

ENVIRONMENTAL CONCEPT PLAN

FAIRVIEW WOODS

5 RESIDENTIAL SINGLE FAMILY LOTS 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

BENCH MARKS (NAD83)

HO. CO. No. 47GD ELEV. 312.32'
NEAR 9028 OLD SCAGSVILLE ROAD
6 FEET FROM FIRE HYDRANT
33.9 FEET FROM BGE 315258
N 530494.447 E 1350872.301

HO. CO. No. 47GE ELEV. 335.756'
BY 9160 OLD SCAGSVILLE ROAD
19.8 FEET FROM WATER METER
76.5 FEET FROM BGE 31000
N 529044.964 E 1350854.953

VICINITY MAP
SCALE: 1" = 2000'
ADC MAP 40, GRID B8

LEGEND

SOILS CLASSIFICATION: M_kF, U_cB

SOILS DELINEATION: -285, -290

EXISTING CONTOURS: -285, -290

EXISTING TREELINE: [Symbol]

PROPOSED CONTOURS: [Symbol]

EX. SANITARY MANHOLE: [Symbol]

PROPOSED TREELINE: [Symbol]

PROPOSED DRYWELL: [Symbol]

PROPOSED BIORETENTION FACILITY: [Symbol]

SLOPES 15% TO 25%: [Symbol]

SLOPES 25% OR GREATER: [Symbol]

FLOORPLAIN LIMITS PER SDP-00-034: [Symbol]

EX. PAVEMENT: [Symbol]

PROPOSED PAVEMENT: [Symbol]

PRIVATE USE-IN-COMMON DRIVEWAY ACCESS EASEMENT: [Symbol]

PUBLIC WATER, SEWER & UTILITY EASEMENT: [Symbol]

PRIVATE DRAINAGE & UTILITY EASEMENT: [Symbol]

STORM DRAIN: [Symbol]

SPECIMEN TREE LOCATIONS: [Symbol]

SIGNIFICANT TREE LOCATION: [Symbol]

DESIGN NARRATIVE

This project is known as Tax Map 50, Parcel 412 and is 2.0 acres. The parcel is zoned R-SC with the developer proposing development of 5 single-family lots accessing off Fairview Avenue in the community of High Ridge. The property currently contained an existing dwelling and the majority of the property is wooded. There is a knoll located in the center of the site with several slopes draining to the south and west. There is a perennial stream located along the western property boundary. The stream has an associated floodplain as delineated as part of the adjacent development. This floodplain delineation will be utilized for this development since it meets the "non-critical" floodplain requirements. The drainage watershed for his property is Patuxent River (02131105), Use I-P.

The target Pe for this site is 1.5 inch based on the imperviousness of the proposed conditions. The target Pe was treated using Environmental Site Design practices as outlined in Chapter 5 of the 2000 Maryland Stormwater Design Manual, as amended by Maryland's Stormwater Management Act of 2007. The selected methods to provide ESD are: Drywells (M-5) for the house located on Lot 5 and a portion of the house on Lot 4, small micro-biorettention facilities (M-6) for the rear of the houses on Lots 2 & 3 and 1 bioretention facility (F-6) for the remaining impervious areas. The area of the development is predominately 'C' soils (CeB) Chillum except in the location of the drywells. The soils are "B" soils. Additional storage of the 10 year storm is provided below the bioretention facility to minimize any impacts to the down stream property. The facility will have an R-Tank (create) system below the stone of the bioretention facility. A geotechnical analysis will be performed at the preliminary phase of the development to verify the methods.

Maintenance of the natural flow patterns is provided by limiting the site disturbance and by the use of micro-biorettention, bioretention and drywells opposed to structural practices altering the drainage patterns and limiting concentrated flows. Utilizing bioretention facilities, a nonstructural practice, makes for a better site design as well as maintaining the original drainage patterns.

As a result of fully addressing the stormwater management by use of micro bioretention and drywells the land conditions have theoretically been returned to woods in good condition. Therefore, providing the reduction in impervious areas through non-structural practices we have met the ESD requirements for this site.

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.

To protect natural resources, it is important to minimize and adequately treat the stormwater runoff. The final design will incorporate adequate treatment and storage in order to create the least possible stormwater runoff in general compliance with this concept plan. The runoff will be treated on-site using approved methods. Outfalls generally correspond with the natural drainage patterns for the site.

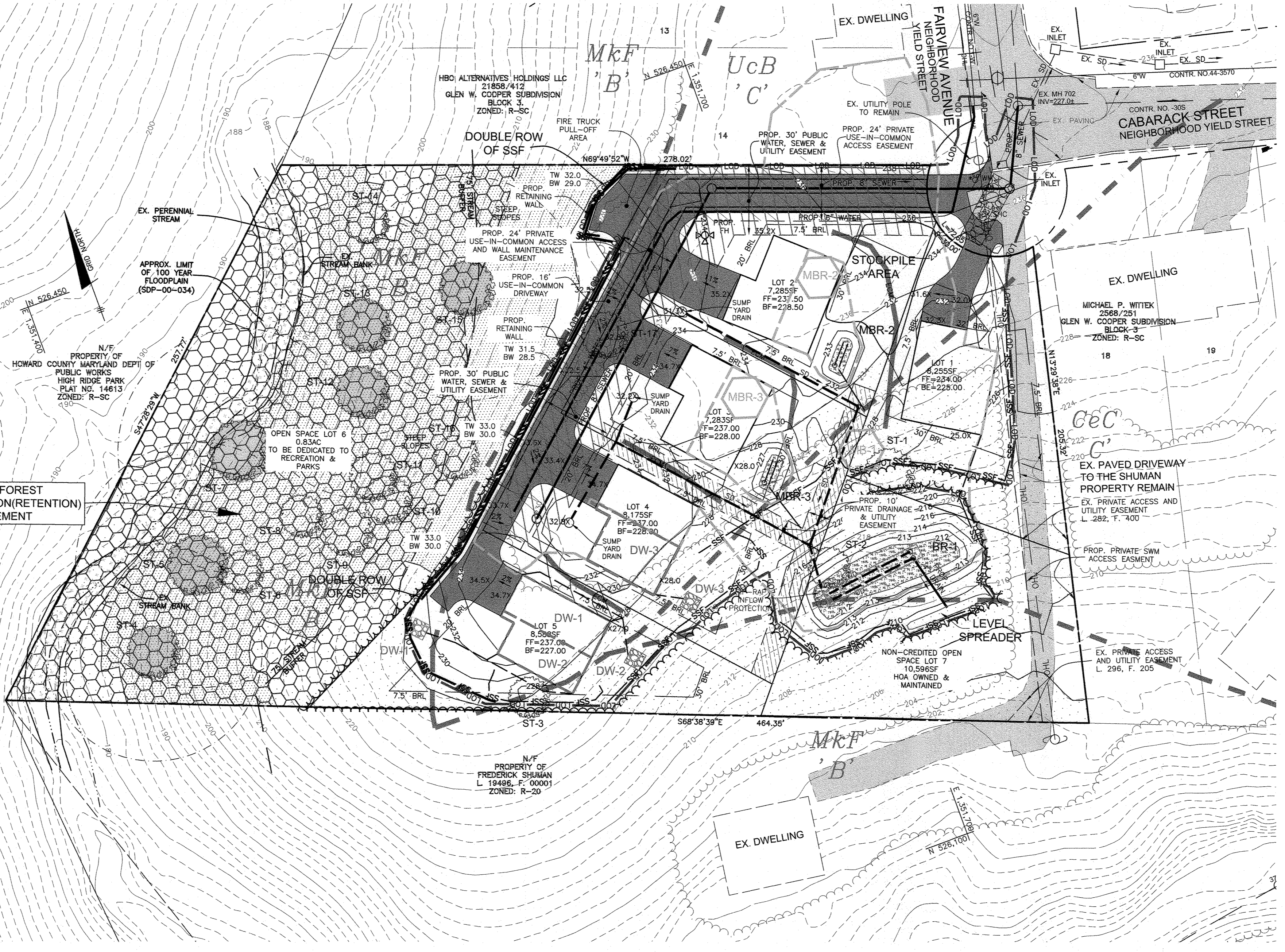
It is concluded that all ESD to the MEP requirements as defined in the Stormwater Management Act of 2007 have been met for the proposed development. The Water Quality has been provided by the implementation of micro-biorettention (M-6), bioretention (F-6) and Drywells (M-5) to treat the proposed impervious onsite.

It is anticipated that this site will meet the forest conservation requirements by onsite forest retention.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 7.8.24
CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 12/24/24
CHIEF, DIVISION OF LAND DEVELOPMENT



GENERAL NOTES

- SUBJECT PROPERTY IS ZONED R-SC PER THE 10-6-2013 COMPREHENSIVE ZONING PLAN.
- THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, DATED OCTOBER 7, 2007.
- THE BOUNDARY SHOWN IS BASED ON A BOUNDARY SURVEY PREPARED BY BENCHMARK ENGINEERING, INC. DATED AUGUST 2023.
- TOPOGRAPHY SHOWN HEREON BASED ON HOWARD COUNTY GIS AND ARE AT 2 FOOT INTERVALS.
- THE COORDINATES SHOWN HEREON ARE BASED UPON HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. BENCHMARKS FOR THIS SITE ARE 47GD AND 47GE.
- THERE ARE STEEP SLOPES LOCATED ON THIS SITE.
- THERE IS A STREAM AND FLOODPLAIN LOCATED ON THE SITE. FLOODPLAIN SHOWN BASED ON AN EXISTING LIMITS AS SHOWN ON SDP-00-034, HIGH RIDGE PARK.
- TO THE BEST OF OUR KNOWLEDGE THERE ARE NO CEMETERIES OR HISTORIC STRUCTURES LOCATED ON THIS SITE.
- THE STRUCTURES ON THE PROPERTY HAVE BEEN REMOVED.
- A NOISE STUDY IS NOT REQUIRED FOR THIS DEVELOPMENT.
- THIS SITE IS LOCATED WITHIN THE METROPOLITAN DISTRICT AND THE PLANNED SERVICE AREA WATER AND SEWER WILL BE PUBLIC. WATER CONTRACT: 1-W, SEWER CONTRACT: 30-S; DRAINAGE AREA: PATUXENT RIVER.
- THE FOREST CONSERVATION OBLIGATIONS FOR THIS SITE ARE INTENDED TO BE PROVIDED BY THE ONSITE RETENTION OF APPROXIMATELY 0.68 ACRES OF FOREST.
- THE FOREST STAND DELINEATION AND WETLANDS STUDY WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED JANUARY 2024. THERE ARE NO WETLANDS ONSITE.
- EXISTING UTILITIES SHOWN ARE BASED ON A FIELD SURVEY, HOWARD COUNTY GIS, AND INFORMATION OF RECORD.
- THE ANTICIPATED STORMWATER MANAGEMENT METHODS FOR THIS DEVELOPMENT ARE MICRO-BIORETENTION FOR THE REAR OF THE HOUSE ON LOTS 2 AND 3, DRYWELLS FOR THE HOUSE ON LOT 5 AND A PORTION OF LOT 4 AND A BIORETENTION FACILITY FOR THE REMAINING DRIVEWAYS, HOUSES AND PROPOSED ROAD PAVING. ADDITIONAL STORAGE IS ANTICIPATED TO BE PROVIDED BELOW THE BIORETENTION FACILITY FOR THE 10 YEAR STORM TO REDUCE ANY IMPACTS TO THE DOWNSTREAM AREAS IN THE LARGEST STORM.
- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED. A DESIGN MANUAL WAIVER MAY BE SUBMITTED FOR THE PUBLIC UTILITY EASEMENT LESS THAN 10' FROM A STRUCTURE LOCATED ON LOT 2. NO OTHER DESIGN MANUAL WAIVERS OR ALTERNATIVE COMPLIANCES ARE ANTICIPATED AT THIS TIME.
- A GEOTECHNICAL ANALYSIS MAY BE PROVIDED AT THE NEXT STAGE OF THE DEVELOPMENT.
- FAIRVIEW ROAD IS CONSIDERED A NEIGHBORHOOD YIELD STREET PER STANDARD DETAIL R-108.
- THE STORMWATER MANAGEMENT SYSTEM SHOWN ON THESE PLANS IS AN APPROXIMATION OF THE SIZE, SHAPE AND LOCATION. IT IS UNDERSTOOD THAT THIS SYSTEM HAS NOT BEEN DESIGNED AND THE ACTUAL DESIGN MAY CHANGE, ALTERING THE NUMBER OF UNITS ALLOWED FOR THIS DEVELOPMENT.
- APPROVAL OF THE ECP DOES NOT CONSTITUTE 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 AND/OR SITE DEVELOPMENT PLAN STAGES. THE APPLICANT AND CONSULTANTS SHOULD EXPECT ADDITIONAL AND MORE DETAILED COMMENTS (INCLUDING THOSE THAT MAY ALTER OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES.

SITE DATA TABULATION

1) TOTAL PROJECT AREA	2.07 AC.±
2) AREA OF 100-YR. FLOODPLAIN	0.07 AC.±
3) AREA OF STEEP SLOPES (25% OR GREATER)	0.55 AC.±
4) AREA OF EXISTING FOREST	1.3 AC.±
5) AREA OF ERODIBLE SOILS	0.32 AC.±
6) AREA OF WETLANDS (INCLUDING BUFFER)	N/A
7) AREA OF STREAM BUFFER	0.62 AC.±
8) NET AREA OF SITE	1.45 AC.±
9) MINIMUM RESIDENTIAL DENSITY	1 UNITS/NET AC.=5.8 UNITS
10) NUMBER OF LOTS PROPOSED	5 SINGLE FAMILY; 2 OPEN SPACE
11) APPROXIMATE LIMIT OF DISTURBANCE	1.00 AC.±
12) PRESENT ZONING DESIGNATION	R-SC
13) PROPOSED USES FOR THE SITE & STRUCTURES	RESIDENTIAL
14) MINIMUM LOT SIZE REQUIRED	6,000 SF
15) AREA OF ROAD DEDICATION	N/A
16) OPEN SPACE AREA REQUIRED	25% OR 0.52 AC.±
17) OPEN SPACE AREA PROPOSED	0.83 AC.± (41%) CREDITED 0.24 AC.± (NON-CREDITED) 1.07 AC.± TOTAL
18) RECREATIONAL OPEN SPACE REQUIRED	N/A
19) RECREATIONAL OPEN SPACE PROVIDED	N/A
20) NUMBER OF PARKING SPACES REQUIRED	13 SPACES (2.5/UNIT)
21) NUMBER OF PARKING SPACES PROVIDED	15 SPACES (EACH HOUSE HAS 2 IN GARAGE AND 1 IN THE DRIVEWAY)
22) TOTAL IMPERVIOUS AREA	0.33 AC.±

ESD SUMMARY TABLE

D.A.	SIZE	MDE Type	Total DA	Impervious Area	Qe	Required		Provided		2% DA	Depth	Required		Provided		RV	Pe
						Required	Provided	Required	Provided								
** BR-1	63'X16'	(F-6)	34,200	12,051	0.55	684	954	PASS	1.0	1177	1195	PASS	0.37	1.14			
DW-1	7'X7'	(M-5)	700	700	1.43	83	98	PASS	5.0	83	98	PASS	0.95	1.77			
DW-2	7'X7'	(M-5)	700	700	1.43	83	98	PASS	5.0	83	98	PASS	0.95	1.77			
DW-3	7'X7'	(M-5)	700	700	1.43	83	98	PASS	5.0	83	98	PASS	0.95	1.77			
MBR-2	16'X6'	(M-6)	1,320	752	1.43	26	93	PASS	1.0	70	163	PASS	0.56	2.63			
MBR-3	16'X6'	(M-6)	1,565	752	1.43	31	93	PASS	1.0	71	169	PASS	0.48	2.69			
Totals/Average			39,185	15,655		991	1,434			1,567	1,821			3.92			

** ADDITIONAL 10 YEAR STORAGE IN BEING PROPOSED BELOW BR-1(F-6) BY USING R-TANK SYSTEM * Rev PROVIDED BELOW BR-1

Site Analysis Data Sheet

Gross Site Area	2.07 ac
100yr Floodplain	0.07 ac
Slopes 15% - 25%	0.87 ac
Slopes 25% or greater	0.55 ac
Wetlands	0.00 ac
Wetlands Buffer	0.00 ac
Forested Area	1.25 ac
Erodible Soils	0.32 ac
Limit of Disturbance	1.00 ac
Impervious Area	0.33 ac
Green Space With LOD	0.67 ac
Public Road Right-of-Way	0.00 ac
Site Use	RESIDENTIAL
Total Open Space	0.92 ac

SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND

SORT	SYMBOL	HYDRIC	HYDROLOGIC GROUP	ALTERNATE GROUP	NAME	K-VALUE Whole Soil
	CeC		C		CHILLUM LOAM, 5 TO 10 PERCENT SLOPES	0.43
	MkF		B		MANOR-BRINKLOW COMPLEX 25 TO 65 PERCENT SLOPES, VERY ROCKY	0.32
	UcB		C		URBAN LAND-CHILLUM-BELTSVILLE COMPLEX 0 TO 5 PERCENT SLOPES	

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FAIRVIEW WOODS
LOTS 1-5 AND OPEN SPACE LOTS 6 & 7
A RESUBDIVISION OF LOTS 15-17

TAX MAP: 50 GRID: 01 PARCEL: 412
ZONED: R-SC
ELECTION DISTRICT: NO. 06 HOWARD COUNTY, MARYLAND

RESIDENTIAL ENVIRONMENTAL CONCEPT PLAN

DATE: APRIL 2024 BEI PROJECT NO. 3174
DESIGN: JCO DRAFT: JCO SCALE: AS SHOWN SHEET 1 OF 1