

STORMWATER MANAGEMENT FACILITIES AND COMPUTATIONS ARE PRELIMINARY AND SUBJECT TO CHANGE. DURING THE PRODUCTION OF FINAL ENGINEERING CONSTRUCTION DOCUMENTS, THESE FACILITY TYPES AND COMPUTATIONS MAY BE ADJUSTED OR CHANGED BASED ON SITE CONDITIONS. FINAL STORMWATER MANAGEMENT DESIGN SHALL MEET DOEE REQUIREMENTS.

STORMWATER MANAGEMENT LEGEND

- PROPOSED GREEN ROOF (115,206 SF)
- PROPOSED BIORETENTION (7,423 SF)
- PROPOSED VEHICULAR ACCESS AREA (59,204 SF)
- PROPOSED STORM DRAIN OUTFALL

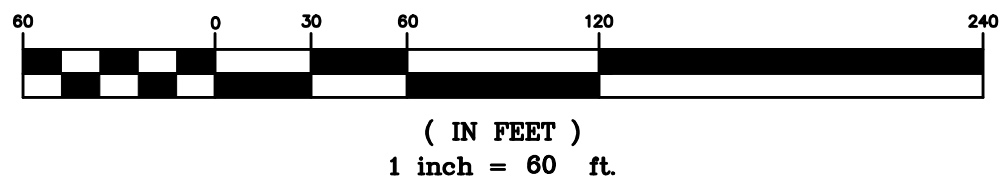
LEGEND

- SUBJECT PROPERTY LINE
- ADJACENT PROPERTY LINE
- BUILDING RESTRICTION LINE
- ELECTRICAL CONDUIT
- NATURAL GAS CONDUIT
- OVERHEAD WIRES
- TELEPHONE/COMMUNICATIONS CONDUIT
- WATER LINE
- CABLE TV
- SANITARY SEWER CONDUIT
- STORM DRAIN CONDUIT
- FENCE LINE
- APPROXIMATE ZONING LINE
- BUILDING LINE
- RETAINING OR FREE STANDING WALL
- MAJOR CONTOUR
- MINOR CONTOUR
- BOLLARD
- SIGN POST
- MAIL BOX
- TREE
- SANITARY MANHOLE
- STORM DRAIN MANHOLE
- GRATE
- WATER MANHOLE
- FIRE HYDRANT
- SUMMER CONNECTION
- WATER METER
- WATER VALVE
- TRAFFIC CONTROL BOX
- WALL LIGHT
- IRRIGATION CONTROL VALVE
- CLEAN OUT
- ROOF LEADER
- WHEEL STOP
- ELECTRIC MANHOLE
- ELECTRIC VALVE
- ELECTRIC METER
- UTILITY POLE
- GUY WIRE
- UTILITY POLE W/STREET LIGHT
- COBRA LIGHT POLE
- LIGHT POLE
- UTILITY POLE W/ALLEY LIGHT
- PHONE MANHOLE
- UNKNOWN UTILITY MANHOLE
- GAS VALVE
- GAS METER
- CARD READER
- DCSO..... DISTRICT OF COLUMBIA SURVEYOR'S OFFICE
- DCDPW..... DISTRICT OF COLUMBIA DEPARTMENT OF PUBLIC WORKS
- CIRC..... CIRCUMFERENCE
- (N)..... NORTH
- (S)..... SOUTH
- (E)..... EAST
- (W)..... WEST
- N.F. ... NORTH FACE
- S.F. ... SOUTH FACE
- E.F. ... EAST FACE
- W.F. ... WEST FACE
- SUBD. BK. ... SUBDIVISION BOOK
- PG. PAGE
- ABT. ASSESSMENT & TAXATION
- BRL. BUILDING RESTRICTION LINE
- SQ.FT. SQUARE FEET
- AC. ACRES
- (R) RECORD INFORMATION
- (M) MEASURED INFORMATION
- (O) OBSERVED ANGLE OR BEARING
- (C) COMPUTED INFORMATION
- DATR..... DATA ACCORDING TO RECORD
- EQ..... END OF INFORMATION
- INV. INVERT
- RCP REINFORCED CONCRETE PIPE
- CMP CORRUGATED METAL PIPE
- PVC POLY VINYL CHLORIDE
- SS SANITARY SEWER
- SD STORM DRAIN
- WL WATER LINE
- GL GAS LINE
- CI CAST IRON
- WRPD WRAPPED
- TC TOP OF CURB
- BC BOTTOM OF CURB
- CL CENTER LINE
- BW BOTTOM WALL
- TW TOP OF WALL
- FF FINISH FLOOR
- CONC CONCRETE
- ESMT EASEMENT

CONTRACTOR IS RESPONSIBLE FOR NOTIFYING VIK A CAPITOL (202 244-4140) AT LEAST 48-HOURS IN ADVANCE OF ALL PRE-CONSTRUCTION, INSPECTION OR FINAL REVIEW MEETINGS WITH DOEE STAFF.

TEST PIT NOTE
INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION, ELEVATIONS, AND SIZES OF EX. UTILITIES BY DIGGING TESTS PITS BY HAND AT ALL POINTS OF CONNECTION AND AT CROSSINGS. RESULTS FROM THESE TEST PITS SHALL BE SUBMITTED TO THE ARCHITECT FIVE (5) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION AND/OR ORDERING MATERIALS.

"FOR LOCATION OF UTILITIES CALL 8-1-1 OR 1-800-257-7777 OR LOG ON TO OR 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY"



VIK A CAPITOL
ENGINEERS * PLANNERS * LANDSCAPE ARCHITECTS * SURVEYORS * GEOMATICS
PROJECT COORDINATOR: **KYLE OLIVER RIVER** oliver@vikacapitol.com
* VIK A CAPITOL, LLC * 4810 MASSACHUSETTS AVENUE, NW SUITE 16 * WASHINGTON, DC 20016 * PHONE: 202.244.4140 * WWW.VIKACAPITOL.COM *

NORTH EAST HEIGHTS
WASHINGTON, D.C. 20019

STORMWATER MANAGEMENT PLAN

VIK A CAPITOL REVISIONS	
#	DESCRIPTION

DATE: 07/09/19	
DES. KUO	DWN. VEM
SCALE: 1"=60'	
PROJECT/FILE NO. VC0524A	
SHEET NO. CIV0600	

Stormwater Management Plan Compliance Data

Site Address 322 40th Street NE Plan number 6822
 Stormwater Management Plan? Yes Green Area Ratio? Yes
 Soil Erosion and Sediment Control? Yes Floodplain Review? No
 Type of Activity Major Land Disturbing AWDZ? Non-AWDZ site located within AWDZ boundaries
 Is the entire site in the CSS? No

	Total Area (sf)	Site Area	PROW
Natural	0	0	
Compacted	0	0	
Impervious	306,570	306,570	
BMP	121,050	121,050	
Total	427,620	427,620	

	Curve Numbers
<input type="checkbox"/> Additional Detention Provided	
Pre-development	70 2-year storm adjusted CN
Pre-project	97 15-year storm adjusted CN 84
	100-year storm adjusted CN 85

Requirements Summary (total is the sum of PROW and Parcel)

	PROW (ft³)	Parcel (ft³)	Total (ft³)	Total (Gallons)
SWRv	40,624	40,624	81,248	303,867
WQTV	0	0	0	0
On-site retention achieved	40,037	40,037	80,074	299,473
On-site treatment achieved	390	390	780	2,915
% of SWRv met on-site	99%	98.55%		98.55%
SRC eligibility				0
offv				4,393

GREEN ROOF STORAGE VOLUME COMPUTATIONS

$$Sv = SA_{GR} \times [(d_m \times m) + (d_{DL} \times DL)]$$

Green Roof No.	Green Roof Name	SA _{GR} (sf) Surface Area of Green Roof	Green Roof Type	d _m (in) Media Depth	d _{DL} (in) Drainage Layer Depth	m Media Volume of Voids	DL Drainage Layer Volume of Voids	Storage Volume Sv (ft³)
6822-1-1	BLDG W1-PH	32636	EXTENSIVE	5.00	1.00	0.53	0.93	9777.2
6822-1-2	BLDG W1-CY	6068	EXTENSIVE	5.00	1.00	0.53	0.93	1817.9
6822-2-1	BLDG S1-PH	8224	EXTENSIVE	5.00	1.00	0.53	0.93	2463.8
6822-3-1	BLDG E1-PH	12400	EXTENSIVE	5.00	1.00	0.53	0.93	3714.8
6822-3-2	BLDG E1-CY	12631	EXTENSIVE	5.00	1.00	0.53	0.93	3784
6822-3-4	BLDG E2-PH	5600	EXTENSIVE	5.00	1.00	0.53	0.93	1677.7
6822-3-5	BLDG E2-CY	2491	EXTENSIVE	5.00	1.00	0.53	0.93	746.3
6822-3-6	BLDG E3-PH	16250	EXTENSIVE	5.00	1.00	0.53	0.93	4868.2
6822-3-7	BLDG E3-CY	4472	EXTENSIVE	5.00	1.00	0.53	0.93	1339.7
6822-3-8	BLDG E4-PH	12537	EXTENSIVE	5.00	1.00	0.53	0.93	3755.9
6822-3-9	BLDG E4-CY	1896	EXTENSIVE	5.00	1.00	0.53	0.93	568
TOTAL		115205						34513.5

BIORETENTION VOLUME COMPUTATIONS

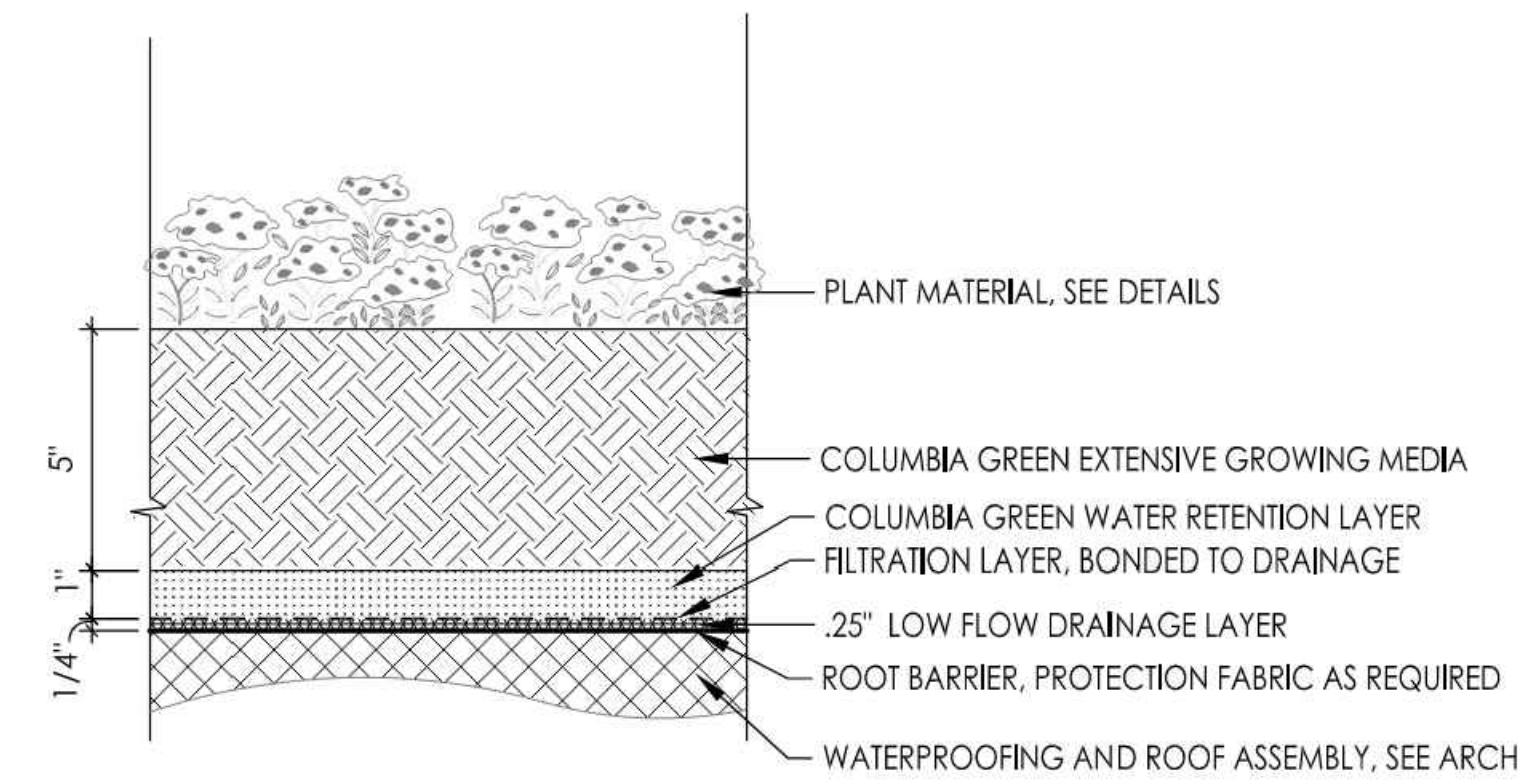
$$Sv = SA_{bottom} \times [(d_{media} \times media) + (d_{gravel} \times gravel)] + (SA_{average} \times d_{ponding});$$

media = 0.25; gravel = 0.4

Bioretention Planter No.	Bioretention Planter Name	(A) SA _{bottom} & SA _{average} (ft)	(B) Freeboard (ft)	(C) d _{ponding} (ft)	(D) d _{media} (ft)	(E) d _{gravel} (ft)	(F) Total Inside Depth (ft)	Storage Volume Sv (ft³)
6822-1-3	BLDG WEST1	842	0.25	0.75	5.00	1	7	2020.8
6822-3-3	BLDG EAST1	518	0.25	0.75	5.00	1	7	1243.2
6822-3-10	PARKING LOT	1686	0.25	0.75	6.00	1	8	4467.9
6822-3-11	ROADWAY	4377	0.25	1.00	6.00	1	8.25	12693.3
TOTAL		7423						20425.2

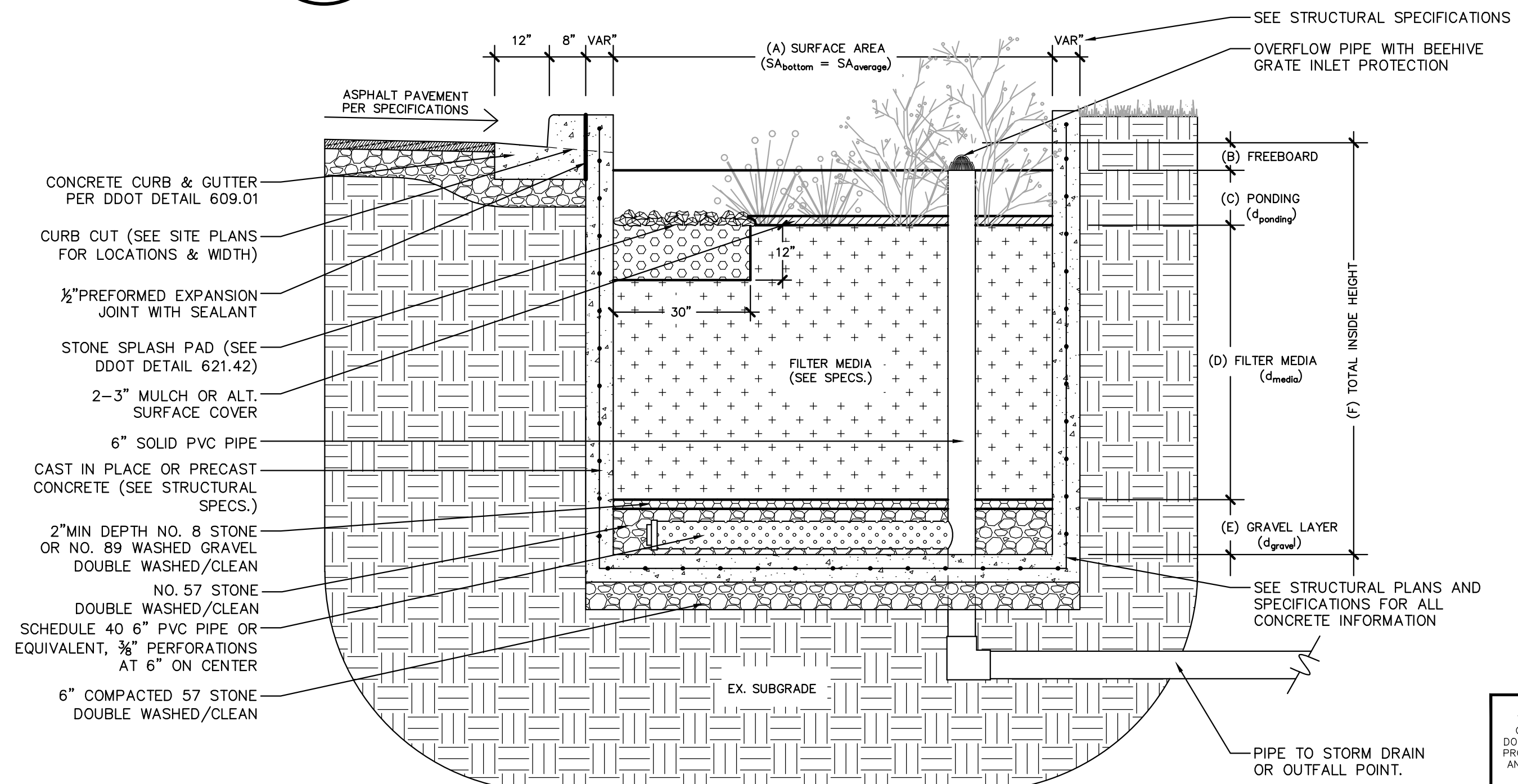
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LAY001: CIV1100 SWM DETS, Plotted By: merkel



NOTE:
 1. COLUMBIA GREEN .25-INCH LOW FLOW DRAINAGE LAYER HAS A TRANSMISSIVITY OF LESS THAN 0.005 M²/S (PER ASTM D4716) AND HAS BEEN APPROVED BY DOE FOR SIDE DRAINAGE INTO GREEN ROOF.
 2. SYSTEM COMPONENTS ARE SHOWN AT NOMINAL SIZE. COMPRESSION WILL OCCUR AT RETENTION LAYER. MAXIMUM COMPRESSION 1/8" ±.

1 EXTENSIVE GREEN ROOF DETAIL
 CIV1100
 NOT TO SCALE



1 BIORETENTION TYPICAL SECTION (STANDARD DESIGN)
 CIV1100
 NOT TO SCALE

ANY PROPOSED DEVIATION FROM THE STORMWATER MANAGEMENT DETAILS OR SPECIFICATIONS SHOWN ON THESE PLANS WILL REQUIRE SUBMISSION TO DOE AS A FORMAL PLAN REVISION FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. ALL SUBMITTALS RELATED TO THE STORMWATER MANAGEMENT FACILITIES SHALL BE PROVIDED TO THE OWNER, ARCHITECT, AND CIVIL ENGINEER FOR REVIEW AND COMPLIANCE VERIFICATION.

VIKA CAPITOL
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 WASHINGTON, D.C. 20019

STORMWATER MANAGEMENT NOTES AND DETAILS

VIKA CAPITOL REVISIONS

DATE	DESCRIPTION

DATE: 07/09/19

DES: KUO | DWN. VEM

SCALE: AS SHOWN

PROJECT/FILE NO. VC0524A

SHEET NO. CIV1100

****NOTE****
 THE INFORMATION, DESIGN AND CONTENT OF THE DRAWINGS OR DOCUMENTS ATTACHED HERETO ARE PROPRIETARY TO VIKA CAPITOL, LLC AND CONSTITUTE ITS PROPRIETARY INTELLECTUAL PROPERTY. THE ATTACHED DRAWINGS AND/OR DOCUMENTS MUST NOT BE FORWARDED, SHARED, COPIED, DIGITALLY CONVERTED, MODIFIED, OR USED FOR ANY PURPOSE, IN ANY FORMAT, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM VIKA CAPITOL, LLC. VIOLATIONS MAY RESULT IN PROSECUTION. ONLY APPROVED, SIGNED AND SEALED PLANS OR DRAWINGS MAY BE UTILIZED FOR CONSTRUCTION PURPOSES.

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