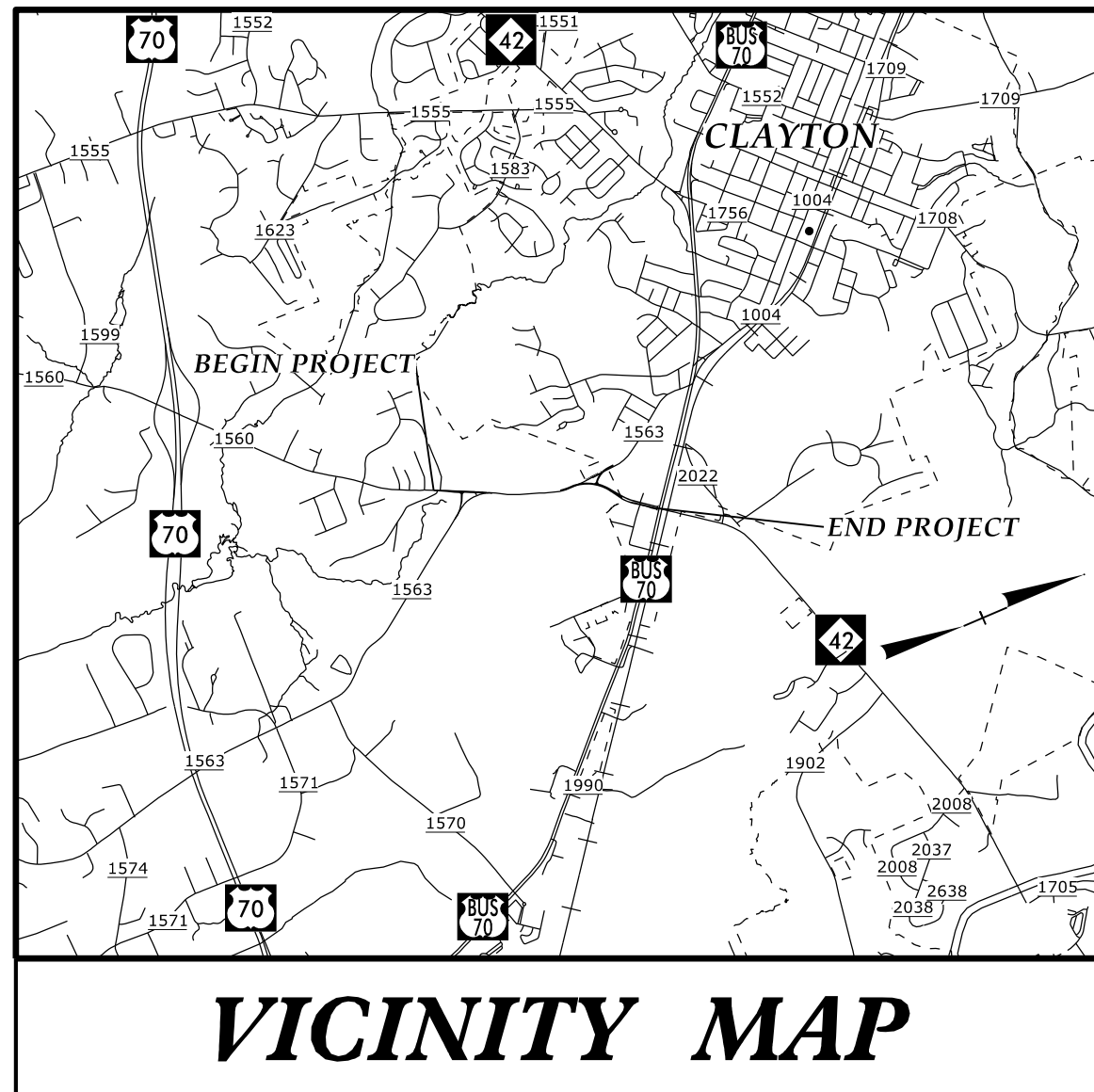


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with their signature on that page.**

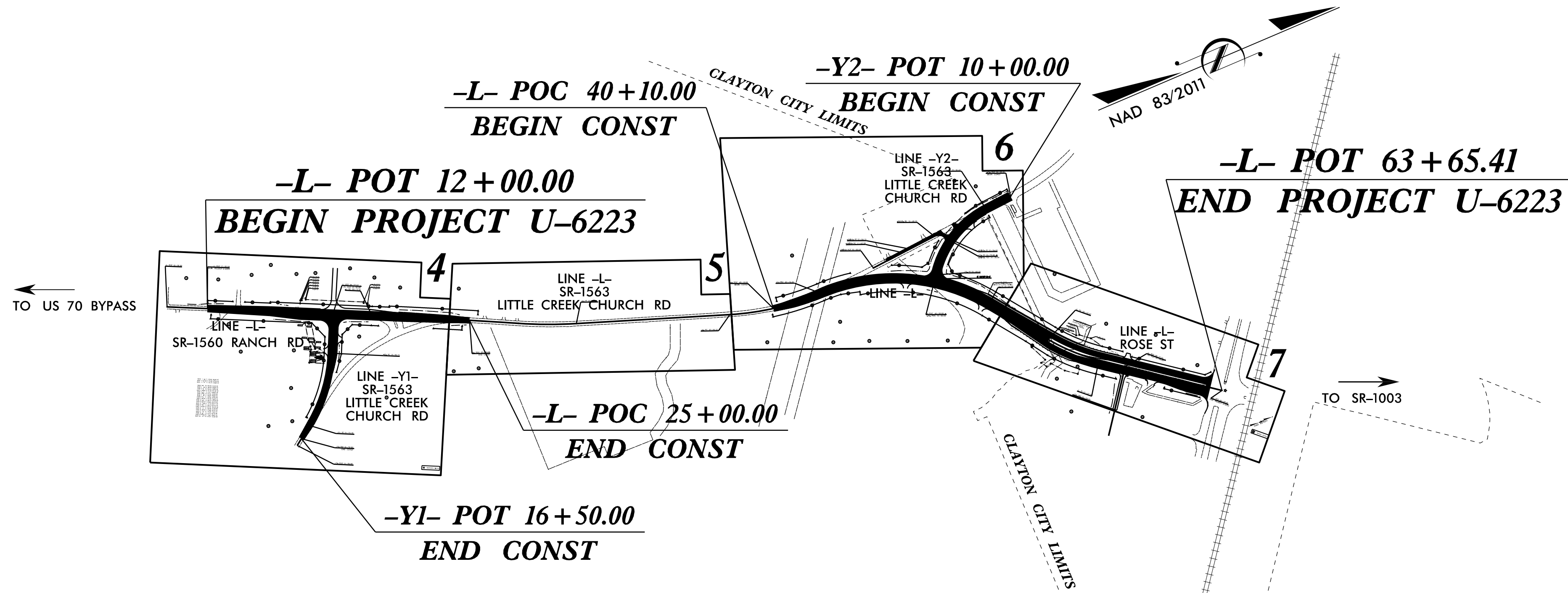
**This file or an individual page
shall not be considered a certified document.**

TIP PROJECT: U-6223



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

**LOCATION: NEW LOCATION FROM SR-1560 (RANCH ROAD)
 TO THE US-70 BUS & NC-42 INTERSECTION.
 TYPE OF WORK: GRADING, DRAINAGE AND PAVING**



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-6223	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

EROSION AND SEDIMENT CONTROL MEASURES

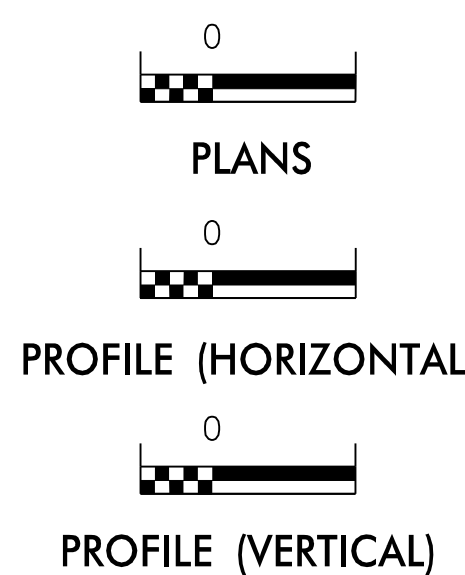
Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	--- TSD ---
1630.05	Temporary Diversion	--- TD ---
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	--- SCSF ---
1622.01	Temporary Berms and Slope Drains	--- TBSD ---
1630.02	Silt Basin Type B	--- SB B ---
1633.01	Temporary Rock Silt Check Type-A	--- TRSC A ---
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	--- TRSC A PAM ---
1633.02	Temporary Rock Silt Check Type-B	--- TRSC B ---
	Wattle / Coir Fiber Wattle	--- WCFW ---
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	--- WCFW PAM ---
1634.01	Temporary Rock Sediment Dam Type-A	--- TRSD A ---
1634.02	Temporary Rock Sediment Dam Type-B	--- TRSD B ---
1635.01	Rock Pipe Inlet Sediment Trap Type-A	--- RPIS A ---
1635.02	Rock Pipe Inlet Sediment Trap Type-B	--- RPIS B ---
1630.04	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	--- SB SK ---
	Tiered Skimmer Basin	--- TSB SK ---
	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.

GRAPHIC SCALE



**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 APRIL 1, 2019 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
2018 STANDARD SPECIFICATIONS

Designed by:
Wes Chandler, PE **3374**
NAME LEVEL III CERTIFICATION NO.

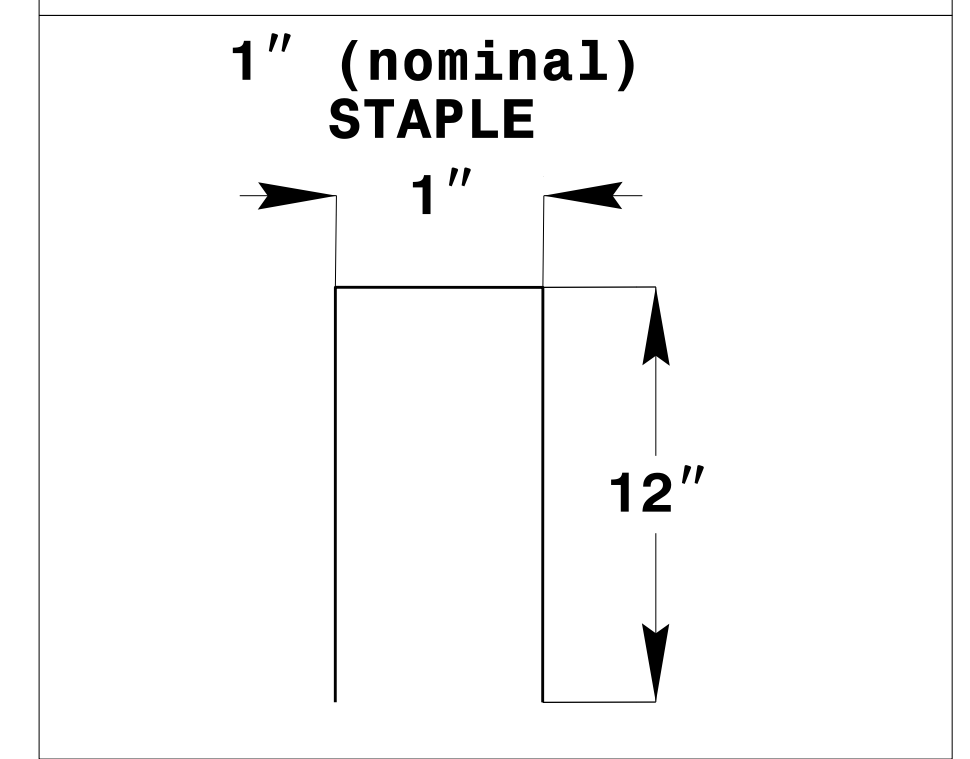
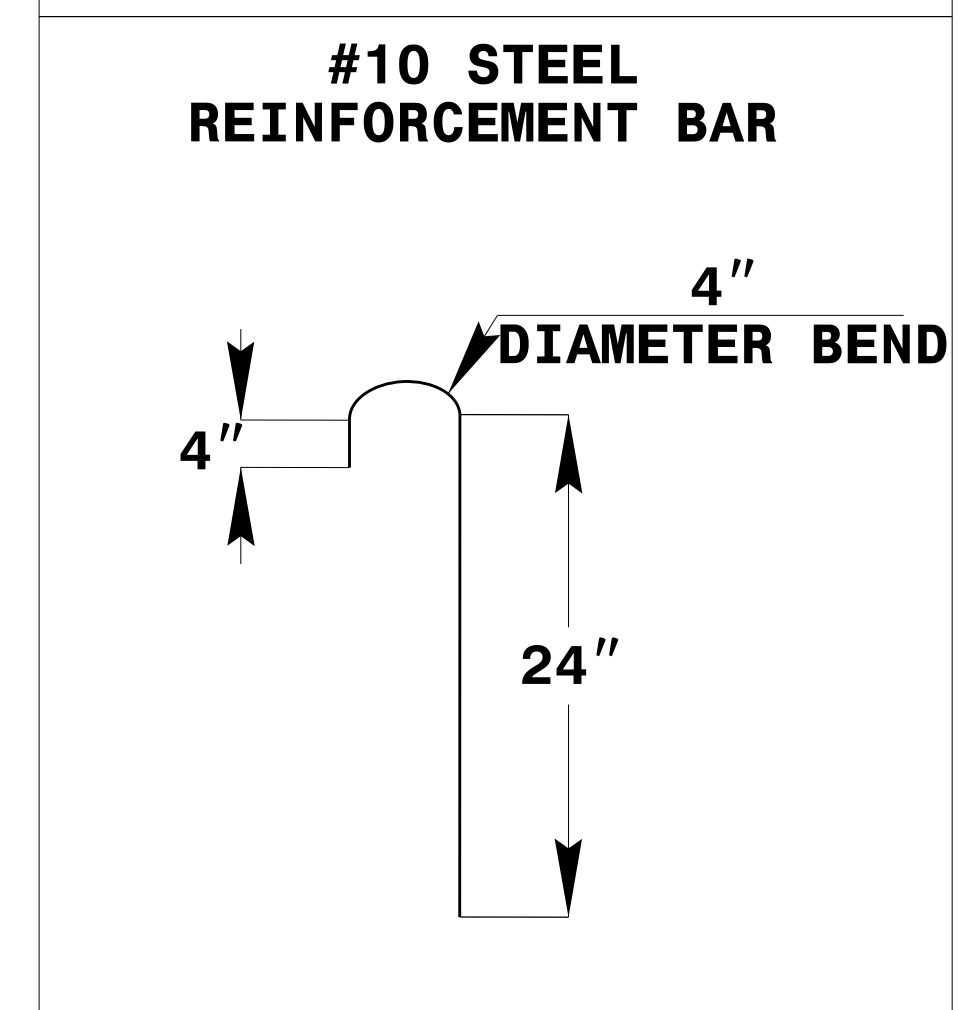
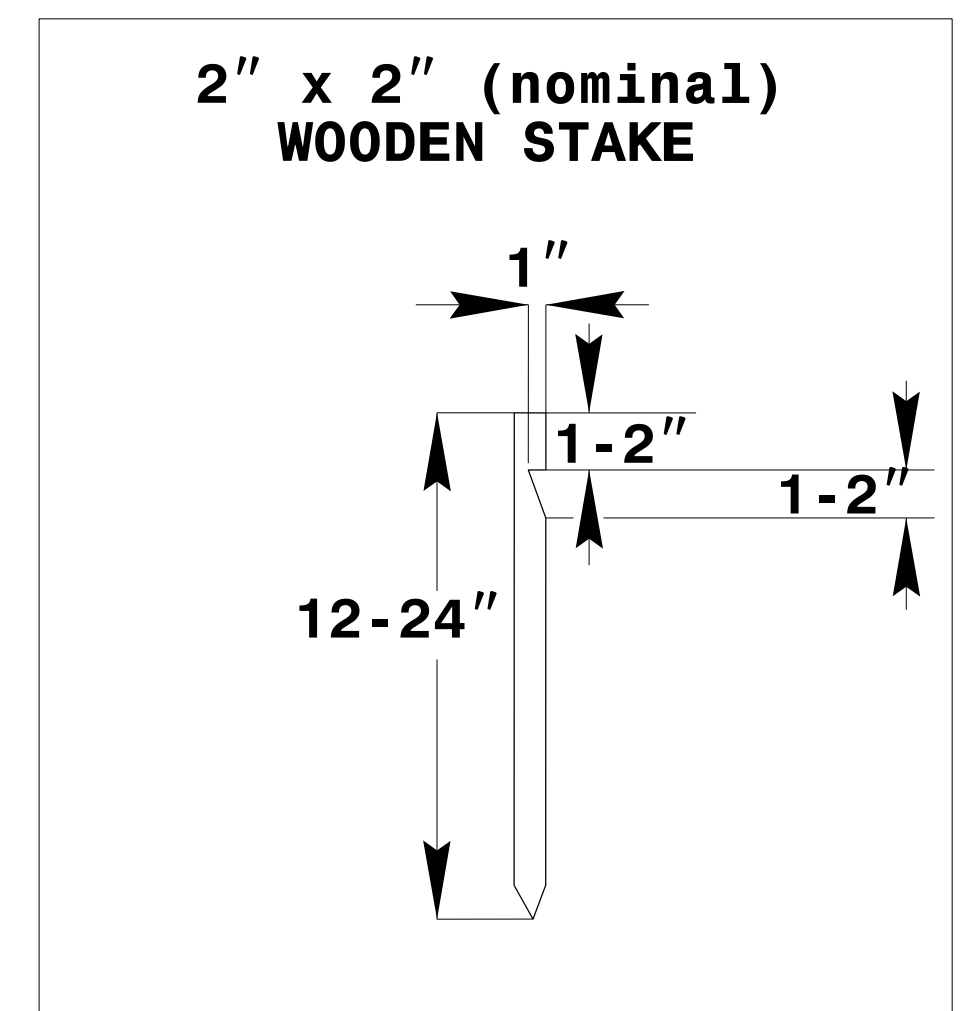
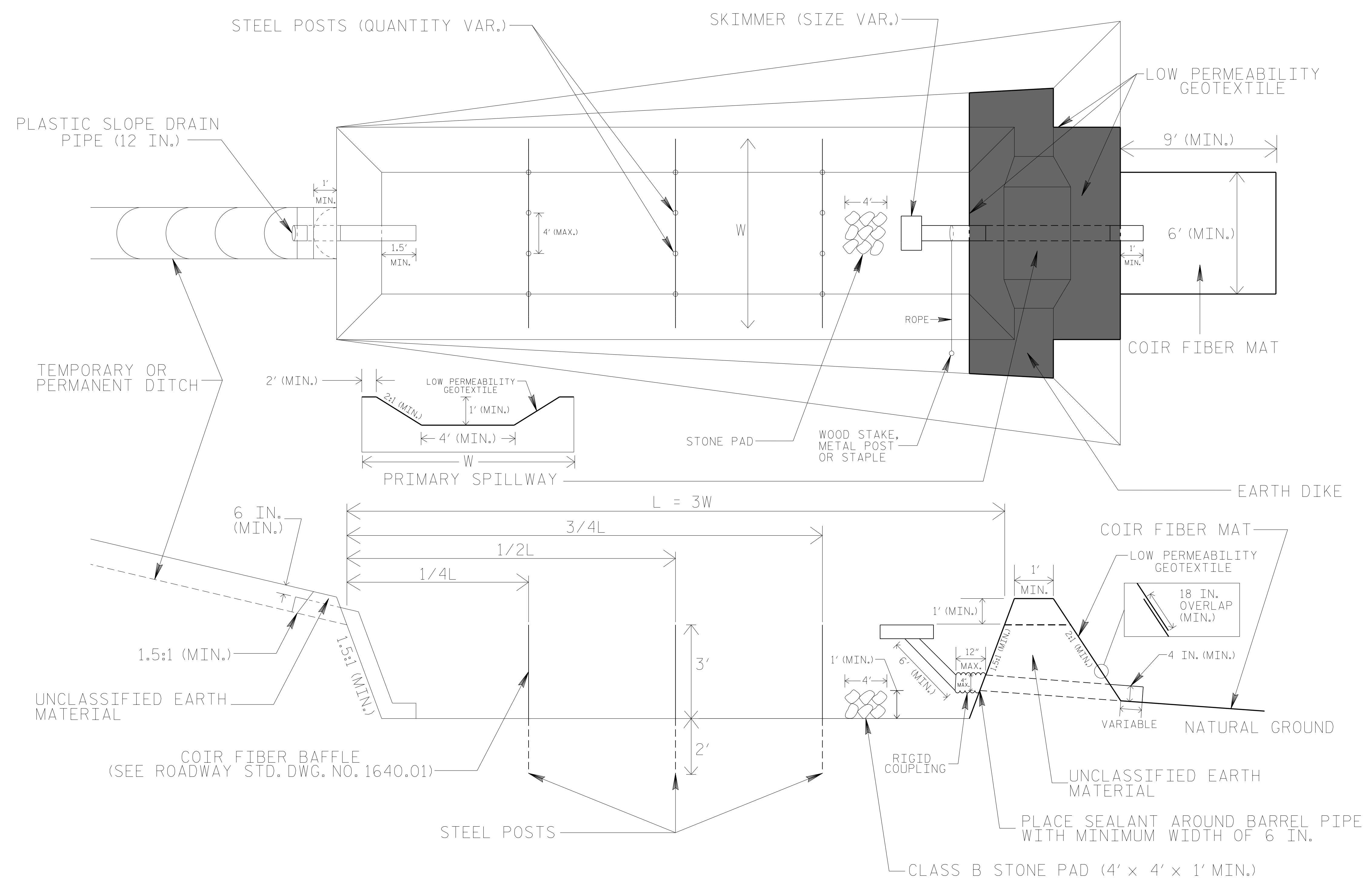
Roadway Standard Drawings

The following roadway English standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 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		

PROJECT REFERENCE NO. U-6223	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL (EAST)



COIR FIBER MAT ANCHOR OPTIONS

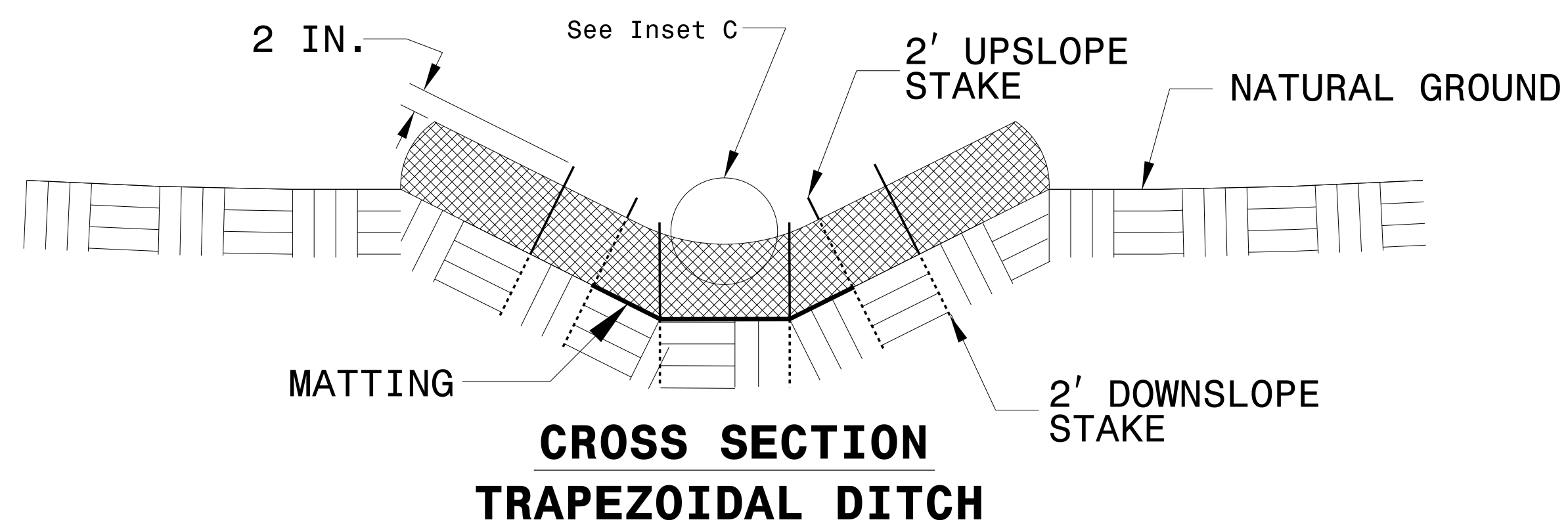
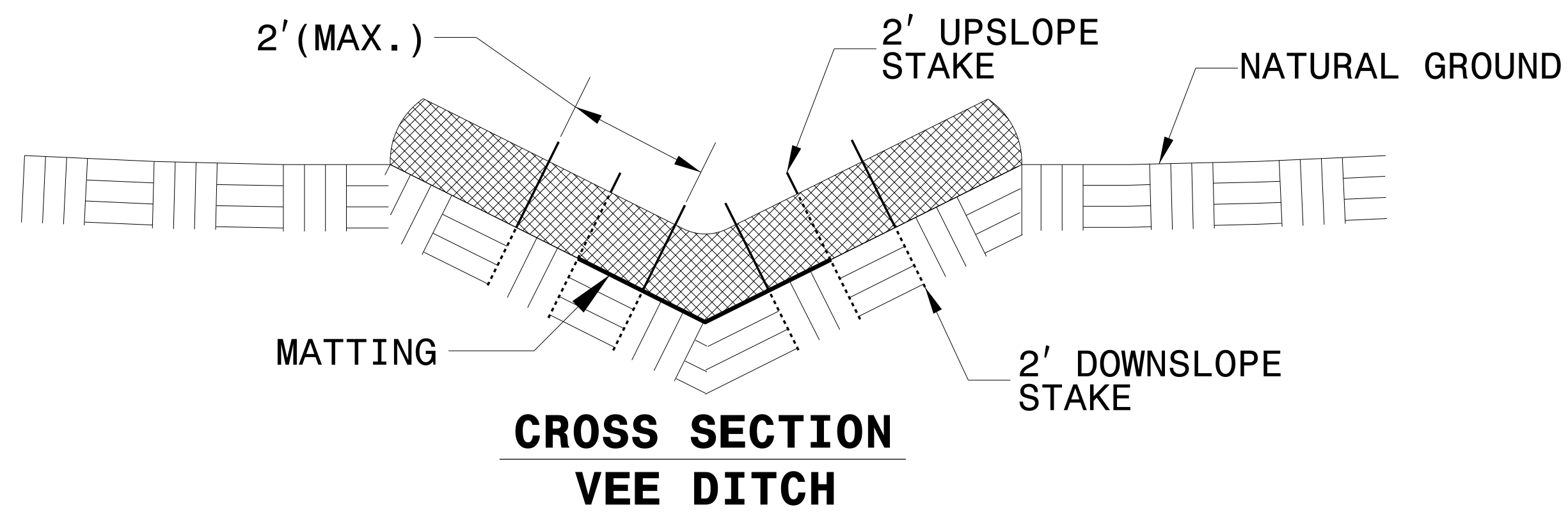
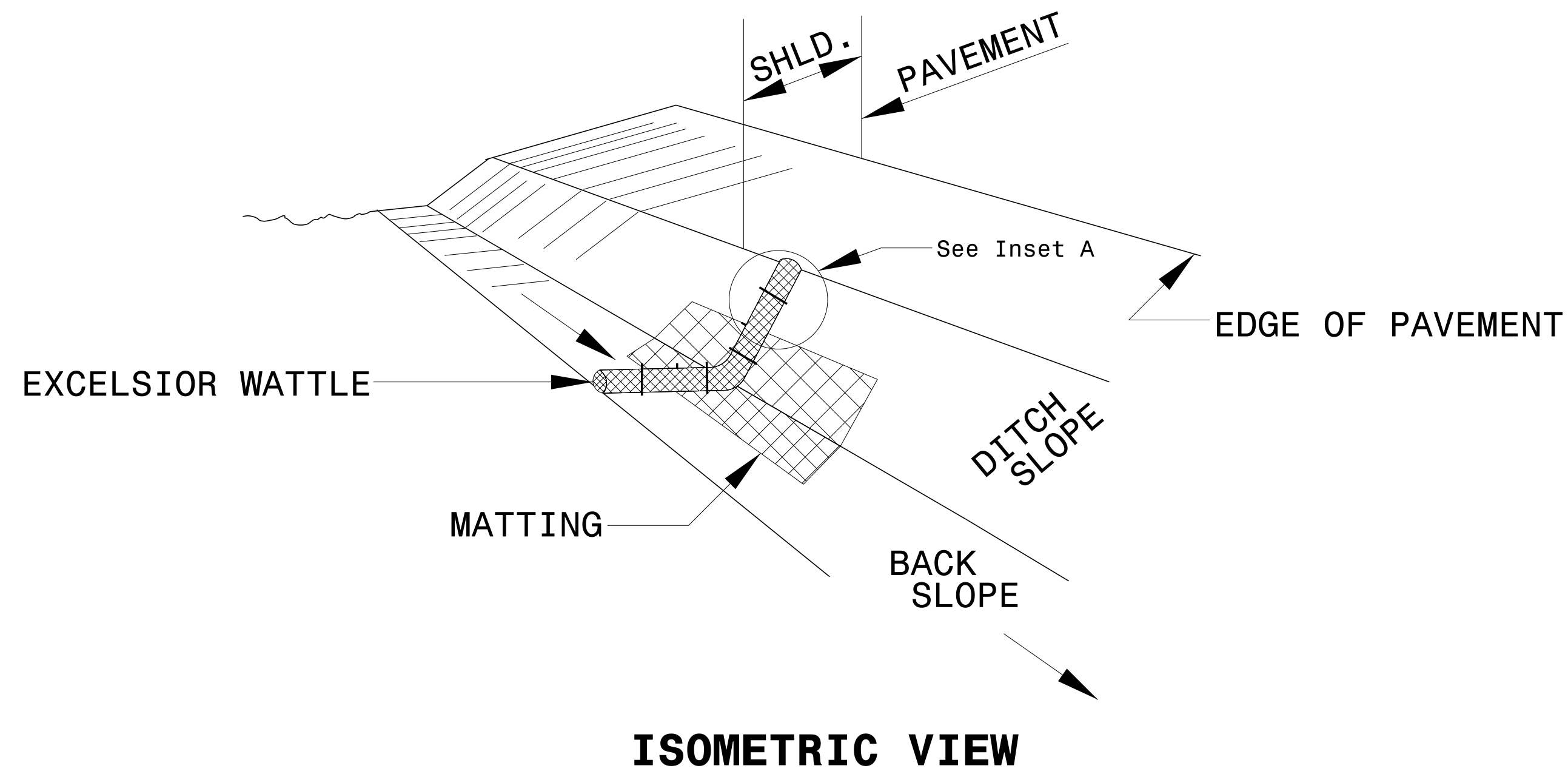
NOTES

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

NOT TO SCALE

PROJECT REFERENCE NO. U-6223	SHEET NO. EC-2A
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.

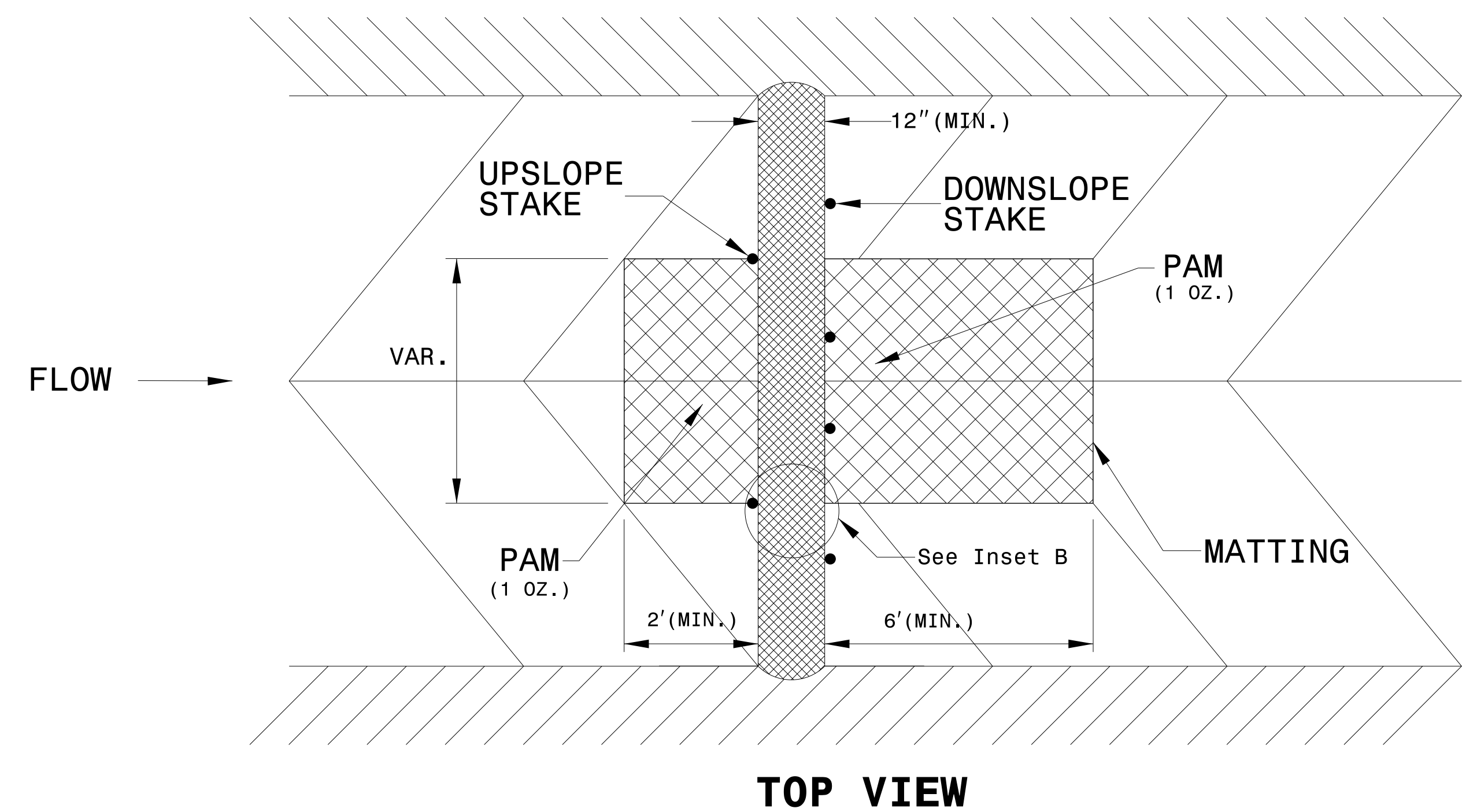
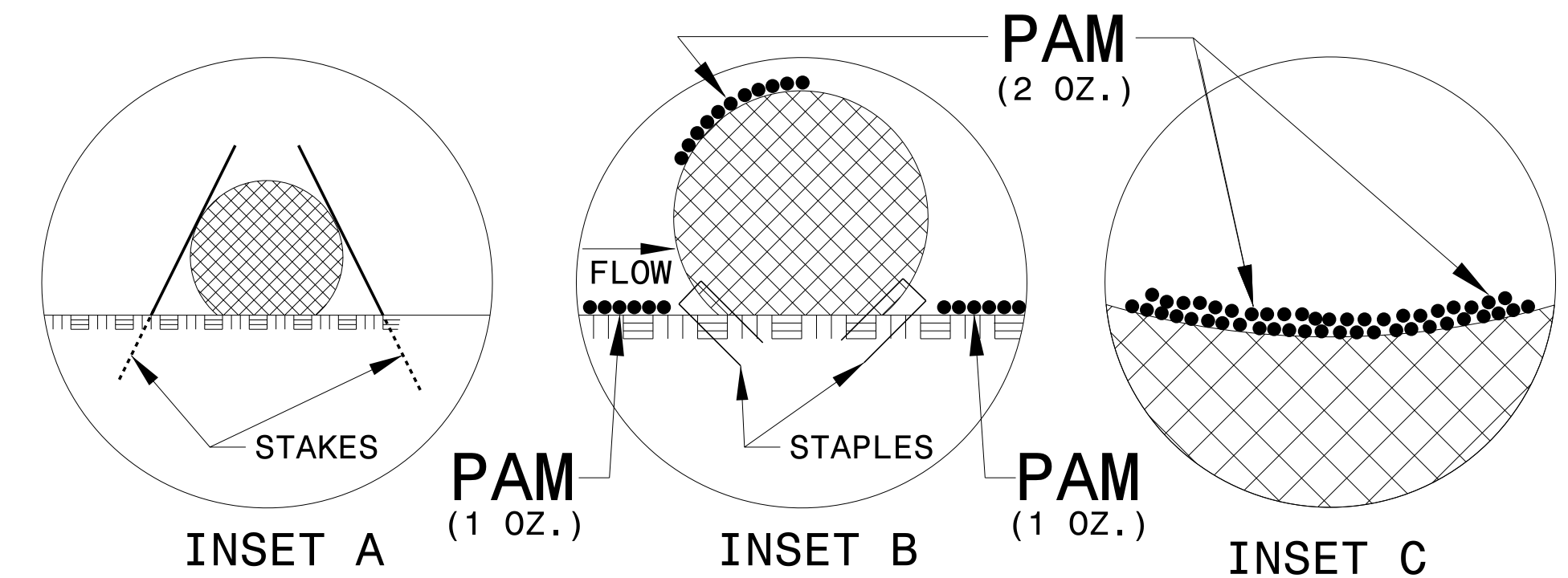
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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.

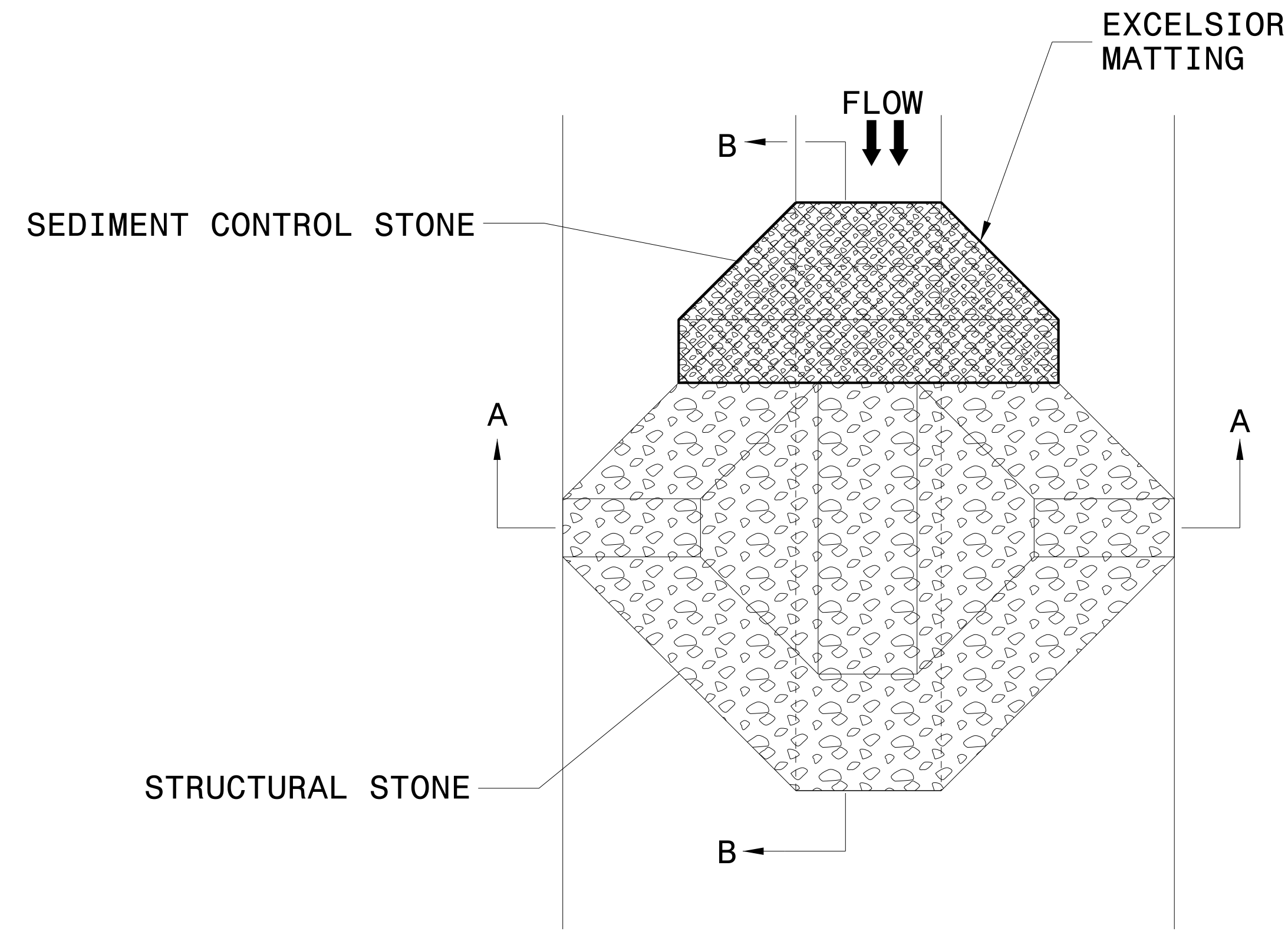
PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

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. U-6223	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN

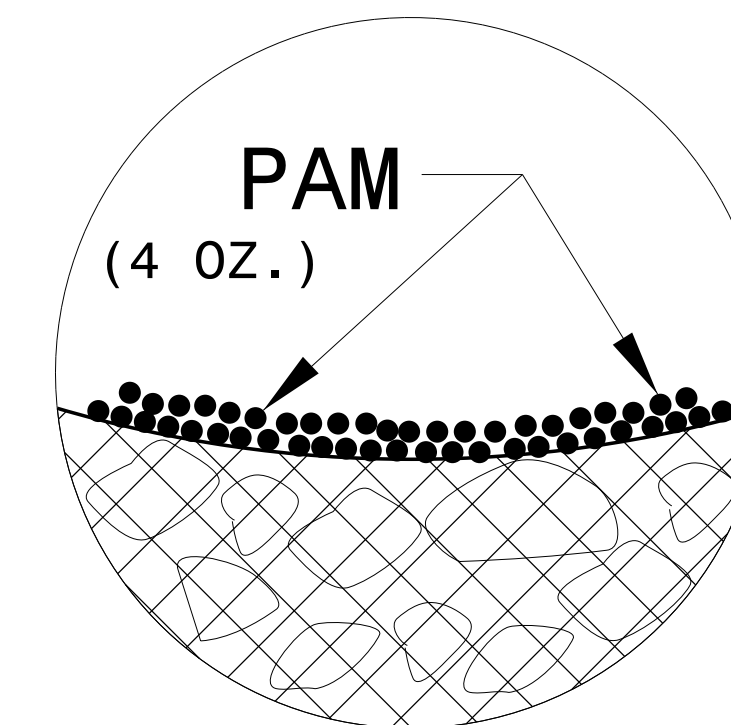
NOTES:

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

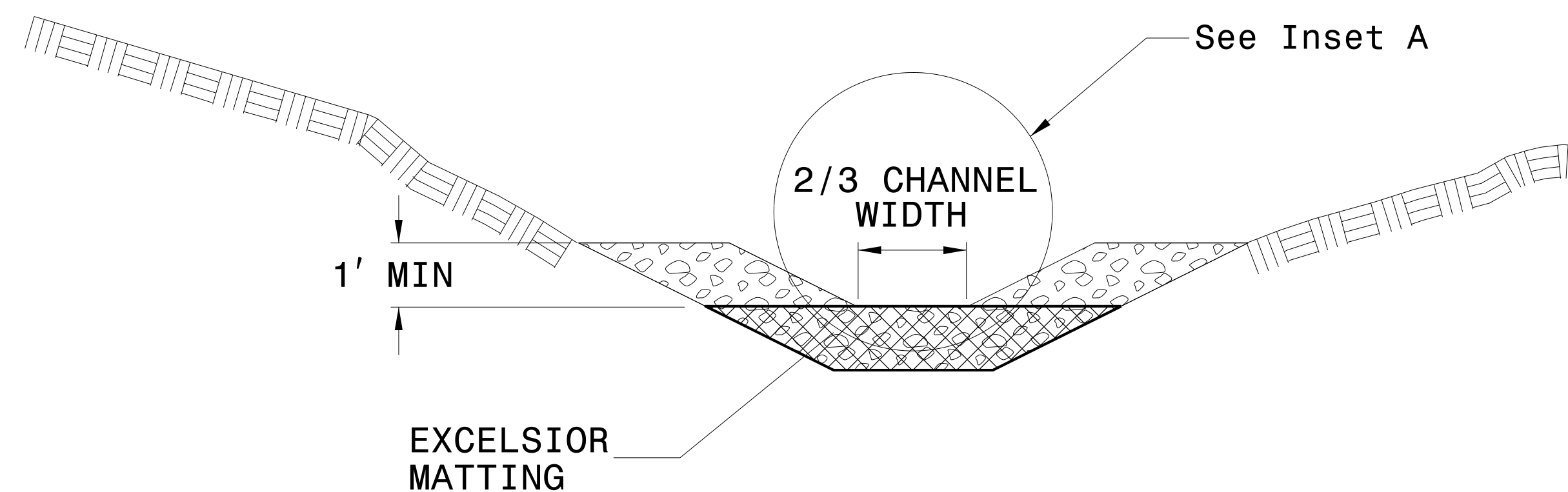
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

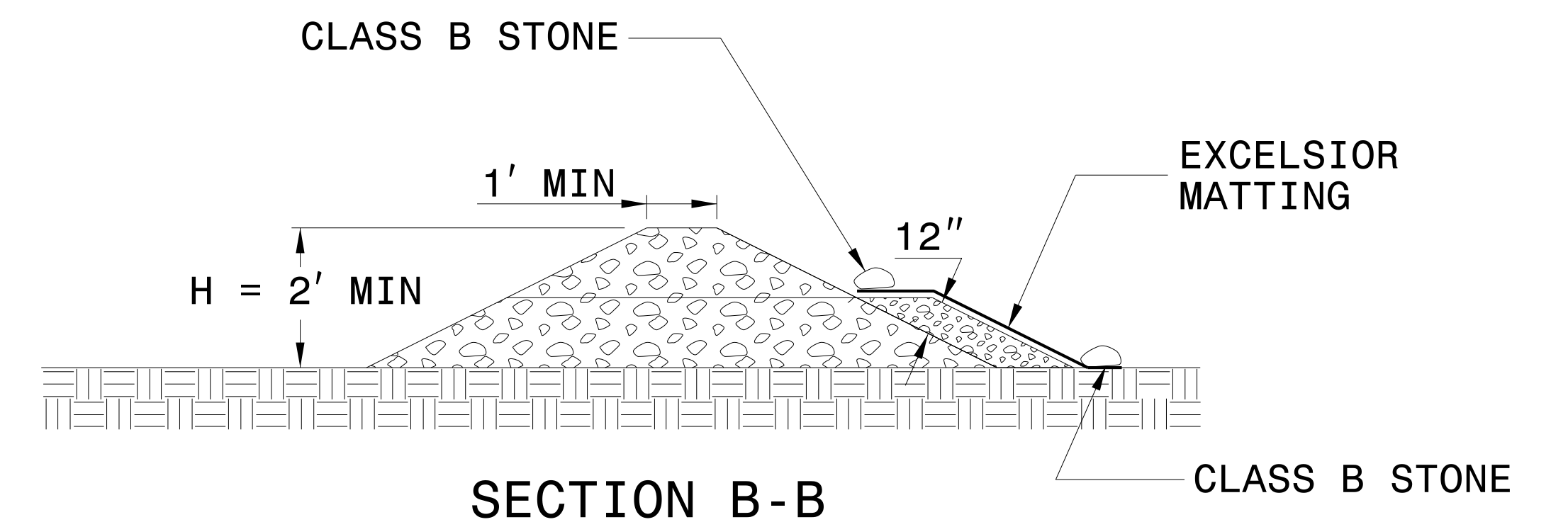
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



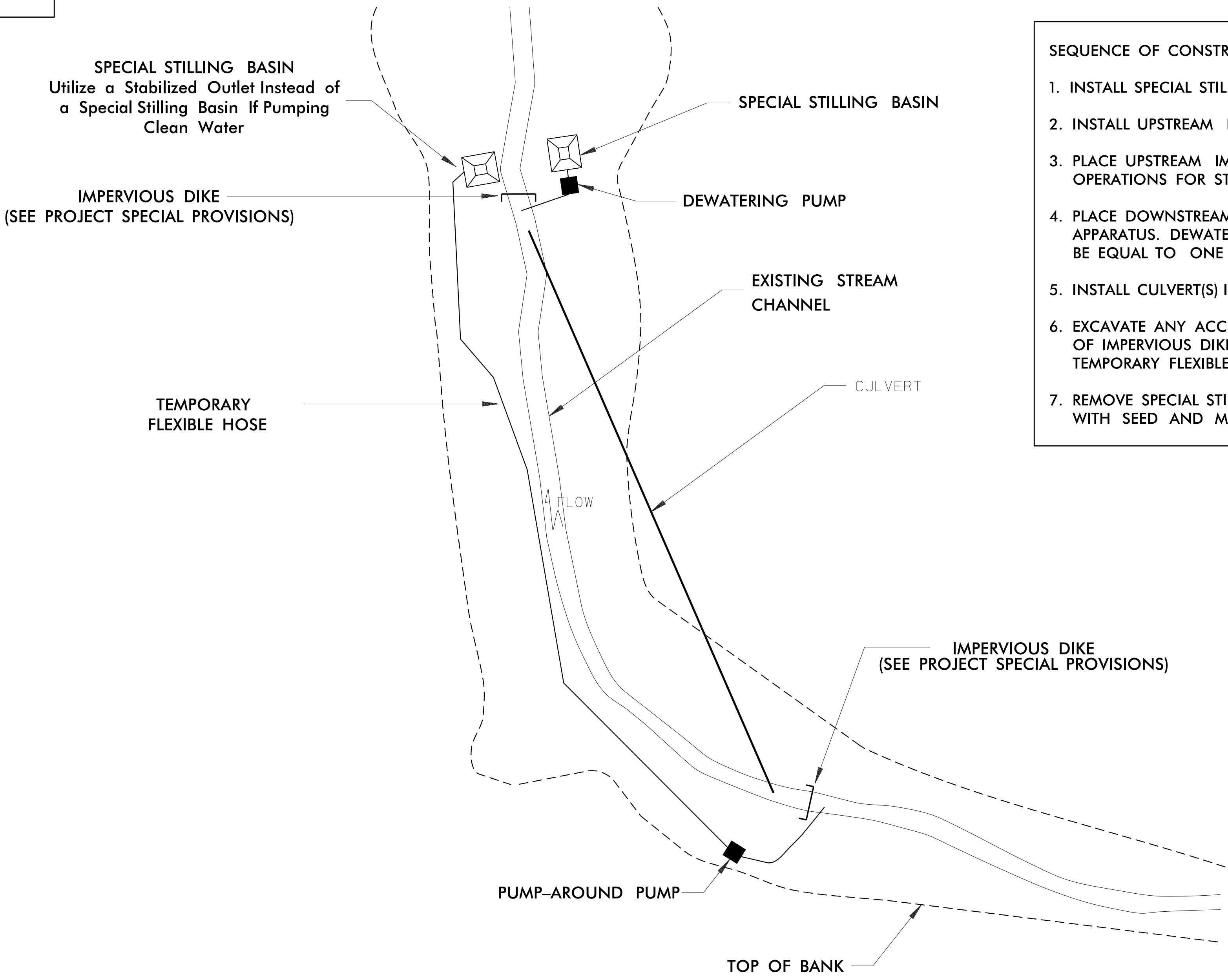
SECTION B-B

NOT TO SCALE

PROJECT REFERENCE NO. <i>U-6223</i>	SHEET NO. <i>EC-2C</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EXAMPLE OF PUMP-AROUND OPERATION

- NOTES:
- 1) All excavation shall be performed in only dry or isolated areas of the work zone.
 - 2) Impervious dikes are to be used to isolate work from stream flow when necessary.
 - 3) Maintenance of stream flow operations shall be incidental to the work. This includes polyethylene sheeting, diversion pipes, pumps and hoses.
 - 4) Pumps and hoses shall be of sufficient size to dewater the work area.



- SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA
1. INSTALL SPECIAL STILLING BASIN(S).
 2. INSTALL UPSTREAM PUMP AND TEMPORARY FLEXIBLE HOSE.
 3. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
 4. PLACE DOWNSTREAM IMPERVIOUS DIKE AND PUMPING APPARATUS. DEWATER ENTRAPPED AREA. AREA TO BE DEWATERED SHALL BE EQUAL TO ONE DAY'S WORK.
 5. INSTALL CULVERT(S) IN ACCORDANCE WITH THE PLANS.
 6. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES. REMOVE IMPERVIOUS DIKES, PUMPS, AND TEMPORARY FLEXIBLE HOSE. (DOWNSTREAM IMPERVIOUS DIKES FIRST).
 7. REMOVE SPECIAL STILLING BASIN(S) AND BACKFILL. STABILIZE DISTURBED AREA WITH SEED AND MULCH.

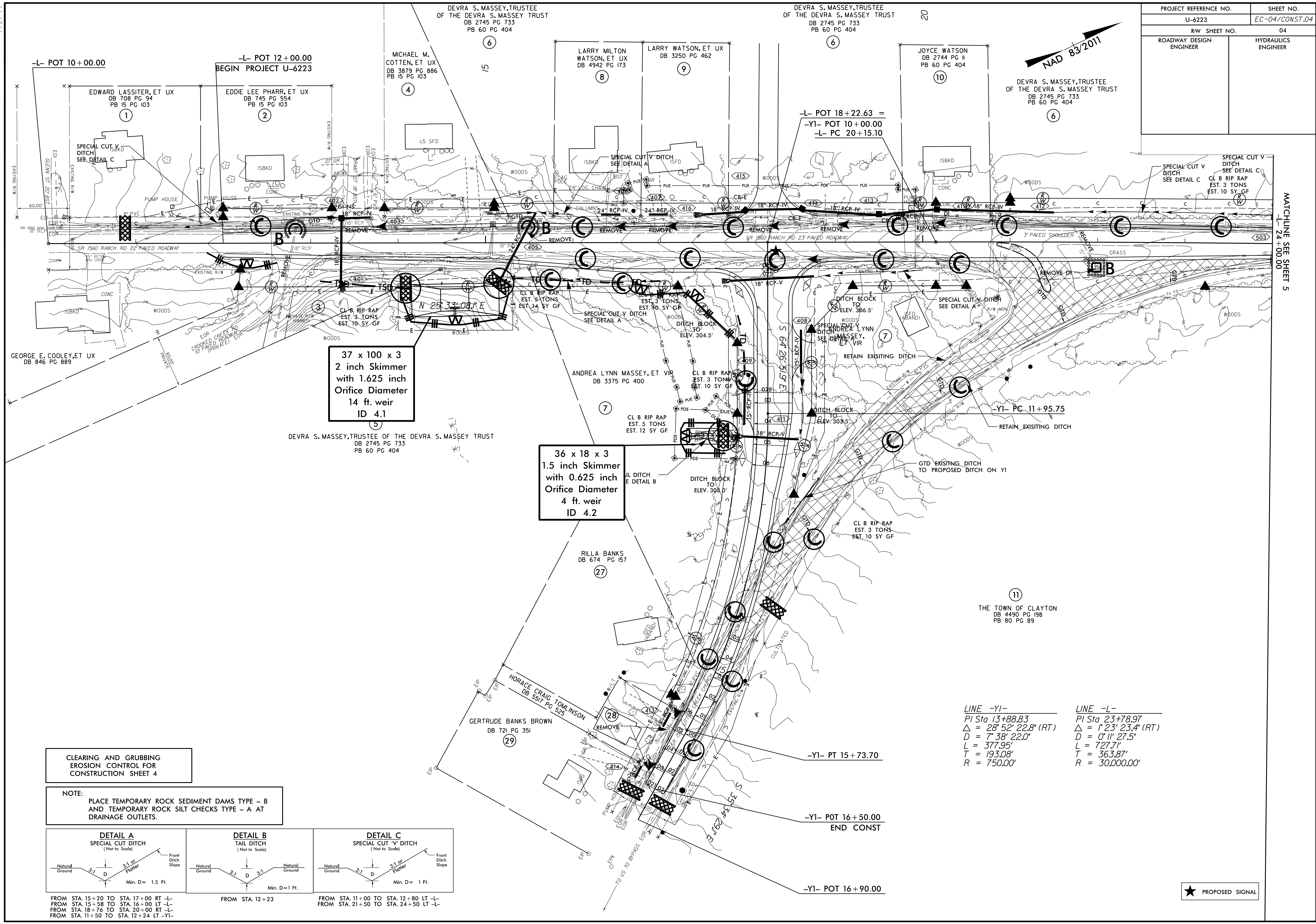
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>U-6223</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.

PROJECT REFERENCE NO.	SHEET NO.
U-6223	EC-04/CONST.04
RW SHEET NO.	04
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



EDWARD LASSITER, ET UX
DB 708 PG 94
PB 15 PG 103

EDDIE LEE PHARR, ET UX
DB 745 PG 554
PB 15 PG 103

MICHAEL M. COTTEN, ET UX
DB 3879 PG 886
PB 15 PG 103

LARRY MILTON WATSON, ET UX
DB 4942 PG 173

LARRY WATSON, ET UX
DB 3250 PG 462

DEVRA S. MASSEY, TRUSTEE OF THE DEVRA S. MASSEY TRUST
DB 2745 PG 733
PB 60 PG 404

DEVRA S. MASSEY, TRUSTEE OF THE DEVRA S. MASSEY TRUST
DB 2745 PG 733
PB 60 PG 404

JOYCE WATSON
DB 2744 PG 11
PB 60 PG 404

DEVRA S. MASSEY, TRUSTEE OF THE DEVRA S. MASSEY TRUST
DB 2745 PG 733
PB 60 PG 404

GEORGE E. COOLEY, ET UX
DB 846 PG 889

ANDREA LYNN MASSEY, ET VIR
DB 3375 PG 400

DEVRA S. MASSEY, TRUSTEE OF THE DEVRA S. MASSEY TRUST
DB 2745 PG 733
PB 60 PG 404

RILLA BANKS
DB 674 PG 157

THE TOWN OF CLAYTON
DB 4490 PG 198
PB 80 PG 89

GERTRUDE BANKS BROWN
DB 721 PG 351

HORACE CRAIG TOMLINSON
DB 5917 PG 525

37 x 100 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
14 ft. weir
ID 4.1

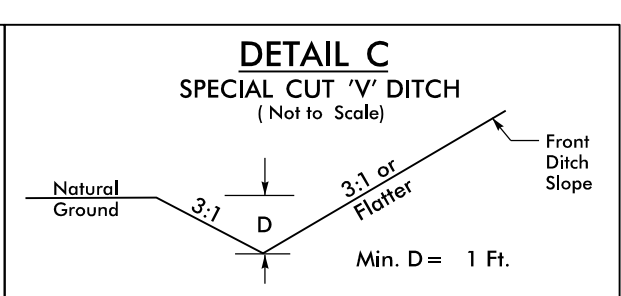
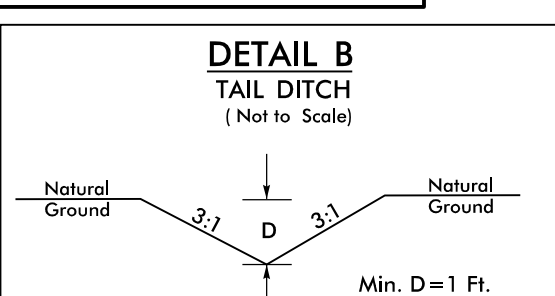
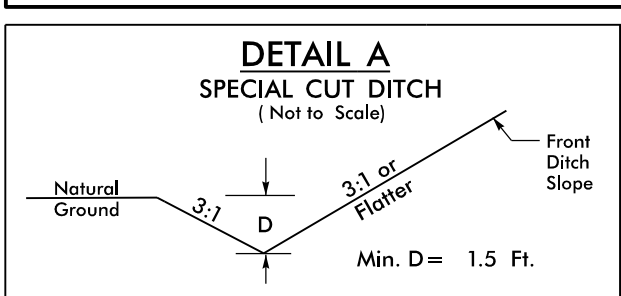
36 x 18 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 4.2

LINE -Y1-
PI Sta 13+88.83
Δ = 28° 52' 22.8" (RT)
D = 7' 38" 22.0"
L = 377.95'
T = 193.08'
R = 750.00'

LINE -L-
PI Sta 23+78.97
Δ = 1° 23' 23.4" (RT)
D = 0' 11" 27.5"
L = 727.71'
T = 363.87'
R = 30,000.00'

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

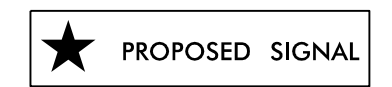
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.



FROM STA. 15+20 TO STA. 17+00 RT -L-
FROM STA. 15+58 TO STA. 16+00 LT -L-
FROM STA. 18+76 TO STA. 20+00 RT -L-
FROM STA. 11+50 TO STA. 12+24 LT -Y1-

FROM STA. 12+23

FROM STA. 11+00 TO STA. 12+80 LT -L-
FROM STA. 21+50 TO STA. 24+50 LT -L-



MARK EDWARD PARKER, ET UX
DB 151 PG 348
PB 47 PG 204

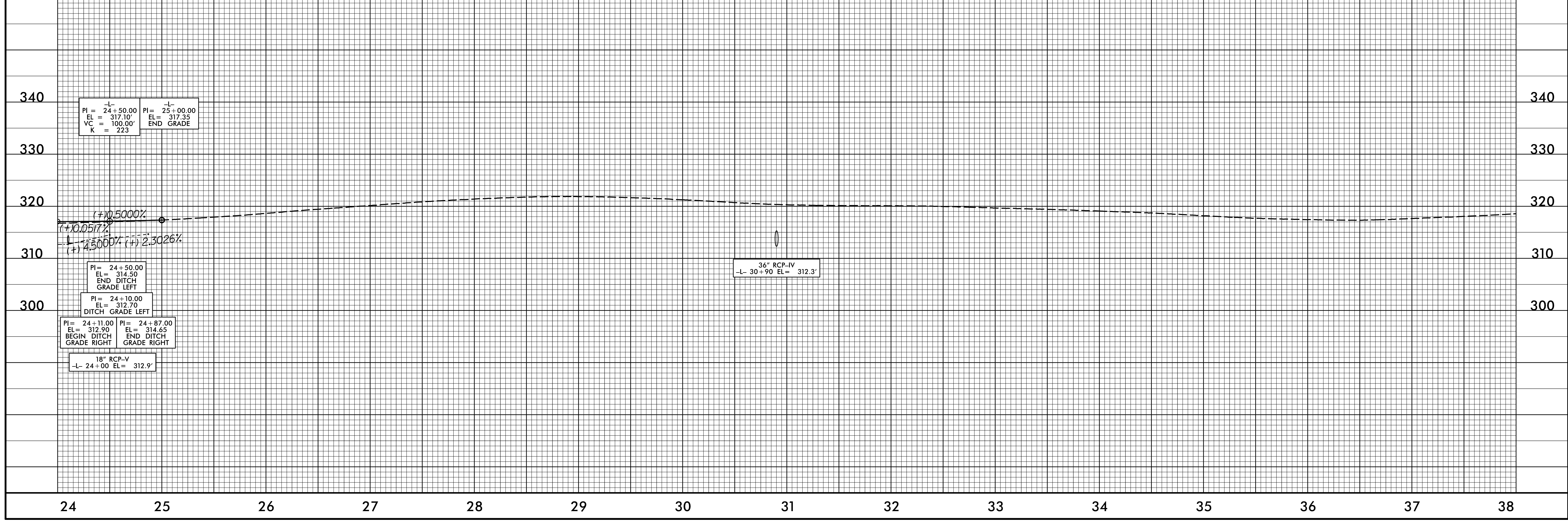
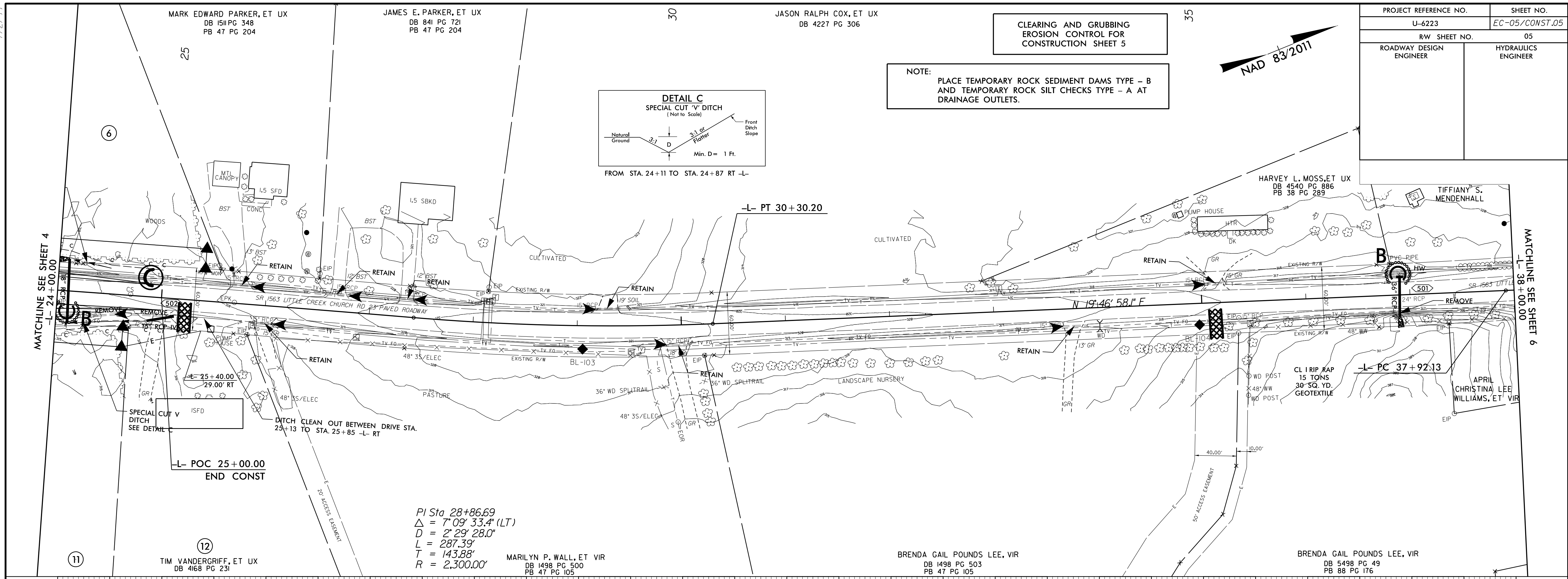
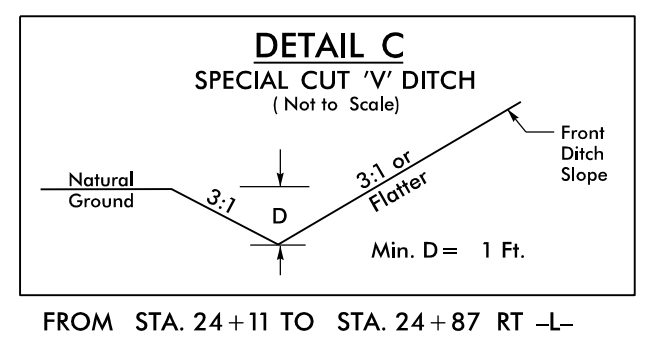
JAMES E. PARKER, ET UX
DB 841 PG 721
PB 47 PG 204

JASON RALPH COX, ET UX
DB 4227 PG 306

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

PROJECT REFERENCE NO.	SHEET NO.
U-6223	EC-05/CONST.05
RW SHEET NO.	05
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

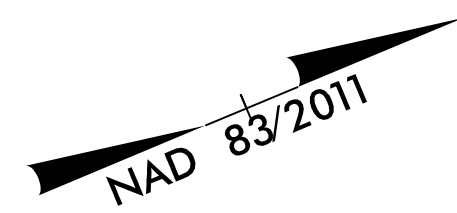
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.



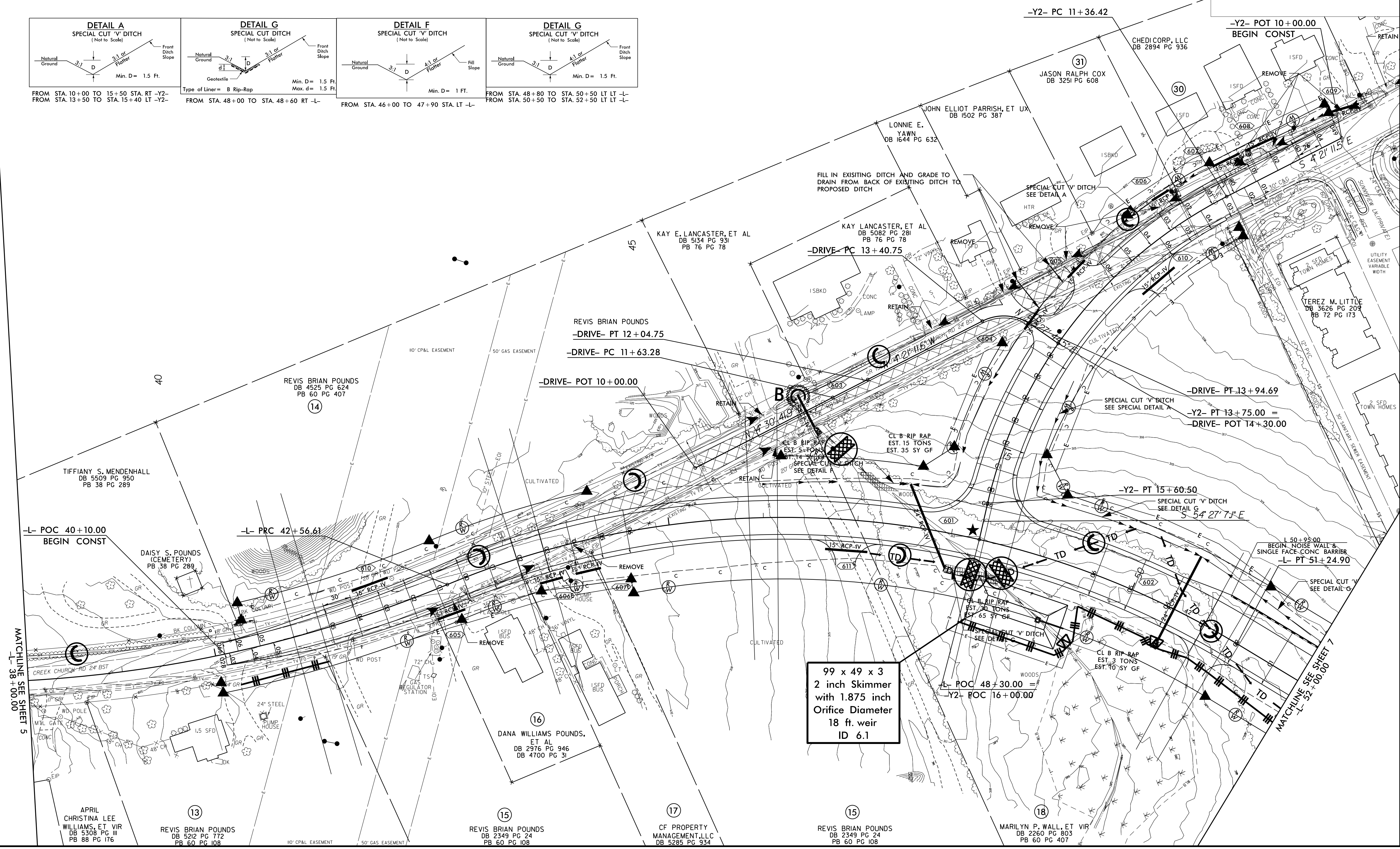
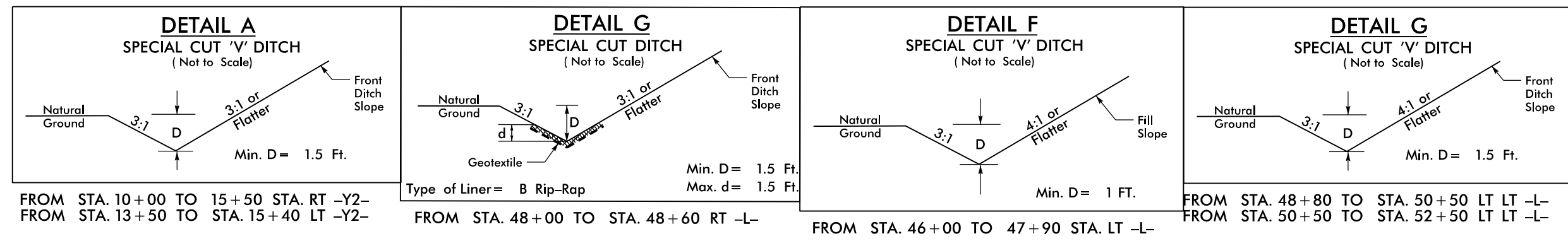
★ PROPOSED SIGNAL

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 06



PROJECT REFERENCE NO.	SHEET NO.
U-6223	EC-06/CONST.06
RW SHEET NO.	06
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

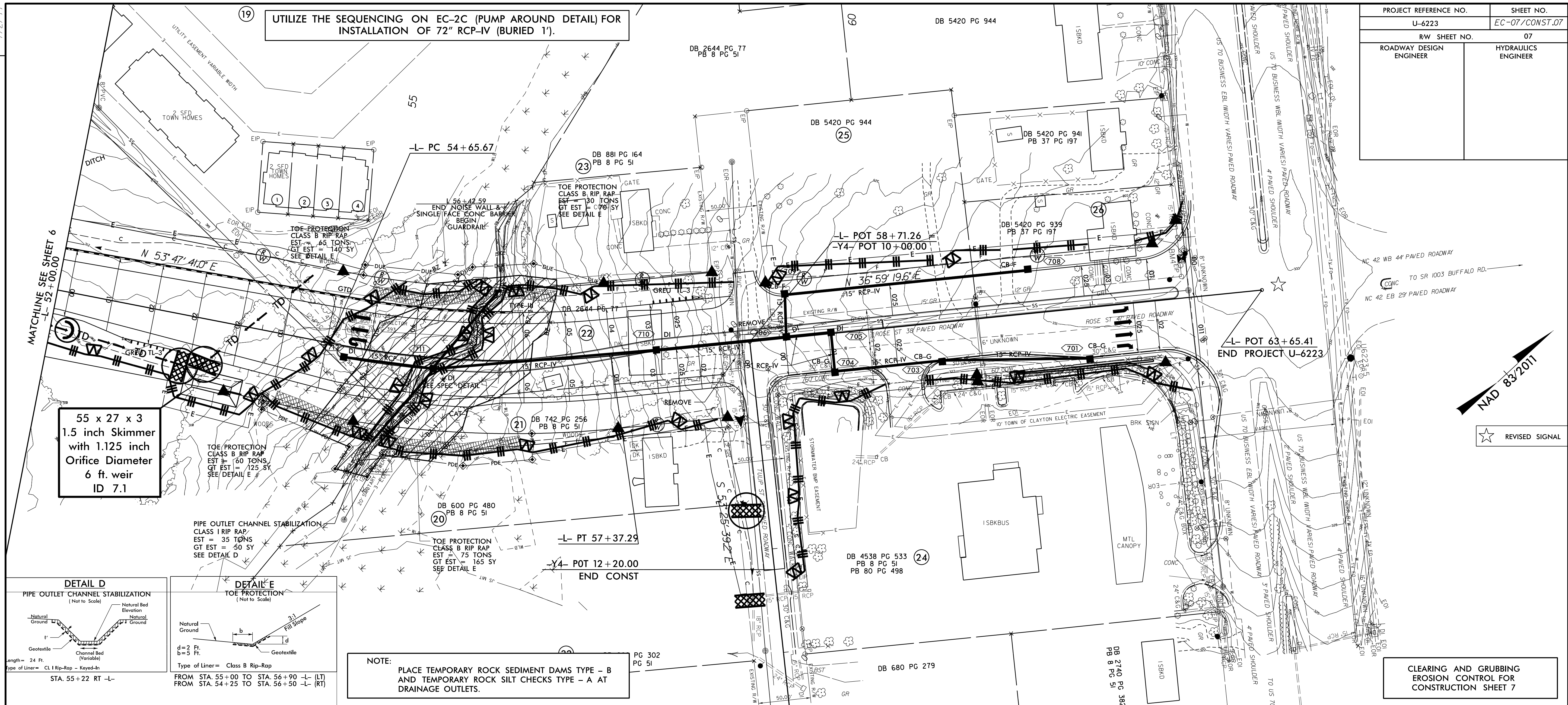


REVISIONS

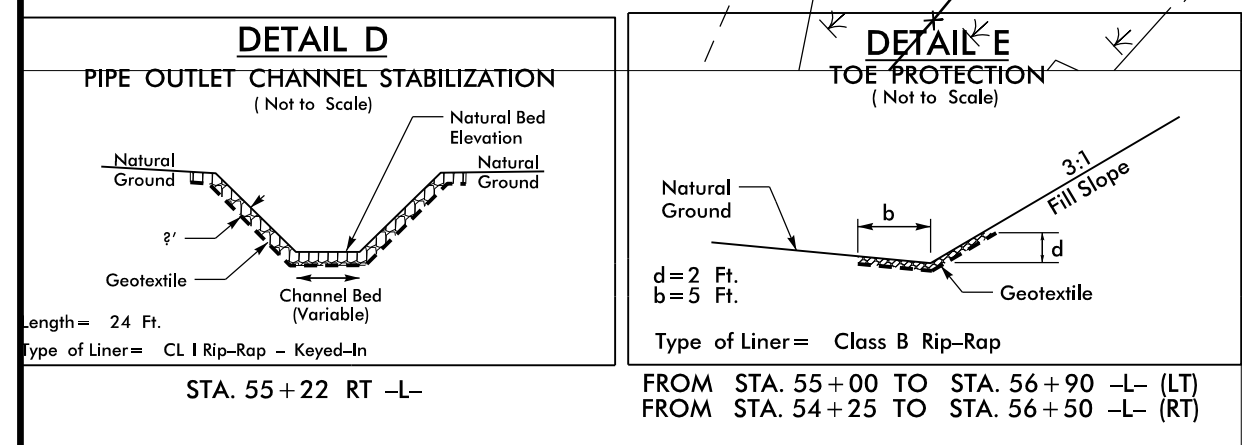
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\$\$\$\$\$USERNAMESS\$\$

PROJECT REFERENCE NO.	SHEET NO.
U-6223	EC-07/CONST.07
RW SHEET NO.	07
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

UTILIZE THE SEQUENCING ON EC-2C (PUMP AROUND DETAIL) FOR INSTALLATION OF 72" RCP-IV (BURIED 1').

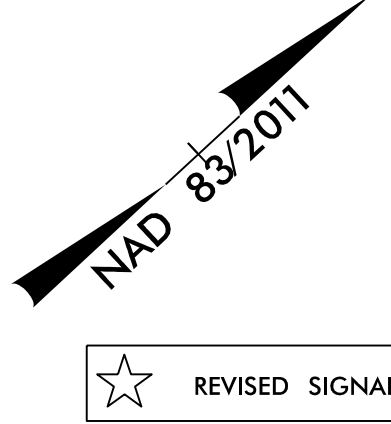


55 x 27 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 7.1



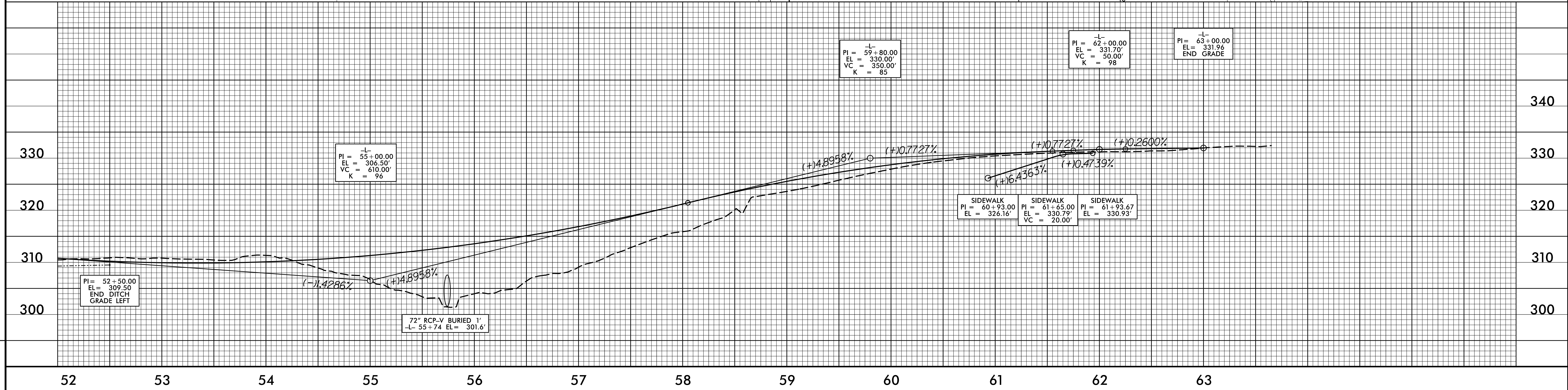
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 7

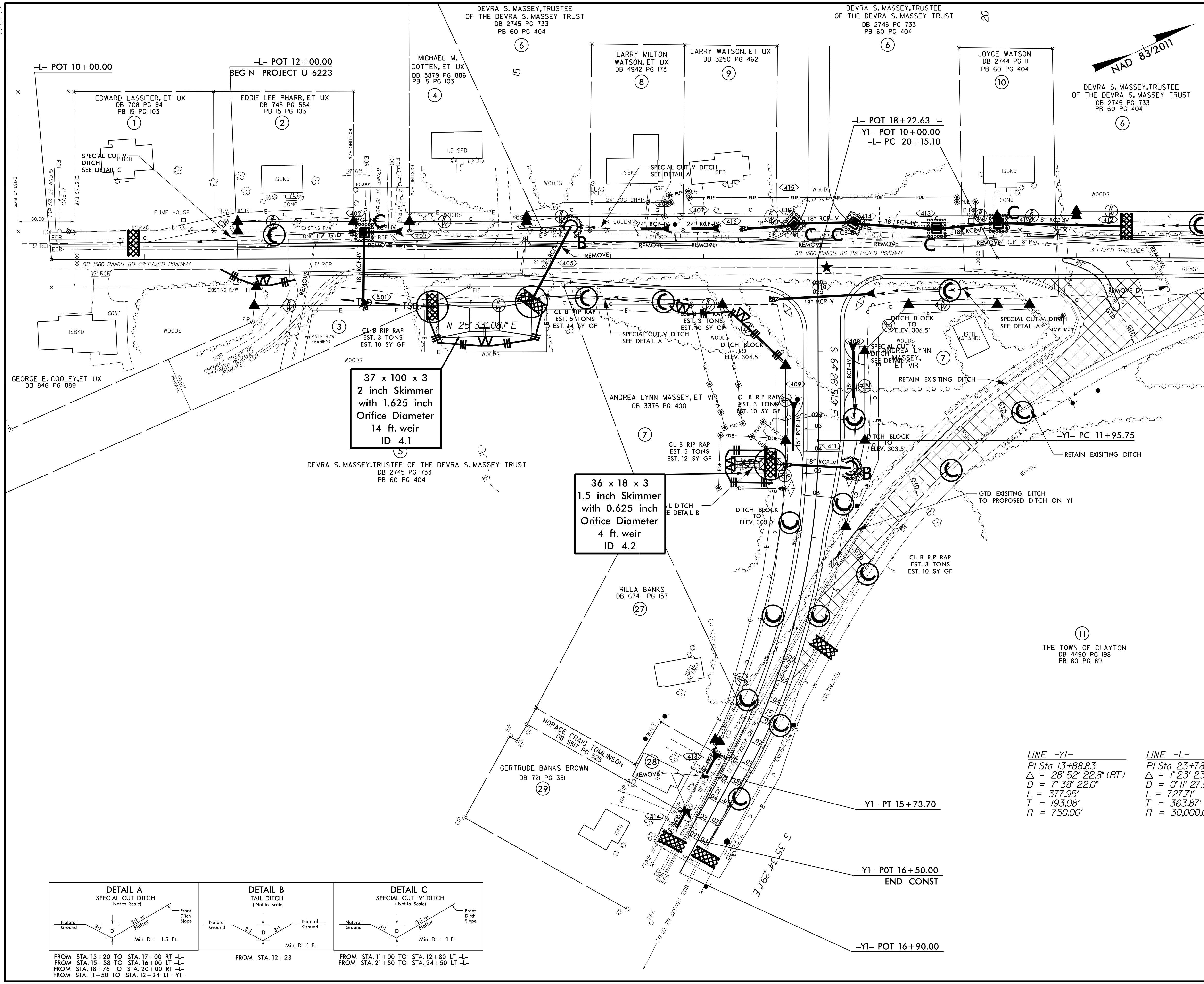


REVISIONS

21-MAR-2022 11:19
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04-21-2021 LINE -Y4- & TCE ADDED & TCE ADDED -L- 53+20 - 54+05 RT
07-29-2021 REVISION SEMEER EASEMENT FROM -Y2- 11+50+/- TO -L- 54+80+/-
11-03-2021 Add R/W To Parcel 24 From 60+85 to 62+66.43



PROJECT REFERENCE NO.	SHEET NO.
U-6223	EC-08/CONST.04
RW SHEET NO.	04
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

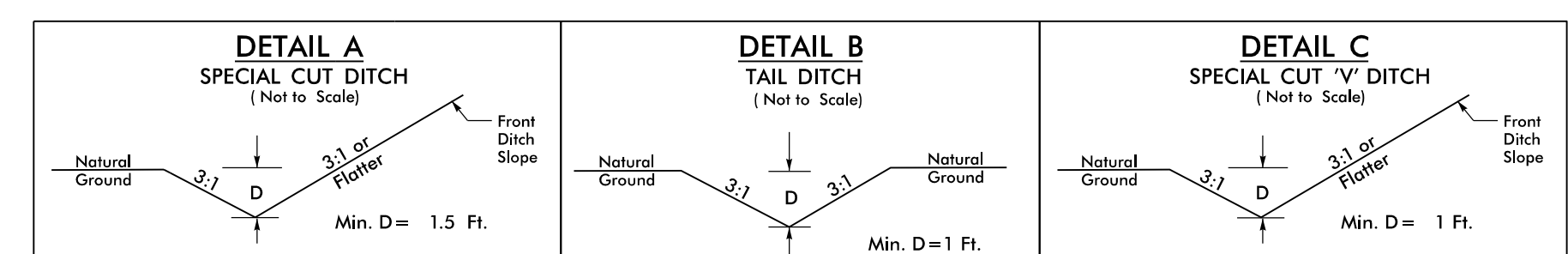


37 x 100 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
14 ft. weir
ID 4.1

36 x 18 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 4.2

LINE -YI-
PI Sta 13+88.83
Δ = 28° 52' 22.8" (RT)
D = 7' 38" 22.0"
L = 377.95'
T = 193.08'
R = 750.00'

LINE -L-
PI Sta 23+78.97
Δ = 1° 23' 23.4" (RT)
D = 0' 11" 27.5"
L = 727.71'
T = 363.87'
R = 30,000.00'



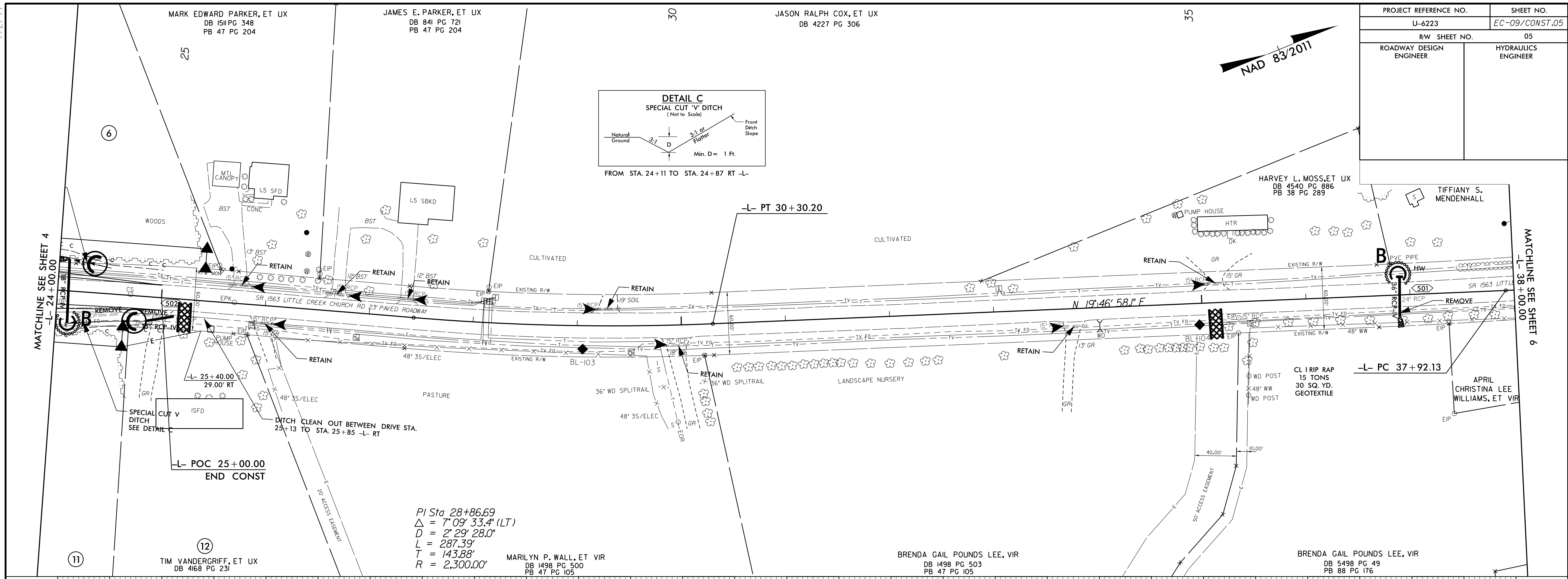
FROM STA. 15+20 TO STA. 17+00 RT -L-
FROM STA. 15+58 TO STA. 16+00 LT -L-
FROM STA. 18+76 TO STA. 20+00 RT -L-
FROM STA. 11+50 TO STA. 12+24 LT -YI-

FROM STA. 12+23

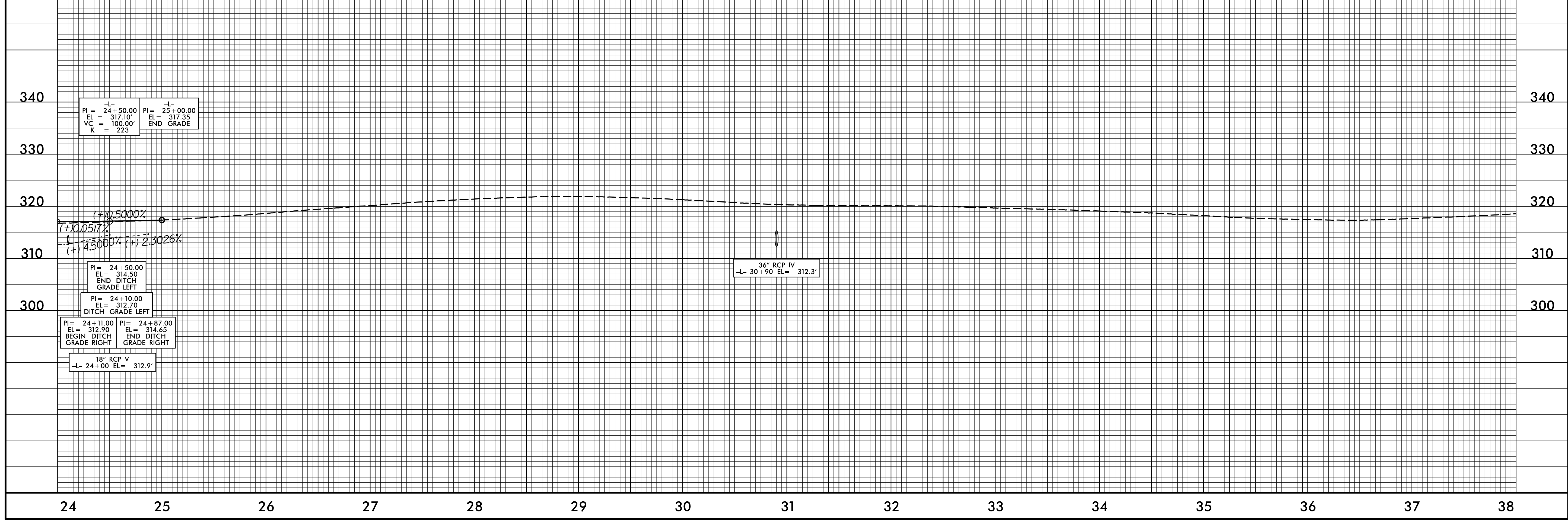
FROM STA. 11+00 TO STA. 12+80 LT -L-
FROM STA. 21+50 TO STA. 24+50 LT -L-



14-MAR-2022 12:52
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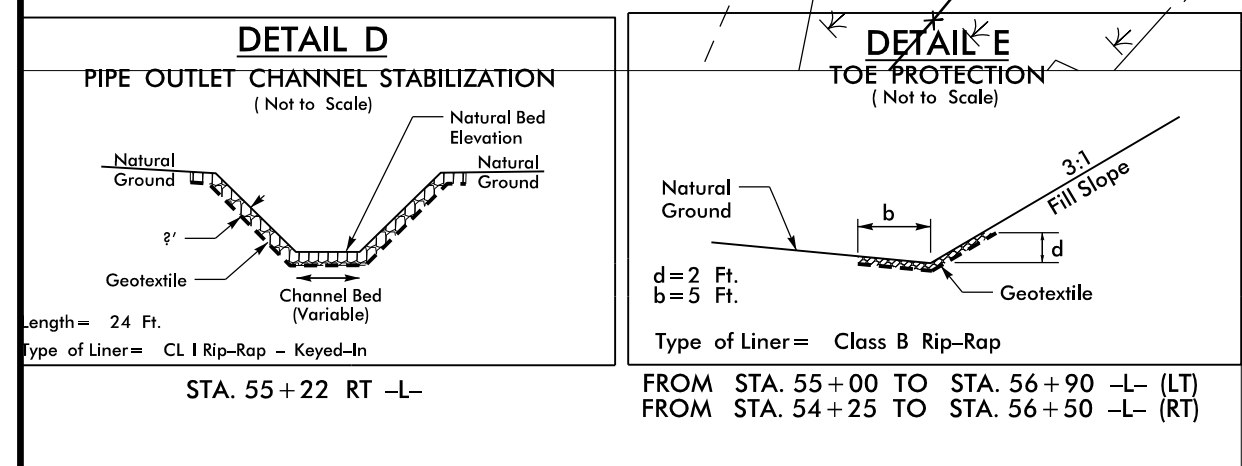
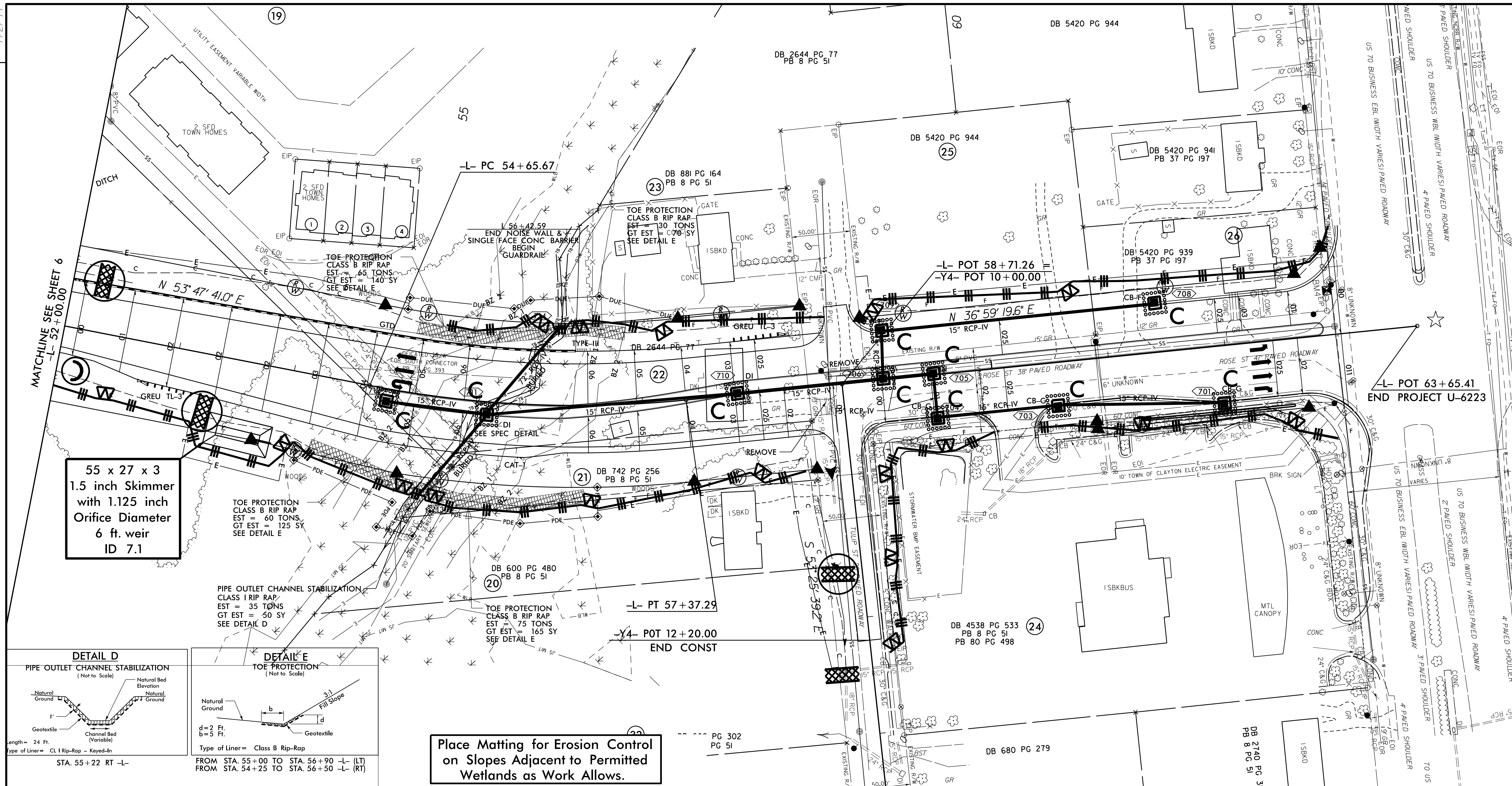


PROJECT REFERENCE NO.	SHEET NO.
U-6223	EC-09/CONST.05
RW SHEET NO.	05
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

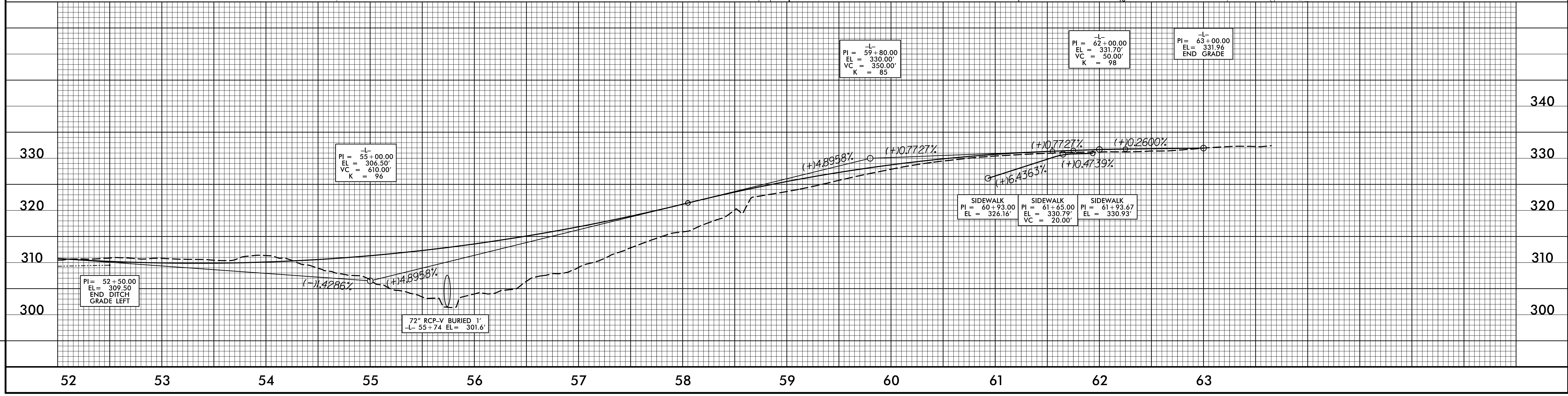
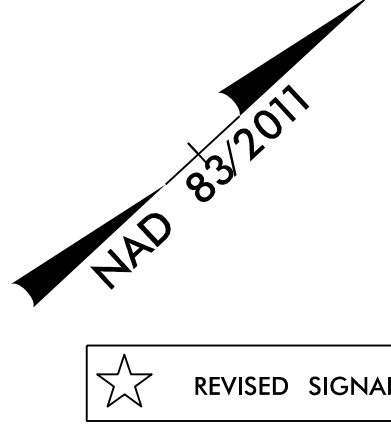


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PROJECT REFERENCE NO.	SHEET NO.
U-6223	EC-II/CONST.07
RW SHEET NO.	07
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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



REVISIONS

04-21-2021 LINE -Y4- & TCE ADDED & TCE ADDED -L- 53+20 - 54+05 RT
 07-29-2021 REVISION: SEWER EASEMENT FROM -Y2- 11+50+/- TO -L- 54+80+/-
 11-03-2021 Add R/W To Parcel 24 From 60+85 to 62+66.43

21-MAR-2022 11:23
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