BIORETENTION AREA NOTES:

1. BIORETENTION AREAS SHALL BE PROVIDED IN ACCORDANCE WITH THE VIRGINIA DEQ STORMWATER DESIGN SPECIFICATION #9, VERSION 2.0.
2. COMPONENTS AND DIMENSIONS DEPICTED IN BIORETENTION AREA #1, SECTION #1, SHALL APPLY TO BIORETENTION AREA #2 WITH THE FOLLOWING EXCEPTIONS:
   - 2.1. BIORETENTION AREA #2 IS 15' IN WIDTH.
   - 2.2. TOP OF BIORETENTION AREA #2 IS 423.00.
3. GENERAL FILTER MEDIA COMPOSITION:
   - 3.1. 80–90% SAND
   - 3.2. 10–20% SOIL FINES
   - 3.3. 3–5% ORGANIC MATTER
4. FILTER MEDIA TESTING:
   - 4.1. AVAILABLE P BETWEEN L+ AND M, PER DCR 2005 NUTRIENT MANAGEMENT CRITERIA
   - 4.2. FILTER MEDIA SHALL BE CERTIFIED BY THE SUPPLIER.
5. GEOTEXTILE FABRIC/LINER:
   - 5.1. NONWOVEN GEOTEXTILE FABRIC W/ FLOW RATE > 110 GAL/MIN/SF
     - 5.1.1. (E.G. GEOTEX 351 OR EQUIVALENT)
     - 5.1.2. INSTALL ABOVE UNDERDRAIN & SIDES OF BIORETENTION ONLY
     - 5.1.3. 6" OVERLAP
6. UNDERDRAINS & OBSERVATIONAL WELLS:
   - 6.1. 6" SCHEDULE 40 PVC W/ ⅜" PERFORATIONS @ 6" ON CENTER

BIORETENTION AREA CONSTRUCTION NOTES:

STEP 1. CONSTRUCTION OF THE BIORETENTION AREA MAY ONLY BEGIN AFTER THE ENTIRE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED WITH VEGETATION.

STEP 2. CONTRACTOR SHALL SCHEDULE A PRECONSTRUCTION MEETING WITH THE ENGINEER, AT WHICH TIME, THE BOUNDARIES OF THE CONTRIBUTING DRAINAGE AREA AND THE ACTUAL INLET ELEVATIONS WILL BE VERIFIED TO ENSURE THEY CONFORM TO THE DESIGN.

STEP 3. TEMPORARY E&S CONTROLS SHALL BE PROVIDED AS REQUIRED DURING CONSTRUCTION OF THE BIORETENTION AREA TO DIVERT STORMWATER AWAY FROM THE BIORETENTION AREA UNTIL IT IS COMPLETED. SPECIAL PROTECTION MEASURES SUCH AS EROSION CONTROL FABRICS MAY BE NEEDED TO PROTECT VULNERABLE SIDE SLOPES FROM EROSION DURING THE CONSTRUCTION PROCESS.

STEP 4. ANY PRE–TREATMENT CELLS SHALL BE EXCAVATED AND SEALED TO TRAP SEDIMENTS.

STEP 5. EXCAVATORS OR BACKHOES SHALL WORK FROM THE SIDES TO EXCAVATE THE BIORETENTION AREA TO ITS APPROPRIATE DESIGN DEPTH AND DIMENSIONS. EXCAVATING EQUIPMENT SHALL HAVE SCOOPS WITH ADEQUATE REACH SO THEY DO NOT SIT INSIDE THE FOOTPRINT OF THE BIORETENTION AREA.

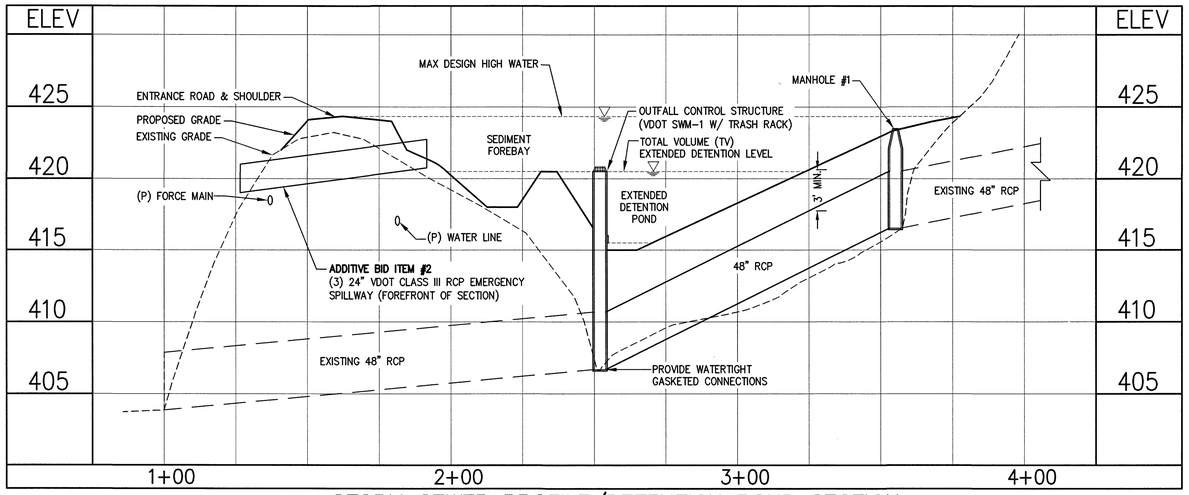
STEP 6. RIP THE BOTTOM SOILS OF THE BIORETENTION TO A DEPTH OF 6 TO 12 INCHES TO PROMOTE GREATER INFILTRATION.

STEP 7. PLACE GEOTEXTILE FABRIC ON THE SIDES OF THE BIORETENTION AREA WITH A 6–INCH OVERLAP ON THE SIDES. PLACE THE APPROPRIATE DEPTH OF #57 STONE ON THE BOTTOM, PROVIDE THE PERFORATED UNDERDRAIN PIPE, PROVIDE #57 STONE AND GEOTEXTILE OVER PIPE, AND PROVIDE CHOKER STONE LAYER.

STEP 8. OBTAIN THE SOIL MEDIA FROM A QUALIFIED VENDOR, AND STORE IT ON AN ADJACENT IMPERVIOUS AREA OR PLASTIC SHEETING. AFTER VERIFYING THAT THE MEDIA MEETS THE SPECIFICATIONS, APPLY THE MEDIA IN 12–INCH LIFTS UNTIL THE DESIRED TOP ELEVATION OF THE BIORETENTION AREA IS ACHIEVED. WAIT 3–5 DAYS TO CHECK FOR SETTLEMENT, AND ADD ADDITIONAL MEDIA, AS NEEDED, TO ACHIEVE THE DESIGN ELEVATION.

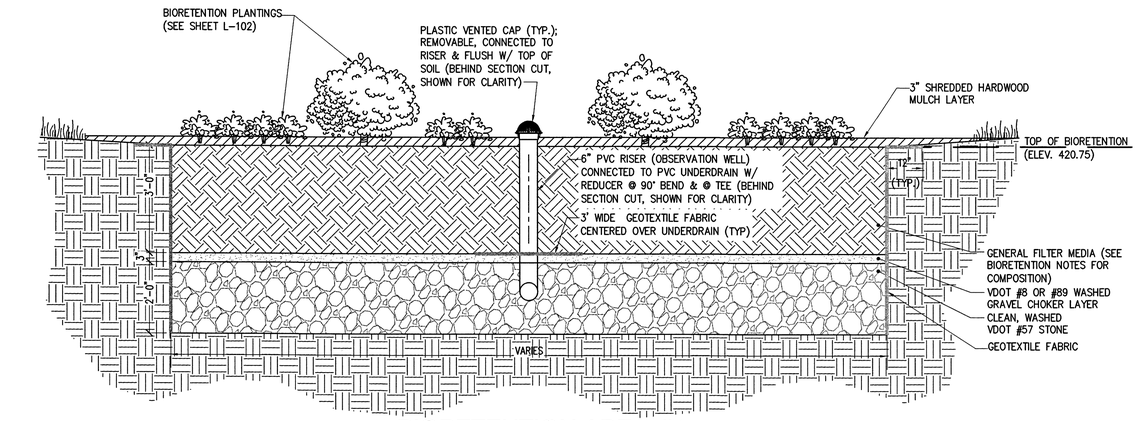
STEP 9. PREPARE PLANTING HOLES FOR ANY TREES AND SHRUBS, INSTALL THE VEGETATION, AND WATER ACCORDINGLY. INSTALL ANY TEMPORARY IRRIGATION.

STEP 10. PROVIDE MULCH LAYER.



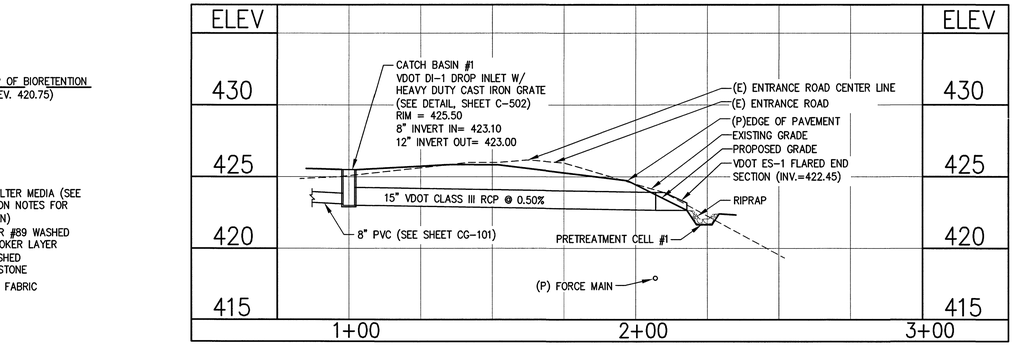
STORM SEWER PROFILE/DETENTION POND SECTION

HORIZONTAL SCALE: 1"=25'
VERTICAL SCALE: 1"=5'



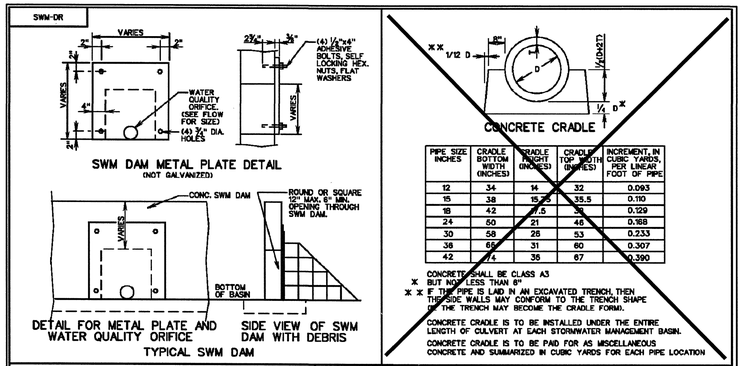
BIORETENTION AREA #1

SCALE: 1"=2'

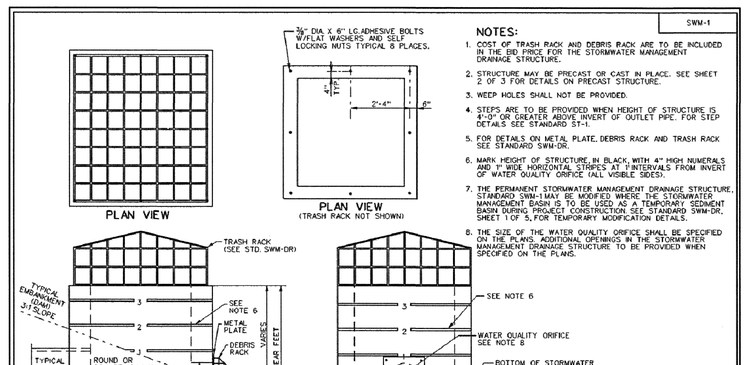


PARKING LOT STORM SEWER PROFILE

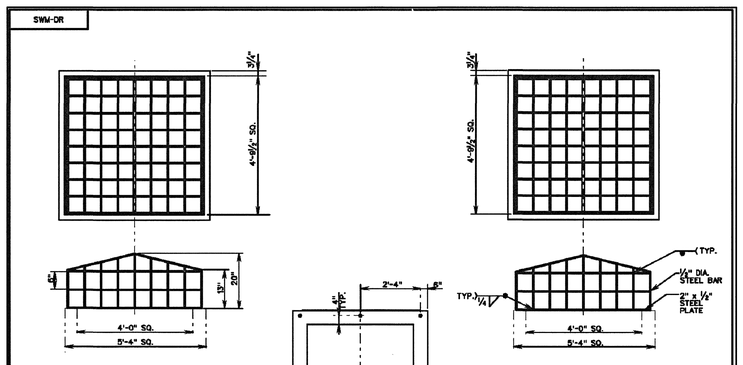
HORIZONTAL SCALE: 1"=25'
VERTICAL SCALE: 1"=5'



VDOT ROAD AND BRIDGE STANDARDS		STORMWATER MANAGEMENT (SWM) DETAILS DEBRIS RACK, METAL PLATE, WATER QUALITY ORIFICE, CONCRETE CRADLE (FOR SWM DRAINAGE STRUCTURES, SWM RISER PIPES AND SWM DAMS) VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 3 OF 5	REVISION DATE		302
114.08			



SPECIFICATION REFERENCE	CAST IN PLACE STORMWATER MANAGEMENT DRAINAGE STRUCTURE VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	
302		REVISION DATE	SHEET 1 OF 3
		08/10	114.01



VDOT ROAD AND BRIDGE STANDARDS		STORMWATER MANAGEMENT DETAILS TRASH RACK FOR SWM DRAINAGE STRUCTURES VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 5 OF 5	REVISION DATE		302
114.08			

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10-28-16
LANDSCAPE ARCHITECT

COUNTY OF ALBEMARLE

PANTOPS PUBLIC SAFETY FACILITY

IFB # 2017-11223-20

CHARLOTTESVILLE, VIRGINIA

REVISIONS

NO.	DATE	DESCRIPTION

COMMISSION NUMBER 2160310

SCALE:	AS SHOWN
DESIGNED:	DRC
DRAWN:	DRC
CHECKED:	DFB
DATE:	10.28.2016

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SHEET TITLE
STORMWATER DETAILS & PROFILES

SHEET NUMBER
C-503
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