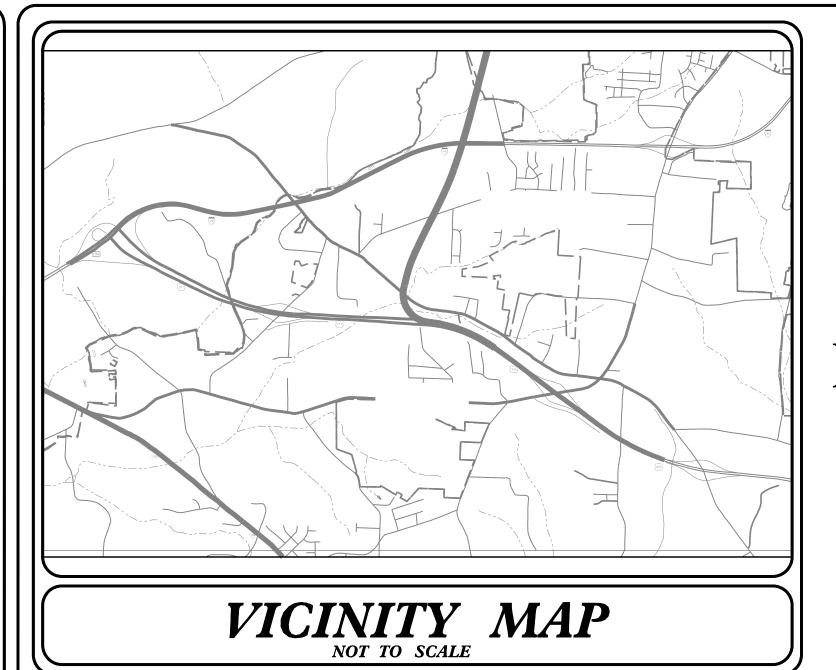
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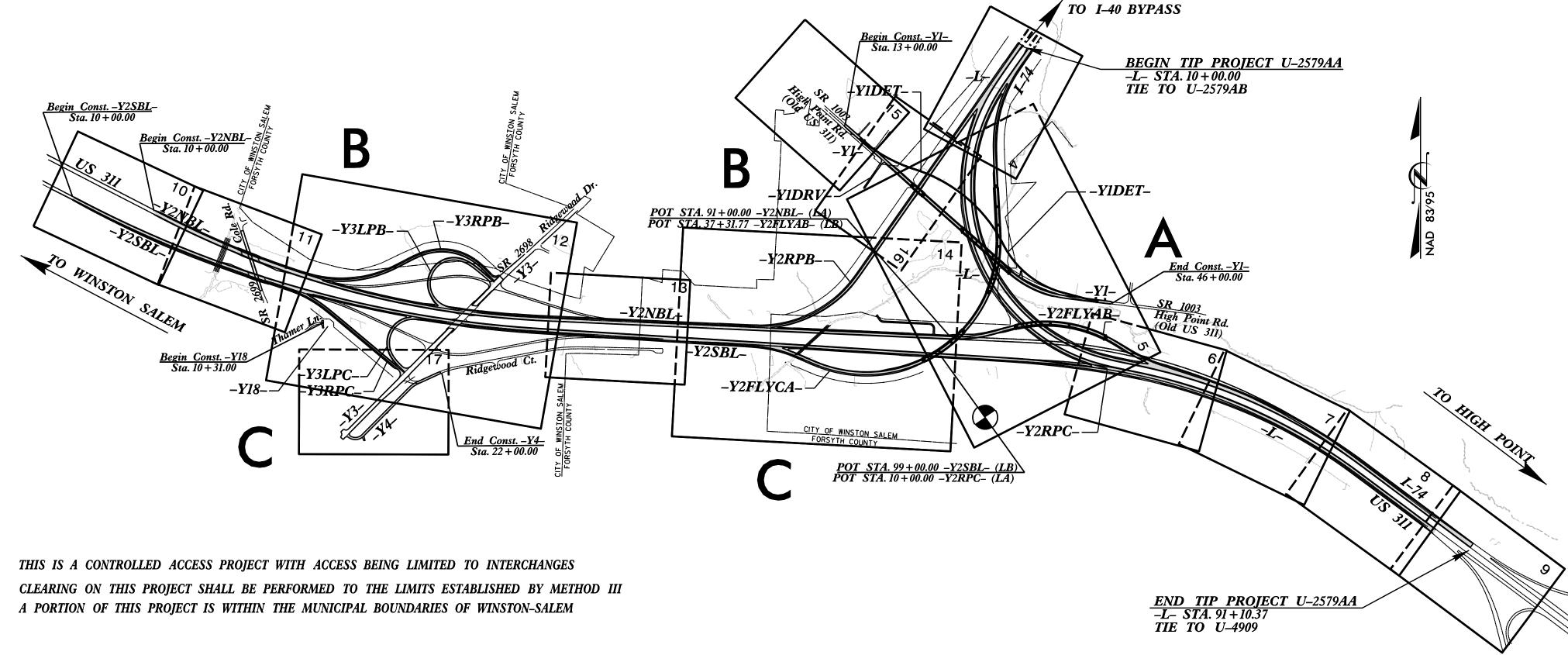


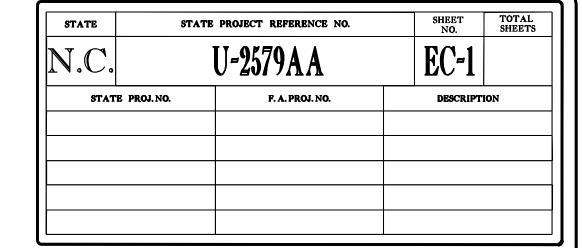
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PLAN FOR PROPOSED HIGHWAY EROSION CONTROL

FORSYTH COUNTY

LOCATION: WINSTON-SALEM NORTHERN BELTWAY EASTERN SECTION (FUTURE I-74) FROM US 311 TO I-40 TYPE OF WORK: GRADING, PAVING, DRAINAGE & STRUCTURES





EROSION AND SEDIMENT CONTROL MEASURES Temporary Silt Ditch Temporary Diversion Temporary Silt Fence. Special Sediment Control Fence Temporary Berms and Slope Drains Silt Basin Type B. Temporary Rock Silt Check Type-A. Temporary Rock Silt Check Type A with Matting and Polyacrylamide (PAM) 1633.02 Temporary Rock Silt Check Type-B. Wattle / Coir Fiber Wattle.. Wattle / Coir Fiber Wattle with Polyacrylamide (PAM). 1634.01 Temporary Rock Sediment Dam Type A. Temporary Rock Sediment Dam Type-B...

Rock Pipe Inlet Sediment Trap Type-A... Rock Pipe Inlet Sediment Trap Type-B. Stilling Basin 1630.06 Special Stilling Basin. Rock Inlet Sediment Trap: Туре А. 1632.01 Туре В. 1632.02 1632.03 Type C. Skimmer Basin Tiered Skimmer Basin Infiltration Basin

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

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

Install Safety Fence in JS Areas. Refer To E. C. Special Provisions for other Special Considerations.

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.



Prepared in the Office of:

Wetherill Engineering Inc.

1223 Jones Franklin Rd. Raleigh, NC 27606

Designed by:

Matthew Harvey *3487* 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 2018 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of

1604.01	Railroad Erosion Control Detail
1605.01	Temporary Silt Fence
1606.01	Special Sediment Control Fence
1607.01	Gravel Construction Entrance
1622.01	Temporary Berms and Slope Drain
1630.01	Riser Basin
1630.02	Silt Basin Type B

1630.03 Temporary Silt Ditch

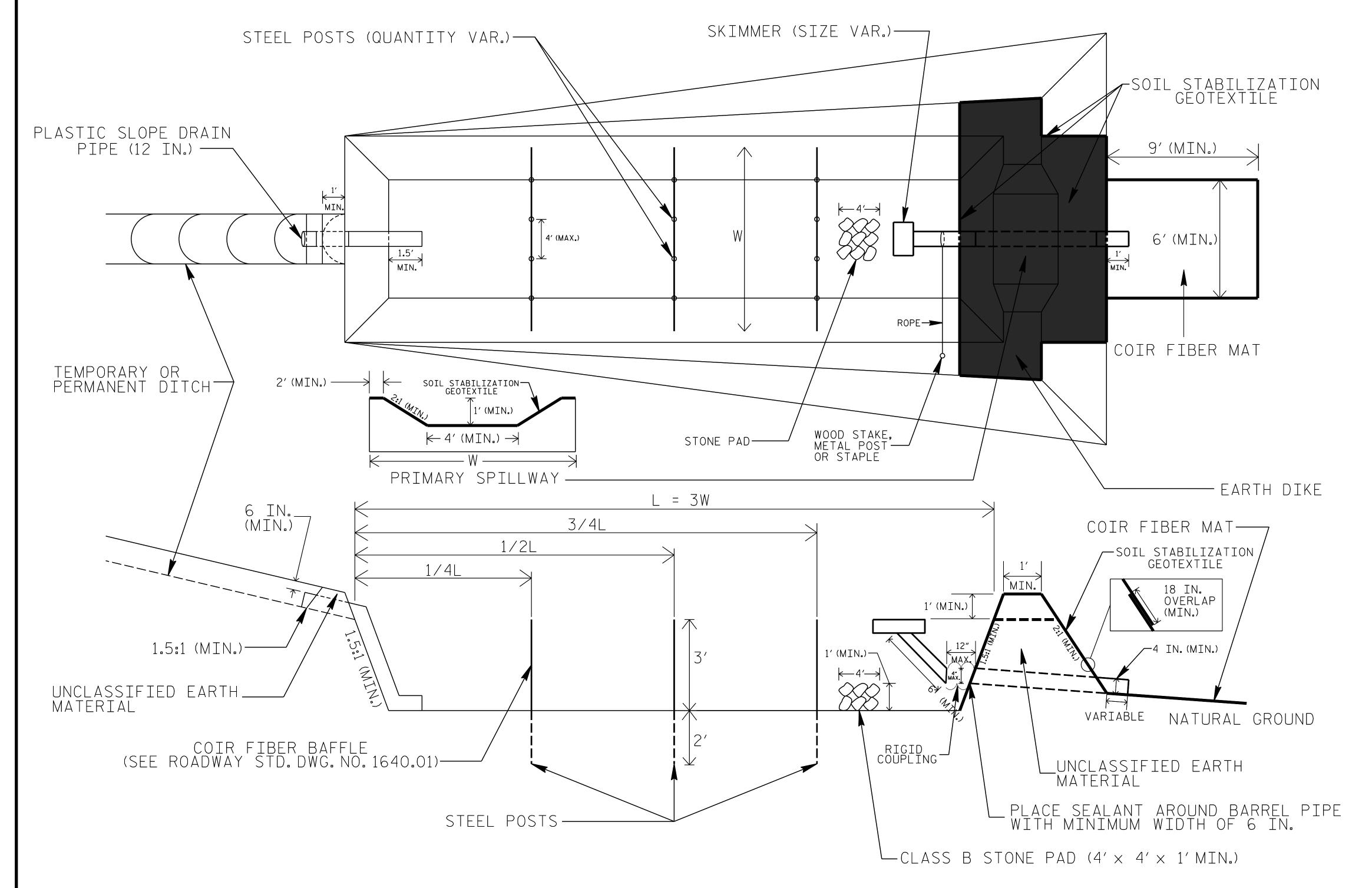
1630.04 Stilling Basin 1630.05 Temporary Diversion 1630.06 Special Stilling Basin 1631.01 Matting Installation 1632.01 Rock Inlet Sediment Trap Type A 1632.02 Rock Inlet Sediment Trap Type B 1632.03 Rock Inlet Sediment Trap Type C 1633.01 Temporary Rock Silt Check Type A

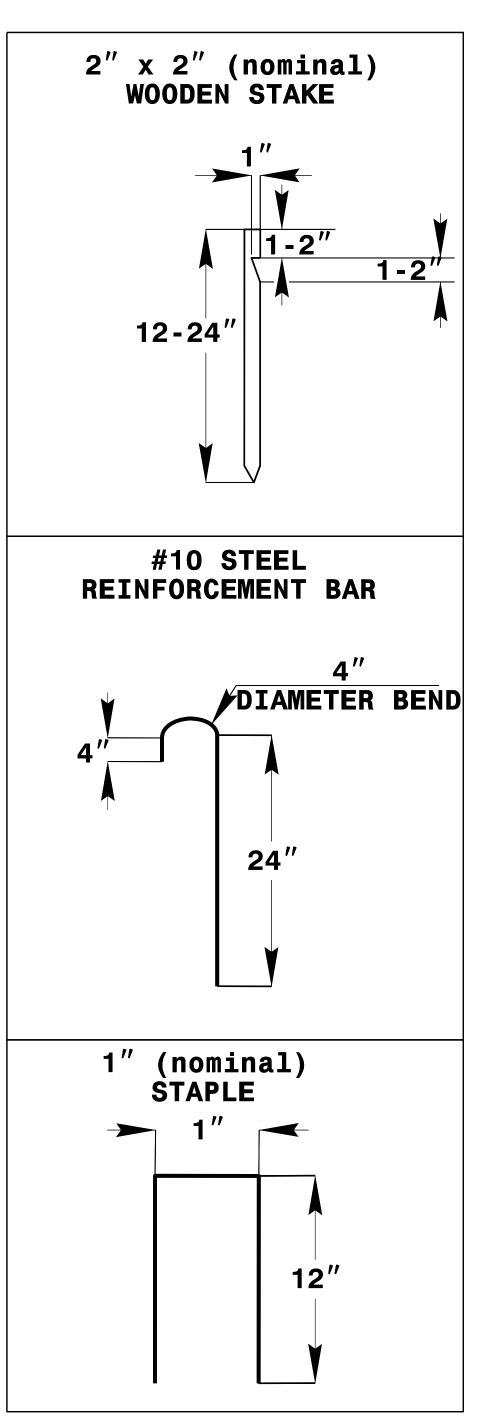
1633.02 Temporary Rock Silt Check Type B 1634.01 Temporary Rock Sediment Dam Type A
1634.02 Temporary Rock Sediment Dam Type B
1635.01 Rock Pipe Inlet Sediment Trap Type A
1635.02 Rock Pipe Inlet Sediment Trap Type B
1640.01 Coir Fiber Baffle

1645.01 Temporary Stream Crossing

SKIMMER BASIN WITH BAFFLES DETAIL

PROJECT REFERENCE NO.		SHEET NO.	
U-2579AA		EC-2	
R/W SHEET N	10.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	





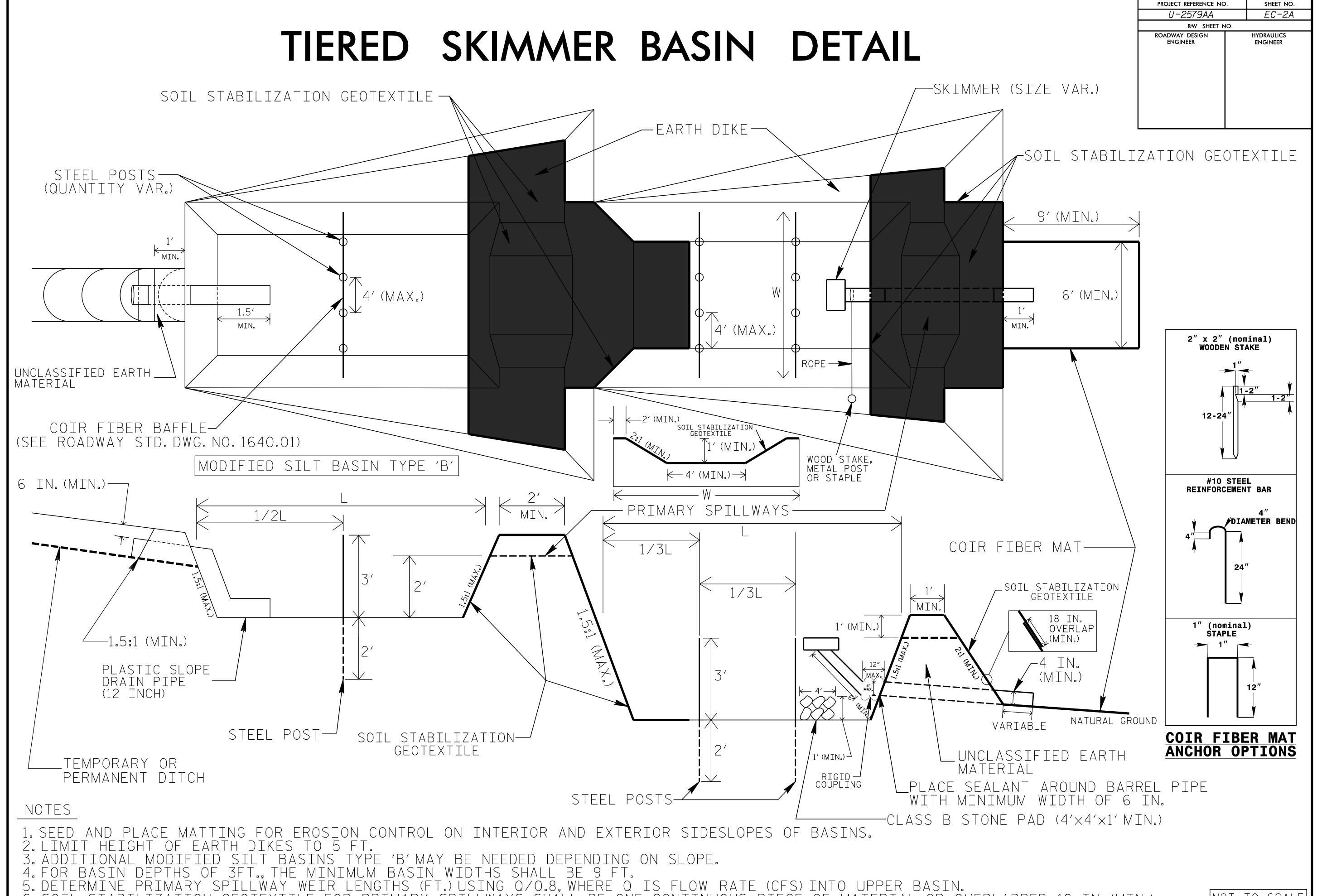
COIR FIBER MAT ANCHOR OPTIONS

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/O.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

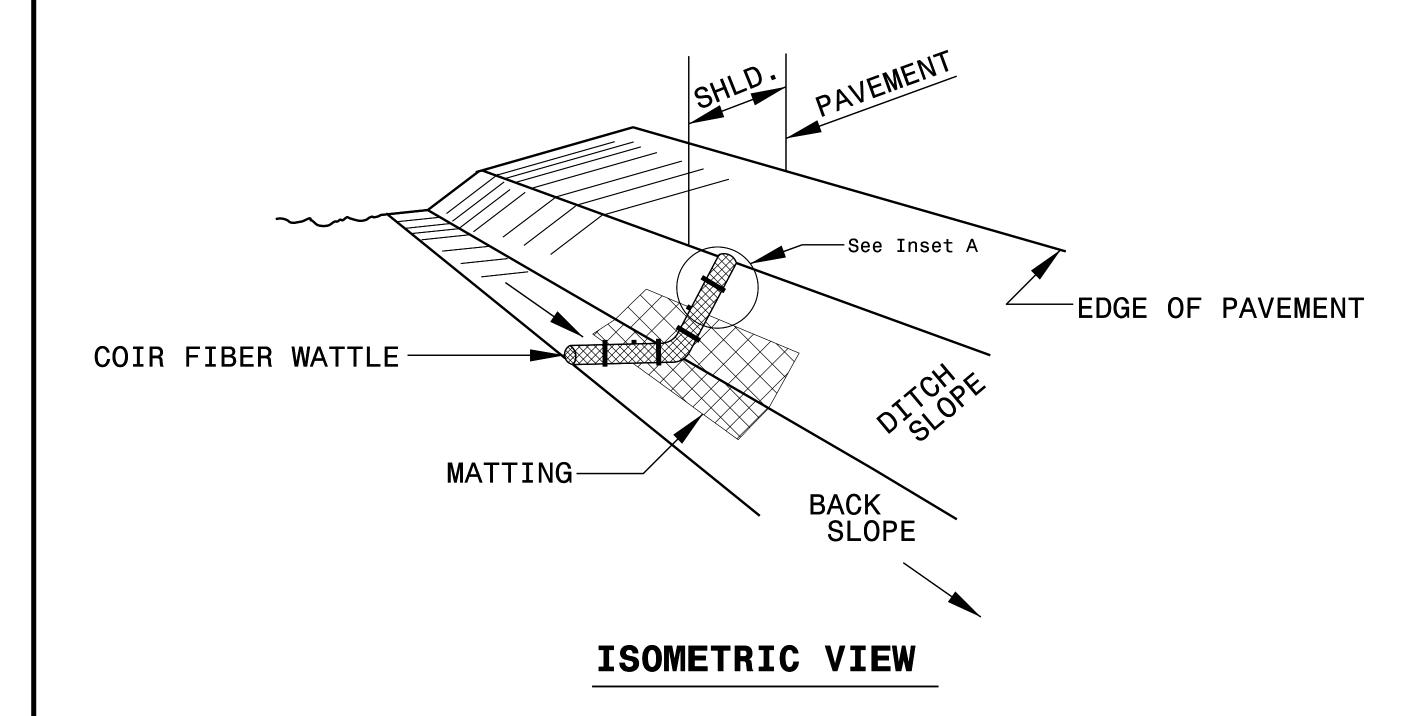


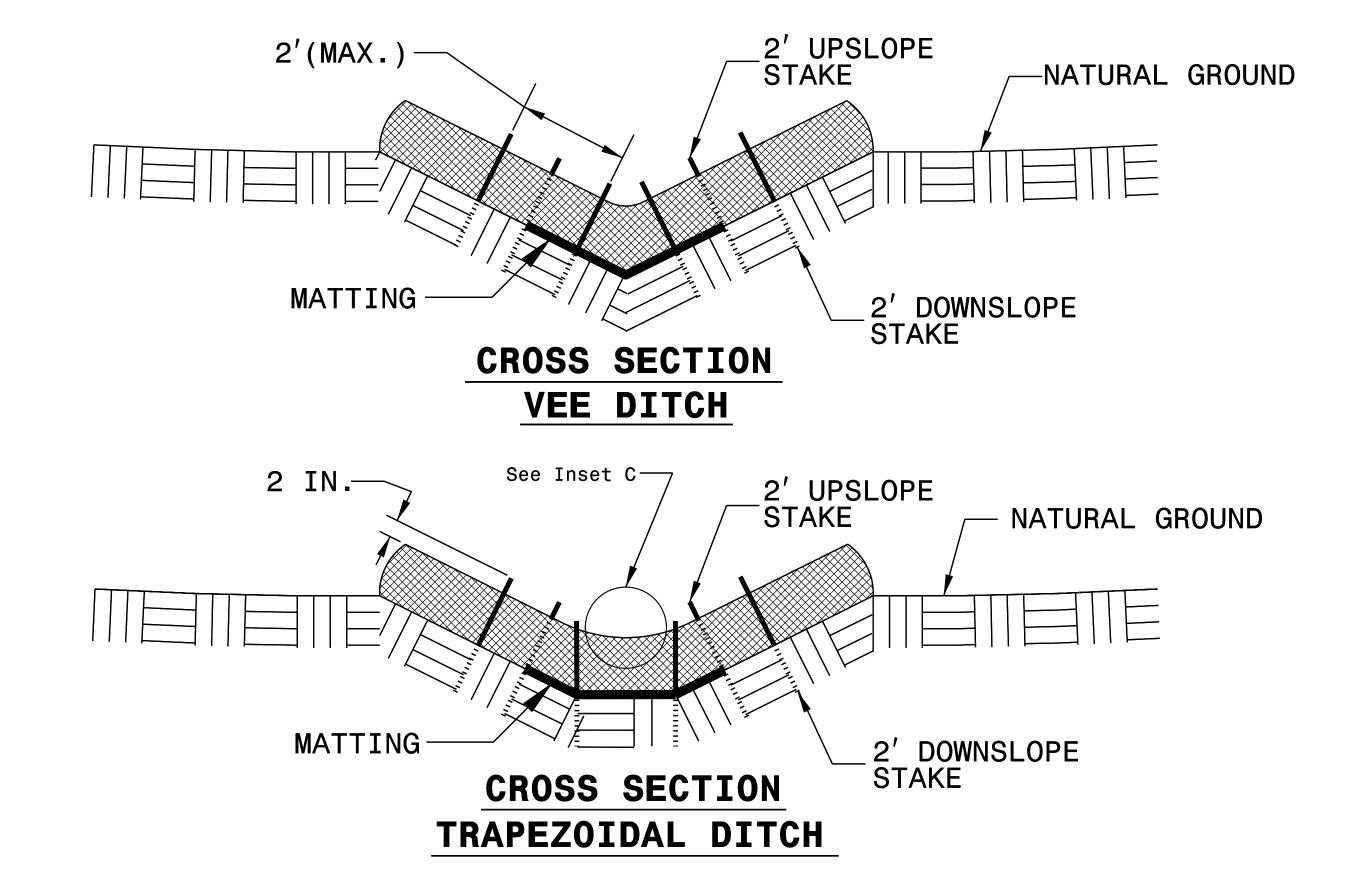
GEOTEXTILE FOR PRIMARY SPILLWAYS SHÁLL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN.(MIN.).

NOT TO SCALE

COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

PROJECT REFERENCE NO	SHEET NO.
U-2579AA	EC-2B
R/W SHEET N	O.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER





NOTES:

FLOW

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

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

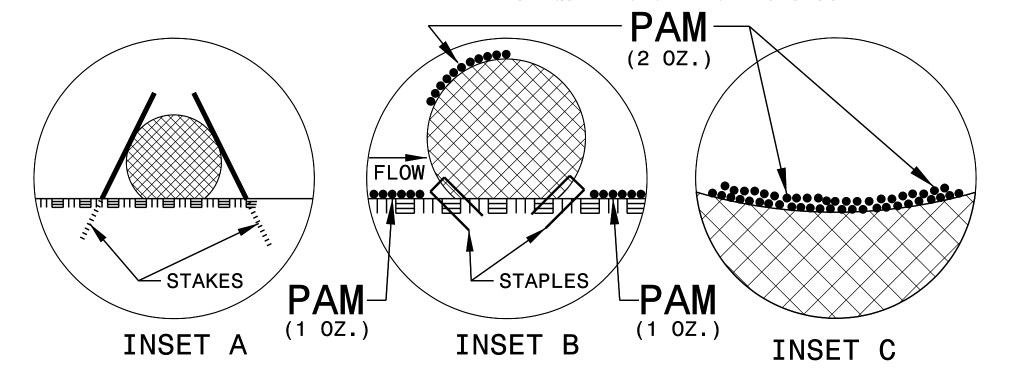
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

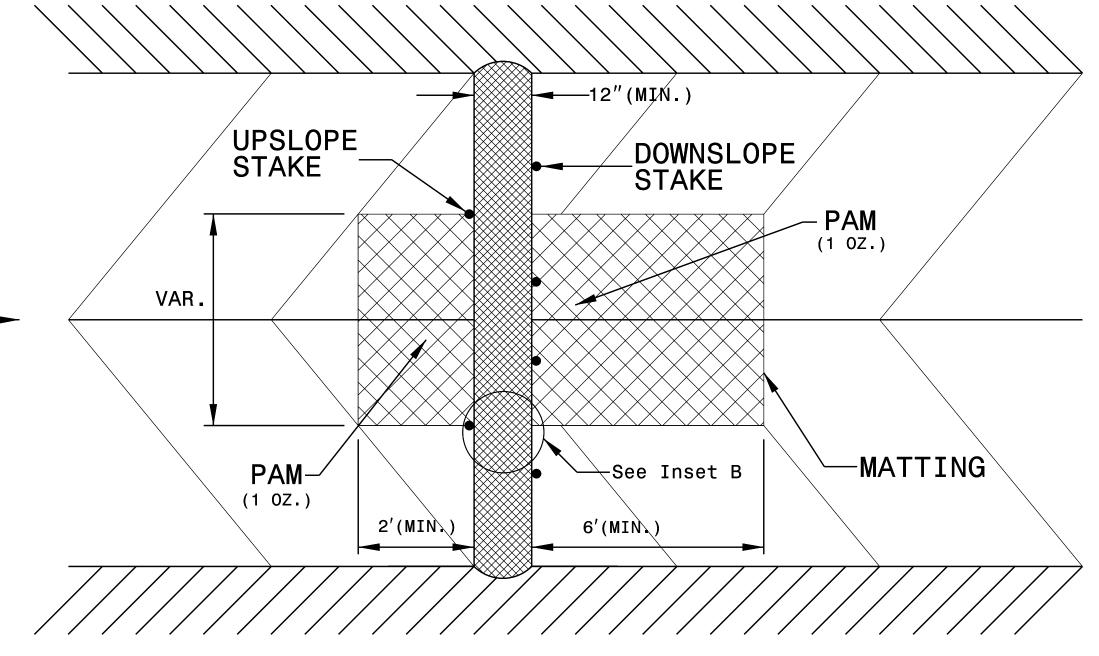
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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

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

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

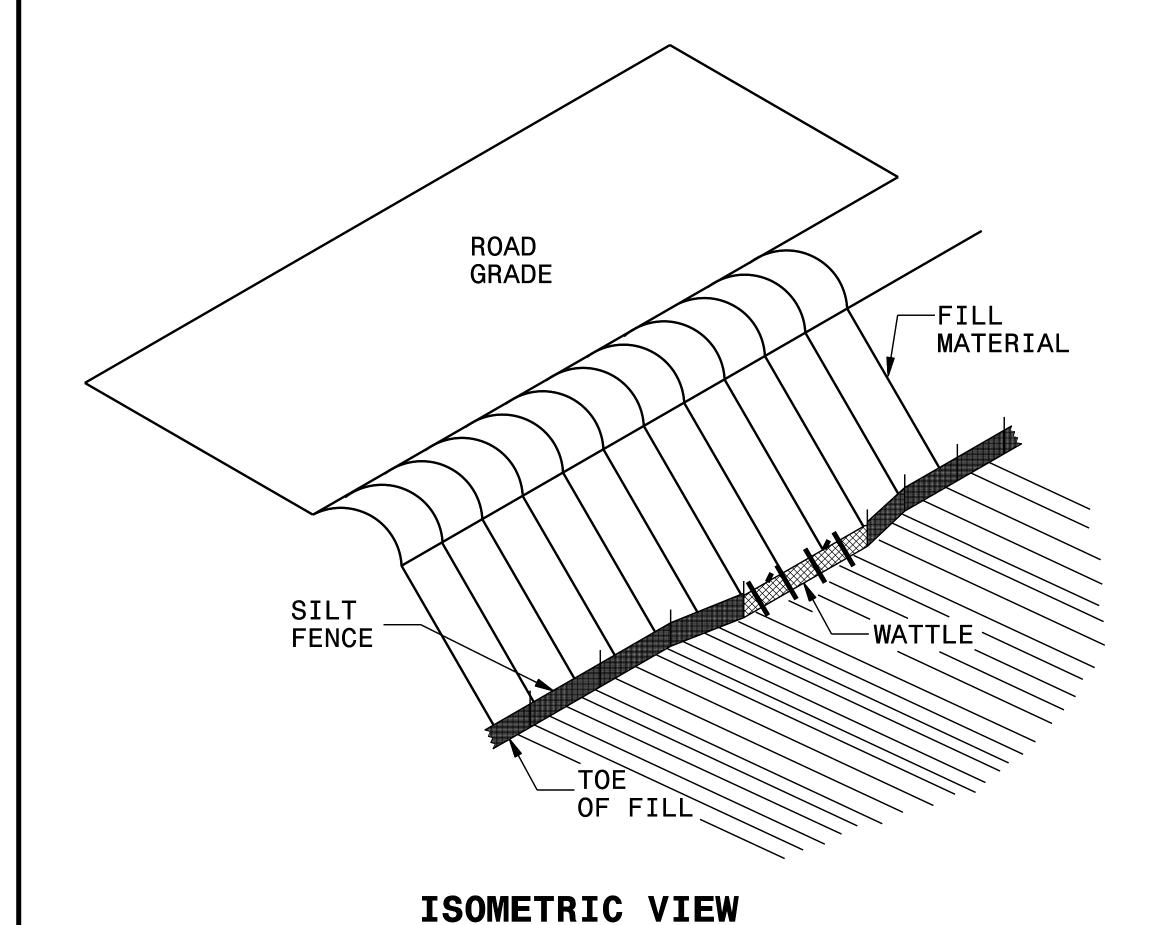


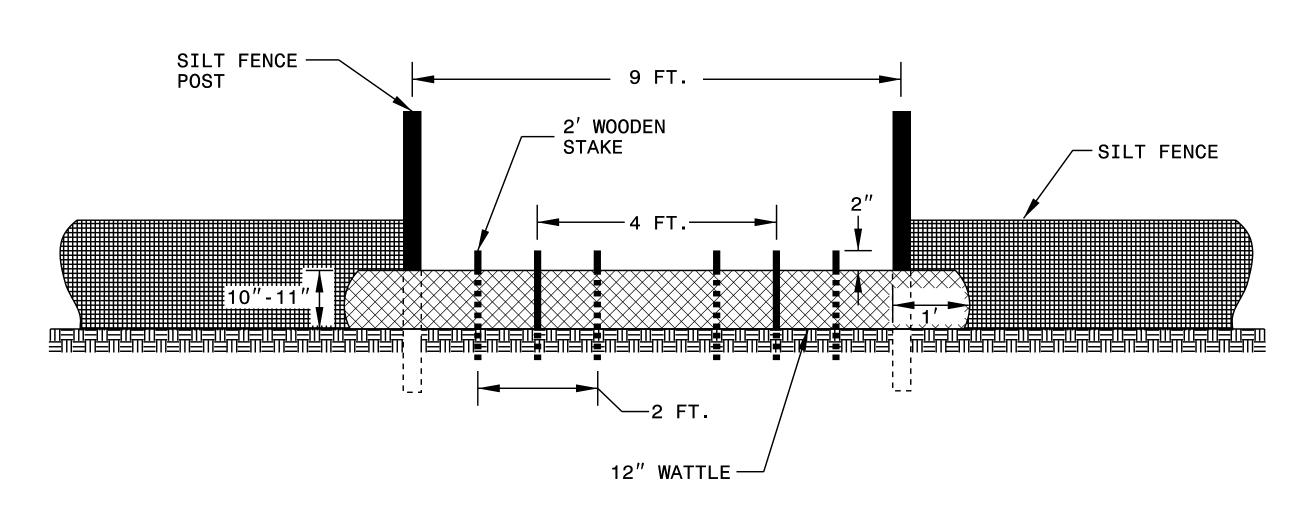


TOP VIEW

SILT FENCE COIR FIBER WATTLE BREAK DETAIL

PROJECT REFERENCE NO). SHEET NO.
U-2579AA	EC-2C
R/W SHEET N	10.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER





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.

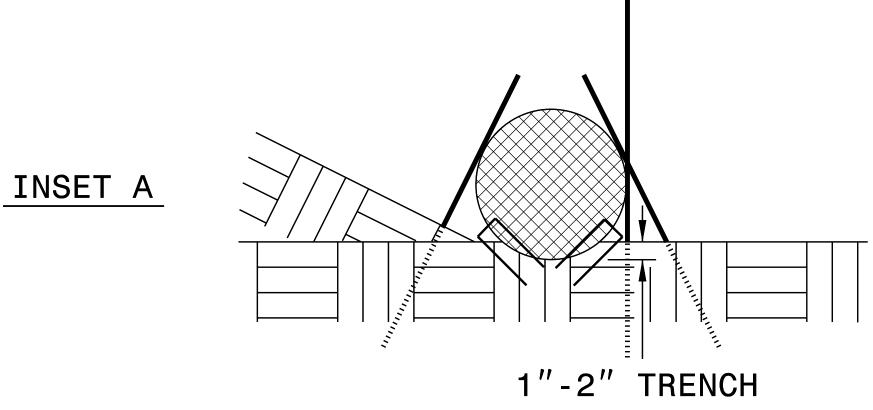
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.

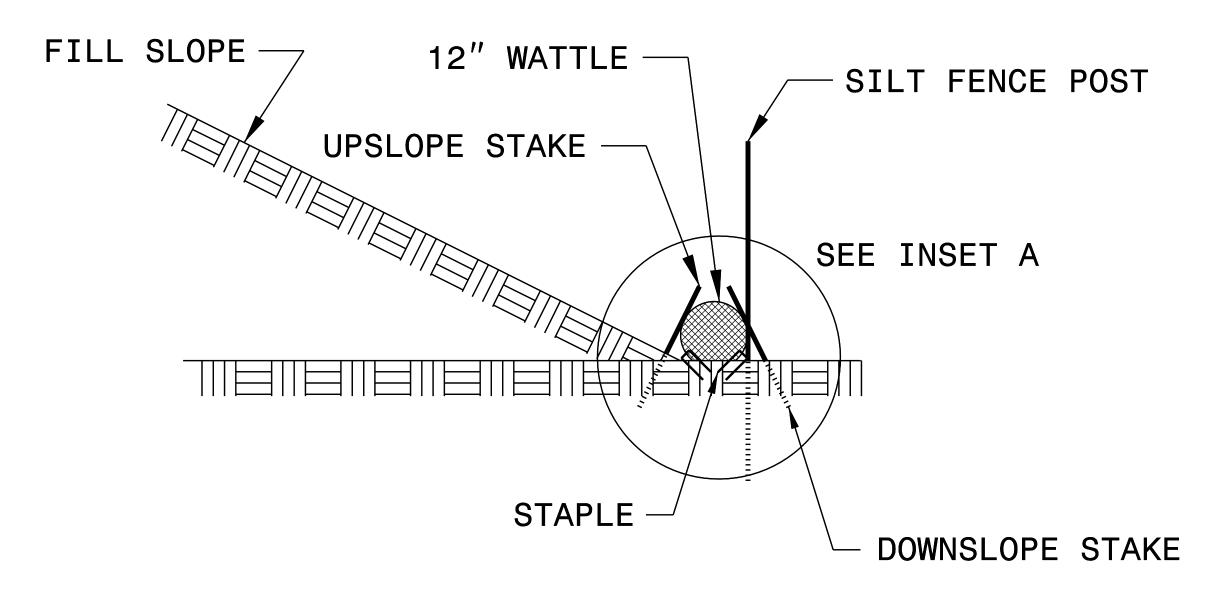
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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.

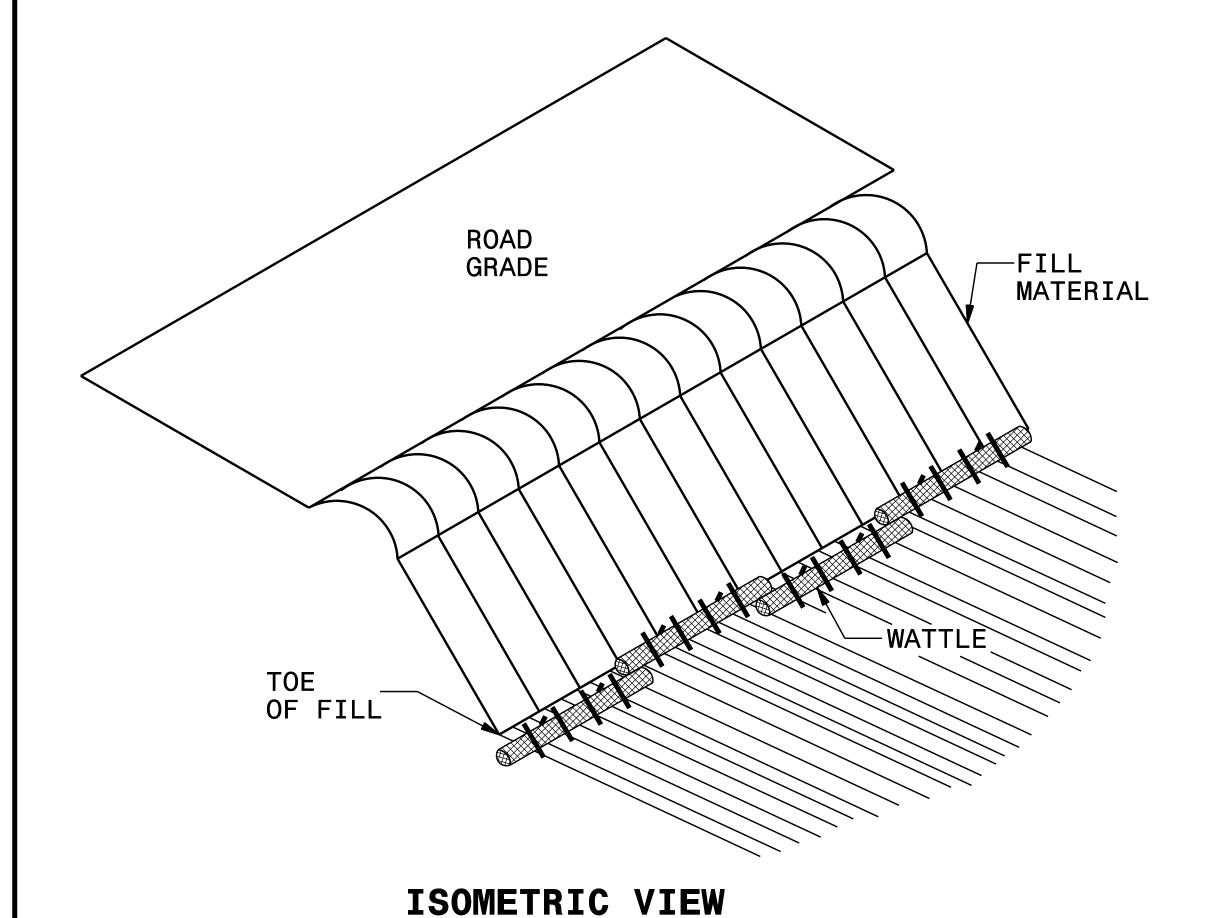


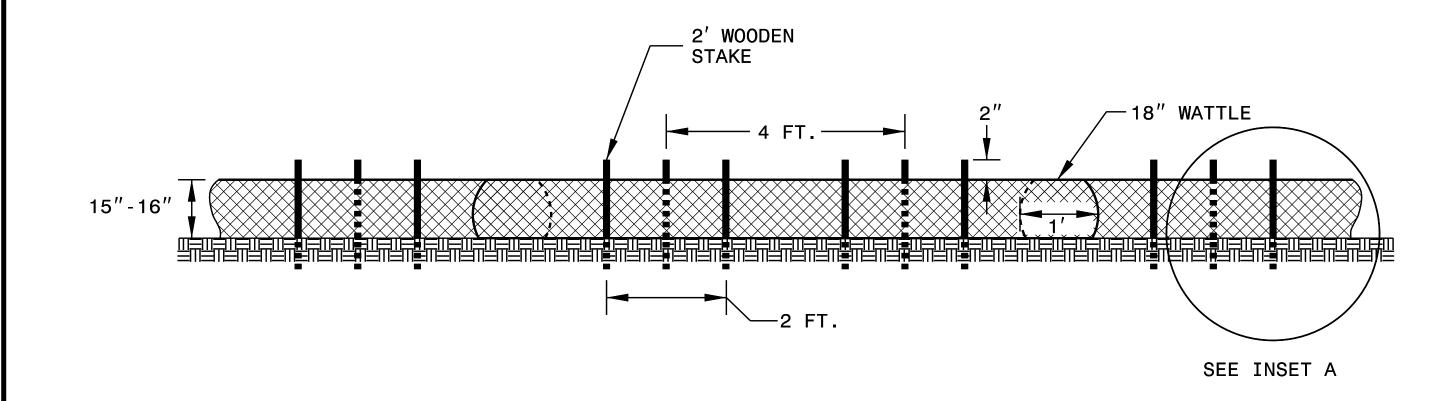


SIDE VIEW

COIR FIBER WATTLE BARRIER DETAIL

PROJECT REFERENCE NO.		SHEET NO.
U-2579AA		EC-2D
R/W SHEET N	10.	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
	U-2579AA RW SHEET N ROADWAY DESIGN	U-2579AA rw sheet no. roadway design





FRONT VIEW

NOTES:

USE MINIMUM 18 IN. NOMINAL DIAMETER COIR FIBER (COCONUT) 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.

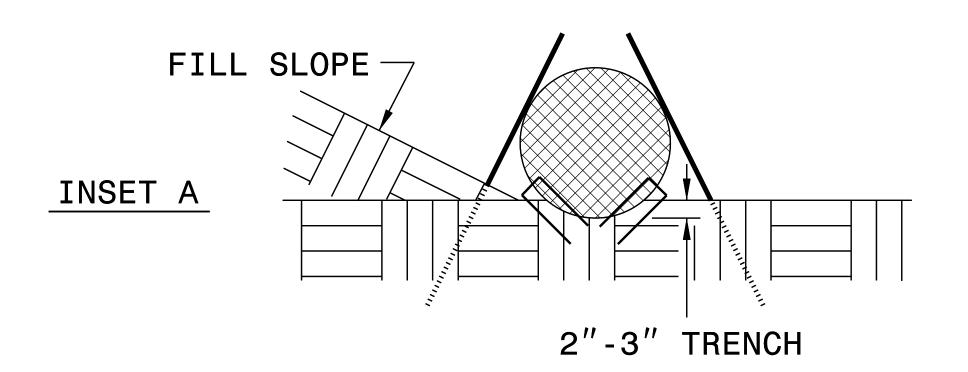
USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

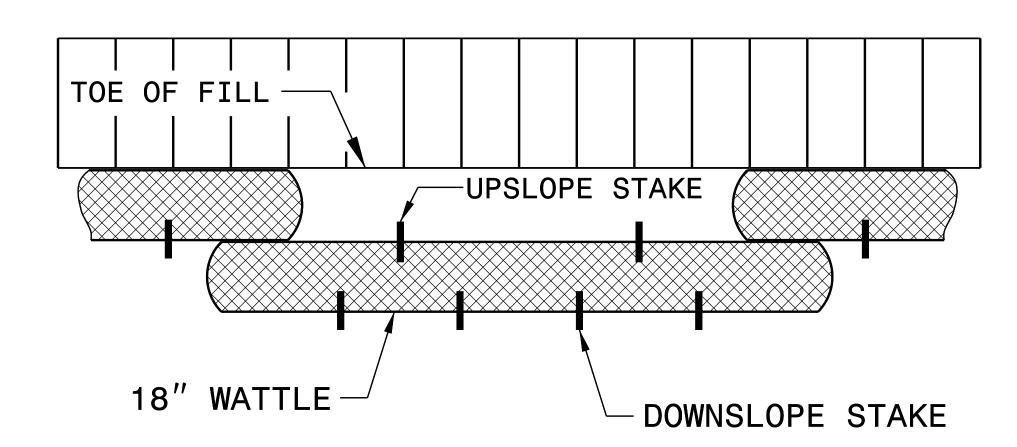
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.

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.

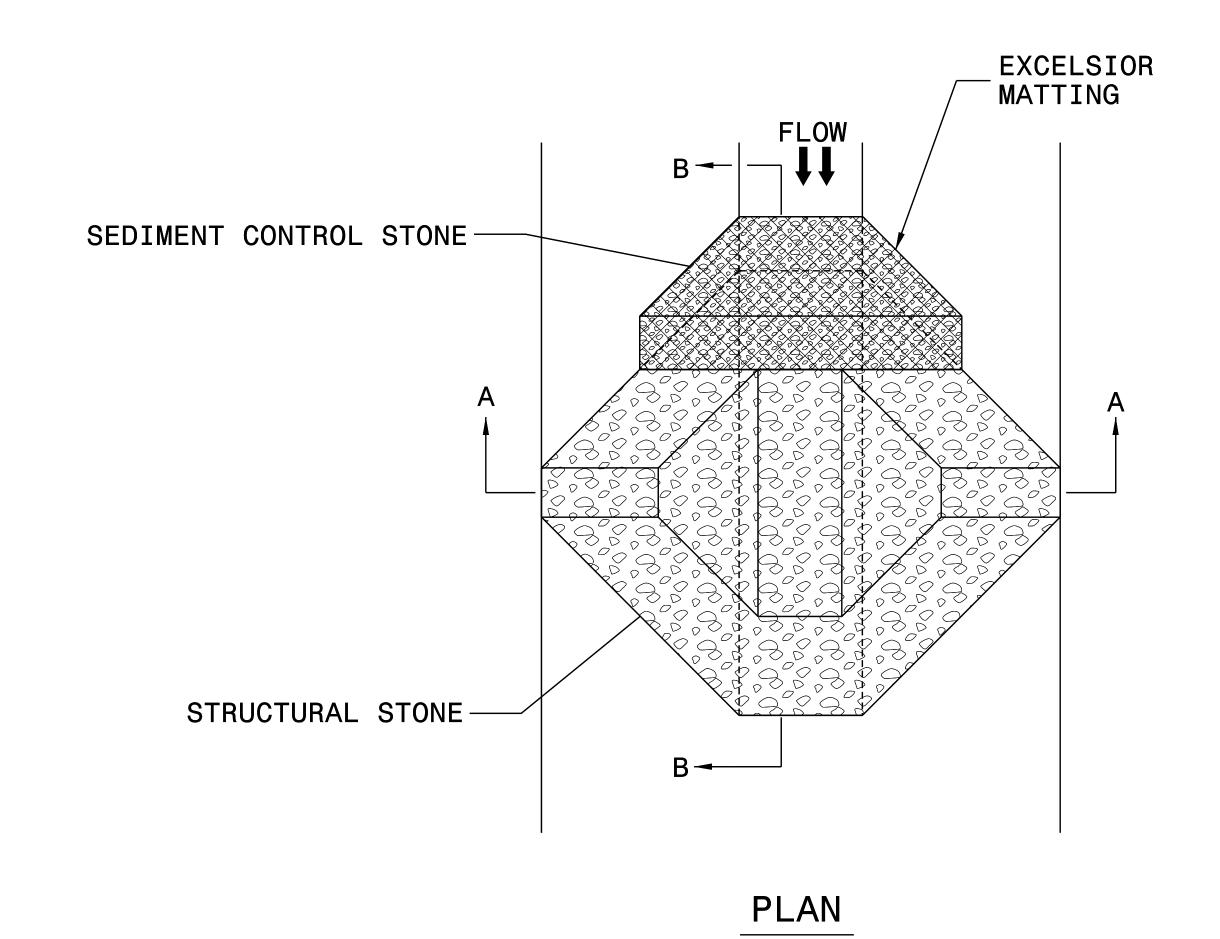




TOP VIEW

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

			_
PROJECT REFERENCE NO	SHEET NO.	1	
U-2579AA		EC-2E	1
R/W SHEET N		1	
ROADWAY DESIGN ENGINEER	, , , ,	HYDRAULICS ENGINEER	



EXCELSIOR MATTING See Inset A 2/3 CHANNEL WIDTH EXCELSIOR ATTING SECTION A-A

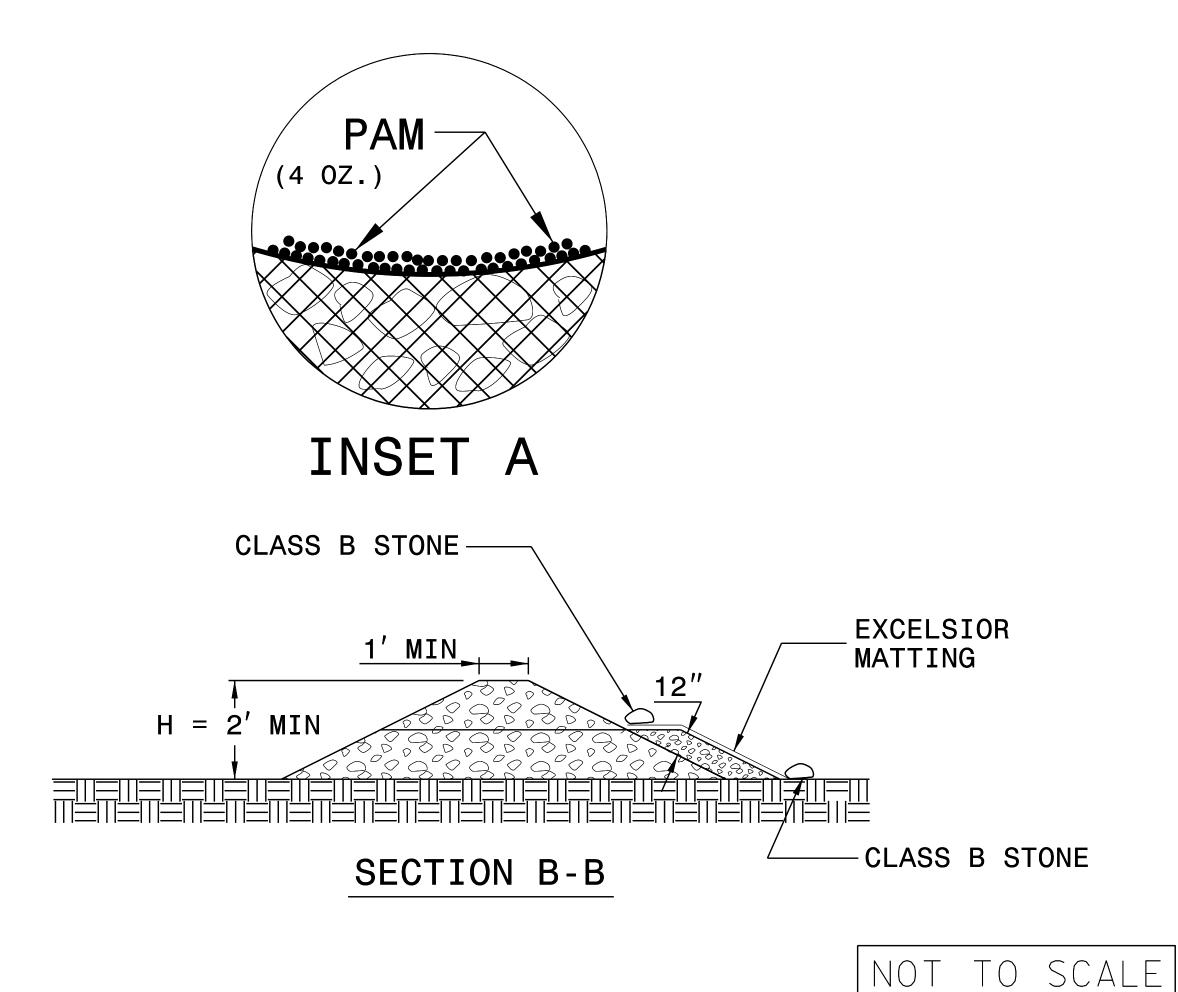
NOTES:

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.

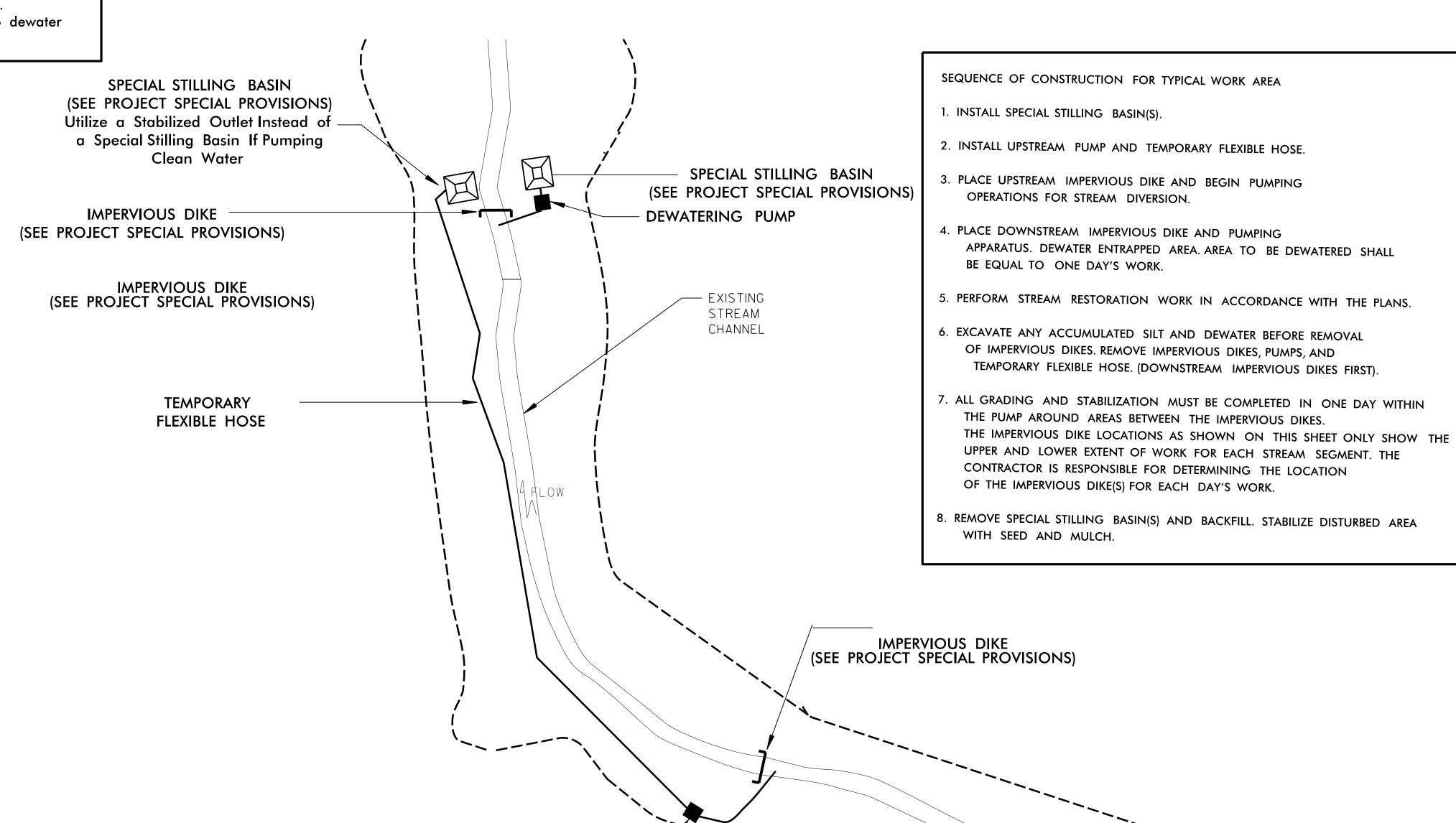


PROJECT REFERENCE NO.		SHEET NO.	
U-2579AA		EC-2F	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

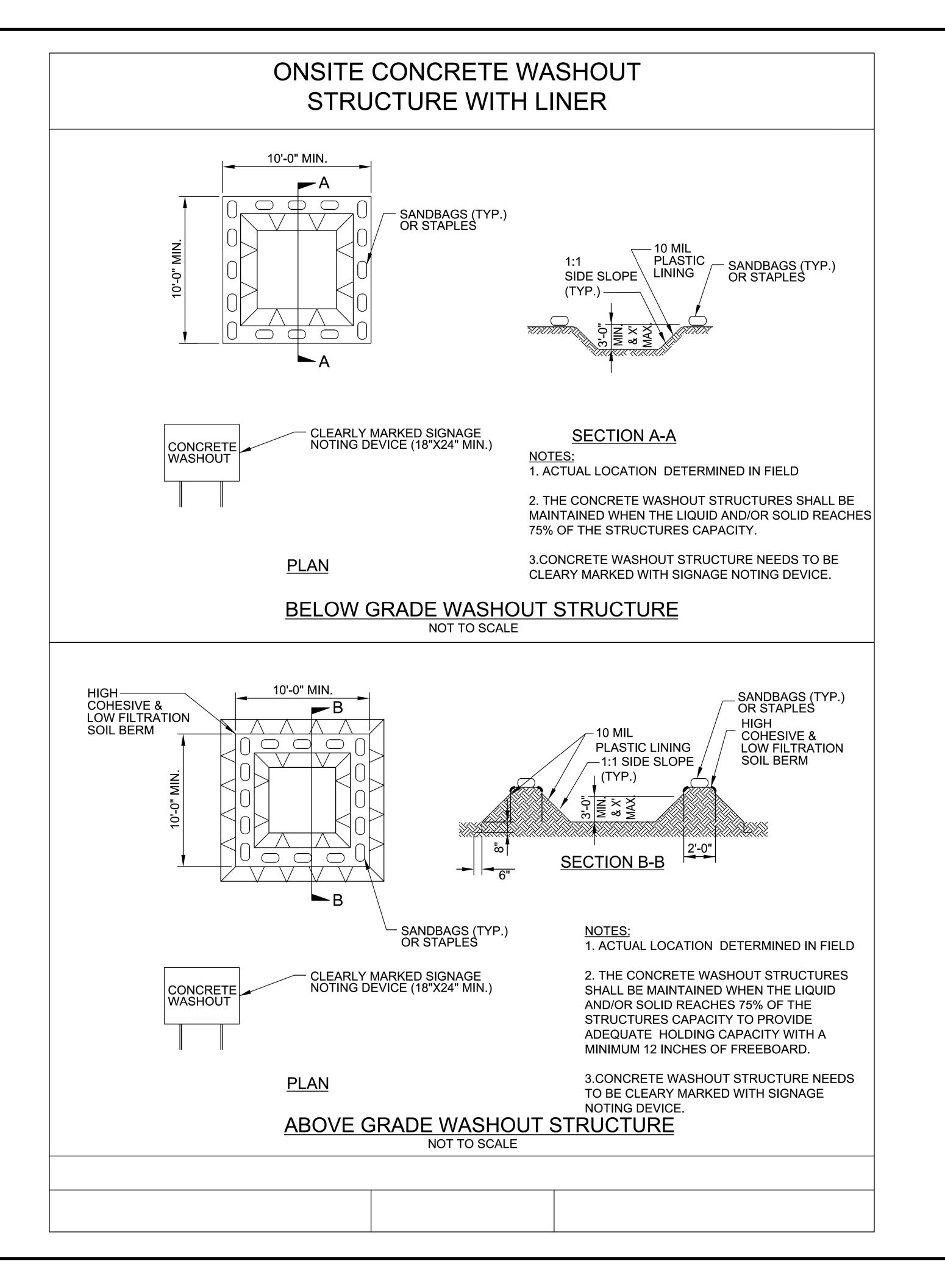
EXAMPLE OF PUMP-AROUND OPERATION

NOTES

- 1) All excavation shall be performed in only dry or isolated sections of channel.
- 2) Impervious dikes are to be used to isolate work from stream flow when necessary.
- 3) All graded areas shall be stabilized within 24 hours.
- 4) Maintenance of stream flow operations shall be incidental to the work. This includes polyethylene sheeting, diversion pipes, pumps and hoses.
- 5) Pumps and hoses shall be of sufficieint size to dewater the work area.



PUMP-AROUND PUMP



PROJECT REFERENCE NO	PROJECT REFERENCE NO.	
U-2579AA	U-2579AA	
R/W SHEET N	10.	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER

PROJECT REFERENCE NO	SHEET NO.
U-2579AA	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

MATTING FOR EROSION CONTROL

· ·			T	T	
CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-レ-	10+00	12+50	R1	465
4	-レ-	19+50	26 + 50	R1	1180
5	-レ-	37+50	38+50	R1	170
5	-レ-	40+50	45+50	R1	845
6	-レ-	56+00	85+00	R1	4885
5	- L -	27+00	28+00	LT	125
5	-レ-	28+00	30+00	LT	250
5	-レ-	30+00	31+00	LT	160
5	-レ-	46+00	50+00	レイ	675
6	-レ-	50+00	51 + 50	レイ	170
7	-レ-	71+50	75+00	LT	360
7	-レ-	75+00	75+50	LT	60
15	- Y -	13+00	15+00	R1	140
15	- Y -	13+00	15+00	LT	165
16	- Y -	18+00	19+50	LT	125
16	- Y I -	19+50	21 + 50	LT	100
5	- Y -	25+00	27+00	LT	210
5	- Y I -	37+00	39+50	LT	240
5	- Y -	46+00	47+43	LT	115
10	- Y25BL-	12+00	13+00	R1	135
10	- Y25BL -	15+50	19+00	R1	475
11	- Y25BL-	23+00	25+50	R1	235
12	- Y25BL-	36+50	44+00	R1	1010
12	- Y25BL-	59+00	60+50	R1	170
13	- Y26BL-	70+50	71+50	R1	115
13	- Y26BL-	71+50	73+00	R1	170
14	- Y25BL -	79+00	80+50	R1	110
14	- Y26BL-	88+00	89+00	R1	95
14	- Y25BL -	91+00	91+50	R1	50
10	- Y25BL -	16+50	19+50	レイ	340

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
10	- Y2NBL-	10+00	13+50	LT	470
1 1	-Y2NBL-	13+50	30+50	LT	1240
12	-Y2NBL-	30+50	35+00	LT	600
12	-Y2NBL-	47+50	50 + 50	LT	340
13	- Y2NBL-	53+00	54 + 50	LT	170
13	-Y2NBL-	54 + 50	56+00	LT	170
14	-Y2NBL-	90+00	90+50	LT	60
10	-Y2NBL-	10+00	11+00	R1	135
1.1	- Y2-	23+00	35+50	MED	2150
6	-Y2FLYAB-	19+00	19+50	R1	40
5	-Y2FLYAB-	31+50	37+00	R1	620
6	-Y2FLYAB-	17+50	20+00	LT	245
10	-Y2FLYAB-	31+50	32+50	LT	85
4	-Y2FLYCA-	54 + 50	55+00	R1	50
14	-Y2FLYCA-	23+00	26+00	LT	245
5	-Y2FLYCA-	51+00	52+50	レイ	170
4	- Y2RPB-	14+00	18+50	R1	525
16	- Y2RPB-	19+00	22+50	R1	365
16	- Y2RPB-	23 + 50	38+00	R1	1630
14	- Y2RPB-	37+50	38+00	R1	40
14	- Y2RPB-	38+00	41+50	R1	245
14	- Y2RPB-	41+50	42+00	R1	45
10	- Y2RP0-	42+00	43+00	R1	75
10	- Y2RPB-	44+00	45+00	R1	90
10	- Y2RP0-	46+00	47+00	R1	115
4	- Y2RPB-	17+50	18+50	LT	120
16	- Y2RPB-	19+00	22+50	LT	365
5	-Y2RPC-	10+50	21+50	R1	1235
5	-Y2RPC-	24+00	25+00	R1	120
5	-Y2RPC-	14+50	17+50	LT	405

•	T
PROJECT REFERENCE NO	SHEET NO.
U-2579AA	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

MATTING FOR EROSION CONTROL

	WAITING FOR ERUSION CONTROL				MAITING FOR EROSION CONTROL						
CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)	CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	- Y2RPB-	17+50	18+50	LT	120						
4	- Y2RPB-	17+50	18+50	LT	120						
12	- Y3LPB-	13+50	14+50	R1	35						
12	- Y3LPB-	13+50	15+50	LT	225						
12	- Y3LPC-	13+00	14+50	R1	155						
12	- Y3LPC-	13+50	14+50	LT	50						
12	- Y3LPC-	15+50	17+50	LT	305						
12	- Y3RPB-	23 + 50	31+50	LT	1075						
12	- Y3RPB-	16+00	22+50	R1	870						
12	-Y3RPB-	22+50	23+50	R1	135						
12	-Y3RPB-	23+50	30+50	R1	940						
12	- Y3RPC-	14+00	14+50	LT	70						
17	- Y4 -	15+50	17+50	LT	185						
12	- Y4 -	17+50	19+00	LT	105						
17	- Y 4 -	15+50	16+00	R1	45						
			611	3T0TAL	29945						
MIGGELLANE	OUS MATTING TO BE	INGTALLED AG DIRE			29460						
MIOOFFAME				TOTAL	59405						
				SAY	59405						

PROJECT REFERENCE NO	SHEET NO.					
U-2579AA	EC-3B					
•						
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER					

SOIL STABILIZATION SUMMARY SHEET

PERMANENT SOIL REINFORCEMNT MAT

PERMANENT SOIL REINFORCEMENT MAT

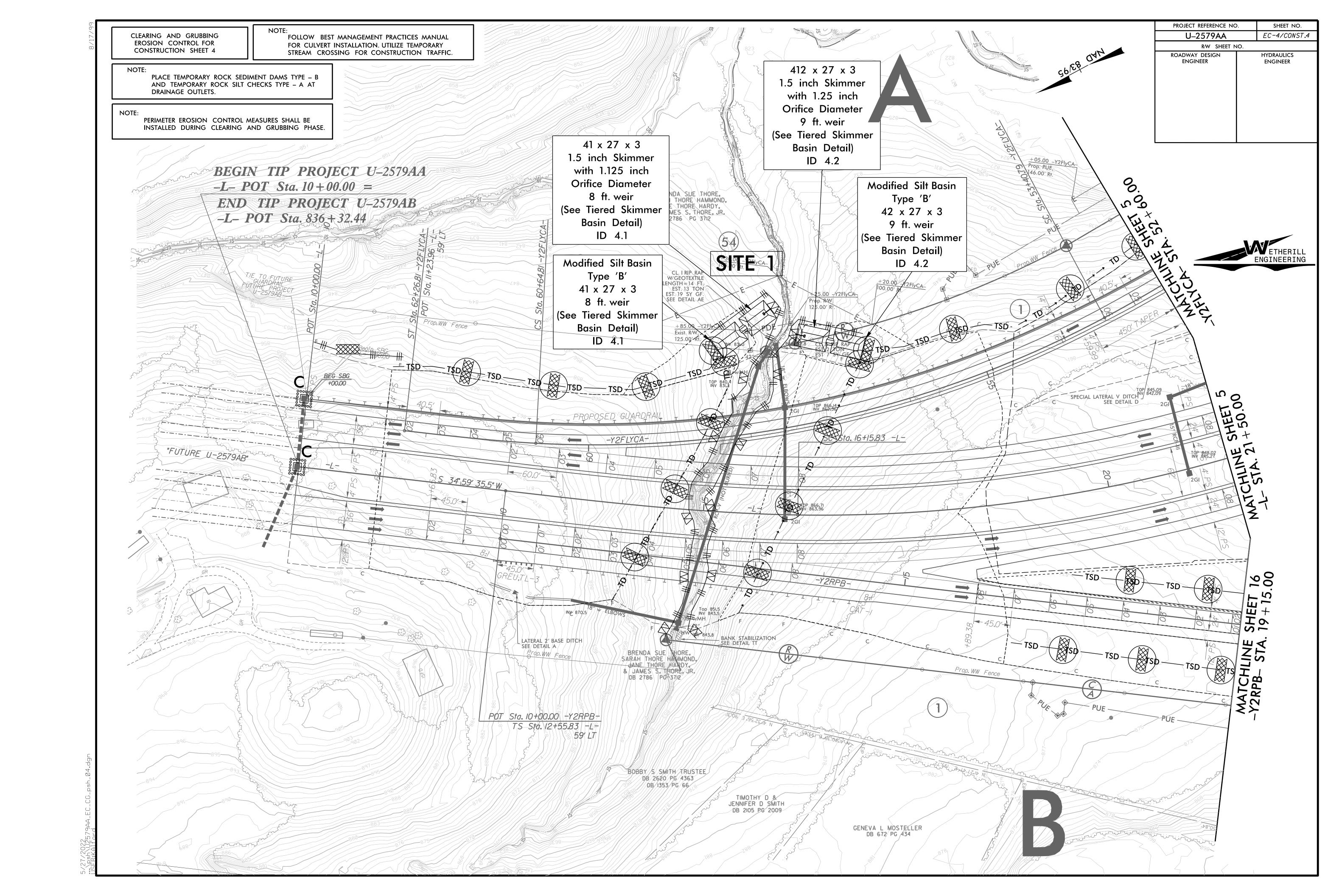
CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)	SH
4	- L -	12+50	13+50	R1	145	
4	-レ-	17+50	26+00	レイ	1435	
5	-レ-	26+00	27+00	LT	125	
7	-レ-	78+00	78+50	LT	70	
6	-Y2FLYAB-	19+50	20+50	R1	75	
14	-Y2FLYCA-	19+00	20+50	R1	125	
14	-Y2FLYCA-	22+50	24+00	R1	75	
14	-Y2FLYCA-	24+00	25+00	R1	50	
5	-Y2FLYCA-	52+50	53+00	LT	60	
16	- Y2RPØ-	24+00	24 + 50	R1	40	
14	- Y2RPØ-	36+50	37+00	R1	40	
5	-Y2RPC-	21+50	22+50	R1	95	
12	- Y3LPB-	16+50	17+00	R1	105	
12	- Y3LPB-	15+50	17+50	LT	235	
12	- Y3RPB -	14+00	16+00	LT	235	
12	- Y3RPB-	16+00	21+50	LT	620	
12	- Y3RPC -	17+50	25+50	R1	570	
12	- Y3RPC-	15+00	15+50	LT	45	
12	- Y3RPC-	19+50	21+50	LT	145	
12	- Y3RPC-	25+00	25+50	LT	70	
			SUE	3T0TAL	4560	
	ADDITIONAL	PSRM TO	BE INST	ALLED	+ 5%	
				TOTAL	4790	
				SAY	5000	

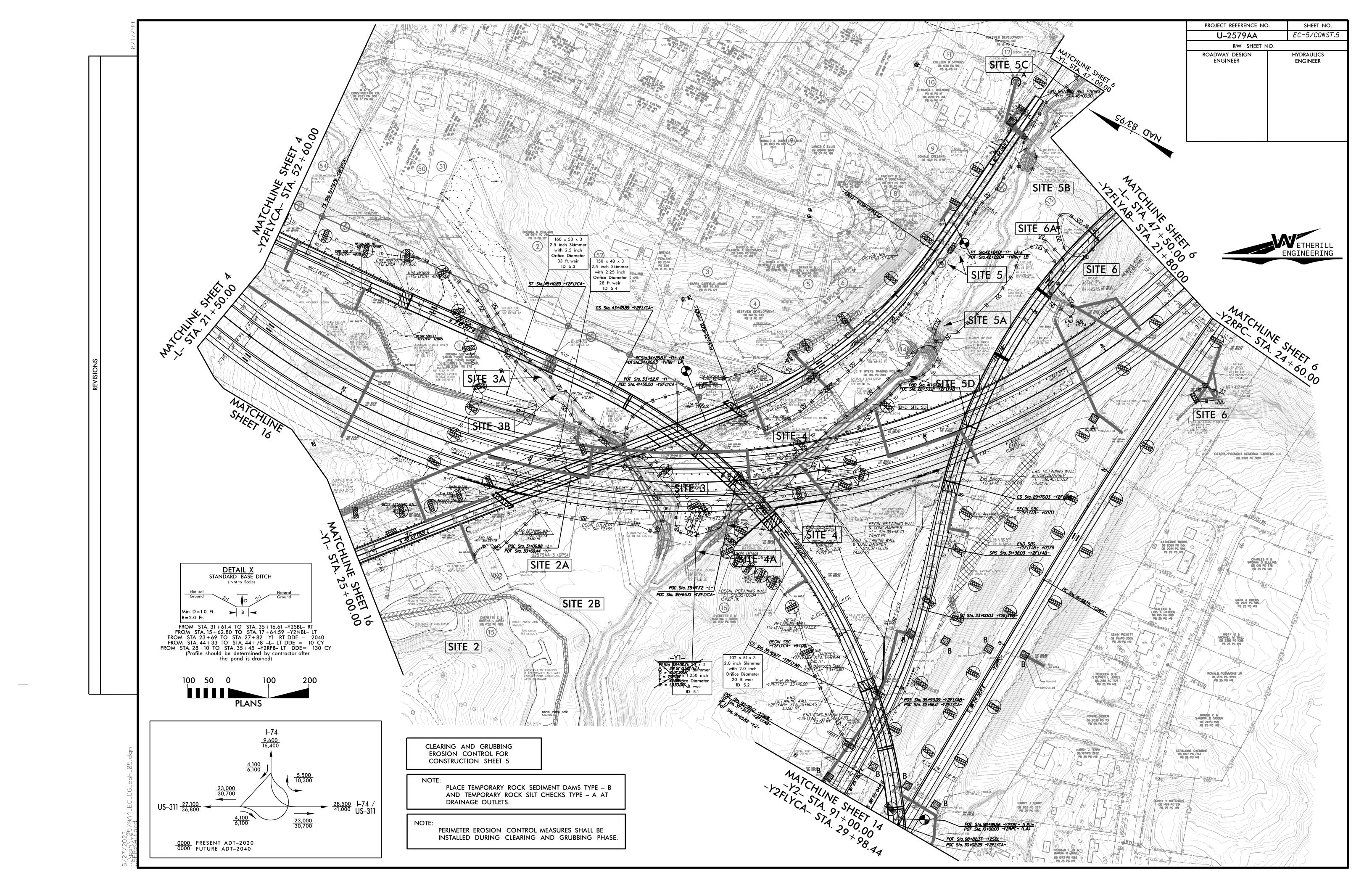
CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)

PROJECT REFERENCE NO	SHEET NO.			
U-2579AA	EC-3C			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER		

SOIL STABILIZATION TIMEFRAMES

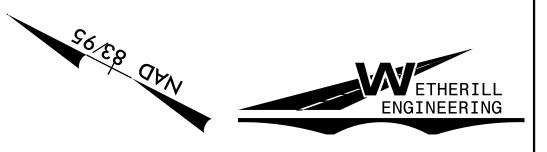
SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10'OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	I4 DAYS	7 DAYS FOR SLOPES GREATER THAN 50'IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	I4 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES.





PROJECT REFERENCE NO	SHEET NO.		
U-2579AA	EC-5A/CONST.5		
R/W SHEET N			
ROADWAY DESIGN		HYDRAULICS	
ENGINEER		ENGINEER	

CONSTRUCTION PHASING CULVERT 330059 CULVERT AT STATION 32 + 77.5 -L-

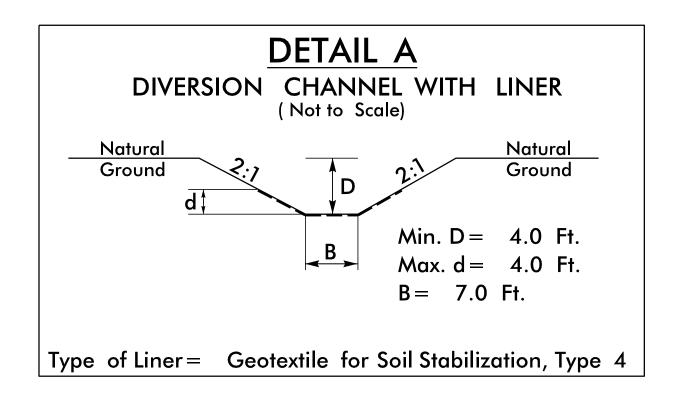


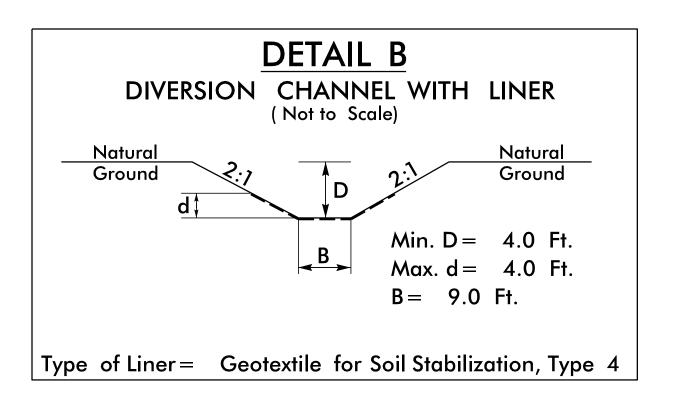
- 1. INSTALL STILLING BASIN FOR PUMPED EFFLUENT (MIN. VOLUME 924 C.Y.).
 2. CONSTRUCT -Y1DET- DETOUR ALIGNMENT WITH TEMPORARY BRIDGE CROSSING.
- 2. CONSTRUCT IMPERVIOUS DIKES 1–4 AND INSTALL TEMPORARY DIVERSION CHANNELS.
 REGRADE TDs TO SKIMMER 5.1 WHEN IMPERVIOUS DIKES ARE INSTALLED.

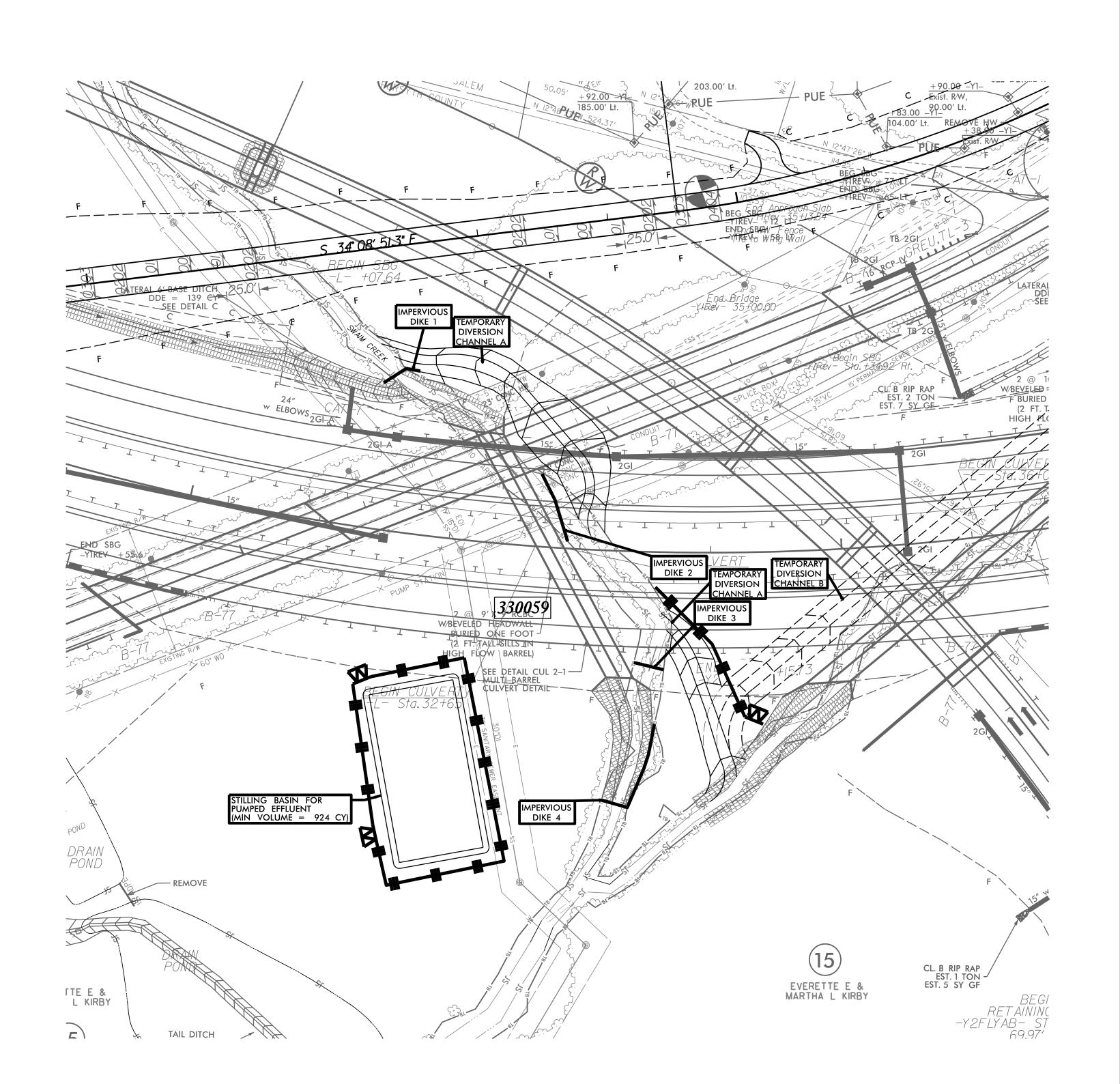
 4. REMOVE EXISTING REINFORCED CONCRETE BOX CULVERT.

 5. EXCAVATE FOR AND CONSTRUCT THE PROPOSED REINFORCED CONCRETE BOX CULVERT.
 CONSTRUCT THE PROPOSED INLET AND OUTLET CHANNELS.

- 6. REMOVE ALL IMPERVIOUS DIKES AND DIVERT FLOW IN TO THE NEWLY CONSTRUCTED REINFORCED CONCRETE BOX CULVERT.
- 7. REMOVE TEMPORARY DIVERSION CHANNELS.
- 8. REMOVE STILLING BASIN. FINALIZE CONSTRUCTION OF -L- ALIGNMENT.
 9. SHIFT TRAFFIC ON TO COMPLETED -L- ALIGNMENT. REMOVE -Y1DET- DETOUR ALIGNMENT WITH TEMPORARY BRIDGE CROSSING



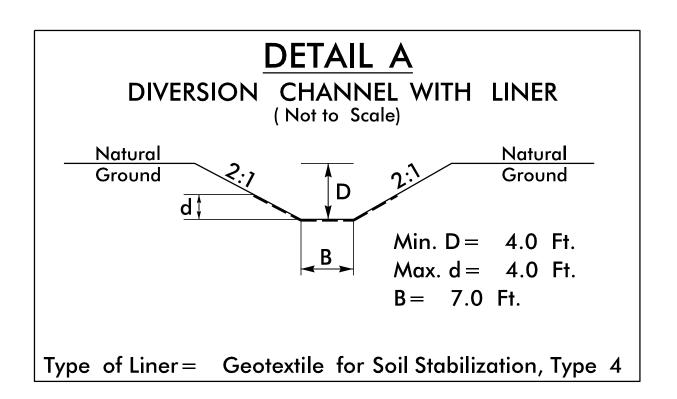


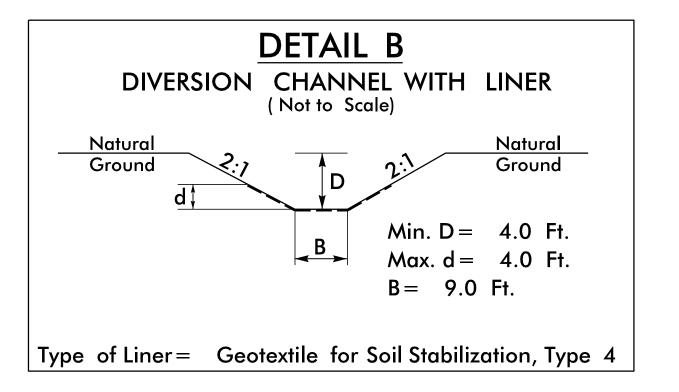


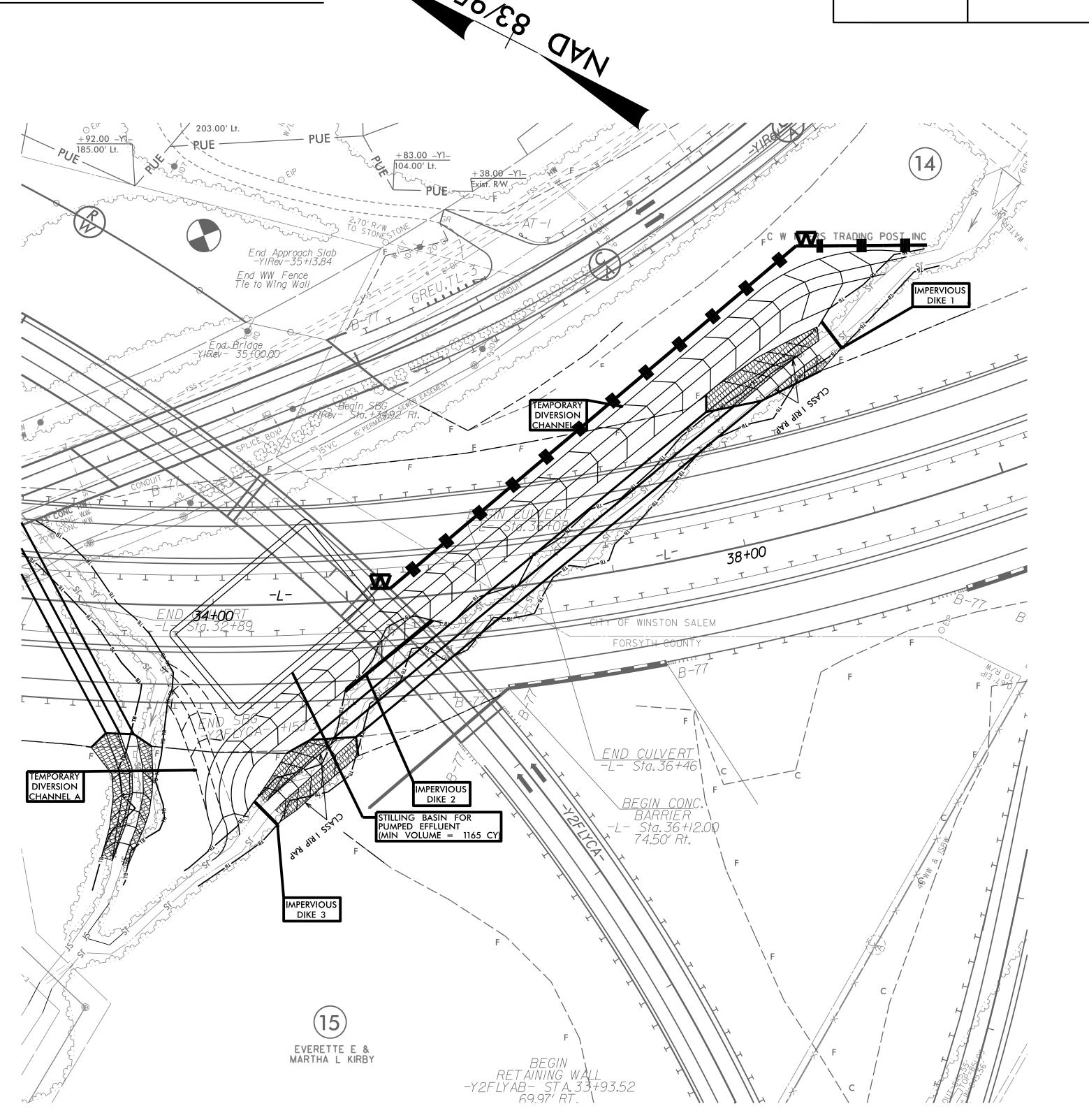
CONSTRUCTION PHASING
CULVERT AT STATION 36+27.5 -L-

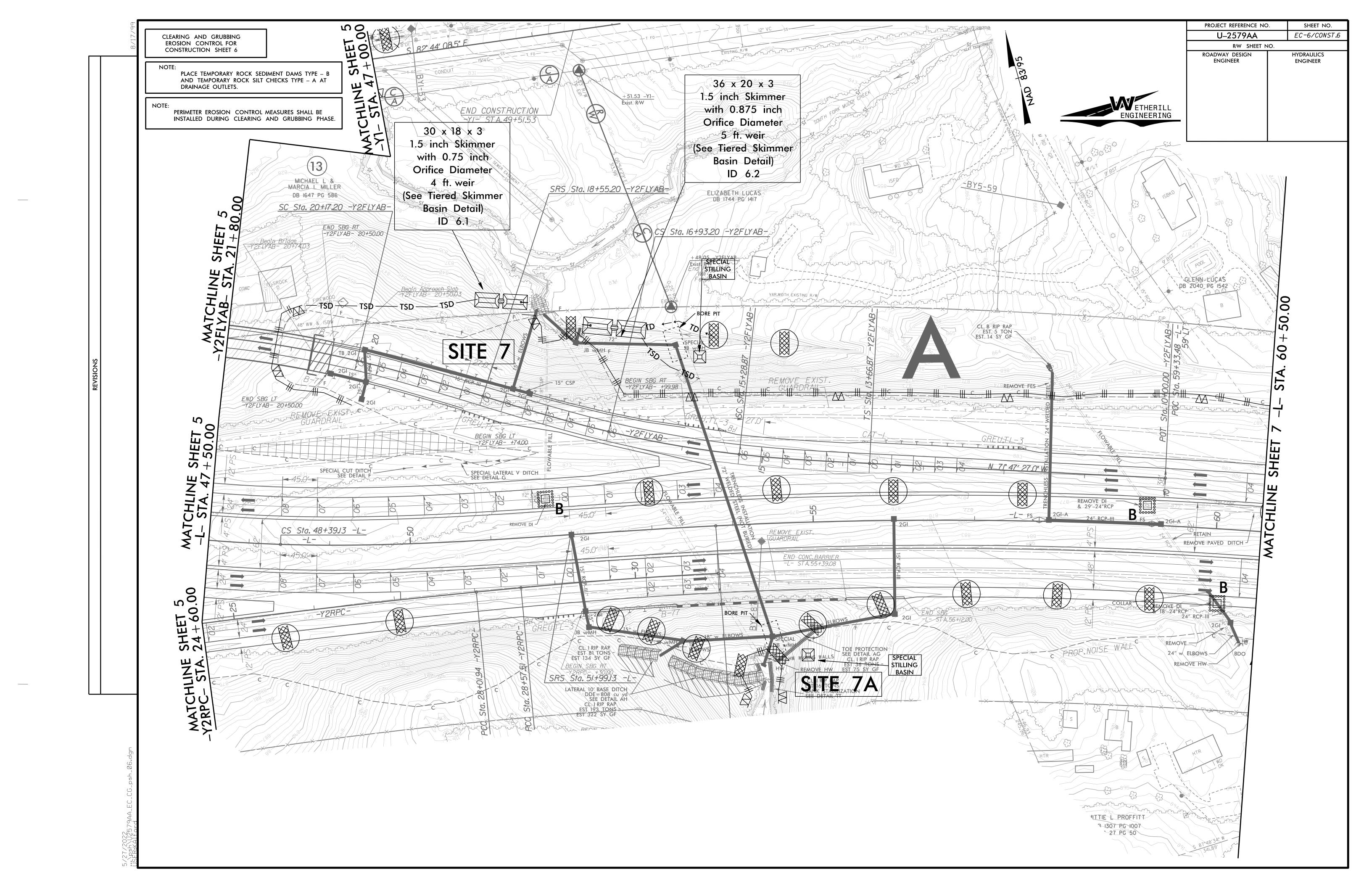
PROJECT REFERENCE NO. U-2579AA EC-5B/CONST. R/W SHEET NO. ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

- INSTALL STILLING BASIN FOR PUMPED EFFLUENT (MIN. VOLUME 1165 C.Y.).
 CONSTRUCT IMPERVIOUS DIKES 1–3 AND INSTALL TEMPORARY DIVERSION CHANNEL(S).
 EXCAVATE FOR AND CONSTRUCT THE PROPOSED REINFORCED CONCRETE BOX CULVERT.
 CONSTRUCT THE PROPOSED INLET AND OUTLET CHANNELS.
 REMOVE ALL IMPERVIOUS DIKES AND DIVERT FLOW IN TO THE NEWLY CONSTRUCTED REINFORCED CONCRETE BOX CULVERT.
 REMOVE TEMPORARY DIVERSION CHANNEL(S). REMOVE STILLING BASIN FOR PUMPED EFFLUENT.
 FINALIZE CONSTRUCTION OF -L- ALIGNMENT.

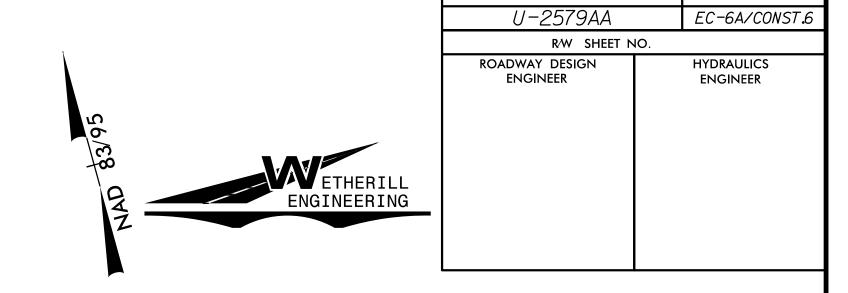








CONSTRUCTION PHASING CULVERT AT STATION 54+00 -L-



PROJECT REFERENCE NO.

- 1. INSTALL PROPOSED 72" WELDED STEEL BY TRENCHLESS INSTALLATION AND SPECIAL JB W/MH AT THE INLET AND OUTLET. INSTALL 72" PARALLEL TO ROADWAY ON THE OUTLET FROM THE SPECIAL JB W/MH TO THE JB W/MH.
- JB W/MH TO THE JB W/MH.

 2. INSTALL SPECIAL STILLING BASINS, IMPERVIOUS DIKES 1, 2, 3, & 4 AND 18" TEMPORARY PIPE. DIVERT FLOW INTO TEMPORARY PIPES.

 3. INSTALL PROPOSED 72" OUTLET PIPE AND TIE TO PROPOSED 72" PIPE.

 4. CONSTRUCT DOWNSTREAM CHANNEL IMPROVEMENTS.

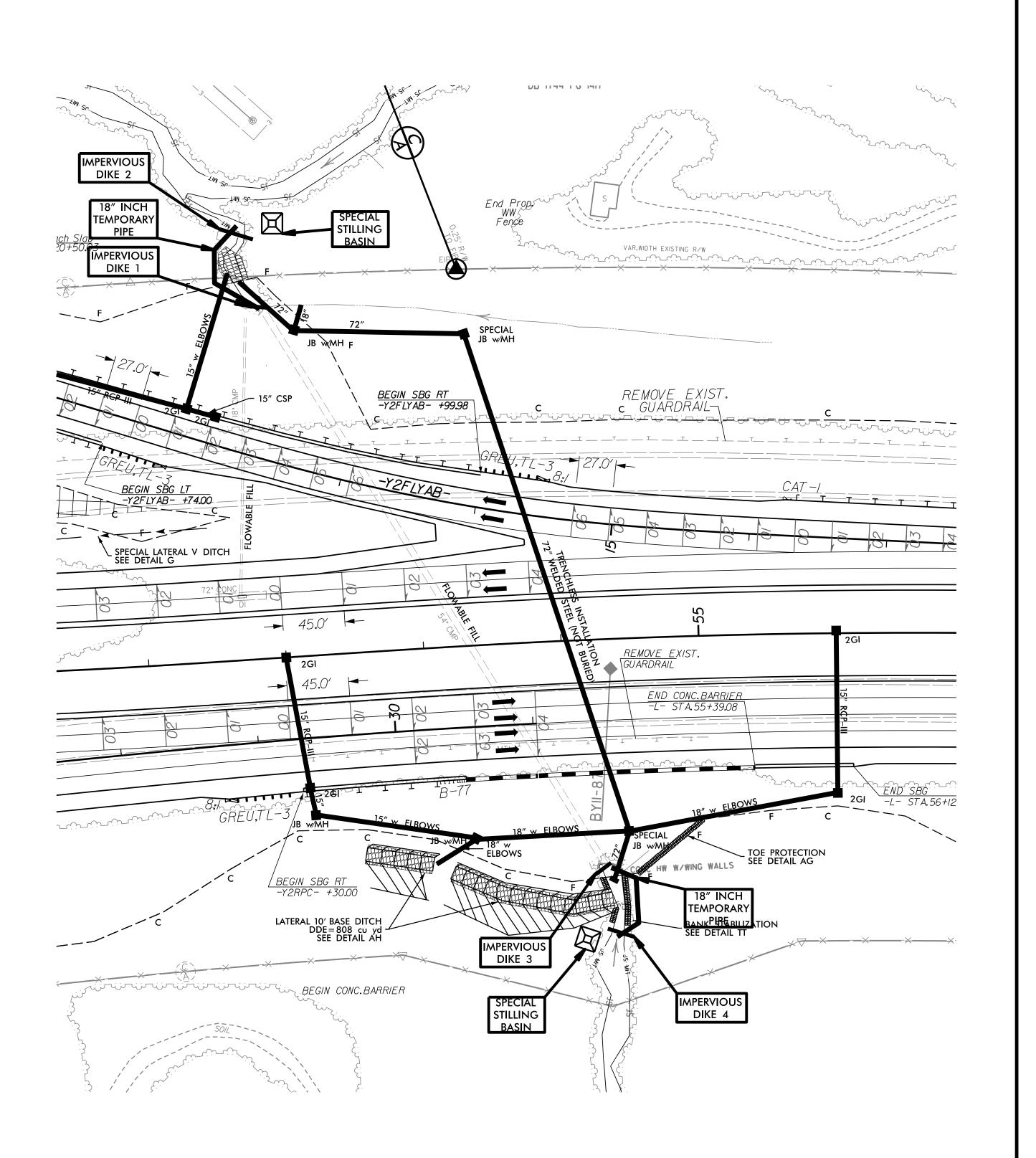
 5. INSTALL PROPOSED 72" INLET PIPE, HEADWALL AND TIE TO PROPOSED SPECIAL JB W/MH.

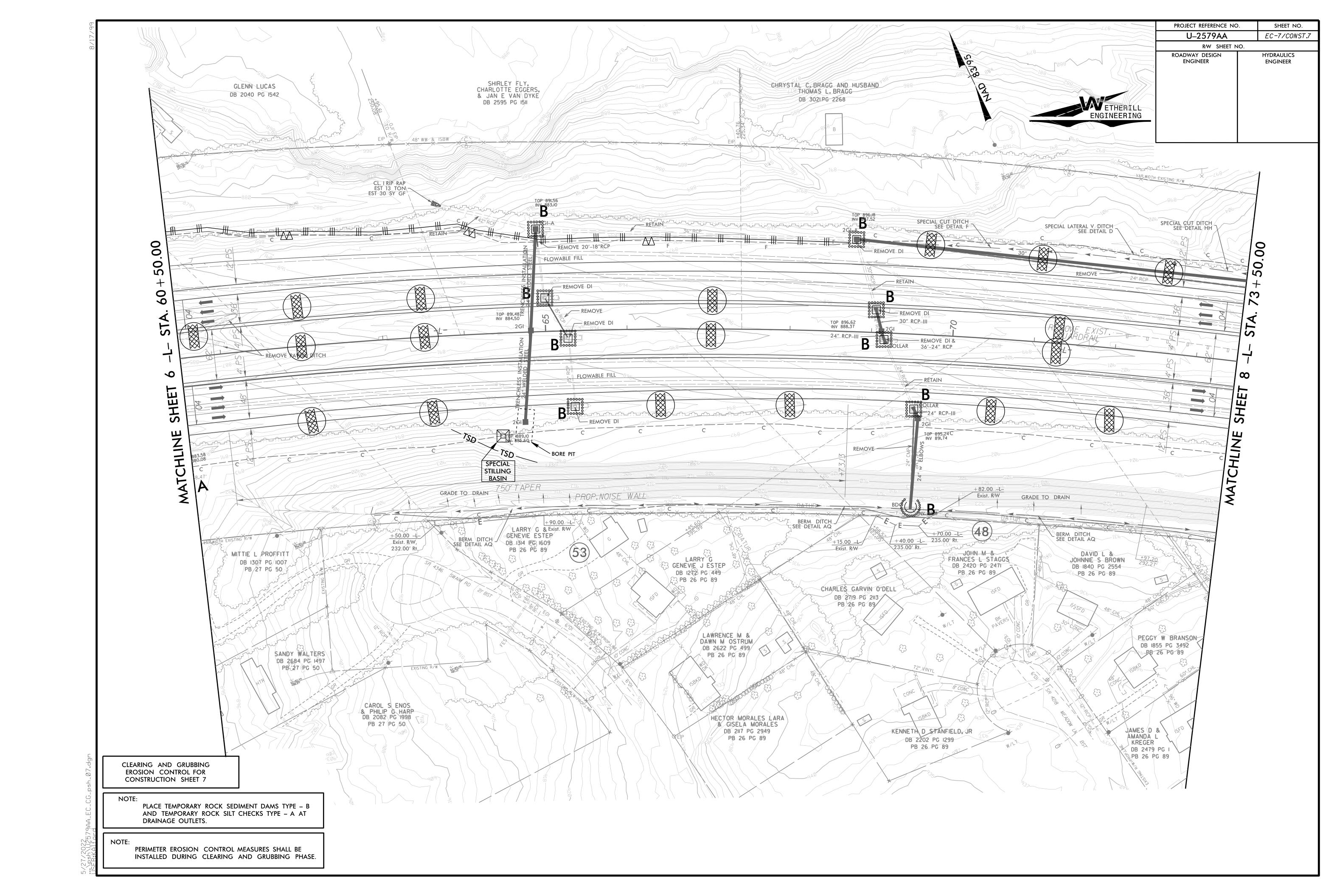
 6. CONSTRUCT UPSTREAM CHANNEL IMPROVEMENTS.

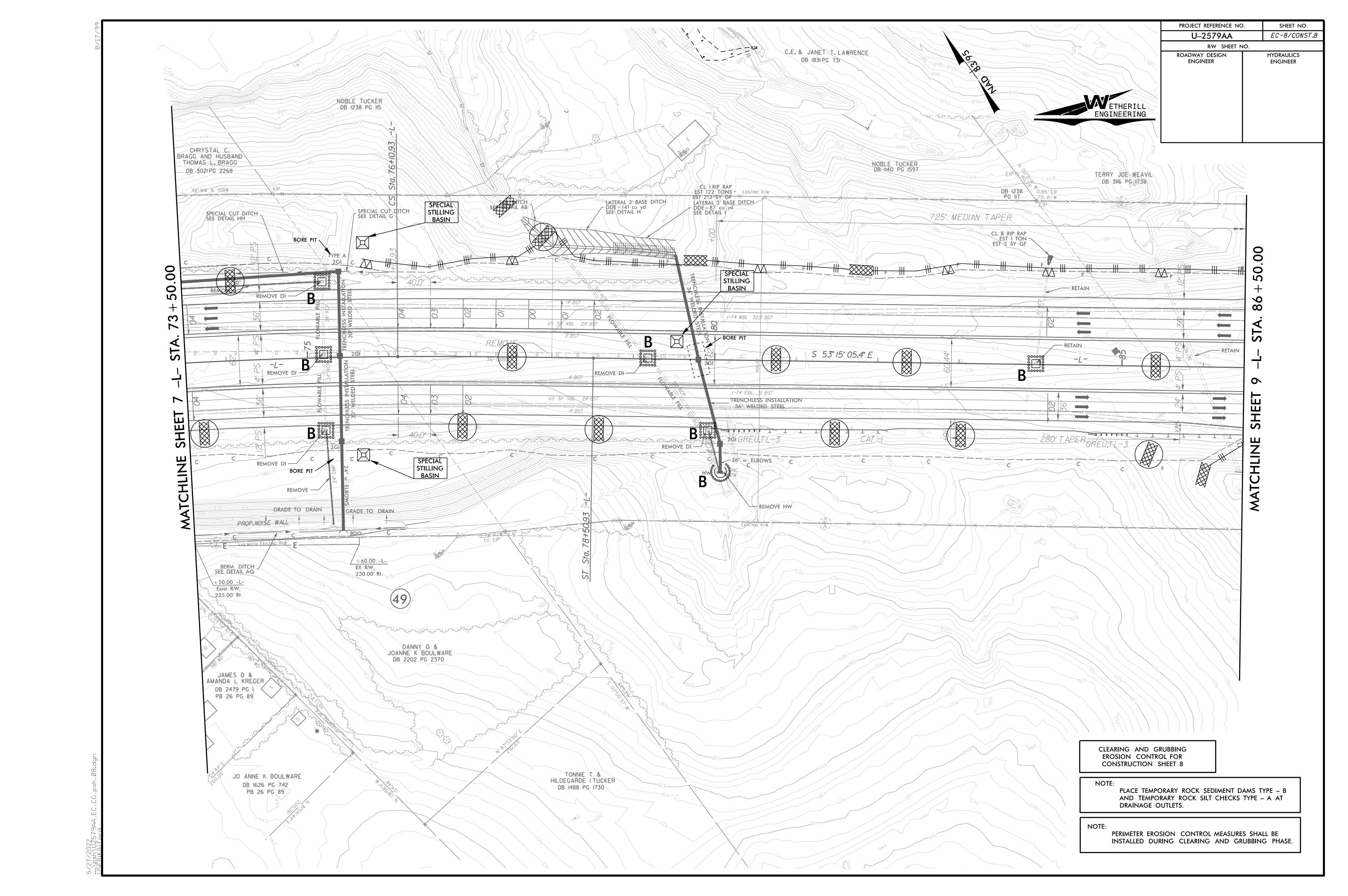
 7. REMOVE IMPERVIOUS DIKES 2 & 4, AS WELL AS REMOVE THE 18" TEMPORARY PIPE AND DIVERT FLOW INTO PROPOSED 72" PIPE.

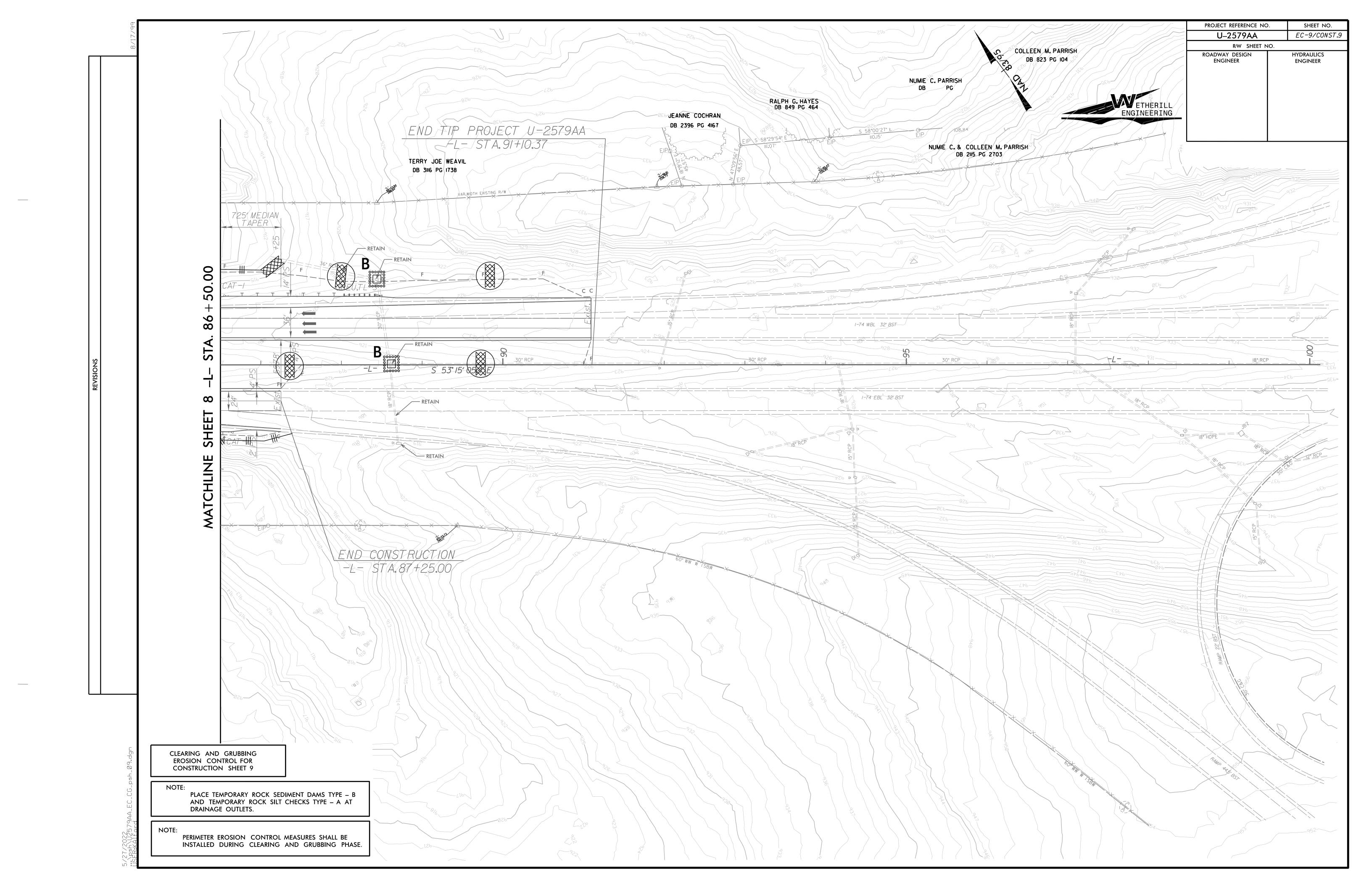
 8. FILL EXISTING 54" CMP WITH FLOWABLE FILL.

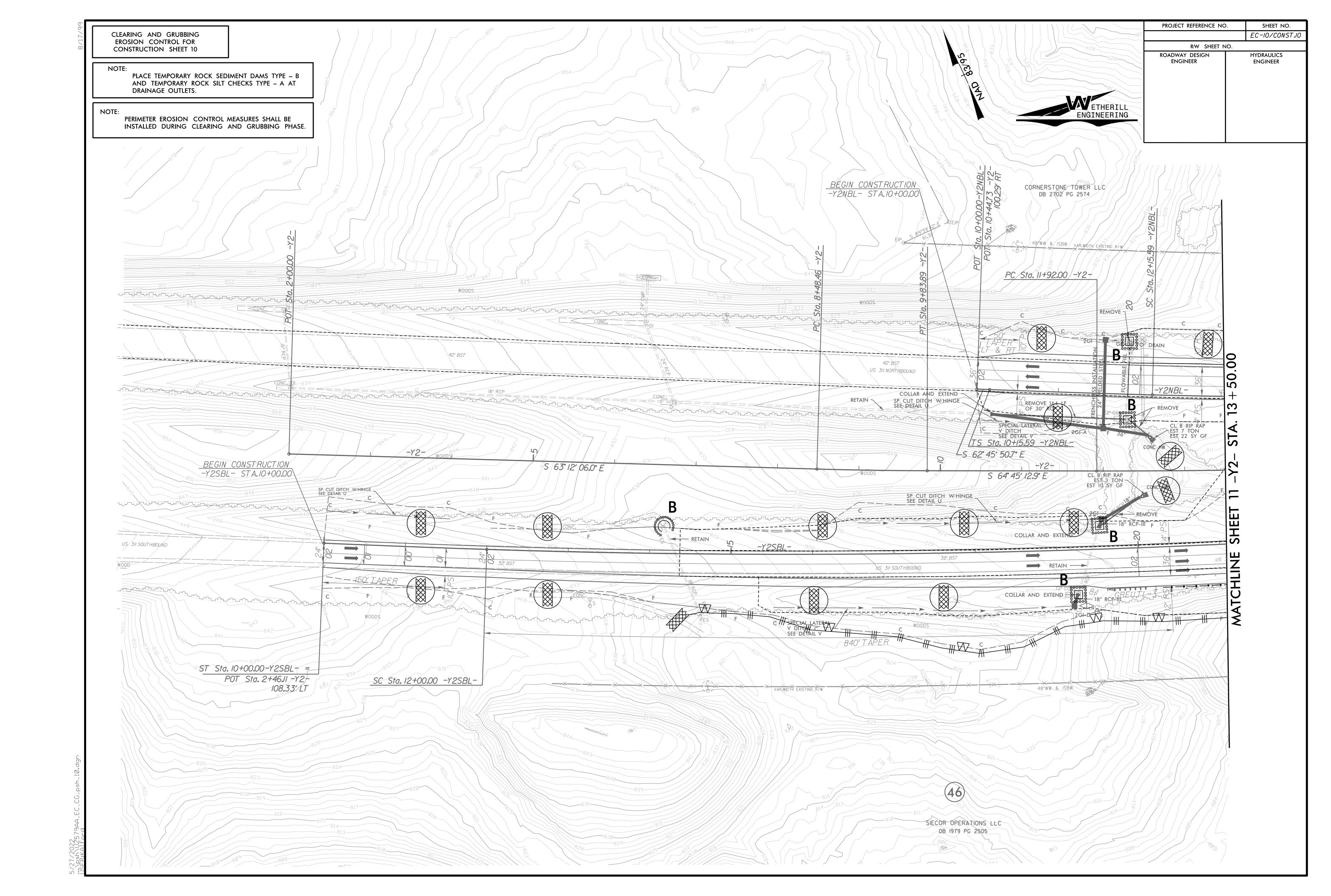
- 9. REMOVE IMPERVIOUS DIKES 1 & 3.
- 10. REMOVE SPECIAL STILLING BASINS AND COMPLETE ROADWAY CONSTRUCTION.

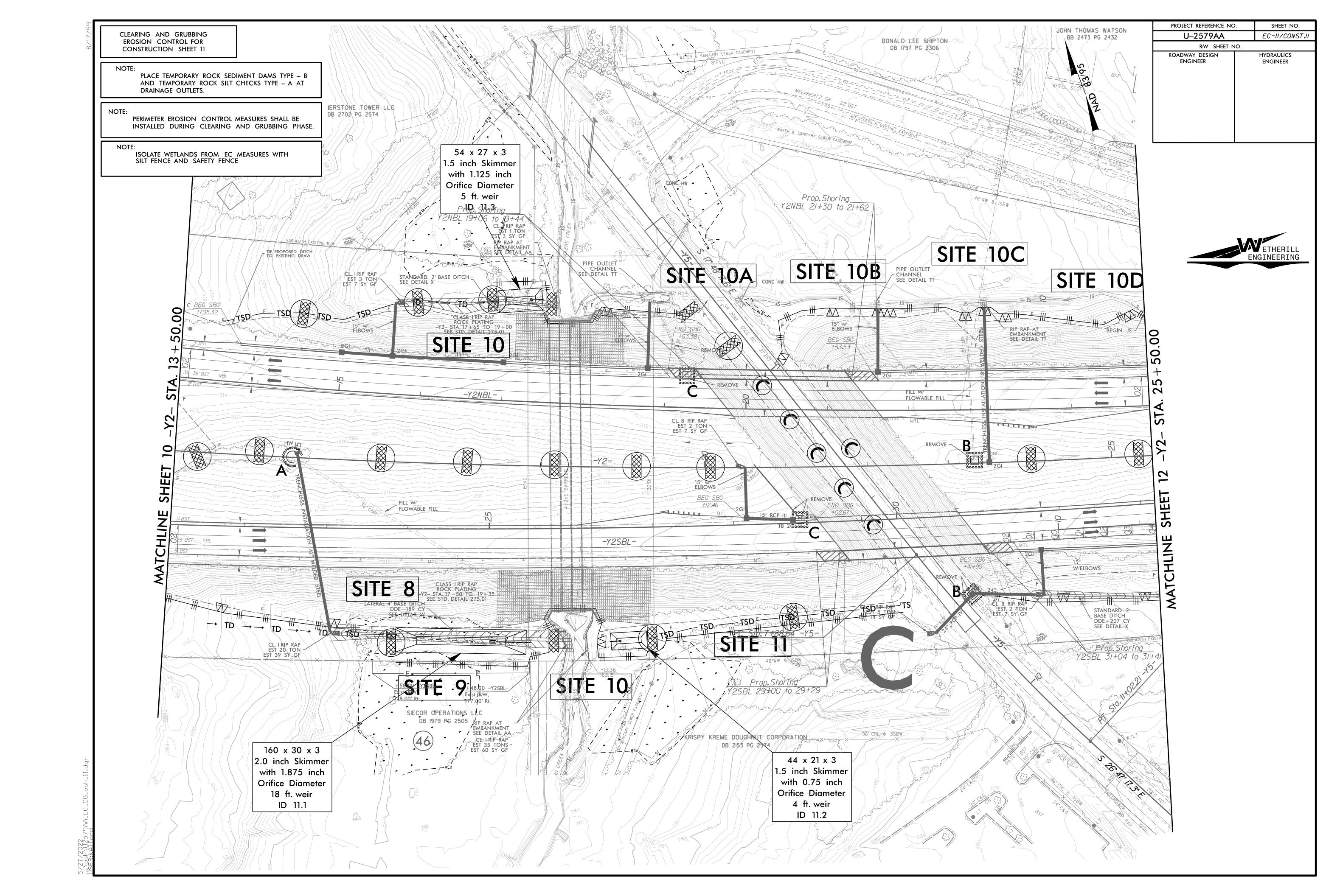


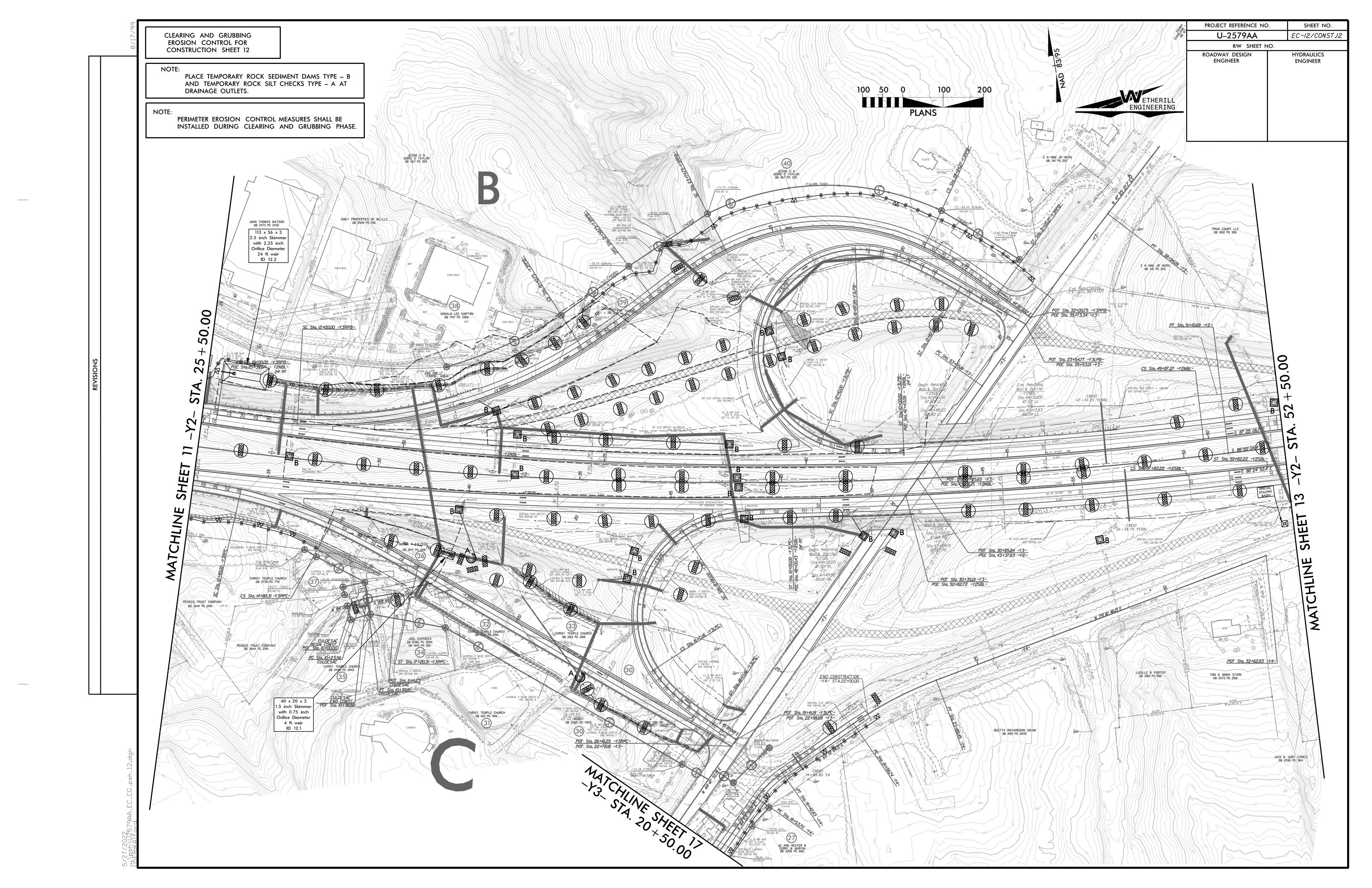


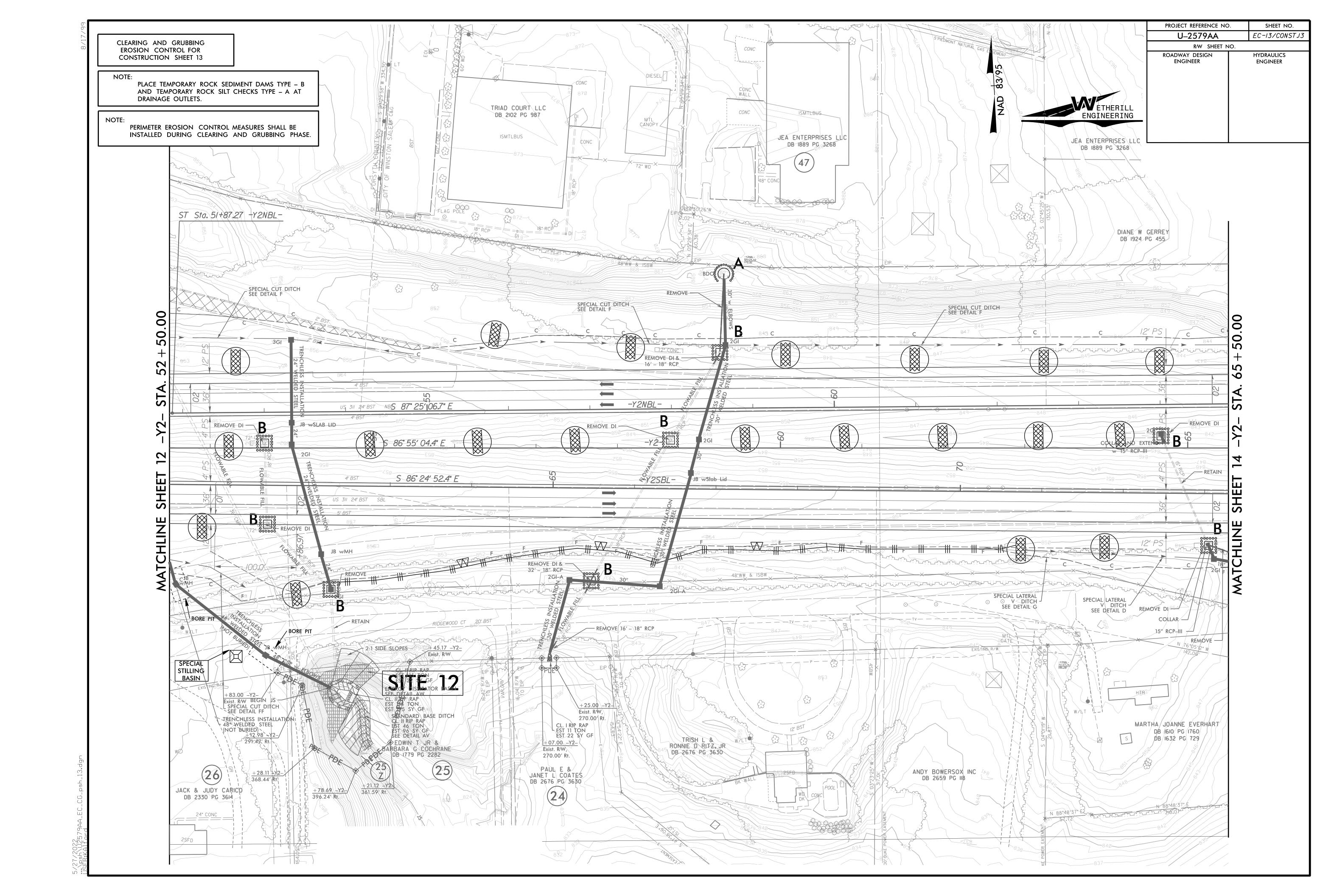


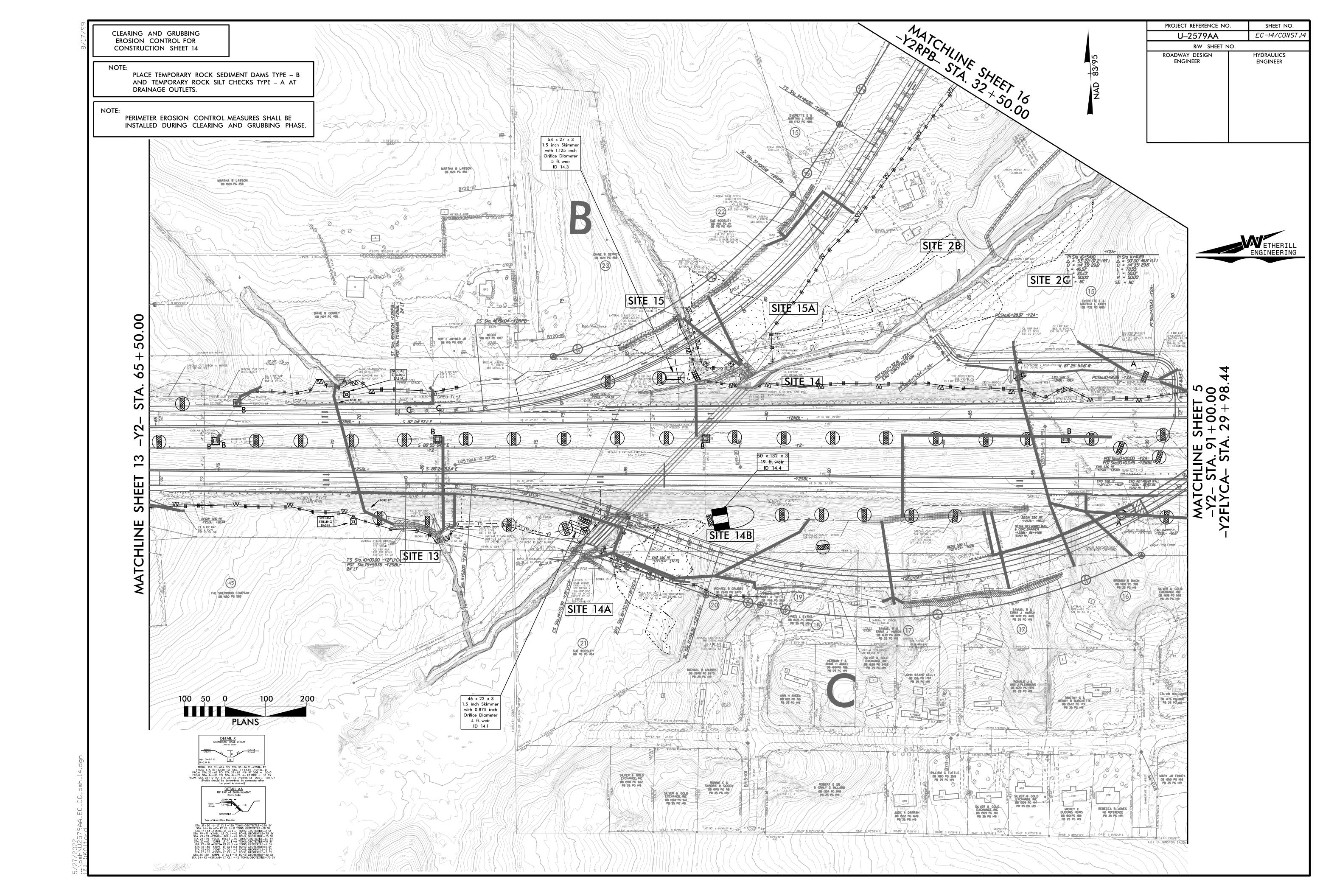




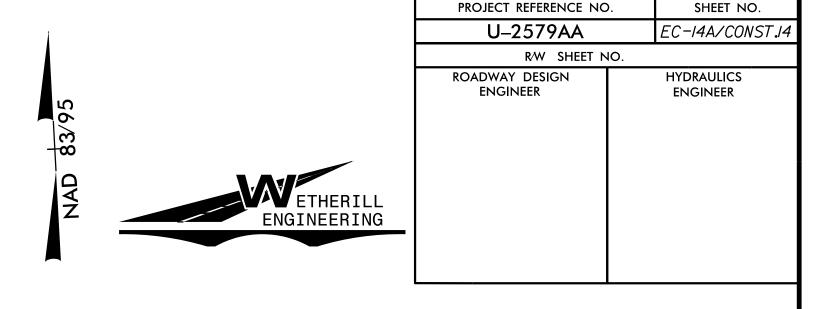








CONSTRUCTION PHASING CULVERT 330393 CULVERT AT STATION 78+69 -Y2-



- 1. INSTALL SPECIAL STILLING BASINS AND STILLING BASIN AND IMPERVIOUS DIKES 1 & 2 DIVERT FLOW INTO BARREL 1
- 2. REMOVE EXISTING WINGWALL FROM THE OUTLET OF BARREL 3.
 3. EXTEND BARRELS 2 & 3. CONSTRUCT CORRESPONDING PORTION OF HEADWALL AND CORRESPONDING WINGWALL. INSTALL PROPOSED RIP RAP ALONG RIGHT CHANNEL BANK AT OUTLET END.

 4. REMOVE IMPERVIOUS DIKES 1 & 2. INSTALL IMPERVIOUS DIKES 3 & 4 AND DIVERT FLOW INTO
- THE BARRELS 2 & 3.
- 5. REMOVE EXISTING WINGWALL FROM THE OUTLET OF BARREL 1.
 6. EXTEND BARREL 1. CONSTRUCT CORRESPONDING PORTION OF HEADWALL AND CORRESPONDING WINGWALL. INSTALL PROPOSED RIP RAP ALONG LEFT CHANNEL BANK AT OUTLET END.
- 7. FINALIZE CONSTRUCTION OF -Y2- (-Y2NBL-, -Y2SBL-) AND -Y2FLYCA- ALIGNMENTS. REMOVE IMPERVIOUS DIKES 3 & 4 AND ALLOW FLÓW IN ALL BARRELS. REMOVE SPECIAL STILLING BASINS AND STILLING BASIN.

