

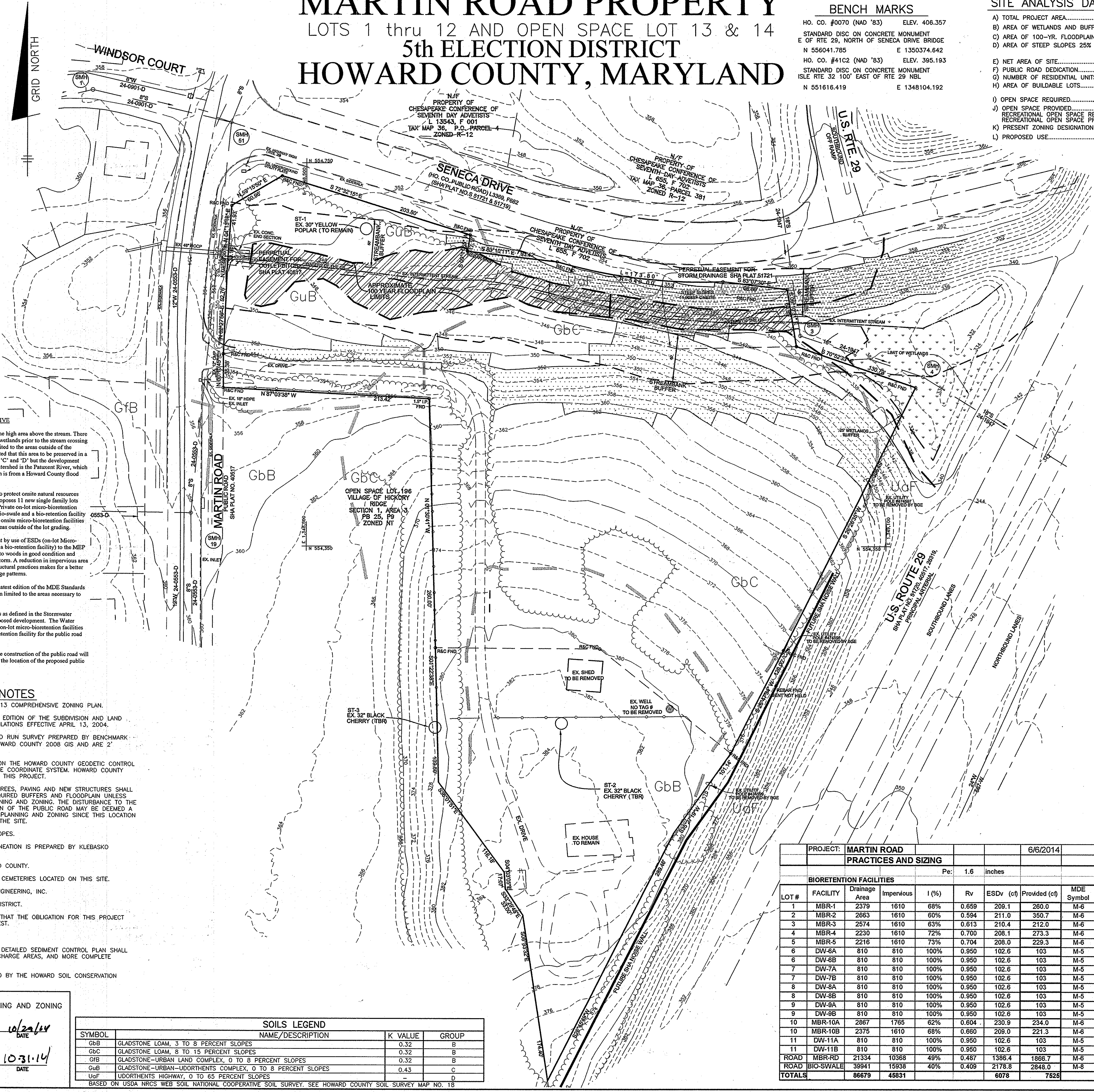
MARTIN ROAD PROPERTY

LOTS 1 thru 12 AND OPEN SPACE LOT 13 & 14

5th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

NOTE: APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN, SITE DEVELOPMENT PLAN, OR GRADING OR BUILDING PERMIT PLAN. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION, SITE DEVELOPMENT PLAN, OR GRADING AND BUILDING PERMIT STAGES.

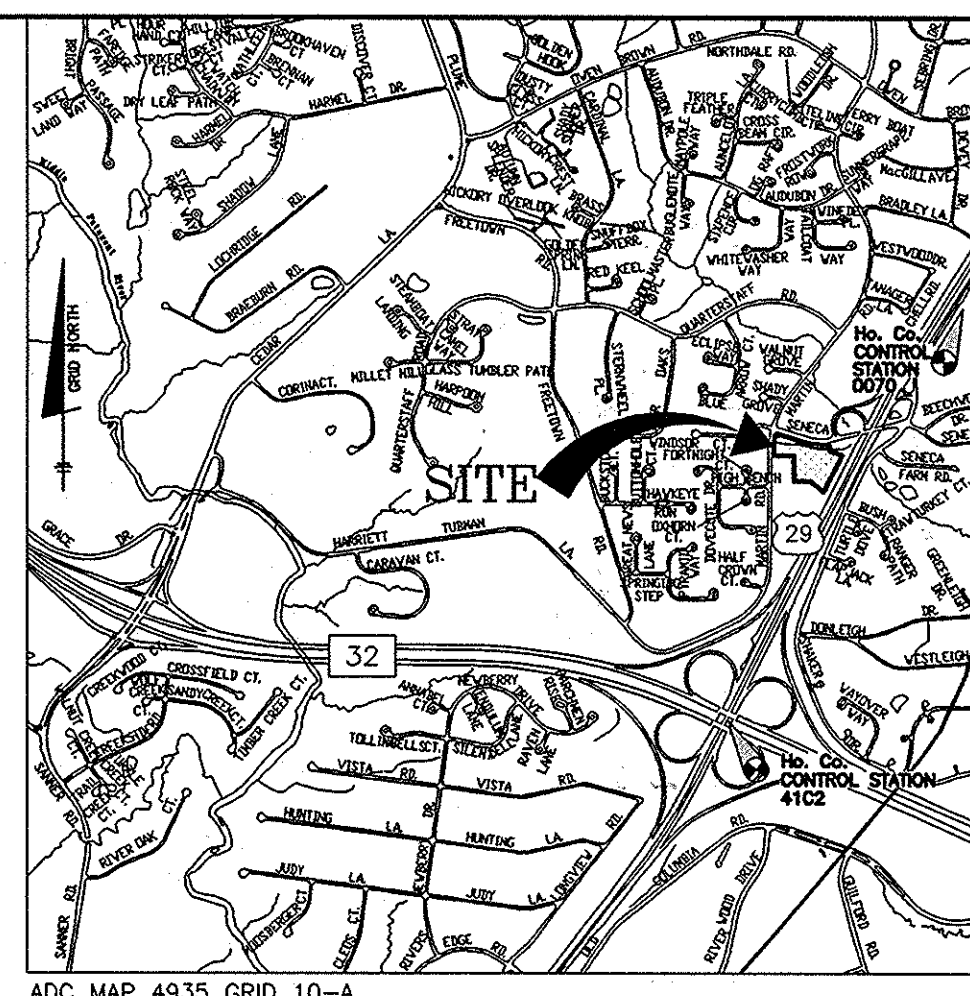


BENCH MARKS

HO. CO. #0070 (NAD '83)	ELEV. 406.357
STANDARD DISC ON CONCRETE MONUMENT	
E OF RTE 29, NORTH OF SENECA DRIVE BRIDGE	
N 556041.785	E 1350374.642
HO. CO. #41C2 (NAD '83)	ELEV. 395.193
STANDARD DISC ON CONCRETE MONUMENT	
150' EAST OF RTE 29	
N 551616.419	E 1348104.192

SITE ANALYSIS DATA/TABULATION

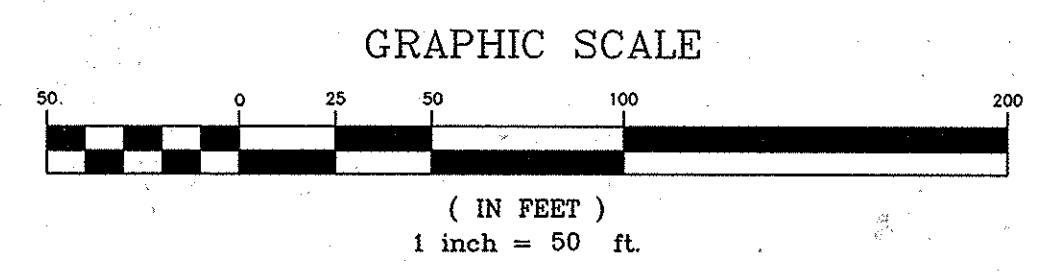
A) TOTAL PROJECT AREA	6.69± AC.
B) AREA OF WETLANDS AND BUFFER	0.02± AC.
C) AREA OF 100-YR. FLOODPLAIN	0.45± AC.
D) AREA OF STEEP SLOPES 25% OF GREATER	0.27 AC. ONSITE 0.16 AC. OUTSIDE FLOODPLAIN
E) NET AREA OF SITE	6.08 AC.
F) PUBLIC ROAD DEDICATION	0.62± AC.
G) NUMBER OF RESIDENTIAL UNITS PROPOSED	12(11 PROP. 1 EX.)
H) AREA OF BUILDABLE LOTS	2.14± AC. (NEW LOTS) 0.93± AC. (EX. LOT)
I) OPEN SPACE REQUIRED	2.67 AC. OR 40%
J) OPEN SPACE PROVIDED	3.00 AC. OR 44%
K) RECREATIONAL OPEN SPACE REQUIRED	2,400 SF (12'x200')
L) RECREATIONAL OPEN SPACE PROVIDED	2,660 SF
M) PRESENT ZONING DESIGNATION	R-12
N) PROPOSED USE	SINGLE FAMILY DWELLING



VICINITY MAP
SCALE: 1"=2000'

LEGEND

EXISTING CONTOURS	452 450
EXISTING TREELINE	
PROPOSED TREELINE	
EXISTING STREAM	
EXISTING STREAM BUFFER	
APPROXIMATE 100 YEAR FLOODPLAIN LIMITS	
EXISTING STRUCTURE	
PROPOSED STRUCTURE	
SLOPES 25% OR GREATER	
SLOPES 15% TO 24.9%	
LIMIT OF WETLANDS	
SOIL DELINEATION	
SOILS DELINEATION	GnA
ESD DRAINAGE AREA	
BMP DRAINAGE AREA	
100 YEAR FLOODPLAIN	
EROSION CONTROL MATTING	
FOREST CONSERVATION EASEMENT	
PROP. MICRO-BIORETENTION FACILITY	MBR-6
PROP. BIO-SWALE	BIO-SWALE
PUBLIC SWM, DRAINAGE & UTILITY EASEMENT	
SUPER SILT FENCE	
CLEANWATER DIVERSION	CLEANWATERDIA-2



DESIGN NARRATIVE

The property is wooded with moderately slopes on the high area above the stream. There is a floodplain associated with the stream as well as wetlands prior to the stream crossing under U.S. Route 29. The development has been limited to the areas outside of the wetlands, floodplain and stream buffer. It is anticipated that this area to be preserved in a forest conservation area. The soils include class 'B', 'C' and 'D' but the development area only includes soils in class 'B' and 'C'. The watershed is the Patuxent River, which is a Use IV-P stream. The 100-year floodplain shown is from a Howard County flood study.

The submission is limited to approximately 4 acres to protect onsite natural resources (forest, stream, floodplain and wetlands). The site proposes 11 new single family lots (8,000 sq ft) with access to the site off Martin Road. Private on-lot micro-bioretention facilities and dry wells are proposed for lots with a bio-swale and a bio-retention facility for the proposed public road. With the use of private onsite micro-bioretention facilities and dry wells there will be limited disturbances to areas outside of the lot grading.

As a result of addressing the stormwater management by use of ESDs (on-lot micro-bioretention facilities and dry wells, a bio-swale and a bio-retention facility) to the MEP the land conditions have theoretically been returned to woods in good condition and therefore reduced the overall run-off for the 1-year storm. A reduction in impervious area with the use of grass swales, bio-retention and nonstructural practices makes for a better site design as well as maintaining the original drainage patterns.

Sediment and erosion control shall comply with the latest edition of the MDE Standards and Specifications for Sediment Control and has been limited to the areas necessary to conduct ESD practices and onsite functionality.

It is concluded that all ESD to the MEP requirements as defined in the Stormwater Management Act of 2007 have been met for the proposed development. The Water Quality has been provided by the implementation of on-lot micro-bioretention facilities (M-6), on-lot dry wells (M-5), a bio-swale and bio-retention facility for the public road (M-8) to treat all of the proposed impervious onsite.

The minimum disturbance to the stream buffer for the construction of the public road will most likely be deemed a necessary disturbance since the location of the proposed public road is the only viable location onto the site.

GENERAL NOTES

- SUBJECT PROPERTY ZONED R-12 PER THE 10-6-13 COMPREHENSIVE ZONING PLAN.
- THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS EFFECTIVE APRIL 13, 2004.
- TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN SURVEY PREPARED BY BENCHMARK ENGINEERING, INC. DATED NOVEMBER 2013 AND HOWARD COUNTY 2008 GIS AND ARE 2' INTERVALS.
- 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. 0070 AND 41C2 WERE USED FOR THIS PROJECT.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE STREAMS, OR THEIR REQUIRED BUFFERS AND FLOODPLAIN UNLESS DEEMED NECESSARY BY THE DEPARTMENT OF PLANNING AND ZONING. THE DISTURBANCE TO THE STREAM BUFFER AS SHOWN FOR THE CONSTRUCTION OF THE PUBLIC ROAD MAY BE DEEMED A NECESSARY DISTURBANCE BY THE DEPARTMENT OF PLANNING AND ZONING SINCE THIS LOCATION IS THE ONLY VIABLE LOCATION FOR ACCESS ONTO THE SITE.
- THERE ARE NO IMPACTS TO THE ONSITE STEEP SLOPES.
- A FOREST STAND DELINEATION AND WETLANDS DELINEATION IS PREPARED BY KLEBASKO ENVIRONMENTAL, LLC.
- FLOODPLAIN BASED ON FEMA PROVIDED BY HOWARD COUNTY.
- TO THE BEST OF OUR KNOWLEDGE THERE ARE NO CEMETERIES LOCATED ON THIS SITE.
- A NOISE STUDY WAS PREPARED BY BENCHMARK ENGINEERING, INC.
- THIS SITE IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- THE FOREST CONSERVATION ACT IT IS ANTICIPATED THAT THE OBLIGATION FOR THIS PROJECT WILL BE MET BY THE ON-SITE RETENTION OF FOREST.
- PREVIOUS DPZ FILES: N/A
- AT THE TIME OF THE SUBDIVISION PLANS, A MORE DETAILED SEDIMENT CONTROL PLAN SHALL BE DEVELOPED, INCLUDING STUDY OF VARIOUS DISCHARGE AREAS, AND MORE COMPLETE DETERMINATION OF SEDIMENT TRAP NECESSITY.
- THESE PLANS HAVE BEEN REVIEWED AND APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT DATED MAY 28, 2014.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Kate DeLeon 10/28/14
CHIEF, DIVISION OF LAND DEVELOPMENT

Chad Blaker 10/31/14
CHIEF, DEVELOPMENT ENGINEERING DIVISION

SOILS LEGEND

SYMBOL	NAME/DESCRIPTION	K VALUE	GROUP
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	0.32	B
GbC	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	0.32	B
GfB	GLADSTONE-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	0.32	B
Gub	GLADSTONE-URBAN-UDORTHEMITS COMPLEX, 0 TO 8 PERCENT SLOPES	0.43	C

BASED ON USDA NRCS WEB SOIL NATIONAL COOPERATIVE SOIL SURVEY. SEE HOWARD COUNTY SOIL SURVEY MAP NO. 18

PROJECT: MARTIN ROAD		6/6/2014						
PRACTICES AND SIZING								
		Pe:	1.6 inches					
BIORETENTION FACILITIES								
LOT #	FACILITY	Drainage Area	Impervious	I (%)	Rv	ESDv (cf)	Provided (cf)	MDE Symbol
1	MBR-1	2379	1610	68%	0.659	209.1	260.0	M-6
2	MBR-2	2663	1610	60%	0.594	211.0	350.7	M-6
3	MBR-3	2574	1610	63%	0.613	210.4	212.0	M-6
4	MBR-4	2230	1610	72%	0.700	208.1	273.3	M-6
5	MBR-5	2216	1610	73%	0.704	208.0	229.3	M-6
6	DW-6A	810	810	100%	0.950	102.6	103	M-5
6	DW-6B	810	810	100%	0.950	102.6	103	M-5
7	DW-7A	810	810	100%	0.950	102.6	103	M-5
7	DW-7B	810	810	100%	0.950	102.6	103	M-5
8	DW-8A	810	810	100%	0.950	102.6	103	M-5
8	DW-8B	810	810	100%	0.950	102.6	103	M-5
9	DW-9A	810	810	100%	0.950	102.6	103	M-5
9	DW-9B	810	810	100%	0.950	102.6	103	M-5
10	MBR-10A	2867	1765	62%	0.604	230.9	234.0	M-6
10	MBR-10B	2375	1610	68%	0.660	209.0	221.3	M-6
11	DW-11A	810	810	100%	0.950	102.6	103	M-5
11	DW-11B	810	810	100%	0.950	102.6	103	M-5
ROAD	MBR-RD	21334	10368	49%	0.487	1356.4	1866.7	M-8
ROAD	BIO-SWALE	38941	15838	40%	0.409	2178.8	2848.0	M-8
TOTALS		86679	45831			6078	7526	

BENCHMARK ENGINEERING, INC.
ENGINEERS & LAND SURVEYORS PLANNERS

8400 BALTIMORE NATIONAL PIKE & SUITE 315 ELLICOTT CITY, MARYLAND 21043
(P) 410-465-8102 (F) 410-465-6944
WWW.BE-ENGINEERING.COM

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. 21390. Expiration Date: 6-30-15.

OWNER:
LISA MARIE SMITH
6128 EDWARD HILL ROAD
ELLICOTT CITY, MD 21043

MICHELLE LYNN ARMSTRONG
6880 MARTIN ROAD
COLUMBIA, MD 21044

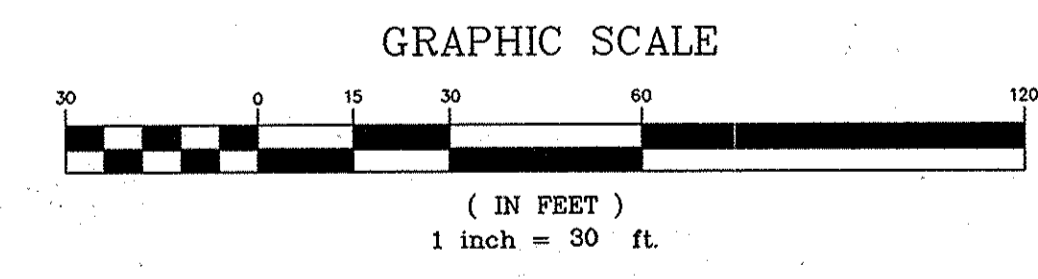
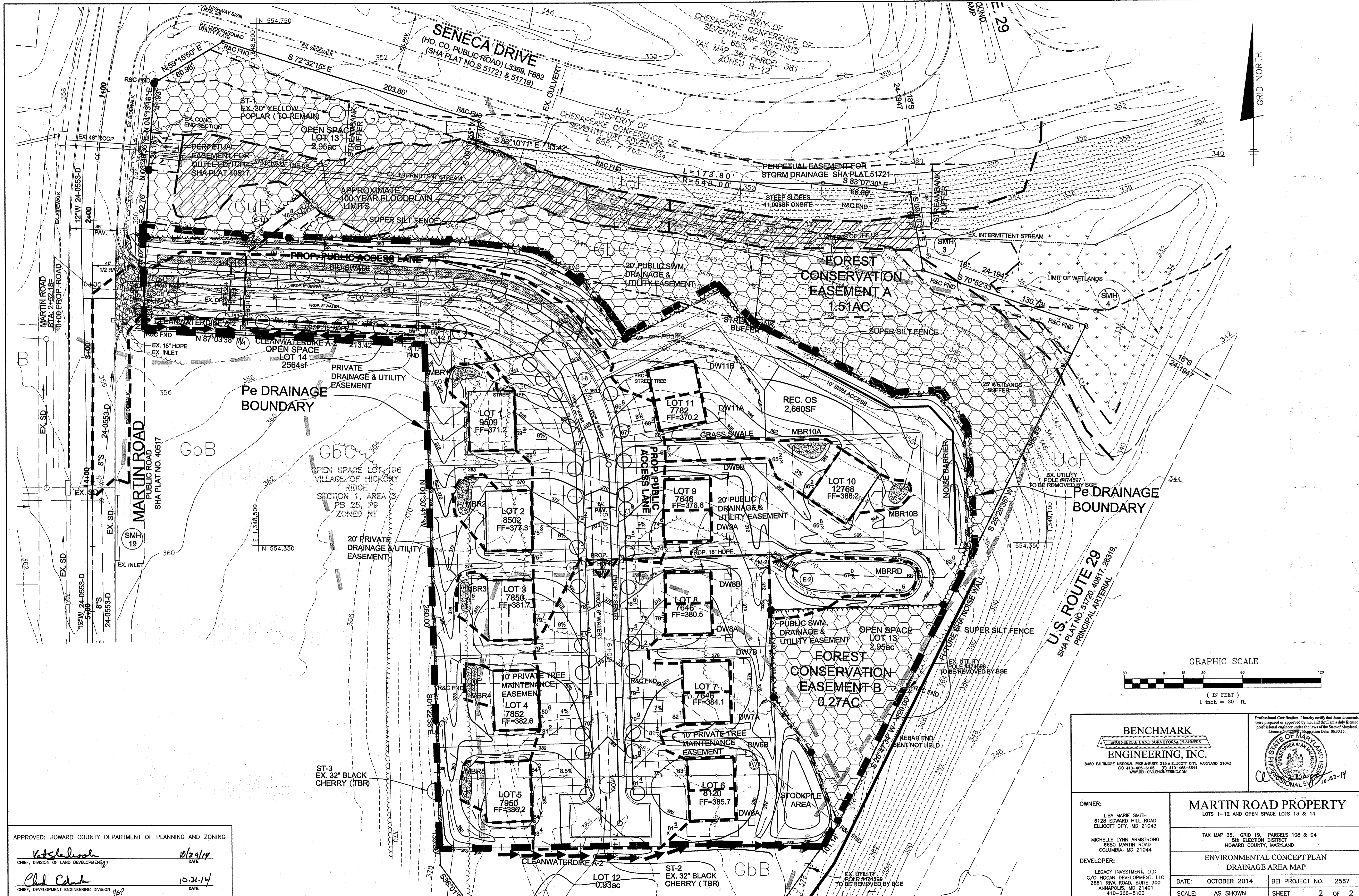
DEVELOPER:
LEGACY INVESTMENT, LLC
C/O HOGAN DEVELOPMENT, LLC
2861 RIVA ROAD, SUITE 300
ANNAPOLIS, MD 21401
410-266-5100

MARTIN ROAD PROPERTY
LOTS 1-12 AND OPEN SPACE LOTS 13 & 14

TAX MAP 36, GRID 19, PARCELS 108, 04 & 495
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

ENVIRONMENTAL CONCEPT PLAN
EXISTING CONDITIONS PLAN

DATE: OCTOBER 2014 BEI PROJECT NO. 2567
SCALE: AS SHOWN SHEET 1 OF 2



BENCHMARK
ENGINEERS & LAND SURVEYORS & PLANNERS
ENGINEERING, INC.

8450 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644
WWW.BEI-ENGINEERING.COM

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. 10-47-14, Expiration Date: 06-30-15.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 10/29/14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 10-31-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

<p>OWNER: LISA MARIE SMITH 6128 EDWARD HILL ROAD ELLICOTT CITY, MD 21043</p> <p>MICHELLE LYNN ARMSTRONG 5650 MARTIN ROAD COLUMBIA, MD 21044</p> <p>DEVELOPER: LEGACY INVESTMENT, LLC C/O HOGAN DEVELOPMENT, LLC 2661 RIVA ROAD, SUITE 300 ANNAPOLIS, MD 21401 410-266-5100</p>	<p style="text-align: center;">MARTIN ROAD PROPERTY LOTS 1-12 AND OPEN SPACE LOTS 13 & 14</p> <p style="text-align: center; font-size: small;">TAX MAP 36, GRID 19, PARCELS 108 & 04 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p> <p style="text-align: center;">ENVIRONMENTAL CONCEPT PLAN DRAINAGE AREA MAP</p> <p>DATE: OCTOBER 2014 BEI PROJECT NO. 2567</p> <p>SCALE: AS SHOWN SHEET 2 OF 2</p>
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