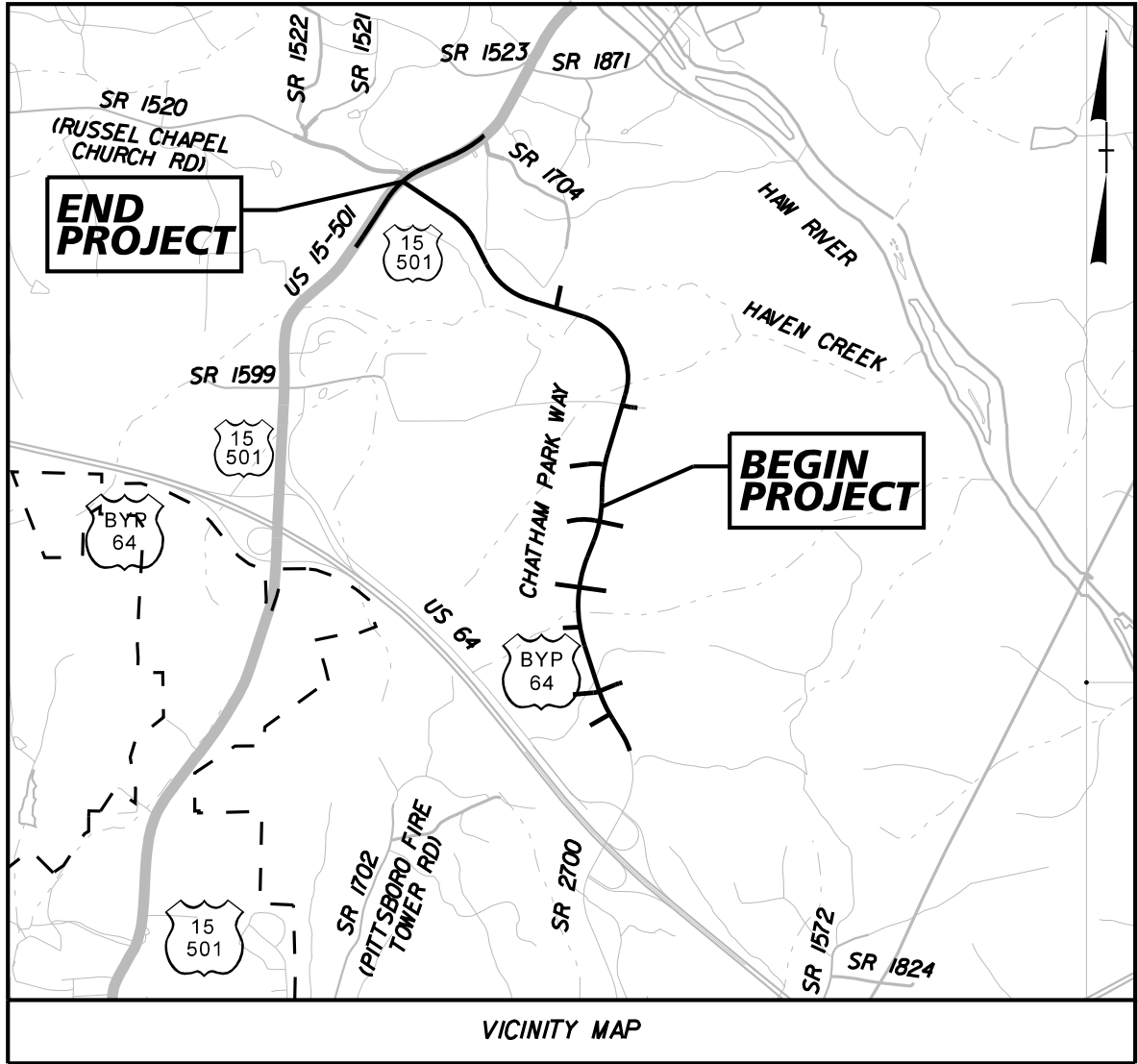


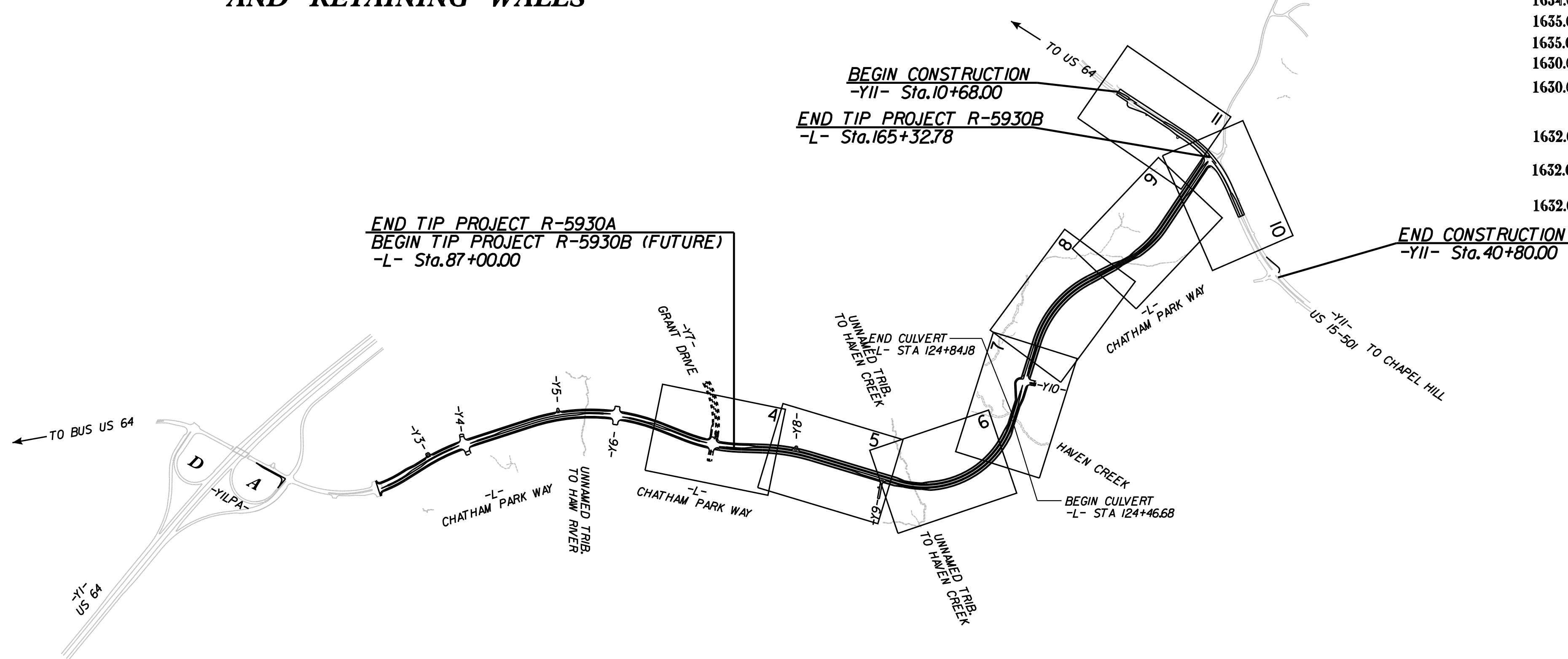
TIP PROJECT: R-5930B



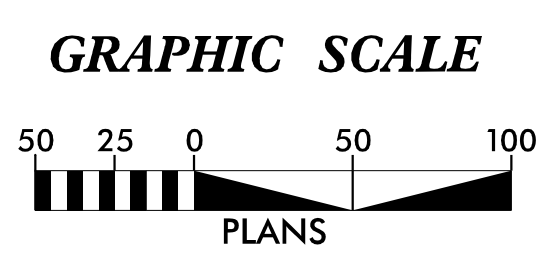
STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL
CHATHAM COUNTY

LOCATION: CHATHAM PARK WAY FROM US 64 TO US 15-501

**TYPE OF WORK: GRADING, DRAINAGE, CULVERTS, PAVING, SIGNALS,
 AND RETAINING WALLS**



★ TRAFFIC SIGNAL
 THIS IS A LIMITED CONTROLLED ACCESS PROJECT WITH ACCESS LIMITED TO POINTS AS SHOWN ON THE PLANS



**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.**

Kimley » Horn

Prepared in the Office of:
Kimley-Horn
 421 Fayetteville Street, Suite 600
 Raleigh, NC 27601

Designed by:
DAVID HURSEY 4359
 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 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	

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5930B	EC-1	27
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
48548.1.1		PE	
48548.2.1		RW & UTIL	
48548.3.1		CONST.	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	▲▲▲▲▲▲▲▲▲▲
1622.01	Temporary Berms and Slope Drains	—▲—▲—▲—▲—▲—▲—▲—▲—▲—
1630.02	Silt Basin Type B	▨
1633.01	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	▨
1634.02	Temporary Rock Sediment Dam Type-B	▨
1635.01	Rock Pipe Inlet Sediment Trap Type-A	U
1635.02	Rock Pipe Inlet Sediment Trap Type-B	U
1630.04	Stilling Basin	▭
1630.06	Special Stilling Basin	▭
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	▭
	Tiered Skimmer Basin	▭
	Infiltration Basin	▭

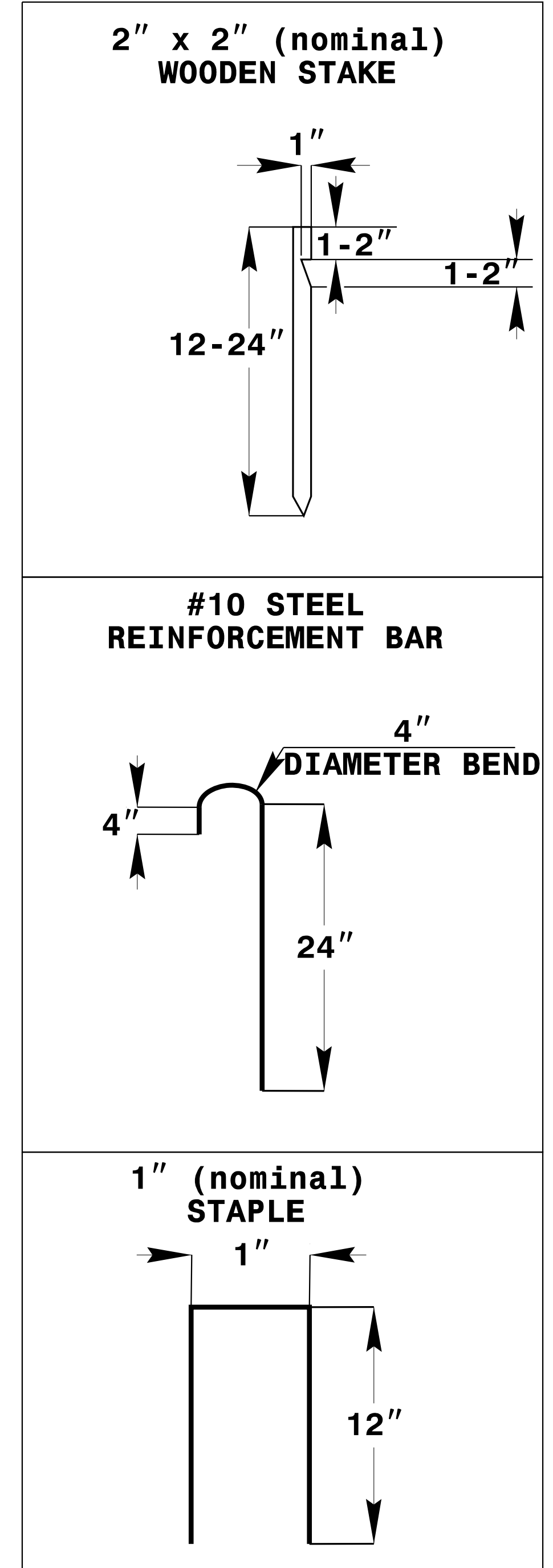
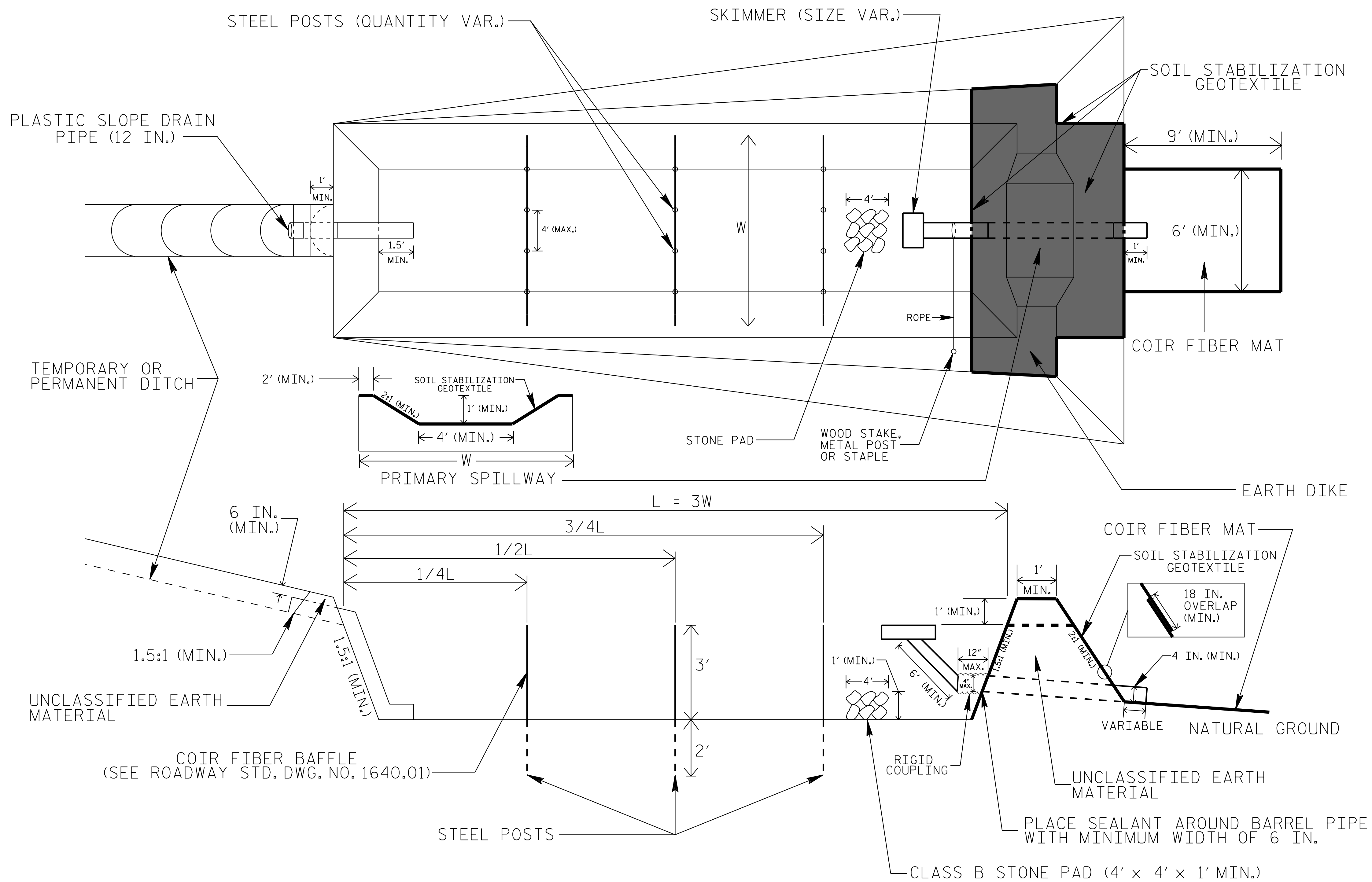
**THIS PROJECT CONTAINS
 EROSION CONTROL PLANS
 FOR CLEARING AND
 GRUBBING PHASE OF
 CONSTRUCTION.**

**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.

5/14/99

SKIMMER BASIN WITH BAFFLES DETAIL



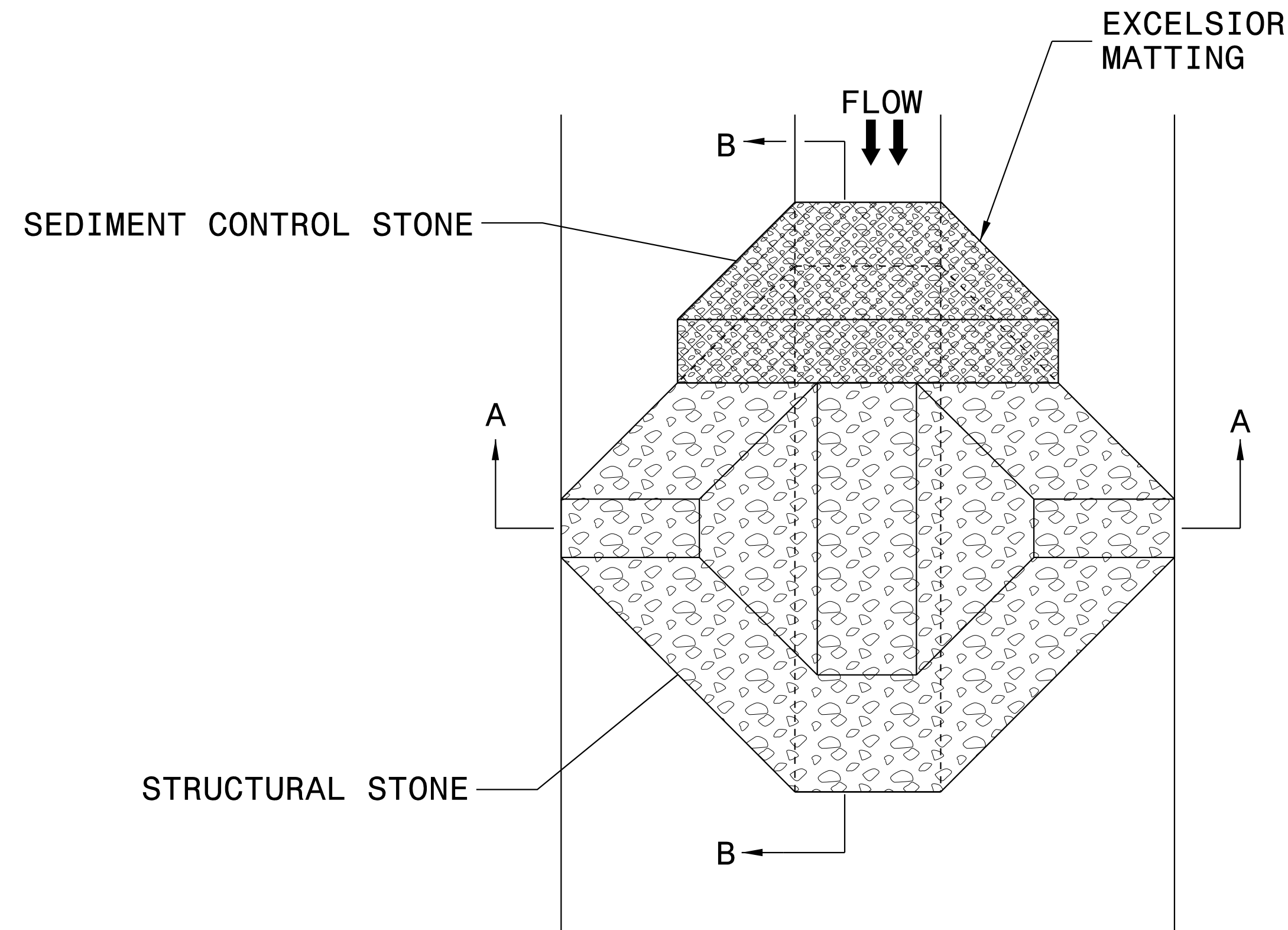
NOTES

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

12/6/2024

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



PLAN

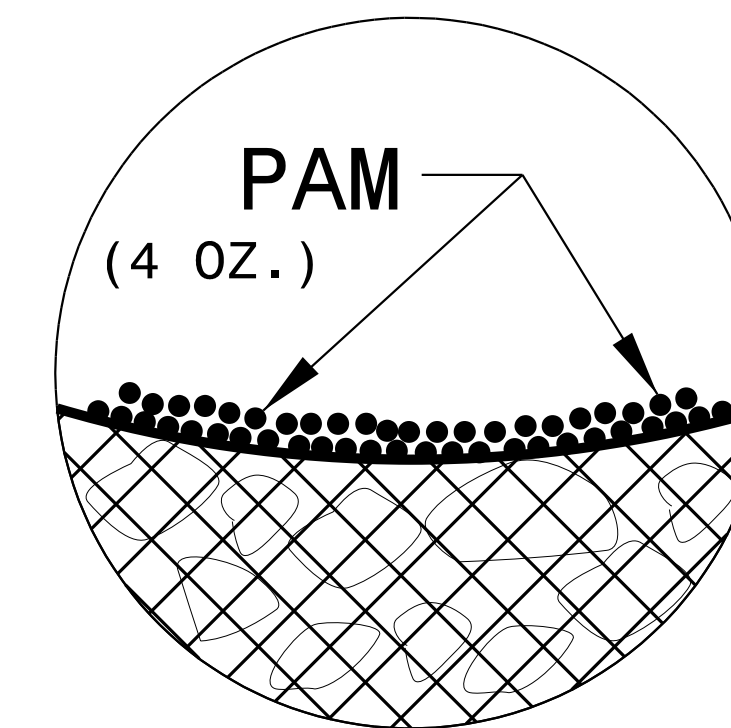
NOTES:

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

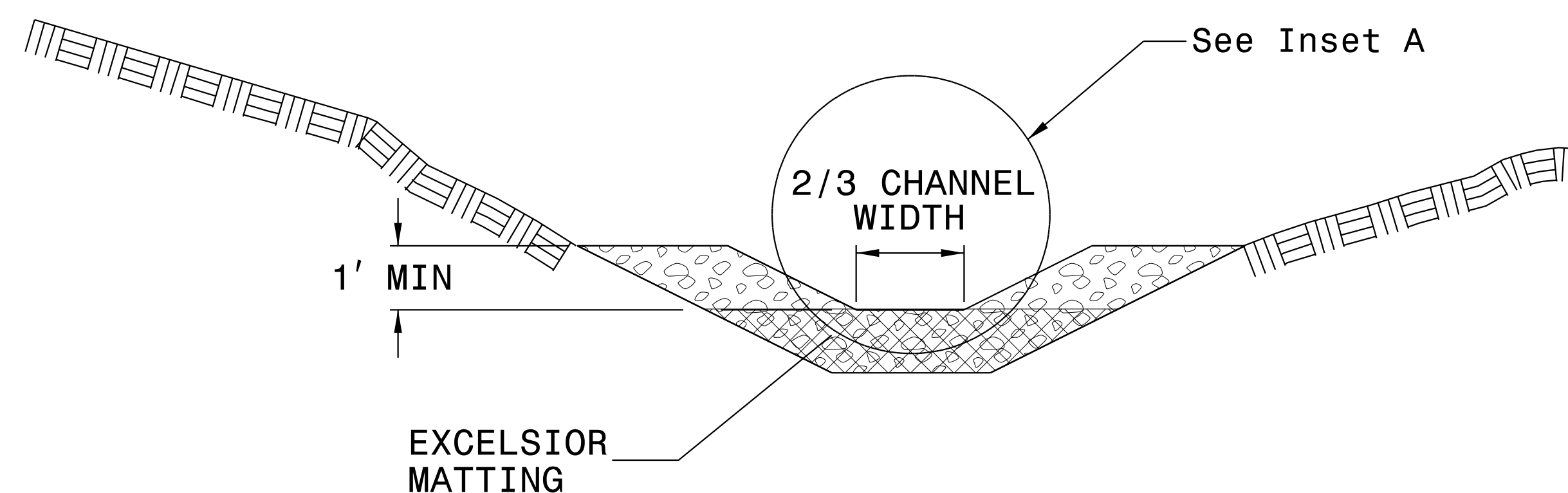
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

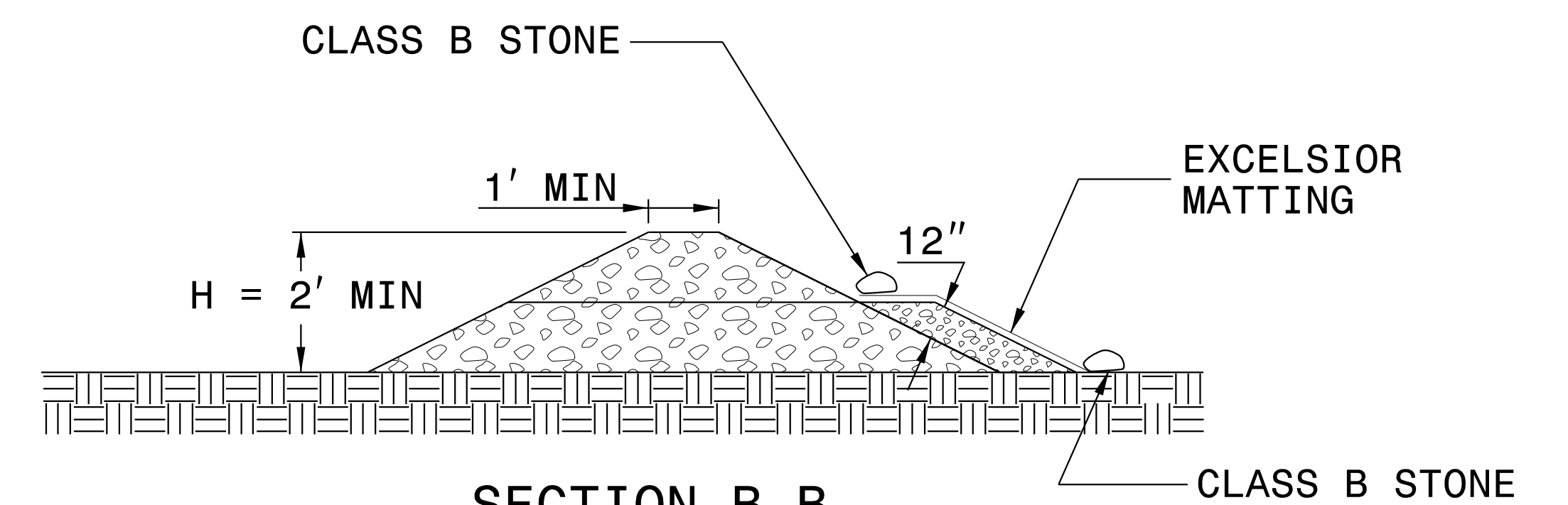
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



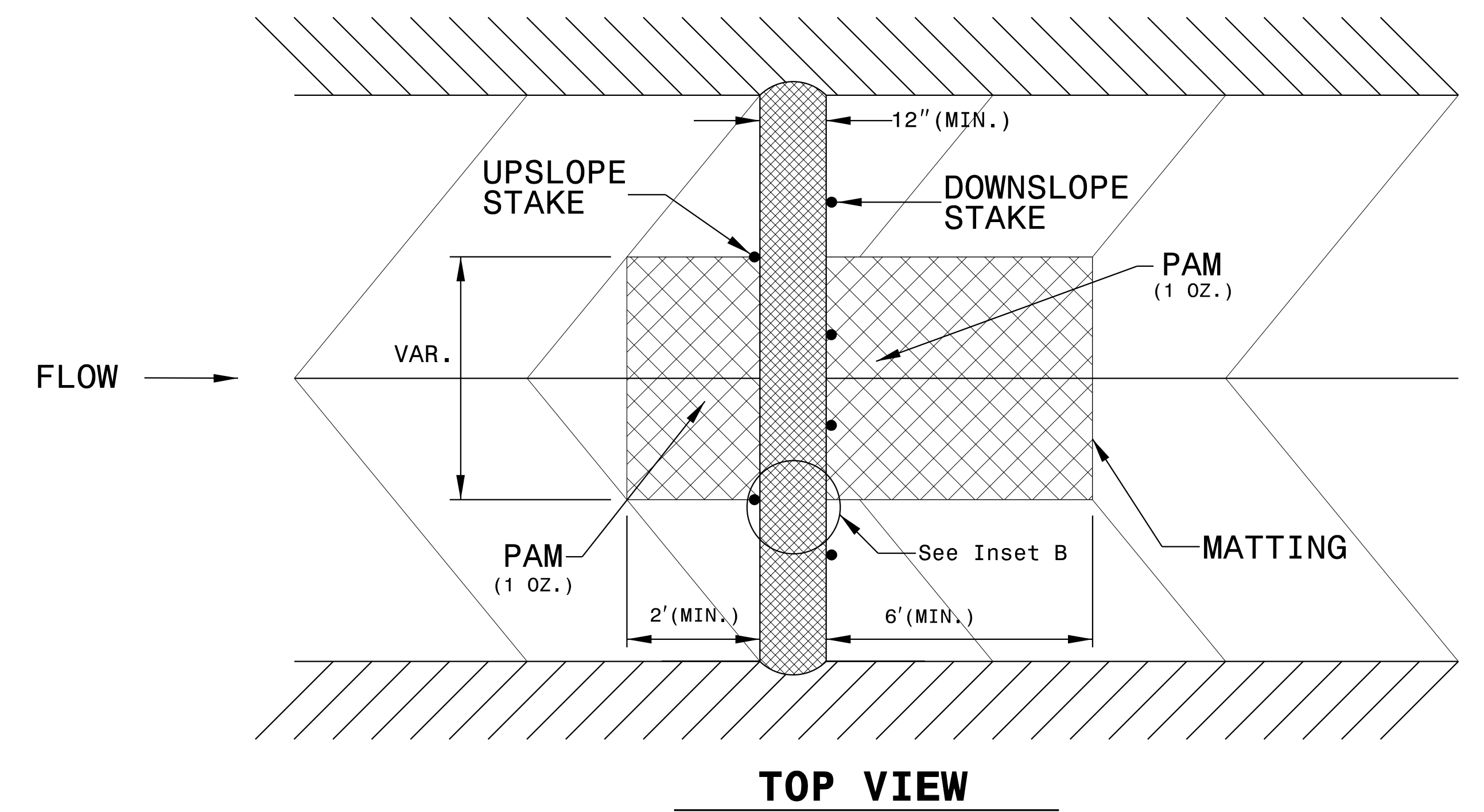
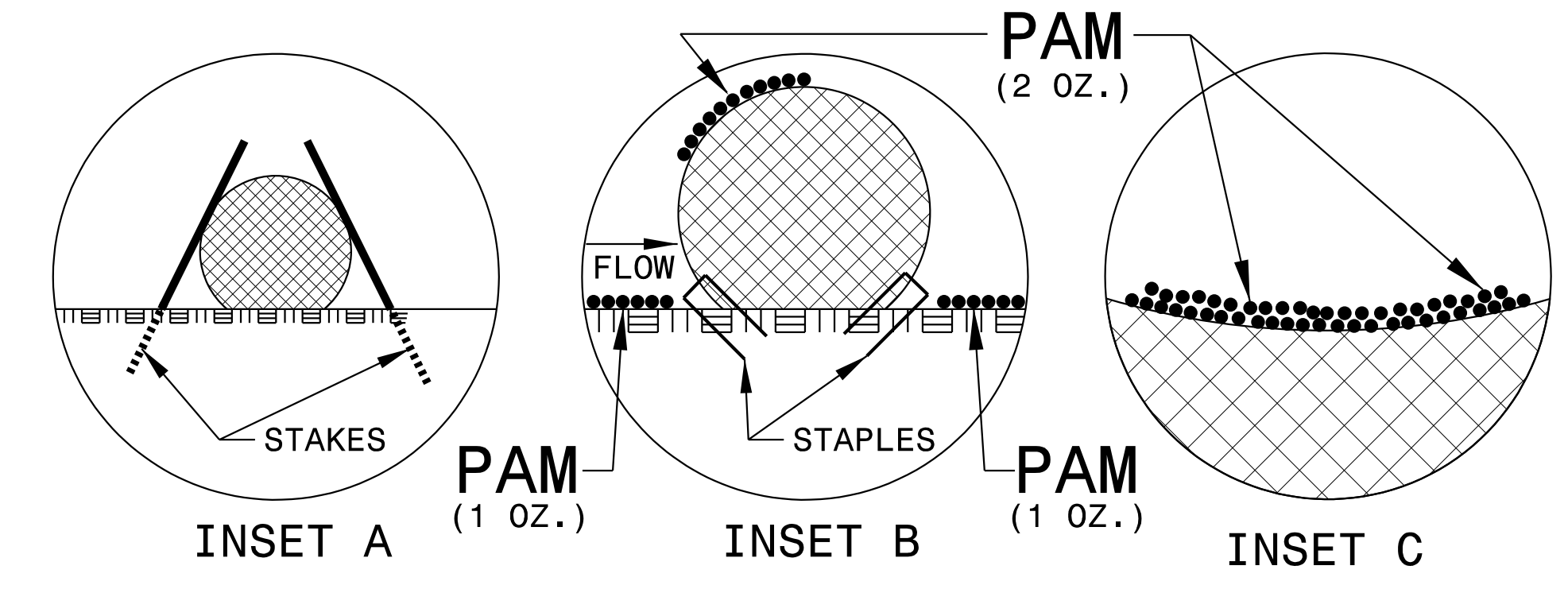
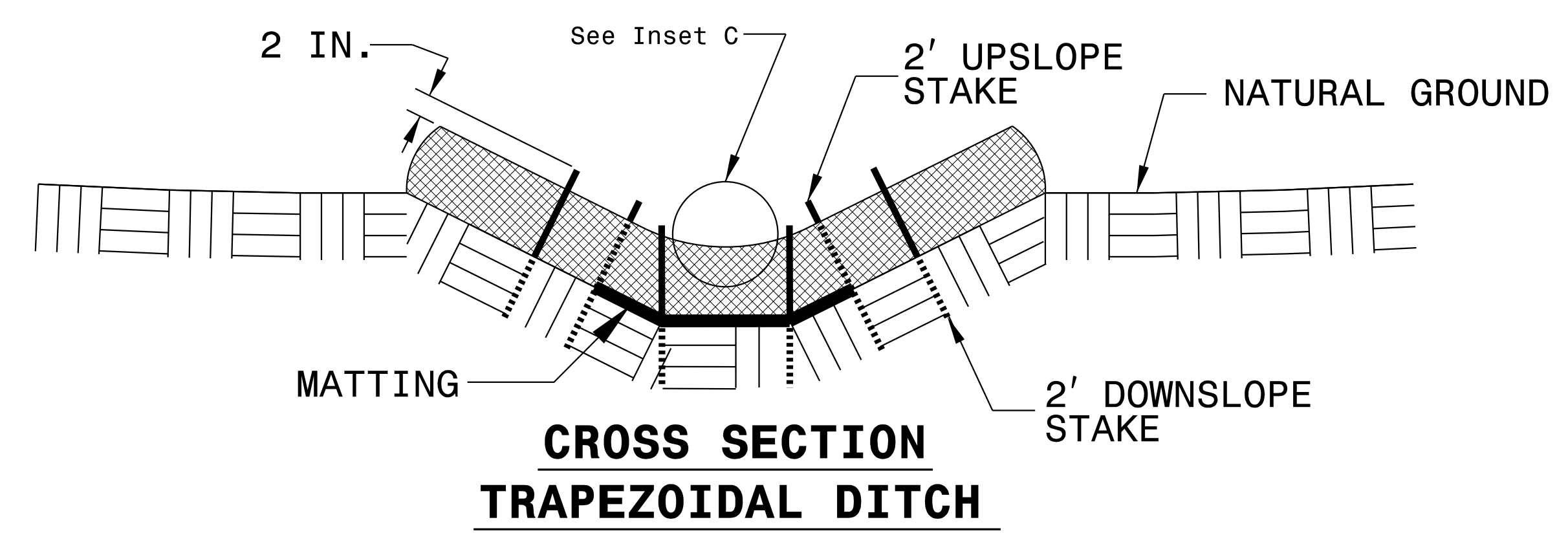
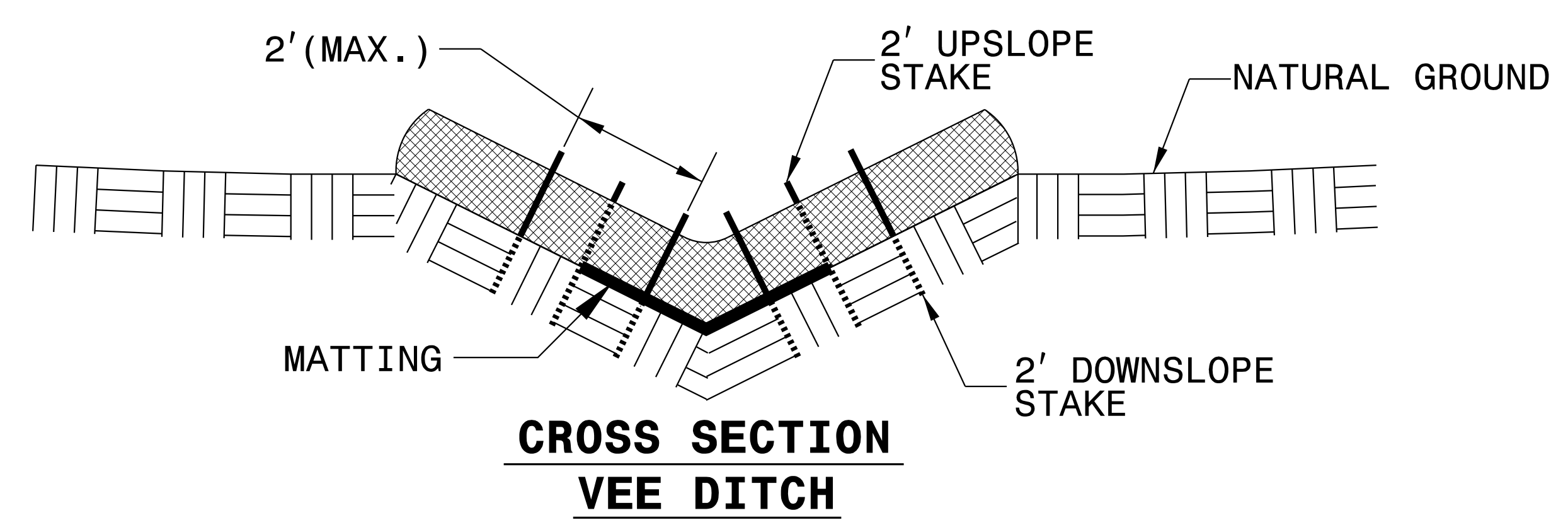
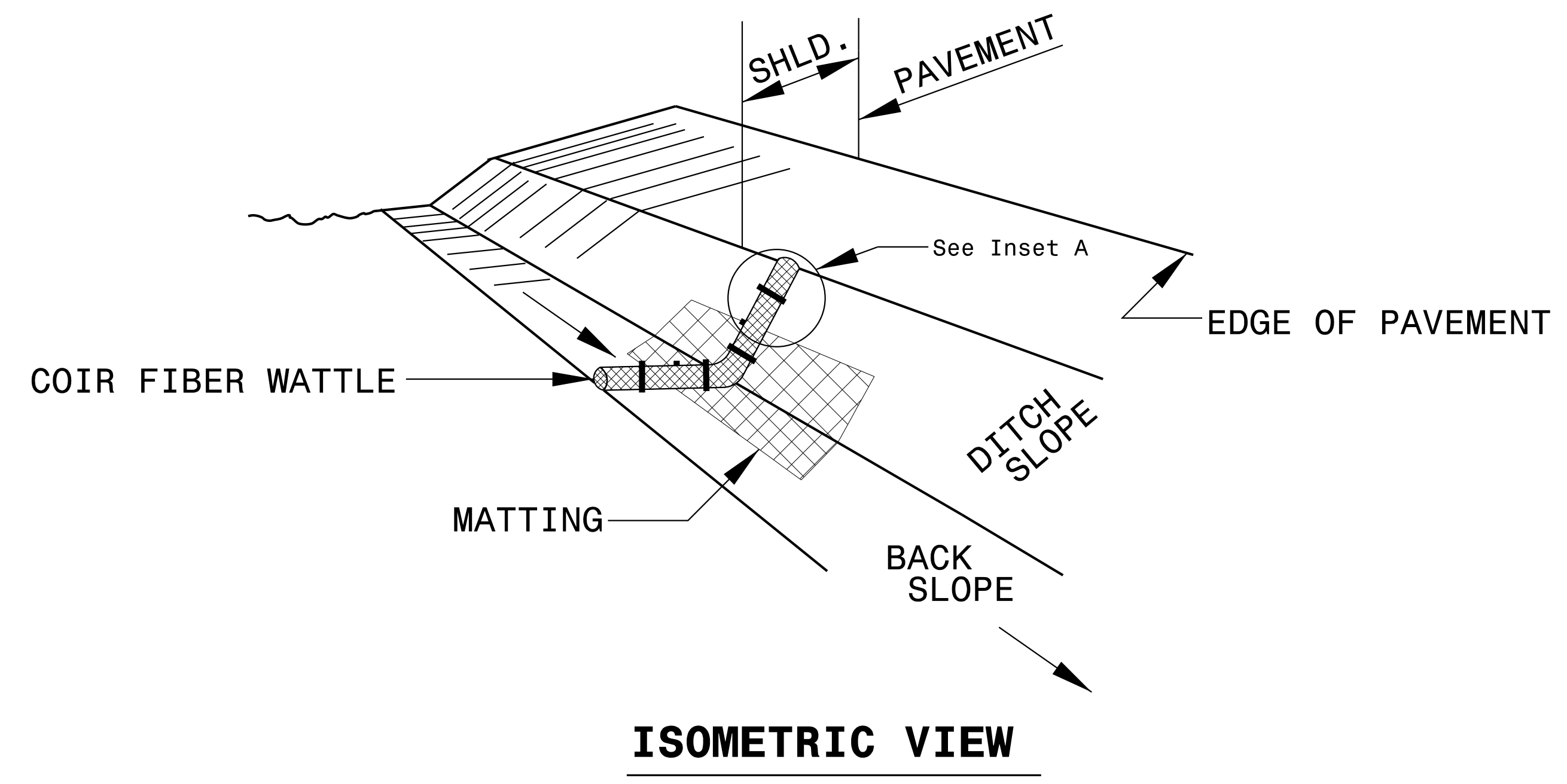
SECTION B-B

NOT TO SCALE

COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

NOTES:

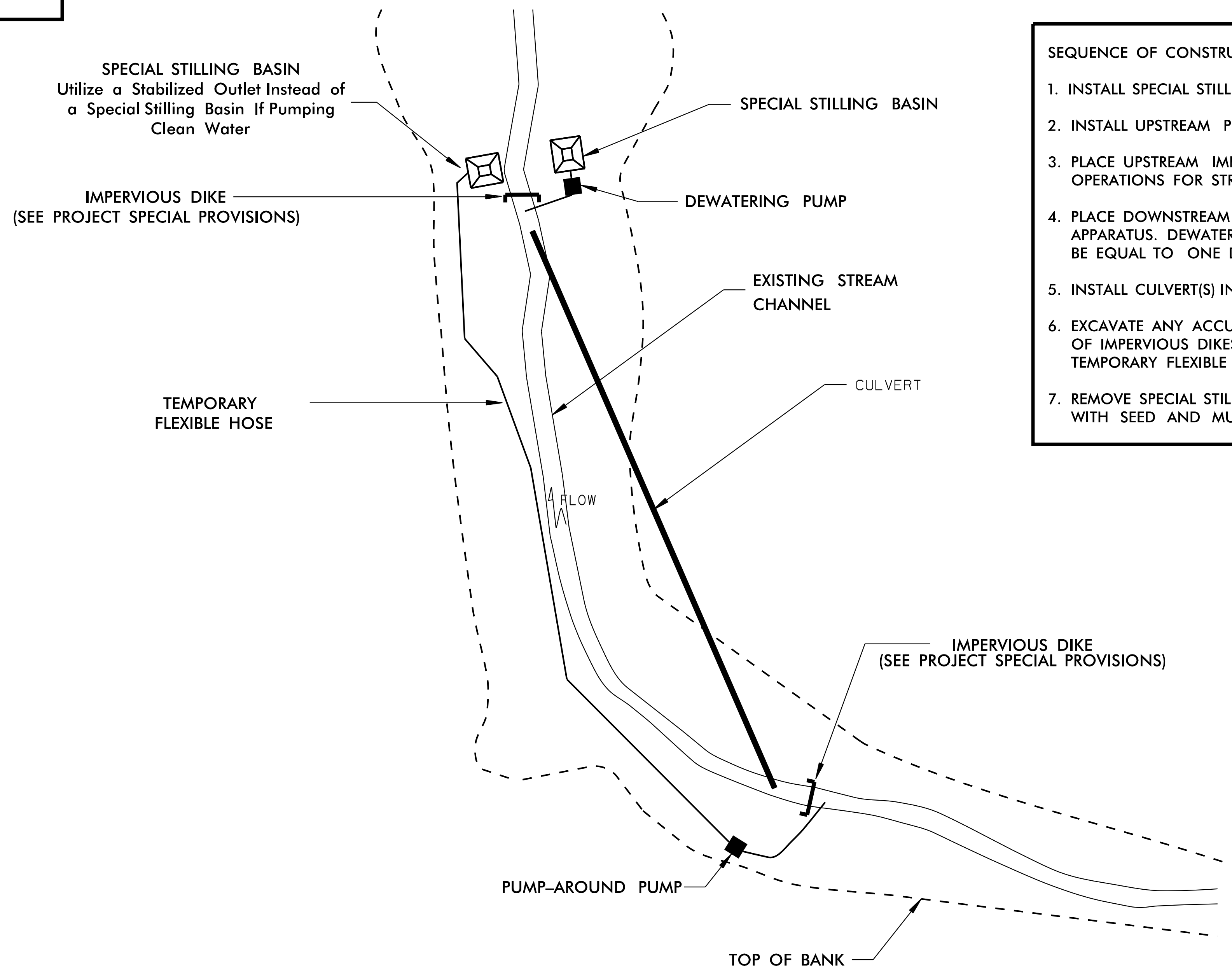
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND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



PROJECT REFERENCE NO. <i>R-5930B</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.



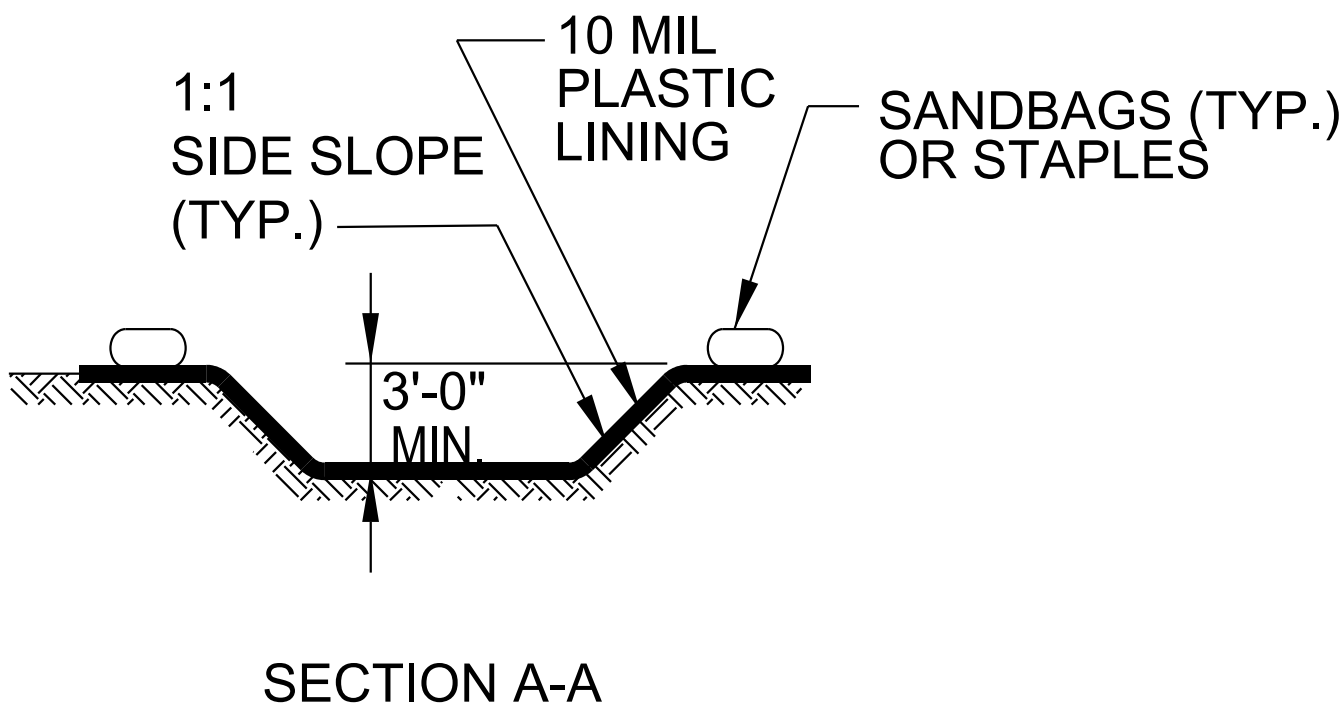
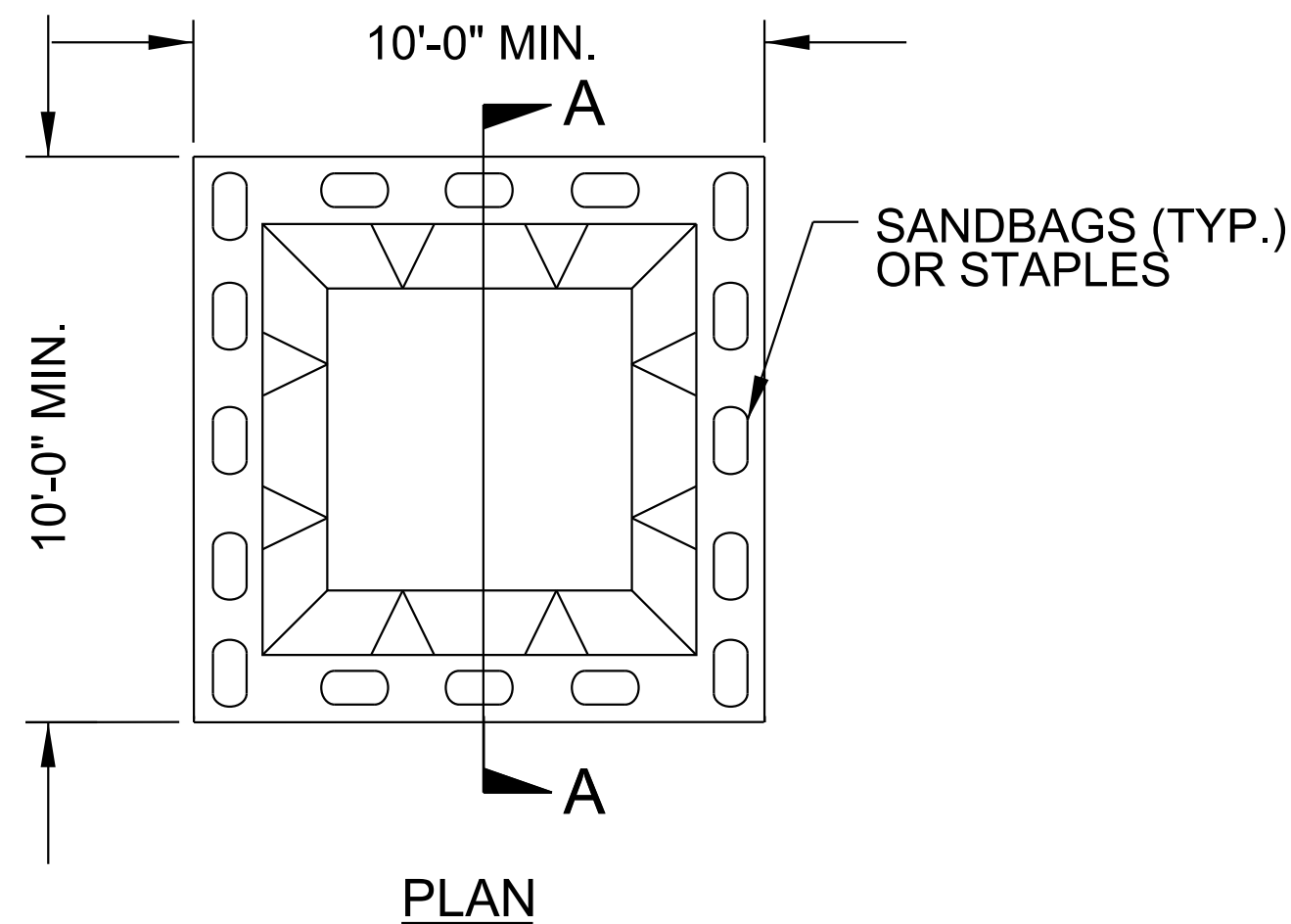
- SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA
1. INSTALL SPECIAL STILLING BASIN(S).
 2. INSTALL UPSTREAM PUMP AND TEMPORARY FLEXIBLE HOSE.
 3. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
 4. PLACE DOWNSTREAM IMPERVIOUS DIKE AND PUMPING APPARATUS. DEWATER ENTRAPPED 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.

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER

Kimley » Horn

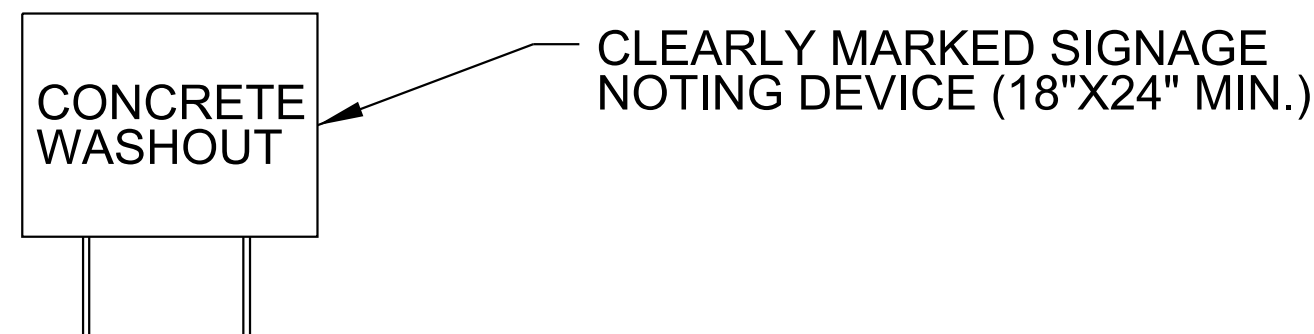
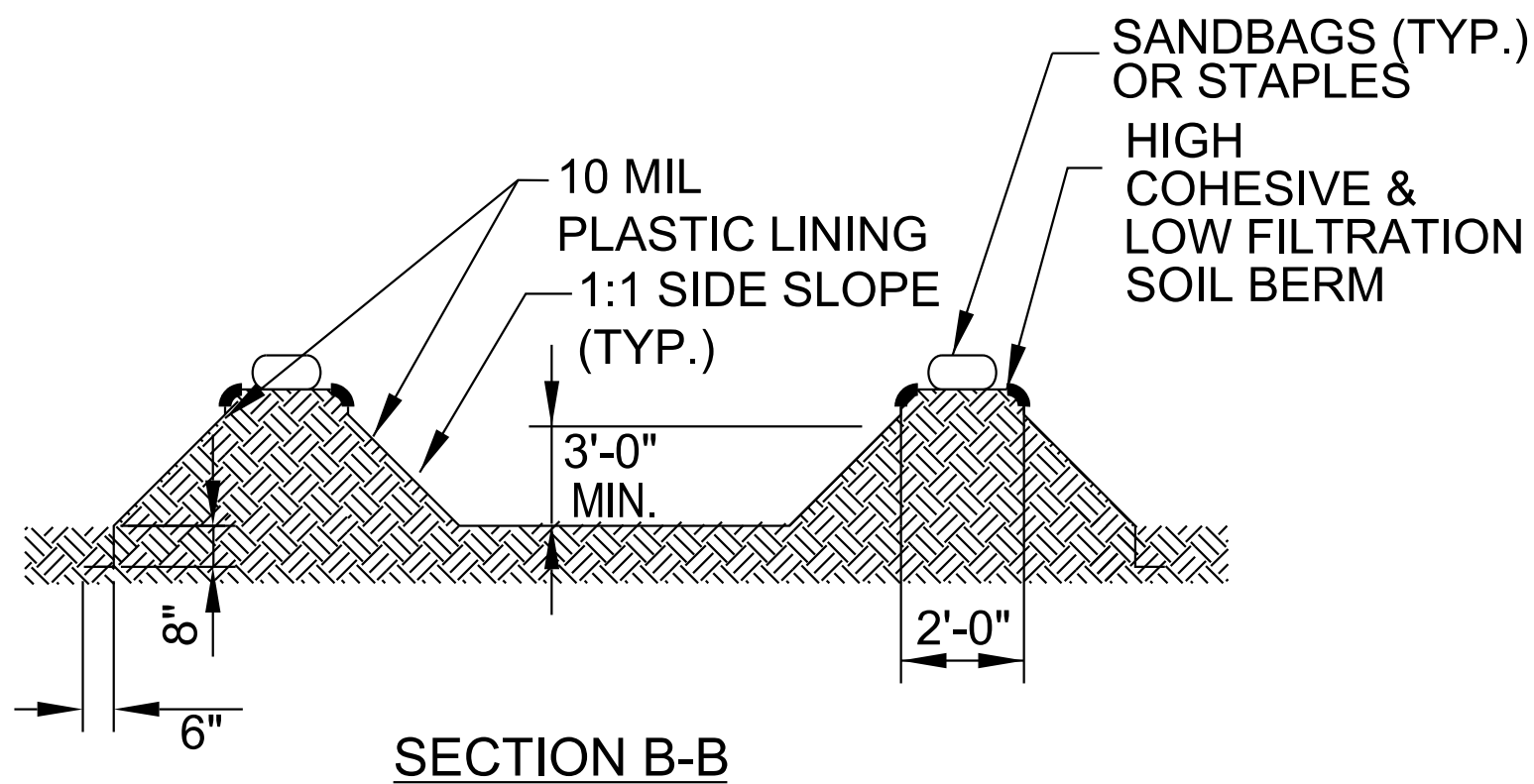
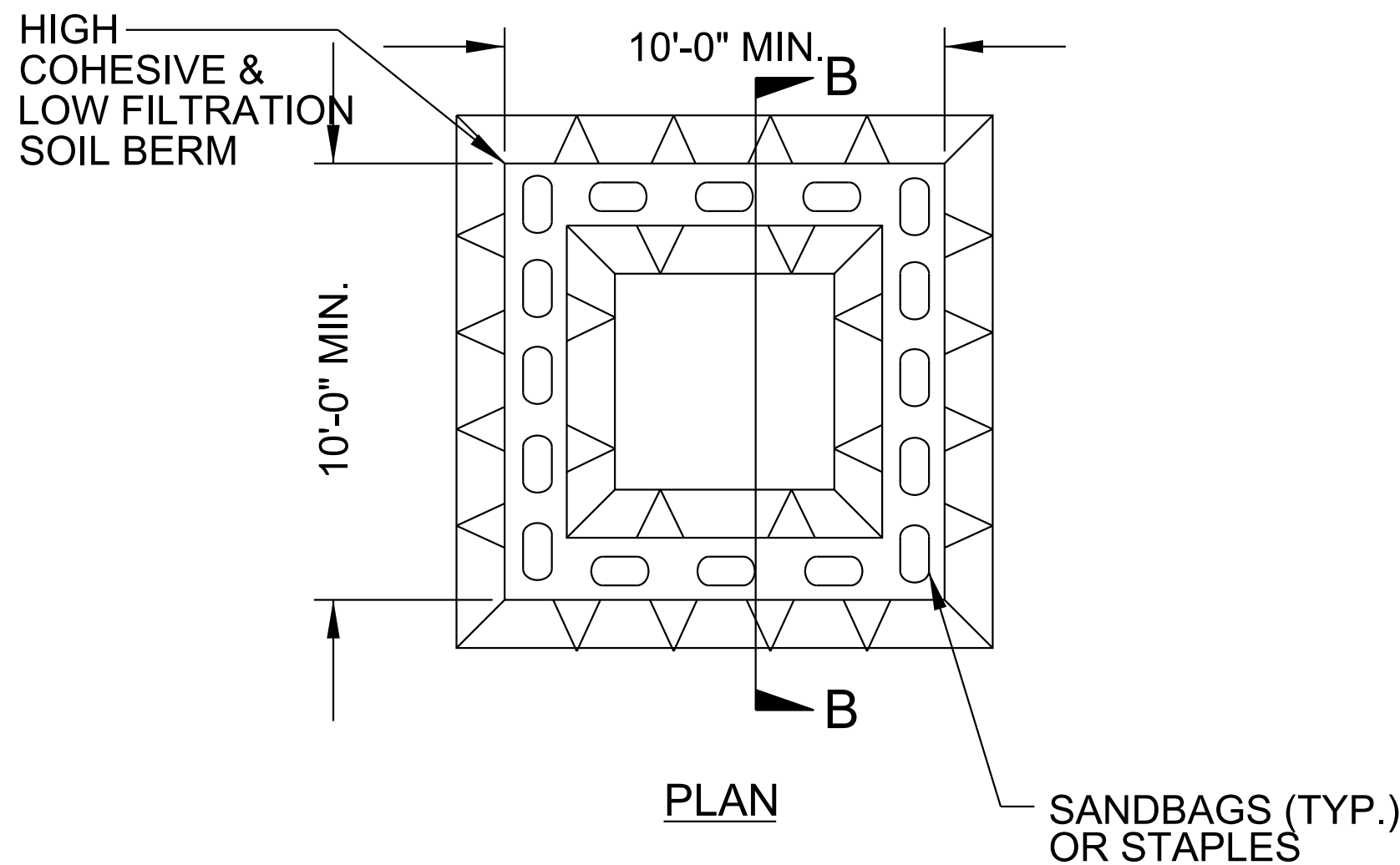
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

PROJECT REFERENCE NO. <i>R-5930B</i>	SHEET NO. <i>EC-2D</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:**
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.



ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:**
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

5/14/99



PROJECT REFERENCE NO. R-5930B SHEET NO. EC-3

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
DITCHES					
4	-L-	91+00	92+50	RT	150
5	-L-	98+50	100+00	RT	85
6	-L-	108+50	110+50	LT	135
6	-L-	110+50	111+50	LT	70
6	-Y9-	13+00	14+62	RT	150
8	-L-	133+50	135+90	RT	240
8	-L-	135+90	137+00	RT	110
8	-L-	141+50	142+50	RT	90
8	-L-	142+50	143+50	RT	90
9	-L-	153+50	154+50	RT	80
11	-Y11-	19+00	20+00	RT	125
11	-Y11-	20+00	20+50	RT	65
11	-Y11-	20+50	22+00	RT	190
		DITCHES SUBTOTAL			1,580

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
SLOPES					
4	-L-	85+50	89+00	RT	2,220
5	-L-	90+50	92+00	LT	1,170
5	-L-	94+00	95+50	LT	160
5	-L-	96+00	100+00	LT	2,090
5	-L-	94+00	95+50	RT	570
5	-L-	98+50	100+00	RT	190
5	-L-	101+00	101+50	RT	140
6	-L-	107+00	110+50	LT	1,620
6	-L-	110+50	111+50	LT	80
6	-L-	116+50	119+00	LT	520
6	-L-	107+50	111+00	RT	1,920
6	-L-	116+00	118+00	RT	770
7	-L-	124+00	126+50	LT	1,290
7	-L-	123+00	125+50	RT	1,450
8	-L-	135+50	136+00	LT	160
8	-L-	141+50	143+00	LT	550
9	-L-	148+50	150+50	LT	510
9	-L-	160+00	162+00	LT	670
9	-L-	148+00	149+00	RT	200
9	-L-	159+50	159+50	RT	150
		SLOPES SUBTOTAL			16,430

12/6/2024

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

EXCELSIOR MATTING FOR EROSION CONTROL (DITCHES)

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
DITCHES					
9	-L-	90+50	91+00	RT	50
10	-L-	96+50	97+50	RT	80
11	-L-	111+50	112+00	LT	35
14	-L-	147+50	148+50	RT	90
14	-L-	154+50	156+50	LT	155
14	-L-	154+50	156+00	RT	115
DITCHES SUBTOTAL					525
MATTING TO BE INSTALLED ON DITCHES					2,105
MATTING TO BE INSTALLED ON SLOPES					16,430
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					26,500
TOTAL					45,035
SAY					46,000

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

Kimley » Horn
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

PROJECT REFERENCE NO. R-5930B	SHEET NO. EC-3B
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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 TO 4:1	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH WITH SLOPES STEEPER THAN 4:1. 7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES

5/14/99

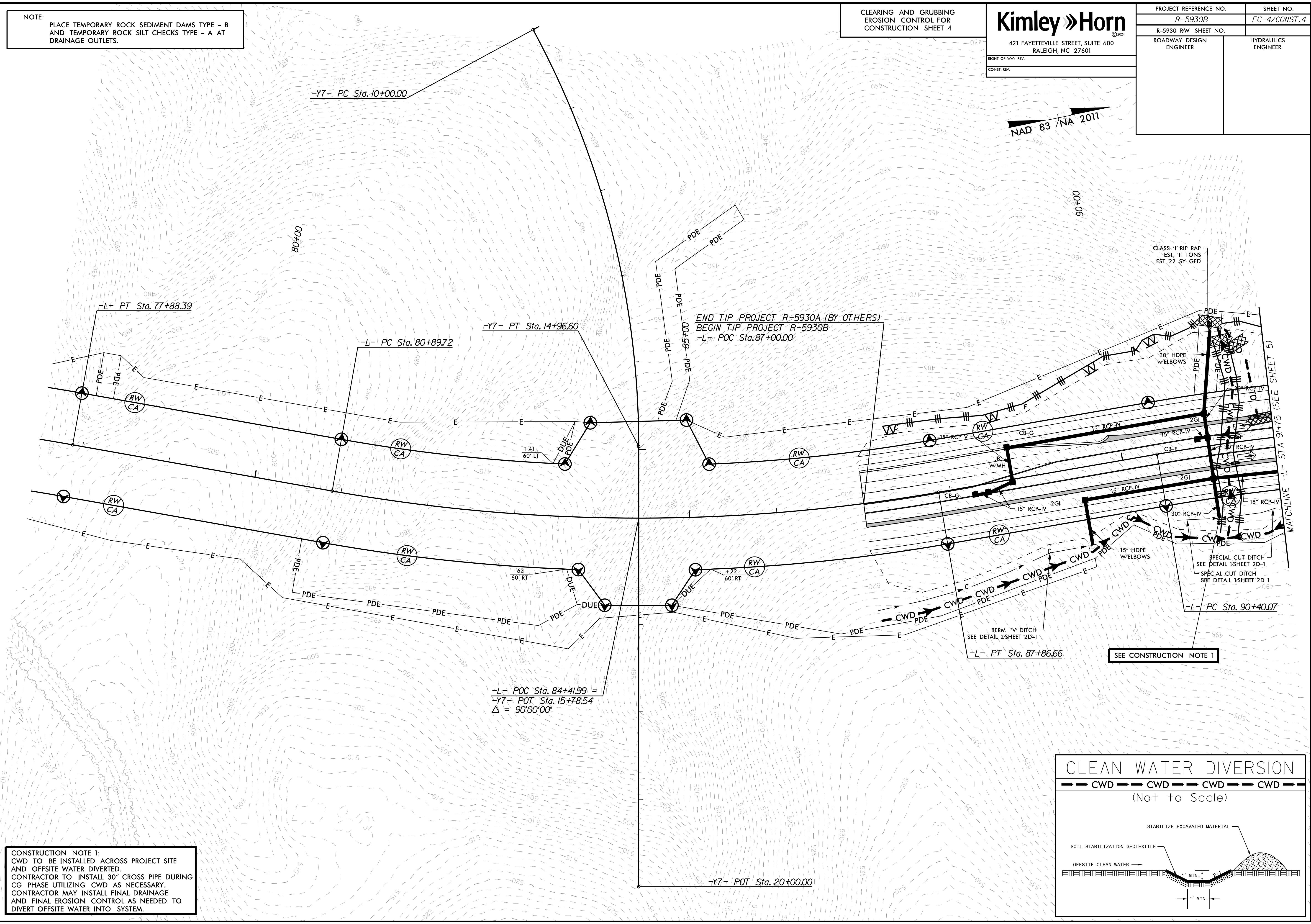
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

Kimley Horn
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601
RIGHT-OF-WAY REV.
CONST. REV.

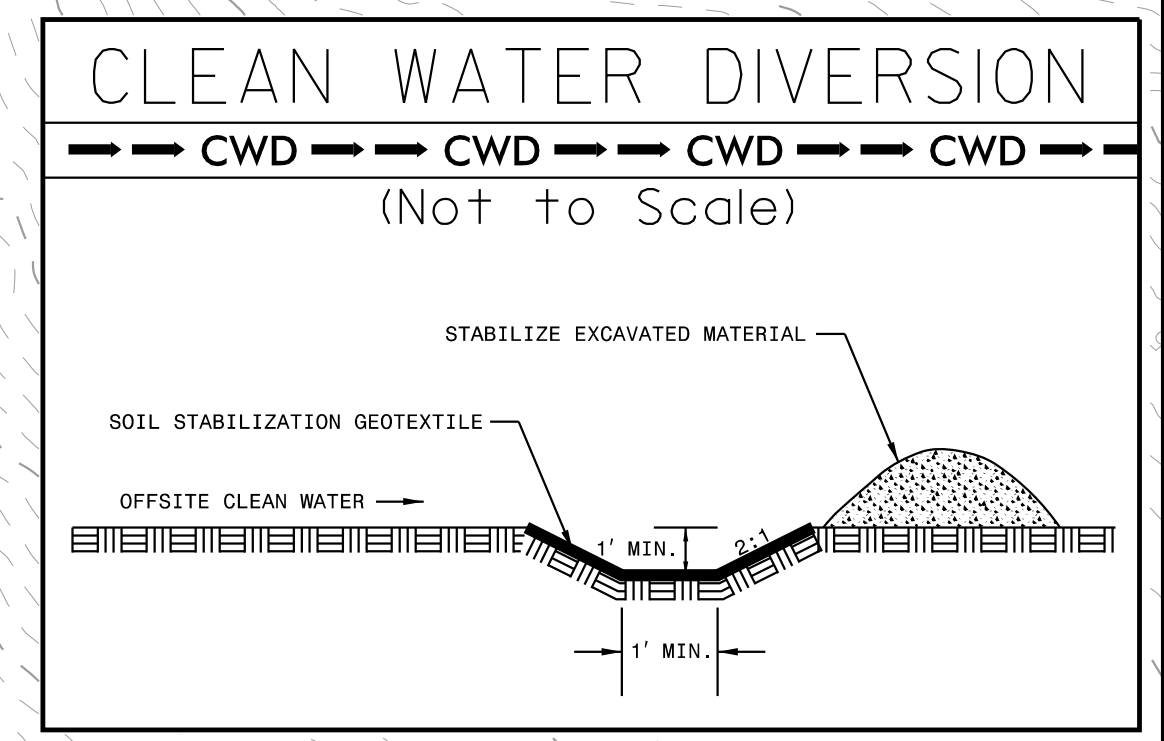
PROJECT REFERENCE NO. R-5930B	SHEET NO. EC-4/CONST.4
R-5930 RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

NAD 83 / NA 2011



REVISIONS

CONSTRUCTION NOTE 1:
CWD TO BE INSTALLED ACROSS PROJECT SITE
AND OFFSITE WATER DIVERTED.
CONTRACTOR TO INSTALL 30" CROSS PIPE DURING
CG PHASE UTILIZING CWD AS NECESSARY.
CONTRACTOR MAY INSTALL FINAL DRAINAGE
AND FINAL EROSION CONTROL AS NEEDED TO
DIVERT OFFSITE WATER INTO SYSTEM.



SEE CONSTRUCTION NOTE 1

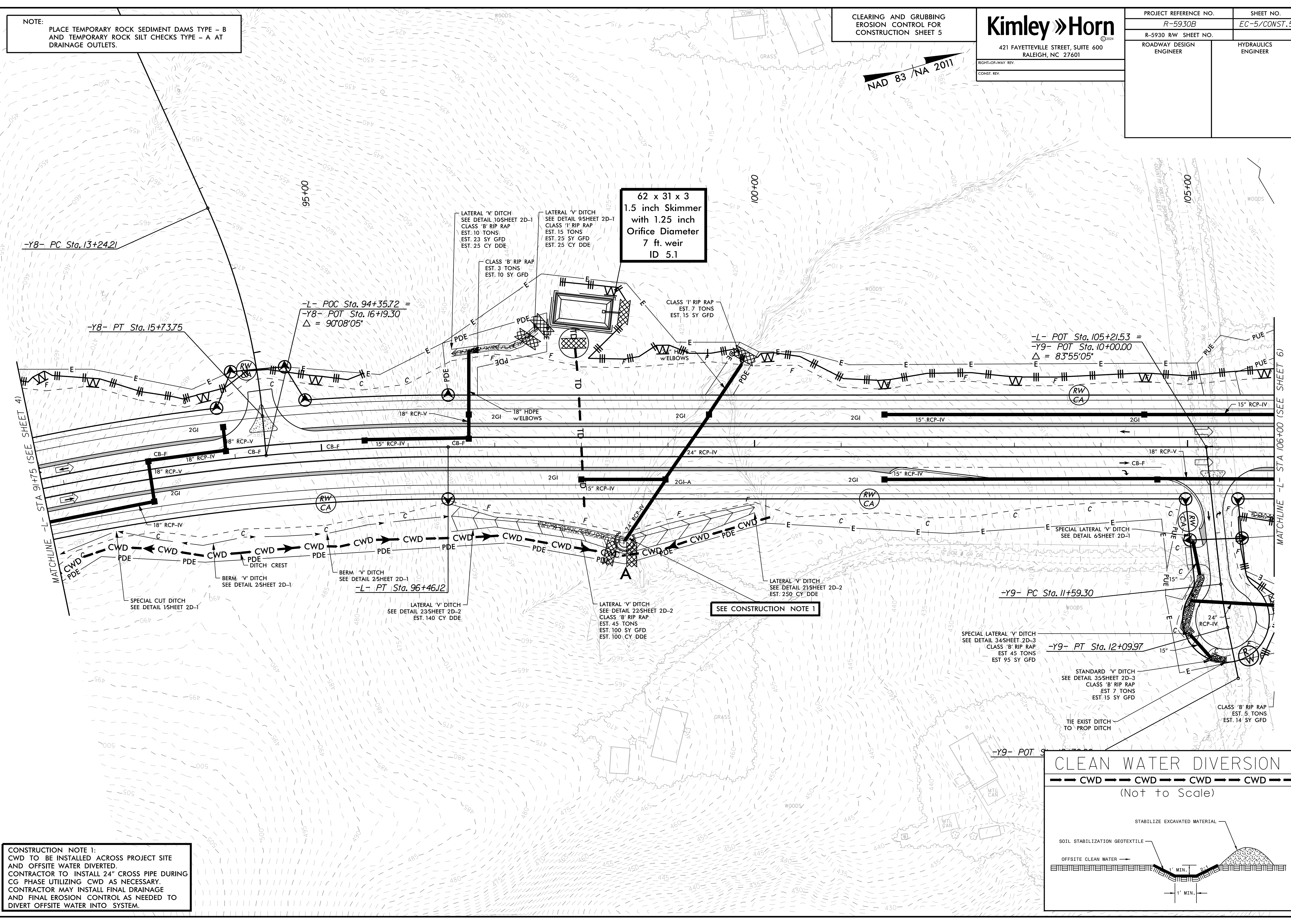
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

Kimley » Horn
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

PROJECT REFERENCE NO. R-5930B	SHEET NO. EC-5/CONST.5
R-5930 RW SHEET NO.	ROADWAY DESIGN ENGINEER
	HYDRAULICS ENGINEER

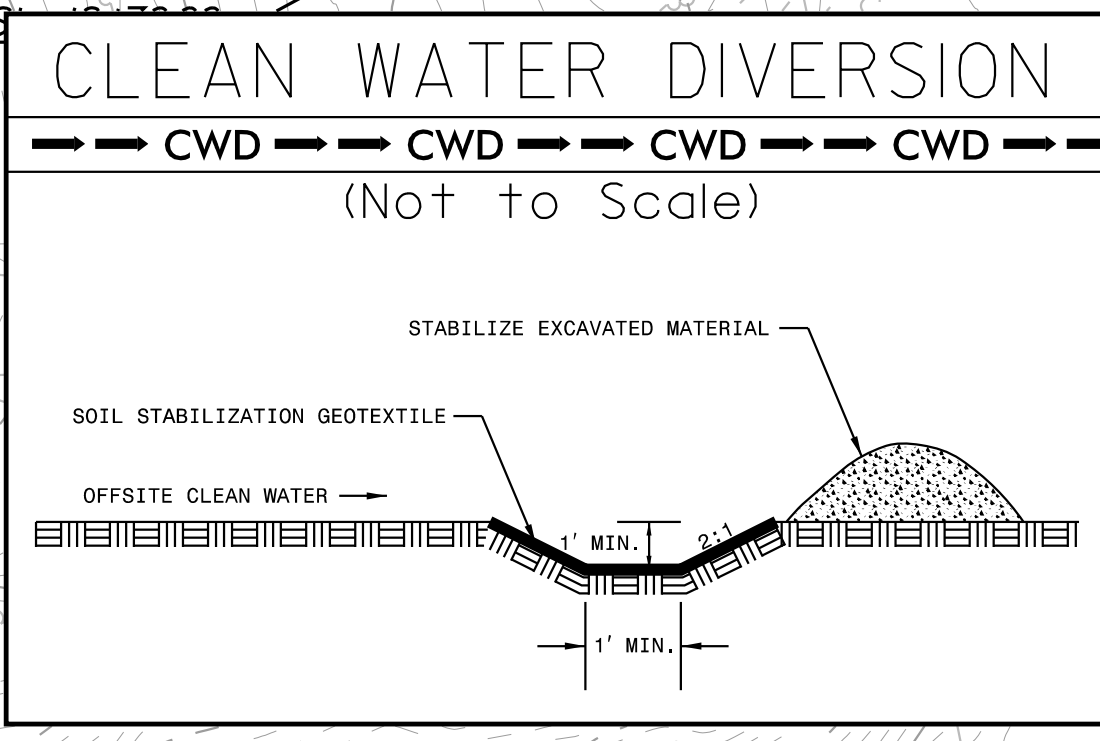
NAD 83 / NA 2011



REVISIONS

CONSTRUCTION NOTE 1:
CWD TO BE INSTALLED ACROSS PROJECT SITE AND OFFSITE WATER DIVERTED.
CONTRACTOR TO INSTALL 24" CROSS PIPE DURING CG PHASE UTILIZING CWD AS NECESSARY.
CONTRACTOR MAY INSTALL FINAL DRAINAGE AND FINAL EROSION CONTROL AS NEEDED TO DIVERT OFFSITE WATER INTO SYSTEM.

SEE CONSTRUCTION NOTE 1



5/14/99

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 6

Kimley & Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO. R-5930B	SHEET NO. EC-6/CONST.6
R-5930 RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83 / NA 2011

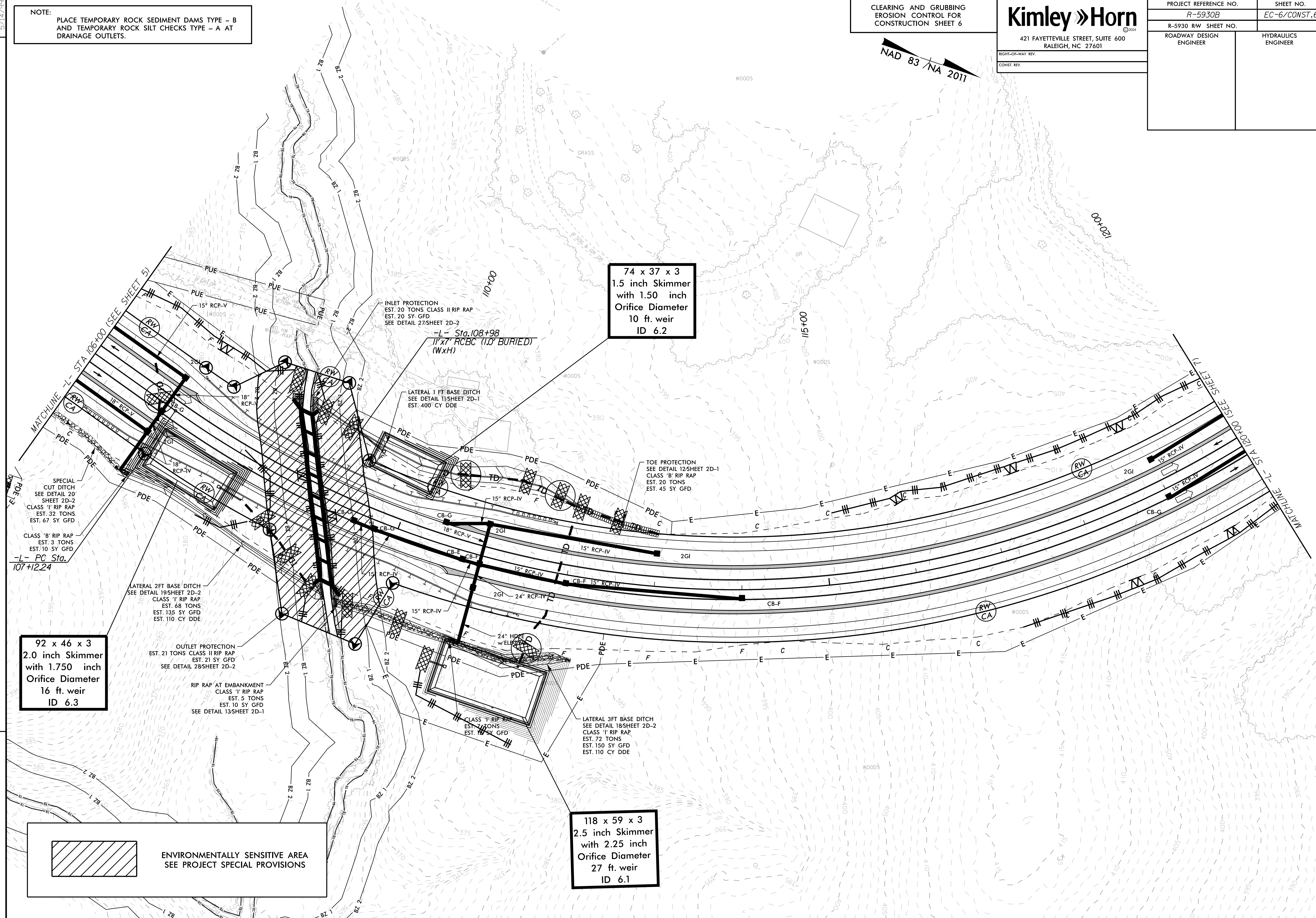
74 x 37 x 3
1.5 inch Skimmer
with 1.50 inch
Orifice Diameter
10 ft. weir
ID 6.2

92 x 46 x 3
2.0 inch Skimmer
with 1.750 inch
Orifice Diameter
16 ft. weir
ID 6.3

118 x 59 x 3
2.5 inch Skimmer
with 2.25 inch
Orifice Diameter
27 ft. weir
ID 6.1

 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

REVISIONS



5/14/99

PROJECT REFERENCE NO. R-5930B	SHEET NO. EC-6A/CONST. 6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 108+98-L-

PHASE I

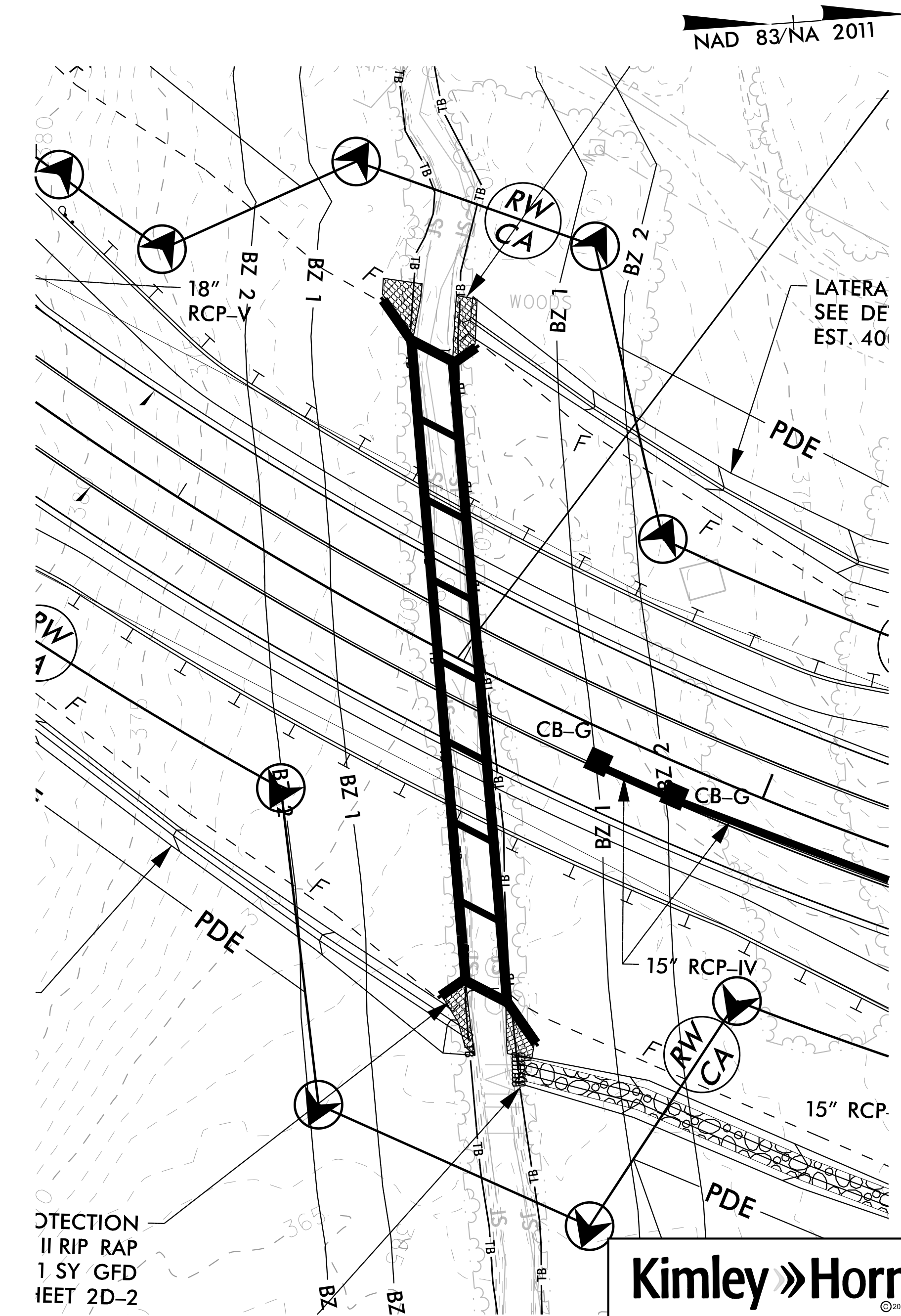
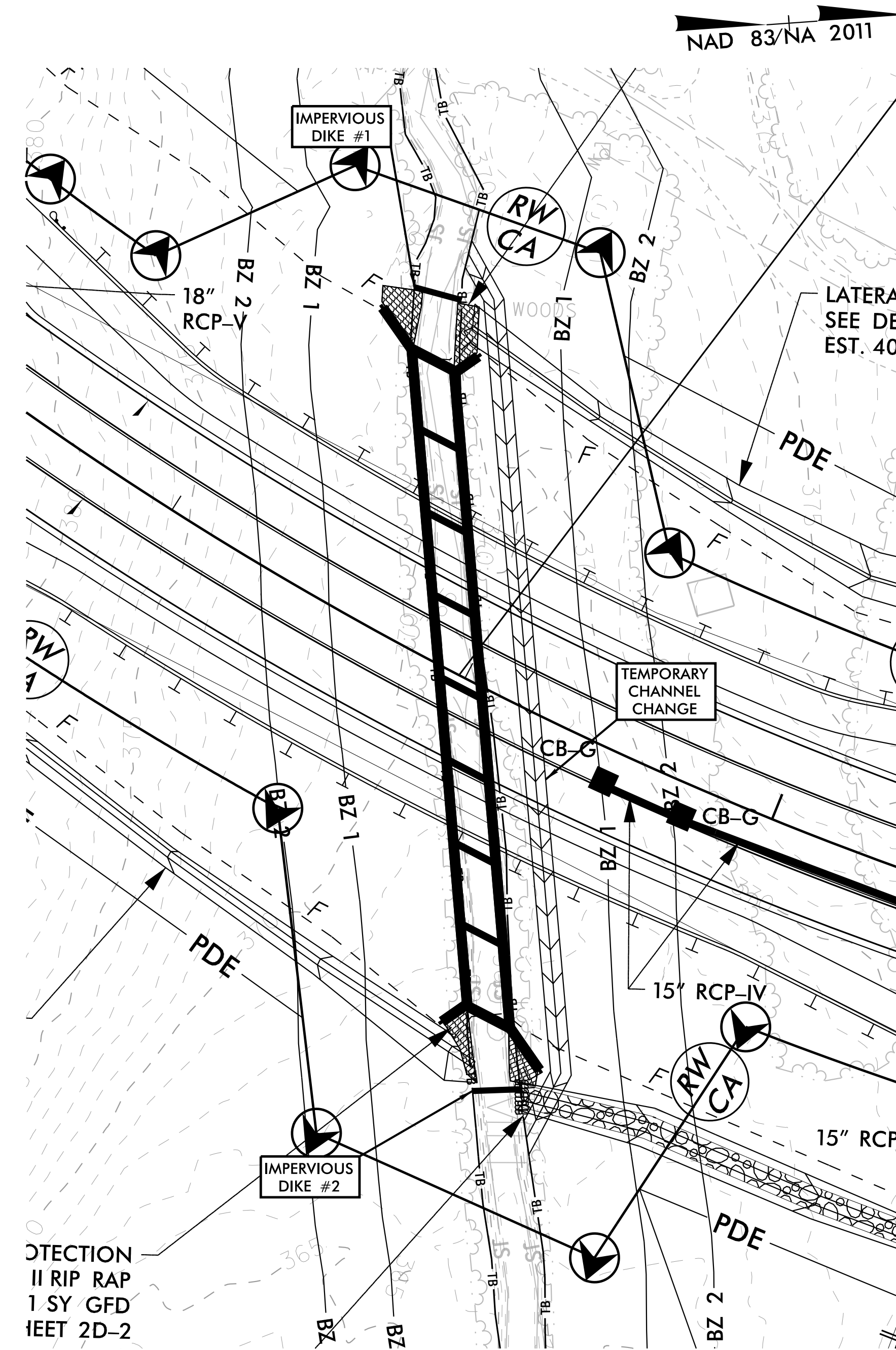
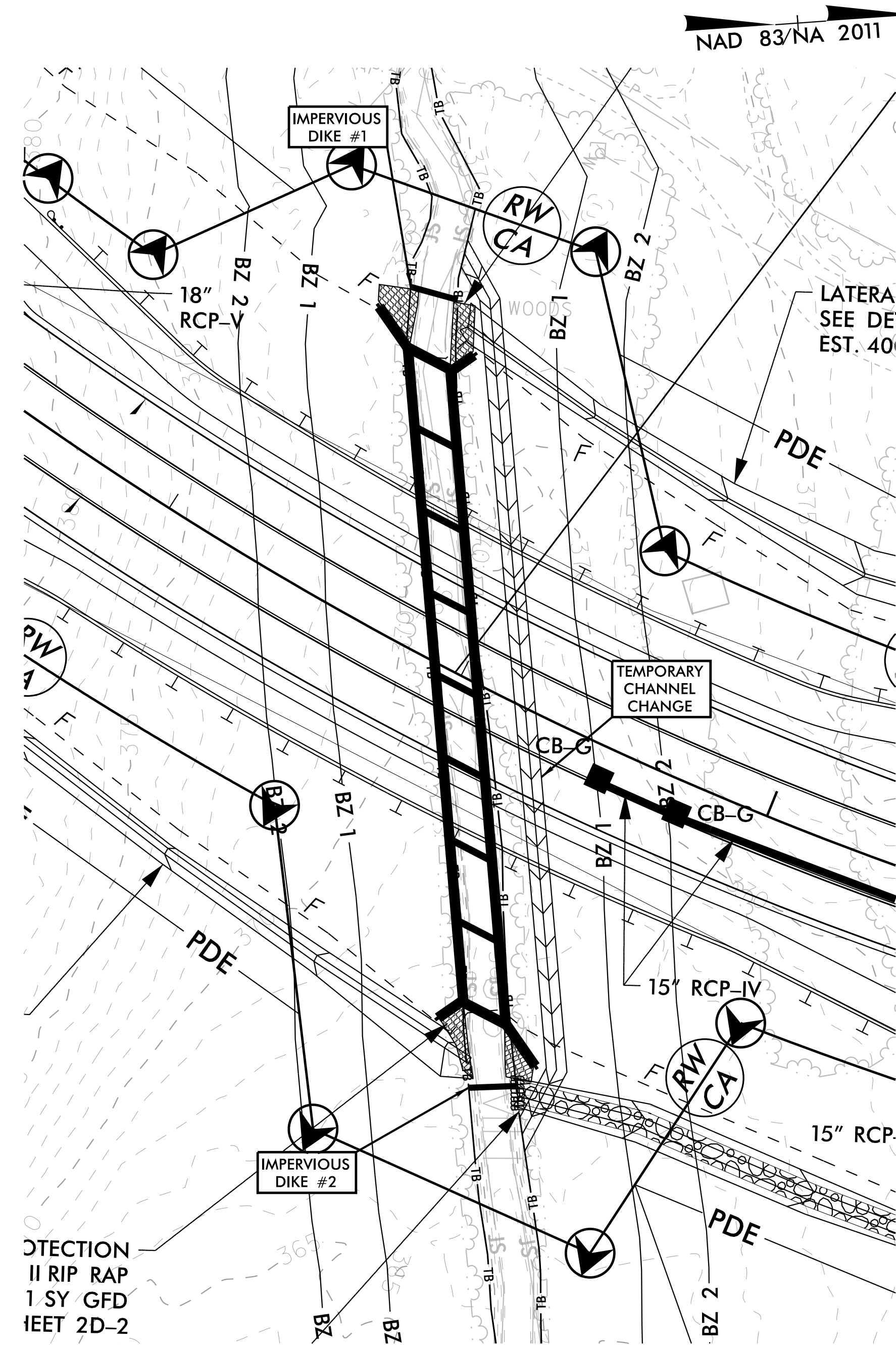
- 1.) UTILIZE SPECIAL STILLING BASIN(S) DURING CONSTRUCTION AS NEEDED TO DEWATER WORK SITE. (TYP.)
- 2.) CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (V-DITCH, 1.5 FT DEEP, 2:1 SIDE SLOPES).
- 3.) CONSTRUCT IMPERVIOUS DIKES 1 AND 2 DIVERTING FLOW THROUGH TEMPORARY CHANNEL CHANGE.

PHASE II

- 1.) CONSTRUCT PROPOSED 1 @ 11' X 7' RCBC, 1' BURIED.
- 2.) ADJUST TEMPORARY CHANNEL CHANGE AS NECESSARY TO MAKE UPSTREAM AND DOWNSTREAM CHANNEL IMPROVEMENTS WITHIN EASEMENTS AND PLACE REQUIRED RIPRAP AND MATTING ON CHANNEL BANKS.

PHASE III

- 1.) REMOVE IMPERVIOUS DIKE 1 AND 2 AND REMOVE TEMPORARY CHANNEL CHANGE.
- 2.) REMOVE SPECIAL STILLING BASIN.
- 3.) STABILIZE DISTURBED AREA AND REMOVE ALL EROSION AND SEDIMENT CONTROL DEVICES AS DIRECTED.
- 4.) FINISH ROADWAY AND DRAINAGE CONSTRUCTION.



12/6/2024

5/14/99

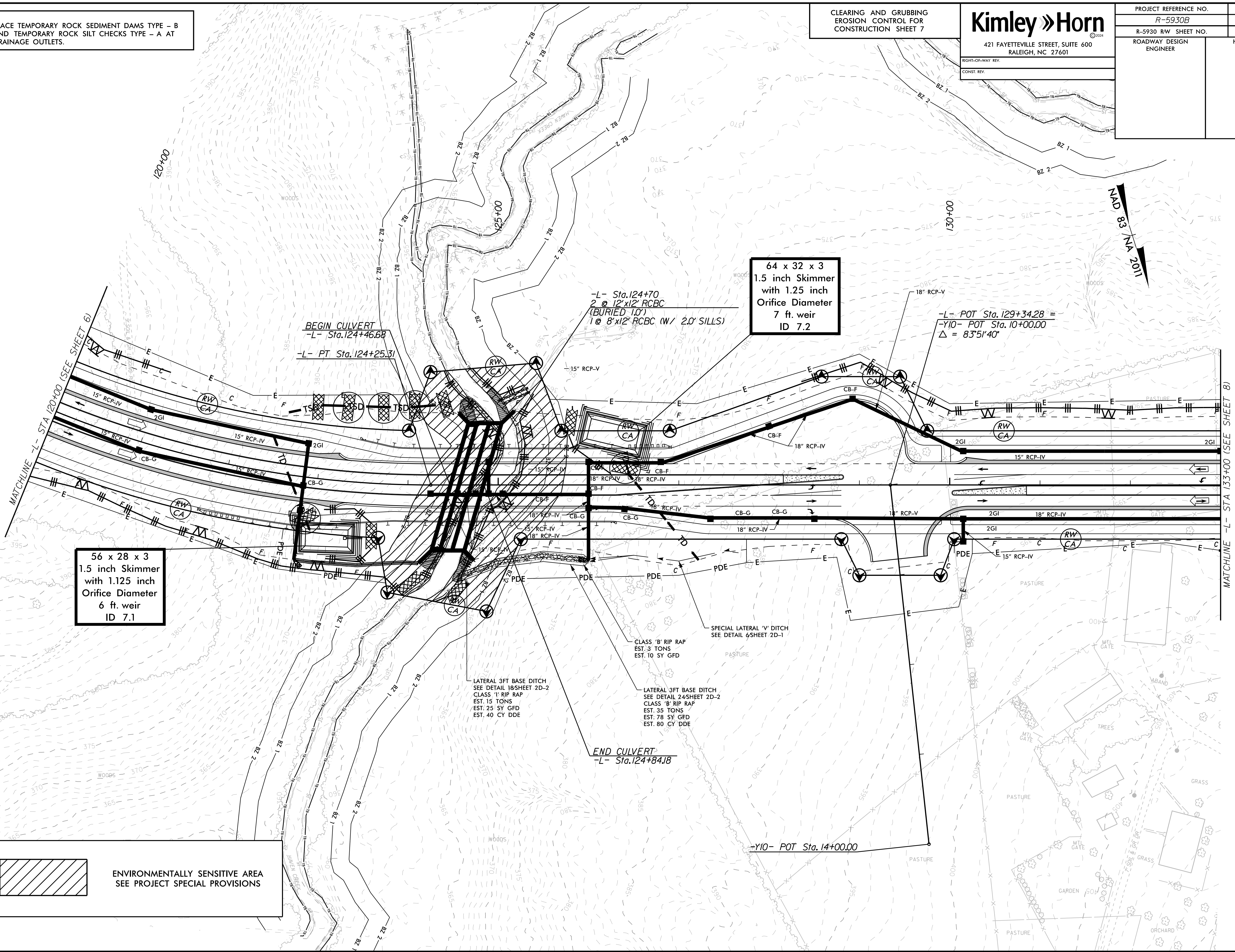
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

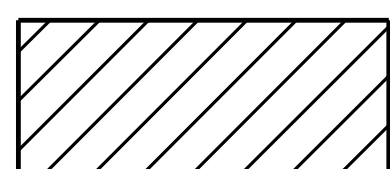
Kimley » Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

PROJECT REFERENCE NO. R-5930B	SHEET NO. EC-7/CONST.7
R-5930 RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	ENGINEER



REVISIONS



ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

MATCHLINE -L- STA 133+00 (SEE SHEET 8)

MATCHLINE -L- STA 120+00 (SEE SHEET 6)

5/14/99

PROJECT REFERENCE NO. R-5930B	SHEET NO. EC-7A/CONST.7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 124+70-L-

PHASE I

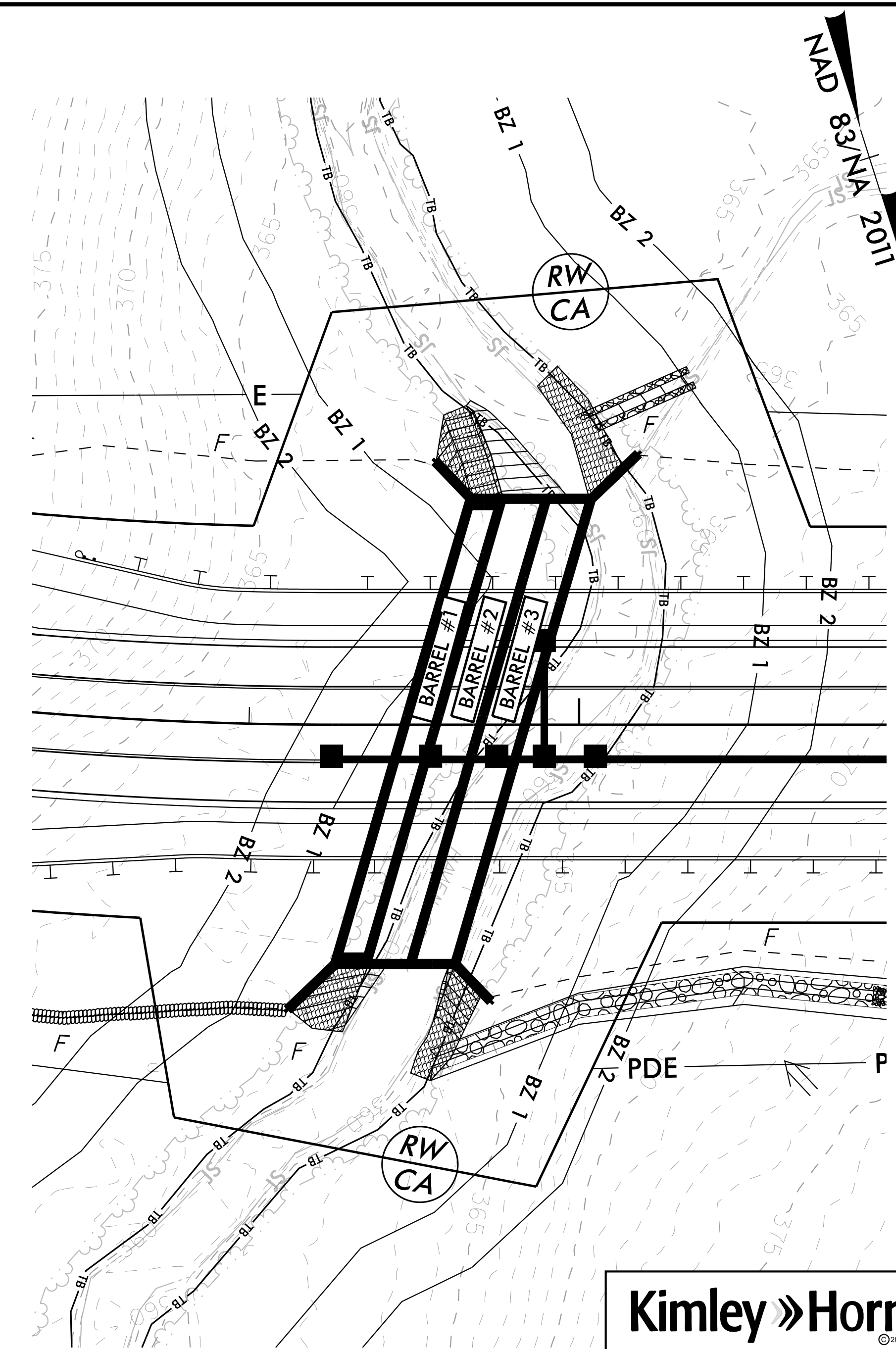
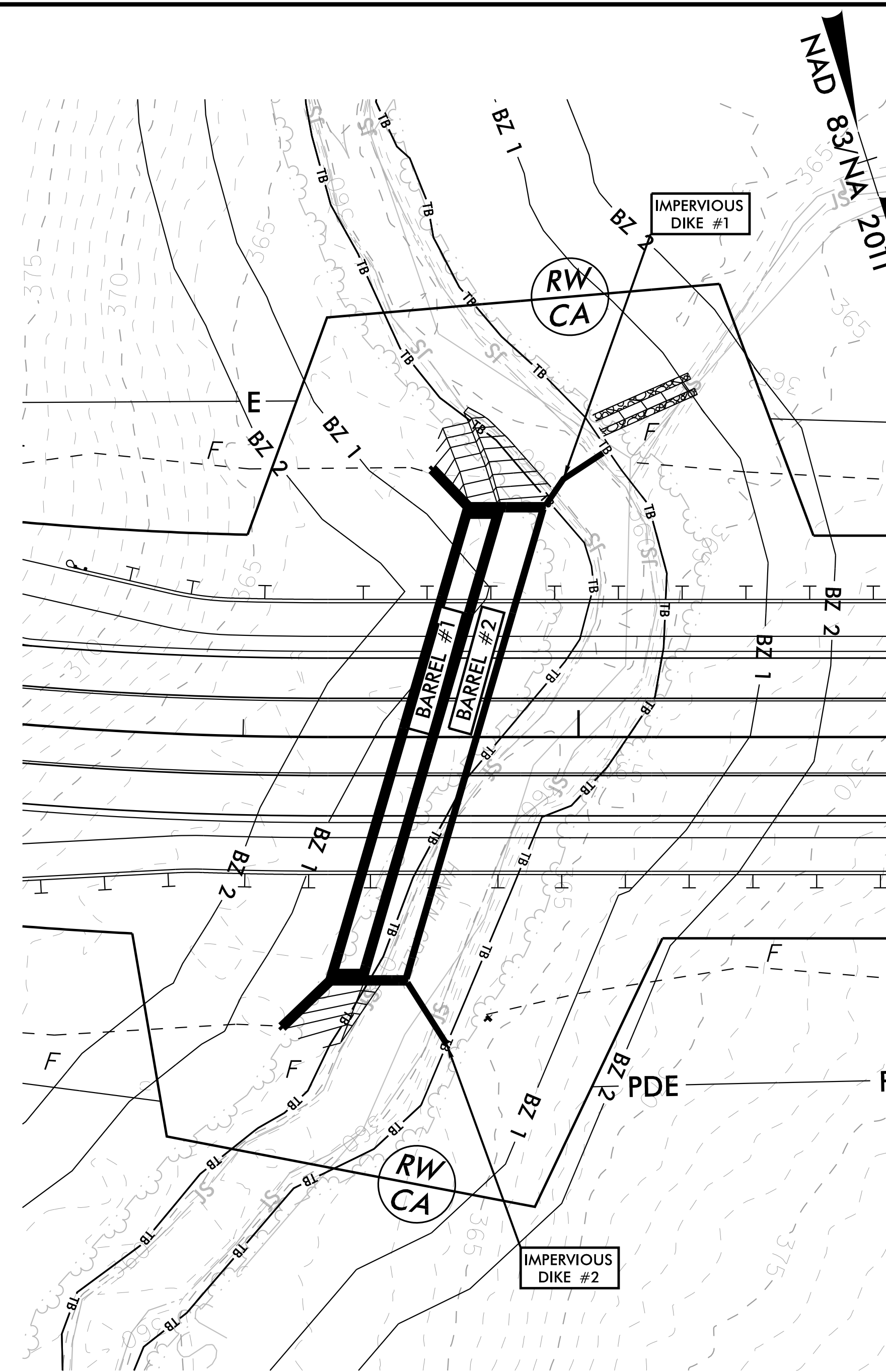
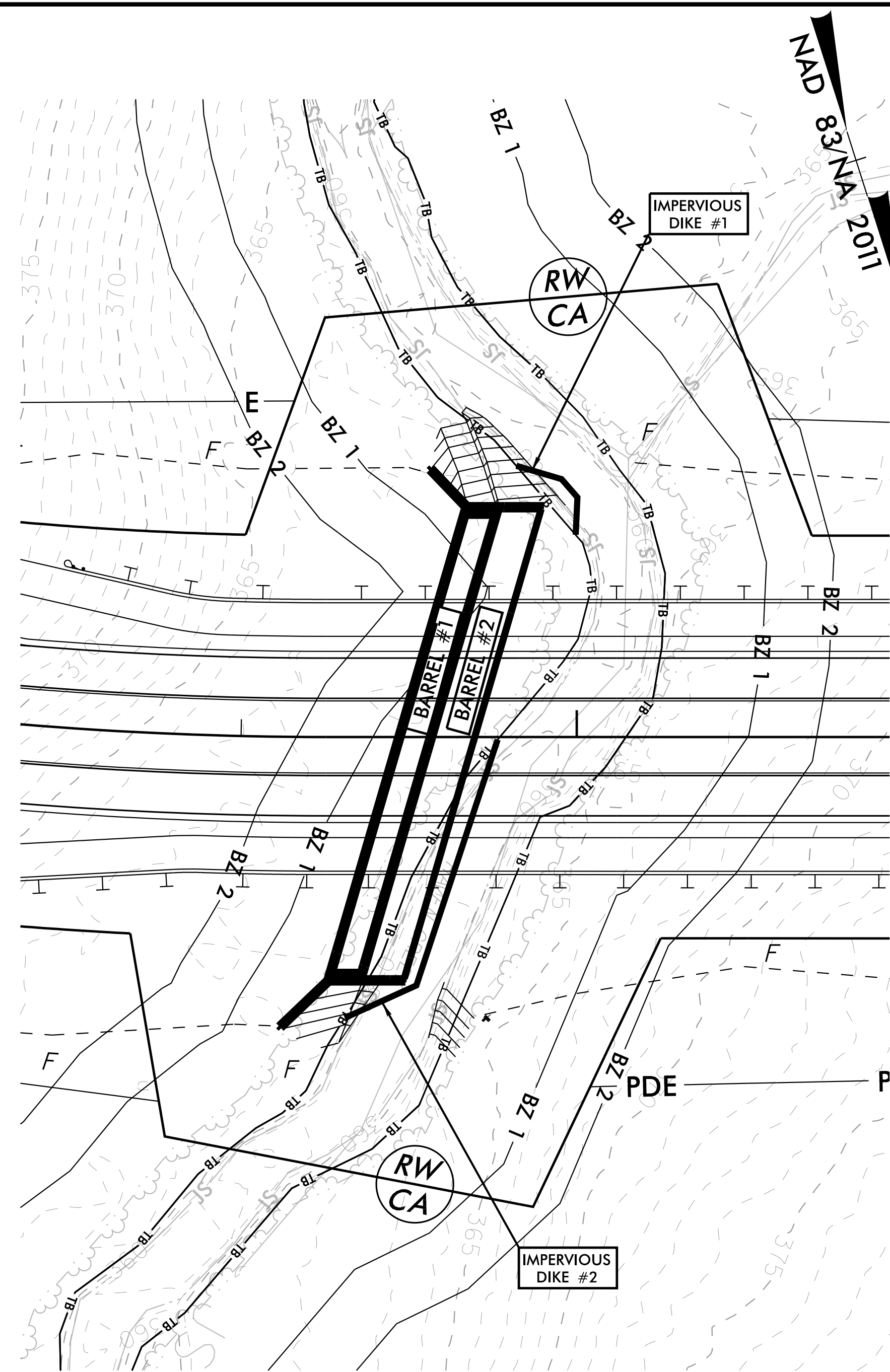
- 1.) UTILIZE SPECIAL STILLING BASIN(S) DURING CONSTRUCTION AS NEEDED TO DEWATER WORK SITE. (TYP.)
- 2.) CONSTRUCT IMPERVIOUS DIKES 1 AND 2.
- 3.) CONSTRUCT BARREL 1, 11' X 12' RCBC WITH 2' SILLS, AND BARREL 2, 11' X 12' RCBC 1' BURIED.
- 4.) COMPLETE BANK STABILIZATION FOR BARRELS 1 AND 2.

PHASE II

- 1.) CONSTRUCT CHANNEL CHANGE ON ADJACENT JURISDICTIONAL STREAM.
- 2.) ADJUST IMPERVIOUS DIKES 1 AND 2 TO THE LOCATIONS PICTURED BELOW, DIVERTING FLOW THROUGH BARRELS 1 AND 2.
- 3.) CONSTRUCT BARREL 3, 11' X 12' RCBC, 1' BURIED.

PHASE III

- 1.) REMOVE IMPERVIOUS DIKES 1 AND 2.
- 2.) REMOVE SPECIAL STILLING BASIN.
- 3.) STABILIZE DISTURBED AREA AND REMOVE ALL EROSION AND SEDIMENT CONTROL DEVICES AS DIRECTED.
- 4.) FINISH ROADWAY AND DRAINAGE CONSTRUCTION.



12/6/2024

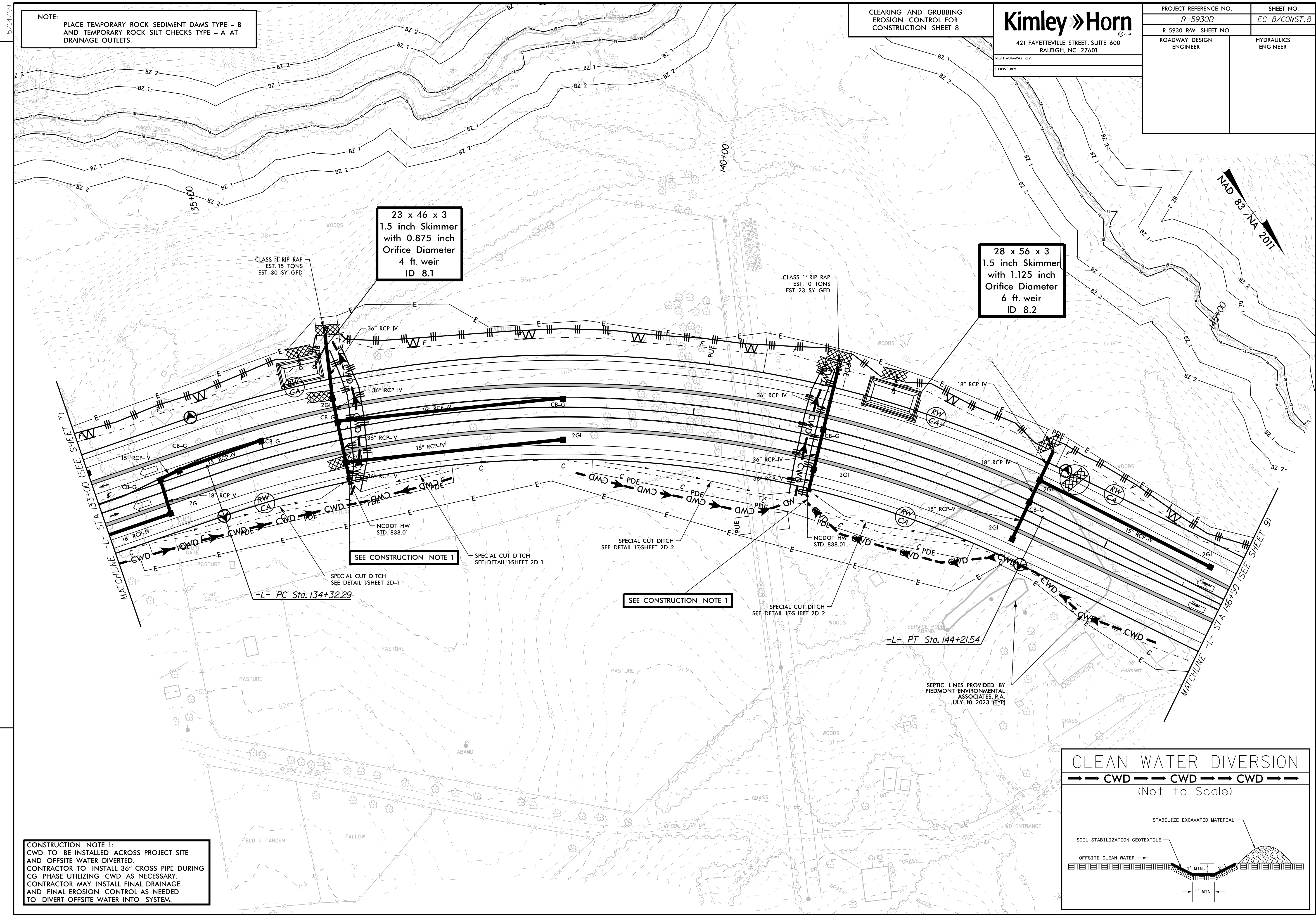
5/14/99

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 8

Kimley » Horn
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

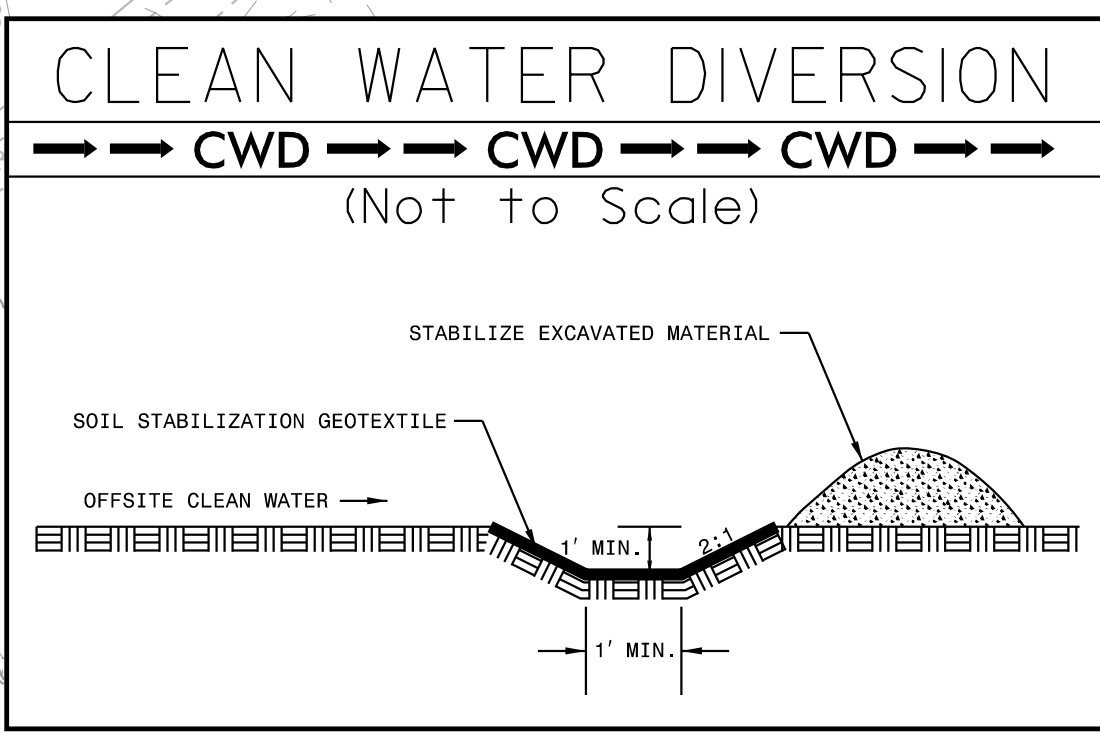
PROJECT REFERENCE NO. R-5930B	SHEET NO. EC-8/CONST. 8
R-5930 RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



23 x 46 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 8.1

28 x 56 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 8.2

CONSTRUCTION NOTE 1:
CWD TO BE INSTALLED ACROSS PROJECT SITE
AND OFFSITE WATER DIVERTED
CONTRACTOR TO INSTALL 36" CROSS PIPE DURING
CG PHASE UTILIZING CWD AS NECESSARY.
CONTRACTOR MAY INSTALL FINAL DRAINAGE
AND FINAL EROSION CONTROL AS NEEDED
TO DIVERT OFFSITE WATER INTO SYSTEM.



REVISIONS

5/14/99

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

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.

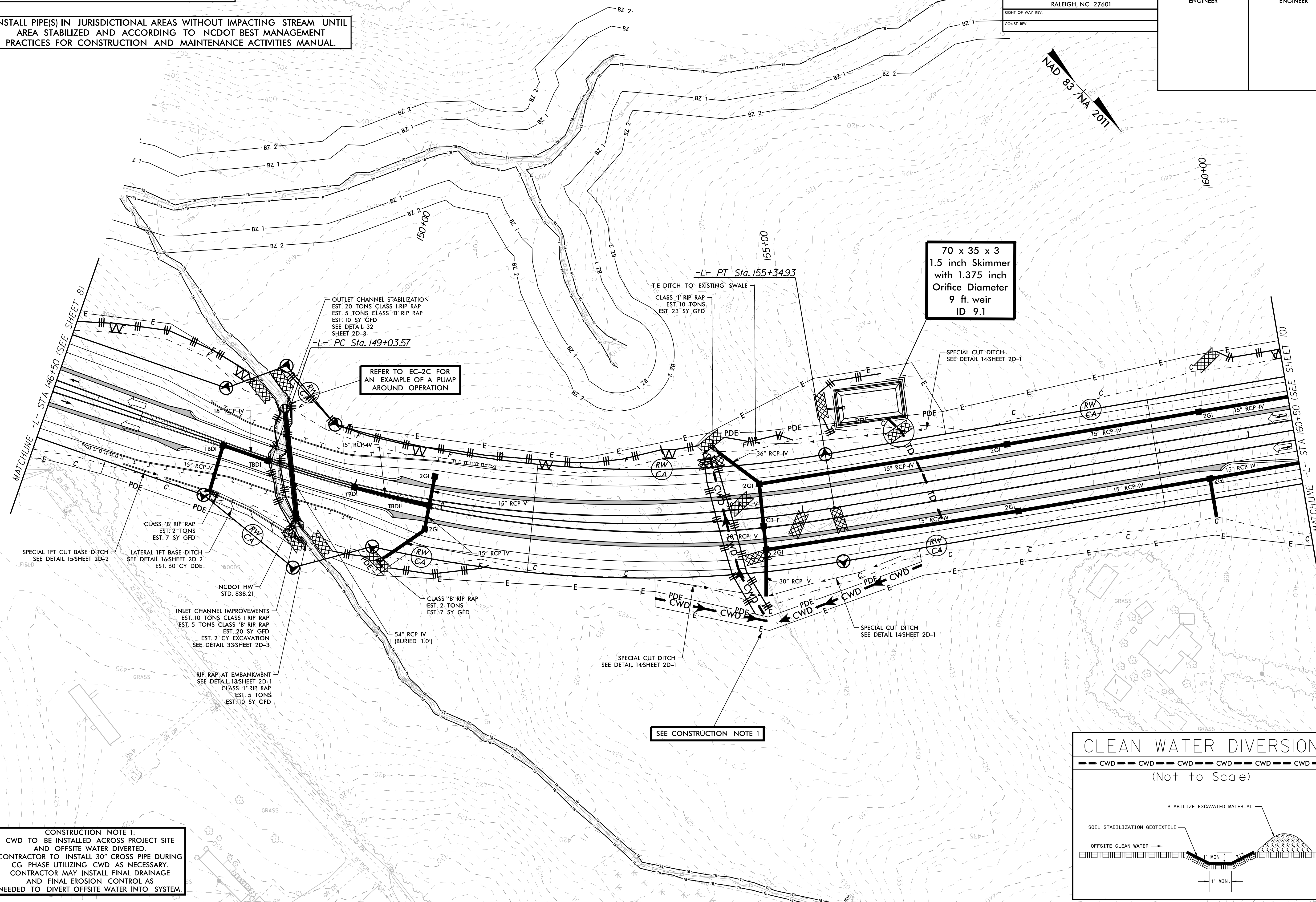
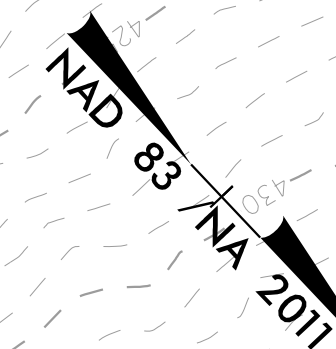
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9

Kimley » Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO. R-5930B	SHEET NO. EC-9/CONST.9
R-5930 RW SHEET NO.	ROADWAY DESIGN ENGINEER
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

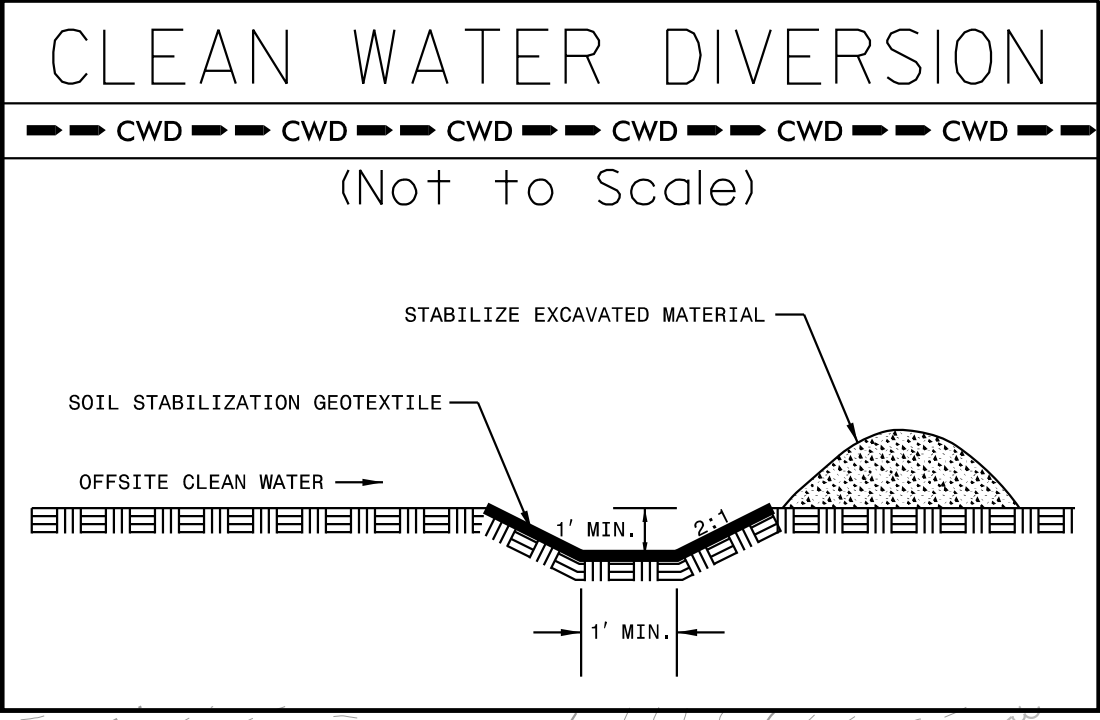


70 x 35 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
9 ft. weir
ID 9.1

REFER TO EC-2C FOR
AN EXAMPLE OF A PUMP
AROUND OPERATION

SEE CONSTRUCTION NOTE 1

CONSTRUCTION NOTE 1:
CWD TO BE INSTALLED ACROSS PROJECT SITE
AND OFFSITE WATER DIVERTED.
CONTRACTOR TO INSTALL 30\"/>

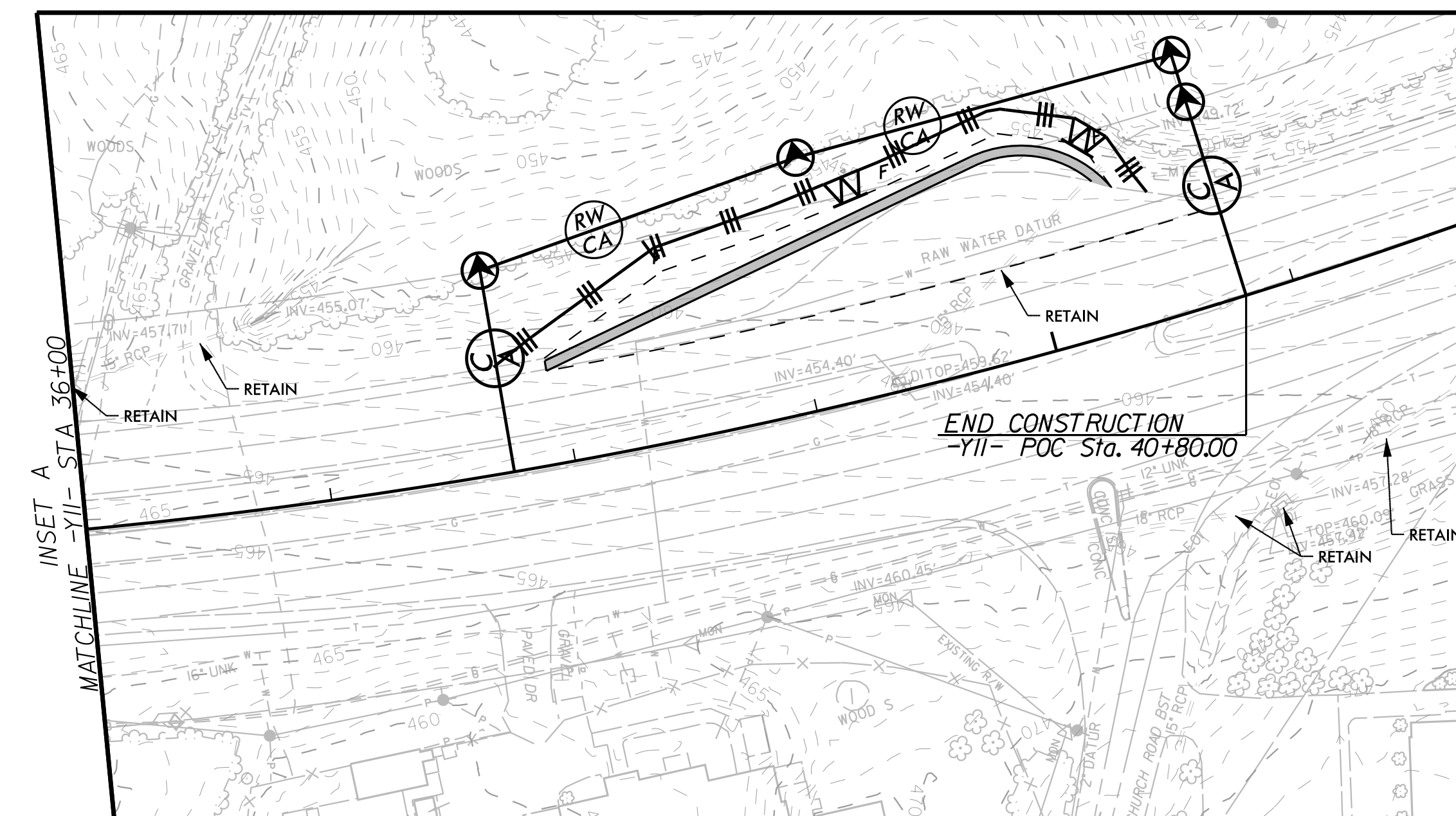
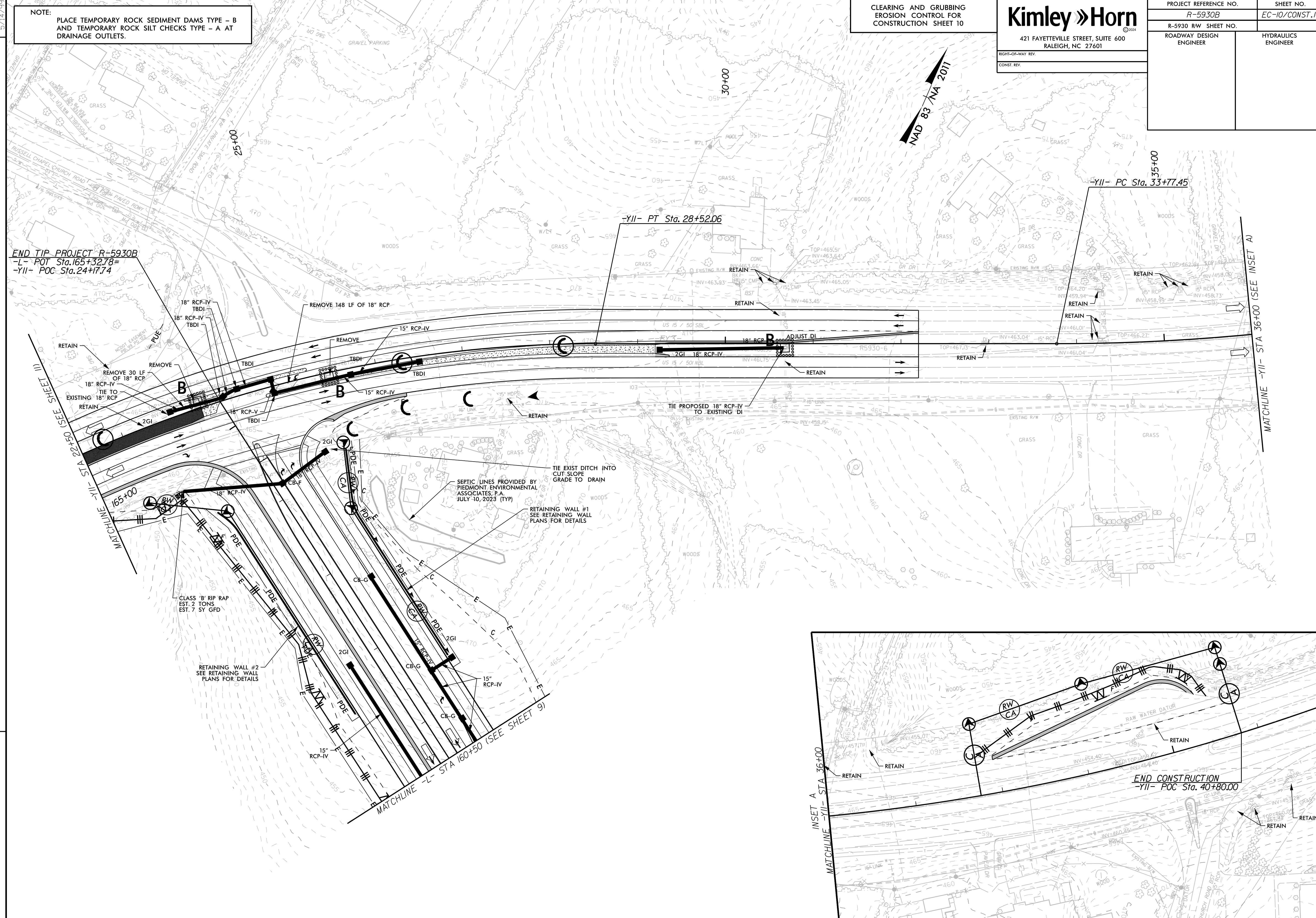


REVISIONS

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 10

PROJECT REFERENCE NO. R-5930B		SHEET NO. EC-10/CONST.10	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
421 FAYETTEVILLE STREET, SUITE 600 RALEIGH, NC 27601			
RIGHT-OF-WAY REV.			
CONST. REV.			



REVISIONS

5/14/23

END TIP PROJECT R-5930B
-L- POT Sta. 165+32.78=
-YII- POC Sta. 24+17.74

-YII- PT Sta. 28+52.06

-YII- PC Sta. 33+77.45

MATCHLINE -YII- STA 36+00 (SEE INSET A)

MATCHLINE -YII- STA 165+00 (SEE SHEET 9)

MATCHLINE -L- STA 160+50 (SEE SHEET 9)

CLASS 'B' RIP RAP
EST. 2 TONS
EST. 7 SY GFD

RETAINING WALL #2
SEE RETAINING WALL
PLANS FOR DETAILS

SEPTIC LINES PROVIDED BY
PIEDMONT ENVIRONMENTAL
ASSOCIATES, P.A.
JULY 10, 2023 (TYP)

RETAINING WALL #1
SEE RETAINING WALL
PLANS FOR DETAILS

TIE EXIST DITCH INTO
CUT SLOPE
GRADE TO DRAIN

TIE PROPOSED 18" RCP-IV
TO EXISTING DI

REMOVE 30 LF
OF 18" RCP

REMOVE 148 LF OF 18" RCP

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5/14/99

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

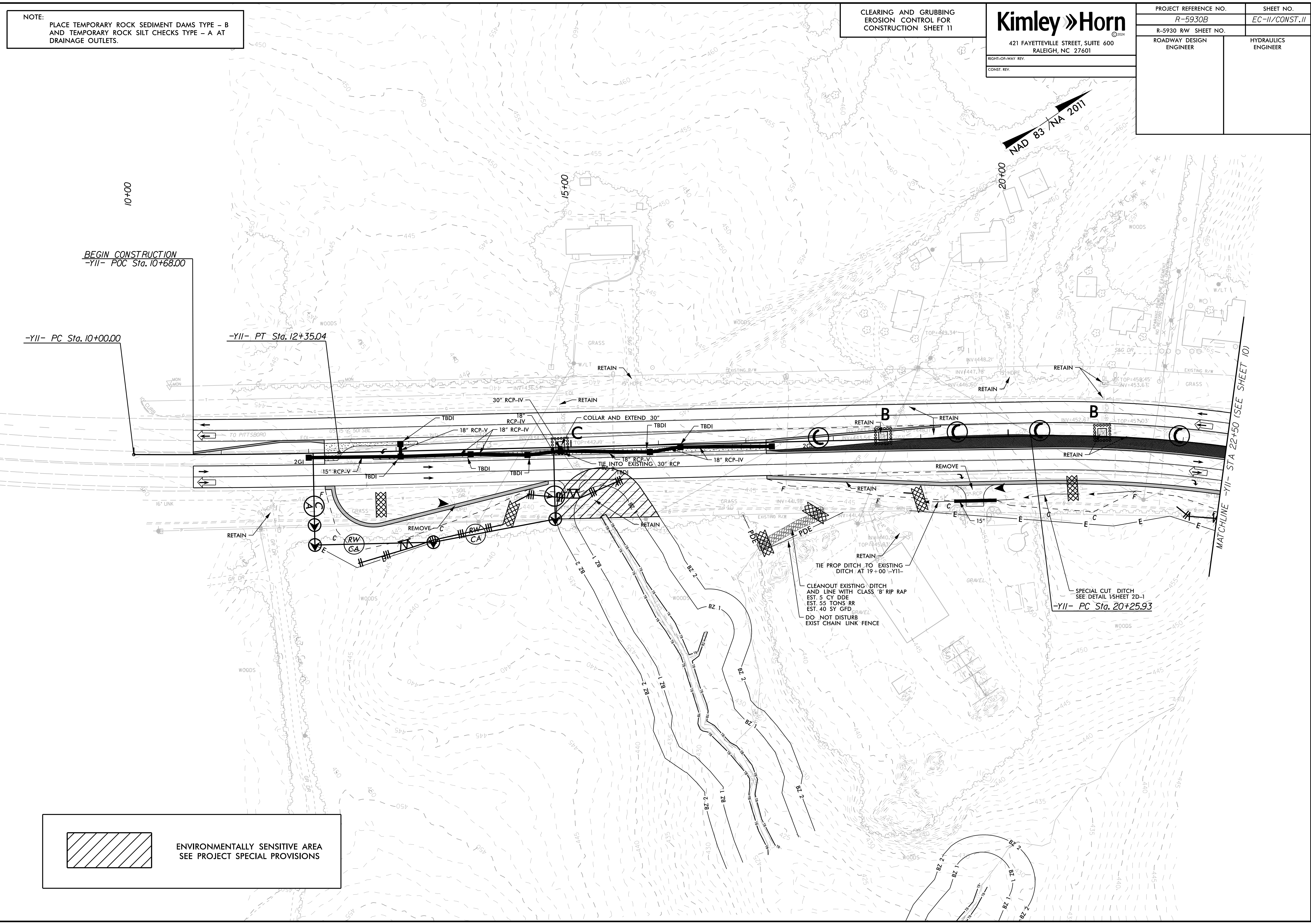
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11

Kimley » Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO. R-5930B	SHEET NO. EC-II/CONST.II
R-5930 RW SHEET NO.	ROADWAY DESIGN ENGINEER
	HYDRAULICS ENGINEER



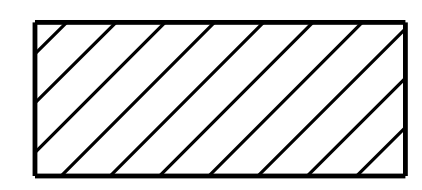
BEGIN CONSTRUCTION
-YII- POC Sta. 10+68.00

-YII- PC Sta. 10+00.00

-YII- PT Sta. 12+35.04

CLEANOUT EXISTING DITCH
AND LINE WITH CLASS 'B' RIP RAP
EST. 5 CY DDE
EST. 55 TONS RR
EST. 40 SY GFD
DO NOT DISTURB
EXIST CHAIN LINK FENCE

SPECIAL CUT DITCH
SEE DETAIL 1(SHEET 2D-1)
-YII- PC Sta. 20+25.93



ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

REVISIONS

MATCHLINE -YII- STA 22+50 (SEE SHEET 10)

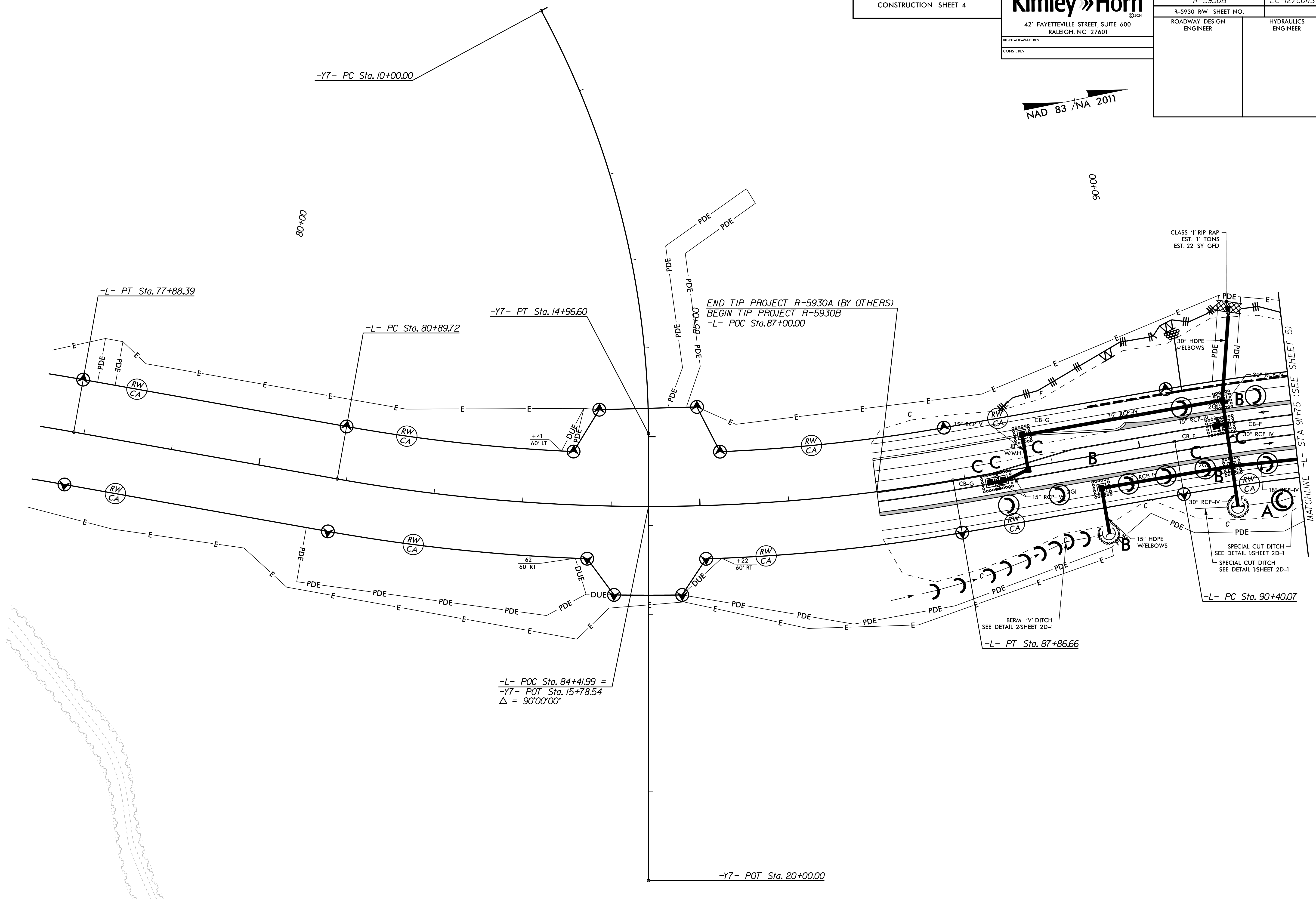
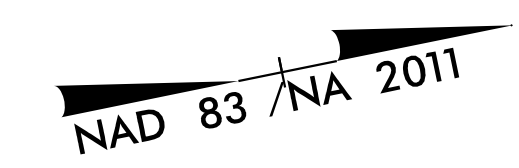
5/14/99

FINAL EROSION CONTROL FOR
CONSTRUCTION SHEET 4

Kimley Horn
 421 FAYETTEVILLE STREET, SUITE 600
 RALEIGH, NC 27601

RIGHT-OF-WAY REV.
 CONST. REV.

PROJECT REFERENCE NO. R-5930B	SHEET NO. EC-12/CONST. 4
R-5930 RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



-Y7- PC Sta. 10+00.00

80+00

-L- PT Sta. 77+88.39

-Y7- PT Sta. 14+96.60

-L- PC Sta. 80+89.72

END TIP PROJECT R-5930A (BY OTHERS)
BEGIN TIP PROJECT R-5930B
-L- POC Sta. 87+00.00

+41
60' LT

+62
60' RT

+22
60' RT

-L- POC Sta. 84+41.99 =
-Y7- POT Sta. 15+78.54
Δ = 90°00'00"

BERM 1' V' DITCH
SEE DETAIL 2/SHEET 2D-1
-L- PT Sta. 87+86.66

CLASS 1' RIP RAP
EST. 11 TONS
EST. 22 SY GFD

90+00

-L- PC Sta. 90+40.07

-Y7- POT Sta. 20+00.00

REVISIONS

MATCHLINE -L- STA 91+75 (SEE SHEET 5)

5/14/99

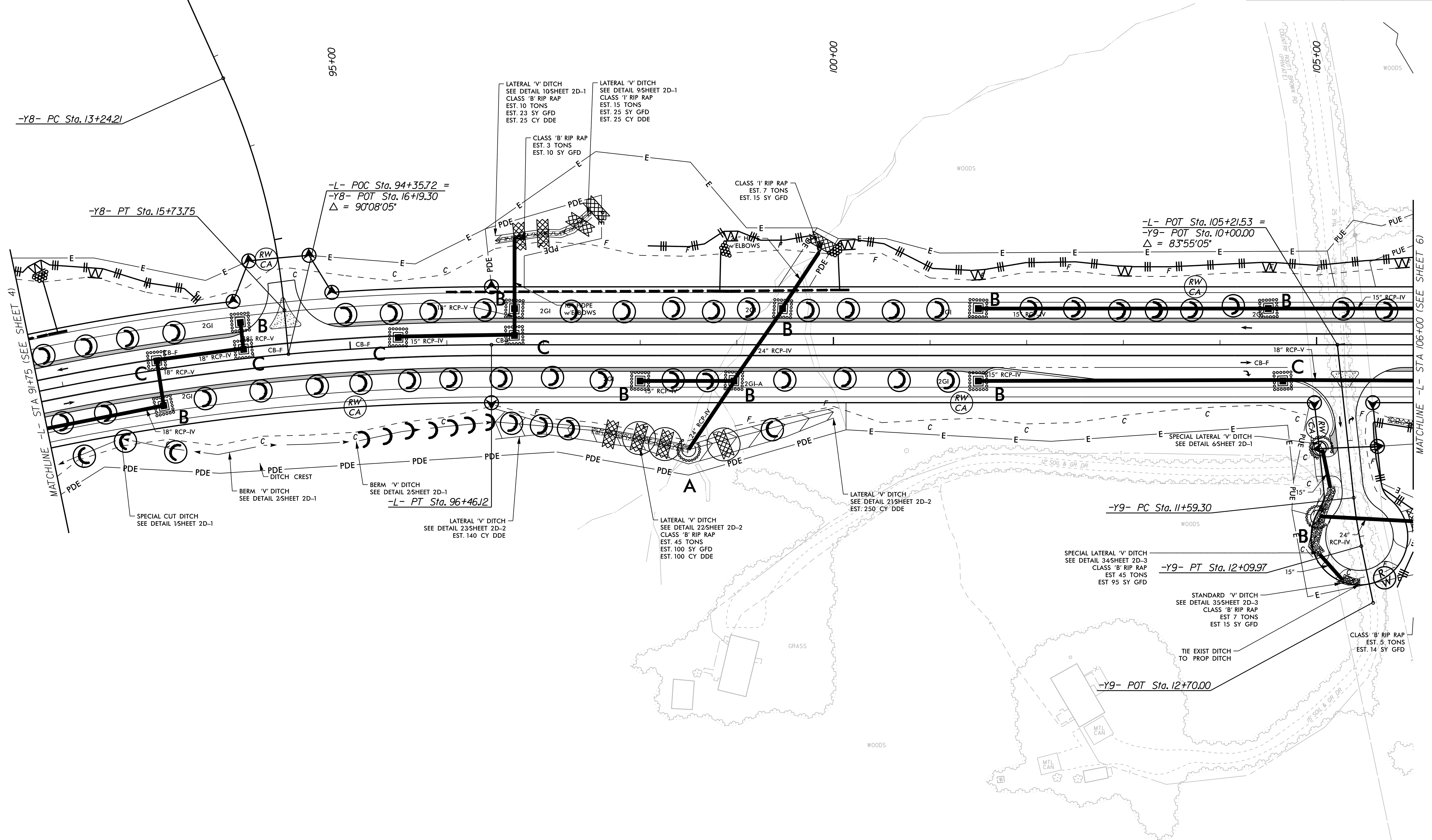
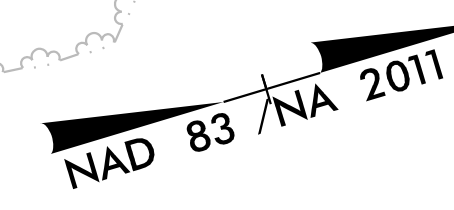
FINAL EROSION CONTROL FOR CONSTRUCTION SHEET 5

Kimley Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO. R-5930B	SHEET NO. EC-13/CONST.5
R-5930 RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



REVISIONS

MATCHLINE -L- STA 91+75 (SEE SHEET 4)

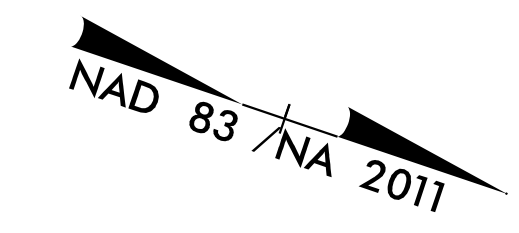
MATCHLINE -L- STA 106+00 (SEE SHEET 6)

5/14/99

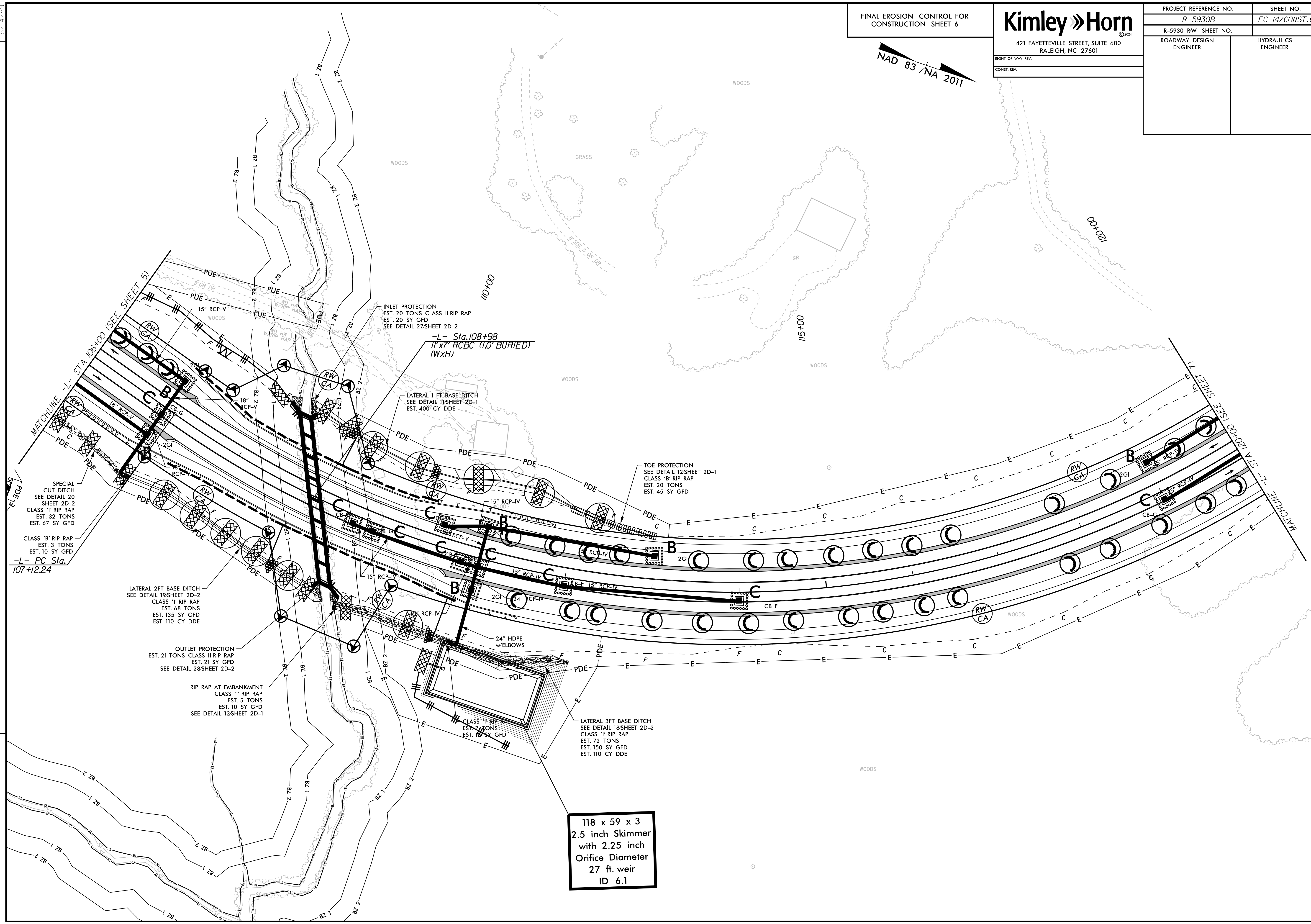
FINAL EROSION CONTROL FOR
CONSTRUCTION SHEET 6

PROJECT REFERENCE NO. R-5930B		SHEET NO. EC-14/CONST.6	
R-5930 RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		CONST. REV.	

Kimley Horn
 421 FAYETTEVILLE STREET, SUITE 600
 RALEIGH, NC 27601



REVISIONS



118 x 59 x 3
 2.5 inch Skimmer
 with 2.25 inch
 Orifice Diameter
 27 ft. weir
 ID 6.1

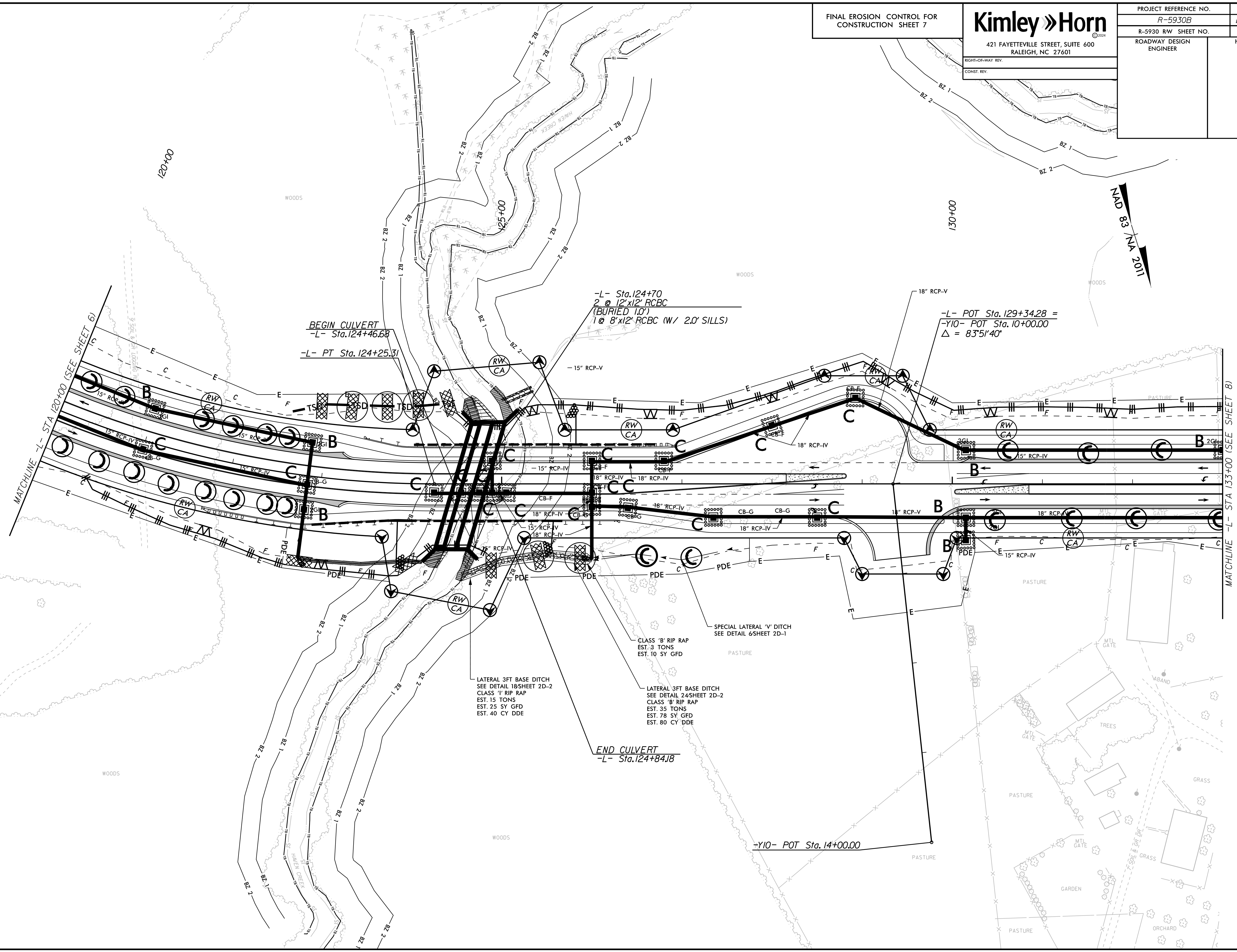
5/14/99

FINAL EROSION CONTROL FOR
CONSTRUCTION SHEET 7

Kimley » Horn
 421 FAYETTEVILLE STREET, SUITE 600
 RALEIGH, NC 27601

RIGHT-OF-WAY REV.
 CONST. REV.

PROJECT REFERENCE NO. R-5930B	SHEET NO. EC-15/CONST.7
R-5930 RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	ENGINEER



REVISIONS

MATCHLINE -L- STA 133+00 (SEE SHEET 8)

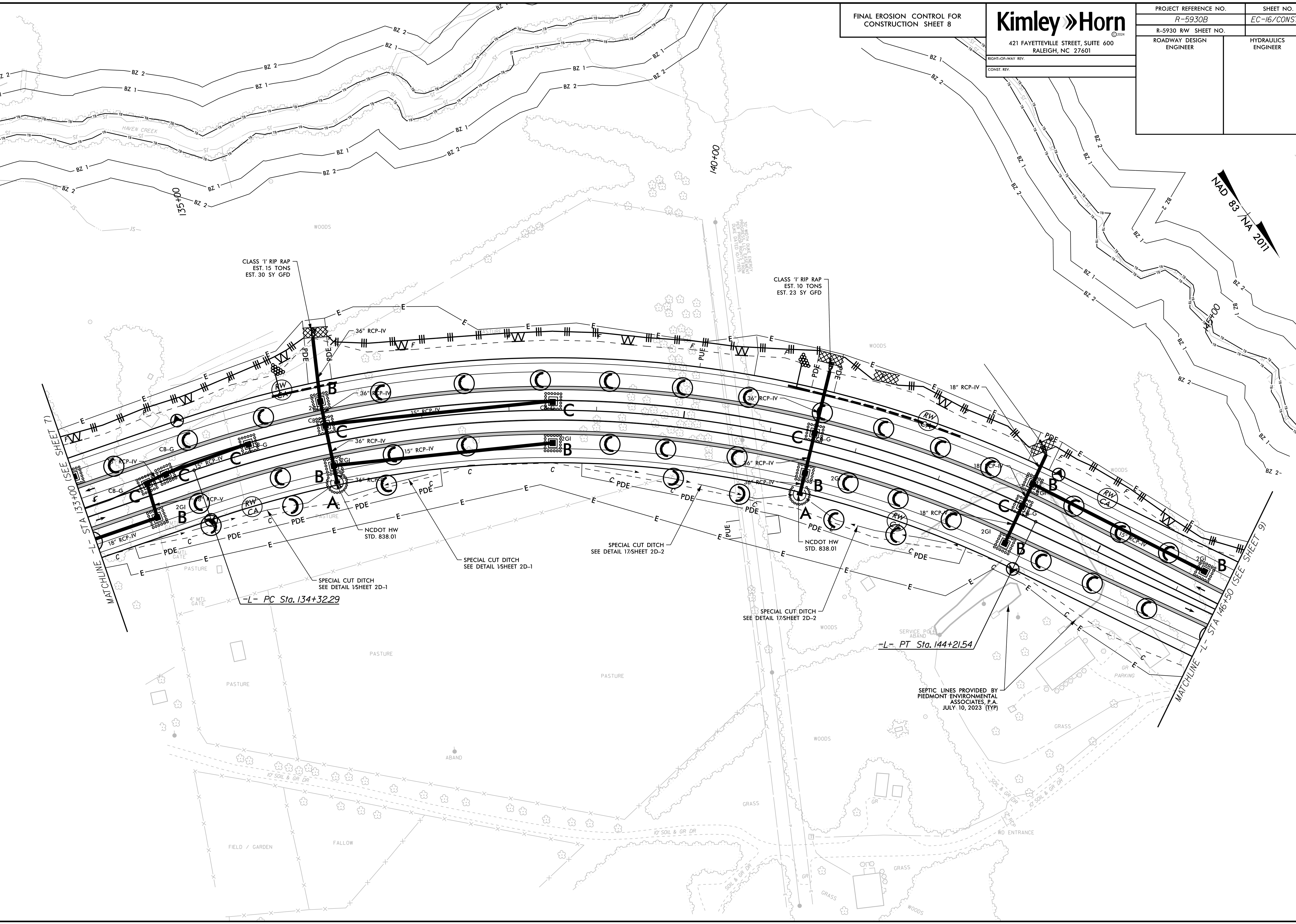
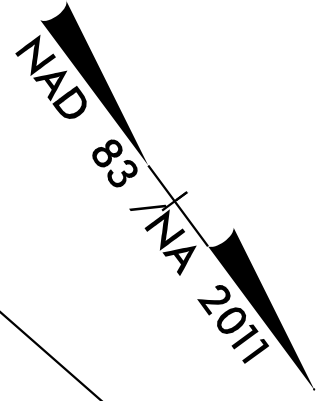
5/14/99

FINAL EROSION CONTROL FOR CONSTRUCTION SHEET 8

Kimley Horn
 421 FAYETTEVILLE STREET, SUITE 600
 RALEIGH, NC 27601

RIGHT-OF-WAY REV.
 CONST. REV.

PROJECT REFERENCE NO. R-5930B	SHEET NO. EC-16/CONST. 8
R-5930 RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



REVISIONS

CLASS '1' RIP RAP
EST. 15 TONS
EST. 30 SY GFD

CLASS '1' RIP RAP
EST. 10 TONS
EST. 23 SY GFD

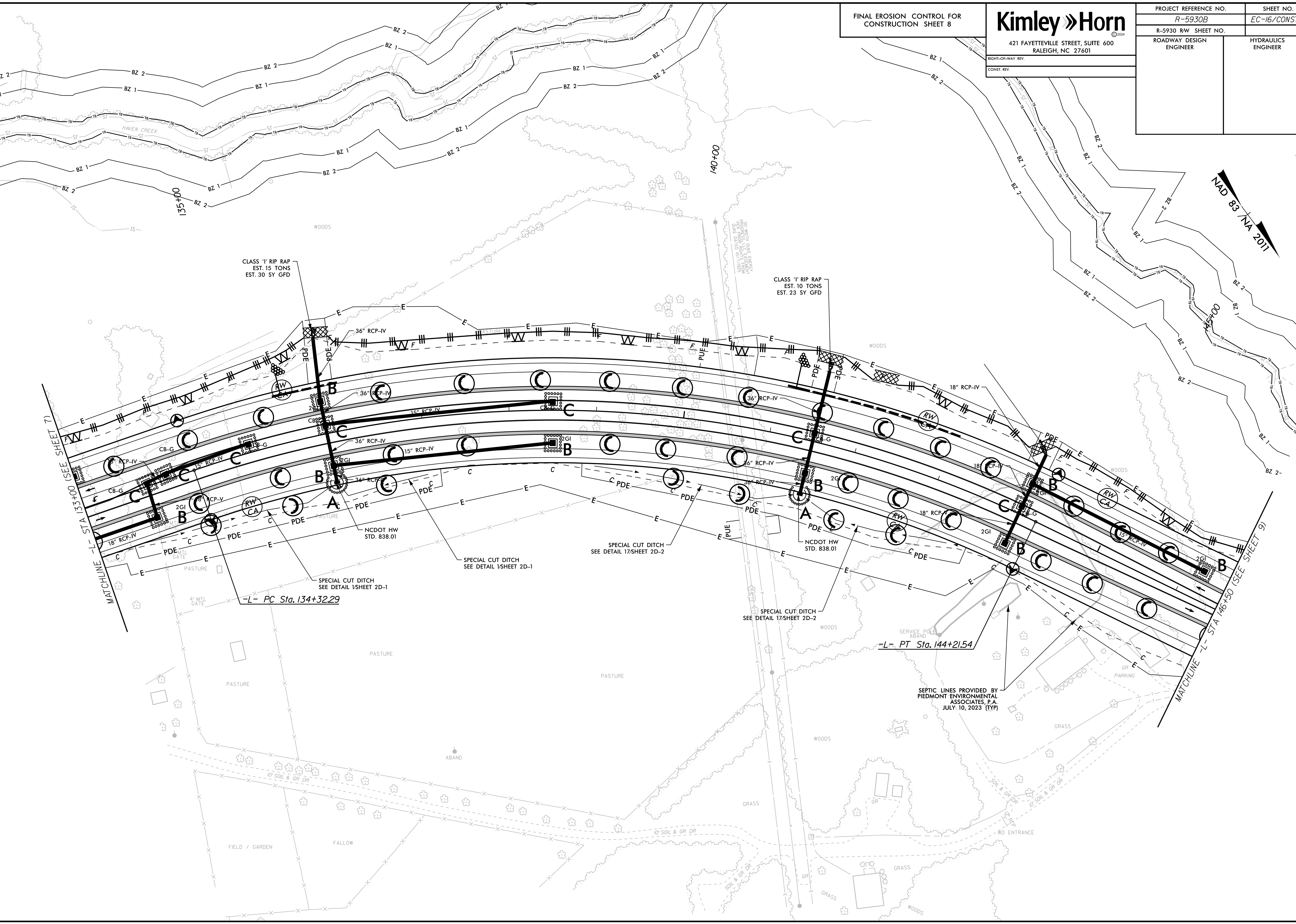
MATCHLINE -L- STA 133+00 (SEE SHEET 7)

-L- PC Sta. 134+32.29

-L- PT Sta. 144+21.54

MATCHLINE -L- STA 146+50 (SEE SHEET 9)

SEPTIC LINES PROVIDED BY
PIEDMONT ENVIRONMENTAL
ASSOCIATES, P.A.
JULY 10, 2023 (TYP)



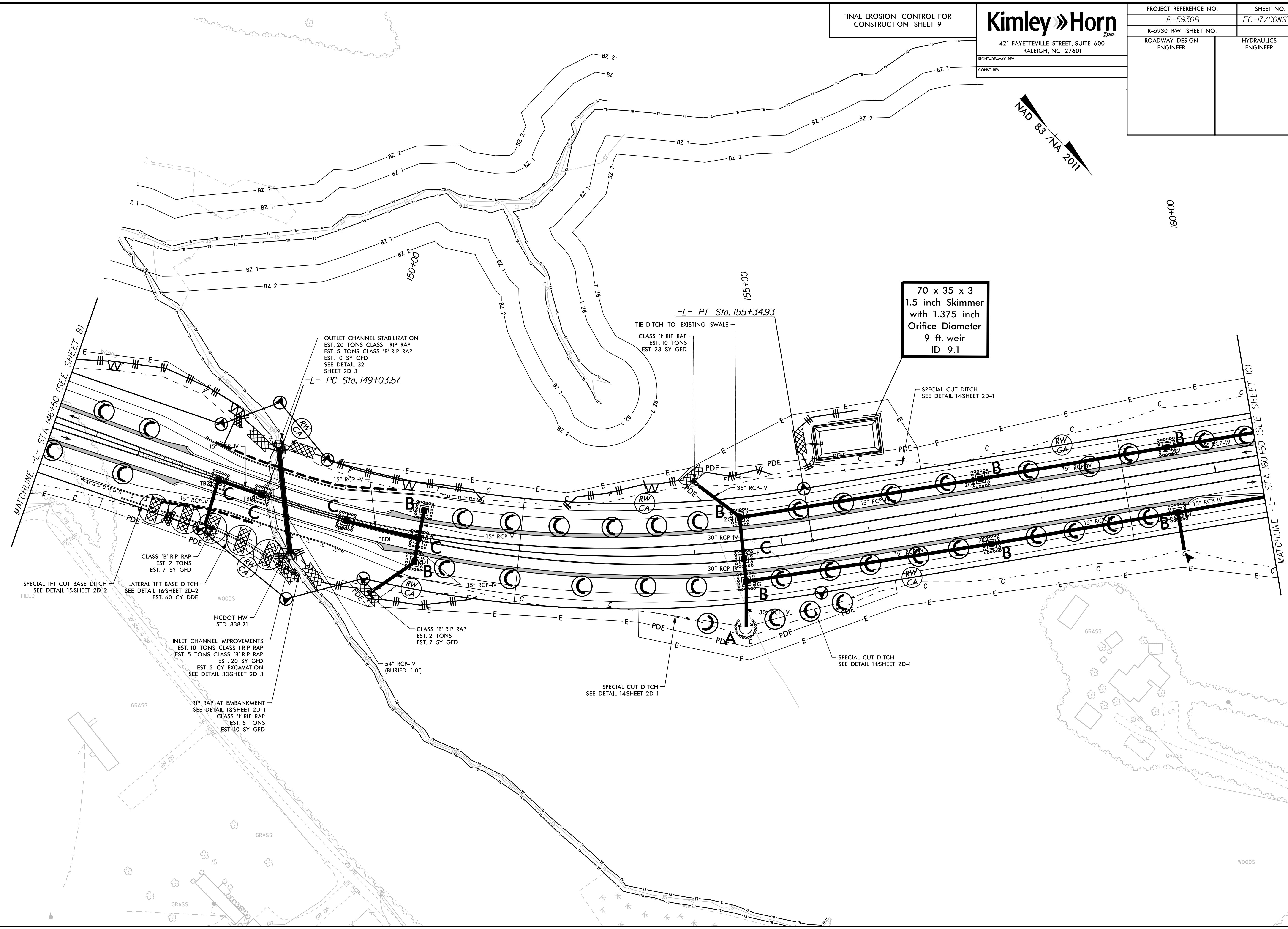
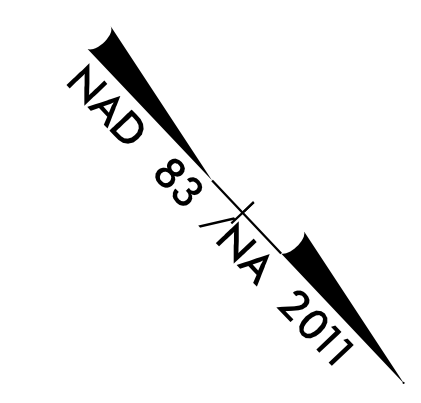
5/14/99

FINAL EROSION CONTROL FOR
CONSTRUCTION SHEET 9

Kimley » Horn
 421 FAYETTEVILLE STREET, SUITE 600
 RALEIGH, NC 27601

RIGHT-OF-WAY REV.
 CONST. REV.

PROJECT REFERENCE NO. R-5930B	SHEET NO. EC-17/CONST. 9
R-5930 RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



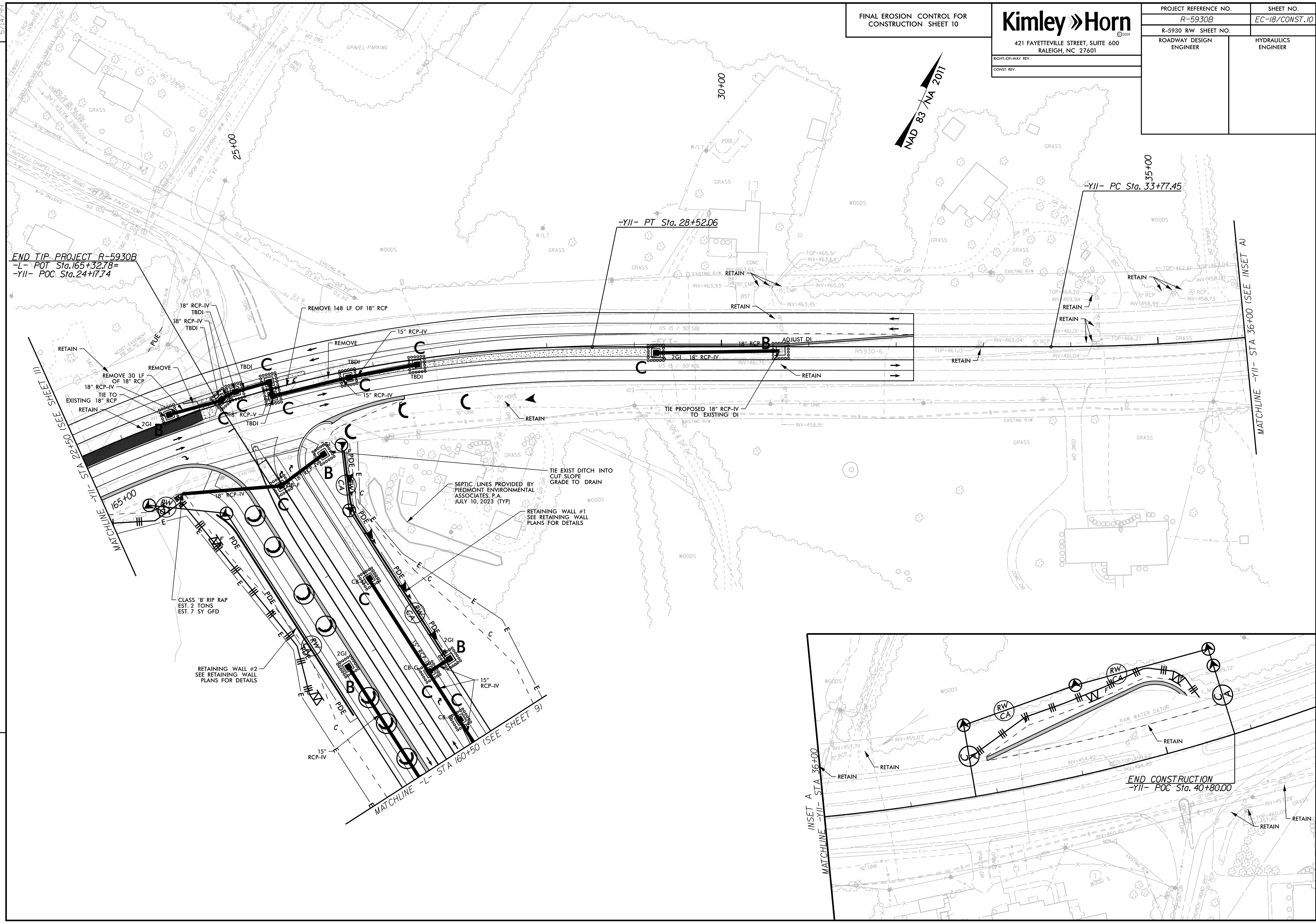
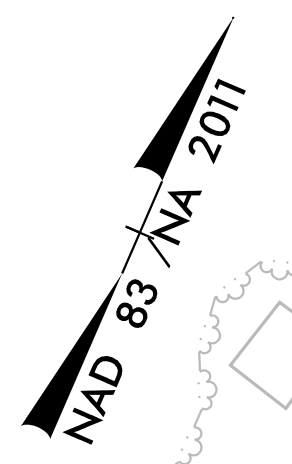
REVISIONS

WOODS

5/14/99

FINAL EROSION CONTROL FOR CONSTRUCTION SHEET 10

PROJECT REFERENCE NO. R-5930B		SHEET NO. EC-18/CONST.10	
R-5930 RW SHEET NO.		ROADWAY DESIGN ENGINEER	
421 FAYETTEVILLE STREET, SUITE 600 RALEIGH, NC 27601		HYDRAULICS ENGINEER	
RIGHT-OF-WAY REV.		CONST. REV.	



END TIP PROJECT R-5930B
 -L- POT Sta. 165+32.78=
 -YII- POC Sta. 24+77.74

-YII- PT Sta. 28+52.06

-YII- PC Sta. 33+77.45

MATCHLINE -YII- STA 36+00 (SEE INSET A)

MATCHLINE -YII- STA 165+00 (SEE SHEET 9)

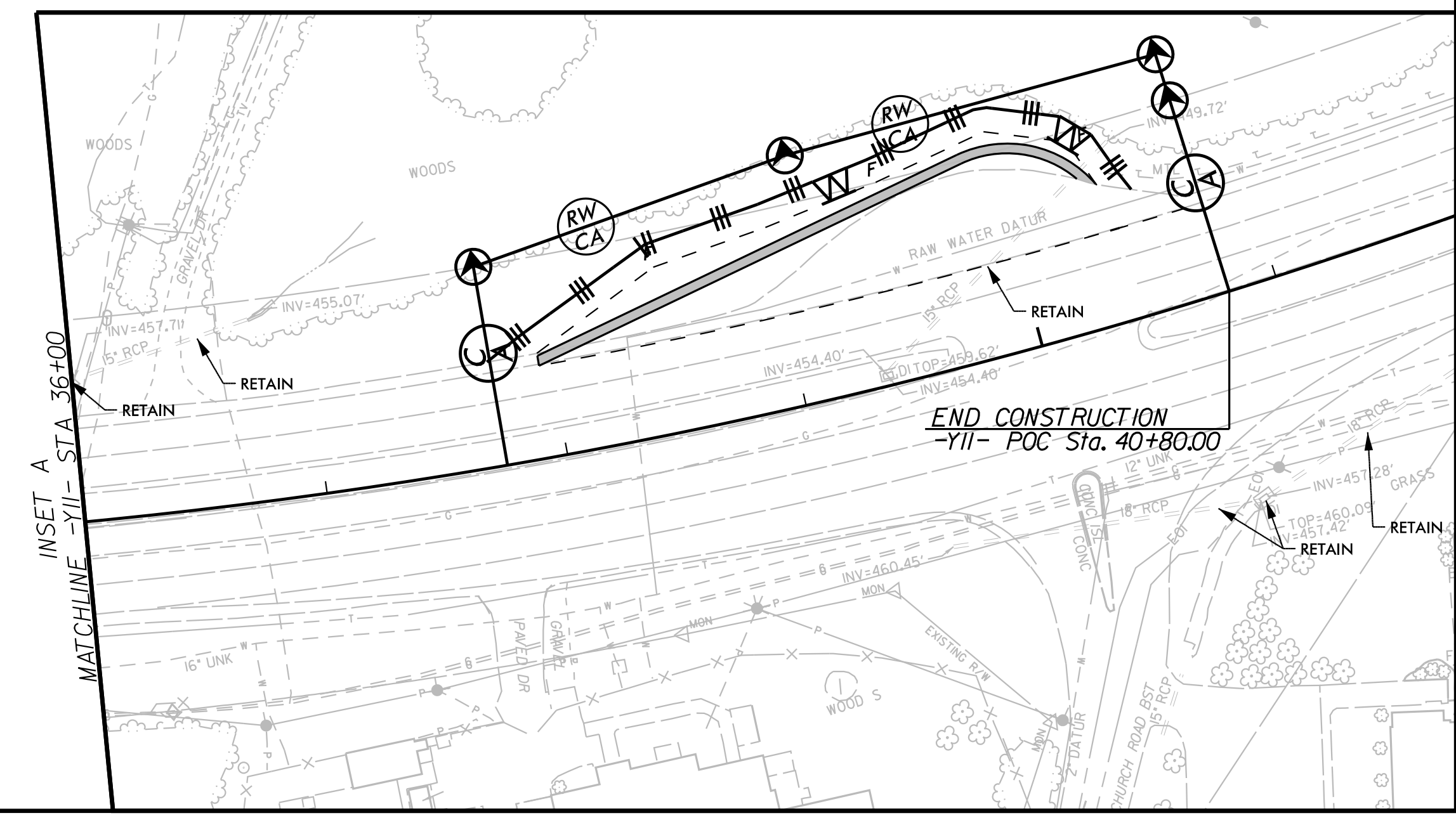
CLASS 'B' RIP RAP
 EST. 2 TONS
 EST. 7 SY GFD

RETAINING WALL #2
 SEE RETAINING WALL
 PLANS FOR DETAILS

SEPTIC LINES PROVIDED BY
 PIEDMONT ENVIRONMENTAL
 ASSOCIATES, P.A.
 JULY 10, 2023 (TYP)

RETAINING WALL #1
 SEE RETAINING WALL
 PLANS FOR DETAILS

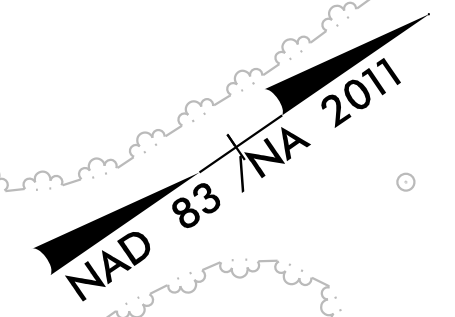
REVISIONS



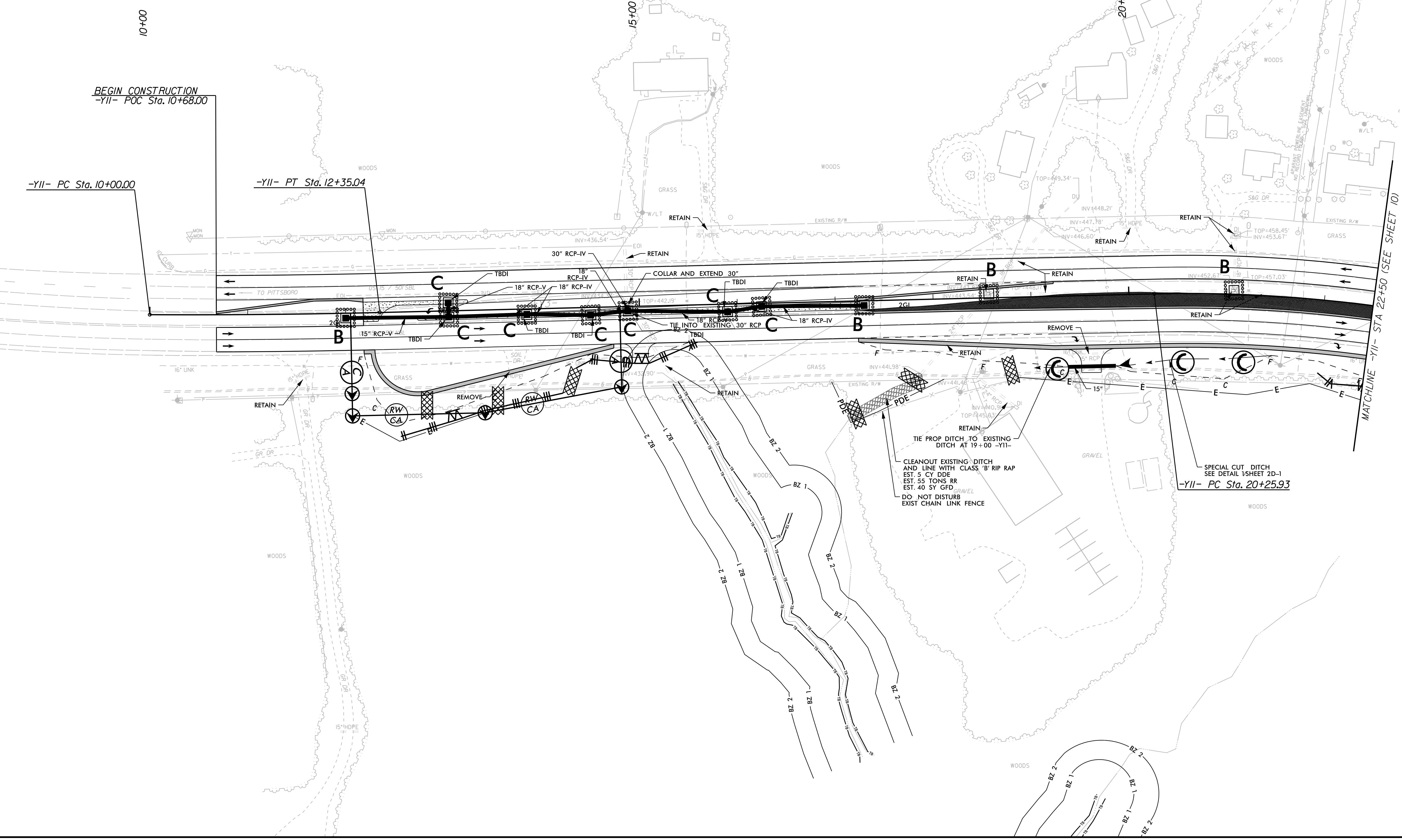
5/14/99

FINAL EROSION CONTROL FOR CONSTRUCTION SHEET 11

PROJECT REFERENCE NO. <i>R-5930B</i>		SHEET NO. <i>EC-19/CONST.11</i>	
R-5930 RW SHEET NO.		ROADWAY DESIGN ENGINEER	
421 FAYETTEVILLE STREET, SUITE 600 RALEIGH, NC 27601		HYDRAULICS ENGINEER	
RIGHT-OF-WAY REV.		CONST. REV.	



REVISIONS



BEGIN CONSTRUCTION
-Y11- POC Sta. 10+68.00

-Y11- PC Sta. 10+00.00

-Y11- PT Sta. 12+35.04

TIE PROP DITCH TO EXISTING DITCH AT 19+00 -Y11-

CLEANOUT EXISTING DITCH AND LINE WITH CLASS 'B' RIP RAP EST. 5 CY DDE EST. 55 TONS RR EST. 40 SY GFD DO NOT DISTURB EXIST CHAIN LINK FENCE

SPECIAL CUT DITCH SEE DETAIL 15 SHEET 2D-1
-Y11- PC Sta. 20+25.93

MATCHLINE -Y11- STA 22+50 (SEE SHEET 10)