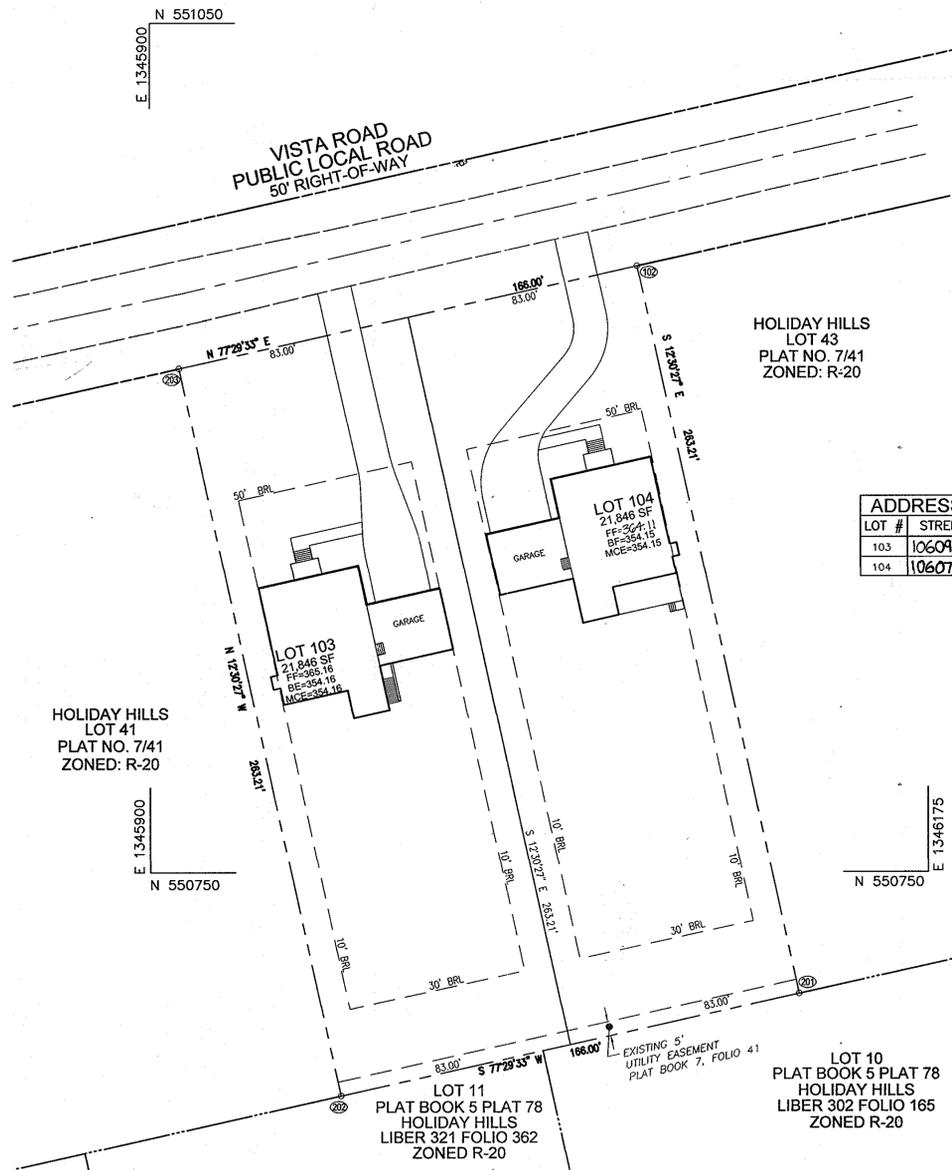


SITE DEVELOPMENT PLAN

HOLIDAY HILLS LOTS 103 & 104

A RESUBDIVISION LOT 42 SECOND ADDITION TO
HOLIDAY HILLS SUBDIVISION PLAT BOOK 7, FOLIO 41



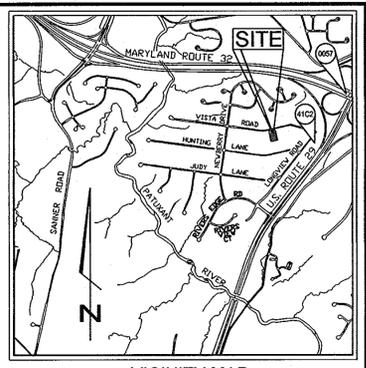
PLAN VIEW
SCALE: 1" = 30'

LEGEND

- LIMIT OF DISTURBANCE
- EX. DRIVEWAY TO BE REMOVED
- PROPOSED MICRO BIORETENTION FACILITY
- PROPOSED EROSION CONTROL MATTING

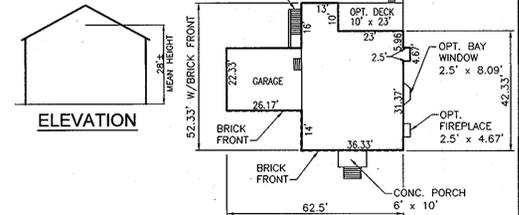
BENCHMARKS

HOWARD COUNTY BENCHMARK 41C2N
N 551,616.4187 E 1,348,104.2341
HOWARD COUNTY BENCHMARK 0057N
N 550,835.2139 E 1,347,017.6897



VICINITY MAP
SCALE: 1" = 2000'
ADC MAP 5052, J-2

COORDINATE TABLE		
NUMBER	NORTHING	EASTING
102	550963.9756	1346072.3252
201	550707.0123	1346129.3282
202	550671.0619	1345967.2678
203	550928.0253	1345910.2649



CHAMBERLAIN HOUSE MODEL
SCALE: 1" = 30'

ADDRESS CHART	
LOT #	STREET ADDRESS
103	10609 VISTA ROAD
104	10607 VISTA ROAD

SHEET INDEX		
DESCRIPTION		SHEET NO.
COVER SHEET		1 OF 3
SITE LAYOUT, GRADING, SEDIMENT AND EROSION CONTROL, LANDSCAPE, AND SOILS PLAN		2 OF 3
SEDIMENT AND EROSION CONTROL, LANDSCAPE NOTES AND DETAILS		3 OF 3

PERMIT INFORMATION CHART					
SUBDIVISION NAME	SECTION / AREA	LOT / PARCEL			
HOLIDAY HILLS		LOT 42 / PARCEL 220			
PLAT REF.	BLOCK NO	ZONE	TAX MAP	ELECT DIST.	CENSUS TR.
21619	6	R-20	41	5TH	6051.02

OWNERS
SD PROPERTIES
3138 ROGERS AVENUE
ELLCOTT CITY, MARYLAND 21043
(410-203-2460)

NO.	REVISION	DATE
2	Revise General Note 22.	
1	REVISE FIRST FLOOR ELEVATION LOT 104	11/22/11

SITE DEVELOPMENT PLAN
COVER SHEET
HOLIDAY HILLS LOTS 103 & 104
A RESUBDIVISION LOT 42 OF HOLIDAY HILLS, PLAT BOOK 7, FOLIO 41
DPZ FILES: WP-10-151, ECP-11-013, F-10-111

TAX MAP 41, GRID 6, 5TH ELECTION DISTRICT PARCEL 220
HOWARD COUNTY, MARYLAND

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

PROFESSIONAL CERTIFICATION
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. 161193 EXPIRATION DATE 09-27-2012.

DESIGN BY: JTD/JCO
DRAWN BY: HS
CHECKED BY: RHV
DATE: APRIL 2011
SCALE: AS SHOWN
W.O. NO.: 09-42

1 SHEET OF 3

- GENERAL NOTES**
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
 - THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
MISS UTILITY 1-800-257-7777
BELL ATLANTIC TELEPHONE CO. 725-2976
HOWARD COUNTY BUREAU OF UTILITIES: 313-2968
VERIZON CABLE LOCATION DIVISION: 393-3553
B.G.&E. CO. CONTRACTOR SERVICES: 850-4620
B.G.&E. CO. UNDERGROUND DAMAGE CONTROL: 787-4620
STATE HIGHWAY ADMINISTRATION: 531-5533
 - 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.
 - ANY DAMAGE TO PUBLIC RIGHT-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
 - EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS AND AVAILABLE RECORD DRAWINGS. CONTRACTOR 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.
 - SHC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.
 - FOR DRIVEWAY ENTRANCE DETAILS REFER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL R-6.03.
 - THE PROJECT BOUNDARY IS BASED ON A FIELD RUN BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC. IN FEBRUARY 2010.
 - THE TOPOGRAPHY SHOWN HEREON IS BASED ON FIELD RUN TOPOGRAPHY PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC. IN FEBRUARY 2010.
 - PUBLIC WATER AVAILABLE THROUGH CONTRACT 34-1810-D AND PUBLIC SEWER AVAILABLE THROUGH CONTRACT 30-3123-D. WATER AND SEWER SERVICE WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122B OF THE HOWARD COUNTY CODE.
 - THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 41C2N AND 0057N WERE USED FOR THIS PROJECT.
 - THIS PROJECT IS EXEMPT FROM CPV STORM WATER MANAGEMENT SINCE THE SITE P_e IS LESS THAN 1".
 - THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT.
 - NO STREAMS EXIST ON SITE.
 - NO 100-YEAR FLOODPLAIN EXIST ON SITE.
 - SUBJECT PROPERTY ZONED R-20 PER 2/02/04 COMPREHENSIVE ZONING ZONING PLAN AND AMENDED BY THE COMPREHENSIVE LITE AMENDMENT DATED 07/28/06.
 - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 18.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF \$6,300.00 FOR THE REQUIRED LANDSCAPE TREES WILL BE POSTED AS PART OF THE BUILDER'S GRADING PERMIT. THE REQUIRED LANDSCAPING IS AS FOLLOWS: PERIMETER LANDSCAPE FOR INFILL DEVELOPMENT (3 SHADE, 4 ORNAMENTAL AND 16 EVERGREEN TREES IN THE AMOUNT OF \$3,900.00; REPLACEMENT TREES (4 SHADE TREES SUBSTITUTED FOR THE REMOVAL OF 2 SPECIMEN TREES IN THE AMOUNT OF \$1,200.00); AND, STREET TREES (4 SHADE TREES IN THE AMOUNT OF \$1,200.00).
 - THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS (COUNCIL BILL 45-2003), DEVELOPMENT OR CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION OR BUILDING/GRADING PERMIT.
 - "DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
a) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE).
b) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CLIP COATING.
c) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% CHANGE AND MINIMUM OF 45-FOOT DEPTH TURNING RADIUS.
d) STRUCTURES (CULVERTS/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.
 - DPZ FILE NUMBERS: WP-10-151, ECP-11-013, F-10-111.
 - THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT, TO FULFILL THE 0.15 ACRES OF AFFORESTATION REQUIREMENT, THE DEVELOPER HAS PAID A FEE-IN-LIEU IN THE AMOUNT OF \$4,900.50, UNDER F-10-111.
 - STORM WATER MANAGEMENT HAS BEEN ADDRESSED FOR SITE USING 2007 MARYLAND STORMWATER DESIGN MANUAL (CHAPTER 5) APPROVED UNDER F-10-111.
A. CHANNEL PROTECTION VOLUME (CP_v) IS NOT REQUIRED (P_e FOR ENTIRE SITE IS UNDER 1.0")
B. WATER QUALITY VOLUME (WQ_v) AND RECHARGE VOLUME (REV) TO BE PROVIDED BY MICRO BIORETENTION FACILITIES, RAIN GARDENS AND OPEN CHANNEL FLOW (WHEN IMPERVIOUS AREAS CAN NOT BE DIRECTED TO ONE OF THE MICRO BIORETENTION FACILITIES), DRY WELLS AND (N-2) DISCONNECT OF NON-ROOFTOP DISCHARGE.
 - THIS DEVELOPMENT IS 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, BERMS, FENCES, SIMILAR HOUSING UNIT TYPES AND THE DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSES.
 - NO CLEARING OF EXISTING VEGETATION IS PERMITTED WITHIN THE LANDSCAPE EDGE FOR WHICH CREDIT IS BEING TAKEN, HOWEVER, LANDSCAPE MAINTENANCE IS AUTHORIZED.
 - 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 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE LANDSCAPE MANUAL.
 - AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWIT LISTED AND APPROVED FOR THIS SITE SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTING MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
 - REFERENCE WAIVER PETITION WP 10-151 APPROVED 09/13/2010
A. SECTION 16.1205(a) TO ALLOW REMOVAL OF 2 SPECIMEN TREES AND REPLACE THEM WITH 4 ADDITIONAL PERIMETER TREES.
B. SECTION 16.134(b)(2) TO ALLOW A FEE-IN-LIEU OF SIDEWALK CONSTRUCTION (\$2368.00)
C. SECTION 16.132(a)(2)(c)(c) TO ALLOW A FEE-IN-LIEU OF ROAD CONSTRUCTION (\$2324.00)
D. SECTION 16.135(a) TO NOT PROVIDE STREET LIGHTING
 - A FOREST STAND DELINEATION WAS PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC., DATED MAY 2010. FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL SHALL BE COMPLIED WITH.
 - NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100-YEAR FLOODPLAIN.
 - IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS, OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
 - A TEST PIT FOR THE MICRO-BIORETENTION FACILITIES WAS CONDUCTED ON MARCH 2011, NO ROCK OR WATER WAS ENCOUNTERED TO A DEPTH OF 4' BELOW THE BOTTOM OF THE FACILITIES.

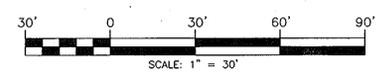
SITE DATA
LOCATION: TAX MAP 41, GRID 6, PARCEL 220
DEED REFERENCE: L3563 F.341
5TH ELECTION DISTRICT
EXISTING ZONING: R-20
PER THE COMPREHENSIVE ZONING PLAN DATED 2/02/04.
GROSS AREA OF PARCEL: 1.0031 AC.
LIMIT OF DISTURBANCE: 0.7297 AC.
AREA TO BE ROOFED OR PAVED: 0.1874 AC.
AREA TO BE VEGETATIVELY STABILIZED: 0.5423 AC.
AREA OF RIGHT OF WAY: 0.00000 AC.
AREA OF FLOODPLAIN: N/A
AREA OF STEEP SLOPES: N/A
NET AREA OF PROJECT: 1.0031 AC
NUMBER OF RESIDENTIAL LOTS PROPOSED: 2 LOTS
AREA OF PROPOSED RESIDENTIAL LOTS: 43,692 SF (1.00 AC)
AREA OF SMALLEST BUILDABLE LOT PROPOSED: 21,846 SF
NUMBER OF PROPOSED OPEN SPACE LOTS: 0
NUMBER OF NON-BUILDABLE BULK PARCELS: 0

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Robert H. Vogel 7/8/11
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Robert H. Vogel 7/12/11
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Robert H. Vogel 7/12/11
DIRECTOR DATE



SOILS LEGEND		
SYMBOL	NAME/DESCRIPTION	TYPE
GnB	GLENVILLE-BAILE SILT LOAM 0 TO 8 PERCENT SLOPES	C
GfB	GLADSTONE-URBAN LAND COMPLEX 0 TO 8 PERCENT SLOPES	B

SCHEDULE 'A'- PERIMETER LANDSCAPE EDGE (F-10-111)					
CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES		TOTAL	
PERIMETER NUMBER	P-1	P-2	P-3	P-4	
LANDSCAPE TYPE	N/A	A	B		
LF OF ROADWAY FRONTAGE / PERIMETER	166 LF	263 LF	166 LF	263 LF	
NUMBER OF PLANTS REQUIRED					
SHADE TREES	N/A	5	3	5	13
EVERGREEN TREES		7	-	7	14
CREDIT FOR EXISTING VEGETATION YES/NO	N/A	YES	YES	YES	-
SHADE TREES		3	2	2	7
ORNAMENTAL (2:1 SUB FOR SHADE)		-	-	-	-
EVERGREEN TREES		-	-	-	-
NUMBER OF PLANTS PROVIDED	N/A				
SHADE TREES		1	-	2	3
ORNAMENTAL (2:1 SUB FOR SHADE)		2*	-	2**	4
EVERGREEN TREES (2:1 SUB FOR SHADE)		7	2**	7	14

NOTE: 1 LEYLAND CYPRESS FROM PERIMETER 4 RELOCATED TO PERIMETER 3, ALONG WITH 2 LEYLAND CYPRESS RELOCATED FROM PERIMETER 2.
 *P-2 - SUBSTITUTION: 2 ORNAMENTAL FOR 1 SHADE TREE
 **P-3 - SUBSTITUTION: 2 EVERGREEN FOR 1 SHADE TREE
 ***P-4 - SUBSTITUTION: 2 ORNAMENTAL FOR 1 SHADE TREE

PLANT LIST				
QUAN.	BOTANICAL NAME	SIZE	REM.	
7	ACER RUBRUM 'AUTUMN FLAME' AUTUMN FLAME RED MAPLE	2 1/2"-3" CAL.	B & B	
4	AMUR MAPLE (SHADE TREES- GROWTH HEIGHT=20') ACER GINNALA	2 1/2"-3" CAL.	B & B	
16	LEYLAND CYPRESS CUPRESSOCYPARIS LEYLANDI	5'-6" HT	B & B	

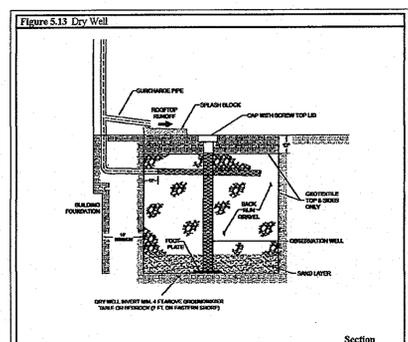
NOTE: 2 ADDITIONAL SHADE TREES PROVIDED FOR EACH SPECIMEN TREE REMOVED (2X2=4 ADDITIONAL TREES) PER WP-10-151

KEY	QUAN.	TO BE SAVED
	7	EXISTING TREES RETAINED FOR CREDIT

STREET TREE CALCULATION (F-10-111)			
ROAD NAME	LINEAR FEET	NO. REQUIRED	NO. PROVIDED
VISTA ROAD	166/40	4	4

STREET TREE SCHEDULE (F-10-111)				
KEY	QUAN.	BOTANICAL NAME	SIZE	REM.
	4	AMUR MAPLE (SHADE TREES- GROWTH HEIGHT=20') ACER GINNALA	2 1/2"-3" CAL.	B & B

DRYWELL DETAIL



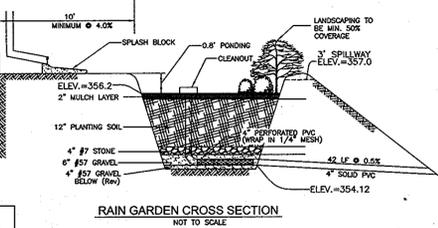
DRYWELL DIMENSION

DRYWELL	SF IMP	VOL OF STONE	L & W	DEPTH
	SF	CF	FT	FT
A	528	139	5.5	4.6
B	226	60	4	3.7
C	888	234	7	4.8
D	290	77	4	4.8
E	290	77	4	4.8

BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

SIGNATURE OF DEVELOPER: _____ DATE: _____



RAIN GARDEN DETAIL

RAIN GARDEN PLANTING DETAIL

OPERATION & MAINTENANCE SCHEDULE FOR RAIN GARDENS

- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. 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 PESTS. WEEDING AND MAINTENANCE SHALL REMOVE DEAD MATERIAL AND PRUNING.
- SCHEDULE OF PLANT INSPECTION WILL BE TEST A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DECAYED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DEFICIENT STEMMS AND BRANCHES.
- MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PROTRUSIVE MULCH LAYER BEFORE APPLYING NEW LAYER EVERY 2 TO 3 YEARS.
- SOIL EROSION TO BE ADDRESS ON AN AS NEEDED WITH A SERIES OF ONE FOR MONTH AND AFTER HEAVY STORM EVENTS.

QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE
1	PLATANUS X ACERIFOLIA	LONDON PLANE TREE	2 1/2"-3" Cal.
1	ILEX GLABRA	HICK BERRY	2 "-3" HT.
4	LOBELIA CARDINALIS	CARDINAL FLOWER LOBELIA	1 GAL. CONTAINER
4	ERYTHROPS SP.	WOOD FERN	1 GAL. CONTAINER
3	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	1 GAL. CONTAINER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 8/10/12
 CHIEF, DEVELOPMENT ENGINEERING DIVISION & DATE

[Signature] 9/27/12
 CHIEF, DIVISION OF LAND DEVELOPMENT & DATE

[Signature] 9/11/12
 DIRECTOR & DATE

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

[Signature] 8/10/12
 HOWARD S.C.D. & DATE

BY THE DEVELOPER:

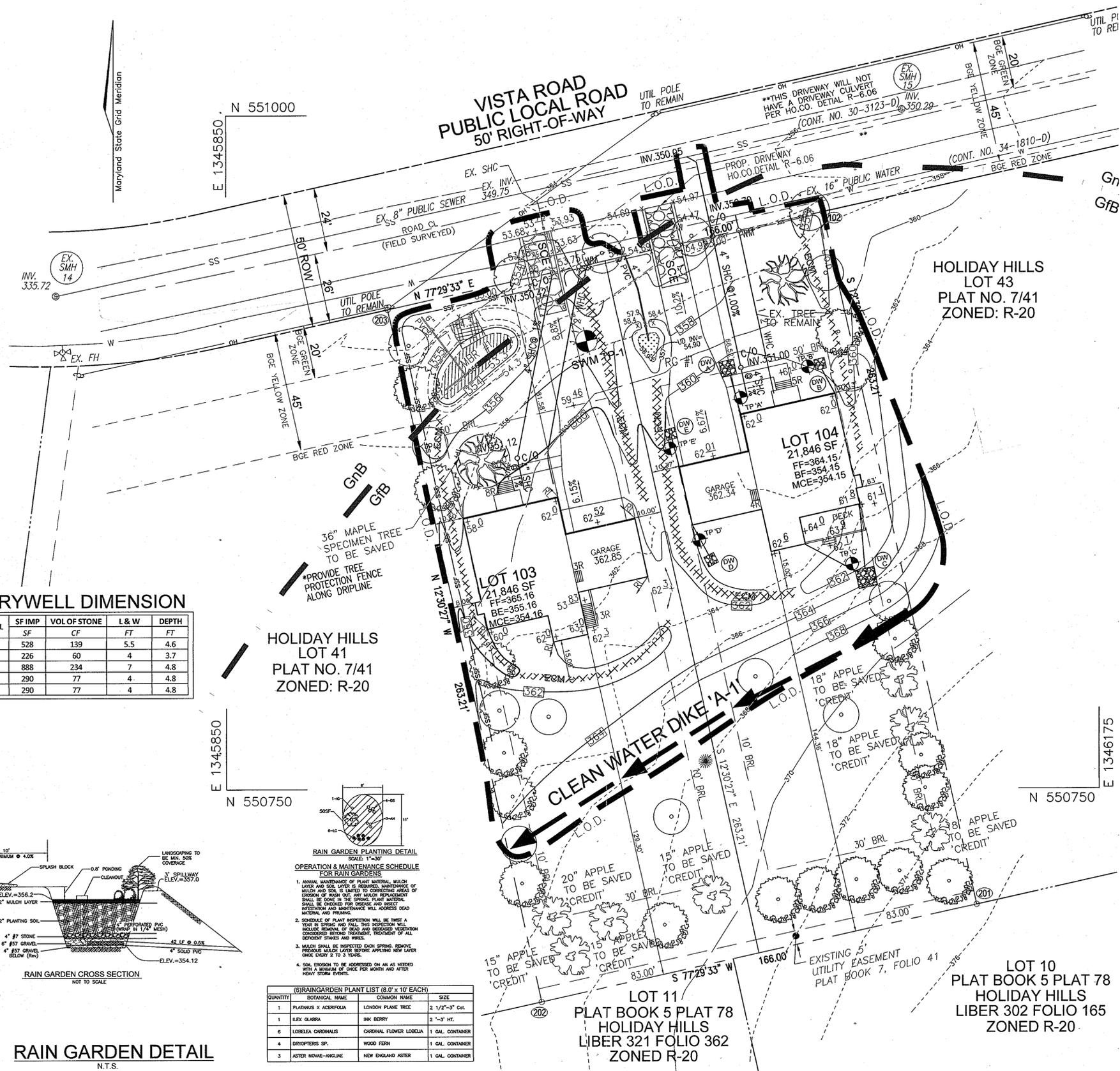
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL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

[Signature] 8/10/12
 SIGNATURE OF DEVELOPER & DATE

BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT 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.

[Signature] 8/10/12
 SIGNATURE OF ENGINEER & DATE



LEGEND:

- RIGHT-OF-WAY LINE
- PROPERTY LINE
- SOILS BOUNDARY
- EXISTING CONTOUR
- EXISTING CURB AND GUTTER, PER F-08-23
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING SANITARY LINE, PER F-08-23
- EXISTING STORMWATER LINE, PER F-08-23
- EXISTING WATER LINE, PER F-08-23
- EXISTING FIRE HYDRANT
- PROPOSED TREES
- EXISTING TREES
- TREE PROTECTION FENCE
- L.O.D.
- SUPER SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED MICRO BIORETENTION FACILITY
- PROPOSED EROSION CONTROL MATTING
- ROOF LEADER DIRECTION

CONTRACTOR TO DIRECT ROOF LEADER FROM HOUSE TOWARD SWALE LEADING TO MICRO-BIORETENTION

OWNERS
 SD PROPERTIES
 3138 ROGERS AVENUE
 ELLICOTT CITY, MARYLAND 21043
 (410-203-2460)

NO.	REVISION	DATE
2	REVISE GRADING, DRIVEWAY & SWM ON LOT 104	3/19/12
1	REVISE FIRST FLOOR ELEVATION AND GRADES ON LOT 104	11/22/11

SITE LAYOUT, GRADING, SEDIMENT AND EROSION CONTROL, LANDSCAPE, AND SOILS PLAN

HOLIDAY HILLS
LOTS 103 & 104
 A RESUBDIVISION OF LOT 42 OF HOLIDAY HILLS, PLAT BOOK 7 FOLIO 41
 DPZ FILES: WP-10-151, ECP-11-013, F-10-111

TAX MAP 41, GRID 6
 5TH ELECTION DISTRICT

PARCEL 220
 HOWARD COUNTY, MARYLAND

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

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. 21438 EXPIRATION DATE 12-16-2012.

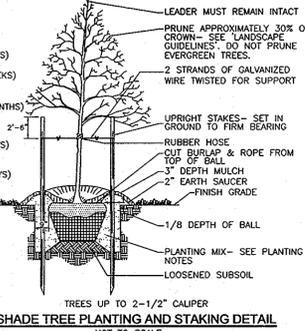
DESIGN BY: JTD/JCO
 DRAWN BY: HS
 CHECKED BY: RHV
 DATE: APRIL 2011
 SCALE: AS SHOWN
 W.O. NO.: 09-42

2 SHEET OF 3



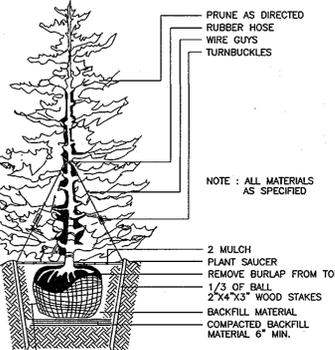
SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT
- NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (410.313.1880) AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
- INSTALL SEDIMENT CONTROL MEASURES AS SHOWN ON PLAN AND IN ACCORDANCE WITH DETAILS.
- AFTER OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR TO PROCEED, ROUGH GRADE SITE. (2 WEEKS)
- CONSTRUCT WELLS. THE FIRST FLOOR ELEVATIONS CANNOT BE MORE THAN 1" HIGHER OR 0.2" LOWER THAN THE ELEVATIONS SHOWN ON THIS PLAN.
- AS HOUSE CONSTRUCTION CONTINUES, CONSTRUCT MICRO-BIORETENTION FACILITIES. CONTRACTOR TO CONTACT ENGINEER TO CONFIRM ELEVATIONS PRIOR TO COMPLETING.
- UPON STABILIZATION OF ALL DISTURBED AREAS AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES.



SHADE TREE PLANTING AND STAKING DETAIL
NOT TO SCALE

- NOTES:**
- SEE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS" FOR ALL MATERIALS, PARALLEL TO WALLS & SPECIFICATIONS.
 - SEE "LANDSCAPE GUIDELINES" FOR SUPPORTING TREES LARGER THAN 2 1/2" CALIPER.
 - PLACE UPRIGHT STAKES PARALLEL TO WALLS & BUILDINGS.
 - KEEP MULCH 1" FROM TRUNK.
 - TREES ARE NOT TO BE PLANTED OVER PRIVATE SEWAGE EASEMENT.



TYPICAL EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE

B.4.C. Specifications for Micro-Bioretention, Rain Gardens, Landscape Infiltration & Infiltration Berms

- 1. Material Specifications**
The allowable materials to be used in these practices are detailed in Table B.4.1.
- 2. 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 substances shall be mixed or dumped within the micro-bioretention practice that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05.
The planting soil shall be tested and shall meet the following criteria:
• Soil Component - Loamy Sand or Sandy Loam (USDA Soil Textual 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% to 40%) or sandy loam (60%), coarse sand (20%), and compost (20%).
• Clay Content - Media shall have a clay content of less than 5%.
• pH Range - Should be between 5.5 - 7.0. Amendments (e.g., lime, iron sulfate plus sulfur) may be mixed into the soil to increase or decrease pH.
There 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 texture analysis is required for the site stockpiled topsoil. If topsoil is imported, a texture analysis shall be performed for each location where the topsoil was excavated.
- 3. Compaction**
It is very important to minimize compaction of both the base of bio-retention practices and the required backfill. When possible, use excavation holes to remove original soil. If practices are

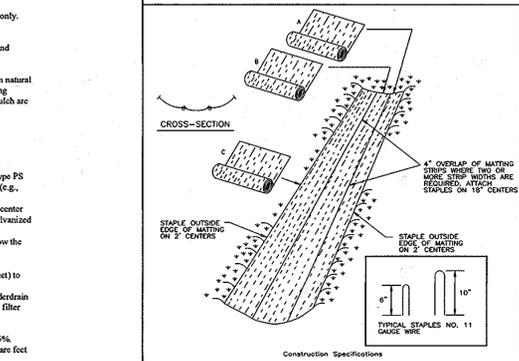
Appendix B.4. Construction Specifications for Environmental Site Design Practices

- 1. Plant Material**
Recommended plant material for micro-bioretention practices can be found in Appendix A, Section A.2.3.
- 2. Plant Installation**
Compost is a better organic material source, is less likely to float, and should be placed in the invert and outer flow zones. Mulch should be placed in accordance to a uniform thickness of 2" to 3". Shredded or chipped hardwood mulch is the only accepted mulch. Pine mulch and wood chips will flow and move to the perimeter of the bio-retention area during a storm event and are not acceptable. Shredded 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 on 1/8" of the ball in above final grade surface. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Soil and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

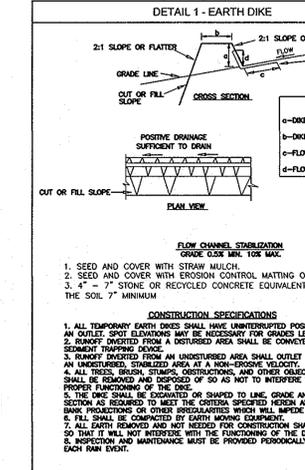
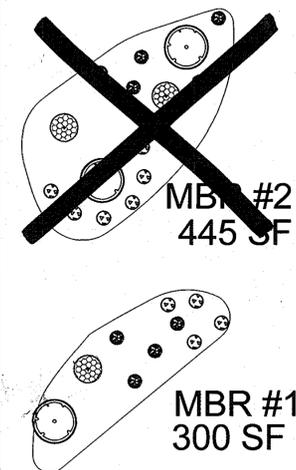
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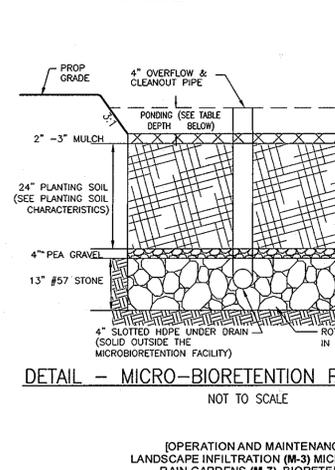
DETAIL 30 - EROSION CONTROL MATTING



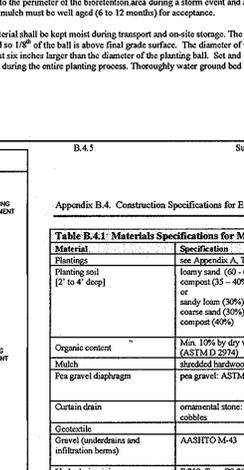
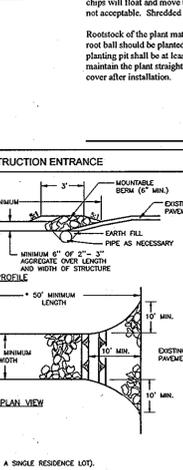
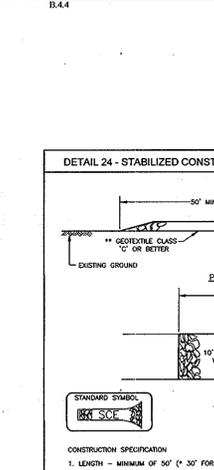
- Construction Specifications
- Key-in the matting by prying the top edge of the matting in a narrow trench, 6" in depth. Be sure the trench and slope form to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples on 6".
 - Staple the 4" overlap in the channel center using an 18" spacing between staples.
 - Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
 - Staples shall be spaced 4" apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
 - Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", strip overlap. Therefore the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
 - The discharge end of the matting roll should be smoothly secured with 2 double rows of staples.
- Note: If flow will enter from the edge of the matting then the area secured by the flow must be keyed-in.



- CONSTRUCTION SPECIFICATIONS**
- ALL TEMPORARY EARTH DIKES SHALL HAVE UNDISTURBED POSITIVE GRADE TO ALL OUTLET SPOT ELEVATIONS MAY BE NECESSARY FOR SLOPES LESS THAN 1%.
 - RUNOFF DIVERTED FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED, STABILIZED AREA AT A NON-EROSIVE VELOCITY.
 - ALL TRUCKS, CRANES, STUMPS, OBSTRUCTIONS, AND OTHER OBSTRUCTIVE MATERIAL SHALL BE REMOVED AND DEPOSITED OF 50' AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE DIKE.
 - THE DIKE SHALL BE LOCATED OR SHIPPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE DESIGN SPEED, HEAD AND BE FREE OF ANY OBSTRUCTIONS OR OBSTRUCTIONS TO FLOW.
 - ALL DIKES SHALL BE CONSTRUCTED BY EARTH WORKING EQUIPMENT.
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- OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3) MICRO-BIORETENTION (M-4), RAIN GARDENS (M-7) BIORETENTION SWALE (M-8), 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 and pruning. Acceptable replacement plant material is limited to the following: 2000 Maryland Stormwater Design Manual Volume II, Table A.1.4 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, treat 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.



- TEMPORARY SEEDING NOTES**
- SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
- SOIL AMENDMENTS: APPLY 600 LBS/ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.).
- SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 1-1/2 BUSHEL PER ACRE (12 LBS/1000 SQ. FT.). FOR THE PERIOD MAY 1 - AUGUST 14, SEED WITH 3 LBS/ACRE OF WEEDING LOVEGRASS (0.7 LBS/1000 SQ. FT.). FOR THE PERIOD NOVEMBER 16 - FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS/ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOO.
- MULCHING: APPLY 1-1/2 TO 2 TONS/ACRE (70 TO 140 LBS/1000 SQ. FT.) OF UNWETTED NEED-FREE, SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPE 8 FT. OR HIGHER, USE 348 GAL. PER ACRE (6 GAL/1000 SQ. FT.) FOR ANCHORING.
- REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.
- PERMANENT SEEDING NOTES**
- APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.
- DESIRED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
- SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
- PREFERRED: APPLY 2 TONS/ACRE DOLOMITE LIMESTONE (92 LBS/1000 SQ. FT.) AND 600 LBS/ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.) BEFORE SEEDING. NARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS/ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ. FT.)
 - ACCEPTABLE: APPLY 2 TONS/ACRE DOLOMITE LIMESTONE (92 LBS/1000 SQ. FT.) AND 1000 LBS/ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ. FT.) BEFORE SEEDING. NARROW OR DISK INTO UPPER THREE INCHES OF SOIL.
- SEEDING: FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS/ACRE (1.4 LBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS/ACRE (0.3 LBS/1000 SQ. FT.) OF WEEDING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS/ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING.
- MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 140 LBS/1000 SQ. FT.) OF UNWETTED NEED-FREE, SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPE 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (6 GAL/1000 SQ. FT.) FOR ANCHORING.
- MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

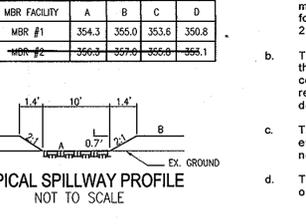
Table B.4.1 Materials Specifications for Micro-Bioretention, Rain Gardens & Landscape Infiltration

Material	Specification	Size	Plantings are site-specific
Plantings	See Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil (2" to 4" deep)	loamy sand (60-65%) & compost (35-40%)	n/a	USDA soil type loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2974)	n/a	
Mulch	shredded hardwood	n/a	aged 6 months, minimum no pine or wood chips
Pea gravel (displacement)	pea gravel: ASTM D-448	N.O. 8 OR N.O. 9 (1/8" to 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	PE Type 1 nonwoven
Geotextile	AA-SITTO M-43	n/a	
Gravel (underdrains and infiltration berms)	AA-SITTO M-43	N.O. 57 OR N.O. 6 (3/8" to 3/4")	
Underdrain piping	F-155, Type PS 28 or AASITTO M-278	4" or 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe, 3/8" perft @ 6" on center, 4 holes per row, minimum of 3" of gravel over pipes; not necessary underdrain piping. Perforated pipe shall be wrapped with 1/4 inch geotextile.
Floured in place concrete (if required)	MSHA Mix No. 3, F _c = 3000 psi @ 28 days, normal weight, air-entrained, and conforming to most ASTM-615-60	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or precast) and using previously approved state or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the state of Maryland - design shall comply with the provisions of ACI Code 308.8R; vertical loading [H-10 or H-20] allowable horizontal loading (based on soil permeability) and analysis of potential cracks.
Sand	AA-SITTO M-46 or ASTM-C-33	0.075 to 0.04"	Standard substitutions such as Dribble and Grapstone (AASITTO #10) are not acceptable. No calcium carbonate or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

MICRO-BIORETENTION PLANTING LAYOUT
N.T.S.

TYPICAL MICRO-BIORETENTION PLANTING SCHEDULE PER 250 SF AREA

KEY	QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS	MBR-1	MBR-2
1	1	ACER RUBRUM RED MAPLE	1 1/2"-2" CAL	B & B	1	1
2	1	ILEX GLABRA INKBERRY	3 GALLON	CONT	1	1
3	3	VACCINIUM CORYMBOSUM Highbush Blueberry	3 GALLON	CONT	4	3
4	3	LOEBELIA SIPHILITICA GREAT BLUE LOEBELIA	3 GALLON	CONT	4	3
5	50	LIRIOPE MUSCARI MAJESTIC MAJESTIC LILY TURF	2" POT	1' O.C.	65	100



A MINIMUM DENSITY OF 1000 STEMS PER PLANTED BIORETENTION AREAS ARE TO BE PLANTED BASED ON ACRE (10229 STEMS PER SQUARE FOOT) ABOVE PLANTING AREAS ARE TO BE APPLIED TO THE AREAS PROVIDED IN THE ESDV SUMMARY. ROUND UP FOR QUANTITY.

MICRO-BIORETENTION PLANTING SCHEDULE NOTES:

- ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AN SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HRD 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 PLANT DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.
- SEE THIS SHEET FOR TYPICAL PLANTING DETAILS.

STORMWATER MANAGEMENT CALCULATIONS PER (F-10-111)

DRAINAGE AREA	METHOD	VOL. REQUIRED	VOL. PROVIDED	REV. REQUIRED	REV. PROVIDED
MBR #1	M-6	243 CF	299 CF	62 CF	62 CF
MBR #2	M-6	272 CF	294 CF	72 CF	90 CF

M-6 IS A MICRO BIORETENTION FACILITY. SEE DETAIL THIS SHEET.

BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTIVE ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DATE: 7/11/11

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DATE: 7/11/11

DATE: 7/12/11

DATE: 7/12/11

DATE: 7/12/11

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

BY THE DEVELOPER:

DATE: 7/11/11

DATE: 7/11/11

DATE: 7/11/11

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

DATE: 7/11/11

DATE: 7/11/11

DATE: 7/11/11

BY THE ENGINEER:

DATE: 7/11/11

DATE: 7/11/11

DATE: 7/11/11

OWNERS

30 PROPERTIES
3138 ROCERS AVENUE
ELLICOTT CITY, MARYLAND 21043
(410) 203-2460

SEDIMENT AND EROSION CONTROL, LANDSCAPE NOTES AND DETAILS

HOLIDAY HILLS
LOTS 103 & 104
A RESUBDIVISION OF LOT 42 OF
HOLIDAY HILLS, PLAT BOOK 7 FOLIO 41
DCP-11-013, F-10-111

TAX MAP 41, GRID 6
5TH ELECTION DISTRICT

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

DESIGN BY: JTD/JCO
DRAWN BY: RVS
CHECKED BY: HHS
DATE: APRIL 2011
SCALE: AS SHOWN
W.O. NO.: 09-42

3 SHEET OF 3