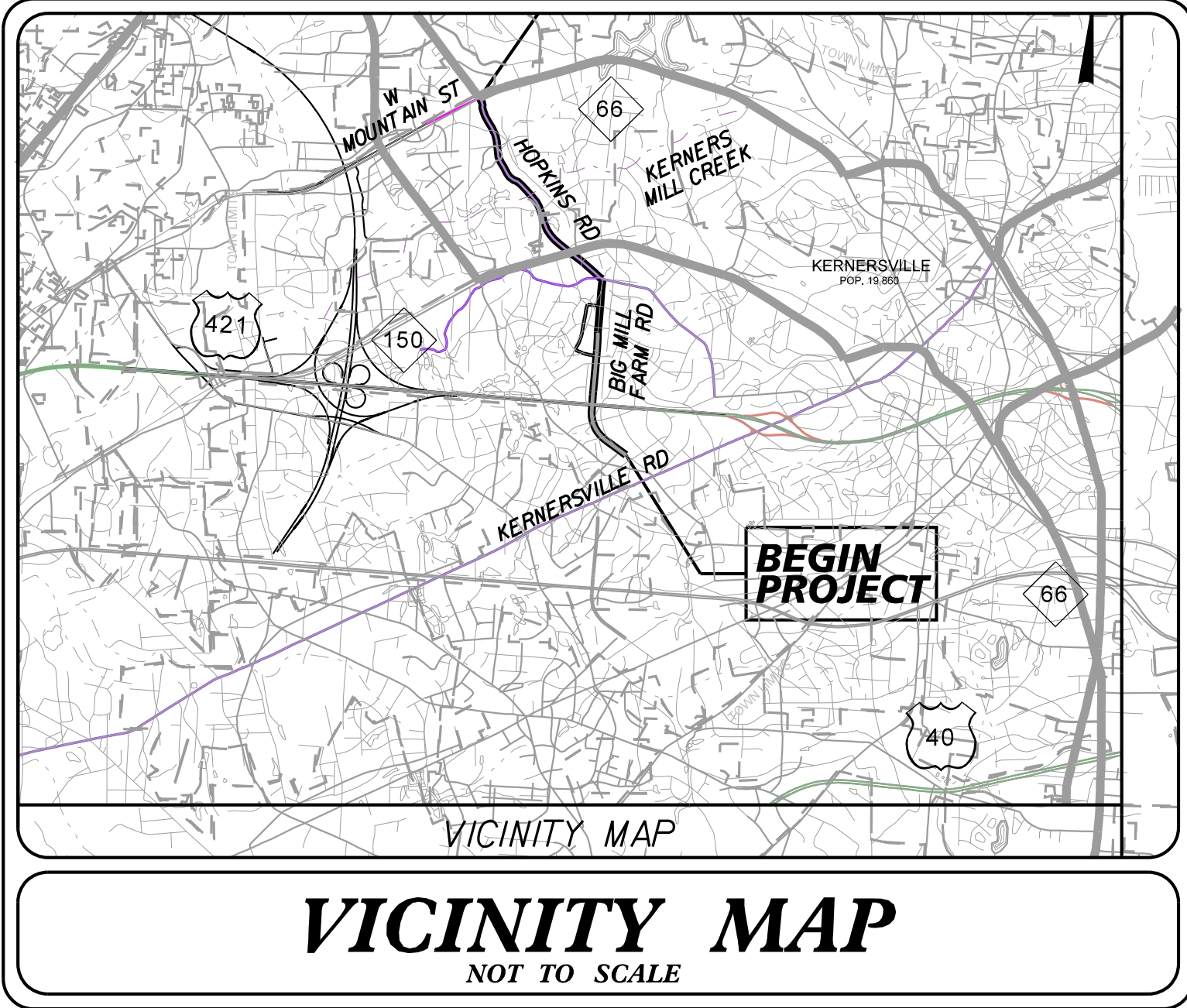


TIP PROJECT: U-5760



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

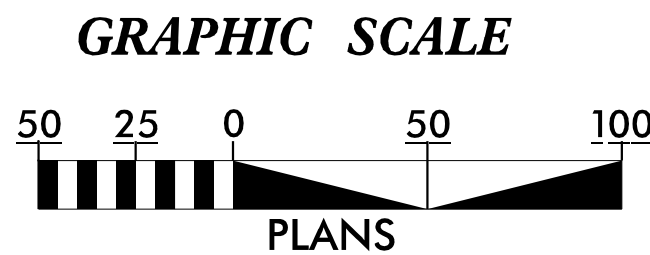
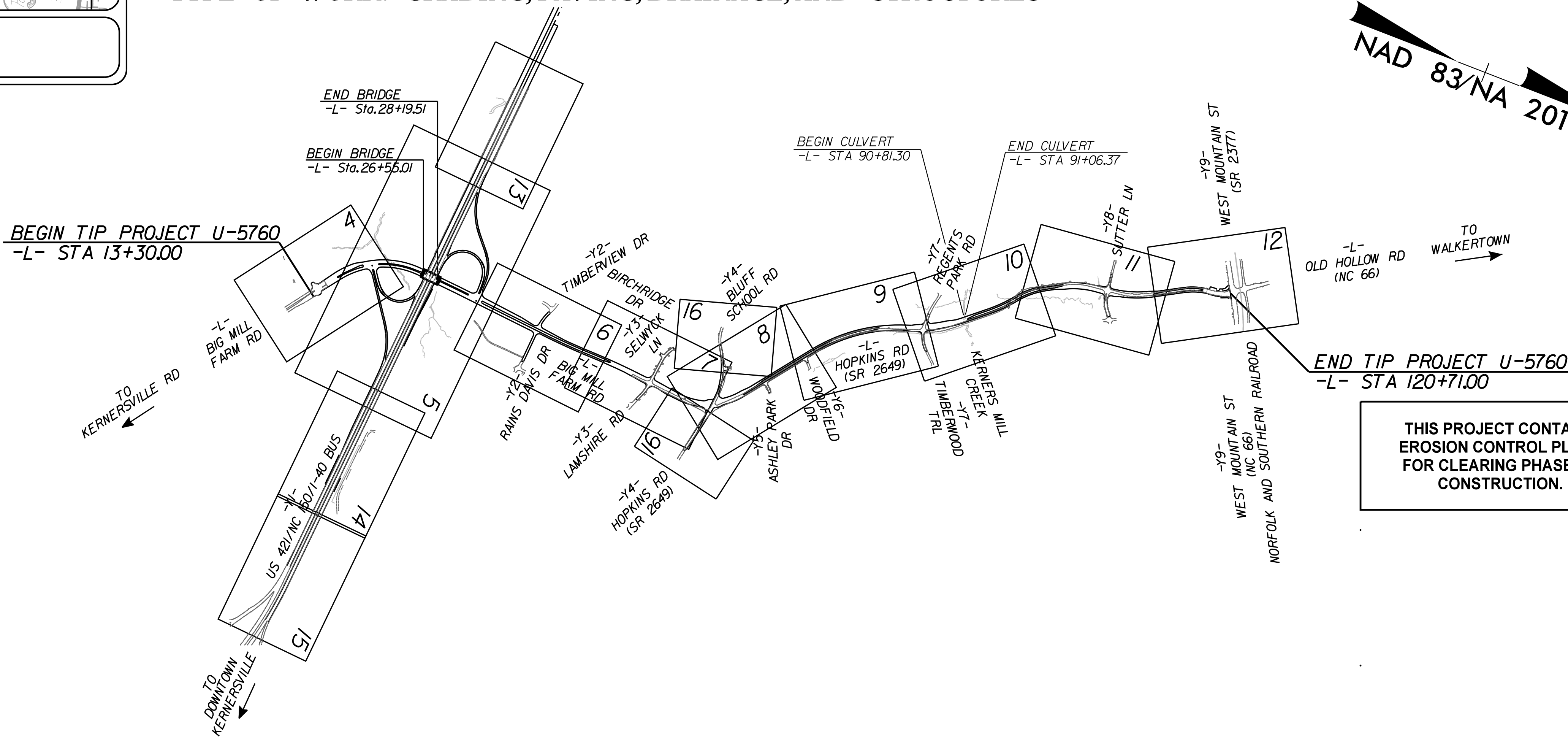
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

FORSYTH COUNTY

LOCATION: KERNERSVILLE SOUTHERN LOOP, AT US 421 /BUSINESS 40 TO NC 66 (WEST MOUNTAIN STREET) IN KERNERSVILLE. WIDEN BIG MILL FARM ROAD AND SR 2649 (HOPKINS ROAD) AND CONSTRUCT INTERCHANGE AT US 421 /NC 150 /BUSINESS 40

TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND STRUCTURES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5760	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT 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:
JUSTIN ROSE 4389
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

The "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2024 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

PROJECT REFERENCE NO.
U-5760

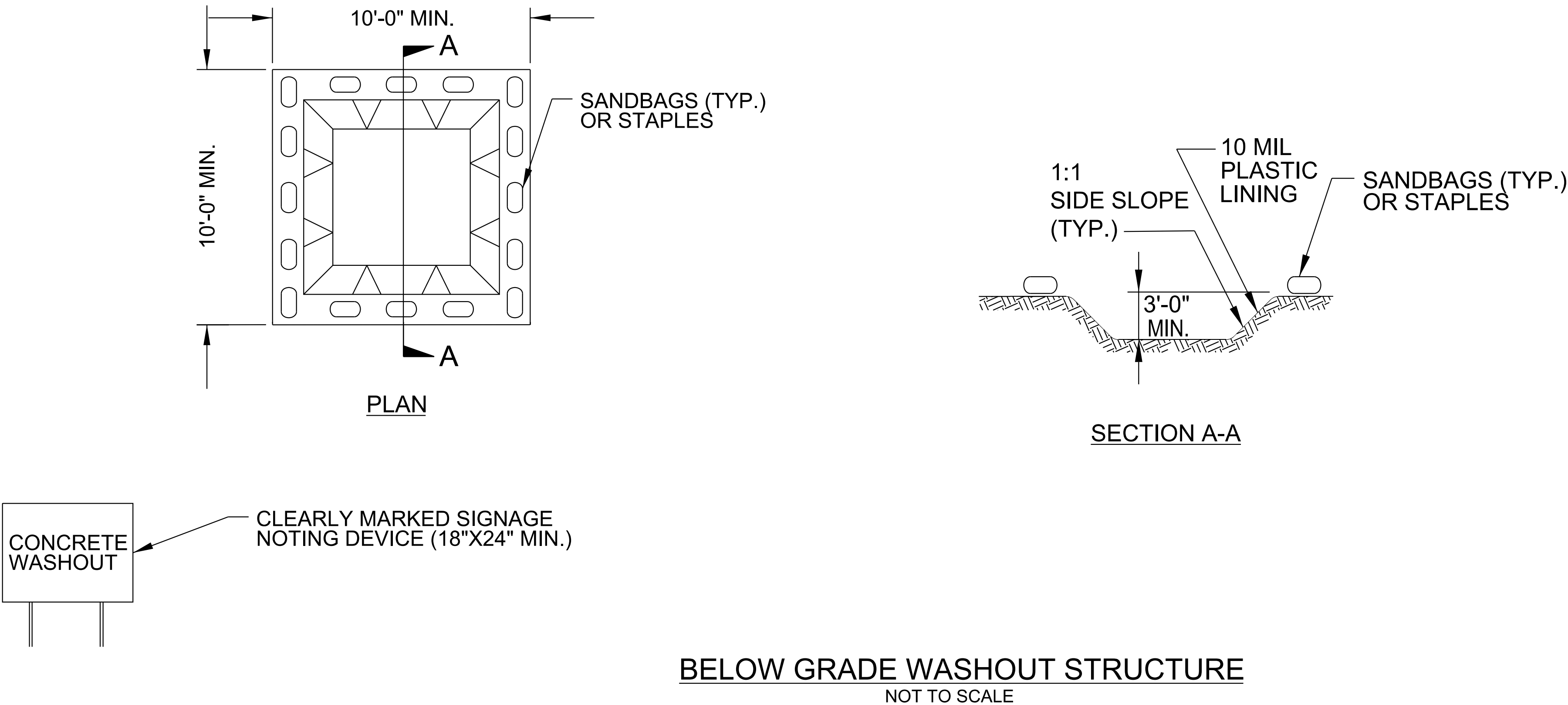
SHEET NO.
EC-02A

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

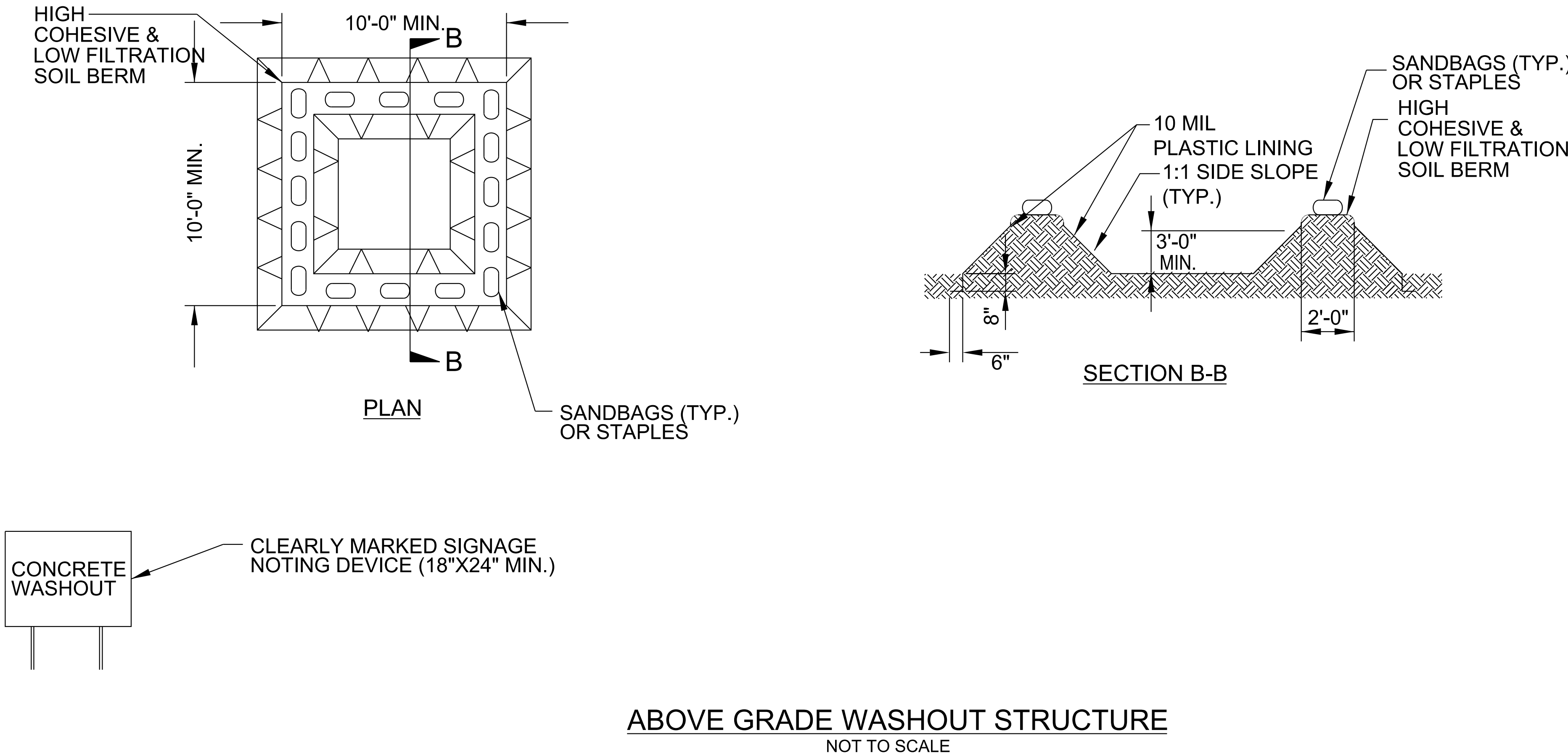
EROSION & SEDIMENT CONTROL LEGEND

Std. #	Description	Symbol	Std. #	Description	Symbol
1605.01	Temporary Silt Fence		1633.01	Temporary Rock Silt Check Type A	
1606.01	Special Sediment Control Fence		1633.02	Temporary Rock Silt Check Type B	
1622.01	Temporary Berms and Slope Drains		1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1630.02	Silt Basin Type B		1634.01	Temporary Rock Sediment Dam Type A	
1630.03	Temporary Silt Ditch		1634.02	Temporary Rock Sediment Dam Type B	
1630.04	Stilling Basin		1635.01	Rock Pipe Inlet Sediment Trap Type A	
1630.05	Temporary Diversion		1635.02	Rock Pipe Inlet Sediment Trap Type B	
1630.06	Special Stilling Basin		1636.01	Excelsior Wattle Check	
1630.07	Skimmer Basin		1636.01	Excelsior Wattle Check with Flocculant	
1630.08	Tiered Skimmer Basin		1636.01	Coir Fiber Wattle Check	
1630.09	Earthen Dam with Skimmer		1636.01	Coir Fiber Wattle Check with Flocculant	
	Infiltration Basin		1636.02	Silt Fence Excelsior Wattle Break	
	Rock Inlet Sediment Trap:			Silt Fence Coir Fiber Wattle Break	
1632.01	Type A		1636.03	Excelsior Wattle Barrier	
1632.02	Type B		1636.03	Coir Fiber Wattle Barrier	
1632.03	Type C				

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



- 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.



- 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.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

STRAW MATTING FOR EROSION CONTROL

[illegible]

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
DITCHES:					
5	-L-	29+00	32+00	L	205
5	-YILPD-	13+35	15+00	L	220
5	-YIRPB-	14+57	15+00	R	65
6	-L-	35+00	36+00	R	135
6	-L-	43+00	44+50	R	175
6	-Y2-	14+10	15+75	L	220
6/7	-L-	46+00	48+25	R	265
7	-L-	49+00	52+10	R	365
7/8	-L-	55+75	60+20	R	440
8/16	-Y4-	13+00	14+00	L	115
8	-Y4-	19+85	20+00	R	15
8	-Y5-	10+50	11+50	R	85
9	-L-	80+50	82+30	L	155
10	-L-	96+00	98+00	R	265
11	-L-	103+30	106+00	L	360
11/12	-L-	111+65	114+00	R	235
11/12	-L-	111+85	116+50	L	625
15	-Y1-	88+00	89+50	R	225
15	-Y1-	94+00	96+00	L	220
			SUBTOTAL		4390

REVISIONS

5/14/99

8/27/2025

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

EXCELSIOR MATTING FOR EROSION CONTROL

TYPE 1 PSRM FOR EROSION CONTROL

[illegible][illegible]

REVISIONS

5/14/99

8/27/2025

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

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 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

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RALEIGH, NC 27601

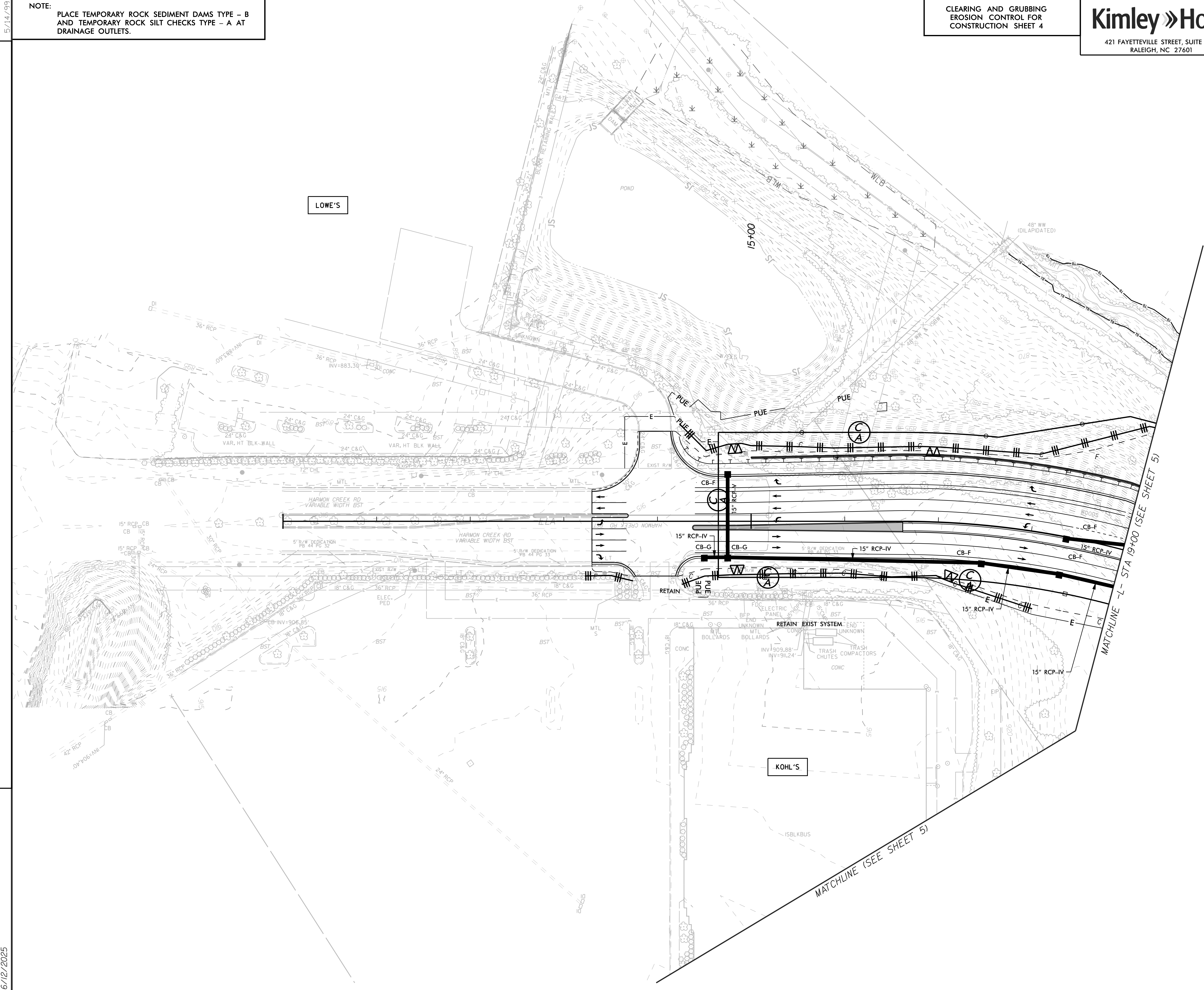
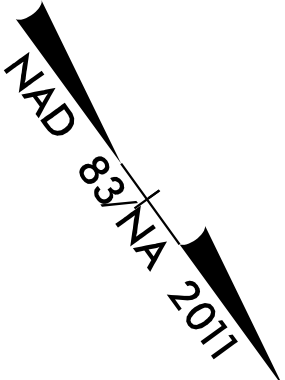
PROJECT REFERENCE NO.

U-5760

SHEET NO.

EC-4/CONST.4

REVISIONS



6/12/2025

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

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PROJECT REFERENCE NO.
U-5760

SHEET NO.
EC-5/CONST.5

REVISIONS

6/12/2025

MATCHLINE -YI- STA 42+50 (SEE SHEET 3)

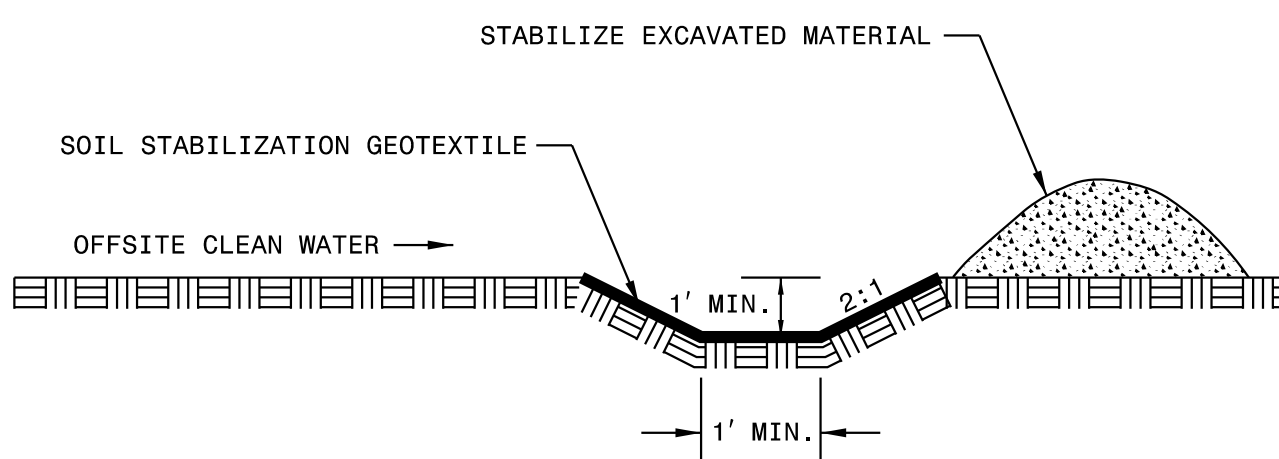
MATCHLINE (SEE SHEET 4)

MATCHLINE -YI- STA 70+50 (SEE SHEET 4)

NAD 83 N 201

CLEAN WATER DIVERSION

(Not to Scale)



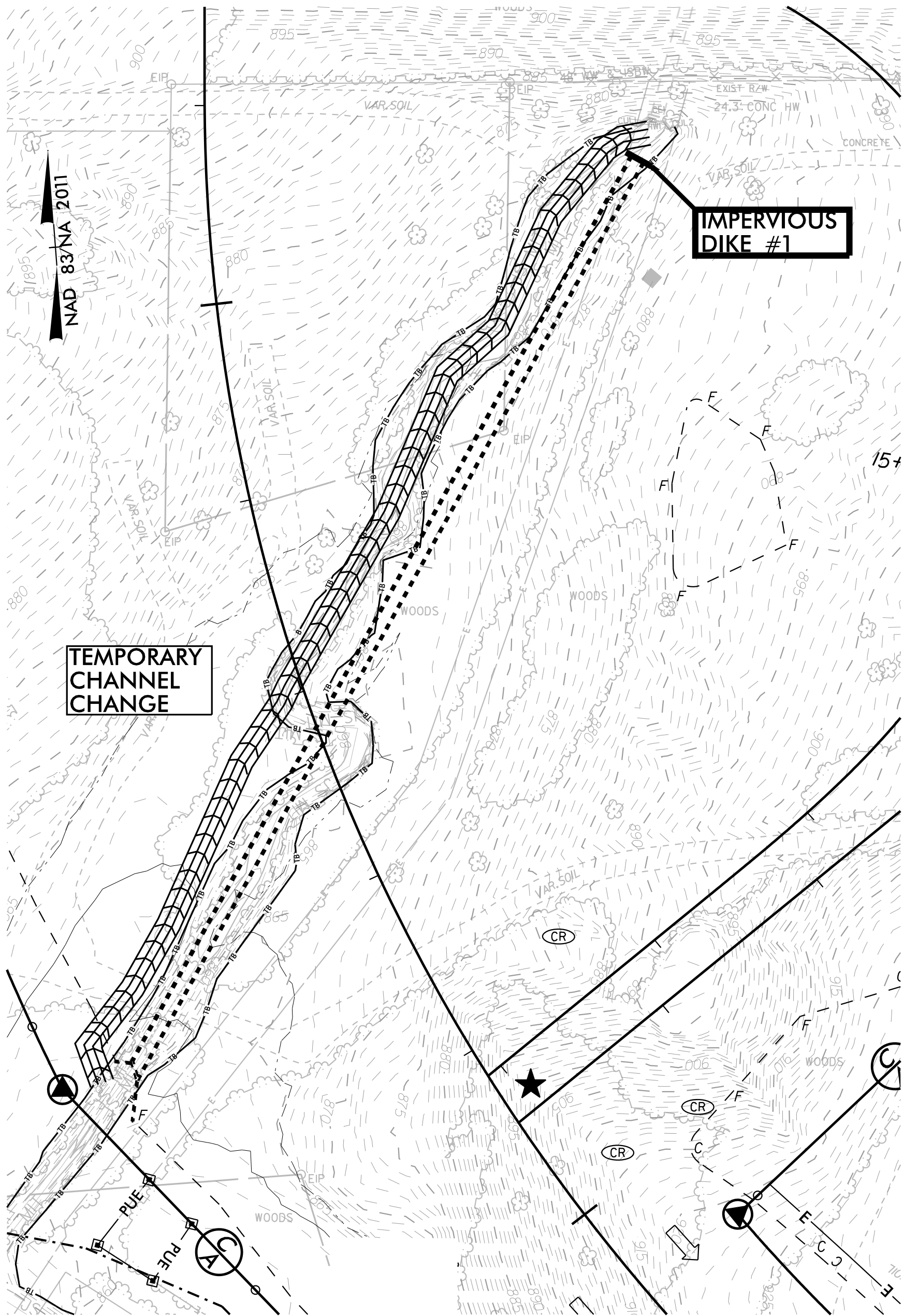
5/14/99

PROJECT REFERENCE NO.		SHEET NO.
U-5760		EC-5A/CONST.5
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 22 + 76 –L–/58 + 36 –Y1–

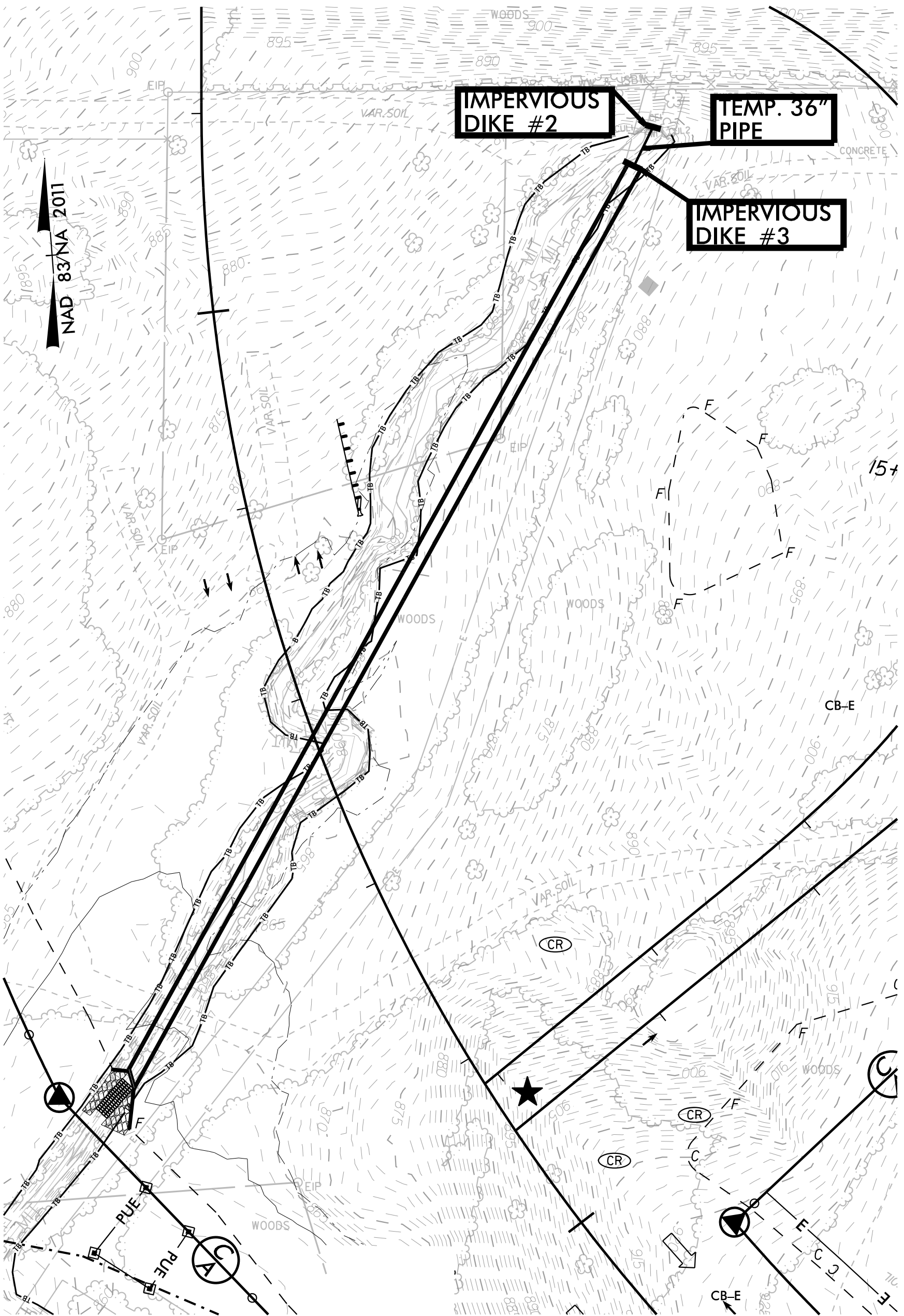
PHASE I

- 1.) UTILIZE SPECIAL STILLING BASIN(S) DURING CONSTRUCTION AS NEEDED TO DEWATER WORK SITE. (TYP.)
- 2.) CONSTRUCT TEMPORARY DIVERSION WITH GEOTEXTILE LINER (4 FT BASE, 2 FT DEEP, 2:1 SIDE SLOPES).
- 3.) CONSTRUCT IMPERVIOUS DIKES 1, DIVERTING FLOW THROUGH TEMPORARY CHANNEL CHANGE.
- 4) CONSTRUCT 520' OF PROPOSED 6'X7' RCBC CULVERT FROM THE DOWNSTREAM END.



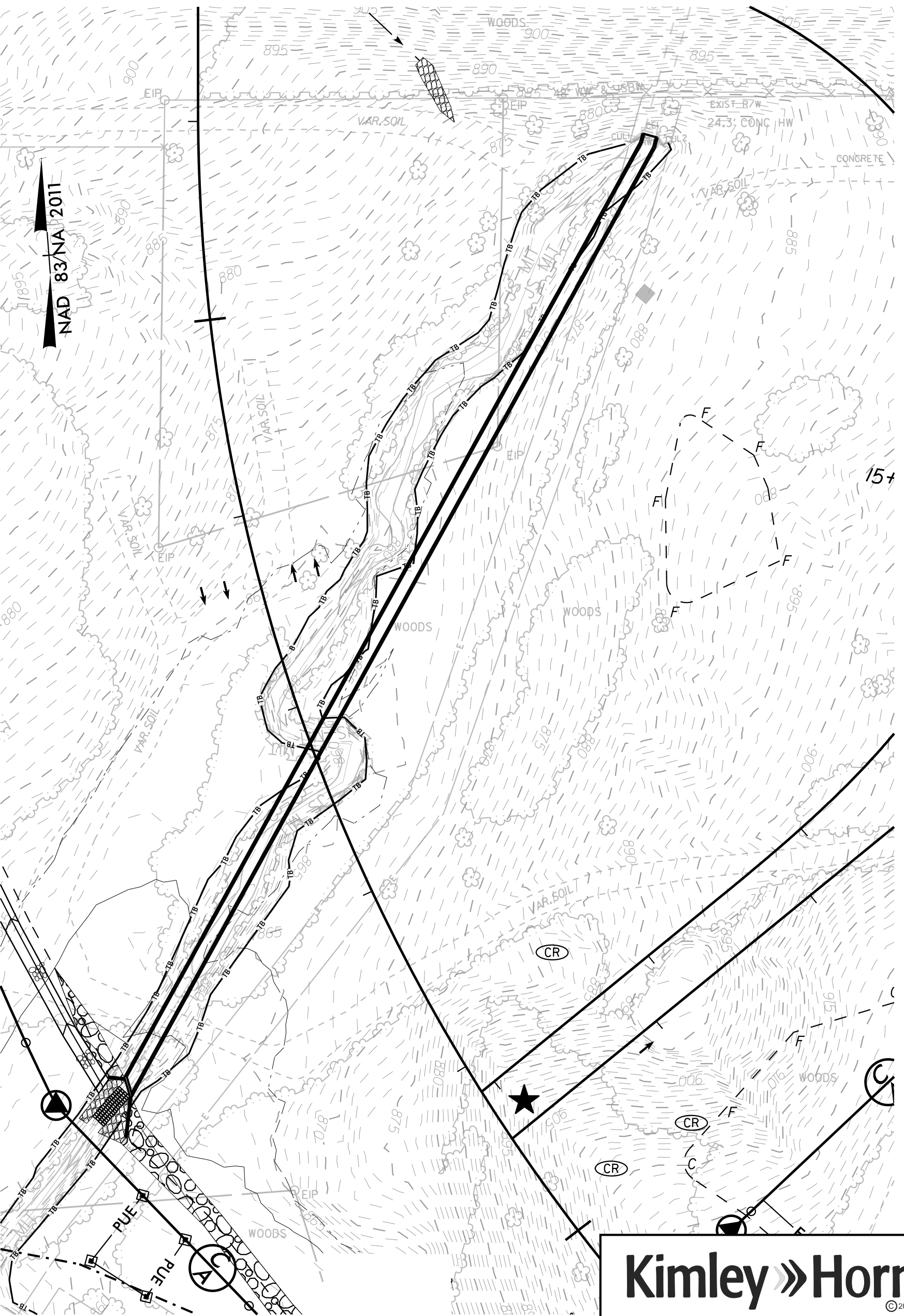
PHASE II

- 1.) CONSTRUCT IMPERVIOUS DIKES 2 AND 3 AND TEMPORARY 36" PIPE THROUGH THE IMPERVIOUS DIKES. DIVERT FLOW INTO TEMPORARY PIPE. REMOVE IMPERVIOUS DIKE 1.
- 2.) REMOVE TEMPORARY CHANNEL CHANGE.
- 3.) CONSTRUCT REMAINING PROPOSED 6'X7' RCBC CULVERT AND DOWNSTREAM IMPROVEMENTS, UTILIZE IMPERVIOUS DIKES AND PUMP AROUND AS NEEDED TO COMPLETE WORK IN DRY CONDITIONS.



PHASE III

- 1.) REMOVE IMPERVIOUS DIKES 2 AND 3 AND TEMPORARY 36" PIPE.
- 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.



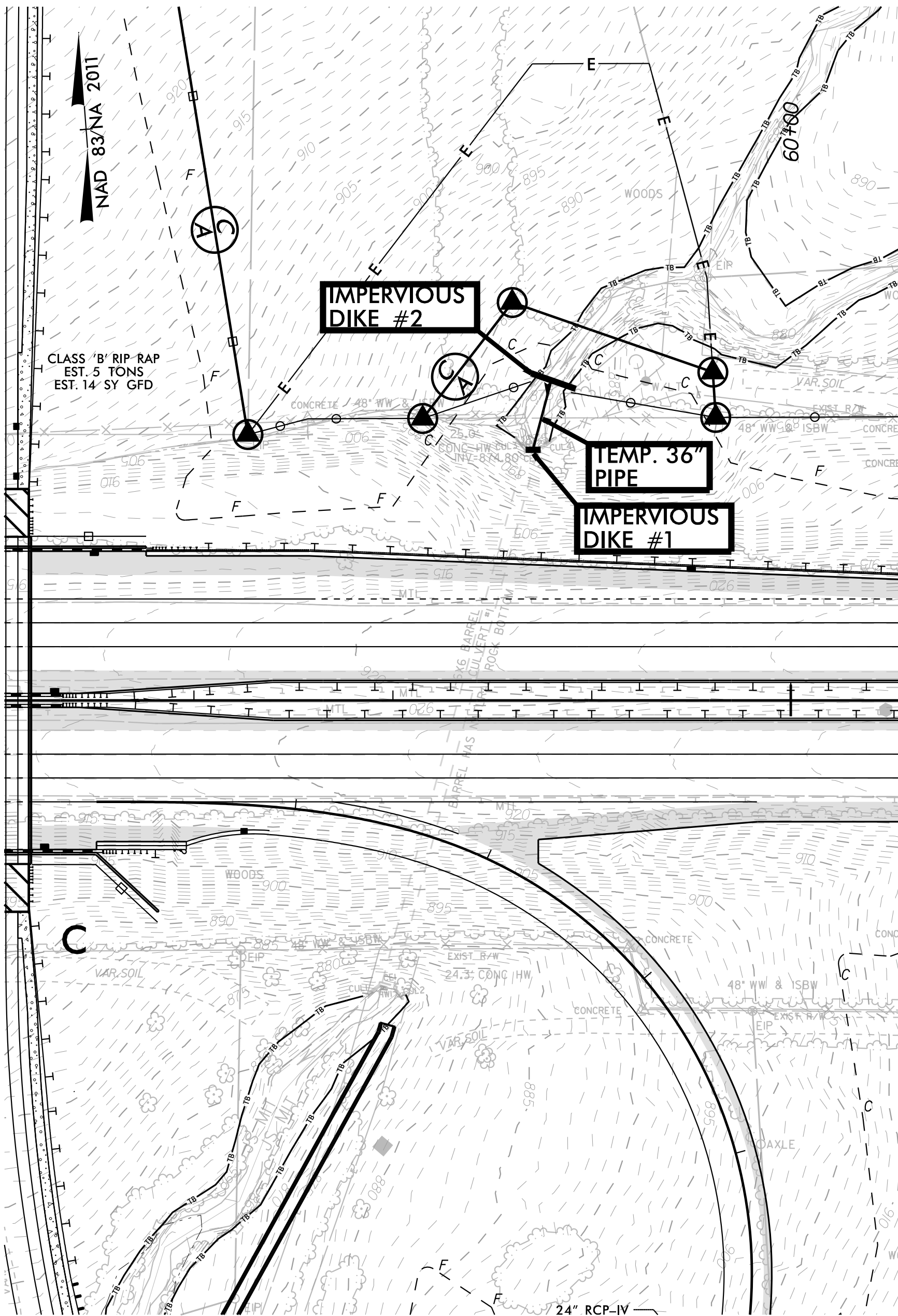
6/12/2025

PROJECT REFERENCE NO.		SHEET NO.
U-5760		EC-5B/CONST.5
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 22 + 76 –L-58 + 36 –Y1–

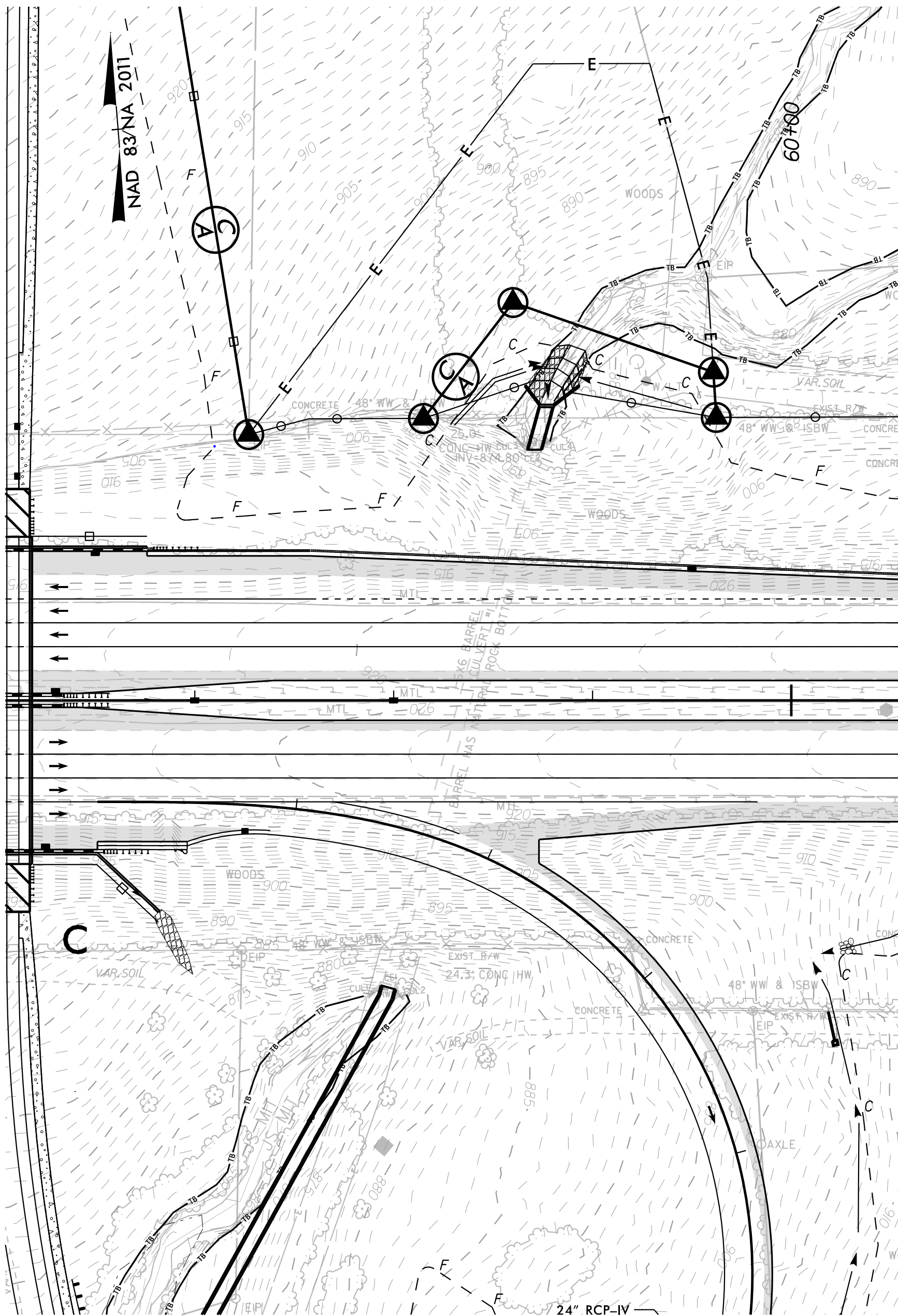
PHASE I

- 1.) UTILIZE SPECIAL STILLING BASIN(S) DURING CONSTRUCTION AS NEEDED TO DEWATER WORK SITE. (TYP.)
- 2.) CONSTRUCT IMPERVIOUS DIKES 1 AND 2.
- 3.) INSTALL TEMPORARY 36 INCH PIPE THROUGH IMPERVIOUS DIKES TO DIVERT JS INTO TEMPORARY PIPE.



PHASE II

- 1.) CONSTRUCT PROPOSED 6'X7' RCBC CULVERT AND INLET IMPROVEMENTS.
- 2.) REMOVE IMPERVIOUS DIKES 1 AND 2 AND REMOVE TEMPORARY PIPE.
- 3.) REMOVE SPECIAL STILLING BASIN.
- 4.) STABILIZE DISTURBED AREA AND REMOVE ALL EROSION AND SEDIMENT CONTROL DEVICES AS DIRECTED.
- 5.) FINISH ROADWAY AND DRAINAGE CONSTRUCTION.



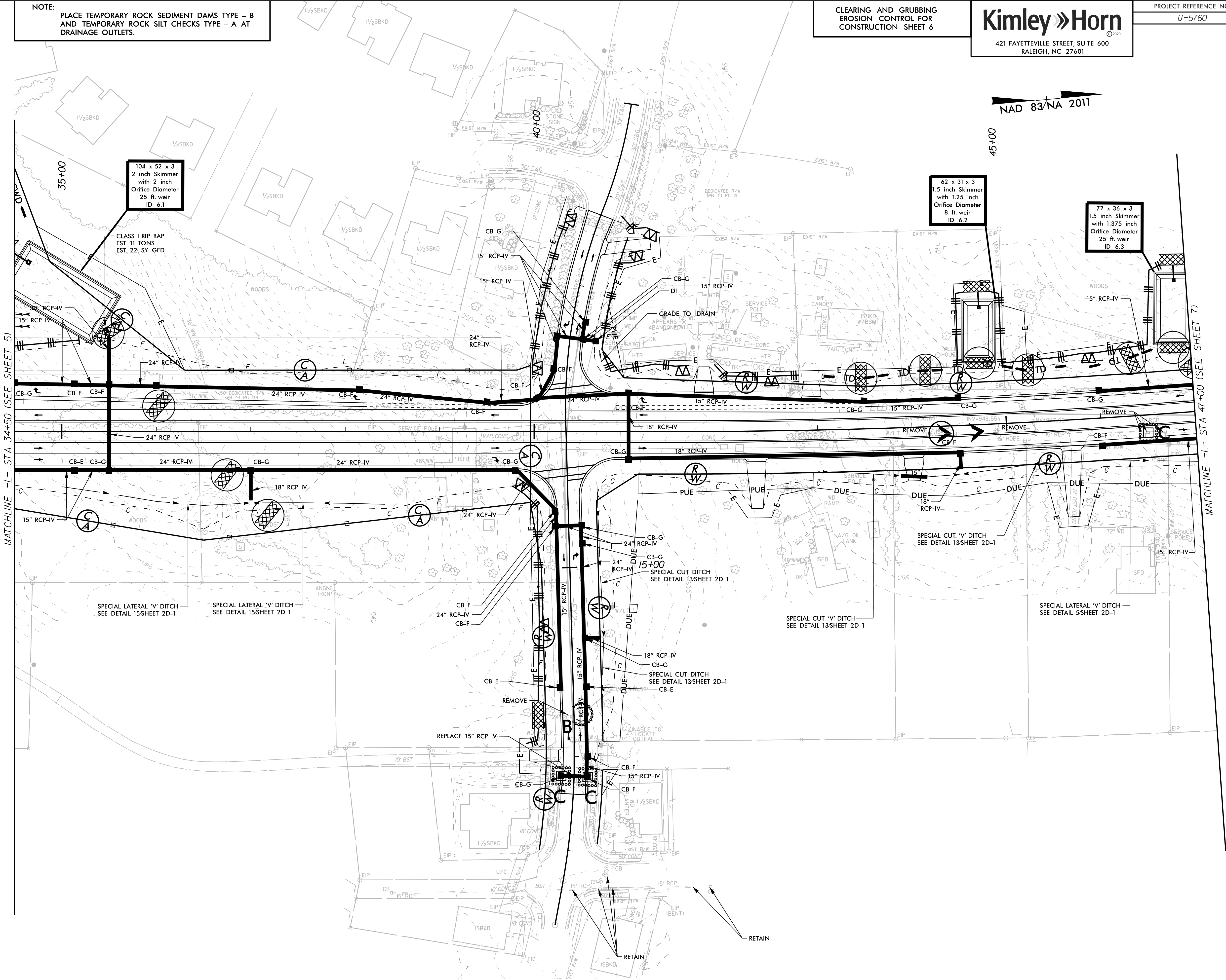
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

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RALEIGH, NC 27601

PROJECT REFERENCE NO.	SHEET NO.
U-5760	EC-6/CONST.6

NAD 83/NA 2011



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

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RALEIGH, NC 27601

PROJECT REFERENCE NO.

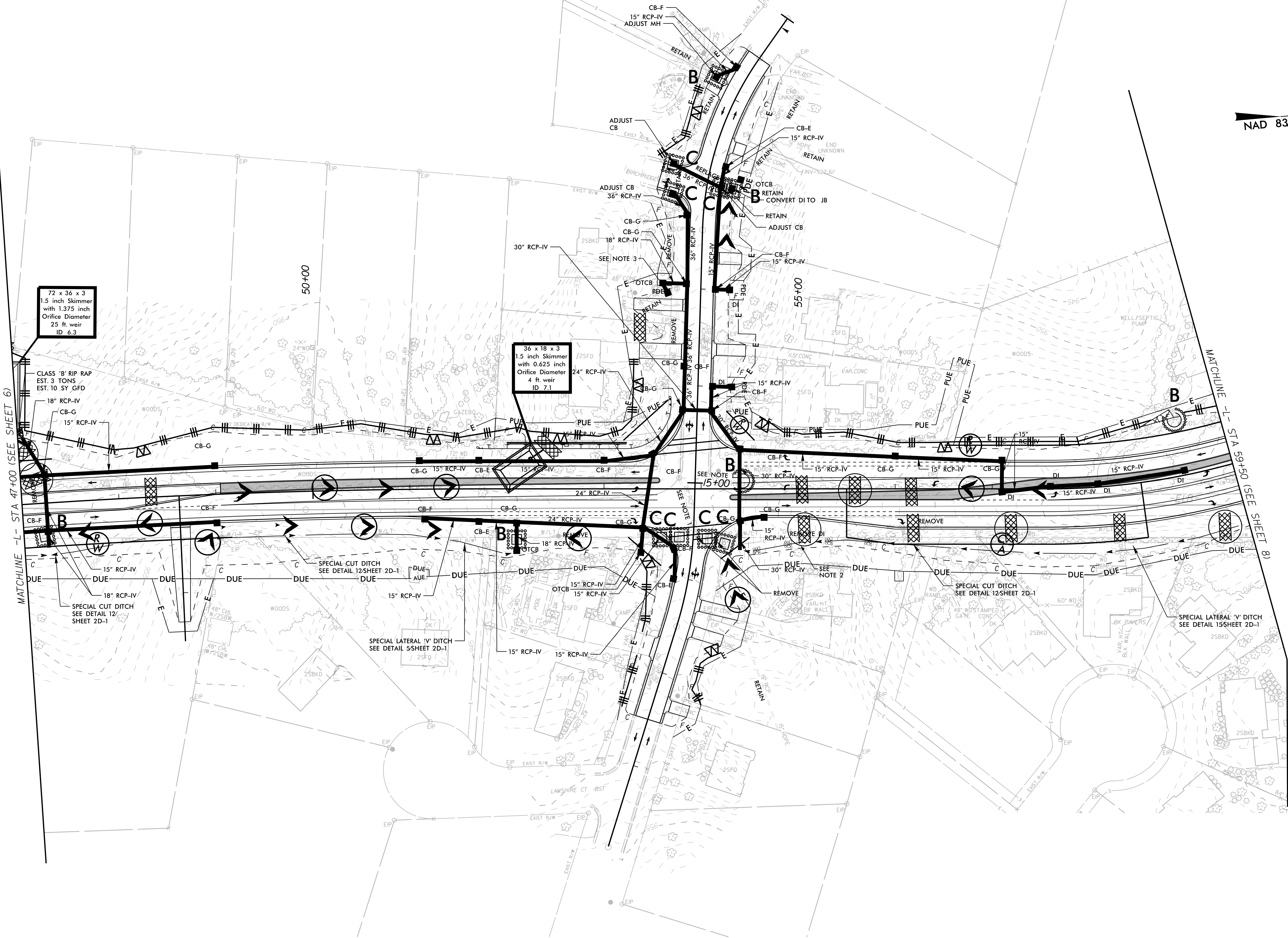
U-5760

SHEET NO.

EC-7/CONST.7

NAD 83/NA 2011

REVISIONS



6/12/2025

5/14/99

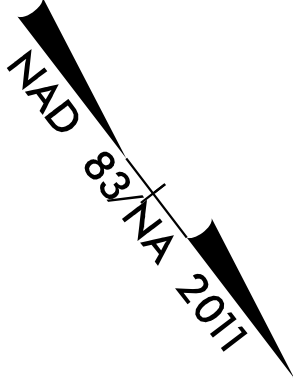
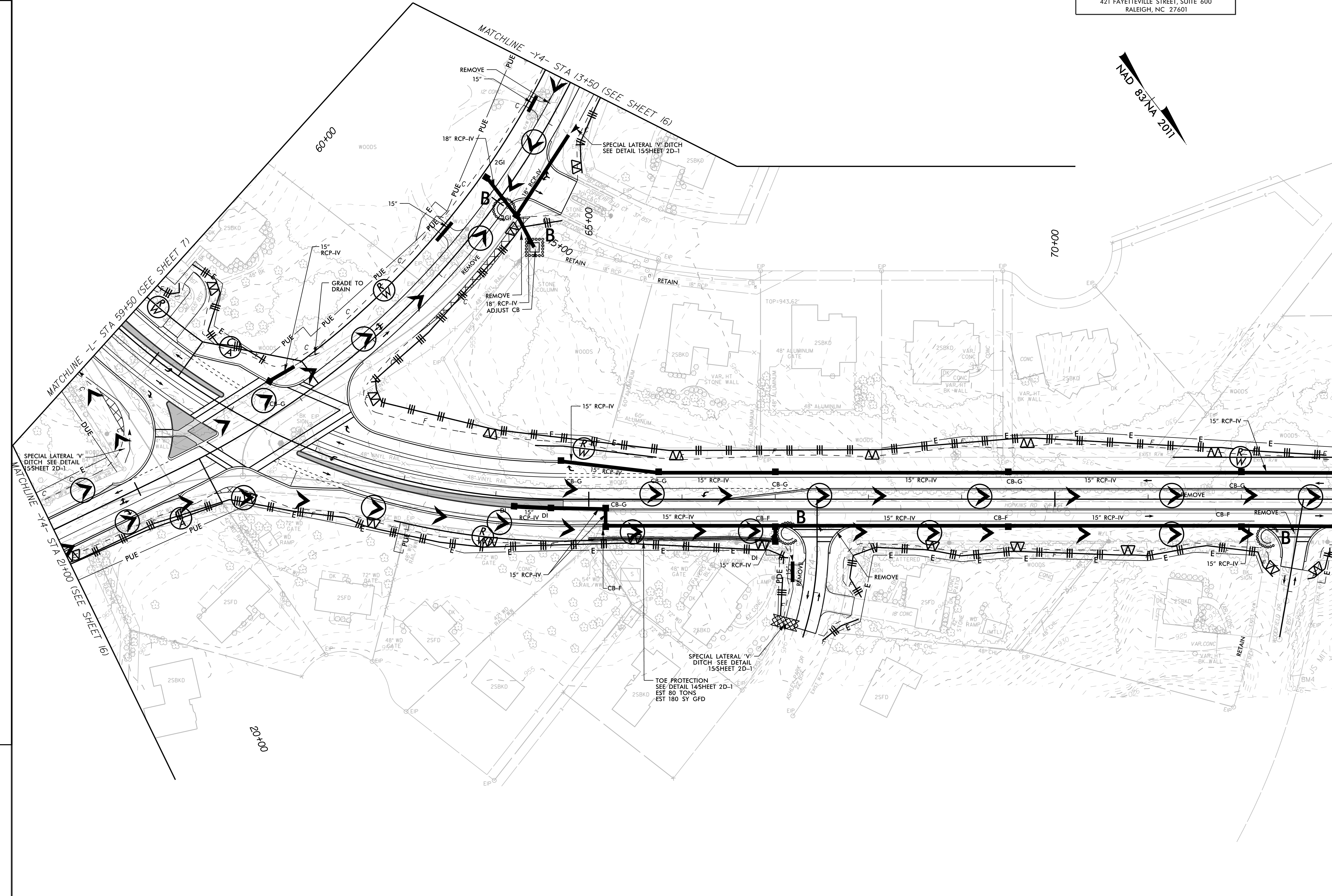
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

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RALEIGH, NC 27601

PROJECT REFERENCE NO.	SHEET NO.
U-5760	EC-8/CONST.8

REVISIONS



MATCHLINE -L- STA 73+00 (SEE SHEET 9)

6/12/2025

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 9

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PROJECT REFERENCE NO.	SHEET NO.
U-5760	EC-9/CONST.9

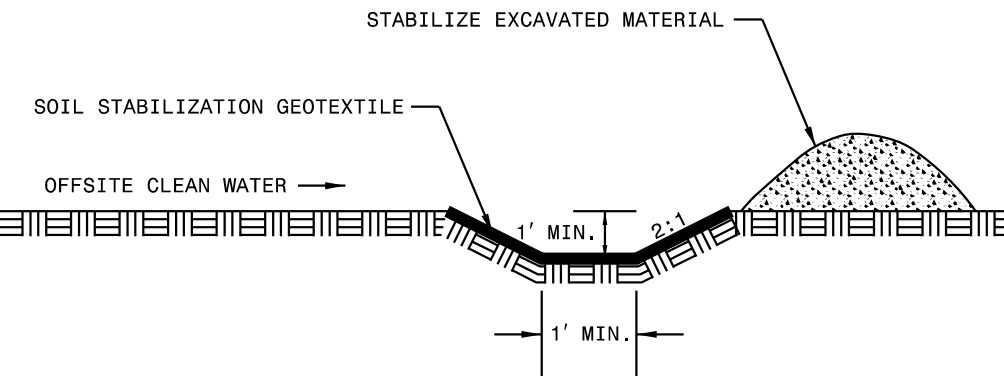
NAD 83/NA 2011

MATCHLINE -L- STA 73+00 (SEE SHEET 8)

MATCHLINE -L- STA 85+00 (SEE SHEET 10)

CLEAN WATER DIVERSION

→ CWD → CWD → CWD → CWD →
(Not to Scale)



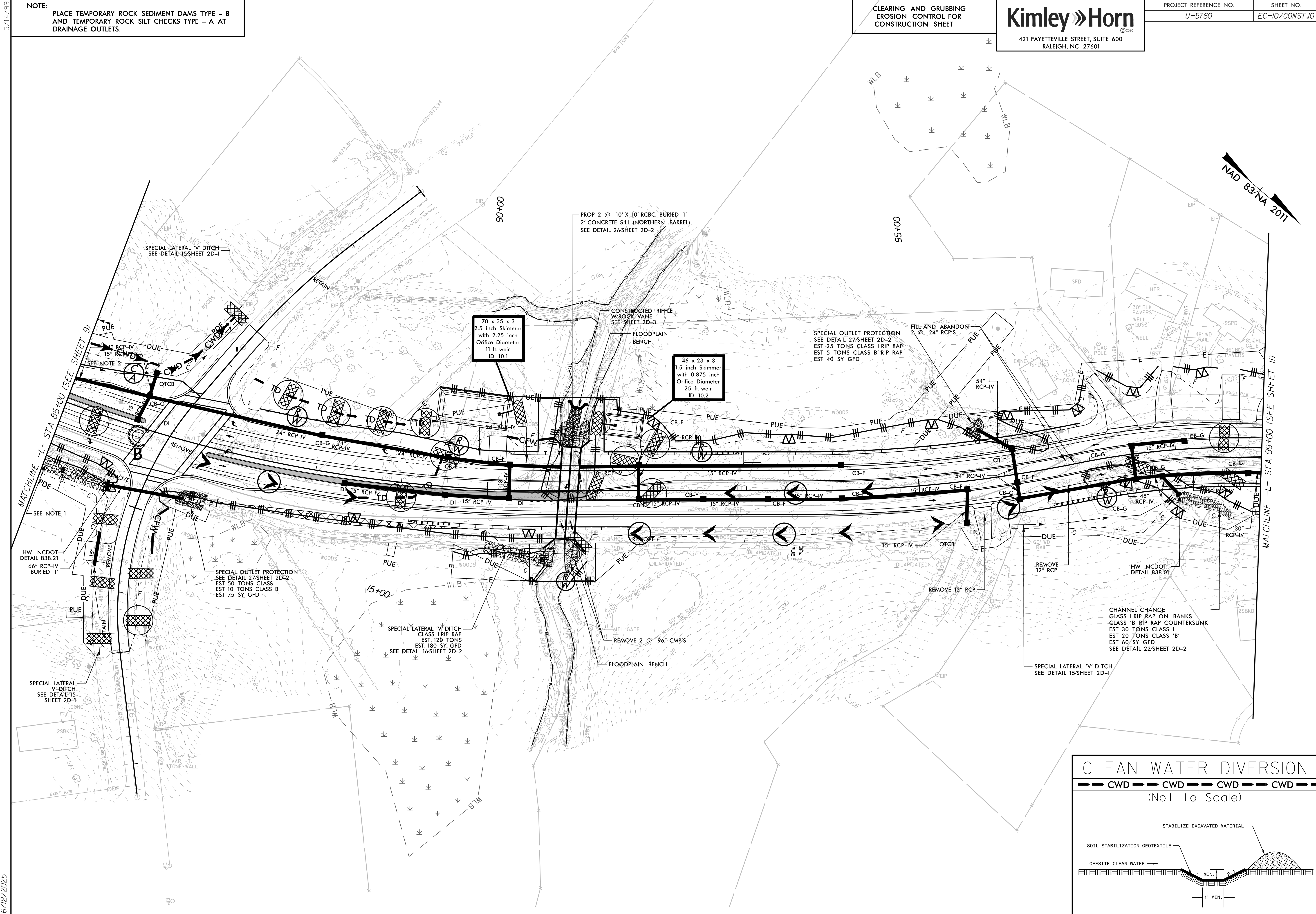
6/12/2025

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

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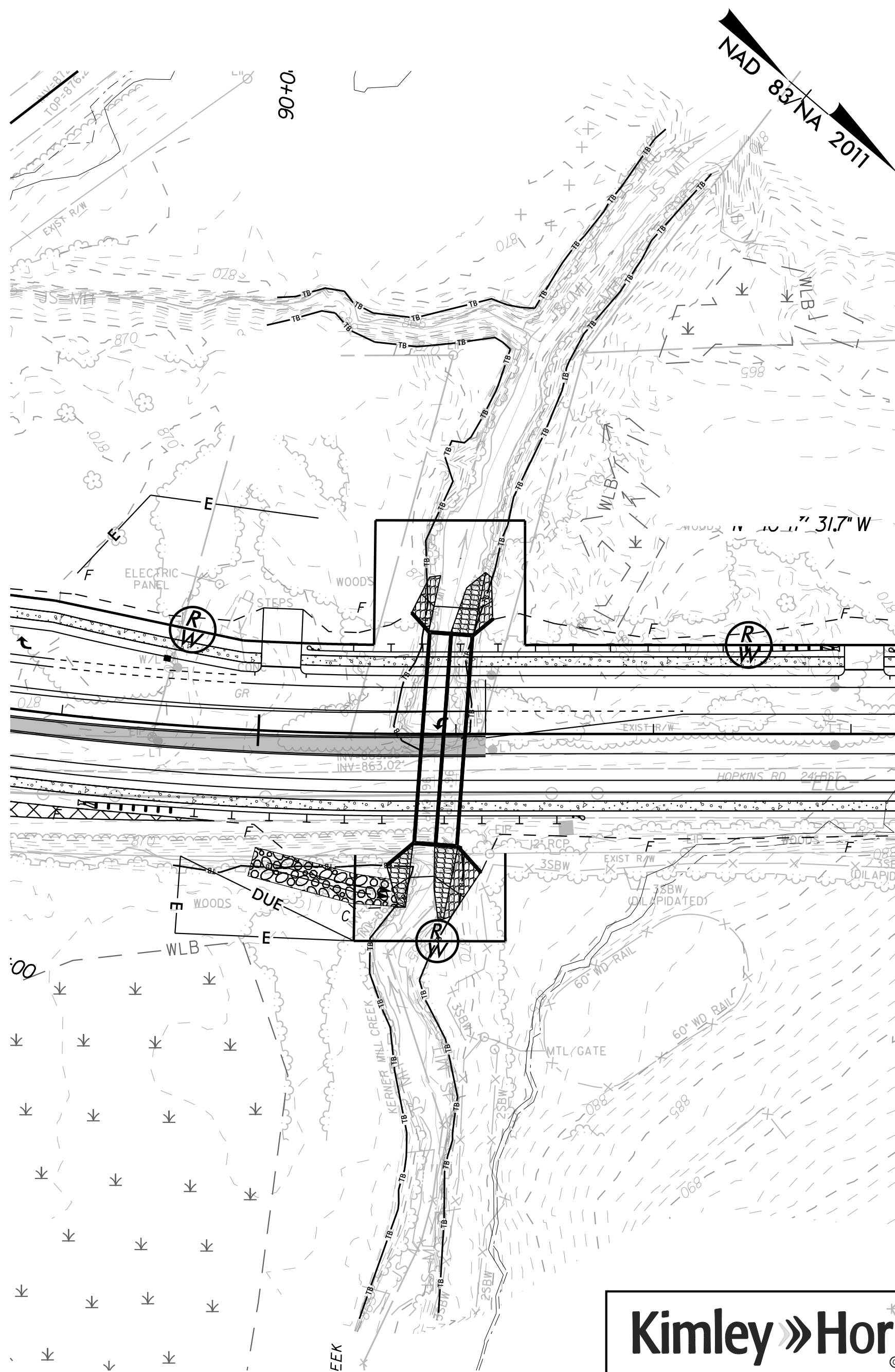
PROJECT REFERENCE NO. U-5760
SHEET NO. EC-10/CONST.10



CULVERT CONSTRUCTION SEQUENCE STA. 90+94 -L-

PHASE III

- 1.) REMOVE IMPERVIOUS DIKES 2 AND 3 AND TEMPORARY PIPES.
- 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.
- 5.) REFERENCE TRAFFIC CONTROL PLANS FOR ADDITIONAL DETAIL REGARDING TRAFFIC MANAGEMENT.



5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-5760	EC-10B/CONST.10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 14 + 80 –Y7–

PHASE I

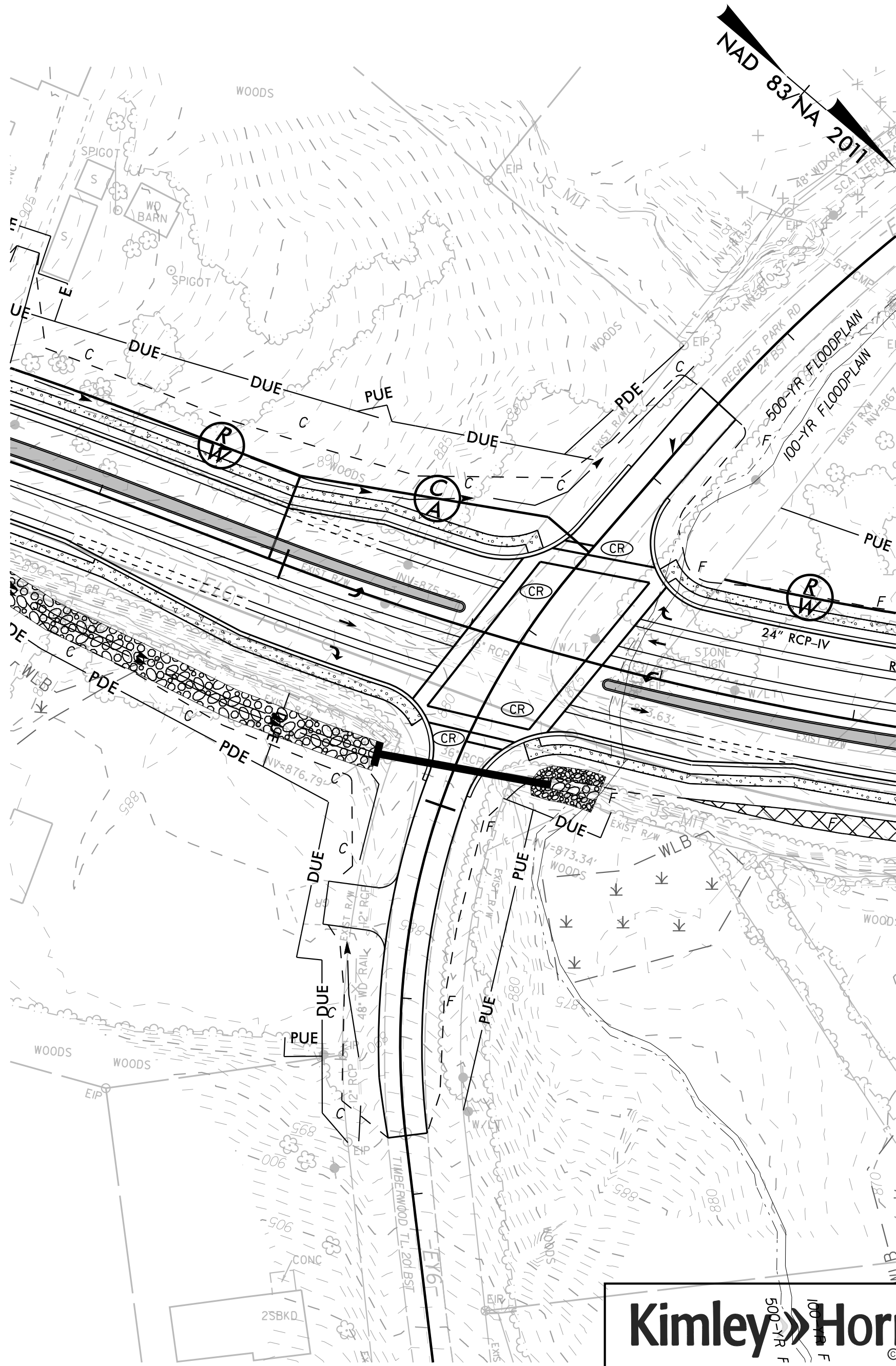
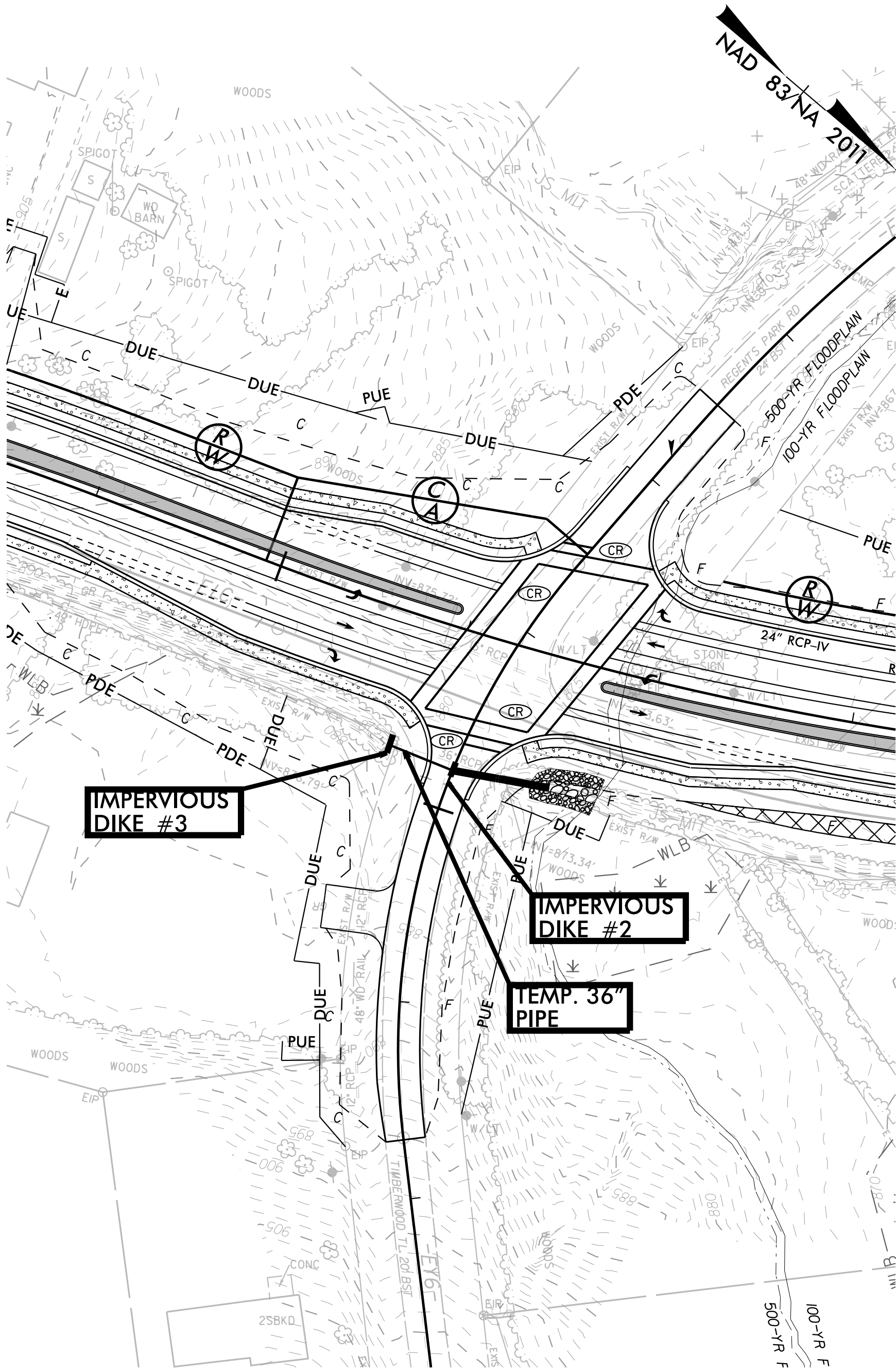
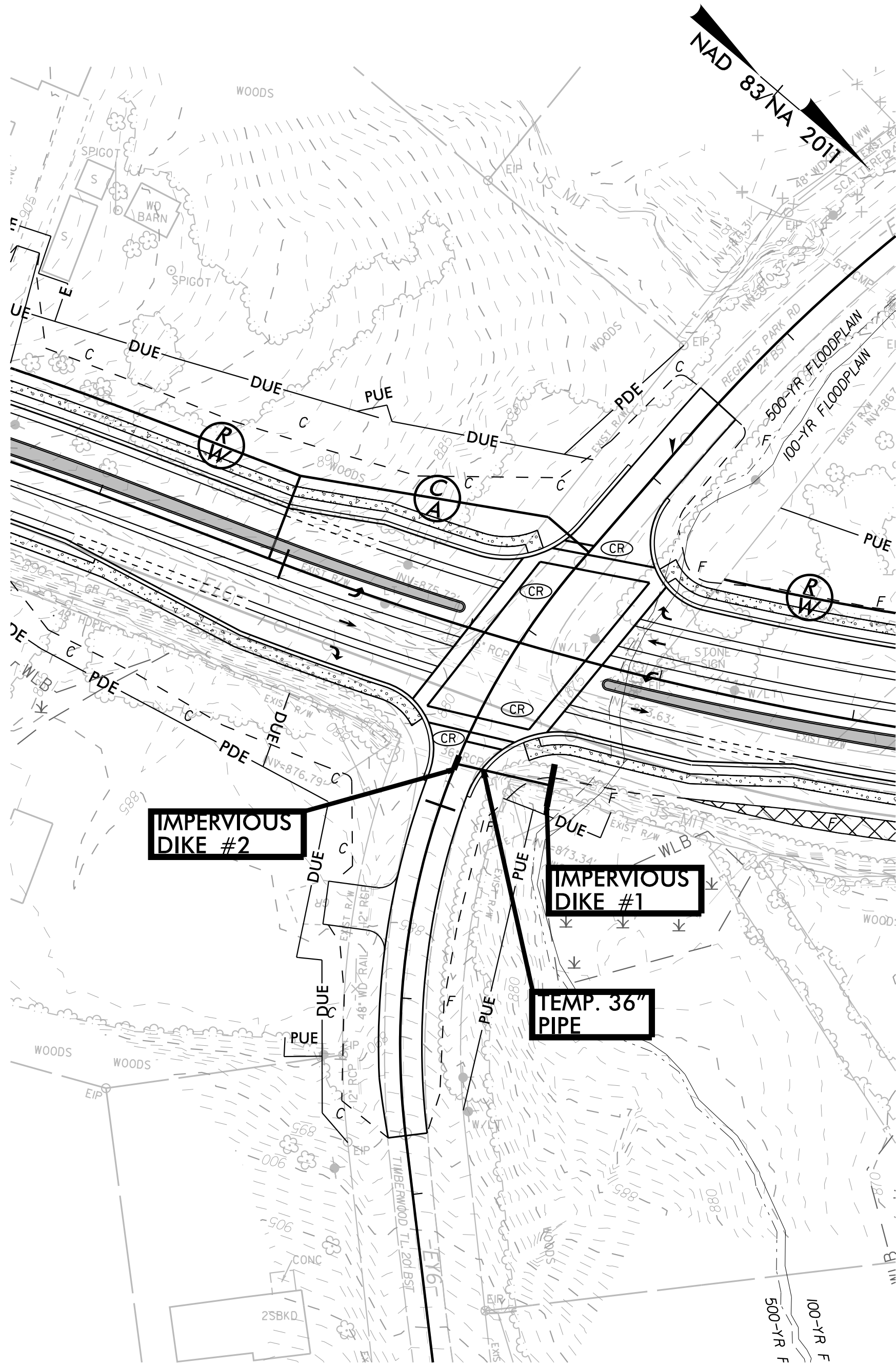
- 1.) UTILIZE SPECIAL STILLING BASIN(S) DURING CONSTRUCTION AS NEEDED TO DEWATER WORK SITE. (TYP.)
- 2.) CONSTRUCT IMPERVIOUS DIKES 1 AND 2 AND INSTALL 36 INCH TEMPORARY PIPE TO DIVERT THE FLOW INTO. ROUTE TEMPORARY PIPE THROUGH IMPERVIOUS DIKES.
- 3.) CONSTRUCT DOWNSTREAM PROPOSED 66" RCP (BURIED 1') AND DOWNSTREAM CHANNEL IMPROVEMENTS.

PHASE II

- 1.) REMOVE IMPERVIOUS DIKE 1 AND ADJUST IMPERVIOUS DIKE 2, PLACE IMPERVIOUS DIKE 3 ON UPSTREAM END OF CHANNEL. ROUTE TEMPORARY PIPE THROUGH IMPERVIOUS DIKES.
- 2.) CONSTRUCT UPSTREAM END OF PROPOSED 66" RCP (BURIED 1') AND UPSTREAM CHANNEL IMPROVEMENTS.

PHASE III

- 1.) REMOVE IMPERVIOUS DIKES 2 AND 3 AND TEMPORARY PIPE.
- 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.



6/12/2025

5/14/99

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

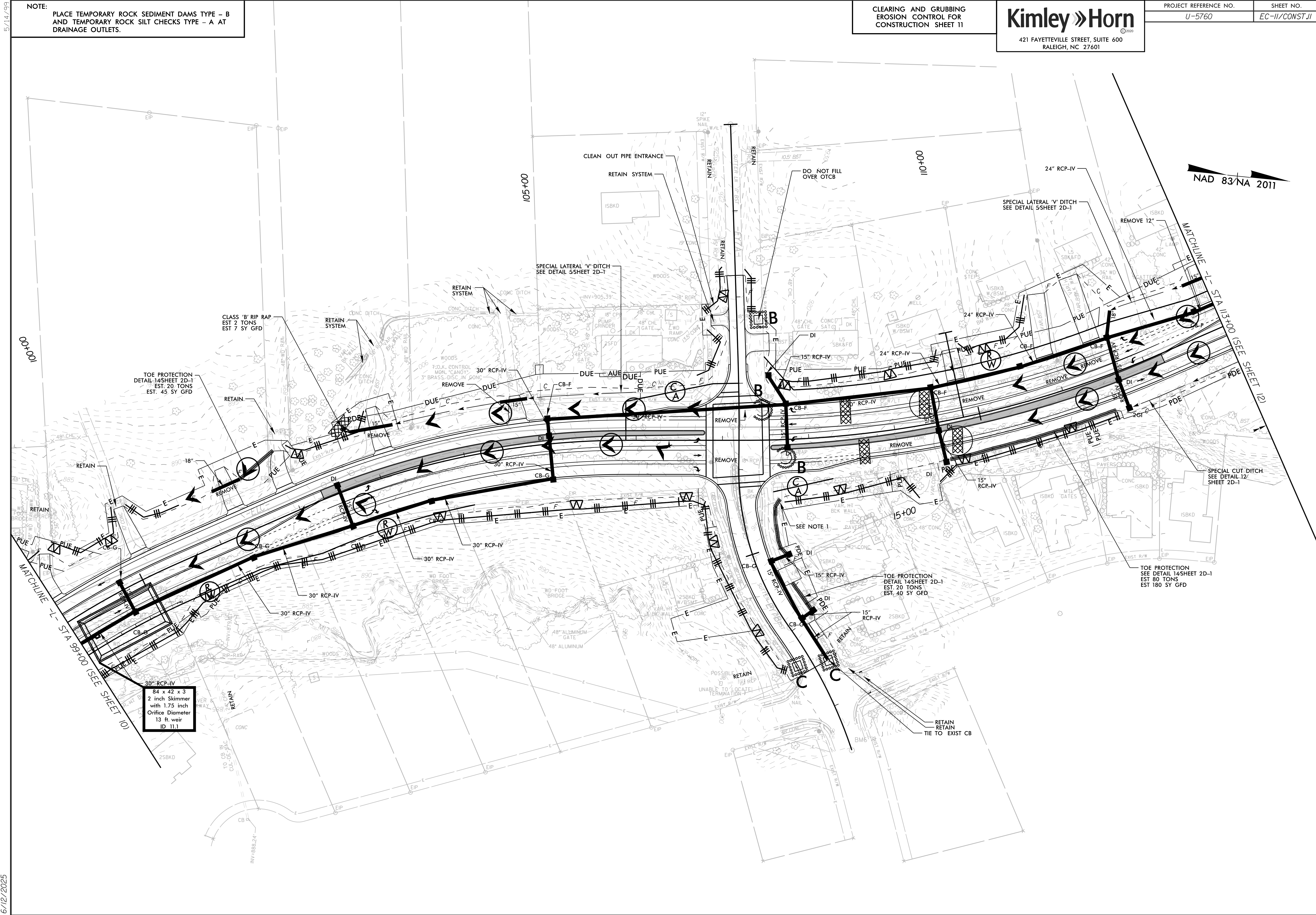
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11

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RALEIGH, NC 27601

PROJECT REFERENCE NO.	SHEET NO.
U-5760	EC-II/CONST/II

NAD 83/NA 2011



6/12/2025

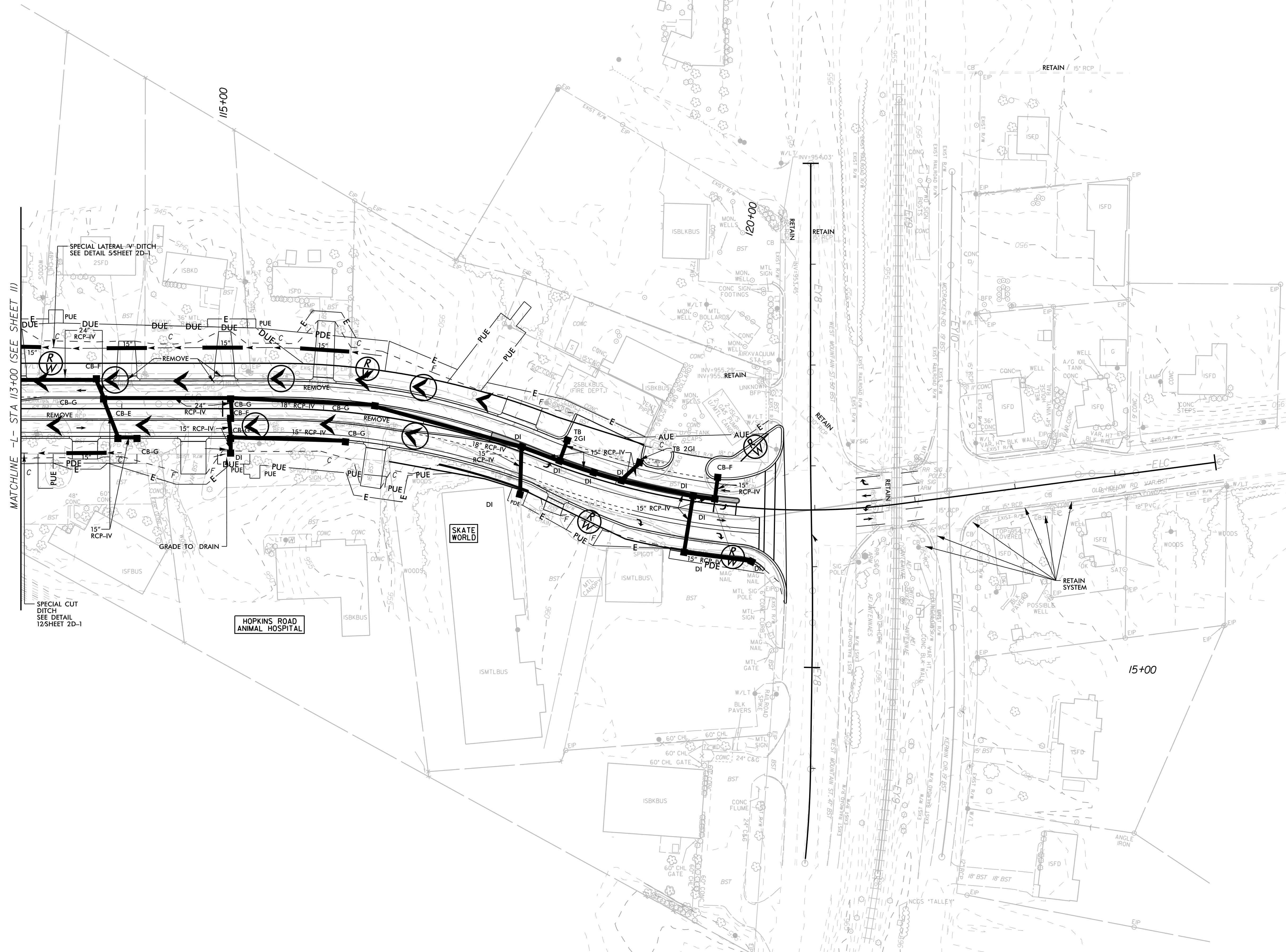
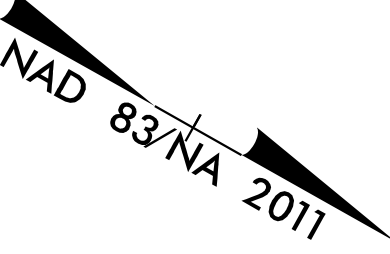
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12

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PROJECT REFERENCE NO.	SHEET NO.
U-5760	EC-12/CONST.12



SPECIAL LATERAL V-DITCH
SEE DETAIL 5 SHEET 2D-1

SPECIAL CUT
DITCH
SEE DETAIL
12 SHEET 2D-1

HOPKINS ROAD
ANIMAL HOSPITAL

SKATE
WORLD

RETAIN
SYSTEM

NOTES:
1. CONSTRUCT RETAINING WALL - WALL 4- FROM
-L- STA 117+25.00 TO 118+22.00 (RT)

5/14/99

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

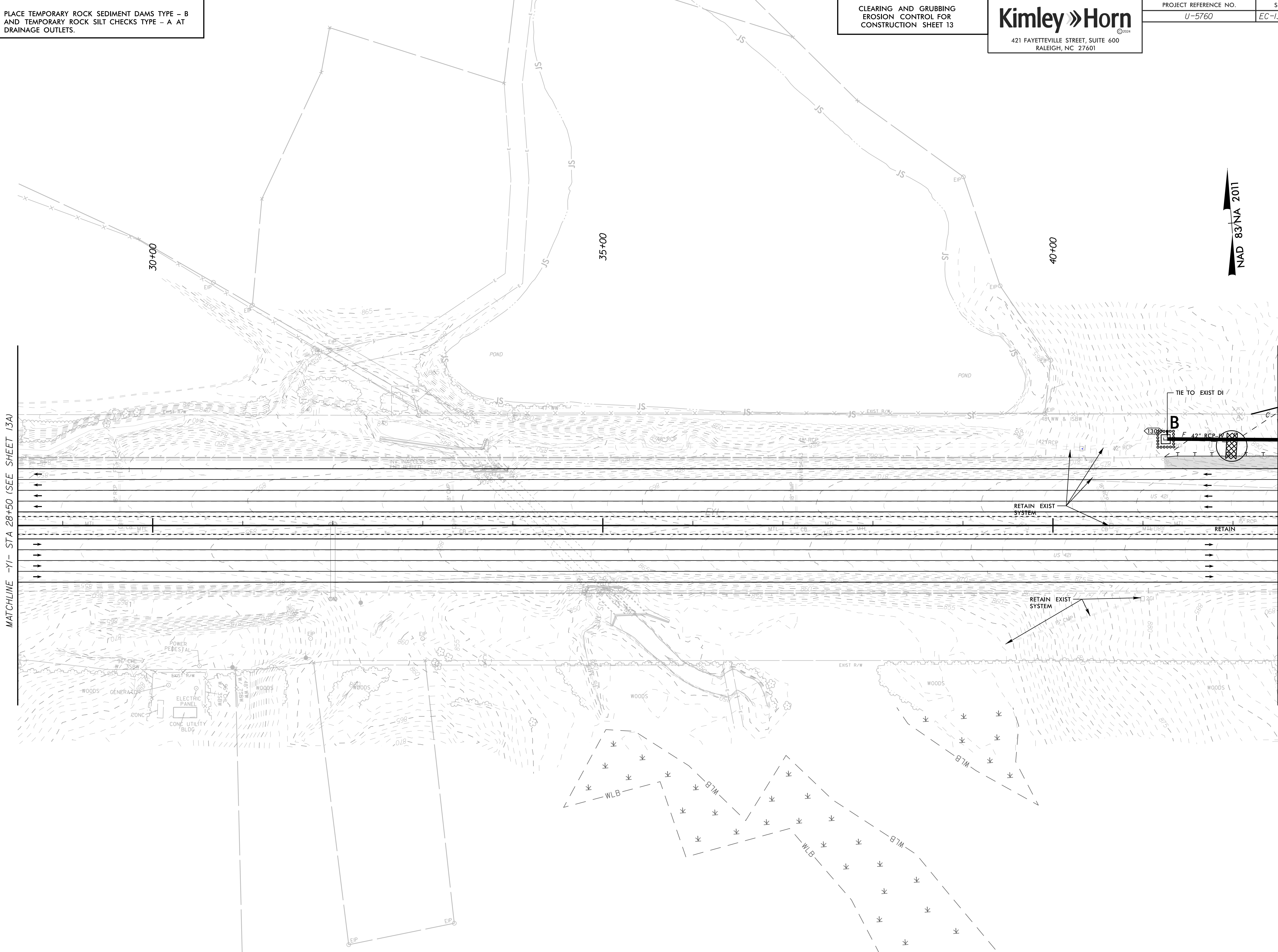
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 13

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PROJECT REFERENCE NO.	SHEET NO.
U-5760	EC-13/CONST.13

6/12/2025



NAD 83/NA 2011

MATCHLINE -YI- STA 28+50 (SEE SHEET 13A)

MATCHLINE -YI- STA 42+50 (SEE SHEET 5)

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 14

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RALEIGH, NC 27601

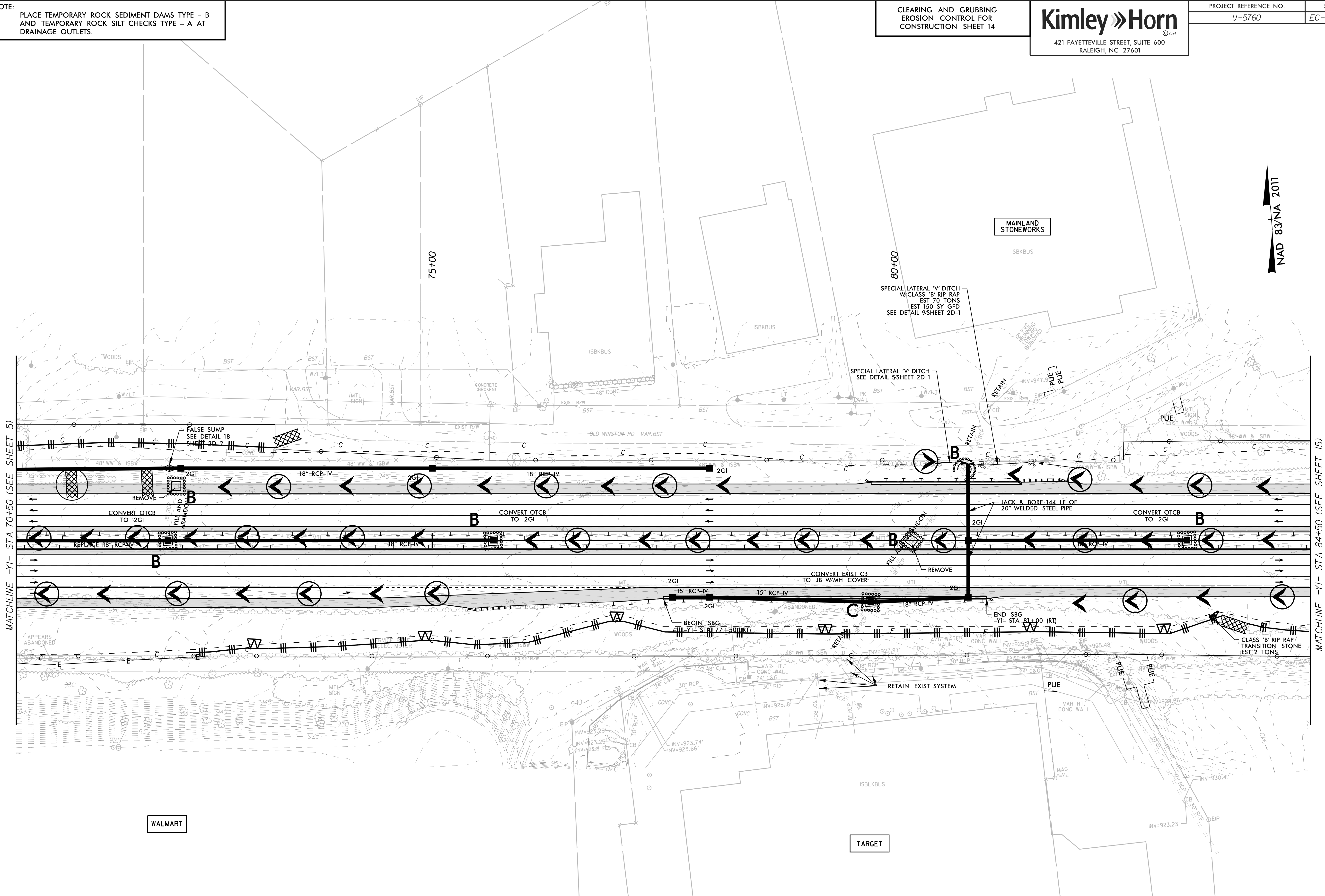
PROJECT REFERENCE NO.

U-5760

SHEET NO.

EC-14/CONST.14

NAD 83/NA 2011



MATCHLINE -YI- STA 70+50 (SEE SHEET 5)

MATCHLINE -YI- STA 84+50 (SEE SHEET 15)

NOTES:
1. USE 8' GUARDRAIL POSTS FOR MEDIAN GUARDRAIL

8/6/2025

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 15

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RALEIGH, NC 27601

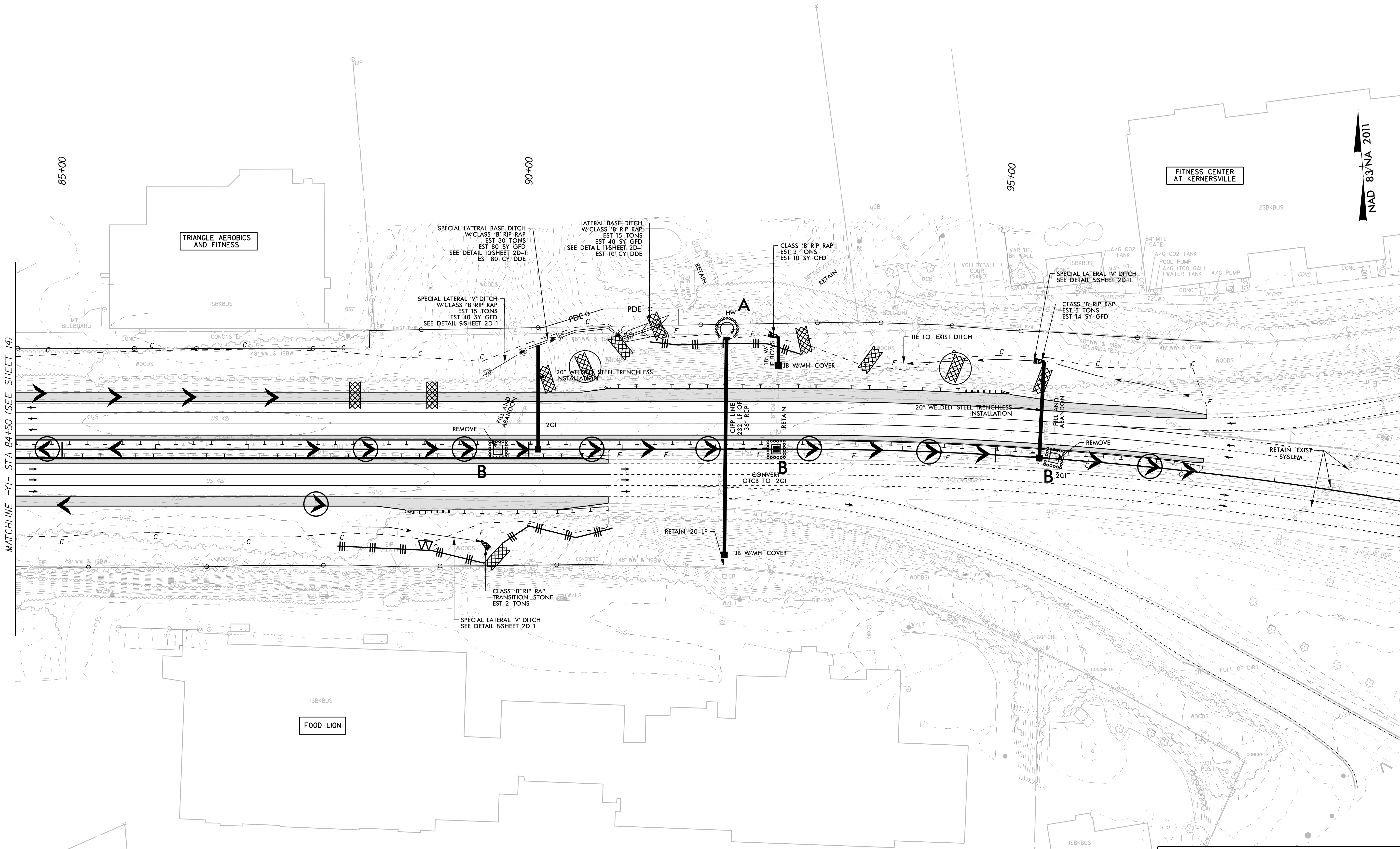
PROJECT REFERENCE NO.

U-5760

SHEET NO.

EC-15/CONST J5

NAD 83/NA 2011



NOTES:
1. USE 8' GUARDRAIL POSTS FOR MEDIAN GUARDRAIL

8/6/2025