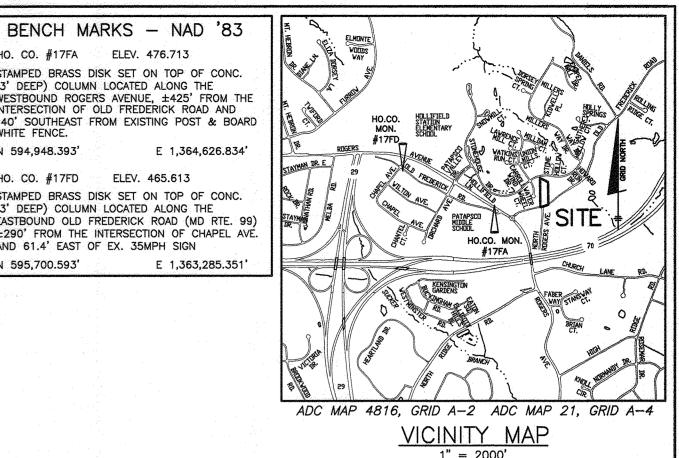


GENERAL NOTES

- 1. SUBJECT PROPERTY IS ZONED R-20 PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- 2. THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- 3. THE PROJECT BOUNDARY IS BASED ON A BOUNDARY DEED PLOT BY BENCHMARK ENGINEERING, INC. IN AUGUST, 2021. THE EXISTING TOPOGRAPHY IS BASED ON HOWARD COUNTY GIS INFORMATION. EXISTING UTILITIES ARE BASED ON RECORD DRAWINGS AND HOWARD COUNTY GIS.
- 4. THERE ARE NO WETLANDS, STREAMS, THEIR BUFFERS, 100-YEAR FLOODPLAIN OR 25% OR GREATER STEEP SLOPES WITH MORE THAN 20,000SF OF CONTIGUOUS AREA LOCATED ON THIS PROJECT SITE.
- 5. THIS SITE IS WITHIN THE METROPOLITAN DISTRICT.
- 6. TO THE BEST OF OUR KNOWLEDGE, INFORMATION, AND BELIEF, THERE ARE NO HISTORIC STRUCTURES OR CEMETERIES LOCATED ON THIS SITE.
- 7. THE FOREST STAND DELINEATION REPORT AND THE WETLANDS CERTIFICATION LETTER WERE PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED MAY 31, 2022. THERE ARE NO SPECIMEN TREES ONSITE.
- 8. THIS PROJECT IS SUBJECT TO THE FOREST CONSERVATION REQUIREMENTS. FOREST CONSERVATION CHECKLIST AND PLAN SHALL BE PART OF THE FINAL PLAN SUBMITTAL. FOREST CONSERVATION OBLIGATION SHALL BE ADDRESSED OFFSITE OR BY PAYMENT OF FEE-IN-LIEU.
- 9. APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION AND/OR SITE DEVELOPMENT 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. THEREFORE, THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED COMMENTS (INCLUDING THOSE THAT MAY ALTER OVERALL SITE DESIGN) AS THIS
- 10. STORMWATER MANAGEMENT PRACTICES SHOWN ON THIS PLAN ASSUME ADEQUATE SOIL BORING TEST RESULTS. THE DESIGN MAY NEED TO BE ADJUSTED AT THE NEXT PLAN STAGE AFTER SOIL BORING TESTING HAS BEEN COMPLETED AND AN ALTERNATE PRACTICE MAY NEED TO BE UTILIZED.
- 11. THE SEDIMENT AND EROSION CONTROL SHOWN IN THIS PLAN SET IS A SCHEMATIC PRELIMINARY DESIGN. A MORE DETAILED DESIGN COMPLETE WITH SEQUENCE OF CONSTRUCTION, NOTES, DETAILS AND COMPUTATIONS SHALL BE PROVIDED AT THE PRELIMINARY PLAN STAGE.
- 12. THE STORMWATER MANAGEMENT SYSTEM SHOWN ON THIS PLAN 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 ALLOCATED FOR THIS DEVELOPMENT.
- 13. THERE ARE NO STATE CHAMPION TREES, TREES 75% THE SIZE OR GREATER OF STATE CHAMPION TREES OF THE SAME SPECIES, AND TREES 30" IN DIAMETER OR LARGER ON-SITE.
- 14. THE FOREST CONSERVATION PLAN AND ASSOCIATED FOREST STAND DELINEATION WILL BE REVIEWED FOR COMPLIANCE WITH THE FOREST CONSERVATION ACT AT THE SUBDIVISION PLAN, SITE DEVELOPMENT PLAN OR GRADING PERMIT STAGES. UNDER COUNTY LAW, ONLY A MD LICENSED FORESTER, MD LICENSED LANDSCAPE ARCHITECT OR AN ISA CERTIFIED ARBORIST WHO IS ALSO A STATE QUALIFIED PROFESSIONAL MAY PREPARE FOREST STAND DELINEATIONS, FOREST CONSERVATION PLANS OR OTHER REQUIRED COUNTY FOREST CONSERVATION PROGRAM DOCUMENTS.
- 15. AT THIS TIME, THERE IS NO ANTICIPATED NEED TO APPLY FOR ANY WAIVERS FOR DISITURBANCE TO ENVIRONMENTAL AREAS.
- 16. THIS SITE IS NOT WITHIN THE TIBER WATERSHED; IT IS WITHIN THE LOWER NORTH BRANCH-PATAPSCO RIVER AREA WATERSHED (2-13-09-06) A CLASS IV-P STREAM, AS NOTED WITHIN THE ECP SWM REPORT WHICH ACCOMPANIED THE INITIAL SUBMISSION. THE DESIGN NARRATIVE ON SHEET 1 HAS BEEN REVISED TO INCLUDE DRAINAGE/WATERSHED INFORMATION.

LEGEND AbC SOILS CLASSIFICATION SOILS DELINEATION EXISTING CONTOURS 999 PROPOSED CONTOURS EXISTING STRUCTURE PROPOSED STRUCTURE \bigcirc EXISTING TREELINE TREE w/24"-29" TRUNK 20' PUBLIC WATER, & UTILITY EASEMENT

HO. CO. #17FA ELEV. 476.713 STAMPED BRASS DISK SET ON TOP OF CONC. (3' DEEP) COLUMN LOCATED ALONG THE WESTBOUND ROGERS AVENUE, ±425' FROM THE INTERSECTION OF OLD FREDERICK ROAD AND 140' SOUTHEAST FROM EXISTING POST & BOARD WHITE FENCE. N 594,948.393' E 1,364,626.834' HO. CO. #17FD ELEV. 465.613 STAMPED BRASS DISK SET ON TOP OF CONC. (3' DEEP) COLUMN LOCATED ALONG THE EASTBOUND OLD FREDERICK ROAD (MD RTE. 99) ±290' FROM THE INTERSECTION OF CHAPEL AVE. AND 61.4' EAST OF EX. 35MPH SIGN N 595,700.593' E 1,363,285.351'



HEET	TITLE
1	ECP - GRADING PLAN & ESD D.A. MAP
2	EXISTING CONDITION PLAN
3	SEDIMENT & EROSION CONTROL PLAN

DESIGN NARRATIVE:

20' PUBLIC SEWER,

UTILITY EASEMENT

DRYWELL DRAINAGE AREA

MICRO-BIO DRAINAGE AREA

DWELLING IMPERVIOUS AREA

& UTILITY EASEMENT

VARIABLE WIDTH PRIVATE USE-IN-COMMON I

ACCESS, MAINTENANCE, DRAINAGE, &

PAVING/SIDEWALK IMPERVIOUS AREA

THERE ARE NO WETLANDS, STREAMS, THEIR REQUIRED BUFFERS, 100-YEAR FLOODPLAIN OR STEEP SLOPES LOCATED ON THIS PROPERTY. THUS, THERE ARE NO NATURAL RESOURCES TO BE PRESERVED. THE MAJORITY OF THE PROPERTY IS LAWN AND THERE ARE NO SPECIMEN TREES ON THE PROPERTY.

EXISTING FLOW PATTERNS SHALL BE MAINTAINED. THE PROPOSED OVERALL DRAINAGE PATTERNS SHALL MIMIC THE EXISTING CONDITION DRAINAGE PATTERNS. THE SITE TOPOGRAPHY IS DOMINATED BY AN EXISTING HIGH POINT TOWARDS THE FRONT OF THE PROPERTY, WITH RUN-OFF PREDOMINANTLY FLOWING NORTH & SOUTH OFF-SITE. THE NORTH RUN-OFF DRAINS TO AN EXISTING SD STRUCTURE CONSTRUCTED UNDER F-97-042, DIRECTED INTO AN EXISTING SWMF. THE SOUTH RUN-OFF FLOWS ACROSS OLD FREDERICK ROAD, ALONG NORTH ROGERS AVENUE, AND THEN SOUTHEASTERLY THRU VARIOUS ADJOINING PROPERTIES. THESE ULTIMATELY FLOW INTO THE LOWER NORTH BRANCH-PATAPSCO RIVER AREA WATERSHED (2-13-09-06) A CLASS IV-P STREAM.

IMPERVIOUS AREAS ARE BEING MINIMIZED AND WILL ONLY CONSIST OF THE PROPOSED USE-IN-COMMON DRIVE, DRIVEWAYS, AND ROOFTOPS.

SEDIMENT AND EROSION CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE 2011 MARYLAND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. OFFSITE CLEAN WATER SHALL BE DIVERTED AROUND THE SITE. THE ENTIRE PERIMETER OF THE LIMIT OF DISTURBANCE SHALL INCLUDE CONTROLS SUCH AS SILT FENCE, SUPER SILT FENCE, DIVERSION FENCING AND/OR DIKES BASED ON TOPOGRAPHY. THERE ARE NO IMPACTS TO THE STORMWATER MANAGEMENT DESIGN BASED ON SEDIMENT AND EROSION CONTROL.

THE 8 PROPOSED (M-5) DRY WELLS, 2 PROPOSED (M-6) MICRO BIO-RETENTION, AND 3 PROPOSED USES OF (N-2) NON-ROOFTOP DISCONNECTION SHALL ADEQUATELY TREAT THE PROPOSED IMPERVIOUS AREAS. THE PRACTICES SHALL ALL DISCHARGE AT A LOCATION THAT IS NOT DETRIMENTAL TO THE

AT FUTURE STAGES OF THE PROJECT, ADDITIONAL TREATMENT PRACTICES MAY BE INVESTIGATED AND UTILIZED, IF POSSIBLE.

FULL TREATMENT OF THE ESDY IS BEING PROVIDED THEREFORE THIS PROJECT CAN BE CONSIDERED TO BE TREATED TO THE MAXIMUM EXTENT PRACTICAL.

DRAINAGE		Practice		No.	DA	Imp Area	%	Rv	Pe		Af (sf)		ESD	v (cf)
AREA	MDE	Туре	BMP	Used	(sf)	(sf)	Imp	PζV	required	Required	Provided	2% DA?	Required	Provided
	(M-6)	Micro-Bioretention	MB-1	1	9,250	2,830	31%	0.33	1.2	185	240.0	PASS	301	584
	(M-6)	Micro-Bioretention	MB-2	1	23,215	7,728	33%	0.35	1.2	464.3	539.7	PASS	812	927
LOT 2	(M-5)	Drywell	DW-1	4	2,400	2,400	100%	0.95	1.2	0	39	N/A	228	313
LOT 3	(M-5)	Drywell	DW-1	4	2,400	2,400	100%	0.95	1.2	0	39	N/A	228	313
OFFSITE R/W	(N-2)	Non-Rooftop Disconnection	NRDC-1	1	366	168	46%	0.46	1.2	0	198	N/A	14	8
OFFSITE R/W	(N-2)	Non-Rooftop Disconnection	NRDC-2	1	1,363	638	47%	0.47	1.2	0	725	N/A	54	28
	***************************************	al natura para para para para para mana manggaran di para para mana di mana mana di mana di mana sa di di mana				ti di manana manana matana manda tanà di manana manda tanà di manda tan	Andreas de la compania		Paristi i manis meneri di permini di meneri di di periodi di periodi di periodi di periodi di periodi di periodi Sente di Sentenentali di periodi	Makangan kanangan ka Kanangan kanangan ka		<u> </u>		
Tot	als per in	dividual Drainage Areas		10	37,265	15,358	41%	0.20					1569	2136
	Total	s per Overall Site			90,566	17,800	20%	0.23	1.2		5.5		2055	2136

k-VALUE

Whole Soil

1. The Pe required column is based on total site Pe calculation. The Rv is based on individual drainage area percent impervious (per DED)

2. Total Site Pe and Total Site ESDv numbers are based on the LOD within the Effective Area.

3. Note there is approximately 1,530 sf of impervious area at the UIC entrance that cannot be treated on-site due to existing topograhy elevation discrepencies. ESDV requirement is compensated within the MB facilities.

Significant Tree Chart

Key (X#)	Species	Size (in.dbh)	CRZ 1:1.5 (feet radius)	Condition (good unless otherwise noted)	Diameter of State Champion for Species (inches)
 1	Red cedar	28	42	good - not specimen, not specifically regulated	58.3
2	Norway maple	24	36	good - not specimen, not specifically regulated	66.6

SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND

GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES

MANOR LOAM, 8 TO 15 PERCENT SLOPES

GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES GLENELG LOAM, 3 TO 8 PERCENT SLOPES

GLENVILLE-BAILE SILT LOAM, 0 TO 8 PERCENT SLOPES

PLAN VIEW

SCALE: 1" = 40'

(IN FEET)

1 inch = 40 ft.

GROUP

ECP Site Analysis Data Sheet Gross Area 2.08 ac 0.00 ac 100yr Floodplain 0.00 ac Slopes 25% or Greater 0.00 ac Wetlands Wetlands Buffer 0.00 ac 0 If 0.00 ac Stream Buffer 0.00 ac Forested Area(Excluding Floodplain) Erodable Soils('D'Soil) 0.00 ac Right-of-Way Dedication 0.17 ac Net Site Area 2.08 ac Limit of Disturbance 1.54 ac Impervious Area (Developed) 0.41 ac Green Space(Within LOD) 1.13 ac *All areas are approximate.

NO. DATE ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS OWNER/DEVELOPER:

201-912-7466 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING DESIGN: MCR | DRAFT: MCR

REVISION Professional Certification. I hereby certify that these documen were prepared or approved by me, and that I am a duly licensed rofessional engineer under the laws of the State of Maryland BENCHMARK ENGINEERING, INC. (P) 410-465-6105 (F) 410-465-6644 WWW.BEI-CIVILENGINEERING.COM

8672 OLD FREDERICK ROAD **SUBDIVISION** SHYAMSUNDER RAJ JAGASETTY TAX MAP: 17 - GRID: 12 - PARCEL: 48 8672 OLD FREDERICK ROAD ELLICOTT CITY, MD 21043 ZONED: R-20 ELECTION DISTRICT NO. 2 - HOWARD COUNTY, MARYLAND ENVIRONMENTAL CONCEPT PLAN GRADING PLAN & ESD DRAINAGE AREA MAP DATE: MARCH 10, 2023 BEI PROJECT NO. 3108

7.29.23 DEVELOPMENT ENGINEERING DIVISION

CHIEF. DIVISION OF LAND DEVELOPMENT VA

J:\3108 8672 Old Frederick Road\dwg\1000-ECP.dwg, 3/10/2023 4:25:41 PM, MRiedel

1 of 3

SHEET

H.O.A.

H.O.A.

Private

Private

Private

Private

75

203

1.4 445 440

440

1.6

0.5

0.5

224

216

