

SOILS CHART				
SYMBOL	NAME	RATING	KW FACTOR	
BpD*	Brinklow channery loam, 15-25% slopes	C	0.32	
GgC	Glennig loam, 8-15% slopes	B	0.43	
MaB	Manor loam, 3-8% slopes	B	0.28	
MoC	Manor loam, 8-15% slopes	B	0.32	
OoC	Ocoquan loam, 3-8% slopes	B	0.37	

\* HIGHLY ERODIBLE SOIL

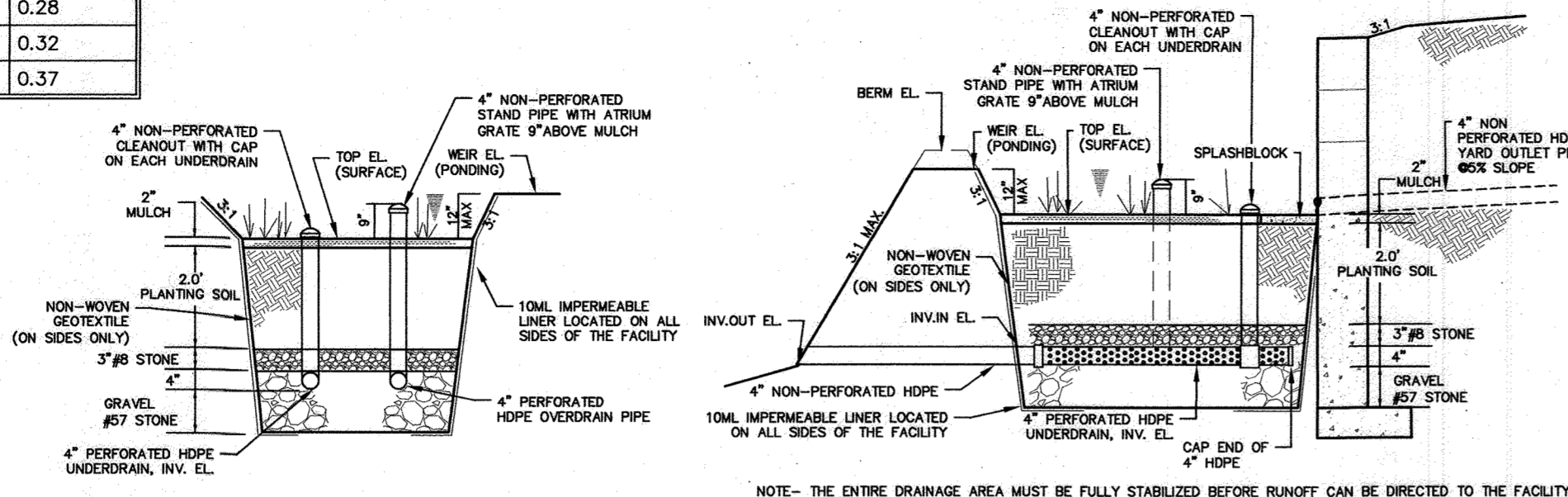
TREE INVENTORY CHART				
NUMBER	SPECIES	SIZE IN DBH	CONDITION	STATE CHAMPION TREE
3002	BLACK CHERRY	25"	GOOD	64" DBH
3010	COTTONWOOD	29"	GOOD	92.4" DBH
3022	RED MAPLE	25"	GOOD	89.9" DBH

SPECIMEN TREE CHART				
KEY	SPECIES	SIZE IN DBH	CR2 FEET RADIUS	CONDITION
ST #1	COTTONWOOD	38"	57	GOOD
ST #2	COTTONWOOD	33"	49.5	GOOD

**LEGEND**

- EXISTING SEPTIC AREA
- 15-25% SLOPES
- ≥25% SLOPES
- STABILIZED CONSTRUCTION ENTRANCE
- LIMIT OF DISTURBANCE
- SUPER SILT FENCE
- DIVERSION FENCE
- DRAINAGE AREA
- NUMBER OF PARKING SPACES
- WELL

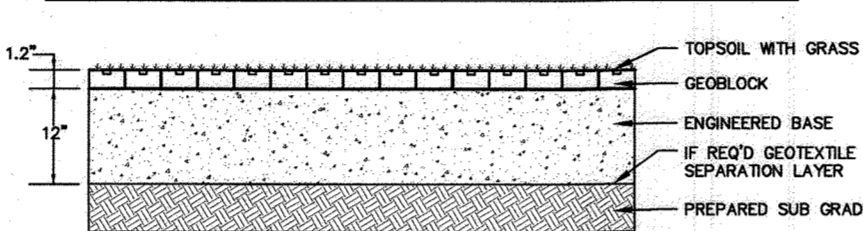
SWM PRACTICES		
PROPOSED PRACTICE	REQUIRED ESDV	PROPOSED ESDV
MB-1, MICRO-BIORETENTION (M-6)	1,619 C.F.	1,799 C.F.



SECTION MICRO-BIORETENTION (M-6) NTS

MICRO-BIORETENTION PROFILE NTS

LOAD DESCRIPTION  
HEAVY FIRE TRUCK ACCESS & H/MS20 LOADING. TYPICAL 110 PSI TIRE PRESSURE. SINGLE AXLE LOADINGS OF 32 KIPS. GROSS VEHICLE WEIGHT OF 80,000 LBS.



GEOBLOCK PERVIOUS PAVEMENT NTS

NOTE: THE INSTALLATION OF THE ALTERNATE SURFACE FIRE ACCESS ROADWAY MUST BE CERTIFIED BY A QUALIFIED PROFESSIONAL ENGINEER AND THE CERTIFICATION IS TO BE PROVIDED TO THE OFFICE OF THE FIRE MARSHAL PRIOR TO OCCUPANCY OF THE BUILDING.

**ESD NARRATIVE:**

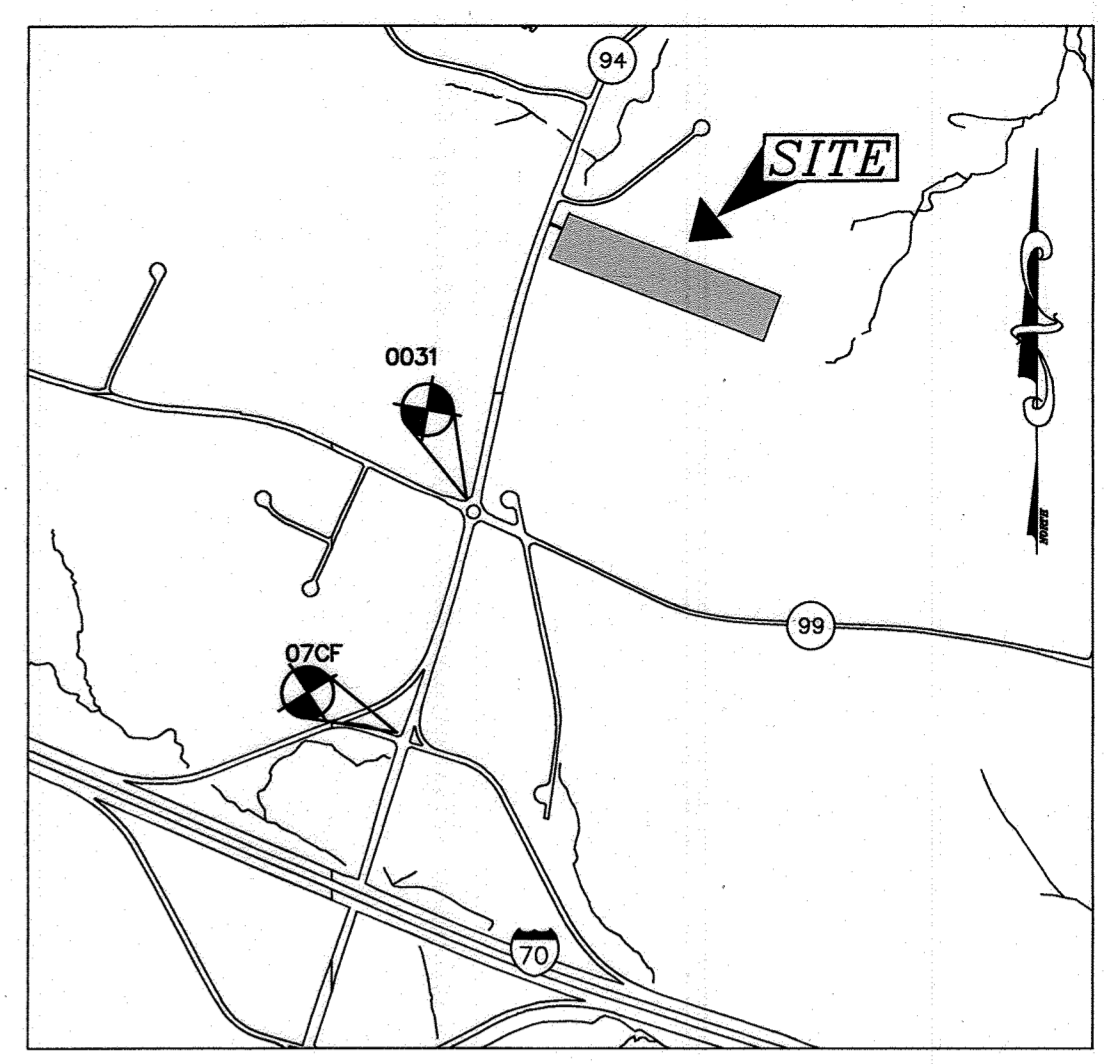
- THE PROPERTY CONTAINS STEEP SLOPES AND FORESTS. NO WETLANDS, MAJOR WATERWAYS, FLOODPLAINS, CRITICAL AREAS, ARE PRESENT ON THE SITE.
- IMPROVEMENTS AND DEVELOPED AREA WILL MAINTAIN THE EXISTING DRAINAGE PATTERNS AS CLOSELY AS POSSIBLE. NO IMPACT IS PROPOSED THAT WOULD ALTER ANY NATURAL FLOW PATTERNS. PROPOSED DRIVEWAY, PARKING, AND BUILDINGS ARE DESIGNED TO MINIMIZE NEW IMPERVIOUS AREAS.
- PROPOSED DRIVEWAY, PARKING AREA, AND BUILDINGS WILL DRAIN INTO PROPOSED MICRO-BIORETENTION (M-6) TO PROVIDE STORMWATER TREATMENT FOR THE NEW DEVELOPMENT.
- THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES WILL BE IN ACCORDANCE WITH THE CURRENT MDE STANDARDS AND SPECIFICATIONS UTILIZING SUPER SILT FENCES. NO SEDIMENT TRAPS OR BASINS ARE REQUIRED.
- TABLE 5.2, SUMMARY OF SITE DEVELOPMENT STRATEGIES WAS UTILIZED TO THE EXTENT ALLOWABLE BY THE CURRENT HOWARD COUNTY ZONING AND LAND DEVELOPMENT REGULATIONS BY UTILIZING SHARED DRIVEWAY AND MINIMIZING EARTH DISTURBANCE.
- THIS PROJECT WAS DESIGNED TO MINIMIZE THE IMPERVIOUS AREAS. ESD MEASURES WERE UTILIZED IN THE FOLLOWING ORDER OF PREFERENCE: (M-6).

**SITE ANALYSIS DATA:**

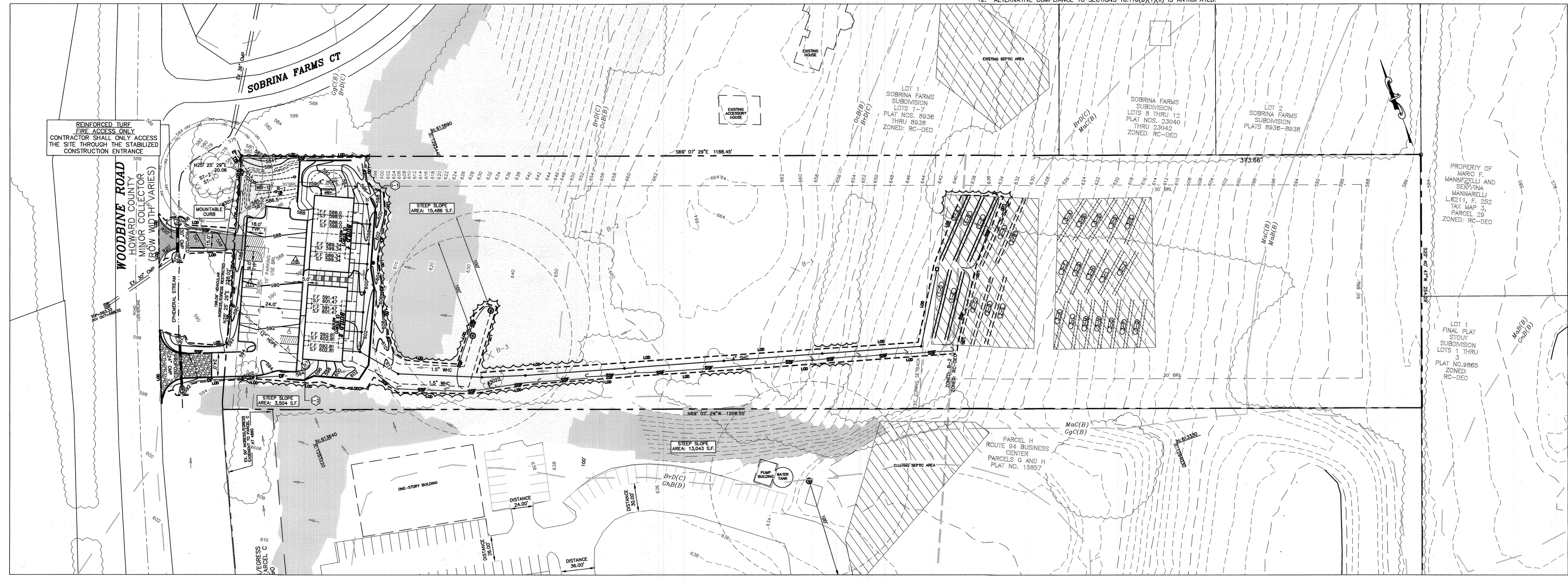
- AREA OF THE SITE: 304,890 S.F. (7.00 AC ±)
- AREA OF ROAD DEDICATION: 0
- AREA OF WETLANDS AND ITS BUFFERS: 0
- AREA OF FLOODPLAIN: 0
- AREA OF EXISTING FOREST: 200,376 S.F. (4.6 AC)
- AREA OF STREAM BUFFER: 0
- AREA OF SLOPES 15%-24.99%: 55,508 S.F.
- AREA OF STEEP SLOPES ≥25%: 19,482 S.F.
- TOTAL ENVIRONMENTAL SENSITIVE AREA: 19,482 S.F. (0.45 AC ±)
- NET BUILDABLE AREA: 285,408 S.F. (6.55 AC ±)
- LIMIT OF DISTURBANCE AREA: 53,457 S.F.
- GREEN OPEN AREA (PERVIOUS): 284,785 S.F.
- PROPOSED IMPERVIOUS AREA: 20,105 S.F.
- EXISTING IMPERVIOUS AREA: 0
- AREA OF HIGHLY ERODIBLE SOILS: 114,212.5 S.F.

**GENERAL NOTES:**

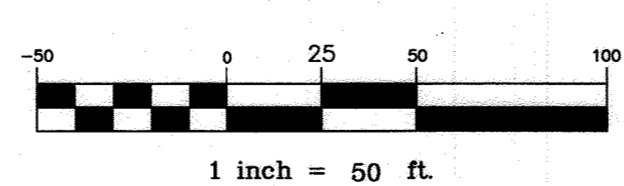
- ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS.
- SITE ANALYSIS DATA:**  
ADDRESS: 699-695 WOODBINE RD, WOODBINE MD, 21797  
TAX MAP: 02 GRID: 24 PARCEL: 40  
ELECTION DISTRICT: FOURTH  
ZONING: RC-DEO AND B-2  
TOTAL AREA: 7 AC.± (304,890 SQ. FT.)
- PROPOSED USE FOR SITE:**  
"ONE SQUARE FOOT OF RESIDENTIAL SPACE IS PERMITTED FOR EACH SQUARE FOOT OF COMMERCIAL SPACE AND MUST BE LOCATED WITHIN THE SAME STRUCTURE."  
PROPOSED ARE TWO (2), TWO-STORY BUILDINGS AT 3,000 S.F. EACH. THE FIRST FLOOR IS DEDICATED TO FOUR (4) MOTEL UNITS (WITH KITCHEN). THE SECOND FLOOR IS DEDICATED TO FOUR (4) SINGLE BEDROOM APARTMENT UNITS. AREA OF 750 S.F. PER UNIT.  
**PROPOSING A TOTAL OF EIGHT (8) MOTEL UNITS AND EIGHT (8) APARTMENT UNITS:**  
**REQUIRED PARKING:**  
APARTMENT: 2.0 SPACES/DU PLUS 0.3 SPACES/DU FOR VISITORS  
8 DU X (2+0.3) = 18.4  
**MOTEL:**  
1 SPACE PER GUEST ROOM  
8 MOTEL ROOMS X 1 = 8  
**TOTAL PARKING: 27 SPACES**  
**PARKING PROVIDED: 29 SPACES**
- TOPOGRAPHIC AND BOUNDARY INFORMATION IS BASED ON GS VERIFIED THROUGH FIELD RUN MONUMENT BOUNDARY SURVEY PERFORMED ON OR ABOUT OCTOBER, 2003 BY FISHER, COLLINS & CARTER, INC.
- PROPERTY SUBJECT TO PRIOR DEPARTMENT OF PLANNING AND ZONING FILE # ECP-24-008, ECP-13-061, F-21-061, F-95-17, F-81-116, WP-94-03, AND VP-81-51.
- SITE IS NOT LOCATED ADJACENT TO A SCENIC ROAD.
- STEEP SLOPES AND FOREST ARE PRESENT ON SITE.
- NO WETLAND, STREAM OR FLOODPLAIN EXIST ON SITE AS VERIFIED BY MILDENBERG, BOENDER & ASSOCIATES IN MARCH, 2022 AND PLAT NO. 11421.
- FOREST STAND DELINEATION DONE BY ECO-SCIENCE PROFESSIONALS ON JULY 2022.
- WOODBINE OVERLOOK WATERWAY INVESTIGATION DONE BY FORENSIC ENVIRONMENTAL CONSULTANTS ON MARCH 2024. REDEFINE THE CLASSIFICATION OF THE STREAM LOCATED WEST OF THE PROPERTY AS EPHEMERAL STREAM.
- NO CEMETERIES OR HISTORIC STRUCTURES EXIST ON SITE.
- APPROVAL OF THIS ECP DOES NOT CONSTITUTE APPROVAL OF SUBSEQUENT OR ASSOCIATED SUBDIVISION OR SITE DEVELOPMENT PLANS OR REDLINE 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 REDLINE 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.
- THIS DEVELOPMENT WILL ADDRESS THE FOREST CONSERVATION REQUIREMENTS WITH THE SUBMISSION OF THE SITE DEVELOPMENT PLAN.
- ALTERNATIVE COMPLIANCE TO SECTIONS 16.116(b)(1)(i) IS ANTICIPATED.



VICINITY MAP  
SCALE: 1"=1000'  
ADC MAP 9, GRID B4  
STA. 0031: N 612,408.188; E 1,292,800.748; EL. 632.187;  
STA. 07CF: N 608,315.535; E 1,291,525.340; EL. 591.373;



ECP PLAN



APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Chief*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 9.13.24  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 9/13/24

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. 26859, EXP DATE 08/08/25  
DATE: 09.09.2024  
SAMER A. ALOMER, P.E.

**OWNER/DEVELOPER**  
WOODBINE/BRANTLY, LLC  
8318 FORREST ST., SUITE 200  
ELLICOTT CITY, MARYLAND 21043  
443-992-4600

project	date	SEP 2024	approval	MM
illustration	scale	1" = 30'	description	revisions

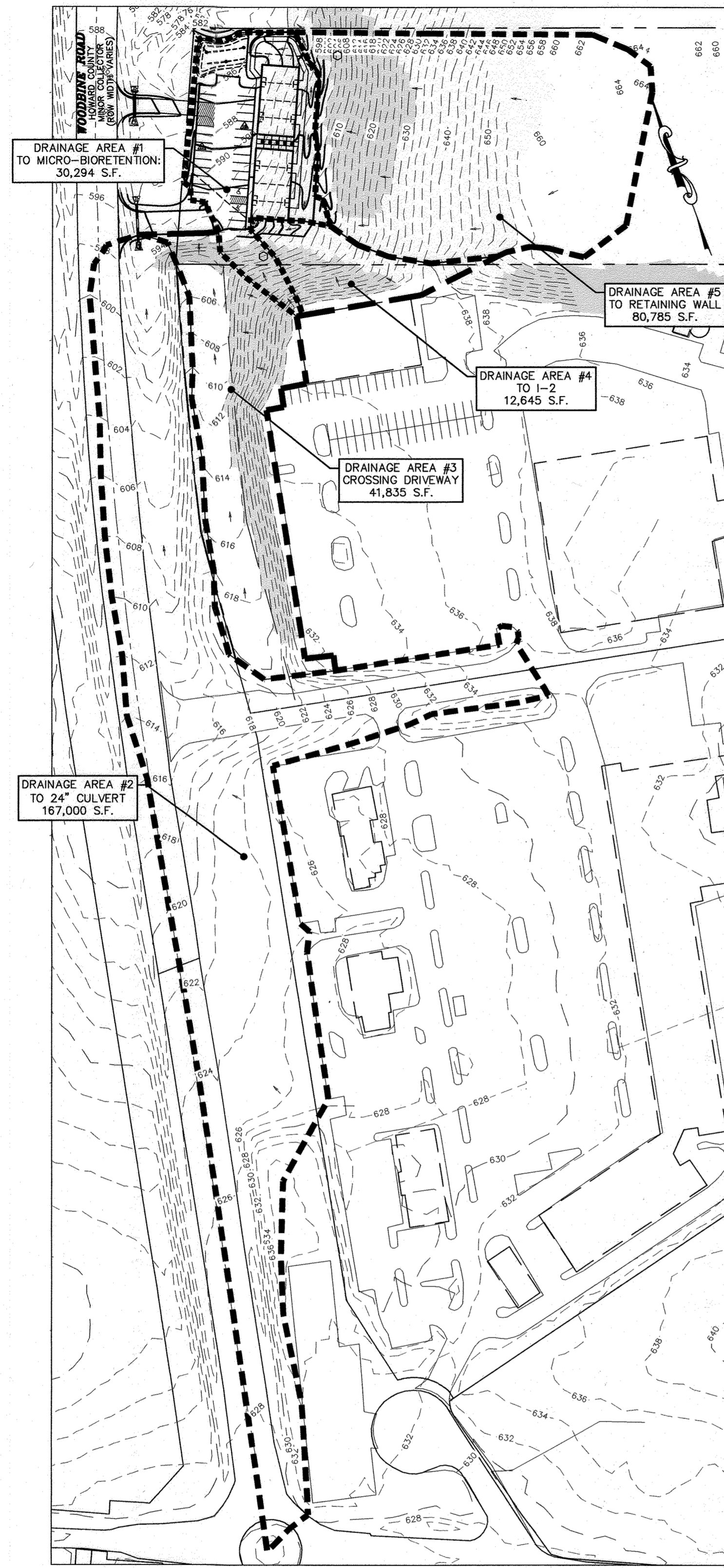
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PM	PM	PM	PM	PM
PM	PM	PM	PM	PM
scale	scale	scale	scale	scale
1" = 30'	1" = 30'	1" = 30'	1" = 30'	1" = 30'
approval	approval	approval	approval	approval
MM	MM	MM	MM	MM

**WOODBINE OVERLOOK**  
TAX MAP: 02 - GRID: 24 - PARCEL: 40  
FOURTH ELECTION DISTRICT  
ENVIRONMENTAL CONCEPT PLAN

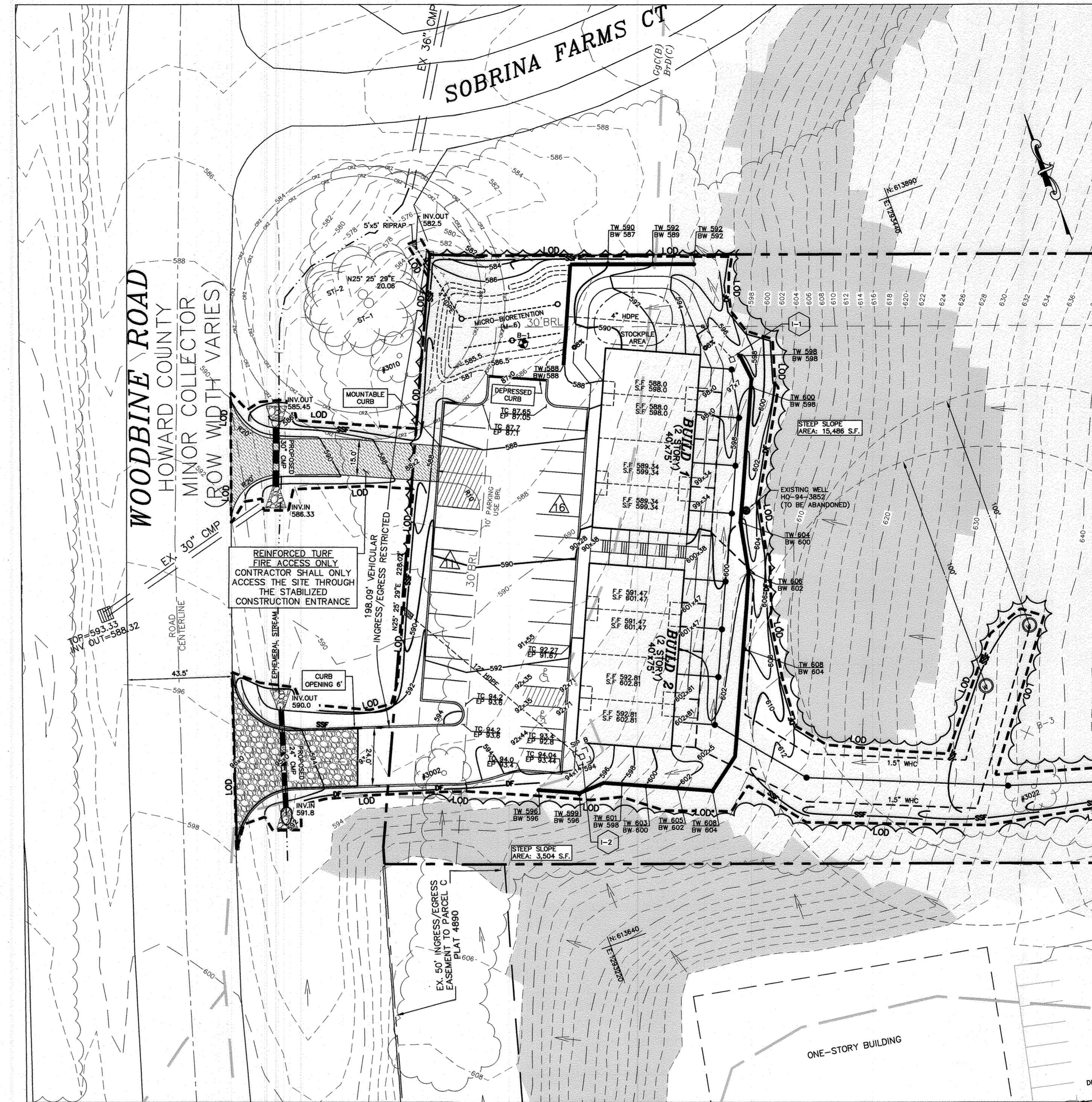
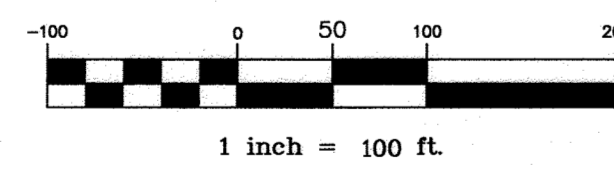
**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
8318 FORREST ST. ELLICOTT CITY, MD 21043  
(410) 997-0286 Tel. (410) 997-0288 Fax.

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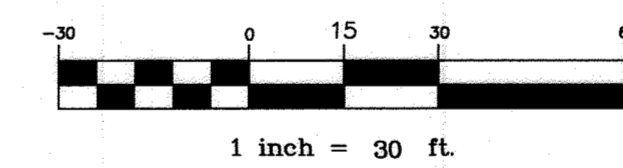




DRAINAGE AREA MAP



ECP PLAN



PRESTO GEOSYSTEMS		Poros Pavements Calculation Summary	
Project Name:	Woodbine Overlook	Company:	Mildenberg Boender & Assoc.
Calculation Name:	Reinforced Turf	Designer:	Polina Marks
Project Location:	Woodbine, MD	Title:	
Client:	Woodbine/Brantly, LLC	Date:	2024-07-26 12:44:58
Calculation Method: Poros pavement guidelines are determined based on vehicle load, tire pressure, infill type, subgrade strength, and selected product.			
Calculation Parameters			
Vehicle Information			
Traffic Load Rating:	H/H520		
Typical Access Description:	Heavy Fire Truck or Large Construction Equipment		
AASHTO tire pressure (psi):	110		
AASHTO single axle loading (kips):	32		
AASHTO vehicle load (lbs):	80000		
Required Information			
Subgrade Soil Type:	Sand		
Geosystems Product:	GEOBLOCK®		
Ground Slope (%):	3.4		
Type of Infill:	Topsoil or Sod		
Results			
Recommended GEOSYSTEMS Depth (in):	1.2		
Recommended Engineered Base Depth (in):	12		
Average Runoff Coefficient (runoff):	0.15		
Water Retention Depth (in):	Not Applicable		
Notes			
1. Refer to the GEOBLOCK® Construction Resource Package for a complete description of installation and construction methods.			
2. Provide a non-woven geotextile minimum 6 oz/100 sq yd weight separation layer and install per Manufacturer recommendations including overlap based on subgrade CBR.			
3. The report will be used for a good quality and not be compared with the unit as this will determine the permeability and control the rate of water infiltration within the porous pavement system.			
4. Engineering base is a homogeneous mixture consisting of compacted rock having an AASHTO 2.5 or smaller designation blended with pulverized topsoil and used component generally consisting of soil and water. This homogeneous mixture will provide vegetation growth and provide required structural support. The aggregate portion shall have a particle range from 15 mm to 25 mm (0.75 to 1.0 inch) with a CBR of 12 mm (0.5 inch). The percentage of the aggregate portion when compacted shall be at least 98%. The porous pavement shall equal 20% or of the total volume and be sealed and banded to produce a homogeneous mixture prior to placement or sealed into the in-place compacted aggregate. Once placed, the mixture shall be compacted to 95% Standard Proctor Density.			
Limitations			
This calculation summary is for illustrative purposes and is not a detailed design. This information is based on product properties specific to GEOBLOCK® manufactured by Reynolds Presto Products, Inc. All rights reserved. Any use of this information for any purpose other than that intended by Reynolds Presto Products, Inc. is strictly prohibited and makes this information invalid. Reynolds Presto Products, Inc. assumes no liability resulting from the use of this information and the responsibility for determining the suitability of any calculation result rests solely on the user of this calculation.			

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 9.13.24  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 9/13/24  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 9/13/24



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 CAMERON A. ALOMER, P.E. DATE: 9.9.2024

OWNER/DEVELOPER  
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 443-992-4600

project	date	SEP 2024
illustration	engineering	PM
scale	VARIES	approval
no.	description	revisions
no.	description	revisions

WOODBINE OVERLOOK  
 TAX MAP 02 - GRID: 24 - PARCEL 40  
 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 ENVIRONMENTAL CONVEPT PLAN

MILDENBERG, BOENDER & ASSOC., INC.  
 Engineers Planners Surveyors  
 8816 FOREST ST. ELLICOTT CITY, MD 21043  
 (410) 997-0286 Tel. (410) 997-0288 Fax.

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