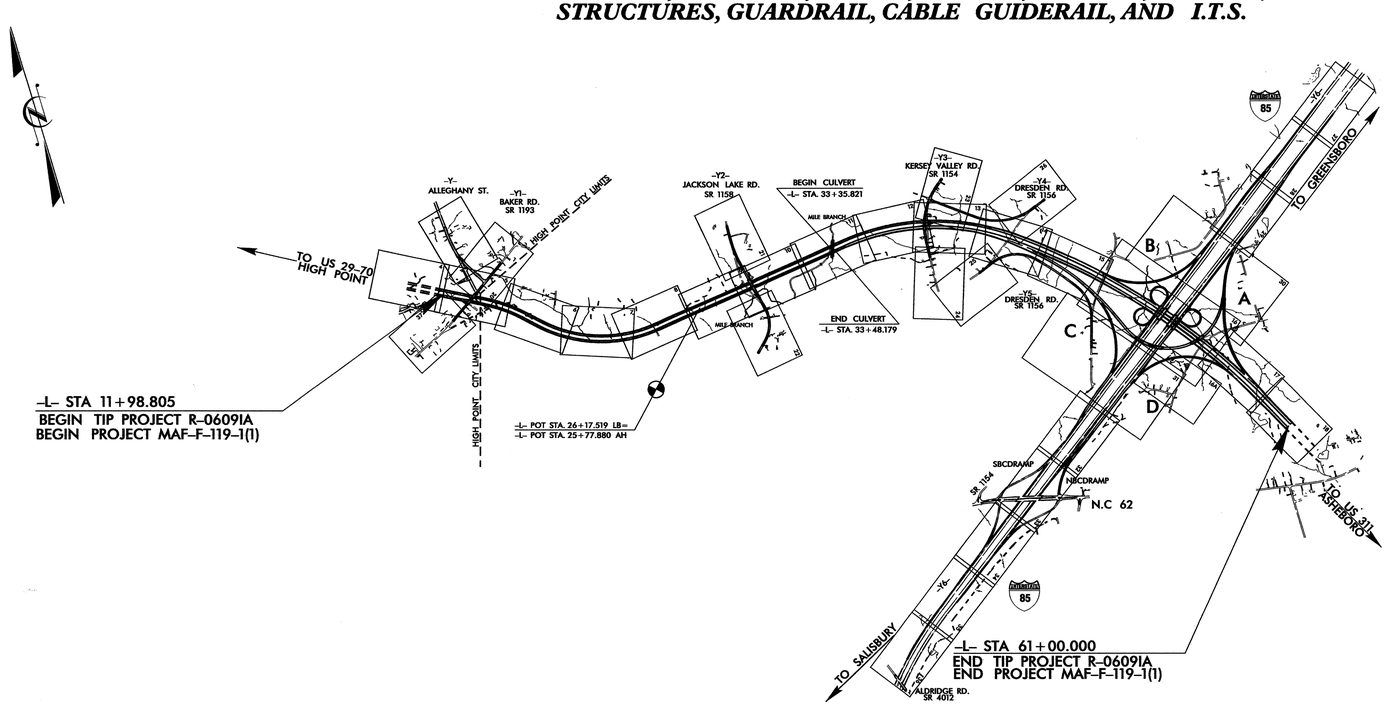
TIP PROJECT: R-0609IA

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

LOCATION: US 311 HIGH POINT EAST BELTWAY FROM US 29-70 TO I-85 NORTH OF ARCHDALE

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNING, SIGNALS, FENCING, CULVERTS, STRUCTURES, GUARDRAIL, CABLE GUIDERAIL, AND I.T.S.



ALL DIMENSIONS IN THESE PLANS ARE IN METERS UNLESS OTHERWISE SHOWN

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-0609IA	EC-1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
	Streambank Reforestation	
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.01	Riser Basin	
1630.02	Silt Basin Type B	
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	
1630.04	Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A OR A
1632.02	Type B	B OR B
1632.03	Type C	C OR C

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

0
PLANS

0
PROFILE (HORIZONTAL)

0
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

Prepared In the Office of:

ROADSIDE ENVIRONMENTAL UNIT

1 South Wilmington St.
Raleigh, NC 27611

2002 STANDARD SPECIFICATIONS

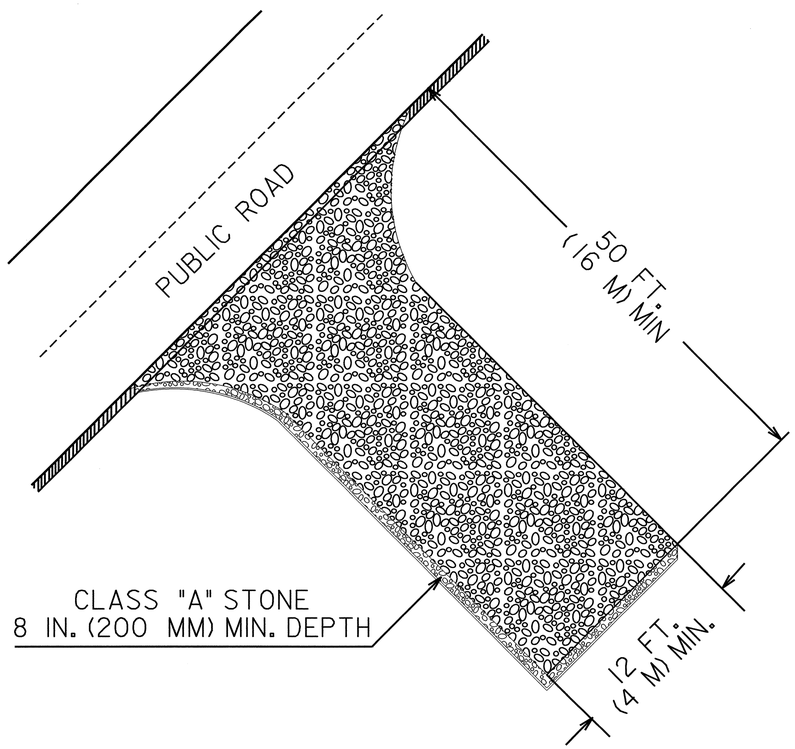
Roadway Standard Drawings

The following roadway metric standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 20, 2002 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01	Temporary Silt Fence	1632.01	Rock Inlet Sediment Trap Type A
1622.01	Temporary Berms and Slope Drains	1632.02	Rock Inlet Sediment Trap Type B
1630.01	Riser Basin	1633.01	Temporary Rock Silt Check Type A
1630.02	Silt Basin Type B	1633.02	Temporary Rock Silt Check Type B
1630.03	Temporary Silt Ditch	1634.01	Temporary Rock Sediment Dam Type A
1630.04	Stilling Basin	1634.02	Temporary Rock Sediment Dam Type B
1630.05	Temporary Diversion	1635.01	Rock Pipe Inlet Sediment Trap Type A
		1635.02	Rock Pipe Inlet Sediment Trap Type B

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
R-0609IA	EC-2	
STATE PROJECT NO.	F.A. PROJ. NO.	DESCRIPTION

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE



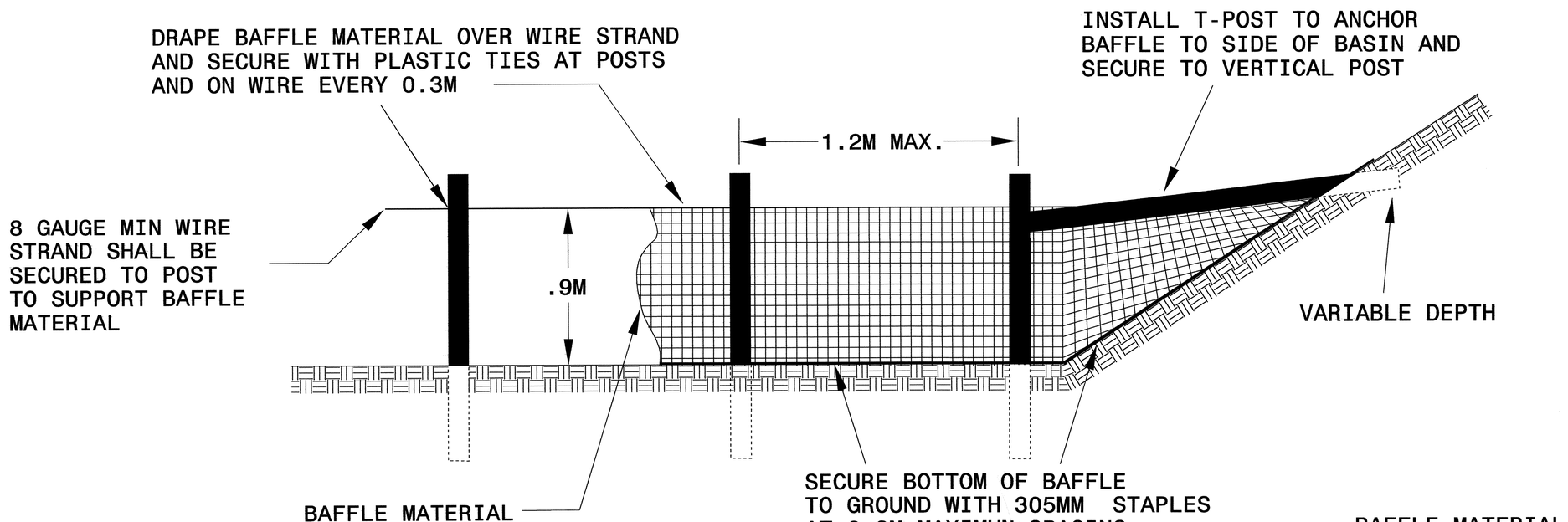
NOTES:

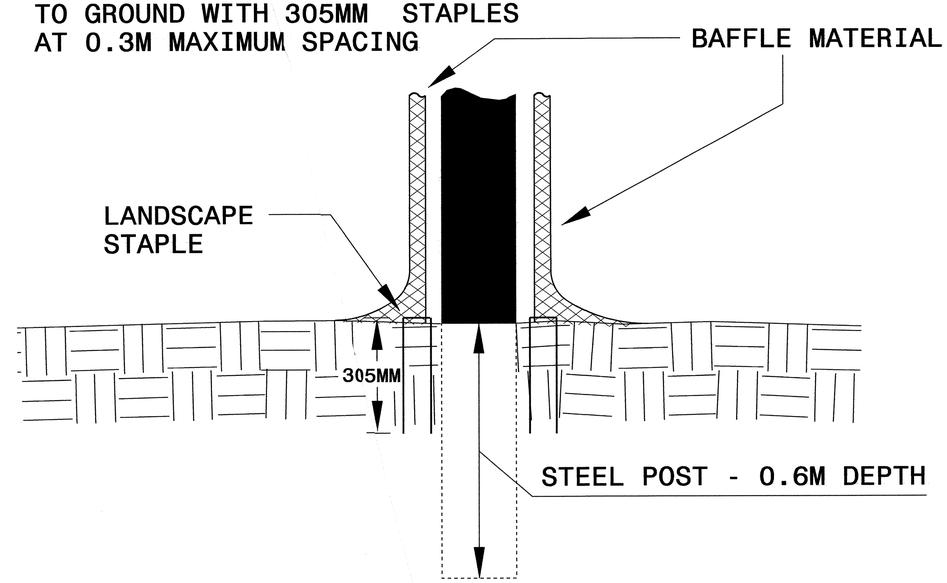
1. TURNING RADIUS SUFFICIENT TO ACCOMODATE LARGE TRUCKS SHALL BE PROVIDED.
2. ENTRANCE(S) SHOULD BE LOCATED TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
4. ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
5. GRAVEL CONSTRUCTION ENTRANCE SHALL BE LOCATED AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE MUST BE PROVIDED.
6. NUMBER AND LOCATION OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY THE ENGINEER

NOTE: FILTER FABRIC TO BE PLACED BENEATH STONE

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-2A
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL

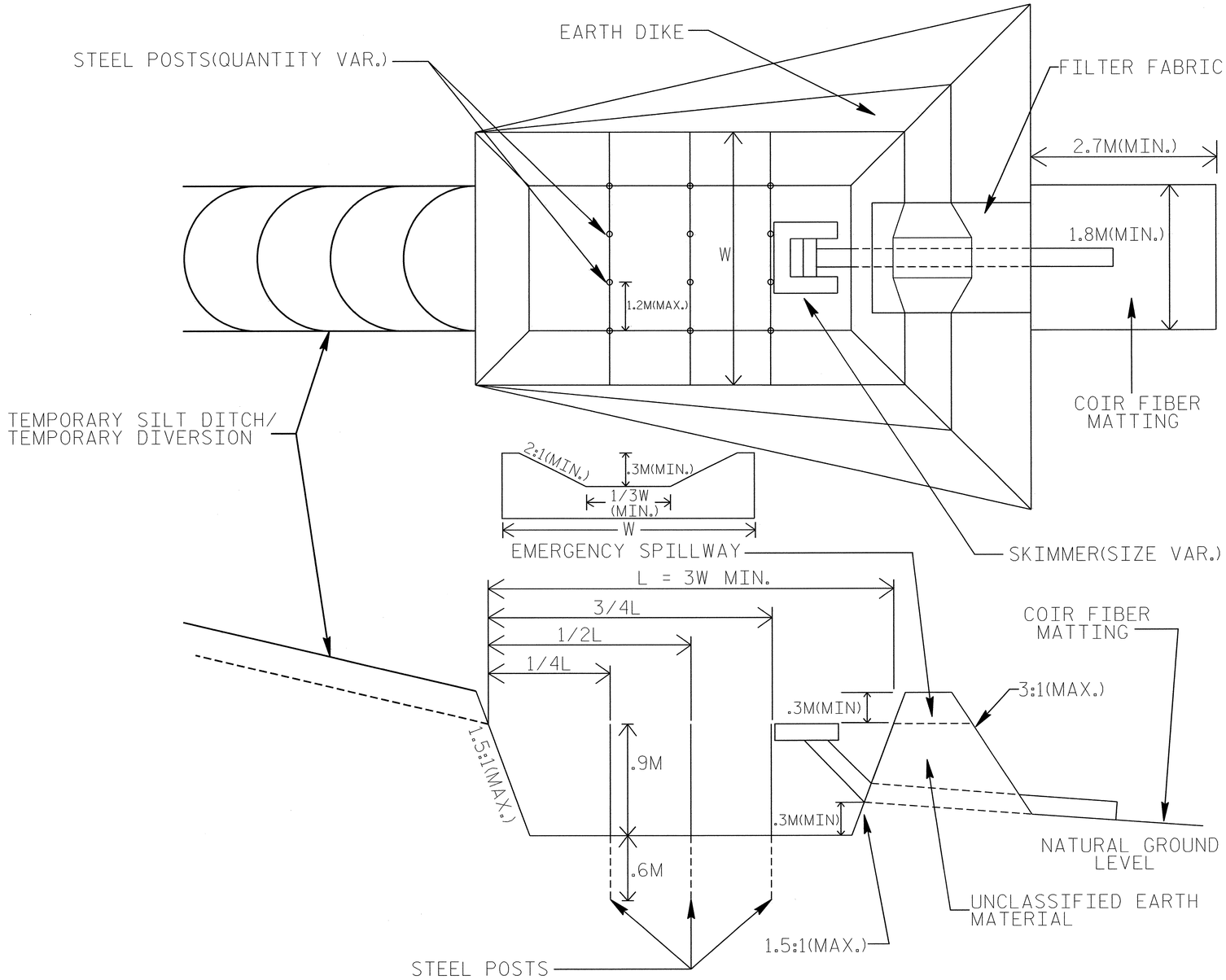


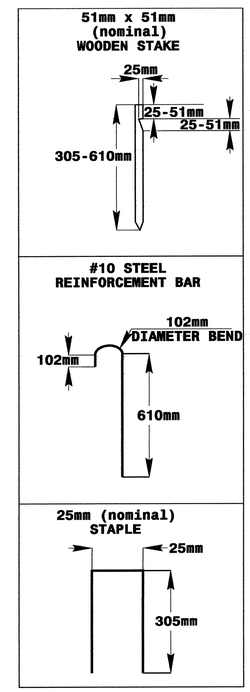


BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 305MM LANDSCAPE STAPLES

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-2B
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL

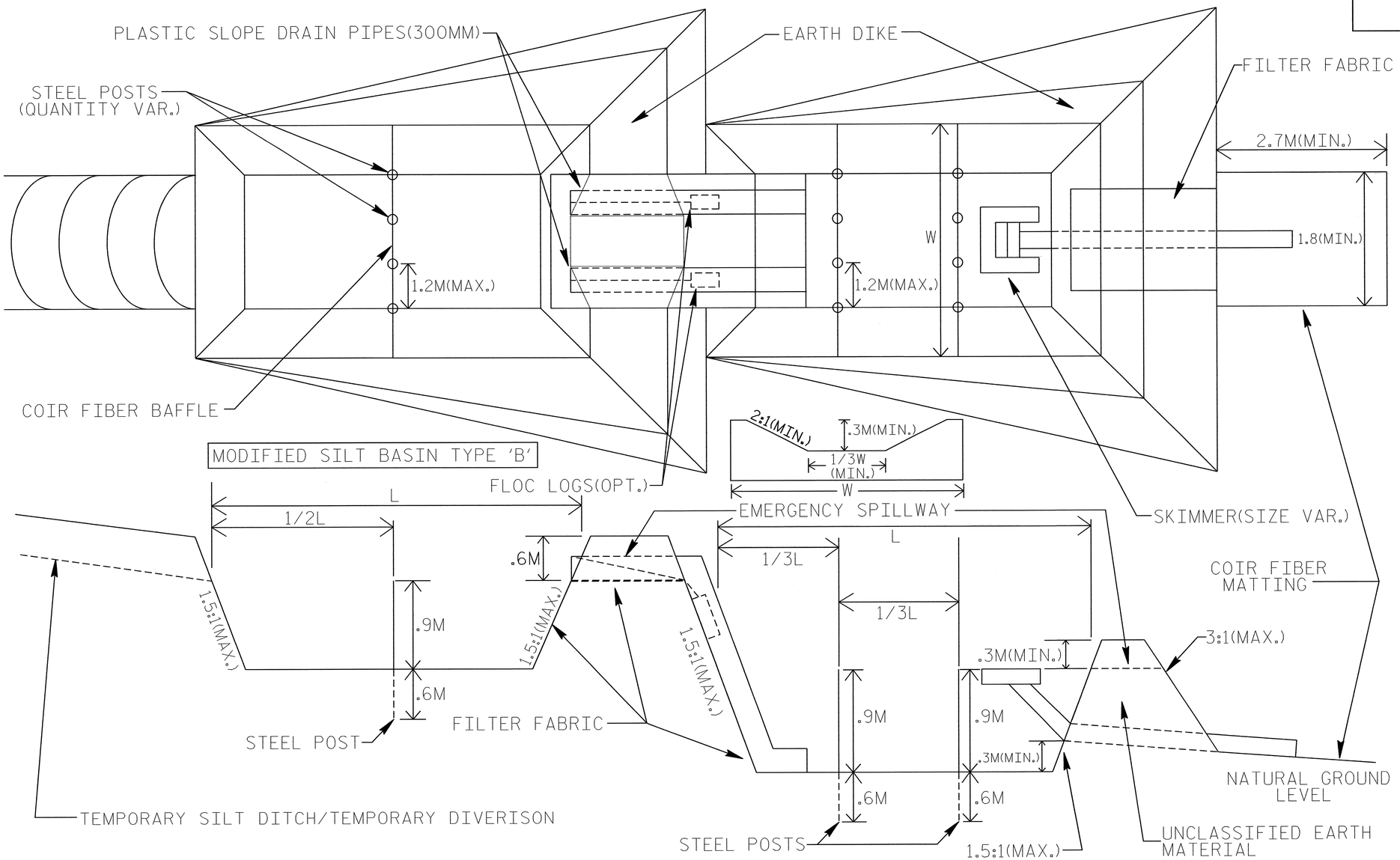




COIR FIBER MAT ANCHOR OPTIONS

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-2C
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TIERED SKIMMER BASIN DETAIL

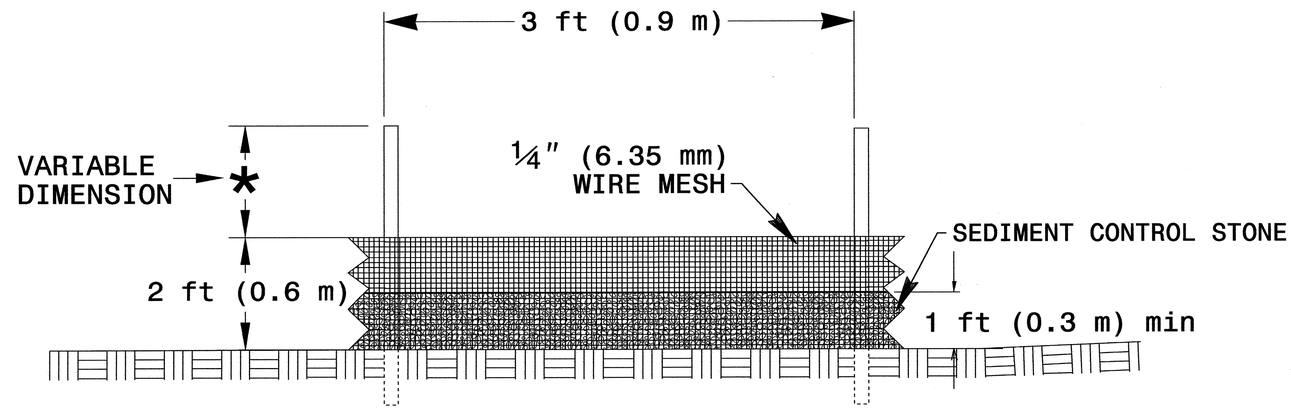


NOTE

ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-2D
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SPECIAL SEDIMENT CONTROL FENCE DETAIL



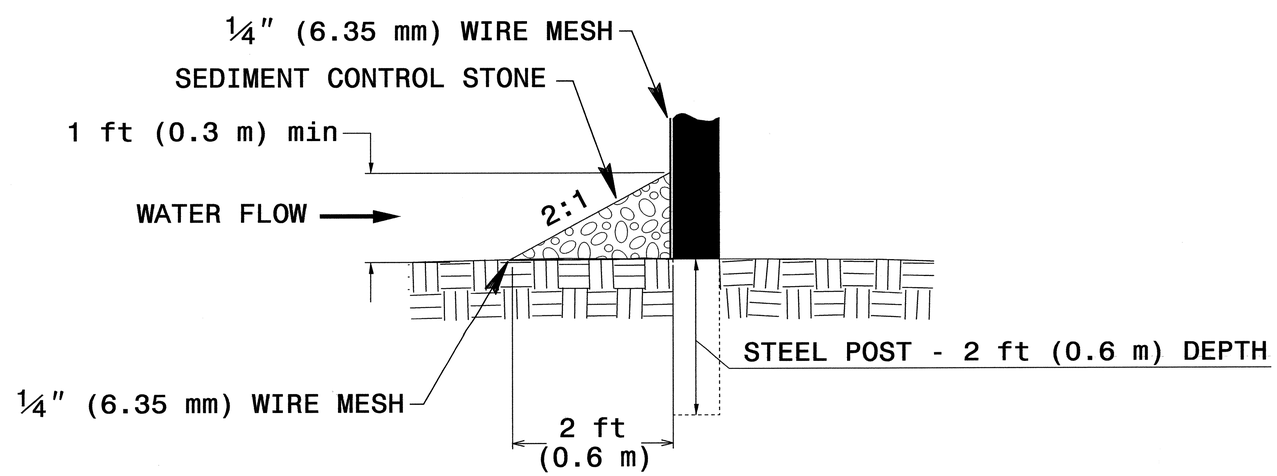
GENERAL NOTES:

USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL.

USE HARDWARE CLOTH 24 GAUGE WIRE MESH WITH ¼" (6.35 MM) MESH OPENINGS.

INSTALL 5 FT. (1.5 M) SELF FASTENER ANGLE STEEL POST 2 FT. (0.6 M) DEEP MINIMUM.

SPACE POST A MAXIMUM OF 3 FT (0.9 M).



PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SM)
5	Y1	13+20	13+80	RT	15
5	Y1	11+20	12+00	LT	15
5	Y1	13+20	14+20	LT	20
5	L	12+40	12+60	RT	5
5	L	12+00	12+20	MED	10
5	L	14+80	15+00	MED	10
5	L	15+60	19+00	MED	105
6	L	16+60	19+00	RT	40
6	L	15+60	17+80	LT	35
6	L	18+20	18+40	LT	5
7	L	21+80	25+40	LT	55
7	L	19+00	19+20	MED	10
7	L	19+20	27+40	LT	245
8	L	24+60	25+40	RT	15
8	L	25+28	25+65	LT	10
9	L	26+20	28+20	RT	25
9	L	25+80	28+00	LT	30
9	L	27+40	27+60	MED	10
10	L	28+60	29+00	RT	10
10	L	29+60	31+20	RT	25
10	L	28+80	32+00	LT	100
11	L	34+20	37+20	RT	45
11	L	31+80	37+20	MED	160
12	L	35+80	38+20	LT	30
13	Y3	13+00	14+20	RT	25
13	Y3	13+15	14+20	LT	20
13	Y4	14+72	15+02	LT	5
13	DET2	12+80	15+00	RT	20
13	DET2	12+60	15+00	LT	20
14	Y5	12+39.4	14+18	RT	20

MATTING

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SM)
15	L	45+20	50+60	RT	75
15	L	46+60	48+00	LT	20
15	L	46+80	50+60	MED	115
15	FLY	13+54.2	16+60	RT	40
15	FLY	13+54.2	15+67.4	LT	35
16	RAMPB	14+47	15+87.4	RT	25
16	RAMPB	14+25.8	15+26	LT	20
16	NBCD	23+02	23+42.9	LT	10
16	L	53+20	53+60	RT	5
16	L	49+60	50+40	LT	15
16	L	50+70	50+95	LT	20
16	LOOPB	10+25.1	10+45.5	RT	5
16	FLY	16+60	17+80	RT	20
16	Y5	17+19.4	17+47	RT	5
17	RAMPD	15+07.7	16+27.8	RT	15
17	L	55+60	60+80	MED	155
17	L	58+40	58+60	RT	5
18	L	59+60	60+40	RT	20
20	Y1	10+40	11+20	RT	10
21	Y2	11+60	11+80	RT	5
21	Y2	10+00	12+20	LT	20
22	Y2	16+00	17+40	LT	20
23	Y3	10+20	11+40	RT	20
23	Y3	10+20	10+60	LT	10
23	DET2	10+20	10+40	RT	5
23	DET2	10+20	10+40	LT	5
25	Y5	10+20	11+80	RT	25
25	Y5	10+60	11+60	LT	20
26	Y4	11+80	12+54	RT	15
26	Y4	11+20	11+40	LT	5

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-3A
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SM)
26	Y4	11+80	14+03.4	LT	35
27	Y6	13+60	15+00	RT	25
27	Y6	13+60	15+80	LT	35
28	NBCD	10+02.6	10+82.6	LT	5
28	NBCD	11+22.6	13+02.9	LT	30
29	NBCD	13+90	18+62.9	LT	95
30	NBCD	18+82.9	19+02.9	LT	5
30	FLY	24+80	26+46.4	RT	30
30	FLY	25+00	26+46	LT	25
31	RAMPC	13+20	13+80	RT	10
31	RAMPD	11+47.9	13+92.7	RT	225
31	RAMPD	10+89	13+72	LT	50
31	Y5	17+70	19+39	LT	40
31	SBCD	23+40	24+15	RT	25
31	NBCD	24+72.8	25+62.9	LT	30
32	NBCDRP	10+18.5	12+55.6	LT	45
32	SBCDRP	10+41.5	13+20	RT	40
34	Y6	43+20	47+20	RT	75
34	Y6	43+20	44+23	LT	15
35	Y6	44+40	45+60	LT	25
36	Y6	48+60.1	49+64	RT	40
				SUBTOTAL	2810
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					8460
				TOTAL	11270
				SAY	11300

MATTING

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

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-3B
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SM)
7	L	19+40	20+39	RT	25
7	L	20+00	20+40	LT	20
7	L	21+22	21+70	LT	15
9	L	25+80	26+20	LT-BERM	5
10	Y2	14+05	16+60	RT	40
10	L	28+20	28+30	RT	5
10	L	29+35	29+55	RT	5
13	L	39+00	39+80	RT-BERM	35
13	L	39+90	40+33	LT	10
13	L	40+80	41+00	LT	5
15	Y5	14+90	15+20	RT	10
15	Y5	15+10	15+47	LT	5
16	RAMPA	12+10	13+44	LT	40
16	RAMPA	11+34	12+40	RT	20
16	RAMPB	13+11.7	13+79.9	LT	15
16	LOOPA	10+72	10+88	LT	5
16	LOOPA	11+00	11+22.4	LT	5
16	LOOPA	12+13.7	12+35	LT	5
16	LOOPB	12+17	12+51.3	LT	10
16	LOOPC	10+61.3	11+20	LT	10
16	LOOPC	11+50	12+12.2	LT	10
16	NBCD	21+83.9	22+22.9	LT	10
16	L	51+40	51+60	RT	5
16	L	55+20	56+00	RT	20
16	L	51+00	51+20	LT	5
16	FLY	22+60	24+00	RT	25
16	FLY	17+90	18+40	RT	15
17	RAMPA	13+86.8	14+64	RT	15
17	L	57+40	57+80	RT	5
17	L	58+88	59+60	RT	20

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SM)
18	L	60+60	61+20	LT	20
20	Y1	10+40	10+60	LT	5
21	Y2	10+00	11+20	RT	20
21	Y2	12+20	12+95	LT	10
23	Y4	16+20	16+40	RT	5
23	Y4	16+20	16+40	LT	5
26	Y4	11+40	11+48	RT	5
28	Y6	16+25	17+40	RT	10
28	Y6	17+65	18+00	RT	10
29	SBCD	12+80	13+02	RT	5
29	Y6	18+70	19+53	RT	20
30	NBCD	18+62.9	18+82.9	LT	5
30	NBCD	19+42.9	19+90.9	LT	15
30	FLY	24+00	24+25	LT	10
31	RAMPC	13+80	14+12.7	RT	5
31	RAMPC	14+34	15+42	RT	15
31	RAMPD	13+77	14+10	RT	10
31	SBCD	24+15	24+32	RT	5
31	SBCD	24+45	24+92	RT	10
32	SBCDRP	11+83	12+60	LT	15
				SUBTOTAL	625
		ADDITIONAL	PSRM TO BE	INSTALLED	55
				TOTAL	680
				SAY	700

PROJECT REFERENCE NO.	SHEET NO.
R-0690 IA	EC-4/CONST.4
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

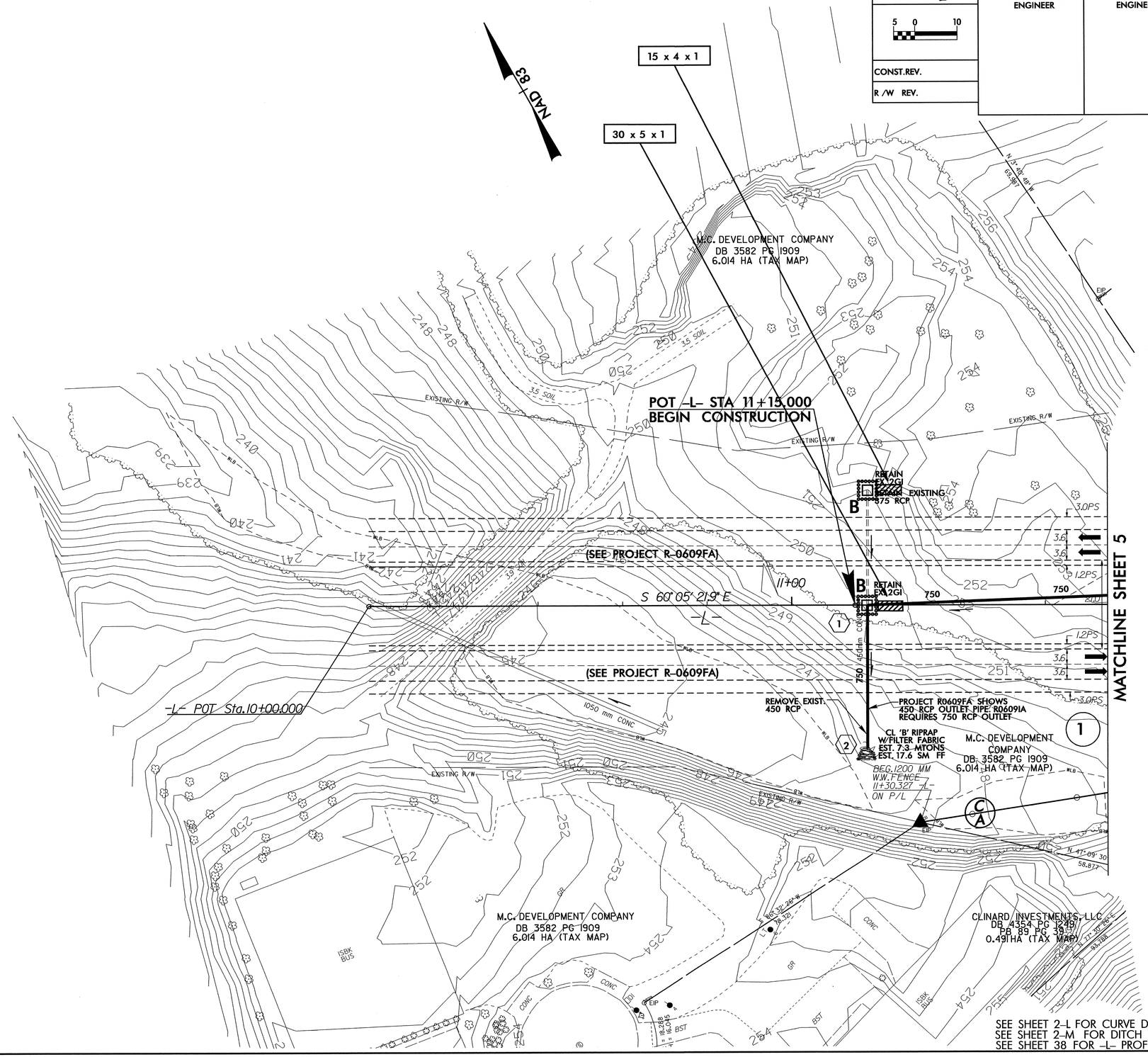
5 0 10

CONST.REV.

R /W REV.

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.



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 38 FOR -L- PROFILE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5

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

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-5/CONST.5
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

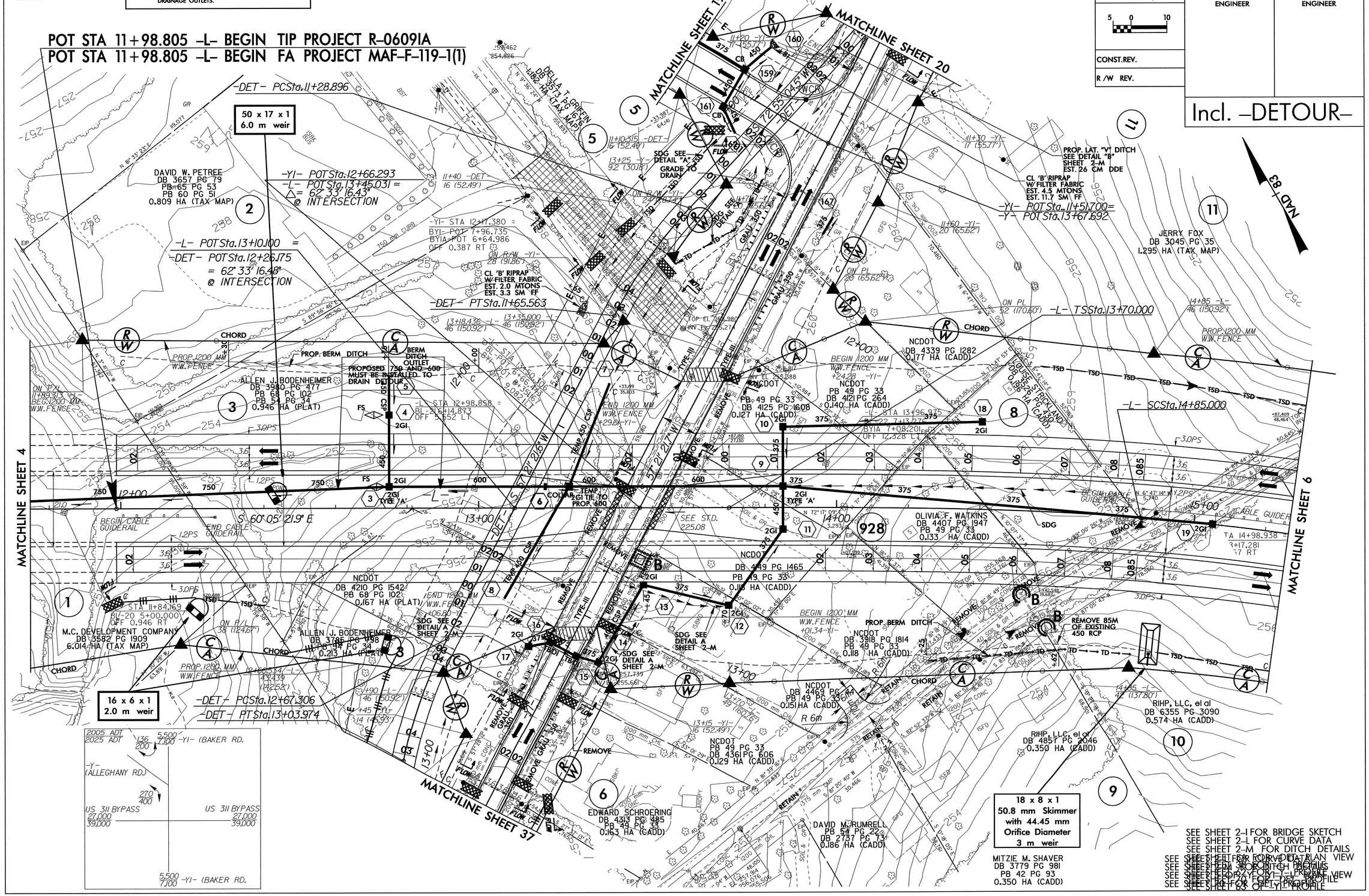
METRIC 5 0 10

CONST.REV.

R /W REV.

Incl. –DETOUR–

POT STA 11+98.805 -L- BEGIN TIP PROJECT R-0609IA
POT STA 11+98.805 -L- BEGIN FA PROJECT MAF-F-119-1(1)



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

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

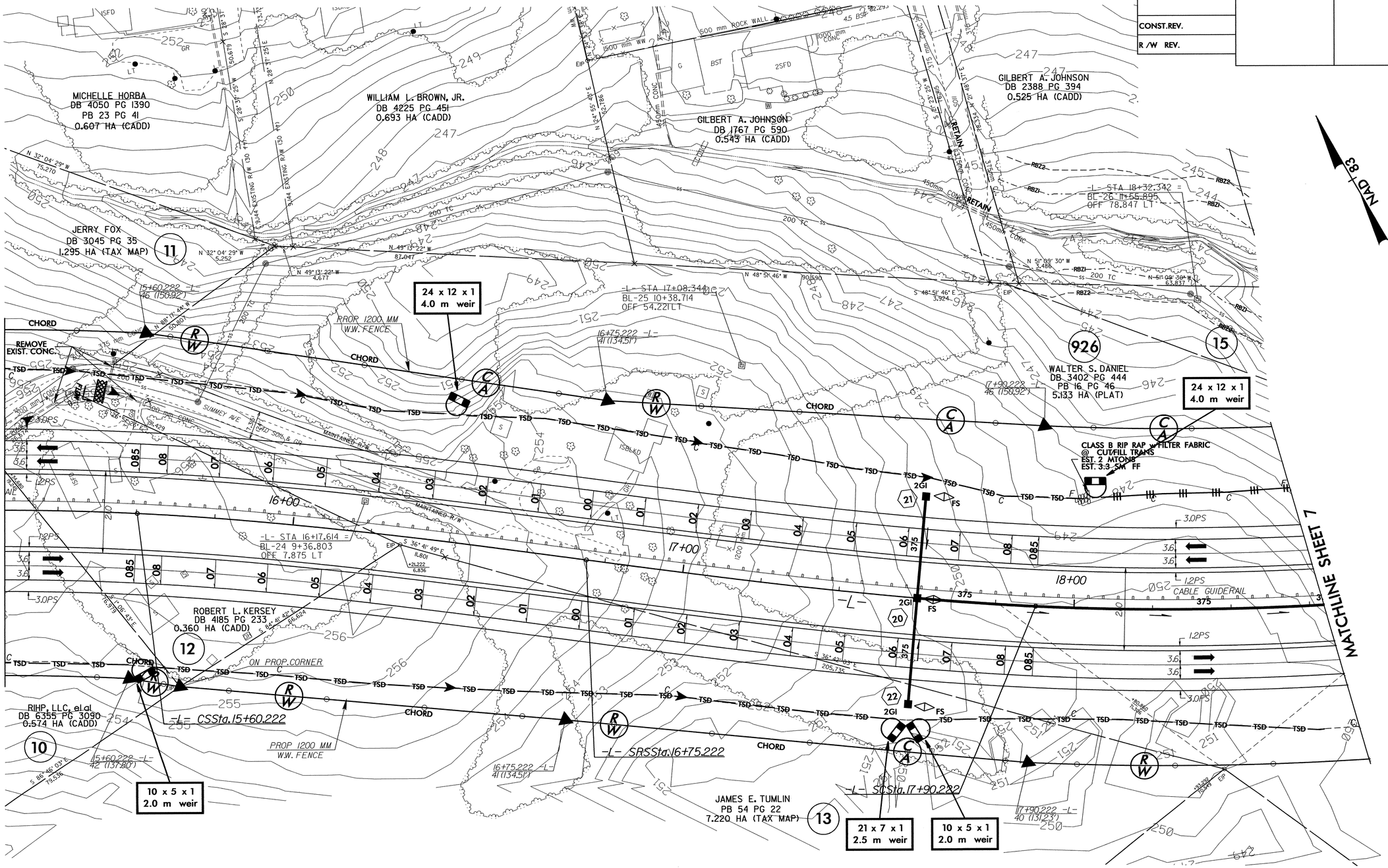
METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-6/CONST.6
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CONST.REV.

R /W REV.



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEETS 38, 39 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-7/CONST.7
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

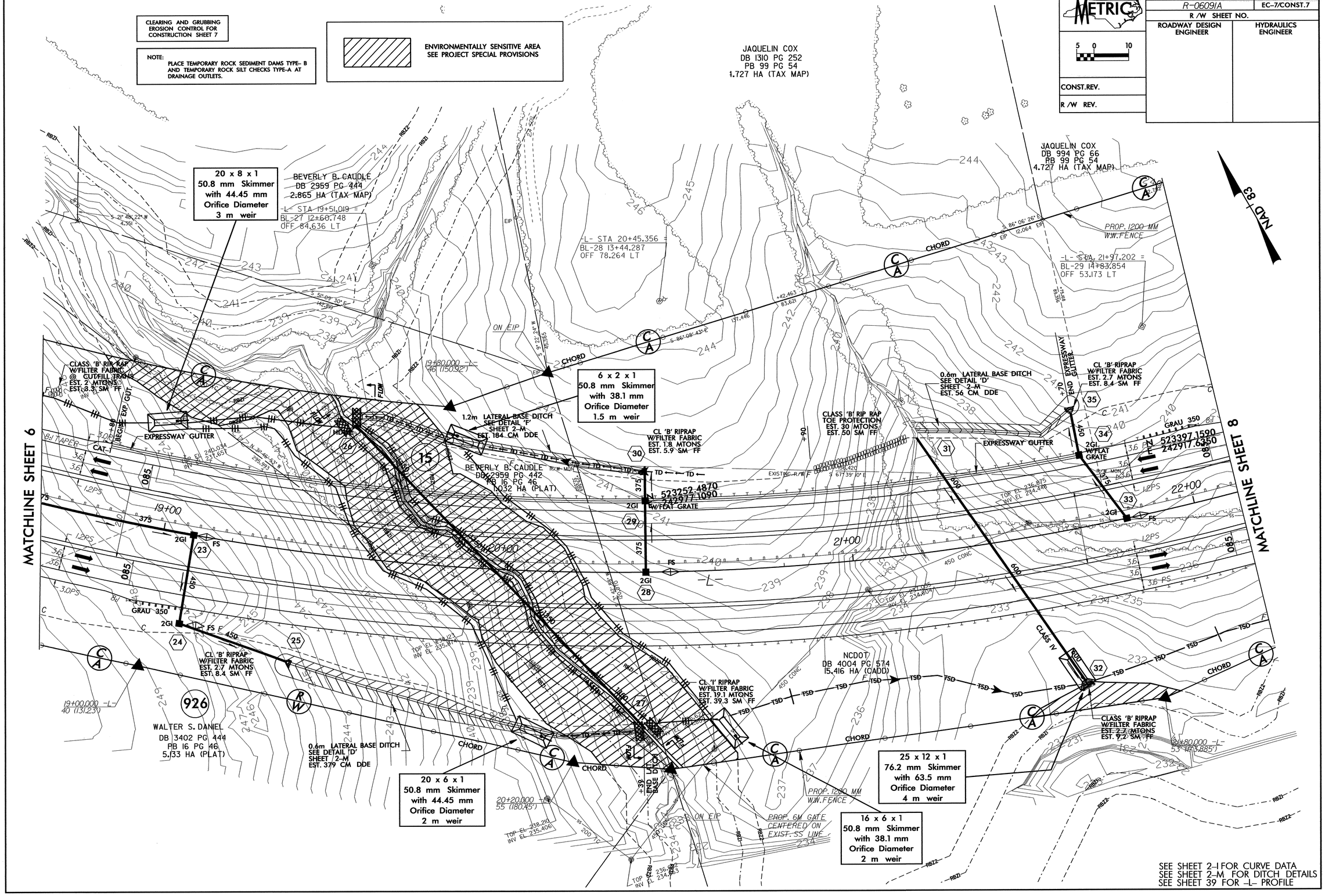
CONST.REV.

R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 7

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

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

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

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

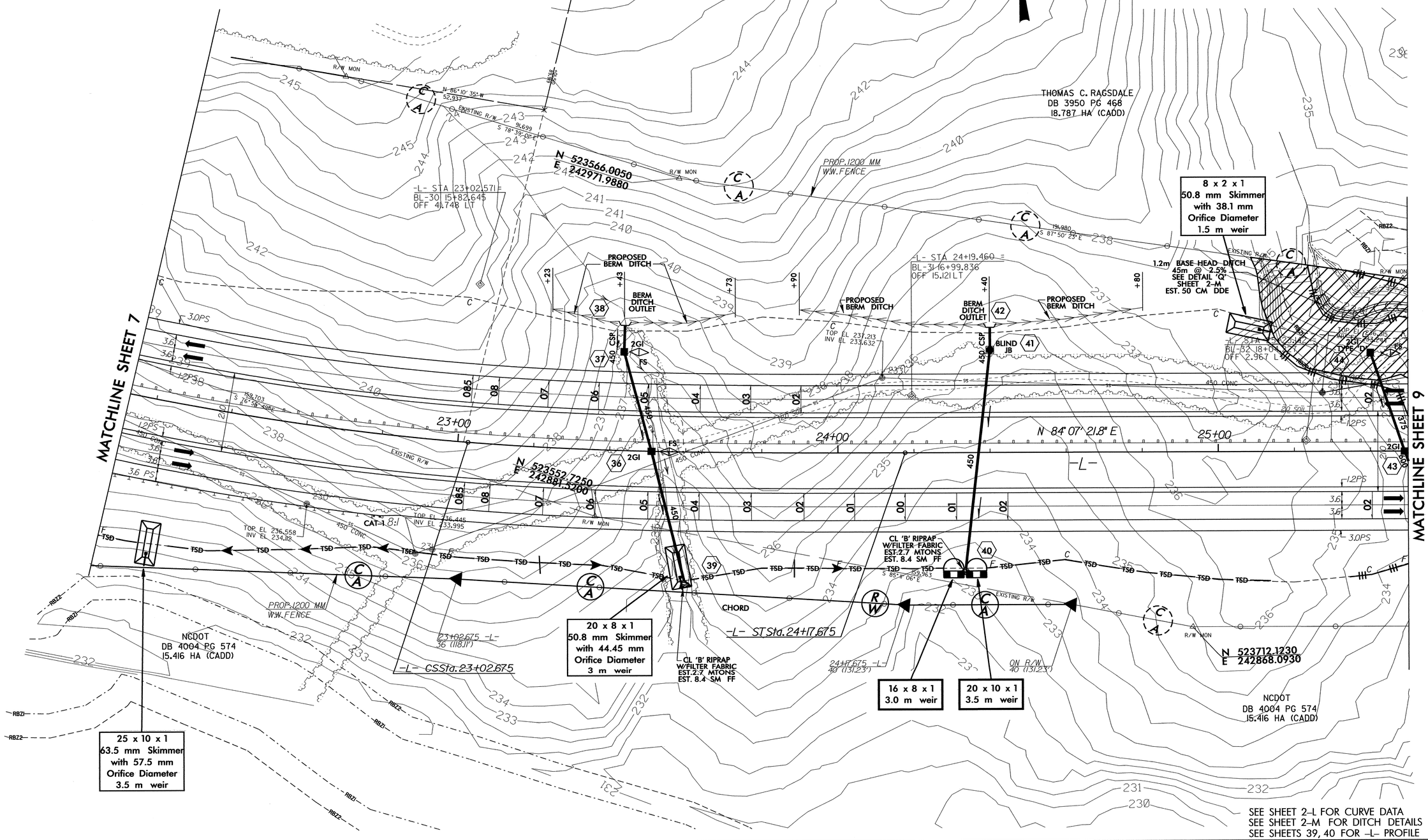
METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-8/CONST.8
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CONST.REV.

R /W REV.



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEETS 39, 40 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-9/CONST.9
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

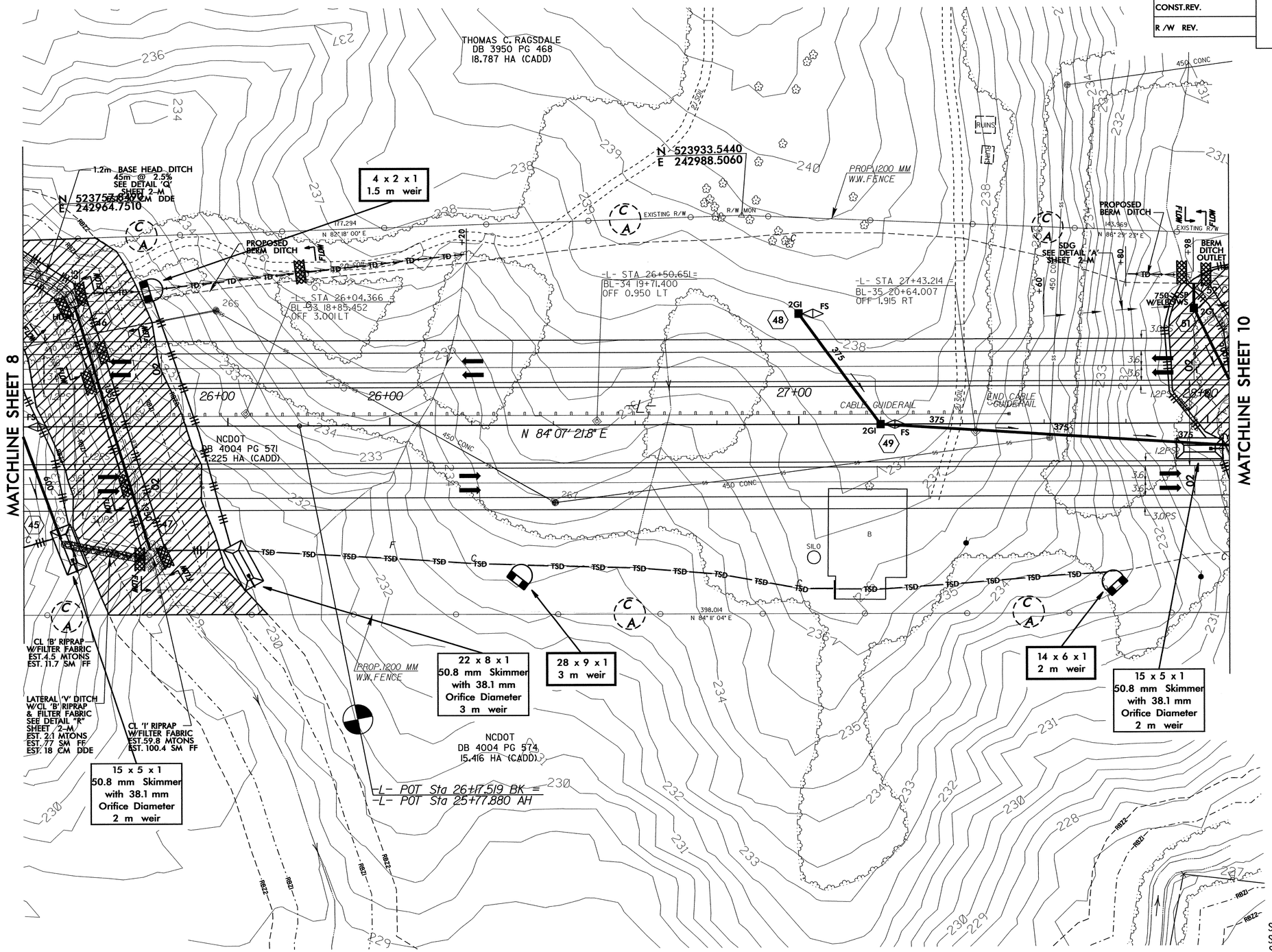
CONST.REV.

R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 9

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

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 40 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-10/CONST.10
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

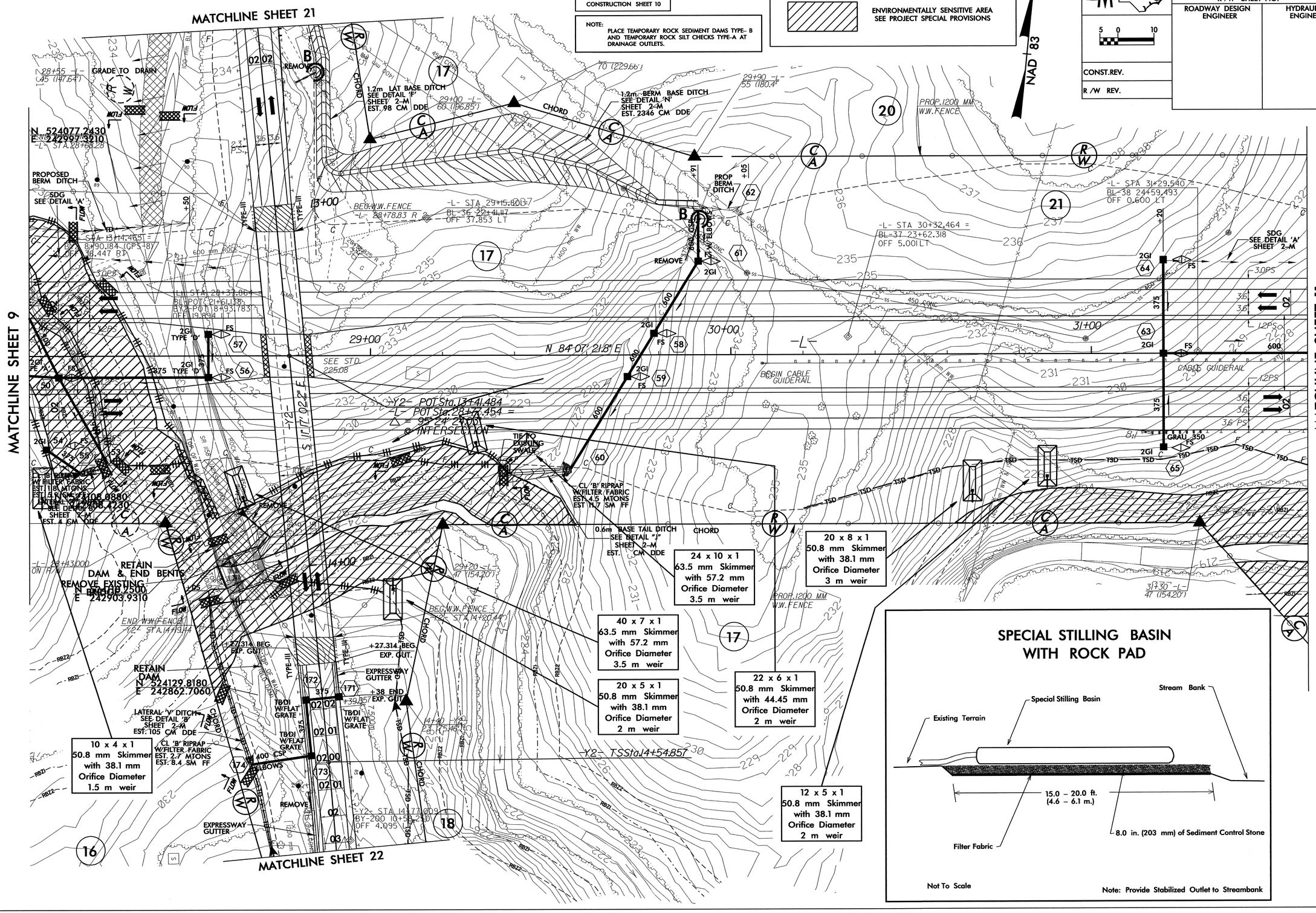
R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 10

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

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

NAD 83



SPECIAL STILLING BASIN WITH ROCK PAD

Not To Scale

Note: Provide Stabilized Outlet to Streambank

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 11

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

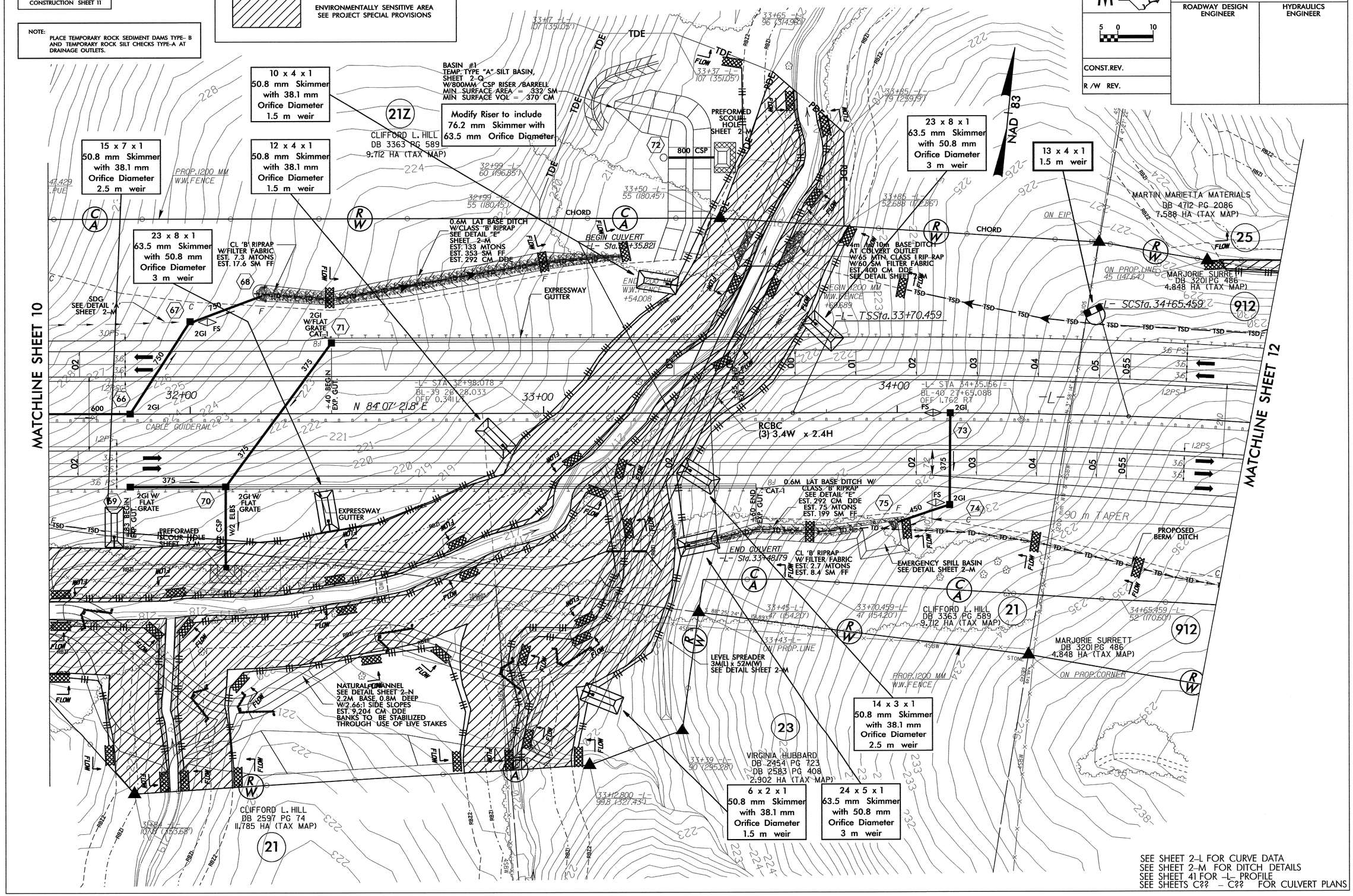
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

METRIC
5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-11/CONST.11
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CONST.REV.

R /W REV.

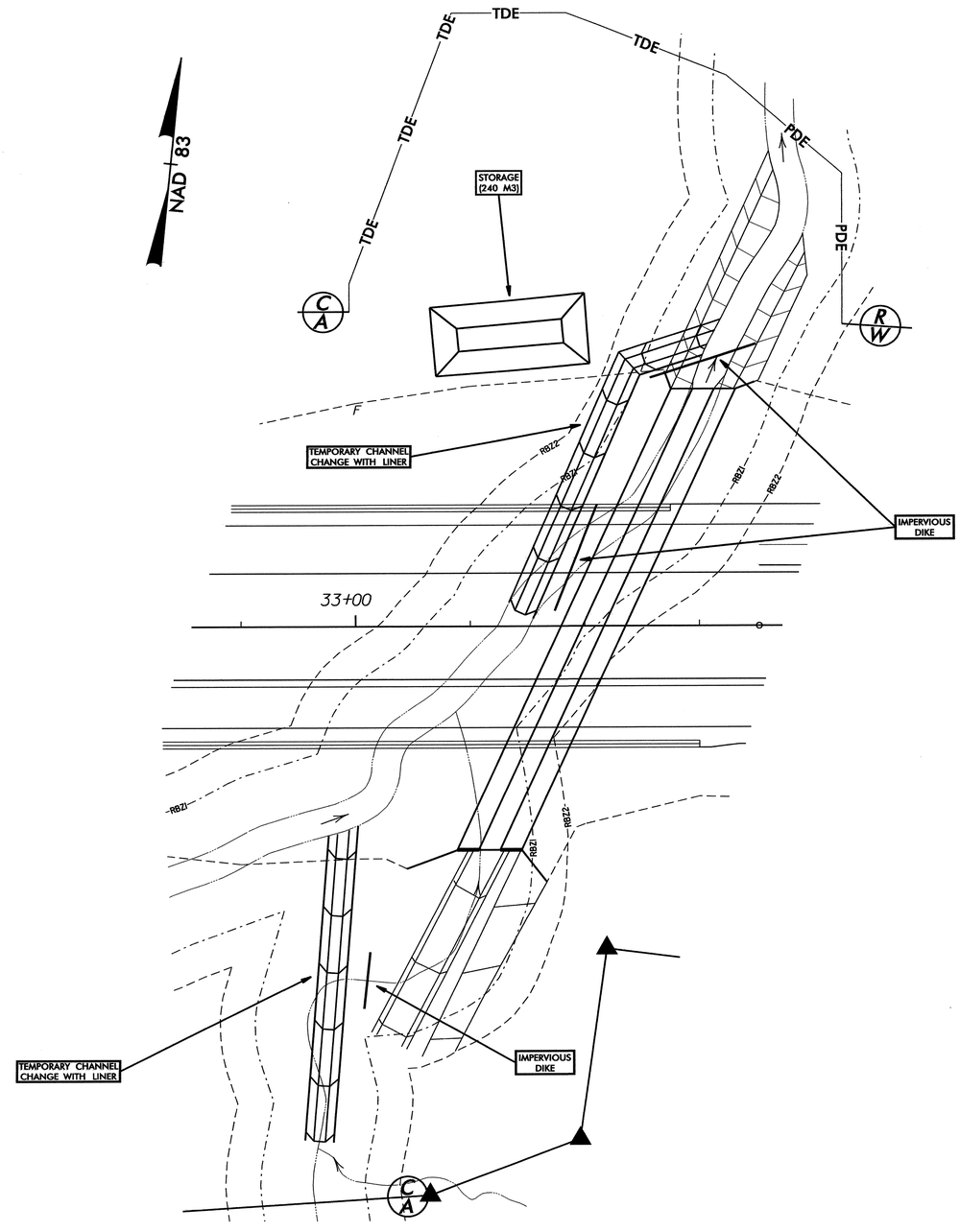


SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 41 FOR -L- PROFILE
SEE SHEETS C?? - C?? FOR CULVERT PLANS

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-12/CONST.II
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 33 + 42 –L–

1. CONSTRUCT STILLING BASIN (240 M3).
2. CONSTRUCT TEMPORARY CHANNEL CHANGES WITH LINER (2M BASE, 1.5:1 SIDE SLOPES, 1M DEEP) AND IMPERVIOUS DIKES, DIVERTING FLOW.
3. CONSTRUCT CULVERT.
4. CONSTRUCT UPSTREAM AND DOWNSTREAM CHANNEL IMPROVEMENTS.
5. REMOVE TEMPORARY CHANNEL CHANGES AND IMPERVIOUS DIKES, DIRECTING FLOW THROUGH CULVERT.
6. COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-13/CONST.12
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC

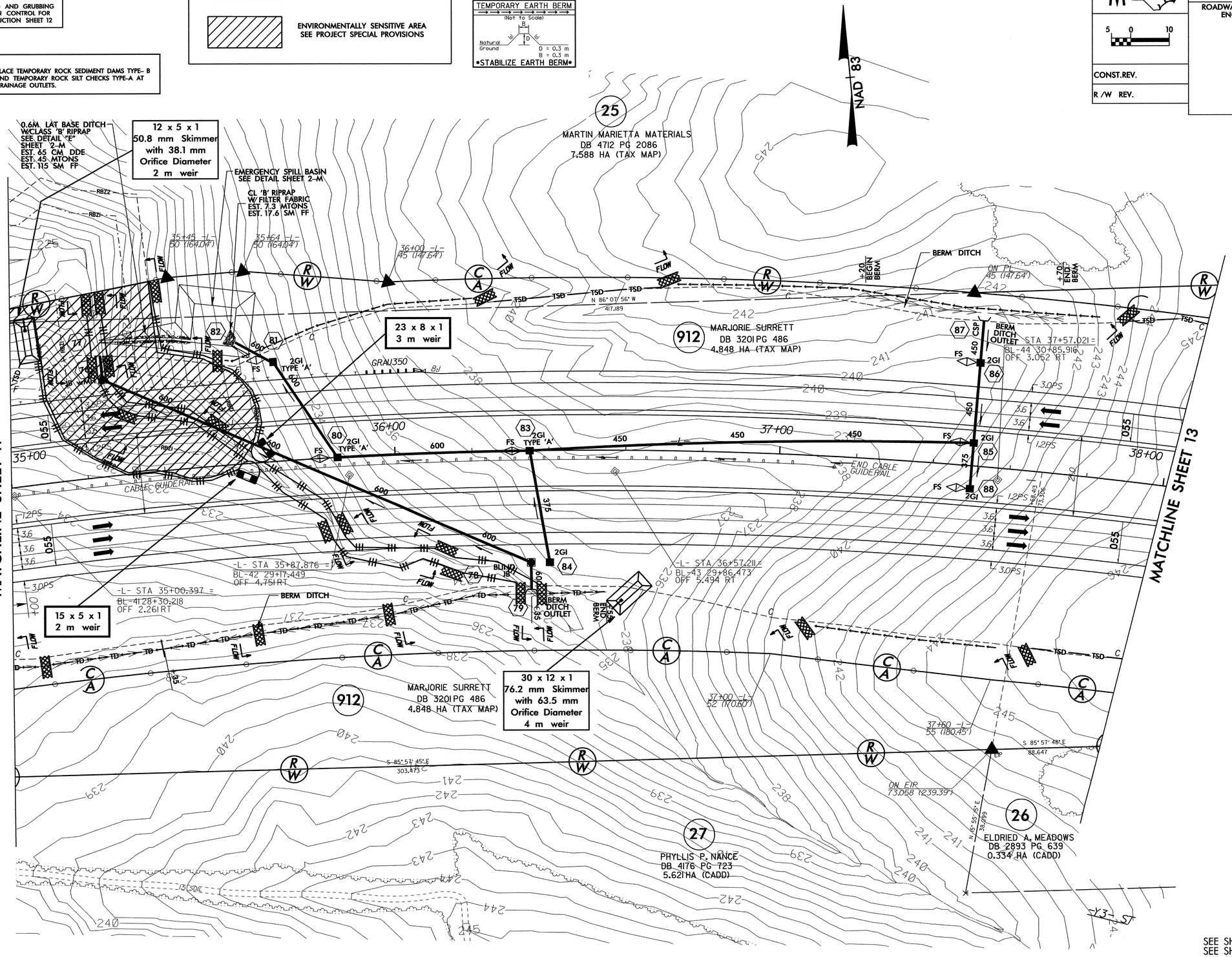
5 0 10

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 12

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

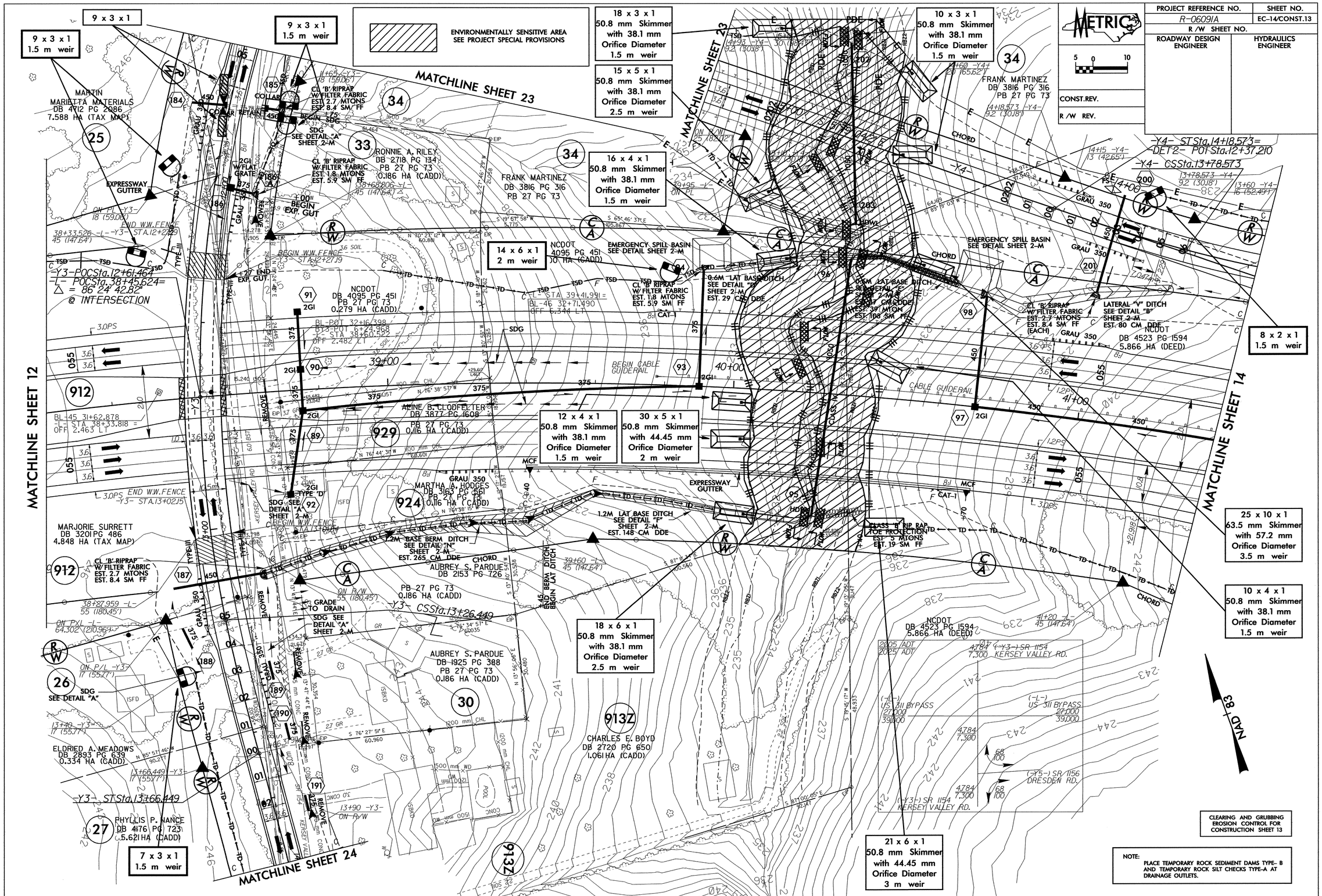
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

TEMPORARY EARTH BERM
(Not to Scale)
Natural Ground
D = 0.3 m
B = 0.3 m
•STABILIZE EARTH BERM•



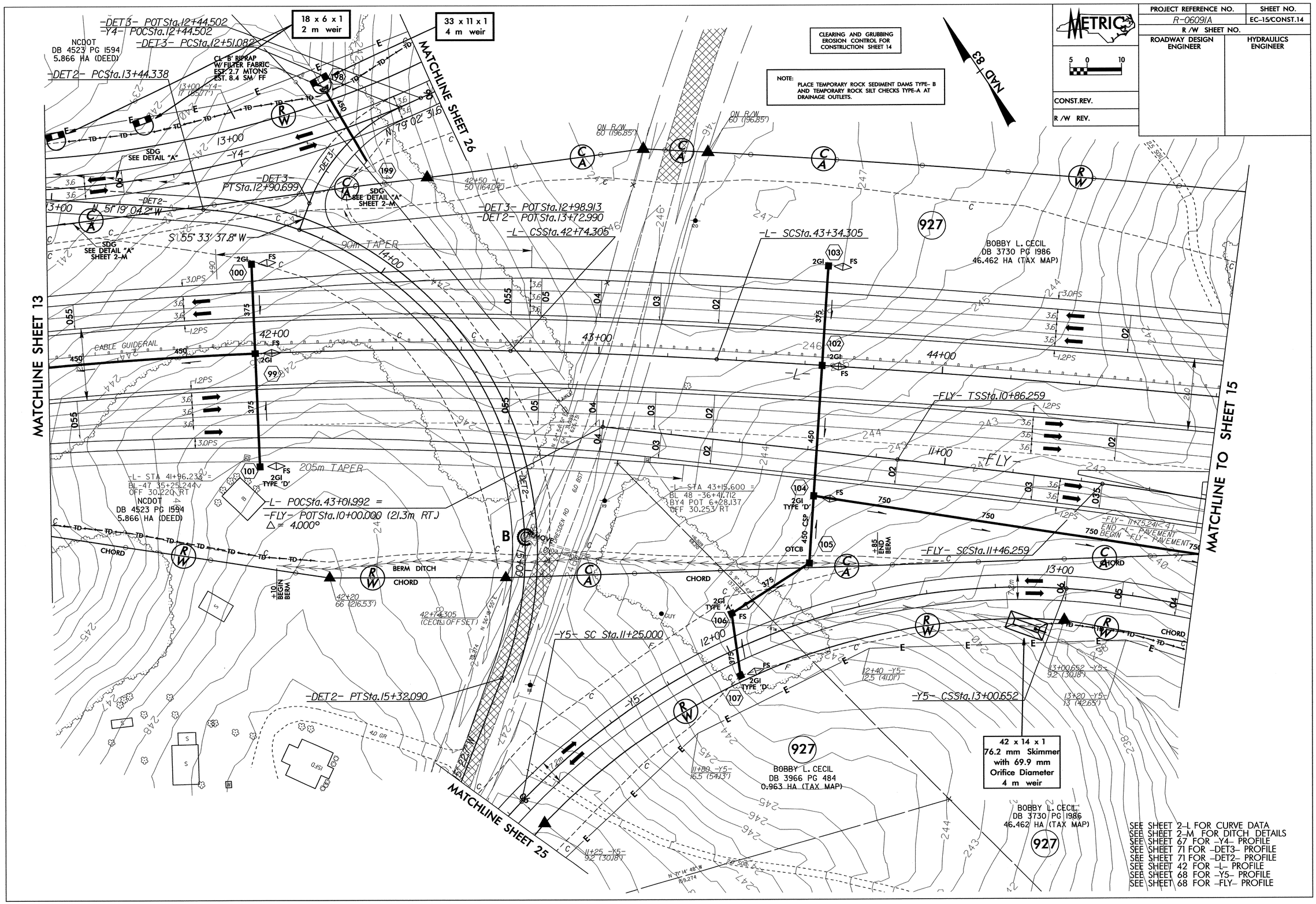
PROJECT REFERENCE NO.	SHEET NO.
R-0609/A	EC-14/CONST.13
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10



CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 13

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

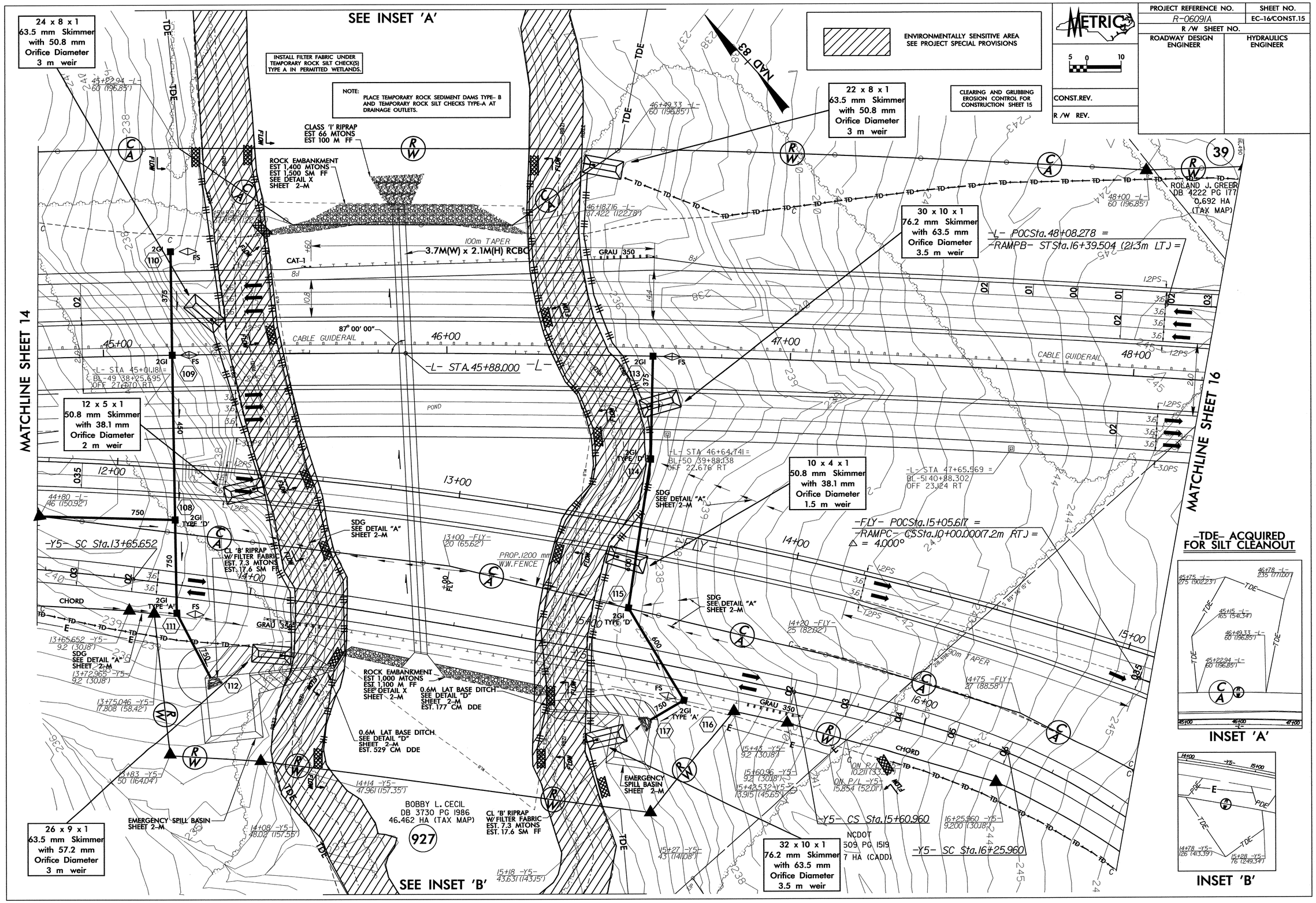

METRIC
5 0 10
PROJECT REFERENCE NO.
R-0609IA
SHEET NO.
EC-15/CONST.14
R /W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R /W REV.
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 14
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE- B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.
NAD 83
18 x 6 x 1
2 m weir
33 x 11 x 1
4 m weir
42 x 14 x 1
76.2 mm Skimmer
with 69.9 mm
Orifice Diameter
4 m weir
MATCHLINE SHEET 13
MATCHLINE SHEET 26
MATCHLINE SHEET 25
MATCHLINE TO SHEET 15
-DET3- POT Sta.12+44.502
-Y4- POCSta.12+44.502
-DET3- PCSta.12+51.082
-DET2- PCSta.13+44.338
NCDOT
DB 4523 PG 1594
5.866 HA (DEED)
CL B RIPRAP
W/ FILTER FABRIC
EST. 2.7 MTONS
EST. 8.4 SM/ FF
SDG
SEE DETAIL "A"
SDG
SEE DETAIL "A"
SHEET 2-M
-DET3-
PT Sta.12+90.699
N 51° 19' 04.2" W
S 55° 33' 37.8" W
-DET3- POT Sta.12+98.913
-DET2- POT Sta.13+72.990
-L- CSSta.42+74.305
-L- SCSta.43+34.305
90m TAPER
205m TAPER
CABLE GUIDERAIL
-L- STA 41+96.233 =
BL-47 35+25.244
OFF 30.220 RT
NCDOT
DB 4523 PG 1594
5.866 HA (DEED)
-L- POCSta.43+01.992 =
-FLY- POT Sta.10+00.000 (21.3m RT.)
Δ = 4.000°
-L- STA 43+15.600 =
BL 48 -36+41.712
BY4 POT 6+28.137
OFF 30.253' RT
-FLY- TSSta.10+86.259
-FLY- SCSta.11+46.259
-FLY- 11+75.241 < 4.1
END -L- PAVEMENT
BEGIN -FLY- PAVEMENT
-Y5- SC Sta.11+25.000
-Y5- CSSta.13+00.652
-DET2- PT Sta.15+32.090
BOBBY L. CECIL
DB 3730 PG 1986
46.462 HA (TAX MAP)
BOBBY L. CECIL
DB 3966 PG 484
0.963 HA (TAX MAP)
BOBBY L. CECIL
DB 3730 PG 1986
46.462 HA (TAX MAP)
BERM DITCH
CHORD
OTCB
±85 END BERM
±10 BEGIN BERM
SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 67 FOR -Y4- PROFILE
SEE SHEET 71 FOR -DET3- PROFILE
SEE SHEET 71 FOR -DET2- PROFILE
SEE SHEET 42 FOR -L- PROFILE
SEE SHEET 68 FOR -Y5- PROFILE
SEE SHEET 68 FOR -FLY- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-0609A	EC-16/CONST.15
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

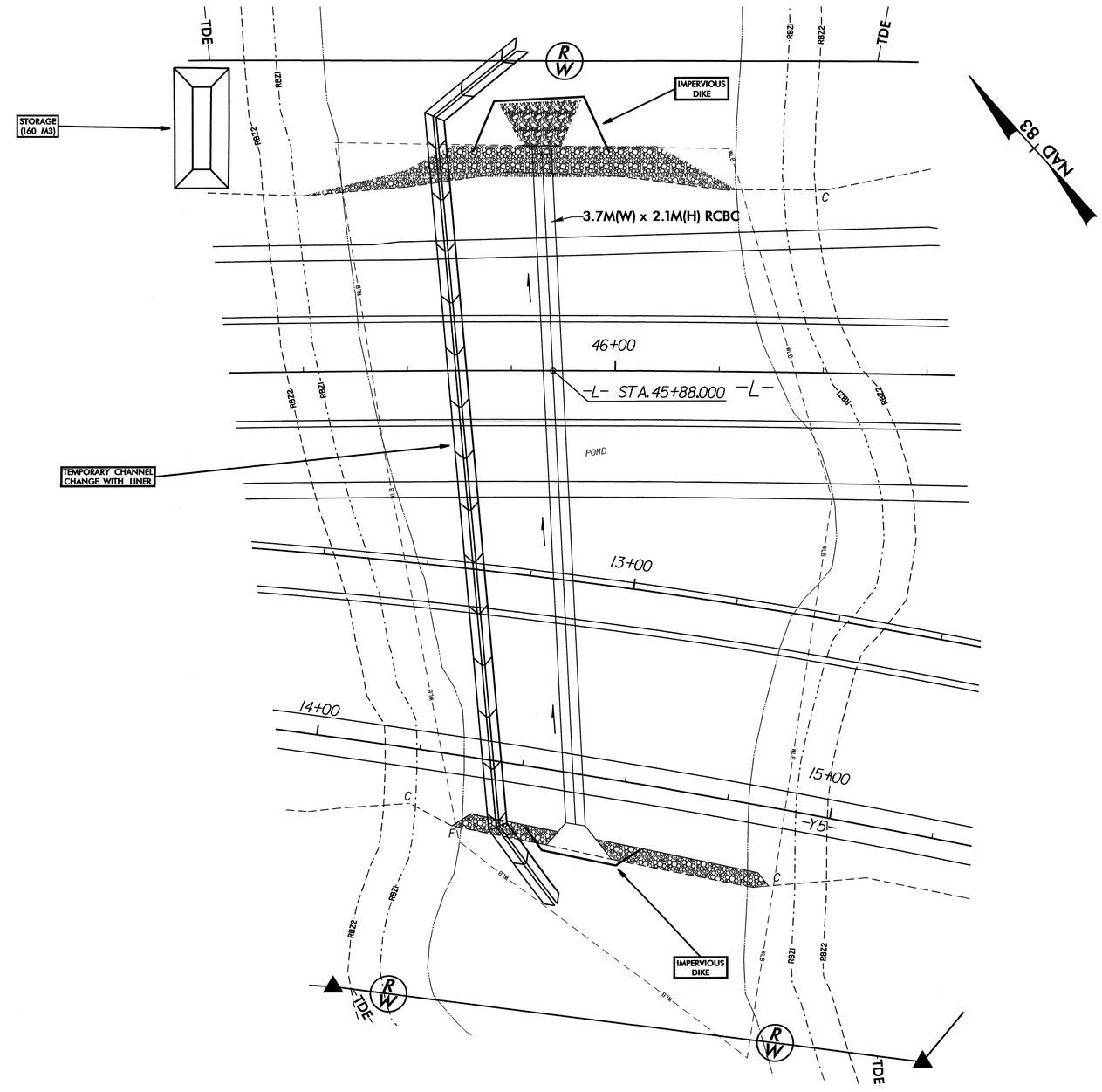
R /W REV.



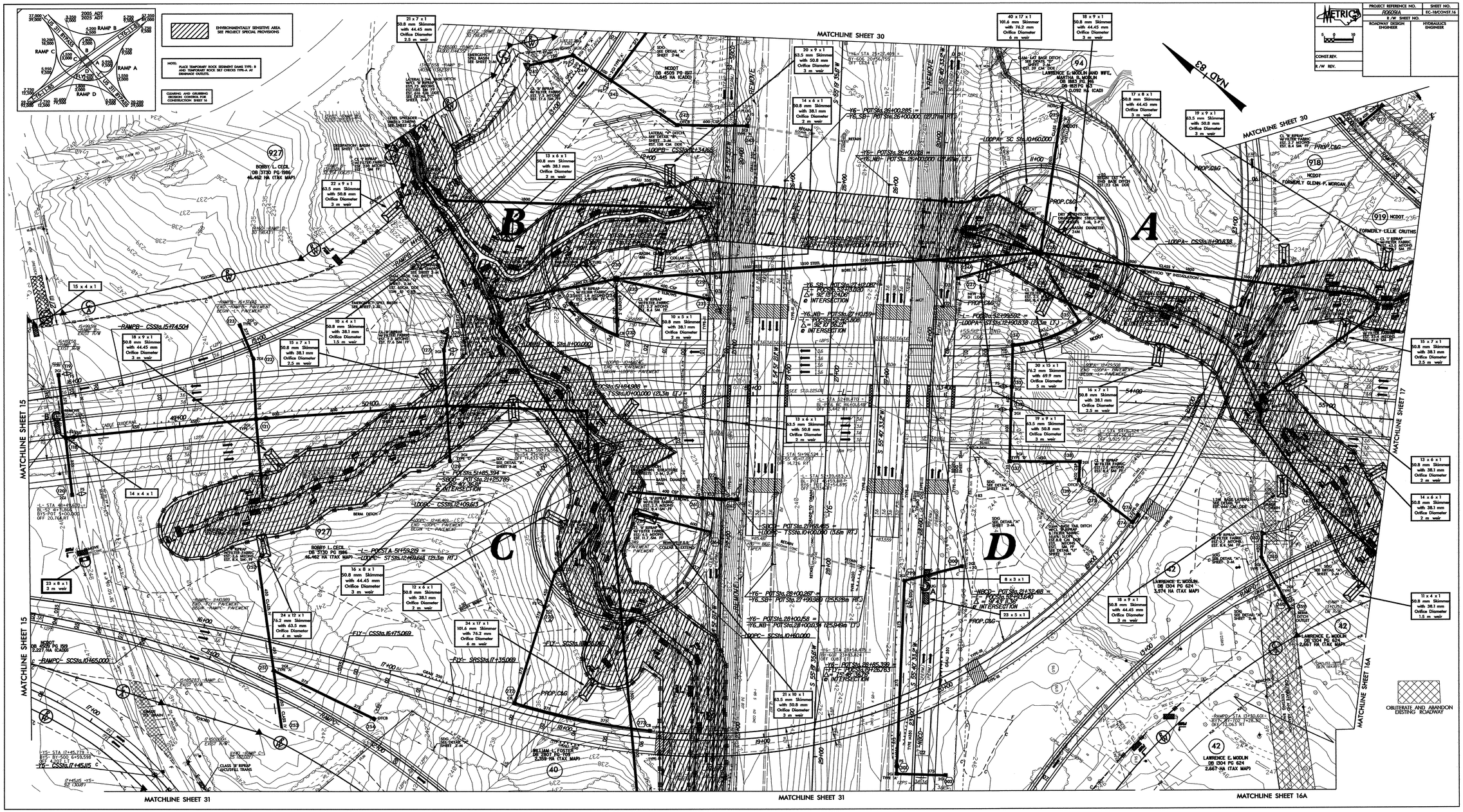
PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-17/CONST.15
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 45+88 -L-

1. LOWER POND WATER ELEVATION, EXPOSING BASE CHANNEL.
2. CONSTRUCT STILLING BASIN (160 M3).
3. CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (0.6M BASE, 1.5:1 SIDE SLOPES, 1M DEEP) AND IMPERVIOUS DIKES, DIVERTING FLOW.
4. CONSTRUCT CULVERT AND OUTLET RIP RAP PAD.
5. CONSTRUCT ROCK EMBANKMENTS AND COMPLETE ROADWAY.
6. ALLOW POND TO REFILL.



PROJECT REFERENCE NO.	SHEET NO.
R-5705A	EC-16/CONST.16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R/W REV.	

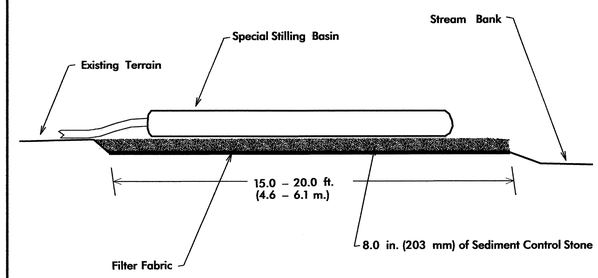


PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-19/CONST.J6
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PIPE CONSTRUCTION SEQUENCE STA. 26+20 –Y6–: PHASE I

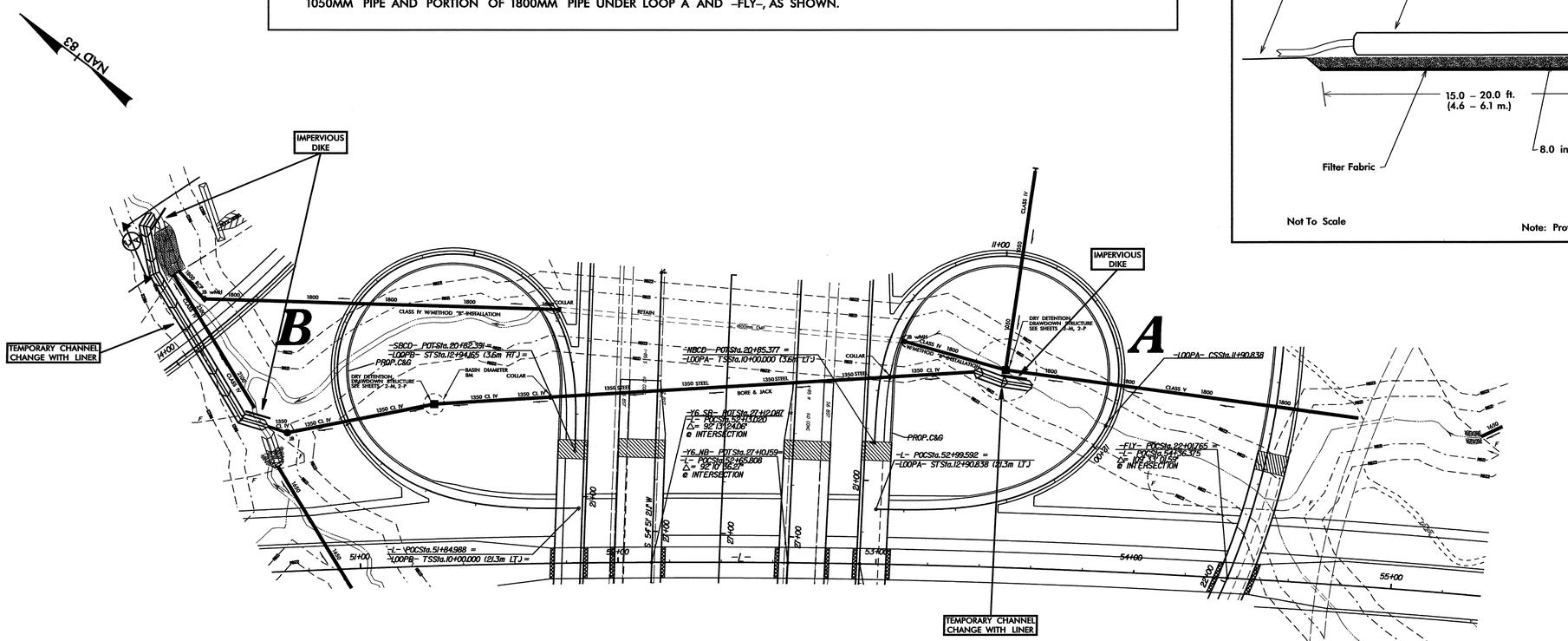
1. UTILIZE SPECIAL STILLING BASINS AS NEEDED THROUGHOUT PIPE CONSTRUCTION SEQUENCE.
2. BORE AND JACK 1350MM STEEL PIPE UNDER EXISTING I-85.
3. COLLAR AND EXTEND 1350MM STEEL PIPE UNDER LOOP B, INCLUDING DRY DETENTION DRAWDOWN STRUCTURE IN LOOP B, AND PORTION OF 1350MM STEEL PIPE INTO LOOP A, AS SHOWN.
4. CONSTRUCT TEMPORARY CHANNEL CHANGES WITH LINER (1M BASE, 1.5:1 SIDE SLOPES, 1M DEEP) AND IMPERVIOUS DIKES, DIVERTING FLOW THROUGH 1350MM PIPE.
5. INSTALL 2100MM PIPE UNDER RAMP B, AND COLLAR AND EXTEND 1800MM PIPE THROUGH QUADRANT B, AND CONSTRUCT NECESSARY CHANNEL IMPROVEMENTS.
6. COLLAR AND EXTEND 1800MM PIPE INTO LOOP A. CONSTRUCT DRY DETENTION DRAWDAWN STRUCTURE IN LOOP A, INCLUDING THE 1050MM PIPE AND PORTION OF 1800MM PIPE UNDER LOOP A AND –FLY–, AS SHOWN.

SPECIAL STILLING BASIN WITH ROCK PAD



Not To Scale

Note: Provide Stabilized Outlet to Streambank

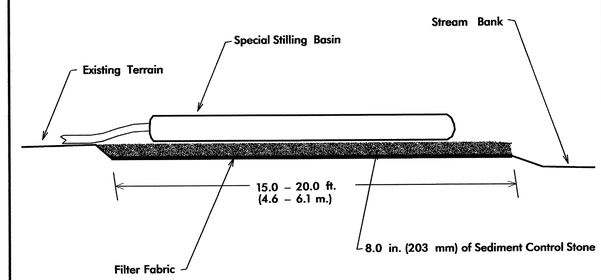


PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-20/CONST.J6
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PIPE CONSTRUCTION SEQUENCE STA. 26+20 –Y6–: PHASE II

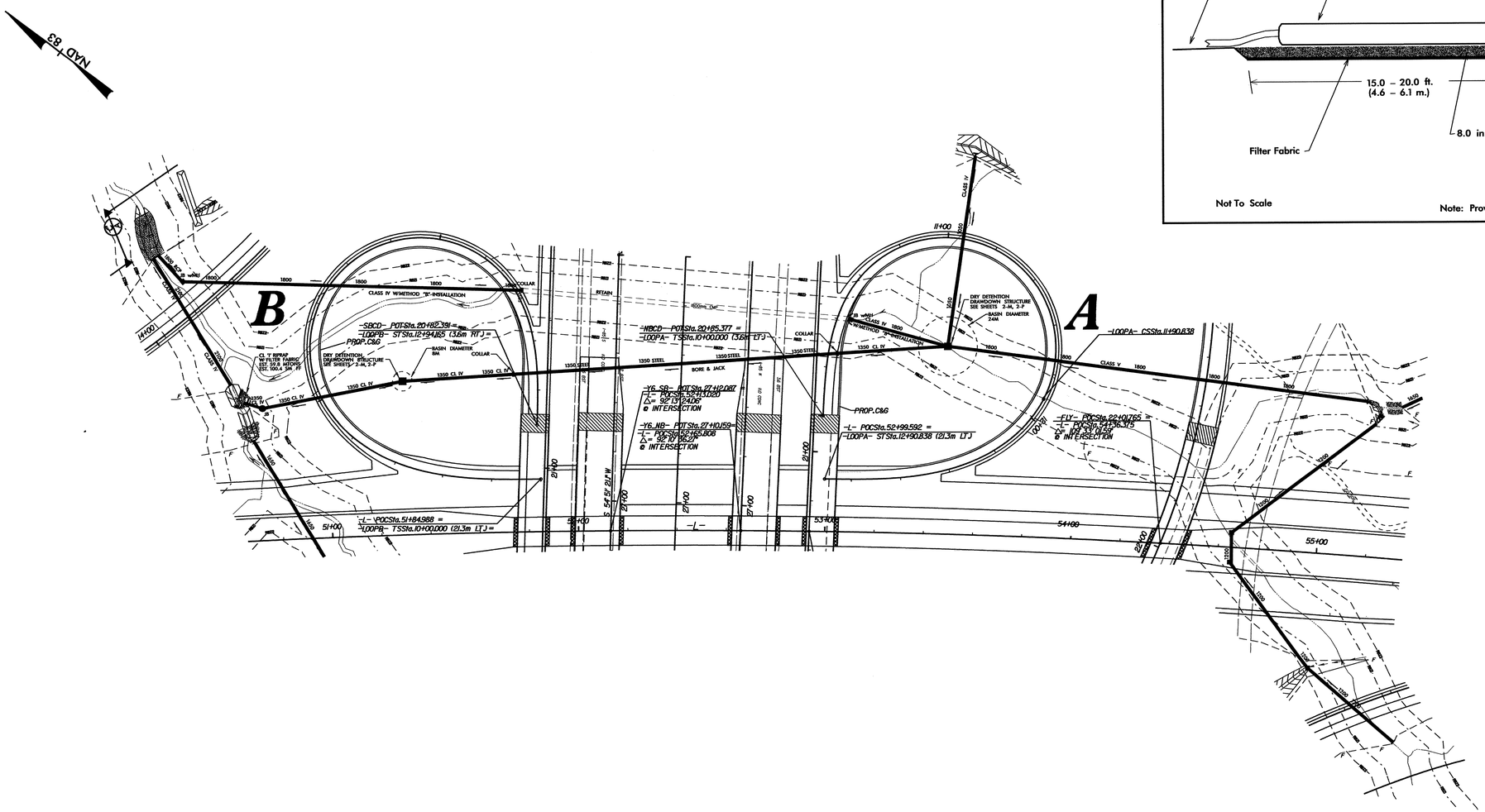
7. CONSTRUCT IMPERVIOUS DIKE INSIDE DRAWDOWN STRUCTURE IN LOOP A, TO SEAL OFF OPENING FOR 1350MM PIPE CONNECTION.
8. INSTALL 1200MM PIPES UNDER RAMP D AND –L– LINE, AND COMPLETE 1800MM PIPE EXTENSION THROUGH QUADRANT A, DIVERTING FLOW THROUGH 1800MM PIPES.
9. REMOVE TEMPORARY CHANNEL CHANGES AND IMPERVIOUS DIKES INSTALLED IN PHASE I, ALLOWING FLOW THROUGH 2100MM PIPE.
10. CONNECT 1350MM PIPE TO DRAWDOWN STRUCTURE IN LOOP A.
11. REMOVE IMPERVIOUS DIKE INSIDE DRAWDOWN STRUCTURE IN LOOP A.
12. COMPLETE ROADWAY.

SPECIAL STILLING BASIN WITH ROCK PAD



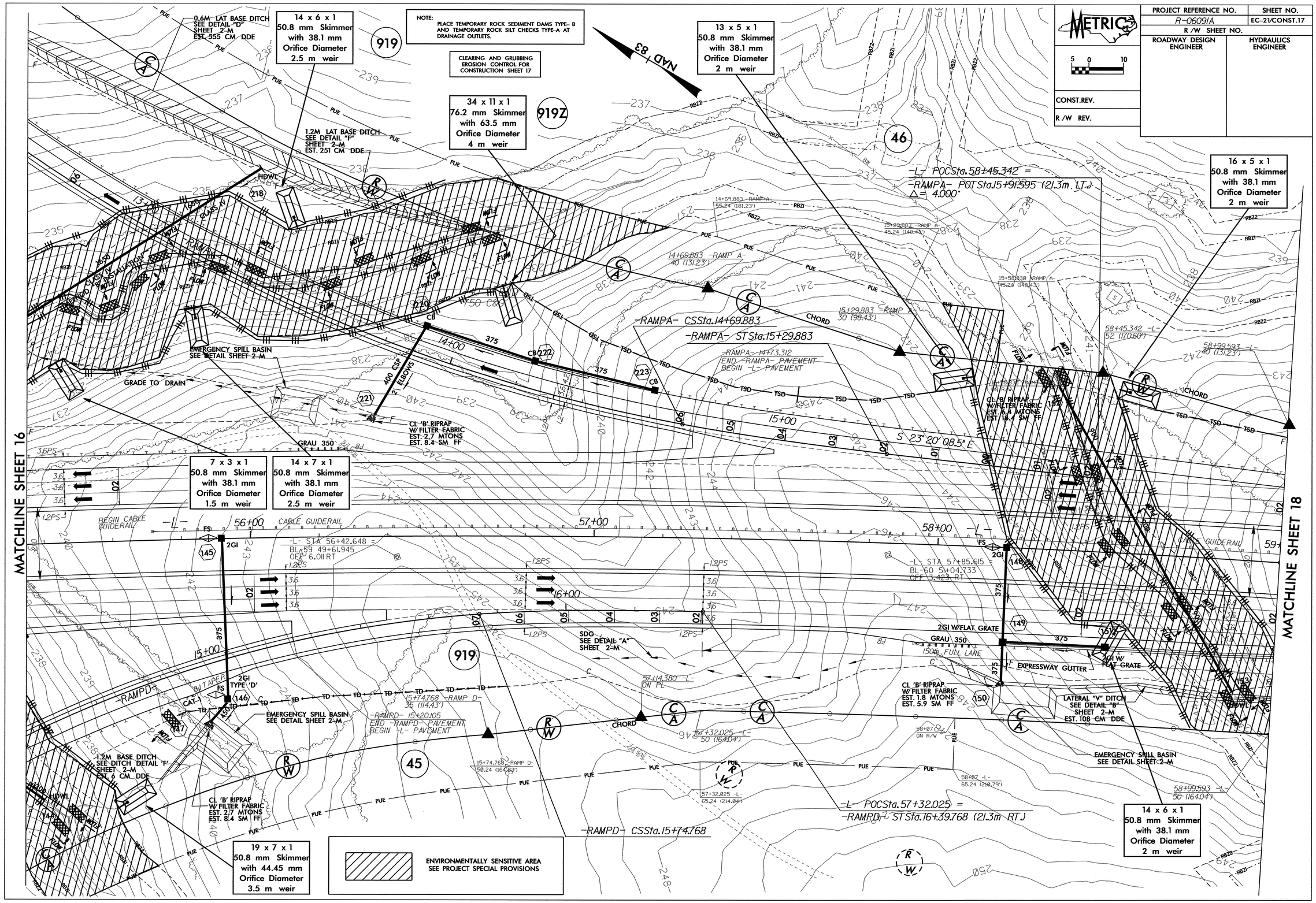
Not To Scale

Note: Provide Stabilized Outlet to Streambank



PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-21/CONST.17
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10



PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-22/CONST.18
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

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 18

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

MATCHLINE SHEET 17

NAD 83

FAIRFIELD GOLF CLUB, INC.
DB 3345 PG 707
PB 5 PG 351
22.140 HA (TAX MAP)

NCDOT
DB 4646 PG 0307
9.263 HA (TAX MAP)

LESSIE COX HEIRS
DB 3345 PG 707
PB 5 PG 351
1.025 HA (CADD)

LESSIE COX HEIRS
DB 1523 PG 215
PB 45 PG 5
0.721 HA (CADD)

POT STA. 61+00.000 -L- END TIP PROJECT R-0609IA
POT STA. 61+00.000 -L- END FA PROJECT MAF-F-119-1(1)
R-0609IA -L- STA. 61+00.000 (BK) = R-0609IB -L- STA. 60+59.109 (AH)

8 x 4 x 1
1.5 m weir

12 x 6 x 1
2 m weir

28 x 14 x 1
5 m weir

TEMP. 0.6M LAT BASE DITCH
SEE DETAIL "D"
SHEET 2-M
EST. 26 CM DDE

CL 'B' RIPRAP
W/FILTER FABRIC
EST. 1.8 MTONS
EST. 5.9 SM FF

-L- CSSta.58+99.593
-L- STSta.59+34.593
TSSta.61+01.143
SCSta.61+55.143

CHORD

GRAU 350

-L- STA 59+63.544 =
BL-61 52+82.602
OFF 0.075 LT

-L- STA 60+52.472 =
BL-62 53+71.630
OFF 4.128 RT

S 25° 48' 31.0" E

CABLE GUIDERAIL

END CABLE GUIDERAIL

SEE PROJECT R-0609IB

BL-64 55+71.752
OFF 9.530 LT

BL-63 54+72.535
OFF 1.510 RT

CAT-1
90m TAPER

0.6M LAT BASE DITCH
SEE DETAIL "D"
SHEET 2-M
EST. 79 CM DDE

NCDOT
DB 4542 PG 1138
4.082 HA (CADD)

16 x 6 x 1
50.8 mm Skimmer
with 38.1 mm
Orifice Diameter
2 m weir

-L- (R-0609IB)

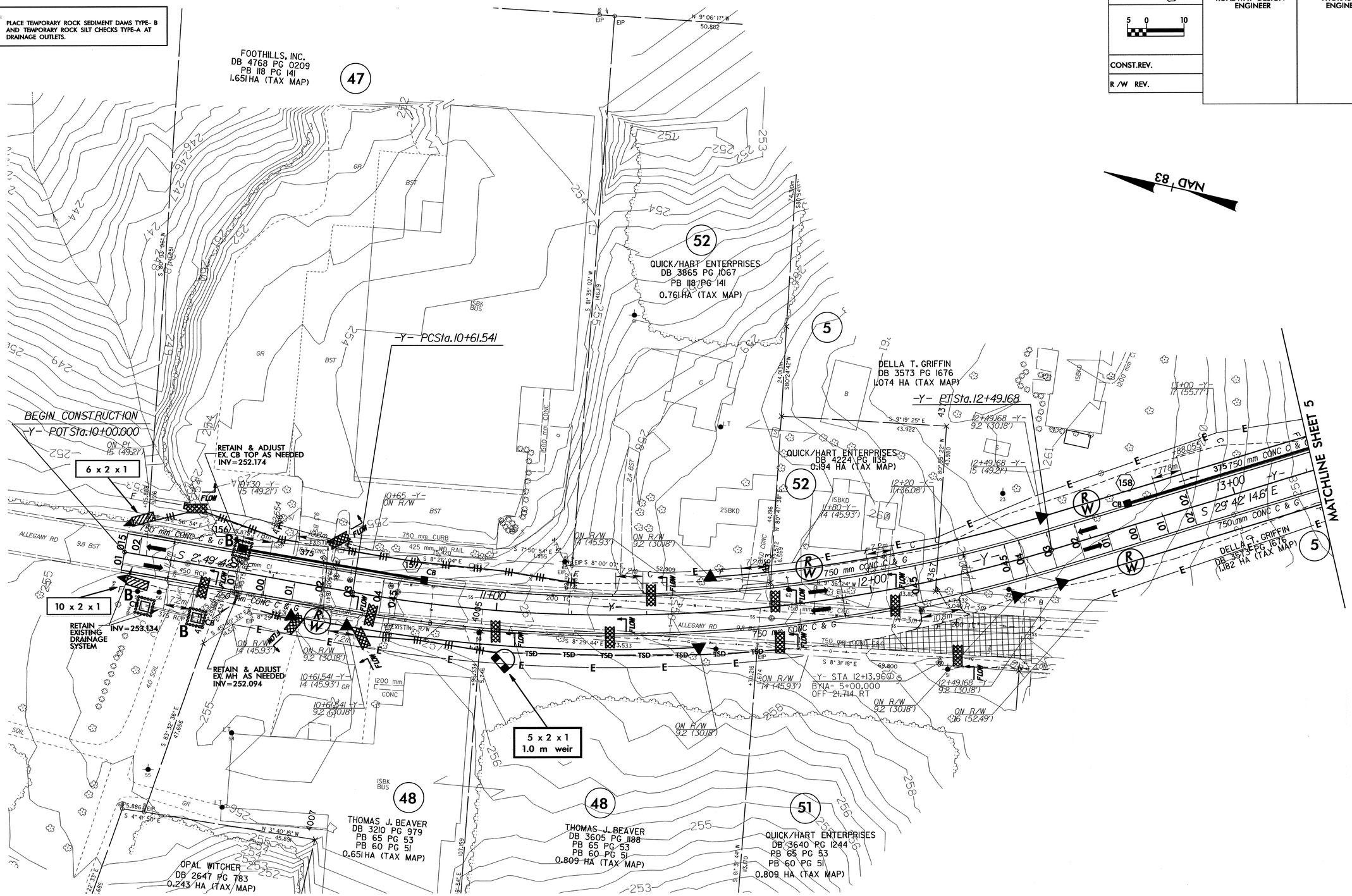
PIs Sta 61+37.143	PI Sta 62+86.616
Θs = 0° 46' 24.6"	Δ = 17° 31' 19.4" (LT)
Ls = 54.000	L = 262.569
LT = 36.000	T = 131.473
ST = 18.000	R = 2,000.000

JAMES P. HINKLE, SR.
DB 4167 PG 590
DB 4167 PG 593
2.028 HA (TAX MAP)

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 19

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

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R0609IA	EC-23/CONST.19
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		

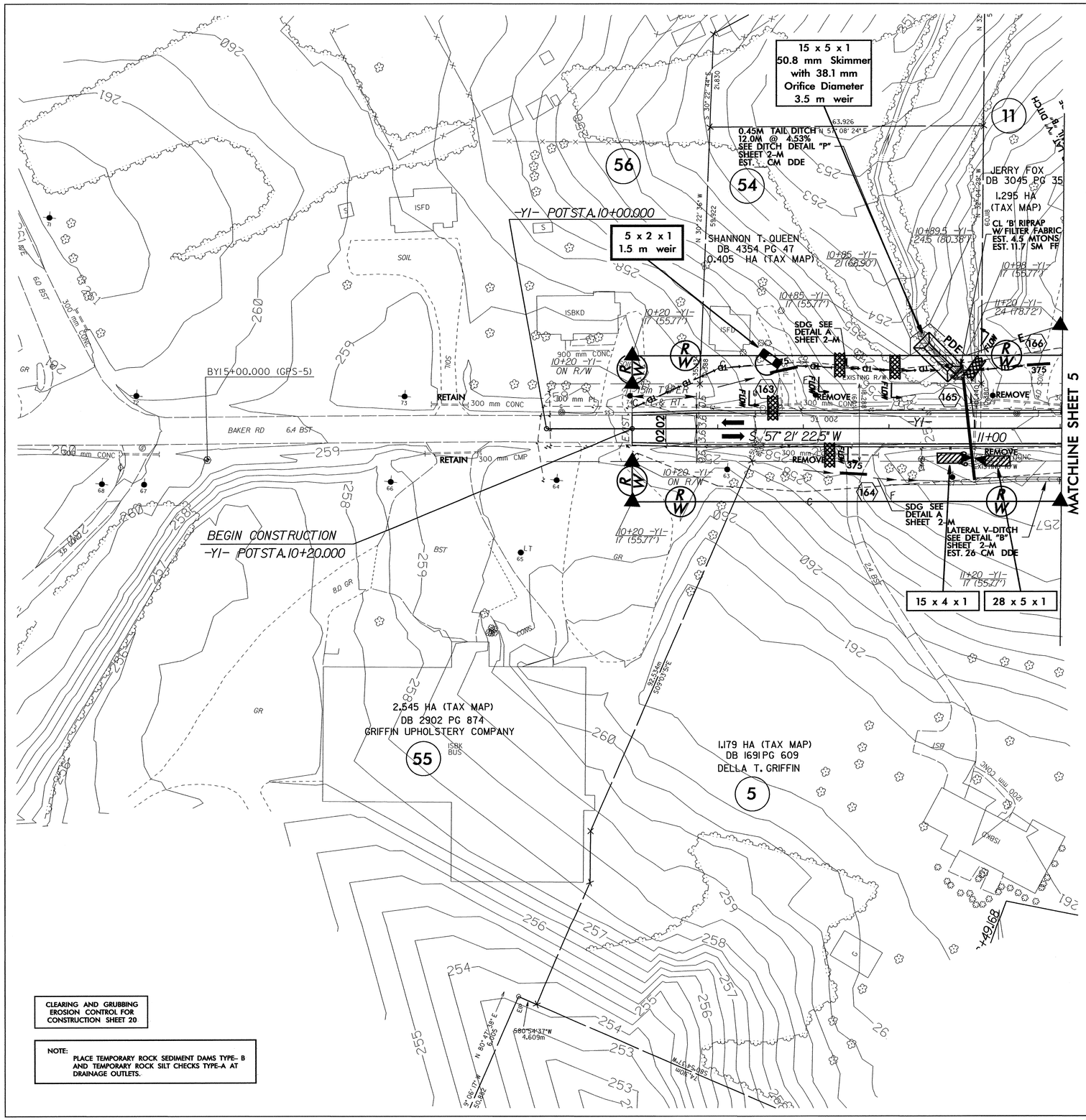


SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 62 FOR -Y- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-24/CONST.20
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC

5 0 10



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 20

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

SEE SHEET 2-I FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 70 FOR -DET- PROFILE
SEE SHEET 63 FOR -Y1- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-25/CONST.21
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

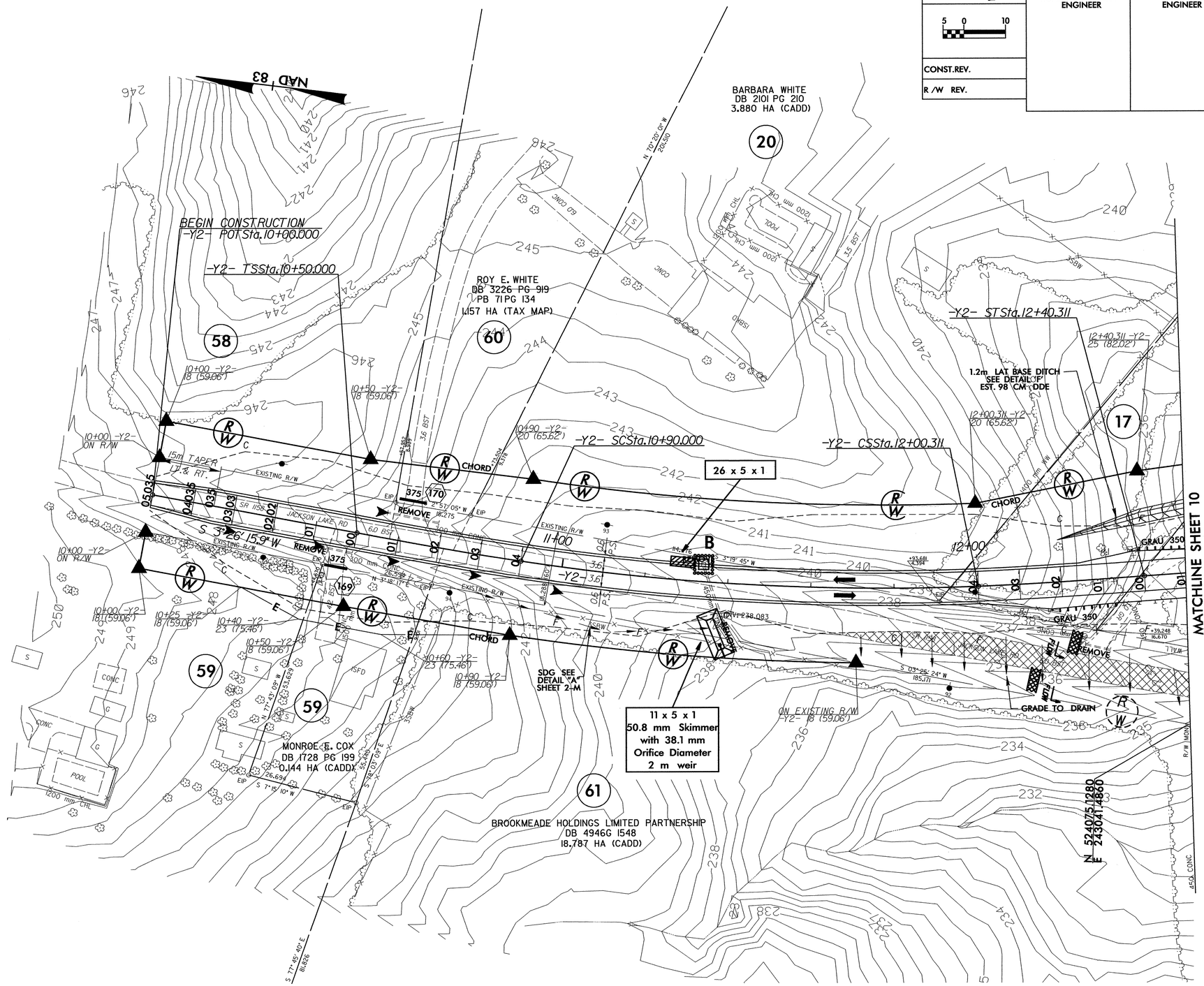
5 0 10

CONST.REV.

R /W REV.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 21

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



SEE SHEET 2-I FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 64 FOR -Y2- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-26/CONST.22
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

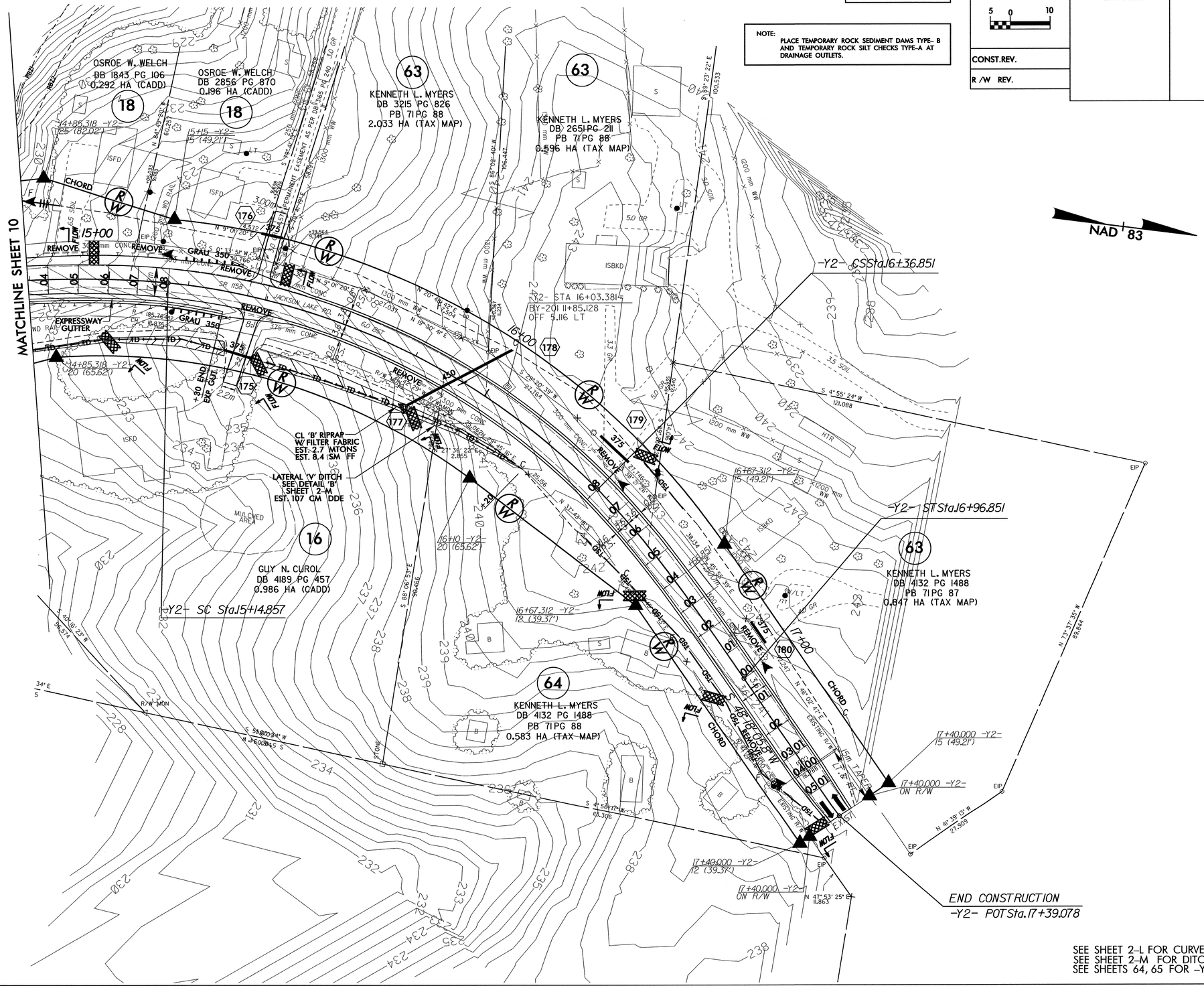
5 0 10

CONST.REV.

R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 22

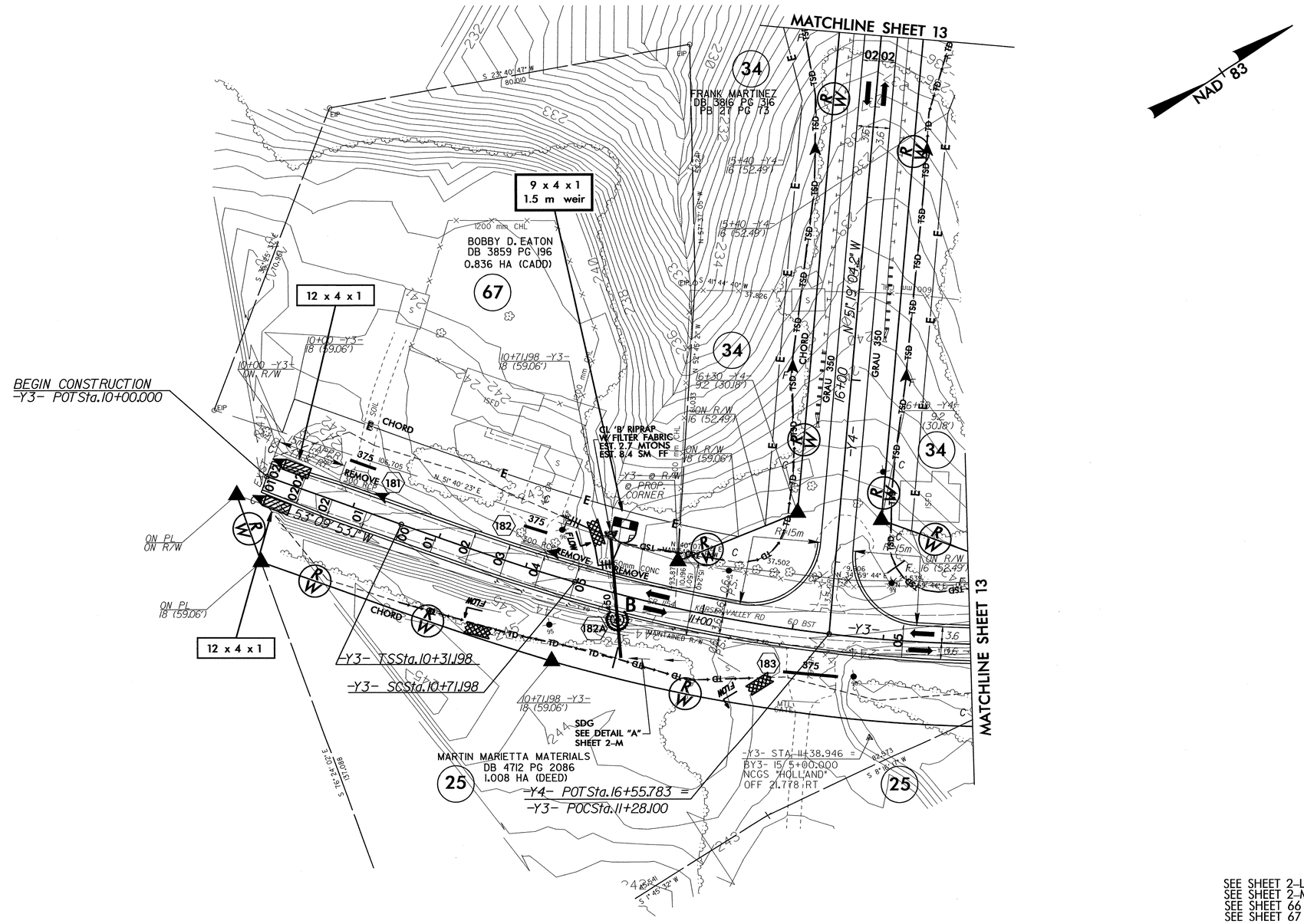
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE- B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 23

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

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-0609IA	EC-27/CONST.23
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 66 FOR -Y3- PROFILE
SEE SHEET 67 FOR -Y4- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-6091A	EC-28/CONST.24
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

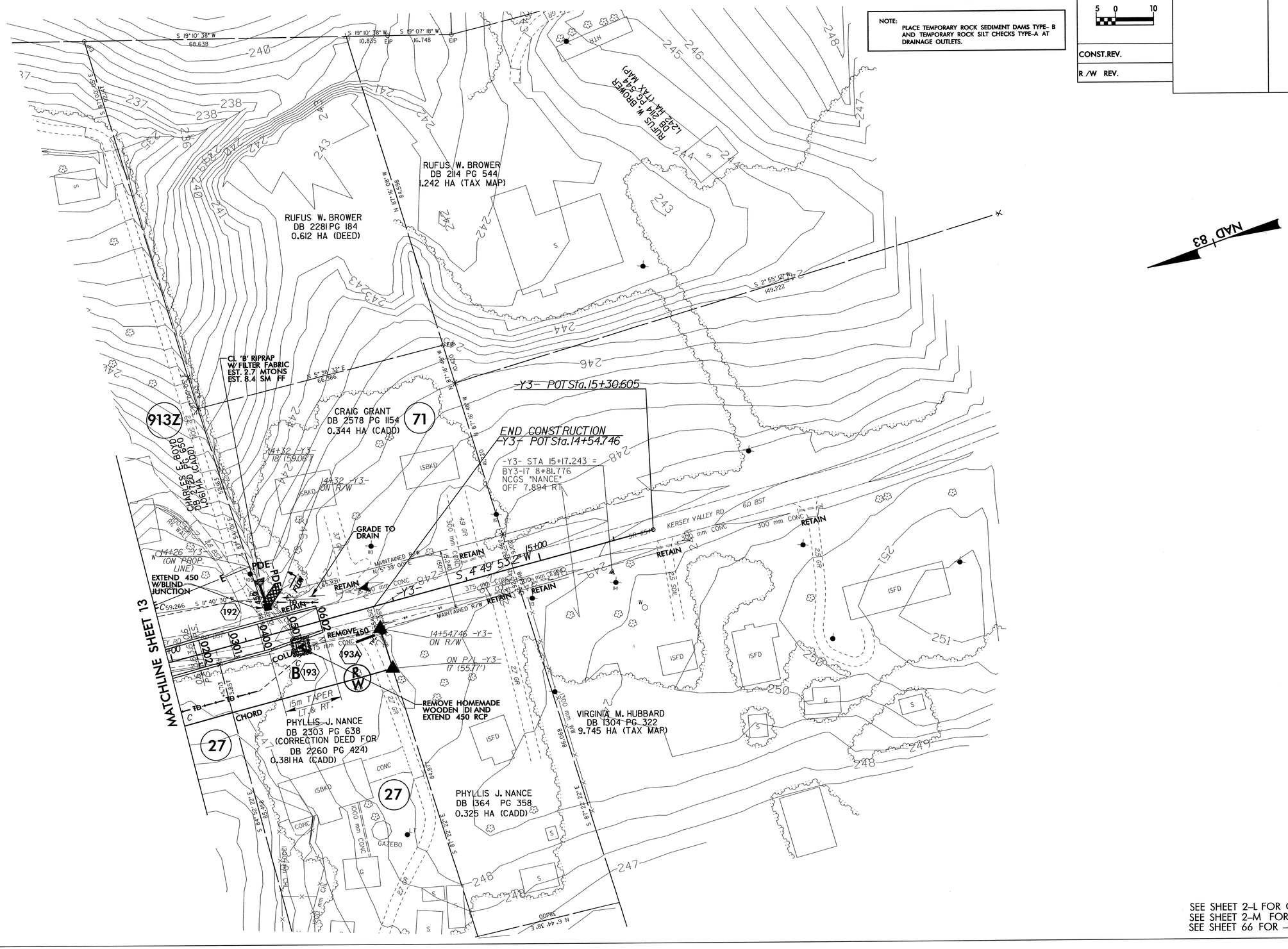
5 0 10

CONST.REV.

R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 24

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



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 66 FOR -Y3- PROFILE

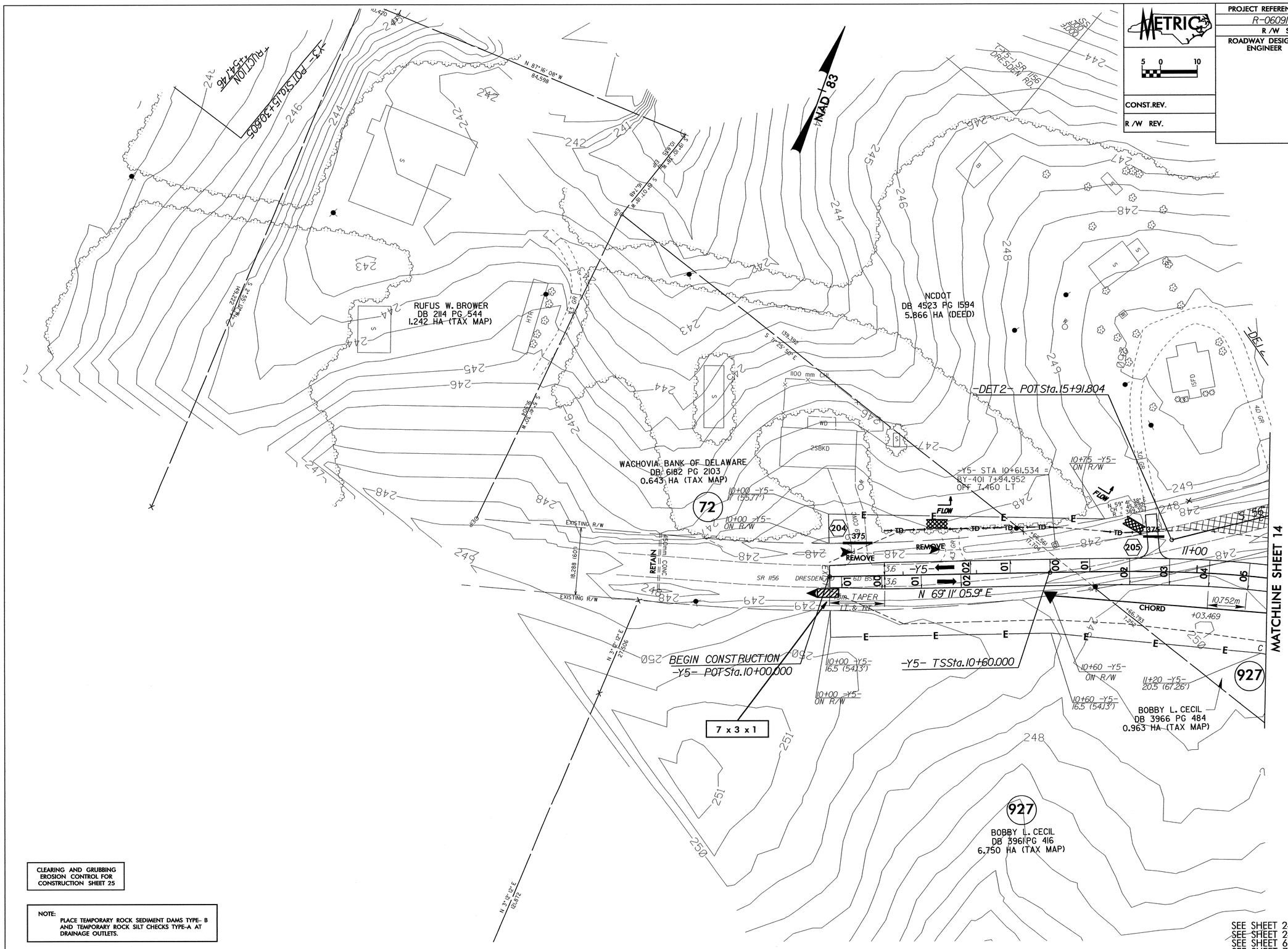
PROJECT REFERENCE NO.	SHEET NO.
R-0609A	EC-29/CONST.25
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 25

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

SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 68 FOR -Y5- PROFILE
SEE SHEET 70 FOR -DET- PROFILE

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-30/CONST.26
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

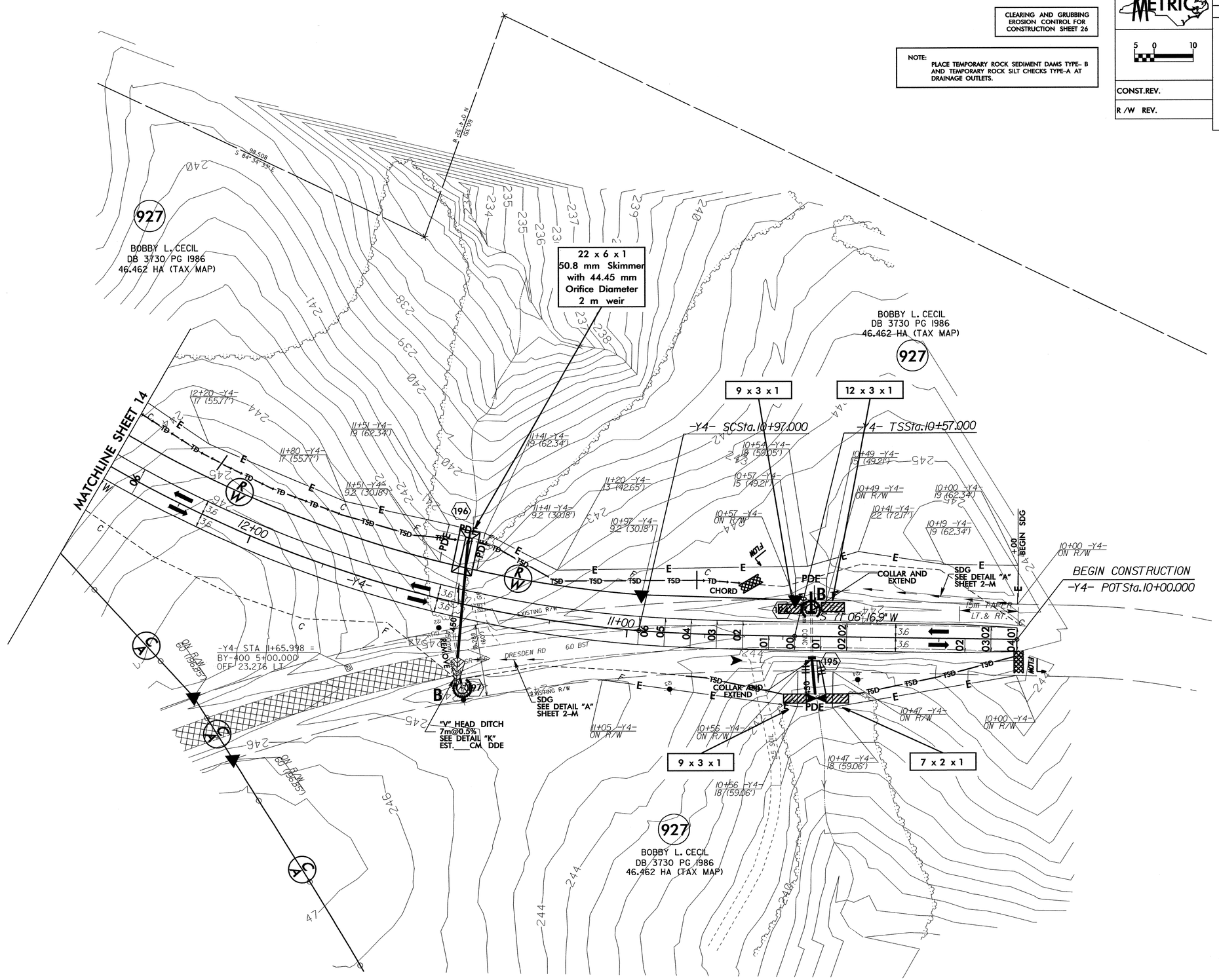
5 0 10

CONST.REV.

R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 26

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



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 67 FOR -Y4- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-31/CONST.27
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

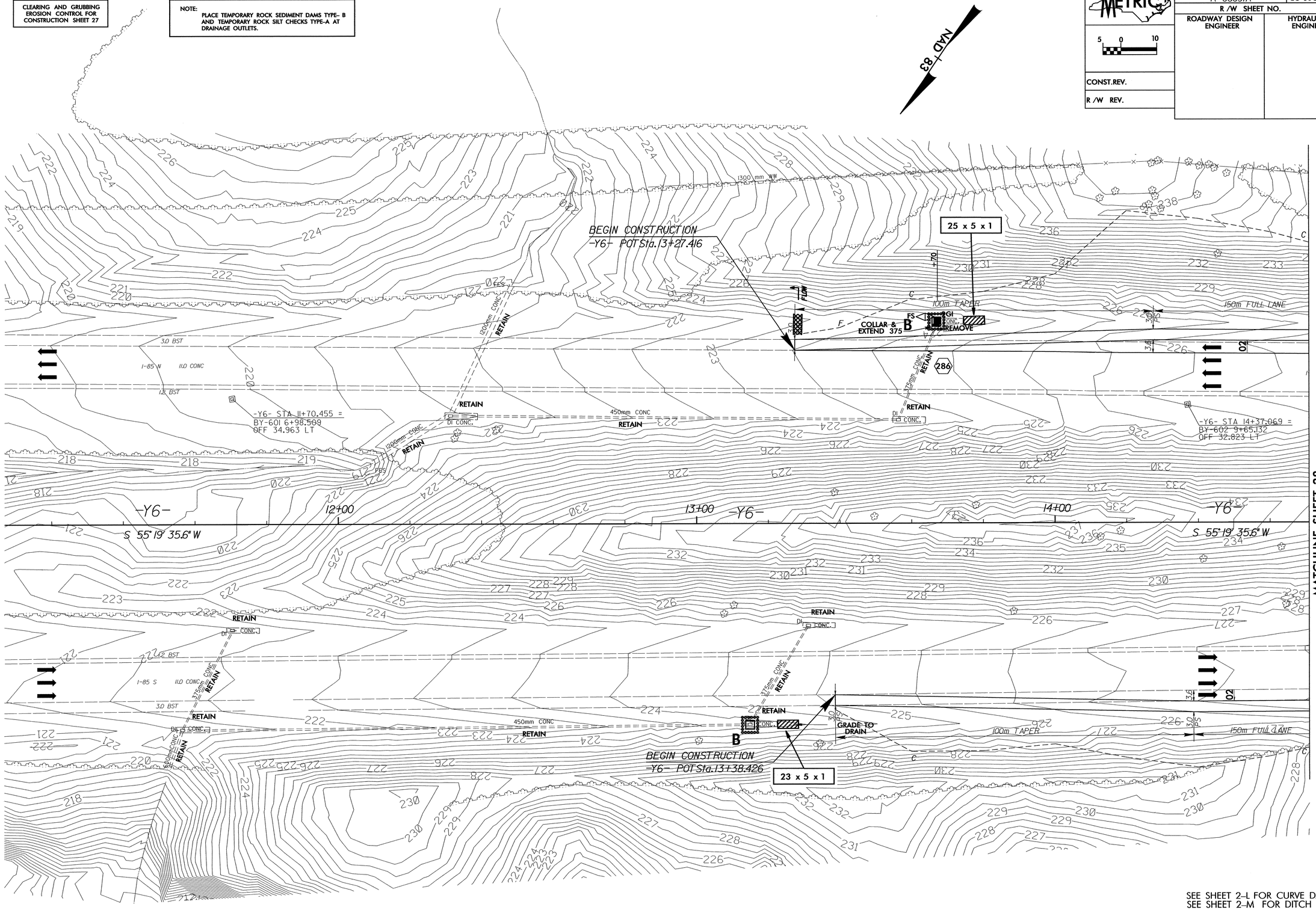
5 0 10

CONST.REV.

R /W REV.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 27

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



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-32/CONST.28
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

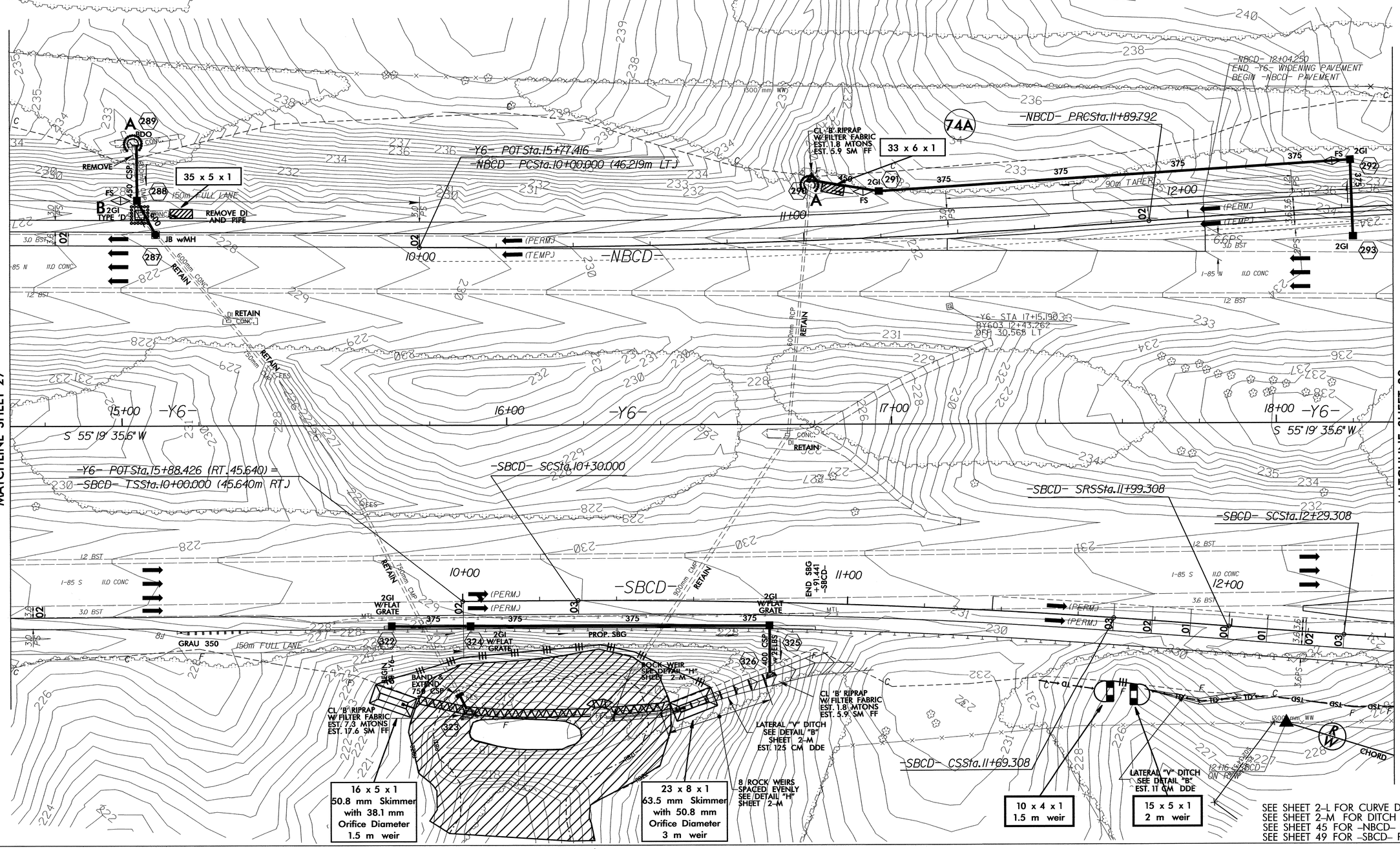
CONST.REV.

R /W REV.

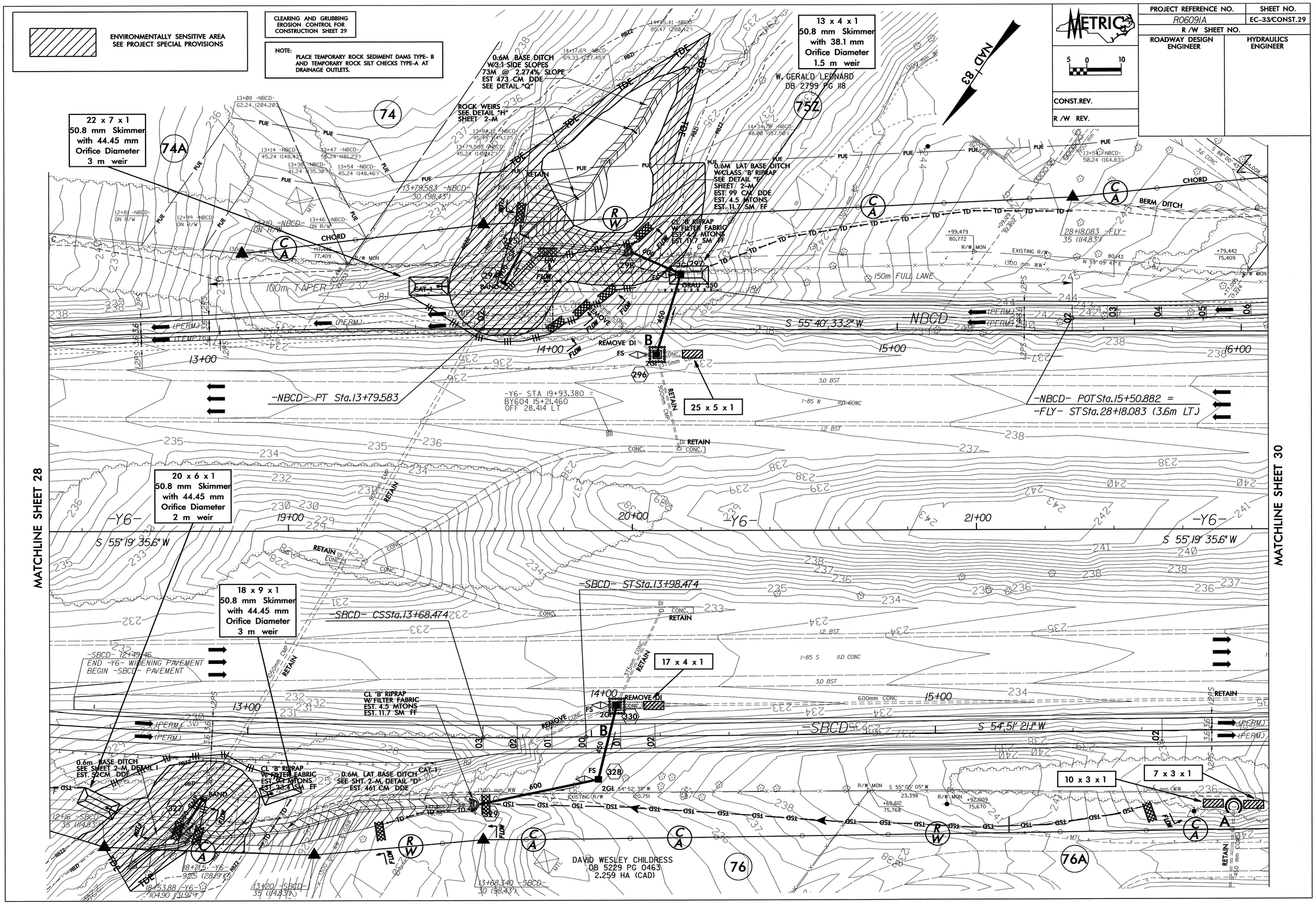
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 28

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

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS



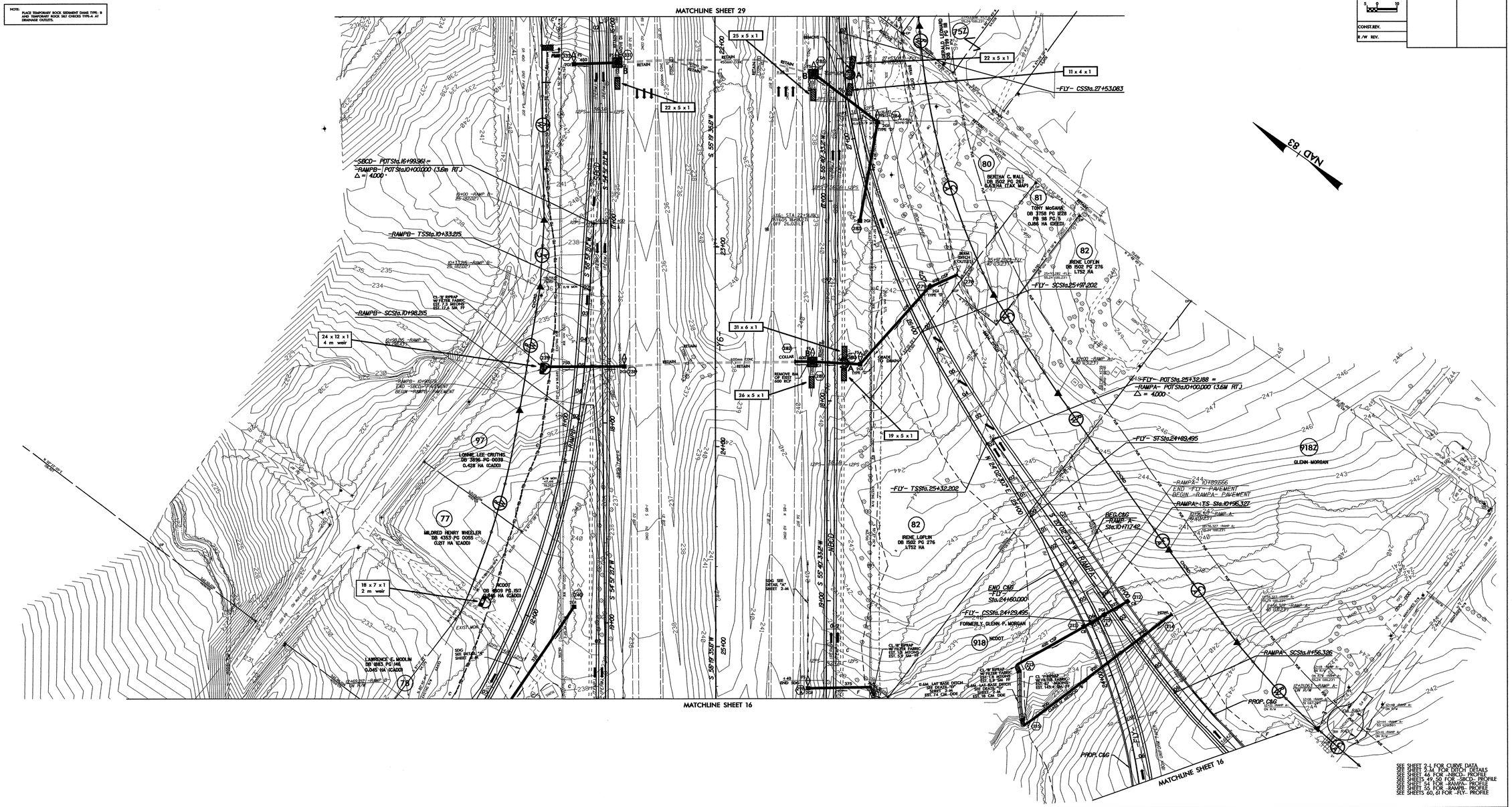
SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 45 FOR -NBCD- PROFILE
SEE SHEET 49 FOR -SBCD- PROFILE


ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 29
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE- B
AND TEMPORARY ROCK SILT CHECKS TYPE-A AT
DRAINAGE OUTLETS.
METRIC
5 0 10
CONST.REV.
R /W REV.
PROJECT REFERENCE NO.
R0609IA
SHEET NO.
EC-33/CONST.29
R /W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
NAD 83
MATCHLINE SHEET 28
MATCHLINE SHEET 30
22 x 7 x 1
50.8 mm Skimmer
with 44.45 mm
Orifice Diameter
3 m weir
13 x 4 x 1
50.8 mm Skimmer
with 38.1 mm
Orifice Diameter
1.5 m weir
0.6M BASE DITCH
W/3:1 SIDE SLOPES
73M @ 2.274% SLOPE
EST 473 CM DDE
SEE DETAIL "Q"
ROCK WEIRS
SEE DETAIL "H"
SHEET 2-M
W. GERALD LEONARD
DB 2799 PG 118
0.6M LAT BASE DITCH
W/CLASS 'B' RIPRAP
SEE DETAIL "E"
SHEET 2-M
EST. 99 CM DDE
EST. 4.5 MTONS
EST. 11.7 SM FF
CL 'B' RIPRAP
W/ FILTER FABRIC
EST. 4.5 MTONS
EST. 11.7 SM FF
-NBCD- PT Sta.13+79.583
-NBCD- POT Sta.15+50.882 =
-FLY- ST Sta.28+18.083 (3.6m LT)
25 x 5 x 1
20 x 6 x 1
50.8 mm Skimmer
with 44.45 mm
Orifice Diameter
2 m weir
18 x 9 x 1
50.8 mm Skimmer
with 44.45 mm
Orifice Diameter
3 m weir
17 x 4 x 1
-SBCD- ST Sta.13+98.474
-SBCD- CS Sta.13+68.474
-SBCD- 12+39.46
END -Y6- WIDENING PAVEMENT
BEGIN -SBCD- PAVEMENT
CL 'B' RIPRAP
W/ FILTER FABRIC
EST. 4.5 MTONS
EST. 11.7 SM FF
0.6m BASE DITCH
SEE SHEET 2-M, DETAIL I
EST. 52CM DDE
CL 'B' RIPRAP
W/ FILTER FABRIC
EST. 8.7 MTONS
EST. 23.3 SM FF
0.6M LAT BASE DITCH
SEE SHT. 2-M, DETAIL "D"
EST. 461 CM DDE
10 x 3 x 1
7 x 3 x 1
DAVID WESLEY CHILDRESS
DB 5229 PG 0463
2.259 HA (CAD)
100m TAPER
150m FULL LANE
S 55° 40' 33.2" W
S 55° 19' 35.6" W
S 54° 51' 21.1" W
N 59° 09' 41" E
-Y6- STA 19+93.380 =
BY604 15+21.460
OFF 28.414 LT
BERM DITCH
CHORD
EXISTING R/W
REMOVE DI
RETAIN
13+00
14+00
15+00
16+00
19+00
20+00
21+00

CLEARING AND GRUBBING
EROSION CONTROL FOR CONSTRUCTION SHEET 30

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

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-5701A	EC-34/CONST.30
	R/W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R/W REV.		



PROJECT REFERENCE NO.	SHEET NO.
R-2089A	EC-35/CONST.31
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

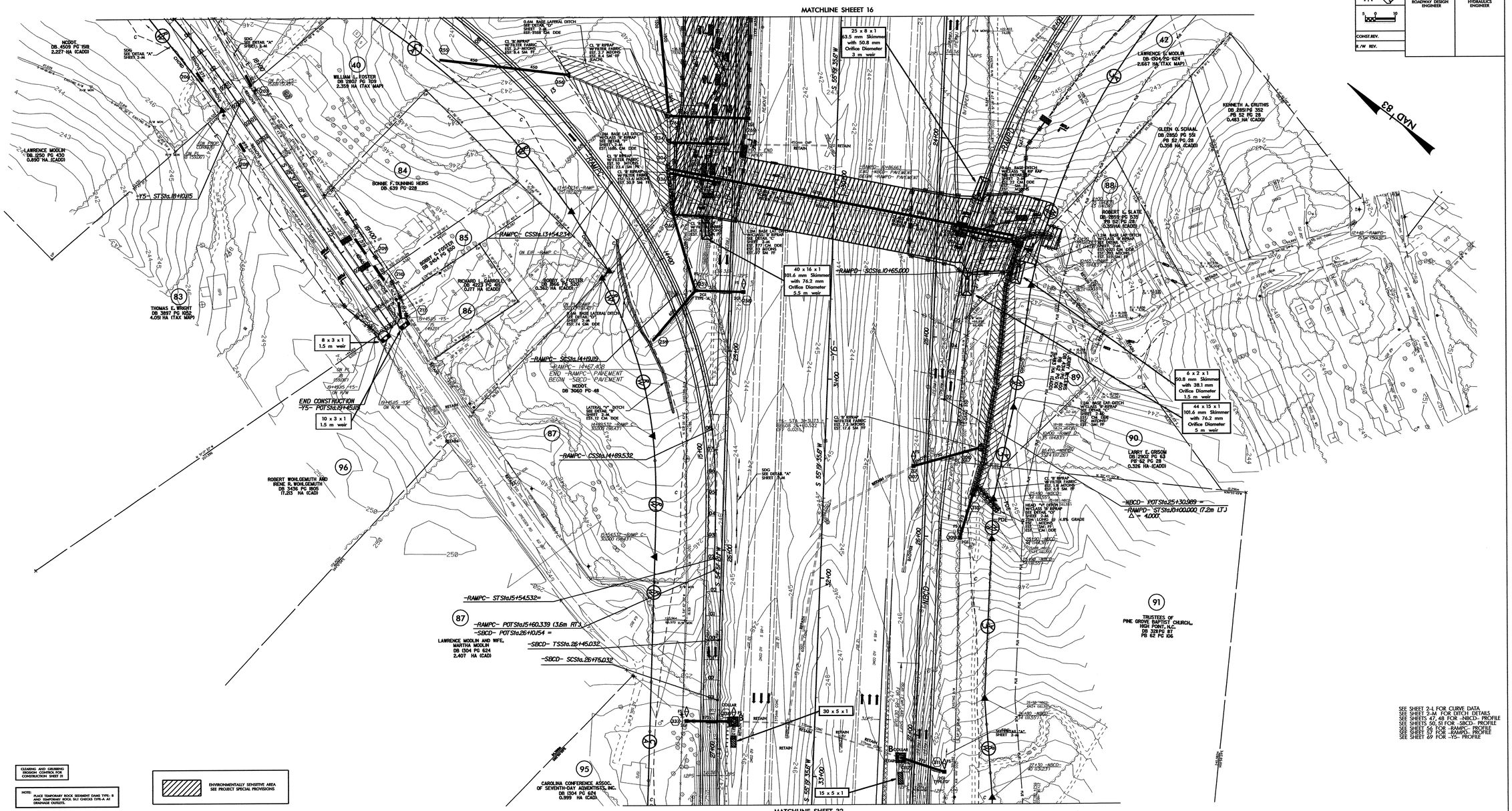
METRIC

5 0 10

CONST.REV.

R/W REV.

MATCHLINE SHEEET 16



MATCHLINE SHEET 32

SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEETS 47, 48 FOR -NBCD- PROFILE
SEE SHEETS 50, 51 FOR -SBCD- PROFILE
SEE SHEET 56 FOR -RAMPC- PROFILE
SEE SHEET 57 FOR -RAMPD- PROFILE
SEE SHEET 69 FOR -Y5- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-0609 IA	EC-36/CONST.32
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

0

CONST.REV.

R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 32

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

PAVEMENT REMOVAL

NAD 83

91
TRUSTEES OF
PINE GROVE BAPTIST CHURCH,,
HIGH POINT, N.C.
DB 3211 PG 87
PB 62 PG 106

91A
MACY L. NELSON
DB 4434 PG 1654

91B
EDITH N. WILLYARD HEIRS
DB 3164 PG 590

95
CAROLINA CONFERENCE ASSOC.
OF SEVENTH-DAY ADVENTISTS, INC.
DB 1304 PG 624
0.999 HA (CAD)

95A
THOMES PROPERTIES, LLC
DB 5269 PG 1311

-NBCD RAMP- POTSta.10+00.000 (3.6m LT.)
-NBCD- POSSta.28+64.343 =
-NBCD RAMP- SCSta.12+12.607
-NBCD RAMP- TSSta.11+47.607
-NBCD- TS Sta.28+43.822
-NBCD- CS Sta.30+36.448
-NBCD- 30+53.064
END -NBCD- PAVEMENT
BEGIN -Y6- WIDENING PAVEMENT
-NBCD- SC Sta.29+03.822
-NBCD- SRS Sta.30+66.448
-Y6- STA 33+90.283 =
BY609 29+19.632
OFF 0.029 LT
BEG.CONC.MED.BARRIER (3.6m LT.)
-SBCD- CS Sta.27+60.573
-SBCD- Sta.TS Sta.28+15.647
-SBCD- SC Sta.28+45.647
-SBCD- CS Sta.29+31.840
-SBCD- ST Sta.29+61.840
-SBCD RAMP- SCSta.10+60.000
-SBCD- ST Sta.27+90.573
-SBCD- 28+43.311
END -SBCD- PAVEMENT
BEGIN -Y6- WIDENING PAVEMENT
-SBCD- STSta.29+90.839 =
-SBCD RAMP- TS Sta.10+00.000 (3.6m RT.)
-NBCDRAMP- 11+89.219
END -NBCD- PAVEMENT
BEGIN -NBCDRAMP- PAVEMENT
PROPOSED PAVEMENT REMOVAL
180m TEMP.LANE SHIFT FOR I-85 DETOUR
S 55° 40' 33.2" W
S 55° 19' 35.6" W
S 51° 13' 06.6" W
S 55° 19' 35.6" W

8 x 4 x 1
13 x 5 x 1
11 x 4 x 1
42 x 7 x 1
17 x 6 x 1
50.8 mm Skimmer
with 38.1 mm
Orifice Diameter
2 m weir
14 x 5 x 1
2 m weir
6 x 2 x 1
1.5 m weir
14 x 5 x 1
2 m weir
13 x 5 x 1
50.8 mm Skimmer
with 38.1 mm
Orifice Diameter
3.5 m weir
31 x 7 x 1
63.5 mm Skimmer
with 50.8 mm
Orifice Diameter
2.5 m weir

SDG
SEE DETAIL "A"
SHEET 2-M

FALSE CUT
SEE DETAIL "G"
SHEET 2-M

CL 'B' RIPRAP
W/ FILTER FABRIC
EST. 4.5 MTONS
EST. 11.7 SM FF

CL 'B' RIPRAP
W/ FILTER FABRIC
EST. 7.3 MTONS
EST. 17.6 SM FF

TIE TO EXISTING

REPLACE GRATE

MATCHLINE SHEET 31

MATCHLINE SHEET 33

PROJECT REFERENCE NO.	SHEET NO.
R-0609A	EC-37/CONST.33
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

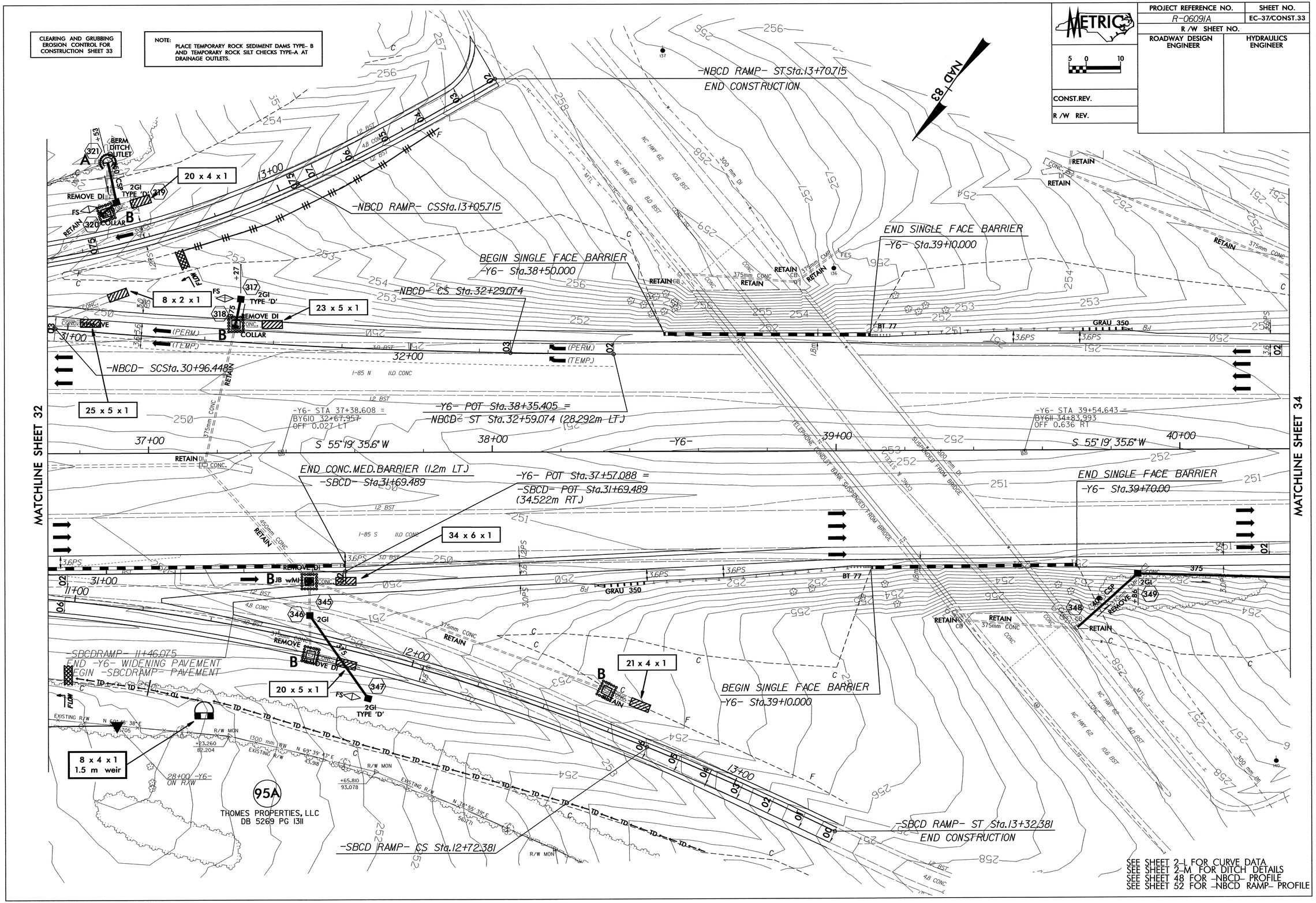
5 0 10

CONST.REV.

R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 33

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



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 48 FOR -NBCD- PROFILE
SEE SHEET 52 FOR -NBCD RAMP- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-0609A	EC-38/CONST.34
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

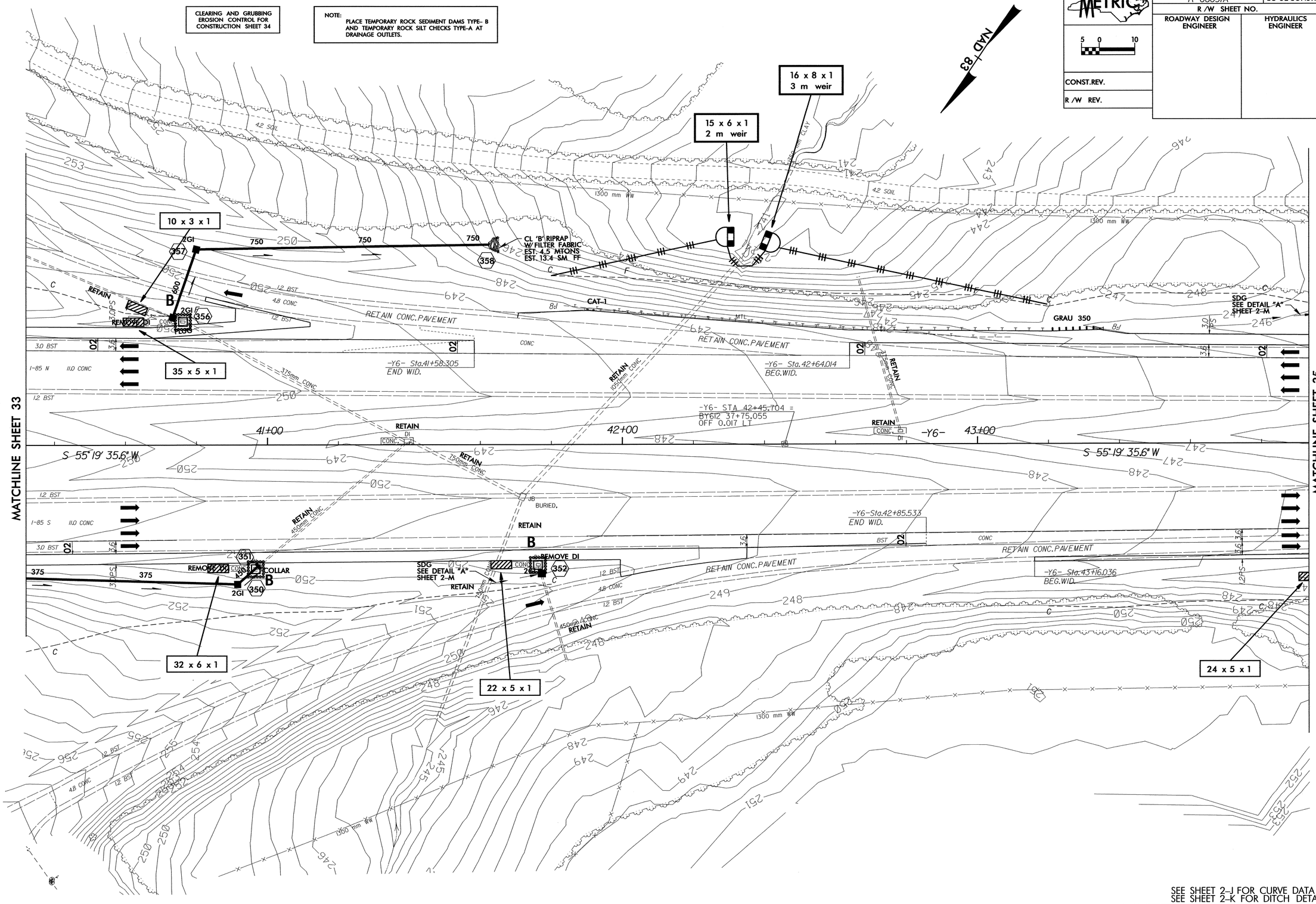
5 0 10

CONST.REV.

R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 34

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



SEE SHEET 2-J FOR CURVE DATA
SEE SHEET 2-K FOR DITCH DETAILS

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-39/CONST.35
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

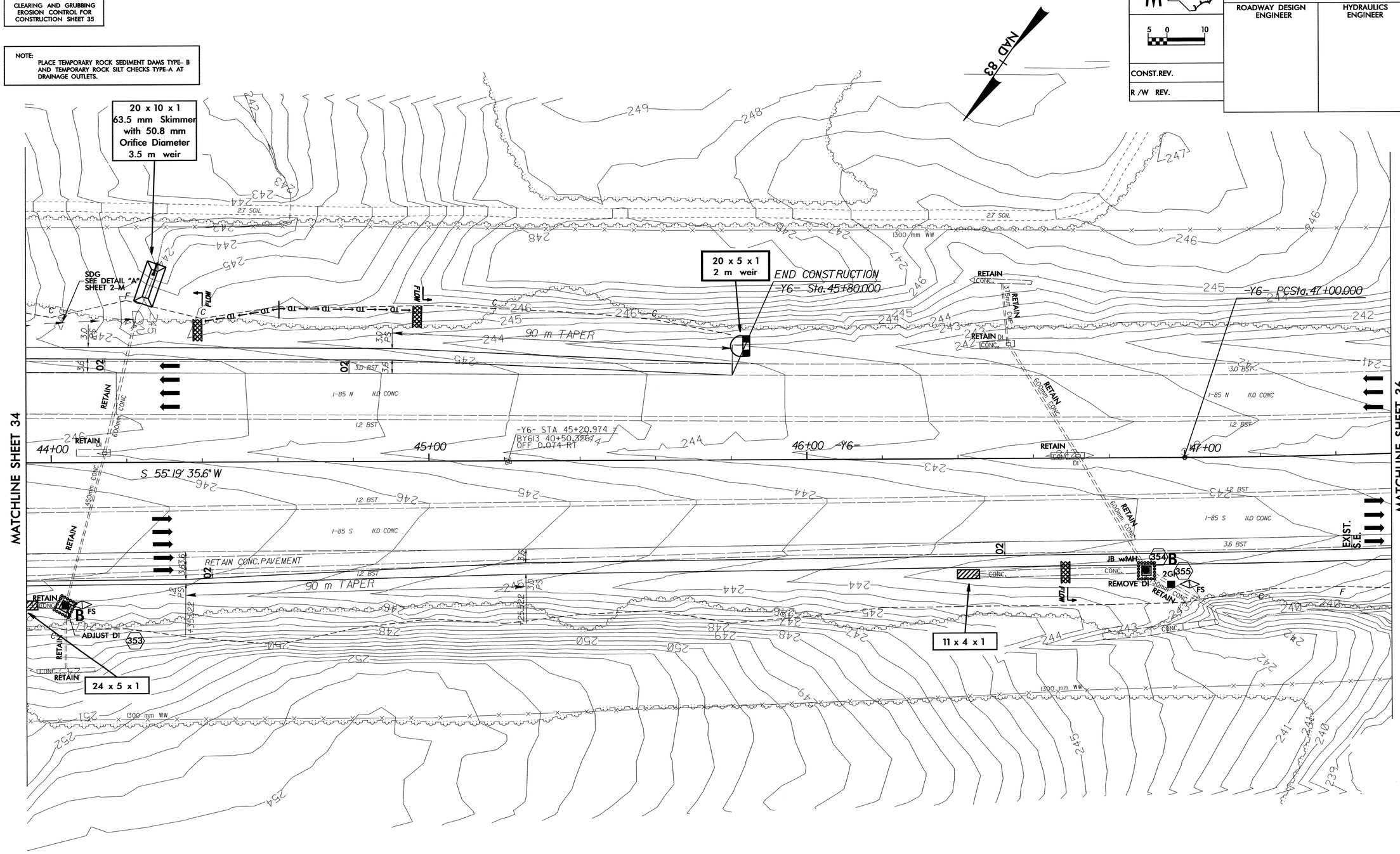
5 0 10

CONST.REV.

R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 35

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



SEE SHEET 2-J FOR CURVE DATA
SEE SHEET 2-K FOR DITCH DETAILS

PROJECT REFERENCE NO.	SHEET NO.
R-0609A	EC-40/CONST.36
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

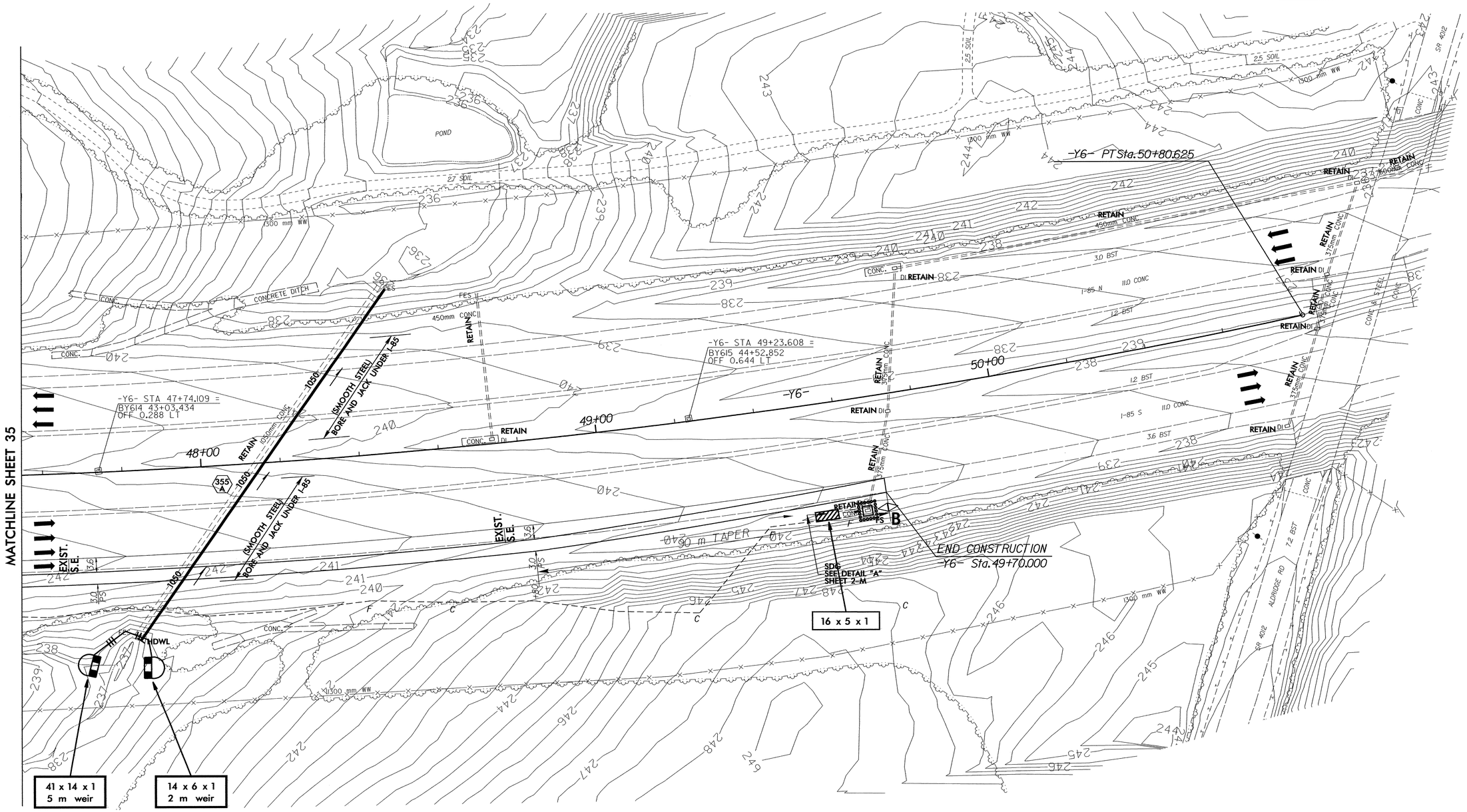
5 0 10

CONST.REV.

R /W REV.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 36

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

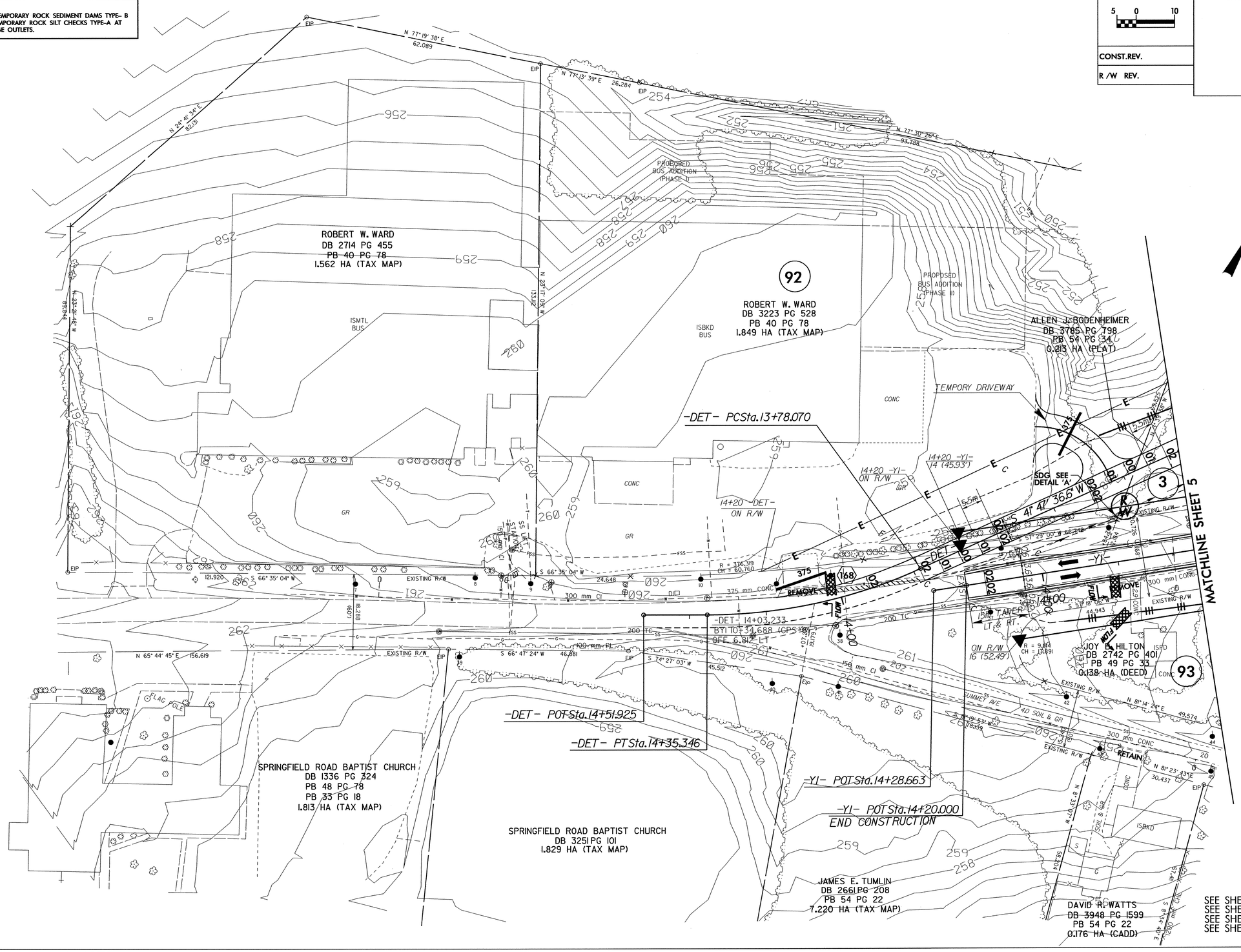


SEE SHEET 2-J FOR CURVE DATA
SEE SHEET 2-K FOR DITCH DETAILS

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 37

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

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-0609IA	EC-41/CONST.37
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		



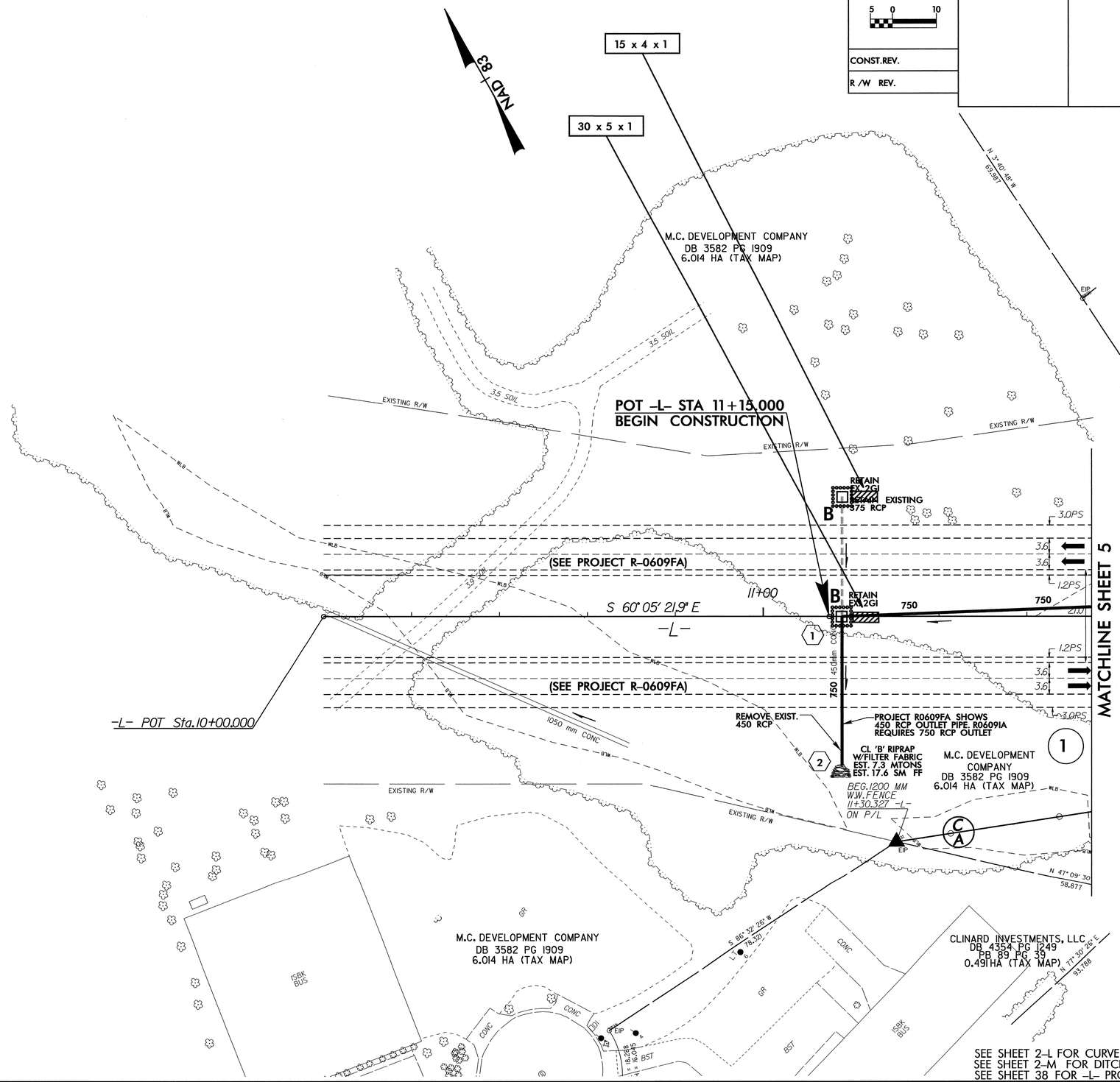
PROJECT REFERENCE NO.	SHEET NO.
R-0690 IA	EC-42/CONST.4
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

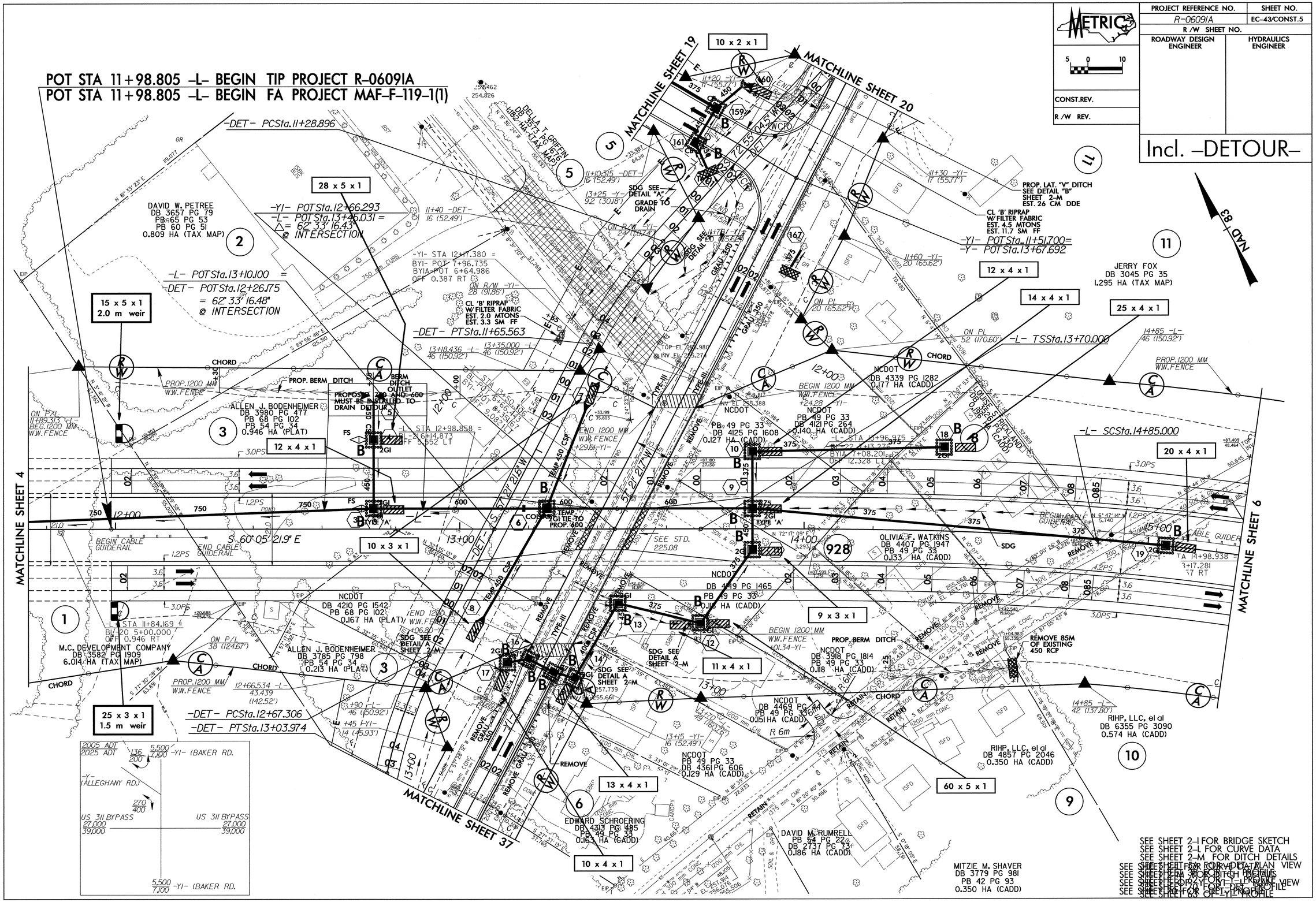


SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 38 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-43/CONST.5
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

Incl. –DETOUR–



SEE SHEET 2-I FOR BRIDGE SKETCH
SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 1 FOR PROVIDED DATA
SEE SHEET 3 FOR PLAN VIEW
SEE SHEET 3 FOR DITCH DETAILS
SEE SHEET 2 FOR Y-L PROFILE VIEW
SEE SHEET 2 FOR Y-DET PROFILE
SEE SHEET 2 FOR Y-L PROFILE

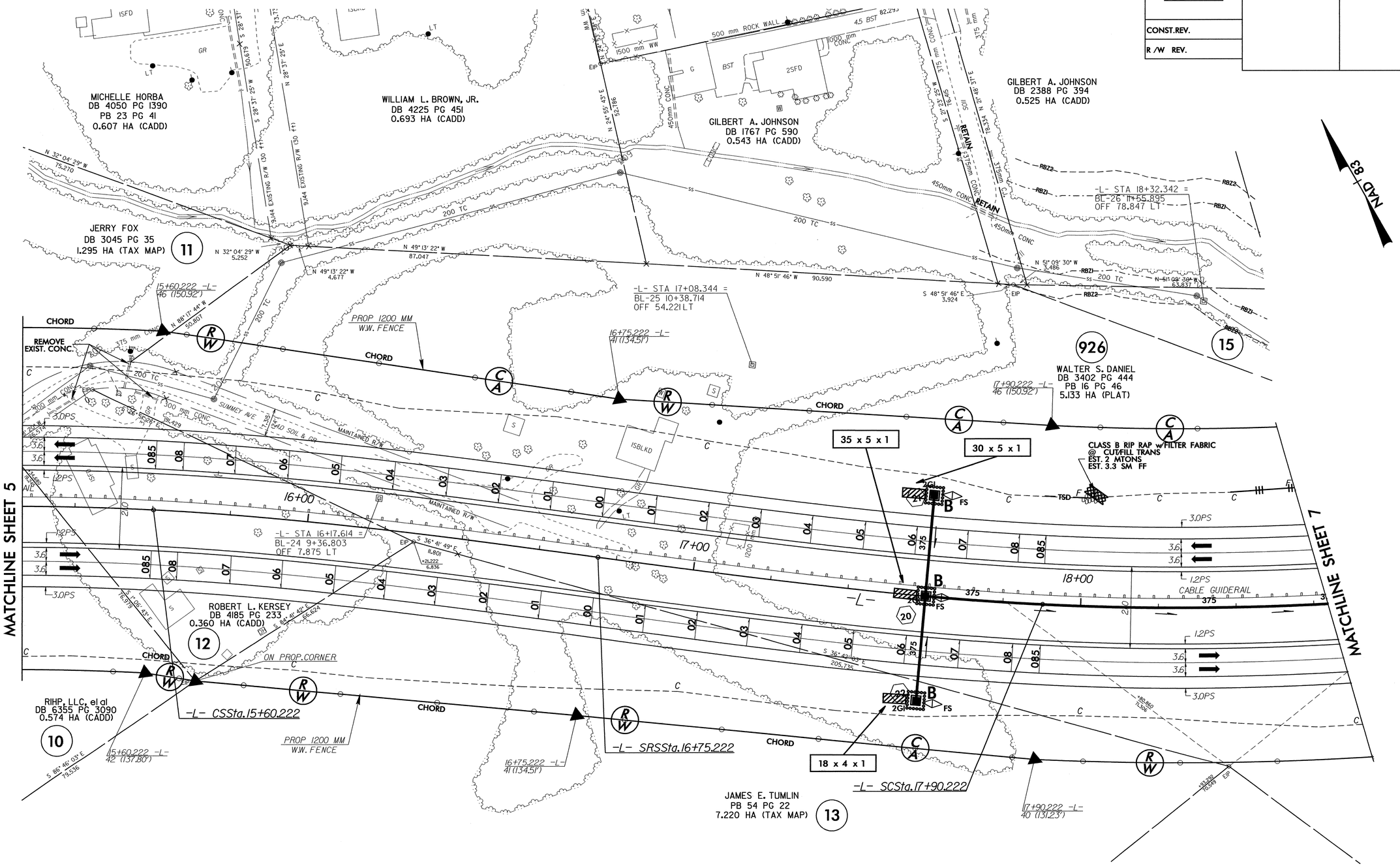
PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-44/CONST.6
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEETS 38, 39 FOR -L- PROFILE

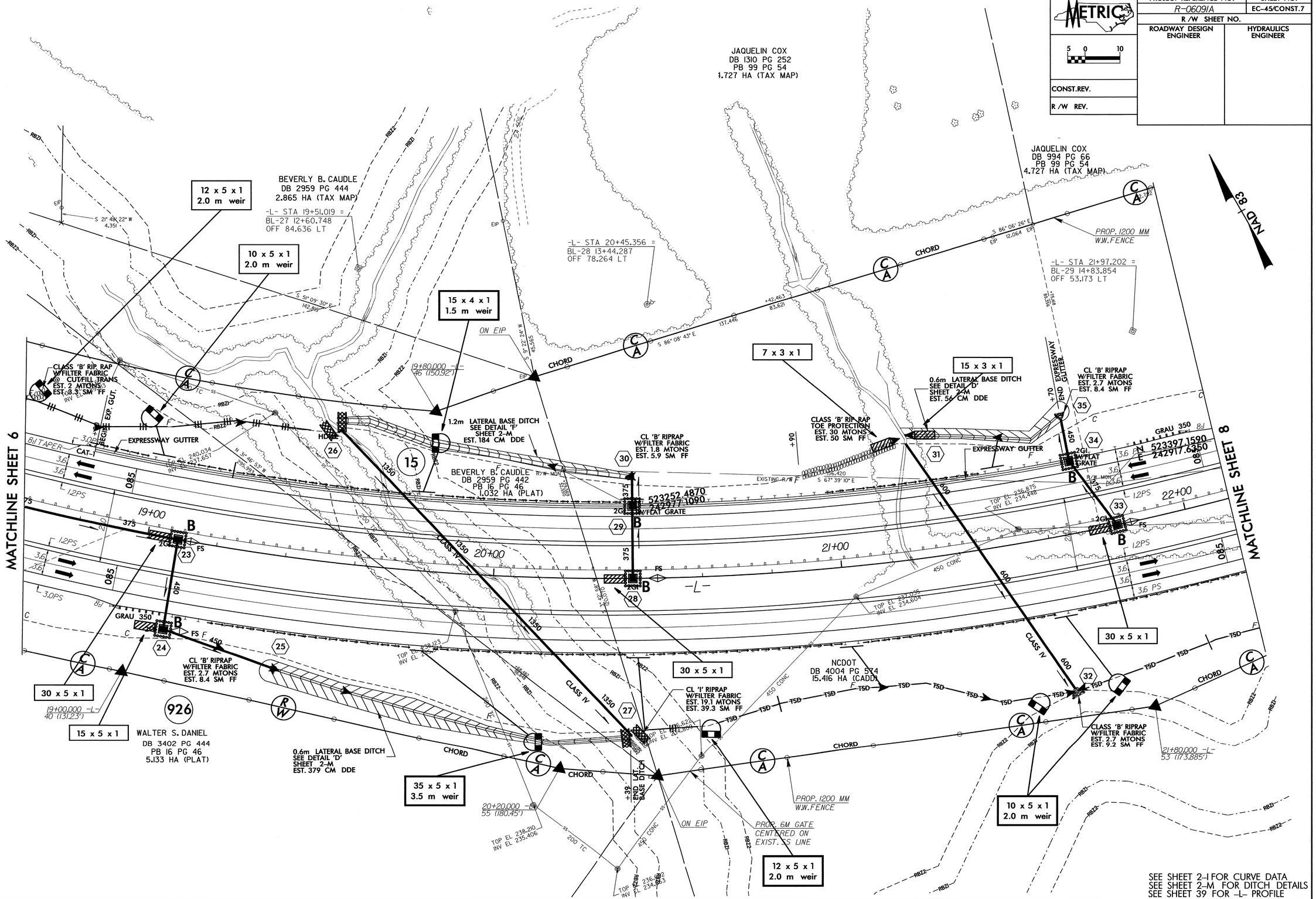
PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-45/CONST.7
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



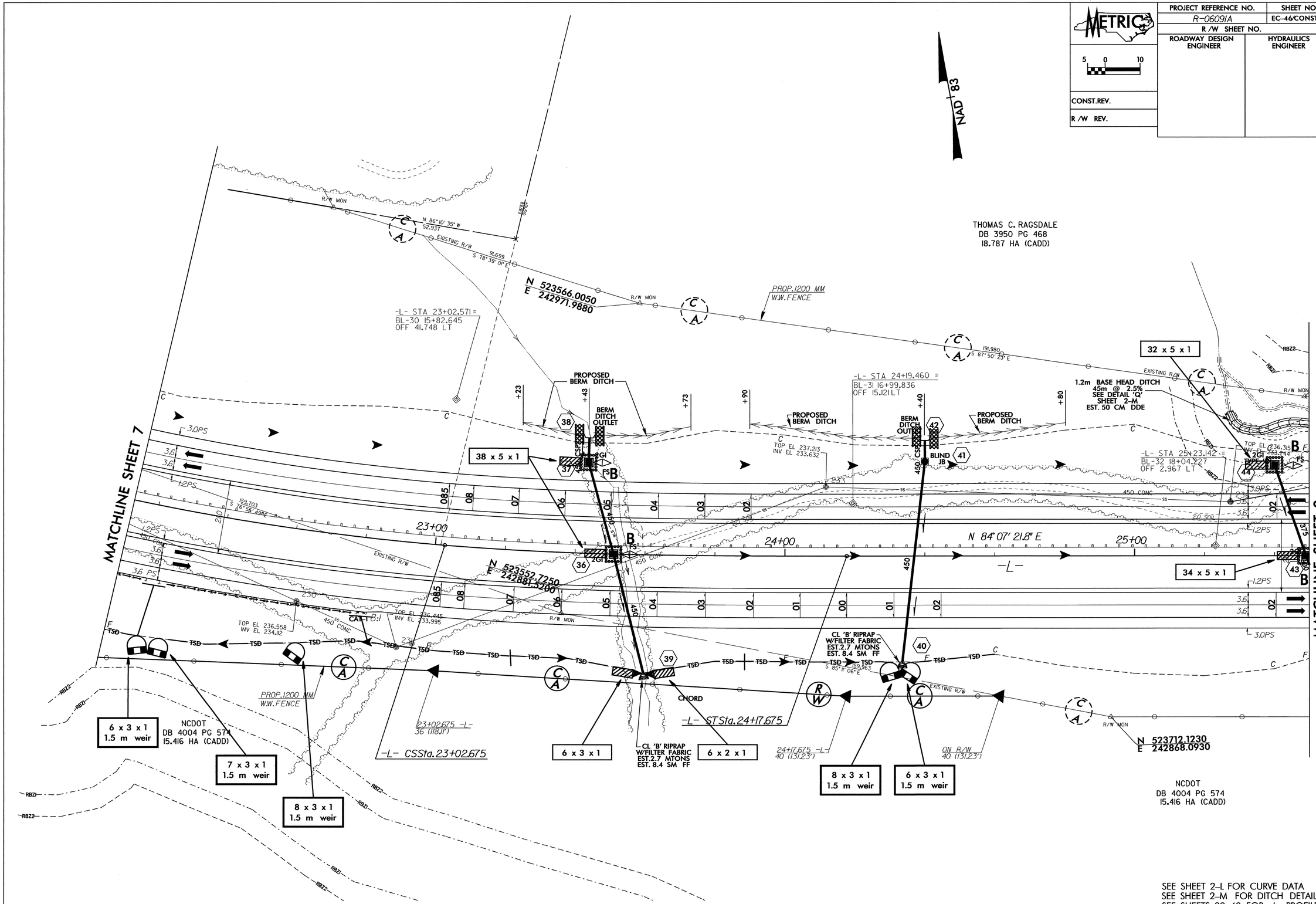
PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-46/CONST.8
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEETS 39, 40 FOR -L- PROFILE

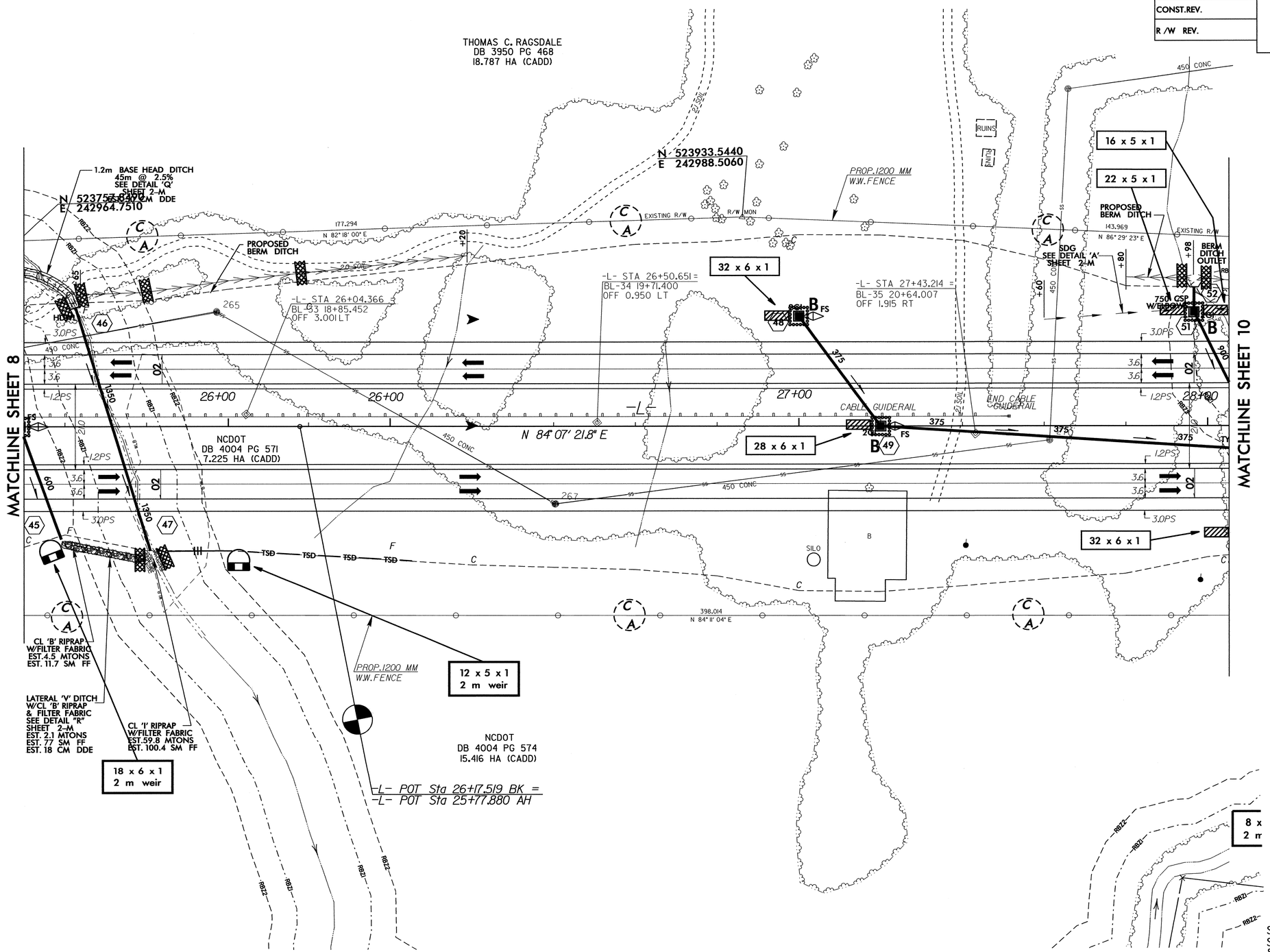
PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-47/CONST.9
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

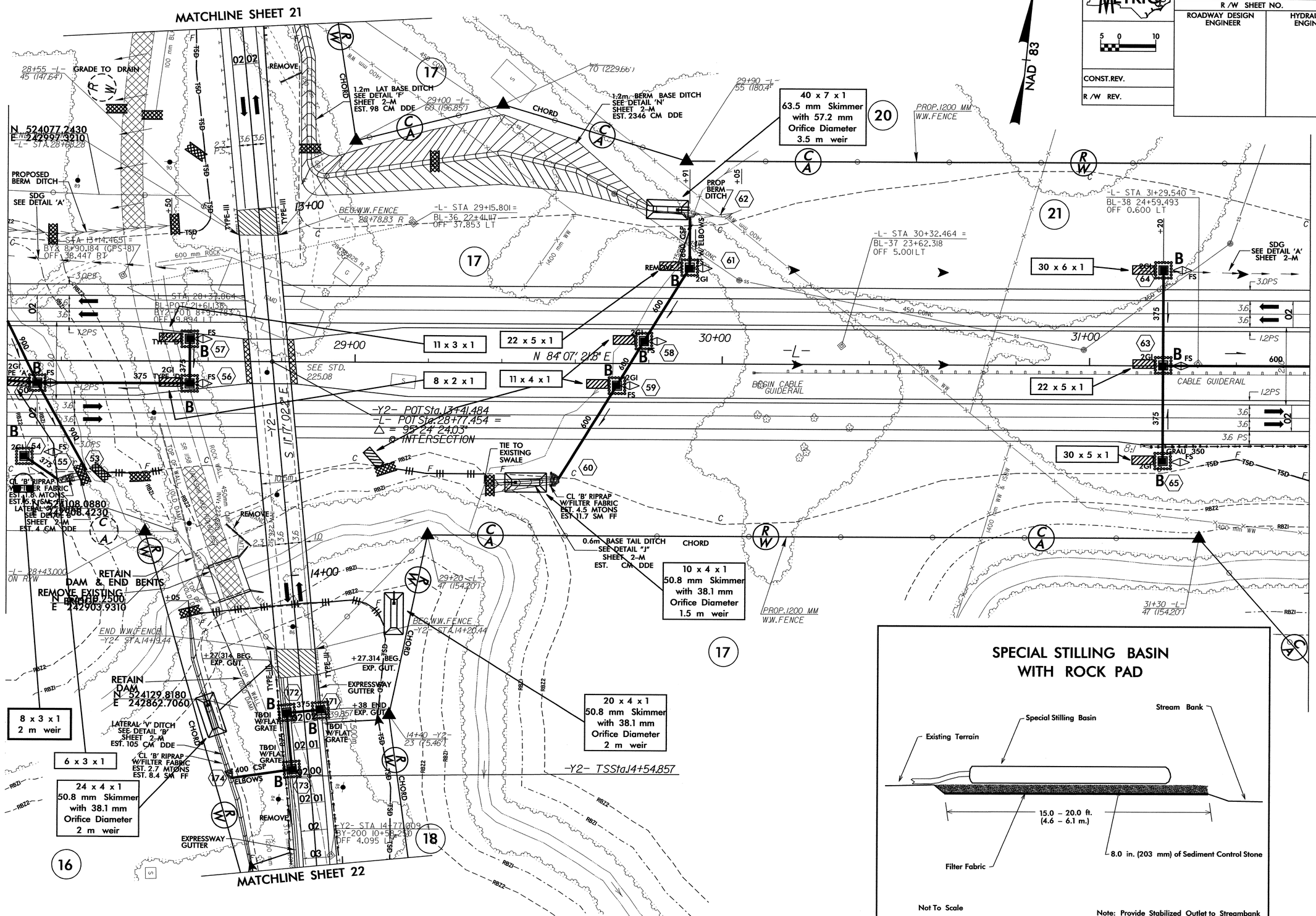
R /W REV.



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 40 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-0609/A	EC-48/CONST.10
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

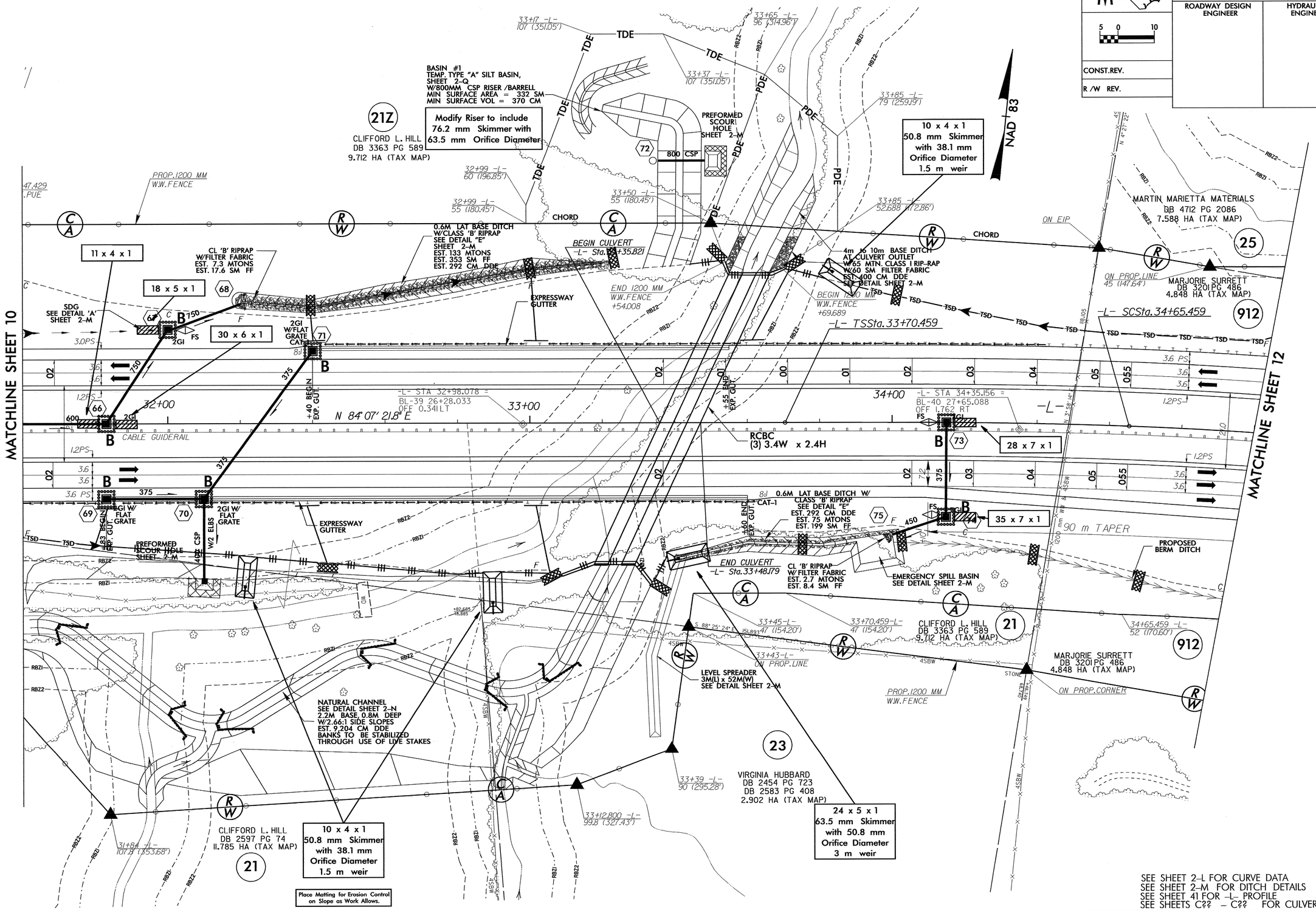


PROJECT REFERENCE NO.	SHEET NO.
R-0609A	EC-49/CONST.11
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

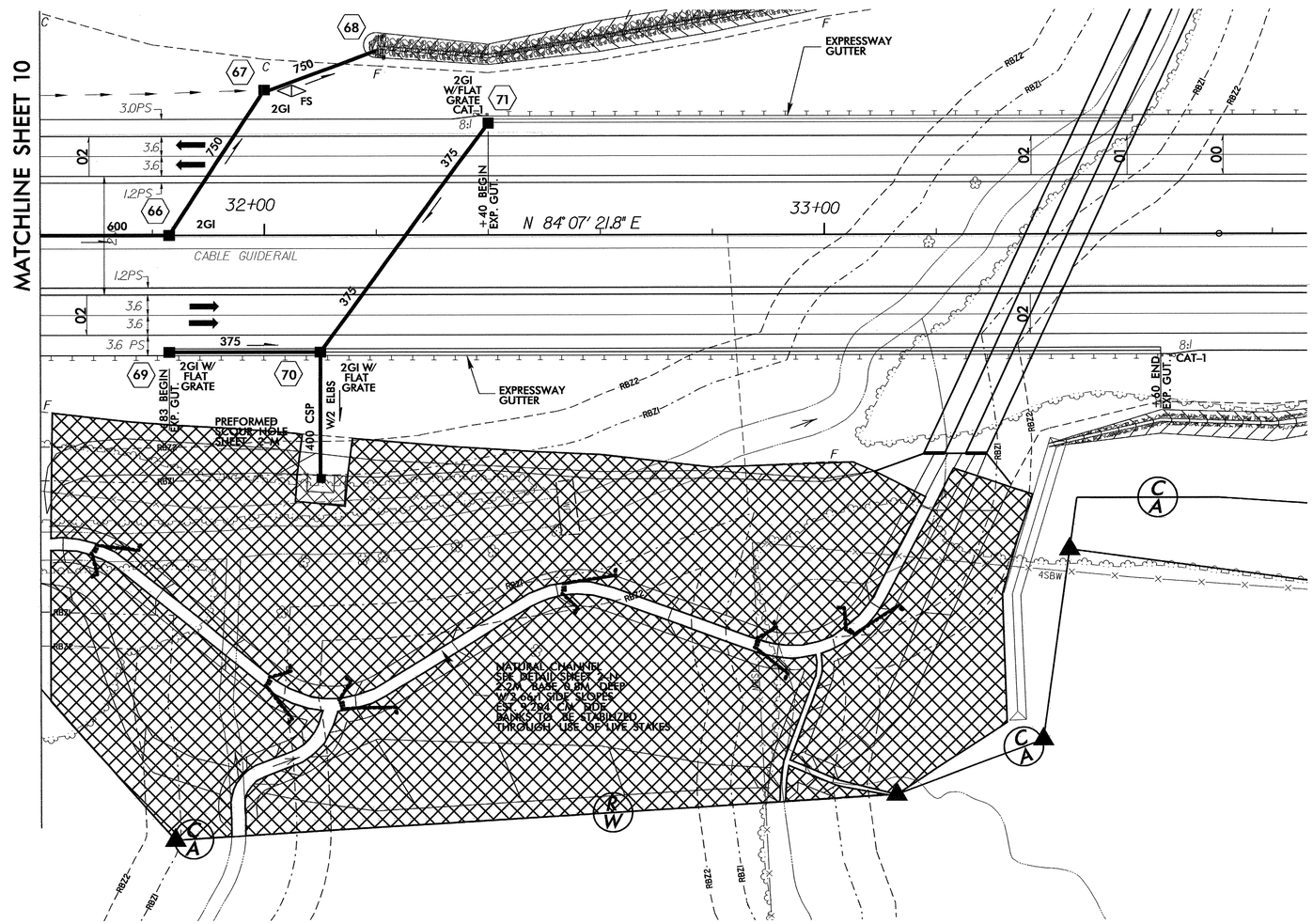
R /W REV.



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 41 FOR -L- PROFILE
SEE SHEETS C?? - C?? FOR CULVERT PLANS

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-50/CONST.II
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

1.0 HECTARE STREAMBANK REFORESTATION



SEE RF-2 AND PROJECT SPECIAL PROVISIONS

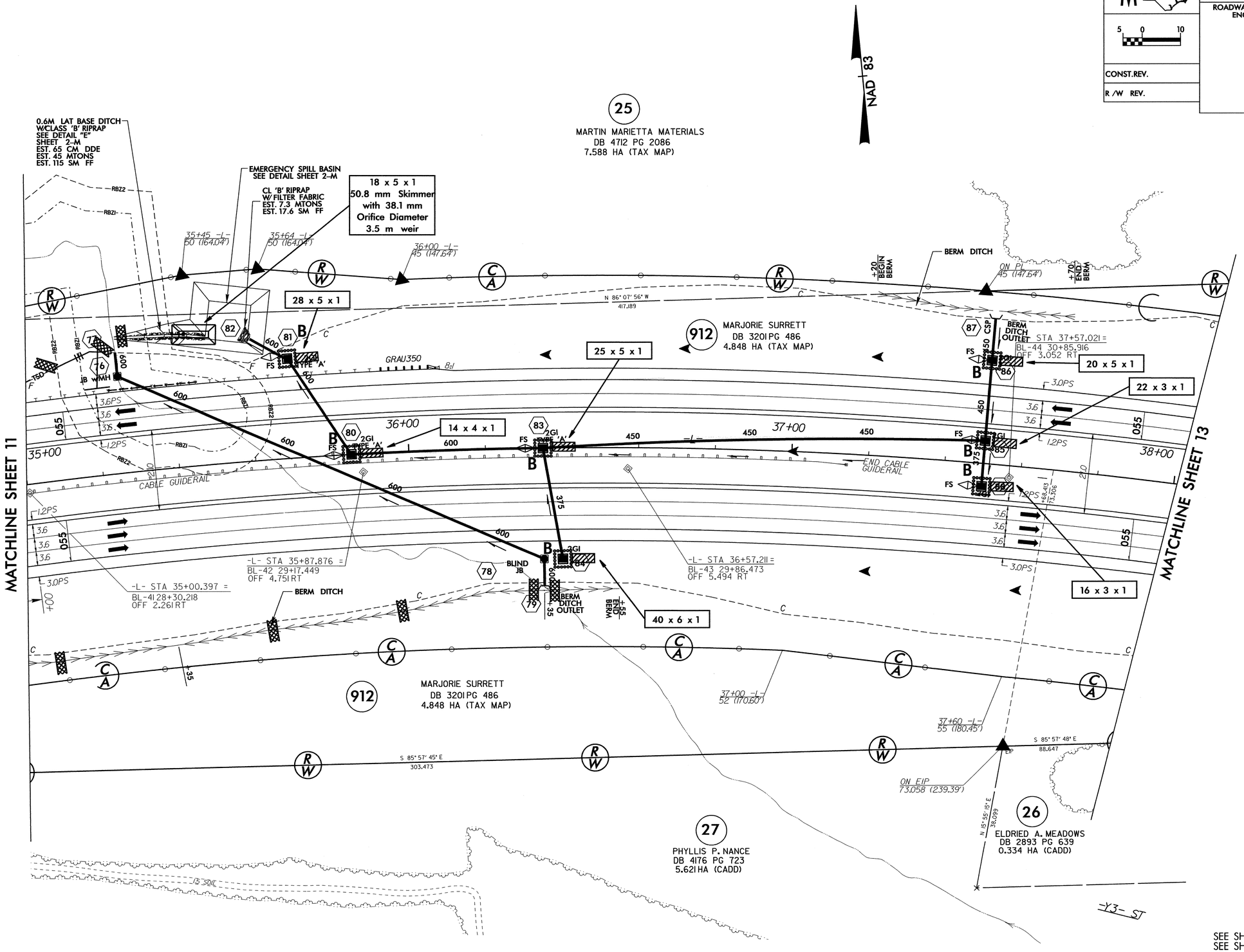
PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-51/CONST.12
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

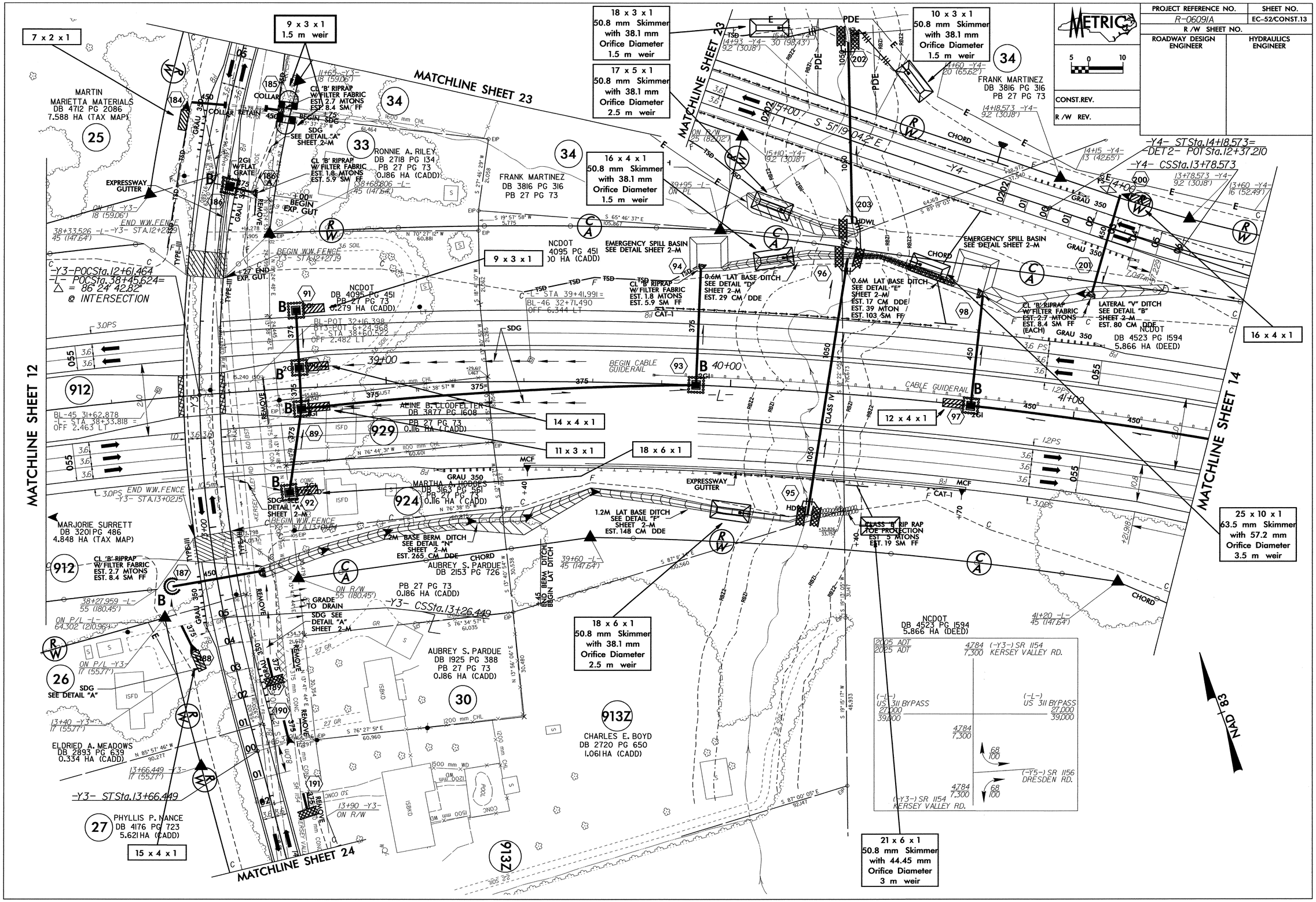
5 0 10

CONST.REV.

R /W REV.

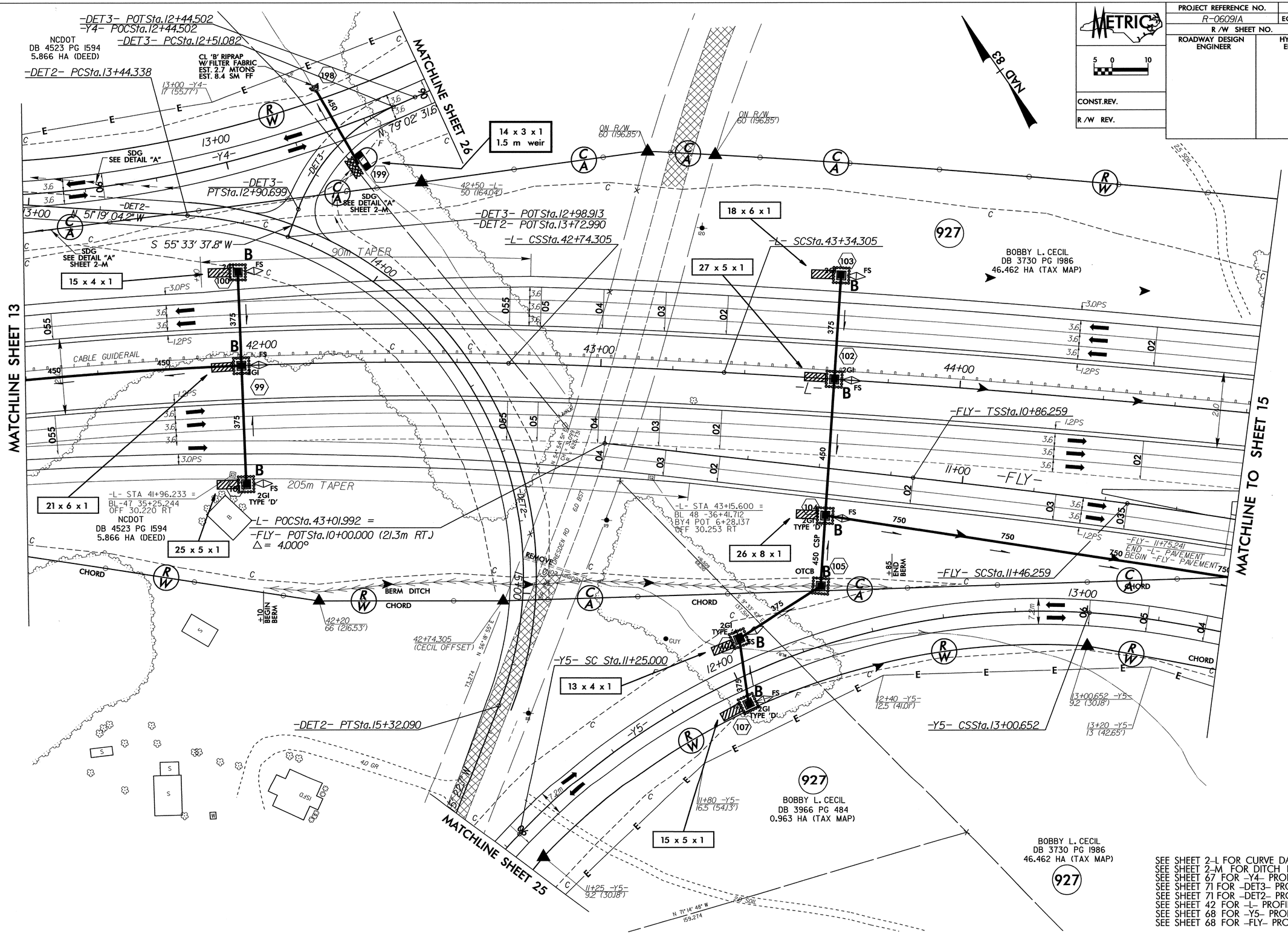


SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 41 FOR -L- PROFILE


METRIC
5 0 10
PROJECT REFERENCE NO.
R-0609IA
SHEET NO.
EC-52/CONST.13
R /W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R /W REV.
MATCHLINE SHEET 23
MATCHLINE SHEET 12
MATCHLINE SHEET 14
MATCHLINE SHEET 24
7 x 2 x 1
9 x 3 x 1
1.5 m weir
18 x 3 x 1
50.8 mm Skimmer
with 38.1 mm
Orifice Diameter
1.5 m weir
17 x 5 x 1
50.8 mm Skimmer
with 38.1 mm
Orifice Diameter
2.5 m weir
16 x 4 x 1
50.8 mm Skimmer
with 38.1 mm
Orifice Diameter
1.5 m weir
10 x 3 x 1
50.8 mm Skimmer
with 38.1 mm
Orifice Diameter
1.5 m weir
9 x 3 x 1
14 x 4 x 1
11 x 3 x 1
18 x 6 x 1
12 x 4 x 1
16 x 4 x 1
25 x 10 x 1
63.5 mm Skimmer
with 57.2 mm
Orifice Diameter
3.5 m weir
18 x 6 x 1
50.8 mm Skimmer
with 38.1 mm
Orifice Diameter
2.5 m weir
21 x 6 x 1
50.8 mm Skimmer
with 44.45 mm
Orifice Diameter
3 m weir
15 x 4 x 1
MARTIN
MARIETTA MATERIALS
DB 4712 PG 2086
7.588 HA (TAX MAP)
25
34
33
FRANK MARTINEZ
DB 3816 PG 316
PB 27 PG 73
RONNIE A. RILEY
DB 2718 PG 134
PB 27 PG 73
0.186 HA (CADD)
NCDOT
4095 PG 451
0 HA (CADD)
NCDOT
DB 4095 PG 451
PB 27 PG 73
0.279 HA (CADD)
ALINE B. CLODFELTER
DB 3877 PG 1608
PB 27 PG 73
0.116 HA (CADD)
MARTHA A. HOOPES
DB 3163 PG 561
PB 27 PG 73
0.116 HA (CADD)
AUBREY S. PARDUE
DB 2153 PG 726
PB 27 PG 73
0.186 HA (CADD)
AUBREY S. PARDUE
DB 1925 PG 388
PB 27 PG 73
0.186 HA (CADD)
NCDOT
DB 4523 PG 1594
5.866 HA (DEED)
CHARLES E. BOYD
DB 2720 PG 650
1.061 HA (CADD)
ELDRIED A. MEADOWS
DB 2893 PG 639
0.334 HA (CADD)
PHYLLIS P. NANCE
DB 4176 PG 723
5.621 HA (CADD)
MARJORIE SURRETT
DB 3201 PG 486
4.848 HA (TAX MAP)
912
929
924
913Z
26
27
30
EXPRESSWAY GUTTER
EMERGENCY SPILL BASIN
SEE DETAIL SHEET 2-M
0.6M LAT BASE DITCH
SEE DETAIL "D"
SHEET 2-M
EST. 29 CM DDE
0.6M LAT BASE DITCH
SEE DETAIL "E"
SHEET 2-M
EST. 17 CM DDE
EST. 39 MTON
EST. 103 SM FF
CL 'B' RIPRAP
W/FILTER FABRIC
EST. 1.8 MTONS
EST. 5.9 SM FF
CL 'B' RIPRAP
W/FILTER FABRIC
EST. 2.7 MTONS
EST. 8.4 SM FF
(EACH)
LATERAL "V" DITCH
SEE DETAIL "B"
SHEET 2-M
EST. 80 CM DDE
1.2M LAT BASE DITCH
SEE DETAIL "E"
SHEET 2-M
EST. 148 CM DDE
1.2M BASE BERM DITCH
SEE DETAIL "N"
SHEET 2-M
EST. 265 CM DDE
CLASS B RIP RAP
TOE PROTECTION
EST. 5 MTONS
EST. 19 SM FF
CL 'B' RIPRAP
W/FILTER FABRIC
EST. 2.7 MTONS
EST. 8.4 SM FF
SDG
SEE DETAIL "A"
SHEET 2-M
GRADE
TO DRAIN
-Y3- POCSta.12+61.464
-L- POCSta.38+45.624=
= 86 24' 42.82"
@ INTERSECTION
-Y4- STSta.14+18.573=
-DET2- POI Sta.12+37.210
-Y4- CSSta.13+78.573
-Y3- CSSta.13+26.449
-Y3- STSta.13+66.449
2005 ADT
2025 ADT
4,784
7,300
(-Y3-) SR 1154
KERSEY VALLEY RD.
(-L-)
US 311 BYPASS
27,000
39,000
(-Y5-) SR 1156
DRESDEN RD.
NAD 83

PROJECT REFERENCE NO.	SHEET NO.
R-0609A	EC-53/CONST.14
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 67 FOR -Y4- PROFILE
SEE SHEET 71 FOR -DET3- PROFILE
SEE SHEET 71 FOR -DET2- PROFILE
SEE SHEET 42 FOR -L- PROFILE
SEE SHEET 68 FOR -Y5- PROFILE
SEE SHEET 68 FOR -FLY- PROFILE

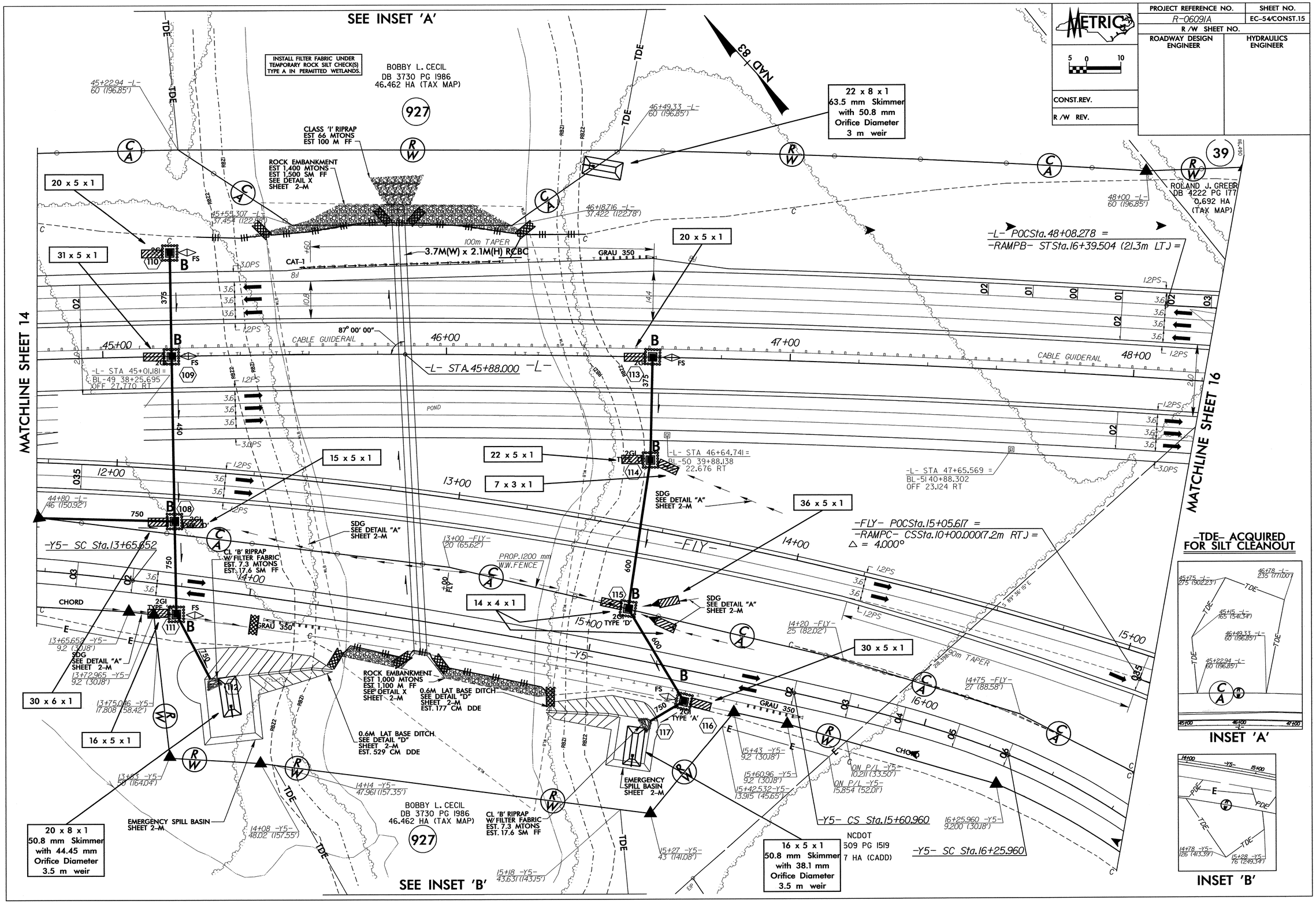
PROJECT REFERENCE NO.	SHEET NO.
R-0609A	EC-54/CONST.15
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

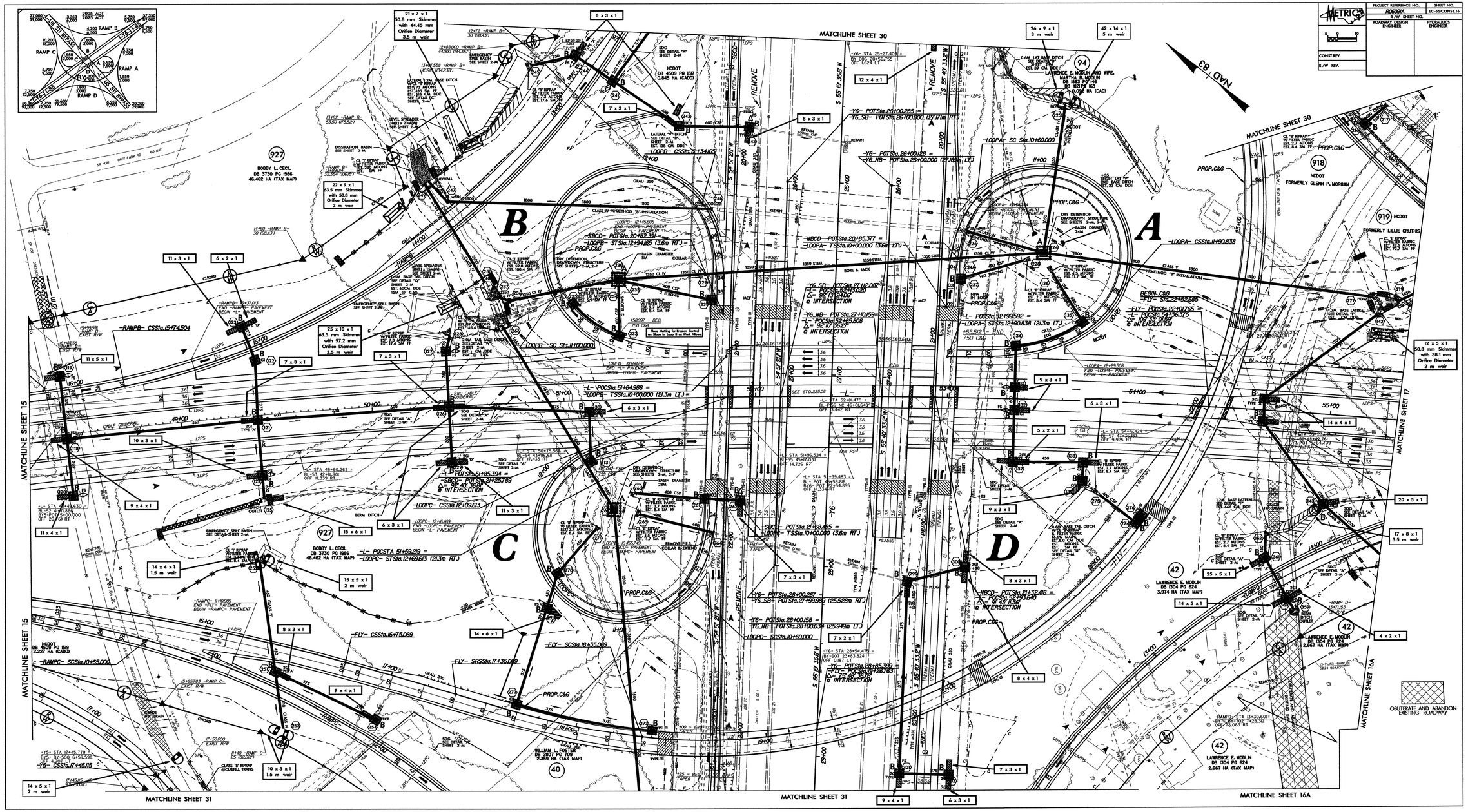
5 0 10

CONST.REV.

R /W REV.



PROJECT REFERENCE NO.	SHEET NO.
R0609A	EC-S5/CONST.16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R/W REV.	

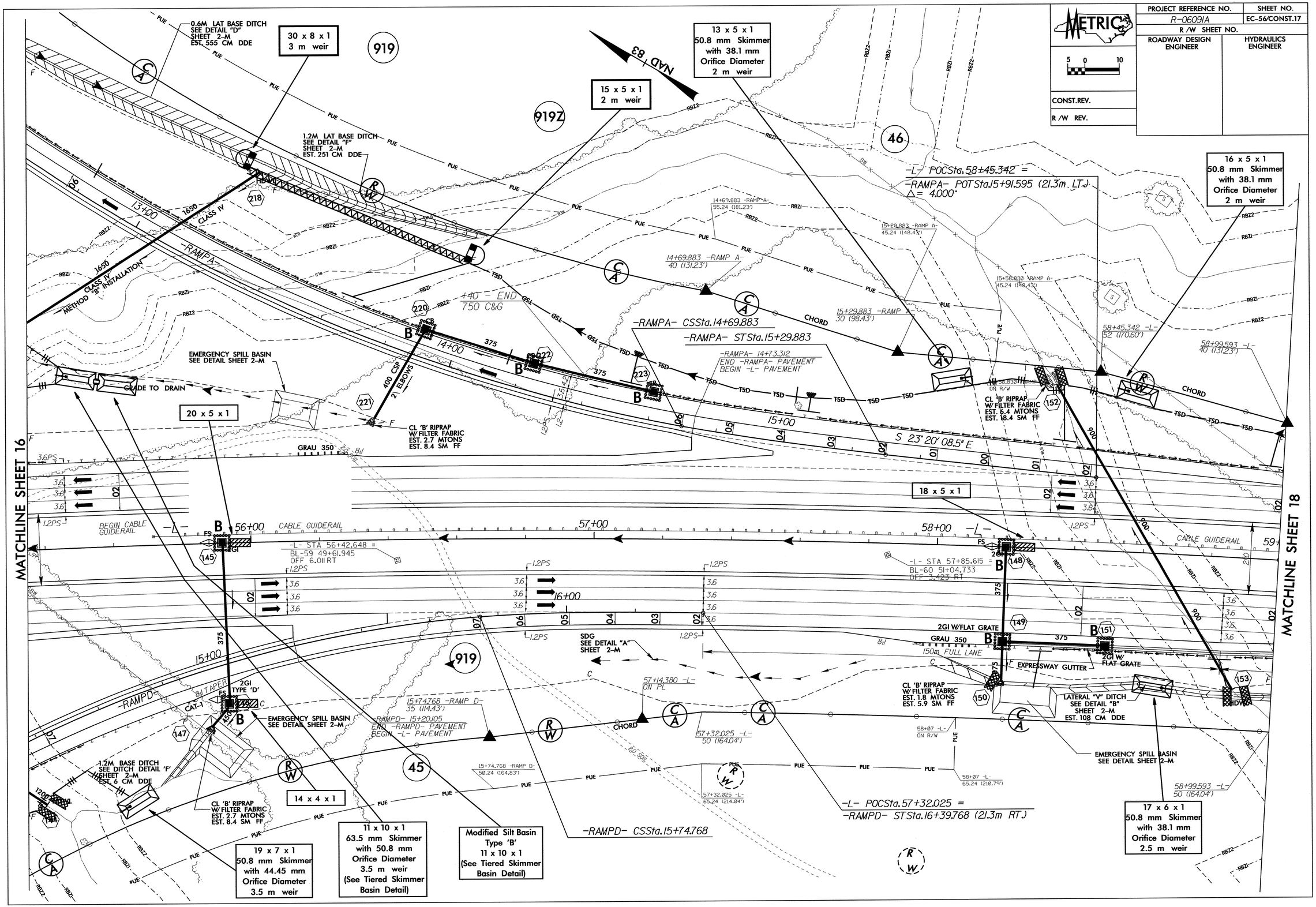


PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-56/CONST.17
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.

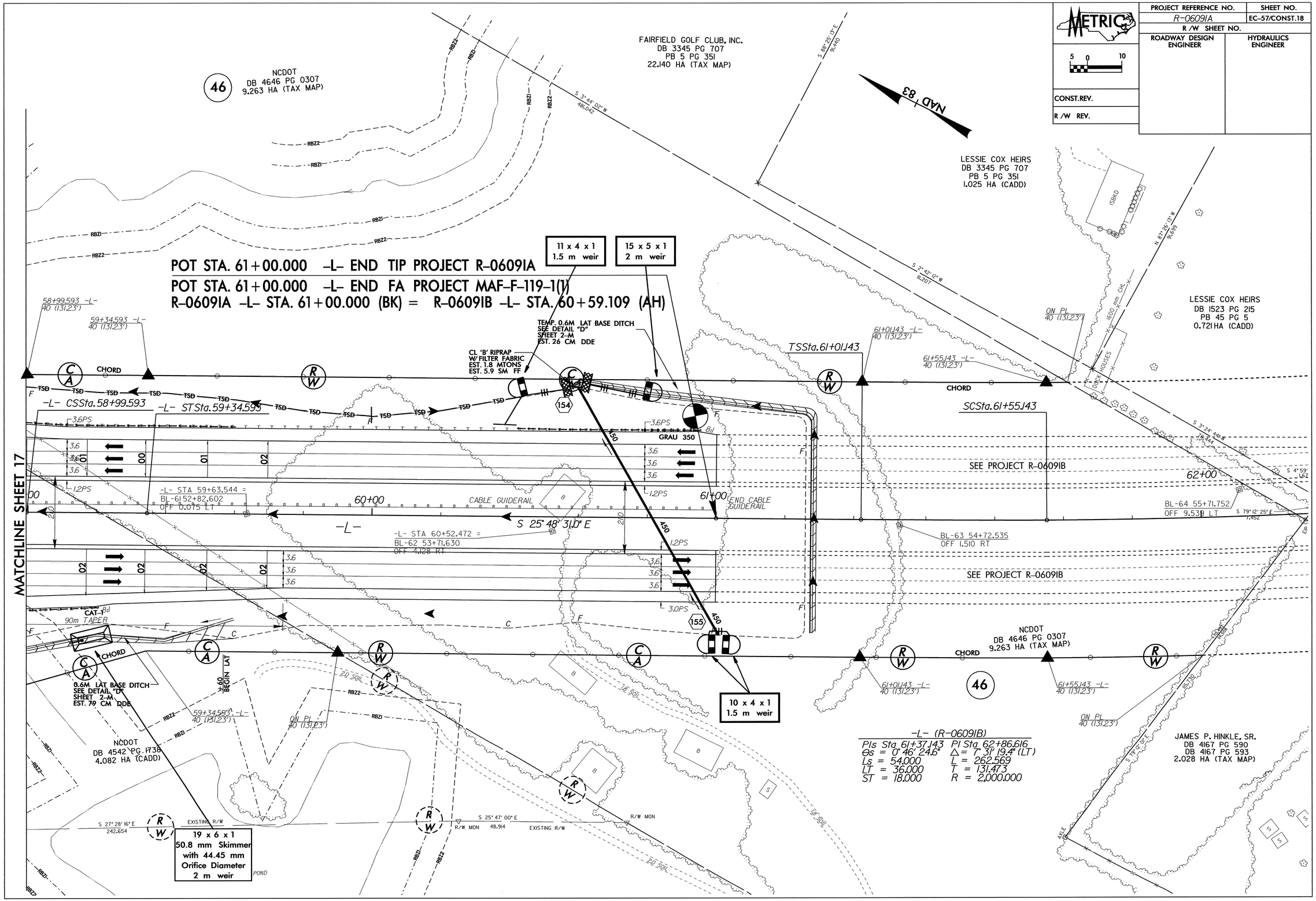


PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-57/CONST.18
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.



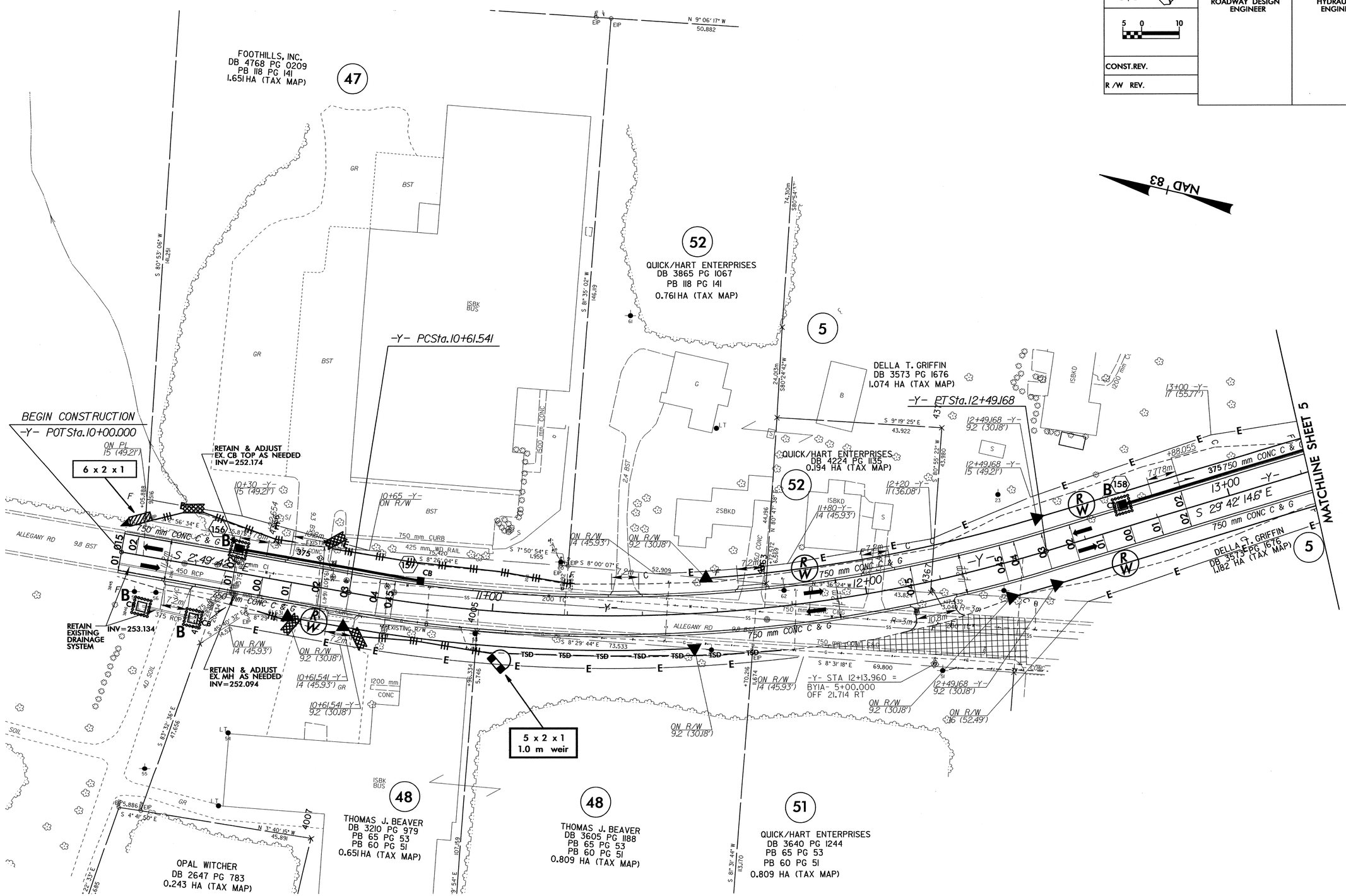
PROJECT REFERENCE NO.	SHEET NO.
R0609IA	EC-58/CONST.19
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

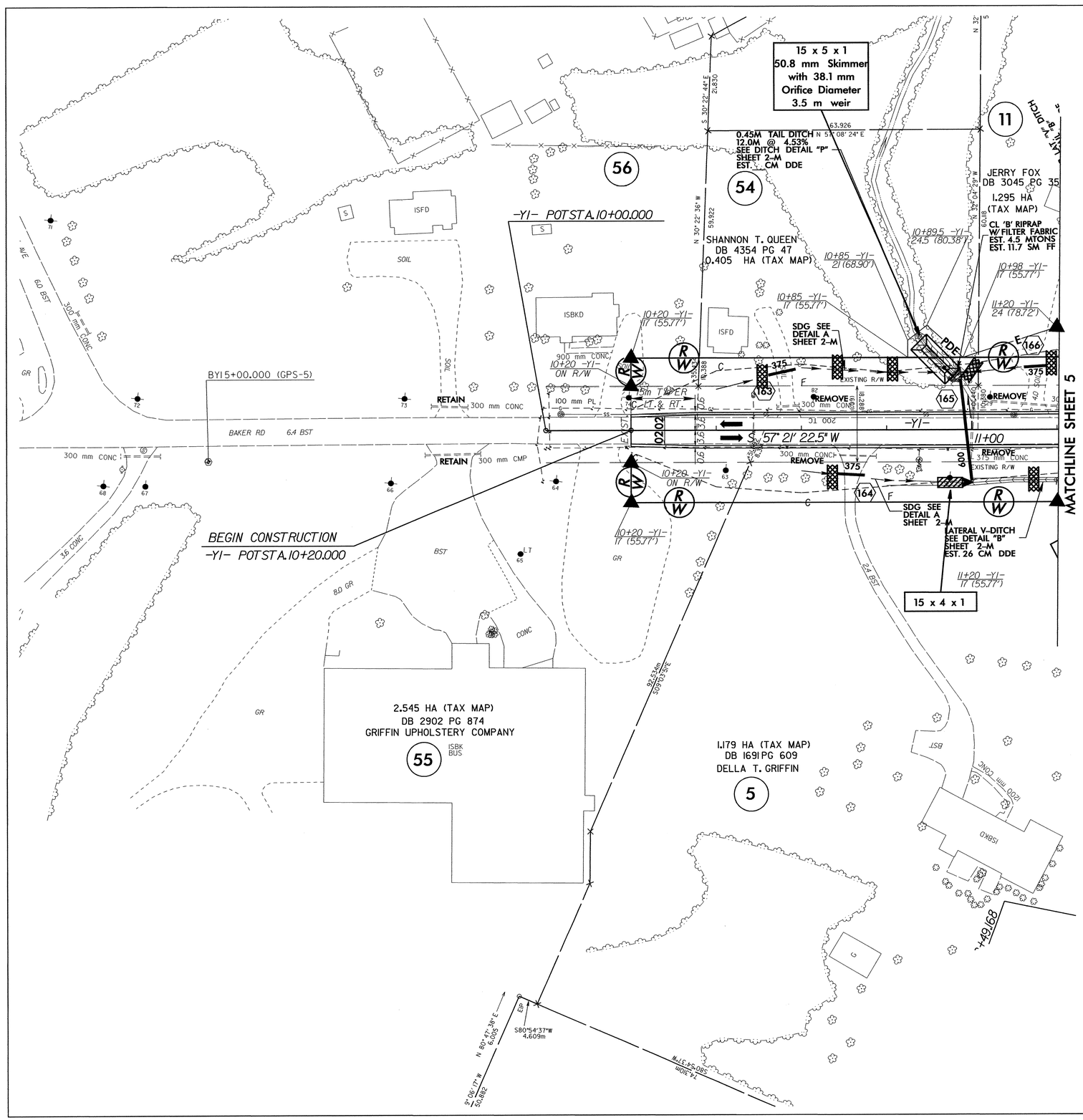
R /W REV.



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 62 FOR -Y- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-59/CONST.20
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10



SEE SHEET 2-I FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 70 FOR -DET- PROFILE
SEE SHEET 63 FOR -Y1- PROFILE

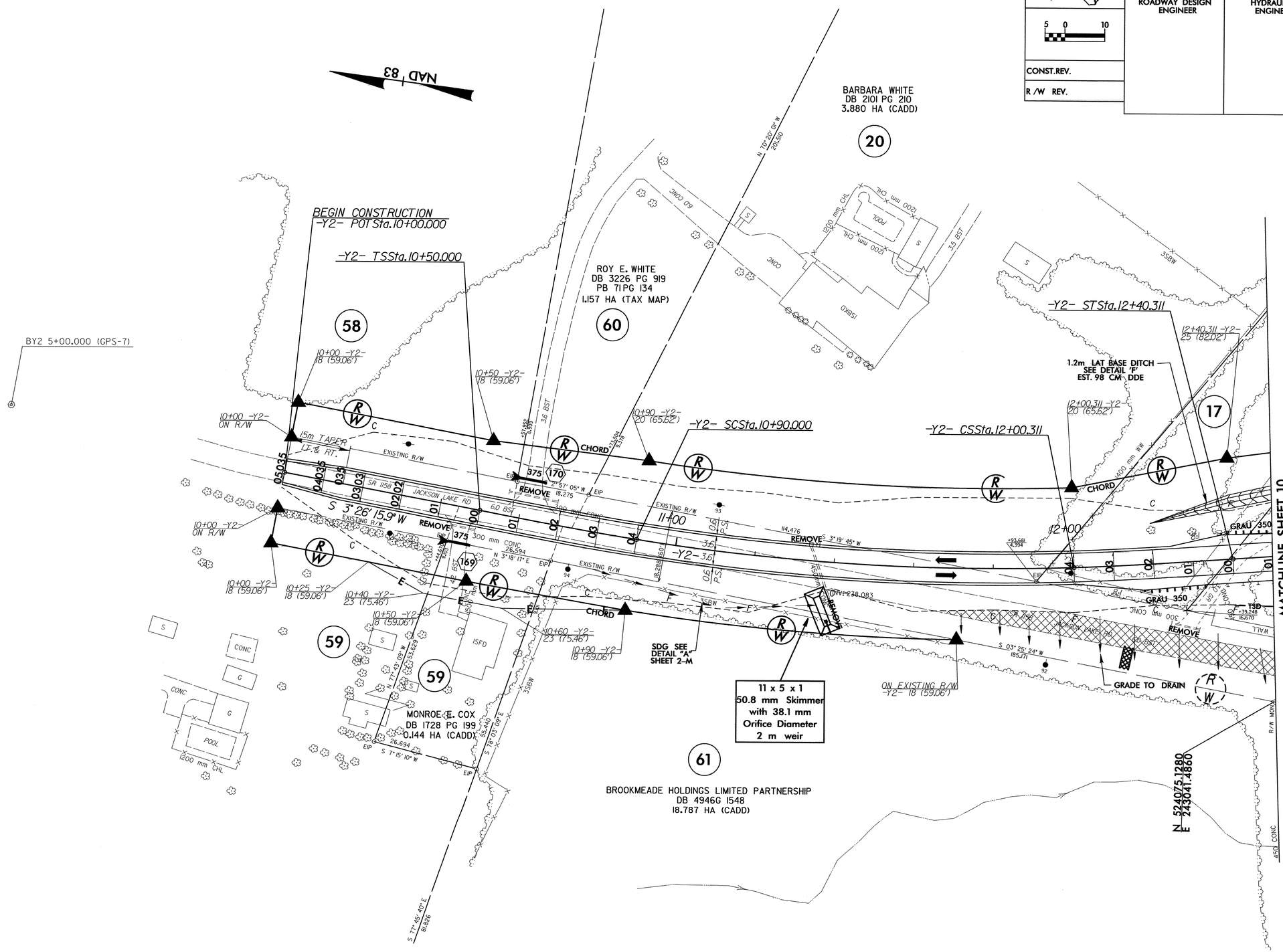
PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-60/CONST.21
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



SEE SHEET 2-I FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 64 FOR -Y2- PROFILE

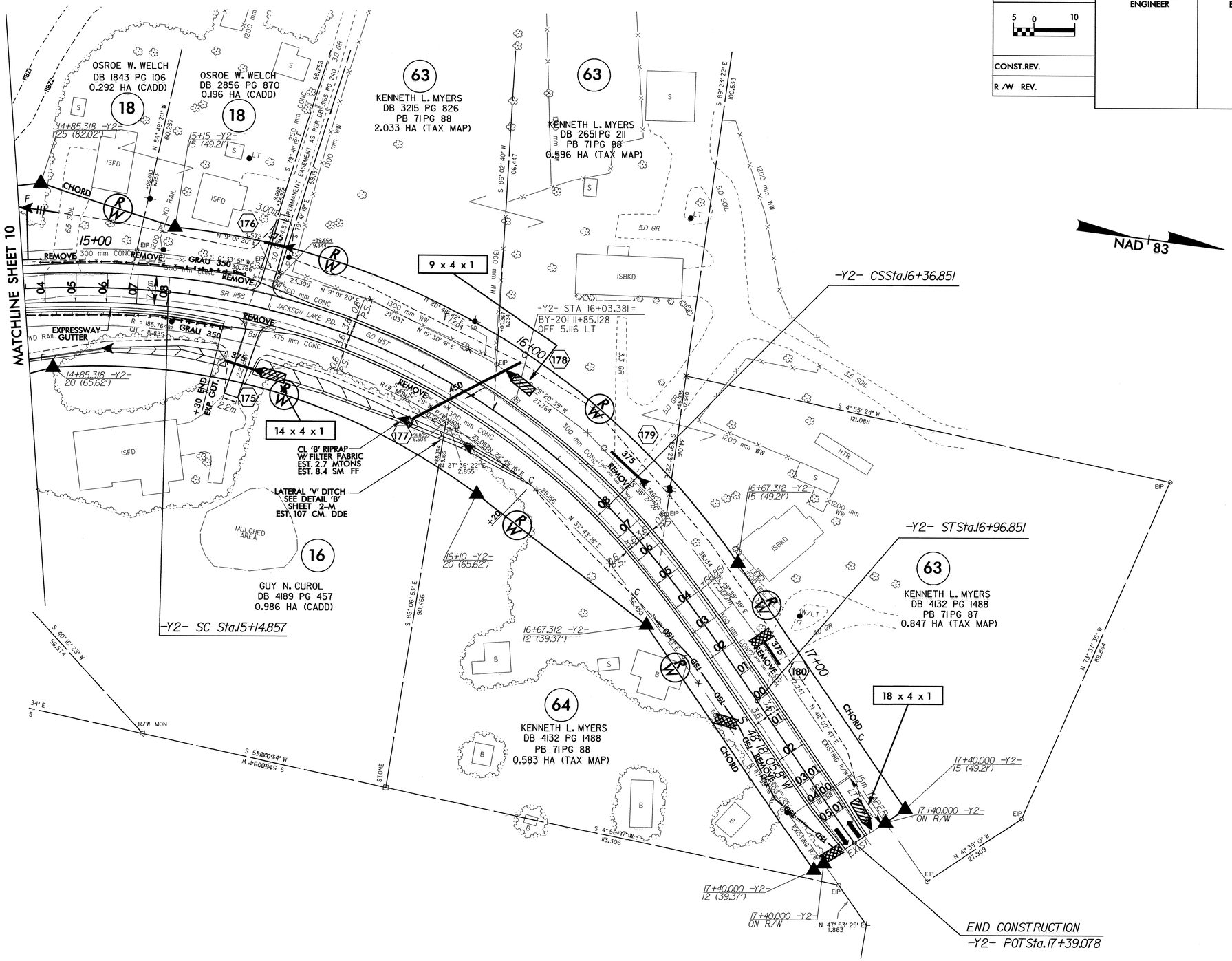
PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-61/CONST.22
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEETS 64, 65 FOR -Y2- PROFILE

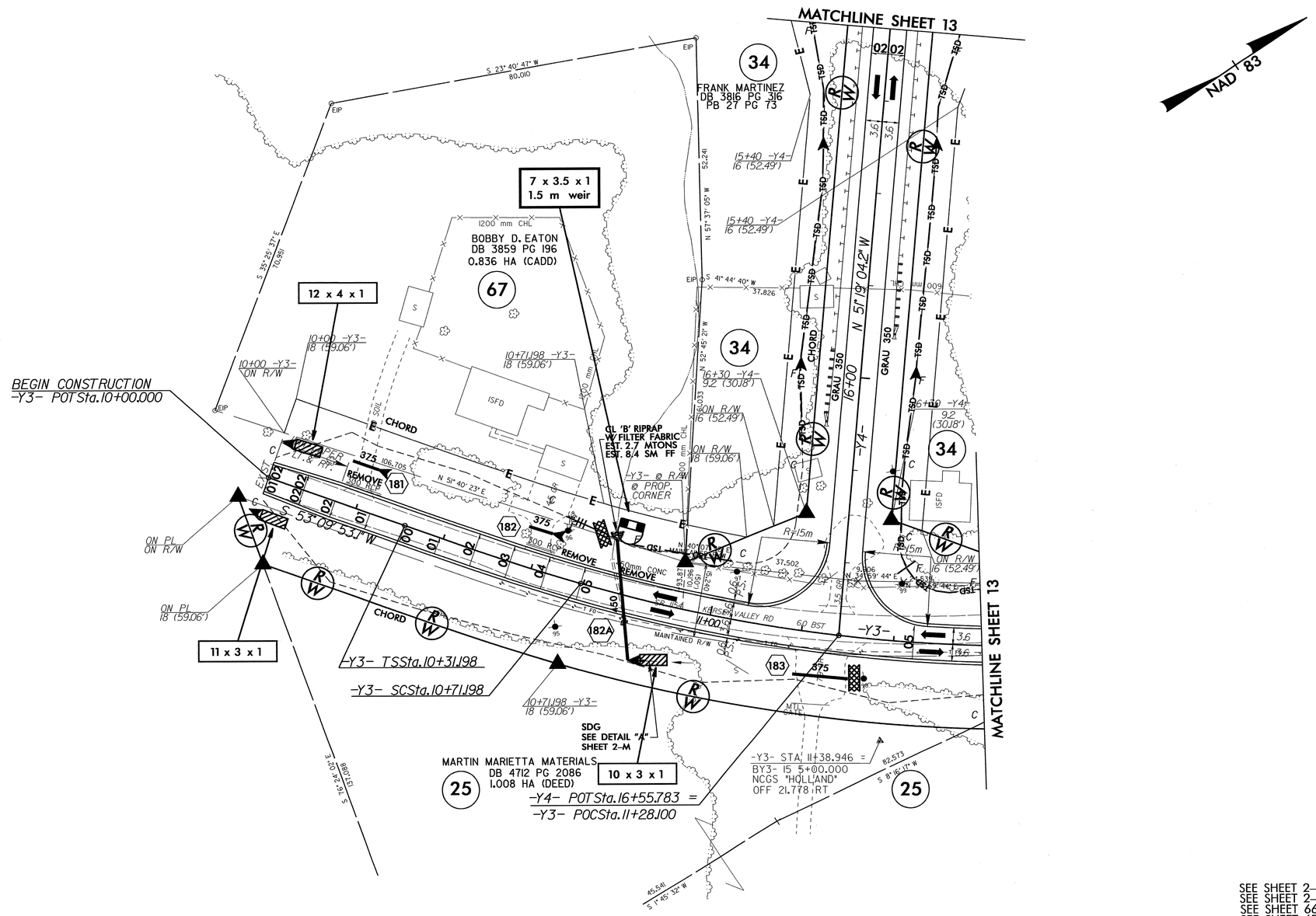
PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-62/CONST.23
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 66 FOR -Y3- PROFILE
SEE SHEET 67 FOR -Y4- PROFILE

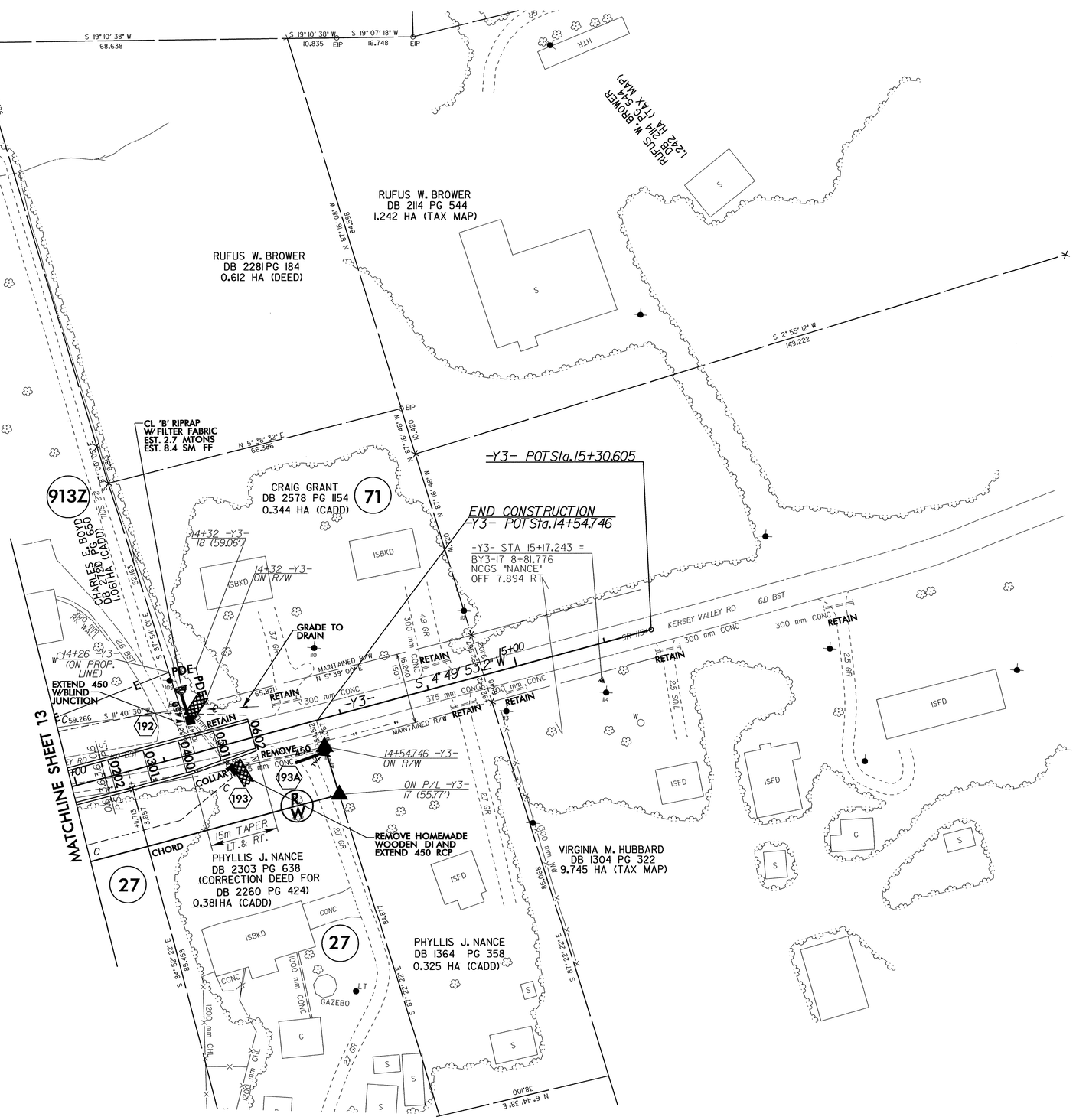
PROJECT REFERENCE NO.	SHEET NO.
R-6091A	EC-63/CONST.24
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

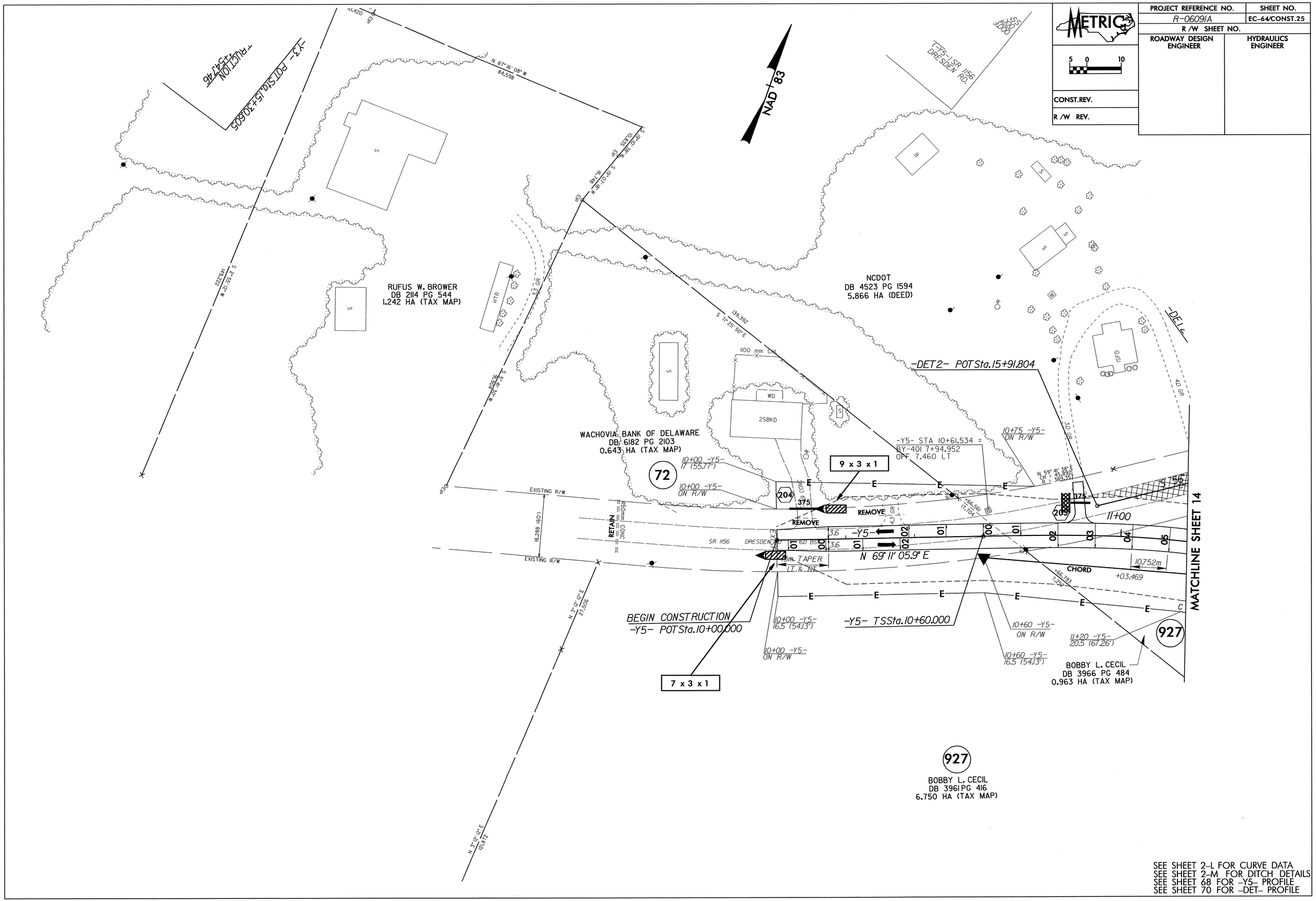


SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 66 FOR -Y3- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-64/CONST.25
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC

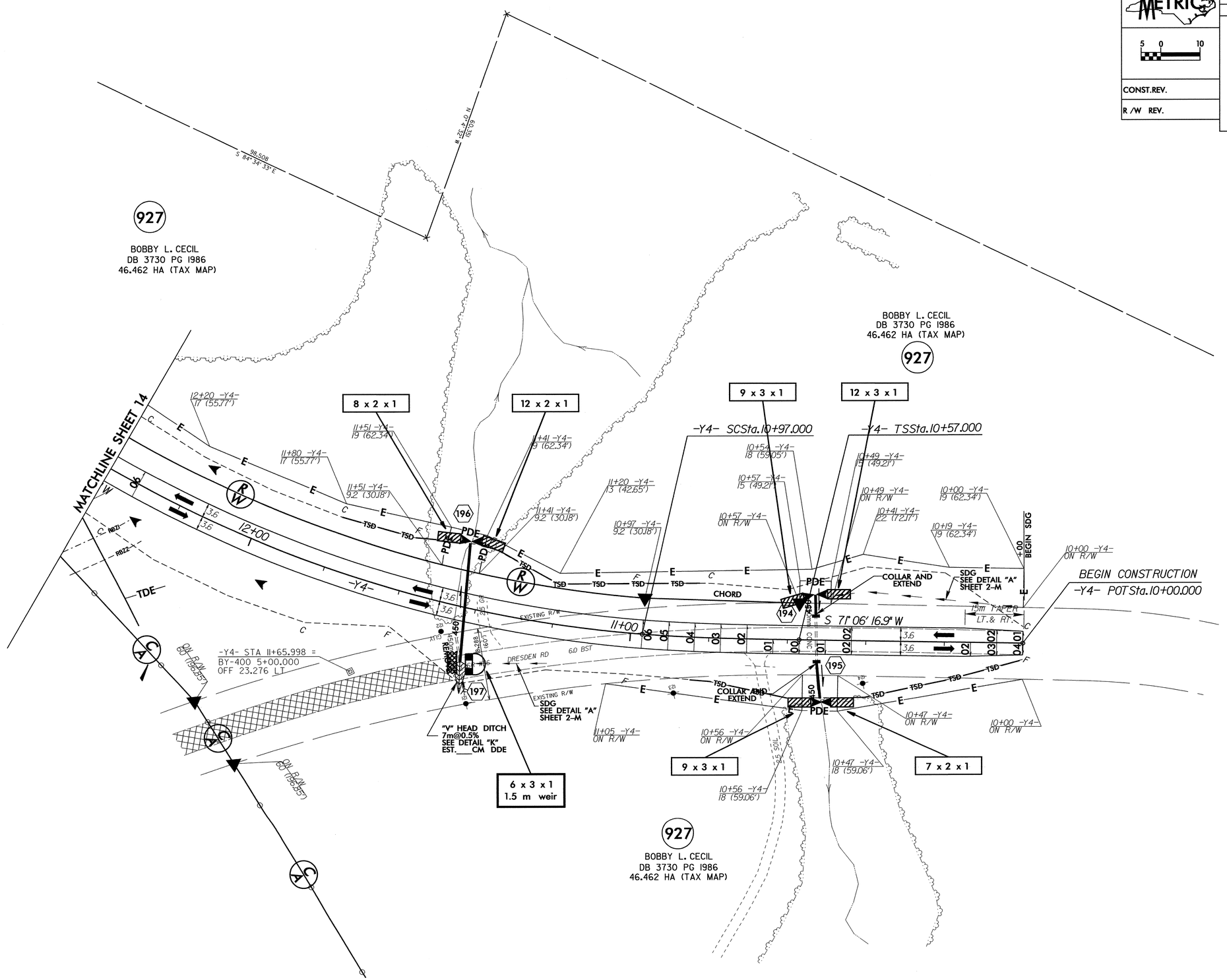
5 0 10



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 68 FOR -Y5- PROFILE
SEE SHEET 70 FOR -DET- PROFILE

8/17/99

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-0609IA	EC-65/CONST.26
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEET 67 FOR -Y4- PROFILE

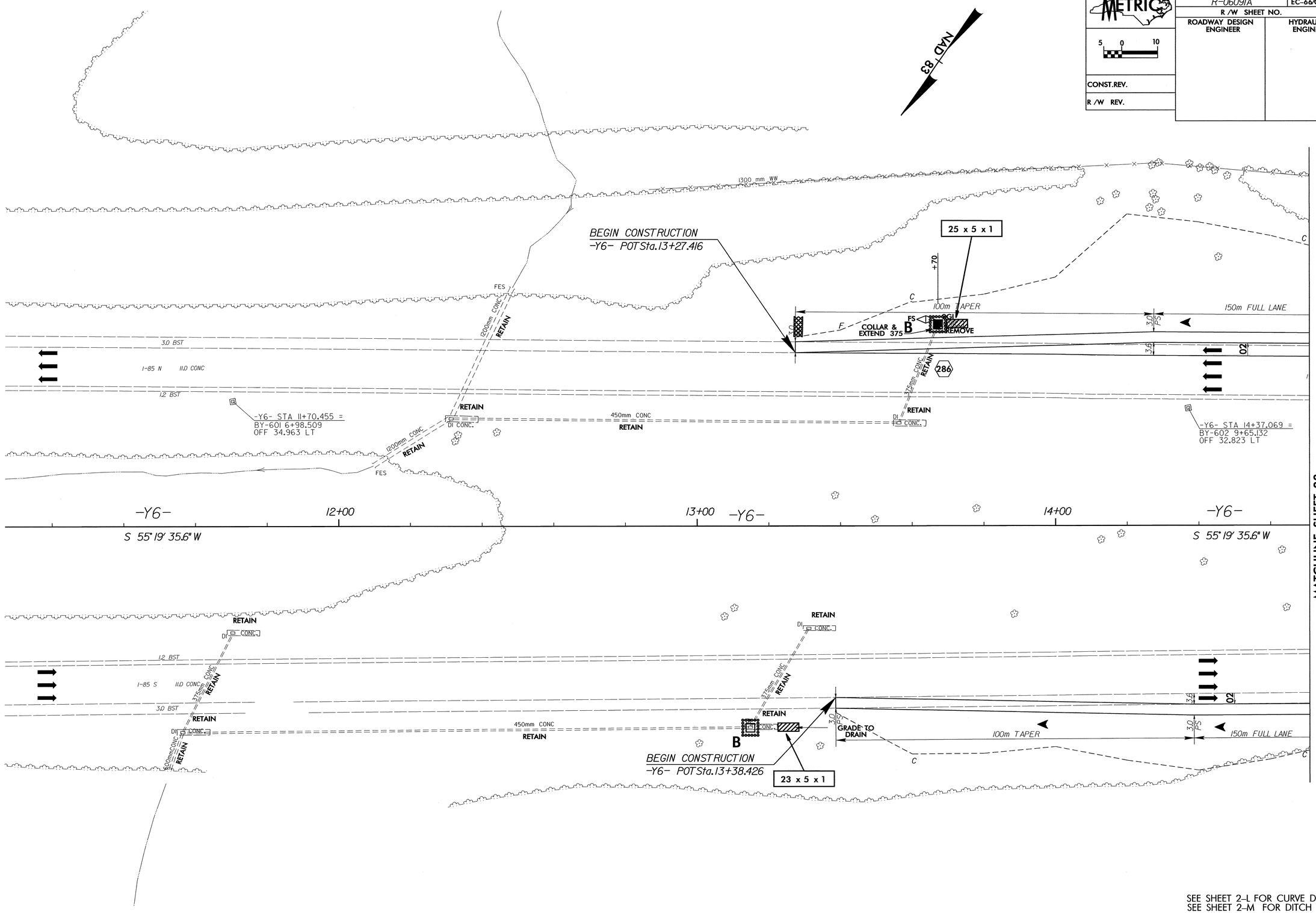
PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-66/CONST.27
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS

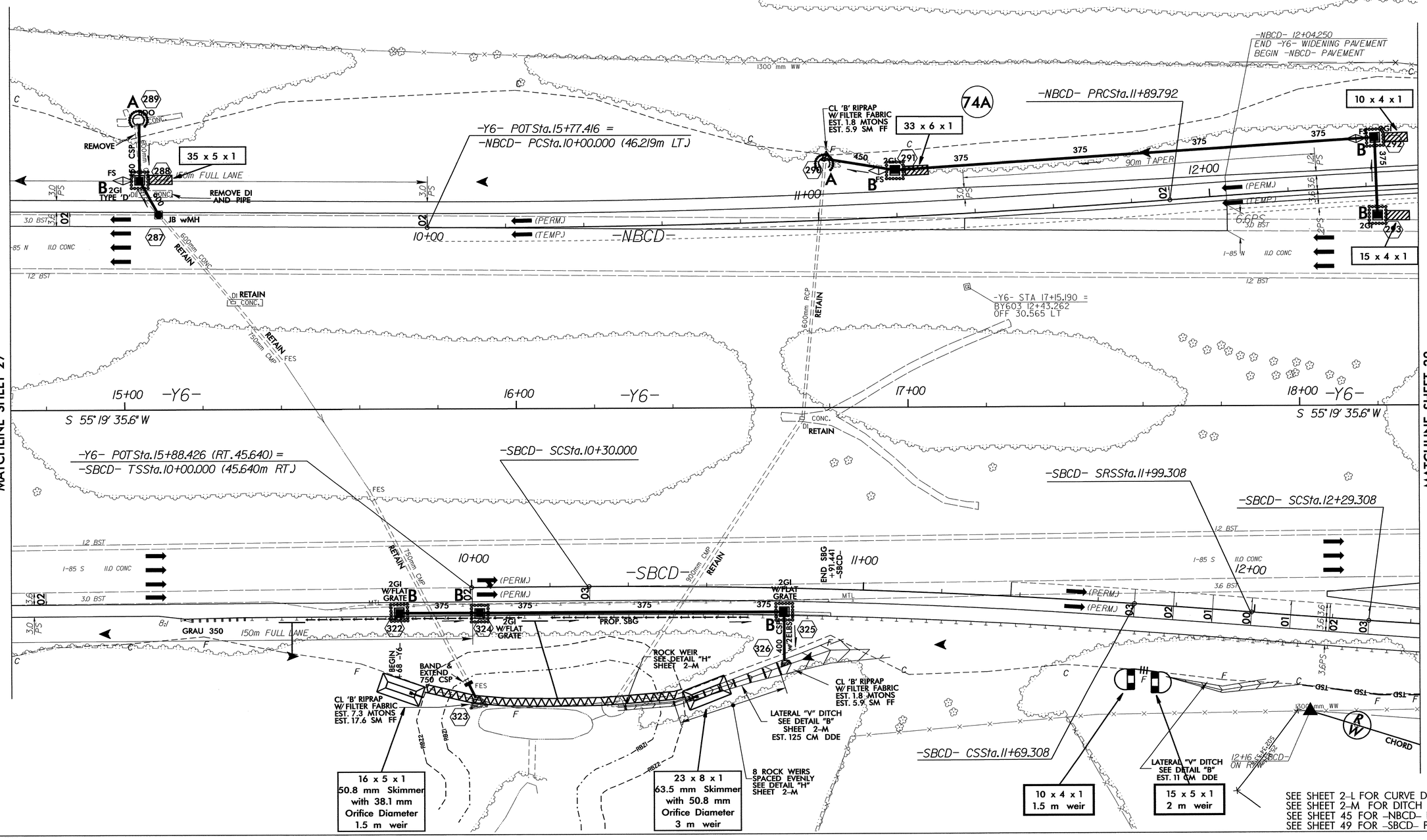
PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-67/CONST.28
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



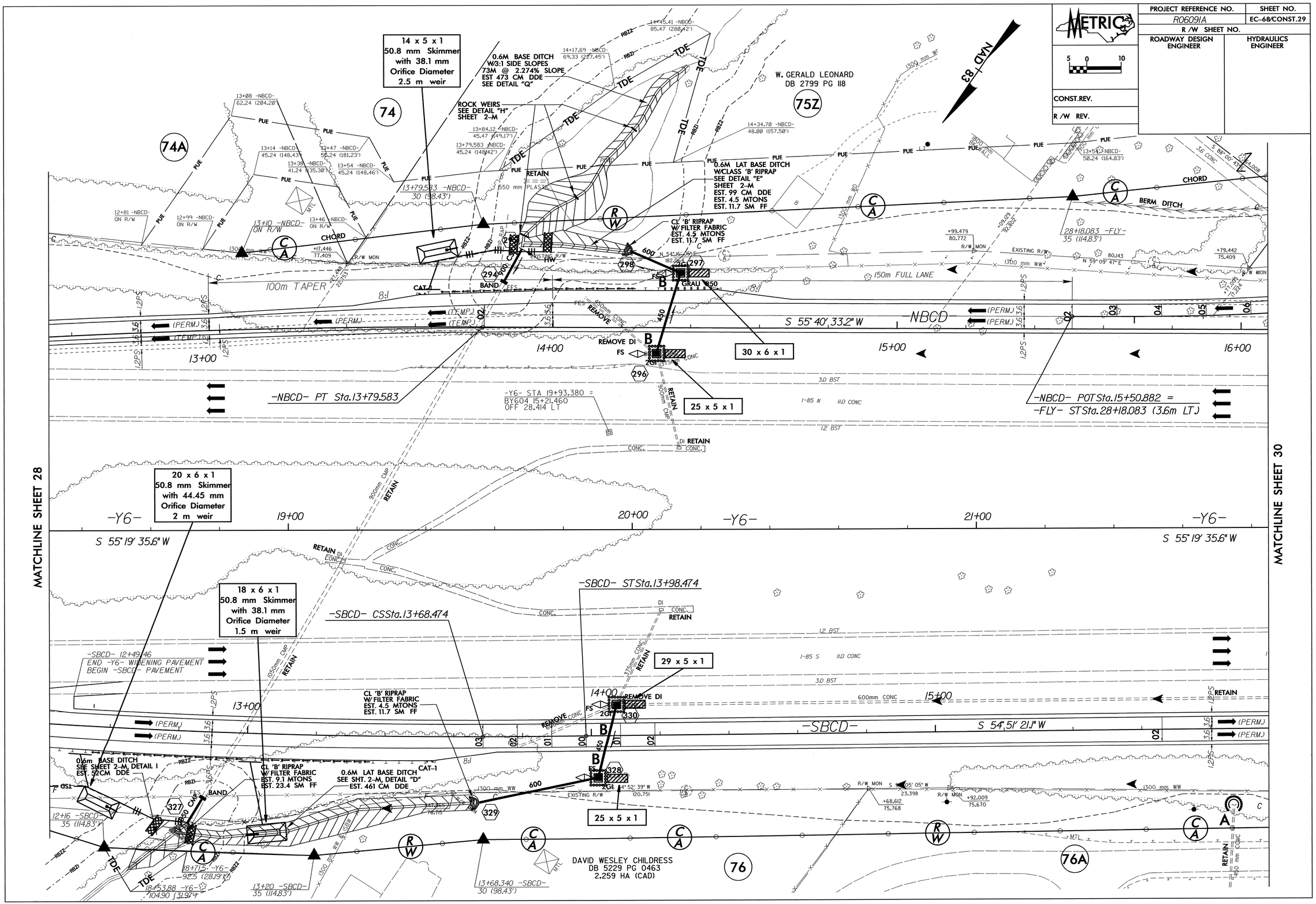
PROJECT REFERENCE NO.	SHEET NO.
R0609IA	EC-68/CONST.29
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

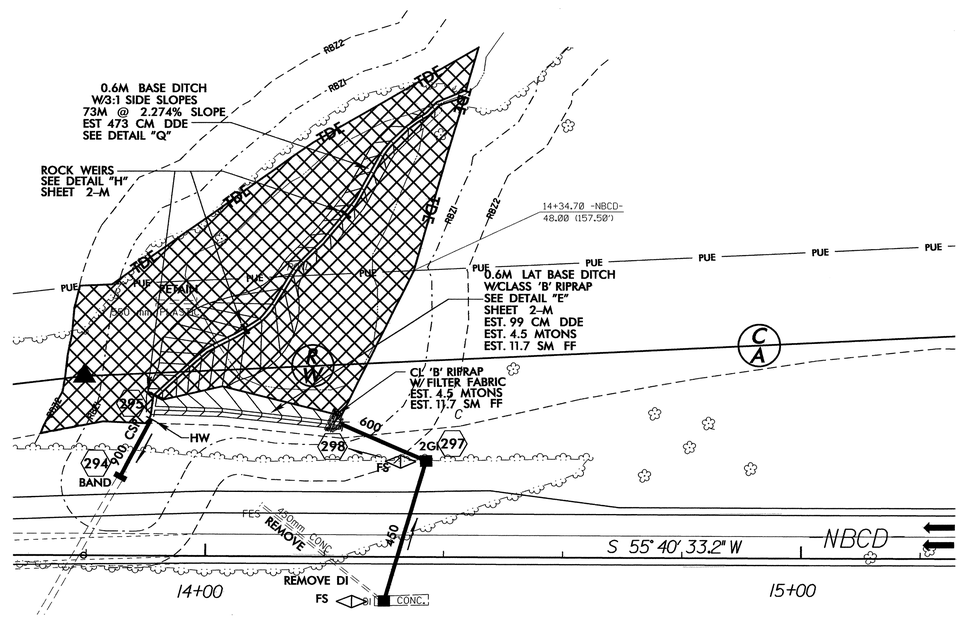
CONST.REV.

R /W REV.



PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-68A/CONST.29
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

0.2 HECTARE STREAMBANK REFORESTATION

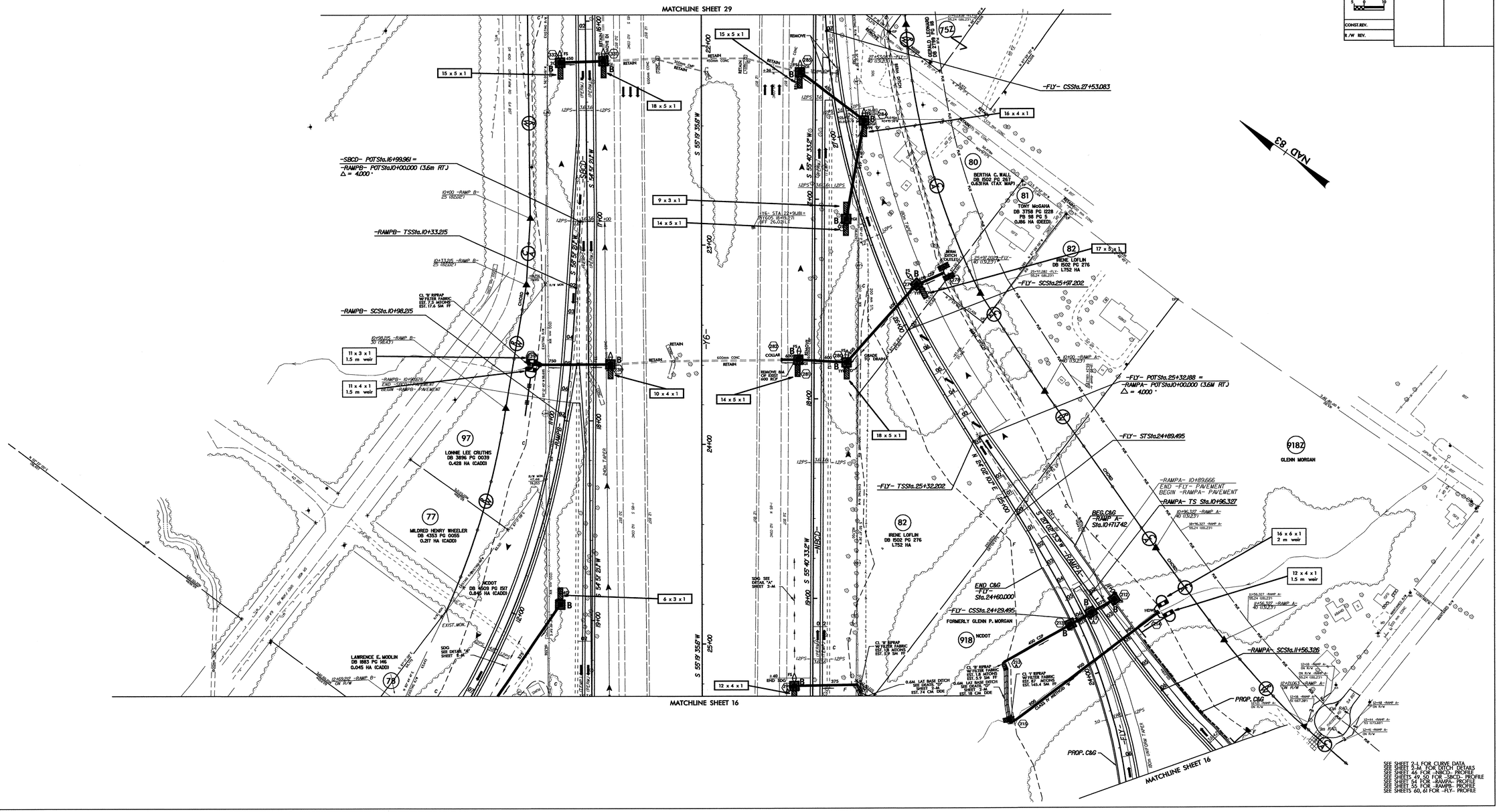


SEE RF-2 AND PROJECT SPECIAL PROVISIONS

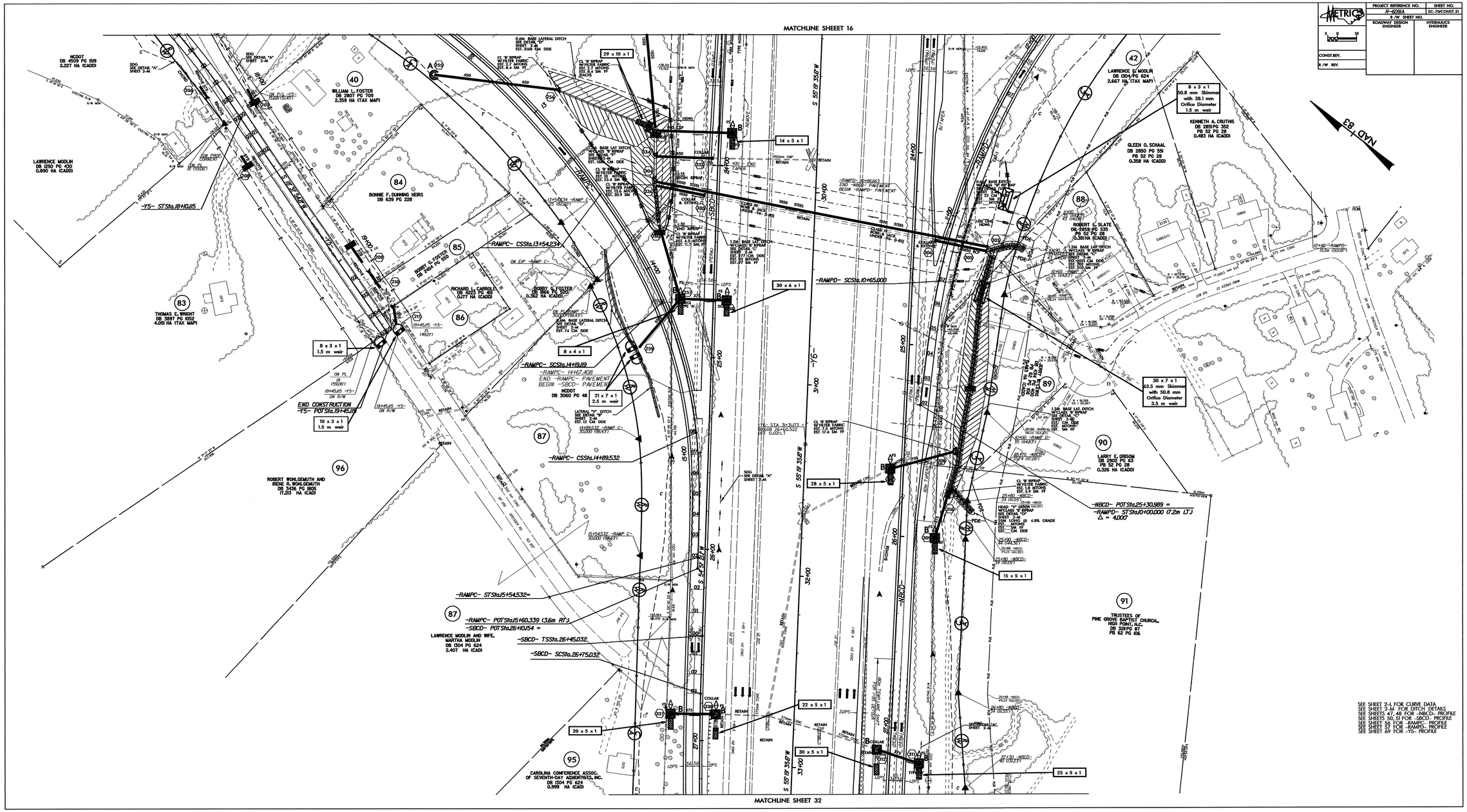
PROJECT REFERENCE NO.	SHEET NO.
R-5705A	EC-24/CONST.30
R./W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CONST.REV.

R./W REV.

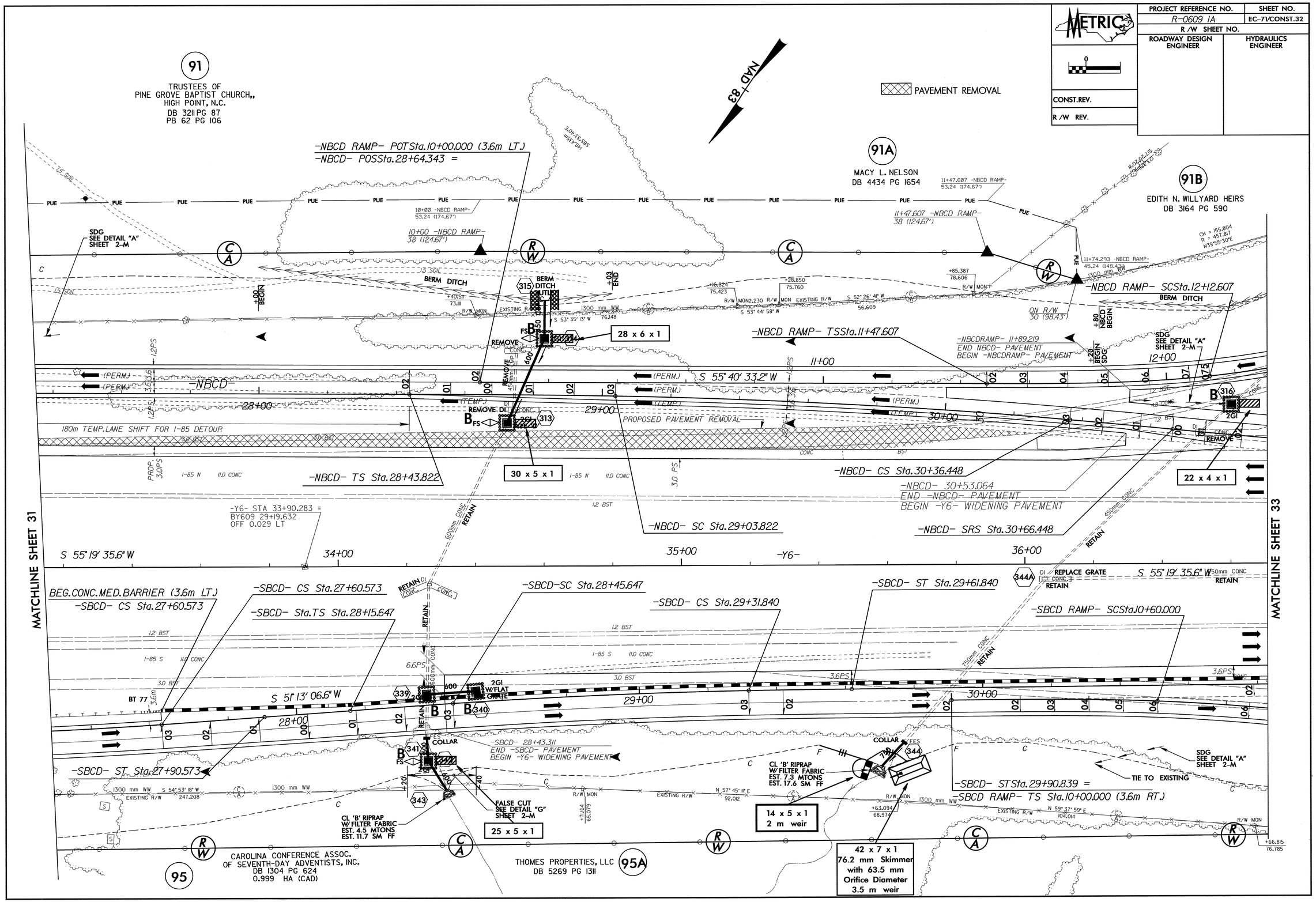


PROJECT REFERENCE NO.	SHEET NO.
R-5039A	EC-7(RCONST.)1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R/W REV.	



SEE SHEET 2-L FOR CURVE DATA
SEE SHEET 2-M FOR DITCH DETAILS
SEE SHEETS 47, 48 FOR -NBCD- PROFILE
SEE SHEETS 50, 51 FOR -SBCD- PROFILE
SEE SHEET 56 FOR -RAMPC- PROFILE
SEE SHEET 57 FOR -RAMPD- PROFILE
SEE SHEET 69 FOR -Y5- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-0609 IA	EC-71/CONST.32
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	



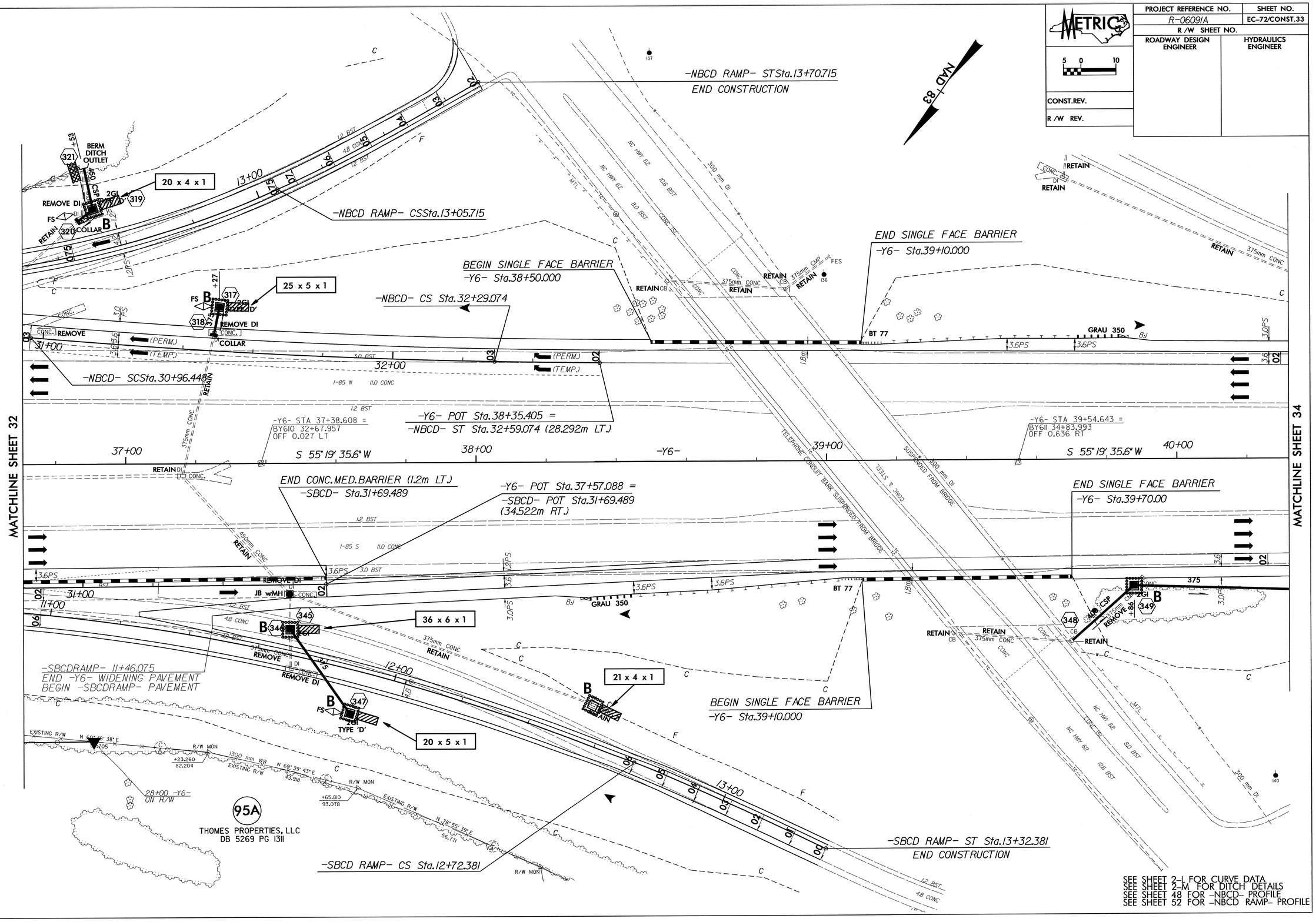
PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-72/CONST.33
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



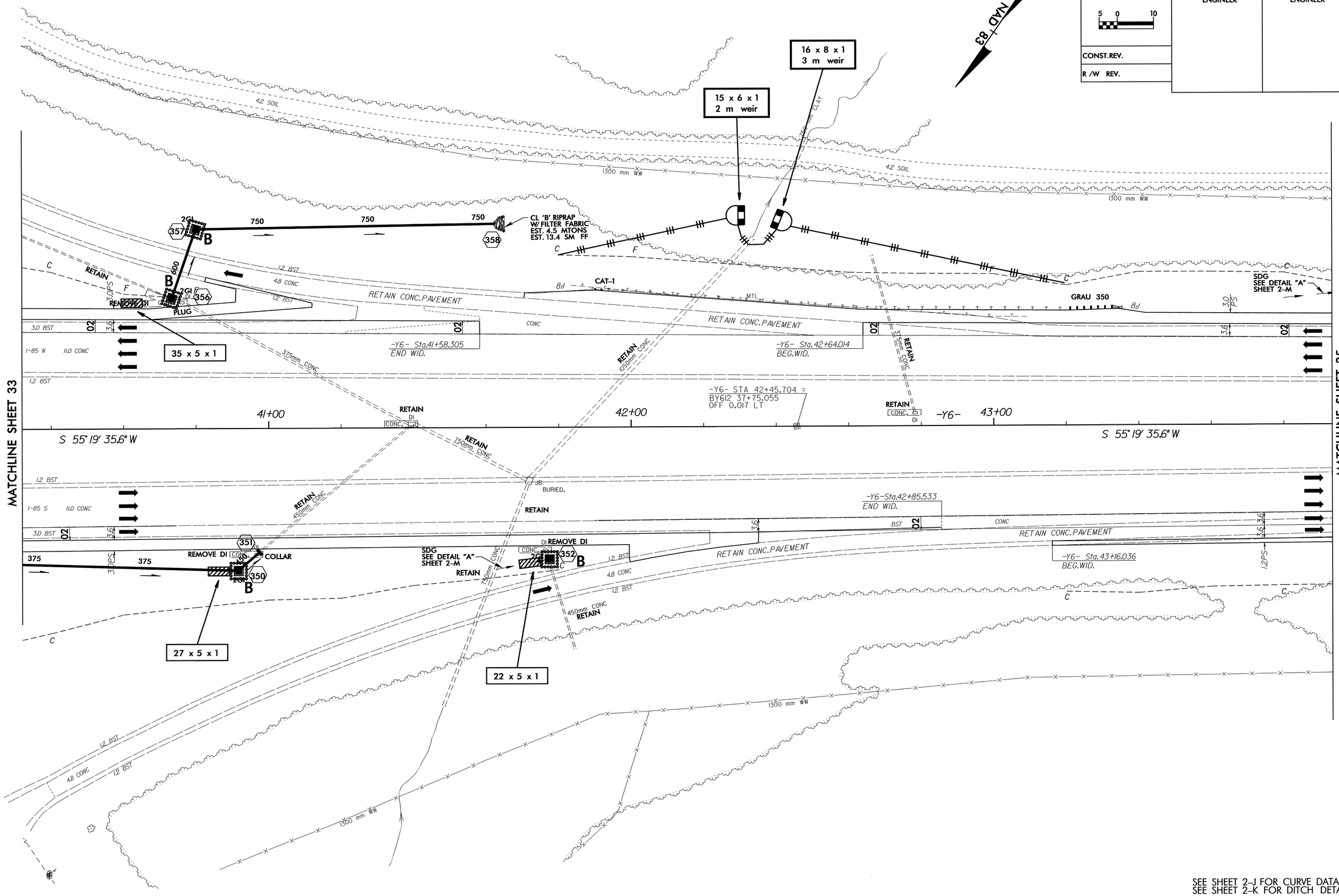
PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-73/CONST.34
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



SEE SHEET 2-J FOR CURVE DATA
SEE SHEET 2-K FOR DITCH DETAILS

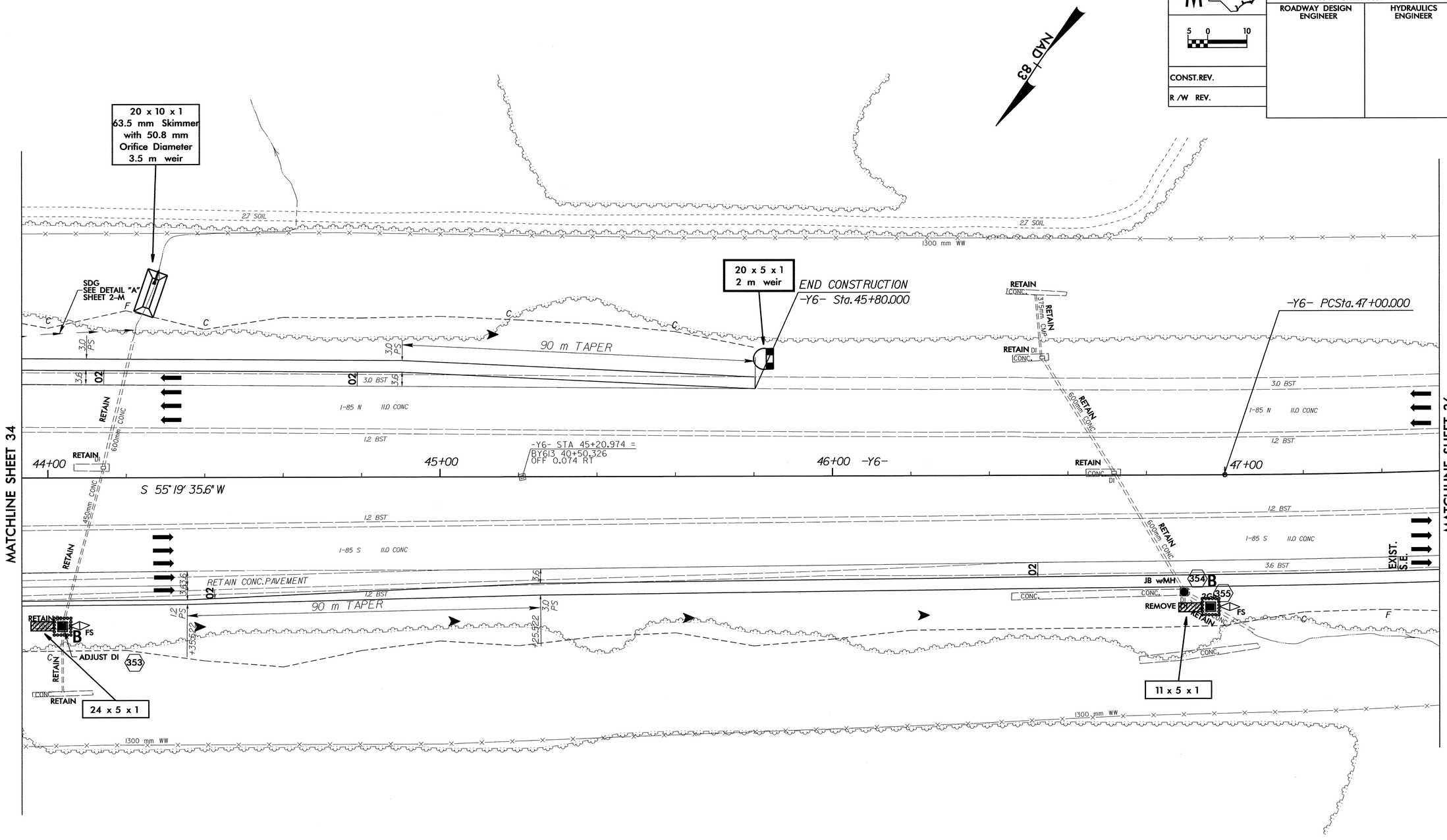
PROJECT REFERENCE NO.	SHEET NO.
R-0609IA	EC-74/CONST.35
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



SEE SHEET 2-J FOR CURVE DATA
SEE SHEET 2-K FOR DITCH DETAILS

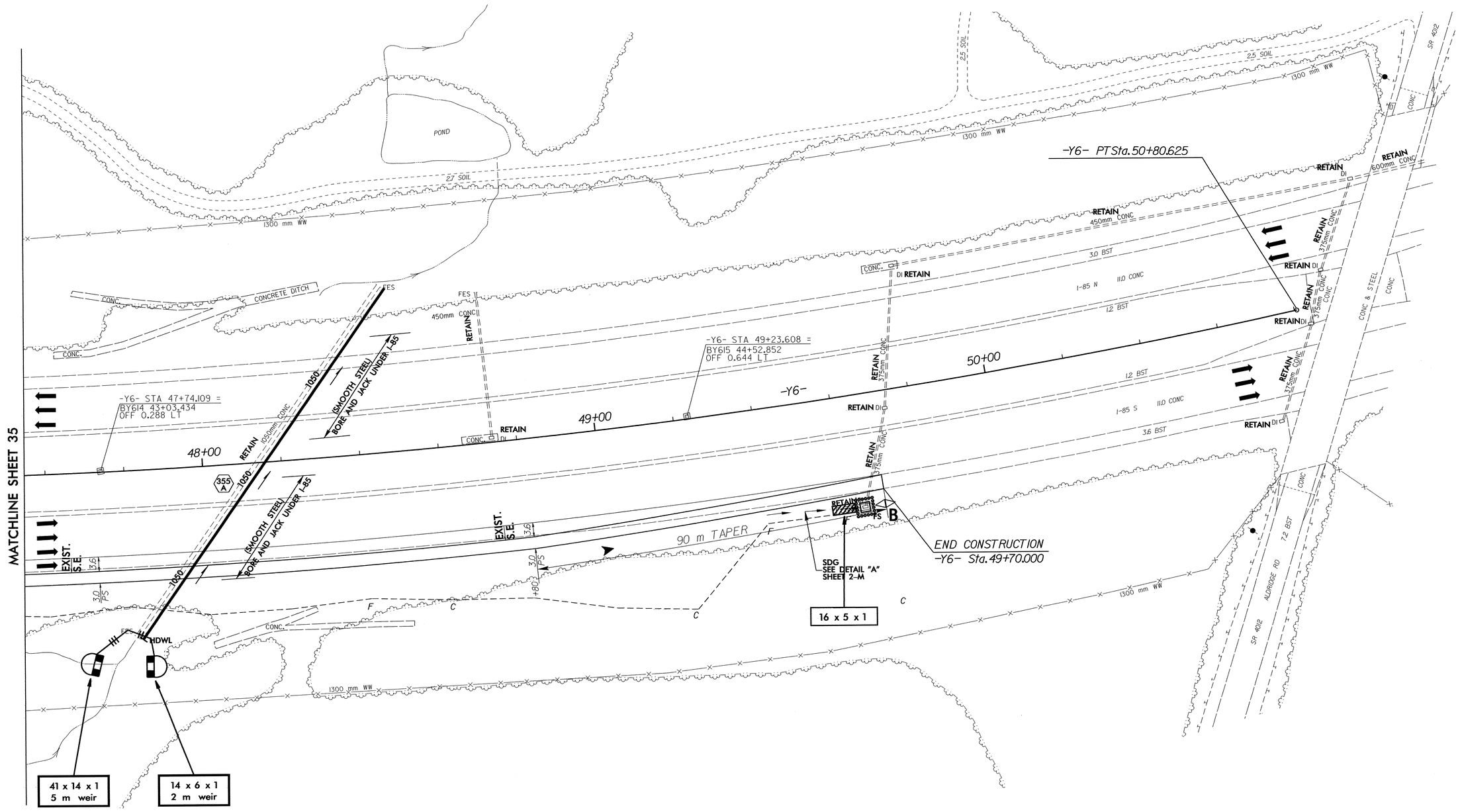
PROJECT REFERENCE NO.	SHEET NO.
R-0609A	EC-75/CONST.36
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



SEE SHEET 2-J FOR CURVE DATA
SEE SHEET 2-K FOR DITCH DETAILS