

DRAINAGE NOTES

- 1 STA 10+055, LT 5.9 m - STA 10+100, LT 4.8 m
150 x 45.9 m UNDERDRAIN
INV. AT STA 10+055 = 77.457
FLUSHING BASIN, +055, LT 5.9 m
- 2 STA 10+055, RT 5.3 m - STA 10+100, RT 4.8 m
150 x 45.3 m UNDERDRAIN
INV. AT STA 10+055 = 77.865
FLUSHING BASIN, +055, RT 5.3 m
- 3 DRIVE CULVERT
STA 10+072, LT 10.8 m - STA 10+087, LT 10.9 m
375 x 15.0 m PCCSP, CAAP, OR CPEP
CSP OR CAAP END SECTION AT STA 10+072, LT 10.8 m
INV. AT STA 10+072 = 78.500
CSP OR CAAP END SECTION AT STA 10+087, LT 10.9 m
INV. AT STA 10+087 = 78.394
- 4 INLET PIPE
STA 10+100, LT 10.4 m - LT 4.8 m
450 x 5.3 m PCCSP, CAAP, OR CPEP
CSP OR CAAP END SECTION AT STA 10+100, LT 10.4 m
INV. AT STA 10+100 = 78.170
- 5 STA 10+100, RT 4.8 m - LT 4.8 m
350 x 575 x 9.0 m RCP (111) ELLIPTICAL PIPE (NO OPTION)
RC - DI WITH GRATE, TYPE E AT STA 10+100, RT 4.8 m
RIM EL. = 79.012
INV. IN (S) = 77.640 (150 UND)
INV. OUT (W) = 77.564
- 6 STA 10+100, LT 4.8 m - STA 10+168, LT 4.8 m
450 x 67.4 m RCP (111), CAAP, PCCSP, OR CPEP (SL)
RC - DI WITH GRATE, TYPE E AT STA 10+100, LT 4.8 m
RIM EL. = 79.012
INV. IN (S) = 77.158 (150 UND)
INV. IN (W) = 77.610
INV. IN (E) = 77.480
INV. OUT (N) = 76.966
- 7 STA 10+102, RT 5.3 m - STA 10+147, RT 8.1 m
150 x 46.3 m UNDERDRAIN
INV. AT STA 10+102 = 76.982
FLUSHING BASIN, +102, RT 5.3 m
- 8 STA 10+102, LT 5.9 m - STA 10+168, LT 4.8 m
150 x 66.9 m UNDERDRAIN
INV. AT STA 10+102 = 77.109
FLUSHING BASIN, +102, LT 5.9 m
- 9 STA 10+168, RT 4.8 m - LT 4.8 m
450 x 9.0 m RCP (111), CAAP, PCCSP, OR CPEP (SL)
RC - DI WITH GRATE, TYPE E AT STA 10+168, RT 4.8 m
RIM EL. = 78.045
INV. IN (S) = 76.552
INV. OUT (W) = 76.521
- 10 STA 10+147, RT 8.1 m - STA 10+168, RT 4.8 m
450 x 20.4 m RCP (111), CAAP, PCCSP, OR CPEP (SL)
RC - DI WITH GRATE, TYPE E AT STA 10+147, RT 8.1 m
RIM EL. = 78.175
INV. IN (S) = 76.876 (150 UND)
INV. OUT (N) = 76.803
- 11 STA 10+178, LT 5.9 m - STA 10+220, LT 4.8 m
150 x 41.3 m UNDERDRAIN
INV. AT STA 10+178 = 76.199
FLUSHING BASIN, +178, LT 5.9 m
- 12 STA 10+170, RT 5.3 m - STA 10+220, RT 4.8 m
150 x 51.1 m UNDERDRAIN
INV. AT STA 10+170 = 76.233
FLUSHING BASIN, +170, RT 5.3 m

- 13 STA 10+168, LT 4.8 m - STA 10+196, LT 10.1 m
450 x 27.1 m RCP (111), CAAP, PCCSP, OR CPEP (SL)
RC - DI WITH GRATE, TYPE E AT STA 10+168, LT 4.8 m
RIM EL. = 77.992
INV. IN (W) = 76.529 (150 UND.)
INV. IN (S) = 76.364
INV. IN (E) = 76.364
INV. OUT (N) = 76.288
- 14 STA 10+196, LT 10.1 m - STA 10+211, LT 11.2 m
450 x 13.4 m RCP (111), CAAP, PCCSP, OR CPEP (SL)
RC - CB WITH GRATE, TYPE A AT
STA 10+196, LT 10.1 m
RIM EL. = 77.333
INV. IN (S) = 75.806
INV. OUT (N) = 75.775
- 15 STA 10+211, LT 11.2 m - STA 10+272, LT 14.3 m
450 x 59.0 m RCP (111), CAAP, PCCSP, OR CPEP (SL)
RC - CB WITH GRATE, TYPE D AT
STA 10+211, LT 11.2 m
RIM EL. = 77.159
INV. IN (S) = 75.641
INV. OUT (N) = 75.610
- 16 STA 10+193.4, LT 4.8 m - STA 10+220, LT 4.8 m
450 x 25.7 m RCP (111), CAAP, PCCSP, OR CPEP (SL)
RC - DI WITH GRATE, TYPE E AT
STA 10+193.4, LT 4.8 m
RIM EL. = 77.606
INV. OUT (N) = 75.742
- 17 STA 10+270, LT 5.3 m - STA 10+220, LT 4.8 m
150 x 53.6 m UNDERDRAIN
INV. AT STA 10+270 = 76.471
FLUSHING BASIN, +270, LT 5.3 m
- 18 STA 10+220, RT 4.8 m - LT 4.8 m
450 x 9.0 m RCP (111), CAAP, PCCSP, OR CPEP (SL)
RC - DI WITH GRATE, TYPE D AT
STA 10+220, RT 4.8 m
RIM EL. = 77.510
INV. IN (N) = 75.966 (150 UND)
INV. IN (S) = 75.966 (150 UND)
INV. OUT (W) = 75.681
- 19 STA 10+270, RT 5.3 m - STA 10+220, RT 4.8 m
150 x 50.2 m UNDERDRAIN
INV. AT STA 10+270 = 76.300
FLUSHING BASIN, +270, RT 5.3 m
- 20 STA 10+220, LT 4.8 m - STA 10+256.2, LT 8.5 m
450 x 35.1 m RCP (111), CAAP, PCCSP, OR CPEP (SL)
RC - DI WITH GRATE, TYPE D AT
STA 10+220, LT 4.8 m
RIM EL. = 77.354
INV. IN (S) = 75.498
INV. IN (W) = 75.776 (150 UND.)
INV. IN (N) = 75.776 (150 UND.)
INV. IN (E) = 75.597
INV. OUT (N) = 75.467
- 21 STA 10+301, RT 5.9 m - STA 10+272, RT 4.8 m
150 x 29.3 m UNDERDRAIN
INV. AT STA 10+301 = 77.657
FLUSHING BASIN, +301, RT 5.9 m
- 22 STA 10+303, RT 4.8 m - STA 10+272, RT 4.8 m
450 x 30.1 m RCP (111), CAAP, PCCSP, OR CPEP (SL)
RC - DI WITH GRATE, TYPE E AT
STA 10+303, RT 4.8 m
RIM EL. = 79.747
INV. IN (W) = 77.750
INV. OUT (S) = 77.719
- 23 STA 10+303, LT 4.8 m - RT 4.8 m
450 x 9.0 m RCP (111), CAAP, PCCSP, OR CPEP (SL)
RC - DI WITH GRATE, TYPE E AT STA 10+303, LT 4.8 m
RIM EL. = 79.747
INV. OUT (E) = 79.818

- 24 STA 10+272, RT 4.8 m - LT 5.0 m
450 x 8.9 m RCP (111), CAAP, PCCSP, OR CPEP (SL)
RC - CB WITH GRATE, TYPE E AT STA 10+272, RT 4.8 m
RIM EL. = 78.376
INV. IN (E) = 76.652 (150 UND.)
INV. IN (N) = 76.527
INV. OUT (W) = 76.310
- 25 STA 10+301, LT 5.3 m - STA 10+272, LT 5.0 m
150 x 29.0 m UNDERDRAIN
INV. AT STA 10+301 = 77.657
FLUSHING BASIN, +301, LT 5.3 m
- 26 STA 10+256.2, LT 8.5 m - STA 10+272, LT 14.3 m
450 x 15.6 m CONCRETE ENCASED RCP (111),
OR "HEAVY DUTY" CPEP (SL)
RC - CB WITH GRATE, TYPE D AT STA 10+256.2, LT 8.5 m
RIM EL. = 77.722
INV. IN (S) = 75.119
INV. OUT (N) = 74.357
- 27 STA 10+272, LT 5.0 m - LT 14.3 m
450 x 8.4 m RCP (111), CAAP, PCCSP, OR CPEP (SL)
RC - DI WITH GRATE, TYPE E AT STA 10+272, LT 5.0 m
RIM EL. = 78.368
INV. IN (E) = 76.226
INV. IN (N) = 76.519 (150 UND.)
INV. OUT (W) = 76.195
- 28 STA 10+272, LT 14.3 m - STA 10+276, LT 14.3 m
600 x 2.8 m RCP (111), CAAP, PCCSP, OR CPEP (SL)
RC - MH WITH COVER AT STA 10+272, LT 14.3 m
RIM EL. = 78.190
INV. IN (S) = 75.020
INV. IN (SE) = 74.170
INV. IN (E) = 76.114
INV. OUT (N) = 74.094
- 29 STA 10+276, LT 14.3 m - STA 10+296, LT 16.4 m
600 x 13.3 m RCP (111), CAAP, PCCSP, OR CPEP (SL)
PC - STORMCEPTOR UNIT (STC2400) OR EQUAL AT
STA 10+276, LT 14.3 m
RIM EL. = 78.160
INV. IN (S) = 74.038
INV. OUT (N) = 74.007
- 30 STA 10+296, LT 16.4 m - STA 10+322, LT 18.3 m
600 x 25.6 m RCP (111) (NO PIPE OPTION)
RC - DI (750 MIN.) WITH GRATE, TYPE A AT
STA 10+296, LT 16.4 m
RIM EL. = 77.372
INV. IN (S) = 73.851
INV. OUT (N) = 73.820
RC HEADWALL AT STA 10+322, LT 18.3 m
INV. AT STA 10+322 = 73.515
IF OUTLET IS IN BEDROCK, CONST. 1200 WIDE CHANNEL WITH
4V:1H SIDESLOPES TO POINT WHERE LEDGE DROPS OFF TO RIVER.

IF OUTLET IS ABOVE BEDROCK, CONST. 3600 WIDE X 1200 DEEP
STONE FILLED PAD, TYPE II AT OUTLET AND CONST. 1800 WIDE
CHANNEL WITH 1:2 SIDESLOPES TO POINT WHERE CHANNEL
DROPS OFF TO RIVER.
- 31 STA 10+423, LT 17.0 m - RT 40.0 m
450 x 26.4 m PCCSP, CAAP OR CPEP
PROPOSED PIPE SHALL BE PLACED THROUGH EXISTING
BINWALL AT LT 10.1 m. ALL COSTS INCIDENTAL TO PIPE.
RC - HEADWALL AT STA 10+423, LT 17.0 m
INV. IN AT STA 10+423, LT = 81.025

- 32 STA 10+540, LT 16.4 m - STA 10+416, LT 16.7 m
1800 WIDE X 300 DEEP STONE FILL DITCH, TYPE I
EL. AT STA 10+416 = 81.265
LOW POINT IN DITCH AT STA 10+423, LT 18.2 m
EL. AT STA 10+423 = 81.133
- 33 STA 10+590, LT 10.1 m - STA 10+540, LT 16.4 m
1200 WIDE X 300 DEEP STONE FILL DITCH, TYPE I
EL. AT STA 10+590 = 95.711
EL. AT STA 10+540 = 90.547
- 34 STA 10+423, RT 10.0 m - STA 10+420, RT 24.2 m
450 x 13.9 m PCCSP, CAAP, OR CPEP
RC - 3.0 m DROP MH WITH COVER AT STA 10+420, RT 10.0 m
RIM EL. = 83.444
INV. IN (W) = 78.643
INV. IN (N) = 81.646
INV. OUT (E) = 78.567
CSP OR CAAP END SECTION AT STA 10+420, RT 24.2 m
INV. AT STA 10+420 = 75.793
5000 WIDE X 1200 DEEP STONE FILL PAD, TYPE II AT OUTLET
(SEE SWALE DETAIL "B")
- 35 STA 10+425, RT 7.3 m - STA 10+423, RT 10.0 m
450 x 1.7 m PCCSP, CAAP, OR CPEP
PC - STORMCEPTOR UNIT (STC1800) OR EQUAL AT
STA 10+425, RT 7.3 m
RIM EL. = 84.884
INV. IN (N) = 81.749
INV. OUT (S) = 81.718
- 36 STA 10+428, RT 4.8 m - STA 10+425, RT 7.3 m
450 x 2.1 m PCCSP, CAAP, OR CPEP
RC - CB WITH GRATE, TYPE E AT STA 10+428, RT 4.8 m
RIM EL. = 85.372
INV. IN (W) = 81.939
INV. OUT (S) = 81.863
- 37 STA 10+428, LT 4.8 m - RT 4.8 m
450 x 8.4 m PCCSP, CAAP, OR CPEP
RC - CB WITH GRATE, TYPE E AT STA 10+428, LT 4.8 m
RIM EL. = 85.372
INV. IN (S) = 82.267
INV. IN (N) = 83.105
INV. OUT (E) = 82.191
- 38 STA 10+409, LT 4.8 m - STA 10+428, LT 4.8 m
450 x 18.1 m PCCSP, CAAP, OR CPEP
RC - DI WITH GRATE, TYPE E AT STA 10+409, LT 4.8 m
RIM EL. = 84.517
INV. IN (E) = 82.719
INV. OUT (N) = 82.668
- 39 STA 10+409, RT 4.8 m - LT 4.8 m
450 x 9.0 m PCCSP, CAAP, OR CPEP
RC - DI WITH GRATE, TYPE E AT STA 10+409, RT 4.8 m
RIM EL. = 84.517
INV. OUT (W) = 82.884

GENERAL DRAINAGE NOTES

1. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO STORM DRAIN CONSTRUCTION. ANY CONFLICTS BETWEEN THE ACTUAL LOCATION AND DESIGN SHALL BE REPORTED TO THE RESIDENT ENGINEER FOR RESOLUTION.
2. EXTRUDED POLYSTYRENE INSULATION BOARD (50 MIN. IN.) SHALL BE INSTALLED BETWEEN STORM DRAIN AND WATERLINE IF CLEARANCE IS LESS THAN 450 mm. COST SHALL BE INCIDENTAL TO PIPE COST.

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83 (92)

STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of	COLCHESTER-SOUTH BURLINGTON	Bridge No.	6
Highway No.	TH 4/3	Log Sta.	
		Surv. Sta.	
TH 4/3 OVER WINDOSKI RIVER & N.E.C.R.			
DRAINAGE & SEWER NOTES/DETAILS (1 OF 2)			
Designed By	S.W. BEKIER	Drawn By	C.S. MERCER
Checked By	Date	Bridge Design Supervisor	
D.M. PECK	6/03	S.M. GUNN	Date 6/03
PROJECT	COLCHESTER-SOUTH BURLINGTON	PROJECT NO.	BRM 5600 (6) S/C/2
I.G.C. Info.			
Bridge Sheet No.	ZD139DR1	R.O.W. SHEET 5	OF 21

VANASSE HANGEN BRUSTLIN, INC.