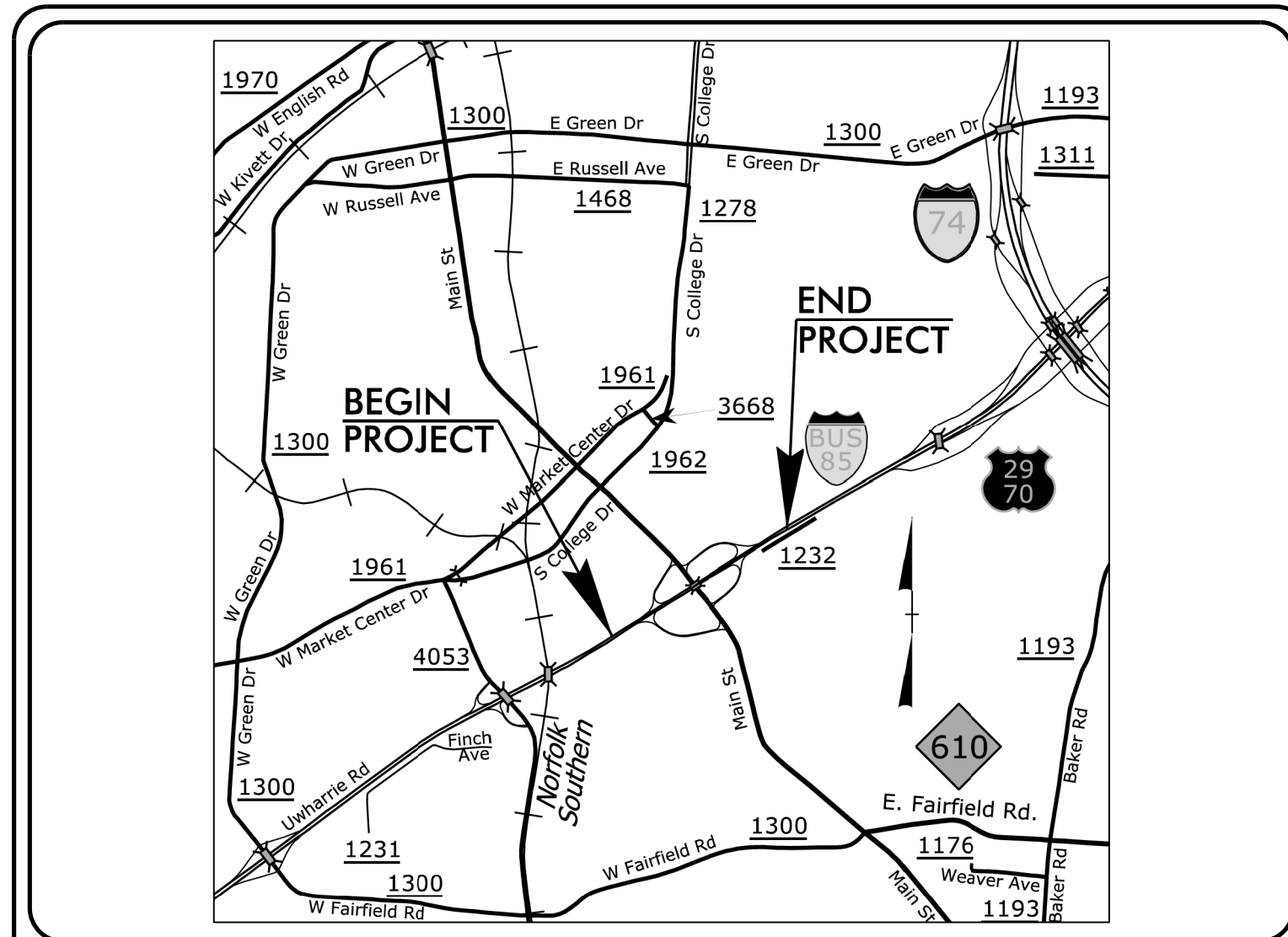


**TIP PROJECT: U-5896**



**VICINITY MAP**  
NOT TO SCALE

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

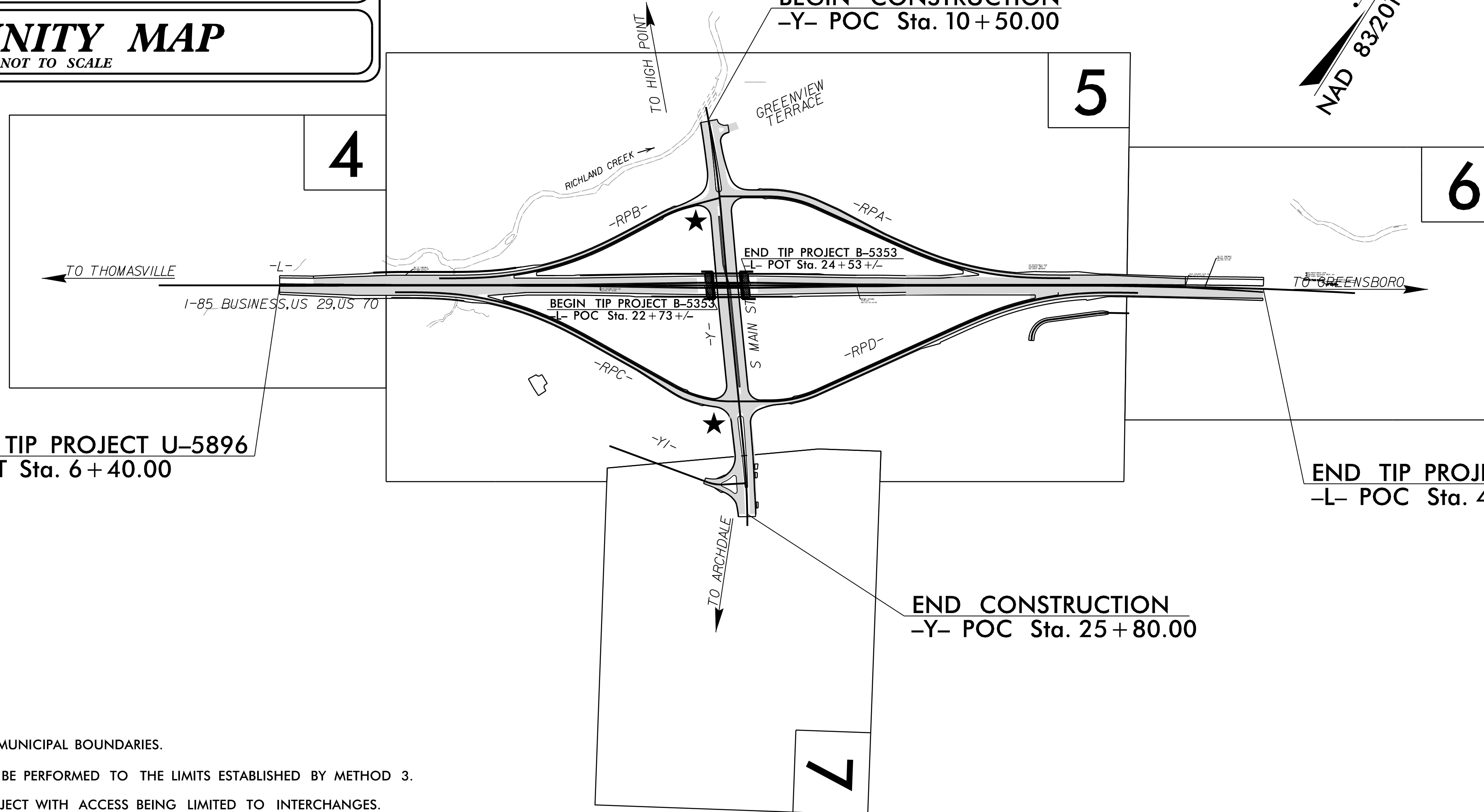
PLAN FOR PROPOSED  
HIGHWAY EROSION CONTROL

# GUILFORD COUNTY

**LOCATION: INTERCHANGE AT I-85 BUSINESS, US 29, US 70 AND S MAIN STREET (SR 1009)**

**TYPE OF WORK: GRADING, PAVING, DRAINAGE, STRUCTURE, SIGNALS**

BEGIN CONSTRUCTION  
-Y- POC Sta. 10 + 50.00



**EROSION AND SEDIMENT CONTROL MEASURES**

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1650.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	TSF
1606.01	Special Sediment Control Fence	SCF
1622.01	Temporary Berms and Slope Drains	TBSD
1650.02	Silt Basin Type B	SB
1633.01	Temporary Rock Silt Check Type-A	RSCT-A
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	RSCT-A-PAM
1633.02	Temporary Rock Silt Check Type-B	RSCT-B
	Wattle/Coir Fiber Wattle	WCFW
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	WCFW-PAM
1634.01	Temporary Rock Sediment Dam Type-A	TRSDA-A
1634.02	Temporary Rock Sediment Dam Type-B	TRSDA-B
1655.01	Rock Pipe Inlet Sediment Trap Type-A	RPIST-A
1655.02	Rock Pipe Inlet Sediment Trap Type-B	RPIST-B
1650.04	Stilling Basin	SB
1630.06	Special Stilling Basin	SSB
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	SKB
	Tiered Skimmer Basin	TSKB
	Infiltration Basin	IB

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.*

THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD 3.

THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.

**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.



VHB Engineering NC, P.C. (C-3705)  
940 Main Campus Drive, Suite 500  
Raleigh, NC 27606

Prepared in the Office of:

**VHB ENGINEERING NC, P.C.**  
940 MAIN CAMPUS DRIVE, SUITE 500  
RALEIGH, NC 27606

Designed by:

**REID ROBOL**  
NAME

**3409**

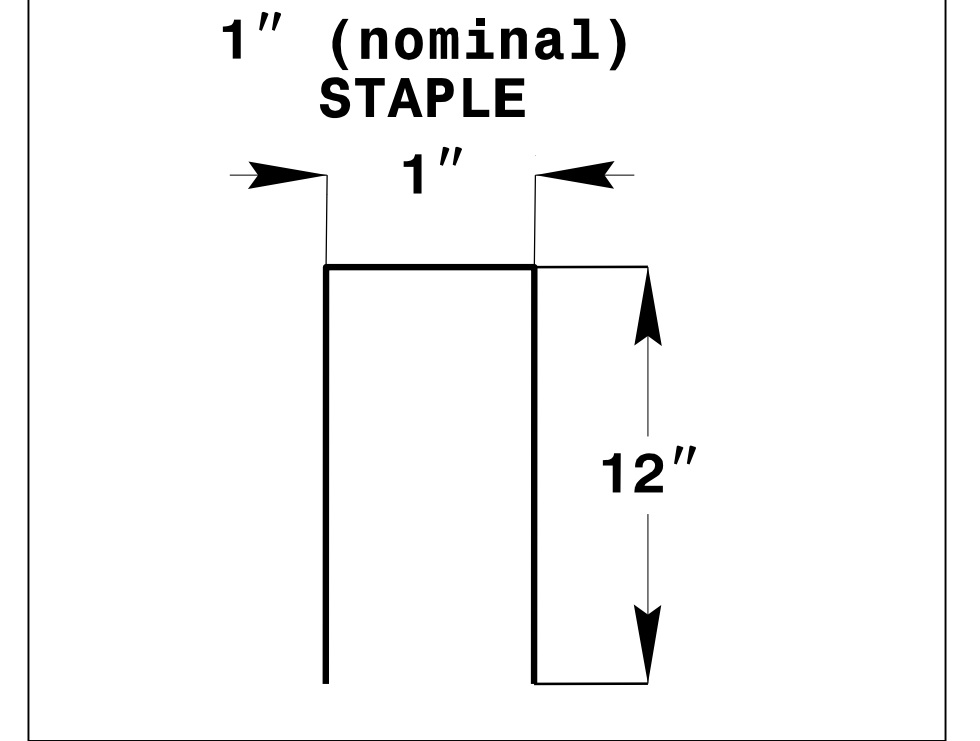
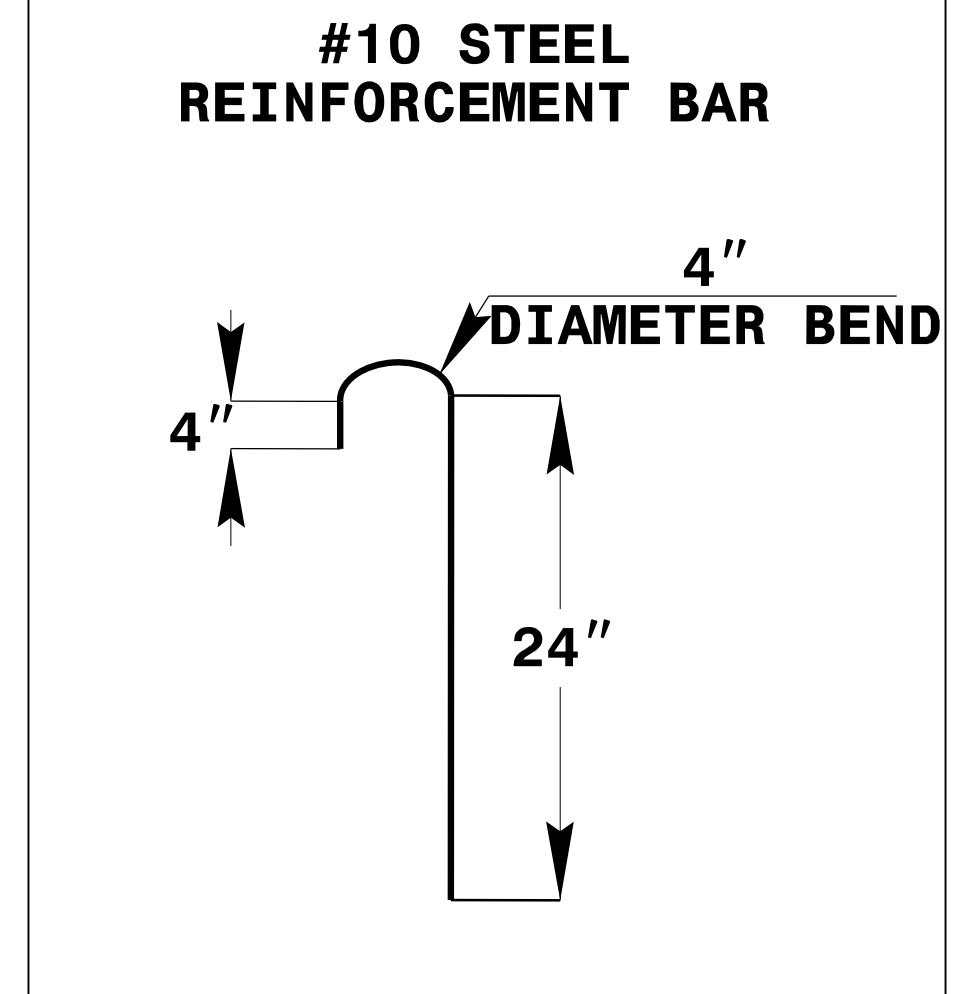
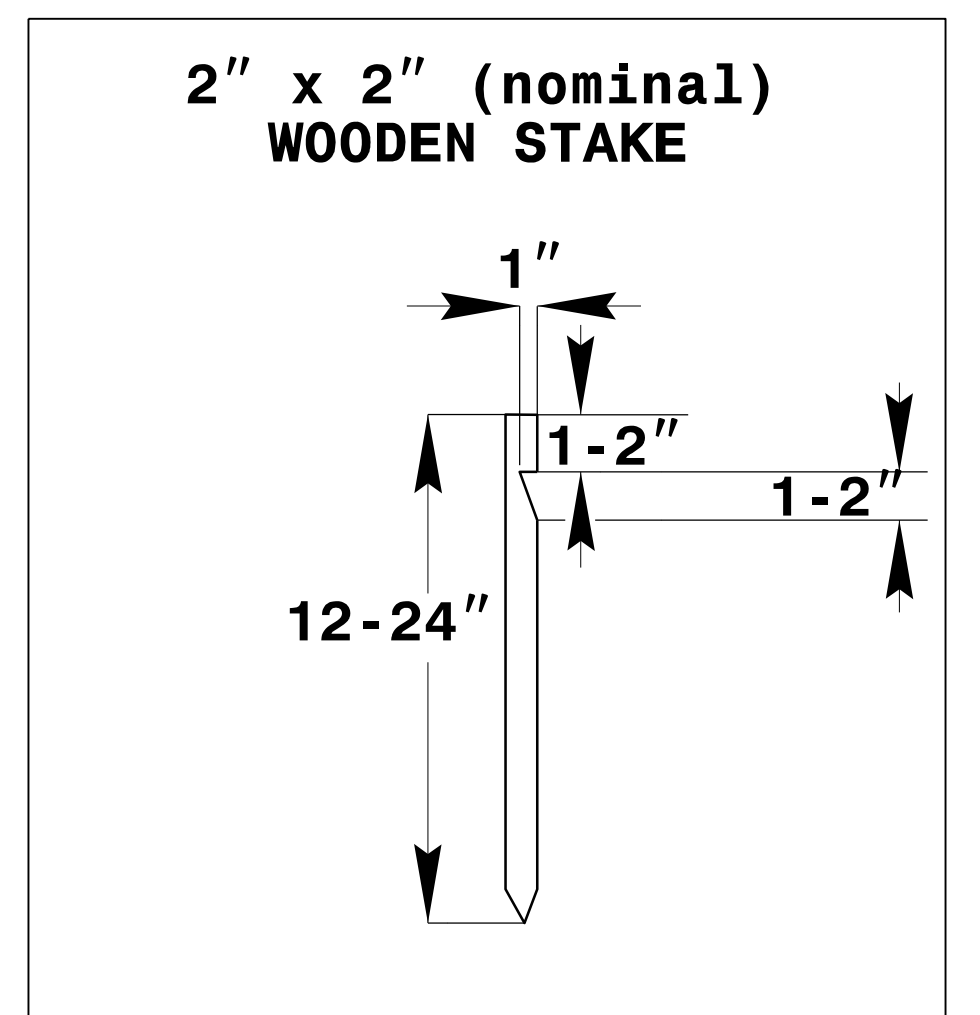
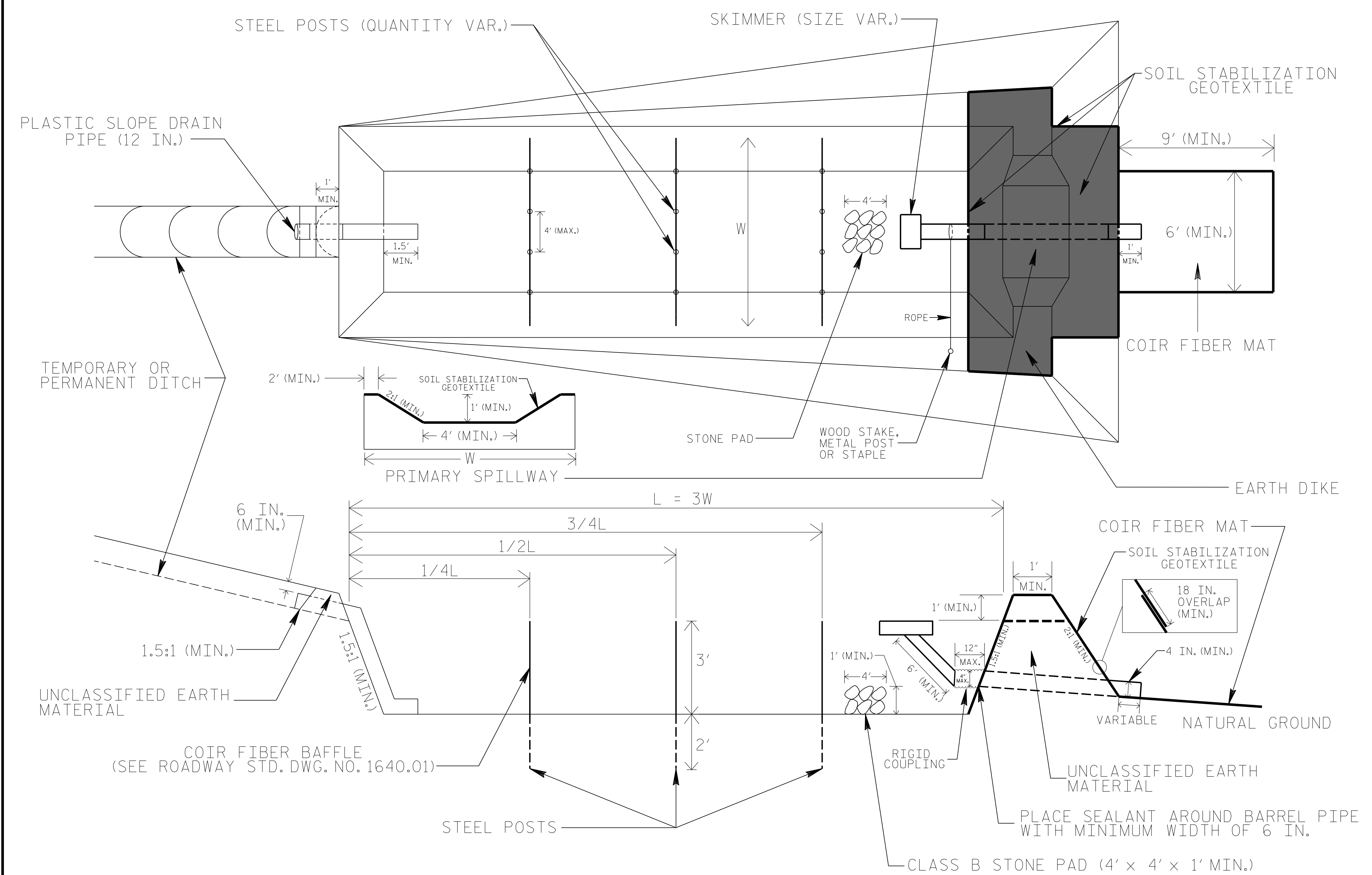
LEVEL III CERTIFICATION NO.

Highway Standard Drawings

The following highway standard drawings 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	

# SKIMMER BASIN WITH BAFFLES DETAIL



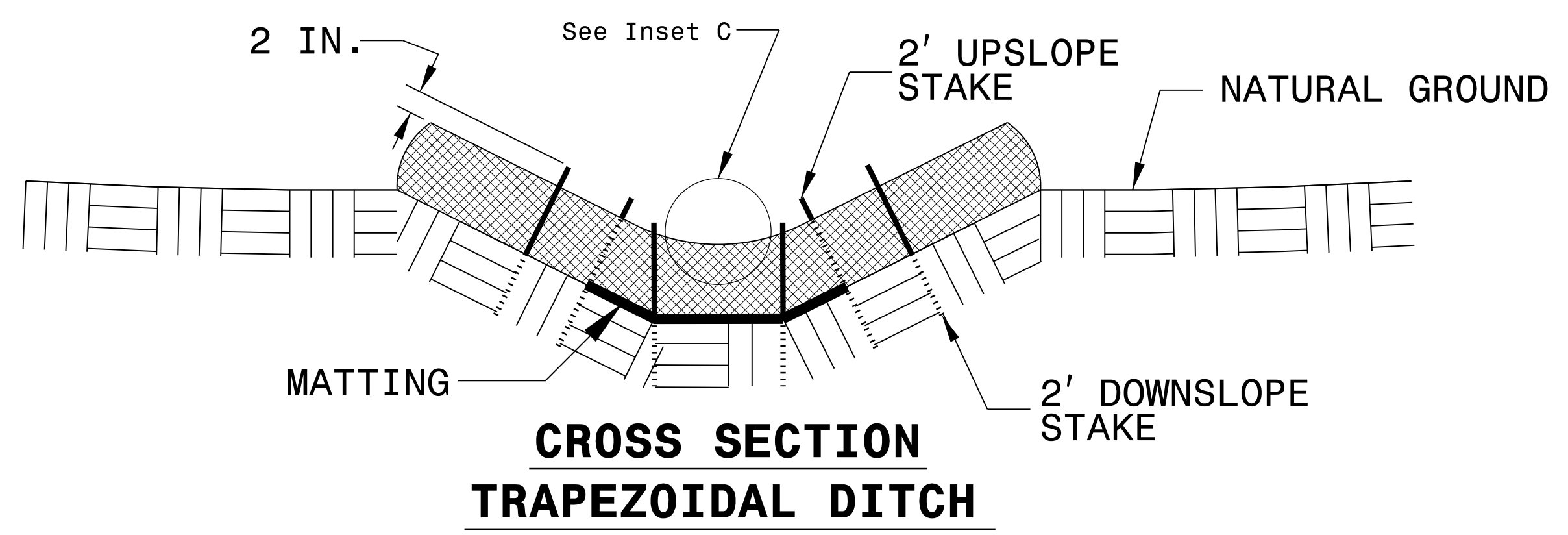
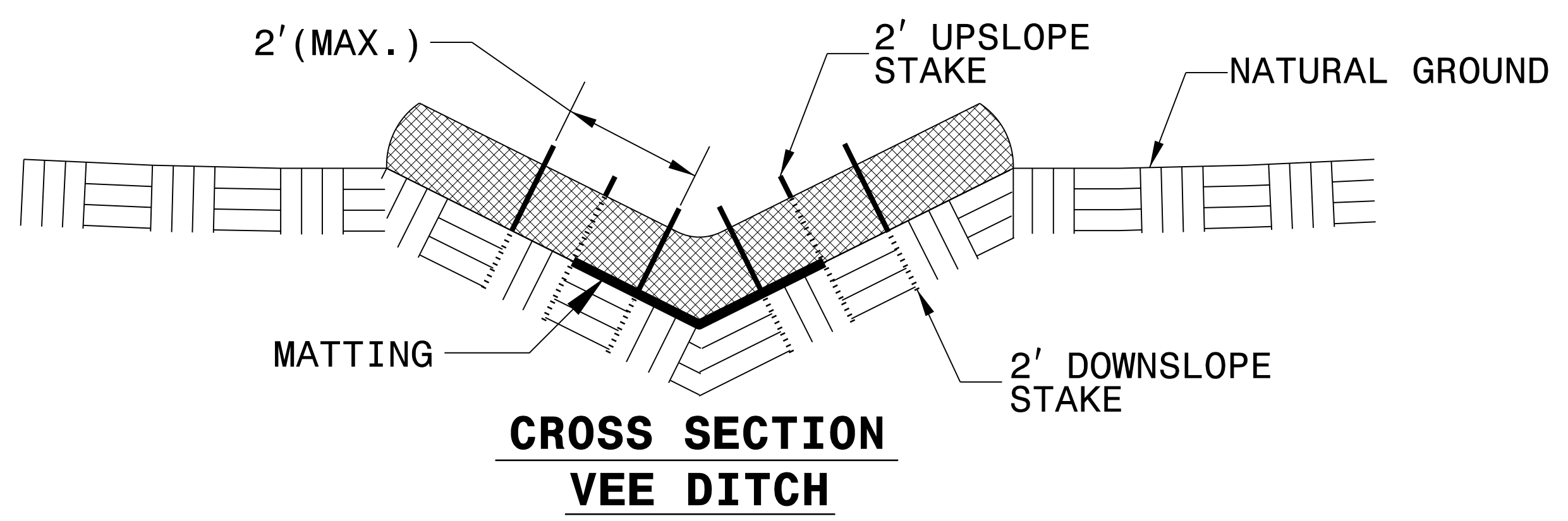
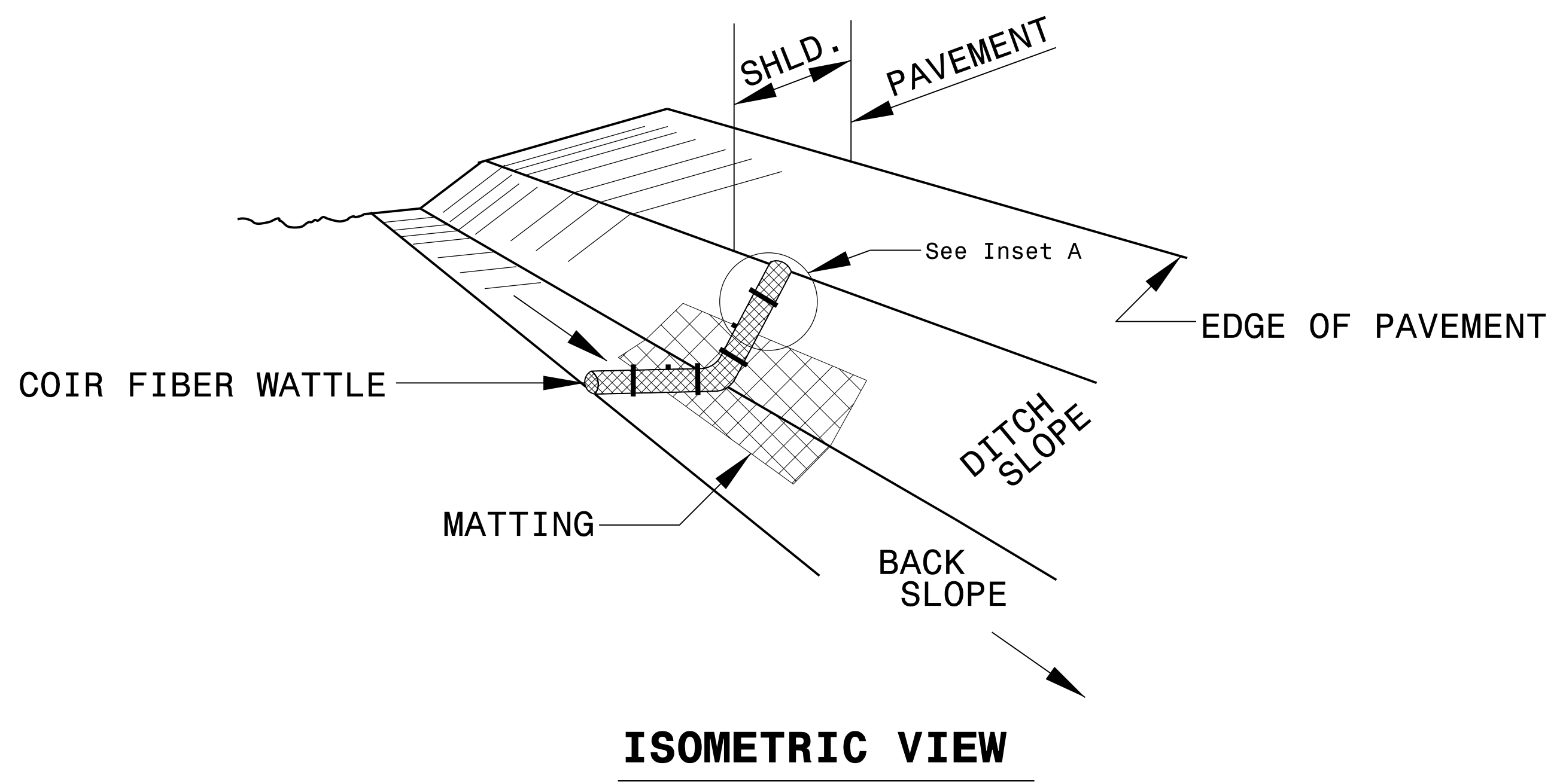
## COIR FIBER MAT ANCHOR OPTIONS

### NOTES

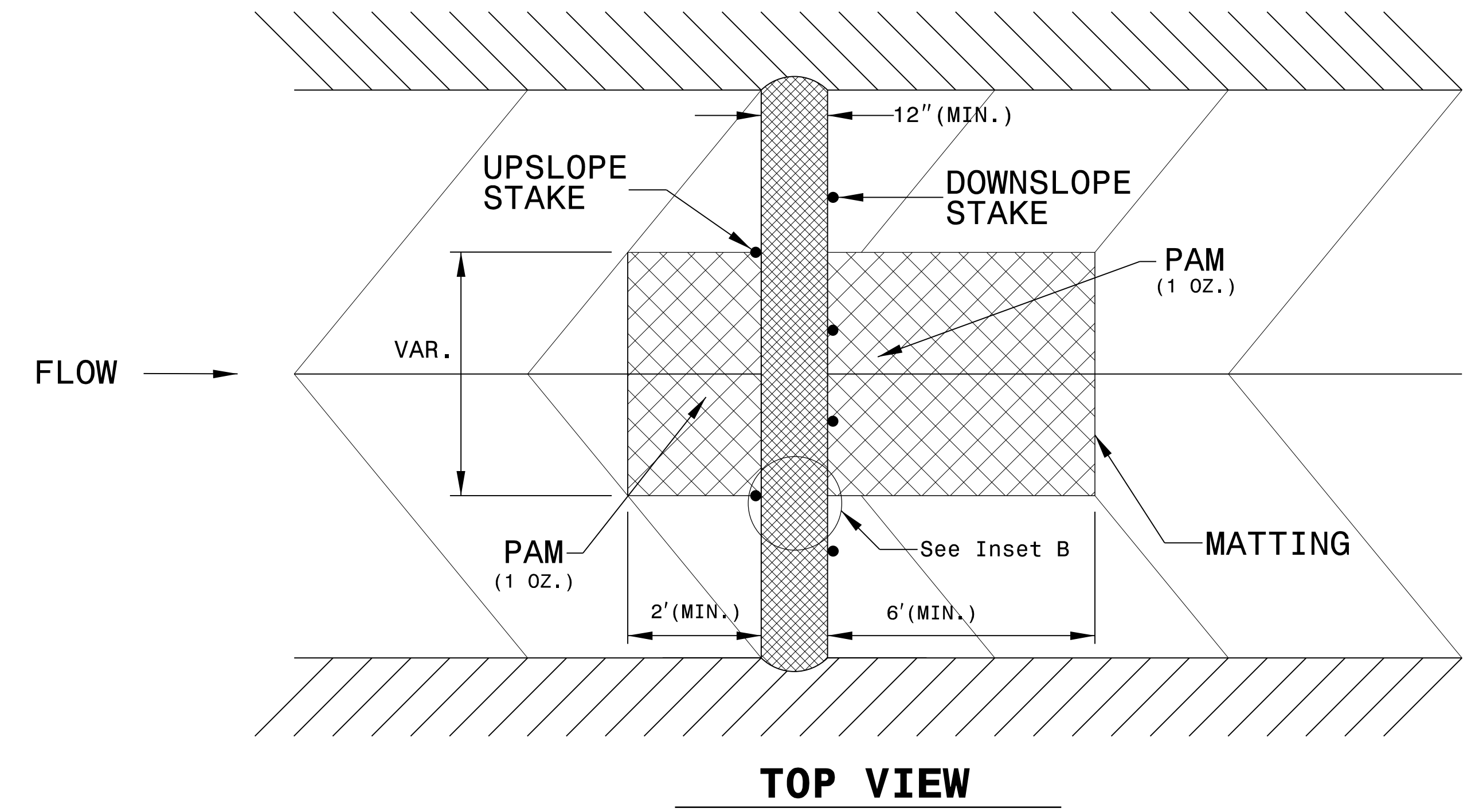
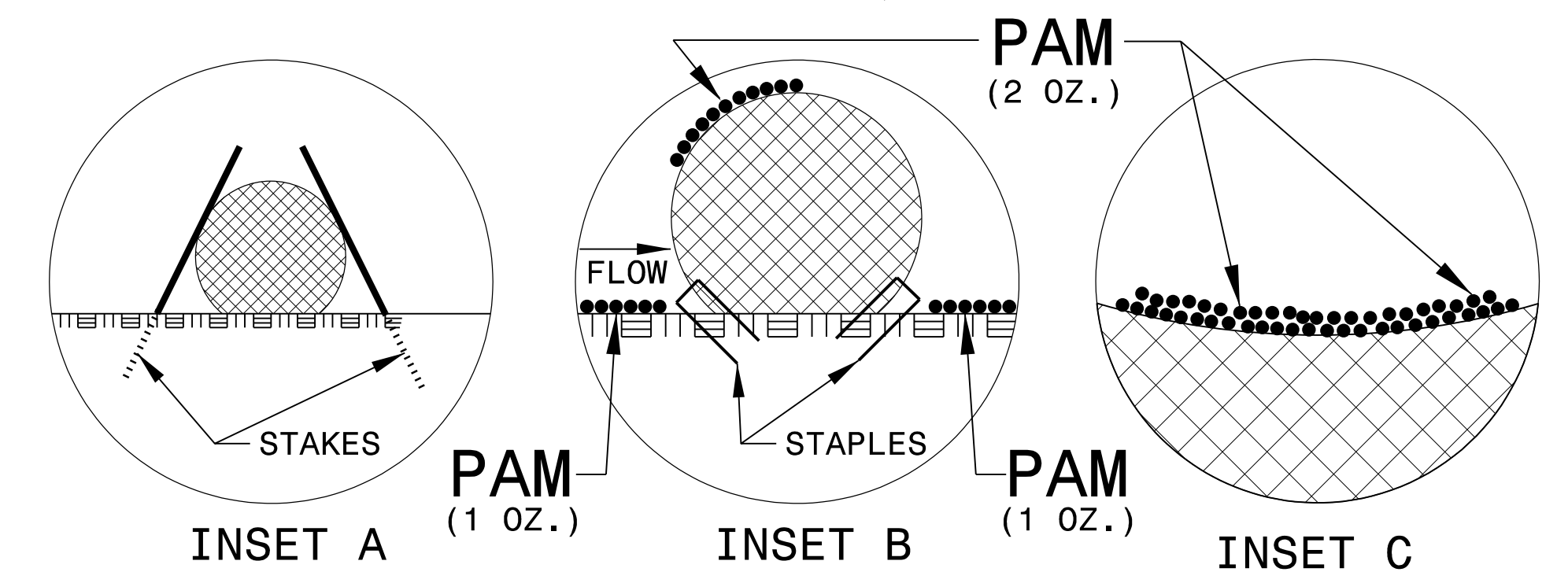
1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE PRIMARY SPILLWAY WEIR LENGTH (FT.) USING  $Q/0.8$ , WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC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

NOT TO SCALE

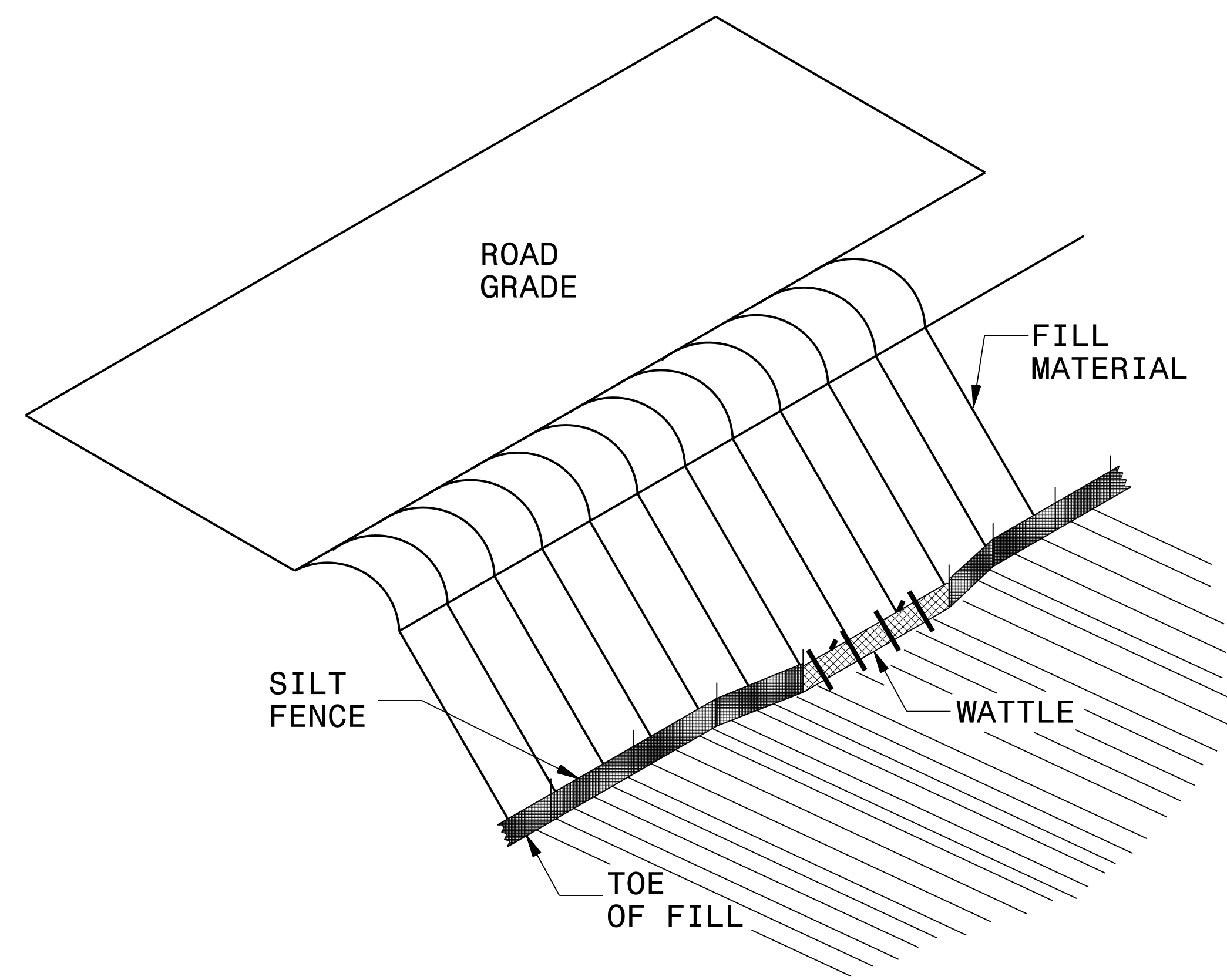
# COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



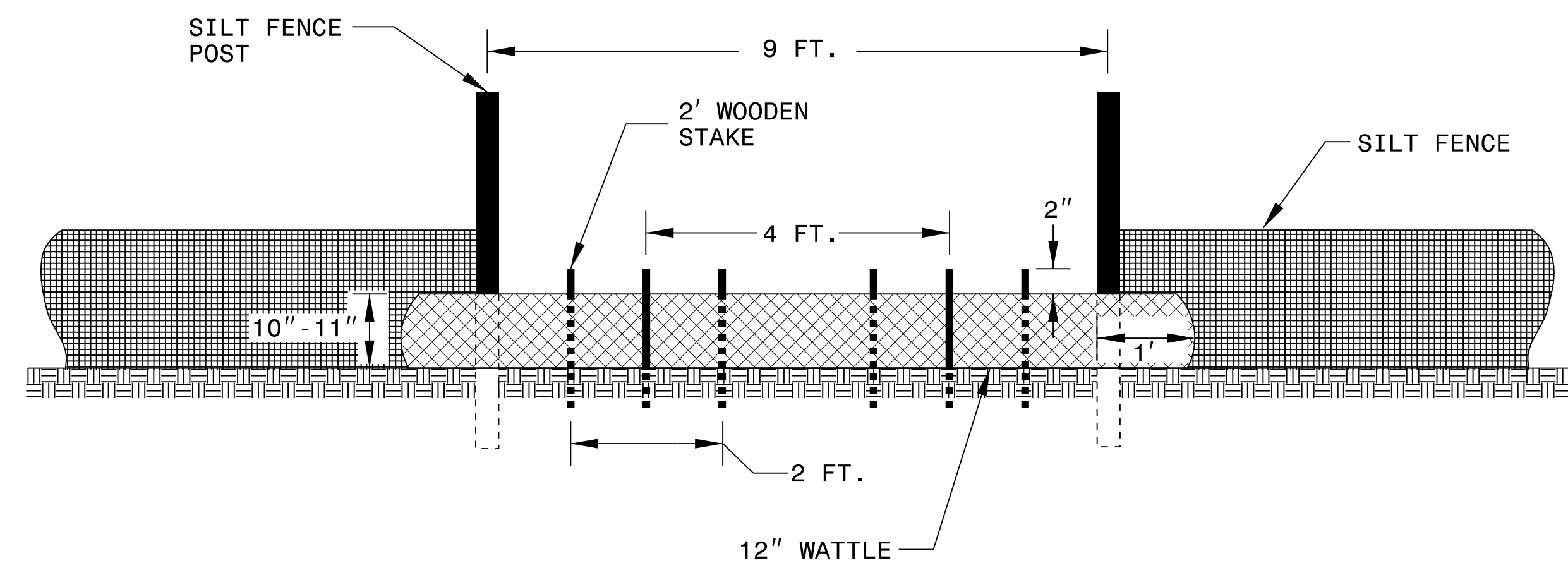
- NOTES:
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.
  - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
  - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
  - INSTALL A MINIMUM OF 2 UPSLOPE 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.



# SILT FENCE COIR FIBER WATTLE BREAK DETAIL



**ISOMETRIC VIEW**



**VIEW FROM SLOPE**

**NOTES:**

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLE 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.

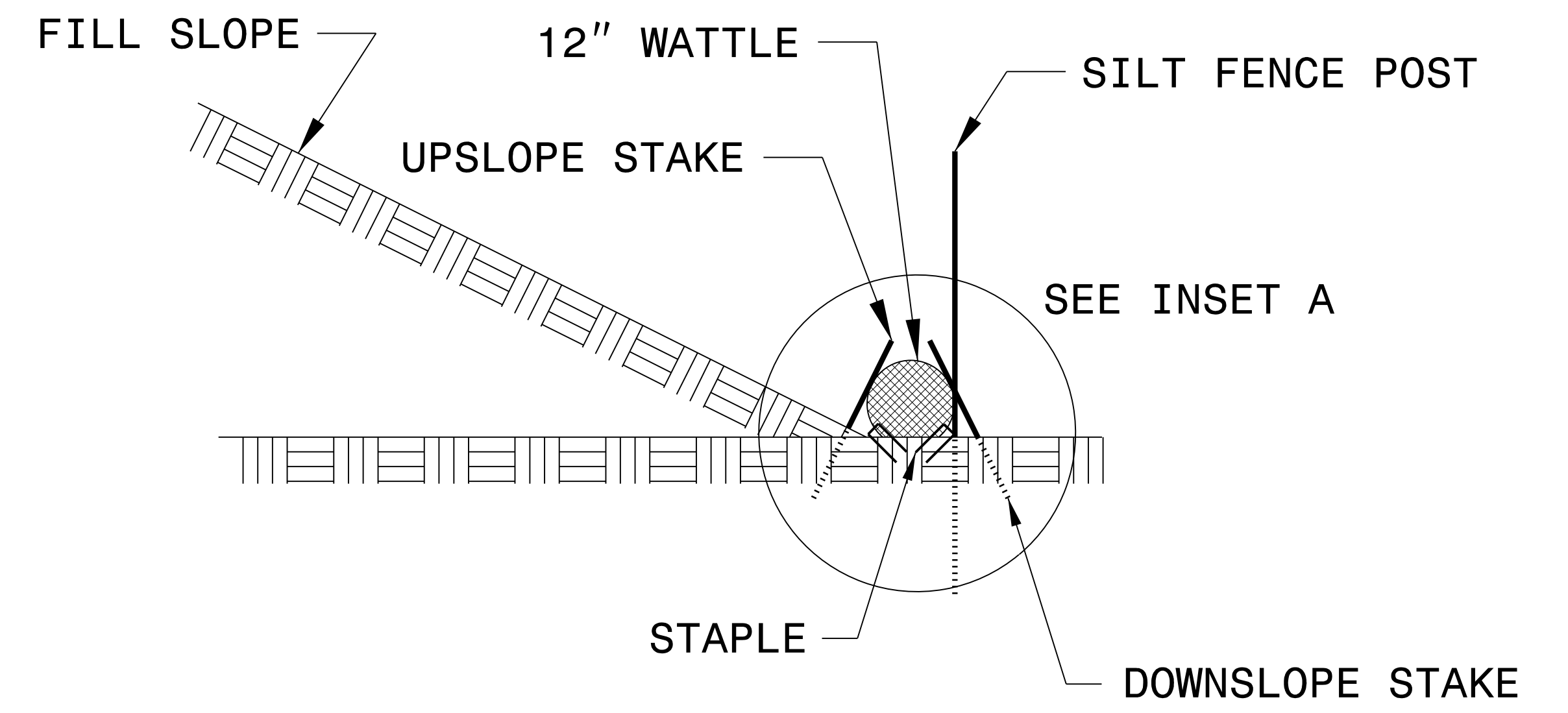
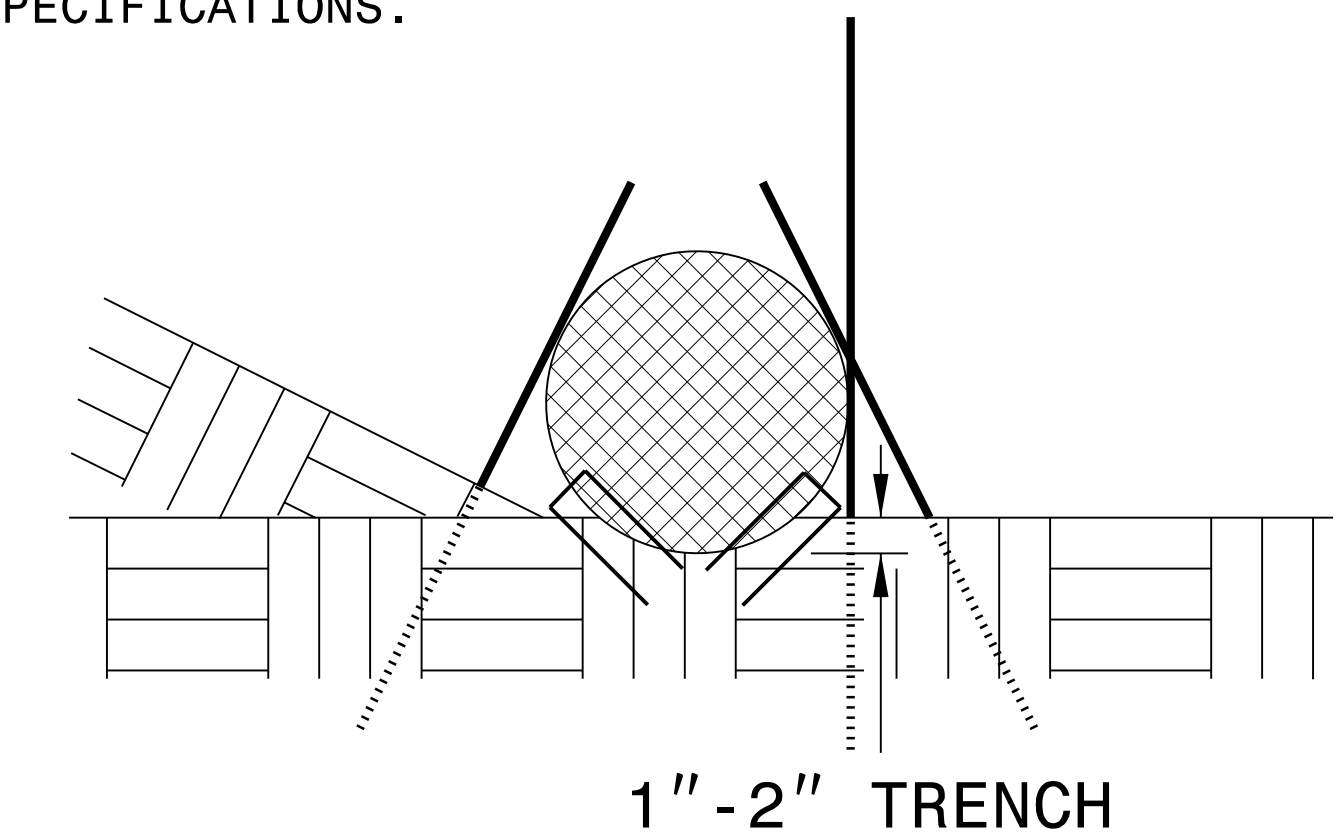
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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

WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.

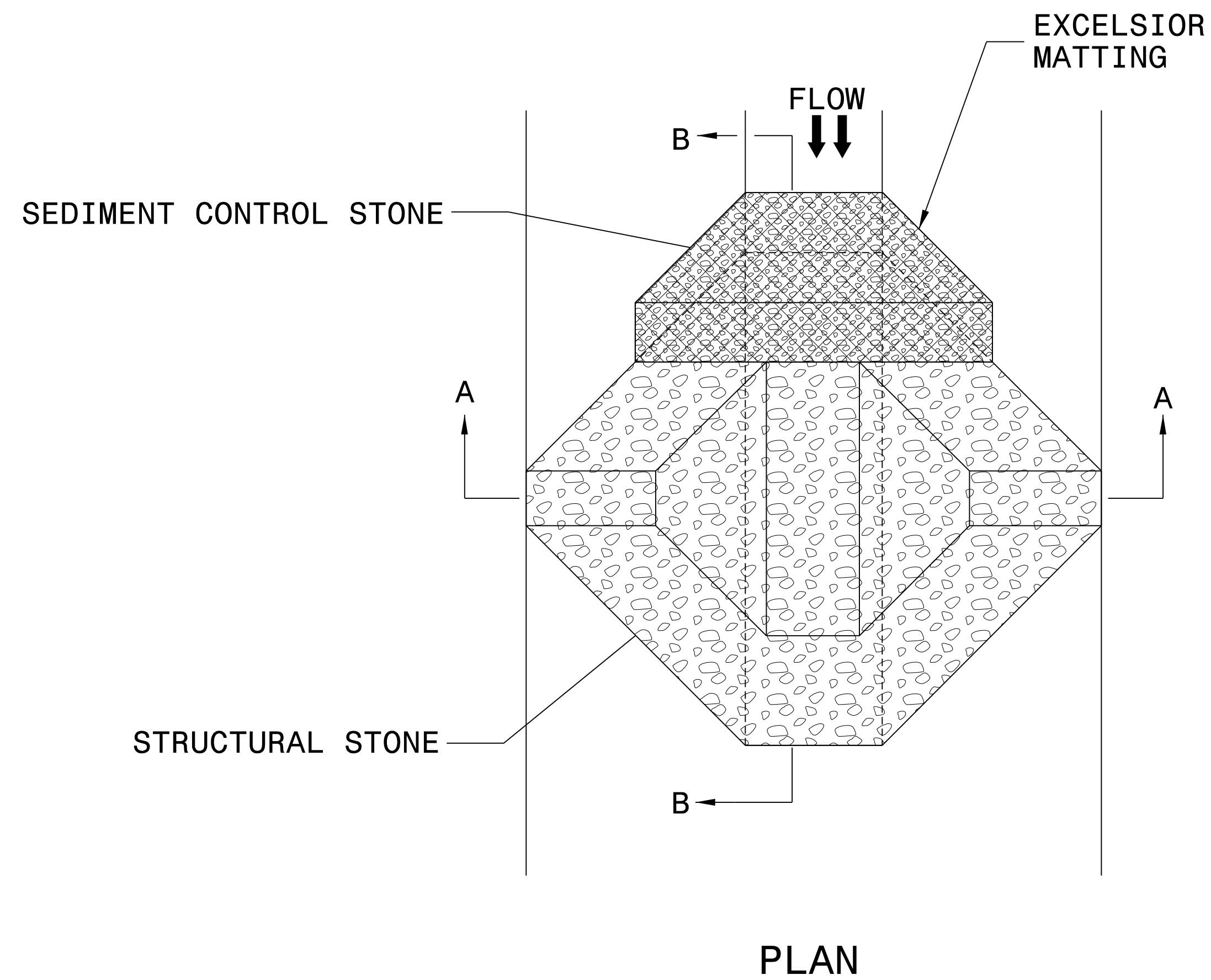
INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

**INSET A**



**SIDE VIEW**

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



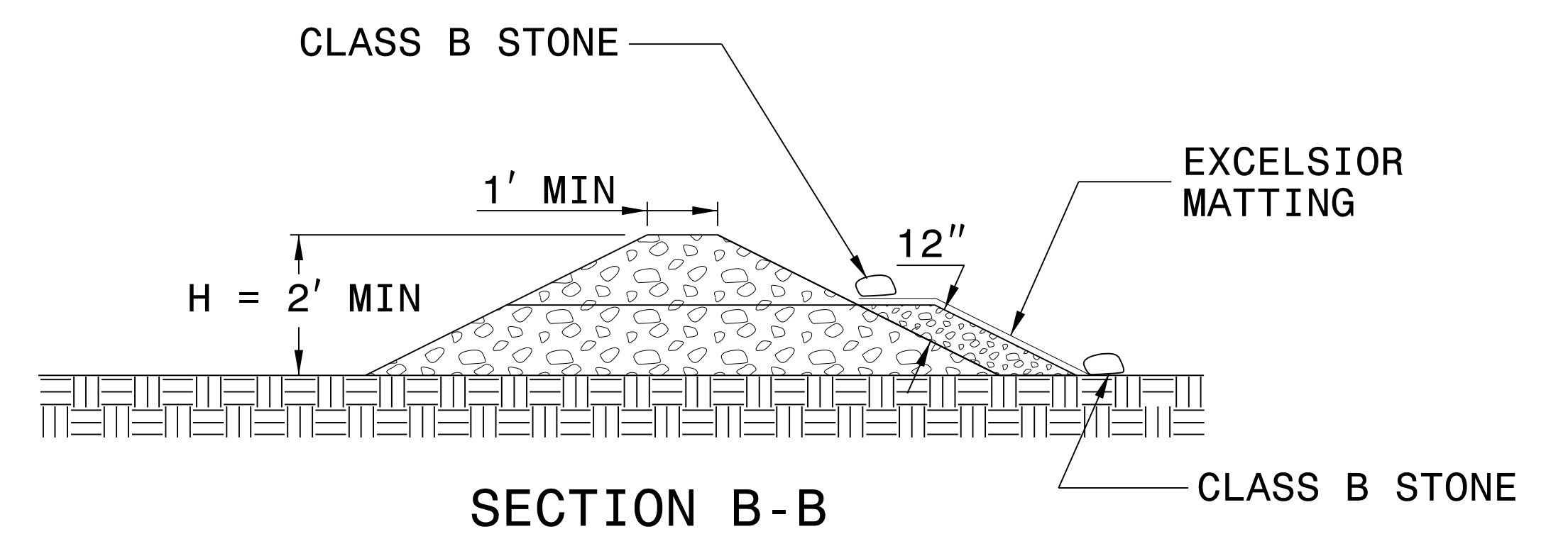
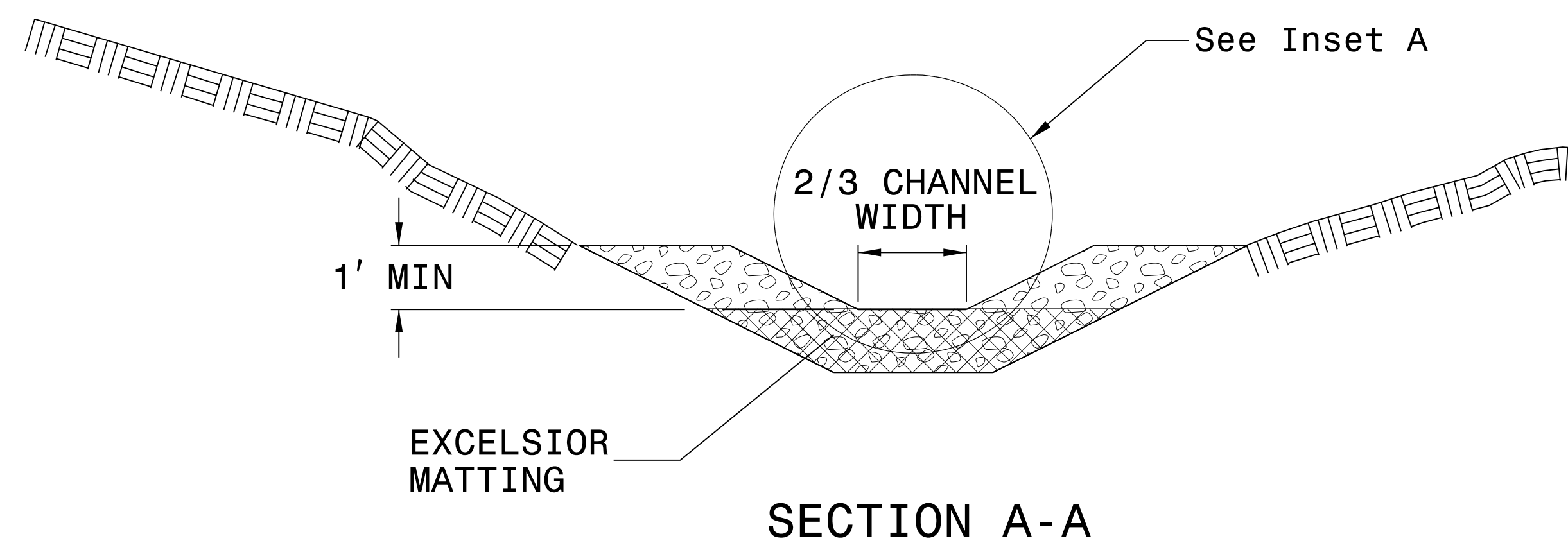
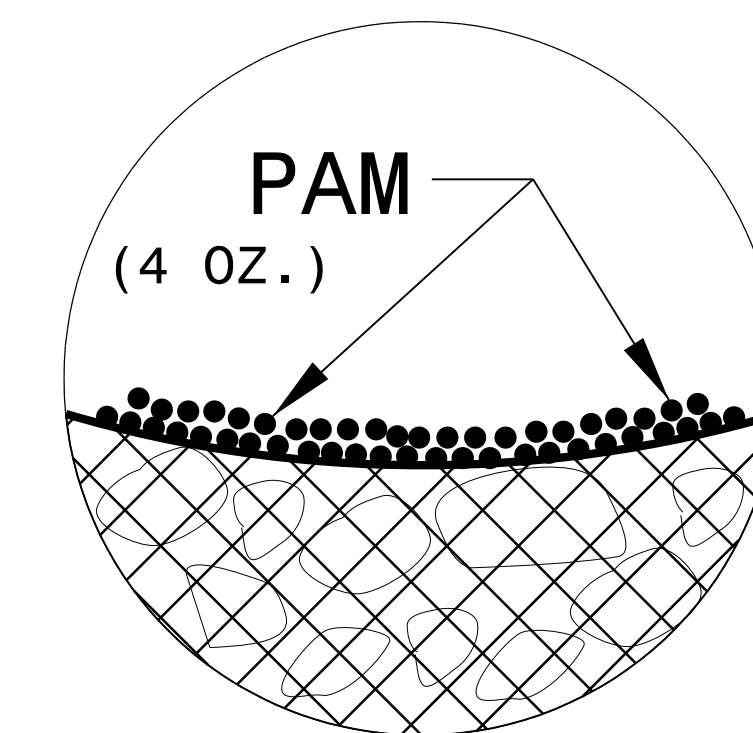
## NOTES:

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.



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.



8/17/99

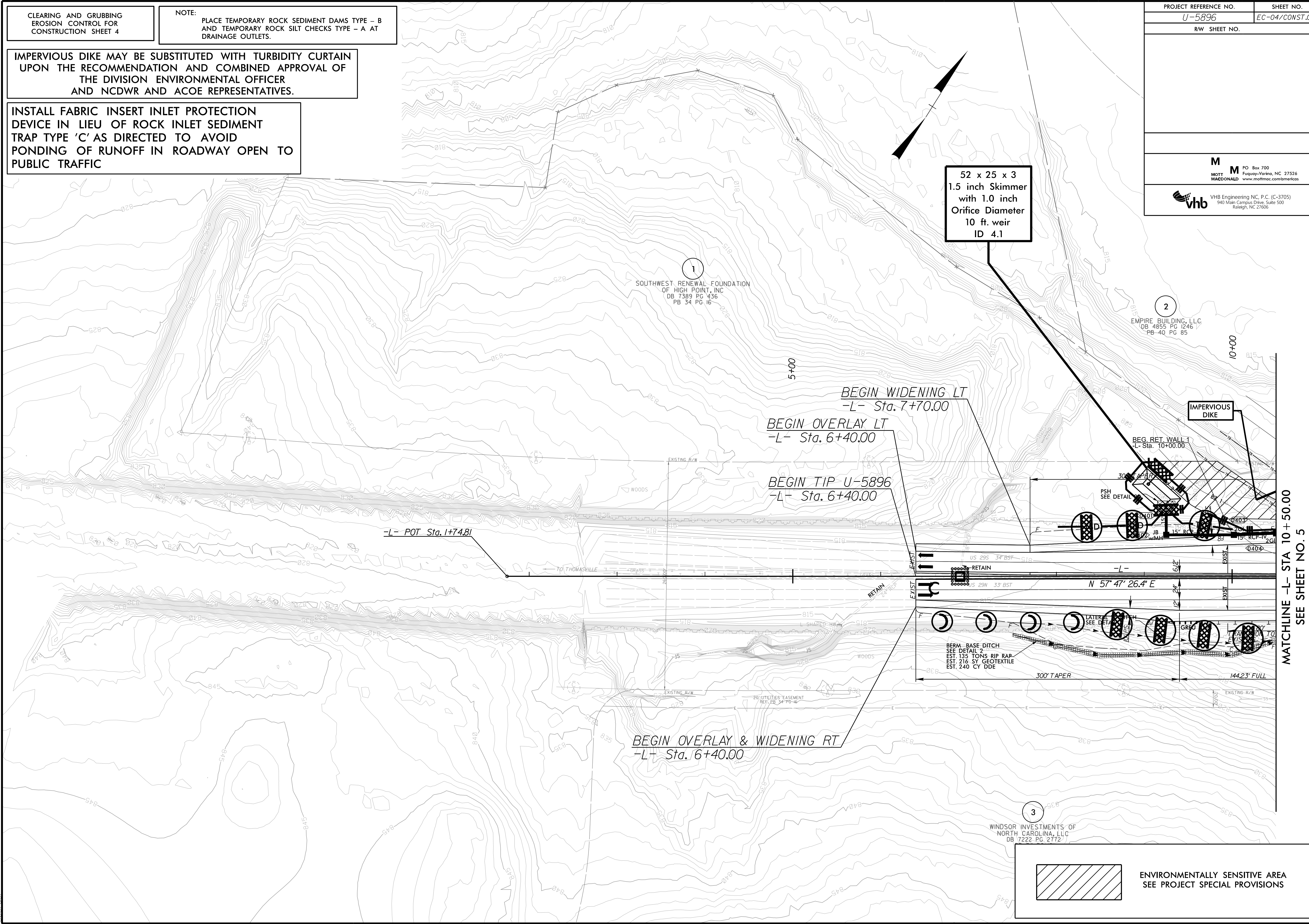
CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 4

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

IMPERVIOUS DIKE MAY BE SUBSTITUTED WITH TURBIDITY CURTAIN  
UPON THE RECOMMENDATION AND COMBINED APPROVAL OF  
THE DIVISION ENVIRONMENTAL OFFICER  
AND NCDWR AND ACOE REPRESENTATIVES.

INSTALL FABRIC INSERT INLET PROTECTION  
DEVICE IN LIEU OF ROCK INLET SEDIMENT  
TRAP TYPE 'C' AS DIRECTED TO AVOID  
PONDING OF RUNOFF IN ROADWAY OPEN TO  
PUBLIC TRAFFIC

PROJECT REFERENCE NO. U-5896	SHEET NO. EC-04/CONST.04
RW SHEET NO.	
VHB Engineering NC, P.C. (C-3705) 940 Main Campus Drive, Suite 500 Raleigh, NC 27606	



52 x 25 x 3  
1.5 inch Skimmer  
with 1.0 inch  
Orifice Diameter  
10 ft. weir  
ID 4.1

BEGIN WIDENING LT  
-L- Sta. 7+70.00

BEGIN OVERLAY LT  
-L- Sta. 6+40.00

BEGIN TIP U-5896  
-L- Sta. 6+40.00

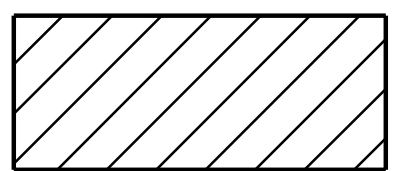
BEGIN OVERLAY & WIDENING RT  
-L- Sta. 6+40.00

-L- POT Sta. 1+74.81

IMPERVIOUS  
DIKE

BEG. RET. WALL 1  
-L- Sta. 10+00.00

BERM - BASE DITCH  
SEE DETAIL 2  
EST. 135 TONS RIP RAP  
EST. 216 SY GEOTEXTILE  
EST. 240 CY DDE



ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS

MATCHLINE -L- STA 10+50.00  
SEE SHEET NO. 5

8:37:45 AM  
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6.22.04

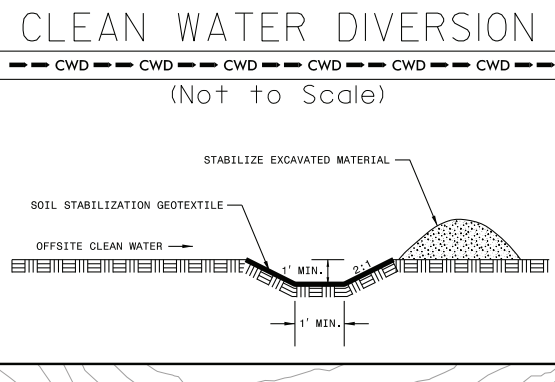
CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 5

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

INSTALL FABRIC INSERT INLET PROTECTION  
DEVICE IN LIEU OF ROCK INLET SEDIMENT  
TRAP TYPE 'C' AS DIRECTED TO AVOID  
PONDING OF RUNOFF IN ROADWAY OPEN TO  
PUBLIC TRAFFIC

INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL  
AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT  
PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

IMPERVIOUS DIKE MAY BE SUBSTITUTED WITH TURBIDITY CURTAIN  
UPON THE RECOMMENDATION AND COMBINED APPROVAL OF  
THE DIVISION ENVIRONMENTAL OFFICER  
AND NCDWR AND ACOE REPRESENTATIVES.

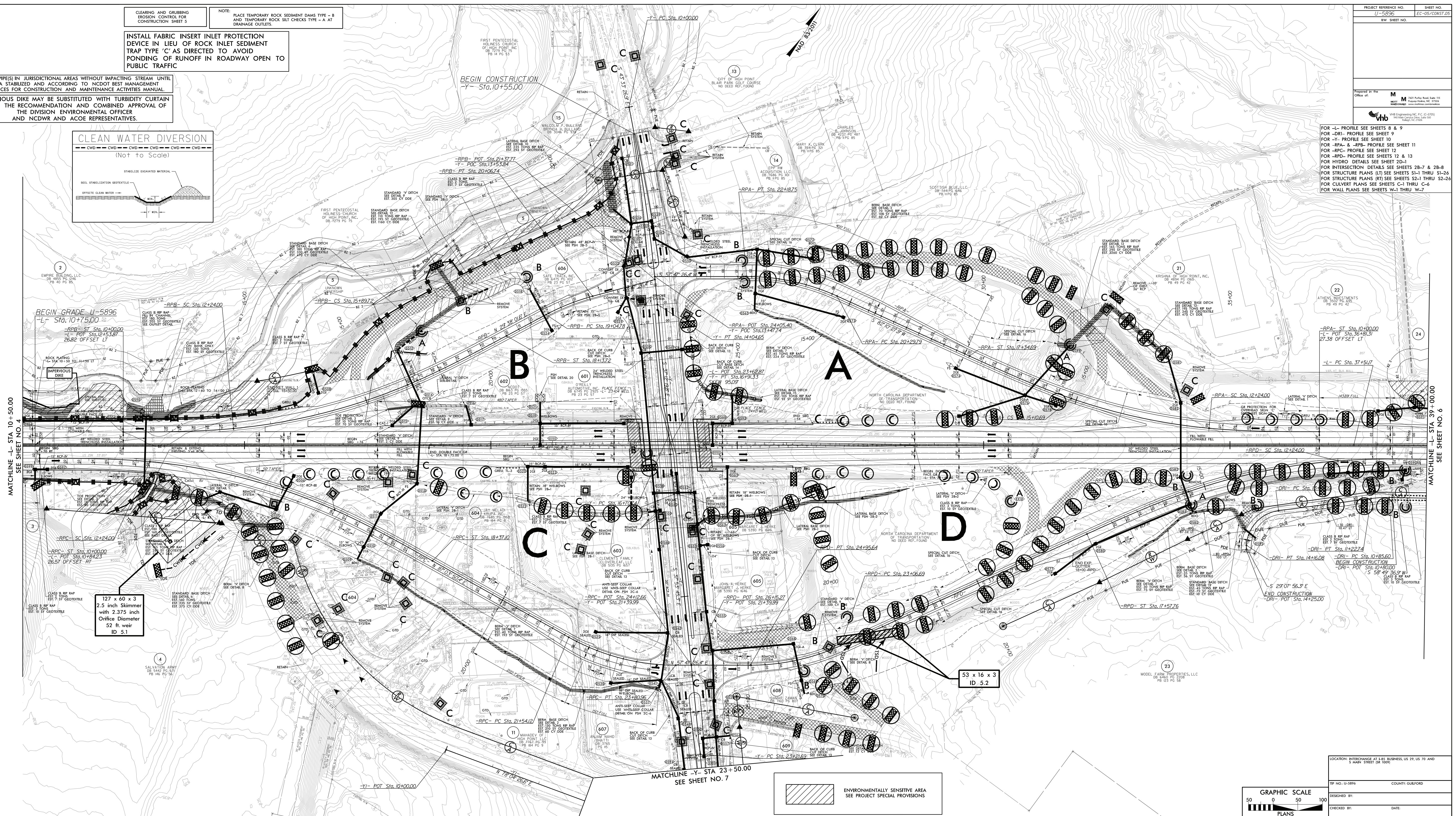


PROJECT REFERENCE NO.	SHEET NO.
U-5896	EC-05/CONSTR.03
REV SHEET NO.	

Prepared at the Office of:

VHB Engineering PC, P.C. (C-2006)  
1401 Patton Road, Suite 100  
Raleigh, NC 27603  
www.vhb.com

FOR -L- PROFILE SEE SHEETS 8 & 9  
FOR -DR- PROFILE SEE SHEET 9  
FOR -Y- PROFILE SEE SHEET 10  
FOR -RPA- 6 -RPA- PROFILE SEE SHEET 11  
FOR -RPA- PROFILE SEE SHEET 12  
FOR -RPA- PROFILE SEE SHEETS 12 & 13  
FOR HYDRO DETAILS SEE SHEET 20-  
FOR INTERSECTION DETAILS SEE SHEETS 2B-7 & 2B-8  
FOR STRUCTURE PLANS (L) SEE SHEETS S1-1 THRU S1-26  
FOR STRUCTURE PLANS (R) SEE SHEETS S2-1 THRU S2-26  
FOR CULVERT PLANS SEE SHEETS C-1 THRU C-6  
FOR WALL PLANS SEE SHEETS W-1 THRU W-7

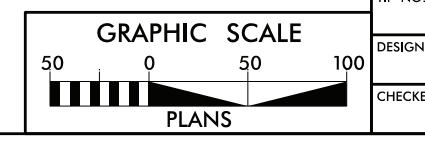


MATCHLINE -L- STA 10+50.00  
SEE SHEET NO. 4

MATCHLINE -L- STA 39+00.00  
SEE SHEET NO. 6

127 x 60 x 3  
2.5 inch Skimmer  
with 2.375 inch  
Orifice Diameter  
52 ft weir  
ID 5.1

53 x 16 x 3  
ID 5.2



LOCATION INTERCHANGE AT 185 BUSINESS US 29 US 70 AND  
S MAIN STREET (R 100)

TP NO. U-5896	COUNTY GUILFORD
DESIGNED BY:	
CHECKED BY:	
DATE:	

12/3/2021  
\\pvsau\share\proj\5896\5896\_RLU.mxd; C:\design

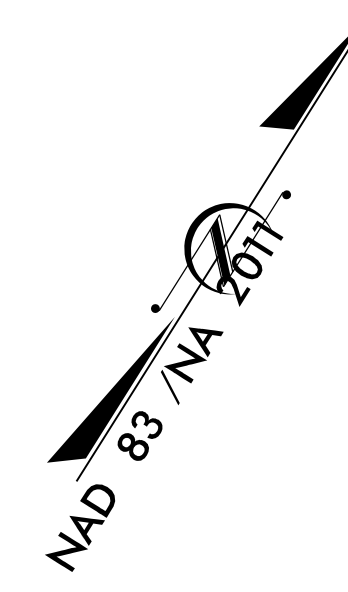
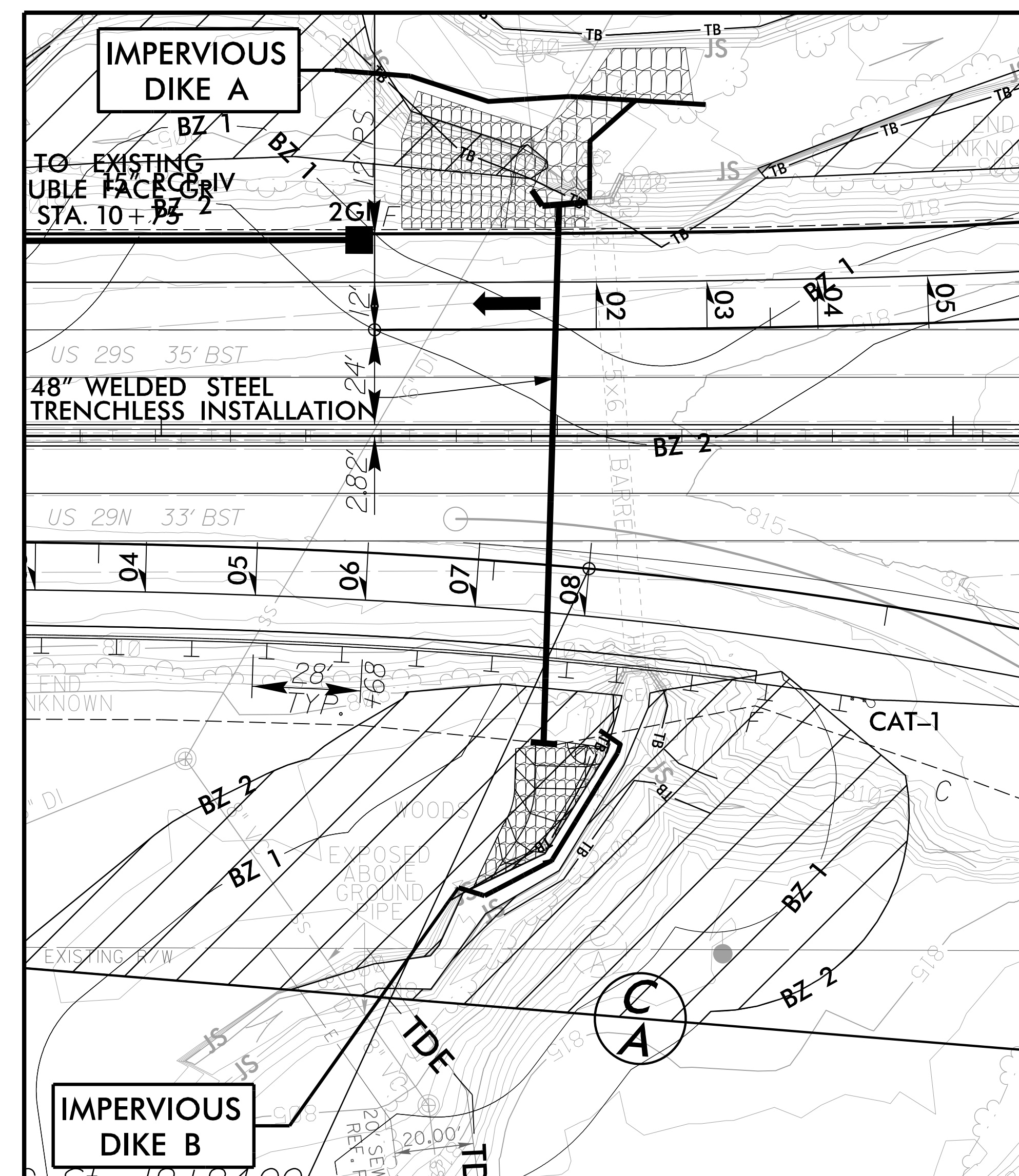
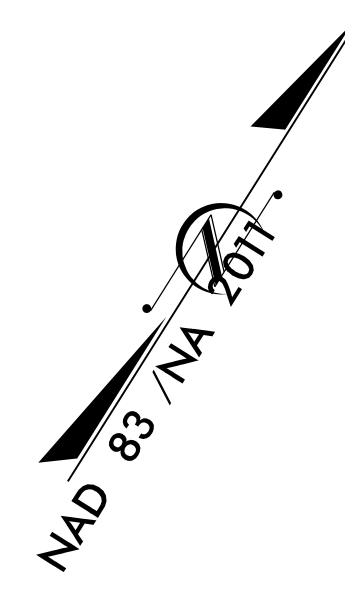
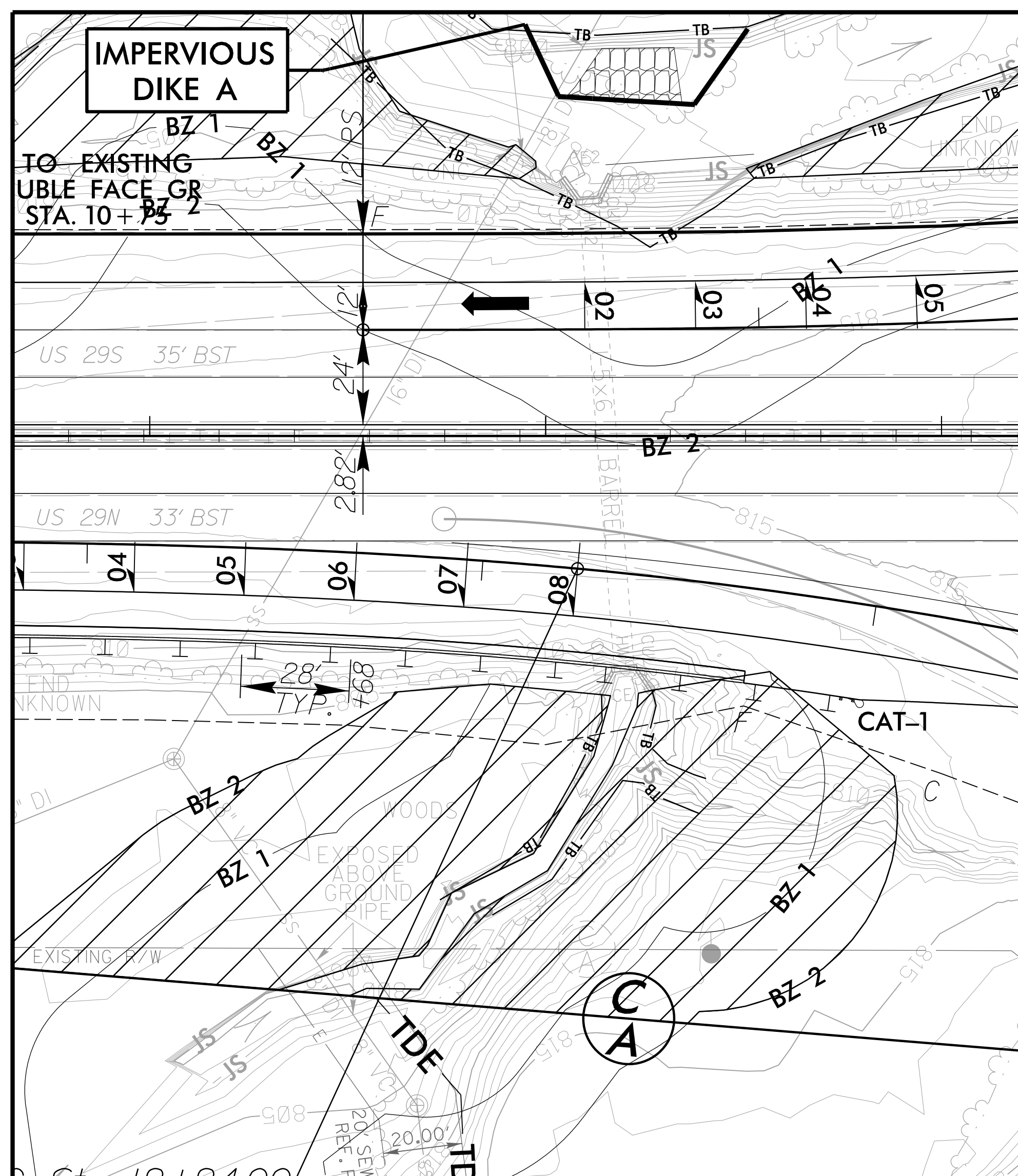
# CULVERT CONSTRUCTION SEQUENCE STA. 13+15.41 -L-

## PHASE I

1. MAINTAIN TRAFFIC OVER EXISTING RCBC.
2. INSTALL IMPERVIOUS DIKE A AND DEWATER SITE UTILIZING SPECIAL STILLING BASINS.
3. INSTALL CLASS II RIP RAP IN CHANNEL.
4. BEGIN PHASE II.

## PHASE II

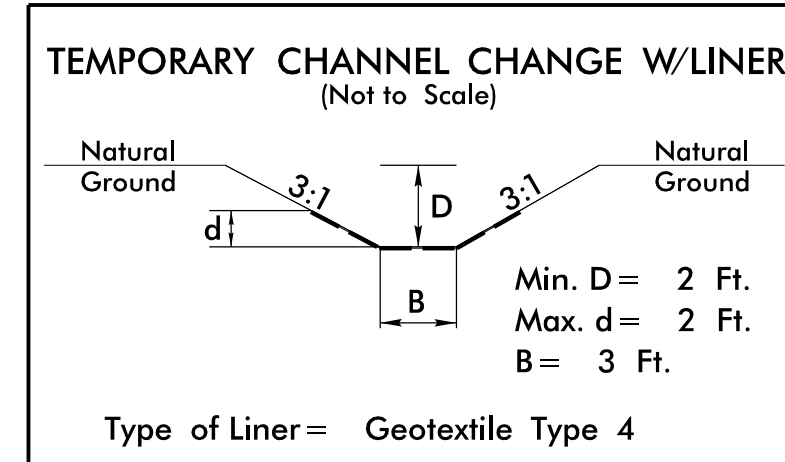
1. INSTALL IMPERVIOUS DIKE B AND ADJUST IMPERVIOUS DIKE A AS SHOWN. DEWATER SITES UTILIZING SPECIAL STILLING BASINS.
2. PERFORM BENCH EXCAVATION AND INSTALL CLASS II RIP RAP IN CHANNEL AT CULVERT OUTLET.
3. INSTALL 48" WELDED STEEL PIPE AND HEADWALLS.
4. INSTALL BANK AND BENCH STABILIZATION.
5. BEGIN PHASE III.



# CULVERT CONSTRUCTION SEQUENCE STA. 13+15.41 -L-

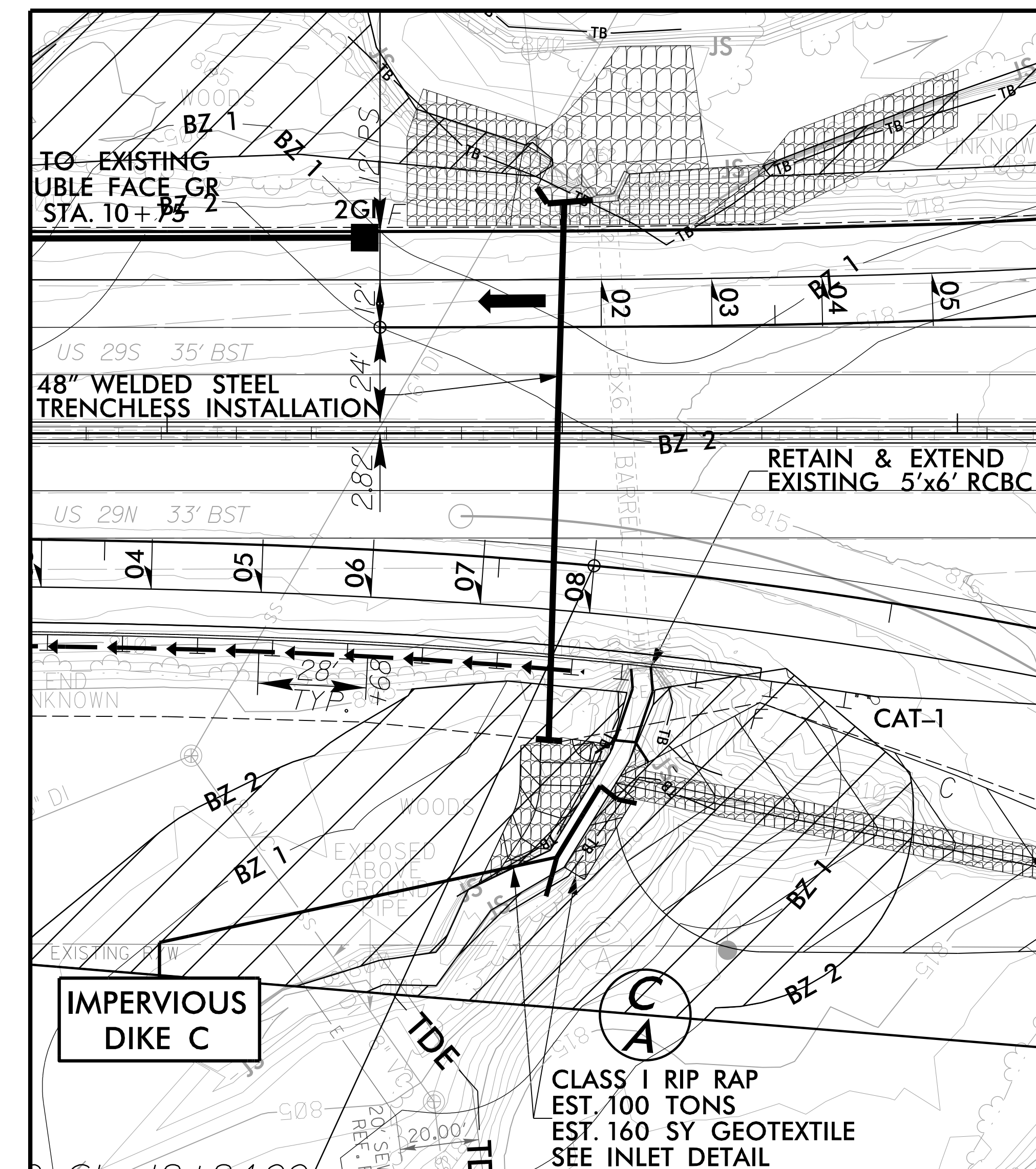
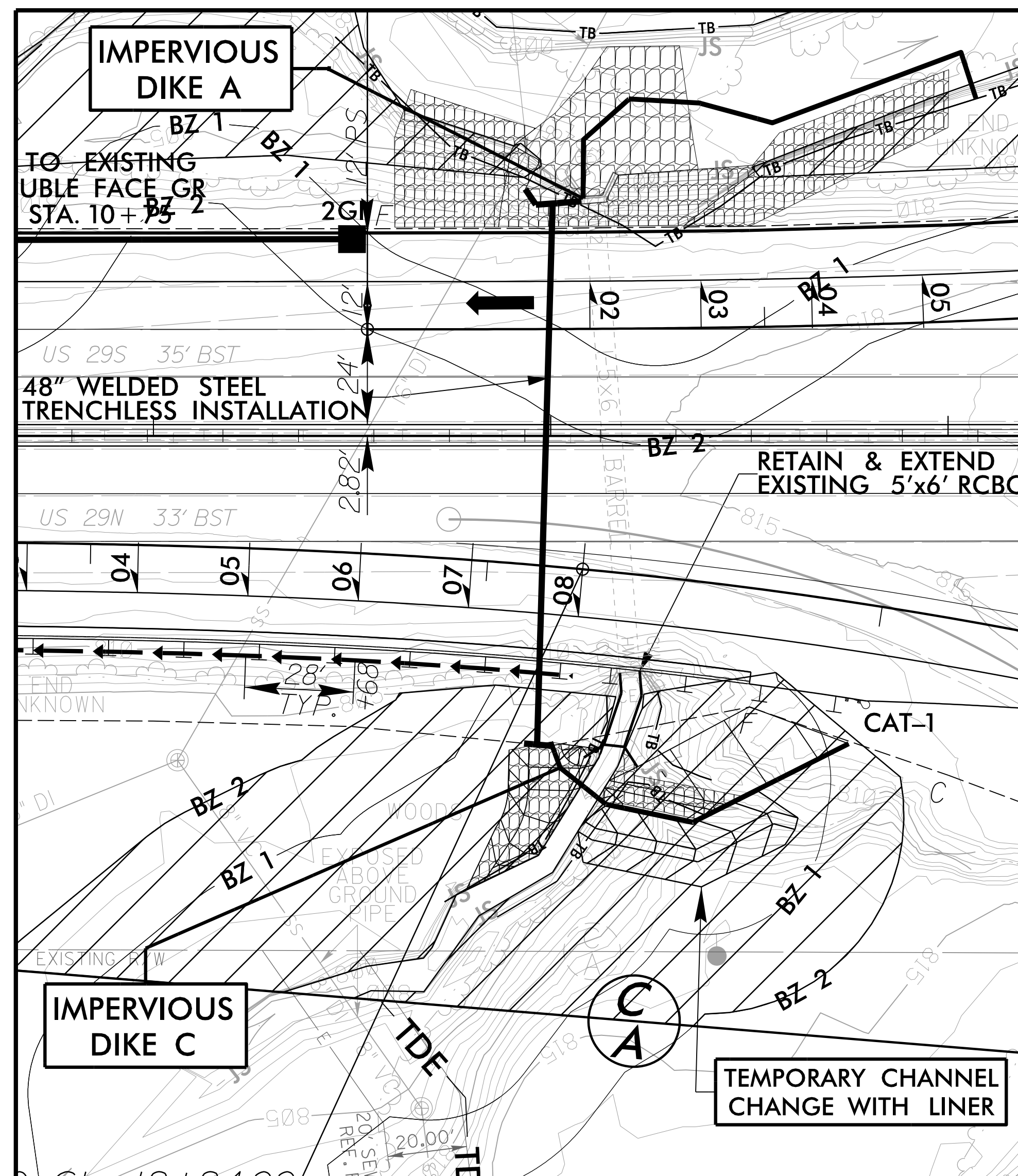
## PHASE III

1. CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (SEE DETAIL).
2. REMOVE IMPERVIOUS DIKE B AND INSTALL IMPERVIOUS DIKE C TO ROUTE FLOW THROUGH 48" WELDED STEEL PIPE.
3. ADJUST IMPERVIOUS DIKE A TO ISOLATE EXISTING CULVERT AND DOWNSTREAM BANK. DEWATER SITES UTILIZING SPECIAL STILLING BASINS
4. CONSTRUCT RCBC EXTENSION.
5. INSTALL CLASS II RIP RAP IN CHANNEL AND BANK STABILIZATION DOWNSTREAM OF EXISTING RCBC.
6. BEGIN PHASE IV.



## PHASE IV

1. REMOVE IMPERVIOUS DIKE A AND ADJUST IMPERVIOUS DIKE C AS SHOWN. REMOVE TEMPORARY CHANNEL CHANGE W/LINER. DEWATER SITE UTILIZING SPECIAL STILLING BASINS.
2. INSTALL BANK STABILIZATION UPSTREAM OF TRIBUTARY.
3. REMOVE IMPERVIOUS DIKE C.
4. CONSTRUCT STANDARD BASE DITCH AND INSTALL DITCH STABILIZATION.
5. CONSTRUCT PROPOSED ROADWAY.



CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 6

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

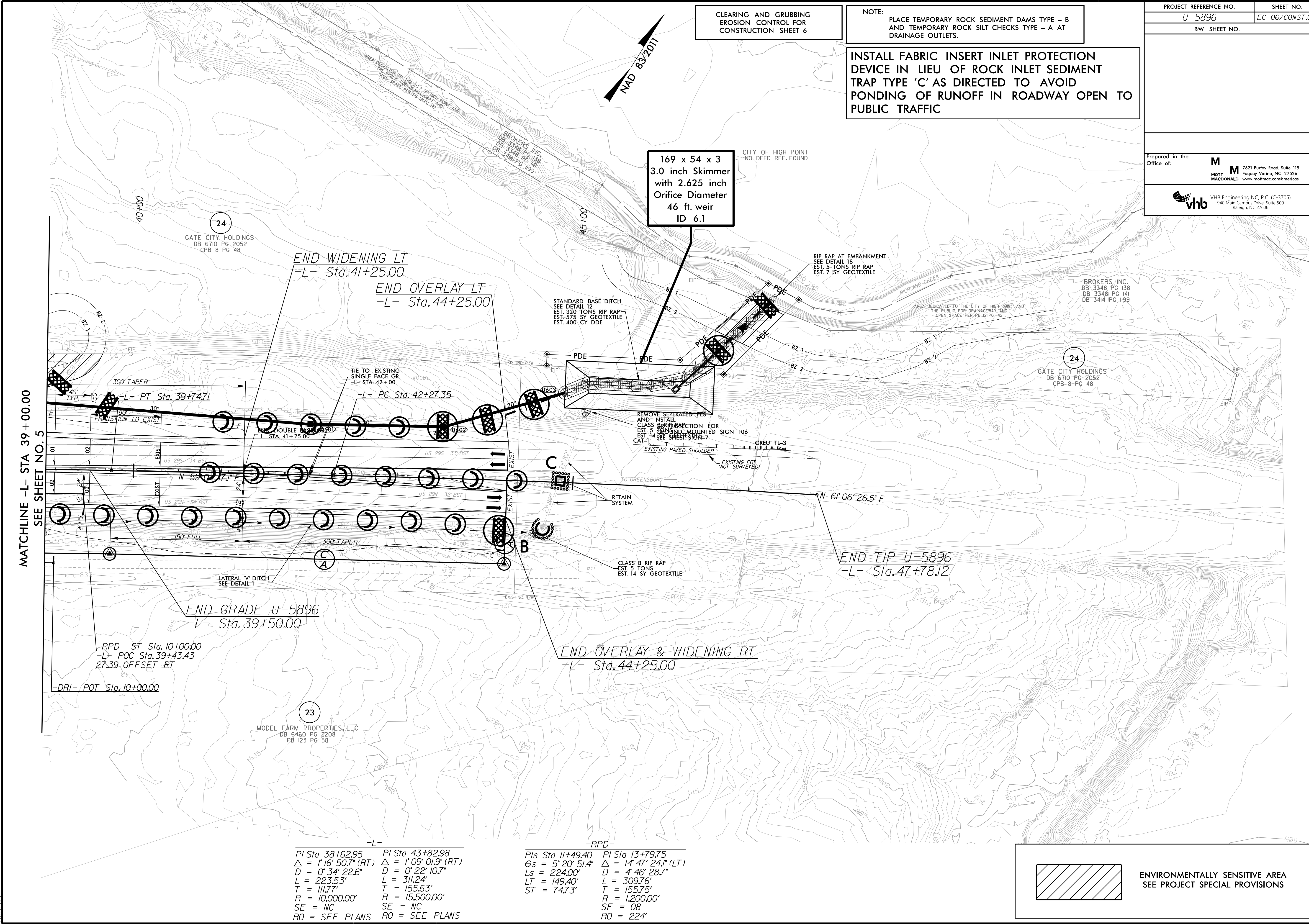
INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

Prepared in the Office of:

**M**  
MOTT  
MACDONALD

7621 Purfoy Road, Suite 115  
Fuquay-Varina, NC 27526  
www.mottmac.com/americas

**vhb**  
VHB Engineering NC, P.C. (C-3705)  
940 Main Campus Drive, Suite 500  
Raleigh, NC 27606



169 x 54 x 3  
3.0 inch Skimmer  
with 2.625 inch  
Orifice Diameter  
46 ft. weir  
ID 6.1

END WIDENING LT  
-L- Sta. 41+25.00  
END OVERLAY LT  
-L- Sta. 44+25.00

MATCHLINE -L- STA 39+00.00  
SEE SHEET NO. 5

-L- PT Sta. 39+74.71

-L- PC Sta. 42+27.35

END GRADE U-5896  
-L- Sta. 39+50.00

-RPD- ST Sta. 10+00.00  
-L- POC Sta. 39+43.43  
27.39 OFFSET RT

-DRI- POT Sta. 10+00.00

END OVERLAY & WIDENING RT  
-L- Sta. 44+25.00

END TIP U-5896  
-L- Sta. 47+78.12

MODEL FARM PROPERTIES, LLC  
DB 6460 PG 2208  
PB 123 PG 58

ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS

PI Sta 38+62.95	PI Sta 43+82.98
$\Delta = 1' 16'' 50.7'' (RT)$	$\Delta = 1' 09'' 01.9'' (RT)$
$D = 0' 34'' 22.6''$	$D = 0' 22'' 10.7''$
$L = 223.53'$	$L = 311.24'$
$T = 111.77'$	$T = 155.63'$
$R = 10,000.00'$	$R = 15,500.00'$
SE = NC	SE = NC
RO = SEE PLANS	RO = SEE PLANS

PIs Sta 11+49.40	PI Sta 13+79.75
$\Theta_s = 5' 20'' 51.4''$	$\Delta = 14' 47'' 24.1'' (LT)$
$L_s = 224.00'$	$D = 4' 46'' 28.7''$
$LT = 149.40'$	$L = 309.76'$
$ST = 74.73'$	$T = 155.75'$
	$R = 1,200.00'$
	SE = 08
	RO = 224'

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 7

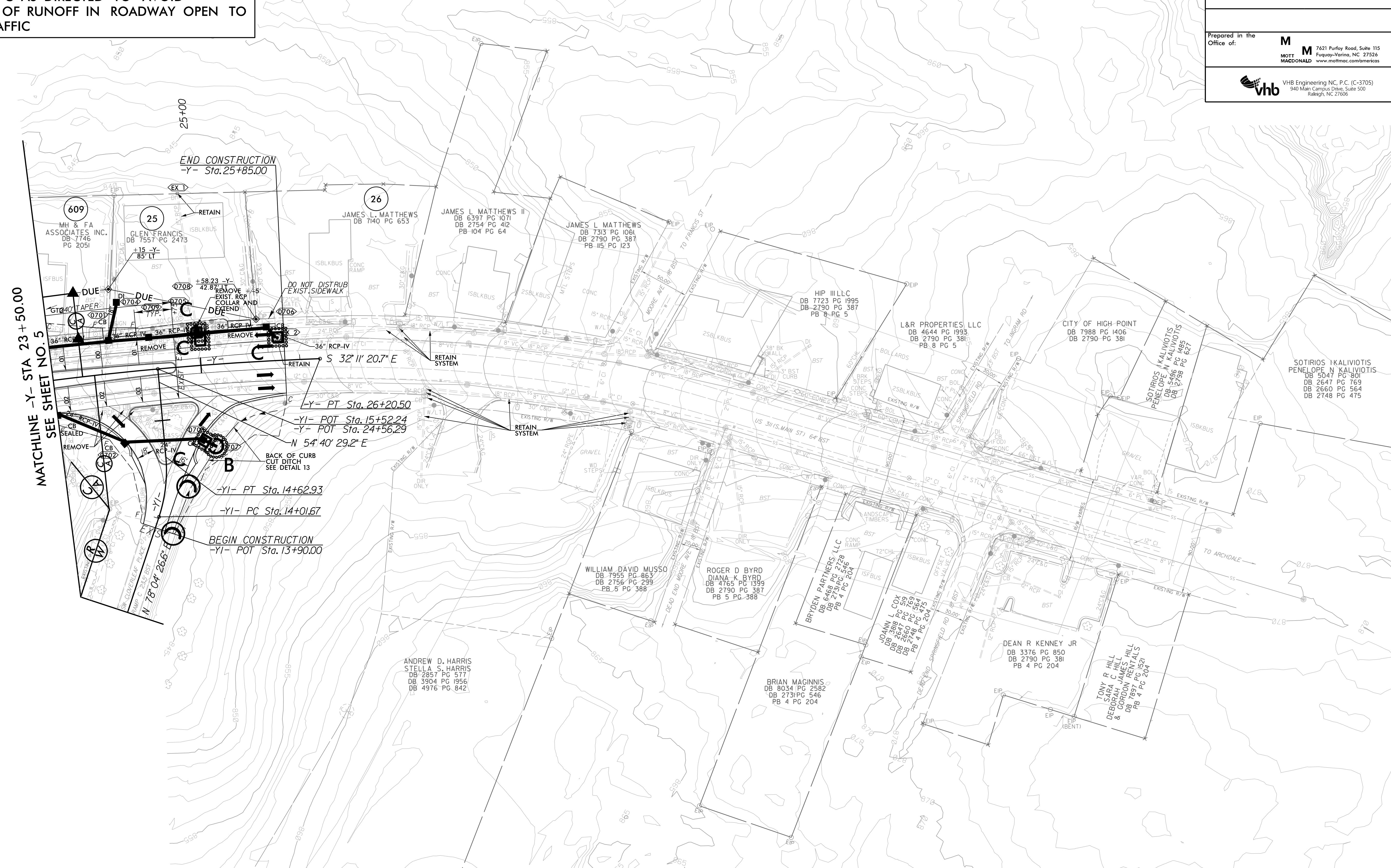
NOTE:  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B  
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT  
DRAINAGE OUTLETS.

INSTALL FABRIC INSERT INLET PROTECTION  
DEVICE IN LIEU OF ROCK INLET SEDIMENT  
TRAP TYPE 'C' AS DIRECTED TO AVOID  
PONDING OF RUNOFF IN ROADWAY OPEN TO  
PUBLIC TRAFFIC

-Y-	-Y-	-Y-	-YI-
PI Sta 12+02.53	PI Sta 17+30.99	PI Sta 24+71.21	PI Sta 14+32.74
$\Delta = 6' 2" 07.05' (RT)$	$\Delta = 0' 4" 25.5' (LT)$	$\Delta = 5' 42' 24.6' (RT)$	$\Delta = 23' 23' 57.3' (LT)$
$D = 1' 34' 11.09"$	$D = 0' 34' 22.6"$	$D = 1' 54' 35.5"$	$D = 38' 11' 49.9"$
$L = 404.65'$	$L = 120.50'$	$L = 298.81'$	$L = 61.26'$
$T = 202.53'$	$T = 60.25'$	$T = 149.53'$	$T = 31.06'$
$R = 3,650.00'$	$R = 10,000.00'$	$R = 3,000.00'$	$R = 150.00'$
$SE = RC$	$SE = NC$	$SE = NC$	$SE = NC$
$RO = 74'$	$RO = SEE PLANS$	$RO = SEE PLANS$	$RO = SEE PLANS$

NAD 83/2011

PROJECT REFERENCE NO.	SHEET NO.
U-5896	EC-07/CONST.07
RW SHEET NO.	
Prepared in the Office of:	
<b>M</b> MOTT MACDONALD	7621 Purfoy Road, Suite 115 Fuquay-Varina, NC 27526 www.mottmac.com/americas
<b>vhb</b>	VHB Engineering NC, P.C. (C-3705) 940 Main Campus Drive, Suite 500 Raleigh, NC 27608

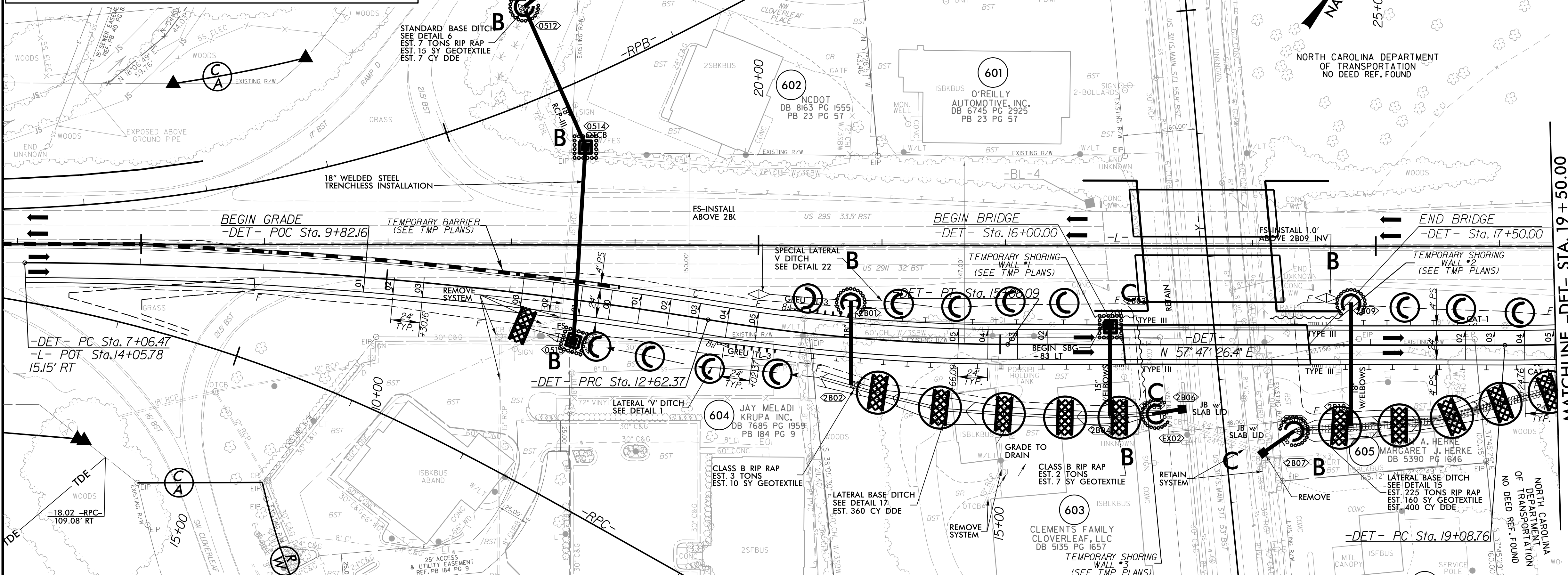


8/17/99  
 12/31/2021 8:39:07 AM  
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 shober

8/17/09

# DETAIL OF TEMPORARY DETOUR

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LINE OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC



PROJECT REFERENCE NO.	SHEET NO.
U-5896	EC-08/CONST.2B-1
RW SHEET NO.	

Prepared in the Office of:

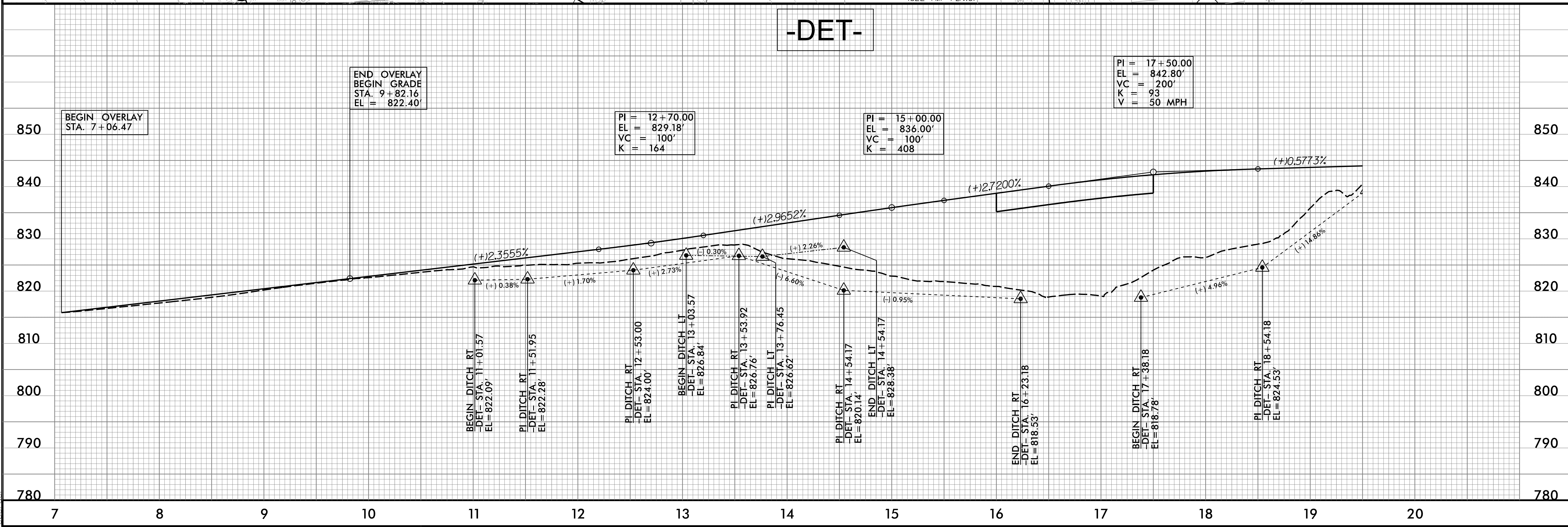
**M** MOTT MACDONALD  
7621 Purfoy Road, Suite 115  
Fuquay-Varina, NC 27526  
www.mottmac.com/americas

**vhb** VHB Engineering NC, P.C. (C-3705)  
940 Main Campus Drive, Suite 500  
Raleigh, NC 27606

FOR -L- DESIGN SEE SHEET 5  
FOR HYDRO DETAILS SEE SHEET 2D-1  
FOR PHASING SEE TMP PLANS

$PI\ Sta\ 9+85.01$ $\Delta = 9^{\circ}09'09.2''\ (RT)$ $D = 1^{\circ}38'47.1''$ $L = 555.90'$ $T = 278.54'$ $R = 3,480.00'$ $SE = 03$ $RO = 72'$	$PI\ Sta\ 13+84.50$ $\Delta = 9^{\circ}14'51.9''\ (LT)$ $D = 3^{\circ}47'39.9''$ $L = 243.72'$ $T = 122.12'$ $R = 1,510.00'$ $SE = 05$ $RO = 120'$
$PI\ Sta\ 20+10.09$ $\Delta = 7^{\circ}40'42.4''\ (LT)$ $D = 3^{\circ}47'39.9''$ $L = 202.36'$ $T = 101.33'$ $R = 1,510.00'$ $SE = 05$ $RO = 120'$	

TEMP. SHORING (SEE TMP PLANS)



12/3/2021 8:39:57 AM  
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shberger

# DETAIL OF TEMPORARY DETOUR

PROJECT REFERENCE NO.	SHEET NO.
U-5896	EC-BA/CONST.2B-2
RW SHEET NO.	

-DET-	
PI Sta 20+10.09 $\Delta = 7' 40' 42.4" (LT)$ D = 3' 47' 39.9" L = 202.36' T = 101.33' R = 1,510.00' SE = 05 R = 120'	PI Sta 24+88.26 $\Delta = 7' 34' 15.2" (RT)$ D = 1' 00' 18.7" L = 753.18' T = 377.14' R = 5,700.00' SE = RC R = 48'

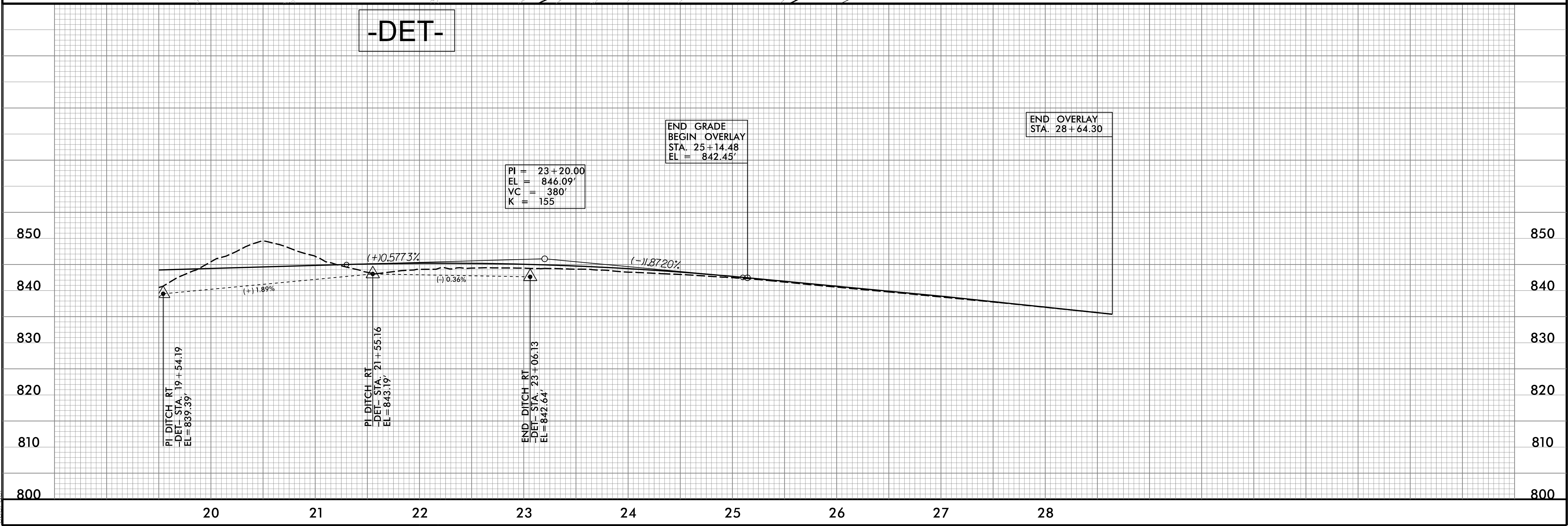
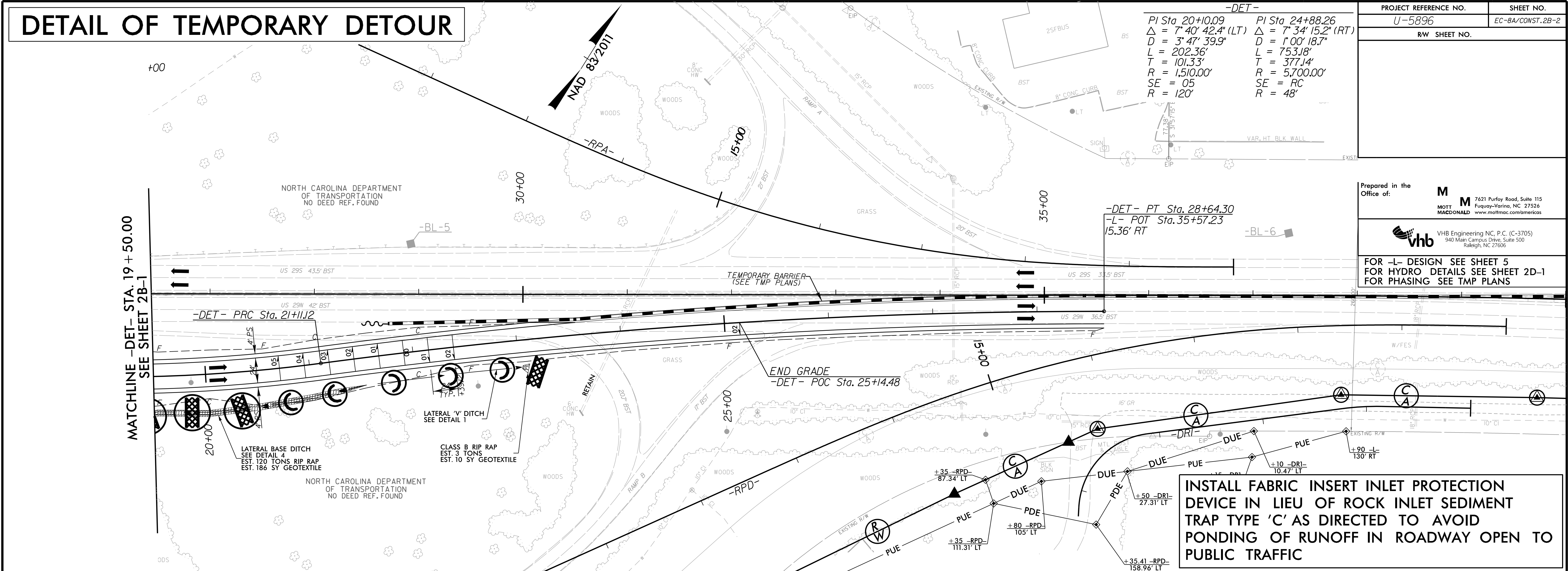
Prepared in the Office of:

**M**  
MOTT  
MAGDONALD

7621 Purfoy Road, Suite 115  
Fuquay-Varina, NC 27526  
www.mottmac.com/americas

**vhb**  
VHB Engineering NC, P.C. (C-3705)  
940 Main Campus Drive, Suite 500  
Raleigh, NC 27606

FOR -L- DESIGN SEE SHEET 5  
FOR HYDRO DETAILS SEE SHEET 2D-1  
FOR PHASING SEE TMP PLANS




8/17/99  
 12/3/2021 8:39:54 AM  
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 abe



# DETAIL OF TEMPORARY DETOUR FOR -RPB-

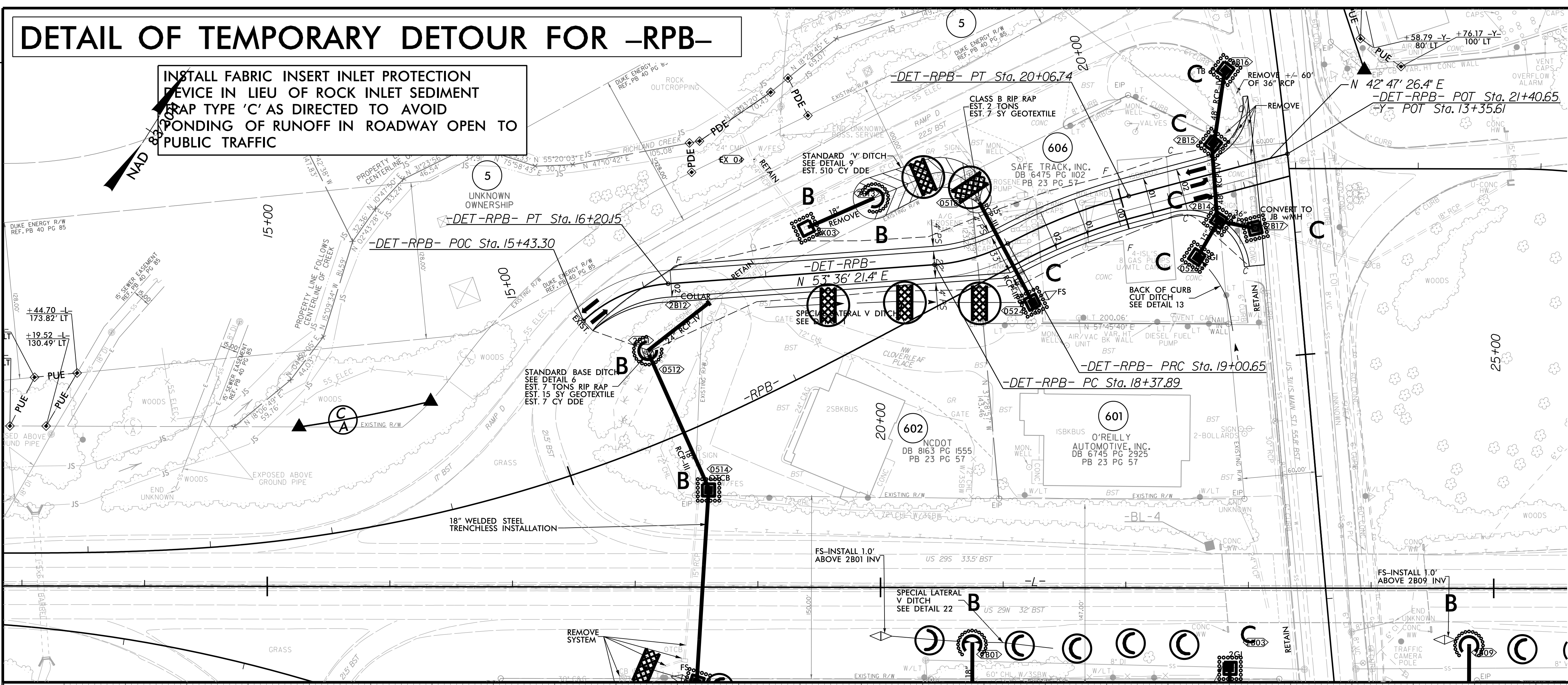
INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

PROJECT REFERENCE NO.	SHEET NO.
U-5896	EC-BB/CONST.2B-5
RW SHEET NO.	
Prepared in the Office of:	
M	M
MOTT MACDONALD	7621 Purfoy Road, Suite 115 Fuquay-Varina, NC 27526 www.mottmac.com/americas
 VHB Engineering NC, P.C. (C-3705) 940 Main Campus Drive, Suite 500 Raleigh, NC 27606	
FOR -RPB- DESIGN SEE SHEET 5 FOR HYDRO DETAILS SEE SHEET 2D-1 FOR PHASING SEE TMP PLANS	

8/17/99

REVISIONS

12/3/2021  
8:40:33 AM  
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shberger

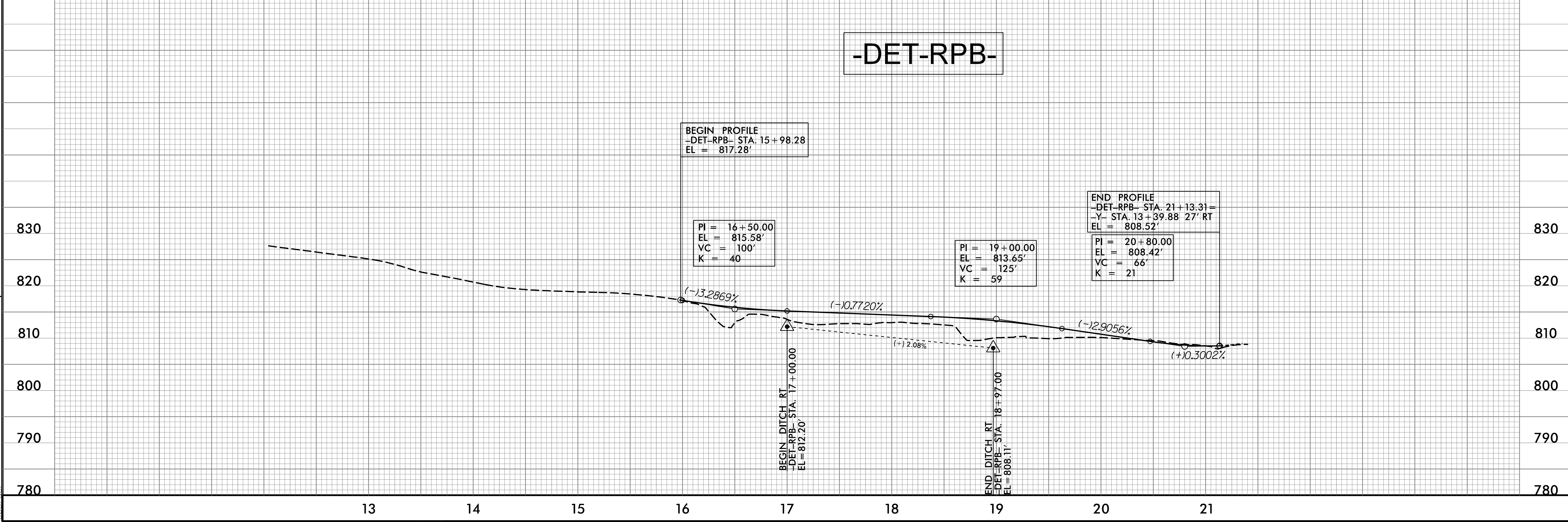


-DET-RPB-

PI Sta 15+63.41	PI Sta 18+69.73
$\Delta = 108' 15' 08.3''$ (RT)	$\Delta = 23' 58' 19.8''$ (LT)
$D = 51' 09' 25.0''$	$D = 38' 11' 49.9''$
$L = 211.61'$	$L = 62.76'$
$T = 154.87'$	$T = 31.85'$
$R = 112.00'$	$R = 150.00'$

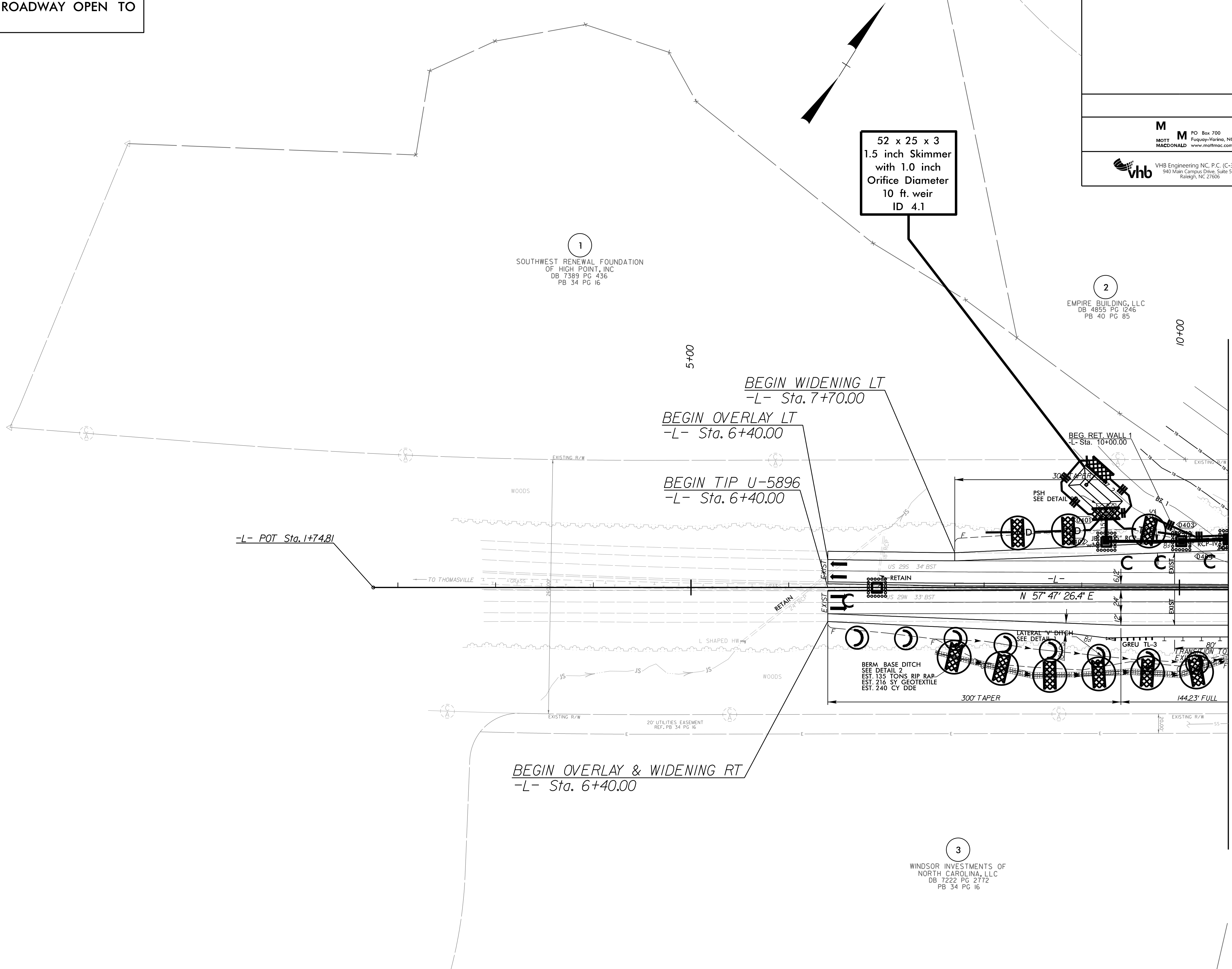
PI Sta 19+53.93
$\Delta = 13' 09' 24.8''$ (RT)
$D = 12' 24' 06.1''$
$L = 106.09'$
$T = 53.28'$
$R = 462.00'$



8/17/99

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

PROJECT REFERENCE NO.	SHEET NO.
U-5896	EC-09/CONST.04
RW SHEET NO.	
<b>M</b> MOTT MACDONALD PO Box 700 Fuquay-Varina, NC 27526 www.mottmac.com/americas	
<b>vhb</b> VHB Engineering NC, P.C. (C-3705) 940 Main Campus Drive, Suite 500 Raleigh, NC 27606	



52 x 25 x 3  
1.5 inch Skimmer  
with 1.0 inch  
Orifice Diameter  
10 ft. weir  
ID 4.1

1  
SOUTHWEST RENEWAL FOUNDATION  
OF HIGH POINT, INC  
DB 7389 PG 436  
PB 34 PG 16

2  
EMPIRE BUILDING, LLC  
DB 4855 PG 1246  
PB 40 PG 85

3  
WINDSOR INVESTMENTS OF  
NORTH CAROLINA, LLC  
DB 7222 PG 2772  
PB 34 PG 16

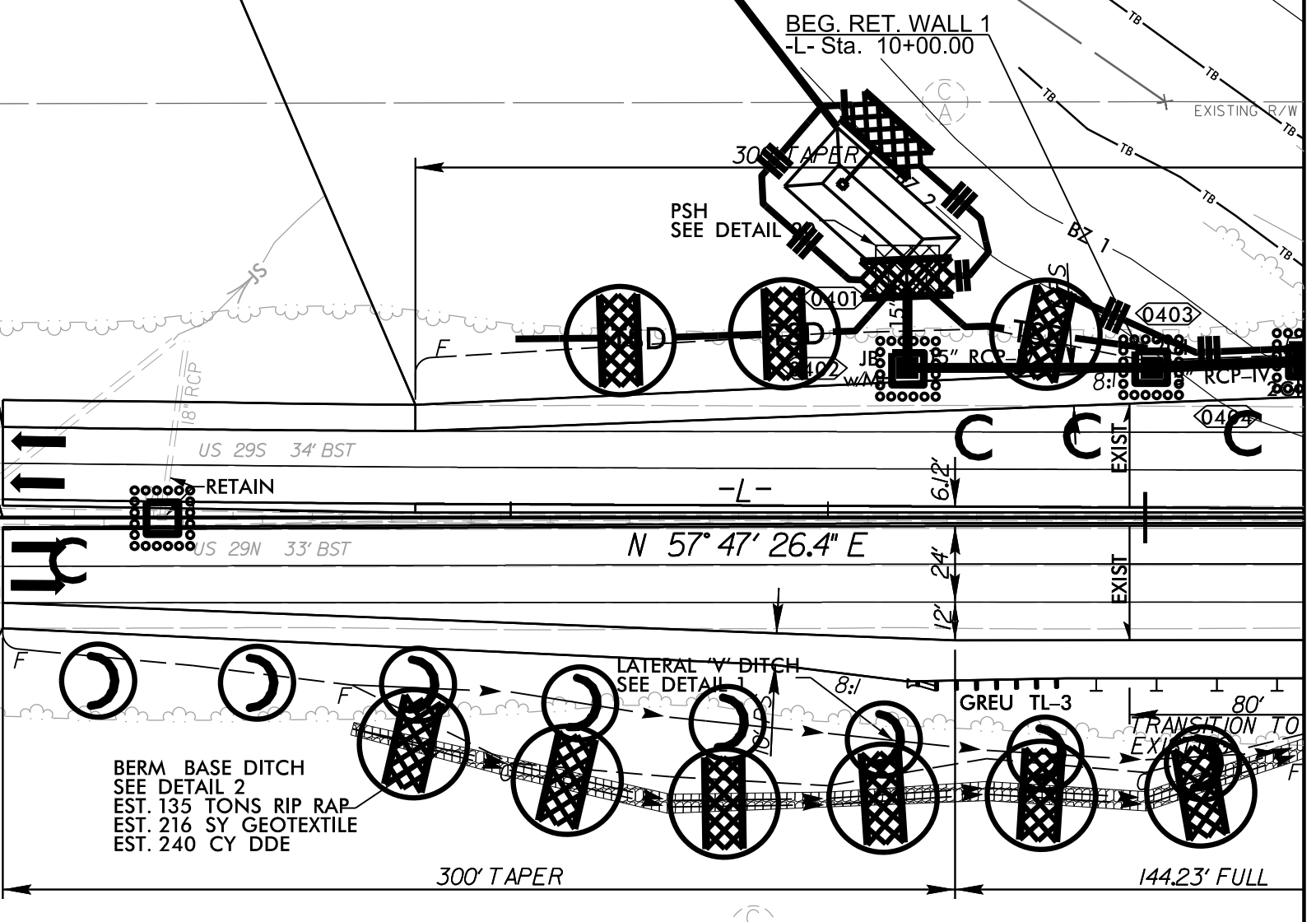
BEGIN WIDENING LT  
-L- Sta. 7+70.00

BEGIN OVERLAY LT  
-L- Sta. 6+40.00

BEGIN TIP U-5896  
-L- Sta. 6+40.00

BEGIN OVERLAY & WIDENING RT  
-L- Sta. 6+40.00

-L- POT Sta. 1+74.81



MATCHLINE -L- STA 10+50.00  
SEE SHEET NO. 5

8/4/04 3:43 AM  
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berger

INSTALL FABRIC INSERT PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

Place Matting for Erosion Control on Slopes as Work Allows.  
Sta. 10+50 LT to Sta. 13+50 LT -L-  
Sta. 19+50 LT to Sta. 22+75 LT -L-  
Sta. 20+50 RT to Sta. 22+90 RT -L-  
Sta. 24+35 LT to Sta. 27+00 LT -L-  
Sta. 24+50 RT to Sta. 26+00 RT -L-

104 x 52 x 3  
2.0 inch Skimmer  
with 2.0 inch  
Orifice Diameter  
41 ft. weir  
ID 5.3

100 x 50 x 3  
2.0 inch Skimmer  
with 2.0 inch  
Orifice Diameter  
42 ft. weir  
ID 5.6

129 x 64 x 3  
2.5 inch Skimmer  
with 2.5 inch  
Orifice Diameter  
56 ft. weir  
ID 5.7

51 x 15 x 3  
ID 5.4

67 x 33 x 3  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
17 ft. weir  
ID 5.5

70 x 34 x 3  
1.5 inch Skimmer  
with 1.375 inch  
Orifice Diameter  
18 ft. weir  
ID 5.9

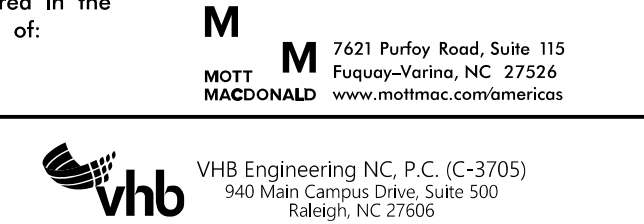
56 x 21 x 3  
ID 5.8

-RPA- ST Sta. 10+00.00  
-L- POT Sta. 36+48.31  
27.38 OFFSET LT

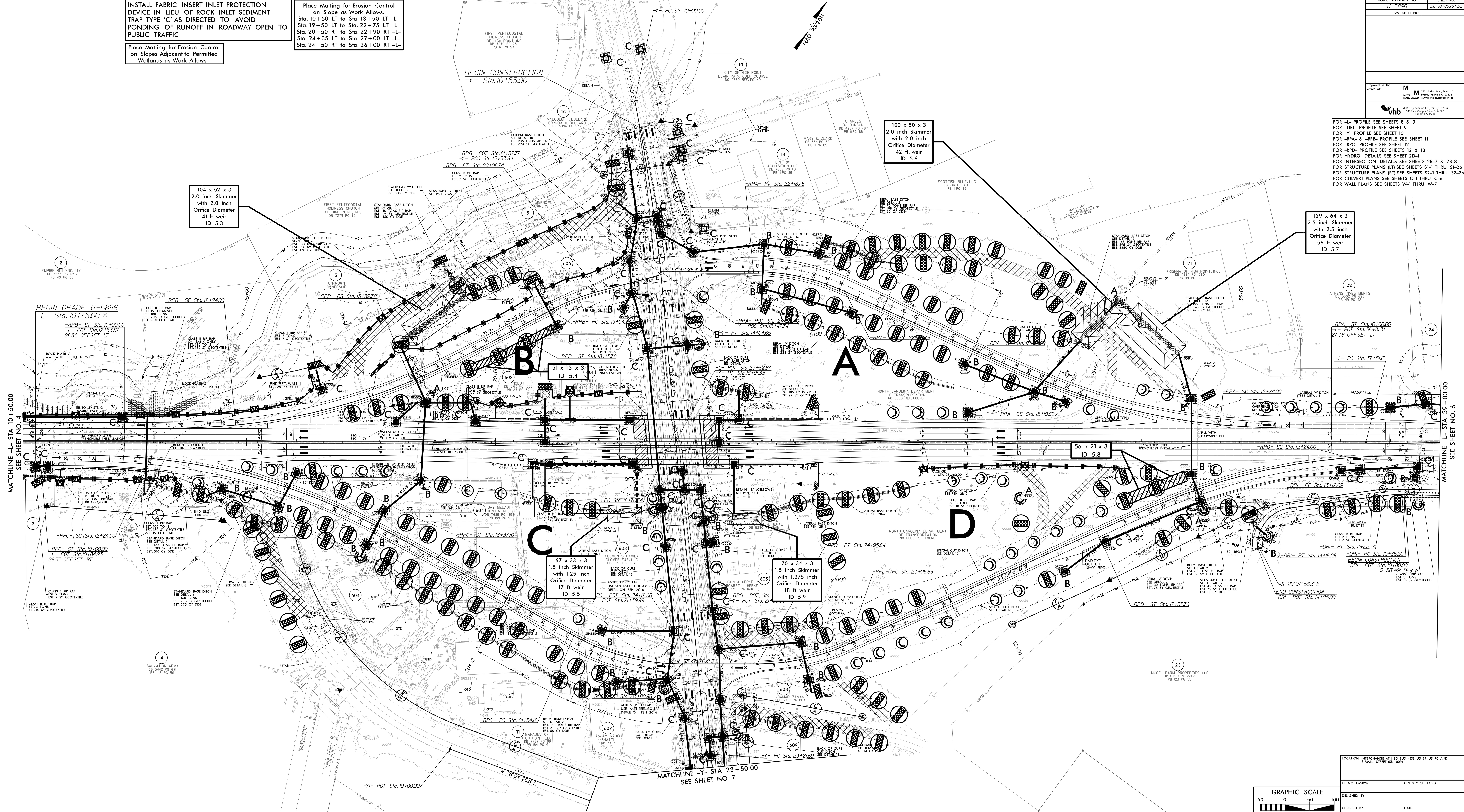
-DRI- PT Sta. 14+16.08  
-DRI- POT Sta. 10+85.60  
BEGIN CONSTRUCTION  
-DRI- POT Sta. 10+80.00  
S 58°49'36.0" W  
5' 58'49" 36.0" W  
CLASS B RIP RAP  
EST. 120 TONS  
EST. 10' BY GEOTEXTILE

PROJECT REFERENCE NO.	SHEET NO.
U-5896	EC-10/CONST.05

REV.	DATE	DESCRIPTION
1		ISSUED FOR PERMITTING



FOR -L- PROFILE SEE SHEETS 8 & 9  
FOR -DRI- PROFILE SEE SHEET 9  
FOR -Y- PROFILE SEE SHEET 10  
FOR -RPA- & -RPB- PROFILE SEE SHEET 11  
FOR -RPC- PROFILE SEE SHEET 12  
FOR -RPD- PROFILE SEE SHEETS 12 & 13  
FOR HYDRO DETAILS SEE SHEET 2D-1  
FOR INTERSECTION DETAILS SEE SHEETS 2B-7 & 2B-8  
FOR STRUCTURE PLANS (L) SEE SHEETS S1-1 THRU S1-26  
FOR STRUCTURE PLANS (R) SEE SHEETS S2-1 THRU S2-26  
FOR CULVERT PLANS SEE SHEETS C-1 THRU C-6  
FOR WALL PLANS SEE SHEETS W-1 THRU W-7

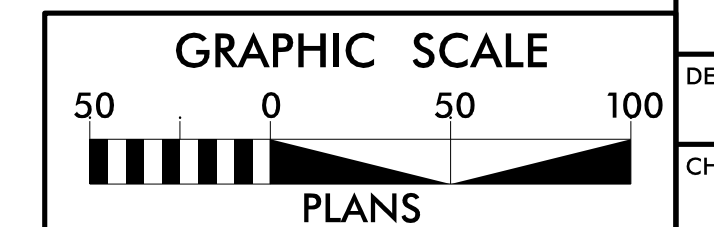


MATCHLINE -L- STA 10+50.00  
SEE SHEET NO. 4

MATCHLINE -L- STA 39+00.00  
SEE SHEET NO. 6

MATCHLINE -Y- STA 23+50.00  
SEE SHEET NO. 7

-Y- POT Sta. 10+00.00



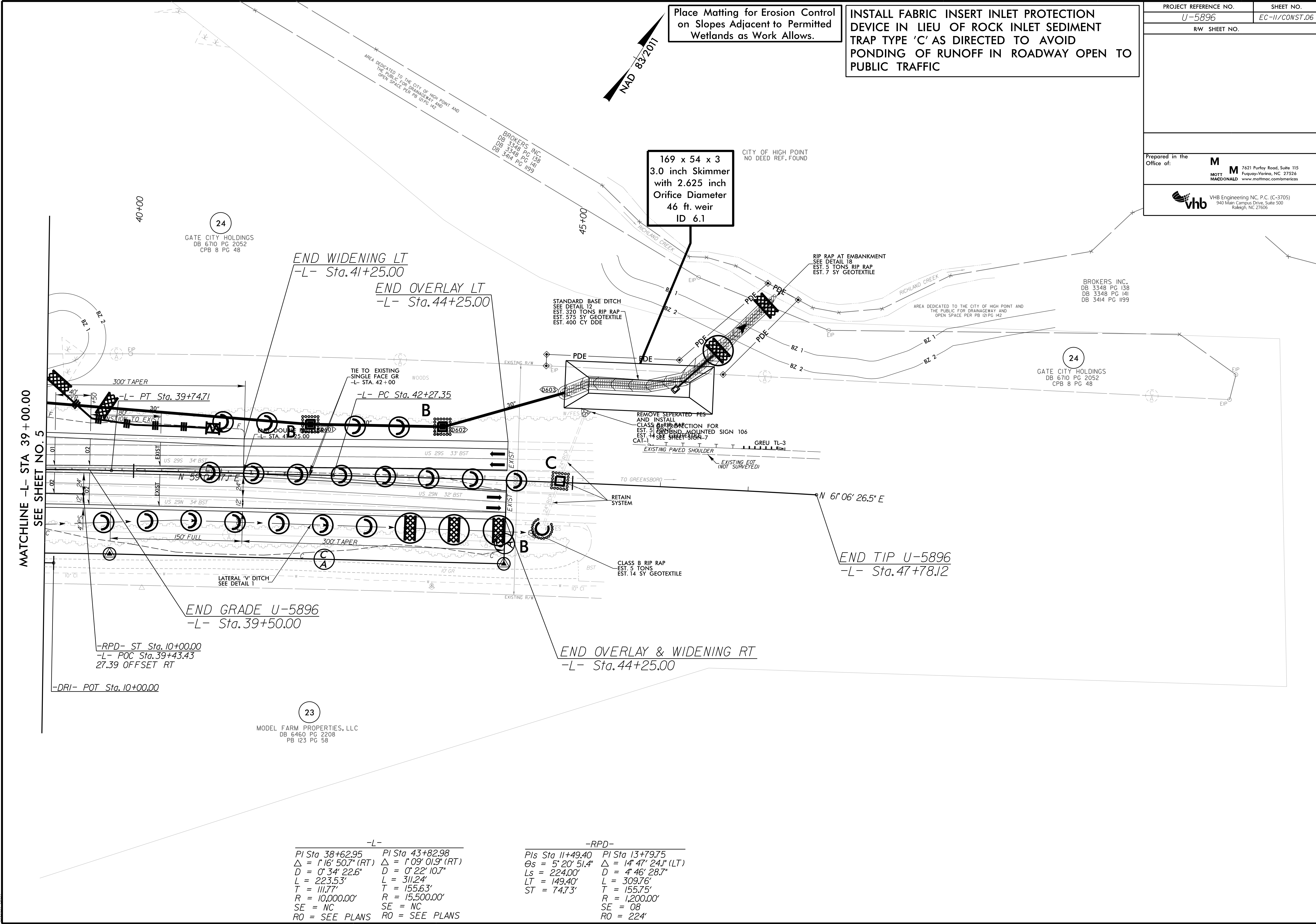
LOCATION: INTERCHANGE AT I-85, BUSINESS US 29, US 70 AND S MAIN STREET (SR 100)	
TIP NO. U-5896	COUNTY: GUILFORD
DESIGNED BY:	
CHECKED BY:	
DATE:	

12/27/2023 AM 10:00:00  
V:\Projects\5896\5896.ec-10\CONST.05\Drawings\PLAN.dwg  
User: jhughes

Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

169 x 54 x 3  
3.0 inch Skimmer  
with 2.625 inch  
Orifice Diameter  
46 ft. weir  
ID 6.1



MATCHLINE -L- STA 39+00.00  
SEE SHEET NO. 5

END WIDENING LT  
-L- Sta. 41+25.00  
END OVERLAY LT  
-L- Sta. 44+25.00

END GRADE U-5896  
-L- Sta. 39+50.00

END OVERLAY & WIDENING RT  
-L- Sta. 44+25.00

END TIP U-5896  
-L- Sta. 47+78.12

-L-

PI Sta 38+62.95	PI Sta 43+82.98
$\Delta = 1' 16' 50.7''$ (RT)	$\Delta = 1' 09' 01.9''$ (RT)
$D = 0' 34' 22.6''$	$D = 0' 22' 10.7''$
$L = 223.53'$	$L = 311.24'$
$T = 111.77'$	$T = 155.63'$
$R = 10,000.00'$	$R = 15,500.00'$
SE = NC	SE = NC
RO = SEE PLANS	RO = SEE PLANS

-RPD-

PIs Sta 11+49.40	PI Sta 13+79.75
$\Theta_s = 5' 20' 51.4''$	$\Delta = 14' 47' 24.1''$ (LT)
$L_s = 224.00'$	$D = 4' 46' 28.7''$
$LT = 149.40'$	$L = 309.76'$
$ST = 74.73'$	$T = 155.75'$
	$R = 1,200.00'$
	SE = 08
	RO = 224'

8/17/99  
 12/3/2021 8:40:56 AM  
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INSTALL FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' AS DIRECTED TO AVOID PONDING OF RUNOFF IN ROADWAY OPEN TO PUBLIC TRAFFIC

-Y-			-YI-		
PI Sta 12+02.53	PI Sta 17+30.99	PI Sta 24+71.21	PI Sta 14+32.74		
$\Delta = 6' 2" 07.05" (RT)$	$\Delta = 0' 4" 25.5" (LT)$	$\Delta = 5' 42' 24.6" (RT)$	$\Delta = 23' 23' 57.3" (LT)$		
$D = 1' 34' 11.09"$	$D = 0' 34' 22.6"$	$D = 1' 54' 35.5"$	$D = 38' 11' 49.9"$		
$L = 404.65'$	$L = 120.50'$	$L = 298.81'$	$L = 61.26'$		
$T = 202.53'$	$T = 60.25'$	$T = 149.53'$	$T = 31.06'$		
$R = 3,650.00'$	$R = 10,000.00'$	$R = 3,000.00'$	$R = 150.00'$		
$SE = RC$	$SE = NC$	$SE = NC$	$SE = NC$		
$RO = 74'$	$RO = SEE PLANS$	$RO = SEE PLANS$	$RO = SEE PLANS$		

NAD 83/2011

PROJECT REFERENCE NO.	SHEET NO.
U-5896	EC-12/CONST.07
RW SHEET NO.	
Prepared in the Office of:	
MOTT MACDONALD	M 7621 Purfoy Road, Suite 115 Fuquay-Varina, NC 27526 www.mottmac.com/americas
VHB Engineering NC, P.C. (C-3705) 940 Main Campus Drive, Suite 500 Raleigh, NC 27608	

