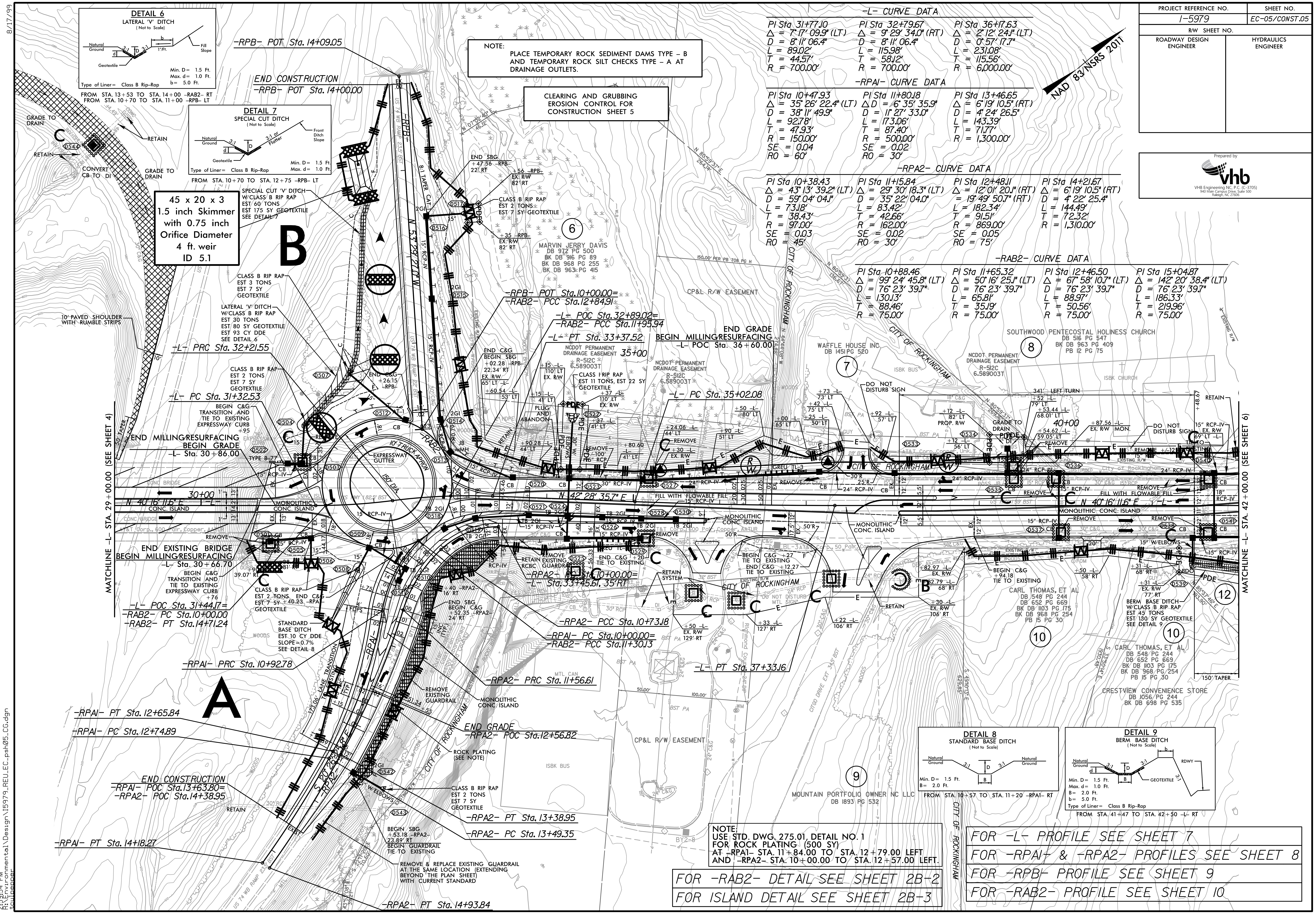

PROJECT REFERENCE NO. I-5979
SHEET NO. EC-05/CONST.05
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
Prepared by vhb
VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606
NAD 83/NSRS 2011
8/17/99
-L- CURVE DATA
PI Sta 31+77.10 △ = 7° 17' 09.9" (LT) D = 8° 11' 06.4" L = 89.02' T = 44.57' R = 700.00'
PI Sta 32+79.67 △ = 9° 29' 34.0" (RT) D = 8° 11' 06.4" L = 115.98' T = 58.12' R = 700.00'
PI Sta 36+17.63 △ = 2° 12' 24.1" (LT) D = 0° 57' 17.7" L = 231.08' T = 115.56' R = 6,000.00'
-RPA1- CURVE DATA
PI Sta 10+47.93 △ = 35° 26' 22.4" (LT) D = 38° 11' 49.9" L = 92.78' T = 47.93' R = 150.00' SE = 0.04 RO = 60'
PI Sta 11+80.18 △D = 6° 35' 35.9" D = 11° 27' 33.0" L = 173.06' T = 87.40' R = 500.00' SE = 0.02 RO = 30'
PI Sta 13+46.65 △ = 6° 19' 10.5" (RT) D = 4° 24' 26.5" L = 143.39' T = 71.77' R = 1,300.00'
-RPA2- CURVE DATA
PI Sta 10+38.43 △ = 43° 13' 39.2" (LT) D = 59° 04' 04.1" L = 73.18' T = 38.43' R = 97.00' SE = 0.03 RO = 45'
PI Sta 11+15.84 △ = 29° 30' 18.3" (LT) D = 35° 22' 04.0" L = 83.42' T = 42.66' R = 162.00' SE = 0.02 RO = 30'
PI Sta 12+48.11 △ = 12° 01' 20.1" (RT) = 19° 49' 50.7" (RT) L = 182.34' T = 91.51' R = 869.00' SE = 0.05 RO = 75'
PI Sta 14+21.67 △ = 6° 19' 10.5" (RT) D = 4° 22' 25.4" L = 144.49' T = 72.32' R = 1,310.00'
-RAB2- CURVE DATA
PI Sta 10+88.46 △ = 99° 24' 45.8" (LT) D = 76° 23' 39.7" L = 130.13' T = 88.46' R = 75.00'
PI Sta 11+65.32 △ = 50° 16' 25.1" (LT) D = 76° 23' 39.7" L = 65.81' T = 35.19' R = 75.00'
PI Sta 12+46.50 △ = 67° 58' 10.7" (LT) D = 76° 23' 39.7" L = 88.97' T = 50.56' R = 75.00'
PI Sta 15+04.87 △ = 142° 20' 38.4" (LT) D = 76° 23' 39.7" L = 186.33' T = 219.96' R = 75.00'
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5
DETAIL 6 LATERAL 'V' DITCH (Not to Scale)
Natural Ground 3:1 D 3:1 d b 1"/Ft. Fill Slope Geotextile
Min. D = 1.5 Ft. Max. d = 1.0 Ft. b = 5.0 Ft.
Type of Liner = Class B Rip-Rap
FROM STA. 13+53 TO STA. 14+00 -RAB2- RT
FROM STA. 10+70 TO STA. 11+00 -RPB- LT
DETAIL 7 SPECIAL CUT DITCH (Not to Scale)
Natural Ground 3:1 D d 3:1 or Flatter Front Ditch Slope Geotextile
Min. D = 1.5 Ft. Max. d = 1.0 Ft.
Type of Liner = Class B Rip-Rap
FROM STA. 10+70 TO STA. 12+75 -RPB- LT
45 x 20 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
4 ft. weir
ID 5.1
B
A
-RPB- POT Sta. 14+09.05
END CONSTRUCTION -RPB- POT Sta. 14+00.00
SPECIAL CUT 'V' DITCH W/CLASS B RIP RAP EST 60 TONS EST 175 SY GEOTEXTILE SEE DETAIL 7
CLASS B RIP RAP EST 3 TONS EST 7 SY GEOTEXTILE
LATERAL 'V' DITCH W/CLASS B RIP RAP EST 30 TONS EST 80 SY GEOTEXTILE EST 93 CY DDE SEE DETAIL 6
-L- PRC Sta. 32+21.55
CLASS B RIP RAP EST 2 TONS EST 7 SY GEOTEXTILE
-L- PC Sta. 31+32.53
BEGIN C&G TRANSITION AND TIE TO EXISTING EXPRESSWAY CURB +95
END MILLING/RESURFACING BEGIN GRADE -L- Sta. 30+86.00
END EXISTING BRIDGE BEGIN MILLING/RESURFACING -L- Sta. 30+66.70
BEGIN C&G TRANSITION AND TIE TO EXISTING EXPRESSWAY CURB +76
-L- POC Sta. 31+44.17= -RAB2- PC Sta. 10+00.00 -RAB2- PT Sta. 14+71.24
STANDARD BASE DITCH EST 10 CY DDE SLOPE = 0.7% SEE DETAIL 8
-RPA1- PRC Sta. 10+92.78
-RPA1- PT Sta. 12+65.84
-RPA1- PC Sta. 12+74.89
END CONSTRUCTION -RPA1- POC Sta. 13+63.80= -RPA2- POC Sta. 14+38.95
-RPA1- PT Sta. 14+18.27
MATCHLINE -L- STA. 29+00.00 (SEE SHEET 4)
MATCHLINE -L- STA. 42+00.00 (SEE SHEET 6)
10' PAVED SHOULDER WITH RUMBLE STRIPS
GRADE TO DRAIN
RETAIN
CONVERT CB TO DI
END SBG +47.56 -RPB- 22' RT
+56 -RPB- EX. R/W 82' RT
CLASS B RIP RAP EST 2 TONS EST 7 SY GEOTEXTILE
+35 -RPB- EX. R/W 82' RT
6 MARVIN JERRY DAVIS DB 972 PG 500 BK DB 916 PG 89 BK DB 968 PG 255 BK DB 963 PG 415
-RPB- POT Sta. 10+00.00= -RAB2- PCC Sta. 12+84.91
-L- POC Sta. 32+89.02= -RAB2- PCC Sta. 11+95.94
-L- PT Sta. 33+37.52
END GRADE BEGIN MILLING/RESURFACING -L- POC Sta. 36+60.00
NCDOT PERMANENT DRAINAGE EASEMENT R-512C 6.589003T
CLASS I RIP RAP EST 11 TONS, EST 22 SY GEOTEXTILE
-L- PC Sta. 35+02.08
CP&L R/W EASEMENT
CITY OF ROCKINGHAM
7 WAFFLE HOUSE INC DB 1451 PG 520
8 SOUTHWOOD PENTECOSTAL HOLINESS CHURCH DB 516 PG 547 BK DB 963 PG 409 PB 12 PG 75
341' LEFT TURN
N 42° 28' 35.7" E
N 40° 16' 11.6" E
FILL WITH FLOWABLE FILL
MONOLITHIC CONC. ISLAND
10' TRUCK APRON
EXPRESSWAY GUTTER
150' DIA.
-RPA2- PCC Sta. 10+73.18
-RPA1- PC Sta. 10+00.00= -RAB2- PCC Sta. 11+30.13
-RPA2- PRC Sta. 11+56.61
-L- PT Sta. 37+33.16
END GRADE -RPA2- POC Sta. 12+56.82
ROCK PLATING (SEE NOTE)
REMOVE EXISTING GUARDRAIL
-RPA2- PT Sta. 13+38.95
-RPA2- PC Sta. 13+49.35
BEGIN SBG +53.18 -RPA2- 23.89' RT BEGIN GUARDRAIL TIE TO EXISTING
REMOVE & REPLACE EXISTING GUARDRAIL AT THE SAME LOCATION (EXTENDING BEYOND THE PLAN SHEET) WITH CURRENT STANDARD
-RPA2- PT Sta. 14+93.84
9 MOUNTAIN PORTFOLIO OWNER NC LLC DB 1893 PG 532
10 CARL THOMAS, ET AL DB 548 PG 244 DB 652 PG 669 BK DB 1103 PG 175 BK DB 968 PG 254 PB 15 PG 30
CRESTVIEW CONVENIENCE STORE DB 1056 PG 244 BK DB 698 PG 535
BERM BASE DITCH W/CLASS B RIP RAP EST 45 TONS EST 130 SY GEOTEXTILE SEE DETAIL 9
150' TAPER
DETAIL 8 STANDARD BASE DITCH (Not to Scale)
Natural Ground 3:1 D 3:1 Natural Ground B
Min. D = 1.5 Ft. B = 2.0 Ft.
FROM STA. 10+57 TO STA. 11+20 -RPA1- RT
DETAIL 9 BERM BASE DITCH (Not to Scale)
Natural Ground d 3:1 D 3:1 b RDWY 3:1 GEOTEXTILE B
Min. D = 1.5 Ft. Max. d = 1.0 Ft. B = 2.0 Ft. b = 5.0 Ft.
Type of Liner = Class B Rip-Rap
FROM STA. 41+47 TO STA. 42+50 -L- RT
NOTE: USE STD. DWG. 275.01, DETAIL NO. 1 FOR ROCK PLATING (500 SY) AT -RPA1- STA. 11+84.00 TO STA. 12+79.00 LEFT AND -RPA2- STA. 10+00.00 TO STA. 12+57.00 LEFT.
FOR -RAB2- DETAIL SEE SHEET 2B-2
FOR ISLAND DETAIL SEE SHEET 2B-3
FOR -L- PROFILE SEE SHEET 7
FOR -RPA1- & -RPA2- PROFILES SEE SHEET 8
FOR -RPB- PROFILE SEE SHEET 9
FOR -RAB2- PROFILE SEE SHEET 10
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