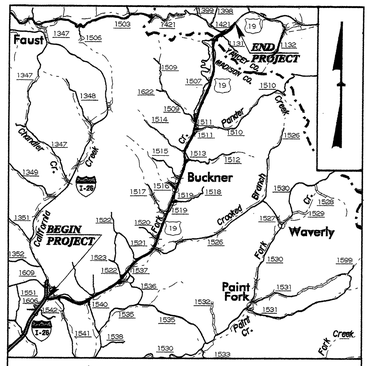
TIP PROJECT: R-2518A

CONTACT: C201372

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

MADISON/YANCEY COUNTIES

LOCATION: US 19 FROM I-26 TO 0.8 KM EAST OF THE YANCEY COUNTY LINE

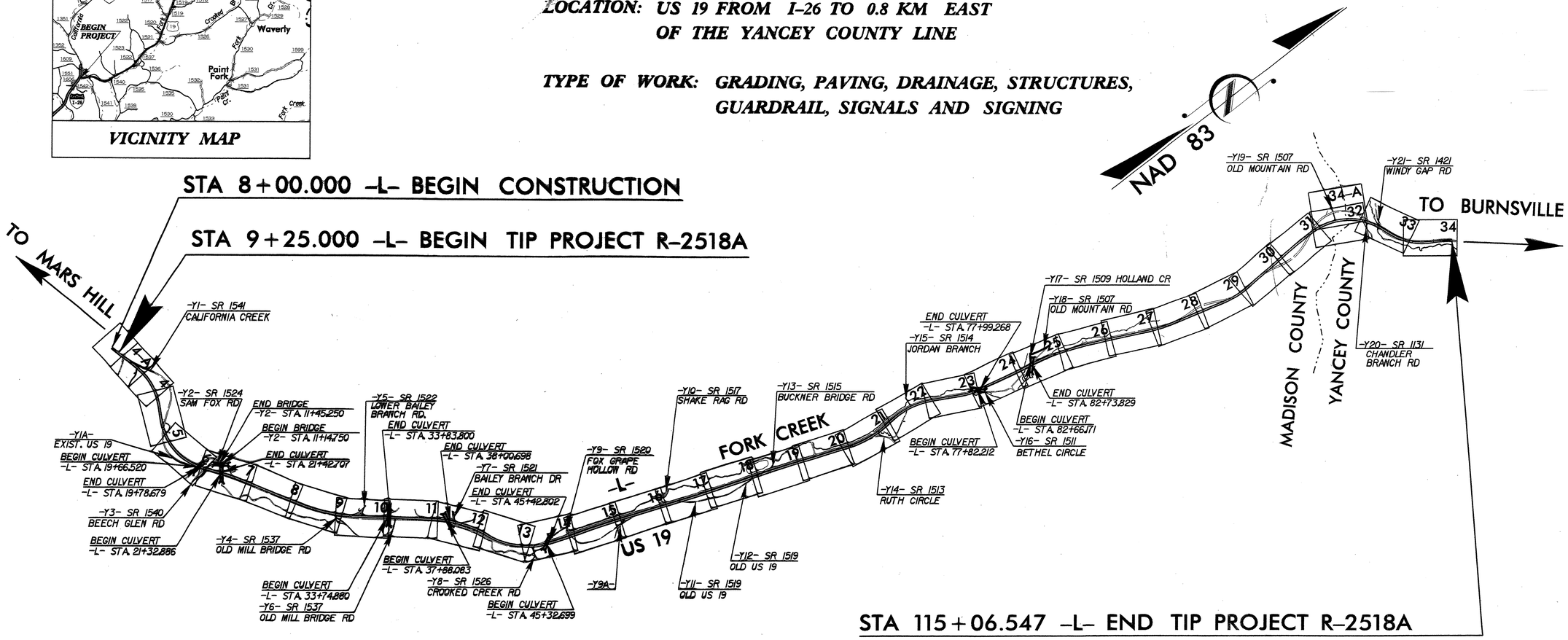
TYPE OF WORK: GRADING, PAVING, DRAINAGE, STRUCTURES, GUARDRAIL, SIGNALS AND SIGNING

METRIC

ALL DIMENSIONS IN THESE PLANS ARE IN METERS

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

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
34445.1.1		PE
34445.2.2		ROW, UTIL.
34445.4.1		CONST.



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

PART 2 OF 2

20-FEB-2008 14:34
r:\roadway\proj\r2518a.tsh
$$$$USERNAME$$$$

PROJECT: R-2518A

TIP R

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

Refer To E. C. Special Provisions for Special Considerations.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

MADISON / YANCEY COUNTIES

LOCATION: US 19 FROM I-26 TO 0.8 KM EAST OF THE YANCEY CO. LINE

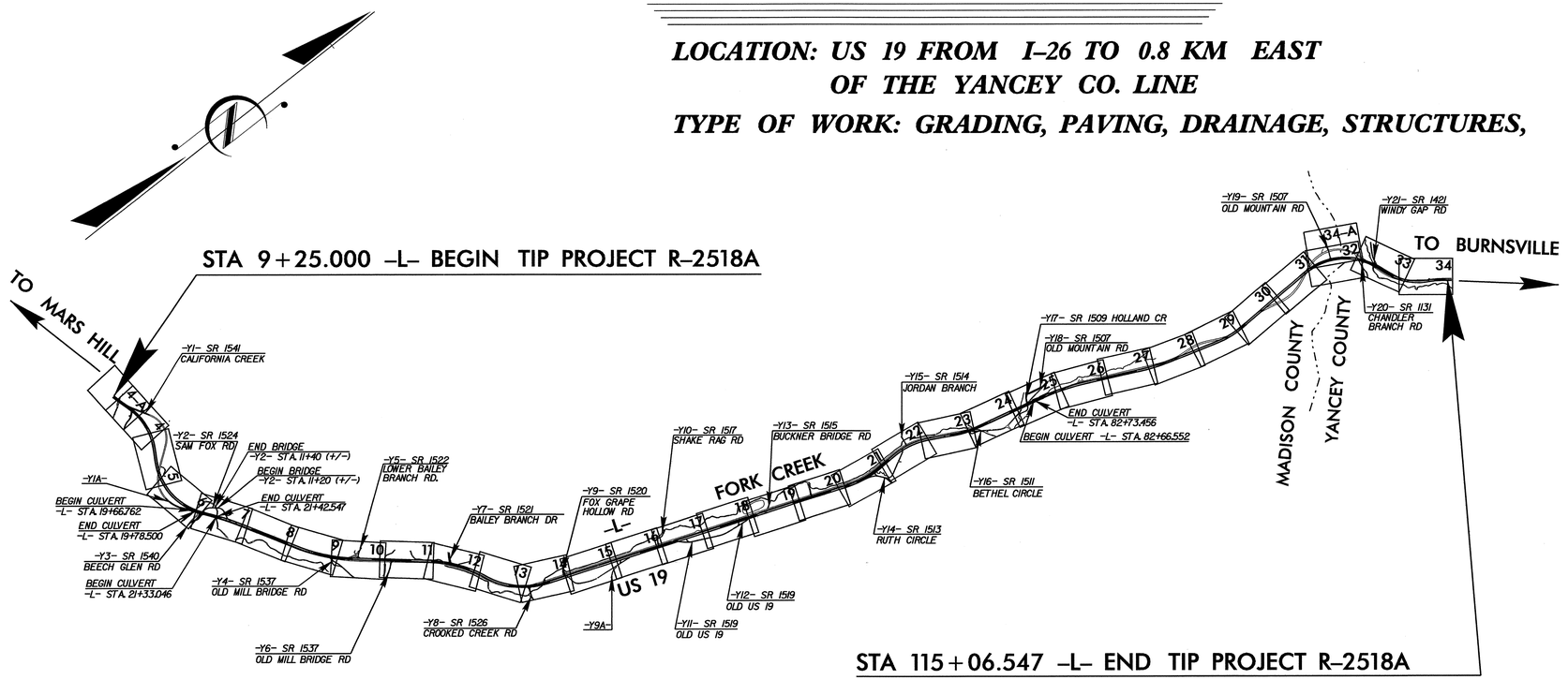
TYPE OF WORK: GRADING, PAVING, DRAINAGE, STRUCTURES,

METRIC

ALL DIMENSIONS IN THESE PLANS ARE IN METERS UNLESS OTHERWISE SHOWN

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

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



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
	Streambank Reforestation	
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
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	
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	
	Wattle	

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

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS

HIGH QUALITY WATER(S) EXIST ON THIS PROJECT

High Quality Water Zone(s) Exist
From Begin
to End
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

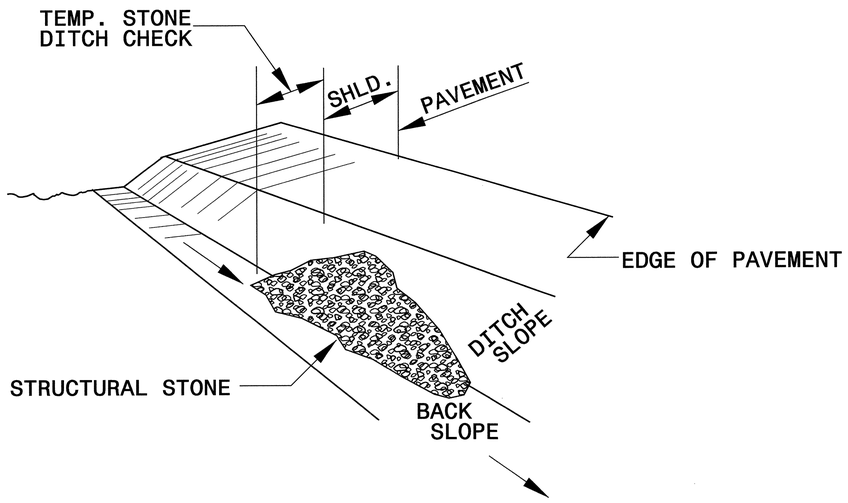
Roadway Standard Drawings

The following roadway metric standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 18, 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	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	

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

TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

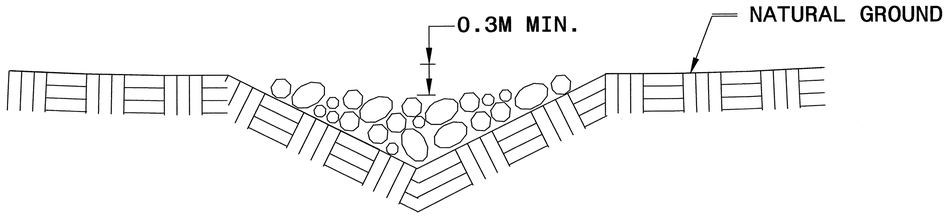


ISOMETRIC VIEW

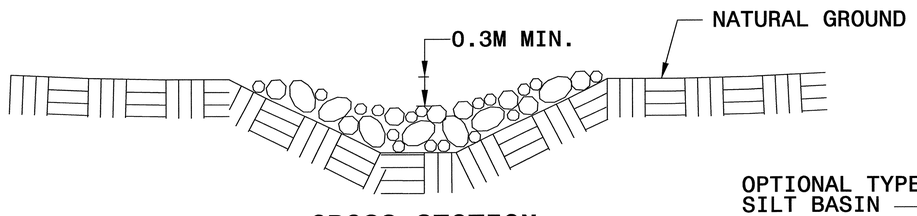
NOTES:

USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.

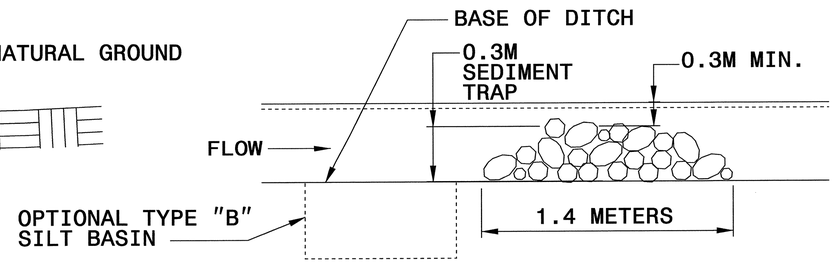
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN 0.4 HECTARES OF DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



CROSS SECTION VEE DITCH



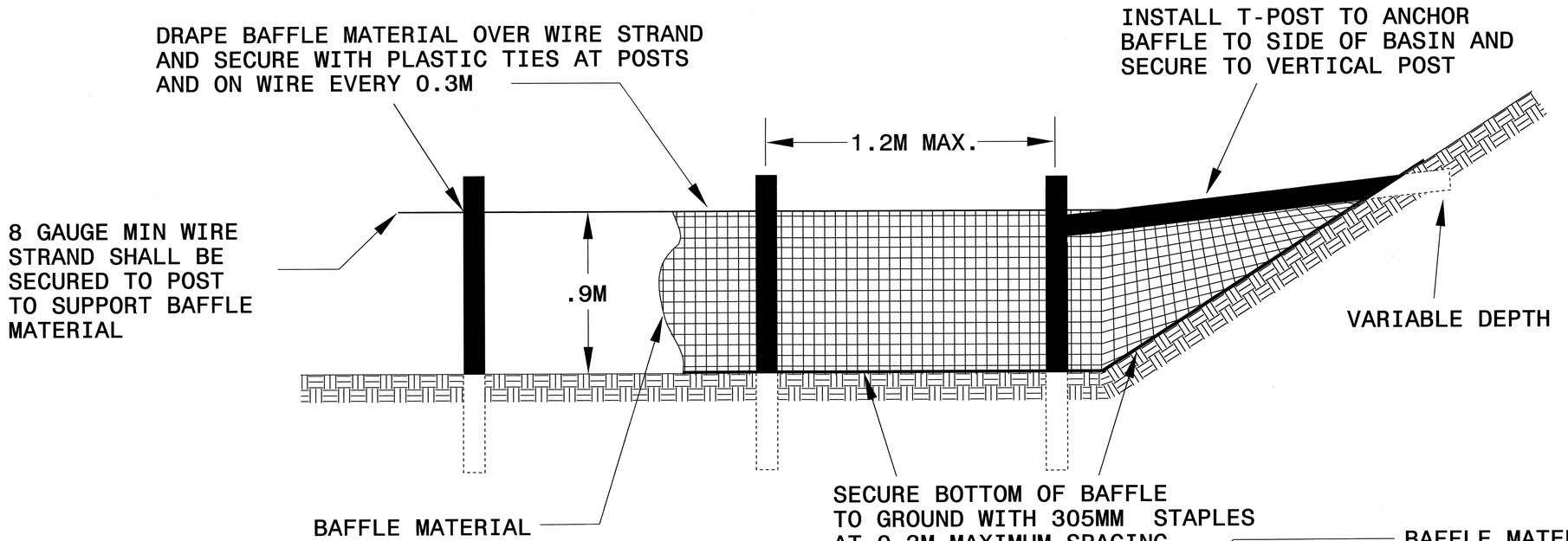
CROSS SECTION TRAPEZOIDAL DITCH

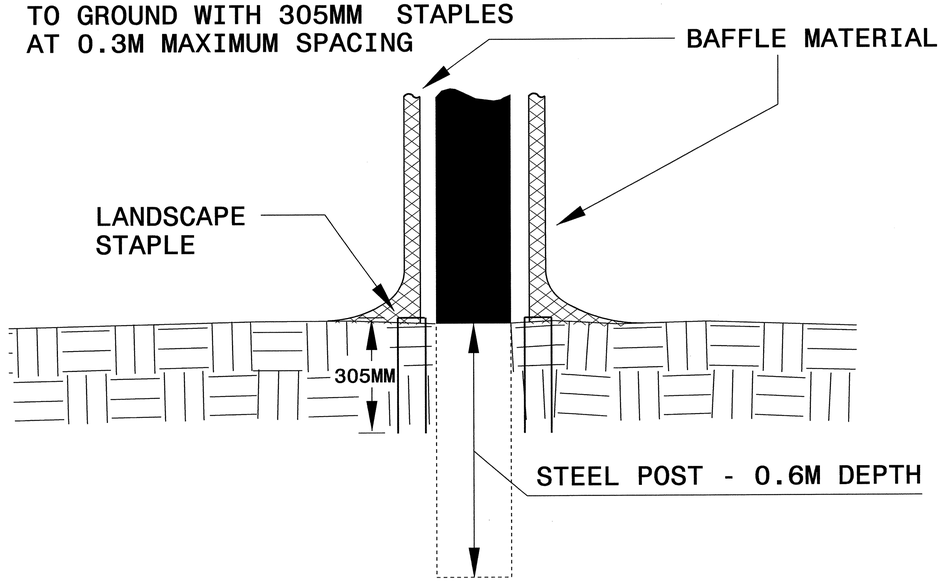


ELEVATION VIEW

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

COIR FIBER BAFFLE DETAIL



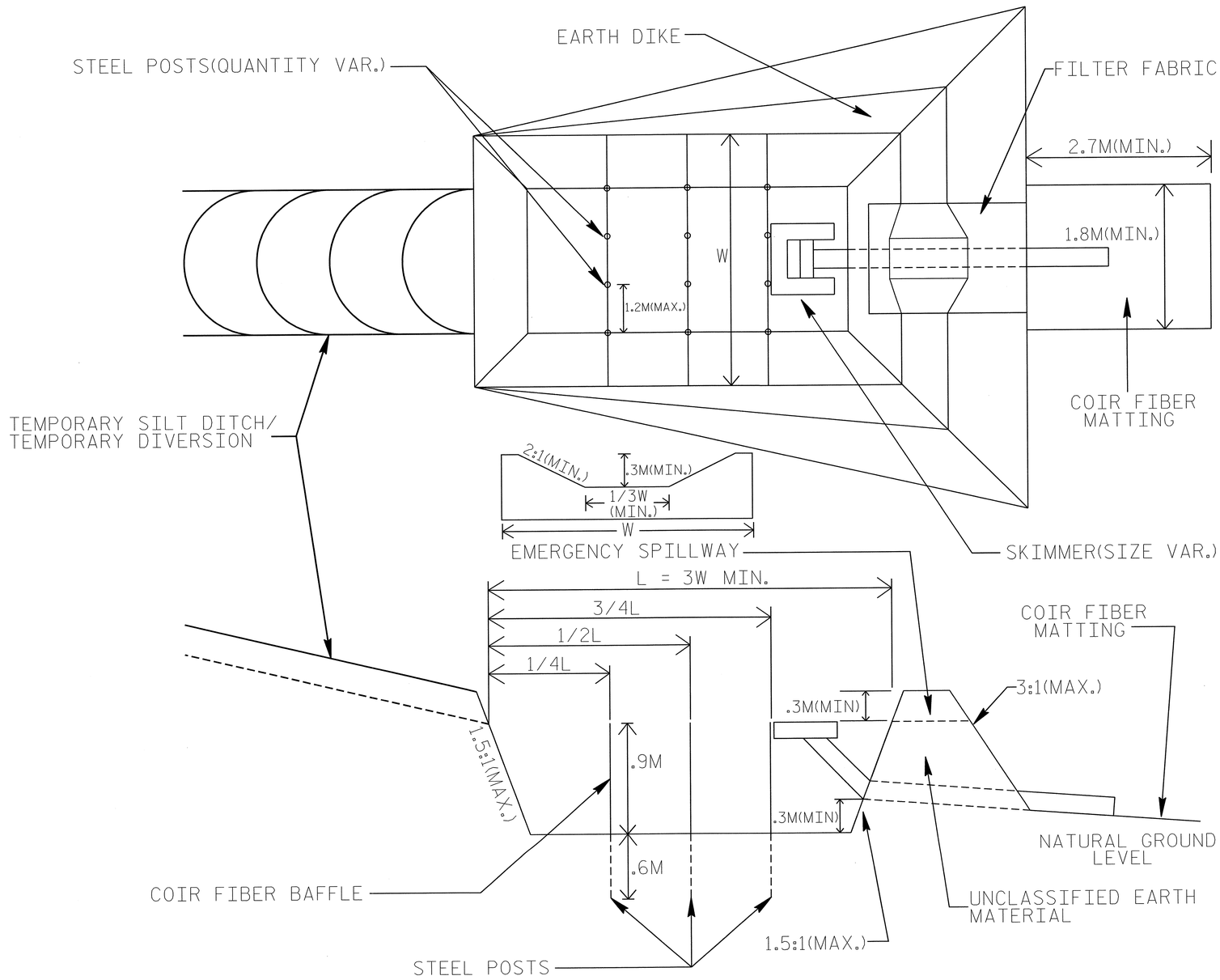


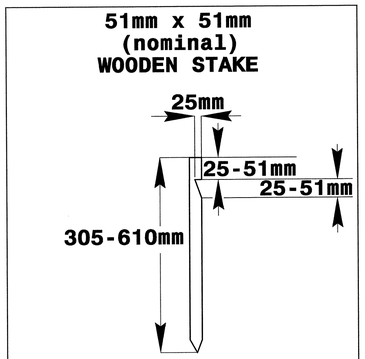
BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 305MM LANDSCAPE STAPLES

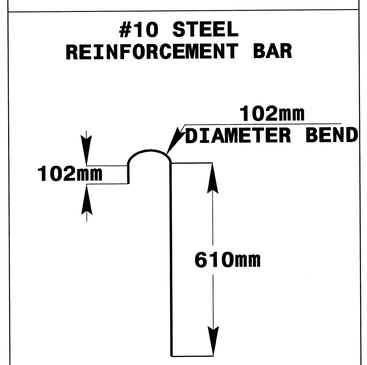
NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF ¼ THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 6 M IN LENGTH WITH A SPACING OF 1/3 THE BASIN LENGTH.

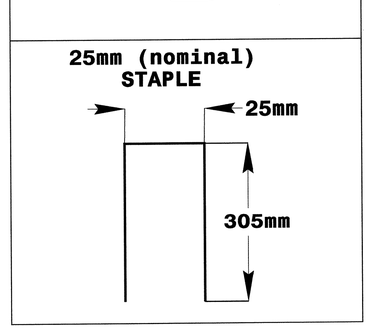
SKIMMER BASIN WITH BAFFLES DETAIL

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





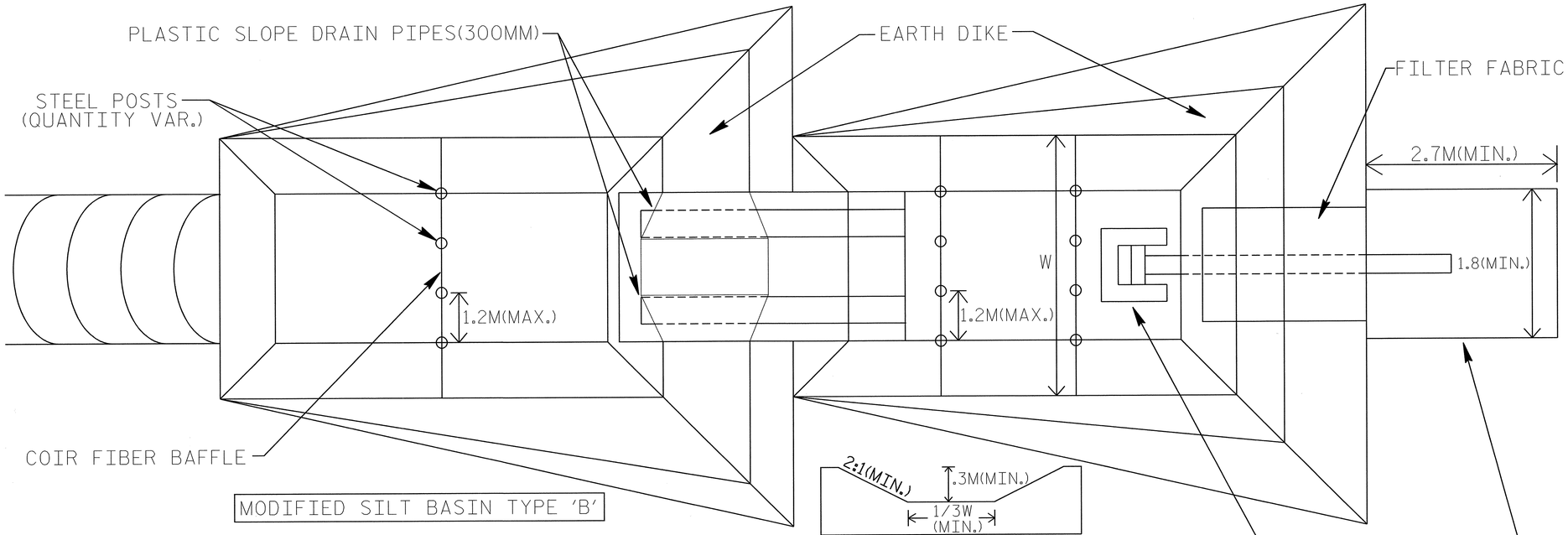


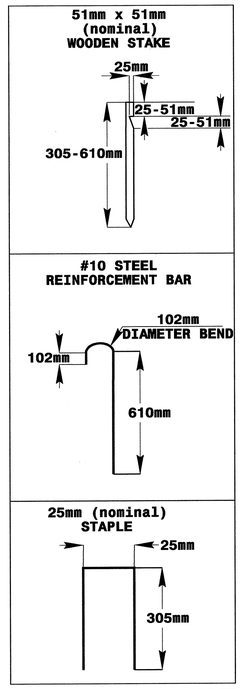


COIR FIBER MAT ANCHOR OPTIONS

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

TIERED SKIMMER BASIN DETAIL





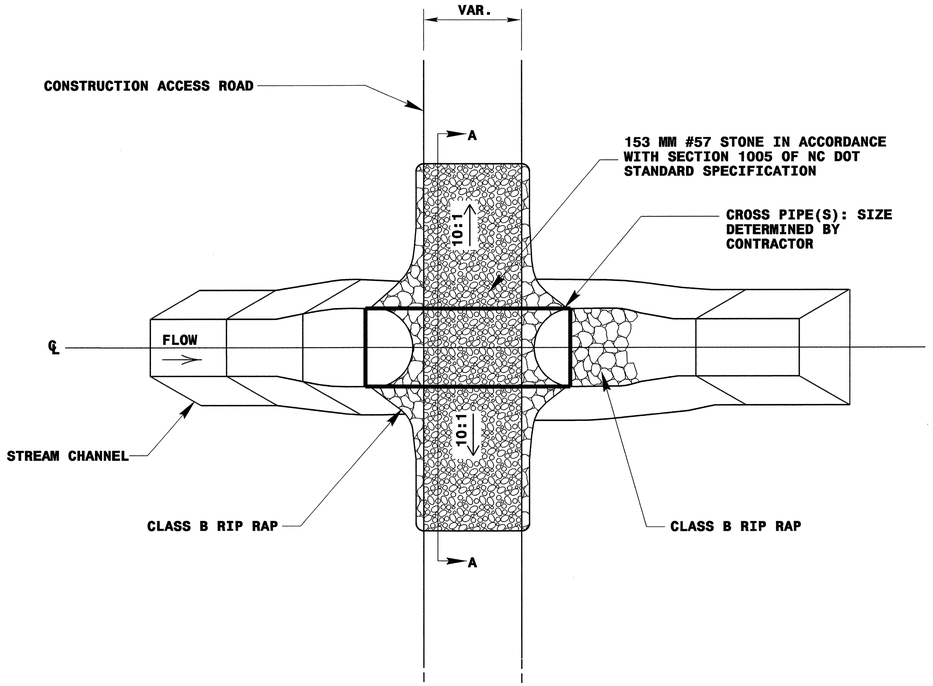
COIR FIBER MAT ANCHOR OPTIONS

NOTE

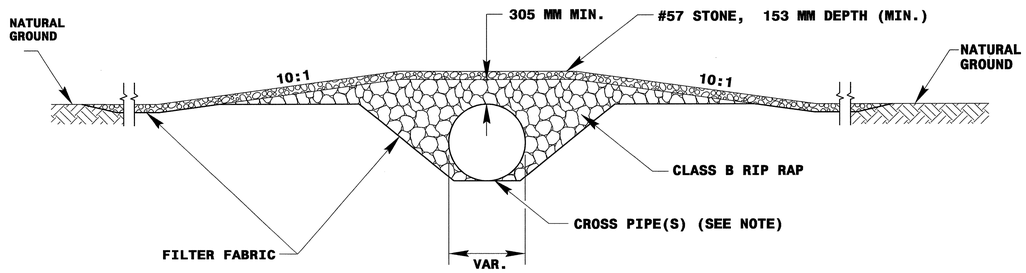
ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.

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

TEMPORARY STREAM CROSSING



PLAN VIEW



SECTION A-A

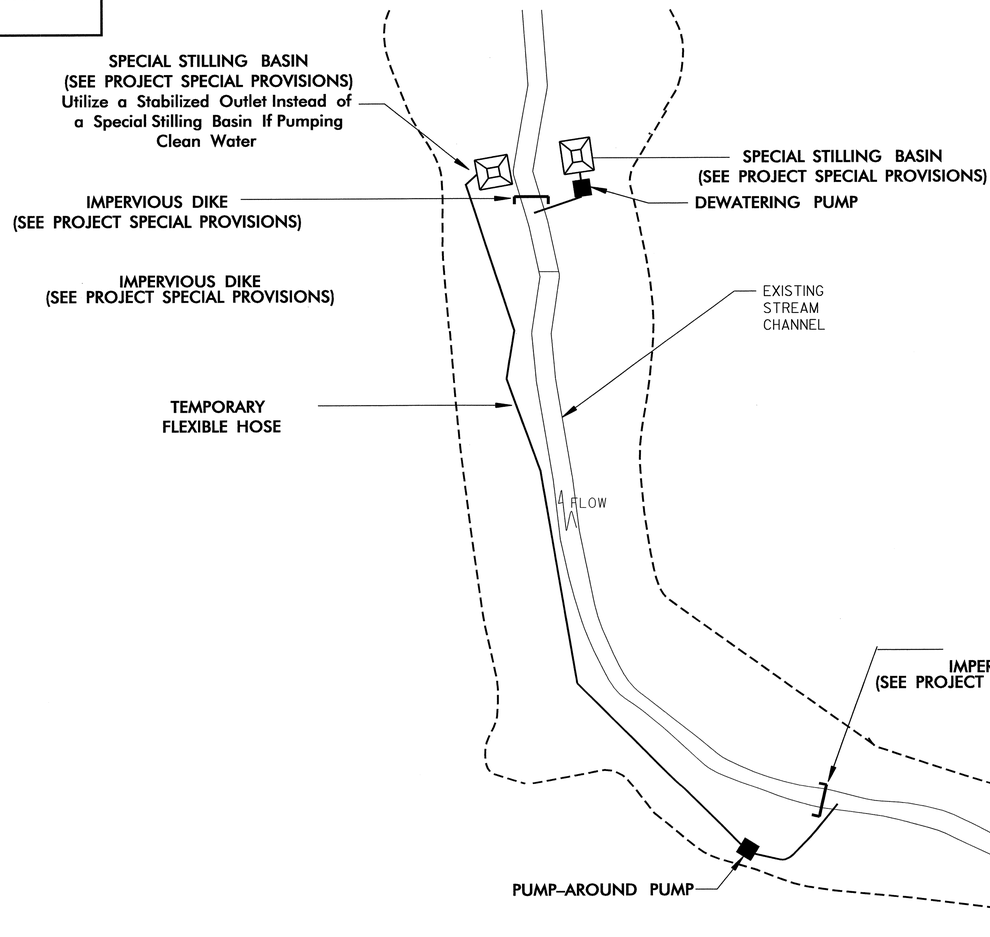
NOT TO SCALE

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.

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2518A	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.

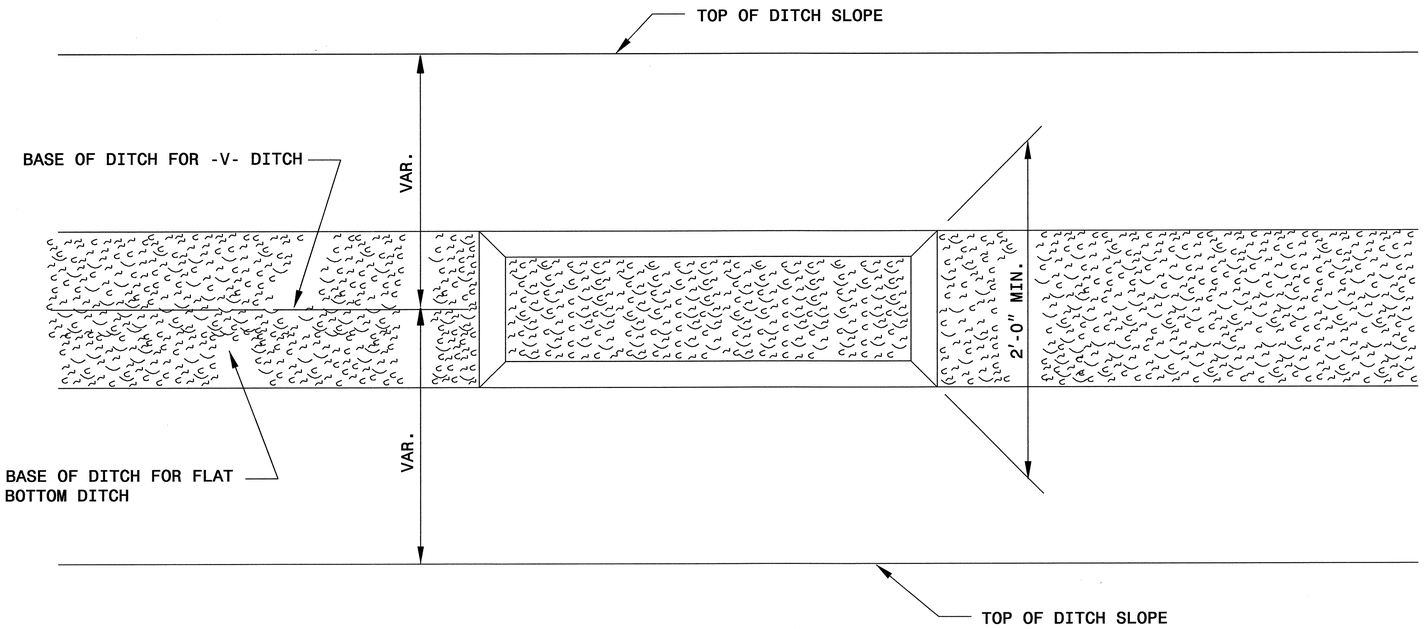


SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA

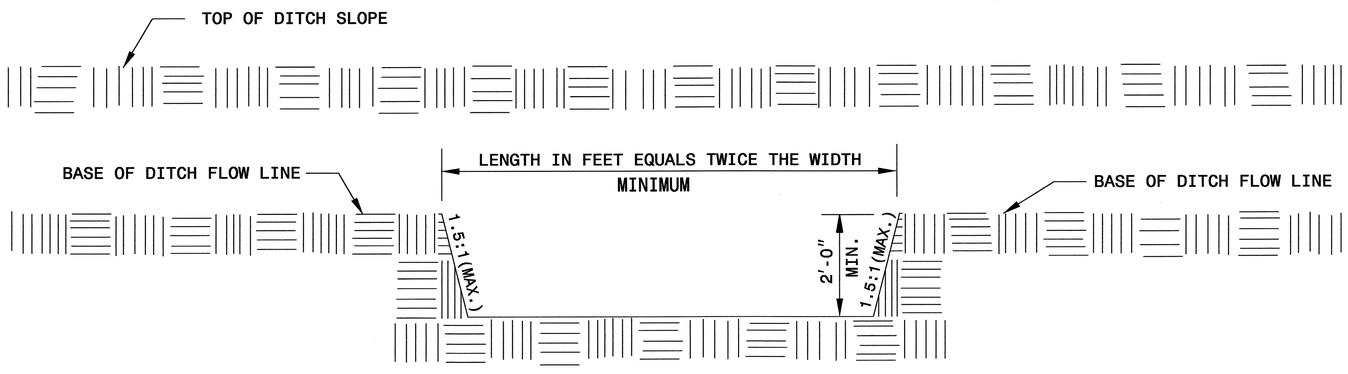
1. INSTALL SPECIAL STILLING BASIN(S)..
2. INSTALL UPSTREAM PUMP AND TEMPORARY FLEXIBLE HOSE.
3. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
4. PLACE DOWNSTREAM IMPERVIOUS DIKE AND PUMPING APPARATUS. DEWATER ENTRAPPED AREA. AREA TO BE DEWATERED SHALL BE EQUAL TO ONE 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-2518A	EC-2F
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT BASIN 'B' DETAIL



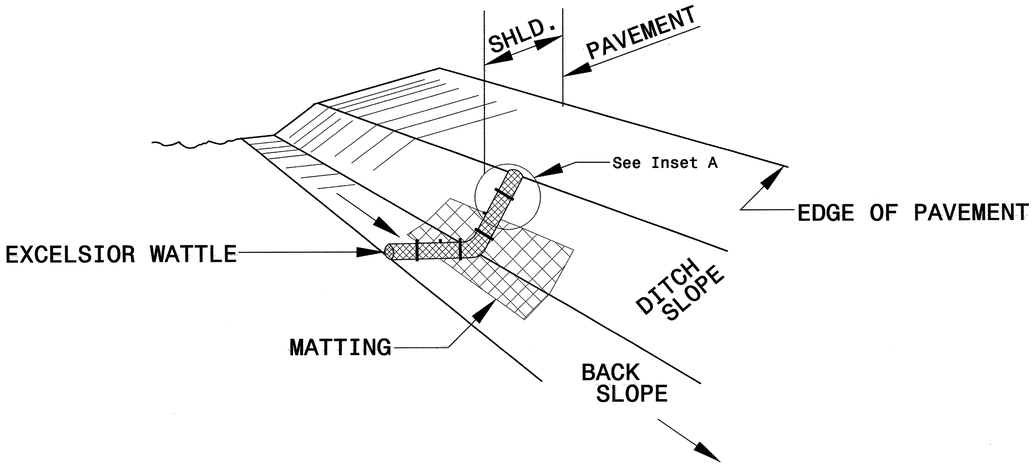
PLAN



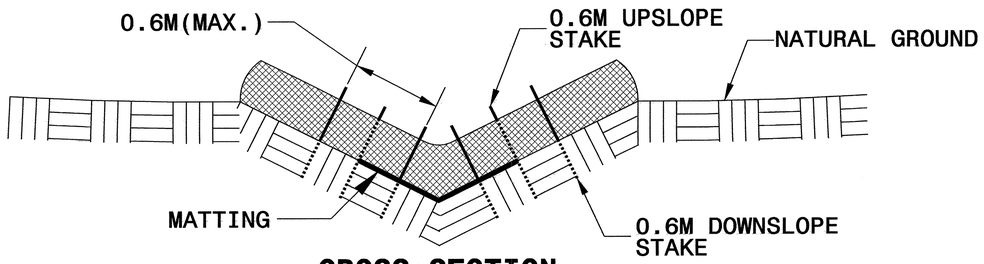
ELEVATION

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

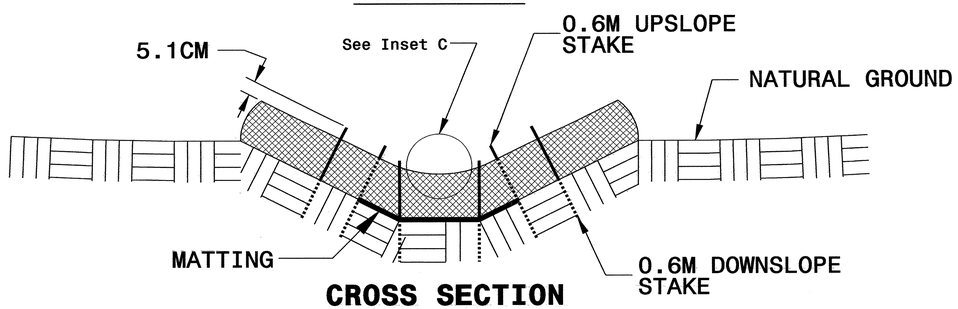
WATTLE WITH POLYACRYLAMIDE DETAIL



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.

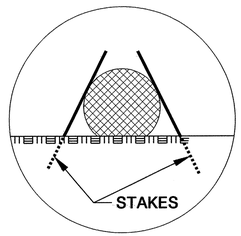
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

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

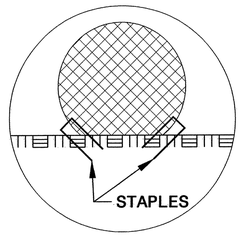
INSTALL STAPLES APPROXIMATELY EVERY 0.3 LINEAR METER ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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

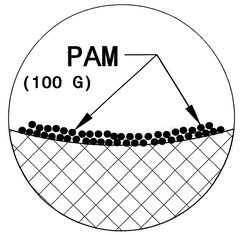
INITIALLY APPLY 100 GRAMS OF ANIONIC OR NEUTRALLY CHARGED POLYACRYLAMIDE (PAM) OVER WATTLE WHERE WATER WILL FLOW AND AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 6 MM.



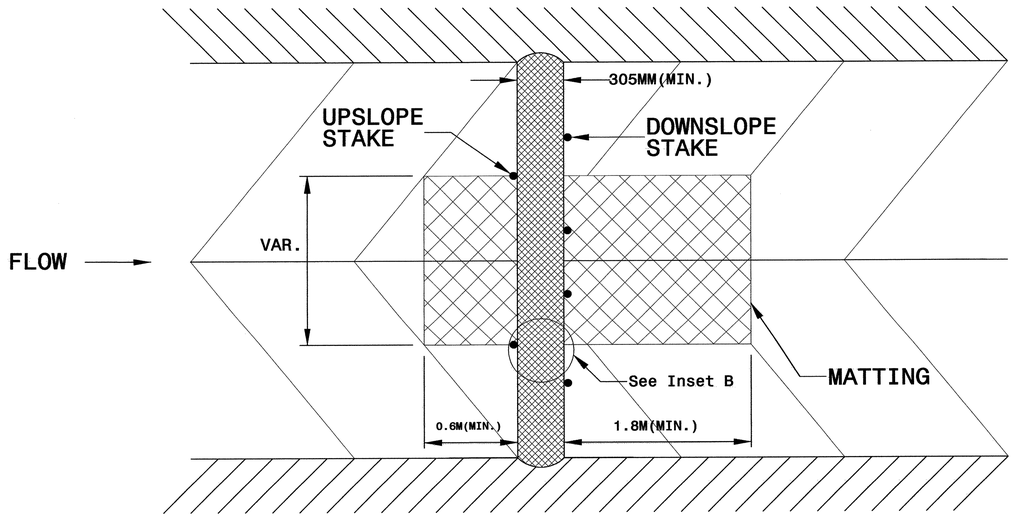
INSET A



INSET B



INSET C



TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	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)
4A	-L-	9+40	9+80	LT	245
4	-L-	11+20	14+00	LT	1165
4	-L-	11+40	14+20	RT	1165
7	-L-	20+20	21+00	RT	335
7	-L-	23+20	31+00	LT	3245
10	-L-	32+20	32+80	LT	250
13	-L-	41+60	44+80	LT	1335
13	-L-	42+00	43+20	RT	555
14	-L-	45+20	46+20	RT	325
16	-L-	51+80	55+60	RT	1585
16	-L-	52+80	53+80	LT	610
17	-L-	54+40	55+00	LT	365
18	-L-	57+60	59+60	RT	1065
18	-L-	60+00	70+00	RT	4160
19	-L-	61+60	62+80	LT	730
21	-L-	69+00	69+80	LT	490
21	-L-	70+20	74+80	LT	2800
21	-L-	70+60	76+60	RT	2500
23	-L-	75+20	76+80	LT	975
24	-L-	78+20	80+20	LT	835
24	-L-	78+60	79+80	RT	675
25	-L-	81+60	82+20	RT	365
25	-L-	82+40	82+60	LT	85
25	-L-	83+00	83+20	RT	125
26	-L-	85+80	87+00	RT	730
31	-L-	103+80	108+40	RT	1915
33	-L-	110+00	115+00	LT	2080
7	-Y2-	10+20	11+00	LT	370
6	-Y3-	10+20	11+20	LT	320
10	-Y5-	10+20	10+60	LT	130

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SM)
12	-Y7-	10+20	10+40	LT	65
17	-Y11-	10+40	10+60	RT	50
25	-Y17-	10+20	10+60	LT	130
25	-Y17-	11+00	11+60	RT	250
25	-Y17-	11+40	11+60	LT	85
32	-Y19-	10+20	10+80	RT	195
32	-Y19-	10+60	10+80	LT	65
8	-D4A-	10+20	10+40	RT	45
26	-L-	86+60	86+80	LT	125
			SUBTOTAL		32540
		ADDITIONAL PSRM TO BE INSTALLED			15875
				TOTAL	48415
				SAY	48425

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	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)
5	-L-	14+40	18+60	LT	1750
6	-L-	16+60	18+20	RT	370
9	-L-	27+28	27+40	RT	105
25	-L-	82+60	82+80	RT	65
25	-L-	83+80	88+00	RT	1660
27	-L-	88+60	91+00	RT	1000
27	-L-	90+20	91+00	LT	490
28	-L-	91+80	92+60	RT	335
28	-L-	93+60	97+40	LT	2035
28	-L-	93+80	96+40	RT	1085
29	-L-	96+80	97+80	RT	420
30	-L-	98+60	101+00	RT	1000
30	-L-	99+40	99+60	LT	125
31	-L-	104+80	106+20	LT	585
33	-L-	110+00	110+80	RT	490
21	-Y14-	10+20	10+40	RT	65
25	-Y18-	10+20	11+60	LT	450
25	-Y18-	10+20	10+80	RT	195
5	-D2A-	10+20	10+40	LT	45
5	-D2A-	10+20	10+40	RT	45
5	-D2A-	10+80	11+20	RT	135
5	-D2-	10+20	10+60	LT	90
5	-D2-	10+20	10+60	RT	90
7	-D3A-	10+20	10+40	RT	45
10	-D5-	10+20	10+60	LT	90
10	-D5-	10+20	10+60	RT	90
11	-D6B-	10+20	10+40	RT	45
11	-D6B-	10+20	10+40	LT	45
17	-D7-	10+20	10+40	LT	45
17	-D7-	10+20	10+40	RT	45

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SM)
20	-D9-	10+20	10+40	LT	45
20	-D9-	10+20	10+40	RT	45
20	-D10-	10+20	10+40	LT	45
20	-D10-	10+20	10+40	RT	45
4	-D1A-	10+20	10+60	LT	90
24	-D14-	10+20	10+40	LT	45
24	-D14-	10+20	10+40	RT	45
24	-D15-	10+20	10+40	LT	45
24	-D15-	10+20	10+40	RT	45
33	-D17-	10+20	11+60	RT	300
33	-D17-	10+60	11+00	LT	90
26	-L-	86+60	87+40	RT	335
27	-D15B-	10+20	10+40	RT	45
			SUBTOTAL		14255
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					285
				TOTAL	14540
				SAY	14550

8/17/99

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4-A

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2518A	EC-4/CONST.4-A
CONST.REV.	R /W SHEET NO.	
R /W REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83

STA. 8+00.000 -L-
BEGIN CONSTRUCTION

STA. 9+25.000 -L-
BEGIN STATE PROJECT R-2518A

8

15 x 5 x 1
51 mm Skimmer
with 44 mm
Orifice Diameter
2 m weir
ID 4A.1C

ENT COMPANY, LLC
PG 165

I-26 ON RAMP BST 9.2m BST

POT Sta. 7+60.210

PC Sta. 8+21.099

TO I-26
ASHEVILLE BOUND 207m BST

27.6m BST
N 88° 52' 26.7" E

I-26 OFF RAMP 7.0m BST

US 23 BST CONC ISL

US 19 BST

US 19 23 BST

US 19 & 23 BST

900 mm CONC

RIP RAP

-BL-3-PINC 7+53.820
-L- Sta 8+74.285 32.429 LT

-BL-4-PINC 8+61.893=
-BY-Sta 8+83.128 23.078 LT

REMOVE & REPLACE DI W/TBJB

TBJB 10

DI 9

375mm CMP RETAIN

3-9 X 9 RCBC CONC HW

450 mm CMP RETAIN

6 DR

20 TAPER

CS Sta 9+22.672

600 mm CONC

400 mm CONC

450 mm CONC

CB

RIP RAP

SOIL

9+42.631
43.623

9+74.435
47.1

+54.942
51.789

EXISTING R/W

D C. NORTON
161 PG 271
161 PG 260

L. D. BALLARD
DB 93 PG 105

-L-

PI Sta 8+72.030
Δ = 10° 34' 52.5" (LT)
D = 10.573
T = 50.931
R = 550.000
SE = 0.050

PIs Sta 9+52.691
Θs = 4° 41' 16.2"
Ls = 90.000
LT = 60.021
ST = 30.019

FOR -L- PROFILE SEE SHEET #35-A

MATCH TO SHEET 4

R/W REV.: REMOVING PROPOSED R/W, CHANGING PROPERTY LINE, NAME, AND DEED BOOK NUMBER ON PARCEL 3 (FROG DEVELOPMENT COMPANY, LLC). 11/28/06 DWK

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R/W REV.: REMOVING PROPOSED R/W, CHANGING PROPERTY LINE, NAME, AND DEED BOOK NUMBER ON PARCEL 3 (FROG DEVELOPMENT COMPANY, LLC). 11/28/06 DWK

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-5/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

-YI-
PI Sta 10+68.288
△ = 68°05' 00J" (LT)
L = 35.648
T = 20.267
R = 30.000
SE = 0.080
RO = 64

-YI-
PI Sta 12+16.185
△ = 48° 59' 25.3" (LT)
L = 102.605
T = 54.675
R = 120.000
SE = 0.070
RO = 42

-DIA-
PI Sta 10+28.190
△ = 86° 37' 15.7" (RT)
L = 37.796
T = 23.567
R = 25.000

-DIA-
PI Sta 10+76.800
△ = 19° 37' 13.0" (LT)
L = 5.131
T = 2.594
R = 15.000

-DIB-
PI Sta 10+17.232
△ = 13° 4' 08.5" (RT)
L = 9.554
T = 4.800
R = 40.000

NAD 83

18 x 6 x 1
64 mm Skimmer
with 52 mm
Orifice Diameter
3 m weir
ID 4.8C

SRS Sta 10+12.672
BEG WW FENCE
450 mm CONC
1200 WW FENCE
END WW FENCE
SC Sta 11+02.672
PC Sta 10+48.021
POT Sta 10+00.000
BEGIN CONSTRUCTION
-YI- POT Sta 10+20.000
S 59°18' 20.0" W
PAINT STRIPED ISLAND
RIP-RAP
EXIST. R/W
RETAIN
MATCH TO SHEET 4-A
MATCH TO SHEET 5
HERSHEL METCALF
DB 237 PG 791
DB 161 PG 269
ROM U. YOUNG
DB 89
PG 625
DB 91 PG 481
WINSTON LLOYD
DB 224 PG 464
HERSHEL METCALF
DB 161 PG 264
DB 161 PG 262
DB 216 PG 443
MTL BUS
GATE
ISFBUS
ISRD
ISRBKD
ISRBUS
ISRSI
ISTBJB
ISTBJ
ISTBJ w/MH cover
ISTBJB w/MH cover
ISTBJ TAPER
ISTBJB TAPER
30 TURN LANE
END SHOULDER GUTTER
Sta. 11+02 -L-
REMOVE
+18 -L-
29.35' RT
(96.296')
BEGIN SBG
STA. 10+64 -L-
+23 -L-
39.739' RT
(130.377')
-DI- POT Sta. 10+09.40
BEGIN CONST.
POT Sta. 10+00.000
BEARING AH =
N 18°59' 27.0" E
-YI- POT Sta. 11+28.600
-DI- POT Sta. 10+24.699
-DIA- POT Sta. 10+00.000
+40 -L-
40 RT
(131.234')
+41.844 -YI-
17.827 RT
(58.488')
+36 RT
(118.110')
ROD & LUG CONNECTORS
W/SLEEVE GASKETS & ELBOWS
PC Sta 11+61.510
END CONSTRUCTION
-YI- POC Sta 11+75.000
+66 -YI-
16 RT
(52.493')
+75 -YI-
7.75' RT
(25.443')
+75 -YI-
10 RT
(52.808')
PCSta.10+74.207
PTSta.10+79.343
BEARING AH =
S 26°51' 53.7" E
+05 -YI-
7.85' LT
(25.640')
+07 -YI-
29 LT
(95.144')
+22 -YI-
35 LT
(114.829')
POT Sta.10+91.527
END CONSTRUCTION
-DIA- POT Sta.10+85.000
+68 -L-
27.36' LT
(89.770')
BEG WW FENCE
30-9-30
+19 -L-
31 LT
(101.706')
15 x 7 x 1
ID 4.2C
Sta 11+21.562
Sta 10+82.775
PT Sta 10+83.670
PCSta.10+04.622
BEARING BACK =
N 86°08' 03.7" E
PT Sta.10+42.418
BEARING AH =
S 7°14' 40.7" E
REMOVE EXIST. DI
11 x 5 x 1
ID 4.4C
-DIA- POT Sta.10+68.796
-DIB- POT Sta.10+00.000
BEARING AH =
6 x 3 x 1
ID 4.5C
PCSta.10+12.432
PTSta.10+21.987
BEARING AH =
S 54°22' 33.8" E
+02 -L-
99 RT
(324.803')
+29.469 -DIB-
9 LT (29.526')
BEG WW FENCE
POT Sta.10+34.474
Modified Silt Basin
Type 'B'
11 x 10 x 1
(See Tiered Skimmer
Basin Detail)
ID 4.3C
11 x 10 x 1
76 mm Skimmer
with 68 mm
Orifice Diameter
3 m weir
(See Tiered Skimmer
Basin Detail)
ID 4.3C
9 x 2 x 1
2 m weir
ID 4.6C
12 x 6 x 1
2 m weir
ID 4.9C
8 x 3 x 1
38 mm Skimmer
with 27 mm
Orifice Diameter
2 m weir
ID 4.7C
12 x 5 x 1
51 mm Skimmer
with 39 mm
Orifice Diameter
2 m weir
ID 4.1C
CL I RIPRAP
3.6 TONS
8.4 SM FF
2GI Type "A" ELBOW
2GI Type "A"
FILL W/FLOWABLE GROUT
TYPE M350
GRAU 350
CSP
RCP
CMP
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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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

METRIC
5 0 10

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

NAD 83

MATCH TO SHEET 4

MATCH TO SHEET 6

11 x 6 x 1
2 m weir
ID 5.2C

14 x 7 x 1
2 m weir
ID 5.1C

ROY J. YOUNG
DB 89 PG 623
DB 91 PG 481

1200 WW FENCE

CS Sta 13+71.598

SRS Sta 14+61.598

JAMES T. LEDFORD
DB 171 PG 148
DB 164 PG 720

POT Sta.11+40.556
END CONST.

-BL-10-PINC 14+31.86
-L- Sta 14+65.96 69.203 LT

-D2A- POT Sta.11+50.231
-L- POC Sta.14+89.193

PT Sta.11+35.231
BRG AH =
N 36° 32' 46.0" W

SC Sta 15+51.598

JAMES HARWOOD
DB 237 PG 101
DB 219 PG 73

-D2A- POT Sta.10+00.000
BEARING AH =
S 8° 14' 42.1" W
BEGIN CONST.

PC Sta.10+01.634

ROBERT EATMON
DB 236 PG 756

-D2-POT Sta.10+71.906
-D2A-POC Sta.10+04.500

PC Sta.10+20.031

ERMA B. HARWOOD
DB 191 PG 337
REMOVE HEADWALL AND FILL W/FLOWABLE FILL

Special Cut Ditch (See Detail "C")

REMOVE SPRING BOX

SPRING DRAIN
WATER LEECHES INTO GROUND (NO DRAIN LINES)

-L- POC Sta. 14+50.000
-D2B- POT Sta. 10+00.000
BEARING AH =
S 30° 46' 56.5" W

BEGIN SBG
STA. 14+76 -L-

END. SBG
STA. 15+36 -L-

REMOVE ROD & LUG CONNECTORS W/SLEEVE GASKETS & ELBOWS

ACCESS POINT

-D2B- POT Sta. 10+26.240
END CONST.

WINSTON LLOYD
DB 224 PG 464

ROY J. YOUNG
DB 89 PG 623
DB 91 PG 481

10 x 5 x 1
51 mm Skimmer
with 39 mm
Orifice Diameter
2 m weir
ID 5.3C

JAMES T. LEDFORD
DB 171 PG 148
DB 164 PG 720

Lateral Ditch (See Detail "L")

DDE = 84 CM
CLASS B = 33 MTN
FF = 69 SQ. M

-D3- PT Sta.10+14.879
-D3- PT Sta.10+18.200
END CONST.
-D3- POT Sta.10+28.533
-BL-11-PINC 16+07.167=
-L- Sta 16+19.901 26.440 RT
-Y1A- Sta 10+56.845 26.440 RT

-Y1A- PT Sta. 12+14.660

E.W. DOMINGUES PROP. DB 72 PG 136

PROP. GR W/EXTRA LENGTH COSTS
GRAU 350

-Y1A- PC Sta. 10+00.000
-Y1A- PT Sta. 12+06.648 41.8 LT
END WW
RESURF. DEPTH

POT Sta. 5+30.904
BRG BK = S 27° 55' 07.1" W
-D3B- PT Sta. 5+13.798
END CONST.
-D3B-POT Sta. 5+00.000
-Y1A- PT Sta. 12+45.000

MADELYN R. V
DB 233 P(

-D2A-

PI Sta 12+41.588	
Δ = 35° 25' 17.4" (RT)	
L = 268.927	
T = 138.916	
R = 435.000	
SE = 0.060	

PIs Sta 14+01.629	PIs Sta 15+21.632
Θs = 5° 55' 37.7"	Θs = 5° 55' 37.7"
Ls = 90.000	Ls = 90.000
LT = 60.034	LT = 60.034
ST = 30.031	ST = 30.031

PI Sta 17+85.300	
Δ = 56° 29' 36.1" (LT)	
L = 428.908	
T = 233.702	
R = 435.000	
SE = 0.060	

-D2A-

PI Sta 10+11.541	
Δ = 52° 42' 11.3" (RT)	
L = 18.397	
T = 9.907	
R = 20.000	

PI Sta 10+90.196	
Δ = 82° 30' 20.6" (RT)	
L = 115.200	
T = 70.165	
R = 80.000	

-D3-

PI Sta 10+09.203	
Δ = 85° 14' 52.7" (LT)	
L = 14.879	
T = 9.203	
R = 10.000	

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

FOR -L- PROFILE SEE SHEET #36
FOR -D2, -D2A- & -D3- PROFILE SEE SHEET #74
FOR -D2B- PROFILE SEE SHEET #79

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DETAIL OF –DET2–

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-6A/CONST.2-Y
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

NAD 83

8/17/99

6 ROY J. YOUNG DB 89 PG 623 DB 91 PG 481

7 JAMES T. LEDFORD DB 171 PG 148 DB 164 PG 720

8 JAMES HARWOOD DB 237 PG 101 DB 219 PG 73

9 ERMA B. HARWOOD DB 191 PG 337

10 ROBERT EATMON DB 236 PG 756

5 WINSTON LLOYD DB 224 PG 464

HERSCHEL METCALF DB 224 PG 468

E. W. DOAN HEIRS 23.909 RT DB 72 PG 136

MADELYN R. WILSON DB 223 PG 199

US 19 7 BST

1200 WW FENCE

–DET2– PC Sta. 10+00.000
–L– STA.13+88.827
6.225 LT
BEGIN CONSTRUCTION

CS Sta 13+71.598

SRS Sta 14+61.598

PT Sta. 11+00.481

POT Sta.11+40.550
END CONST.

–D2A– POT Sta.11+50.231
–L– POC Sta.14+89.193

PT Sta.11+35.231
BRG AH =
N 36° 32' 46.0" W

SC Sta 15+51.598

–D2A– POT Sta.10+00.000
BEARING AH =
S 8° 14' 42.1" W
BEGIN CONST.

PCSta.10+01.634

–D2– POT Sta.10+71.906
–D2A–POC Sta.10+04.500

PCCSta.10+20.031

PC Sta 12+27.294

S 61° 09' 06.4" E

–DET2–

–L– POC Sta. 14+50.000
–D2B– POT Sta. 10+00.000
BEARING AH =
S 30° 46' 56.5" W

–D2B– POT Sta. 10+26.240
END CONST.

ACCESS POINT

END WW FENCE

BEGIN WW FENCE

–D2B–

BEGIN SBG STA. 14+75 –L–

END. SBG STA. 15+36 –L–

REMOVE ROD & LUG CONNECTORS W/SLEEVE GASKETS & ELBOWS

REMOVE HEADWALL AND FILL W/FLOWABLE GROUT

Special Cut Ditch (See Detail "C")

Lateral Base Ditch (See Detail "T")

DDE = 84 CM
CLASS B =33 MTN
FF = 69 SQ. M

–D3– PT Sta.10+14.879
–D3– PT Sta.10+18.200
END CONST.
–D3– POT Sta.10+28.533
BRG BK = S 39° 21' 02.5" W

–D3B– POT Sta. 5+00.000
–YIA– PT Sta.12+45.000

–YIA– PT Sta.13+74.660
–D3 – PC Sta.10+00.000 (70.604')
–YIA– PT Sta.12+70.649 (1.8' LT)

–D3B– PT Sta.5+13.798
END CONST.

POT Sta. 5+30.904
BRG BK = S 27° 55' 07.1" W

MATCH TO SHEET 2-Z

SEE TRAFFIC CONTROL PLANS FOR PHASING OF TRAFFIC

FOR –L– PROFILE SEE SHEET *36
FOR –DET2– PROFILE SEE SHEET *82

USE THIS SHEET FOR DETOUR CONSTRUCTION ONLY

–DET2–

PI Sta 10+50.251
Δ = 2° 52' 42.9" (LT)
L = 100.481
T = 50.251
R = 2,000.000

PI Sta 13+86.828
Δ = 46° 05' 31.4" (LT)
L = 301.672
T = 159.534
R = 375.000

–L–

PI Sta 12+41.588	PIs Sta 14+01.629	PIs Sta 15+21.632	PI Sta 17+85.300
Δ = 35° 25' 17.4" (RT)	Θs = 5° 55' 37.7"	Θs = 5° 55' 37.7"	Δ = 56° 29' 36.1" (LT)
L = 268.927	Ls = 90.000	Ls = 90.000	L = 428.908
T = 138.916	LT = 60.034	LT = 60.034	T = 233.702
R = 435.000	ST = 30.031	ST = 30.031	R = 435.000
SE = 0.060			SE = 0.060

–D2A–

PI Sta 10+11.541
Δ = 52° 42' 11.3" (RT)
L = 18.397
T = 9.907
R = 20.000

PI Sta 10+90.196
Δ = 82° 30' 20.6" (RT)
L = 115.200
T = 70.165
R = 80.000

–D3–

PI Sta 10+09.203
Δ = 85° 14' 52.7" (LT)
L = 14.879
T = 9.203
R = 10.000

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ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

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

METRIC
5 0 10

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

NAD 83

MATCH TO SHEET 5

MATCH TO SHEET 7

-L- BEGIN CONST. Sta 16+60

-L- PT Sta.10+40.847

-Y3-
PI Sta 11+11.026
Δ = 42° 16' 01.7" (LT)
L = 73.770
T = 38.654
R = 100.000
SE = 0.080
RO = 40

-Y1A-
PI Sta 10+39.907
Δ = 83° 25' 39.7" (RT)
L = 43.683
T = 26.742
R = 30.000
SE = 0.080
RO = 40

-Y1A-
PI Sta 11+75.618
Δ = 56° 43' 34.2" (RT)
L = 217.813
T = 118.770
R = 220.000
SE = 0.080
RO = 40

-D2-
PI Sta 10+28.076
Δ = 67° 41' 32.8" (RT)
L = 29.536
T = 16.765
R = 25.000

-D3-
PI Sta 10+09.762
Δ = 64° 15' 11.2" (LT)
L = 11.214
T = 6.279
R = 10.000

-D3C-
PI Sta 10+36.
Δ = 70° 24' 51.
L = 12.290
T = 7.056
R = 10.000

ROBERT EATMON
DB 236 PG 756

ERMA B. HARWOOD
DB 191 PG 337

PAUL & SUSAN ALLMAN
D.B. 211 PG. 736-737

MADELYN R. WILSON
DB 233 PG 109

Lateral Base Ditch
(See Detail "T")

Standard Base Ditch
(See Detail "B")

16 x 6 x 1
51 mm Skimmer
with 49 mm
Orifice Diameter
2 m weir
ID 6.9C

24 x 7 x 1
64 mm Skimmer
with 59 mm
Orifice Diameter
3 m weir
ID 6.4F

30 x 10 x 1
ID 6.1C

30 x 10 x 1
102 mm Skimmer
with 77 mm
Orifice Diameter
3 m weir
ID 6.5

9 x 3 x 1
38 mm Skimmer
with 29 mm
Orifice Diameter
2 m weir
ID 6.2F

7 x 3 x 1
38 mm Skimmer
with 25 mm
Orifice Diameter
2 m weir
ID 6.8C

5 x 2 x 1
2 m weir
ID 6.13C

14 x 7 x 1
51 mm Skimmer
with 50 mm
Orifice Diameter
2 m weir
ID 6.1F

22 x 7 x 1
64 mm Skimmer
with 63 mm
Orifice Diameter
3 m weir
ID 6.10C

6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 6.11C

END CONSTRUCTION
-Y1A- POC Sta 11+30.000
BEGIN MIN.RESURF.DEPTH

-L- POC Sta 18+50.599
-Y1A- POT Sta 9+99.745
BRG. AH = S 14° 30' 38.1" E
-Y1A- POC Sta.10+60.000
BRG. AH = S 20° 15' 42.8" E
-D3C- POT Sta.10+00.000

PC Sta. 10+03.483

PT Sta. 10+14.69
BRG. AH = S 84° 00' 00" E

PC Sta. 10+29.034

PT Sta. 10+41.324

POT Sta. 10+45.162
BEARING BK = S 14° 06' 02.3" E

PCSta.10+56.848

CS Sta 19+80.506

BEGIN CULVERT
STA.19+66.520

END CULVERT
STA.19+78.079

-BY3-POT 5+00.000=
-BL-14-PINC 20+14.854=
-LT- Sta 19+89.407 12.785 RT
-Y3- Sta 10+46.299 31.373 RT

END CONSTRUCTION
-Y3- POC Sta 11+40.000

PT Sta 11+46.142

-BY3-15-POT 6+20.938

1200 WW FENCE

130 TURN LANE

DDE-150 CM
CL TRIP RAP
FF = 198 CM
345 MRY

REMOVE

SEE MITIGATION PLAN

PREFORMED SCOUR HOLE (See Detail "S")

ROD & LUG CONNECTORS W/SLEEVE GASKETS & ELBOWS

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PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-7A/CONST.2-Z
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.

DETAIL OF -DET2-

NAD 83

-L-
PI Sta 17+85.300
Δ = 56° 29' 36.1" (LT)
L = 428.908
T = 233.702
R = 435.000
SE = 0.060
PIs Sta 20+10.537
Θs = 5° 55' 37.7"
Ls = 90.000
LT = 60.034
ST = 30.031

-Y3-
PI Sta 11+11.026
Δ = 42° 16' 01.7" (LT)
L = 73.770
T = 38.654
R = 100.000
SE = 0.080
RO = 40

-Y1A-
PI Sta 10+39.907
Δ = 83° 25' 39.7" (RT)
L = 43.683
T = 26.742
R = 30.000
SE = 0.080
RO = 40

PI Sta 11+75.618
Δ = 56° 43' 34.2" (RT)
L = 217.813
T = 118.770
R = 220.000
SE = 0.080
RO = 40

-D2-
PI Sta 10+28.076
Δ = 67° 41' 32.8" (RT)
L = 29.536
T = 16.765
R = 25.000

-D3C-
PI Sta 10+09.762
Δ = 64° 15' 11.2" (LT)
L = 11.214
T = 6.279
R = 10.000

PI Sta 10+36.090
Δ = 70° 24' 51.8" (RT)
L = 12.290
T = 7.056
R = 10.000

-DET2-
PI Sta 13+86.828
Δ = 46° 05' 31.4" (LT)
L = 301.672
T = 159.534
R = 375.000

PCSta.10+11.311

+94 -L- 111 LT (364.173')

-D2- POT Sta.10+00.000
BEARING AH = S 27° 07' 38.5" W
BEGIN CONST.

+78 -L- 94 LT (309.399')

+02 -L- 108 LT (354.331')

+05 -L- 89 LT (291.995')

PT Sta.10+40.847

MATCH TO SHEET 2-Y

S 83° 48' 56" E 107.336'

9 ERMA B. HARWOOD DB 191 PG 337

10 ROBERT EATMON DB 236 PG 756

-DET2- POC Sta. 15+28.966
-L- STA.19+17.522
6.225 LT
END CONSTRUCTION

+22 -L- 47 LT (154.199')

PAUL & SUSAN ALLMAN D.B. 211 PG. 736-737

10A

Lateral Base Ditch (See Detail "T")

+39 -L- 33 LT (108.268')

1200 WW FENCE

Lateral Base Ditch (See Detail "A")

+75 -L- 36 LT (118.110')

CLASS I RIP RAP

CS Sta 19+80.506

-L- POC Sta 18+50.599
-Y1A- POT Sta 9+99.745
BEARING AH = S 14° 30' 38.1" E

PCCSta.10+56.848

-Y1A- POC Sta.10+60.000
-D3C- POT Sta.10+00.000

REMOVE HEADWALL AND FILL W/FLOWABLE GROUT

GRADE TO DRAIN

1.8 m CONC. HW

+61 -L- 40.372 RT (31.176') END WW FENCE

+98 -L- 33.528 (119.000')

Standard Base Ditch (See Detail "B")

+20 -L- 41.343 RT (29.796')

+30 -Y1A- 20 LT (65.617')

+16 -Y1A- 19 LT (62.336')

MADELYN R. WILSON DB 233 PG 109

11

+01 -Y1A- 6.459 LT (21.191')

+76 -Y1A- 6.521 LT (21.394')

CLASS B RIPRAP 3.6 TONS 8.4 SM FF

END CONSTRUCTION
-Y1A- POC Sta 11+30.000
BEGIN MIN.RESURF.DEPTH

+55 -Y1A- 5.673 LT (18.612')

+51 -Y1A- PROP.R/W & I6 (52.493')
+58 -Y1A- PROP.R/W & I7 (55.774')

+30 -Y1A- 9 LT (29.528') BEG WW FENCE

+30 -Y1A- 6.448 LT & I3 LT (21.155') (42.651')

+19 -Y1A- I7 LT (55.774')

PC Sta. 10+03.483

-Y1A-

600 mm RCP

+76 -Y1A- 15.139 LT (49.668')

10 ROBERT EATMON DB 236 PG 756

Standard Base Ditch (See Detail "B")

+83 -Y1A- 38 LT (124.672')

+74 -Y1A- 42 LT (137.795')

PC Sta. 10+29.034

PT Sta. 10+41.324

POT Sta.10+45.62
BEARING BK = S 14° 06' 02.3" E

SEE TRAFFIC CONTROL PLANS FOR PHASING OF TRAFFIC

PT Sta. 10+14.697

S 84° 30' 54.0" E

+66 -Y1A- I6 LT (52.493') & I9 LT (62.336')

+51 -Y1A- 27.698 LT END WW FENCE (90.872')

+48 -Y1A- 33 LT (108.268')

+40 -Y1A- 20 LT (65.617') BEG WW FENCE

+33 -Y1A- I7.284 LT (56.706')

PCSta.10+13.65

+74 -L- 37.927 RT (124.432')

+90 -L- 33.265 RT (109.137')

+18 -L- 25.248 RT (82.535')

+35 -L- 31 RT (101.706')

REMOVE/FILL EXIST. BOX CULVERTS

-D3C- POT Sta. 10+40.000
END CONST.

ACCESS POINT

+45 -Y3- 69 RT (226.378')

+45 -Y3- 9.562 RT (31.372') END WW FENCE

+45 -Y3- 3.300 RT (10.827')

FOR -L- PROFILE SEE SHEET *37
FOR -DET2- PROFILE SEE SHEET *82

USE THIS SHEET FOR DETOUR CONSTRUCTION ONLY

END CULVERT STA.19+78.679

BEGIN CULVERT STA.19+66.520

REMOVE 600 mm CMP 24.000 LF

CLASS I RIP RAP

SEE MITIGATION PLAN

PREFORMED SCOUR HOLE (See Detail "O")

ELBOW

450 CSP

ELBOW

ROD & LUG CONNECTORS W/SLEEVE GASKETS & ELBOWS

END CONSTRUCTION
-Y3- POC Sta 11+40.000

+40 -Y3- 3.965 LT (12.680')

+40 -Y3- 3.424 RT (11.234')

+49 -Y3- 9 RT (29.528') BEG WW FENCE

PT Sta 11+46.142

1200 WW FENCE

US 19 TODAY

EXISTING R/W

SR 1540

31-AUG-2007 10:40
\\Rdcrpw2\projects\r2518a\environmental\design\r2518_rdg_dtl_2z.dgn
\\Rdcrpw2\projects\r2518a\environmental\design\r2518_rdg_dtl_2z.dwl2

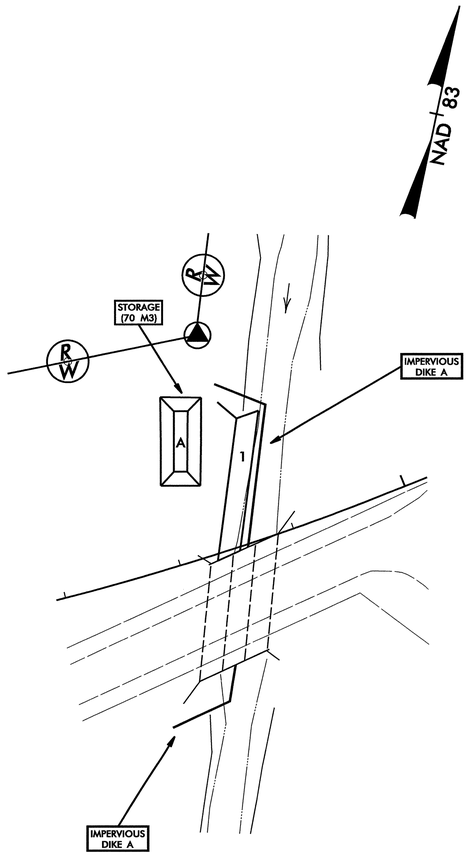
METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-8/CONST.6
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 19+72.6 –L–

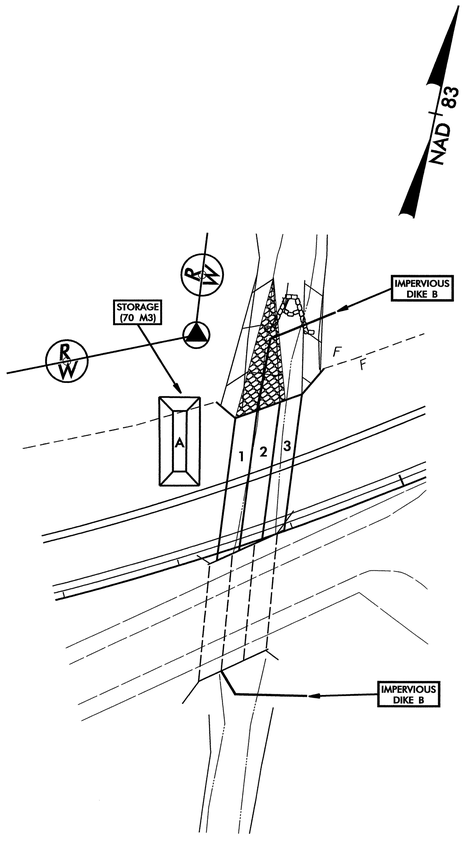
PHASE I

1. CONSTRUCT STILLING BASIN A (70 M3).
2. CONSTRUCT IMPERVIOUS DIKES A.
3. CONSTRUCT PORTION OF BARREL 1.
4. REMOVE IMPERVIOUS DIKES A.



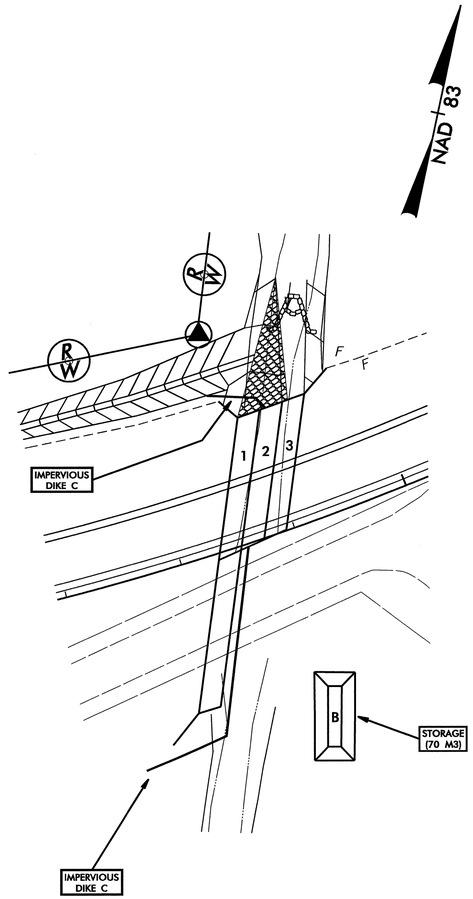
PHASE II

5. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARREL 1.
6. CONSTRUCT PORTION OF BARRELS 2 AND 3.
7. REMOVE IMPERVIOUS DIKES B, AND COMPLETE ANY NECESSARY UPSTREAM CHANNEL IMPROVEMENTS.
8. REMOVE STILLING BASIN A.
9. CONSTRUCT ROADWAY OVER NEW BARRELS, AND DETOUR TRAFFIC.



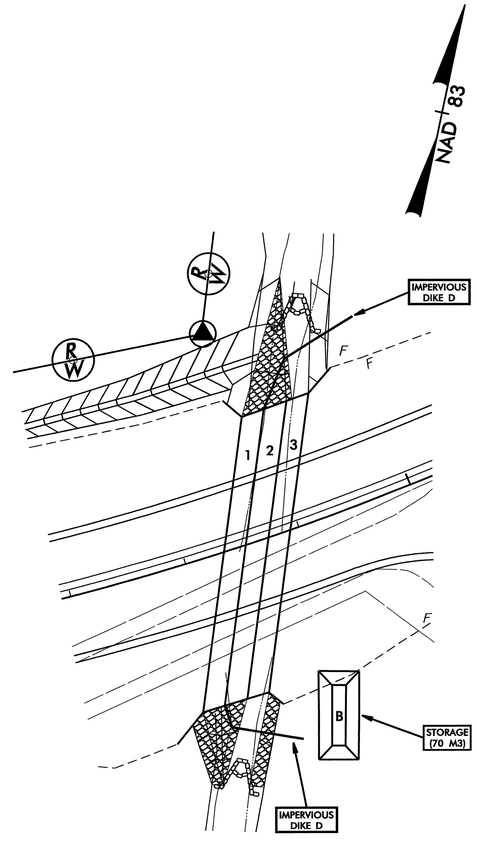
PHASE III

10. CONSTRUCT STILLING BASIN B (70 M3).
11. REMOVE EXISTING RCBC.
12. CONSTRUCT IMPERVIOUS DIKES C.
13. CONSTRUCT REMAINDER OF BARREL 1.
14. REMOVE IMERVIOUS DIKES C.



PHASE IV

15. CONSTRUCT IMPERVIOUS DIKES D, DIVERTING FLOW THROUGH BARREL 1.
16. CONSTRUCT REMAINDER OF BARRELS 2 AND 3.
17. REMOVE IMPERVIOUS DIKES D, AND COMPLETE ANY NECESSARY DOWNSTREAM CHANNEL IMPROVEMENTS.
18. REMOVE STILLING BASIN B, AND COMPLETE ROADWAY.

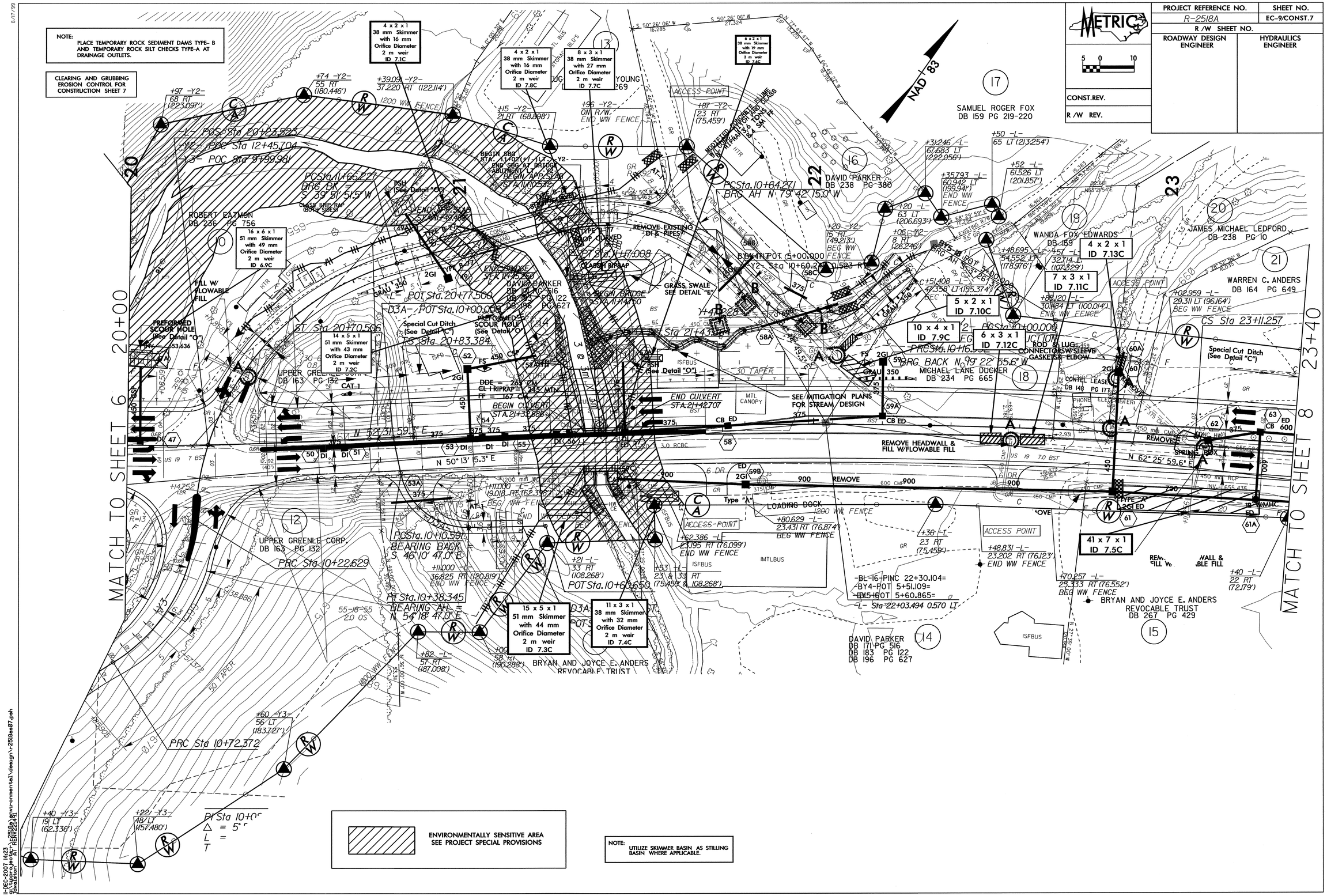


PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-9/CONST.7
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC

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



ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

NOTE: UTILIZE SKIMMER BASIN AS STILLING BASIN WHERE APPLICABLE.

8/17/99

11-DEC-2007 14:23
g:\tipprojects\r-2518a\environmental\design\r-2518as07.psh
jdwalston AT REN22141

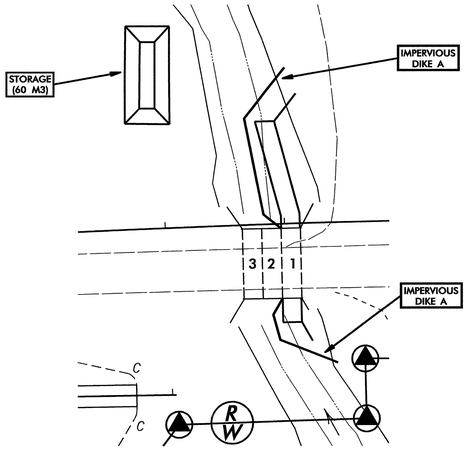
METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2518A	EC-10/CONST.7
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 21+37.796 –L–

PHASE I

1. CONSTRUCT STILLING BASIN (60 M3).
2. CONSTRUCT IMPERVIOUS DIKES A.
3. CONSTRUCT BARREL EXTENSIONS FOR BARREL 1.
4. REMOVE IMPERVIOUS DIKES A.

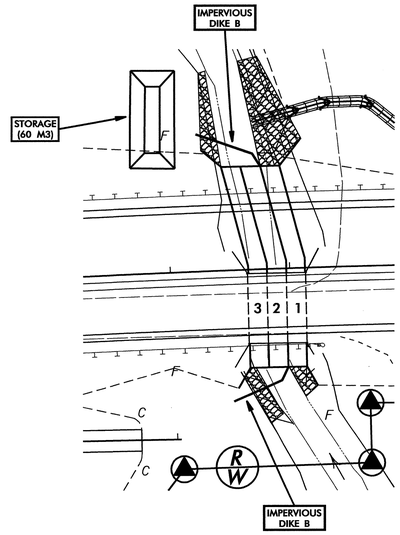
NAD 83



PHASE II

5. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARREL 1.
6. CONSTRUCT BARREL EXTENSIONS FOR BARRELS 2 AND 3.
7. REMOVE IMPERVIOUS DIKES B.
8. PLACE RIPRAP AND CONSTRUCT ANY NECESSARY CHANNEL IMPROVEMENTS.
9. REMOVE STILLING BASIN, AND COMPLETE ROADWAY.

NAD 83



8/17/99

R/W REV.: ADDING A DRIVE WITH A CONTROL OF ACCESS BREAK ON PARCEL 15 (BRYAN ANDERS). 11/28/06 DWK

11-DEC-2007 14:32
$da_tapes\projects\r2518a\environmental\design\r2518as08.pah
Intersection RT REV22.tit

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 8

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

METRIC 5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-11/CONST.8
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

NAD 83

MATCH TO SHEET 7 23+40

MATCH TO SHEET 9 26+80

20 JAMES MICHAEL LEDFORD DB 238 PG 10

MICHAEL WILSON DB 133 PG 9

22 ROTHA WILSON DB 121 PG 136

MICHAEL WILSON DB 121 PG 123

21 WARREN C. ANDERS DB 164 PG 649

24 CLYDE ENGLISH DB 172 PG 708

15 BRYAN AND JOYCE E. ANDERS REVOCABLE TRUST DB 267 PG 429

23 RANDALL J. McKINNEY NO DEED

S 46° 20' 35" W 66.570
S 42° 12' 56" W 41.576
N 31° 28' 59" W 44.50
N 24° 18' 59" W 48.88
S 58° 00' 00" W 38.100
S 67° 39' 59" W 30.053
S 78° 00' 00" W 19.688
S 41° 14' 00" E 45.00
S 41° 14' 00" E 45.00

-D4A- PCSta.10+00.000
BEGIN CONSTRUCTION
BEARING AH = S 29° 38' 48.9" E
PC Sta. 10+02.254

PT Sta. 10+22.660
BEARING AH = N 72° 24' 32.4" E

PC Sta. 10+37.220

PT Sta. 10+52.924
BEARING AH = S 32° 36' 32.9" E
-D4A- POT Sta. 10+65.621
-L- POT Sta. 25+73.798

ST Sta 23+71.257

+28.579 -L- 44 LT (144.357') END WW FENCE

+19 -L- 44 LT (144.357')

+50 -L- 88 LT (288.714')

+70 -L- 44 LT (144.357') BEG WW FENCE

+54.930 -L- 23.056 LT (75.644') BEG WW FENCE

+80 -L- 22 LT (72.178')

+36.944 -L- 23.733 LT (77.864') END WW FENCE

1200 WW FENCE

ACCESS POINT

HTR BUS

TYPE "A" 2GI 64A

Special Cut Ditch (See Detail "C")

TYPE "A" 2GI 64B

12 x 2 x 1 ID 8.4C

12 x 3 x 1 ID 8.3C

DRIVEWAY TO BE PAVED SEE TYPICAL NO.12

130 TURN LANE

REMOVE

FLAG POLES

EXISTING R/W

US 19 7.0 BST

N 59° 59' 37.6" E

N 60° 16' 59.3" E

6 DR

30 TAPER

+40 -L- 22 RT (72.179')

-BL-19-PINC 24+50.867= -L- Sta 24+24.154 14.334 RT

+36 -L- 22.015 RT (72.228') END WW FENCE

+54.138 -L- 22.009 RT (72.208') BEG WW FENCE

+80 -L- 22 RT (72.178')

BEGIN GATE 2.438 (8') +60

+39 -L- 38 RT (124.672')

08.314 24.597 RT (74.137') END WW FENCE

+11 -L- 22 RT (72.178')

+26.314 22.516 RT (73.872') BEG WW FENCE

-BL-20-PINC 26+47.730= -L- Sta 26+21.015 15.328 RT

13 x 5 x 1 51 mm Skimmer with 41 mm Orifice Diameter 2 m weir ID 8.1C

9 x 2 x 1 38 mm Skimmer with 23 mm Orifice Diameter 2 m weir ID 8.2C

-L-
PIs Sta 23+31.258
Δs = 0° 58' 56.0"
Ls = 60.000
LT = 40.001
ST = 20.001

-D4A-
PI Sta 10+14.388
Δ = 77° 56' 38.7" (LT)
L = 20.406
T = 12.135
R = 15.000

PI Sta 10+46.425
Δ = 74° 58' 54.7" (RT)
L = 15.704
T = 9.205
R = 12.000

FOR -L- PROFILE SEE SHEET *39
FOR -D4A- PROFILE SEE SHEET *75

8/17/99

R/W REV.: CHANGING PARCEL NUMBER 30 TO 31 (DAVID DOAN). 3/14/07 TFD

07-AUG-2007 10:51
User:tfdavis
$P:\R-2518A\environmental\design\r2518a09.pdn

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2518A	EC-12/CONST.9
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		

-L-
PIs Sta 27+54.091
Θs = 1° 25' 56.6"
Ls = 60.000
LT = 40.001
ST = 20.001

PI Sta 29+56.270
△ = 17° 15' 54.2" (LT)
L = 361.599
T = 182.180
R = 1,200.000
SE = 0.040

-Y4-
PI Sta 10+62.692
△ = 98° 41' 39.0" (LT)
L = 51.676
T = 34.936
R = 30.000
SE = 0.080
R0 = 40

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9

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

NAD 83

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

MATCH TO SHEET 8

MATCH TO SHEET 10

12 x 5 x 1
51 mm Skimmer
with 39 mm
Orifice Diameter
2 m weir
ID 9.2C

SAL ANNONE
DB 243 PG 727
DB 255 PG 265

T.S. Sta 27+14.090

S 76° 28' 59.8" E
60.000

N 2° 30' 33.7" E
60.000

S 17° 58' 59.8" E
60.000

S 71° 28' 59.8" E
60.000

N 59° 59' 37.6" E

N 58° 41' 50.6" E

N 51° 56' 24.0" E

S 35° 10' 15.2" E
3,476.320

CLYDE ENGLISH
DB 172 PG 708

RANDALL J. McKINNEY
NO DEED

DAVID D. DOAN
DB 172 PG 181

DAVID DOAN
DB 256 PG 2
DB 158 PG 5

EDWARD EATMON
PG 753
PG 638

ERNEST H. McKINNEY
DB 147 PG 314

22 x 8 x 1
ID 9.5C

10 x 5 x 1
ID 9.3C

6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 9.2F

10 x 4 x 1
38 mm Skimmer
with 35 mm
Orifice Diameter
2 m weir
ID 9.1C

11 x 2 x 1
38 mm Skimmer
with 26 mm
Orifice Diameter
2 m weir
ID 9.6C

7 x 2 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
2 m weir
ID 9.7C

ACCESS POINT

+30 -L-
27 LT
(88.583')

+06.619 -L-
44.809 LT (147.012')
END WW FENCE

+25.055 -L-
30.762 LT (100.925')
BEG WW FENCE

+66.776 -L-
27.595 LT (90.535')
END WW FENCE

+80.171 -L-
27.665 LT (90.765')
BEG WW FENCE

+40 -L-
26 LT
(85.302')

+82.939 -L-
27.428 LT (89.987')
END WW FENCE

+40 -L-
27 LT
(88.583')

+101.362 -L-
27.580 LT (90.484')
BEG WW FENCE

+16 -L-
70 LT
(229.659')

-L- POC Sta 30+06.876
-Y4- POT Sta 10+00.000

Invert Buried 0.31 m

REMOVE HEADWALL &
FILL W/FLOWABLE GROUT

SEE MITIGATIC
FOR STREAM

Special Cut
Base Ditch
(See Detail "K")

CLASS B RIPRAP
4.5 TONS
11.7 SM. YD.

REMOVE DI

REMOVE

450 CSP

400 mm CMP

800 mm CONC

1200 WW FENCE

ISFBUS

HTR

BST

ISBKD

MTL

RETAIN

+00 -L-
25 RT
(82.021')

+01 -L-
74 RT
(242.782')

+02 -L-
81 RT
(265.748')

+23 -L-
79 RT
(259.186')

+47 -L-
81 RT
(265.748')

+52 -L-
22 RT
(72.178')

+55 -L-
48 RT
(157.486')

+07.019 -L-
24.610 RT (80.742')
END WW FENCE

+83 -L-
23 RT
(75.459')

+90.990 -L-
22.644 RT (74.290')
BEG WW FENCE

+78 -L-
ON R/W

+34 -Y4-
31 RT
(101.706')

+37 -Y4-
ON R/W

+40 -Y4-
19 RT
(62.336')

+60 -Y4-
15 RT
(49.213')

PREFORMED
SCOUR HOLE
(SEE DETAIL "O")

PDE

ROD & LUG CONNECTORS
W/SLEEVE GASKETS & ELBOWS

ELBOW 23 RT
(75.459')

GRAU 350

TURN LANE

-BL-22-PINC 30+18.939=
-BL-22-POT 5+00.000=
-L- Sta 29+89.190 16.489 RT
-Y1A- Sta 10+16.357 17.928 RT

PC Sta 10+27.756
BEARING BK =
S 42° 33' 11.9" E

FOR -L- PROFILE SEE SHEET *40
FOR -Y4- PROFILE SEE SHEET *67

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

5 0 10

NAD 83

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 10

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

-L-
PI Sta 29+56.270
Δ = 17° 15' 54.2" (LT)
L = 361.599
T = 182.180
R = 1,200.000
SE = 0.040

PIs Sta 31+55.690
θs = 1° 25' 56.6"
Ls = 60.000
LT = 40.001
ST = 20.001

-Y4-
PI Sta 10+62.692
Δ = 98° 41' 39.0" (LT)
L = 51.676
T = 34.936
R = 30.000
SE = 0.080
RO = 40

PI Sta 11+10.639
Δ = 42° 37' 12.9" (RT)
L = 59.509
T = 31.207
R = 80.000
SE = 0.080
RO = 40

-Y5-
PI Sta 10+35.311
Δ = 38° 53' 49.3" (LT)
L = 67.888
T = 35.311
R = 100.000
SE = 0.030
RO = 18

-D5-
PI Sta 10+41.997
Δ = 47° 31' 03.2" (RT)
L = 29.027
T = 15.407
R = 35.000

-D6-
PI Sta 10+23.456
Δ = 34° 12' 18.9" (LT)
L = 17.910
T = 9.231
R = 30.000

14 x 5 x 1
51 mm Skimmer
with 43 mm
Orifice Diameter
2 m weir
ID 10.4C

13 x 5 x 1
51 mm Skimmer
with 41 mm
Orifice Diameter
2 m weir
ID 10.6C

4 x 2 x 1
38 mm Skimmer
with 16 mm
Orifice Diameter
2 m weir
ID 10.2C

15 x 6 x 1
51 mm Skimmer
with 48 mm
Orifice Diameter
2 m weir
ID 10.7C

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 10.5C

10 x 3 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
2 m weir
ID 10.2F

5 x 2 x 1
38 mm Skimmer
with 17 mm
Orifice Diameter
2 m weir
ID 10.1C

4 x 2 x 1
38 mm Skimmer
with 16 mm
Orifice Diameter
2 m weir
ID 10.8C

BEGIN CONSTRUCTION
-Y5- PC Sta 10+00.000
-D5- POT Sta 10+01.687
-Y5- PC Sta 10+42.995
-BY7-25 POT 6+08.912 CL B RIPRAP 4.7 TONS 8.2 SM. FP
-Y5- Sta 10+49.982 57.67 RT

PT Sta 10+60.888
BEARING AH =
S 50° 28' 00.8" E

PT Sta 10+55.617 = S 38° 50' 31.6" W

POT Sta.10+00.000
BEARING AH =
S 0° 55' 52.3" E

PCSta.10+14.226

PT Sta.10+32.135
BEARING AH =
S 35° 08' 11.1" E

PCSta.10+26.590

POT Sta.10+86.301
ST Sta 31+95.689

-L- POT Sta.32+88.500
-D6- POT Sta.10+43.083

CS Sta 31+35.685
2.4m x 2.4m RCBC

-BL-23-PINC 31+20.958
-L- Sta 30+89.767 16.219 RT

-BL-26-PINC 32+90.946
-L- Sta 32+58.836 17.568 RT

-BY6-24-PINC 6+45.862
-Y4- Sta 11+63.601 3.356 RT

PRC Sta 10+79.432

PT Sta 11+38.941

POT Sta 11+78.941

END CONSTRUCTION
-Y4- POT Sta 11+40.000

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

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

ERNEST H. MCKINNEY DB 147 PG 314

P. BRIGGS, JR. DB 139 PG 44

DEWEY ROBINSON DB 119 PG 486

DAVID DOAN DB 256 PG 289 DB 158 PG 505

DONALD P. RICE DB 205 PG 584

DAVID DOAN DB 357 PG 336

C. YOUNG 175 PG 36

MISSIONARY BAPTIST CHURCH

MATCH TO SHEET 9 30+20

MATCH TO SHEET 11 33+60

FOR -L- PROFILE SEE SHEET *41
FOR -Y4- PROFILE SEE SHEET *67
FOR -Y5- PROFILE SEE SHEET *67
FOR -D5-&-D6- PROFILE SEE SHEET *74

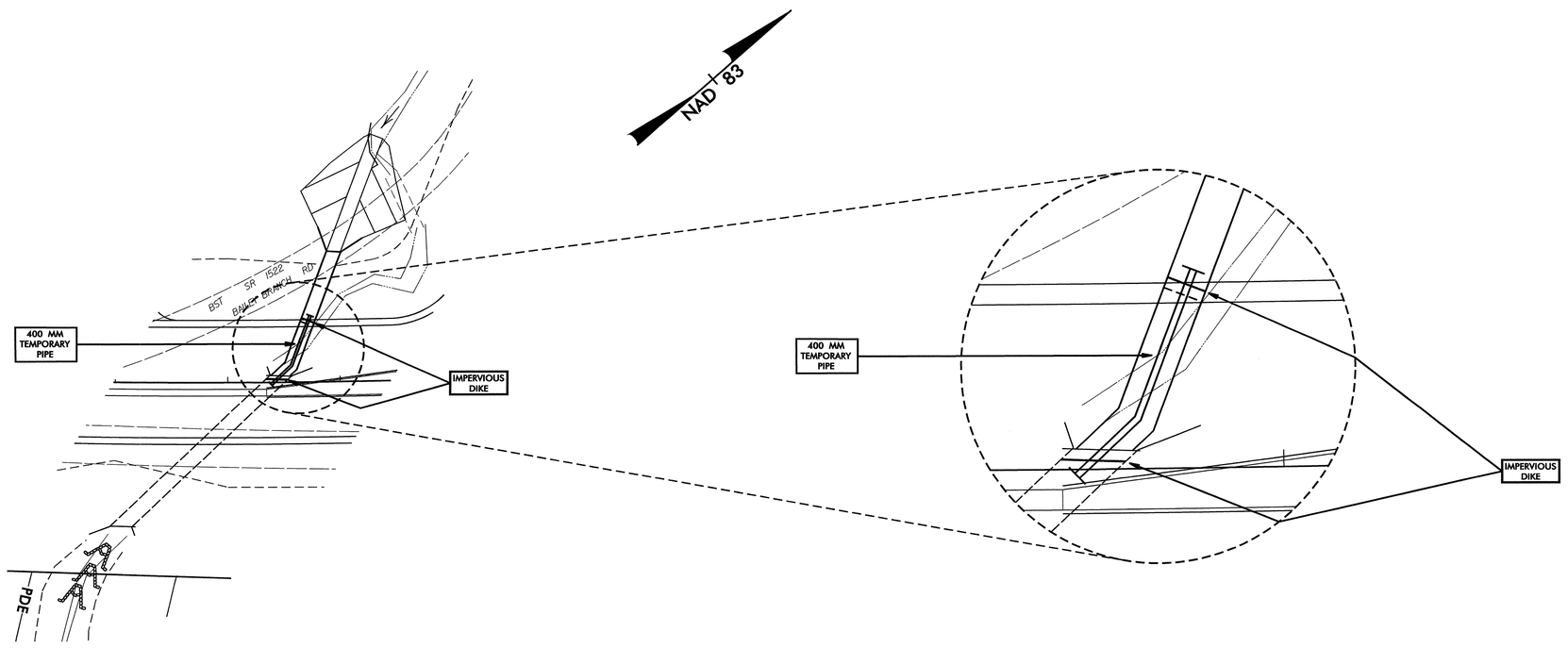
R/W REV.: CHANGING PARCEL NUMBER 30 TO 31 (DAVID DOAN). 3/14/07 TFD

07-AUG-2007 11:05
User: ajreen
File: r2518a_survey_comments\design\r2518asht0.pah
R2518A REN221446

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2518A	EC-14/CONST JO
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 31+48.170 –L–

1. UTILIZE SPECIAL STILLING BASIN(S) DURING CULVERT CONSTRUCTION AS NEEDED.
2. CONSTRUCT PORTION OF THE CULVERT EXTENSION, IN THE DRY TO THE EXTENT PRACTICABLE.
3. CONSTRUCT UPSTREAM STREAM RELOCATION, PER STREAM MITIGATION PLAN.
4. CONSTRUCT IMPERVIOUS DIKES AND INSTALL 400MM TEMPORARY PIPE, DIVERTING FLOW THROUGH THE TEMPORARY PIPE.
5. COMPLETE CULVERT EXTENSION.
6. REMOVE IMPERVIOUS DIKES AND TEMPORARY PIPE.
7. COMPLETE ROADWAY.



8/17/99

R/W REV.: CHANGING PARCEL NUMBER 38 (LEFT) TO 40 & REVISING NAME & DEED BOOK NUMBER (KERRY DAWN PARKER). 3/14/07 TFD

11-DEC-2007 14:50
S:\Location_Design\Environmental\design\r-2518a11.pah
Z:\default.pch RE:\R2518A11.tpl

METRIC 5 0 10	PROJECT REFERENCE NO.	SHEET NO.
	R-2518A	EC-15/CONST.11
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		

NAD 83

-L-
PIs Sta 36+93.043
Θs = 2° 23' 14.4"
Ls = 75.000
LT = 50.005
ST = 25.004

-Y6-
PI Sta 10+69.669
△ = 12° 04' 14.6" (RT)
L = 48.455
T = 24.318
R = 230.000
SE = 0.080
R0 = 40

-D6B-
PI Sta 10+24.342
△ = 53° 52' 09.1" (LT)
L = 23.505
T = 12.702
R = 25.000

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 11

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

MATCH TO SHEET 10

MATCH TO SHEET 12

19 x 7 x 1 64 mm Skimmer with 58 mm Orifice Diameter 2 m weir ID 11.6C

18 x 7 x 1 64 mm Skimmer with 57 mm Orifice Diameter 3 m weir ID 11.1C

10 x 4 x 1 38 mm Skimmer with 35 mm Orifice Diameter 2 m weir ID 11.7C

11 x 3 x 1 38 mm Skimmer with 32 mm Orifice Diameter 2 m weir ID 11.11C

9 x 3 x 1 38 mm Skimmer with 29 mm Orifice Diameter 2 m weir ID 11.10C

6 x 3 x 1 38 mm Skimmer with 23 mm Orifice Diameter 2 m weir ID 11.3C

5 x 2 x 1 38 mm Skimmer with 17 mm Orifice Diameter 2 m weir ID 11.2C

4 x 2 x 1 38 mm Skimmer with 16 mm Orifice Diameter 2 m weir ID 11.4C

7 x 3 x 1 38 mm Skimmer with 25 mm Orifice Diameter 2 m weir ID 11.8C

7 x 3 x 1 38 mm Skimmer with 25 mm Orifice Diameter 2 m weir ID 11.9C

SEE MITIGATION PLANS FOR STREAM DESIGN

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

FOR -L- PROFILE SEE SHEET #42
FOR -Y6- PROFILE SEE SHEET #68
FOR -D6B- PROFILE SEE SHEET #75

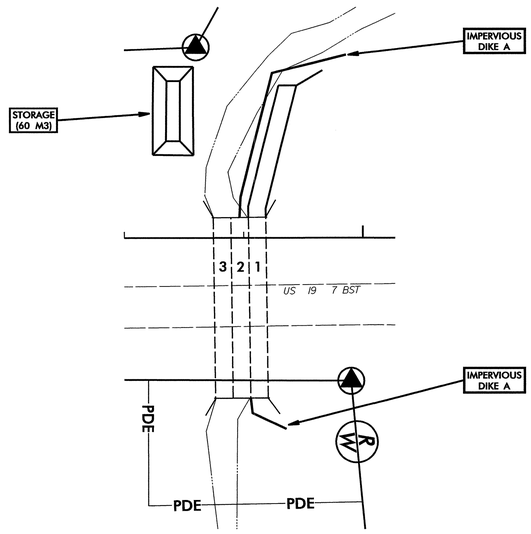
METRIC

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

CULVERT CONSTRUCTION SEQUENCE STA. 33+79.34 –L–

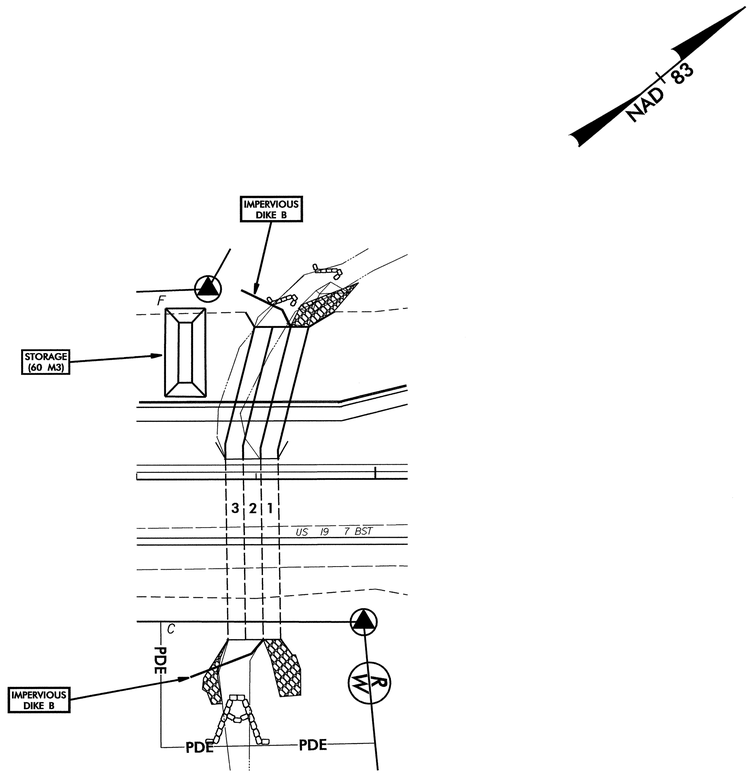
PHASE I

1. CONSTRUCT STILLING BASIN (60 M3).
2. CONSTRUCT IMPERVIOUS DIKES A.
3. CONSTRUCT BARREL EXTENSION FOR BARREL 1.
4. REMOVE IMPERVIOUS DIKES A.



PHASE II

5. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARREL 1.
6. CONSTRUCT BARREL EXTENSIONS FOR BARRELS 2 AND 3.
7. REMOVE IMPERVIOUS DIKES B.
8. CONSTRUCT ANY NECESSARY CHANNEL IMPROVEMENTS.
9. REMOVE STILLING BASIN, AND COMPLETE ROADWAY.



8/17/99

R/W REV.: CHANGING PROPERTY LINE AND NAME ON PARCEL 45A (GERALD R. BROWN). 11/28/06 DWK

R/W REV.: CHANGING PROPERTY LINE AND NAME ON PARCEL 45 (JOHN E. WADE JR.) AND ADDING PARCEL 45A (GERALD R. BROWN). 11/28/06 DWK

11-DEC-2007 15:35
G:\Projects\Roadway\Environmental\design\r-2518asl2.pah
Zeta8.com AT REL(2.10)

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 12

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

METRIC 5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-17/CONST.12
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

NAD 83

-L-
PIs Sta 36+93.043
Θs = 2° 23' 14.4"
Ls = 75.000
LT = 50.005
ST = 25.004

-L-
PI Sta 39+12.816
△ = 24° 25' 23.4" (RT)
L =
T =
R =
SE =

-D6C-
PI Sta 10+28.321
△ = 76° 14' 19.5" (LT)

5 x 2 x 1 38 mm Skimmer with 17 mm Orifice Diameter 2 m weir ID 12.2C

+13.299 -L- 69.081 LT (226.644') END WW FENCE

+00 -Y7- EX.R/W

REMOVE EXISTING

+21.679 -Y7- 21.157 LT (169.413') BEG WW FENCE

POT Sta 10+00.000

BRIAN BARLOW DB 239 PG 456

9 x 5 x 1 ID 12.5C

+80 -L- 52 LT (170.504')

+66 -L- 43 LT (141.076')

8 x 4 x 1 38 Skimmer with 32 mm Orifice Diameter 2 m weir ID 12.9C

YOUNG DB 172 PG 83

5 x 2 x 1 38 mm Skimmer with 17 mm Orifice Diameter 2 m weir ID 12.6C

+41.403 -L- 23.685 LT (77.708') BEG WW FENCE

18 x 6 x 1 64 mm Skimmer with 52 mm Orifice Diameter 2 m weir ID 12.7C

+73 -L- ON R/W & 28 LT (91.864')

+89 -L- ON R/W & 29 LT (95.144')

+26 -L- 26 LT (85.302')

PSH (SEE DETAIL "O")

6 x 2 x 1 38 mm Skimmer with 19 mm Orifice Diameter 2 m weir ID 12.8C

1200 WW FENCE

BEGIN CONSTRUCTION -Y7- POT Sta 10+00.000

SEE MITIGATION PLANS FOR STREAM DESIGN

-L- POC Sta 37+80.165
-D6C -POT Sta. 10+00.000
BEARING AH = S 44° 34' 13.1" E

SC Sta 37+18.038

PREFORMED SCOUR HOLE (SEE DETAIL "O")

CL I RIPRAP = 150 TONS FF = 55 CM

-BL-30-PINC 38+89.3
-BL93BOT- 5+58.762=

-L- Sta 38+86.965 3.204 LT
-Y7- Sta 10+15.267 813.787 RT

+17.603 -L- 30.521 LT (100.135') END WW FENCE

-BY9-31-POT 5+00.000=
-L- Sta 38+24.11 81.257 LT
-Y7- Sta 10+20.335 37.736 RT

BEGIN CULVERT STA 37+80.083
END CULVERT STA 38+00.698

CL B RIPRAP 0.9 TON 4.2 SM FF

CL B RIPRAP 4.5 TONS 19.4 SM FF

J. C. YOUNG DB 178 PG 36

ROD & LUG CONNECTION W/SLEEVE COUPLERS & FERRULES

N 43° 04' 07.4" E

CAT-1

GRAU 350

+31.319 -L- 30.595 RT (100.378') BEG WW FENCE

130 TURN LANE

PC Sta. 10+20.004

1200 WW FENCE

ACCESS POINT

REMOVE HEADWALL & FILL W/FLOWABLE FILL

10 x 4 x 1 ID 12.3C

+13.301 -L- 26.171 RT (85.864') END WW FENCE

PT Sta. 10+34.109
BEARING AH = N 59° 11' 27.4" E

+90 -L- 42.343 LT (142.201') END WW FENCE

IVAN W. HEMBREE DB 200 PG 508

N 64° 16' 20" E 52.764

18 x 6 x 1 64 Skimmer with 52 mm Orifice Diameter 2 m weir ID 12.1C

JAYE P. HEMBREE DB 233 PG 57

JOHN E. WADE, JR. DB 310 PG 616

6 x 3 x 1 38 mm Skimmer with 23 mm Orifice Diameter 2 m weir ID 12.4C

+94 -L- 43 RT (141.076')

ACCESS POINT

POT Sta. 10+46.567

+23 -L- 39.292 LT (128.910') BEGIN WW FENCE

BEG. RET. WALL 38+45

END RET. WALL 38+75

+50 -L- 35 RT (114.829')

-L- POC Sta 38+45.726
-Y7- POT Sta 10+76.074
BEARING BK = S 59° 54' 50.1" E

+05 -L- 36 RT (118.110')

+04 -L- 36 RT (118.110')

GERALD R. BROWN DB 270 PG 764-769

LOU S. HENSLEY ET UX DB 127 PG 421

JB wMH

CAT-1

CL I RIPRAP 15.4 TONS 51.8 SM FF

END RET. WALL

MATCH TO SHEET 11

MATCH TO SHEET 13

37+00

40+40

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

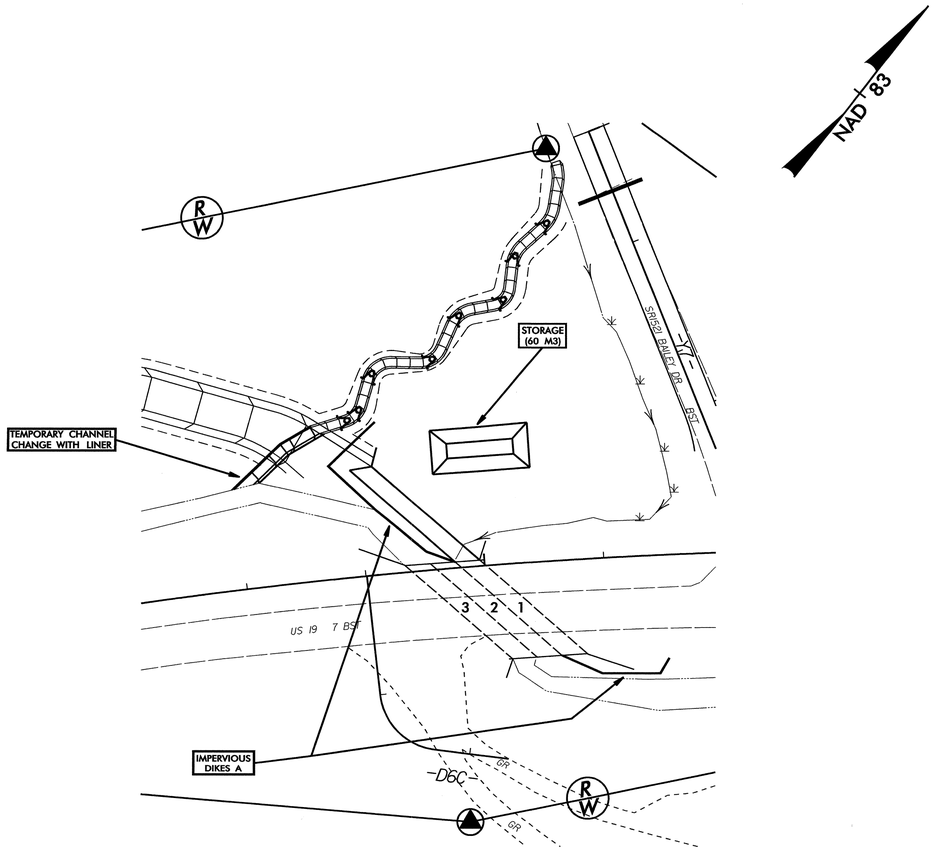
FOR -L- PROFILE SEE SHEET *43
FOR -Y7- PROFILE SHEET *68
FOR -D6C- PROFILE SEE SHEET *75

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-18/CONST12
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 37+94.39 –L–

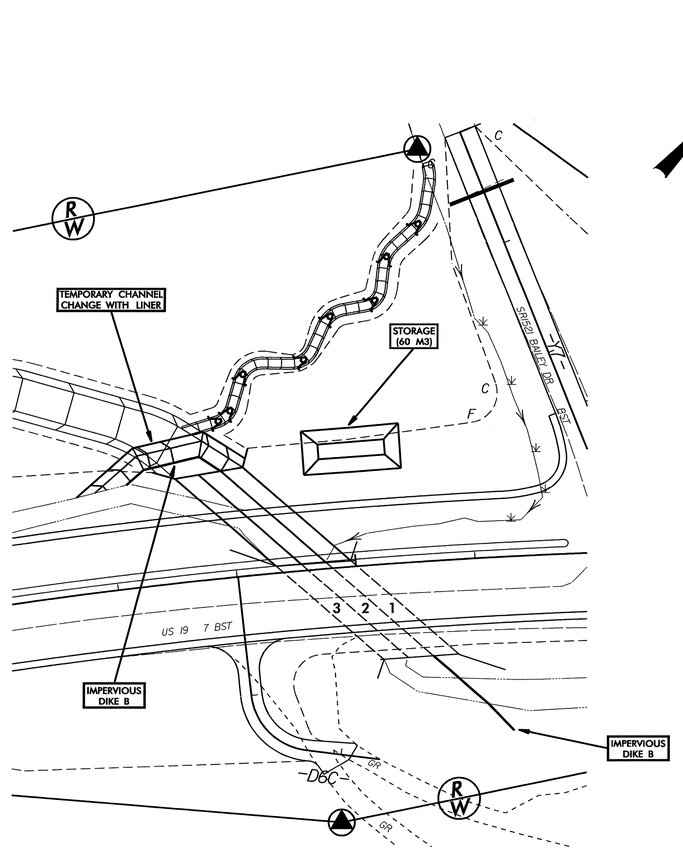
PHASE I

1. CONSTRUCT STILLING BASIN (60 M3).
2. RELOCATE UT TO MIDDLE FORK CREEK PER STREAM MITIGATION PLANS.
3. IF STREAM RELOCATION FOR MIDDLE FORK CREEK IS NOT COMPLETE, CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (1.5M BASE, 0.5M DEEP, 1:1 SIDE SLOPES).
4. CONSTRUCT IMPERVIOUS DIKES A.
5. CONSTRUCT EXTENSION OF BARREL 1.
6. REMOVE IMPERVIOUS DIKES A.

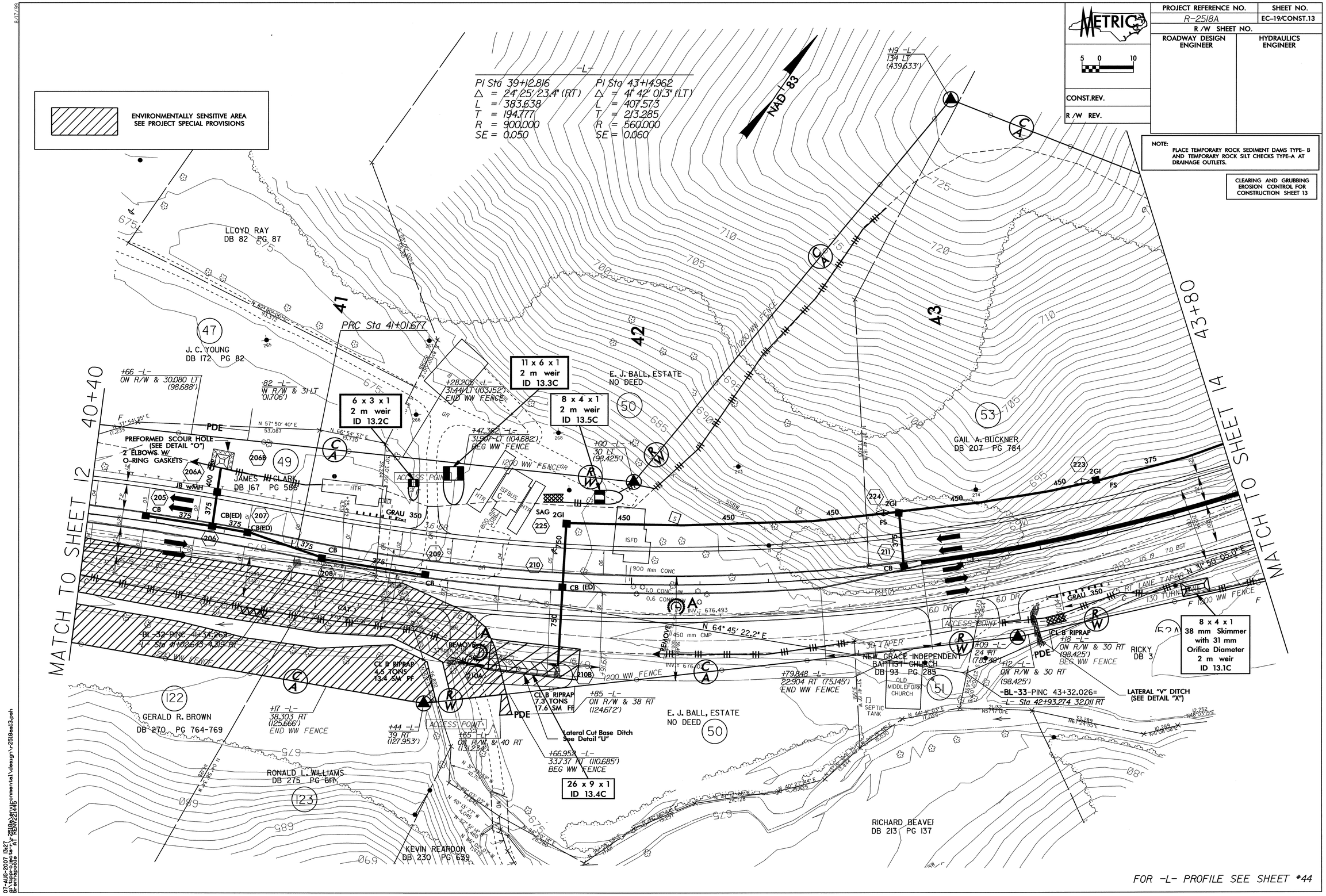


PHASE II

7. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARREL 1.
8. IF STREAM RELOCATION FOR MIDDLE FORK CREEK IS NOT COMPLETE, CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (2.7M BASE, 1M DEEP, 2:1 SIDE SLOPES).
9. CONSTRUCT EXTENSION OF BARRELS 2 AND 3.
10. WHEN STREAM RELOCATION OF MIDDLE FORK CREEK IS COMPLETE, REMOVE IMPERVIOUS DIKES B AND TEMPORARY CHANNEL CHANGE.
11. REMOVE STILLING BASIN, AND COMPLETE ROADWAY.



R/W REV.: ADDING PARCEL 45B (RONALD L. WILLIAMS); CHANGING PROPERTY LINE, NAME AND DEED BOOK NUMBER AND ADDING OUTCONVEYANCE ON PARCEL 52A (RICKY CLEMENTS, ET AL); CHANGING PROPERTY NAME ON PARCEL 51 (NEW GRACE INDEPENDENT BAPTIST CHURCH); AND ADDING PARCEL 45A (GERALD R. BROWN). 11/28/06 DWK



07-AUG-2007 13:27

R/W REV.: CHANGING PROPERTY LINE, NAME AND DEED BOOK NUMBER AND ADDING OUTCONVEYANCE ON PARCEL 52A (RICKY CLEMENTS, ET AL); CHANGING PROPERTY LINE, NAME, AND DEED BOOK NUMBER ON PARCEL 52 (MIDDLE FORK MISSIONARY BAPTIST CHURCH); CHANGING PROPERTY LINE AND NAME ON PARCEL 54 (SHELBY G. AND BETTY R. RAY); REVISING PROPOSED R/W, NAME AND DEED BOOK NUMBER ON PARCEL 53 (GAIL A. BUCKNER). 11/28/06 DWK

8/17/93

12-DEC-2007 14:08
$DGN:\Projects\r2518as14.pah
$RFS:\Projects\r2518as14.rsx
$XRF:\Projects\r2518as14.pah
$USR:\Projects\r2518as14.pah
$REV:12/11/2007

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

US 19 AND SR 1526

9,330 / 14,120	US 19		8,900 / 13,490
560 / 840			140 / 210
PM DHV=10% D=60% DUAL=4% TTST=6%			PM DHV=12% D=70% DUAL=3% TTST=1%
	700 / 1,050		
	SR 1526		
2008 / 2028			

METRIC
5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-20/CONST.14
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

NAD 83

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 14

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

MATCH TO SHEET 13

MATCH TO SHEET 15

-L- POC Sta 44+24.979
-Y8- POT Sta 10+00.000

BRIDGE DONE UNDER TIP NO. B-4183

POT Sta 10+69.888
BRG BK S 68° 28' 00.1" E
-BY10-35-POT 5+86.947

RICKY CLEMENTS, ET AL
DB 325 PG 549
52A

GAIL A. BUCKNER
DB 207 PG 784
53

ISBK MIDDLEFORK BAPTIST CHURCH

MIDDLE FORK MISSIONARY BAPTIST CHURCH
DB 345 PG 410
52

SHELBY G. RAY
BETTY R. RAY
DB 65 PG 539
DB 125 PG 342
54

VENUS L. HARDING
DB 218 PG 256

LARRY M. ROBINSON
DB 320 PG 563
55

-BY11-38-POT 5+00.000
POT Sta 10+00.000
BEARING AH = S 3° 05' 22.0" E
PC Sta 10+08.131
BEGIN CONSTRUCTION
-Y9- POC Sta 10+20.000
-BL-36-PINC 46+63.926
NCGS "CROOKED"
ACCESS POINT
ST Sta 45+99.249
END CONSTRUCTION
-Y8- POT Sta 10+43.000
-BY10-POT 5+57.313=
-BL-37-PI1
-L- Sta 46+89.790
-Y9- POT Sta 10+59.801
BEARING BK = S 69° 37' 48.4" E
-L- POT Sta. 47+15.000
-D7A- POT Sta. 10+06.000
BEARING AH = S 69° 37' 48.3" E
PC Sta. 10+10.606
PT Sta. 10+21.040
BEARING AH = N 80° 28' 37.0" E

16 x 6 x 1 51 mm Skimmer with 49 mm Orifice Diameter 3 m weir ID 14.3C

13 x 4 x 1 38 mm Skimmer with 37 mm Orifice Diameter 2 m weir ID 14.4C

10 x 5 x 1 38 mm Skimmer with 36 mm Orifice Diameter 2 m weir ID 14.1C

21 x 8 x 1 64 mm Skimmer with 59 mm Orifice Diameter 3 m weir ID 14.2C

12 x 2 x 1 ID 14.5C

3.0 m x 2.7M X 2.7M RCBC

PREFORMED SCOUR HOLE (SEE DETAIL "C")

ELBOWS & O-RING GASKETS

CAT-1

CL I RIPRAP

1.0 m LATERAL BASE DITCH SEE DETAIL "AC"

1.0 m SPECIAL CUT BASE DITCH SEE DETAIL "F"

TURN LANE

1200 WW FENCE

END WW FENCE

BEGIN WW FENCE

-L-
PI Sta 43+14.962
△ = 41° 42' 01.3" (LT)
L = 407.573
T = 213.285
R = 560.000
SE = 0.060

PIs Sta 45+39.268
Os = 4° 36' 14.9"
Ls = 90.000
LT = 60.020
ST = 30.018

-Y9-
PI Sta 10+18.619
△ = 38° 32' 26.4" (LT)
L = 20.180
T = 10.488
R = 30.000
SE = 0.080

-D7A-
PI Std 10+15.945
△ = 29° 53' 34.7" (LT)
L = 10.435
T = 5.339
R = 20.000

FOR -L- PROFILE SEE SHEET *45
FOR -Y8- PROFILE SEE SHEET *68
FOR -Y9- PROFILE SEE SHEET *68

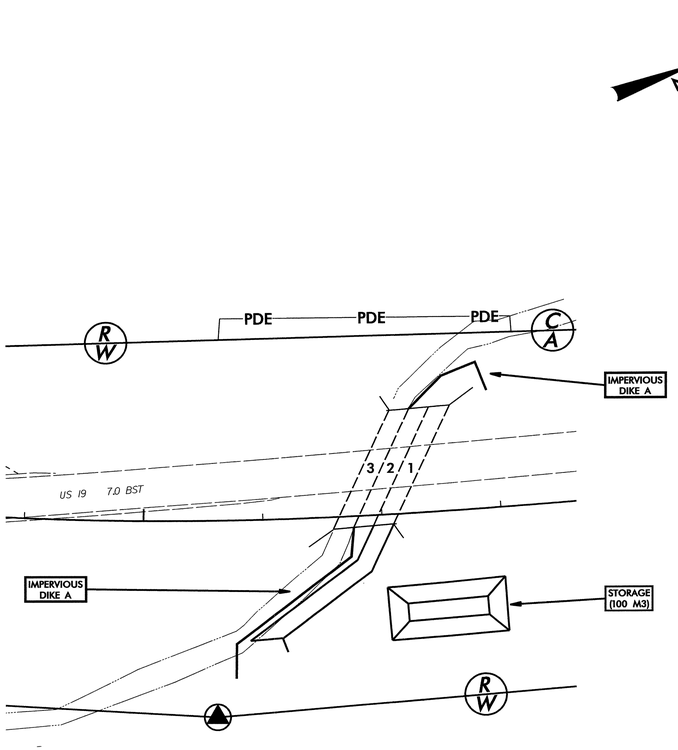
METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-2I/CONST14
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 45+37.75 –L–

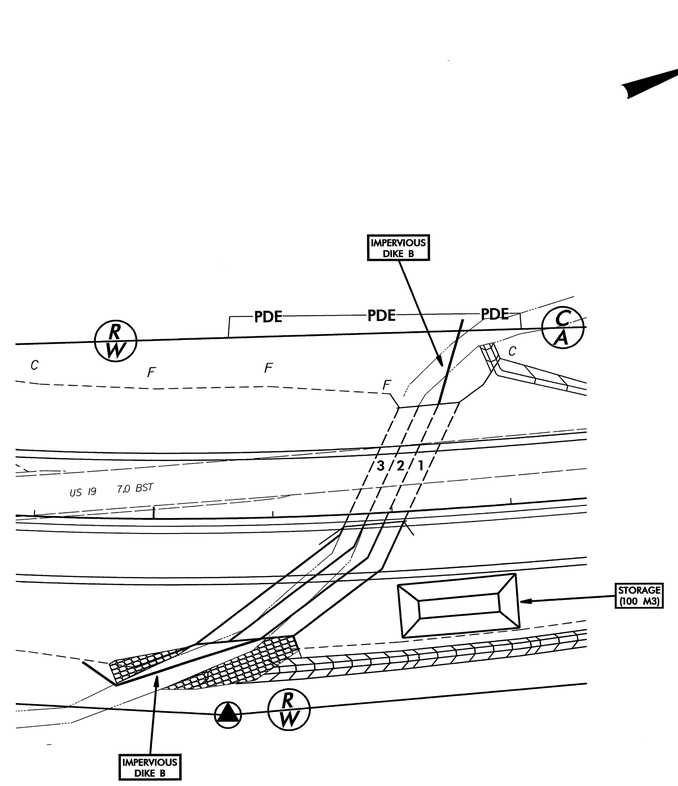
PHASE I

1. CONSTRUCT STILLING BASIN (100 M3).
2. CONSTRUCT IMPERVIOUS DIKES A, DIVERTING FLOW THROUGH BARREL 3.
3. CONSTRUCT EXTENSION FOR BARREL 1.
4. REMOVE IMPERVIOUS DIKES A.



PHASE II

5. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARREL 1.
6. CONSTRUCT EXTENSION FOR BARRELS 2 AND 3.
7. REMOVE IMPERVIOUS DIKES B.
8. CONSTRUCT ANY NECESSARY CHANNEL IMPROVEMENTS.
9. REMOVE STILLING BASIN, AND COMPLETE ROADWAY.



R/W REV.: CHANGING PROPERTY LINE AND NAME ON PARCEL 54 (SHELBY G. AND BETTY R. RAY) AND REVISING PROPOSED R/W, NAME AND DEED BOOK NUMBER ON PARCEL 55 (LARRY M. ROBINSON). 11/28/06 DWK

8/17/99

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2518A	EC-22/CONST.15
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		

NAD 83

MATCH TO SHEET 14

MATCH TO SHEET 16

47+20

50+60

LARRY M. ROBINSON
DB 320 PG 563
55

ROY GUS BALLARD
DB 124 PG 244
56

SHELBY G. RAY
BETTY R. RAY
DB 65 PG 539
DB 125 PG 342
54

48 49 50

700 695 690 685 680

1200 mm WW

HTR. ABAND

+69 L- 41 LT (134.514')

+45 L- 28 LT (91.864')

1200 WW FENCE

+25 L- 23.624 LT (77.539')

EXISTING R/W

BL -L- PINC 49+05.654
E Sta 49+57.671 14.973 LT

CL RIPRAP 6.4 TONS

N 20° 21' 10.1" E

RETAIN EXISTING 1200mm CSP TO BE LINED WNCDOT APPROVED LINER

US 19 7 BST

N 20° 22' 11.7" E

REMOVE 750 CSP & CONC. HW

N 20° 18' 47.0" E

INV.= 680.504

REM. HW COLLAR & EXTEND

1200 CSP

HDWL

216

SPECIAL CUT DITCH SEE DETAIL "C"

+38.618 -L- 38.94 RT (127.857') BOG WW FENCE

+90 L- 30 RT (98.425')

+27. -L- 41 RT (134.514')

ACCESS POINT

+20.789 -L- 44.023 RT (144.432') END WW FENCE

END CONSTRUCTION -DTA- POT Sta.10+42.034

16 x 7 x 1
64 mm Skimmer
with 53 mm
Orifice Diameter
2 m weir
ID 15.1C

23 x 5 x 1
2 m weir
ID 15.2C

17 x 6 x 1
ID 15.3C

INV.= 682.039
INV.= 681.880
300 mm CMP
INV.= 681.802
INV.= 682.301
600 mm CONC

INV.= 683.544
1.7 m CONC. HW
450 mm CONC
BST
2.0 m CONC. HW
INV.= 683.794

4SBW
4SBW ELEC
GR
B
276

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 15

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

FOR -L- PROFILE SEE SHEET #46

07-AUG-2007 13:40
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8/17/99

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 16

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

METRIC 5 0 10	PROJECT REFERENCE NO.	SHEET NO.
	R-2518A	EC-23/CONST.16
CONST.REV.	R /W SHEET NO.	
R /W REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83

-Y9A-
PI Sta 10+32.526
△ = 75° 33' 47.8" (RT)
L = 39.565
T = 23.255
R = 30.000
SE = 0.080
RO = 40

-Y10-
PI Sta 10+11.755
△ = 29° 16' 47.6" (LT)
L = 22.996
T = 11.755
R = 45.000
SE = 0.070
RO = 35

11x 4 x 1 38 mm Skimmer with 36 mm Orifice Diameter 2 m weir ID 16.7C

6 x 2 x 1 38 mm Skimmer with 19 mm Orifice Diameter 2 m weir ID 16.6C

5 x 2 x 1 38 mm Skimmer with 17 mm Orifice Diameter 2 m weir ID 16.1C

11 x 3 x 1 ID 16.4C

24 x 4 x 1 ID 16.5C

6 x 2 x 1 38 mm Skimmer with 19 mm Orifice Diameter 2 m weir ID 16.8C

ROY GUS BALLARD DB 124 PG 244 (56)

RONNIE L. RAY DB 228 PG 779 (57)

-L- POT Sta 51+04.164
-Y9A- POT Sta 10+00.000
BEARING AH = S 69° 37' 48.7" E

BEGIN CONSTRUCTION
-Y10- POT Sta 10+06.000
Bearing AH = S 63° 34' 17.9" E

-L- POT Sta 53+92.119
-Y10- POT Sta 10+54.428
BEARING BK = S 63° 34' 17.9" E

POT Sta 10+63.568

PC Sta 10+09.271

PT Sta 10+48.836

END CONSTRUCTION
-Y9A- POT Sta 10+60.000
S 5° 55' 59.1" W

-BL-41-PINC 54+29.724=
-BY12-POT 5+80.699=
-BY134PINC 5+00.000=
-L- Sta 53+81.742 15.351 LT
-Y10- Sta 10+40.258 11.940 RT

SEE MITIGATION PLANS FOR STREAM DESIGN

N 20° 22' 11.7" E

N 20° 19' 37.6" E

MATCH TO SHEET 15

MATCH TO SHEET 17

50+60

54+00

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

FOR -L- PROFILE SEE SHEET #47
FOR -Y9A- PROFILE SEE SHEET #69
FOR -Y10- PROFILE SEE SHEET #69

07-AUG-2007 13:50

R/W REV.: REVISING PROPOSED R/W, NAME AND DEED BOOK NUMBER ON PARCEL 59 (JACK W. SHEPERD) AND ADDING DRIVE AND CHANGING DEED BOOK NUMBER ON PARCEL 62 (CHEVER METCALF). 11/28/06 DWK

8/17/99

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

METRIC 5 0 10

NAD 83

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 17

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

-Y10-
PI Sta 10+11.755
△ = 29° 16' 47.6" (LT)
L = 22.996
T = 11.755
R = 45.000
SE = 0.070
R0 = 35

-Y11-
PI Sta 10+42.234
△ = 85° 00' 08.2" (LT)
L = 44.507
T = 27.491
R = 30.000
SE = 0.080
R0 = 40

-D8-
PI Sta 10+10.445
△ = 16° 52' 38.9" (RT)
L = 7.364
T = 3.709
R = 25.000

MATCH TO SHEET 16

MATCH TO SHEET 18

54+00

57+40

11 x 3 x 1 38 mm Skimmer with 32 mm Orifice Diameter 2 m weir ID 17.11C

4 x 2 x 1 38 mm Skimmer with 16 mm Orifice Diameter 2 m weir ID 17.9C

8 x 3 x 1 38 mm Skimmer with 27 mm Orifice Diameter 2 m weir ID 17.7C

6 x 3 x 1 38 mm Skimmer with 23 mm Orifice Diameter 2 m weir ID 17.13C

12 x 2 x 1 ID 17.1C

9 x 3 x 1 38 mm Skimmer with 33 mm Orifice Diameter 2 m weir ID 17.13C

4 x 2 x 1 38 mm Skimmer with 16 mm Orifice Diameter 2 m weir ID 17.4C

9 x 3 x 1 38 mm Skimmer with 33 mm Orifice Diameter 2 m weir ID 17.13C

4 x 2 x 1 38 mm Skimmer with 16 mm Orifice Diameter 2 m weir ID 17.5C

7 x 3 x 1 38 mm Skimmer with 25 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 17.8C

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

FOR -L- PROFILE SEE SHEET #48
FOR -Y10- PROFILE SEE SHEET #69
FOR -Y11- PROFILE SEE SHEET #69
FOR -D7- & -D8- PROFILE SEE SHEET #76

I-DEC-2007 15:15
G:\TIP\R-2518A\Environmental\design\r-2518asl7.pah
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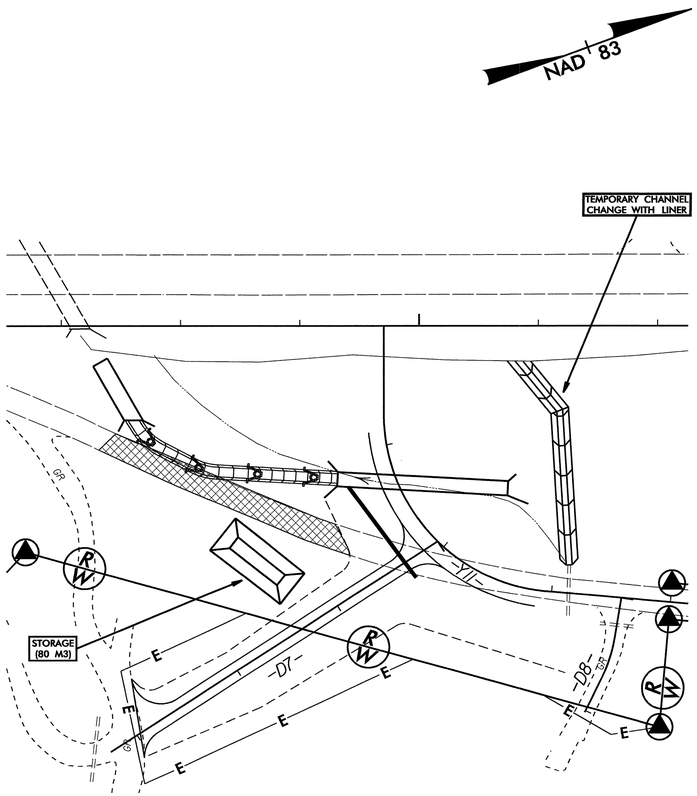
PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-25/CONST17
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 55+43.02 –L– AND STA. 10+26.58 –Y11–

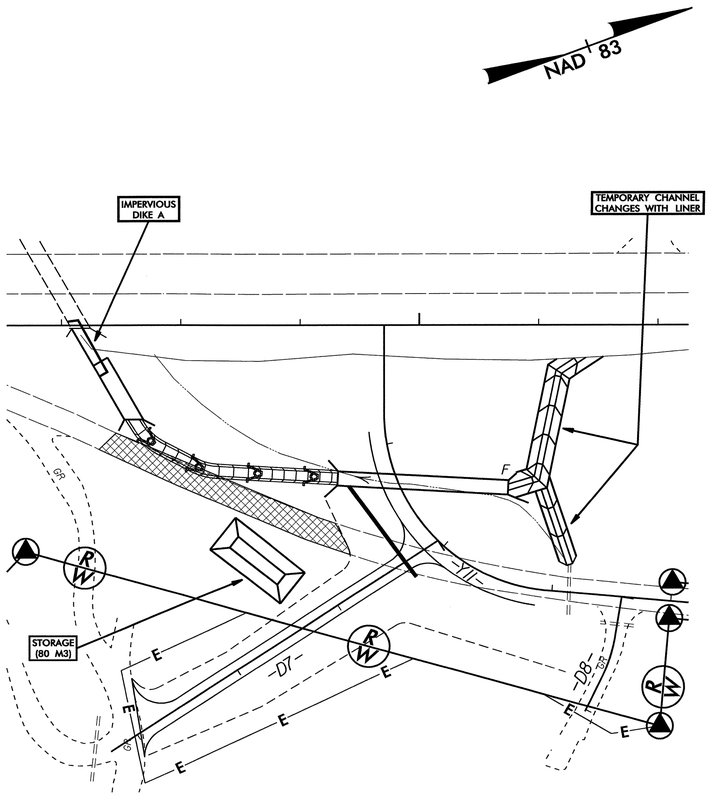
PHASE I

1. CONSTRUCT STILLING BASIN (80M3).
2. CONSTRUCT DRIVEWAY –D7–, AND CLOSE SOUTH END OF SR 1519 TO TRAIFFIC.
3. CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (1M BASE, 0.5M DEEP, 2:1 SIDE SLOPES) FOR TRIBUTARY TO TURKEY BRANCH.
4. CONSTRUCT RCBC ON –Y11–, AND UPSTREAM 12M OF RCBC EXTENSION FOR –L–.
5. CONSTRUCT CHANNEL BETWEEN –Y11– AND –L– RCBC.



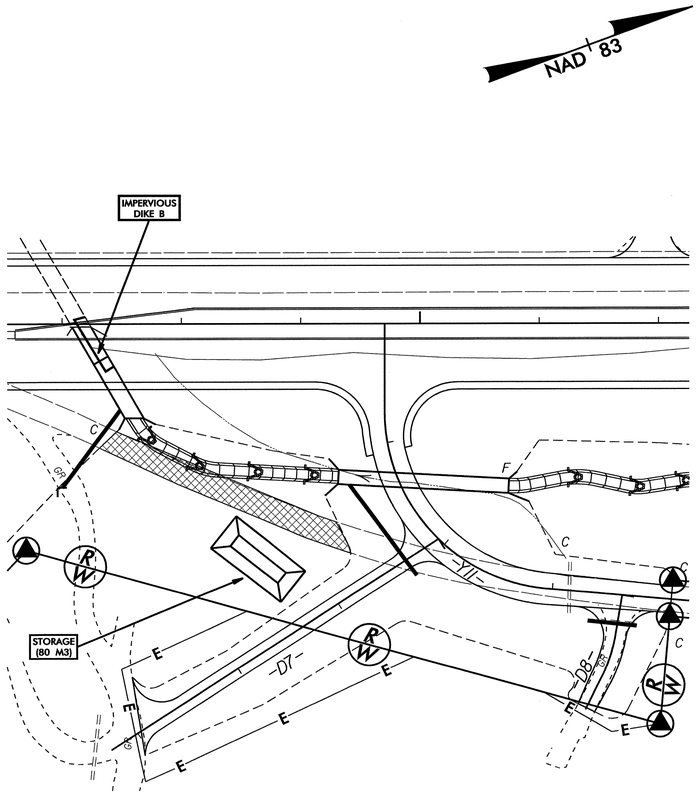
PHASE II

6. CONSTRUCT TEMPORARY CHANNEL CHANGES WITH LINER FOR TURKEY BRANCH (1M BASE, 0.75M DEEP, 2:1 SIDE SLOPES) AND TRIBUTARY TO TURKEY BRANCH (1M BASE, 0.5M DEEP, 2:1 SIDE SLOPES), DIVERTING FLOW THROUGH –Y11– CULVERT AND PORTION OF –L– RCBC EXTENSION BUILT.
7. CONSTRUCT IMPERVIOUS DIKE A.
8. CONSTRUCT SOUTH HALF OF REMAINING PORTION OF –L– RCBC EXTENSION.
9. REMOVE IMPERVIOUS DIKE A.



PHASE III

10. CONSTRUCT IMPERVIOUS DIKE B.
11. CONSTRUCT REMAINDER OF –L– RCBC EXTENSION.
12. REMOVE IMPERVOUS DIKE B.
13. CONSTRUCT PROPOSED –L–/–Y11– INTERSECTION, AND REOPEN SR 1519 TO TRAFFIC.
14. REMOVE TEMPORARY CHANNEL CHANGES WITH LINER, AND CONSTRUCT FINAL STREAM RELOCATION FOR TURKEY BRANCH, PER STREAM MITIGATION PLANS.
15. REMOVE STILLING BASIN, AND COMPLETE ROADWAY.



8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-26/CONST.18
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 18

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

-Y12-
PI Sta 10+34.480
△ = 76° 04' 29.8" (RT)
L = 39.833
T = 23.470
R = 30.000
SE = 0.080
R0 = 48

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

NAD 83

MATCH TO SHEET 17

MATCH TO SHEET 19

57+40

60+80

BOBBY LEE WILSON
DB 179 PG 490
63

ERMA ROBERTS
DB 262 PG 007
64A

ROBERT
DB 90
59

JOHNNY L. BRADLEY
DB 314 PG 296
DB 328 PG 421
PB 5 PG 192
BEG. SBG
STA. 60+60 -L-
66B ACCESS POINT

NANCY JO RIDDLE
DB 262 PG 009
64

BACCHUS F. MCPETERS
DB 110 PG 569
61

PATRICA ALLEN
DB 189 PG 323
66

23 x 10 x 1
76 mm Skimmer
with 70 mm
Orifice Diameter
4 m weir
ID 17.5F

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

19 x 6 x 1
64 mm Skimmer
with 54 mm
Orifice Diameter
4 m weir
ID 17.4F

12 x 4 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
3 m weir
ID 18.5C

-L- POT Sta 59+84.295
-Y12- POT Sta 10+00.000
-Y12- POT Sta 10+50.843
-Y12- POT Sta 10+75.339
END CONSTRUCTION
-Y12- POT Sta 10+75.339
PC Sta 10+11.010
BEARING BK = S 69° 37' 48.0" E
-BL-50-PINC 61+0.987=
-BL-50OT 12+00.072=
-L- Sta 60+62.754 1.982 RT

-BY13-46-PINC 9+83.455
-BY14-48-PINC 5+80.753
-BY13-47-PINC 10+84.227=
-BY13-ROT 5+00.000=
-Y12- Sta 10+58.796 2.494 RT

PROP. GR W/EXTRA LENGTH POSTS
14 TAPER
1200 WW FENCE
END WW FENCE
RIP-RAP AT EMBANKMENT (SEE DETAIL "L")
GRASS SWALE (SEE DETAIL "E")
CL B RIPRAP 4.5 TONS 11.7 SM FF
ELBOWS W/O-RING GASKETS GRAU 350
232A JB w/MH
232B
2GI Type "A"
CAT-1
130 TURN LANE
30 TAPER
25 TAPER
SEE MITIGATION PLANS FOR STREAM DESIGN
1.5 m LATERAL BASE DITCH SEE DETAIL "G"
FILL W/FLOWABLE FILL OR REMOVE
SPECIAL CUT DITCH SEE DETAIL "C"
GRADE TO DRAIN
REMOVE
228C
228E
228F
228G
I-2.7 X 1.4 RCBC
300mm BST CURB
1500 mm CONC CURB
RETIE DRIVEWAY 4.2 DR
US 19
EXISTING R/W
N 21° 16' 01.1" E
N 20° 22' 11.7" E
N 1° 24' 36.8" E
S 6° 26' 41.9" W
S 5° 05' 39.1" E
S 11° 19' 56.4" E
N 89° 42' 12.6" E
N 24° 46' 07.4" E
N 24° 29' 59" E 40.08'
N 36° 30' 00" E 62.18'
N 45° 02' 38" E 8.39'
N 21° 00' 00" E 18.63'
N 83° 30' 58" E 60.30'
N 84° 35' 58" E 17.58'
N 72° 25' 23" W 6.50'
S 26° 45' 40" W 74.29'
S 38° 45' 52" E 43.56'
N 00° 00' 40" W 915.98'
7.177 RT (37.589')
+65 -L- 54.433 RT (178.586')
+65 -L- 60.554 RT (198.671')
+95 -L- 31 RT (101.705')
+95 -L- 45.447 RT (149.105')
+95 -L- 50.533 RT (165.795')
+34 -L- 31 RT (101.706')
+75.339 -Y12- 3.024 RT (9.918')
+30 -Y12- 13.016 LT (42.703')
+40 -Y12- 11 LT (36.089')
+66.823 -Y12- 13.578 LT (44.547')
+32 -L- 65.630 RT (215.322')
+33 -L- 73 RT (239.501')
+22 -L- 78 RT (255.906')
+20 -L- 70.114 RT (230.033')
+40 -L- 19 LT (62.336')
+60 -L- 24 LT (78.740')
+88 -L- 26 LT (85.302')
+00 -L- 18 LT (59.055')
+18 -L- ON R/W
+01 -L- 58 LT (190.289')
+97 -L- 60 LT (104.042')
+88 -L- 42 LT (137.795')
+31 -L- 22 LT (72.178') END WW FENCE
+35 -L- ON R/W
+49.435 -L- 19.952 LT(65.459') BEG WW FENCE
+58 -L- 19 LT (62.336')
+39 -L- 24.015 RT (78.769')
+15 -L- 29.99 LT (98.396')
+30 -Y12- 13.016 LT (42.703')
+40 -Y12- 11 LT (36.089')
BEG WW FENCE
CONC DR
ISFD
END WW FENCE
TYP
CAT-1
600
600 DR
232
232A
232B
228C
228E
228F
228G
375
REMOVE
GRADE TO DRAIN
RETIE DRIVEWAY 4.2 DR
SEE MITIGATION PLANS FOR STREAM DESIGN
1.5 m LATERAL BASE DITCH SEE DETAIL "G"
FILL W/FLOWABLE FILL OR REMOVE
SPECIAL CUT DITCH SEE DETAIL "C"
CL B RIPRAP 4.5 TONS 11.7 SM FF
ELBOWS W/O-RING GASKETS GRAU 350
232A JB w/MH
2GI Type "A"
CAT-1
130 TURN LANE
30 TAPER
25 TAPER
1200 WW FENCE
END WW FENCE
PROP. GR W/EXTRA LENGTH POSTS
14 TAPER
RIP-RAP AT EMBANKMENT (SEE DETAIL "L")
GRASS SWALE (SEE DETAIL "E")
ACCESS POINT
BEG. SBG
STA. 60+60 -L-
GRAU 350
US 19
EXISTING R/W
N 21° 16' 01.1" E
N 20° 22' 11.7" E
N 1° 24' 36.8" E
S 6° 26' 41.9" W
S 5° 05' 39.1" E
S 11° 19' 56.4" E
N 89° 42' 12.6" E
N 24° 46' 07.4" E
I-2.7 X 1.4 RCBC
300mm BST CURB
1500 mm CONC CURB
RETIE DRIVEWAY 4.2 DR
7.177 RT (37.589')
+65 -L- 54.433 RT (178.586')
+65 -L- 60.554 RT (198.671')
+95 -L- 31 RT (101.705')
+95 -L- 45.447 RT (149.105')
+95 -L- 50.533 RT (165.795')
+34 -L- 31 RT (101.706')
+75.339 -Y12- 3.024 RT (9.918')
+30 -Y12- 13.016 LT (42.703')
+40 -Y12- 11 LT (36.089')
+66.823 -Y12- 13.578 LT (44.547')
+32 -L- 65.630 RT (215.322')
+33 -L- 73 RT (239.501')
+22 -L- 78 RT (255.906')
+20 -L- 70.114 RT (230.033')
+40 -L- 19 LT (62.336')
+60 -L- 24 LT (78.740')
+88 -L- 26 LT (85.302')
+00 -L- 18 LT (59.055')
+18 -L- ON R/W
+01 -L- 58 LT (190.289')
+97 -L- 60 LT (104.042')
+88 -L- 42 LT (137.795')
+31 -L- 22 LT (72.178') END WW FENCE
+35 -L- ON R/W
+49.435 -L- 19.952 LT(65.459') BEG WW FENCE
+58 -L- 19 LT (62.336')
+39 -L- 24.015 RT (78.769')
+15 -L- 29.99 LT (98.396')
N 24° 29' 59" E 40.08'
N 36° 30' 00" E 62.18'
N 45° 02' 38" E 8.39'
N 21° 00' 00" E 18.63'
N 83° 30' 58" E 60.30'
N 84° 35' 58" E 17.58'
N 72° 25' 23" W 6.50'
S 26° 45' 40" W 74.29'
S 38° 45' 52" E 43.56'
N 00° 00' 40" W 915.98'

FOR -L- PROFILE SEE SHEET *49
FOR -Y12- PROFILE SEE SHEET *69

R/W REV.: REVISING R/W & EASEMENT ON PARCEL 66 (PATRICA ALLEN). 1-4-07 TFD

12-DEC-2007 08:24
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PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-27/CONST.19
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.

8/17/99

R/W REV.: REVISING NAME ON PARCEL 69 (HERSCHEL BUCKNER HEIRS). 3/14/07 TFD

MATCH TO SHEET 18 60+80

MATCH TO SHEET 20 64+20

RIP RAP AT EMBANKMENT (SEE DETAIL "E")

GRASS SWALE (SEE DETAIL "E")

NAD 83

ROBERT CLEVE ROBINSON
DB 90 PG 33

H. LYRIC
DB 221 PG

JOHNNY L. BRADLEY
DB 314 PG 296
DB 328 PG 421
PB 5 PG 192

66B

CARP LAKE

61

62

63

66

69

66A

-BYRS-53-POT 5+00.000

-BL-52-PINC 62+69.635=
-BYRS-52-POT 5+63.550
-L- Sta 62+19.748 20.858 LT

-BL-51-PINC 62+88.051=
-BYRS-51-"BUCKNER"
-L- Sta 62+38.163 20.704 LT

-L- POT Sta. 61+36.900
-D8A- POT Sta. 10+00.000
BEARING AH =
S 69° 37' 48.3" E

PC Sta. 10+13.319

PT Sta. 10+22.986
BEARING AH =
N 73° 26' 36.6" E

PC Sta. 10+42.488

PT Sta. 10+49.819
BEARING AH =
S 78° 33' 22.5" E
-D8A- POT Sta. 10+50.000
END CONST.

POT Sta. 10+62.399

-D8A-

PI Sta. 10+18.327
Δ = 36° 55' 35.1" (LT)
L = 9.667
T = 5.008
R = 15.000

PI Sta. 10+46.228
Δ = 28° 00' 00.9" (RT)
L = 7.330
T = 3.740
R = 15.000

29 x 10 x 1
76 mm Skimmer
with 76 mm
Orifice Diameter
4 m weir
ID 19.6F

4 x 2 x 1
38 mm Skimmer
with 16 mm
Orifice Diameter
2 m weir
ID 19.5C

6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 19.4C

6 x 2 x 1
38 mm Skimmer
with 16 mm
Orifice Diameter
2 m weir
ID 19.6C

6 x 2 x 1
38 mm Skimmer
with 16 mm
Orifice Diameter
2 m weir
ID 19.7C

4 x 2 x 1
38 mm Skimmer
with 16 mm
Orifice Diameter
2 m weir
ID 19.8C

16 x 5 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
3 m weir
ID 19.1C

12 x 2 x 1
ID 19.2C

12 x 2 x 1
ID 19.3C

CL I RIPRAP
10 TONS
18.4 SM FT

REMOVE EXISTING
450 CSP & HW

ELBOWS & O-RING GASKETS

GRAU 350

ACCESS POINT

BERM DITCH FROM
STA. 61+50 TO STA. 61+84 -L-

BERM DITCH FROM
STA. 63+94 TO STA. 64+40 -L-

CARLYN D. McCLURE
DB 253 PG 585

PATRICA ALLEN
DB 189 PG 323

HERSCHEL BUCKNER HEIRS
DB 125 PG 366

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 19

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

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

FOR -L- PROFILE SEE SHEET #50
FOR -D8A- PROFILE SEE SHEET #80

12-DEC-2007 10:23
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Kirkpatrick RENR224.pl

8/17/99

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

METRIC
5 0 10

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

NAD 83

-BY16-55-POT Sta 00.000=41
POT Sta 10+00.000
BEARING AH = S 71° 46' 33.4" E
BEGIN CONSTRUCTION
-Y13- POT Sta 10+15.000

+47 -L- 112.192 LT (368.08')
+48.00 -L- 111.393 LT (365.462') BEG WW FENCE
+61 -L- 101 LT (331.365')

-Y13-
PI Sta 10+26.581
Δ = 12° 23' 09.2" (RT)
L = 21.617
T = 10.851
R = 100.000
SE = 0.080
RO = 40

+54 -L- 68 LT (223.097')

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 20.2C

8 x 2 x 1
2 m weir
ID 20.1C

+15 -Y13- 6.726 RT

+17.500

PC Sta 10+57.30

+25 -L- 42 LT (137.795')

+22.737 -Y13- 9.00 RT (29.528') END WW FENCE

+23 -L- 39 LT (127.953')

PT Sta 10+37.347
BEARING AH = S 59° 23' 24.2" E

-BL-54-PINC 65+74.614=
-BY16-POT 5+76.590=
-L- Sta 65+24.222 37.13 LT
-Y16- Sta 10+69.104 37.44 RT

+00 -L- 23 LT (75.269')

NATURAL ROCK ENERGY DISSIPATOR (SEE DETAIL)

1200 WW FENCE

130 TURN LANE

REM HW AND FILL W/ FLOWABLE FILL

REMOVE 450mm PLASTIC PIPE

-L- POT Sta 65+27.356
-Y13- POT Sta 10+72.200

BERM DITCH FROM STA. 63+94 TO STA. 64+40 -L-

BERM DITCH FROM STA. 65+58 -L- TO STA. 65+20

BERM DITCH FROM STA. 65+71 TO STA. 66+00 -L-

12 x 2 x 1
ID 20.3C

12 x 2 x 1
ID 20.4C

8 x 4 x 1
2 m weir
ID 20.10C

11 x 4 x 1
38 mm Skimmer
with 36 mm
Orifice Diameter
2 m weir
ID 20.5C

+22 -L- 57 RT (121.39')

+56 -L- 31 RT (101.706') END WW FENCE

+59 -L- 47 RT (154.199')

+00 -L- 121 RT (396.982')

ROD & SLEEVE CONNECTORS

700 mm BLK WALL

ACCESS POINT

HERSCHEL BUCKNER HEIRS
DB 125 PG 366
69

SHELBY BUCKNER
DB 125 PG 366
68A

WILLIE CLINE GUSNELL
DB 182 PG 340
70

PAMELA BUCKNER JARRETT
DB 286 PG 123
68

ENERGY DISSIPATOR
SEE DETAIL SHEET 2-K

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 20

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

N 20° 22' 11.7" E

N 20° 37' 47.9" E

-L- POT Sta 65+65.050
-D9- POT Sta 10+00.000
BEARING AH = S 69° 37' 24.5" E
-D9- POT Sta 10+38.000
END CONST.
POT Sta 10+40.000

-L- POT Sta 66+40.000
-DIO- POT Sta 10+00.000
BEARING AH = S 78° 35' 50" E
-DIO- POT Sta 10+40.000
END CONST.
POT Sta 10+43.190

+37 -L- 35 RT (114.829') END WW FENCE

+99 -L- 52 RT (170.604')

+20 -L- 51 RT (167.323')

+78.850 -L-A 49.48 RT (162.340') BEG WW FENCE

+40 -L- 43 RT (141.076')

ACCESS POINT

+57 -L- 34 RT (111.549') BEG WW FENCE

+54 -L- 40 RT (131.234')

+41 -L- 53 RT (173.885')

12 x 2 x 1
ID 20.7C

12 x 2 x 1
ID 20.8C

12 x 2 x 1
ID 20.9C

2 ELBOWS W/O-RINGS & GASKETS

ELBOW W/ O-RING GASKETS

JOHN P. HIGGINS
DB 270 PG 715
71

MATCH TO SHEET 19 64+20

MATCH TO SHEET 21 67+60

FOR -L- PROFILE SEE SHEET #51
FOR -Y13- PROFILE SEE SHEET #70
FOR -D9-&-DIO- PROFILE SEE SHEET #76

R/W REV.: REVISING NAME ON PARCEL 69 (HERSCHEL BUCKNER HEIRS). 3/14/07 TFD

12-DEC-2007 10:29
G:\Projects\EC\R-2518a\environmental\design\r2518aec28.pah
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R/W REV.: CHANGING PROPERTY LINE AND NAME ON PARCEL 73 (GARY PHILLIP RANDOLPH AND JANE RANDOLPH WALDRUP) 11/28/06 DWK

8/17/22

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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

METRIC
5 0 10

NAD 83

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 21

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

-Y14-
PI Sta 10+29.466
△ = 41° 40' 59.7" (LT)
L = 36.376
T = 19.035
R = 50.000
SE = 0.080
R0 = 40

TS Sta 67+68.245
BEARING BACK = N 20° 22' 11.7" E

SC Sta 68+43.245

68 PAMELA BUCKNER JARRETT DB 286 PG 123

ENERGY DISSIPATOR SEE DETAIL SHEET 2-K

73 GARY PHILLIP RANDOLPH JANE RANDOLPH WALDRUP DB 147 PG 393 DB 389 PG 1

CS Sta 70+59.763

14 x 7 x 1 51 mm Skimmer with 50 mm Orifice Diameter 3 m weir ID 21.6C

4 x 2 x 1 38 mm Skimmer with 16 mm Orifice Diameter 2 m weir ID 21.5C

SPECIAL CUT BASE DITCH (SEE DETAIL "Z")

	NORTH	EAST	ELEV.
1	241302.263	295381.090	706.183
1			708.530
1			708.009
1			706.200
2	241305.350	295381.450	706.330
3	241312.173	295398.284	706.430
4			706.640
200	241315.324	295391.024	706.200

-BL- 56 -PINC 68+92.329=
-BY15-OT 54+00.000=
-L- Sta 68+42.006 0.998 LT

RIP RAP AT EMBANKMENT (SEE DETAIL "L")

CL B RIPRAP 1.8 TONS 5.9 SM FE

N 4° 27' 30.0" E

2 ELBOWS W/O RING GASKETS

REM HW AND FILL W/FLOWABLE FILL

ELBOW W/ O-RING GASKETS

BDO

BERM DITCH FROM STA. 67+82 TO STA. 68+40 -L-

BERM DITCH FROM STA. 67+20 TO STA. 67+80 -L-

12 x 4 x 1 ID 21.1C

12 x 3 x 1 ID 21.7C

12 x 2 x 1 ID 12.8C

MARY JANE YACOPINO DB 377 PG 251

JOHN P. HIGGINS DB 270 PG 715

-BY17-58-PINC 5+25.849=
-L- Sta 68+66.460 7.065 RT

10 x 3 x 1 38 mm Skimmer with 30 mm Orifice Diameter 2 m weir ID 21.4C

-L- POC Sta 70+07.081
-Y14- POT Sta 10+00.000
-BY17-59-PINC 6+59.094=
-L- Sta 69+96.926 19.064 RT
-Y14- Sta 10+17.128 11.571 RT

PC Sta 10+10.431
BEARING BK = S 87° 54' 02.7" E

6 x 2 x 1 38 mm Skimmer with 27 mm Orifice Diameter 2 m weir ID 21.3C

PT Sta 10+46.806
BEARING AH = N 50° 24' 57.6" E

END CONSTRUCTION
-Y14- POT Sta 10+60.000

12 x 2 x 1 38 mm Skimmer with 27 mm Orifice Diameter 2 m weir ID 21.2C

POT Sta 10+76.806

-BY17-60-PINC 7+56.059=
-BY18-POT 5+00.000

25 x 8 x 1 76 mm Skimmer with 65 mm Orifice Diameter 4 m weir ID 21.3F

Lateral Base Ditch See Detail "M"

CL B RIPRAP 4.5 TONS 14.7 SM FE

DDE= 20 CM

GRAU 350

CAT-1

KATHY CLARK DB 203 PG 749 DB 224 PG 734

GARY JANE DB 147 PG 393 DB 389 PG 1

MATCH TO SHEET 20

MATCH TO SHEET 22

FOR -L- PROFILE SEE SHEET *52
FOR -Y14- PROFILE SEE SHEET *70

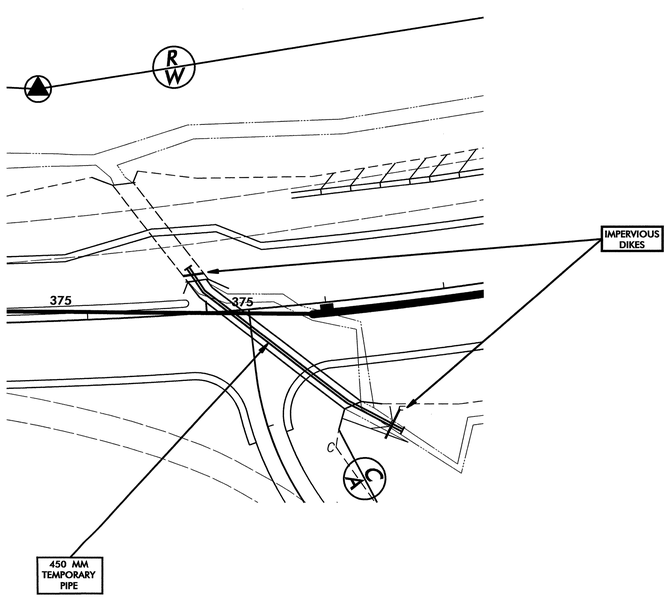
12-DEC-2007 10:36
$USERNAME
$DGNFILE
$REFFILES
$SETTINGS

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2518A	EC-30/CONST.21
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 70+04 –L–

1. UTILIZE SPECIAL STILLING BASIN(S) DURING CULVERT CONSTRUCTION AS NEEDED.
2. CONSTRUCT IMPERVIOUS DIKES AND INSTALL 450MM TEMPORARY PIPE, DIVERTING FLOW THROUGH THE TEMPORARY PIPE.
3. CONSTRUCT CULVERT EXTENSION.
4. REMOVE IMPERVIOUS DIKES AND TEMPORARY PIPE.
5. CONSTRUCT ANY NECESSARY CHANNEL IMPROVEMENTS.
6. COMPLETE ROADWAY.

NAD 83



R/W REV.: CHANGING NAME AND DEED BOOK NUMBER ON PARCEL 74 (HARRY CHADWICK JR. AND SHIRLEY J. CHADWICK); CHANGING PROPERTY LINE AND NAME ON PARCEL 73 (GARY PHILLIP RANDOLPH AND JANE RANDOLPH WALDRUP); CHANGING NAME AND DEED BOOK ON PARCEL 72A (MARY JANE YACOPINO) AND CHANGING PROPERTY LINE ON PARCEL 75 (ANNIE LOU ROBINSON). 11/28/06 DWK

8/17/99

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

METRIC 5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-31/CONST.22
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

NAD 83

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

MATCH TO SHEET 21

MATCH TO SHEET 23

-BY19-65-POT 5+00.000
-Y19- Sta 10+49.341 330.759 LT

SC Sta 72+24.763

GARY PHILLIP RANDOLPH
JANE RANDOLPH WALDRUP
DB 147 PG 393
DB 389 PG 1

-BL-57-PINC 71+53.052

SRS Sta 71+34.763

1200 WW FENCE

-BL-63-PINC 73+52.158=
-BY17-POT 10+29.430=
-BY18-POT 5+60.493 LT

-L- Sta 73+01.808 EQSh LT
-Y15- Sta 10+29.958 4.40 RT

450 mm CMP

FILL WITH FLOWABLE FILL

BEGIN CONSTRUCTION
-Y15- POT STA 10+00.000

EX.R/W

+10.322 -L-
EX.R/W

+13 -L-
61.844 LT (202.902')
BEG WW FENCE

+42 -L-
64 LT
(209.974')

ANNIE LOU ROBINSON
DB 63 PG 550

20 x 10 x 1
76 mm Skimmer
with 65 mm
Orifice Diameter
4 m weir
ID 22.1F

STD. BAS DETAIL

CL B RIPRAP
4.5 TONS
11.7 SM FF

SHEET FLOW

REMOVE PIPE AND CONC FLW

+93 -L-
41 LT
(134.515')

CS Sta 74+26.200

-Y17.212=
-Y0 24.905 LT

+88 -L-
60 LT
(196.850')

+75 -L-
44 LT
(144.357')

+98.062
EX.R/W

+35.77

N 9° 23' 53.45"E

N 1° 47' 14.3" W

N 28° 31.8" W

+32 -L-
22 RT (72.178')

CL B RIPRAP
1.8 TONS
5.9 SM FF

GRAU 350

+03 -L-
31 RT (101.706')

+16 -L-
30.444 RT (99.881')

+08 -L-
EX.R/W

Lateral Base Ditch
See Detail "M"

-BY17-62-PINC 8+72.797

+10 -L-
EX.R/W

+16 -L-
24 RT
(78.740')

+33 -L-
55 RT
(180.446')

+62 -L-
ON R/W

+79 -L-
58 RT
(190.289')

+09 -L-
51 RT
(167.323')

BERM DITCH FROM
STA. 72+80 TO STA. 73+33 -L-

10 x 4 x 1
ID 22.1C

10 x 5 x 1
ID 22.3C

6 x 3 x 1
ID 22.4C

12 x 2 x 1
ID 22.2C

-L- POC Sta 73+06.611
-Y15- POT Sta 10+47.683
BEARING BK =
S 81° 54' 09.1" E

2GI ELBOW Type "A"
2GI Type "A"
2GI Type "D"
2GI Type "A"

BDO

GARY PHILLIP RANDOLPH
JANE RANDOLPH WALDRUP
DB 147 PG 393
DB 389 PG 1

BRIAN E. MACE
DB 199 PG 138

MARY JANE YACOPINO
DB 377 PG 251

HARRY CHADWICK, JR.
SHIRLEY J. CHADWICK
DB 378 PG 257

HARLEY WALDRUP
&
JAMES WALDRUP
DB 160 PG 584

T	ELEV.
4.500	708.754
	711.377
	710.563
6.467	708.814
4.224	709.123
	711.441
	710.813
6.253	709.106

CIRCLE 45 deg 938 mm 9.45 -INV- 708.984
-INV- 708.481

FOR -L- PROFILE SEE SHEET #53
FOR -Y15- PROFILE SEE SHEET #70

12-DEC-2007 10:46
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Robinson RT REV224.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-32/CONST.23
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

NAD 83

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 23

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

-L-
PIs Sta 74+56.221
Θs = 4° 54' 39.8"
Ls = 90.000
LT = 60.023
ST = 30.021

PIs Sta 76+78.569
Θs = 4° 38' 44.2"
Ls = 90.000
LT = 60.021
ST = 30.019

PI Sta 77+37.337
Δ = 5° 56' 19.5" (LT)
L = 57.526
T = 28.789
R = 555.000
SE = 0.060

PIs Sta 77+96.093
Θs = 4° 38' 44.2"
Ls = 90.000
LT = 60.021
ST = 30.019

-Y16-
PI Sta 10+28.078
Δ = 91° 16' 32.7" (LT)
L = 23.896
T = 15.338
R = 15.000
SE = 0.070
R0 = 42

-DII-
PI Sta 10+17.187
Δ = 28° 09' 19." (LT)
L = 9.828
T = 5.015
R = 20.000

PI Sta 10+31.659
Δ = 21° 52' 08.5" (LT)
L = 19.084
T = 9.660
R = 50.000

-DI2-
PI Sta 10+08.316
Δ = 33° 23' 56.8" (RT)
L = 5.829
T = 3.000
R = 10.000

5 x 2 x 1
38 mm Skimmer
with 17 mm
Orifice Diameter
2 m weir
ID 23.2C

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 23.3C

8 x 3 x 1
38 mm Skimmer
with 27 mm
Orifice Diameter
2 m weir
ID 23.4C

12 x 2 x 1
ID 23.1C

18 x 6 x 1
2 m weir
ID 23.7C

10 x 3 x 1
ID 23.5C

14 x 4 x 1
ID 23.6C

ANNIE LOU ROBINSON
DB 63 PG 550

DONALD GRAY RICE
DB 206 PG 602

RANDALL D. FERGUSON
DB 169 PG 265

HARLEY WALDRUP
&
JAMES WALDRUP
DB 160 PG 584

HARRY CHADWICK, JR.
SHIRLEY J. CHADWICK
DB 378 PG 257

LARRY RUSSELL ROBERTS
DB 161 PG 464

DONALD GRAY RICE
DB 206 PG 602

DENISE MALLOCK
DB 292 PG 626
DB 4 PG 969

NOEMAN N. REVES
DB 244 PG 348

JONATHAN P. FOXX
DB 319 PG 391

JAMES ALLAN BALLARD
DB 193 PG 173

GLEN ROBERTS
DB 158 PG 86
DB 189 PG 45

ST Sta 75+16.200

TS Sta 76+18.549

SC Sta 77+08.549

CS Sta 77+66.075
-L- POC Sta 77+61.929
-Y16- POT Sta 10+00.000
BEARING AH =
S 71° 50' 26." E

PCC Sta 10+12.171
BRG BK S 74° 25' 39.5" E

PCC Sta 10+21.999
PCC Sta 10+28.000
END CONST.

PT Sta 10+41.084
BEARING AH =
N 55° 32' 52.9" E

-DII- POT Sta 10+41.303

PT Sta 10+11.145
BEARING AH =
S 39° 43' 05.0" E

-L- PC Sta 10+12.740
-Y16- PT Sta 10+36.636

-L- Sta 77+64.424 6.645 RT +33 -Y16-
-Y16- Sta 10+06.640 2.525 LT ON R/W

-Y16- POT Sta 10+40.000 +32 -Y16-
-DI2- POT Sta 10+00.000 16 RT (59.085')
BEARING AH =
S 73° 07' 01.9" E

-DI2- POT Sta 10+20.000
END CONST.
POT Sta 10+24.131

PCC Sta 10+05.316

BY20-68 PINC 6+18.980=
-L- Sta 77+64.424 6.645 RT +33 -Y16-
-Y16- Sta 10+06.640 2.525 LT ON R/W

BL-65 PINC 77+04.532=
BY20-68 POT 5+00.000=
-L- Sta 76+46.989 16.528 LT

DDE= 260 CM
CL I RIPRAP= 350 MM
FF= 243 CM

REMOVE CONC HW & FILL W/FLOWABLE FILL

CL B RIPRAP

REMOVE CONC FILL W/FLOWABLE

RIP-RAP AT EMBANKMENT SEE DETAIL "I"

STANDARD 0.61m BASE DITCH SEE DETAIL "J"

REMOVE

1200 WW FENCE

END WW FENCE

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

MATCH TO SHEET 22 74+40

MATCH TO SHEET 24 77+80

FOR -L- PROFILE SEE SHEET #54
FOR -Y16- PROFILE SEE SHEET #70
FOR -DII-&-DI2- PROFILE SEE SHEET #76

R/W REV.: CHANGING NAME AND DEED BOOK NUMBER ON PARCEL 74 (HARRY CHADWICK JR., AND SHIRLEY J. CHADWICK). 11/28/06 DWK

8/17/99

12-DEC-2007 10:51
$(LOGIN)
$(DATE)
$(TIME)
$(DESCRIPTION)
$(AFT REVISED)

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-33/CONST.24
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC

5 0 10

NAD 83

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 24

-DI2A-
PI Sta 10+11.053
Δ = 38° 39' 41.1" (LT)
L = 10.122
T = 5.262
R = 15.000

PI Sta 10+28.020
Δ = 144° 18' 16.1" (RT)
L = 11.599
T = 6.107
R = 15.000

-DI3-
PI Sta 10+14.717
Δ = 70° 32' 22.1" (RT)
L = 6.156
T = 3.536
R = 5.000

-DI4-
PI Sta 10+21.203
Δ = 17° 47' 52.2" (RT)
L = 15.532
T = 7.829
R = 50.000

PI Sta 10+43.186
Δ = 22° 54' 36.5" (LT)
L = 19.993
T = 10.132
R = 50.000

-DI5-
PI Sta 10+11.006
Δ = 17° 09' 27.1" (LT)
L = 14.973
T = 7.543
R = 50.000

PI Sta 10+34.765
Δ = 12° 02' 38.0" (RT)
L = 15.765
T = 7.912
R = 75.000

-DI3- POT Sta.10+00.000
BEGIN CONST.
BEARING AH = N 34° 21' 12.2" E

PCSta.10+11.181

RANDALL D. FI
DB 169 PG 2

15 x 5 x 1
ID 24.4C

PT Sta.10+17.336
BEARING AH =
S 75° 06'
-L- POS .000
-DI3- POT Sta.10+31.704

7 x 3 x 1
38 mm Skimmer
with 25 mm
Orifice Diameter
2 m weir
ID 24.2C

-DI4- POT Sta.10+04.500
BEGIN CONST.

PCSta.10+13.374

PT Sta.10+28.906

PCSta.10+33.054
BRG BK S 51° 26' 27.3" E

PT Sta.10+53.047
BRG AH S 74° 21' 03.0" E

-L- POT Sta.79+14.400
-DI4- POT Sta.10+54.838

POT Sta.10+00.000
BEARING AH =
S 69° 14' 19.5" E

ACCESS POINT

12 x 2 x 1
ID 24.5C

POT Sta.10+00.000
BEARING AH =
S 71° 48' 05.2" E
-DI5- POT Sta.10+02.000
BEGIN CONST.

PCSta.10+03.463

PT Sta.10+18.436
BEARING AH =
S 88° 57' 32.3" E

PCSta.10+26.853

PT Sta.10+42.618
BRG AH S 76° 54' 54.4" E

-L- POT Sta.79+49.000
-DI5- POT Sta.10+56.271

BEGIN CULVERT
STA.77+82.212
END CULVERT
STA.77+99.268

ST Sta 78+56.075

SHARON PONDER BUCKNER
DB 241 PG 376

130 TURN LANE

ROD & LUG CONNECTORS
W/SLEEVE GASKETS

REMOVE HWL AND
FILL WITH FLOWABLE
GROUT

DALLAS BUCKNER, JR,
DB 86 PG 634

8 x 3 x 1
ID 24.6C

15 x 5 x 1
ID 24.7C

1200 WW FENCE

GRAU 350

REMOVE

30 TAPER

130 TURN LANE

PIPE REMOVAL
(6 m)

END CONSTRUCTION
-YI7- POC Sta 12+20.000

PDE

8 x 3 x 1
38 mm Skimmer
with 27 mm
Orifice Diameter
2 m weir
ID 24.3C

6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 24.8C

8 x 3 x 1
38 mm Skimmer
with 27 mm
Orifice Diameter
2 m weir
ID 24.9C

6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 25.1C

-BL-67-PINC 79+15.198=
-L- Sta 78+57.356 12.724 RT

-BY20-69-PINC 7+17.333=
-BY20- Sta 10+45.702 2926.291 RT

-BY21-POT 5+00.000
-BY20-70-PINC 8+71.193=

PT Sta.10+96.139
BEAR. AH = N 33° 46' 56.6" E

PC Sta 10+72.678
N 16° 53' 02" E

-YI6- POT Sta.10+55.000
-DI2A- POT Sta.10+00.000

PT Sta.10+33.512

END PAVING
-YI6- POT Sta 11+20.000

-DI2A- POT Sta.10+39.061
END CONST.

PCSta.10+21.913

PT Sta.10+15.912
BEARING AH =
S 73° 06' 58.7" E

PCSta.10+05.791
BEARING BACK = N 68° 13' 20.2" E

POT Sta.10+41.036
BEARING BACK =
S 67° 28' 23.7" E

6 x 2x 1
2 m weir
ID 24.1C

POT Sta 11+31.785
END CONSTR.

POT Sta 12+52.288
DALLAS BUCKNER, JR
DB 70 PG 363

PT Sta 12+22.288

BETHEL BAPTIST CHURCH
DB 185 PG 305

RALPH LEE FERGUSON
DB 95 PG 186

LENA B. RAY
DB 154 PG 229

GLEN ROBERTS
DB 158 PG 86
DB 169 PG 45

MATCH TO SHEET 23

MATCH TO SHEET 25

FOR -L- PROFILE SEE SHEET *55
FOR -YI6- PROFILE SEE SHEET *70
FOR -YI7- PROFILE SEE SHEET *71
FOR -DI2A-,-DI3-,-DI4-&-DI5- PROFILE SEE SHEET *77

08-AUG-2007 07:20
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$USER$
$DESCRIPTION$
$A" REVISION$

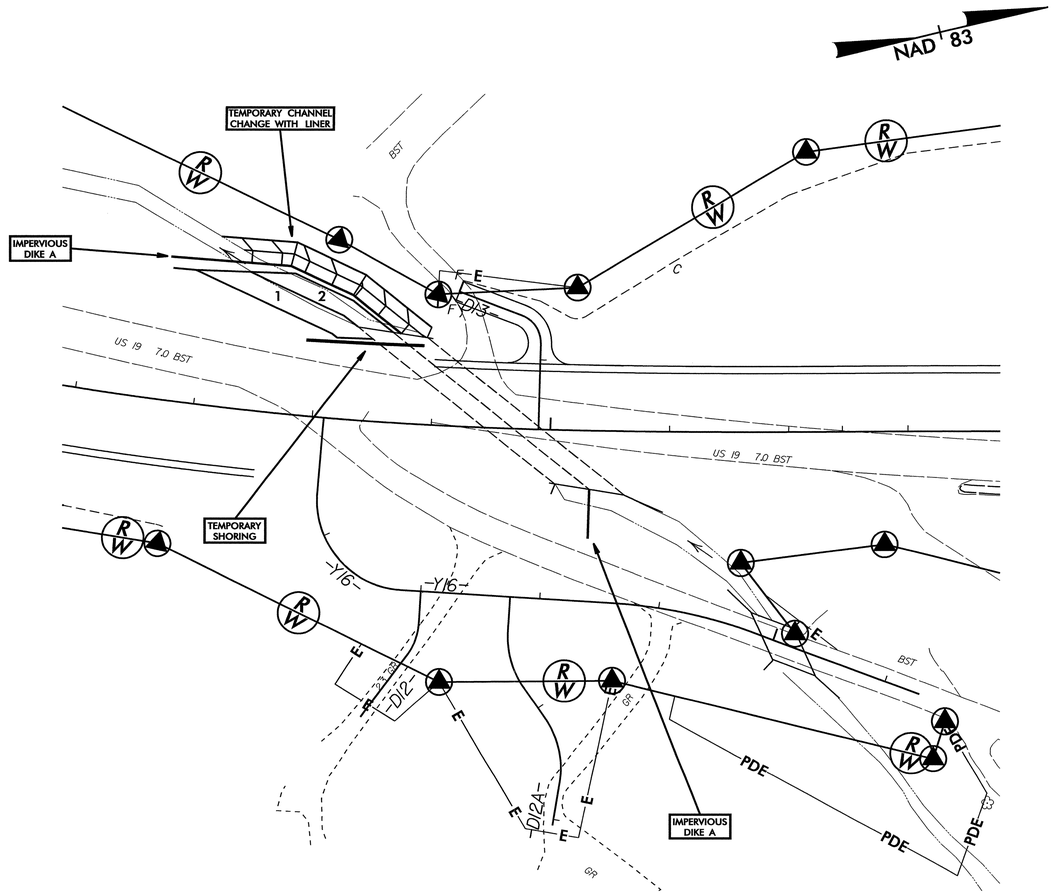
CULVERT CONSTRUCTION SEQUENCE STA. 77+90.74 –L–
(PAGE 1 OF 3)

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-34/CONST.24
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

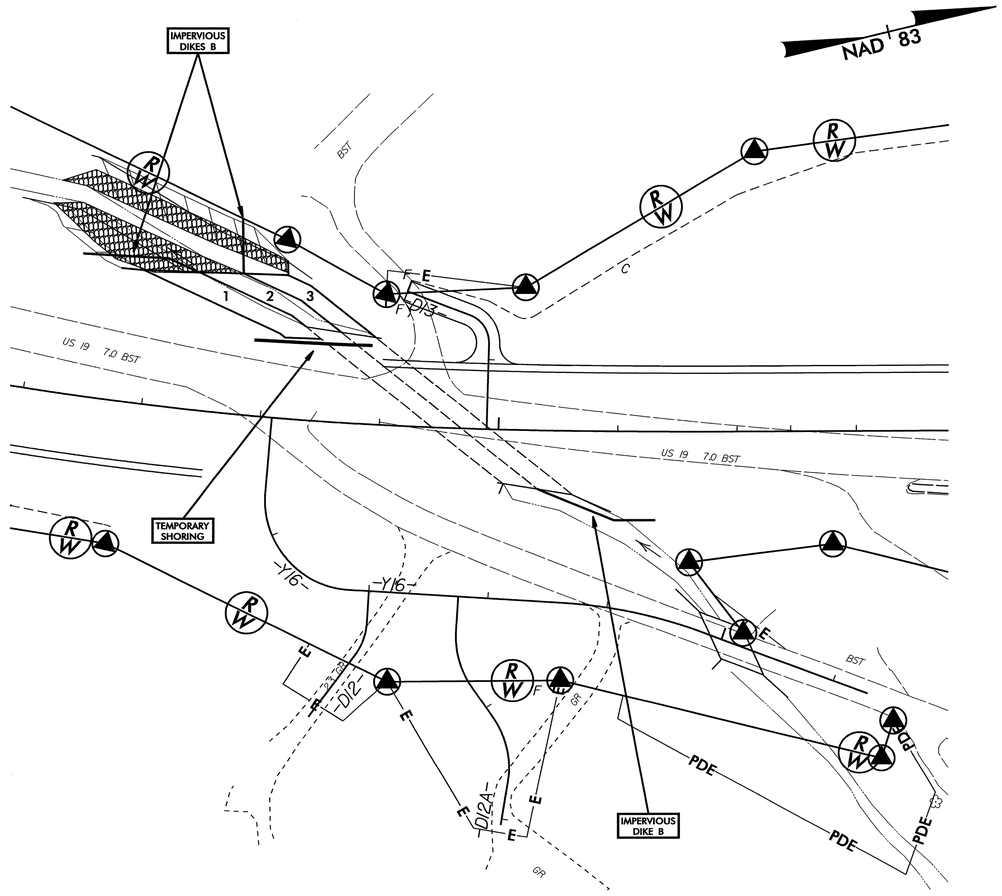
PHASE I

1. UTILIZE SPECIAL STILLING BASINS DURING CULVERT CONSTRUCTION AS NEEDED.
2. INSTALL TEMPORARY SHORING, PER TRAFFIC CONTROL PLANS.
3. CONSTRUCT IMPERVIOUS DIKES A.
4. CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (2M BASE, 1M DEEP, 2:1 SIDE SLOPE), UTILIZING IMPERVIOUS DIKE FOR ONE SIDE.
5. CONSTRUCT DOWNSTREAM EXTENSION OF BARREL 2 AND PORTION OF BARREL 1, AS SHOWN.
6. REMOVE IMPERVIOUS DIKES A AND TEMPORARY CHANNEL CHANGE WITH LINER.



PHASE II

7. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARREL 2.
8. CONSTRUCT DOWNSTREAM EXTENSION OF BARREL 3.
9. REMOVE IMPERVIOUS DIKES B.
10. CONSTRUCT DOWNSTREAM CHANNEL IMPROVEMENTS.



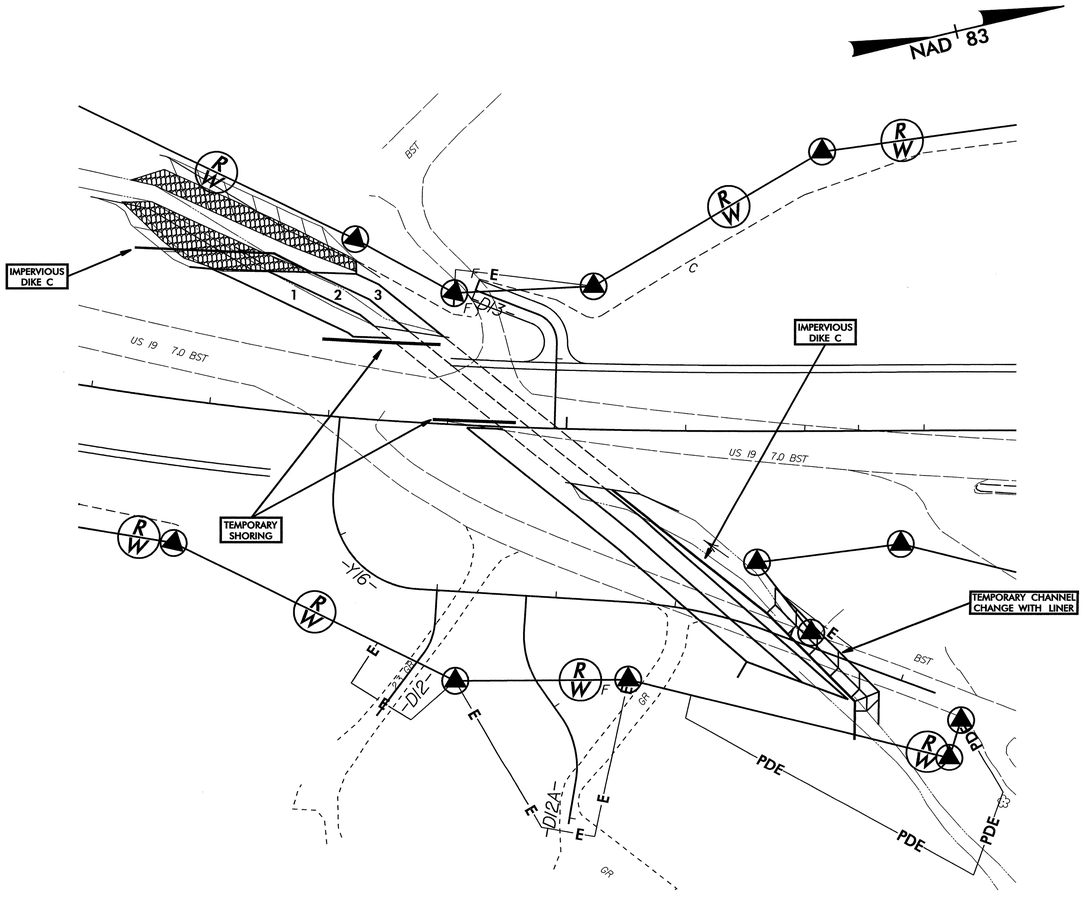
CULVERT CONSTRUCTION SEQUENCE STA. 77+90.74 –L–
(PAGE 2 OF 3)

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-34A/CONST-24
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

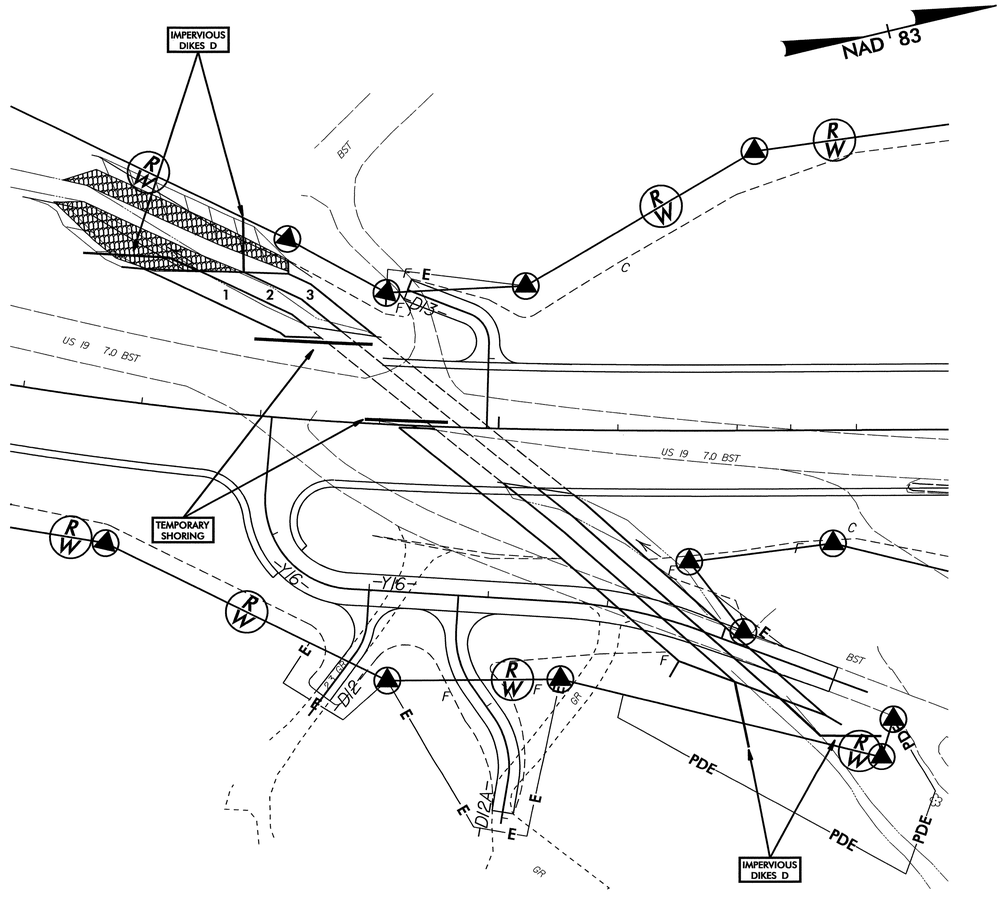
PHASE III

11. RETAIN EXISTING TEMPORARY SHORING AND INSTALL ADDITIONAL TEMPORARY SHORING, PER TRAFFIC CONTROL PLANS.
12. REMOVE BRIDGE ON –Y16–.
13. CONSTRUCT IMPERVIOUS DIKES C.
14. CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (2M BASE, 1M DEEP, 2:1 SIDE SLOPE), UTILIZING IMPERVIOUS DIKE FOR ONE SIDE, DIVERTING FLOW THROUGH BARREL 3.
15. CONSTRUCT UPSTREAM EXTENSION OF BARREL 2 AND PORTION OF BARREL 1, AS SHOWN.
16. REMOVE IMPERVIOUS DIKES C AND TEMPORARY CHANNEL CHANGE WITH LINER.



PHASE IV

17. CONSTRUCT IMPERVIOUS DIKES D, DIVERTING FLOW THROUGH BARREL 2.
18. CONSTRUCT UPSTREAM EXTENSION OF BARREL 3.
19. REMOVE IMPERVIOUS DIKES BLOCKING BARREL 3, ALLOWING FLOW THROUGH BARREL 3.

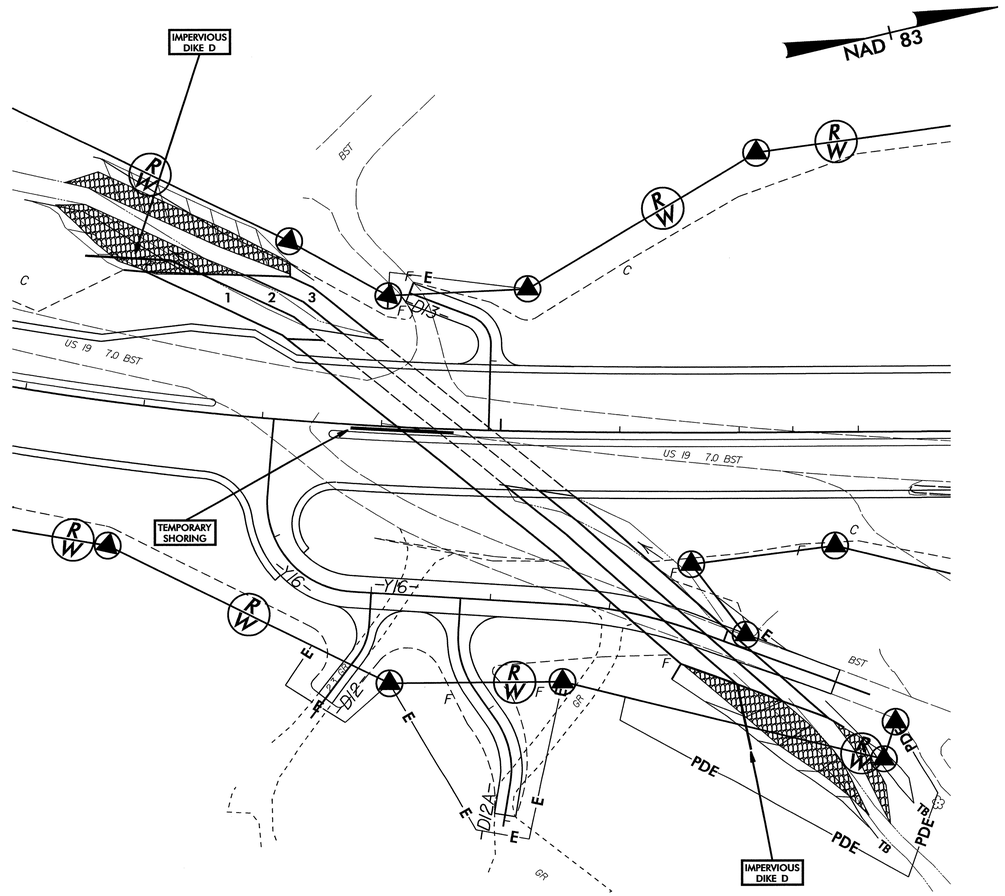


CULVERT CONSTRUCTION SEQUENCE STA. 77+90.74 –L–
(PAGE 3 OF 3)

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-34B/CONST.24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PHASE V

20. RETAIN IMPERVIOUS DIKES D BLOCKING BARREL 1.
21. REMOVE TEMPORARY SHORING FROM PREVIOUS PHASES AND INSTALL NEW TEMPORARY SHORING, PER TRAFFIC CONTROL PLANS.
22. COMPLETE CONSTRUCTION OF BARREL 1.
23. REMOVE IMPERVIOUS DIKES D.
24. CONSTRUCT UPSTREAM CHANNEL IMPROVEMENTS.
25. REMOVE TEMPORARY SHORING AND COMPLETE ROADWAY.



R/W REV.: CHANGING PARCEL NUMBER FROM 94 TO 93 AND PROPERTY NAME AND DEED BOOK NUMBER (HENRY G. CHOQUET); CHANGING NAME ON PARCEL 95 (NANCY JO RIDDLE, ET AL; AND ADDING DRIVEWAY AND CONTROL OF ACCESS BREAK, AND CHANGING PROPERTY NAME AND PROPOSED R/W ON PARCEL 92 (JOSEPH CHANDLER, III). 11/28/06 DWK

8.17.99

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 25

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

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

METRIC

5 0 10

CONST.REV.

R /W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-35/CONST.25
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83

MATCH TO SHEET 24

MATCH TO SHEET 26

BEGIN CONSTRUCTION -Y17- POT Sta 9+95.000

-L- POT Sta 82+14.589

-Y17- POT Sta 10+08.728

-Y17- POT Sta 10+08.000

-L- POT Sta 81+92.248

-L- POT Sta 82+62.145

BL-72-PINE 82+53.568

BY22-POT 6+05.582

BY22-POT 10+00.000

BY202POT 10+66.487

PCSta.10+00.000

BRG BK S 44° 36' 50.1" E

PCSta.10+09.075

PTSta.10+34.263

PCSta.11+19.151

PTSta.11+50.696

PC Sta 11+00.718

PT Sta 11+41.175

PC Sta 11+78.193

SC Sta 83+22.145

BEARING AH = S 15° 21' 46.2" W

BEGIN SBG STA 82+25 -L-

END SBG STA 82+75 -L-

BY23-EN. -Y18-

DALLAS BUCKNER, JR. 39 -L- DB 70 PG 363

LAWRENCE AND VESSIE REAVIS HEIRS DB 93 PG 428

LAWRENCE AND VESSIE REAVIS HEIRS DB 70 PG 363

HAROLD BUCKNER DB 130 PG 61

WALTER S. CHANDLER DB 83 PG 202

RHONDA CHANDLER DB 301 PG 202-204

JOSEPH CHANDLER, III DB 102 PG 281 DB 282 PG 112

NCDOT DB 232 PG 387

NANCY JO RIDDLE, ET AL NO DEED

14 x 5 x 1 51 mm Skimmer with 43 mm Orifice Diameter 2 m weir ID 25.4C

13 x 4 x 1 38 mm Skimmer with 37 mm Orifice Diameter 2 m weir ID 25.5C

10 x 3 x 1 ID 25.6C

12 x 2 x 1 ID 25.7C

8 x 2 x 1 ID 25.8C

6 x 2 x 1 38 mm Skimmer with 19 mm Orifice Diameter 2 m weir ID 25.9C

22 x 8 x 1 64 mm Skimmer with 61 mm Orifice Diameter 3 m weir ID 25.11C

8 x 2 x 1 38 mm Skimmer with 22 mm Orifice Diameter 2 m weir ID 25.10C

28 x 10 x 1 76 mm Skimmer with 75 mm Orifice Diameter 4 m weir ID 25.1F

10 x 4 x 1 38 mm Skimmer with 35 mm Orifice Diameter 2 m weir ID 25.2C

SEE MITIGATION PLANS FOR STREAM DESIGN

STD. BASE DITCH DETAIL "A"

RIP-RAP AT EMBANKMENT (See Detail "L")

BERM DITCH FROM STA. 83+65 TO STA. 83+90 -L-

STD. BASE DITCH DETAIL "AA"

ACCESS POINT

FOR -L- PROFILE SEE SHEET #56
FOR -Y17- PROFILE SEE SHEET #71
FOR -Y18- PROFILE SEE SHEET #71

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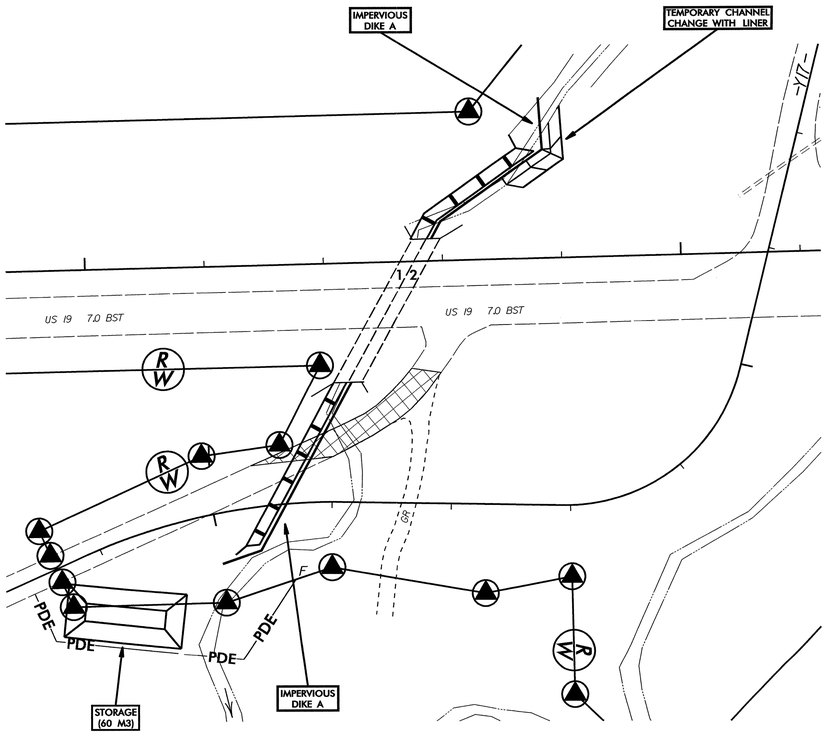
METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2518A	EC-36/CONST-25
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 81+55 –L–

PHASE I

1. CLOSE SR 1511 TO TRAFFIC AND REMOVE EXISTING BRIDGE.
2. CONSTRUCT STILLING BASIN (60M3).
3. CONSTRUCT IMPERVIOUS DIKES A AND TEMPORARY CHANNEL CHANGE WITH LINER (1M BASE, 1M DEEP, 2:1 SIDE SLOPE), UTILIZING IMPERVIOUS DIKE FOR ONE SIDE.
4. CONSTRUCT EXTENSIONS FOR BARREL 1.
5. REMOVE IMPERVIOUS DIKES A AND TEMPORARY CHANNEL CHANGE WITH LINER.

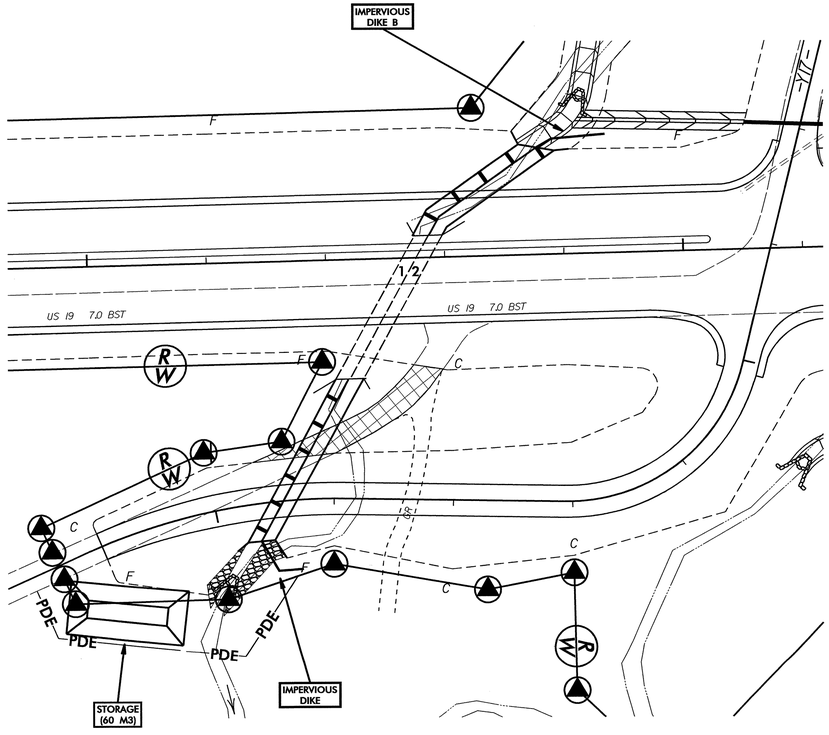
NAD 83



PHASE II

6. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARREL 1.
7. CONSTRUCT EXTENSIONS FOR BARREL 2.
8. REMOVE IMPERVIOUS DIKES B.
9. CONSTRUCT UPSTREAM AND DOWNSTREAM CHANNEL IMPROVEMENTS, PER STREAM MITIGATION PLANS.
10. REMOVE STILLING BASIN, AND COMPLETE ROADWAY.

NAD 83

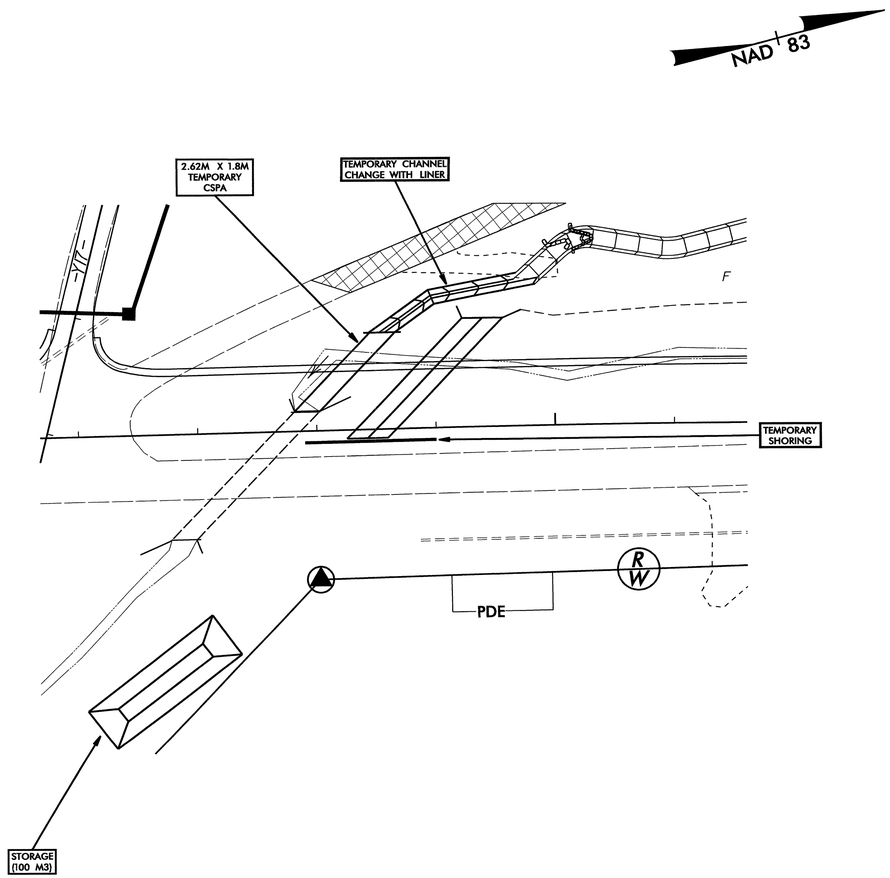


PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-37/CONST.25
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 82+70 –L–

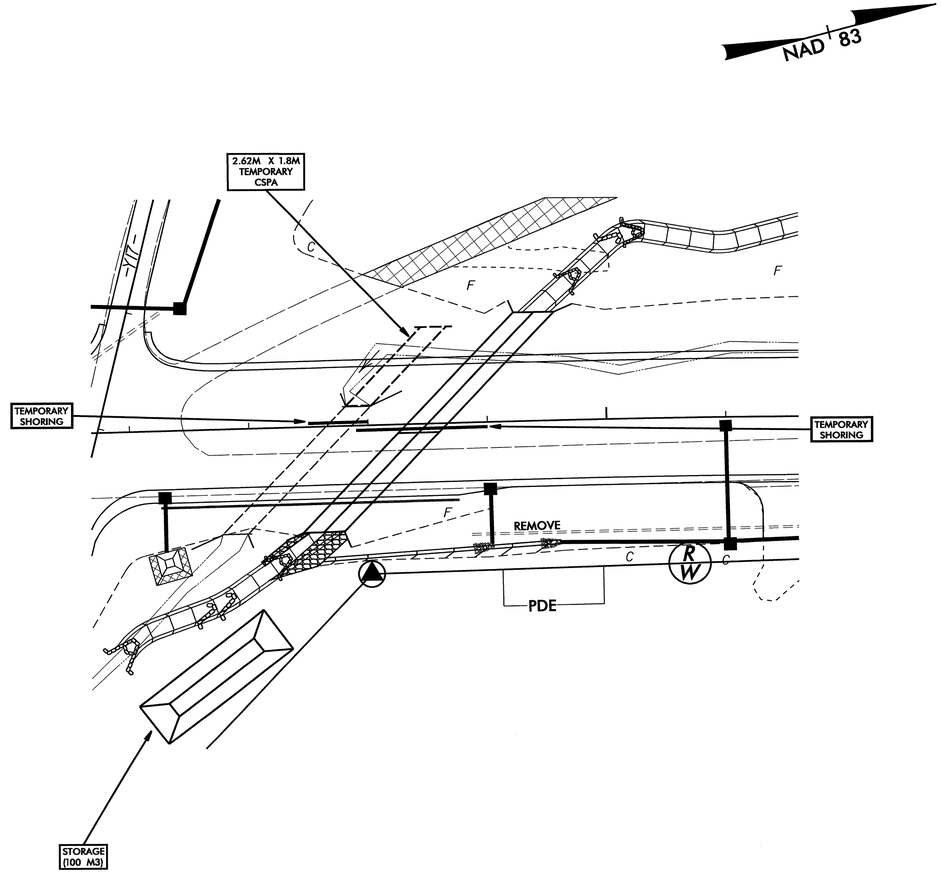
PHASE I

1. CONSTRUCT STILLING BASIN (100M3).
2. CONSTRUCT PORTION OF STREAM RELOCATION FOR IVY GAP BRANCH, PER STREAM MITIGATION PLANS.
3. CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (0.5M BASE, 0.5M DEEP, 2:1 SIDE SLOPES).
4. INSTALL TEMPORARY 2.62M X 1.8M CSPA, EXTENDING EXISTING CULVERT, UTILIZING "BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES" TO DEWATER SITE.
5. DIVERT IVY GAP BRANCH THROUGH STREAM RELOCATION, TEMPORARY CHANNEL CHANGE, AND CSPA.
6. INSTALL TEMPORARY SHORING, PER TRAFFIC CONTROL PLANS.
7. CONSTRUCT UPSTREAM PORTION OF CULVERT.



PHASE II

8. REMOVE TEMPORARY SHORING FROM PHASE I AND INSTALL PHASE II TEMPORARY SHORING, PER TRAFFIC CONTROL PLANS.
9. COMPLETE CONSTRUCTION OF CULVERT.
10. COMPLETE CONSTRUCTION OF STREAM RELOCATION FOR IVY GAP BRANCH, AND DIVERT FLOW THROUGH PROPOSED CULVERT.
11. REMOVE TEMPORARY CHANNEL CHANGE AND TEMPORARY CSPA, AND FILL EXISTING CULVERT WITH FLOWABLE FILL.
12. REMOVE TEMPORARY SHORING AND STILLING BASIN, AND COMPLETE ROADWAY.



R/W REV.: CHANGING PARCEL NUMBER FROM 94 TO 93 AND PROPERTY NAME AND DEED BOOK NUMBER (HENRY G. CHOQUET); CHANGING NAME ON PARCEL 95 (NANCY JO RIDDLE, ET AL); ADDING DRIVEWAY AND CONTROL OF ACCESS BREAK AND CHANGING PROPERTY LINE, NAME AND PROPOSED R/W ON PARCEL 92 (JOSEPH CHANDLER, III) AND ADDING DRIVEWAY AND CONTROL OF ACCESS BREAK AND CHANGING PROPERTY LINE, NAME AND PROPOSED R/W ON PARCEL 98 (JERRY ROBERTSON). 11/28/06 DWK

8/17/99

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ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-38/CONST.26
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC
5 0 10

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 26

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

NAD 83

PI Sta 10+17.540
Δ = 53° 55' 49.0" (LT)
L = 14.119
T = 7.631
R = 15.000

MATCH TO SHEET 25

MATCH TO SHEET 27

HENRY G. CHOQUET
DB 267 PG 772
93

PRISCILLA BASS
DB 423 PG 597
96

JERRY ROBERTSON
DB 153 PG 39
DB 281 PG 709
DB 282 PG 112
98

JOSEPH CHANDLER, III
DB 102 PG 281
DB 282 PG 112
92

NANCY JO RIDDLE, ET AL
NO DEED
95

FIARDY HENSLEY
DB 185 PG 319
97

12 x 6 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
3 m weir
ID 26.4C

10 x 4 x 1
ID 26.3C

8 x 3 x 1
38 mm Skimmer
with 27 mm
Orifice Diameter
2 m weir
ID 26.4C

7 x 3 x 1
ID 26.2C

12 x 2 x 1
ID 26.1C

12 x 2 x 1
ID 26.3C

-BL-73-PINC 85+39.557= CONC
-L- Sta 84+81.063 7.356 LT

-BL-76-
-L- Sta

ST Sta 86+94.708

ST Sta 88+34.708

BEG. 350 -L- Sta. 87+91.500
-L- POT Sta. 10+89.000

-L- POT Sta. 87+60.000
-DI4A- POT Sta. 10+00.000
BEARING AH =
S 64° 21' 30.5" E

PC Sta. 10+09.909
BEARING BK =
S 64° 21' 30.5" E

PC Sta. 10+24.027
BEARING AH =
N 61° 42' 40.6" E

PC Sta. 10+54.730

PT Sta. 10+44.481
BEARING AH =
S 8° 45' 49.7" W

PC Sta. 10+18.956

PT Sta. 10+89.980
BEARING AH =
S 4° 42' 02.5" E

PC Sta. 11+30.660

PT Sta. 11+38.791
BEARING AH =
S 23° 20' 04.9" E

-DI4A- POT Sta. 11+58.130
END CONST

+16 -L-
64 LT
(209.974')

+72 -L-
43 LT
(141.076')

+26 -L-
42 LT
(137.795')

+80 -L-
ON R/W & 33 LT
(108.268')

+84 -L-
36 LT (118.110')

+00 -L-
ON R/W & 33 LT
(108.268')

+26 -L-
25 LT (82.021')

+69 -L-
40 LT
(131.234')

+39.893 -L-
102.628 RT
END WW FENCE

+65 -L-
96 RT (314.961')
BEGIN WW FENCE

+99 -L-
112 RT
(367.454')

+56 -L-
129 RT
(423.228')

+87 -L-
100 RT
(328.084')

1200 WW FENCE

NATURAL ROCK ENERGY DISSIPATOR (SEE DETAIL "W")

600 CSP ROD & LUG CONNECTIONS WITH SLEEVE GASKETS

PROV. LOCATION OF CONNECTION TO 600mm CMP

REMOVE 300mm CONC

REMOVE HWL & FILL WITH FLOWABLE FILL

REMOVE HWL AND FILL PIPE WITH FLOWABLE FILL

PLUG & FILL

BERM DITCH FROM STA. 84+60 TO STA. 85+00 -L-

BERM DITCH FROM STA. 86+20 TO STA. 86+45 -L-

ACCESS POINT

ELBOW

30 TAPER

JOSEPH CHANDLER, III
DB 102 PG 281
DB 282 PG 112

JERRY ROBERTSON
DB 153 PG 39
DB 281 PG 709
DB 282 PG 112

FOR -L- PROFILE SEE SHEET *57
FOR -DI4A- PROFILE SEE SHEET *80
FOR -DI5B- PROFILE SEE SHEET *80

R/W REV.: ADDING DRIVEWAY AND CONTROL OF ACCESS BREAK AND CHANGING PROPERTY LINE AND NAME ON PARCEL 100 (SANDRA RAY). 11/28/06 DWK

R-2518A

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 27

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

NAD 83

METRIC
5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-39/CONST.27
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CONST.REV.

R /W REV.

MATCH TO SHEET 28

MATCH TO SHEET 28

98 JERRY ROBERTSON DB 153 PG 39 DB 281 PG 709 DB 282 PG 112

99 MELVIN J. BEASLEY DB 189 PG 301

98 JERRY ROBERTSON DB 153 PG 39 DB 281 PG 709

101 DAVID M. THOMAS DB 361 PG 587

100 SANDRA RAY DB 361 PG 581

JERRY ROBERTSON DB 153 PG 39 DB 281 PG 709 DB 282 PG 112

SR 1508 37 GR

S 24° 48' 46" W 277.982

N 27° 24' 43.3" E

N 25° 38' 29.6" E

+21 -L- 56 LT (183.727')

+79 -L- 61 LT (200.131')

+33 -L- 54 LT (177.165')

+20 -L- 79 LT (259.186')

+64 -L- 108 LT (354.331')

+40 -L- 69 LT (228.378')

1200 WW FENCE

END SBG STA. 90+00 -L- (LT)

TS Sta 90+39.565

SC Sta 90+99.565

-BL-77-PINC 91+39.367= -L- Sta 90+79.516 4.759 LT

RETAIN EXISTING 900mm CMP TIE INTO LINE WITH NCDOT APPROVED LINER

NATURAL ROCK ENERGY DISSIPATOR (SEE DETAIL "V")

REMOVE DI AND FILL WITH FLOWABLE FILL

REMOVE HWL

REMOVE DI AND FILL WITH FLOWABLE FILL

6 x 1 x 1 ID 27.2C IMPACT ATTENUATOR TYPE 350

10 x 5 x 1 38 mm Skimmer with 38 mm Orifice Diameter 2 m weir ID 27.5C

12 x 2 x 1 ID 27.1C

Modified Silt Basin Type 'B' 7 x 6 x 1 (See Tiered Skimmer Basin Detail) ID 27.3C

7 x 6 x 1 51 mm Skimmer with 47 mm Orifice Diameter 2 m weir (See Tiered Skimmer Basin Detail) ID 27.3C

7 x 5 x 1 76 mm Skimmer with 64 mm Orifice Diameter 2 m weir ID 27.4C

BEG. MEDIAN CONCRETE BARRIER -L- STA. 90+55

-L- POC Sta. 90+61.481

-DI5A- POT Sta. 10+00.000 BEAR. AH = S 70° 13' 38.4" E

PC Sta. 10+16.177

PT Sta. 10+34.361 BEAR. AH = N 40° 18' 54.7" E

PC Sta. 10+65.213

PT Sta. 10+77.022 BEAR. AH = N. 85° 25' 10.4" E

-DI5A- POT Sta. 10+92.500 END CONST.

-DI5B- Sta. 10+40.000 END CONST.

PC Sta. 10+41.348

POT Sta. 10+99.487

PI's Sta 90+79.567
Δs = 51° 25' 56.6"
Ls = 60.000
LT = 40.001
ST = 20.001

PI Sta 91+69.774
Δ = 6° 41' 48.4" (LT)
L = 140.257
T = 70.208
R = 1,200.000
SE = 0.040

PI Sta 10+26.575
Δ = 69° 27' 26.9" (LT)
L = 18.184
T = 10.398
R = 15.000

PI Sta 10+71.443
Δ = 45° 06' 15.7" (RT)
L = 11.808
T = 6.229
R = 15.000

PI Sta 10+76.710
Δ = 30° 26' 05.4" (RT)
L = 69.054
T = 35.363
R = 130.000

PT- Sta. 11+10.402

FOR -L- PROFILE SEE SHEET *58
FOR -DI5B- PROFILE SEE SHEET *80

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PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-40/CONST.28
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 28

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

NAD 83

-L-
PI Sta 91+69.774
△ = 6° 41' 48.4" (LT)
L = 140.257
T = 70.208
R = 1,200.000
SE = 0.040

PIs Sta 92+59.824
θs = 1° 25' 56.6"
Ls = 60.000
LT = 40.001
ST = 20.001

MATCH TO SHEET 27 91+40

MATCH TO SHEET 29 94+80

17 x 5 x 1
51 mm Skimmer
with 47 mm
Orifice Diameter
2 m weir
ID 28.1C

28 x 9 x 1
76 mm Skimmer
with 73 mm
Orifice Diameter
4 m weir
ID 28.4F

8 x 3 x 1
38 mm Skimmer
with 27 mm
Orifice Diameter
2 m weir
ID 28.6C

6 x 1 x 1
ID 28.9C

DAVID M. THOMAS
DB 361 PG 587
101

+40 -L-
69 LT
(226.378')

+00 -L-
55 LT
(180.446')

+42 -L-
53 LT
(173.884')

+97.552 -L-
27.330 LT
(89.666')
BEG WW FENCE

+79.352 -L-
23.616 LT
(77.480')
END WW FENCE

+59 -L-
24 LT
(78.740')

+80 -L-
EX.R/W

+50 -L-
EX.R/W

+78 -L-
EX.R/W

BEG. SBG
STA. 91+79 -L- (LT)

NATURAL ROCK ENERGY DISSIPATOR
(SEE DETAIL "N")

LATERAL BASE DITCH
LINED W/CL B STONE
(SEE DETAIL "T")

CL B RIPRAP
2.7 TONS
5.4 SM FF

1200 WW FENCE

1800 WW FENCE

ACCESS POINT

END SBG
STA. 93+45 -L- (LT)

1000 CSP B CAGE W/
ROD & LUG CONNECTORS
WITH SLEEVE BASKETS

SCOS Sta 92+39.822

RETAIN EXISTING 1000mm CSP PIPE.
LINE WITH NCDOT APPROVED LINER

ST Sta 92+99.822

REMOVE DI AND
FILL PIPE WITH
FLOWABLE GROUT

REMOVE HDWL

F GRAU 350

GRAU 350

CAT-1

-BL-T8-PINC 94+14.525=
-L- Sta 93+55.672 27.18 LT

+105.797 -L-
35.635 RT (176.811')
BEG WW FENCE

+80 -L-
29 RT (95.144')
END WW FENCE

+11 -L-
37 RT
(121.359')

+13 -L-
44 RT
(144.357')

+64 -L-
42 RT (137.795')

+27 -L-
47 RT
(154.200')

+99 -L-
40 RT (131.234')

+62 -L-
70 RT
(229.659')

LATERAL BASE DITCH
LINED W/CL B STONE
(SEE DETAIL "T")

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

6 x 3 x 1
38 mm Skimmer
with 23 mm
Orifice Diameter
2 m weir
ID 28.3C

4 x 2 x 1
38 mm Skimmer
with 16 mm
Orifice Diameter
2 m weir
ID 28.7C

7 x 2 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
2 m weir
ID 28.8C

8 x 3 x 1
38 mm Skimmer
with 27 mm
Orifice Diameter
2 m weir
ID 28.5C

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 28.4C

*80

FOR -L- PROFILE SEE SHEET *59

R/W REV.: CHANGING NAME ON PARCEL 101 (DAVID M. THOMAS). 11/28/06 DWK

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rev. 11/28/2006

R/W REV.: CHANGING NAME ON PARCEL 101 (DAVID M. THOMAS) AND ADDING DRIVEWAY AND CONTROL OF ACCESS BREAK AND REVISING PROPOSED R/W ON PARCEL 102 (LARRY S.MCCALL). 11/28/06 DWK

R/W REV.: ADDING A DRIVEWAY & ACCESS POINT ON THE LEFT SIDE OF PARCEL 101 (DAVID M. THOMAS). 2/12/07 TFD

8/17/99

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ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 29

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

NAD 83

METRIC
5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-41/CONST.29
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

MATCH TO SHEET 28

MATCH TO SHEET 30

-BL-79-PINC 95+86.045=
-L- Sta 95+22.323 43.297 LT

-L- POC Sta.96+74.000

-DI6- POT Sta.10+00.000
BEARING AH =
S 87° 57' 57.1" E

-DI6- POC Sta.10+37.000
END CONST.

PT Sta.10+39.432

PC Sta.10+54.763

PC Sta.10+21.981

TS Sta 95+95.471

SC Sta 96+85.471

CS Sta 97+91.264

-BL-80-PINC 98+08.458=
-L- Sta 97+40.200 6.895 RT

DAVID M. THOMAS
DB 361 PG 587
101

DAVID M. THOMAS
DB 145 PG 130
101

N.C. D.O.T.
DB 98 PG 578

LARRY S. MCCALL
DB 136 PG 11

6 x 1 x 1
ID 29.3C

10 x 4 x 1
38 mm Skimmer
with 35 mm
Orifice Diameter
2 m weir
ID 29.16C

12 x 4 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 29.18C

15 x 5 x 1
51 mm Skimmer
with 44 mm
Orifice Diameter
2 m weir
ID 29.19C

7 x 3 x 1
38 mm Skimmer
with 25 mm
Orifice Diameter
2 m weir
ID 29.17C

10 x 3 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
2 m weir
ID 29.1C

9 x 3 x 1
38 mm Skimmer
with 29 mm
Orifice Diameter
2 m weir
ID 29.2C

7 x 2 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
2 m weir
ID 29.5C

4 x 2 x 1
38 mm Skimmer
with 16 mm
Orifice Diameter
2 m weir
ID 29.6C

10 x 5 x 1
38 mm Skimmer
with 36 mm
Orifice Diameter
2 m weir
ID 29.4C

6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 29.10C

6 x 1
ID 29.11C

6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 29.14C

7 x 5 x 1
51 mm Skimmer
with 43 mm
Orifice Diameter
2 m weir
(See Tiered Skimmer
Basin Detail)
ID 29.15C

NATURAL ROCK ENERGY DISSIPATOR (SEE DETAIL "Y")

ROD & LUG CONNECTORS WITH SLEEVE GASKETS AND ELBOWS

RETAIN & EXTEND LINE WNCDOT APPROVED LINER

REMOVE DI AND PIPE

REMOVE EXIST. HDWL

ACCESS POINT

FOR -L- PROFILE SEE SHEET #60
FOR -DI6- PROFILE SEE SHEET #77

R/W REV.: ADDING DRIVEWAY AND CONTROL OF ACCESS BREAK AND REVISING PROPOSED R/W ON PARCEL 102 (LARRY S.MCCALL); REVISING PROPOSED R/W ON PARCEL 103B (IRIS YEVONNE WILSON); AND CHANGING NAME AND DEED BOOK NUMBER ON PARCEL 103 (EARL J. GRINDSTAFF). 11/28/06 DWK

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jdwalston AT RENV221491

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PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-42/CONST.30
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

CONST.REV.

R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 30

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

FOR -L- PROFILE SEE SHEET #61

R/W REV.: REVISING PROPOSED R/W ON PARCEL 103B; CHANGING NAME AND DEED BOOK NUMBER ON PARCEL 103A (SAMUEL EUGENE HARTLEY; AND CHANGING NAME AND DEED BOOK NUMBER ON PARCEL 104 (C. P. McLAUGHLIN. 11/28/06 DWK

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$acadver 16.1" REQUIRED

8/17/99

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 31

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

NAD 83

METRIC
5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-43/CONST.31
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

-L-
PIs Sta 104+47.536
Θs = 5° 55' 37.7"
Ls = 90.000
LT = 60.034
ST = 30.031

PI Sta 107+31.772
△ = 60° 36' 53.6" (RT)
L = 460.199
T = 254.269
R = 435.000
SE = 0.060

19 x 6 x 1
64 mm Skimmer
with 54 mm
Orifice Diameter
2 m weir
ID 31.1C

13 x 4 x 1
38 mm Skimmer
with 37 mm
Orifice Diameter
2 m weir
ID 31.2C

6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 31.3C

15 x 6 x 1
51 mm Skimmer
with 48 mm
Orifice Diameter
2 m weir
ID 31.5C

6 x 5 x 1
51 mm Skimmer
with 39 mm
Orifice Diameter
2 m weir
(See Tiered Skimmer
Basin Detail)
ID 31.6C

Modified Silt Basin
Type 'B'
6 x 5 x 1
(See Tiered Skimmer
Basin Detail)
ID 31.6C

7 x 3 x 1
38 mm Skimmer
with 25 mm
Orifice Diameter
2 m weir
ID 31.7C

12 x 2 x 1
2 m weir
ID 31.4C

6 x 1 x 1
ID 31.8C

102 103 103A 103B 104 105

SAMUEL EUGENE HARTLEY
DB 231 PG 463

IRIS YVONNE WILSON
DB 235 PG 445

C. P. McLAUGHLIN
DB 267 PG 247

JOHN R. MIELOCH
DB 182 PG 497

EARL J. GRINDSTAFF
DB 341 PG 321

-L- POT Sta.101+80.000
-D16A- POT Sta.10+00.000
-D16A- POT Sta.10+64.000
END CONST.
POT Sta.10+69.053

BL-82-PINC 103+23.660=
-L- Sta 102+45.338 64.959 RT

TS Sta 103+87.502
SC Sta 104+77.502

END RET. WALL 103+80
PROP. RET. WALL
PROP. CONC. BARRIER TYPE T
1200 CHAIN LINK FENCE
1200 WW FENCE
900 mm WW & SBW
900 CSP
ELBOW
NATURAL ROCK ENERGY DISSIPATOR (SEE DETAIL "V")
ROD & LUG CONNECTORS WITH SLEEVE GASKETS AND ELBOWS
END TYPE T CONC. BARRIER END CHAIN LINK FENCE 104+20
REMOVE DI AND FILL W/FLOWABLE GROUT
TYPE B-77
JB w/MH
TB 2GI
CB
CAT-1
END SBG STA. 10+17.825 -D16A-
BEG. SBG STA. 10+17.825 -D16A-
END SBG STA. 103+41 -L-
CLASS IV
CLASS A
2GI Type "A"
GRAU 350
GRAU 360
IMPACT ATTENUATOR TYPE 350
END MEDIAN CONCRETE BARRIER -L- STA. 104+00
RETAIN
2.4 m CONC. HW
EXISTING R/W
REM GR
MTL
RIP RAP
ACCESS POINT
BEG WW FENCE

MATCH TO SHEET 30
MATCH TO SHEET 32

FOR -L- PROFILE SEE SHEET #62
FOR -D16A- PROFILE SEE SHEET #78

R/W REV.: CHANGING NAME AND DEED BOOK NUMBER ON PARCEL 104 (C. P. McLAUGHLIN); ADDING DRIVEWAY AND CONTROL OF ACCESS BREAK ON PARCEL 110 (KENNETH H.CROWDER). 11/28/06 DWK

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Level: REVIEW

MATCH TO SHEET 34-A 10+61.000

METRIC	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	PROJECT REFERENCE NO.	SHEET NO.
5 0 10			R-2518A	EC-44/CONST.32
CONST.REV.			R /W SHEET NO.	
R /W REV.				

-BL-83-PINC 106+27.657=
-L- Sta 105+24.783 43.913 LT

6 x 1 x 1
ID 32.1C

12 x 2 x 1
ID 32.2C

C. P. McLAUGHLIN
DB 267 PG 247

KENNETH H. CROWDER
DB 197 PG 434

KENNETH H. CROWDER
DB 197 PG 4

JOHN R. MIELOCH
DB 182 PG 497

MARGIE REVIS CHANDLER
DB 307 PG 68

DOROTHY B. CHANDLER
DB 229 PG 28

EARL J. GRINDSTAFF
DB 341 PG 321

-L- POC Sta 106+39.889
-Y19- POT Sta 11+11.242

PRC Sta. 10+23.297

PGC Sta. 10+67.406

PI Sta 107+31.772
Δ = 60° 36' 53.6" (RT)
L = 460.199
T = 254.269
R = 435.000
SE = 0.060

-D17-

PI Sta 10+70.503
Δ = 28° 03' 53.5" (RT)
L = 48.982
T = 24.993
R = 100.000

PI Sta 11+57.336
Δ = 133° 00' 43.8" (RT)
L = 53.395
T = 52.912
R = 23.000

PI Sta 11+90.309
Δ = 7° 26' 03.9" (LT)
L = 12.975
T = 6.497
R = 100.000

-D17- POT Sta 12+03.328
END CONST.
BEARING BACK =
N 80° 45' 26.1" W

PT Sta 11+96.787

PC Sta 11+83.812

PT Sta 11+57.819

PT Sta 10+94.492

PC Sta 11+04.424

-D16B-

PI Sta 10+17.652
Δ = 83° 18' 20.7" (LT)
L = 14.540
T = 8.895
R = 10.000

PI Sta 10+45.387
Δ = 71° 54' 39.3" (RT)
L = 44.109
T = 22.090
R = 319.466

PI Sta 10+77.783
Δ = 69° 21' 08.6" (RT)
L = 18.156
T = 10.377
R = 15.000

130 TURN LANE

30 TAPER

NAD 83

MATCH TO SHEET 31

MATCH TO SHEET 33

FOR -L- PROFILE SEE SHEET #63
FOR -Y19- PROFILE SEE SHEET #72
FOR -D16B- PROFILE SEE SHEET #78
FOR -D17- PROFILE SEE SHEET #78

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-45/CONST.33
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 33

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

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

NAD '83

-Y20-
PI Sta 10+40.188
Δ = 55°18' 30.4" (LT)
L = 28.959
T = 15.720
R = 30.000
SE = 0.080
R0 = 40

PI Sta 9+75.888
Δ = 7°15' 15.2" (LT)
L = 18.991
T = 9.508
R = 150.000

-Y21-
PI Sta 10+15.111
Δ = 11°30' 20.0" (LT)
L = 30.121
T = 15.112
R = 150.000
SE = 0.080
R0 = 40

PI Sta 10+45.126
Δ = 41°07' 27.4" (RT)
L = 28.710
T = 15.005
R = 40.000
SE = 0.080
R0 = 40

-DI7-
PI Sta 10+11.558
Δ = 77°04' 38.68" (LT)
L = 16.143
T = 9.558
R = 12.000

PI Sta 10+70.5
Δ = 28°03' 53.5" (RT)
L = 48.982
T = 24.993
R = 100.000

ROT Sta. 9+00.000

-B26-9I-POT 5+00.000

S 58°00'12.9" E

PCSta.9+66.380

BEGIN GUARDRAIL -Y21- STA. 9+50

PT Sta. 9+85.371
BEARING AH =
S 65°15'28.0" E

10 x 5 x 1
38 mm Skimmer
with 36 mm
Orifice Diameter
2 m weir
ID 33.2C

-L- POC Sta 108+71.910
-Y20- POT Sta 10+00.000
BEARING AH =
S 34°44'24.6" E

-L- ROC Sta 108+43.60
-DI6B-POT Sta.10+96.60
BEARING BACK =
S 38°56'37.0" E

KENNETH H. CROWDER
DB 197 PG 434

PDE PDE PDE PDE PDE

PT Sta. 10+85.563

ACCESS POINT

VICTOR SHEPHERD
DB 206 PG 605

+53 -L-
EX.R/W
BEG WW FENCE

1200 WW FENCE

END WW FENCE

REM GR

PC Sta 10+24.488

N 75°58'56.3" E

DDE = 200 CM
CL TRIPRAP = 350 MTN
FF = 400 CM

134.762 TURN LANE

PCSta.10+02.060

PT Sta.10+18.14

BEAR.BACK =
S 22°40'39.2" W

-BY25-88-
-L- Sta 108+65.22
29.454 RT
-Y20- Sta 10+28.5
5.994 RT

-BY25-88-POT 6+11.35

PCSta.10+45.510
BEAR.BACK =
S 54°23'59.8" E

-BY25-88-POT 6+89.651

PT Sta 10+53.428

MARGIE REVIS CHANDLER
DB 307 PG 68

ROD & LUG CONNECTORS WITH SLEEVE GASKETS AND ELBOWS

BEGIN CONSTRUCTION
-Y21- PC Sta 10+10.000

PCSta.10+00.000

PRC Sta 10+30.121

+18 -Y21-
48 LT
(157.480')

+10 -Y21-
23 LT
(75.459')

+10 -Y21-
EX.R/W

9 x 2 x 1
ID 33.3C

8 x 2 x 1
ID 33.4C

+10 -Y21-
EX.R/W

S 66°22'28.3" E

PT Sta 10+58.831
BEARING AH =
S 35°38'20.6" E

+40 -Y21-
15 LT (49.213')

+99 -L-
28 LT
(91.864')

PC Sta 10+41.468

+91 -L-
43 LT
(108.268')

-Y20- POC Sta 10+30.000
-DI7- POT Sta.10+00.000

ROD & LUG CONNECTORS WITH SLEEVE GASKETS AND ELBOWS

CL B RIPRAP
8.7 TONS 8.4 SM FF

LATERAL BASE DITCH LINES W/SRM SEE DETAIL "A"

+68 -Y20-
10 LT (32.808')
& EX.R/W

CS Sta 109+37.702

CL B RIPRAP
2.7 TONS
8.4 SM FF

BEG WW FENCE

POT Sta 10+73.428
BEAR.BK =
N 89°57'05.0" E

+60 -Y20-
EX.R/W

S 86°24'48.7" E

END CONSTR.

-Y20- POT Sta 10+60.000

PT Sta 10+53.428

MARGIE REVIS CHANDLER
DB 307 PG 68

ROD & LUG CONNECTORS WITH SLEEVE GASKETS AND ELBOWS

26 x 8 x 1
76 mm Skimmer
with 66 mm
Orifice Diameter
4 m weir
ID 33.1C

+79 -L-
47 RT (154.199')

+96.537 -L-
58.933 RT
(193.349')

VICTOR SHEPHERD
DB 493 PG 612

+13 -L-
70 RT
(229.659')

+10.670 -L-
68.431 RT
(224.511')

+46 -L-
70 RT
(229.659')

G. W. CHANDLER HEIRS
DB 195 PG 532

SR 1421, SR 1131 & US 19

	SR 1421	US 19	SR 1131
	420	630	
	140	210	
	280	420	
8,040	12,110	US 19	8,180	12,320
	Not Given		
PM			
DHV= 16%			
D= 60%			
DUAL= 4%			
TTST= 6%			
2008 ADT			
2028 ADT			

DHV= 11%
D= 60%
PM DUAL= 3%
TTST= 1%

Not Given

Not Given

+28 -L-
53 LT
(173.884')

BERM DITCH FROM STA. 110+60 TO STA. 111+00 -L-

1200 WW FENCE

ROD & LUG CONNECTORS WITH SLEEVE GASKETS AND ELBOWS

SRS Sta 110+27.702

130 LT & RT TURN LANE

BERM DITCH FROM STA. 111+00 TO STA. 111+40 -L-

JESSIE SHEPHERD
DB 86 PG 189

SC Sta 111+17.702

60 RT EP TAPER

30 LT EP TAPER

TYPE "A" 2GI FS

TYPE "A" 2GI

TYPE "A" 2GI FS

400 CSP

ROD & LUG CONNECTORS WITH SLEEVE GASKETS AND ELBOWS

+80 -L-
109 LT
(357.612')

+33 -L-
69 LT
(226.378')

N 63°38'41.8" E

-BL 87-PINC III+48.890-
-WW 287POT 6+85.120-
-L- Sta 109+89.121 17.467 RT
-L- POS Sta 109+54.351
-Y21- POT Sta 10+70.124

+01.570 -L-
52.955 RT
(173.704')

+15.989 -L-
52.085 RT
(170.850')

+79 -L-
47 RT (154.199')

+20 -L-
60 RT (196.850')

+75.046 -L-
50.052 RT (164.211')

END WW FENCE

5 x 2 x 1
38 mm Skimmer
with 17 mm
Orifice Diameter
2 m weir
ID 33.5C

14 x 7 x 1
51 Skimmer
with 43 mm
Orifice Diameter
3 m weir
ID 33.7C

(See Detail "C")

MATCH TO SHEET 32

MATCH TO SHEET 34

108+40

111+80

R/W REV.: REVISING NAME ON PARCEL 113 & 114 (JAY CHANDLER HEIRS). 3/14/07 TFD

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Default.pah RT HEIR2241

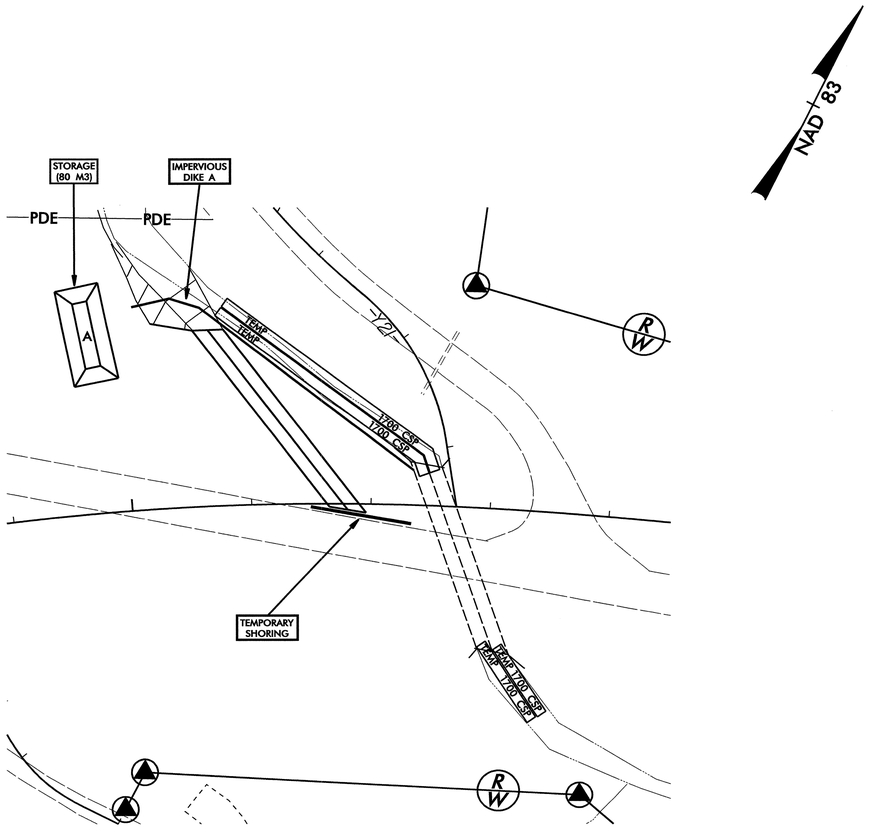
CULVERT CONSTRUCTION SEQUENCE STA. 109+35.31 –L–
(PAGE 1 OF 2)

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-46/CONST.33
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

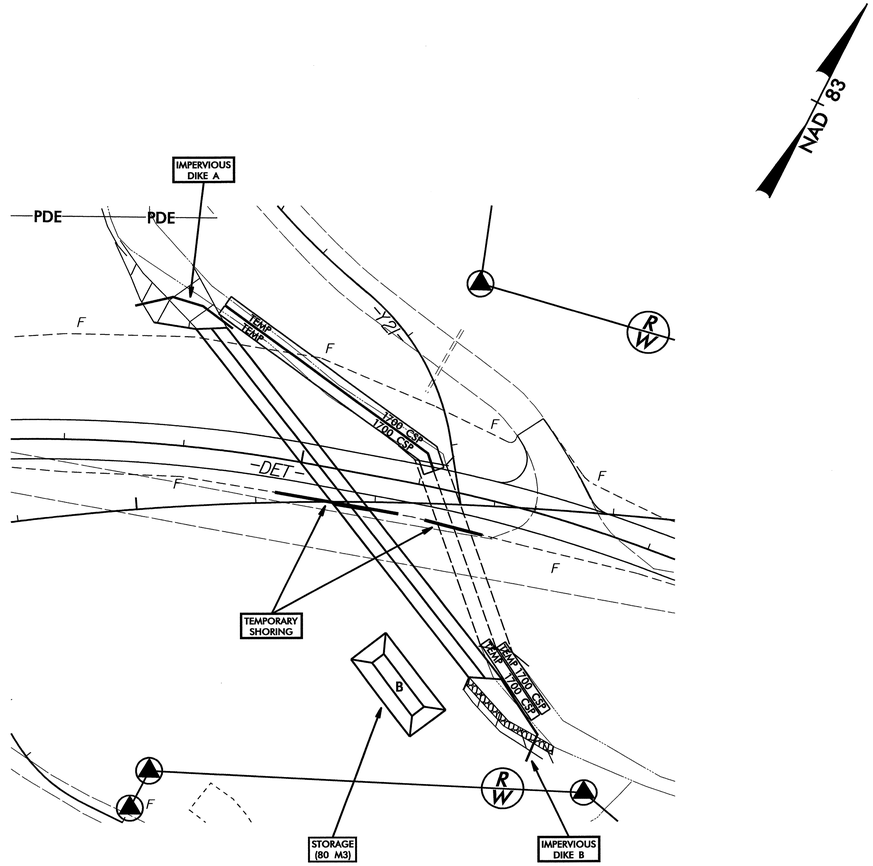
PHASE I

1. CONSTRUCT STILLING BASIN A (80M3).
2. CONSTRUCT IMPERVIOUS DIKE A AND INSTALL TEMPORARY 2@1700MM CSP'S, DIVERTING FLOW.
3. INSTALL TEMPORARY SHORING, PER TRAFFIC CONTROL PLANS.
4. CONSTRUCT UPSTREAM PORTION OF CULVERT AND AS MUCH INLET CHANNEL IMPROVEMENTS AS POSSIBLE.



PHASE II

5. REMOVE STILLING BASIN A AND PORTION OF IMPERVIOUS DIKE A.
6. CONSTRUCT DETOUR FILL AND SHIFT TRAFFIC.
7. REMOVE TEMPORARY SHORING FROM PHASE I AND INSTALL TEMPORARY SHORING FOR PHASE II, PER TRAFFIC CONTROL PLANS.
8. CONSTRUCT STILLING BASIN B (80M3).
9. CONSTRUCT IMPERVIOUS DIKE B.
10. CONSTRUCT REMAINDER OF CULVERT AND AS MUCH OUTLET CHANNEL IMPROVEMENTS AS POSSIBLE.

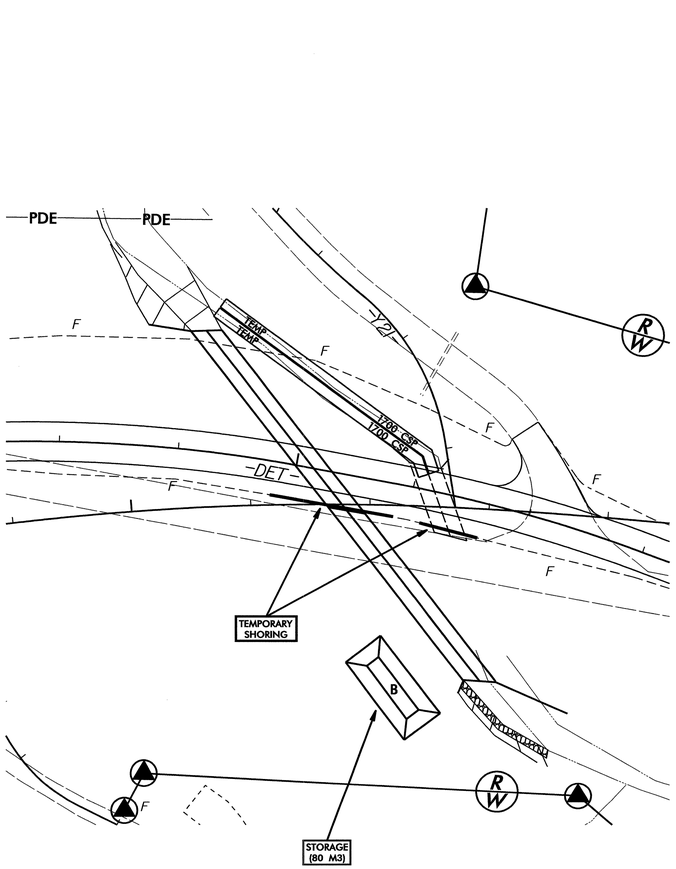


CULVERT CONSTRUCTION SEQUENCE STA. 109+35.31 –L–
(PAGE 2 OF 2)

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-46A/CONST.33
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

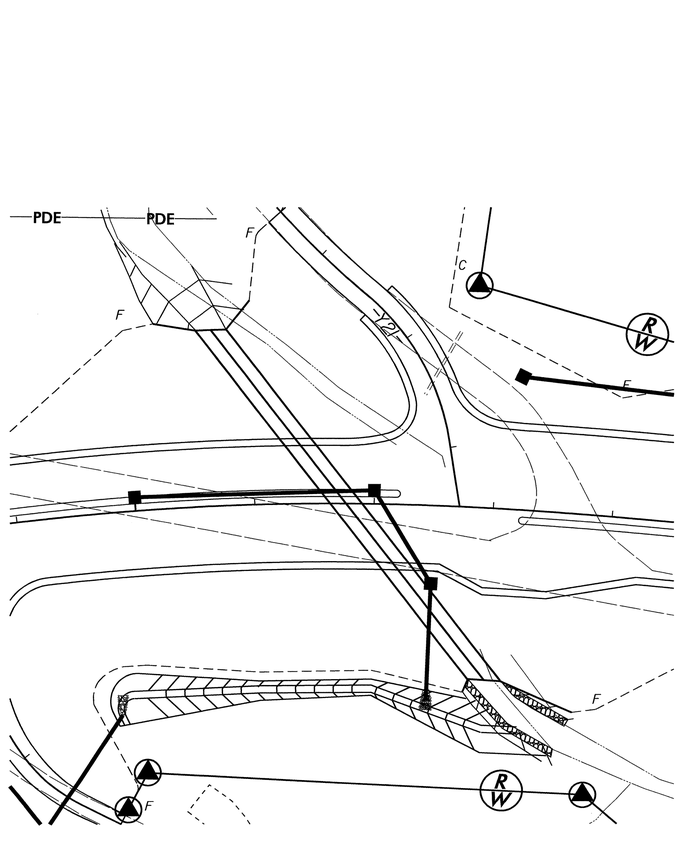
PHASE III

11. REMOVE IMPERVIOUS DIKES AND DIVERT FLOW THROUGH PROPOSED CULVERT.
12. REMOVE AS MUCH OF THE EXISTING CULVERT AND TEMPORARY 1700 CSP'S AS POSSIBLE AND BACKFILL.



PHASE IV

13. SHIFT TRAFFIC BACK TO EXISTING ROADWAY LOCATION.
14. REMOVE REMAINDER OF THE EXISTING CULVERT AND TEMPORARY 1700 CSP'S.
15. COMPLETE UPSTREAM AND DOWNSTREAM CHANNEL IMPROVEMENTS.
16. REMOVE ANY REMAINING TEMPORARY SHORING.
17. REMOVE STILLING BASIN B, AND COMPLETE ROADWAY.



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ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 34

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

NAD 83

METRIC
5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-47/CONST.34
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

STA. 115+06.547 -L-
END STATE PROJECT R-2518A

MATCH TO SHEET 33

IVY GAP BAPTIST CHURCH
DB 144 PG 91

STEPHEN FERGUSON
WILL 91E158

IVEY GAP BAPTIST CHURCH
DB 261 PG 717

BALD CREEK LODGE
DB 143 PG 63

JAY CHANDLER HEIRS
DB 105 PG 309

J.C. INGLE AND WIFE, KATHY INGLE
DB 409 PG 234

RANDY D. and CHLOE A. M
D.B. 232 I

PT Sta.10+09.367
-D17A- PCS Sta.10+00.889
BEGIN CONST.
POT Sta.10+00.000
BEARING AHEAD=
S 25° 33' 14.7" W

-BL-92-PINC 111+82.554
-L- Sta 111+82.554 127.93 RT

-BL-93-PINC 115+23.372=
-L- Sta 113+60.442 13.04 LT

PRC Sta 113+64.454
CS Sta 114+16.547

-L- POC Sta 112+08.000
-D17A- POT Sta.10+43.472
BEAR AH =
S 6° 48' 48.4" E

-D17A- POC Sta.10+43.472
BEAR BACK =
N 6° 48' 48.4" W

-D17A- POT Sta. 5+00.000
BEAR BACK =
S 11° 57' 58.8" E

-L- POC Sta 114+69.454
-D17A- POT Sta. 5+43.184
BEARING BACK =
S 11° 57' 58.8" E

ST Sta 115+06.547

END SBG STA. 114+69 -L-

NATURAL ROCK ENERGY DISSIPATOR (SEE DETAIL "V")

R/W FOR PARCEL 121 IS BEING ACQUIRED UNDER PROJECT R-2518B

8 x 3 x 1 ID 34.3C
12 x 2 x 1 ID 34.1C
12 x 2 x 1 ID 34.4C
15 x 6 x 1 51 mm Skimmer with 48 mm Orifice Diameter 3 m weir ID 34.2C

-L-			
PI Sta 112+45.145	PI Sta 113+90.517	PIs Sta 114+46.563	PI Sta 10+05.244
Δ = 35° 20' 41.0" (LT)	Δ = 4° 58' 28.2" (RT)	Os = 4° 17' 49.9"	Δ = 32° 23' 03.1"
L = 246.753	L = 52.093	Ls = 90.000	L = 8.478
T = 127.444	T = 26.063	LT = 60.018	T = 4.356
R = 400.000	R = 600.000	ST = 30.016	R = 15.0r
SE = 0.060	SE = 0.060		

FOR -L- PROFILE SEE SHEET *65
FOR -D17A- PROFILE SEE SHEET *77

R/W REV.: REVISING NAME ON PARCEL 113 (JAY CHANDLER HEIRS). 3/14/07 TFD

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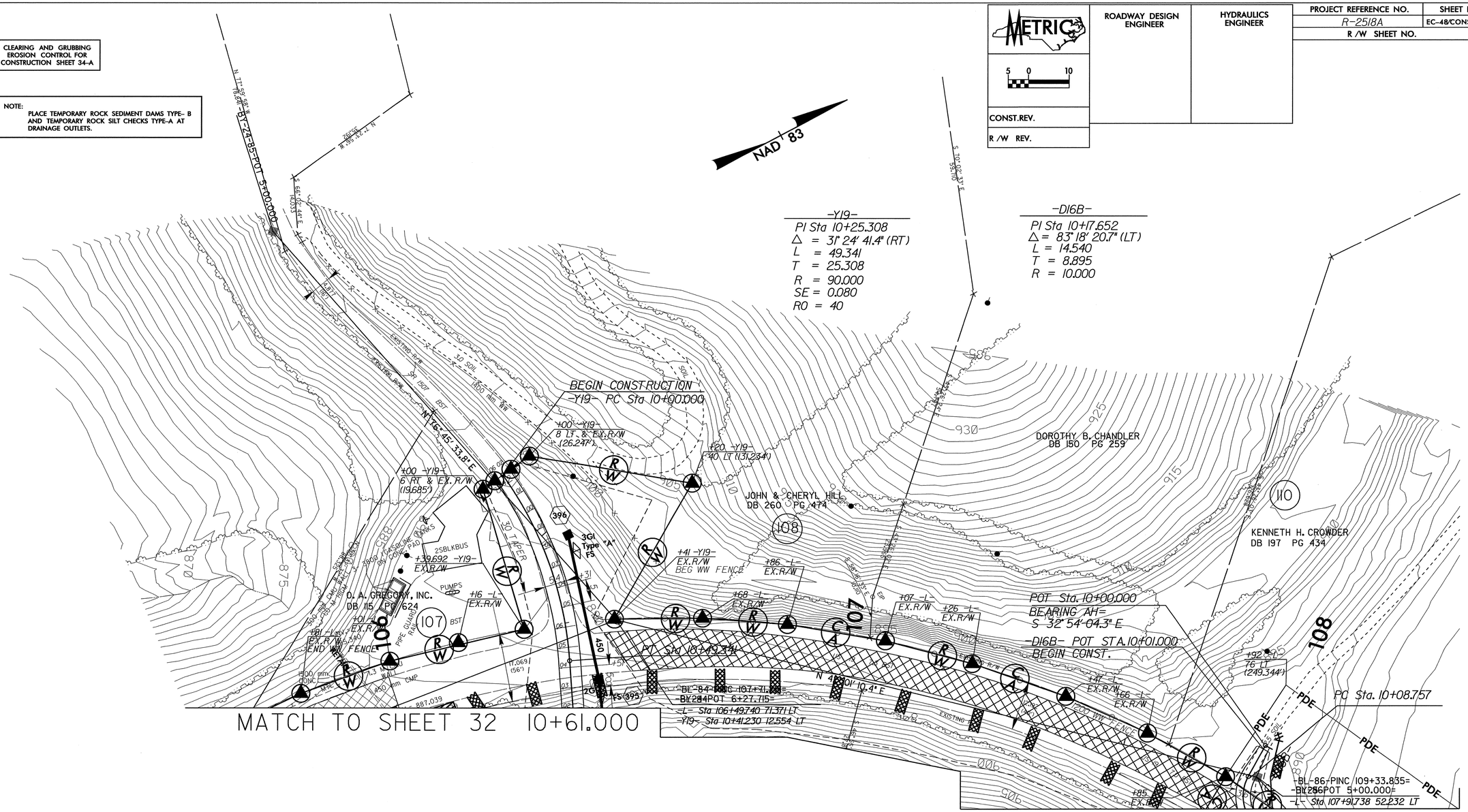
brentpeddle

METRIC	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	PROJECT REFERENCE NO.	SHEET NO.
5 0 10			R-2518A	EC-48/CONST.34-A
CONST.REV.			R/W SHEET NO.	
R/W REV.				

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 34-A

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



FOR -Y19- PROFILE SEE SHEET #76
FOR -Y16B- PROFILE SEE SHEET #78

R/W REV.: ADDING DRIVEWAY AND CONTROL OF ACCESS BREAK ON PARCEL 110 (KENNETH H. CROWDER). 11/28/06 DWK

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Kohan AH REN\231812

R/W REV.: REMOVING PROPOSED R/W, CHANGING PROPERTY LINE, NAME, AND DEED BOOK NUMBER ON PARCEL 3 (FROG DEVELOPMENT COMPANY, LLC). 11/28/06 DWK

8/17/98

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2518A	EC-49/CONST.4-A
CONST.REV.	R /W SHEET NO.	
R /W REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83

STA. 9+25.000 -L-
BEGIN STATE PROJECT R-2518A

STA. 8+00.000 -L-
BEGIN CONSTRUCTION

15 x 5 x 1
51 mm Skimmer
with 44 mm
Orifice Diameter
2 m weir
ID 4A.1C

ENT COMPANY, LLC
PG 165

POT Sta. 7+60.210

PC Sta. 8+21.099

-BL-3-PINC 7+53.820
-L- Sta 8+74.285 32.429 LT

-BL-4-PINC 8+61.893=
-L- Sta 9+63.128 23.078 LT

TO I-26
ASHEVILLE BOUND 20.7m BST

I-26 ON RAMP BST 9.2m BST

I-26 OFF RAMP 7.0m BST

27.6m BST
N 88° 52' 26.7" E

US 19 & 23 BST

US 19 23 BST

US 23 CONC ISL

MTL

900 mm CONC

RIP RAP

3-9 X 9 RCBC CONC HW

450 mm CMP

RETAIN

10+00

GR

BST

6 DR

REMOVE & REPLACE DI W/TBJB

TBJB

DI

375mm CMP

US 19 19 BST

20 TAPER

CS Sta 9+22.672

CB

400 mm CONC

600 mm CONC

450 mm CONC

RIP RAP

3-9 X 9 RCBC CONC HW

375mm CMP

EXISTING R/W

9+12.631
43.873

9+74.436
47.1

+54.942
51.789

SOIL

D C. NORTON
161 PG 271
161 PG 260

L. D. BALLARD
DB 93 PG 105

-L-

PI Sta 8+72.030
Δ = 10° 34' 52.5" (LT)
L = 101.573
T = 50.931
R = 550.000
SE = 0.050

PIs Sta 9+52.691
θs = 4° 41' 16.2"
Ls = 90.000
LT = 60.021
ST = 30.019

MATCH TO SHEET 4

FOR -L- PROFILE SEE SHEET #35-A

01-AUG-2007 10:21
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SP enhpco01e AT REN722148

R/W REV.: REMOVING PROPOSED R/W, CHANGING PROPERTY LINE, NAME, AND DEED BOOK NUMBER ON PARCEL 3 (FROG DEVELOPMENT COMPANY, LLC. 11/28/06 DWK

07-AUG-2007 10:05
User Name: Brennapolis
C:\projects\2518ea\prj\environmental\design\r2518ea04.psh
AY HEN/27145

8.(17.23)

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-50/CONST.4
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC

5 0 10

-YI-
PI Sta 10+68.288
△ = 68° 05' 00.1" (LT)
L = 35.648
T = 20.267
R = 30.000
SE = 0.080
RO = 64

PI Sta 12+16.185
△ = 48° 59' 25.3" (LT)
L = 102.605
T = 54.675
R = 120.000
SE = 0.070
RO = 42

-DIA-
PI Sta 10+28.190
△ = 86° 37' 15.7" (RT)
L = 37.796
T = 23.567
R = 25.000

PI Sta 10+76.800
△ = 19° 37' 13.0" (LT)
L = 5.137
T = 2.594
R = 15.000

-DIB-
PI Sta 10+17.232
△ = 13° 41' 08.5" (RT)
L = 9.554
T = 4.800
R = 40.000

NAD 83

MATCH TO SHEET 4-A

MATCH TO SHEET 5

10+00

13+20

450 mm CONC

18 x 6 x 1 64 mm Skimmer with 52 mm Orifice Diameter 3 m weir ID 4.8C

1200 WW FENCE

END WW FENCE

SC Sta 11+02.672

PC Sta 10+48.021

SRS Sta 10+12.672

BEG WW FENCE

POT Sta 10+00.000

BEGIN CONSTRUCTION
-YI- POT Sta 10+20.000

12 x 2 x 1 ID 4.4F

12 x 2 x 1 ID 4.5F

12 x 2 x 1 ID 4.3F

HERSHEL METCALF
DB 231 PG 791
DB 161 PG 269

ROY J. YOUNG
DB 89 PG 623
DB 91 PG 481

WINSTON LLOYD
DB 224 PG 464

HERSHEL METCALF
DB 161 PG 264
DB 161 PG 262
DB 216 PG 443

12 x 5 x 1 51 mm Skimmer with 39 mm Orifice Diameter 2 m weir ID 4.1C

8 x 3 x 1 38 mm Skimmer with 27 mm Orifice Diameter 2 m weir ID 4.7C

6 x 3 x 1 ID 4.1F

BEGIN SBG STA. 10+64 -L-

REMOVE

END SHOULDER GUTTER STA. 11+02 -L-

CL I RIPRAP 3.6 TONS 8.4 SM FF

ROD & LUG CONNECTORS W/SLEEVE GASKETS & ELBOWS

FILL W/FLOWABLE GROUT

REMOVE EXIST. DI

600 130 TURN LANE

PT Sta 10+83.670

PCSta.10+04.622
BEARING BACK = N 86° 08' 03.7" E

PTSta.10+42.418
BEARING AH = S 7° 14' 40.7" E

PCSta.10+74.207

PTSta.10+79.343
BEARING AH = S 26° 51' 53.7" E

PC Sta 11+61.510

END CONSTRUCTION
-YI- POC Sta 11+75.000

-DIA- POTSta.10+68.796
-DIB- POTSta.10+00.000
BEARING AH = S 3.3" E

PCSta.10+12.432

PTSta.10+21.987
BEARING AH = S 54° 22' 33.8" E

POTSta.10+34.474

POTSta.10+91.527

END CONSTRUCTION
-DIA- POTSta.10+85.000

Sta 11+21.562
Sta 10+82.775

Sta 11+02
Sta 10+72.954

Sta 10+09.062

Sta 10+44.915

Sta 10+13.421

Sta 10+17.400

Sta 10+79.250

Sta 11+39.168

Sta 10+91.632

Sta 10+74.000

Sta 10+41.844

Sta 10+24.699

Sta 10+00.000

Sta 10+28.190

Sta 10+76.800

Sta 10+17.232

Sta 10+29.469

Sta 10+42.432

Sta 10+21.987

Sta 10+02.000

Sta 10+07.000

Sta 10+22.000

Sta 10+34.474

Sta 10+91.527

Sta 10+85.000

+23 -L- 39.739 RT (130.377')

+40 -L- 40 RT (131.234')

+78 -L- 29.351 RT (96.296')

+68 -L- 27.364 LT (89.777')

+19 -L- 31 LT (101.706')

+94 -L- 78 LT (255.906')

+02 -L- 99 RT (324.803')

-DI- POTSta.10+09.40

-YI- POTSta.11+28.600

-DI- POTSta.10+24.699

-DIA- POTSta.10+00.000

-YI- POTSta.10+00.000

+41.844 -YI- 17.827 RT (58.488')

+66 -YI- 16 RT (52.493')

+75 -YI- 10 RT (32.808')

+75 -YI- 7.755 RT (25.443')

+05 -YI- 7.851 LT (25.640')

+07 -YI- 29 LT (95.144')

+22 -YI- 35 LT (114.829')

+45 -YI- 36 RT (118.110')

+29.469 -DIB- 9 LT (29.526') BEG WW FENCE

1200 WW FENCE

1200 mm CMP

1350 mm CMP

600 mm CSP

400 CSP

GRAU 350

TYPE M350

RETAIN

RIP RAP

PAINT STRIPED ISLAND

EXISTING R/W

EXISTING D/W

MTL BUS

ISFBUS

ISBKD

GR

S

F

184 TAPER

375

600

450

400

200

150

2GI Type "A" ELBOW

2GI

STBUB w/MH cover

DI

Dicocee 375

12 x 2 x 1 ID 4.3F

8/17/93

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-51/CONST.5
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC

5 0 10

NAD 83

MATCH TO SHEET 4

MATCH TO SHEET 9

13+20

16+60

14

15

16

ROY J. YOUNG
DB 89 PG 623
DB 91 PG 481

JAMES HARWOOD
DB 237 PG 101
DB 219 PG 73

ROBERT EATMON
DB 236 PG 756

JAMES T. LEDFORD
DB 171 PG 148
DB 164 PG 720

ERMA B. HARWOOD
DB 191 PG 337

E. W. DOAN HEIRS
DB 72 PG 136

MADELAN R. WILSON
DB 223 PG 109

WINSTON LLOYD
DB 224 PG 464

ROY J. YOUNG
DB 89 PG 623
DB 91 PG 481

1200 WW FENCE

CS Sta 13+71.598

SRS Sta 14+61.598

POT Sta. 11+40.550
END CONST.

-BL-10-PINC 14+31.86
-L- Sta 14+65.196 69.203 LT

-D2A- POT Sta. 11+50.231
-L- POC Sta. 14+89.193

PT Sta. 11+35.231
BRG AH =
N 36° 32' 46.0" W

SC Sta 15+51.598

-D2A- POT Sta. 10+00.000
BEARING AH =
S 8° 14' 42.1" W
BEGIN CONST.

PC Sta. 10+01.634

-D2- POT Sta. 10+71.906
-D2A- POC Sta. 10+04.500

PC Sta. 10+20.031

-L- POC Sta. 14+50.000
-D2B- POT Sta. 10+00.000
BEARING AH =
S 30° 46' 56.5" W

-D2B- POT Sta. 10+26.240
END CONST.

-D3- PT Sta. 10+14.879

-D3- PT Sta. 10+18.200
END CONST.

-D3- POT Sta. 10+28.533
BRG BK = S 39° 21' 02.5" W
-BL-11-PINC 16+07.67=
-L- Sta 16+19.901 26.440 RT
-YIA- Sta 10+56.845 26.440 RT

-D3B- PT Sta. 5+13.798
END CONST.

POT Sta. 5+30.904
BRG BK = S 27° 55' 07.1" W

-YIA- PT Sta. 12+74.660
-D3- PC Sta. 10+00.000 (70.604')
-YIA- PT Sta. 12+70.649 (18 LT)

END MIN. DEPTH SURF.
-YIA- Sta 12+70.649
-D3B- POT Sta. 5+00.000
-YIA- PT Sta. 12+45.000

-YIA- 74.660 LT (50.715')

-L-

PI Sta 12+41.588	PIs Sta 14+01.629	PIs Sta 15+21.632	PI Sta 17+85.300
△ = 35° 25' 17.4" (RT)	θs = 5° 55' 37.7"	θs = 5° 55' 37.7"	△ = 56° 29' 36.1" (LT)
L = 268.927	Ls = 90.000	Ls = 90.000	L = 428.908
T = 138.916	LT = 60.034	LT = 60.034	T = 233.702
R = 435.000	ST = 30.031	ST = 30.031	R = 435.000
SE = 0.060			SE = 0.060

-D2A-

PI Sta 10+11.541	PI Sta 10+90.196
△ = 52° 42' 11.3" (RT)	△ = 82° 30' 20.6" (RT)
L = 18.397	L = 115.200
T = 9.907	T = 70.165
R = 20.000	R = 80.000

-D3-

PI Sta 10+09.203
△ = 85° 14' 52.7" (LT)
L = 14.879
T = 9.203
R = 10.000

12 x 2 x 1
ID 5.1F

12 x 2 x 1
ID 5.7F

22 x 6 x 1
3 m weir
ID 5.8F

6 x 1 x 1
ID 5.2F

6 x 1 x 1
ID 5.4F

5 x 1 x 1
ID 5.2F

5 x 1 x 1
ID 5.5F

Special Cut Ditch
(See Detail "C")

Lateral Base Ditch
(See Detail "T")
DIA = 84 CM
CLASS B - 33 MPa
FF = 20° 69 SQ. M

REMOVE HEADWALL AND FILL W/FLOWABLE GROUT

REMOVE CONC. SPRING BOX

SPRING DRAIN
WATER LEECHES INTO GROUND
(NO DRAIN LINES)

REMOVE GRAU 350

BEGIN SBG
STA 14+78.1 -L-

END. SBG
STA. 15+36 -L-

REMOVE ROD & LUG CONNECTORS W/SLEEVE GASKETS & ELBOWS

ACCESS POINT

FOR -L- PROFILE SEE SHEET #36
FOR -D2, -D2A- & -D3- PROFILE SEE SHEET #74
FOR -D2B- PROFILE SEE SHEET #79

07-AUG-2007 10:23
User: cgoodson
Branch: pos1a
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AT REN22145

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-52/CONST.6
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

NAD 83

-Y3-
PI Sta 11+11.026
△ = 42° 16' 01.7" (LT)
L = 73.770
T = 38.654
R = 100.000
SE = 0.080
R0 = 40

-Y1A-
PI Sta 10+39.907
△ = 83° 25' 39.7" (RT)
L = 43.683
T = 26.742
R = 30.000
SE = 0.080
R0 = 40

PI Sta 11+75.618
△ = 56° 43' 34.2" (RT)
L = 217.813
T = 118.770
R = 220.000
SE = 0.080
R0 = 40

-D2-
PI Sta 10+28.076
△ = 67° 41' 32.8" (RT)
L = 29.536
T = 16.765
R = 25.000

-D3C-
PI Sta 10+09.762
△ = 64° 15' 11.2" (LT)
L = 11.214
T = 6.279
R = 10.000

PI Sta 10+36.
△ = 70° 24' 51.
L = 12.290
T = 7.056
R = 10.000

BEGIN CONST.
-L-
T
399')
+02 -L-
108 LT
(354.331')
+05 -L-
89 LT
(291.995')
PT Sta. 10+40.847
S 83° 48' 56" E
102.536'
MATCH TO SHEET 5
16+60
17
18
19
20+00
MATCH TO SHEET 7
10
ROBERT EATMON
DB 236 PG 756
PAUL & SUSAN ALLMAN
D.B. 211 PG. 736-737
10A
9
ERMA B. HARWOOD
DB 191 PG 337
HTR
GR
12 x 2 x 1
ID 6.3F
16 x 6 x 1
51 mm Skimmer
with 49 mm
Orifice Diameter
2 m weir
ID 6.9C
24 x 7 x 1
64 mm Skimmer
with 59 mm
Orifice Diameter
3 m weir
ID 6.4F
Lateral Base Ditch
(See Detail "T")
+22 -L-
47 LT
(154.99')
+39 -L-
33 LT
(108.268')
+75 -L-
36 LT
(118.110')
1200 WW FENCE
CS Sta 19+80.506
130 TURN LANE
DDE-160 CM
CL TRIP RAP = 345 MTN
FF = 198 SM
TAPER
CAT-1
EXISTING R/W
END CULVERT
STA 19+78.579
BEGIN CULVERT
STA 19+66.520
REMOVE
4@16-40
OS
SEE MITIGATION
PLAN
-BY3-POT 5+00.000=
-BL-14-PINC 20+14.854=
-LT- Sta 19+89.407 12.785 RT
-Y3- Sta 10+16.299 31.373 RT
PREFORMED
SCOUR HOLE
(See Detail "D")
END CONSTRUCTION
-Y3- POC Sta 11+40.000
ROD & LUG CONNECTORS
W/SLEEVE GASKETS @ ELBOWS
PT Sta 11+46.142
+40 -Y3-
3.865) LT
(12.680')
+40 -Y3-
3.424 RT
(11.234')
+46 -Y3-
9.528') LT
(29.528')
+45 -Y3-
3.300 RT
(10.827')
-BY3-15-POT 6+20.938
(31.372')
END WW FENCE
BEG WW FENCE
600 mm CMP
7.32m
(24.00')
-L- POC Sta 18+50.599
-Y1A- POT Sta 9+99.745
BRG AH =
S 14° 30' 38" E
PCCSta.10+56.848
-Y1A- POC Sta.10+60.000
BRG. AH = S. 20° 15' 42.8" E
-D3C- POT Sta. 10+00.000
PT Sta. 10+14.69
BRG AH =
S 84° 30' 54.0" E
PC Sta. 10+03.483
PT Sta. 10+41.324
POT Sta. 10+45.162
BEARING BK =
S 14° 06' 02.3" E
PCSta
-L-
-Y1A-
-BL-13-PINC 18+62.6
BEG WW FENCE
-Y1A-
17.284 LT
(56.706')
+33 -Y1A-
+18 -L-
25.248 RT
(82.535')
+90 -L-
33.265 R
(109.137')
+35 -L-
31 RT
(101.706')
+65.27
+65.27
+30 -L-
20 LT
(65.617')
+16 -Y1A-
19 LT
(62.336')
MADELYN R. WILSON
DB 233 PG 109
+01 -Y1A-
6.459 LT
(21.191')
+76 -Y1A-
6.521 LT
(21.394')
PROP GR W/EXTRA
LENGTH POSTS
PDE
CLASS B RIPRAP
3.6 TONS
-BL-12-PINC 17+36.493 EE
-L- Sta 17+45.173 54.602 RT
-Y1A- Sta 17+45.173 54.602 RT
END CONSTRUCTION
-Y1A- POC Sta 11+30.000
BEGIN MIN. RESURF. DEPTH
+30 -Y1A-
9 LT (29.528')
BEG WW FENCE
+30 -Y1A-
6.448 LT & 13 LT
(21.155') (42.651')
+55 -Y1A-
5.613 LT
(18.612')
+51 -Y1A-
6.309 & 16 (20.699' & 52.493')
+58 -Y1A-
6.391 & 17 (20.968' & 55.774')
+19 -Y1A-
17 LT
(55.774')
+76 -Y1A-
14.593 LT
(47.877')
+60 -Y1A-
16 LT (52.493')
+66 -Y1A-
15.325 LT (50.279')
& 19 LT
(62.336')
+51 -Y1A-
26.490 LT
END WW FENCE
(86.909')
+48 -Y1A-
33 LT
(108.268')
+83 -Y1A-
38 LT
(124.672')
+74 -Y1A-
42 LT
(137.795')
Standard Base Ditch
(See Detail "B")
+98 -L-
33.528 RT
(110.000')
Standard Base Ditch
(See Detail "B")
+20 -L-
41.343 RT
(29.796')
+61 -L-
40.372 RT (31.176')
END WW FENCE
REMOVE HEADWALL AND
FILL W/FLOWABLE FILL
GRADE TO
DRAIN
600 mm RCP
N 77° 55' 45.9" E
GRAU 350
S 10° 50' 10.7" E
1200 WW FENCE
N 54° 14' 04.5" E
5 x 2 x 1
2 m weir
ID 6.13C
14 x 7 x 1
51 mm Skimmer
with 50 mm
Orifice Diameter
2 m weir
ID 6.1F
22 x 7 x 1
64 mm Skimmer
with 63 mm
Orifice Diameter
3 m weir
ID 6.10C
6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 6.11C
9 x 3 x 1
38 mm Skimmer
with 29 mm
Orifice Diameter
2 m weir
ID 6.2F
7 x 3 x 1
38 mm Skimmer
with 25 mm
Orifice Diameter
2 m weir
ID 6.8C
ACCES

8/17/99

11- DEC-2007 14:13
User:Name
Division: Name
Location: Name
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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-53/CONST.7
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

NAD 83

MATCH TO SHEET 6

MATCH TO SHEET 8

-L- POS Sta 20+23.523
-Y2- POC Sta 12+45.704
-Y3- POC Sta 9+99.981

PCSta.11+66.227
BRG BK = S 39° 51' 51.5" W

PSH (See Detail "C")

END APP. SLAB Sta 11+49.468

BEGIN SBG STA. 11+02(+/-)LT.-Y2-
END SBG AT BRIDGE ABUTMENT LT -Y2-
BEGIN APP.SLAB STA 11+10.532

CLASS II RIP RAP (BOTH SIDES)

ROBERT EATMON
DB 236 PG 756

16 x 6 x 1 51 mm Skimmer with 49 mm Orifice Diameter 2 m weir ID 6.9C

FILL W/ FLOWABLE GROUT

PREFORMED SCOUR HOLE (See Detail "O")

553.636

UPPER GREENLE CORP.
DB 163 PG 132

CAT-1

ST Sta 20+70.506

14 x 5 x 1 51 mm Skimmer with 43 mm Orifice Diameter 2 m weir ID 7.2C

Special Cut Ditch (See Detail "C")

FS Sta 20+83.384

-L- POT Sta. 20+77.500

-D3A- POT Sta. 10+00.000

PREFORMED SCOUR HOLE (See Detail "O")

DAVID PARKER
DB 196 PG 627
DB 183 PG 122
DB 171 PG 516

BEGIN BRIDGE STA 11+14.750

END BRIDGE STA 11+45.250

CLASS I RIPRAP

TYPE B-77

TYPE B-77 TOP CURVED

REMOVE EXISTING DI & PIPES

PT Sta 11+17.008

GRASS SWALE SEE DETAIL "E"

Y+47.228

PC Sta 11+43.384

4 x 2 x 1 38 mm Skimmer with 16 mm Orifice Diameter 2 m weir ID 7.1C

4 x 2 x 1 38 mm Skimmer with 16 mm Orifice Diameter 2 m weir ID 7.8C

8 x 3 x 1 38 mm Skimmer with 27 mm Orifice Diameter 2 m weir ID 7.7C

6 x 2 x 1 38 mm Skimmer with 19 mm Orifice Diameter 2 m weir ID 7.6C

ACCESS POINT

MOLDED CONCRETE FLUME END TREATMENT CLASS A SM FF

+97 -Y2- 68 RT (223.097')
+74 -Y2- 55 RT (180.446')
+39.09 -Y2- 37.220 RT (122.114')
1200 WW FENCE
+15 -Y2- 21 RT (68.898')
+96 -Y2- ON R/W END WW FENCE
+87 -Y2- 23 RT (75.459')

PCSta.10+84.271
BRG AH N 79° 42' 15.0" W

DAVID PARKER
DB 238 PG 380

+20 -L- 63 LT (206.693')
+20 -Y2- 15 RT (49.213') BEG WW FENCE
+06 -Y2- 8 RT (26.246')

+31.246 -L- 67.683 LT (222.056')
+35.793 -L- 60.942 LT (199.941') END WW FENCE
+50 -L- 65 LT (213.254')
+52 -L- 61.526 LT (201.857')

SAMUEL ROGER FOX
DB 159 PG 219-220

WANDA FOX EDWARDS
DB 159

JAMES MICHAEL LEDFORD
DB 238 PG 10

WARREN C. ANDERS
DB 164 PG 649

+48.695 -L- 54.552 LT (178.976')
+57 -L- 32.714 LT (107.329')

+51.408 -L- 47.358 LT (155.374')
BEG WW FENCE

+86.120 -L- 30.484 LT (100.014') END WW FENCE

+02.959 -L- 29.311 LT (96.164') BEG WW FENCE

ACCESS POINT

CS Sta 23+11.257

Special Cut Ditch (See Detail "C")

10 x 2 x 1 ID 7.9F

-2- PC Sta 10+00.000 JCT ION

PRC Sta. 10+16.952

ROD & LUG CONNECTORS W/ SLEEVE GASKETS & ELBOW

MICHAEL LANE DUCKER
DB 234 PG 665

CONTEL LEASE
DB 148 PG 17

SEE MITIGATION PLANS FOR STREAM DESIGN

REMOVE HEADWALL & FILL W/FLOWABLE GROUT

REMOVE SPRING BOX

8 x 2 x 1 ID 7.6F

BEGIN CULVERT STA 2+32.886

END CULVERT STA 2+42.707

3-450 x 3.0 RCBC

N 52° 31' 59.3" E

N 50° 13' 5.3" E

+11.000 -L- 19.018 RT (62.398') BEG WW FENCE

+11.000 -L- 36.825 RT (120.819') END WW FENCE

PCSta.10+10.591
BEARING BACK = S 46° 10' 47.0" E

PRC Sta 10+22.629

PTSta.10+38.345
BEARING AH = N 54° 18' 47.0" E

PRC Sta 10+72.372

PI Sta 10+06.473
Δ = 5°52' 46.2"
L = 16.932
T = 8.47
R = 16
SE =

+60 -Y3- 56 LT (183.727')
+40 -Y3- 19 LT (62.336')
+22 -Y3- 48 LT (157.480')

+82 -L- 57 RT (187.008')

+00 58 RT (190.288')

15 x 5 x 1 51 mm Skimmer with 44 mm Orifice Diameter 2 m weir ID 7.3C

BRYAN AND JOYCE E. ANDERS REVOCABLE TRUST

+21 -L- 33 RT (108.268')

POT Sta.10+60.650

+53 -L- 23 & 33 RT (75.459' & 108.268')

+62.386 -L- 23.195 RT (76.099') END WW FENCE

+80.629 -L- 23.431 RT (76.874') BEG WW FENCE

+36 -L- 23 RT (75.459')

+48.831 -L- 23.202 RT (76.123') END WW FENCE

+70.257 -L- 25.333 RT (76.552') BEG WW FENCE

+40 -L- 22 RT (72.179')

BRYAN AND JOYCE E. ANDERS REVOCABLE TRUST
DB 267 PG 429

-BL-16-PINC 22+30.104=
-BY4-POT 5+51.109=
-BY5-POT 5+60.865=
-L- Sta 22+03.494 0.570 LT

12 x 2 x 1 ID 7.5F

DAVID PARKER
DB 171 PG 516
DB 183 PG 122
DB 196 PG 627

ISFBUS

LOADING DOCK

ACCESS POINT

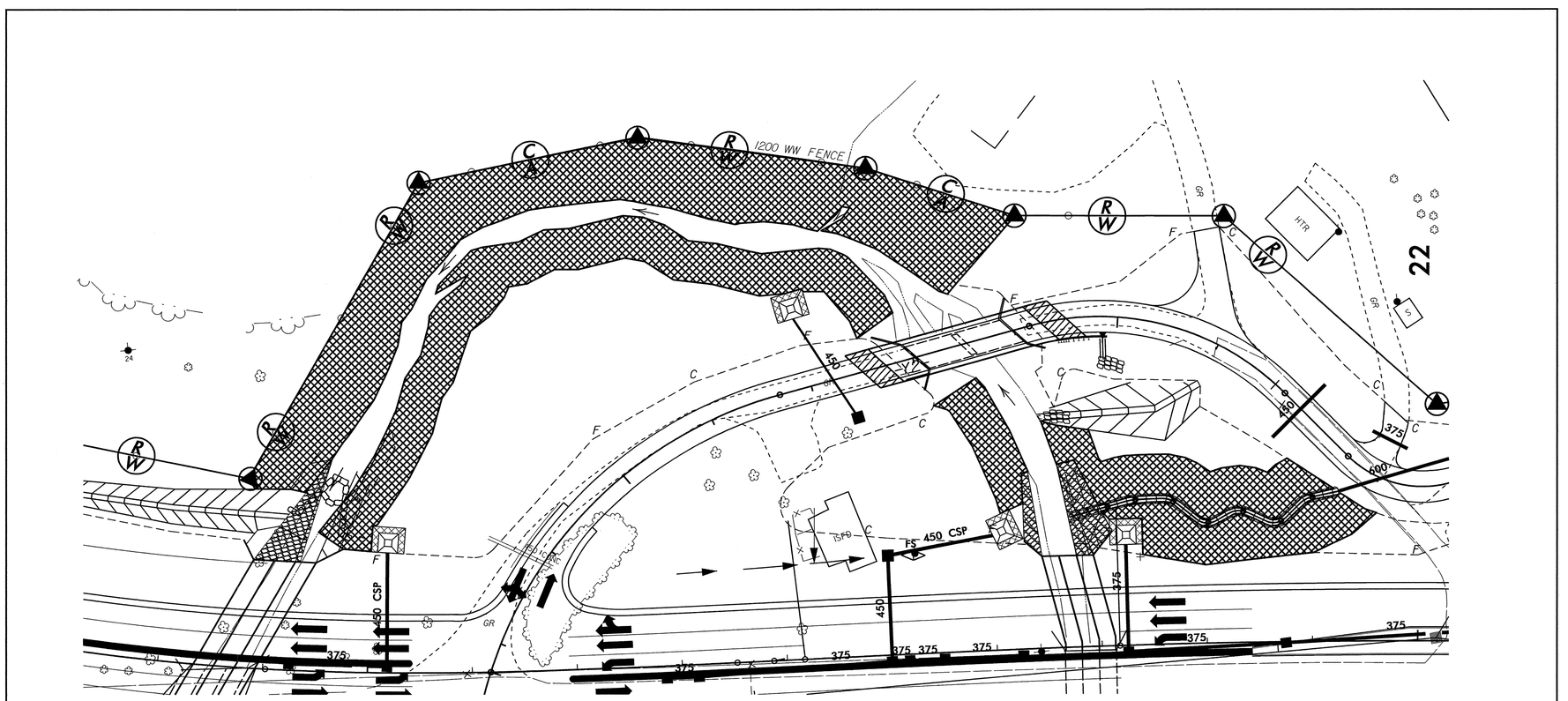
NOTE: UTILIZE SKIMMER BASIN AS STILLING BASIN WHERE APPLICABLE.

08-AUG-2007 15:53
$dgn_file
$user_name
$cell_library_list
$active_attachments

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-54/CONST.7
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

.42 HECTARE STREAMBANK REFORESTATION



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

8/17/98

R/W REV.: ADDING A DRIVE WITH A CONTROL OF ACCESS BREAK ON PARCEL 15 (BRYAN ANDERS). 11/28/06 DWK

07-AUG-2007 10:38
User:ashepard
BP-ashepard01e
$1" REEN22.1x46"

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-55/CONST.8
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC
5 0 10

CONST.REV.

R /W REV.

NAD 83

20
JAMES MICHAEL LEDFORD
DB 238 PG 10

MICHAEL WILSON
DB 133 PG 9

22
ROTHA WILSON
DB 121 PG 136

MICHAEL WILSON
DB 121 PG 123

24

21
WARREN C. ANDERS
DB 164 PG 649

26

24
CLYDE ENGLISH
DB 172 PG 708

S 46° 20' 35" W 66.570
S 42° 12' 56" W 47.576
N 31° 23' 55" W 47.100
N 42° 45' 49" W 85.58
S 58° 00' 00" W 38.100
S 67° 39' 59" W 30.053
S 78° 00' 00" W 19.688
S 41° 14' 00" E 14.54
S 41° 13' 55" E 20.08
S 30° 24' 09" W 96.09

-D4A- PCSta.10+00.000
BEGIN CONSTRUCTION
BEARING AH =
S 29° 38' 48.9" E

PC Sta. 10+02.254

PT Sta. 10+22.660
BEARING AH =
N 72° 24' 32.4" E

PC Sta. 10+37.220

PT Sta. 10+52.924
BEARING AH =
S 32° 36' 32.9" E
-D4A- POT Sta. 10+65.621
-L- POT Sta. 25+73.798

+50 -L-
88 LT
(288.714')

+70 -L-
44 LT
(144.357')
BEG WW FENCE

+28.579 -L-
44 LT (144.357')
END WW FENCE

+19 -L-
44 LT (144.357')

+54.930 -L-
23.056 LT (75.644')
BEG WW FENCE

+36.944 -L-
23.733 LT (77.864')
END WW FENCE

+80 -L-
22 LT
(72.178')

ACCESS POINT

1200 WW FENCE

DRIVEWAY TO BE PAVED
SEE TYPICAL NO.12

6 x 2 x 1
ID 8.2F

12 x 2 x 1
ID 8.3F

12 x 2 x 1
ID 8.4F

ST Sta 23+71.257

TYPE "A"
Special Cut Ditch
(See Detail "C")

HTR BUS

130 TURN LANE

REMOVE
N 59° 59' 37.6" E

N 60° 16' 59.3" E

FLAG POLES

EXISTING R/W

US 19 T.D BST

6 DR

3.6 DR

2.8 SOIL

TAPER

1100 mm 55BW

1100 mm 45BW

450 mm CMP

MATCH TO SHEET 7 23+40

TO SHEET 9 26+80

+40 -L-
22 RT
(72.179')

-BL-19-PINC 24+50.867=
-L- Sta 24+24.154 14.334 RT

12 x 5 x 1
ID 8.1F

15
BRYAN AND JOYCE E. ANDERS
REVOCABLE TRUST
DB 267 PG 429

+36 -L-
22.015 RT (72.228')
END WW FENCE

ACCESS POINT

BEGIN GATE 2.438 (8') +60

+54.138 -L-
22.009 RT (72.208')
BEG WW FENCE

+80 -L-
22 RT
(72.178')

+39 -L-
38 RT
(124.612')

08.314
24.597 RT
(74.137')
END WW FENCE

+11 -L-
22 RT
(72.178')

ACCESS POINT

-BL-20-PINC 26+47.730=
-L- Sta 26+21.015 15.328 RT

+26.314
22.516 RT (73.872')
BEG WW FENCE

RANDALL J. McKINNEY
NO DEED
23

9 x 2 x 1
38 mm Skimmer
with 23 mm
Orifice Diameter
2 m weir
ID 8.2C

-L-
PIs Sta 23+31.258
Θs = 0° 58' 56.0"
Ls = 60.000
LT = 40.001
ST = 20.001

-D4A-
PI Sta 10+14.388
Δ = 77° 56' 38.7" (LT)
L = 20.406
T = 12.135
R = 15.000

PI Sta 10+46.425
Δ = 74° 58' 54.7" (RT)
L = 15.704
T = 9.205
R = 12.000

FOR -L- PROFILE SEE SHEET *39
FOR -D4A- PROFILE SEE SHEET *75

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-56/CONST.9
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

NAD 83

-L-
PIs Sta 27+54.091
Θs = 1° 25' 56.6"
Ls = 60.000
LT = 40.001
ST = 20.001

PI Sta 29+56.270
△ = 17° 15' 54.2" (LT)
L = 361.599
T = 182.180
R = 1,200.000
SE = 0.040

-Y4-
PI Sta 10+62.692
△ = 98° 41' 39.0" (LT)
L = 51.676
T = 34.936
R = 30.000
SE = 0.080
RO = 40

MATCH TO SHEET 8

MATCH TO SHEET 10

TS Sta 27+14.090

SC Sta 27+74.090

SAL ANNONE
DB 243 PG 727
DB 255 PG 265

CLYDE ENGLISH
DB 172 PG 708

DAVID D. DOAN
DB 172 PG 181

RANDALL J. McKINNEY
NO DEED

S EDWARD EATMON
PG 753
PG 638

ERNEST H. MCKINNEY
DB 147 PG 314

DAVID DOAN
DB 256 PG
DB 158 PG

-L- POC Sta 30+06.876
-Y4- POT Sta 10+00.000

-BL-22-PINC 30+18.939=
-BY62POT 5+00.000=
-L- Sta 29+89.190 16.489 RT
-YIA- Sta 10+16.357 17.928 RT

PC Sta 10+27.756
BEARING BK =
S 42° 33' 11.9" E

12 x 2 x 1
ID 9.4F

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 9.1F

6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 9.2F

11 x 2 x 1
38 mm Skimmer
with 26 mm
Orifice Diameter
2 m weir
ID 9.6C

7 x 2 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
2 m weir
ID 9.7C

REMOVE HEADWALL & FILL W/FLOWABLE FILL

CLASS B RIPRAP
4.5 TONS
11.7 SM FF

Special Cut
Base Ditch
(See Detail "K")

SEE MITIGATION PLANS
FOR STREAM DESIGN

ROD & LUG CONNECTORS
W/SLEEVE GASKETS & ELBOWS

PREFORMED
SCOUR HOLE
(SEE DETAIL "O")

ELBOW

PDE

1200 WW FENCE

ACCESS POINT

REMOVE

REMOVE DI

ISFBUS

ISBKD

HTR

BST

GRAU 350

N 59° 59' 37.6" E

N 58° 41' 50.6" E

N 51° 56' 20.0" E
TURN LANE

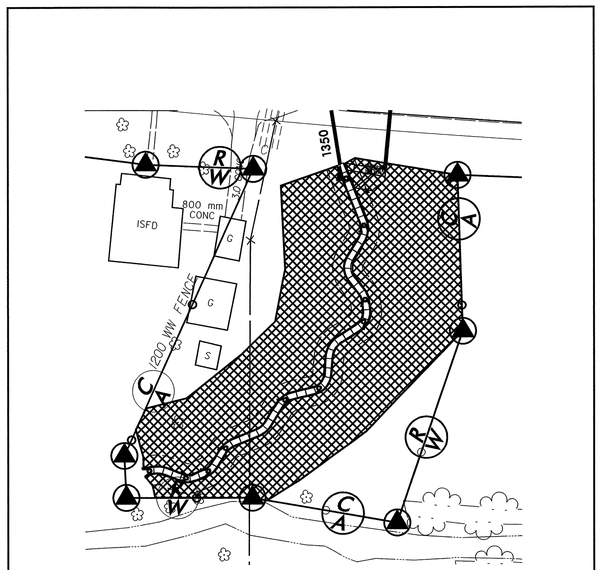
FOR -L- PROFILE SEE SHEET *40
FOR -Y4- PROFILE SEE SHEET *67

R/W REV.: CHANGING PARCEL NUMBER 30 TO 31 (DAVID DOAN). 3/14/07 TFD

11-DEC-2007 14:33
C:\Projects\2518a\environmental\design\r2518asd9.pah
Microstation V8
DGN File(s): r2518asd9.dgn

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2518A	EC-57/CONST.9
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

0.17 HECTARE STREAMBANK REFORESTATION



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

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-58/CONST.10
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

-L-
PI Sta 29+56.270
△ = 17° 15' 54.2" (LT)
L = 361.599
T = 182.180
R = 1,200.000
SE = 0.040

Pls Sta 31+55.690
Θs = 1° 25' 56.6"
Ls = 60.000
LT = 40.001
ST = 20.001

-Y4-
PI Sta 10+62.692
△ = 98° 41' 39.0" (LT)
L = 51.676
T = 34.936
R = 30.000
SE = 0.080
RO = 40

PI Sta 11+10.639
△ = 42° 37' 12.9" (RT)
L = 59.509
T = 31.207
R = 80.000
SE = 0.080

-Y5-
PI Sta 10+35.311
△ = 38° 53' 49.3" (LT)
L = 67.888
T = 35.311
R = 100.000
SE = 0.030
RO = 18

-D5-
PI Sta 10+41.997
△ = 47° 31' 03.2" (RT)
L = 29.027
T = 15.407
R = 35.000

-D6-
PI Sta 10+23.456
△ = 34° 12' 18.9" (LT)
L = 17.910
T = 9.231
R = 30.000

14 x 5 x 1
51 mm Skimmer
with 43 mm
Orifice Diameter
2 m weir
ID 10.4C

NAD 83

MATCH TO SHEET 9 30+20

MATCH TO SHEET 11 33+60

12 x 2 x 1
ID 10.1F

1200 WW FENCE

+81 -L-
60 LT
(196.850')

+33 -L-
48.671 LT (159.682')
BEGIN WW FENCE

ACCESS POINT

34
PAUL P. BRIGGS, JR.
39 PG 44

32
ERNEST H. MCKINNEY
DB 147 PG 314

+13 -L-
28 LT (91.864')
END WW FENCE

130 TURN LANE

Standard Base Ditch
(See Detail "W")

CS Sta 31+35.689
2.4m X 2.4m RCBC

BEGIN CONSTRUCTION
-Y5- PC Sta 10+00.000
-D5- POT Sta. 10+61.687
-Y5- PC Sta 10+42.995
-BY7-25-POT 6+06.972 CL B RIPRAP
-Y5- Sta 10+49.982 5.727 RT 2.7 TONS
9.2 SM FF

PT Sta 10+67.888
BEARING AH =
S 50° 25' 06.8" E

-D5- POC Sta.10+18.62
BEGIN CONST.

POT Sta. IC

+00 -Y5-
30 RT (98.425')

+00 -Y5-
END WW FENCE

+00 -Y5-
7.494 RT
(24.587')

+28 -Y5-
87.856 LT
(287.356')

+43 -L-
71 LT
(232.940')
BEG WW FENCE

+45 -L-
50 LT
(164.042')
1200 WW FENCE

+64 -L-
50 LT
(164.042')

CEMETERY

33

ACCESS POINT

PCSta.10+14.226

POT Sta.10+00.000
BEARING AH =
S 0° 55' 52.3" E

+94 -L-
29 LT
(95.144')
END WW FENCE

PCSta.10+26.590

PT Sta.10+55.617
= S 38° 50' 31.6" W

MISSIONARY BAPTIST CHURCH

37

6 x 1 x 1
ID 10.3F

PT Sta.10+32.135
BEARING AH =
S 35° 08' 11.1" E

-L- POT Sta.32+88.500

-D6- POT Sta.10+43.083

-Y5- POT Sta 10+86.301
ST Sta 31+95.68

BEG. SBG
STA. 33+23 -L-

+10.961 -L-
29.383 LT (98.042')
BEG WW FENCE

CAT-1

1200 WW FENCE

130 TAPER

PAUL P. BRIGGS, JR.
DB 239 PG 44

N 39° 51' 50.1" E

US 19 T.D. BST

N 45° 44' 17.5" E

+93 -L-
21 RT & 34
(68.898' & 111.549')

1200 WW FENCE

BY7-POT 5+00.000
-BL-23-PINC 31+20.858
-L- Sta 31+20.937 17.209 RT

+82 -Y4-
21.580 LT
(70.801')

+23 -L-
22 RT (72.179')

+95 -Y4-
13.961 LT
(45.804')

10 x 5 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 10.3F

+29 -Y4-
15.080 LT
(49.475')

BEG WW FENCE

GRAU 350

N 16° 15' 57.4" E

DEWEY ROBINSON
DB 119 PG 489

33

+06 -L-
ON R/W

+40 -Y4-
8 LT
(26.247')

+44 -Y4-
3.004 LT
(9.856')

Remove 300 mm CMP

Standard Base Ditch
(See Detail "J")

Rip Rap at Embankment
(See Detail "")

+31 -L-
ON R/W

ISFD ABAND

1200 mm CONC WALL

CONC

ISFD

SEE MITIGATION PLANS
FOR STREAM DESIGN

35

DAVID DOAN
DB 256 PG 289
DB 158 PG 505

31

1200 WW FENCE

+40 -Y4-
8 RT
(26.247')

PT Sta 11+38.941

+38 -Y4-
LANDSCAPE CLOTH
WITH SHRUBS

END WW FENCE

END CONSTRUCTION
-Y4- POT Sta 11+40.000

PRC Sta 10+79.432

-BY6-24-PINC 6+45.862
-Y4- Sta 11+63.601 3.356 RT

5 x 2 x 1
38 mm Skimmer
with 17 mm
Orifice Diameter
2 m weir
ID 10.1C

N 27° 22' 20.2" E

+72 -Y4-
3.047 LT
(9.997')

DONALD P. RICE
DB 205 PG 584

POT Sta 11+78.941

ROD & LUG CONNECTORS
W/SLEEVE GASKETS &
ELBOWS

CL B RIPRAP
2.7 TONS
8.4 SM FF

400 CSP

2GI

I-2.4 X 2.4 RCBC

ELBOW

CAT-1

EXISTING R/W

+01 -L-
23 RT
(75.459')

+80 -L-
37 RT
(121.391')

38
DAVID DOAN
DB 357 PG 336

10 x 3 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
2 m weir
ID 10.2F

4 x 2 x 1
38 mm Skimmer
with 16 mm
Orifice Diameter
2 m weir
ID 10.8C

39
C. YOUNG
175 PG 36

-BL-26-PINC 32+90.946
-L- Sta 32+58.836 17.568 RT

FOR -L- PROFILE SEE SHEET #41
FOR -Y4- PROFILE SEE SHEET #67
FOR -Y5- PROFILE SEE SHEET #67
FOR -D5-&-D6- PROFILE SEE SHEET #74

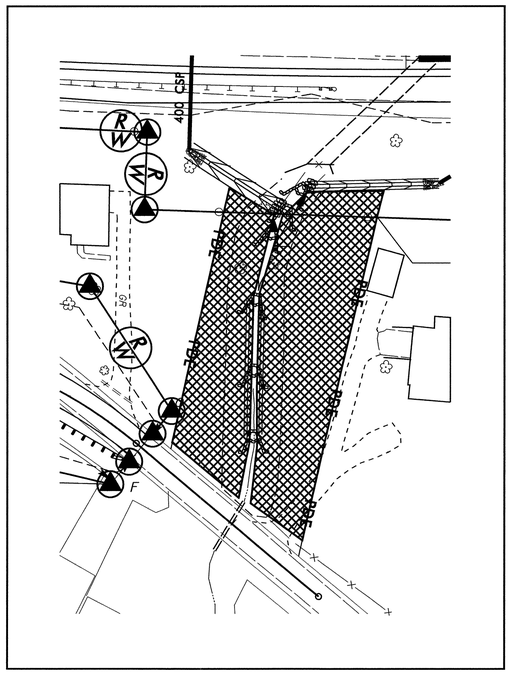
R/W REV.: CHANGING PARCEL NUMBER 30 TO 31 (DAVID DOAN). 3/14/07 TFD

8/17/23

1-DEC-2007 15:31
G:\Projects\2518a\environmental\design\r2518asl0.pah
Substation AT REV(22.41)

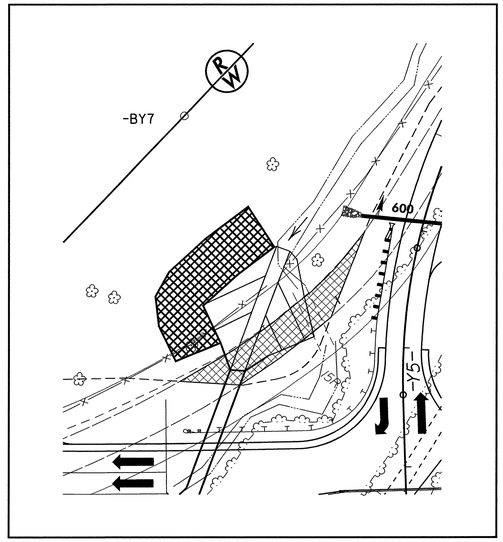
METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2518A	EC-59/CONST.10
	R/W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

.13 HECTARE STREAMBANK REFORESTATION



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

.03 HECTARE STREAMBANK REFORESTATION



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

R/W REV.: CHANGING PARCEL NUMBER 38 (LEFT) TO 40 & REVISING NAME & DEED BOOK NUMBER (KERRY DAWN PARKER). 3/14/07 TFD

08-AUG-2007 12:10
User=PAUL
At REV=2518

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-60/CONST.11
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.

NAD 83

-L-
PIs Sta 36+93.043
Θs = 2° 23' 14.4"
Ls = 75.000
LT = 50.005
ST = 25.004

-Y6-
PI Sta 10+69.669
△ = 12° 04' 14.6" (RT)
L = 48.455
T = 24.318
R = 230.000
SE = 0.080
RO = 40

-D6B-
PI Sta 10+24.342
△ = 53° 52' 09.1" (LT)
L = 23.505
T = 12.702
R = 25.000

+65 -L-
114 LT
(374.016')

+46 -L-
108 LT
(354.331')

1200 WW FENCE

N 37°42'09" E
26.694

N 68°23'17" E
14.048

N 81°37'55" E
8.401

S 81°37'55" E
8.401

S 71°35'49" E
16.459'

N 24°14'00" E
48.387

N 00°50'59" E
24.394

N 12°18'42" E
59.642

S 54°36'07" E
16.572

+27 -L-
70 LT
(229.659')

+79 -L-
61 LT
(200.13')

Place Matting for Erosion Control on Slope as Work Allows.

11 x 5 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 11.5F

11 x 5 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 11.3F
(134.514')

10 x 4 x 1
38 mm Skimmer
with 35 mm
Orifice Diameter
2 m weir
ID 11.7C

39

CLASS I RIPRAP (FLOODPLAIN)

SSBW

+72 -L-
32 LT
(104.987')

-L- POT Sta 34+24.935
-Y6- POT Sta 10+00.000
BEARING AH = S 40° 52' 22.4" E

3-2.7m X 3.0m RCBC

END CULVERT
STA 33+83.800

BEGIN CULVERT
STA 33+74.886

40
KERRY DAWN PARKER
DB 358 PG 592

PREFORMED SCOUR HOLE (SEE DETAIL "O")

ROD & LUG CONNECTORS W/SLEEVE GASKETS & ELBOWS

30 TAPER

TS Sta 36+43.038

END SBG
STA 36+38

130 TURN LANE

N 58°08'07" W
4.961

N 39° 51' 50.1" E

N 36° 14' 09.8" E

US 19 7 BST

US 19 7.0 BST

3-2.7 X 3.0 RCBC
CAT-1

Special Cut Ditch
(See Detail "C")

-L- POT Sta.35+54.000
-D6B- POT Sta.10+00.000
BEARING AH =
S 55° 31' 54.7" E

PC Sta 10+11.640

PT Sta.10+36.145
N 70° 35' 56.2" E

EXISTING R/W

+40 -L-
22 RT
(72.178')

BL-29-PINC 36+67.621=
-L- Sta 36+35.048 1.957 RT

+94 -L-
21 RT
(68.898')

30 TAPER

ROLAND D. METCALF
DB 214 PG 247
41

6 x 3 x 1
38 mm Skimmer
with 23 mm
Orifice Diameter
2 m weir
ID 11.3C

ROD & LUG CONNECTORS W/SLEEVE GASKETS

+34 -L-
51 RT
(167.323')

+58 -L-
34 RT
(111.549')
END WW FENCE

+74 -L-
ON R/W

+82.920
36.034
BEG WW
(118.223

+71 -L-
42 RT
(137.796')

ACCESS POINT

-D6B- POT Sta.10+42.000
END CONST.

POT Sta.10+49.981

IVAN W. HEMBREE
DB 200 PG 508
43

+48 -Y6-
ON R/W
S 46° 34' 45.9" E
(122.740')

+75.016 -Y6-
9 RT (29.528')
END WW FENCE

+64 -L-
ON R/W & 35 RT
(147.638')

DAVID DOAN
DB 357 PG 336
38

PREFORMED SCOUR HOLE (SEE DETAIL "O")

PDE

PC Sta 10+45.352

-BY8-POT 5+80.000=
-BL-27-PINC 36+38.055=
-L- Sta 34+05.942 16.472 RT
-Y6- Sta 10+9.315 16.094 RT

+68.750

+80 -Y6-
5 RT & EX.R/W
(122.966')

Grade to Drain & Tie to Exist. Ditch

END CONSTRUCTION
-Y6- POC Sta 10+80.000

+80 -Y6-
10 LT & EX.R/W
(32.802')
BEG WW FENCE

SHELBY RAY
DB 278 PG 359
58A

-BY8-28-POT 5+98.806

5 x 2 x 1
38 mm Skimmer
with 17 mm
Orifice Diameter
2 m weir
ID 11.2C

4 x 2 x 1
38 mm Skimmer
with 16 mm
Orifice Diameter
2 m weir
ID 11.4C

PT Sta 10+93.807
BEARING AH = S 28° 48' 07.7" E

POT Sta 11+03.807

LEVI HUNTER
DB 91 PG 619

PHILIP A. DILLINGHAM
DB 212 PG 553
42

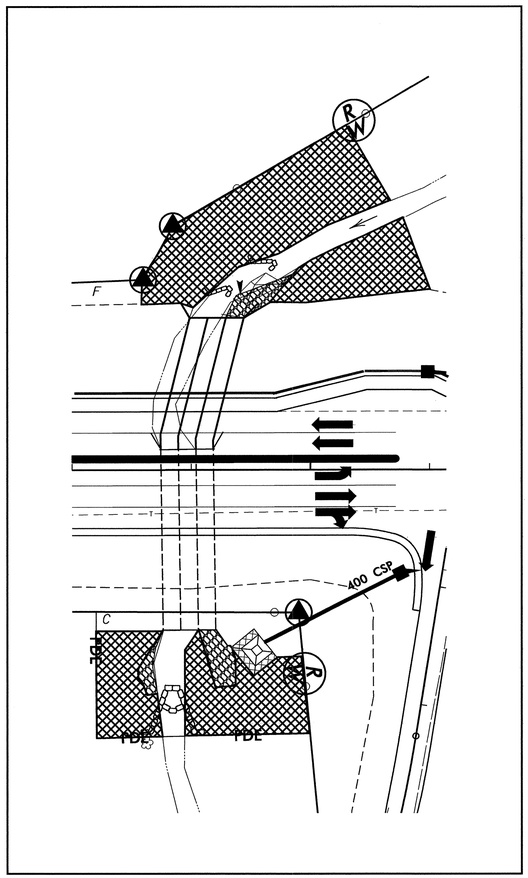
MATCH TO SHEET 10

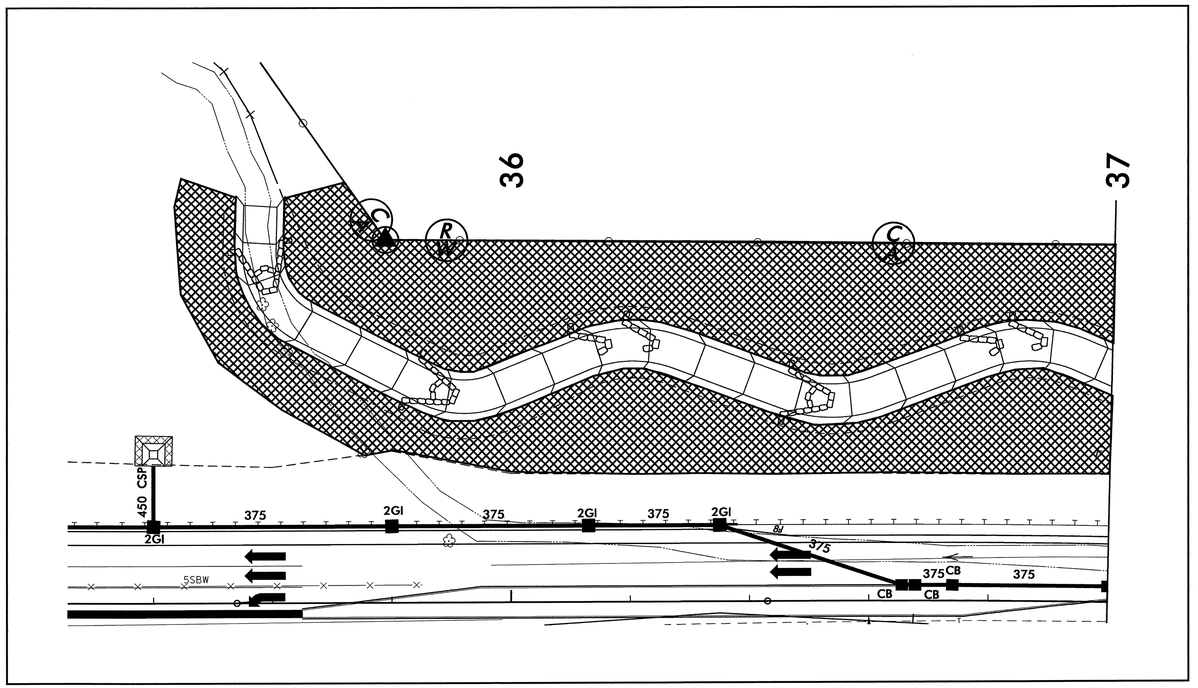
MATCH TO SHEET 12

FOR -L- PROFILE SEE SHEET *42
FOR -Y6- PROFILE SEE SHEET *68
FOR -D6B- PROFILE SEE SHEET *75

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2518A	EC-61/CONST.11
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

.58 HECTARE STREAMBANK REFORESTATION





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

R/W REV.:CHANGING PROPERTY LINE AND NAME ON PARCEL 45 (JOHN E. WADE JRJ AND ADDING PARCEL 45A (GERALD R. BROWN). 11/28/06 DWK

8/17/98

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-62/CONST.12
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

NAD 83

-L-
PIs Sta 36+93.043
Θs = 2° 23' 14.4"
Ls = 75.000
LT = 50.005
ST = 25.004

PI Sta 39+12.816
Δ = 24° 25' 23.4" (RT)
L =
T =
R =
SE =

10 x 3 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
2 m weir
ID 12.1F

-D6C-
PI Sta 10+28.321
Δ = 76° 14' 19.5" (LT)

ACCESS POINT

+00 -Y7- EX.R/W

REMOVE EXISTING RESERVE AREA

POT Sta 10+00.000

BRIAN BARLOW
DB 239 PG 456

+21.679 -Y7- 21.157 LT(69.413') BEG WW FENCE

+13.299 -L- 69.081 LT (226.644') END WW FENCE

12 x 2 x 1
ID 12.3F

+80 -L- 52 LT (170.604')

+66 -L- 43 LT (141.076')

Place Matting for Erosion Control on Slope as Work Allows.

1200 WW FENCE

BEGIN CONSTRUCTION
-Y7- POT Sta 10+00.000

SEE MITIGATION PLANS FOR STREAM DESIGN

-L- POC Sta. 37+80.165
-D6C- POT Sta. 10+00.000
BEARING AH =
S 44° 34' 13.1" E

PREFORMED SCOUR HOLE (SEE DETAIL "O")

SC Sta 37+18.038

-BY9-3- POT 5+00.000=
-L- Sta 38+24.117 51.257 LT C
-Y7- Sta 10+20.335 37.736 RT

BEGIN CULVERT
STA.37+88.083
END CULVERT
STA.38+00.698

-BL-30-PINC 38+89.3
-BL936OT 5+58.762=
-L- Sta 38+56.965 3.204 LT
-Y7- Sta 10+15.267 813.787 RT

+17.603 -L- 30.521 LT (100.135') END WW FENCE

6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 12.5F

+41.473 -L- 23.685 LT (77.708') BEG WW FENCE

+73 -L- ON R/W & 28 LT (91.864')

+89 -L- ON R/W & 29 LT (95.144')

PSH (SEE DETAIL "O")

+26 -L- 26 LT (85.302')

CL B RIPR 4.5 TONS 13.4 SM FF

ROD & LUG CONNECTORS W/SLEEVE GASKETS & ELBOWS

CL B RIPRAP 0.9 TON 4.2 SM FF

130 TURN LANE

CAT-1

4.0 m CONC. HW

1200 mm CMP

REMOVE 200 mm PLASTIC

CL I RIPRAP 15.4 TONS 31.8 SM FF

REMOVE GRAU 350

+10.595 RT (100.378') BEG WW FENCE

PC Sta. 10+20.004

PROP. RET. WALL

-D6C- POT Sta. 10+41.898 END CONST.

BEG. RET. WALL 38+45 +/-

END RET. WALL 38+75 +/-

REMOVE HEADWALL & FILL W/FLOWABLE GROUT

10 x 3 x 1
ID 12.2F

+33.01 -L- 26.701 RT (85.864') END WW FENCE

PT Sta. 10+34.109
BEARING AH =
N 59° 11' 27.4" E

+90 -L- 42.343 LT (142.201') END WW FENCE

+94 -L- 43 RT (141.076')

POT Sta. 10+46.567

+50 -L- 35 RT (114.829')

-L- POC Sta 38+45.726
-Y7- POT Sta 10+76.074
BEARING BK = S 59° 54' 50.1" E

+05 -L- 36 RT (118.110')

+23 -L- 39.232 LT (128.910') BEGIN WW FENCE

+04 -L- 36 RT (118.110')

18 x 3 x 1
ID 11.4F

6 x 3 x 1
38 mm Skimmer
with 23 mm
Orifice Diameter
2 m weir
ID 12.4C

IVAN W. HEMBREE
DB 200 PG 508

JOHN E. WADE, JR.
DB 310 PG 616

JAYE P. HEMBREE
DB 233 PG 57

GERALD R. BROWN
DB 270 PG 764-769

J. C. YOUNG
DB 175 PG 83

J. C. YOUNG
DB 172 PG 83

EMMA LOU S. HENSLEY
DB 127 PG 421

MATCH TO SHEET 13

MATCH TO SHEET 11

37+00

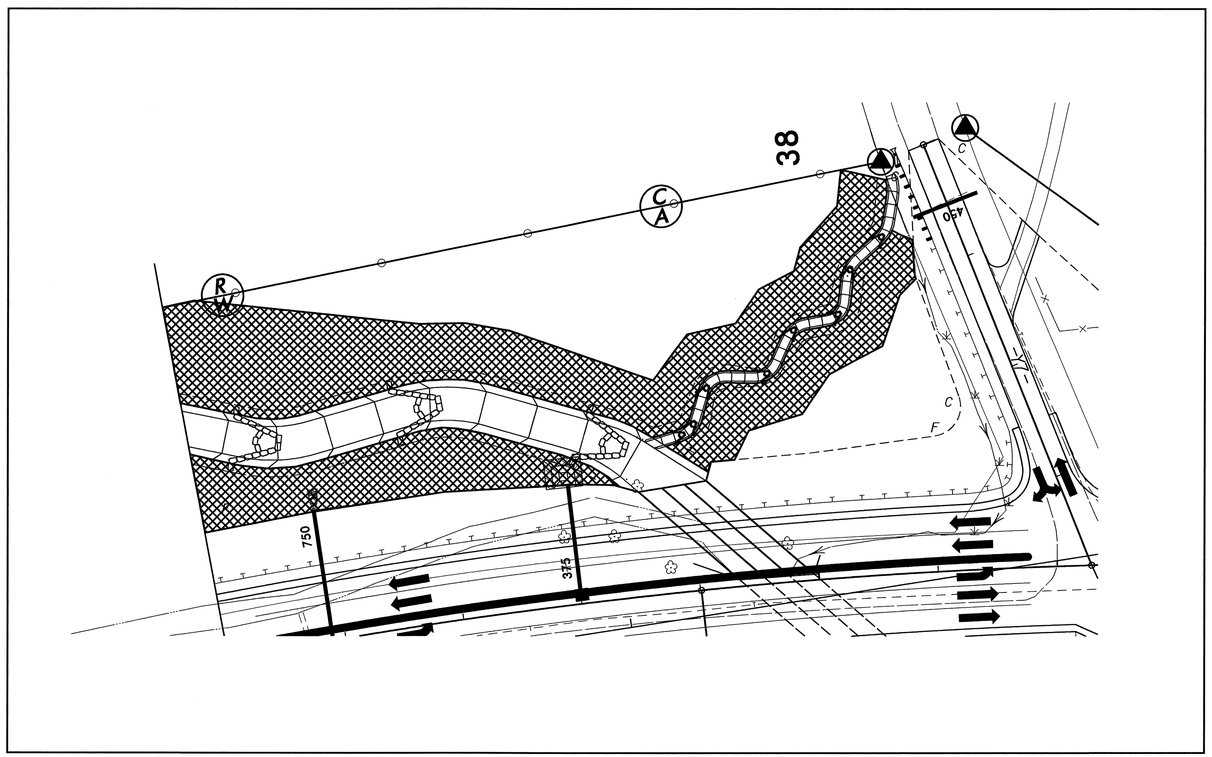
40+40

FOR -L- PROFILE SEE SHEET *43
FOR -Y7- PROFILE SEE SHEET *68
FOR -D6C- PROFILE SEE SHEET *75

31-AUG-2007 09:57
J:\projects\R-2518a\environmental\design\r2518asl2.pah
Bentley MicroStation V8 (SELECTseries 1)
Version 08.05.01.80

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2518A	EC-63/CONST12
	R/W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

.26 HECTARE STREAMBANK REFORESTATION



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

R/W REV.: ADDING PARCEL 45B (RONALD L. WILLIAMS); CHANGING PROPERTY LINE, NAME AND DEED BOOK NUMBER AND ADDING OUTCONVEYANCE ON PARCEL 52A (RICKY CLEMENTS, ET AL); CHANGING PROPERTY NAME ON PARCEL 51 (NEW GRACE INDEPENDENT BAPTIST CHURCH); AND ADDING PARCEL 45A (GERALD R. BROWN). 11/28/06 DWK

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Brenbpolk "AT REN22145"

8/17/99

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2518A	EC-64/CONST.13
CONST.REV.	R /W SHEET NO.	
R /W REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-
PI Sta 39+12.816
△ = 24° 25' 23.4" (RT)
L = 383.638
T = 194.777
R = 900.000
SE = 0.050

PI Sta 43+14.962
△ = 41° 42' 01.3" (LT)
L = 407.573
T = 213.285
R = 560.000
SE = 0.060

NAD 83

MATCH TO SHEET 12

MATCH TO SHEET 14

LLOYD RAY
DB 82 PG 87

J. C. YOUNG
DB 172 PG 82

JAMES A. CLARK
DB 167 PG 586

GERALD R. BROWN
DB 270 PG 764-769

RONALD L. WILLIAMS
DB 275 PG 617

KEVIN REARDON
DB 230 PG 639

E. J. BALL, ESTATE
NO DEED

GAIL A. BUCKNER
DB 207 PG 784

NEW GRACE INDEPENDENT BAPTIST CHURCH
DB 93 PG 285
OLD MIDDLEFORK CHURCH

RICHARD BEAVER
DB 213 PG 137

RICKY
DB 3

PRC Sta 41+01.677

-BL-32-PINC 41+34.269=
-L- Sta 41+02.643 4.319 RT

-BL-33-PINC 43+32.026=
-L- Sta 42+93.274 32.011 RT

+66 -L-
ON R/W & 30.080 LT
(98.688')

+82 -L-
ON R/W & 31 LT
(101.706')

+19 -L-
134 LT
(439.633')

+28.205 -L-
31.441 LT (103.152')
END WW FENCE

+47.362 -L-
31.907 LT (104.682')
BEG WW FENCE

+00 -L-
30 LT
(98.425')

+17 -L-
38.303 RT
(125.666')
END WW FENCE

+44 -L-
39 RT
(127.953')

+65 -L-
ON R/W & 40 RT
(131.234')

+66.952 -L-
33.737 RT (110.685')
BEG WW FENCE

+85 -L-
ON R/W & 38 RT
(124.672')

+79.848 -L-
22.904 RT (75.145')
END WW FENCE

+09 -L-
24 RT
(78.740')

+12 -L-
ON R/W & 30 RT
(98.425')

+18 -L-
ON R/W & 30 RT
(98.425')
BEG WW FENCE

6 x 3 x 1
2 m weir
ID 13.2C

6 x 3 x 1
2 m weir
ID 13.2C

7 x 2 x 1
ID 13.4F

12 x 2 x 1
ID 13.5F

12 x 2 x 1
ID 13.6F

12 x 2 x 1
ID 13.7F

20 x 7 x 1
ID 13.3F

5 x 2 x 1
38 mm Skimmer
with 17 mm
Orifice Diameter
2 m weir
ID 13.5F

9 x 2 x 1
38 mm Skimmer
with 23 mm
Orifice Diameter
2 m weir
ID 13.6F

PREFORMED SCOUR HOLE
(SEE DETAIL "O")
2 ELBOWS W/
O-RING GASKETS

CL B RIPRAP
4.5 TONS
13.4 SM FF

SL B RIPRAP
7.3 TONS
17.6 SM FF

CL B RIPRAP
4.5 TONS
13.4 SM FF

Lateral Cut Base Ditch
See Detail "U"

LATERAL "V" DITCH
(SEE DETAIL "X")

REMOVE
375mm CMP
750

REMOVE
450 mm CMP

1200 WW FENCE

ACCESS POINT

PDE

SEPTIC TANK

FOR -L- PROFILE SEE SHEET #44

R/W REV.: CHANGING PROPERTY LINE, NAME, AND DEED BOOK NUMBER ON PARCEL 52 (MIDDLE FORK MISSIONARY BAPTIST CHURCH); CHANGING PROPERTY LINE AND NAME ON PARCEL 54 (SHELBY G. AND BETTY R. RAY); REVISING DEED BOOK NUMBER ON PARCEL 53 (GAIL A. BUCKNER). 11/28/06 DWK

R/W REV.: CHANGING PROPERTY LINE, NAME, AND DEED BOOK NUMBER ON PARCEL 52A (RICKY CLEMENTS, ET AL); CHANGING PROPERTY LINE, NAME, AND DEED BOOK NUMBER ON PARCEL 54 (SHELBY G. AND BETTY R. RAY); REVISING PROPOSED R/W, NAME AND DEED BOOK NUMBER ON PARCEL 53 (GAIL A. BUCKNER). 11/28/06 DWK

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AT REN22145

8/17/99

METRIC
5 0 10

CONST.REV.

R /W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-65/CONST.14
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83

US 19 AND SR 1526

9,330 / 14120 — US 19 — 8,900 / 13,490
560 / 840 — 140 / 210
PM DHV=10% D=60% DUAL=4% TTST=6%
700 / 1,050 — SR 1526 — PM DHV=12% D=70% DUAL=3% TTST=1%
2008 / 2028

MATCH TO SHEET 13

MATCH TO SHEET 15

1200 WW FENCE

-L- POC Sta 44+24.979
-Y8- POT Sta 10+00.000

+58.509 -L-
35.606 LT (116.817')
END WW FENCE

ACCESS POINT

+66 -L-
28 LT
(91.864')

+78.105 -L-
28.986 LT (95.100')
BEG WW FENCE

PREFORMED SCOUR HOLE (SEE DETAIL "O")

16 x 6 x 1
51 mm Skimmer
with 49 mm
Orifice Diameter
3 m weir
ID 14.3C

13 x 4 x 1
38 mm Skimmer
with 37 mm
Orifice Diameter
2 m weir
ID 14.4C

RIP RAP AT F... (SEE DET...)

ST Sta 45+99.249

+13 -L-
30.432 LT & 34 LT
(132.651')

PDE

END CULVERT
STA 45+42.802

+64 -L-
29.323 LT & 32 LT
(96.204')

1.0 m SPECIAL CUT BASE DITCH
SEE DETAIL "F"

ELBOWS & O-RING GASKETS

400 CSP

GRAU 350

30.480 (100')

6.0 DA

+41.933 -L-
24.718' LT (81.096')
BEG WW FENCE

130 TURN LANE

US 19 7.0 BST

US 19 7 BST

N 20° 52' 50.8" E

N 10° 18' 17.9" E

N 20° 22' 11.7" E

GAIL A. BUCKNER
DB 207 PG 784
53

VENUS L. HARDING
DB 218 PG 256

-BYII-38-POT 5+00.000
POT Sta 10+00.000
BEARING AH =
S 31° 05' 22.0" E

PC Sta 10+08.131

BEGIN CONSTRUCTION
-Y9- POC Sta 10+20.000

-BL-36-PINC 46+63.926
NCGS "CROOKED"

ACCESS POINT

+20 -Y9- 1.522 RT (4.993')

+20 -Y9- 5 RT (16.404')

+25.379 -Y9- 9 RT (29.527') END WW FENCE

SHELBY G. RAY
BETTY R. RAY
DB 65 PG 539
DB 125 PG 342
54

PT Sta 10+28.511

+23.973 -L- 25.817' LT (84.702') END WW FENCE

+70 -L- 23 LT (75.459')

LARRY M. ROBINSON
DB 320 PG 563
55

+95 -L- 39.136 RT (128.399')

+23.423 -Y9- 9 LT (29.527') BEG WW FENCE

+09.82 -L- 23.691 LT (77.726')

47+20

-L- POC Sta 44+24.979
-Y8- POT Sta 10+00.000

POT Sta 10+69.888
BRG BK S 68° 28' 00.1" E
-BYIO-35-POT 5+86.947

BRIDGE DONE UNDER TIP NO. B-4183

RICKY CLEMENTS, ET AL
DB 325 PG 549
52A

+29 -Y8- 9.166 RT (30.072')
END CONSTRUCTION
-Y8- POT Sta 10+43.000

55-18-55

+35 -Y8- 9.127 LT (29.944')
BEGIN WW FENCE

GAIL A. BUCKNER
DB 207 PG 784
53

-BL-34-PINC 44+89.586=
-BL-34-POT 5+00.000=
-L- Sta 44+34.317 11.288 RT

3 @ 2.7M X 2.7M RCBC

END WW FENCE

BEGIN WW FENCE

CL I RIPRAP

1.0 m LATERAL BASE DITCH
SEE DETAIL "AC"

+12 -L-

21 x 8 x 1
64 mm Skimmer
with 59 mm
Orifice Diameter
3 m weir
ID 14.2C

SHELBY G. RAY
BETTY R. RAY
DB 65 PG 539
125 PG 342
54

10 x 5 x 1
38 mm Skimmer
with 36 mm
Orifice Diameter
2 m weir
ID 14.1C

MIDDLE FORK MISSIONARY BAPTIST CHURCH
DB 345 PG 410
52

ISBK MIDDLEFORK BAPTIST CHURCH

+08 -L- 31 RT (101.706')

+63 -L- 72 RT (236.220')

-BYII-POT 5+57.313=
-BL-37-PINC 47+45.027=
-L- Sta 46+97.045 14.925 LT
-Y9- Sta 10+44.876 7.255 RT

-L- POT Sta 46+89.790
-Y9- POT Sta 10+59.801
BEARING BK =
S 69° 37' 48.4" E

-L- POT Sta. 47+15.000
-D7A- POT Sta. 10+00.000
BEARING AH =
S 69° 37' 48.3" E
PC Sta. 10+10.606

PT Sta. 10+21.040
BEARING AH =
N 80° 28' 37.0" E

-L-
PI Sta 43+14.962
Δ = 41° 42' 01.3" (LT)
L = 407.573
T = 213.285
R = 560.000
SE = 0.060

PIs Sta 45+39.268
Θs = 4° 36' 14.9"
Ls = 90.000
LT = 60.020
ST = 30.018

-Y9-
PI Sta 10+18.619
Δ = 38° 32' 26.4" (LT)
L = 20.180
T = 10.488
R = 30.000
SE = 0.080

-D7A-
PI Sta 10+15.945
Δ = 29° 53' 34.7" (LT)
L = 10.435
T = 5.339
R = 20.000

FOR -L- PROFILE SEE SHEET #45
FOR -Y8- PROFILE SEE SHEET #68
FOR -Y9- PROFILE SEE SHEET #68

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-66/CONST.15
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

NAD 83

R/W REV: CHANGING PROPERTY LINE AND NAME ON PARCEL 54 (SHELBY G. AND BETTY R. RAY) AND REVISING PROPOSED R/W, NAME AND DEED BOOK NUMBER ON PARCEL 55 (LARRY M. ROBINSON). 11/28/06 DWK

07-AUG-2007 13:45
User: rbenbo08a
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Ref: REN22146

LARRY M. ROBINSON
DB 320 PG 563
55

48

49

56
ROY GUS BALLARD
DB 124 PG 244

50

1200 mm WW

+69 L- 41 LT (134.514')

+45 L- 28 LT (91.864')

HTR ABAND

+45 L- 23.694 LT (77.736')

1200 WW FENCE

-BL-39-PINC 49+05.654= -L- Sta 48+57.671 14.973 LT

EXISTING R/W

INV.= 682.591

CL I RIPRAP 6.4 TONS 14.2 Rad FF

HDWL

N 20° 19' 47.0" E

N 20° 21' 10.4" E

RETAIN EXISTING 1200mm CSP TO BE LINED W/NCDOT APPROVED LINER

US 19 7 BST

N 20° 22' 11.7" E

REMOVE 750 CSP & CONC. HW

750 mm CMP

217

INV.= 683.03

2.4 m CONC. HW

INV.= 680.092

REM HW COLLAR & EXTEND

1200 CSP

HDWL

216

SPECIAL CUT DITCH SEE DETAIL "C"

+38.618 -L- 38.941 RT (127.857') BEG WW FENCE

+39.534

+27. -L- 41 RT (134.514')

ACCESS POINT

+20.789 -L- 44.023 RT (144.432') END WW FENCE

END CONSTRUCTION -D7A- POT Sta. 10+42.034

+90 L- 30 RT (98.425')

16 x 7 x 1 64 mm Skimmer with 53 mm Orifice Diameter 2 m weir ID 15.1C

23 x 5 x 1 2 m weir ID 15.2C

54
SHELBY G. RAY
BETTY R. RAY
DB 65 PG 539
DB 125 PG 342

ROY GUS BALLARD
DB 124 PG 244
56

MATCH TO SHEET 14

MATCH TO SHEET 16

47+20

50+60

4SBW

4SBW ELEC

BST

GR

450 mm CONC

1200 mm CONC

1300 mm CMP

INV.= 682.039

INV.= 681.880

INV.= 681.802

INV.= 682.304

INV.= 683.544

1.7 m CONC. HW

INV.= 683.794

2.0 m CONC. HW

FOR -L- PROFILE SEE SHEET #46

8/17/99

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2518A	EC-67/CONST.16
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		

NAD 83

-Y9A-
PI Sta 10+32.526
△ = 75° 33' 47.8" (RT)
L = 39.565
T = 23.255
R = 30.000
SE = 0.080
RO = 40

-Y10-
PI Sta 10+11.755
△ = 29° 16' 47.6" (LT)
L = 22.996
T = 11.755
R = 45.000
SE = 0.070
RO = 35

11x 4 x 1 38 mm Skimmer with 36 mm Orifice Diameter 2 m weir ID 16.7C

6 x 2 x 1 38 mm Skimmer with 19 mm Orifice Diameter 2 m weir ID 16.6C

6 x 2 x 1 38 mm Skimmer with 19 mm Orifice Diameter 2 m weir ID 16.8C

5 x 2 x 1 38 mm Skimmer with 17 mm Orifice Diameter 2 m weir ID 16.1C

ROY GUS BALLARD
DB 124 PG 244
56

RONNIE L. RAY
DB 228 PG 779
57

51 52 53

50+60 54+00

MATCH TO SHEET 15

MATCH TO SHEET 17

-L- POT Sta 51+04.164
-Y9A- POT Sta 10+00.000
BEARING AH =
S 69° 37' 48.7" E

ACCESS POINT

1200 WW FENCE

-BL-40-PINC 52+03.507=
-L- Sta 51+55.525 15.182 LT

CL I RIPRAP
15.4 TONS
31.8 SM FF

GRAU 350

1200 mm CMP

REMOVE

REM HW

4.0 m CONC. HW

4.5 DR

9.0 DR

GRADE TO DRAIN

L - HEADWALL

CL B RIPRAP
1.8 TONS
6.7 SM FF

30 TAPER

PC Sta 10+09.271

PT Sta 10+48.836

+54 -Y9A-
END EXPRESS C & G

END CONSTRUCTION
-Y9A- POT Sta 10+60.000
S 5° 55' 59.1" W

+60 -Y9A-
14 LT (45.932')
BEG WW FENCE

POT Sta 10+63.568

+67 L-
28 RT
(91.864')
END WW FENCE

+31 -Y9A-
BEGIN EXPRESS C & G

#25 -Y9A-
22 LT (72.179')

+72.624 -L-
28.667 RT (94.053')
END FENCE

+78 -L-
28 RT
(91.864')

+06.094 -L-
40.617 RT (133.259')
BEG. FENCE

+50.257 -L-
29.922 LT (98.169')
END WW FENCE

+47 -L-
36.116 LT
(118.490')

+56 -L-
19 LT (62.336')

+69 L-
42 LT
(137.795')

+69 L-
18 LT
(59.055')

+71.274 -L-
43.079 LT (141.336')
BEG WW FENCE

+28 L-
70 LT
(229.659')

+49 L-
84 LT
(275.591')

BEGIN CONSTRUCTION
-Y10- POC Sta 10+06.000
Bearing AH=
S 63° 34' 17.9" E

-BL-41-PINC 54+29.724=
-BY12-POT 5+80.699=
-BY134PINC 5+00.000=
-L- Sta 53+81.742 15.351 LT
-Y10- Sta 10+40.258 11.940 RT

SEE MITIGATION PLANS FOR STREAM DESIGN

GRASS SWALE SEE DETAIL "E"

CL B RIPRAP
17.3 TONS
17.6 SM FF

EXISTING R/W

N 20° 19' 37.6" E

N 20° 22' 11.7" E

US 19 7.0 BST

I SMTLG

2SFD

SOIL

CONC

GR

4SBW

12.192 (40')

+23.510 -Y9A-

+25.568

+13.500

+28.468

+88.708

-L- POT Sta 53+92.119
-Y10- POT Sta 10+54.428
BEARING BK =
S 63° 34' 17.9" E

12 x 2 x 1 ID 16.2F

12 x 2 x 1 ID 16.3F

12 x 2 x 1 ID 16.4F

130 TURNABLE

450 TAPER

+45 L-
103 RT
(331.927')

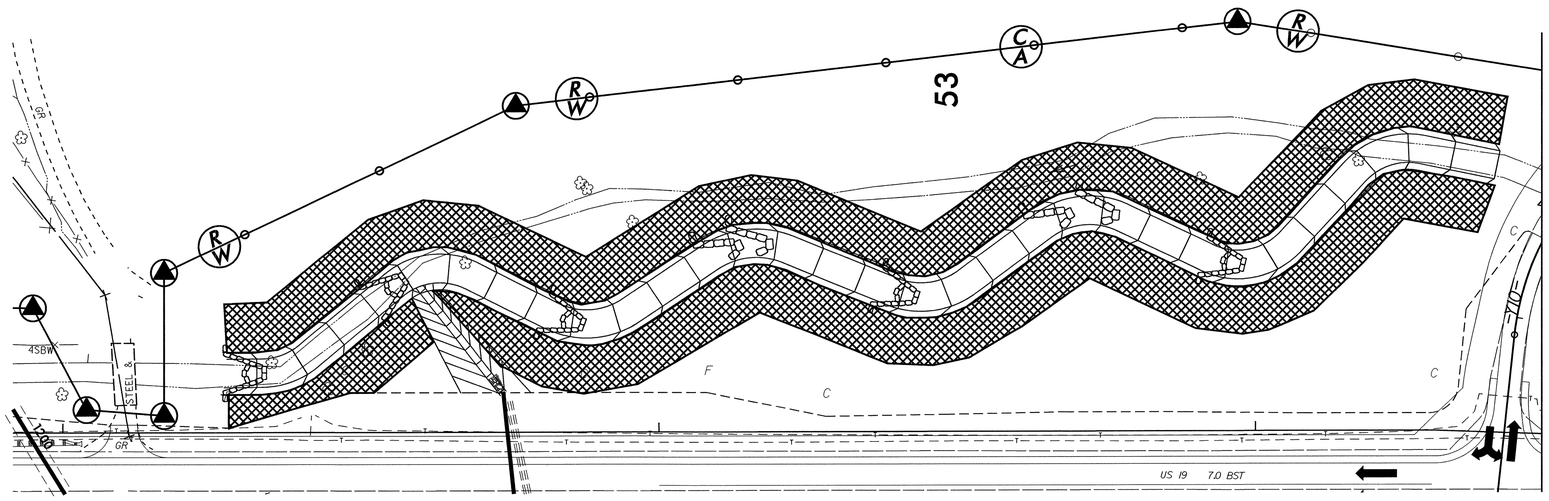
+96 L-
107 RT
(351.050')

FOR -L- PROFILE SEE SHEET #47
FOR -Y9A- PROFILE SEE SHEET #69
FOR -Y10- PROFILE SEE SHEET #69

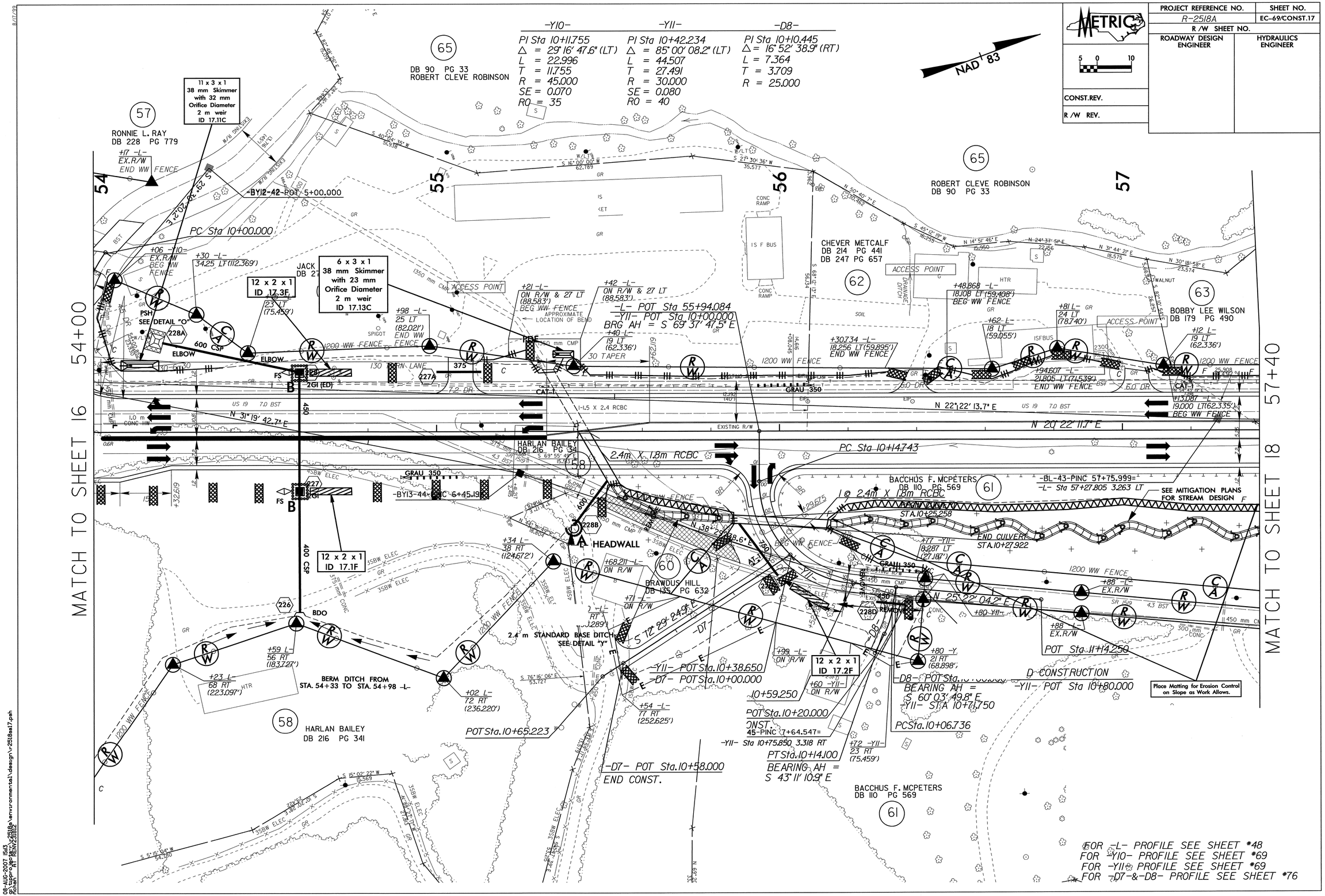
08-AUG-2007 15:07
R:\STDPROJ\ROADWAY\MICRO\2518a\environmental\design\r2518ea05.pah
Richard Hancock AT REN23812

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2518A	EC-68/CONST16
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

.37 HECTARE STREAMBANK REFORESTATION



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

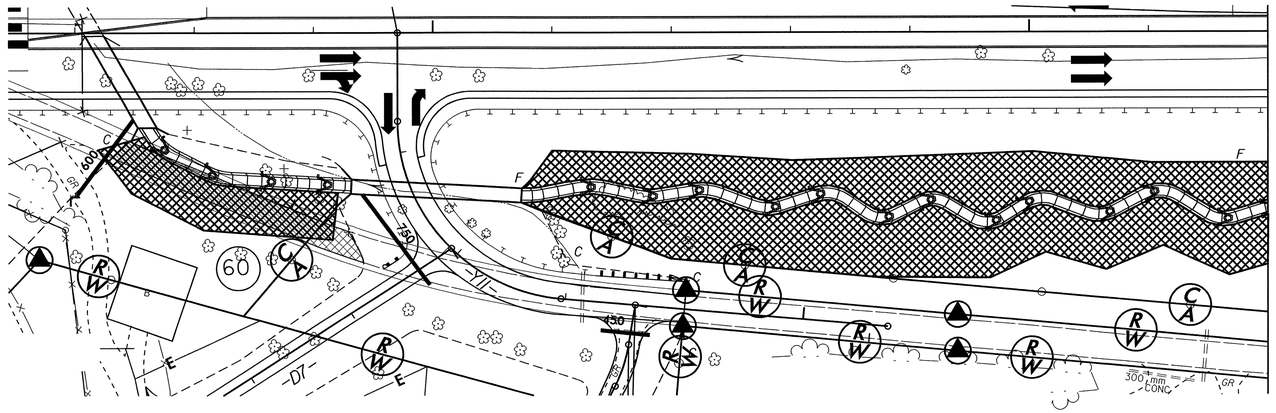


R/W REV.: REVISING PROPOSED R/W, NAME AND DEED BOOK NUMBER ON PARCEL 59 (JACK W. SHEPERD) AND ADDING DRIVE AND CHANGING DEED BOOK NUMBER ON PARCEL 62 (CHEVER METCALF). 11/28/06 DWK

08-AUG-2007 15:13
g:\ppro\jec\r2518a\environmental\design\r2518asl7.psh
Richard AT REN\231812

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-70/CONST 17
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

0.22 HECTARE STREAMBANK REFORESTATION



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

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2518A	EC-7\/CONST.18
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		

8/17/99

-Y12-
PI Sta 10+34.480
△ = 76° 04' 29.8" (RT)
L = 39.833
T = 23.470
R = 30.000
SE = 0.080
RO = 48

NAD 83

MATCH TO SHEET 17

MATCH TO SHEET 19

57+40

08+09

58

59

60

61

63

64A

64

66

66B

BOBBY LEE WILSON
DB 179 PG 490

ERMA ROBERTS
DB 262 PG 007

ROBERT
DB 90

JOHNNY L. BRADLEY
DB 314 PG 296
DB 328 PG 421
PB 5 PG 192
BEG. SBG
STA. 60+60 -L-

ACCESS POINT

NANCY JO RIDDLE
DB 262 PG 009

BACCHUS F. MCPETERS
DB 110 PG 569

PATRICA ALLEN
DB 189 PG 323

23 x 10 x 1
76 mm Skimmer
with 70 mm
Orifice Diameter
4 m weir
ID 17.5F

19 x 6 x 1
64 mm Skimmer
with 54 mm
Orifice Diameter
4 m weir
ID 17.4F

Place Matting for Erosion Control on Slope as Work Allows.

PROP. GR W/EXTRA LONG POSTS
STA. 57+25.47 TO 57+52.14

RIP RAP AT EMBANKMENT (SEE DETAIL "L")

GRASS SWALE (SEE DETAIL "E")

CL B RIPRAP
4.5 TONS
11.7 SM FF

ELBOWS W/O-RING GASKETS

1.5 m LATERAL BASE DITCH SEE DETAIL "G"

FILL W/FLOWABLE FILL OR REMOVE

SPECIAL CUT DITCH SEE DETAIL "C"

GRADE TO DRAIN

RETIE DRIVEWAY

END CONSTRUCTION
-Y12- POT Sta 10+75.339

PT Sta 10+50.843

PC Sta 10+11.010
BEARING BK =
S 69° 37' 48.0" E

-L- POT Sta 59+84.295

-Y12- POT Sta 10+00.000

-BY13-46-PINC 9+83.455

-BY14-48-PINC 5+80.753

-BY13-47-PINC 10+84.227=
-BY13-POT 5+00.000=
-Y12- Sta 10+58.796 2.494 RT

-BL-50-PINC 61+10.987=
-BY13-POT 12+00.072=
-L- Sta 60+62.754 1.982 RT

1200 WW FENCE
END WW FENCE
BEG WW FENCE
130 TURN LANE
30 TAPER
25 TAPER
US 19 7.0 BST
CAT-1
I-2.7 X 1.4 RCBC
1000 mm CONC
300 mm CONC
300mm BST CURB
ISFD
ISBKD
WD DK
G
CONC DK
HTR
EXISTING R/W
CL B
GR
SOIL
ISFBUS

N 21° 16' 01.1" E
N 20° 22' 11.7" E
N 1° 24' 36.8" E
S 6° 26' 41.9" W
S 11° 19' 56.4" E
N 89° 42' 12.6" E
N 24° 46' 07.4" E
N 5° 05' 39.3" E
N 72° 25' 23" W
N 21° 00' 00" E
N 15° 45' 40" W
S 15° 45' 40" E
N 40° 00' 00" W

+01 -L- 58 LT (190.289')
+97 -L- 50 LT (164.042')
+88 -L- 42 LT (137.795')
+81 -L- 26 LT (85.302')
+00 -L- 18 LT (59.055')
+18 -L- ON R/W
+40 -L- 19 LT (62.336')
+60 -L- 24 LT (78.740')
+31 -L- 22 LT (72.178') END WW FENCE
+35 -L- ON R/W
+49.435 -L- 19.952 LT(65.459') BEG WW FENCE
+58 -L- 19 LT (62.336')
+95 -L- 31 RT (101.706')
+95 -L- 45.447 RT (149.105')
+77.597 -L- 50.534 RT (165.795')
+65 -L- 54.433 RT (178.586')
+65 -L- 60.554 RT (198.671')
+34 -L- 31 RT (101.706') END WW FENCE
+75.339 -Y12- 3.024 RT (9.918')
+30 -Y12- 13.016 LT (42.703')
+40 -Y12- 11 LT (36.089') BEG WW FENCE
+39 -L- 24.015 RT (78.789')
+15 -L- 29.991 RT (98.396')
+66.823 -Y12- 13.578 LT (44.547')
+32 -L- 65.630 RT (215.322')
+33 -L- 73 RT (239.501')
+22 -L- 78 RT (255.906')
+20 -L- 70.114 RT (230.033')
+63.306 2.441
+63.306 2.441
+65.50 (41.76')
7.177 RT 97.589')

228G
228F
228E
232A
232B
375
600
(232)

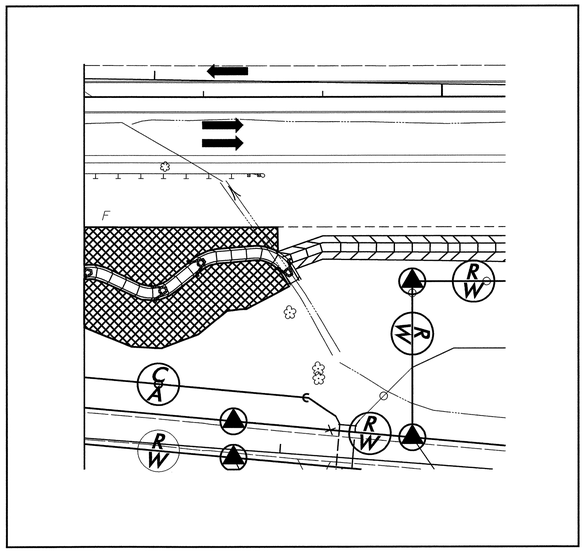
08-AUG-2007 12:29
User: rdpope
Pw: ...25818\environmental\design\r-2518asht8.pah
Rshar: AT RENV25818

R/W REV.: REVISING R/W & EASEMENT ON PARCEL 66 (PATRICA ALLEN). 1-4-07 TFD

FOR -L- PROFILE SEE SHEET #49
FOR -Y12- PROFILE SEE SHEET #69

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2518A	EC-72/CONST J8
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

0.05 HECTARE STREAMBANK REFORESTATION



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

8/17/99

R/W REV.: REVISING NAME ON PARCEL 69 (HERSCHEL BUCKNER HEIRS). 3/14/07 TFD

12-DEC-2007 10:05
C:\Projects\R-2518A\environmental\design\r2518as19.pgm
Default
AT REMOVED

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-73/CONST.19
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

MATCH TO SHEET 18

MATCH TO SHEET 20

60+80

64+20

NAD 83

61

62

63

66B

JOHNNY L. BRADLEY
DB 314 PG 296
DB 328 PG 421
PB 5 PG 192

CARP LAKE

ROBERT CLEVE ROBINSON
DB 90 PG 33

H. LYRIC
DB 221 P

-L- POT Sta. 61+36.900
-D8A- POT Sta. 10+00.000
BEARING AH =
S 69° 37' 48.3" E

-BL-52-PINC 62+69.635=
-BL-52-POT 5+63.550
-L- Sta 62+19.748 20.858 LT

-BL-51-PINC 62+88.051=
-BL-51-POT 5+00.000
-L- Sta 62+38.163 20.704 LT

29 x 10 x 1
76 mm Skimmer
with 76 mm
Orifice Diameter
4 m weir
ID 19.6F

4 x 2 x 1
38 mm Skimmer
with 16 mm
Orifice Diameter
2 m weir
ID 19.5C

6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 19.4C

6 x 2 x 1
38 mm Skimmer
with 16 mm
Orifice Diameter
2 m weir
ID 19.6C

6 x 2 x 1
38 mm Skimmer
with 16 mm
Orifice Diameter
2 m weir
ID 19.7C

4 x 2 x 1
38 mm Skimmer
with 16 mm
Orifice Diameter
2 m weir
ID 19.8C

RIP RAP AT EMBANKMENT
(SEE DETAIL "L")

GRASS SWALE
(SEE DETAIL "E")

CL I RIPRAP
10 TONS
18.4 SM FT

REMOVE EXISTING
450 CSP & HW

ACCESS POINT

SFD

HTR

ORP.

1200 WW FENCE

1000 mm CONC HW

1000 mm BR WALL

200mm CONC HW

450 mm CMP

450 CSP

30 TAPER

ELBOWS & O-RING GASKETS

GRAU 350

Type "A" 2GI (ED)

Type "A" 600 2GI

REMOVE DI

FILL W/FLOWABLE FILL OR REMOVE 2

ISBLKBUS

CARLYN D. McCLURE
DB 253 PG 585

66A

66
PATRICA ALLEN
DB 189 PG 323

69
HERSCHEL BUCKNER HEIRS
DB 125 PG 366

BERM DITCH FROM
STA. 61+50 TO STA. 61+84 -L-

BERM DITCH FROM
STA. 63+94 TO STA. 64+40 -L-

PC Sta. 10+13.319
PT Sta. 10+22.986
BEARING AH =
N 73° 26' 36.6" E
PC Sta. 10+42.488
PT Sta. 10+49.819
BEARING AH =
S 78° 33' 22.5" E
-D8A- POT Sta. 10+50.000
END CONST.
POT Sta. 10+62.399

-D8A-

PI Sta 10+18.327	PI Sta 10+46.228
△ = 36° 55' 35.1" (LT)	△ = 28° 00' 00.9" (RT)
L = 9.667	L = 7.330
T = 5.008	T = 3.740
R = 15.000	R = 15.000

FOR -L- PROFILE SEE SHEET #50
FOR -D8A- PROFILE SEE SHEET #80

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-74/CONST.20
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

NAD 83

-Y13-
PI Sta 10+26.581
△ = 12° 23' 09.2" (RT)
L = 21.617
T = 10.851
R = 100.000
SE = 0.080
RO = 40

MATCH TO SHEET 19 64+20

MATCH TO SHEET 21 69+60

-BY16-55-POT Sta 00.000=
POT Sta 10+00.000
BEARING AH =
S 71° 46' 33.4" E
BEGIN CONSTRUCTION
-Y13- POT Sta 10+15.000

+47 -L- 112.192 LT (368.08')
+48.00 -L- 111.393 LT (365.462') BEG WW FENCE
+61 -L- 101 LT (331.365')
+54 -L- 68 LT (223.097')
+15 -Y13- 6.726 RT
+17.500
+22.737 -Y13- 9.00 RT (29.528') END WW FENCE
+23 -L- 39 LT (127.953')
+00 -L- 23 LT (75.459')
-BL-54-PINC 65+74.614=
-BY16-POT 5+76.590=
-L- Sta 65+24.222 37.13 LT
-Y16- Sta 10+69.104 37.44 RT

PC Sta 10+15.730
PT Sta 10+37.347
BEARING AH =
S 59° 23' 24.2" E

8 x 2 x 1
2 m weir
ID 20.1C

8 x 4 x 1
38 mm Skimmer
with 31 mm
Orifice Diameter
2 m weir
ID 20.2C

65 66 67

68A SHELBY BUCKNER DB 125 PG 366

68 PAMELA BUCKNER JARRETT DB 286 PG 123
ENERGY DISSIPATOR SEE DETAIL SHEET 2-K

70 WILLIE CLINE GOSNELL DB 182 PG 340

69 HERSCHEL BUCKNER HEIRS DB 125 PG 366

71 JOHN P. HIGGINS DB 270 PG 715

1200 WW FENCE
NATURAL ROCK ENERGY DISSIPATOR (SEE DETAIL SHEET 2-K)
130 TURN LANE
30 TAPER
REM HW AND FILL W/FLOWABLE FILL
REMOVE
450 mm CMP
700mm CMP
750mm CMP
200mm CONC HW
305mm ROCK HW
PLANTER
ISFD
HTR
CONC
GR
SOIL
BERM DITCH FROM STA. 63+94 TO STA. 64+40 -L-
BERM DITCH FROM STA. 65+20 TO STA. 65+58 -L-
BERM DITCH FROM STA. 65+71 TO STA. 66+00 -L-
BERM DITCH FROM STA. 67+20 TO STA. 67+80 -L-
REMOVE 450mm PLASTIC PIPE
ROD & WSLEEV
CONNECTORS
LETS
700 mm BLK WALL
2 ELBOWS W/O-RING GASKETS
ELBOW W/ O-RING GASKETS
ACCESS POINT
HDWL
BDO
EXISTING R/W
EXISTING CONTROL OF ACCESS

-L- POT Sta 65+27.356
-Y13- POT Sta 10+72.200
-L- POT Sta. 65+65.050
-D9- POT Sta. 10+00.000
BEARING AH =
S 69° 37' 24.5" E
-D9- POT Sta. 10+38.000
END CONST.
POT Sta. 10+40.000
-L- POT Sta. 66+40.000
DI0- POT Sta. 10+00.000
DI0- POT Sta. 10+40.000
END CONST.
POT Sta. 10+43.190

+22 -L- 37 RT (121.391')
+56 -L- 31 RT (101.706') END WW FENCE
+59 -L- 47 RT (154.199')
+78.260 -L- 49.48 RT (162.340') BEG WW FENCE
+99 -L- 52 RT (170.604')
+20 -L- 51 RT (167.323')
+37 -L- 35 RT (114.829') END WW FENCE
+40 -L- 43 RT (141.076')
+57 -L- 34 RT (111.549') BEG WW FENCE
+54 -L- 40 RT (131.234')
+11 -L- 53 RT (173.885')
+00 -L- 121 RT (396.982')

6 x 2 x 1 ID 20.1F
12 x 2 x 1 ID 20.2F
10 x 2 x 1 ID 20.4F
10 x 2 x 1 ID 20.4F
12 x 2 x 1 ID 20.5F
12 x 2 x 1 ID 20.6F

FOR -L- PROFILE SEE SHEET *51
FOR -Y13- PROFILE SEE SHEET #70
FOR -D9-&-DI0- PROFILE SEE SHEET #76

R/W REV.: REVISING NAME ON PARCEL 69 (HERSCHEL BUCKNER HEIRS). 3/14/07 TFD

07-AUG-2007 14:28
c:\projects\2518a\proj\comental\design\r2518as28.pah
Brankspc01a AT REN221445

R/W REV.: CHANGING PROPERTY LINE AND NAME ON PARCEL 73 (GARY PHILLIP RANDOLPH AND JANE RANDOLPH WALDRUP) 11/28/06 DWK

8/17/99

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2518A	EC-75/CONST.21
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		

NAD 83

-Y14-
PI Sta 10+29.466
△ = 41° 40' 59.7" (LT)
L = 36.376
T = 19.035
R = 50.000
SE = 0.080
RO = 40

TS Sta 67+68.245

SC Sta 68+43.245

CS Sta 70+59.763

68
PAMELA BUCKNER JARRETT
DB 286 PG 123

73
GARY PHILLIP RANDOLPH
JANE RANDOLPH WALDRUP
DB 147 PG 393
DB 389 PG 1

ENERGY DISSIPATOR
SEE DETAIL SHEET 2-K

1200 WW FENCE

+09 -L-
34 LT
(111.548')

-BL-56-PINC 68+92.329=
~~-BL56-~~POT 5+00.000=
-L- Sta 68+42.006 0.998 LT

RIP RAP AT EMBANKMENT
(SEE DETAIL "L")

+73 -L-
39 LT
(127.953')

SPECIAL CUT BASE DITCH
(SEE DETAIL "Z")

SPECIAL CUT BASE DITCH
(SEE DETAIL "Z")

	NORTH	EAST	ELEV.
1	241302.263	295381.090	706.183
			706.530
			706.009
2	241305.350	295381.150	706.202
3	241312.173	295394.380	706.331
			708.280
			708.154
2			706.238
4	241315.324	295399.034	706.238

2 ELBOWS
W/O-RING
GASKETS

INV.= 704.799

450 mm CMP

REM HW AND FILL
W/FLOWABLE GROUT

1.4m CONC. HW

CL B RIPRAP
1.8 TONS
5.9 SM FF

N 4° 27' 30.0" E

GRAU 350

2.7m X 1.8 RCBC

12.192
(40')

EXISTING R/W

ELBOW W/
O-RING GASKETS

SR 1513 RUTH CIRCLE 40 BST

EXISTING R/W

S 34° 22.5" E

N 15° 12' 18.4" E

30 TAPER

130 TURN LANE

CAT-1

CL B RIPRAP
4.5 TONS
1.7 SM FF

CL B RIPRAP
1.8 TONS
5.9 SM FF

Lateral Base Ditch
See Detail "M"

+73 -L-
31 RT
(101.706')

25 x 8 x 1
76 mm Skimmer
with 65 mm
Orifice Diameter
4 m weir
ID 21.3F

GARY PHILLIP RANDOLPH
JANE RANDOLPH WALDRUP
DB 147 PG 393
DB 389 PG 1

CE 1	241378.915	2954	
HW 1			
CE 1			
CUL 2	241382.006	295	
CUL 3	241372.728	295	
HW 2			
CE 2			
CUL 4	241375.778	295	

12 x 2 x 1
ID 21.1F

12 x 2 x 1
ID 21.2F

-BY17-58-PINC 5+25.849=
-L- Sta 68+66.460 7.065 RT

-L- POC Sta 70+07.081
-Y14- POT Sta 10+00.000
-BY17-59-PINC 6+59.094=
-L- Sta 69+96.926 19.064 RT
-Y14- Sta 10+17.128 11.571 RT

PC Sta 10+10.431
BEARING BK =
S 87° 54' 02.7" E

PT Sta 10+46.806
BEARING AH =
N 50° 24' 57.6" E

END CONSTRUCTION
-Y14- POT Sta 10+60.000

POT Sta 10+76.806

-BY17-60-PINC 7+56.059=
-BY18-POT 5+00.000

12 x 2 x 1
38 mm Skimmer
with 27 mm
Orifice Diameter
2 m weir
ID 21.2C

BERM DITCH FROM
STA. 67+82 TO STA. 68+40 -L-

BERM DITCH FROM
STA. 67+20 TO STA. 67+80 -L-

+81 -L-
47 RT
(154.199')

MARY JANE YACOPINO
DB 377 PG 251

JOHN P. HIGGINS
DB 270 PG 715

71

72

+60 -L-
58 RT (190.289')

+19 -L-
109 RT (357.612')

+47 -L-
115 RT (377.297')

+48 -Y14-
8 LT (26.247')

+67 -Y14-
EX.R/W

+54 -L-
EX.R/W

+80 -L-
EX.R/W

+79.483 -L-
90.146 RT
(295.754')

KATHY CLARK
DB 203 PG 749
DB 224 PG 734

END WW FENCE

BEG WW FENCE

MATCH TO SHEET 22

MATCH TO SHEET 20

FOR -L- PROFILE SEE SHEET #52
FOR -Y14- PROFILE SEE SHEET #70

08-AUG-2007 6ut
Richard Pope
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R/W REV.: CHANGING NAME AND DEED BOOK NUMBER ON PARCEL 74 (HARRY CHADWICK JR., AND SHIRLEY J. CHADWICK); CHANGING PROPERTY LINE AND NAME ON PARCEL 73 (GARY PHILLIP RANDOLPH AND JANE RANDOLPH WALDRUP); CHANGING NAME AND DEED BOOK ON PARCEL 72A (MARY JANE YACOPINO) AND CHANGING PROPERTY LINE ON PARCEL 75 (ANNIE LOU ROBINSON). 11/28/06 DMK

08-AUG-2007 07:11
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PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-76/CONST.22
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC
5 0 10

NAD 83

-BY19-65-POT 5+00.000
-Y19- Sta 10+49.341 33.06.759 LT

SC Sta 72+24.763

GARY PHILLIP RANDOLPH
JANE RANDOLPH WALDRUP
DB 147 PG 393
DB 389 PG 1
73

BEGIN CONSTRUCTION
-Y15- POT Sta 10+00.000

ANNIE LOU ROBINSON
DB 63 PG 550
75

20 x 10 x 1
76 mm Skimmer
with 65 mm
Orifice Diameter
4 m weir
ID 22.1F

CS Sta 74+26.200

BL-57-PINC 71+53.052

SRS Sta 71+34.763

BL-63-PINC 73+52.158=
BY17-POT 10+29.430=
-BY19-POT 5+60.493=
-L- Sta 73+01.588 20.58' LT
-Y15- Sta 10+26.938 4.407 RT

CL B RIPRAP
4.5 TONS
11.7 SM FF

SHEET FLOW

REMOVE PIPE AND CONC HW

FILL WITH FLOWABLE GROUT

CL B RIPRAP
1.8 TONS
5.9 SM FF

GRAU 350

CL B RIPRAP
4.5 TONS
11.7 SM FF

Lateral Base Ditch
See Detail "M"

-BY17-62-PINC 8+72.797

-L- POC Sta 73+06.611
-Y15- POT Sta 10+47.683
BEARING BK =
S 81° 54' 09.1" E

GARY PHILLIP RANDOLPH
JANE RANDOLPH WALDRUP
DB 147 PG 393
DB 389 PG 1
73

N 18° 15' 19.9" W

BRIAN E. MACE
DB 199 PG 138

72A
MARY JANE YACOPINO
DB 377 PG 251

HARRY CHADWICK, JR.
SHIRLEY J. CHADWICK
DB 378 PG 257
74

HARLEY WALDRUP
&
JAMES WALDRUP
DB 160 PG 584
76

BERM DITCH FROM
STA. 72+80 TO STA. 73+33 -L-

T	ELEV.
4,500	708.754
	711.377
	710.563
16.467	708.814
14.224	709.123
	711.441
	710.813
16.253	709.106

FOR -L- PROFILE SEE SHEET #53
FOR -Y15- PROFILE SEE SHEET #70

MATCH TO SHEET 21

MATCH TO SHEET 23

R/W REV.: CHANGING NAME AND DEED BOOK NUMBER ON PARCEL 74 (HARRY CHADWICK JR. AND SHIRLEY J. CHADWICK). 11/28/06 DWK

8/17/05

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2518A	EC-77/CONST.23
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		

NAD 83

-L-
PIs Sta 74+56.221
Θs = 4° 54' 39.8"
Ls = 90.000
LT = 60.023
ST = 30.021

PIs Sta 76+78.569
Θs = 4° 38' 44.2"
Ls = 90.000
LT = 60.021
ST = 30.019

PI Sta 77+37.337
Δ = 5° 56' 19.5" (LT)
L = 57.526
T = 28.789
R = 555.000
SE = 0.060

PIs Sta 77+96.093
Θs = 4° 38' 44.2"
Ls = 90.000
LT = 60.021
ST = 30.019

-Y16-
PI Sta 10+28.078
Δ = 91° 16' 32.7" (LT)
L = 23.896
T = 15.338
R = 15.000
SE = 0.070
R0 = 42

-DII-
PI Sta 10+17.187
Δ = 28° 09' 19.1" (LT)
L = 9.828
T = 5.015
R = 20.000

PI Sta 10+31.659
Δ = 21° 52' 08.5" (LT)
L = 19.084
T = 9.660
R = 50.000

-DI2-
PI Sta 10+08.316
Δ = 33° 23' 56.8" (RT)
L = 5.829
T = 3.000
R = 10.000

ANNIE LOU ROBINSON
DB 63 PG 550
75

DONALD GRAY RICE
DB 206 PG 602
77

RANDALL D. FERGUSON
DB 169 PG 265
81

CS Sta 77+66.075

-L- POC Sta 77+61.929
-Y16- POT Sta 10+00.000
BEARING AH =
S 71° 50' 26.1" E

SC Sta 77+08.549

TS Sta 76+18.549

6 x 3 x 1
38 mm Skimmer
with 23 mm
Orifice Diameter
2 m weir
ID 23.7F

12 x 2 x 1
ID 23.6F

+72 -L-
62 LT
(203.412')

+61 -L-
40 LT
(131.234')

+49 -L-
42 LT
(137.795')

ACCESS POINT

ST Sta 75+16.200

+15 -L-
35 LT
(114.830')

+27 -L-
37 LT (121.39')

+29 -L-
63 LT
(206.693')

+80 -L-
26 LT
(72.179')

+80 -L-
22 LT
(72.179')

+62 -L-
30 LT (98.425')

END WW FENCE

1200 WW FENCE

+29.371 -L-
37.539 LT (123.158')
BEG WW FENCE

+11.380 -L-
35.288 LT (115.775')
END WW FENCE

RIP RAP AT EMBANKMENT
SEE DETAIL "L"

STANDARD 0.6 m BASE DITCH
SEE DETAIL "I"

BL-66-PINC 77+04.532=
-BY266POT- 5+00.000=
-L- Sta 76+46.969 16.528 LT

CL. I RIPRAP
CL B RIPRAP

REMOVE CONC. HW &
FILL W/FLOWABLE GROUT

REMOVE

450 mm CMP

2SBLK&F BUS

ISFD

NOLAN N. REVES
DB 244 PG 348
78

JONATHAN P. FOXX
DB 319 PG 391
78A

JAMES ALLAN BALLARD
DB 193 PG 173
82

GLEN ROBERTS
DB 158 PG 86
DB 169 PG 45
83

LARRY RUSSELL ROBERTS
DB 161 PG 184
79

DONALD GRAY RICE
DB 206 PG 602
80

DENISE MALOCH
DB 292 PG 626
DB 4 PG 969
80A

HARLEY WALDRUP
&
JAMES WALDRUP
DB 160 PG 584
76

HARRY CHADWICK, JR.
SHIRLEY J. CHADWICK
DB 378 PG 257
74

12 x 2 x 1
ID 23.1F

4 x 2 x 1
ID 23.2F

8 x 2 x 1
ID 23.3F

8 x 2 x 1
ID 23.4F

12 x 2 x 1
ID 23.8F

+55 -L-
50 RT (164.042')

+91 -L-
33 RT
(108.268')

+73 -L-
116 RT (380.578')

+14 -L-
110 RT (360.893')

+90.434 -L-
24.355 RT (79.906') END WW FENCE

+99 -L-
29 RT
(95.144')

+94 -L-
ON R/W

+13.347 -L-
23.683 RT
(77.700')
BEG WW
FENCE

+12 -L-
36 RT (118.110')
ACCESS POINT

+37 -L-
24 RT (78.740')

+06 -L- PC Sta 10+12.740
ON R/W
+18 -L- PT Sta 10+36.636
28 RT (91.864')

-L- Sta 77+64.424 6.645 RT +33 -Y16-
-Y16- Sta 10+06.640 2.525 LT ON R/W

-Y16- POT Sta 10+40.000
-DI2- POT Sta 10+00.000
BEARING AH =
S 73° 07' 01.9" E

+32 -Y16-
72 RT (59.055')

+37 -Y16-
22 RT (72.179')

END WW FENCE

-L- POC Sta 76+93.000
-DII- POT Sta 10+00.000
PCSta 10+12.171
BRG BK S 74° 25' 39.5" E

PCSta 10+21.999
PCSta 10+28.000
END CONST.

PT Sta 10+41.084
BEARING AH =
N 55° 32' 52.9" E

-DII- POT Sta 10+41.303

PCSta 10+05.316
-DI2- POT Sta 10+20.000
END CONST.
POT Sta 10+24.131

PT Sta 10+11.145
BEARING AH =
S 39° 43' 05.0" E

S 27° 48' 1" W
115.824

N 28° 18' 53.5" E

N 34° 46' 30.1" E

N 27° 33' 26.1" E

N 27° 33' 23.4" E

MATCH TO SHEET 22

MATCH TO SHEET 24

74+40

77+80

FOR -L- PROFILE SEE SHEET #54
FOR -Y16- PROFILE SEE SHEET #70
FOR -DII-&-DI2- PROFILE SEE SHEET #76

08-AUG-2007 07:16
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$RENAME$ = 21145

8/17/93

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-78/CONST.24
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

NAD 83

-DI2A-
PI Sta 10+11.053
Δ = 38° 39' 41.1" (LT)
L = 101.22
T = 5.262
R = 15.000

PI Sta 10+28.020
Δ = 44° 18' 16.1" (RT)
L = 111.599
T = 61.07
R = 15.000

-DI3-
PI Sta 10+14.717
Δ = 70° 32' 22.1" (RT)
L = 61.56
T = 35.36
R = 5.000

-DI4-
PI Sta 10+21.203
Δ = 17° 41' 52.2" (RT)
L = 15.532
T = 7.829
R = 50.000

PI Sta 10+43.186
Δ = 22° 54' 36.5" (LT)
L = 19.993
T = 10.132
R = 50.000

-DI5-
PI Sta 10+11.006
Δ = 17° 09' 27.1" (LT)
L = 14.973
T = 7.543
R = 50.000

PI Sta 10+34.765
Δ = 12° 02' 38.0" (RT)
L = 15.765
T = 7.912
R = 75.000

-DI3- POT Sta.10+00.000
BEGIN CONST.
BEARING AH = N 34° 21' 12.2" E

PC Sta.10+11.81

PT Sta.10+17.336
BEARING AH = S 75° 06' -L- POS .000

-DI3- POT Sta.10+31.704

-DI4- POT Sta.10+04.500
BEGIN CONST.

POT Sta.10+00.000
BEARING AH = S 69° 14' 19.5" E

POT Sta.10+00.000
BEARING AH = S 71° 48' 05.2" E

-DI5- POT Sta.10+02.000
BEGIN CONST.

PC Sta.10+03.463

PT Sta.10+18.436
BEARING AH = S 88° 57' 32.3" E

PC Sta.10+26.853

PT Sta.10+42.618
BRG AH S 76° 54' 54.4" E

-L- POT Sta. +49.000

-DI5- POT Sta.10+56.271

PC Sta.10+13.374

PT Sta.10+28.906

PC Sta.10+33.054
BRG BK S 51° 26' 27.3" E

PT Sta.10+53.047
BRG AH S 74° 21' 03.0" E

-L- POT Sta.79+14.400

-DI4- POT Sta.10+54.838

ST Sta 78+56.075

BEGIN CULVERT
STA.77+82.212
END CULVERT
STA.77+99.268

12 x 2 x 1
ID 24.1F

12 x 2 x 1
ID 24.3F

12 x 2 x 1
ID 24.4F

15 x 4 x 1
ID 25.5F

6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 24.8C

12 x 2 x 1
ID 24.2F

8 x 3 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 24.9C

6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 25.1C

RANDALL D. FI
DB 169 PG 2
81

SHARON PONDER BUCKNER
DB 241 PG 376
85

DALLAS BUCKNER, JR,
DB 86 PG 634
88

UCKNER, JR,
PG 363
88

DALLAS BUCKNER, JR
DB 70 PG 363
88

BETHEL BAPTIST CHURCH
DB 185 PG 305
86

BETHEL BAPTIST CHURCH
DB 185 PG 305
86

RALPH LEE FERGUSON
DB 95 PG 186
84

LENA B. RAY
DB 154 PG 229

GLEN ROBERTS
DB 158 PG 86
DB 169 PG 45
83

GLEN ROBERTS
DB 158 PG 86
DB 169 PG 45

ROD & LUG CONNECTORS W/SLEEVE GASKETS

REMOVE HWL AND FILL WITH FLOWABLE GROUT

PREFORMED SCOUR HOLE (SEE DETAIL "O")

PIPE REMOVAL (6 m)

END CONSTRUCTION
-Y17- POC Sta 12+20.000

PT Sta 12+22.288

POT Sta 12+52.288

PC Sta.10+72.678
N 16° 53' 01.2" E

PT Sta.10+96.139
BEAR. AH = N 33° 40' 56.

-Y16- POT Sta.10+55.000

-DI2A- POT Sta.10+00.000

PT Sta.10+33.512

PC Sta.10+21.913

PT Sta.10+15.912
BEARING AH = N 68° 13' 20.2" E

PC Sta.10+05.791
BEARING BACK = N 73° 06' 58.7" E

POT Sta.10+41.036
BEARING BACK = S 67° 28' 23.7" E

-DI2A- POT Sta.10+39.061
END CONST.

POT Sta 11+26.133
END PAVING

-Y16- POT Sta 11+20.000

POT Sta 11+31.785
END CONSTR.

-BL-67-PINC 79+15.98=
-L- Sta 78+97.356 12.724 RT

-BY20-69-PINC 7+17.333=
-Y20- Sta 10+45.702 2926.291 RT

-BY21-POT 5+00.000
-BY20-70-PINC 8+71.193=

N 31° 00' 23.6" E

N 13° 05' 05.7" E

N 11° 02' 42.1" E

S 9° 54' 06.2" E

S 54° 02' 28.

FOR -L-, -Y16- PROFILE SEE SHEET #55
FOR -Y16- PROFILE SEE SHEET #70
FOR -Y17- PROFILE SEE SHEET #71
FOR -DI2A-, -DI3-, -DI4- &-DI5- PROFILE SEE SHEET #77

MATCH TO SHEET 23

MATCH TO SHEET 25

08-AUG-2007 07:22
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Bentleyuser: RENN221445

R/W REV.: CHANGING PARCEL NUMBER FROM 94 TO 93 AND PROPERTY NAME AND DEED BOOK NUMBER (HENRY G. CHOQUETT); CHANGING NAME ON PARCEL 95 (NANCY JO RIDDLE, ET AL); AND ADDING DRIVEWAY AND CONTROL OF ACCESS BREAK, AND CHANGING PROPERTY NAME AND PROPOSED R/W ON PARCEL 92 (JOSEPH CHANDLER, III). 11/28/06 DWK

08-AUG-2007 12:39
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PLOTTED BY: REVIS 261812

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-79/CONST.25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R/W REV.	

METRIC 5 0 10

NAD 83

-L-
PIs Sta 83+02.146
Θs = 1° 00' 40.0"
Ls = 60.000
LT = 40.001
ST = 20.001

PI Sta 84+78.868
△ = 10° 32' 03.9" (RT)
L = 312.563
T = 156.723
R = 1,700.000
SE = 0.030

-Y18-
PI Sta 10+21.752
△ = 16° 02' 06.6" (LT)
L = 25.188
T = 12.677
R = 90.000

PI Sta 11+35.087
△ = 20° 04' 55.7" (LT)
L = 31.545
T = 15.936
R = 90.000

-Y17-
PI Sta 12+00.604
△ = 25° 15' 52.4" (LT)
L = 44.095
T = 22.412
R = 100.000
SE = 0.080
RO = 48

PI Sta 11+24.695
△ = 77° 16' 02.0" (RT)
L = 40.457
T = 23.978
R = 30.000
SE = 0.080
RO = 48

PI Sta 10+21.286
△ = 17° 17' 25.7" (LT)
L = 42.249
T = 21.286
R = 140.000
SE = 0.080
RO = 48

5 x 2 x 1
38 mm Skimmer
with 17 mm
Orifice Diameter
2 m weir
ID 25.3F

6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 25.9C

20 x 7 x 1
64 mm Skimmer
with 60 mm
Orifice Diameter
2 m weir
ID 25.2F

11 x 4 x 1
38 mm Skimmer
with 36 mm
Orifice Diameter
2 m weir
ID 25.4F

10 x 4 x 1
38 mm Skimmer
with 35 mm
Orifice Diameter
2 m weir
ID 25.2C

28 x 10 x 1
76 mm Skimmer
with 75 mm
Orifice Diameter
4 m weir
ID 25.1F

BY22-74-POT 5+00.000
PCSta.10+00.000
BRG BK S 44° 36' 50.1" E
PCSta.10+09.075
BEGIN CONSTRUCTION
-Y17- POT Sta 9+95.000
PT Sta.10+34.263
PCSta.11+19.151
PT Sta.11+50.696
-L- POT Sta 82+14.589
-Y17- POT Sta 10+80.728
TS Sta 82+62.145
SC Sta 83+22.145
PC Sta 11+78.193
PT Sta 11+41.175
BEARING AH = S 15° 21' 46.2" W
PC Sta N+00.718
END SBG STA 82+75 -L-
BEGIN SBG STA 82+20 -L-
BL-72-PINC 82+53.568=
BY22-POT 6+05.685=
BY23-PCPT 5+00.000=
BY202POT 10+86.487=
-L- Sta 81+95.512 0.680 RT
-Y17- Sta 10+86.326 18.251 RT

RHONDA CHANDLER
DB 301 PG 202-204

JOSEPH CHANDLER, III
DB 102 PG 281
DB 282 PG 112

WALTER S. CHANDLER
DB 83

NCDOT
DB 232 PG 38

LAWRENCE AND VESSIE REAVIS HEIRS
DB 70, PG 363
DB 93 PG 428

DALLAS BUCKNER, JR.
DB 70 PG 363

HAROLD BUCKNER
DB 130 PG 61

NANCY JO RIDDLE, ET AL
NO DEED

SEE MITIGATION PLANS FOR STREAM DESIGN

STD. BASE DITCH DETAIL "J"

RIP-RAP AT EMBANKMENT (See Detail " L ")

0.8 m X 0.3 m X 1.8 m SILLS at 3 m CTRS. (DOWELED INTO RCBC FLOOR)

2.4m X 1.2m RCBC

2-1.8 X 2.1 RCBC

1-2.7 X 2.1 RCBC

PSH (See Detail "O")

2 ELBOWS w/ O-RING GASKETS

REMOVE 300 mm CSP

CL B RIPRAP 2.7 TONS

CL B RIPRAP 5.4 TONS 16.8 SM FF

CLASS "B" RIPRAP

STD. BASE DITCH DETAIL "AA"

BERM DITCH FROM STA. 83+65 TO STA. 83+90 -L-

Place Matting for Erosion Control on Slope as Work Allows.

Place Matting for Erosion Control on Slope as Work Allows.

ACCESS POINT

1200 WW FENCE

1200 mm CMP

375 mm CMP

ISBK&FD

CUL 1	24	2425	0.672	295
CUL 2	24	2425	0.672	295
CUL 3	24	2425	0.672	295
HW 2				
CE 2				
CUL 4	24	2425	0.672	295

733.43	20.10	733.43	
735.307	3.608	735.307	
736.452		736.452	
735.936		735.936	
733.856		733.856	

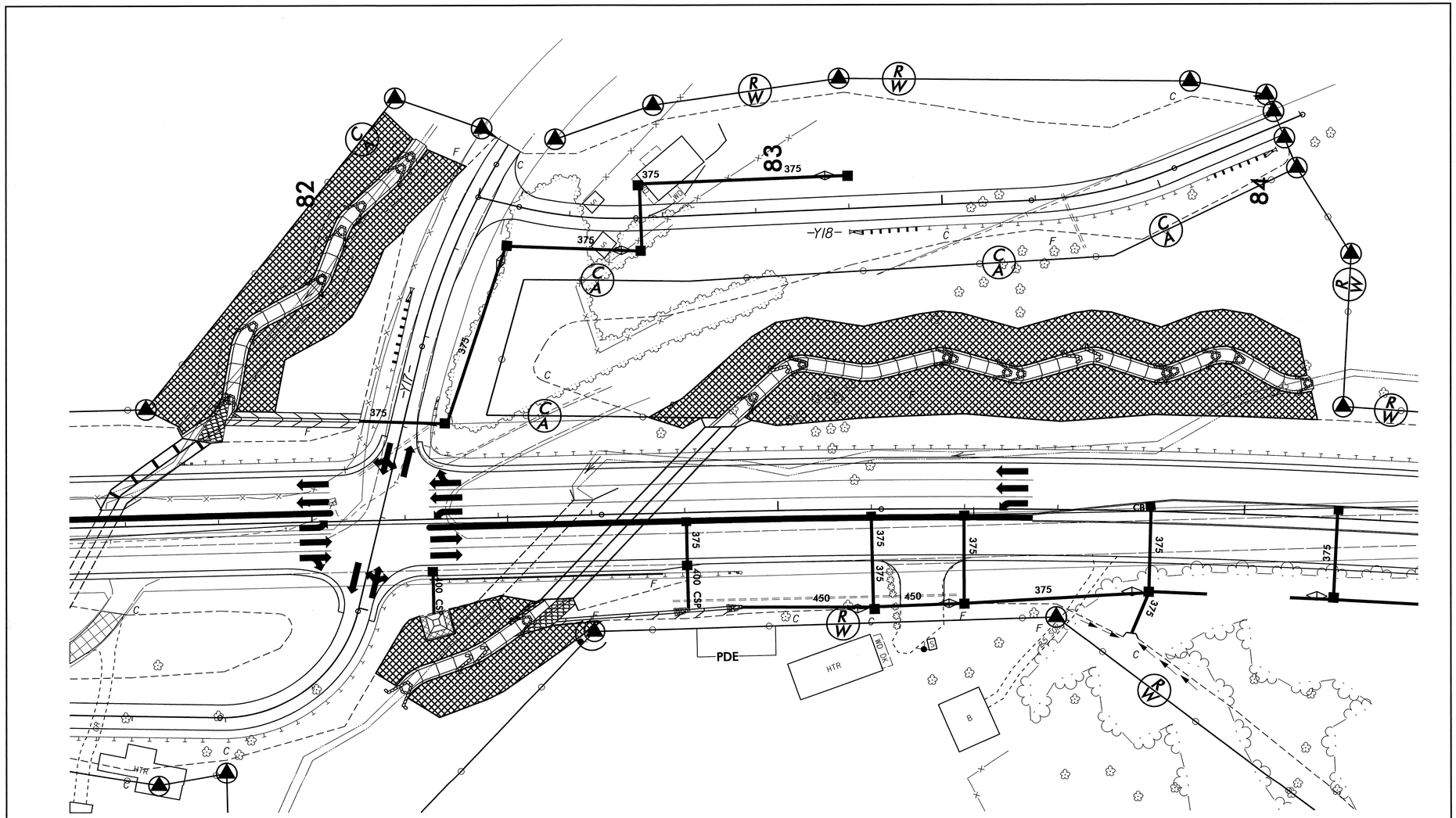
FOR -L- PROFILE SEE SHEET *56
FOR -Y17- PROFILE SEE SHEET *71
FOR -Y18- PROFILE SEE SHEET *71

MATCH TO SHEET 24 81+20

MATCH TO SHEET 26 84+60

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2518A	EC-80/CONST.25
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

0.4 HECTARE STREAMBANK REFORESTATION



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

R/W REV.: CHANGING PARCEL NUMBER FROM 94 TO 93 AND PROPERTY NAME AND DEED BOOK NUMBER (HENRY G.CHOQUET); CHANGING NAME ON PARCEL 95 (NANCY JO RIDDLE, ET AL); ADDING DRIVEWAY AND CONTROL OF ACCESS BREAK AND CHANGING PROPERTY NAME AND DEED BOOK NUMBER ON PARCEL 92 (JOSEPH CHANDLER, III) AND ADDING DRIVEWAY AND PROPOSED R/W ON PARCEL 98 (JERRY ROBERTSON). 11/28/06 DWK

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Brentpeoples
R/W REV.: 11/28/2006 DWK

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-81/CONST.26
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC
5 0 10

NAD 83

PI Sta 10+17.540
△ = 53° 55' 49.0" (LT)
L = 14.119
T = 7.631
R = 15.000

-D15B-

SE = 0.030

HENRY G. CHOQUET
DB 267 PG 772
93

PRISCILLA BASS
DB 423 PG 597
96

FIARDY HENSLEY
DB 185 PG 319
97

JERRY ROBERTSON
DB 153 PG 39
DB 281 PG 709
DB 282 PG 112
98

JOSEPH CHANDLER, III
DB 102 PG 281
DB 282 PG 112
92

NANCY JO RIDDLE, ET AL
NO DEED
95

JOSEPH CHANDLER, III
DB 102 PG 281
DB 282 PG 112
92

JERRY ROBERTSON
DB 153 PG 39
DB 281 PG 709
DB 282 PG 112
98

-BL-73-PINC 85+39.557= -L- Sta 84+81.063 7.356 LT

ST Sta 86+94.708

-BL-76- -L- Sta

CS Sta 86+34.708

BEG. SBG STA. 87+38 -L- (LT)
-L- POT Sta. 87+91.500
-D15B- POT Sta. 10+00.000

-L- POT Sta. 87+60.000
-D14A- POT Sta. 10+00.000
BEARING AH = S 64° 21' 30.5" E

PC Sta. 10+09.909
BEARING BK = S 64° 21' 30.5" E

PT Sta. 10+24.027
BEARING AH = N 61° 42' 40.6" E

PC Sta. 10+30.660

PT Sta. 10+38.956

PC Sta. 10+54.730

PT Sta. 10+44.481
BEARING AH = S 8° 45' 49.7" W

PT Sta. 10+89.980
BEARING AH = S 4° 42' 02.5" E

PT Sta. 11+38.791
BEARING AH = S 23° 20' 04.9" E

-D14A- POT Sta. 11+58.130
END CONST.

ACCESS POINT

+16 -L- 64 LT (209.974')
+26 -L- 42 LT (137.795')
+72 -L- 43 LT (141.076')
+80 -L- ON R/W & 33 LT (108.268')
+84 -L- 36 LT (118.110')
+00 -L- ON R/W & 33 LT (108.268')
+26 -L- 25 LT (82.021')
+69 -L- 40 LT (131.234')
+39.893 -L- 102.628 RT END WW FENCE
+65 -L- 96 RT (314.961') BEGIN WW FENCE
+99 -L- 112 RT (367.454')
+01 -L- 112 RT (367.454')
+56 -L- 129 RT (423.228')
+87 -L- 100 RT (328.084')

1200 WW FENCE

NATURAL ROCK ENERGY DISSIPATOR (SEE DETAIL "W")

600 CSP ROD & LUG CONNECTOR WITH SLEEVE GASKETS

APPROX. LOCATION OF CONNECTION TO 600mm CMP

REMOVE 300mm CONC. GRAU 350

600 mm CMP

PLUG & GROUT

REMOVE HWL & FILL WITH FLOWABLE GROUT

REMOVE HWL AND FILL PIPE WITH FLOWABLE GROUT

(See Detail "O")

BERM DITCH FROM STA. 84+60 TO STA. 85+00 -L-

BERM DITCH FROM STA. 86+20 TO STA. 86+45 -L-

OUTFLOW NOT FOUND S 68° 58' E 5.5ft

DITCH TO FINAL SHOT

R/W REV.: REVISING PROPERTY LINES ON PARCEL 99. 01/31/2006 GSB

R/W REV.: ADDING DRIVEWAY AND CONTROL OF ACCESS BREAK AND CHANGING LINE AND NAME ON PARCEL 100 (SANDRA R... 11/28/06 DWK

12 x 2 x 1 ID 26.10F
12 x 2 x 1 ID 26.11F
12 x 2 x 1 ID 26.1F
12 x 2 x 1 ID 26.2F
12 x 2 x 1 ID 26.3F
12 x 2 x 1 ID 26.4F
12 x 2 x 1 ID 26.5F
12 x 2 x 1 ID 26.6F
3 x 1 x 1 ID 26.7F
3 x 1 x 1 ID 26.8F
3 x 1 x 1 ID 26.9F

MATCH TO SHEET 25 84+60

MATCH TO SHEET 27 88+00

FOR -L- PROFILE SEE SHEET #57
FOR -D14A- PROFILE SEE SHEET #80
FOR -D15B- PROFILE SEE SHEET #80

R/W REV.: ADDING DRIVEWAY AND CONTROL OF ACCESS BREAK AND CHANGING PROPERTY LINE, NAME AND PROPOSED R/W ON PARCEL 98 (JERRY ROBERTSON) AND CHANGING PROPERTY LINE AND NAME ON PARCEL 100 (SANDRA RAY). 11/28/06 DWK

8/17/98

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2518A	EC-82/CONST.27
CONST.REV.	R /W SHEET NO.	
R /W REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83

MATCH TO SHEET 26

MATCH TO SHEET 28

88+00

91+40

SR 1508 37 GR

S 24° 42' 46" W 217.382

98
JERRY ROBERTSON
DB 153 PG 39
DB 281 PG 709
DB 282 PG 112

88 89 90 91

+21 -L- 56 LT (183.727')

+79 -L- 61 LT (200.131')

+33 -L- 54 LT (177.165')

+20 -L- 79 LT (259.186')

+84 -L- 108 LT (354.331')

+40 -L- 69 LT (226.378')

1200 WW FENCE

1375 mm CMP

4SBW

DAVID M. THOMAS
DB 361 PG 587

101

N 68° 00' 00" W 5.079

NATURAL ROCK ENERGY DISSIPATOR (SEE DETAIL "V")

ABAND

527A

INV.= 769.026

END SBG STA. 90+00 -L- (LT)

10 x 2 x 1 ID 27.6F

TS Sta 90+39.565

SC Sta 90+99.565

-BL-77-PINC 91+39.367=
-L- Sta 90+79.516 4.759 LT

RETAIN EXISTING 900mm CMP PIPE LINE WITH NCDOT APPROVED LINER

900 mm CMP

NATURAL ROCK ENERGY DISSIPATOR (SEE DETAIL "V")

515A INV.= 753.706

100 CSP

515

513

514

517

INV.= 758.495

520

521

523

525

526

527

528

530

524

524A

624B

519

522

518

EXISTING R/W

REM GR

GR

REM GRMTL

130 TURN TAPER

30 TAPER

GRAU 350

450 mm CMP REMOVE DI AND FILL WITH FLOWABLE GROUT

FILL WITH FLOWABLE GROUT

REMOVE DI AND FILL WITH FLOWABLE GROUT

450 REMOVE HWL

2.9 m 2GI (ONG. HW)

CAT-1

US 19 TO BST

US 19 102 BST

N 27° 24' 43.3" E

N 25° 38' 29.6" E

S 69° 3' 24" W 30.546

HDWL

CL B 0.9 TON 4.2 SM FF

TB 2GI

TB 2GD

COLLAR

ROD & LUG CONNECTORS WITH SLEEVE GASKETS

36 DR

GR R=61

GR R=12

GR R=18

-DI5A-

-DI5B-

ACCESS POINT

+66.011 -L- 27.845 RT (91.354') BEG WW FENCE

+23 -L- 28 RT (91.863') BEG WW FENCE

+48 -L- 26 RT (85.302') END WW FENCE

+60 26 RT (85.302')

+71 -L- 60 RT (196.850') 900 mm SPLIT RAIL

+54 -L- 71 RT (232.940')

+3.914 45.474 RT (149.198') END WW FENCE

+24 -L- 29 RT (95.144')

+25.656 -L- 52.913 RT BEGIN WW FENCE

+26 -L- 58 RT (190.289')

+14.971 -L- 70.203 RT END WW FENCE

+02 -L- 85 RT (278.871')

+77 -L- 93 RT (305.118')

PC Sta. 10+41.348

-DI5B- Sta. 10+40.000 END CONST.

PT Sta. 11+10.402

PT Sta. 10+34.361
BEAR. AH = N 40° 18' 54.7" E

PC Sta. 10+16.177

PC Sta. 10+65.213

PT Sta. 10+77.022
BEAR. AH = N 85° 25' 10.4" E

POT Sta. 10+99.487

-DI5A- POT Sta. 10+92.500 END CONST.

-L- STA. 90+55 BEG. MEDIAN CONCRETE BARRIER

-L- POC Sta. 90+61.481

-DI5A- POT Sta. 10+00.000

BEAR. AH = S 70° 13' 38.4" E

6 x 3 x 1 38 mm Skimmer with 23 mm Orifice Diameter 2 m weir ID 27.1F

12 x 2 x 1 ID 27.3F

12 x 2 x 1 ID 27.4F

12 x 2 x 1 ID 27.5F

IMPACT ATTENUATOR TYPE 350

JERRY ROBERTSON
DB 153 PG 39
DB 281 PG 709
DB 282 PG 112

MELVIN J. BEASLEY
DB 189 PG 301

99

SANDRA RAY
DB 361 PG 581

100

HTR

900 mm CMP

600 mm CMP

1200 WW FENCE

-L-

PIs Sta 90+79.567
Θs = 1° 25' 56.6"
Ls = 60.000
LT = 40.001
ST = 20.001

PI Sta 91+69.774
Δ = 6° 41' 48.4" (LT)
L = 140.257
T = 70.208
R = 1,200.000
SE = 0.040

-DI5A-

PI Sta 10+26.575
Δ = 69° 27' 26.9" (LT)
L = 18.184
T = 10.398
R = 15.000

PI Sta 10+71.443
Δ = 45° 06' 15.7" (RT)
L = 11.808
T = 6.229
R = 15.000

-DI5B-

PI Sta 10+76.710
Δ = 30° 26' 05.4" (RT)
L = 69.054
T = 35.363
R = 130.000

FOR -L- PROFILE SEE SHEET #58
FOR -DI5B- PROFILE SEE SHEET #80

31-AUG-2007 10:15
User:dwkeck
File:R-2518A\environmental\design\r-2518asc27.pdh
Date:8/31/2007

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-83/CONST.28
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC

5 0 10

NAD 83

-L-

PI Sta 91+69.774
△ = 6° 41' 48.4" (LT)
L = 140.257
T = 70.208
R = 1,200.000
SE = 0.040

PIs Sta 92+59.824
Θs = 1° 25' 56.6"
Ls = 60.000
LT = 40.001
ST = 20.001

17 x 5 x 1
51 mm Skimmer
with 47 mm
Orifice Diameter
2 m weir
ID 28.1C

28 x 9 x 1
76 mm Skimmer
with 73 mm
Orifice Diameter
4 m weir
ID 28.4F

DAVID M. THOMAS
DB 361 PG 587
101

LATERAL BASE DITCH LINED W/CL B STONE (SEE DETAIL "T")

CL B RIPRAP
2.7 TONS
8.4 SM FF

NATURAL ROCK ENERGY DISSIPATOR (SEE DETAIL "V")

ABAND

BEG. SBG
STA. 91+79 -L- (LT)

1000 CSP, B GAGE W/ ROD & LUG CONNECTORS WITH SLEEVE GASKETS.

1000 CSP

400 CSP

W/ O-RING GASKETS

END SBG
STA. 93+45 -L- (LT)

RETAIN EXISTING 1000mm CSP PIPE. LINE WITH NCDOT APPROVED LINER

CS Sta 92+39.822

ST Sta 92+99.822

1050 mm CMP

460 mm CMP

REMOVE DI AND FILL PIPE WITH FLOWABLE GROUT

REMOVE HDWL

EXISTING R/W

1200 WW FENCE

ACCESS POINT

+00 -L-
55 LT
(180.446')

+40 -L-
69 LT
(226.378')

+42 -L-
53 LT
(173.884')

+79.352 -L-
23.616 LT
(77.490')
END WW FENCE

+97.552 -L-
27.330 LT
(89.666')
BEG WW FENCE

+59 -L-
24 LT
(78.740')

+80 -L-
EX. R/W

+10 -L-
EX. R/W

+50 -L-
EX. R/W

+78 -L-
EX. R/W

N 2° 23' 42.5" E

N 16° 04' 47.9" E

8L-78-PINC 94+14.525=
-L- Sta 93+55.672 27.18 LT

MATCH TO SHEET 27
MATCH TO SHEET 29

10 x 2 x 1
ID 28.1F

12 x 2 x 1
ID 28.2F

7 x 2 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
2 m weir
ID 28.3F

DAVID M. THOMAS
DB 361 PG 587
101

+99 -L-
40 RT (131.234')

+62 -L-
70 RT
(229.659')

+05.707 -L-
35.635 RT (116.911')
BEG WW FENCE

+80 -L-
29 RT (95.144')
END WW FENCE

+11 -L-
37 RT
(121.391')

+13 -L-
44 RT
(144.357')

+61 -L-
21 RT
(68.898')

+64 -L-
42 RT (137.795')

+27 -L-
47 RT
(154.200')

SPRING RESERVOIR

800 GAL 35SW

3-4 FT CONC. HW

1000 CSP

F GRAU 350

GRAU 350

C JB w/MH

CAT-1

TB 2GI

2GI

FS

ED

JB

ELBOW

3.6 DR

US 19 10.2 BST

FOR -L- PROFILE SEE SHEET #59

R/W REV.: CHANGING NAME ON PARCEL 101 (DAVID M. THOMAS). 11/28/06 DWK

08-AUG-2007 07:45
User:
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R/W REV 2 12-05

*80

R/W REV: CHANGING NAME ON PARCEL 101 (DAVID M. THOMAS) AND ADDING DRIVEWAY AND 102 (LARRY S.MCCALL). 11/28/06 DWK

R/W REV: ADDING A DRIVEWAY & ACCESS POINT ON THE LEFT SIDE OF PARCEL 101 (DA

RIGHT OF WAY AND CONTROL OF ACCESS BREAK AND REVISING PROPOSED R/W ON PARCEL

8/17/93

08-AUG-2007 15:20
R:\projects\2518\environmental\design\2518aa28.psh
Shapes: All REV 2518

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-84/CONST.29
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

NAD 83

MATCH TO SHEET 28

MATCH TO SHEET 30

95 96 97 98

94+80 98+20

-BL-79-PINC 95+86.045=
-L- Sta 95+22.323 43.297 LT

DAVID M. THOMAS
DB 361 PG 587
101

N.C. D.O.T.
DB 98 PG 578

S 16° 06' 38" W
347.894

4SBW

+54 -L-
79 LT
(259.186')

+57 -L-
73 LT
(239.501')

+64.861 -L-
118.071 LT
(387.374')

+68.053 -L-
84.033 LT
(210.982')

+48 -L-
51 LT
(167.323')

+48 -L-
25 LT
(82.021')

+10 -L-
EX. R/W

+78 -L-
EX. R/W

+50 -L-
EX.R/W

+30 -L-
EX.R/W

+72 -L-
EX.R/W

+60 -L-
EX.R/W

1200 WW FENCE

NATURAL ROCK ENERGY DISSIPATOR (SEE DETAIL "V")

ROD & LUG CONNECTORS WITH SLEEVE GASKETS AND ELBOWS

450 CSP

450 mm CMP

300 mm CMP

TS Sta 95+95.471

SC Sta 96+85.471

CS Sta 97+91.264

N 26° 46' 20.3" E

N 16° 04' 47.9" E

N 18° 14' 04.7" E

REMOVE DI AND PIPE

REMOVE EXIST. HDWL

12 x 4 x 1
38 mm Skimmer
with 38 mm
Orifice Diameter
2 m weir
ID 29.18C

15 x 5 x 1
51 mm Skimmer
with 44 mm
Orifice Diameter
2 m weir
ID 29.19C

7 x 3 x 1
38 mm Skimmer
with 25 mm
Orifice Diameter
2 m weir
ID 29.17C

12 x 2 x 1
ID 29.3F

5 x 2 x 1
ID 29.4F

7 x 2 x 1
ID 29.5F

12 x 2 x 1
ID 29.1F

12 x 2 x 1
ID 29.2F

12 x 2 x 1
ID 29.3F

5 x 2 x 1
38 mm Skimmer
with 17 mm
Orifice Diameter
2 m weir
ID 29.6F

6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 29.14C

RETAIN & EXTEND LINE W/NCDOT APPROVED LINER

-L- POC Sta.96+74.000
-DI6- POT Sta.10+00.000
BEARING AH =
S 87° 57' 57." E

-DI6- POCSta.10+37.000
END CONST.

PCSta.10+24.981

PTSta.10+39.432

PTSta.10+54.763

+70.340 -L-
28.026 RT (91.949')
END WW FENCE

+42 -L-
29 RT
(95.144')

+22 -L-
52 RT
(170.604')

+78 -L-
40 RT
(131.234')

+84 -L-
ON R/W

ACCESS POINT

+94.087 -L-
44.228 RT (145.105')
BEG WW FENCE

+81 -L-
67 RT
(219.816')

+39 -L-
83 RT
(272.310')

+62
75 RT (246.063')

-BL-80-PINC 98+08.458=
-L- Sta 97+40.200 6.895 RT

+20 -L-
31 RT (101.706')
END WW FENCE
+00 -L-
26 RT (85.302')

LARRY S. MCCALL
DB 136 PG 11

DAVID M. THOMAS
DB 145 PG 130
101

FOR -L- PROFILE SEE SHEET *60
FOR -DI6- PROFILE SEE SHEET *77

R/W REV.: ADDING DRIVEWAY AND CONTROL OF ACCESS BREAK AND REVISING PROPOSED R/W ON PARCEL 102 (LARRY S.MCCALL); REVISING PROPOSED R/W ON PARCEL 103B (IRIS YEVONNE WILSON); AND CHANGING NAME AND DEED BOOK NUMBER ON PARCEL 103 (EARL J. GRINDSTAFF). 11/28/06 DWK

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-85/CONST.30
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

NAD 83

MATCH TO SHEET 29 98+20

MATCH TO SHEET 31 101+60

N 1° 59' 00" E 105.237

1200 WW FENCE

+87.941 -L- 113.281 LT (371.657')

+65.775 -L- 111.601 LT (366.146')

+14.106 -L- 98.809 LT (324.176')

12° 12' 27" W 49.995

N 18° 36' 48" E 58.482

+03.340 -L- 77.741 LT (255.055')

N 16° 58' 19" E 70.484

+37.681 -L- 63.521 LT (208.402')

99

100

101

8 x 5 x 1 51 mm Skimmer with 45 mm Orifice Diameter 2 m weir (See Tiered Skimmer Basin Detail) ID 30.1C

Modified Silt Basin Type 'B' 8 x 5 x 1 (See Tiered Skimmer Basin Detail) ID 30.1C

N.C.D.O.T. DB 98 PG 578

ST Sta 98+81.264

8 x 8 x 1 64 mm Skimmer with 64 mm Orifice Diameter 4 m weir (See Tiered Skimmer Basin Detail) ID 30.2C

Modified Silt Basin Type 'B' 8 x 8 x 1 (See Tiered Skimmer Basin Detail) ID 30.2C

9 x 4 x 1 38 mm Skimmer with 33 mm Orifice Diameter 2 m weir ID 30.3C

20 x 7 x 1 64 mm Skimmer with 60 mm Orifice Diameter 4 m weir ID 30.4C

9 x 4 x 1 38 mm Skimmer with 33 mm Orifice Diameter 2 m weir ID 30.5C

CL I RIPRAP 36 TONS 30 SM FF

CL I RIPRAP 90 TONS 19 SM FF

CL B RIPRAP

ROD & LUG CONNECTORS WITH SLEEVE GASKETS AND ELBOWS

-BL-8I-PINC 100+56.571=
-L- Sta 99+87.606 5.117 LT

600 CSP

900 CLASS IV

300 CSP

SPRING BOX

JB

103B IRIS YEVONNE WILSON DB 235 PG 445

BEG. RET. WALL
BEG. TYPE T CONC. BARRIER
BEG CHAIN LINK FENCE
END SBG 100+80

PROP. RET. WALL

PROP. CONC. BARRIER TYPE T

CHAIN LINK FENCE

N 2° 37' 00.9" W

REM GR

N 3° 28' 06.8" W

REMOVE LIGHT AND FILL PIPE WITH FLOWABLE GROUT

FILL PIPE WITH FLOWABLE GROUT

BEGIN SBG STA. 100+98 -L-

GRAU 350 -W-

N 12° 35' 37.3" E

450 mm CMP

2.4 m CONC. HW INV.= 852.186

Type "A" SBG

TB JB

12 x 2 x 1 ID 30.2F

12 x 2 x 1 ID 30.3F

12 x 2 x 1 ID 30.4F

+40 -L- 23 RT (75.459') BEGIN WW FENCE

ACCESS POINT

+80 -L- 134 RT (439.633')

+42 -L- 177 RT (580.709')

+72 -L- EX.R/W

+00 -L- EX.R/W

+40 -L- EX.R/W

LARRY S. MCCALL DB 136 PG 11 (102)

LARRY S. MCCALL DB 136 PG 11 (102)

EARL J. GRINDSTAFF DB 341 PG 321 (103)

-L-
Pls Sta 98+21.280
Θs = 4° 17' 49.9"
Ls = 90.000
LT = 60.018
ST = 30.016

MATCH LINE A

MATCH LINE A

FOR -L- PROFILE SEE SHEET #61

31-AUG-2007 10:26
S:\Location and Surveys\Environmental\design\r2518aa30.psb
R/W REV 11/28/06 DWK

R/W REV.: REVISING PROPOSED R/W ON PARCEL 103B; CHANGING NAME AND DEED BOOK NUMBER ON PARCEL 103A (SAMUEL EUGENE HARTLEY); AND CHANGING NAME AND DEED BOOK NUMBER ON PARCEL 104 (C. P. McLAUGHLIN). 11/28/06 DWK

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-86/CONST.31
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC

5 0 10

NAD 83

MATCH TO SHEET 30

MATCH TO SHEET 32

101+60

105+00

-L-
PIs Sta 104+47.536
Θs = 5° 55' 37.7"
Ls = 90.000
LT = 60.034
ST = 30.031

PI Sta 107+31.772
△ = 60° 36' 53.6" (RT)
L = 460.199
T = 254.269
R = 435.000
SE = 0.060

19 x 6 x 1
64 mm Skimmer
with 54 mm
Orifice Diameter
2 m weir
ID 31.1C

13 x 4 x 1
38 mm Skimmer
with 37 mm
Orifice Diameter
2 m weir
ID 31.2C

6 x 2 x 1
38 mm Skimmer
with 19 mm
Orifice Diameter
2 m weir
ID 31.3C

15 x 6 x 1
51 mm Skimmer
with 48 mm
Orifice Diameter
2 m weir
ID 31.5C

6 x 5 x 1
51 mm Skimmer
with 39 mm
Orifice Diameter
2 m weir
(See Tiered Skimmer
Basin Detail)
ID 31.6C

Modified Silt Basin
Type 'B'
6 x 5 x 1
(See Tiered Skimmer
Basin Detail)
ID 31.6C

7 x 3 x 1
38 mm Skimmer
with 25 mm
Orifice Diameter
2 m weir
ID 31.7C

4 x 2 x 1
ID 31.1F

12 x 2 x 1
ID 31.1F

12 x 2 x 1
ID 31.2F

12 x 2 x 1
ID 31.3F

102

103

103A

103B

104

105

SAMUEL EUGENE HARTLEY
DB 231 PG 463
300

IRIS YEVONNE WILSON
DB 235 PG 445

C. P. McLAUGHLIN
DB 267 PG 247

JOHN R. MIELOCH
DB 182 PG 497

EARL J. GRINDSTAFF
DB 341 PG 321

+68.818 -L-
59.994 LT
(196.831')

+81.175 -L-
58.261 LT
(191.145')

+33.318 -L-
61.824 LT
(202.836')

+86 -L-
80 LT
(262.467')

+50 -L-
96 LT
(314.961')

+93 -L-
97 LT
(318.242')

NATURAL ROCK ENERGY
DISSIPATOR
(SEE DETAIL "V")

SC Sta 104+77.502

900 CSP

ELBOW

ROD & LUG CONNECTORS
WITH SLEEVE GASKETS
AND ELBOWS

REMOVE DI
AND FILL
W/FLOWABLE
GROUT

-L- POT Sta.101+80.000
-D16A- POT Sta.10+00.000

END RET. WALL
103+80

PROP. RET. WALL

TS Sta.103+87.502

END TYPE T
CONC. BARRIER
END CHAIN LINK FENCE
104+20

TYPE B-77

1200 CHAIN LINK FENCE

PROP. CONC.
BARRIER TYPE 1

1200 WW FENCE

END SBG
STA. 10+17.825
-D16A-

BEG. SBG
STA. 10+17.825
-D16A-

END SBG
STA. 103+41

CLASS IV

2GI
Type "A"

RIP RAP

150mm CMP

N 87° 22' 53" E

N 21° 17' 45" W

N 2° 37' 09" W

EXISTING R/W

REM GR

IMPACT ATTENUATOR
TYPE 350

END MEDIAN CONCRETE BARRIER
-L- STA. 104+00

+80 -L-
54.326 RT
(178.24')

+20 -L-
61.037 RT
(200.25')

+51 -L-
62.818 RT
(206.10')
END 1200 WW
FENCE

+55 -L-
62.634 RT & 66 RT
(205.49') (216.535')

ACCESS POINT

+66 -L-
62.248 RT & 66 RT
(204.22') (216.535')

+80 -L-
61.101 RT
(200.480')

+69.000 -L-
62.141 RT (203.875')
BEG WW FENCE

+00 -L- (176.01')
58.000 RT
(190.29')

+20 -L-
53.649 RT

+60 -L-
41.852 RT
(137.31')

+98 -L-
27.260 RT
(89.44')

+17 -L-
84 RT
(275.591')

-BL-82-PINC 103+23.660=
-L- Sta 102+45.338 64.959 RT

-D16A POT Sta.10+64.000
END CONST.

POT Sta.10+69.053

FOR -L- PROFILE SEE SHEET #62
FOR -D16A- PROFILE SEE SHEET #78

31-AUG-2007 10:35
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Bentley MicroStation V8 XM Edition (08.11.07.443)

R/W REV.: CHANGING NAME AND DEED BOOK NUMBER ON PARCEL 104 (C. P. McLAUGHLIN); ADDING DRIVEWAY AND CONTROL OF ACCESS BREAK ON PARCEL 110
(KENNETH H.CROWDER). 11/28/06 DWK

08-AUG-2007 07:55
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Brenhapp03a AT RENN221445

METRIC	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	PROJECT REFERENCE NO.	SHEET NO.
5 0 10			R-2518A	EC-87/CONST.32
CONST.REV.			R /W SHEET NO.	
R /W REV.				

MATCH TO SHEET 34-A 10+61.000

MATCH TO SHEET 31

MATCH TO SHEET 33

-BL-83-PINC 106+27.657=
-L- Sta 105+24.783 43.913 LT

C. P. McLAUGHLIN
DB 267 PG 247
104

12 x 2 x 1
ID 32.8F

12 x 2 x 1
ID 32.9F

7 x 2 x 1
ID 32.10F

12 x 2 x 1
ID 32.11F

12 x 2 x 1
ID 32.6F

12 x 2 x 1
ID 32.7F

12 x 2 x 1
ID 32.1F

12 x 2 x 1
ID 32.2F

12 x 2 x 1
ID 32.3F

12 x 2 x 1
ID 32.4F

12 x 2 x 1
ID 32.5F

-L- POC Sta 106+39.889
-Y19- POT Sta-11+11.242

-L-
PI Sta 107+31.772
△ = 60° 36' 53.6" (RT)
L = 460.199
T = 254.269
R = 435.000
SE = 0.060

-DI7-

PI Sta 10+70.503	PI Sta 11+57.336	PI Sta 11+90.309
△ = 28° 03' 53.5" (RT)	△ = 133° 00' 43.8" (RT)	△ = 7° 26' 03.9" (LT)
L = 48.982	L = 53.395	L = 12.975
T = 24.993	T = 52.912	T = 6.497
R = 100.000	R = 23.000	R = 100.000

-DI6B-

PI Sta 10+17.652	PI Sta 10+45.387	PI Sta 10+77.783
△ = 83° 18' 20.7" (LT)	△ = 7° 54' 39.3" (RT)	△ = 69° 21' 08.6" (RT)
L = 14.540	L = 44.109	L = 18.156
T = 8.895	T = 22.090	T = 10.377
R = 10.000	R = 319.466	R = 15.000

-DI7- POT Sta.12+03.328
END CONST.
BEARING BACK =
N 80° 45' 26.1" W

PRC Sta. 10+23.297

PCC Sta. 10+67.406

PT Sta. 11+96.787

PCSta. 11+83.812

PT Sta. 11+57.819

PT Sta. 10+94.492

PCSta. 11+04.424

130 TURN LANE

30 TAPER

KENNETH H. CROWDER
DB 197 PG 434
110

JOHN R. MIELOCH
DB 182 PG 497
105

MARGIE REVIS CHANDLER
DB 307 PG 68
111

DOROTHY B. CHANDLER
DB 229 PG 28
106

EARL J. GRINDSTAFF
DB 341 PG 321
103

1200 WW FENCE

+09 -L-
92 RT
(301.837')

+60 -L-
ON R/W

+76 -L-
ON R/W

+08 -L-
75 RT
(246.063')

+99 -L-
147 RT (482.284')

+48 -L-
121 RT
(396.982')

+31.606 -L-
132.378 RT
(434.310')

+41 -L-
155 RT(508.530')

+91 -L-
157 RT
(515.092')

+97 -L-
107 RT
(351.050')

+23 -L-
54 RT
(177.165')

+55 -L-
184 RT
(603.675')

+82 -L-
EX.R/W

+06 -L-
EX.R/W

+24 -L-
24 LT (787.40')
END WW FENCE

+28 -L-
EX.R/W

+58 -L-
EX.R/W

+41 -L-
EX.R/W

+21 -L-
EX.R/W

FOR -L- PROFILE SEE SHEET *63
FOR -Y19- PROFILE SEE SHEET *72
FOR -DI6B- PROFILE SEE SHEET *78
FOR -DI7- PROFILE SEE SHEET *78

8/17/93

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2518A	EC-88/CONST.33
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		

BEGIN GUARDRAIL
-Y21- STA. 9+04.000

POT Sta. 9+00.000
-B26-9I-POT 5+00.000
S 56° 00' 12.9" E
PCSta. 9+66.380
PTSta. 9+85.371
BEARING AH = S 65° 15' 28.0" E
PCSta. 10+00.000
-L- POC Sta 108+71.910
-Y20- POT Sta 10+00.000
BEARING AH = S 34° 44' 24.6" E
-L- POC Sta 108+43.60(
-DI6B-POT Sta. 10+96.6(
BEARING BACK = S 38° 56' 37.0" E
PT Sta. 10+85.563
ACCESS POINT
PCSta.10+02.000
PT Sta 10+18.043
BEAR. BACK = S 22° 40' 39"
PCSta.10+45.510
BEAR. BACK S 54° 23' 59.8"
PC Sta 10+24.468
N 75° 58' 56.3" E
PT Sta 10+53.428
END CONSTR.
-Y20- POT Sta 10+60.000
POT Sta 10+73.428
BEAR. BK = N 89° 57' 05.0" E
CS Sta 109+37.702
-Y20- POC Sta.10+30.000
-DI7- ROT Sta.10+00.000
-L- POS Sta 109+54.351
-Y21- POT Sta 10+70.124
-BL-87-PINC 111+48.890
-BY287POT 6+85.120
-L- Sta 109+89.121 17.467 RT
BEGIN CONSTRUCTION
-Y21- PC Sta 10+10.000
PRC Sta 10+30.121
SRS Sta 110+27.702
SC Sta 111+17.702
-BY25-88-POT 6+11.335
-L- Sta 108+65.859 29.454 RT
-BY25-88-POT 6+28.671 5.994 RT
-L- Sta 109+00.131
-BY25-89-PINC 6+89.651
-BY25-89-POT 6+89.651

-Y20-
PI Sta 10+40.188
Δ = 55° 18' 30.4" (LT)
L = 28.959
T = 15.720
R = 30.000
SE = 0.080
RO = 40

-Y21-
PI Sta. 9+75.888
Δ = 7° 15' 15.2" (LT)
L = 18.991
T = 9.508
R = 150.000

-Y21-
PI Sta 10+15.111
Δ = 11° 30' 20.0" (LT)
L = 30.121
T = 15.112
R = 150.000
SE = 0.080
RO = 40

-Y21-
PI Sta 10+45.126
Δ = 41° 07' 27.4" (RT)
L = 28.710
T = 15.005
R = 40.000
SE = 0.080
RO = 40

-DI7-
PI Sta 10+11.558
Δ = 77° 04' 38.68" (LT)
L = 16.143
T = 9.558
R = 12.000

PI Sta 10+70.5
Δ = 28° 03' 53.5" (RT)
L = 48.982
T = 24.993
R = 100.000

NAD 83

SR 1421, SR 1131 & US 19
SR 1421
420 / 630
DHV= 11%
D= 60%
DUAL= 3%
TTST= 1%
PM
140 / 210
280 / 420
8,040 / 12,110 US 19
8,180 / 12,320
Not Given
PM
DHV= 10%
D= 60%
DUAL= 4%
TTST= 6%
Not Given
Not Given
SR 1131
2008 ADT 2028

JAY CHANDLER HEIRS
DB 195 PG 532

MARGIE REVIS CHANDLER
DB 307 PG 68

VICTOR SHEPHERD
DB 206 PG 605

JAY CHANDLER HEIRS
DB 105 PG 309

VICTOR SHEPHERD
DB 493 PG 612

JESSIE SHEPHERD
DB 86 PG 189

7 x 2 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
2 m weir
ID 33.1F

12 x 2 x 1
ID 33.2F

12 x 2 x 1
ID 33.3F

12 x 2 x 1
ID 33.4F

12 x 2 x 1
ID 33.5F

26 x 8 x 1
76 mm Skimmer
with 66 mm
Orifice Diameter
4 m weir
ID 33.1C

5 x 2 x 1
38 mm Skimmer
with 17 mm
Orifice Diameter
2 m weir
ID 33.5C

5 x 2 x 1
38 mm Skimmer
with 17 mm
Orifice Diameter
2 m weir
ID 33.6C

ROD & LUG CONNECTORS WITH SLEEVE GASKETS AND ELBOWS

CL B RIPRAP
2.7 TONS
8.4 SM FF

LATERAL BASE DITCH
SEE DETAIL "N"

BERM DITCH FROM STA. 110+60 TO STA. 111+00 -L-
BERM DITCH FROM STA. 111+00 TO STA. 131+40 -L-

130 LT & RT TURN LANE
134.762 TURN LANE
60 RT EP TAPER
30 LT EP TAPER

1200 WW FENCE
END WW FENCE
BEG WW FENCE

MATCH TO SHEET 32
MATCH TO SHEET 34
108+40
111+80

R/W REV.: REVISING NAME ON PARCEL 113 & 114 (JAY CHANDLER HEIRS). 3/14/07 TFD

08-AUG-2007 08:00
R:\projects\2518a\environmental\design\r-2518a33.psh
Brenhpo3le AT REN22145

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2518A	EC-89/CONST.34
CONST.REV.	R /W SHEET NO.	
R /W REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

R/W REV.: REVISING NAME ON PARCEL 113 (JAY CHANDLER HEIRS). 3/14/07 TFD

08-AUG-2007 08:03
$R-2518A\survey\environmental\design\r2518as34.pah
BrennSpoon AT REN#21145

NAD 83

STA. 115+06.547 -L-
END STATE PROJECT R-2518A

MATCH TO SHEET 33

116
IVY GAP BAPTIST CHURCH
DB 144 PG 91

117
IVEY GAP BAPTIST CHURCH
DB 261 PG 717

118
BALD CREEK LODGE
DB 143 PG 63

119
STEPHEN FERGUSON
WILL 91E158

120
J.C. INGLE AND WIFE, KATHY INGLE
DB 409 PG 234

121
RANDY
DB

113
JAY CHANDLER HEIRS
DB 105 PG 309

RANDY D. ar
CHLOE A. M
D.B. 232 I

111+80
112
113
114
115

PT Sta.10+09.367
-D17A-PC Sta.10+00.889
BEGIN CONST.
POT Sta.10+00.000
BEARING AHEAD=
S 25° 33' 14.7" W

+80 -L-
109 LT
(357.612')

+19.264 -L-
45.295 LT (148.605')
END WW FENCE

+23 -L-
37.551 LT
(123.199')

+36 -L-
40 LT
(131.233')

+30 -L-
22 LT
(72.178')
BEG. RET. WALL
112+30 +/-
BEG CHAIN
LINK FENCE

+31 -L-
22.415 LT
(73.540')

+70 -L-
22 LT
(72.178')

END RET. WALL
112+70 +/-
END CHAIN
LINK FENCE

+80 -L-
25 LT
(82.021')

-BL-92-PINC 113+43.415=
-L- Sta 111+82.554 12.793 RT

-BL-93-PINC 115+23.372=
-L- Sta 113+60.442 13.104 LT

PRC Sta 113+64.454

+99 -L-
35 LT
(114.829')

+45 -L-
32 LT
(104.987')

+15.212 -L-
GR 25.280 (82.940')
BEG WW FENCE

CS Sta 114+16.547

+39 -L-
93 LT
(305.118')

+61 -L-
102 LT
(334.645')

+83 -L-
68 LT
(223.097')

+96.217 -L-
41.951 LT (137.635')
END WW FENCE

-D20- POT Sta. 5+00.000

+03.458 -L-
27.948 LT
BEG WW FENCE (91.686')

ST GR Sta 115+06.547

+06.547 -L-
22 LT
(72.179')

R/W FOR PARCEL 121 IS BEING ACQUIRED
UNDER PROJECT R-2518B

+92.968 -L-
51.911 RT (170.331')
BEG WW FENCE

+35 -L-
60 RT (196.850')

-L- POC Sta.112+08.000
-D17A- POT Sta.10+43.772
BEAR. AH =
S 6° 49' 48.4" E

+80 -L-
70 RT (229.659')

+67.369 -L-
55.548 RT (182.246')
END WW FENCE

+86.310 -L-
54.511 RT (178.841)
BEG WW FENCE

+30 -L-
50 RT (164.042')

+50 -L-
42.944 RT
(140.892')
END WW FENCE

-L- POC Sta.114+69.454
-D20- POT Sta. 5+43.184
BEARING BACK =
S 11° 57' 58.8" E

+65.210 -L-
BEG WW FENCE
TIE TO EXIST.

END SBG
STA. 114+69 -L-

BEG SBG
STA. 113+65 -L-

+83.756
21.782

+28.086

PSH
(See Detail "O")

NATURAL ROCK ENERGY DISSIPATOR
(SEE DETAIL "V")
+06.547 -L-
20 RT (65.617')
END WW FENCE

15 x 6 x 1
51 mm Skimmer
with 48 mm
Orifice Diameter
3 m weir
ID 34.2C

12 x 2 x 1
ID 34.1F

9 x 2 x 1
ID 34.2F

12 x 2 x 1
ID 34.4F

12 x 2 x 1
ID 34.5F

12 x 2 x 1
ID 34.6F

8 x 2 x 1
ID 34.3F

-L-

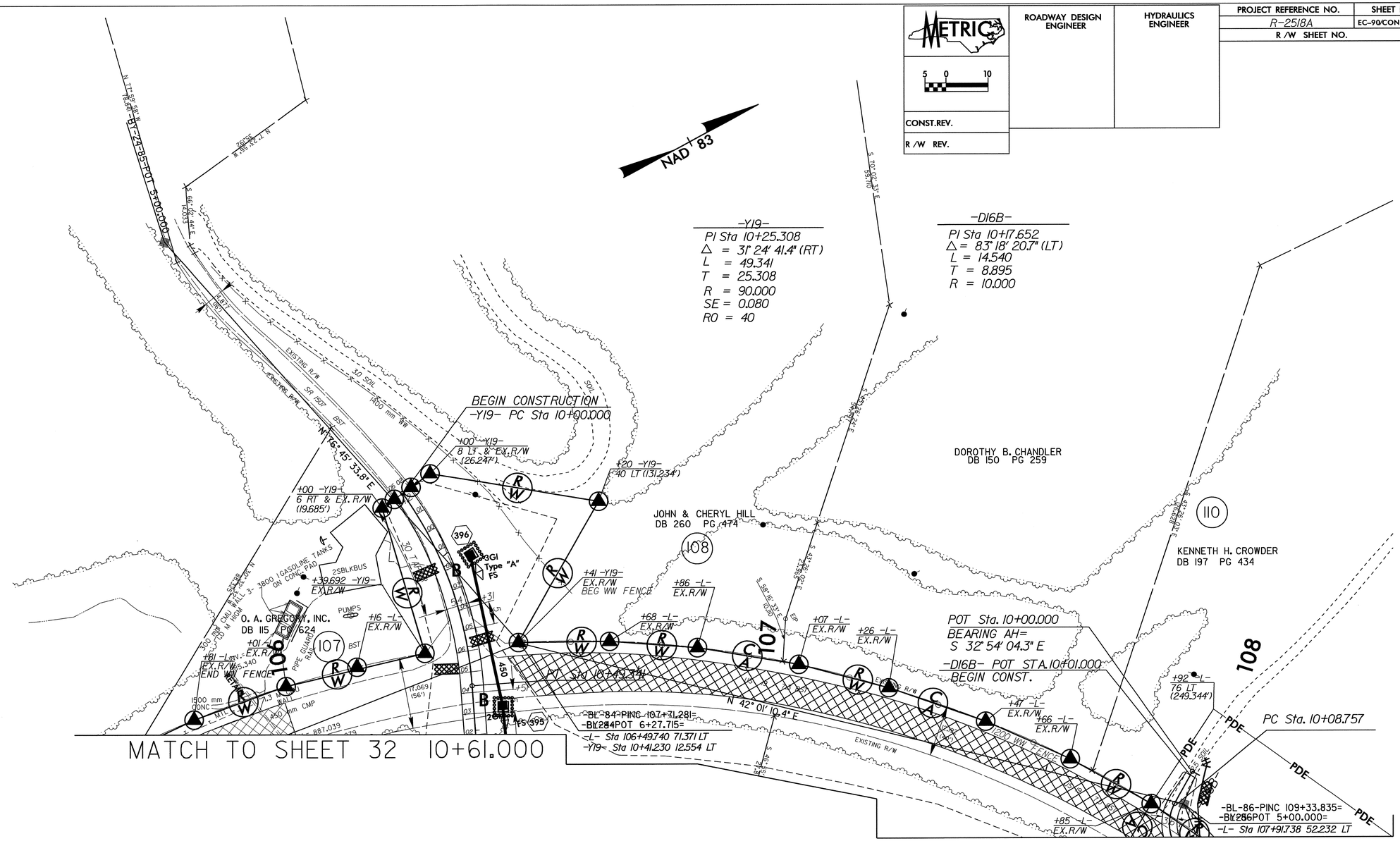
PI Sta 112+45.145	PI Sta 113+90.517	PIs Sta 114+46.563
△ = 35° 20' 41.0" (LT)	△ = 4° 58' 28.2" (RT)	Θs = 4° 17' 49.9"
L = 246.753	L = 52.093	Ls = 90.000
T = 127.444	T = 26.063	LT = 60.018
R = 400.000	R = 600.000	ST = 30.016
SE = 0.060	SE = 0.060	

-D17A-

PI Sta 10+05.244
△ = 32° 23' 03.1"
L = 8.478
T = 4.356
R = 15.0'

FOR -L- PROFILE SEE SHEET #65
FOR -D17A- PROFILE SEE SHEET #77

METRIC	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	PROJECT REFERENCE NO.	SHEET NO.
5 0 10			R-2518A	EC-90/CONST.34-A
CONST.REV.			R/W SHEET NO.	
R/W REV.				



FOR -Y19- PROFILE SEE SHEET #76
FOR -Y16B- PROFILE SEE SHEET #78

R/W REV.: ADDING DRIVEWAY AND CONTROL OF ACCESS BREAK ON PARCEL 110 (KENNETH H. CROWDER). 11/28/06 DWK

08-AUG-2007 08:05
g:\tipprojects-r\r2518a\environmental\design\r2518as34a.psh
Brennapoole AT REN\221445

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-91/OSM-4
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

CONST.REV.

R /W REV.

NOTE:
PLACE SPECIAL SEDIMENT CONTROL FENCE SECTIONS IN TEMPORARY SILT FENCE AT AREAS OF CONCENTRATED FLOW.

MATCHLINE SHEET OSM-5

DESC.	STATION	NORTHING	EASTING	ELEV.	RADIUS
RCV 1	10+64 -A-	237484.934	292749.804	653.5	
RCV 2	10+88 -A-	237497.144	292730.345	653.3	
RCV 3	11+08 -A-	237501.772	292710.505	653.1	
JHV 1	11+25 -A-	237504.104	292695.592	652.8	
HR1	10+00 -B-	237518.620	292793.310	655.36	
RI		237511.674	292793.238		4.0m
RCV8	10+03.4 -B-	237516.140	292790.984	655.24	
HR2	10+08.5 -B-	237511.837	292788.492	655.07	
R2		237509.302	292784.786		3.4m
RCV9	10+11.0 -B-	237509.376	292788.050	654.98	
HR3	10+16.2 -B-	237506.038	292784.701	654.80	
R3		237501.531	292782.168		5.0m
RCV10	10+18.8 -B-	237505.588	292782.140	654.71	
HR4	10+23.8 -B-	237502.785	292778.337	654.54	
R4		237502.079	292774.468		3.2m
RCVII	10+25.6 -B-	237501.156	292777.570	654.48	
HR5	10+30.7 -B-	237498.944	292773.475	654.30	
R5		237494.548	292769.200		4.7m
RCVI2	10+33.5 -B-	237499.151	292770.683	654.21	
HR6	10+38.7 -B-	237497.894	292765.829	654.03	
R6		237486.884	292769.489		11.0m
RCVI3	10+41.3 -B-	237496.332	292763.751	653.94	
HR7	10+46.3 -B-	237492.875	292760.170	653.77	
R7		237493.236	292752.686		6.0m
RCVI4	10+48.9 -B-	237490.870	292758.514	653.68	
HR8	10+54.0 -B-	237487.590	292754.715	653.50	

SEE SHEET OSM-21, OSM-22 FOR PROFILE

SITE A & B

08-AUG-2007 16:05
Johan Bos
RT REN23181Z

S:\Projects\2518a\environmental\design\str-esm mstgeton\r-2518a_pdes_psh04_ec.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-92/OSM-5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

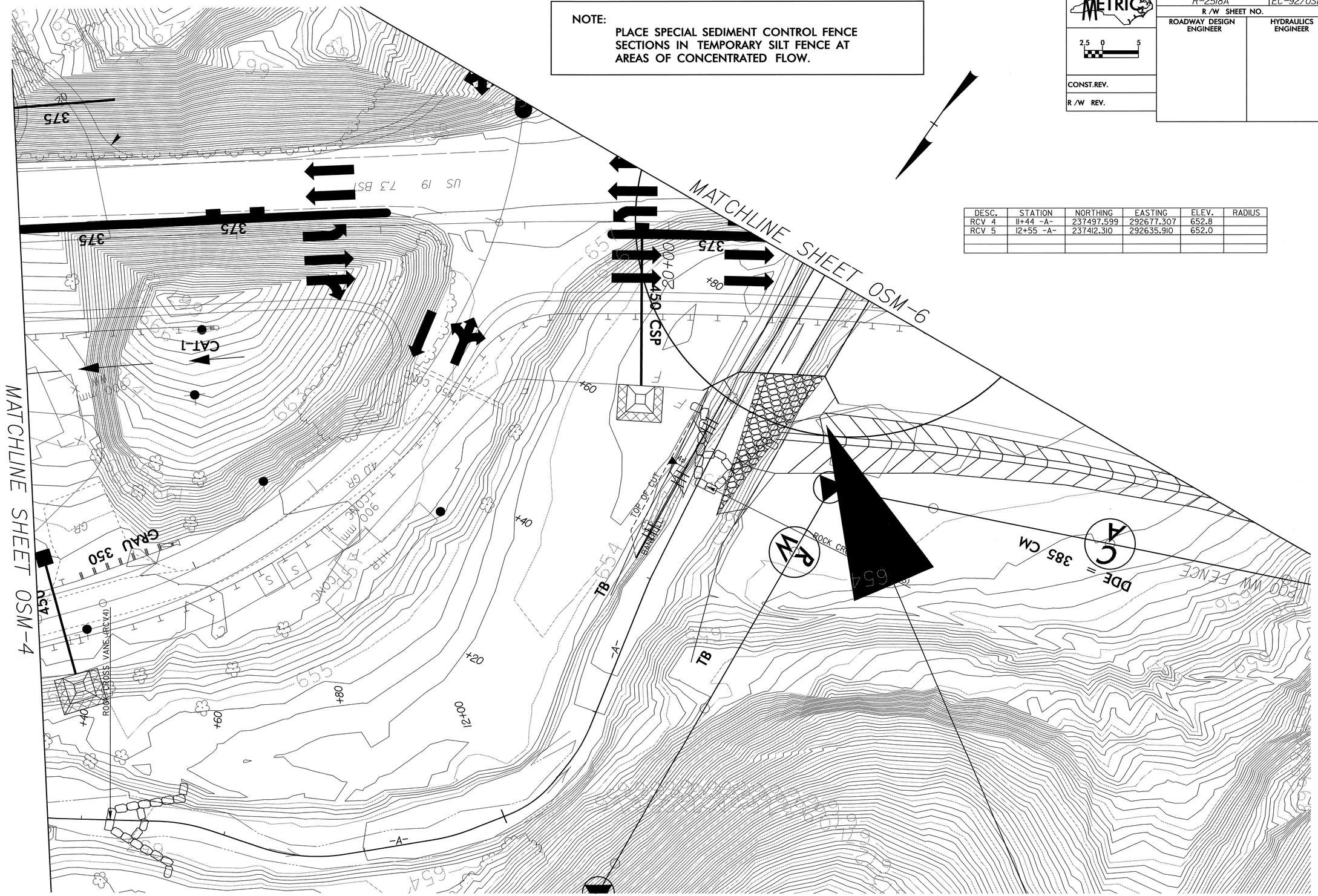
2.5 0 5

CONST.REV.

R/W REV.

NOTE:
PLACE SPECIAL SEDIMENT CONTROL FENCE SECTIONS IN TEMPORARY SILT FENCE AT AREAS OF CONCENTRATED FLOW.

DESC.	STATION	NORTHING	EASTING	ELEV.	RADIUS
RCV 4	11+44 -A-	237497.599	292677.307	652.8	
RCV 5	12+55 -A-	237412.310	292635.910	652.0	



SEE SHEET OSM-21 FOR PROFILE

SITE A

8/17/99

08-AUG-2007 16:05
g:\tippro\jacket\r2518a\environmental\design\stream mitigation\r2518a_pdea_psh05_ec.dgn
Rohan AT RENV231812

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-93/OSM-6
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

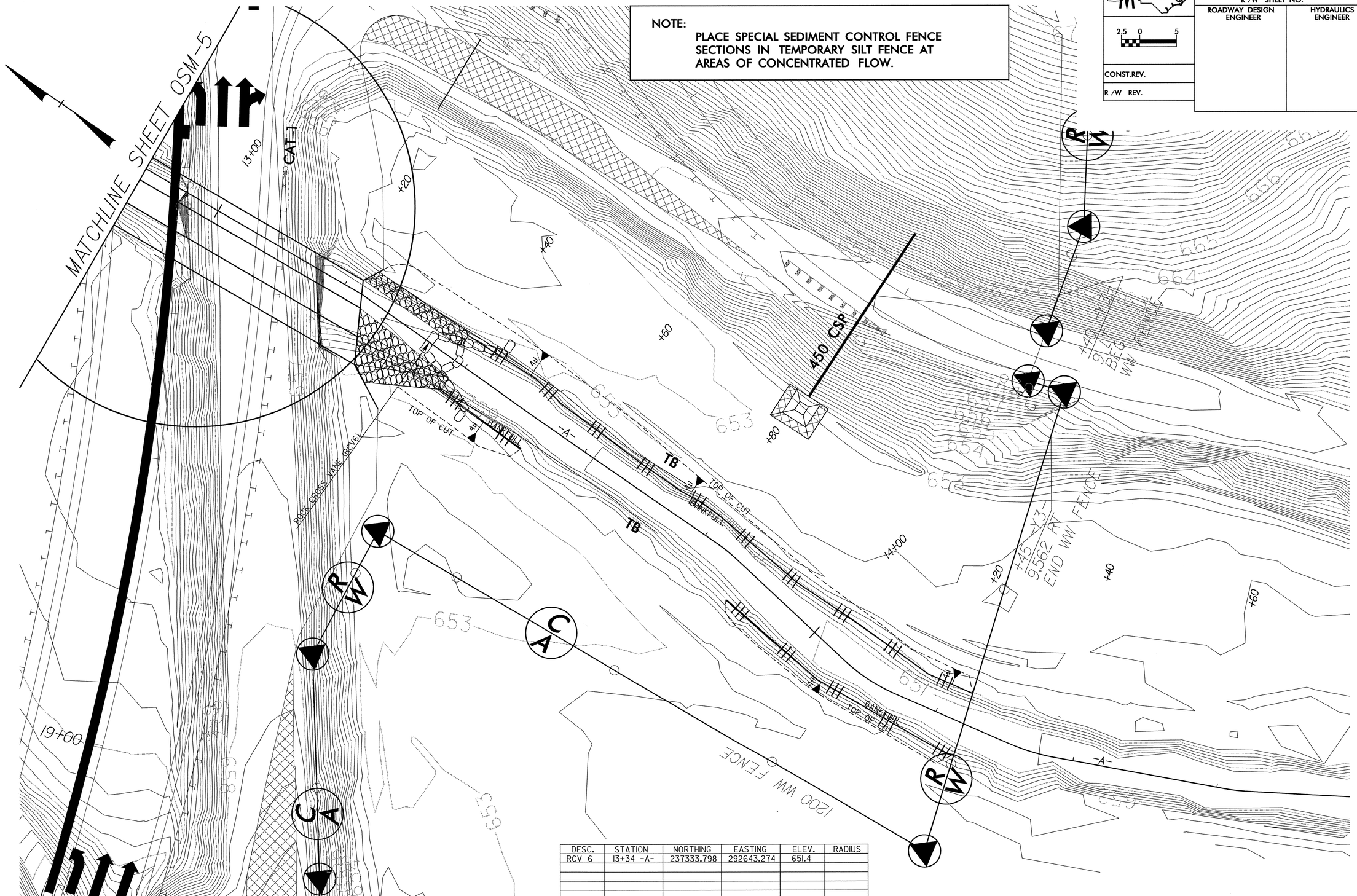
METRIC

2.5 0 5

CONST.REV.

R /W REV.

NOTE:
PLACE SPECIAL SEDIMENT CONTROL FENCE SECTIONS IN TEMPORARY SILT FENCE AT AREAS OF CONCENTRATED FLOW.



DESC.	STATION	NORTHING	EASTING	ELEV.	RADIUS
RCV 6	13+34 -A-	237333.798	292643.274	651.4	

SEE SHEET OSM-21, OSM-22 FOR PROFILE

SITE A

08-AUG-2007 16:06
g:\tippro\project\r2518a\environmental\design\stream mitigation\r2518a_pdea_psh06_ec.dgn
Rohan AT RENV231812
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-94/OSM-7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

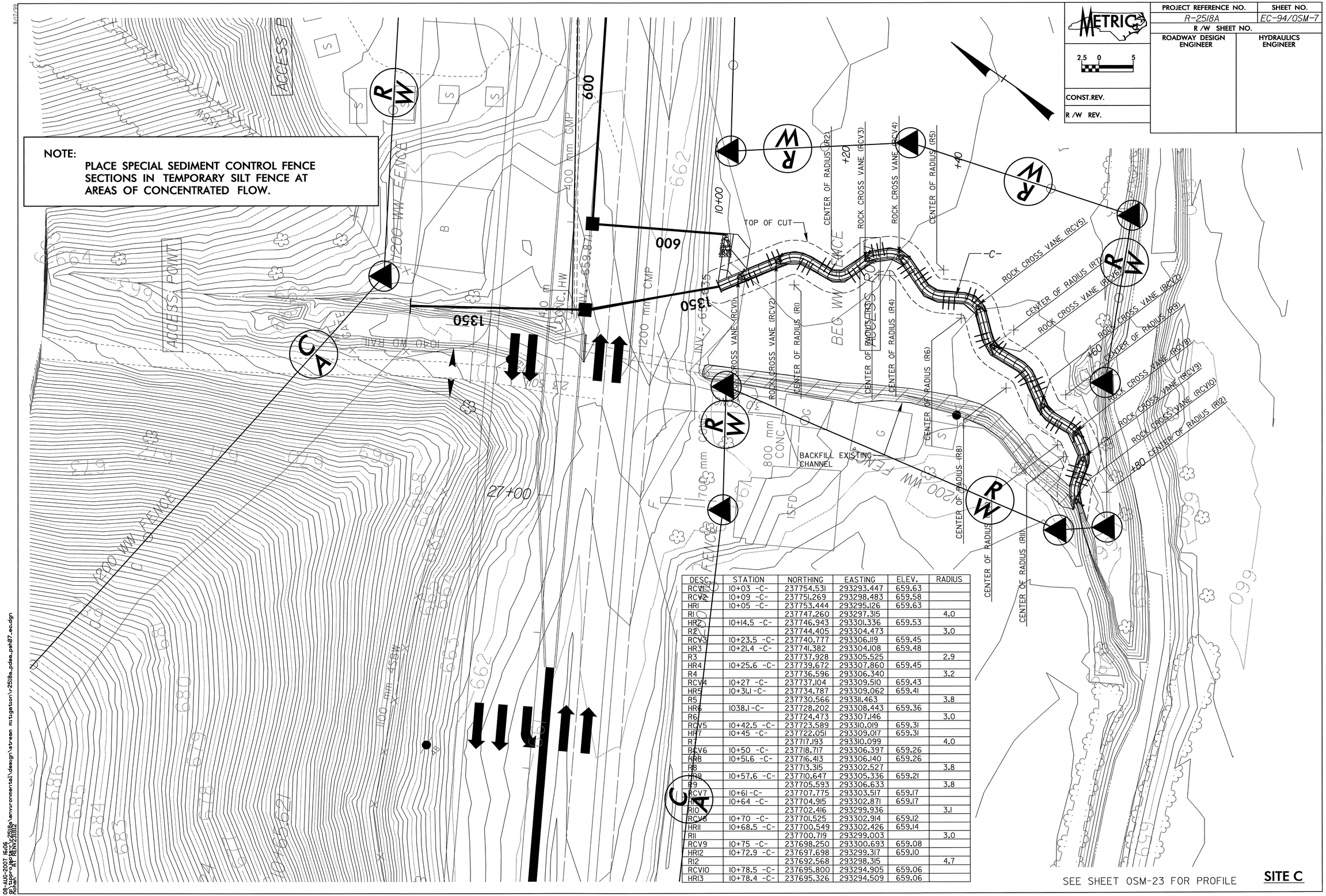
METRIC

2.5 0 5

CONST.REV.

R/W REV.

NOTE:
PLACE SPECIAL SEDIMENT CONTROL FENCE SECTIONS IN TEMPORARY SILT FENCE AT AREAS OF CONCENTRATED FLOW.



DESC.	STATION	NORTHING	EASTING	ELEV.	RADIUS
RCV1	10+03 -C-	237754.531	293293.447	659.63	
RCV2	10+09 -C-	237751.269	293298.483	659.58	
HR1	10+05 -C-	237753.444	293295.126	659.63	
R1		237747.260	293297.315		4.0
HR2	10+14.5 -C-	237746.943	293301.336	659.53	
R2		237744.405	293304.473		3.0
RCV3	10+23.5 -C-	237740.777	293306.119	659.45	
HR3	10+21.4 -C-	237741.382	293304.108	659.48	
R3		237737.928	293305.525		2.9
HR4	10+25.6 -C-	237739.672	293307.860	659.45	
R4		237736.596	293306.340		3.2
RCV4	10+27 -C-	237737.104	293309.510	659.43	
HR5	10+31.1 -C-	237734.787	293309.062	659.41	
R5		237730.566	293311.463		3.8
HR6	1038.1 -C-	237728.202	293308.443	659.36	
R6		237724.473	293307.146		3.0
RCV5	10+42.5 -C-	237723.589	293310.019	659.31	
HR7	10+45 -C-	237722.051	293309.017	659.31	
R7		237717.193	293310.099		4.0
RCV6	10+50 -C-	237718.717	293306.397	659.26	
HR8	10+51.6 -C-	237716.413	293306.140	659.26	
R8		237713.315	293302.527		3.8
HR9	10+57.6 -C-	237710.647	293305.336	659.21	
R9		237705.593	293306.633		3.8
RCV7	10+61 -C-	237707.775	293303.517	659.17	
HR10	10+64 -C-	237704.915	293302.871	659.17	
R10		237702.416	293299.936		3.1
RCV8	10+70 -C-	237701.525	293302.914	659.12	
HR11	10+68.5 -C-	237700.549	293302.426	659.14	
R11		237700.719	293299.003		3.0
RCV9	10+75 -C-	237698.250	293300.693	659.08	
HR12	10+72.9 -C-	237697.698	293299.317	659.10	
R12		237692.568	293298.315		4.7
RCV10	10+78.5 -C-	237695.800	293294.905	659.06	
HR13	10+78.4 -C-	237695.326	293294.509	659.06	

SEE SHEET OSM-23 FOR PROFILE

SITE C

8/17/99

08-AUG-2007 16:06
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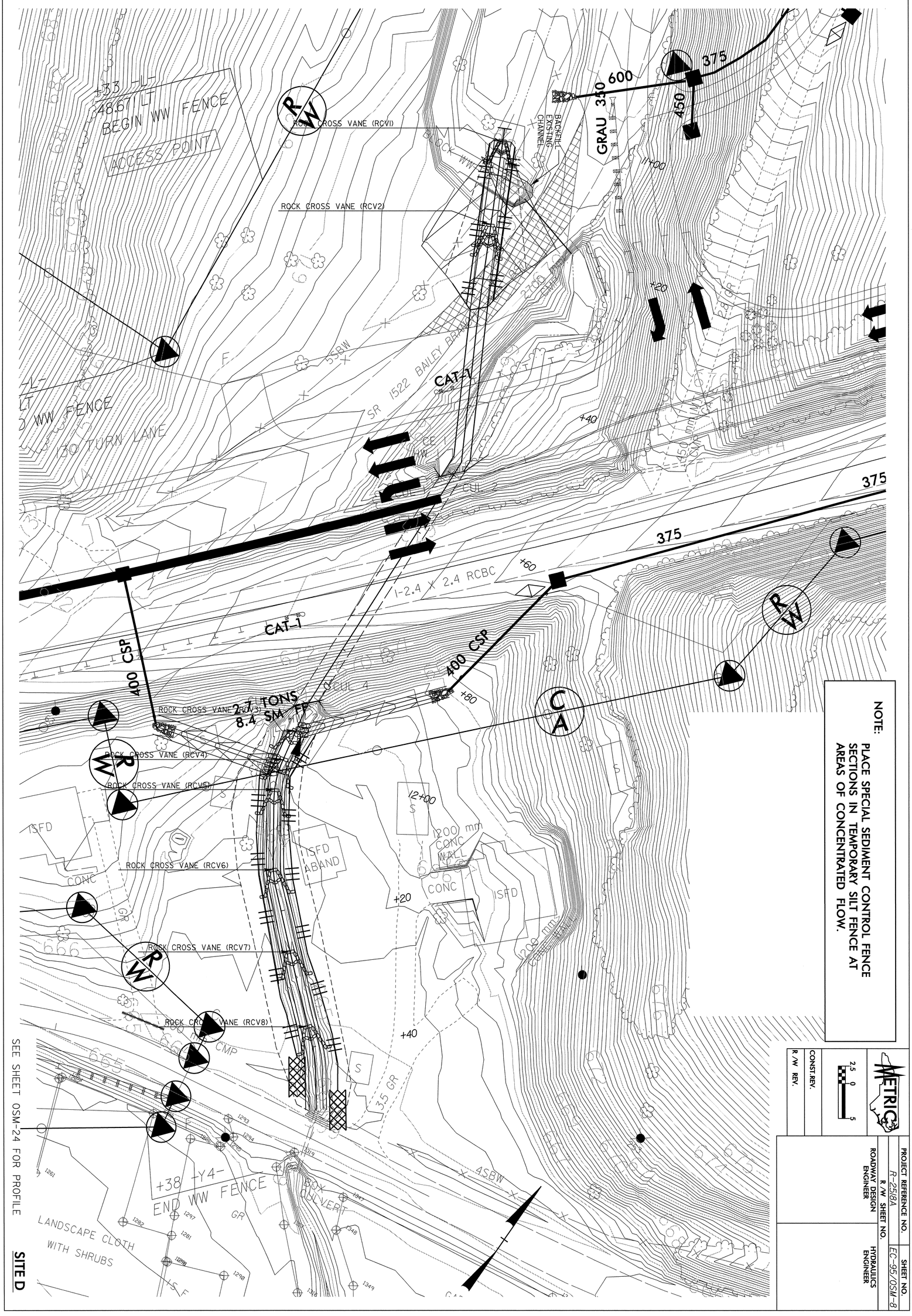
Rohan AT RENV23181

08-AUG-2007 16:08
g:\tipprojects-r\r2518a\environmental\design\stream mitigation\r2518a_pdea_psh08_ec.dgn
nchan AT RENV231812

8/17/99



NOTE:
PLACE SPECIAL SEDIMENT CONTROL FENCE SECTIONS IN TEMPORARY SILT FENCE AT AREAS OF CONCENTRATED FLOW.

SEE SHEET OSM-24 FOR PROFILE

SITE D

METRIC

2.5 0 5

CONST.REV.

R/W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-95/OSM-8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-96/OSM-9
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

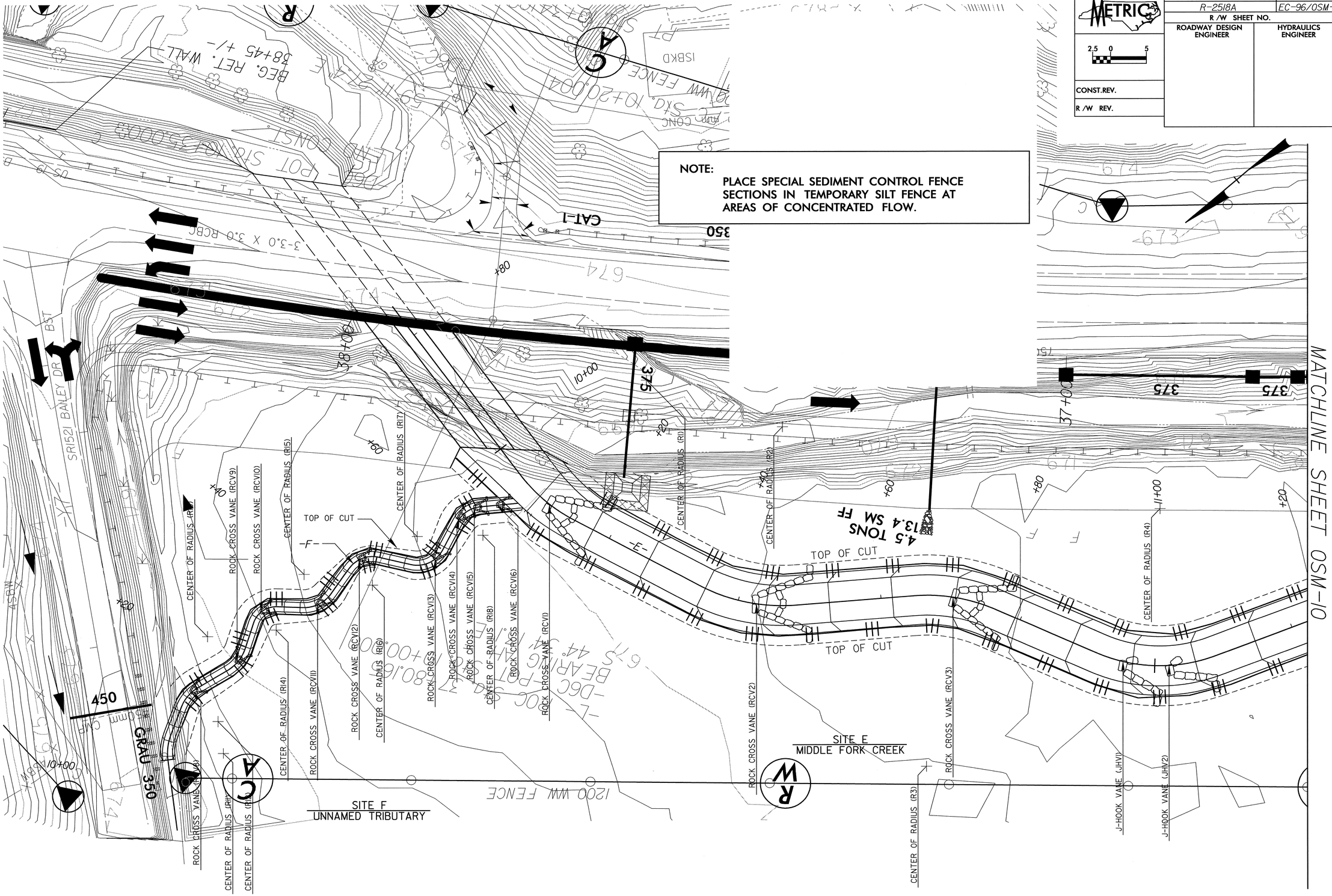
METRIC

2.5 0 5

CONST.REV.

R /W REV.

NOTE:
PLACE SPECIAL SEDIMENT CONTROL FENCE SECTIONS IN TEMPORARY SILT FENCE AT AREAS OF CONCENTRATED FLOW.



SEE SHEET OSM-25, OSM-26 FOR PROFILE

SITE E & F

08-AUG-2007 16:08
g:\tippro\projects\r2518a\environmental\design\stream mitigation\r2518a_pdea_psh09_ec.dgn
Richard AT REN\231812

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-97/OSM-10
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC
2.5 0 5

CONST.REV.

R /W REV.

NOTE:
PLACE SPECIAL SEDIMENT CONTROL FENCE SECTIONS IN TEMPORARY SILT FENCE AT AREAS OF CONCENTRATED FLOW.

MATCHLINE SHEET OSM-9

MATCHLINE SHEET OSM-11

400 CSP

450 CSP

375

450

35+00

36+00

12+00

+40

+60

+80

+20

+40

+60

TOP OF CUT

TOP OF CUT

TOP OF FILL

-E-

CENTER OF RADIUS (R6)

CENTER OF RADIUS (R5)

CENTER OF RADIUS (R7)

CENTER OF RADIUS (R8)

CENTER OF RADIUS (R9)

CENTER OF RADIUS (R10)

ROCK CROSS VANE (RCV4)

ROCK CROSS VANE (RCV5)

ROCK CROSS VANE (RCV6)

J-HOOK VANE (JHV3)

J-HOOK VANE (JHV4)

J-HOOK VANE (JHV5)

J-HOOK VANE (JHV6)

BACKFILL EXISTING CHANNEL

1200 WW FENCE

WW FENCE

DESC.	STATION	NORTHING	EASTING	ELEV.	RADIUS
R5		238461.303	293881.367		22
RCV4	11+38 -E-	238445.216	293896.514	668.76	
HR6	11+46.4 -E-	238440.574	293889.413	668.76	
R6		238413.531	293886.337		22
JHV3	11+66 -E-	238430.319	293872.119	668.43	
JHV4	11+73 -E-	238424.303	293867.155	668.43	
HR7	11+81.5 -E-	238417.673	293864.569	668.55	
R7		238409.387	293847.242		14
RCV5	12+02 -E-	238399.163	293856.806	668.37	
HR8	12+10.5 -E-	238395.013	293849.224	668.37	
R8		238401.390	293828.484		14
RCV6	12+37 -E-	238388.040	293824.270	668.16	
HR9	12+45 -E-	238391.644	293817.143	668.16	
R9		238377.024	293798.055		22
JHV5	12+70 -E-	238400.652	293794.020	667.8	
JHV6	12+79 -E-	238399.128	293785.279	667.5	
R10		238386.782	293792.118		14

SEE SHEET OSM-25 FOR PROFILE

SITE E

08-AUG-2007 16:09
$USER$ M:\projects\R-2518a\environmental\design\stream mitigation\r-2518a_pden_psh10_eo.dgn
Rchan AT REN23812

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-98/OSM-11
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

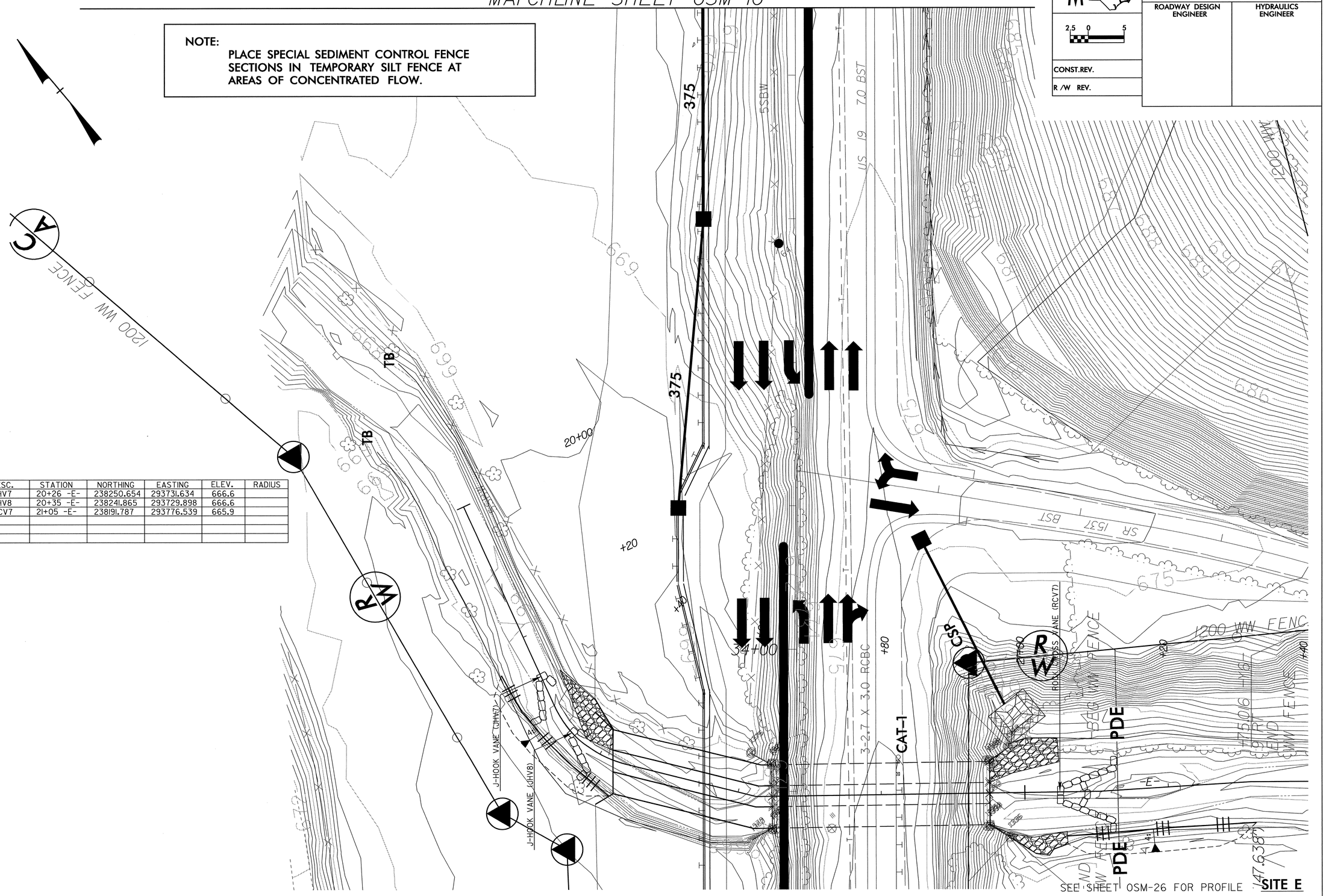
2.5 0 5

CONST.REV.

R /W REV.

MATCHLINE SHEET OSM-10

NOTE:
PLACE SPECIAL SEDIMENT CONTROL FENCE SECTIONS IN TEMPORARY SILT FENCE AT AREAS OF CONCENTRATED FLOW.



DESC.	STATION	NORTHING	EASTING	ELEV.	RADIUS
JHV7	20+26 -E-	238250.654	293731.634	666.6	
JHV8	20+35 -E-	238241.865	293729.898	666.6	
RCV7	21+05 -E-	238191.787	293776.539	665.9	

08-AUG-2007 16:09
g:\tipproj\eco\r-2518a\environmental\design\stream mitigation\r-2518a_pdea_psh11_ec.dgn
Rahan AT RENV231812

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-99/OSM-12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

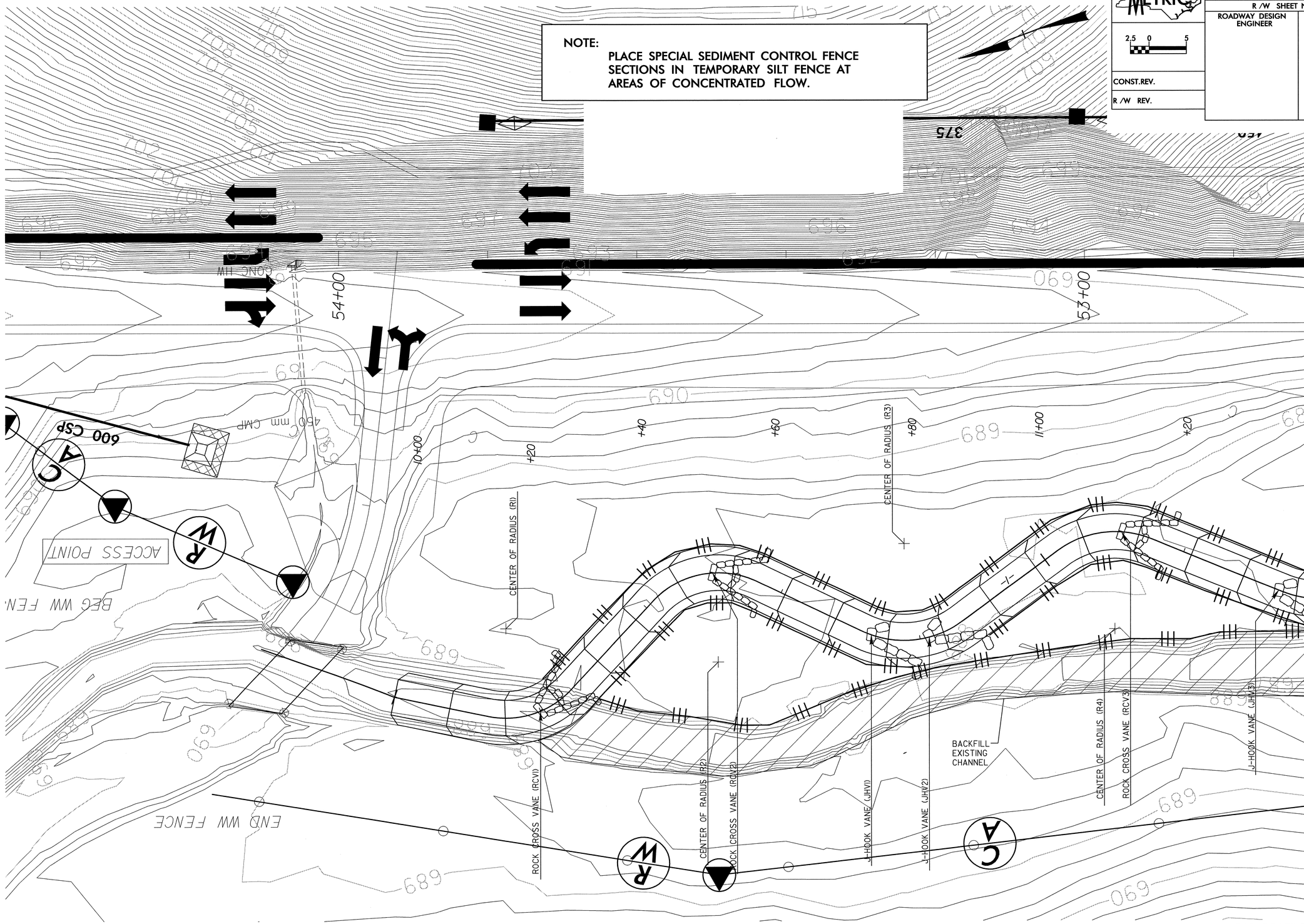
METRIC

2.5 0 5

CONST.REV.

R/W REV.

NOTE:
PLACE SPECIAL SEDIMENT CONTROL FENCE SECTIONS IN TEMPORARY SILT FENCE AT AREAS OF CONCENTRATED FLOW.



SEE SHEET OSM-27 FOR PROFILE

SITE 1

08-AUG-2007 16:12
g:\tippro\project\r2518a\environmental\design\stream mitigation\r2518a_pdea_psh12_ec.dgn
Rohan AT REN\231812

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-100/OSM-13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

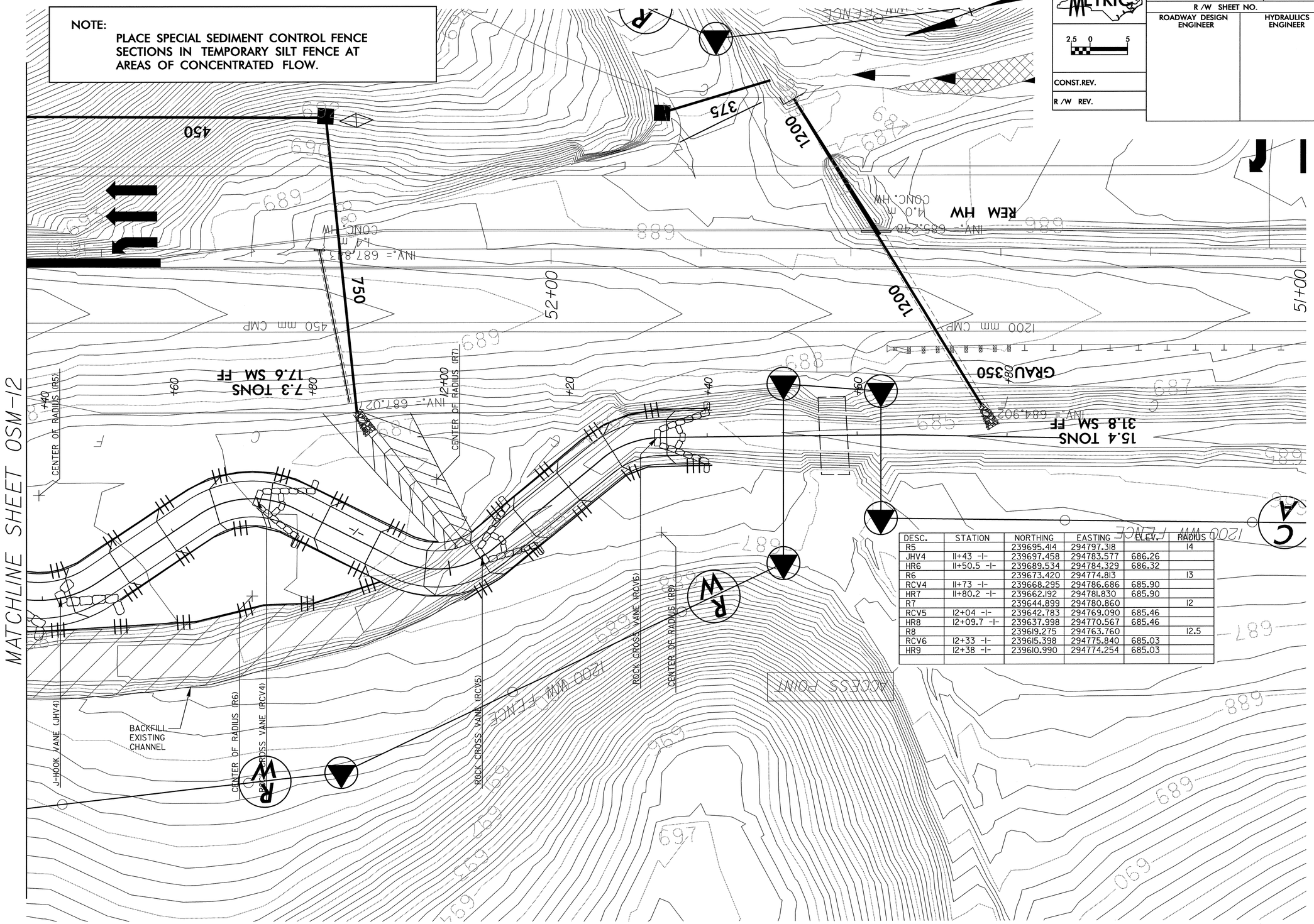
METRIC

2.5 0 5

CONST.REV.

R/W REV.

NOTE:
PLACE SPECIAL SEDIMENT CONTROL FENCE SECTIONS IN TEMPORARY SILT FENCE AT AREAS OF CONCENTRATED FLOW.



DESC.	STATION	NORTHING	EASTING	ELEV.	RADIUS
R5		239695.414	294797.318		14
JHV4	11+43 -1-	239697.458	294783.577	686.26	
HR6	11+50.5 -1-	239689.534	294784.329	686.32	
R6		239673.420	294774.813		13
RCV4	11+73 -1-	239668.295	294786.686	685.90	
HR7	11+80.2 -1-	239662.192	294781.830	685.90	
R7		239644.899	294780.860		12
RCV5	12+04 -1-	239642.783	294769.090	685.46	
HR8	12+09.7 -1-	239637.998	294770.567	685.46	
R8		239619.275	294763.760		12.5
RCV6	12+33 -1-	239615.398	294775.840	685.03	
HR9	12+38 -1-	239610.990	294774.254	685.03	

SEE SHEET OSM-27 FOR PROFILE

SITE 1

08-AUG-2007 16:12
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Rohan AT REN\231812

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-101/OSM-14
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

CONST.REV.

R /W REV.

NOTE:

PLACE SPECIAL SEDIMENT CONTROL FENCE SECTIONS IN TEMPORARY SILT FENCE AT AREAS OF CONCENTRATED FLOW.

DESC.	STATION	NORTHING	EASTING	ELEV.	RADIUS
HRI	10+00 -J-	240148.800	295036.378	692.92	
RI		240141.886	295032.752		6.2
RCVI	10+04 -J-	240148.123	295032.436	692.84	
HR2	10+12.7 -J-	240142.631	295026.520	692.75	
R2		240136.228	295031.157		6.2
RCV2	10+20.2 -J-	240135.371	295025.031	692.62	
HR3	10+22.3 -J-	240133.325	295025.600	692.62	
R3		240127.064	295021.947		5.5
RCV3	10+28.2 -J-	240127.750	295027.400	692.54	
HR4	10+34.2 -J-	240122.455	295025.105	692.46	
R4		240114.655	295026.016		6.2
RCV4	10+41.6 -J-	240116.982	295020.290	692.32	
HR5	10+44.5 -J-	240114.097	295019.779	692.32	
R5		240110.335	295014.081		5.5
RCV5	10+49.1 -J-	240109.517	295019.531	692.25	
HR6	10+54.2 -J-	240105.431	295016.718	692.18	
R6		240097.699	295016.793		6.2
RCV6	10+62.7 -J-	240099.530	295010.866	692.02	
HR7	10+66.3 -J-	240095.939	295010.777	692.02	
R7		240090.753	295005.938		5.5
RCV7	10+70.9 -J-	240091.397	295011.405	691.95	
HR8	10+76.4 -J-	240086.443	295009.472	691.88	
R8		240079.230	295010.457		5.5
RCV8	10+85 -J-	240079.341	295004.954	691.74	

10+00 +20 +40 +60 +80

1200 WW FENCE

END WW FENCE

BEG WW FENCE

CENTER OF RADIUS (R1)

CENTER OF RADIUS (R2)

CENTER OF RADIUS (R4)

CENTER OF RADIUS (R6)

CENTER OF RADIUS (R8)

TOP OF CUT

J

ROCK CROSS VANE (RCVI)

CAT-1

ROCK CROSS VANE (RCV2)

ROCK CROSS VANE (RCV3)

CENTER OF RADIUS (R3)

ROCK CROSS VANE (RCV4)

ROCK CROSS VANE (RCV5)

CENTER OF RADIUS (R5)

ROCK CROSS VANE (RCV6)

ROCK CROSS VANE (RCV7)

CENTER OF RADIUS (R7)

ROCK CROSS VANE (RCV8)

CAT-1

58+00

PROP. GR W/EXTRA LONG POSTS STA. 57+25.47 TO 57+52.14

SS POINT

MATCHLINE SHEET OSM-15

SEE SHEET OSM-28 FOR PROFILE

SITE J

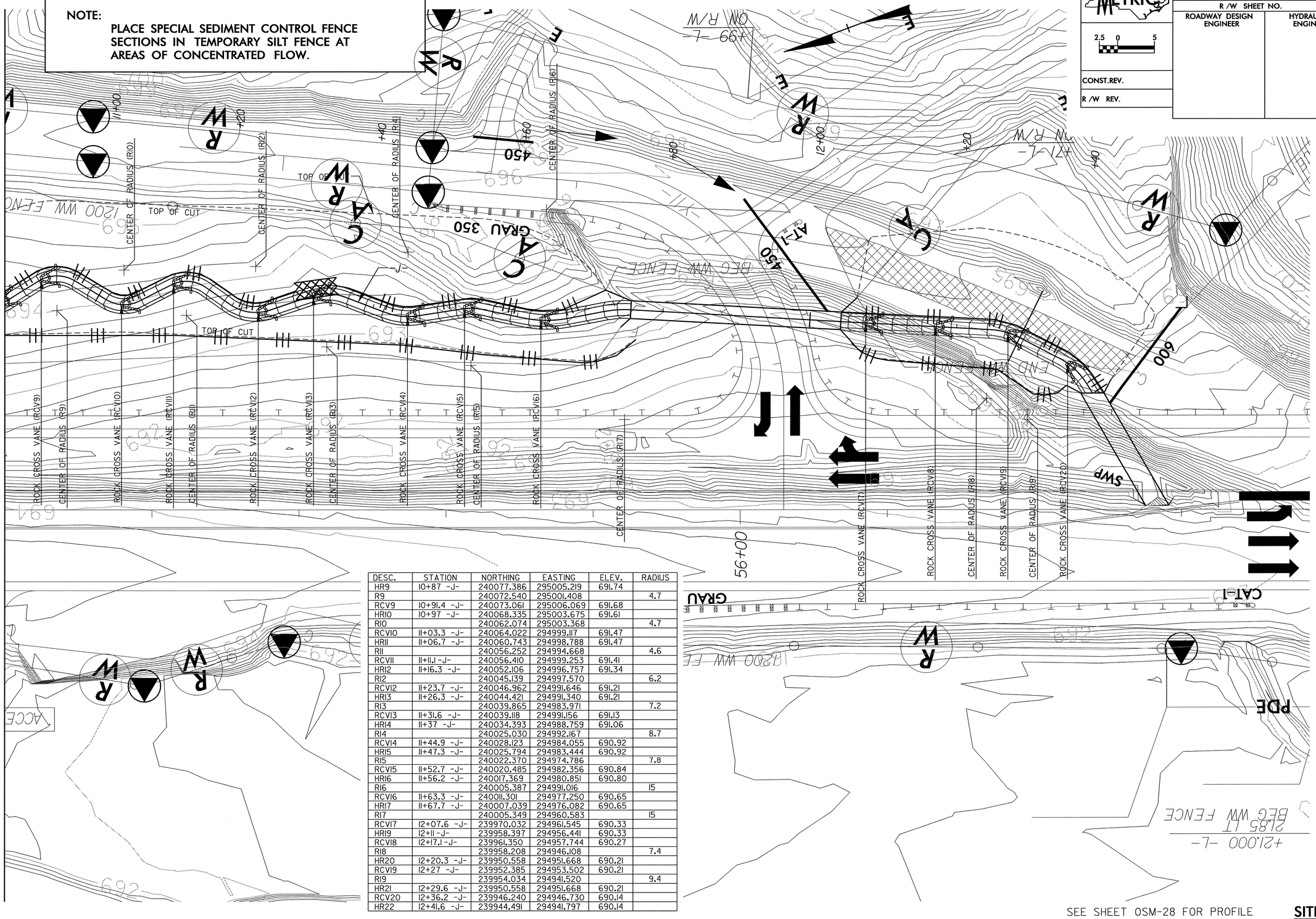
8/17/99

08-AUG-2007 16:11
gk tupper
R:\projects\2518\environmental\design\stream mitigation\r2518a_pdea_path14_ea.dgn
AT REN\251812

NOTE:

PLACE SPECIAL SEDIMENT CONTROL FENCE SECTIONS IN TEMPORARY SILT FENCE AT AREAS OF CONCENTRATED FLOW.

METRIC	PROJECT REFERENCE NO.	SHEET NO.
2.5 0 5	R-2518A	EC-102/OSM-15
CONST.REV.	R /W SHEET NO.	
R /W REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



DESC.	STATION	NORTHING	EASTING	ELEV.	RADIUS
HR9	10+87 -J-	240077.386	295005.219	691.74	
R9		240072.540	295001.408		4.7
RCV9	10+91.4 -J-	240073.061	295006.069	691.68	
HRI0	10+97 -J-	240068.335	295003.675	691.61	
RI0		240062.074	295003.368		4.7
RCVI0	11+03.3 -J-	240064.022	294999.117	691.47	
HRII	11+06.7 -J-	240060.743	294998.788	691.47	
RII		240056.252	294994.668		4.6
RCVII	11+11.1 -J-	240056.410	294999.253	691.41	
HRI2	11+16.3 -J-	240052.106	294996.757	691.34	
RI2		240045.139	294997.570		6.2
RCVI2	11+23.7 -J-	240046.962	294991.646	691.21	
HRI3	11+26.3 -J-	240044.421	294991.340	691.21	
RI3		240039.865	294983.971		7.2
RCVI3	11+31.6 -J-	240039.118	294991.156	691.13	
HRI4	11+37 -J-	240034.393	294988.759	691.06	
RI4		240025.030	294992.167		8.7
RCVI4	11+44.9 -J-	240028.123	294984.055	690.92	
HRI5	11+47.3 -J-	240025.794	294983.444	690.92	
RI5		240022.370	294974.786		7.8
RCVI5	11+52.7 -J-	240020.485	294982.356	690.84	
HRI6	11+56.2 -J-	240017.369	294980.851	690.80	
RI6		240005.387	294991.016		15
RCVI6	11+63.3 -J-	240011.301	294977.250	690.65	
HRI7	11+67.7 -J-	240007.039	294976.082	690.65	
RI7		240005.349	294960.583		15
RCVI7	12+07.6 -J-	239970.032	294961.545	690.33	
HRI9	12+11 -J-	239958.397	294956.441	690.33	
RCVI8	12+17.1 -J-	239961.350	294957.744	690.27	
RI8		239958.208	294946.108		7.4
HR20	12+20.3 -J-	239950.558	294951.668	690.21	
RCVI9	12+27 -J-	239952.385	294953.502	690.21	
RI9		239954.034	294941.520		9.4
HR2I	12+29.6 -J-	239950.558	294951.668	690.21	
RCV20	12+36.2 -J-	239946.240	294946.730	690.14	
HR22	12+41.6 -J-	239944.491	294941.797	690.14	

SEE SHEET OSM-28 FOR PROFILE

SITE J

08-AUG-2007 16:12
R:\supp-0\RE\mtz-2518a\environmental\design\stream mitigation\r2518a_pdea_pah15_eo.dgn
RChan AT REV:23812

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-103/OSM-17
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

CONST.REV.

R /W REV.

NOTE:

PLACE SPECIAL SEDIMENT CONTROL FENCE SECTIONS IN TEMPORARY SILT FENCE AT AREAS OF CONCENTRATED FLOW.

DESC.	STATION	NORTHING	EASTING	ELEV.	RADIUS
HR1	10+00 -M-	242504.266	295620.974	735.88	
R1		242470.856	295583.775		50
RCV1	10+03 -M-	242501.975	295622.911	735.77	
HR2	10+14 -M-	242492.693	295628.776	735.37	
R2		242491.175	295641.179		10.3
RCV2	10+18 -M-	242489.145	295630.623	735.25	
HR3	10+27.5 -M-	242481.873	295636.476	734.89	
R3		242469.536	295637.384		9.5
RCV3	10+36 -M-	242476.909	295643.375	734.66	
HR4	10+43.8 -M-	242470.200	295646.996	734.30	
R4		242464.579	295658.945		10.3
RCV4	10+53 -M-	242460.131	295649.632	734.06	
HR5	10+63 -M-	242454.556	295656.133	733.61	
R5		242442.684	295659.429		9.5
RCV5	10+71 -M-	242451.297	295663.439	733.38	
HR6	10+80 -M-	242444.487	295668.863	732.99	
RCV6	11+73 -M-	242374.707	295728.054	729.60	

SEE SHEET OSM-30 FOR PROFILE

SITE M

08-AUG-2007 16:13
gbishop
Rchan AT REN\2518\2
J:\projects\2518a\environmental\design\str-eam mtugston\r-2518a_pdea_psh17_ec.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-104/OSM-18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

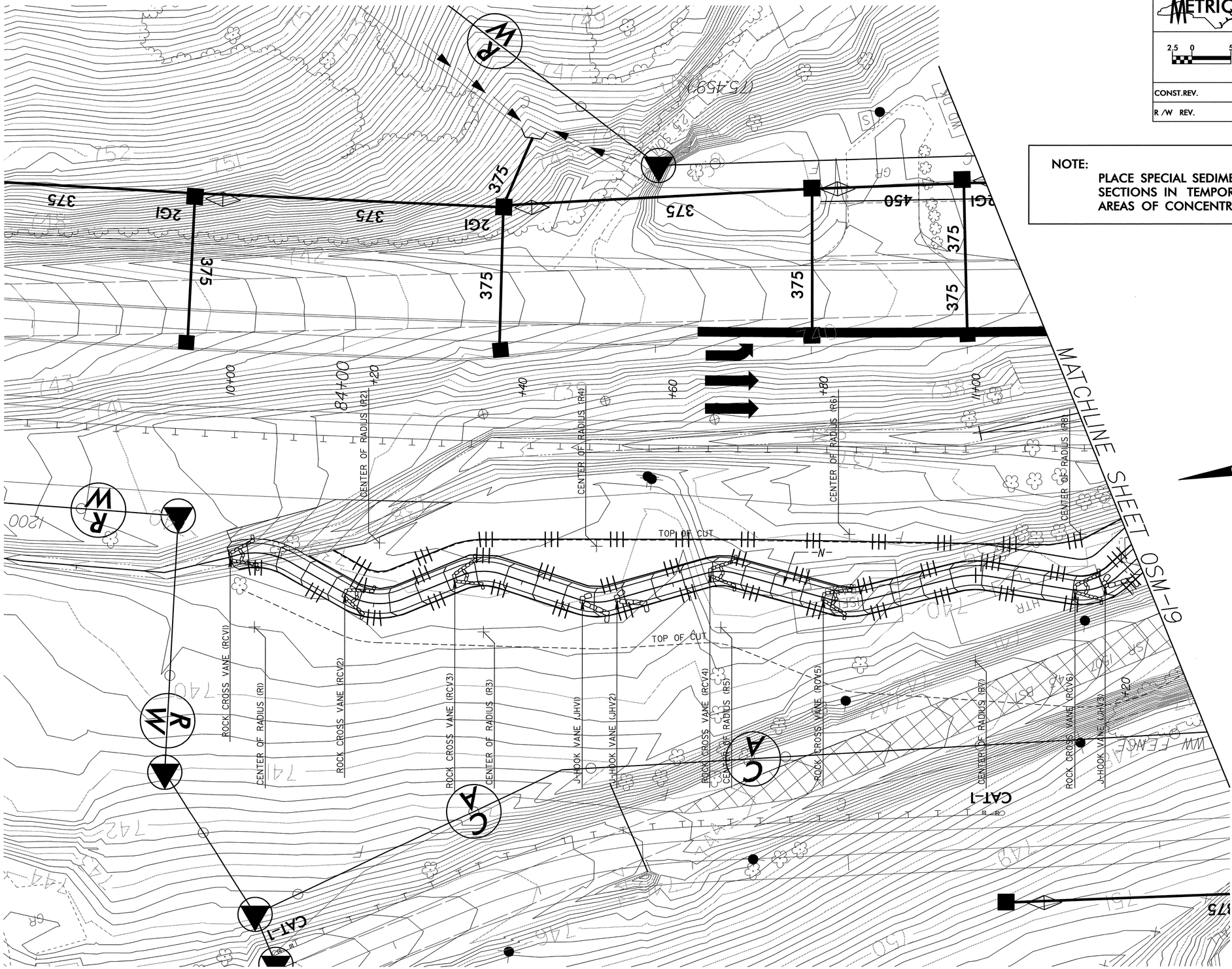
METRIC

2.5 0 5

CONST.REV.

R/W REV.

NOTE:
PLACE SPECIAL SEDIMENT CONTROL FENCE SECTIONS IN TEMPORARY SILT FENCE AT AREAS OF CONCENTRATED FLOW.



SEE SHEET OSM-31 FOR PROFILE

SITE N

08-AUG-2007 16:15
g:\tippro\ecter\r2518a\environmental\design\stream mitigation\r2518a_pdea_psh18_ec.dgn
richan AT RENV231812

PROJECT REFERENCE NO.	SHEET NO.
R-2518A	EC-105/OSM-19
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

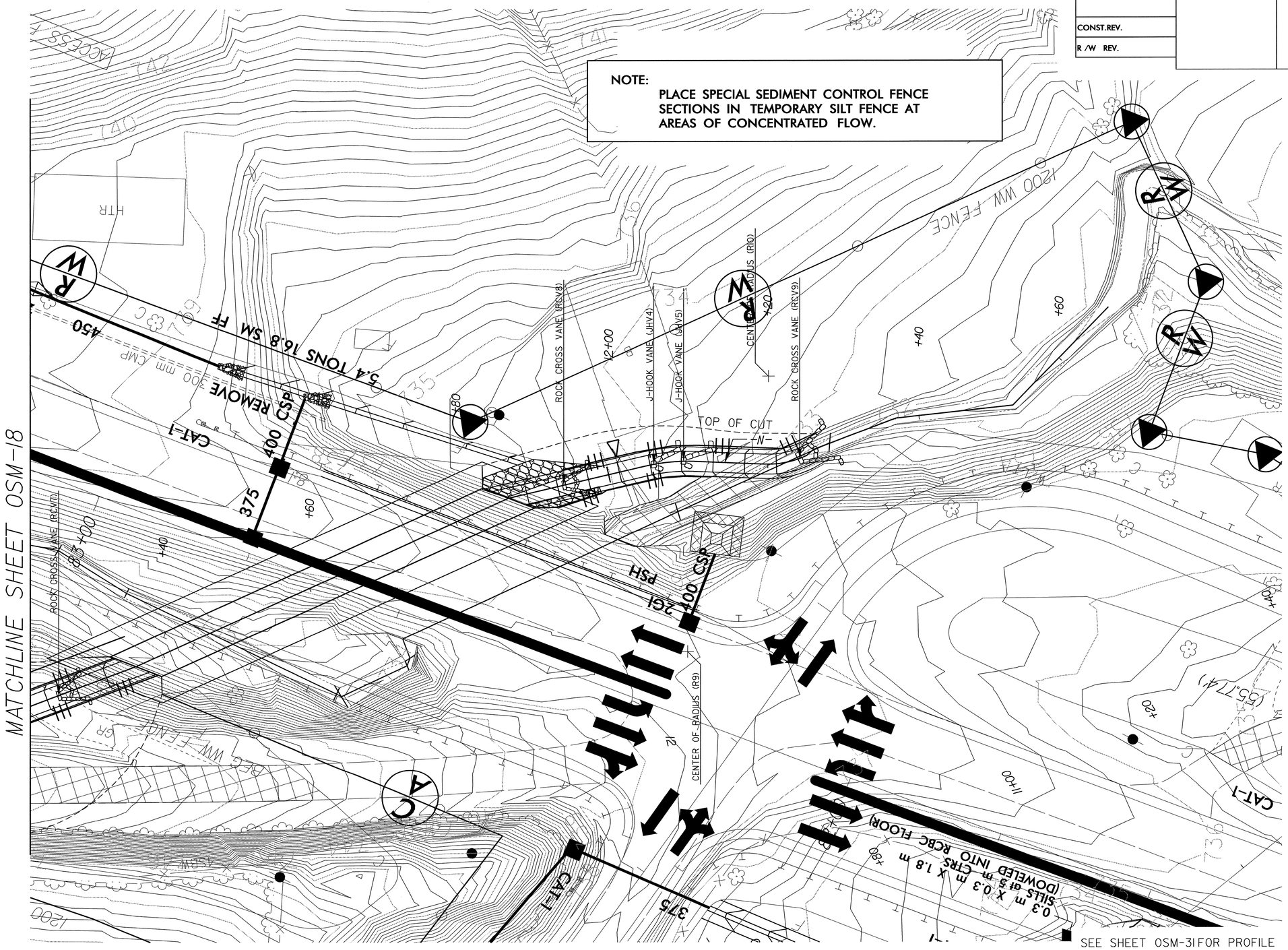
METRIC

2.5 0 5

CONST.REV.

R /W REV.

NOTE:
PLACE SPECIAL SEDIMENT CONTROL FENCE SECTIONS IN TEMPORARY SILT FENCE AT AREAS OF CONCENTRATED FLOW.



SEE SHEET OSM-31 FOR PROFILE

SITE N

08-AUG-2007 16:15
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Rohan AT REN\231812