09/08/99

TIP PROJECT: R-5204

CONTRACT: C202534

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

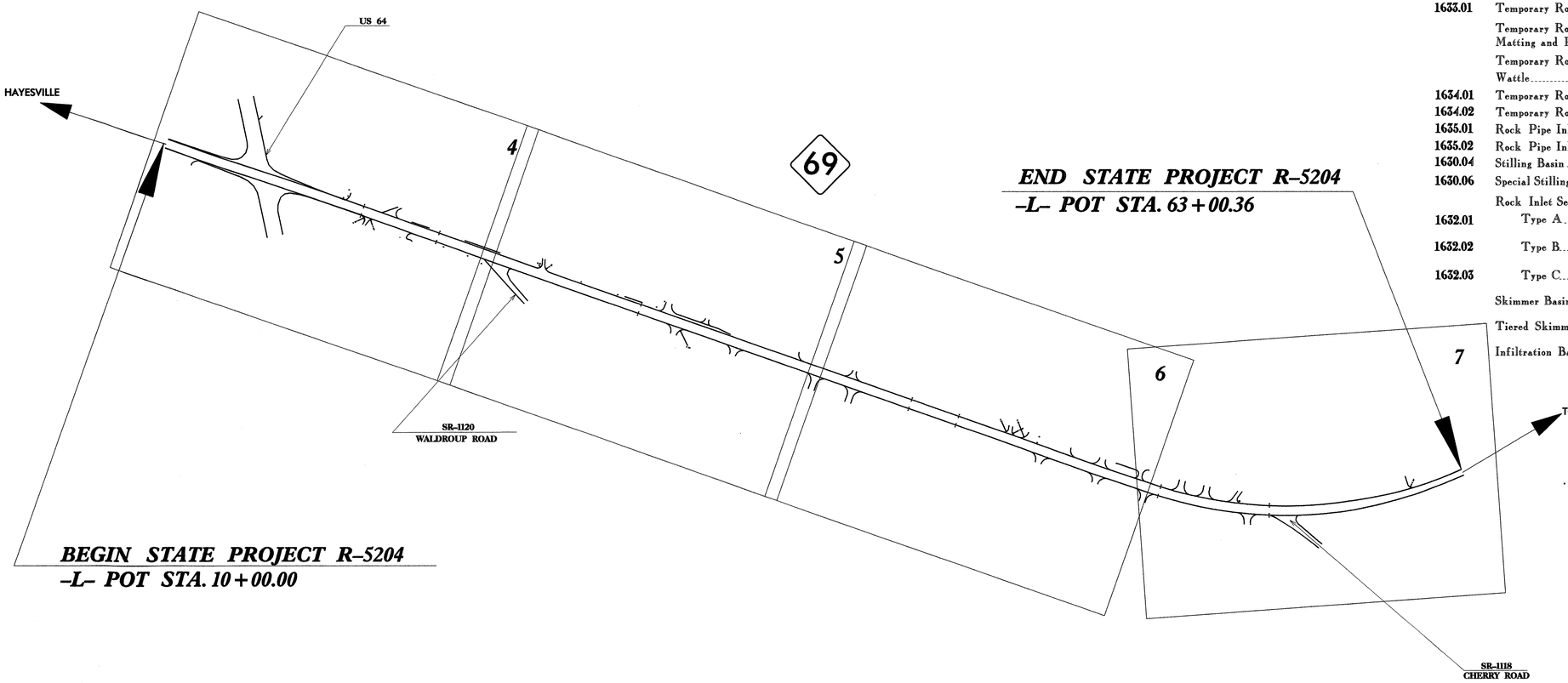
CLAY COUNTY

LOCATION : NC 69 FROM NORTH OF US 64 TO SOUTH OF SR- 1118

TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND GUARDRAIL

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5204	EC1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
45326.1.ST1	STM 00069 (6)	PE
45326.2.ST1	STM 00069 (6)	R/W
45326.3.ST1	STM 00069 (6)	CONST



END STATE PROJECT R-5204
-L- POT STA. 63+00.36

BEGIN STATE PROJECT R-5204
-L- POT STA. 10+00.00

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
	Temporary Rock Silt Check Type-B	
	Wattle	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

GRAPHIC SCALES

50 25 0 50 100
PLANS

DIVISION 14, DISTRICT III
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

Prepared In the Office of:

DIVISION 14 DISTRICT III
191 ROBBINSVILLE ROAD
ANDREWS, NC 28901

2006 STANDARD SPECIFICATIONS

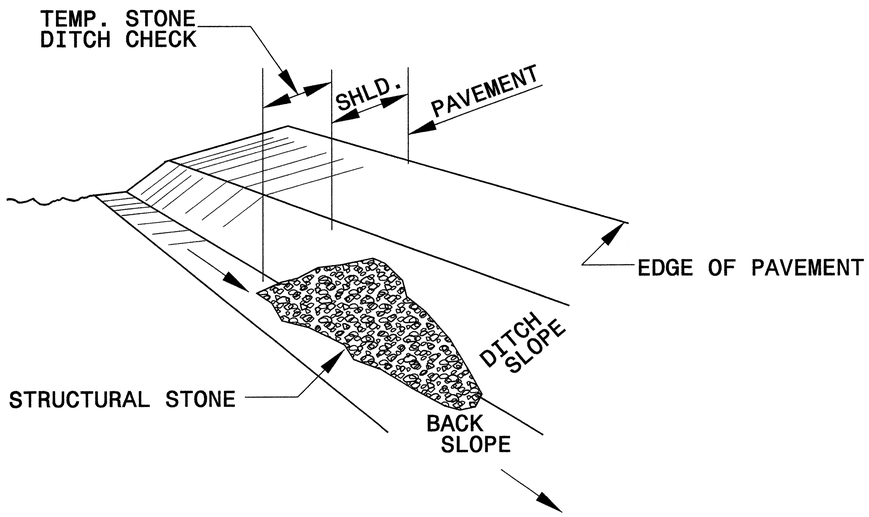
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated July 18, 2006 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

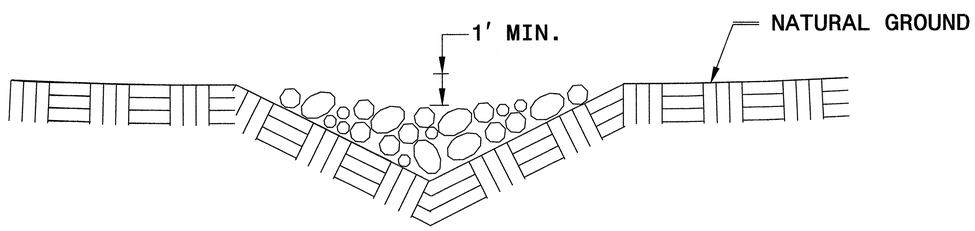
1605.01 Temporary Silt Fence
1607.01 Gravel Construction Entrance
1630.06 Special Stilling Basin
1632.02 Rock Inlet Sediment Trap Type B
1632.03 Rock Inlet Sediment Trap Type C
1633.01 Temporary Rock Silt Check Type A
1634.02 Temporary Rock Sediment Dam Type B

PROJECT REFERENCE NO.	SHEET NO.
R-5204	EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	

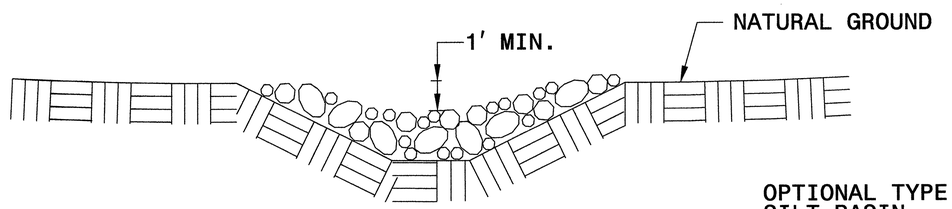
TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH

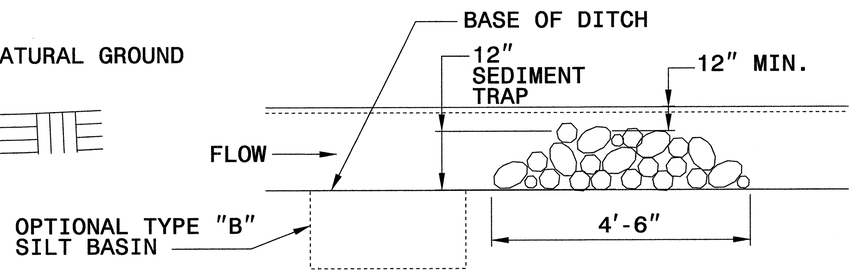


CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

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

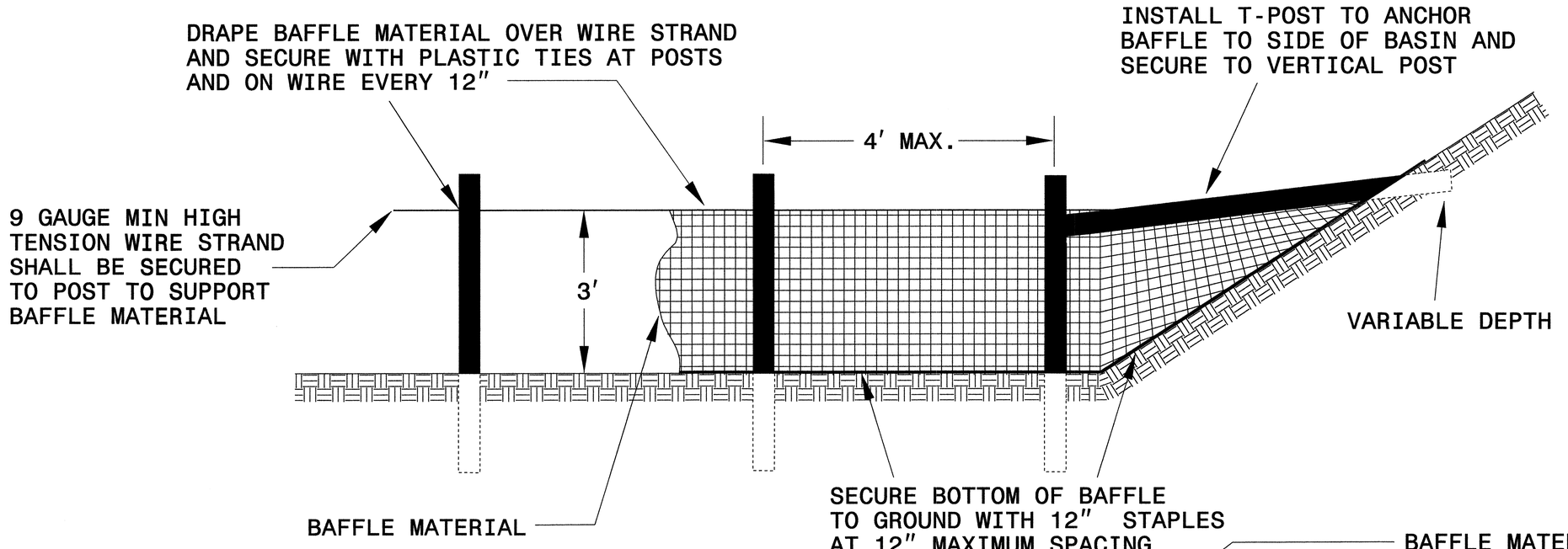
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.

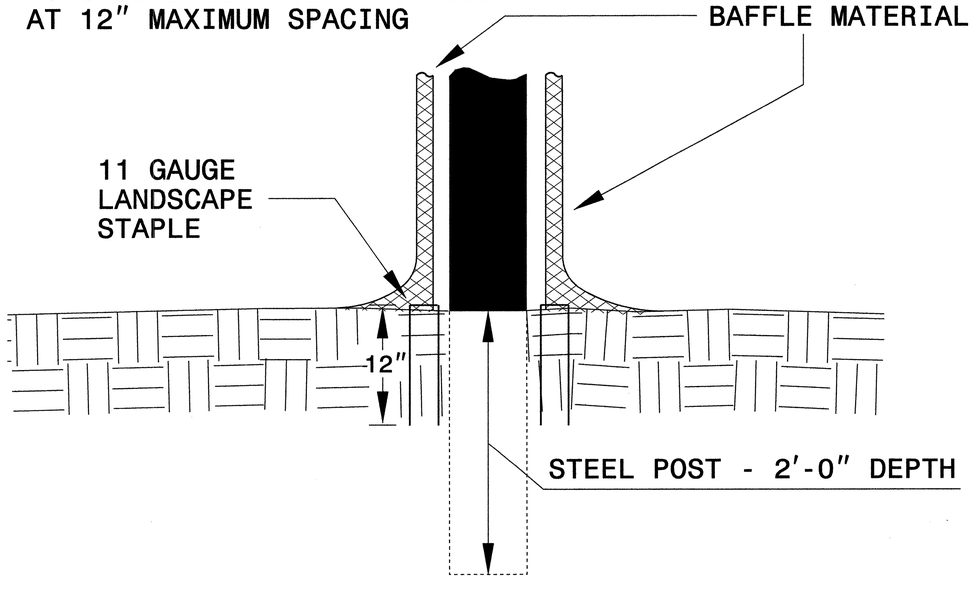


ELEVATION VIEW

PROJECT REFERENCE NO.	SHEET NO.
R-5204	EC-2A
ROADWAY DESIGN ENGINEER	

COIR FIBER BAFFLE DETAIL





BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12″ LANDSCAPE STAPLES

NOTES:

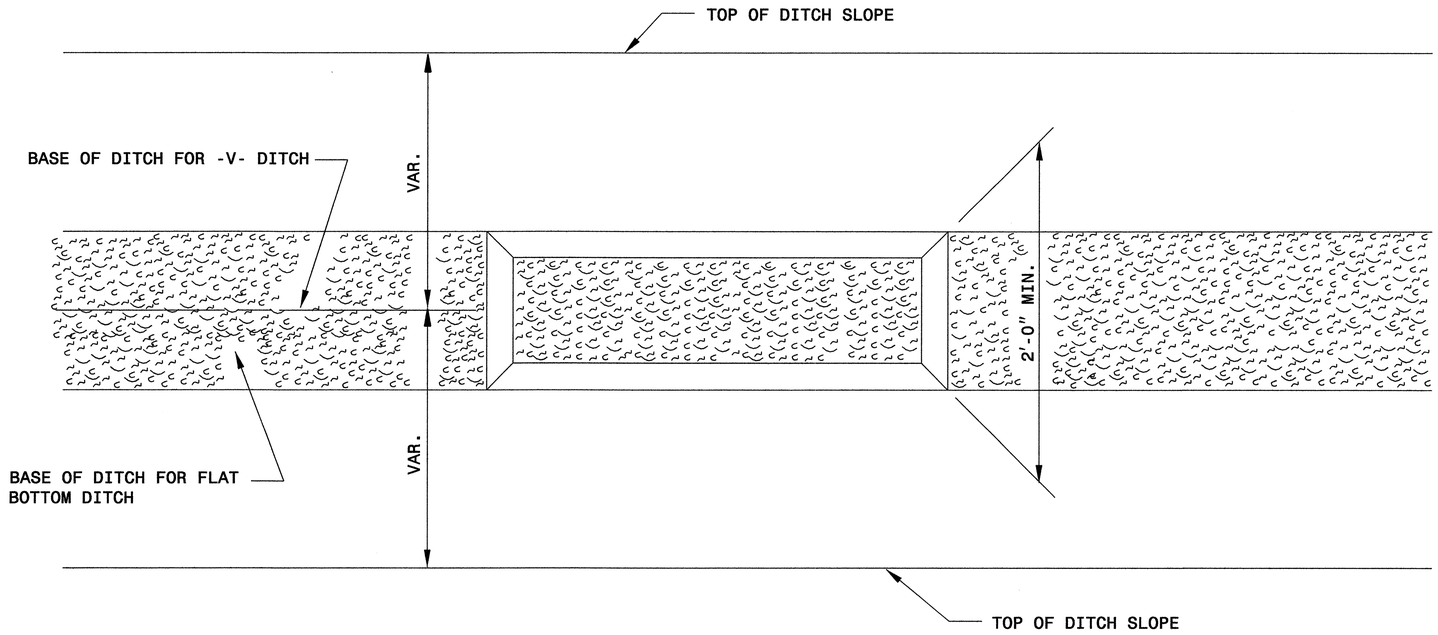
1. INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF ¼ THE BASIN LENGTH.

2. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF 1/3 THE BASIN LENGTH.

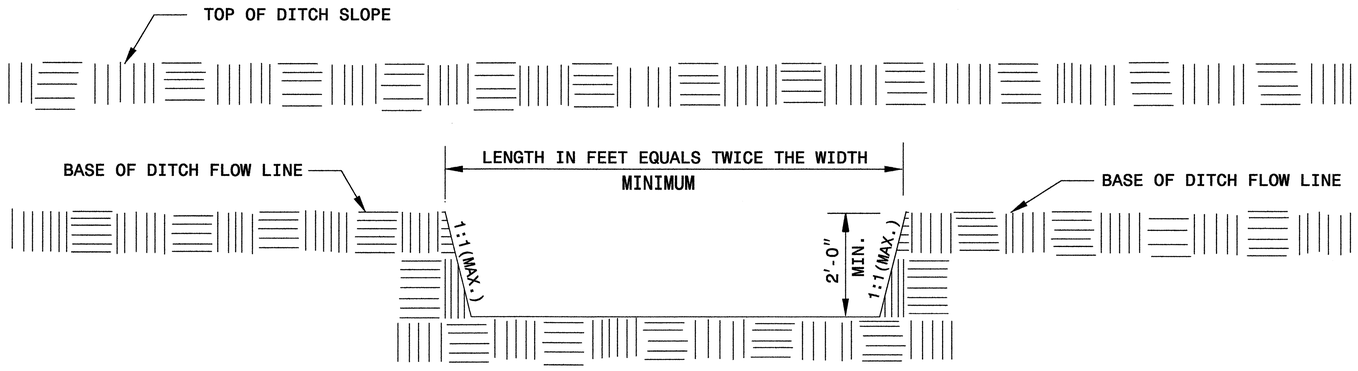
3. TOP HEIGHT OF COIR FIBER BAFFLES SHALL NOT BE BELOW BASE OF EMERGENCY SPILLWAY ELEVATION.

PROJECT REFERENCE NO.	SHEET NO.
R-5204	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	

SILT BASIN 'B' DETAIL



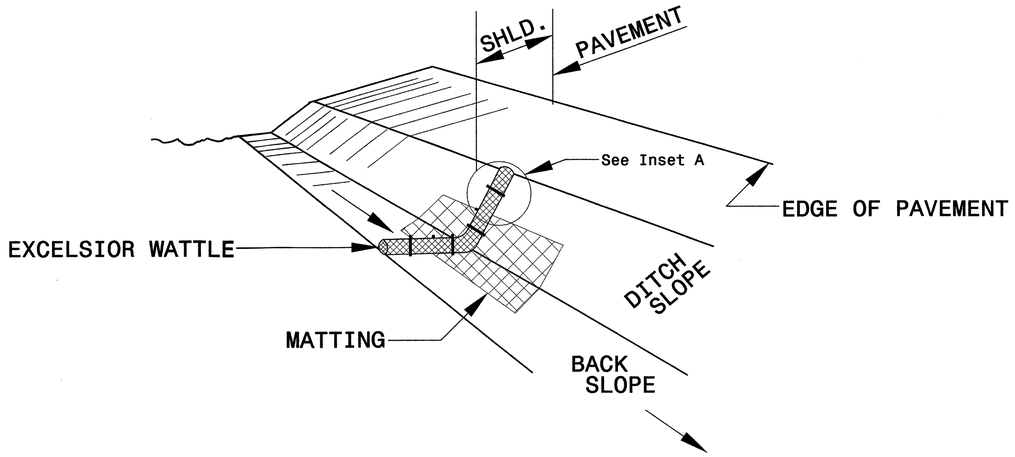
PLAN



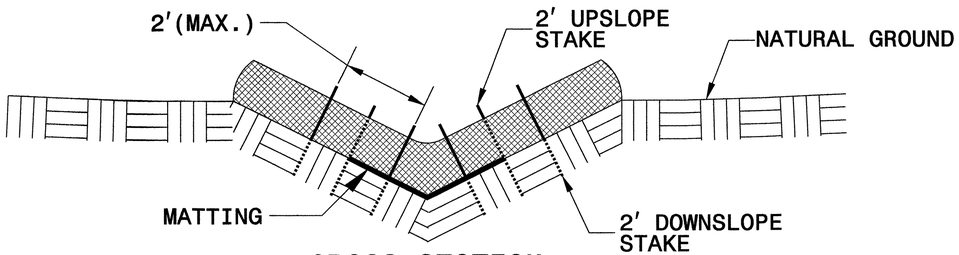
ELEVATION

PROJECT REFERENCE NO.	SHEET NO.
R-5204	EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	

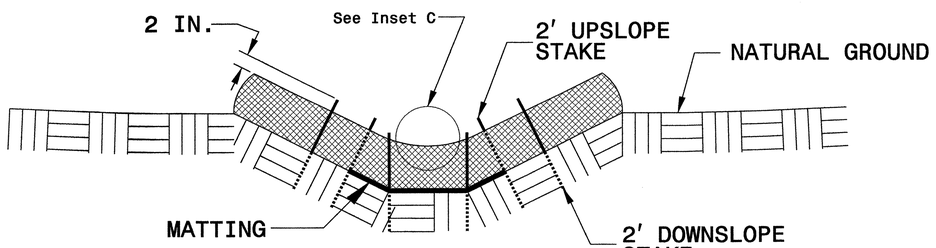
WATTLE WITH POLYACRYLAMIDE DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. 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.

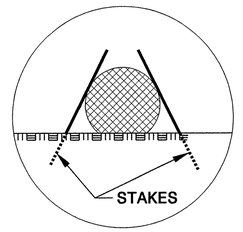
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

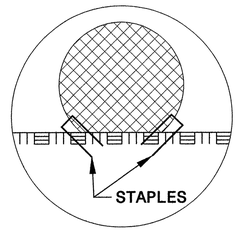
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

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.

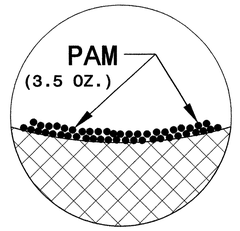
INITIALLY APPLY 3.5 OUNCES OF ANIONIC OR NEUTRALLY CHARGED POLYACRYLAMIDE (PAM) OVER WATTLE WHERE WATER WILL FLOW AND AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



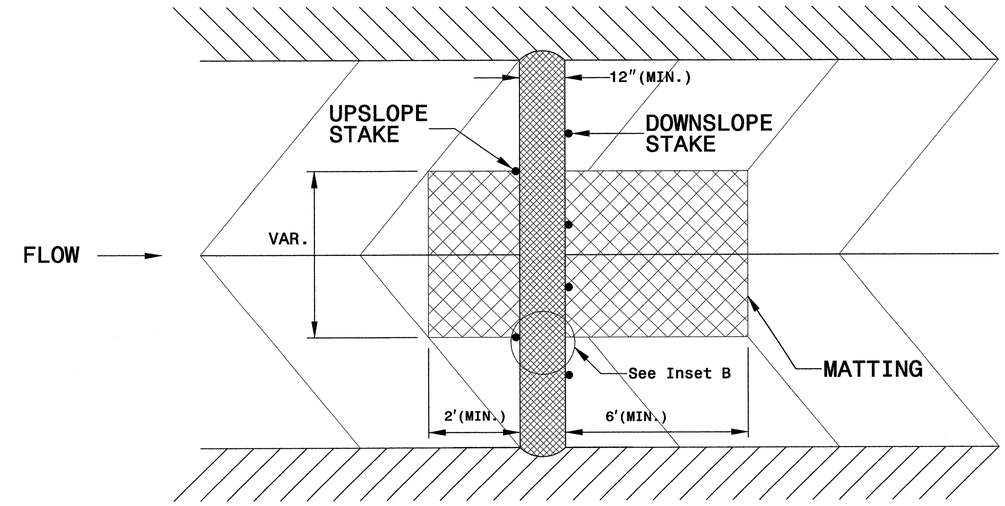
INSET A



INSET B



INSET C



TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
R-5204	EC-3

ROADWAY DESIGN ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

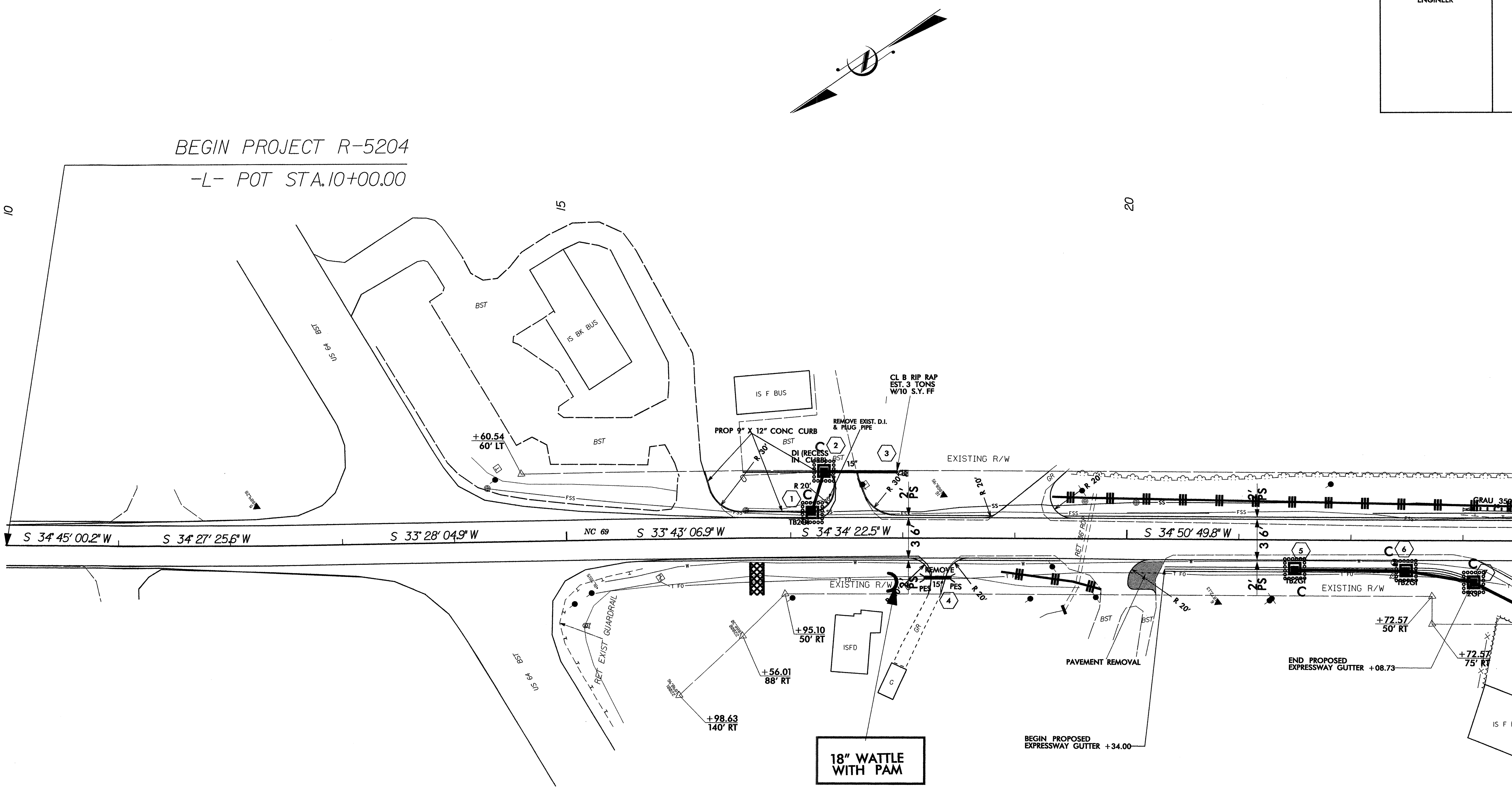
CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	18+60	19+35	RT	50
5	-L-	24+25	25+00	RT	100
				SUBTOTAL	150
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					50
				TOTAL	200
				SAY	200

MATTING FOR EROSION CONTROL

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

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-5204	EC-4 /CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	



08-DEC-2009 14:45
ts\clay\nc69turnlane\x_nc69_design\dgn\Erosion Control\R-5204_EC_PSH_4.dgn
jbdenton AT D141T231760

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-5204	EC-5/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	

MATCHLINE -L- 23+00 SEE SHEET 4

MATCHLINE -L- 37+00 SEE SHEET 6

25 30 35

-L- POT 23+86.27
-Y1- POT Sta.10+00.00

BEGIN PROPOSED EXPRESSWAY GUTTER +58.00

END PROPOSED EXPRESSWAY GUTTER +35.49

+68.55 60' LT

+68.55 50' LT

EXISTING R/W

GRAU 350

40" RCP

4'x 7' CONC.

S 34° 38' 48.5" W

NC 69

S 34° 34' 10.7" W

8'x 5' CONC.

TEST HOLE #3

TEST HOLE #8

REMOVE

+78.62 55' RT

+73.62 70' RT

DI (RECESS IN CURB)

+13.88 75' RT

+13.86 70' RT

72.57 75' RT

IS F BUS

CL B RIP RAP EST. 3 TONS W/11 S.Y. FF

15" CMP

-Y1- POT Sta.12+00.00

PROP 9" X 12" CONC CURB

END PROPOSED 9" X 12" CONC CURB +88.29

PAVEMENT REMOVAL

BST

IS MTL BUS

2S BLK BUS

PROP 9" X 12" CONC CURB

DI (RECESS IN CURB)

CL B RIP RAP EST.5 TONS W14 S.Y. FF

REMOVE

+68.62 50' RT

+68.62 75' RT

CL B RIP RAP EST. 3 TONS W/10 S.Y. FF

8' x 4' x 2' 4' WEIR ID 10.9 F

16' X 5' X 2' ID 10.2 F

18" WATTLE WITH PAM

12' x 4' x 2' 4' WEIR ID 10.1 F

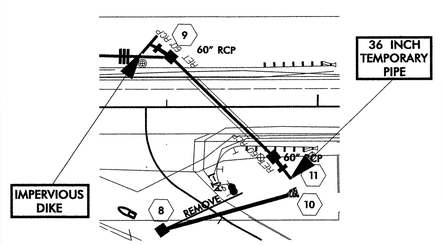
15' x 4' x 2' 4' WEIR ID 10.3 F

18" WATTLE WITH PAM

PIPE CULVERT CONSTRUCTION SEQUENCE

1. CONSTRUCT IMPERVIOUS DIKE AND INSTALL 36" TEMPORARY PIPE.
2. DEWATER SITE UTILIZING SPECIAL STILLING BASIN(S).
3. CONSTRUCT DRAINAGE STRUCTURES AND PIPE CULVERT.
4. DIVERT WATER THROUGH PIPE CULVERT.
5. COMPLETE ROADWAY.

PIPE CULVERT CONSTRUCTION SEQUENCE (STA. 24+36)



5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-5204	EC-6/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	

MATCHLINE -L- 36+50 SEE SHEET 5

MATCHLINE -L- 50+50 SEE SHEET 7

18" WATTLE WITH PAM

Flow Change

14' x 5' x 2' 4' WEIR ID 10.10 F

Flow Change

8' x 4' x 2' 4' WEIR ID 10.11 F

8' x 4' x 2' ID 10.11 F

BEGIN PROPOSED EXPRESSWAY GUTTER +20.00

PAVEMENT REMOVAL

EXIST WELL

IS F BUS

IS MTL BUS

PROP 9" X 12" CONC CURB

DI (RECESS IN CURB)

REM EXST SIGN

REMOVE

EXISTING R/W

+98.62 50' LT

+98.62 65' LT

24" CSP

18" CSP

S 34° 37' 01.7" W

NC 69

S 34° 38' 18.0" W

S 34° 43' 49.8" W

S 34° 46' 28.5" W

S 34° 32' 32.5" W

S 33° 41' 25.1" W

TEST HOLE #6

TEST HOLE #5

PES

REMOVE

15"

FES

+73.62 50' RT

+73.62 75' RT

PAVEMENT REMOVAL

BST

2S MTL BUS

EXISTING R/W

RET EXST GR

Flow Change

18" WATTLE WITH PAM

15' x 6' x 2' 4' WEIR ID 10.4 F

13' x 5' x 2' 4'WEIR ID 10.5 F

18" WATTLE WITH PAM

PAVEMENT REMOVAL

IS BK BUS

+98.62 60' RT

+98.62 50' RT

FLOWABLE FILL & REM. EXISTING D.I.

PLUG EXISTING PIPE

8' x 4' x 2' ID 10.6 F

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Jbeaton AT DJ41231750

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-5204	EC-7/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	

50

55

60

END PROJECT R-5204
-L- STA. 63+00.36

TS STA 61+50 -L-

ST STA. 58+50.00 -L-

MATCHLINE -L- 50+00 SEE SHEET 6

END PROPOSED EXPRESSWAY GUTTER +42.00

BEGIN PROPOSED EXPRESSWAY GUTTER +99.01

PAVEMENT REMOVAL

IS MTL BUS

PAVEMENT REMOVAL

END PROPOSED EXPRESSWAY GUTTER +69.00

IS MTL BUS

END PROPOSED EXPRESSWAY GUTTER +42.00

BEGIN PROPOSED EXPRESSWAY GUTTER +99.00

REM EXST SIGN

BEGIN PROPOSED EXPRESSWAY GUTTER +08.21

PI Sta 56+77.49
Δ = 42° 27' 19.6" (LT)
D = 3° 28' 30.0"
L = 1,221.74'
T = 640.45'
R = 1,648.80'

-L- POT 55+92.58
-Y1- POT Sta.10+00.00

END PROPOSED EXPRESSWAY GUTTER +66.18

+45.62 65' LT

+45.62 60' LT

EXISTING R/W

S 8° 07' 09.4" E

GRAU 350

TEST HOLE #3

TEST HOLE #1

ROCK PLATING SEE DETAIL 2-E

+03.62 100' RT

+03.62 60' RT

-Y1- POT Sta.12+00.00

SR 1182 (CHERRY RD.)

IS F BUS