ENVIRONMENTAL CONCEPT PLAN
CATTAIL OVERLOOK
LOTS 1 THRU 6

(A Resubdivision Of Lot 2 Buice Property – Plat Nos. 5426 – 5429) And
(A Resubdivision of Meriwether Farm Section One Non-Buildable Parcel 'E'
Plat Nos. 21339 – 21344)

TAX MAP No. 21 GRID Nos. 20 & 21 PARCEL Nos. 24 & 32
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SHEET INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-4	ENVIRONMENTAL CONCEPT PLAN
5-7	PRELIMINARY SEDIMENT AND EROSION CONTROL PLAN
8	STORMWATER MANAGEMENT DETAILS & NOTES

STORMWATER MANAGEMENT PRACTICES

LOT No.	ADDRESS	ROOFTOP DISCONNENCTION N-1 (NUMBER)	NON-ROOFTOP DISCONNENCTION N-2 (NUMBER)	MICRO BIO-RETENTION M-6 (NUMBER)
1	ROXBURY ROAD	---	1	M-6 (1)
2	ROXBURY ROAD	4	1	M-6 (2)
3	ROXBURY ROAD	5	1	M-6 (3)
4	ROXBURY ROAD	---	1	M-6 (4)
5	ROXBURY ROAD	---	1	M-6 (5)
5	ROXBURY ROAD	8	1	---
–	COMMON DRIVEWAY	---	3	M-6 (6)

DESIGN NARRATIVE

Introduction:
This report will demonstrate how the criteria set forth in the Maryland Stormwater Design Manual, Volumes I and II (effective October 2000, revised May 2009) will be satisfied on this project. The goal of creating hydrology similar to that of 'Woods in Good Condition' will be accomplished through the use of the practices contained within Chapter 5 of said manual. The achievement of this goal will remove the requirement of providing Channel Protection Volume.

General Site Conditions:
Cattail Overlook is zoned RC-DEO and is located on Tax Map 21, Grids 20 & 21, Parcel Nos. 24 & 84 of the Howard County, Maryland Tax Map Database System. The property consists of six (6) proposed buildable lots that combine to create a site of approximately 55.19 acres. Proposed lots will be served by private well and septic systems. The property is located in the Brookeville area of Howard County in the Cattail Creek subwatershed of Tridelphia Reservoir of the Patuxent River (02131108). This property is somewhat rectangular in shape with a 50 foot wide pipestem area that serves as access for the proposed lots. A ridge exists in the northern third of the property and another near the southern propert boundary with the site sloping mostly to the west via an intermittent stream then to Cattail Creek with the northern portion of the property sloping to a branch of Cattail Creek and the small remaining southern portion of the property sloping to the south toward adjacent properties then to a swale (likely an intermittent stream) then to another portion of Cattail Creek. There are no existing structures on-site, but the old roadbed of Roxbury Road exists across the northern portion of the site. Ten (10) specimen trees exist on-site, which are spread throught the site, five of which are located on Lot 1. All specimen trees are proposed to be retained. Also, according to a field inspection conducted by Eco-Science Professionals (ESP) dated December 17, 2013, wetlands are present on-site, along the northwestern portion of the site and two small areas located with in the floodplain of Cattail Creek along the western property line. The Web Soil Survey shows soils on the site consist of Gladstone loam (GpB, GpC), Manor loam (McD), and Manor-Brinklow complex (MkF) Type "B" soils and Codorus and Hatboro silt loams (Co) and Glenville silt loams (GmA, GmB) Type "C" soils. Runoff will be directed in the various directions of natural flows which ultimately drain to Cattail Creek.

I. Natural Resource Protection:
Environmentally sensitive areas (steep slopes) exist on-site, To ensure the protection of natural resources located on this site, all boundaries or buffers will be honored by locating improvements away from these areas which will be located within forest conservation easements.

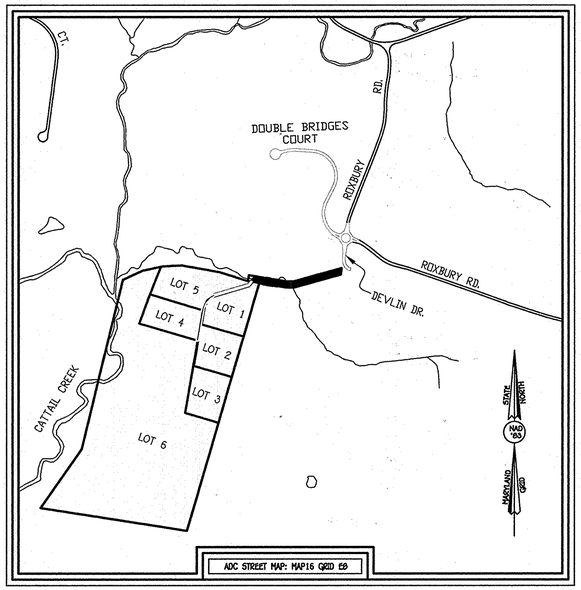
II. Maintenance of Natural Flow Patterns:
It is the intent of the proposed design to discharge runoff similar to the characteristics and direction of this site prior to any of the proposed improvements.

III. Reduction of impervious areas through better site design, alternative surfaces and Nonstructural Practices
The design of this project utilizes an use-in-common driveway, allowing a reduction in the necessary paving needed to access to the proposed buildings. Non-Structural practices as permitted in Chapter 5, six (6) Micro-Bioretention Areas (M-6), Rooftop Disconnection (N-1), and Non-Rooftop Disconnection (N-2) will be used to address ESD to the MEP requirements.

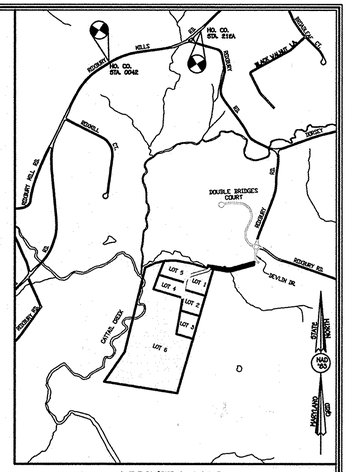
IV. Integration of Erosion and Sediment Controls into Stormwater Strategy:
Where possible, small drainage areas have been proposed under this plan with the use of earth dikes. Silt fence, super silt fence, and erosion control matting will be utilized for erosion & sediment control. After treatment, runoff is being directed toward unnamed tributaries of Cattail Creek via overland flow. An existing Floodplain Easement exists on-site. Additional Floodplain, Drainage & Utility easement will be required along northern portion of site. It is anticipated that all cut will be utilized on-site for construction at time of Grading Plan.

V. Implementation of ESD Planning Techniques and practices to the Maximum Extent Practicable (MEP)
The full required ESD volume is being provided.

VI. Request for a Design Manual Waiver:
No Waivers related to stormwater management are being requested in this project.



VICINITY MAP
SCALE: 1" = 600'



VICINITY MAP
SCALE : 1" = 1200'

GENERAL NOTES

1. 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 THE START OF WORK.
2. THE CONTRACTOR SHALL NOTIFY (MISS UTILITY) AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
3. BOUNDARY SHOWN HEREON IS BASED ON FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED BY FISHER, COLLINS & CARTER, INC. DATED OCTOBER 2013. TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY PERFORMED BY FISHER, COLLINS & CARTER, INC. IN NOVEMBER 2013 AND SUPPLEMENTED WITH HOWARD COUNTY GIS TOPOGRAPHY AT 5' CONTOUR INTERVAL INTERPOLATED FOR 2' CONTOUR INTERVAL.
4. 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. 21EA AND 0042 WERE USED FOR THIS PROJECT.
5. PREVIOUS DPZ FILE NUMBERS: F-83-51, V.P. 81-101 F-08-139, PLAT # 21339-21344.
6. STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. NON-STRUCTURAL PRACTICES IN ACCORDANCE WITH CHAPTER 5 ARE BEING UTILIZED.
7. THIS PROPERTY IS LOCATED OUTSIDE THE METROPOLITAN DISTRICT. LOTS TO BE SERVED PRIVATE WATER AND PRIVATE SEWERAGE.
8. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
9. THE SUBJECT PROPERTY IS ZONED RC-DEO (PER DATE 10/06/2013 COMPREHENSIVE ZONING PLAN.
10. THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE NECESSARY.
11. NO CEMETERIES OR HISTORIC STRUCTURES EXIST ON-SITE.
12. STEEP SLOPES, 100 YEAR FLOODPLAIN, STREAM(S), STREAM BUFFERS, WETLAND(S), WETLAND BUFFER(S), AND FOREST STAND DELINEATION HAVE BEEN SHOWN.
13. NO CLEARING, GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF STREAM BUFFERS AND FOREST CONSERVATION EASEMENT AREAS.
14. LANDSCAPING WILL BE PROVIDED AT THE FINAL PLAN STAGE OF THIS PROJECT. TREES SHOWN ARE EXISTING.
15. FOREST CONSERVATION OBLIGATIONS WILL BE MET BY ON-SITE RETENTION OF EXISTING FOREST AT THE FINAL PLAN STAGE OF THIS PROJECT.
16. NO SOIL BORINGS ARE REQUIRED FOR THIS PROJECT, PERCOLATION TESTS WERE CONDUCTED IN CLOSE PROXIMITY TO THE PROPOSED MICRO-BIORETENTION LOCATIONS.
17. APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION 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 PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN STAGES AND/OR RED-LINE REVISION PROCESS. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
18. THIS RESUBDIVISION PLAN IS LOCATED IN THE DESIGNATED TIER IV GROWTH AREA OF HOWARD COUNTY, PER THE PLANHOWARD 2030 TIER MAP AND WOULD BE SUBJECT TO THE STATE'S SB-236, BUT IS CONSIDERED GRANDFATHERED TO SB-236 TO ALLOW THIS MAJOR SUBDIVISION BECAUSE THE PROPERTY OWNER HAD APPLIED FOR A SOIL PERCOLATION TEST APPLICATION AND A PERCOLATION TEST PLAN TO THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO JULY 1, 2012.

NOTE: THESE PLANS MAY NOT BE USED TO OBTAIN PERMITS FOR CONSTRUCTION.

LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
492	EXISTING 2' CONTOURS		NON-ROOFTOP DISCONNECTION (N-2)	395.13	FLOODPLAIN ELEVATION
490	EXISTING 10' CONTOURS		15% TO 24.9% STEEP SLOPES	SB	STREAM BANK BUFFER
482	PROPOSED CONTOUR		25% AND GREATER STEEP SLOPES		100 YEAR FLOODPLAIN LINE
+362.5	SPOT ELEVATION		100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT	5033	BORING (PERC) TEST HOLE
LOD	LIMITS OF DISTURBANCE		DRAINAGE AREA DIVIDE	SF	SILT FENCE
	EXISTING TREELINE	TP	TREE PROTECTION	A-2	EARTH DIKE
	PROPOSED TREELINE		FOREST CONSERVATION EASEMENT (RETENTION)	4	SPECIMEN TREE
GLB2 HLC2	PROPOSED PAVING		WETLAND AREA	ECM	EROSION CONTROL MATTING
SSF	SOILS LINES AND TYPE		25' WETLAND BUFFER		
	SUPER SILT FENCE				
SCE	STABILIZES CONSTRUCTION ENTRANCE				
	PROPOSED MICRO BIORETENTION (M-6)				

BENCHMARK INFORMATION

B.M.#1 – HOWARD COUNTY CONTROL STATION #0042 – HORIZONTAL – NAD '83)
N 582,213.359
E 1,298,954.862
ELEVATION = 506.686 – VERTICAL – (NAVD '88)

B.M.#2 – HOWARD COUNTY CONTROL STATION #10H5 – HORIZONTAL – (NAD '83)
(RT-97 CORNER OF ROXBURY RD.)
N 582,715.1745
E 1,300,496.0203
ELEVATION = 450.238 – VERTICAL – (NAVD '88)

SITE ANALYSIS DATA CHART

A. TOTAL AREA OF THIS SUBMISSION = 54.27 AC.±.
B. LIMIT OF DISTURBED AREA = 11.41 Ac.±
C. PRESENT ZONING DESIGNATION = RC-DEO
(PER 10/06/2013 COMPREHENSIVE ZONING PLAN)
D. PROPOSED USE: RESIDENTIAL
E. PREVIOUS HOWARD COUNTY FILES: F-83-51, V.P. 81-101, F-08-139, PLAT # 21339-21344.
F. TOTAL AREA OF FLOODPLAIN LOCATED ON SITE = 5.40 AC±
G. TOTAL AREA OF SLOPES IN EXCESS OF 15% = 24.20 AC± (14.64 AC± 15% TO 25%, 9.56 AC± 25% OR GREATER)
H. TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 1.22 AC.±
I. TOTAL AREA OF STREAM (INCLUDING BUFFER) = 7.35 AC.±
J. TOTAL AREA OF EXISTING FOREST = 46.0 AC± (EXCLUDES FLOODPLAIN)
K. TOTAL AREA OF FOREST TO BE RETAINED = 19.14 AC± (RETENTION)
L. TOTAL GREEN OPEN AREA = 33.12 AC±
M. TOTAL IMPERVIOUS AREA = 2.01 AC±
N. TOTAL AREA OF ERODIBLE SOILS = 1.28 AC.±

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK – 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 – 2855

NO.	REVISION	DATE
#X		X

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 01/12/2014.
Stephanie Tuite 6/27/14
Signature Of Professional Engineer DATE
STATE OF MARYLAND STEPHANIE J. TUITE No. 38386 PROFESSIONAL ENGINEER

OWNER
MR. BOB BUICE
21400 NEW HAMPSHIRE AVE.
BROOKEVILLE, MARYLAND 20833-1805
410-489-7900 ATTN: TIM FEAGA

DEVELOPER
HERITAGE LAND DEVELOPMENT
15950 NORTH AVENUE
P.O. BOX 482
LISBON, MARYLAND 21765
410-489-7900

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Kent Sheubrooks 7/02/14
Chief, Division of Land Development Date
7.8.14
Chief, Development Engineering Division Date

PROJECT				SECTION	PARCEL NO.
CATTAIL OVERLOOK LOTS 1 THRU 6				–	84
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
5426-5429 & 21339-21344	20 & 21	RC-DEO	21	FOURTH	604002

TITLE SHEET

CATTAIL OVERLOOK
LOTS 1 THRU 6
(A Resubdivision Of Lot 2 Buice Property – Plat Nos. 5426 – 5429) And (A Resubdivision of Meriwether Farm Section One Non-Buildable Parcel 'E' Plat Nos. 21339 – 21344)
ZONED RC-DEO
TAX MAP No. 21 GRID No. 20 & 21 PARCEL No. 24 & 84
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JUNE, 2014
SHEET 1 OF 8

ECP-14-041

K:\SDSKPROJ\30536 BUICE (NAD 83)\dwg\Cattail Overlook\Ecp Cattail Overlook Lots 1 thru 6.dwg, Sheet 1, 6/27/2014 4:42:15 PM, 1:1

SOILS LEGEND

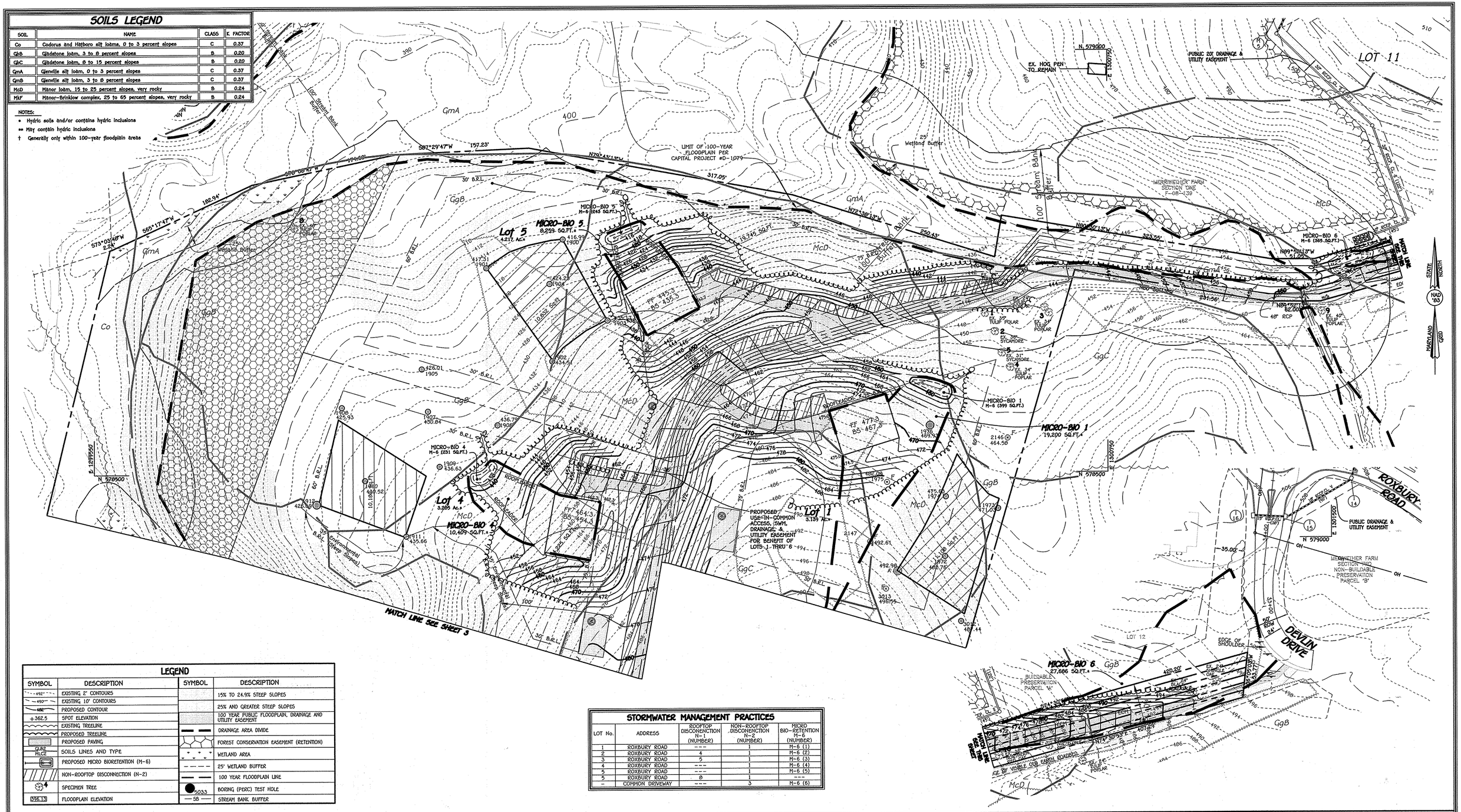
SOIL	NAME	CLASS	K FACTOR
Co	Codorus and Hatboro silt loams, 0 to 3 percent slopes	C	0.37
GbB	Gladstone loam, 3 to 8 percent slopes	B	0.20
GbC	Gladstone loam, 8 to 15 percent slopes	B	0.20
GmA	Glenville silt loam, 0 to 3 percent slopes	C	0.37
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.37
McD	Manor loam, 15 to 25 percent slopes, very rocky	B	0.24
MkF	Manor-Brinklow complex, 25 to 65 percent slopes, very rocky	B	0.24

NOTES:

* Hydric soils and/or contains hydric inclusions

** May contain hydric inclusions

† Generally only within 100-year floodplain areas



LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
492	EXISTING 2' CONTOURS		15% TO 24.9% STEEP SLOPES
490	EXISTING 10' CONTOURS		25% AND GREATER STEEP SLOPES
482	PROPOSED CONTOUR		100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT
+362.5	SPOT ELEVATION		DRAINAGE AREA DIVIDE
	EXISTING TREELINE		FOREST CONSERVATION EASEMENT (RETENTION)
	PROPOSED TREELINE		WETLAND AREA
	PROPOSED PAVING		25' WETLAND BUFFER
GLR2 MLC2	SOILS LINES AND TYPE		100 YEAR FLOODPLAIN LINE
	PROPOSED MICRO BIORETENTION (M-6)	5033	BORING (PERC) TEST HOLE
	NON-ROOFTOP DISCONNECTION (N-2)	SB	STREAM BANK BUFFER
4	SPECIMEN TREE		
326.7	FLOODPLAIN ELEVATION		

STORMWATER MANAGEMENT PRACTICES

LOT No.	ADDRESS	ROOFTOP DISCONENCTION N-1 (NUMBER)	NON-ROOFTOP DISCONENCTION N-2 (NUMBER)	MICRO BIO-RETENTION M-6 (NUMBER)
1	ROXBURY ROAD	---	1	M-6 (1)
2	ROXBURY ROAD	4	1	M-6 (2)
3	ROXBURY ROAD	5	1	M-6 (3)
4	ROXBURY ROAD	---	1	M-6 (4)
5	ROXBURY ROAD	---	1	M-6 (5)
5	ROXBURY ROAD	8	1	---
–	COMMON DRIVEWAY	---	3	M-6 (6)

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ELLICOTT CITY, MARYLAND 21042
(410) 461 – 2855

NO.	REVISION	DATE

#X

X

PROFESSIONAL CERTIFICATION

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STEPHANIE J. TUITE · No. 38386 · STATE OF MARYLAND · PROFESSIONAL ENGINEER

Signature Of Professional Engineer — DATE 6/27/14

OWNER

MR. BOB BUICE
21400 NEW HAMPSHIRE AVE.
BROOKEVILLE, MARYLAND 20833-1805
410-489-7900 ATTN: TIM FEAGA

DEVELOPER

HERITAGE LAND DEVELOPMENT
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P.O. BOX 482
LISBON, MARYLAND 21765
410-489-7900

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7/02/14

Chief, Development Engineering Division — Date 7.8.14

PROJECT				SECTION	PARCEL NO.
CATTAIL OVERLOOK LOTS 1 THRU 6				–	84
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
5426-5429 & 21339-21344	20 & 21	RC-DEO	21	FOURTH	604002

ENVIRONMENTAL CONCEPT PLAN

CATTAIL OVERLOOK

LOTS 1 THRU 6

(A Resubdivision Of Lot 2 Buice Property – Plat Nos. 5426 – 5429) And (A Resubdivision of Meriwether Farm Section One Non-Buildable Parcel 'E' Plat Nos. 21339 – 21344)

ZONED RC-DEO

TAX MAP No. 21 GRID No. 20 & 21 PARCEL No. 24 & 84

FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: JUNE, 2014

SHEET 2 OF 8

ECP-14-041

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SOILS LEGEND

SOIL	NAME	CLASS	K FACTOR
Co	Codorus and Hatboro silt loams, 0 to 3 percent slopes	C	0.37
GgB	Gladstone loam, 3 to 8 percent slopes	B	0.20
GgC	Gladstone loam, 8 to 15 percent slopes	B	0.20
GmA	Glenville silt loam, 0 to 3 percent slopes	C	0.37
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.37
McD	Manor loam, 15 to 25 percent slopes, very rocky	B	0.24
MkF	Manor-Brinklow complex, 25 to 65 percent slopes, very rocky	B	0.24

NOTES:

- * Hydric soils and/or contains hydric inclusions
- ** May contain hydric inclusions
- † Generally only within 100-year floodplain areas

LEGEND

SYMBOL	DESCRIPTION
492	EXISTING 2' CONTOURS
490	EXISTING 10' CONTOURS
492	PROPOSED CONTOUR
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326.13	FLOODPLAIN ELEVATION
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	WETLAND AREA
	25' WETLAND BUFFER
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SB	STREAM BANK BUFFER

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Signature of Professional Engineer — DATE 6/20/14

STATE OF MARYLAND — STEPHANIE J. TUITE — No. 36386 — PROFESSIONAL ENGINEER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Kent Sheubrooks — Chief, Division of Land Development — 7/02/14 Date

Chief, Development Engineering Division — 7.8.14 Date

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FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: JUNE, 2014

SHEET 3 OF 8

ECP-14-041

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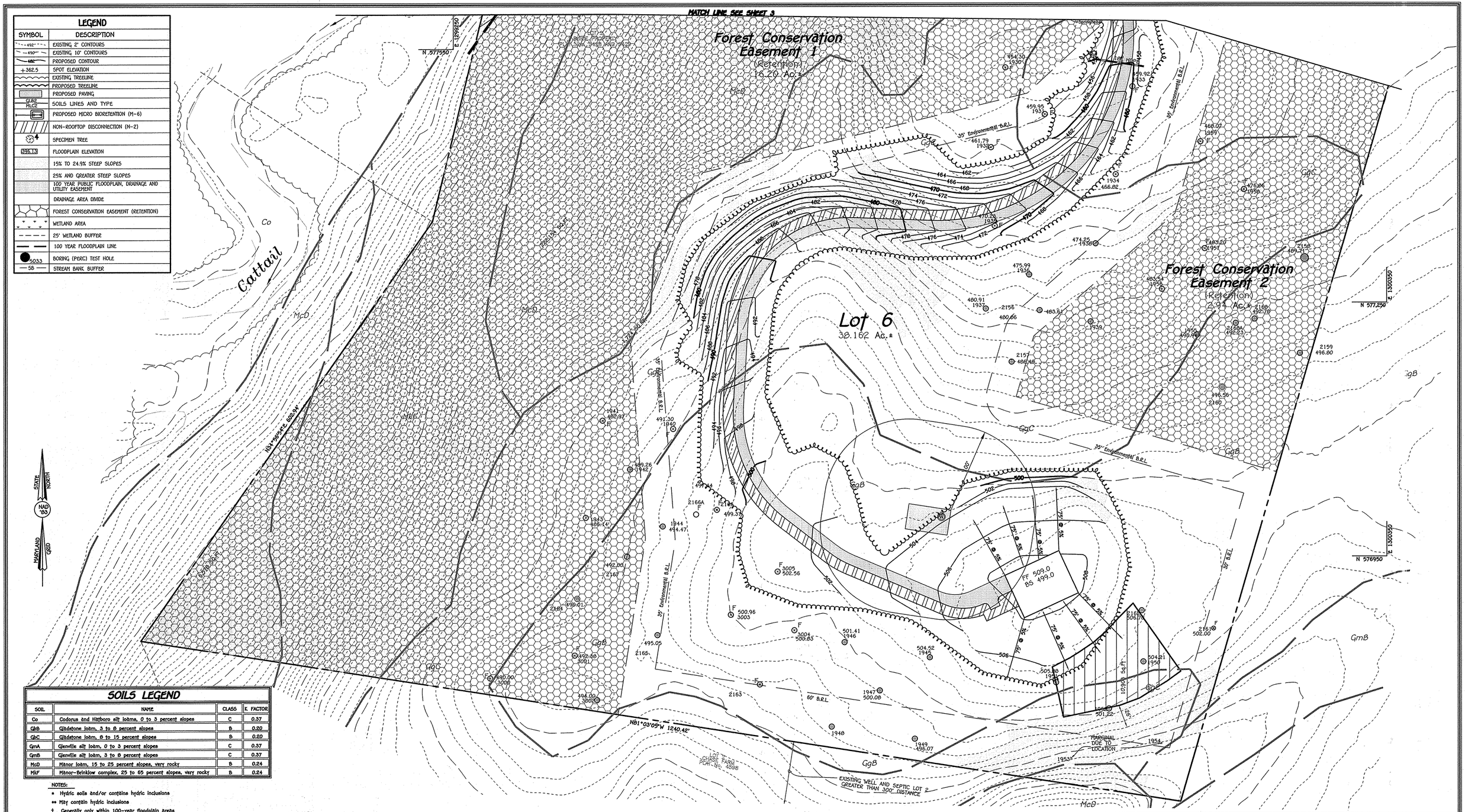

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FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK – 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 – 2855

NO.	REVISION	DATE

#X

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PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 01/12/2014.

Signature Of Professional Engineer — DATE 6/24/14

STATE OF MARYLAND — STOJDOLF, STEVE — No. 38386 — PROFESSIONAL ENGINEER

OWNER

MR. BOB BUICE
21400 NEW HAMPSHIRE AVE.
BROOKEVILLE, MARYLAND 20833-1805
410-489-7900 ATTN: TIM FEAGA

DEVELOPER

HERITAGE LAND DEVELOPMENT
15950 NORTH AVENUE
P.O. BOX 482
LISBON, MARYLAND 21765
410-489-7900

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7/02/14

Chief, Development Engineering Division — Date 7.2.14

PROJECT			SECTION	PARCEL NO.
CATTAIL OVERLOOK LOTS 1 THRU 6			–	84
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
5426-5429 & 21339-21344	20 & 21	RC-DEO	21	FOURTH	604002

ENVIRONMENTAL CONCEPT PLAN

CATTAIL OVERLOOK

LOTS 1 THRU 6

(A Resubdivision Of Lot 2 Buice Property – Plat Nos. 5426 – 5429) And (A Resubdivision of Meriwether Farm Section One Non-Buildable Parcel 'E' Plat Nos. 21339 – 21344)

ZONED RC-DEO

TAX MAP No. 21 GRID No. 20 & 21 PARCEL No. 24 & 84

FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: JUNE, 2014

SHEET 4 OF 8

ECP-14-041

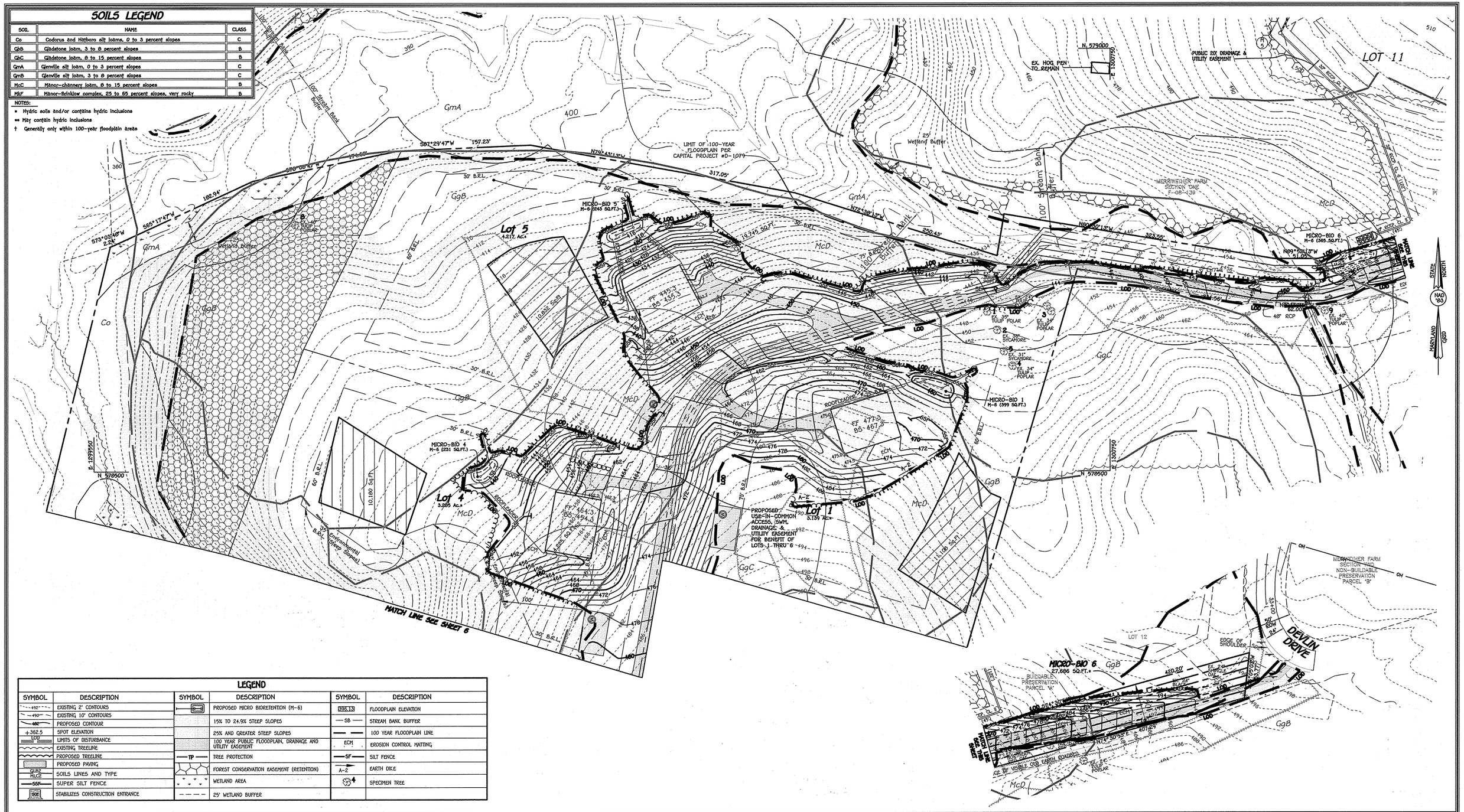
K:\SDSKPROJ\30636 BUICE NAD 83\dwg\Cattail Overlook\Ecp Cattail Overlook Lots 1 thru 6.dwg, Sheet 4, 6/27/2014 4:42:53 PM, 1:1

SOILS LEGEND

SOIL	NAME	CLASS
Co	Codorus and Hatboro silt loams, 0 to 3 percent slopes	C
GbB	Gladstone loam, 3 to 8 percent slopes	B
GbC	Gladstone loam, 8 to 15 percent slopes	B
GmA	Glenville silt loam, 0 to 3 percent slopes	C
GmB	Glenville silt loam, 3 to 8 percent slopes	C
McC	Manor-channery loam, 8 to 15 percent slopes	B
MkF	Manor-Brinklow complex, 25 to 65 percent slopes, very rocky	B

NOTES:

- * Hydric soils and/or contains hydric inclusions
- ** May contain hydric inclusions
- † Generally only within 100-year floodplain areas



LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
492	EXISTING 2' CONTOURS		PROPOSED MICRO BIORETENTION (M-6)	336.13	FLOODPLAIN ELEVATION
490	EXISTING 10' CONTOURS		15% TO 24.9% STEEP SLOPES	SB	STREAM BANK BUFFER
492	PROPOSED CONTOUR		25% AND GREATER STEEP SLOPES		100 YEAR FLOODPLAIN LINE
+362.5	SPOT ELEVATION		100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT	ECM	EROSION CONTROL MATTING
LOD	LIMITS OF DISTURBANCE	TP	TREE PROTECTION	SF	SILT FENCE
	EXISTING TREELINE		FOREST CONSERVATION EASEMENT (RETENTION)	A-2	EARTH DIKE
	PROPOSED TREELINE		WETLAND AREA	4	SPECIMEN TREE
	PROPOSED PAVING		25' WETLAND BUFFER		
GbB MkC2	SOILS LINES AND TYPE				
SSF	SUPER SILT FENCE				
SCE	STABILIZES CONSTRUCTION ENTRANCE				

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CENTENNIAL SQUARE OFFICE PARK – 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 – 2855

NO.	REVISION	DATE

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PROFESSIONAL CERTIFICATION

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Signature of Professional Engineer — DATE 6/27/14

STATE OF MARYLAND — STEVEN J. KUTTE — No. 38386 — PROFESSIONAL ENGINEER

OWNER
MR. BOB BUICE
21400 NEW HAMPSHIRE AVE.
BROOKEVILLE, MARYLAND 20833-1805
410-489-7900 ATTN: TIM FEAGA

DEVELOPER
HERITAGE LAND DEVELOPMENT
15950 NORTH AVENUE
P.O. BOX 482
LISBON, MARYLAND 21765
410-489-7900

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7/02/14

Chief, Development Engineering Division — Date 7.8.14

PROJECT			SECTION	PARCEL NO.
CATTAIL OVERLOOK LOTS 1 THRU 6			–	84
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
5426-5429 & 21339-21344	20 & 21	RC-DEO	21	FOURTH	604002

PRELIMINARY SEDIMENT AND EROSION CONTROL PLAN

CATTAIL OVERLOOK

LOTS 1 THRU 6

(A Resubdivision Of Lot 2 Buice Property – Plat Nos. 5426 – 5429) And (A Resubdivision of Meriwether Farm Section One Non-Buildable Parcel 'E' Plat Nos. 21339 – 21344)

ZONED RC-DEO

TAX MAP No. 21 GRID No. 20 & 21 PARCEL No. 24 & 84

FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: JUNE, 2014

SHEET 5 OF 8

ECP-14-041

K:\SDSKPROJ\30636 BUICE NAD 83\dwg\Cattail Overlook\Ecp Cattail Overlook Lots 1 thru 6.dwg, Sheet 5, 6/27/2014 4:43:18 PM, 1:1

SOILS LEGEND

SOIL	NAME	CLASS	K FACTOR
Co	Codorus and Hatboro silt loams, 0 to 3 percent slopes	C	0.37
GbB	Gladstone loam, 3 to 8 percent slopes	B	0.20
GbC	Gladstone loam, 8 to 15 percent slopes	B	0.20
GmA	Glenville silt loam, 0 to 3 percent slopes	C	0.37
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.37
McD	Manor loam, 15 to 25 percent slopes, very rocky	B	0.24
MkF	Manor-Brinklow complex, 25 to 65 percent slopes, very rocky	B	0.24

NOTES:

- * Hydric soils and/or contains hydric inclusions
- ** May contain hydric inclusions
- † Generally only within 100-year floodplain areas

LEGEND

SYMBOL	DESCRIPTION
492	EXISTING 2' CONTOURS
490	EXISTING 10' CONTOURS
480	PROPOSED CONTOUR
+362.5	SPOT ELEVATION
LOD	LIMITS OF DISTURBANCE
	EXISTING TREELINE
	PROPOSED TREELINE
	PROPOSED PAVING
GLB2 MLC2	SOILS LINES AND TYPE
SSF	SUPER SILT FENCE
SCE	STABILIZES CONSTRUCTION ENTRANCE
	PROPOSED MICRO BIORETENTION (M-6)
	15% TO 24.9% STEEP SLOPES
	25% AND GREATER STEEP SLOPES
	100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT
TP	TREE PROTECTION
	FOREST CONSERVATION EASEMENT (RETENTION)
	WETLAND AREA
	25' WETLAND BUFFER
395.13	FLOODPLAIN ELEVATION
SB	STREAM BANK BUFFER
	100 YEAR FLOODPLAIN LINE
ECM	EROSION CONTROL MATTING
SF	SILT FENCE
A-2	EARTH DIKE
4	SPECIMEN TREE

FISHER, COLLINS & CARTER, INC.
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CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE

#X

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Stephanie Smith 6/27/14
Signature Of Professional Engineer DATE

STATE OF MARYLAND STEPHANIE J. SMITH No. 38386 PROFESSIONAL ENGINEER

OWNER
MR. BOB BUICE
21400 NEW HAMPSHIRE AVE.
BROOKEVILLE, MARYLAND 20833-1805
410-489-7900 ATTN: TIM FEAGA

DEVELOPER
HERITAGE LAND DEVELOPMENT
15950 NORTH AVENUE
P.O. BOX 482
LISBON, MARYLAND 21765
410-489-7900

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Kent Sheubrooks 7/02/14
Chief, Division of Land Development Date

7.8.14
Chief, Development Engineering Division Date

PROJECT				SECTION	PARCEL NO.
CATTAIL OVERLOOK LOTS 1 THRU 6				-	84
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
5426-5429 & 21339-21344	20 & 21	RC-DEO	21	FOURTH	604002

PRELIMINARY SEDIMENT AND EROSION CONTROL PLAN

CATTAIL OVERLOOK

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ZONED RC-DEO

TAX MAP No. 21 GRID No. 20 & 21 PARCEL No. 24 & 84

FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: JUNE, 2014

SHEET 6 OF 8 **ECP-14-041**

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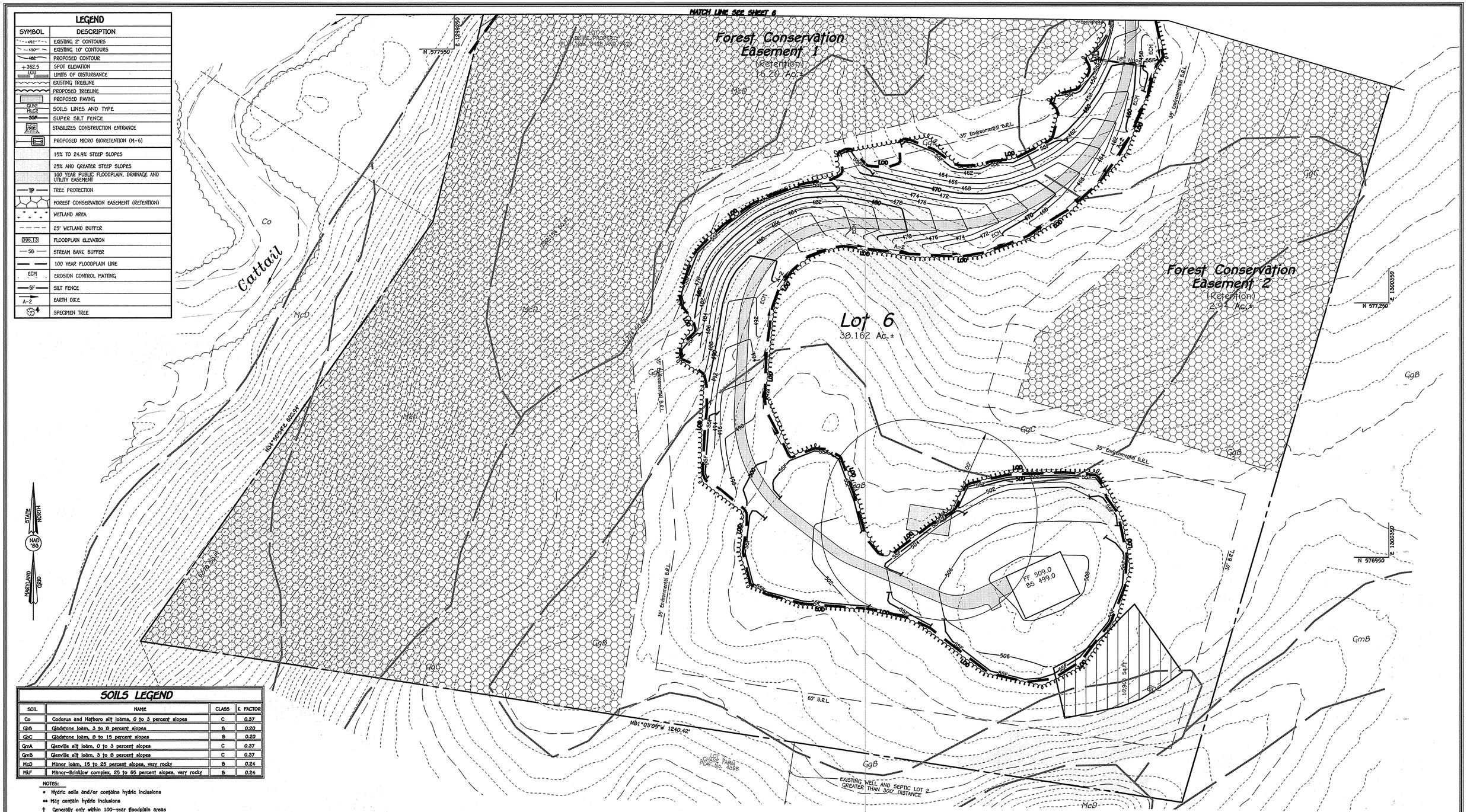

LEGEND

SYMBOL	DESCRIPTION
492	EXISTING 2' CONTOURS
490	EXISTING 10' CONTOURS
492	PROPOSED CONTOUR
+362.5	SPOT ELEVATION
100'	LIMITS OF DISTURBANCE
	EXISTING TREELINE
	PROPOSED TREELINE
	PROPOSED PAVING
GLB2 HLC2	SOILS LINES AND TYPE
SSF	SUPER SILT FENCE
SCE	STABILIZED CONSTRUCTION ENTRANCE
	PROPOSED MICRO BIORETENTION (M-6)
	15% TO 24.9% STEEP SLOPES
	25% AND GREATER STEEP SLOPES
	100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT
TP	TREE PROTECTION
	FOREST CONSERVATION EASEMENT (RETENTION)
	WETLAND AREA
	25' WETLAND BUFFER
326.3	FLOODPLAIN ELEVATION
SB	STREAM BANK BUFFER
	100 YEAR FLOODPLAIN LINE
ECM	EROSION CONTROL MATTING
SF	SILT FENCE
A-2	EARTH DIKE
4	SPECIMEN TREE

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NO.	REVISION	DATE

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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. 30886, EXPIRATION DATE: 01/12/2014.

Stephanie J. Tuite 6/27/14
Signature Of Professional Engineer DATE

STATE OF MARYLAND – STEPHANIE J. TUITE – No. 30886 – PROFESSIONAL ENGINEER

OWNER

MR. BOB BUICE
21400 NEW HAMPSHIRE AVE.
BROOKEVILLE, MARYLAND 20833-1805
410-489-7900 ATTN: TIM FEAGA

DEVELOPER

HERITAGE LAND DEVELOPMENT
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LISBON, MARYLAND 21765
410-489-7900

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Kent Sheubrooks — 7/02/14
Chief, Division of Land Development — Date

Rhea Edwards — 7.8.14
Chief, Development Engineering Division — Date

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PRELIMINARY SEDIMENT AND EROSION CONTROL PLAN

CATTAIL OVERLOOK

LOTS 1 THRU 6

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ZONED RC-DEO

TAX MAP No. 21 GRID No. 20 & 21 PARCEL No. 24 & 84

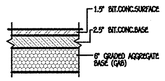
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: JUNE, 2014

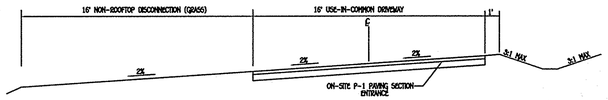
SHEET 7 OF 8

ECP-14-041

K:\SDSKPROJ\30636 BUICE NAD 83\dwg\Cattail Overlook\Ecp Cattail Overlook Lots 1 thru 6.dwg, Sheet 7, 6/27/2014 4:44:30 PM, 1:1

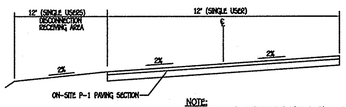


P-1 DRIVEWAY PAVING SECTION
NOT TO SCALE



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

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

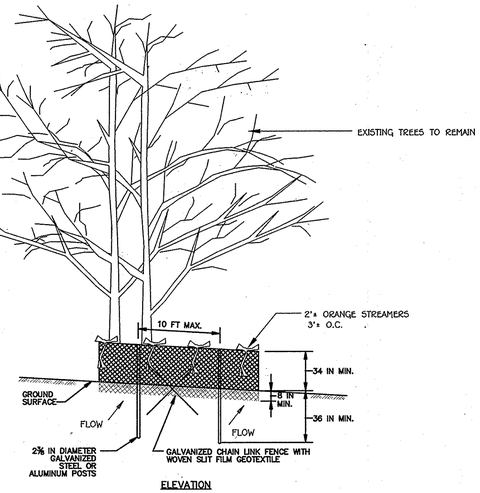


NOTE:
ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.

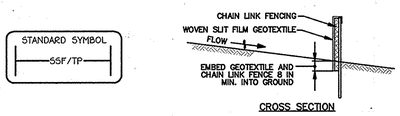
TYPICAL PRIVATE DRIVE CROSS SLOPE SECTION
NOT TO SCALE

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED, DISCONNECTION OF ROOFTOP RUNOFF (N-1) & DISCONNECTION OF NONROOFTOP RUNOFF (N-2)

1. MAINTENANCE OF AREAS RECEIVING DISCONNECTION RUNOFF IS GENERALLY NO DIFFERENT THAN THAT DESIRABLE FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREA. IN COMMERCIAL AREAS FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.



ELEVATION

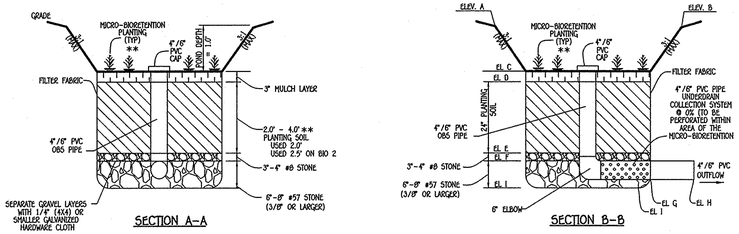


CROSS SECTION

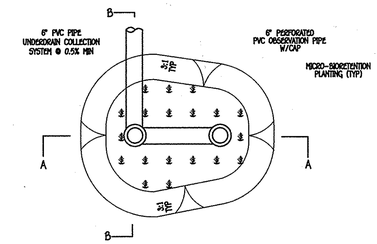
CONSTRUCTION SPECIFICATIONS

1. INSTALL 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2⅜ INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

SUPER SILT FENCE, TREE PROTECTION FENCE
NOT TO SCALE

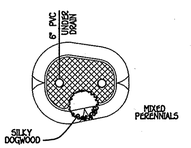


MICRO-BIORETENTION DETAIL (M-6)
NOT TO SCALE

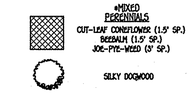


PLAN
NOT TO SCALE

MICRO-BIORETENTION									
BIORETENTION FILTER	A	B	C	D	E	F	G	H	I
1	460.00	460.00	459.00	456.75	456.75	456.50	456.17	455.97	455.90
2	484.00	484.00	483.00	482.75	480.75	480.50	480.17	479.00	479.90
3	489.00	489.00	488.00	487.75	485.75	485.50	485.17	475.00	484.90
4	438.00	438.00	437.00	436.75	434.75	434.50	434.17	433.97	433.90
5	416.00	416.00	415.00	414.75	412.75	412.50	412.17	412.00	411.90
6	465.75	465.75	465.00	464.75	462.75	462.50	462.17	461.90	461.90



MICRO-BIORETENTION PLANTING DETAIL
NOT TO SCALE



*SEE PLANT MATERIAL CHARTS FOR QUANTITIES AND SPACING.

NOTE:
PLANT MATERIAL MUST COVER AT LEAST 50% OF THE SURFACE AREA OF THE MICRO-BIORETENTION

MICRO-BIORETENTION PLANT MATERIAL							
MICRO-BIO 1 QUANTITY	MICRO-BIO 2 QUANTITY	MICRO-BIO 3 QUANTITY	MICRO-BIO 4 QUANTITY	MICRO-BIO 5 QUANTITY	MICRO-BIO 6 QUANTITY	NAME	MAXIMUM SPACING (FT.)
45	30	25	30	32	40	MIXED PERENNIALS	1.5 TO 3.0 FT.
1	1	1	1	1	1	SILKY DOGWOOD	PLANT AWAY FROM INFLOW LOCATION

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

A. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
B. THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS AND REPLACE ALL DEFICIENT STAKES AND WIRES.
C. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
D. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE

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PROFESSIONAL CERTIFICATION

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Stephanie Tuite 6/27/14
Signature Of Professional Engineer DATE

STATE OF MARYLAND STEPHANIE J. TUITE No. 38366 PROFESSIONAL ENGINEER

OWNER
MR. BOB BUICE
21400 NEW HAMPSHIRE AVE.
BROOKEVILLE, MARYLAND 20833-1805
410-489-7900 ATTN: TIM FEAGA

DEVELOPER
HERITAGE LAND DEVELOPMENT
15950 NORTH AVENUE
P.O. BOX 482
LISBON, MARYLAND 21765
410-489-7900

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Kent Sheubrooks — 7/02/14
Chief, Division of Land Development — Date

Chad Edmondson — 7.8.14
Chief, Development Engineering Division — Date

PROJECT				SECTION	PARCEL NO.
CATTAIL OVERLOOK LOTS 1 THRU 6				-	84
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
5426-5429 & 21339-21344	20 & 21	RC-DEO	21	FOURTH	604002

STORMWATER MANAGEMENT DETAILS & NOTES

CATTAIL OVERLOOK
LOTS 1 THRU 6
(A Resubdivision Of Lot 2 Buice Property - Plat Nos. 5426 - 5429) And (A Resubdivision of Meriwether Farm Section One Non-Buildable Parcel 'E' Plat Nos. 21339 - 21344)
ZONED RC-DEO
TAX MAP No. 21 GRID No. 20 & 21 PARCEL No. 24 & 84
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JUNE, 2014
SHEET 8 OF 8

ECP-14-041

K:\SDSKPROJ\30636 BUICE NAD 83\dwg\Cattail Overlook\Ecp Cattail Overlook Lots 1 thru 6.dwg, Sheet 8, 6/27/2014 4:44:55 PM, 1:1