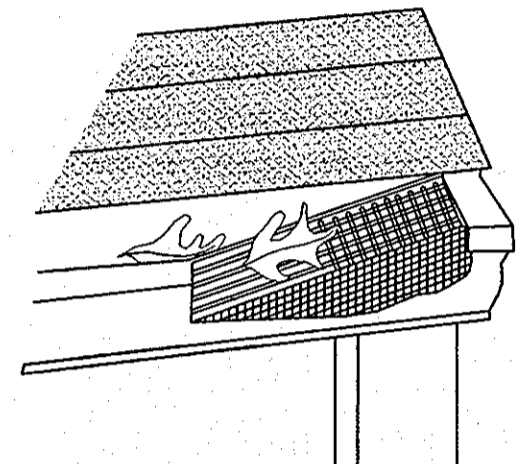


DRY WELL DETAIL (M-5)
NOT TO SCALE



GUTTER DRAIN FILTER DETAIL
NOT TO SCALE

STORMWATER MANAGEMENT NOTES

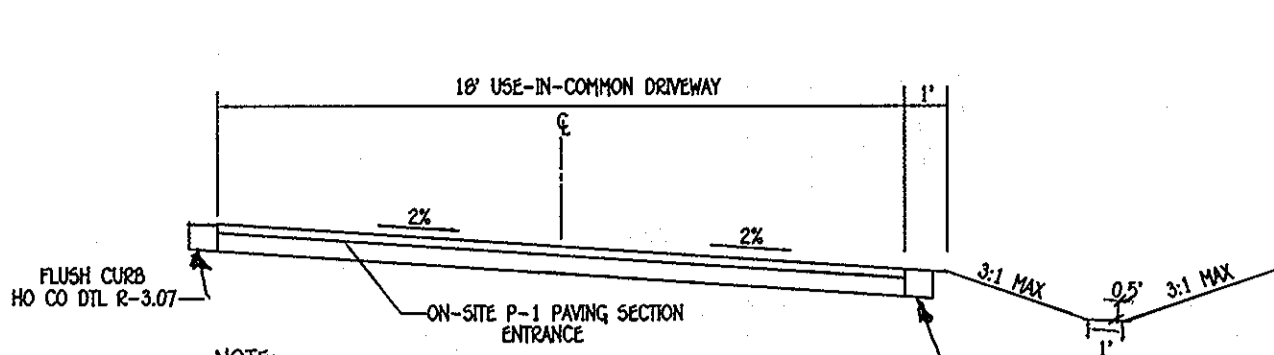
1. STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
2. MAXIMUM CONTIGUOUS ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 1,000 SQ. FT. OR LESS.
3. DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5%. THE SIZE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.
4. FINAL GRADING IS SHOWN ON THIS SITE DEVELOPMENT PLAN.

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)

- A. THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT.
- B. THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO ENSURE TRENCH DRAINAGE.
- C. THE OWNER SHALL MAINTAIN A LOG BOOK TO DOCUMENT THE DATE AT WHICH THE FACILITY DRAINS.
- D. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN WITHIN A SEVENTY-TWO (72) HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
- E. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE SECTION.
- F. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

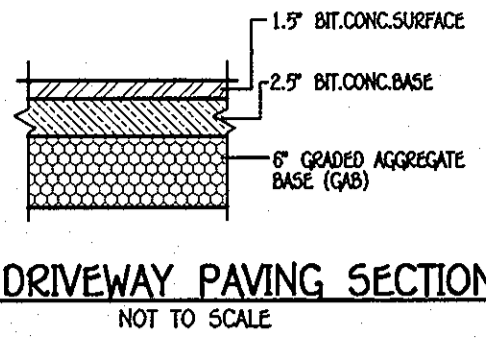
DRYWELL NO.	AREA OF ROOF PER DOWN SPOUT	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF TREATMENT	L	D	W
1	497 SQ. FT.	40 C.F.	45 C.F.	100%*	5.5'	5.5'	5'

* AREA OF TREATMENT EXCEEDS THAT REQUIRED.



16' USE-IN-COMMON DRIVEWAY & SWALE CROSS SLOPE SECTION
NOT TO SCALE

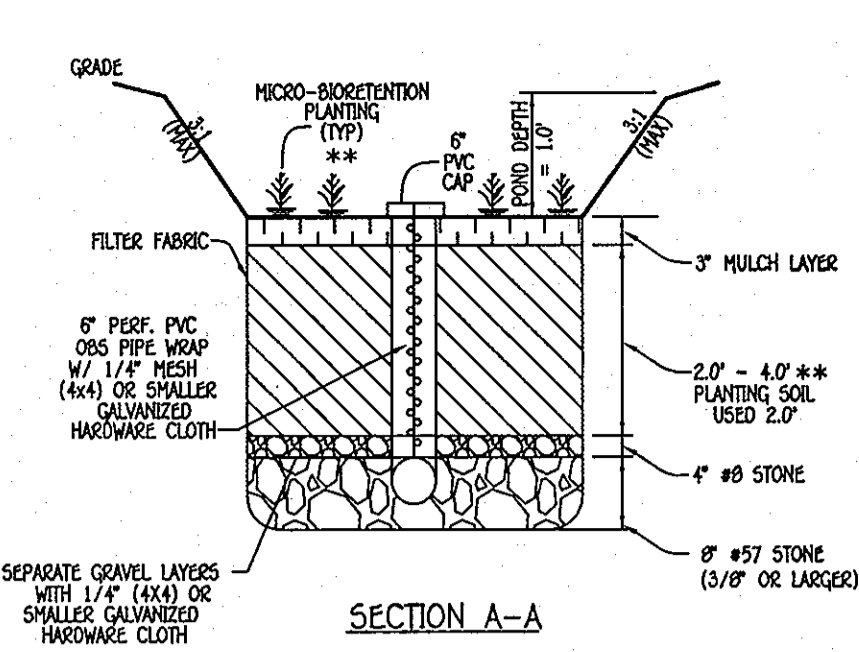
- NOTE:
1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.
 2. SWALES ARE FOR CONVEYANCE OF RUNOFF AND NOT UTILIZED FOR TREATMENT CREDIT.



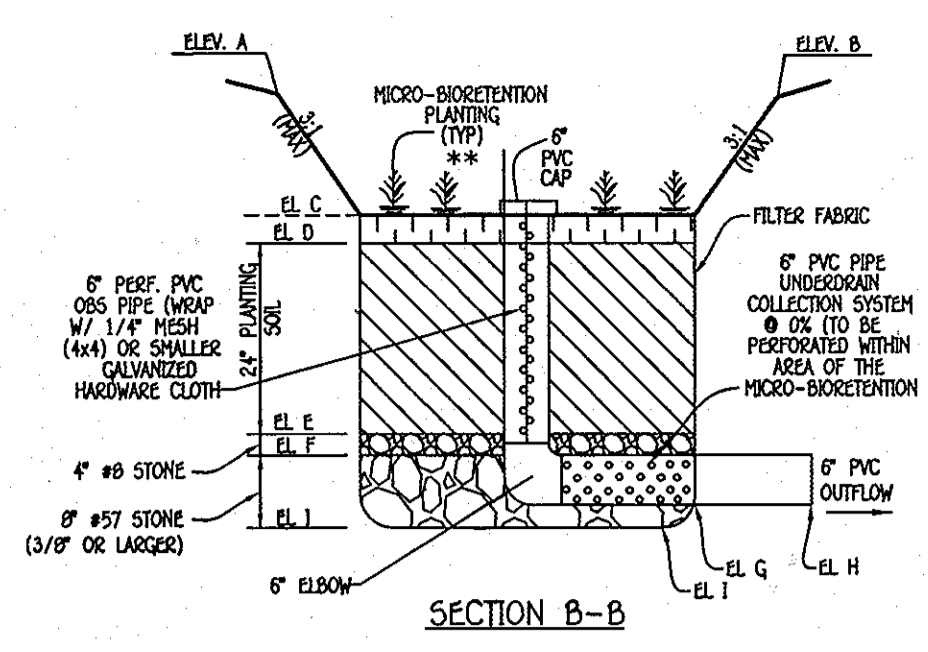
P-1 DRIVEWAY PAVING SECTION
NOT TO SCALE

OPERATION & MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

- A. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.1 AND 2.
- B. THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT. REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL. TREAT DISEASED TREES AND SHRUBS AND REPLACE ALL DEFICIENT SHAKES AND WIRES.
- C. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- D. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

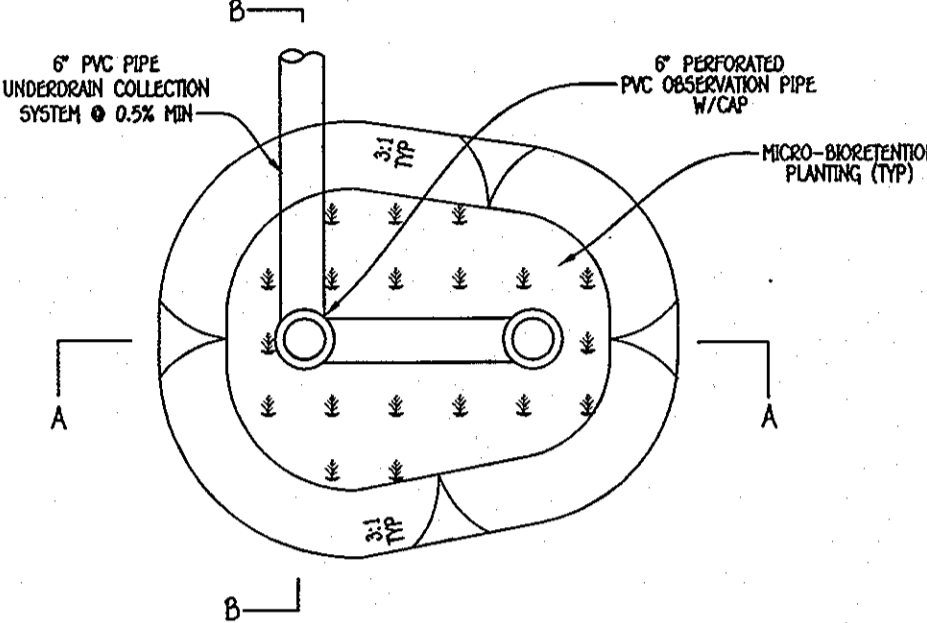


SECTION A-A



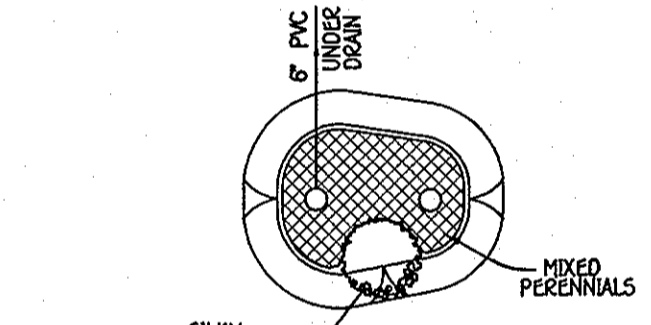
SECTION B-B

MICRO-BIORETENTION DETAIL (M-6)
NOT TO SCALE



PLAN
NOT TO SCALE

MICRO-BIORETENTION									
BIORETENTION FILTER	A	B	C	D	E	F	G	H	I
1 (OS LOT 12)	371.90	371.90	371.15	370.90	368.90	368.57	368.07	368.00	367.90
2 (OS LOT 11)	374.00	374.00	373.15	372.90	370.90	370.57	370.07	369.99	369.90
3 (OS LOT 9)	392.00	392.00	391.00	390.75	388.75	388.42	387.92	387.82	387.75
4 (OS LOT 8)	397.50	397.50	396.50	396.25	394.25	393.92	393.42	393.04	393.25



MICRO-BIORETENTION PLANTING DETAIL
NOT TO SCALE

- * MIXED PERENNIALS
- OUT-LEAF CONIFER (1.5' SP.)
- BERBERIS (1.5' SP.)
- JOE-PYE-WEED (3' SP.)
- SILKY DOGWOOD

NOTE: PLANT MATERIAL MUST COVER AT LEAST 50% OF THE SURFACE AREA OF THE MICRO-BIORETENTION FOR QUANTITIES AND SPACING.

MICRO-BIORETENTION PLANT MATERIAL		
QUANTITY	NAME	MAXIMUM SPACING (FT.)
12	MIXED PERENNIALS	1.5 TO 3.0 FT.
1	SILKY DOGWOOD	PLANT AWAY FROM INFLOW LOCATION

NO.	REVISION	DATE	X

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CORTELL SQUARE OFFICE PARK - 10722 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461-2895

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 01/12/2014.
Stephanie Jente 10/16/13
Signature of Professional Engineer DATE



DEVELOPER / CONTRACT PURCHASER
RIVER HILL OVERLOOK, LLC
5034 DORSEY HALL DRIVE
ELLICOTT CITY, MARYLAND 21042
410-740-0522
ATTN: DOUG DIERINGER & RICHARD DEMMITT

OWNERS
JACQUELINE RANA REVOCABLE TRUST
8301 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029
410-533-5380
ATTN: CHRISTOPHER B. EMBERY, TRUSTEE & YASMIN NATASHA GAJEWSKI, TRUSTEE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Keith ... 10/17/13
Chief, Division of Land Development Date
Paul ... 10-23-13
Chief, Development Engineering Division Date

PROJECT RIVER HILL OVERLOOK, LOTS 1 THRU 8 AND OPEN SPACE LOT 9	SECTION -	PARCEL NO. 66
PLAT X / X	BLOCK NO. 8	ZONE R-ED
TAX / ZONE 35	ELEC. DIST. FIFTH	CENSUS TR. 6055.01
WATER CODE N/A	SEWER CODE N/A	

STORMWATER MANAGEMENT DETAILS & NOTES

RIVER HILL OVERLOOK,
LOTS 1 THRU 8 AND OPEN SPACE LOT 9
ZONED R-ED
TAX MAP No. 35 GRID No. 8 PARCEL No. 66
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: OCTOBER, 2013
SHEET 4 OF 4