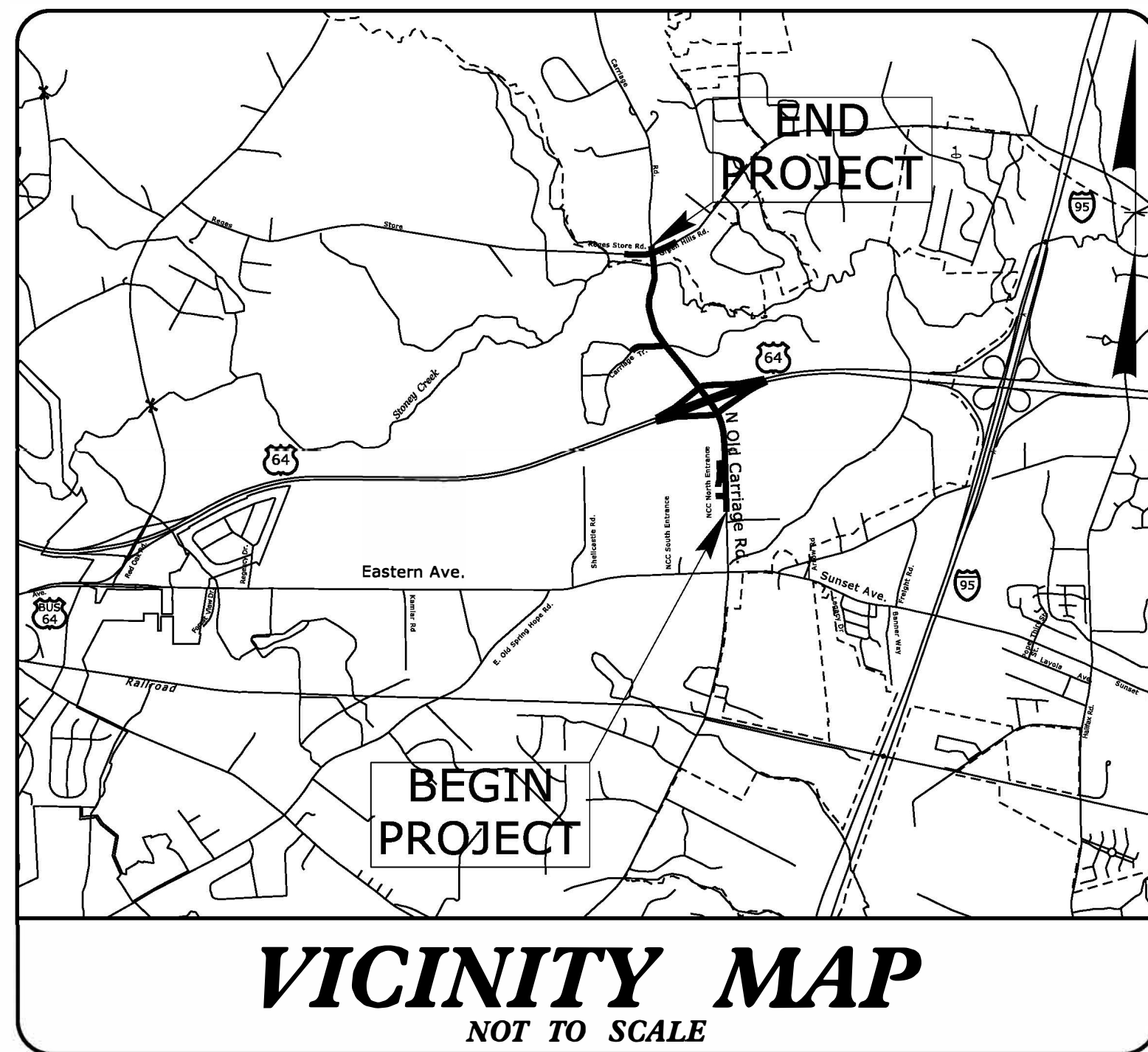


TIP PROJECT: U-5996

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

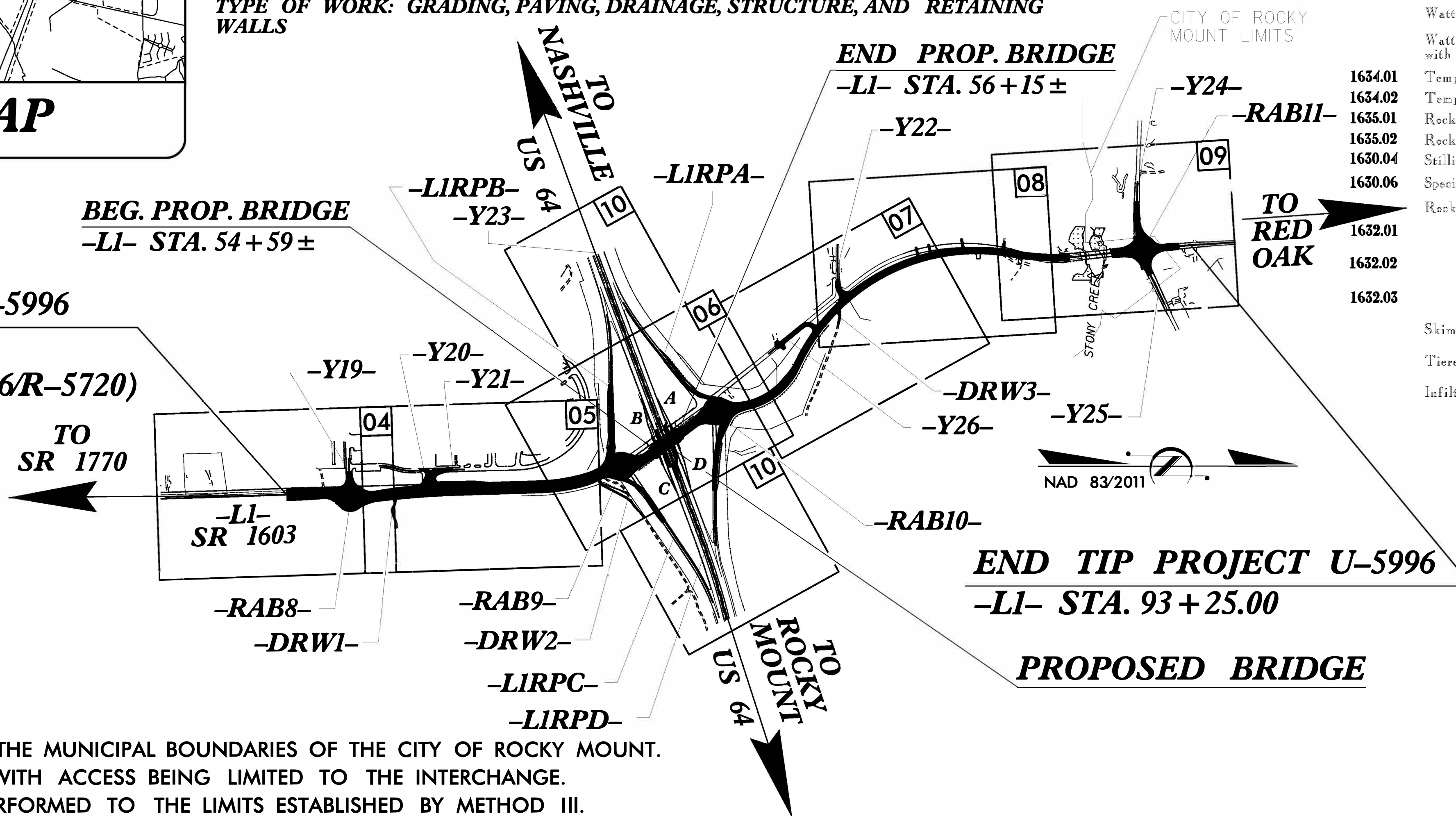
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

NASH COUNTY

**LOCATION: WIDEN SR 1603 (N. OLD CARRIAGE RD.)
FROM NORTH OF SR 1770 (EASTERN AVE./SUNSET AVE.)
TO SR 1601 (REGES STORE RD.)/SR 1609 (GREEN HILLS RD.).
TYPE OF WORK: GRADING, PAVING, DRAINAGE, STRUCTURE, AND RETAINING WALLS**

BEGIN TIP PROJECT U-5996

**-LI- STA. 30+70.00 =
-LI- STA. 30+69.99 (U-5026/R-5720)**

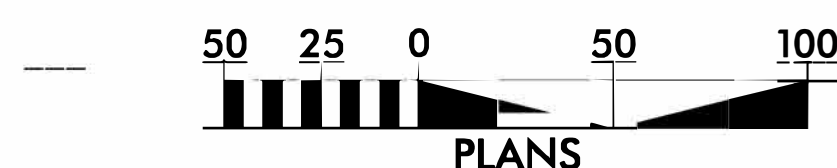


**END TIP PROJECT U-5996
-LI- STA. 93+25.00**

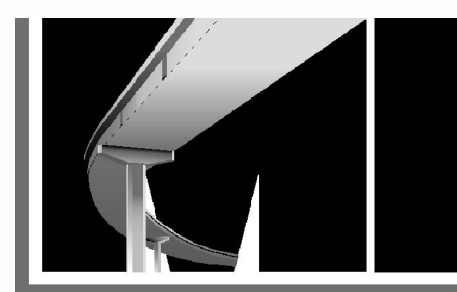
PROPOSED BRIDGE

A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF ROCKY MOUNT. THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO THE INTERCHANGE. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

GRAPHIC SCALE



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.



MI ENGINEERING, LLC

1011 SCHAUB DR, SUITE 100
RALEIGH, NC 27606
(919) 851-6606

Prepared In the Office of:

MI ENGINEERING, LLC

1011 SCHAUB DR, SUITE 100
RALEIGH, NC 27606

Designed by:

LINDA JOHNS, PE

NAME

4003

LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

The following roadway 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.

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
1630.02 Silt Basin Type B	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.03 Temporary Silt Ditch	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	1640.01 Coir Fiber Baffle
1631.01 Matting Installation	

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5996	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
47133.1.1			

EROSION AND SEDIMENT CONTROL MEASURES

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

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

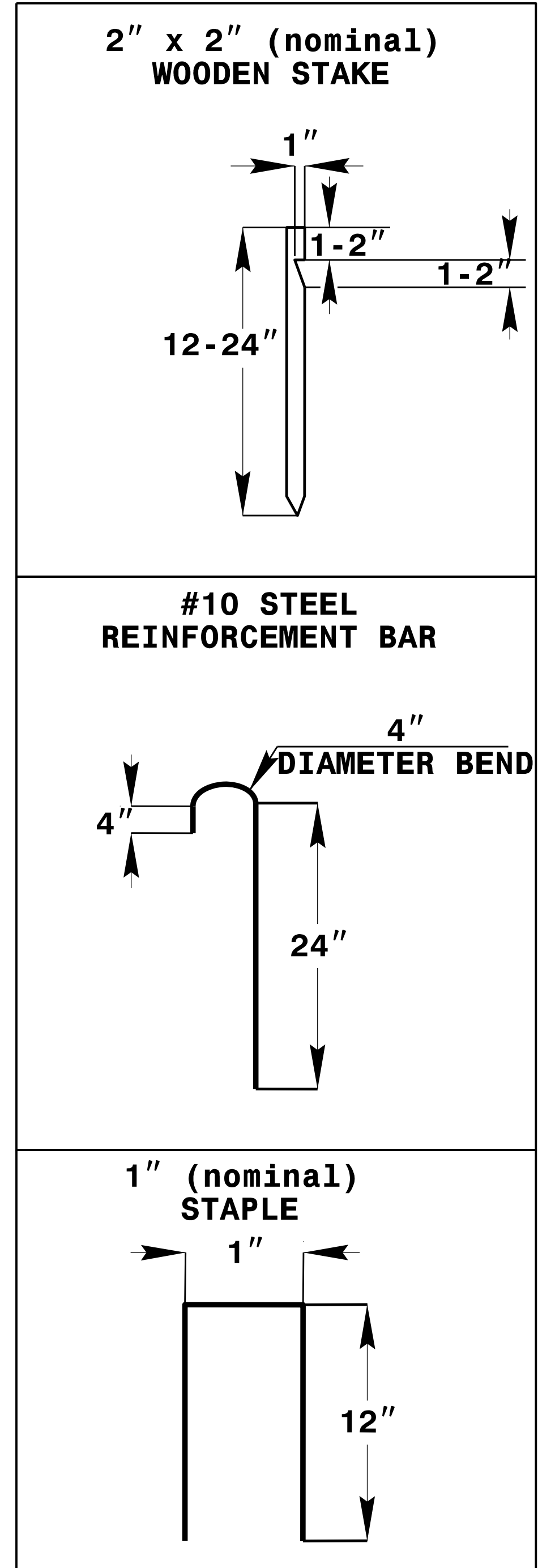
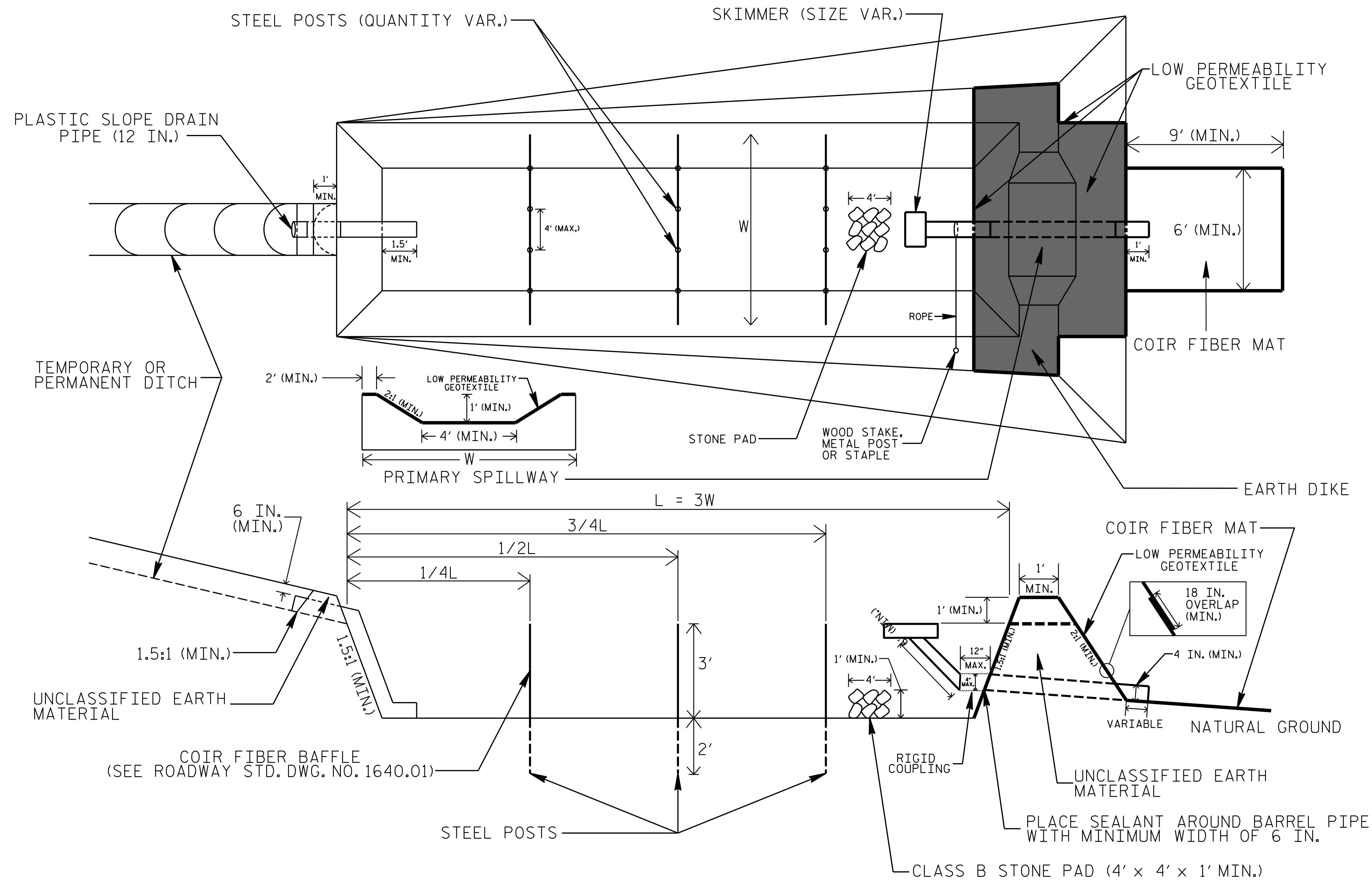
THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

Refer To E. C. Special Provisions for Special Considerations.

PROJECT REFERENCE NO. <i>U-5996</i>	SHEET NO. <i>EC-2A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL (EAST)



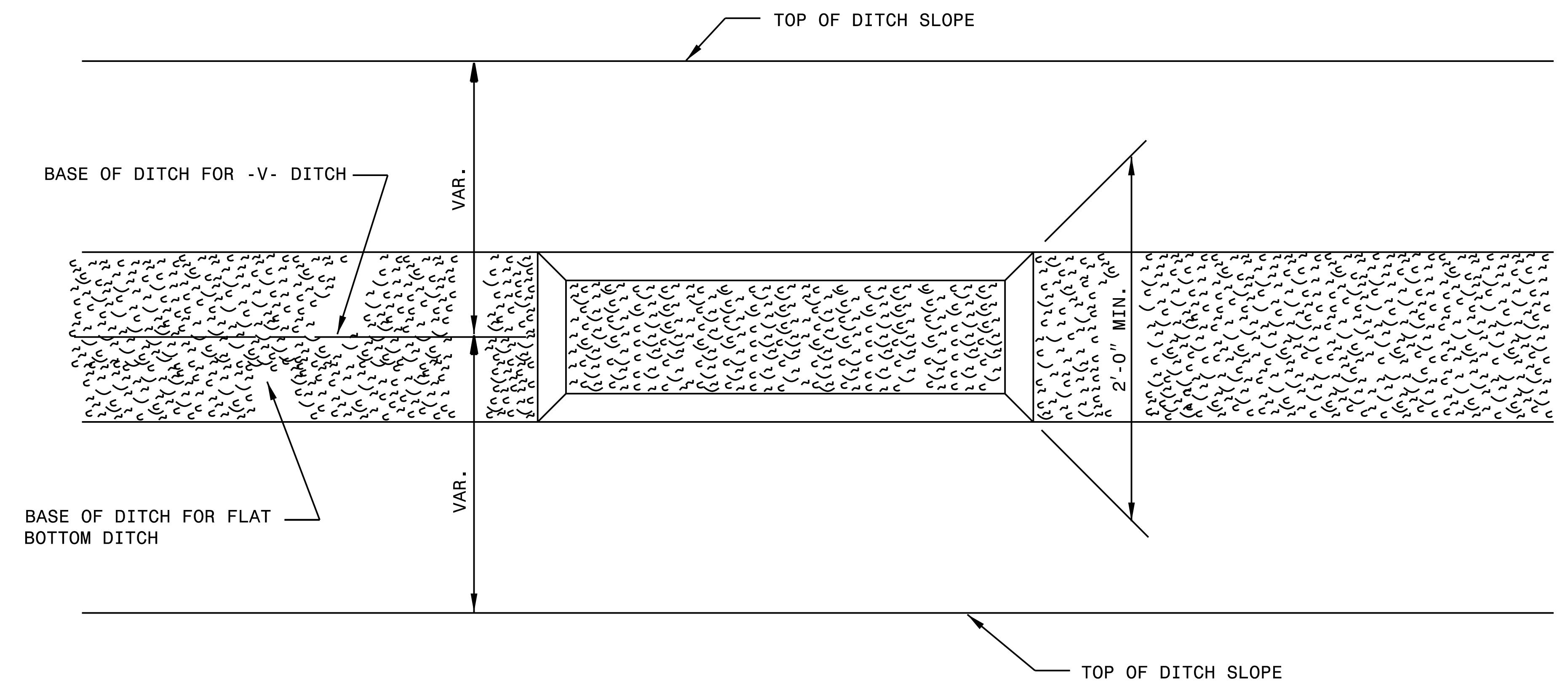
NOTES

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 PRIMARY SPILLWAY WEIR 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 OR TARP AS DIRECTED.
6. LOW PERMEABILITY GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

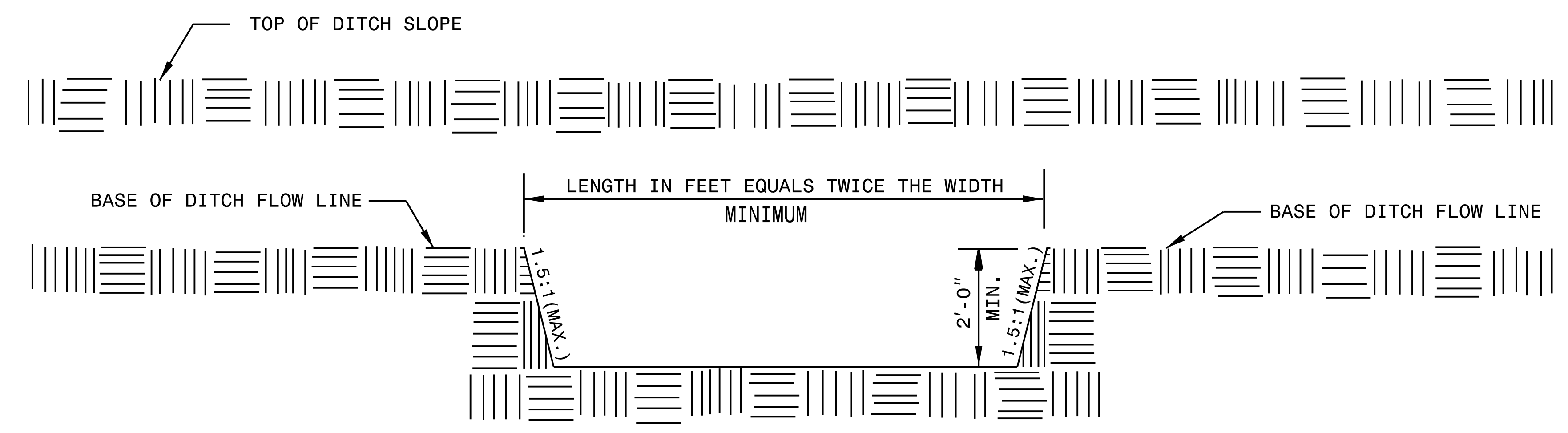
NOT TO SCALE

PROJECT REFERENCE NO. <i>U-5996</i>	SHEET NO. <i>EC-2B</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT BASIN 'B' DETAIL



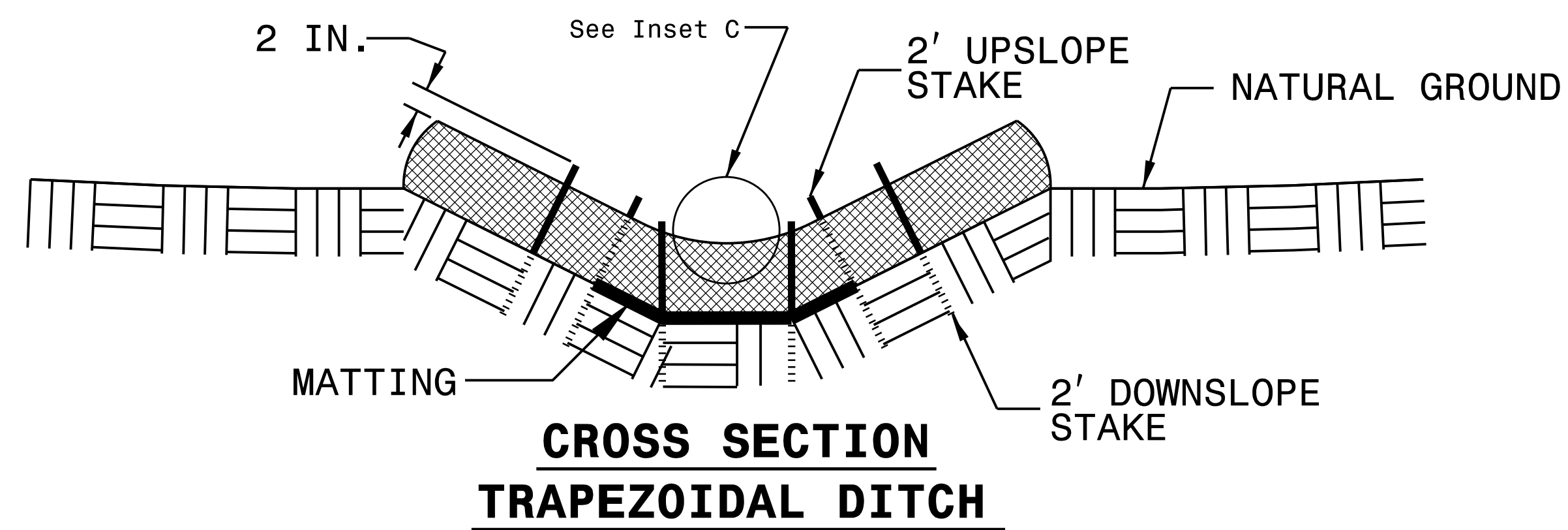
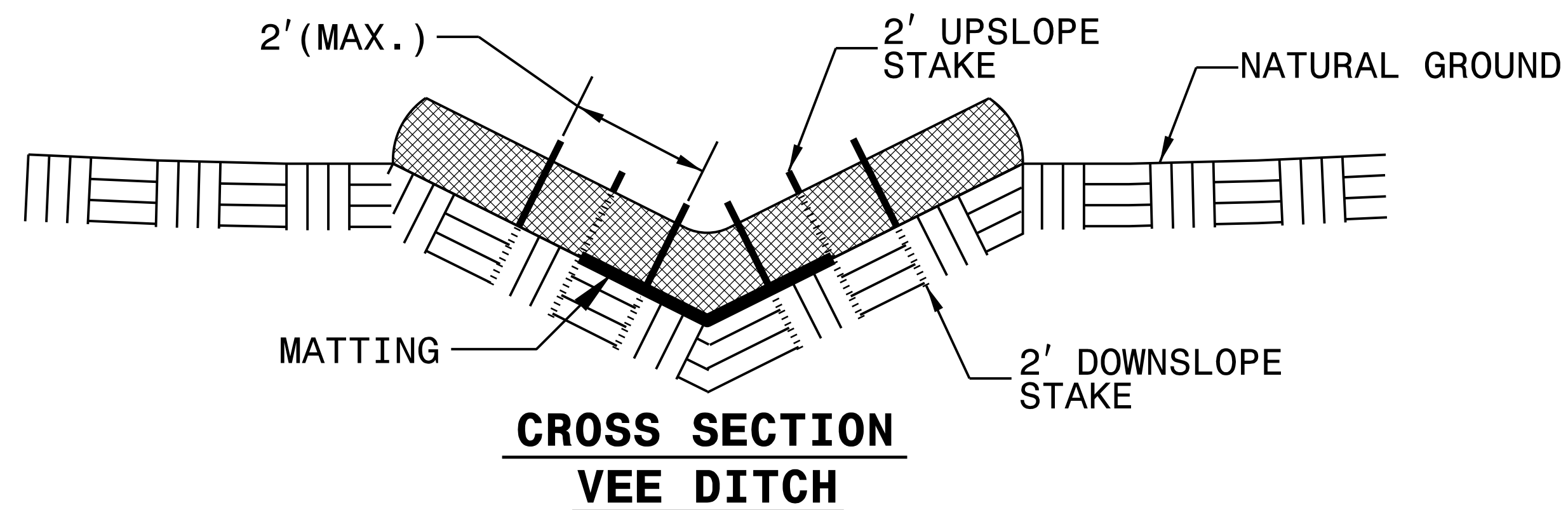
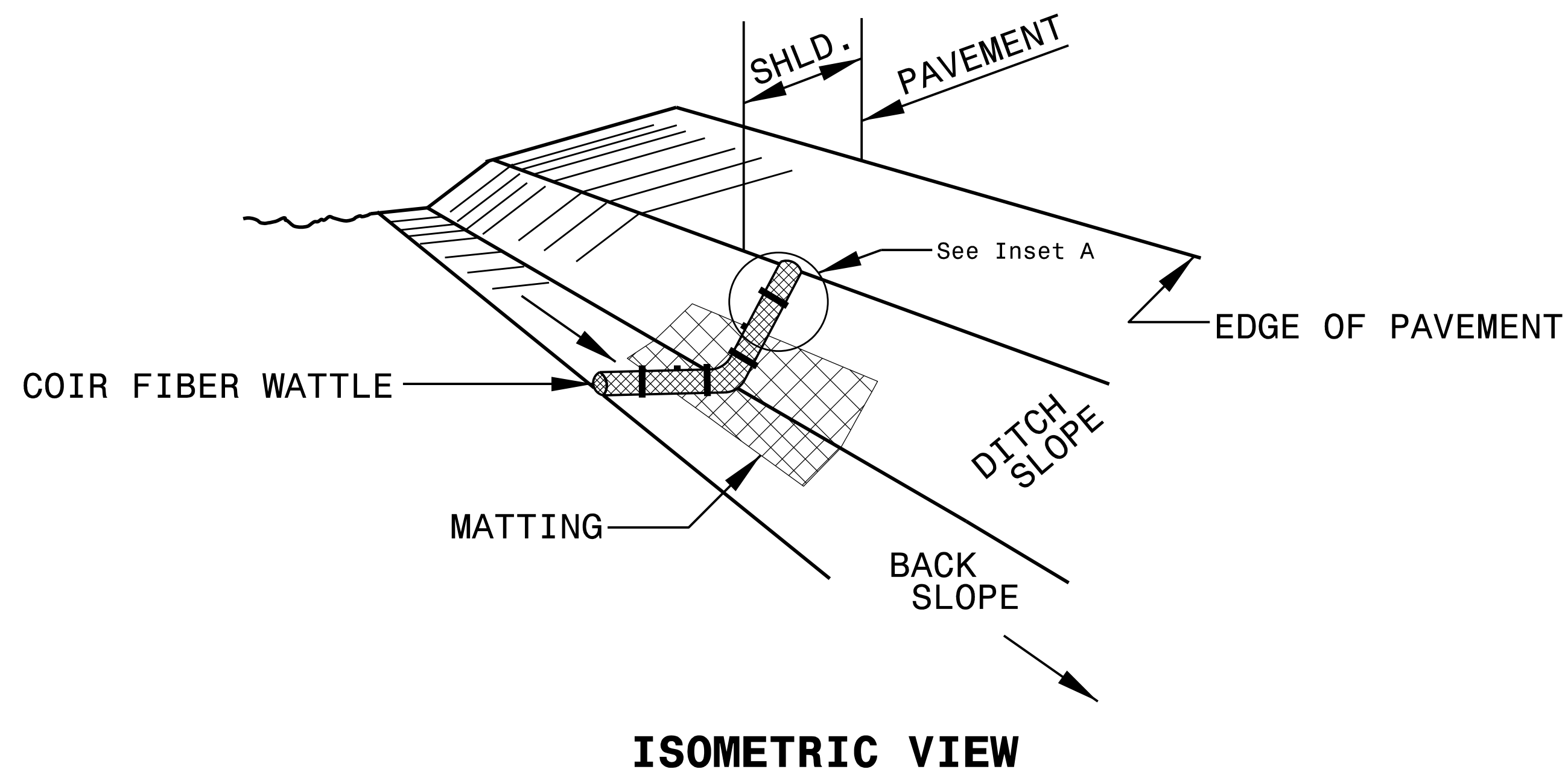
PLAN



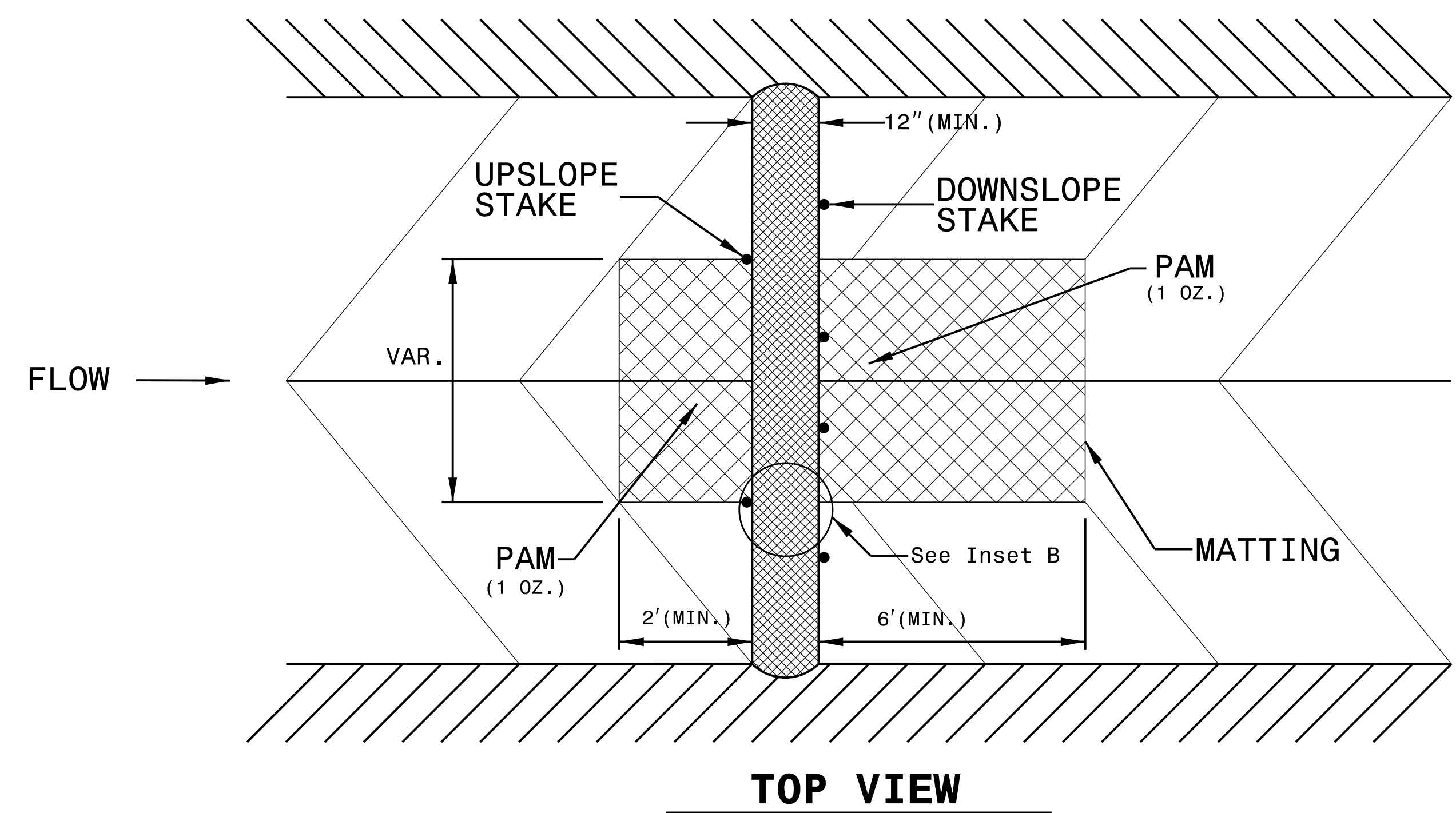
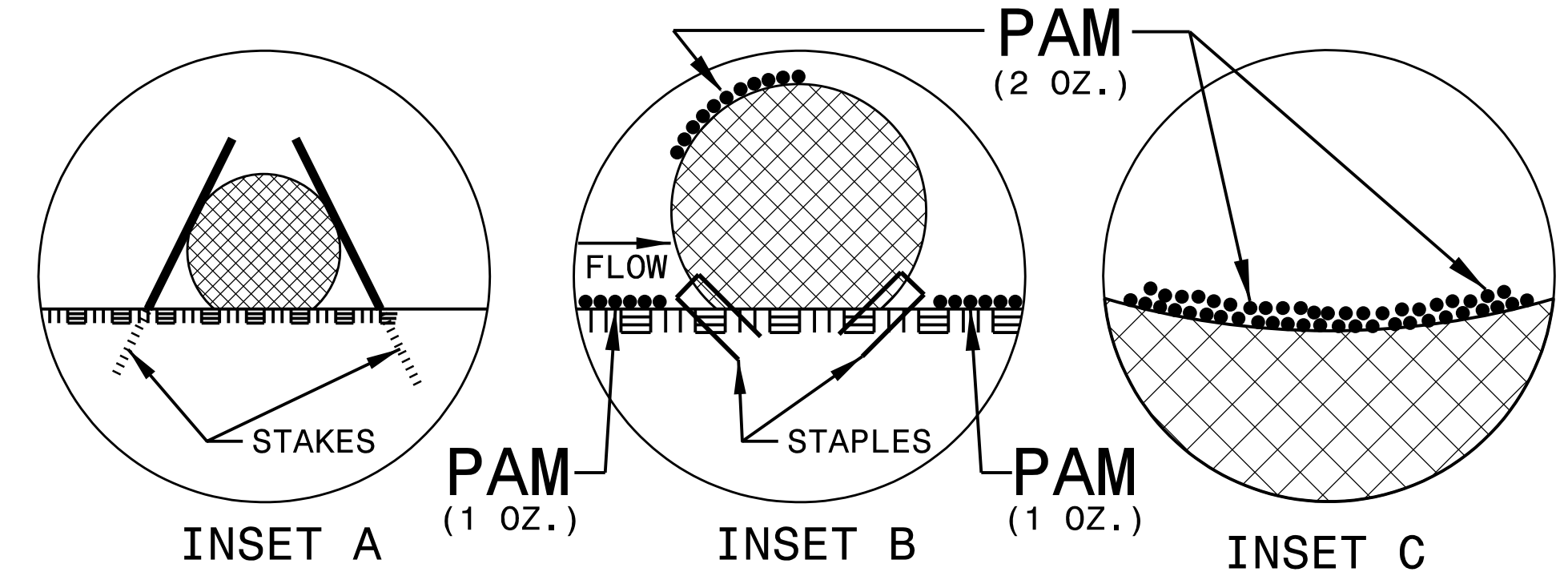
ELEVATION

PROJECT REFERENCE NO. <i>U-5996</i>	SHEET NO. <i>EC-2C</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

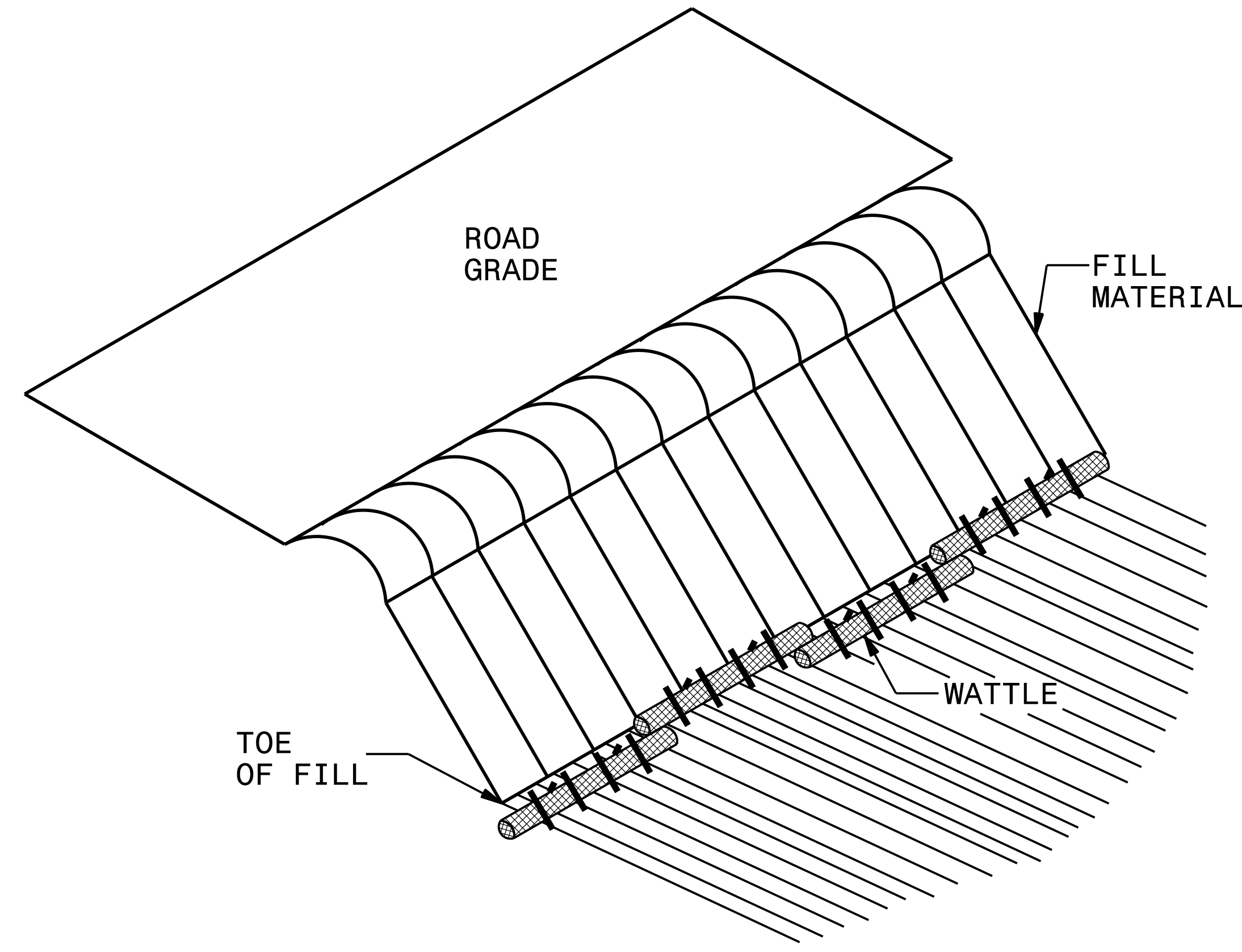


- NOTES:
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.
 - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
 - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
 - INSTALL A MINIMUM OF 2 UPSLOPE 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 EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



PROJECT REFERENCE NO. <i>U-5996</i>	SHEET NO. <i>EC-2D</i>
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

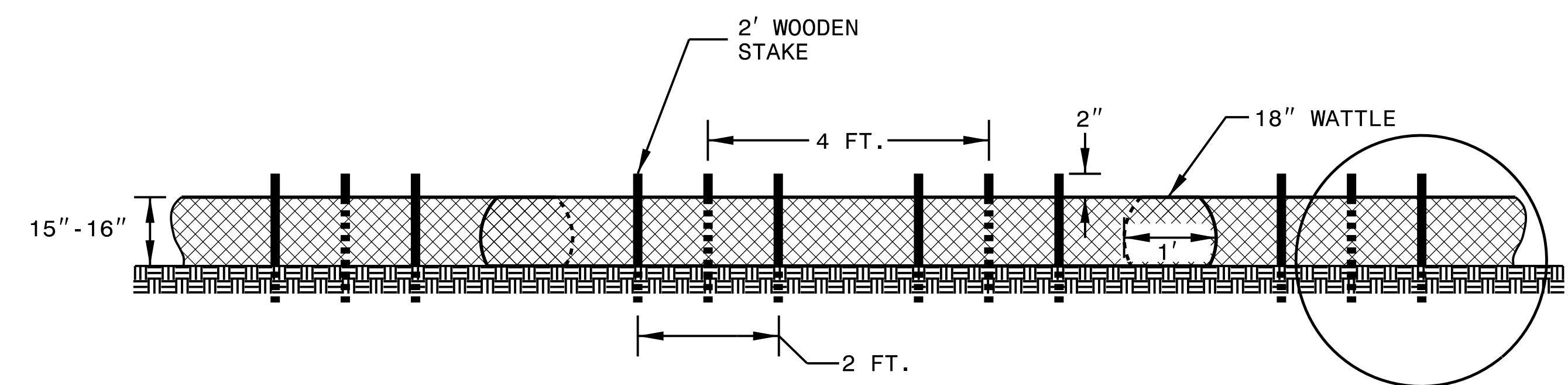
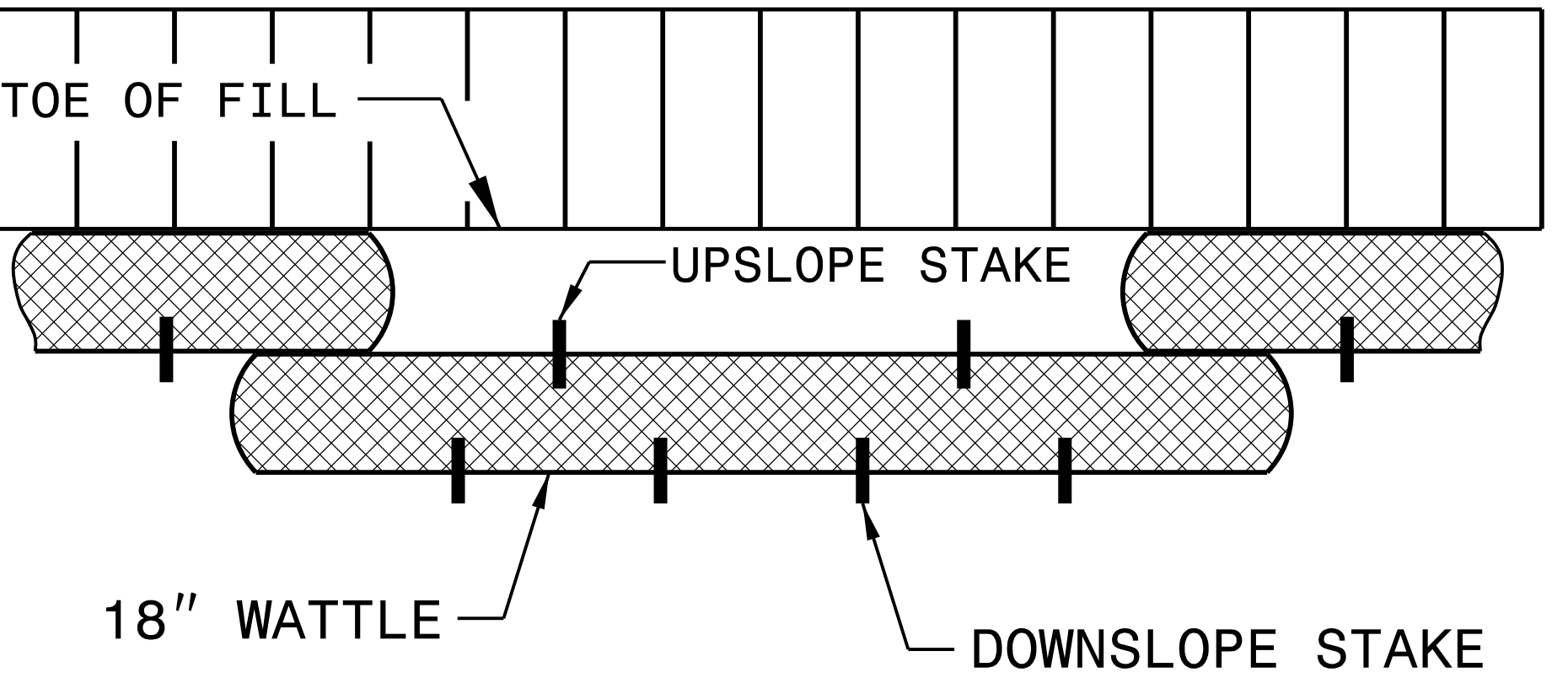
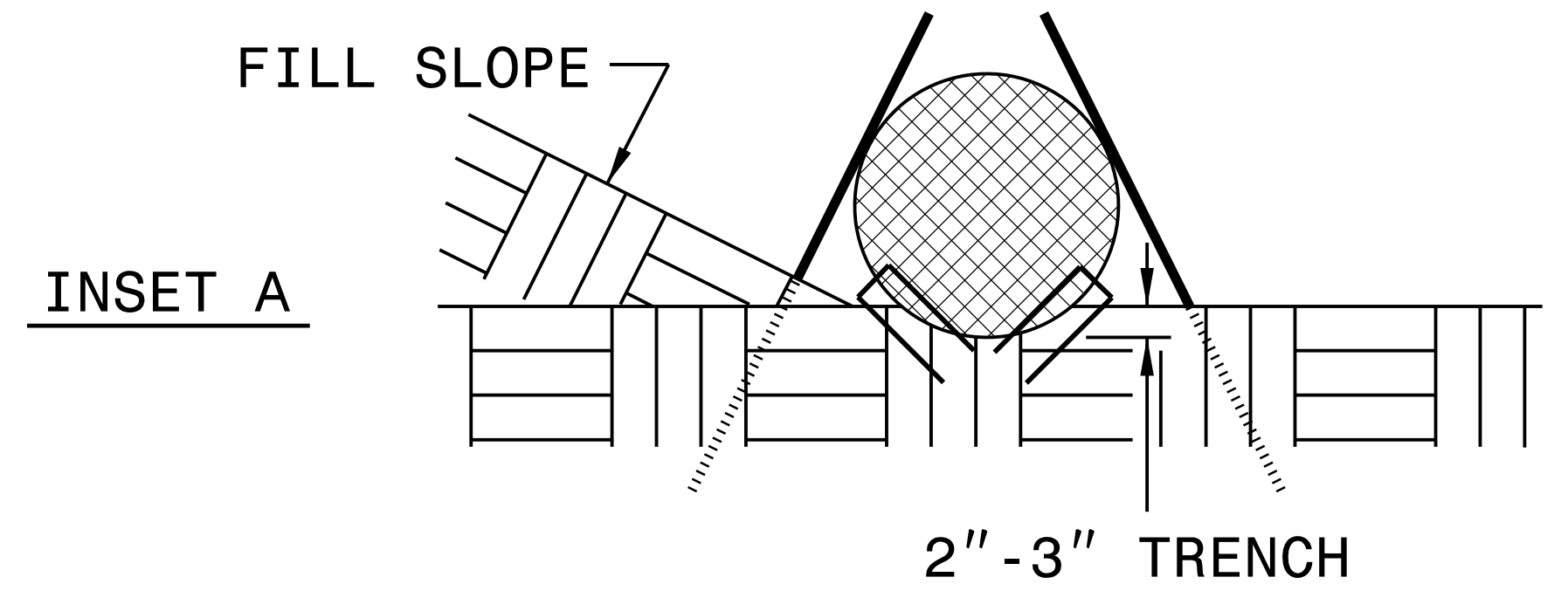
WATTLE BARRIER DETAIL



ISOMETRIC 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.

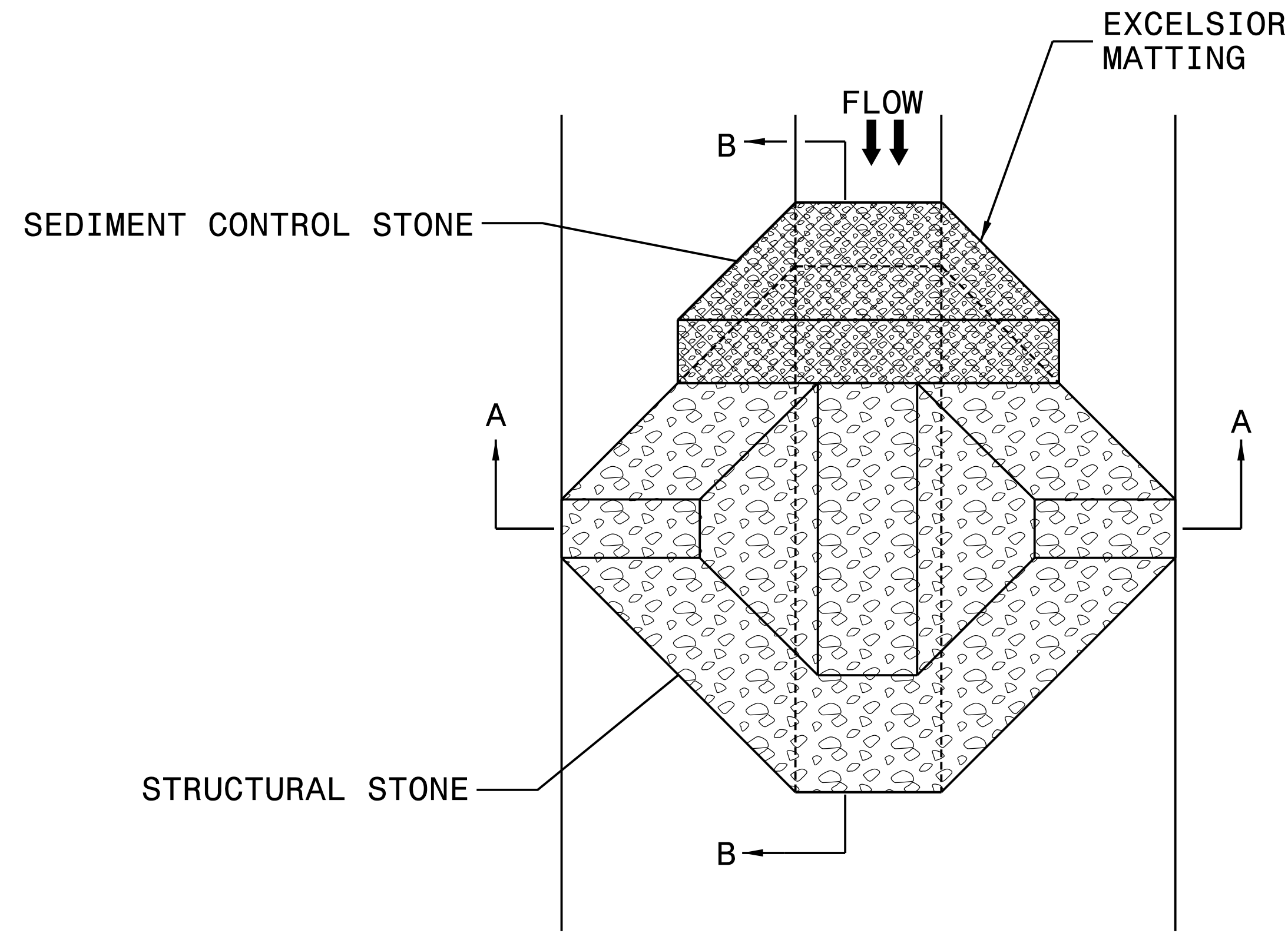


FRONT VIEW

TOP VIEW

PROJECT REFERENCE NO. U-5996	SHEET NO. EC-2E
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN

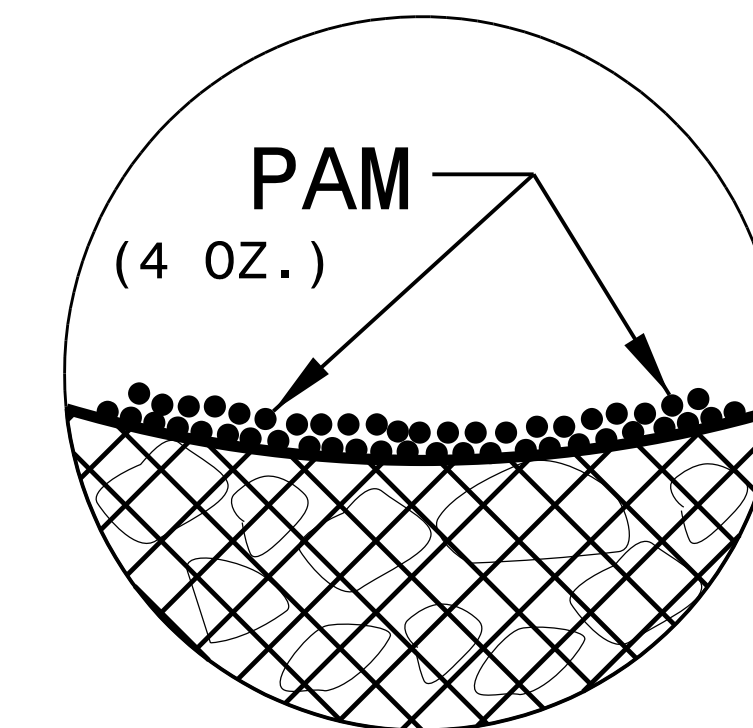
NOTES:

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

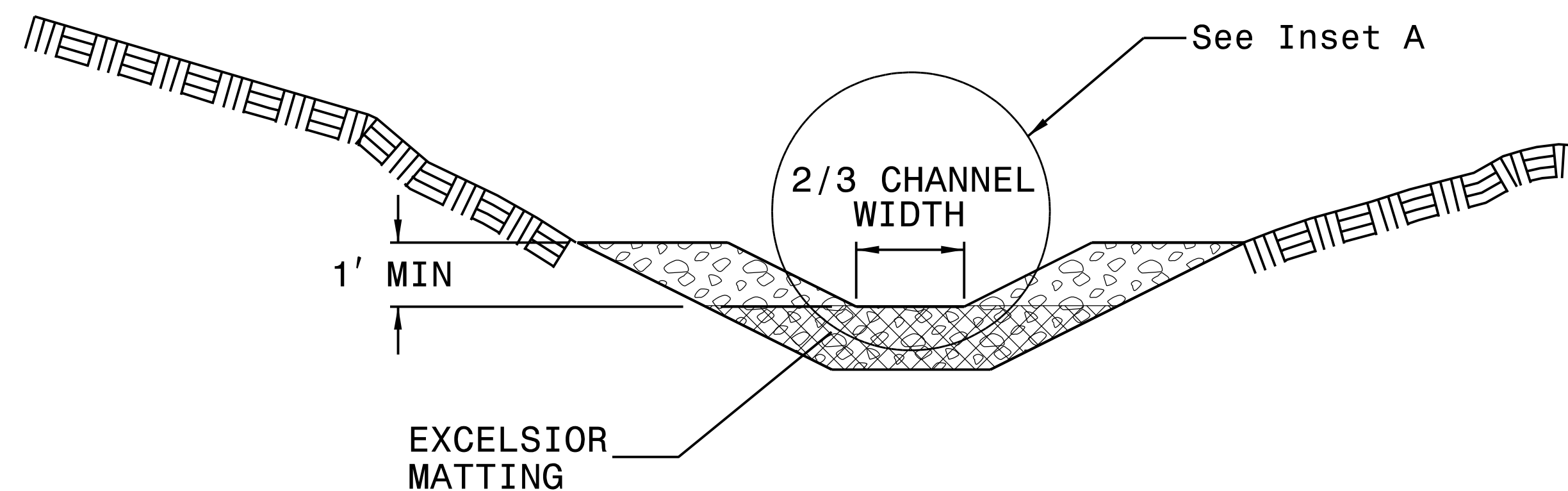
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

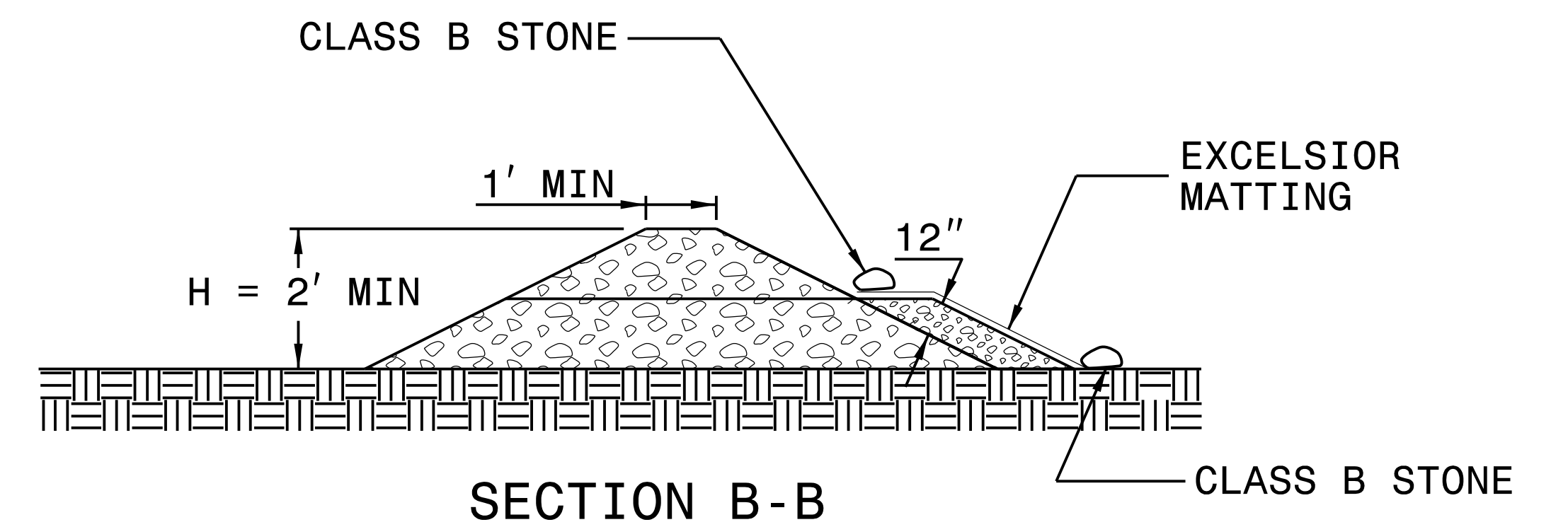
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

NOT TO SCALE

BORROW PIT DEWATERING BASIN DETAIL

PROJECT REFERENCE NO. U-5996	SHEET NO. EC-2F
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

GENERAL NOTES:

DETERMINE BORROW PIT DEWATERING BASIN SIZE USING $V = 8.0203 * Q * T$, WHERE V IS VOLUME (FT³), Q IS PUMP FLOW RATE (GPM), AND T IS DEWATERING TIME (HR). USE MAXIMUM FLOW RATE OF 1000 GPM AND A MINIMUM DEWATERING TIME OF 2 HOURS.

RISER SHALL BE A NON-PERFORATED, SMOOTH OR CORRUGATED MATERIAL WITH A FLASHBOARD OPTION.

CONSTRUCT THE COIR FIBER BAFFLE IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1640.01 AND WITH MATERIAL THAT MEETS THE SPECIFICATIONS OF ROADWAY STANDARD 1640-14.

PROVIDE 5' STEEL POSTS OF THE SELF-FASTENER ANGLE STEEL TYPE. INSTALL STEEL POSTS WITH NO MORE THAN 3' OF THE POST APPEARING ABOVE THE GROUND.

ATTACH THE COIR FIBER MAT TO THE STEEL POSTS WITH WIRE OR OTHER ACCEPTABLE MEANS AND STAPLED INTO THE BOTTOM AND SIDE SLOPES OF THE BASIN WITH 12" STAPLES.

INSTALL TYPE 2 GEOTEXTILE ON SIDESLOPES AND BOTTOM OF BASIN AT INLET AS SHOWN IN THE DETAIL.

USE THE TYPICAL SECTION SHOWN FOR THE BORROW PIT DEWATERING BASIN AS A GUIDE. THE BASIN MAY HAVE ANY TYPE CONFIGURATION AS LONG AS SUFFICIENT VOLUME IS PROVIDED AND PROVISIONS ARE MADE FOR A NON-PERFORATED RISER.

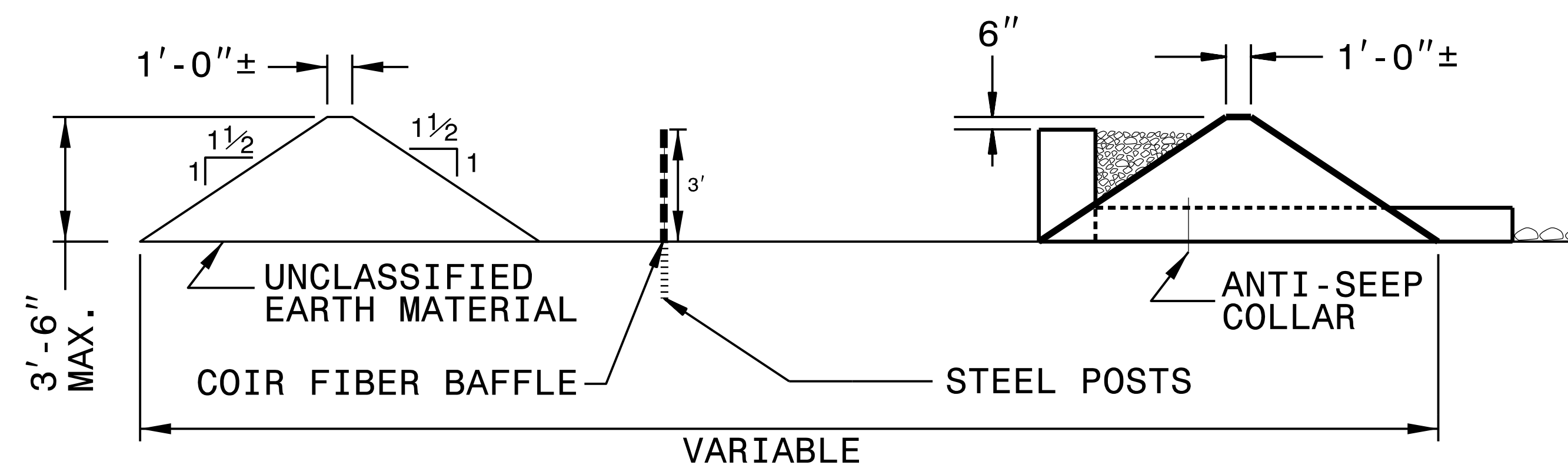
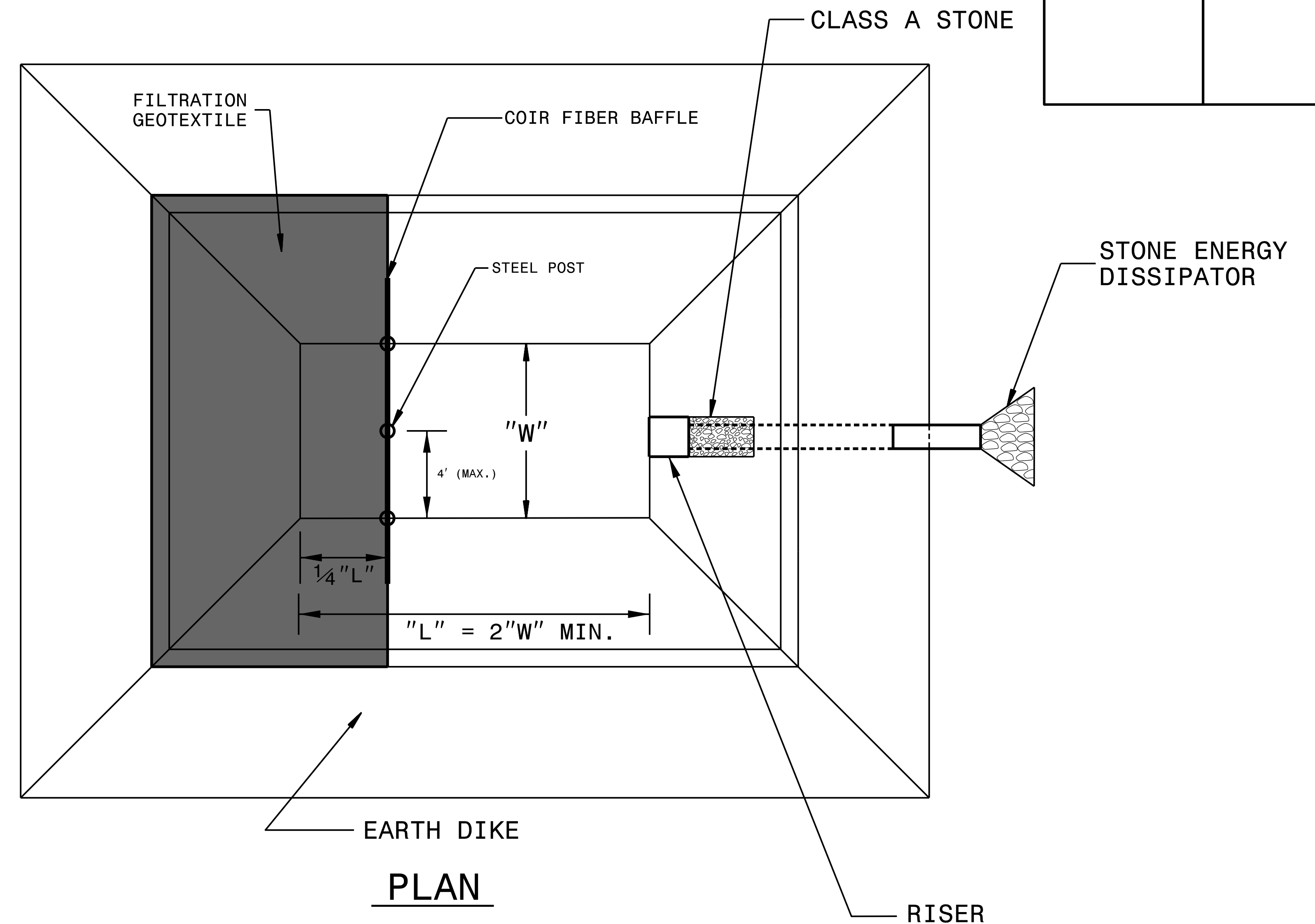
DO NOT EXCEED 3½ FT. IN HEIGHT FOR THE EARTH DIKES REQUIRED FOR BORROW PIT DEWATERING BASIN.

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

SUBMIT THE SIZE, LOCATION AND RISER PIPE MATERIAL FOR APPROVAL PRIOR TO CONSTRUCTION.

PUMP THE EFFLUENT INTO THE BORROW PIT DEWATERING BASIN TO A MAXIMUM DEPTH OF 6 IN. BELOW TOP OF EARTH DIKE.

PROVIDE A STONE ENERGY DISSIPATOR PAD AT THE OUTLET OF THE PUMP DISCHARGE HOSE AND OUTLET OF THE RISER BARREL IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 876.02 FOR OUTLET W/O DITCH.

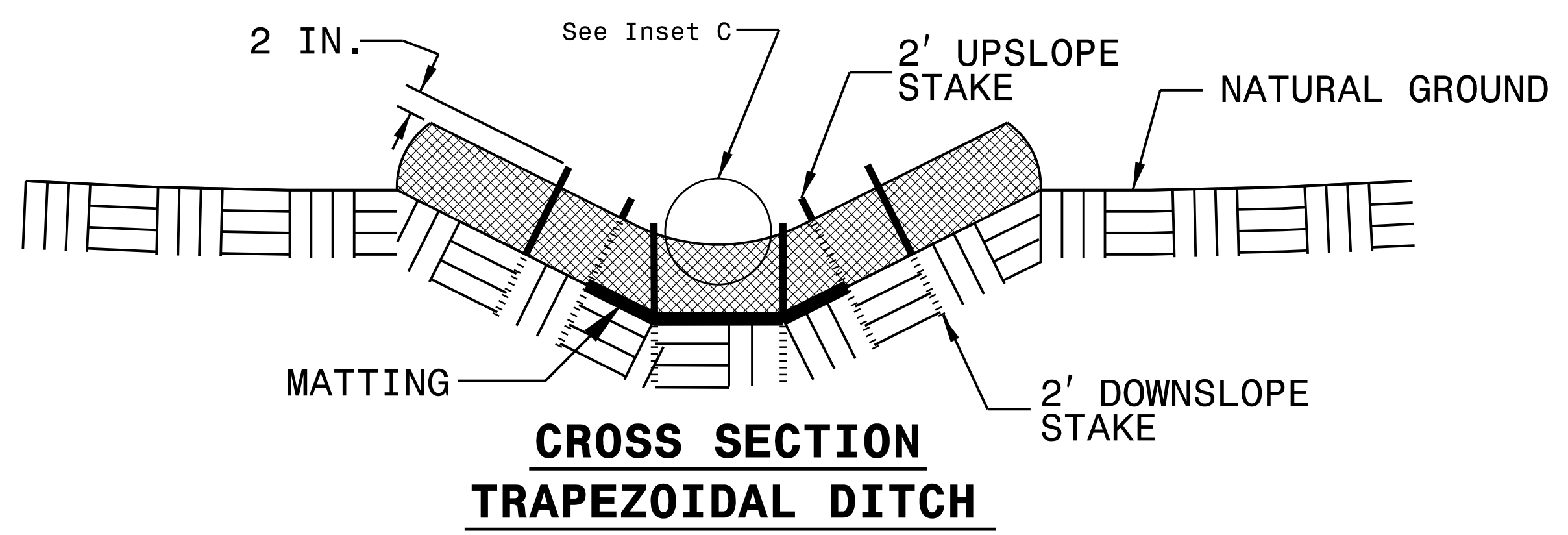
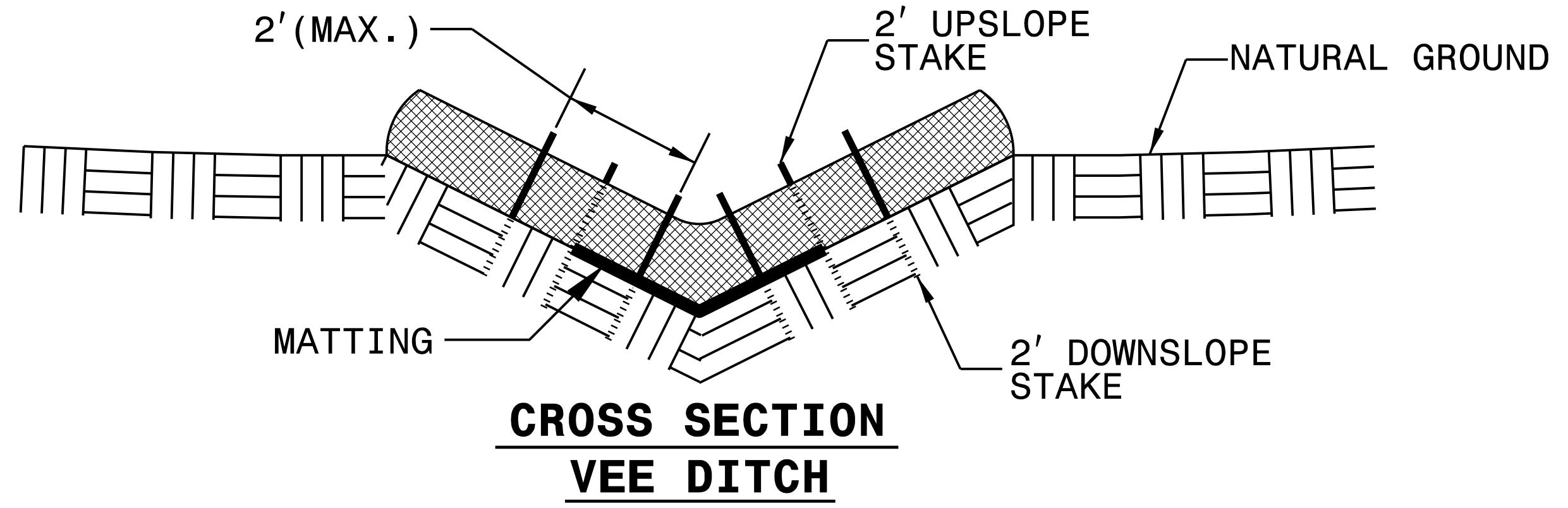
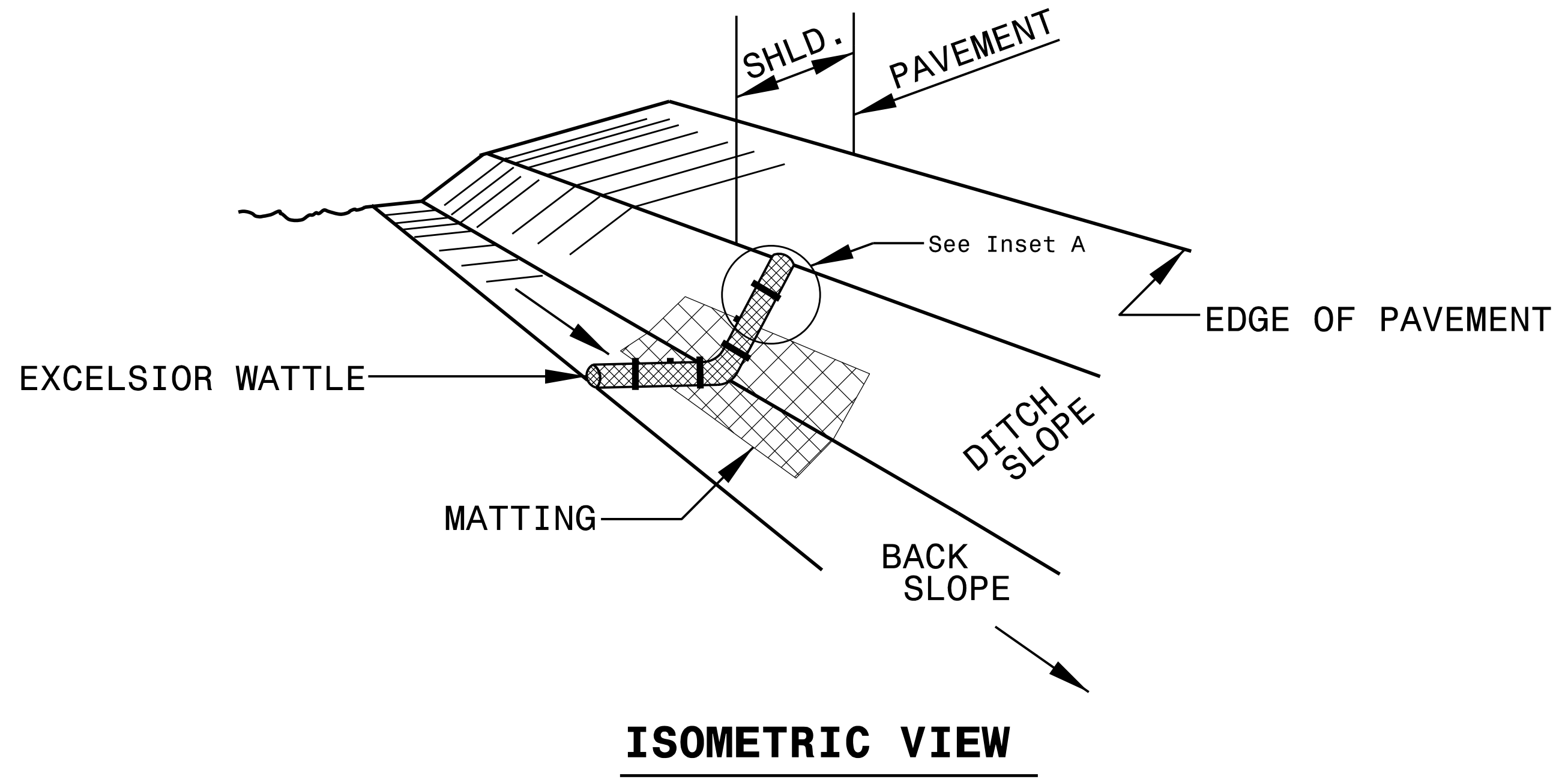


TYPICAL SECTION VIEW

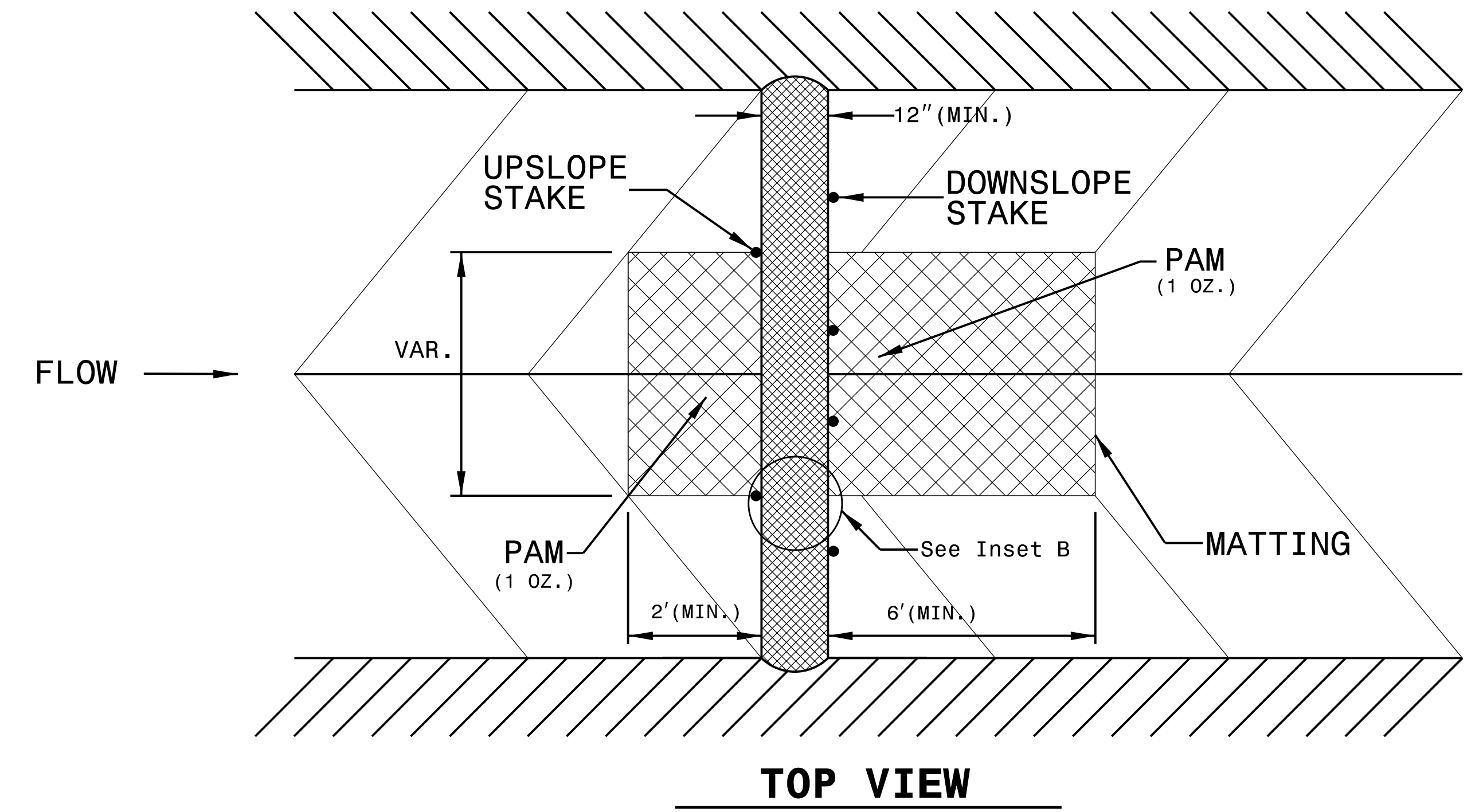
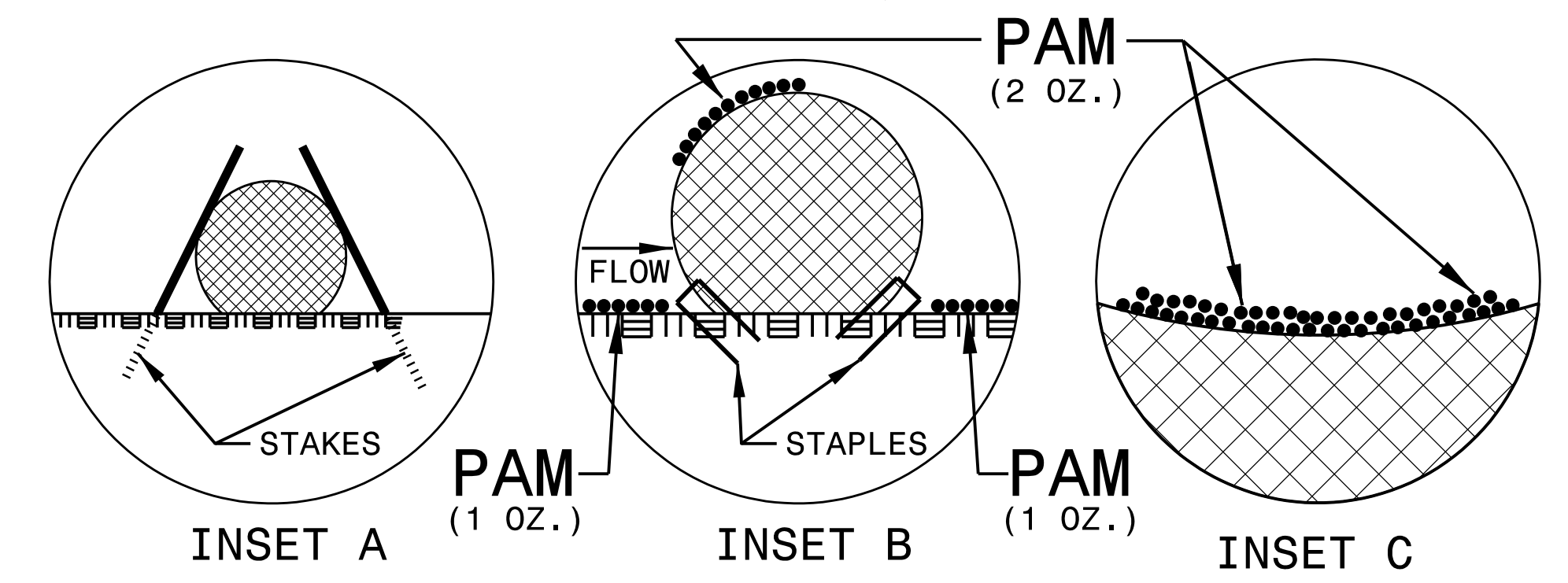
NOT TO SCALE

PROJECT REFERENCE NO. <i>U-5996</i>	SHEET NO. <i>EC-26</i>
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.



DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
<i>U-5996</i>	<i>EC-3B</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.

PROJECT REFERENCE NO. U-5996	SHEET NO. EC-4/CON.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**OLD CARRIAGE RD.
AT NASH COMMUNITY COLLEGE
SOUTH ENTRANCE**

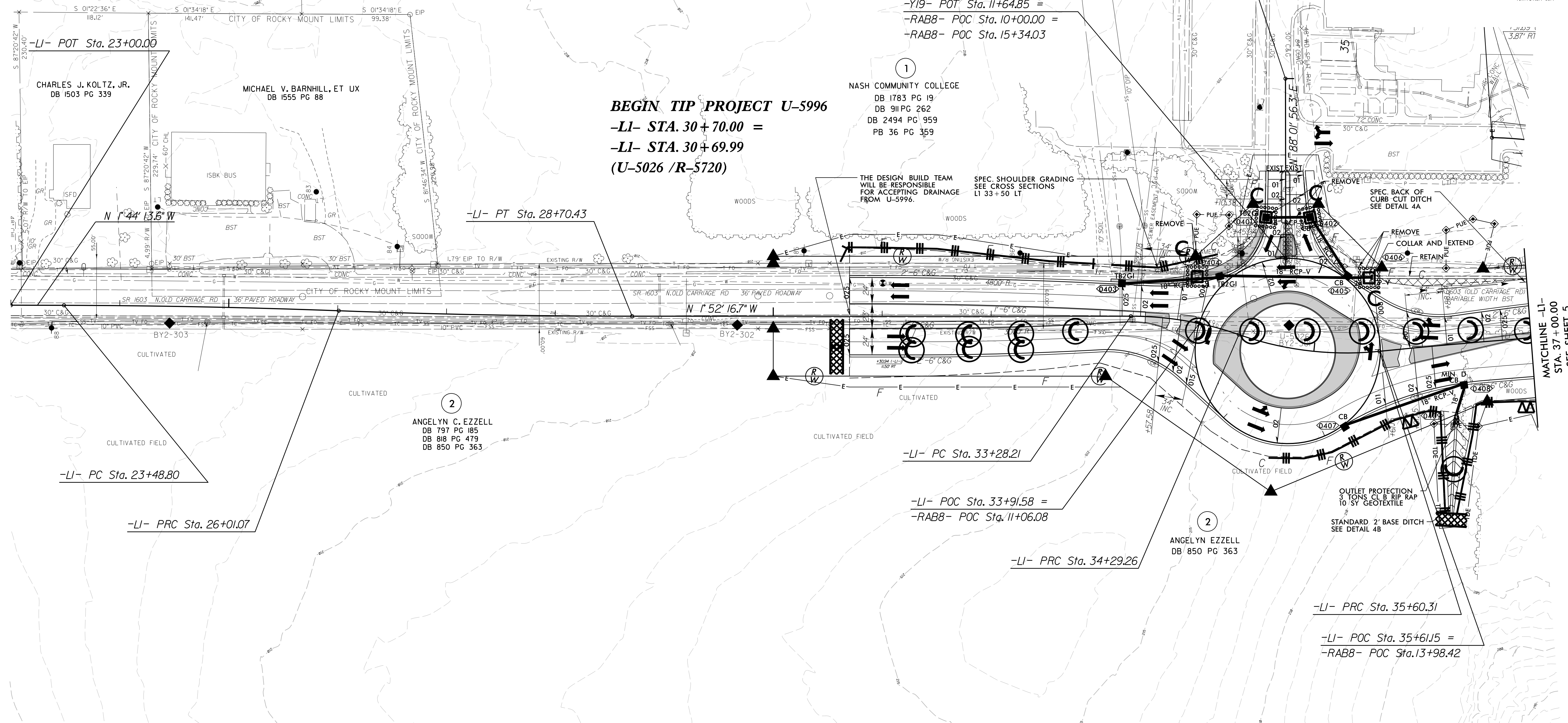
2020 ADT 2040	NASH COMM. COLLEGE SOUTH ENT.	1565 2000
SR 1603 OLD CARRIAGE RD. 12583 17800		SR 1603 OLD CARRIAGE RD. 12896 18200

626/800' 939/1200'

-LI- CURVE DATA	-LI- CURVE DATA	-LI- CURVE DATA	-LI- CURVE DATA	-RAB8- CURVE DATA
PI Sta 24+74.95	PI Sta 27+35.76	PI Sta 33+79.22	PI Sta 34+95.85	PI Sta 10+00.02
Δ = 1°58'47.9" (RT)	Δ = 2°06'51.0" (LT)	Δ = 19°17'56.8" (RT)	Δ = 25°01'38.7" (LT)	Δ = 359°58'18.9" (LT)
D = 0°47'05.5"	D = 0°47'05.5"	D = 19°05'54.9"	D = 19°05'54.9"	D = 67°24'24.5"
L = 252.27'	L = 269.36'	L = 101.05'	L = 131.04'	L = 534.03'
T = 126.15'	T = 134.70'	T = 51.01'	T = 66.58'	T = 0.02'
R = 7,300.00'	R = 7,300.00'	R = 300.00'	R = 300.00'	R = 85.00'
SE = NC	SE = NC			SE = NC
DS = 50 MPH	DS = 50 MPH			DS = 25 MPH

NAD 83/2011

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

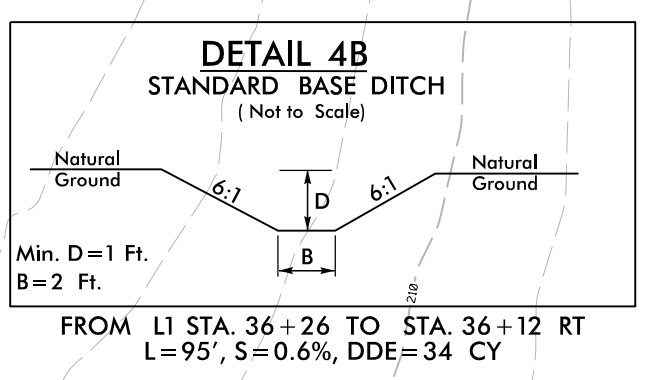
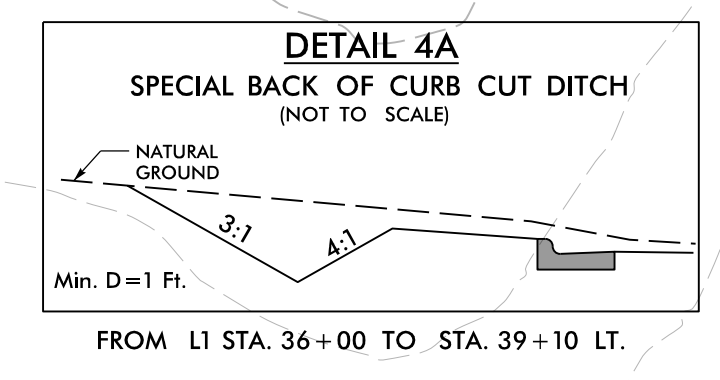


BEGIN TIP PROJECT U-5996
-LI- STA. 30+70.00 =
-LI- STA. 30+69.99
(U-5026 /R-5720)

BEGIN CONSTRUCTION
-Y19- STA. 10+84.82

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

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



FOR INTERSECTION DETAIL, SEE SHEET 2B-1

FOR -LI- PROFILE, SEE SHEET 11

FOR -RAB8- PROFILE, SEE SHEET 15

FOR -Y19- PROFILE, SEE SHEET 16

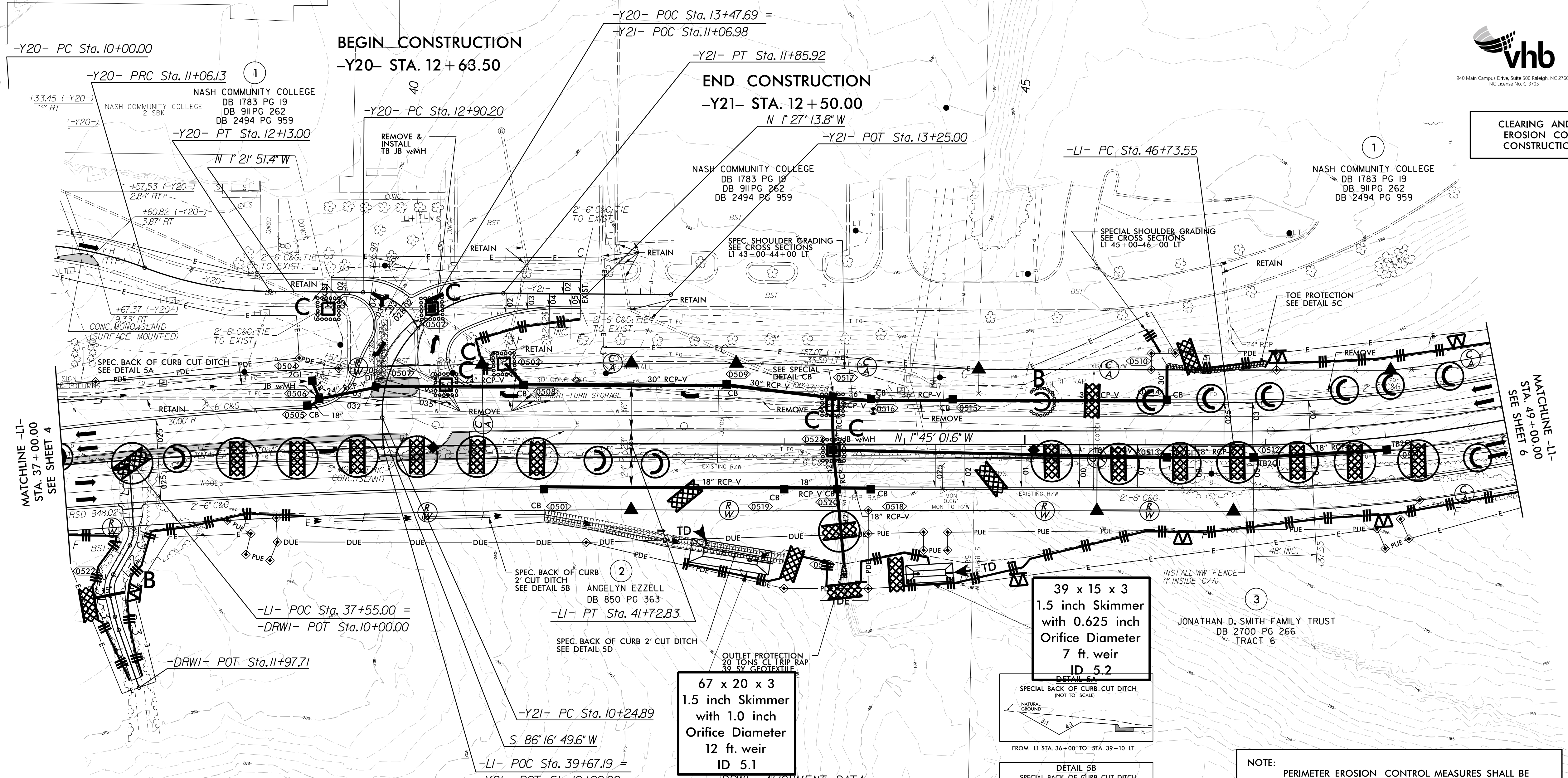
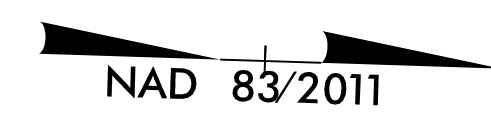
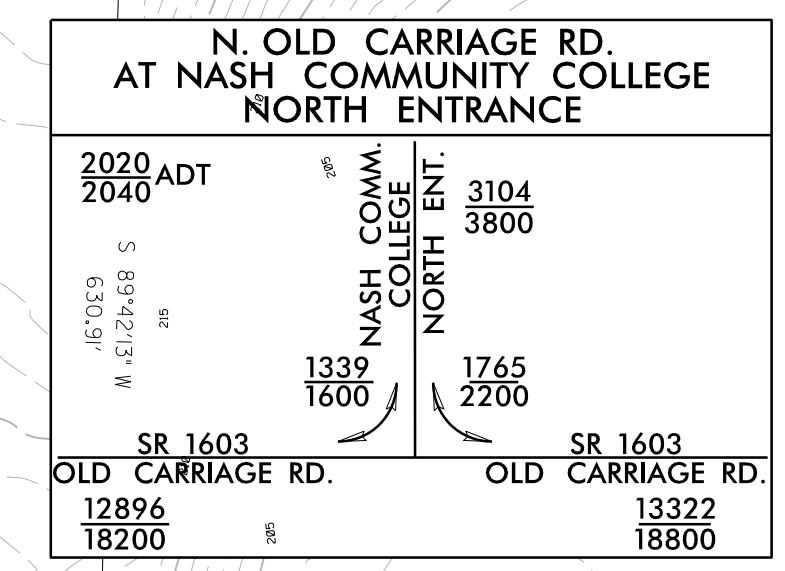
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PROJECT REFERENCE NO.	SHEET NO.
U-5996	EC-5/CON.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5

-LI- CURVE DATA	-Y20- CURVE DATA	-Y20- CURVE DATA	-Y20- CURVE DATA	-Y21- CURVE DATA	-LI- CURVE DATA
PI Sta 38+66.83	PI Sta 10+53.63	PI Sta 11+60.14	PI Sta 13+22.60	PI Sta 11+28.92	PI Sta 49+11.38
$\Delta = 5' 50' 56.9''$ (RT)	$\Delta = 20' 16' 11.2''$ (RT)	$\Delta = 20' 24' 40.0''$ (LT)	$\Delta = 65' 53' 13.9''$ (RT)	$\Delta = 92' 15' 56.6''$ (RT)	$\Delta = 22' 25' 13.6''$ (LT)
D = 0' 57' 17.7"	D = 19' 05' 54.9"	D = 19' 05' 54.9"	D = 114' 35' 29.6"	D = 57' 17' 44.8"	D = 4' 46' 28.7"
L = 612.52'	L = 106.13'	L = 106.87'	L = 57.50'	L = 161.03'	L = 469.57'
T = 306.53'	T = 53.63'	T = 54.01'	T = 32.40'	T = 104.03'	T = 237.83'
R = 6,000.00'	R = 300.00'	R = 300.00'	R = 50.00'	R = 100.00'	R = 1,200.00'
SE = NC					SE = 04
DS = 45 MPH					RO = 192'
					DS = 50 MPH



MATCHLINE -LI- STA. 37 + 00.00 SEE SHEET 4

MATCHLINE -LI- STA. 49 + 00.00 SEE SHEET 6

END CONSTRUCTION -DRWI- STA. 11 + 90.00

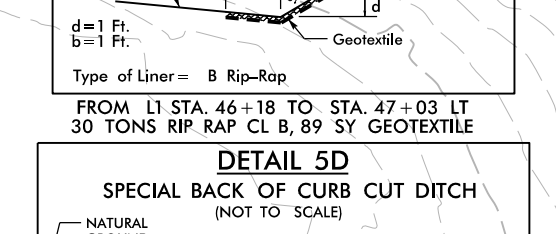
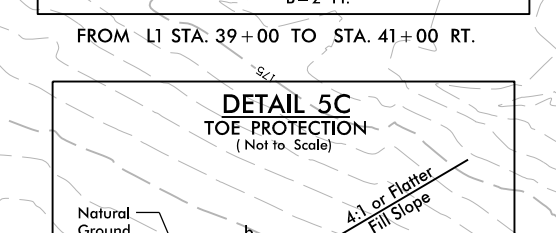
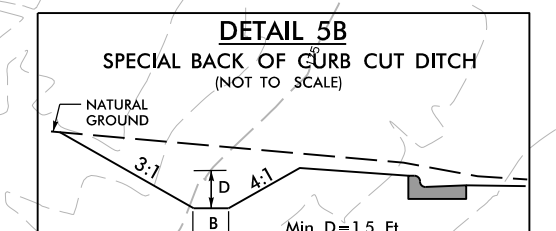
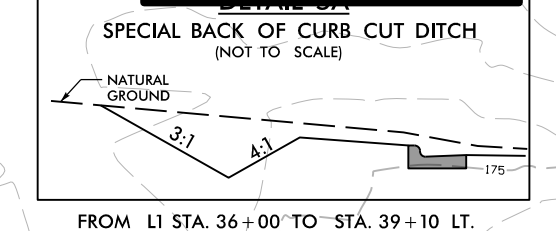
-DRWI- CURVE DATA	-DRWI- CURVE DATA	-DRWI- CURVE DATA
PI Sta 10+64.49	PI Sta 11+09.01	PI Sta 11+41.26
$\Delta = 33' 21' 47.2''$ (RT)	$\Delta = 42' 25' 39.6''$ (LT)	$\Delta = 6' 29' 07.8''$ (LT)
D = 229' 10' 59.2"	D = 229' 10' 59.2"	D = 57' 17' 44.8"
L = 14.56'	L = 18.51'	L = 11.32'
T = 7.49'	T = 9.70'	T = 5.67'
R = 25.00'	R = 25.00'	R = 100.00'

67 x 20 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
12 ft. weir
ID 5.1

39 x 15 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
7 ft. weir
ID 5.2

-DRWI- ALIGNMENT DATA

L-1	N 84° 15' 34.5" E
C-1	PC Sta. 10+57.00
	PT Sta. 10+71.55
L-2	S 62° 22' 38.3" E
C-2	PC Sta. 10+99.31
	PT Sta. 11+17.82
L-3	N 75° 11' 42.2" E
C-3	PC Sta. 11+35.60
	PT Sta. 11+46.92
L-4	N 68° 42' 34.3" E



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

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

FOR -DRWI- SUPERELEVATION, SEE SHEET 2B-2

FOR INTERSECTION/DRIVEWAY DETAIL, SEE SHEET 2B-2

FOR -LI- PROFILE, SEE SHEET 11

FOR -Y20- PROFILE, SEE SHEET 16

FOR -Y21- PROFILE, SEE SHEET 16

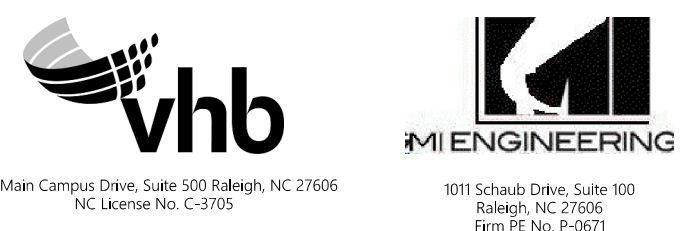
FOR -DRWI- PROFILE, SEE SHEET 19

NOTE: ASSUME ALL ISLANDS ARE 5" MONOLITHIC CONCRETE UNLESS OTHERWISE NOTED

NOTE: DRIVEWAY RADII = 10 FT UNLESS OTHERWISE NOTED

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PROJECT REFERENCE NO.	SHEET NO.
U-5996	EC-6/CON.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



N. OLD CARRIAGE RD. AT US 64			
2020 ADT	US 64	36852	
2040		49200	
		3035	713
		4600	800
SR 1603	SR 1603	2252	
13322	7009	6243	
18800	10400	2600	
		42365	56800
	US 64		

- FOR -DRW2- SUPERELEVATION, SEE SHEET 2B-3
- FOR INTERSECTION/DRIVEWAY DETAIL, SEE SHEETS 2B-3 & 2B-4
- FOR -LI- PROFILE, SEE SHEETS 11 & 12
- FOR -LIRPA- PROFILE, SEE SHEET 13
- FOR -LIRPB- PROFILE, SEE SHEET 14
- FOR -LIRPC- PROFILE, SEE SHEET 14
- FOR -LIRPD- PROFILE, SEE SHEET 15
- FOR -RAB9- PROFILE, SEE SHEET 15
- FOR -RAB10- PROFILE, SEE SHEET 16
- FOR -Y23- PROFILE, SEE SHEETS 17 & 18
- FOR -DRW2- PROFILE, SEE SHEET 19

NOTE: SEE SHEET 2C-1 FOR CURVE DATA

54 x 20 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
12 ft. weir
ID 6.1

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.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 6

Benchmarks:
BM1 ELEVATION = 183.04
N 813974 E 2325950
BL STATION 33-13.00 126-LEFT
BENCHTIE NAT'L SET IN 24" PINE

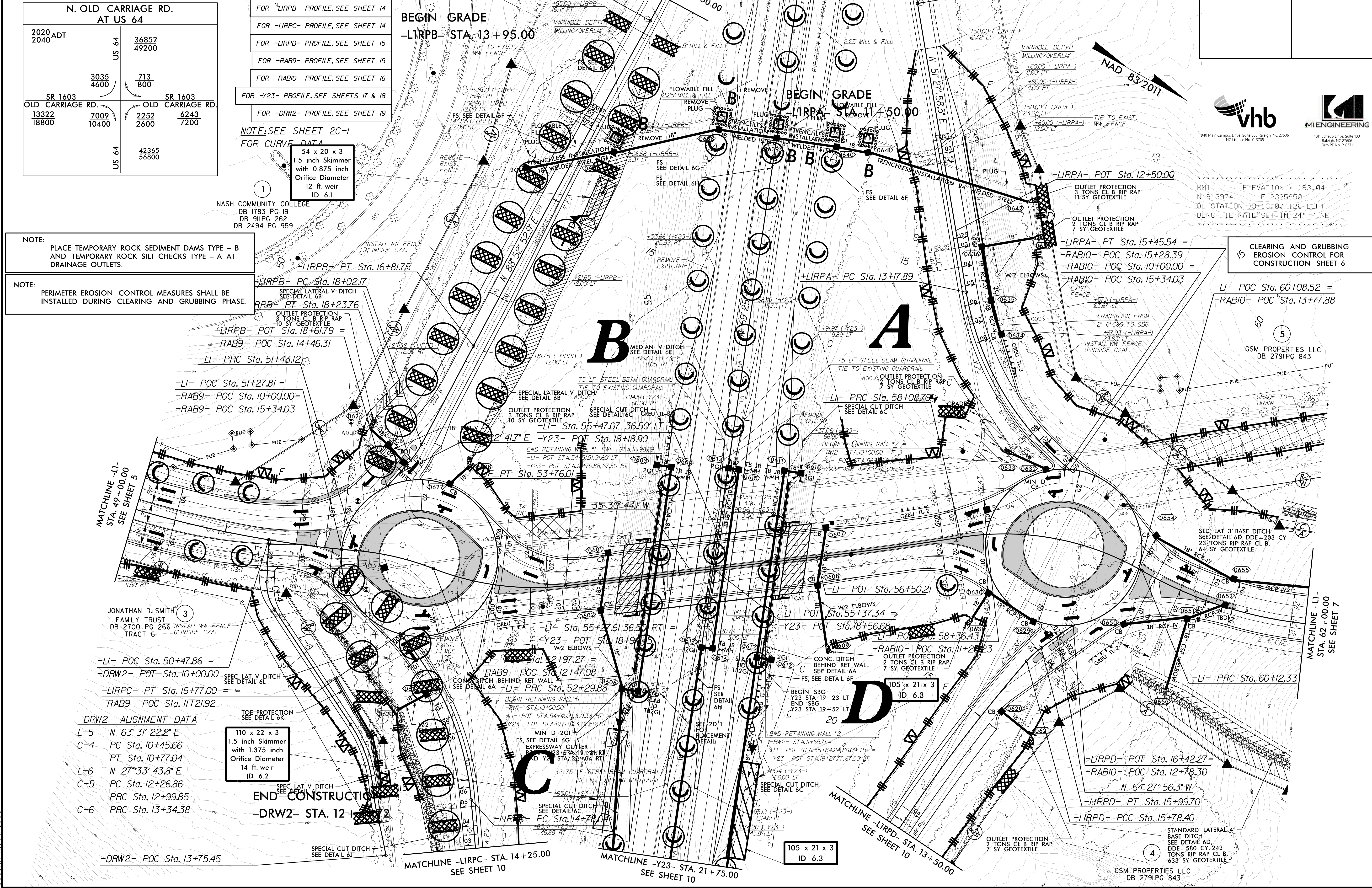
LI- POC Sta. 60+08.52 =
RAB10- POC Sta. 15+28.39
RAB10- POC Sta. 10+00.00 =
RAB10- POC Sta. 15+34.03

GSM PROPERTIES LLC
DB 2791PG 843

STD. LAT. 3' BASE DITCH
SEE DETAIL 6D, DDE=203 CY
23 TONS RIP RAP CL B,
64 SY GEOTEXTILE

STANDARD LATERAL V. DITCH
SEE DETAIL 6D,
DDE=580 CY, 243
TONS RIP RAP CL B,
633 SY GEOTEXTILE

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-DRW2- ALIGNMENT DATA

L-5	N 63° 31' 22.2" E
C-4	PC Sta. 10+45.66
	PT Sta. 10+77.04
L-6	N 27° 33' 43.8" E
C-5	PC Sta. 12+26.86
	PRC Sta. 12+99.85
C-6	PC Sta. 13+34.38

110 x 22 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
14 ft. weir
ID 6.2

105 x 21 x 3
ID 6.3

105 x 21 x 3
ID 6.3



CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 7

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.

-LI- CURVE DATA
 PI Sta 63+07.08
 $\Delta = 66^{\circ}26'56.0"$ (LT)
 $D = 12'43'56.6"$
 $L = 521.89'$
 $T = 294.75'$
 $R = 450.00'$
 $SE = 04$
 $RO = 120'$
 $DS = 35$ MPH

-LI- CURVE DATA
 PI Sta 75+07.24
 $\Delta = 75^{\circ}47'42.9"$ (RT)
 $D = 4'35'01.2"$
 $L = 1,653.60'$
 $T = 973.02'$
 $R = 1,250.00'$
 $SE = 07$
 $RO = 210'$
 $DS = 50$ MPH

-Y26- CURVE DATA
 PI Sta 10+83.53
 $\Delta = 75^{\circ}50'58.6"$ (LT)
 $D = 114'35'29.6"$
 $L = 66.19'$
 $T = 38.96'$
 $R = 50.00'$

-Y22- CURVE DATA
 PI Sta 9+50.02
 $\Delta = 3^{\circ}43'37.5"$ (LT)
 $D = 3'43'37.5"$
 $L = 100.00'$
 $T = 50.02'$
 $R = 1,537.28'$
 $SE = EXIST.$

-Y22- CURVE DATA
 PI Sta 11+91.19
 $\Delta = 40^{\circ}08'22.6"$ (LT)
 $D = 57'17'44.8"$
 $L = 70.06'$
 $T = 36.54'$
 $R = 100.00'$

END CONSTRUCTION
 -Y26- STA. 13+25.00

BEGIN CONSTRUCTION
 -Y22- STA. 10+50.00

END CONSTRUCTION
 -DRW3- STA. 11+00.00

88 x 30 x 3
 1.5 inch Skimmer
 with 1.375 inch
 Orifice Diameter
 22 ft. weir
 ID 7.1

44 x 22 x 3
 1.5 inch Skimmer
 with 0.875 inch
 Orifice Diameter
 14 ft. weir
 ID 7.3

68 x 34 x 3
 1.5 inch Skimmer
 with 1.375 inch
 Orifice Diameter
 26 ft. weir
 ID 7.2

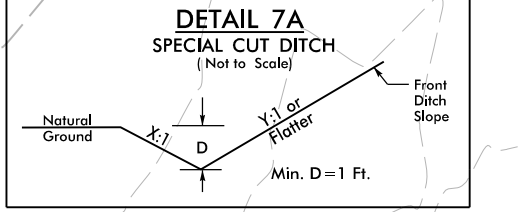
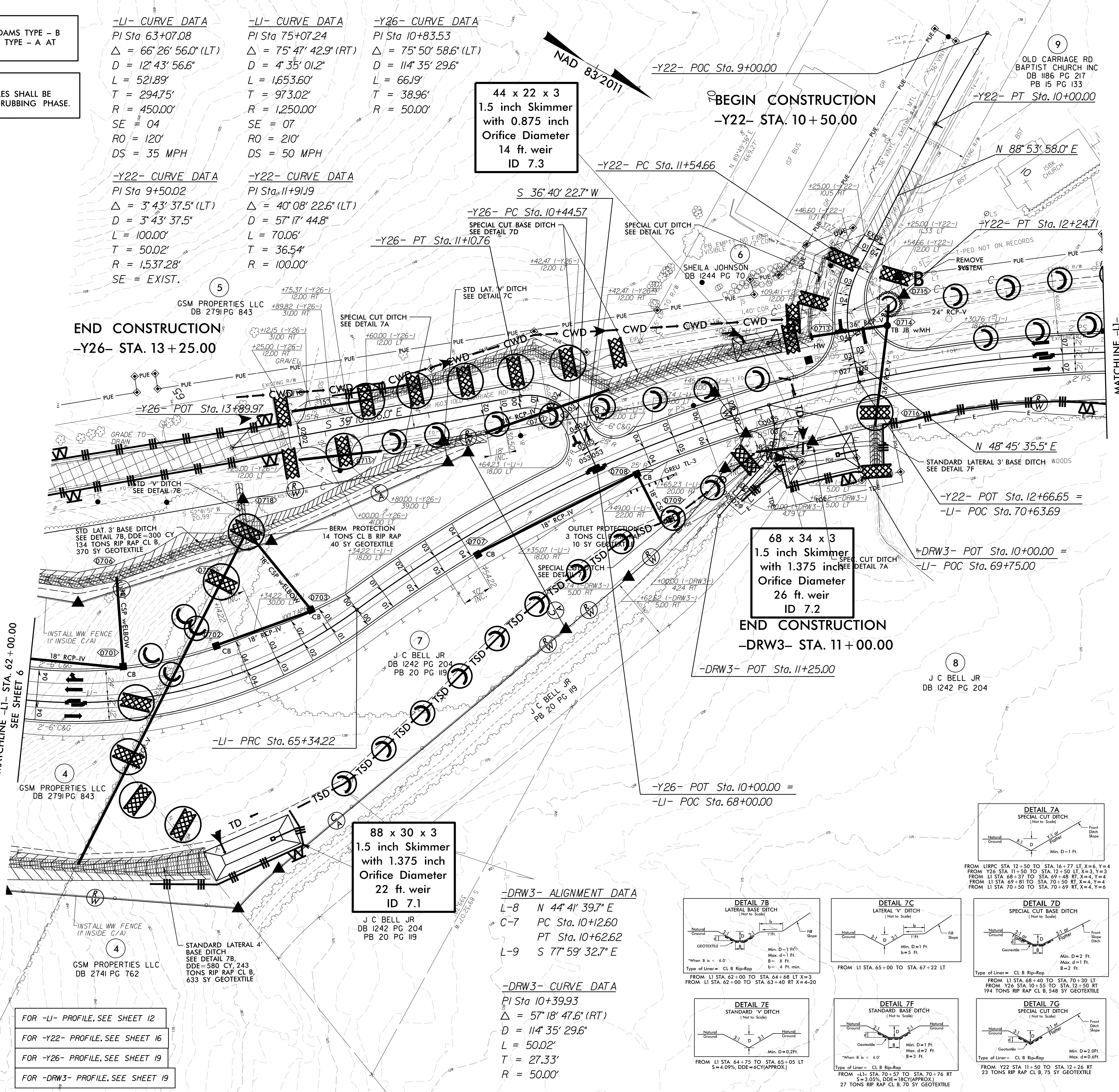
-DRW3- ALIGNMENT DATA
 L-8 N 44° 41' 39.7" E
 C-7 PC Sta. 10+12.60
 PT Sta. 10+62.62
 L-9 S 77° 59' 32.7" E

-DRW3- CURVE DATA
 PI Sta 10+39.93
 $\Delta = 57^{\circ}18'47.6"$ (RT)
 $D = 114'35'29.6"$
 $L = 50.02'$
 $T = 27.33'$
 $R = 50.00'$

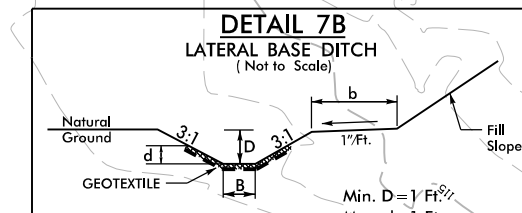
FOR -U- PROFILE, SEE SHEET 12
 FOR -Y22- PROFILE, SEE SHEET 16
 FOR -Y26- PROFILE, SEE SHEET 19
 FOR -DRW3- PROFILE, SEE SHEET 19

MATCHLINE -LI- STA. 62+00.00
 SEE SHEET 6

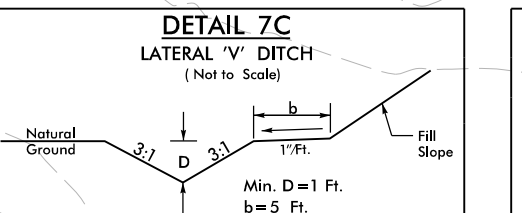
MATCHLINE -LI- STA. 73+00.00
 SEE SHEET 8



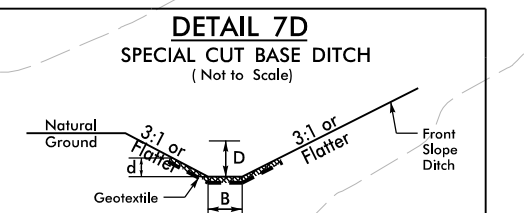
FROM LI/PC STA 12+50 TO STA. 16+77 LT, X=6, Y=4
 FROM Y26 STA 11+50 TO STA. 12+50 LT, X=3, Y=3
 FROM LI STA 68+37 TO STA. 69+48 RT, X=4, Y=4
 FROM LI STA 69+81 TO STA. 70+50 RT, X=4, Y=4
 FROM LI STA 70+50 TO STA. 70+69 RT, X=4, Y=6



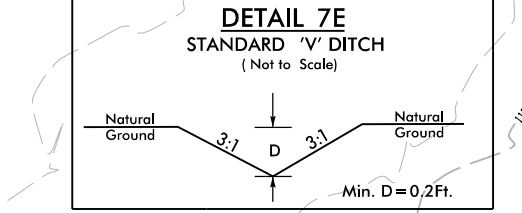
*When B is < 6.0'
 Type of Liner = CL B Rip-Rap
 FROM LI STA. 62+00 TO STA. 64+08 LT, X=3
 FROM LI STA. 62+00 TO STA. 63+40 RT, X=4-30



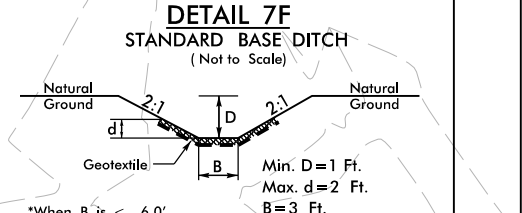
FROM LI STA. 65+00 TO STA. 67+22 LT



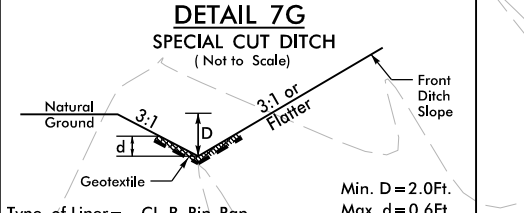
FROM LI STA. 68+40 TO STA. 70+30 LT
 FROM Y26 STA. 10+58 TO STA. 12+50 RT
 194 TONS RIP RAP CL B, 548 SY GEOTEXTILE



FROM LI STA. 64+75 TO STA. 65+05 LT
 S=4.09%, DDE=6CY (APPROX.)



FROM -LI- STA. 70+57 TO STA. 70+76 RT
 S=3.05%, DDE=18CY (APPROX.)
 27 TONS RIP RAP CL B, 75 SY GEOTEXTILE



FROM Y22 STA. 11+50 TO STA. 12+25 RT
 23 TONS RIP RAP CL B, 75 SY GEOTEXTILE

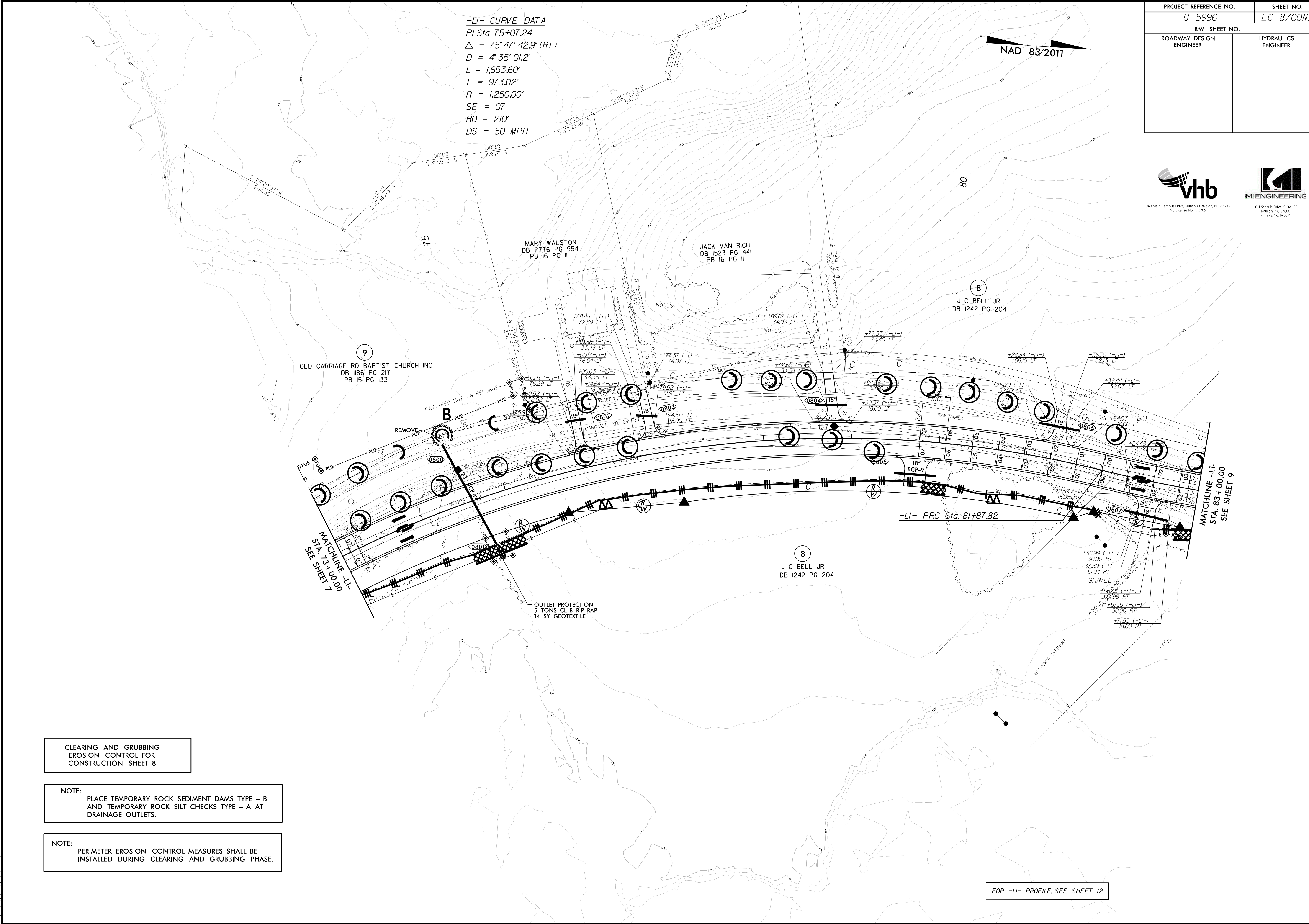
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PROJECT REFERENCE NO.	SHEET NO.
U-5996	EC-8/CON.8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-LI- CURVE DATA
 PI Sta 75+07.24
 $\Delta = 75^\circ 47' 42.9''$ (RT)
 $D = 4' 35'' 01.2''$
 $L = 1,653.60'$
 $T = 973.02'$
 $R = 1,250.00'$
 $SE = 07$
 $RO = 210'$
 $DS = 50$ MPH

NAD 83/2011



MATCHLINE -LI- STA 73+00.00 SEE SHEET 7

MATCHLINE -LI- STA 83+00.00 SEE SHEET 9

CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 8

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.

FOR -LI- PROFILE, SEE SHEET 12

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PROJECT REFERENCE NO.	SHEET NO.
U-5996	EC-9/CON.9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

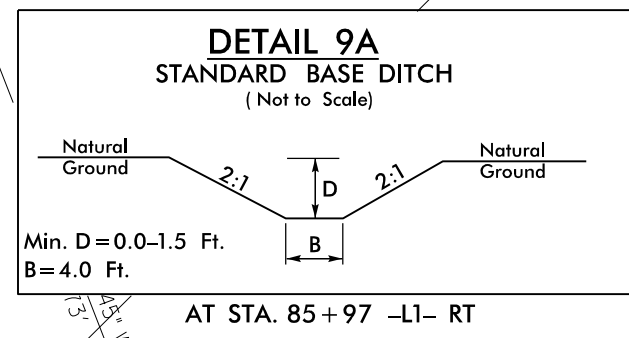


OLD CARRIAGE RD. AT REGES STORE RD./GREEN HILLS RD.			
2020 ADT	1891		
2040	2500		
SR 1603		SR 1603	
6243	2165	339	4017
7200	2600	600	4800
REGES STORE RD.		GREEN HILLS RD.	
713	313	3370	
800	400	4500	

-Y24+ CURVE DATA
 PI Sta 11+74.91
 $\Delta = 4^{\circ}02'03.8"$ (LT)
 $D = 2^{\circ}41'38.5"$
 $L = 149.75'$
 $T = 74.91'$
 $R = 2126.78'$
 SE = NC

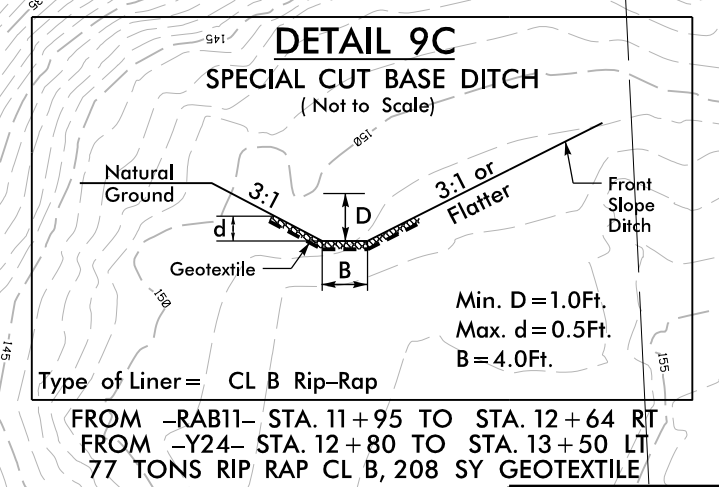
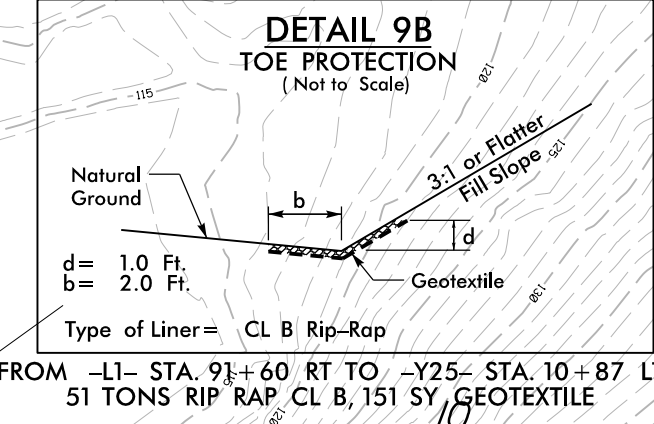
-Y24- CURVE DATA
 PI Sta 12+81.15
 $\Delta = 17^{\circ}34'50.9"$ (LT)
 $D = 28^{\circ}13'28.3"$
 $L = 62.29'$
 $T = 31.39'$
 $R = 203.00'$
 SE = NC

-RABII- CURVE DATA
 PI Sta 10+00.00
 $\Delta = 359^{\circ}59'32.5"$ (LT)
 $D = 76^{\circ}23'39.7"$
 $L = 471.23'$
 $T = 0.00'$
 $R = 75.00'$
 SE = NC
 DS = 20 MPH



NAD 83/2011

NOTE: ASSUME ALL ISLANDS ARE 5' MONOLITHIC CONCRETE UNLESS OTHERWISE NOTED
 NOTE: DRIVEWAY RADII = 10 FT UNLESS OTHERWISE NOTED



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.

8
 J C BELL JR
 DB 1242 PG 204
 68 x 21 x 3
 1.5 nch Skimmer
 with 1.0 inch
 Orifice Diameter
 13 ft. weir
 ID 9.1

INSTALL FILTRATION GEOTEXTILE UNDER TEMPORARY ROCK SILT CHECK(S) TYPE A IN PERMITTED WETLANDS.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 9

END GRADE
 -LI- STA. 92+50.00

END TIP PROJECT U-5996
 -LI- STA. 93+25.00

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ENVIRONMENTALLY SENSITIVE AREA
 SEE PROJECT SPECIAL PROVISIONS

-LI- CURVE DATA
 PI Sta 84+11.96
 $\Delta = 16^{\circ}21'09.0"$ (LT)
 $D = 3^{\circ}40'22.1"$
 $L = 445.23'$

-LI- CURVE DATA
 PI Sta 92+61.98
 $\Delta = 2^{\circ}26'28.7"$ (RT)
 $D = 0^{\circ}49'59.6"$
 $L = 293.00'$

16.52'
 876.46'
 NC

MH IS NOT ACCESSIBLE DUE TO HEIGHT ABOVE GRADE. PIPE INVERTS AND SIZES UNKNOWN.

END GRADE
 -Y25- STA. 11+00.00

END CONSTRUCTION
 -Y25- STA. 11+75.00

FOR INTERSECTION DETAIL, SEE SHEET 2B-5
 FOR -LI- PROFILE, SEE SHEETS 12 & 13
 FOR -RABII- PROFILE, SEE SHEET 16
 FOR -Y24- PROFILE, SEE SHEET 19
 FOR -Y25- PROFILE, SEE SHEET 19

PROJECT REFERENCE NO. U-5996	SHEET NO. EC-10/CONJ10
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



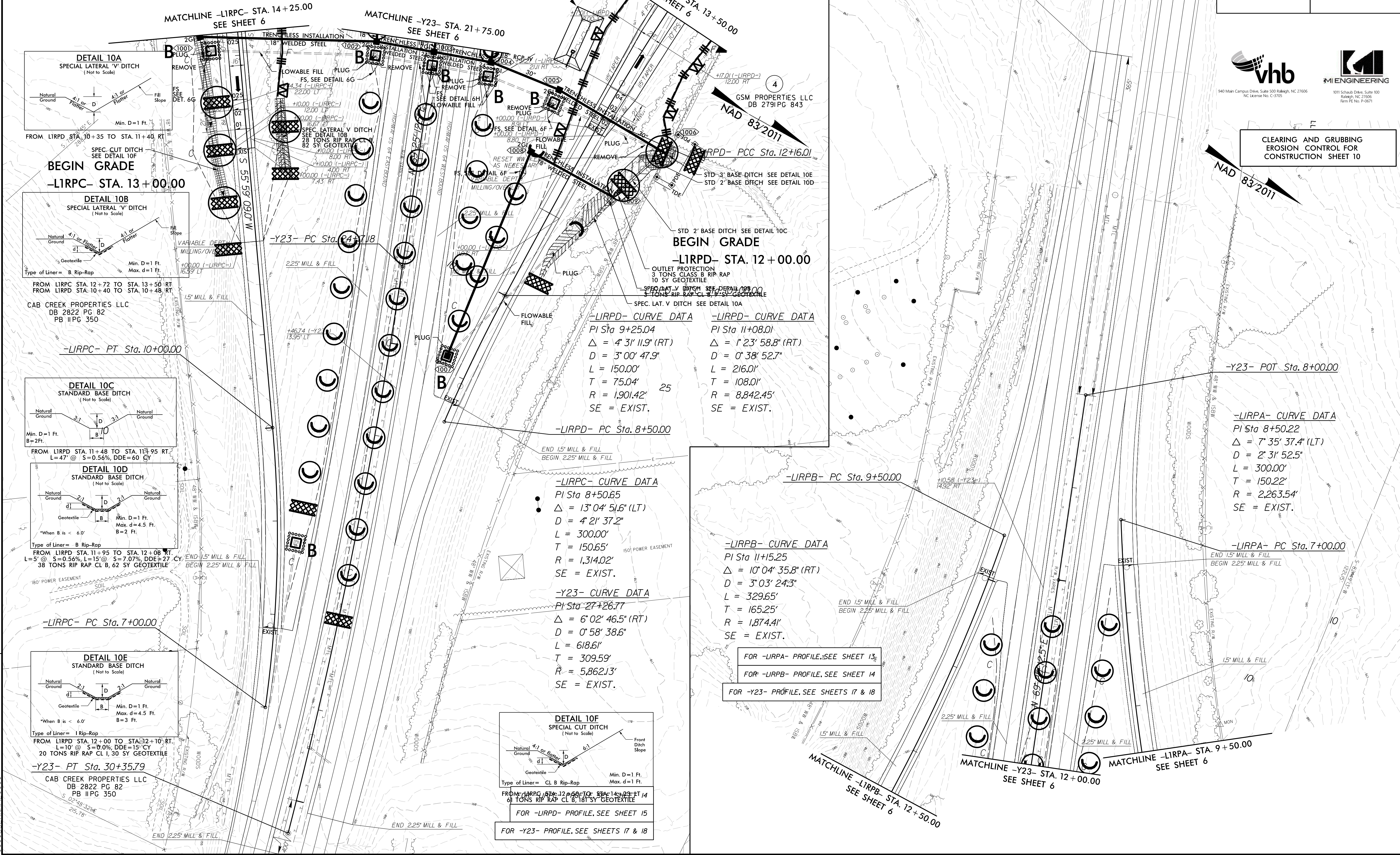
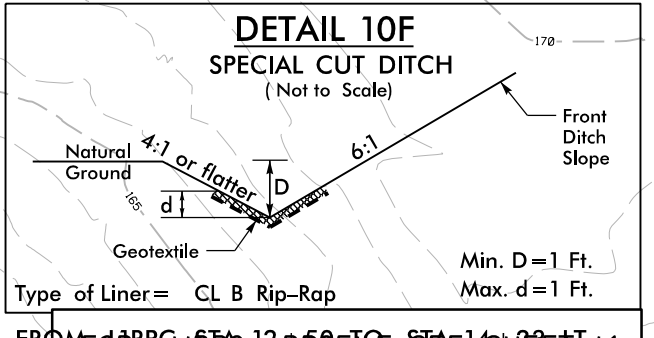
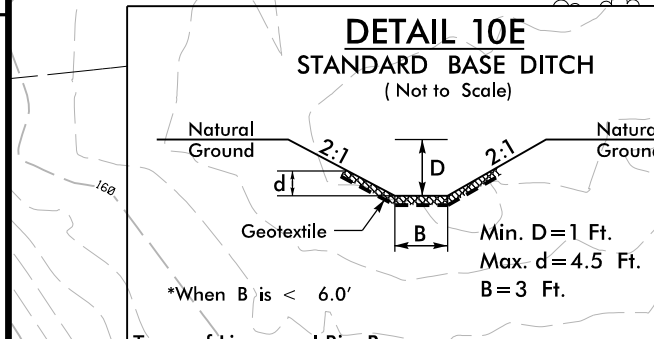
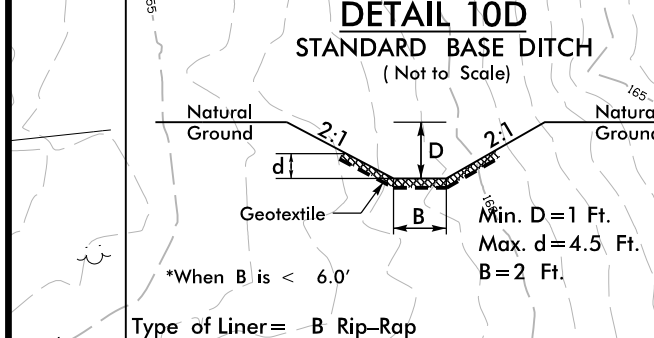
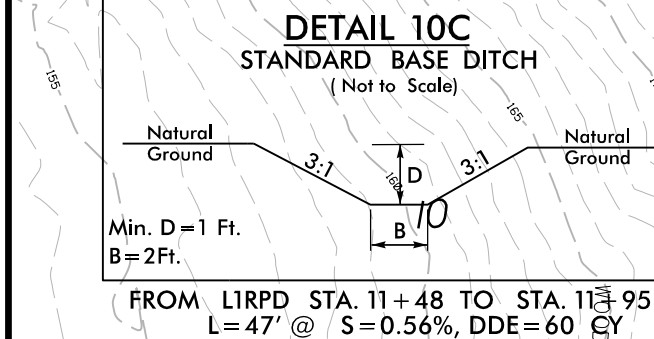
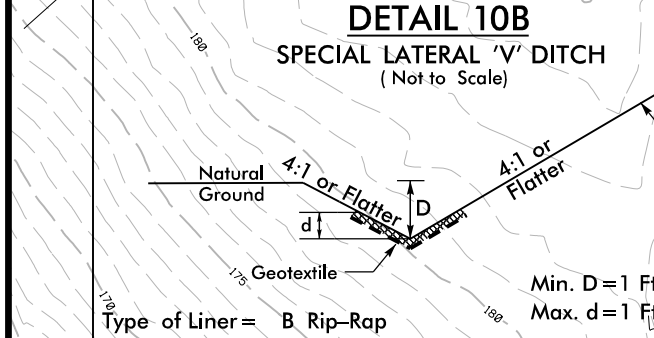
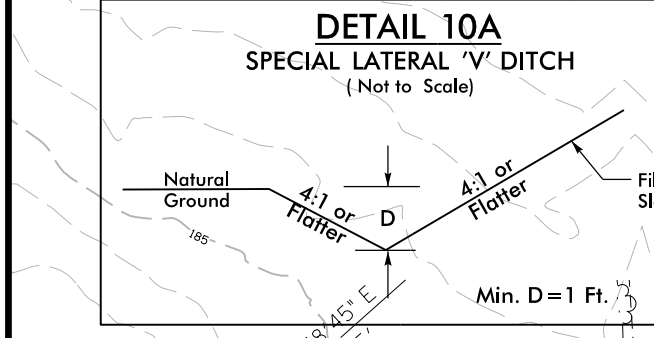
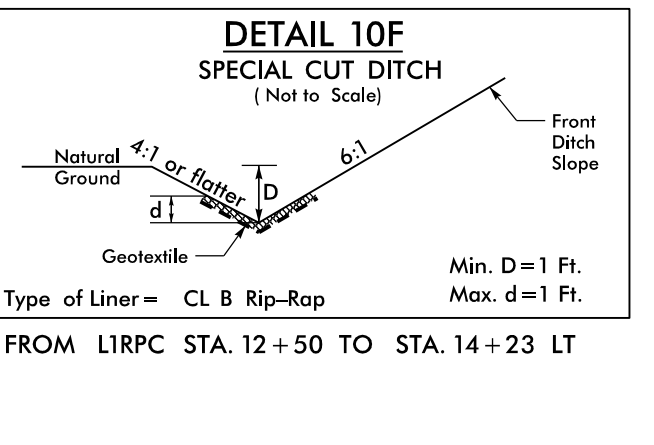
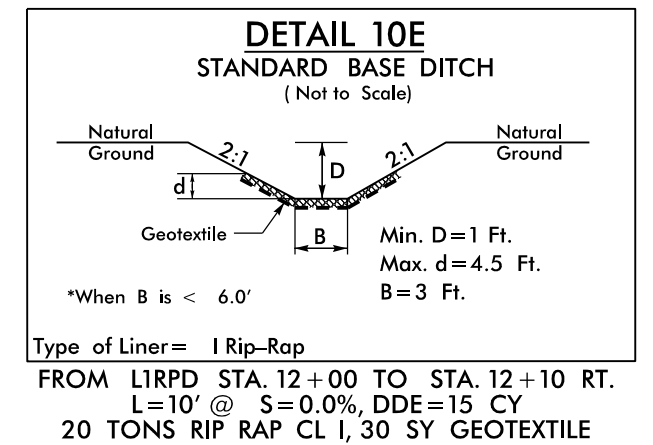
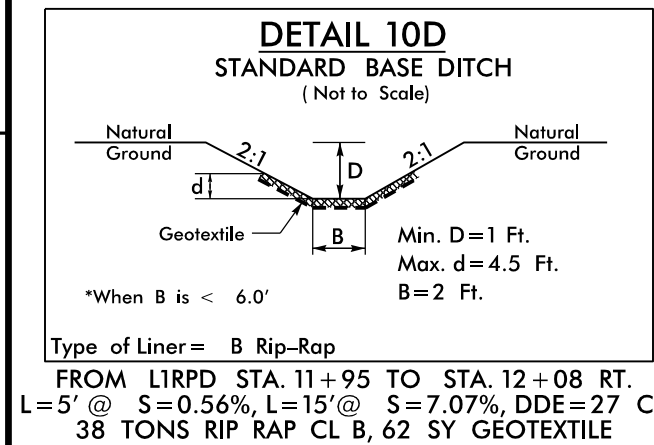
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10



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.

62 x 31 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
23 ft. weir
ID 10.1



-LIRPC- CURVE DATA
 PI Sta 8+50.65
 $\Delta = 13^{\circ} 04' 51.6" (LT)$
 $D = 4^{\circ} 21' 37.2"$
 $L = 300.00'$
 $T = 150.65'$
 $R = 1,314.02'$
 SE = EXIST.

-Y23- CURVE DATA
 PI Sta 27+26.77
 $\Delta = 6^{\circ} 02' 46.5" (RT)$
 $D = 0^{\circ} 58' 38.6"$
 $L = 618.61'$
 $T = 309.59'$
 $R = 5,862.13'$
 SE = EXIST.

-LIRPB- CURVE DATA
 PI Sta 11+5.25
 $\Delta = 10^{\circ} 04' 35.8" (RT)$
 $D = 3^{\circ} 03' 24.3"$
 $L = 329.65'$
 $T = 165.25'$
 $R = 1,874.41'$
 SE = EXIST.

-LIRPA- CURVE DATA
 PI Sta 8+50.22
 $\Delta = 7^{\circ} 35' 37.4" (LT)$
 $D = 2^{\circ} 31' 52.5"$
 $L = 300.00'$
 $T = 150.22'$
 $R = 2,263.54'$
 SE = EXIST.

FOR -LIRPA- PROFILE, SEE SHEET 13
 FOR -LIRPB- PROFILE, SEE SHEET 14
 FOR -Y23- PROFILE, SEE SHEETS 17 & 18

FOR -LIRPD- PROFILE, SEE SHEET 15
 FOR -Y23- PROFILE, SEE SHEETS 17 & 18

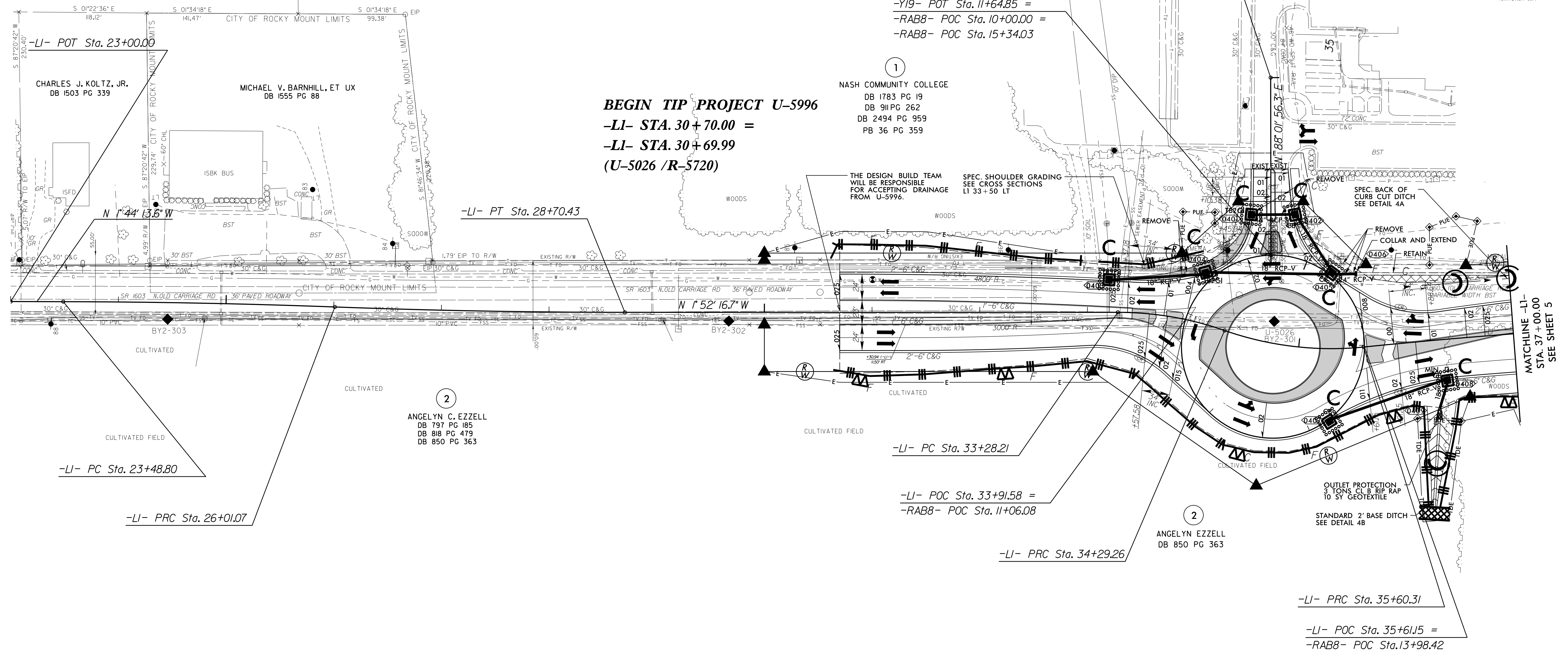
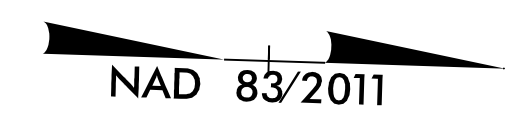
REVISIONS

14-OCT-2021(3:51) N:\NC Highways\17034-U-5996 & R-5720\EROSION Contr-ol\PSH\U5996_rdy_psh10_c&g.dgn
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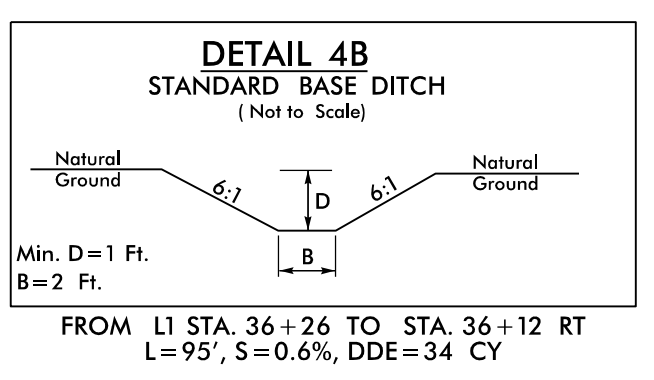
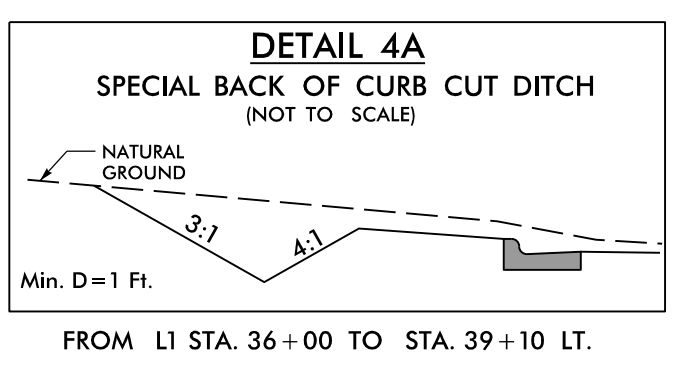
PROJECT REFERENCE NO.	SHEET NO.
U-5996	EC-II/CON.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

OLD CARRIAGE RD. AT NASH COMMUNITY COLLEGE SOUTH ENTRANCE	
2020 ADT 2040	1565 2000
626 800	939 1200
SR 1603 OLD CARRIAGE RD. 12583 17800	SR 1603 OLD CARRIAGE RD. 12896 18200

-LI- CURVE DATA PI Sta 24+74.95 $\Delta = 1^{\circ}58'47.9"$ (RT) $D = 0^{\circ}47'05.5"$ $L = 252.27'$ $T = 126.15'$ $R = 7,300.00'$ SE = NC DS = 50 MPH	-LI- CURVE DATA PI Sta 27+35.76 $\Delta = 2^{\circ}06'51.0"$ (LT) $D = 0^{\circ}47'05.5"$ $L = 269.36'$ $T = 134.70'$ $R = 7,300.00'$ SE = NC DS = 50 MPH	-LI- CURVE DATA PI Sta 33+79.22 $\Delta = 19^{\circ}17'56.8"$ (RT) $D = 19^{\circ}05'54.9"$ $L = 101.05'$ $T = 51.01'$ $R = 300.00'$	-LI- CURVE DATA PI Sta 34+95.85 $\Delta = 25^{\circ}01'38.7"$ (LT) $D = 19^{\circ}05'54.9"$ $L = 131.04'$ $T = 66.58'$ $R = 300.00'$	-RAB8- CURVE DATA PI Sta 10+00.02 $\Delta = 359^{\circ}58'18.9"$ (LT) $D = 67^{\circ}24'24.5"$ $L = 534.03'$ $T = 0.02'$ $R = 85.00'$ SE = NC DS = 25 MPH
--	--	---	---	--



INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.



FOR INTERSECTION DETAIL, SEE SHEET 2B-1

FOR -LI- PROFILE, SEE SHEET 11

FOR -RAB8- PROFILE, SEE SHEET 15

FOR -Y19- PROFILE, SEE SHEET 16

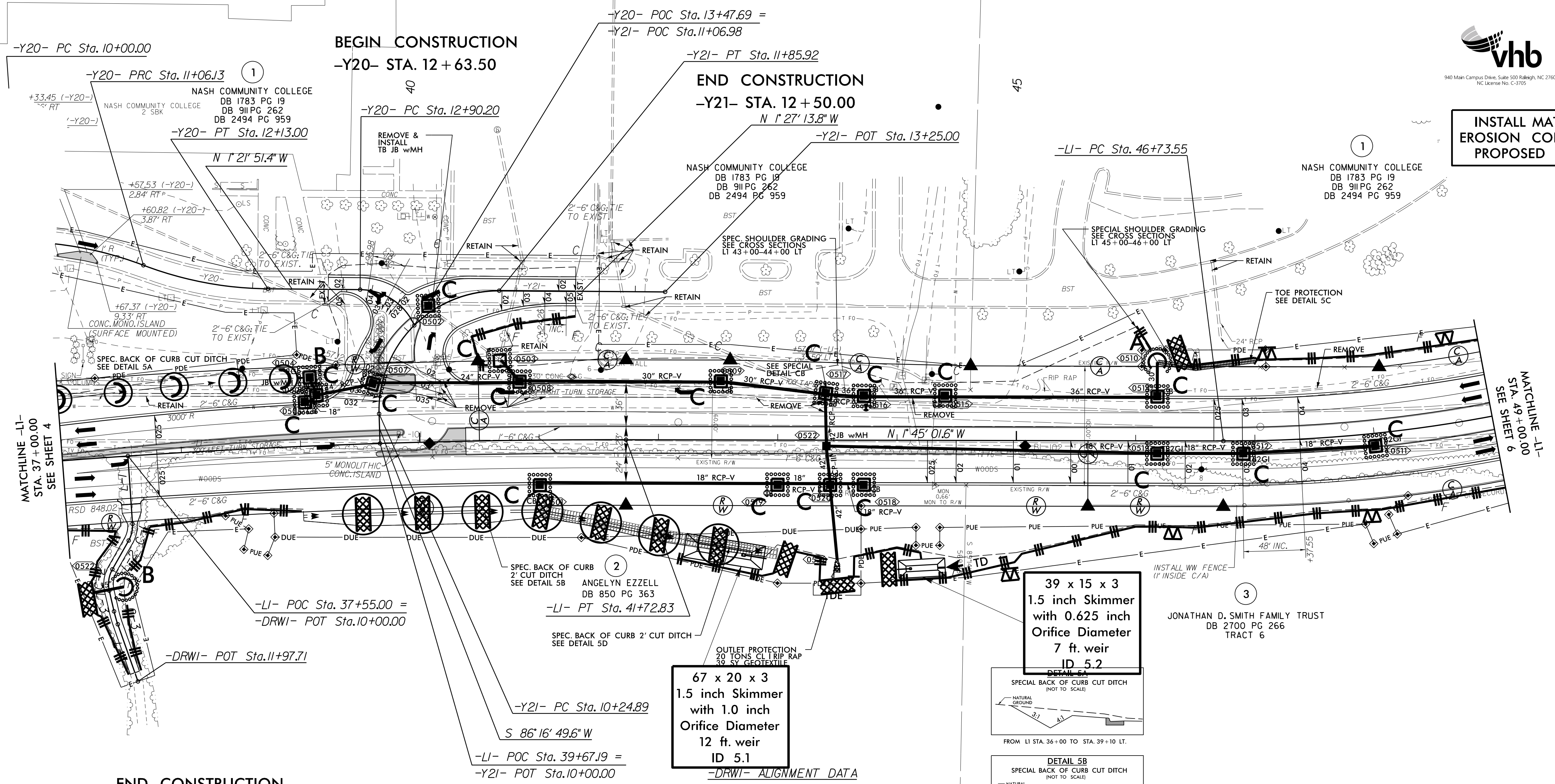
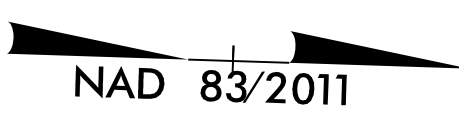
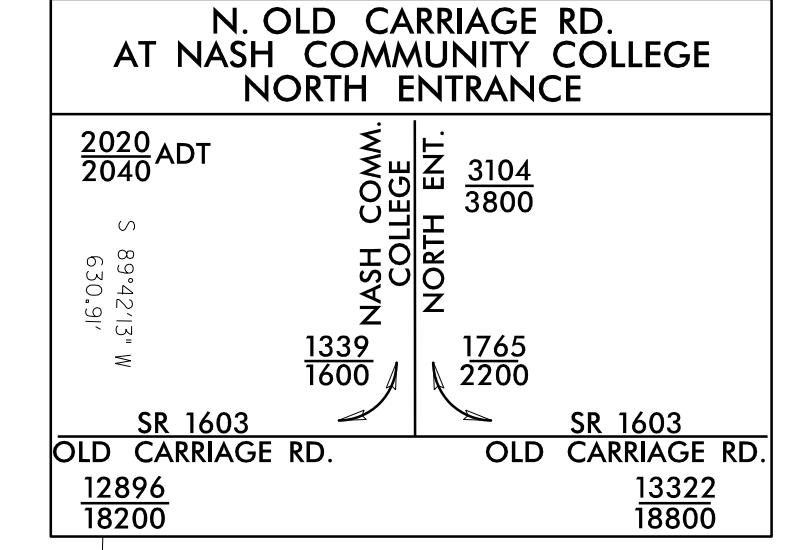
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 19-OCT-2021 14:44
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PROJECT REFERENCE NO.	SHEET NO.
U-5996	EC-12/CON.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

-LI- CURVE DATA PI Sta 38+66.83 $\Delta = 5^\circ 50' 56.9''$ (RT) $D = 0^\circ 57' 17.7''$ $L = 612.52'$ $T = 306.53'$ $R = 6,000.00'$ SE = NC DS = 45 MPH	-Y20- CURVE DATA PI Sta 10+53.63 $\Delta = 20^\circ 16' 11.2''$ (RT) $D = 19^\circ 05' 54.9''$ $L = 106.13'$ $T = 53.63'$ $R = 300.00'$	-Y20- CURVE DATA PI Sta 11+60.14 $\Delta = 20^\circ 24' 40.0''$ (LT) $D = 19^\circ 05' 54.9''$ $L = 106.87'$ $T = 54.01'$ $R = 300.00'$	-Y20- CURVE DATA PI Sta 13+22.60 $\Delta = 65^\circ 53' 13.9''$ (RT) $D = 114^\circ 35' 29.6''$ $L = 57.50'$ $T = 32.40'$ $R = 50.00'$	-Y21- CURVE DATA PI Sta 11+28.92 $\Delta = 92^\circ 15' 56.6''$ (RT) $D = 57^\circ 17' 44.8''$ $L = 161.03'$ $T = 104.03'$ $R = 100.00'$	-LI- CURVE DATA PI Sta 49+11.38 $\Delta = 22^\circ 25' 13.6''$ (LT) $D = 4^\circ 46' 28.7''$ $L = 469.57'$ $T = 237.83'$ $R = 1,200.00'$ SE = 04 RO = 192' DS = 50 MPH
--	--	--	---	---	--



MATCHLINE -LI- STA. 37+00.00 SEE SHEET 4

MATCHLINE -LI- STA. 49+00.00 SEE SHEET 6

END CONSTRUCTION
-DRWI- STA. 11+90.00

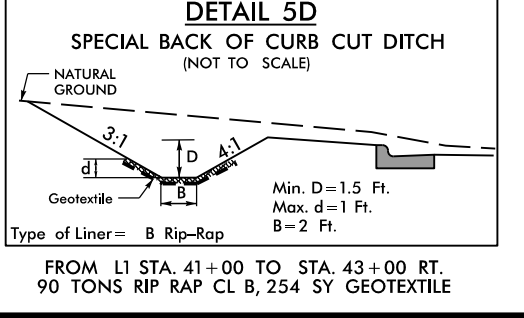
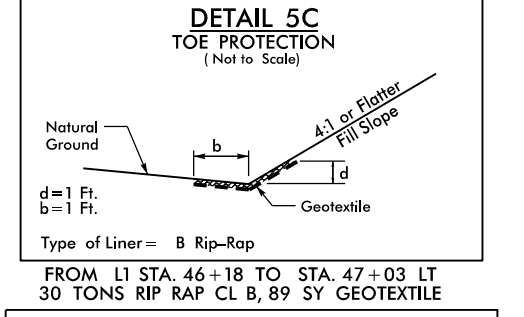
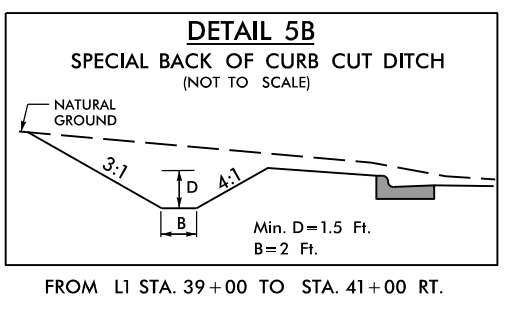
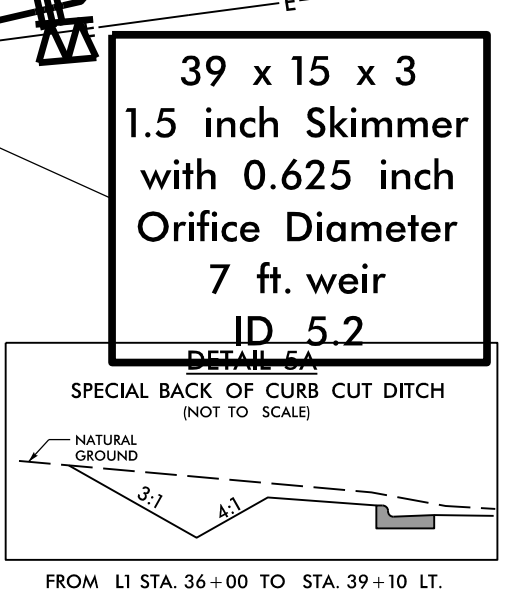
-DRWI- CURVE DATA PI Sta 10+64.49 $\Delta = 33^\circ 21' 47.2''$ (RT) $D = 229^\circ 10' 59.2''$ $L = 14.56'$ $T = 7.49'$ $R = 25.00'$	-DRWI- CURVE DATA PI Sta 11+09.01 $\Delta = 42^\circ 25' 39.6''$ (LT) $D = 229^\circ 10' 59.2''$ $L = 18.51'$ $T = 9.70'$ $R = 25.00'$	-DRWI- CURVE DATA PI Sta 11+41.26 $\Delta = 6^\circ 29' 07.8''$ (LT) $D = 57^\circ 17' 44.8''$ $L = 11.32'$ $T = 5.67'$ $R = 100.00'$
---	---	--

67 x 20 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
12 ft. weir
ID 5.1

39 x 15 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
7 ft. weir
ID 5.2

-DRWI- ALIGNMENT DATA

L-1	N 84°15' 34.5° E
C-1	PC Sta.10+57.00 PT Sta.10+71.55
L-2	S 62°22' 38.3° E
C-2	PC Sta.10+99.31 PT Sta.11+17.82
L-3	N 75°11' 42.2° E
C-3	PC Sta.11+35.60 PT Sta.11+46.92
L-4	N 68°42' 34.3° E



- FOR -DRWI- SUPERELEVATION, SEE SHEET 2B-2
- FOR INTERSECTION/DRIVEWAY DETAIL, SEE SHEET 2B-2
- FOR -LI- PROFILE, SEE SHEET 11
- FOR -Y20- PROFILE, SEE SHEET 16
- FOR -DRWI- PROFILE, SEE SHEET 19

NOTE: ASSUME ALL ISLANDS ARE 5" MONOLITHIC CONCRETE UNLESS OTHERWISE NOTED
NOTE: DRIVEWAY RADII = 10 FT UNLESS OTHERWISE NOTED

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PROJECT REFERENCE NO.	SHEET NO.
U-5996	EC-13/CON.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

N. OLD CARRIAGE RD. AT US 64			
2020 ADT	US 64	36852	
2040		49200	
		3035	713
		4600	800
SR 1603		7009	2252
OLD CARRIAGE RD.	SR 1603	10400	6243
13322			2600
18800			7200
	US 64	42365	
		56800	

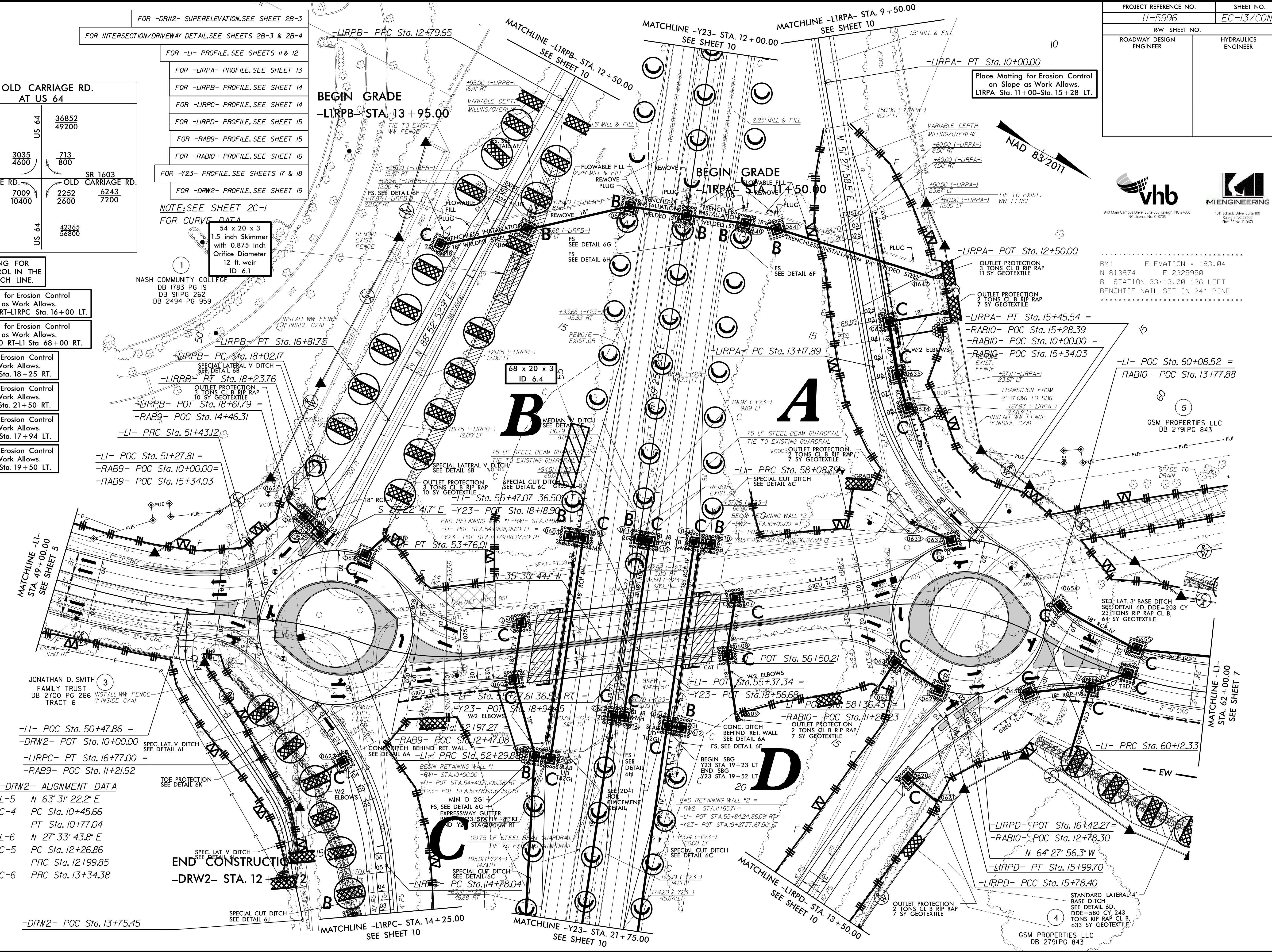
- FOR -DRW2- SUPERELEVATION, SEE SHEET 2B-3
- FOR INTERSECTION/DRIVEWAY DETAIL, SEE SHEETS 2B-3 & 2B-4
- FOR -LI- PROFILE, SEE SHEETS 11 & 12
- FOR -LIRPA- PROFILE, SEE SHEET 13
- FOR -LIRPB- PROFILE, SEE SHEET 14
- FOR -LIRPC- PROFILE, SEE SHEET 14
- FOR -LIRPD- PROFILE, SEE SHEET 15
- FOR -RAB9- PROFILE, SEE SHEET 15
- FOR -RAB10- PROFILE, SEE SHEET 16
- FOR -Y23- PROFILE, SEE SHEETS 17 & 18
- FOR -DRW2- PROFILE, SEE SHEET 19

NOTE: SEE SHEET 2C-1 FOR CURVE DATA

54 x 20 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
12 ft. weir
ID 6.1

- INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.
- Place Matting for Erosion Control on Slope as Work Allows. RPB9 Sta. 10+50 RT-LIRPC Sta. 16+00 LT.
- Place Matting for Erosion Control on Slope as Work Allows. RPB10 Sta. 13+00 RT-LI Sta. 68+00 RT.
- Place Matting for Erosion Control on Slope as Work Allows. Y23 Sta. 15+50-Sta. 18+25 RT.
- Place Matting for Erosion Control on Slope as Work Allows. Y23 Sta. 19+21-Sta. 21+50 RT.
- Place Matting for Erosion Control on Slope as Work Allows. Y23 Sta. 16+25-Sta. 17+94 LT.
- Place Matting for Erosion Control on Slope as Work Allows. Y23 Sta. 19+02-Sta. 19+50 LT.

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940 Main Campus Drive, Suite 500 Raleigh, NC 27606
NC License No. C-3705

1011 Schaub Drive, Suite 100
Raleigh, NC 27606
Form E-100 (Rev. 9/07)

BM1 ELEVATION = 183.04
N 813974 E 2325950
BL STATION 33+13.00 126 LEFT
BENCHTIE NAIL SET IN 24" PINE

-LI- POC Sta. 60+08.52 =
-RAB10- POC Sta. 13+77.88

GSM PROPERTIES LLC
DB 2791PG 843

STD. LAT. 3' BASE DITCH
SEE DETAIL 6D, DDE=203 CY
23 TONS RIP RAP CL B,
64 SY GEOTEXTILE

STANDARD LATERAL
BASE DITCH
SEE DETAIL 6D,
DDE=580 CY, 243
TONS RIP RAP CL B,
633 SY GEOTEXTILE

GSM PROPERTIES LLC
DB 2791PG 843



-LI- CURVE DATA
 PI Sta 63+07.08
 $\Delta = 66^{\circ} 26' 56.0''$ (LT)
 $D = 12^{\circ} 43' 56.6''$
 $L = 521.89'$
 $T = 294.75'$
 $R = 450.00'$
 $SE = 04$
 $RO = 120'$
 $DS = 35$ MPH

-LI- CURVE DATA
 PI Sta 75+07.24
 $\Delta = 75^{\circ} 47' 42.9''$ (RT)
 $D = 4^{\circ} 35' 01.2''$
 $L = 1,653.60'$
 $T = 973.02'$
 $R = 1,250.00'$
 $SE = 07$
 $RO = 210'$
 $DS = 50$ MPH

-Y26- CURVE DATA
 PI Sta 10+83.53
 $\Delta = 75^{\circ} 50' 58.6''$ (LT)
 $D = 114^{\circ} 35' 29.6''$
 $L = 66.19'$
 $T = 38.96'$
 $R = 50.00'$

-Y22- CURVE DATA
 PI Sta 9+50.02
 $\Delta = 3^{\circ} 43' 37.5''$ (LT)
 $D = 3^{\circ} 43' 37.5''$
 $L = 100.00'$
 $T = 50.02'$
 $R = 1,537.28'$
 $SE = EXIST.$

-Y22- CURVE DATA
 PI Sta 11+91.19
 $\Delta = 40^{\circ} 08' 22.6''$ (LT)
 $D = 57^{\circ} 17' 44.8''$
 $L = 70.06'$
 $T = 36.54'$
 $R = 100.00'$

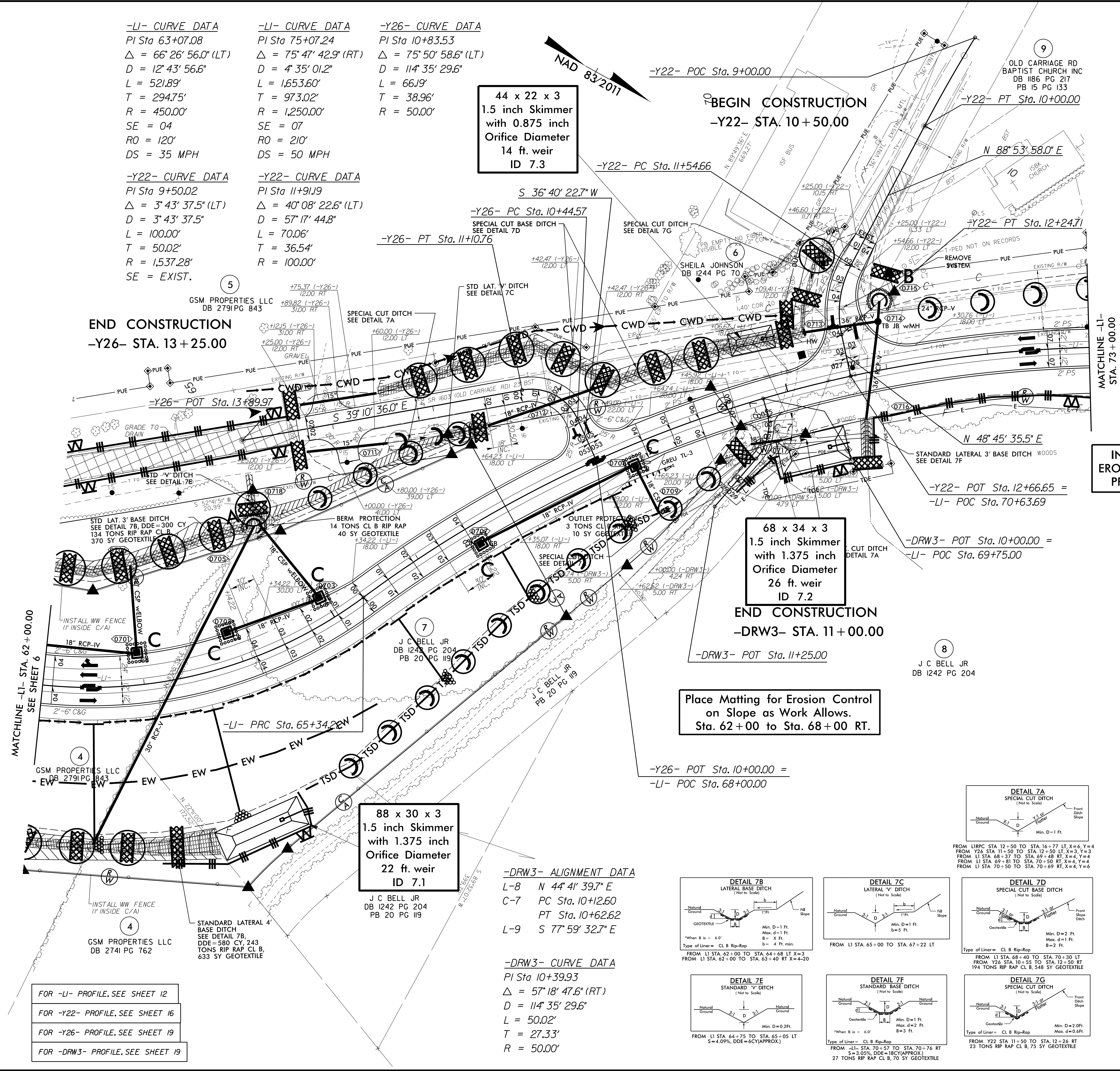
END CONSTRUCTION
 -Y26- STA. 13+25.00

BEGIN CONSTRUCTION
 -Y22- STA. 10+50.00

END CONSTRUCTION
 -DRW3- STA. 11+00.00

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

Place Matting for Erosion Control on Slope as Work Allows. Sta. 62+00 to Sta. 68+00 RT.



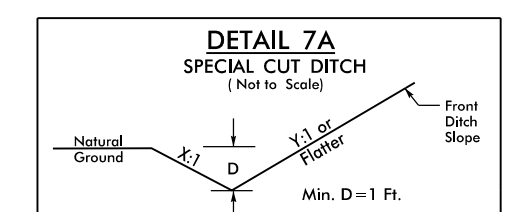
44 x 22 x 3
 1.5 inch Skimmer
 with 0.875 inch
 Orifice Diameter
 14 ft. weir
 ID 7.3

68 x 34 x 3
 1.5 inch Skimmer
 with 1.375 inch
 Orifice Diameter
 26 ft. weir
 ID 7.2

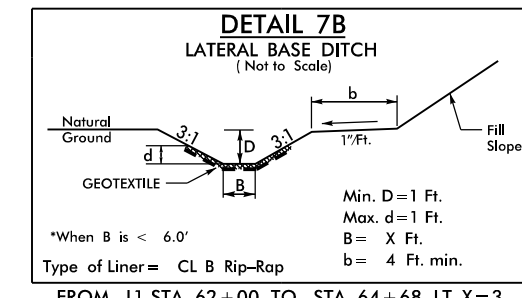
88 x 30 x 3
 1.5 inch Skimmer
 with 1.375 inch
 Orifice Diameter
 22 ft. weir
 ID 7.1

-DRW3- ALIGNMENT DATA
 L-8 N 44° 41' 39.7" E
 C-7 PC Sta. 10+12.60
 PT Sta. 10+62.62
 L-9 S 77° 59' 32.7" E

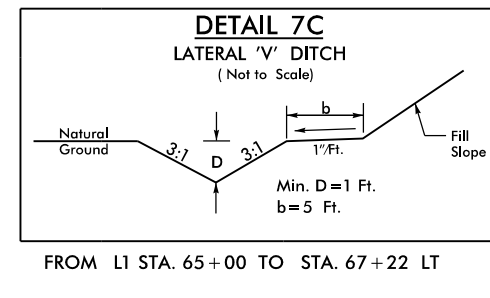
-DRW3- CURVE DATA
 PI Sta 10+39.93
 $\Delta = 57^{\circ} 18' 47.6''$ (RT)
 $D = 114^{\circ} 35' 29.6''$
 $L = 50.02'$
 $T = 27.33'$
 $R = 50.00'$



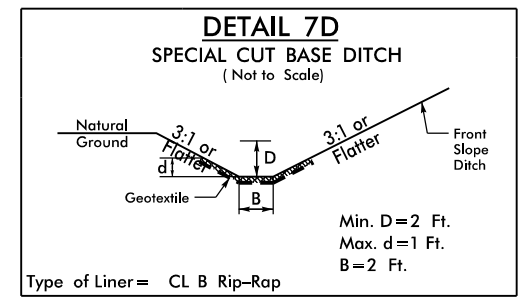
FROM LI/PC STA 12+50 TO STA. 16+77 LT, X=6, Y=4
 FROM Y26 STA 11+50 TO STA. 12+50 LT, X=3, Y=3
 FROM LI STA 68+37 TO STA. 69+48 RT, X=4, Y=4
 FROM LI STA 69+81 TO STA. 70+50 RT, X=4, Y=4
 FROM LI STA 70+50 TO STA. 70+69 RT, X=4, Y=6



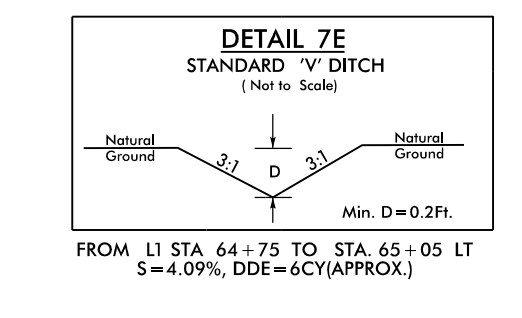
FROM LI STA. 62+00 TO STA. 64+08 LT X=3
 FROM LI STA. 62+00 TO STA. 63+40 RT X=4-30



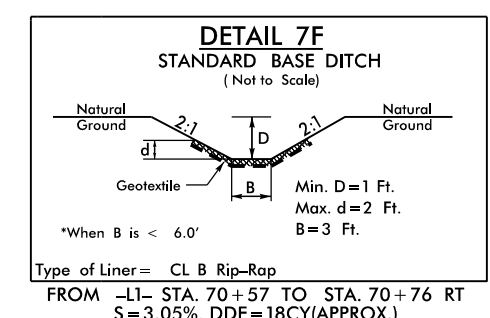
FROM LI STA. 65+00 TO STA. 67+22 LT



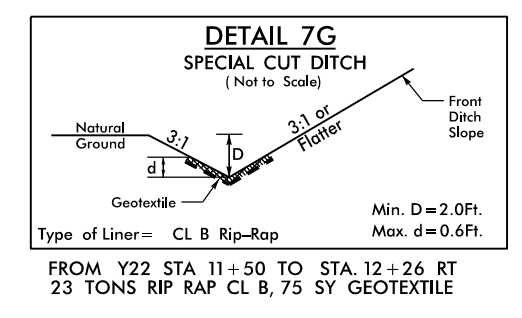
FROM LI STA. 68+40 TO STA. 70+30 LT
 FROM Y26 STA. 10+58 TO STA. 12+50 RT
 194 TONS RIP RAP CL B, 548 SY GEOTEXTILE



FROM LI STA. 64+75 TO STA. 65+05 LT
 S=4.09%, DDE=6CY (APPROX.)



FROM Y22 STA. 11+50 TO STA. 12+25 RT
 S=3.03%, DDE=18CY (APPROX.)
 27 TONS RIP RAP CL B, 75 SY GEOTEXTILE

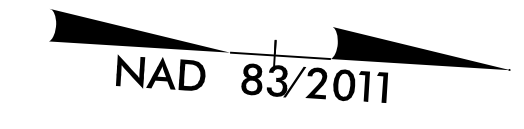


FROM Y22 STA. 11+50 TO STA. 12+25 RT
 23 TONS RIP RAP CL B, 75 SY GEOTEXTILE

FOR -U- PROFILE, SEE SHEET 12
 FOR -Y22- PROFILE, SEE SHEET 16
 FOR -Y26- PROFILE, SEE SHEET 19
 FOR -DRW3- PROFILE, SEE SHEET 19

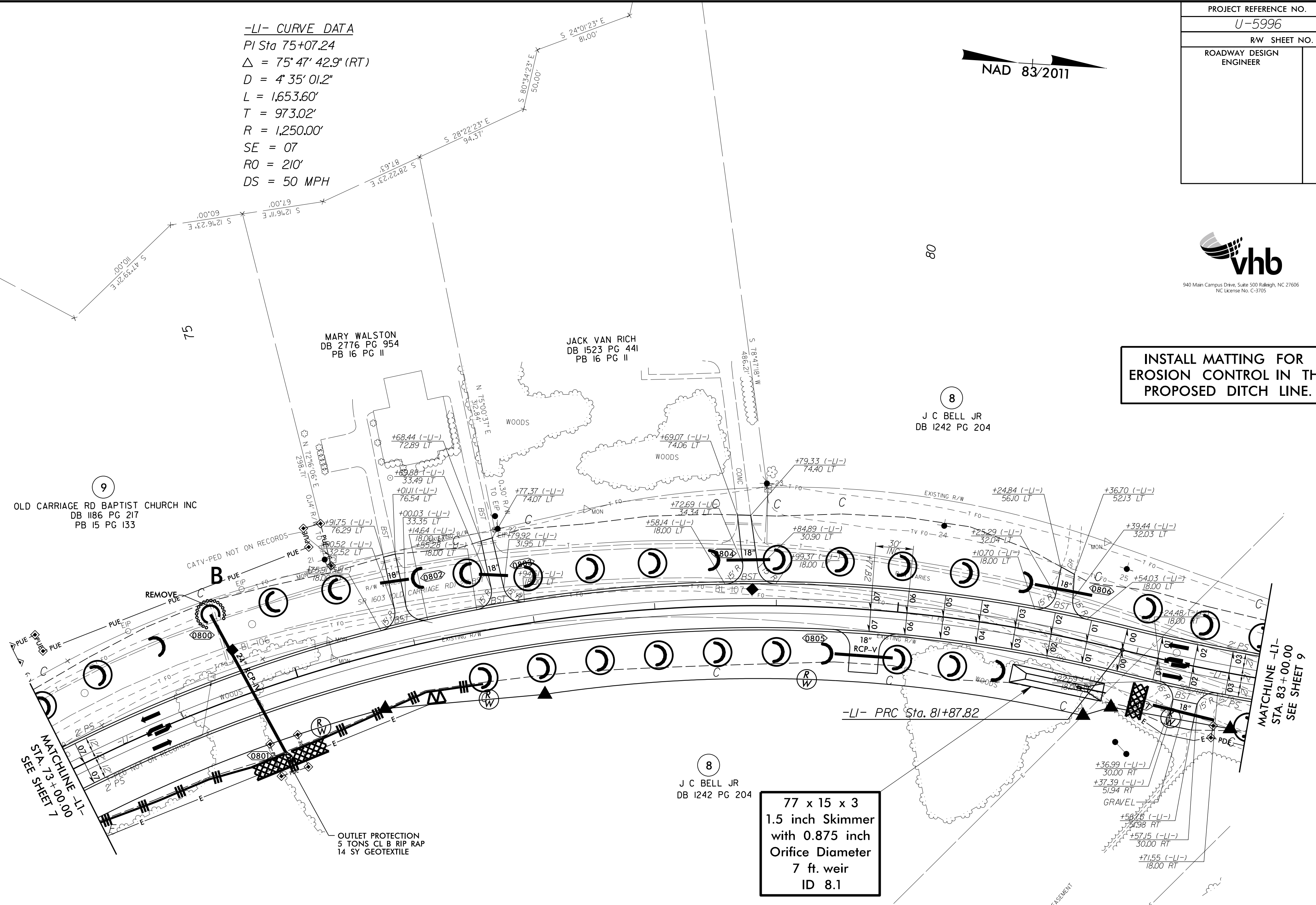
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PROJECT REFERENCE NO.	SHEET NO.
U-5996	EC-15/CON.8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

-LI- CURVE DATA
 PI Sta 75+07.24
 $\Delta = 75^\circ 47' 42.9''$ (RT)
 $D = 4' 35'' 01.2''$
 $L = 1,653.60'$
 $T = 973.02'$
 $R = 1,250.00'$
 $SE = 07$
 $RO = 210'$
 $DS = 50$ MPH



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PROJECT REFERENCE NO.	SHEET NO.
U-5996	EC-16/CON.9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

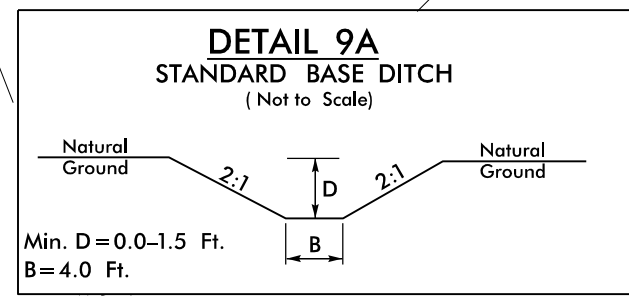


OLD CARRIAGE RD. AT REGES STORE RD./GREEN HILLS RD.			
2020 ADT 2040	REGES STORE RD. 713 800	1891 2500	313 400
SR 1603 6243 7200	2165 2600	339 600	4017 4800
GREEN HILLS RD. 3370 4500			

-Y24- CURVE DATA
 PI Sta 11+74.91
 $\Delta = 4^{\circ}02'03.8''$ (LT)
 $D = 2^{\circ}41'38.5''$
 $L = 149.75'$
 $T = 74.91'$
 $R = 2126.78'$
 SE = NC

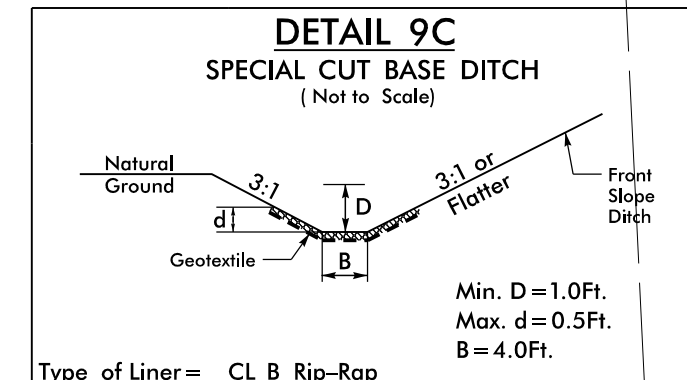
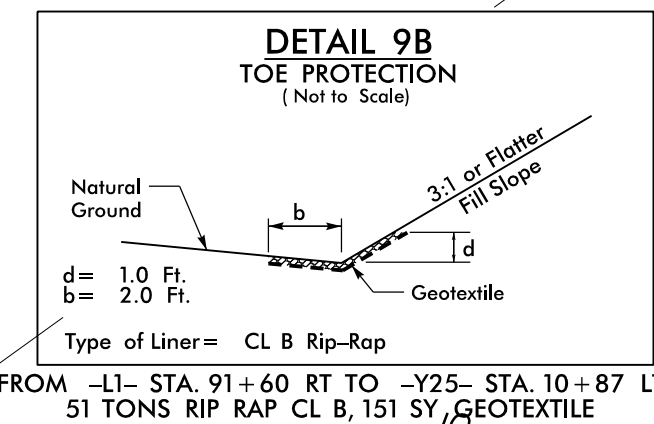
-Y24- CURVE DATA
 PI Sta 12+81.15
 $\Delta = 17^{\circ}34'50.9''$ (LT)
 $D = 28^{\circ}13'28.3''$
 $L = 62.29'$
 $T = 31.39'$
 $R = 203.00'$
 SE = NC

-RABII- CURVE DATA
 PI Sta 10+00.00
 $\Delta = 359^{\circ}59'32.5''$ (LT)
 $D = 76^{\circ}23'39.7''$
 $L = 471.23'$
 $T = 0.00'$
 $R = 75.00'$
 SE = NC
 DS = 20 MPH



NAD 83/2011

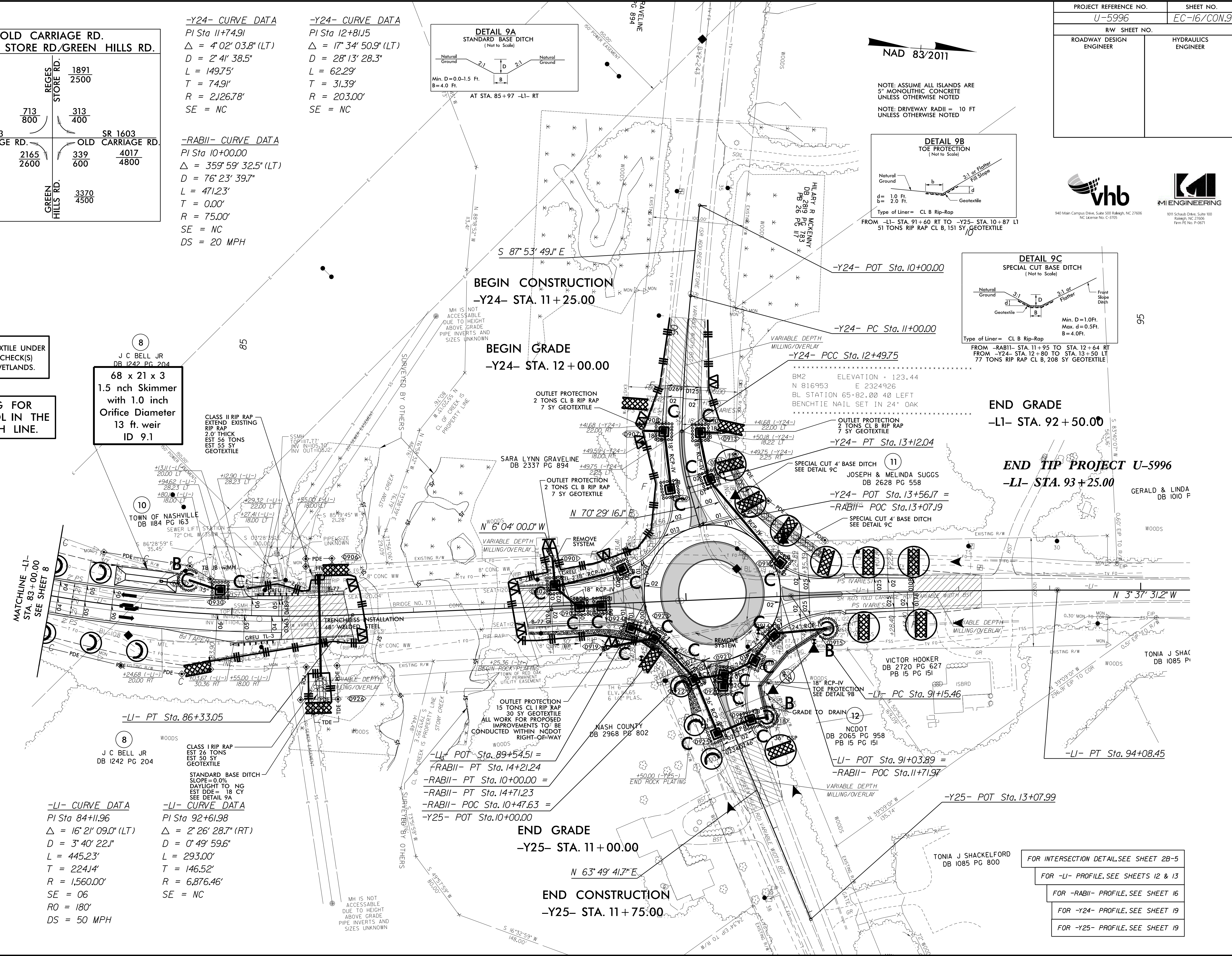
NOTE: ASSUME ALL ISLANDS ARE 5' MONOLITHIC CONCRETE UNLESS OTHERWISE NOTED
 NOTE: DRIVEWAY RADII = 10 FT UNLESS OTHERWISE NOTED



INSTALL FILTRATION GEOTEXTILE UNDER TEMPORARY ROCK SILT CHECK(S) TYPE A IN PERMITTED WETLANDS.

8
 J C BELL JR
 DB 1242 PG 204
 68 x 21 x 3
 1.5 nch Skimmer
 with 1.0 inch
 Orifice Diameter
 13 ft. weir
 ID 9.1

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.



END GRADE
 -LI- STA. 92+50.00

END TIP PROJECT U-5996
 -LI- STA. 93+25.00

-LI- CURVE DATA
 PI Sta 84+11.96
 $\Delta = 16^{\circ}21'09.0''$ (LT)
 $D = 3^{\circ}40'22.1''$
 $L = 445.23'$
 $T = 224.14'$
 $R = 1,560.00'$
 SE = 06
 RO = 180'
 DS = 50 MPH

-LI- CURVE DATA
 PI Sta 92+61.98
 $\Delta = 2^{\circ}26'28.7''$ (RT)
 $D = 0^{\circ}49'59.6''$
 $L = 293.00'$
 $T = 146.52'$
 $R = 6,876.46'$
 SE = NC

FOR INTERSECTION DETAIL, SEE SHEET 2B-5
 FOR -LI- PROFILE, SEE SHEETS 12 & 13
 FOR -RABII- PROFILE, SEE SHEET 16
 FOR -Y24- PROFILE, SEE SHEET 19
 FOR -Y25- PROFILE, SEE SHEET 19

8/17/99
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