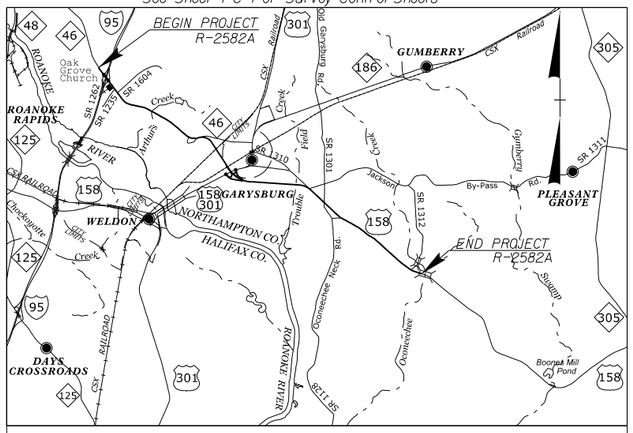
09/08/99

TIP PROJECT: R-2582A

CONTRACT:

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



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

NORTHAMPTON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2582A	1	

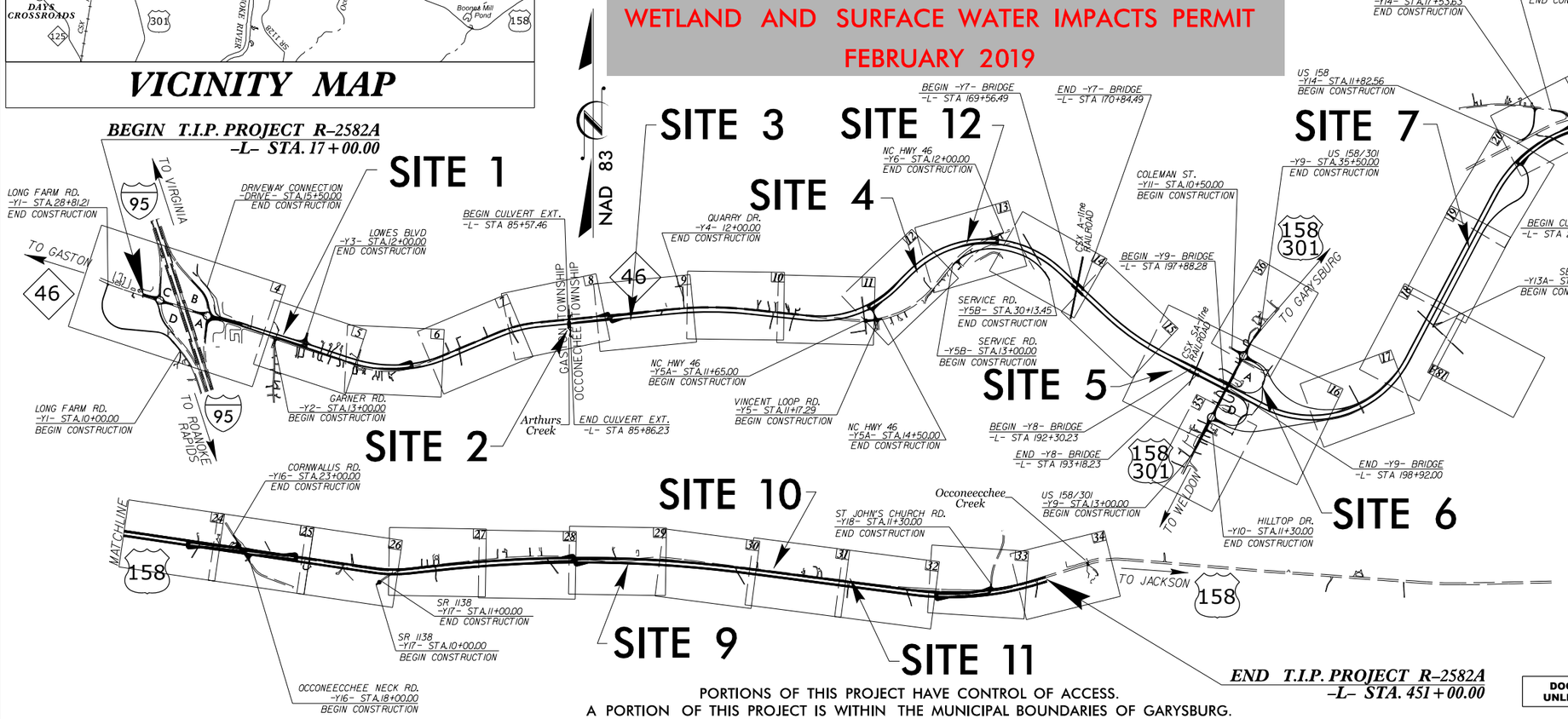
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
34472.1.4		PE
34472.2.4		R/W, UTIL.

LOCATION: US 158 FROM I-95/NC 46 IN ROANOKE RAPIDS TO SR 1312 (ST. JOHN CHURCH RD)

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

WETLAND AND SURFACE WATER IMPACTS PERMIT
FEBRUARY 2019





END T.I.P. PROJECT R-2582A
-L- STA. 451+00.00

PORTIONS OF THIS PROJECT HAVE CONTROL OF ACCESS.
A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF GARYSBURG.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

PERMIT DRAWING
SHEET 1 OF 53

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

PLANS: 50 25 0 50 100
PROFILE (HORIZONTAL): 50 25 0 50 100
PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

ADT 2017 = 6200
ADT 2037 = 8200
DHV = 11 %
D = 60 %
T = 21 % *
V = 70 MPH
* TTST =14 DUAL=7
FUNC CLASS =
EXPRESSWAY / FREEWAY
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY T.I.P. PROJECT R-2582A = 8.149 MILES

LENGTH STRUCTURE T.I.P. PROJECT R-2582A = 0.071 MILES

TOTAL LENGTH OF T.I.P. PROJECT R-2582A = 8.220 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: June 30, 2017

LETTING DATE: December 18, 2019

GARY R. LOVERING, PE
PROJECT ENGINEER

BRYAN C. KEY, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION

2/7/2019
R:\Hydraulics\PERMITS_Environmental\Drawings\01_R2582A_Rdy_tsh.dgn
meme.buscemi

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR BID OR CONSTRUCTION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-DRIVE-
PI Sta 13+29.26
Δ = 27° 45' 21.8" (LT)
D = 38° 11' 49.9"
L = 72.67'
T = 37.06'
R = 150.00'

-L- PC Sta 10+00.00
S 37° 00' 39.1" E

-L- PC Sta 10+20.94

-L- POT Sta 11+19.14
-Y1- POT Sta 29+10.55

-L- PT Sta 13+10.13

-L- PT Sta 19+17.59

-L- PC Sta 18+27.44

-L- PC Sta 27+15.91

-L- PT Sta 26+85.91
-RPAB_R- PC Sta 10+00.00
-RPAB_R- PT Sta 13+14.46

-L- PT Sta 32+88.60

-L- POC Sta 29+50.00
-DRIVE- POT Sta 10+00.00
N 22° 41' 03.7" E

-L- POC Sta 19+61.88
-195_RPC- POT Sta 14+19.57
-195_RPD- POT Sta 18+08.32

-Y1- PT Sta 26+57.51

-L- POC Sta 19+11.88
-RPCD_R- PC Sta 10+00.00
-RPCD_R- PT Sta 13+14.16

-Y1- PT Sta 19+89.72

-Y1- PT Sta 14+89.57

-Y1- PC Sta 12+13.51

-Y1- POT Sta 10+00.00

-195_RPA- PC Sta 10+00.00

-195_RPB- POT Sta 10+00.00

-195_RPC- POT Sta 10+00.00

-195_RPA- PT Sta 14+05.36

-195_RPD- PC Sta 13+79.92

-195_RPB- PC Sta 14+08.70

-195_RPB- PT Sta 17+88.50
S 41° 12' 57.4" W

-195_RPA- POT Sta 17+17.13
-195_RPB- POT Sta 18+37.89

-RPCD_R- PCC Sta 12+09.44

-RPAB_R- PCC Sta 12+09.44

-RPAB_R- PCC Sta 11+04.72

-195_RPD- PT Sta 17+58.77
N 37° 06' 05.6" E

-DRIVE- PC Sta 12+84.20

-DRIVE- PT Sta 13+56.87

-DRIVE- POT Sta 15+91.36

S 47° 46' 36.8" E

N 39° 29' 50.1" W

N 50° 08' 05.8" W

N 37° 16' 20.8" W

N 39° 29' 50.1" W

S 36° 47' 39.4" E

S 37° 17' 14.2" E

S 37° 25' 43.1" E

SEE ENLARGMENT SHEET 6 OF 53

MATCHLINE SEE SHEET 5 -L- STA. 37+00.00

SITE 1

TAG 83

F F DENOTES FILL IN WETLAND

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

PERMIT DRAWING SHEET 2 OF 53

GRAPHIC SCALE
50 25 0 50 100
PLANS

LOCATION:	
TIP NO.:	COUNTY:
DESIGNED BY:	
CHECKED BY:	DATE:

DETAIL 1 SPECIAL LATERAL "V" DITCH — FROM STA 10+66 -RPD_RPB- RT TO STA 18+83 -RPD_RPB- RT; FROM STA 18+00 -RPC- RT TO STA 27+00 -L- RT

DETAIL 2 SPECIAL LATERAL "V" DITCH — FROM STA 13+00 -RPD_RPB- LT TO STA 14+22 -RPD_RPB- LT; FROM STA 23+09 -L- RT TO STA 27+00 -L- RT

DETAIL 3 SPECIAL LATERAL "V" DITCH — FROM STA 23+16 -Y1- RT TO STA 23+00 -Y1- RT

DETAIL 4 SPECIAL LATERAL "V" DITCH — FROM STA 35+65 -Y1- LT TO STA 37+90 -Y1- LT

DETAIL 5 LATERAL BASE DITCH — FROM STA 18+70 -RPC- LT TO STA 18+23 -RPC- LT; FROM STA 17+75 -RPB_RPA- LT TO STA 20+50 -L- LT

DETAIL 6 LATERAL BASE DITCH — FROM STA 16+24 -RPD_RPB- LT TO STA 17+75 -RPD_RPB- LT

DETAIL 7 LATERAL BASE DITCH — FROM STA 14+50 -RPD_RPB- RT TO STA 15+78 -RPD_RPB- RT

DETAIL 8 LATERAL BASE DITCH — FROM STA 38+66 -RPC- RT TO STA 39+00 -RPC- RT; FROM STA 29+00 -RPA- RT TO STA 29+90 -RPA- RT

DETAIL 9 SPECIAL CUT DITCH — FROM STA 10+50 -RPC- RT TO STA 10+91 -RPC- RT; FROM STA 11+00 -RPC- RT TO STA 11+00 -RPC- LT; FROM STA 11+34 -RPB_RPC- LT TO STA 11+56 -L- RT; FROM STA 12+73 -L- RT TO STA 13+50 -RPB_RPC- RT

DETAIL 10 ROAD DITCH — FROM STA 18+35 -L- LT TO STA 12+67 -RPD_RPC- RT

DETAIL 11 ROAD DITCH — FROM STA 13+50 -RPD_RPC- LT TO STA 12+78 -RPD_RPC- LT

DETAIL 85 TOE PROTECTION — FROM -RPD_RPA- STA 16+00 LT TO -RPD_RPA- STA 16+57 LT

R:\Projects\R-2582A Rdwy.prjt\Drawings\R2-R-2582A Rdwy.prjt 4.dgn
5/1/2019
mwatkins

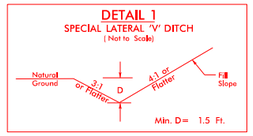
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

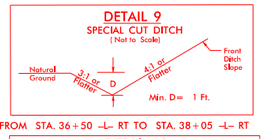
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DETAIL 1
SPECIAL LATERAL 'W' DITCH
(Not to Scale)



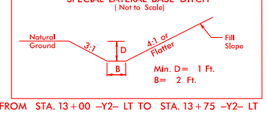
FROM STA. 38+65 –L– LT TO STA. 42+40 –L– LT
FROM STA. 38+90 –L– RT TO STA. 47+30 –L– RT
FROM STA. 43+50 –L– LT TO STA. 47+00 –L– LT
FROM STA. 49+50 –L– LT TO STA. 58+00 –L– LT

DETAIL 9
SPECIAL CUT DITCH
(Not to Scale)



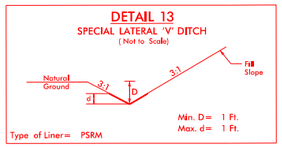
FROM STA. 36+50 –L– RT TO STA. 38+05 –L– RT

DETAIL 12
SPECIAL LATERAL BASE DITCH
(Not to Scale)



FROM STA. 13+00 –Y2– LT TO STA. 13+75 –Y2– LT

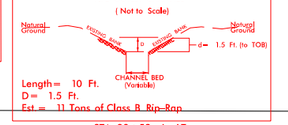
DETAIL 13
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



Type of Liner= PSRM

FROM STA. 12+95 –Y2– RT TO STA. 13+27 –Y2– RT

DETAIL 16
PIPE OUTLET CHANNEL
(Not to Scale)

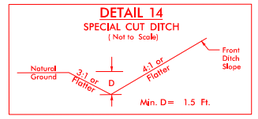


Length= 10 Ft.
D= 1.5 Ft.
Est.= 11 Tons of Class B Rip-Rap

STA. 38+59 –L– LT

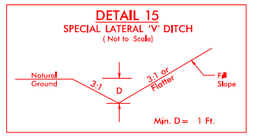
–Y3– POT Sta. 12+00.28
N 48° 24' 16.3" E

DETAIL 14
SPECIAL CUT DITCH
(Not to Scale)



FROM STA. 47+00 –L– LT TO STA. 48+35 –L– LT

DETAIL 15
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



FROM STA. 10+84 –Y3– RT TO STA. 11+00 –Y3– RT
FROM STA. 10+99 –Y3– LT TO STA. 11+60 –Y3– LT

NAD 83

SITE 1

–Y2– POT Sta. 14+34.60
–L– POT Sta. 38+27.00

40+00

45+00

50+00

–L– TS Sta. 49+18.36

MATCHLINE SEE SHEET 4 –L– STA. 37+00.00

MATCHLINE SEE SHEET 6 –L– STA. 51+00.00

CAROLYN N. BARDEN
WB 09-E- 190

MICHAEL H. WRAY ET UX
DB 787 PG 112

WALTER SYKES ET UX
DB 579 PG 176

ROBERT L. SYKES ET UX
DB 579 PG 643

CORA MAE MAYO
DB 676 PG 819

JESSE J. ROOK HEIRS
DB 445 PG 400

ANNIE P. WILLIAMS
DB 771PG 439

TEMPORARY IMPACTS IN SURFACE WATER

SPECIAL LATERAL V-DITCH SEE DETAIL 15

EST. 3 TONS CLASS B RIP RAP
EST. 10 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL V-DITCH SEE DETAIL 1

PIPE OUTLET CHANNEL
PLACE RIP RAP ON BANKS ONLY
SEE DETAIL 16

SPECIAL CUT V-DITCH SEE DETAIL 9

2' BASE SPECIAL LATERAL DITCH SEE DETAIL 12

SPECIAL LATERAL V-DITCH W/SRM SEE DETAIL 13

EST. 5 TONS CLASS B RIP RAP
EST. 14 S.Y. GEOTEXTILE FABRIC

SPECIAL CUT DITCH SEE DETAIL 14

F F DENOTES FILL IN WETLAND

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

JERRY WRIGHT
DB 807 PG 934

BEAT
DB 497 PG 388

LEE BELFIELD
DB 806 PG 714

WILLIAM R. GARNER ET UX
DB 574 PG 145
MB 11 PG 29

MARVIN GARNER ET UX
DB 584 PG 406

EARLIE ROOK
DB 871PG 285

GROVER ROOK
DB 929 PG 416

FLORA R. PITCHFORD ET AL
DB 06E PG 179

JUDITH SYKES
DB 770 PG 213

ASHBY SYKES HEIRS
DB 458 PG 463

ROBERT L. EDMONDS JR ET UX
DB 599 PG 693

FESSIE PORCH ET AL

J E ROSCOE HEIRS
DB 327 PG 219

JESSE J. ROOK
DB 534 PG 29
PB 33 PG 199

SEE ENLARGMENT SHEET 6 OF 53

–Y2– PT Sta. 12+04.62

–Y2– PC Sta. 11+01.18

–Y2– POT Sta. 10+00.00

–L– POT Sta. 43+09.06

–Y3– POT Sta. 10+00.00

100' 0' 100'
SCALE

PERMIT DRAWING
SHEET 3 OF 53

2/7/2019
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mgwilliamson

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR CONSTRUCTION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-DRIVE-
PI Sta 13+29.26
Δ = 27° 45' 21.8" (LT)
D = 38° 11' 49.9"
L = 72.67'
T = 37.06'
R = 150.00'

-L- PC Sta. 10+20.94
-L- POT Sta. 10+00.00
S 37° 00' 39.7" E
-L- PC Sta. 11+19.14
-Y1- POT Sta. 29+10.55
-L- PT Sta. 13+10.13
-L- PT Sta. 19+17.28
-L- POC Sta. 19+16.88
-RPCD_R- PC Sta. 11+00.20
-RPCD_R- PT Sta. 13+14.06
-Y1- PT Sta. 26+57.51
-Y1- PC Sta. 19+89.72
-Y1- PT Sta. 14+89.57
-Y1- PC Sta. 12+13.51
-Y1- POT Sta. 10+00.00
-L- POC Sta. 29+50.00
-DRIVE- POT Sta. 10+00.00
N 22° 41' 03.7" E
-L- PT Sta. 32+88.60
-DRIVE- PC Sta. 12+84.20
-RPAB_R- PCC Sta. 12+09.44
-RPCD_R- PCC Sta. 11+04.72
-RPAB_R- PCC Sta. 11+04.72
-DRIVE- PT Sta. 13+56.87
-DRIVE- POT Sta. 15+91.36
-RPCD_R- PCC Sta. 12+09.44
-RPAB_R- PC Sta. 10+00.00
-RPAB_R- PT Sta. 13+14.46
-RPCD_R- PC Sta. 11+00.20
-RPCD_R- PT Sta. 13+14.06
-L- POC Sta. 19+16.88
-RPCD_R- PC Sta. 11+00.20
-RPCD_R- PT Sta. 13+14.06
-RPCD_R- PCC Sta. 11+04.72
-RPAB_R- PCC Sta. 11+04.72
-L- POC Sta. 29+50.00
-DRIVE- POT Sta. 10+00.00
N 22° 41' 03.7" E
-L- PT Sta. 32+88.60
-DRIVE- PC Sta. 12+84.20
-RPAB_R- PCC Sta. 12+09.44
-L- PC Sta. 18+27.44
-L- POC Sta. 19+16.88
-RPCD_R- PC Sta. 11+00.20
-RPCD_R- PT Sta. 13+14.06
-L- POT Sta. 26+88.89
-RPAB_R- PC Sta. 10+00.00
-RPAB_R- PT Sta. 13+14.46
-RPCD_R- PCC Sta. 12+09.44
-195_RPA- POT Sta. 17+17.13
-195_RPB- POT Sta. 18+37.89
-195_RPB- PC Sta. 14+08.70
-195_RPB- PT Sta. 17+88.50
S 41° 12' 57.4" W
-L- PC Sta. 29+15.91
-195_RPC- POT Sta. 10+00.00
-195_RPB- POT Sta. 10+00.00
-195_RPA- PC Sta. 10+00.00
-195_RPA- PT Sta. 14+05.36
-195_RPD- PC Sta. 13+79.32
-195_RPD- POT Sta. 10+00.00
-195_RPD- PT Sta. 14+58.77
N 37° 06' 05.5" E
S 37° 10' 14.2" E
S 36° 41' 39.4" E
N 52° 08' 10.7" W
N 37° 51' 49.7" E
N 43° 15' 43.5" E
N 52° 08' 10.7" W
N 37° 51' 49.7" E
N 43° 15' 43.5" E
S 41° 12' 57.4" W
S 36° 41' 39.4" E
S 37° 10' 14.2" E
S 37° 06' 05.5" E
N 37° 06' 05.5" E
S 37° 00' 39.7

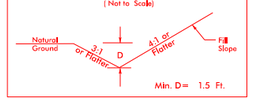
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

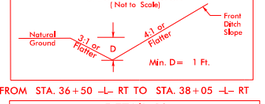
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DETAIL 1
SPECIAL LATERAL 'W' DITCH
(Not to Scale)



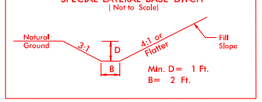
FROM STA. 38+65 –L– LT TO STA. 42+40 –L– LT
FROM STA. 38+90 –L– RT TO STA. 47+30 –L– RT
FROM STA. 43+50 –L– LT TO STA. 47+00 –L– LT
FROM STA. 49+50 –L– LT TO STA. 58+00 –L– LT

DETAIL 9
SPECIAL CUT DITCH
(Not to Scale)



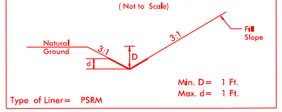
FROM STA. 36+50 –L– RT TO STA. 38+05 –L– RT

DETAIL 12
SPECIAL LATERAL BASE DITCH
(Not to Scale)



FROM STA. 13+00 –Y2– LT TO STA. 13+75 –Y2– LT

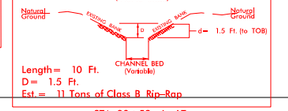
DETAIL 13
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



Type of Liner= PSRM

FROM STA. 12+95 –Y2– RT TO STA. 13+27 –Y2– RT

DETAIL 16
PIPE OUTLET CHANNEL
(Not to Scale)

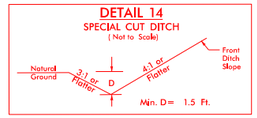


Length= 10 Ft.
D= 1.5 Ft.
Est.= 11 Tons of Class B Rip-Rap

STA. 38+59 –L– LT

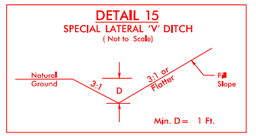
–Y3– POT Sta. 12+00.28
N 48° 24' 16.3" E

DETAIL 14
SPECIAL CUT DITCH
(Not to Scale)



FROM STA. 47+00 –L– LT TO STA. 48+35 –L– LT

DETAIL 15
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



FROM STA. 10+84 –Y3– RT TO STA. 11+00 –Y3– RT
FROM STA. 10+99 –Y3– LT TO STA. 11+60 –Y3– LT

NAD 83

SITE 1

–Y2– POT Sta. 14+34.60
–L– POT Sta. 38+27.00

40+00

45+00

50+00

–L– TS Sta. 49+18.36

MATCHLINE SEE SHEET 4 –L– STA. 37+00.00

MATCHLINE SEE SHEET 6 –L– STA. 51+00.00

TEMPORARY IMPACTS IN SURFACE WATER

PIPE OUTLET CHANNEL
PLACE RIP RAP ON BANKS ONLY
SEE DETAIL 16

SPECIAL LATERAL V-DITCH SEE DETAIL 15

EST. 3 TONS CLASS B RIP RAP
EST. 10 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL V-DITCH SEE DETAIL 1

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SPECIAL CUT V-DITCH SEE DETAIL 9

2' BASE SPECIAL LATERAL DITCH SEE DETAIL 12

EST. 5 TONS CLASS B RIP RAP
EST. 14 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL V-DITCH WBSRM SEE DETAIL 13

SPECIAL CUT DITCH SEE DETAIL 14

F F DENOTES FILL IN WETLAND
SPECIAL LATERAL V-DITCH SEE DETAIL 1

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SEE ENLARGMENT SHEET 6 OF 53

–Y2– PT Sta. 12+04.62
–Y2– PC Sta. 11+01.18
–Y2– POT Sta. 10+00.00
–L– POT Sta. 43+09.06
–Y3– POT Sta. 10+00.00

CAROLYN N. BARDEN WB 09-E- 190

MICHAEL H. WRAY ET UX DB 787 PG 112

WALTER SYKES ET UX DB 579 PG 176

ROBERT L. SYKES ET UX DB 579 PG 693

CORA MAE MAYO DB 676 PG 819

ANNIE P. WILLIAMS DB 771PG 439

JESSE J. ROOK HEIRS DB 445 PG 400

JERRY WRIGHT DB 807 PG 934

WILLIAM R. GARNER ET UX DB 574 PG 145 MB 11 PG 29

MARVIN GARNER ET UX DB 584 PG 406

LEE BELFIELD DB 806 PG 714

EARLIE ROOK DB 871PG 285

GROVER ROOK DB 929 PG 416

FLORA R. PITCHFORD ET AL DB 06E PG 179

JUDITH SYKES DB 770 PG 213

ASHBY SYKES HEIRS DB 458 PG 463

ROBERT L. EDMONDS JR ET UX DB 599 PG 693

FESSIE PORCH ET AL

J E ROSCOE HEIRS DB 327 PG 219

JESSE J. ROOK DB 534 PG 29 PB 33 PG 199

SCALE 100' 0' 100'

PERMIT DRAWING
SHEET 5 OF 53

2/17/2019
R:\Projects\PERMITS_Environmental\Drawings\05_R-2582A_Rdy_psh_5.dgn
mmeadows

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

SITE 1

-L- 35+00

-Y2- POT Sta. 14+34.60

-L- POT Sta. 38+27.00

40+00

NAD 83

CAROLYN N. BARDEN
WB 09-E- 190

N 53°29'15" E
426.75'

CAROLYN N. BARDEN
WB 09-E- 190

SPECIAL LATERAL V-DITCH
SEE DETAIL 16

EST. 3 TONS CLASS B RIP RAP
EST. 10 S.Y. GEOTEXTILE FABRIC

EXISTING

FALLOW

EST. 1 TONS CLASS B RIP RAP
EST. 5 S.Y. GEOTEXTILE FABRIC

FILL IN WETLAND

TEMPORARY IMPACTS IN SURFACE WATER

SPECIAL LATERAL V-DITCH
SEE DETAIL 1

PUE

WOODS

GRADE TO DRAIN

PIPE OUTLET CHANNEL
PLACE RIP RAP ON BANKS ONLY
SEE DETAIL 16

36" RCP-III

15" RCP-IV

S 37°06'53.0" E

2GI

NC 46 24 BST

REMOVE

PES

24" RCP-III

HW

SPECIAL CUT V-DITCH
SEE DETAIL 9

SPECIAL LATERAL V-DITCH
SEE DETAIL 1

TRENCH RDY DITCH w/VAR BACKSLOPE
-L- Sta. 33+50 TO 36+00 RT
SEE CROSS SECTIONS

TREES AND SHRUBS

SEPTIC DRAINFIELD

JERRY WRIGHT
DB 807 PG 934

ISBKD

2' BASE SPECIAL LATERAL DITCH
SEE DETAIL 12

RETAIN

S 32°41'15" W
188.32'

N 36°14'12.0" E

-Y2-

EST. 5 TONS CLASS B RIP RAP
EST. 14 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL V-DITCH W/SRM
SEE DETAIL 13

DRAINFIELD

CONC

8' GR

PINES

N 47°48'03" W
197.43'

WILLIAM R. GARNER
ET UX

BEAT

DB 491 PG 388

DB 519 PG 415

PERMIT DRAWING
SHEET 6 OF 53

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND
SPECIAL LATERAL V-DITCH
SEE DETAIL 1

S S DENOTES IMPACTS IN SURFACE WATER

60' 0' 60'
SCALE

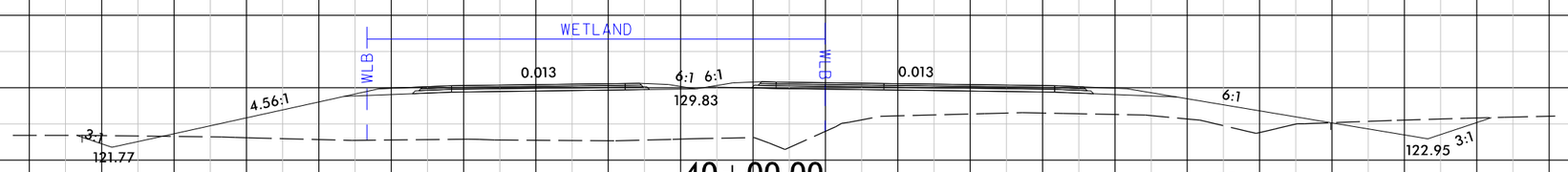
2/1/2019
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mmebaseem

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
R-2582A	07

0 5 10

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



40+00.00

SITE 1

PERMIT DRAWING
SHEET 07 OF 53

140 130 120 110

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

2/7/2019
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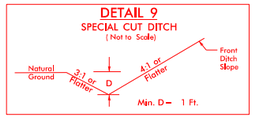
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

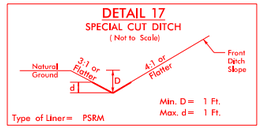
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DETAIL 9
SPECIAL CUT DITCH
(Not to Scale)



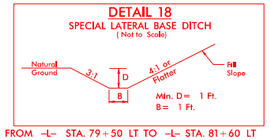
FROM –L– STA. 73+00 LT TO –L– STA. 79+50 LT
FROM –L– STA. 75+00 RT TO –L– STA. 80+50 RT
FROM –L– STA. 88+50 RT TO –L– STA. 91+00 RT
FROM –L– STA. 89+50 LT TO –L– STA. 90+50 LT

DETAIL 17
SPECIAL CUT DITCH
(Not to Scale)



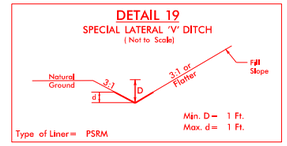
Type of Liner= PSRM
FROM –L– STA. 83+00 RT TO –L– STA. 84+00 RT

DETAIL 18
SPECIAL LATERAL BASE DITCH
(Not to Scale)



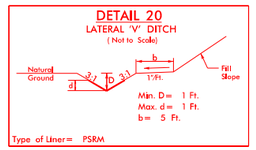
FROM –L– STA. 79+50 LT TO –L– STA. 81+60 LT

DETAIL 19
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



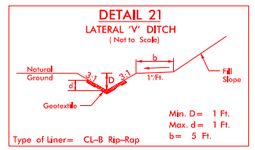
Type of Liner= PSRM
FROM –L– STA. 84+24 LT TO –L– STA. 85+60 LT

DETAIL 20
LATERAL 'V' DITCH
(Not to Scale)



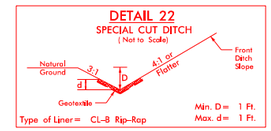
Type of Liner= PSRM
FROM –L– STA. 84+00 RT TO –L– STA. 85+50 RT

DETAIL 21
LATERAL 'V' DITCH
(Not to Scale)



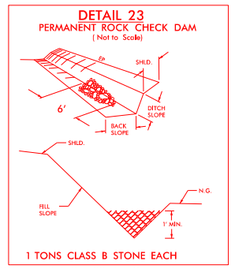
Type of Liner= CL-B Rip-Rap
FROM –L– STA. 86+03 LT TO –L– STA. 89+50 LT

DETAIL 22
SPECIAL CUT DITCH
(Not to Scale)



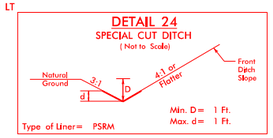
Type of Liner= CL-B Rip-Rap
FROM –L– STA. 87+33 RT TO –L– STA. 88+50 RT

DETAIL 23
PERMANENT ROCK CHECK DAM
(Not to Scale)



1 TONS CLASS B STONE EACH
FROM –L– STA. 85+00 RT TO –L– STA. 85+08 RT

DETAIL 24
SPECIAL CUT DITCH
(Not to Scale)



Type of Liner= PSRM
FROM –L– STA. 87+33 RT TO –L– STA. 91+00 RT

–L–

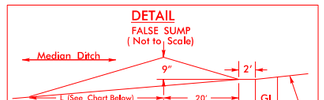
PIs Sta 75+24.24
Θs = 4° 12' 46.5"
Ls = 300.00'
LT = 200.06'
ST = 100.05'

PI Sta 77+80.56
Δ = 8° 46' 00.3" (RT)
D = 2° 48' 31.0"
L = 312.14'
T = 156.37'
R = 2,040.00'
SE = 06
V_d = 70

PIs Sta 80+36.38
Θs = 4° 12' 46.5"
Ls = 300.00'
LT = 200.06'
ST = 100.05'

38° LT. DAM

DETAIL
FALSE SUMP
(Not to Scale)



Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

FROM –L– STA. 84+24 M

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

ANNIE TUDOR
DB 02E PG 164

80+00

85+00

90+00

SITE 2

NEDA SOBHANI
DB 967 PG 334

SAND RIDGE DEVELOPMENT ASSN, INC.
DB 653 PG 552

MATCHLINE SEE SHEET 7 –L– STA. 77+00.00

MATCHLINE SEE SHEET 9 –L– STA. 90+50.00

INLET CHANNEL STREAMBANK STABILIZATION SEE DETAIL A

TRIPLE 9' X 9' RCBC EXTENSION

EST. 3 TONS CLASS B RIP RAP
EST. 10 S.Y. GEOTEXTILE FABRIC

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

1' BASE SPECIAL LATERAL DITCH SEE DETAIL 18

SPECIAL LATERAL V-DITCH W/PSRM SEE DETAIL 17

FILL IN WETLANDS

TEMPORARY IMPACTS IN SURFACE WATER

LATERAL V-DITCH W/CLASS B RIP RAP SEE DETAIL 21

SPECIAL CUT V-DITCH SEE DETAIL 9

SPECIAL LATERAL V-DITCH SEE DETAIL 9

BEGIN CULVERT
–L– STA 85+57.46

BEGIN SBG STA. 85+00 –L– LT

END SBG STA. 87+17 –L– LT

END REINFORCING
–L– STA 85+86.23

S 60° 54' 12.4" E

BEGIN SBG STA. 85+00 –L– RT

END SBG STA. 87+17 –L– RT

SPECIAL CUT V-DITCH W/CL-B RIP RAP SEE DETAIL 22

SPECIAL CUT V-DITCH W/PSRM SEE DETAIL 17

LATERAL V-DITCH SEE DETAIL 20

PERMANENT ROCK CHECK DAM SEE DETAIL 23

EXCAVATION IN WETLAND

OUTLET CHANNEL STREAMBANK STABILIZATION SEE DETAIL B

TEMPORARY IMPACTS IN SURFACE WATER

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SITE 2

HENRY LONG
DB 1017 PG 20

O. S. SUITER JR
DB 571 PG 333

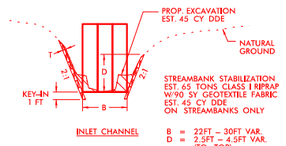
–L– CS Sta. 79+36.33

–L– ST Sta. 82+36.33

SEE ENLARGMENT SHEET 10 OF 53

100' 0' 100'
SCALE

DETAIL A
INLET CHANNEL
STREAMBANK STABILIZATION
(Not to Scale)

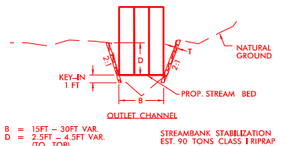


STREAMBANK STABILIZATION
EST. 65 TONS CLASS I RIPRAP
W/90 SY GEOTEXTILE FABRIC
EST. 45 CY DDE
ON STREAMBANKS ONLY

INLET CHANNEL

B = 22FT – 30FT VAR.
D = 2.5FT – 4.5FT VAR.
(TO TOB)
T = 1.5 FT

DETAIL B
OUTLET CHANNEL
STREAMBANK STABILIZATION
(Not to Scale)



OUTLET CHANNEL

B = 15FT – 30FT VAR.
D = 2.5FT – 4.5FT VAR.
(TO TOB)
T = 1.5 FT

STREAMBANK STABILIZATION
EST. 90 TONS CLASS I RIPRAP
W/120 SY GEOTEXTILE FABRIC
ON STREAMBANKS ONLY

PERMIT DRAWING
SHEET 8 OF 53

2/7/2019
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mgmcbusch

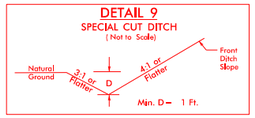
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

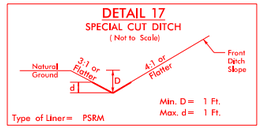
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DETAIL 9
SPECIAL CUT DITCH
(Not to Scale)



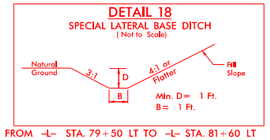
FROM –L– STA. 73+00 LT TO –L– STA. 79+50 LT
FROM –L– STA. 75+00 RT TO –L– STA. 80+50 RT
FROM –L– STA. 88+50 RT TO –L– STA. 91+00 RT
FROM –L– STA. 89+50 LT TO –L– STA. 90+50 LT

DETAIL 17
SPECIAL CUT DITCH
(Not to Scale)



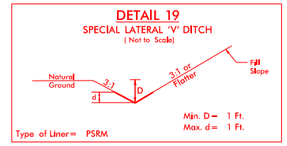
FROM –L– STA. 83+00 RT TO –L– STA. 84+00 RT

DETAIL 18
SPECIAL LATERAL BASE DITCH
(Not to Scale)



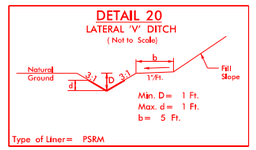
FROM –L– STA. 79+50 LT TO –L– STA. 81+60 LT

DETAIL 19
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



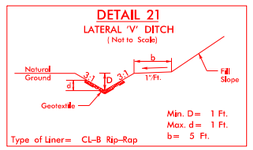
FROM –L– STA. 84+24 LT TO –L– STA. 85+60 LT

DETAIL 20
LATERAL 'V' DITCH
(Not to Scale)



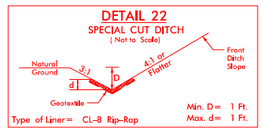
FROM –L– STA. 84+00 RT TO –L– STA. 85+50 RT

DETAIL 21
LATERAL 'V' DITCH
(Not to Scale)



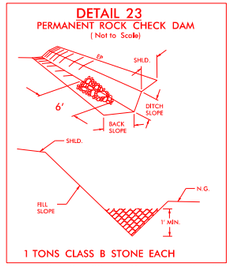
FROM –L– STA. 86+03 LT TO –L– STA. 89+50 LT

DETAIL 22
SPECIAL CUT DITCH
(Not to Scale)



FROM –L– STA. 87+33 RT TO –L– STA. 88+50 RT

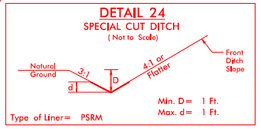
DETAIL 23
PERMANENT ROCK CHECK DAM
(Not to Scale)



1 TONS CLASS B STONE EACH

FROM –L– STA. 85+00 RT TO –L– STA. 85+08 RT

DETAIL 24
SPECIAL CUT DITCH
(Not to Scale)



FROM –L– STA. 87+33 RT TO –L– STA. 91+00 RT

ANNIE TUDOR
DB 02E PG 164

80+00

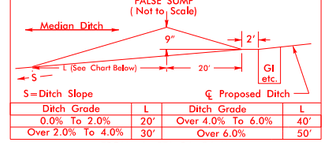
–L–
PIs Sta 75+24.24
Θs = 4° 12' 46.5"
Ls = 300.00'
LT = 200.06'
ST = 100.05'

PI Sta 77+80.56
Δ = 8° 46' 00.3" (RT)
D = 2° 48' 31.0"
L = 312.14'
T = 156.37'
R = 2,040.00'
SE = 06
V_d = 70

PIs Sta 80+36.38
Θs = 4° 12' 46.5"
Ls = 300.00'
LT = 200.06'
ST = 100.05'

38° NAD

DETAIL
FALSE SUMP
(Not to Scale)



Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

FROM –L– STA. 84+24 M

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

85+00

90+00

STA. 77+00.00 –L– MATCHLINE SEE SHEET 7

MATCHLINE SEE SHEET 9 –L– STA. 90+50.00

SITE 2

NEDA SOBHANI
DB 967 PG 334

SAND RIDGE DEVELOPMENT ASSN, INC.
DB 653 PG 552

INLET CHANNEL STREAMBANK STABILIZATION SEE DETAIL A

TRIPLE 9' X 9' RCBC EXTENSION

EST. 3 TONS CLASS B RIP RAP
EST. 10 S.Y. GEOTEXTILE FABRIC

1' BASE SPECIAL LATERAL DITCH SEE DETAIL 18

EST. 2 TONS CLASS B RIP-RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL V-DITCH W/PSRM SEE DETAIL 19

TEMPORARY IMPACTS IN SURFACE WATER

FILL IN WETLANDS

LATERAL V-DITCH W/CLASS B RIP RAP SEE DETAIL 21

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL V-DITCH SEE DETAIL 9

SPECIAL CUT V-DITCH SEE DETAIL 9

BEGIN CULVERT
–L– ST A 85+57.46

BEGIN SBG STA. 85+00 –L– LT

END SBG STA. 87+17 –L– LT

END REINFORCING
–L– ST A 85+86.23

S 60° 54' 12.4" E

BEGIN SBG STA. 85+00 –L– RT

ELBOWS 2GI

END SBG STA. 87+17 –L– RT

SPECIAL CUT V-DITCH W/CL-B RIP RAP SEE DETAIL 22

SPECIAL CUT V-DITCH W/PSRM SEE DETAIL 17

LATERAL V-DITCH SEE DETAIL 20

TRIPLE 9' X 9' RCBC EXTENSION

PERMANENT ROCK CHECK DAM SEE DETAIL 23

EXCAVATION IN WETLAND
OUTLET CHANNEL STREAMBANK STABILIZATION SEE DETAIL B

TEMPORARY IMPACTS IN SURFACE WATER

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SEE ENLARGMENT SHEET 10 OF 53

HENRY LONG
DB 1017 PG 20

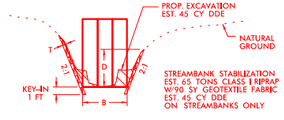
O S SUTTER JR.
DB 571PG 333

–L– CS Sta. 79+36.33

–L– ST Sta. 82+36.33

100' 0' 100'
SCALE

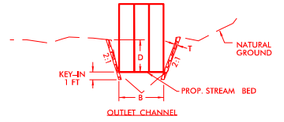
DETAIL A
INLET CHANNEL
STREAMBANK STABILIZATION
(Not to Scale)



STREAMBANK STABILIZATION
EST. 65 TONS CLASS I RIPRAP
W/90 SY GEOTEXTILE FABRIC
EST. 45 CY DDE
ON STREAMBANKS ONLY

B = 22FT – 30FT VAR.
D = 2.5FT – 4.5FT VAR.
T = 1.5 FT

DETAIL B
OUTLET CHANNEL
STREAMBANK STABILIZATION
(Not to Scale)



B = 15FT – 30FT VAR.
D = 2.5FT – 4.5FT VAR.
(TO TOB)
T = 1.5 FT

STREAMBANK STABILIZATION
EST. 90 TONS CLASS I RIPRAP
W/120 SY GEOTEXTILE FABRIC
ON STREAMBANKS ONLY

PERMIT DRAWING
SHEET 9 OF 53

2/7/2019
R:\Highways\Projects\PERMITS_Environmental\Drawings\09_R-2582A_Rdy_psh_8.dgn
mgmcpherson

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NEDA SOBHANI
DB 967 PG 334

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SITE 2

INLET CHANNEL
STREAMBANK STABILIZATION
SEE DETAIL A

TRIPLE 9' X 9'
RCBC EXTENSION

EST. 3 TONS CLASS B RIP RAP
EST. 10 S.Y. GEOTEXTILE FABRIC

TONS CLASS B RIP RAP
S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL V-DITCH
W/PSRM
SEE DETAIL 19

FILL IN WETLANDS

TEMPORARY IMPACTS IN SURFACE WATER

EST. 2 TONS CLASS B RIP I
EST. 7 S.Y. GEOTEXTILE FABRIC

LATERAL V-DITCH
W/CLASS B RIP RAP
SEE DETAIL 21

NAD 83

SA

PUE TDE WLB JS ST MTL

BEGIN CULVERT
-L- STA 85+57.46

BEGIN SBG
STA. 85+00 -L- LT

50 LF

75 LF

18" RCP III

15" CSP

ELBOWS

2GI

END SBG
STA. 87+17 -L- LT

END RETAIN EXISTING
TRIPLE 9'X 9'
RCBC AND EXTEND
-L- STA 86+23

S 60°54'12.4" E

15"

FS

BEGIN SBG
STA. 85+00 -L- RT

ELBOWS 2GI
END SBG
STA. 87+17 -L- RT

SPECIAL CUT V-DITCH
W/PSRM
SEE DETAIL 17

LATERAL V-DITCH
SEE DETAIL 20

TRIPLE 9' X 9'
RCBC EXTENSION

PERMANENT ROCK CHECK DAM
SEE DETAIL 23

70'

SPECIAL CUT V-DITCH
W/CL-B RIP RAP
SEE DETAIL 22

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

EXCAVATION IN WETLAND

OUTLET CHANNEL
STREAMBANK STABILIZATION
SEE DETAIL B

TEMPORARY IMPACTS IN SURFACE WATER

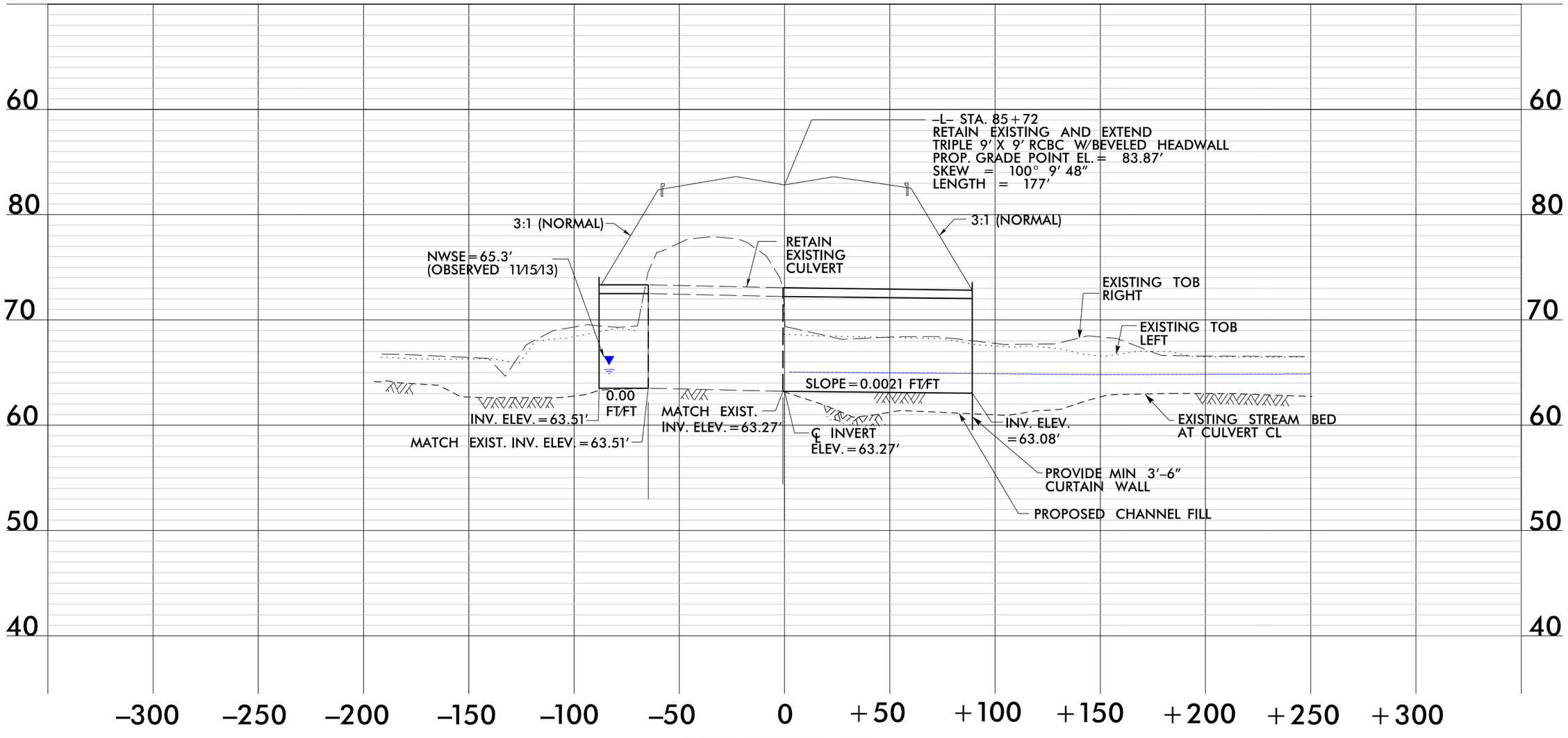
SITE 2

PERMIT DRAWING
SHEET 10 OF 53

50' 0' 50'
SCALE

2/7/2019
R:\Projects\PERMITS_Environmental\Drawings\10_R-2582A_SITE2.dgn
mgmabuseni

SITE 2 – PROFILE VIEW ALONG STRUCTURE



PROFILE

NCDOT
DIVISION OF HIGHWAYS
NORTHAMPTON COUNTY
PROJECT: 34472.1.4 (R-2582A)
US 158 FROM I-95 // NC
TO SR 1312 (ST. JOHN CHURCH RD)
SITE 2
PERMIT DRAWING
SHEET 11 OF 53

8/23/99

0 5 10

PROJ. REFERENCE NO.	SHEET NO.
R-2582A	12

WETLAND

WLB

83.02

0.025

6:1

81.10

3:1

67.66

WETLAND

WLB

83.02

0.025

6:1

SITE 2

3:1

85+50.00

PERMIT DRAWING
SHEET 12 OF 53

2/7/2019
R:\Projects\PERMITS_Environmental\Drawings\12_R2582A_XS_SITE2.dgn
memebuscemi

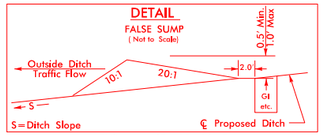
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

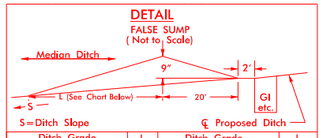
NAD 83

DETAIL
FALSE SUMP
(Not to Scale)



FROM –L– STA. 95+26 LT

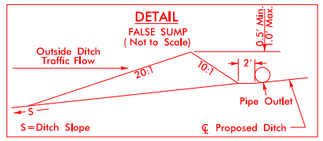
DETAIL
FALSE SUMP
(Not to Scale)



Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

FROM –L– STA. 95+26 M
FROM –L– STA. 100+76 M

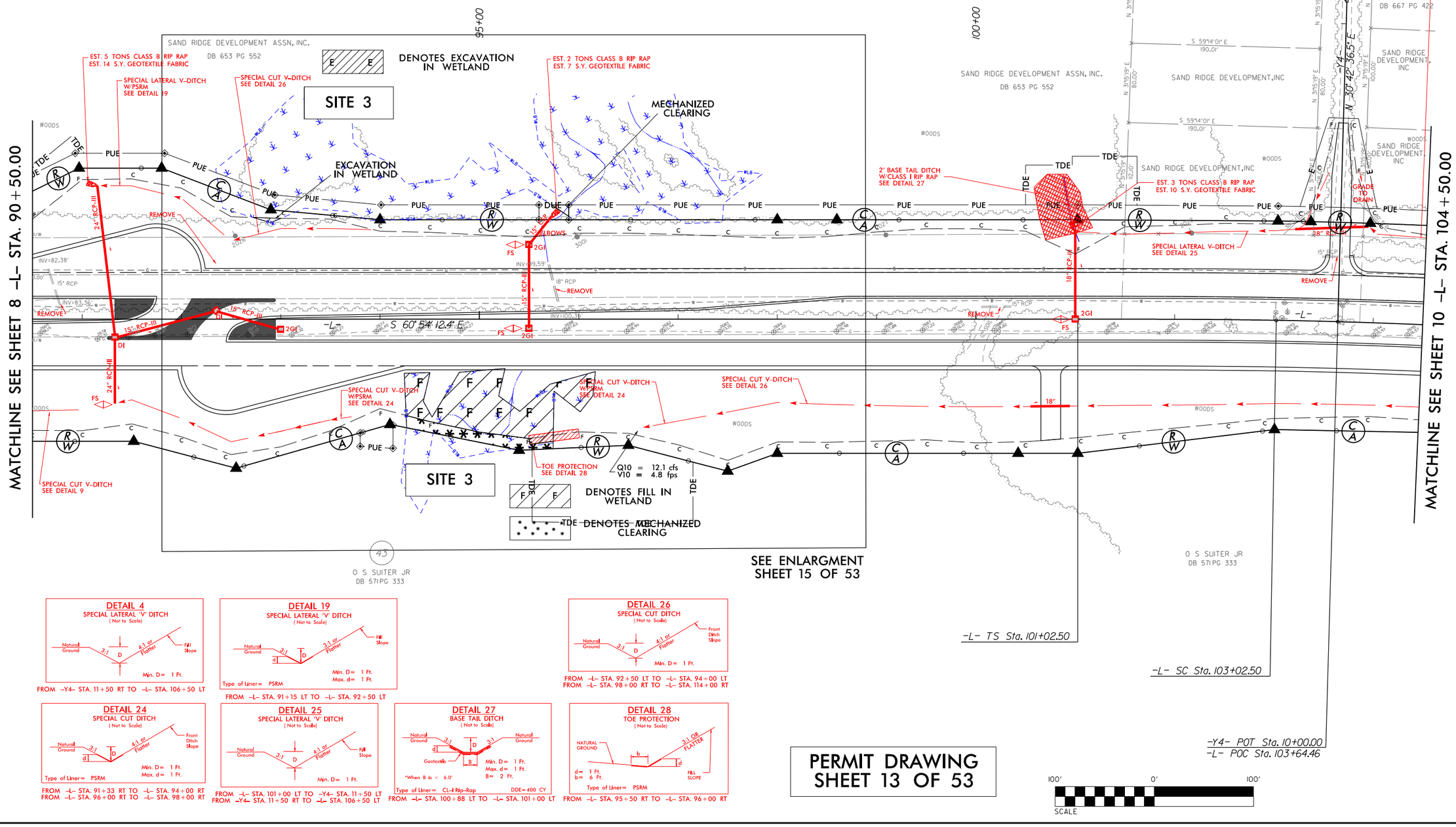
DETAIL
FALSE SUMP
(Not to Scale)



FROM –L– STA. 91+11 RT

–L–

PIs Sta 102+35.83	PI Sta 107+85.54	PIs Sta 113+33.00
Θs = 0°59'47.2"	Δ = 9°36'14.6" (RT)	Θs = 0°59'47.2"
Ls = 200.00'	D = 0°59'47.2"	Ls = 200.00'
LT = 133.34'	L = 963.83'	LT = 133.34'
ST = 66.67'	T = 483.05'	ST = 66.67'
	R = 5,750.00'	
	SE = NC	
	V_d = 70+	



DETAIL 4
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

FROM –Y4– STA. 11+50 RT TO –L– STA. 106+50 LT

DETAIL 19
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

FROM –L– STA. 91+15 LT TO –L– STA. 92+50 LT

DETAIL 26
SPECIAL CUT DITCH
(Not to Scale)

FROM –L– STA. 92+50 LT TO –L– STA. 94+00 LT
FROM –L– STA. 98+00 RT TO –L– STA. 114+00 RT

DETAIL 24
SPECIAL CUT DITCH
(Not to Scale)

FROM –L– STA. 91+33 RT TO –L– STA. 94+00 RT
FROM –L– STA. 96+00 RT TO –L– STA. 98+00 RT

DETAIL 25
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

FROM –L– STA. 101+00 LT TO –Y4– STA. 11+50 LT
FROM –Y4– STA. 11+50 RT TO –L– STA. 106+50 LT

DETAIL 27
BASE TAIL DITCH
(Not to Scale)

FROM –L– STA. 100+88 LT TO –L– STA. 101+00 LT

DETAIL 28
TOE PROTECTION
(Not to Scale)

FROM –L– STA. 95+50 RT TO –L– STA. 96+00 RT

PERMIT DRAWING
SHEET 13 OF 53

100' 0' 100'
SCALE

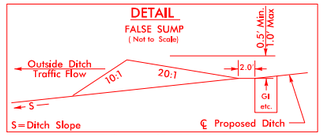
2/7/2019
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mmabuscem

8/17/99

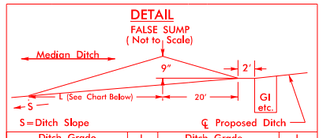
PROJECT REFERENCE NO.	SHEET NO.
R-2582A	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

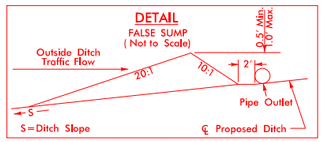


FROM –L– STA. 95+26 LT



Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

FROM –L– STA. 95+26 M
FROM –L– STA. 100+76 M

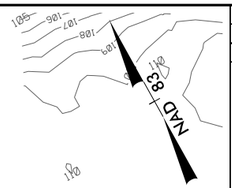


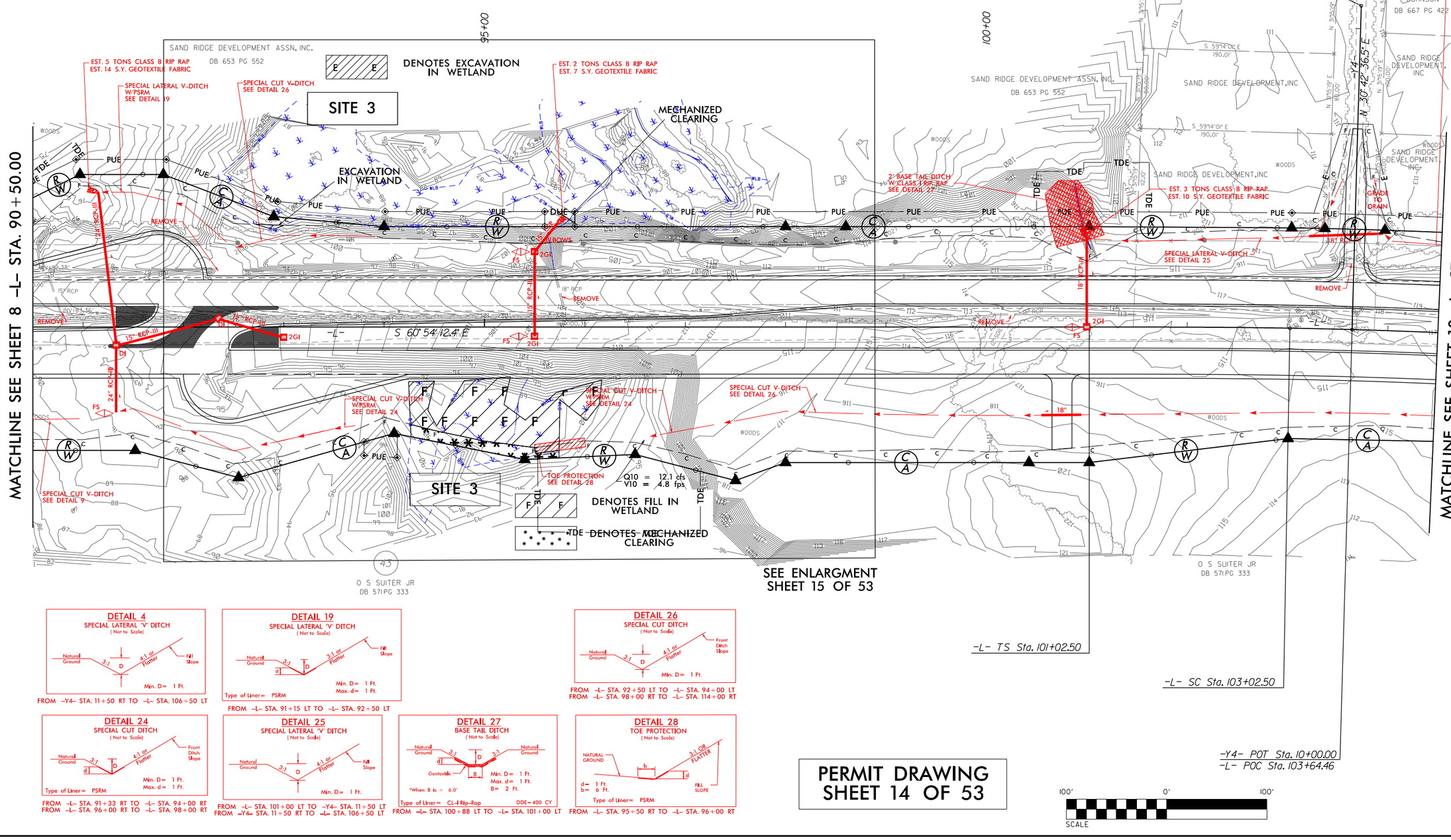
FROM –L– STA. 91+11 RT

–L–
Pls Sta 102+35.83
Θs = 0° 59' 47.2"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

Pl Sta 107+85.54
Δ = 9° 36' 14.6" (RT)
D = 0° 59' 47.2"
L = 963.83'
T = 483.05'
R = 5,750.00'
SE = NC
V_d = 70+

Pls Sta 113+33.00
Θs = 0° 59' 47.2"
Ls = 200.00'
LT = 133.34'
ST = 66.67'





DETAIL 4
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Min. D= 1 Ft.

FROM –Y4– STA. 11+50 RT TO –L– STA. 106+50 LT

DETAIL 19
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Min. D= 1 Ft.
Max. d= 1 Ft.
Type of Liner= PSRM

FROM –L– STA. 91+15 LT TO –L– STA. 92+50 LT

DETAIL 26
SPECIAL CUT DITCH
(Not to Scale)

Min. D= 1 Ft.

FROM –L– STA. 92+50 LT TO –L– STA. 94+00 LT
FROM –L– STA. 98+00 RT TO –L– STA. 114+00 RT

DETAIL 24
SPECIAL CUT DITCH
(Not to Scale)

Min. D= 1 Ft.
Max. d= 1 Ft.
Type of Liner= PSRM

FROM –L– STA. 91+33 RT TO –L– STA. 94+00 RT
FROM –L– STA. 96+00 RT TO –L– STA. 98+00 RT

DETAIL 25
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Min. D= 1 Ft.

FROM –L– STA. 101+00 LT TO –Y4– STA. 11+50 LT
FROM –Y4– STA. 11+50 RT TO –L– STA. 106+50 LT

DETAIL 27
BASE TAIL DITCH
(Not to Scale)

*When B is < 6.0'
Type of Liner= CL-I Rip-Rap DDE= 400 CY

FROM –L– STA. 100+88 LT TO –L– STA. 101+00 LT

DETAIL 28
TOE PROTECTION
(Not to Scale)

Type of Liner= PSRM

FROM –L– STA. 95+50 RT TO –L– STA. 96+00 RT

PERMIT DRAWING
SHEET 14 OF 53

100' 0' 100'
SCALE

2/7/2019
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mgmaddux

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83

SAND RIDGE DEVELOPMENT ASSN, INC.

RIP RAP
E FABRIC

DB 653 PG 552

ERAL V-DITCH

19

SPECIAL CUT V-DITCH
SEE DETAIL 26

E E DENOTES EXCAVATION IN WETLAND

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SITE 3

95+00

MECHANIZED CLEARING

EXCAVATION IN WETLAND

WLB

PUE

C A

R W

OVE

2026

15" RCP-II

ELBOWS

2GI

FS

3001

INV=99.59'

18" RCP

REMOVE

15" RCP-III

DI

2GI

INV=100.35'

12" PVC

-L- STATION

2675 59.27
2676 75.32
2677 91.45
2678 04.27
2679 04.27
2680 07.63
2681 18.99
2682 11.94
2683 13.15
2684 14.33
2685 16.98

S 60° 54' 12.4" E

SPECIAL CUT V-DITCH W/PSRM
SEE DETAIL 24

F

SPECIAL CUT V-DITCH W/PSRM
SEE DETAIL 24

SPECIAL CUT V-DITCH
SEE DETAIL 26

WOODS

TOE PROTECTION
SEE DETAIL 28

Q10 = 12.1 cfs
V10 = 4.8 fps

TDE

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

SITE 3

PERMIT DRAWING
SHEET 15 OF 53

50' 0' 50'
SCALE

2/7/2019
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mmabus

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
R-2582A	16

0 5 10

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

110
100
90
80

SITE 3

WETLAND

WLB

5.99:1

6:1

99.69

0.025

6:1

6:1

102.31

0.025

4:1

95+00.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

PERMIT DRAWING
SHEET 16 OF 53

2/7/2019
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memebruscemi

8/17/99

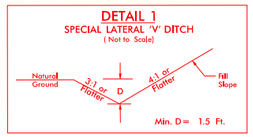
PROJECT REFERENCE NO.	SHEET NO.
R-2582A	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

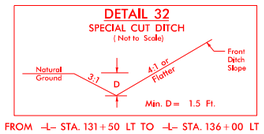
NAD 83

DETAIL 1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



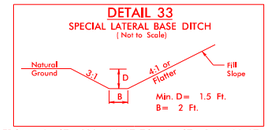
FROM –L– STA. 136+00 LT TO –L– STA. 139+00 LT

DETAIL 32
SPECIAL CUT DITCH
(Not to Scale)



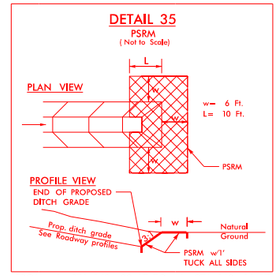
FROM –L– STA. 131+50 LT TO –L– STA. 136+00 LT

DETAIL 33
SPECIAL LATERAL BASE DITCH
(Not to Scale)



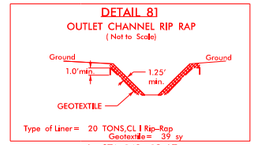
FROM –L– STA. 139+00 LT TO –L– STA. 140+00 LT

DETAIL 35
PSRM
(Not to Scale)



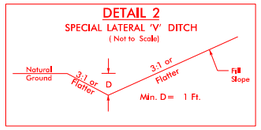
FROM –L– STA. 140+00 LT TO –L– STA. 140+16 LT

DETAIL 81
OUTLET CHANNEL RIP RAP
(Not to Scale)



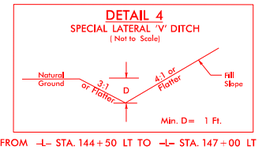
Type of Liner= 20 TONS,CL I Rip-Rap
Geotextile= 39 sy
–L– STA. 142+18 LT

DETAIL 2
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



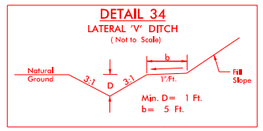
FROM –L– STA. 131+50 RT TO –Y5– STA. 12+15 LT
FROM –Y5A– STA. 12+86 LT TO –Y5A– STA. 13+13 LT

DETAIL 4
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



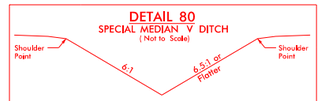
FROM –L– STA. 144+50 LT TO –L– STA. 147+00 LT

DETAIL 34
LATERAL 'V' DITCH
(Not to Scale)



FROM –L– STA. 143+71 LT TO –L– STA. 144+50 LT

DETAIL 80
SPECIAL MEDIAN V DITCH
(Not to Scale)



FROM –L– STA. 136+50 M TO –L– STA. 137+50 M

NEWTON STEPHENSON
DB 970 PG 682
PB 24 PG 157

–L– POC Sta. 132+81.62
–Y5– POT Sta. 13+97.40

–L– CS Sta. 136+38.32

–L– SRS Sta. 139+38.32

–L– SC Sta. 142+38.32

135+00

140+00

145+00

OUTLET CHANNEL RIP RAP
EST. 20 TONS CLASS I RIP RAP
EST. 39 S.Y. GEOTEXTILE FABRIC
SEE DETAIL 81

TEMPORARY IMPACTS IN SURFACE WATER

LATERAL V-DITCH SEE DETAIL 34

SPECIAL LATERAL V-DITCH SEE DETAIL 4

EST. 3 TONS CLASS B RIP RAP
EST. 10 S.Y. GEOTEXTILE FABRIC

Q10 = 23.3 cfs
V10 = 2.3 fps

PSRM SEE DETAIL 35

SPECIAL CUT V-DITCH SEE DETAIL 32

SPECIAL LATERAL V-DITCH SEE DETAIL 1

SPECIAL LATERAL 2' BASE DITCH SEE DETAIL 33

GRADE TO DRAIN

BURY 0.7'

PERMANENT IMPACTS IN SURFACE WATER

Q10 = 1.1 cfs
V10 = 2.0 fps

18" RCP

DI

2GI

SPECIAL MEDIAN V-DITCH SEE DETAIL 80

BEGIN END SBG STA. 139+38 –L– RT

END SBG STA. 141+76 –L– RT

15" RCP

MATCHLINE SEE SHEET 11 –L– STA. 132+50.00

MATCHLINE SEE SHEET 13 –L– STA. 145+00.00

N 76° 05' 09" E

PUE

+27.23
140.16'

+00.00
115.00'

+56.00
115.00'
100.00'

–Y5– PT Sta. 12+10.00

15+00

–Y5A–1

S 71° 21' 58.8" E

N 26° 27' 44.3" E –Y5–

RETAIN

–Y5A– POT Sta. 16+00.51

–Y5– POT Sta. 10+00.00

–Y5– PC Sta. 10+91.43

–Y5A– PT Sta. 15+18.62

EDWARD R. FIELDS, et ux
DB 01E PG 113
PB 06 PG 51

THORNTON MAJETTE, et ux
DB 458 PG 572
PB 06 PG 51

GEORGIA M. WILLIAMS
DB 668 PG 74

CLYDE PARKER JR.
DB 561 PG 496
PB 06 PG 51

THORNTON MAJETTE, et ux
DB 458 PG 572
PB 06 PG 51

ARTHUR T. WILLIAMS JR, et ux
DB 608 PG 557
PB 06 PG 51

MELVIN A. SHEARIN
DB 28 PG 528
PB 06 PG 51

ARTHUR T. WILLIAMS
DB 576 PG 830
MB 06 PG 51

SR 1231 VINCENT RD

WOODS

CULT.

ISBKD

WD RAMP

BST

CONC

SITE 4

F F DENOTES FILL IN WETLAND

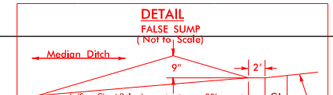
DENOTES MECHANIZED CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SEE ENLARGMENT SHEET 19 OF 53

DETAIL
FALSE SUMP
(Not To Scale)



Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

–L– STA. 140+76 M

–Y5B– POT Sta. 10+00.00
N 74° 56' 56.2" E

INV=106.11'
INV=106.46'
INV=110.67'

36" RCP
24" RCP
12" PVC
8" PLASTIC
18" BST
24" BST
NC 46

DIRECTION ONLY

100' 0' 100'
SCALE

PERMIT DRAWING
SHEET 17 OF 53

2/7/2019
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mmebuscem

8/17/99

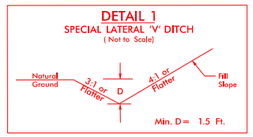
PROJECT REFERENCE NO.	SHEET NO.
R-2582A	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

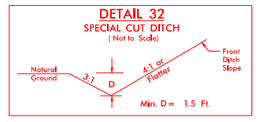
NAD 83

DETAIL 1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



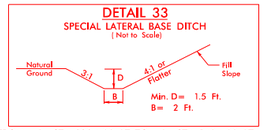
FROM –L– STA. 136+00 LT TO –L– STA. 139+00 LT

DETAIL 32
SPECIAL CUT DITCH
(Not to Scale)



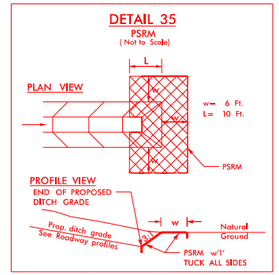
FROM –L– STA. 131+50 LT TO –L– STA. 136+00 LT

DETAIL 33
SPECIAL LATERAL BASE DITCH
(Not to Scale)



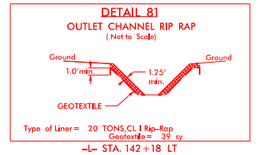
FROM –L– STA. 139+00 LT TO –L– STA. 140+00 LT

DETAIL 35
PSRM
(Not to Scale)



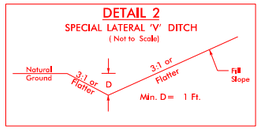
FROM –L– STA. 140+00 LT TO –L– STA. 140+16 LT

DETAIL 81
OUTLET CHANNEL RIP RAP
(Not to Scale)



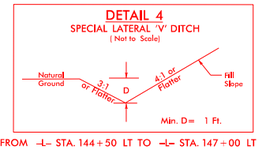
Type of Liner= 20 TONS,CL I Rip-Rap
Geotextile= 39 sy
–L– STA. 142+18 LT

DETAIL 2
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



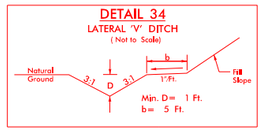
FROM –L– STA. 131+50 RT TO –Y5– STA. 12+15 LT
FROM –Y5A– STA. 12+86 LT TO –Y5A– STA. 13+13 LT

DETAIL 4
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



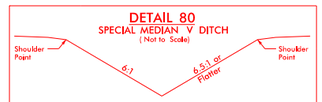
FROM –L– STA. 144+50 LT TO –L– STA. 147+00 LT

DETAIL 34
LATERAL 'V' DITCH
(Not to Scale)



FROM –L– STA. 143+71 LT TO –L– STA. 144+50 LT

DETAIL 80
SPECIAL MEDIAN V DITCH
(Not to Scale)



FROM –L– STA. 136+50 M TO –L– STA. 137+50 M

MATCHLINE SEE SHEET 11 –L– STA. 132+50.00

MATCHLINE SEE SHEET 13 –L– STA. 145+00.00

–L– POC Sta. 132+81.62
–Y5– POT Sta. 13+97.40
–L– CS Sta. 136+38.32
–L– SRS Sta. 139+38.32
–L– SC Sta. 142+38.32
–Y5– PT Sta. 12+10.00
–Y5A– PT Sta. 15+18.62
–Y5A– POT Sta. 16+00.51
–Y5– POT Sta. 10+00.00
–Y5– PC Sta. 10+91.43
–Y5B– POT Sta. 10+00.00
N 74°56'56.2" E

135+00
140+00
145+00

N 26°27'44.3" E 415'
S 71°21'58.8" E
N 76°50'09" E

SPECIAL CUT V-DITCH SEE DETAIL 32
SPECIAL LATERAL V-DITCH SEE DETAIL 1
SPECIAL LATERAL 2' BASE DITCH SEE DETAIL 33
SPECIAL MEDIAN V-DITCH SEE DETAIL 80
SPECIAL LATERAL V-DITCH SEE DETAIL 34
SPECIAL LATERAL V-DITCH SEE DETAIL 4
LATERAL V-DITCH SEE DETAIL 34

EST. 3 TONS CLASS B RIP RAP
EST. 10 S.Y. GEOTEXTILE FABRIC

OUTLET CHANNEL RIP RAP
EST. 20 TONS CLASS I RIP RAP
EST. 39 S.Y. GEOTEXTILE FABRIC
SEE DETAIL 81

Q10 = 23.3 cfs
V10 = 2.3 fps
PSRM SEE DETAIL 35

Q10 = 1.1 cfs
V10 = 2.0 fps

GRADE TO DRAIN
BURY 0.7'
RETAIN
DI
18" RCP
24" RCP
15" RCP
18" BCP-III
2GI
PUE
PDE
TEMPORARY IMPACTS IN SURFACE WATER
PERMANENT IMPACTS IN SURFACE WATER
BEGIN RIP RAP STA. 139+38 -L- RT
END RIP RAP STA. 141+76 -L- RT
EST. 1 TONS CLASS B RIP RAP
EST. 5 S.Y. GEOTEXTILE FABRIC

SITE 4

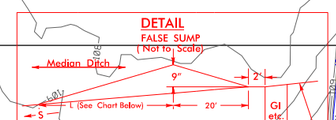
F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

DETAIL
FALSE SUMP
(Not To Scale)



S=Ditch Slope

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

–L– STA. 140+76 M

SEE ENLARGMENT SHEET 19 OF 53

NEWTON STEPHENSON DB 970 PG 682 PB 24 PG 157

GEORGIA M. WILLIAMS DB 668 PG 74

EDWARD R. FIELDS, et ux DB 0TE PG 113 PB 06 PG 51

THORNTON MAJETTE, et ux DB 458 PG 572 PB 06 PG 51

CLYDE PARKER, JR. DB 561 PG 298 PB 06 PG 51

ARTHUR T. WILLIAMS, JR. et ux DB 608 PG 557 PB 06 PG 51

MELVIN A. SHEARIN DB 428 PG 528 PB 06 PG 51

ARTHUR T. WILLIAMS DB 576 PG 830 MB 06 PG 51

SR 1231 VINCENT RD

PERMIT DRAWING SHEET 18 OF 53

100' 0' 100'
SCALE

2/7/2019
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mmebuscem

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NEWTO
DB
PE

STA. 143+71 LT TO -L- STA. 144+50 LT

-L- SRS Sta. 139+38.32

-L- SC Sta. 142+38.32

NAD 83

140+00

OUTLET CHANNEL RIP RAP
EST. 20 TONS CLASS I RIP RAP
EST. 39 S.Y. GEOTEXTILE FABRIC
SEE DETAIL 81

Q10 = 23.3 cfs
V10 = 2.3 fps

PSRM
SEE DETAIL 35

TONS CLASS B RIP RAP
S.Y. GEOTEXTILE FABRIC

GRADE TO DRAIN

SPECIAL LATERAL V-DITCH
SEE DETAIL 1

SPECIAL LATERAL 2' BASE DITCH
SEE DETAIL 33

18" RCP-III

2GI

15"

MEDIAN V-DITCH
STA 80

TEMPORARY IMPACTS
IN SURFACE WATER

LATERAL V-DITCH
SEE DETAIL 34

SPECIAL LATERAL
V-DITCH
SEE DETAIL 4

BURY 0.7'

PERMANENT IMPACTS
IN SURFACE WATER

Q10 = 1.1 cfs
V10 = 2.0 fps

RCP-III

(BURY 0.7' BOTH ENDS)

NEWTON STEPHENSON
DB 970 PG 682
PB 24 PG 157

BEGIN SRG
STA. 139+38 -L- RT

2GI

15" RCP-III

END SRG
STA. 144+75 -L- RT

15" CSP

BURY 0.7'

TEMPORARY IMPACTS
IN SURFACE WATER

EST. 1 TONS CLASS B RIP RAP
EST. 5 S.Y. GEOTEXTILE FABRIC

SITE 4

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

50' 0' 50'
SCALE

PERMIT DRAWING
SHEET 19 OF 53

WOODS

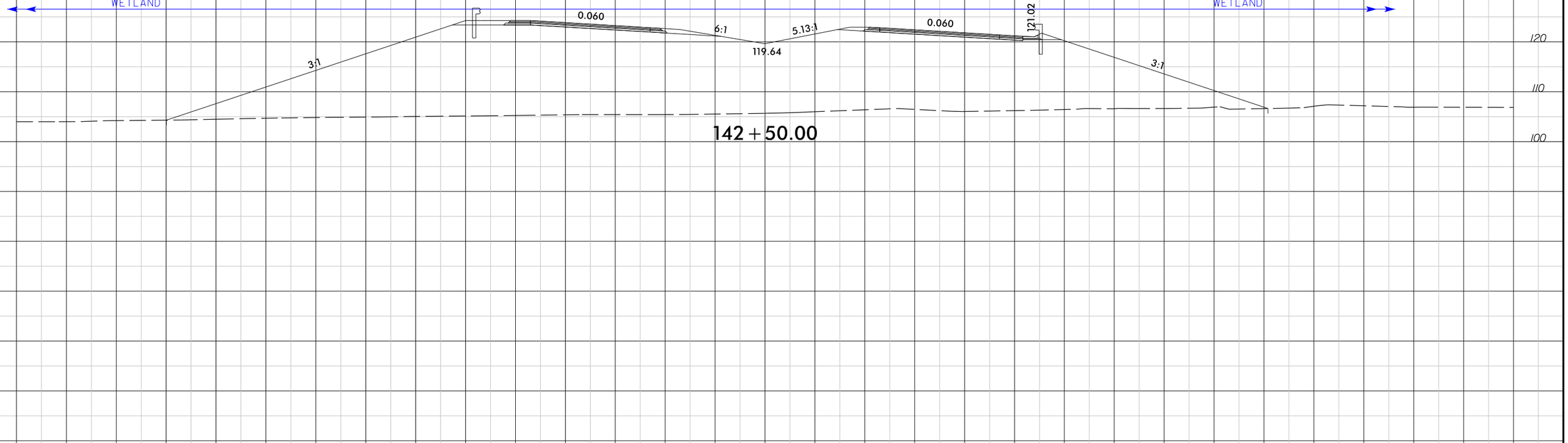
GEORGE FO
DB

2/17/2019
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mgmcfarland

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2582A	20

SITE 4



PERMIT DRAWING
SHEET 20 OF 53

2/7/2019
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mmebuscemi

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

HYDRAULIC DESIGN REDLINE PLANS

NAD 83

MATCHLINE SEE SHEET 36 -Y9- STA. 32+00.00

SEE ENLARGMENT SHEET 26 OF 54

SEE ENLARGMENT SHEET 23 OF 53

MATCHLINE SEE SHEET 15 -L- STA. 185+50.00

MATCHLINE SEE SHEET 17 -L- STA. 224+00.00

MATCHLINE SEE SHEET 35 -Y9- STA. 18+50.00

SITE 5

SITE 6

A

D

DENOTES FILL IN WETLAND

DENOTES EXCAVATION IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

GRAPHIC SCALE
50 25 0 50 100
PLANS

LOCATION:	
TIP NO.:	COUNTY:
DESIGNED BY:	
CHECKED BY:	DATE:

PERMIT DRAWING
SHEET 21 OF 53

5/4/2021
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REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR BID, R/W ACQUISITION OR CONSTRUCTION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

HYDRAULIC DESIGN REDLINE PLANS

NAD 83

MATCHLINE SEE SHEET 36 –Y9– STA. 32+00.00

SEE ENLARGMENT SHEET 26 OF 54

SEE ENLARGMENT SHEET 23 OF 53

MATCHLINE SEE SHEET 15 –L– STA. 185+50.00

MATCHLINE SEE SHEET 17 –L– STA. 214+00.00

MATCHLINE SEE SHEET 35 –Y9– STA. 18+50.00

SITE 5

SITE 6

A

D

DETAIL 33 SPECIAL LATERAL BASE DITCH

DETAIL 26 SPECIAL CUT DITCH

DETAIL 34 LATERAL "V" DITCH

DETAIL 44 LATERAL "V" DITCH

DETAIL 41 LATERAL "V" DITCH

DETAIL 46 STANDARD SHOT DITCH

DETAIL 43 RIPRAP

DETAIL 3 SPECIAL LATERAL "V" DITCH

DETAIL 25 SPECIAL LATERAL "V" DITCH

DETAIL 37 SPECIAL LATERAL BASE DITCH

DETAIL 38 RIPRAP OUTLET CHANNEL

DETAIL 10 BASE DITCH

DETAIL 47 RIPRAP OUTLET CHANNEL

DETAIL 46A STANDARD SHOT DITCH

DETAIL 31 SPECIAL LATERAL "V" DITCH

DENOTES FILL IN WETLAND

DENOTES EXCAVATION IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

GRAPHIC SCALE
50 25 0 50 100
PLANS

LOCATION:	
TIP NO.:	COUNTY:
DESIGNED BY:	
CHECKED BY:	DATE:

PERMIT DRAWING
SHEET 22 OF 53

2/4/2015
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PROJECT REFERENCE NO.	SHEET NO.
R-2582A	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

8/17/99

REVISIONS

NAD 83

190+00

JANE F. WILLIFORD
DB 638 PG 14

15+00

EXISTING R/W

100.00'

EXISTING R/W

WOODS

LATERAL V-DITCH
SEE DETAIL 34

LATERAL V-DITCH
W/PSRM
SEE DETAIL 41

△ = 85° 36' 16"

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

SITE 5

END SBG
STA. 191+03 -L- LT

TB 2GI

TYPE B-77

15" RCP-III

FS

2GI

TYPE B-77

TB 2GI

TYPE B-77

END SBG
STA. 191+13 -L- RT

18" CSP

ELBOWS

-L-

S 28° 02' 32.6" E

-Y8-

N 57° 33' 43.7" E

CSX RAILROAD

922.46' NORTH TO MILE MARKER 177

BEGIN SBG
STA. 194+12 -L- LT

TYPE B-77

TYPE B-77

TYPE B-77

TYPE B-77

ROZELIA C. PITTMA
DB 798 PG 493

BEGIN SBG
STA. 194+22 -L- RT

24" RCP CONTRACTOR DESIGN

60" RCP CONTRACTOR DESIGN

JAMES TINSLEY COLEMAN
DB 876 PG 318

EST. 3 TONS CLASS B RIP RAP
EST. 11 S.Y. GEOTEXTILE FABRIC

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

60' 0' 60'
SCALE

PERMIT DRAWING
SHEET 23 OF 53

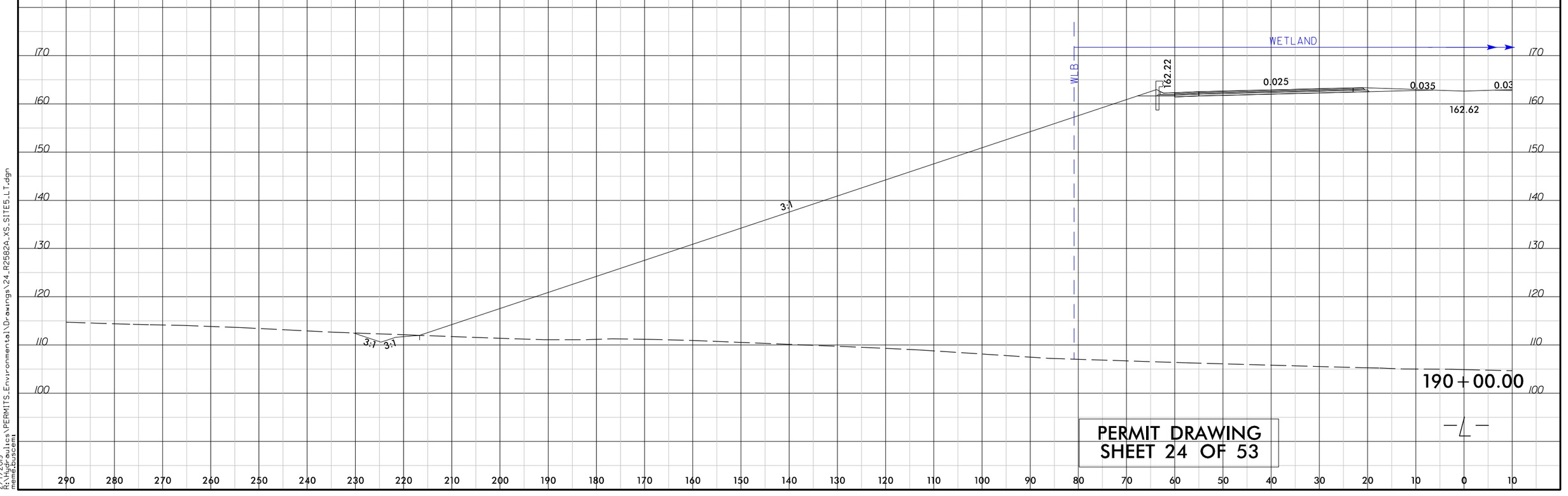
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mmeadows

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
R-2582A	24

0 5 10

SITE 5



190 + 00.00

PERMIT DRAWING
SHEET 24 OF 53

2/7/2019
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mmebusciemi

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
R-2582A	25

0 5 10

WETLAND

WETLAND

SITE 5

.035

0.035

0.025

162.62

162.20

3:1

190+00.00

PERMIT DRAWING
SHEET 25 OF 53

2/7/2019
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memebus\cemi

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

RAP
15" CSP
ELBOWS
CB
SPECIAL LATERAL V-DITCH SEE DETAIL 1
GATLING WILLIAMS PG 163
DEPARTMENT OF TRANSPORTATION DB 992 PG 754
S 28° 02' 32.6" E
EST. 6 TONS CLASS B RIP RAP EST. 21 S.Y. GEOTEXTILE FABRIC
2' BASE DITCH SEE DETAIL 10
DRAINAGE EASEMENT
HW
DOUBLE 42" RCP-IV (BURY 0.7' BOTH ENDS)
IMPACTS IN SURFACE WATER
BURY 0.7'
GRADE TO DRAIN
2CI
FS
15" CSP ELBOWS
PIPE OUTLET CHANNEL EST. 15 TONS CLASS I RIP RAP SEE DETAIL 48
10' BASE DITCH SEE DETAIL 46
SPECIAL LATERAL 2' BASE DITCH SEE DETAIL 12
EST. 2 TONS CLASS B RIP RAP EST. 7 S.Y. GEOTEXTILE FABRIC
EST. 2 TONS CLASS B RIP RAP EST. 7 S.Y. GEOTEXTILE FABRIC
205+00
25+00
SITE 6
PERMIT DRAWING
SHEET 26 OF 53
2/7/2019
R:\Projects\PERMITS_Environmental\Drawings\26_R-2582A_SITE6.dgn
mgbussell
EST. 1 TONS CLASS B RIP RAP EST. 5 S.Y. GEOTEXTILE FABRIC
SPECIAL LATERAL V-DITCH SEE DETAIL 25
GRADE TO DRAIN
15" RCP-IV
CB
MILDRED GATLING WILLIAMS DB 473 PG 163
WOODS
2054
2056
EIP
WLB
19TH
8" W
317
318
319
30+00
HW
DOUBLE 36" RCP-III (BURY 0.5' BOTH ENDS)
CONC. FLUME
BURY 0.5'
SPECIAL CUT V-DITCH SEE DETAIL 26
SPECIAL LATERAL V-DITCH SEE DETAIL 25
TEMPORARY IMPACTS IN SURFACE WATER
DOUBLE 48" RCP-III (BURY 0.7' BOTH ENDS)
PILL TO PROVIDE COVER OVER RCP
BURY 0.8'
EXCAVATION IN WETLANDS
PIPE OUTLET CHANNEL EST. 40 TONS CLASS I RIP RAP SEE DETAIL 48A
NAD 83
WILLIAM SCHELL SR. CO-TRUSTEE DB 741PG 326

F F DENOTES FILL IN WETLAND
E E DENOTES EXCAVATION IN WETLAND
DENOTES MECHANIZED CLEARING
S S DENOTES IMPACTS IN SURFACE WATER
TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

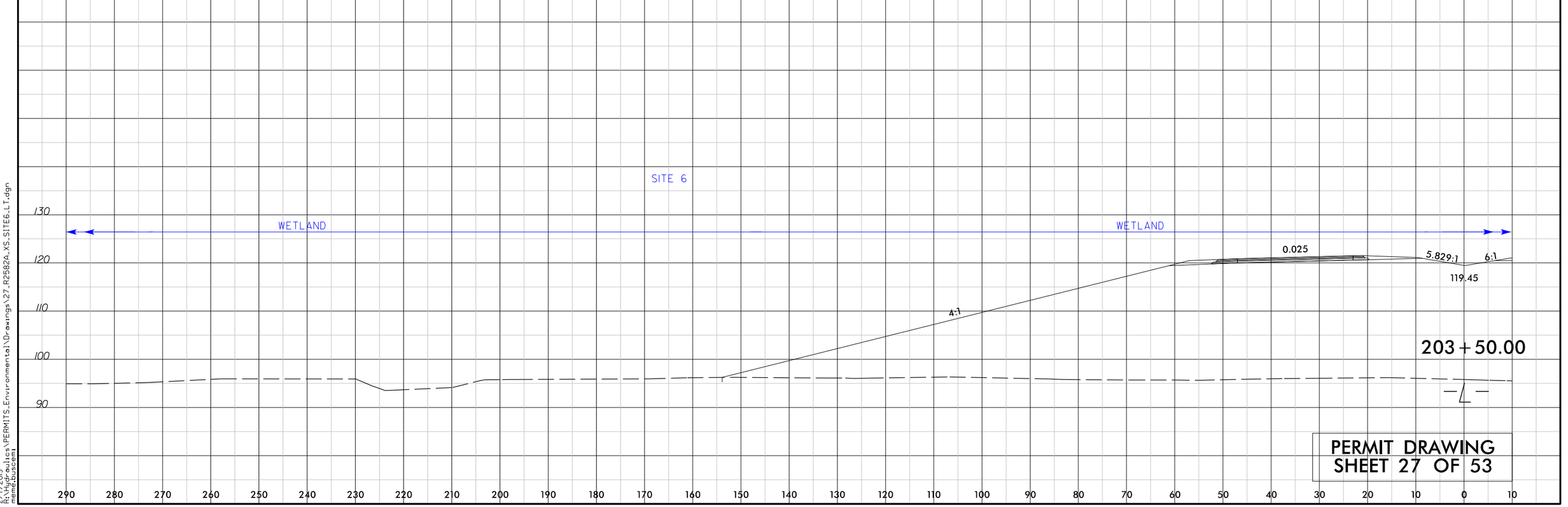
60' 0' 60'
SCALE

8/23/99

0 5 10

PROJ. REFERENCE NO.	SHEET NO.
R-2582A	27

SITE 6



203 + 50.00

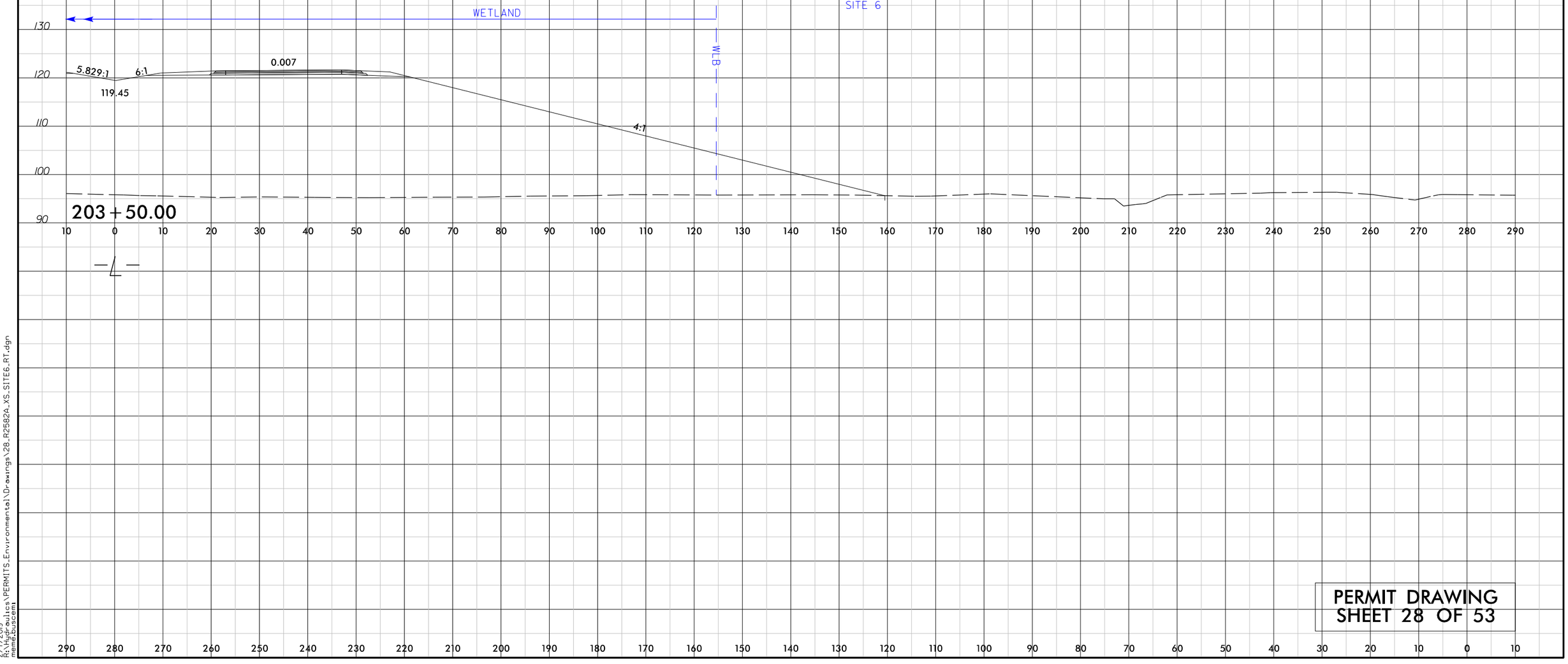
PERMIT DRAWING
SHEET 27 OF 53

2/7/2019
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memebusicemi

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2582A	28

SITE 6



PERMIT DRAWING
SHEET 28 OF 53

2/7/2019
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mem6.buscemi

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83

DETAIL
FALSE SUMP
(Not to Scale)

Median Ditch, 9", 2', S, L (See Chart Below), 20', GI etc., ℄ Proposed Ditch

S=Ditch Slope

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

–L– STA. 243+78 M
–L– STA. 243+78 RT
–L– STA. 248+28 M
–L– STA. 248+28 RT
–L– STA. 251+78 M
–L– STA. 251+78 RT

DETAIL 25
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground, 3:1, D, 4:1 or Flatter, Fill Slope
Min. D=1 Ft.

FROM –Y13A– STA. 15+00 TO STA. 16+50 RT

DETAIL 55
TOE PROTECTION
(Not to Scale)

NATURAL GROUND, d, 3:1 OR FLATTER, FILL SLOPE, GEOTEXTILE
d=1 Ft.
Type of Liner= CL. B Rip-Rap

FROM –Y13A– STA. 20+00 TO STA. 21+50 RT

DETAIL 45
LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, B, 3:1, b, 1'/Ft., Fill Slope, GEOTEXTILE
Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=2 Ft.
b=5 Ft.
*When B is < 6.0'
Type of Liner= CL. B Rip-Rap

FROM –Y13A– STA. 21+50 TO STA. 23+65 RT

DETAIL 56
LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, B, 3:1, b, 1'/Ft., Fill Slope
Min. D=1.5 Ft.
B=4 Ft.
b=5 Ft.

FROM –Y13A– STA. 24+70 TO STA. 25+50 RT

DETAIL 58
LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, B, 3:1, b, 1'/Ft., Fill Slope
Min. D=1.5 Ft.
B=2 Ft.
b=5 Ft.

FROM –Y13A– STA. 25+50 TO STA. 28+50 RT

DETAIL 57
LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, B, 3:1, b, 1'/Ft., Fill Slope
Min. D=1.5 Ft.
B=3 Ft.
b=5 Ft.

FROM STA. –L– 248+65 TO STA. 255+50 LT

–Y13A–
PI Sta 30+17.31
△ = 35° 50' 10.1" (RT)
D = 4° 46' 28.7"
L = 750.55'
T = 388.01'
R = 1,200.00'

245+00

250+00

SEE ENLARGMENT
SHEET 31 OF 53

ELLIS ROBINSON HARRIS
DB 600 PG 648

KATHERINE ROBINSON, TRUSTEE
DB 755 PG 192

N 89°00'33" W
183.71'

N 22°24'41" W
20.72'

N 75°01'51" W
65.22'

N 75°01'51" W
284.77'

CULT

WOODS

TEMPORARY IMPACTS IN SURFACE WATER

EXCAVATION IN WETLAND

Q10 = 9.4 cfs
V10 = 3.3 fps

LATERAL 3' BASE DITCH
SEE DETAIL 57

BEGIN SBG
STA. 248+45 –L– LT

END SBG
STA. 252+00 –L– LT

15" RCP-III

24" RCP-III
(BURIED 1')

15" CSP

24" CSP

2GI

FS

ELBOWS

–L– N 62° 27' 46.8" E

15+00

20+00

25+00

–Y13A– N 62° 27' 46.8" E

–Y13A– 62° 27' 46.8" E

BEGIN SBG
STA. 20+45 –Y13A– RT

END SBG
STA. 25+00
–Y13A– RT

SPECIAL LATERAL V-DITCH
SEE DETAIL 25

CL B RIP RAP TOE PROTECTION
SEE DETAIL 55

LATERAL 2' BASE DITCH
W/ CL B RIP RAP
SEE DETAIL 45

EST. 38 TONS CLASS I RIP RAP
EST. 76 S.Y. GEOTEXTILE FABRIC

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

LATERAL 4' BASE DITCH
SEE DETAIL 56

Q10 = 11.5 cfs
V10 = 1.1 fps

Q10 = 19.5 cfs
V10 = 1.6 fps

LATERAL 2' BASE DITCH
SEE DETAIL 58

PDE

TDE

MATCHLINE SEE SHEET 18 –L– STA. 240+50.00

–L– STA. 240+50.00

MATCHLINE SEE SHEET 20 –L– STA. 254+50.00

SITE 7

–Y13A– PC Sta. 26+29.30

PC Sta. 26+29.30

F F DENOTES FILL IN WETLAND

E E DENOTES EXCAVATION IN WETLAND

DENOTES MECHANIZED CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

100' 0' 100'
SCALE

SEE SHEET 45 FOR –L– PROFILE
SEE SHEET 61 & 62 FOR –Y13A– PROFILE

PERMIT DRAWING
SHEET 29 OF 53

N 85°17'27" E
966.10'

2/8/2019
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mgmcguire

8/17/99

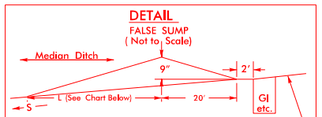
PROJECT REFERENCE NO.	SHEET NO.
R-2582A	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83

DETAIL
FALSE SUMP
(Not to Scale)

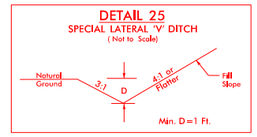


S=Ditch Slope

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

-L- STA. 243+78 M
-L- STA. 243+78 RT
-L- STA. 248+28 M
-L- STA. 248+28 RT
-L- STA. 251+78 M
-L- STA. 251+78 RT

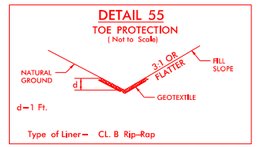
DETAIL 25
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



Min. D=1 Ft.

FROM -Y13A- STA. 15+00 TO STA. 16+50 RT

DETAIL 55
TOE PROTECTION
(Not to Scale)

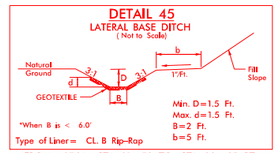


d=1 Ft.

Type of Liner= CL. B Rip-Rap

FROM -Y13A- STA. 20+00 TO STA. 21+50 RT

DETAIL 45
LATERAL BASE DITCH
(Not to Scale)



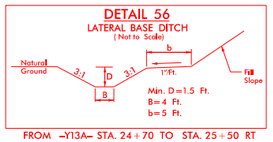
Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=2 Ft.
b=5 Ft.

"When B is < 6.0'

Type of Liner= CL. B Rip-Rap

FROM -Y13A- STA. 21+50 TO STA. 23+65 RT

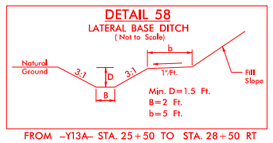
DETAIL 56
LATERAL BASE DITCH
(Not to Scale)



Min. D=1.5 Ft.
B=4 Ft.
b=5 Ft.

FROM -Y13A- STA. 24+70 TO STA. 25+50 RT

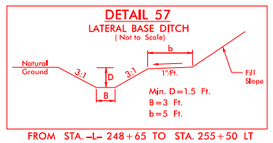
DETAIL 58
LATERAL BASE DITCH
(Not to Scale)



Min. D=1.5 Ft.
B=2 Ft.
b=5 Ft.

FROM -Y13A- STA. 25+50 TO STA. 28+50 RT

DETAIL 57
LATERAL BASE DITCH
(Not to Scale)



Min. D=1.5 Ft.
B=3 Ft.
b=5 Ft.

FROM STA. -L- 248+65 TO STA. 255+50 LT

-Y13A-
PI Sta 30+17.31
△ = 35° 50' 10.1" (RT)
D = 4° 46' 28.7"
L = 750.55'
T = 388.01'
R = 1,200.00'

245+00

250+00

SEE ENLARGMENT SHEET 31 OF 53

MATCHLINE SEE SHEET 18 -L- STA. 240+50.00

-L- STA. 240+50.00

MATCHLINE SEE SHEET 20 -L- STA. 254+50.00

ELLIS ROBINSON HARRIS
DB 600 PG 648

KATHERINE ROBINSON, TRUSTEE
DB 755 PG 192

TEMPORARY IMPACTS IN SURFACE WATER

EXCAVATION IN WETLAND

Q10 = 9.4 cfs
V10 = 3.3 fps

LATERAL 3' BASE DITCH SEE DETAIL 57

BEGIN SBG STA. 248+45 -L- LT

END SBG STA. 252+00 -L- LT

15" RCP-III

24" RCP-III (BURIED 1')

2GI

FS

N 62° 27' 46.8" E

-L-

-Y13A-

15+00

20+00

25+00

SPECIAL LATERAL V-DITCH SEE DETAIL 25

BEGIN SBG STA. 20+45 -Y13A- RT

ELBOWS

24" CSP

15" CSP

END SBG STA. 25+00 -Y13A- RT

Q10 = 11.5 cfs
V10 = 1.1 fps

Q10 = 19.5 cfs
V10 = 1.6 fps

CL B RIP RAP TOE PROTECTION SEE DETAIL 55

LATERAL 2' BASE DITCH W/CL B RIP RAP SEE DETAIL 45

EST. 38 TONS CLASS I RIP RAP
EST. 78 S.Y. GEOTEXTILE FABRIC

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

LATERAL 4' BASE DITCH SEE DETAIL 56

LATERAL 2' BASE DITCH SEE DETAIL 58

SITE 7

-Y13A- PC Sta. 26+29.30

PC Sta. 26+29.30

PDE

TDE

WOODS

CULT

F F DENOTES FILL IN WETLAND

E E DENOTES EXCAVATION IN WETLAND

DENOTES MECHANIZED CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

100' 0' 100'
SCALE

PERMIT DRAWING SHEET 30 OF 53

2/8/2019
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mgmbuscem

8/17/99

DB

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

TEMPORARY IMPACTS IN SURFACE WATER

EXCAVATION IN WETLAND

Q10 = 9.4 cfs
V10 = 3.3 fps

F F DENOTES FILL IN WETLAND

E E DENOTES EXCAVATION IN WETLAND

DENOTES MECHANIZED CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

LATERAL 3' BASE DITCH
SEE DETAIL 57

WOODS

NAD 83

BEGIN SBG
STA. 248+45 –L– LT

END SBG
STA. 252+00 –L– LT

2GI

15" RCP–III

FS

84" RCP–IV
(BURIED 1')

24" RCP–III

24" CSP

15" CSP

–L–

N 62° 27' 46.8

–Y13A–

N 62° 27' 46.8" E

25+00

BEGIN SBG
STA. 20+45 –Y13A– RT

END SBG
STA. 26+00
–Y13A– RT

ELBOWS

SITE 7

PERMIT DRAWING
SHEET 31 OF 53

WOODS

Q10 = 11.5 cfs
V10 = 1.1 fps

Q10 = 19.5 cfs
V10 = 1.6 fps

PDE

TDE

LATERAL 2' BASE DITCH
W/CL B RIP RAP
SEE DETAIL 45

EST. 38 TONS CLASS I RIP RAP
EST. 78 S.Y. GEOTEXTILE FABRIC

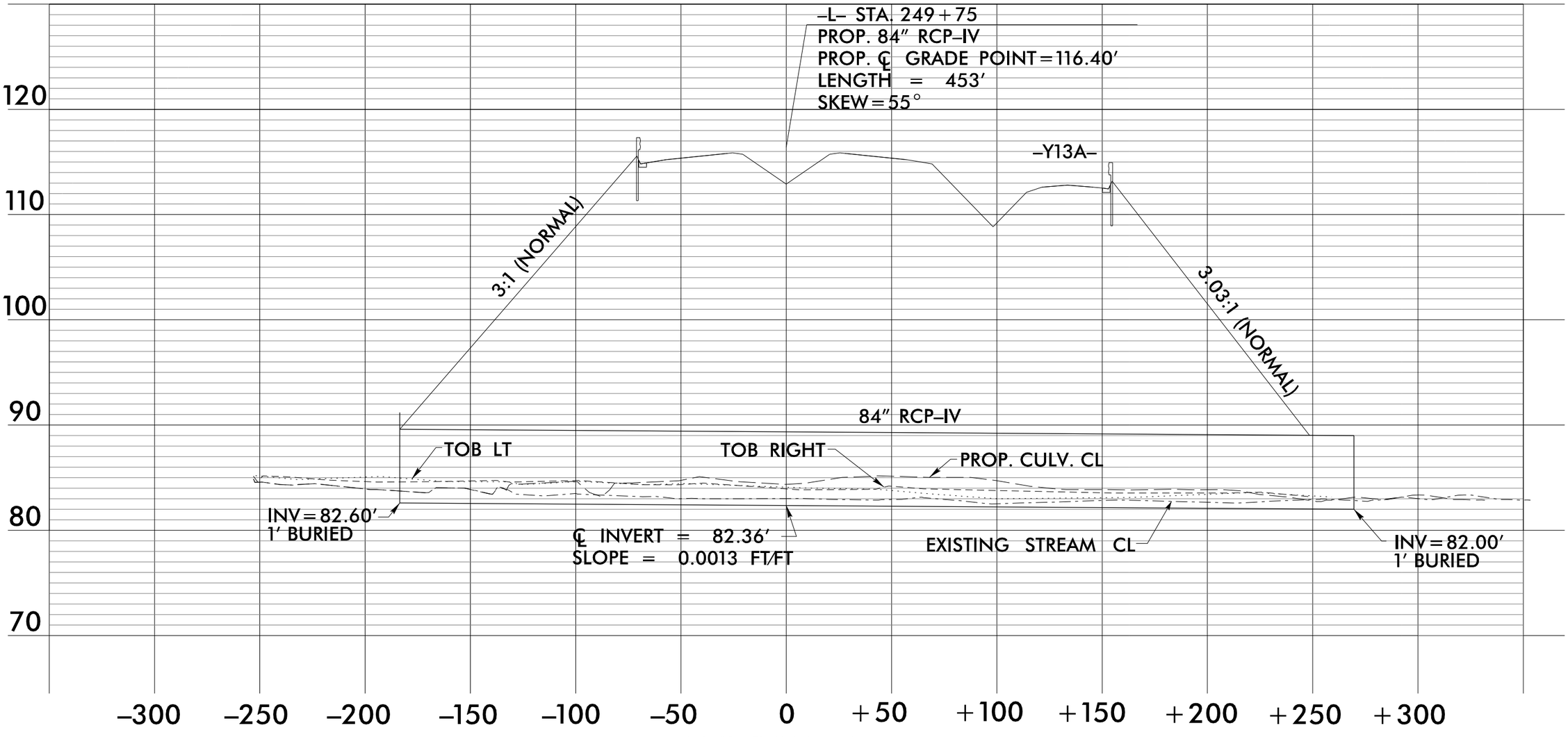
EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

LATERAL 2' BASE DIT
SEE DETAIL 58

50' 0' 50'
SCALE

2/8/2019
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mmebuscem

SITE 7 – PROFILE VIEW ALONG STRUCTURE



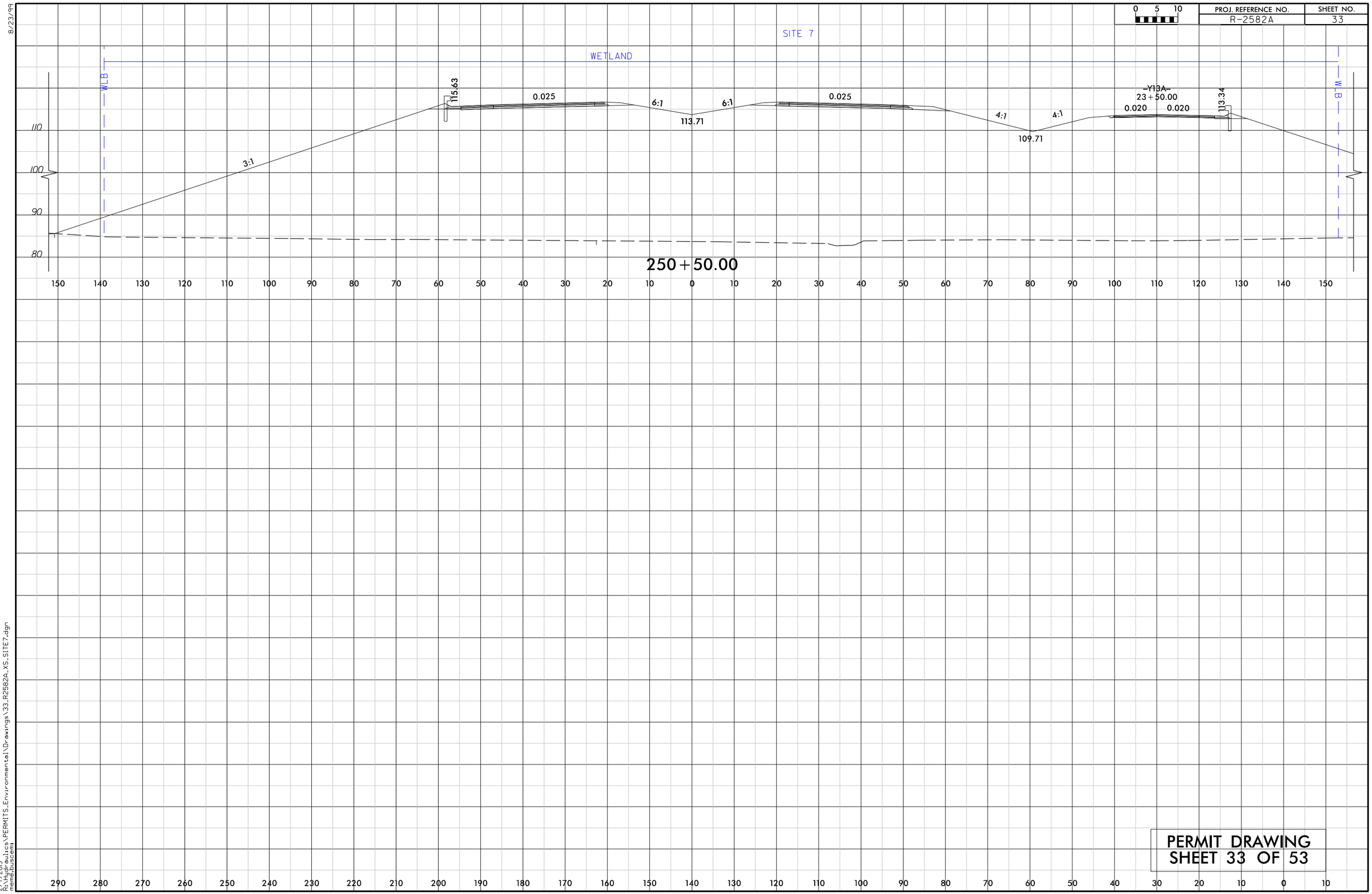
PROFILE

NCDOT
DIVISION OF HIGHWAYS
NORTHAMPTON COUNTY
PROJECT: 34472.1.4 (R-2582A)
US 158 FROM I-95/NC
TO SR 1312 (ST. JOHN CHURCH RD)
SITE 7
PERMIT DRAWING
SHEET 32 OF 53

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2582A	33

SITE 7



PERMIT DRAWING
SHEET 33 OF 53

2/7/2019
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8/17/99

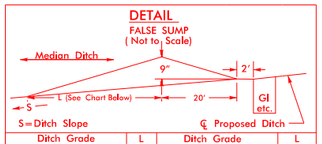
PROJECT REFERENCE NO.	SHEET NO.
R-2582A	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83

DETAIL
FALSE SUMP
(Not to Scale)

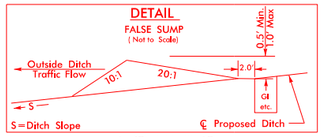


S=Ditch Slope ℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

–L– STA. 283+22 M
–L– STA. 289+78 M

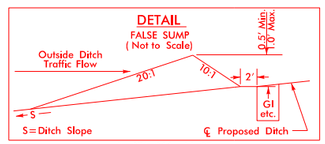
DETAIL
FALSE SUMP
(Not to Scale)



S=Ditch Slope ℄ Proposed Ditch

–L– STA. 283+22 RT

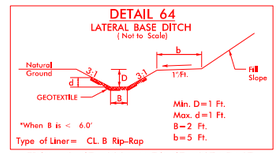
DETAIL
FALSE SUMP
(Not to Scale)



S=Ditch Slope ℄ Proposed Ditch

–L– STA. 289+88 RT

DETAIL 64
LATERAL BASE DITCH
(Not to Scale)

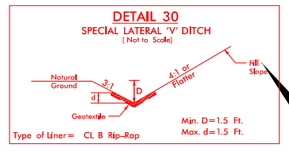


*When B is < 6.0'
Min. D=1 Ft.
Max. d=1 Ft.
B=2 Ft.
b=5 Ft.

Type of Liner= CL B Rip-Rap

FROM –L– STA. 286+40 TO STA. 287+50 LT

DETAIL 30
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

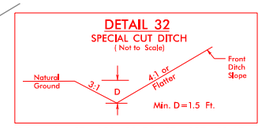


Min. D=1.5 Ft.
Max. d=1.5 Ft.

Type of Liner= CL B Rip-Rap

FROM –L– STA. 287+50 TO STA. 293+00 LT

DETAIL 32
SPECIAL CUT DITCH
(Not to Scale)



Min. D=1.5 Ft.

FROM –L– STA. 293+00 TO STA. 297+50 LT

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SITE 8

KATHERINE S. ROBINSON, TRUSTEE
DB 755 PG 192

280+00

285+00

290+00

FLOOD BENCH @ INLET SEE DETAIL A

NATIVE MATERIAL FILL LIMIT

WOODS

MPACTS IN VATER

TEMPORARY N SURFACE WATER

END CULVERT –L– STA 286+64.69

LATERAL 2' BASE DITCH W/CL B RIP RAP SEE DETAIL 64

TEMPORARY IMPACTS IN SURFACE WATER

TDE

ELNORA T. TURNER, et vir
DB 894 PG 696
PB 37 PG 153

SPECIAL LATERAL V-DITCH W/CL B RIP RAP SEE DETAIL 30

SPECIAL CUT V-DITCH SEE DETAIL 32

TIE PROPOSED DITCH TO EXISTING DITCH LINE

TOE PROTECTION SEE DETAIL 63

SPECIAL CUT V-DITCH SEE DETAIL 14

Q10 = 6.1 cfs
V10 = 1.7 fps

GRADE TO DRAIN

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

US 158 26' BST

MTL

CONC GUTTER

FS

2GI

S 46° 54' 21.5" E –L–

MATCHLINE SEE SHEET 21 –L– STA. 279+00.00

MATCHLINE SEE SHEET 23 –L– STA. 293+50.00

15" RCP-III

℄ –L– STA. 286+51
SKEW = 77°
PROP. TRIPLE 8' X 7' RCBC
LENGTH = 167'

EXISTING R/W

BEGIN SBG STA. 284+45 –L– RT

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

END SBG STA. 288+00 –L– RT

NATIVE MATERIAL FILL LIMIT

Q10 = 7.6 cfs
V10 = 2.5 fps

LATERAL 2' BASE DITCH SEE DETAIL 5

ELBOWS

24"

15"

SPECIAL CUT V-DITCH SEE DETAIL 32

SPECIAL LATERAL V-DITCH SEE DETAIL 1

PUE

TDE

R/W

CURTIS R. TURNER, JR
NO DEED

TEMPORARY IMPACTS IN SURFACE WATER

FLOOD BENCH @ OUTLET SEE DETAIL B

75 LF PROPOSED STREAM ALIGNMENT (SEE DETAIL C)

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

KATHERINE ROBINSON, TRUSTEE
DB 755 PG 192

EST. 5 TONS CLASS B RIP RAP
EST. 14 S.Y. GEOTEXTILE FABRIC

LATERAL 4' BASE DITCH SEE DETAIL 56

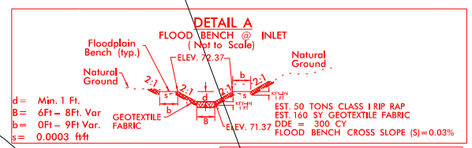
SPECIAL CUT V-DITCH SEE DETAIL 32

–L– CS Sta. 283+46.67

–L– ST Sta. 286+46.67

SEE ENLARGMENT SHEET 36 OF 53

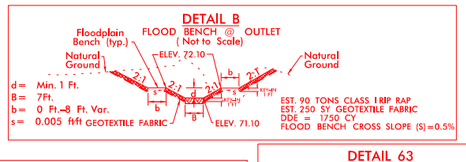
DETAIL A
FLOOD BENCH @ INLET
(Not to Scale)



d= Min. 1 Ft.
B= 6Ft – 8Ft. Var
b= 0Ft – 9Ft Var.
s= 0.0003 ft/ft

EST. 50 TONS CLASS I RIP RAP
EST. 160 SY GEOTEXTILE FABRIC
DDE = 300 CY
FLOOD BENCH CROSS SLOPE (S)=0.03%

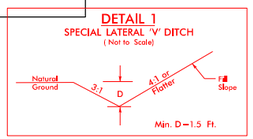
DETAIL B
FLOOD BENCH @ OUTLET
(Not to Scale)



d= Min. 1 Ft.
B= 7Ft.
b= 0 Ft.–8 Ft. Var.
s= 0.005 ft/ft GEOTEXTILE FABRIC

EST. 90 TONS CLASS I RIP RAP
EST. 250 SY GEOTEXTILE FABRIC
DDE = 1750 CY
FLOOD BENCH CROSS SLOPE (S)=0.5%

DETAIL 1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

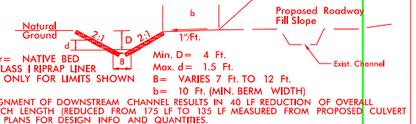


Min. D=1.5 Ft.

FROM –L– STA. 291+00 TO STA. 294+00 RT

FROM STA. 286+70 RT TO STA. 287+50 RT.

DETAIL C
CHANNEL CHANGE (LOOKING UPSTREAM)
(Not to Scale)



Type of Liner= NATIVE BED MATERIAL; CLASS I RIPRAP LINER ON BANKS ONLY FOR LIMITS SHOWN

Min. D= 4 Ft.
Max. d= 1.5 Ft.
B= VARIES 7 Ft. TO 12 Ft.
b= 10 Ft. (MIN. BERM WIDTH)

NOTE: REALIGNMENT OF DOWNSTREAM CHANNEL RESULTS IN 40 LF REDUCTION OF OVERALL STREAM REACH LENGTH (REDUCED FROM 175 LF TO 135 LF MEASURED FROM PROPOSED CULVERT OUTLET). SEE PLANS FOR DESIGN INFO AND QUANTITIES.

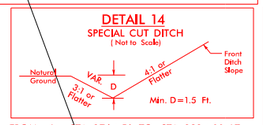
DETAIL 32
SPECIAL CUT DITCH
(Not to Scale)



Min. D=1.5 Ft.

FROM –L– STA. 267+00 TO STA. 283+00 RT
FROM –L– STA. 290+00 TO STA. 291+00 RT

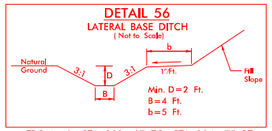
DETAIL 14
SPECIAL CUT DITCH
(Not to Scale)



Min. D=1.5 Ft.

FROM –L– STA. 276+50 TO STA. 282+00 LT

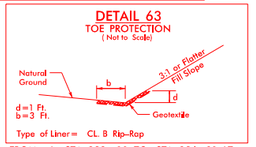
DETAIL 56
LATERAL BASE DITCH
(Not to Scale)



Min. D=2 Ft.
B=4 Ft.
b=5 Ft.

FROM –L– STA. 283+67 TO STA. 284+75 RT

DETAIL 63
TOE PROTECTION
(Not to Scale)

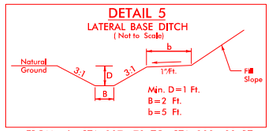


d=1 Ft.
b=3 Ft.

Type of Liner= CL B Rip-Rap

FROM –L– STA. 283+00 TO STA. 286+10 LT
FROM –L– STA. 284+75 TO STA. 286+38 RT

DETAIL 5
LATERAL BASE DITCH
(Not to Scale)



Min. D=1 Ft.
B=2 Ft.
b=5 Ft.

FROM –L– STA. 287+70 TO STA. 289+00 RT

PERMIT DRAWING SHEET 34 OF 53

100' 0' 100'
SCALE

SEE SHEET 47 FOR –L– PROFILE

2/8/2019
R:\Projects\Julius\PERMITS_Environmental\Drawings\34_R-2582A_Rdy_psh_22.dgn
mmeadows

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83

DETAIL
FALSE SUMP
(Not to Scale)

Median Ditch — 9" — 2' — L (See Chart Below) — 20' — GI etc.

S=Ditch Slope ℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

–L– STA. 283+22 M
–L– STA. 289+78 M

DETAIL
FALSE SUMP
(Not to Scale)

Outside Ditch Traffic Flow — 10:1 — 20:1 — 2.0' — 0.5' Min. 1.0' Max — GI etc.

S=Ditch Slope ℄ Proposed Ditch

–L– STA. 283+22 RT

DETAIL
FALSE SUMP
(Not to Scale)

Outside Ditch Traffic Flow — 20:1 — 10:1 — 2' — 0.5' Min. 1.0' Max — GI etc.

S=Ditch Slope ℄ Proposed Ditch

–L– STA. 289+88 RT

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SITE 8

DETAIL 64
LATERAL BASE DITCH
(Not to Scale)

Natural Ground — 3:1 — D — 3:1 — b — 1'/Ft. — Fill Slope — d — GEOTEXTILE — B

Min. D=1 Ft.
Max. d=1 Ft.
B=2 Ft.
b=5 Ft.

*When B is < 6.0'

Type of Liner= CL B Rip-Rap

FROM –L– STA. 286+40 TO STA. 287+50 LT

DETAIL 30
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground — 3:1 — D — 4:1 or Flatter — Fill Slope — d — Geotextile

Min. D=1.5 Ft.
Max. d=1.5 Ft.

Type of Liner= CL B Rip-Rap

FROM –L– STA. 287+50 TO STA. 293+00 LT

DETAIL 32
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground — 3:1 — D — 4:1 or Flatter — Front Ditch Slope

Min. D=1.5 Ft.

FROM –L– STA. 293+00 TO STA. 297+50 LT

WOODS

FLOOD BENCH @ INLET SEE DETAIL A

NATIVE MATERIAL FILL LIMIT

280+00

285+00

290+00

KATHERINE S. ROBINSON, TRUSTEE
DB 755 PG 192

MPACTS IN
/ATER

TEMPORARY
N SURFACE WATER

END CULVERT
–L– STA 286+64.69

LATERAL 2' BASE DITCH W/CL B RIP RAP SEE DETAIL 64

TEMPORARY IMPACTS IN SURFACE WATER

ELNORA T. TURNER, et vir
DB 894 PG 696
PB 37 PG 153

SPECIAL LATERAL V-DITCH W/CL B RIP RAP SEE DETAIL 30

SPECIAL CUT V-DITCH SEE DETAIL 32

TIE PROPOSED DITCH TO EXISTING DITCH LINE

TOE PROTECTION SEE DETAIL 63

SPECIAL CUT V-DITCH SEE DETAIL 14

Q10 = 6.1 cfs
V10 = 1.7 fps

GRADE TO DRAIN

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

MATCHLINE SEE SHEET 21 –L– STA. 279+50.00

2GI

FS

ELBOWS

BEGIN SBG STA. 284+45 –L– RT

2GI 15" RCP-III

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

℄ –L– STA. 286+51
PROP. TRIPLE 8' X 7' RCBC
SKEW 77°
LENGTH = 167'

END SBG STA. 286+00 –L– RT

NATIVE MATERIAL FILL LIMIT

Q10 = 7.6 cfs
V10 = 2.1 fps

LATERAL 2' BASE DITCH SEE DETAIL 5

ELBOWS

TOE PROTECTION SEE DETAIL 63

PUE

TDE

R/W

C/A

ES

2GI

SPECIAL CUT V-DITCH SEE DETAIL 32

TEMPORARY IMPACTS IN SURFACE WATER

FLOOD BENCH @ OUTLET SEE DETAIL B

75 LF PROPOSED STREAM ALIGNMENT (SEE DETAIL C)

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL V-DITCH SEE DETAIL 1

CURTIS B. TURNER, JR
NO DEED

KATHERINE ROBINSON, TRUSTEE
DB 755 PG 192

EST. 5 TONS CLASS B RIP RAP
EST. 14 S.Y. GEOTEXTILE FABRIC

LATERAL 4' BASE DITCH SEE DETAIL 56

SPECIAL CUT V-DITCH SEE DETAIL 32

–L– CS Sta. 283+46.67

–L– ST Sta. 286+46.67

S 46° 54' 21.5" E

MATCHLINE SEE SHEET 23 –L– STA. 293+50.00

SEE ENLARGMENT SHEET 36 OF 53

DETAIL A
FLOOD BENCH @ INLET
(Not to Scale)

Floodplain Bench (typ.) — Natural Ground — ELEV. 72.37 — 2:1 — d — b — 12:1 — 1'/Ft. — GEOTEXTILE FABRIC — B — ELEV. 71.37

d= Min. 1 Ft.
B= 6Ft– 8Ft. Var
b= 0Ft– 9Ft Var.
s= 0.0003 ft/ft

EST. 50 TONS CLASS I RIP RAP
EST. 160 SY GEOTEXTILE FABRIC
DDE = 300 CY
FLOOD BENCH CROSS SLOPE (S)=0.03%

DETAIL B
FLOOD BENCH @ OUTLET
(Not to Scale)

Floodplain Bench (typ.) — Natural Ground — ELEV. 72.10 — 2:1 — 2:1 — 7:1 — b — ELEV. 71.10

d= Min. 1 Ft.
B= 7Ft.
b= 0 Ft.–8 Ft. Var.
s= 0.005 ft/ft GEOTEXTILE FABRIC

EST. 90 TONS CLASS I RIP RAP
EST. 250 SY GEOTEXTILE FABRIC
DDE = 1750 CY
FLOOD BENCH CROSS SLOPE (S)=0.5%

DETAIL 1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground — 3:1 — D — 4:1 or Flatter — Fill Slope

Min. D=1.5 Ft.

FROM –L– STA. 291+00 TO STA. 294+00 RT

DETAIL C
CHANNEL CHANGE (LOOKING UPSTREAM)
(Not to Scale)

FROM STA. 286+70 RT TO STA. 287+50 RT.

Natural Ground — 2:1 — D — 2:1 — b — 1'/Ft. — Proposed Roadway Fill Slope — d — B — Exist. Channel

Type of Liner= NATIVE BED MATERIAL; CLASS I RIPRAP LINER ON BANKS ONLY FOR LIMITS SHOWN

Min. D= 4 Ft.
Max. d= 1.5 Ft.
B= VARIES 7 Ft. TO 12 Ft.
b= 10 Ft. (MIN. BERM WIDTH)

NOTE: REALIGNMENT OF DOWNSTREAM CHANNEL RESULTS IN 40 LF REDUCTION OF OVERALL STREAM REACH LENGTH (REDUCED FROM 175 LF TO 135 LF MEASURED FROM PROPOSED CULVERT OUTLET). SEE PLANS FOR DESIGN INFO AND QUANTITIES.

DETAIL 32
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground — 3:1 — D — 4:1 or Flatter — Front Ditch Slope

Min. D=1.5 Ft.

FROM –L– STA. 267+00 TO STA. 283+00 RT
FROM –L– STA. 290+00 TO STA. 291+00 RT

DETAIL 14
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground — VAR — 3:1 or Flatter — D — 4:1 or Flatter — Front Ditch Slope

Min. D=1.5 Ft.

FROM –L– STA. 276+50 TO STA. 282+00 LT

DETAIL 56
LATERAL BASE DITCH
(Not to Scale)

Natural Ground — 3:1 — D — 3:1 — b — 1'/Ft. — Fill Slope — B

Min. D=2 Ft.
B=4 Ft.
b=5 Ft.

FROM –L– STA. 283+67 TO STA. 284+75 RT

DETAIL 63
TOE PROTECTION
(Not to Scale)

Natural Ground — b — 3:1 or Flatter Fill Slope — d — Geotextile

d=1 Ft.
b=3 Ft.

Type of Liner= CL B Rip-Rap

FROM –L– STA. 283+00 TO STA. 286+10 LT
FROM –L– STA. 284+75 TO STA. 286+38 RT

DETAIL 5
LATERAL BASE DITCH
(Not to Scale)

Natural Ground — 3:1 — D — 3:1 — b — 1'/Ft. — Fill Slope — B

Min. D=1 Ft.
B=2 Ft.
b=5 Ft.

FROM –L– STA. 287+70 TO STA. 289+00 RT

PERMIT DRAWING SHEET 35 OF 53

100' 0' 100'
SCALE

SEE SHEET 47 FOR –L– PROFILE

2/8/2019
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mgmcguire

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SITE 8

-L- STA 28

BEGIN CULVERT
-L- STA 286+38.00

TIE PROPOSED DITCH TO EXISTING DITCH LINE

TOE PROTECTION SEE DETAIL 63

LATERAL 2' BAS W/CL B RIP RA SEE DETAIL 64

TEMPORARY IMPACTS IN SURFACE WATER

NAD 83

TDE

WLB

JS

US 158 26' BST

MTL

T FO

EXISTING R/W

TRIPLE 8'x7' RCBC

SKEW = 77°

℄ -L- STA. 286+51
PROP. TRIPLE 8' X 7' RCBC
LENGTH = 167'

2GI

15" RCP-III

FS

ELBOWS

24"

BEGIN SBG
STA. 284+45 -L- RT

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

TOE PROTECTION SEE DETAIL 63

END SBG
STA. 288+00 -L- RT

NATIVE MATERIAL FILL LIMIT

Q10 = 7.6 cfs
V10 = 2.5 fps

LATERAL 2' BASE SEE DETAIL 5

PUE

WOODS

KATHERINE ROBINSON, TRUSTEE
DB 755 PG 192

LATERAL 4' BASE DITCH SEE DETAIL 56

EST. 5 TONS CLASS B RIP RAP
EST. 14 S.Y. GEOTEXTILE FABRIC

FLOOD BENCH @ OUTLET SEE DETAIL B

75 LF PROPOSED STREAM ALIGNMENT (SEE DETAIL C)

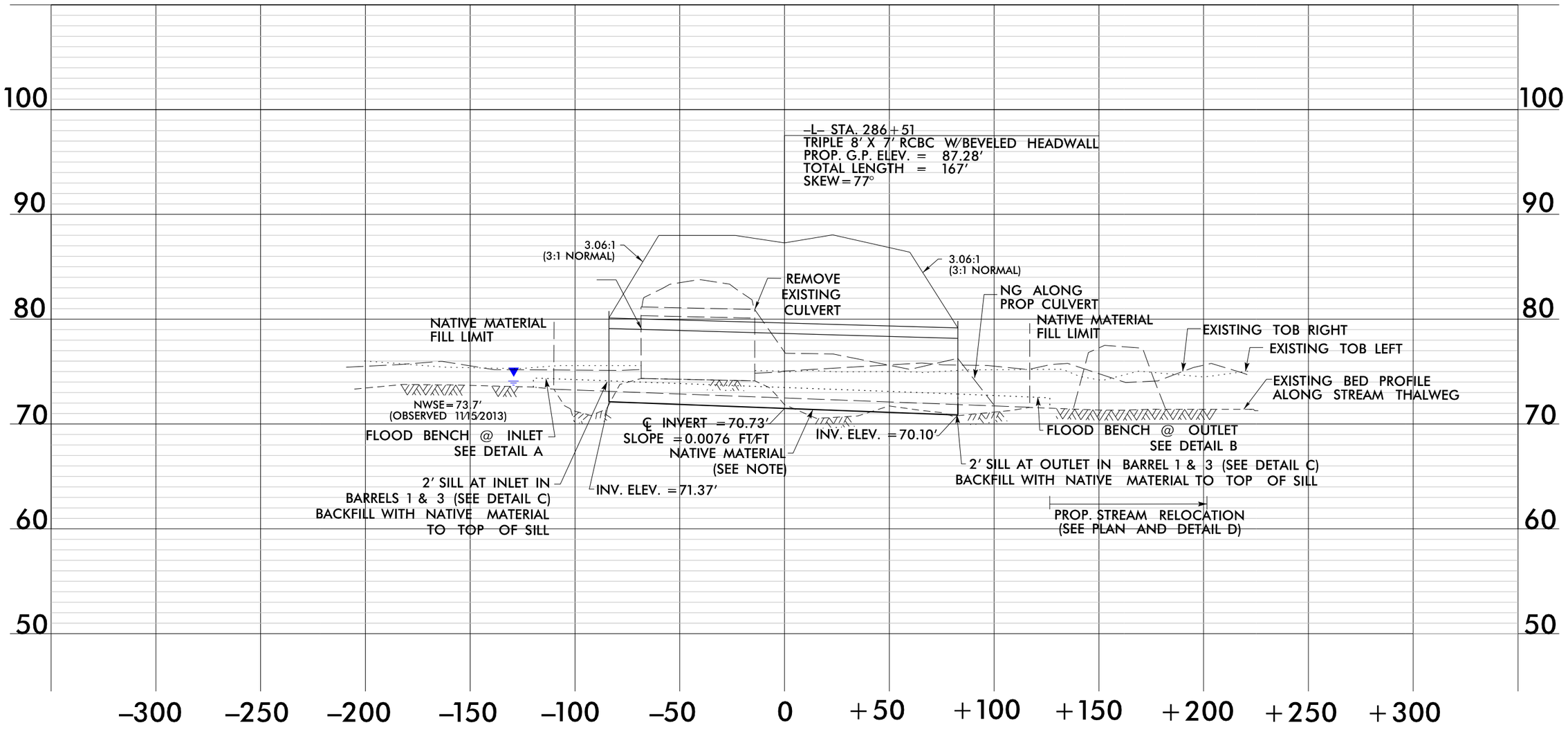
TEMPORARY IMPACTS IN SURFACE WATER

PERMIT DRAWING
SHEET 36 OF 53

50' 0' 50'
SCALE

2/8/2019
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mmebuscem

SITE 8 – PROFILE VIEW ALONG STRUCTURE



PROFILE

NCDOT
DIVISION OF HIGHWAYS
NORTHAMPTON COUNTY
PROJECT: 34472.1.1 (R-2582A)
US 158 FROM I-95/NC
TO SR 1312 (ST. JOHN CHURCH RD)
SITE 8
PERMIT DRAWING
SHEET 37 OF 53

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
R-2582A	38

0 5 10

SITE 8

WETLAND

WLB

3:1

0.009

6:1

5.818:1

83.99

0.025

86.00

3:1

90

80

70

286+00.00

PERMIT DRAWING
SHEET 38 OF 53

2/7/2019
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mmebuscem

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83

MATCHLINE SEE SHEET 28 –L– STA. 377+00.00

MATCHLINE SEE SHEET 30 –L– STA. 391+00.00

380+00 385+00 390+00

ELISE BROWN SMITH
DB 540 PG 12

ELISE BROWN SMITH
DB 566 PG 83

MILDRED S. EDWARDS, et al
WB 09E PG 135

MILDRED S. EDWARDS, et al
WB 09E PG 135

WOODS

WOODS

WOODS

ISLAND

N 37°50'48" E
165.31'

N 37°53'39" E
210.16'

N 19°31'39" E
241.65'

SPECIAL LATERAL 3' BASE DITCH
SEE DETAIL 50

SPECIAL LATERAL 3' BASE DITCH
SEE DETAIL 70

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL 3' BASE DITCH
SEE DETAIL 70

GRADE TO DRAIN

TDE

FILL IN POND

REMOVE

15" RCP-III

15" RCP-III

15" RCP-III

15" RCP-III

DI

DI

2GI

FS

2GI

15"

FS

2GI

US 158 26' BST

EXISTING R/W

–L–

Q10 = 10.8 cfs
V10 = 0.5 fps

EST. 3 TONS CLASS B RIP RAP
EST. 10 S.Y. GEOTEXTILE FABRIC

Q10=10.8 cfs
V10=0.5 fps

SPECIAL LATERAL 2' BASE DITCH
SEE DETAIL 33

SPECIAL CUT 2' BASE DITCH
SEE DETAIL 69

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL 2' BASE DITCH
SEE DETAIL 33

TDE

TDE

SLOPE

SITE 9

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

TAYLOR FARM PROPERTIES
DB 955 PG 272

TAYLOR FARM PROPERTIES
DB 955 PG 272

JBJB, LLC
DB 707 PG 834

DETAIL 33
SPECIAL LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, B, 4:1 or Flatter, Fill Slope
Min. D= 1.5 Ft.
B= 2 Ft.

FROM –L– STA. 374+30 RT TO –L– STA. 380+00 RT
FROM –L– STA. 380+50 RT TO –L– STA. 381+70 RT

DETAIL 50
SPECIAL LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, B, 4:1 or Flatter, Fill Slope
Min. D= 1 Ft.
B= 3 Ft.

FROM –L– STA. 372+40 LT TO –L– STA. 382+00 LT

DETAIL 69
SPECIAL CUT BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, B, 4:1 or Flatter, Front Ditch Slope
Min. D= 1.5 Ft.
B= 2 Ft.

FROM –L– STA. 380+00 RT TO –L– STA. 380+50 RT

DETAIL 70
SPECIAL LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, B, 4:1 or Flatter, Fill Slope
Min. D= 1.5 Ft.
B= 3 Ft.

FROM –L– STA. 382+00 LT TO –L– STA. 391+30 LT

DETAIL
FALSE SUMP
(Not to Scale)

Median Ditch, 9", 2', L (See Chart Below), 20', GI etc., S

S=Ditch Slope ℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

–L– STA. 379+60 M
–L– STA. 384+83 M

SEE ENLARGMENT
SHEET 41 OF 53

PERMIT DRAWING
SHEET 39 OF 53

100' 0' 100'
SCALE

2/7/2019
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memes.lucas

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83

MATCHLINE SEE SHEET 28 –L– STA. 377+00.00

MATCHLINE SEE SHEET 30 –L– STA. 391+00.00

380+00

385+00

390+00

ELISE BROWN SMITH
DB 540 PG 12

ELISE BROWN SMITH
DB 566 PG 83

MILDRED S. EDWARDS, et al
WB 09E PG 135

MILDRED S. EDWARDS, et al
WB 09E PG 135

WOODS

WOODS

WOODS

TAYLOR FARM PROPERTIES
DB 955 PG 272

TAYLOR FARM PROPERTIES
DB 955 PG 272

JBJB, LLC
DB 707 PG 834

SPECIAL LATERAL 3' BASE DITCH
SEE DETAIL 50

SPECIAL LATERAL 3' BASE DITCH
SEE DETAIL 70

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

FILL IN POND

SPECIAL LATERAL 3' BASE DITCH
SEE DETAIL 70

GRADE TO DRAIN

REMOVE

15" RCP III

15" RCP III

15" RCP III

15" RCP III

15" RCP III

DI

2GI

FS

EST. 3 TONS CLASS B RIP RAP
EST. 10 S.Y. GEOTEXTILE FABRIC

Q10 = 10.8 cfs
V10 = 0.5 fps

Q10 = 10.8 cfs
V10 = 0.5 fps

SPECIAL LATERAL 2' BASE DITCH
SEE DETAIL 33

SPECIAL CUT 2' BASE DITCH
SEE DETAIL 69

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL 2' BASE DITCH
SEE DETAIL 33

TDE

PUE

SITE 9

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

SEE ENLARGMENT
SHEET 41 OF 53

DETAIL 33
SPECIAL LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, B, 4:1 or Flatter, Fill Slope

Min. D= 1.5 Ft.
B= 2 Ft.

FROM –L– STA. 374+30 RT TO –L– STA. 380+00 RT
FROM –L– STA. 380+50 RT TO –L– STA. 381+70 RT

DETAIL 50
SPECIAL LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, B, 4:1 or Flatter, Fill Slope

Min. D= 1 Ft.
B= 3 Ft.

FROM –L– STA. 372+40 LT TO –L– STA. 382+00 LT

DETAIL 69
SPECIAL CUT BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, B, 4:1 or Flatter, Front Ditch Slope

Min. D= 1.5 Ft.
B= 2 Ft.

FROM –L– STA. 380+00 RT TO –L– STA. 380+50 RT

DETAIL 70
SPECIAL LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, B, 4:1 or Flatter, Fill Slope

Min. D= 1.5 Ft.
B= 3 Ft.

FROM –L– STA. 382+00 LT TO –L– STA. 391+30 LT

DETAIL
FALSE SUMP
(Not to Scale)

Median Ditch, 9", 2', L (See Chart Below), 20', GI etc., S

S=Ditch Slope ℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

–L– STA. 379+60 M
–L– STA. 384+83 M

PERMIT DRAWING
SHEET 40 OF 53

100' 0' 100'
SCALE

2/7/2019
R:\Projects\PERMITS_Environmental\Drawings\40_R-2582A_Rdy_psh_29.dgn
mgmm_bascom

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83

385+00

ELISE BROWN SMITH
DB 540 PG 12

ELISE BROWN SMITH
DB 566 PG 83

WOODS

MILDRED S. EDWARDS, et al
WB 09E PG 135

N 37°50'48" E
150.39'

N 11°53'31" E
210.91'

N 11°53'31" E
243.65'

ISBKD

TDE

FILL IN POND

SPECIAL LATERAL 3' BASE DITCH
SEE DETAIL 70

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

PUE

C

F

GRADE TO DRAIN

REMOVE

15" RCP III

15" RCP

2GI

FS

US 158 26' BST

T FO

EXISTING R/W

INV

10.8 cfs
0.5 fps

=10.8 cfs
=0.5 fps

IAL LATERAL 2' BASE DITCH
DETAIL 33

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

WLB

S 20°09'48" E

SITE 9

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

JBJB, LLC
DB 707 PG 834

TAYLOR FARM PROPERTIES
DB 955 PG 272

PERMIT DRAWING
SHEET 41 OF 53

70' 0' 70'
SCALE

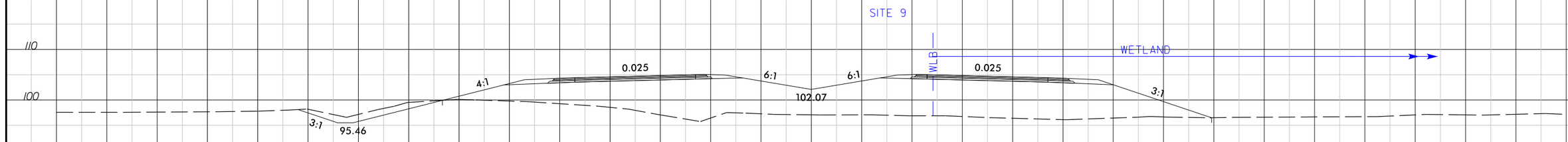
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mgmabus

8/23/99

0 5 10

PROJ. REFERENCE NO.	SHEET NO.
R-2582A	42

SITE 9



389+00.00

PERMIT DRAWING
SHEET 42 OF 53

2/7/2019
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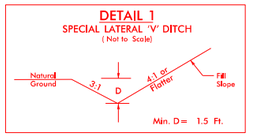
PROJECT REFERENCE NO.	SHEET NO.
R-2582A	31
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

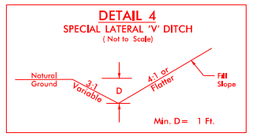
NAD 83

DETAIL 1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



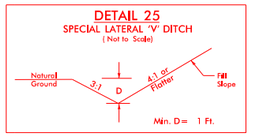
FROM -L- STA. 406+00 RT TO -L- STA. 409+40 RT

DETAIL 4
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



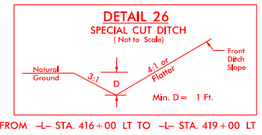
FROM -L- STA. 413+05 LT TO -L- STA. 416+00 LT
FROM -L- STA. 419+00 LT TO -L- STA. 421+90 LT

DETAIL 25
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



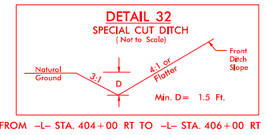
FROM -L- STA. 409+40 RT TO -L- STA. 411+60 RT
FROM -L- STA. 410+00 LT TO -L- STA. 412+50 LT

DETAIL 26
SPECIAL CUT DITCH
(Not to Scale)



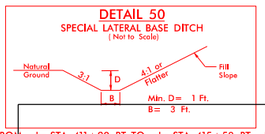
FROM -L- STA. 416+00 LT TO -L- STA. 419+00 LT

DETAIL 32
SPECIAL CUT DITCH
(Not to Scale)



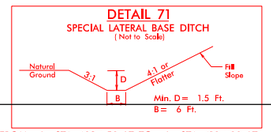
FROM -L- STA. 404+00 RT TO -L- STA. 406+00 RT

DETAIL 50
SPECIAL LATERAL BASE DITCH
(Not to Scale)



FROM -L- STA. 411+90 RT TO -L- STA. 415+50 RT

DETAIL 71
SPECIAL LATERAL BASE DITCH
(Not to Scale)



FROM -L- STA. 402+50 LT TO -L- STA. 410+00 LT

405+00

410+00

415+00

CUT OVER

SITE 10

DENOTES MECHANIZED CLEARING

MECHANIZED CLEARING

MILDRED S. EDWARDS, et al
WB 09E PG 135

LARRY E. DAVIS
DB 932 PG 766

EMMETT DAVIS HEIRS
DB 390 PG 387

MILDRED S. EDWARDS, et al
WB 09E PG 135

CUT OVER

S 48°41'52" E 104.27'

S 48°41'52" E 209.00'

N 40°19'29" E 192.90'

N 40°46'07" E 198.36'

S 40°45'07" W 201.71'

EST. 5 TONS CLASS B RIP RAP
EST. 14 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL V-DITCH
SEE DETAIL 25

SPECIAL LATERAL V-DITCH
SEE DETAIL 4

SPECIAL CUT V-DITCH
SEE DETAIL 26

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL 6' BASE DITCH
SEE DETAIL 71

PUE

15" RCP
REMOVE

24" RCP
REMOVE

FES
INV=90.03

24" RCP

2GI

FS

SOIL

ISBLKB

ISBKD

SEPTIC DRAINFIELD

HTR

EXISTING R/W

US 158 26' BST

-L- S 47° 56' 05.7" E

SPECIAL CUT V-DITCH
SEE DETAIL 32

SPECIAL LATERAL V-DITCH
SEE DETAIL 1

SPECIAL LATERAL V-DITCH
SEE DETAIL 25

SPECIAL CUT 3' BASE DITCH
SEE DETAIL 74

SPECIAL LATERAL 3' BASE DITCH
SEE DETAIL 50

SPECIAL LATERAL 4' BASE DITCH
SEE DETAIL 75

3' BASE HEAD DITCH
SEE DETAIL 73

TDE

CULT

WOODS

S 35°29'38" W

JBJB, LLC
DB 707 PG 834

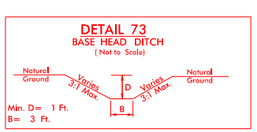
JOHN JOSEPH BROWN
JANE BROWN
DB 710 PG 336

SEE ENLARGMENT
SHEET 45 OF 53

MATCHLINE SEE SHEET 30 -L- STA. 405+00.00

MATCHLINE SEE SHEET 32 -L- STA. 419+00.00

DETAIL 73
BASE HEAD DITCH
(Not to Scale)



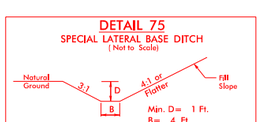
FROM -L- STA. 408+98 TO -L- STA. 409+35 RT

DETAIL 74
SPECIAL CUT BASE DITCH
(Not to Scale)



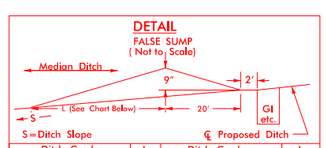
FROM -L- STA. 415+50 RT TO -L- STA. 418+50 RT

DETAIL 75
SPECIAL LATERAL BASE DITCH
(Not to Scale)



FROM -L- STA. 418+50 RT TO -L- STA. 421+00 RT

DETAIL
FALSE SUMP
(Not to Scale)



Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

FROM -L- STA. 409+56 M

100' 0' 100'
SCALE

PERMIT DRAWING
SHEET 43 OF 53

2/1/2019
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mmeadows

8/17/99

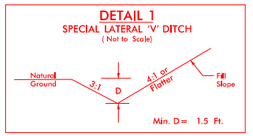
PROJECT REFERENCE NO.	SHEET NO.
R-2582A	31
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

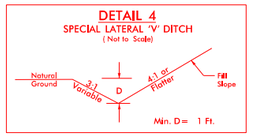
NAD 83

DETAIL 1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



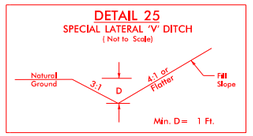
FROM –L– STA. 406+00 RT TO –L– STA. 409+40 RT

DETAIL 4
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



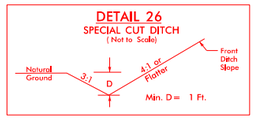
FROM –L– STA. 413+05 LT TO –L– STA. 416+00 LT
FROM –L– STA. 419+00 LT TO –L– STA. 421+90 LT

DETAIL 25
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



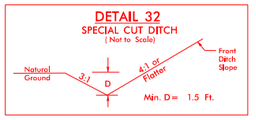
FROM –L– STA. 409+40 RT TO –L– STA. 411+60 RT
FROM –L– STA. 410+00 LT TO –L– STA. 412+50 LT

DETAIL 26
SPECIAL CUT DITCH
(Not to Scale)



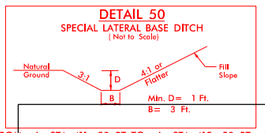
FROM –L– STA. 416+00 LT TO –L– STA. 419+00 LT

DETAIL 32
SPECIAL CUT DITCH
(Not to Scale)



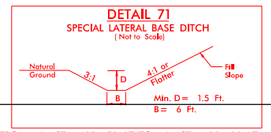
FROM –L– STA. 404+00 RT TO –L– STA. 406+00 RT

DETAIL 50
SPECIAL LATERAL BASE DITCH
(Not to Scale)



FROM –L– STA. 411+90 RT TO –L– STA. 415+50 RT

DETAIL 71
SPECIAL LATERAL BASE DITCH
(Not to Scale)



FROM –L– STA. 402+50 LT TO –L– STA. 410+00 LT

405+00

410+00

415+00

CUT OVER

SITE 10

MILDRED S. EDWARDS, et al
WB 09E PG 135

DENOTES MECHANIZED CLEARING

MECHANIZED CLEARING

EST. 5 TONS CLASS B RIP RAP
EST. 14 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL V-DITCH
SEE DETAIL 25

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL 6' BASE DITCH
SEE DETAIL 71

MATCHLINE SEE SHEET 30 –L– STA. 405+00.00

–L– S 47° 56' 05.7" E

S 48°41'52" E
104.27'

S 48°41'52" E
209.00'

LARRY E. DAVIS
DB 932 PG 766

EMMETT DAVIS HEIRS
DB 390 PG 387

S 40°45'07" W
280.71'

MILDRED S. EDWARDS, et al
WB 09E PG 135

CUT OVER

SPECIAL LATERAL V-DITCH
SEE DETAIL 4

SPECIAL CUT V-DITCH
SEE DETAIL 26

SPECIAL CUT V-DITCH
SEE DETAIL 32

SPECIAL LATERAL V-DITCH
SEE DETAIL 1

SPECIAL LATERAL V-DITCH
SEE DETAIL 25

SPECIAL CUT 3' BASE DITCH
SEE DETAIL 74

SPECIAL LATERAL 3' BASE DITCH
SEE DETAIL 50

3' BASE HEAD DITCH
SEE DETAIL 73

SPECIAL LATERAL 4' BASE DITCH
SEE DETAIL 75

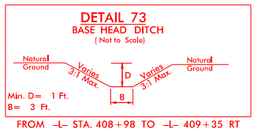
JBJB, LLC
DB 707 PG 834

JOHN JOSEPH BROWN
JANE BROWN
DB 710 PG 336

SEE ENLARGMENT
SHEET 45 OF 54

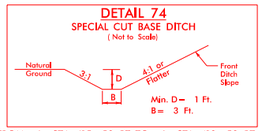
MATCHLINE SEE SHEET 32 –L– STA. 419+00.00

DETAIL 73
BASE HEAD DITCH
(Not to Scale)



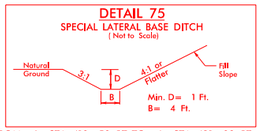
FROM –L– STA. 408+98 TO –L– 409+35 RT

DETAIL 74
SPECIAL CUT BASE DITCH
(Not to Scale)



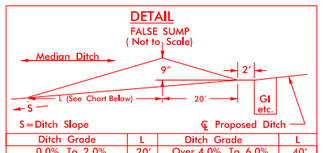
FROM –L– STA. 415+50 RT TO –L– STA. 418+50 RT

DETAIL 75
SPECIAL LATERAL BASE DITCH
(Not to Scale)



FROM –L– STA. 418+50 RT TO –L– STA. 421+00 RT

DETAIL
FALSE SUMP
(Not to Scale)



Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

FROM –L– STA. 409+56 M

100' 0' 100'
SCALE

PERMIT DRAWING
SHEET 44 OF 53

2/7/2019
R:\Highway Projects\PERMITS_Environmental\Drawings\44_R-2582A_Rdy_psh_31.dgn
mearls.bussell

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	31
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

410+0

CUT OVER

, EDWARDS, et al
: PG 135

SITE 10

NAD 83

DENOTES MECHANIZED CLEARING

MECHANIZED CLEARING

EST. 5 TONS CLASS B RIP RAP
EST. 14 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL V-DITCH
SEE DETAIL 25

ST. 2 TONS CLASS B RIP RAP
ST. 7 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL 6' BASE DITCH
SEE DETAIL 71

WLB

PUE PUE PUE PUE PUE DUE PUE PUE PUE PUE

R/W

C C C C C C C C C C F C C C C C C C C C C

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	32
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83

MATCHLINE SEE SHEET 31 –L– STA. 419+00.00

SITE 11

DENOTES MECHANIZED CLEARING

DENOTES EXCAVATION IN WETLAND

420+00

425+00

430+00

SPECIAL LATERAL V-DITCH SEE DETAIL 4

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL V-DITCH SEE DETAIL 4

EST. 15 TONS CLASS B RIP RAP
EST. 37 S.Y. GEOTEXTILE FABRIC

EXCAVATION IN WETLANDS

–L– TS Sta. 429+06.35

CUT OVER

MILDRED S. EDWARDS, et al
WB 09E PG 135

–L– SC Sta. 431+06.35

STANDARD 3' BASE TAIL DITCH
EST. 11 TONS CLASS B RIP RAP
EST. 40 S.Y. GEOTEXTILE FABRIC
SEE DETAIL 77

REMOVE

US 158 26' BST

S 47° 56' 05.7" E

SPECIAL CUT 4' BASE DITCH SEE DETAIL 76

SPECIAL LATERAL 2' BASE DITCH SEE DETAIL 33

SPECIAL LATERAL V DITCH SEE DETAIL 25

GRADE TO DRAIN

HW

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 75

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 82

WOODS

JOHN JOSEPH BROWN
JANE BROWN
DB 710 PG 336

W&M ASSOCIATES
DB 908 PG 765

SEE ENLARGMENT SHEET 48 OF 53

MATCHLINE SEE SHEET 33 –L– STA. 433+00.00

DETAIL 4
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground, 3:1 or Flatter, D, 4:1 or Flatter, Fill Slope
Min. D = 1 Ft.

FROM –L– STA. 419+00 LT TO –L– STA. 421+90 LT
FROM –L– STA. 422+00 LT TO –L– STA. 428+00 LT

DETAIL 25
SPECIAL LATERAL "V" DITCH
(Not to Scale)

Natural Ground, 3:1, D, 4:1 or Flatter, Fill Slope
Min. D = 1 Ft.

FROM –L– STA. 429+60 RT TO –L– STA. 432+55 RT

DETAIL 33
SPECIAL LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, B, 4:1 or Flatter, Fill Slope
Min. D = 1.5 Ft.
B = 2 Ft.

FROM –L– STA. 422+20 RT TO –L– STA. 429+00 RT

DETAIL 50
SPECIAL LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, B, 4:1 or Flatter, Fill Slope
Min. D = 1 Ft.
B = 3 Ft.

FROM –L– STA. 432+55 RT TO –L– STA. 441+00 RT

DETAIL
FALSE SUMP
(Not to Scale)

Median Ditch, 9", 2', 20', GI etc.
S = L (See Chart Below)
S = Ditch Slope
℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

–L– STA. 421+86 M

DETAIL 75
SPECIAL LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, B, 4:1 or Flatter, Fill Slope
Min. D = 1 Ft.
B = 4 Ft.

FROM –L– STA. 418+50 RT TO –L– STA. 421+00 RT

DETAIL 76
SPECIAL CUT BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, B, 4:1 or Flatter, Front Ditch Slope
Min. D = 1 Ft.
B = 4 Ft.

FROM –L– STA. 421+00 RT TO –L– STA. 422+20 RT

DETAIL 77
STANDARD TAIL BASE DITCH
(Not to Scale)

Natural Ground, 3:1, d, D, 2:1, Natural Ground, Geotextile, B
Min. D = 2 Ft.
Max. d = 2 Ft.
B = 3 Ft.
*When B is < 6.0'
Type of Liner = CLASS B Rip-Rap

FROM –L– STA. 432+20 LT TO –L– STA. 432+22 LT

100' 0' 100'
SCALE

PERMIT DRAWING
SHEET 46 OF 53

2/1/2019
R:\Highways\Projects\PERMITS_Environmental\Drawings\46_R-2582A_Rdy_psh_32.dgn
mentz.bascom

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	32
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83

SEE ENLARGMENT
SHEET 48 OF 53

SITE 11

DENOTES MECHANIZED CLEARING

DENOTES EXCAVATION IN WETLAND

MATCHLINE SEE SHEET 31 –L– STA. 419+00.00

MATCHLINE SEE SHEET 33 –L– STA. 433+00.00

420+00 425+00 430+00

SPECIAL LATERAL V-DITCH SEE DETAIL 4

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

EST. 15 TONS CLASS B RIP RAP
EST. 37 S.Y. GEOTEXTILE FABRIC

EXCAVATION IN WETLANDS

REMOVE

30" RCP

15" RCP III

24" RCP III

12" RCP

–L– S 47° 56' 05.7" E

2GI TYPE A

SPECIAL CUT 4' BASE DITCH SEE DETAIL 76

HW

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 75

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 75

JOHN JOSEPH BROWN
JANE BROWN
DB 710 PG 336

W&M ASSOCIATES
DB 908 PG 765

WOODS

S 32°36'55" W

–L– TS Sta. 429+06.35

CUT OVER

SPECIAL LATERAL V-DITCH SEE DETAIL 4

SPECIAL LATERAL 2' BASE DITCH SEE DETAIL 33

GRADE TO DRAIN

MILDRED S. EDWARDS, et al
WB 09E PG 135

–L– SC Sta. 431+06.35

STANDARD 3' BASE TAIL DITCH
EST. 11 TONS CLASS B RIP RAP
EST. 40 S.Y. GEOTEXTILE FABRIC
SEE DETAIL 77

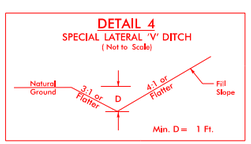
SPECIAL LATERAL V DITCH SEE DETAIL 25

36" RCP III

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 82

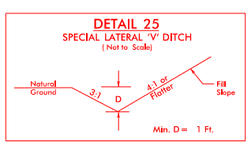
W&M ASSOCIATES
DB 908 PG 765

DETAIL 4
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



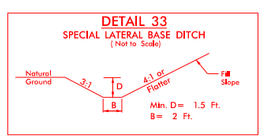
FROM –L– STA. 419+00 LT TO –L– STA. 421+90 LT
FROM –L– STA. 422+00 LT TO –L– STA. 428+00 LT

DETAIL 25
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



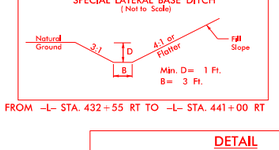
FROM –L– STA. 429+60 RT TO –L– STA. 432+55 RT

DETAIL 33
SPECIAL LATERAL BASE DITCH
(Not to Scale)



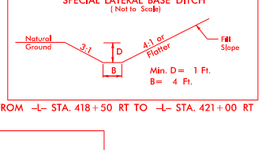
FROM –L– STA. 422+20 RT TO –L– STA. 429+00 RT

DETAIL 50
SPECIAL LATERAL BASE DITCH
(Not to Scale)



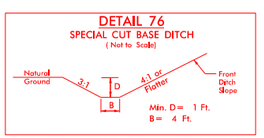
FROM –L– STA. 432+55 RT TO –L– STA. 441+00 RT

DETAIL 75
SPECIAL LATERAL BASE DITCH
(Not to Scale)



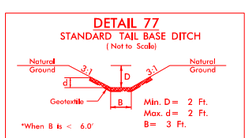
FROM –L– STA. 418+50 RT TO –L– STA. 421+00 RT

DETAIL 76
SPECIAL CUT BASE DITCH
(Not to Scale)



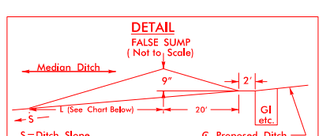
FROM –L– STA. 421+00 RT TO –L– STA. 422+20 RT

DETAIL 77
STANDARD TAIL BASE DITCH
(Not to Scale)



Type of Liner = CLASS B Rip-Rap
FROM –L– STA. 432+20 LT TO –L– STA. 432+22 LT

DETAIL
FALSE SUMP
(Not to Scale)



S = Ditch Slope
℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

–L– STA. 421+86 M

100' 0' 100'
SCALE

PERMIT DRAWING
SHEET 47 OF 53

2/7/2018
R:\Highway Projects\PERMITS_Environmental\Drawings\47_R-2582A_Rdy_psh_32.dgn
mems (pwcem)

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	32
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

SITE 11

NAD 83

DENOTES MECHANIZED CLEARING

DENOTES EXCAVATION IN WETLAND

RDS, et al
35

420+00

CUT OVER

SPECIAL LATERAL V-DITCH
SEE DETAIL 4

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL V-DITCH
SEE DETAIL 4

EST. 15 TONS CLASS B RIP RAP
EST. 37 S.Y. GEOTEXTILE FABRIC

EXCAVATION IN WETLANDS

W.L.B.

FES
INV=83.40'

REMOVE

15" RCP-III

30" RCP

US 158 26' BST

FES
INV=82.86'

REMOVE

42" RCP-III

30" RCP

100.00'

7" E

2GI

FES
INV=84.41'

-L-

S 47° 56' 05.7" E

FS

2GI
TYPE A

12" RCP

REMOVE

EXISTING R/W

EXISTING R/W

SPECIAL CUT 4' BASE DITCH
SEE DETAIL 76

24"

HW

50' 0' 50'
SCALE

WOODS

PERMIT DRAWING
SHEET 48 OF 53

2/7/2019
R:\Hydraulics\PERMITS_Environmental\Drawings\48_R-2582A_SITE11.dgn
mgmabus@mi

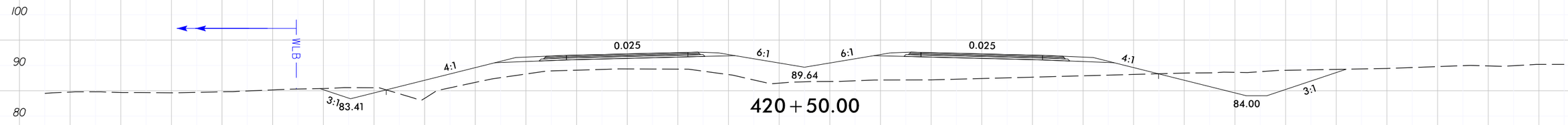
8/23/99

0 5 10

PROJ. REFERENCE NO.	SHEET NO.
R-2582A	49

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

SITE II



420 + 50.00

PERMIT DRAWING
SHEET 49 OF 53

2/7/2019
R:\Highways\Projects\PERMITS_Environmental\Drawings\49_R2582A_XS_SITE11.dgn
mem6.buscemi

8/17/99

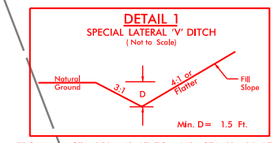
PROJECT REFERENCE NO.	SHEET NO.
R-2582A	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

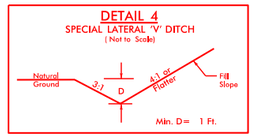
NAD 83

DETAIL 1
SPECIAL LATERAL "V" DITCH
(Not to Scale)



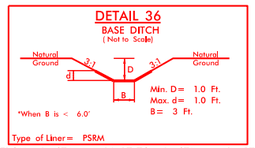
FROM –L– STA. 150+48 LT TO –Y6– STA. 11+00 LT

DETAIL 4
SPECIAL LATERAL "V" DITCH
(Not to Scale)



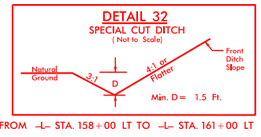
FROM –L– STA. 144+50 LT TO –L– STA. 147+00 LT
FROM –L– STA. 148+00 LT TO –L– STA. 150+43 LT

DETAIL 36
BASE DITCH
(Not to Scale)



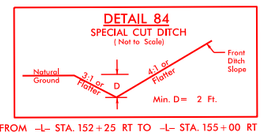
FROM –L– STA. 151+20 RT TO –L– STA. 151+37 RT

DETAIL 32
SPECIAL CUT DITCH
(Not to Scale)



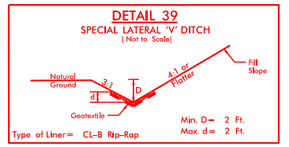
FROM –L– STA. 158+00 LT TO –L– STA. 161+00 LT

DETAIL 84
SPECIAL CUT DITCH
(Not to Scale)



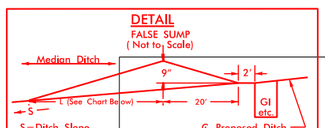
FROM –L– STA. 152+25 RT TO –L– STA. 155+00 RT

DETAIL 39
SPECIAL LATERAL "V" DITCH
(Not to Scale)



FROM –L– STA. 150+48 LT TO –L– STA. 151+00 LT

DETAIL
FALSE SUMP
(Not to Scale)

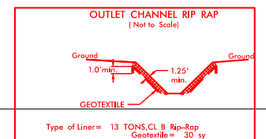


S=Ditch Slope

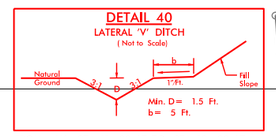
Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

–L– STA. 150+76 M
–L– STA. 152+26 M
–L– STA. 153+66 M

OUTLET CHANNEL RIP RAP
(Not to Scale)



DETAIL 40
LATERAL "V" DITCH
(Not to Scale)



FROM –Y6– STA. 11+00 LT TO STA. 12+00 LT

JANE F. WILLIFORD
DB 638 PG 14

JOHN L. FITZHUGH, JR et ux
DB 638 PG 22
MB ??? PG ????

WILBERT V. WARREN, JR
DB 616 PG 612

TIMOTHY W. OTTS, et ux
DB 811 PG 01
MB 35 PG 137

JOHN L. FITZHUGH, JR et ux
DB 562 PG 96
MB 35 PG 137

-Y6- PC Sta. 10+03.27
-Y6- PT Sta. 11+69.19
-Y6- POT Sta. 12+89.08
-Y6- S 76° 50' 01.2" E

145+00
150+00
155+00

EST. 26 TONS CLASS B RIP RAP
EST. 50 S.Y. GEOTEXTILE FABRIC

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL V-DITCH
SEE DETAIL 4

SPECIAL LATERAL V-DITCH
W/CLASS B RIP RAP
SEE DETAIL 39

SPECIAL LATERAL V-DITCH
SEE DETAIL 1

TEMPORARY IMPACTS
IN SURFACE WATER

PERMANENT IMPACTS
IN SURFACE WATER

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

BURY 0.8'
(BURY 0.8' MIN. AT ENDS)

SITE 12

LATERAL V-DITCH
SEE DETAIL 40

EST. 5 TONS CLASS B RIP RAP
EST. 14 S.Y. GEOTEXTILE FABRIC

SPECIAL CUT V-DITCH
SEE DETAIL 32

3' BASE DITCH
W/PSRM
SEE DETAIL 36

SPECIAL CUT V-DITCH
SEE DETAIL 84

TIE TO EXISTING DITCH

RETAIN

REMOVE

NORTHAMPTON COUNTY
DB 694 PG 1

PUMP STATION

MATCHLINE SEE SHEET 12 –L– STA. 145+00.00

MATCHLINE SEE SHEET 14 –L– STA. 158+00.00

SEE ENLARGEMENT
SHEET 52 OF 53

GEORGE EDWARDS
DB 16E PG 166

JOHN B. SANFILIPPO & SONS, INC
DB 687 PG 123

DAVID M. DUNLOW et ux
DB 910 PG 538

-Y5B- PC Sta. 12+43.24

-L- POC Sta. 155+50.00
-Y6- POT Sta. 10+00.00
N 39° 47' 24.3" E

-Y5B- PCC Sta. 20+57.99

PERMIT DRAWING
SHEET 50 OF 53

100' 0' 100'
SCALE

2/6/2019
C:\Users\meme.buscem\Desktop\R2582A\Hydraulics\PERMITS_Environmental\Drawings\50_R-2582A_Rdy_psh_13.dgn
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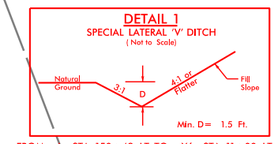
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

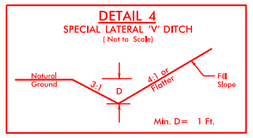
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DETAIL 1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



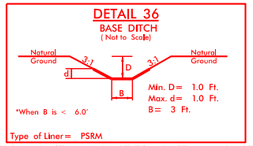
FROM –L– STA. 150+48 LT TO –Y6– STA. 11+00 LT

DETAIL 4
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



FROM –L– STA. 144+50 LT TO –L– STA. 147+00 LT
FROM –L– STA. 148+00 LT TO –L– STA. 150+43 LT

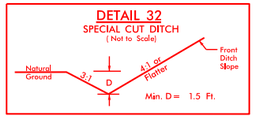
DETAIL 36
BASE DITCH
(Not to Scale)



Type of Liner= PSRM

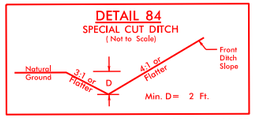
FROM –L– STA. 151+20 RT TO –L– STA. 151+37 RT

DETAIL 32
SPECIAL CUT DITCH
(Not to Scale)



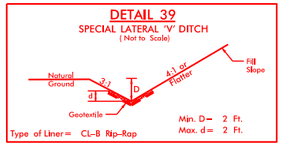
FROM –L– STA. 158+00 LT TO –L– STA. 161+00 LT

DETAIL 84
SPECIAL CUT DITCH
(Not to Scale)



FROM –L– STA. 152+25 RT TO –L– STA. 155+00 RT

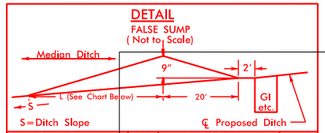
DETAIL 39
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



Type of Liner= CL-B Rip-Rap

FROM –L– STA. 150+48 LT TO –L– STA. 151+00 LT

DETAIL
FALSE SUMP
(Not to Scale)

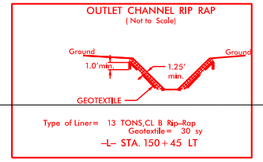


S=Ditch Slope

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

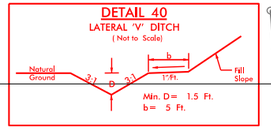
–L– STA. 150+76 M
–L– STA. 152+26 M
–L– STA. 153+66 M

OUTLET CHANNEL RIP RAP
(Not to Scale)



Type of Liner= 13 TONS,CL B Rip-Rap
Geotextile= 30 sy
–L– STA. 150+45 LT

DETAIL 40
LATERAL 'V' DITCH
(Not to Scale)



FROM –Y6– STA. 11+00 LT TO STA. 12+00 LT

NAD 83

145+00

150+00

155+00

EIP

EIP

JANE F. WILLIFORD
DB 638 PG 14

JOHN L. FITZHUGH, JR et ux
DB 638 PG 22
MB ??? PG ????

WILBERT V. WARREN, JR
DB 616 PG 612

TIMOTHY W. OTTS, et ux
DB 811 PG 01
MB 35 PG 137

JOHN L. FITZHUGH, JR et ux
DB 562 PG 96
MB 35 PG 137

-Y6- PC Sta. 10+03.27

-Y6- PT Sta. 11+69.19

-Y6- POT Sta. 12+89.08

-Y6- S 76° 50' 01.2" E

EST. 26 TONS CLASS B RIP RAP
EST. 50 S.Y. GEOTEXTILE FABRIC

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL V-DITCH
SEE DETAIL 4

SPECIAL LATERAL V-DITCH
W/CLASS B RIP RAP
SEE DETAIL 39

SPECIAL LATERAL V-DITCH
SEE DETAIL 1

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

EST. 5 TONS CLASS B RIP RAP
EST. 14 S.Y. GEOTEXTILE FABRIC

LATERAL V-DITCH
SEE DETAIL 40

TEMPORARY IMPACTS IN SURFACE WATER

PERMANENT IMPACTS IN SURFACE WATER

BURY 0.8'

REMOVE

SITE 12

3' BASE DITCH
W/PSRM
SEE DETAIL 36

SPECIAL CUT V-DITCH
SEE DETAIL 84

TIE TO EXISTING DITCH

SPECIAL CUT V-DITCH
SEE DETAIL 32

NORTHAMPTON COUNTY
DB 694 PG 1

PUMP STATION

METER AND VALVE VAULT

-L- POC Sta. 155+50.00
-Y6- POT Sta. 10+00.00
N 39° 47' 24.3" E

-Y5B- PCC Sta. 20+57.99

-Y5B- PC Sta. 12+43.24

-Y5B- S 74° 56' 56.2" E

MATCHLINE SEE SHEET 12 -L- STA. 145+00.00

MATCHLINE SEE SHEET 14 -L- STA. 158+00.00

SEE ENLARGEMENT
SHEET 52 OF 53

GEORGE EDWARDS
DB 166 PG 166

JOHN B. SANFILIPPO & SONS, INC
DB 687 PG 123

DAVID M. DUNLOW et ux
DB 910 PG 538

PERMIT DRAWING
SHEET 51 OF 53

SCALE 100' 0' 100'

2/6/2019
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PROJECT REFERENCE NO.	SHEET NO.
R-2582A	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

JANE F. WILLIFORD
DB 638 PG 14

JOHN L. FITZHUGH, JR et ux
DB 638 PG 22
MB ??? PG ????

83 DAN

EST. 26 TONS CLASS B RIP RAP
EST. 50 S.Y. GEOTEXTILE FABRIC

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

SPECIAL LATERAL V-DITCH
SEE DETAIL 4

SPECIAL LATERAL V-DITCH
W/CLASS B RIP RAP
SEE DETAIL 39

SPECIAL LATERAL V-DITCH
SEE DETAIL 1

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

TEMPORARY IMPACTS IN SURFACE WATER

TDE

PDE

BURY 0.8'

EST. 2 TONS CLASS B RIP RAP
EST. 7 S.Y. GEOTEXTILE FABRIC

15" RCP-IV

(BURY 0.8' BOTH ENDS)

48" RCP-III

15" RCP-III

SITE 12

PERMANENT IMPACTS IN SURFACE WATER

2GI-D

DI

15" RCP-IV

CULT.

FS

2GI

15"

REMOVE

15" RCP

3' BASE DITCH
W/PSRM
SEE DETAIL 36

INV=113.45'
HW

30"

BURY 0.8'

REMOVE

S B RIP RAP
TILE FABRIC

FES

TES

8" PLASTIC

TEMPORARY IMPACTS IN SURFACE WATER

15+00

INV=118.74'
DISCHARGE

INV=120.10'
24" RCP

INV=120.98'
CONCRETE

RETAIN

TIE TO EXISTING DITCH

SPECIAL CUT V-DITCH
SEE DETAIL 84

METER AND VAULT

20+06

15" RCP

PERMIT DRAWING
SHEET 52 OF 53

50' 0' 50'
SCALE

2/6/2019
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WETLAND AND SURACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-L- 34+78 to 42+09	36" RCP-III / Roadway Fill	0.38					0.01	< 0.01	101	10	
2	-L- 81+96 to 85+94	Triple 9 X 9 RCBC / Roadway Fill	0.03		0.01	0.03		0.14	0.01	226	35	
3	-L- 92+72 to 96+17	Roadway Fill	0.17		< 0.01	0.04						
4	-L- 138+79 to 144+44	42" RCP-III / Roadway Fill	2.10			0.28		0.01	< 0.01	252	21	
5	-L- 186+64 to 194+68	Roadway Fill	3.33			0.25						
6	-L- 201+68 to 205+06	Double 48" RCP-III / Roadway Fill	2.90		0.08	0.12		0.09	< 0.01	826	9	
7	-L- 248+36 to 251+62	84" RCP-IV / Roadway Fill	1.26		0.02	0.07		0.04	< 0.01	480	63	
8	-L- 282+72 to 287+92	Triple 8 X 7 RCBC / Roadway Fill	0.18			0.10		0.11	< 0.01	332	29	
9	-L- 381+38 to 390+97	Roadway Fill	0.64			0.19						
10	-L- 409+20 to 409+39	Roadway Fill				< 0.01						
11	-L- 420+24 to 421+45	Roadway Fill			< 0.01	< 0.01						
12	-L- 150+32 to 151+20	42" RCP-III / Roadway Fill						0.02	< 0.01	209	20	
TOTALS*:			10.99		0.11	1.09		0.43	0.03	2426	187	0

*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
02/07/2019
NORTHAMPTON COUNTY
R-2582A
34472.1.4
SHEET 53 OF 53

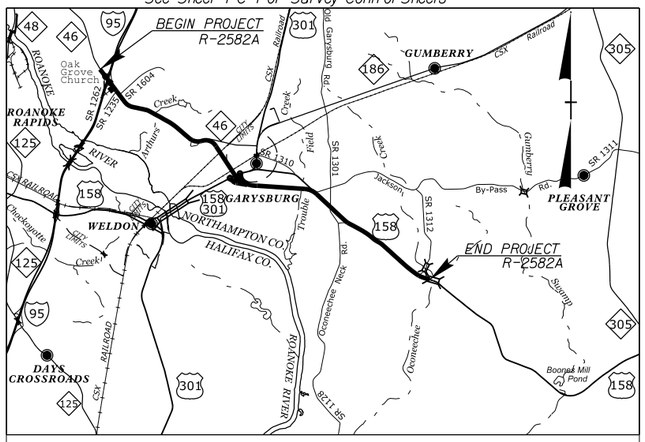
Revised 2016 09 09

09/08/99

TIP PROJECT: R-2582A

CONTRACT: C204210

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



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

NORTHAMPTON COUNTY

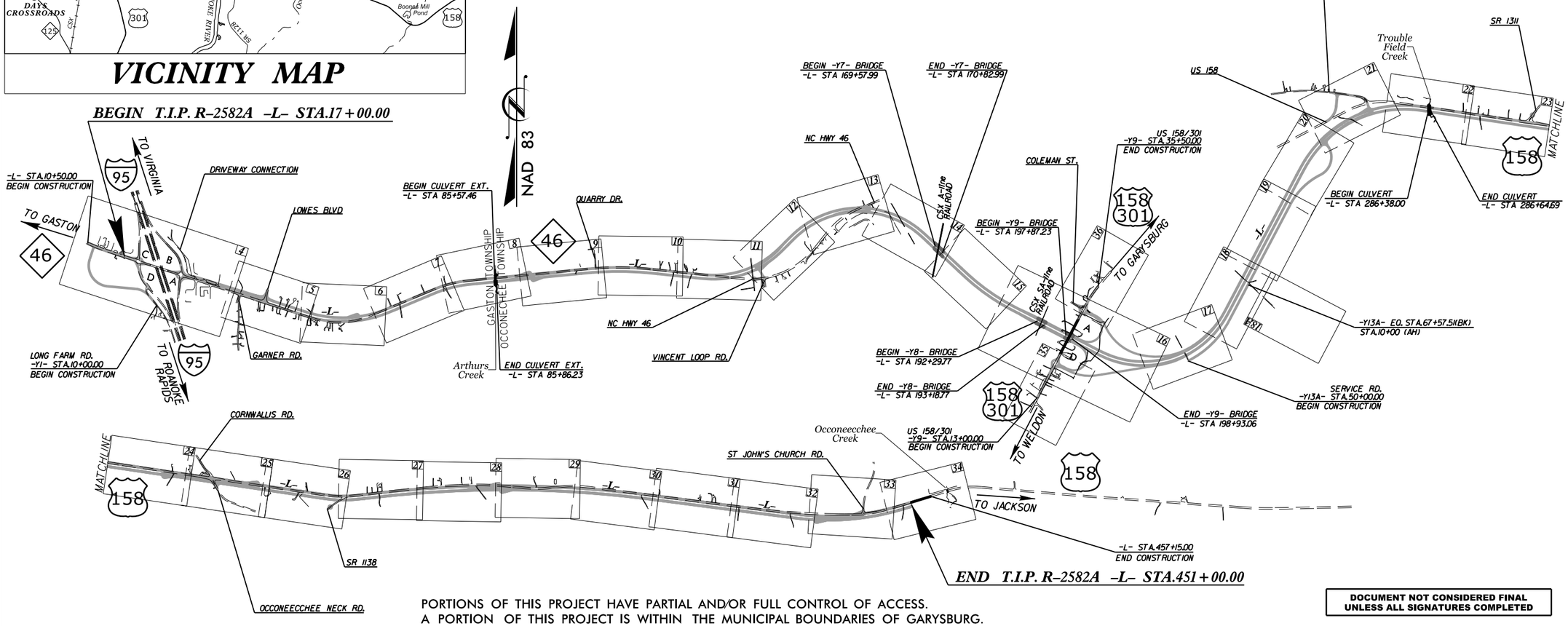
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2582A	1	4

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
34472.1.4		PE
34472.2.4		R/W, UTIL.
34472.3.2		CONSTRUCTION

LOCATION: US 158 FROM I-95/NC 46 IN ROANOKE RAPIDS TO SR 1312 (ST. JOHN CHURCH RD)

WETLAND AND SURFACE WATER IMPACTS PERMIT





PORTIONS OF THIS PROJECT HAVE PARTIAL AND/OR FULL CONTROL OF ACCESS.
A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF GARYSBURG.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

PLANS: 50 25 0 50 100
PROFILE (HORIZONTAL): 50 25 0 50 100
PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

ADT 2019 = 6400
ADT 2039 = 8418
K = 11 %
D = 60 %
T = 21 % *
V = 70 MPH
* TTST =14 DUAL=7
FUNC CLASS = EXPRESSWAY
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY T.I.P. PROJECT R-2582A = 8.149 MILES
LENGTH STRUCTURE T.I.P. PROJECT R-2582A = 0.071 MILES
TOTAL LENGTH OF T.I.P. PROJECT R-2582A = 8.220 MILES

GARY LOVERING, PE
NCDOT CONTACT

Prepared in the Office of:
SUMMIT DESIGN AND ENGINEERING SERVICES FIRM NO. P-0339
504 Meadowland Drive
Hillsborough, NC 27278-8551
Voice: (919) 732-3883
Fax: (919) 732-6776
www.summitde.net

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: June 30, 2017

LETTING DATE: April 16, 2019

TRACY N. PARROTT, PE
PROJECT ENGINEER

REKHA V. PATEL, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

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5/14/99

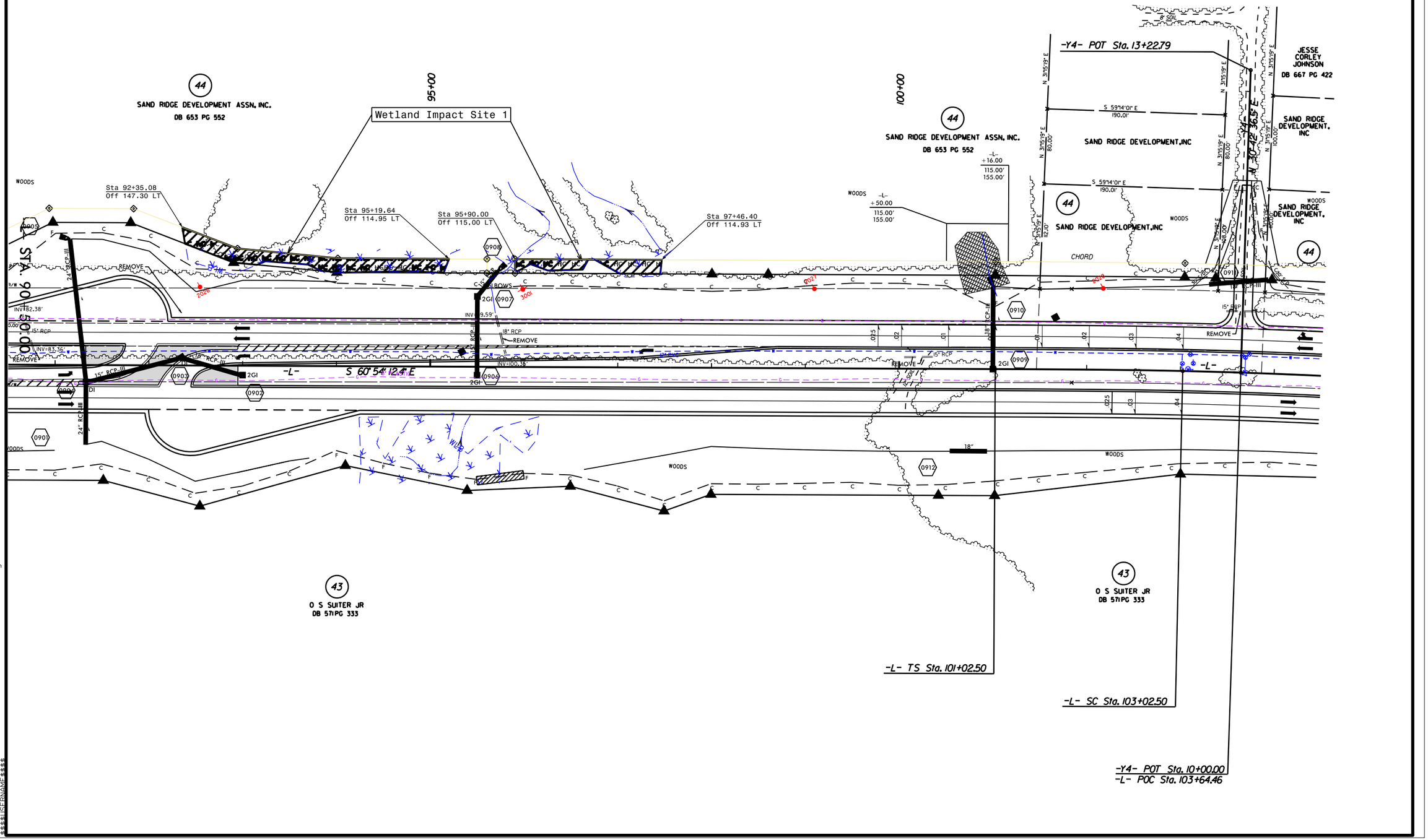
PROJECT REFERENCE NO.	SHEET NO.
R-2582A	UE-2
THIS SHEET CORRESPONDS TO RDY-9	

WETLAND AND SURFACE WATER IMPACTS PERMIT

HC HC DENOTES HAND CLEARING

UTILITIES BY OTHERS

ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.



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WETLAND PERMIT IMPACT SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-L- Sta 92+35 to	Utility Easement					0.13					
	-L- Sta 97+46											
TOTALS*:							0.13			0	0	0

*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Northampton County
R-2852A
34472.1.4

SHEET 4 OF 4

Revised 2013 10 24