

GENERAL NOTES

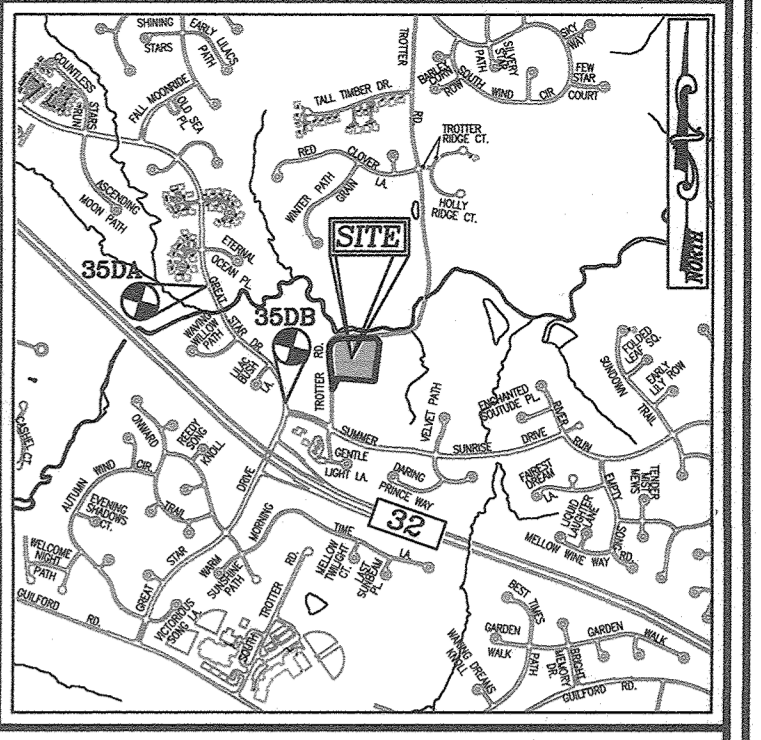
- 1. THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
3. THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
MISS UTILITY:
VERIZON TELEPHONE COMPANY: 1-800-257-7777
HOWARD COUNTY BUREAU OF UTILITIES: 1-410-264-6261
AT&T CABLE LOCATION DIVISION: 410-313-2366
B.C.&C. CO. CONTRACTOR SERVICES: 1-800-393-3553
B.C.&C. CO. UNDERGROUND DAMAGE CONTROL: 410-850-4620
STATE HIGHWAY ADMINISTRATION: 410-781-4620
4. THIS SITE DEVELOPMENT PLAN IS SUBJECT TO THE FOLLOWING DPZ FILES: E-600-181088 APPROVED 09/18/2014, CONT. #30-3096-D, CONT. #34-4275-D, WP-15-093, SP-15-009 (APPROVED 04/09/15), PB413, F15-111 PLATS 23750-23753.
5. THE EXISTING TOPOGRAPHY IS TAKEN FROM A FIELD RUN TOPOGRAPHIC SURVEY WITH 2-FOOT CONTOUR INTERVALS PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED APRIL 08, 2014.
6. THE PROJECT BOUNDARY SHOWN HEREON IS BASED ON A BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED APRIL 08, 2014, RE-VISITED OCTOBER 27, 2014.
7. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
8. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
9. ANY DAMAGE TO PUBLIC RIGHT-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE TO THE BEST OF THE OWNER'S KNOWLEDGE, PROVIDED THERE ARE NO CEMETERIES OR GRAVE SITES LOCATED ON THE SUBJECT PROPERTY OR THE COUNTY'S CEMETERY SITE MAP.
10. STORM WATER MANAGEMENT TO BE PROVIDED FOR THIS DEVELOPMENT BY ENVIRONMENTAL SITE DESIGN UTILIZING MICRO-BIORETENTION FACILITIES (M-6), ROOFTOP DISCONNECTS (N-1), SHEETFLOW TO LEVEL SPREADER (N-3), AND DRY WELLS (M-5). ON LOT LEVEL SPREADERS, DRY WELLS, AND MBR-3 THROUGH MBR-8 ARE TO BE PRIVATELY OWNED AND MAINTAINED BY THE HOMEOWNERS. THESE WELLS, MICRO-BIORETENTION FACILITIES MBR-1, MBR-2, AND MBR-10 ARE TO BE PRIVATELY OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION. REFERENCE 2010 IDE STORMWATER DESIGN MANUAL (CHAPTER 5).
11. PUBLIC WATER AVAILABLE THROUGH CONTRACT NO. 34-4275-D AND PUBLIC SEWER AVAILABLE THROUGH CONTRACT NO. 30-3096-D.
12. THIS SUBDIVISION IS SUBJECT TO SECTION 18.122B OF THE HOWARD COUNTY CODE. PUBLIC WATER AND/OR SEWER SERVICE HAS BEEN GRANTED UNDER THE TERMS AND PROVISIONS, THEREOF, EFFECTIVE MARCH 4, 2016, ON WHICH DATE DEVELOPER AGREEMENT #34-4275-D WAS FILED AND ACCEPTED.
13. THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. DEVELOPMENT OR CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION, OR BUILDING AND GRADING PERMITS.
14. THE SUBJECT PROPERTY IS ZONED "R-ED" IN ACCORDANCE WITH THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN. THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT, BUT DOES CONTAIN A SPRING HOUSE THAT IS OVER 50 YEARS OLD. THE SPRING HOUSE IS PROPOSED TO BE REMOVED.
15. EXISTING UTILITIES ARE BASED ON ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER EXTENSION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION. CONTRACTORS SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. THE COORDINATES SHOWN HEREON ARE BASED ON THE CONTROL WHICH IS BASED UPON THE BUILDING AND GRADING PERMITS UNDER THE MARYLAND STATE PLANNING SYSTEM. HOWARD COUNTY MONUMENT NOS. 350A AND 350B WERE USED FOR THIS PROJECT.
16. NO BARE, THREATENED OR ENDANGERED SPECIES OR THEIR HABITATS WERE OBSERVED ON THE PROPERTY. THERE IS NO 100-YR FLOODPLAIN WITHIN THE LIMITS OF THIS SITE.
17. WETLANDS SHOWN ON-SITE ARE BASED ON A FIELD SURVEY PERFORMED BY JOHN CANOLES OF ECO-SCIENCE PROFESSIONALS, INC. DATED MAY, 2014 (REVISED JANUARY 28, 2015), AND WAS APPROVED ON 04/09/15.
18. A FOREST STAND DELINEATION AND ENVIRONMENTAL RESOURCES ASSESSMENT WAS PERFORMED BY JOHN CANOLES OF ECO-SCIENCE PROFESSIONALS, INC., DATED MAY 2014. AN FSD PLAN WAS SUBMITTED/APPROVED IN SEPTEMBER, 2014 AND UPDATED/RE-SCANNED ON 1/29/15.
19. THE DEVELOPMENT OF 8 RESIDENTIAL LOTS ARE PROPOSED UNDER THIS PLAN.
20. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S), OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS.
21. WETLANDS AND THEIR BUFFERS WILL NOT BE IMPACTED BY THE CONSTRUCTION OF THE SITE.
22. A NOISE STUDY IS NOT REQUIRED FOR THIS SITE.
23. FOREST CONSERVATION REQUIREMENTS AS SET FORTH IN SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL, NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED. THE FOREST CONSERVATION OBLIGATION HAS BEEN FULFILLED BY THE PLACEMENT OF 2.32 AC. INTO RETENTION EASEMENT UNDER F15-111. NO SURETY WAS REQUIRED.
24. UTILIZE HOWARD COUNTY STANDARD DETAIL NO. 8-6-08 FOR THE USE-IN-COMMON DRIVEWAY ENTRANCE AT TROTTER ROAD. DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO VEHICLES OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY SERVICES PER THE FOLLOWING MINIMUM REQUIREMENTS:
a) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE)
b) SURFACE - 8 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING, (1-1/2" MIN.)
c) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% CHANGE AND MINIMUM OF 45-FOOT TURNING RADIUS.
d) STRUCTURES (CULVERT/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
e) DRAINAGE ELEMENTS-CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
f) STRUCTURE CLEARANCES-MINIMUM 12 FEET.
g) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
25. THE EXISTING HOUSE LOCATED ON THIS PROPERTY WAS TO BE REMOVED UNDER F15-111. ALL EXISTING FEATURES SUCH AS SIDEWALKS AND DRIVEWAYS SHALL ALSO BE REMOVED. THE EXISTING DWELLING AND ALL OUT BUILDINGS MUST BE REMOVED PRIOR TO THE F15-111 PLAT RECORDATION.
26. TROTTER ROAD IS A LOCAL / SCENIC ROAD.
27. LOTS 1-8 & OPEN SPACE LOT 11 WILL UTILIZE A USE-IN-COMMON DRIVEWAY. A USE-IN-COMMON MAINTENANCE AGREEMENT FOR THE SHARED DRIVEWAY WAS RECORDED SIMULTANEOUSLY WITH THE FINAL PLAN.
28. A DESIGN MANUAL WATER TO ALLOW MORE THAN 6 USERS ON A USE-IN-COMMON WAS APPROVED ON JANUARY 14, 2015. SEE NOTE 44.
29. A LANDSCAPE PLAN WAS PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF \$10,660.00 FOR THE REQUIRED 20 SHADE TREES, 8 EVERGREEN TREES, 45 SHRUBS (40: PERIMETER / 5: TRASH PADS), AND 211 LINEAL FEET OF FENCING WAS POSTED WITH THE DEVELOPER AGREEMENT FOR F15-111. PLANNING BOARD CASE NO. 413 WAS APPROVED BY PLANNING BOARD ON JUNE 23, 2015.
30. SHOULD ANY TREE DESIGNATED FOR PRESERVATION, FOR WHICH CREDIT IS GIVEN, DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 2 - 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE LANDSCAPE MANUAL. DEED REFERENCE: L. 16609/F. 322.
31. THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP, INC., DATED OCTOBER 2, 2014, AND WAS APPROVED ON FEBRUARY 03, 2015.
32. THIS PROPERTY IS WITHIN THE METROPOLITAN DISTRICT. ON JULY 27, 2015, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS APPROVED THE REQUEST TO INCLUDE THE PROPERTY INTO THE METROPOLITAN DISTRICT. DECISION NUMBER 10-2015.
33. FLAG AND PIPESTEM LOTS, REVIEW COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE FOR LOTS 1-8 ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY.
34. A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DRIVEWAY ACCESS POINT ONTO TROTTER ROAD AT THE DEVELOPER'S/OWNER'S EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-2752 FOR DETAILS AND COST ESTIMATES. THE R-11 (STOP) SIGN AND THE STREET NAME SIGN (SNG) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED.
35. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF AN ASPHALT.
36. SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
37. CERTIFIED TEST PITS HAVE BEEN PROVIDED TO VERIFY THAT GROUNDWATER AND ROCK ARE NOT PRESENT AT RAIN GARDEN AND MICRO-BIORETENTION LOCATIONS. OPEN TEST PITS WERE OBSERVED BY ROBERT H. VOGEL ENGINEERING ON NOVEMBER 03, 2014 AND INFORMATION REGARDING THE FINDINGS IS LOCATED IN THE SWM REPORT.
38. THIS PROJECT IS SUBJECT TO A DESIGN MANUAL WATER. ON JANUARY 14, 2015, THE CHIEF OF THE DEVELOPMENT ENGINEERING DIVISION APPROVED THE REQUEST TO WAIVE DESIGN MANUAL VOLUME III, SECTION 2.6.A, TO ALLOW MORE THAN 6 USERS ON A USE-IN-COMMON DRIVEWAY. THIS APPROVAL REQUIRED:
1. THE DRIVEWAY WIDTH TO BE 18' FOR THE TOTAL LENGTH
2. HAVE FLUSH CURBS ALONG BOTH SIDES
3. HAVE A VEHICLE TURN-AROUND AT THE END
4. THE DRIVEWAY SHALL BE WITHIN A 40' PRIVATE USE-IN-COMMON DRIVEWAY EASEMENT.
39. EDC&E APPROVED THE PERIMETER LANDSCAPING FOR THIS PROJECT ON 11/04/14.
40. IN ACCORDANCE WITH SECTION 16.121(A)(2) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, THE OPEN SPACE REQUIREMENTS FOR THIS R-ED PROJECT IS 5.67 AC. OF GROSS AREA (5.67 AC. x 50% = 2.84 AC. REQUIRED).
41. OPEN SPACE LOTS 9-11 IS OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
42. OPEN SPACE LOT 12 IS OWNED AND MAINTAINED BY THE HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS.
43. TOTAL OPEN SPACE PROVIDED IS 2.94 ACRES.
44. THIS DEVELOPMENT WAS DESIGNED TO BE IN ACCORDANCE WITH SECTION 16.127 RESIDENTIAL INFILL DEVELOPMENT OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE DEVELOPER OF THIS PROJECT SHALL CREATE COMPATIBILITY WITH THE EXISTING NEIGHBORHOOD THROUGH THE USE OF ENHANCED PERIMETER LANDSCAPING, BERRIES, FENCES, SIMILAR UNIT TYPES AND THE DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSES.
45. A PRE-SUBMISSION COMMUNITY MEETING WAS HELD ON APRIL 28, 2014 AT 6:00 PM AT THE MEETING ROOM AT RIVER HILL POOL.
46. MIHU'S ARE REQUIRED FOR THIS PROJECT. THE DEVELOPER WILL PAY A FEE-IN-LIEU TO ADDRESS THIS REQUIREMENT.
47. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BUT WITHIN CHANNELS, BUT WITHIN CHANNELS, OR EXTERIOR STAIRWAYS, NOT MORE THAN 18 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACK, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT FRONT OR REAR YARD SETBACK.
48. SECTION 128A.1.1 OF THE ZONING REGULATIONS (CB-2-2012) WHICH ALLOWS SUNROOMS AND ROOM EXTENSIONS TO EXTEND NOT MORE THAN 10 FEET INTO THE REAR SETBACK ALONG NOT MORE THAN ONE OF THE REAR FACE OF A DWELLING THAN A LOT WHICH ADJACENT OPEN SPACE ALONG A MAJORITY OF THE REAR LOT LINE FOR R-ED LOTS RECORDED AFTER THE EFFECTIVE DATE OF CB-2-2012 (MAY 13, 2012).
49. THIS PROJECT IS SUBJECT TO WP-15-093. ON MARCH 16, 2015, THE PLANNING DIRECTOR APPROVED THE REQUEST, TO WAIVE SECTION 16.1205(A)(7) AND 16.1205(A)(10) WHICH REQUIRES THE RETENTION OF SPECIMEN TREES (30" DBH OR GREATER) THAT ARE NOT CONTAINED WITHIN OTHER PROPERTY FOREST RETENTION AREAS AS OUTLINED IN SECTION 16.1250(A)(1)-(10).
50. WAIVER APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
1. WAIVER APPROVAL IS LIMITED TO THE REMOVAL OF SPECIMEN TREES #1 THROUGH #3, #13 AND #14, AND #16 AS DEPICTED ON THE WAIVER EXHIBIT. ANY REQUEST TO REMOVE ADDITIONAL SPECIMEN TREES WILL REQUIRE A NEW WAIVER REQUEST OR AN AMENDMENT TO THIS WAIVER REQUEST.
2. A MINIMUM OF 12 ADDITIONAL, NATIVE, 2-3" CALIPER TREES SHALL BE PROVIDED ON SITE AS PART OF THE MITIGATION OF THE SPECIMEN TREE REMOVAL. THIS MITIGATION WILL BE ADDRESSED WITH THE PROJECT KNOWN AS "THE PRESERVE AT RIVER HILL" AND WILL BE IN ADDITION TO ANY REQUIRED LANDSCAPE OR FOREST CONSERVATION PLANTINGS. THE MITIGATION WILL BE SHOWN ON THE ASSOCIATED LANDSCAPE PLAN AND SURETY FOR THESE ADDITIONAL TREES WILL BE REQUIRED AS PART OF THE FINAL PLAN.
3. SOME OR ALL OF THE MITIGATION PLANTINGS SHOULD BE PLACED WITHIN THE REAR YARDS OF THE PROPOSED LOTS AFTER GRADING AND FILL OCCURS BUT PRIOR TO SALES OF INDIVIDUAL LOTS.
4. INDIVIDUAL TREE PROTECTIVE DEVICES (TREE FENCING) SHALL BE PLACED COMPLETELY AROUND SPECIMEN TREE #11 AND SPECIMEN TREE #4 PRIOR TO THE COMMENCEMENT OF ANY GRADING. THIS SHALL BE OUTLINED IN THE PRE-CONSTRUCTION MANAGEMENT PLAN OF THE FINAL FOREST CONSERVATION PLAN (FCP) AND WITHIN THE SEQUENCE OF CONSTRUCTION PROVIDED ON THE FINAL PLAN FOR "THE PRESERVE AT RIVER HILL".
51. WELLS (M-5) MUST BE SEALED AND THE SEPTIC SYSTEM MUST BE PROPERLY ABANDONED PRIOR TO HEALTH OFFICER SIGNATURE OF FINAL PLAT. THE BUREAU OF ENVIRONMENTAL HEALTH STRONGLY RECOMMENDS THAT THE WELLS BE SEALED AND THE SEPTIC SYSTEM IS PROPERLY ABANDONED PRIOR TO COMMENCEMENT OF GRADING OPERATIONS.

COORDINATE TABLE

Table with 3 columns: NO., NORTH, EAST. Contains coordinate data for lots 99 through 307.

SITE DEVELOPMENT PLAN THE PRESERVE AT RIVER HILL LOTS 1-8 - SINGLE FAMILY DETACHED OPEN SPACE LOTS 10 & 11 HOWARD COUNTY, MARYLAND

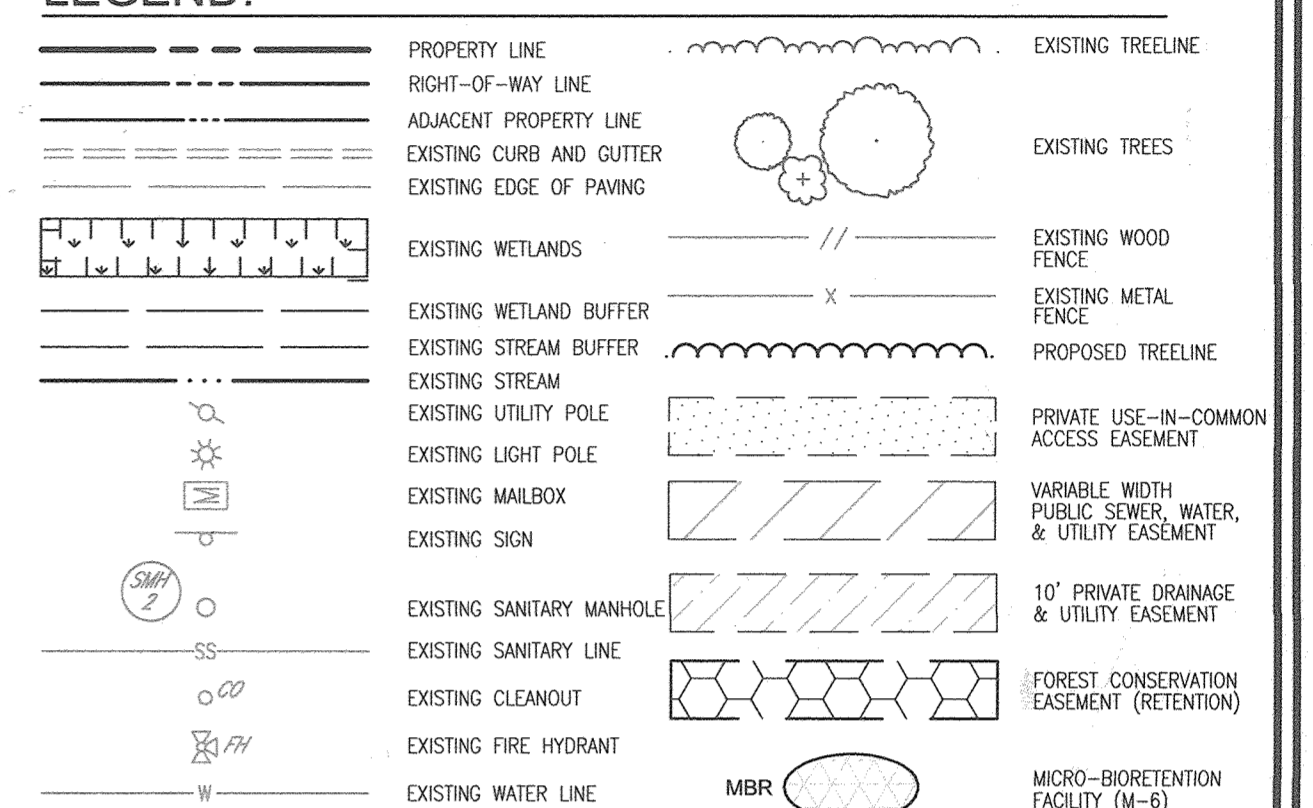
SHEET INDEX table with columns: COVER SHEET, DESCRIPTION, SHEET NO. Lists sheets 1 OF 6 through 6 OF 6.



BENCHMARKS

HOWARD COUNTY BENCHMARK 35DA (CONC. MON.) N 558918.62 E 1333137.33 ELEV. 350.98 LOCATION: 420' SOUTH OF TIDES TERRACE
HOWARD COUNTY BENCHMARK 35DB (CONC. MON.) N 557696.15 E 1333974.58 ELEV. 400.99 LOCATION: CORNER OF GREAT STAR DR. & SUMMER SUNRISE DR.

LEGEND



SITE ANALYSIS DATA

Table with 2 columns: Description and Value. Lists project area (5.67 AC), number of lots (8), zoning (R-ED), and other site metrics.

MIHU AGREEMENT

PLEASE NOTE THAT ALL LOTS/RESIDENTIAL UNITS IN THIS SUBDIVISION ARE SUBJECT TO THE MIHU FEE-IN-LIEU REQUIREMENT THAT IS TO BE CALCULATED AND PAID TO THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS AT THE TIME OF BUILDING PERMIT ISSUANCE BY THE PERMIT APPLICANT.

Table with 3 columns: NO., REVISION, DATE. Lists revision 1 and 2 regarding lot 3 and SWM practice chart.

SITE DEVELOPMENT PLAN

COVER SHEET

THE PRESERVE AT RIVER HILL LOTS 1-8 - SINGLE FAMILY DETACHED AND OPEN SPACE LOTS 10 & 11

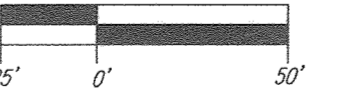
TAX MAP: 35 GRID: 14 5TH ELECTION DISTRICT: 64 DPZ REF: SEE GENERAL NOTE #4 PARCELS: 64 ZONED: R-ED HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERS, INC. logo and contact information including address, phone, and fax.

STATE OF MARYLAND PROFESSIONAL ENGINEER seal and DESIGNER information (RVE, MDL, RHV).

DESIGNER BY: RVE, MDL, RHV. DRAWN BY: MDL. CHECKED BY: RHV. DATE: MAY 2016. SCALE: AS SHOWN. W.O. NO.: 13-38. 1 SHEET OF 6.

LOCATION MAP



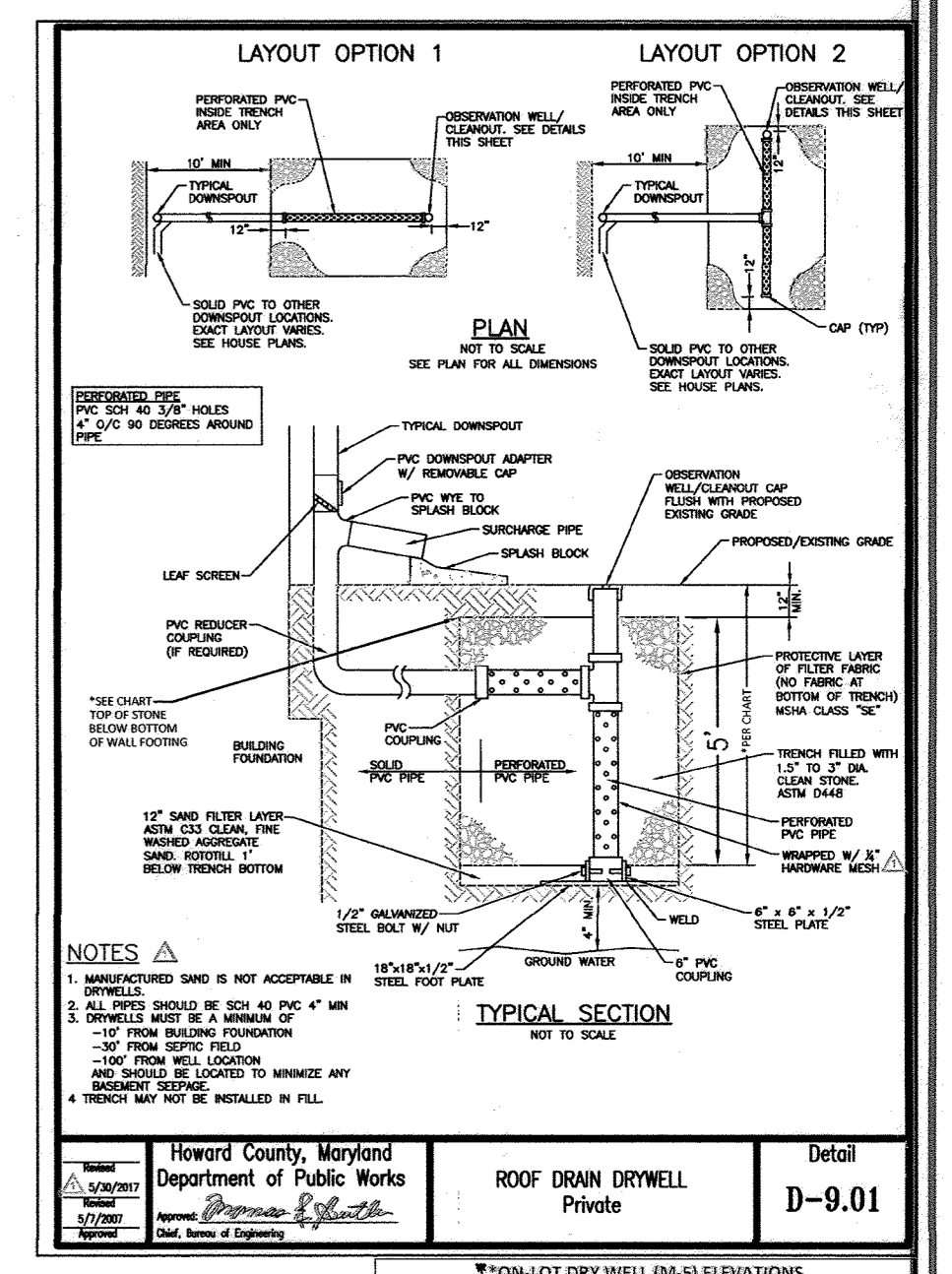
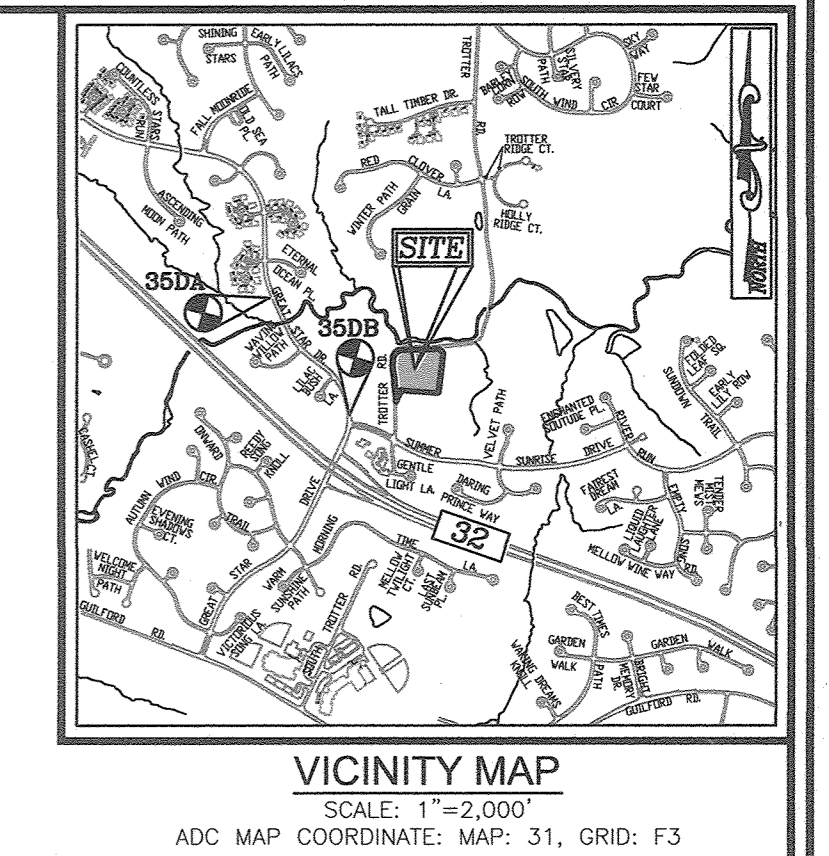
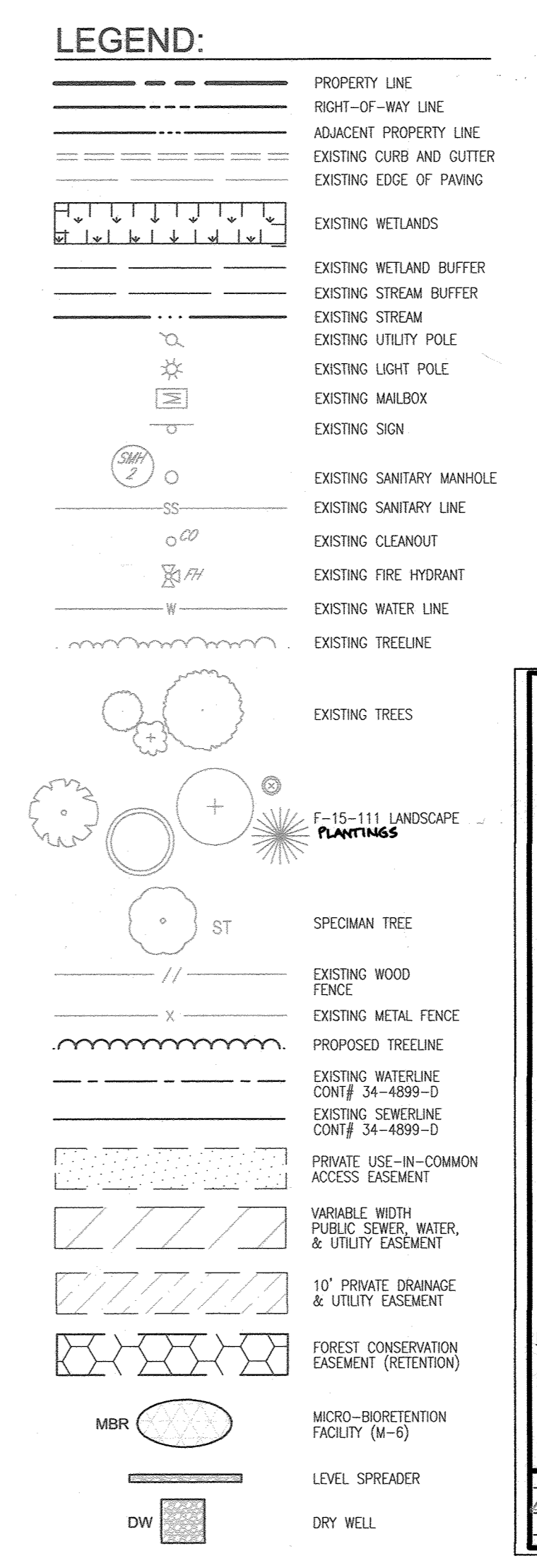
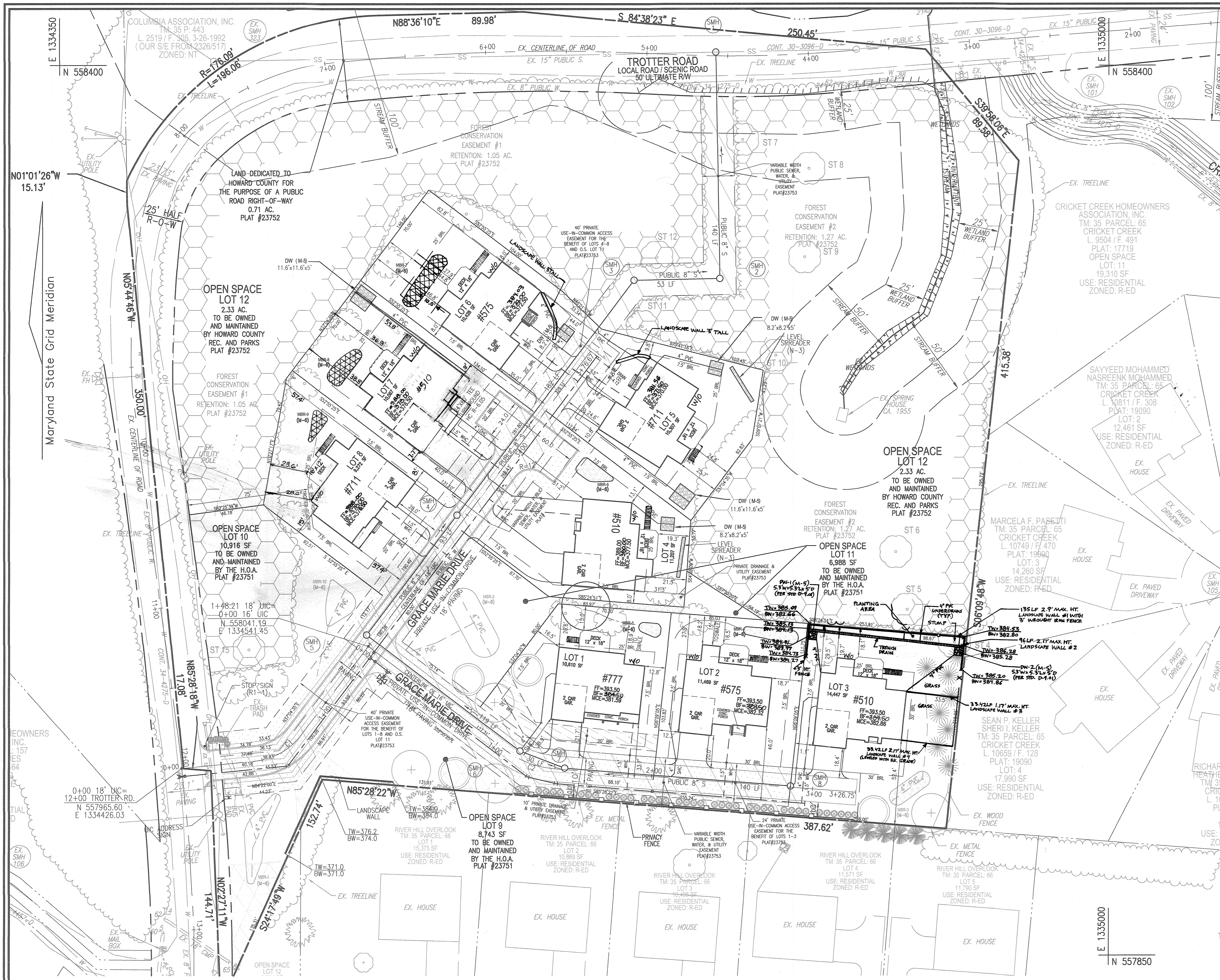
ADDRESS CHART

Table with 2 columns: LOT NO., STREET ADDRESS. Lists addresses for lots 1 through 8.

PERMIT INFORMATION CHART

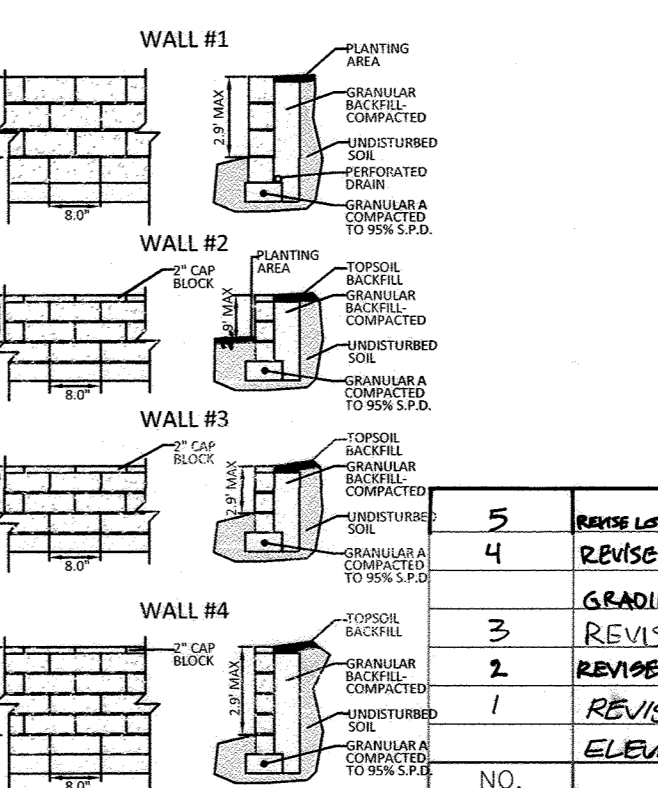
Table with columns: SUBDIVISION NAME, SECTION/AREA, LOT/ PARCELS, PLAT REF #, BLOCK NO, ZONE, TAX MAP, ELECT DIST, CENSUS TR, WATER / SEWER #.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. Includes signatures and dates for Chief Development Engineering Division and Chief Division of Land Development.



**DRIVEWAY NOTE - LOTS 1-8:**

1. INDIVIDUAL HOUSE SITES SHALL PROVIDE PRIVATE DRIVEWAYS A MINIMUM 18 FOOT DEPTH FROM THE FACE OF GARAGE TO THE EDGE OF THE USE-IN-COMMON DRIVEWAY SO THAT A CAR, IF PARKED IN THE DRIVEWAY, WILL NOT OVERHANG INTO THE PAVED AREA OF THE SHARED DRIVEWAY. THE SHARED DRIVEWAY SHALL PROVIDE ADEQUATE UNOBSTRUCTED ACCESS TO ALL DWELLINGS AT ALL TIMES AS REQUIRED BY HOWARD COUNTY DEPARTMENT OF FIRE & RESCUE.



**OWNER**

ESTATES AT RIVER HILL, LLC  
3675 PARK AVE., SUITE 301  
ELLCOTT CITY, MD 21043  
(410) 480-0023

**DEVELOPER**

TRINITY HOMES MARY LAND, LLC  
3675 PARK AVE., SUITE 301  
ELLCOTT CITY, MD 21043  
(410) 480-0023

**SITE DEVELOPMENT PLAN**

**SITE LAYOUT**

**THE PRESERVE AT RIVER HILL**  
LOTS 1-8 - SINGLE FAMILY DETACHED  
AND OPEN SPACE LOTS 10 & 11

TAX MAP: 35 GRID: 14  
STN. ELECTION DISTRICT: 35  
DPZ REF'S: SEE GENERAL NOTE #4

PARCELS: 64  
ZONED: R-ED  
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET  
ELLCOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

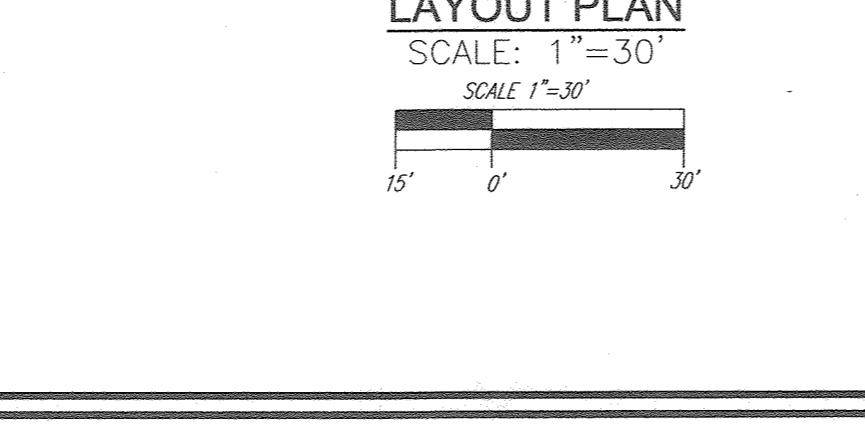
*Chad E. ...* 5-18-16  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Kate ...* 5-24-16  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Walter ...* 5-24-16  
DIRECTOR DATE

**NOTES:**

1. ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-3.28 OUTSIDE METER SETTINGS.



**NOTE:**

- TYPICAL DRIVEWAY WIDTH SHOWN HEREON IS 18 FEET WIDE FOR THE PROPOSED 2 CAR GARAGE. WIDTH SUBJECT TO CHANGE WITH BUILDER RESISTE.
- SECTION 128A.1.1 OF THE ZONING REGULATIONS (CB-2-2012) WHICH ALLOWS SUNROOMS AND ROOM EXTENSIONS TO EXTEND NOT MORE THAN 10 FEET INTO THE REAR SETBACK ALONG NOT MORE THAN 80% OF THE REAR FACE OF A DWELLING ON A LOT WHICH ADJOINS OPEN SPACE ALONG A MAJORITY OF THE REAR LOT LINE FOR R-ED LOTS RECORDED AFTER THE EFFECTIVE DATE OF CB-2-2012 (MAY 13, 2012).
- REFER TO SHEET #4 FOR LANDSCAPE WALL DETAIL.

**PROFESSIONAL CERTIFICATE**

DESIGN BY: RVE  
DRAWN BY: MDL  
CHECKED BY: RHV  
DATE: MAY 2016  
SCALE: AS SHOWN  
W.D. NO.: 13-58

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. 16193 EXPIRATION DATE: 06-27-2019

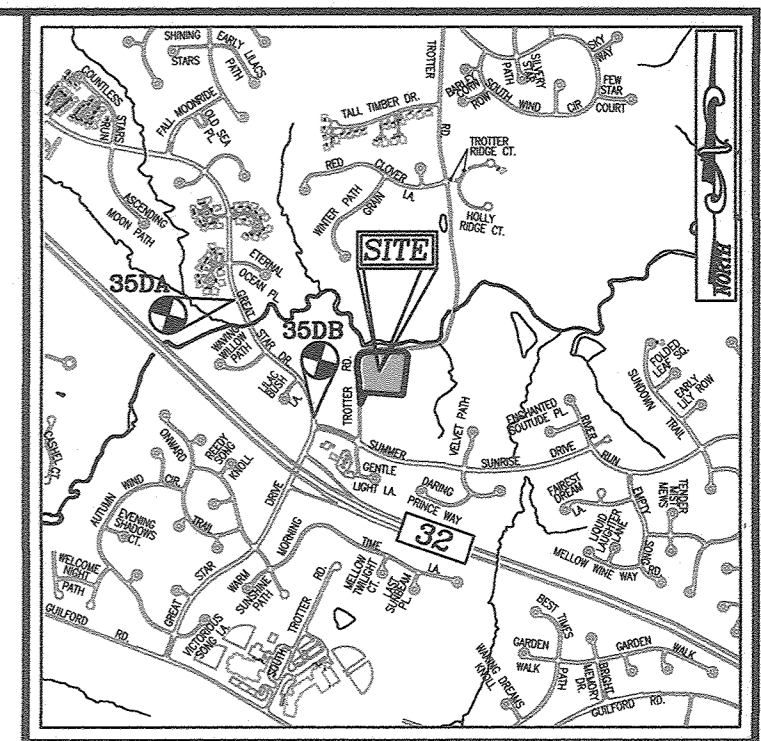
2 SHEET OF 6

SDP 16-032



**LEGEND:**

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING CURB AND GUTTER
- EXISTING EDGE OF PAVING
- EXISTING WETLANDS
- EXISTING WETLAND BUFFER
- EXISTING STREAM BUFFER
- EXISTING STREAM
- EXISTING LIGHT POLE
- EXISTING LIGHT POLE
- EXISTING MANHOLE
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING TREELINE
- EXISTING TREES
- EXISTING WOOD FENCE
- EXISTING METAL FENCE
- PROPOSED TREELINE
- PRIVATE USE-IN-COMMON ACCESS EASEMENT
- VARIABLE WIDTH PUBLIC SEWER, WATER, & UTILITY EASEMENT
- 10' PRIVATE DRAINAGE & UTILITY EASEMENT
- FOREST CONSERVATION EASEMENT (RETENTION)
- MICRO-BORETENTION FACILITY (M-6)
- SUPER SILT FENCE
- LIMITS OF DISTURBANCE
- PROPOSED 10FT CONTOUR
- PROPOSED 2FT CONTOUR
- SPOT ELEVATION
- STABILIZED CONSTRUCTION ENTRANCE
- EXISTING WATERLINE CONTF# 34-4899-D
- EXISTING SEWERLINE CONTF# 34-4899-D
- STORMWATER MANAGEMENT TEST PIT



**VICINITY MAP**  
SCALE: 1"=2,000'  
ADC MAP COORDINATE: MAP: 31, GRID: F3

**NOTE: STOCKPILING WILL BE PERMITTED ON EACH LOT ONLY.**

**NOTE: LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. ANY STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED.**

**NOTE: EITHER PERMANENT OR TEMPORARY SEEDING AND/OR STABILIZATION IS TO BE PERFORMED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR AT THE TIME FRAMES REQUIRED BY THE 2011 STANDARDS AND SPECIFICATIONS WHICHEVER IS MORE RESTRICTIVE.**

**NOTE: - SILT FENCE IS TO BE REPLACED WITH SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR. - SILT FENCE SHALL BE CURLED UPHILL NO MORE THAN 35 FEET APART. - DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.**

**GRADING PLAN**  
SCALE: 1"=30'

\* GRACE MARIE DRIVE SHALL DRAIN TO MBR-2 DRIVE SHALL BE CONSTRUCTED PER F-15-111.

**NOTE:**  
REFER TO SHEET 4 FOR LANDSCAPE WALL DETAIL.  
\*\*REFER TO SHEET 2 FOR LOT 3 WALL AND DRIVEWELL DETAILS.

**F 15-111 SEDIMENT CONTROLS**

F PLAN CONTROLS OUTSIDE OF THE PROPOSED LOTS ARE EXISTING PER F15-111 TO BE REMOVED AT THE DISCRETION OF THE SEDIMENT CONTROL INSPECTOR

NO.	REVISION	DATE
5	REVISE LOT 3 TO ADD RETAINING WALLS AND TO REPLACE LEVEL SPREADERS WITH SLOPE WALLS	10-24-22
4	REVISE THE PLAN TO ADD RETAINING WALL ON LOTS 5 AND 6, CHANGE GRADING, RELOCATE MBR-7 ON LOT 6	9/19/18
3	REVISE THE HOUSE TYPE ON LOT 7	8/8/17
2	REVISE SWAMP PRACTICE CHART, CHANGED TO LOTS 7 AND 8 AND ESC.	10/11/16
1	REVISE HOUSE TYPE LOT 6, REVISE BASEMENT ELEVATIONS AND ADD STEPS TO DECKS	8/16/16

**SITE DEVELOPMENT PLAN**  
**GRADING, SOIL EROSION AND SEDIMENT CONTROL PLAN AND SOILS MAP**

**OWNER**  
ESTATES AT RIVER HILL, LLC  
3675 PARK AVE., SUITE 301  
ELLCOTT CITY, MD 21043  
(410) 480-0023

**DEVELOPER**  
TRINITY HOMES MARY LAND, LLC  
3675 PARK AVE., SUITE 301  
ELLCOTT CITY, MD 21043  
(410) 480-0023

**THE PRESERVE AT RIVER HILL**  
LOTS 1-8 - SINGLE FAMILY DETACHED  
AND OPEN SPACE LOTS 10 & 11

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET  
ELLCOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Chad Clark*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 5-18-16

*Kat Ladewski*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 5-24-16

*William J. J...*  
DIRECTOR  
DATE: 5-24-16

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

*John R. ...*  
HOWARD S.C.D.  
DATE: 5/13/16

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

*Michael ...*  
SIGNATURE OF DEVELOPER  
DATE: 5/3/16

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

*Robert H. Vogel*  
ROBERT H. VOGEL  
DATE: 5/13/16

**MAPPED SOILS TYPES - CLARKSVILLE NE MAP #17**

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE	HYDRIC SOIL
GbB	GLAUSTONE LOAM, 3 TO 8 PERCENT SLOPES	B	30	NO	NO
GcC	GLAUSTONE LOAM, 8 TO 15 PERCENT SLOPES	B	20	NO	NO
GmC	GLENVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES	C	37	YES	NO
Hg	HARBOR-CODORUS SILT LOAMS, 0 TO 3 PERCENT SLOPES	D	37	NO	YES
MqD	MANOR-BARNETTON SANDY LOAMS, 15 TO 25 PERCENT SLOPES, ROCKY	B	24	YES	NO

NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

PROFESSIONAL CERTIFICATE

DESIGN BY: RVE  
DRAWN BY: MDL  
CHECKED BY: RHV  
DATE: MAY 2016  
SCALE: AS SHOWN  
W.O. NO.: 13-38

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. 16183 EXPIRATION DATE: 06-27-2019

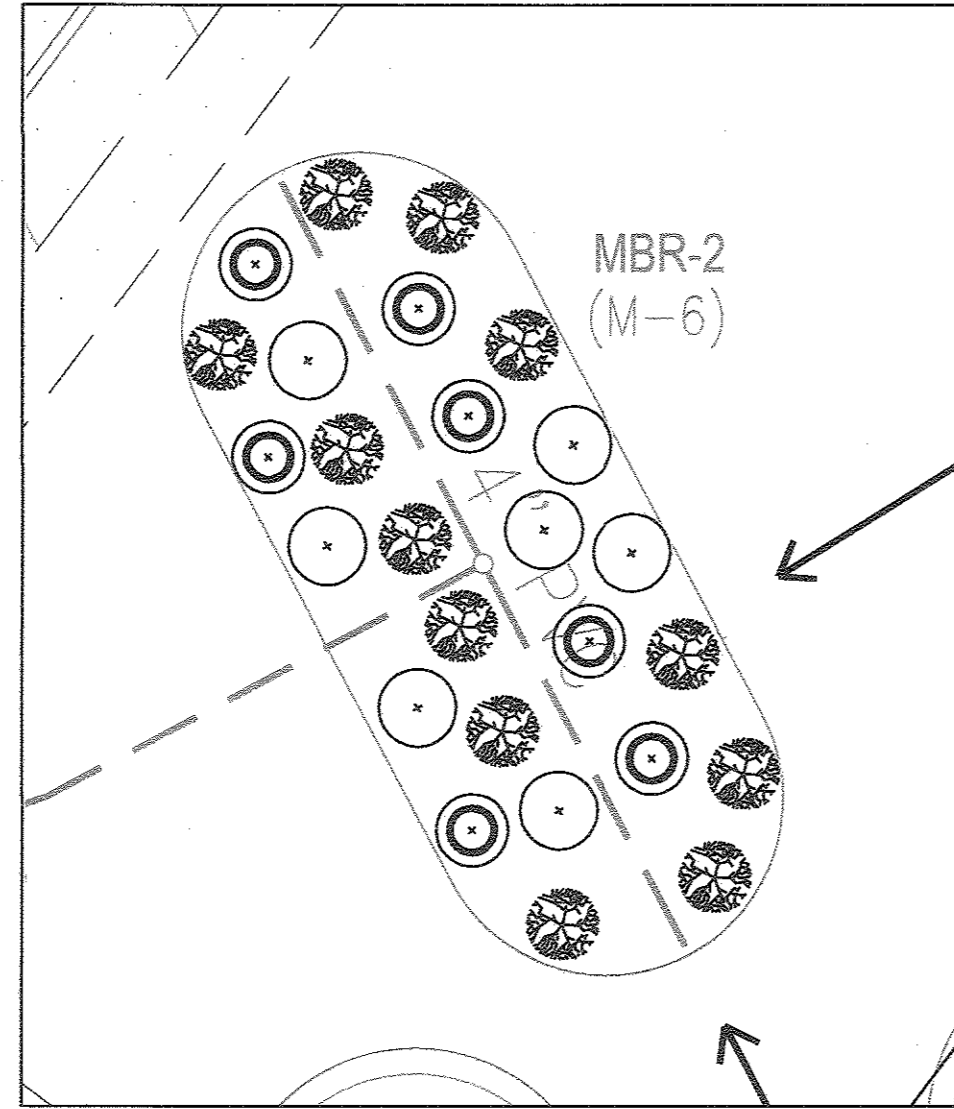
3 SHEET OF 6



**"MICRO-BIORETENTION" PLANTING SCHEDULE NOTES:**

- ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT MAN SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HOWARD COUNTY PLANTING SPECIFICATIONS.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
- FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
- CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.
- MICROBIORETENTION AREAS ARE TO BE PLANTED BASED ON A MINIMUM DENSITY OF 1000 STEMS PER PLANTED ACRE (0.229 STEMS PER SQUARE FOOT). ABOVE PLANTING RATIOS ARE TO BE APPLIED TO THE AREAS PROVIDED IN THE ESD SUMMARY.
- FILTER AREA SHALL BE SOLE COVERED BY PLANTINGS AT FULL GROWTH.

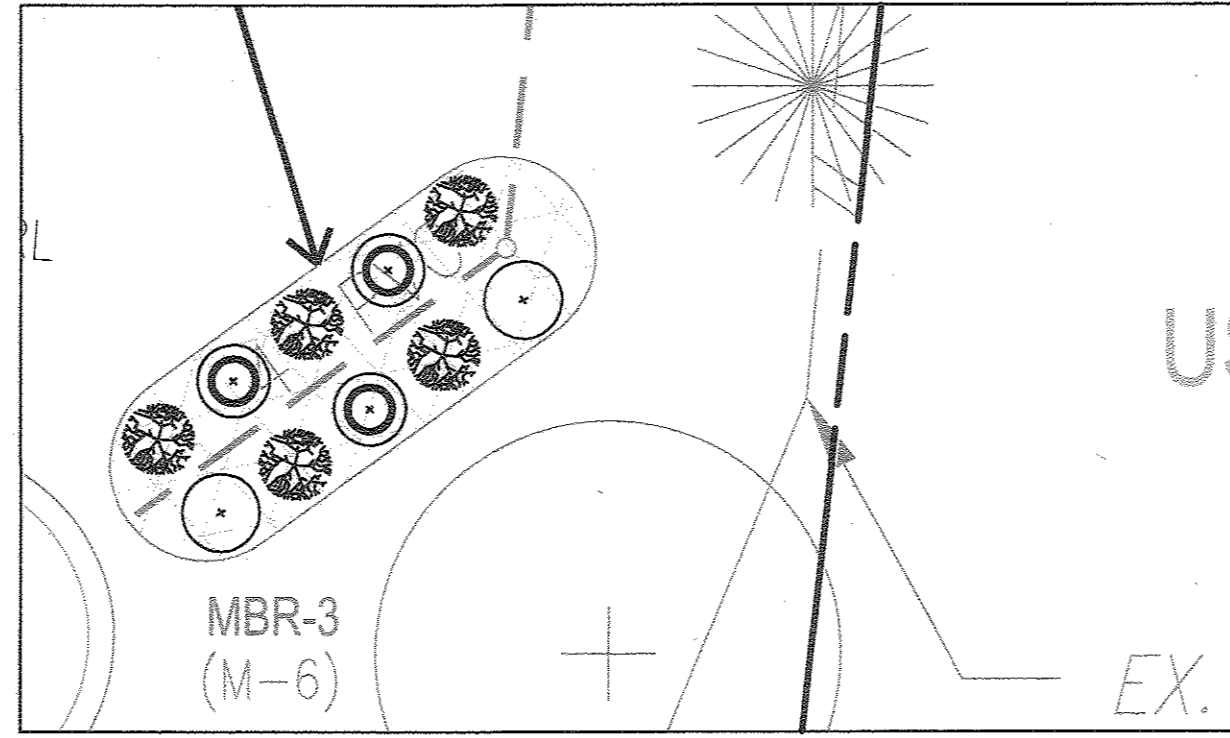
FOR INFORMATIONAL PURPOSES ONLY - SEE F-15-111



F 15-111 MBR-2 - PLANTING DETAIL (772 SF)  
SCALE: 1"=10'

QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
7	LINDERA BENZON SPICEBUSH	5 GALLON	CONT
7	ILEX GLABRA INKBERRY	3 GALLON	CONT
12	VIBURNUM TRILOBUM AMERICAN Highbush CRANBERRY	3 GALLON	CONT

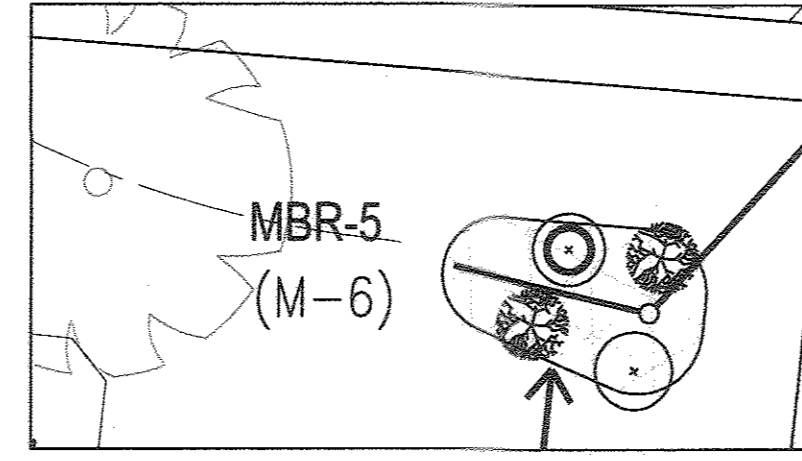
SF X 75% X .0229 STEMS PER SQUARE FOOT = PLANTS REQUIRED



MBR-3 - PLANTING DETAIL (267 SF)  
SCALE: 1"=10'

QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
2	LINDERA BENZON SPICEBUSH	5 GALLON	CONT
2	ILEX GLABRA INKBERRY	3 GALLON	CONT
5	VIBURNUM TRILOBUM AMERICAN Highbush CRANBERRY	3 GALLON	CONT

SF X 75% X .0229 STEMS PER SQUARE FOOT = PLANTS REQUIRED

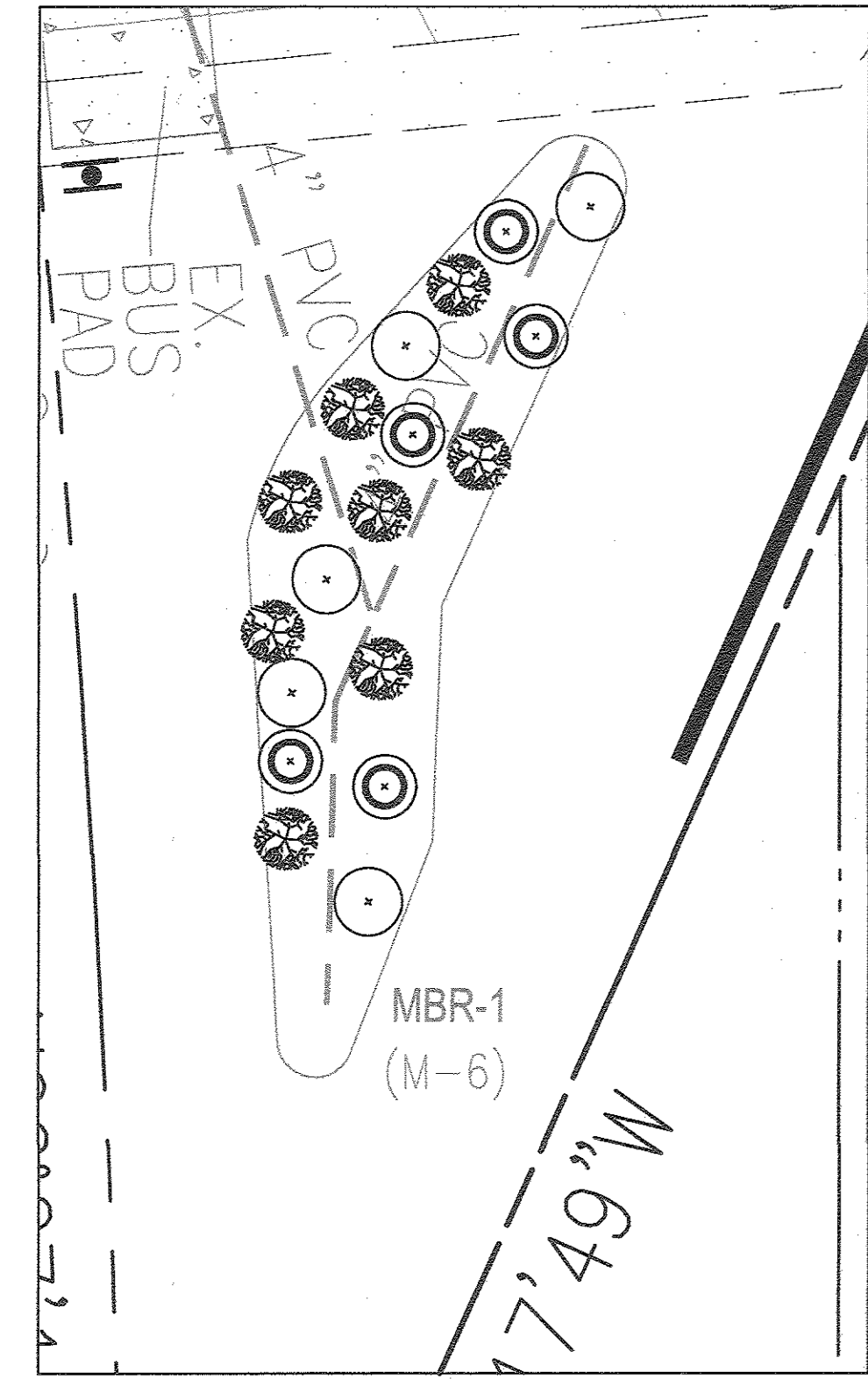


MBR-5 - PLANTING DETAIL (94 SF)  
SCALE: 1"=10'

QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
1	LINDERA BENZON SPICEBUSH	5 GALLON	CONT
1	ILEX GLABRA INKBERRY	3 GALLON	CONT
2	VIBURNUM TRILOBUM AMERICAN Highbush CRANBERRY	3 GALLON	CONT

SF X 75% X .0229 STEMS PER SQUARE FOOT = PLANTS REQUIRED

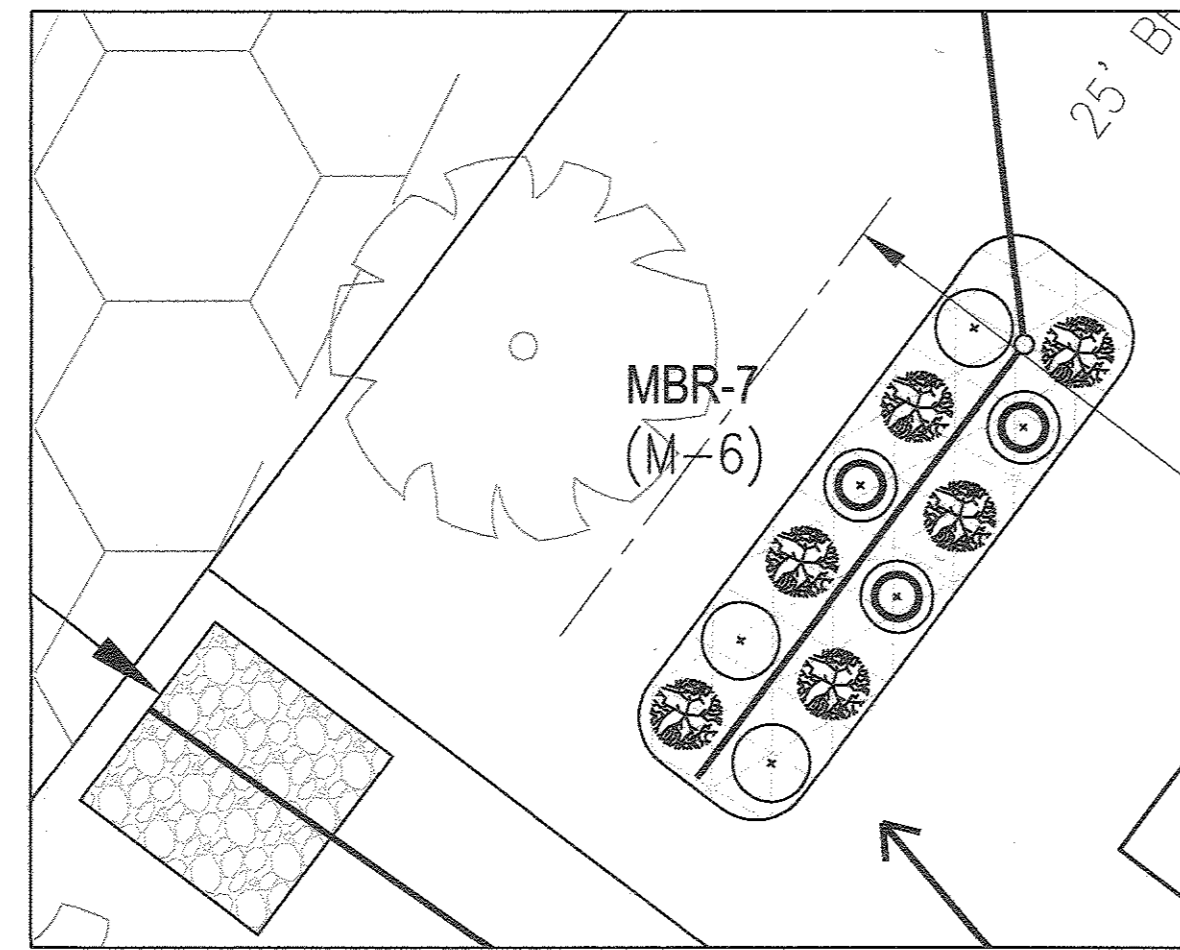
FOR INFORMATIONAL PURPOSES ONLY - SEE F-15-111



F15-111 MBR-1 - PLANTING DETAIL (517 SF)  
SCALE: 1"=10'

QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
5	LINDERA BENZON SPICEBUSH	5 GALLON	CONT
5	ILEX GLABRA INKBERRY	3 GALLON	CONT
8	VIBURNUM TRILOBUM AMERICAN Highbush CRANBERRY	3 GALLON	CONT

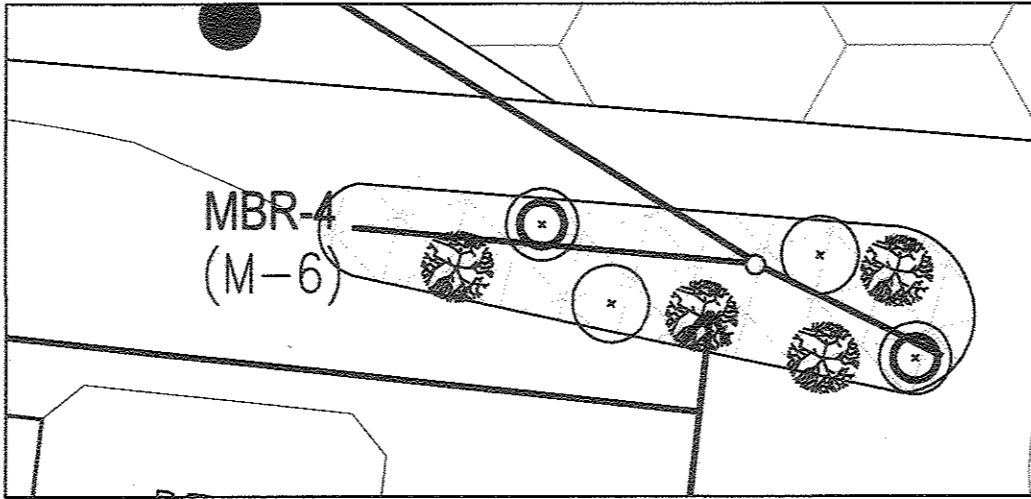
SF X 75% X .0229 STEMS PER SQUARE FOOT = PLANTS REQUIRED



MBR-7 - PLANTING DETAIL (324 SF)  
SCALE: 1"=10'

QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
3	LINDERA BENZON SPICEBUSH	5 GALLON	CONT
3	ILEX GLABRA INKBERRY	3 GALLON	CONT
6	VIBURNUM TRILOBUM AMERICAN Highbush CRANBERRY	3 GALLON	CONT

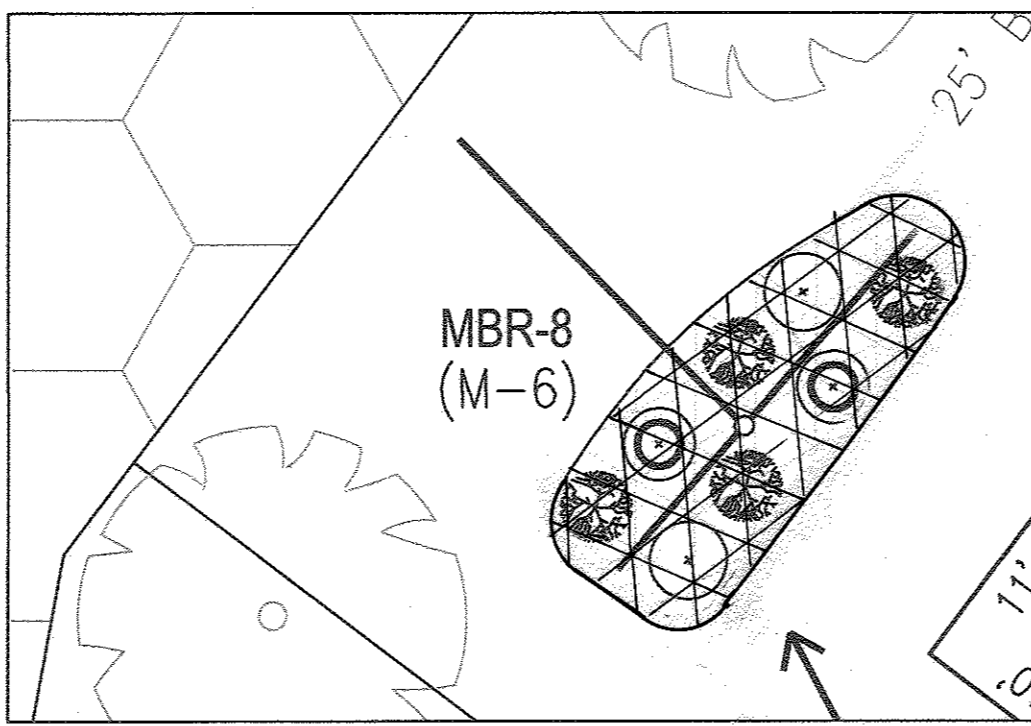
SF X 75% X .0229 STEMS PER SQUARE FOOT = PLANTS REQUIRED



MBR-4 - PLANTING DETAIL (222 SF)  
SCALE: 1"=10'

QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
2	LINDERA BENZON SPICEBUSH	5 GALLON	CONT
2	ILEX GLABRA INKBERRY	3 GALLON	CONT
4	VIBURNUM TRILOBUM AMERICAN Highbush CRANBERRY	3 GALLON	CONT

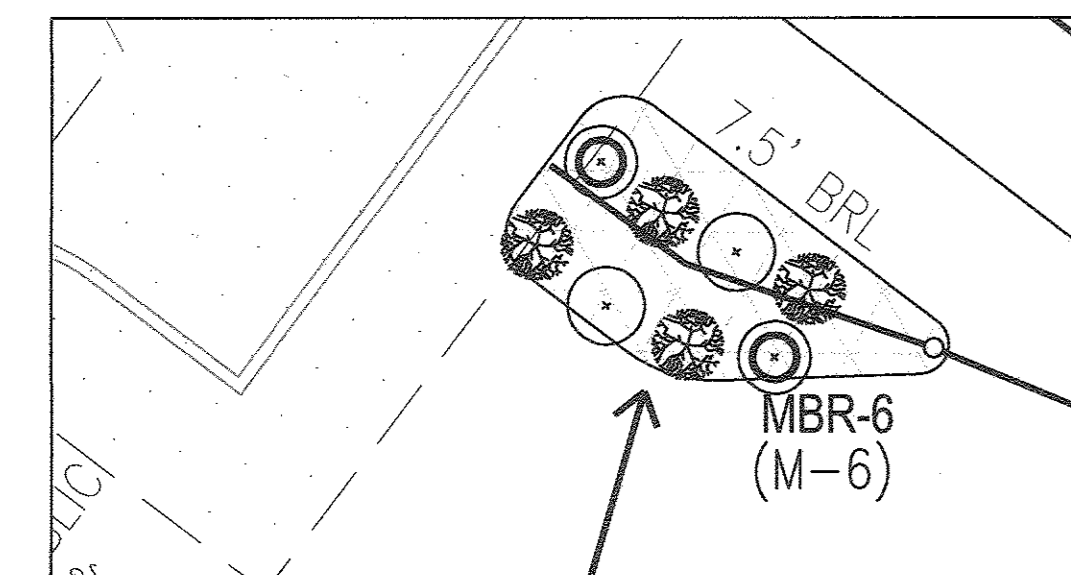
SF X 75% X .0229 STEMS PER SQUARE FOOT = PLANTS REQUIRED



MBR-8 - PLANTING DETAIL (241 SF)  
SCALE: 1"=10'

QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
2	LINDERA BENZON SPICEBUSH	5 GALLON	CONT
2	ILEX GLABRA INKBERRY	3 GALLON	CONT
4	VIBURNUM TRILOBUM AMERICAN Highbush CRANBERRY	3 GALLON	CONT

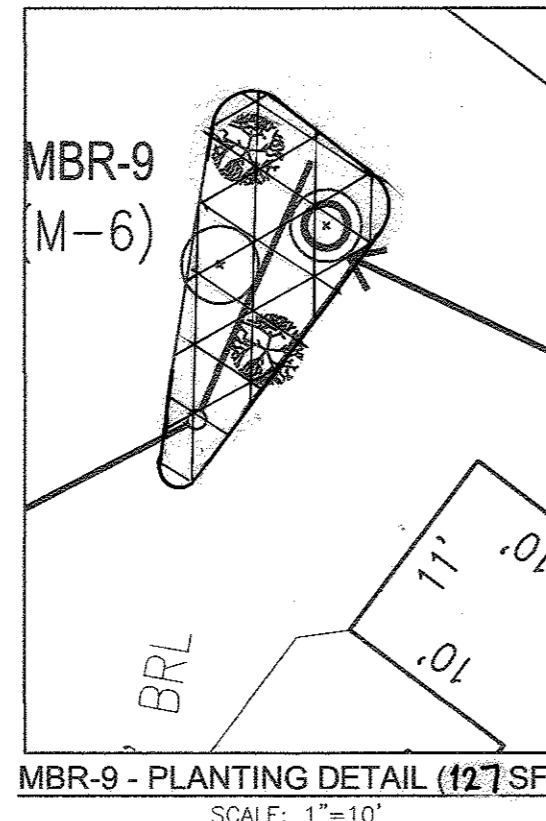
SF X 75% X .0229 STEMS PER SQUARE FOOT = PLANTS REQUIRED



MBR-6 - PLANTING DETAIL (198 SF)  
SCALE: 1"=10'

QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
2	LINDERA BENZON SPICEBUSH	5 GALLON	CONT
2	ILEX GLABRA INKBERRY	3 GALLON	CONT
4	VIBURNUM TRILOBUM AMERICAN Highbush CRANBERRY	3 GALLON	CONT

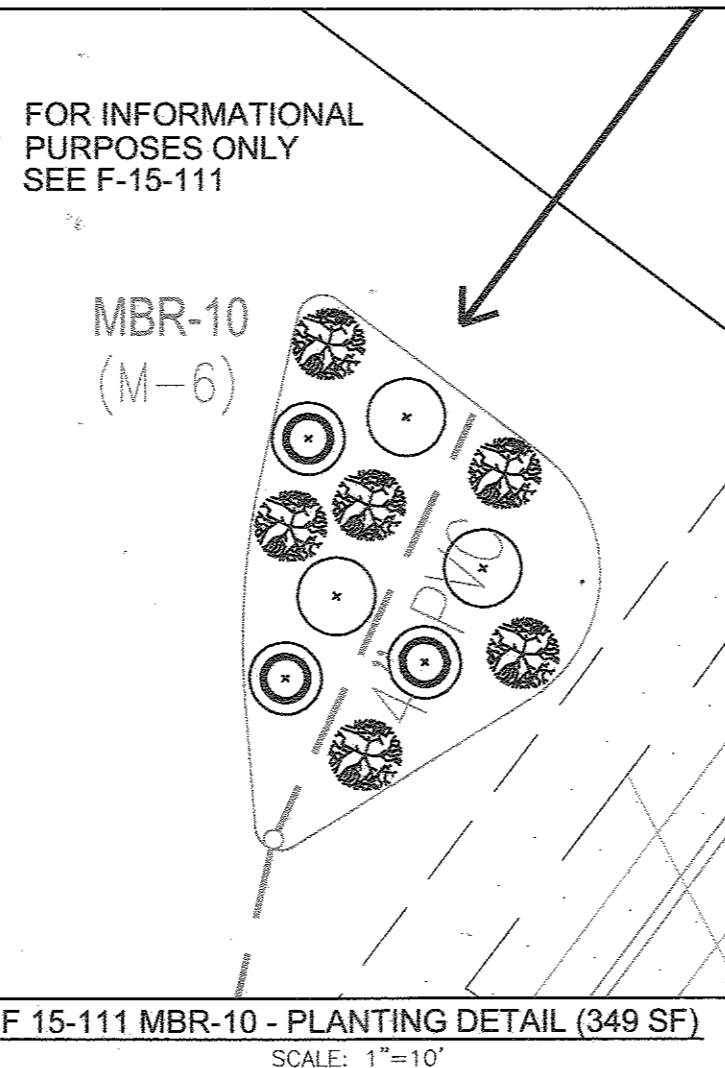
SF X 75% X .0229 STEMS PER SQUARE FOOT = PLANTS REQUIRED



MBR-9 - PLANTING DETAIL (127 SF)  
SCALE: 1"=10'

QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
1	LINDERA BENZON SPICEBUSH	5 GALLON	CONT
1	ILEX GLABRA INKBERRY	3 GALLON	CONT
2	VIBURNUM TRILOBUM AMERICAN Highbush CRANBERRY	3 GALLON	CONT

SF X 75% X .0229 STEMS PER SQUARE FOOT = PLANTS REQUIRED



F 15-111 MBR-10 - PLANTING DETAIL (349 SF)  
SCALE: 1"=10'

QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
3	LINDERA BENZON SPICEBUSH	5 GALLON	CONT
3	ILEX GLABRA INKBERRY	3 GALLON	CONT
6	VIBURNUM TRILOBUM AMERICAN Highbush CRANBERRY	3 GALLON	CONT

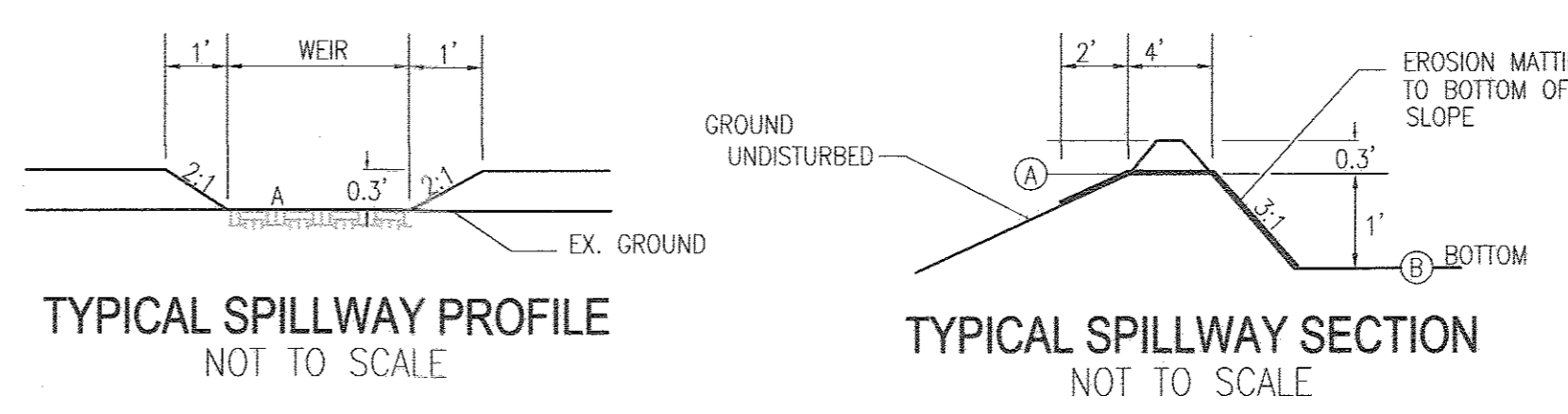
SF X 75% X .0229 STEMS PER SQUARE FOOT = PLANTS REQUIRED

**MICRO-BIORETENTION FACILITY - DESIGN ELEVATION CHART**

MBR FACILITY #	ESD WSEL A	TOP MULCH B	BOTTOM PLANT SOIL C	INV STONE D	INV STONE E	APPROX DIM
1	365.60	364.60	362.35	361.02	361.35	SEE PLAN
2	381.60	380.60	378.35	377.02	377.35	SEE PLAN
3	389.60	388.60	386.35	385.02	385.35	SEE PLAN
4	381.80	380.80	378.55	377.22	377.55	SEE PLAN
5	381.80	380.80	378.55	377.22	377.55	SEE PLAN
6	381.60	380.60	378.35	377.02	377.35	SEE PLAN
7	371.60	370.60	368.35	367.02	367.35	SEE PLAN
8	375.60	374.60	372.35	371.02	371.35	SEE PLAN
9	375.60	374.60	372.35	371.02	371.35	SEE PLAN
10	377.00	376.00	373.75	372.42	372.75	SEE PLAN

- NOTE:**
- MICRO-BIORETENTION FACILITIES MBR-1, MBR-3, AND MBR-10 MANAGE USE-IN-COMMON DRIVEWAY RUNOFF AND ARE CONSTRUCTED UNDER F15-111.
  - MICRO-BIORETENTION FACILITIES MBR-2, MBR-4, MBR-5, MBR-6, MBR-7, MBR-8, AND MBR-9 ARE PRIVATE ON-LOT FACILITIES AND SHALL BE CONSTRUCTED WITH THE DEVELOPMENT OF THEIR RESPECTIVE LOTS UNDER THIS SITE DEVELOPMENT PLAN.
  - PROVIDE 0.85 REV STORAGE BELOW UNDERDRAIN PIPE ON ALL FACILITIES.

**WEIR OUTLET MICRO-BIORETENTION/RAINGARDEN**

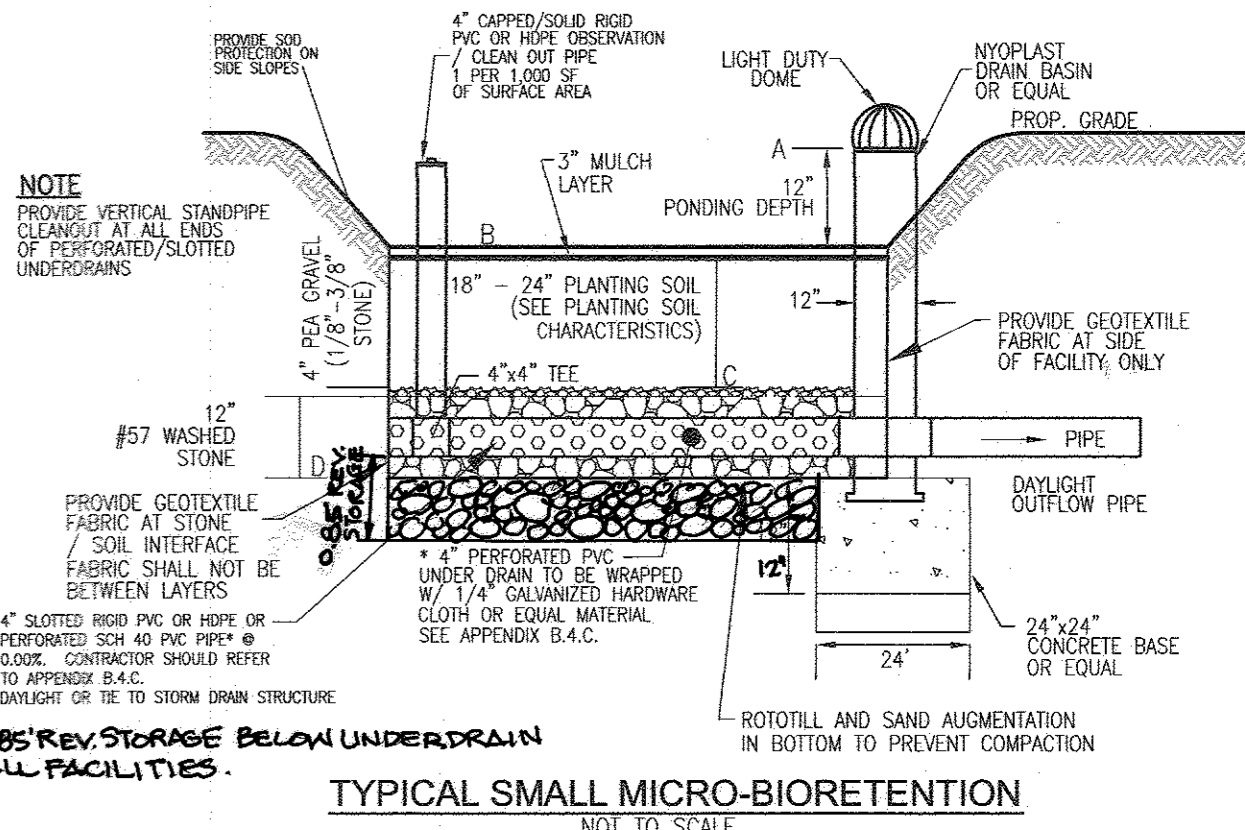


**OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3), MICRO-BIORETENTION (M-6), RAIN GARDENS (M-7), BIORETENTION SWALE (M-8), AND ENHANCED FILTERS (M-9)**

- 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 PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 WATLAND STORMWATER DESIGN MANUAL, VOLUME 8, TABLE A.4.1 AND 2.
- 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. TRIM DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
- 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.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

**APPENDIX B.4.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION BENCHES**

- MATERIAL SPECIFICATIONS**  
THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.4.1.
- FILTERING MEDIA OR PLANTING SOIL**  
THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTITUTES SHALL BE MIXED OR COMBINED WITHIN THE MICRO-BIORETENTION PRACTICE THAT MAY BE HARMFUL TO PLANT GROWTH OR FROM A HINDERANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERNARDIA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.06.01.02.  
THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:  
\* SOIL COMPOSITION - LOAMY SAND OR SANDY LOAM (SOIL TEXTURAL CLASSIFICATION)  
\* ORGANIC CONTENT - MINIMUM 10% BY DRY WEIGHT (ASTM D 2974). IN GENERAL, THIS CAN BE MET WITH A MIXTURE OF LOAMY SAND (60%-65%) AND COMPOST (35%-40%) OR SANDY LOAM (30%), COARSE SAND (30%), AND COMPOST (40%).  
\* CLAY CONTENT - MEDIA SHALL HAVE A CLAY CONTENT OF LESS THAN 2%  
\* PH RANGE - SHOULD BE BETWEEN 5.5 - 7.0. AMENDMENTS (E.G., LIME, IRON SULFATE PLUS SULFUR) MAY BE MIXED IN TO THE SOIL TO INCREASE OR DECREASE PH.  
THESE SHALL BE AT LEAST ONE SOIL TEST PER PROJECT. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL IF TOPSOIL IS IMPORTED. THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.
- COMPACTION**  
IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIORETENTION PRACTICES AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING LOADERS, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TIRE TRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH-PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.  
COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO RESTRUCTURE THE SOIL PROFILE THROUGHOUT THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.  
ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY POKED WATER BEFORE PREPARING (ROTOTILLING) BASE.  
WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE.  
WHEN BACKFILLING THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS CHISEL PLOW, RIPPER, OR SUBSOILER, HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.
- PLANT MATERIAL**  
RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A.2.3.
- PLANT INSTALLATION**  
COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS. MULCH SHOULD BE PLACED IN SURROUNDING TO A UNIFORM THICKNESS OF 2" TO 3" SHREDED OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.  
ROOTSTOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED 30 1/2" OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION. TREES SHALL BE BRIDGED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.  
GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUSS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.  
THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM MUSICAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS, DECATS, OR AT A MINIMUM, IMPROVES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.
- UNDERDRAINS**  
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:  
\* PIPE - SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM 758, TYPE PS 28, OR ASTM-M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED, 4" RIGID PIPE (E.G., PVC OF HDPE).  
\* PERFORATIONS - IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 1/8" DIAMETER LOCATED 4" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR 4x4) GALVANIZED HARDWARE CLOTH.  
\* GRAVEL - THE GRAVEL LAYER (NO. 57 STONE, PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.  
\* THE MAIN COLLECTOR PIPE SHALL BE AT A MINIMUM 0.5% SLOPE.  
\* A RIGID, NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1000 SQUARE FEET) TO PROVIDE A CLEAN-OUT PORT AND MONITOR PERFORMANCE OF THE FILTER.  
\* A 4" LAYER OF PEA GRAVEL (1/8" TO 3/8" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT MUDFLOW INTO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".  
THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5% OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).
- MISCELLANEOUS**  
THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.



NO.	REVISION	DATE
2	REVISE SWM PRACTICE CHART, CHANGES TO LOTS 1+8 AND ESC.	10/14/16

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Oliver E. Johnson* 5-18-16  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE  
*Walter J. Sedberry* 5-24-16  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE  
*William J. Jylee* 5-24-16  
 DIRECTOR DATE

**OWNER**  
 ESTATES AT RIVER HILL, LLC  
 3675 PARK AVE., SUITE 301  
 ELLICOTT CITY, MD 21043  
 (410) 480-0023

**DEVELOPER**  
 TRINITY HOMES MARY LAND, LLC  
 3675 PARK AVE., SUITE 301  
 ELLICOTT CITY, MD 21043  
 (410) 480-0023

**SITE DEVELOPMENT PLAN**  
**MICRO-BIORETENTION**  
**PLANTING SPECIFICATIONS, NOTES & DETAILS**  
**THE PRESERVE AT RIVER HILL**  
**LOTS 1-8 - SINGLE FAMILY DETACHED**  
**AND OPEN SPACE LOTS 10 & 11**

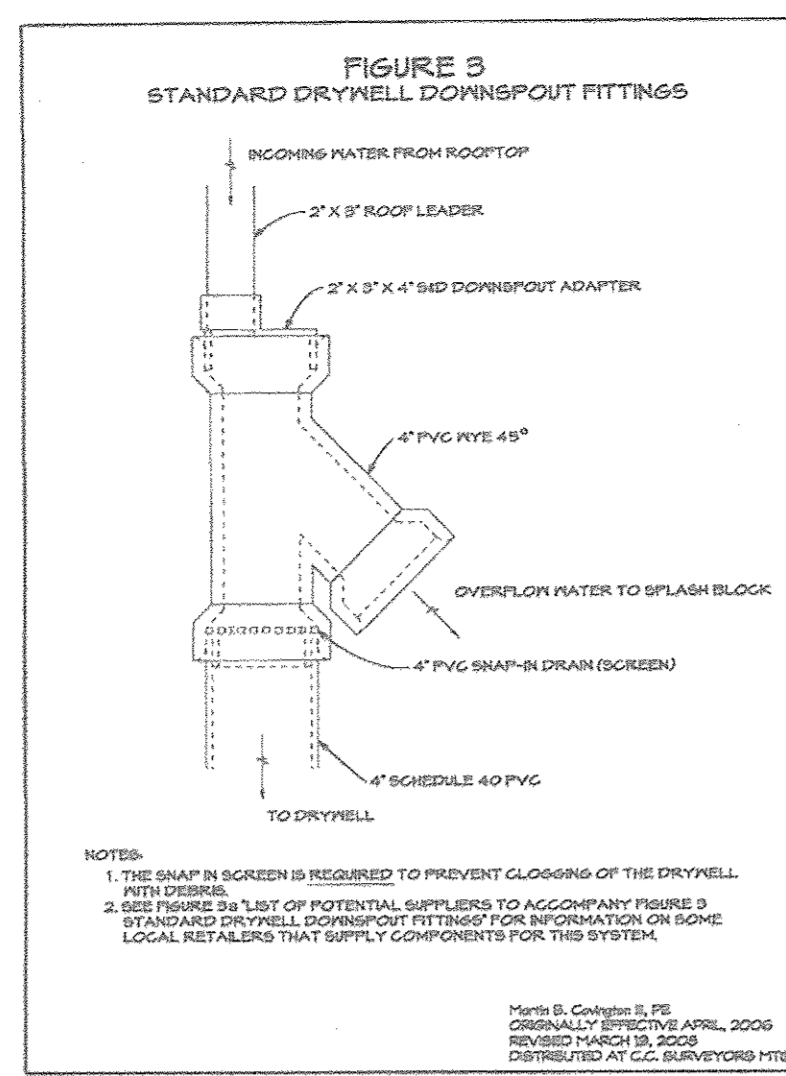
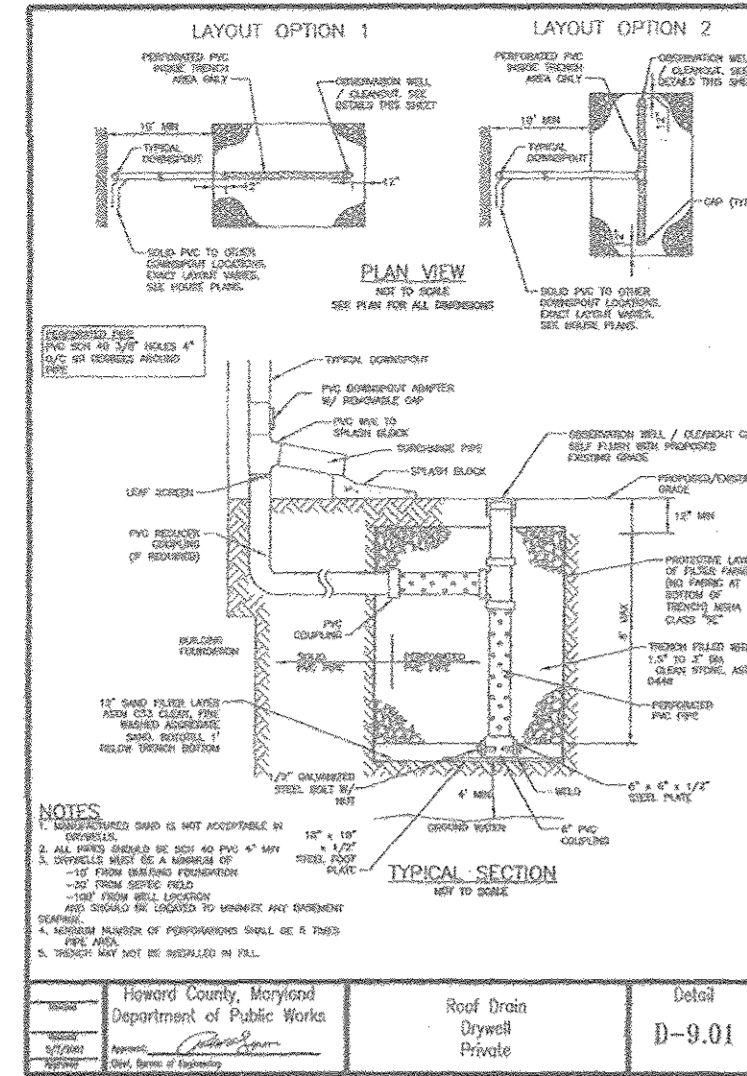
TAX MAP: 35 GRD: 14  
 ZONED: R-40  
 DPZ REF'S: SEE GENERAL NOTE #4

**ROBERT H. VOGEL ENGINEERING, INC.**  
 ENGINEERS • SURVEYORS • PLANNERS  
 8407 MAIN STREET  
 ELLICOTT CITY, MD 21043  
 TEL: 410.461.7666  
 FAX: 410.461.8991

**PROFESSIONAL CERTIFICATE**  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2018

DESIGN BY: RVE  
 DRAWN BY: MDL  
 CHECKED BY: RHV  
 DATE: MAY 2016  
 SCALE: AS SHOWN  
 W.D. NO.: 13-38

5 SHEET OF 6



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

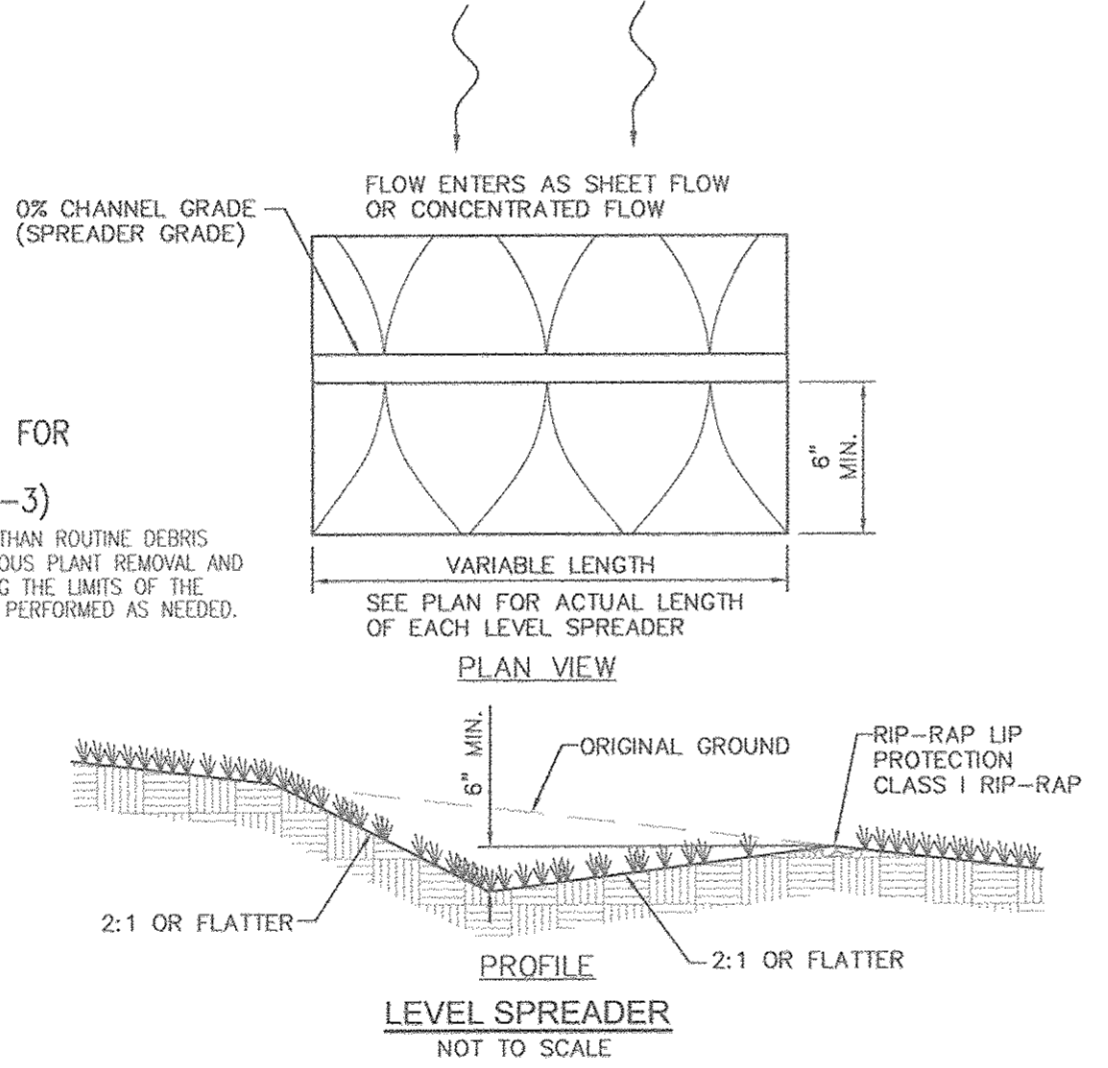
- THE MONITORING WELLS AND STRUCTURES SHALL BE INSPECTED ON A QUARTERLY BASIS AND AFTER EVERY LARGE STORM EVENT.
- WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS SHALL BE RECORDED OVER A PERIOD OF SEVERAL DAYS TO INSURE TRENCH DRAINAGE.
- A LOG BOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN THE 72 HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
- THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
- 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.

DW LOT #	NUMBER OF DWYS	PROP. GRADE OVER	TOP STONE	INV. STONE	SURFACE SIZE FT X FT	STONE DEPTH FT
4R	1	378.00	377.00	372.00	8.2X8.2	5
5R	2	376.00	375.00	370.00	11.6X11.6	5
6	1	376.00	375.00	370.00	8.2X8.2	5
7R	1	368.00	367.00	362.00	11.6X11.6	5

R= REAR OF LOT

**OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED SHEETFLOW TO CONSERVATION AREA (N-3)**

CONSERVATION AREAS SHALL REMAIN UNDISTURBED AND UNMANNAGED OTHER THAN ROUTINE DEBRIS REMOVAL AND REPAIRING AREA OF CONCENTRATED FLOW. INVASIVE AND NOXIOUS PLANT REMOVAL AND BI-ANNUAL MOWING FOR MEADOW AREAS MAY BE NEEDED. SIGNS DELINEATING THE LIMITS OF THE CONSERVATION AREA SHOULD BE MAINTAINED AND SUPPLEMENTAL PLANTINGS PERFORMED AS NEEDED.



**N-1. DISCONNECTION OF ROOFTOP RUNOFF**

**CONSTRUCTION CRITERIA:**

THE FOLLOWING ITEMS SHOULD BE ADDRESSED DURING THE CONSTRUCTION OF PROJECTS WITH PLANNED ROOFTOP DISCONNECTIONS:

- EROSION AND SEDIMENT CONTROL: EROSION AND SEDIMENT CONTROL PRACTICES (E.G., SEDIMENT TRAPS) SHALL NOT BE LOCATED IN VEGETATED AREAS RECEIVING DISCONNECTED RUNOFF
- SITE DISTURBANCE: CONSTRUCTION VEHICLES AND EQUIPMENT SHOULD AVOID AREAS RECEIVING DISCONNECTED RUNOFF TO MINIMIZE DISTURBANCE AND COMPACTION. SHOULD AREAS RECEIVING DISCONNECTED RUNOFF BECOME COMPACTED, SCARIFYING THE SURFACE OR ROTOTILLING THE SOIL TO A DEPTH OF FOUR TO SIX INCHES SHALL BE PERFORMED TO ENSURE PERMEABILITY. ADDITIONALLY, AMENDMENTS MAY BE NEEDED FOR TIGHT, CLAYEY SOILS.

**INSPECTION:**

A FINAL INSPECTION SHALL BE CONDUCTED BEFORE USE AND OCCUPANCY APPROVAL TO ENSURE THAT SIZING FOR TREATMENT AREAS HAVE BEEN MET AND PERMANENT STABILIZATION HAS BEEN ESTABLISHED.

**MAINTENANCE CRITERIA:**

MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION (E.G., BY PLANTING TREES OR SHRUBS ALONG THE PERIMETER). IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

**HOWARD COUNTY - OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF ROOFTOP RUNOFF (N-1), DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)**

- MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE OWNER SHALL ENSURE THE AREAS RECEIVING RUNOFF ARE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREA. IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 Chief, Development Engineering Division: *[Signature]* 5-19-16  
 Chief, Division of Land Development: *[Signature]* 5-24-16  
 Director: *[Signature]* 5-24-16

**PROJECT CONGEDO PROPERTY**

DESIGNER R/HV DATE 05/23/14 ROBERT H. VOGEL ENGINEERING, INC.

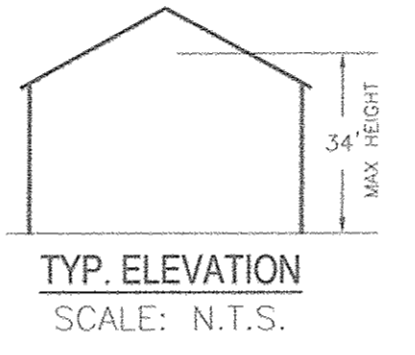
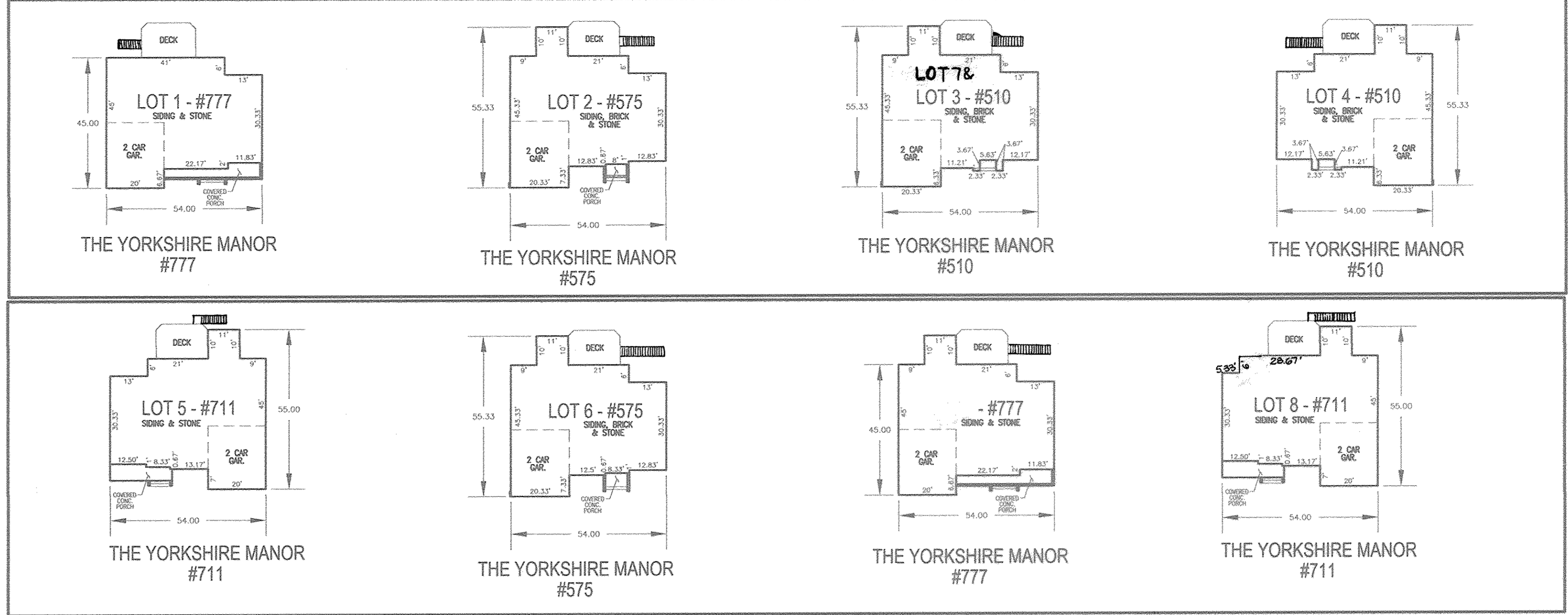
AREA TREATED	FACILITY	ENVIRONMENTAL SITE DESIGN PRACTICE						ESDv VOLUME
		PERMEABLE PAVEMENT	MICRO BIO RETENTION	SHEET FLOW BUFFER	DRY WELL	ROOFTOP DISCONNECT	X	
16690	MBR-1	0	689	0	0	0	0	689
17442	MBR-2	0	1029	0	0	0	0	1029
15929	MBR-4	0	125	0	0	0	0	125
	LEVEL SPREADER	0	0	96	0	0	0	96
	MBR-5	0	296	0	0	0	0	296
14198	MBR-6	0	264	0	0	0	0	264
	LEVEL SPREADER	0	0	96	0	0	0	96
	DRY WELL LOT 4	0	0	0	135	0	0	135
	DRY WELL LOT 5A	0	0	0	135	0	0	135
	DRY WELL LOT 5B	0	0	0	270	0	0	270
26259	MBR-7	0	432	0	0	0	0	432
	MBR-8	0	288	0	0	0	0	288
	MBR-9	0	144	0	0	0	0	144
	DRY WELL LOT 6	0	0	0	125	0	0	125
	DRY WELL LOT 7	0	0	0	625	0	0	625
	DISCONNECTIONS	0	0	0	0	39	0	39
9271	MBR-10	0	465	0	0	0	0	465
4857	MBR-3	0	288	0	0	0	0	288

TOTAL AREA 0 SF 0.00 AC TOTAL ESDv PROVIDED 0

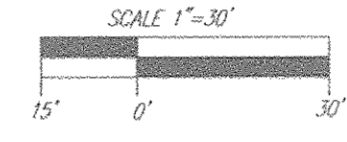
NOTE: MICRO BIORETENTION VOLUMES ARE BASED FULL ESDv AND DO NOT REPRESENT THE REQUIRED STORAGE RATIO OF 75%

**THE PRESERVE AT RIVER HILL**

TEST PIT PIT	SURFACE ELEVATION	BORING DEPTH PROPOSED	DUG	CONDITION
TP1	369.1	8	8	DRY
TP2	387.9	8	8	DRY
TP3	389.9	8	8	DRY
TP4	379.2	8	8	DRY
TP5	384.8	8	8	DRY
TP6	364.8	8	6	BROKEN ROCK
TP7	373.2	8	8	DRY
TP8	380.7	8	8	DRY



HOUSE TYPES SCALE: 1"=30'



**NOTES:**

- ADDITIONAL HOUSE TYPES AND OPTIONS MAY FIT ON ANY GIVEN LOT.
- THE STAKING OF FOUNDATIONS PRIOR TO CONSTRUCTION TO ENSURE COMPLIANCE WITH REGULATORY BUILDING RESTRICTION LINES IS RECOMMENDED.
- A MINIMUM OF 10 FEET SHALL BE PROVIDED BETWEEN THE CHOSEN HOME MODEL AND A MICRO-BIORETENTION FACILITY.
- MODEL ELEVATION SHALL NOT EXCEED 34" MAX HEIGHT AS ALLOWED BY R-ED ZONE.
- IN ACCORDANCE WITH SECTION 128.0.A OF THE HOWARD COUNTY ZONING REGULATIONS:
  - MAX ENCROACHMENT INTO SETBACK FOR CORNICES, EAVES AND CANTILEVERED BUILDING FEATURES WHICH DO NOT CONTAIN ANY FLOOR AREA OR EXTENSION OF INTERIOR LIVING SPACE IS: 3 FEET INTO ANY SETBACK
  - MAX ENCROACHMENT INTO SETBACK FOR BAY WINDOWS, WINDOW WELLS, ORNLS, VESTIBULES, BALCONIES AND CHIMNEYS IS: 4 FEET INTO ANY SETBACK OR A REQUIRED DISTANCE BETWEEN BUILDINGS, PROVIDED THE FEATURE HAS A MAXIMUM WIDTH OF 16 FEET AS MEASURED HORIZONTALLY ALONG THE WALL FROM WHICH THE FEATURE EXTENDS.
  - MAX ENCROACHMENT INTO SETBACK FOR EXTERIOR STAIRWAYS OR RAMPS, ABOVE OR BELOW GROUND LEVEL EXCLUDING THOSE ATTACHED TO A PORCH OR DECK (SEE E1) IS: 10 FEET INTO A FRONT SETBACK OR A SETBACK FROM A PROJECT BOUNDARY OR DIFFERENT ZONING DISTRICT; 16 FEET INTO A REAR SETBACK; 4 FEET INTO A SIDE SETBACK OR A REQUIRED DISTANCE BETWEEN BUILDINGS.
  - MAX ENCROACHMENT INTO SETBACK FOR OPEN OR ENCLOSED PORCHES AND DECKS, AND THE STAIRWAYS OR RAMPS ATTACHED THERETO IS: 10 FEET INTO A FRONT OR REAR SETBACK, A SETBACK FROM A PROJECT BOUNDARY, A SETBACK FROM A DIFFERENT ZONING DISTRICT, OR A REQUIRED DISTANCE BETWEEN BUILDINGS.
- REFER TO SECTION 128.0.A.1.J. PREVIOUS SECTION 128.A.1.J. OF THE ZONING REGULATIONS (CB-2-2012) WHICH ALLOWS SUNROOMS AND ROOM EXTENSIONS TO EXTEND NOT MORE THAN 10 FEET INTO THE REAR SETBACK ALONG NOT MORE THAN 60% OF THE REAR FACE OF A DWELLING ON A LOT WHICH ADJACENT OPEN SPACE ALONG A MAJORITY OF THE REAR LOT LINE FOR R-ED LOTS RECORDED AFTER THE EFFECTIVE DATE OF CB-2-2012 (MAY 13, 2012).

3	REVISE THE HOUSE TYPE ON LOT 7	8/16/17
1	ADD STEPS TO DECKS VARIOUS LOTS	8/16/16
NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN**  
 HOUSE TYPES AND STORMWATER MANAGEMENT NOTES AND DETAILS  
**THE PRESERVE AT RIVER HILL**  
 LOTS 1-8 - SINGLE FAMILY DETACHED AND OPEN SPACE LOTS 10 & 11

TAX MAP: 35 GRD: 14 5TH ELECTION DISTRICT DPZ REF'S: SEE GENERAL NOTE #4 PARCELS: 64 ZONED: R-ED HOWARD COUNTY, MARYLAND

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DESIGN BY: RVE  
 DRAWN BY: MDL  
 CHECKED BY: RHV  
 DATE: MAY 2016  
 SCALE: AS SHOWN  
 W.O. NO.: 13-38

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. 16193 EXPIRATION DATE: 09-27-2018

PROFESSIONAL CERTIFICATE

6 SHEET OF 6