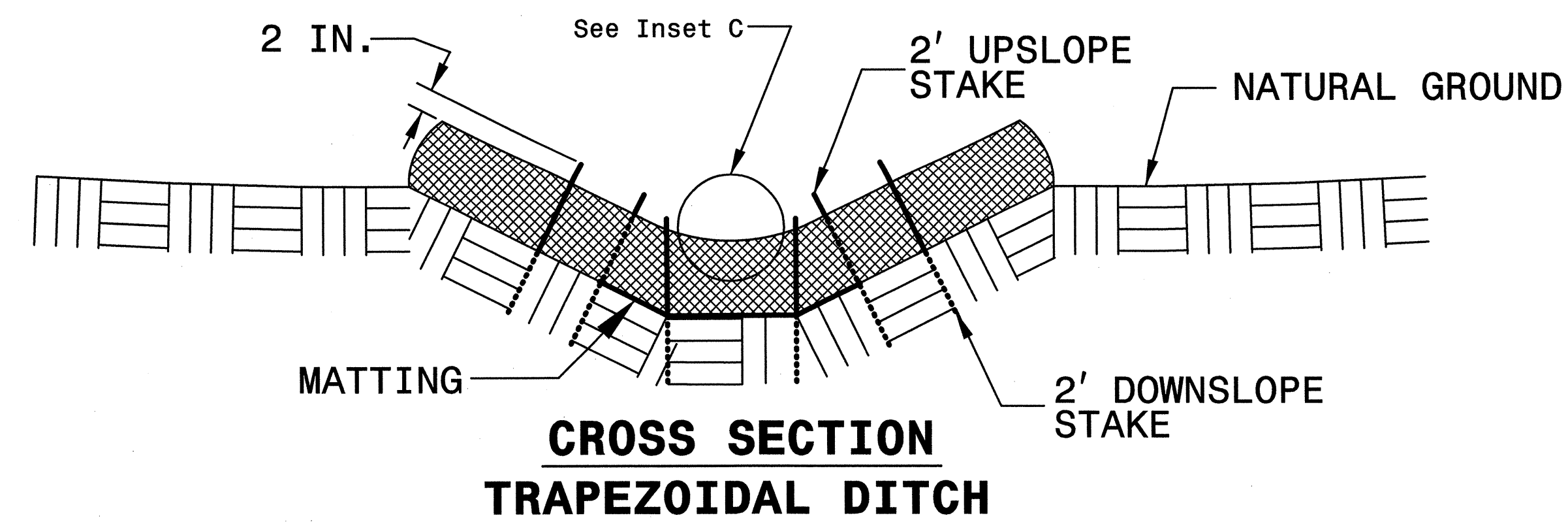
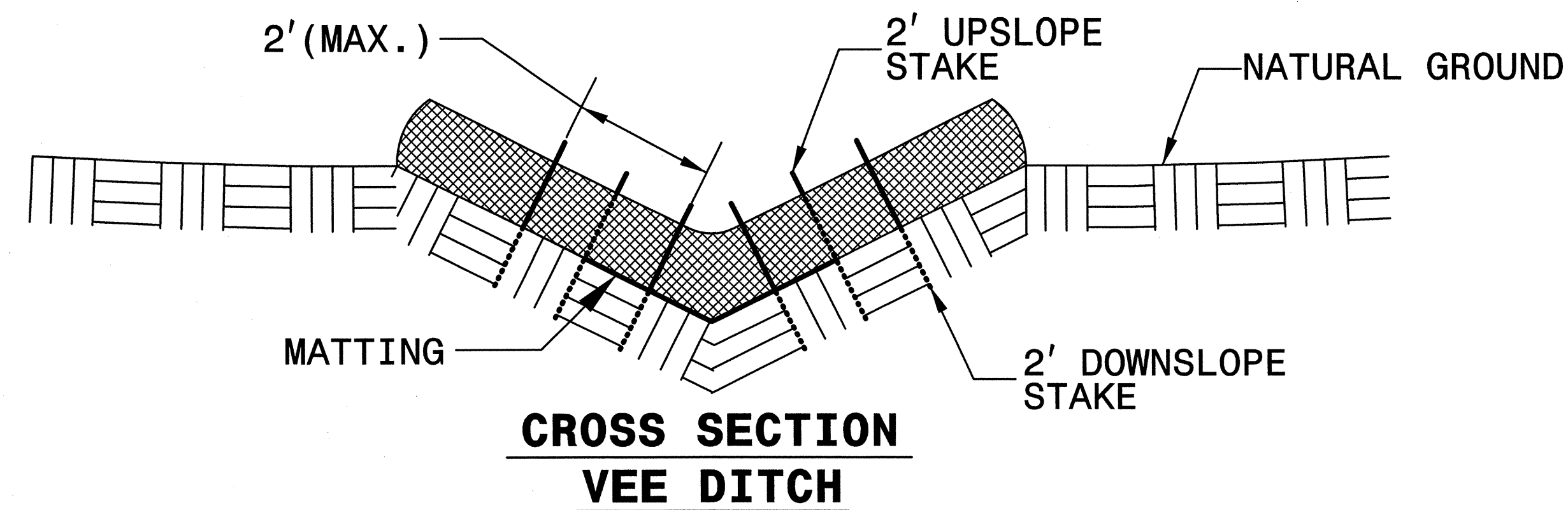
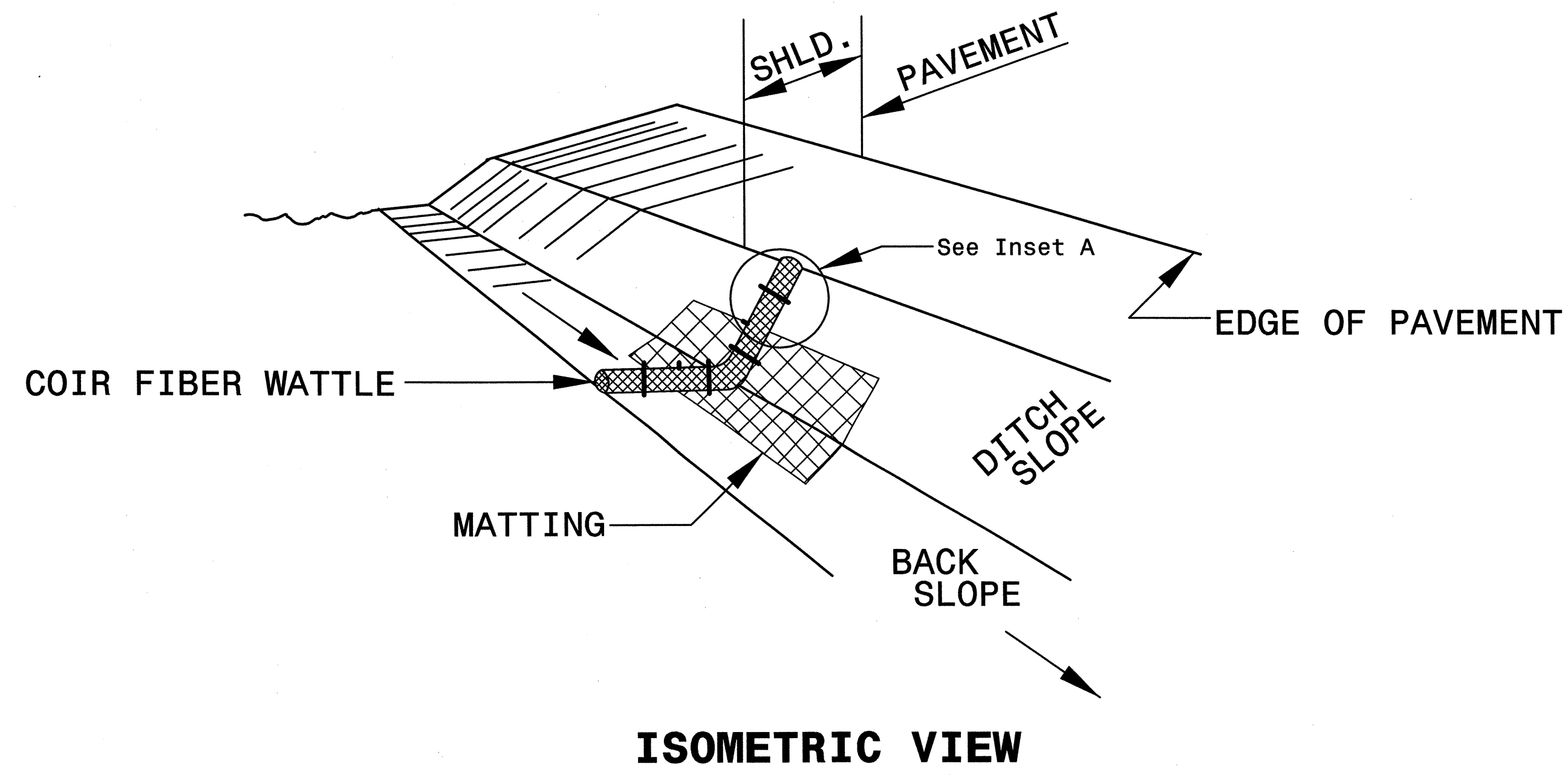
1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE EMERGENCY SPILLWAY LENGTH (FT.) USING  $Q/0.8$ , WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE AS DIRECTED.
6. SOIL STABILIZATION GEOTEXTILE FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

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# COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



**NOTES:**

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) 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.

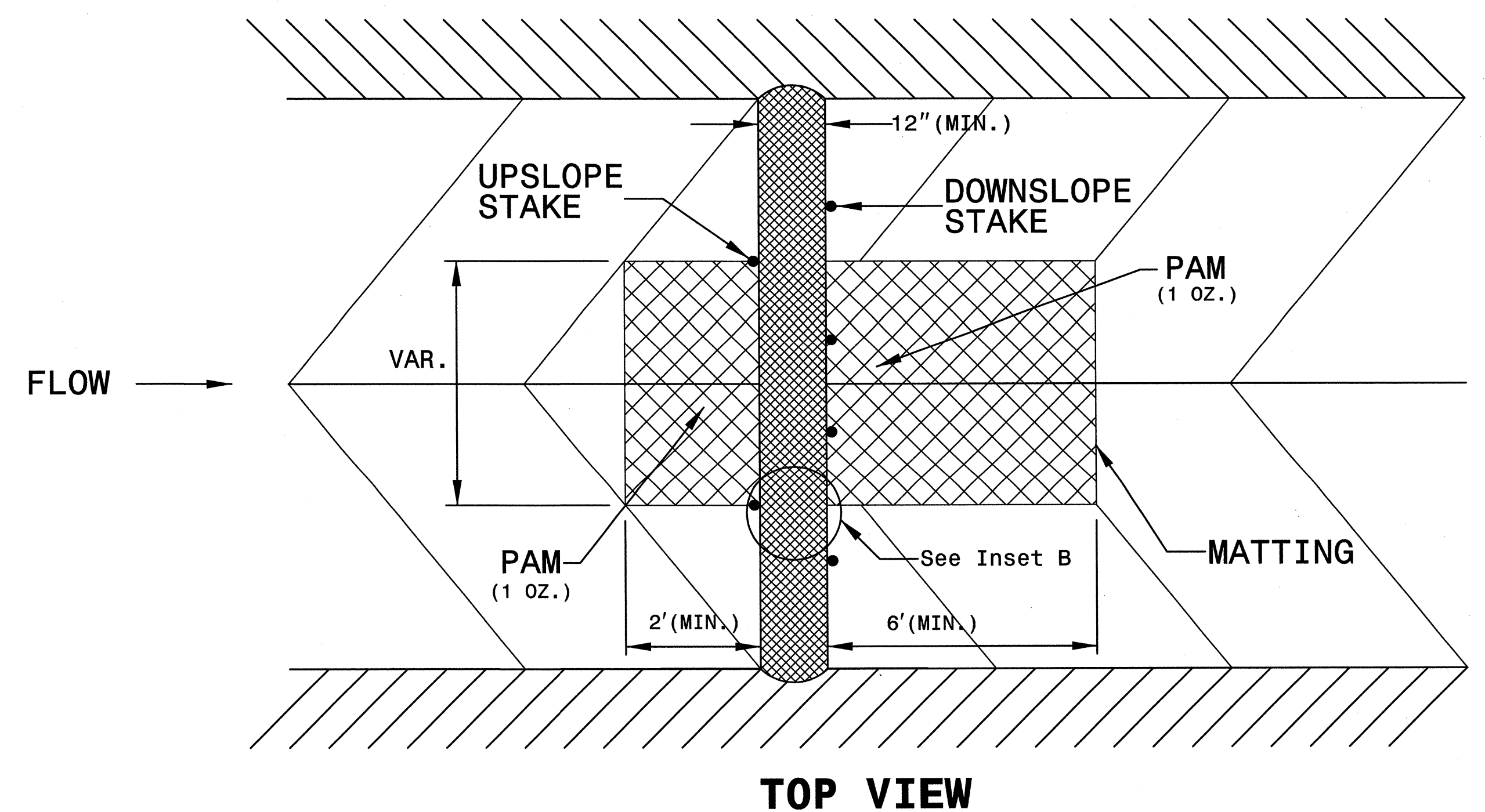
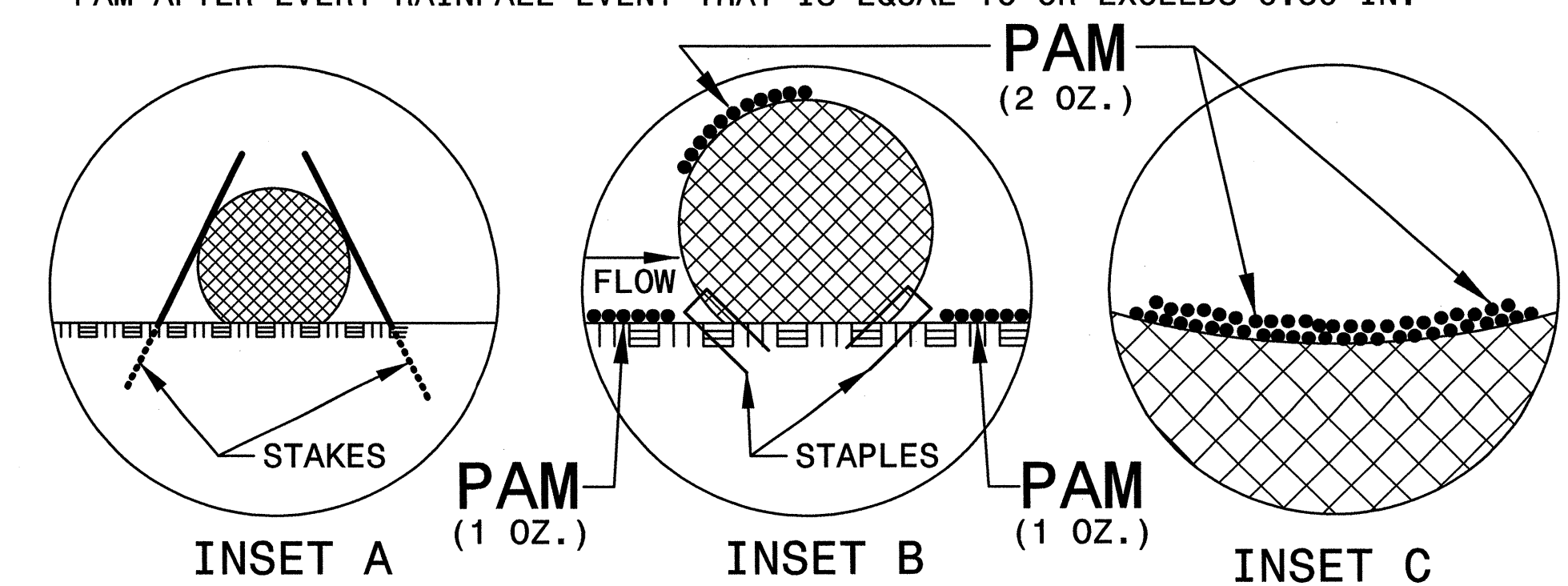
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

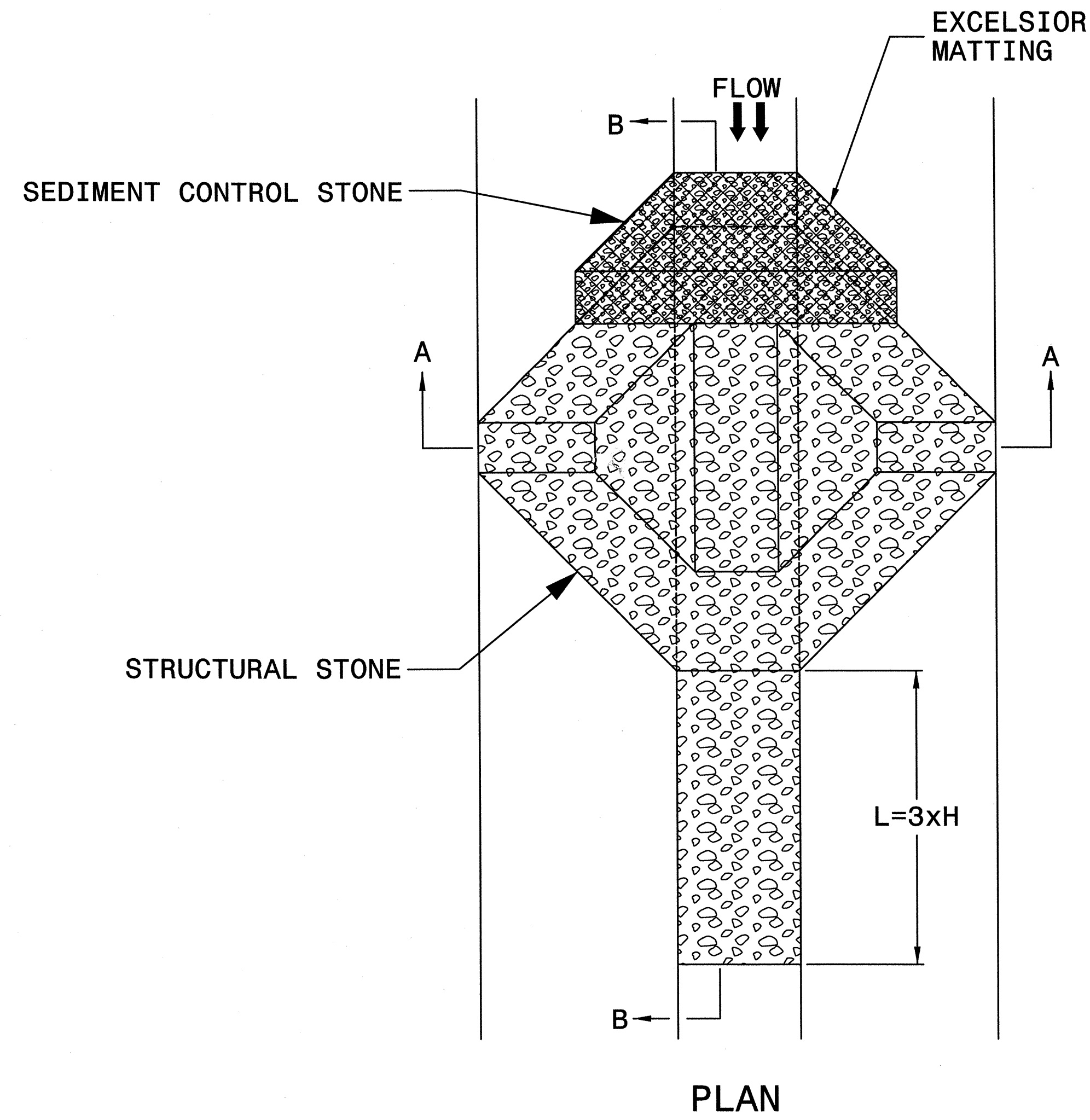
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

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



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

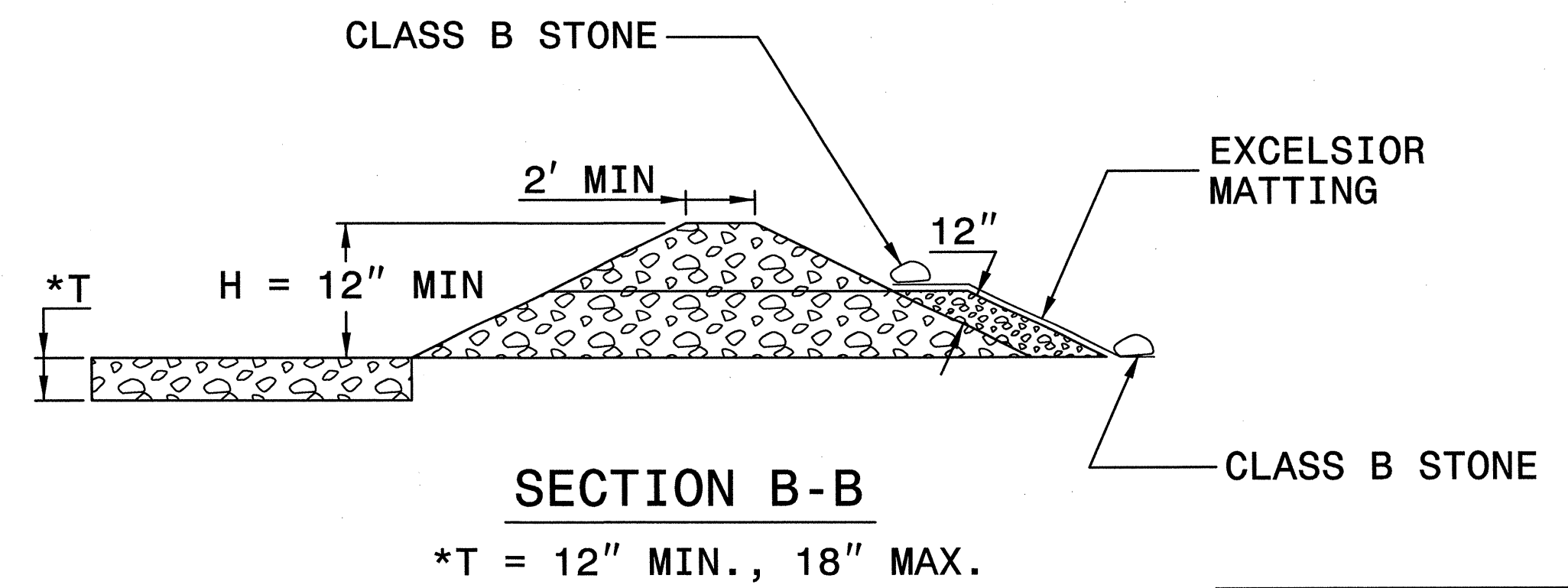
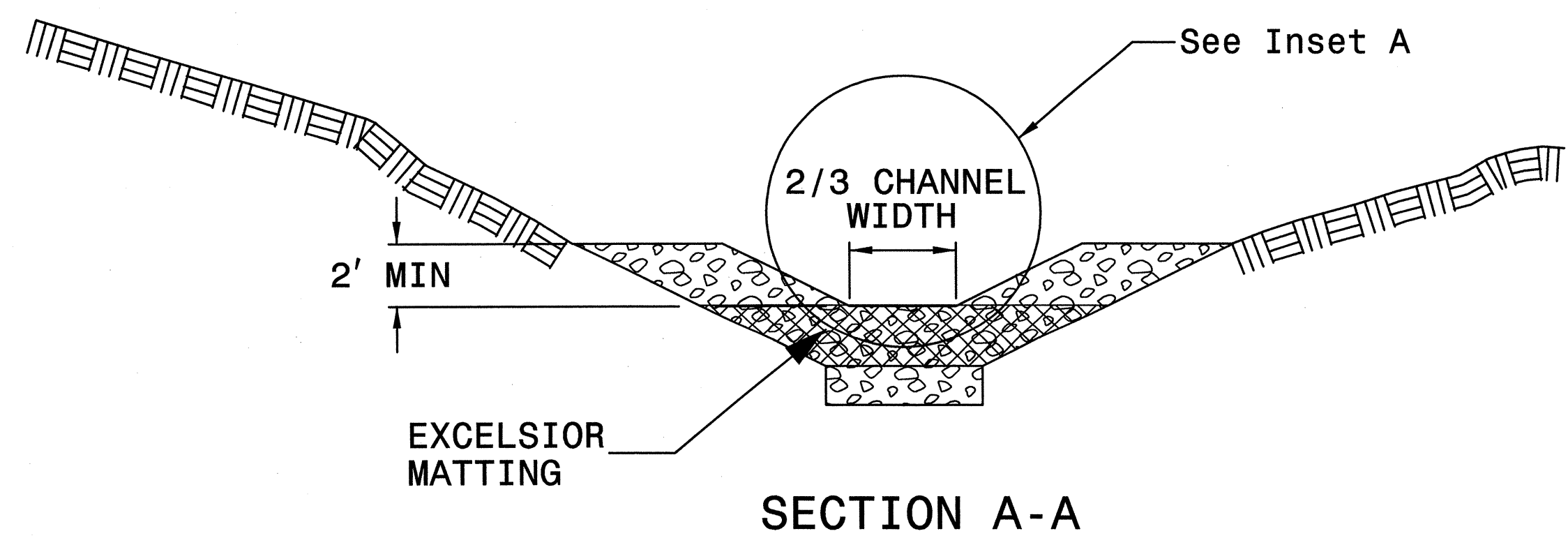
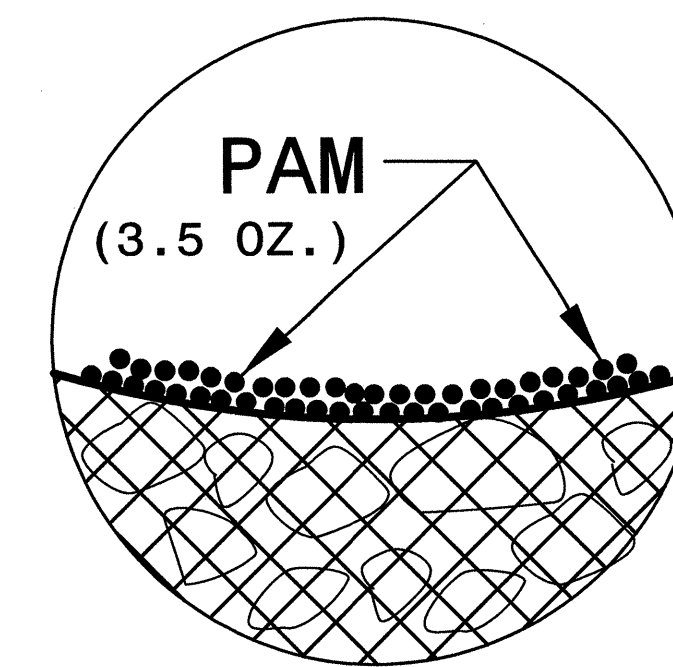


## NOTES

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.



NOT TO SCALE

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

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# 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.

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TO GREENSBORO

TO SALISBURY

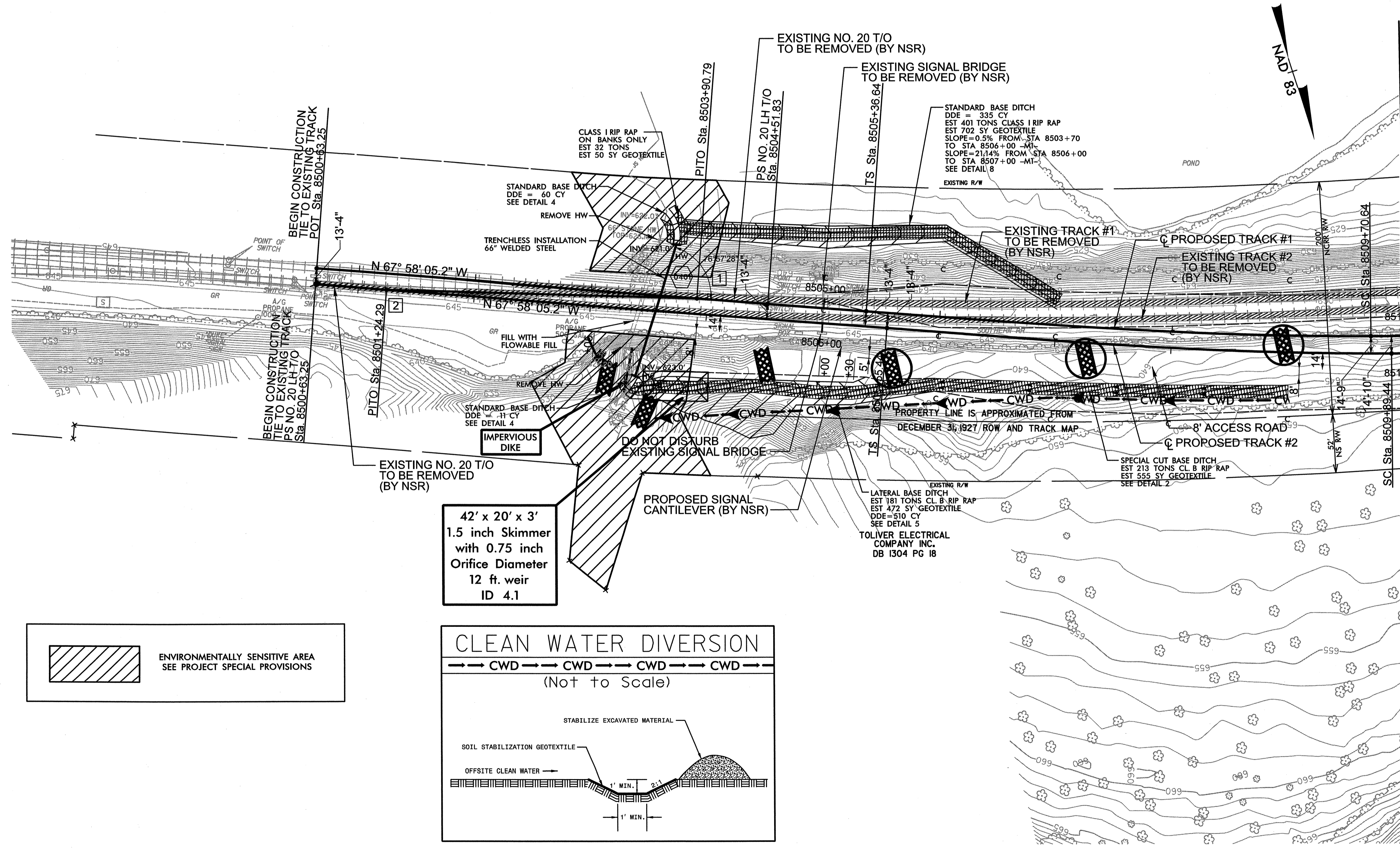
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I-2304AE	EC-04/CONST.04
R/W SHEET NO.	
Prepared in the Office of: <b>AECOM</b>	
NC FIRM LICENSE No. F-0342 701 Corporate Center Drive, Suite 475 Raleigh, NC 27601 (919) 854-6200 • (919) 854-6259 FAX	

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

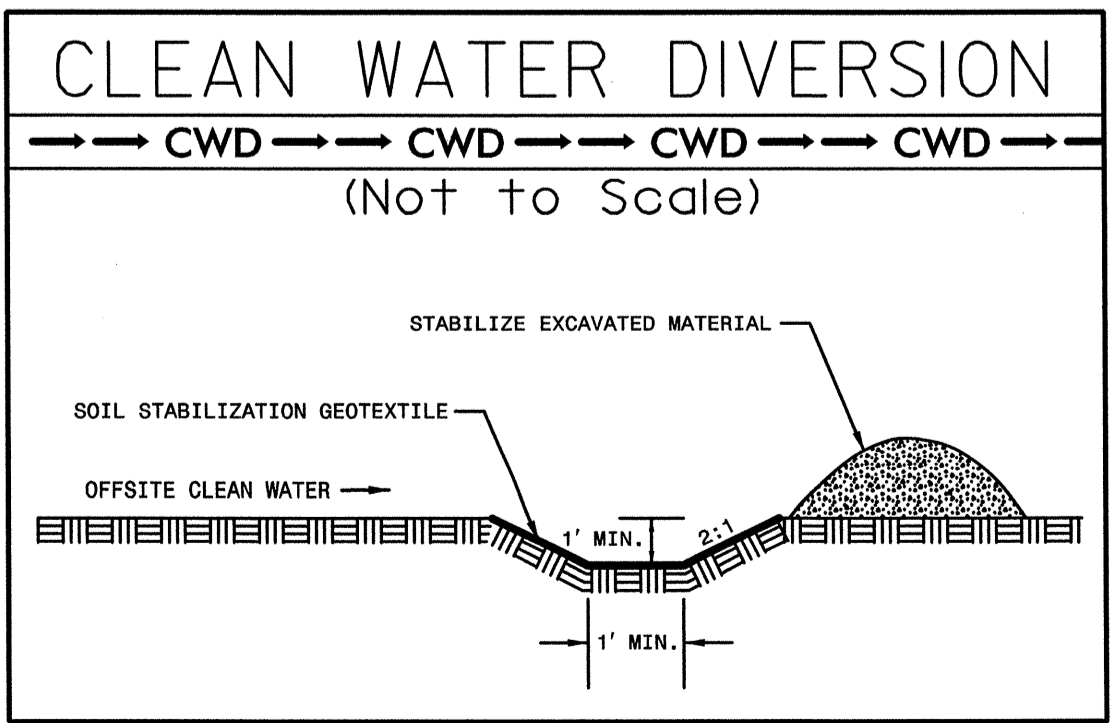
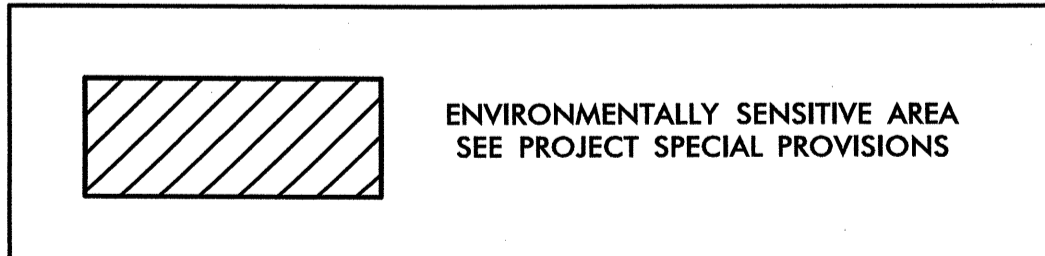
NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

INSTALL PIPE(S) IN JURISDICTIONAL AREAS ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4



42' x 20' x 3'  
1.5 inch Skimmer  
with 0.75 inch  
Orifice Diameter  
12 ft. weir  
ID 4.1



MATCHLINE -M1- STA. 8510+00.00 SEE PLAN SHEET 5

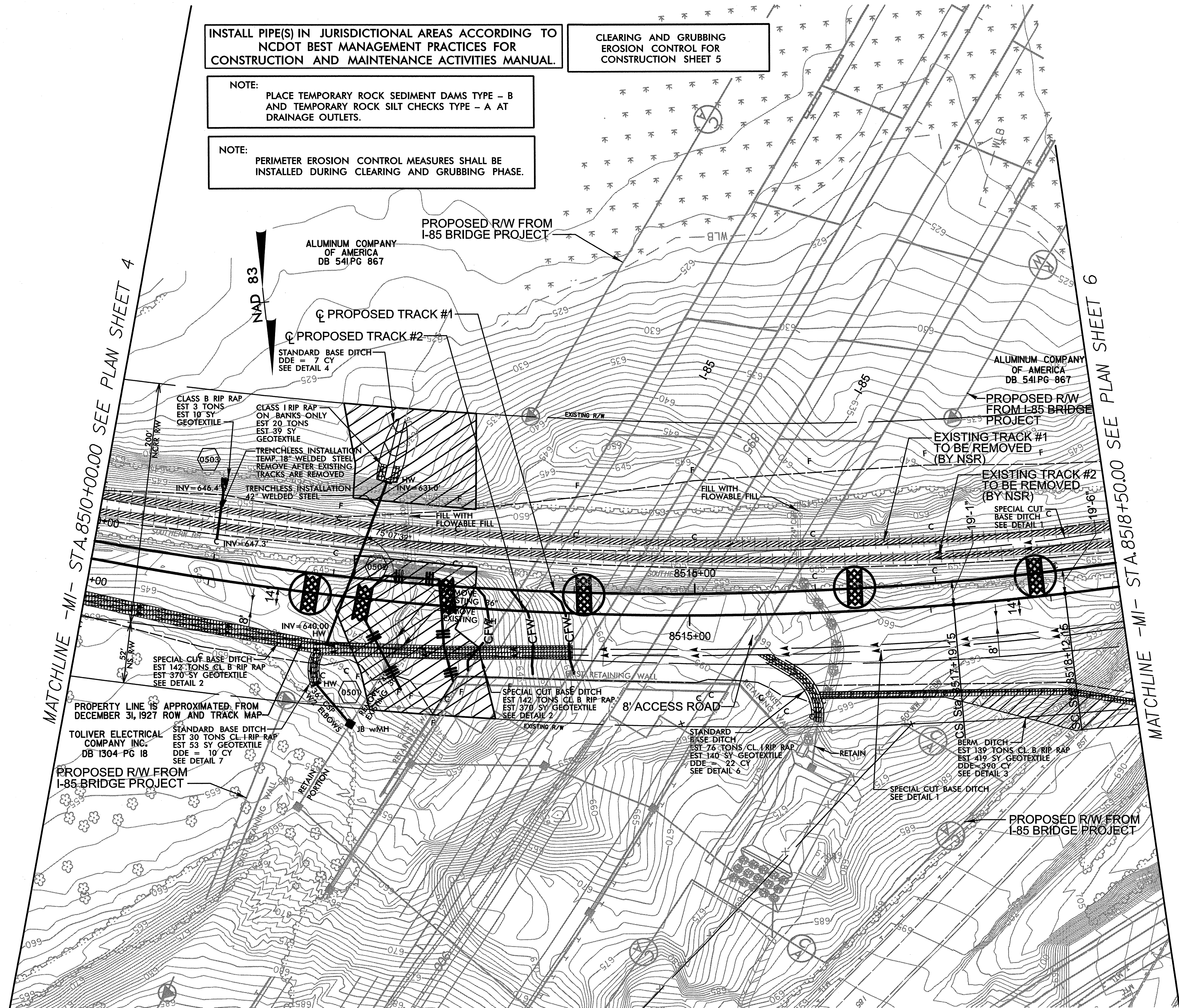
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INSTALL PIPE(S) IN JURISDICTIONAL AREAS ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5

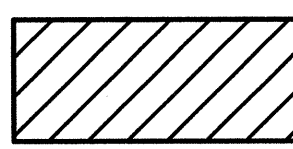
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.



MATCHLINE -M- STA. 8510+00.00 SEE PLAN SHEET 4

MATCHLINE -M- STA. 8518+50.00 SEE PLAN SHEET 6

 ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS



TO GREENSBORO ←

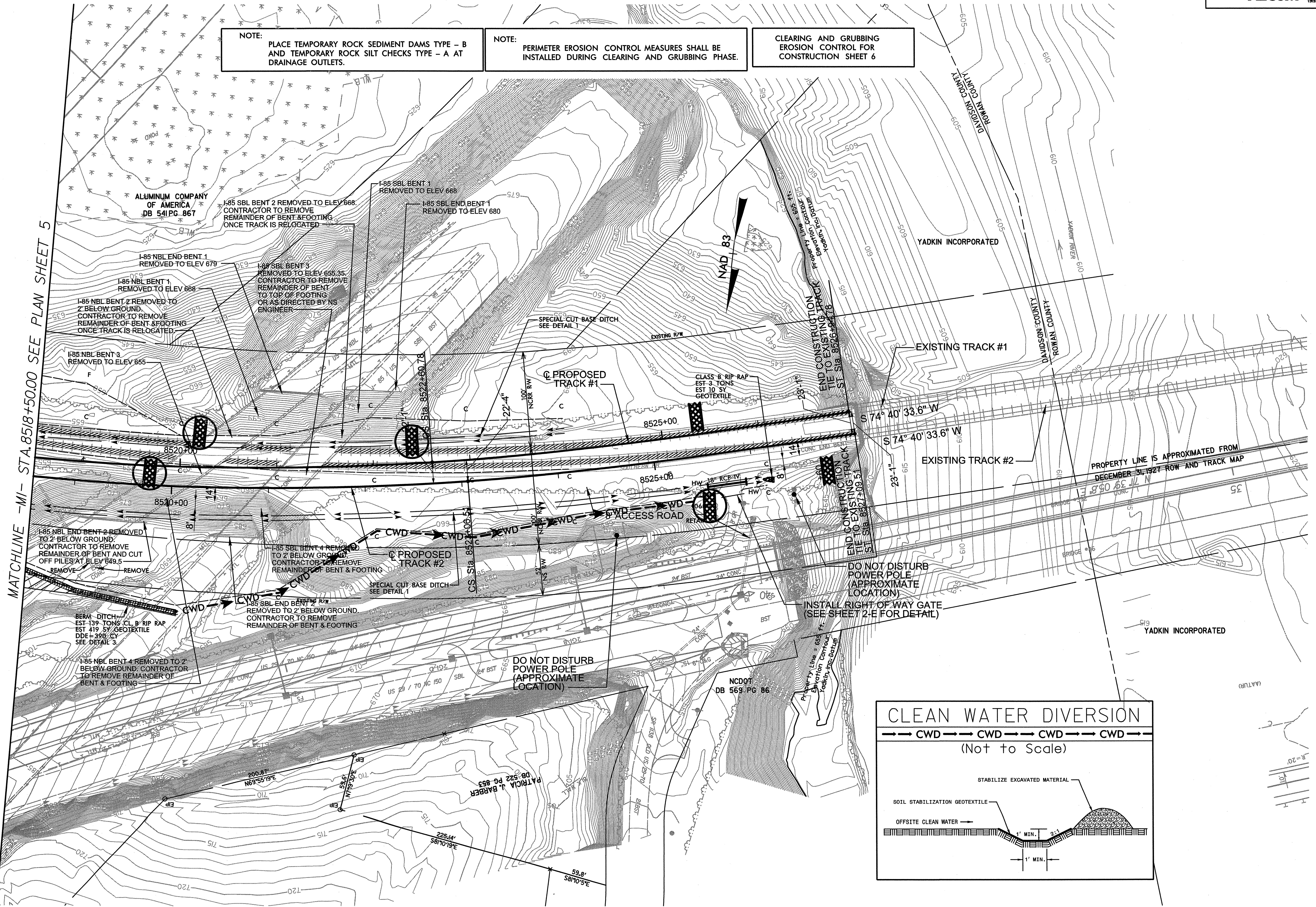
TO SALISBURY →

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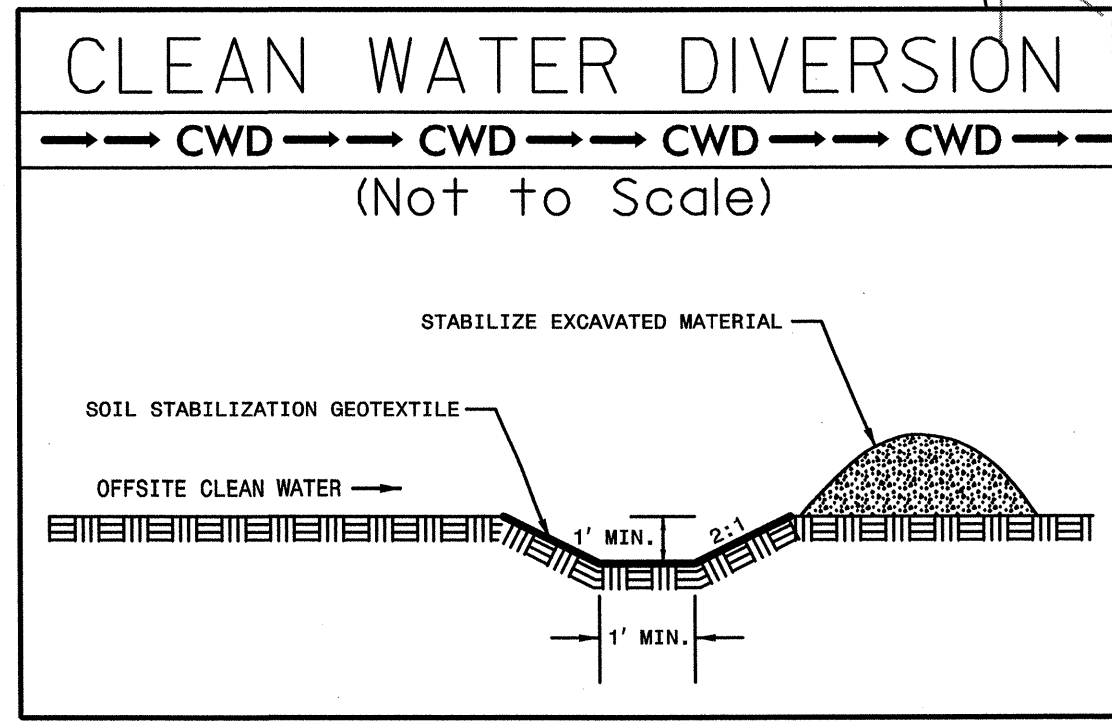
**NOTE:**  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

**NOTE:**  
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

**NOTE:**  
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 6



MATCHLINE -M1- STA. 8518+50.00 SEE PLAN SHEET 5



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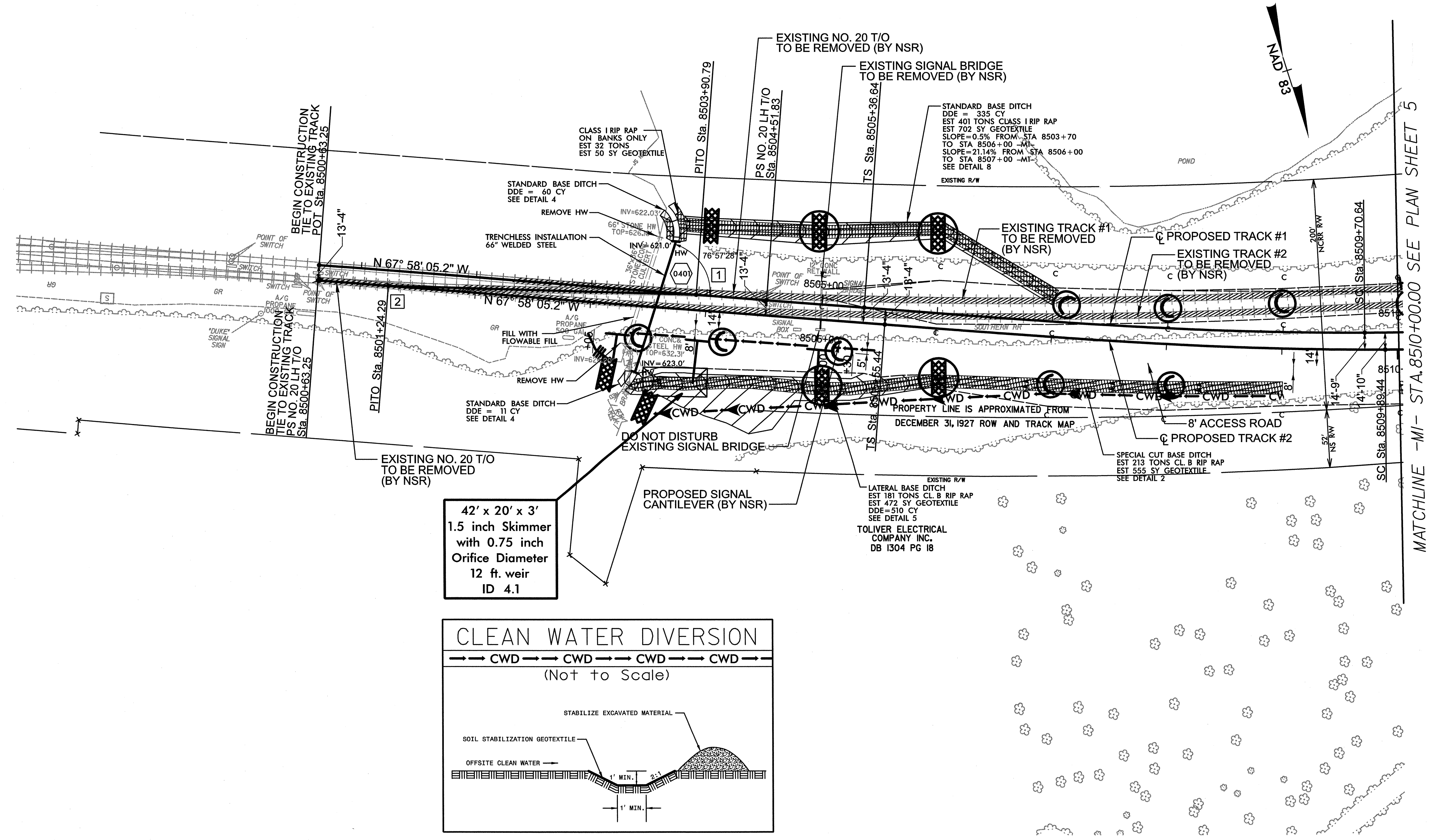
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PROJECT REFERENCE NO.	SHEET NO.
I-2304AE	EC-07/CONST.04
RW SHEET NO.	
<small>Prepared in the Office of:</small> <b>AECOM</b>	
<small>NC FIRM LICENSE No F-0342        701 Corporate Center Drive, Suite 475        Raleigh, NC 27603        (919) 854-6200 • (919) 854-6259/FAX</small>	

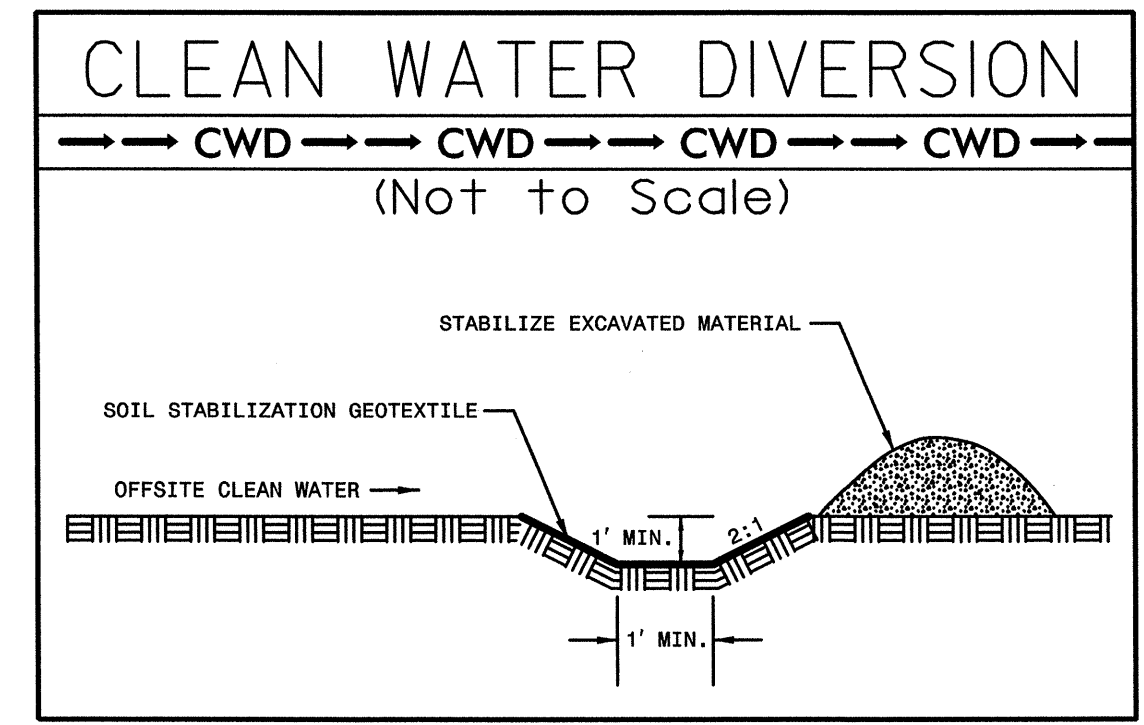
NOTE:  
 INSTALL TEMPORARY SLOPE DRAINS TO CONVEY RUNOFF FROM ROAD GRADE INTO PROPOSED DITCHES WITH A SPACING OF 1000 FT. OR AS DIRECTED.

Place Matting for Erosion Control on Slope as Work Allows.

STA 8503+10 RT TO STA 8508+00 RT



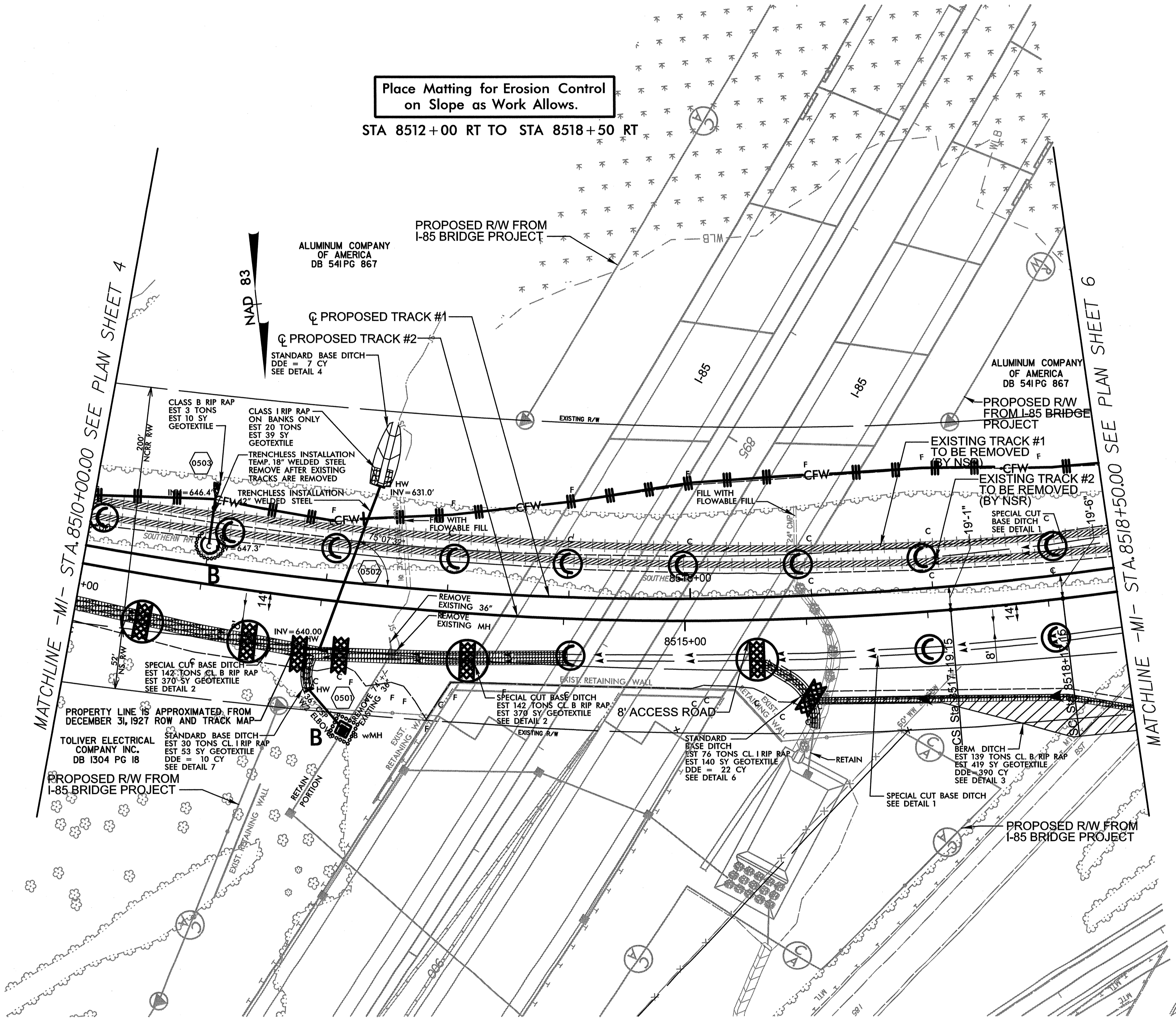
42' x 20' x 3'  
 1.5 inch Skimmer  
 with 0.75 inch  
 Orifice Diameter  
 12 ft. weir  
 ID 4.1



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PROJECT REFERENCE NO.	SHEET NO.
I-2304AE	EC-08/CONST.05
RW SHEET NO.	
Prepared in the Office of: <b>AECOM</b> NC FIRM LICENSE No F-0342 701 Corporate Center Drive, Suite 415 Raleigh, NC 27607 (919) 854-8200 (919) 854-8259 FAX	

Place Matting for Erosion Control on Slope as Work Allows.  
 STA 8512+00 RT TO STA 8518+50 RT



MATCHLINE -M1- STA. 8510+00.00 SEE PLAN SHEET 4

MATCHLINE -M1- STA. 8518+50.00 SEE PLAN SHEET 6

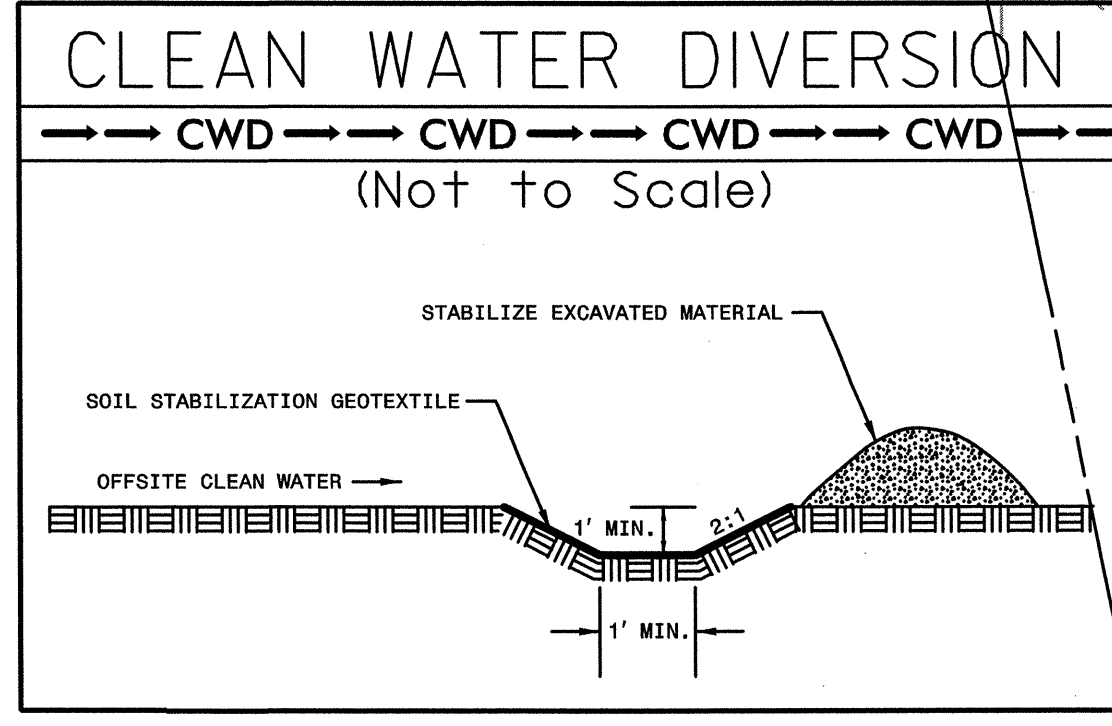
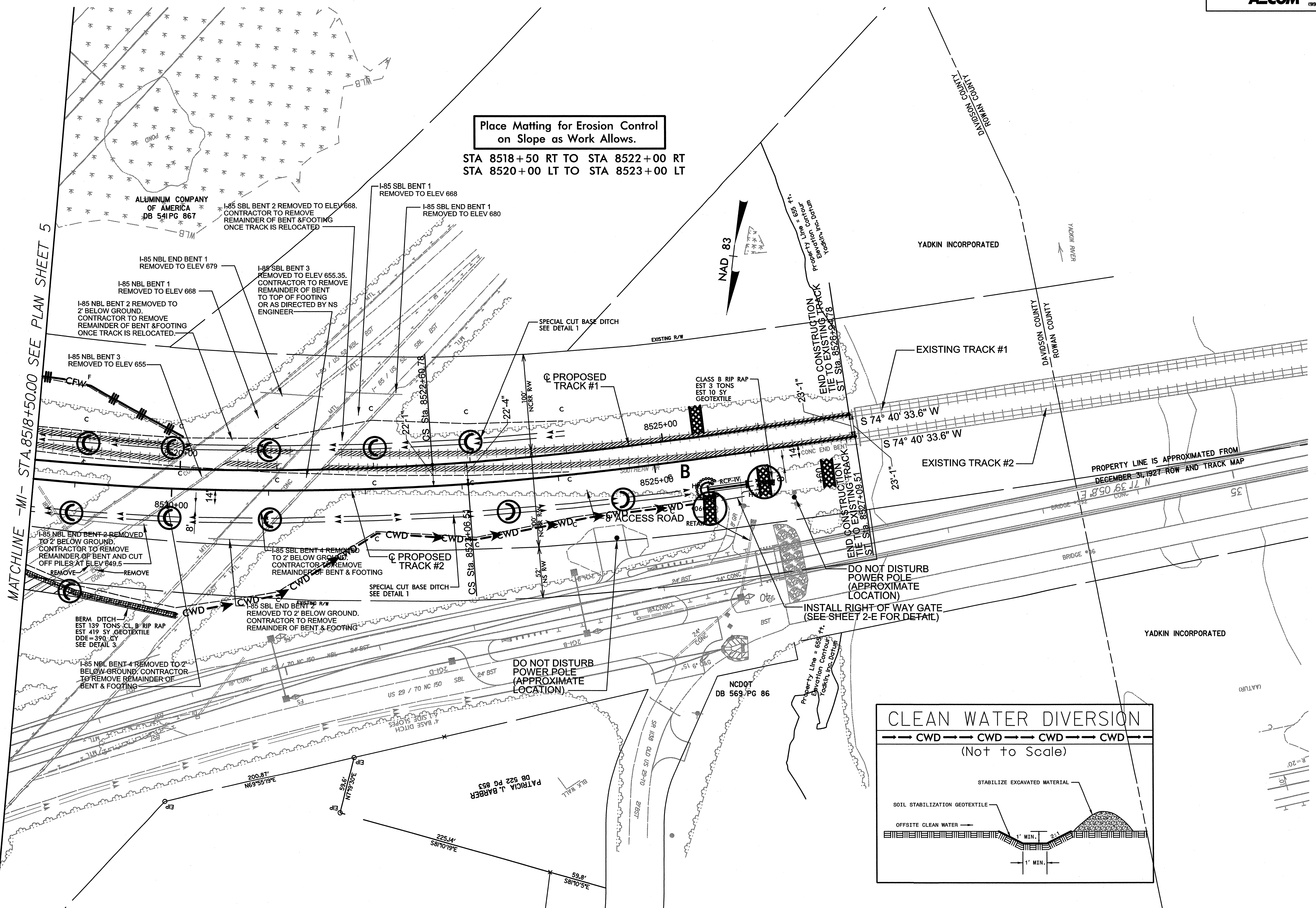
TO GREENSBORO

TO SALISBURY

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Place Matting for Erosion Control  
on Slope as Work Allows.

STA 8518+50 RT TO STA 8522+00 RT  
STA 8520+00 LT TO STA 8523+00 LT



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DATE: 4/16/2013  
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