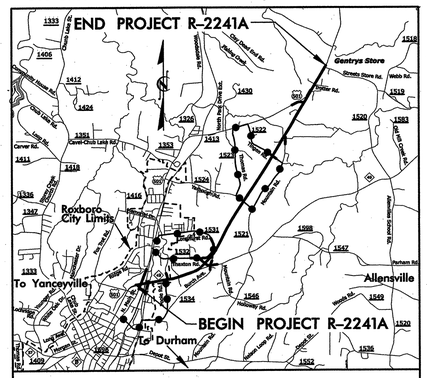
TIP PROJECT: R-2241A

CONTRACT: C202960

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



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PERSON COUNTY

LOCATION: US 501 FROM NC 49 IN ROXBORO TO SOUTH OF SR 1602

TYPE OF WORK: GRADING, DRAINAGE, PAVING, CURB AND GUTTER, WIDENING, CULVERTS, AND SIGNALS

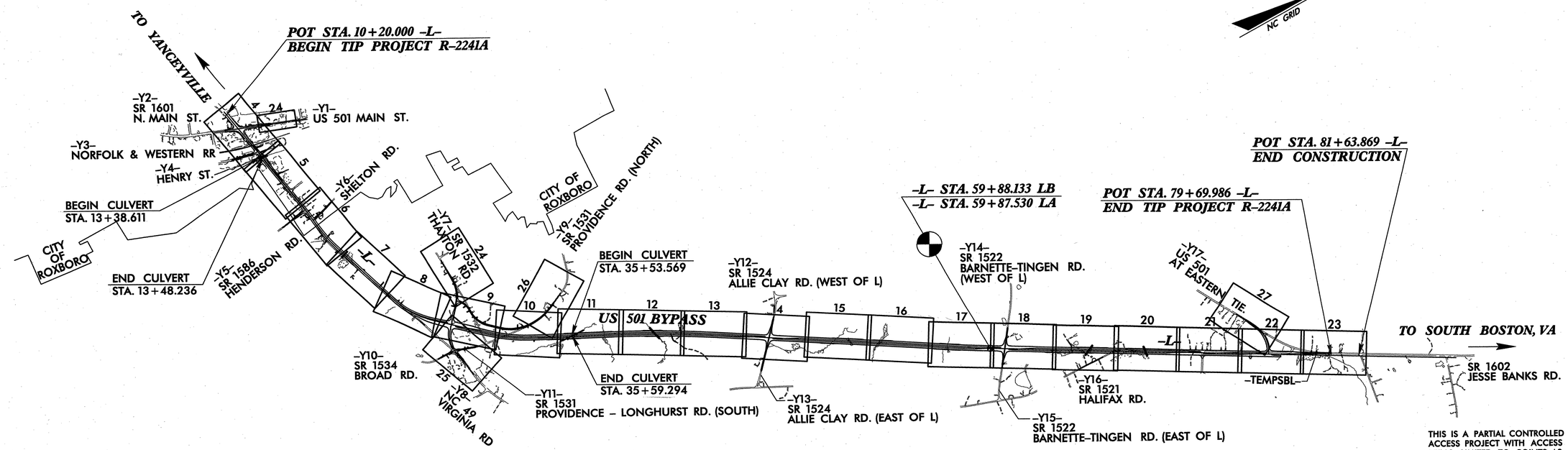
ALL DIMENSIONS IN THESE PLANS ARE IN METERS AND/OR MILLIMETERS UNLESS OTHERWISE SHOWN

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2241A	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
34406.1.1	MA-STP-501 (1)	PE
34406.2.3	STP-0501 (11)	R/W & UTILITY
34406.3.2	HPP-0501 (25)	CONST.

Part 2 of 2

NAD 83
NC GRID



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

DESIGN EXCEPTION FOR VERTICAL SIGHT DISTANCE AND SAG VERTICAL "K" FACTOR ON -L-, APPROVED 10-07-05

GRAPHIC SCALE

5 0 10
PLANS
5 0 10
PROFILE (HORIZONTAL)
1 0 2
PROFILE (VERTICAL)

DESIGN DATA

	5 LANE C&G	4 LANE DIVIDED
ADT 2011 =	10,200	2,900
ADT 2027 =	11,500	4,100
DHV =	9 %	9 %
D =	60 %	55 %
T =	10 %*	21 %**
V =	65 km/h	100 km/h

FUNC. CLASSIFICATION: ARTERIAL

* TTST 5% + DUAL 5%

** TTST 10% + DUAL 11%

REGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT R-2241A = 6.951 km
(LENGTH BASED ON SOUTHBOUND LANE)

LENGTH OF STRUCTURES TIP PROJECT R-2241A = 0.015 km

TOTAL LENGTH OF TIP PROJECT R-2241A = 6.966 km

NCDOT CONTACT: BRENDA MOORE, PE
Project Engineer, Roadway Design

PLANS PREPARED FOR THE NCDOT BY:
STV/RALPH WHITEHEAD ASSOCIATES, INC.
1000 West Morehead St., Ste. 200, Charlotte NC, 28208
NC License Number F-0991

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
OCTOBER 24, 2006

LETTING DATE:
APRIL 16, 2013

JOHN N. JOHNSON, P.E.
PROJECT ENGINEER

JOSEPH A. FREEMAN, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 9334 ENGINEER HENRY WELLS, JR.

SIGNATURE: P.E. 2/21/13

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22115 ENGINEER JOHN N. JOHNSON

SIGNATURE: P.E. 2-25-13

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

2/20/2013
C:\Projects\pr-oj\sheets\R2241A_ROY_TSH.dgn
stephens

TIP PROJECT: R-2241A

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2241A	EC-1	

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

METRIC

ALL DIMENSIONS IN THESE PLANS ARE IN METERS UNLESS OTHERWISE SHOWN

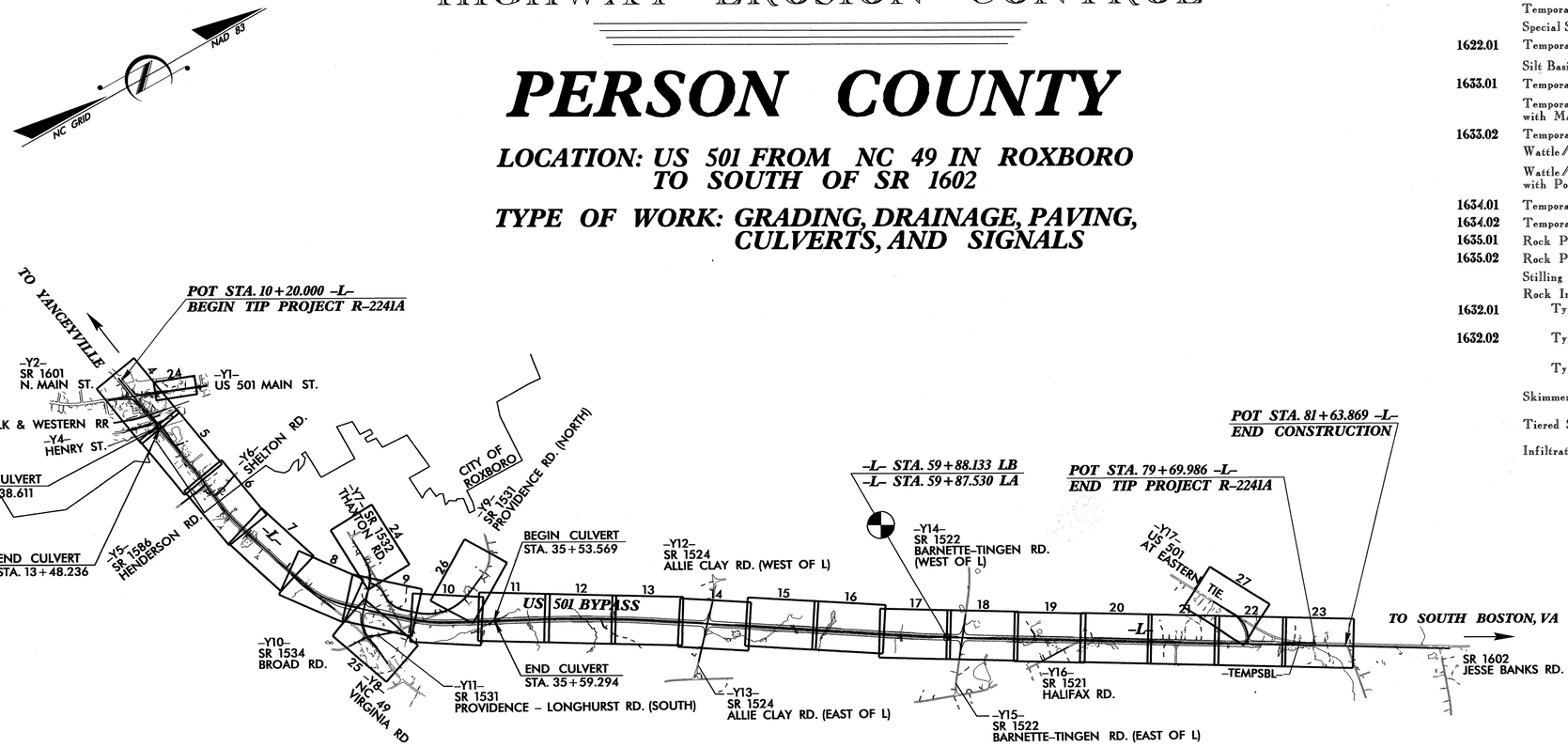
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

PERSON COUNTY

LOCATION: US 501 FROM NC 49 IN ROXBORO TO SOUTH OF SR 1602

TYPE OF WORK: GRADING, DRAINAGE, PAVING, CULVERTS, AND SIGNALS



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
	Temporary Silt Fence	
	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
	Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

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

GRAPHIC SCALE

0
PLANS
0
PROFILE (HORIZONTAL)
0
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

Prepared in the Office of:

ROADSIDE ENVIRONMENTAL UNIT

1 South Wilmington St.
Raleigh, NC 27611

2006 STANDARD SPECIFICATIONS

Roadway Standard Drawings

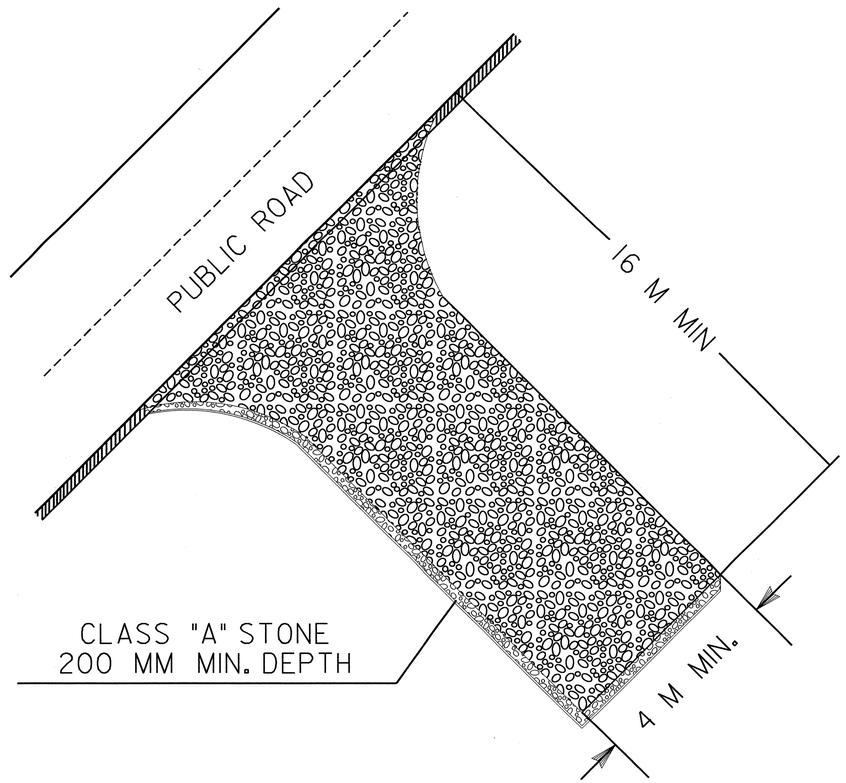
The following roadway metric standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated July 2006 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01	Temporary Silt Fence	1632.01	Rock Inlet Sediment Trap Type A
1606.01	Special Sediment Control Fence	1632.02	Rock Inlet Sediment Trap Type B
1622.01	Temporary Berms and Slope Drains	1632.03	Rock Inlet Sediment Trap Type C
1630.01	Riser Basin	1633.01	Temporary Rock Silt Check Type A
1630.02	Silt Basin Type B	1633.02	Temporary Rock Silt Check Type B
1630.03	Temporary Silt Ditch	1634.01	Temporary Rock Sediment Dam Type A
1630.04	Stilling Basin	1634.02	Temporary Rock Sediment Dam Type B
1630.05	Temporary Diversion	1635.01	Rock Pipe Inlet Sediment Trap Type A
		1635.02	Rock Pipe Inlet Sediment Trap Type B
		1636.01	Rock Silt Screen

08-AUG-2012 07:46
R:\roadprog\PERN\2491\roll\R2241A_EC_TSH.dgn
johnston

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2241A	EC-2
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE



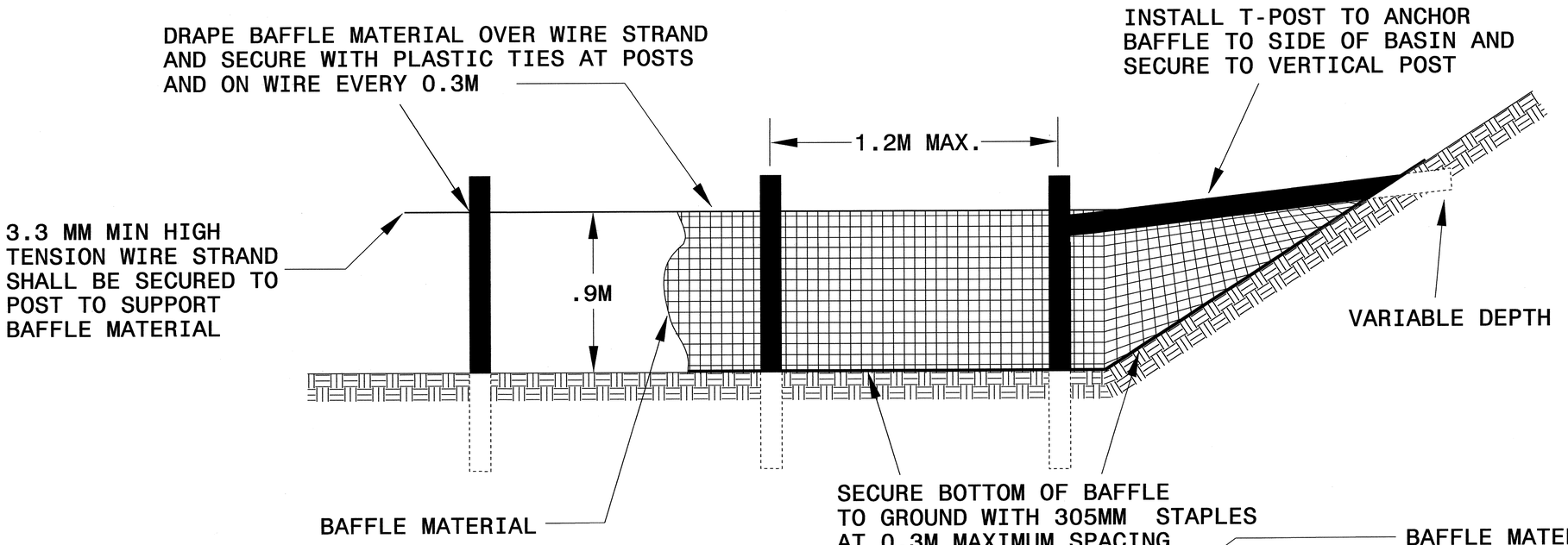
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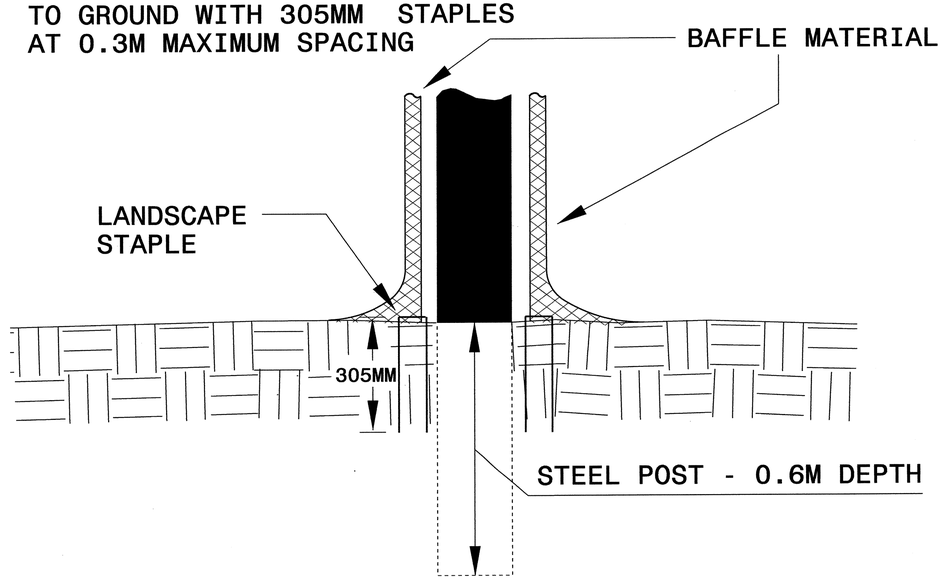
1. TURNING RADIUS SUFFICIENT TO ACCOMODATE LARGE TRUCKS SHALL BE PROVIDED.
2. ENTRANCE(S) SHOULD BE LOCATED TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL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

NOTE: FILTER FABRIC TO BE PLACED BENEATH STONE

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2241A	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

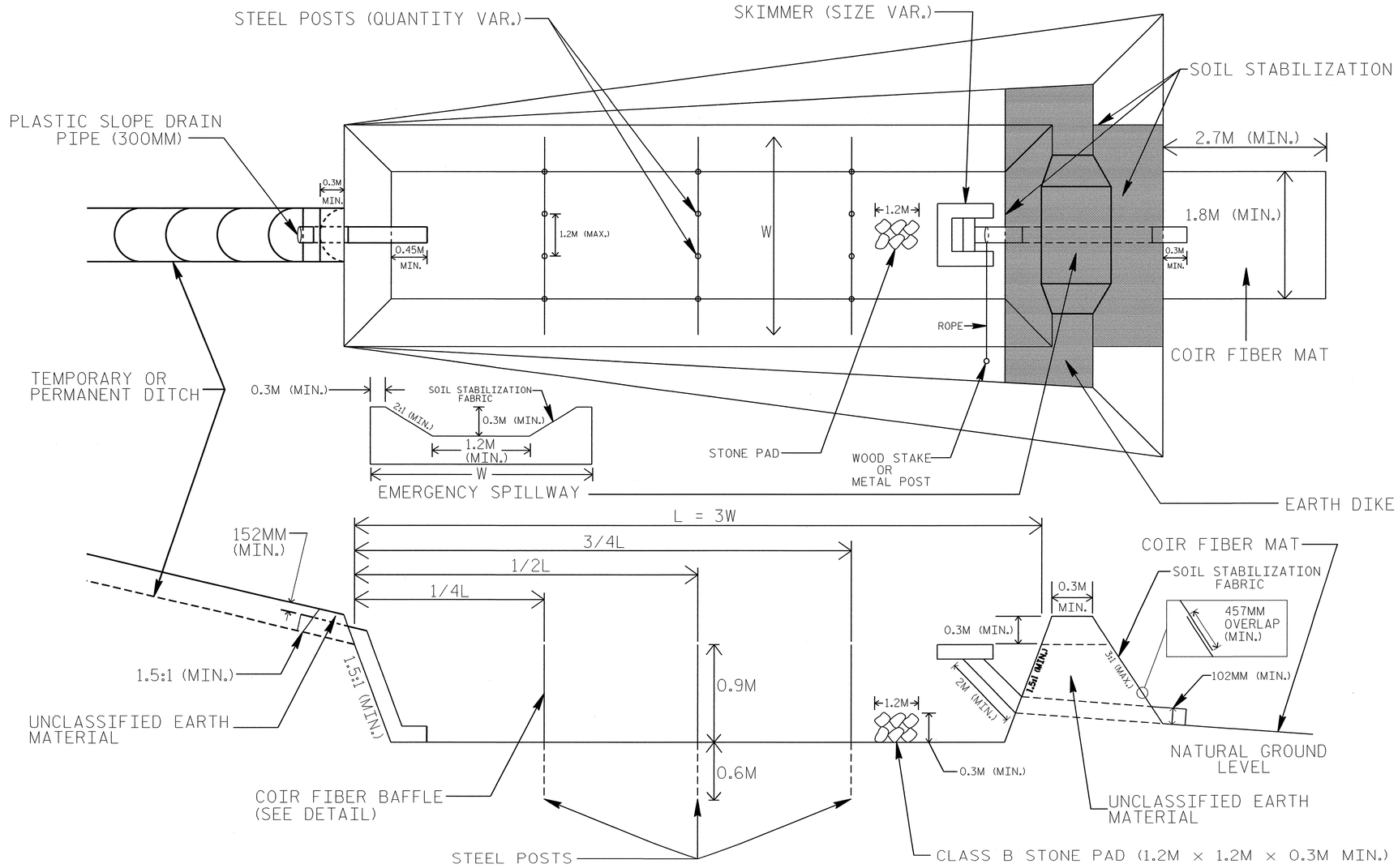
1. INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF ¼ THE BASIN LENGTH.

2. 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.

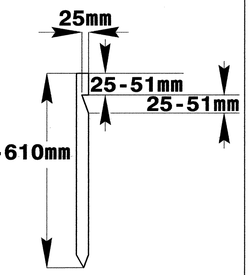
3. TOP HEIGHT OF COIR FIBER BAFFLES SHALL NOT BE BELOW BASE OF EMERGENCY SPILLWAY ELEVATION.

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2241A	EC-2B
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

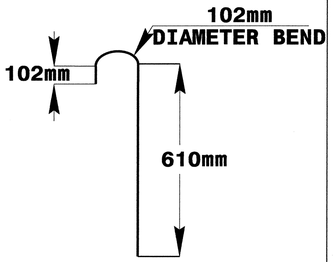
SKIMMER BASIN WITH BAFFLES DETAIL



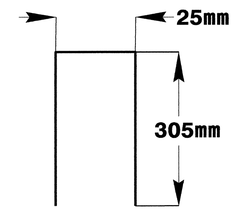
51mm x 51mm (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



25mm (nominal) STAPLE



COIR FIBER MAT ANCHOR OPTIONS

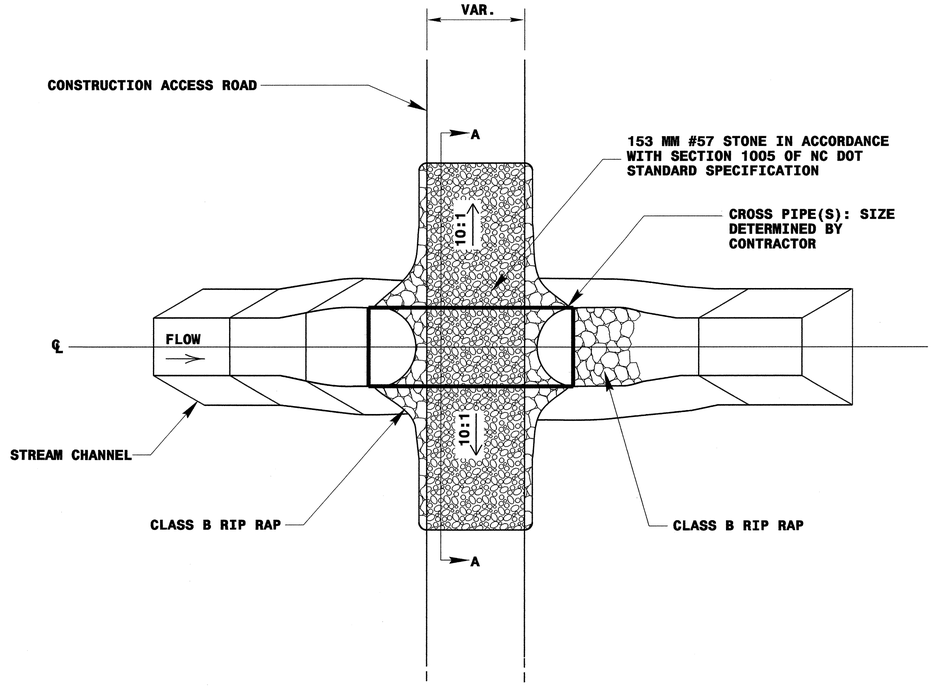
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 1.5M.
3. FOR BASIN DEPTH OF 1M, MINIMUM BASIN WIDTH SHALL BE 3M.
4. DETERMINE EMERGENCY SPILLWAY LENGTH (M) USING Q/0.074, WHERE Q IS FLOW RATE (CMS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTER FABRIC AS DIRECTED.
6. SOIL STABILIZATION FABRIC FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 457MM (MIN.).

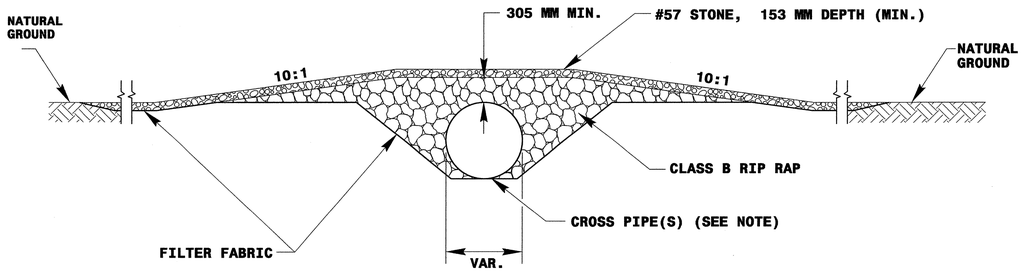
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-2C
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY STREAM CROSSING



PLAN VIEW



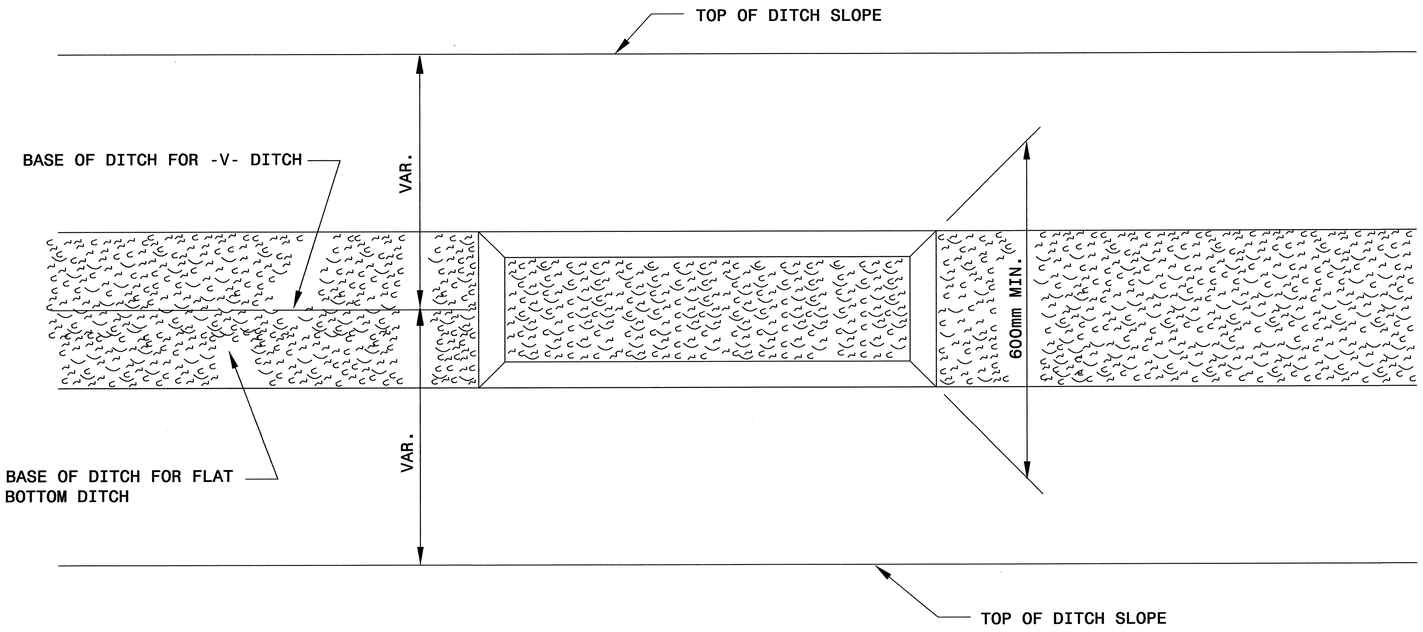
SECTION A-A

NOT TO SCALE

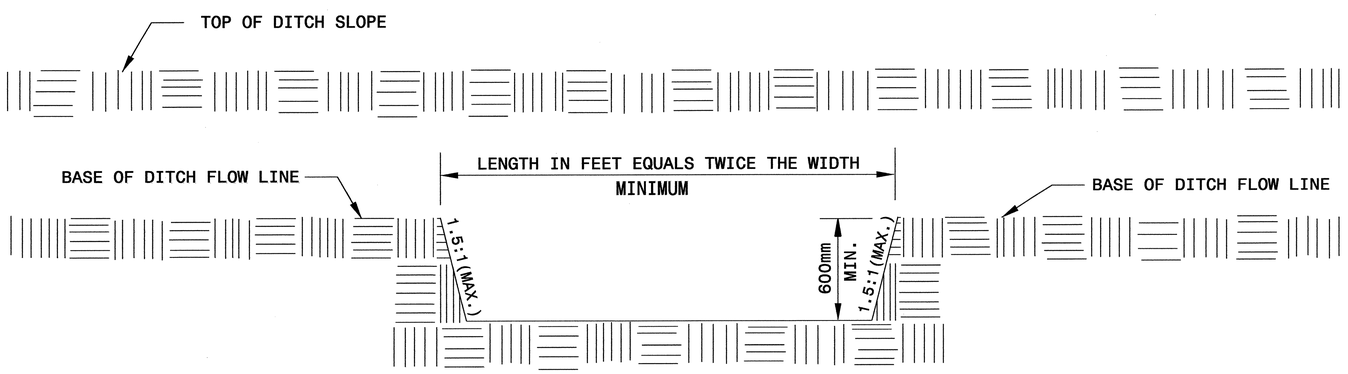
NOTE: PIPE(S) FOR TEMPORARY STREAM CROSSING SHALL BE DESIGNED TO PASS THE PEAK OR BANKFULL FLOW, WHICHEVER IS LESS, FROM A 2-YEAR PEAK STORM, WITHOUT OVER TOPPING.

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2241A	EC-2D
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT BASIN 'B' DETAIL



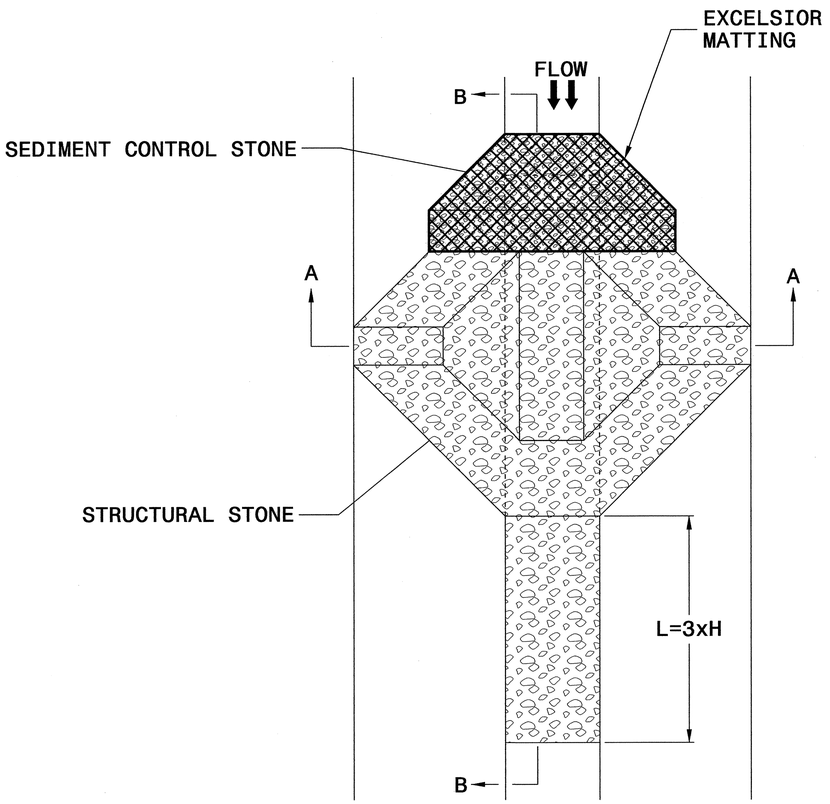
PLAN



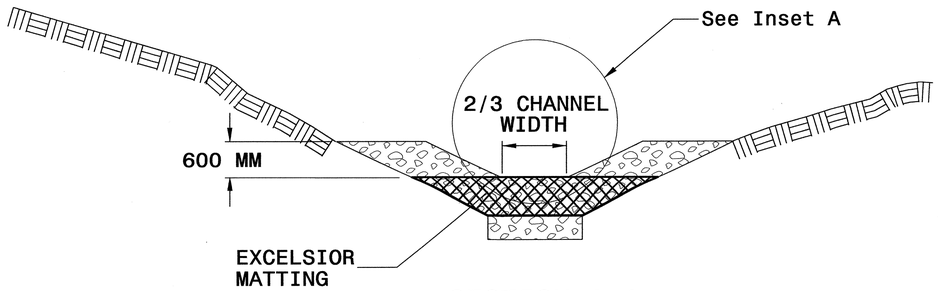
ELEVATION

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2241A	EC-2E
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN



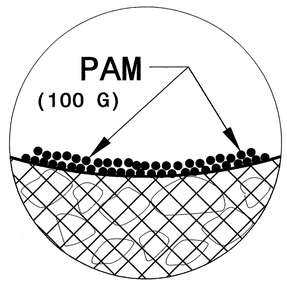
SECTION A-A

NOTES

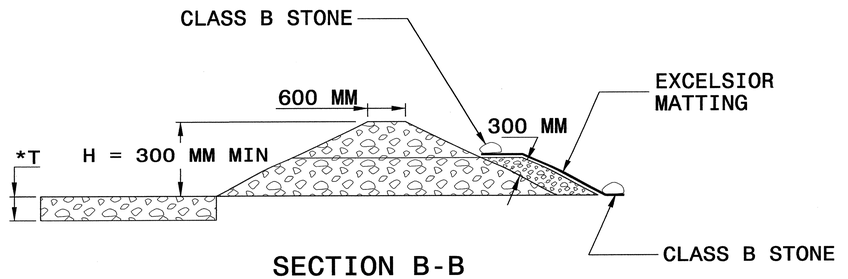
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

INITIALLY APPLY 100 GRAMS OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 12 MM.



INSET A



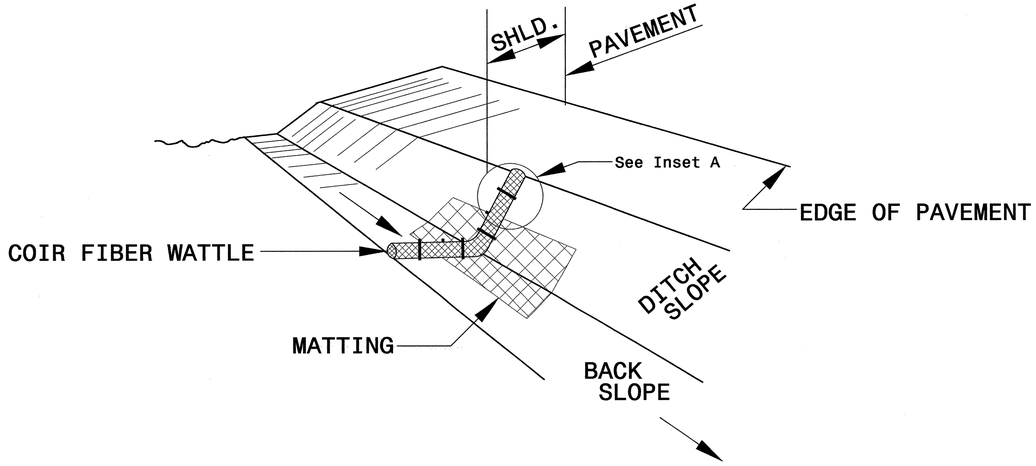
SECTION B-B

*T = 300 MM MIN., 450 MM MAX.

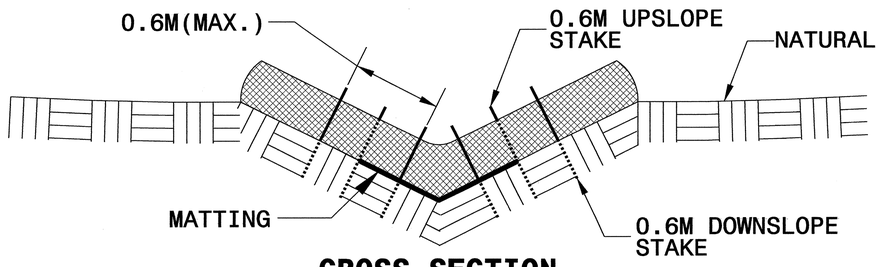
NOT TO SCALE

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2241A	EC-2F
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

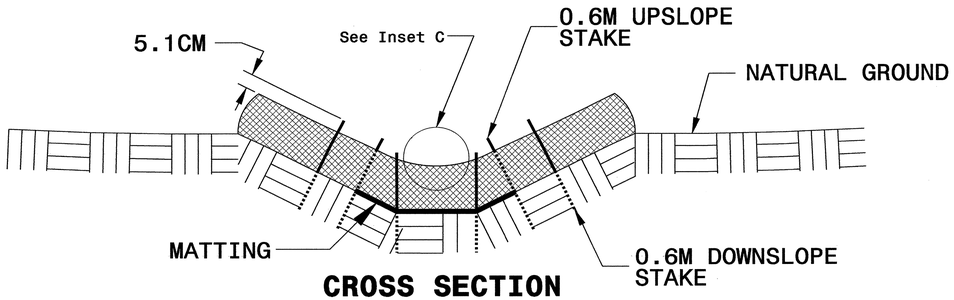
COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 305 MM DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.

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

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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

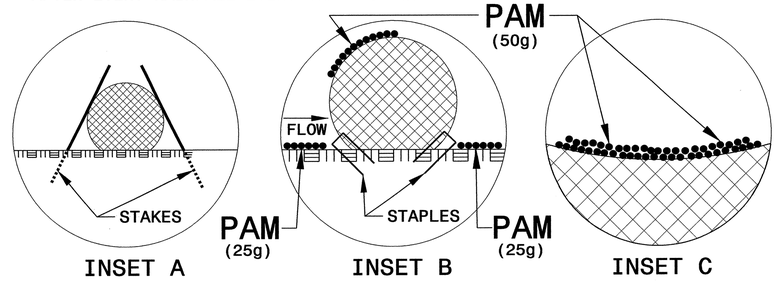
PROVIDE STAPLES MADE OF 3 MM DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 305 MM IN LENGTH.

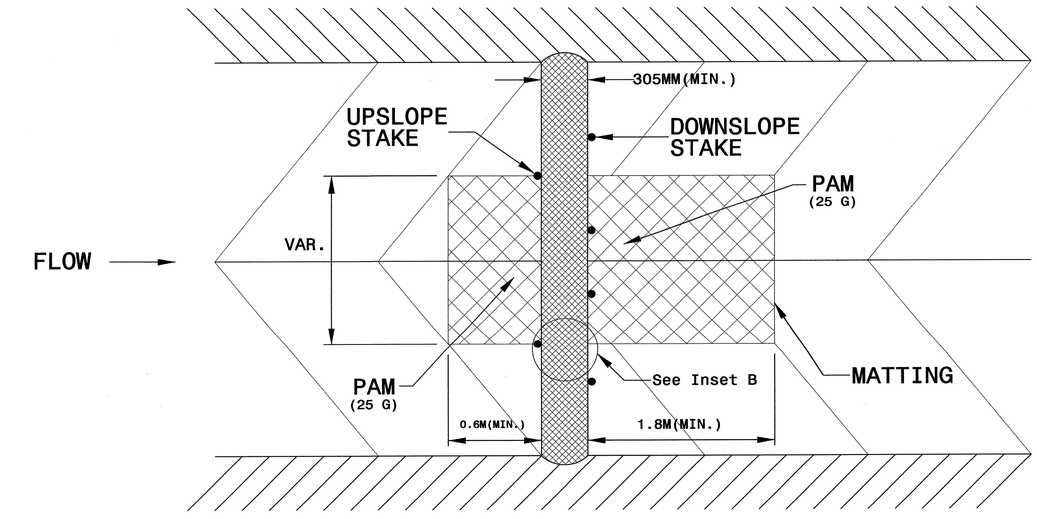
INSTALL STAPLES APPROXIMATELY EVERY 0.3 LINEAR METER ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 50 GRAMS OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 25 GRAMS ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 12 MM.

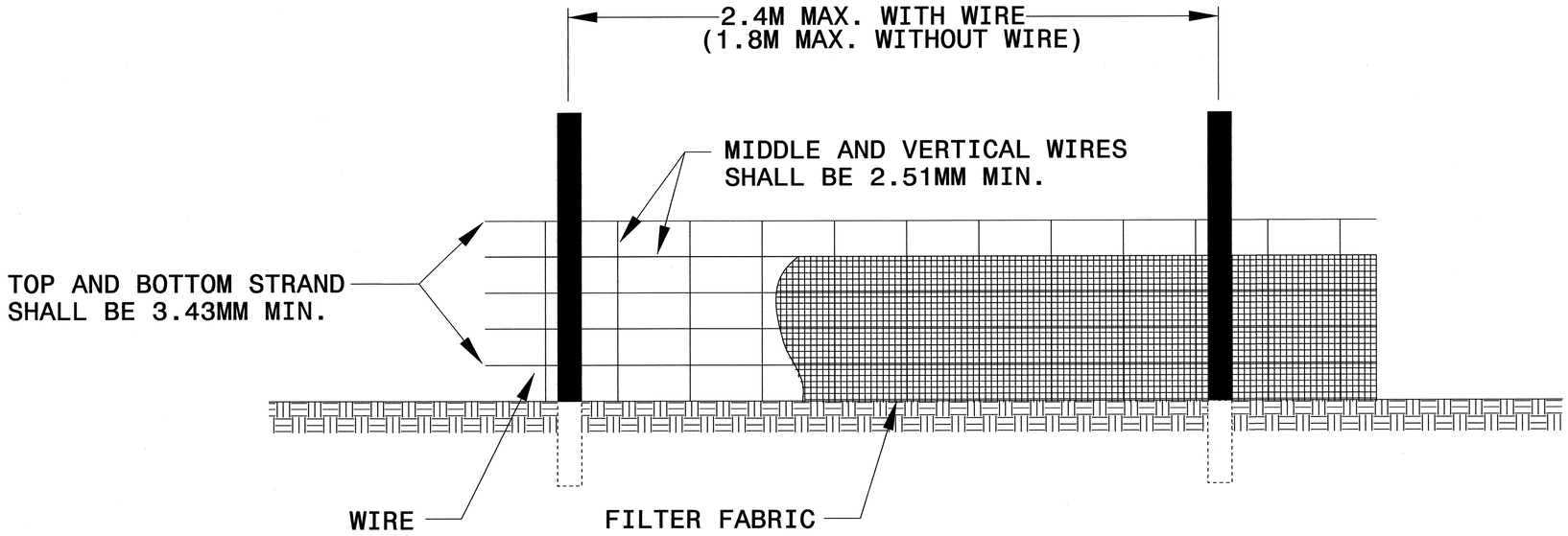




TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-2G
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY SILT FENCE DETAIL

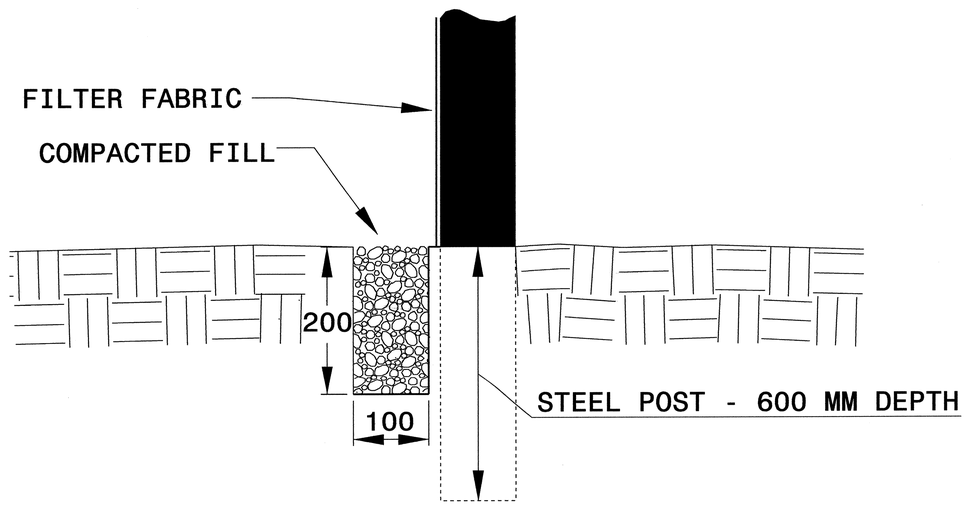


NOTES

USE WIRE A MINIMUM OF 800MM IN WIDTH AND WITH A MINIMUM OF 6 LINE WIRES WITH 300MM STAY SPACING.

USE FILTER FABRIC A MINIMUM OF 900MM IN WIDTH AND FASTEN ADEQUATELY TO THE WIRE AS DIRECTED BY THE ENGINEER.

PROVIDE 1.5M STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE. ANGLE STEEL TYPE.



EXTENSION OF FABRIC AND WIRE INTO TRENCH

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2241A	EC-2H
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SPECIAL SEDIMENT CONTROL FENCE DETAIL

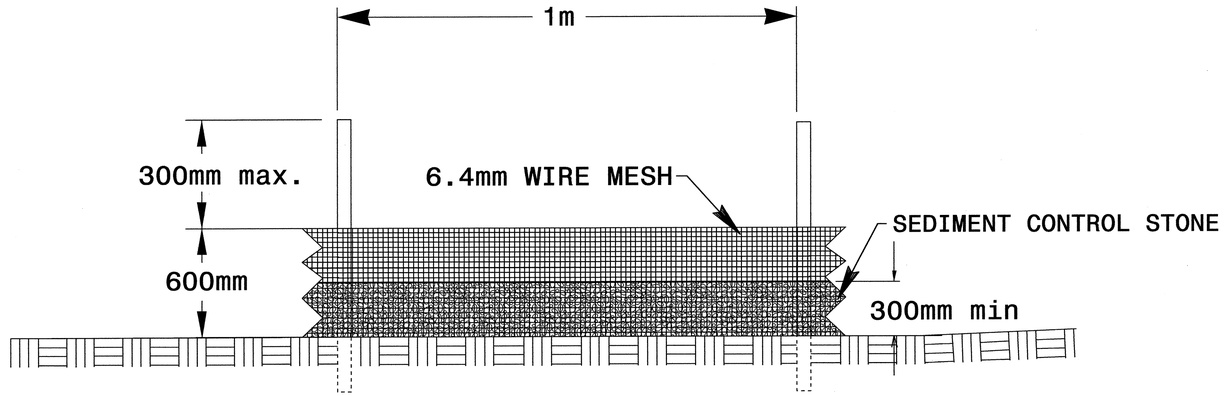
GENERAL NOTES:

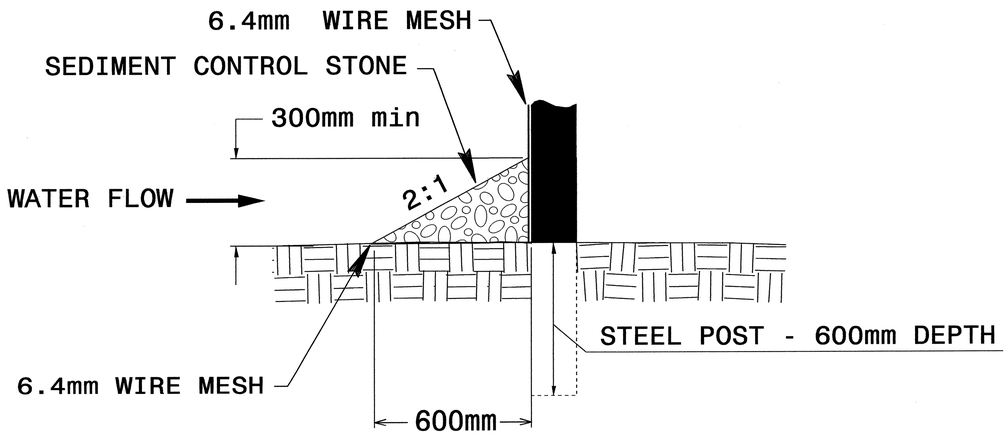
USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL.

USE 0.65mm HARDWARE CLOTH WIRE MESH WITH 6.4 mm MESH OPENINGS.

INSTALL 1.5m SELF FASTENER ANGLE STEEL POST 600mm DEEP MINIMUM.

SPACE POST A MAXIMUM OF 1m.





METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2241A	EC-21
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

STILLING BASIN

GENERAL NOTES:
CONSTRUCT THE COIR FIBER BAFFLES WITH A MATERIAL THAT MEETS THE SPECIFICATIONS OF THE COIR FIBER MAT SPECIAL PROVISION PROVIDED IN THE CONTRACT.

PROVIDE 1.5M STEEL POSTS OF THE SELF-FASTENER ANGLE STEEL TYPE. INSTALL STEEL POSTS WITH NO MORE THAN 0.9M OF THE POST APPEARING ABOVE THE GROUND.

ATTACH THE COIR FIBER MAT TO THE STEEL POSTS WITH WIRE OR OTHER ACCEPTABLE MEANS AND STAPLED INTO THE BOTTOM AND SIDE SLOPES OF THE STILLING BASIN WITH 12″ STAPLES.

INSTALL THE TOP OF THE COIR FIBER BAFFLE A MINIMUM OF 300MM LOWER THAN THE TOP OF THE STILLING BASIN BERMS.

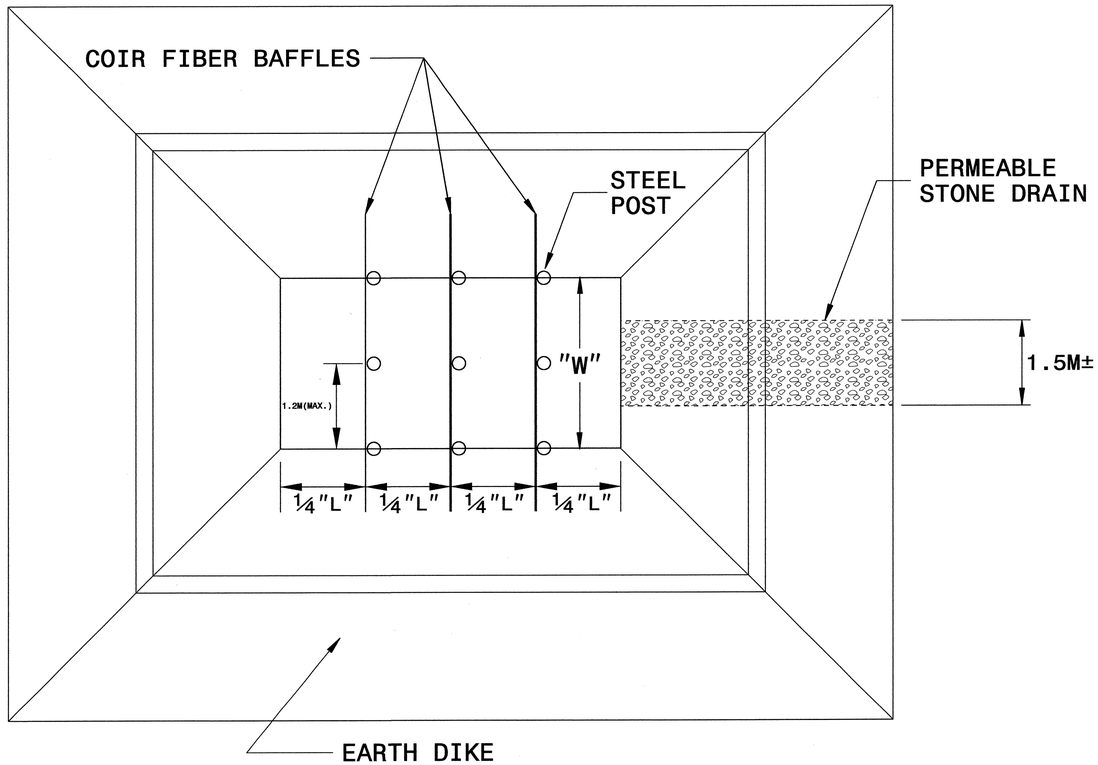
USE THE TYPICAL SECTION SHOWN FOR THE STILLING BASIN AS A GUIDE. THE BASIN MAY HAVE ANY TYPE CONFIGURATION AS LONG AS SUFFICIENT VOLUME IS PROVIDED AND PROVISIONS ARE MADE FOR A PERMEABLE STONE DRAIN.

DO NOT EXCEED 1.5M IN HEIGHT FOR THE EARTH DIKES REQUIRED FOR STILLING BASINS. ADDITIONAL DEPTHS MAY BE ATTAINED BY EXCAVATING BELOW THE NATURAL GROUND LEVEL.

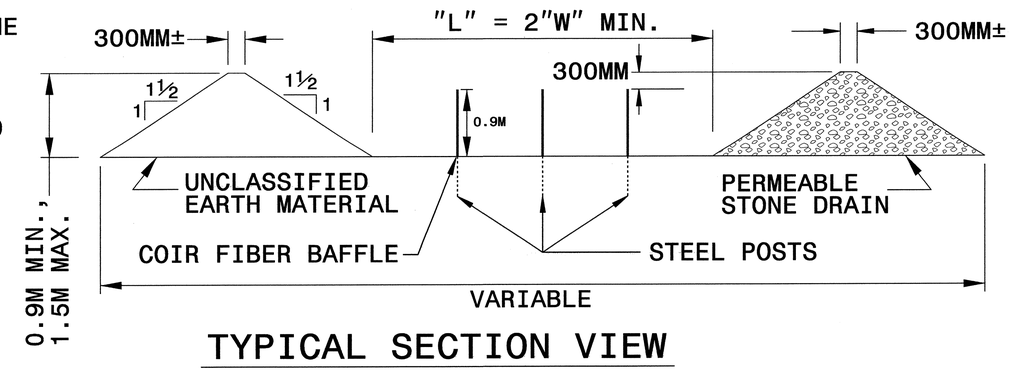
THE STILLING BASIN SIZE IS VARIABLE AND DEPENDENT ON SPECIFIC SITE REQUIREMENTS AS WELL AS PROPOSED CONSTRUCTION OPERATIONS.

SUBMIT THE SIZE, LOCATION AND PERMEABLE STONE DRAIN MATERIAL FOR APPROVAL PRIOR TO CONSTRUCTION.

PUMP THE EFFLUENT INTO THE STILLING BASIN TO A MAXIMUM DEPTH OF 0.9 METERS.



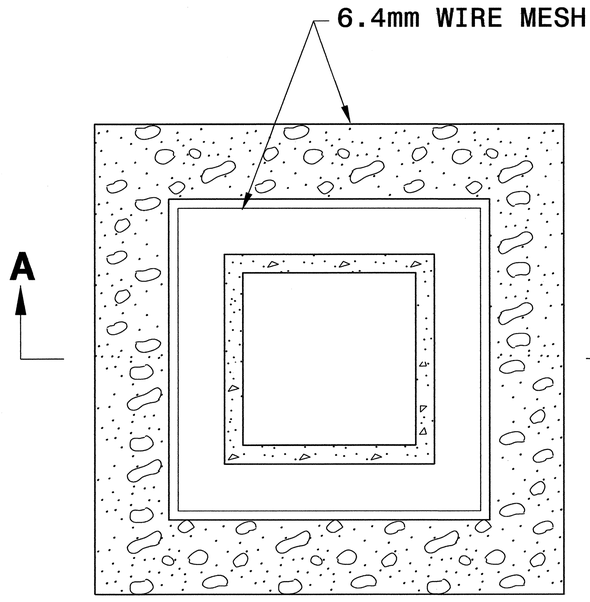
PLAN

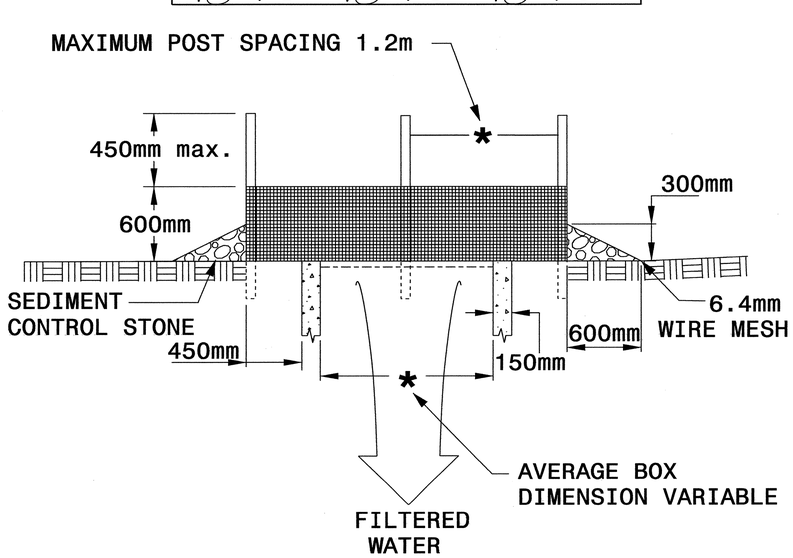


TYPICAL SECTION VIEW

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2241A	EC-2J
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

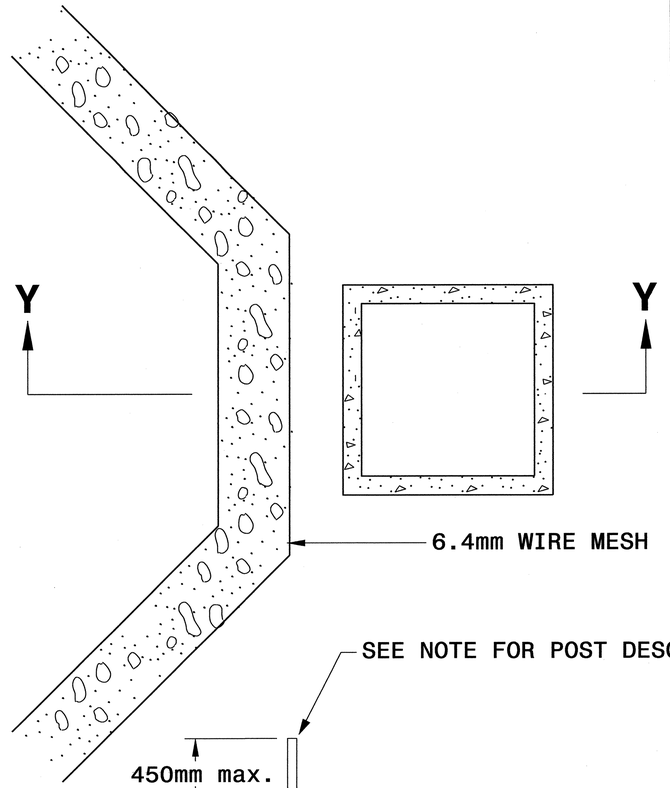
ROCK INLET SEDIMENT TRAP TYPE 'C' DETAIL

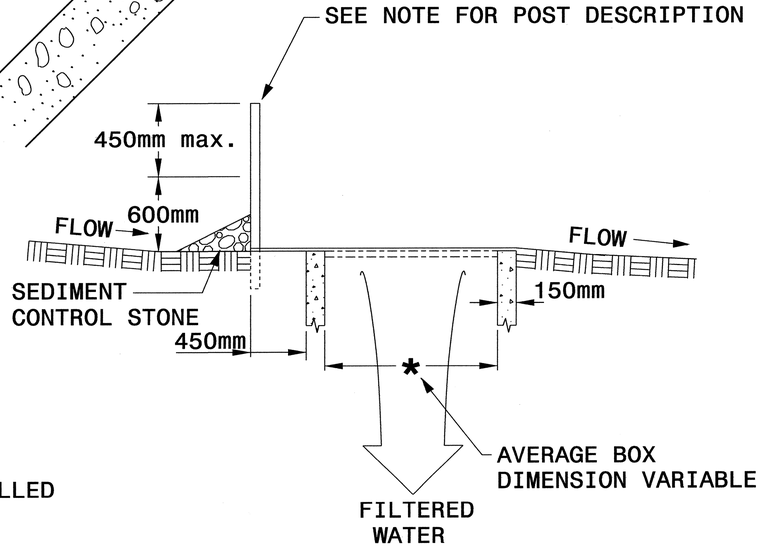




SECTION A-A

NOTE
USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL.
USE HARDWARE CLOTH 0.65mm WIRE MESH WITH 6.4mm MESH OPENINGS.
PLACE TOP OF WIRE MESH A MINIMUM OF 300mm BELOW THE SHOULDER OR ANY DIVERSION POINT.
INSTALL WIRE MESH UNDER SEDIMENT CONTROL STONE.
USE 1.5m STEEL POST, INSTALLED 450mm DEEP MINIMUM, AND OF THE SELF-FASTENER ANGLE STEEL TYPE.
SPACE POST A MAXIMUM OF 1.2m.





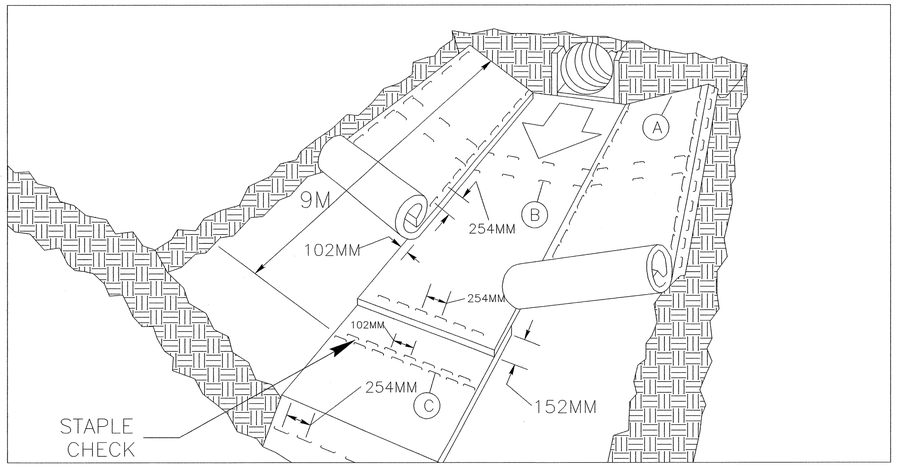
SECTION Y-Y

MULTI-DIRECTIONAL FLOW

SINGLE-DIRECTIONAL FLOW

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2241A	EC-2K
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATTING INSTALLATION DETAIL



MATTING IN DITCHES

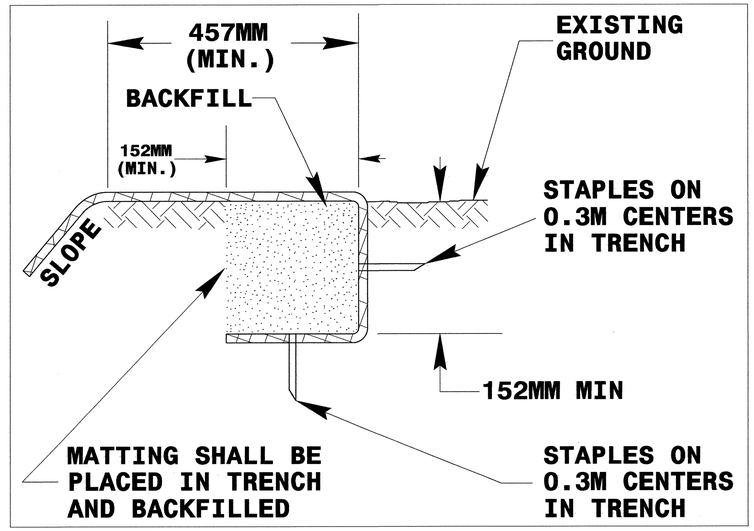
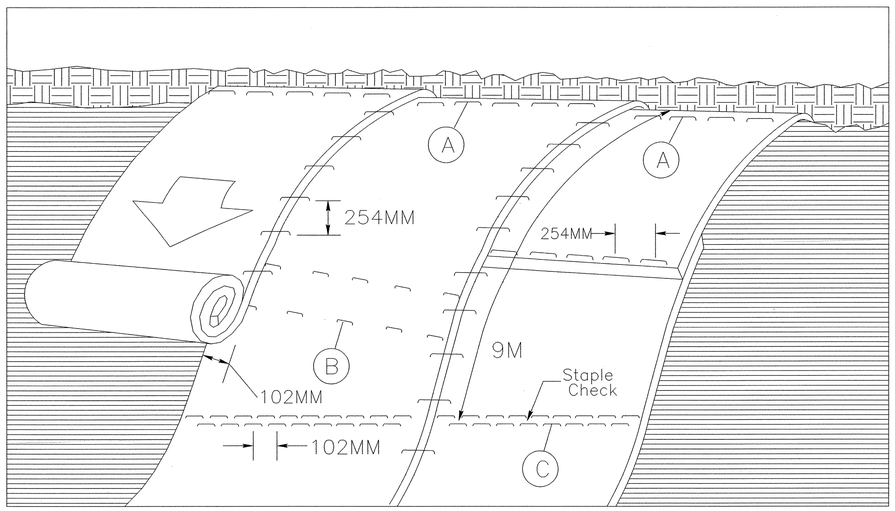


DIAGRAM (A)



MATTING ON SLOPES

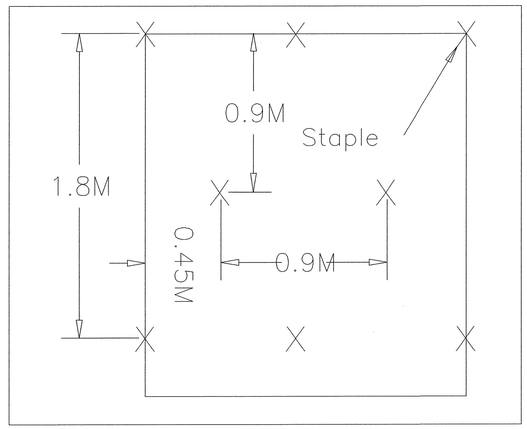


DIAGRAM (B)

Staple Check Pattern

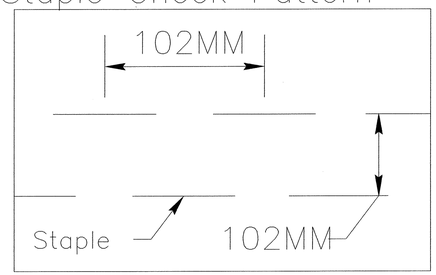


DIAGRAM (C)

NOTES:

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.

STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 25MM AND NOT LESS THAN 152MM IN LENGTH.

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SM)
6	-L-	18+40	19+20	LT	250
6	-L-	19+56	20+20	LT	165
6	-Y6-	10+60	10+80	RT	55
8	-L-	26+80	28+20	RT	1390
9	-L-	31+00	35+00	LT	3330
9	-Y7-	12+80	13+80	LT	320
9	-Y8-	14+40	15+40	LT	625
9	-Y9-	10+20	11+00	LT	255
9	-Y9-	11+40	14+20	LT	1340
9	-Y9-	10+20	14+20	RT	1910
10	-L-	31+20	37+60	MED	7790
10	-Y9-	14+40	15+60	LT	385
10	-Y9-	14+40	15+60	RT	385
11	-L-	37+80	44+60	MED	8275
11	-L-	36+00	37+20	RT	1040
12	-L-	40+80	41+60	LT	790
12	-L-	41+00	44+60	RT	2995
13	-L-	44+80	46+40	MED	1430
13	-L-	44+80	46+40	RT	1200
13	-L-	42+00	44+60	LT	2530
13	-L-	44+80	46+60	LT	1500
14	-L-	47+60	50+60	MED	3650
14	-L-	47+60	48+00	RT	450
14	-L-	49+00	50+40	LT	1165
14	-Y13-	12+40	13+00	RT	195
15	-L-	49+20	50+00	RT	675
16	-L-	53+60	56+80	RT	2750
16	-L-	54+50	56+80	LT	2360
17	-L-	57+20	59+80	MED	2910
18	-L-	61+20	68+40	MED	8760

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SM)
18	-L-	61+00	63+60	LT	2500
18	-L-	61+00	63+20	RT	2035
18	-Y15-	11+40	12+00	LT	385
18	-Y15-	11+40	12+00	RT	385
19	-L-	64+60	65+80	RT	430
19	-L-	65+80	66+00	LT	210
19	-L-	66+60	68+40	RT	1510
20	-L-	68+60	72+48	MED	4745
20	-L-	67+20	68+40	LT	730
20	-L-	69+00	71+40	LT	1345
20	-L-	69+40	72+00	RT	1585
22	-L-	74+40	76+00	RT	895
22	-L-	74+60	75+40	LT	410
24	-Y7-	11+40	12+40	LT	320
24	-Y7-	11+60	12+80	RT	385
26	-Y9-	16+00	16+60	LT	195
26	-Y9-	16+00	16+60	RT	195
27	-Y17-	11+40	12+90	RT	770
			SUBTOTAL		79905
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE				ENGINEER	100000
				TOTAL	179905
				SAY	180000

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	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)
6	-Y6-	10+60	11+20	LT	195
8	-L-	26+80	28+20	LT	1390
14	-Y12-	10+40	11+00	LT	385
14	-Y12-	10+40	11+00	RT	385
18	-Y14-	10+20	10+40	LT	100
18	-Y14-	10+20	11+00	RT	255
25	-Y8-	15+40	15+60	LT	155
25	-Y11-	10+40	10+80	LT	255
25	-Y11-	10+40	11+00	RT	290
			SUBTOTAL		3410
		ADDITIONAL PSRM TO BE INSTALLED			0
				TOTAL	3410
				SAY	3500

PERMANENT SOIL REINFORCEMENT MAT

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

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-3B
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 3 M OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 15 M IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

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

METRIC

5 0 10

CONST.REV.

R /W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-4/CONST.4
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

BEGIN TIP PROJECT R-2241A
POT STA.10+20.000 -L-

S. R. & D. N., INC
DB 288 PG 151

NAD 83 / NC GRID

WALTER O'NEIL HUMPHRIES, JR.
DB 99 PG 14

MARGARET YARBORO
DB 62 PG 539

NEW TOP INVESTMENTS, INC.
DB 469 PG 333
BOM 19 PG 258

LINDA STRICKLAND CARVER
DB 362 PG 736
BOM 11 PG 72-B

ANGELA SNOW TUCK
DB 629 PG 310

JAI UCK KIM & HEE RAN KIM
DB 568 PG 01

SOUTHERN STATES COOPERATIVE, INC
DB 185 PG 880
BOM 3 PG 132

J. E. GATES TRUST ESTATE FILE NO. 10-E PG 279
ROSALIE P. GATES
DB 178 PG 827

MATCHLINE STA 12+80 -Y1- SEE SHEET 24

MATCHLINE STA 13+40 -L- SEE SHEET 5

BEGIN CONSTRUCTION
POT STA 10+03.00 -DR3-

BEGIN CONSTRUCTION
POT STA 10+10.70 -DR2-

POT Sta.10+00.000 -Y4-

POT Sta.13+02.001 -L-

PC Sta. 10+36.45 -DR2-

PT Sta. 10+35.45 -DR2-

PC Sta. 10+33.881 -L-

PT Sta. 10+45.697 -L-

PT Sta.10+45.703 -Y3-

POT Sta.12+54.845 -L-

POC Sta.11+01.434 -Y3-

POT Sta.11+26.019 -L- =
POT Sta.13+99.289 -Y1 & Y2-

END CONSTRUCTION
POT Sta. 14+75.000 -Y2-

END CONSTRUCTION
POT STA 11+30.00 -Y4

BEGIN C&G
LT -L- STA 10+60.000

BEGIN C&G
RT -L- STA 10+46.000

TIE TO EXISTING C&G LT.& RT.

CONTAMINATED AREA

NOTE:
THIS TELEPHONE MANHOLE WAS NOT ENTERED DUE TO PETROLEUM CONTAMINATION FROM THE NEARBY SERVICE STATION. SPRINT REPRESENTATIVES VERBALLY VERIFIED ALL CABLES

12 x 8 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
5.5 m weir
ID 4.1C

10 x 20 x 0.6
38 mm Skimmer
with 24 mm
Orifice Diameter
17.5 m weir
ID 4.1F

18.442 R/W
60.5 R/W

150mm BST CURB

2300mm WD

RETAIN

DO NOT DISTURB SIGN

600mm CONC

ISBK BUS

ISBLK BUS

ISFD

ISBKBUS

BK PLANTER

EXISTING R/W

1375 mm CONC EXISTING R/W

750mm C&G

150 mm CONC CURB

US 501-N MADISON BLVD

RETAIN AND ADJUST

REMOVE

RETAIN

CONTAMINATED AREA

W. O. HUMPHRIES, JR.
DB 62 PG 512

RICHARD T. CLAYTON
DB 387 PG 549
BOM 13 PG 41

RICHARD T. CLAYTON
DB 387 PG 549
BOM 5 PG 397

KING II INVESTMENTS, LLC
DB 313 PG 637
DB 279 PG 730
BOM 12 PG 333
BOM II PG 5-J

JULIA LAFOON
DB 53 PG 190

KING INVESTMENTS, LLC
DB 595 PG 577
BOM 14 PG 395

KING II INVESTMENTS, LLC
DB 586 PG 258
BOM 14 PG 332

NEB KING PROPERTIES, LLC
DB 284 PG 325
BOM 6 PG 27
DB 140 PG 457

C & G SUPPLY CENTER INC.
DB 162 PG 301
DB 176 PG 206
BOM 1PG 468

NORFOLK & WESTERN RAILROAD

TOM'S AUTO SUPPLY OF ROXBORO, INC
DB 175 PG 861
DB 188 PG 372
BOM 7 PG 243

ROXBORO PROPERTIES, LLC
DB 469 PG 656
BOM 13 PG 568

JIMMY LEWIS CONTRACTING INC.
DB 133 PG 277
DB 131 PG 562
BOM 7 PG 243

ROXBORO INVESTMENT PROPERTIES LLC
DB 651 PG 172

UTILITY INTERFERENCE STRUCTURE

APPROXIMATE LOCATION OF POSSIBLE JUNCTION

OTHER END UNKNOWN

18M HEIGHT CHAIN LINK CONTAINMENT FENCE WITH DOUBLE STRANDED BARBED WIRE ACROSS THE TOP SIDE TO BE ERECTED BEFORE CONSTRUCTION BEGINS.

TRENCHLESS INSTALLATION
600 WELDED STEEL
±55.157'

+08.427
16.000 m
(52.493)
TIE TO
EXIST CL
FENCE

±16.000 m (52.493') TIE TO EXIST CL FENCE

DO NOT DISTURB TANKS

DO NOT DISTURB BOLLARDS

9m SLIDE GATE

CLEAN OUT EXISTING DITCH MIN 0.3% GRADE

GRADE TO DRAIN

CLASS 'II' RIPRAP EST 55 MTONS

CLASS 'B' RIPRAP EST DDE 36.4 CM SEE DETAIL #14

3(@3.0M)x3.0M W RCBC

GRAU 350

375 RCP-III

375 RCP-IV

600 RCP-IV

750 RCP

375 DIP

TBDI

DI

CB

REMOVE

RETAIN

13-AUG-2012 10:25
R:\2241a_ec\const\sht\R2241A_EC_pshOl.dgn
Roadway Design Unit
PLOTTED BY: RENN2197

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

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-5/CONST.5
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5 0 10

CONST.REV.

R /W REV.

NAD 83 NC GRID

MATCHLINE STA. 13+40 -L- SEE SHEET 4

MATCHLINE STA. 17+00 -L- SEE SHEET 6

J. E. GATES TRUST ESTATE FILE NO. 10-E PG 279

CLASS 'II' RIPRAP ON BANKS ONLY EST 26.0 MTONS EST FF 147 SM SEE DETAIL #20

PREFORMED SCOUR HOLE BASE=1.4M SEE DETAIL SHEET # 2H

CHARLES E. PERKINS DB 581 PG 828 BOM 3A PG 41

BEGIN CONSTRUCTION POT STA 10+07.25 -DR5-

POT Sta. 10+00.000

PRC Sta. 10+20.009

PC Sta. 10+10.325

PT Sta. 10+39.589

-DR5- Sta. 10+39.589

-L- Sta. 14+77.270

US 501

N 79°52'27.2"E

0.9M BASE DITCH EST DDE=35.9 CM SEE DETAIL #2

CLASS 'B' RIPRAP

TOE PROTECTION STA 15+18 LT TO STA 15+80 LT -L- SEE DETAIL #8

PERSON COUNTY DB 626 PG 716 DB 15 PG 273

PERSON COUNTY BOARD OF EDUCATION DB 708 PG 645 PB 6 PG 16

CONTAMINATED AREA

CLASS 'B' RIPRAP

CLASS 'II' RIPRAP EST 55 MTONS EST FF 125 SM SEE DETAIL #20

DO NOT DISTURB VAULT, WATER LINE, VALVE

DO NOT DISTURB SIDEWALK WITH STEPS & RAILINGS

DO NOT DISTURB UTILITY POLE WITH LIGHT

CHARLES E. PERKINS DB 307 PG 178 BOM 9 PG 32-6

ROXBORO INVESTMENT PROPERTIES LLC DB 651 PG 172

CITY OF ROXBORO

0.9M HEAD DITCH EST DDE=8.1 CM SEE DETAIL #2

JESSE ANDERSON & SON CONTRACTORS, INC (AKA JESSE ANDERSON & SON, INC.) DB 191 PG 278 BOM 4 PG 390

JESSE ANDERSON & SON CONTRACTORS, INC (AKA JESSE ANDERSON & SON, INC.) DB 191 PG 278

JUDY AND JAMES LEE DB 223 PG 289 BOM 10 PG 4

EDWARD ANDERSON DB 642 PG 110

BCSTA.16+38.064

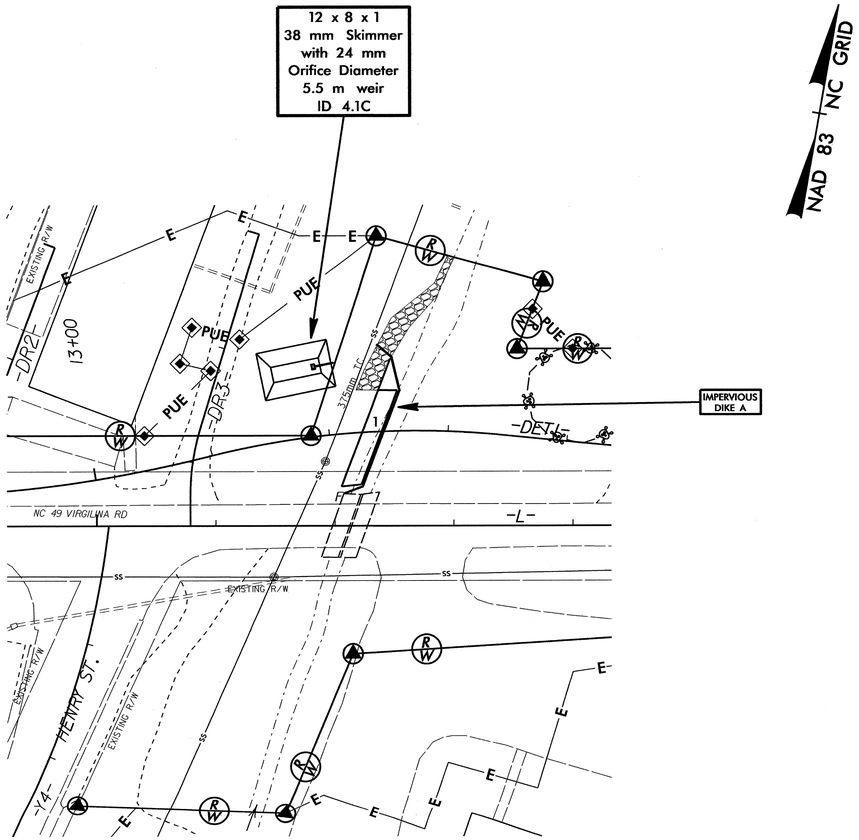
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R:\Environmental\Projects\R2241A_EC.psh05.dgn
adholler
PLT REV2247768

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2241A	EC-6/CONST.5
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 13+43.40 –L–
(SHEET 1 OF 2)

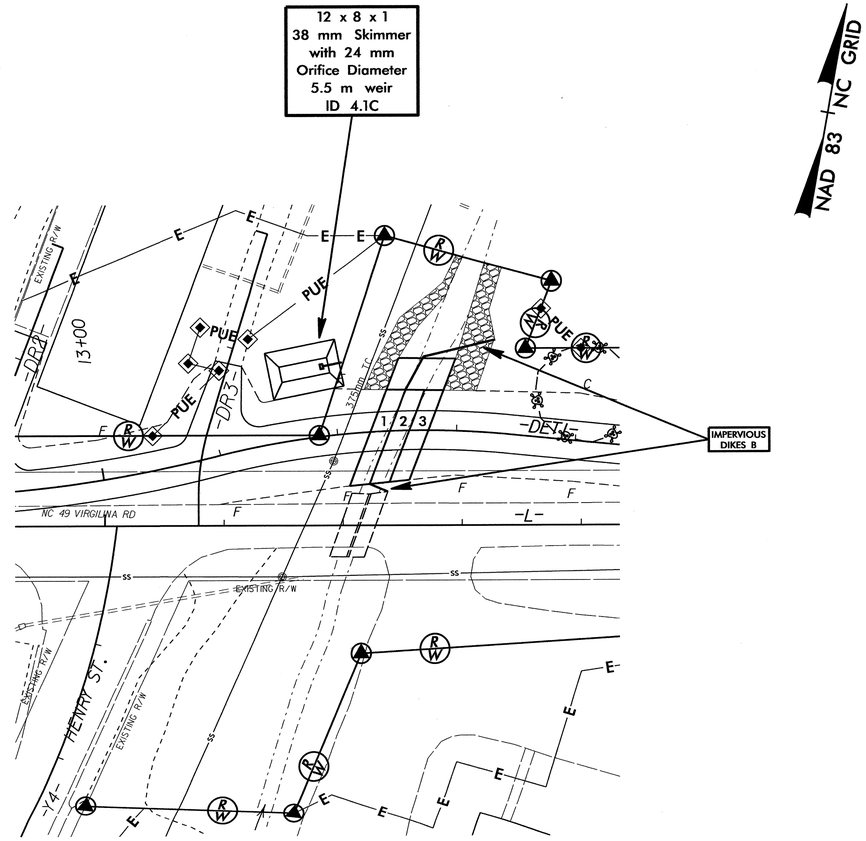
PHASE I

1. UTILIZE SKIMMER BASIN 4.1C (12M X 8M X 1M) AS STILLING BASIN 1.
2. CONSTRUCT IMPERVIOUS DIKE A.
3. CONSTRUCT DOWNSTREAM PORTION OF BARREL 1 OF PROPOSED CULVERT, AND PORTION OF DOWNSTREAM CHANNEL IMPROVEMENTS.
4. REMOVE IMPERVIOUS DIKE A.



PHASE II

5. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH COMPLETED DOWNSTREAM PORTION OF BARREL 1 OF PROPOSED CULVERT.
6. CONSTRUCT DOWNSTREAM PORTION OF BARRELS 2 AND 3 OF PROPOSED CULVERT.
7. CONSTRUCT REMAINING DOWNSTREAM CHANNEL IMPROVEMENTS.
8. CONSTRUCT DETOUR ALIGNMENT, UTILIZING TEMPORARY BARRIERS AND TEMPORARY SHORING AS NECESSARY. SHIFT TRAFFIC.
9. REMOVE IMPERVIOUS DIKES B.

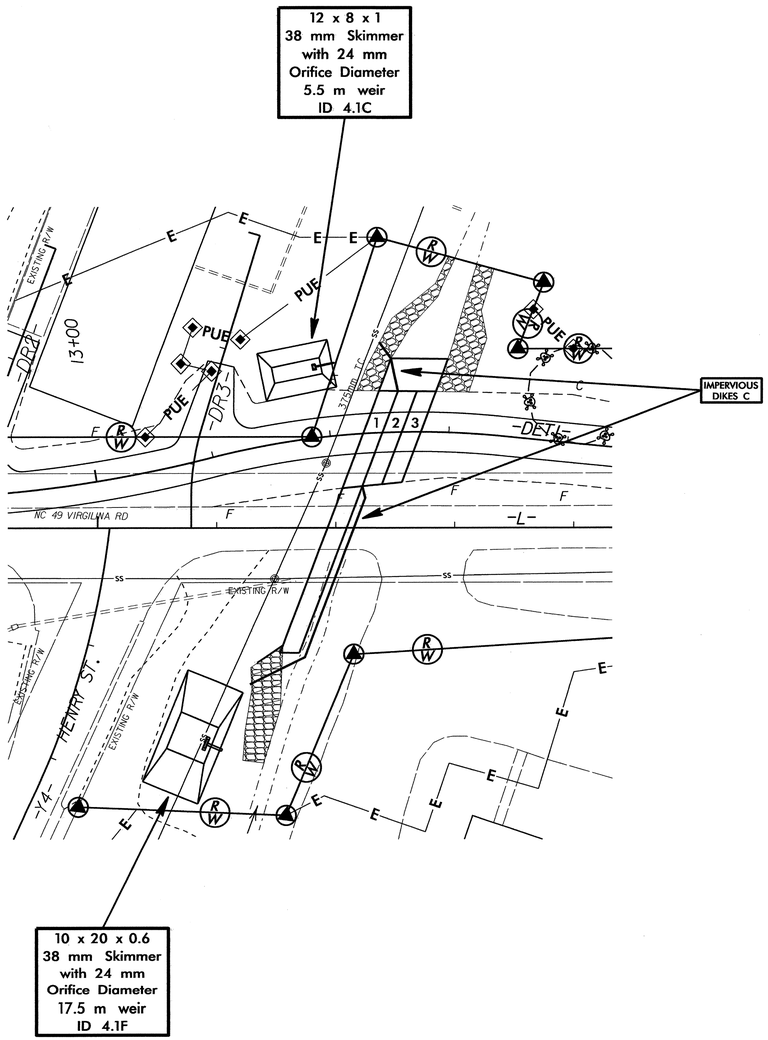


PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-7/CONST.5
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 13+43.40 –L–
(SHEET 2 OF 2)

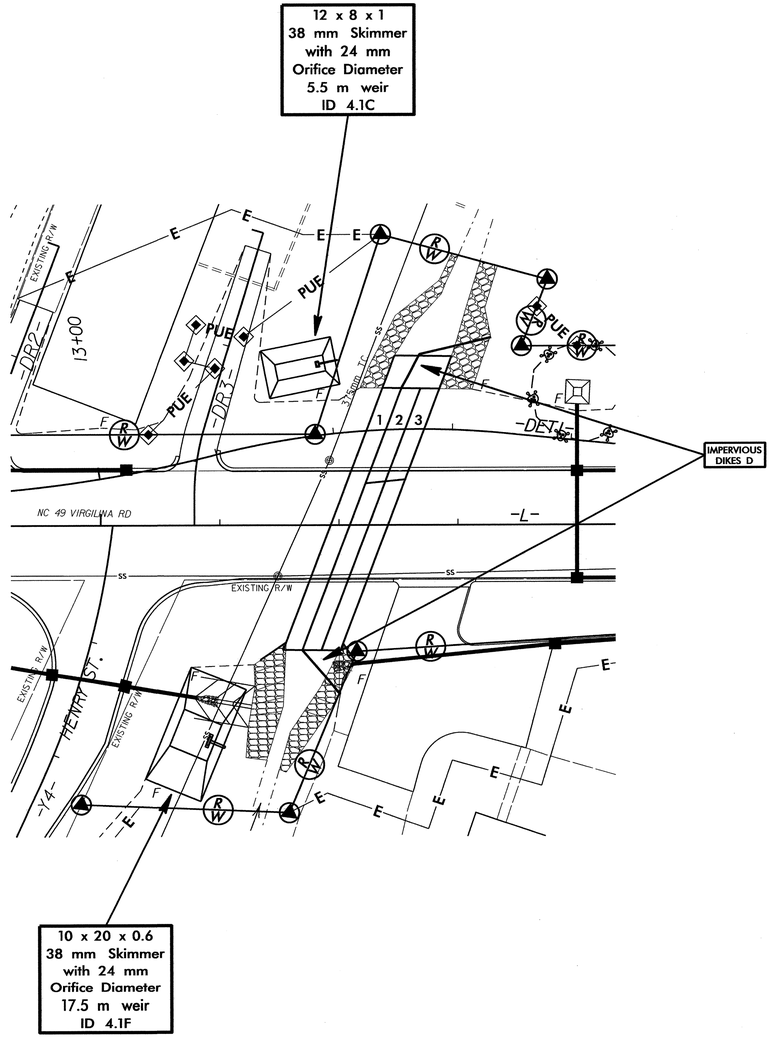
PHASE III

10. UTILIZE SKIMMER BASIN 4.1F (10M X 20M X 0.6M) AS STILLING BASIN 2.
11. REMOVE EXISTING CULVERT.
12. CONSTRUCT IMPERVIOUS DIKES C, DIVERTING FLOW THROUGH COMPLETED DOWNSTREAM PORTION OF BARRELS 2 AND 3 OF PROPOSED CULVERT.
13. CONSTRUCT REMAINDER OF BARREL 1 OF PROPOSED CULVERT, AND PORTION OF UPSTREAM CHANNEL IMPROVEMENTS.
14. REMOVE IMPERVIOUS DIKES C.



PHASE IV

15. CONSTRUCT IMPERVIOUS DIKES D, DIVERTING FLOW THROUGH BARREL 1 OF PROPOSED CULVERT.
16. CONSTRUCT REMAINDER OF BARRELS 2 AND 3 OF PROPOSED CULVERT.
17. CONSTRUCT REMAINING UPSTREAM CHANNEL IMPROVEMENTS.
18. REMOVE IMPERVIOUS DIKES D, ALLOWING NORMAL FLOW THROUGH PROPOSED CULVERT.
19. COMPLETE ROADWAY CONSTRUCTION.



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

CONST.REV.
R /W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-8/CONST.6
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83 NC GRID

MATCHLINE STA. 17+00 -L- SEE SHEET 5

MATCHLINE STA. 20+60 -L- SEE SHEET 7

BEGIN CONSTRUCTION POC 10+10.000 -Y6-

END CONSTRUCTION 11+00 POC 11+00.000 -Y5-

POT Sta.17+38.929 -L- =
POT Sta.10+02.485 -Y5

PT Sta.17+23.078

PC Sta. 10+38.260

PT Sta. 10+22.606

PC Sta. 10+48.133

PT Sta. 10+98.476

PC Sta. 10+15.577

POT Sta.18+16.673 -L- =
POT Sta.11+60.408 -Y6-

BEGIN CONSTRUCT PT Sta.10+45.090

PC Sta. 10+44.972

PT Sta. 10+67.155

POT Sta. 10+53.835

BEGIN TAPER LT & RT

PARABOLIC SWALE STA 18+30 LT TO STA 19+37 LT -L- SEE DETAIL #3

PARABOLIC SWALE STA 19+48 LT TO STA 20+20 LT -L- SEE DETAIL #3

N 72° 04' 26.6" E
ST Sta. 20+31.474

SPECIAL DITCH GRADE W/CL 'B' RIPRAP SEE PROFILE FOR GRADE STA 10+80 LT TO STA 10+68 LT -Y5 SEE DETAIL #22

LAT 0.9M BASE DITCH W/7.5M BERM LINED W/CLASS 'B' RIPRAP STA 19+60 RT TO STA 20+80 RT -L- SET DDE = 296.85 CM SEE DETAIL #4

18 x 7 x 1 38 mm Skimmer with 27 mm Orifice Diameter 4.5 m weir ID 6.1C

RICHARD T. CLAYTON DB 249 PG 282 BOM 9 PG 65-4

WOODY & ANDERSON PROPERTIES, INC DB 241 PG 713

ROBERT L CLAYTON DB 264 PG 170

FELTON E. CARVER, ET AL DB 174 PG 842

PERSON COUNTY BOARD OF EDUCATION DB 708 PG 645 PB 6 PG 16

KAREN WHITFIELD, ET AL BOM 1 PG 41

EDNA P. ELLIOTT DB 219 PG 328 BOM 1 PG 41

FRANCES S. CARVER, ET AL DB 180 PG 790

THE MICHAEL S. TURNER ALASKA TRUST DB 528 PG 736 BOM 3A PG 44

RITA W. ALLEN, et al DB 212 PG 614 BOM 3A PG 44

WOODY & ANDERSON PROPERTIES, INC DB 241 PG 713

CITY OF ROXBORO

EDNA P. ELLIOTT DB 91 PG 356

JESSE ANDERSON & SON CONTRACTORS, INC (AKA JESSE ANDERSON & SON, INC.) DB 191 PG 278 BOM 4 PG 390

BONNIE GILLIS RIMMER DB 892 PG 726 PB 15 PG 338

VENNIE LOU CLAYTON AND DOROTHY C. WATSON DB 212 PG 559 BOM 6 PG 14 BOM 7 PG 266

ESTELLE P. WADE DB 99 PG 486

JOYCE B. WADE, WIDOW DB 195 PG 29 BOM 5 PG 118

JOYCE B. WADE, WIDOW DB 432 PG 836 DB 111 PG 616 BOM 12 PG 111

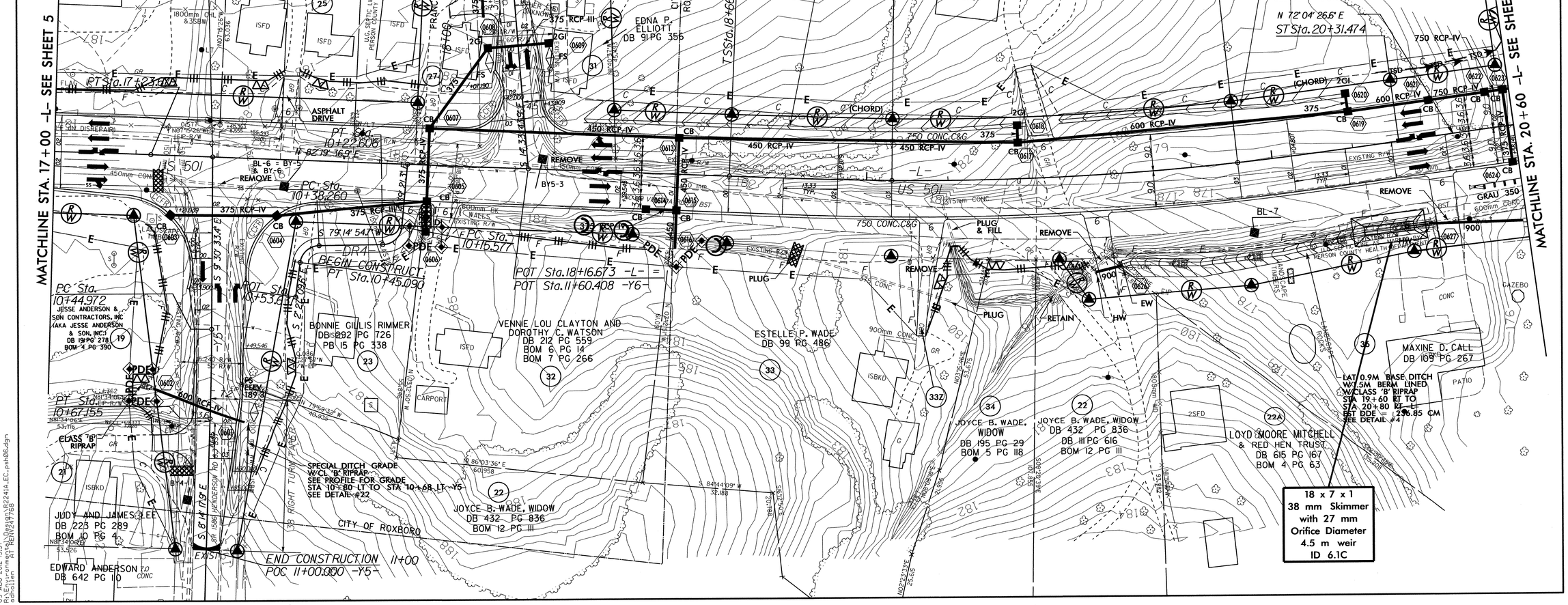
LOYD MOORE MITCHELL & RED HEN TRUST DB 615 PG 167 BOM 4 PG 63

MAXINE D. CALL DB 109 PG 267

JUDY AND JAMES LEE DB 223 PG 289 BOM 10 PG 4

EDWARD ANDERSON T.O DB 642 PG 10

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CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 7

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

METRIC

5 0 10

CONST.REV.

R /W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-9/CONST.7
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83 NC GRID

MATCHLINE STA. 20+60 -L- SEE SHEET 6

MATCHLINE STA. 24+20 -L- SEE SHEET 8

17 x 10 x 1 38 mm Skimmer with 30 mm Orifice Diameter 7.5 m weir ID 7.1F

16 x 8 x 1 38 mm Skimmer with 30 mm Orifice Diameter 5.5 m weir ID 7.1C

21+00 22+00 23+00 24+00

ENERGY DISSIPATOR SEE DETAIL SHEET # 2H

+96.000 38.100 m (125.000')

CLASS 'II' RIPRAP ON BANKS ONLY EST 52 MTONS EST FF 53 SM +96.000 SEE DETAIL #20 27.432 m (90.000')

TOE PROTECTION FF= SM STA 19+91 LT TO STA 21+26 LT -L- SEE DETAIL #8

+80.000 27.432 m (90.000')

RONALD R. SHELTON DB 308 PG 167 BOM 8 PG 115

WOODY & ANDERSON PROPERTIES, INC DB 241 PG 713

END CONSTRUCTION POT STA 10+34.38 -DRI-

ROBERT W. WALKER DB 74 PG 14

POT Sta. 10+36.457

POT Sta. 10+34.155

DO NOT DISTURB EXISTING SEPTIC LINES

PROPOSED ASPHALT DRIVE

+60.000 21.031 m (69.000')

+00.000 24.994 m (82.000')

+58.000 35.052 m (115.000')

+58.000 26.822 m (88.000')

+68.000 35.052 m (115.000')

+87.592 26.858 m (88.116')

+20.000 25.908 m (85.000')

+87.682 23.854 m (78.264')

+68.00 24.431 m (80.153')

30.48m (100.00')

PC Sta. 10+25.718

N 72°04'26"E

US 501

BL-8

BL-9

BY6-1

DET2

EXISTING R/W

375 RCP-IV

450 RCP-IV

750 RCP-IV

750 CONC.C&G

GRAU 350

CB

T2-1

T2-2

T2-3

2@2.4Mx2.4M RCBC +96.000 EX. R/W

+96.000 25.908 m (85.000')

+96.000 38.100 m (125.000')

CLASS 'II' RIPRAP EST 60 TONS EST FF 85 SM SEE DETAIL #20

TOE PROTECTION FF= SM STA 19+91 RT TO STA 21+40 RT -L- SEE DETAIL #8

+74.000 28.346 m (93.000')

+74.000 38.100 m (125.000')

+80.000 25.908 m (85.000')

+00.000 19.812 m (65.000')

+40.000 15.240

+40.000 19.812 m (65.000')

+80.001 15.240 m (50.000')

+00.000 22.555 m (74.000')

POT Sta. 23+62.719 -L- =

POT Sta. 10+02.485 -DRI-

MAXINE D. CALL DB 109 PG 267

PROPERTY LINE IS CENTER LINE OF DITCH

LAT .09M BASE DITCH W/1.5M BERM LINED W/CLASS 'B' RIPRAP STA 19+60 RT TO STA 20+80 RT -L- EST DDE = 236.85 CM SEE DETAIL #4

TIMOTHY HARRIS CHERYL CAVALIER DB 305 PG 780

S 70°30'59"W 30.480

WOODY & ANDERSON PROPERTIES, INC DB 241 PG 713

U.G. SEPTIC LINE AS MARKED BY PERSON COUNTY HEALTH DEPARTMENT

DO NOT DISTURB EXISTING SEPTIC LINES

U.G. SEPTIC LINE AS MARKED BY PERSON COUNTY HEALTH DEPARTMENT

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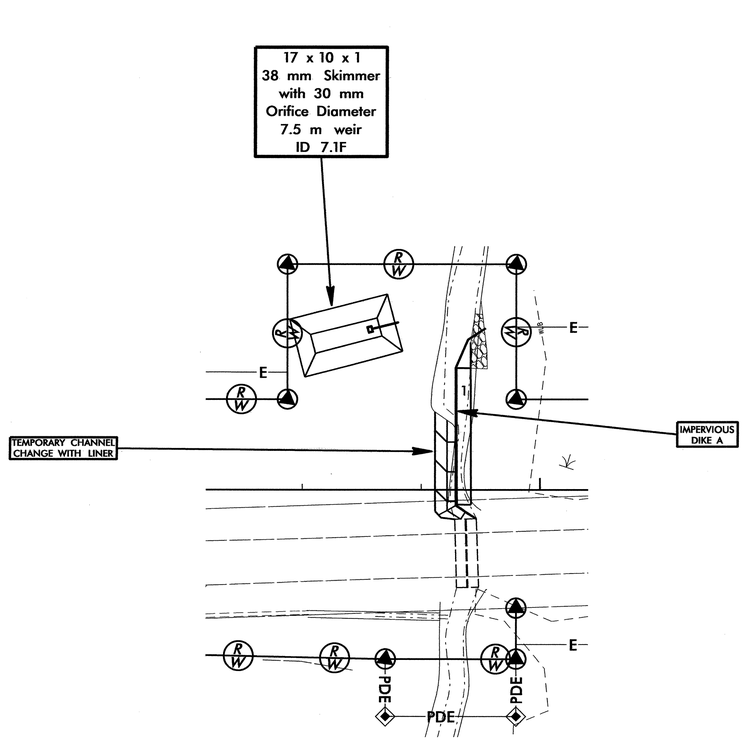
CULVERT CONSTRUCTION SEQUENCE STA. 20+86 –L–
(SHEET 1 OF 2)

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-10/CONST.7
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

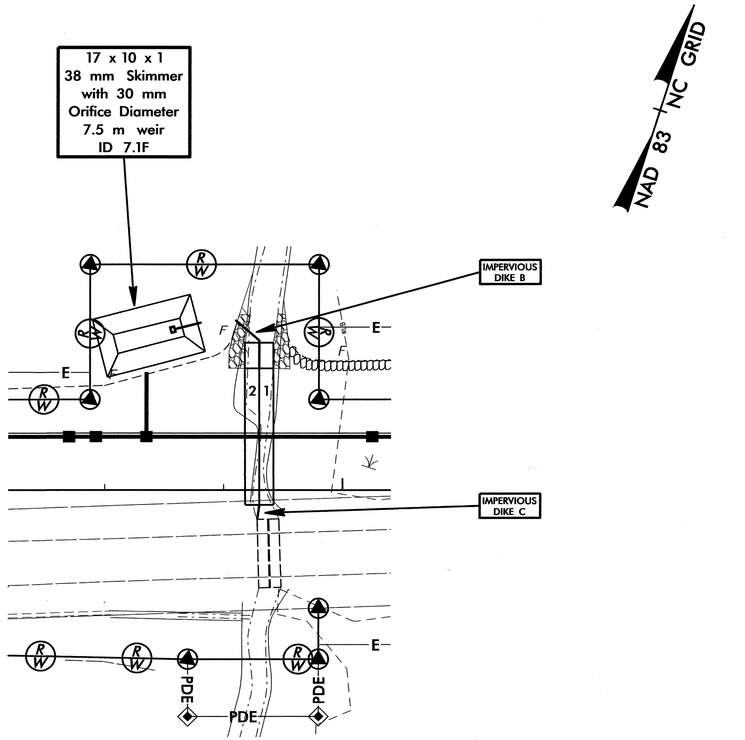
PHASE I

1. UTILIZE SKIMMER BASIN 7.1F (17M X 10M X 1M) AS STILLING BASIN 1.
2. CONSTRUCT IMPERVIOUS DIKE A AND TEMPORARY CHANNEL CHANGE WITH LINER (1.5M BASE, 1M DEEP, 2:! SIDE SLOPES), DIVERTING FLOW.
3. CONSTRUCT DOWNSTREAM PORTION OF BARREL 1 OF PROPOSED CULVERT, AND PORTION OF DOWNSTREAM CHANNEL IMPROVEMENTS.
4. REMOVE IMPERVIOUS DIKE A AND TEMPORARY CHANNEL CHANGE.



PHASE II

5. CONSTRUCT IMPERVIOUS DIKES B AND C, DIVERTING FLOW THROUGH COMPLETED DOWNSTREAM PORTION OF BARREL 1 OF PROPOSED CULVERT.
6. CONSTRUCT DOWNSTREAM PORTION OF BARREL 2 OF PROPOSED CULVERT.
7. CONSTRUCT REMAINING DOWNSTREAM CHANNEL IMPROVEMENTS.
8. CONSTRUCT TEMPORARY ALIGNMENT, UTILIZING TEMPORARY BARRIERS AND TEMPORARY SHORING AS NECESSARY. SHIFT TRAFFIC.
9. REMOVE IMPERVIOUS DIKE C.



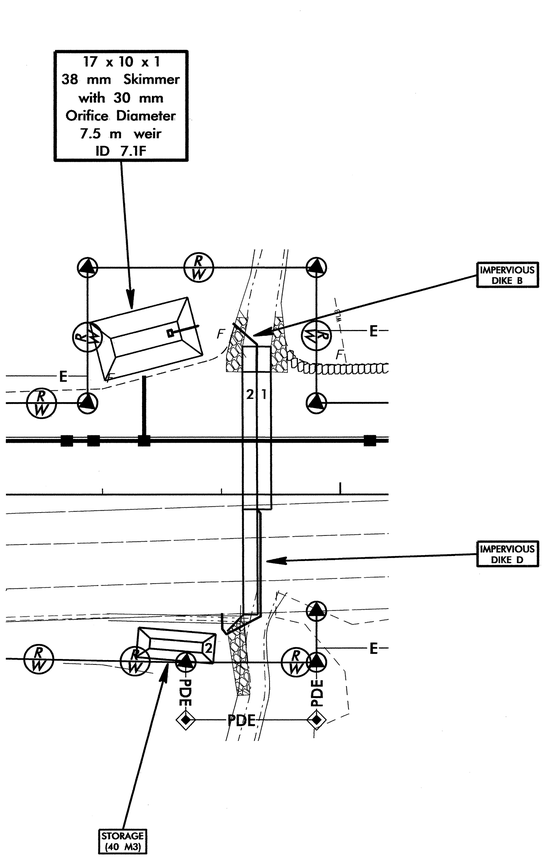
CULVERT CONSTRUCTION SEQUENCE STA. 20+86 –L–
(SHEET 2 OF 2)

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-II/CONST.7
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

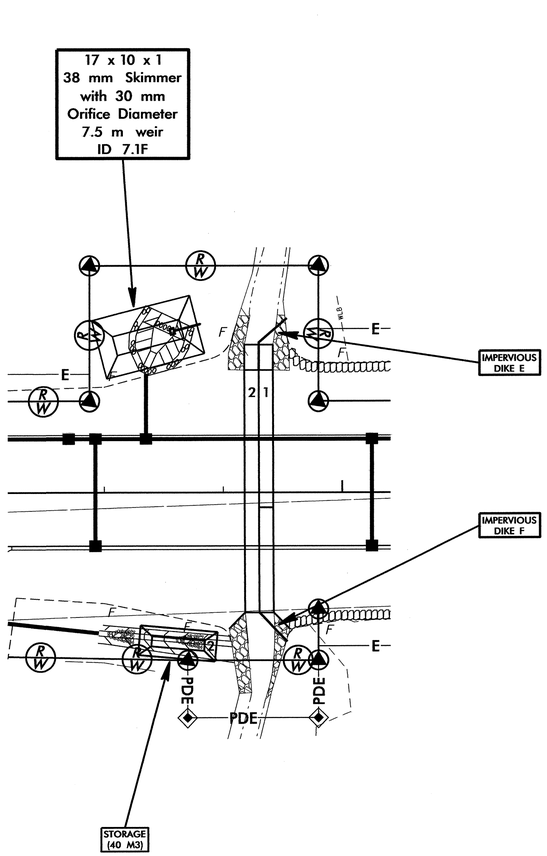
PHASE III

10. CONSTRUCT STILLING BASIN 2 (40 M3).
11. REMOVE EXISTING CULVERT.
12. UTILIZE IMPERVIOUS DIKE B AND CONSTRUCT IMPERVIOUS DIKE D TO DIVERT FLOW THROUGH COMPLETED DOWNSTREAM PORTION OF BARREL 1 OF PROPOSED CULVERT.
13. CONSTRUCT REMAINDER OF BARREL 2 OF PROPOSED CULVERT, AND PORTION OF UPSTREAM CHANNEL IMPROVEMENTS.
14. REMOVE IMPERVIOUS DIKES B AND D.



PHASE IV

15. CONSTRUCT IMPERVIOUS DIKES E AND F, DIVERTING FLOW THROUGH BARREL 2 OF PROPOSED CULVERT.
16. CONSTRUCT REMAINDER OF BARREL 1 OF PROPOSED CULVERT.
17. CONSTRUCT REMAINING UPSTREAM CHANNEL IMPROVEMENTS.
18. REMOVE IMPERVIOUS DIKES E AND F, ALLOWING NORMAL FLOW THROUGH PROPOSED CULVERT.
19. COMPLETE ROADWAY CONSTRUCTION.



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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 8

METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-12/CONST.8
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CONST.REV.

R /W REV.

NAD 83 NC GRID

MATCHLINE STA. 24+20 -L- SEE SHEET 7

MATCHLINE STA. 27+60 -L- SEE SHEET 9

WOODY & ANDERSON PROPERTIES, INC
DB 241PG 713

TODD N. WILBOURNE
TONYA H. WILBOURNE
DB 360, PG 350

(43)
(TRACT H)
BOBBY J. HICKS
DELORES C. HICKS
09-E-428, HARNETT COUNTY

ODELIA P. GENTRY HEIRS
09-E-428, HARNETT COUNTY

10 x 14 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
11.5 m weir
ID 8.1C

13 x 7 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
4.5 m weir
ID 8.1F

10 x 5 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
2.5 m weir
ID 8.2F

LAT 0.6M BASE DITCH
LINED W/CL 'B' RIPRAP
STA 24+80 TO
STA 25+01 -L- RT
EST DDE =14.61 CM
SEE DETAIL #7

CLASS I RIPRAP
ON BANKS ONLY
9.0 MTONS
FF=20 SM
SEE DETAIL #20

CLASS 'B' RIPRAP

CLASS B RIP RAP
286 TAPER (LANE SHIFT)

ACCESS POINT

BEGIN C&G STA. 25+31.98

BEGIN C&G STA. 25+43.188

END C&G STA. 24+28.188

BEGIN C&G STA. 24+69.37

END C&G +62.078
12.81 LT

BEGIN C&G STA. 26+24.173

END C&G STA. 26+31.694

BEGIN C&G STA. 26+53.594

CS Sta.26+90.078

45 LEFT TURN TAPER MED RT

45 RIGHT TURN TAPER RT

'V' DITCH
DDE=30CM
SEE DETAIL #5

1200mm WOVEN WIRE FENCE

1200mm WW & 1SBW

1200mm WD RAIL

750 CONC.C&G

450 CONC.C&G

600 RCP-IV

450 RCP-IV

375 RCP-IV

450 W/ ELBOWS

REMOVE 450mm CONC. PIPE

PLUG & FILL EXISTING PIPE

REMOVE

GRADE TO DRAIN

US 501

NC 40 VIRGILINA RD

EXISTING R/W

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PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-13/CONST.9
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.

METRIC

5 0 10

CONST.REV.

R /W REV.

MATCHLINE STA. 12+40 -Y7- SEE SHEET 24

NAD 83 NC GRID

GPS R-2241A-3

POC Sta.12+59.18 -Y7- =
POT Sta.10+00.000 -Y9-

PT Sta.12+68.088

PC Sta.10+07.063

18 R 12 OFFSET

N 39°13'45.8"E

PC Sta.11+11.332

PT Sta.10+91.415

S 87°04'13.0"E

16 x 6 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
3.5 m weir
ID 9.4F

0.6M BASE TAIL DITCH
DDE=30 CM
SEE DETAIL #1

SPECIAL DITCH W/PSRM
SEE PROFILE FOR GRADE
STA 11+66 LT TO 11+90 LT -Y9-
SEE DETAIL #23

SPECIAL DITCH W/PSRM
SEE PROFILE FOR GRADE
STA 11+66 RT TO 11+90 RT -Y9-
SEE DETAIL #23

9 x 16 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
13.5 m weir
ID 9.1C

21 x 7 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
4.5 m weir
ID 9.1F

0.6M BASE HEAD DITCH
DDE=18 CM
SEE DETAIL #1

50' ACCESS EASEMENT

50' TAPER

286 TAPER (LANE SHIFT)

CLASS 'B' RIPRAP

SPECIAL DITCH W/PSRM
STA 13+00 LT TO 13+20 LT -Y7-
SEE PROFILE FOR GRADE
SEE DETAIL #22

SPECIAL
STA 13+
STA 13+
SEE DET

TDE

PDE

FS

REMOVE

GRADE TO DRAIN

45 RIGHT TURN TAPER

BEGIN LEFT TURN TAPER
+22.213

TSSta.30+49.209

BL-13-BY9

BL-12

SEPTIC REPAIR AREA

1200mm WOVEN WIRE FENCE

450 CONC.C&G

US 501

U.G. SEPTIC LINE AS MARKED BY PERSON COUNTY HEALTH DEPARTMENT

POT Sta.28+47.500 -L- =
POT Sta.14+03.462 -Y7 & Y8-

PC Sta.14+33.648

N 42°03'49.4"E

N 42°03'49.2"E

S 47°56'10.8"E

S 47°56'10.3"E

THORNTON RD

SEPTIC AREA

LANDSCAPE AREA

ISBKD

STONE

ROOM

CEMETERY

GPS R-2241A-4

BY6-3

MATCHLINE STA. 27+60 -L- SEE SHEET 8

MATCHLINE STA. 14+80 -Y8-
SEE SHEET 25

MATCHLINE STA. 31+20 -L- SEE SHEET 10

(TRACT A) (TRACT B) (TRACT D) (TRACT E) (TRACT F) (TRACT H) (TRACT I)

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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 10

METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-14/CONST.10
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

NAD 83 NC GRID

MATCHLINE STA. 15+20 -Y9- SEE SHEET 26

MATCHLINE STA. 31+20 -L- SEE SHEET 9

MATCHLINE STA. 34+80 -L- SEE SHEET 11

PCSta.13+13.649

BURLEY W. DUNN
DB 188 PG 749
DB 36 PG 557
DB 107 PG 74

MARIAN CLAYTON WHITT
DB 411 PG 607
PB 14 PG 99
PB 14 PG 100

NELLIE R PENTECOST
DB 176 PG 86
DB 80 PG 469
DB 198 PG 594
DB 58 PG 464
BOM 7 PG 335
BOM 5 PG 141
BOM 1 PG 143 BOM 1 PG 143

STEPHEN D. GARRETT
DB 278 PG 896
BOM 11 PG 13-B

ALMEADE C. GARRETT et al
DB 311 PG 448
BOM 21 PG 143

-L- SCSta. 31+29.209

-L- CSSta. 32+77.914

-L- STSta. 33+57.914

-Y9-

SR 1511 PROVIDENCE RD (SR 1511 PROVIDENCE RD BST)

US 501

REMOVE

BDO

BY7-4

BL-14=BY7

BL-15

BL-16

BL-17

T4-4

T4-5

TDE

PDE

2GI

FS

W/ELBOW

1200mm WOVEN WIRE FENCE

STD. BERM DITCH STA. 32 + 10 LT -L-

TRANSITION STONE CLASS 'B' RIPRAP EST=4.0 MTONS

PREFORMED SCOUR HOLE BASE=1.4M SEE DETAIL SHEET # 24

GRAU 350

ACCESS POINT

BEGIN CA & WW FENCE Sta. 33+48.288

END CA & WW FENCE Sta. 33+25.000

5 x 8 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
5.5 m weir
ID 10.1C

14 x 7 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
4.5 m weir
ID 11.1C

10 x 21 x 1
38 mm Skimmer
with 36 mm
Orifice Diameter
18.5 m weir
ID 10.2C

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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.

METRIC

5 0 10

CONST.REV.

R /W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-15/CONST.11
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83 NC GRID

MATCHLINE STA. 34+80 -L- SEE SHEET 10

MATCHLINE STA. 38+40 -L- SEE SHEET 12

NELLIE R. PENTECOST
DB 176 PG 86
DB 80 PG 469
DB 198 PG 594
DB 58 PG 464
BOM 7 PG 335
BOM 5 PG 141
BOM 1 PG 143

HOWARD T. SMITH
DB 143 PG 619
DB 176 PG 92
BOM 1PG 143

MARY P. SMITH
DB 232 PG 389
BOM 8 PG 72-3

SYBIL P. WOOTEN
DB 232 PG 387
BOM 8 PG 72-3

ALMEADE G. GARRETT et al
DB 311 PG 448
BOM 21PG 143

CHARLES E. PERKINS
DB 204 PG 850
BOM 5 PG 607

5 x 8 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
5.5 m weir
ID 11.2C

10 x 15 x 1
38 mm Skimmer
with 33 mm
Orifice Diameter
12.5 m weir
ID 11.3C

12 x 5 x 1
38 mm Skimmer
with 18 mm
Orifice Diameter
2.5 m weir
ID 11.4C

16 x 7 x 1
38 mm Skimmer
with 27 mm
Orifice Diameter
4.5 m weir
ID 11.5C

14 x 7 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
4.5 m weir
ID 11.1C

10 x 5 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
2.5 m weir
ID 11.3F

12 x 6 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
3.5 m weir
ID 11.6C

LAT 0.6M BASE DITCH
W/1.5M BERM
LINED W/
CLASS 'B' RIPRAP
STA 35+20 LR TO
STA 36+17 LT -L-
EST DDE=561.41 CM
SEE DETAIL #7

CLASS 'II' RIPRAP
EST 45.0 MTONS
EST FF 70 SM
SEE DETAIL #20

END FENCE +19.840

BEGIN FENCE +30.800

PREFORMED SCOUR HOLE
BASE=1.4M
SEE DETAIL SHEET # 2H

CLASS 'II' RIPRAP
ON BANKS ONLY
3.0 MTONS
FF=26 SM
SEE DETAIL #20

LAT '0.6M' BASE DITCH
W/1.5M BERM
LINED W/CLASS 'B' RIPRAP
STA 37+40 LT TO STA 37+60 LT -L-
EST DDE=33.25 CM
SEE DETAIL #7

BEGIN SHOULDER
BERM GUTTER
+40.00 LT

1200mm WOVEN WIRE FENCE

1 @ 2.7m X 1.8m RCBC
W/SILLS

END SHOULDER BERM GUTTER
+60.00 LT

2GI W/FLAT
GRATE

CAT-1

T4-1-

T4-2-

T4-3-

N 27° 30' 14" E

BEGIN FENCE +01.240
CLASS 'II' RIPRAP
EST 45 MTONS
EST FF 95 SM
SEE DETAIL #20

END FENCE +91.760

BL-18

TOE PROTECTTION
STA 35+00 RT TO
STA 35+80 RT -L-
SEE DETAIL #8

END SHOULDER
BERM GUTTER
+81.01 RT

STD BERM DITCH
STA 36+20 RT TO
STA 36+80 RT -L-

BDO

375 W/
ELBOW

PDE

BL-19

END CA & WW FENCE Sta. 36+97.472

ACCESS
POINT

BEGIN CA & WW FENCE Sta. 37+17.257

TRANSITION STONE
CLASS 'B' RIPRAP
EST 3.0 MTONS

1.2M HEAD
BASE DITCH
DDE=5CM
SEE DETAIL #9

TOE PROTECTTION
STA 37+34 RT TO
STA 37+51 RT -L-
SEE DETAIL #8

SPECIAL DITCH GRADE
SEE PROFILE FOR GRADE
STA 37+56 (SAG) TO
STA 37+80 MED -L-

GRAU 350

BL-20

-L- POSta. 37+95.343

S02°44'28"W
29.36'±

APPROXIMATE R/W OF PIEDMONT NATURAL GAS

APPROXIMATE CL OF CP&L

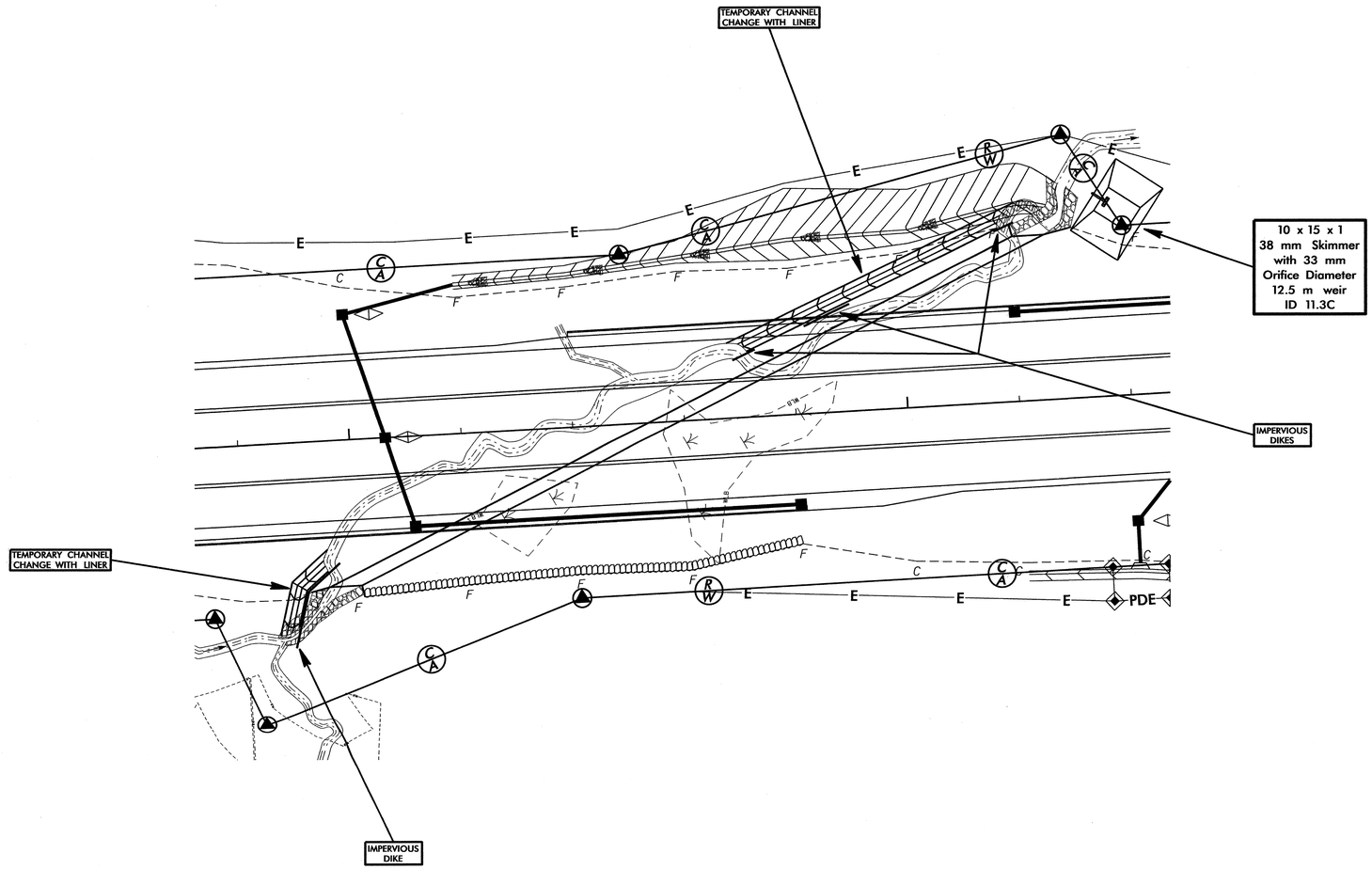
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METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-16/CONST JI
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 35+56 –L–

1. UTILIZE SKIMMER BASIN 11.3C (10M X 15M X 1M) AS STILLING BASIN.
2. CONSTRUCT IMPERVIOUS DIKES AND TEMPORARY CHANNEL CHANGES WITH LINER (0.9M BASE, 0.5M DEEP, 2:! SIDE SLOPES), DIVERTING FLOW.
3. CONSTRUCT PROPOSED CULVERT, AND ANY NECESSARY UPSTREAM/DOWNSTREAM CHANNEL IMPROVEMENTS.
4. REMOVE IMPERVIOUS DIKES AND TEMPORARY CHANNEL CHANGES.
5. COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-17/CONST.12
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 12

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

NAD 83 / NC GRID

MATCHLINE STA. 38+40 -L- SEE SHEET 11

MATCHLINE STA. 42+00 -L- SEE SHEET 13

15 x 10 x 1
38 mm Skimmer
with 33 mm
Orifice Diameter
7.5 m weir
ID 12.1F

10 x 5 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
2.5 m weir
ID 12.1C

7 x 14 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
11.5 m weir
ID 12.3C

6 x 12 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
9.5 m weir
ID 12.2C

MARY P. SMITH
DB 232 PG 389
BOM 8 PG 72-3

MIRIAM J. LAVELLE
AND HUSBAND
CHARLES F. SAMS, JR.
DB 215 PG 757
BOM 4 PG 597

NADINE IRENE DIXON ET AL
DB 266 PG 148
PB 6 PG 81-1
DB 680 PG 810

CHARLES E. PERKINS
DB 204 PG 850
BOM 5 PG 607

CHARLES E. PERKINS
DB 337 PG 519
BOM 8 PG 22-5

END FENCE +08.490
ENERGY DISSIPATOR
SEE DETAIL SHEET # 2H

BEGIN FENCE +10.040

END FENCE +62.500

BEGIN FENCE +64.060

END C/A & WW FENCE Sta. 40+90.000

BEGIN C/A & WW FENCE Sta. 41+08.000

END C/A & WW FENCE Sta. 41+72.950

BEGIN C/A & WW FENCE Sta. 41+91.238

END C/A & WW FENCE Sta. 41+33.712

BEGIN C/A & WW FENCE Sta. 41+52.000

ACCESS POINT

CLASS 'II' RIPRAP
ON BANKS ONLY
+/-4.0 MTONS
FF= +/-36 SM
SEE DETAIL #20

CL 'II' RIPRAP
(BANKS ONLY)
+/- 1.7 MTONS
FF +/- 2.1 SM
SEE DETAIL #20

1500 RCP CLASS IV
W/METHOD 'B'
INSTALLATION

1200mm WOVEN WIRE FENCE

GRAU 350

CAT-1

CAT-D

2GI

2GI TYPE 'A'

US 50

POT Sta.41+29.428 -L- =
POT Sta.10+00.000 -DR6-

PC Sta.
10+36.752

RT Sta.
10+51.088

POT Sta.
10+64.941

END CONSTRUCTION
POT STA 10+58.864 -DR6-

BL-21

BL-22

BL-23

BL-24

T3-1

T3-2

T3-3

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adholden
ATTENTION
W.A.2009

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 13

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

METRIC

5 0 10

CONST.REV.	
R /W REV.	

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-18/CONST.13
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83 NC GRID

MATCHLINE STA. 42+00 -L- SEE SHEET 12

MATCHLINE STA. 45+60 -L- SEE SHEET 14

NADINE IRENE DIXON ET AL
DB 266 PG 148
PB 6 PG 81-1
DB 680 PG 810

CHARLES E. PERKINS
DB 204 PG 850
BOM 5 PG 607

BERTHA HAYES CLAY
DB 154 PG 464

20 x 10 x 1
38 mm Skimmer
with 36 mm
Orifice Diameter
7.5 m weir
ID 13.1C

16 x 8 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
5.5 m weir
ID 13.2C

11 x 8 x 1
1.5 m weir
ID 13.3C

ACCESS POINT

END C/A & WW FENCE Sta. 43+40

BEGIN C/A & WW FENCE Sta. 43+58

43+00

44+00

45+00

1200mm WOVEN WIRE FENCE

-L-
US 501

N 32° 37' 31.6" E

2GI

2GI TYPE 'A'

450 W/ ELBOW

BDO

FS

375

600

60.96m (200.00')

36 36 12 PS

STD BERM DITCH
STA 42+10 RT TO
STA 44+40 RT -L-

BEGIN LEFT TURN TAPER
+18.697

-L- PT Sta. 44+21.056

BL-25

BL-26

CHARLES E. PERKINS
DB 337 PG 519
BOM 8 PG 22-5

CHARLES E. PERKINS
DB 204 PG 850
BOM 5 PG 607

BERTHA HAYES CLAY
DB 154 PG 464

N 28 288 160 ACCESS EASEMENT

34 SOIL

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adhollen
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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.

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-19/CONST.14
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5 0 10

CONST.REV.

R /W REV.

NAD 83 NC GRID

MATCHLINE STA. 45+60 -L- SEE SHEET 13

MATCHLINE STA. 49+20 -L- SEE SHEET 15

MATCHLINE STA. 12+30 -Y13- SEE INSET THIS SHEET

END C/A & WW FENCE STA. 10+20.00

BEGIN CONST. POT Sta.10+20.000 -Y12-

BEGIN C/A & WW FENCE STA. 10+20.00

ALLIE CLAY RD. SR 1524

BY10-2

20 x 10 x 1 38 mm Skimmer with 36 mm Orifice Diameter 7.5 m weir ID 14.1C

BERTHA HAYES CLAY DB 154 PG 464

SPECIAL LAT 'V' DITCH LINED W/CLASS 'B' RIPRAP STA 46+60 LT TO STA 46+92 LT -L- SEE DETAIL #11

CLASS 'B' RIPRAP

1200mm WOVEN WIRE FENCE

SPECIAL LAT 'V' DITCH LINED W/CLASS 'B' RIPRAP STA 46+76 RT TO STA 46+20 RT -L- SEE DETAIL #11

0.9M HEAD DITCH LINED W/CLASS 'B' RIPRAP 10 MTONS DDE=12CM SEE DETAIL #10

CLASS 'B' RIPRAP 375

CLASS 'II' RIPRAP ONLY ON BANKS 9.0 MTONS FF=20 SM SEE DETAIL #20

12 x 7 x 1 38 mm Skimmer with 21 mm Orifice Diameter 4.5 m weir ID 14.2C

25 x 5 x 1 38 mm Skimmer with 27 mm Orifice Diameter 2.5 m weir ID 14.5F

PREFORMED SCOUR HOLE BASE=1.8M SEE DETAIL SHEET

STD BERM DITCH LINED W/ CLASS 'B' RIPRAP STA 47+40 LT TO 88+80 LT -L- SEE DETAIL #13

CHARLIE V. JEFFERS & BEVERLY W. JEFFERS DB 197 PG 435 BOM 5 PG 40

AUSTIN B. CLAY HEIRS DB 180 PG 829

GEORGE LEON CLAY DB 115 PG 626

BEGIN C/A & WW FENCE Sta. 12+02.245

END C/A & WW FENCE Sta. 12+22.744

ACCESS POINT

POT Sta. 47+01.527 -L- = POT Sta. 11+25.696 -Y12- & -Y13-

BEGIN LEFT TURN TAPER +85.560

END CONST. -Y13- POT Sta.13+25.000

BEGIN C/A & WW FENCE STA. 12+40.000 9.104 m (29.869')

END C/A & WW FENCE STA. 12+40.000 9.184 m (30.131')

BERTHA CLAY DB 116 PG 71 BOM 14, PG 185

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METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-20/CONST.J5
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CONST.REV.

R /W REV.

NAD 83 NC GRID

MATCHLINE STA. 49+20 -L- SEE SHEET 14

MATCHLINE STA. 52+80 -L- SEE SHEET 16

AUSTIN B. CLAY HEIRS
DB 180 PG 829

RONALD E. THOMAS, JR AND WIFE, JODI R. THOMAS
DB 775 PG 607

50+00

51+00

52+00

END C/A & WW FENCE Sta. 49+66.888

BEGIN C/A & WW FENCE Sta. 49+85.176

ACCESS POINT

+60.000
38.100 m
(125.000')

13 x 6 x 1
ID 15.4F

+00.000
30.480 m
(100.000')

LAT 0.6M BASE DITCH W/CLASS 'B' RIPRAP STA 50+81 TO STA 51+04 -L- LT
DDE = 72.23
SEE DETAIL #7

BEGIN SHOULDER BERM GUTTER +80.000 LT

TOE PROTECTION STA 50+55 LT TO STA 50+81 LT -L- SEE DETAIL #8

TRANSITION STONE CLASS 'B' RIPRAP 5.0 MTONS

+40.000
35.052m
(115.000')

18 x 9 x 1
38 mm Skimmer with 33 mm Orifice Diameter
6.5 m weir
ID 15.1C

+00.000
39.624m
(130.000')

+93.383
33.528 m
(110.000')

78Z

14 x 7 x 1
38 mm Skimmer with 24 mm Orifice Diameter
4.5 m weir
ID 15.2C

CLASS 'II' RIPRAP ON BANKS ONLY
3.5 MTONS
FF=36 SM

+17.000
33.528 m
(110.000')

8 x 5 x 1
38 mm Skimmer with 12 mm Orifice Diameter
2.5 m weir
ID 15.3C

78

POND

10 x 12 x 1
38 mm Skimmer with 27 mm Orifice Diameter
9.5 m weir
ID 15.4C

+00.000
38.100m
(125.000')

+20.000
30.480m
(100.000')

END SHOULDER BERM GUTTER
80.000 LT

1200mm WOVEN WIRE FENCE

CLASS 'B' RIPRAP

PREFORMED SCOUR HOLE
BASE=1.2M
SEE DETAIL SHEET # 2H

GRAU 350

CL 'B' RIPRAP

+40.000
30.480 m
(100.000')

375 W/ ELBOWS

EW
+95.457
30.480 m
(100.000')

+17.000
33.480 m
(110.000')

2GI W/FLAT GRATE

CAT-1

-L-

US 501

N 32° 37' 31.6" E

1200

750

TOE PROTECTION STA 50+50 RT TO STA 51+20 RT -L- SEE DETAIL #8

TOE PROTECTION STA 51+70 RT TO STA 51+90 RT -L- SEE DETAIL #8

@ PROP. LINE
30.48m
(100')

BL-30

BL-29

1200mm WOVEN WIRE FENCE

10 x 5 x 1
ID 15.2F

SPECIAL DITCH GRADE W/CLASS 'B' RIPRAP SEE PROFILE FOR GRADE STA 49+80 RT TO STA 50+00 RT -L- SEE DETAIL #22

10 x 5 x 1
ID 15.3F

PREFORMED SCOUR HOLE
BASE=1.4M
SEE DETAIL SHEET # 2H

CLASS 'II' RIPRAP
FF=
SM

9 x 4 x 1
38 mm Skimmer with 12 mm Orifice Diameter
1.5 m weir
ID 15.5F

12 x 4 x 1
38 mm Skimmer with 15 mm Orifice Diameter
1.5 m weir
ID 15.1F

+36.92
PROP. LINE

+49.78
PROPERTY CORNER

+80.000
42.672m
(140.000')

+63.156
39.624m
(130.000')

0.6M BASE HEAD DITCH LINED W/CLASS 'B' RIPRAP
DDE=20 CM
EST=8.0 MTONS
SEE DETAIL #14

WILLIE M. DIXON
CLYDE C. DIXON
DB 154 PG 437
BOM 21PG 272

LONZY C. DIXON
DB 154 PG 439
BOM 21PG 272

+20.000
30.480m
(100.000')

ACCESS POINT

RONALD E. THOMAS, JR AND WIFE, JODI R. THOMAS
DB 775 PG 607

END C/A & WW FENCE Sta. 52+26.430

BEGIN C/A & WW FENCE Sta. 52+44.918

CHARLIE V. JEFFERS & BEVERLY W. JEFFERS
DB 197 PG 435
BOM 5 PG 40

AUSTIN B. CLAY HEIRS
DB 180 PG 829

76

77

78

79

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adhollen
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METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2241A	EC-21/CONST.16
CONST.REV.	R /W SHEET NO.	
R /W REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 16

NAD 83 NC GRID

14 x 7 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
4.5 m weir
ID 16.2C

18 x 8 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
5.5 m weir
ID 16.3F

10 x 13 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
10.5 m weir
ID 16.3C

10 x 4 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
1.5 m weir
ID 16.1C

53+00 54+00 55+00 56+00

MATCHLINE STA. 52+80 –L– SEE SHEET 15

MATCHLINE STA. 56+40 –L– SEE SHEET 17

TRANSITION STONE CLASS 'B' RIPRAP 5.0 MTONS

0.9M BASE TAIL DITCH DDE=9 CM SEE DETAIL #2

TOE PROTECTION STA 53+51 LT TO STA 53+67 LT –L– SEE DETAIL #8

CLASS 'II' RIPRAP ON BANKS ONLY 0.5 MTONS FF =15 SM

0.6M BASE TAIL DITCH DDE=10 CM SEE DETAIL #1

RONALD E. THOMAS, JR AND WIFE, JODIR. THOMAS DB 775 PG 607

JAMES F. SHOTWELL, JR. DB 136 PG 469

END C/A & WW FENCE Sta. 55+61.088

BEGIN C/A & WW FENCE Sta. 55+80.841

ACCESS POINT

1200mm WOVEN WIRE FENCE

US 501

N 32° 37' 31" E

CLASS 'B' RIPRAP GRAU 350

CAT-1

FS (EL. 192.25)

BL-31

BL-32

CLASS 'II' RIPRAP (ON BANKS ONLY) +/-1.7 MTONS FF +/-2.1 SM

TOE PROTECTION STA 53+12 RT TO STA 53+20 RT –L– SEE DETAIL #8

STD BERM DITCH STA 55+00 RT TO STA 56+40 RT –L–

+80.000 35.052 m (115.000')
+60.000 30.480m (100.000')
+40.000 30.480m (100.000')
+80.000 30.480 m (100.000')
+40.000 38.100 m (125.000')
+80.000 42.672 m (140.000')
+00.000 48.769 m (160.003')
+40.000 45.720 m (150.000')
+80.000 47.244 m (155.000')
+15.000 30.480 m (100.000')
+25.000 30.480 m (100.000')
+15.000 41.148 m (135.000')
+25.000 41.148 m (135.000')
+20.000 45.110 m (148.000')

60.96m (200.000')

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PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-22/CONST.17
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 17

NAD 83 NC GRID

MATCHLINE STA. 56+40 -L- SEE SHEET 16

MATCHLINE STA. 60+00 -L- SEE SHEET 18

18 x 9 x 1 38 mm Skimmer with 33 mm Orifice Diameter 6.5 m weir ID 17.1C

12 x 18 x 1 38 mm Skimmer with 36 mm Orifice Diameter 15.5 m weir ID 17.2C

JAMES F. SHOTWELL, JR. DB 136 PG 469

PAUL S. BARNETT ESTATE ADMINISTRATIVE BOOK 4 PG 33 DB 37 PG 393 DB 181 PG 706 PB 2 PG 35

KEITH L. BARNETTE DB 210 PG 97 BOM 1PG 157

-L- POC Sta.59+88.133 LB = -L- PT Sta.59+87.530 LA

-L- PC Sta.57+58.712

BEGIN CA & WW FENCE Sta. 58+63.561

END CA & WW FENCE Sta. 58+43.717

ACCESS POINT

1200mm WOVEN WIRE FENCE

TRANSITION STONE CLASS 'B' RIPRAP EST=6.0 MTONS

CLASS 'I' RIPRAP ON BANKS ONLY 3 MTONS FF=30 SM SEE DETAIL #21

BEGIN SHOULDER BERM GUTTER +00.000 LT

END SHOULDER BERM GUTTER +80.000 LT

END SHOULDER BERM GUTTER +00.000 RT

BEGIN SHOULDER BERM GUTTER +00.000 RT

1200 RCP CLASS IV W/METHOD 'B' INSTALLATION

CLASS 'B' RIPRAP

LAT 0.6M BASE DITCH W/1.5M BERM LINED W/CLASS 'B' RIPRAP STA 57+00 RT TO STA 58+20 RT -L- EST DDE = 227.73 CM SEE DETAIL #7

SPECIAL DITCH GRADE W/PSRM SEE PROFILE FOR GRADE STA 58+40 RT TO STA 58+60 RT -L- SEE DETAIL #23

BEGIN LEFT TURN TAPER +97.784

BL-33 BL-34 BL-35 BL-36

N -32° 37' 51.6" E

US 501

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PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-23/CONST.18
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC

5 0 10

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 18

NAD 83 NC GRID

MATCHLINE STA. 60+00 -L- SEE SHEET 17

MATCHLINE STA. 63+60 -L- SEE SHEET 19

BEGIN CONSTRUCTION POT Sta. 10+04.000 -Y14-

18 x 8 x 1 38 mm Skimmer with 30 mm Orifice Diameter 5.5 m weir ID 18.1C

14 x 6 x 1 38 mm Skimmer with 21 mm Orifice Diameter 3.5 m weir ID 18.2C

BARNETTE-TINGEN RD. SR 1522

U.G. SEPTIC LINE AS MARKED BY PERSON COUNTY HEALTH DEPARTMENT

CLASS 'B' RIPRAP

'V' TAIL DITCH DDE=12 CM SEE DETAIL #5

'V' TAIL DITCH DDE=18 CM SEE DETAIL #5

BEGIN C/A Sta. 10+40.000 -L-

BEGIN WW FENCE Sta. 10+52.000

ACCESS POINT

THOMAS A. PENTECOST DB 162 PG 672

REMOVE PIPE

BEGIN C/A & WW FENCE STA. 10+60.000 -Y14-

KEITH L. BARNETTE DB 210 PG 97 BOM 1 PG 157

KEITH L. BARNETTE DB 210 PG 97 BOM 1 PG 157 BOM 4 PG 36

POT Sta. 60+75.808 -L-

POT Sta. 11+22.580 -Y14 & Y15-

1200mm WOVEN WIRE FENCE

BEGIN LEFT TURN TAPER

US 501

BL-39

BL-38

BL-37

GPS R-2241A-6

CHARLES F. BROOKS DB 204 PG 396 BOM 5 PG 566

NORMA JEAN BOWES LIFE ESTATE DB 267 PG 465

ROBERT MERRITT BOWES DB 223 PG 138 BOM 3 PG 131

END WW FENCE Sta. 11+97.156

END C/A Sta. 12+05.924

BEGIN C/A & WW FENCE STA. 12+00.000

RETAIN ±20.000 EX. R/W

END CONSTRUCTION POT Sta. 12+20.00 -Y15-

BARNETTE-TINGEN RD. SR 1522

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PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-24/CONST19
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 19

NAD 83 NC GRID

18 x 8 x 1 38 mm Skimmer with 30 mm Orifice Diameter 5.5 m weir ID 19.2C

30 x 7 x 1 38 mm Skimmer with 36 mm Orifice Diameter 4.5 m weir ID 19.1F

15 x 7 x 1 38 mm Skimmer with 24 mm Orifice Diameter 4.5 m weir ID 19.1C

7 x 9 x 1 38 mm Skimmer with 18 mm Orifice Diameter 6.5 m weir ID 19.3C

MATCHLINE STA. 63+60 -L- SEE SHEET 18

MATCHLINE STA. 67+20 -L- SEE SHEET 20

KEITH L. BARNETTE DB 210 PG 97 BOM 1PG 157

ROBIN E. WRENN, et al 87-E-20

ROBIN EVANS WRENN DB 205 PG 98 BOM 5 PG 65

CHARLES F. BROOKS DB 204 PG 396 BOM 5 PG 566

MONTWOOD BAPTIST CHURCH DB 307 PG 663 BOM 12 PG 79

POWELL 707 707 51-3

GEORGE RAYMOND CARTER DB 153 PG 163

FORCE PROTECTION INDUSTRIES, INC. DB 641 PG 814

ELMER MERRITT BOWES DB 202 PG 570

BEGIN CONSTRUCTION POT STA.10+95.51 -Y16-

END CONSTRUCTION POT STA.11+29.622 -Y16-

POT STA.11+19.022 -Y16- 7.62 LT CENTER OF CUL-DE-SAC

PT Sta. 10+36.030

PC Sta. CAT-10+29.325

CLASS 'B' RIPRAP

SPECIAL LAT 'V' DITCH LINED W/CLASS 'B' RIPRAP STA 63+80 LT TO STA 64+50 LT -L- SEE DETAIL #11

LAT 0.6M BASE DITCH W/1.5M BERM LINED W/CLASS 'B' RIPRAP STA 64+50 LT TO STA 65+70 LT -L- EST DDE = 380.50 CM SEE DETAIL #7

REMOVE POND

1200mm WOVEN WIRE FENCE

200mm WOVEN WIRE FENCE

CLASS 'II' RIPRAP ON BANKS ONLY 6.2 MTONS FF=50 SM SEE DETAIL #20

LAT 1.2M BASE DITCH W/1.5M BERM W/CL 'B' RIPRAP STA 65+70 LT TO STA 66+14 LT -L- EST DDE = 94.99 CM SEE DETAIL #24

PREFORMED SCOUR HOLE BASE=1.2M SEE DETAIL SHEET # 2H

CLASS 'I' RIPRAP ON BANKS ONLY 4.5 MTONS FF=36 SM SEE DETAIL #20

GRADE TO DRAIN

REMOVE 450 PIPE

CLASS 'II' RIPRAP ON BANKS ONLY 8.5 MTONS FF=45.0 SM SEE DETAIL #20

CLASS 'I' RIPRAP ON BANKS ONLY 3.5 MTONS FF=30 SM SEE DETAIL #20

TOE PROTECTION STA 64+00 RT TO STA 64+50 RT -L- SEE DETAIL #8

LAT 0.9M BASE DITCH W/1.5M BERM W/PSRM STA 64+45 RT TO STA 65+60 RT -L- EST DDE = 251.46 CM SEE DETAIL #25

SPECIAL LAT 'V' DITCH STA 65+80 RT TO STA 66+00 RT -L- SEE DETAIL #6

TIE CUL-DE-SAC DITCHES TO EXISTING 'V' DITCH

EARTH BERM ELEV=171.2

RETAIN

SPRING BOX

ACCESS POINT

BEGIN CA & WW FENCE Sta. 64+46.086

END CA & WW FENCE Sta. 64+64.374

END CA & WW FENCE Sta. 66+99.382

BEGIN CA & WW FENCE Sta. 67+17.650

+45.000 50.597m (166.000')

+39.000 45.996m (150.906')

+44.000 35.877m (117.707')

+60.000 33.528 m (110.000')

+69.000 52.426m (172.000')

+69.000 36.576 m (120.000')

+69.000 30.480m (100.000')

+59.000 36.296m (119.083')

+10.000 52.426m (172.000')

+10.000 36.576 m (120.000')

+80.000 36.576 m (120.000')

+00.000 33.528 m (110.000')

+70.000 36.576 m (120.000')

+70.000 30.480 m (100.000')

+00.000 33.528 m (110.000')

+00.000 30.480 m (100.000')

+60.000 32.004 m (105.000')

+40.000 36.576 m (120.000')

+44.750 36.576 m (120.000')

EX R/W @ 30.480 m (100.000')

N 30° 44' 51.4" E

N 32° 01' 19" E

S 38° 26' 39" W 20.548

S 35° 20' 24" W 20.564

S 35° 09' 19" W 12.658

S 37° 36' W 8.870

S 52° 30' 07" W 16.647

S 87° 54' 41" W 35.710

S 87° 54' 41" W 150.350

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aanolen AT REN247769

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-25/CONST.20
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 20

NAD 83 NC GRID

MATCHLINE STA. 67+20 -L- SEE SHEET 19

MATCHLINE STA. 70+80 -L- SEE SHEET 21

ROBIN EVANS WRENN
DB 205 PG 98
BOM 5 PG 615

N07°19'02"E
85.344

S39°56'36"E
102.43

2SFD

91

OTHER CAD UNKNOWN

68+00

67+00

69+00

70+00

T5-1-

CLASS 'II' RIPRAP ON BANKS ONLY
EST 37.8 /M
EST FF :
SEE DETAI

15 x 6 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
3.5 m weir
ID 20.2C

14 x 10 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
7.5 m weir
ID 20.7F

END WW FENCE +

BEGIN WW FENCE +80.312

300mm PLASTIC

89

ROBIN E. WRENN, et al
87-E-20

+00.000
30.480 m
(100.000')

+80.000
32.004 m
(105.000')

+20.000
32.004 m
(105.000')

+80.000
39.625 m
(130.000')

+00.000
42.062 m
(138.000')

+50.000
30.480 m
(100.000')

+20.000
30.480 m
(100.000')

+80.000
30.480 m
(100.000')

SPECIAL LAT 'V' DITCH
STA 68+70 LT TO STA 68+77 LT -L-
SEE DETAIL #6

CL 'B' RIPRAP

SPECIAL LAT 0.6M BASE DITCH
STA 68+80 LT TO 69+00 LT -L-
SEE DETAIL #17

1200mm WOVEN WIRE FENCE

PDE

2GI FS 2003

2GI 2006

2GI TYPE 'A' 2015

CULVERT CHANGES TO
1200 mm CONC UNDER ROAD
(CHANGEOVER POINT
NOT VISIBLE)

CLASS 'B' RIPRAP

EXISTING R/W

REMOVE

SR 1521 HALIFAX RD 58 RST

2GI FS 2002

2GI 2004

2GI 2005

2GI 2010

2GI 2016

2GI 2017

T2 CORE BL-43

T5-2-

T5-3-

-L-

N 30° 44' 51.4" E

US 501

BEGIN WW FENCE
+01.903

GLASS 'B' RIP RAP

SPEC LAT V-DITCH
STA 69+06 TO 69+10 -L- RT
SEE DETAIL #26

END WW FENCE
99.924

CLASS 'II' RIPRAP
(ON BANKS ONLY)
EST 27.8 MTONS
EST FF 43 SM

14 x 7 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
4.5 m weir
ID 20.1C

8 x 14 x 1
38 mm Skimmer
with 27 mm
Orifice Diameter
11.5 m weir
ID 20.3C

7 x 14 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
11.5 m weir
ID 20.4C

FORCE PROTECTION INDUSTRIES, INC.
DB 641 PG 814

90

FORCE PROTECTION INDUSTRIES, INC.
DB 641 PG 814

90

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$cell_name $level_name $view_name
MENZIES, M (MENZIES)

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 21

METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-26/CONST.21
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

NAD 83 NC GRID

MATCHLINE STA. 70+80 –L– SEE SHEET 20

MATCHLINE STA. 74+40 –L– SEE SHEET 22

EMILY BOHANNON
DB 138 PG 399
BOM II PG 34

LILLIS LOFTIS et al
DB 340 PG 113

ALISSA K. CHAPMAN
DB 119 PG 313
BOM II PG 34

FITZGERALD T. BOWES
LIFE ESTATE
DB 661 PG 440
BOM II PG 34

FRIENDSHIP FREEWILL BAPTIST CHURCH
DB 145 PG 69
BOM II PG 34

MARTHA B. POWELL
DB 123 PG 462
BOM II PG 34

D & J UPHOLSTERY
DB 255 PG 164

RICKY D. WILSON
TONYA R. WILSON
DB 668 PG 634
BOM II PG 34

STEVEN BRIGGS
DB 150 PG 38
BOM 10 PG 70
WILL BOOK 07-E-265

ROBIN E. WRENN, et al
87-E-20

FORCE PROTECTION INDUSTRIES, INC.
DB 641 PG 814

COUNTY HEALTH DEPARTMENT

89 92 93 94 95 96 97 98 90

END C/A & WW FENCE Sta. 71+40.597
BEGIN C/A Sta. 71+58.885
END C/A Sta. 71+78.440
BEGIN C/A & WW FENCE Sta. 71+90.000
END C/A Sta. 72+04.71
BEGIN C/A Sta. 72+23.00
END C/A Sta. 72+39.031
BEGIN C/A & WW FENCE Sta. 72+57.000
END C/A Sta. 73+20.545
BEGIN C/A Sta. 73+38.833
END C/A Sta. 73+44.762
BEGIN C/A & WW FENCE Sta. 73+63.064
END C/A & WW FENCE Sta. 73+90.872
BEGIN C/A & WW FENCE Sta. 74+09.160
END C/A & WW FENCE Sta. 74+36.185
END C/A & WW FENCE Sta. 72+13.642
BEGIN C/A & WW FENCE Sta. 72+29.527

ACCESS POINT

1200mm WOVEN WIRE FENCE

NOTE: DO NOT DISTURB TREE

REMOVE

MONOLITHIC ISLAND

GRADE TO DRAIN

45 LEFT TURN TAPER

161 LEFT TURN STORAGE

BEGIN LEFT TURN TAPER +32.612

U.G. SEPTIC LINE AS MARKED BY PERSON COUNTY HEALTH DEPARTMENT

8 x 16 x 1
1.5 m weir
ID 21.1C

SR 1521 HALIFAX RD T.D BST

US 501

08-FEB-2013 07:09
R:\Environmental\Hydraulics\2241A_EC_psh21.dgn
xpshender1 HENDERSON

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

METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-27/CONST.22
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

MATCHLINE STA. 74+40 -L- SEE SHEET 21

MATCHLINE STA. 78+00 -L- SEE SHEET 23

MATCHLINE STA. 12+20 -Y17- SEE SHEET 27

NAD 83 / NC GRID

US 501

SR 1521 HALIFAX RD 7.0 BST

EXISTING R/W

FUTURE NB LANES

FUTURE LEFT

STEVEN BRIGGS
DB 150 PG 38
BOM 10 PG 70
WILL BOOK 07-E-265

WINFRED CARLTON CLAYTON
DB 155 PG 140
DB 120 PG 46
BOM 10 PG 70

ANNE SHOTWELL TATE
DB 486 PG 337

FORCE PROTECTION INDUSTRIES, INC.
DB 641 PG 814

1200mm WOVEN WIRE FENCE

U.G. SEPTIC LINE AS MARKED BY PERSON COUNTY HEALTH DEPARTMENT

BEGIN CA & WW FENCE Sta. 74+54.473
S 30°58'15"W 60.997

END CA & WW FENCE Sta. 72+92.869

BEGIN CA & WW FENCE Sta. 75+09.039

END CA & WW FENCE Sta. 75+57.972

BEGIN CA & WW FENCE Sta. 75+39.684

ACCESS POINT

NO ASSOCIATED PIPING FOUND FOR THESE WW

GUARD HOUSE

ISFD

ISBKD

8 x 4 x 1
ID 22.2C

12 x 6 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
3.5 m weir
ID 22.3C

9 x 4 x 1
ID 22.7C

8 x 4 x 1
ID 22.6C

9 x 13 x 1
1.5 m weir
ID 22.1C

15 x 8 x 1
38 mm Skimmer
with 27 mm
Orifice Diameter
5.5 m weir
ID 22.1F

10 x 4 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
1.5 m weir
ID 22.4C

12 x 6 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
3.5 m weir
ID 22.5C

SPECIAL DITCH SEE PROFILE FOR GRADE STA 12+80 RT TO STA 12+93 RT -Y17-

SPECIAL DITCH W/PSRM SEE PROFILE FOR GRADE STA 76+56 (SAG) TO STA 77+00 LT -L- SEE DETAIL #23

0.6M BASE DITCH DDF=6.0 CM SEE DETAIL #1

0.6M BASE DITCH STA 76+20 RT TO STA 76+56 RT

0.9M BASE TAIL DITCH DDF=43.53 CM SEE DETAIL #2

CLASS 'I' RIPRAP +/- 13.6 MTONS FF +/-25.1 SM

CLASS 'B' RIPRAP EST 4.5 MTONS EST FF 11.7 SM SPECIAL LAT

CLASS 'B' RIPRAP

GRADE TO DRAIN

45 RIGHT TURN TAPER

2400mm CHL 2SBW

POT Sta.76+06.312 -L- =
POT Sta.13+18.495 -Y17-

PT Sta.13+03.279

POT Sta.76+44.834 -L- 8.800 RT =
PC Sta.76+44.834 -X1- CROSSOVER

END CONSTRUCTION NORTHBOUND LANE
Sta.76+77.000 -L-

BL-45

BL-46

REMOVE

2GI TYPE 'A'

2GI NSG

RCP-IV

08-FEB-2013 07:21
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jchandler1
PLOTSCALE = 1.0 '/ IN.

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-28/CONST.23
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 23

NAD 83 / NC GRID

MATCHLINE STA. 78+00 -L- SEE SHEET 22

BEGIN TEMP SBL
STA.78+00.000 -L- =
STA.78+00.000 -TEMP SBL-

ANNE SHOTWELL LIFE ESTATE
DB 2611 PG 486
BOM 12 PG 337
100

MICHAEL E. VICKERS
DB 214 PG 647
BOM 4 PG 794
105

CHARLOTTE MELTON et al
DB 429 PG 161
BOM 34 PG 34
106

BLAKE E. THORNBURG
DB 645 PG 331
107, 108

BESSIE JANE WALKER "HEIRS"
DB 121 PG 68

FORCE PROTECTION INDUSTRIES, INC.
DB 641 PG 814

ADDIE T. WADE
DB 179 PG 387

LOUISE S. THOMAS
DB 146 PG 645

LOUISE S. THOMAS
DB 179 PG 749

DAVID N. ALLEN
DB 559 PG 281
103

ANDREW L. HOLEMAN
DB 157 PG 164
BOM 23 PG 102
104

ANNIE RUTH KENDRICK LIFE ESTATE
DB 532 PG 412
101

END CONSTRUCTION
POT Sta.81+63.869 -L- 10.564 LT.

END TIP PROJECT R-2241A
STA 79+69.997 -TEMP SBL- =
STA 79+69.986 -L- 14.3' LT

BEGIN C/A & WW FENCE Sta. 78+93.576
END C/A & WW FENCE Sta. 79+50.020
BEGIN C/A & WW FENCE Sta. 79+68.308
END C/A & WW FENCE Sta. 80+11.60
BEGIN C/A & WW FENCE Sta. 80+32.948
END C/A & WW FENCE Sta. 81+44.781
BEGIN C/A Sta. 81+59.781

ACCESS POINT

+75.288 EX. RW (100.000')
+62.256 30.480 m (100.000')
+28.953 30.480 m (100.000')
+00.000 30.480 m (100.000')
+00.000 35.052 m (115.000')
+37.000 30.480 m (100.000')
+43.452 END CA & WW FENCE EX. R/W

RETAIN DITCH
RETAIN
RETAIN EX. DITCH
REMOVE

BL-172
BL-4000
BL-182-BYI8-2
BYI8-1

375 RCP III
COLLAR
375 mm CONC
300 mm
150 mm
1200mm WOVEN WIRE FENCE

NO ASSOCIATED PIPING FOUND FOR THIS WM.
NO ASSOCIATED PIPING FOUND FOR THESE WMs.

N 30°05'06.8" E
N 30°44'51.4" E

US 501
US 501 7.4 BST
5.4 BST
5.5 BST
8.26 R/W
EXISTING R/W
SR 1402 (JESSE BANKS RD)

ISBKD
ISFD
ISFBUS
ISBLKBUS
HTR
GAS REG. STA.
GR
S
WLB

10-AUG-2012 14:17
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Roadway Engineering

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-29/CONST.24
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC

5 0 10

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

CLEARING AND GRUBBING EROSION CONTROL SHEET 24

NAD 83 NC GRID

MATCHLINE STA 12+80 -Y1- SEE SHEET 4

8B NEW TOP INVESTMENTS, INC. DB 469 PG 333 BOM 19 PG 258

8C KELLY PROPERTIES OF ROXBORO, LLC DB 671PG 480 PB 19 PG 250

8D JODY LONG STEVEN WILSON DB 508 PG 75 PLAT CAB II PG 96D (SEE PG 96A)

J. CLARENCE BLALOCK DB 80 PG 474 DB 119 PG 521

REGINALD B. JONES DB 311PG 904

RONALD STEWART PULLIAM DB 224 PG 606

DANIEL SMITH DB 254 PG 487

SOUTHERN STATES COOPERATIVE, INC BOM 3 PG 132 DB 185 PG 880

KELLY P. SMALL DB 569 PG 460 BOM 8 PG 19-4

OUR PRIDE FOODS OF ROXBORO DB 221PG 45

THE LONE DUNCAN IRREVOCABLE TRUST DB 261PG 659

POPLAR LANE DEVELOPMENT DB 229 PG 852

POT Sta.12+10.793

POT Sta.11+00.000

BEGIN CONSTRUCTION POT Sta 12+05.000 -Y1-

END C&G +15.000

RETAIN +65.00 10.668 m (35.000')

+20.000 10.363 m (35.000')

+20.000 EX. R/W

30 RIGHT TURN TAPER

70 LEFT TURN TAPER

750 CONC.C&G

REMOVE 375 RCP-IV

REMOVE 375 RCP-III

BY1-1

BY1-2

S 21°14'10.3" W -Y1-

US 501 N MAIN ST

150mm BST WALL

150mm BST CURB

1200 mm WW

UTILITY INTERFERENCE STRUCTURE

NO ASSOCIATED PIPING FOUND FOR WMS IN THIS AREA

EXISTING R/W

10.8 TYP.

8000

105.000

450mm CONC

450mm BST WALL

690mm BLK WALL

80' R/W

24.384 R/W

S21°12'50"W 15.186

N62°43'30"W 50.744

N62°43'48"W 150mm CMP 44.614

S62°31'20"E 58.783

S64°45'45"E 57.675

S64°45'45"E 58.027

S64°45'45"E 58.027

S85°10'49"W 64.008

N87°29'48"E 103.513

S03°32'48"W 86.312

S00°54'48"W 73.524

N62°43'07"W 34.721

S68°15'39"W 74.831

N03°03'12"E 74.831

S00°54'48"W 86.312

S00°54'48"W 73.524

S03°06'16"W

N 88° 05' 49.9" E

PC Sta.11+29.963

40 TAPER

ROBERT BEAM WILBORN MICHAEL BEAM WILBORN DB 227 PG 486 BOM 12 PG 237

ELEANOR HAMLIN DUNN DB 64 PG 486

ANNIE RUTH JACKSON GRAVITTE HORACE EDWARD JACKSON THELMA MARIE JACKSON CAMPBELL ANTHONY FARRIS JACKSON DB 185 PG 543

BURLEY W. DUNN DB 77 PG 201

JOHN WILLIAM HUBBARD DB 292 PG 120 BOM 6 PG 83-3

ROBERT FRED COLE DB 214 PG 148 BOM 6 PG 83-3

FLORA J. W. SNEAD DB 373 PG 724 BOM 5 PG 468

ROBERT E. WINSTEAD SHARON L. WINSTEAD DB 421 PG 726 BOM 6 PG 19-1

RAMONA HOLT LOWERY & BERNARD LOWERY, JR. DB 160 PG 436 BOM 23 PG 113

CHRISTINE P WHITT DB 173 PG 921

J. HICKS S. C. HICKS 5 PG 211 RB 23, PG 113 PB 11, PG 1E

SR 1532 THAXTON RD 60' BST

SR 1889 PRESTON PLEASANT RD BST

LOCATION: R-2536 CURB (PSAL R/W)

13 x 6 x 1 38 mm Skimmer with 21 mm Orifice Diameter 3.5 m weir ID 24.1C

+00 12+00

MATCHLINE STA. 12+40 -Y7- SEE SHEET 9

10-AUG-2012 14:45
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Jonathon HENDRICKS

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 25

NAD 83 +NC GRID

METRIC
5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-30/CONST.25
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

MATCHLINE STA. 14+80 -Y8- SEE SHEET 9

BEGIN CONSTRUCTION
POT Sta.9+93.905 -Y11-

POT Sta.9+85.000

POC Sta.15+57.980 -Y8- =
POT Sta.11+17.008 -Y11-

POT Sta.17+38.638

END CONSTRUCTION
POC Sta.16+50.000 -Y8-

POT Sta.11+00.000

PC Sta.16+23.142

PT Sta.16+65.732

PI Sta.15+67.654
N 79° 06' 44.3" E

N 83° 45' 37.3" E

13 x 6 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
3.5 m weir
ID 25.1C

11 x 5 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
2.5 m weir
ID 25.2C

SPECIAL DITCH
SEE PROFILE FOR GRADE
STA 15+00 -Lt TO
STA 15+40 Rt -Y8-
SEE DETAIL #18

'V' TAIL DITCH
DDE = 13.0 CM
SEE DETAIL #5

CLASS 'B' RIPRAP

GRASS SWALE

BOBBY J. HICKS
&DELORES C. HICKS
DB 625 PG 209
PB 23, PG 113
PB 11, PG 1E

BRIAN C. HICKS
& JENNY HICKS
DB 625 PG 207
BOM 23 PG 113

RACHEL P. ROYSTER et al
DB 58 PG 88

ODELIA P. GENTRY HEIRS
09-E-428, HARNETT COUNTY

BONNIE SOLOMON
DB 692 PG 160

DEAN WESLEY
DB 245 PG 834

DONNA LUNSFORD
DUNEVANT
DB 541 PG 273
BOM 7 PG 6-5

BRIAN C. HICKS
& JENNY HICKS
DB 625 PG 213

BURLEY W. DUNN
DB 171 PG 806
DB 143 PG 163

TIMOTHY HARRIS AND
CHERYL CAVALIER
DB 305 PG 780

PROVIDENCE BAPTIST CHURCH
DB 257 PG 378
BOM 21 PG 100

JOHN MICHAEL WESLEY
DB 204 PG 495
BOM 5 PG 580

JAMES H. HEATH
DB 192 PG 275
DB 269 PG 257
BOM 10 PG 79-1
BOM 24 PG 225

END EXPRESSWAY GUTTER
+31.400 RT
+40.000
15.850 m
(52.000')

BEGIN EXPRESSWAY GUTTER
+93.412 LT

END C/A & WW FENCE
+80.511
EX. R/W

END C/A & WW FENCE
+40.000
EX. R/W

REMOVE

ISF BUS ABAND

ISBLK BUS

2-ISLS
2 FUEL PUMPS
U/MTL CANOPY

ISF CANOPY

ISFD

BY7-5

BY6-5

EXISTING R/W

LANDSCAPE TIMBERS

EXISTING CANOPY

EXISTING SANITARY SEWER MANHOLE

EXISTING STORM DRAINAGE MANHOLE

EXPRESSWAY GUTTER

600mm CONC C&G

375mm CONC

450mm CONC

600mm STONE

1200mm CONC

NC 49 VIRGINIA RD

10-AUG-2012 14:45
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ashsten AT HENTZ47F88

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-31/CONST.26
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 26

NAD 83 NC GRID

MATCHLINE STA. 15+20 -Y9- SEE SHEET 10

BURLEY W. DUNN
DB 188 PG 749
DB 36 PG 557
DB 107 PG 74

JERRY F & ANGELA BARBAR
DB 479 PG 41
BOM 13 PG 520

SHELBY O. CASTLE
DB 238 PG 612
BOM 9 PG 21-2

JOHN & BRENDA KIRK
DB 450 PG 97
BOM 12 PG 305

BURLEY W. DUNN
DB 188 PG 749
DB 36 PG 557
DB 107 PG 74

FRANK C. HARRIS, JR.
DB 306 PG 524
BOM 9 PG 31-10

BURLEY W. DUNN
DB 188 PG 749
DB 36 PG 557
DB 107 PG 74

BURLEY W. DUNN
DB 188 PG 749
DB 36 PG 557
DB 107 PG 74

NELLIE R PENTECOST
DB 176 PG 86
DB 80 PG 469
DB 198 PG 594
DB 58 PG 464
BOM 7 PG 335
BOM 5 PG 141
BOM 1PG 143

HOWARD T. SMITH
DB 143 PG 619
DB 176 PG 92
BOM 1PG 143

JOEL DEAN SMITH
DB 280 PG 838
BOM 8 PG 72-3

SYBIL PENTECOST WOOTEN
DB 176 PG 90
DB 77 PG 98
BOM 7 PG 104
BOM 5 PG 607

BAXTER M. BUCHANAN
DB 295 PG 770
BOM 3A PG 31
BOM 1PG 143

BY7-3

BY7-2

BY7-1

CURVE Y9-3 / Y9

POT Sta.16+32.058

POT Sta.17+53.051

POT Sta.16+85.000 -Y8

END CONSTRUCTION

+80.000 15.240 m (50.000')

+80.000 11.430 m (37.500')

+85.000 14.788m (48.516')

+82.000 25.908m (85.000')

+00.000 14.010 m (45.966')

+95.000 14.173m (46.501')

+20.000 27.432m (90.000')

+32.058 11.430 m (37.500')

+32.058 15.240 m (50.000')

8 x 5 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
2.5 m weir
ID 26.1F

'V' TAIL DITCH
DDE=2.0 CM
SEE DETAIL #5

SPECIAL DITCH GRADE
STA 15+90 RT TO
STA 16+40 RT -Y9-
SEE DETAIL #18

@ PROPERTY LINE
11.430 m
(37.500')

@ PROPERTY LINE
@ EX. R/W

REMOVE

40 TAPER

SR 1531 PROVIDENCE RD (SR 1531)

N 24°16'34.3"W

EXISTING R/W

LANDSCAPE TIMBERS

CAR PORT

ISBKD

ISFD

ISRD

25FD

10-AUG-2012 14:58
R:\Environmental\Design\R2241A_EC_psh26.dgn
adholden AT RENV247768

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-32/CONST.27
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 27

NAD 83 NC GRID

RANDALL M. THOMPSON
DB 199 PG 718

N88°10'25"E
83.155

S78°28'35"E
73.762

EIP
N28°04'28"W
186.448

ISBK CHURCH
KINGDOM HALL

JEHOVAH'S WITNESS TRUTEES
DB 205 PG 263
BOM 5 PG 639

BEGIN CONSTRUCTION
POT Sta.10+70.00 -Y17-

POT Sta.10+00.000

ANNE SHOTWELL
LIFE ESTATE
DB 261PG 486
BOM 12 PG 337

11+00

12+00

PC Sta.11+33.700

BY17-14

EXISTING R/W

N 61° 51' 42.5" E

-Y17-

50 TAPER

+33.700
@ EX. R/W

45 RIGHT TURN TAPER

BEGIN C/A & WW FENCE
+00.000 RT

+00.000
18.288 m
(60.000')

+20.000
24.384 m
(80.000')

ANNE SHOTWELL
LIFE ESTATE
DB 261PG 486
BOM 12 PG 337

N11°25'16"E
24.079

S30°58'17"W
30.336

MATCHLINE STA. 12+20 -Y17- SEE SHEET 22

HUBERT A. DAVIS
DB 143 PG 96
DB 125 PG 308
BOM 11PG 34

SHERRY P. BRANN
DB 321 PG 79

NO ASSOCIATED PIPING FOUND FOR THIS WW.

HUGH A. BLANKS
DB 254 PG 127
BOM 13 PG 4

RICKY D. WILSON AND WIFE
TONYA R. WILSON
DB 688 PG 634

HUBERT A. DAVIS
DB 143 PG 96
DB 125 PG 308

N61°39'16"E
15.240

18.306 R/W
60.06' R/W

18.288 R/W
69' R/W

0.329
N28°20'44"W
R/W-REBAR

0.491
N28°23'04"W
R/W-EIR

0.620
N28°23'34"W
EIP-R/W COR

N44°04'16"E
0.906
EIP-R/W

S30°02'40"W
0.820

S30°02'40"W
0.130

N30°02'40"E
0.820

N30°02'40"E
0.130

10-AUG-2012 15:08
R:\Engineering\Projects\R-2241A\R2241A_EC_psh27.dgn
pshelton
DESIGN: 21992 PROJECT: 37708

DETOUR

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-33/CONST.2M
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC
5 0 10 HORIZ.
1 0 2 VERT.

BEGIN DETOUR
-DET1- Sta. 12+66.000 =
-L- Sta. 12+66.000
5.034m LT

END DETOUR
-DET1- Sta. 15+21.390 =
-L- Sta. 15+20.000
5.034m LT

12 x 8 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
5.5 m weir
ID 4.1C

CLEAN OUT EXISTING DITCH
MIN 0.3% GRADE

CLASS 'I' RIPRAP
ON BANKS ONLY
21.0 MTONS
SEE DETAIL #20

PREFORMED SCOUR HOLE
BASE=1.4M
SEE DETAIL SHEET # 2H

TOE PROTECTION
STA 15+18 LT TO STA 15+60 LT
SEE DETAILE#8

0.9M BASE DITCH
EST DDE=35.3 CM
SEE DETAIL #2

CLASS 'B'
RIPRAP

RETAIN

GRADE TO DRAIN

REMOVE

CLASS 'I' RIPRAP
EST 55 MTONS

-DET1-

PT = 12+80.000
EL = 180.470 m
VC = 26 m
K = 22

BEGIN GRADE
-DET1- STA.12+66.000
EL = 181.268 m

PI = 13+46.000
EL = 175.933 m
VC = 105 m
K = 13

LOW POINT
STA 13+78.692
EL = 176.579 m

PI = 14+14.000
EL = 176.953 m
VC = 30 m
K = 11

END GRADE
-DET1- STA.15+21.390
EL = 181.495 m

-5.700%
-5.674%
-5.804%
+1.500%
+1.500%
+4.294%
PROPOSED GRADE
EXISTING GROUND

190 185 180 175 170

+40 +60 +80 11 +20 +40 +60 +80 12 +20 +40 +60 +80 13 +20 +40

13-AUG-202 10:43
R:\Projects\Drawings\R2241A_RDY_DET1_02H.dgn
$(cell_lib)
$(level_name)
$(user_name)

DETOUR

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-34/CONST.20
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC
5 0 10 HORIZ.
1 0 2 VERT.
CONST.REV.
R /W REV.

BEGIN DETOUR
-DET2- Sta. 10+39.270 =
-L- Sta. 24+19.448
3.153m RT

END DETOUR
-DET2- Sta. 12+60.280
-L- Sta. 24+19.448
20.073m RT

NAD 83 NC GRID

ISBKD

U.G. SEPTIC LINE AS MARKED BY PERSON COUNTY HEALTH DEPARTMENT

-DET2- PCSta.10+00.000
-L- Sta.23+80.314, 0.710 RT

-DET2- PTSta.10+34.710

-DET2- PCSta.10+58.770

-DET2- PTSta.11+27.431

-DET2- PCSta.13+19.977

-DET2- PTSta.13+31.077
-L- Sta.27+00.188, 39.638 RT

TIE TO EXIST 10+57.907

TIE TO EXIST 10+13.253

BEGIN GR +30.099

TIE TO EXIST 12+04.291

END GR +82.192

TIE TO EXIST 13+20.287

N 80°03'18.3" E

66.56'

PREFORMED SCOUR HOLE (CHORD)
ASSEMBLY
SEE DETAIL SHEET # 3H

REMOVE (CHORD)

REMOVE

450mm CONC

PLUG

GRADE TO DRAIN

BL-9

BL-10

BY6-1

BY6-2

GRAU 350 (CHORD)

23.000 TYP

1200mm WOVEN WIRE FENCE

1200 mm WW & SBW

NC 49 VIRGILINA RD

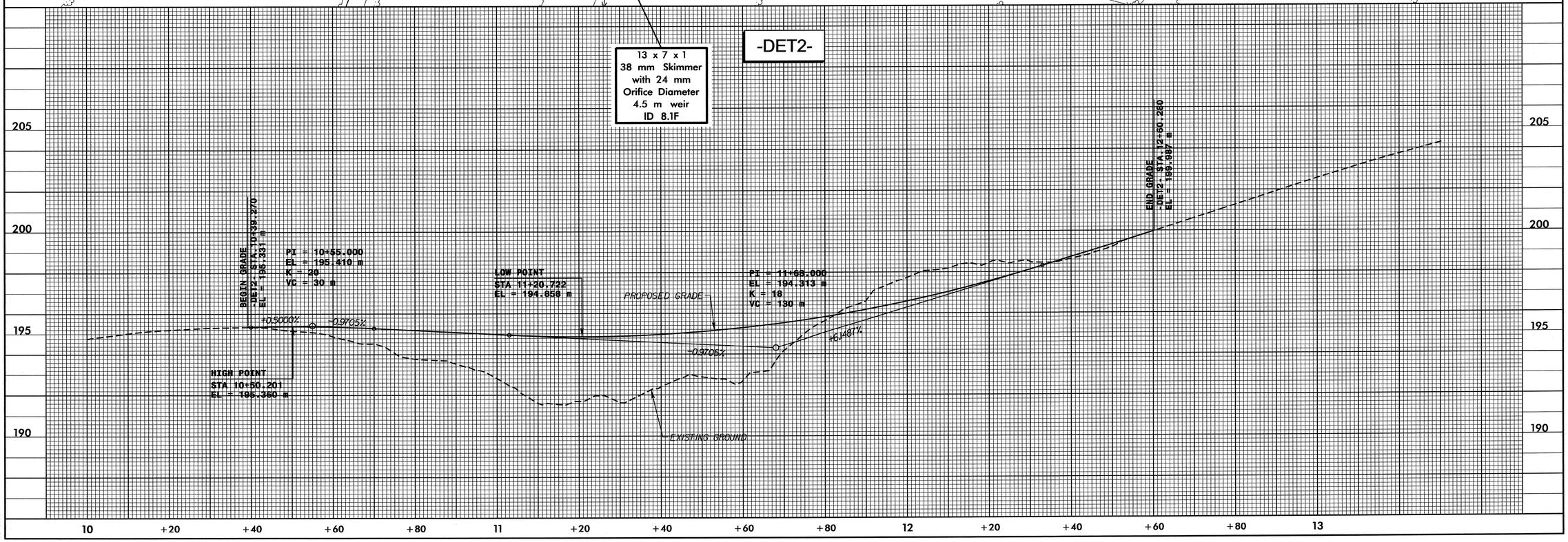
ENERGY DISSIPATOR
SEE DETAIL SHEET # 2H

CLASS 'B' RIPRAP
ON BANKS ONLY
9.0 MTONS
FF=20 SM
SEE DETAIL #19

13 x 7 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
4.5 m weir
ID 8.1F

1'V' DITCH
DDE=30CM
SEE RETAIL #5

-DET2-



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R:\Env\roanmp\1_Hillsborough\2241A_ROY_DET2_020.dgn
80\Users\rmpatel PENDING

METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-35/CONST.4
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CONST.REV.

R /W REV.

BEGIN TIP PROJECT R-2241A
POT STA.10+20.000 -L-

NAD 83 NC GRID

S. R. & D. N., INC
DB 288 PG 151

WALTER O'NEIL HUMPHRIES, JR.
DB 99 PG 14

NEW TOP INVESTMENTS, INC.
DB 469 PG 333
BOM 19 PG 258

MARGARET YARBORO
DB 62 PG 539

MARGARET YARBORO

LINDA STRICKLAND CARVER
DB 362 PG 736
BOM 11PG 72-B

ANGELA SNOW TUCK
DB 629 PG 310

SOUTHERN STATES COOPERATIVE, INC
DB 185 PG 880
BOM 3 PG 132

J. E. GATES TRUST ESTATE FILE NO. 10-E PG 279
ROSALIE P. GATES
DB 178 PG 827

JAI UCK KIM & HEE RAN KIM
DB 568 PG 01

MATCHLINE STA 12+80 -Y1- SEE SHEET 24

MATCHLINE STA 13+40 -L- SEE SHEET 5

PRCSta.12+98.963

PTSta.13+65.111

POT Sta.10+00.000

POT Sta.13+02.001 -L-

PC Sta.10+00.000 -Y4-

BEGIN CONSTRUCTION
POT STA.10+03.00 -DR3-

BEGIN CONSTRUCTION
POT STA 10+10.70 -DR2-

PC Sta. 10+30.53 -DR2-

PT Sta. 10+35.45 -DR2-

PC Sta. 10+33.881 -L-

PT Sta. 10+45.697 -L-

POT Sta.11+26.019 -L- =
POT Sta.13+99.289 -Y1 & Y2-

POT Sta.12+54.845 -L-
POC Sta.11+01.434 -Y3

END CONSTRUCTION
POT STA 14+75.000 -Y2-

END CONSTRUCTION
POT STA 11+30.00 -Y4

BEGIN C&G
LT -L- STA 10+60.000

BEGIN C&G
RT -L- STA 10+48.000

CONTAMINATED AREA

12 x 8 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
5.5 m weir
ID 4.1C

10 x 20 x 0.6
38 mm Skimmer
with 24 mm
Orifice Diameter
17.5 m weir
ID 4.1F

CLASS 'II' RIPRAP
EST 55 MTONS

0.6 m
W/CLASS 'B' RIPRAP
EST DDE 36.4 CM
SEE DETAIL #14

RICHARD T. CLAYTON
DB 387 PG 549
BOM 13 PG 41

RICHARD T. CLAYTON
DB 387 PG 549
BOM 5 PG 397

KING II INVESTMENTS, LLC
DB 313 PG 637
DB 279 PG 730
BOM 12 PG 333
BOM II PG 5-J

KING INVESTMENTS, LLC
DB 595 PG 577
BOM 14 PG 395

KING II INVESTMENTS, LLC
DB 586 PG 258
BOM 14 PG 332

JULIA LAFOON
DB 53 PG 190

NEB KING PROPERTIES, LLC
DB 284 PG 325
BOM 6 PG 27
DB 140 PG 457

C & G SUPPLY CENTER INC.
DB 162 PG 301
DB 176 PG 206
BOM 1PG 468

TOM'S AUTO SUPPLY OF ROXBORO, INC
DB 175 PG 861
DB 188 PG 372
BOM 7 PG 243

ROXBORO PROPERTIES, LLC
DB 469 PG 656
BOM 13 PG 568

JIMMY LEWIS CONTRACTING INC.
DB 133 PG 277
DB 131PG 562
BOM 7 PG 243

ROXBORO INVESTMENT PROPERTIES LLC
DB 651 PG 172

NORFOLK & WESTERN RAILROAD

US 501

NC 49 VIRGILINA RD

NOTE: THIS TELEPHONE MANHOLE WAS NOT ENTERED DUE TO PETROLEUM CONTAMINATION FROM THE NEARBY SERVICE STATION. SPRINT REPRESENTATIVES VERBALLY VERIFIED ALL CABLES

13-AUG-2012 10:26
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PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-36/CONST.5
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

NAD 83 NC GRID

MATCHLINE STA. 13+40 -L- SEE SHEET 4

MATCHLINE STA. 17+00 -L- SEE SHEET 6

16A J. E. GATES TRUST ESTATE FILE NO. 10-E PG 279

END NOT FOUND

CONC

GR

S76°55'36"E 99.975

14+00

15+00

16+00

CLASS 'II' RIPRAP ON BANKS ONLY EST 26.0 MTONS EST FF 147 SM SEE DETAIL #20

PREFORMED SCOUR HOLE BASE=1.4M SEE DETAIL SHEET # 2H

SOIL MOUND

17 CHARLES E. PERKINS DB 581 PG 828 BOM 3A PG 41

BEGIN CONSTRUCTION POT STA 10+07.25 -DR5-

POT Sta. 10+00.000 S 0°16'04.0" E

PRC Sta. 10+20.009

PC Sta. 10+10.325

16A J. E. GATES TRUST ESTATE FILE NO. 10-E PG 279

0.9M BASE DITCH EST DDE=35.3 CM SEE DETAIL #2

CLASS 'B' RIPRAP

TOE PROTECTION STA 15+18 LT TO STA 15+80 LT -L- SEE DETAIL #8

PERSON COUNTY DB 626 PG 716 DB 15 PG 273

PERSON COUNTY BOARD OF EDUCATION DB 708 PG 645 PB 6 PG 16

20 20A 20Z

MOTOR TO SLIDING GATE

SECURITY KEYPADS

POWER TO GATE

1800mm CHL GATE

1200 mm CONC

1000 mm BLK WALL

LANDSCAPE TIMBERS

ISMTL BUS V.F.W.

EXISTING POWER POLE

Pt Sta. 10+39.589

-DET1-

-DR5- Sta. 10+39.589=

-L- Sta. 14+77.270

US 501

NC 49 VIRGINIA RD.7.0\BST

CONTAMINATED AREA

ISMTL BUS

3@3.0Mx3.0M RCBC

GRAU 350

375 RCP-IV

450 RCP-IV

600mm CONC

750 CONC.C&G

750MM C&G

250mm PLASTIC

1800mm WD RAIL

300mm STONE WALL

700mm STONE WALL

200x450 CONC.C&G (TYP.)

REMOVE

EXISTING R/W

W/LT

BST

TDE

PDE

DI

BL-3

BL-4

CLASS 'B' RIPRAP

CLASS 'II' RIPRAP EST 55 MTONS EST FF 125 SM SEE DETAIL #20

DO NOT DISTURB SIDEWALK WITH STEPS & RAILINGS

DO NOT DISTURB VAULT. WATER LINE. VALVE

DO NOT DISTURB UTILITY POLE WITH LIGHT

18 CHARLES E. PERKINS DB 307 PG 778 BOM 9 PG 32-6

0.9M HEAD DITCH EST DDE=8.1 CM SEE DETAIL #2

15 ROXBORO INVESTMENT PROPERTIES LLC DB 651 PG 172

19 JESSE ANDERSON & SON CONTRACTORS, INC (AKA JESSE ANDERSON & SON, INC.) DB 191 PG 278 BOM 4 PG 390

JESSE ANDERSON & SON CONTRACTORS, INC (AKA JESSE ANDERSON & SON, INC.) DB 191 PG 278

CITY OF ROXBORO

PCSta.16+38.064

21 JUDY AND JAMES LEE DB 223 PG 289 BOM 10 PG 4

EDWARD ANDERSON DB 642 PG 110

ISBK BUS

13-AUG-2012 10:31
R:\Environmental\Projects\R2241A_EC_psh05.dgn
Bentley MicroStation V8 XM (08.11.07.443)

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2241A	EC-37/CONST.6
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.		
R /W REV.		

BEGIN CONSTRUCTION
POC 10+10.000 -Y6-

RICHARD T. CLAYTON
DB 249 PG 282
BOM 9 PG 65-4

WOODY & ANDERSON PROPERTIES, INC
DB 241PG 713

THE MICHAEL S. TURNER ALASKA TRUST
DB 528 PG 736
BOM 3A PG 44

ROBERT L CLAYTON
DB 264 PG 170

RITA W. ALLEN, et al
DB 212 PG 614
BOM 3A PG 44

FELTON E. CARVER, ET AL
DB 174 PG 842

PERSON COUNTY BOARD OF EDUCATION
DB 708 PG 645
PB 6 PG 16

KAREN WHITFIELD, ET AL
BOM 1 PG 41

EDNA P. ELLIOTT
DB 219 PG 328
BOM 1 PG 41

FRANCES S. CARVER, ET AL
DB 180 PG 790

EDNA P. ELLIOTT
DB 91 PG 356

CITY OF ROXBORO

PARABOLIC SWALE
STA 18+30 LT TO STA 19+37 LT -L-
SEE DETAIL #3

PARABOLIC SWALE
STA 19+48 LT TO STA 20+20 LT -L-
SEE DETAIL #3

N 72°04'26.6" E
ST Sta.20+31.474

POT Sta.17+38.929 -L- =
POT Sta.10+02.485 -Y5-

PT Sta.17+23.000

PT 10+22.608
N 82°19'36.9" E

PC Sta. 10+38.260

PC Sta.10+48.133

S 19°22'04" E

PT Sta.10+98.476

BEGIN TAPER LT & RT

TS Sta.18+66.212

SC Sta.19+06.212

CS Sta.19+91.474

PC Sta. 10+44.972

JESSE ANDERSON & SON CONTRACTORS, INC
AKA JESSE ANDERSON & SON, INC.
DB 1911PG 278
BOM 4 PG 390

BONNIE GILLIS RIMMER
DB 292 PG 726
PB 15 PG 338

VENNIE LOU CLAYTON AND DOROTHY C. WATSON
DB 212 PG 559
BOM 6 PG 14
BOM 7 PG 266

ESTELLE P. WADE
DB 99 PG 486

JOYCE B. WADE, WIDOW
DB 432 PG 836
DB 195 PG 29
BOM 5 PG 118

JOYCE B. WADE, WIDOW
DB 432 PG 836
DB 111 PG 616
BOM 12 PG 111

LOYD MOORE MITCHELL & RED HEN TRUST
DB 615 PG 167
BOM 4 PG 63

MAXINE D. CALL
DB 109 PG 267

JUDY AND JAMES LEE
DB 223 PG 289
BOM 10 PG 4

EDWARD ANDERSON 7.0
DB 642 PG 110

PT Sta. 10+67.155

PT Sta. 10+53.617

POT Sta.18+16.673 -L- =
POT Sta.11+60.408 -Y6-

PC Sta. 10+15.577

BEGIN CONSTRUCT
PT Sta.10+45.090

END CONSTRUCTION 11+00
POC 11+00.000 -Y5-

11+00

20+00

19+00

MATCHLINE STA. 17+00 -L- SEE SHEET 5

MATCHLINE STA. 20+60 -L- SEE SHEET 7

NAD 83 NC GRID

US 501

SR 1586 HENDERSON RD

ASPHALT DRIVE

RIGHT TURN TAPER

SPECIAL DITCH GRADE
W/CL 'B' RIPRAP
SEE PROFILE FOR GRADE
STA 10+80 LT TO STA 10+68 LT -Y5-
SEE DETAIL #22

LAT 0.9M BASE DITCH
W/7.5M BERM LINED
W/CLASS 'B' RIPRAP
STA 19+60 RT TO
STA 20+80 RT -L-
FET DDE = 236.85 CM
SEE DETAIL #4

18 x 7 x 1
38 mm Skimmer
with 27 mm
Orifice Diameter
4.5 m weir
ID 6.1C

15-AUG-2012 11:00
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adhiller

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2241A	EC-38/CONST.7
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		

NAD 83 NC GRID

17 x 10 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
7.5 m weir
ID 7.1F

8 x 3 x 1
38 mm Skimmer
with 9 mm
Orifice Diameter
1.5 m weir
ID 7.2F

21+00 22+00 23+00 24+00

ENERGY DISSIPATOR
SEE DETAIL SHEET # 2H

+96.000
38.100 m
(125.000')

CLASS 'II' RIPRAP
ON BANKS ONLY
EST 52 MTONS
EST FF 53 SM +96.000
SEE DETAIL #20 27.432 m
(90.000')

TOE PROTECTION
FF= SM
STA 19+91 LT TO
STA 21+26 LT -L-
SEE DETAIL #8

+96.000
15.240 m
(50.000')

+80.000
27.432 m
(90.000')

RONALD R. SHELTON
DB 308 PG 167
BOM 8 PG 115

600mm STONE WALL

N71°29'07"E
30.209

N18°30'53"W
60.285

S18°30'53"E
60.285

I½SBKD

+20.000
17.069 m
(56.000')

900mm CONC

PROPOSED
ASPHALT
DRIVE

+40.000
17.069 m
(56.000')

+60.000
21.031 m
(69.000')

Place Matting for Erosion Control on Slope as Work Allows.

+00.000
24.994 m
(82.000')

WOODY & ANDERSON PROPERTIES, INC
DB 241PG 713

END CONSTRUCTION
POT STA 10+34.38 -DRI-

+58.000
35.052 m
(115.000')

+58.000
26.822 m
(88.000')

PC Sta.
10+25.718

ROBERT W. WALKER
DB 74 PG 114

N70°12'06"E
30.560

ISBKD

POT Sta. 10+86.457

POT Sta. 10+34.55

+68.000
35.052 m
(115.000')

U.G. SEPTIC LINE AS MARKED BY
PERSON COUNTY HEALTH
DEPARTMENT

+68.00
24.431 m
(80.153')

DO NOT DISTURB
EXISTING
SEPTIC LINES

+87.592
26.858 m
(88.116')

+87.682
23.854 m
(78.261')

+20.000
25.908 m
(85.000')

MATCHLINE STA. 20+60 -L- SEE SHEET 6

MATCHLINE STA. 24+20 -L- SEE SHEET 8

750
RCP-IV CB (0701)

450 RCP-IV

150 CONC.C&G

375 RCP-IV

GRAU 350

0.043
N18°30'53"W
R/W-EIP

0.675
S18°30'53"E
R/W-EIP

BL-8

EXISTING R/W

-L-
US 501
N 72°04'26.6"E

-DRI-
N 71°54'34"W
30.48m
(100.000')

BY6-1

DET2-

BL-9

2-1.8 X 1.8 CONC

NC 49 VIRGINIA RD.T.O BST

750 CONC.C&G

T2-2-

T2-3-

PDE

2@2.4Mx2.4M
RCBC

+96.000
EX. R/W

+96.000
25.908 m
(85.000')

+96.000
38.100 m
(125.000')

CLASS 'II' RIPRAP
EST 60 TONS
EST FF 85 SM
SEE DETAIL #20

TOE PROTECTION
FF= SM
STA 19+91 RT TO
STA 21+40 RT -L-
SEE DETAIL #8

+74.000
28.346 m
(93.000')

+74.000
38.100 m
(125.000')

+80.000
25.908 m
(85.000')

+00.000
19.812 m
(65.000')

+40.000
15.240

+40.000
19.812 m
(65.000')

+00.000
24.994 m
(82.000')

+80.001
15.240 m
(50.000')

+00.000
22.555 m
(74.000')

Place Matting for Erosion Control on Slope as Work Allows.

U.G. SEPTIC LINE AS MARKED BY
PERSON COUNTY HEALTH DEPARTMENT

DO NOT DISTURB EXISTING
SEPTIC LINES

POT Sta.23+62.719 -L- =
POT Sta.10+02.485 -DRI-

MAXINE D. CALL
DB 109 PG 267

PROPERTY LINE IS CENTER LINE OF CREEK

LAT .09M BASE DITCH
W/1.5M BERM LINED
W/CLASS 'B' RIPRAP
STA 19+60 RT TO
STA 20+80 RT -L-
EST DDE = 236.85 CM
SEE DETAIL #4

I½SFD

TIMOTHY HARRIS
CHERYL CAVALIER
DB 305 PG 780

S70°30'59"W
30.480

WOODY & ANDERSON PROPERTIES, INC
DB 241PG 713

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adhollan
RENV2447768

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-39/CONST.8
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

NAD 83 NC GRID

WOODY & ANDERSON PROPERTIES, INC
DB 241PG 713

(35)

TODD N. WILBOURNE
TONYA H. WILBOURNE
DB 360 PG 350

(40)

(43)
(TRACT H)
BOBBY J. HICKS
DELORES C. HICKS
09-E-428, HARNETT COUNTY

ODELIA P. GENTRY HEIRS
09-E-428, HARNETT COUNTY

(41)

ODELIA P. GENTRY HEIRS
09-E-428, HARNETT COUNTY

WOODY & ANDERSON PROPERTIES, INC
DB 241PG 713

-L- SEE SHEET 7

MATCHLINE STA. 24+20 -L- SEE SHEET 7

MATCHLINE STA. 27+60 -L- SEE SHEET 9

TS Sta.24+28.188

BEGIN C/A & WW FENCE -L- STA. 24+49.39

BEGIN C/A & FENCE -L- STA. 25+31.98

SC Sta.25+43.188

BEGIN C/A & WW FENCE Sta. 26+24.173

END C/A & WW FENCE Sta. 26+31.694

BEGIN C/A & WW FENCE Sta. 26+53.594

END C/A & WW FENCE Sta. 26+62.078

CS Sta.26+90.078

N 72° 04' 26.6" E

S 73° 46' 25" W
64.00ft

S 86° 59' 01" E
83.16ft

N 35° 52' 00" W
22.45ft

N 35° 52' 00" W
83.13ft

N 35° 52' 00" W
64.00ft

750 CONC.C&G

375 RCP-IV

600 RCP-IV

450 RCP-IV

450 CONC.C&G

450mm CONC REMOVE

PLUG & FILL

EXISTING R/W

1200mm WOVEN WIRE FENCE

286 TAPER (LANE SHIFT)

45 LEFT TURN TAPER MED RT

45 RIGHT TURN TAPER RT

BL-10

BL-11

450 W/ 2 ELBOWS

GRAU 350

(CHORD)

CLASS 'B' RIPRAP

CLASS B RIR RAP

CLASS I RIPRAP ON BANKS ONLY 9.0 MTONS FF=20 SM SEE DETAIL #20

LAT 0.6M BASE DITCH LINED W/CL 'B' RIPRAP STA 24+80 TO STA 25+01 -L- RT EST DDE =14.61 CM SEE DETAIL #7

'V' DITCH DDE=30CM SEE DETAIL #5

GRADE TO DRAIN

ACCESS POINT

ISBKD

1V2SFD

BY6-2

US 501

NC #9 VIRGILINA RD

Place Matting for Erosion Control on Slope as Work Allows.

12 x 4 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
1.5 m weir
ID 8.5F

15 x 3 x 1
ID 8.3F

15 x 3 x 1
ID 8.4F

13 x 7 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
4.5 m weir
ID 8.1F

26+00

27+00

13-AUG-2012 lis03
C:\Projects\R-2241A_ENG\Design\R2241A_EC_pshOB.dgn
Roadlite.cfg
RENAME 2241A168

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-40/CONST.9
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

MATCHLINE STA. 12+40 -Y7- SEE SHEET 24

MATCHLINE STA. 27+60 -L- SEE SHEET 8

MATCHLINE STA. 31+20 -L- SEE SHEET 10

MATCHLINE STA. 14+80 -Y8- SEE SHEET 25

SHEET 10

NAD 83 NC GRID

GPS R-2241A-3

GPS R-2241A-4

POC Sta.12+59.8 -Y7- = POT Sta.10+00.000 -Y9-

PT Sta.12+68.088

PC Sta.10+07.063

PT Sta.10+91.415

PC Sta.11+11.352

PT Sta.12+46.060

TS Sta.30+49.209

PC Sta.14+33.648

POT Sta.28+47.500 -L-

POT Sta.14+03.462 -Y7 & Y8-

POC Sta.28+05.078

POT Sta.28+10.000

10 x 5 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
2.5 m weir
ID 9.2F

8 x 4 x 1
38 mm Skimmer
with 9 mm
Orifice Diameter
1.5 m weir
ID 9.3F

21 x 7 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
4.5 m weir
ID 9.1F

16 x 6 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
3.5 m weir
ID 9.4F

SEE PROFILE FOR GRADE
SEE DETAIL #22

SPECIAL DITCH W/PSRM
SEE PROFILE FOR GRADE
STA 11+66 LT TO 11+90 LT -Y9-
SEE DETAIL #23

SPECIAL DITCH W/PSRM
SEE PROFILE FOR GRADE
STA 11+66 RT TO 11+90 RT -Y9-
SEE DETAIL #23

0.6M BASE TAIL DITCH
DDE=30 CM
SEE DETAIL #1

0.6M BASE HEAD DITCH
DDE=18 CM
SEE DETAIL #1

CLASS 'B' RIPRAP

Place Matting for Erosion Control on Slope as Work Allows.

1200mm WOVEN WIRE FENCE

286 TAPER (LANE SHIFT)

50 TAPER

150 TAPER

16.667 TAPER

45 RIGHT TURN TAPER

BEGIN LEFT TURN TAPER

REMOVE

GRADE TO DRAIN

SEPTIC REPAIR AREA

U.G. SEPTIC LINE AS MARKED BY PERSON COUNTY HEALTH DEPARTMENT

US 501

SR 1532 THORTON RD.

EXISTING R/W

50' ACCESS EASEMENT

450 CONC.C&G

(TRACT A)
(TRACT B)
(TRACT D)
(TRACT E)
(TRACT F)
(TRACT H)
(TRACT I)

10-AUG-2012 15:44
R:\Eng\proj\Div 8\R2241A_EC_psh09.dgn
psheldon
R-2241A NEW 2497.08

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-41/CONST.10
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

NAD 83 NC GRID

MATCHLINE STA. 31+20 -L- SEE SHEET 9

MATCHLINE STA. 15+20 -Y9- SEE SHEET 26

MATCHLINE STA. 34+80 -L- SEE SHEET 11

PCSta.13+13.649

BURLEY W. DUNN
DB 188 PG 749
DB 36 PG 557
DB 107 PG 74

MARIAN CLAYTON WHITT
DB 411 PG 607
PB 14 PG 99
PB 14 PG 100

NELLIE R PENTECOST
DB 176 PG 86
DB 80 PG 469
DB 198 PG 594
DB 58 PG 464
BOM 7 PG 335
BOM 5 PG 141
BOM 1PG 143 BOM 1PG 143

-L- SCSta.31+29.209

-L- STSta.33+57.914

CSSta.32+29.914

-Y9-

SR 1531 PROVIDENCE RD 6.3 BST

23 x 5 x 1
ID 10.4F

STD. BERM DITCH
STA. 32+10 LT -L-

12 x 5 x 1
ID 10.6F

14 x 5 x 1
ID 10.3F

10 x 5 x 1
ID 10.5F

9 x 4 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
1.5 m weir
ID 10.1F

12 x 3 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
1.5 m weir
ID 11.1F

6 x 6 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
3.5 m weir
ID 10.2F

PREFORMED SCOUR HOLE
BASE=1.4M
SEE DETAIL SHEET # 2H

TRANSITION STONE
CLASS 'B' RIPRAP
EST=4.0 MTONS

1200mm WOVEN WIRE FENCE

REMOVE

BDO

PDE

TLBE

WELBOW

GRAU 350

BL-14=BY7

BL-15

BL-16

BL-17

BY7-4

T4-4-

T4-5-

ACCESS POINT

END C/A & WW FENCE Sta. 33+25.000

BEGIN C/A & WW FENCE Sta. 33+43.288

STEPHEN D. GARRETT
DB 278 PG 896
BOM 11PG 13-B

ALMEADE G. GARRETT et al
DB 311 PG 448
BOM 21PG 143

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METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2241A	EC-42/CONST.II
CONST.REV.	R /W SHEET NO.	
R /W REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83 NC GRID

MATCHLINE STA. 34+80 –L– SEE SHEET 10

MATCHLINE STA. 38+40 –L– SEE SHEET 12

-L- US 501

35+00

36+00

37+00

38+00

NELLIE R. PENTECOST
DB 176 PG 86
DB 80 PG 469
DB 198 PG 594
DB 58 PG 464
BOM 7 PG 335
BOM 5 PG 141
BOM 1 PG 143

64

HOWARD T. SMITH
DB 143 PG 619
DB 176 PG 92
BOM 1PG 143

63

MARY P. SMITH
DB 232 PG 389
BOM 8 PG 72-3

66

SYBIL P. WOOTEN
DB 232 PG 387
BOM 8 PG 72-3

67

MARY P. SMITH
DB 232 PG 389
BOM 8 PG 72-3

68

ALMEADE G. GARRETT et al
DB 311 PG 448
BOM 21PG 143

62

CHARLES E. PERKINS
DB 204 PG 850
BOM 5 PG 607

69

22 x 7 x 1
38 mm Skimmer
with 33 mm
Orifice Diameter
4.5 m weir
ID 11.2F

10 x 10 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
7.5 m weir
ID 11.4F

12 x 5 x 1
38 mm Skimmer
with 18 mm
Orifice Diameter
2.5 m weir
ID 11.4C

16 x 7 x 1
38 mm Skimmer
with 27 mm
Orifice Diameter
4.5 m weir
ID 11.5C

12 x 3 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
1.5 m weir
ID 11.1F

10 x 5 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
2.5 m weir
ID 11.3F

10 x 5 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
2.5 m weir
ID 11.5F

LAT 0.6M BASE DITCH W/1.5M BERM LINED W/ CLASS 'B' RIPRAP STA 35+20 LR TO STA 36+17 LT –L– EST DDE=561.41 CM SEE DETAIL #7

LAT '0.6M' BASE DITCH W/1.5M BERM LINED W/CLASS 'B' RIPRAP STA 37+40 LT TO STA 37+60 LT –L– EST DDE=33.25 CM SEE DETAIL #7

CLASS 'II' RIPRAP EST 45.0 MTONS EST FF 70 SM SEE DETAIL #20

CLASS 'II' RIPRAP ON BANKS ONLY 3.0 MTONS FF=26 SM SEE DETAIL #20

PREFORMED SCOUR HOLE BASE=1.4M SEE DETAIL SHEET # 2H

END FENCE +19.840

BEGIN FENCE +30.800

BEGIN SHOULDER BERM GUTTER +40.00 LT

END SHOULDER BERM GUTTER +60.00 LT

END SHOULDER BERM GUTTER +81.01 RT

BEGIN FENCE +01.240

END FENCE +91.760

1200mm WOVEN WIRE FENCE

T @ 2.7m X 1.8m RCBC W/SILLS

CAT-1

T4-1

T4-2

T4-3

2GI W/FLAT GRATE

375 W/ ELBOW

BDO

PDE

CLASS 'B' RIPRAP

TRANSITION STONE CLASS 'B' RIPRAP EST 3.0 MTONS

1.2M HEAD BASE DITCH DDE=5CM SEE DETAIL #9

TOE PROTECTTION STA 37+34 RT TO STA 37+51 RT –L– SEE DETAIL #8

SPECIAL DITCH GRADE SEE PROFILE FOR GRADE STA 37+56 (SAG) TO STA 37+80 MED –L–

TOE PROTECTTION STA 35+00 RT TO STA 35+80 RT –L– SEE DETAIL #8

STD BERM DITCH STA 36+20 RT TO STA 36+80 RT –L–

BL-18

BL-19

BL-20

END C/A & WW FENCE Sta. 36+97.472

BEGIN C/A & WW FENCE Sta. 37+17.257

ACCESS POINT

-L- PCSta 37+95.343

APPROXIMATE CL OF PRIMARY CBRL

APPROXIMATE CL OF CBRL

10-AUG-2012 11:44
R-2241A_EC_pshl1.dgn
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METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2241A	EC-43/CONST.12
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		

NAD 83 NC GRID

MATCHLINE STA. 38+40 -L- SEE SHEET 11

MATCHLINE STA. 42+00 -L- SEE SHEET 13

15 x 10 x 1
38 mm Skimmer
with 33 mm
Orifice Diameter
7.5 m weir
ID 12.1F

10 x 5 x 1
ID 12.2F

MARY P. SMITH
DB 232 PG 389
BOM 8 PG 72-3

MIRIAM J. LAVELLE
AND HUSBAND
CHARLES F. SAMS, JR.
DB 215 PG 757
BOM 4 PG 597

NADINE IRENE DIXON ET AL
DB 266 PG 148
PB 6 PG 81-1
DB 680 PG 810

CHARLES E. PERKINS
DB 204 PG 850
BOM 5 PG 607

CHARLES E. PERKINS
DB 337 PG 519
BOM 8 PG 22-5

END FENCE +08.490
ENERGY DISSIPATOR
SEE DETAIL SHEET # 2H

BEGIN FENCE +10.040

CLASS 'II' RIPRAP
ON BANKS ONLY
+/-4.0 MTONS
FF= +/-.36 SM
SEE DETAIL #20

1500 RCP CLASS IV
W/METHOD 'B'
INSTALLATION

1200mm WOVEN WIRE FENCE

END C/A & WW FENCE Sta. 40+90.000

BEGIN C/A & WW FENCE Sta. 41+08.000

END C/A & WW FENCE Sta. 41+72.950

BEGIN C/A & WW FENCE Sta. 41+91.238

ACCESS POINT

POT Sta. 41+29.428

POT Sta. 10+00.000

PC Sta. 10+36.752

PT Sta. 10+51.088

POT Sta. 10+64.941

END CONSTRUCTION
POT STA 10+58.864 -DR6-

END FENCE +62.580

BEGIN FENCE +64.060

CL 'II' RIPRAP
(BANKS ONLY)
+/- 1.7 MTONS
FF +/- 2.1 SM
SEE DETAIL #20

GRAU 350

TYPE 'A'

CAT-1

-L- US 501

-DR6-

T3-1-

T3-2-

T3-3-

BL-21

BL-22

BL-23

BL-24

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PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-44/CONST.J3
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

NAD 83 NC GRID

MATCHLINE STA. 42+00 -L- SEE SHEET 12

MATCHLINE STA. 45+60 -L- SEE SHEET 14

NADINE IRENE DIXON ET AL
DB 266 PG 148
PB 6 PG 81-1
DB 680 PG 810

71

10 x 5 x 1
ID 12.2F

10 x 5 x 1
ID 12.2F

CHARLES E. PERKINS
DB 204 PG 850
BOM 5 PG 607

69

43+00

44+00

45+00

END C/A & WW FENCE Sta. 43+40

ACCESS POINT

BEGIN C/A & WW FENCE Sta. 43+58

73

BERTHA HAYES CLAY
DB 154 PG 464

1200mm WOVEN WIRE FENCE

-L-
US 501

N 32° 37' 31.6" E

BEGIN LEFT TURN TAPER
+/-1800'

STD BERM DITCH
STA 42+10 RT TO
STA 44+40 RT -L-

BL-25

BL-26

-L- PT Sta. 44+21.056

72

CHARLES E. PERKINS
DB 337 PG 519
BOM 8 PG 22-5

10 x 5 x 1
ID 12.2F

69

CHARLES E. PERKINS
DB 204 PG 850
BOM 5 PG 607

73

BERTHA HAYES CLAY
DB 154 PG 464

18.288 (60') ACCESS EASEMENT

3D SOIL

S83°33'08"E 18.288

S83°33'08"E 5.409

N16°10'48"W 70.398

S87°50'08"E 551.426

2GI

150 W/ ELBOW

BDO

375

600

60.96m (200.00')

10-AUG-2012 08:48
R:\Environmental\Projects\R2241A\EC_psh13.dgn
Bentley MicroStation V8 XM Edition

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-45/CONST.14
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC

5 0 10

NAD 83 NC GRID

END C/A & WW FENCE STA. 10+20.00

BY10-2

ALLIE CLAY RD. SR 1524

BEGIN CONST. POT Sta. 10+20.000 -Y12-

BEGIN C/A & WW FENCE STA. 10+20.00

10 x 5 x 1 38 mm Skimmer with 15 mm Orifice Diameter 2.5 m weir ID 14.4F

14 x 8 x 1 38 mm Skimmer with 27 mm Orifice Diameter 5.5 m weir ID 14.1F

17 x 8 x 1 38 mm Skimmer with 30 mm Orifice Diameter 5.5 m weir ID 14.2F

8 x 4 x 1 38 mm Skimmer with 9 mm Orifice Diameter 1.5 m weir ID 14.3F

25 x 5 x 1 38 mm Skimmer with 27 mm Orifice Diameter 2.5 m weir ID 14.5F

35 RIGHT TURN TAPER

10 TAPER

+20.000 @ EX. R/W

+30.000 15.850 m (52.000')

+57.933 @ EX. R/W

+80.000 27.336 m (70.000')

+80.000 18.288 m (60.000')

+50.000 39.624 m (130.000')

+50.000 30.480 m (100.000')

+40.000 30.480 m (100.000')

+40.000 35.052 m (115.000')

+80.000 39.624 m (130.000')

+00.000 39.624 m (130.000')

+10.000 30.480 m (100.000')

+70.000 -L- 39.624 m (130.000')

+90.000 14.272 m (46.824')

+85.000 17.775 m (58.316')

+00.000 EX. R/W

+20.000 13.716 m (45.000')

+35.000 -L- 30.480 m (100.000')

+55.000 17.374 m (57.000')

+63.000 17.374 m (57.000')

+25.000 EX. R/W

+00.000 14.021 m (46.000')

46+00

47+00

48+00

49+00

S 47° 24' 32.8" E

N43°05'04"E 55.205

N43°05'04"E 54.653

S46°32'25"E 32.005

S46°32'25"E 32.005

POT Sta. 47+01.527 -L- = POT Sta. 11+25.690 -Y12- & -Y13-

BEGIN C/A & WW FENCE Sta. 12+02.245

END C/A & WW FENCE Sta. 12+22.744

12+00

ACCESS POINT

REMOVE

CLASS 'B' RIPRAP

CLASS 'I' RIPRAP ONLY ON BANKS 9.0 MTONS FF=20 SM SEE DETAIL #20

CLASS 'II' RIPRAP ONLY ON BANKS 9.0 MTONS FF=20 SM SEE DETAIL #20

SPECIAL LAT 'V' DITCH LINED W/CLASS 'B' RIPRAP STA 46+60 LT TO STA 46+92 LT -L- SEE DETAIL #11

SPECIAL LAT 'V' DITCH LINED W/CLASS 'B' RIPRAP STA 46+20 RT TO STA 46+76 RT -L- SEE DETAIL #11

0.9M HEAD DITCH LINED W/CLASS 'B' RIPRAP 10 MTONS DDF=12CM SEE DETAIL #10

STD BERM DITCH LINED W/ CLASS 'B' RIPRAP STA 47+40 LT TO 48+80 LT -L- SEE DETAIL #13

1200mm WOVEN WIRE FENCE

BERTHA HAYES CLAY DB 154 PG 464

CHARLIE V. JEFFERS & BEVERLY W. JEFFERS DB 197 PG 435 BOM 5 PG 40

CHARLIE V. & BEVERLY W. JEFFERS DB 197 PG 435 BOM 5 PG 40

AUSTIN B. CLAY HEIRS DB 180 PG 829

GEORGE LEON CLAY DB 115 PG 626

BERTHA HAYES CLAY DB 154 PG 464

BL-27=BY10

BL-28

PREFORMED SCO BASE=1.8M SEE DETAIL SHEET

450 W/ ELBOW

BDO

450mm CONC

600mm CONC

US 501

-L-

-Y13-

-Y12-

MATCHLINE STA. 45+60 -L- SEE SHEET 13

MATCHLINE STA. 49+20 -L- SEE SHEET 15

MATCHLINE STA. 12+30 -Y13- SEE INSET THIS SHEET

MATCHLINE STA. 12+30 -Y13-

BEGIN C/A & WW FENCE STA. 12+40.000 9.104 m (29.869')

END CONST. -Y13- POT Sta. 13+25.000

END C/A & WW FENCE STA. 12+40.000 9.184 m (30.131')

BERTHA CLAY DB 116 PG 71 BOM 14, PG 185

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Revision 11 (REV12/13/12)

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-46/CONST.15
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

NAD 83 NC GRID

MATCHLINE STA. 49+20 -L- SEE SHEET 14

MATCHLINE STA. 52+80 -L- SEE SHEET 16

AUSTIN B. CLAY HEIRS
DB 180 PG 829

RONALD E. THOMAS, JR AND WIFE, JODI R. THOMAS
DB 775 PG 607

50+00

51+00

52+00

END C/A & WW FENCE Sta. 49+66.888

BEGIN C/A & WW FENCE Sta. 49+85.176

ACCESS POINT

+60.000
38.100 m
(125.000')

13 x 6 x 1
ID 15.4F

+00.000
30.480 m
(100.000')

LAT 0.6M BASE DITCH W/CLASS 'B' RIPRAP STA 50+81 TO STA 51+04 -L- LT
DDE = 72.23
SEE DETAIL #7

BEGIN SHOULDER BERM GUTTER +80.000 LT

TOE PROTECTION STA 50+55 LT TO STA 50+81 LT -L- SEE DETAIL #8

TRANSITION STONE CLASS 'B' RIPRAP 5.0 MTONS

+40.000
35.052m
(115.000')

18 x 9 x 1
38 mm Skimmer with 33 mm Orifice Diameter
6.5 m weir
ID 15.1C

+00.000
39.624m
(130.000')

+93.383
33.528 m
(110.000')

78Z

14 x 7 x 1
38 mm Skimmer with 24 mm Orifice Diameter
4.5 m weir
ID 15.2C

CLASS 'II' RIPRAP ON BANKS ONLY
3.5 MTONS
FF=36 SM

+17.000
33.528 m
(110.000')

8 x 5 x 1
38 mm Skimmer with 12 mm Orifice Diameter
2.5 m weir
ID 15.3C

POND

10 x 12 x 1
38 mm Skimmer with 27 mm Orifice Diameter
9.5 m weir
ID 15.4C

END SHOULDER BERM GUTTER 80.000 LT

+00.000
38.100m
(125.000')

+20.000
30.480m
(100.000')

CL 'B' RIPRAP

1200mm WOVEN WIRE FENCE

CLASS 'B' RIPRAP

PREFORMED SCOUR HOLE BASE=1.2M
SEE DETAIL SHEET # 2H
GRAU 350

+40.000
30.480 m
(100.000')

+95.457
30.480 m
(100.000')

+17.000
33.480 m
(110.000')

CAT-1

375 W/ ELBOWS

2GI W/FLAT GRATE

2GI W/FLAT GRATE

2GI

-L-

N 32° 37' 31.6" E

US 501

60.96m
(200.00')

GRAU 350

HW

CAT-1

TOE PROTECTION STA 50+50 RT TO STA 51+20 RT -L- SEE DETAIL #8

TOE PROTECTION STA 51+70 RT TO STA 51+90 RT -L- SEE DETAIL #8

@ PROP. LINE
30.48m
(100')

BL-30

BL-29

1200mm WOVEN WIRE FENCE

10 x 5 x 1
ID 15.2F

SPECIAL DITCH GRADE W/CLASS 'B' RIPRAP SEE PROFILE FOR GRADE STA 49+80 RT TO STA 50+00 RT -L- SEE DETAIL #22

10 x 5 x 1
ID 15.3F

PREFORMED SCOUR HOLE BASE=1.4M
SEE DETAIL SHEET # 2H

CLASS 'H' RIPRAP FF=
SM

9 x 4 x 1
38 mm Skimmer with 12 mm Orifice Diameter
1.5 m weir
ID 15.5F

12 x 4 x 1
38 mm Skimmer with 15 mm Orifice Diameter
1.5 m weir
ID 15.1F

+36.92
PROP. LINE

+49.78
PROPERTY CORNER

+80.000
42.672m
(140.000')

+63.156
39.624m
(130.000')

0.6M BASE HEAD DITCH LINED W/CLASS 'B' RIPRAP
DDE=20 CM
EST=8.0 MTONS
SEE DETAIL #14

WILLIE M. DIXON
CLYDE C. DIXON
DB 154 PG 437
BOM 21PG 272

LONZY C. DIXON
DB 154 PG 439
BOM 21PG 272

+20.000
30.480m
(100.000')
ACCESS POINT

END C/A & WW FENCE Sta. 52+26.430

BEGIN C/A & WW FENCE Sta. 52+44.918

RONALD E. THOMAS, JR AND WIFE, JODI R. THOMAS
DB 775 PG 607

CHARLIE V. JEFFERS & BEVERLY W. JEFFERS
DB 197 PG 435
BOM 5 PG 40

AUSTIN B. CLAY HEIRS
DB 180 PG 829

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PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-47/CONST.16
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

NAD 83 / NC GRID

MATCHLINE STA. 52+80 -L- SEE SHEET 15

MATCHLINE STA. 56+40 -L- SEE SHEET 17

53+00 54+00 55+00 56+00

-L- US 501

N 32° 37' 31.6" E

14 x 7 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
4.5 m weir
ID 16.2C

18 x 8 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
5.5 m weir
ID 16.3F

10 x 4 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
1.5 m weir
ID 16.1C

8 x 4 x 1
38 mm Skimmer
with 9 mm
Orifice Diameter
1.5 m weir
ID 16.1F

10 x 5 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
2.5 m weir
ID 16.2F

8 x 4 x 1
ID 17.3F

8 x 4 x 1
ID 17.3F

0.9M BASE TAIL DITCH
DDE=9 CM
SEE DETAIL #2

0.6M BASE TAIL DITCH
DDE=10 CM
SEE DETAIL #1

CLASS 'II' RIPRAP
ON BANKS ONLY
6.5 MTONS
FF=15 SM

TRANSITION STONE
CLASS 'B' RIPRAP
5.0 MTONS

TOE PROTECTION
STA 53+51 LT TO
STA 53+67 LT -L-
SEE DETAIL #8

TOE PROTECTION
STA 53+12 RT TO
STA 53+20 RT -L-
SEE DETAIL #8

CLASS 'II' RIPRAP
(ON BANKS ONLY)
+/-1.7 MTONS
FF +/-2.1 SM

CLASS 'B' RIPRAP
GRAD 350

RONALD E. THOMAS, JR AND
WIFE, JODIR. THOMAS
DB 775 PG 607
(78)

JAMES F. SHOTWELL, JR.
DB 136 PG 469
(80)

END C/A & WW FENCE Sta. 55+61.088

ACCESS
POINT

BEGIN C/A & WW FENCE Sta. 55+80.841

1200mm WOVEN WIRE FENCE

STD BERM DITCH
STA 55+00 RT TO
STA 56+40 RT -L-

BL-31

BL-32

FS (EL. 192.25)

+40.000
30.480m
(100.000')

+60.000
39.624m
(130.000')

+80.000
36.576 m
(120.000')

+60.000
35.052m
(115.000')

+80.000
35.052 m
(115.000')

+80.000
30.480 m
(100.000')

+40.000
38.100 m
(125.000')

+80.000
42.672 m
(140.000')

+00.000
48.769 m
(160.003')

+40.000
45.720 m
(150.000')

+80.000
47.244 m
(155.000')

+15.000
30.480m
(100.000')

+25.000
30.480 m
(100.000')

+15.000
41.148 m
(135.000')

+20.000
45.110 m
(148.000')

+25.000
41.148 m
(135.000')

10-AUG-2012 12:02
R:\EC\Drainage\Hydraulics\R2241A_EC_pshi6.dgn
jwilson

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-48/CONST.17
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

NAD 83 NC GRID

MATCHLINE STA. 56+40 -L- SEE SHEET 16

MATCHLINE STA. 60+00 -L- SEE SHEET 18

JAMES F. SHOTWELL, JR.
DB 136 PG 469

PAUL S. BARNETT ESTATE
ADMINISTRATIVE BOOK 4 PG 33
DB 37 PG 393
DB 181 PG 706
PB 2 PG 35

KEITH L. BARNETTE
DB 210 PG 97
BOM 1PG 157

-L- PC Sta. 57+58.712

-L- POC Sta. 59+88.133 LB =
-L- PT Sta. 59+87.530 LA

-L- US 501

8 x 4 x 1
ID 17.3F

8 x 4 x 1
38 mm Skimmer
with 9 mm
Orifice Diameter
1.5 m weir
ID 17.1F

12 x 6 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
3.5 m weir
ID 17.4F

28 x 7 x 1
38 mm Skimmer
with 33 mm
Orifice Diameter
4.5 m weir
ID 17.2F

28 x 7 x 1
38 mm Skimmer
with 33 mm
Orifice Diameter
4.5 m weir
ID 17.5F

CLASS 'I' RIPRAP
ON BANKS ONLY
3 MTONS
FF=30 SM
SEE DETAIL #21

TRANSITION STONE
CLASS 'B' RIPRAP
EST=6.0 MTONS

1200mm WOVEN WIRE FENCE

BEGIN SHOULDER
BERM GUTTER
+00.000 LT

END SHOULDER
BERM GUTTER
+80.000 LT

BEGIN SHOULDER
BERM GUTTER
+00.000 RT

END SHOULDER
BERM GUTTER
+00.000 RT

2GI W/FLAT
GRATE

1200 RCP CLASS IV
W/METHOD 'B'
INSTALLATION

CLASS 'B'
RIPRAP

LAT 0.6M BASE DITCH
W/1.5M BERM
LINED W/CLASS 'B' RIPRAP
STA 57+00 RT TO STA 58+20 RT -L-
EST DDE = 227.73 CM
SEE DETAIL #7

ACCESS
POINT

BEGIN C/A & WW FENCE Sta. 58+63.561

END C/A & WW FENCE Sta. 58+43.717

BEGIN LEFT TURN TAPER
+97.784

SPECIAL DITCH GRADE
W/PSRM
SEE PROFILE FOR GRADE
STA 58+40 RT TO
STA 58+60 RT -L-
SEE DETAIL #23

BL-33

BL-34

BL-35

BL-36

N 32° 37' 31.6" E

GRAU 350

CAT 18+

FS

2GI

HW

RCP-1200

RCP-1500

+40.000
36.576 m
(120.000')

+80.000
30.480 m
(100.000')

+42.000
40.843 m
(134.000')

+42.000
30.480 m
(100.000')

+50.000
42.062 m
(138.000')

+50.000
30.480 m
(100.000')

+58.712
30.480 m
(100.000')

+20.000
35.052 m
(115.000')

+00.000
33.528 m
(110.00')

+80.000
39.014 m
(128.00')

+88.133
30.480 m
(100.000')

+40.000
47.244 m
(155.000')

+00.000
36.576 m
(120.000')

+05.000
30.480 m
(100.00')

+40.000
34.138 m
(112.00')

+40.000
38.100 m
(125.000')

+20.000
35.052 m
(115.000')

+29.000
30.480 m
(100.00')

+40.000
33.528 m
(110.000')

+80.000
33.528 m
(110.000')

+60.000
42.672 m
(140.000')

+88.133
30.480 m
(100.000')

KEITH L. BARNETTE
DB 210 PG 97
BOM 1PG 157

JAMES F. SHOTWELL, JR.
DB 136 PG 469

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adholden
at RENV219788

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-49/CONST.18
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC

5 0 10

NAD 83 NC GRID

BEGIN CONSTRUCTION
POT Sta. 10+04.000 -Y14-

18 x 8 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
5.5 m weir
ID 18.1C

14 x 6 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
3.5 m weir
ID 18.2C

BARNETTE-TINGEN RD. SR 1522

10+00

11+00

12+00

61+00

62+00

63+00

U.G. SEPTIC LINE AS MARKED BY PERSON COUNTY HEALTH DEPARTMENT

CLASS 'B' RIPRAP

'V' TAIL DITCH DDE=12 CM SEE DETAIL #5

'V' TAIL DITCH DDE=18 CM SEE DETAIL #5

10 TAPER

+10.000 @ EX. R/W

+30.000 18.288 m (60.000')

+40.000 @ EX. R/W

+40.000 12.192 m (40.000')

+40.000 16.764 m (55.000')

BEGIN C/A Sta. 10+40.000 -L-

THOMAS A. PENTECOST
DB 162 PG 672

ACCESS POINT

+40.000 9.335 m (30.628')

BEGIN WW FENCE Sta. 10+52.000

REMOVE

BEGIN C/A & WW FENCE STA. 10+60.000 -Y14-

KEITH L. BARNETTE
DB 210 PG 97
BOM 1PG 157

+00.000 39.624 m (130.000')

+80.000 15.240 m (50.000')

+82.901 18.999 m (62.331')

+40.000 30.480 m (100.000')

30 RIGHT TURN TAPER

CLASS 'B' RIPRAP

+80.00 15.2400 m (50.000')

POT Sta. 60+75.808 -L-
POT Sta. 11+22.580 -Y14 & Y15-

+40.000 35.052 m (115.000')

+60.000 35.052 m (115.000')

KEITH L. BARNETTE
DB 210 PG 97
BOM 4 PG 36

1200mm WOVEN WIRE FENCE

BEGIN LEFT TURN TAPER +57.203

+05.000 30.480 m (100.000')

MATCHLINE STA. 60+00 -L- SEE SHEET 17

MATCHLINE STA. 63+60 -L- SEE SHEET 19

GPS R-2241A-6=

N 30° 44' 54" E

BL-37

BL-38

BL-39

US 501

IS RIBBON

GRAU 350

+40.000 30.480 m (100.000')

+00.000 38.100 m (125.000')

+80.000 15.240 m (50.000')

KEITH L. BARNETTE
DB 210 PG 97
BOM 1PG 157

END WW FENCE Sta. 11+97.156

ACCESS POINT

END C/A Sta. 12+05.924

+05.924 9.238 m (30.308')

+47.087 30.480 m (100.000')

+38.572 35.052 m (115.000')

+40.000 35.052 m (115.000')

30 RIGHT TURN TAPER

+87.221 15.692 m (51.482')

BEGIN C/A & WW FENCE STA. 12+00.000

RETAIN +20.000 EX. R/W

ROBERT MERRITT BOWES
DB 223 PG 138
BOM 3 PG 131

NORMA JEAN BOWES
LIFE ESTATE
DB 267 PG 465

CHARLES F. BROOKS
DB 204 PG 396
BOM 5 PG 566

EXIST. BARNETTE-TINGEN RD. SR 1522

END CONSTRUCTION
POT Sta. 12+20.00 -Y15-

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adhollen
AT REN\2241\768

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-50/CONST.19
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

NAD 83 / NC GRID

MATCHLINE STA. 63+60 -L- SEE SHEET 18

MATCHLINE STA. 67+20 -L- SEE SHEET 20

KEITH L. BARNETTE
DB 210 PG 97
BOM 1PG 157

ROBIN E. WRENN, et al
87-E-20

ROBIN EVANS WRENN
DB 205 PG 98
BOM 5 PG 615

18 x 8 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
5.5 m weir
ID 19.2C

30 x 7 x 1
38 mm Skimmer
with 36 mm
Orifice Diameter
4.5 m weir
ID 19.1F

17 x 6 x 1
ID 19.2

ACCESS POINT

BEGIN C/A & WW FENCE Sta. 64+64.374

END C/A & WW FENCE Sta. 64+46.086

END C/A & WW FENCE Sta. 66+99.362

BEGIN C/A & WW FENCE Sta. 67+17.650

+45.000 50.597m (166.000')

+69.000 52.426m (172.000')

+69.000 36.576 m (120.000')

+69.000 30.480m (100.000')

+59.000 36.296m (119.083')

+39.000 45.996m (150.906')

+44.000 35.877m (117.707')

+60.000 33.528 m (110.000')

+10.000 52.426m (172.000')

+10.000 36.576 m (120.000')

+80.000 36.576 m (120.000')

+00.000 33.528 m (110.00')

+70.000 36.576 m (120.000')

+70.000 30.480 m (100.000')

+00.000 30.480 m (100.000')

+60.000 32.004 m (105.000')

+40.000 36.576 m (120.000')

+44.750 36.576 m (120.000')

LAT 0.6M BASE DITCH W/1.5M BERM LINED W/CLASS 'B' RIPRAP STA 64+50 LT TO STA 65+70 LT -L- EST DDE = 380.50 CM SEE DETAIL #7

LAT 1.2M BASE DITCH W/1.5M BERM W/CL 'B' RIPRAP STA 65+70 LT TO STA 66+14 LT -L- EST DDE = 94.99 CM SEE DETAIL #24

LAT 0.9M BASE DITCH W/1.5M BERM W/PSRM STA 64+45 RT TO STA 65+60 RT -L- EST DDE = 251.46 CM SEE DETAIL #25

SPECIAL LAT 'V' DITCH LINED W/CLASS 'B' RIPRAP STA 63+80 LT TO STA 64+50 LT -L- SEE DETAIL #11

SPECIAL LAT 'V' DITCH STA 65+80 RT TO STA 66+00 RT -L- SEE DETAIL #6

CLASS 'B' RIPRAP

CLASS 'I' RIPRAP ON BANKS ONLY 6.2 MTONS FF=50 SM SEE DETAIL #20

CLASS 'I' RIPRAP ON BANKS ONLY 4.5 MTONS FF=36 SM SEE DETAIL #20

CLASS 'I' RIPRAP ON BANKS ONLY 8.5 MTONS FF=45.0 SM SEE DETAIL #20

CLASS 'I' RIPRAP ON BANKS ONLY 3.5 MTONS FF=30 SM SEE DETAIL #20

PREFORMED SCOUR HOLE BASE=1.2M SEE DETAIL SHEET # 2H

REMOVE POND

REMOVE 450 PIPE

REMOVE

1200mm WOVEN WIRE FENCE

TOE PROTECTION STA 64+00 RT TO STA 64+50 RT -L- SEE DETAIL #8

TDE

TSD

GRADE TO DRAIN

EARTH BERM ELEV=171.2

EX. R/W @ 30.480 m (100.000')

RETAIN

TIE CUL-DE-SAC DITCHES TO EXISTING 'V' DITCH

10 x 5 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
2.5 m weir
ID 19.3F

10 x 5 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
2.5 m weir
ID 19.5F

9 x 4 x 1
1.5 m weir
ID 19.4F

BEGIN CONSTRUCTION
POT STA.10+95.511 -Y16-

END CONSTRUCTION
POT STA.11+29.622 -Y16-

POT STA.11+72.360

POT STA.11+19.022 -Y16-, 7.62 LT
CENTER OF CUL-DE-CAC

CHARLES F. BROOKS
DB 204 PG 396
BOM 5 PG 566

MONTWOOD BAPTIST CHURCH
DB 307 PG 663
BOM 12 PG 79

POWELL
707
707
51-3

GEORGE RAYMOND CARTER
DB 153 PG 163

FORCE PROTECTION INDUSTRIES, INC.
DB 641 PG 814

ELMER MERRITT BOWES
DB 202 PG 570

PT Sta. 10+36.030

PC Sta. 10+95.511

-L- US 501

-DR7-

-Y16-

N 30° 44' 51.4" E

N 73° 20' 19" E

N 32° 01' 39" E

S 37° 54' 10" W 35.70

S 38° 26' 39" W 20.548

S 35° 20' 24" W 26.380

S 35° 42' 50" W 15.209

S 35° 05' 19" W 12.658

S 35° 37' 36" W 8.870

S 30° 30' 07" W 16.647

N 83° 34' 51" E 9.58

N 85° 24' 09" E 118.738

N 85° 24' 09" E 66.778

N 85° 24' 09" E 56.590

S 59° 56' 56" E 45.390

S 57° 59' 56" E 45.390

ISFD

ISBKO

GR

BL-40

BL-41

BL-42

SPRING BOX

JB w/Slab Lid

200 PVC

1350 PVC

450 mm CONC

375 mm CONC

EXISTING R/W

SR 1121 HALIFAX RD

BY14-1

10.7 R

5.0 R

10-AUG-2012 13:47
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adhollen
RENV2497768

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2241A	EC-51/CONST.20
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		

NAD 83 NC GRID

ROBIN EVANS WRENN
DB 205 PG 98
BOM 5 PG 615

N07°19'02"E
85.344

2SFD

91

8 x 4 x 1
ID 20.2F

68+00

69+00

70+00

T5-1-

CLASS 'II' RIPRAP
ON BANKS ONLY
EST 37.8 M
EST FF
SEE DETAI

END WW FENCE +

8 x 4 x 1
ID 20.1F

14 x 10 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
7.5 m weir
ID 20.7F

89

ROBIN E. WRENN, et al
87-E-20

BEGIN WW FENCE +80.312

SPECIAL LAT 'V' DITCH
STA 68+70 LT TO STA 68+77 LT -L-
SEE DETAIL #6

SPECIAL LAT 0.6M BASE DITCH
STA 68+80 LT TO 69+00 LT -L-
SEE DETAIL #17

CL 'B' RIPRAP

+20.000
32.004 m
(105.000')

+80.000
32.004 m
(105.000')

+00.000
30.480 m
(100.000')

+50.000
30.480 m
(100.000')

+80.000
39.625 m
(130.000')

+00.000
42.062 m
(138.000')

+20.000
30.480 m
(100.000')

+80.000
30.480 m
(100.000')

1200mm WOVEN WIRE FENCE

2GI
TYPE 'A'
EXISTING R/W

REMOVE

CULVERT CHANGES TO
1200 mm CONC UNDER ROAD
(CHANGEOVER POINT
NOT VISIBLE)

SR 1521 HALIFAX RD 5.8 RST

CLASS 'B'
RIPRAP

300mm PLASTIC

1.1.2 X 1.2 CONC

BL-43

-L-
US 501

N 30°44' 51.4" E

BEGIN WW FENCE
+01.803

T5-2-

T5-3-

CLASS 'B' RIP RAP

+06.500
39.624 m
(130.000')

SPEC LAT V-DITCH
STA 69+06 TO 69+10 -L- RT
SEE DETAIL #26

8 x 4 x 1
ID 20.3F

10 x 5 x 1
ID 20.4F

8 x 4 x 1
ID 20.6F

10 x 4 x 1
ID 20.5F

8 x 4 x 1
ID 20.9F

END WW FENCE
99.924

CLASS 'II' RIPRAP
(ON BANKS ONLY)
EST 27.8 MTONS
EST FF 43 SM

9 x 4 x 1
ID 20.10F

8 x 4 x 1
ID 20.11F

8 x 4 x 1
ID 20.8F

90

FORCE PROTECTION INDUSTRIES, INC.
DB 641 PG 814

MATCHLINE STA. 67+20 -L- SEE SHEET 19

MATCHLINE STA. 70+80 -L- SEE SHEET 21

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adholley
AT RENV2247768

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-52/CONST.21
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

NAD 83 NC GRID

-L- SEE SHEET 20

MATCHLINE STA. 70+80

-L- SEE SHEET 22

MATCHLINE STA. 74+40

EMILY BOHANNON
DB 138 PG 399
BOM 11PG 34

LILLIS LOFTIS et al
DB 340 PG 113

ALISSA K. CHAPMAN
DB 119 PG 313
BOM 11PG 34

FITZGERALD T. BOWES
LIFE ESTATE
DB 661PG 440
BOM 11PG 34

ROBIN E. WRENN, et al
87-E-20

FRIENDSHIP
FREEWILL
BAPTIST
CHURCH
DB 145 PG 69
BOM 11PG 34

MARTHA B. POWELL
DB 123 PG 462
BOM 11PG 34

D & J UPHOLSTERY
DB 255 PG 164

RICKY B. WILSON
TONYA R. WILSON
DB 668 PG 634
BOM 11PG 34

STEVEN BRIGGS
DB 150 PG 38
BOM 10 PG 70
WILL BOOK 07-E-265

FORCE PROTECTION INDUSTRIES, INC.
DB 641 PG 814

8 x 4 x 1
ID 22.2F

11 x 4 x 1
1.5 m weir
ID 21.1F

1200mm WOVEN WIRE FENCE

NOTE: DO NOT DISTURB TREE

MONOLITHIC ISLAND

161 LEFT TURN STORAGE

45 LEFT TURN TAPER

BEGIN LEFT TURN TAPER
+32.612

GRADE TO DRAIN

U.G. SEPTIC LINE AS MARKED BY
PERSON COUNTY HEALTH DEPARTMENT

SR 1521 HALIFAX RD

US 501

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User:shesterl
REN21778

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-53/CONST.22
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

NAD 83 NC GRID

MATCHLINE STA. 12+20 -Y17- SEE SHEET 27

MATCHLINE STA. 74+40 -L- SEE SHEET 21

MATCHLINE STA. 78+00 -L- SEE SHEET 23

US 501

SR 1521 HALIFAX RD 7.0 BST

EXISTING R/W

FUTURE NB LANES

FUTURE

10 x 5 x 1 ID 22.5F

8 x 4 x 1 ID 22.6F

10 x 5 x 1 ID 22.8F

12 x 6 x 1 ID 22.7F

8 x 4 x 1 ID 22.4F

10 x 5 x 1 ID 22.3F

8 x 4 x 1 ID 22.2F

0.6M BASE DITCH DDE=6.0 CM SEE DETAIL #1

REMOVE

45 RIGHT TURN TAPER

150 mm

300 mm

450 mm CONC

375 mm CONC

375 mm PVC

600 mm CONC

2400mm CHL 2SBW

1200mm WOVEN WIRE FENCE

200mm WOVEN WIRE FENCE

BEGIN C/A & WW FENCE Sta. 74+54.473

S30°58'15"W 60.997

U.G. SEPTIC LINE AS MARKED BY PERSON COUNTY HEALTH DEPARTMENT

STEVEN BRIGGS
DB 150 PG 38
BOM 10 PG 70
WILL BOOK 07-E-265

WINFRED CARLTON CLAYTON
DB 155 PG 140
DB 120 PG 46
BOM 10 PG 70

ANNE SHOTWELL TATE
PG 486
PG 337

ACCESS POINT

ISFD

ISBKD

NO ASSOCIATED PIPING FOUND FOR THESE WMs.

END C/A & WW FENCE Sta. 75+57.972

BEGIN C/A & WW FENCE Sta. 75+39.694

SPECIAL DITCH SEE PROFILE FOR GRADE STA 12+80 RT TO STA 12+93 RT -Y17-

SPECIAL DITCH W/PSRM SEE PROFILE FOR GRADE STA 76+56 (SAG) TO STA 77+00 LT -L- SEE DETAIL #23

+60.000 18.288 m (60.000')

+60.000 24.384 m (80.000')

+70.870 32.004 m (105.000')

+70.000 30.480 m (100.000')

PT Sta.13+03.279

POT Sta.76+06.312 -L- =
POT Sta.13+18.495 -Y17-

BL-45

BL-46

2GI TYPE 'A'

2GI

GUARD HOUSE

14m R

7.0

ACCESS POINT

END C/A & WW FENCE Sta. 72+92.869

BEGIN C/A & WW FENCE Sta. 75+09.039

8 x 4 x 1 ID 22.2F

8 x 4 x 1 ID 22.2F

15 x 8 x 1 38 mm Skimmer with 27 mm Orifice Diameter 5.5 m weir ID 22.1F

+20.000 30.480 m (100.000')

+00.000 30.480 m (100.000')

+00.000 35.052 m (115.000')

+20.000 39.624 m (130.000')

CLASS 'B' RIPRAP EST 4.5 MTONS EST FF 11.7 SM

SPECIAL LAT 0.6M BASE DITCH STA 76+20 RT TO S

CLASS 'B' RIPRAP

+44.000 35.052 m (115.000')

+41.000 73.152 m (240.000')

TDE

0.9M BASE TAIL DITCH DDE=43.53 CM SEE DETAIL #2

CLASS 'I' RIPRAP +/- 13.6 MTONS FF +/-25.1 SM

+69.500 30.480 m (100.000')

+69.391 35.340 m (115.945')

12 x 6 x 1 38 mm Skimmer with 21 mm Orifice Diameter 3.5 m weir ID 22.5C

END CONSTRUCTION NORTHBOUND LANE Sta.76+77.000 -L-

POT Sta.76+44.834 -L-, 8.800 RT. =
PC Sta.76+44.834 -Y1- CROSSOVER

FORCE PROTECTION INDUSTRIES, INC.
DB 641 PG 814

100

99

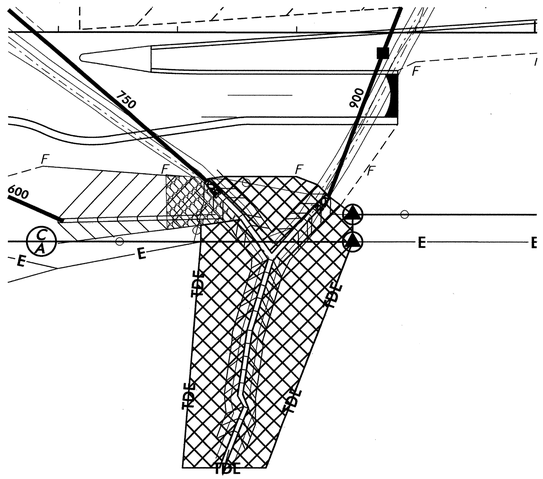
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jchandler1
IENTER2 178

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2241A	EC-54/CONST.22
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

0.1 HECTARE STREAMBANK REFORESTATION



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

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2241A	EC-55/CONST.23
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		

NAD 83 / NC GRID

MATCHLINE STA. 78+00 -L- SEE SHEET 22

BEGIN TEMP SBL
STA.78+00.000 -L- =
STA.78+00.000 -TEMP SBL-

ANNE SHOTWELL
LIFE ESTATE
DB 261PG 486
BOM 12 PG 337
100

MICHAEL E. VICKERS
DB 214 PG 647
BOM 4 PG 794
105

CHARLOTTE MELTON et al
DB 429 PG 161
BOM 34 PG 34
106

BESSIE JANE WALKER "HEIRS"
DB 121 PG 68
107

BLAKE E. THORNBURG
DB 645 PG 331
108

LOUISE S. THOMAS
DB 146 PG 645
102

LOUISE S. THOMAS
DB 179 PG 749
102

ADDIE T. WADE
DB 179 PG 387

FORCE PROTECTION INDUSTRIES, INC.
DB 641 PG 814
90

DAVID N. ALLEN
DB 559 PG 281
103

ANDREW L. HOLEMAN
DB 157 PG 164
BOM 23 PG 102
104

ANNIE RUTH KENDRICK
LIFE ESTATE
DB 532 PG 412
101

END CONSTRUCTION
POT Sta.81+63.869 -L-, 10.564 LT.

END TIP PROJECT R-2241A
STA 79+69.997 -TEMP SBL- =
STA 79+69.986 -L-, 14.3' LT

BL-172
BL-4000
BL-182=BY18-2
BY18-1

RETAIN
RETAIN DITCH
+75.288
EX. RW
(100.000')
NO ASSOCIATED PIPING FOUND FOR THIS WM.
NO ASSOCIATED PIPING FOUND FOR THESE WMs
375 RCP-III
COLLAR
GTS
RETAIN

ACCESS POINT

BEGIN C/A & WW FENCE Sta. 78+93.576
END C/A & WW FENCE Sta. 79+50.020
BEGIN C/A & WW FENCE Sta. 79+68.308
END C/A & WW FENCE Sta. 80+11.60
BEGIN C/A & WW FENCE Sta. 80+32.948
END C/A & WW FENCE Sta. 81+44.781
BEGIN C/A Sta. 81+59.781

END C/A
STA. 81+63.869
@ EX. RW
+62.256
30.480 m
(100.000')
+28.953
30.480 m
(100.000')

+00.000
30.480 m
(100.000')
+00.000
35.052 m
(115.000')

+37.000
30.480 m
(100.000')
+43.452
END CA & WW FENCE
EX. R/W

1200mm WOVEN WIRE FENCE
EXISTING R/W
TEMP SBL
US 501
N 30°05'06.8" E
N 30°44'51.4" E
375 mm CONC
375 mm CONC
300 mm
150 mm
REMOVE
79+00
80+00
81+00

ISBKD
ISFD
HTR
ISFBUS
ISBLKBUS
GAS REG. STA.
GR
S
G
WLB

JESSE BANKS RD
SR 1127
5.5 B57

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adhollier
User:adhollier
PSN=247768

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	EC-56/CONST.24
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5 0 10

CONST.REV.

R /W REV.

NAD 83 NC GRID

MATCHLINE STA 12+80 -Y1- SEE SHEET 4

8B NEW TOP INVESTMENTS, INC. DB 469 PG 333 BOM 19 PG 258

8C KELLY PROPERTIES OF ROXBORO, LLC DB 671PG 480 PB 19 PG 250

8D JODY LONG STEVEN WILSON DB 508 PG 75 PLAT CAB II PG 96D (SEE PG 96A)

DANIEL SMITH DB 254 PG 487 ISBK BUS

J. CLARENCE BLALOCK DB 80 PG 474 DB 119 PG 521

REGINALD B. JONES DB 311 PG 904

RONALD STEWART PULLIAM DB 224 PG 606

POT Sta.12+10.793

POT Sta.11+00.000

30 RIGHT TURN TAPER

RETAIN +65.00 10.668 m (35.000')

+20.000 10.363 m (35.000') EX. R/W

750 CONC. C&G

END C&G +15.000

EXISTING R/W

NO ASSOCIATED PIPING FOUND FOR WMS IN THIS AREA

BY1-1

S 21°14'10.3" W US 501 N MAIN ST (BST)

-Y1-

REMOVE 375 RCP-IV

REMOVE 375 RCP-III

BY1-2

1200 mm WW

70 LEFT TURN TAPER

SOUTHERN STATES COOPERATIVE, INC BOM 3 PG 132 DB 185 PG 880

KELLY P. SMALL DB 569 PG 460 BOM 8 PG 19-4

BEGIN CONSTRUCTION POT Sta 12+05.000 -Y1-

OUR PRIDE FOODS OF ROXBORO DB 221PG 45

THE LONE DUNCAN IRREVOCABILE TRUST DB 261PG 659

POPLAR LANE DEVELOPMENT DB 229 PG 852

UTILITY INTERFERENCE STRUCTURE

ANNIE RUTH JACKSON GRAVITTE
HORACE EDWARD JACKSON
THELMA MARIE JACKSON CAMPBELL
ANTHONY FARRIS JACKSON
DB 185 PG 543

SR 1569 PRESTON PLEASANT RD BST

BEGIN CONSTRUCTION POT Sta 10+65.000 -Y7-

POT Sta.10+00.000

BURLEY W. DUNN DB 77 PG 201

SR 1532 THAXTON RD 60 BST

ELEANOR HAMLIN DUNN DB 64 PG 486

ROBERT BEAM WILBORN
MICHAEL BEAM WILBORN
DB 227 PG 486
BOM 12 PG 237

CHRISTINE P WHITT DB 173 PG 921

14 x 6 x 1 38 mm Skimmer with 27 mm Orifice Diameter 3.5 m weir ID 24.1F

JOHN WILLIAM HUBBARD DB 292 PG 120 BOM 6 PG 83-3

ROBERT FRED COLE DB 214 PG 148 BOM 6 PG 83-3

FLORA J. W. SNEAD DB 373 PG 724 BOM 5 PG 468

ROBERT E. WINSTEAD SHARON L. WINSTEAD DB 421 PG 726 BOM 6 PG 19-1

RAMONA HOLT LOWERY & BERNARD LOWERY, JR. DB 160 PG 436 BOM 23 PG 113

PCSta.11+29.963

40 TAPER

11 TAPER

CURVE -Y7-

MATCHLINE STA. 12+40 -Y7- SEE SHEET 9

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Projection: NAD83 NC FEET

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2241A	EC-57/CONST.25
CONST.REV.	R /W SHEET NO.	
R /W REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83 - NC GRID

MATCHLINE STA. 14+80 -Y8- SEE SHEET 9

BEGIN CONSTRUCTION
POT Sta.9+93.905 -Y11-

POT Sta.9+85.000

POC Sta.15+57.980 -Y8- =
POT Sta.11+17.008 -Y11-

END CONSTRUCTION
POC Sta.16+50.000 -Y8

POT Sta.17+38.638

PC Sta.16+23.142

PT Sta.16+65.732

PT Sta.15+67.654
N 79° 06' 44.3" E

END CONSTRUCTION
POT Sta.10+86.000 -Y10-

POT Sta.11+00.000

Sta.15+56

Sta.10+00.000 -Y10

BEGIN EXPRESSWAY GUTTER +93.412 LT

END EXPRESSWAY GUTTER +31.400 RT

BRIAN C. HICKS & JENNY HICKS
DB 625 PG 213

BOBBY J. HICKS &DELORES C. HICKS
DB 625 PG 209
PB 23, PG 113
PB 11, PG 1E

BRIAN C. HICKS & JENNY HICKS
DB 625 PG 207
BOM 23 PG 113

RACHEL P. ROYSTER et al
DB 58 PG 88

ODELIA P. GENTRY HEIRS
09-E-428, HARNETT COUNTY

DEAN WESLEY
DB 245 PG 834

BONNIE SOLOMON
DB 692 PG 160

DONNA LUNSFORD DUNEVANT
DB 541 PG 273
BOM 7 PG 6-5

BURLEY W. DUNN
DB 171PG 806
DB 143 PG 163

TIMOTHY HARRIS AND CHERYL CAVALIER
DB 305 PG 780

PROVIDENCE BAPTIST CHURCH
DB 257 PG 378
BOM 21PG 100

JOHN MICHAEL WESLEY
DB 204 PG 495
BOM 5 PG 580

JAMES H. HEATH
DB 192 PG 275
DB 269 PG 257
BOM 10 PG 79-1
BOM 24 PG 225

7 x 16 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
3.5 m weir
ID 25.1F

SPECIAL DITCH
SEE PROFILE FOR GRADE
STA 15+00 LT TO
STA 15+40 LT -Y8-
SEE DETAIL #18

'V' TAIL DITCH
DDE=13.0 CM
SEE DETAIL #5

CLASS 'B' RIPRAP

GRASS SWALE

END C/A & WW FENCE

REMOVE

2-ISLS
2 FUEL PUMPS
U/MTL CANOPY

ISF BUS ABAND

ISBLK BUS

ISFD

HTR

BY7-5

BY6-5

10+00

16+00

17+00

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adhollen
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METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2241A	EC-58/CONST.26
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		

NAD 83 NC GRID

S00°40'54"W 91.23'

MATCHLINE STA. 15+20 -Y9- SEE SHEET 10

BURLEY W. DUNN
DB 188 PG 749
DB 36 PG 557
DB 107 PG 74
54

JERRY F & ANGELA BARBAR
DB 479 PG 41
BOM 13 PG 520
54A

SHELBY O. CASTLE
DB 238 PG 612
BOM 9 PG 21-2
65

JOHN & BRENDA KIRK
DB 450 PG 97
BOM 12 PG 305

BURLEY W. DUNN
DB 188 PG 749
DB 36 PG 557
DB 107 PG 74

FRANK C. HARRIS, JR.
DB 306 PG 524
BOM 9 PG 31-10

BURLEY W. DUNN
DB 188 PG 749
DB 36 PG 557
DB 107 PG 74

N24°12'38"W 41.139
S65°47'22"W 89.466
S65°47'22"W 90.009
N24°12'38"W 37.186
S65°47'22"W 41.315
S24°12'38"E 36.576
N65°47'22"E 90.398
N65°47'22"E 90.398
N26°38'42"W 36.625
S65°17'08"W 101.384
N66°17'49"E 102.735

16+00
17+00
POT Sta.17+53.051

+80.000
15.240 m
(50.000')

BY7-3

CURVE Y9-3 -Y9-

+80.000
11.430 m
(37.500')
REMOVE

+80.000
15.240 m
(50.000')

+85.000
14.788m
(48.516')

'V' TAIL DITCH
DDE=2.0 CM
SEE DETAIL #5

+82.000
25.908m
(85.000')

8 x 5 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
2.5 m weir
ID 26.1F

+00.000
14.010 m
(45.966')

+95.000
14.173m
(46.501')

+90.000
27.432m
(90.000')

+32.058
11.430 m
(37.500')

+32.058
15.240 m
(50.000')

SPECIAL DITCH GRADE
STA 15+90 RT TO
STA 16+40 RT -Y9-
SEE DETAIL #18

+32.058
11.430 m
(37.500')

40 TAPER
15 TAPER
375mm RCP
1500mm CONC
REMOVE
2605
2604
2603
2602
2601
2600

@ PROPERTY LINE
11.430 m
(37.500')

END CONSTRUCTION
POT Sta.16+85.000 -Y9-

0.092
N65°47'22"E
R/W-EIP

@ PROPERTY LINE
@ EX. R/W

@ PROPERTY LINE
@ EX. R/W

@ PROPERTY LINE
11.430 m
(37.500')

BY7-2

N 24° 16' 34.3" W
SR 1531 PROVIDENCE RD 6/1BST
EXISTING R/W
50 mm

0.113
S66°17'08"W
EIP-R/W

2.362
N66°17'49"E
EIP-R/W

BY7-1

375mm CONC
300mm CONC
1200mm CONC
LANDSCAPE TIMBERS
CAR PORT
ISBKD

NELLIE R PENTECOST
DB 176 PG 86
DB 80 PG 469
DB 198 PG 594
DB 58 PG 464
BOM 7 PG 335
BOM 5 PG 141
BOM 1PG 143

HOWARD T. SMITH
DB 143 PG 619
DB 176 PG 92
BOM 1PG 143
64

JOEL DEAN SMITH
DB 280 PG 838
BOM 8 PG 72-3

SYBIL PENTECOST WOOTEN
DB 176 PG 90
DB 77 PG 98
BOM 7 PG 104
BOM 5 PG 607

BAXTER M. BUCHANAN
DB 295 PG 770
BOM 3A PG 31
BOM 1PG 143

N24°41'05"E 89.98'

60' R/W
18.288 R/W
EXISTING R/W

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METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2241A	EC-59/CONST.27
CONST.REV.	R /W SHEET NO.	
R /W REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83 NC GRID

RANDALL M. THOMPSON
DB 199 PG 718

N88°10'25"E
53.155

S79°28'35"E
73.162

EIP

N23°04'28"W
181.498

ISBK CHURCH
KINGDOM HALL

BST
JEHOVAH'S WITNESS TRUTEES
DB 205 PG 263
BOM 5 PG 639

BEGIN CONSTRUCTION
POT Sta.10+70.00 -Y17-

POT Sta.10+00.000

11+00

ANNE SHOTWELL
LIFE ESTATE
DB 261PG 486
BOM 12 PG 337

2SFD

12+00

100

W/LT

PC Sta.11+33.700

BY17-14

43 BST

5/ BST

BK S

EXISTING R/W

300 mm CONC

450 mm CONC

450 mm CONC

150 mm

33.480 R/W

100' R/W

GTS

US 501 7.4 BST

N 61° 51' 42.1" E

-Y17-

150 mm
6.25 TYP.

300 mm

300 mm CONC

300 mm CONC

375 mm CONC

0.191
N28°23'04"W
R/W-EIR

0.329
N28°20'44"W
R/W-REBAR

REBAR

EIP

0.620
N28°23'34"W
EIP-R/W COR

NO ASSOCIATED
PIPING FOUND
FOR THIS WM.

HUBERT A. DAVIS
DB 143 PG 96
DB 125 PG 308
BOM 11PG 34

SHERRY P. BRANN
DB 321 PG 79

RICKY D. WILSON AND WIFE
TONYA R. WILSON
DB 688 PG 634

HUGH A. BLANKS
DB 254 PG 127
BOM 13 PG 4

ISBKD

ISFD

GR

S/S WIRE

N28°23'04"W
150.00

N28°20'44"W
150.00

18.306 R/W
60.06' R/W

EXISTING R/W

18.288 R/W
60' R/W

0.106
N84°42'18"E
EIP-R/W

HUBERT A. DAVIS
DB 143 PG 96
DB 125 PG 308

N61°39'16"E
15.240

50 TAPER

+33.700
@ EX. R/W

45 RIGHT TURN TAPER

BEGIN C/A & WW FENCE
+00.000 RT

+00.000
18.288 m
(60.000')

+20.000
24.384 m
(80.000')

ANNE SHOTWELL
LIFE ESTATE
DB 261PG 486
BOM 12 PG 337

N71°25'16"E
24.079

S30°04'44"E
19.071

S30°58'17"W
30.336

MATCHLINE STA. 12+20 -Y17- SEE SHEET 22

375 R

60 R

270°

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schiller
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