TIP PROJECT: R-2533 CC

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2533 CC	EC-1	

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

METRIC

ALL DIMENSIONS IN THESE PLANS ARE IN METERS UNLESS OTHERWISE SHOWN

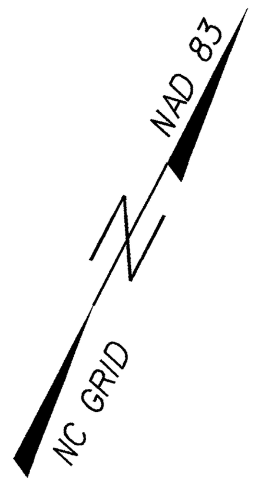
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

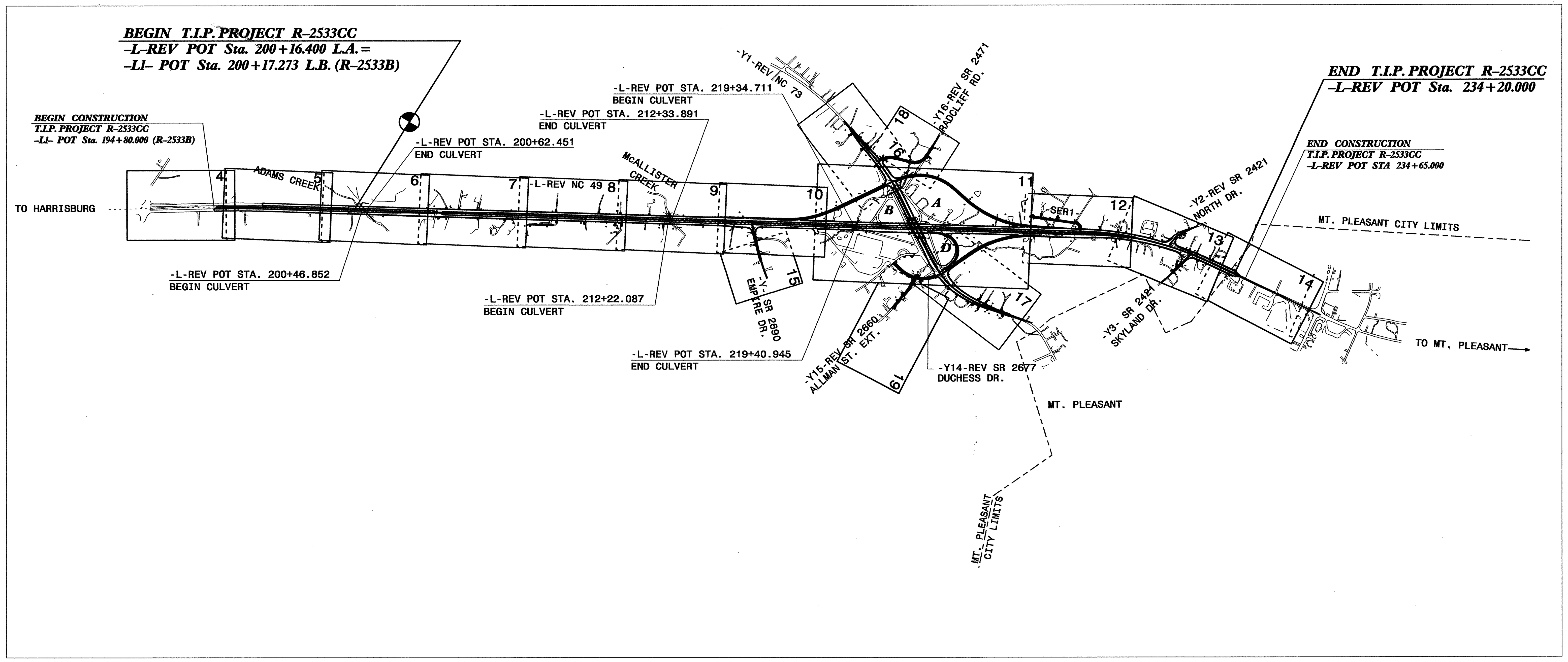
PLAN FOR PROPOSED HIGHWAY EROSION CONTROL

CABARRUS COUNTY

LOCATION: NC 49 FROM EAST OF SR 2630 TO EAST OF SR 2421

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





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

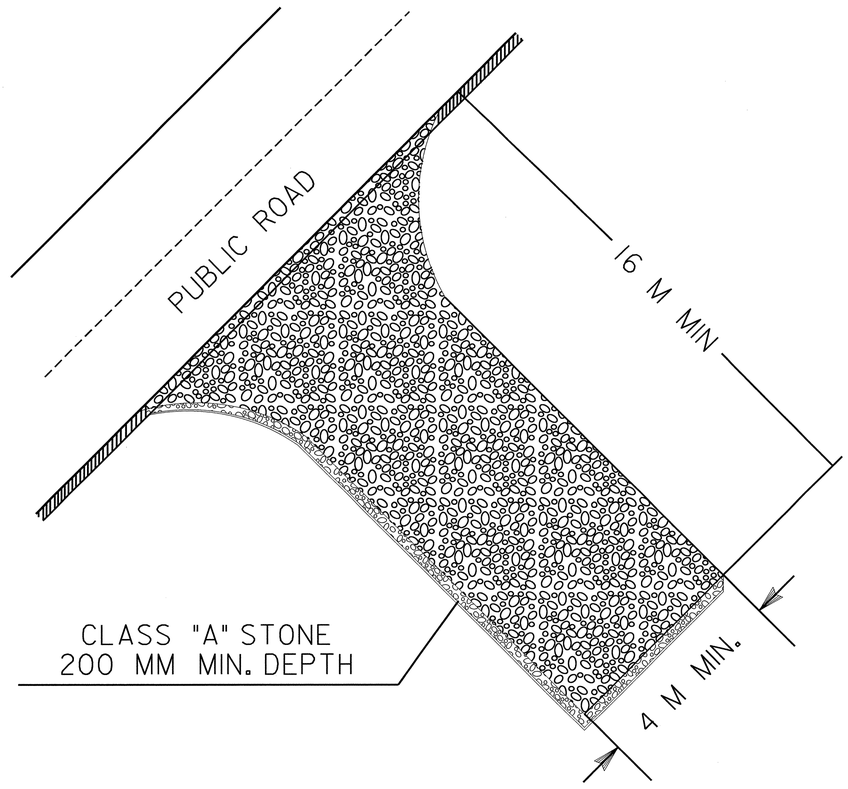
Roadway Standard Drawings

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.

1622.01	Temporary Berms and Slope Drains	1633.01	Temporary Rock Silt Check Type A
1630.03	Temporary Silt Ditch	1633.02	Temporary Rock Silt Check Type B
1630.05	Temporary Diversion	1635.01	Rock Pipe Inlet Sediment Trap Type A
1632.02	Rock Inlet Sediment Trap Type B	1635.02	Rock Pipe Inlet Sediment Trap Type B

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2533CC	EC-2
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE



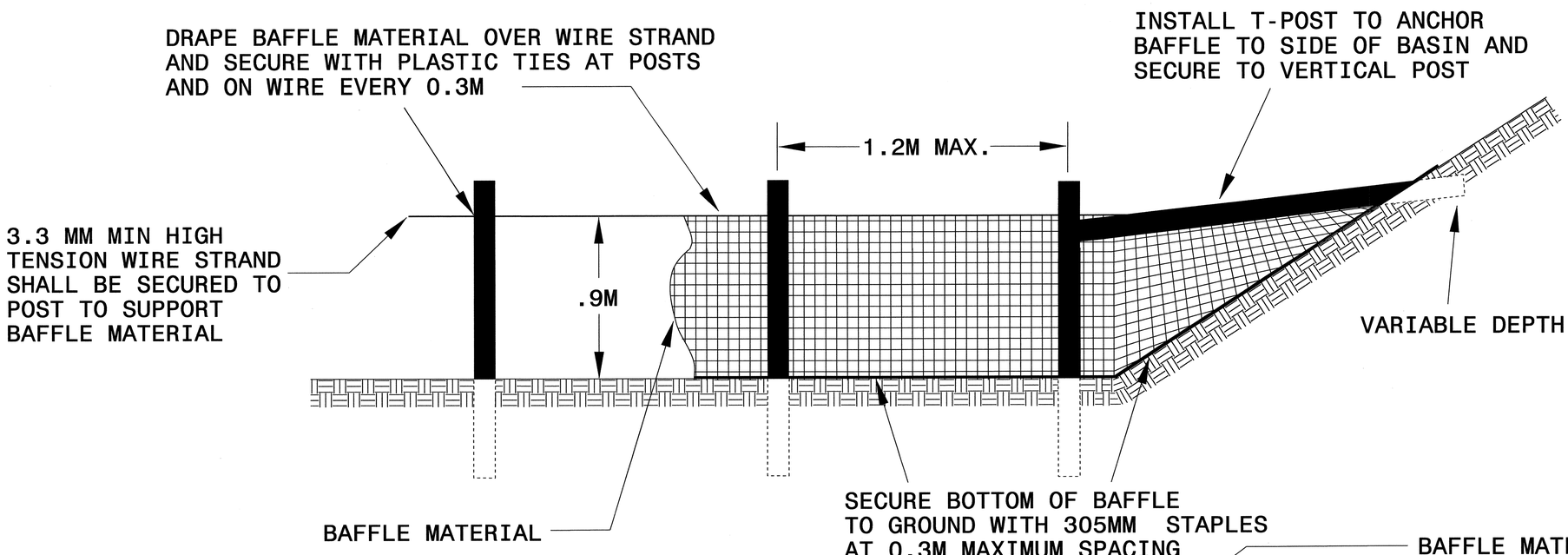
NOTES:

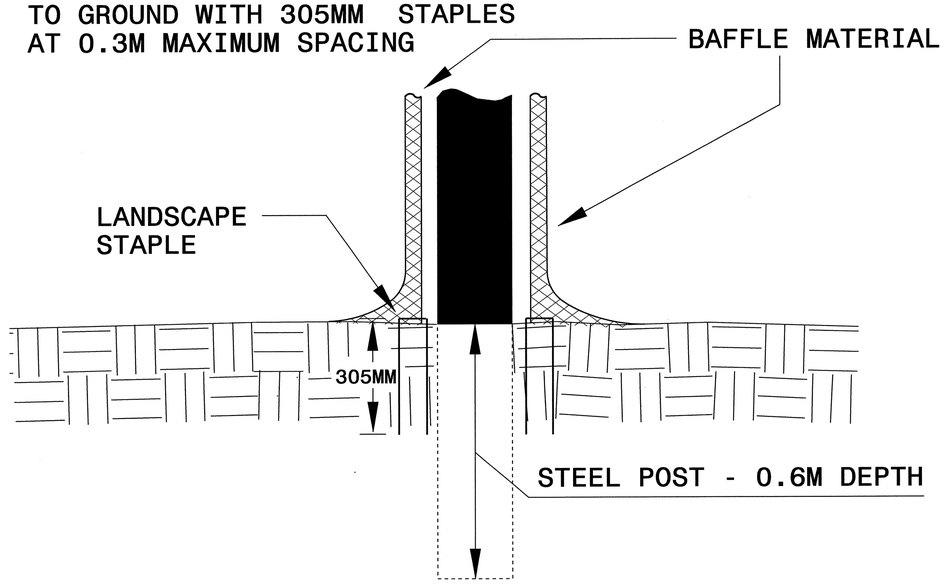
1. TURNING RADIUS SUFFICIENT TO ACCOMODATE LARGE TRUCKS SHALL BE PROVIDED.
2. ENTRANCE(S) SHOULD BE LOCATED TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL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

NOTE: FILTER FABRIC TO BE PLACED BENEATH STONE

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2533CC	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

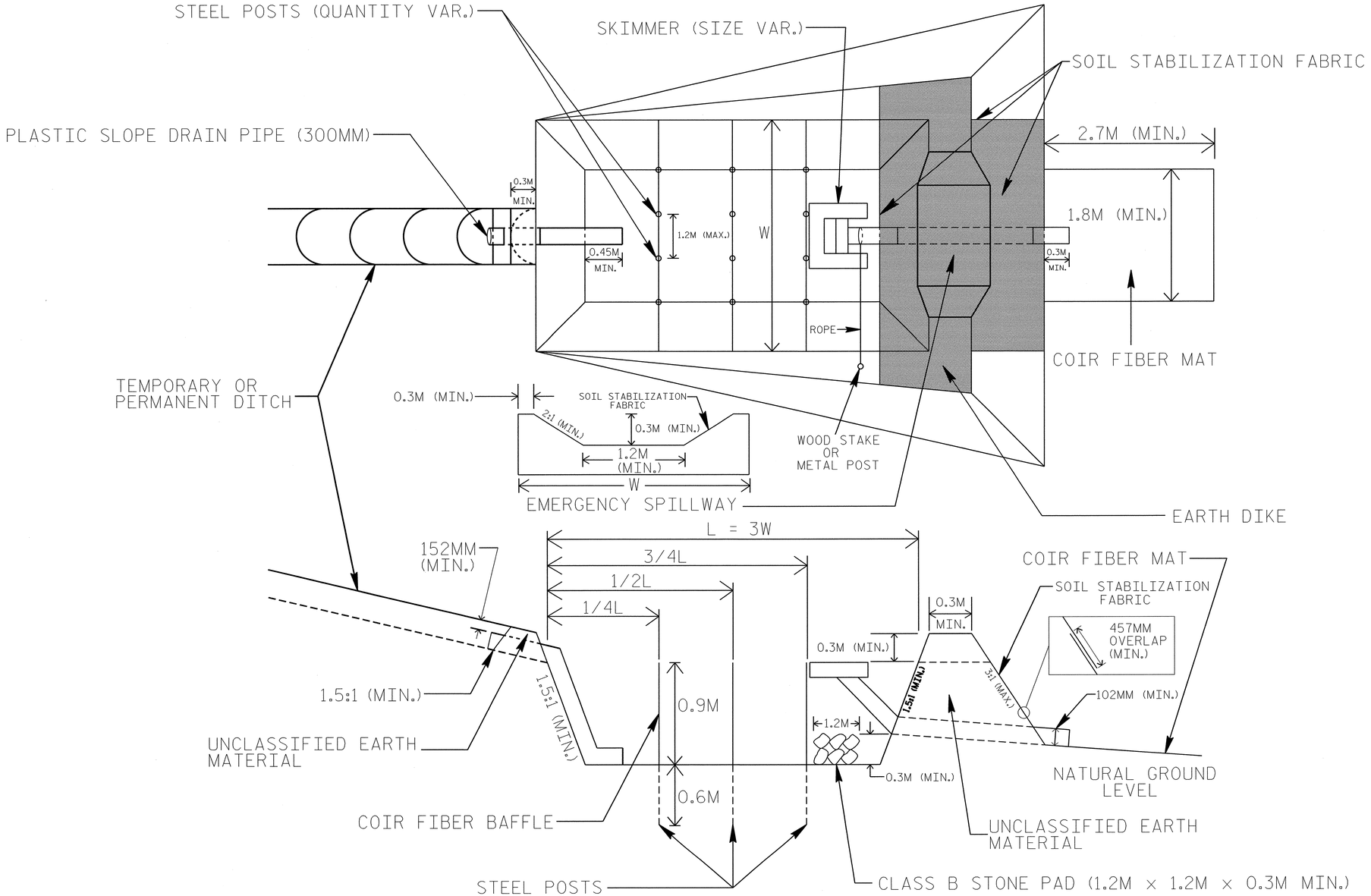
1. INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF ¼ THE BASIN LENGTH.

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.

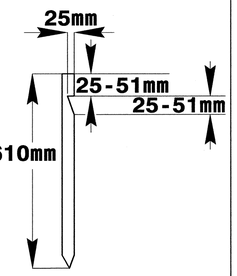
3. TOP HEIGHT OF COIR FIBER BAFFLES SHALL NOT BE BELOW BASE OF EMERGENCY SPILLWAY ELEVATION.

SKIMMER BASIN WITH BAFFLES DETAIL

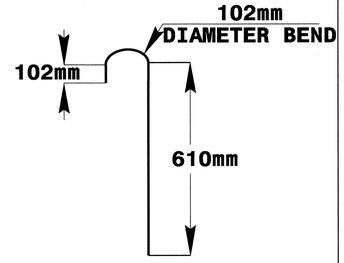
METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2533CC	EC-2B
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



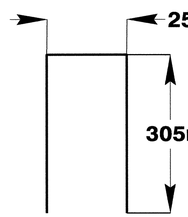
51mm x 51mm (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



25mm (nominal) STAPLE



COIR FIBER MAT ANCHOR OPTIONS

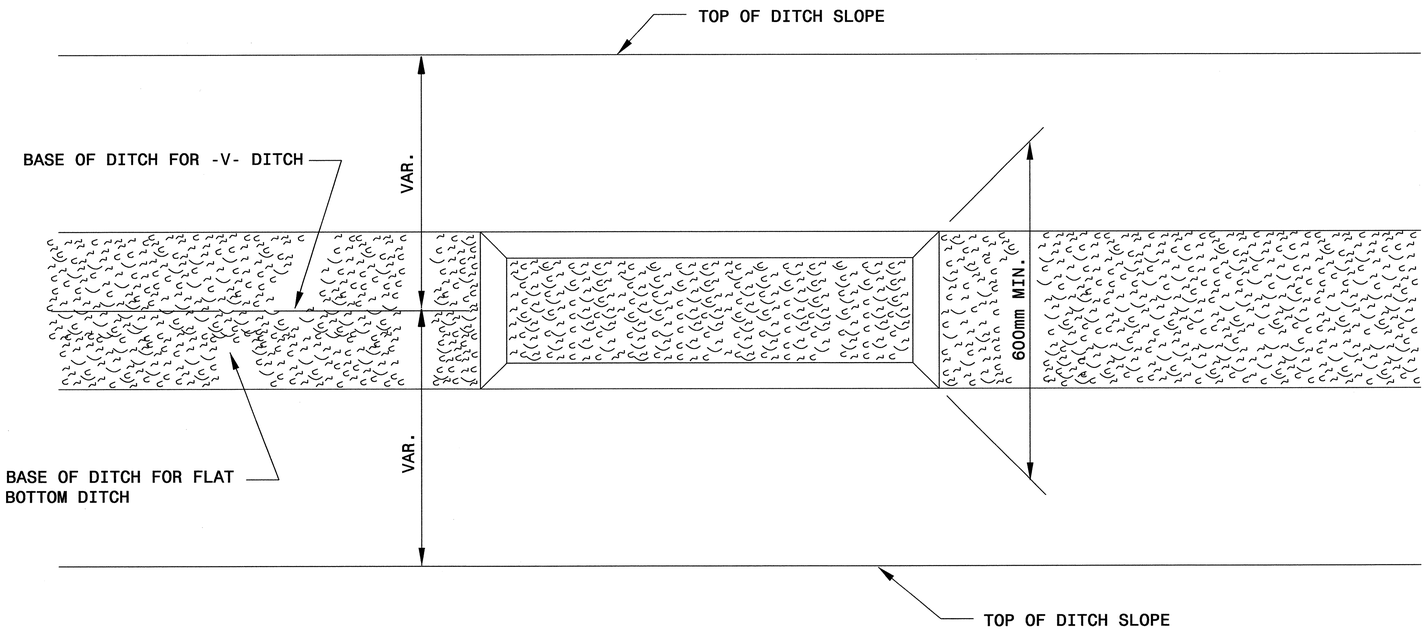
NOTES

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 AS SHOWN.

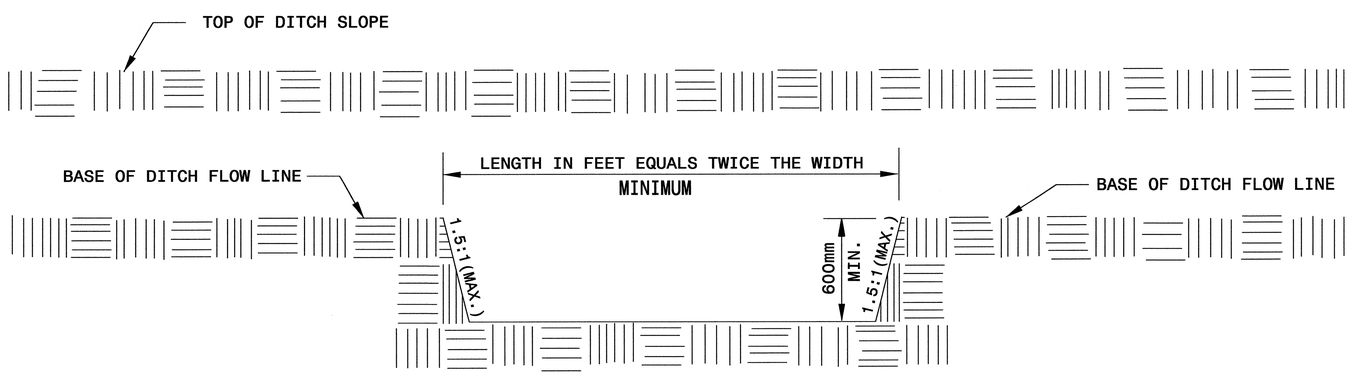
NOT TO SCALE

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2533CC	EC-2C
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT BASIN 'B' DETAIL



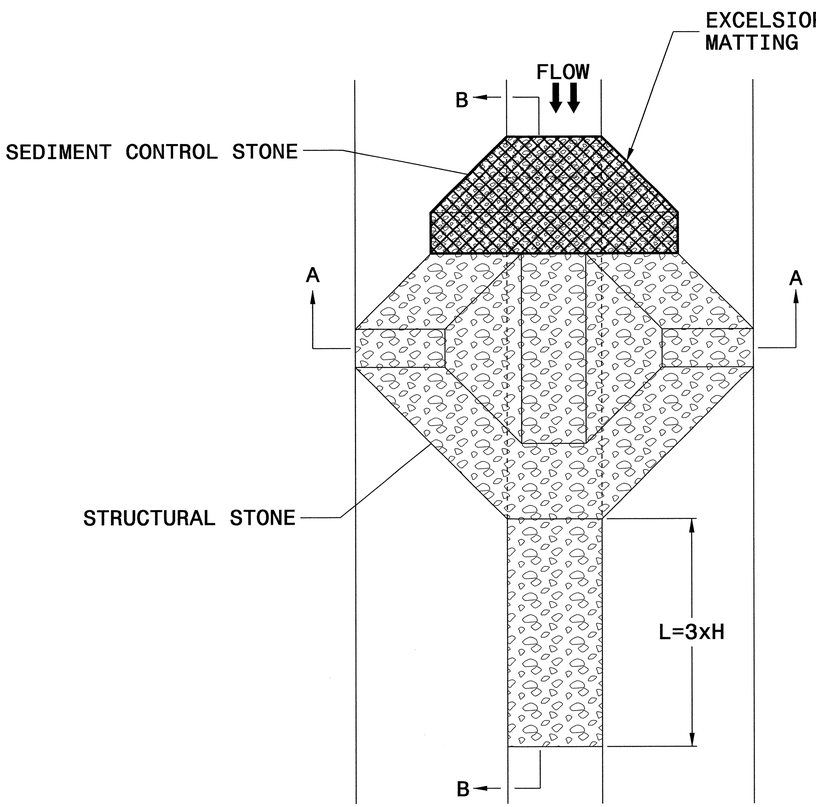
PLAN



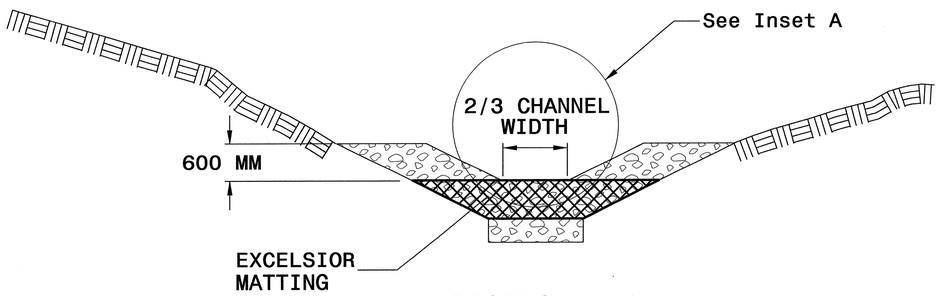
ELEVATION

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2533CC	EC-2D
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN



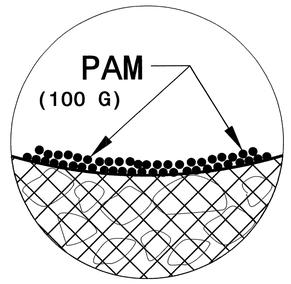
SECTION A-A

NOTES

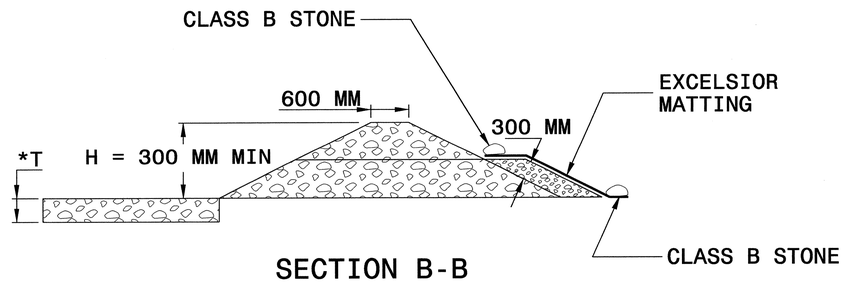
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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



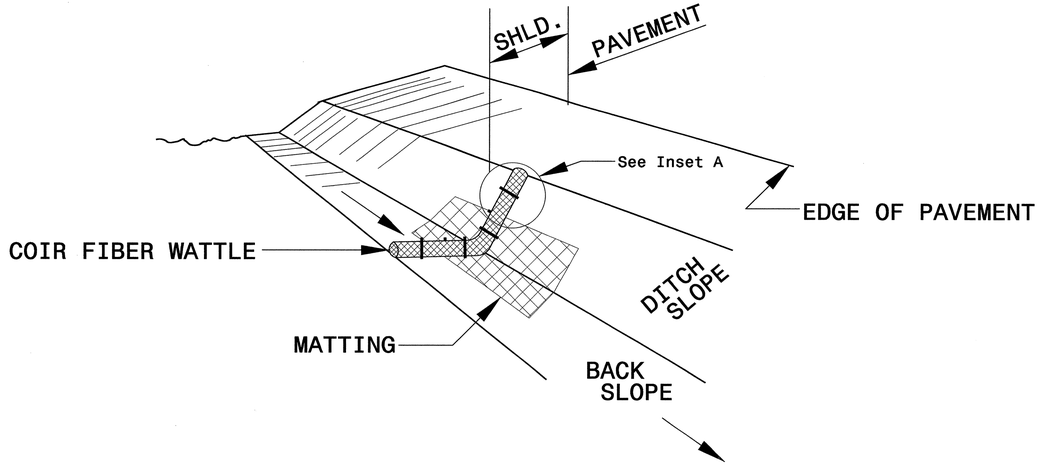
SECTION B-B

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

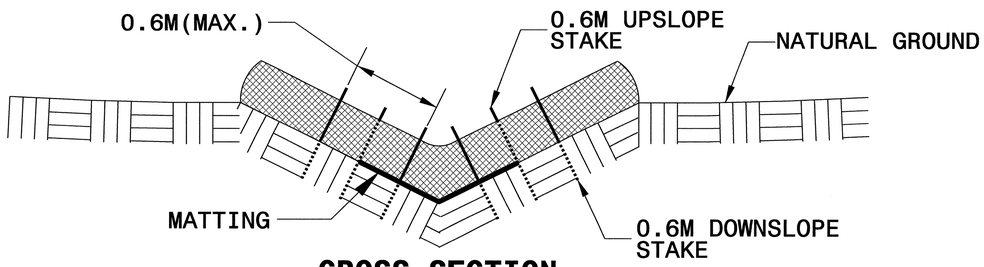
NOT TO SCALE

COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

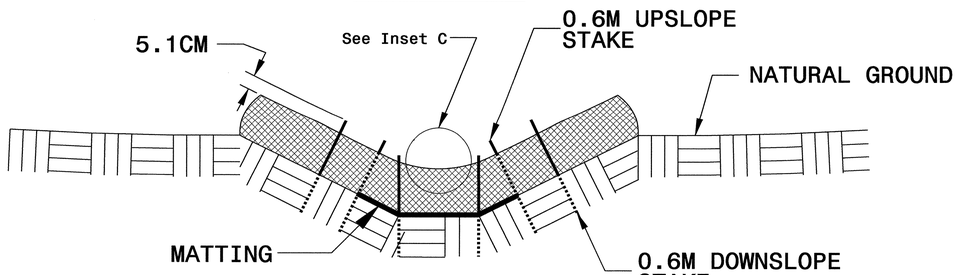
METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2533CC	EC-2E
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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.

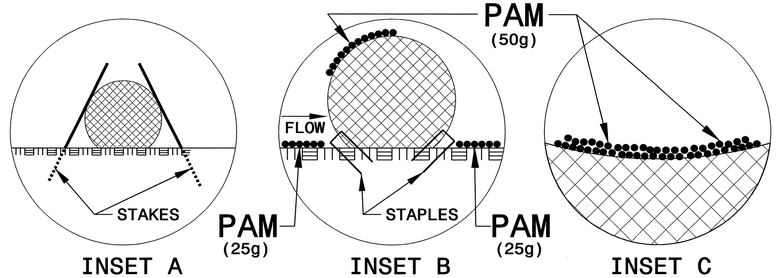
PROVIDE STAPLES MADE OF 3 MM DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 305 MM IN LENGTH.

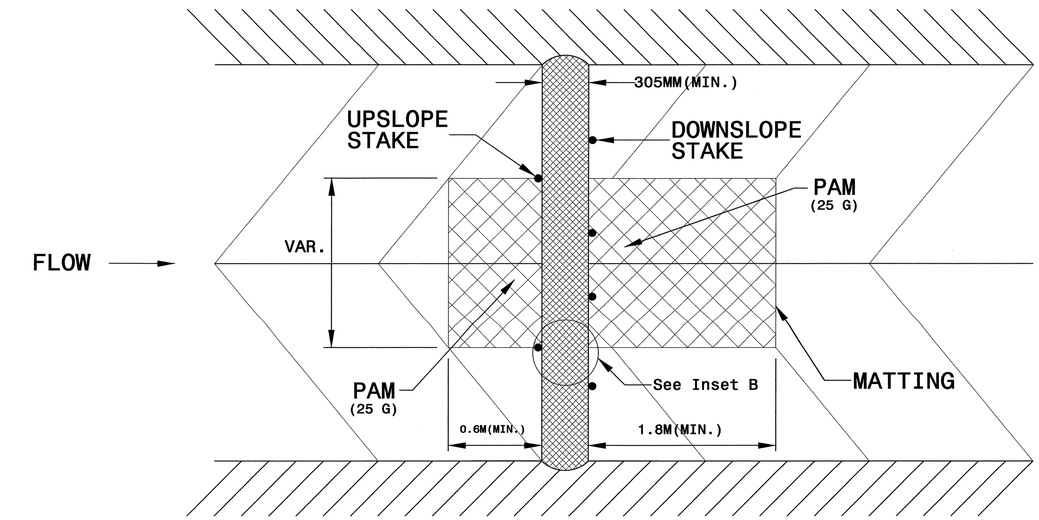
INSTALL STAPLES APPROXIMATELY EVERY 0.3 LINEAR METER ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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.

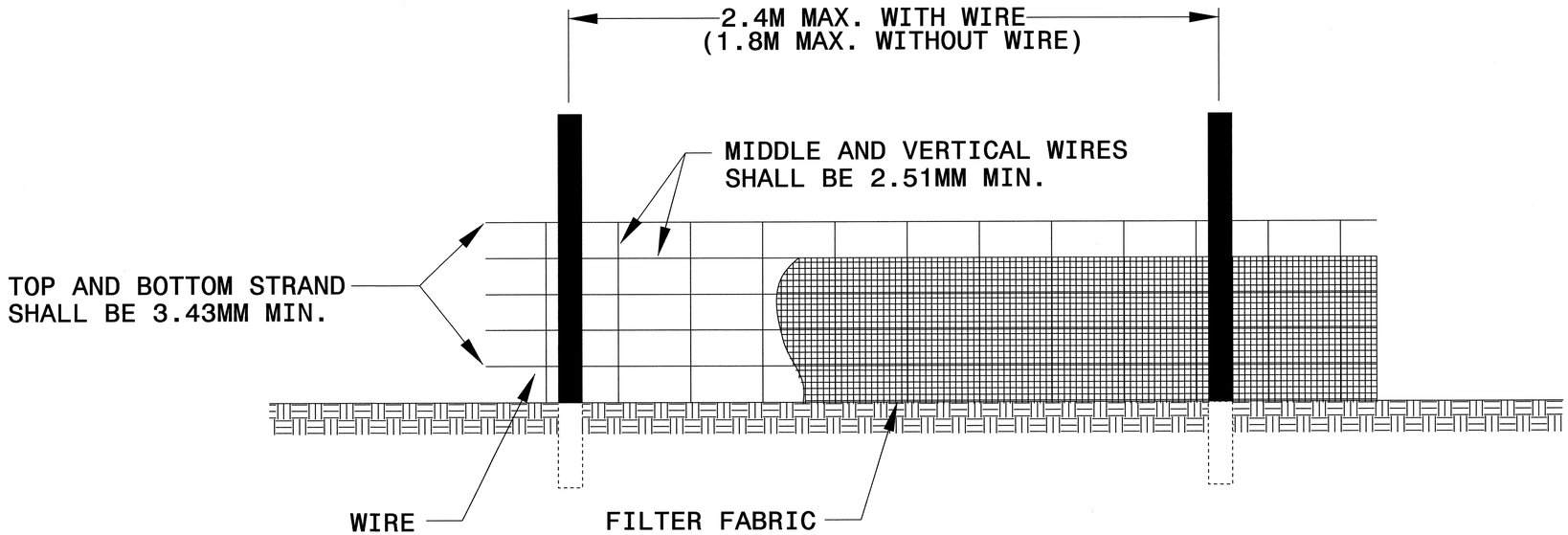




TOP VIEW

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2533CC	EC-2F
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY SILT FENCE DETAIL

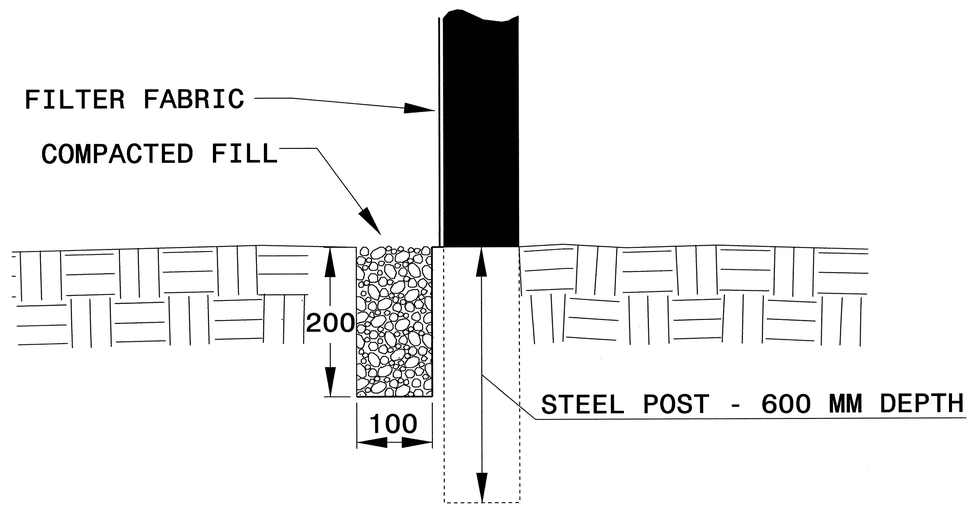


NOTES

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-2533CC	EC-2G
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SPECIAL SEDIMENT CONTROL FENCE DETAIL

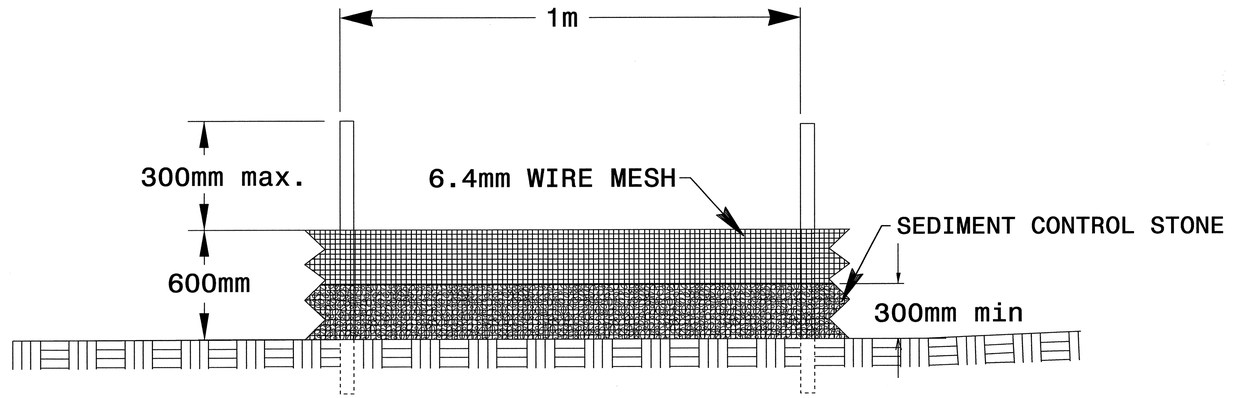
GENERAL NOTES:

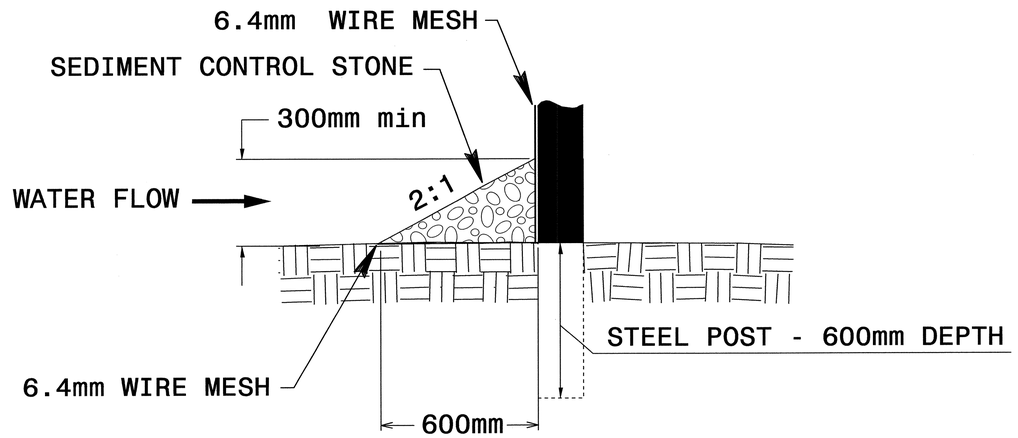
USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL.

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-2533CC	EC-2H
	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.

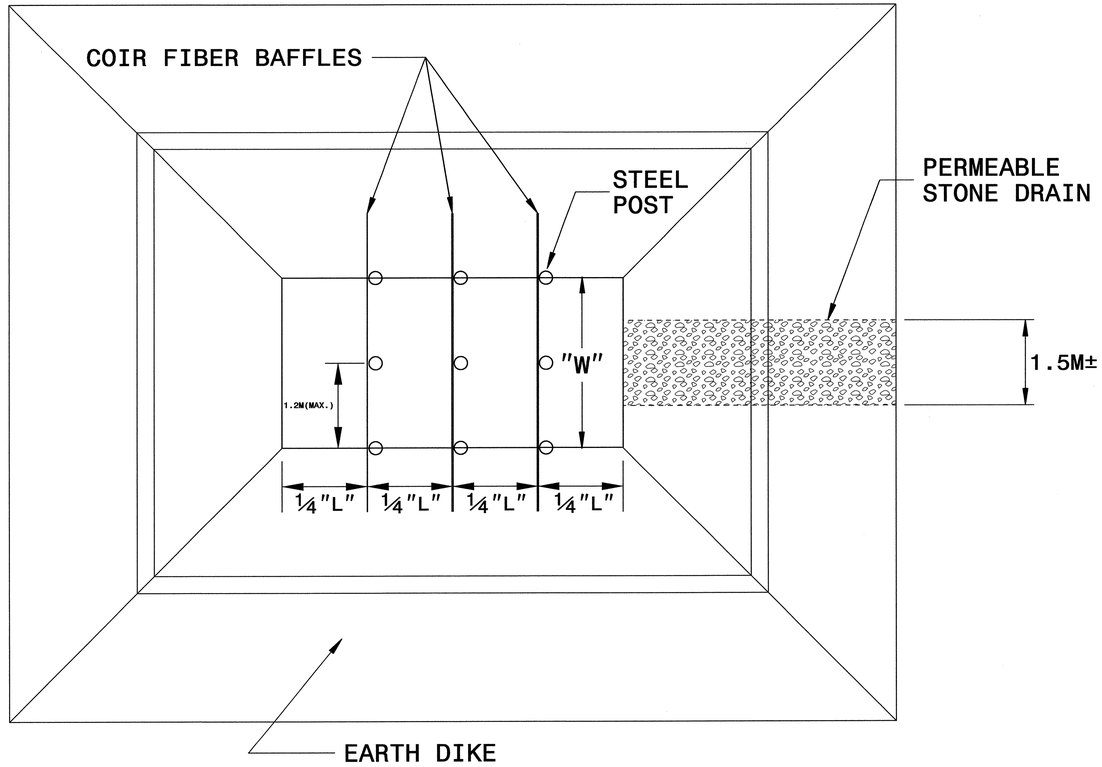
USE THE TYPICAL SECTION SHOWN FOR THE STILLING BASIN AS A GUIDE. THE BASIN MAY HAVE ANY TYPE CONFIGURATION AS LONG AS SUFFICIENT VOLUME IS PROVIDED AND PROVISIONS ARE MADE FOR A PERMEABLE STONE DRAIN.

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.

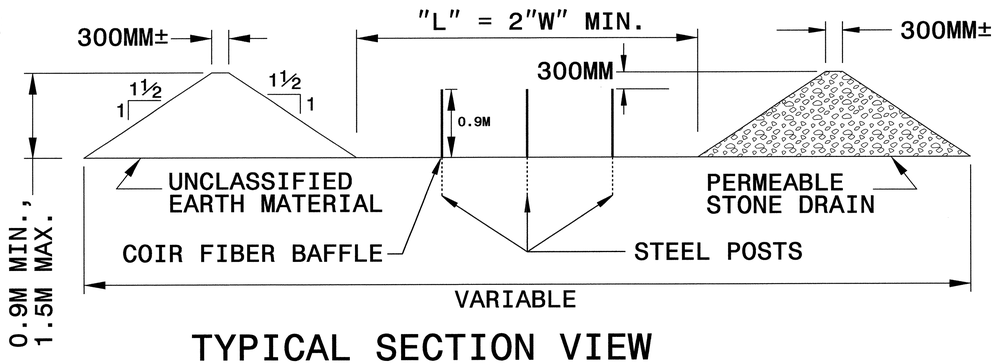
THE STILLING BASIN SIZE IS VARIABLE AND DEPENDENT ON SPECIFIC SITE REQUIREMENTS AS WELL AS PROPOSED CONSTRUCTION OPERATIONS.

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.



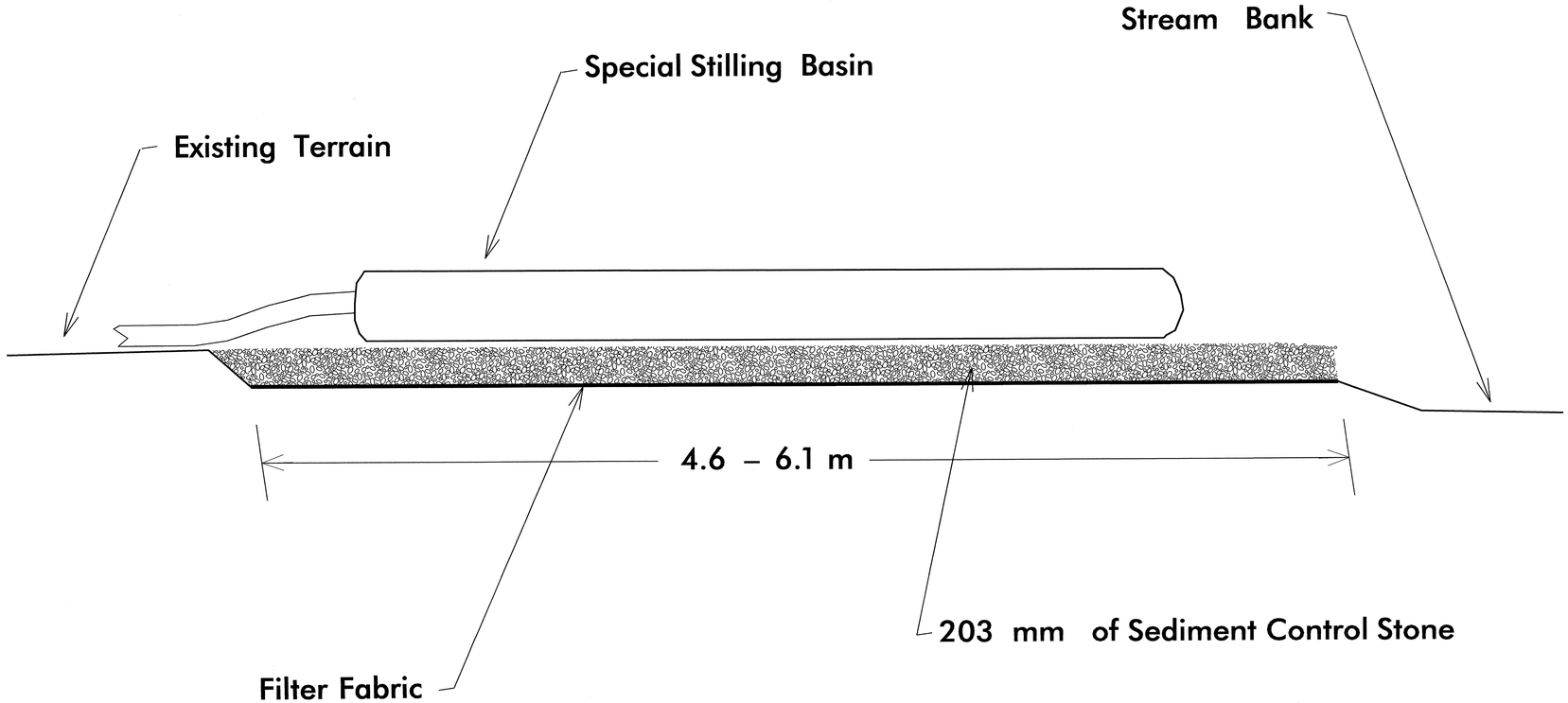
PLAN



TYPICAL SECTION VIEW

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2533CC	EC-21
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SPECIAL STILLING BASIN WITH ROCK PAD

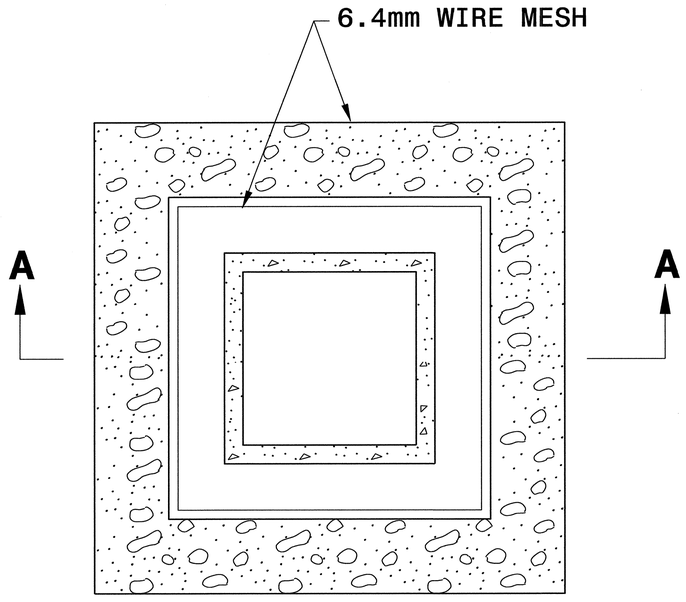


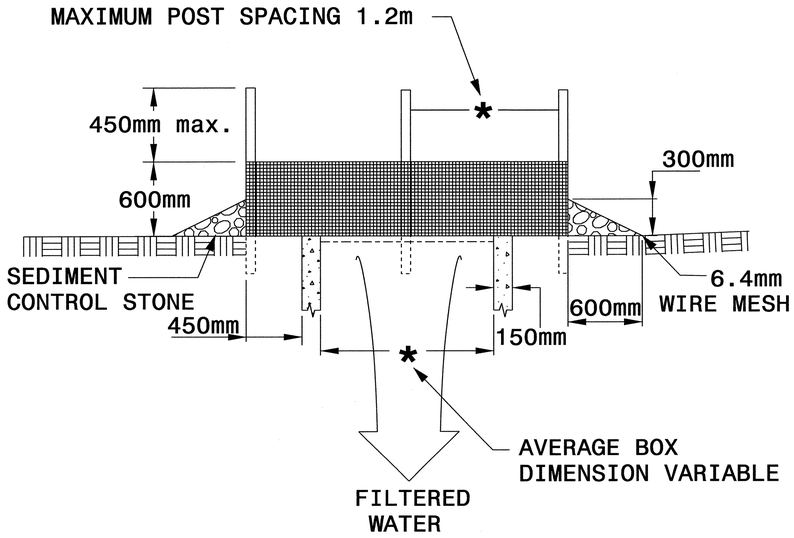
Not To Scale

Note: Provide Stabilized Outlet to Streambank

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2533CC	EC-2J
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

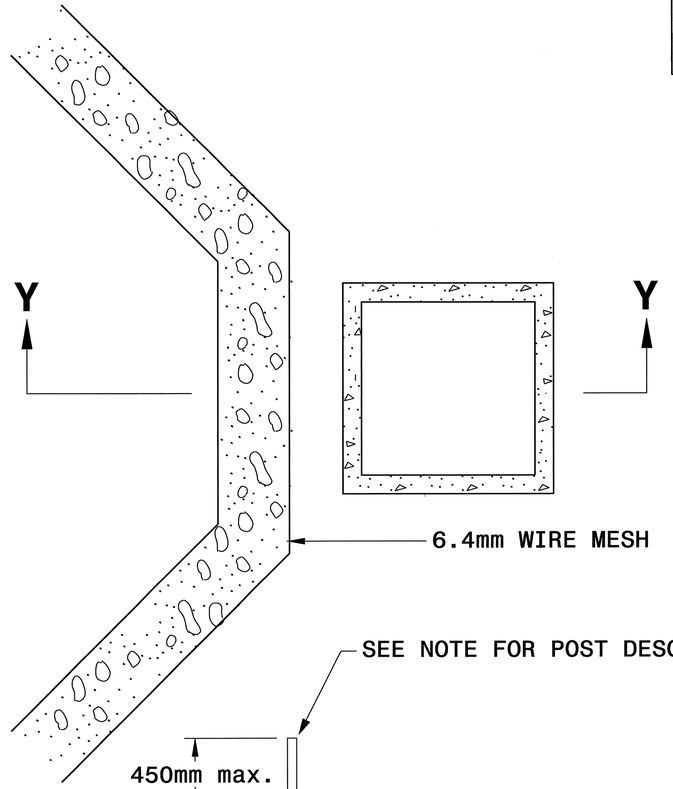
ROCK INLET SEDIMENT TRAP TYPE 'C' DETAIL

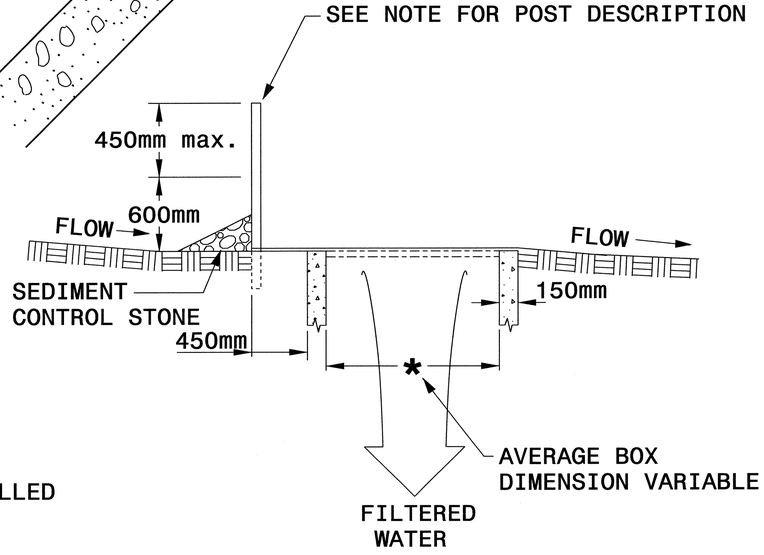




SECTION A-A

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.





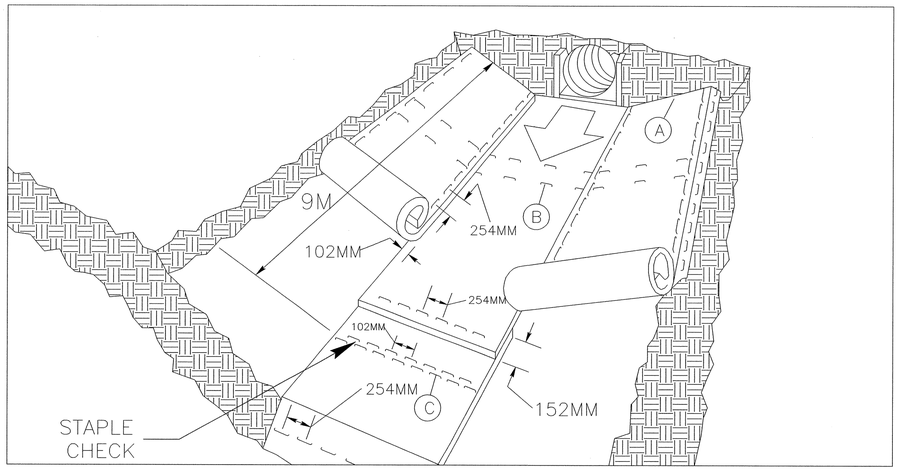
SECTION Y-Y

MULTI-DIRECTIONAL FLOW

SINGLE-DIRECTIONAL FLOW

PROJECT REFERENCE NO.	SHEET NO.
R-2533CC	EC-2K
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATTING INSTALLATION DETAIL



MATTING IN DITCHES

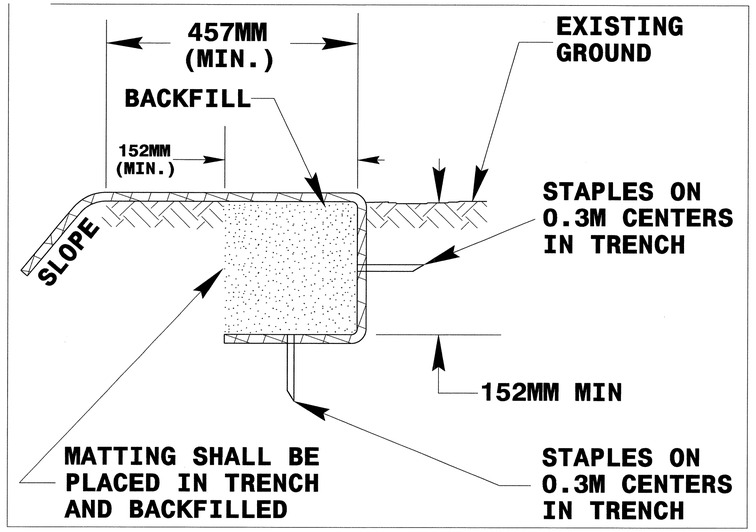
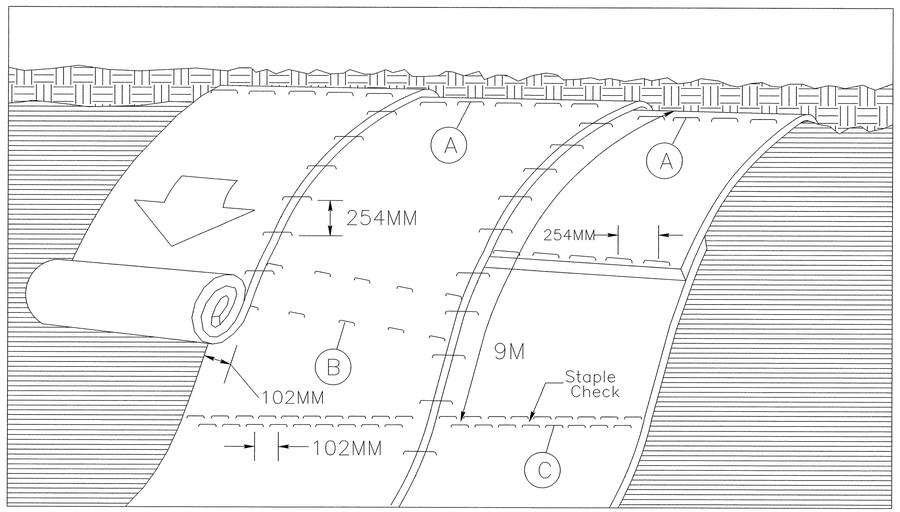


DIAGRAM (A)



MATTING ON SLOPES

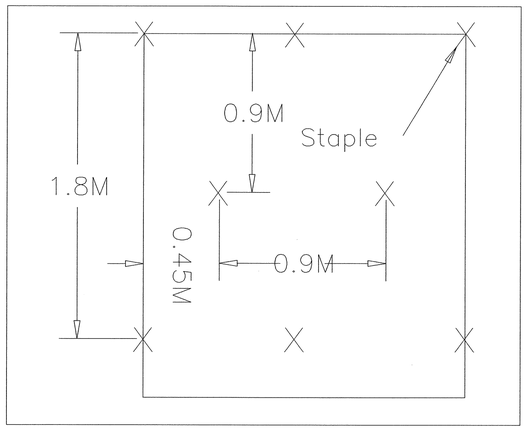


DIAGRAM (B)

Staple Check Pattern

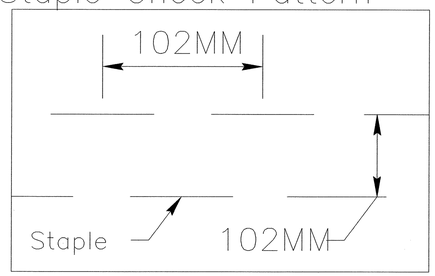


DIAGRAM (C)

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-2533CC	EC-3
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SM)
7	-L-	204+98	205+97	LT	760
7	-L-	206+23	206+60	LT	330
8	-L-	206+80	207+81	LT	1095
8	-L-	208+40	208+80	LT	265
9	-L-	211+60	211+95	RTBERM	95
9	-L-	213+00	214+00	LT	445
11	-L-	218+20	219+00	LT	560
12	-SER1-	9+85	10+20	LT	155
12	-SER1-	10+20	10+72	LT	225
12	-L-	228+60	229+40	LT	410
13	-L-	232+30	232+50	LT	55
13	-L-	232+60	233+04	LT	265
17	-Y1-REV-	17+70	18+50	LTBERM	1310
17	-Y1-REV-	16+40	17+00	RT	445
18	-Y16-	11+60	11+80	LT	130
				SUBTOTAL	6545
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					54920
				TOTAL	61465
				SAY	61500

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SM)
8	-L-	208+80	210+85	LT	1305
8	-L-	209+50	210+00	RTBERM	310
10	-L-	215+00	216+40	LTBERM	505
10	-L-	217+80	218+00	LTBERM	90
11	-L-	225+10	226+10	LTBERM	1020
11	-RAMPA-	5+50	6+15	LT	665
11	-RAMPB-	1+63	2+11	LTBERM	130
11	-RAMPB-	2+25	2+80	LTBERM	210
12	-L-	228+13	228+60	LT	170
			SUBTOTAL		4405
		ADDITIONAL PSRM TO BE INSTALLED			990
				TOTAL	5395
				SAY	5400

PROJ. REFERENCE NO.	SHEET NO.
R-2533CC	EC-4/CONST.6
HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5m 0 10m

CONST.REV.

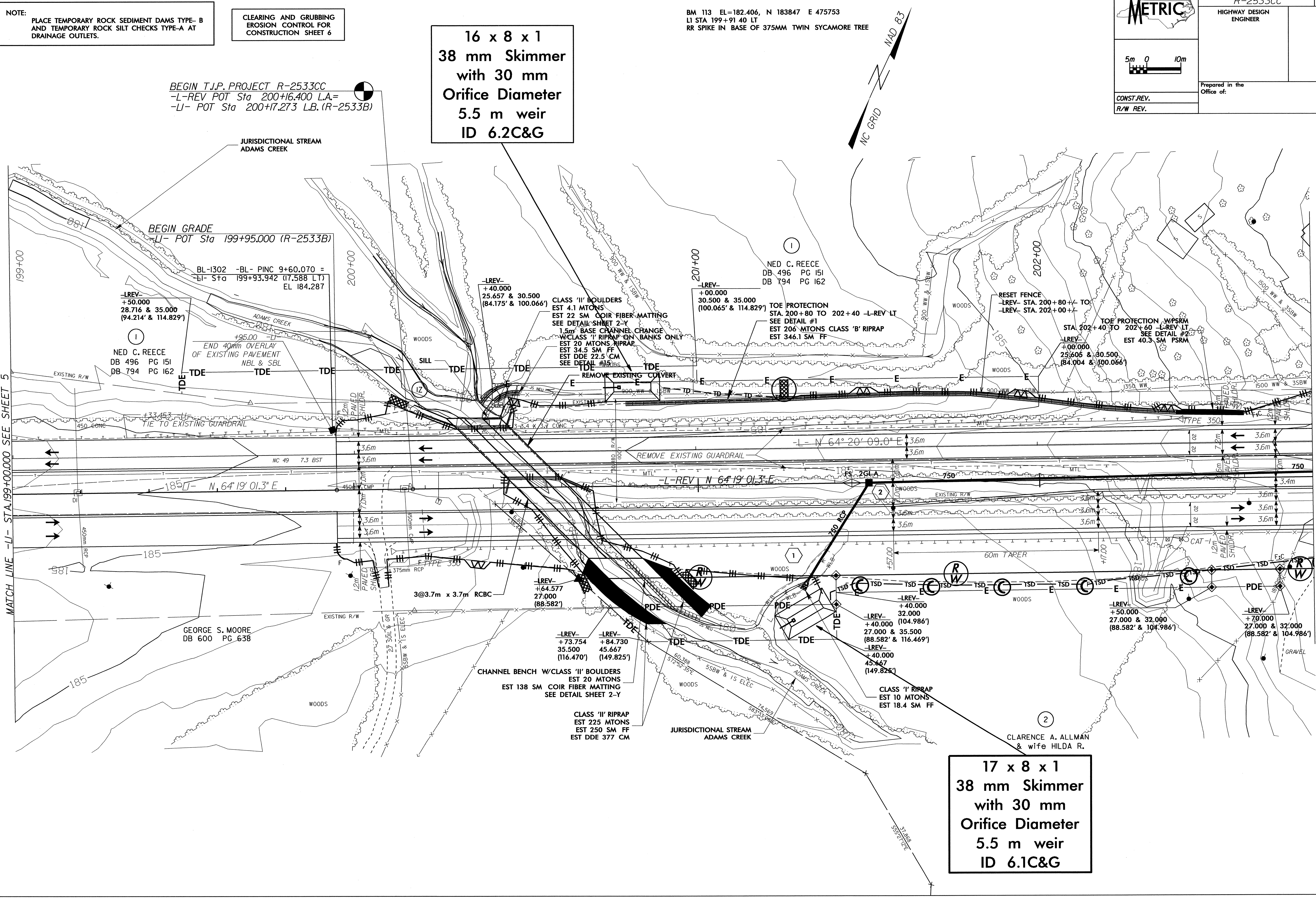
R/W REV.

Prepared in the Office of:

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

BM 113 EL=182.406, N 183847 E 475753
L1 STA 199+91 40 LT
RR SPIKE IN BASE OF 375MM TWIN SYCAMORE TREE



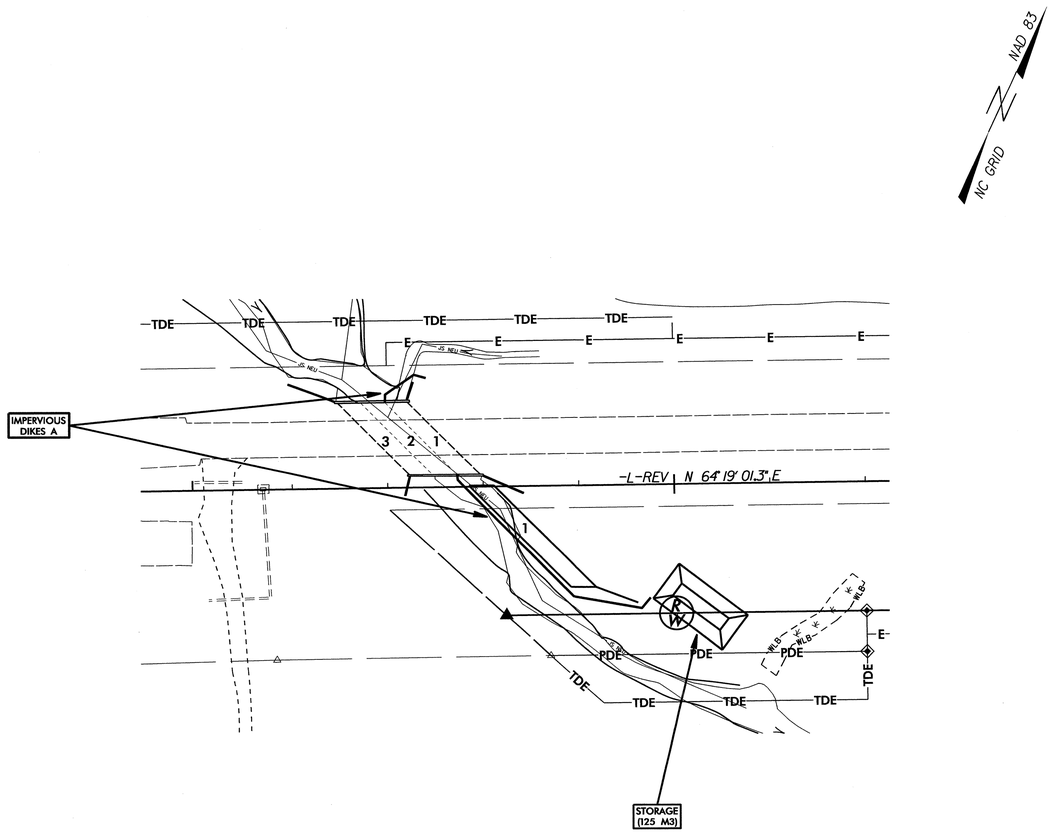
DATE: $$DATE$$
TIME: $$TIME$$
USER: $$USER$$
DGN: $$DGN$$

PROJECT REFERENCE NO.	SHEET NO.
R-2533CC	EC-5/CONST.6
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 200+54.65 –L–REV (SHEET 1 OF 2)

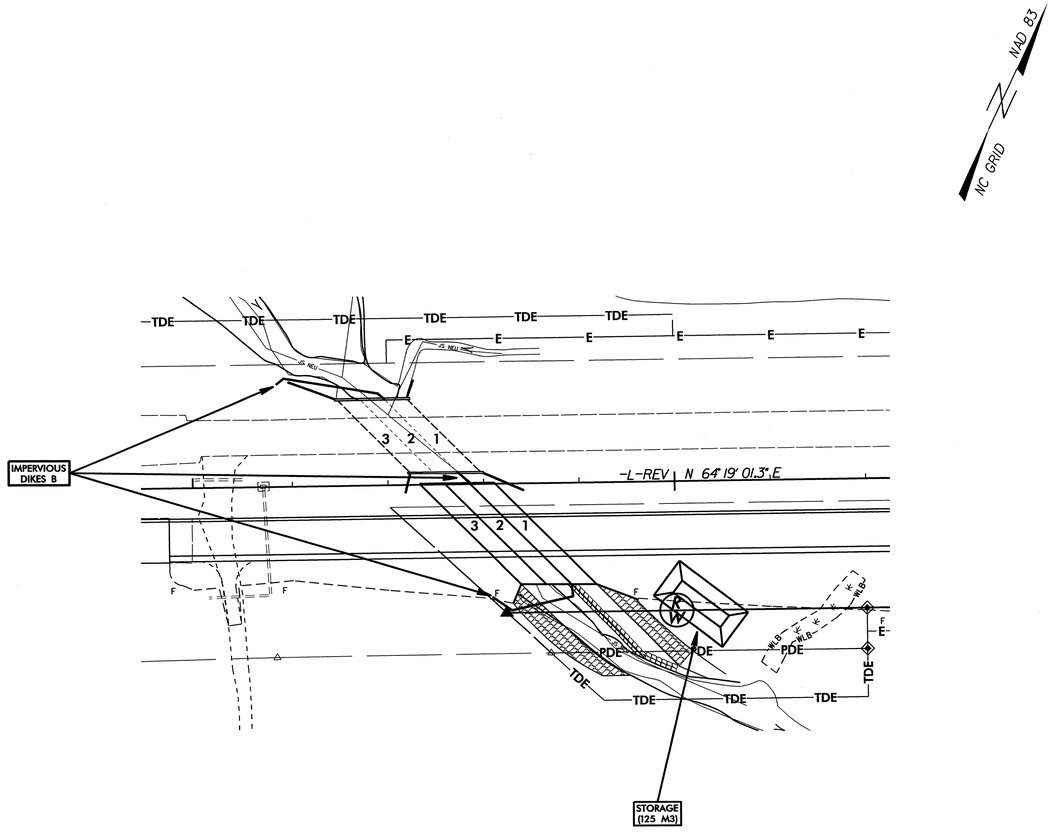
PHASE I

1. CONSTRUCT STILLING BASIN (125 M3).
2. CONSTRUCT IMPERVIOUS DIKES A, DIVERTING FLOW THROUGH EXISTING BARRELS 2 AND 3.
3. CONSTRUCT DOWNSTREAM PORTION OF BARREL 1 OF PROPOSED CULVERT.
4. REMOVE IMPERVIOUS DIKES A.



PHASE II

5. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARREL 1 OF THE EXISTING CULVERT AND THE DOWNSTREAM PORTION OF THE PROPOSED CULVERT.
6. CONSTRUCT DOWNSTREAM PORTION OF BARRELS 2 AND 3 OF THE PROPOSED CULVERT.
7. REMOVE IMPERVIOUS DIKES B AND CONSTRUCT OUTLET CHANNEL IMPROVEMENTS.
8. REMOVE STILLING BASIN.
9. CONSTRUCT ROADWAY OVER COMPLETED PORTION OF THE PROPOSED CULVERT AND SHIFT TRAFFIC.



NOT TO SCALE

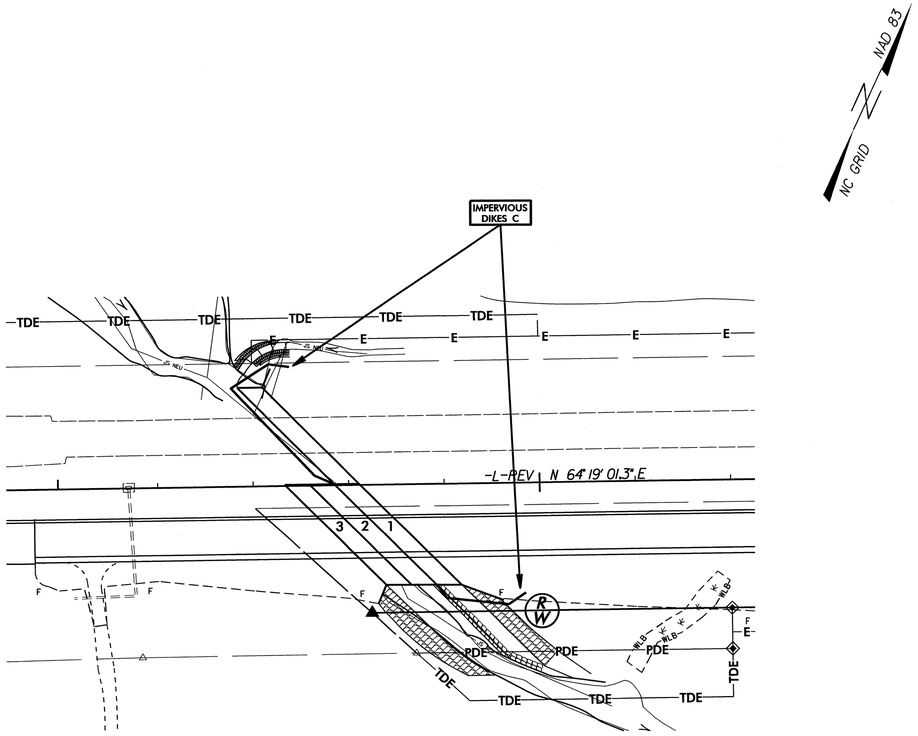
METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2533CC	EC-6/CONST.6
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 200+54.65 –L–REV (SHEET 2 OF 2)

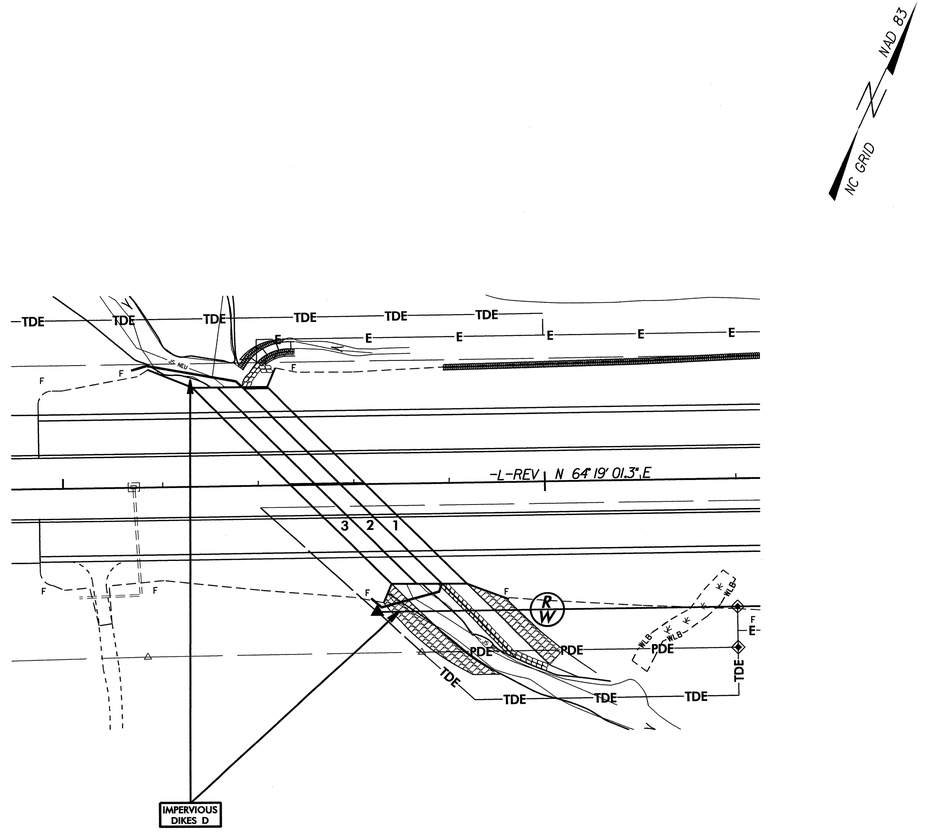
PHASE III

10. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT REMAINDER OF CULVERT CONSTRUCTION.
11. REMOVE THE EXISTING CULVERT.
12. CONSTRUCT IMPERVIOUS DIKES C AND NECESSARY UPSTREAM CHANNEL IMPROVEMENTS, DIVERTING FLOW THROUGH BARRELS 2 AND 3.
13. CONSTRUCT REMAINDER OF BARREL 1.
14. REMOVE IMPERVIOUS DIKES C.



PHASE IV

15. CONSTRUCT IMPERVIOUS DIKES D, DIVERTING FLOW THROUGH COMPLETED BARREL 1.
16. CONSTRUCT REMAINDER OF BARRELS 2 AND 3.
17. REMOVE IMPERVIOUS DIKES D.
18. COMPLETE ANY REMAINING UPSTREAM/DOWNSTREAM CHANNEL IMPROVEMENTS.
19. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S), AND COMPLETE ROADWAY.



NOT TO SCALE


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
PROJ. REFERENCE NO.
R-2533CC
SHEET NO.
EC-7/CONST.7
HIGHWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
5m 0 10m
Prepared in the Office of:
CONST.REV.
R/W REV.
NAD 83
NC GRID
BM 114 EL=196.032, N 184029 E 476341
LREV STA 205+99 51 RT
RR SPIKE IN BASE OF 300MM SWEET GUM TREE
8 x 4 x 1
ID 7.1C&G
NED C. REECE
DB 496 PG 151
DB 794 PG 162
BL-1303 -BL- PINC 12+58.406 =
-L-REV Sta 202+90.845 (0.674 RT)
EL 190.534
(60')
18.288 ACCESS EASEMENT
DB 719 PG 084
TOE PROTECTION W/PSRM
STA. 204+25 TO 204+80 -L- REV LT
SEE DETAIL #2
ROBERT J. FOLEY
& JUDITH M. DUDLEY
DB 1687 PG 139
VIRGINIA McALLISTER SMITH
DB 719 PG 084
SPECIAL CUT DITCH
STA. 204+98 TO 206+60 -L- REV LT
SEE DETAIL #3
BL-1304 -BL- PINC 15+35.932 =
-L-REV Sta 205+68.335 (3.770 LT)
EL 198.122
MATCH LINE -L-REV STA.202+80 SEE SHEET 6
MATCH LINE -L-REV STA.206+60 SEE SHEET 8
-L- N 64° 20' 09.0" E
-L-REV N 64° 19' 01.3" E
REMOVE +/-3m
FILL W/ FLOWABLE MATERIAL
GRADE TO DRAIN
ELIMINATE CUT DITCH
STA. 202+80 TO
203+30 -L-REV RT
CLARENCE A. ALLMAN
& wife HILDA R.
CAROLYN M. MOOSE
DB 254 PG 255
DO NOT DISTURB SEWER LINES
CLASS 'B' RIPRAP
EST 4.5 MTONS
EST 11.7 SM FF
CLASS 'B' RIPRAP
EST 2.7 MTONS
EST 8.4 SM FF
SPECIAL CUT DITCH
STA. 206+00 TO 206+28 -L- REV RT
SEE DETAIL #3
0.6m BASE DITCH
EST/DDE 9.7cm
SEE DETAIL #4
8 x 4 x 1
38 mm Skimmer
with 9 mm
Orifice Diameter
1.5 m weir
ID 7.1C&G
THEODORE F. HUNEYCUTT
DB 2559 PG 135

PROJ. REFERENCE NO.	SHEET NO.
R-2533CC	EC-8/CONST.8
HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

CONST.REV.

R/W REV.

Prepared in the Office of:

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 8

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

11 x 5 x 1
ID 8.1C&G

5m 0 10m
NAD 83
NC GRID
MATCH LINE -L-REV STA.206+60 SEE SHEET 7
MATCH LINE -L-REV STA.210+40 SEE SHEET 9
207+00
208+00
209+00
210+00
VIRGINIA McALLISTER SMITH
DB 719 PG 084
KENNETH W. BEAM
NELL BEAM
DB 1442 PG 230
DB 1783 PG 138
GLENN T. JONES
TAMMY H. JONES
DB 2868 PG 211
WESLEY G. DANGERFIELD
DB 1646 PG 120
ETHELYN SMITH HEGELE
DB 719 PG 090
THEODORE F. HUNEYCUTT
DB 2559 PG 135
MURLEE A. SHORE
DB 470 PG 528
SUE REVELLE GARIFO
DB 957 PG 005
PB 24 PG 19
SPECIAL CUT DITCH
STA. 206+80 TO 207+81 -L-REV LT
SEE DETAIL #3
STA. 208+40 TO 208+80 -L- REV LT
SPECIAL LAT V-DITCH
SEE DETAIL #5
BL-1305 -BL- PINC 17+62.275 =
-L-REV Sta 207+94.202 (18.460 LT)
EL 198.527
LAT V-DITCH
STA. 208+80 TO 210+80 -L- REV LT
SEE DETAIL #6
EST 201 CM DDE
INSTALL DRIVEWAY PIPE DURING
CLEARING AND GRUBBING PHASE.
-L- N 64 20'09.0" E
-L-REV N 64 19' 01.3" E
REMOVE
600 RCP
450 CONC
375 RCP
600 W/ELBOWS
450 W/ELBOWS
0.6m BASE DITCH
EST DDE 2.2 cm
SEE DETAIL #4
GRADE TO DRAIN
CLASS 'B' RIPRAP
EST 4.5 MTONS EA.
EST 11.7 SM FF EA.
CLASS 'B' RIPRAP
EST 0.9 MTONS
EST 4.2 SM FF
RELOCATE DRIVE
PRESET FENCE
BEGIN PRESET FENCE
END PRESET FENCE
STANDARD BERM DITCH
STA.209+50 TO 210+00 -L- REV- RT
SEE PROFILE FOR GRADE
PDE
TDE
BDO
WOODS

METRIC	PROJ. REFERENCE NO.	SHEET NO.
5m 0 10m	R-2533CC	EC-9/CONST.9
CONST.REV.	HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R/W REV.	Prepared in the Office of:	

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.

19 x 9 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
6.5 m weir
ID 9.1C&G

22 x 7 x 1
38 mm Skimmer
with 33 mm
Orifice Diameter
4.5 m weir
ID 9.3C&G

12 x 6 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
3.5 m weir
ID 9.4C&G

13 x 6 x 1
ID 9.2C&G

NAD 83
NC GRID

ETHELYN SMITH HEGELE
DB 719 PG 090

STEVEN B. COCHRANE
DB 624 PG 497

WESLEY G. DANGERFIELD
DB 1646 PG 120

ECB, LLC
DB 3758 PG 037

JOHN RAY NOBLES, JR.
DB 521 PG 561

SUE REVELLE GARIFO
DB 957 PG 005
PB 24 PG 19

CHARLES GILBERT LENTZ, III
& wife JANET DIANE LENTZ
DB 3802 PG 116
PB 24 PG 19

LOUIS M. HELMS, JR.
DB 1434 PG 166

McALISTER CREEK

RIPRAP EMBANKMENT
EST. 12.1 MTONS
EST. 13.9 SM FF
SEE DETAIL #24

BL-1307 -BL- PINC 21+82.498 =
-L-REV Sta 212+13.841 (2.860 LT)
EL 182.774

LATERAL 1.2m BASE DITCH
W/CLASS 'B' RIPRAP
STA. 212+20 TO 213+00 -L-REV LT
SEE DETAIL #8
EST 242 CM DDE
EST 131 MTONS RIPRAP
EST 235.4 SM FF

SPECIAL LAT 0.6m BASE DITCH
STA. 213+00 TO 214+00 -L-REV LT
SEE DETAIL #9

SPECIAL CUT DITCH W/PSRM
STA. 214+00 TO 214+60 -L-REV LT
SEE DETAIL #10
EST 114.5 SM PSRM

BL-1306 -BL- PINC 20+17.160 =
-L-REV Sta 210+49.080 (16.660 LT)
EL 189.386

CLASS 'B' RIPRAP
EST 2.7 MTONS
EST 9.2 SM FF

LAT V-DITCH
STA. 208+80 TO 210+80
-L- REV LT
SEE DETAIL #6

LAT 0.6M BASE DITCH
W/CLASS 'B' RIPRAP
STA. 210+80 TO
212+10 -L- REV LT
EST 178 CM DDE
EST 164 MTONS RIPRAP
EST 339.7 SM FF
SEE DETAIL #18

CLASS 'B' RIPRAP
EST 0.9 MTONS
EST 4.2 SM FF

STANDARD BERM DITCH
STA. 210+66 TO 211+60 -L-REV RT
SEE PROFILE FOR GRADE

BERM DITCH
W/CLASS 'B' RIPRAP
STA. 211+60 TO 211+95 -L-REV RT
SEE DETAIL #7
EST 23 MTONS RIPRAP
EST 47 SM FF

SPECIAL CUT DITCH W/PSRM
STA. 212+26 TO 212+40 -L-REV RT
SEE DETAIL #10
EST 54.4 SM PSRM

-L-REV- N 64°19'01.3"E

-L- N 64°18'27.0"E

MATCH LINE -L-REV STA.210+40 SEE SHEET 8

MATCH LINE -L-REV STA.214+20 SEE SHEET 10

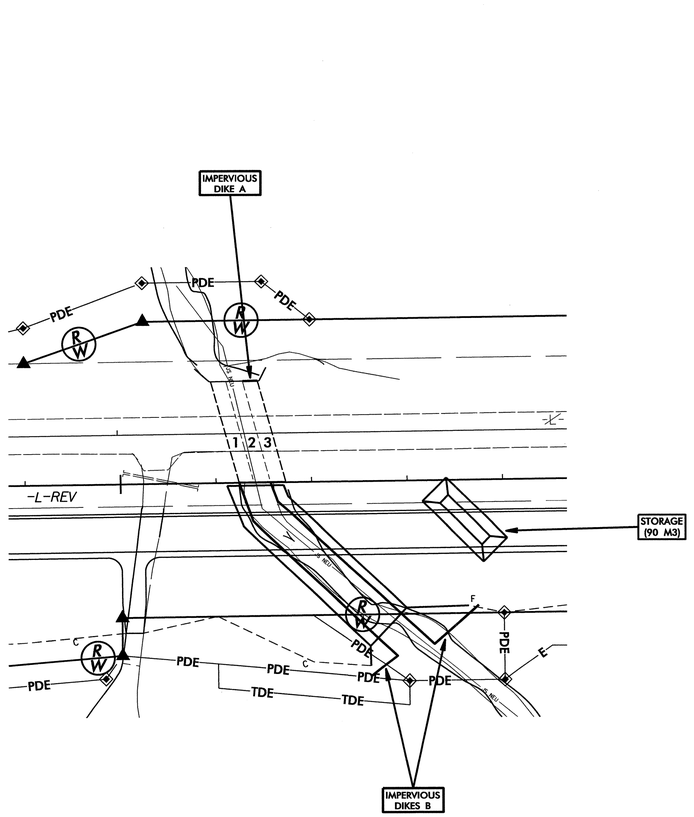
USER: $$USER$$
DGN: $$DGN$$
DATE: $$DATE$$
TIME: $$TIME$$

PROJECT REFERENCE NO.	SHEET NO.
R-2533CC	EC-10/CONST.9
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 212+28 –L–REV

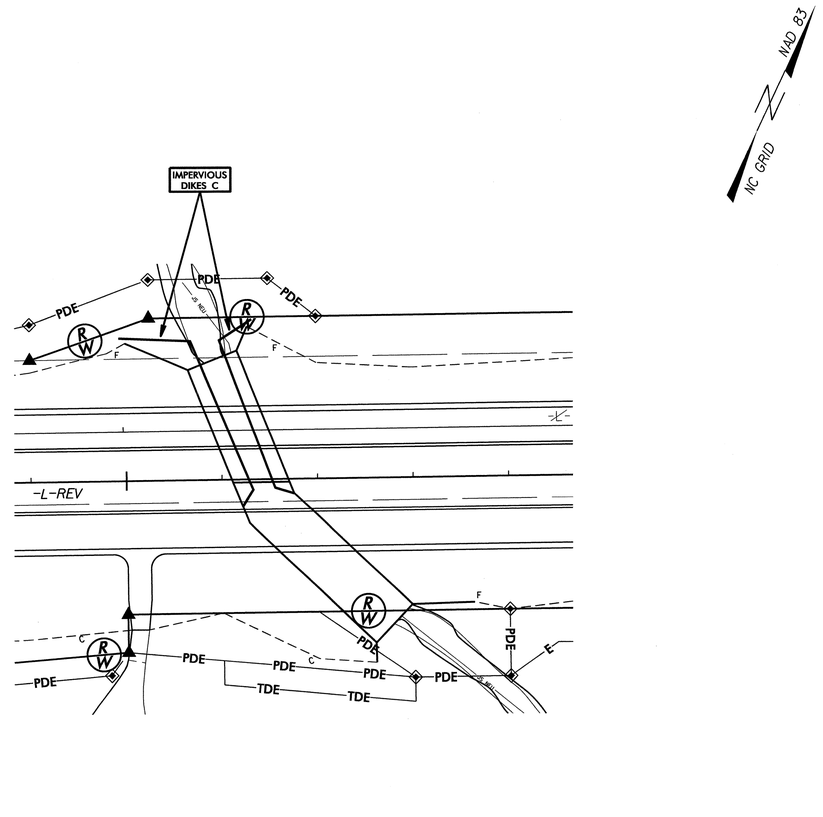
PHASE I

1. CONSTRUCT STILLING BASIN (90 M3).
2. CONSTRUCT IMPERVIOUS DIKES A AND B, DIVERTING FLOW THROUGH BARRELS 1 AND 2 OF EXISTING CULVERT.
3. REMOVE OUTLET WINGWALLS OF EXISTING CULVERT.
4. CONSTRUCT DOWNSTREAM PORTION OF PROPOSED BOTTOMLESS CULVERT, AND ANY NECESSARY OUTLET CHANNEL IMPROVEMENTS.
5. REMOVE IMPERVIOUS DIKES A AND B AND STILLING BASIN.
6. CONSTRUCT PROPOSED ROADWAY OVER COMPLETED PORTION OF CULVERT AND SHIFT TRAFFIC.



PHASE II

7. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT REMAINDER OF CULVERT CONSTRUCTION.
8. REMOVE EXISTING CULVERT.
9. CONSTRUCT IMPERVIOUS DIKES C, DIVERTING FLOW.
10. CONSTRUCT REMAINDER OF PROPOSED BOTTOMLESS CULVERT, AND ANY NECESSARY INLET CHANNEL IMPROVEMENTS.
11. REMOVE IMPERVIOUS DIKES C.
12. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S), AND COMPLETE ROADWAY.



NOT TO SCALE

RW Sheet 8

PROJ. REFERENCE NO.	SHEET NO.
R-2533CC	EC-II/CONST.10

METRIC

HIGHWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

5m 0 10m

Prepared in the Office of:

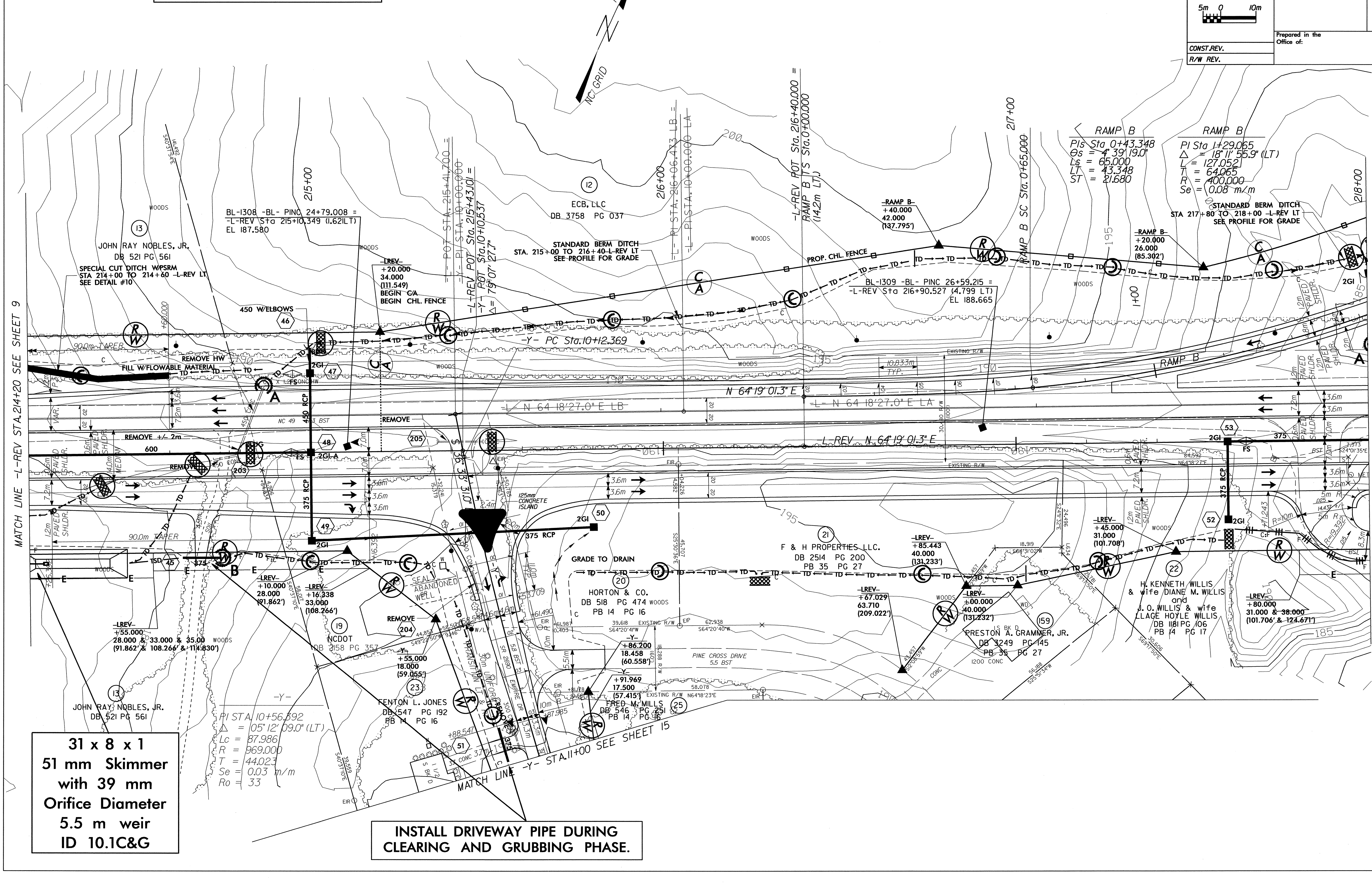
CONST.REV.

R/W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 10

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

BM 1 EL=188.489, N 184635 E 477358
LREV STA 217+79 54 LT
RR SPIKE IN BASE OF 610MM RED OAK



USER: $$USER$$ DGN: $$DGN$$
DATE: $$DATE$$ TIME: $$TIME$$

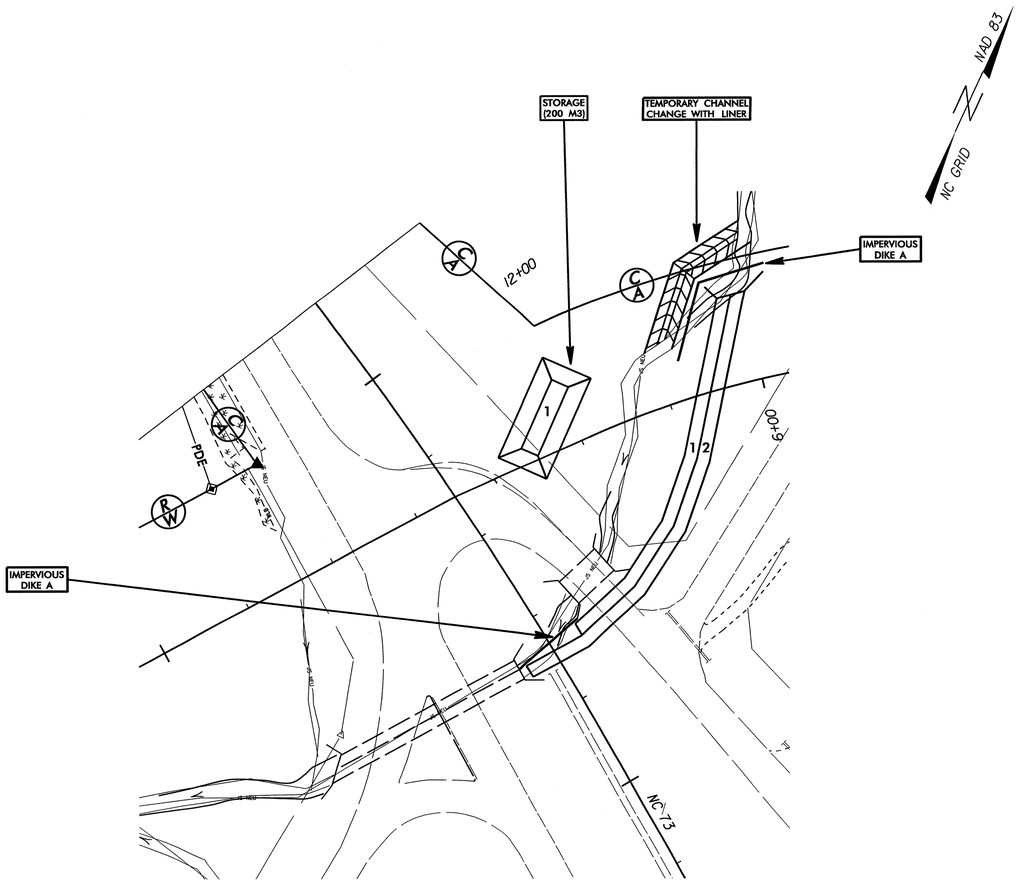

RW Sheet 9
MATCH LINE SEE SHEET 18
PROJ. REFERENCE NO. R-2533C
SHEET NO. EC-12/CONST.JI
METRIC
HIGHWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
SCALE
Prepared in the Office of:
CONST.REV.
R/W REV.
DITCH NOTES
1. SPECIAL LAT. 0.6m DITCH W/CLASS 'B' RIP RAP STA. 11+20 TO 12+03 -Y1-REV RT SEE DETAIL #11
2. LAT. BASE DITCH W/CLASS 'B' RIP RAP STA. 11+55 TO 12+10 -Y1-REV LT SEE DETAIL #18
3. SPECIAL CUT DITCH W/PSRM STA. 11+40 TO 11+83 -Y15-REV LT SEE DETAIL #10
4. SPECIAL CUT DITCH W/PSRM STA. 11+60 TO 11+84 -Y15-REV RT SEE DETAIL #10
5. SPECIAL LAT. V-DITCH STA. 16+40 TO 17+00 -Y1-REV RT SEE DETAIL #5
6. SPECIAL CUT DITCH W/PSRM STA. 16+53 TO 18+00 -Y1-REV LT SEE DETAIL #10
7. LAT V- DITCH W/CLASS 'B' RIPRAP STA. 5+64 TO 5+96 -RAMPA- RT. EST. 6 CM DDE EST. 21 MTONS RIPRAP. EST. 42.9 SM F.F SEE DETAIL#17
8. LAT. 0.6m BASE DITCH W/CLASS 'B' RIP RAP STA. 6+03 TO 6+45 -RAMPA- RT. EST. 51 CM DDE EST. 53 MTONS RIPRAP. EST. 109.7 SM F.F. SEE DETAIL #18
22 x 11 x 1
51 mm Skimmer
with 39 mm
Orifice Diameter
8.5 m weir
ID 11.6C&G
22 x 11 x 1
51 mm Skimmer
with 39 mm
Orifice Diameter
8.5 m weir
ID 11.1C&G
11 x 5 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
2.5 m weir
ID 11.5C&G
17 x 4.5 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
2 m weir
ID 11.3C&G
24 x 8 x 1
38 mm Skimmer
with 33 mm
Orifice Diameter
5.5 m weir
ID 11.2C&G
11 x 5 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
2.5 m weir
ID 11.4C&G
19 x 9 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
6.5 m weir
ID 11.6C&G
20 x 5 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
2.5 m weir
ID 11.7C&G
A
B
D
MARSHALL POPLIN
DB 345 PG 101
DB 383 PG 679
DB 255 PG 078
EDWARD L. HONEYCUTT
DB 355 PG 179
PB 13 PG 48
RAMP A
RAMP B
RAMP D
MATCH LINE -L-REV STA.218+00 SEE SHEET 10
MATCH LINE -L-REV STA.226+00 SEE SHEET 12
MATCHLINE -Y15-REV 11+75 SEE SHEET 19
MATCHLINE -Y1-REV STA.16+60 SEE SHEET 17
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE- B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2533CC	EC-13/CONST JI
	R /W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 12+68.32 –Y1–REV (SHEET 1 OF 2)

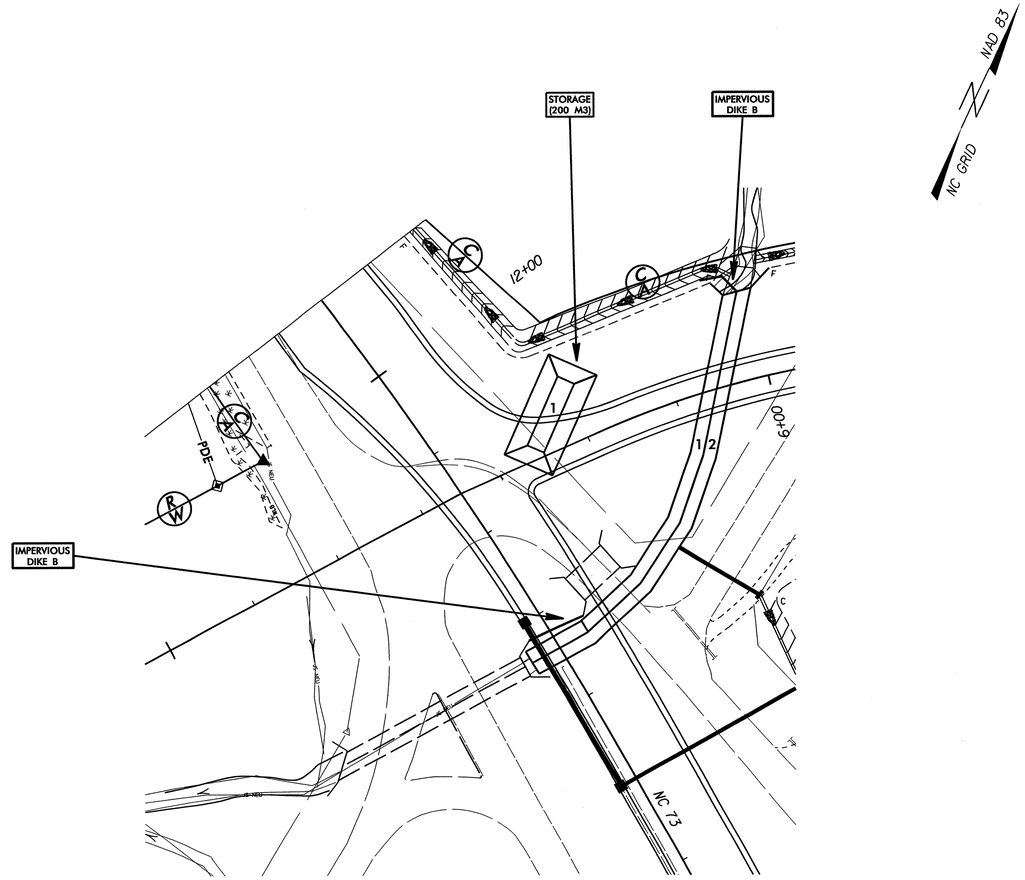
PHASE I

1. CONSTRUCT STILLING BASIN 1 (200 M3).
2. CONSTRUCT IMPERVIOUS DIKES A AND TEMPORARY CHANNEL CHANGE WITH LINER (1.2M BASE, 1M DEEP, 2:1 SIDE SLOPES), DIVERTING FLOW.
3. CONSTRUCT APPROXIMATELY 77 METERS OF BARREL 1 AND 97 METERS OF BARREL 2 OF PROPOSED CULVERT.
4. REMOVE IMPERVIOUS DIKES A AND TEMPORARY CHANNEL CHANGE.



PHASE II

5. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARREL 2 OF PROPOSED CULVERT.
6. CONSTRUCT BARREL 1 TO SAME LIMITS AS BARREL 2 OF PROPOSED CULVERT.
7. REMOVE IMPERVIOUS DIKES B AND STILLING BASIN 1.
8. CONSTRUCT INLET CHANNEL IMPROVEMENTS.
9. CONSTRUCT ROADWAY OVER COMPLETED PORTION OF PROPOSED CULVERT AND SHIFT TRAFFIC.



NOT TO SCALE

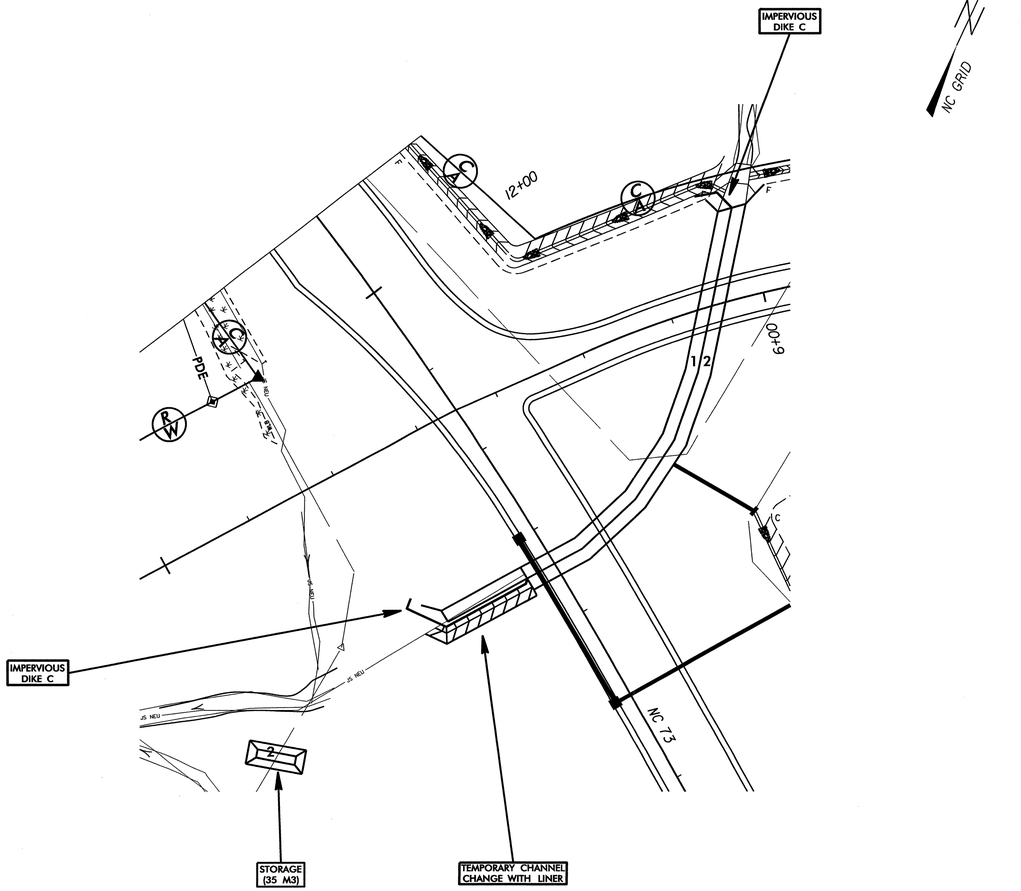
METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2533CC	EC-14/CONST.11
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 12+68.32 –Y1–REV (SHEET 2 OF 2)

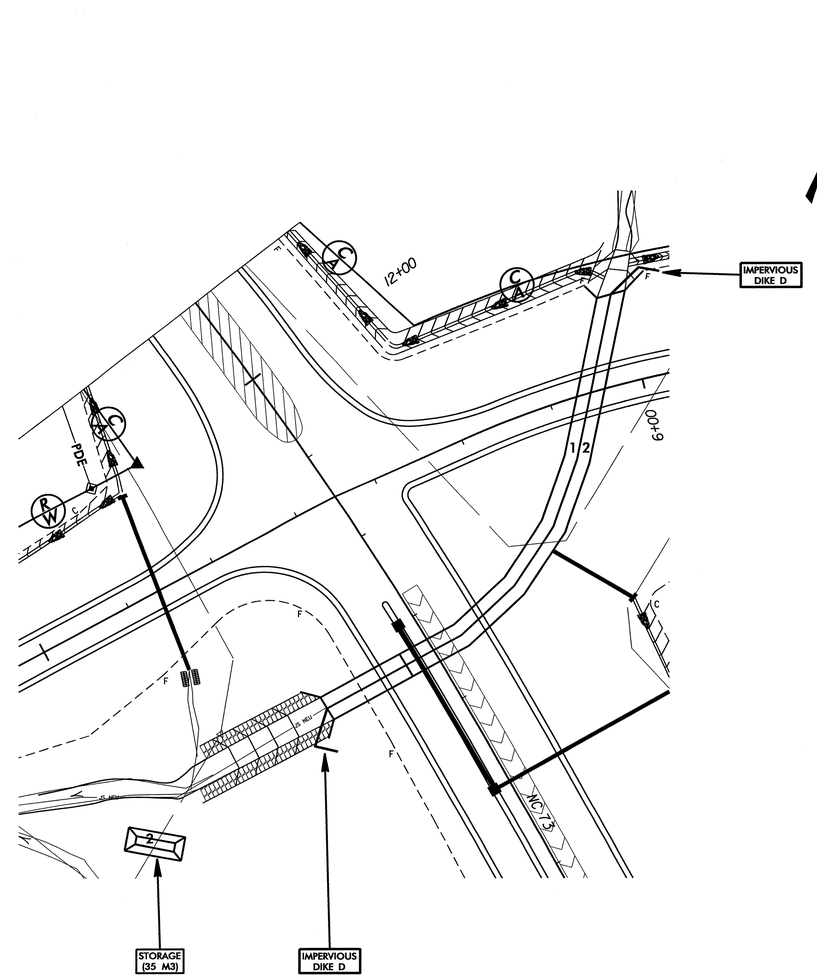
PHASE III

10. CONSTRUCT STILLING BASIN 2 (35 M3).
11. REMOVE EXISTING CULVERT.
12. CONSTRUCT IMPERVIOUS DIKES C AND TEMPORARY CHANNEL CHANGE WITH LINER (1.2M BASE, 1M DEEP, 2:1 SIDE SLOPES), DIVERTING FLOW THROUGH BARREL 2 OF PROPOSED CULVERT.
13. CONSTRUCT REMAINDER OF BARREL 1 OF PROPOSED CULVERT.
14. REMOVE IMPERVIOUS DIKES C AND TEMPORARY CHANNEL CHANGE.



PHASE IV

15. CONSTRUCT IMPERVIOUS DIKES D, DIVERTING FLOW THROUGH COMPLETED BARREL 1 OF PROPOSED CULVERT.
16. CONSTRUCT REMAINDER OF BARREL 2 OF PROPOSED CULVERT.
17. REMOVE IMPERVIOUS DIKES D.
18. CONSTRUCT OUTLET CHANNEL IMPROVEMENTS.
19. REMOVE STILLING BASIN 2, AND COMPLETE ROADWAY.



NOT TO SCALE

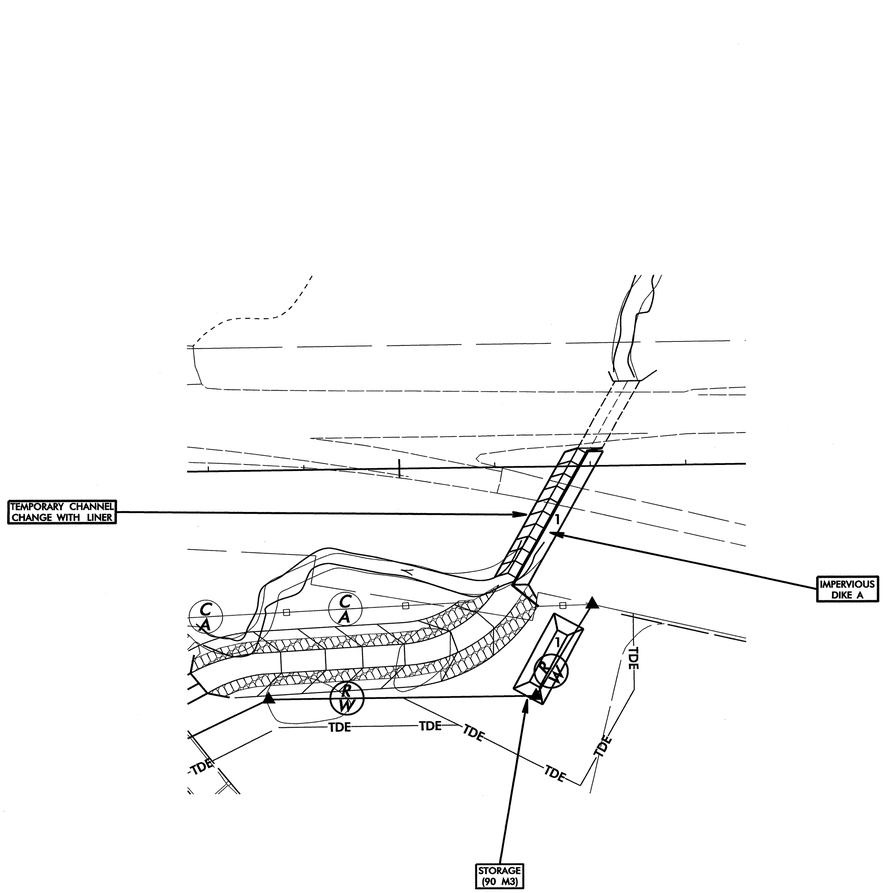
METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2533CC	EC-15/CONST.11
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 219+37.8 –L–REV (SHEET 1 OF 2)

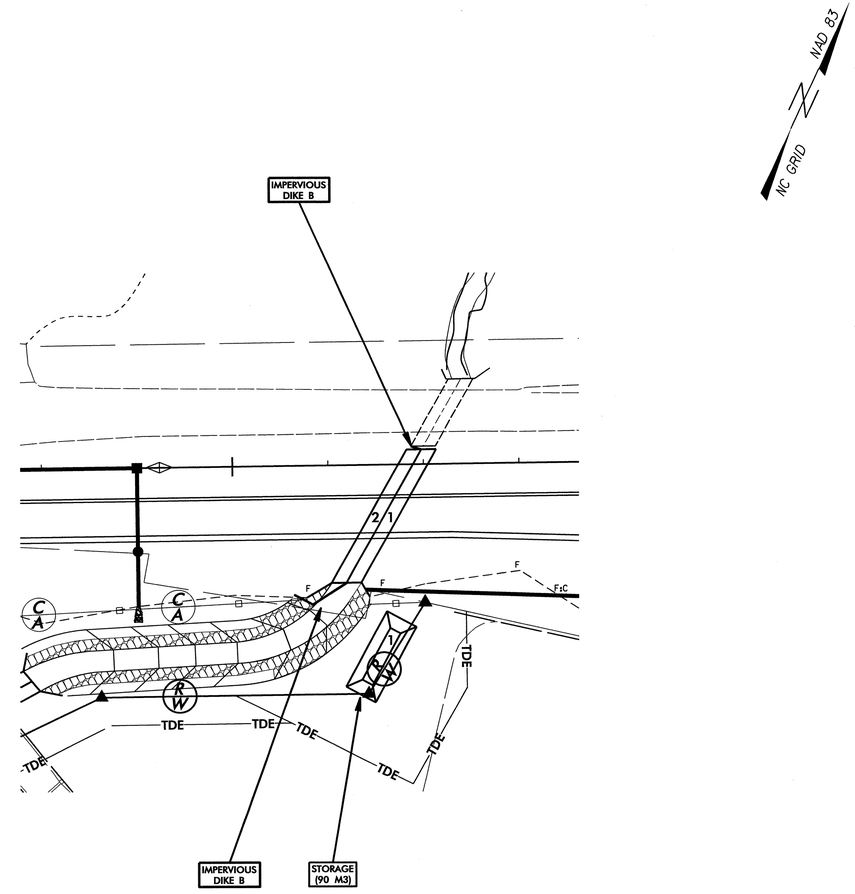
PHASE I

1. CONSTRUCT STILLING BASIN 1 (90 M3).
2. REMOVE APPROXIMATELY 22.5 METERS OF THE EXISTING CULVERT.
3. CONSTRUCT IMPERVIOUS DIKE A AND TEMPORARY CHANNEL CHANGE WITH LINER (2M BASE, 1M DEEP, 2:1 SIDE SLOPES), DIVERTING FLOW.
4. CONSTRUCT APPROXIMATELY 32 METERS OF BARREL 1 OF PROPOSED CULVERT.
5. CONSTRUCT OUTLET CHANNEL CHANGE.
6. REMOVE IMPERVIOUS DIKE A AND TEMPORARY CHANNEL CHANGE.



PHASE II

7. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARREL 1 OF PROPOSED CULVERT.
8. CONSTRUCT BARREL 2 TO SAME LIMITS AS BARREL 1 OF PROPOSED CULVERT.
9. REMOVE IMPERVIOUS DIKES B AND STILLING BASIN 1.
10. CONSTRUCT ROADWAY OVER COMPLETED PORTION OF PROPOSED CULVERT AND SHIFT TRAFFIC.



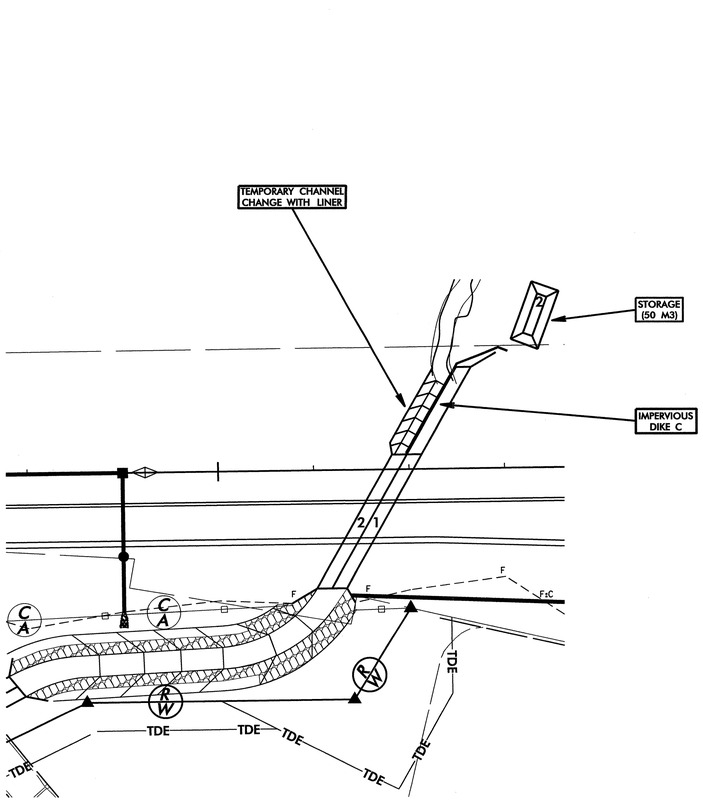
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
R-2533CC	EC-16/CONST.11
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 219+37.8 –L–REV (SHEET 2 OF 2)

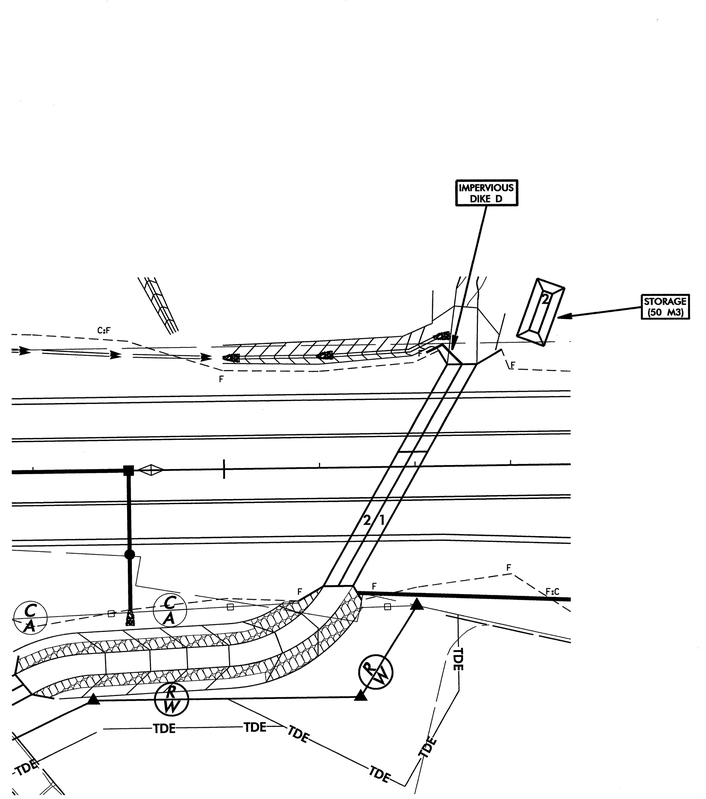
PHASE III

11. CONSTRUCT STILLING BASIN 2 (50 M3).
12. REMOVE REMAINDER OF EXISTING CULVERT.
13. CONSTRUCT IMPERVIOUS DIKE C AND TEMPORARY CHANNEL CHANGE WITH LINER (2M BASE, 1M DEEP, 2:1 SIDE SLOPES), DIVERTING FLOW THROUGH BARREL 2 OF PROPOSED CULVERT.
14. CONSTRUCT REMAINDER OF BARREL 1 OF PROPOSED CULVERT.
15. REMOVE IMPERVIOUS DIKE C AND TEMPORARY CHANNEL CHANGE.



PHASE IV

16. CONSTRUCT IMPERVIOUS DIKE D, DIVERTING FLOW THROUGH COMPLETED BARREL 1 OF PROPOSED CULVERT.
17. CONSTRUCT REMAINDER OF BARREL 2 OF PROPOSED CULVERT.
18. REMOVE IMPERVIOUS DIKES D.
19. CONSTRUCT INLET CHANNEL IMPROVEMENTS.
20. REMOVE STILLING BASIN 2, AND COMPLETE ROADWAY.



NOT TO SCALE

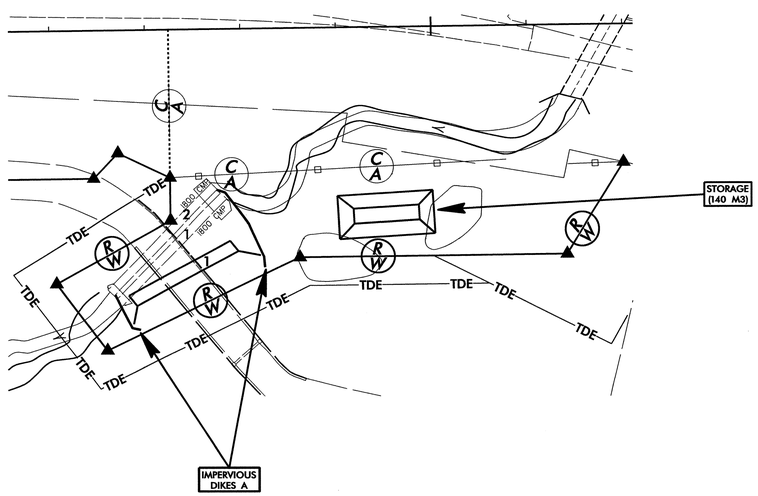
METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2533CC	EC-17/CONST.II
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 218+46.294 –L–REV (50.221M RT.)

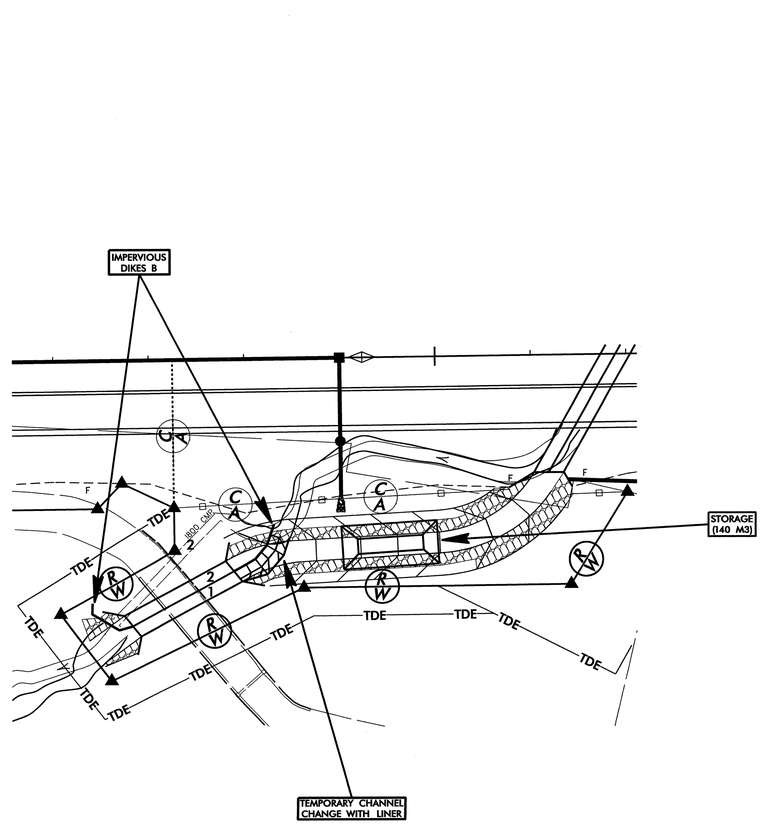
PHASE I

1. CONSTRUCT STILLING BASIN (140 M3).
2. CONSTRUCT IMPERVIOUS DIKES A, DIVERTING FLOW THROUGH EXISTING 1800MM CMP 2.
3. REMOVE EXISTING 1800MM CMP 1.
4. CONSTRUCT BARREL 1 OF PROPOSED CULVERT.
5. REMOVE IMPERVIOUS DIKES A.



PHASE II

6. CONSTRUCT IMPERVIOUS DIKES B AND TEMPORARY CHANNEL CHANGE WITH LINER (2M BASE, 1M DEEP, 2:1 SIDE SLOPES), DIVERTING FLOW THROUGH BARREL 1 OF PROPOSED CULVERT.
7. REMOVE EXISTING 1800MM CMP 2.
8. CONSTRUCT BARREL 2 OF PROPOSED CULVERT, AND OUTLET CHANNEL IMPROVEMENTS.
9. REMOVE IMPERVIOUS DIKES B, TEMPORARY CHANNEL CHANGE, AND STILLING BASIN.
10. CONSTRUCT INLET CHANNEL CHANGE, AND COMPLETE ROADWAY.



NOT TO SCALE

METRIC

PROJ. REFERENCE NO.	SHEET NO.
R-2533CC	EC-18/CONST.12
HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Prepared in the Office of:	
CONST.REV.	
R/W REV.	

5m 0 10m

NAD 83 NC GRID

BM 4 EL=207.539 N 185039 E 478276
LREV STA 227+81.21 LT
RR SPIKE IN BASE OF POWER PLANE

-L-REV POT Sta. 226+90.000 =
RAMP A POT Sta. 0+00.000 (14.2m LT.)
Δ = 2°18'00.0" RT.

-SERI- POT Sta. 9+41.825
BEGIN CONSTRUCTION

RAMP A
PIs Sta 0+98.348
Θs = 4°39'19.0"
Ls = 65.000
LT = 43.348
ST = 21.680

-SERI-
PI Sta 11+33.910
Δ = 83°58'01.5" (RT)
L = 29.310
T = 17.998
R = 20.0000
Se = NC

-SERI- PC Sta.11+15.912

-SERI- PT Sta.11+45.223

-L- PC STA. 22+04.587

-L- PT STA. 24+47.789
Δ = 23°36'10.0" (RT)
Lc = 479.505
R = 1,164.000
T = 243.202

BL-1314 -BL- PINC 36+62.144 =
-L-REV Sta 226+91.617 (3.044 LT)
EL 205.496

NCGS TRIBUNE -BL- PINC 38+91.535 =
-L-REV Sta 229+19.814 (15.216 LT)
EL 212.791

-L-REV POT Sta. 226+52.165
RAMP D TS Sta. 0+00.000
(14.2m RT.)

-SERI- POT Sta. 228+07.741
-L-REV TS Sta. 228+07.741

-L-REV SC Sta. 228+67.741

MATCH LINE -L-REV STA.226+00 SEE SHEET 11

MATCH LINE -L-REV STA.229+80 SEE SHEET 13

INSTALL DRIVEWAY PIPE DURING CLEARING AND GRUBBING PHASE.

12 x 3 x 1
ID 12.1C&G

12 x 6 x 1
ID 12.2C&G

MARVIN A. WETTER
DB 251 PG 088

COY E. COLEY
DB 405 PG 376
DB 519 PG 247

LACY B. HURLOCKER
DB 399 PG 397

HARRY H. FAGGART
DB 239 PG 44
DB 496 PG 618

MATH B. WHITLEY
DB 296 PG 182

JULIA I. KRIMMINGER
DB 171 PG 187
DB 202 PG 104
DB 198 PG 162

EDITH KATHLEEN HONEYCUTT
DB 258 PG 006
PB 8 PG 38

HUGH VONCANNON
DB 202 PG 083

DAVID M. YARBOROUGH
DB 604 PG 048
DB 616 PG 100

HMO INVESTMENTS, INC.
DB 695 PG 145

NCDOT
DB 795 PG 397

WALDO E. HELMS
DB 623 PG 715

MARVIN E. WILDER
DB 526 PG 168

ROBERT E. LEE ALLMAN
DB 412 PG 313

LAWRENCE E. EUDY
DB 259 PG 298
DB 535 PG 140

EDWARD F. LEGAL
DB 207 PG 11

HARRY H. FAGGART
DB 475 PG 666

ROBERT E. LEE ALLMAN
DB 412 PG 313

RAMP A TS Sta. 0+55.000

RAMP D
PIs Sta 0+43.348
Θs = 4°39'19.0"
Ls = 65.000
LT = 43.348
ST = 21.680

SPECIAL CUT DITCH
STA. 9+85 TO 10+72 -SERI- LT
SEE DETAIL #3

LAT V-DITCH
STA 11+19 TO 11+40 -SERI- LT
SEE DETAIL #6

LAT V-DITCH
STA 228+13 TO 228+60 -L-REV LT
EST 40 CM DDE
SEE DETAIL #6

SPEC. LAT. V-DITCH
STA. 228+60 TO 229+40 -L-REV LT.
SEE DETAIL #5

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

CLASS 'I' RIPRAP
EST 6.4 MTONS
EST 12.5 SM FF

DENOTES REMOVAL OF EXISTING PAVEMENT

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 12

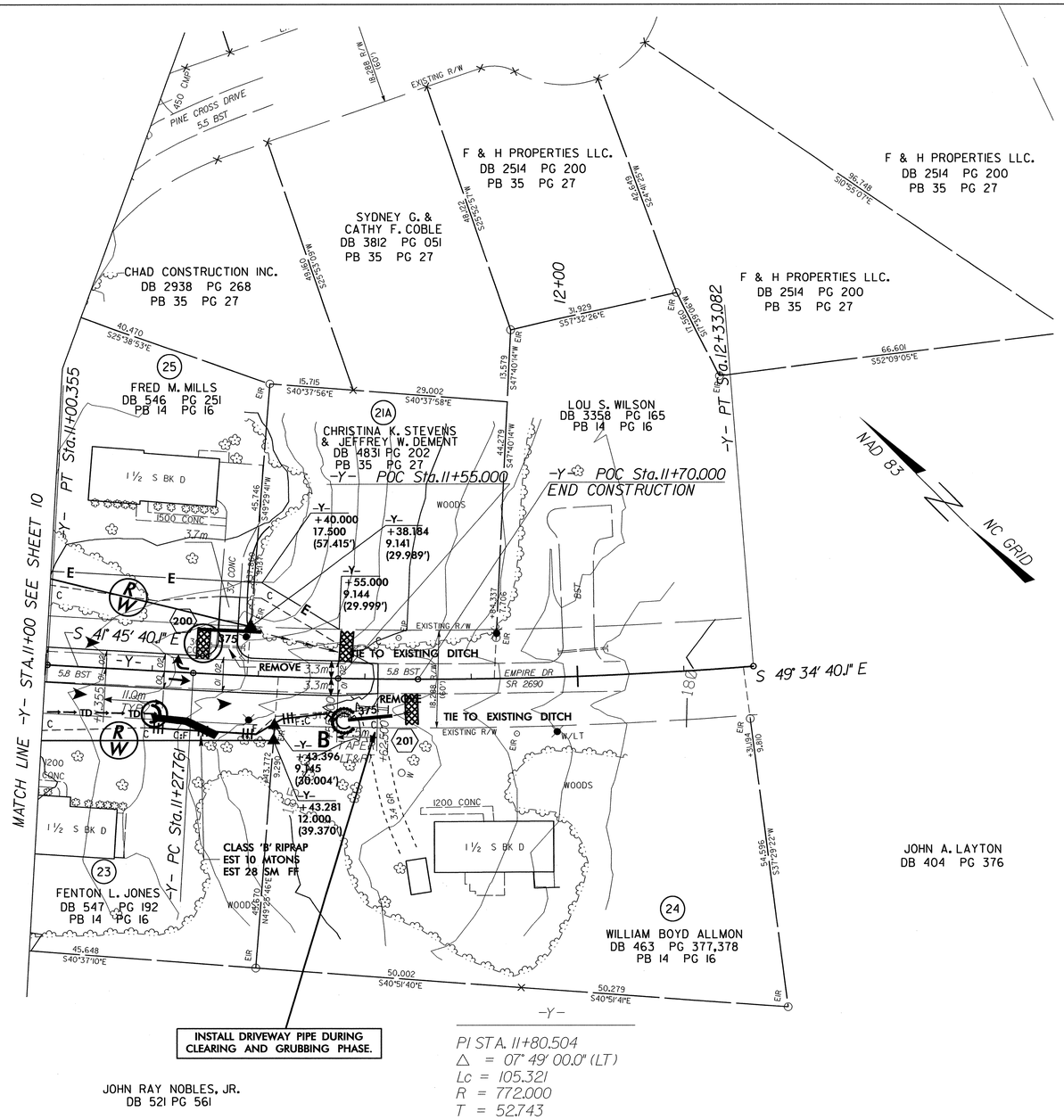
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE- B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.

DATE: $$DATE$$
TIME: $$TIME$$
USER: $$USER$$
DGN: $$DGN$$


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.
10 x 4 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
1.5 m weir
ID 13.1C&G
METRIC
PROJ. REFERENCE NO.
SHEET NO.
R-2533CC
EC-19/CONST13
HIGHWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
Prepared in the Office of:
CONST.REV.
R/W REV.
5m 0 10m
HUGH VONCANNON
DB 202 PG 083
THYRA E. DRYE
DB 549 PG 184
PB 8 PG 14
BEGIN CONSTRUCTION
-Y2-REV POC Sta.10+52.500
JOHN J. HILL
DB 508 PG 618
PB 8 PG 14
VANCE E. MILLER
DB 409 PG 243
PB 8 PG 14
-Y2-REV POT Sta.10+20.000
-Y2-REV PC Sta.10+45.630
-Y2-REV POC Sta.10+60.000
-Y2-REV PCC Sta.10+84.999
GLORIA PETREA GRIFFIN
DB 537 PG 012
PB 8 PG 14
RETHER FRICK
DB 157 PG 072
PB 8 PG 14
BARBARA K. McCLESTER
DB 349 PG 98
PB 8 PB 14
BM 5 EL=217.201, N 185154 E 478634
LREV STA 231+54 13 LT
RR SPIKE IN BASE OF POWER POLE
JEFFERY LEE ALLMAN
DB 862 PG 008
PB 8 PB 14
JAMES D. HONEYCUTT
DB 240 PG 335
PB 8 PG 38
58 NO CLAIM
WILLIAM R. HONEYCUTT, JR.
DB 258 PG 008
PB 8 PG 38
EDITH H. EAGLE
DB 199 PG 152
PB 8 PB 38
JENNIFER R. & HYDRICK STONE
DB 2566 PG 320
PB 8 PG 14
EDITH KATHLEEN HONEYCUTT
DB 258 PG 006
PB 8 PG 38
CLASS 'B' RIPRAP
EST 2.7 MTONS
EST 8.4 SM FF
BL-1316 -BL- PINC 40+98.229 =
-L-REV Sta 241+24.173 (14.089 LT)
EL 216.912
SPEC. BACK OF CURB CUT DITCH
STA. 231+80 TO 232+20 -L-REV LT
STA. 232+30 TO 232+50 -L-REV LT
STA. 232+60 TO 233+04 -L-REV LT
SEE DETAIL #20
EST DDE 1.5 CM
SEE DETAIL #21
SEPTIC LEACH LINE LOCATION BY USE OF GROUND PENETRATING RADAR AND PROPERTY OWNER TESTIMONY
DO NOT DISTURB SEPTIC SYSTEM
MATCH LINE -L-REV STA.229+80 SEE SHEET 12
MATCH LINE -L-REV STA.233+40 SEE SHEET 14
-L-REV
-L-REV CS Sta. 232+81.288
BL-1317 -BL- PINC 42+27.926 =
-L-REV Sta 232+51.077 (12.655 (RT), EL 214.806
-L-REV POC Sta. 232+36.562 =
-Y3- POT Sta. 10+01.541
Δ= 66° 54' 48.31"
-L-REV POC Sta.231+46.781 =
-Y2-REV PT Sta.11+57.831
Δ= 79° 13' 7.1"
-L- POC STA. 26+33.400 =
-Y3- PI STA. 10+000
CAROLYN E. EUDY
DB 261 PG 206
PB 8 PG 13
ROBERT E. LEE ALLMAN
DB 412 PG 313
COLLAR AND EXTEND
W600 RCP
REMOVE DI
CLASS 'B' RIPRAP
EST 2.7 MTONS
EST 9.2 SM FF
COLLAR AND EXTEND
W/600 RCP
ROBERT E. ALLMAN
DB 282 PG 069
PB 8 PB 14
ROBERT E. ALLMAN
DB 899 PG 89
PB 8 PB 14
-Y3- PC Sta. 11+02.225
-Y3- POC Sta. 11+07.500
END CONSTRUCTION
-Y3- POT Sta. 11+00.00
-Y3- PT Sta. 11+51.245
ROBERT E. LEE ALLMAN
DB 412 PG 313
OLA MAE McCLESTER
DB 342 PG 244
DOUGLAS H. STEADMAN
DB 2187 PG 220
PB 8 PB 14
INSTALL DRIVEWAY PIPE DURING CLEARING AND GRUBBING PHASE.

RW Sheet 12

PROJ. REFERENCE NO.
R-2533CC
SHEET NO.
EC-20/CONST.14
METRIC
HIGHWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
Prepared in the Office of:
CONST.REV.
R/W REV.
5m 0 10m
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE- B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 14
NAD 83
NC GRID
JOHN HINSON
DB 246 PG 159
PB 8 PG 14
RETHER FRICK
DB 157 PG 072
PB 8 PG 14
64
JEFFERY LEE ALLMAN
DB 862 PG 008
PB 8 PB 14
70
BOARD OF EDUCATION OF CABARRUS COUNTY
DB 228 PG 192
DB 235 PG 141
DB 212 PG 068
234+00
235+00
236+00
237+00
MT. PLEASANT CITY LIMITS
END T.I.P. PROJECT R-2533CC
-L-REV POT Sta 234+20.000
END CONSTRUCTION
-L-REV POT Sta 234+65.000
-L-REV ST Sta. 233+41.288
TOE PROTECTION
STA. 233+30 TO 234+30 -L-REV LT
EST 129 MTONS CLASS 'B' RIPRAP
EST 268 SM FF
SEE DETAIL #1
CLASS 'B' RIPRAP
EST 0.9 MTONS
EST 4.2 SM FF
REMOVE HEADWALL COLLAR AND EXTEND
PROPOSED EASEMENT T.I.P PROJECT R-2533CD
-L-REV N 87° 54' 37.0" E
MATCH LINE -L-REV STA.233+40 SEE SHEET 13
REMOVE EXISTING GUARDRAIL
BL-1318 -BL- POT 43+90.582 = -L-REV Sta 234+13.751(29.116 RT)
EL 211.449
CLASS 'I' RIPRAP
EST 6.4 MTONS
EST 12.5 SM FF
CLASS 'I' RIPRAP
EST 3.6 MTONS
EST 8.4 SM FF
LAT. 0.6m BASE DITCH W/CLASS 'B' RIPRAP
STA. 233+71 TO 233+97 -L-REV RT
EST 23 CM DDE
EST 33 MTONS RIPRAP
EST 67.9 SM FF
SEE DETAIL #18
PROPOSED R/W T.I.P PROJECT R-2533CD
71A
FIRST BANK
DB 4137 PG 069
71B
D. G. DEVELOPEMENT PROPERTIES, INC.
DB 4788
PG 308
73
RONALD WAYNE McLESTER
DB 566 PG 267
DB 506 PG 482
DONALD LUTHER SCOTT
DB 813 PG 392
RONALD McCLESTER
DB 653 PG 252
71
FISHER EARNHARDT OIL CO.
DB 381 PG 563
EDWIN L. EARNHARDT SR.
DB 883 PG 180
PB 08 PG 040
ROBERT E. ALLMAN
DB 282 PG 069
PB 8 PB 14
69
ROBERT E. ALLMAN
DB 899 PG 89
PB 8 PB 14
ROBERT E. ALLMAN
DB 282 PG 069
PB 8 PB 14
JERRY O. GORDON
DB 451 PG 322
RALPH F. EUDY
DB 428
PG 343
12 x 5 x 1
38 mm Skimmer
with 18 mm
Orifice Diameter
2.5 m weir
ID 14.1C&G
PUMP HOUSE
GAS TANKS
1 S BLK BUS



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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 15

METRIC

5m 0 10m

PROJ. REFERENCE NO.	SHEET NO.
R-2533CC	EC-21/CONST.15
HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Prepared in the Office of:

CONST.REV.

R/W REV.

DATE: ##DATE##
TIME: ##TIME##
USER: ##USER##
DGN: ##DGN##

RW Sheet 14

PROJ. REFERENCE NO.	SHEET NO.
R-2533CC	EC-22/CONST.J6
HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Prepared in the Office of:

METRIC

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 16

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

BETTY L. KELLY
DB 711 PG 313
MARGIE CRAMER
78-E-367
HELEN SMITH ALLEN
DB 788 PG 102
137
NC GRID
WOODS
-Y1-REV POT Sta.9+30.969
-Y1REV-
+71.685
9.144 & 22.942
(29.999' & 75.268')
-Y1-REV POT Sta.10+00.000
-Y1-REV POT STA.10+43.240 =
-Y1-PC STA.10+43.240
-Y16-REV PT Sta.13+07.080
S 39°16' 00.0"W
-Y16REV-
+00.000
12.000
(39.370')
-Y1-REV POS Sta.11+35.000 =
-Y16-REV POT Sta.13+39.080
Δ=74°59' 58.09"
MATCH LINE -Y16-REV STA.13+00 SEE SHEET 18
BEGIN C/A &
BEGIN CHL FENCE
-Y1REV-
+60.000,
24.000
(78.740')
CLASS 'B' RIPRAP
EST 4.5 MTONS
EST 11.7 SM FF
28
MARSHALL POPLIN
DB 345 PG 101
DB 383 PG 679
DB 255 PG 078
LATERAL 0.6m BASE DITCH
W/CLASS 'B' RIPRAP
STA 11+55 TO 12+10 -Y1-REV LT
EST 56 CM DDE
EST 69 MTONS RIPRAP
EST 143.7 SM FF
SEE DETAIL #18
MATCH LINE -Y1-REV STA.11+80 SEE SHEET 11
RETAIN
REMOVE
S 67°59' 31.9" E
-Y1-REV
TO CONCORD
180m TAPER
LANE DROP
60m TAPER
ADD LANE
210m UNIFORM TRANSITION LT.& RT. MEDIAN
-Y1-REV POT Sta.9+60.000
BEGIN CONSTRUCTION
-Y1REV-
+60.000
9.144 &13.000
(30.00' & 42.651')
-Y1REV-
+71.685
9.145 &13.00 &23.000
(30.002' &42.651 &75.460')
-Y1-REV POT Sta.9+79.185
-Y1REV-
+00.000
23.000 (75.459')
CLASS 'I' RIPRAP
EST 10 MTONS
EST 18.4 SM FF
SPEC. LAT. 0.6m DITCH
W/CLASS 'B' RIPRAP
STA. 11+20 TO 12+03 -Y1-REV RT
EST 75 MTONS RIPRAP
EST 200.6 SM FF
SEE DETAIL #11
GEORGE F. McALLISTER & WIFE
BARBARA C. McALLISTER
DB 3384 PG 199
27A
BEGIN C/A &
BEGIN CHL FENCE
-Y1REV-
+60.000
28.611
(93.868')
-Y1-REV SC Sta.11+38.558
22 x 10 x 1
38 mm Skimmer
with 36 mm
Orifice Diameter
6.5 m weir
ID 16.1C&G
ROBIN ANN McALLISTER
DB 3434 PG 113
27
MARION HYMAN
DB 265 PG 157
O.H. GOODMAN
DB 311 PG 064
139
D.J. HONEYCUTT
DB 320 PG 090

PROJ. REFERENCE NO.	SHEET NO.
R-2533CC	EC-23/CONST.17
HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5m 0 10m

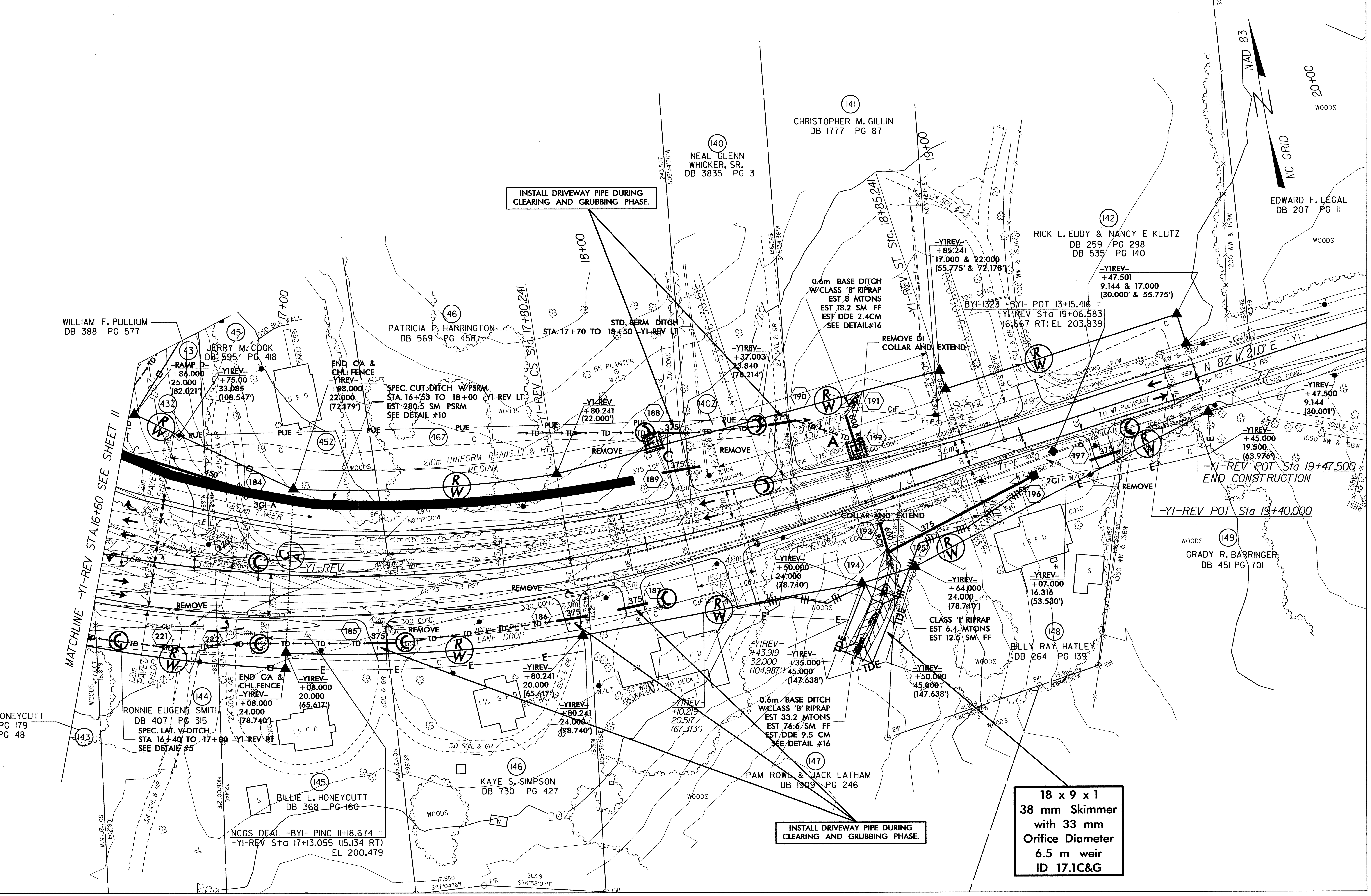
Prepared in the Office of:

CONST.REV.

R/W REV.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 17

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



PROJ. REFERENCE NO.	SHEET NO.
R-2533CC	EC-24/CONST.18
HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

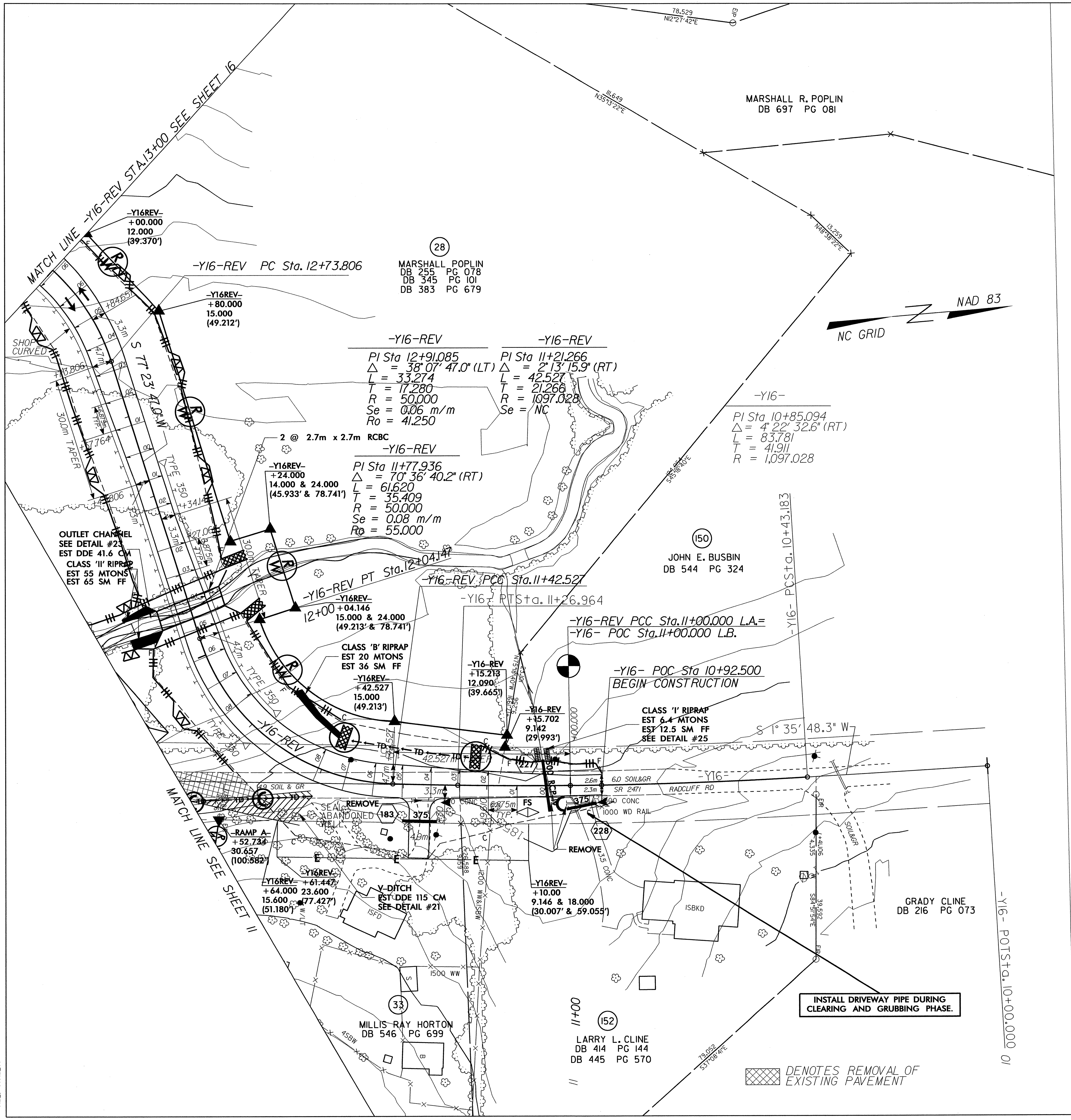
METRIC

5m 0 10m

CONST.REV.

R/W REV.

Prepared in the Office of:



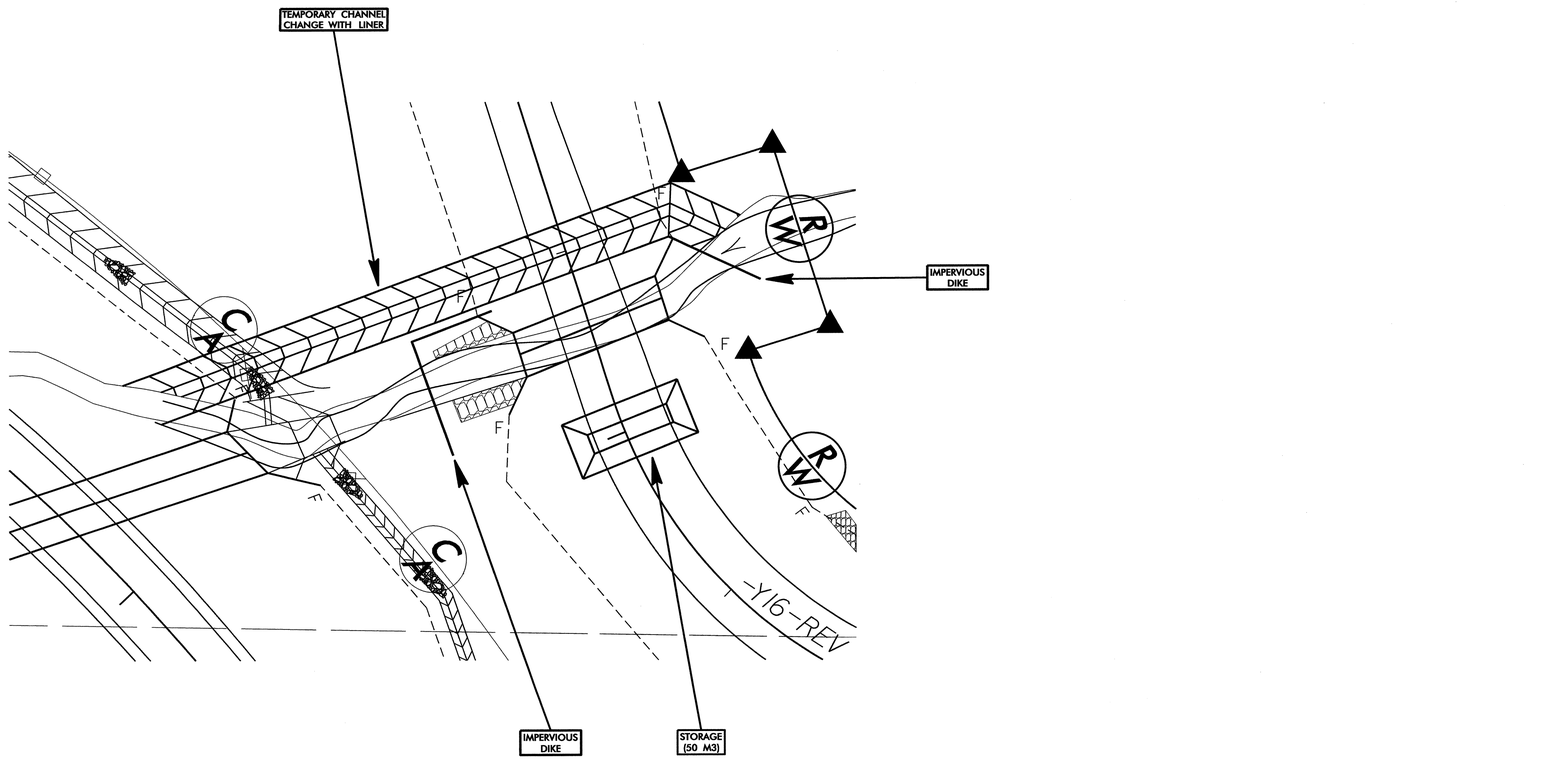
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 18

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

PROJECT REFERENCE NO.	SHEET NO.
R-2533CC	EC-25/CONST18
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 12+11.6 –Y16–REV

1. CONSTRUCT STILLING BASIN (50 M3).
2. CONSTRUCT IMPERVIOUS DIKES AND TEMPORARY CHANNEL CHANGE WITH LINER (1.2M BASE, 1M DEEP, 2:1 SIDE SLOPES), DIVERTING FLOW.
3. CONSTRUCT PROPOSED CULVERT.
4. CONSTRUCT ANY NECESSARY INLET/OUTLET CHANNEL IMPROVEMENTS.
5. REMOVE IMPERVIOUS DIKES AND TEMPORARY CHANNEL CHANGE.
6. REMOVE STILLING BASIN, AND COMPLETE ROADWAY.



NOT TO SCALE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 19

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

METRIC

5m 0 10m

PROJ. REFERENCE NO.	SHEET NO.
R-2533CC	EC-26/CONST.19
HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Prepared in the Office of:	
CONST.REV.	
R/W REV.	

RONNIE EUGENE SMITH
DB 407 PG 315

108.204 S07°20'15"W

(143) EDWARD L. HONEYCUTT
DB 355 PG 179
PB 13 PG 48

54.350 N11°50'30"E

35.116 N11°50'30"E

NC GRID NAD 83

SPECIAL CUT DITCH W/PSRM
STA. 11+60 TO 11+84 -Y15-REV RT
SEE DETAIL #10

-Y15- PTS Sta. 11+64.759

-Y15- POS Sta. 11+17.236

-Y15REV-
+56.000
16.619
(54.524')

-Y15REV-
+40.000
17.000
(55.774')

(153) WILLIE R. LEE
DB 415 PG 098
PB 13 PG 48

(154) ZEB V. RINEHARDT
DB 366 PG 042
DB 366 PG 190
PB 13 PG 48

REMOVE

-Y15-REV
+60.795
12.000
(39.370')

GRADE TO DRAIN

-Y15-REV
+60.751
9.144
(30.000')

DONALD LEE EUDY
DB 476 PG 349
PB 13 PG 48

MATCHLINE -Y15-REV STA.11+75 SEE SHEET 11

-Y15-REV Sta. 11+27.021

-Y14REV-
+83.966
18.000
(59.055')

(155) JANIE T. RITCHIE
DB 387 PG 313
PB 13 PG 48

-Y15REV-
+27.021
8.976 & 18.000
(29.450' & 59.055')

N 14°24'43.0" E

-Y15-REV

(156) DANIEL R. EUDY
DB 560 PG 188
PB 13 PG 48

-Y15-
+46.651
9.140 & 12.000
(29.986' & 39.370')

SR 2660 NUMAN STREET EXT. 57' PAVED ROADWAY

N 19°18'04.7" E

200

SPECIAL CUT DITCH W/PSRM
STA. 11+40 TO 11+83 -Y15-REV LT
EST 82.0 SM /PSRM
SEE DETAIL #10

-Y15- PCS Sta. 10+54.151 LA
-Y15- PT Sta. 10+54.151 LB.
BEGIN CONSTRUCTION

-Y15-REV POT Sta. 10+54.151

-Y15- POC Sta. 10+46.65

-Y15- PCS Sta. 10+23.768

-Y15- PTS Sta. 10+00.000

RAY H. EUDY
DB 361 PG 021
PB 13 PG 48

INSTALL DRIVEWAY PIPE DURING CLEARING AND GRUBBING PHASE.

ROBERT E. KINARD
DB 564 PG 225
PB 14 PG 17

CABARRUS DEVELOP. CORP.
DB 398 PG 447

ARONALD C. LEWIS
DB 1090 PG 279
PB 14 PG 16

DENOTES REMOVAL OF EXISTING PAVEMENT

DATE: $$DATE$$
TIME: $$TIME$$
USER: $$USER$$
DGN: $$DGN$$

RW Sheet 4

METRIC
PROJ. REFERENCE NO.
R-2533CC
SHEET NO.
EC-27/CONST.6
HIGHWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
5m 0 10m
Prepared in the Office of:
CONST.REV.
R/W REV.
BM 113 EL=182.406, N 183847 E 475753
L1 STA 199+91 40 LT
RR SPIKE IN BASE OF 375MM TWIN SYCAMORE TREE
NAD 83
NC GRID
16 x 8 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
5.5 m weir
ID 6.2C&G
BEGIN T.I.P. PROJECT R-2533CC
-L-REV POT Sta 200+16.400 L.A.=
-LI- POT Sta 200+17.273 L.B.(R-2533B)
JURISDICTIONAL STREAM
ADAMS CREEK
Place Matting for Erosion Control on Slope as Work Allows.
BEGIN GRADE
-LI- POT Sta 199+95.000 (R-2533B)
BL-1302 -BL- PINC 9+60.070 =
-LI- Sta 199+93.942 (17.588 LT)
EL 184.287
-LREV-
+50.000
28.716 & 35.000
(94.214' & 114.829')
NED C. REECE
DB 496 PG 151
DB 794 PG 162
+95.00 -LI-
END 40mm OVERLAY
OF EXISTING PAVEMENT
NBL & SBL
ADAMS CREEK
WOODS
SILL
-LREV-
+40.000
25.657 & 30.500
(84.175' & 100.066')
CLASS 'II' BOULDERS
EST 4.1 MTONS
EST 22 SM COIR FIBER MATTING
SEE DETAIL SHEET 2-Y
1.5m BASE CHANNEL CHANGE
W/CLASS 'I' RIPRAP ON BANKS ONLY
EST 20 MTONS RIPRAP
EST 34.5 SM FF
EST DDE 22.5 CM
SEE DETAIL #15
REMOVE EXISTING CULVERT
-LREV-
+00.000
30.500 & 35.000
(100.065' & 114.829')
TOE PROTECTION
STA. 200+80 TO 202+40 -L-REV LT
SEE DETAIL #1
EST 206 MTONS CLASS 'B' RIPRAP
EST 346.1 SM FF
RESET FENCE
-LREV- STA. 200+80+/- TO
-LREV- STA. 202+00+/-
TOE PROTECTION W/PSRM
STA. 202+40 TO 202+60 -L-REV LT
SEE DETAIL #2
EST 40.3 SM PSRM
-LREV-
+00.000
25.606 & 30.500
(84.004 & 100.066')
199+00
200+00
201+00
202+00
MATCH LINE -LI- STA.199+00.000 SEE SHEET 5
MATCH LINE -L-REV STA.202+80 SEE SHEET 7
EXISTING R/W
+33.453 -LI-
TIE TO EXISTING GUARDRAIL
450 CONC
NC 49 7.3 BST
-LI- N 64° 19' 01.3" E
-L- N 64° 20' 09.0" E
REMOVE EXISTING GUARDRAIL
-L-REV N 64° 19' 01.3" E
TYPE 350
60m TAPER
CAT-I
3.6m
1.2m PAVED SHLDR.
450mm CMP
450mm RCP
750 RCP
375mm RCP
3@3.7m x 3.7m RCBC
-LREV-
+64.577
27.000
(88.582')
-LREV-
+73.754
35.500
(116.470')
-LREV-
+84.730
45.667
(149.825')
CHANNEL BENCH W/CLASS 'II' BOULDERS
EST 20 MTONS
EST 138 SM COIR FIBER MATTING
SEE DETAIL SHEET 2-Y
CLASS 'II' RIPRAP
EST 225 MTONS
EST 250 SM FF
EST DDE 377 CM
JURISDICTIONAL STREAM
ADAMS CREEK
GEORGE S. MOORE
DB 600 PG 638
-LREV-
+40.000
27.000 & 35.500
(88.582' & 116.469')
-LREV-
+40.000
45.667
(149.825')
-LREV-
+40.000
32.000
(104.986')
CLASS 'I' RIPRAP
EST 10 MTONS
EST 18.4 SM FF
-LREV-
+50.000
27.000 & 32.000
(88.582' & 104.986')
-LREV-
+70.000
27.000 & 32.000
(88.582' & 104.986')
GRAVEL
CLARENCE A. ALLMAN
& wife HILDA R.
17 x 8 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
5.5 m weir
ID 6.1C&G
Place Matting for Erosion Control on Slope as Work Allows.

RW Sheet 5

PROJ. REFERENCE NO.
R-2533CC
SHEET NO.
EC-28/CONST.7
METRIC
HIGHWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
5m 0 10m
Prepared in the Office of:
CONST.REV.
R/W REV.
NAD 83
NC GRID
BM 114 EL=196.032, N 184029 E 476341
LREV STA 205+99 51 RT
RR SPIKE IN BASE OF 300MM SWEET GUM TREE
8 x 4 x 1
ID 7.1C&G
8 x 4 x 1
ID 7.1F
8 x 4 x 1
38 mm Skimmer
with 9 mm
Orifice Diameter
1.5 m weir
ID 7.1C&G
Place Matting for Erosion Control on Slope as Work Allows.
NED C. REECE
DB 496 PG 151
DB 794 PG 162
BL-1303 -BL- PINC 12+58.406 =
-L-REV Sta 202+90.845 (0.674 RT)
EL 190.534
(60') 18.288 ACCESS EASEMENT
DB 719 PG 084
TOE PROTECTION W/PSRM
STA. 204+25 TO 204+80 -L- REV LT
SEE DETAIL #2
ROBERT J. FOLEY
& JUDITH M. DUDLEY
DB 1687 PG 139
VIRGINIA McALLISTER SMITH
DB 719 PG 084
SPECIAL CUT DITCH
STA. 204+98 TO 206+60 -L- REV LT
SEE DETAIL #3
BL-1304 -BL- PINC 15+35.932 =
-L-REV Sta 205+68.335 (3.770 LT)
EL 198.122
MATCH LINE -L-REV STA.202+80 SEE SHEET 6
MATCH LINE -L-REV STA.206+60 SEE SHEET 8
-L- N 64° 20' 09.0" E
-L-REV N 64° 19' 01.3" E
REMOVE +/-3m FILL W/ FLOWABLE MATERIAL
1500 WW & 3SBW
ELIMINATE CUT DITCH
STA. 202+80 TO 203+30 -L-REV RT
GRADE TO DRAIN
CLARENCE A. ALLMAN
& wife HILDA R.
CAROLYN M. MOOSE
DB 254 PG 255
DO NOT DISTURB SEWER LINES
CLASS 'B' RIPRAP
EST 4.5 MTONS
EST 11.7 SM FF
CLASS 'B' RIPRAP
EST 2.7 MTONS
EST 8.4 SM FF
SPECIAL CUT DITCH
STA. 206+00 TO 206+28 -L- REV RT
SEE DETAIL #3
0.6m BASE DITCH
EST DDE 9.7cm
SEE DETAIL #4
THEODORE F. HUNEYCUTT
DB 2559 PG 135


PROJ. REFERENCE NO.
R-2533CC
SHEET NO.
EC-29/CONST.8
HIGHWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
METRIC
5m 0 10m
Prepared in the Office of:
CONST.REV.
R/W REV.
NAD 83
NC GRID
11 x 5 x 1
ID 8.1C&G
VIRGINIA McALLISTER SMITH
DB 719 PG 084
KENNETH W. BEAM
NELL BEAM
DB 1442 PG 230
DB 1783 PG 138
GLENN T. JONES
TAMMY H. JONES
DB 2868 PG 211
WESLEY G. DANGERFIELD
DB 1646 PG 120
ETHELYN SMITH HEGELE
DB 719 PG 090
SPECIAL LAT V-DITCH
STA. 208+40 TO 208+80 -L- REV LT
SEE DETAIL #5
BL-1305 -BL- PINC 17+62.275 =
-L-REV Sta 207+94.202 (18.460 LT)
EL 198.527
SPECIAL CUT DITCH
STA. 206+80 TO 207+81 -L-REV LT
SEE DETAIL #3
LAT V-DITCH
STA. 208+80 TO 210+80 -L- REV LT
SEE DETAIL #6
EST 201 CM DDE
MATCH LINE -L-REV STA.206+60 SEE SHEET 7
MATCH LINE -L-REV STA.210+40 SEE SHEET 9
-L- N 64°20'09.0" E
-L-REV N 64°19'01.3" E
0.6m BASE DITCH
EST DDE 2.2 cm
SEE DETAIL #4
GRADE TO DRAIN
600 W/ELBOWS
450 W/ELBOWS
CLASS 'B' RIPRAP
EST 4.5 MTONS EA.
EST 11.7 SM FF EA.
CLASS 'B' RIPRAP
EST 0.9 MTONS
EST 4.2 SM FF
STANDARD BERM DITCH
STA.209+50 TO 210+00 -L- REV- RT
SEE PROFILE FOR GRADE
THEODORE F. HUNEYCUTT
DB 2559 PG 135
MURLEE A. SHORE
DB 470 PG 528
SUE REVELLE GARIFO
DB 957 PG 005
PB 24 PG 19
Place Matting for Erosion Control on Slope as Work Allows.

METRIC	PROJ. REFERENCE NO.	SHEET NO.
5m 0 10m	R-2533CC	EC-30/CONST.9
	HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	Prepared in the Office of:	
R/W REV.		

19 x 9 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
6.5 m weir
ID 9.1C&G

22 x 7 x 1
38 mm Skimmer
with 33 mm
Orifice Diameter
4.5 m weir
ID 9.3C&G

NAD 83
NC GRID

ETHELYN SMITH HEGELE
DB 719 PG 090

STEVEN B. COCHRANE
DB 624 PG 497

WESLEY G. DANGERFIELD
DB 1646 PG 120

ECB, LLC
DB 3758 PG 037

JOHN RAY NOBLES, JR.
DB 521 PG 561

SUE REVELLE GARIFO
DB 957 PG 005
PB 24 PG 19

CHARLES GILBERT LENTZ, III
& wife JANET DIANE LENTZ
DB 3802 PG 116
PB 24 PG 19

LOUIS M. HELMS, JR.
DB 1434 PG 166

JOHN RAY NOBLES, JR.
DB 521 PG 561

McALISTER CREEK

211+00 212+00 213+00 214+00

RIPRAP EMBANKMENT
EST. 12.1 MTONS
EST. 13.9 SM FF
SEE DETAIL #24

BL-1307 -BL- PINC 21+82.498 =
-L-REV Sta 212+13.841 (2.860 LT)
EL 182.774

BL-1306 -BL- PINC 20+17.160 =
-L-REV Sta 210+49.080 (16.660 LT)
EL 189.386

LAT V-DITCH
STA. 208+80 TO 210+80
-L- REV LT
SEE DETAIL #6

CLASS 'B' RIPRAP
EST 2.7 MTONS
EST 9.2 SM FF

LAT 0.6M BASE DITCH
W/CLASS 'B' RIPRAP
STA. 210+80 TO
212+10 -L- REV LT
EST 178 CM DDE
EST 164 MTONS RIPRAP
EST 339.7 SM FF
SEE DETAIL #18

LATERAL 1.2m BASE DITCH
W/CLASS 'B' RIPRAP
STA. 212+20 TO 213+00 -L-REV LT
SEE DETAIL #8
EST 242 CM DDE
EST 131 MTONS RIPRAP
EST 235.4 SM FF

CLASS 'B' RIPRAP
EST 0.9 MTONS
EST 4.2 SM FF

SPECIAL LAT 0.6m BASE DITCH
STA. 213+00 TO 214+00 -L-REV LT
SEE DETAIL #9

SPECIAL CUT DITCH W/PSRM
STA. 214+00 TO 214+60 -L-REV LT
SEE DETAIL #10
EST 114.5 SM PSRM

90.0m TAPER

RETAIN
COLLAR AND EXTEND W/600 RCP

REMOVE

1@11m X 2.7m
3-SIDED BOX CULVERT
REMOVE EXISTING CULVERT

-L- N 64°18'27.0"E

-L-REV N 64°19'01.3"E

STANDARD BERM DITCH
STA. 210+66 TO 211+60 -L-REV RT
SEE PROFILE FOR GRADE

BERM DITCH
W/CLASS 'B' RIPRAP
STA. 211+60 TO 211+95 -L-REV RT
SEE DETAIL #7
EST 23 MTONS RIPRAP
EST 47 SM FF

SPECIAL CUT DITCH W/PSRM
STA. 212+28 TO 212+40 -L-REV RT
SEE DETAIL #10
EST 54.4 SM PSRM

450 W
ELBOWS

SHOP CURVED
R=6.1m

CUT
EXISTING
WALL

750 BK WALL

MATCH LINE -L-REV STA.210+40 SEE SHEET 8

MATCH LINE -L-REV STA.214+20 SEE SHEET 10

13 x 6 x 1
ID 9.2C&G

Place Matting for Erosion Control
on Slope as Work Allows.

12 x 6 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
3.5 m weir
ID 9.4C&G

DATE: ##DATE##
TIME: ##TIME##
USER: ##USER##
DGN: ##DGN##

METRIC	PROJ. REFERENCE NO.	SHEET NO.
5m 0 10m	R-2533CC	EC-31/CONST30
	HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	Prepared in the Office of:	
R/W REV.		

BM 1 EL=188.489, N 184635 E 477358
LREV STA 217+79 54 LT
RR SPIKE IN BASE OF 610MM RED OAK

NAD 83
NC GRID

17 x 4 x 1
ID 10.3F

16 x 4 x 1
ID 10.4F

MATCH LINE -L-REV STA.214+20 SEE SHEET 9

MATCH LINE -L-REV STA.218+00 SEE SHEET 11

MATCH LINE -Y- STA.11+00 SEE SHEET 15

31 x 8 x 1
51 mm Skimmer
with 39 mm
Orifice Diameter
5.5 m weir
ID 10.1C&G

18 x 4 x 1
ID 10.1F

10 x 4 x 1
ID 10.2F

DATE: #$DATE$#
USER: #$USER$#
FILE: #$FILE$#

RW Sheet 9
PROJ. REFERENCE NO. R-2533C
SHEET NO. EC-32/CONST.JI
METRIC
HIGHWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
SCALE
CONST.REV.
R/W REV.
Prepared in the Office of:
MATCH LINE SEE SHEET 18
DITCH NOTES
1. SPECIAL LAT. 0.6m DITCH W/CLASS 'B' RIP RAP STA. 11+20 TO 12+03 -Y1-REV RT SEE DETAIL #11
2. LAT. BASE DITCH W/CLASS 'B' RIP RAP STA. 11+55 TO 12+10 -Y1-REV LT SEE DETAIL #18
3. SPECIAL CUT DITCH W/PSRM STA. 11+40 TO 11+83 -Y15-REV LT SEE DETAIL #10
4. SPECIAL CUT DITCH W/PSRM STA. 11+60 TO 11+84 -Y15-REV RT SEE DETAIL #10
5. SPECIAL LAT. V-DITCH STA. 16+40 TO 17+00 -Y1-REV RT SEE DETAIL #5
6. SPECIAL CUT DITCH W/PSRM STA. 16+53 TO 18+00 -Y1-REV LT SEE DETAIL #10
7. LAT V- DITCH W/CLASS 'B' RIPRAP STA. 5+64 TO 5+96 -RAMPA- RT. EST. 6 CM DDE EST. 21 MTONS RIPRAP. EST. 42.9 SM F.F SEE DETAIL#17
8. LAT. 0.6m BASE DITCH W/CLASS 'B' RIP RAP STA. 6+03 TO 6+45 -RAMPA- RT. EST. 51 CM DDE EST. 53 MTONS RIPRAP. EST. 109.7 SM F.F. SEE DETAIL #18
22 x 11 x 1
51 mm Skimmer
with 39 mm
Orifice Diameter
8.5 m weir
ID 11.6C&G
22 x 11 x 1
51 mm Skimmer
with 39 mm
Orifice Diameter
8.5 m weir
ID 11.1C&G
Place Matting for Erosion Control on Slope as Work Allows.
12 x 5 x 1
ID 11.1&3F
24 x 8 x 1
38 mm Skimmer
with 33 mm
Orifice Diameter
5.5 m weir
ID 11.2C&G
11 x 5 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
2.5 m weir
ID 11.4C&G
17 x 4.5 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
2 m weir
ID 11.3C&G
9 x 4 x 1
ID 11.4F
11 x 5 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
2.5 m weir
ID 11.5C&G
19 x 9 x 1
38 mm Skimmer
with 30 mm
Orifice Diameter
6.5 m weir
ID 11.6C&G
6 x 3 x 1
ID 11.2F
20 x 5 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
2.5 m weir
ID 11.7C&G
Place Matting for Erosion Control on Slope as Work Allows.
A
B
D
MARSHALL POPLIN DB 345 PG 101 DB 383 PG 679 DB 255 PG 078
EDWARD L. HONEYCUTT DB 355 PG 179 PB 13 PG 48
RAMP A SC Sta. 4+42.709
RAMP A PRS Sta. 3+87.709
RAMP A CS Sta. 3+22.709
RAMP D SC Sta. 0+65.000
RAMP D CS Sta. 2+65.124
LOOP D SC Sta. 1+20.000
LOOP CS Sta. 1+68.727
-L-REV N 64°19' 01.3" E
MATCH LINE -L-REV STA. 218+00 SEE SHEET 10
MATCH LINE -L-REV STA. 228+00 SEE SHEET 12
MATCHLINE -Y15-REV 11+75 SEE SHEET 19


PROJ. REFERENCE NO.
R-2533CC
SHEET NO.
EC-33/CONST.12
METRIC
HIGHWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
5m 0 10m
Prepared in the Office of:
CONST.REV.
R/W REV.
BM 4 EL=207.539 N 185039 E 478276
-LREV- STA 227+81.21 LT
RR SPIKE IN BASE OF POWER POLE
MARVIN A. WETTER
DB 251 PG 088
COY E. COLEY
DB 405 PG 376
DB 519 PG 247
49
LACY B. HURLOCKER
DB 399 PG 397
50
MARVIN A. WETTER
DB 251 PG 088
NAD 83
NC GRID
-LREV- +05.000 62.000 (203.412')
-LREV- +10.000 46.900 & 62.000 & 68.000 (153.870' & 203.412' & 223.097')
913
HARRY H. FAGGART
DB 239 PG 44
DB 496 PG 618
-SERI- POT Sta. 9+41.825
BEGIN CONSTRUCTION
48
MATH B. WHITLEY
DB 296 PG 182
-L-REV POT Sta. 226+90.000 =
RAMP A POT Sta. 0+00.000 (14.2m LT.)
△ = 2°18'00.0" RT.
RAMP A
PIs Sta 0+98.348
Θs = 4°39'19.0"
Ls = 65.000
LT = 43.348
ST = 21.680
SPECIAL CUT DITCH
STA. 9+85 TO 10+72 -SERI- LT
SEE DETAIL #3
-SERI-
PI Sta 11+33.910
△ = 83°58'01.5" (RT)
L = 29.310
T = 17.998
R = 20.0000
Se = NC
-SERI- +15.912 12.000 (39.370')
DB 251 PG 088
12 x 3 x 1
ID 12.1C&G
51
JULIA I. KRIMMINGER
DB 171 PG 187
DB 202 PG 104
DB 198 PG 162
EDITH KATHLEEN HONEYCUTT
DB 258 PG 006
PB 8 PG 38
HUGH VONCANNON
DB 202 PG 083
NCGS TRIBUNE -BL- PINC 38+91.535 =
-L-REV Sta 229+19.814 (15.216 LT)
EL 212.791
BL-1314 -BL- PINC 36+62.144 =
-L-REV Sta 226+91.617 (3.044 LT)
EL 205.496
-SERI- PC Sta. 11+15.912
END C/A & END FENCE
-LREV- +90.000 25.796 (84.633')
LAT V-DITCH
STA 11+19 TO 11+40 -SERI- LT
SEE DETAIL #6
-L- PC STA. 22+04.587
LAT V-DITCH
STA 228+13 TO 228+60 -L-REV LT
EST 40 CM DDE
SEE DETAIL #6
-LREV- +10.859 30.000 (98.43')
-LREV- +12.393 25.796 (84.632')
-LREV- +90.000 24.395 & 30.000 (80.036' & 98.425')
300m UNIFORM TRANSITION LT. & RT.
SPEC. LAT. V-DITCH
STA. 228+60 TO 229+40 -L-REV LT
SEE DETAIL #5
REMOVE HW
FILL W/FLOWABLE MATERIAL
400 W/ ELBOWS
SEAL ABANDONED WELL
-LREV- +06.000 49.000 (160.761')
-LREV- +25.000 46.944 (140.891')
RAMP A TS Sta. 0+55.000
PROP. CHL. FENCE
89.0m TAPER
-SERI- PT Sta. 11+45.223
RAMP A S 66°37'01.3" W
-L- N 64°18'27.0" E
-L-REV N 64°19'01.3" E
RAMP D S 64°19'01.3" W
REMOVE +/- 5m
FILL W/FLOWABLE MATERIAL
REMOVE
1.2 X 0.9 CONC HW
MATCH LINE -L-REV STA.226+00 SEE SHEET 11
MATCH LINE -L-REV STA.229+80 SEE SHEET 13
SEAL ABANDONED WELL
PROP. CHL FENCE
-LREV- +70.000 29.656 & 36.000 (97.296' & 118.110')
-LREV- +91.000 27.000 & 32.000 (88.583' & 104.987')
-LREV- +05.000 27.000 (88.583')
-LREV- +00.000 27.000 & 33.000 (88.583' & 108.268')
-LREV- +80.000 28.390 & 32.000 (93.144' & 104.987')
CLASS 'B' RIPRAP
EST 4.5 MTONS
EST 11.7 SM FF
-LREV- +60.000 40.384 & 47.000 (132.494' & 154.199')
54
WALDO E. HELMS
DB 623 PG 715
END C/A & END FENCE
-LREV- +82.867 27.000 (88.583')
-LREV- +90.000 27.000 (88.583')
-LREV- +73.000 52.000 (170.603')
-LREV- +80.000 27.000 (88.582')
-LREV- +74.000 46.000 (150.919')
55
MARVIN E. WILDER
DB 526 PG 168
-LREV- +10.000 39.133 & 45.000 (128.389' & 147.638')
-LREV- +80.815 24.885 (81.644')
-L-REV SC Sta. 228+67.741
90.0m TAPER-LANE DROP
-LREV- +39.000 23.000 (75.460')
12 x 6 x 1
ID 12.2C&G
57
ROBERT E. LEE ALLMAN
DB 412 PG 313
47
DAVID M. YARBOROUGH
DB 604 PG 048
DB 616 PG 100
-L-REV POT Sta. 226+52.165 =
RAMP D TS Sta. 0+00.000
(14.2m RT.)
53
NCDOT
DB 795 PG 397
RAMP D
PIs Sta 0+43.348
Θs = 4°39'19.0"
Ls = 65.000
LT = 43.348
ST = 21.680
-LREV- +39.104 32.002 (104.993')
CLASS 'I' RIPRAP
EST 6.4 MTONS
EST 12.5 SM FF
-L-REV POT Sta. 228+01.619 =
-SERI- POT Sta. 11+62.166
-L-REV TS Sta. 228+07.741
-L-
PI STA. 24+47.789
△ = 23°36'10.0" (RT)
Lc = 479.505
R = 1,164.000
T = 243.202
DENOTES REMOVAL OF EXISTING PAVEMENT
(15') 4.572 DESIGNATED ALLEY WAY
52
HMO INVESTMENTS, INC.
DB 695 PG 145
Place Matting for Erosion Control on Slope as Work Allows.
56
HARRY H. FAGGART
DB 475 PG 666
ROBERT E. LEE ALLMAN
DB 412 PG 313
LAWRENCE E. EUDY
DB 259 PG 298
DB 535 PG 140
EDWARD F. LEGAL
DB 207 PG 11

METRIC	PROJ. REFERENCE NO.	SHEET NO.
5m 0 10m	R-2533CC	EC-34/CONST.13
	HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	Prepared in the Office of:	
R/W REV.		

10 x 4 x 1 38 mm Skimmer with 12 mm Orifice Diameter 1.5 m weir ID 13.1C&G

NAD 83 NC GRID

HUGH VONCANNON DB 202 PG 083

(58) NO CLAIM
JAMES D. HONEYCUTT DB 240 PG 335 PB 8 PG 38

EDITH KATHLEEN HONEYCUTT DB 258 PG 006 PB 8 PG 38

(59) WILLIAM R. HONEYCUTT, JR. DB 258 PG 008 PB 8 PG 38

(60) THYRA E. DRYE DB 549 PG 184 PB 8 PG 14

JOHN J. HILL DB 508 PG 618 PB 8 PG 14

VANCE E. MILLER DB 409 PG 243 PB 8 PG 14

(61) EDITH H. EAGLE DB 199 PG 152 PB 8 PB 38

(62) BARBARA K. McCLESTER DB 349 PG 98 PB 8 PB 14

GLORIA PETREA GRIFFIN DB 537 PG 012 PB 8 PG 14

RETHER FRICK DB 157 PG 072 PB 8 PG 14

(63) JENNIFER R. & HYDRICK STONE DB 2566 PG 320 PB 8 PB 14

(64) JEFFERY LEE ALLMAN DB 862 PG 008 PB 8 PB 14

(65) CAROLYN E. EUDY DB 261 PG 206 PB 8 PG 13

(66) ROBERT E. ALLMAN DB 282 PG 069 PB 8 PB 14

(67) OLA MAE McCLESTER DB 342 PG 244

(68) DOUGLAS H. STEADMAN DB 2187 PG 220 PB 8 PB 14

(69) ROBERT E. ALLMAN DB 899 PG 89 PB 8 PB 14

ROBERT E. LEE ALLMAN DB 412 PG 313

BEGIN CONSTRUCTION -Y2-REV POC Sta.10+52.500

-Y2-REV POC Sta.10+60.000

-Y2-REV POT Sta.10+20.000

-Y2-REV PC STA. 10+45.630

-Y2-REV PC Sta.10+45.630

-Y2-REV PCC Sta.10+84.999

-Y2- PT STA. 11+24.582

-L- POC STA. 26+33.400 = -Y3- PI STA. 10+000

-L-REV POC Sta. 232+36.562 = -Y3- POT Sta. 10+01.541 Δ= 66° 54' 48.3I"

-L-REV POC Sta.231+46.781 = -Y2-REV PT Sta.11+57.831 Δ= 79° 13' 7.I"

-Y3- PC Sta.11+02.225

-Y3- POC Sta.11+07.500

END CONSTRUCTION

-Y3- PT Sta.11+51.245

-Y3- POT Sta.11+00.0

-L-REV CS Sta. 232+81.288

BL-1317 -BL- PINC 42+27.926 = -L-REV Sta 232+51.077 (12.655 (RT), EL 214.806

BL-1316 -BL- PINC 40+98.229 = -L-REV Sta 241+24.173 (14.089 (LT) EL 216.912

BM 5 EL=217.201, N 185154 E 478634 LREV STA 231+54 13 LT RR SPIKE IN BASE OF POWER POLE

SPEC. BACK OF CURB CUT DITCH STA. 231+80 TO 232+20 -L-REV LT STA. 232+30 TO 232+50 -L-REV LT STA. 232+60 TO 233+04 -L-REV LT SEE DETAIL #20

-Y2REV- +94.000 15.000 & 26.500 & 42.500 (49.213' & 86.942' & 139.436') V-DITCH EST DDE 1.5 CM SEE DETAIL #21

-Y2REV- +03.000 42.500 (139.435')

-Y2REV- +03.000 15.000 & 26.500 (49.213' 86.942')

-Y2REV- +03.000 18.000 (59.056')

-Y2REV- +32.000 15.000 (49.213')

-Y2REV- +36.224 18.000 (59.055')

-Y2REV- +10.000 15.000 (49.213')

-Y2REV- +57.341 6.858 & 15.000 (22.500' & 49.213')

-Y2REV- +48.877 13.000 (42.651')

-Y2REV- +54.926 6.818 (22.370')

-Y2REV- +82.103 13.000 (42.650')

-LREV- +25.000 19.063 (62.544')

-LREV- +75.236 18.013 (59.097')

-LREV- +23.173 21.000 (68.898')

-LREV- +23.113 17.353 (56.275')

-LREV- +05.000 23.000 (75.460')

-LREV- +80.000 36.000 (118.111')

-LREV- +37.000 36.000 (118.111')

-LREV- +92.000 23.000 (75.459')

-LREV- +13.198 21.000 (68.898')

-LREV- +81.288 19.000 (62.336')

-LREV- +60.000 19.000 (62.336')

-LREV- +00.000 19.187 & 22.000 (62.949' & 72.178')

-LREV- +30.000 15.240 & 26.000 (49.998' & 85.302')

-Y3- +43.704 18.002 (59.062')

-Y3- +45.000 12.500 (41.010')

-Y3- +79.998 8.921 & 15.000 (29.268' & 49.212')

-Y3- +49.599 12.000 (39.370')

-Y3- +30.000 14.000 (45.931')

-Y3- +80.000 21.000 (68.897')

-Y3- +07.500 15.000 (49.212')

-Y3- +07.500 6.072 (19.922')

-Y3- +07.500 10.000 (32.808')

-Y3- +07.500 6.120 (20.079')

-Y3- +00.341 10.000 (32.808')

REMOVE DI COLLAR AND EXTEND W600 RCP

CLASS 'B' RIPRAP EST 2.7 MTONS EST 9.2 SM FF

COLLAR AND EXTEND W/600 RCP

MATCH LINE -L-REV STA.229+80 SEE SHEET 12

MATCH LINE -L-REV STA.233+40 SEE SHEET 14

DATE: $$DATE$$ TIME: $$TIME$$ USER: $$USER$$ CONN: $$CONN$$

METRIC

5m 0 10m

PROJ. REFERENCE NO.	SHEET NO.
R-2533CC	EC-35/CONST.14
HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CONST.REV.

R/W REV.

Prepared in the Office of:

NAD 83 NC GRID

JOHN HINSON
DB 246 PG 159
PB 8 PG 14

RETHER FRICK
DB 157 PG 072
PB 8 PG 14

103.533 N12°24'20"W
73.093 S45°38'23"W
49.512 S82°35'05"W
EIP

MT. PLEASANT CITY LIMITS

64 JEFFERY LEE ALLMAN
DB 862 PG 008
PB 8 PB 14

122.106 N01°16'55"E

234+00 235+00 236+00 237+00

END T.I.P. PROJECT R-2533CC
-L-REV POT Sta 234+20.000

END CONSTRUCTION
-L-REV POT Sta 234+65.000

-L-REV ST Sta. 233+41.288

MATCH LINE -L-REV STA.233+40 SEE SHEET 13

TOE PROTECTION
STA. 233+30 TO 234+30 -L-REV LT
EST 129 MTONS CLASS 'B' RIPRAP
EST 268 SM FF
SEE DETAIL #1

CLASS 'B' RIPRAP
EST 0.9 MTONS
EST 4.2 SM FF

REMOVE HEADWALL COLLAR AND EXTEND

REMOVE HEADWALL COLLAR AND EXTEND

-LREV- +20.000 15.240 & 26.000 (49.998' & 85.302')

-LREV- +42.000 23.500 (77.100')

-LREV- +51.000 16.000 (52.493')

-LREV- +40.000 19.357 (63.507')

-LREV- +00.000 19.000 (62.336')

-LREV- +80.000 17.600 (57.743')

PROPOSED EASEMENT T.I.P PROJECT R-2533CD

100m TAPER

60m TAPER

20m TAPER LT. & RT.

RETAIN

RETAIN

REMOVE EXISTING GUARDRAIL

-L-REV +41.288 19.000 (62.336')

-LREV- +60.000 30.000 (98.425')

-LREV- +60.000 19.000 & 40.000 (62.336' & 131.234')

CLASS 'I' RIPRAP
EST 6.4 MTONS
EST 12.5 SM FF

CLASS 'I' RIPRAP
EST 6.4 MTONS
EST 12.5 SM FF

CLASS 'I' RIPRAP
EST 3.6 MTONS
EST 8.4 SM FF

450 W/ELBOWS

375 W/ELBOWS

LAT. 0.6m BASE DITCH
W/CLASS 'B' RIPRAP
STA. 233+71 TO 233+97 -L-REV RT
EST 23 CM DDE
EST 33 MTONS RIPRAP
EST 67.9 SM FF
SEE DETAIL #18

BL-1318 -BL- POT 43+90.582 =
-L-REV Sta 234+13.751 (29.116 RT)
EL 211.449

-LREV- +20.002 19.000 & 40.000 (62.336' & 131.234')

-L-REV N 87°54'37.0" E

-L-REV N 87°54'37.0" E

PROPOSED R/W T.I.P PROJECT R-2533CD

-LREV- +65.000 19.000 (62.336')

-LREV- +20.000 24.800 (81.365')

-LREV- +40.000 30.800 (101.050')

-L-REV- +60.000 20.000 (65.617')

71A FIRST BANK
DB 4137 PG 069

71B D. G. DEVELOPMENT PROPERTIES, INC.
DB 4788
PG 308

70 BOARD OF EDUCATION OF CABARRUS COUNTY
DB 228 PG 192
DB 235 PG 141
DB 212 PG 068

73 RONALD WAYNE McLESTER
DB 566 PG 267
DB 506 PG 482

DONALD LUTHER SCOTT
DB 813 PG 392

RONALD McCLESTER
DB 653 PG 252

ROBERT E. ALLMAN
DB 282 PG 069
PB 8 PB 14

69 ROBERT E. ALLMAN
DB 899 PG 89
PB 8 PB 14

ROBERT E. ALLMAN
DB 282 PG 069
PB 8 PB 14

71 FISHER EARNHARDT OIL CO.
DB 381 PG 563

EDWIN L. EARNHARDT SR.
DB 883 PG 180
PB 08 PG 040

JERRY O. GORDON
DB 451 PG 322

RALPH F. EUDY
DB 428
PG 343

12 x 5 x 1
38 mm Skimmer
with 18 mm
Orifice Diameter
2.5 m weir
ID 14.1C&G

PUMP HOUSE

I S BLK BUS

GAS TANKS

ISFBUS BANK

CANOPY

PUMP CONTROL

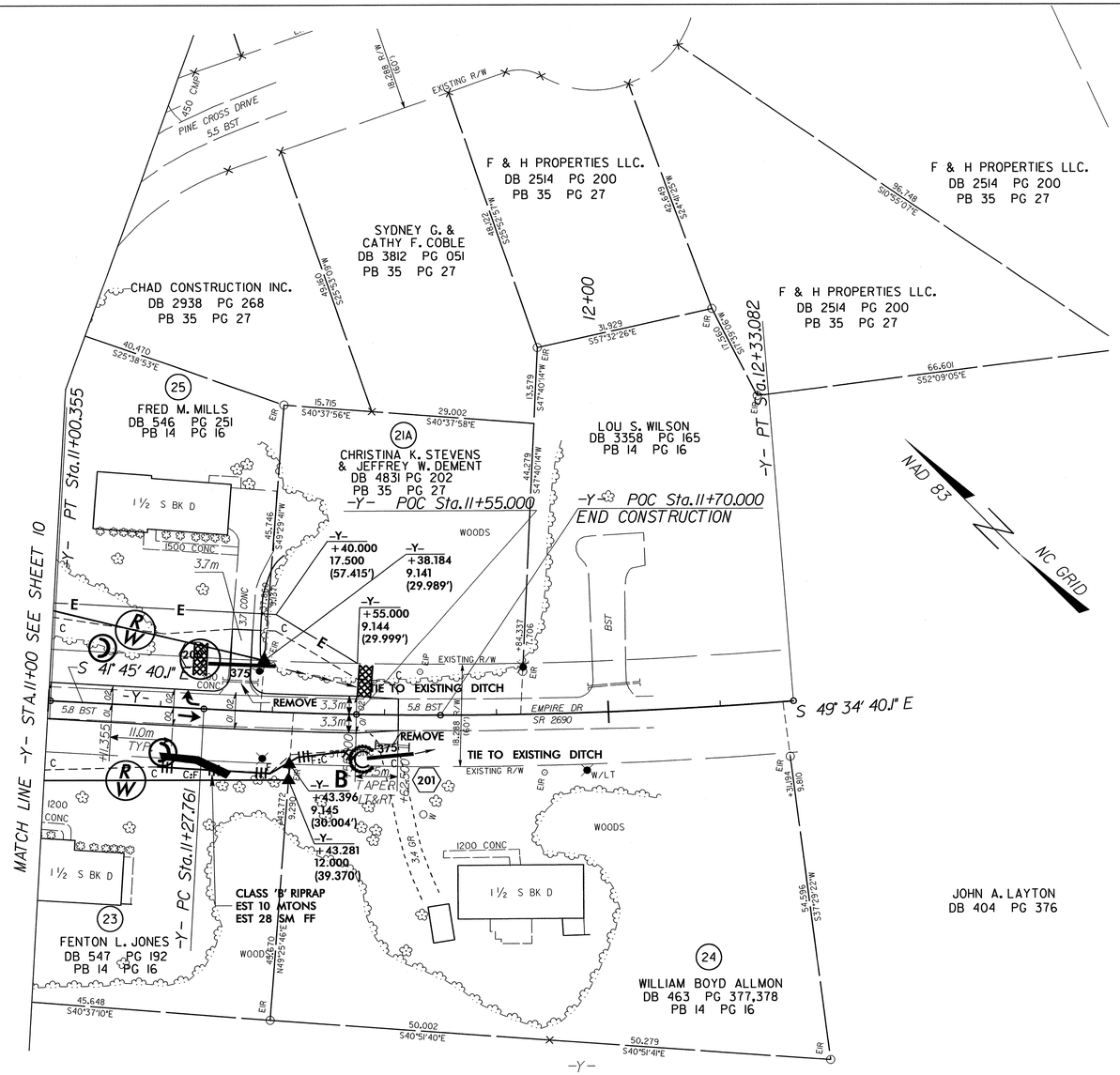
GRINDER ASSEM.

POND

GOAL POST

DATE: $$DATE$$
TIME: $$TIME$$
USER: $$USER$$
DGN: $$DGN$$

METRIC	PROJ. REFERENCE NO.	SHEET NO.
5m 0 10m	R-2533CC	EC-36/CONST.15
	HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	Prepared in the Office of:	
R/W REV.		



DATE: $$DATE$$
TIME: $$TIME$$
USER: $$USER$$
DGN: $$DGN$$

METRIC

PROJ. REFERENCE NO.	SHEET NO.
R-2533CC	EC-37/CONST.16
HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Prepared in the Office of:	

BETTY L. KELLY
DB 711 PG 313

MARGIE CRAMER
78-E-367

(137) HELEN SMITH ALLEN
DB 788 PG 102

(28) MARSHALL POPLIN
DB 345 PG 101
DB 383 PG 679
DB 255 PG 078

(27) ROBIN ANN McALLISTER
DB 3434 PG 113

(27A) GEORGE F. McALLISTER & wife BARBARA C. McALLISTER
DB 3384 PG 199

(27A2)

(139) D.J. HONEYCUTT
DB 320 PG 090

O.H. GOODMAN
DB 311 PG 064

MARION HYMAN
DB 265 PG 157

-Y1-REV POT Sta.9+30.969

-Y1REV-
+71.685
9.144 & 22.942
(29.999' & 75.268')

-Y1-REV POT Sta. 10+00.000

-Y1-REV POT STA.10+43.240 = -Y1- PC STA.10+43.240

-Y1-REV PI STA. 10+86.330

-Y1-REV POT Sta.9+60.000
BEGIN CONSTRUCTION

-Y1REV-
+60.000
9.144 &13.000
(30.00' & 42.651)

-Y1REV-
+71.685
9.145 &13.00 &23.000
(30.002' &42.651 &75.460')

-Y1-REV POT Sta.9+79.185

-Y1-REV POS Sta.11+35.000 = -Y16-REV POT Sta.13+39.080
Δ=74° 59' 58.09"
BYI-1319 -BYI- POT 5+00.000 = -Y1-REV Sta 11+05.609 (11.113 Lt)
EL. 186.152

-Y16REV-
+00.000
12.000
(39.370')

-Y16-REV PT Sta.13+07.080
S 39° 16' 00.0" W

-Y1REV-
+29.503
23.000
(75.460')

MATCH LINE -Y16-REV STA.13+00 SEE SHEET 18

MATCH LINE -Y1-REV STA.11+80 SEE SHEET 11

-Y1REV-
+00.000
23.000 (75.459')

-Y1-PC STA. 10+43.240

-Y1-PT STA. 11+35.002

-Y1-REV SC Sta. 11+38.558

BEGIN C/A & BEGIN CHL FENCE
-Y1REV-
+60.000,
24.000
(78.740')
CLASS 'B' RIPRAP
EST 4.5 MTONS
EST 11.7 SM FF

LATERAL 0.6m BASE DITCH
W/CLASS 'B' RIPRAP
STA 11+55 TO 12+10 -Y1-REV LT
EST 56 CM DDE
EST 69 MTONS RIPRAP
EST 143.7 SM FF
SEE DETAIL #18

CLASS 'I' RIPRAP
EST 10 MTONS
EST 18.4 SM FF
SPEC. LAT. 0.6m DITCH
W/CLASS 'B' RIPRAP
STA. 11+20 TO 12+03 -Y1-REV RT
EST 75 MTONS RIPRAP
EST 200.6 SM FF
SEE DETAIL #11

BEGIN C/A & BEGIN CHL. FENCE
-Y1REV-
+60.000
28.611
(93.868')

22 x 10 x 1
38 mm Skimmer
with 36 mm
Orifice Diameter
6.5 m weir
ID 16.1C&G

RETAIN

REMOVE

60m TAPER ADD LANE

210m UNIFORM TRANSITION LT.& RT. MEDIAN

180m TAPER 600 LANE DROP

WOODS

TO CONCORD

900 BLK WALL

DATE: $$DATE$$
TIME: $$TIME$$
USER: $$USER$$
DGN: $$DGN$$

METRIC

5m 0 10m

PROJ. REFERENCE NO.	SHEET NO.
R-2533CC	EC-38/CONST.17

HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Prepared in the Office of:

CONST.REV.

R/W REV.

NAD 83 NC GRID

MATCHLINE -Y1-REV STA.16+60 SEE SHEET 11

WILLIAM F. PULLIUM
DB 388 PG 577

(43) RAMP
+86.000
25.000
(82.021')

(45) JERRY M. COOK
DB 595 PG 418

-Y1REV-
+75.00
33.085
(108.547')

1050 BLK WALL

1650 CONC

END C/A & CHL FENCE
-Y1REV-
+08.000
22.000
(72.179')

PATRICIA P. HARRINGTON
DB 569 PG 458

(46) STA. 17+80.241

STD. BERM DITCH
STA. 17+70 TO 18+50 -Y1-REV LT

(140) NEAL GLENN WHICKER, SR.
DB 3835 PG 3

(141) CHRISTOPHER M. GILLIN
DB 1777 PG 87

-Y1REV-
+37.003
23.840
(78.214')

0.6m BASE DITCH
W/CLASS 'B' RIPRAP
EST 8 MTONS
EST 18.2 SM FF
EST DDE 2.4CM
SEE DETAIL#16

REMOVE DI COLLAR AND EXTEND

-Y1REV-
+85.241
17.000 & 22.000
(55.775' & 72.178')

(142) RICK L. EUDY & NANCY E KLUTZ
DB 259 PG 298
DB 535 PG 140

-Y1REV-
+47.501
9.144 & 17.000
(30.000' & 55.775')

BY1-1323 -BY1- POT 13+15.416 =
-Y1-REV Sta 19+06.583
(6.667 RT) EL 203.839

EDWARD F. LEGAL
DB 207 PG 11

WOODS

20+00

19+00

18+00

17+00

N 82° 11' 21.0" E -Y1-

-Y1REV-
+47.500
9.144
(30.001')

-Y1-REV POT Sta 19+47.500
END CONSTRUCTION

-Y1-REV POT Sta 19+40.000

(149) GRADY R. BARRINGER
DB 451 PG 701

(148) BILLY RAY HATLEY
DB 264 PG 139

-Y1REV-
+64.000
24.000
(78.740')

CLASS 'I' RIPRAP
EST 6.4 MTONS
EST 12.5 SM FF

-Y1REV-
+07.000
16.316
(53.530')

-Y1REV-
+50.000
24.000
(78.740')

-Y1REV-
+43.919
32.000
(104.987')

-Y1REV-
+35.000
45.000
(147.638')

-Y1REV-
+50.000
45.000
(147.638')

0.6m BASE DITCH
W/CLASS 'B' RIPRAP
EST 33.2 MTONS
EST 76.6 SM FF
EST DDE 9.5 CM
SEE DETAIL #16

(147) PAM ROWE & JACK LATHAM
DB 1909 PG 246

(146) KAYE S. SIMPSON
DB 730 PG 427

(145) BILLIE L. HONEYCUTT
DB 368 PG 160

NCGS DEAL -BYI- PINC 11+18.674 =
-Y1-REV Sta 17+13.055 (15.134 RT)
EL 200.479

(144) RONNIE EUGENE SMITH
DB 407 PG 315

SPEC. LAT. V-DITCH
STA 16+40 TO 17+00 -Y1-REV RT
SEE DETAIL #5

(143) EDWARD L. HONEYCUTT
DB 355 PG 179
PB 13 PG 48

SPEC. CUT DITCH W/PSRM
STA. 16+53 TO 18+00 -Y1-REV LT
EST 280.5 SM PSRM
SEE DETAIL #10

-Y1-REV
+80.241
(22.000')

-Y1REV-
+80.241
20.000
(65.617')

-Y1REV-
+80.241
24.000
(78.740')

-Y1REV-
+10.219
20.517
(67.313')

210m UNIFORM TRANS. LT. & RT. MEDIAN

180m TAPER LANE DROP

40.0m TAPER

12m PAVED SHLDR

2m PAVED SHLDR

ADD LANE

REMOVE

COLLAR AND EXTEND

TYPE 350 2.4 CONC

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

DATE: $$DATE$$
TIME: $$TIME$$

USER: $$USER$$
DGN: $$DGN$$

PROJ. REFERENCE NO.	SHEET NO.
R-2533CC	EC-39/CONST.J8
HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

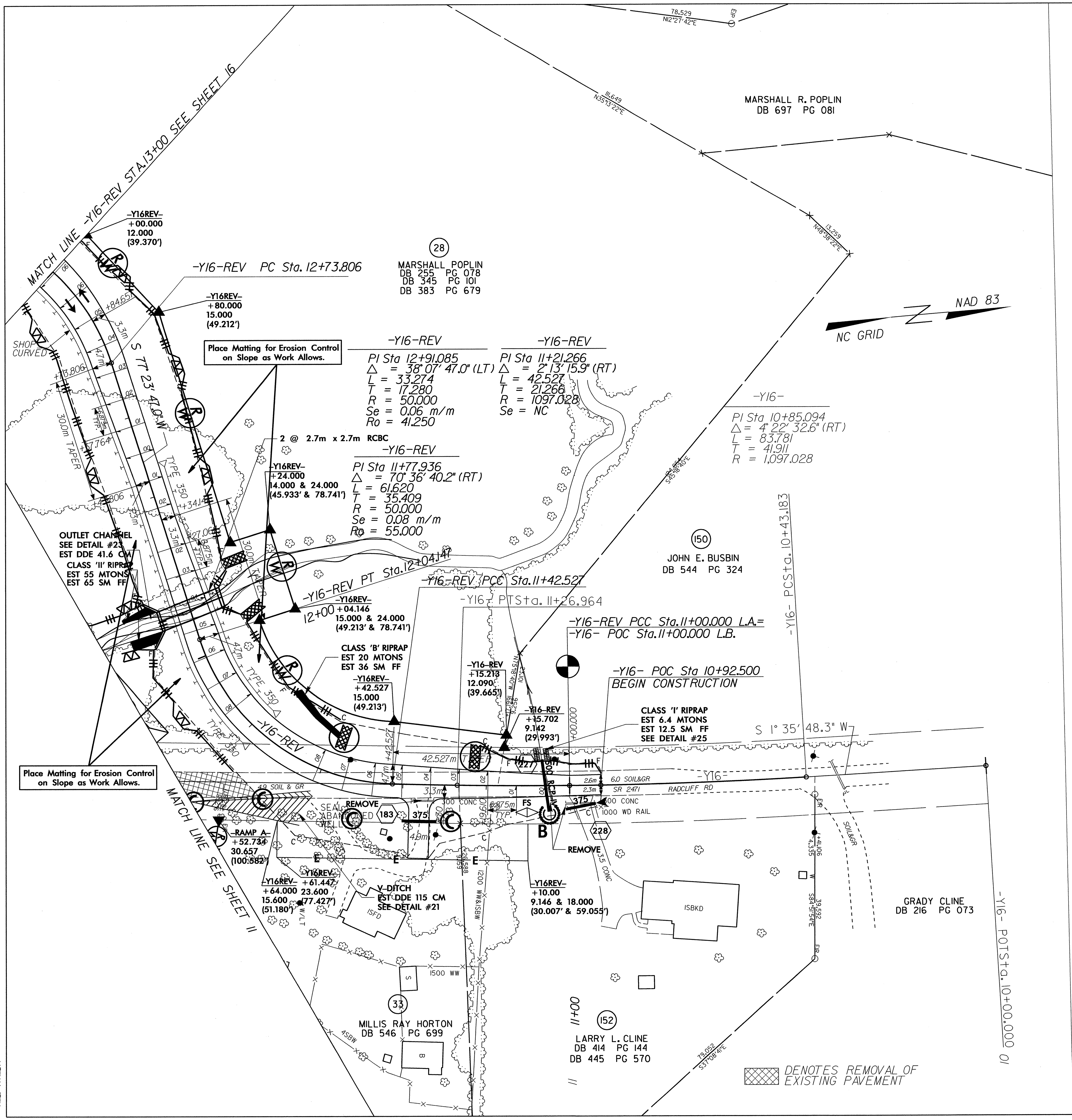
METRIC

5m 0 10m

Prepared in the Office of:

CONST.REV.

R/W REV.



METRIC	PROJ. REFERENCE NO.	SHEET NO.
5m 0 10m	R-2533CC	EC-40/CONST.19
	HIGHWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	Prepared in the Office of:	
R/W REV.		

NC GRID
NAD 83

RONNIE EUGENE SMITH
DB 407 PG 315

108.204
S07°20'15"W

54.350
N17°50'30"E

35.116
N17°50'30"E

20.220
S13°16'45"E

64.739
N19°11'52"E

143
EDWARD L. HONEYCUTT
DB 355 PG 179
PB 13 PG 48

153
WILLIE R. LEE
DB 415 PG 098
PB 13 PG 48

154
ZEB V. RINEHARDT
DB 366 PG 042
DB 366 PG 190
PB 13 PG 48

DONALD LEE EUDY
DB 476 PG 349
PB 13 PG 48

SPECIAL CUT DITCH W/PSRM
STA. 11+60 TO 11+84 -Y15-REV RT
SEE DETAIL #10

-Y15- PTS Sta. 11+64.759

-Y15- PCS Sta. 11+17.236

-Y15REV-
+56.000
16.619
(54.524')

-Y15REV-
+40.000
17.000
(55.774')

REMOVE

-Y15-REV
+60.795
12.000
(39.370')

-Y15-REV
+60.751
9.144
(30.000')

GRADE TO DRAIN

MATCHLINE -Y15-REV STA.11+75 SEE SHEET 11

-Y15-REV PC Sta. 11+47.021

-Y15-REV PT Sta. 10+54.151 LA.

-Y15- POC Sta. 10+54.151 LB.
BEGIN CONSTRUCTION

-Y15- PCS Sta. 10+02.768

-Y15- PTS Sta. 10+00.000

-Y15REV-
+27.021
8.976 & 18.000
(29.450' & 59.055')

-Y14REV-
+83.966
18.000
(59.055')

-Y15-
+46.651
9.140 & 12.000
(29.986' & 39.370')

155
JANIE T. RITCHIE
DB 387 PG 313
PB 13 PG 48

156
DANIEL R. EUDY
DB 560 PG 188
PB 13 PG 48

RAY H. EUDY
DB 361 PG 021
PB 13 PG 48

ROBERT E. KINARD
DB 564 PG 225
PB 14 PG 17

CABARRUS DEVELOP. CORP.
DB 398 PG 447

ARONALD C. LEWIS
DB 1090 PG 279
PB 14 PG 16

SPECIAL CUT DITCH W/PSRM
STA. 11+40 TO 12+83 -Y15-REV LT
EST 82.0 SM / PSRM
SEE DETAIL #10

N 14°24'43.0" E
N 19°10'04.7" E

SR 2660 ALLMAN STREET EXT. 57 PAVED ROADWAY

WOODEN PLANTER
WOODS
BRICK PLANTER
PROPANE TANK
WOODEN DECK
ABOVE GROUND SWIMMING POOL
WOODEN PORCH
HTR
CONC PATIO
CONC WALK
200MM BRICK WALL
300MM CONC
S & G DRIVE
EXISTING R/W
PROPANE TANK
ISFD
ISBKD
CONC
PEACH TREES

DENOTES REMOVAL OF EXISTING PAVEMENT

DATE: ##DATE##
TIME: ##TIME##
USER: ##USER##
DGN: ##DGN##