TIP PROJECT: R-2518B

CONTRACT: C202007

See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

YANCEY COUNTY

LOCATION: US 19 FROM EAST OF THE MADISON COUNTY LINE TO SR 1336

TYPE OF WORK: GRADING, DRAINAGE, WIDENING, PAVING, STRUCTURES, & SIGNALS

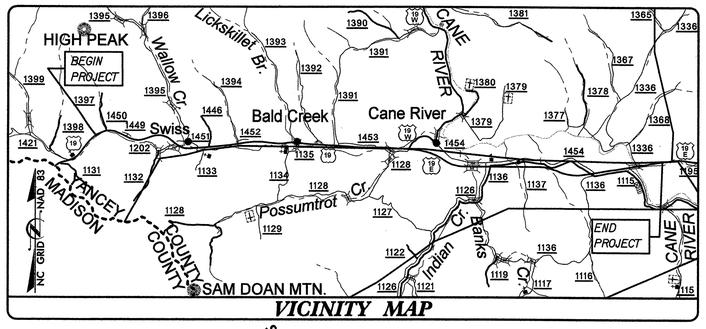
METRIC

ALL DIMENSIONS IN THESE PLANS ARE IN METERS

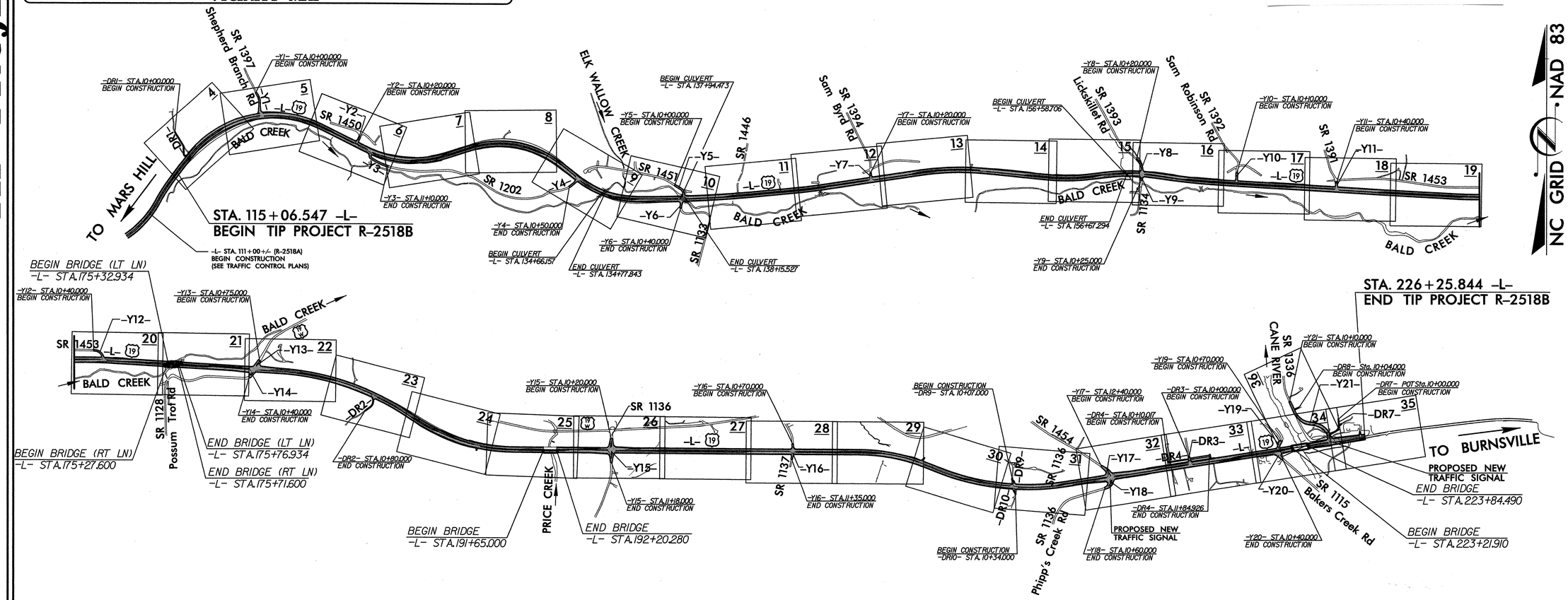
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2518B	1	

STATE W.B.S. ELEMENT	F.A. PROJ. NO.	DESCRIPTION
34445.1.1	- - -	PE
34445.2.3	- - -	R/W & UTIL.
34445.4.2	- - -	CONST.

Part 2 of 2



VICINITY MAP



THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.

GRAPHIC SCALES

5 0 10 PLANS

5 0 10 PROFILE (HORIZONTAL)

1 0 2 PROFILE (VERTICAL)

DESIGN DATA

ADT 2008 = 14,183
ADT 2028 = 20,017
DHV = 11%
D = 55%
T = 8%*
V = 100 Km/h

* (TTST = 3% + DUALS = 5%)

FUNC. CLASS = RURAL PRINCIPAL ARTERIAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2518B	=	10.916 km
LENGTH STRUCTURES TIP PROJECT R-2518B	=	0.203 km
TOTAL LENGTH OF TIP PROJECT R-2518B	=	11.119 km

PLANS PREPARED BY:

TGS ENGINEERS
SUITE 141
975 WALNUT STREET
CARY, NC 27511
PH (919) 319-8850

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: MARCH 29, 2005

LETTING DATE: JULY 15, 2008

NCDOT CONTACT: B. D. TAYLOR, PE
PROJECT ENGINEER - ROADWAY DESIGN

PLANS PREPARED FOR:

DIVISION OF HIGHWAYS
1000 Birch Ridge Dr.
Raleigh, NC 27610

CHARLES L. FLOWE, PE
PROJECT ENGINEER

W. CRAIG PARKER, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 20754 ENGINEER WILLIAM T. STEPHENS

SIGNATURE: William T. Stephens Jr. P.E. 4-23-2008

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 25474 ENGINEER W. CRAIG PARKER

SIGNATURE: W. Craig Parker P.E. 4-23-2008

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

P.E.

STATE HIGHWAY DESIGN ENGINEER

TIP PROJECT: R-2518B

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

YANCEY COUNTY

LOCATION: *US 19 FROM EAST OF THE MADISON COUNTY LINE TO SR 1336*

TYPE OF WORK: *GRADING, DRAINAGE, WIDENING, PAVING, & STRUCTURES*

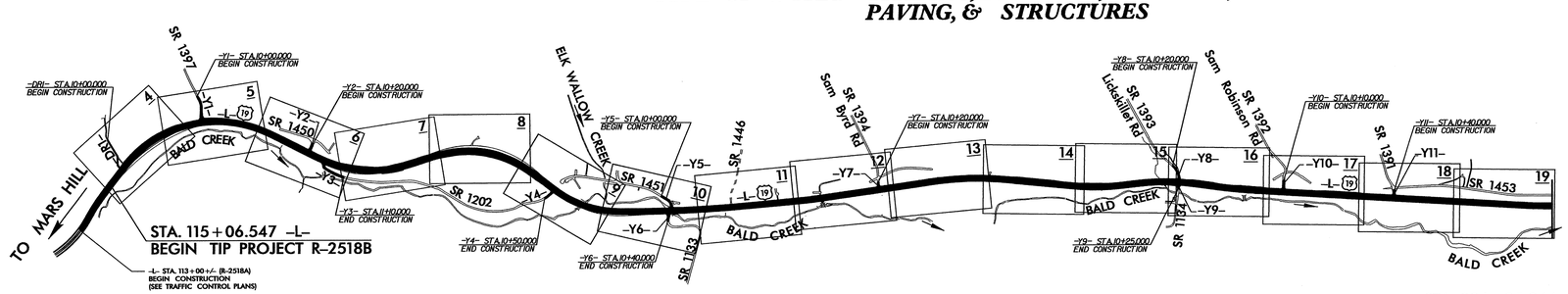
NC GRID NAD 83

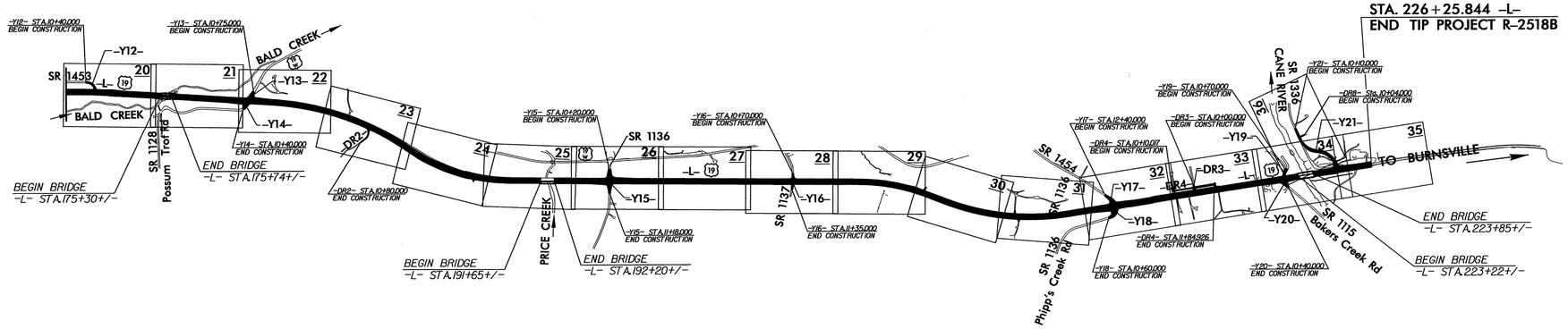
METRIC

ALL DIMENSIONS IN THESE PLANS ARE IN METERS UNLESS OTHERWISE SHOWN

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2518B	EC-1	

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





EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
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	
	Wattle	
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
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.

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

2006 STANDARD SPECIFICATIONS

Roadway Standard Drawings

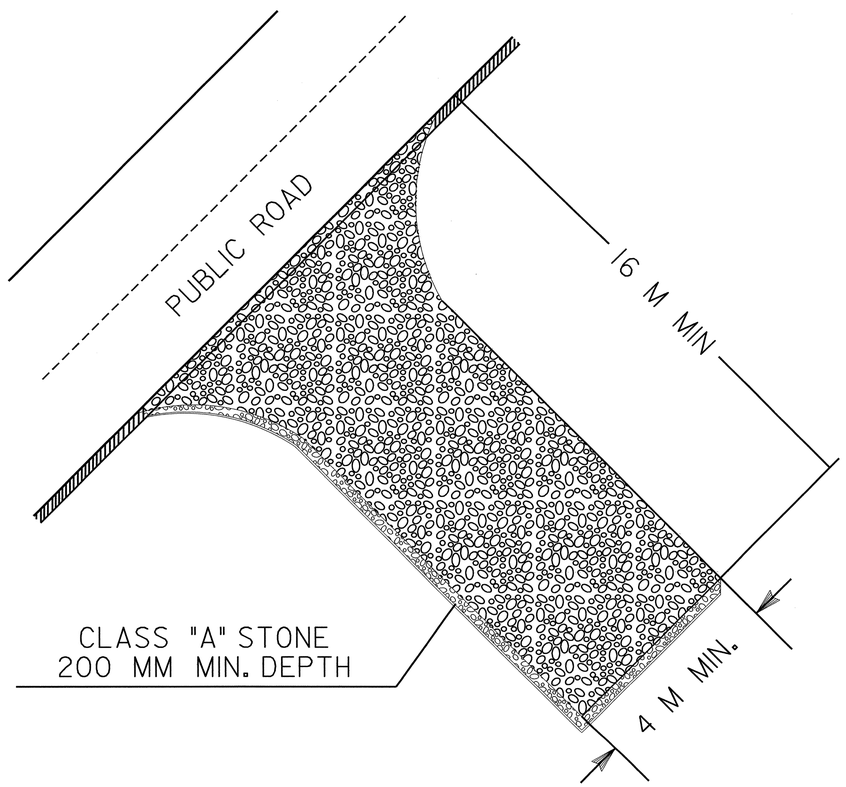
The following roadway metric standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 2006 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type B
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1622.01	Temporary Berms and Slope Drains	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	1634.02	Temporary Rock Sediment Dam Type B
1630.04	Stilling Basin	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.05	Temporary Diversion		

07-FEB-2008 11:53
r:\roadway\proj\r2518b_erc_tsh.dgn
johnston
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-2
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE



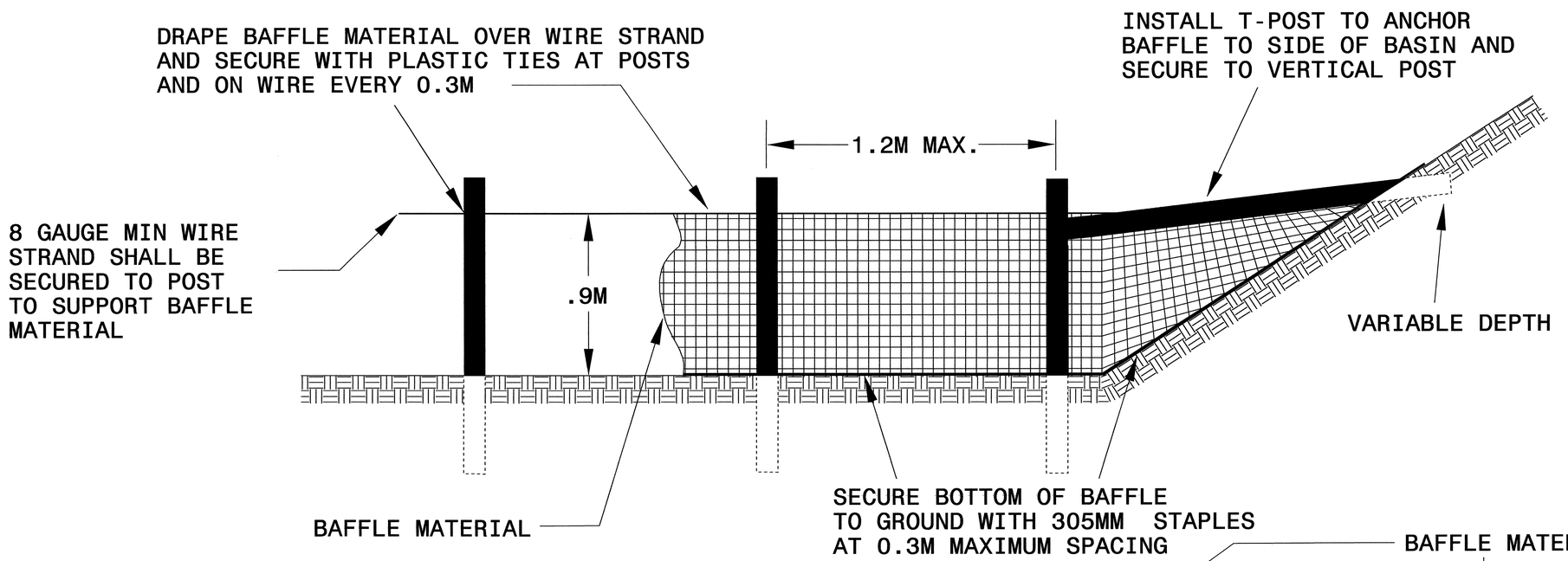
NOTES:

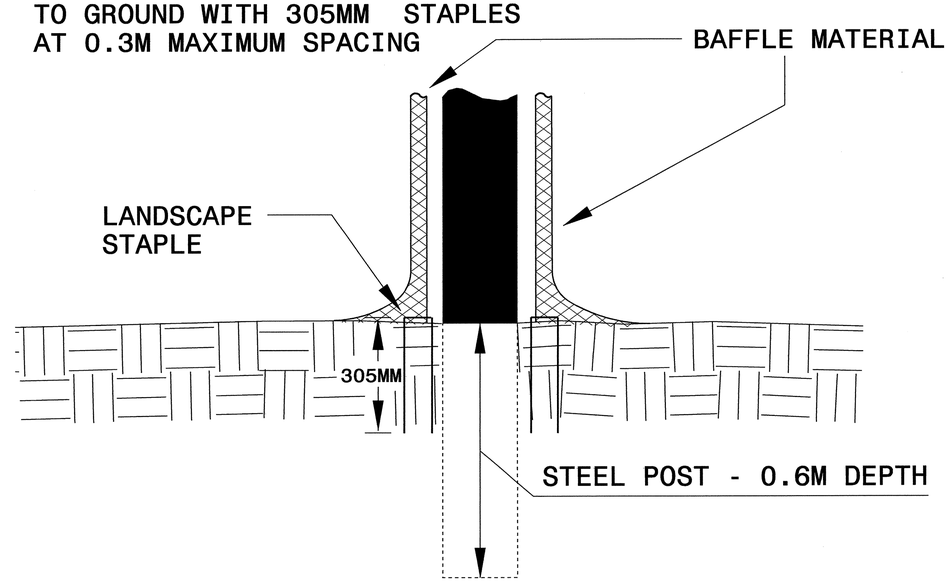
1. TURNING RADIUS SUFFICIENT TO ACCOMODATE LARGE TRUCKS SHALL BE PROVIDED.
2. ENTRANCE(S) SHOULD BE LOCATED TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL 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-2518B	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL



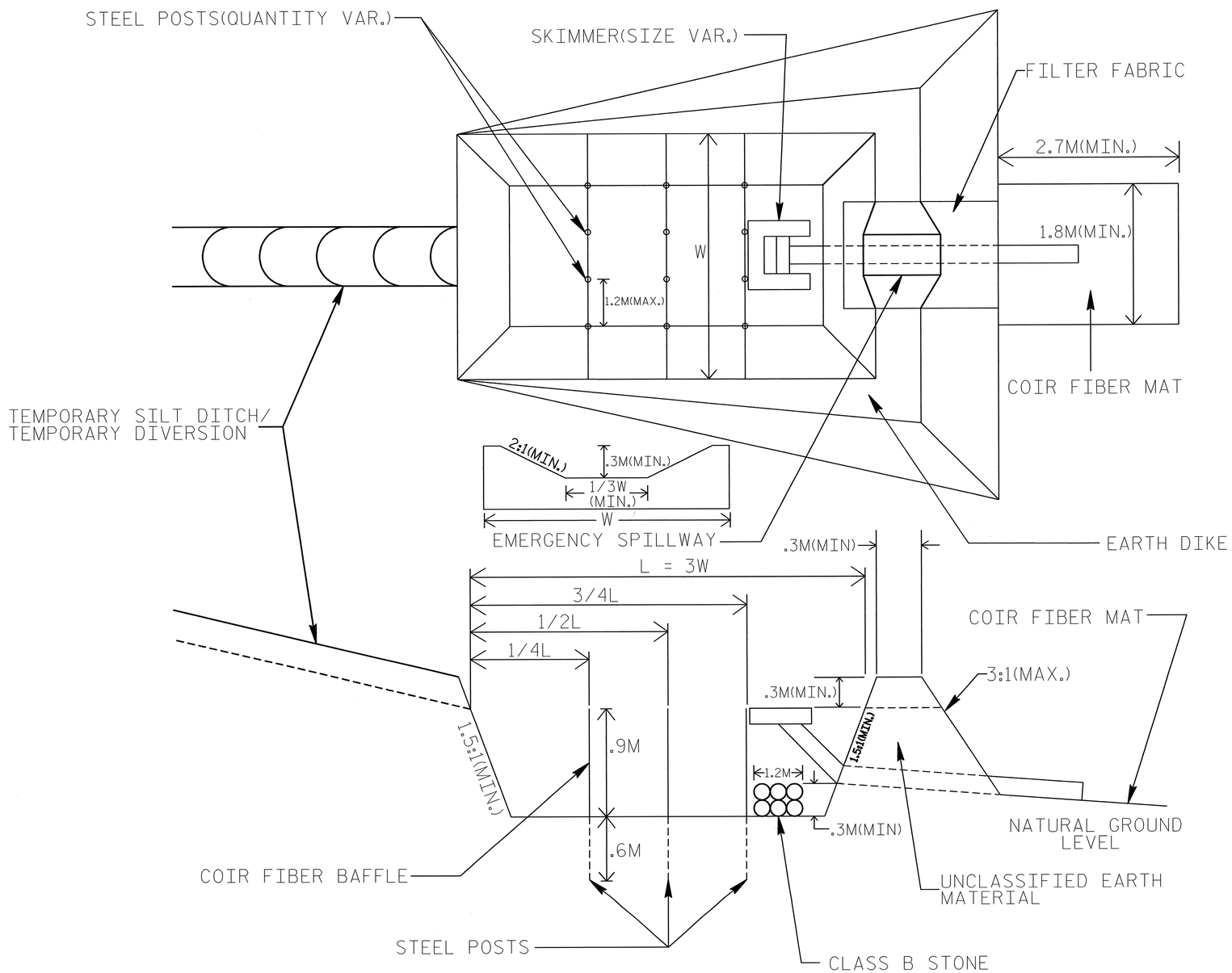


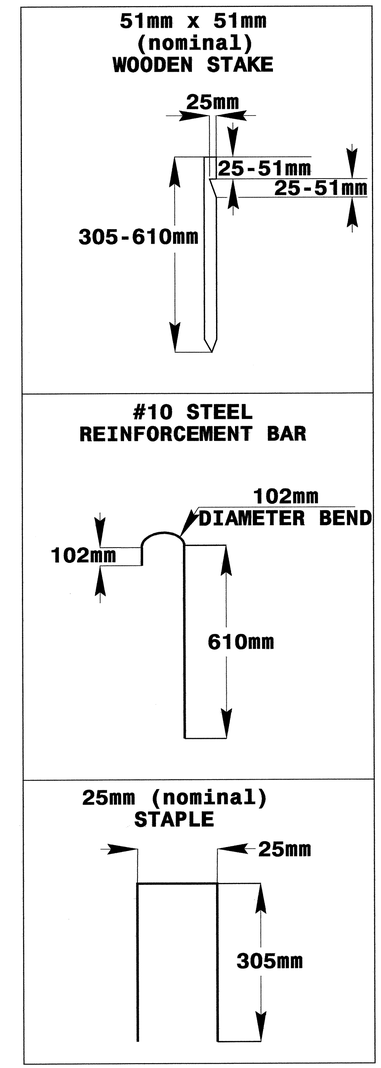
BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 305MM LANDSCAPE STAPLES

NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF ¼ THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 6 M IN LENGTH WITH A SPACING OF 1/3 THE BASIN LENGTH.

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-2B
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL



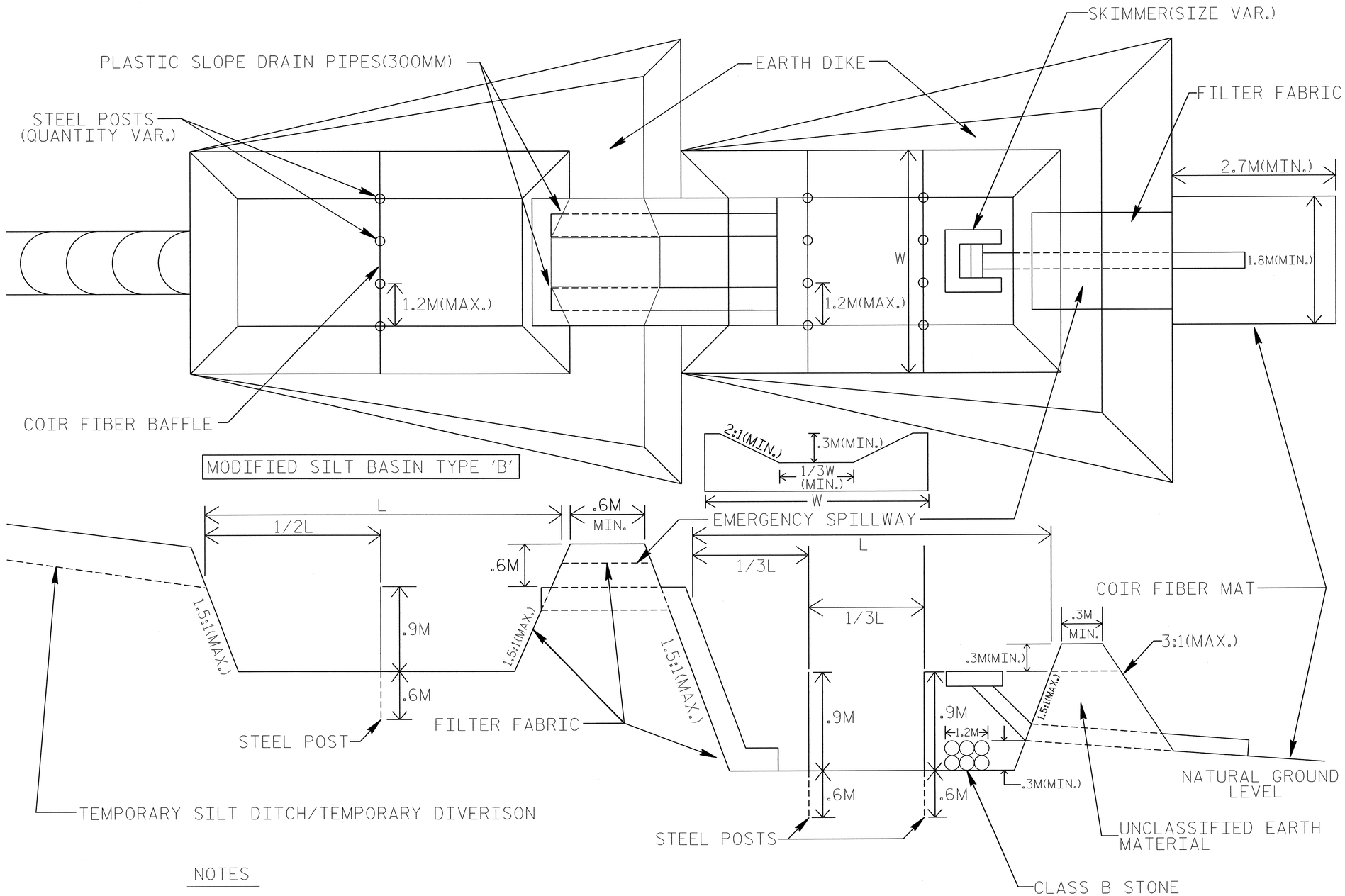


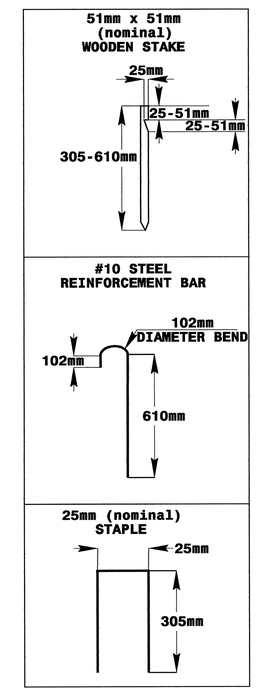
COIR FIBER MAT ANCHOR OPTIONS

NOTES:
1. SEED AND PLACE MATTING FOR EROSION CONTROL ON SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 1.5M.

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-2C
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TIERED SKIMMER BASIN DETAIL





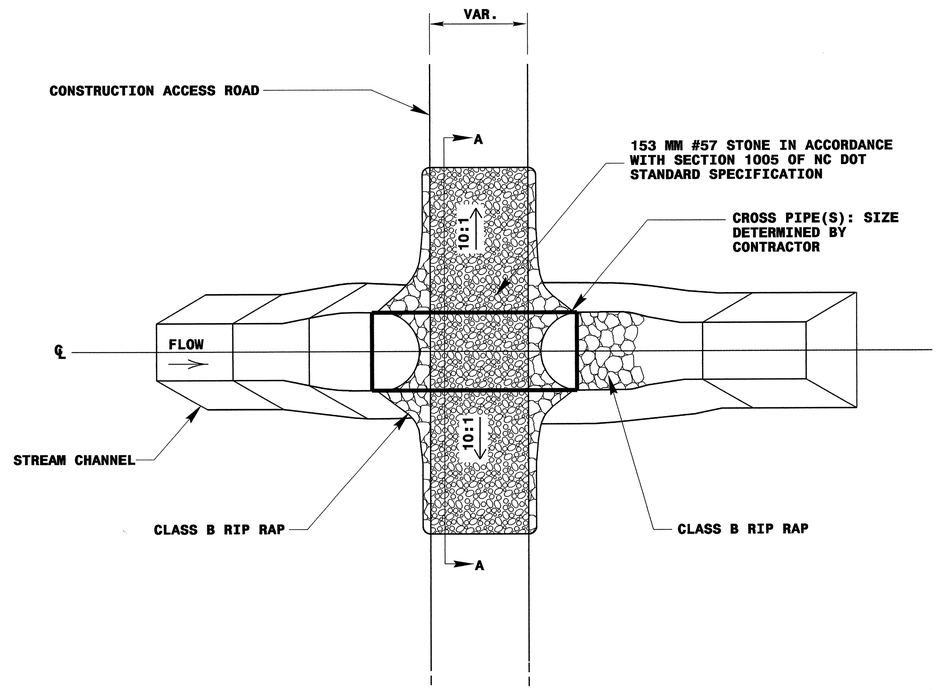
COIR FIBER MAT ANCHOR OPTIONS

NOTES

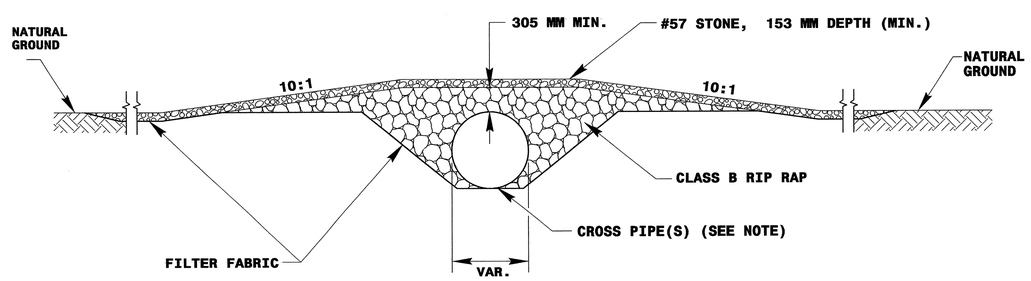
1. SEED AND PLACE MATTING FOR EROSION CONTROL ON SIDESLOPES OF BASINS.
2. LIMIT HEIGHT OF EARTH DIKES TO 1.5 M.
3. ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-2D
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY STREAM CROSSING



PLAN VIEW



SECTION A-A

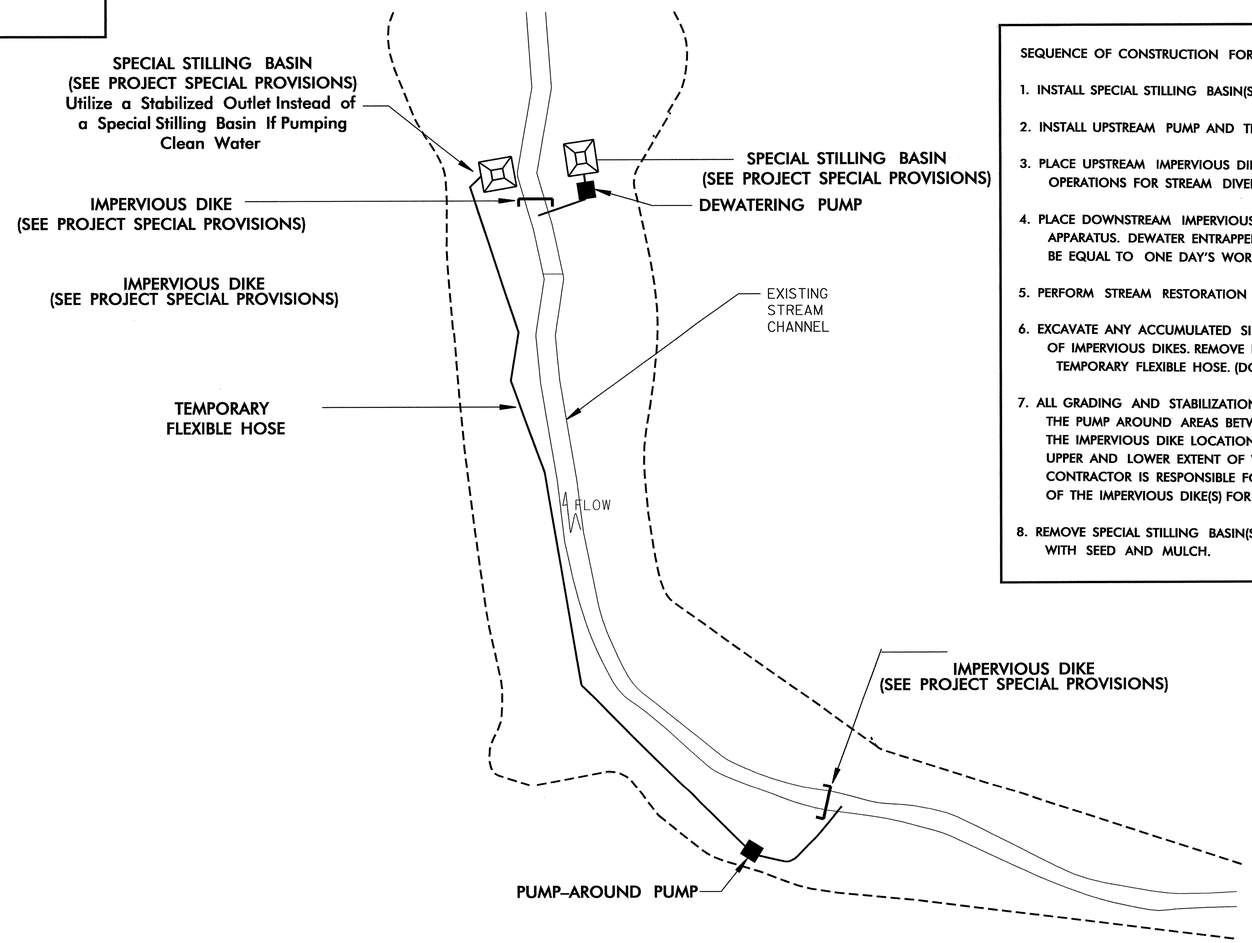
NOT TO SCALE

NOTE: PIPE(S) FOR TEMPORARY STREAM CROSSING SHALL BE DESIGNED TO PASS THE PEAK OR BANKFULL FLOW, WHICHEVER IS LESS, FROM A 2-YEAR PEAK STORM, WITHOUT OVER TOPPING.

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-2E
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EXAMPLE OF PUMP–AROUND OPERATION

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

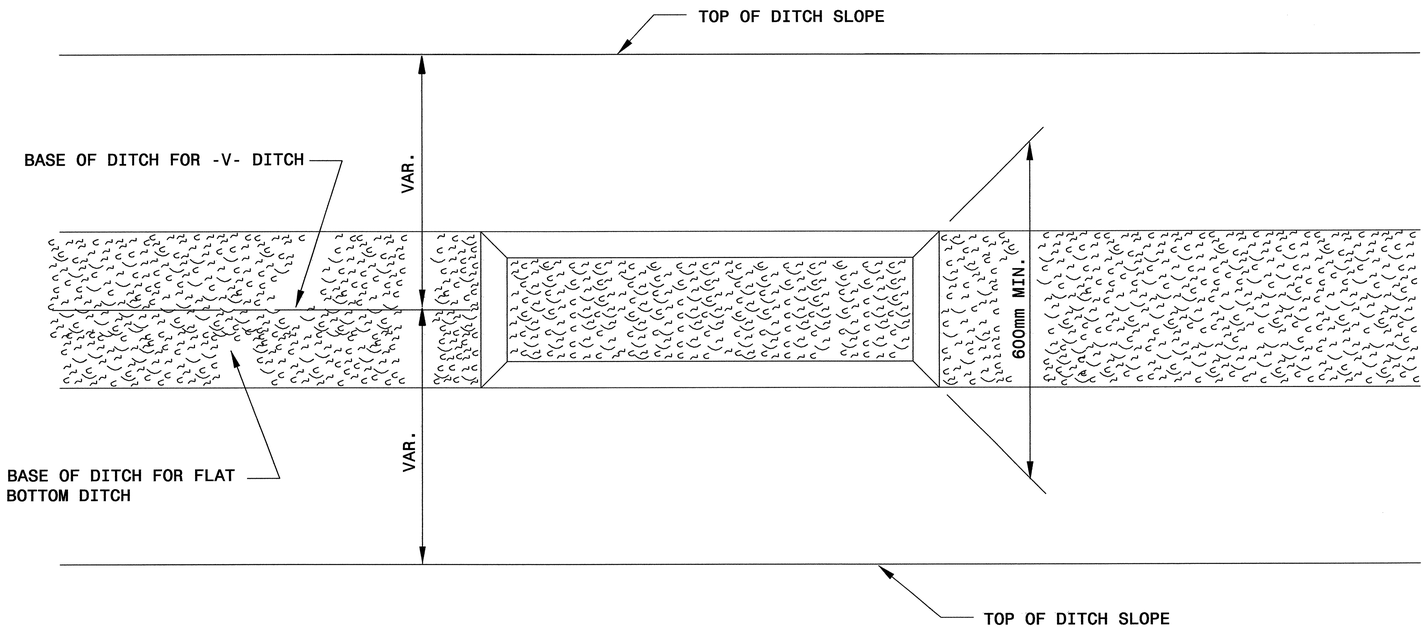


SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA

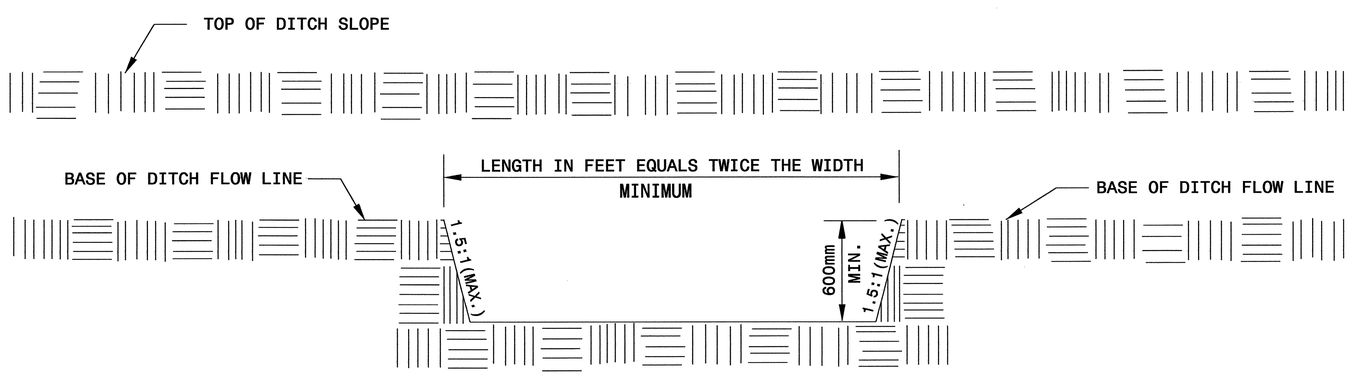
1. INSTALL SPECIAL STILLING BASIN(S).
2. INSTALL UPSTREAM PUMP AND TEMPORARY FLEXIBLE HOSE.
3. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
4. PLACE DOWNSTREAM IMPERVIOUS DIKE AND PUMPING APPARATUS. DEWATER ENTRAPPED AREA. AREA TO BE DEWATERED SHALL BE EQUAL TO ONE DAY'S WORK.
5. PERFORM STREAM RESTORATION WORK 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. ALL GRADING AND STABILIZATION MUST BE COMPLETED IN ONE DAY WITHIN THE PUMP AROUND AREAS BETWEEN THE IMPERVIOUS DIKES. THE IMPERVIOUS DIKE LOCATIONS AS SHOWN ON THIS SHEET ONLY SHOW THE UPPER AND LOWER EXTENT OF WORK FOR EACH STREAM SEGMENT. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF THE IMPERVIOUS DIKE(S) FOR EACH DAY'S WORK.
8. REMOVE SPECIAL STILLING BASIN(S) AND BACKFILL. STABILIZE DISTURBED AREA WITH SEED AND MULCH.

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-2F
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT BASIN 'B' DETAIL



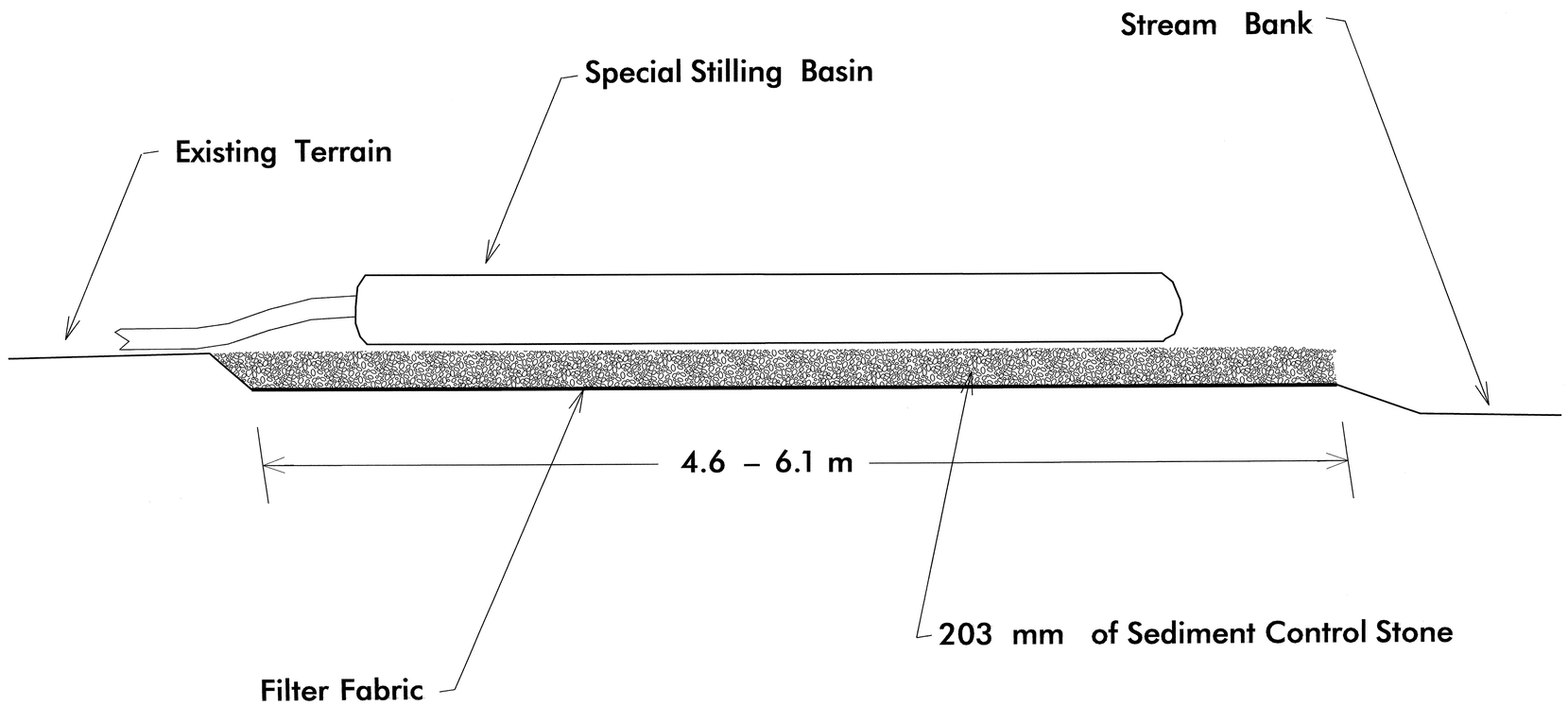
PLAN



ELEVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-2G
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SPECIAL STILLING BASIN WITH ROCK PAD

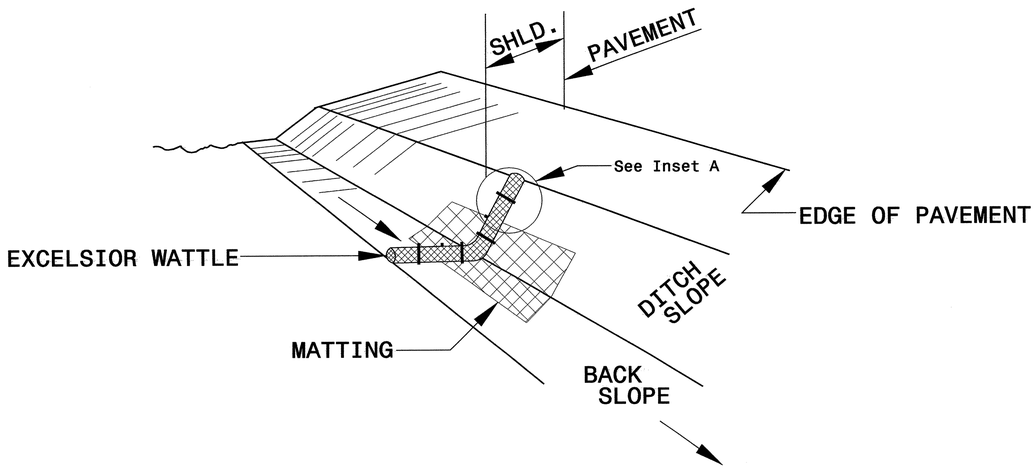


Not To Scale

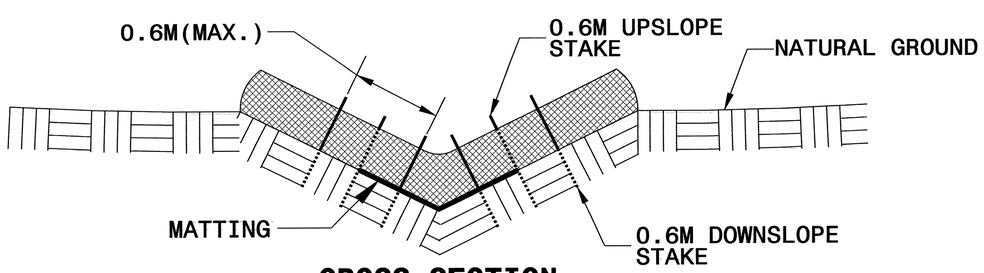
Note: Provide Stabilized Outlet to Streambank

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-2H
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

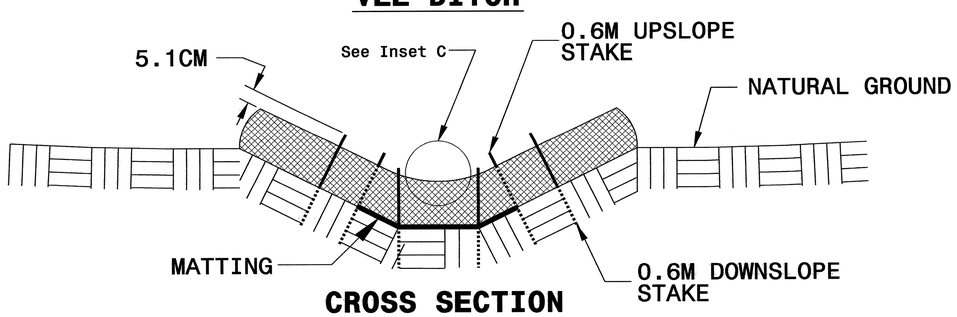
WATTLE WITH POLYACRYLAMIDE DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 305 MM DIAMETER EXCELSIOR WATTLE.

USE 0.6 M WOODEN STAKES WITH A 5.1 CM BY 5.1 CM CROSS SECTION.

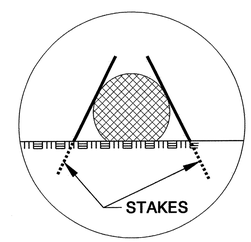
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

PROVIDE STAPLES MADE OF 3 MM DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 305 MM IN LENGTH.

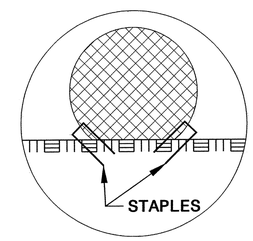
INSTALL STAPLES APPROXIMATELY EVERY 0.3 LINEAR METER ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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

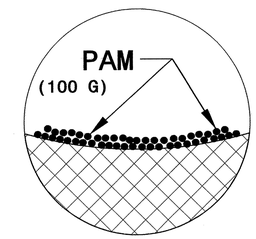
INITIALLY APPLY 100 GRAMS OF ANIONIC OR NEUTRALLY CHARGED POLYACRYLAMIDE (PAM) OVER WATTLE WHERE WATER WILL FLOW AND AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 6 MM.



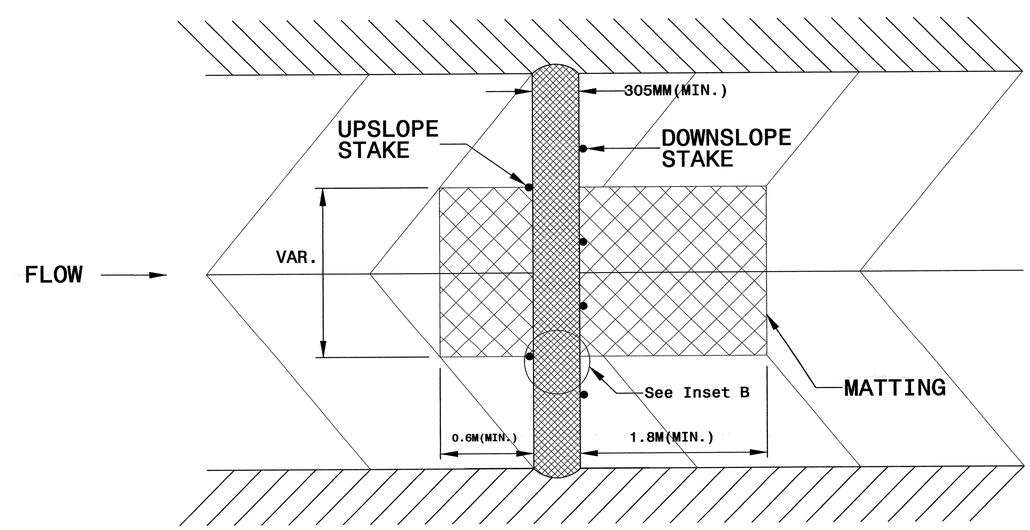
INSET A



INSET B



INSET C



TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-3
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SM)
6	-L-	124+00	125+00	LT	480
7 & 8	-L-	127+80	128+80	RT	465
9 & 10	-L-	135+00	137+00	RT	1220
9	-L-	135+20	135+40	LT	85
10	-L-	136+40	137+60	LT	790
11	-L-	140+00	141+20	LT	500
11 & 12	-L-	142+20	143+00	RT	335
13	-L-	146+80	147+60	LT	295
13	-L-	148+40	149+40	LT	420
14	-L-	152+80	153+60	LT	370
15	-L-	154+40	155+40	LT	530
15	-L-	156+20	156+40	LT	140
15	-L-	156+80	157+00	LT	135
16	-L-	157+00	158+40	RT	855
18	-L-	166+00	167+80	LT	1275
19 & 20	-L-	169+40	172+20	LT	1565
20	-L-	173+00	174+40	RT	855
21 & 22	-L-	176+80	178+80	RT	1220
22 & 23	-L-	179+80	183+80	RT	2045
22 & 23	-L-	181+60	183+00	LT	650
23	-L-	185+20	185+60	RT	225
24	-L-	186+40	188+60	LT	1340
25 & 26	-L-	192+20	193+80	RT	980
27	-L-	199+20	199+80	LT	280
27	-L-	197+80	200+20	RT	1110
28	-L-	202+20	202+40	LT	85
28 & 29	-L-	202+20	205+20	RT	1680
29	-L-	203+80	204+40	LT	250
30	-L-	207+80	208+00	RT	85
31 & 32	-L-	212+80	215+20	LT	1110

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SM)
31 & 32	-L-	212+80	215+20	RT	1110
32 & 33	-L-	217+60	221+60	RT	2045
33	-L-	220+00	221+20	LT	615
34	-L-	221+60	222+20	LT	340
34	-L-	222+20	222+40	RT	75
34	-L-	222+80	223+20	RT	205
33	-DR4-	218+00	219+20	RT	410
33	-DR4-	218+00	218+40	LT	80
33	-DR4-	219+40	219+60	LT	35
5	-Y1-	10+50	10+60	RT	20
5	-Y1-	10+30	10+70	LT	80
10	-Y5-	10+10	10+40	RT	60
16	-Y9-	10+10	10+20	RT	20
17	-Y10-	10+20	10+30	LT	20
17	-Y10-	10+20	10+40	RT	35
22	-Y14-	10+30	10+80	RT	160
22	-Y14-	10+20	10+60	LT	130
32	-Y17-	12+50	12+70	LT	85
36	-Y21-	10+20	12+10	LT	795
36	-Y21-	10+50	10+80	RT	110
36	-Y21-	12+40	12+60	RT	50
23	-L-	183+20	184+05	RT BERM	115
				SUBTOTAL	27970
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					21190
				TOTAL	49160
				SAY	49200

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-3A
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)
4	-L-	115+20	115+60	LT	170
6	-L-	122+80	124+40	RT	1055
8 & 9	-L-	128+60	132+40	LT	2125
9	-L-	132+60	132+80	LT	65
9	-L-	133+40	134+60	LT	615
11	-L-	139+60	139+80	LT	75
11	-L-	141+20	141+80	LT	250
18	-L-	164+40	164+80	LT	245
22	-L-	179+20	179+40	RT	105
23 & 24	-L-	185+60	186+00	RT	80
24 & 25	-L-	189+00	191+80	RT	1710
26	-L-	194+80	195+00	LT	75
26	-L-	195+00	196+60	RT	895
26	-L-	196+00	196+20	LT	85
27	-L-	197+80	198+40	LT	250
28	-L-	200+20	201+80	RT	1135
29	-L-	205+20	205+80	RT	400
29	-L-	205+80	206+00	RT	125
30 & 31	-L-	207+80	211+20	LT	1735
30	-L-	208+40	210+60	RT	920
32	-L-	215+80	216+00	RT	75
32	-L-	216+60	217+80	LT	730
5	-Y1-	10+10	10+50	RT	130
12	-L-	143+80	145+00	LT BERM	165
12	-L-	145+00	145+40	LT BERM	55
15	-L-	153+60	154+40	LT BERM	110
22	-L-	181+30	182+20	RT BERM	100
24	-L-	186+20	187+20	RT BERM	135
28	-L-	202+10	205+05	RT BERM	405
30	-L-	208+55	209+55	LT BERM	140

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SM)
31	-L-	211+50	213+80	LT BERM	310
31	-L-	211+65	213+60	RT BERM	265
			SUBTOTAL		14635
		ADDITIONAL PSRM TO BE INSTALLED			2968
				TOTAL	17603
				SAY	17650

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-4/CONST.4
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 4

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

-L-
PIs Sta 116+05.888
Θs = 6° 24' 24.2"
Ls = 98.400
LT = 65.643
ST = 32.839

PI Sta 119+28.274
Δ = 66° 42' 34.6" (RT)
L = 512.293
T = 289.629
R = 440.000
SE = 0.08

-DRI- PCSta.10+04.281
-DRI- POT Sta.10+00.000
-DRI- PT Sta.10+16.985
J.C. and wife, KATHY INGLE
BEGIN CONSTRUCTION -DRI- STA. 10+50.000
TIE WW FENCE TO EXIST. SBW
J.C. and wife, KATHY INGLE D.B.104 PG.173
RANDY D. and wife, CHLOE A. McCURRY D.B. 232 PG. 1
RONALD W. LUYCKX and, GARY L. LUYCKX D.B.341 PG.473
-DRI- PCSta.10+67.592
-DRI- PCSta.11+00.636
-DRI- PT Sta.10+75.163
-DRI- PIS Sta.11+13.015
-DRI- POT Sta.11+29.282 = -L- Sta.115+80.000
-L- SCSta.116+38.645
TSSta.115+40.625
-L- POT Sta.115+06.547
BEGIN PROJECT R-2518B
BEGIN CONSTRUCTION -L- POT Sta.115+06.547
R-2518A -L- STA. 115+06.547
MATCHLINE -L- STA. 118+20.000 - SEE SHEET 5
SEE STREAM MITIGATION PLAN 8
RUFUS and wife, EDNA INGLE D.B.104 PG.173
JACK BUCKNER, JR. & CHRISTOPHER D. BUCKNER D.B. 197 PG. 604

PI Sta 10+10.636
Δ = 4° 02' 38.1" (LT)
L = 12.704
T = 6.355
R = 180.000
SE = 0.02

PI Sta 10+71.473
Δ = 30° 58' 57.0" (RT)
L = 7.570
T = 3.880
R = 14.000
SE = 0.02

PI Sta 11+07.266
Δ = 50° 40' 43.8" (LT)
L = 12.383
T = 6.630
R = 14.000
SE = 0.02

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 4.4C

9 x 3 x 1
ID 4.8F

6 x 3 x 1
ID 4.10F

10 x 3 x 1
ID 4.9F

9 x 3 x 1
ID 4.7F

12 x 3 x 1
ID 4.13C

12 x 4 x 1
ID 4.11C

6 x 2 x 1
ID 4.12C

12 x 3 x 1
ID 4.14C

12 x 10 x 1
64 mm Skimmer
with 57 mm
Orifice Diameter
3 m weir
ID 4.5F

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 4.1C

10 x 5 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 4.2C

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 4.3C

8 x 4 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 4.6C

REMOVE EXISTING FENCE

PROPOSED EXPRESSWAY GUTTER
PROP. 825mm C&G
PROP. 450mm C&G
PROP. RAISED GRASS MEDIAN
PROP. MONO. CONC. ISLAND
BERM OUTLET
FALSE SUMP
900 RCP
450 RCP
375 RCP
750 RCP
900 RIP
REMOVE
NAD 83

SEE SHEET 37 FOR -L- PROFILE
SEE SHEET 58 FOR -DRI- PROFILE

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bernapoole
R1 REV:22:44:18

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-5/CONST.5
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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

MATCHLINE -L- STA. 118+20.000 - SEE SHEET 4

MATCHLINE -L- STA. 121+60.000 - SEE SHEET 6

-Y1- PI Sta.10+30.933
Δ = 29° 31' 52.7" (RT)
L = 30.925
T = 15.814
R = 60.000
SE = 0.02

-Y1- POT Sta.10+00.000
BEGIN CONSTRUCTION

-Y1- PCS Sta.10+15.18

-Y1- PT Sta.10+46.043

BM #20
-BL- STA 5+29.095
6.890m LEFT
ELEV. 860.195

RONALD W. LUYCKX and,
GARY L. LUYCKX
D.B.341 PG.473

NAD 83

12 x 4 x 1
ID 5.2C

8 x 4 x 1
ID 5.3C

12 x 3 x 1
ID 5.16C

8 x 4 x 1
ID 5.4C

10 x 5 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 5.5C

11 x 4 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 5.7C

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 5.6C

16 x 5 x 1
ID 5.8C

8 x 4 x 1
ID 5.9C

20 x 5 x 1
51 mm Skimmer
with 51 mm
Orifice Diameter
2 m weir
ID 5.1C

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 5.10C

8 x 3 x 1
2 m weir
ID 5.11C

9 x 4 x 1
38 mm Skimmer
with 33 mm
Orifice Diameter
2 m weir
ID 5.12C

6 x 3 x 1
2 m weir
ID 5.13C

13 x 5 x 1
51 mm Skimmer
with 41 mm
Orifice Diameter
2 m weir
ID 5.14C

6 x 3 x 1
2 m weir
ID 5.15C

-BL- 95 10+75.996 PINC
-L- Sta.119+38.284 (26.417m LT)
-BY- 6+10.147 POT
-Y1- Sta.10+75.711 (6.675m LT)

TIE WW FENCE TO EXIST.WW

TOE PROTECTION
-L- 118+60 TO 119+22+/- LT
PERM. SOIL REINF. MAT (PSRM): 134 SM
SEE DETAIL 'A', SHEET 2-G

FALSE SUMP
SEE DETAIL 2

REMOVE EXISTING FENCE

-Y1- POT Sta.11+03.178 =
-L- POC Sta.119+35.000

-L-
PI Sta.119+28.274
Δ = 66° 42' 34.6" (RT)
L = 512.293
T = 289.629
R = 440.000
SE = 0.08

-L- CSSta.121+50.939

NELLEEN T. ROBINSON
D.B. 162 PG. 489

JACK BUCKNER, JR. &
CHRISTOPHER D. BUCKNER
D.B. 212 PG. 058

JACK BUCKNER, JR. &
CHRISTOPHER D. BUCKNER
D.B. 197 PG. 604

JESSE and wife,
PEARL BUCKNER
D.B. 94 PG. 191

SEE STREAM MITIGATION PLANS

SEE SHEET 37 FOR -L- PROFILE
SEE SHEET 53 FOR -Y1- PROFILE

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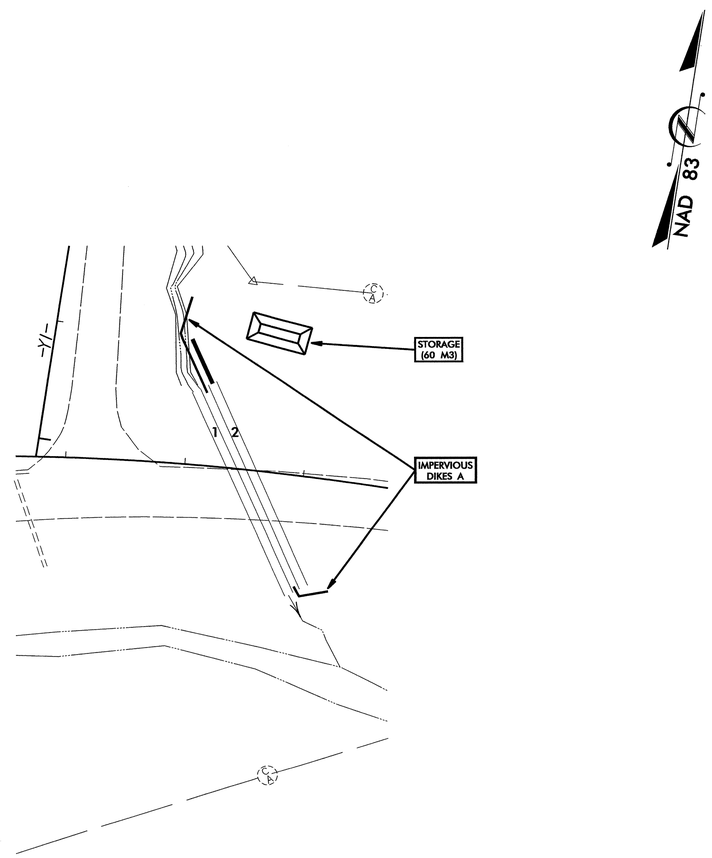
pennipcole

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-6/CONST.5
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 119 + 69 –L–

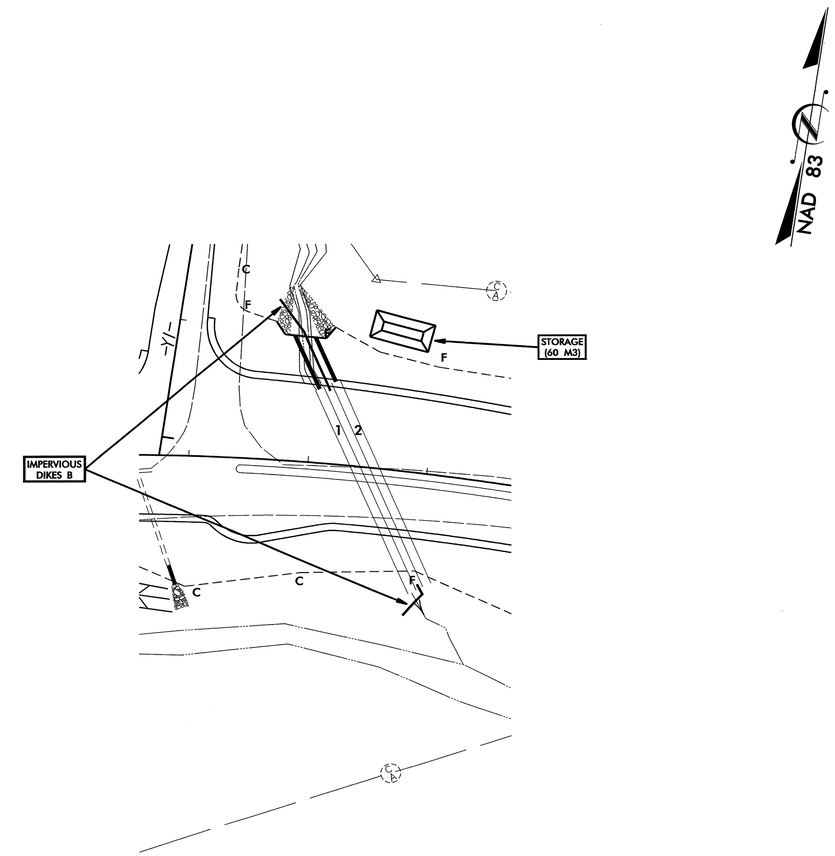
PHASE I

1. CONSTRUCT STILLING BASIN (60 M3).
2. CONSTRUCT IMPERVIOUS DIKES A, DIVERTING FLOW THROUGH PIPE 1.
3. REMOVE EXISTING HEADWALL, AND CONSTRUCT EXTENSION FOR PIPE 2.
4. REMOVE IMPERVIOUS DIKES A.



PHASE II

5. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH PIPE 2.
6. CONSTRUCT EXTENSION FOR PIPE 1, PROPOSED HEADWALL, AND INLET CHANNEL IMPROVEMENTS.
7. REMOVE IMPERVIOUS DIKES B AND STILLING BASIN.
8. COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-7/CONST.6
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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

MATCHLINE -L- STA. 121+60.000 - SEE SHEET 5

MATCHLINE -L- STA. 125+20.000 - SEE SHEET 7

NAD 83

WILLARD SHEPARD
D.B. 102 PG. 227

DORIS BUCKNER
D.B. 274 PG. 96

DONALD and wife,
RACHEL BUCKNER
D.B. 145 PG. 57

PEARL BUCKNER, HEIRS
D.B. 94 PG. 191

JOHNNY and wife,
PEGGY BUCKNER
D.B. 143 PG. 360

JESSE and wife,
PEARL BUCKNER
D.B. 94 PG. 191

DALLAS D. CHANDLER
D.B. 338 PG. 50

15 x 4 x 1
ID 6.2C

19 x 7 x 1
64 mm Skimmer
with 58 mm
Orifice Diameter
3 m weir
ID 6.3C

21 x 8 x 1
64 mm Skimmer
with 59 mm
Orifice Diameter
3 m weir
ID 6.4F

7 x 7 x 1
51 mm Skimmer
with 51 mm
Orifice Diameter
2 m weir
(See Tiered Skimmer
Basin Detail)
ID 6.5C

Modified Silt Basin
Type 'B'
7 x 7 x 1
(See Tiered Skimmer
Basin Detail)
ID 6.5C

13 x 6 x 1
51 mm Skimmer
with 45 mm
Orifice Diameter
3 m weir
ID 6.6C

12 x 4 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 6.1C

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 6.7C

50 x 7 x 1
64 mm Skimmer
with 64 mm
Orifice Diameter
2 m weir
ID 6.3F

6 x 3 x 1
38 mm Skimmer
with 23 mm
Orifice Diameter
2 m weir
ID 6.9C

-BYI- 101 5+00.000 POT

BEGIN CONSTRUCTION
-Y2- STA.10+20.000

-Y2- POT Sta.10+00.000 = -L- POS Sta.123+62.491

-Y2- POT Sta.10+53.324 = -L- POS Sta.124+28.325

-L- SCSta.124+52.509

-L- TSSta.123+54.109

-L- STSta.122+49.339

-Y3- PSSta.10+20.536

-Y3- PCCSta.10+30.726

-Y3- BT Sta.10+10.000

END CONSTRUCTION
-Y3- BT Sta.10+10.000

-BL- 3 13+54.640 PINC
-L- Sta. 122+12.995 (12.406m RT)

-BL- 4 15+85.857 PINC
-L- Sta. 124+43.102 (16.554m RT)
-BY2- 5+00.000 POT
-Y3- Sta. 10+23.882 (8.597m LT)
-BYI- 6+09.811 POT

BM #3
-BYI- STA 5+49.896
16.868m LEFT
-L- STA. 124+12.271
37.371m LT
ELEV. 845.212

PI Sta 119+28.274
Δ = 66° 42' 34.6" (RT)
L = 512.293
T = 289.629
R = 440.000
SE = 0.08

PIs Sta 121+83.778
Θs = 6° 24' 24.2"
Ls = 98.400
LT = 65.643
ST = 32.839

PIs Sta 124+19.750
Θs = 6° 15' 51.6"
Ls = 98.400
LT = 65.641
ST = 32.837

PI Sta 125+84.33\
Δ = 32° 39' 17.3" (LT)
L = 256.470
T = 131.823
R = 450.000
SE = 0.08

PI Sta 10+26.123
Δ = 58° 22' 53.8" (LT)
L = 101.90
T = 5.587
R = 10.000
SE = 0.06

PI Sta 10+95.168
Δ = 26° 05' 44.3" (LT)
L = 126.650
T = 64.443
R = 278.074
SE = 0.07

SEE STREAM MITIGATION PLANS

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jonatscm R1 R2W224141

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-8/CONST.7
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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

-L-

PI Sta 125+84.331
Δ = 32° 39' 17.3" (LT)
L = 256.470
T = 131.823
R = 450.000
SE = 0.08

PIs Sta 127+41.816
Θs = 6° 15' 51.6"
Ls = 98.400
LT = 65.641
ST = 32.837

PIs Sta 128+73.031
Θs = 7° 02' 50.6"
Ls = 98.400
LT = 65.652
ST = 32.847

-Y3-

PI Sta 10+95.168
Δ = 26° 05' 44.3" (LT)
L = 126.650
T = 64.443
R = 278.074
SE = 0.07

SEE STREAM MITIGATION PLANS

NAD 83

PEARL BUCKNER, HEIRS
D.B. 94 PG. 191

DENVER E. and wife,
DORIS ELAINE STYLES
D.B. 145 PG. 351

WALTON W. ANGEL
NO RECORD

WADE H. and wife,
MARY JO STYLES
D.B. 453 PG. 602

GEORGE PONDER and
NORMA ELKINS
D.B. 266 PG. 82

REBECCA M. STILES
D.B. 334 PG. 631

DALLAS D. CHANDLER
D.B. 338
PG. 507

DALLAS D. CHANDLER
D.B. 218 PG. 157

MATCHLINE -L- STA. 125+20.000 - SEE SHEET 6

MATCHLINE -L- STA. 128+60.000 - SEE SHEET 8

15 x 5 x 1
51 mm Skimmer
with 45 mm
Orifice Diameter
3 m weir
ID 7.3C

13 x 5 x 1
51 mm Skimmer
with 45 mm
Orifice Diameter
3 m weir
ID 7.4C

11 x 3 x 1
ID 7.5C

12 x 4 x 1
ID 7.2C

6 x 2 x 1
ID 7.1C

12 x 3 x 1
ID 7.1C

TOE PROTECTION
-L- 126+20 TO 126+60, LT
FBRM: EST. 80 SM
SEE DETAIL 'A' SHEET 2-G

LAT. BASE DITCH
-L- 126+61 TO 126+88, LT
FBRM: EST. 65 SM
CDE: EST. 50 DCM
SEE DETAIL 'H' SHEET 2-G

CL B RIP RAP:
EST. 1.8 TONS
FILTER FABRIC:
EST. 5.9 SM

CL B RIP RAP:
EST. 1.8 TONS
FILTER FABRIC:
EST. 5.9 SM

CL B RIP RAP:
EST. 1.7 TONS
FILTER FABRIC:
EST. 17.6 SM

-L- SRSSta.128+07.379

-L- CSSta.127+08.979

375 RCP PROPOSED EXPRESSWAY GUTTER

PROPOSED EXPRESSWAY GUTTER

PROP. MONO. CONC. ISLAND

PROP. RAISED GRASS MEDIAN

PROP. 825mm C&G

PROP. 450mm C&G

PROPOSED CONC. RAIL WALL

REMOVE EXISTING GUARDRAIL

REMOVE EXISTING FENCE

END WW FENCE AT EXIST. WW

TIE WW FENCE TO EXIST. WW

END WW FENCE END C/A

BEG. WW FENCE BEG. C/A

BEG. CURB TRANSITION SEE SHEET 2-L

END CURB TRANSITION

FALSE SUMP
SEE DETAIL 2
SHEET 2-G

REBUILD 2GI

REMOVE

REM. DI

BEGIN CHAIN LINK FENCE

END CHAIN LINK FENCE

-BL- 9 17+55.172 PINC

-L- Sta. 126+06.363 (19.298m RT)

-BY2- 102 6+04.469 PINC

-Y3- Sta. 11+34.797 (4.359m RT)

-BY2- 103 8+26.582 POT

-L- STA. 127+37.569 (65.141m RT)

-Y3- POT Sta. 11+92.773

-Y3- PT Sta. 17+51.376

S 81° 58' 14.6" E

BALD CREEK

EXISTING ACCESS PT

EXISTING R/W

SEE SHEET 38 FOR -L- PROFILE
SEE SHEET 53 FOR -Y3- PROFILE

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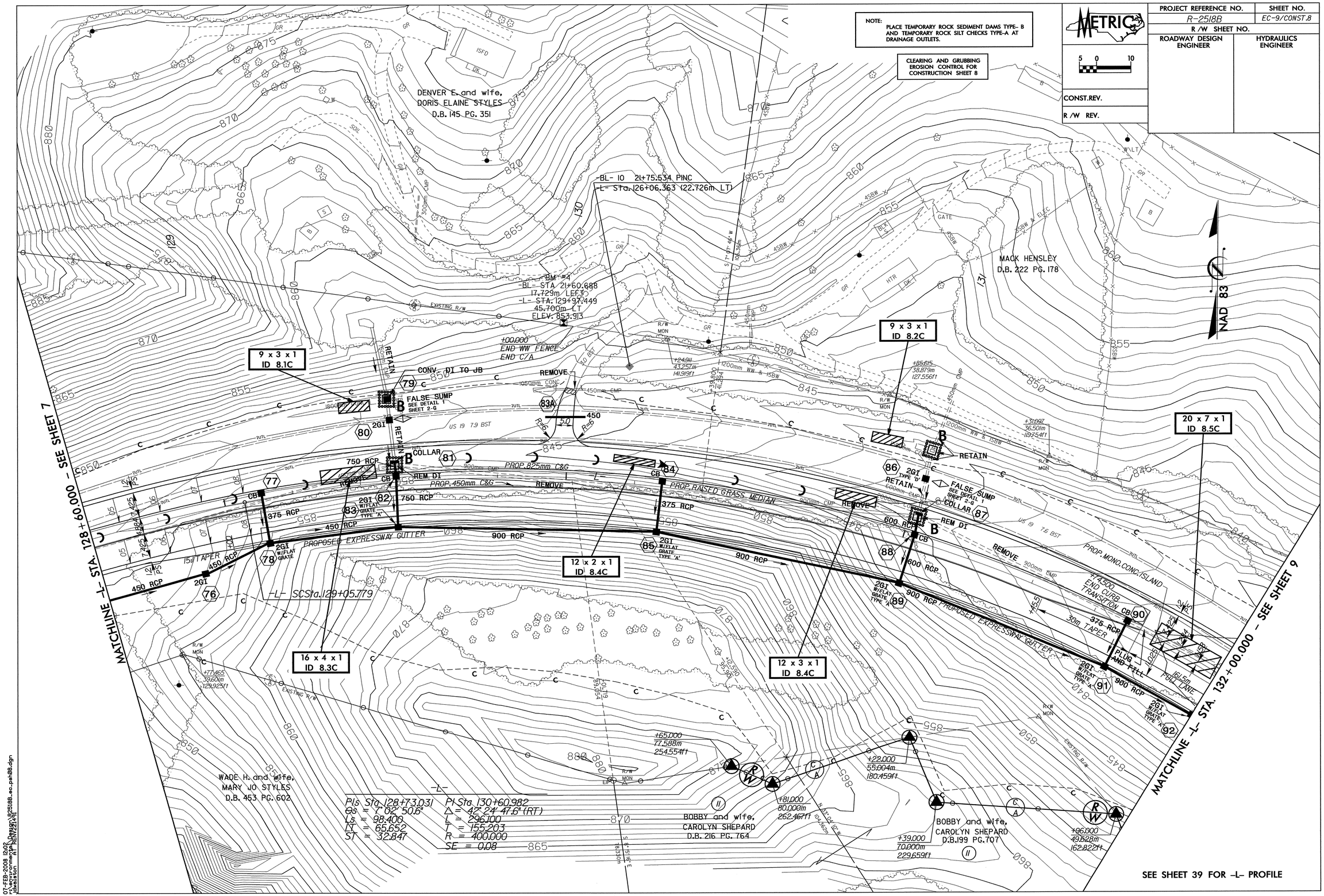
$$$$envuser

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-9/CONST.8
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 8



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jwalston PLR REV22141

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-10/CONST.9
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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

-L-

PI Sta 130+60.982
△ = 42° 24' 47.6" (RT)
L = 296.100
T = 155.203
R = 400.000
SE = 0.08

PIs Sta 132+34.726
θs = 7° 02' 50.6"
Ls = 98.400
LT = 65.652
ST = 32.847

PIs Sta 133+65.931
θs = 7° 02' 50.6"
Ls = 98.400
LT = 65.652
ST = 32.847

PI Sta 134+83.280
△ = 23° 53' 03.6" (LT)
L = 166.744
T = 84.601
R = 400.000
SE = 0.08

MATCHLINE -L- STA. 132+00.000 – SEE SHEET 8

MATCHLINE -L- STA. 135+60.000 – SEE SHEET 10

15 x 5 x 1
51 mm Skimmer
with 44 mm
Orifice Diameter
3 m weir
ID 9.1C

ROCK CROSS VANE:
5m SPACING FROM -L- STA. 133+40 TO 133+80+/- LT
9m SPACING FROM -L- STA. 133+80 TO 134+80+/- LT
HEADER/FOOTER ROCKS: EST. 640 TONS
#57 STONE: EST. 304 TONS
FILTER FABRIC: EST. 608 SM
(SEE DETAIL DD, SHT 2-J)

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 9.2C

LAT. BASE DITCH
-L- 133+40 TO 133+80, LT
COIR FIBER MAT: EST. 110 SM
CDE: EST. 72 CuM
SEE DETAIL 'I' SHEET 2-G

LAT. BASE DITCH
-L- 133+80 TO 134+80+/-, LT
COIR FIBER MAT: EST. 380 SM
CDE: EST. 280 CuM
SEE DETAIL 'J' SHEET 2-G

18 x 6 x 1
64 mm Skimmer
with 52 mm
Orifice Diameter
2 m weir
ID 9.3C

9 x 4 x 1
38 mm Skimmer
with 33 mm
Orifice Diameter
2 m weir
ID 9.9C

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 9.8C

7 x 12 x 1
51 mm Skimmer
with 51 mm
Orifice Diameter
4 m weir
ID 9.10F

14 x 7 x 1
51 mm Skimmer
with 51 mm
Orifice Diameter
2 m weir
ID 9.5C

16 x 10 x 1
64 mm Skimmer
with 58 mm
Orifice Diameter
3 m weir
ID 9.6C

6 x 3 x 1
2 m weir
ID 9.4C

13 x 6 x 1
51 mm Skimmer
with 45 mm
Orifice Diameter
3 m weir
ID 9.7C

BM #5
-BY5- STA 4+88.252
11.767m RIGHT
-L- STA. 135+37.934
106.708m LT
ELEV. 816.532

-BL- II 24+72.369 PINC
-L- Sta. 133+09.248 (10.634m LT)
5+00.000 POT

-BL- 14 27+13.108 PINC
-L- Sta. 135+55.142 (3.346m RT)

-BY3- 104 6+03.035 POT

-Y4- PCCSta.10+40.985

-Y4- PTSta.10+79.635

-L- SCSta.133+98.679

-L- CSSta.132+00.279

-L- SRSSta.133+00.279

-Y4- PCCSta.10+00.000 = REMOVE FENCE
-L- POS Sta. 133+81.473

PI Sta 10+20.549
△ = 10° 21' 58.7" (RT)
L = 40.985
T = 20.549
R = 226.531
SE = EXISTING

PI Sta 10+60.557
△ = 22° 15' 25.8" (RT)
L = 38.650
T = 19.572
R = 99.494
SE = 0.02

END CONSTRUCTION
-Y4- ST A.10+50.000

SEE SHEET 39 FOR -L- PROFILE
SEE SHEET 53 FOR -Y4- PROFILE

NAD 83

MACK HENSLEY
178

GAILYA H. and husband,
ROGER D. FULLER
D.B. 220 PG. 649

HUGH BUCKNER and
wife, BETTY BUCKNER
D.B. 258 PG. 421

BOBBY and wife,
CAROLYN SHEPARD
D.B.199 PG.707

BOBBY MORRIS and wife,
CAROLYN CHANDLER SHEPHERD
D.B. 202 PG. 673

EUGENE SHEPARD
D.B. 178 PG. 529

EUGENE SHEPARD
D.B.222 PG.144

DOUGLAS and wife,
LORRAINE A. KENDALL
D.B. 264 PG. 439

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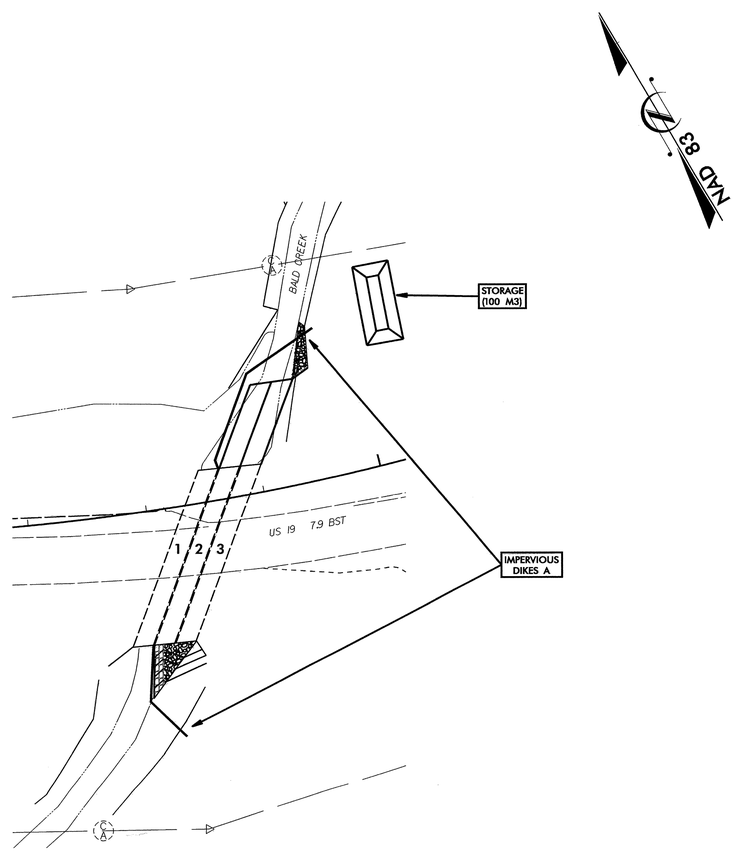
PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-11/CONST.9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 134 + 72 –L–

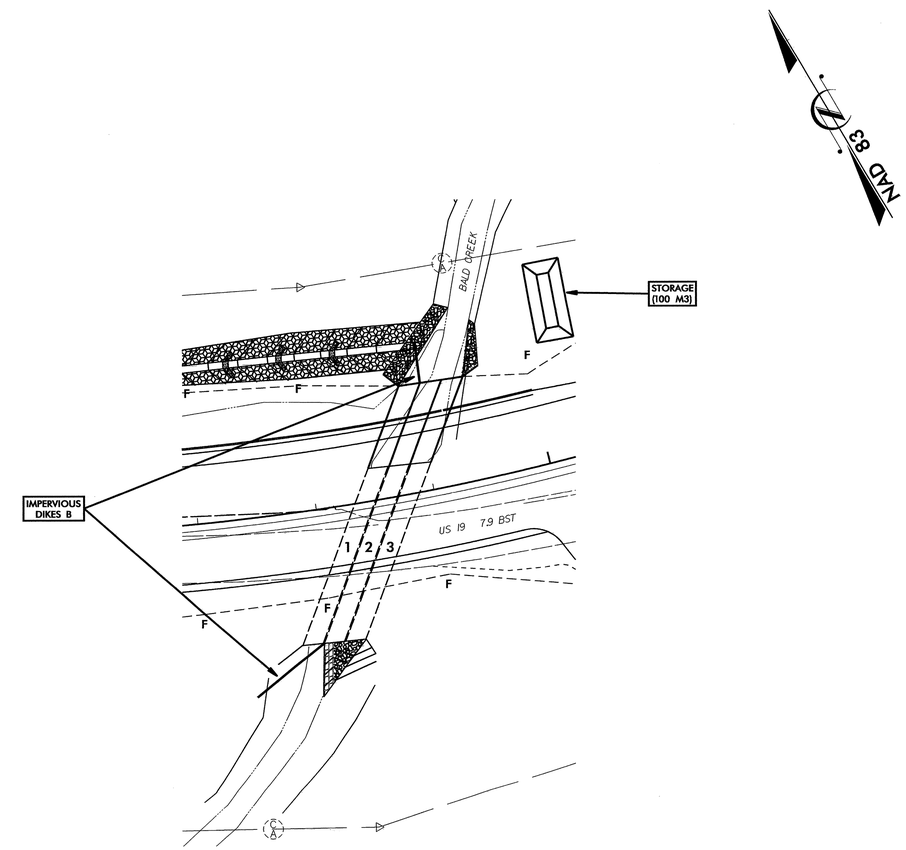
PHASE I

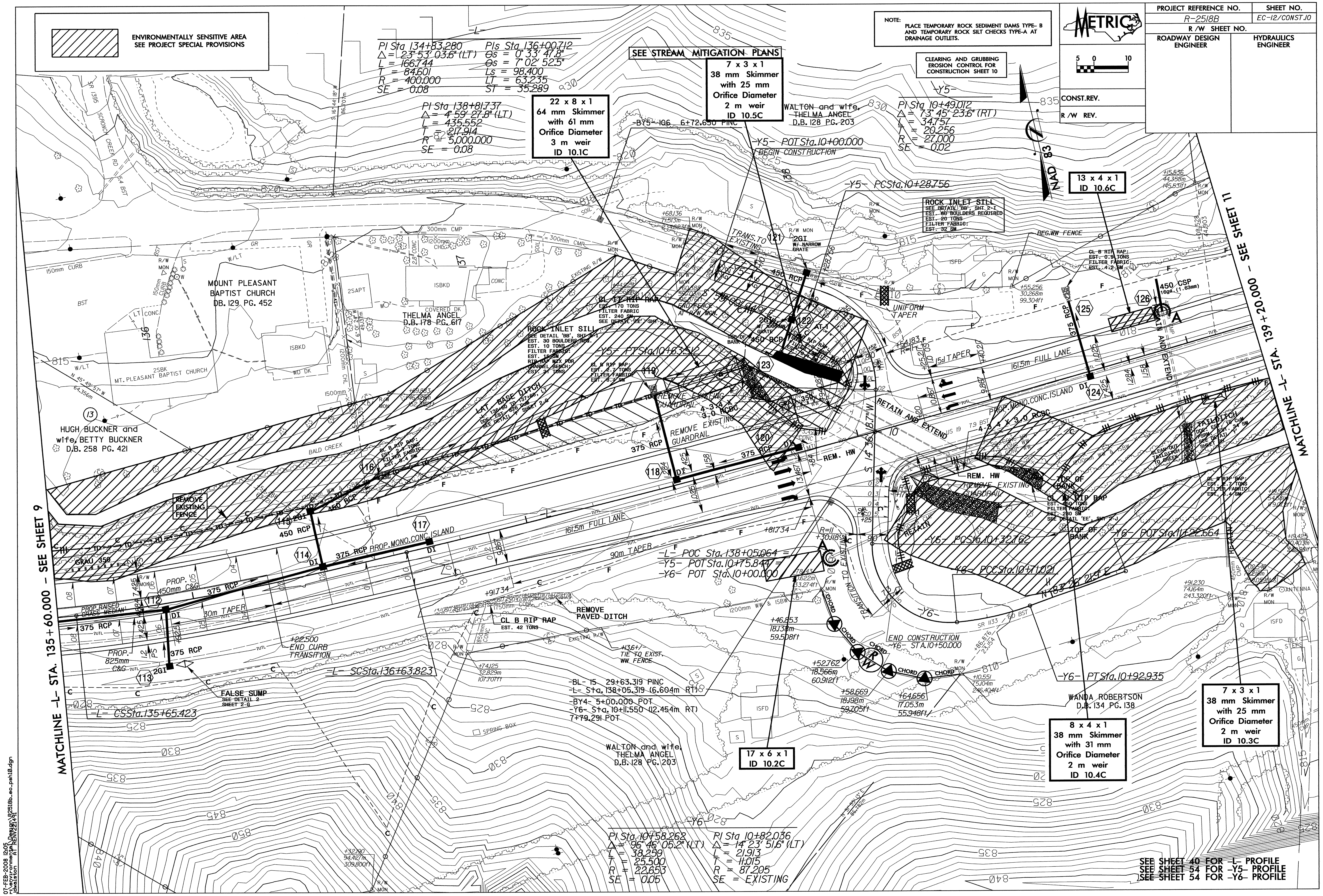
1. CONSTRUCT STILLING BASIN (100 M3).
2. CONSTRUCT IMPERVIOUS DIKES A, DIVERTING FLOW THROUGH BARREL 1.
3. REMOVE EXISTING HEADWALL AND CONSTRUCT EXTENSIONS FOR BARRELS 2 AND 3.
4. CONSTRUCT PORTION OF PROPOSED HEADWALL AND PORTION OF INLET/OUTLET CHANNEL IMPROVEMENTS.
5. REMOVE IMPERVIOUS DIKES A.



PHASE II

6. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARRELS 2 AND 3.
7. CONSTRUCT EXTENSION FOR BARREL 1, REMAINDER OF PROPOSED HEADWALL, AND REMAINDER OF INLET/OUTLET CHANNEL IMPROVEMENTS.
8. REMOVE IMPERVIOUS DIKES B AND STILLING BASIN.
9. COMPLETE ROADWAY.





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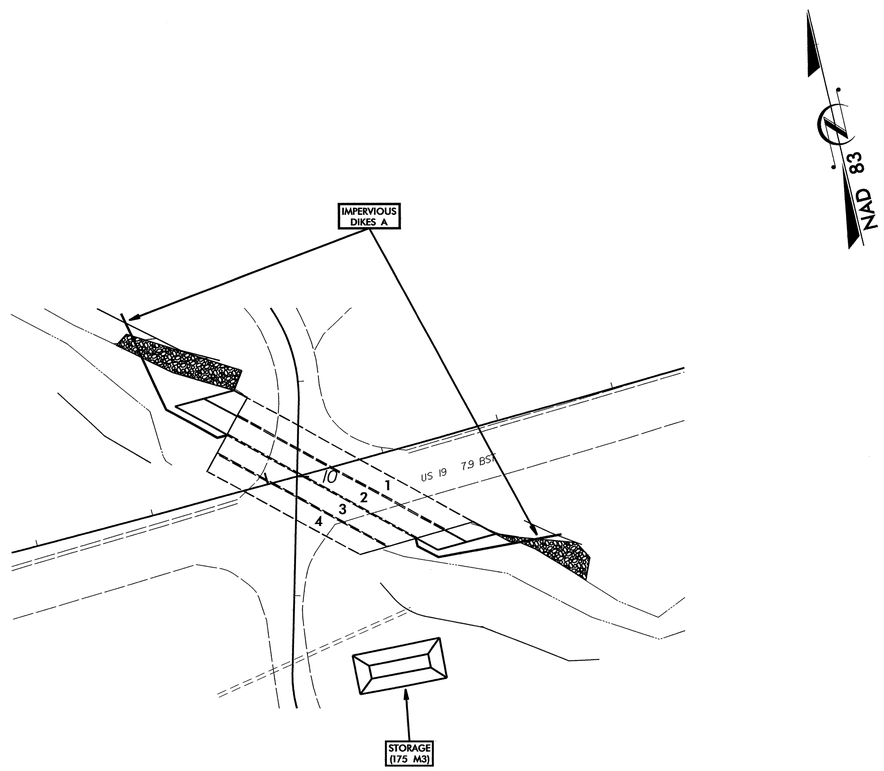
jdwalston AT RENV221491

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-13/CONST 10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 138+05 –L–

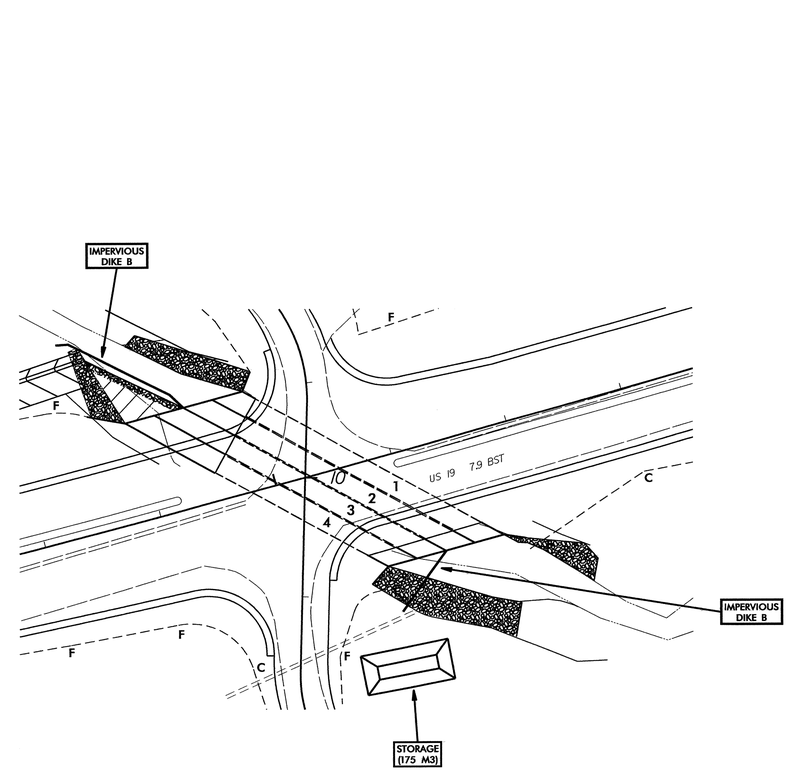
PHASE I

1. CONSTRUCT STILLING BASIN (175 M3).
2. CONSTRUCT IMPERVIOUS DIKES A, DIVERTING FLOW THROUGH BARRELS 3 AND 4.
3. REMOVE EXISTING HEADWALLS AND CONSTRUCT EXTENSIONS FOR BARRELS 1 AND 2.
4. CONSTRUCT PORTION OF PROPOSED HEADWALLS AND WINGWALLS, AND PORTION OF INLET/OUTLET CHANNEL IMPROVEMENTS.
5. REMOVE IMPERVIOUS DIKES A.



PHASE II

6. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARRELS 1 AND 2.
7. CONSTRUCT EXTENSIONS FOR BARRELS 3 AND 4, REMAINDER OF PROPOSED HEADWALLS AND WINGWALLS, AND REMAINDER OF INLET/OUTLET CHANNEL IMPROVEMENTS.
8. REMOVE IMPERVIOUS DIKES B AND STILLING BASIN.
9. COMPLETE ROADWAY.

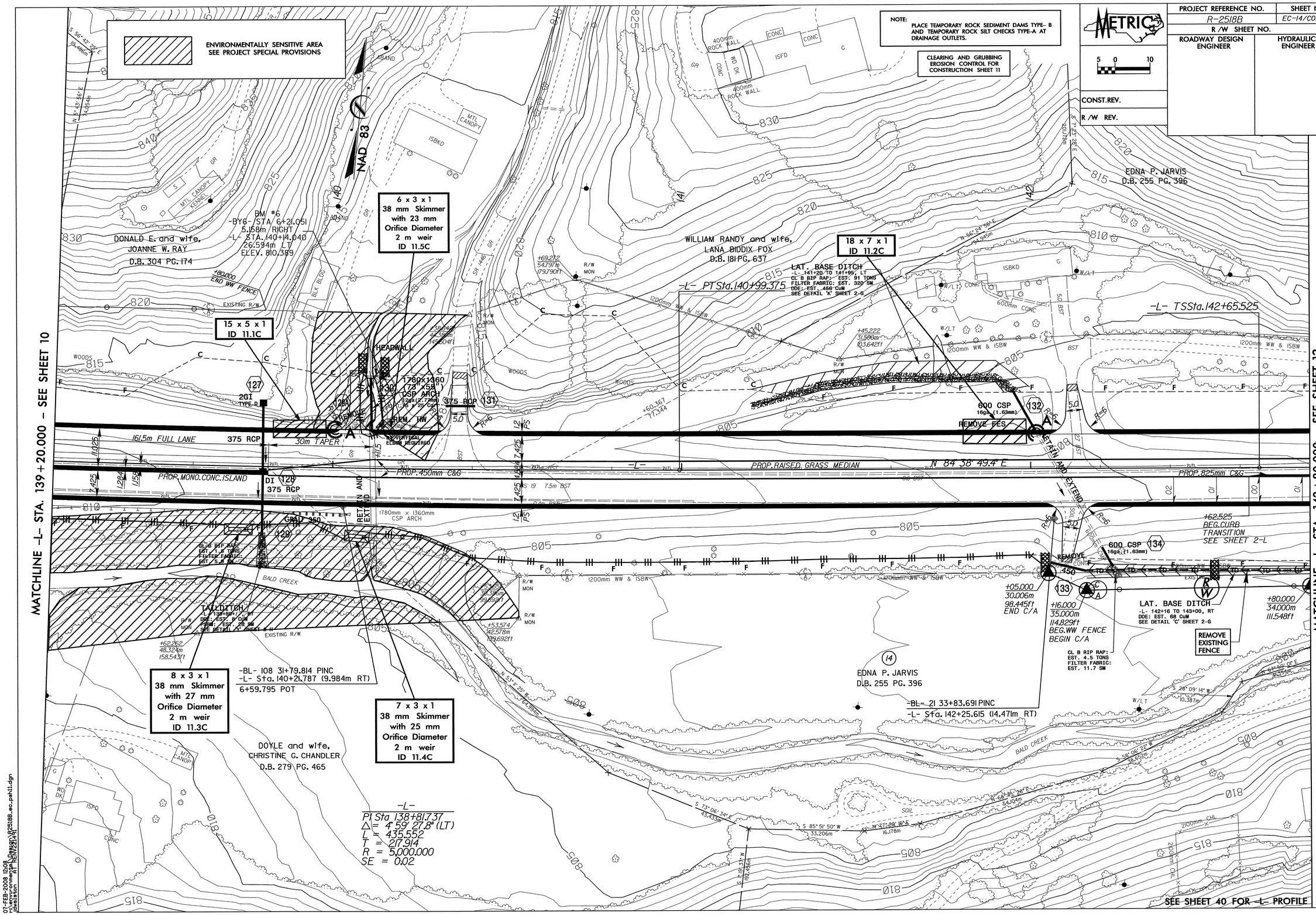


PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-14/CONST.11
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.



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jdavidson AT NENV2214

Transcribed by Accessibility Services for the Blind

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-15/CONST.12
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.

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 12

-L-
PIs Sta 142+90.125 es = 0° 31' 42.8" Ls = 36.900 LT = 24.600 ST = 12.300
PI Sta 143+36.625 Δ = 1° 57' 33.4" (LT) L = 68.392 T = 34.199 R = 2,000.000 SE = 0.03
PIs Sta 143+83.117 es = 0° 31' 42.8" Ls = 36.900 LT = 24.600 ST = 12.300

MATCHLINE -L- STA. 142+80.000 – SEE SHEET 11

MATCHLINE -L- STA. 146+40.000 – SEE SHEET 13

EDNA P. JARVIS D.B. 255 PG. 396

GARY D. PATE, one-half undivided interest; DENNIS C. PATE and wife, LUANNE B. PATE, one-half undivided interest D.B. 242 PG. 511

HENRY CLAY TURNER III, and wife, ELIZABETH M. TURNER D.B. 311 PG. 218 (HISTORIC PROPERTY)

DOUGLAS P. and wife, RACHEL SWANN D.B. 259 PG. 355

RITA FOXX BRIGGS, BRENDA FOXX EDWARDS, JANET FOXX KIGER, and WILLIAM RANDY FOXX D.B. 240 PG. 187

BRUCE and wife, LISA A. HARTNELL D.B. 226 PG. 172

DAVID R. and wife, NANCY B. RUTKOWSKI D.B. 340 PG. 92

16 x 6 x 1 51 mm Skimmer with 51 mm Orifice Diameter 2 m weir ID 12.2C

10 x 5 x 1 38 mm Skimmer with 38 mm Orifice Diameter 2 m weir ID 12.8C

14 x 5 x 1 ID 12.5C

7 x 3 x 1 ID 12.6C

16 x 5 x 1 ID 12.7C

31 x 7 x 1 76 mm Skimmer with 68 mm Orifice Diameter 4 m weir ID 12.1C

8 x 4 x 1 38 mm Skimmer with 31 mm Orifice Diameter 2 m weir ID 12.3C

15 x 2 x 1 2 m weir ID 12.4C

-L- CSSta.143+70.817

-L- SCSta.143+02.425

-L- STSta.144+07.717

-Y7- POTSta.10+00.000

-BY7- 110 5+84.324 PINC
-L- Sta. 10+05.310 (5.947m LT)

-BL- 22 37+33.063 PINC
-L- Sta. 145+74.346 (12.699m RT)
6+57.726 POT

-Y7- BEGIN CONSTRUCTION STA. 10+20.000

BERM DITCH -L- 143+80+/- TO 145+40+/-, LT
CL B RIP RAP: EST. 49 TONS
FILTER FABRIC: EST. 107 SM
SEE DETAIL 'B' SHEET 2-G

FALSE SUMP SEE DETAIL 'I' SHEET 2-G

CL B RIP RAP: EST. 1.8 TONS
FILTER FABRIC: EST. 5.9 SM

CL B RIP RAP: EST. 40 TONS

CL B RIP RAP: EST. 0.9 TONS
FILTER FABRIC: EST. 4.4 SM

CL B RIP RAP: EST. 0.9 TONS
FILTER FABRIC: EST. 4.2 SM

LAT. BASE DITCH -L- 142+16 TO 143+00, RT
DOE: EST. 68 CUM
SEE DETAIL 'C' SHEET 2-G

HEADWALL
CL I RIP RAP: EST. 42 TONS
FILTER FABRIC: EST. 80 SM
SEE DETAIL 'D' SHEET 2-H

2500x1830 (103"x71") CSP ARCH
SLOPE: 0.77m
BK 25 00m x 90m TAPER

400 CSP 16ga. (1.63mm) W/2 ELBOWS

375 RCP

900 RCP

GRAU 350

REMOVE EXISTING FENCE

TIE FENCE TO WW

BALD CREEK

END FENCE

BEGIN FENCE

18.288m (60')

EXISTING ACCESS POINT

RETAIN

REMOVE

PROP. MONO. CONC. ISLAND

PROP. RAISED GRASS MEDIAN

PROP. 75mm C&G

PROP. 825mm C&G

END CURB TRANSITION

30m TAPER

161.5m FULL LANE

N 81° 37' 50.3" E

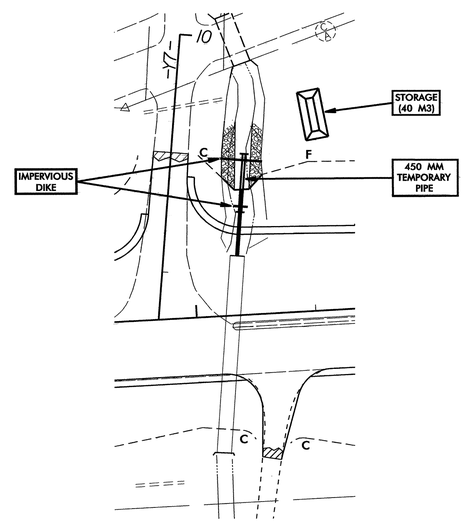
SEE SHEET 41 FOR -L- PROFILE
SEE SHEET 54 FOR -Y7- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-16/CONST J2
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 146 + 06 –L–

1. CONSTRUCT STILLING BASIN (40 M3).
2. REMOVE EXISTING HEADWALL.
3. CONSTRUCT PROPOSED CSPA EXTENSION, UTILIZING "BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES" TO DEWATER SITE.
4. CONSTRUCT IMPERVIOUS DIKES AND INSTALL 450 MM TEMPORARY PIPE, DIVERTING FLOW.
5. CONSTRUCT PROPOSED HEADWALL AND INLET CHANNEL IMPROVEMENTS.
6. REMOVE IMPERVIOUS DIKES, TEMPORARY PIPE, AND STILLING BASIN.
7. COMPLETE ROADWAY.

NAD 83



PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-17/CONST.13
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

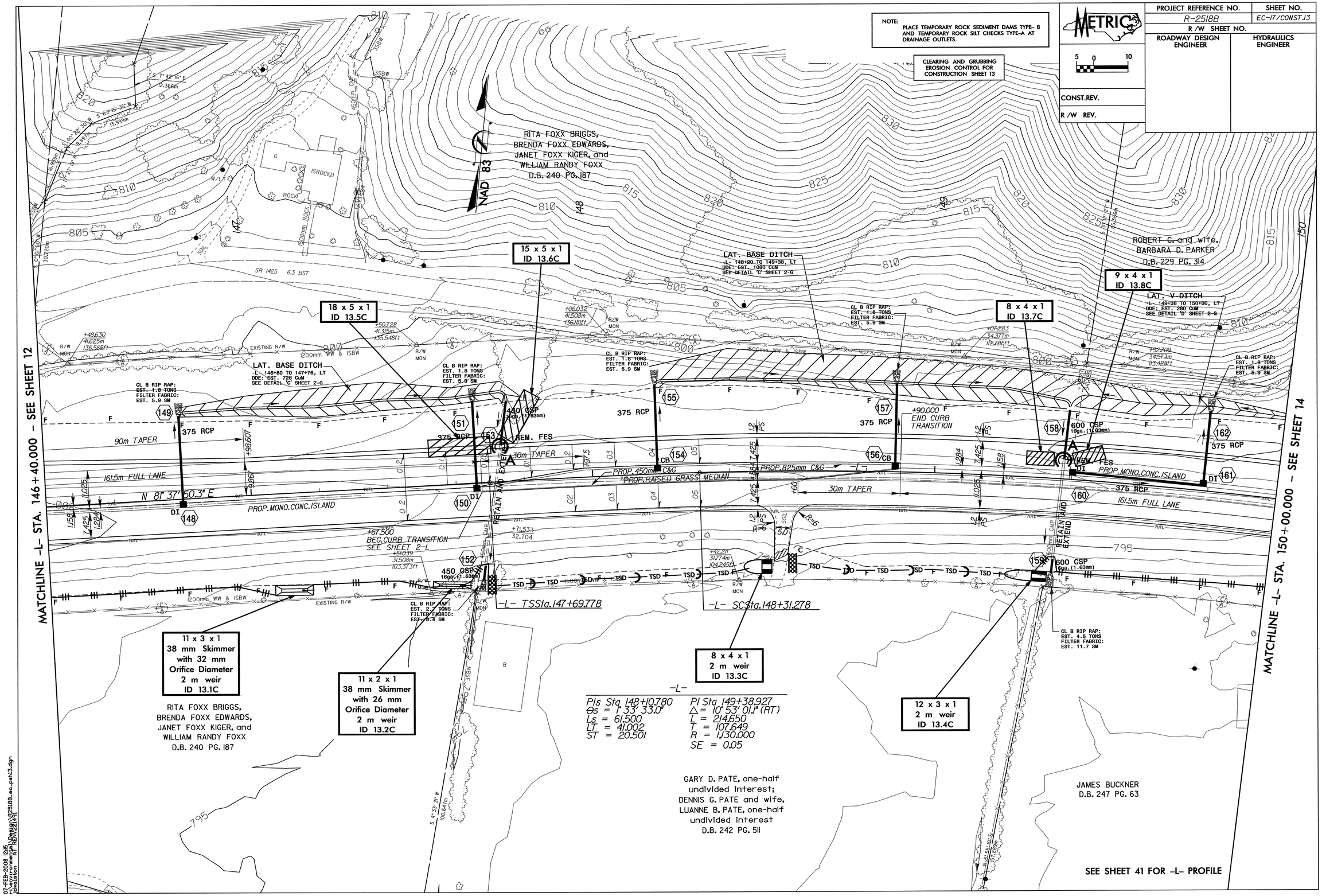
METRIC 5 0 10

CONST.REV.

R /W REV.

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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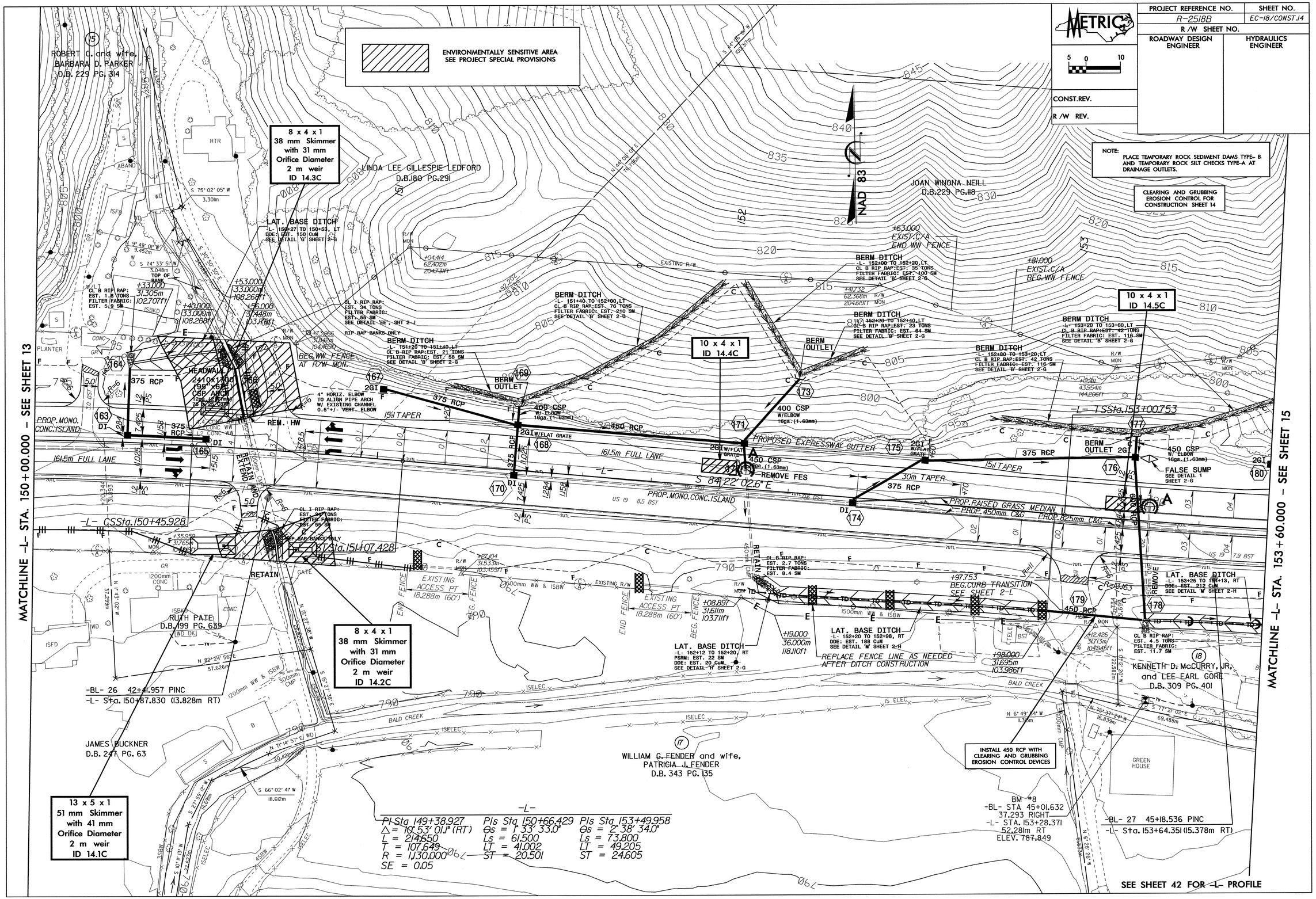
dwalston AT RENV2214.41

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-18/CONST.14
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

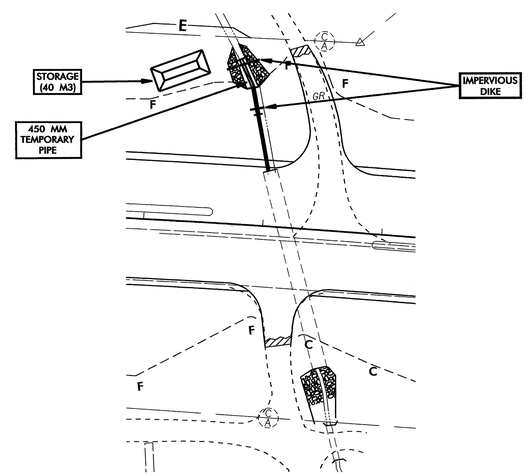
METRIC 5 0 10



PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-19/CONST.14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 150+63 –L–

1. CONSTRUCT STILLING BASIN (40 M3).
2. REMOVE EXISTING HEADWALL.
3. CONSTRUCT PROPOSED CSPA EXTENSION, UTILIZING "BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES" TO DEWATER SITE.
4. CONSTRUCT IMPERVIOUS DIKES AND INSTALL 450 MM TEMPORARY PIPE, DIVERTING FLOW.
5. CONSTRUCT PROPOSED HEADWALL AND INLET CHANNEL IMPROVEMENTS.
6. REMOVE IMPERVIOUS DIKES, TEMPORARY PIPE, AND STILLING BASIN.
7. COMPLETE ROADWAY.

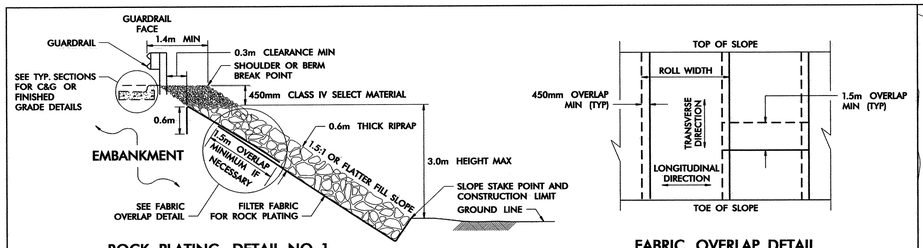


PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-20/CONST.J5
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.



ROCK PLATING DETAIL NO. 1

FABRIC OVERLAP DETAIL
(PLAN VIEW)

USE ROCK PLATING DETAIL NO. 1
AT THE FOLLOWING LOCATIONS:

-L- STA 156+40+/- TO -L- STA 156+60+/-
EXTEND ROCK PLATING LIMITS TO 2:1 SLOPES.

ROCK PLATING DETAIL

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

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

MATCHLINE -L- STA. 153+60.000 - SEE SHEET 14

MATCHLINE -L- STA. 157+00.000 - SEE SHEET 16

10 x 4 x 1
ID 15.3C

10 x 4 x 1
38 mm Skimmer
with 35 mm
Orifice Diameter
2 m weir
ID 15.11C

14 x 7 x 1
51 mm Skimmer
with 51 mm
Orifice Diameter
3 m weir
ID 15.12C

16 x 7 x 1
64 mm Skimmer
with 53 mm
Orifice Diameter
4 m weir
ID 15.4C

15 x 6 x 1
ID 15.2C

6 x 3 x 1
ID 15.5C

10 x 5 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 15.7C

10 x 4 x 1
38 mm Skimmer
with 35 mm
Orifice Diameter
2 m weir
ID 15.8C

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 15.10C

7 x 3 x 1
38 mm Skimmer
with 25 mm
Orifice Diameter
2 m weir
ID 15.9C

27 x 9 x 1
76 mm Skimmer
with 71 mm
Orifice Diameter
4 m weir
ID 15.1C

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 15.6C

WARD W. MATHIS
D.B. 323 PG. 221
(HISTORIC PROPERTY)

JOSEPH MAIO and wife,
ANNA C. MAIO
LISA ANGUAS
and husband,
RONALD ANGUAS
D.B. 225 PG. 447

CLARA CHRISTINE NEILL KNIGHT and husband, THOMAS WILLIAM KNIGHT, JR.
D.B. 206 PG. 242

COUNTY BOARD OF EDUCATION OF YANCEY COUNTY
D.B. 143 PG. 416
(HISTORIC PROPERTY)

MARY E. McCANDLESS
D.B. 257
PG. 532

BALD CREEK METHODIST CHURCH
D.B. 109 PG. 432

KENNETH D. McCURRY, JR. and LEE EARL GORE
D.B. 309 PG. 401

R.H. and wife,
FAE HOWELL
D.B. 105 PG. 580

-BY9- 115 5+00.000 POT

-BY8A- 114 5+00.000 POT

-Y8- POT Sta.10+00.000

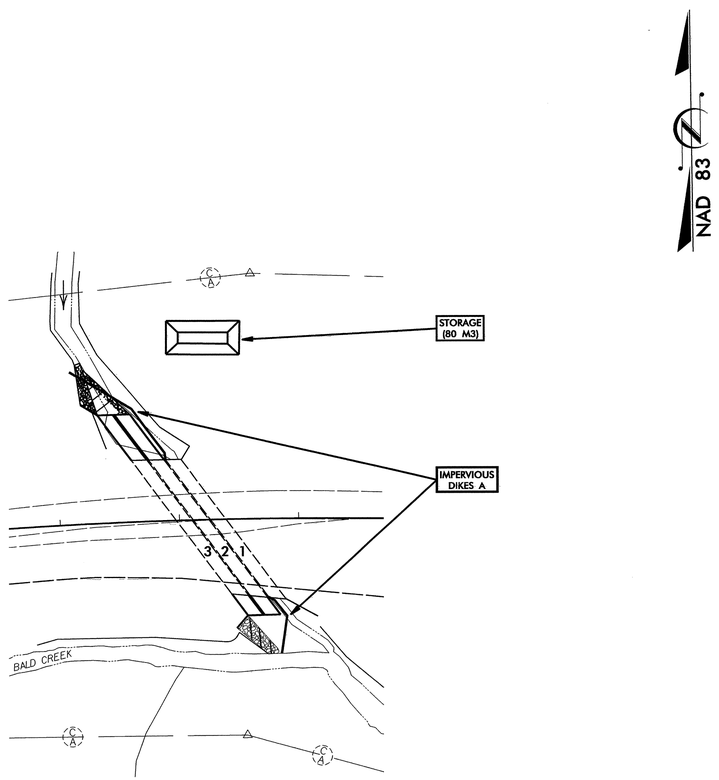
SEE SHEET 42 FOR -L- PROFILE
SEE CLEARING PLANS FOR THIS PROJECT

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-21/CONST15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 156+63 –L–

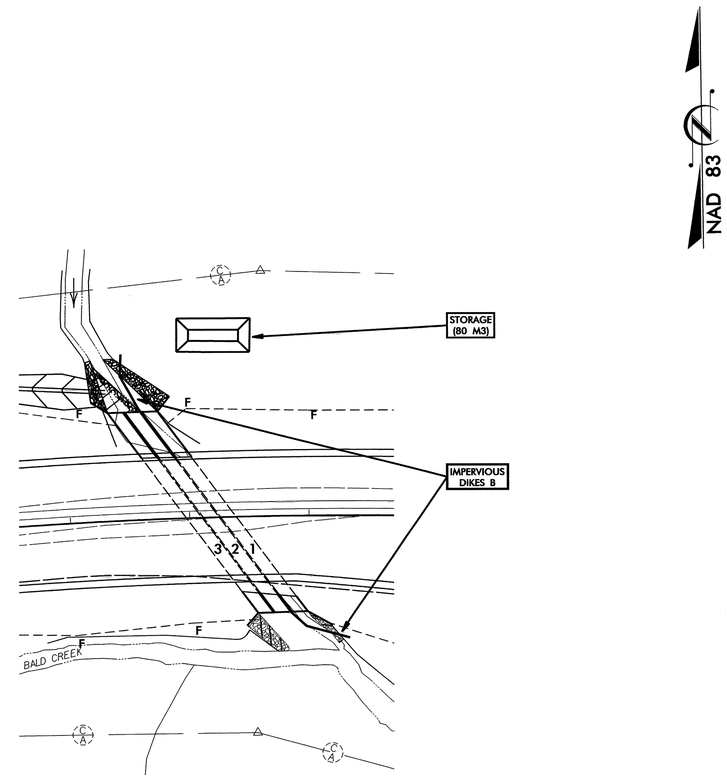
PHASE I

1. CONSTRUCT STILLING BASIN (80 M3).
2. CONSTRUCT IMPERVIOUS DIKES A, DIVERTING FLOW THROUGH BARREL 1.
3. REMOVE PORTION OF EXISTING HEADWALLS AND WINGWALLS, AND CONSTRUCT EXTENSIONS FOR BARRELS 2 AND 3.
4. CONSTRUCT PORTION OF PROPOSED HEADWALLS AND WINGWALLS, AND PORTION OF INLET/OUTLET CHANNEL IMPROVEMENTS.
5. REMOVE IMPERVIOUS DIKES A.



PHASE II

6. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARRELS 2 AND 3.
7. REMOVE REMAINDER OF EXISTING HEADWALLS AND WINGWALLS, AND CONSTRUCT EXTENSION FOR BARREL 1.
8. CONSTRUCT REMAINDER OF PROPOSED HEADWALLS AND WINGWALLS, AND REMAINDER OF INLET/OUTLET CHANNEL IMPROVEMENTS.
9. REMOVE IMPERVIOUS DIKES B AND STILLING BASIN.
10. COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-22/CONST.16
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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 16

MATCHLINE -L- STA. 157+00.000 - SEE SHEET 15

MATCHLINE -L- STA. 160+60.000 - SEE SHEET 17

NAD 83

PI Sta 156+84.725
Δ = 9°20'36.5" (RT)
L = 130.459
T = 65.375
R = 800.000
SE = 0.06

PIs Sta 157+74.415
Δs = 2°38'34.0"
Ls = 73.800
LT = 49.205
ST = 24.605

PIs Sta 158+48.210
Δs = 6°24'23.1"
Ls = 36.900
LT = 24.600
ST = 12.300

PI Sta 159+45.129
Δ = 3°43'41.3" (LT)
L = 169.178
T = 84.619
R = 2,600.000
SE = 0.03

PI Sta 10+24.618
Δ = 7°42'17.2" (RT)
L = 12.736
T = 6.378
R = 94.712
SE = 0.02

PI Sta 10+62.329
Δ = 48°05'12.0" (RT)
L = 58.981
T = 31.353
R = 70.276
SE = 0.04

-Y8- PCSta.10+18.240
BEGIN CONSTRUCTION
-Y8- STA.10+20.000
-Y8- PCCSta.10+30.976

-BL- 28 48+89.891 PINC
-L- Sta.157+33.451 (6.284m LT)
-BY9- 6+11.945 POT
-Y8- Sta.10+82.828 (16.832m RT)
5+00.000 POT

-Y8- RT Sta.10+89.957 =
-Y9- RT Sta.10+00.000 =
-L- POC Sta.157+31.044

-L- SCSta.158+60.510

-L- CSSta.160+29.688

-L- CSSta.157+49.810

-L- SRSSta.158+23.610

-Y9- POTSta.10+59.756

-BY8- 112 5+77.405 PINC
6+62.563 POT

-BL- 35 52+22.961 PINC
-L- Sta.160+65.264 (12.290m RT)
7+40.811 POT

JAMES W. PROFFITT and J. YATES BAILEY D.B. 133 PG. 617

S.W. ROBERTSON and SHELBY ROBERTSON D.B. 99 PG. 581

EDWIN DEWEY HENSLEY D.B. 182 PG. 113

CATHERINE PROFFITT D.B. 101 PG. 191

DORICE EDDIE and wife, ELMA JEAN BRADFORD D.B. 151 PG. 579

RAY and wife, MARY ROBINSON D.B. 96 PG. 111

RUTH W. CALDWELL LIVING TRUST D.B. 271 PG. 732

WAYNE T. and wife, DIANA BONE D.B. 287 PG. 017

RONALD E. and wife, RUBY B. WILSON D.B. 265 PG. 407

D.B. 109 PG. 432

14 x 5 x 1
ID 16.1C

12 x 6 x 1
51 mm Skimmer
with 43 mm
Orifice Diameter
3 m weir
ID 16.2C

8 x 5 x 1
38 mm Skimmer
with 35 mm
Orifice Diameter
2 m weir
ID 16.3C

11 x 4 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 16.4C

11 x 7 x 1
51 mm Skimmer
with 45 mm
Orifice Diameter
2 m weir
ID 16.5C

15 x 4 x 1
ID 16.6C

8 x 4 x 1
ID 16.6C

14 x 7 x 1
51 mm Skimmer
with 51 mm
Orifice Diameter
4 m weir
ID 16.6C

TAILDITCH
-L- 159+40, RT
DDE: EST. 150 CUM
PSRM: EST. 56 SM
SEE DETAIL "N" SHEET 2-H

NOT JURISDICTIONAL

SEE SHEET 43 FOR -L- PROFILE
SEE SHEET 54 FOR -Y8- PROFILE
SEE SHEET 54 FOR -Y9- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-23/CONST.J7
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

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 17

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 17.3C

12 x 6 x 1
51 mm Skimmer
with 43 mm
Orifice Diameter
2 m weir
ID 17.4C

12 x 6 x 1
51 mm Skimmer
with 43 mm
Orifice Diameter
2 m weir
ID 17.2C

10 x 5 x 1
38 mm Skimmer
with 36 mm
Orifice Diameter
2 m weir
ID 17.5C

9 x 4 x 1
38 mm Skimmer
with 33 mm
Orifice Diameter
2 m weir
ID 17.1C

9 x 3 x 1
38 mm Skimmer
with 29 mm
Orifice Diameter
2 m weir
ID 17.6C

11 x 4 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 17.7C

8 x 3 x 1
38 mm Skimmer
with 27 mm
Orifice Diameter
2 m weir
ID 17.8C

9 x 4 x 1
38 mm Skimmer
with 33 mm
Orifice Diameter
2 m weir
ID 17.9C

MATCHLINE -L- STA. 160+60.000 - SEE SHEET 16

MATCHLINE -L- STA. 164+20.000 - SEE SHEET 18

S.W. ROBERTSON and SHELBY ROBERTSON D.B. 99 PG. 581

HENSLEY D.B. 182 PG. 113

WILLIAM RANDY FOXX D.B. 201 PG. 319

JOSEPH EDGAR WHEELER D.B. 319 PG. 553

TIMOTHY CLAY NEILL D.B. 313 PG. 240

RUTH W. CALDWELL LIVING TRUST D.B. 271 PG. 732

JOHN ROSCOE BANKS and STOKES CLINTON AUSTIN D.B. 170 PG. 457

CLARA CHRISTINE NEILL KNIGHT and husband, THOMAS WILLIAM KNIGHT, JR. D.B. 206 PG. 242

-Y10- POT Sta. 10+00.000

BEGIN CONSTRUCTION -Y10- STA. 10+10.000

-Y10- POT Sta. 10+53.838

-L- POT Sta. 161+26.226

-L- ST Sta. 160+66.588

Pls Sta 160+41.988
Θs = 0° 24' 23.7"
Ls = 36.900
LT = 24.600
ST = 12.300

BM #9 -BY10- STA 5+75.077 14.994 LEFT -L- STA. 161+20.322 117.079 m LT ELEV. 782.369

-BY10- 116 6+12.069 RINC

NAD 83

2410x1700 (95"x67") CSP ARCH 1200m (3.77m) 75 x 25 corr

REMOVE HEADWALL

PROPOSED EXPRESSWAY GUTTER

S 86° 31' 35.5" E

PROP. RAISED GRASS MEDIAN

RETAIN AND EXTEND

REMOVE EXISTING FENCE

BALD CREEK

US 19 87 BST

PROP. MONO. CONC. ISLAND

161.5m FULL LANE

30m TAPER

15:1 TAPER

90m TAPER

UNIFORM TAPER

END CURB TRANSITION

TIE WW FENCE TO EXIST. FENCE

TIE TO EXIST. WW FENCE

TIE WW FENCE TO EXIST. & HW

CL. I RIP RAP: EST. 40 TONS FILTER FABRIC: EST. 72 SY

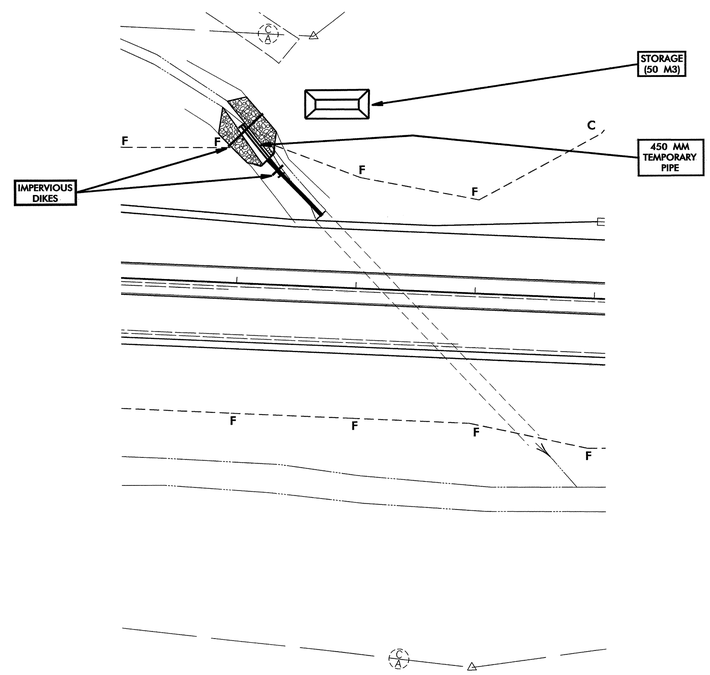
ROCK PLATE, FILL SLOPE W/ GLASS FILL STONE EST. 7 TONS

SEE SHEET 43 FOR -L- PROFILE
SEE SHEET 54 FOR -Y10- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-24/CONST.17
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 162 + 45 –L–

1. CONSTRUCT STILLING BASIN (50 M3).
2. REMOVE EXISTING HEADWALL.
3. CONSTRUCT PROPOSED CSPA EXTENSION, UTILIZING "BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES" TO DEWATER SITE.
4. CONSTRUCT IMPERVIOUS DIKES AND INSTALL 450 MM TEMPORARY PIPE, DIVERTING FLOW.
5. CONSTRUCT PROPOSED HEADWALL AND INLET CHANNEL IMPROVEMENTS.
6. REMOVE IMPERVIOUS DIKES, TEMPORARY PIPE, AND STILLING BASIN.
7. COMPLETE ROADWAY.



NAD 83

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-25/CONST.18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R/W REV.	

METRIC 5 0 10

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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

19 x 8 x 1
64 mm Skimmer
with 64 mm
Orifice Diameter
3 m weir
ID 18.4C

11 x 5 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 18.5C

26 x 8 x 1
76 mm Skimmer
with 66 mm
Orifice Diameter
3 m weir
ID 19.1C

7 x 4 x 1
38 mm Skimmer
with 29 mm
Orifice Diameter
2 m weir
ID 18.2C

14 x 5 x 1
51 mm Skimmer
with 43 mm
Orifice Diameter
2 m weir
ID 18.3C

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 18.1C

-Y11-
PI Sta 10+32.008
Δ = 30° 57' 48.7" (RT)
L = 42.693
T = 21.882
R = 179.000
SE = 0.01

-BYII- 118 5+95.417 PINC

-Y11- POT Sta.10+00.000

-Y11- PCSta.10+10.127

-Y11- PT Sta.10+52.819

-BYIIA- 120 6+23.693 PINC

-Y11- POT Sta.10+71.768 =
-L- POT Sta.165+44.349

-BL- 37 57+29.509 PINC
-L- Sta. 165+71.448 (6.709m LT)
-BYII- 6+96.600 POT
-Y11- Sta. 10+65.770 (8.667m LT)
5+00.000 POT

BEGIN CONSTRUCTION
-Y11- STA.10+40.000

NAD 83

JAMES RILEY NEILL and wife,
IVA JUNE NEILL
D.B. 285 PG. 421

TIMOTHY CLAY NEILL
D.B. 313 PG. 240

JAMES RILEY NEILL and wife
IVA JUNE NEILL
D.B. 331 PG. 290

CLARA CHRISTINE NEILL KNIGHT
and husband,
THOMAS WILLIAM KNIGHT, JR.
D.B. 206 PG. 242

ROCK INLET SILL
SEE DETAIL 'GG', SHT 17
EST. 21 BOULDERS REQ.
EST. 8 TONS
FILTER FABRIC:
EST. 12 SM
RIP RAP MIX FOR
CHANNEL BENCH:
EST. 3 TONS

LAT. BASE DITCH
-L- 164+40 TO 164+80, LT
PSRM: EST. 104 sm
DDE: EST. 72 CuM
SEE DETAIL 'N' SHEET 2-H

CL I RIP RAP
EST. 40 TONS
FILTER FABRIC:
EST. 90 SM
SEE DETAIL 'EE'
SHT 2-J

LAT. BASE DITCH
-L- 164+86 TO 165+30, LT
DDE: EST. 150 CuM
SEE DETAIL 'O', SHT 2-H

CL B RIP RAP:
EST. 1.8 TONS
FILTER FABRIC:
EST. 5.9 SM

CL I RIP RAP
EST. 10 TONS
FILTER FABRIC:
EST. 40 SM
"CONC. RIP RAP BANKS ONLY"

2-2896x1500
(91"x59")
CSP ARCH
12ga. (3.77mm)
(75x25mm) CORR.

VERT. ELBOWS

450 RCP
375 RCP
REM. HW
PROP. MONO. CONC. ISLAND
161.5m FULL LANE
90m TAPER
30m TAPER
S 86° 31' 35.5" E
PROP. 450mm C&G
PROP. RAISED GRASS MEDIAN
GRAU 350
1500mm WW & ISBW
TOP OF BANK
EXISTING R/W
BALD CREEK
ABAND
ANTENNA
W/LT
GATE
SR 139
SR 453
US 19
MATCHLINE -L- STA. 164+20.000 - SEE SHEET 17
MATCHLINE -L- STA. 167+80.000 - SEE SHEET 19

SEE SHEET 44 FOR -L- PROFILE
SEE SHEET 55 FOR -Y11- PROFILE

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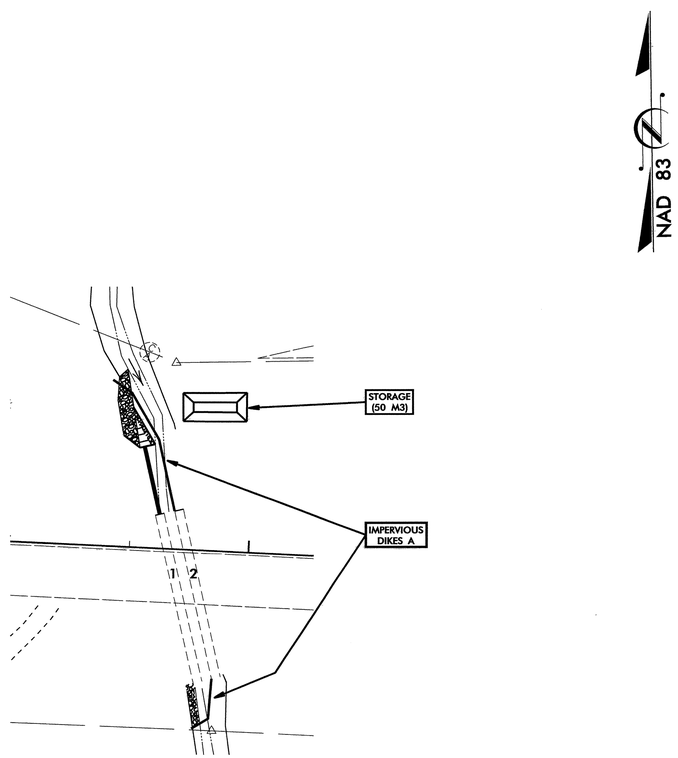
jbaston AT REN22214H

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-26/CONST J8
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 164 + 88 –L–

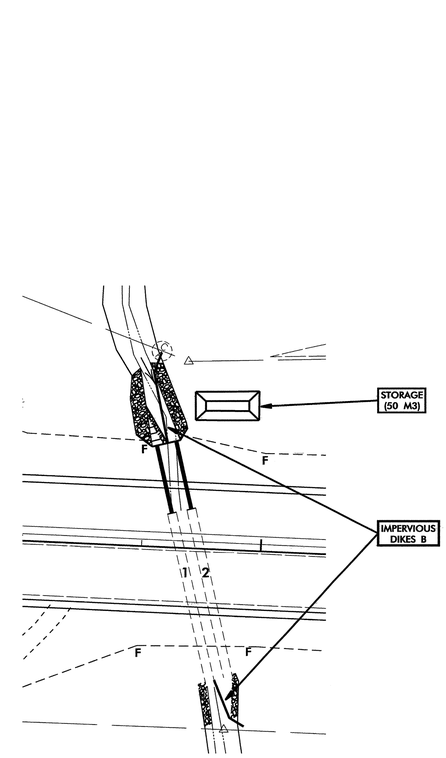
PHASE I

1. CONSTRUCT STILLING BASIN (50 M3).
2. REMOVE EXISTING HEADWALL.
3. CONSTRUCT IMPERVIOUS DIKES A, DIVERTING FLOW THROUGH PIPE 2.
4. CONSTRUCT EXTENSION FOR PIPE 1, PORTION OF PROPOSED HEADWALL, AND PORTION OF INLET/OUTLET CHANNEL IMPROVEMENTS.
5. REMOVE IMPERVIOUS DIKES A.

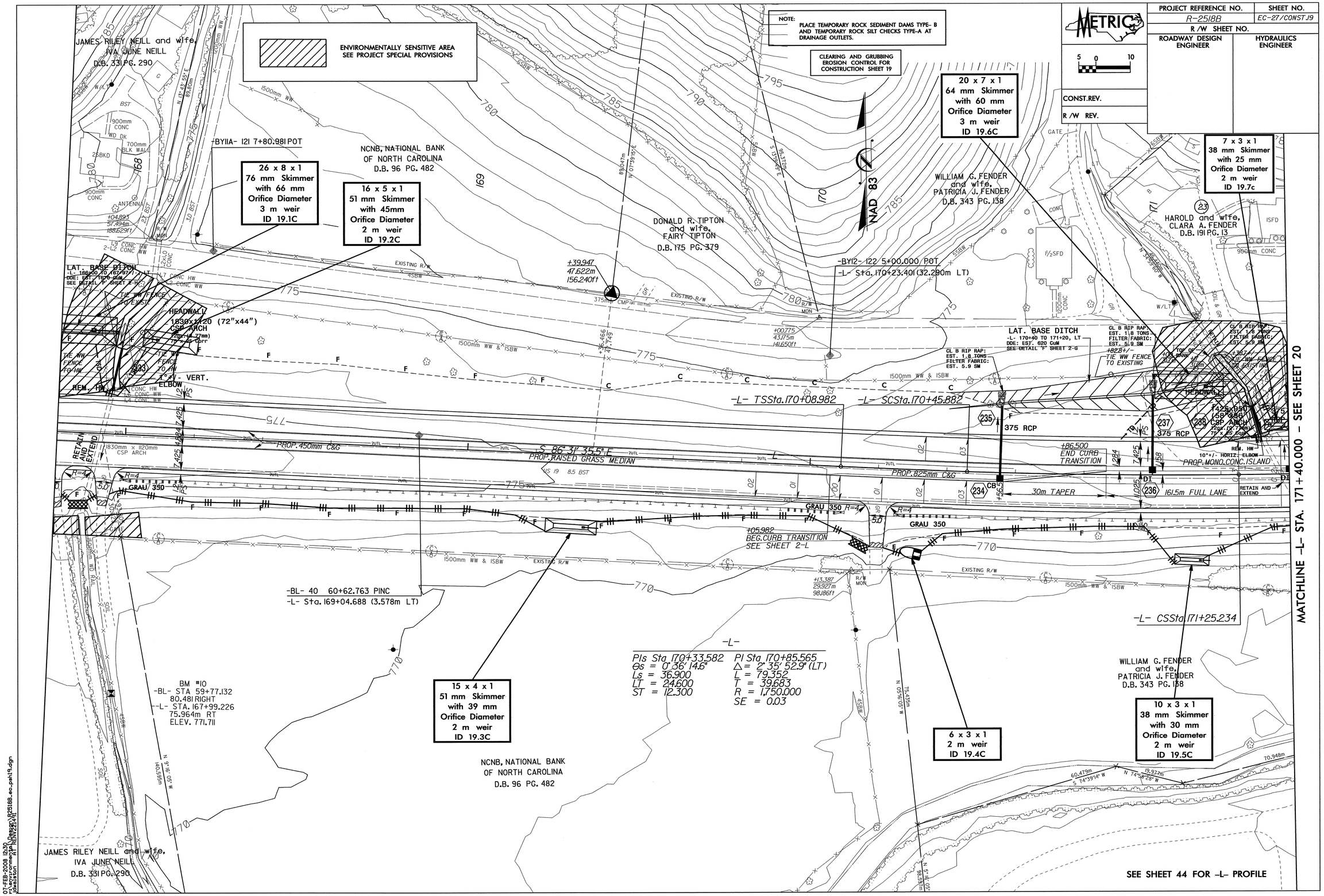


PHASE II

6. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH PIPE 1.
7. CONSTRUCT EXTENSION FOR PIPE 2, REMAINDER OF PROPOSED HEADWALL, AND REMAINDER OF INLET/OUTLET CHANNEL IMPROVEMENTS.
8. REMOVE IMPERVIOUS DIKES B AND STILLING BASIN.
9. COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-27/CONST.19
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	



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jbaston AT REN(22)4.91

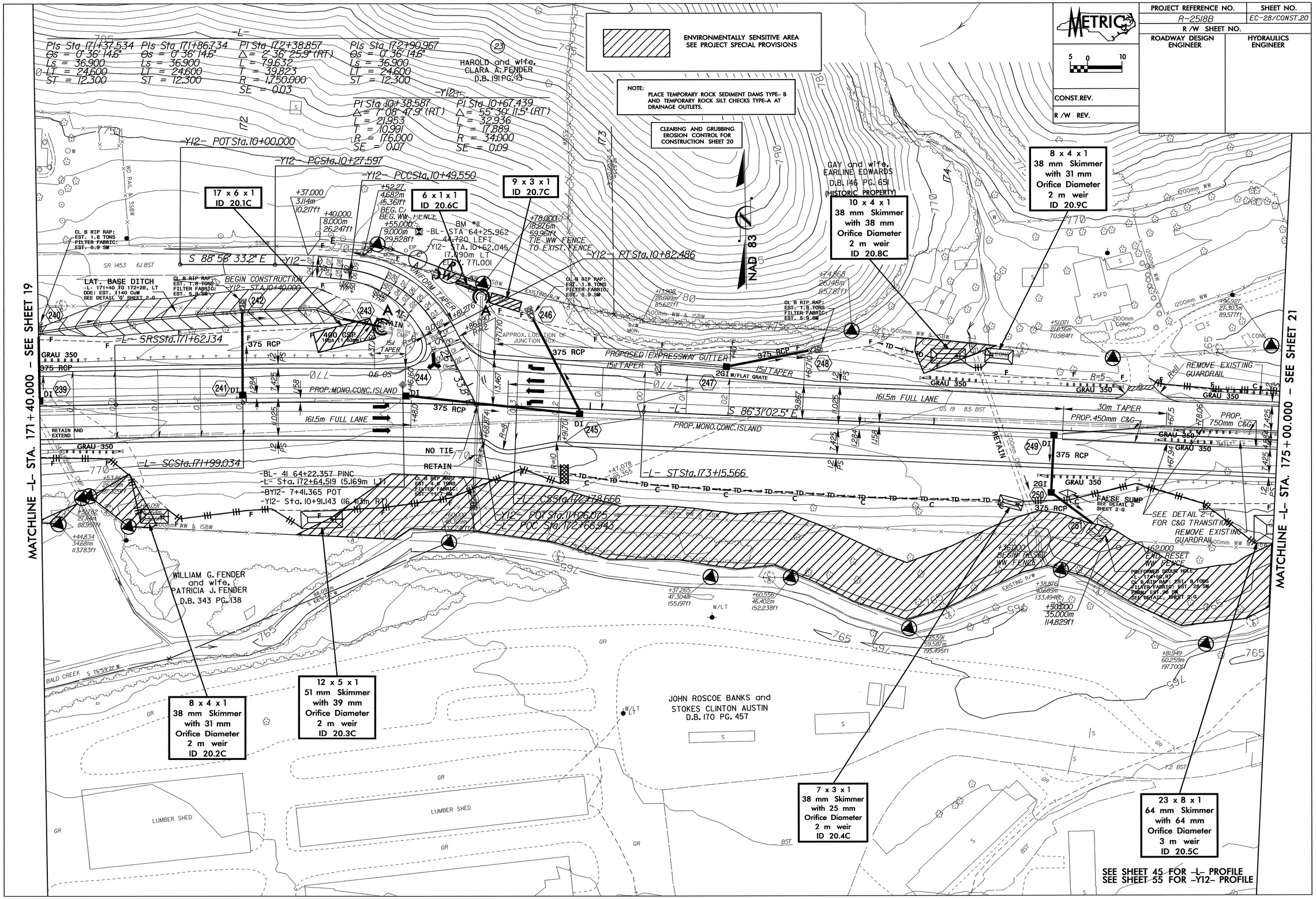
PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-28/CONST.20
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



SEE SHEET 45 FOR -L- PROFILE
SEE SHEET 55 FOR -Y12- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-29/CONST.21
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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 21

NOTE:
UTILIZE SKIMMER BASIN AND/OR SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE.

SEE STREAM MITIGATION PLANS

NAD 83

16 x 4 x 1
51 mm Skimmer
with 41 mm
Orifice Diameter
2 m weir
ID 21.1C

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 21.3C

18 x 7 x 1
64 mm Skimmer
with 57 mm
Orifice Diameter
2 m weir
ID 21.4C

12 x 6 x 1
51 mm Skimmer
with 43 mm
Orifice Diameter
2 m weir
ID 21.5C

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 21.6C

27 x 10 x 1
76 mm Skimmer
with 76 mm
Orifice Diameter
3 m weir
ID 21.2C

23 x 8 x 1
64 mm Skimmer
with 64 mm
Orifice Diameter
3 m weir
ID 20.5C

8 x 3 x 1
2 m weir
ID 21.7C

MATCHLINE -L- STA. 175+00.000 - SEE SHEET 20

MATCHLINE -L- STA. 178+60.000 - SEE SHEET 22

GAY and wife,
EARLINE EDWARDS
D.B. 146 PG. 651
(HISTORIC PROPERTY)

DENNIS MATT JONES,
and wife,
PATRICIA JONES
D.B. 289 PG. 62

JOHN ROSCOE BANKS
and STOKES
CLINTON AUSTIN
D.B. 170 PG. 457

DWAYNE JONE
.269 PG.114

PATRICIA GAIL JONES,
and husband
DENNIS JONES
D.B. 233 PG. 238

-BL- 44 67+69.298 PINC
-L- Sta. 176+11.235 (11.748m LT)

-BYI3- 124 8+70.664 PIN

-BYI3 123 7+43.903 PINC

-Y14- POT Sta. 11+24.492

END CONSTRUCTION
-Y14- STA. 10+90.000

N 86° 28' 04.9" W

S 86° 31' 02.5" E

PREFORMED SCOUR HOLE
-L- 177+16, LT
CL B RIP RAP: EST. 8 TONS
FILTER FABRIC: EST. 28 SM
PSRM: EST. 28 SM
SEE DETAIL, SHEET 2-G

TAILDITCH
-L- 176+41, LT
PSRM: EST. 24 SM
DOE: EST. 9.0 CUM
SEE DETAIL 'U' SHEET 2-H

TAILDITCH
-L- 177+80, LT
PSRM: EST. 45 SM
DOE: EST. 8.0 CUM
SEE DETAIL 'Y' SHEET 2-H

FALSE SUMP
SEE DETAIL 1
SEE SHEET 2-G

SEE DETAIL 2-C
FOR C&G
TRANSITIONS

REMOVE EXISTING
GUARDRAIL

REMOVE EXIST. RCBC

BEGIN APPROACH SLAB
-L- STA. 175+25.745
BEGIN BRIDGE
-L- STA. 175+32.934

END APPROACH SLAB
-L- STA. 175+84.123
END BRIDGE
-L- STA. 175+76.934

END APPROACH SLAB
-L- STA. 175+78.789
END BRIDGE
-L- STA. 175+71.600

BEGIN BRIDGE
-L- STA. 176+27.600
BEGIN APPROACH SLAB
-L- STA. 176+20.411

SEE CHANNEL
DETAIL 'FF'
SH1 2-J

TOP OF
BANK

BALD CREEK

SR 1128 POSSUM TROT RD

PROP. 750mm C&G
PROP. 450mm C&G
PROP. MONO. CONC. ISLAND
30m TAPER
161.5m FULL LANE
90m TAPER
450 RCP
375 RCP
GRAU 350
TYPE-III
2GI
DI

TRANS. TO
EXIST.

SEE SHEET 45 FOR -L- PROFILE
SEE SHEET 55 FOR -Y14- PROFILE

21-APR-2008 13:31
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kerrapo08

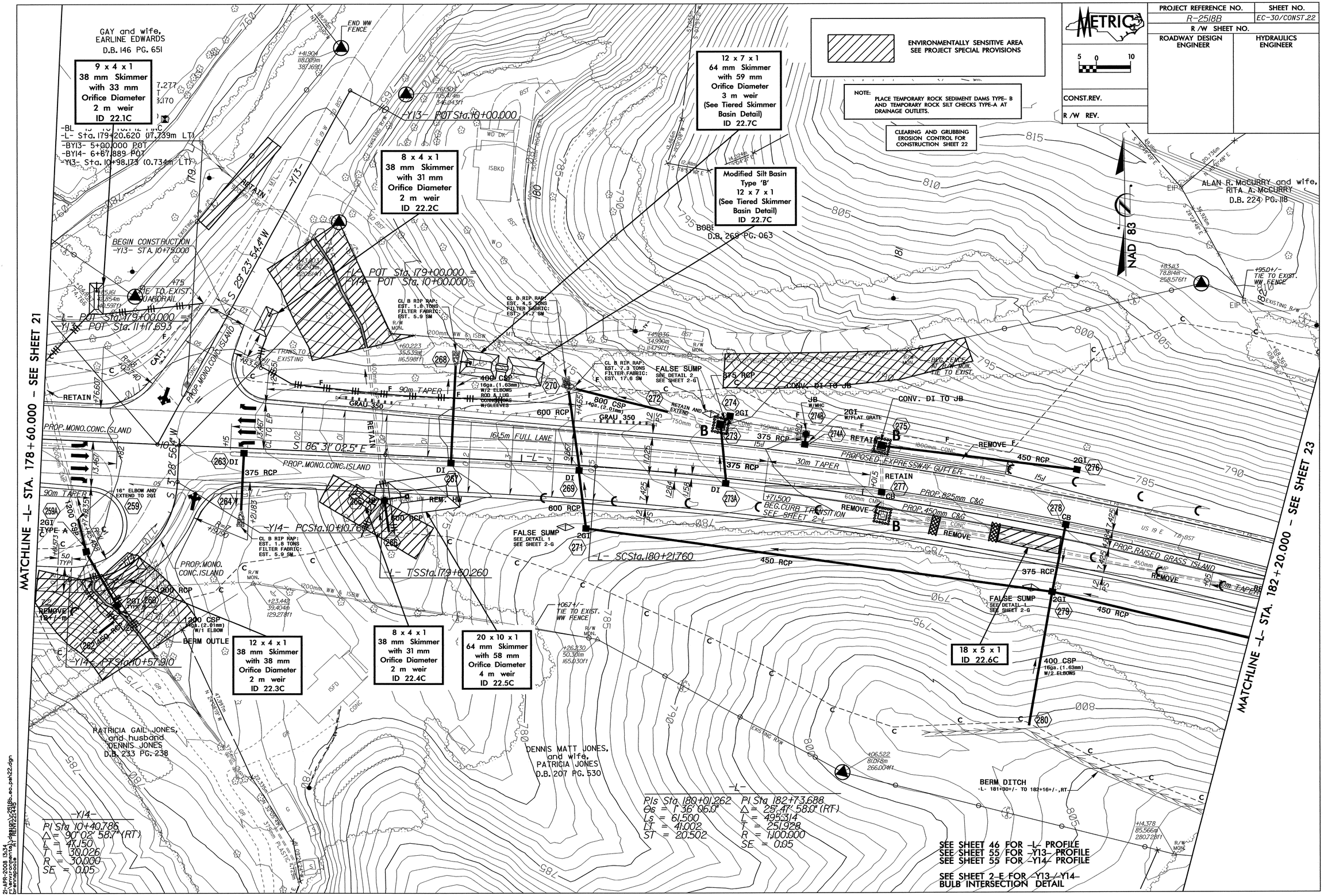
PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-30/CONST.22
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

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 22



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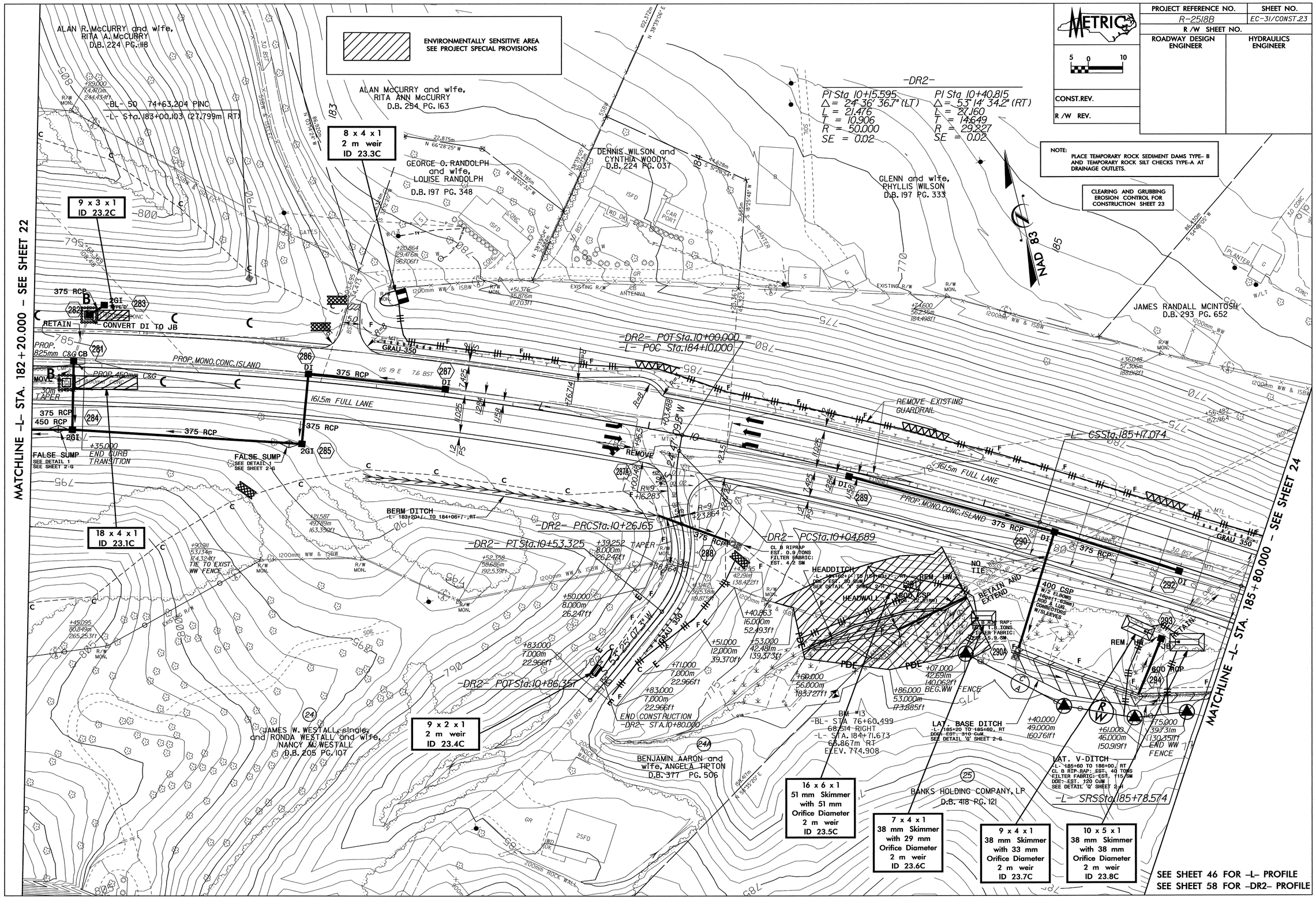
kennyscott
R/W REV: 22:14:49


METRIC
5 0 10
PROJECT REFERENCE NO.
R-2518B
SHEET NO.
EC-31/CONST.23
R /W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R /W REV.
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS
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
ALAN R. McCURRY and wife, RITA A. McCURRY D.B. 224 PG. 118
ALAN McCURRY and wife, RITA ANN McCURRY D.B. 254 PG. 163
GEORGE O. RANDOLPH and wife, LOUISE RANDOLPH D.B. 197 PG. 348
DENNIS WILSON and CYNTHIA WOODY D.B. 224 PG. 037
GLENN and wife, PHYLLIS WILSON D.B. 197 PG. 333
JAMES RANDALL MCINTOSH D.B. 293 PG. 652
JAMES W. WESTALL, single, and RONDA WESTALL and wife, NANCY M. WESTALL D.B. 205 PG. 107
BENJAMIN AARON and wife, ANGELA TIPTON D.B. 317 PG. 506
BANKS HOLDING COMPANY, LP D.B. 418 PG. 121
-BL- 50 74+63.204 PINC
-L- Sta. 183+00.103 (27.799m RT)
PI Sta 10+15.595
Δ = 24° 36' 36.7" (LT)
L = 21.476
T = 10.906
R = 50.000
SE = 0.02
PI Sta 10+40.815
Δ = 53° 14' 34.2" (RT)
L = 27.160
T = 14.649
R = 29.227
SE = 0.02
-DR2-
-DR2- POT Sta.10+00.000 =
-L- POC Sta.184+10.000
-L- CS Sta.185+17.074
-DR2- PRC Sta.10+26.165
-DR2- PT Sta.10+53.325
-DR2- PC Sta.10+04.689
-DR2- POT Sta.10+86.357
END CONSTRUCTION
-DR2- STA.10+80.000
-L- SRS Sta.185+78.574
8 x 4 x 1
2 m weir
ID 23.3C
9 x 3 x 1
ID 23.2C
18 x 4 x 1
ID 23.1C
9 x 2 x 1
2 m weir
ID 23.4C
16 x 6 x 1
51 mm Skimmer
with 51 mm
Orifice Diameter
2 m weir
ID 23.5C
7 x 4 x 1
38 mm Skimmer
with 29 mm
Orifice Diameter
2 m weir
ID 23.6C
9 x 4 x 1
38 mm Skimmer
with 33 mm
Orifice Diameter
2 m weir
ID 23.7C
10 x 5 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 23.8C
MATCHLINE -L- STA. 182+20.000 - SEE SHEET 22
MATCHLINE -L- STA. 185+80.000 - SEE SHEET 24
NAD 83
RETAIN CONVERT DI TO JB
PROP. 825mm C&G CB
PROP. MONO. CONC. ISLAND
PROP. 450mm C&G
375 RCP
450 RCP
GRAU 350
161.5m FULL LANE
FALSE SUMP
SEE DETAIL 1
SEE SHEET 2-G
END CURB TRANSITION
BERM DITCH
-L- 183+20+/- TO 184+06+/-, RT
TIE TO EXIST. WW FENCE
REMOVE EXISTING GUARDRAIL
REMOVE
HEADDITCH
-L- 185+24+/- TO 184+85+/-, RT
DBE: EST. 20 CUM
SEE DETAIL 'G' SHEET 2-H
HEADWALL
1200 CSP
(48 in. (1.2mm))
CL B RIPRAP
EST. 0.9 TONS
FILTER FABRIC:
EST. 4.8 SM
NO TIE
RETAIN AND EXTEND
400 CSP
W/2 ELBOWS
(16 in. (1.0mm))
COUP. & LUG.
DIRECTORS
W/SLEEVES
CL B RIP RAP:
EST. 1.5 TONS
FILTER FABRIC:
EST. 5.9 SM
600 RCP
BM #13
-BL- STA. 76+60.499
68.51m RIGHT
-L- STA. 184+71.673
65.867m RT
ELEV. 774.908
LAT. BASE DITCH
-L- 185+20 TO 185+60, RT
DBE: EST. 310 CUM
SEE DETAIL 'G' SHEET 2-G
LAT. V-DITCH
-L- 185+60 TO 186+00, RT
CL B RIP RAP: EST. 40 TONS
FILTER FABRIC: EST. 115 SM
DBE: EST. 120 CUM
SEE DETAIL 'G' SHEET 2-H
END WW FENCE
200mm ROCK WALL
SEE SHEET 46 FOR -L- PROFILE
SEE SHEET 58 FOR -DR2- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-32/CONST.24
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 24

-L-

PIs Sta 185+37.575	PIs Sta 186+35.984	PI Sta 188+31.784
Θs = 1° 36' 06.0"	Θs = 3° 19' 59.6"	Δ = 25° 27' 02.3" (LT)
Ls = 61.500	Ls = 86.100	L = 328.706
LT = 41.002	LT = 57.410	T = 167.110
ST = 20.502	ST = 28.709	R = 740.000
		SE = 0.07

NAD 83

MATCHLINE -L- STA. 185+80.000 - SEE SHEET 23

MATCHLINE -L- STA. 189+40.000 - SEE SHEET 25

JAMES RANDALL MCINTOSH D.B. 293 PG. 652

LEACIL WEBB and wife, ALMA N. WEBB D.B 253 PG. 237

LEACIL WEBB and wife, ALMA N. WEBB D.B 262 PG. 446

JETER WEBB, and wife, VOLA WEBB D.B. 138 PG. 203

DONALD J. OWENS and wife, INADEAN OWENS D.B. 199 PG. 80

DONALD J. OWENS and wife, INADEAN OWENS D.B. 199 PG. 80

RAY HIGGINS, and wife, ADALENE HIGGINS D.B. 196 PG. 81

BANKS HOLDING COMPANY, LP D.B. 418 PG. 121

RALPH RAY and wife, ERNIE RAY D.B. 136 PG. 270

+85.000 BEG.CURB TRANSITION SEE SHEET 2-L

REMOVE EXISTING GUARDRAIL

-L- SCSta.186+64.674

-BL- Sta.79+12.188 PINC

-L- Sta.187+45.212 (0.826m RT)

10 x 3 x 1 ID 24.1C

5 x 3 x 1 ID 24.2C

15 x 3 x 1 ID 24.3C

15 x 3 x 1 ID 24.4C

10 x 4 x 1 ID 24.5C

CL B RIP RAP: EST. 1.8 TONS FILTER FABRIC: EST. 5.9 SM

-L- 188+70 BEGIN SHOULDER BERM GUTTER

PROP 450mm C&G PROP.825mm C&G PROP.RAISED GRASS MEDIAN

PROPOSED EXPRESSWAY GUTTER

PROP.MONO.CONC.ISLAND

161.5m FULL LANE

+06.000 BEG.WW FENCE

+12.000 BEG.CURB TRANSITION SEE SHEET 2-L

LAT. V-DITCH -L- 185+60 TO 186+00, RT CL B RIP RAP: EST. 40 TONS FILTER FABRIC: EST. 115 SM DDE: EST. 120 CUM SEE DETAIL 'Q' SHEET 2-H

BERM DITCH -L- 186+20 TO 187+20, RT

LAT. BASE DITCH -L- 188+95 TO 192+00+/-, RT PSRM: EST. 800 SM DDE: EST. 1,000 CUM SEE DETAIL 'N' SHEET 2-H

BM #14 -BL- STA 80+88.991 91.500 RIGHT -L- STA.189+01.530 74.856m RT ELEV. 777.134

INSET MATCHLINE

+95.7+/- TIE TO EXIST. WW FENCE

MATCHLINE (SEE INSET)

SEE SHEET 47 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-33/CONST.25
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

-L-
PI Sta 188+31.784
Δ = 25° 27' 02.3" (LT)
L = 328.706
T = 167.110
R = 740.000
SE = 0.07

PIs Sta 190+22.089
θs = 3° 19' 59.6"
Ls = 86.100
LT = 57.410
ST = 28.709

NOTE: UTILIZE SKIMMER BASIN AND/OR SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE.

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

NAD 83

10 x 5 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 25.2C

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 25

-BY16A- 129 5+00.000 POT

RAY HIGGINS, and wife, ADALENE HIGGINS D.B. 196 PG. 81

W.H. (BILL) BUCKNER and wife, VIOLA S. BUCKNER D.B.110 PG.97

12 x 7 x 1
51 mm Skimmer
with 47 mm
Orifice Diameter
2 m weir
ID 25.4C

MATCHLINE -L- STA. 189+40.000 - SEE SHEET 24

MATCHLINE -L- STA. 193+00.000 - SEE SHEET 26

-L- OS Sta. 189+93.380

-L- S1 Sta. 190+79.480

REMOVE EXISTING GUARDRAIL

PROPRAISED GRASS MEDIAN

REMOVE EXIST. GUARDRAIL

PROPRAISED GRASS MEDIAN

193+80 END SHOULDER BERM GUTTER

RETAIN EXISTING BRIDGE

161.5m FULL LANE

30m TAPER

PROP. 450mm C&G

PROP. 750mm C&G

PROP. 825mm C&G

15m TAPER

+62.000 BEG. CURB TRANSITION SEE SHEET 2-L

+82.480 END CURB TRANSITION

SEE DETAIL 2C FOR C&G TRANSITION

ATTENUATOR PROP. MONO. CONC. ISLAND

PROP. MONO. CONC. ISLAND

SHOULDER BERM GUTTER

400 CSP 16ga.(1.63mm) W/2 ELBOWS ROD & LUG CONNECTORS W/SLEEVES

CL B RIP RAP: EST. 0.9 TONS FILTER FABRIC: EST. 4.2 SM

LAT. BASE DITCH -L- 188+95 TO 192+00+/-, RT PSRM: EST. 800 SM DDE: EST. 1,000 CuM SEE DETAIL 'N' SHEET 2-H

-BL- 52 82+16.858 PINC

-L- Sta. 190+52.219 (0.001m RT)

-L- 190+90 BEGIN SHOULDER BERM GUTTER

BEGIN APPR. SLAB -L- STA. 191+57.685

BEGIN BRIDGE -L- STA. 191+65.000

END APPR. SLAB -L- STA. 192+27.315

END BRIDGE -L- STA. 192+20.000

LAT. BASE DITCH -L- 192+20 TO 193+97+/-, RT DDE: EST. 900 CuM SEE DETAIL 'O' SHEET 2-H

25 x 10 x 1
76 mm Skimmer
with 76 mm
Orifice Diameter
4 m weir
ID 25.1C

22 x 8 x 1
64 mm Skimmer
with 64 mm
Orifice Diameter
3 m weir
ID 25.3C

RALPH RAY and wife, ERNIE RAY D.B. 136 PG. 270

W.H. (BILL) BUCKNER and wife, VIOLA S. BUCKNER D.B.110 PG.97

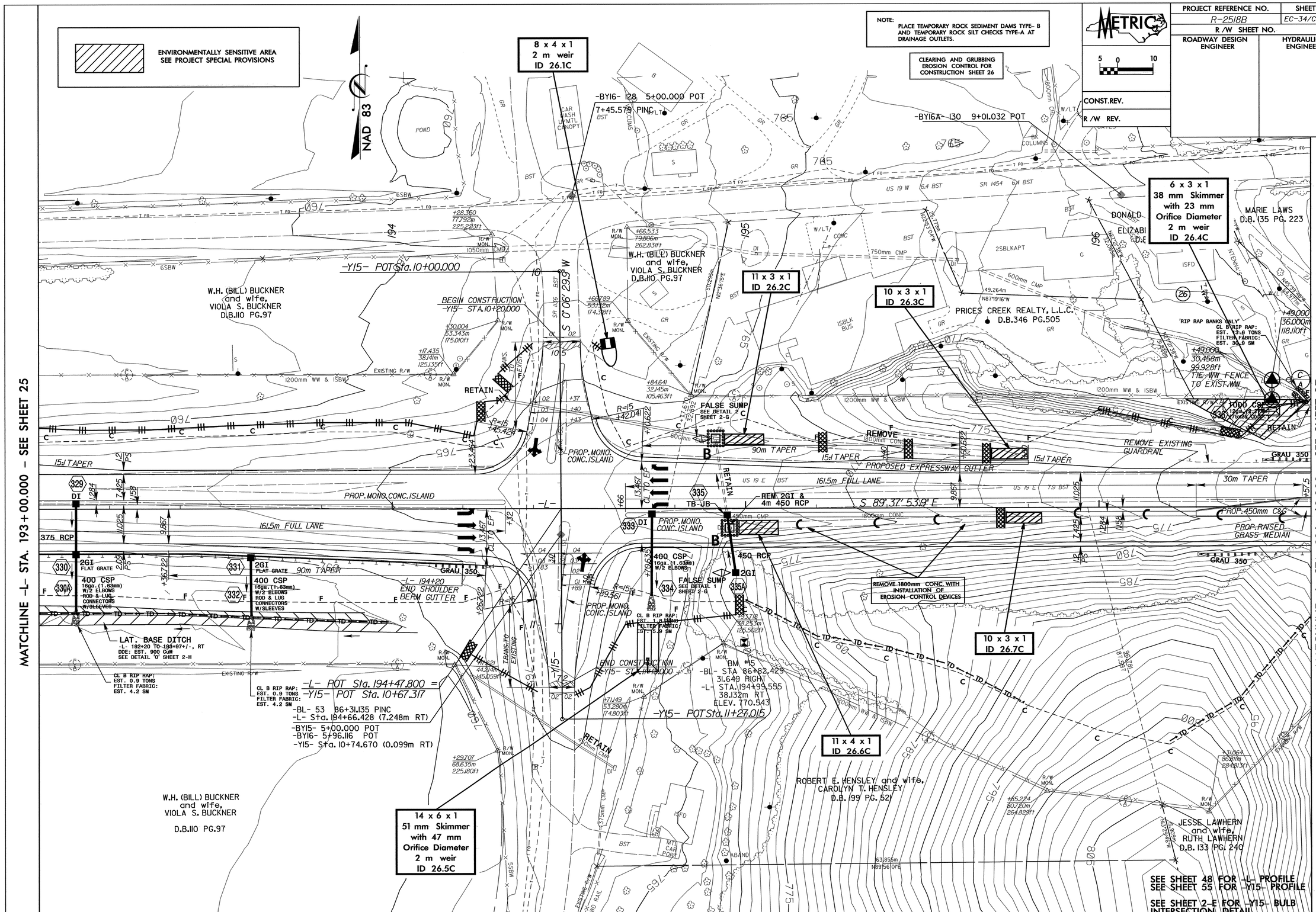
SEE SHEET 47 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-34/CONST.26
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.



PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-35/CONST.27
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R/W REV.	

METRIC 5 0 10

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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 27

MATCHLINE -L- STA. 196+60.000 – SEE SHEET 26

MATCHLINE -L- STA. 200+20.000 – SEE SHEET 28

10 x 3 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
2 m weir
ID 27.3C

18 x 7 x 1
64 mm Skimmer
with 57 mm
Orifice Diameter
3 m weir
ID 27.8C

10 x 3 x 1
ID 27.7C

8 x 3 x 1
ID 27.6C

12 x 3 x 1
ID 27.4C

12 x 3 x 1
ID 27.5C

9 x 4 x 1
38 mm Skimmer
with 33 mm
Orifice Diameter
2 m weir
ID 27.1C

7 x 6 x 1
51 mm Skimmer
with 45 mm
Orifice Diameter
3 m weir
(See Tiered Skimmer
Basin Detail)
ID 27.2C

Modified Silt Basin
Type 'B'
7 x 6 x 1
(See Tiered Skimmer
Basin Detail)
ID 27.2C

MARIE LAWS
D.B. 135 PG. 223

JESSE LAWHERN
and wife,
RUTH LAWHERN
D.B. 107 PG. 547

MARY and RANDY W. SILVERS
D.B. 142 PG. 415

MARY ROSE SILVERS
D.B. 113 PG. 146

SECRETARY OF HOUSING
AND URBAN DEVELOPMENT
D.B. 332 PG. 307

JESSE LAWHERN
and wife,
RUTH LAWHERN
D.B. 133 PG. 240

BURGIN SILVERS
and wife,
MARY ROSE SILVERS
D.B. 113 PG. 146

NAD 83

S 89°37'53.8"E

PROP. RAISED GRASS MEDIAN

PROP. 450mm C&G

REMOVE EXISTING GUARDRAIL

REMOVE PAVED DITCH

REMOVE DI
375 RCP

REM. 2GI &
4m 450 RCP

REM. 2GI
COLLAR AND
EXTEND

FALSE SUMP
SEE DETAIL 1
SHEET 2-G

FALSE SUMP
SEE DETAIL 2
SHEET 2-G

GRADE
TO DRAIN

RETAIN AND
EXTEND

30m TAPER

-BL- 56 89+37.484 PINC
-L- Sta. 197+72.734 (2.085m RT)

-BL- 57 91+98.875 PINC
-L- Sta. 200+34.124 (2.284m RT)

SEE SHEET 48 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-36/CONST.28
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

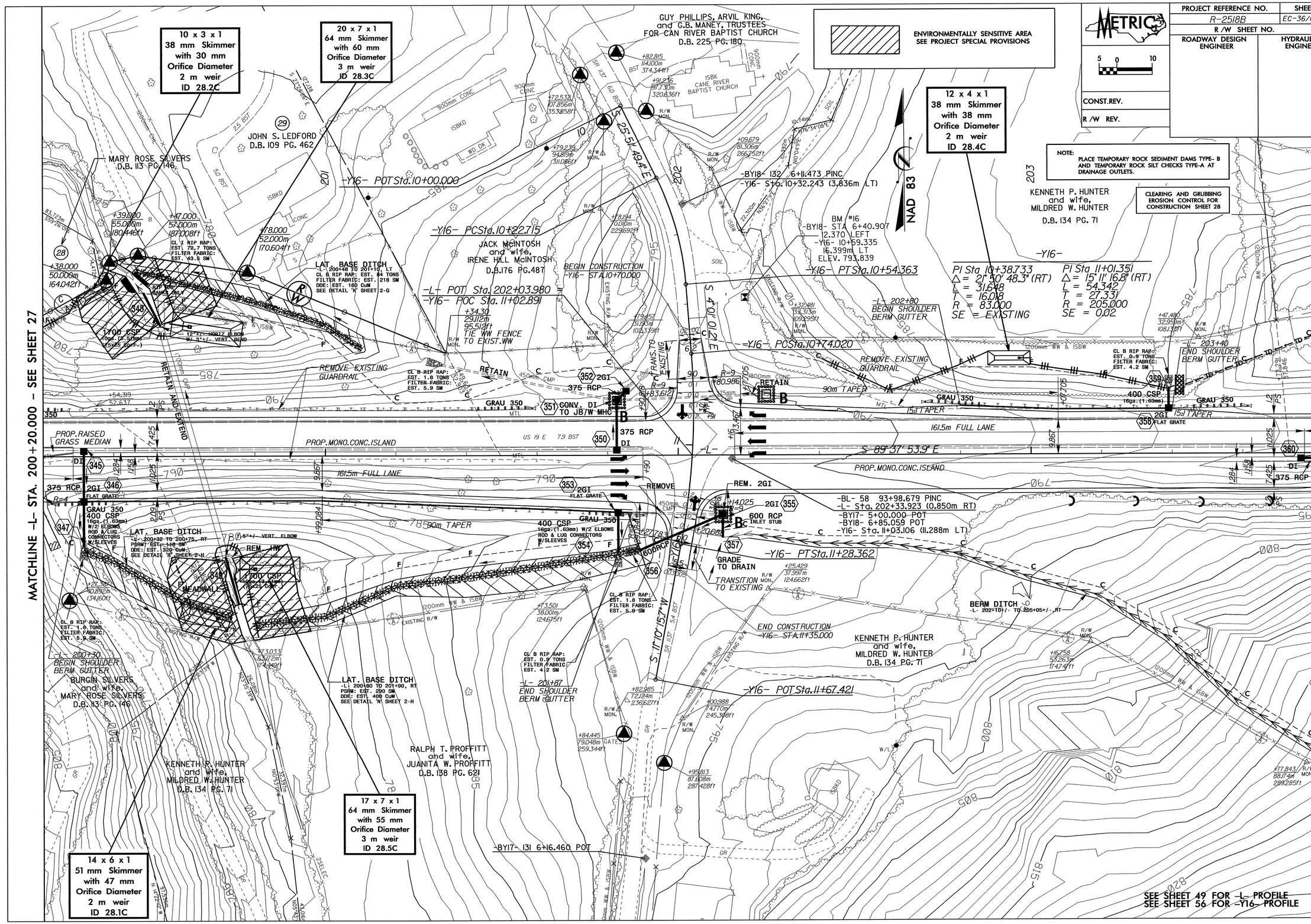
CONST.REV.

R /W REV.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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 28



PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-37/CONST.29
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 29

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

NAD 83

12 x 4 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 29.4C

8 x 3 x 1
38 mm Skimmer
with 27 mm
Orifice Diameter
2 m weir
ID 29.5C

10 x 5 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 29.3F

9 x 3 x 1
ID 29.3C

9 x 3 x 1
ID 29.6C

Modified Silt Basin
Type 'B'
16 x 10 x 1
(See Tiered Skimmer
Basin Detail)
ID 29.1C

16 x 10 x 1
102 mm Skimmer
with 80 mm
Orifice Diameter
4 m weir
(See Tiered Skimmer
Basin Detail)
ID 29.1C

Modified Silt Basin
Type 'B'
9 x 7 x 1
(See Tiered Skimmer
Basin Detail)
ID 29.2C

9 x 7 x 1
64 mm Skimmer
with 57 mm
Orifice Diameter
2 m weir
(See Tiered Skimmer
Basin Detail)
ID 29.2C

PAULINE MANEY BANKS
D.B. 92 PG. 409

KENNETH P. HUNTER
and wife,
MILDRED W. HUNTER
D.B. 134 PG. 71

DONALD GARY BANKS
and wife,
LISA W. BANKS
D.B. 327 PG. 247

ERIC JASON GRINDSTAFF
D.B. 327 PG. 555

-L- TSSta.204+46.518

-L- 205+30
BEGIN SHOULDER
BERM GUTTER

-L- SCSta.205+20.318

-L- 206+30
END SHOULDER
BERM GUTTER

-L- 206+79+/-
25° SKEW

BL- 62 97+46.288 PINC
-L- Sta. 205+81.693 (0.382m RT)

BM #17
-BL- STA 98+90.786
38.137 RIGHT
-L- STA. 207+09.412
49.399m RT
ELEV. 781.216

Pls Sta 204+95.724 | PI Sta 206+22.758
Δs = 2°49'08.2" | Δ = 15°33'19.4" (RT)
Ls = 73.800 | L = 203.620
LT = 49.206 | T = 102.440
ST = 24.606 | R = 750.000
SE = 0.06

MATCHLINE -L- STA. 203+80.000 - SEE SHEET 28

MATCHLINE -L- STA. 207+20.000 - SEE SHEET 30

SEE SHEET 49 FOR -L- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-38/CONST.30
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

-L-

Pls Sta 207+48.543	Pls Sta 208+38.740	Pl Sta 210+99.626
Θs = 2° 49' 08.2"	Θs = 1° 45' 42.6"	Δ = 27° 02' 00.7" (LT)
Ls = 73.800	Ls = 61.500	L = 471.824
LT = 49.206	LT = 41.002	T = 240.388
ST = 24.606	ST = 20.502	R = 1,000.000
		SE = 0.05

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 30

SEE STREAM MITIGATION PLANS

NAD 83

MATCHLINE -L- STA. 207+20.000 - SEE SHEET 29

MATCHLINE -L- STA. 210+80.000 - SEE SHEET 31

PAULINE MANEY BANKS
D.B. 92 PG. 409

LEROY RIDDLE
D.B. 209 PG. 679

DIANE MURPHY
D.B. 332 PG. 594

DONALD A. BLANKENSHIP and wife, BARBARA H. BLANKENSHIP
D.B. 187 PG. 651

DONNY J. LAWS and ZONA ALESA BRYANT
D.B. 207 PG. 125

DONNY J. LAWS and ZONA ALESA BRYANT
D.B. 213 PG. 186

MYRA BALL and husband, DANNY BALL
D.B. 286 PG. 58

MYRA M. BALL
D.B. 262 PG. 563

THOMAS PLATO RAY
D.B. 134 PG. 258

14 x 5 x 1
ID 30.6C

12 x 3 x 1
ID 30.7C

14 x 3 x 1
ID 30.6C

10 x 3 x 1
ID 30.5C

8 x 3 x 1
ID 30.4C

10 x 4 x 1
38 mm Skimmer
with 35 mm
Orifice Diameter
2 m weir
ID 30.1C

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 30.2C

LAT. BASE DITCH
-L- 207+66 TO 208+00, LT
PSBM: EST. 90 SM
DDE: EST. 150 CuM
SEE DETAIL 'R' SHEET 2-H

BERM OUTLET

BERM DITCH
-L- 208+55+/- TO 209+85+/-, LT

FALSE SUMP
SEE DETAIL 2
SHEET 2-G

CL B RIP RAP
EST. 50 TONS

BASE DITCH
208+00+/- RT
CL B RIP RAP: EST. 37 TONS
FILTER FABRIC: EST. 134 SM
DDE: EST. 45 CuM
SEE DETAIL 'R' SHEET 2-H

-BL- 63 100+52.967 PINC
-L- Sta. 208+89.499 (1.394m RT)
-L- SCSta.208+59.238
-L- SRSSta.207+97.738
-L- CSSta.207+23.938

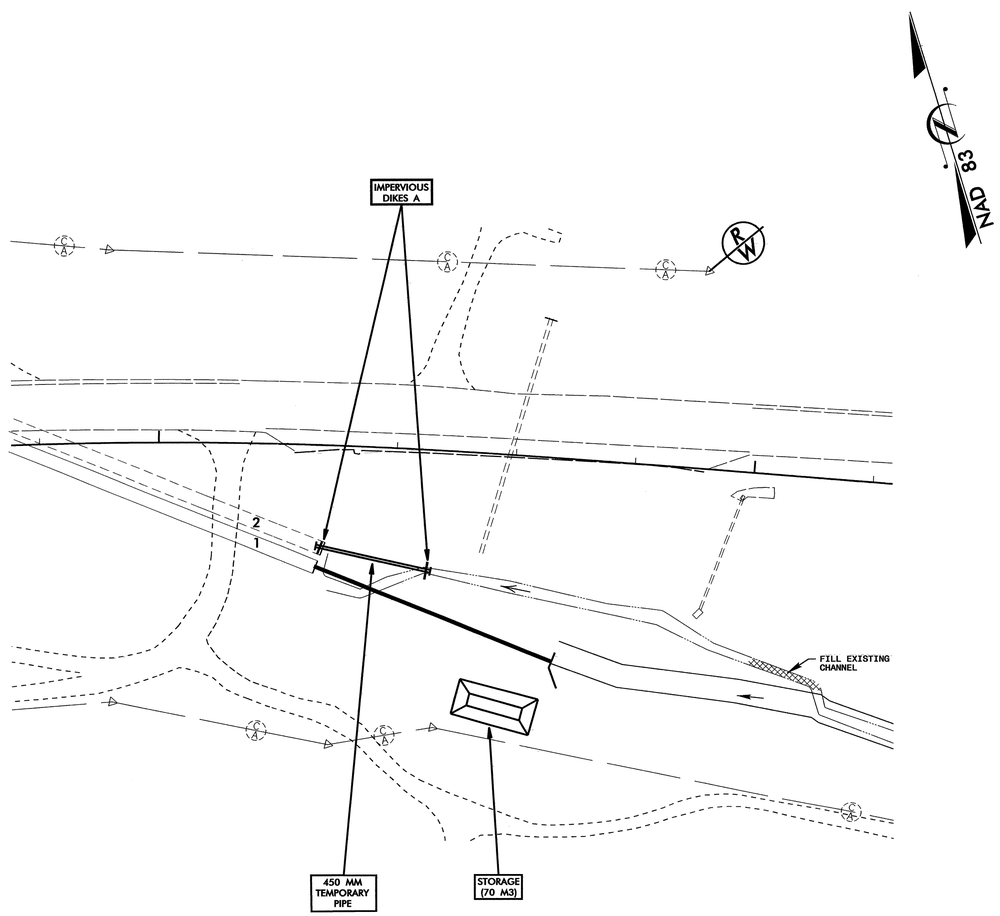
SEE SHEET 50 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-39/CONST.30
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 206+79 –L–

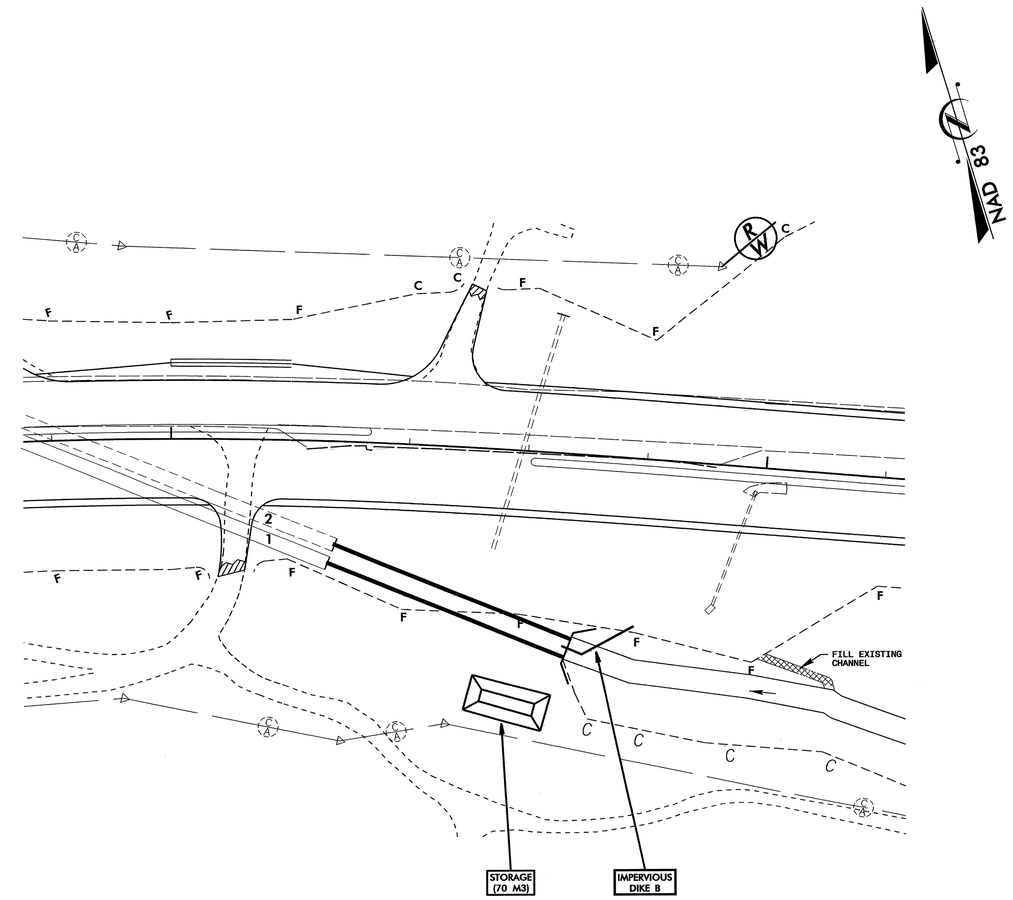
PHASE I

1. CONSTRUCT STILLING BASIN (70 M3).
2. REMOVE EXISTING HEADWALL.
3. CONSTRUCT IMPERVIOUS DIKES A AND INSTALL 450 MM TEMPORARY PIPE, DIVERTING FLOW THROUGH PIPE 2.
4. CONSTRUCT PROPOSED EXTENSION FOR PIPE 1 AND PORTION OF PROPOSED HEADWALL.
5. CONSTRUCT AS MUCH OF PROPOSED CHANNEL CHANGE AS POSSIBLE.



PHASE II

6. REMOVE IMPERVIOUS DIKES A AND TEMPORARY PIPE, CONSTRUCT IMPERVIOUS DIKE B, AND CONNECT CHANNEL CHANGE TO PIPE 1, DIVERTING FLOW THROUGH PIPE 1.
7. CONSTRUCT PROPOSED EXTENSION FOR PIPE 2 AND REMAINDER OF PROPOSED HEADWALL.
8. REMOVE IMPERVIOUS DIKE B AND COMPLETE CHANNEL CHANGE.
9. REMOVE STILLING BASIN AND COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-40/CONST.31
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.

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 31

-L-

PI Sta 210+99.626
△ = 27° 02' 00.7" (LT)
L = 471.824
T = 240.388
R = 1,000.000
SE = 0.05

PIs Sta 213+51.564
Θs = 1° 45' 42.6"
Ls = 61.500
LT = 41.002
ST = 20.502

-DR9-

PI Sta 10+13.879
△ = 46° 42' 55.4" (LT)
L = 12.230
T = 6.478
R = 15.000

PI Sta 10+26.243
△ = 47° 34' 31.2" (RT)
L = 12.455
T = 6.612
R = 15.000

-DR10-

PI Sta 10+17.765
△ = 43° 19' 35.9" (LT)
L = 10.587
T = 5.561
R = 14.000

PI Sta 10+29.506
△ = 51° 15' 09.7" (RT)
L = 12.523
T = 6.716
R = 14.000

NAD 83

MATCHLINE -L- STA. 210+80.000 - SEE SHEET 30

MATCHLINE -L- STA. 214+40.000 - SEE SHEET 32

DONNY J. LAWS and ZONA ALESA BRYANT D.B. 213 PG. 186

EARL W. SHEPARD and wife, JOYCE L. SHEPARD D.B. 187 PG. 595

RALEIGH PITMAN and wife, SHIRLEY ANN PITMAN D.B. 140 PG. 554

EARL W. SHEPARD D.B. 187 PG. 591

MYRA BALL and husband, DANNY BALL D.B. 286 PG. 58

DUANE C. WHEELER and wife, LOUISE M. WHEELER D.B. 191 PG. 705

J. TODD BAILEY D.B. 188 PG. 509

WALTER EDWARDS and wife, VERLAN K. EDWARDS D.B. 199 PG. 249

17 x 5 x 1
ID 31.1C

12 x 3 x 1
ID 31.2C

14 x 3 x 1
ID 31.4C

10 x 3 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
2 m weir
ID 31.3C

BEGIN CONSTRUCTION -DR9- STA. 10+00.000

BEGIN CONSTRUCTION -DR10- STA. 10+34.000

BERM DITCH -L- 211+50+/- TO 212+80, LT

BERM DITCH -L- 211+65+/- TO 212+40, RT

BERM OUTLET

450 CSP 16ga. (1.63mm W/1 ELBOW

600 RCP

COLLAR AND EXTEND

375 RCP

450 RCP

2GI TYPE "D"

PROP. MONO. CONC. ISLAND

186m FULL LANE

179.5m FULL LANE

30m TAPER

-L- ST Sta. 213+92.562

-L- CS Sta. 213+31.062

-DR9- POT Sta. 10+00.000

-DR9- PC Sta. 10+07.401

-DR9- PRC Sta. 10+19.631

-DR9- PT Sta. 10+32.086

-DR9- POT Sta. 10+44.345 = -DR10- POT Sta. 10+00.000 -L- POC Sta. 211+47.000

-DR10- PC Sta. 10+12.204

-DR10- PRC Sta. 10+22.791

-DR10- PT Sta. 10+35.314

-DR10- POT Sta. 10+41.809

-BL- 64 105+62.028 PINC
-L- Sta. 211+96.584 (16.923m RT)

-BL- 68 105+38.745 PINC
-L- Sta. 213+55.608 (77.211m RT)

-BL- BM #18 -L- STA. 105+57.643 22.528 RIGHT -L- STA. 213+59.554 94.129m RT ELEV. 818.917

-Y18- POT Sta. 11+89.091

S 73° 45' 13.9" W

SR 1136 PHIPP'S CREEK RD

SEE SHEET 50 FOR -L- PROFILE
SEE SHEET 57 FOR -Y18- PROFILE

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A1 REV221491

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-41/CONST.32
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

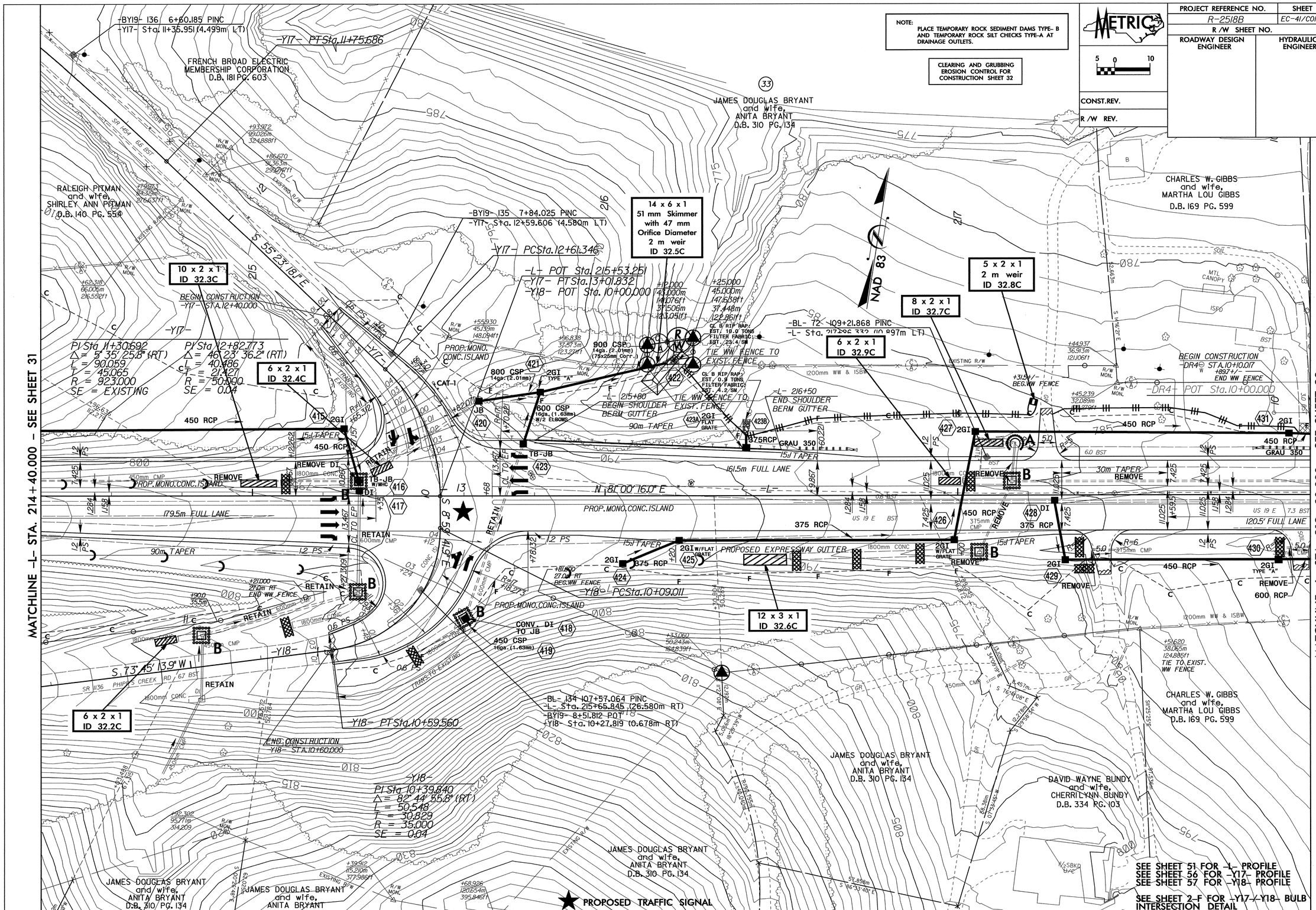
5 0 10

CONST.REV.

R/W REV.

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 32



PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-42/CONST.33
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R/W REV.

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 33

-DR5-

PI Sta 10+23.843
△ = 86° 11' 44.2" (LT)
L = 30.088
T = 18.714
R = 20.000
SE = 0.02

PI Sta 11+13.375
△ = 85° 45' 59.0" (RT)
L = 17.963
T = 11.145
R = 12.000
SE = 0.02

-DR6-

PI Sta 10+05.928
△ = 40° 30' 31.6" (RT)
L = 8.484
T = 4.428
R = 12.000
SE = 0.02

PI Sta 10+37.701
△ = 78° 24' 54.9" (LT)
L = 16.423
T = 9.790
R = 12.000
SE = 0.02

-BL- 1112+12.497 POT
-L- Sta. 220+16.954 (8.948m LT)
-BL- 15+00.000 POT
(R2519A)

MATCHLINE -L- STA. 218+00.000 – SEE SHEET 32

MATCHLINE -L- STA. 221+60.000 – SEE SHEET 34

CHARLES W. GIBBS and wife, MARTHA LOU GIBBS D.B. 169 PG. 599

16 x 8 x 1
64 mm Skimmer with 57 mm Orifice Diameter 4 m weir
ID 33.1C

DENNIS E. ROBINSON and MICHAEL L. ROBINSON D.B. 178 PG. 359

MACK ROBINSON and wife, GERALDINE ROBINSON D.B. 148 PG. 285

CARL PENLAND and wife, ANNE PENLAND D.B. 172 PG. 495

TAILDITCH
-L- 218+80, LT
DDE: EST. 50 CuM
SEE DETAIL 'X' SHEET 2-H

6 x 2 x 1
ID 33.4C

BM 719
-BL- STA 110+74.474
10.788 LEFT
-L- STA. 2187+50.896
20.66M LT
8.748 ELEV. 779.920

ROBINSON and ASSOCIATES, INC. D.B. 184 PG. 325

BEGIN CONSTRUCTION
-DR3- STA.10+00.000

-DR3- POT Sta.10+00.000
-DR3- POT Sta. 10+11.000 =
-DR4- POT Sta.10+99.431
-DR4- POT Sta.11+86.801

JANET BANKS DB 139 PG 631

VICKIE BANKS TIPTON DB 181 PG 147

EXISTING ACCESS PT 18.288m (60')

12 x 2 x 1
ID 33.8C

YANCEY COUNTY DB 270 PG 210

REMOVE EXISTING GUARDRAIL

161.5m FULL LANE

30m TAPER

-L- N 81° 00' 16.0" E

PROP. MONO. CONC. ISLAND

PROP. RAISED GRASS MEDIAN

PROP. 450mm C&G

120.5' FULL LANE

-DR3- POT Sta.10+34.440 =
-L- POT Sta. 218+89.143

FALSE SUMP SEE DETAIL 2 SHEET 2-G

BEG. CURB TRANSITION SEE SHEET 2-L

14 x 4 x 1
ID 33.3C

10 x 2 x 1
ID 33.2C

10 x 3 x 1
ID 33.6C

9 x 3 x 1
ID 33.5C

13 x 3 x 1
ID 33.7C

JAP PHILLIPS and wife, GINGER PHILLIPS D.B. 168 PG. 605

JAMES DOUGLAS BRYANT and wife, ANITA BRYANT D.B. 185 PG. 669

JAMES DOUGLAS BRYANT and wife, ANITA BRYANT D.B. 180 PG. 131

KATHY G. ROBINSON D.B. 293 PG. 534

MARY ANN SPARKS and husband, HOWARD B. SPARKS D.B. 266 PG. 384

WILLIAM O. RIDDLE and wife, FAYE RIDDLE D.B. 330 PG. 315

ELZIE BRADFORD DB 192 PG 580

EURANIOUS W. ROBINSON DB 157 PG 339

SEE SHEET 51 FOR -L- PROFILE
SEE SHEET 58 FOR -DR3- PROFILE
SEE SHEET 59 FOR -DR4- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-43/CONST.34
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

SEE STREAM MITIGATION PLANS

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

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 34

NOTE: UTILIZE SKIMMER BASIN AND/OR SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE.

MATCHLINE -Y21- STA. 11+20.000 SEE SHEET 36

-Y19- PI Sta 10+62.629 △ = 53° 57' 49.9" (RT) L = 32.965 T = 17.819 R = 35.000 SE = 0.04

-Y19- PI Sta 11+02.113 △ = 19° 12' 15.2" (LT) L = 16.759 T = 8.459 R = 50.000 SE = 0.02

-DR7- PI Sta 10+45.827 △ = 69° 48' 52.8" (RT) L = 36.555 T = 20.934 R = 30.000 SE = 0.02

-Y19- POT Sta.10+00.000

-Y19- POC Sta.10+44.809

-Y19- PT Sta.10+77.774

-BL- 2 11+49.681 POT -L- Sta. 222+54.114 (5.528m LT) -BL- 2 7+37.184 POT (R25.19A)

-Y19- PC Sta.10+93.654

-Y20- PC Sta.10+14.195

-Y20- PT Sta.10+31.681

-Y20- ST A.10+40.000 END CONSTRUCTION

-Y19- ST A.10+70.000 BEGIN CONSTRUCTION

-L- POT Sta. 222+61.890 = -Y19- PT Sta. 11+10.413 = -Y20- POT Sta.10+00.000

-Y21- PC Sta.11+59.693

-Y21- PT Sta.11+36.385

-Y21- PI Sta 11+00.210 △ = 57° 03' 02.2" (LT) L = 79.658 T = 43.482 R = 80.000 SE = 0.08

-Y21- PI Sta 12+18.161 △ = 72° 19' 20.0" (RT) L = 100.981 T = 58.468 R = 80.000 SE = 0.08

-Y21- PT Sta.12+60.674

-Y21- POT Sta.12+72.674

-L- POT Sta. 224+82.890 = -Y21- POT Sta.12+72.674

-DR7- POT Sta.10+87.514 = -Y21- POC Sta.12+39.000

-DR7- PT Sta. 10+61.448

-Y20- PI Sta 10+23.313 △ = 40° 04' 28.8" (LT) L = 17.486 T = 9.118 R = 25.000 SE = 0.02

-Y20- POT Sta.11+38.714

S 43° 45' 18.6" E

S 81° 19' 04.4" E

N 81° 00' 16.0" E

S 8° 59' 44.0" E

S 8° 59' 44.2" E

N 69° 30' 00" E

S 45° 04' 12.6" E

10 x 4 x 1 38 mm Skimmer with 35 mm Orifice Diameter 2 m weir ID 34.1C

6 x 4 x 1 38 mm Skimmer with 27 mm Orifice Diameter 2 m weir ID 34.4C

7 x 3 x 1 2 m weir ID 34.2C

12 x 2 x 1 2 m weir ID 34.6C

36 x 18 x 1 127 mm Skimmer with 107 mm Orifice Diameter 6 m weir ID 34.5C

10 x 4 x 1 38 mm Skimmer with 35 mm Orifice Diameter 2 m weir ID 34.6C

40 x 20 x 1 127 mm Skimmer with 119 mm Orifice Diameter 7 m weir ID 34.3C

UTILIZE HAZARDOUS SPILL BASIN AS SILT BASIN DURING CONSTRUCTION.

UTILIZE HAZARDOUS SPILL BASIN AS SILT BASIN DURING CONSTRUCTION.

ROBERTS INSURANCE AGENCY, INC. DB 235 PG 382

GARY ADKINS DB 209 PG 755

CHRISTOPHER WARREN COOPER DB 288 PG 695

JOHN A. COOPER DB 137 PG 463

BOYD WHEELER DB 202 PG 672

SHANNON COOPER

JOHN RANSOM RIDDLE DB 211 PG 251

J. D. SILVERS DB 213 PG 39

DONALD H. RAY DB 287 PG 121

SPECIAL DITCH -Y21- 12+20 TO 12+42+/- SEE DETAIL 'AA', SHT 2-H HAZARDOUS SPILL RETENTION BASIN SEE DETAIL, SHEET 2-K

SLUICE GATE INSTALL INVERT 0.3m ABOVE BOTTOM OF BASIN

TAIL BASE DITCH -L- 223+34 TO 223+41+/-, RT PSNR: EST. 52 SM DDE:\ EST. 150 CuM SEE DETAIL 'F' SHEET 2-H

BASE DITCH TO 224+ 180 SM 320 CUM SEE DETAIL 'L' SHEET 2-H

BEGIN APPROACH SLAB -L- STA.223+18.860

BEGIN BRIDGE -L- STA.223+21.910

END BRIDGE -L- STA.224+34.450

END APPROACH SLAB -L- STA.224+61.540

RETAIN EXISTING SUBSTRUCTURE AND BUILD NEW DECK

REMOVE EXISTING GUARDRAIL

REMOVE EXIST. GUARDRAIL

PROP. RAISED GRASS MEDIAN

PROP. 450mm C&G

PROP. MONO. CONC. ISLAND

PROPOSED SIGNAL

SHOULDER BERM GUTTER

EXISTING R/W

BEG. WW FENCE

END WW FENCE

BAKERS CREEK RD

PROPOSED TRAFFIC SIGNAL

SEE SHEET 52 FOR -L- PROFILE
SEE SHEET 57 FOR -Y19- PROFILE
SEE SHEET 57 FOR -Y20- PROFILE
SEE SHEET 58 FOR -Y21- PROFILE
SEE SHEET 59 FOR -DR7- PROFILE

MATCHLINE -L- STA. 221+60.000 - SEE SHEET 33

MATCHLINE -L- STA. 225+20.000 - SEE SHEET 35

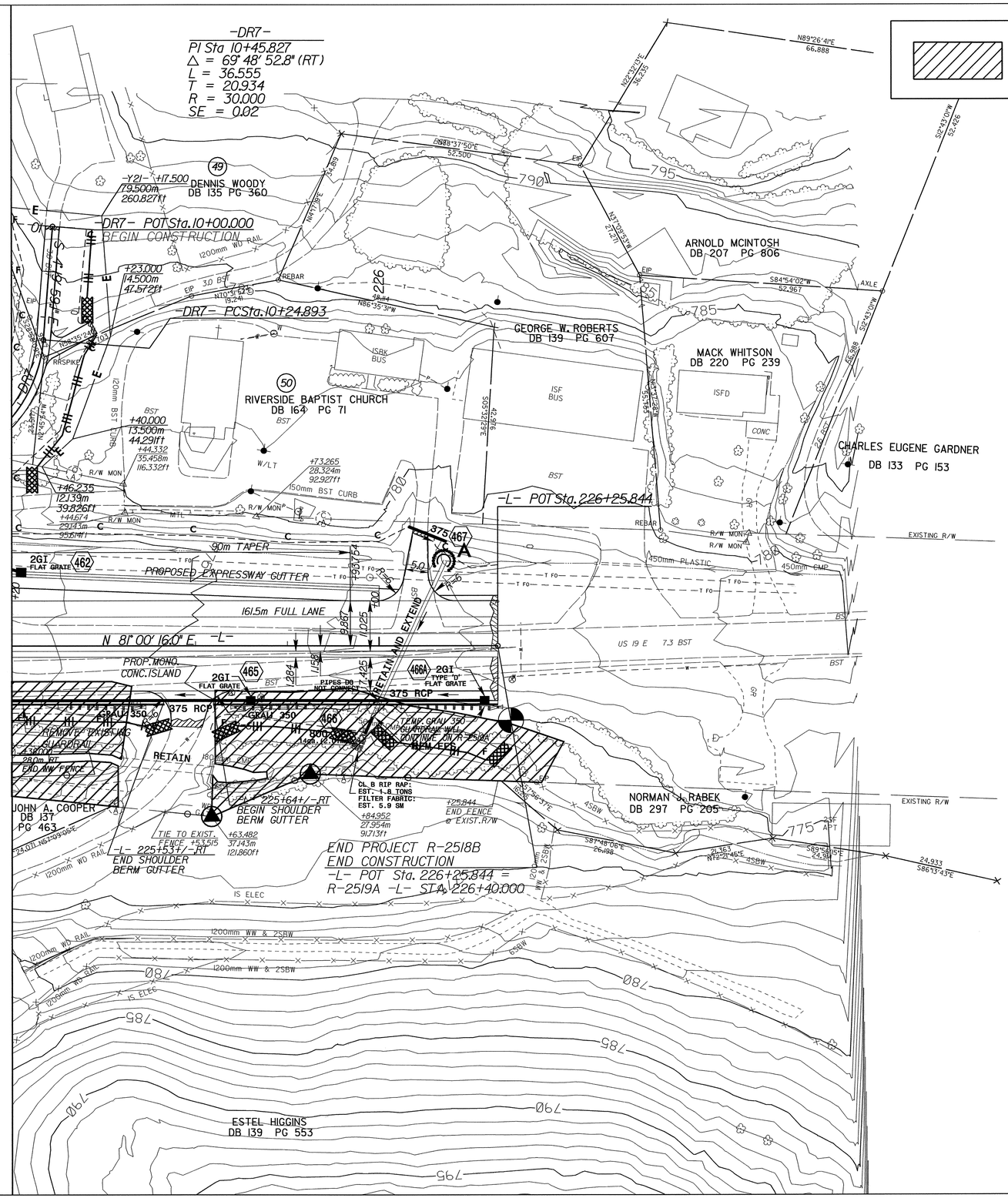
PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-44/CONST.35
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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 35



MATCHLINE -L- STA. 225+20.000 - SEE SHEET 34

SEE SHEET 52 FOR -L- PROFILE
SEE SHEET 59 FOR -DR7- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-45/CONST.36
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

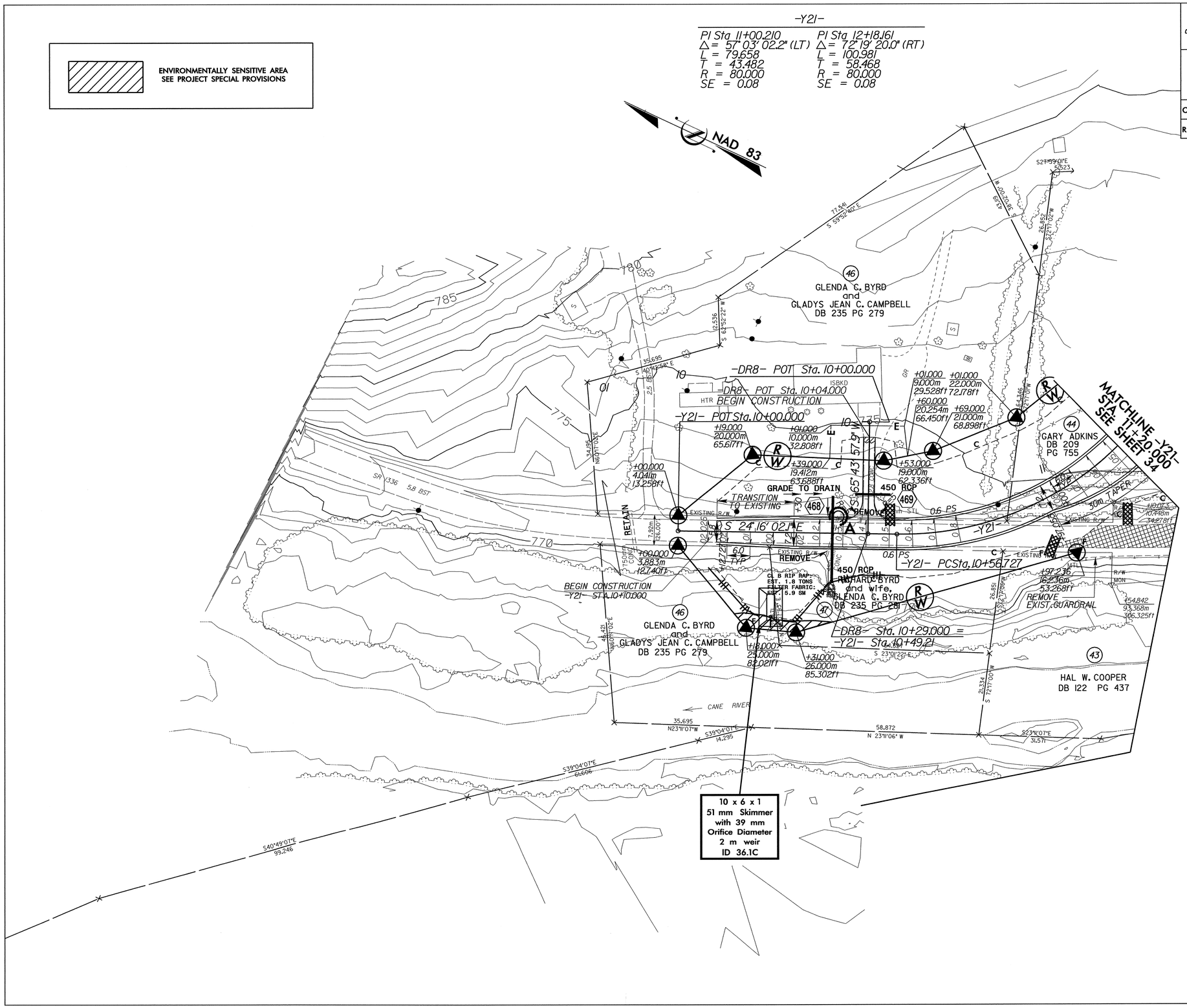
-Y21-

PI Sta 11+00.210
Δ = 57° 03' 02.2" (LT)
L = 79.658
T = 43.482
R = 80.000
SE = 0.08

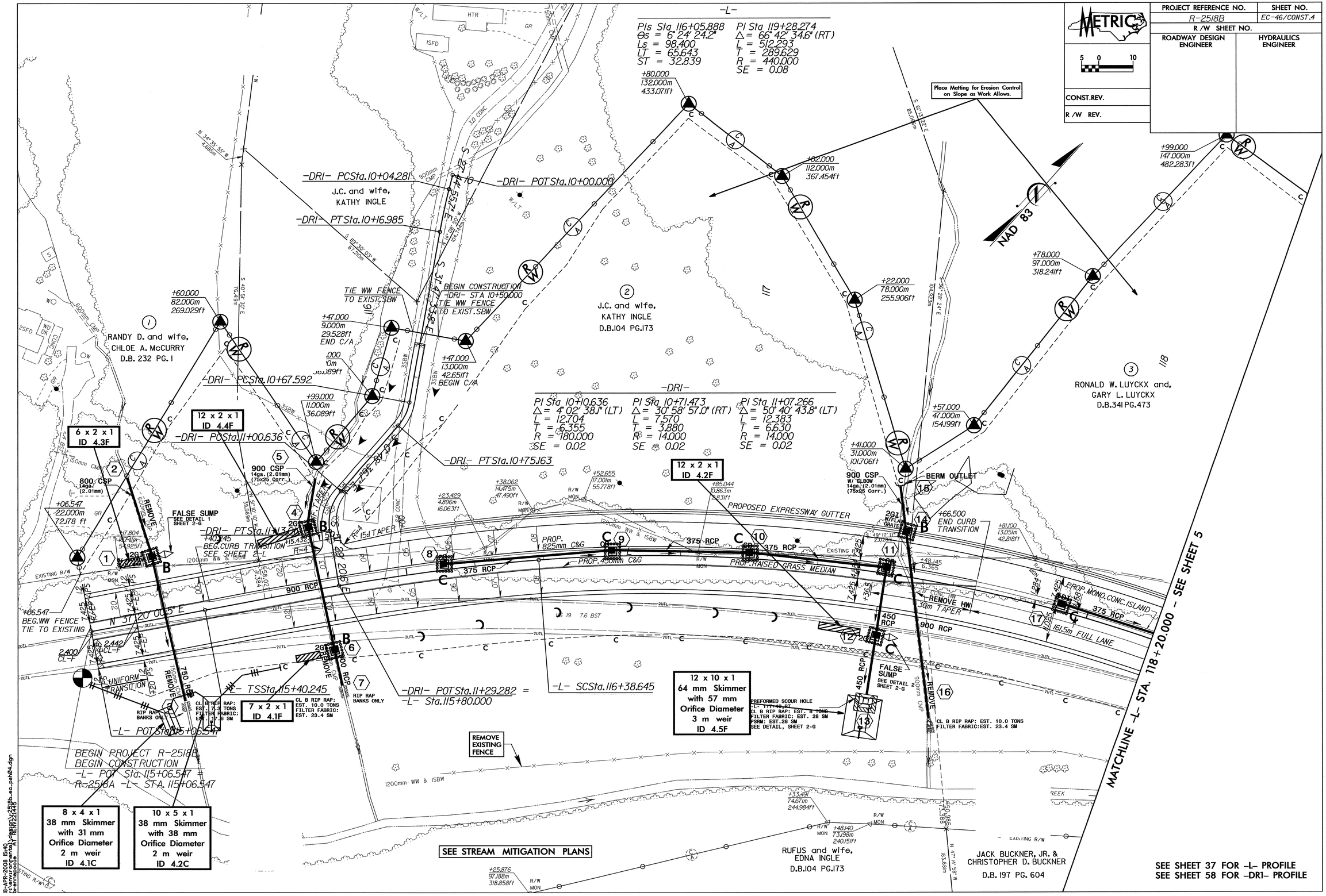
PI Sta 12+18.161
Δ = 72° 19' 20.0" (RT)
L = 100.981
T = 58.468
R = 80.000
SE = 0.08

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 36



SEE SHEET 58 FOR -Y21- PROFILE
SEE SHEET 59 FOR -DR8- PROFILE


METRIC
5 0 10
PROJECT REFERENCE NO.
R-2518B
SHEET NO.
EC-46/CONST.4
R /W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R /W REV.
-L-
PIs Sta 116+05.888
Θs = 6° 24' 24.2"
Ls = 98.400
LT = 65.643
ST = 32.839
PI Sta 119+28.274
Δ = 66° 42' 34.6" (RT)
L = 512.293
T = 289.629
R = 440.000
SE = 0.08
-DRI-
PI Sta 10+10.636
Δ = 4° 02' 38.1" (LT)
L = 12.704
T = 6.355
R = 180.000
SE = 0.02
PI Sta 10+71.473
Δ = 30° 58' 57.0" (RT)
L = 7.570
T = 3.880
R = 14.000
SE = 0.02
PI Sta 11+07.266
Δ = 50° 40' 43.8" (LT)
L = 12.383
T = 6.630
R = 14.000
SE = 0.02
-DRI- PCSta.10+04.281
-DRI- POTSta.10+00.000
-DRI- PTSta.10+16.985
-DRI- PCSta.10+67.592
-DRI- PCSta.11+00.636
-DRI- PTSta.10+75.163
-DRI- PTSta.11+13.636
-DRI- POTSta.11+29.282 =
-L- Sta.115+80.000
-L- TSSta.115+40.245
-L- POTSta.115+06.547
-L- SCSta.116+38.645
BEGIN PROJECT R-2518B
BEGIN CONSTRUCTION
-L- POT Sta. 115+06.547 =
R-2518A -L- STA. 115+06.547
BEGIN CONSTRUCTION
-DRI- STA 10+50.000
TIE WW FENCE
TO EXIST.SBW
END C/A
BEGIN C/A
J.C. and wife,
KATHY INGLE
RANDY D. and wife,
CHLOE A. McCURRY
D.B. 232 PG. 1
J.C. and wife,
KATHY INGLE
D.B.104 PG.173
RONALD W. LUYCKX and,
GARY L. LUYCKX
D.B.341 PG.473
RUFUS and wife,
EDNA INGLE
D.B.104 PG.173
JACK BUCKNER, JR. &
CHRISTOPHER D. BUCKNER
D.B. 197 PG. 604
Place Matting for Erosion Control on Slope as Work Allows.
NAD 83
PROPOSED EXPRESSWAY GUTTER
PROP. RAISED GRASS MEDIAN
PROP. MONO. CONC. ISLAND
375 RCP
900 RCP
450 RCP
750 RCP
900 CSP
800 CSP
FALSE SUMP
SEE DETAIL 1
SHEET 2-G
BERM OUTLET
END CURB TRANSITION
REMOVE HW
30m TAPER
161.5m FULL LANE
MATCHLINE -L- STA. 118+20.000 - SEE SHEET 5
12 x 2 x 1
ID 4.4F
6 x 2 x 1
ID 4.3F
12 x 2 x 1
ID 4.2F
7 x 2 x 1
ID 4.1F
12 x 10 x 1
64 mm Skimmer
with 57 mm
Orifice Diameter
3 m weir
ID 4.5F
8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 4.1C
10 x 5 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 4.2C
CL B RIP RAP: EST. 7.3 TONS
FILTER FABRIC: EST. 17.9 SM
CL B RIP RAP: EST. 10.0 TONS
FILTER FABRIC: EST. 23.4 SM
PREFORMED SCOUR HOLE
CL B RIP RAP: EST. 8 TONS
FILTER FABRIC: EST. 28 SM
PSRM: EST.28 SM
SEE DETAIL, SHEET 2-G
REMOVE EXISTING FENCE
SEE STREAM MITIGATION PLANS
SEE SHEET 37 FOR -L- PROFILE
SEE SHEET 58 FOR -DRI- PROFILE
18-APR-2008 15:40
r:\environmental\hydraulics\projects\2518b_ec_psh04.dgn
pwnapoole
PT REM(P)22445

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-4T/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

0.71 HECTARE STREAMBANK REFORESTATION

STA. 115 + 00 to STA. 117 + 55

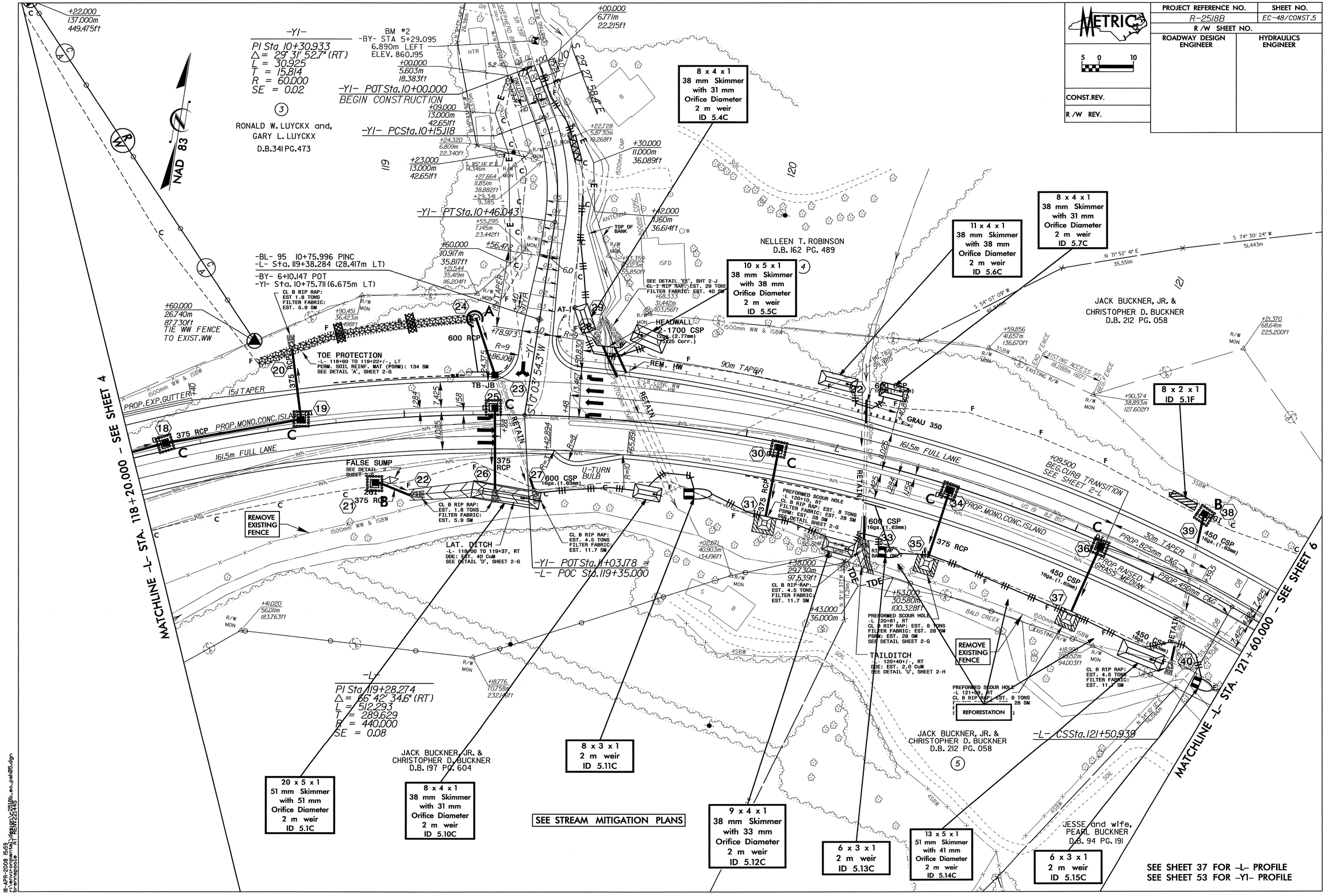
SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-48/CONST.5
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.

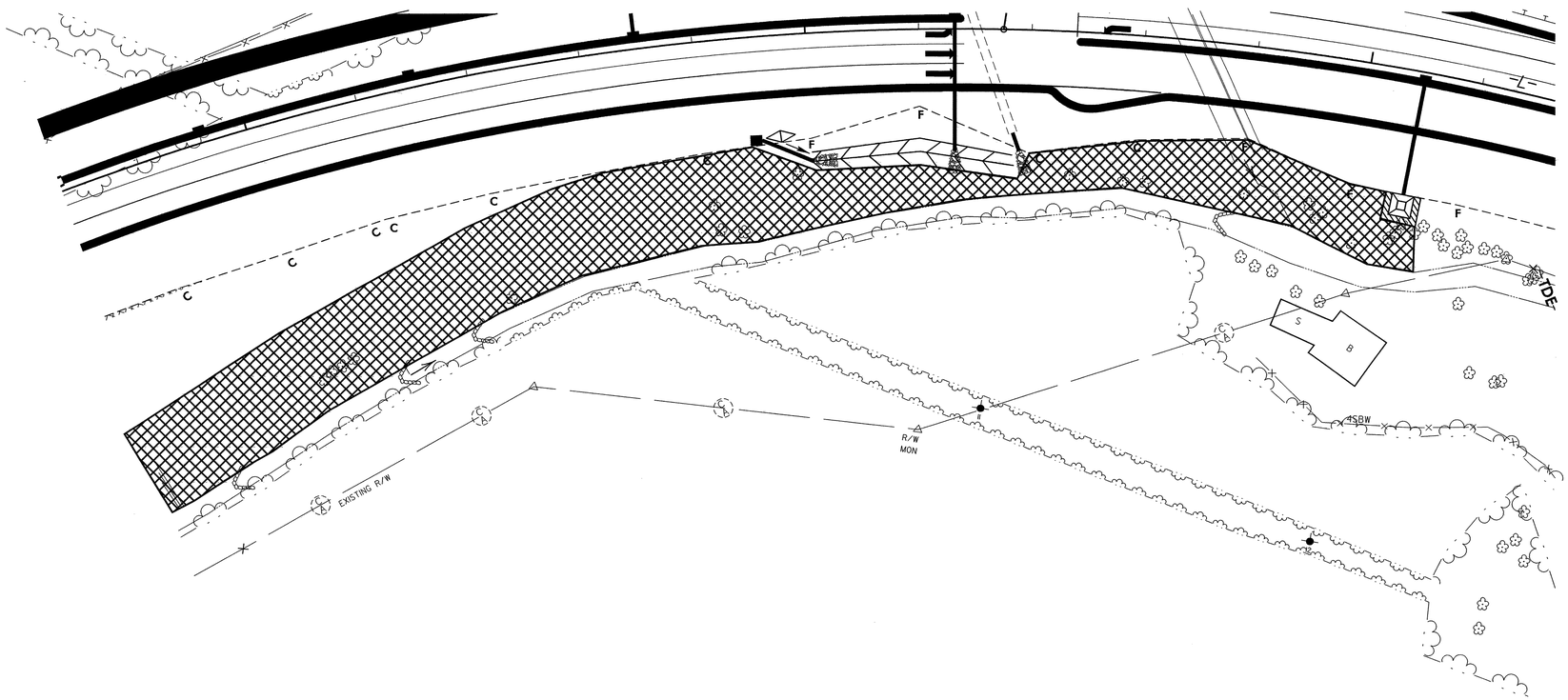


18-APR-2008 15:53
r:\environmental\projects\2518b_ec_psh05.dgn
bennpoole

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-49/CONST.5
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

0.31 HECTARE STREAMBANK REFORESTATION

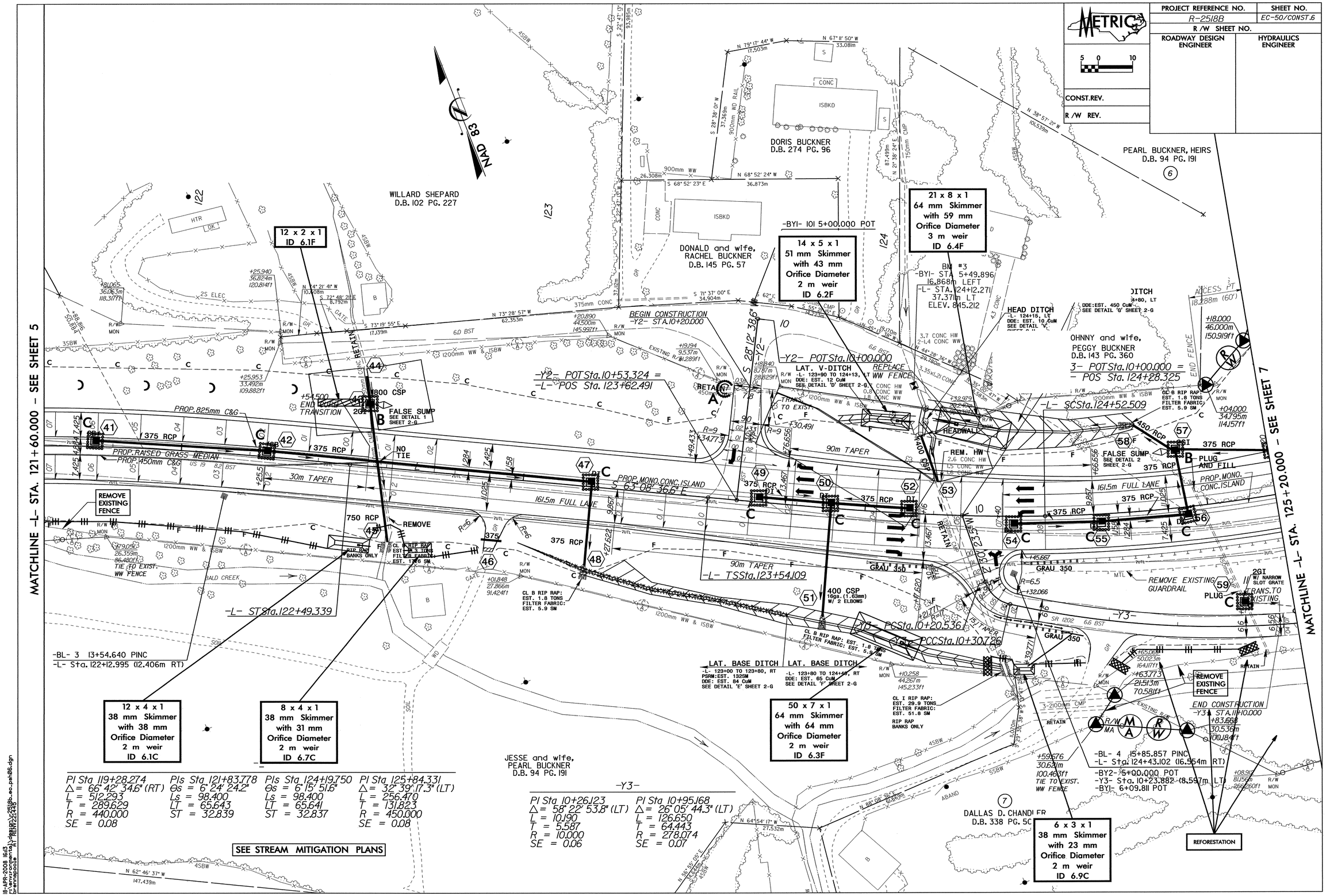
STA. 177 + 55 to STA. 120 + 15



SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-50/CONST.6
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10



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s:\wmsgsb06 R:\REV\2518B

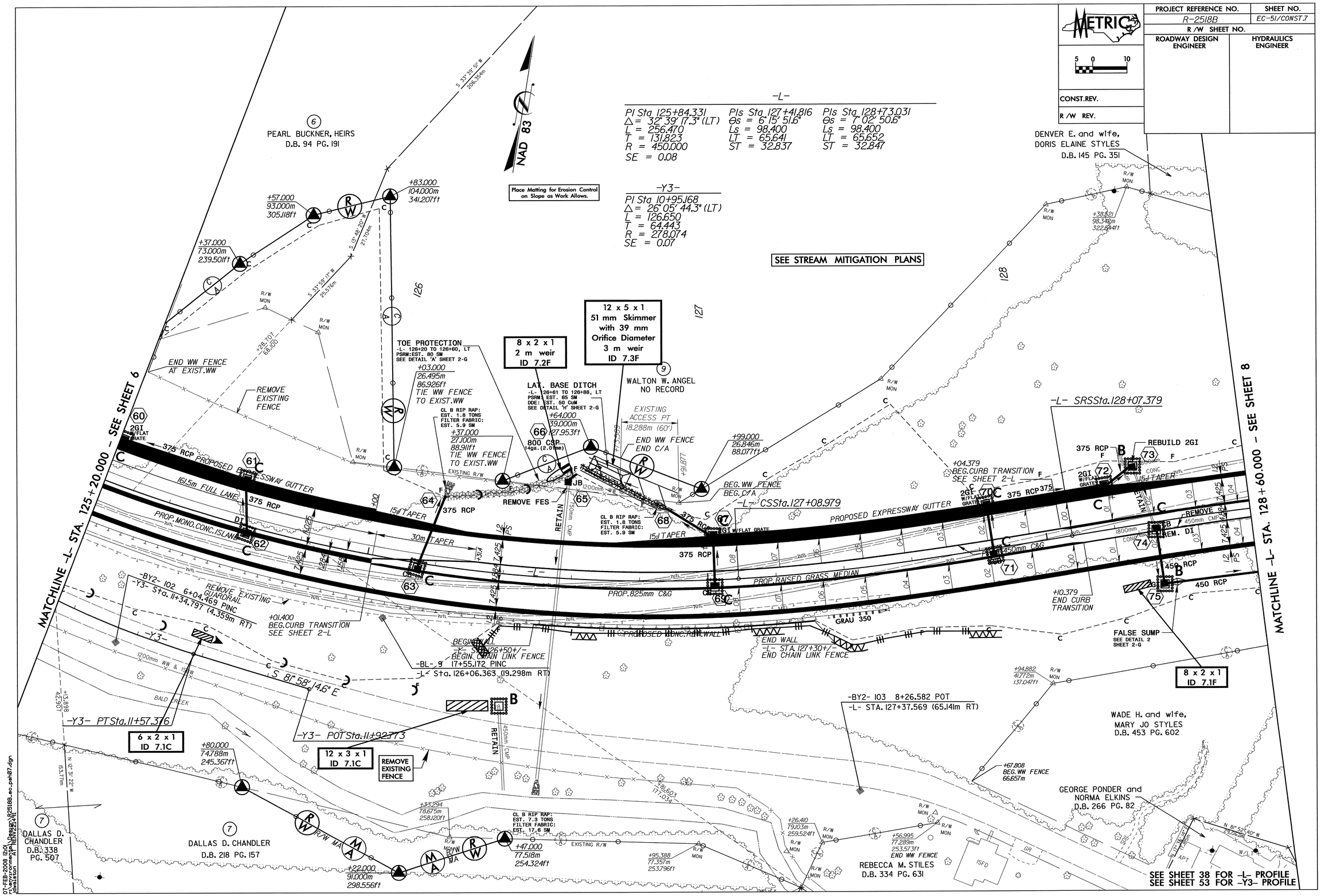
PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-51/CONST.7
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

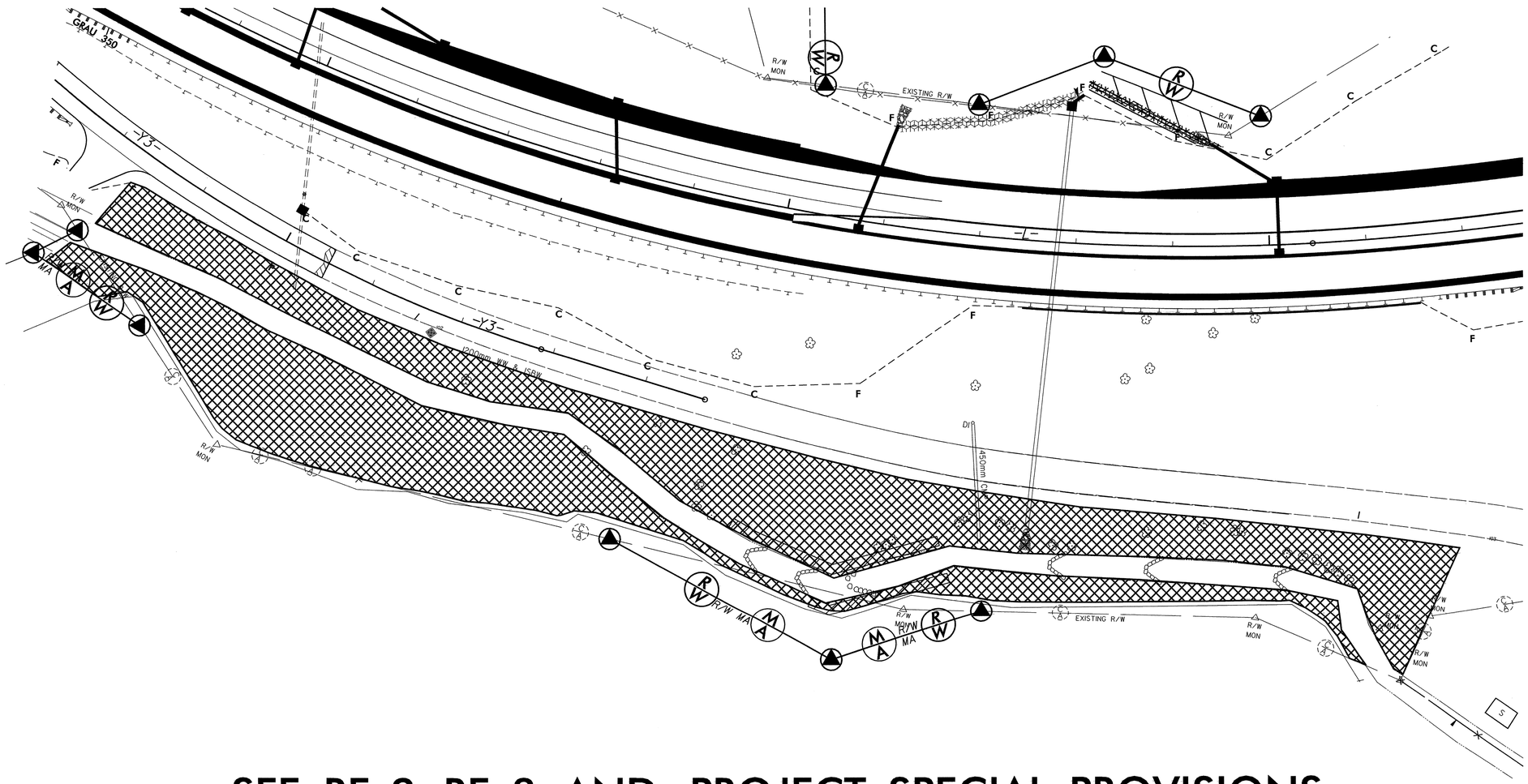


07-FEB-2008 12:01
r:\environment\r2518b_ec_pat07.dgn
davistom AT REN\22141

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-52/CONST.7
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

0.6 HECTARE STREAMBANK REFORESTATION

STA. 124+70 to STA. 127+20



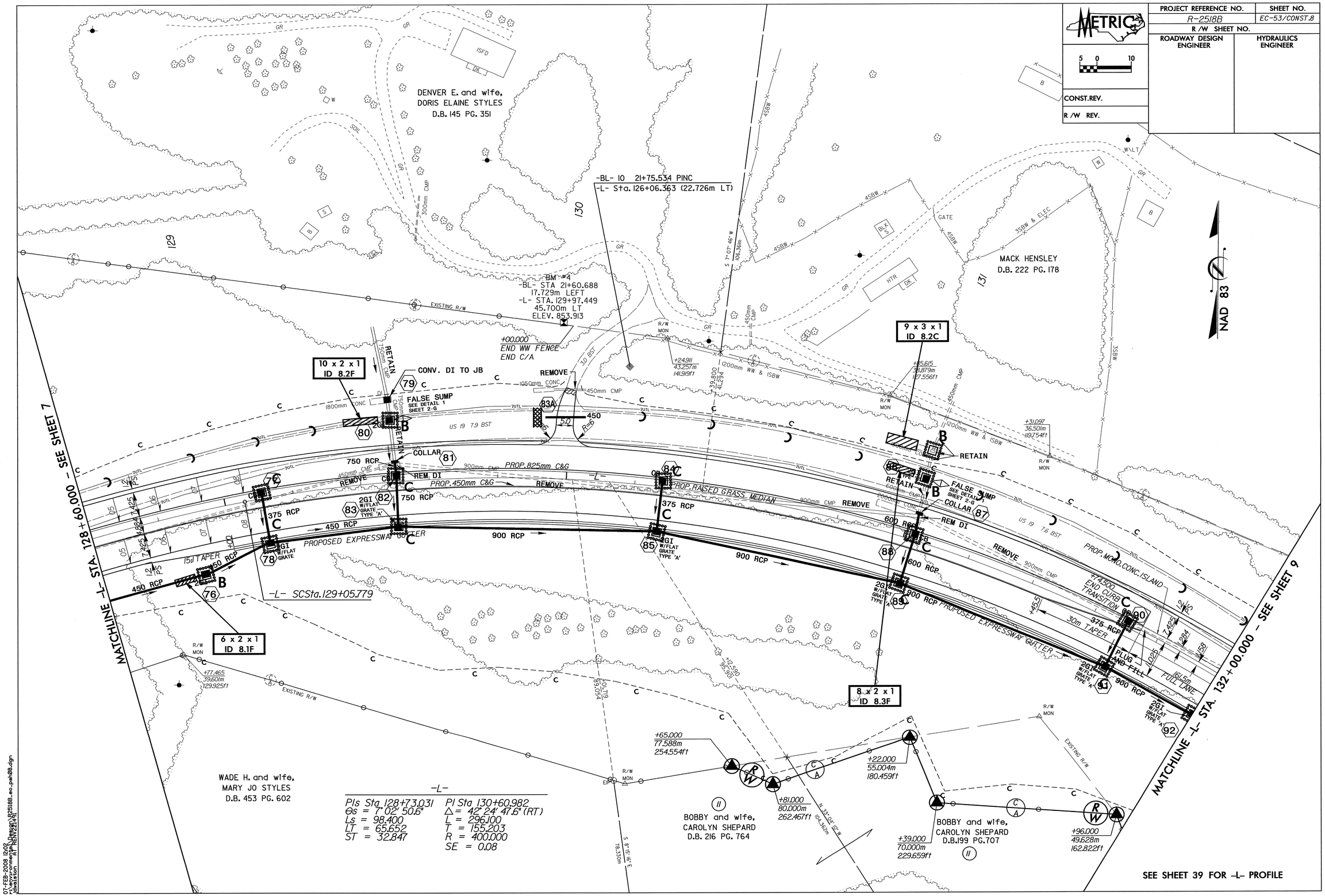
SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-53/CONST.8
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.



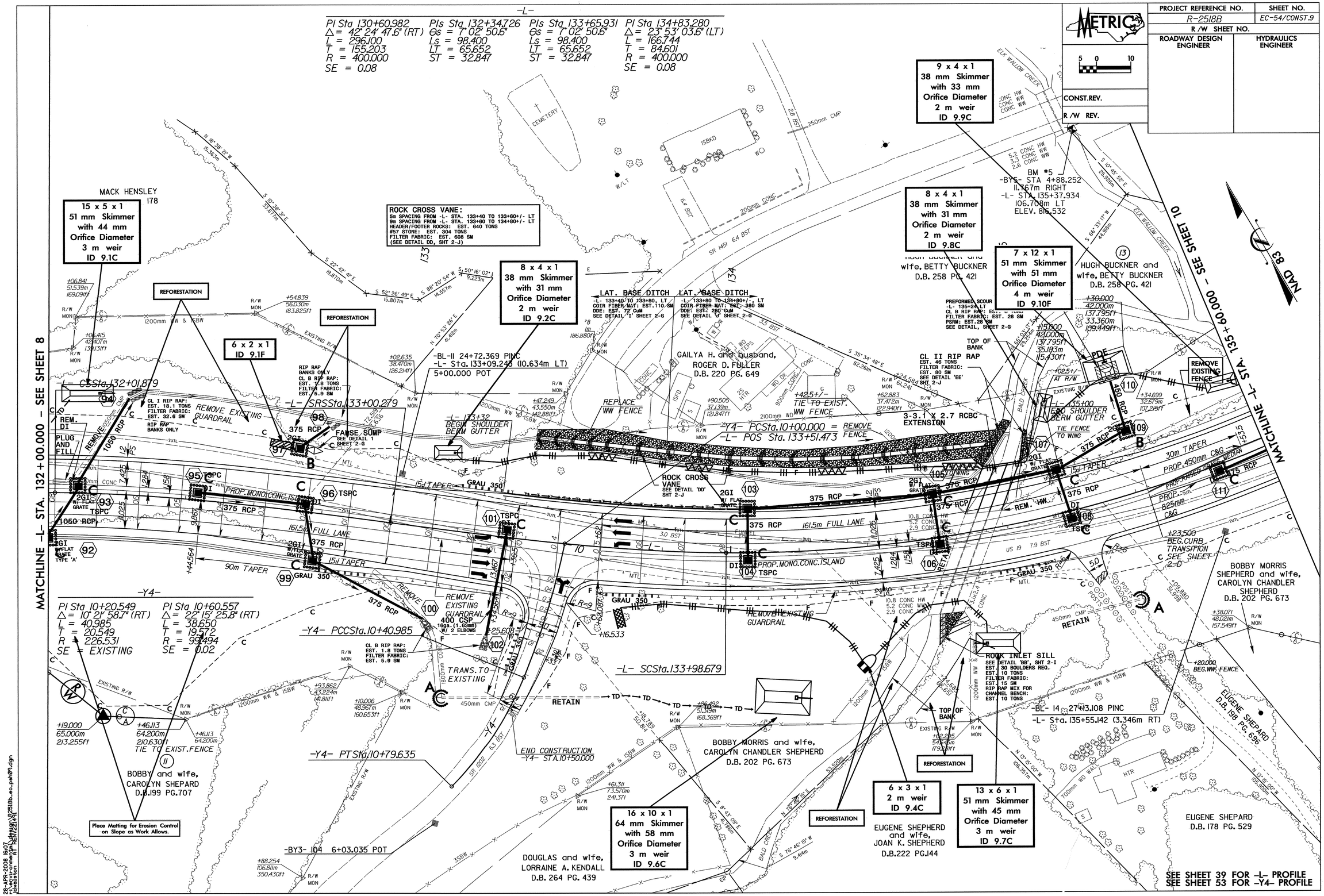
07-FEB-2008 12:02
r:\environmental\design\r2518b_ec_pah08.dgn
jawilson AT REN22141

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-54/CONST.9
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.

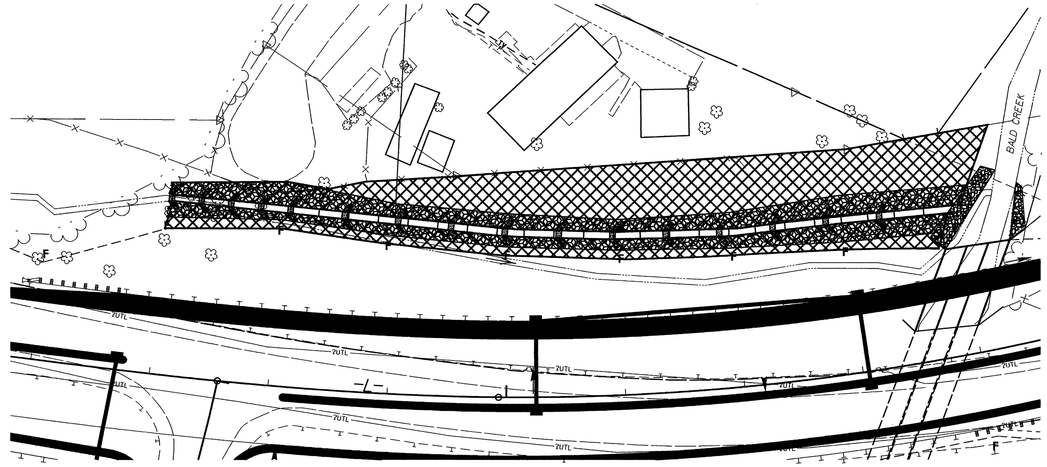


28-APR-2008 16:07
r:\environmental\projects\r2518b_ec_psh09.dgn
jdavidson AT REM/22214

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-54A/CONST.9
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

0.17 HECTARE STREAMBANK REFORESTATION

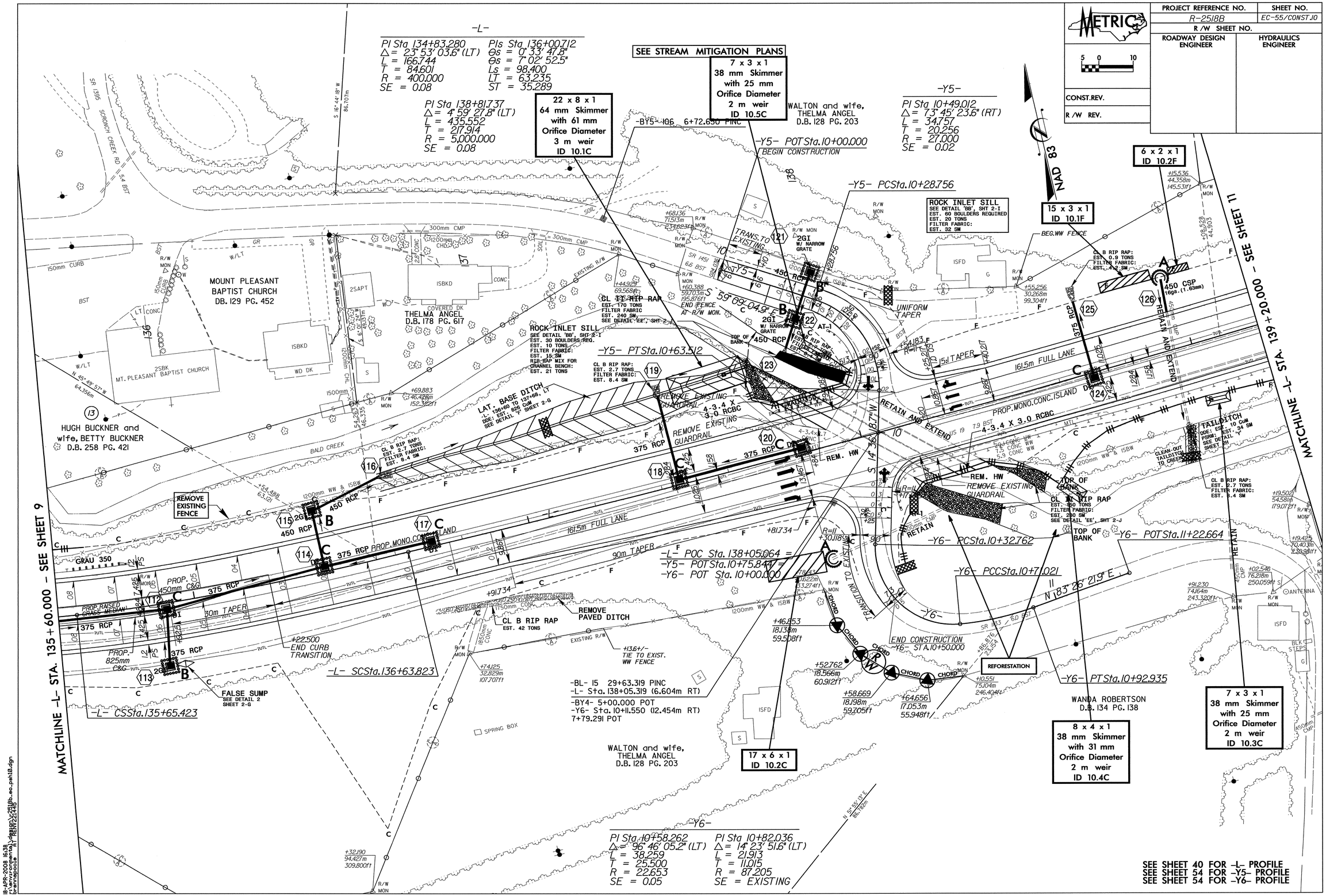
STA. 115 + 00 to STA. 117 + 55



SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-55/CONST.10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R/W REV.	

METRIC 5 0 10

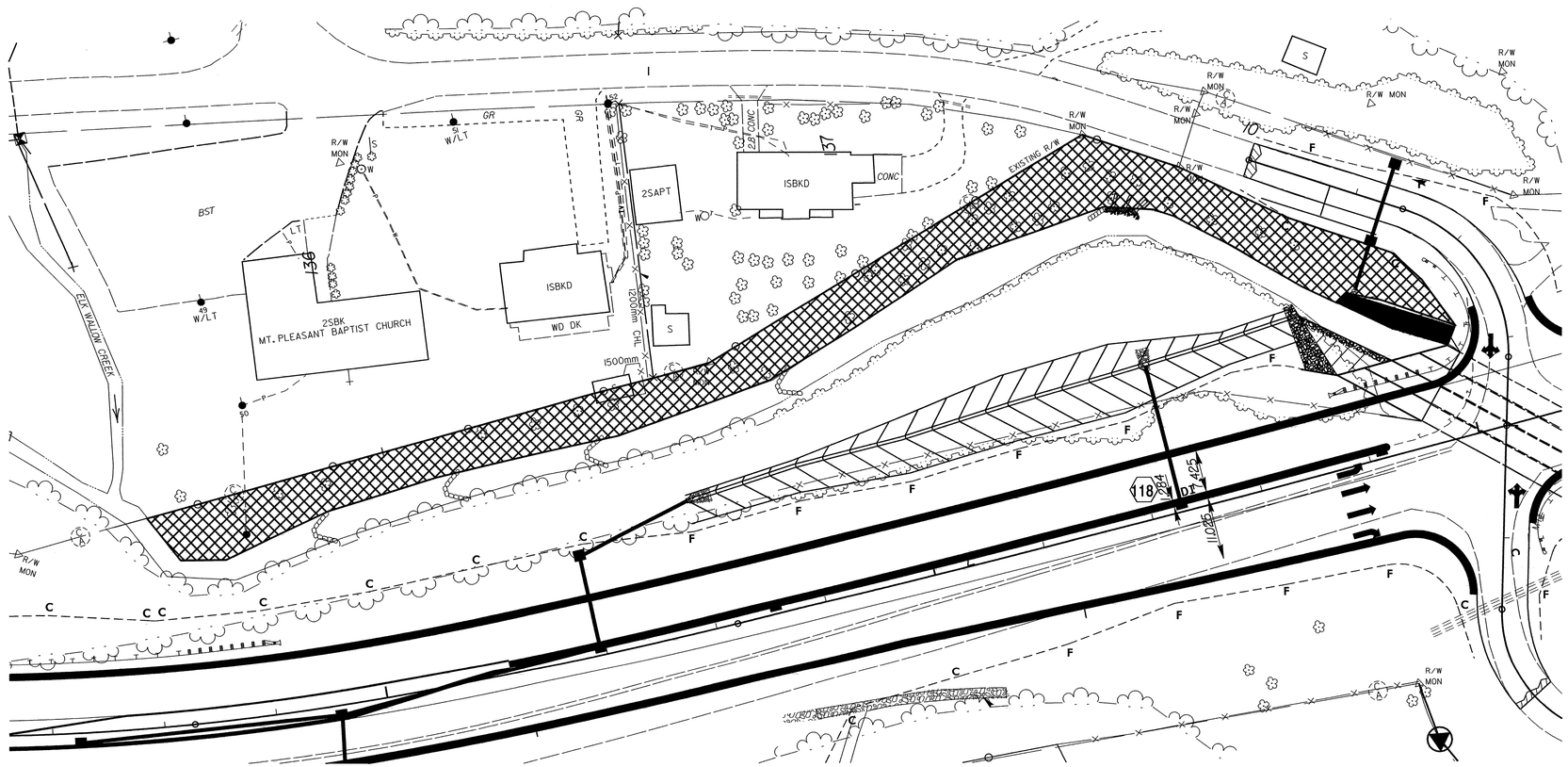


18-APR-2008 16:38
r:\environmental\...

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-56/CONST.JO
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

0.21 HECTARE STREAMBANK REFORESTATION

STA. 135+40 to STA 138+00



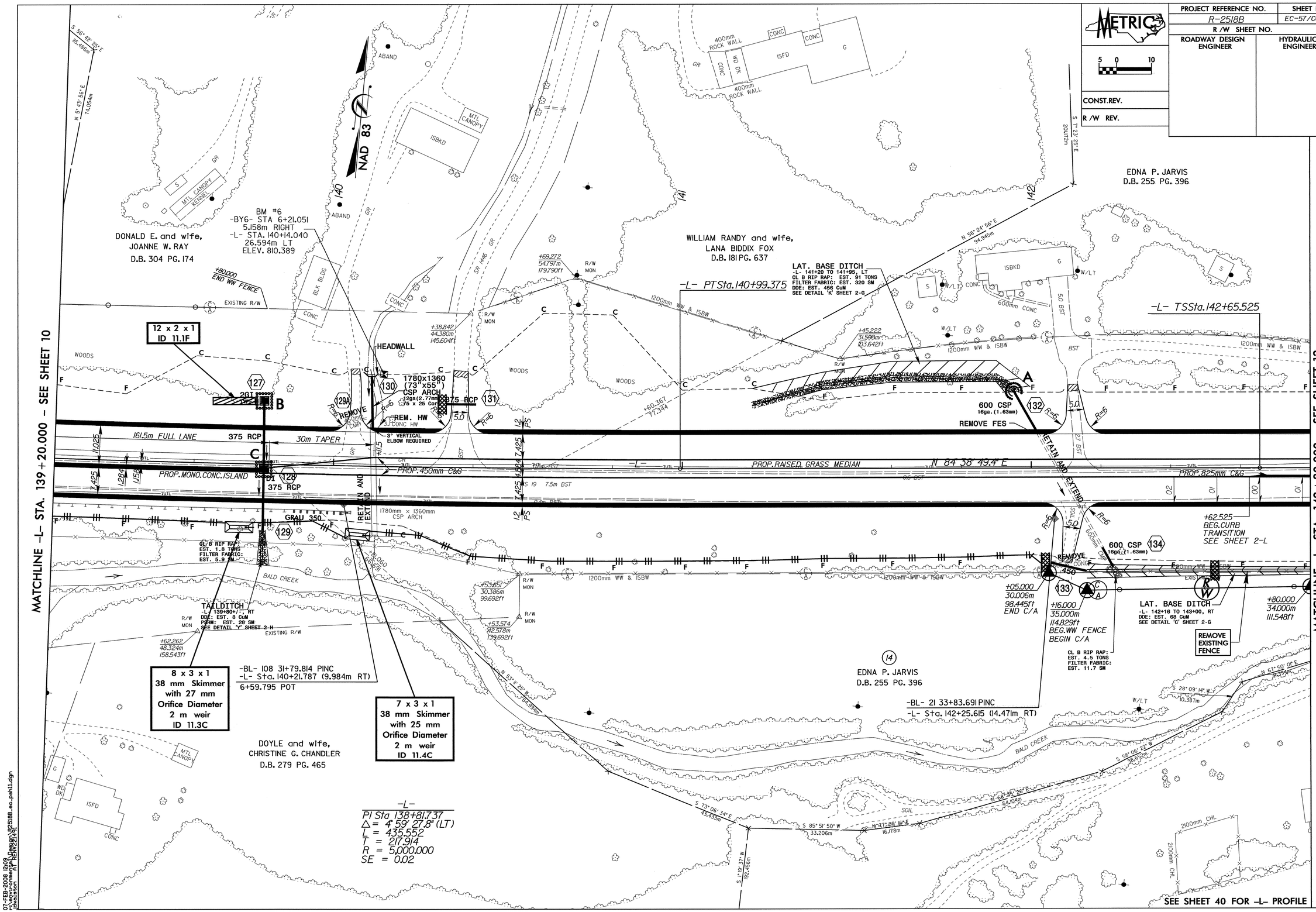
SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-57/CONST.JI
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R/W REV.



07-FEB-2008 12:09
r:\ency\roadway\proj\R2518B_ec_pah11.dgn
jlewis AT REN22141

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-58/CONST.12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R/W REV.	

METRIC 5 0 10

-L-

PIs Sta 142+90.125
Θs = 0° 31' 42.8"
Ls = 36.900
LT = 24.600
ST = 12.300

PI Sta 143+36.625
Δ = 1° 57' 33.4" (LT)
L = 68.392
T = 34.199
R = 2,000.000
SE = 0.03

PIs Sta 143+83.117
Θs = 0° 31' 42.8"
Ls = 36.900
LT = 24.600
ST = 12.300

NAD 83

EDNA P. JARVIS
D.B. 255 PG. 396

GARY D. PATE, one-half undivided interest; DENNIS G. PATE and wife, LUANNE B. PATE, one-half undivided interest
D.B. 242 PG. 511

HENRY CLAY TURNER III, and wife, ELIZABETH M. TURNER
D.B. 311 PG. 218
(HISTORIC PROPERTY)

DOUGLAS P. and wife, RACHEL SWANN
D.B. 259 PG. 355

RITA FOXX BRIGGS, BRENDA FOXX EDWARDS, JANET FOXX KIGER, and WILLIAM RANDY FOXX
D.B. 240 PG. 187

10 x 5 x 1
38 mm Skimmer with 38 mm Orifice Diameter
2 m weir
ID 12.8C

12 x 2 x 1
ID 12.2F

10 x 2 x 1
ID 12.1F

10 x 2 x 1
ID 12.3F

16 x 5 x 1
ID 12.7C

-BY7- 110 5+84.324 PINC
-L- Sta. 10+05.310 (5.947m LT)

-Y7- POT Sta. 10+00.000

-L- CSSta.143+70.817

-L- SCSta.143+02.425

-L- STSta.144+07.717

BEGIN CONSTRUCTION
-Y7- STA. 10+20.000

BERM DITCH
-L- 143+80+/- TO 145+40+/-, LT

BERM DITCH
-L- 145+40+/- TO 145+90+/-, LT
CL B RIP RAP: EST. 49 TONS
FILTER FABRIC: EST. 107 SM
SEE DETAIL 'B' SHEET 2-G

HEADDITCH
-L- 146+05+/-, LT
CL I RIP RAP: EST. 42 TONS
FILTER FABRIC: EST. 90 SM
SEE DETAIL 'I' SHEET 2-H

HEADWALL

2500x1830 (103"x71") CSP ARCH
12GA. (2.77mm)
75X 25 Corr. 90m TAPER

REM. HW

FALSE SUMP
SEE DETAIL 1 SHEET 2-G

CL B RIP RAP
EST. 40 TONS

CL B RIP RAP:
EST. 1.8 TONS
FILTER FABRIC:
EST. 5.9 SM

900 RCP

JB-TB

REMOVE FES

375 RCP

375 RCP

375 RCP

375 RCP

GRAU 350

GRAU 350

GRAU 350

GRAU 350 F

PROP. 450mm C&G

PROP. RAISED GRASS MEDIAN

PROP. 825mm C&G

30m TAPER

END CURB TRANSITION

N 81° 37' 50.3" E

161.5m FULL LANE

PROP. MONO. CONC. ISLAND

REMOVE

RETAIN

RETAIN AND EXTEND

400 CSP
16ga. (1.63mm)
W/2 ELBOWS

CL B RIP RAP:
EST. 0.9 TONS
FILTER FABRIC:
EST. 4.2 SM

CL B RIP RAP:
EST. 0.9 TONS
FILTER FABRIC:
EST. 4.2 SM

CL B RIP RAP:
EST. 0.9 TONS
FILTER FABRIC:
EST. 4.2 SM

REMOVE EXISTING FENCE

REMOVE EXISTING FENCE

TIE FENCE TO WW

LAT. BASE DITCH
-L- 142+16 TO 143+00, RT
DOE: EST. 68 CUM
SEE DETAIL 'C' SHEET 2-G

-BL- 22 37+33.063 PINC
-L- Sta. 145+74.346 (12.69m RT)
6+57.726 POT

END FENCE

BEGIN FENCE

18.288m (60')

18.288m (60')

EXISTING ACCESS POINT

HENRY CLAY TURNER III, and wife, ELIZABETH M. TURNER
D.B. 311 PG. 218

RITA FOXX BRIGGS, BRENDA FOXX EDWARDS, JANET FOXX KIGER, and WILLIAM RANDY FOXX
D.B. 240 PG. 187

EDNA P. JARVIS
D.B. 255 PG. 396

BRUCE and wife, LISA A. HARTNELL
D.B. 226 PG. 172

DAVID R. and wife, NANCY B. RUTKOWSKI
D.B. 340 PG. 92

31 x 7 x 1
76 mm Skimmer with 68 mm Orifice Diameter
4 m weir
ID 12.1C

8 x 4 x 1
38 mm Skimmer with 31 mm Orifice Diameter
2 m weir
ID 12.3C

15 x 2 x 1
2 m weir
ID 12.4C

MATCHLINE -L- STA. 142+80.000 – SEE SHEET 11

MATCHLINE -L- STA. 146+40.000 – SEE SHEET 13

SEE SHEET 41 FOR -L- PROFILE
SEE SHEET 54 FOR -Y7- PROFILE

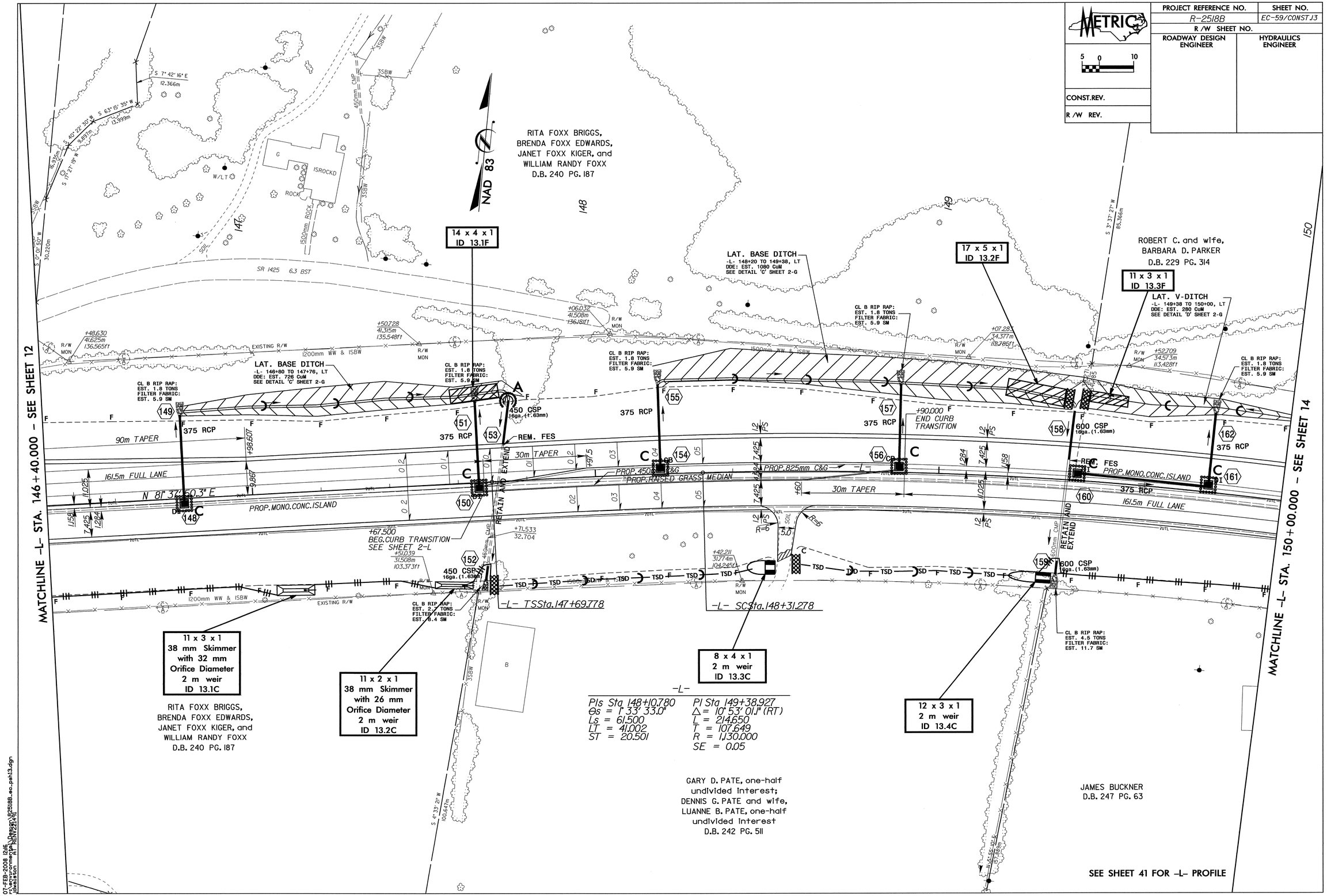
PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-59/CONST.13
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



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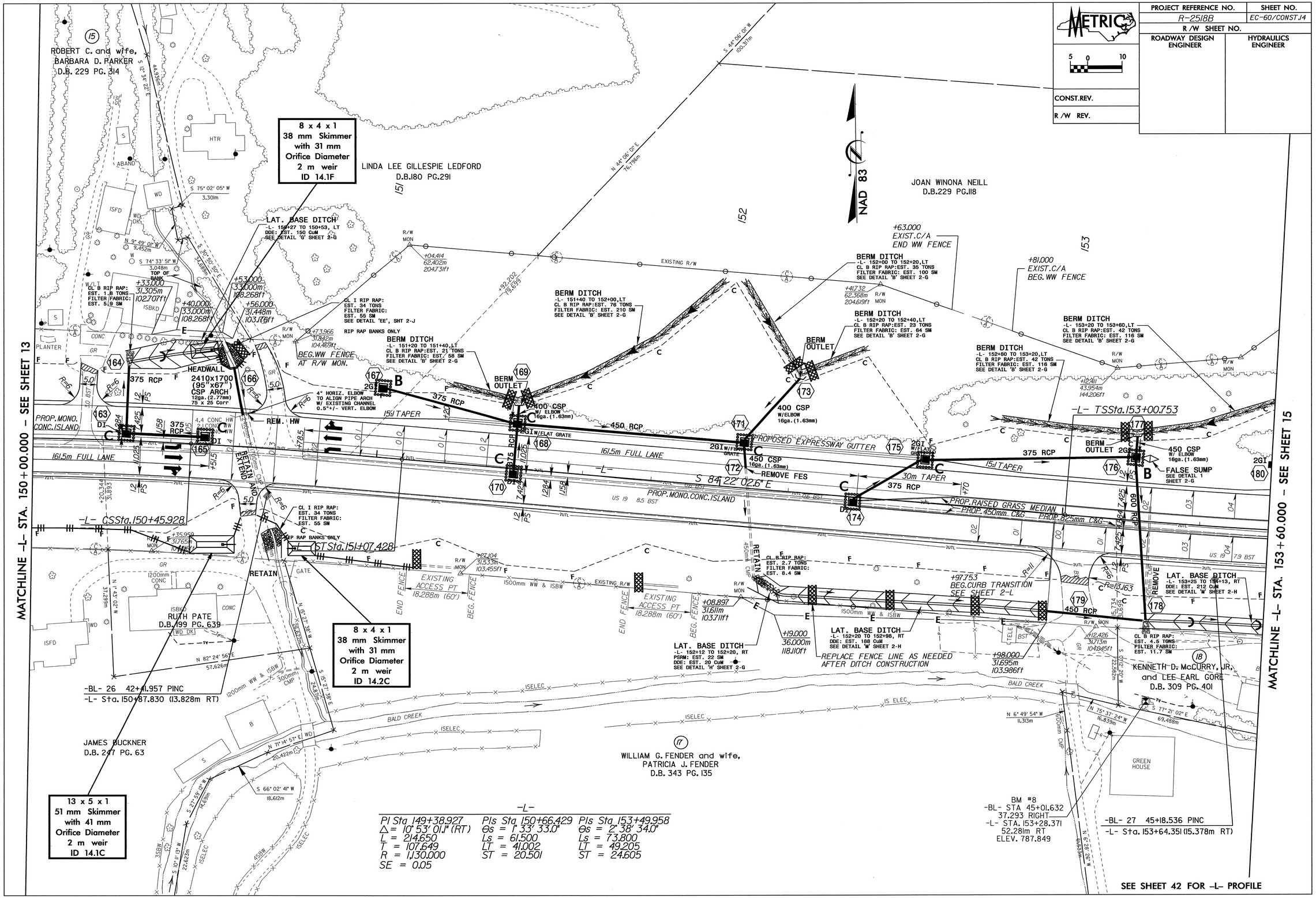
jbaston AT REM22141

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-60/CONST.14
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.



-L-

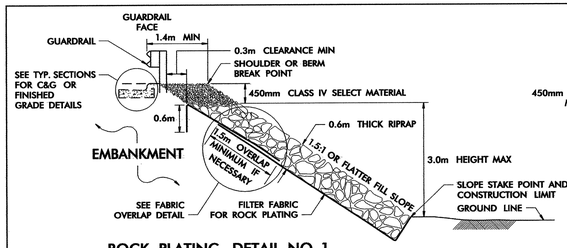
PI Sta 149+38.927	PIs Sta 150+66.429	PIs Sta 153+49.958
Δ = 10° 53' 01.1" (RT)	θs = 1° 33' 33.0"	θs = 2° 38' 34.0"
L = 214.650	Ls = 61.500	Ls = 73.800
T = 107.649	LT = 41.002	LT = 49.205
R = 1,130.000	ST = 20.501	ST = 24.605
SE = 0.05		

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-61/CONST.J5
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

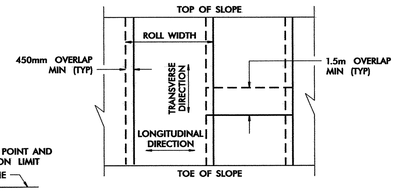
METRIC 5 0 10

CONST.REV.

R /W REV.



ROCK PLATING DETAIL NO. 1

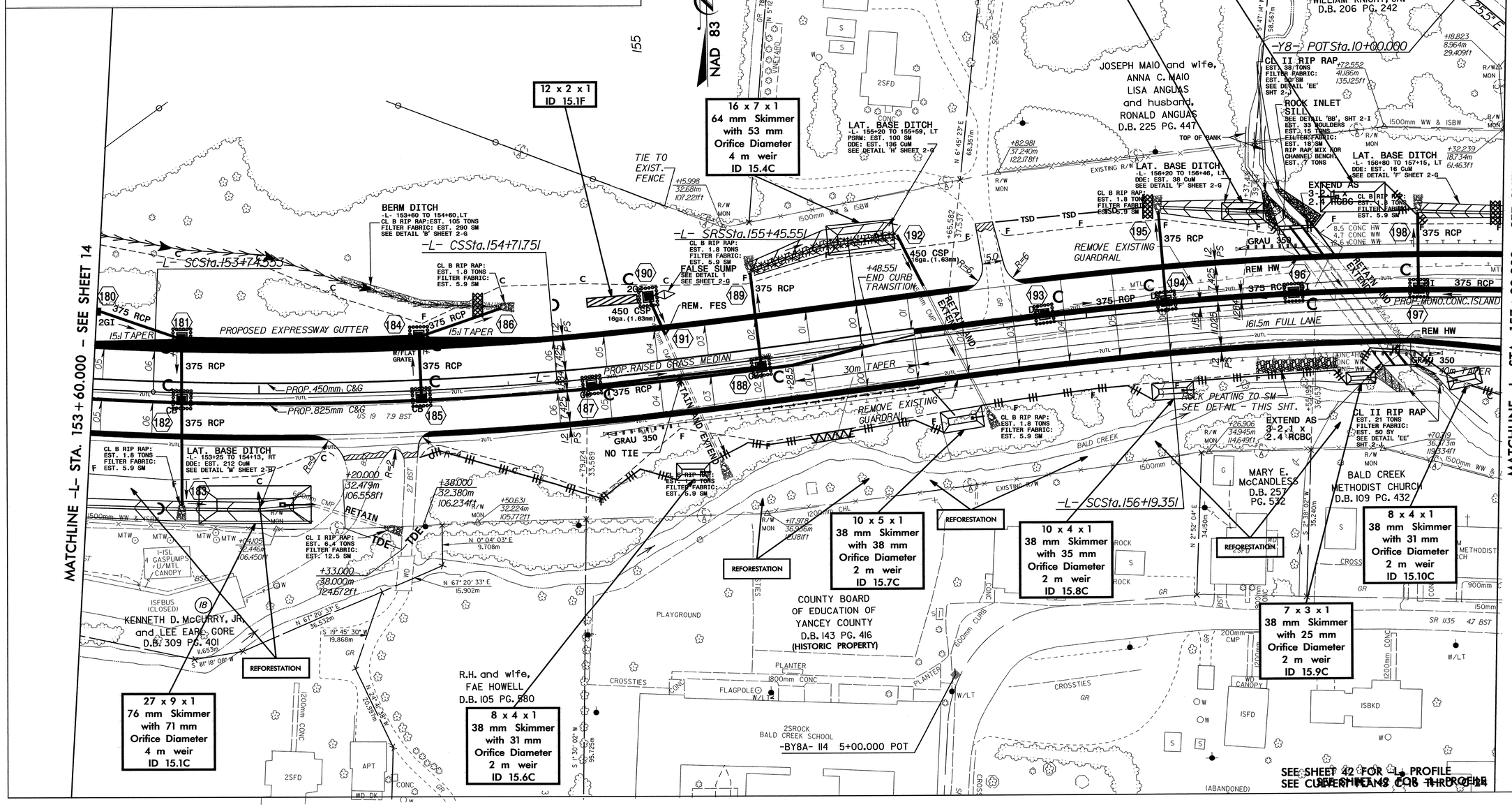


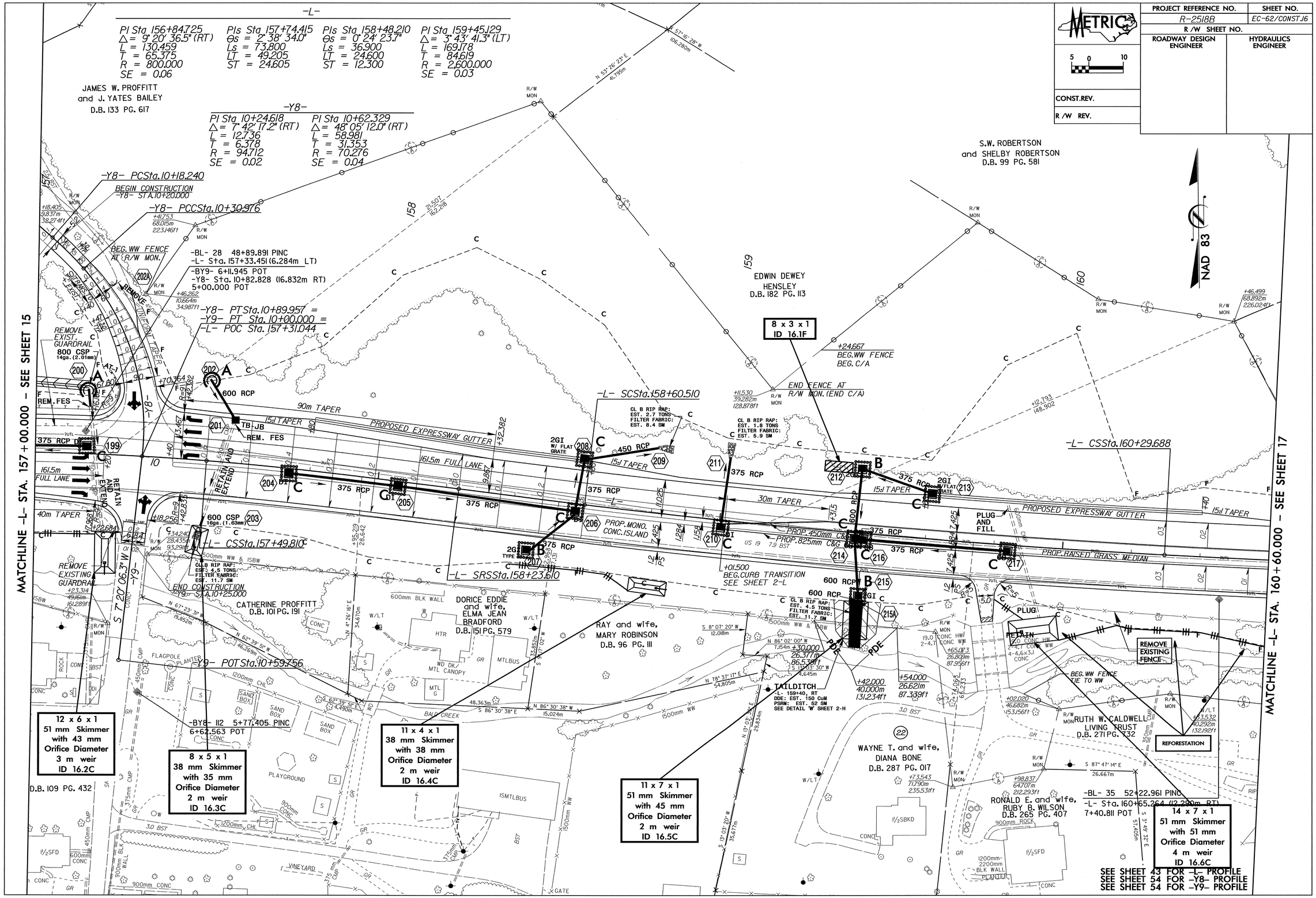
FABRIC OVERLAP DETAIL
(PLAN VIEW)

USE ROCK PLATING DETAIL NO. 1
AT THE FOLLOWING LOCATIONS:

-L- STA 156+40+/- TO -L- STA 156+60+/-
EXTEND ROCK PLATING LIMITS TO 2:1 SLOPES.

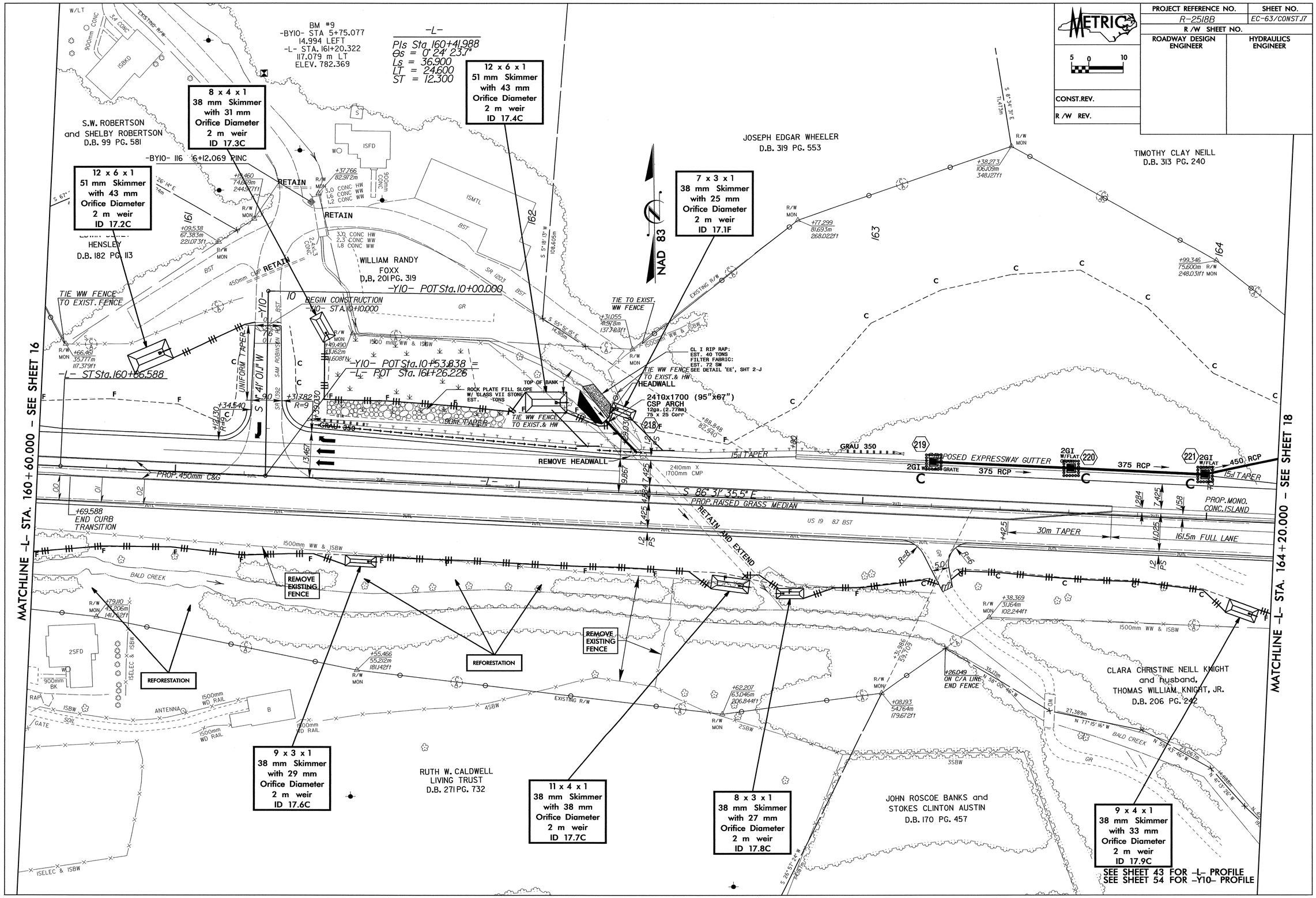
ROCK PLATING DETAIL



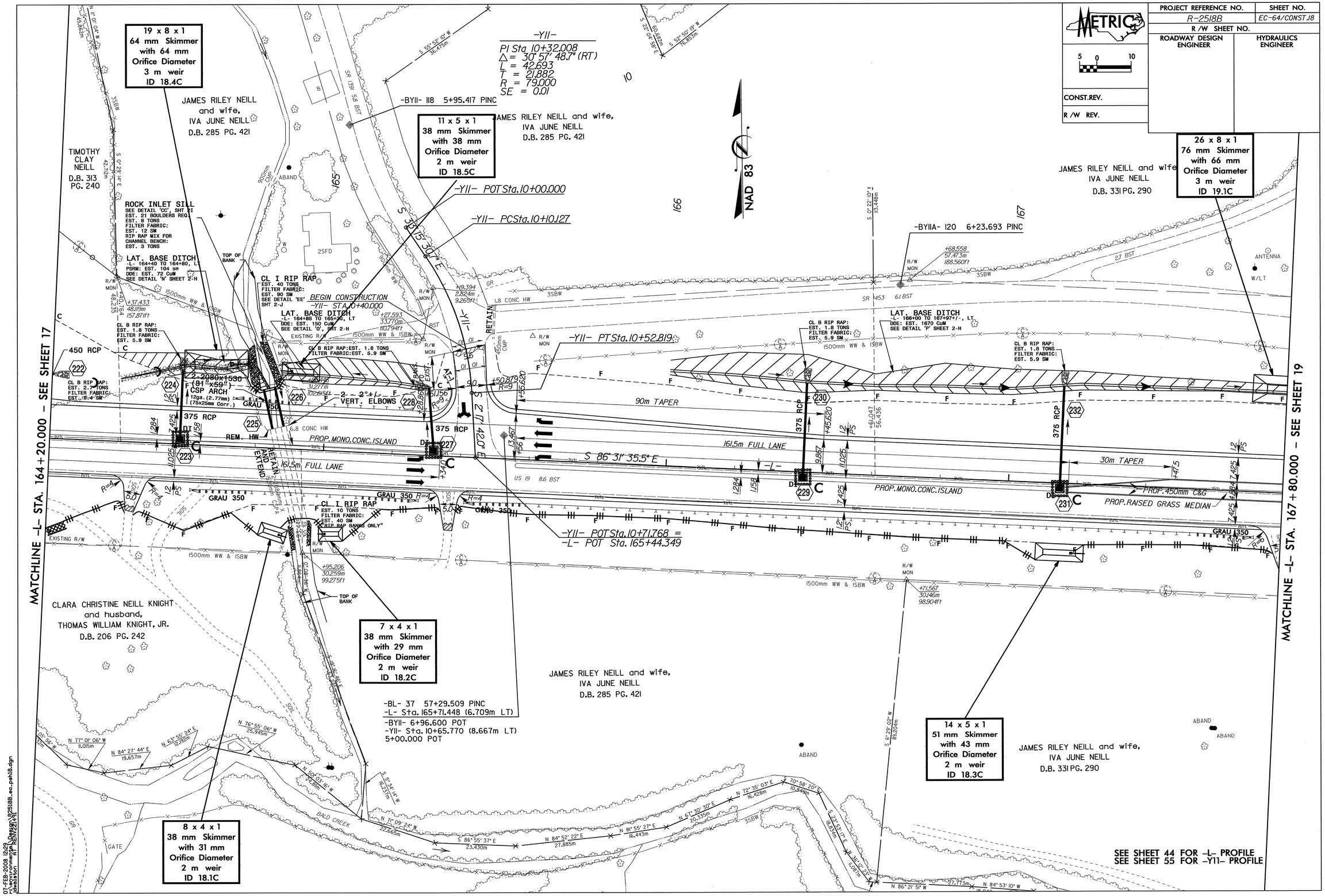

METRIC
5 0 10
CONST.REV.
R /W REV.
PROJECT REFERENCE NO.
R-2518B
SHEET NO.
EC-62/CONST.J6
R /W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
-L-
PI Sta 156+84.725
Δ = 9° 20' 36.5" (RT)
L = 130.459
T = 65.375
R = 800.000
SE = 0.06
PIs Sta 157+74.415
Θs = 2° 38' 34.0"
Ls = 73.800
LT = 49.205
ST = 24.605
PIs Sta 158+48.210
Θs = 0° 24' 23.7"
Ls = 36.900
LT = 24.600
ST = 12.300
PI Sta 159+45.129
Δ = 3° 43' 41.3" (LT)
L = 169.178
T = 84.619
R = 2,600.000
SE = 0.03
JAMES W. PROFFITT
and J. YATES BAILEY
D.B. 133 PG. 617
-Y8-
PI Sta 10+24.618
Δ = 7° 42' 17.2" (RT)
L = 12.736
T = 6.378
R = 94.712
SE = 0.02
PI Sta 10+62.329
Δ = 48° 05' 12.0" (RT)
L = 58.981
T = 31.353
R = 70.276
SE = 0.04
-Y8- PCSta.10+18.240
BEGIN CONSTRUCTION
-Y8- STA.10+20.000
-Y8- PCCSta.10+30.976
BEG. WW FENCE AT R/W MON.
-BL- 28 48+89.891 PINC
-L- Sta. 157+33.451 (6.284m LT)
-BY9- 6+11.945 POT
-Y8- Sta. 10+82.828 (16.832m RT)
5+00.000 POT
-Y8- PTSta.10+89.957 =
-Y9- PT Sta. 10+00.000 =
-L- POC Sta. 157+31.044
REMOVE EXIST. GUARDRAIL
800 CSP 14ga. (2.01mm)
600 RCP
90m TAPER
15:1 TAPER
PROPOSED EXPRESSWAY GUTTER
161.5m FULL LANE
40m TAPER
375 RCP
450 RCP
600 CSP 16ga. (1.63mm)
-L- CSSta.157+49.810
END CONSTRUCTION
-Y9- STA.10+25.000
S 7° 20' 06.3" W
CATHERINE PROFFITT
D.B. 101 PG. 191
-Y9- POTSta.10+59.756
-BY8- 112 5+77.405 PINC
6+62.563 POT
D.B. 109 PG. 432
12 x 6 x 1
51 mm Skimmer
with 43 mm
Orifice Diameter
3 m weir
ID 16.2C
8 x 5 x 1
38 mm Skimmer
with 35 mm
Orifice Diameter
2 m weir
ID 16.3C
11 x 4 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 16.4C
11 x 7 x 1
51 mm Skimmer
with 45 mm
Orifice Diameter
2 m weir
ID 16.5C
14 x 7 x 1
51 mm Skimmer
with 51 mm
Orifice Diameter
4 m weir
ID 16.6C
-L- SCSta.158+60.510
CL B RIP RAP:
EST. 2.7 TONS
FILTER FABRIC:
EST. 8.4 SM
CL B RIP RAP:
EST. 1.8 TONS
FILTER FABRIC:
EST. 5.9 SM
CL B RIP RAP:
EST. 4.5 TONS
FILTER FABRIC:
EST. 11.7 SM
-L- SRSSta.158+23.610
+101.500
BEG. CURB TRANSITION
SEE SHEET 2-L
PROP. MONO. CONC. ISLAND
PROP. 450mm C&G
PROP. 825mm C&G
PROP. RAISED GRASS MEDIAN
PLUG AND FILL
8 x 3 x 1
ID 16.1F
+24.667
BEG. WW FENCE
BEG. C/A
END FENCE AT
R/W MON. (END C/A)
-L- CSSta.160+29.688
S.W. ROBERTSON
and SHELBY ROBERTSON
D.B. 99 PG. 581
EDWIN DEWEY
HENSLEY
D.B. 182 PG. 113
DORICE EDDIE
and wife,
ELMA JEAN
BRADFORD
D.B. 151 PG. 579
RAY and wife,
MARY ROBINSON
D.B. 96 PG. 111
TAILDITCH
-L- 159+40, RT
DDE: EST. 150 CuM
PSRM: EST. 52 SM
SEE DETAIL 'W' SHEET 2-H
+42.000
40.000m
131.234ft
+54.000
26.621m
87.339ft
WAYNE T. and wife,
DIANA BONE
D.B. 287 PG. 017
RUTH W. CALDWELL
LIVING TRUST
D.B. 271 PG. 732
RONALD E. and wife,
RUBY B. WILSON
D.B. 265 PG. 407
-BL- 35 52+22.961 PINC
-L- Sta. 160+65.264 (12.230m RT)
7+40.811 POT
REMOVE EXISTING FENCE
REFORESTATION
BEG. WW FENCE TIE TO WW
NAD 83
MATCHLINE -L- STA. 157+00.000 - SEE SHEET 15
MATCHLINE -L- STA. 160+60.000 - SEE SHEET 17
SEE SHEET 43 FOR -L- PROFILE
SEE SHEET 54 FOR -Y8- PROFILE
SEE SHEET 54 FOR -Y9- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-63/CONST.J7
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10



PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-64/CONST.18
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	



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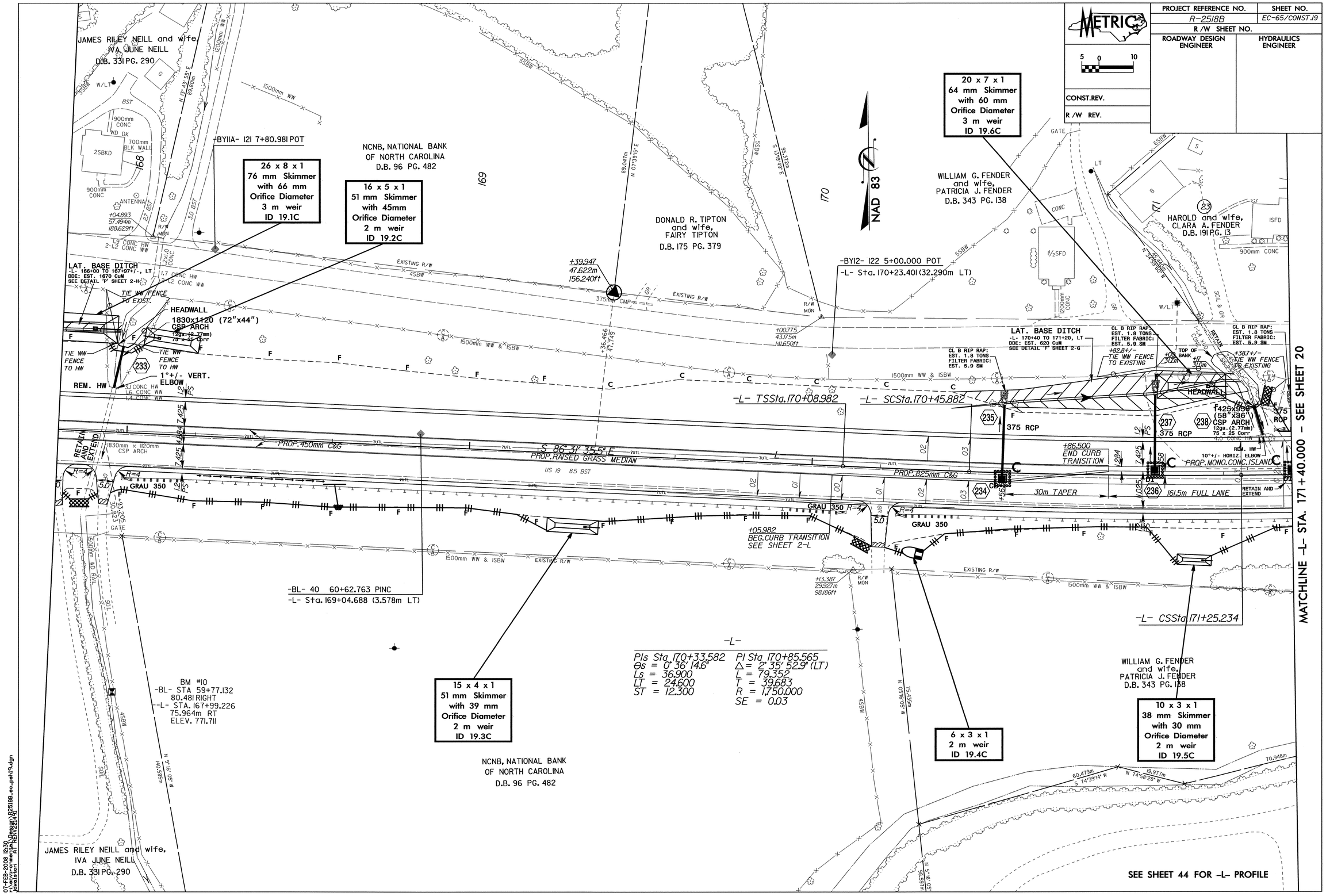
jakelson RT REN22141

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-65/CONST.19
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10



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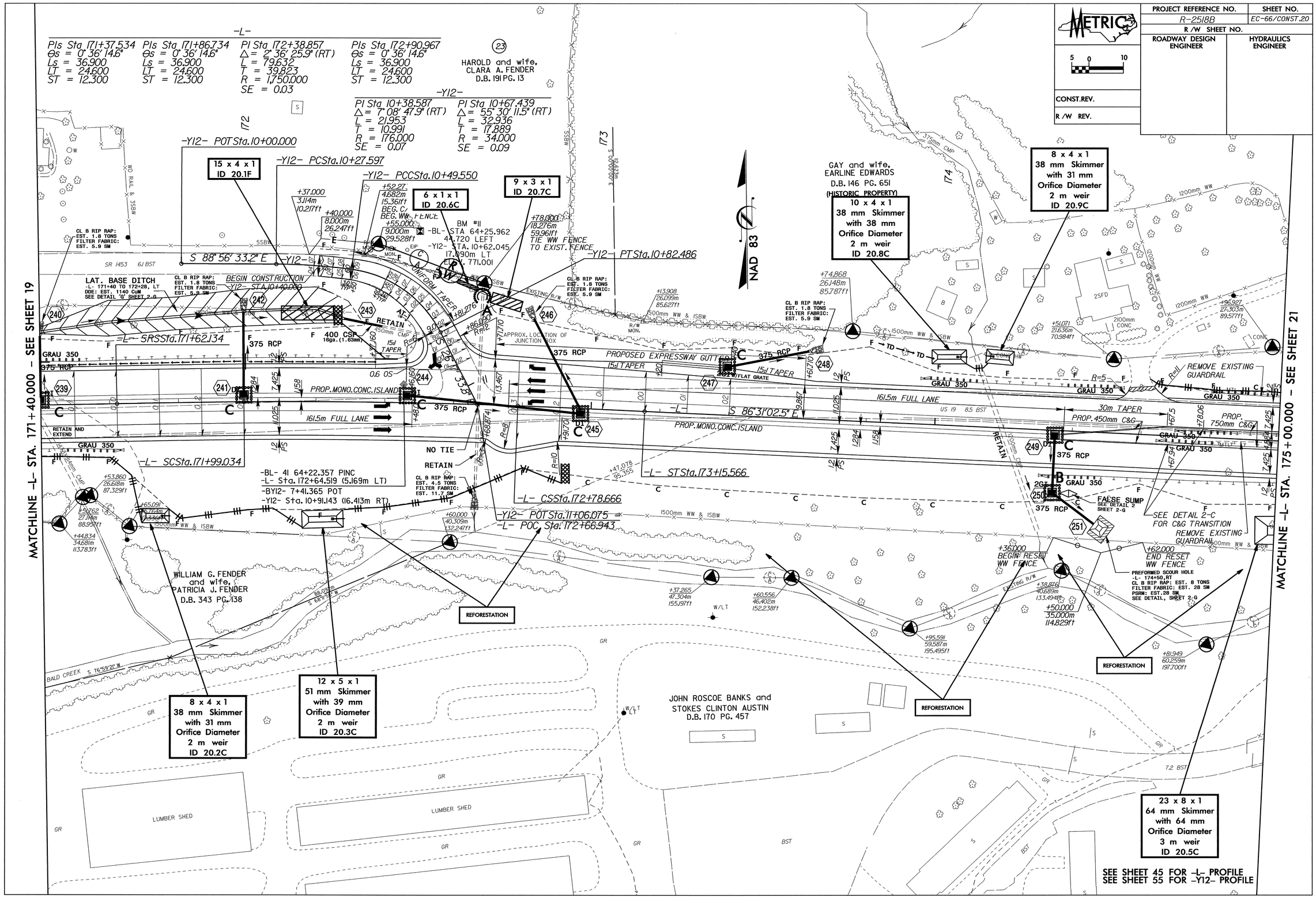
jbelston
AT REN\221491

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-66/CONST.20
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10



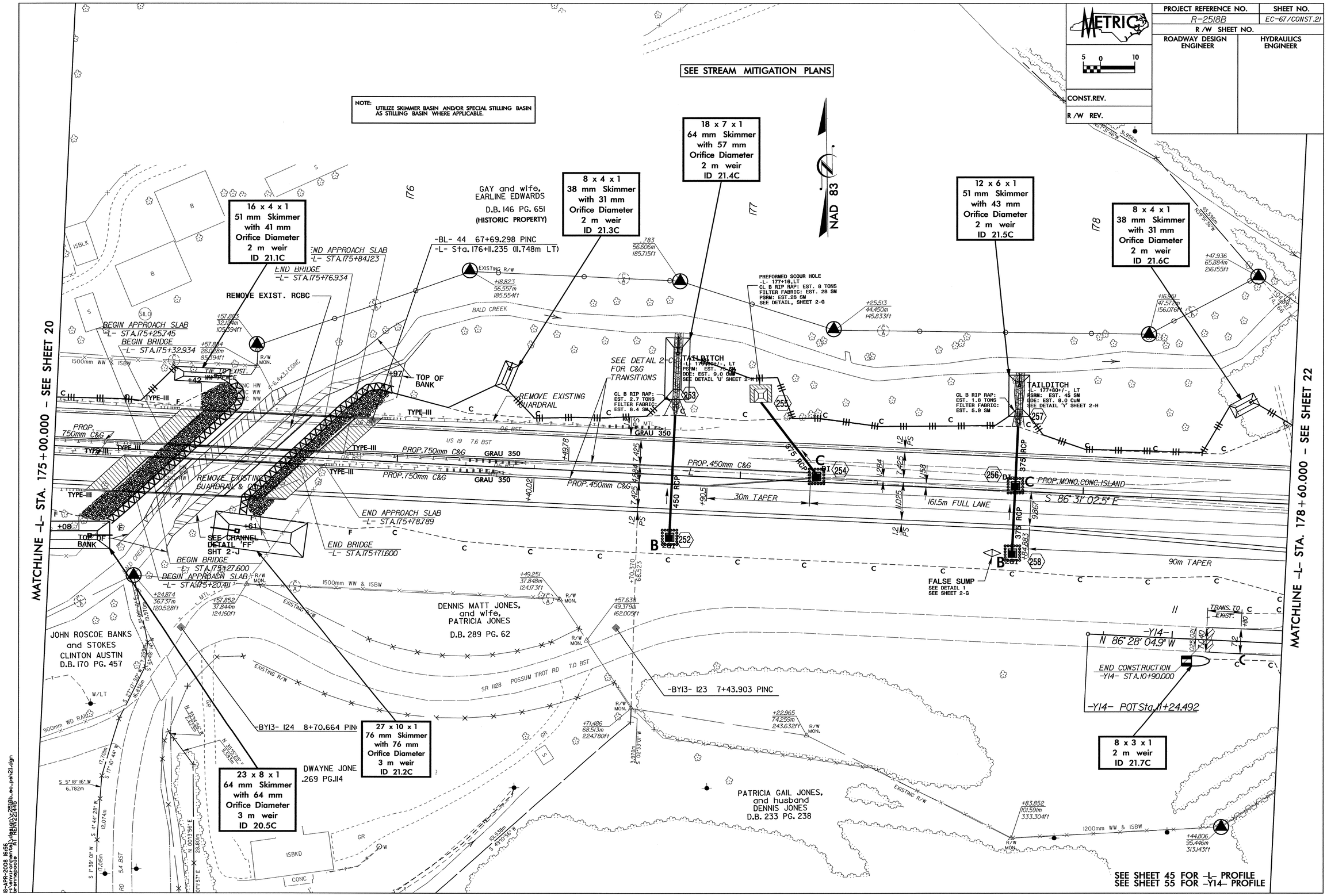
PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-67/CONST.21
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



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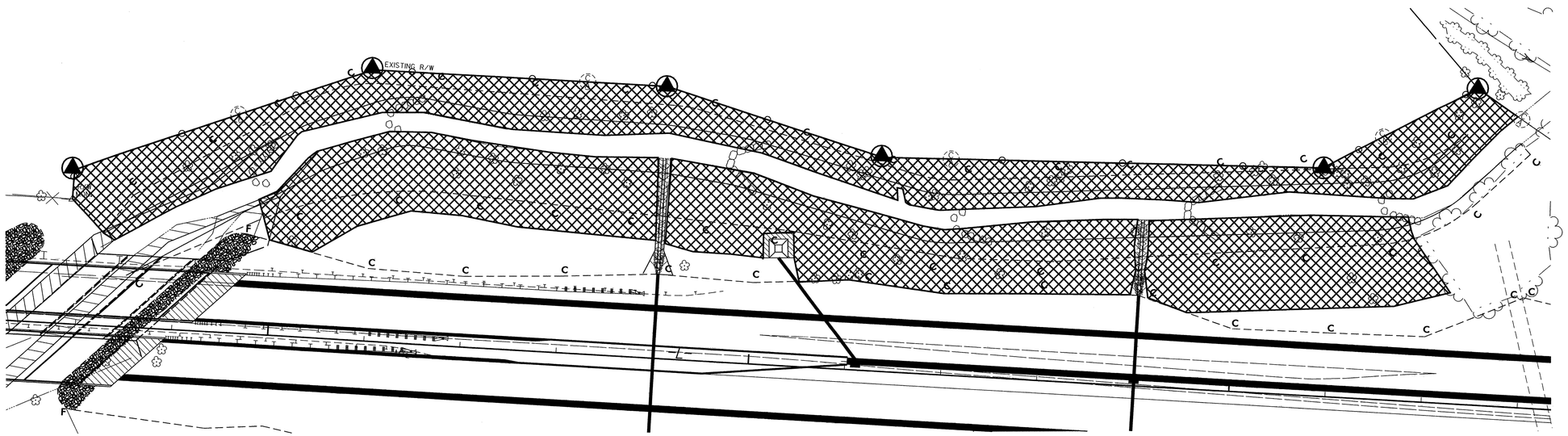
PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-68/CONST.21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

0.67 HECTARE STREAMBANK REFORESTATION

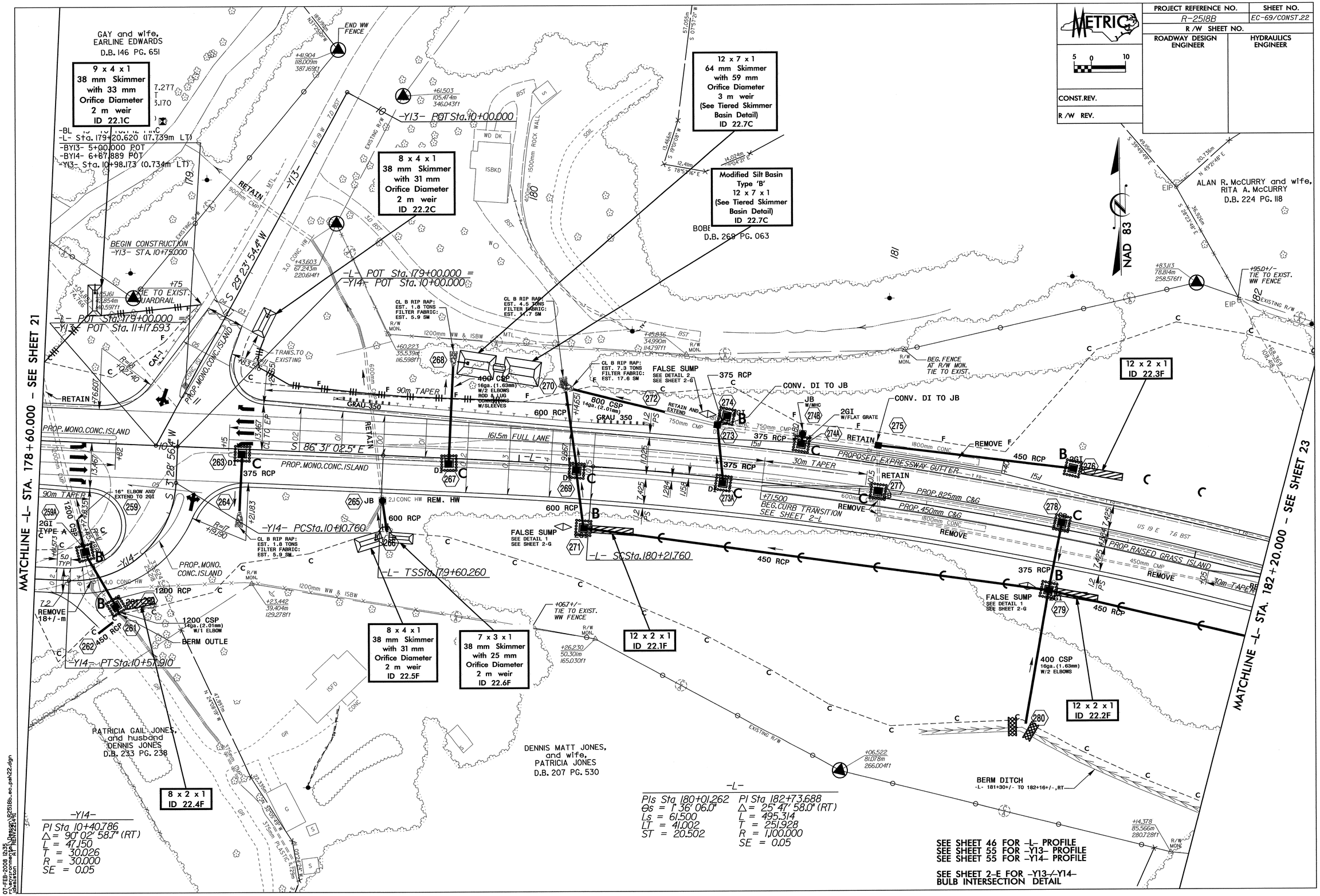
STA. 175 + 70 to STA. 178 + 60



SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-69/CONST.22
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10



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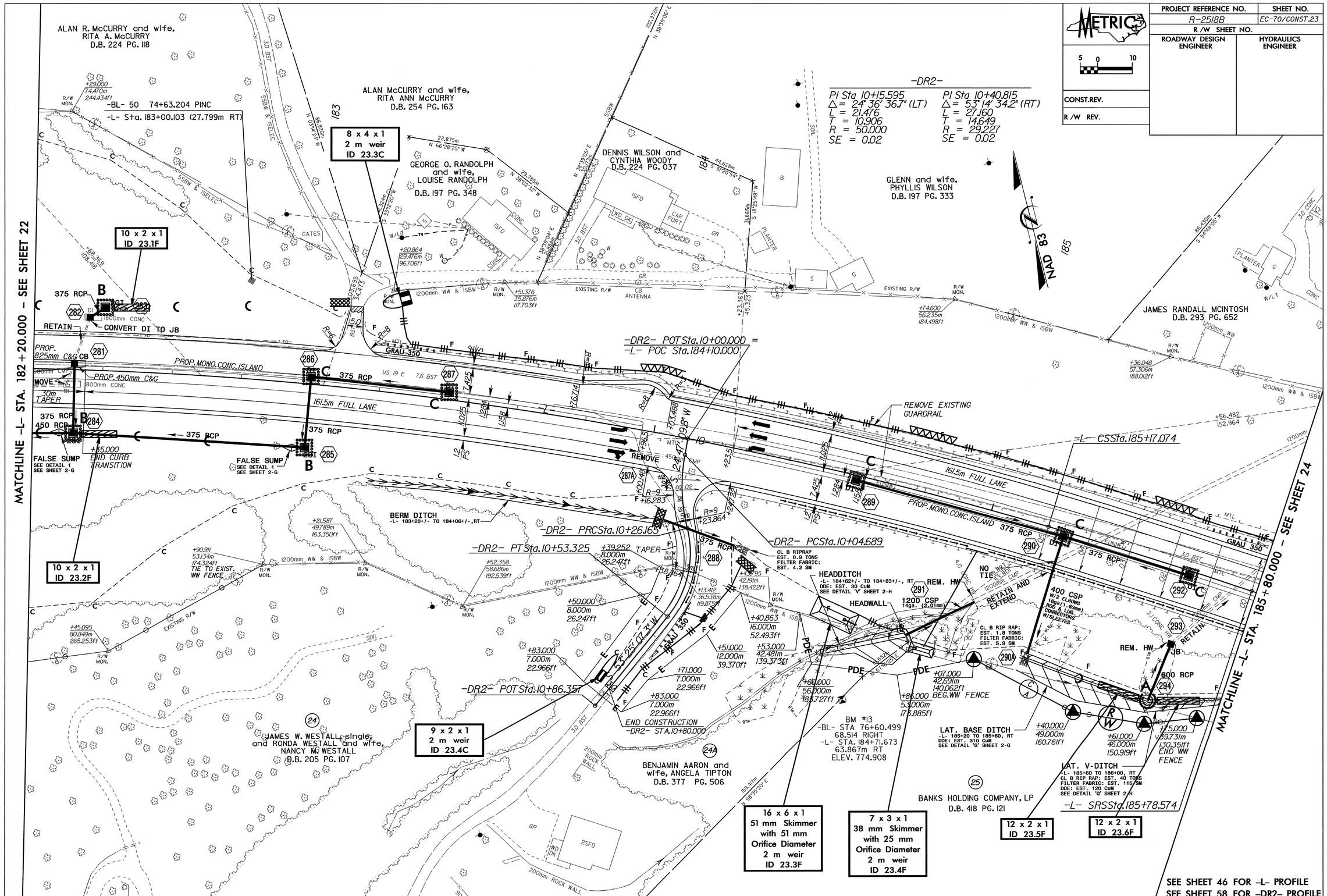
jdwilson AT HENP22149


METRIC
5 0 10
PROJECT REFERENCE NO.
R-2518B
SHEET NO.
EC-70/CONST.23
R /W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R /W REV.
ALAN R. McCURRY and wife, RITA A. McCURRY D.B. 224 PG. 118
ALAN McCURRY and wife, RITA ANN McCURRY D.B. 254 PG. 163
GEORGE O. RANDOLPH and wife, LOUISE RANDOLPH D.B. 197 PG. 348
DENNIS WILSON and CYNTHIA WOODY D.B. 224 PG. 037
GLENN and wife, PHYLLIS WILSON D.B. 197 PG. 333
JAMES RANDALL MCINTOSH D.B. 293 PG. 652
JAMES W. WESTALL, single, and RONDA WESTALL and wife, NANCY M. WESTALL D.B. 205 PG. 107
BENJAMIN AARON and wife, ANGELA TIPTON D.B. 377 PG. 506
BANKS HOLDING COMPANY, LP D.B. 418 PG. 121
-DR2-
PI Sta 10+15.595
Δ= 24° 36' 36.7" (LT)
L = 21.476
T = 10.906
R = 50.000
SE = 0.02
PI Sta 10+40.815
Δ= 53° 14' 34.2" (RT)
L = 27.160
T = 14.649
R = 29.227
SE = 0.02
-BL- 50 74+63.204 PINC
-L- Sta. 183+00.103 (27.799m RT)
8 x 4 x 1
2 m weir
ID 23.3C
10 x 2 x 1
ID 23.1F
10 x 2 x 1
ID 23.2F
9 x 2 x 1
2 m weir
ID 23.4C
16 x 6 x 1
51 mm Skimmer
with 51 mm
Orifice Diameter
2 m weir
ID 23.3F
7 x 3 x 1
38 mm Skimmer
with 25 mm
Orifice Diameter
2 m weir
ID 23.4F
12 x 2 x 1
ID 23.5F
12 x 2 x 1
ID 23.6F
-DR2- POT Sta.10+00.000 =
-L- POC Sta.184+10.000
-L- CSSta.185+17.074
-L- SRSSta.185+78.574
-DR2- PRCSta.10+26.165
-DR2- PCSta.10+04.689
-DR2- PTSta.10+53.325
-DR2- POTSta.10+86.357
-DR2- STA.10+80.000
REMOVE EXISTING GUARDRAIL
BERM DITCH
-L- 183+20+/- TO 184+06+/-,RT
HEADDITCH
-L- 184+62+/- TO 184+83+/-, RT
DDE: EST. 30 CuM
SEE DETAIL 'V' SHEET 2-H
HEADWALL
1200 CSP
14ga. (2.01mm)
400 CSP
W/2 ELBOWS
16ga (1.63mm)
ROD & LUG
COUPLERS
W/SLEEVES
CL B RIPRAP
EST. 0.9 TONS
FILTER FABRIC:
EST. 4.2 SM
CL B RIP RAP:
EST. 1.8 TONS
FILTER FABRIC:
EST. 5.9 SM
LAT. BASE DITCH
-L- 185+20 TO 185+60, RT
DDE: EST. 310 CuM
SEE DETAIL 'G' SHEET 2-G
LAT. V-DITCH
-L- 185+60 TO 186+00, RT
CL B RIP RAP: EST. 40 TONS
FILTER FABRIC: EST. 115/SM
DDE: EST. 120 CuM
SEE DETAIL 'Q' SHEET 2-H
BM #13
-BL- STA 76+60.499
68.514 RIGHT
-L- STA. 184+71.673
63.867m RT
ELEV. 774.908
FALSE SUMP
SEE DETAIL 1
SEE SHEET 2-G
END CURB TRANSITION
PROP. 825mm C&G CB
PROP. MONO. CONC. ISLAND
PROP. 450mm C&G
161.5m FULL LANE
375 RCP
450 RCP
600 RCP
GRAU 350
RETAIN
CONVERT DI TO JB
REMOVE
RETAIN AND EXTEND
REM. HW
NO TIE
END CONSTRUCTION
TIE TO EXIST. WW FENCE
BEG. WW FENCE
END WW FENCE
200mm ROCK WALL
MATCHLINE -L- STA. 182+20.000 - SEE SHEET 22
MATCHLINE -L- STA. 185+80.000 - SEE SHEET 24
NAD 83
SEE SHEET 46 FOR -L- PROFILE
SEE SHEET 58 FOR -DR2- PROFILE

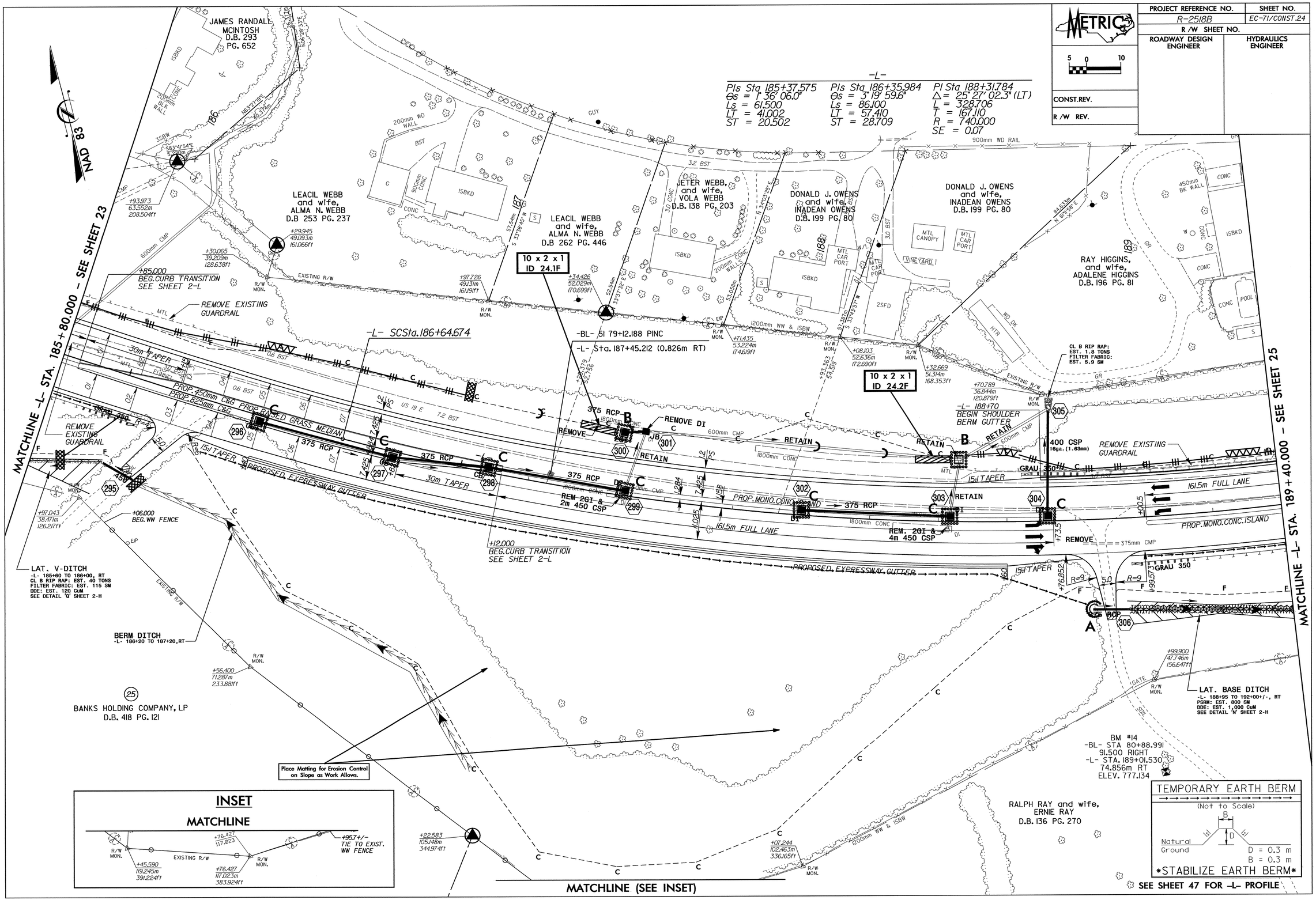
PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-71/CONST.24
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.



PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-72/CONST.25
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

NOTE: UTILIZE SKIMMER BASIN AND/OR SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE.

-L-
PI Sta 188+31.784
△ = 25° 27' 02.3" (LT)
L = 328.706
T = 167.110
R = 740.000
SE = 0.07

PIs Sta 190+22.089
θs = 3° 19' 59.6"
Ls = 86.100
LT = 57.410
ST = 28.709

NAD 83

REFORESTATION

10 x 5 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 25.2C

-BY16A- 129 5+00.000 POT

DISTURBED AREA
(± M2)

12 x 7 x 1
51 mm Skimmer
with 47 mm
Orifice Diameter
2 m weir
ID 25.4C

22 x 8 x 1
64 mm Skimmer
with 64 mm
Orifice Diameter
3 m weir
ID 25.3C

25 x 10 x 1
76 mm Skimmer
with 76 mm
Orifice Diameter
4 m weir
ID 25.1C

MATCHLINE -L- STA. 189+40.000 - SEE SHEET 24

MATCHLINE -L- STA. 193+00.000 - SEE SHEET 26

RAY HIGGINS, and wife, ADALENE HIGGINS D.B. 136 PG. 81

W.H. (BILL) BUCKNER and wife, VIOLA S. BUCKNER D.B.110 PG.97

RALPH RAY and wife, ERNIE RAY D.B. 136 PG. 270

W.H. (BILL) BUCKNER and wife, VIOLA S. BUCKNER D.B.110 PG.97

-L- CSSta.189+93.380

-L- STSta.190+79.480

-L- 193+00 END SHOULDER BERM GUTTER

-L- Sta. 190+52.219 (0.00lm RT)

-BL- 52 82+16.858 PINC

-L- 190+90 BEGIN SHOULDER BERM GUTTER

BEGIN APPR.SLAB -L- STA.191+57.685

BEGIN BRIDGE -L- STA.191+65.000

END APPR.SLAB -L- STA.192+27.315

END BRIDGE -L- STA.192+20.000

LAT. BASE DITCH
-L- 188+95 TO 192+00+/-, RT
PSRM: EST. 800 SM
DDE: EST. 1,000 CuM
SEE DETAIL 'N' SHEET 2-H

LAT. BASE DITCH
-L- 192+20 TO 193+97+/-, RT
DDE: EST. 900 CuM
SEE DETAIL 'O' SHEET 2-H

SEE DETAIL 2C FOR C&G TRANSITION

+62.000 BEG.CURB TRANSITION SEE SHEET 2-L

+82.480 END CURB TRANSITION

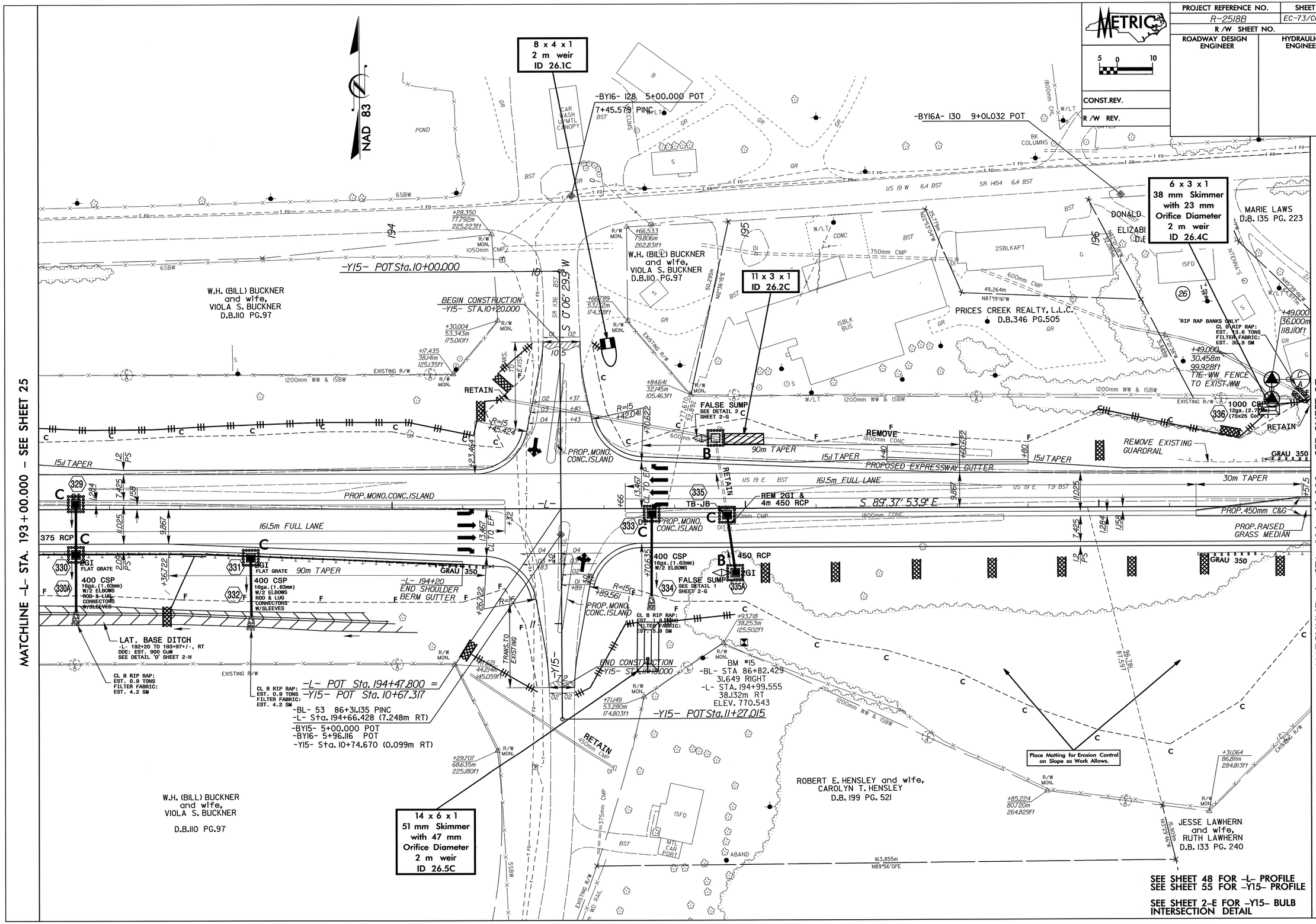
SEE SHEET 47 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-73/CONST.26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R/W REV.

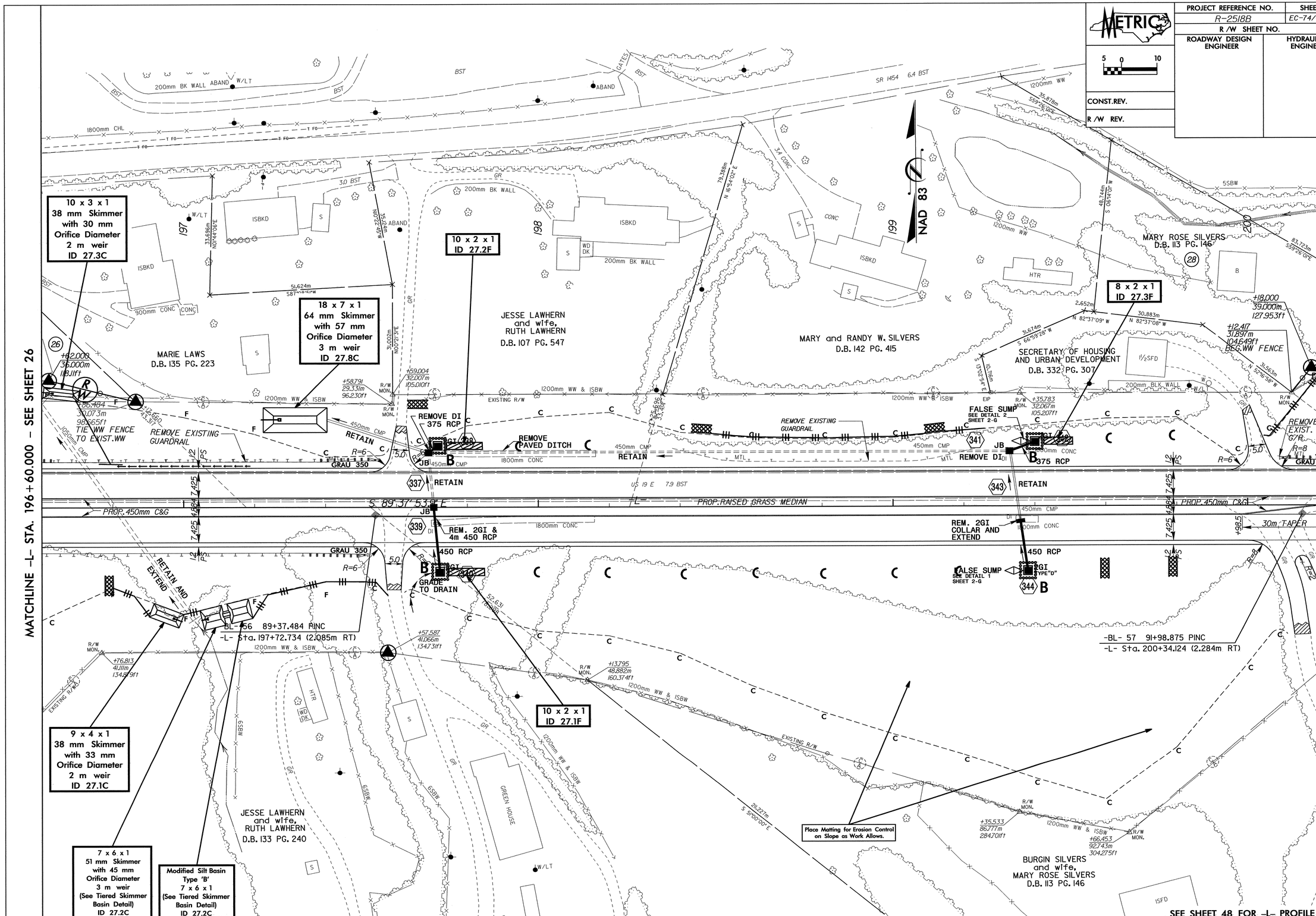


PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-74/CONST.27
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

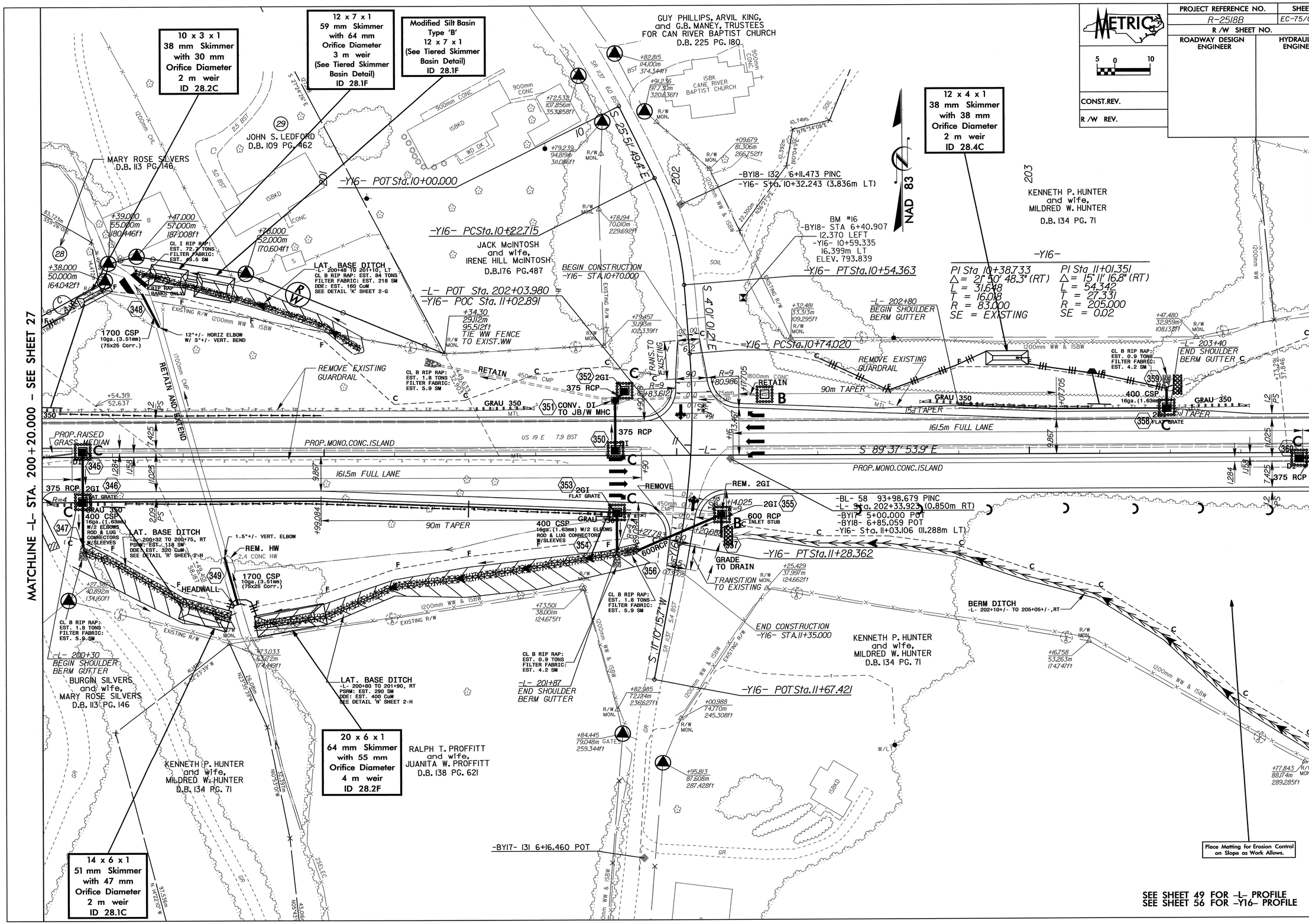
CONST.REV.

R /W REV.



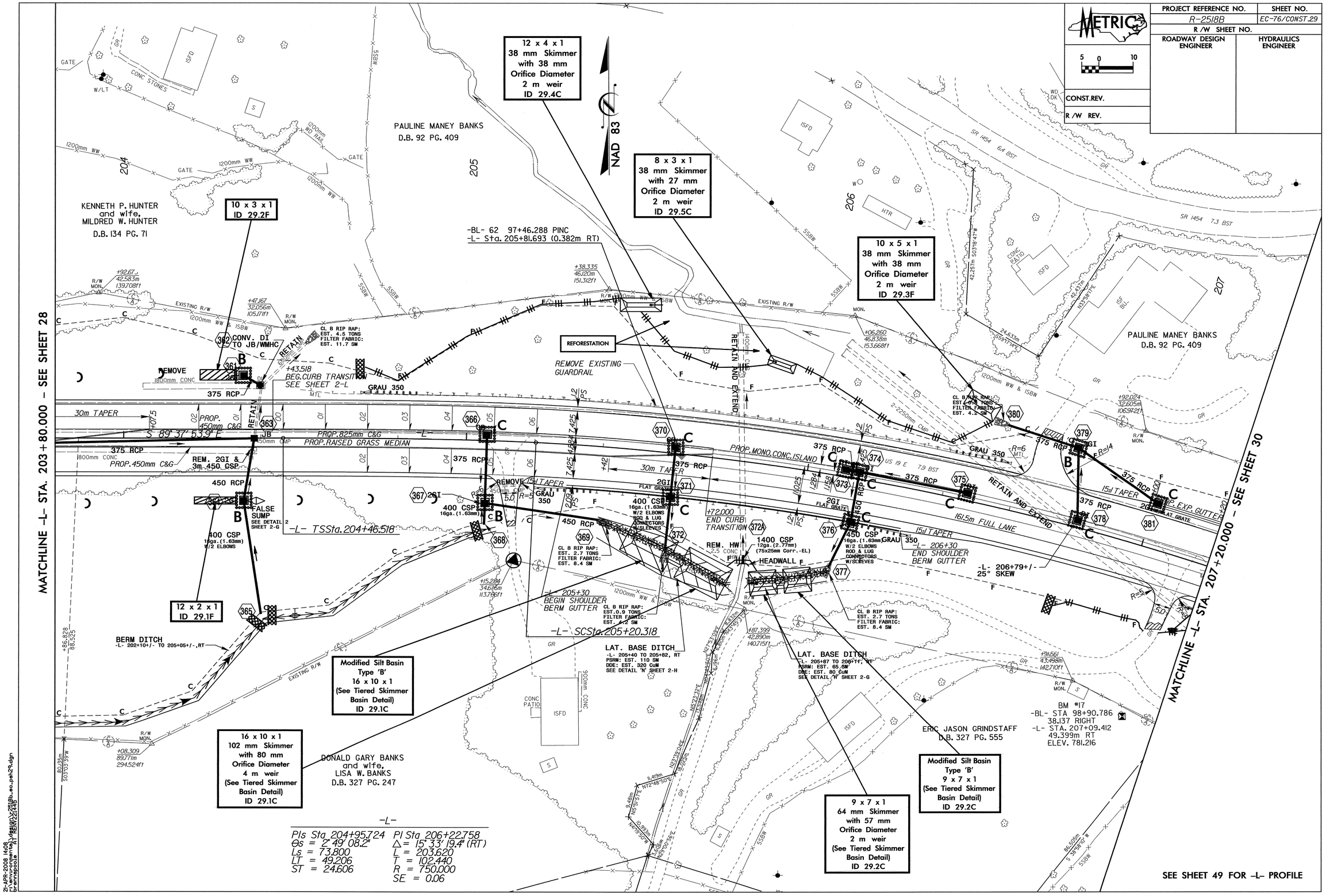
PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-75/CONST.28
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10



PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-76/CONST.29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R/W REV.	

METRIC 5 0 10



21-APR-2008 14:08
C:\environments\jrbenner\2518b_ec_pch29.dgn
jrbenner

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-77/CONST.30
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

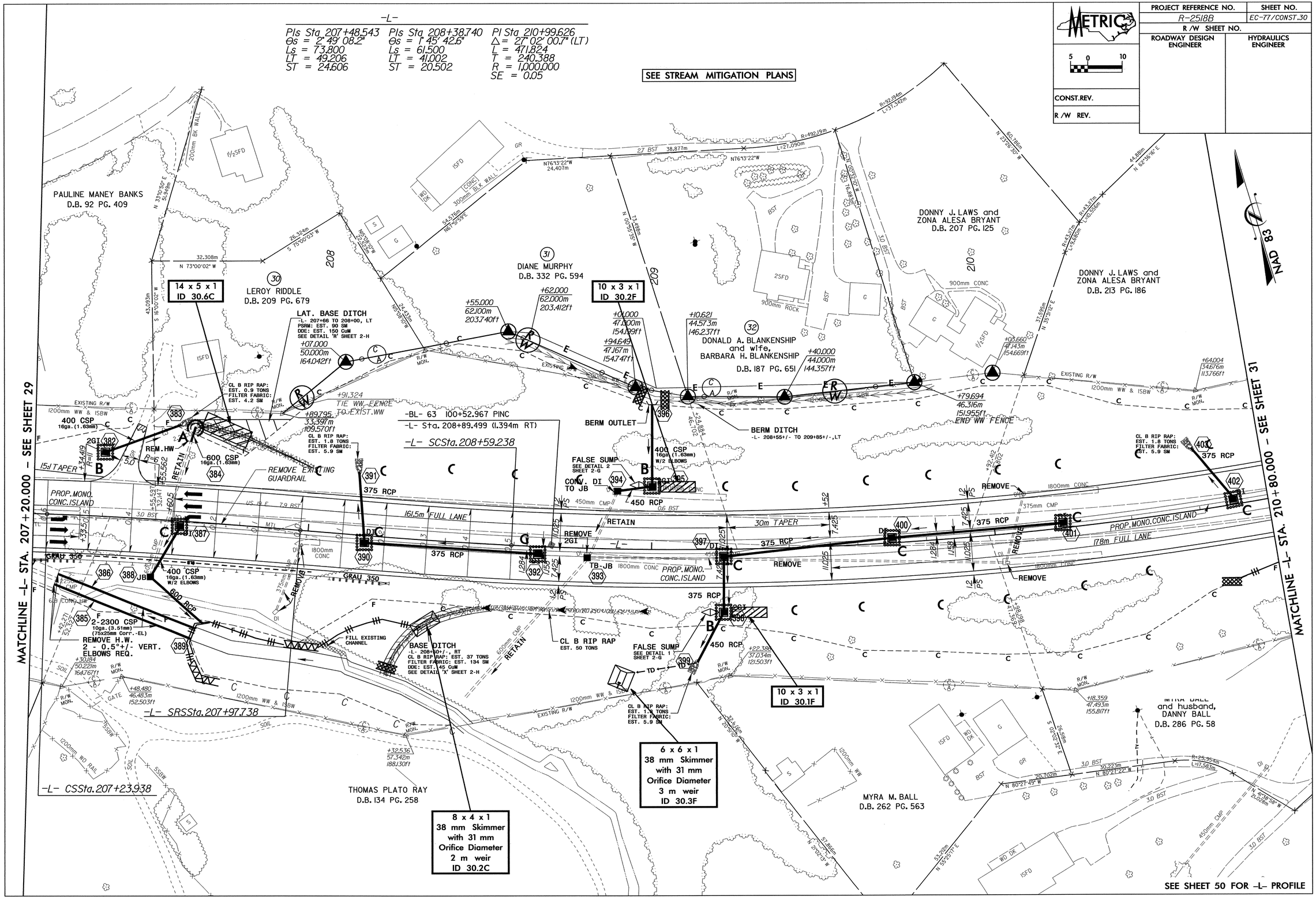
CONST.REV.

R /W REV.

-L-

PIs Sta 207+48.543	PIs Sta 208+38.740	PI Sta 210+99.626
Θs = 2° 49' 08.2"	Θs = 1° 45' 42.6"	Δ = 27° 02' 00.7" (LT)
Ls = 73.800	Ls = 61.500	L = 471.824
LT = 49.206	LT = 41.002	T = 240.388
ST = 24.606	ST = 20.502	R = 1,000.000
		SE = 0.05

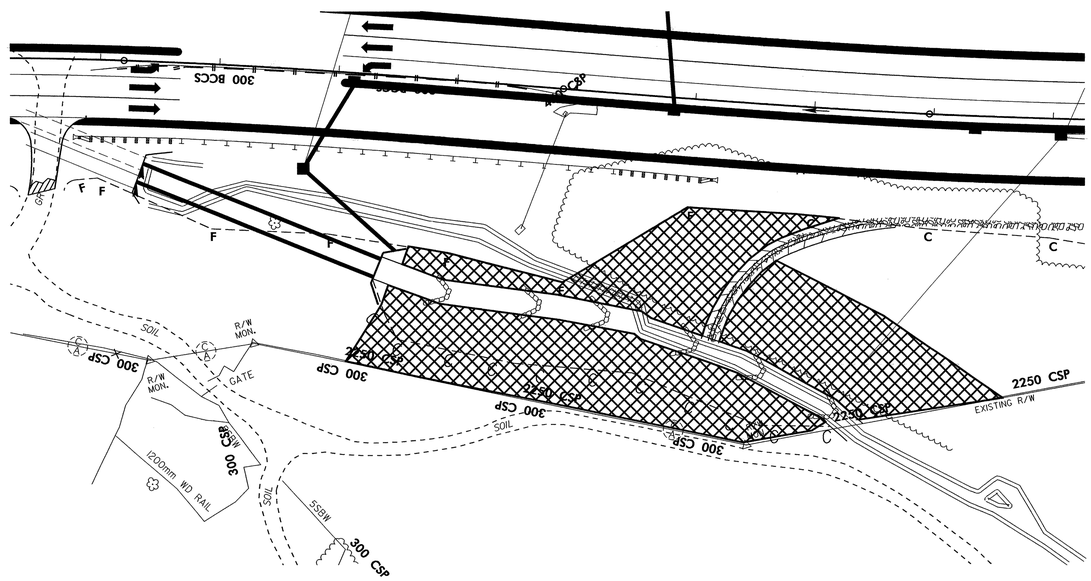
SEE STREAM MITIGATION PLANS



PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-78/CONST.30
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

0.21 HECTARE STREAMBANK REFORESTATION

STA. 207 + 60 to STA. 208 + 60



SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-79/CONST.31
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.

-L-

PI Sta 210+99.626
Δ = 27° 02' 00.7" (LT)
L = 471.824
T = 240.388
R = 1,000.000
SE = 0.05

PIs Sta 213+51.564
Θs = 1° 45' 42.6"
Ls = 61.500
LT = 41.002
ST = 20.502

-DR9-

PI Sta 10+13.879
Δ = 46° 42' 55.4" (LT)
L = 12.230
T = 6.478
R = 15.000

PI Sta 10+26.243
Δ = 47° 34' 31.2" (RT)
L = 12.455
T = 6.612
R = 15.000

-DR10-

PI Sta 10+17.765
Δ = 43° 19' 35.9" (LT)
L = 10.587
T = 5.561
R = 14.000

PI Sta 10+29.506
Δ = 51° 15' 09.7" (RT)
L = 12.523
T = 6.716
R = 14.000

NAD 83

RALEIGH PITMAN
and wife,
SHIRLEY ANN PITMAN
D.B. 140 PG. 554

EARL W. SHEPARD
and wife,
JOYCE L. SHEPARD
D.B. 187 PG. 595

DONNY J. LAWS and
ZONA ALESA BRYANT
D.B. 213 PG. 186

EARL W. SHEPARD
D.B. 187 PG. 591

MYRA BALL
and husband,
DANNY BALL
D.B. 286 PG. 58

J. TODD BAILEY
D.B. 188 PG. 509

DUANE C. WHEELER
and wife,
LOUISE M. WHEELER
D.B. 191 PG. 705

WALTER EDWARDS
and wife,
VERLAN K. EDWARDS
D.B. 199 PG. 249

MATCHLINE -L- STA. 210+80.000 - SEE SHEET 30

MATCHLINE -L- STA. 214+40.000 - SEE SHEET 32

-L- STSta. 213+92.562

-L- CSSta. 213+31.062

18 x 3 x 1
ID 31.1F

BEGIN CONSTRUCTION
-DR9- STA. 10+07.000

BERM DITCH
-L- 211+50+/- TO 212+80, LT

BERM OUTLET

450 CSP
16ga. (1.63mm)
W/1 ELBOW

-DR9- POT Sta. 10+00.000

-DR9- PRC Sta. 10+19.631

-DR9- PC Sta. 10+07.401

-DR9- PT Sta. 10+32.086

-DR9- POT Sta. 10+40.345 =
-DR10- POT Sta. 10+00.000
-L- POC Sta. 211+47.000

600 RCP

COLLAR AND
EXTEND

PROP. MONO. CONC. ISLAND

186m FULL LANE

169.5m FULL LANE

179.5m FULL LANE

375 RCP

450 RCP

REMOVE

N 81° 00' 16.0" E

30m TAPER

-DR10- PC Sta. 10+12.204

-DR10- PRC Sta. 10+22.751

-DR10- PT Sta. 10+35.314

BEGIN CONSTRUCTION
-DR10- STA. 10+34.000

BERM DITCH
-L- 211+65+/- TO 212+40, RT

CL B RIP RAP:
EST. 1.8 TONS
FILTER FABRIC:
EST. 5.9 SM

-DR10- POT Sta. 10+41.809

12 x 3 x 1
ID 31.2F

-BL- 64 103+62.028 PINC
-L- Sta. 211+96.584 (16.923m RT)

-BL- 68 105+38.745 PINC
-L- Sta. 213+55.608 (77.211m RT)

BM #18
-BL- STA 105+57.643
22.525 RIGHT
-L- STA. 213+59.554
94.129m RT
ELEV. 818.917

-Y18- POTSta. 11+89.091

TIE TO EXIST.
WW FENCE

S 73° 45' 13.9" W

SR 1136 PHIPP'S CREEK RD

SEE SHEET 50 FOR -L- PROFILE
SEE SHEET 57 FOR -Y18- PROFILE

07-FEB-2008 18:09
r:\environmental\Branch\R2518B_ea_path31.dgn
jackson AT HENZ24:41

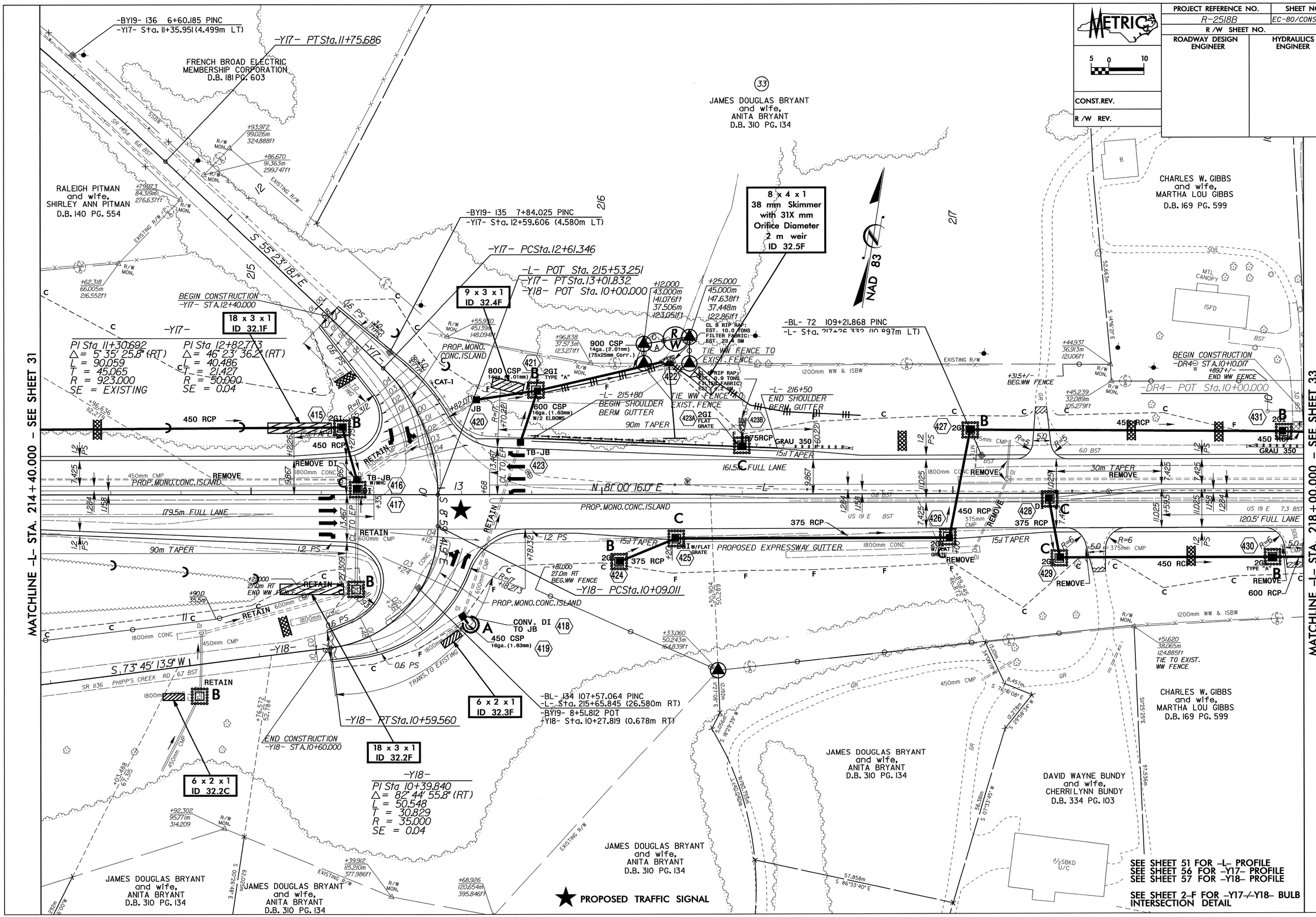
PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-80/CONST.32
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

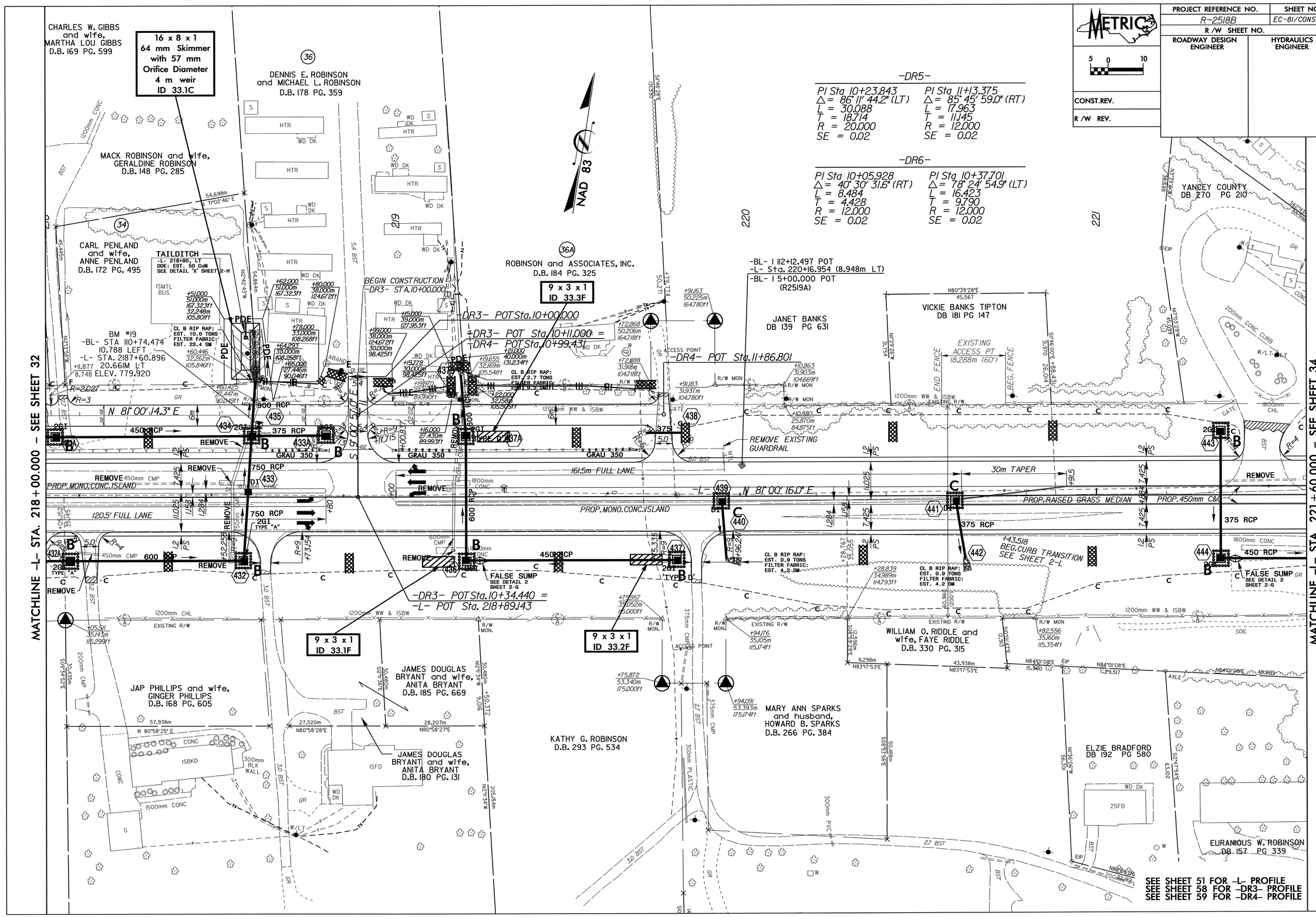
5 0 10

CONST.REV.

R/W REV.



PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-81/CONST.33
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

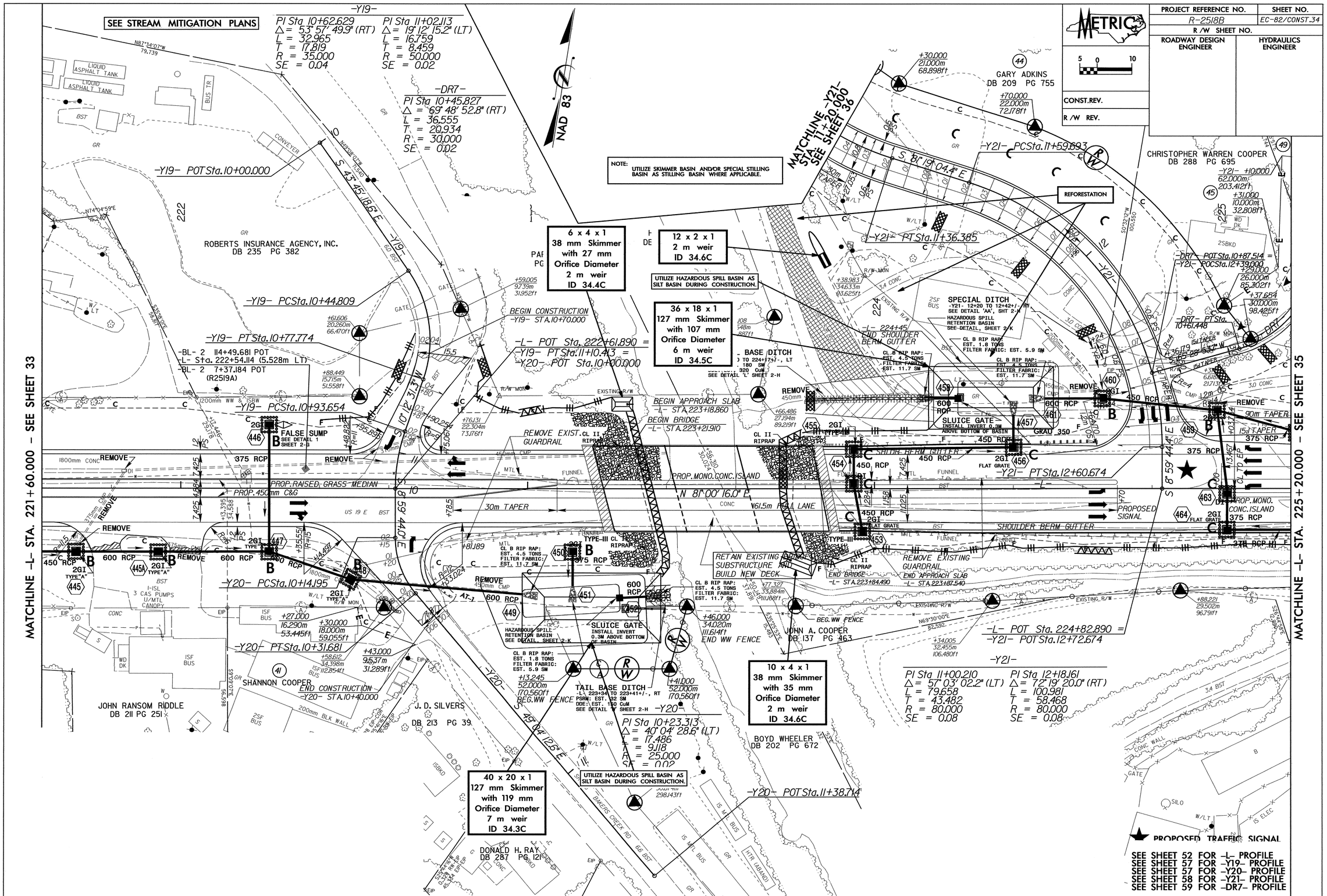


PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-82/CONST.34
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

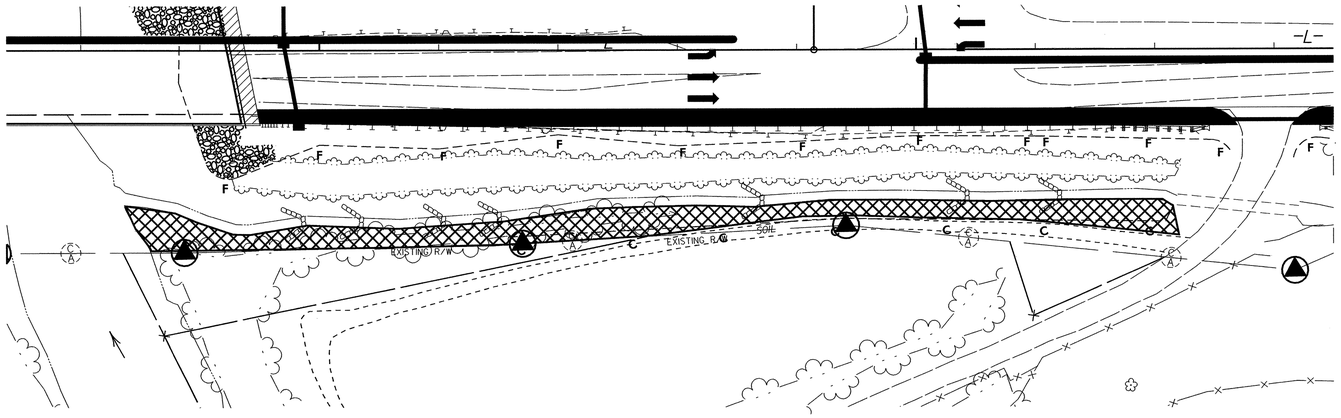
R/W REV.



PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-83/CONST.34
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

0.07 HECTARE STREAMBANK REFORESTATION

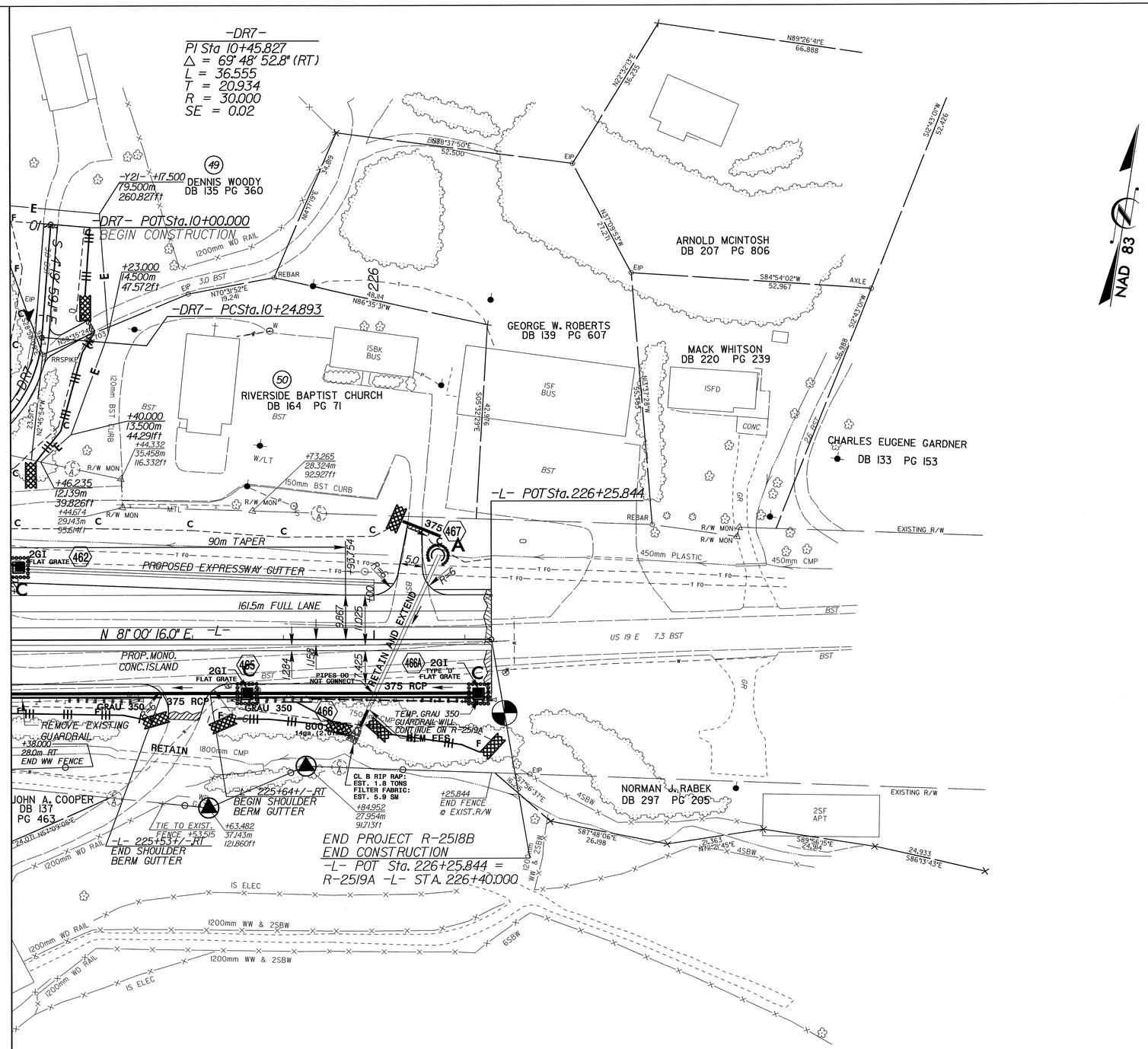
STA. 223 + 65 to STA. 225 + 45



SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-84/CONST.35
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10



MATCHLINE -L- STA. 225+20.000 - SEE SHEET 34

SEE SHEET 52 FOR -L- PROFILE
SEE SHEET 59 FOR -DR7- PROFILE

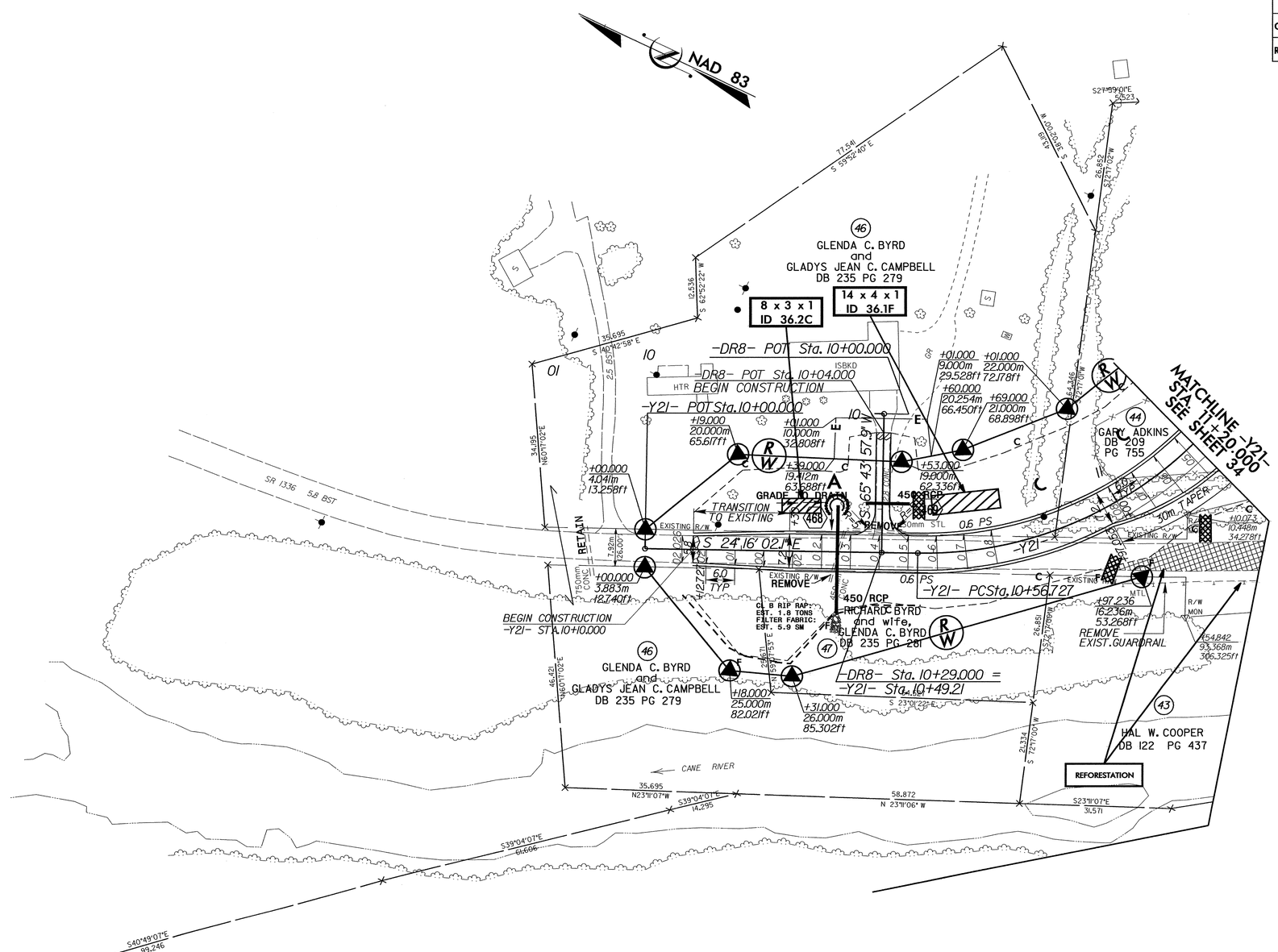
PROJECT REFERENCE NO.	SHEET NO.
R-2518B	EC-85/CONST.36
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC

5 0 10

-Y21-

PI Sta 11+00.210	PI Sta 12+18.161
Δ = 57° 03' 02.2" (LT)	Δ = 72° 19' 20.0" (RT)
L = 79.658	L = 100.981
T = 43.482	T = 58.468
R = 80.000	R = 80.000
SE = 0.08	SE = 0.08



SEE SHEET 58 FOR -Y21- PROFILE
SEE SHEET 59 FOR -DR8- PROFILE