

**SITE ANALYSIS DATA CHART**

A. TOTAL AREA:	0.46 AC.±
B. AREA OF PLAN SUBMISSION:	0.46 AC.±
C. AREA OF WETLANDS AND BUFFERS:	0.00 AC.±
D. AREA OF STREAM BUFFER:	0.00 AC.±
E. AREA OF FLOODPLAIN:	0.00 AC.±
F. AREA OF FOREST:	0.00 AC.±
G. AREA OF STEEP SLOPES (15% & GREATER):	0.00 AC.±
H. AREA OF ERODIBLE SOILS:	0.46 AC.±
I. LIMIT OF DISTURBED AREA:	0.49 AC.±
J. PROPOSED USES FOR SITE AND STRUCTURES:	SFD RESIDENTIAL
K. GREEN OPEN AREA:	0.32 AC.
L. PROPOSED IMPERVIOUS AREA:	0.14 AC.
M. PRESENT ZONING DESIGNATION:	R-20
N. OPEN SPACE REQUIRED:	N/A
O. TOTAL NUMBER OF UNITS ALLOWED:	1 SFD (2 DWELLING UNITS PER NET ACRE)
P. TOTAL NUMBER OF UNITS PROPOSED:	1 SFD
Q. DPZ FILE REFERENCES:	PLAT No. 5881 & F-84-072

**GENERAL NOTES**

- STORM WATER MANAGEMENT TO BE PROVIDED FOR THIS DEVELOPMENT BY ENVIRONMENTAL SITE DESIGN UTILIZING TWO MICRO-BIORETENTION FACILITIES (M-6). THE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER. REFERENCE 2010 MDE STORMWATER DESIGN MANUAL (CHAPTER 5).
- THE SUBJECT PROPERTY IS ZONED "R-20" IN ACCORDANCE WITH THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- THIS PROPERTY IS NOT LOCATED IN A HISTORIC DISTRICT.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- 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. 171E AND 180B WERE USED FOR THIS PROJECT.
- NO RARE, THREATENED OR ENDANGERED SPECIES OR THEIR HABITATS WERE OBSERVED ON THE PROPERTY.
- SEDIMENT AND EROSION CONTROL WILL BE PROVIDED FOR THIS SITE.
- NO STREAMS, FOREST, WETLANDS, FLOODPLAINS OR ANY OTHER NATURAL RESOURCES ARE PRESENT ON THE SUBJECT PROPERTY.
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON FILED RUN TOPOGRAPHICAL SURVEY PERFORMED BY VOGEL ENGINEERING + TIMMONS GROUP, INC., DATED SEPTEMBER 12, 2022, AND IS SUPPLEMENTED WITH CURRENT HOWARD COUNTY GIS DATA.
- THE PROJECT BOUNDARY SHOWN HEREON IS BASED ON PLAT 5881.
- EXISTING UTILITIES ARE LOCATED FROM TOPOGRAPHIC SURVEY, AS-BUILT DRAWINGS AND HOWARD COUNTY GIS DATA. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE.
- WATER SERVICE FOR THIS PROJECT IS TO BE PROVIDED BY SERVICE CONNECTIONS FROM CONTRACT NO. 9-W.
- SEWER SERVICE FOR THIS PROJECT IS TO BE PROVIDED BY SERVICE CONNECTIONS FROM CONTRACT NO. 21-S.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- ROGERS AVENUE IS CLASSIFIED AS A MINOR COLLECTOR. SITE ACCESS SHALL BE VIA A PRIVATE DRIVEWAY.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
- NO STEEP SLOPES OVER 20,000 SF CONTIGUOUS ARE LOCATED ONSITE.
- 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 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.
- APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) BY THE HOWARD SOIL CONSERVATION DISTRICT DOES NOT GRANT APPROVAL OF THE PROPOSED SEDIMENT CONTROL SCHEME.
- THERE ARE NO WAIVERS ANTICIPATED FOR DISTURBANCE TO ENVIRONMENTAL AREAS.
- THIS LOT IS EXEMPT FROM THE REQUIREMENTS FOR THE FOREST CONSERVATION IN ACCORDANCE WITH SECTION 16.1202.1.1 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION WITH FILING OF A DECLARATION OF INTENT WITH THE OWNER'S BUILDING PERMIT.
- ROAD FRONTAGE IMPROVEMENTS WILL BE ADDRESSED AT THE SDP PHASE BY SHOWING THE IMPROVEMENTS UNLESS A WAIVER IS OBTAINED.

**SOSSLAU PROPERTY - LOT 2 ENVIRONMENTAL CONCEPT PLAN**

**INTRODUCTION**

THE SUBJECT PROPERTY IS ZONED R-20 AND IS LOCATED ON THE WEST SIDE OF ROGERS AVENUE IN ELLICOTT CITY, MARYLAND. THE PROJECTED KNOWN AS SOSSLAU PROPERTY SUBDIVISION. THE SITE IS VACANT WITH REMNANTS OF OLD FENCING PRESENT THROUGHOUT. ACCESS TO THIS PROPERTY SHALL BE VIA A PRIVATE DRIVEWAY THAT FRONTS ALONG ROGERS AVENUE. THE LOT SLOPES FROM NORTH TO SOUTH AND IS LOCATED IN THE SUEDEMAN TRIBUTARY OF THE PATUXENT RIVER. THERE ARE SCATTERED TREES AND SCRUB GROWTH LOCATED THROUGHOUT THE PROPERTY. CLEARING ASSOCIATED WITH THIS PROJECT WILL BE MINIMAL AND THEREFORE THE OWNER WILL EXECUTE A DECLARATION OF INTENT FOR SINGLE LOT CLEARING LESS THAN 20,000 SF. THERE ARE NO FORESTED AREAS, STEEP SLOPES, STREAMS, WETLANDS, FLOODPLAINS OR ASSOCIATED BUFFERS LOCATED ON THIS PROPERTY. THERE ARE 0.46 ACRES OF ERODIBLE SOILS.

THE SUBJECT PROPERTY IS PROPOSED TO BE IMPROVED BY A NEW SFD RESIDENTIAL STRUCTURE, DRIVEWAY, AND ASSOCIATED GRADING. THE LOT WILL UTILIZE EXISTING PUBLIC WATER AND SEWER UTILITIES FOR WATER AND SEWER SERVICE. THE PROPOSED NEW IMPERVIOUS COVER 6,229 SF.

THE SOILS ARE LEGORE AND LEGORE-MONTALTO SILT LOAMS WHICH ARE CLASSIFIED AS HSG 'C' SOILS. THE PROJECT IS DESIGNED UTILIZING THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, CHAPTER 5 ENVIRONMENTAL SITE DESIGN REQUIREMENTS.

THE ESD+ IS COMPUTED FOR THE DISTURBED AREA. THE HOUSE, SIDEWALK AND DRIVEWAY ARE TREATED BY UTILIZING TWO MICRO-BIORETENTION FACILITIES WHICH ARE PERMITTED IN HSG 'C' SOILS. THE MICRO-BIORETENTION FACILITIES UTILIZE A P<sub>e</sub> OF 1.80" TO FULFILL THE OVERALL P<sub>e</sub> REQUIREMENT OF 1.6".

LOT AREA: 20,037 SF  
DISTURBED AREA: 21,130 SF  
HOUSE FOOTPRINT: 3,593 SF  
SIDEWALK: 134 SF  
DRIVEWAY: 2,502 SF  
IMPERVIOUS % = 29%  
R<sub>v</sub> = ((0.009)+0.05) = 0.31  
P<sub>e</sub> REQUIRED: 1.6"  
REV. 71 CF  
ESD+ REQUIRED = (P<sub>e</sub>)(N<sub>d</sub>)/12 = 873 CF

THE MICRO-BIORETENTION FACILITIES DISCHARGE TO THE WESTERN PROPERTY CORNER WHERE THE FLOW IS ACCOMMODATED BY AN EXISTING STORM DRAIN SYSTEM WHICH WAS CONSTRUCTED IN CONJUNCTION WITH THE ROCKLAND AT ROGERS SUBDIVISION.

**CONCLUSION AND RECOMMENDATIONS**

THE ESD+ REQUIRED IS 873 CF, AND 876 CF IS PROVIDED BY A COMBINATION OF TWO MICRO-BIORETENTION FACILITIES. THE SITE HAS BEEN DESIGNED TO ENHANCE AND PROTECT THE NATURAL RESOURCES THROUGH THE IMPLEMENTATION OF ESD PRACTICES, INCLUDING TWO MICRO-BIORETENTION FACILITIES. THE NATURAL DRAINAGE DRAINAGE HAS BEEN PRESERVED AND ESD IS PROVIDED FOR BOTH AREAS. GROSS SWALES ARE UTILIZED TO CONVEY RUNOFF TO THE ESD DEVICES. THE USE OF ALTERNATIVE SURFACES IS PROHIBITED DUE TO THE DRIVEWAY SLOPE AND ROOFTOP DISCONNECTS ARE ALSO NOT Viable DUE TO SLOPES.

THE PROPOSED SEDIMENT CONTROLS, INCLUDING SUPER SILT FENCE AND DIVERSION FENCE, WILL BE COORDINATED WITH THE ESD PRACTICES TO ACCOMPLISH EROSION AND SEDIMENT CONTROL GOALS.

THE RUNOFF FROM THE SUBJECT SITE IS DESIGNED TO DISCHARGE TO EXISTING INLET 1-6 IN THE ADJACENT ROCKLAND AT ROGERS SUBDIVISION (F-10-064). THE ORIGINAL DRAINAGE AREA HAD INCLUDED THE SUBJECT SITE. THE STORM DRAIN PROFILE INCLUDED AS SHEET 22 OF F-10-064 PUBLISHED A 10-YEAR DISCHARGE RATE OF 1.6 CFS AT EXISTING 1-6 TO MH-7, BASED ON ACTUAL CONDITIONS, THE RUNOFF RATE IS 1.3 CFS. THEREFORE, THE EXISTING STORM DRAIN SYSTEM IS MORE THAN ADEQUATE TO ACCOMMODATE THE PROPOSED NEW HOME CONSTRUCTION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 7/13/23  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 7/13/23  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

# ENVIRONMENTAL CONCEPT PLAN

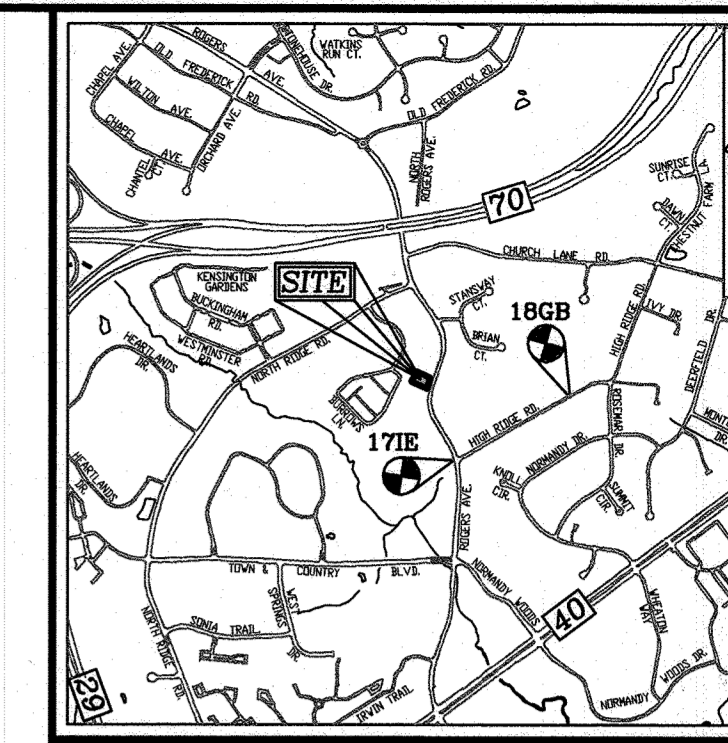
## SOSSLAU PROPERTY - LOT 2

2926 ROGERS AVENUE  
ELLICOTT CITY, MD 21043

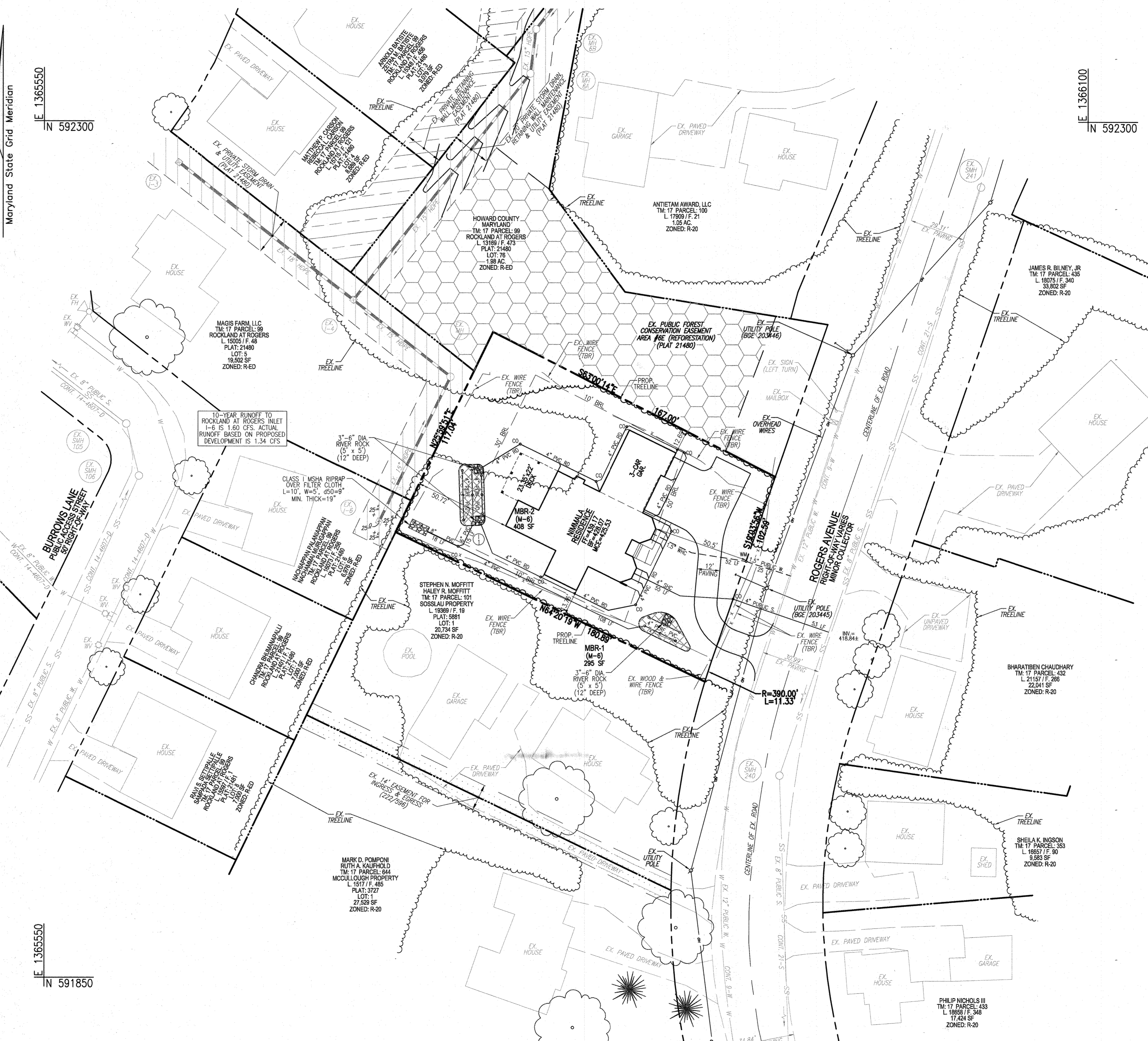
**BENCHMARKS**

HOWARD COUNTY BENCHMARK 171E (CONC. MON.)  
N 591269.45 E 1366174.60 ELEV. 360.33  
LOCATION: CORNER RODGERS AVE. AND HIGH RIDGE RD.

HOWARD COUNTY BENCHMARK 180B (CONC. MON.)  
N 591921.31 E 1367395.98 ELEV. 439.30  
LOCATION: BY #8311 HIGH RIDGE RD. BY CENTER FOR THE ARTS



VICINITY MAP  
SCALE: 1"=2000'  
ADC MAP/GRID NO: 4816-44



**LEGEND:**

- PROPERTY LINE
- - - RIGHT-OF-WAY LINE
- - - ADJACENT PROPERTY LINE
- - - EXISTING EDGE OF PAVING
- - - EXISTING TREELINE
- - - PROPOSED TREELINE
- - - EXISTING WOOD FENCE
- - - EXISTING METAL FENCE
- - - EXISTING UTILITY POLE
- - - EXISTING OVERHEAD WIRES
- OH OH EXISTING OVERHEAD WIRES
- MBR PROPOSED MICRO-BIORETENTION FACILITY (M-6)
- EXISTING 14' EASEMENT FOR INGRESS & EGRESS (222598)
- EXISTING PRIVATE STORM DRAIN & UTILITY EASEMENT (PLAT 21480)
- EXISTING PUBLIC FOREST CONSERVATION EASEMENT (PLAT 21480)
- EXISTING PRIVATE RETAINING WALL MAINTENANCE EASEMENT (PLAT 21480)

ADDRESS	MICRO-BIORETENTION (NUMBER)
2926 ROGERS AVENUE	2

SHEET INDEX	
DESCRIPTION	SHEET NO.
SITE LAYOUT PLAN	1 OF 3
SOILS MAP, GRADINGS, EROSION AND SEDIMENT CONTROL PLAN	2 OF 3
STORMWATER MANAGEMENT PLAN, NOTES AND DETAILS	3 OF 3

**OWNER/DEVELOPER**

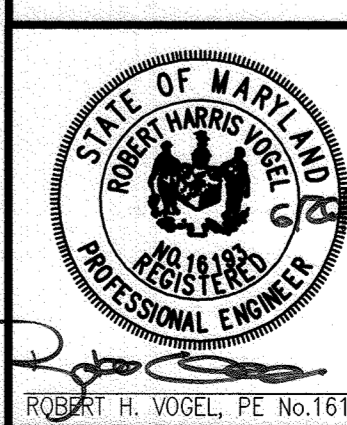
JAIPAL R. NIMMALA  
TEJASWI NIMMALA  
33379 SONIA TRAIL  
ELLICOTT CITY, MD 21043  
(443) 631-0072

NO.	REVISION	DATE

ENVIRONMENTAL CONCEPT PLAN  
SITE LAYOUT PLAN  
SOSSLAU PROPERTY - LOT 2  
2926 ROGERS AVENUE  
ELLICOTT CITY, MD 21043

PARCEL: 101 TAX MAP: 17 GRID: 18 ZONED: R-20  
L 21507 F F. 292 L 21507 F F. 292  
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**VOGEL ENGINEERING**  
**TIMMONS GROUP**  
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
P: 410.461.7666 F: 410.461.8961 www.timmons.com

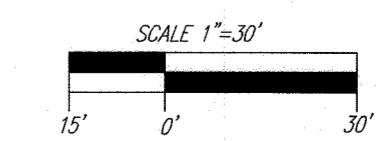


PROFESSIONAL CERTIFICATE  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 08-27-2024.

DESIGN BY: RHV  
DRAWN BY: JMR  
CHECKED BY: RHV  
DATE: JUNE 2023  
SCALE: AS SHOWN  
W.O. NO.: 55050

1 SHEET OF 3

SITE LAYOUT  
SCALE: 1"=30'



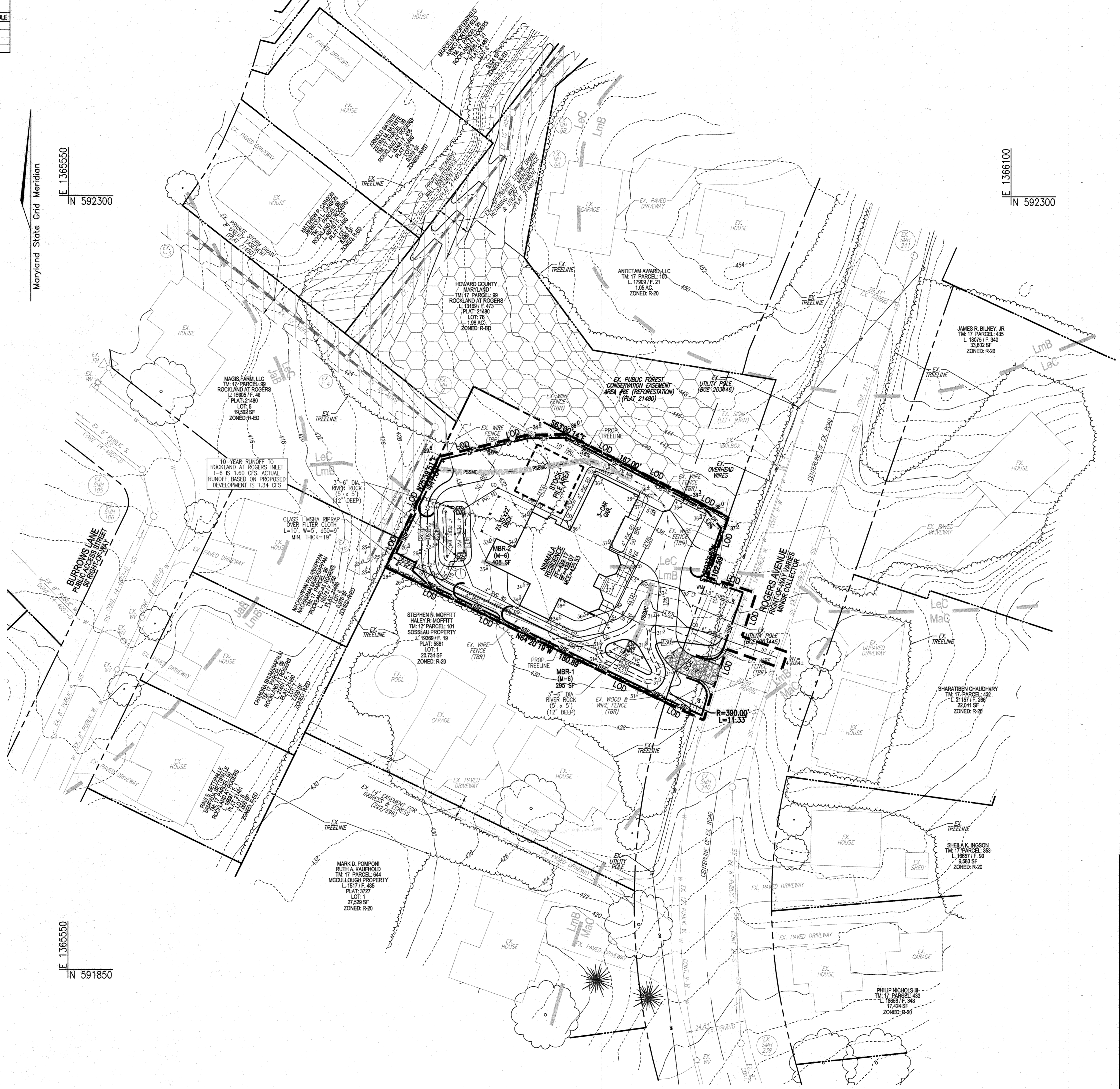


SOILS LEGEND					
SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	HYDRIC	ERODIBLE
JbS	JACKLAND SILT LOAM, 3 TO 9 PERCENT SLOPES	D	.37	NO	YES
LmC	LEGORE SILT LOAM, 8 TO 15 PERCENT SLOPES, STONY	C	.64	NO	YES
LmB	LEGORE-MONTALTO SILT LOAMS, 3 TO 8 PERCENT SLOPES	C	.64	NO	YES
MmC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	.32	NO	NO

-SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE  
 -HOWARD COUNTY SOILS MAP NUMBER 14 - ELLICOTT CITY SE

NOTE:  
 HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

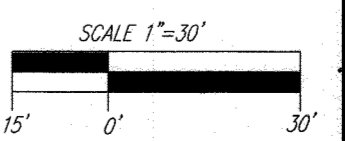
LEGEND:	
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	ADJACENT PROPERTY LINE
	EXISTING EDGE OF PAVING
	EXISTING TREELINE
	PROPOSED TREELINE
	EXISTING WOOD FENCE
	EXISTING METAL FENCE
	EXISTING UTILITY POLE
	EXISTING OVERHEAD WIRES
	EXISTING 14' EASEMENT FOR INGRESS & EGRESS (22/259)
	EXISTING PRIVATE STORM DRAIN & UTILITY EASEMENT (PLAT 21480)
	EXISTING PUBLIC FOREST CONSERVATION EASEMENT (PLAT 21480)
	EXISTING PRIVATE RETAINING WALL MAINTENANCE EASEMENT (PLAT 21480)
	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	SOILS
	PROPOSED 10' CONTOUR
	PROPOSED 2' CONTOUR
	LIMIT OF DISTURBANCE
	STABILIZED CONSTRUCTION ENTRANCE
	SUPER SILT FENCE
	DIVERSIONS FENCE



THE RIVER RUNOFF TO ROCKLAND AT ROGERS INLET I-6 IS 1.60 CFS. ACTUAL RUNOFF BASED ON PROPOSED DEVELOPMENT IS 1.34 CFS

CLASS. MOSA BRUSH OVER FILTER CLOTH L=10', W=5', Ø50=9" MIN. THICK=19"

**GRADING PLAN**  
 SCALE: 1"=30'



**OWNER/DEVELOPER**  
 JAIPAL R. NIMMALA  
 TEJASWI NIMMALA  
 3379 SONIA TRAIL  
 ELLICOTT CITY, MD 21043  
 (443) 631-0072

NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN**  
**SOILS MAP, GRADING, EROSION AND SEDIMENT CONTROL PLAN**  
**SOSSLAU PROPERTY - LOT 2**  
 2926 ROGERS AVENUE  
 ELLICOTT CITY, MD 21043

PARCEL: 101 ZONED: R-20  
 TAX MAP: 17 GRID: 18 L 21507 / E. 222  
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**VOGEL ENGINEERING**  
  
**TIMMONS GROUP**  
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE	
DESIGN BY: RHV	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. 16193, EXPIRATION DATE 08-27-2024.
DRAWN BY: JMR	
CHECKED BY: RHV	
DATE: JUNE 2023	
SCALE: AS SHOWN	
W.O. NO.: 55050	2 SHEET OF 3

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 7-13-23

CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 7/13/23



PROJECT: SOSSLAU PROPERTY - LOT 2  
 DESIGNER: RHY  
 DATE: 03/29/23

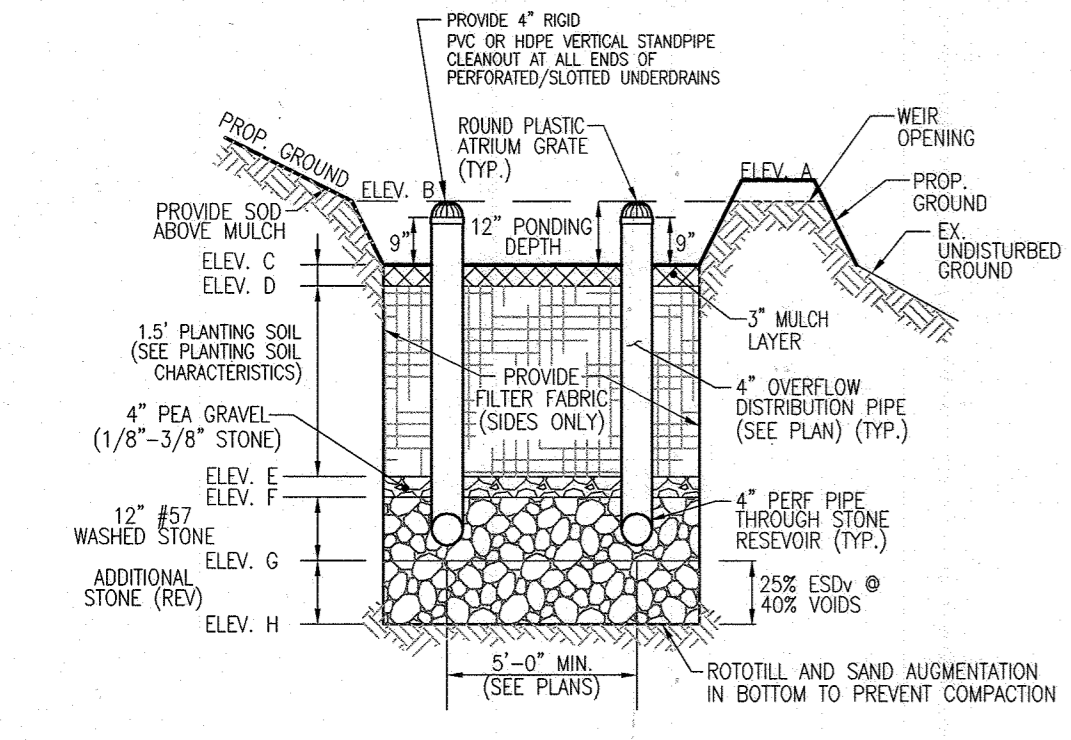
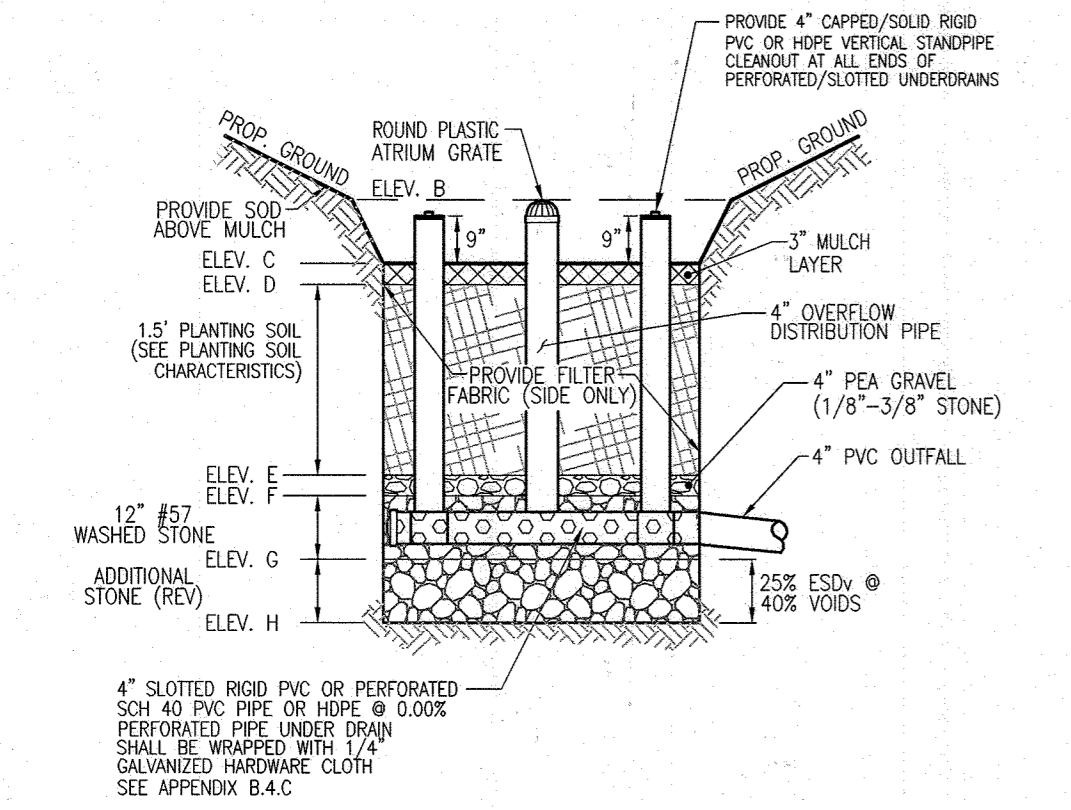
VOGEL ENGINEERING + TIMMONS GROUP  
 SOSSLAU PROPERTY - LOT 2

LOT AREA #	TREATED AREA	FACILITY NUMBER	ENVIRONMENTAL SITE DESIGN FACILITY (CF)							ESD VOLUME
			PERMEABLE PAVEMENT	BIOS	SWALE	WELL	NRD	RD	RD	
MBR-1	8415	MBR-1	0	0	343	0	0	0	0	343
MBR-2	5560	MBR-2	0	0	533	0	0	0	0	533
TOTAL PROVIDED									876	

Pe Required: 1.8"  
 Pe Provided: 1.8"  
 ESDv Required: 873 cf  
 ESDv Provided: 876 cf  
 Rev Required: 71 cf  
 Rev Provided: 71 cf

**LEGEND:**

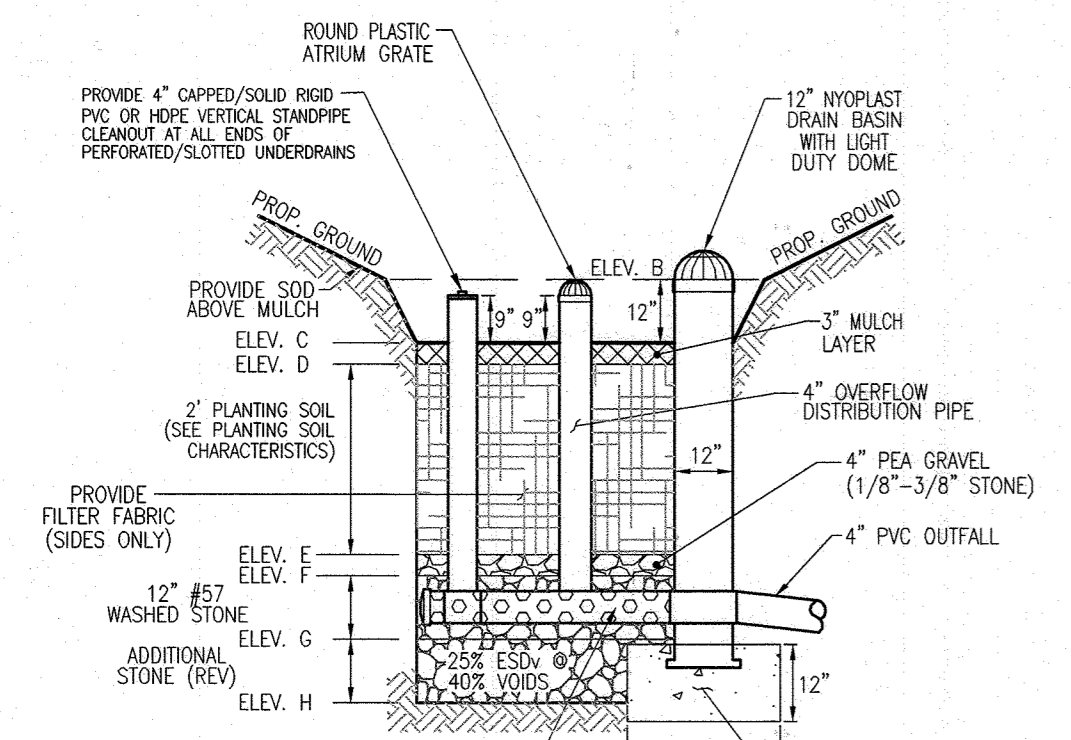
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	ADJACENT PROPERTY LINE
	EXISTING EDGE OF PAVING
	EXISTING TREE LINE
	PROPOSED TREE LINE
	EXISTING WOOD FENCE
	EXISTING METAL FENCE
	EXISTING UTILITY POLE
	EXISTING OVERHEAD WIRES
	EXISTING 14' EASEMENT FOR INGRESS & EGRESS (222/596)
	EXISTING PRIVATE STORM DRAIN & UTILITY EASEMENT (PLAT 21480)
	EXISTING PUBLIC FOREST CONSERVATION EASEMENT (PLAT 21480)
	EXISTING PRIVATE RETAINING WALL MAINTENANCE EASEMENT (PLAT 21480)
	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	SOILS
	PROPOSED 10' CONTOUR
	PROPOSED 2' CONTOUR
	AREA OF IMPERMEABLE DRAINAGE TO MICRO-BIORETENTION (M-6)
	DRAINAGE AREA DIVIDE



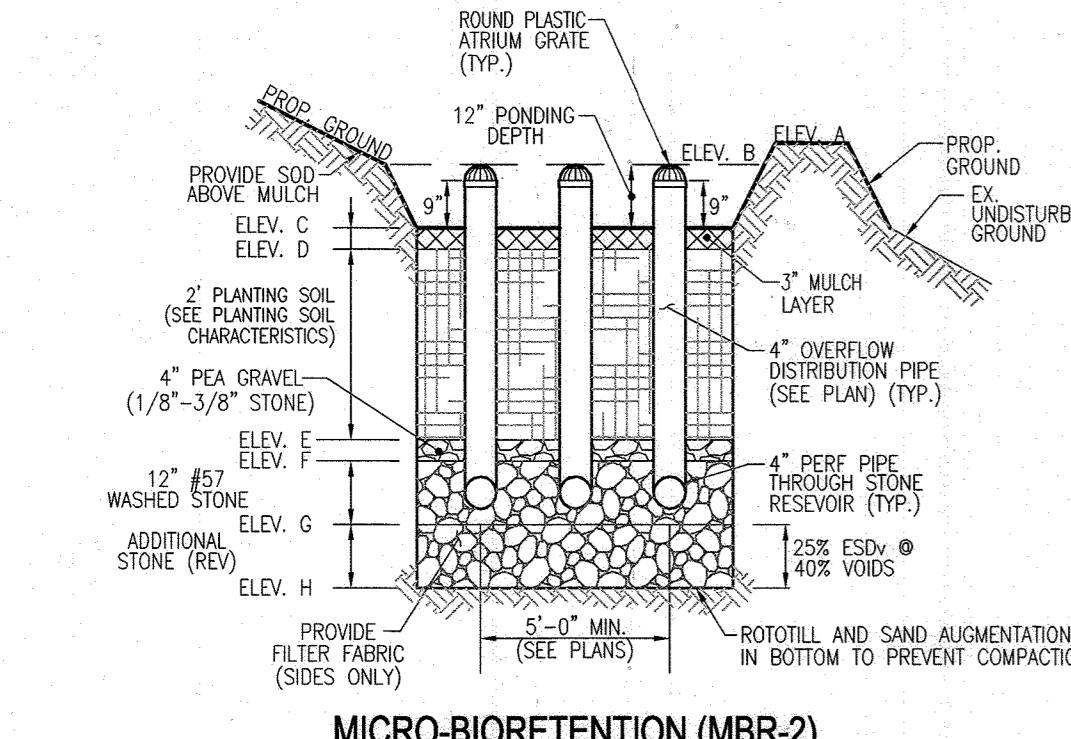
**MICRO-BIORETENTION (MBR-1)**  
 W/ WEIR AND UNDERDRAIN OUTFALL  
 NOT TO SCALE

**MICRO-BIORETENTION FACILITY ELEVATIONS (M-6)**

FACILITY	A	B	C	D	E	F	G	H	WEIR ELEV.	UNDERDRAIN INVERT	OUTFALL ELEVATION	FACILITY SIZE
MBR-1	431.30	431.90	432.00	429.75	428.75	427.92	426.92	426.09	431.00	427.25	425.50	331 SF
MBR-2	432.30	432.00	431.00	430.75	428.75	428.42	427.42	426.59	N/A	427.75	426.50	576 SF



**MICRO-BIORETENTION (MBR-2)**  
 W/ INLET STRUCTURE AND UNDERDRAIN OUTFALL  
 NOT TO SCALE

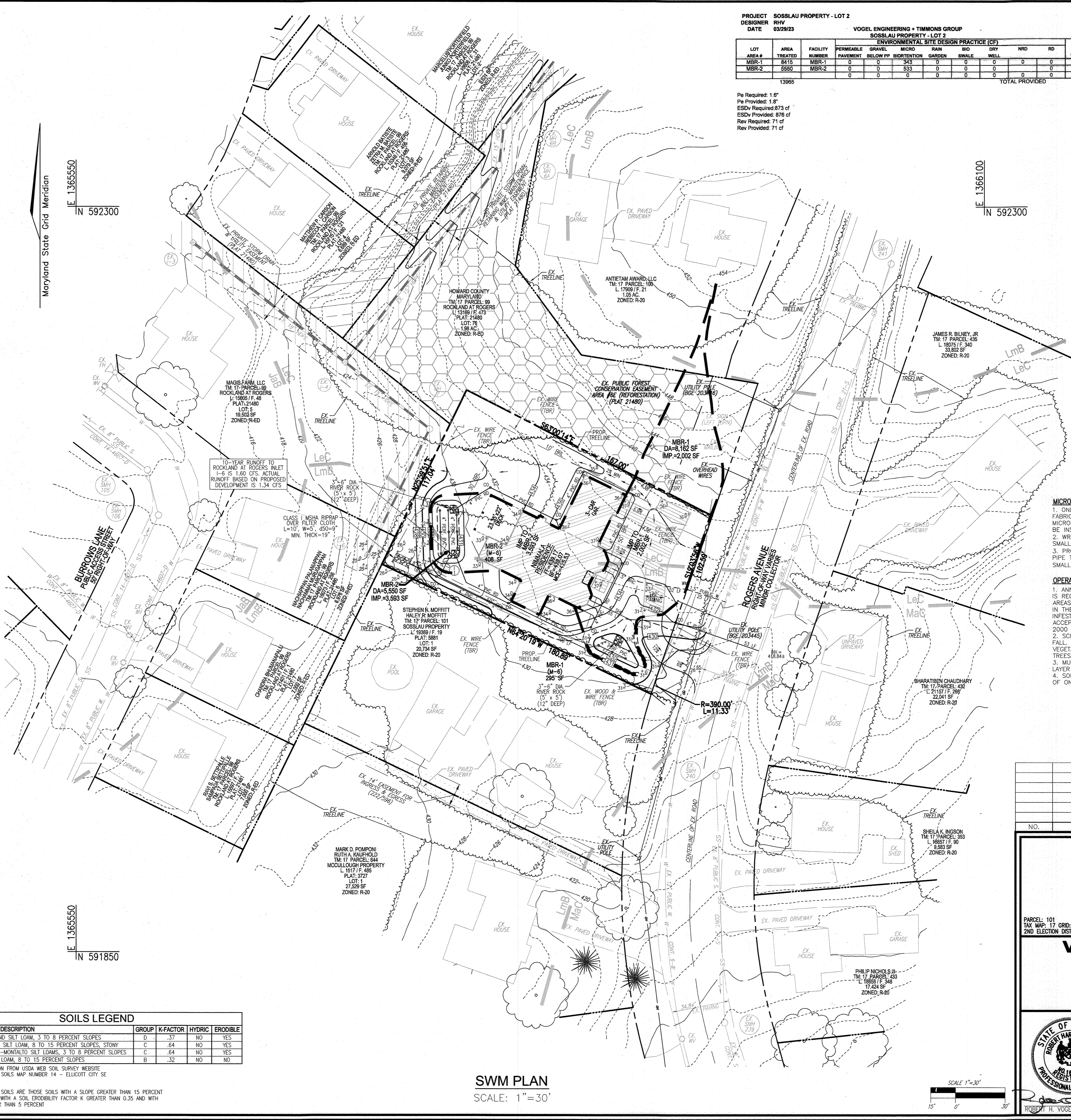


**MICRO-BIORETENTION (MBR-2)**  
 W/ INLET STRUCTURE AND UNDERDRAIN OUTFALL  
 NOT TO SCALE

**SOILS LEGEND**

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	HYDRIC	ERODIBLE
Jab	JACKSON SALT LOAM, 3 TO 8 PERCENT SLOPES	D	.37	NO	YES
Lac	LEGORE SILT LOAM, 8 TO 15 PERCENT SLOPES, STONY	C	.64	NO	YES
Lmb	LEGORE-MONTALTO SILT LOAMS, 3 TO 8 PERCENT SLOPES	C	.64	NO	YES
Mac	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	.32	NO	NO

NOTE:  
 HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT



**MICROBIORETENTION NOTES:**

- ONLY THE SIDES OF MICROBIORETENTION ARE TO BE WRAPPED IN FILTER FABRIC. FILTER FABRIC BETWEEN LAYER OR AT THE BOTTOM OF THE MICROBIORETENTION WILL CAUSE THE MBR TO FAIL, AND THEREFORE SHALL NOT BE INSTALLED.
- WRAP THE PERFORATED MBR UNDERDRAIN PIPE WITH 1/4" MESH (4x4) OR SMALLER GALVANIZED HARDWARE CLOTH.
- PROVIDE 5' MINIMUM SPACING BETWEEN UNDER DRAIN AND PERFORATED PIPE THROUGH STONE RESERVOIR OR SPACE PIPE EQUALLY ACROSS BOTTOM FOR SMALL BIOS. (SEE PLANS)

**OPERATION AND MAINTENANCE SCHEDULE FOR (M-6) MICROBIORETENTION AREAS**

- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. 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 VOL. II, TABLE A-4.1 AND 2.
- SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
- MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
- SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

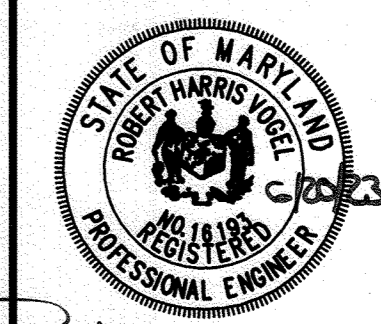
**OWNER/DEVELOPER**  
 JAIPAL R. NIMMALA  
 TEJASWI NIMMALA  
 3379 SONIA TRAIL  
 ELLICOTT CITY, MD 21043  
 (443) 631-0072

NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN**  
**STORMWATER MANAGEMENT PLAN, NOTES AND DETAILS**  
**SOSSLAU PROPERTY - LOT 2**  
 2926 ROGERS AVENUE  
 ELLICOTT CITY, MD 21043

PARCEL: 101 TAX MAP: 17 GRID: 18 2ND ELECTION DISTRICT ZONED: R-20 L: 21507 / F: 292 HOWARD COUNTY, MARYLAND

**VOGEL ENGINEERING**  
  
**TIMMONS GROUP**  
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
 P: 410.461.7666 F: 410.461.8961 www.timmons.com



**DESIGN BY:** RHY  
**DRAWN BY:** JMR  
**CHECKED BY:** RHY  
**DATE:** JUNE 2023  
**SCALE:** AS SHOWN  
**W.O. NO.:** 55050

**PROFESSIONAL CERTIFICATE**  
 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. 16183 EXPIRATION DATE: 09-27-2024

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 7-13-23

CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 7/13/23

**SWM PLAN**  
 SCALE: 1" = 30'

