

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4497	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

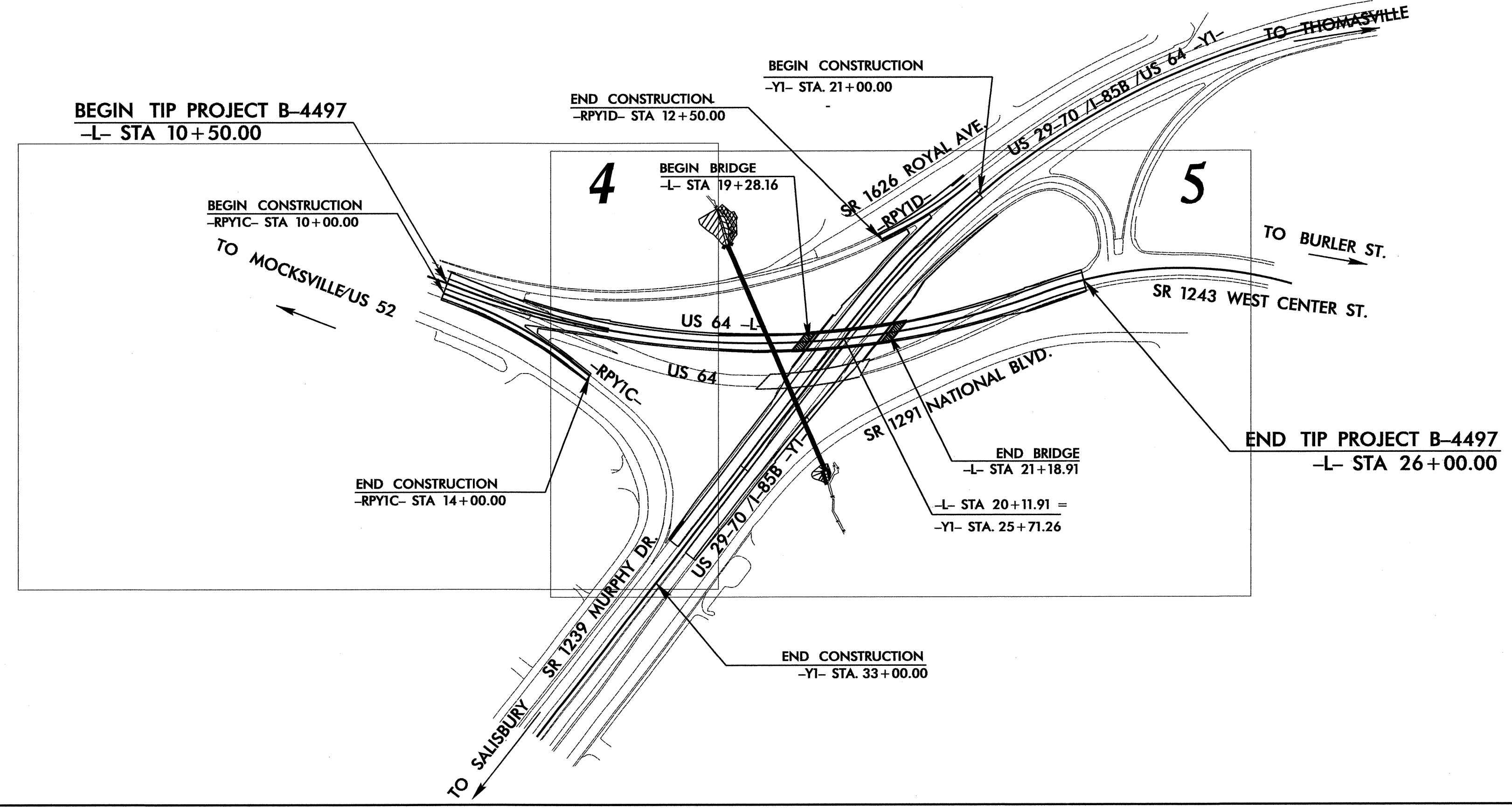
**EROSION AND SEDIMENT CONTROL MEASURES**

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
1630.02	Silt Basin Type B	SB
1633.01	Temporary Rock Silt Check Type-A	RS
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	RS
1633.02	Temporary Rock Silt Check Type-B	RS
	Wattle/Coir Fiber Wattle	W
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	W
1634.01	Temporary Rock Sediment Dam Type-A	SD
1634.02	Temporary Rock Sediment Dam Type-B	SD
1635.01	Rock Pipe Inlet Sediment Trap Type-A	RT
1635.02	Rock Pipe Inlet Sediment Trap Type-B	RT
1630.04	Stilling Basin	SB
1630.06	Special Stilling Basin	SB
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	SK
	Tiered Skimmer Basin	SK
	Infiltration Basin	IB

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

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

**LOCATION: REPLACE BRIDGE 39 OVER US 29-70 / I-85BUS ON US 64**  
**TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND STRUCTURES, AND RETAINING WALLS.**



**TIP PROJECT: B-4497**

**GRAPHIC SCALE**

0  
  
 PLANS

0  
  
 PROFILE (HORIZONTAL)

0  
  
 PROFILE (VERTICAL)

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:  
**ROADSIDE ENVIRONMENTAL UNIT**  
 1 South Wilmington St.  
 Raleigh, NC 27611  
**2012 STANDARD SPECIFICATIONS**

Roadway Standard Drawings

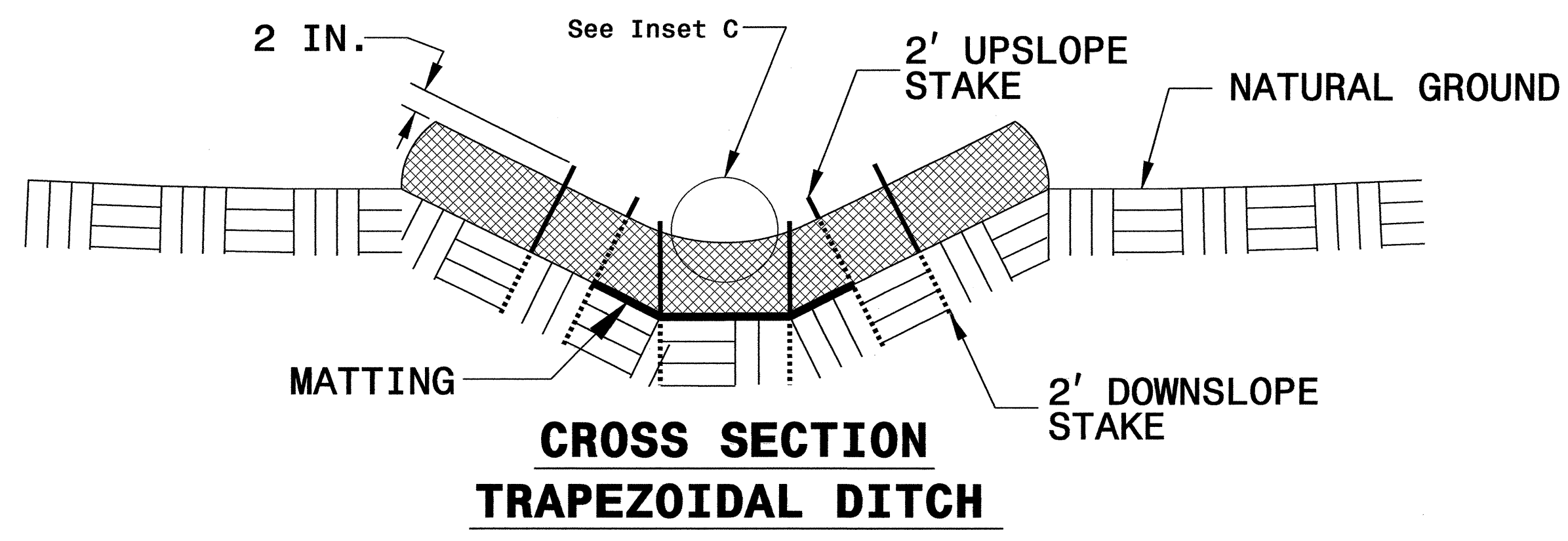
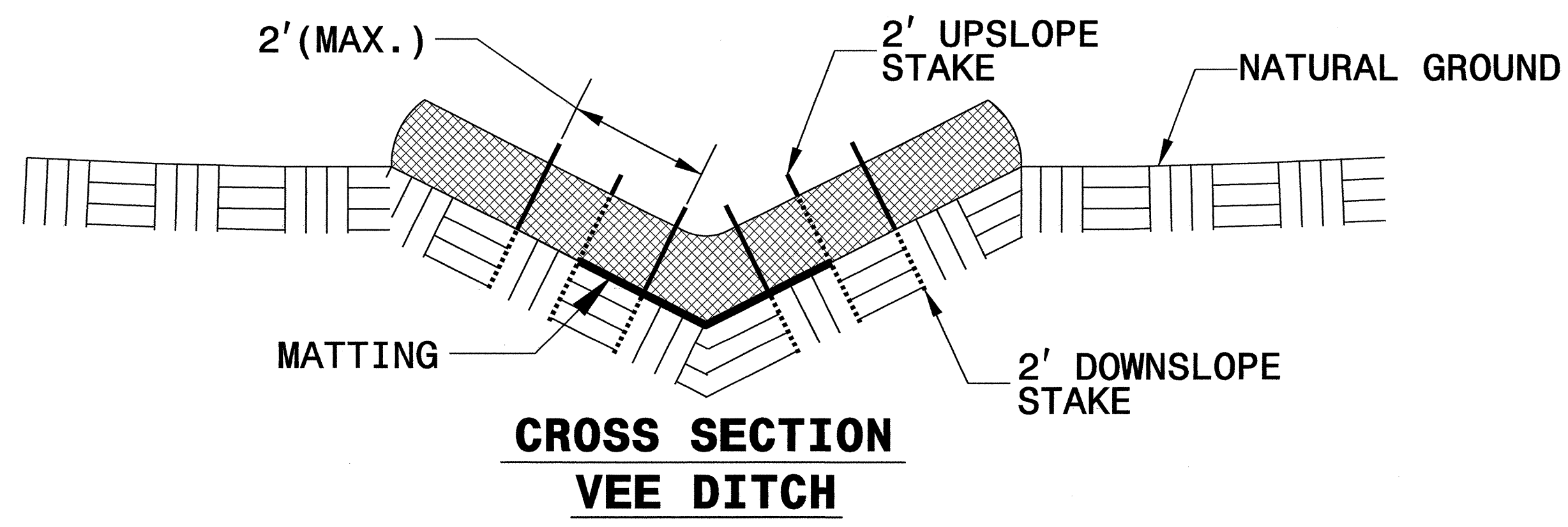
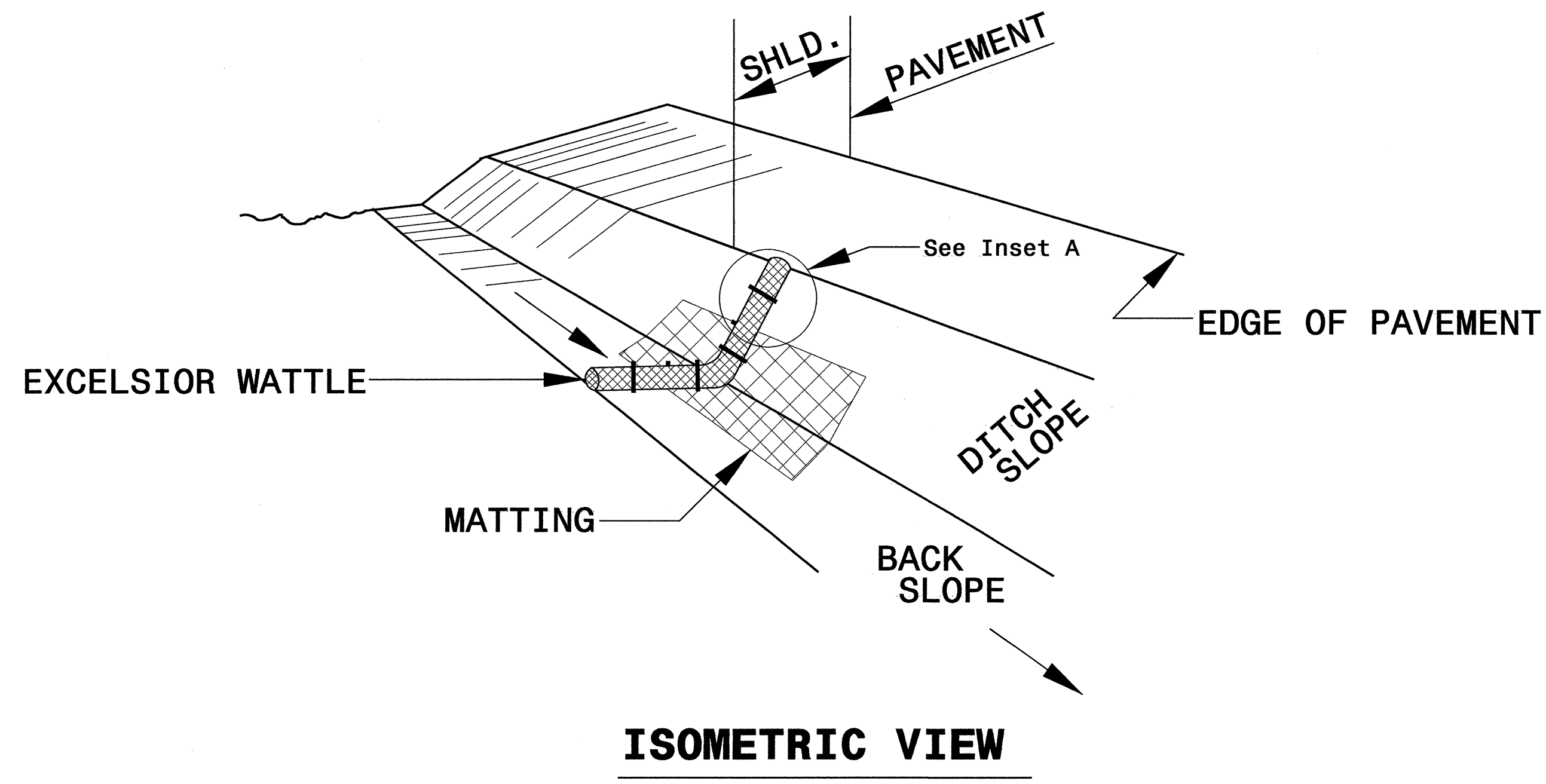
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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	

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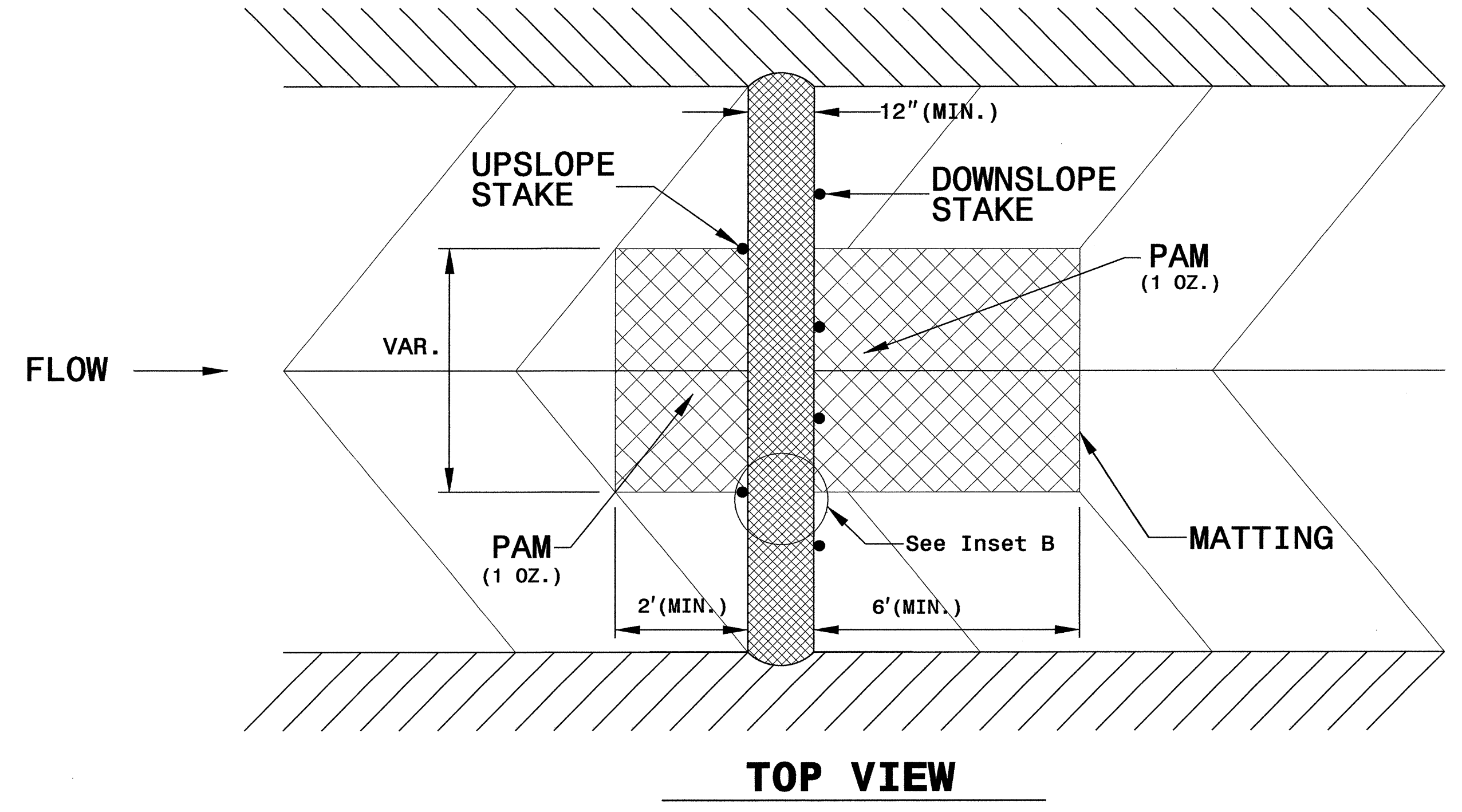
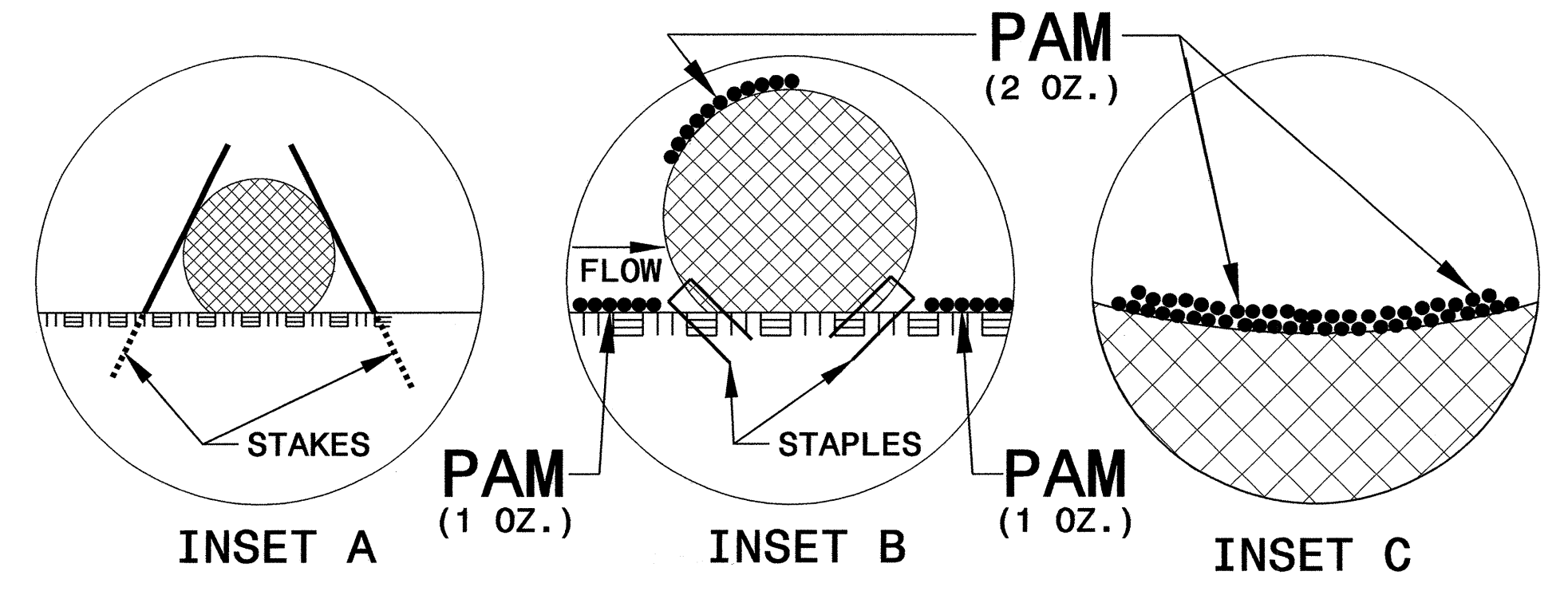
PROJECT REFERENCE NO. B-4497	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



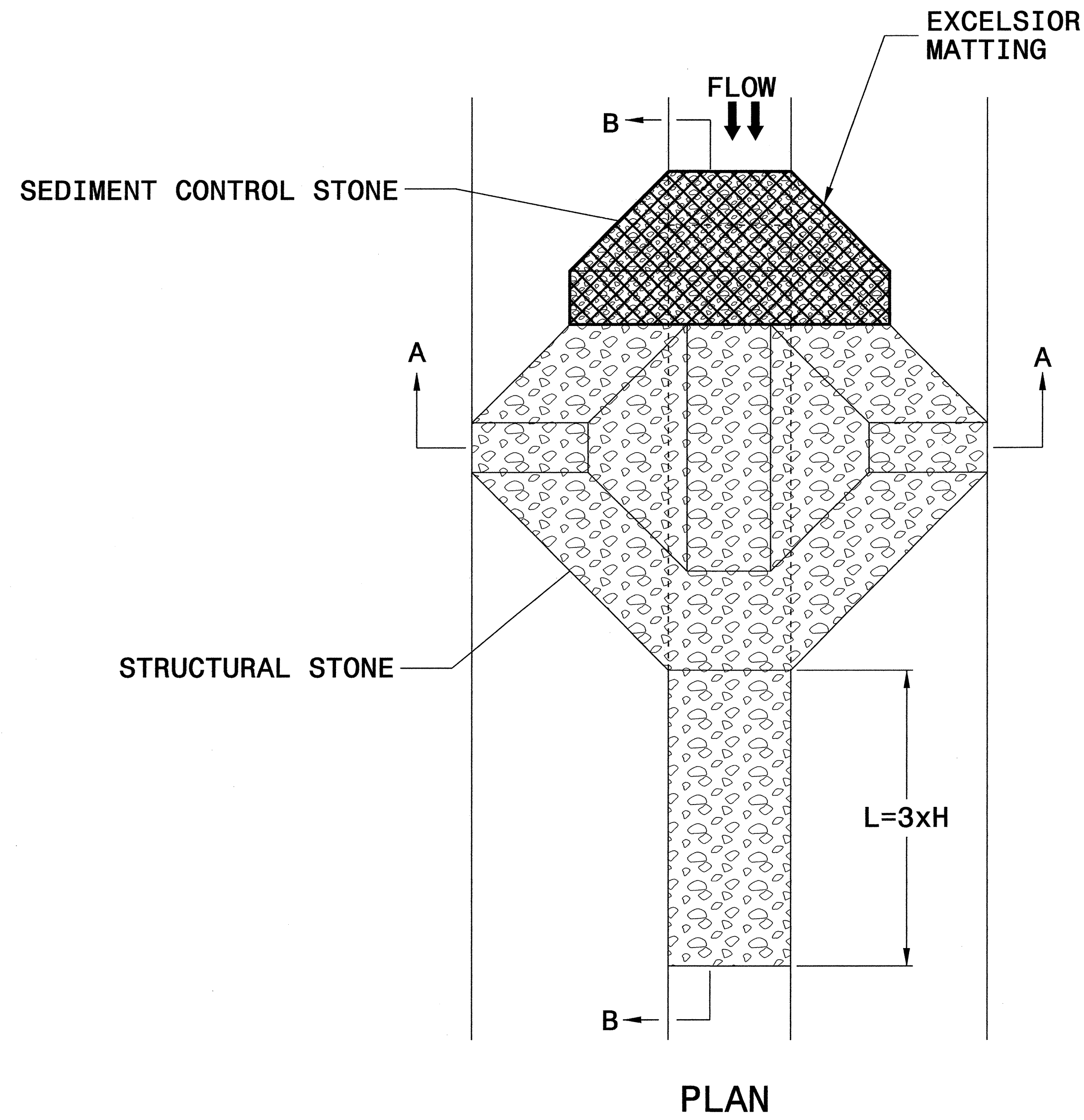
**NOTES:**

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



PROJECT REFERENCE NO.	SHEET NO.
B-4497	EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

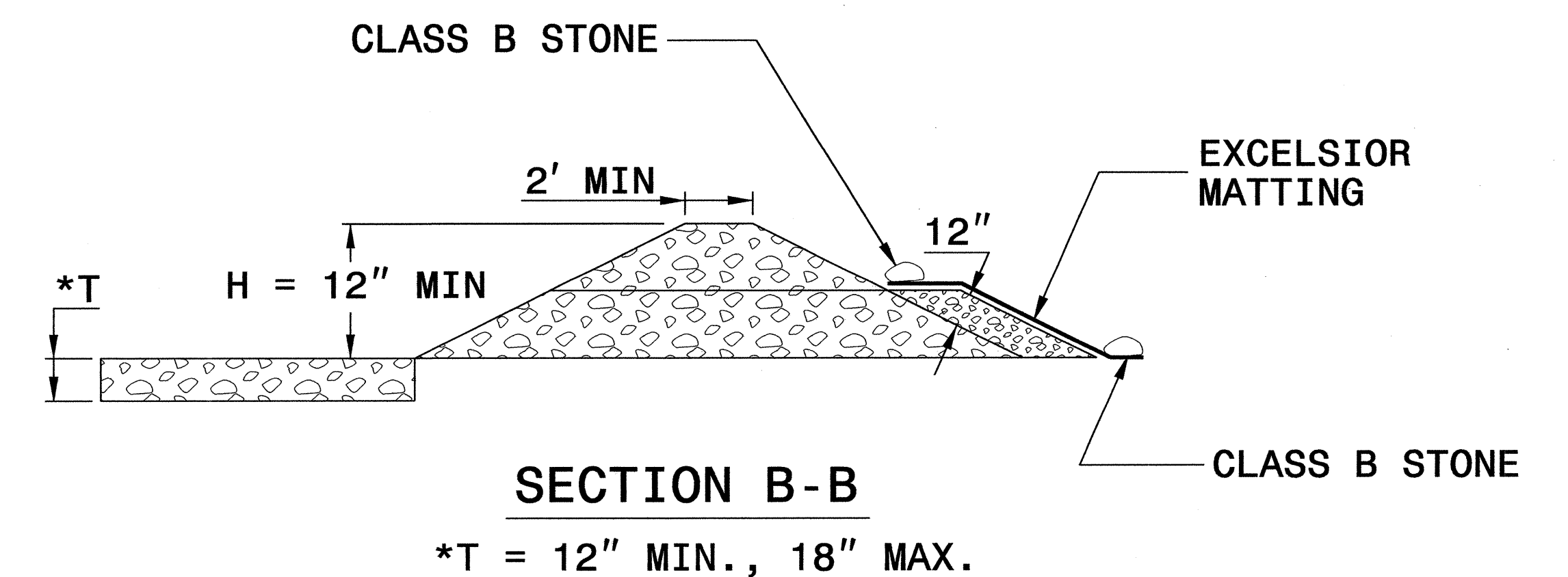
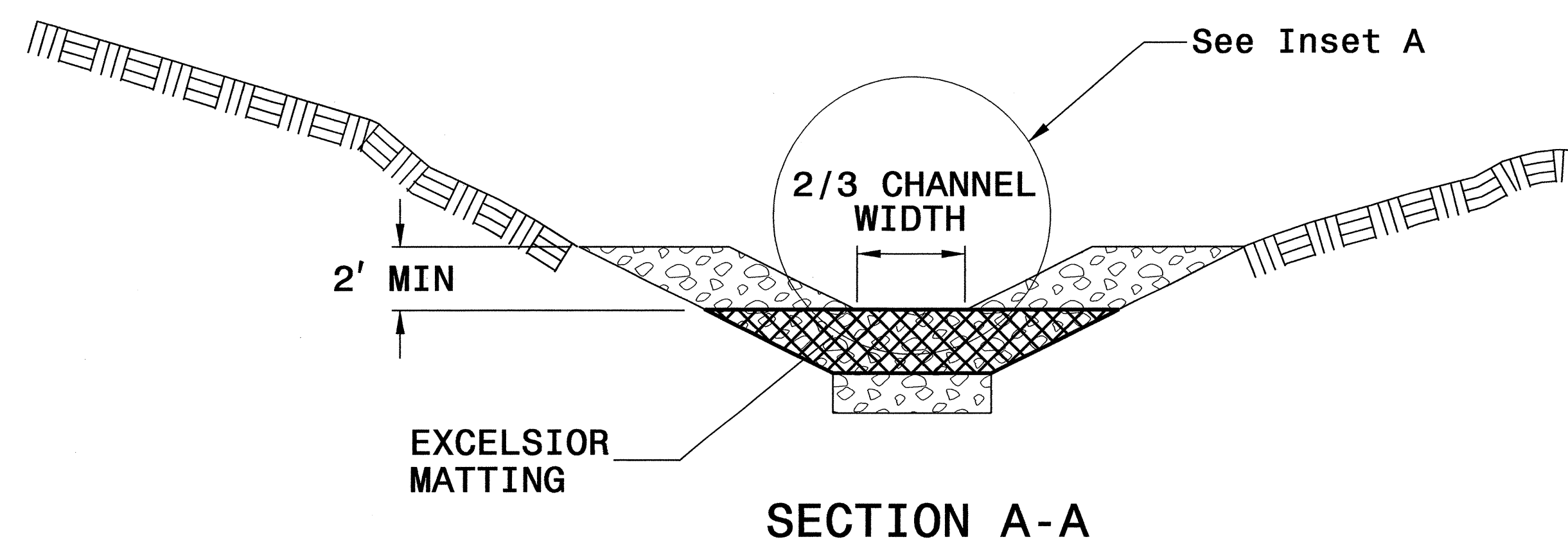
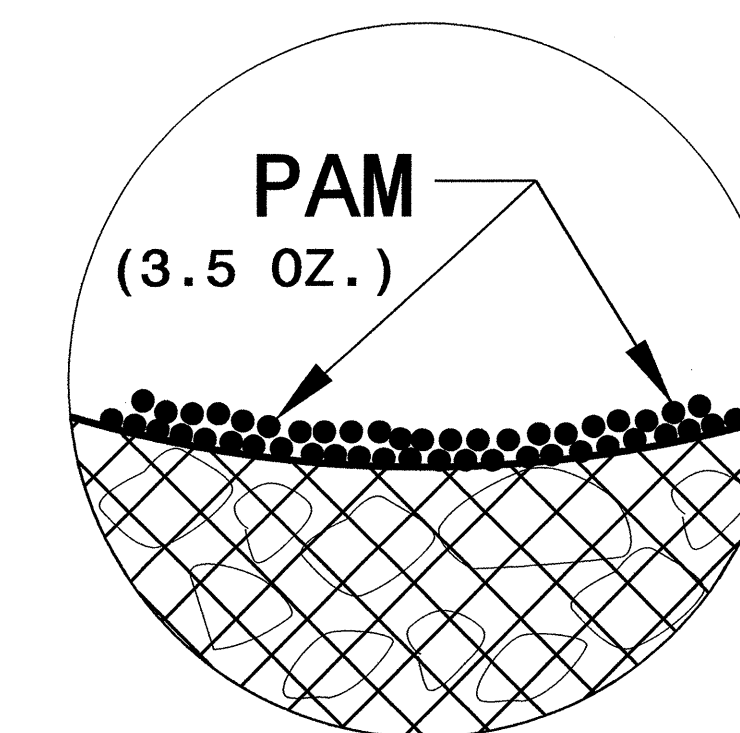


## NOTES

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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PROJECT REFERENCE NO. B-4497	SHEET NO. EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**SOIL STABILIZATION SUMMARY SHEET**

**MATTING FOR EROSION CONTROL**

**PERMANENT SOIL REINFORCEMENT MAT**

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	11+00	13+50	RT	545
4	-L-	13+00	14+00	RT	205
5	-L- DETAIL 8	24+56		LT	55
5	-Y!-	22+00	23+00	RT	115
5	-YI-	23+50	25+00	RT	150
			SUBTOTAL		1070
	MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER				8325
			TOTAL		9395
			SAY		9400

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
5	-YI-	27+00	28+50	LT	105
			SUBTOTAL		105
	ADDITIONAL PERM TO BE INSTALLED				475
			TOTAL		580
			SAY		600

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

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PROJECT REFERENCE NO. <i>B-4497</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.

B.17/99

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.

PROJECT REFERENCE NO. B-4497	SHEET NO. EC-04/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

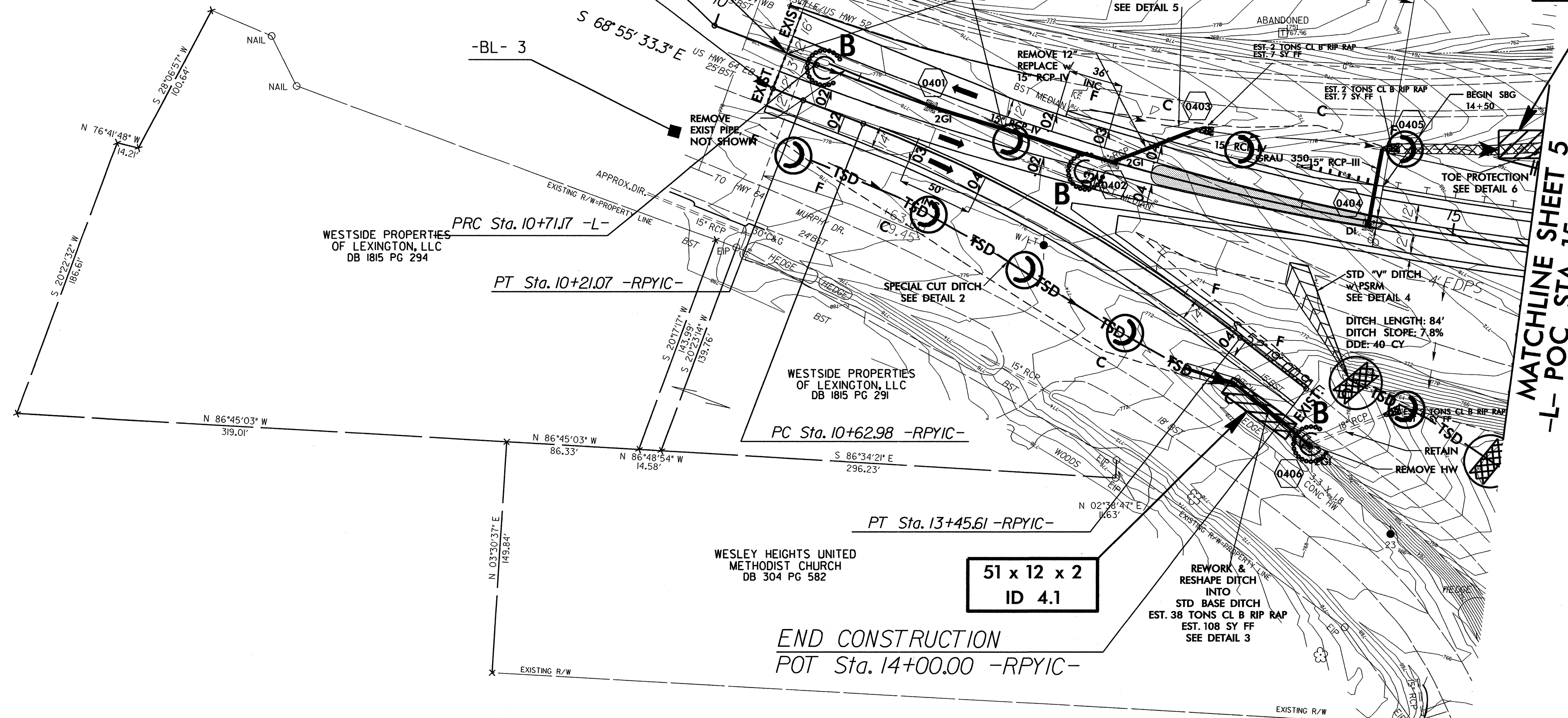
BM 1  
FROM -BL-3  
N 1° 32' 00.7" E 332.92'  
ELEV = 778.96'

NAD 83/NSRS 2007

BEGIN PROJECT B-4497  
POC Sta.10+50.00 -L-

PC Sta.10+00.00 -L-

BEGIN CONSTRUCTION  
POC Sta.10+00.00 -RPYIC- (24.69' RT)



48 x 18 x 2  
ID 4.2

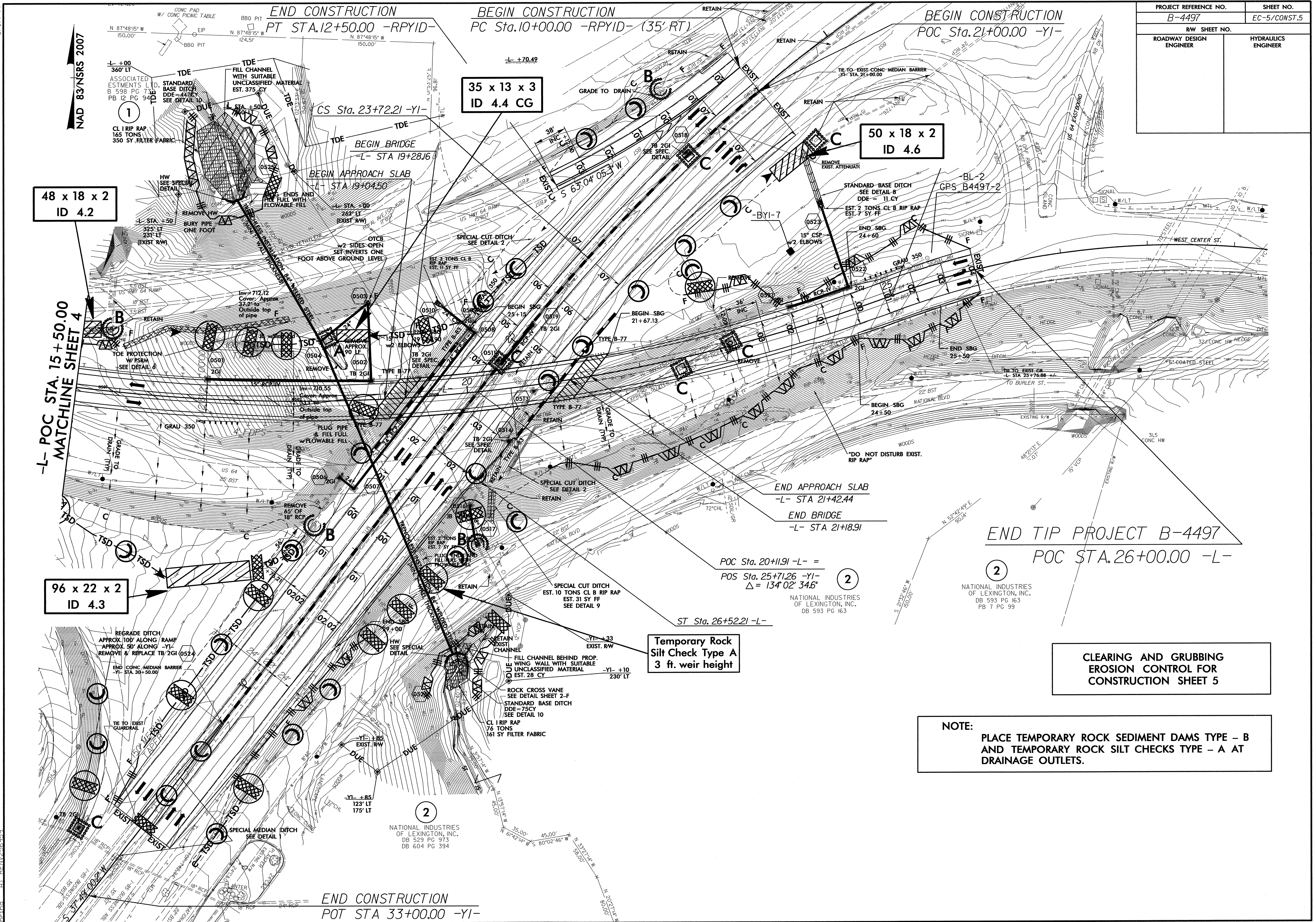
51 x 12 x 2  
ID 4.1

MATCHLINE SHEET 5  
-L- POC STA. 15 + 50.00

END CONSTRUCTION  
POT Sta.14+00.00 -RPYIC-

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PROJECT REFERENCE NO. B-4497	SHEET NO. EC-5/CONST.5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



48 x 18 x 2  
ID 4.2

35 x 13 x 3  
ID 4.4 CG

50 x 18 x 2  
ID 4.6

96 x 22 x 2  
ID 4.3

Temporary Rock  
Silt Check Type A  
3 ft. weir height

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.

-L- POC STA. 15+50.00  
MATCHLINE SHEET 4

END TIP PROJECT B-4497  
POC STA. 26+00.00 -L-

END CONSTRUCTION  
POT STA 33+00.00 -YI-

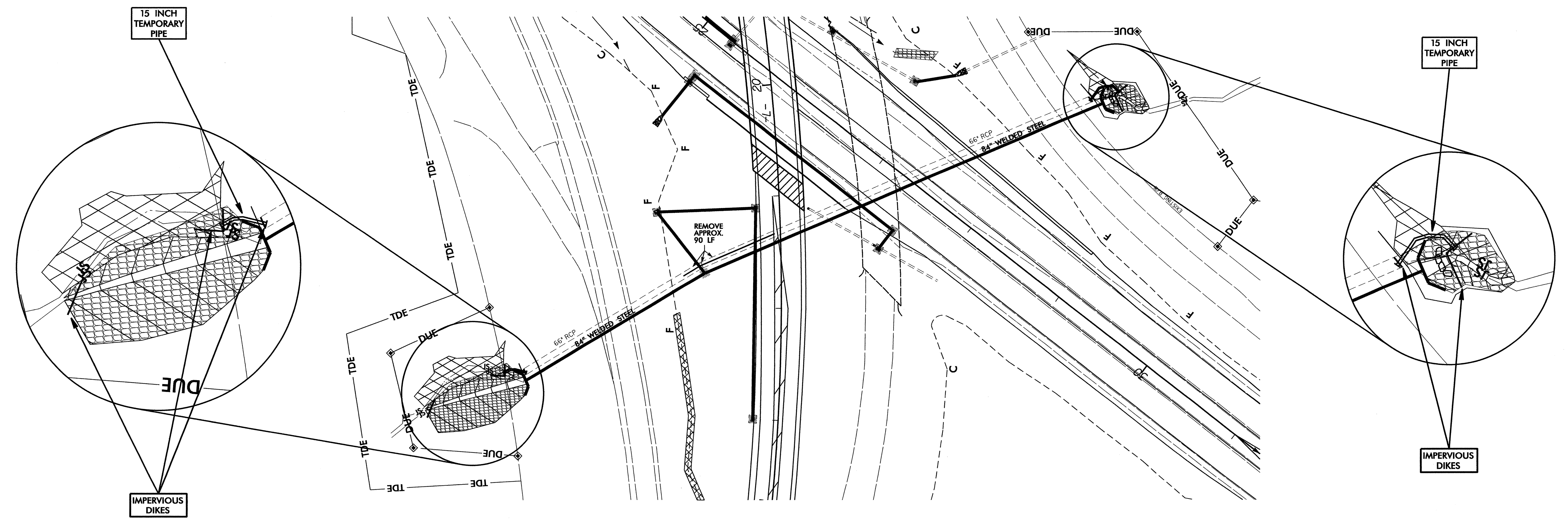
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PROJECT REFERENCE NO. B-4497	SHEET NO. EC-6/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# PIPE INSTALLATION SEQUENCE STA. 18+60 -L-

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT PIPE INSTALLATION.
2. CONSTRUCT IMPERVIOUS DIKES AND INSTALL 15" TEMPORARY PIPES, DIVERTING FLOW.
3. REMOVE PORTION OF THE WESTERN END OF EXISTING UPSTREAM HEADWALL ON EXISTING 66" RCP.
4. INSTALL PROPOSED 84" STEEL PIPE.
5. REMOVE APPROXIMATELY 90 FT. OF EXISTING 66" RCP AND OTCB. PLUG AND FILL REMAINING SECTIONS OF 66" RCP WITH FLOWABLE FILL.
6. REMOVE REMAINDER OF EXISTING UPSTREAM HEADWALL AND CONSTRUCT PROPOSED HEADWALLS FOR PROPOSED 84" STEEL PIPE.
7. CONSTRUCT UPSTREAM AND DOWNSTREAM CHANNEL REALIGNMENTS AND IMPROVEMENTS.
8. REMOVE IMPERVIOUS DIKES AND TEMPORARY PIPES, ALLOWING FLOW THROUGH PROPOSED PIPE.
9. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S), AND COMPLETE ROADWAY.

NAD 83/NSRS 2007





PROJECT REFERENCE NO. B-4497	SHEET NO. EC-07/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

BM 1  
FROM -BL-3  
N 1° 32' 00.7" E 332.92'  
ELEV = 778.96'

NAD 83/NSRS 2007

BEGIN PROJECT B-4497  
POC Sta.10+50.00 -L-

PC Sta.10+00.00 -L-

BEGIN CONSTRUCTION  
POC Sta.10+00.00 -RPYIC- (24.69' RT)

-BL- 3

WESTSIDE PROPERTIES OF LEXINGTON, LLC  
DB 1815 PG 294

PT Sta.10+21.07 -RPYIC-

PC Sta.10+62.98 -RPYIC-

WESLEY HEIGHTS UNITED METHODIST CHURCH  
DB 304 PG 582

PT Sta.13+45.61 -RPYIC-

END CONSTRUCTION  
POT Sta.14+00.00 -RPYIC-

ASSOCIATED INVESTMENTS LTD.

1 Place Matting for Erosion Control on Slope as Work Allows.

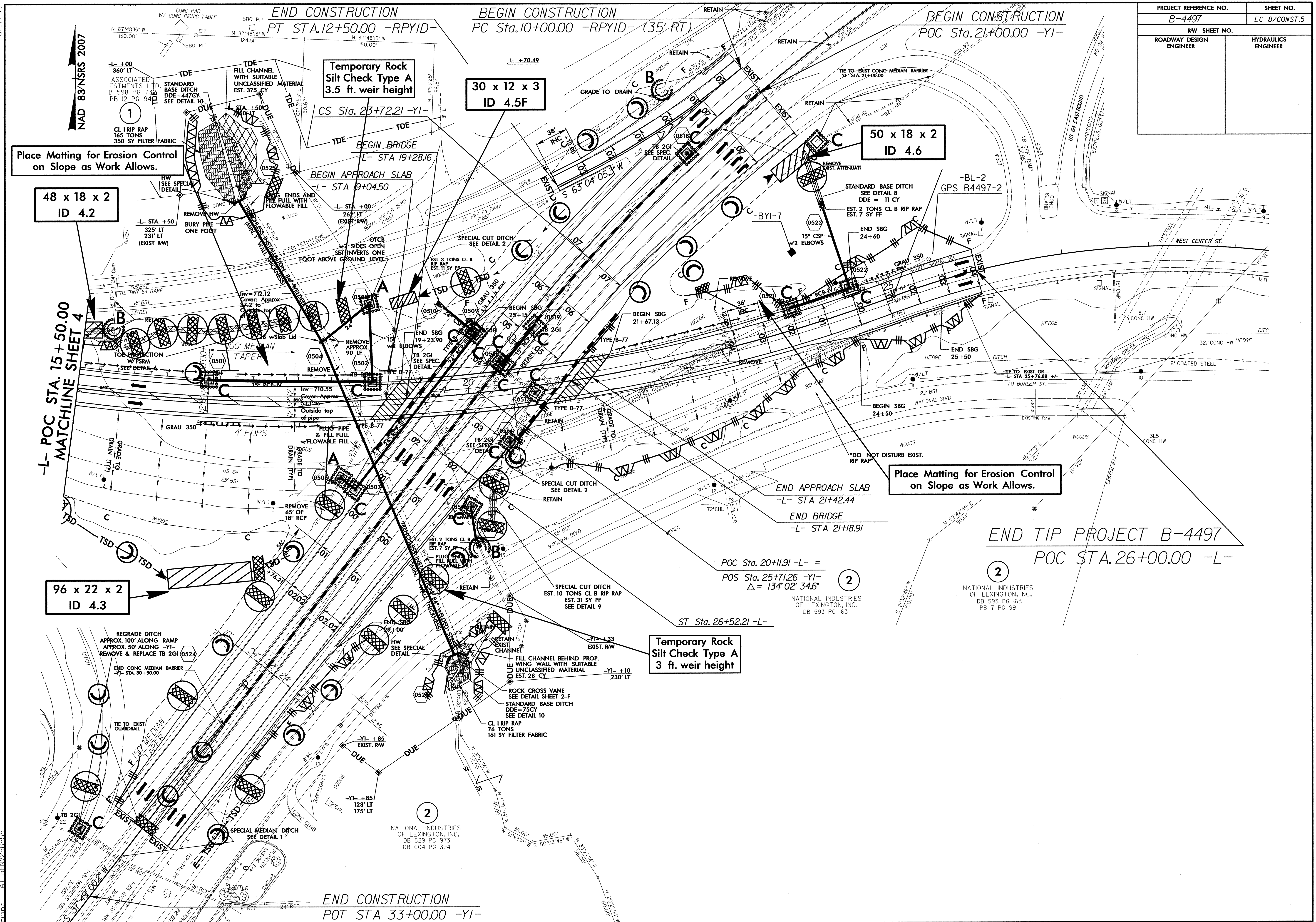
48 x 18 x 2  
ID 4.2

MATCHLINE SHEET 5  
-L- POC STA. 15+50.00

51 x 12 x 2  
ID 4.1

REWORK & RESHAPE DITCH INTO STD. BASE DITCH  
EST. 38 TONS CL. B RIP RAP  
EST. 108 SY FF  
SEE DETAIL 3

PROJECT REFERENCE NO.	SHEET NO.
B-4497	EC-8/CONST.5
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



Place Matting for Erosion Control on Slope as Work Allows.

48 x 18 x 2  
ID 4.2

Temporary Rock Silt Check Type A  
3.5 ft. weir height

30 x 12 x 3  
ID 4.5F

50 x 18 x 2  
ID 4.6

Place Matting for Erosion Control on Slope as Work Allows.

96 x 22 x 2  
ID 4.3

Temporary Rock Silt Check Type A  
3 ft. weir height

END TIP PROJECT B-4497  
POC STA. 26+00.00 -L-

2  
NATIONAL INDUSTRIES OF LEXINGTON, INC.  
DB 593 PG 163  
PB 7 PG 99

2  
NATIONAL INDUSTRIES OF LEXINGTON, INC.  
DB 529 PG 973  
DB 604 PG 394

END CONSTRUCTION  
POT STA 33+00.00 -YI-

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