

SHEET INDEX	
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1	TITLE SHEET
2	EXISTING CONDITIONS, SOILS & DEMOLITION PLAN
3	ENVIRONMENTAL CONCEPT PLAN
4	PRELIMINARY EROSION/SEDIMENT CONTROL PLAN AND STORMWATER MANAGEMENT NOTES AND DETAILS

SOILS LEGEND			
SOIL	NAME	CLASS	K' VALUE
Gbb	Gladstone loam, 3 to 8 percent slopes	B	.32
Gbc	Gladstone loam, 0 to 15 percent slopes	B	.32

STORMWATER MANAGEMENT PRACTICES BY LOT			
AREA ID	MICRO-BIO (M-6) NUMBER	DRY WELL (M-5) NUMBER	REMARKS
LOT 1	1		PARKING AREA AND PORTION OF UIC DRIVEWAY DRAINS TO BIO ON LOT 1
		1A,1B,1C & 1D	PROPOSED HOUSE TREATED BY ON LOT DRY WELLS (4)
LOT 2	1		PARKING AREA AND PORTION OF UIC DRIVEWAY DRAINS TO BIO ON LOT 2
		2A,2B,2C,2D&2E	PROPOSED HOUSE TREATED BY ON LOT DRY WELLS (5)

GROSS AREA = 1.36 ACRES  
 LOD = 0.78 ACRES  
 RCN = 55.0  
 TARGET Pe = 1.8'  
 PROVIDED Pe = 2.1'

STORMWATER MANAGEMENT PRACTICES							
AREA ID	LOCATION	DRAINAGE AREA SF	% IMPERVIOUS	ESDV REQUIRED CUFT	ESDV PROVIDED CUFT	MICRO BIO-RETENTION M-6 (Y/N)	DRY WELL M-5 (Y/N)
DW 1A	LOT 1	1,000	100%	143	154		Y
DW 1B		1,000	100%	143	154		Y
DW 1C		1,000	100%	143	154		Y
DW 1D		1,000	100%	143	154		Y
BIO 1	LOT 1	3,372	53%	266	470	Y	
DW 2A	LOT 2	1,000	100%	143	154		Y
DW 2B		1,000	100%	143	154		Y
DW 2C		1,000	100%	143	154		Y
DW 2D		1,000	100%	143	154		Y
DW 2E		800	100%	96	96		Y
BIO 2	LOT 2	5,895	47%	420	428	Y	

**STORMWATER MANAGEMENT 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 FOR THIS PROJECT. THE GOAL OF CREATING HYDROLOGY SIMILAR TO THAT OF "WOODS IN GOOD CONDITION" WILL BE ACCOMPLISHED THROUGH THE USE OF DRY WELLS AND MICRO BIO-RETENTION FACILITIES AS SUGGESTED WITHIN CHAPTER 5 OF PREVIOUSLY MENTIONED MANUAL. THE ACHIEVEMENT OF THIS GOAL WILL REMOVE THE REQUIREMENT OF PROVIDING CHANNEL PROTECTION VOLUME.

**GENERAL SITE CONDITIONS:**

THE SUBJECT PROPERTY IS ZONED R-20 AND LOCATED ON TAX MAP 35, PARCEL NO. 108 OF THE HOWARD COUNTY, MARYLAND TAX MAP DATABASE SYSTEM. THE PROPERTY CONSISTING OF 1.36 ACRES, IS RECTANGULAR IN SHAPE AND IS IMPROVED WITH A SINGLE FAMILY RESIDENCE. THE PROPERTY IS BORDERED BY RESIDENTIAL LOTS AND HAS ROAD FRONTAGE ON TROTTER ROAD DESIGNATED AS A SCENIC ROAD, TO THE SOUTH. CURRENTLY ACCESS TO THE PROPERTY IS FROM AN EXISTING DRIVEWAY WHICH WILL BE ABANDONED. THE EXISTING HOUSE ON THE PROPERTY WILL BE DEMOLISHED. THIS PROJECT PROPOSES A TWO LOT SUBDIVISION IMPROVED BY TWO SINGLE FAMILY DETACHED RESIDENCES SHARING A USE-IN-COMMON DRIVE. THE PROPERTY IS PARTIALLY WOODED AND HAS A GENTLY SLOPED RIDGE RUNNING FROM THE FRONT WESTERLY CORNER OF THE PROPERTY TO THE REAR EASTLY CORNER OF THE PROPERTY WHICH CREATES A DRAINAGE DIVIDE WITH RUNOFF FLOWING ACROSS THE ADJACENT PROPERTIES. THE PROPERTY IS LOCATED WITHIN THE MIDDLE PATUXENT RIVER BASIN WATERSHED (02131106). THE RUNOFF FROM THE PROPOSED IMPROVEMENTS WILL BE TREATED BY A COMBINATION OF SWM DEVICES CONSISTING OF ONE (1) M-6 MICRO BIORETENTION FACILITY TO TREAT THE USE IN COMMON DRIVEWAY AND NINE (9) M-5 DRYWELLS TO TREAT THE PROPOSED HOUSES. THE WEB SOIL SURVEY SHOWS SOILS ON THE SITE CONSIST OF TYPE "B" - GLENELG URBAN LAND COMPLEX SOILS.

- I. NATURAL RESOURCE PROTECTION:**  
 NO WETLANDS, STREAMS, THEIR BUFFERS, STEEP SLOPES, FLOODPLAIN, OR FOREST EXIST ON-SITE. NO SPECIAL PROTECTION IS REQUIRED.
- II. MAINTENANCE OF NATURAL FLOW PATTERNS:**  
 THE EXISTING LOT HAS A NATURAL RIDGE WHICH DIVIDES THE PROPERTY GENERALLY TO THE FRONT AND REAR PROPERTY LINE. THE PROPOSED HOMES HAVE BEEN SITED ON THE RIDGE, SUCH THAT THE DRAINAGE AREAS ARE GENERALLY DIVIDED TO THE FRONT AND REAR PROPERTY LINES. THEREFORE, THE PROPOSED HOUSE SITING MAINTAINS THE EXISTING NATURAL PATTERN.
- III. REDUCTION OF IMPERVIOUS AREAS THROUGH BETTER SITE DESIGN, ALTERNATIVE SURFACES AND NONSTRUCTURAL PRACTICES:**  
 ONLY THE MINIMUM IMPERVIOUS AREAS HAVE BEEN PROPOSED TO ALLOW ADEQUATE ACCESS TO THE PROPOSED LOTS. THIS DESIGN PROVIDES ONLY A SINGLE SHARED DRIVEWAY FOR ACCESS TO EACH OF THE TWO LOTS.
- IV. INTEGRATION OF EROSION AND SEDIMENT CONTROLS INTO STORMWATER STRATEGY:**  
 THIS PROJECT UTILIZES A BIO-RETENTION FACILITY IN A LOCATION THAT COULD WORK IN CONCERT WITH SEDIMENT TRAPPING IF REQUIRED.
- V. IMPLEMENTATION OF ESO PLANNING TECHNIQUES AND PRACTICES TO THE MAXIMUM EXTENT PRACTICABLE (MEP):**  
 THIS SUBMISSION WILL PROPOSE SEVERAL CHAPTER 5 DEVICES TO MEET AND EXCEED ENVIRONMENTAL SITE DESIGN TO THE MAXIMUM EXTENT PRACTICABLE (ESO TO THE MEP). ALL IMPERVIOUS AREAS WILL RECEIVE FULL TREATMENT.
- VI. REQUEST FOR DESIGN MANUAL WAIVER:**  
 NO WAIVERS ARE EXPECTED TO BE REQUESTED ON THIS PROJECT RELATING TO SWM REQUIREMENTS.

**STORMWATER MANAGEMENT NOTES**

- 1. STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
- 2. MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 800 SQ. FT. OR LESS.
- 3. FINAL GRADING SHALL BE PROVIDED WITH THE SITE DEVELOPMENT PLAN.

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
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 ELLICOTT CITY, MARYLAND 21042  
 (410) 461-2899

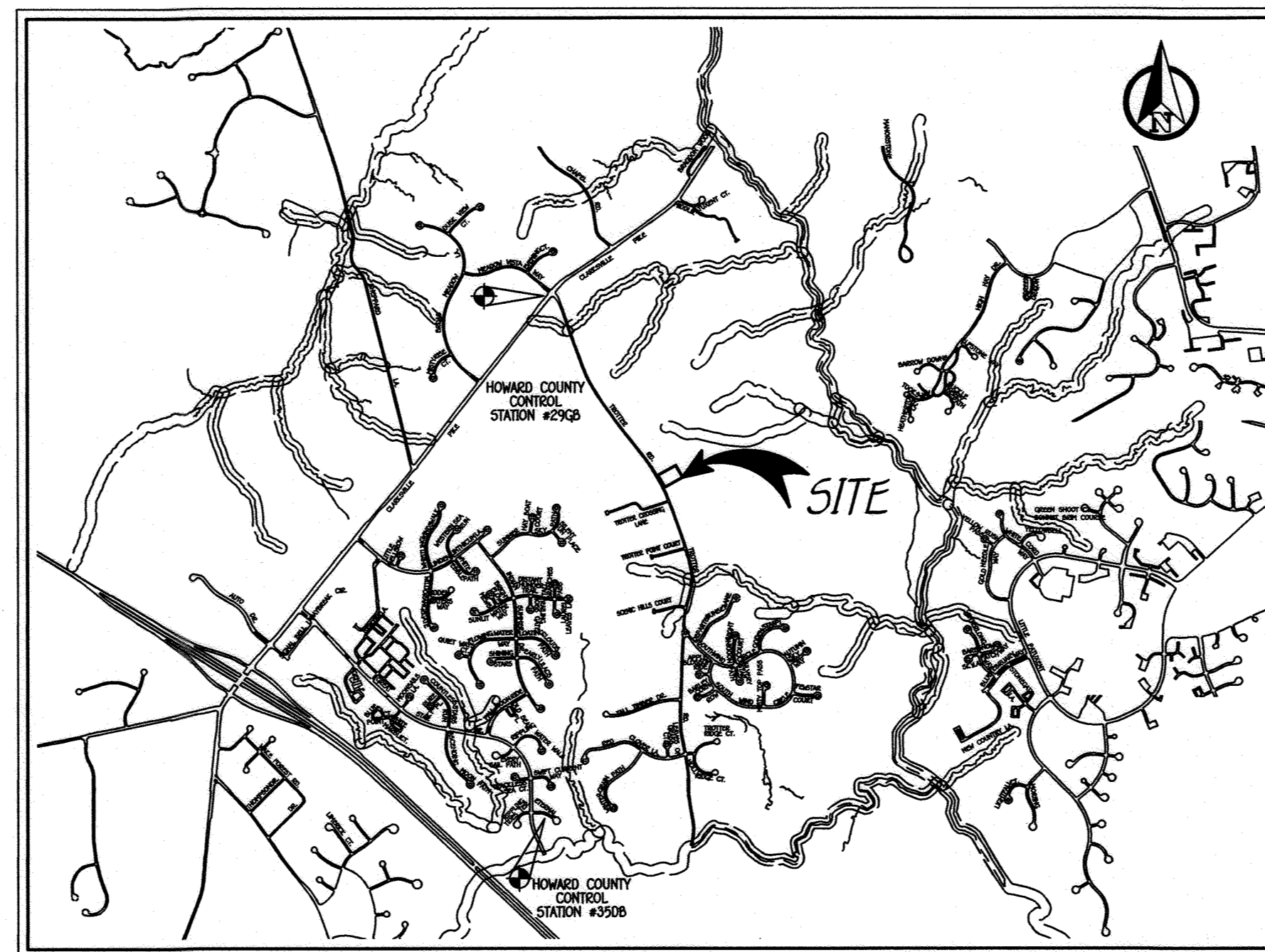
Approved: Department Of Planning And Zoning  
 Chief, Development Engineering Division & Date: 11/21/21  
 Chief, Division Of Land Development & Date: 11/21/21



**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21.  
 Frank Manuansan II Date: 11/21/21

# ENVIRONMENTAL CONCEPT PLAN SAPARIYA PROPERTY

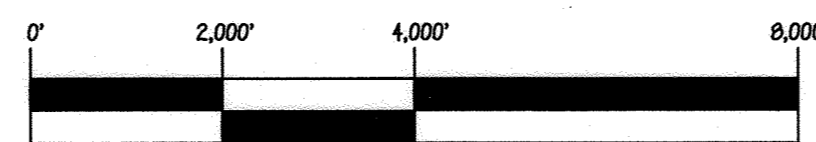
## LOTS 1 AND 2 R-20 ZONING DISTRICT TAX MAP No. 35 GRID No. 02 PARCEL NO. 180 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



HOWARD COUNTY GEODETIC SURVEY CONTROL NO. 3508  
 N 557,696.143 E 1,333,974.615 ELEVATION: 400.941'  
 HOWARD COUNTY GEODETIC SURVEY CONTROL NO. 29GB  
 N 566,826.147 E 1,333,265.923 ELEVATION: 455.964'  
 REFER TO HOWARD CO. ADC MAP 28-6A

**VICINITY MAP**

SCALE: 1" = 2,000'



SCALE: 1" = 2,000'

**GENERAL NOTES**

1. THE SUBJECT PROPERTY IS ZONED R-20 (PER 10/06/13 COMPREHENSIVE ZONING PLAN).
2. BOUNDARY IS BASED ON A FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS & CARTER ON OR ABOUT APRIL, 2020.
3. CONTOURS ARE BASED ON A TOPOGRAPHIC FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS AND CARTER, ON OR ABOUT APRIL, 2020.
4. COORDINATES BASED ON NAD'83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL.  
 STATIONS NO. 3508 AND NO. 29GB:  
 HOWARD COUNTY MONUMENT NO. 3508 N 557,696.143 E 1,333,974.615 ELEV. 400.941'  
 HOWARD COUNTY MONUMENT NO. 29GB N 566,826.147 E 1,333,265.923 ELEV. 455.964'
5. STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE METROPOLITAN DISTRICT, PUBLIC WATER AND SEWER WILL BE UTILIZED FOR THIS PROJECT.
6. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
7. 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.
8. THERE ARE NO WETLANDS, STREAMS OR THEIR BUFFERS LOCATED WITHIN THE BOUNDARY OF THIS SITE.
9. LANDSCAPING WILL BE PROVIDED AT THE FINAL PLAN STAGE OF THIS PROJECT.
10. FOREST CONSERVATION REQUIREMENTS FOR THIS PROPOSED SUBDIVISION WILL BE PROVIDED AT THE FINAL PLAN STAGE OF THIS PROJECT IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION ACT. IT IS ANTICIPATED THAT A FEE-IN-LIEU OF AFFORESTATION WILL BE REQUESTED.
11. THE DEVELOPER OF THIS PROPERTY INTENDS TO SUBMIT AN ALTERNATIVE COMPLIANCE PETITION TO WAIVE SECTION 16.132(A)(2)(I) REQUIRING CONSTRUCTION OF ROAD IMPROVEMENTS ON ONE SIDE OF A LOCAL ROAD FRONTING THE PROPOSED SUBDIVISION TO CURRENT STANDARDS AND SECTION 16.13(A) REQUIRING THE CONSTRUCTION OF SIDEWALKS CONSIDERING THAT TROTTER ROAD IS CLASSIFIED AS A SCENIC ROAD.
12. SOIL BORING INFORMATION WILL BE PROVIDED AT THE NEXT PLAN STAGE OF THIS PROJECT.
13. APPROVAL OF THIS ECP DOES NOT CONSTITUTE APPROVAL OF SUBSEQUENT OR ASSOCIATED SUBDIVISION OR SITE DEVELOPMENT PLANS OR RED-LINE REVISIONS. 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, SITE DEVELOPMENT PLAN, OR RED-LINE REVISION PROCESSES. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THE PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.

**SITE ANALYSIS DATA CHART**

- A. TOTAL AREA OF THIS SUBMISSION = 1.36 AC.\*
- B. LIMIT OF DISTURBED AREA = 0.78 AC.\* (GWH BASED ON LOD)
- C. PRESENT ZONING DESIGNATION = R-20 (PER 10/06/2013 COMPREHENSIVE ZONING PLAN)
- D. PROPOSED USE: RESIDENTIAL SINGLE FAMILY DETACHED
- E. PREVIOUS HOWARD COUNTY FILES: N/A
- F. TOTAL AREA OF FLOODPLAIN LOCATED ON-SITE = 0 AC\*
- G. TOTAL AREA OF SLOPES IN EXCESS OF 25% = 0 AC\*
- H. TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0 AC\*
- I. TOTAL AREA OF STREAM (INCLUDING BUFFER) = 0 AC\*
- J. TOTAL AREA OF EXISTING FOREST = 0.60 AC\*
- K. TOTAL AREA OF FOREST TO BE RETAINED = 0.37 AC\*
- L. TOTAL AREA OF LOTS / BUILDABLE PARCELS = 1.36 AC\*
- M. TOTAL GREEN OPEN AREA (PERVIOUS) = 1.08 AC\*
- N. TOTAL IMPERVIOUS AREA EXCLUDES EXISTING IMPERVIOUS = 0.27 AC\* (WITHIN LOD)
- O. TOTAL AREA OF ERODIBLE SOILS = 0 AC\*

**TITLE SHEET**  
**SAPARIYA PROPERTY**  
 5669 TROTTER ROAD  
 A RESUBDIVISION OF CRISWOOD MANOR  
 SECTION TWO - LOT 65  
 PLAT BOOK 5, PAGE 52  
 TAX MAP NO.: 35 GRID NO.: 02 PARCEL NO.: 0180  
 ZONED R-20  
 DIVESH & SOHILRAJ SAPARIYA  
 7304 WATERLOO WALK  
 LAUREL, MD. 20707  
 (301) 275 0762  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN DATE: NOVEMBER, 2020  
 SHEET 1 OF 4 ECP-20-051



LEGEND	
SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING FENCE
---	EXISTING STORM DRAIN
○	EXISTING WELL
---	EXISTING WATER LINE
---	EXISTING SEWER LINE
---	EXISTING FENCE LINE
---	EXISTING OVERHEAD WIRE
---	BUILDING AND DRIVES TO BE REMOVED
---	EXISTING PAVING
---	EXISTING TREE LINE
GbB	SOIL LINES AND TYPES
GbC	SOIL LINES AND TYPES
☒	DENOTES EXISTING TREES TO BE REMOVED
☉	DENOTES EXISTING TREES TO REMAIN
☉	SPECIMEN TREE
☉	CRITICAL ROOT ZONE
☉	SPECIMEN TREE TO BE REMOVED
☉	CRITICAL ROOT ZONE



NOTES:  
1) AN ALTERNATIVE COMPLIANCE PETITION WILL BE SUBMITTED TO ALLOW FOR THE REMOVAL OF FIVE SPECIMEN TREES.

PLAN VIEW  
SCALE: 1" = 30'

SOILS LEGEND			
SOIL	NAME	CLASS	'K' VALUE
GbB	Gladstone loam, 3 to 8 percent slopes	B	.32
GbC	Gladstone loam, 8 to 15 percent slopes	B	.32

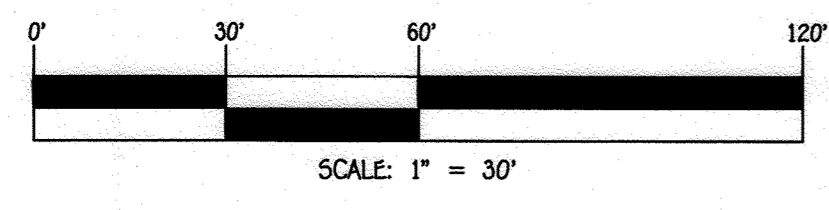
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ELLSWORTH CITY, MARYLAND 21042  
(410) 461 - 2895

Approved: Department of Planning And Zoning  
Chief, Development Engineering Division  
Chief, Division of Land Development

2/17/21  
2/18/21



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Frank Mavalangan II  
1/20/21



LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	EXISTING CONTOUR 10' INTERVAL
	PROPOSED CONTOUR 10' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
	EXISTING FENCE
	SPOT ELEVATION
	EXISTING STORM DRAIN
	EXISTING WATER LINE
	EXISTING SEWER LINE
	EXISTING OVERHEAD WIRE
	EXISTING FENCE LINE
	PROPOSED PAVING
	PRIVATE UIC EASEMENT
	PRIVATE DRAINAGE & UTILITY EASEMENT
	LIMIT OF DISTURBANCE
	SUPER SILT FENCE/TREE PROTECTION FENCE
	DIVERSION FENCE/TREE PROTECTION FENCE
	EXISTING TREE LINE
	PROPOSED TREE LINE
	DRAINAGE DIVIDE
	PERMANENT SOIL STABILIZATION CONTROL MATTING
	SOIL LINES AND TYPES
	SOIL LINES AND TYPES
	BIO RETENTION FACILITY (F-6) OR (M-6) AS NOTED
	PROPOSED ROOF LEADER
	DENOTES EXISTING TREES TO BE REMOVED
	DENOTES EXISTING TREES TO REMAIN
	DENOTES PROPOSED TREE
	SPECIMEN TREE
	CRITICAL ROOT ZONE



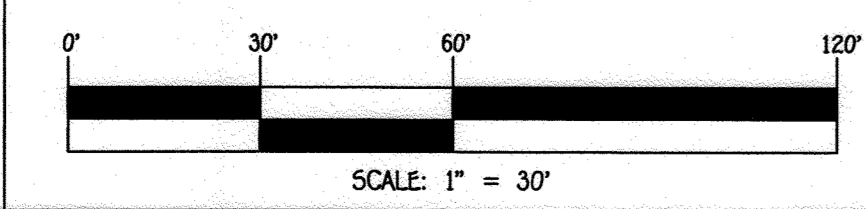
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HOWARD COUNTY WEBSOILS SURVEY 09/15/20

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