

GENERAL NOTES

- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- THE TOPOGRAPHY SHOWN HEREON IS OBTAINED FROM CURRENT HOWARD COUNTY GIS DATA.
- THE PROJECT BOUNDARY IS BASED ON A FIELD RUN BOUNDARY SURVEY PREPARED BY VOGEL ENGINEERING-TIMMONS GROUP, DATED JANUARY 2021.
- THE COORDINATES AND ELEVATIONS SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 14CA AND 14FA WERE USED FOR THIS PROJECT.
- THE SUBJECT PROPERTY IS ZONED RR-DEO IN ACCORDANCE WITH THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN AND IS SUBJECT TO SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE OCTOBER 2, 2003 PER COUNCIL BILL 75-2003.
- DEVELOPMENT OR CONSTRUCTION ON THIS PROPERTY MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE FINAL PLAN, WAIVER PETITION APPLICATION OR BUILDING/GRADING PERMIT APPLICATIONS.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S) OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS.
- THIS PROPERTY IS NOT LOCATED WITHIN THE METROPOLITAN DISTRICT.
- WATER FOR THIS PROJECT IS PRIVATE WELLS.
- SEWER FOR THIS PROJECT IS PRIVATE SEWAGE DISPOSAL SYSTEMS.
- A PERCOLATION CERTIFICATION PLAN WAS APPROVED NOVEMBER 6, 2020.
- EXISTING UTILITIES LOCATED FROM AS-BUILT DRAWINGS, 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.
- THERE ARE NO "100 YEAR FLOODPLAIN" AREA IS LOCATED WITHIN THE DEVELOPMENT AREA.
- FLOODPLAIN SHOWN AT SOUTHERN BOUNDARY IS PER HOWARD COUNTY, MARYLAND GIS DATA, HOWARD COUNTY DFRM FEMA FLOODPLAIN, ZONE AE AND ALSO SHOWN ON FLOOD INSURANCE RATE MAP 24027C0065D - PANEL 65 OF 235.
- PRELIMINARY FLOODPLAIN SHOWN AT EASTERN BOUNDARY IS PER AVAILABLE PLANS OF RECORD, HSCD PLAN GP-18-029 (SEE NOTE 23).
- THERE ARE AREAS OF $\geq 20\%$ MDE STEEP SLOPES ON THE PROPERTY.
- NO AREAS $>20,000$ SF CONTAINED ARE LOCATED ON THE PROPERTY.
- THERE ARE HIGHLY ERODIBLE SOILS ON THIS SITE.
- WETLANDS SHOWN ON-SITE ARE BASED ON A FIELD INVESTIGATION, DOCUMENTED IN THE REPORT TITLED "WETLAND AND SIMPLIFIED FOREST STAND DELINEATION REPORT" BY ECO-SCIENCE PROFESSIONALS, INC. REPORT IS DATED SEPTEMBER 29, 2022. THERE ARE NO PROPOSED DISTURBANCES TO THE WETLANDS OR ASSOCIATED BUFFERS.
- A FOREST STAND DELINEATION AND ENVIRONMENTAL RESOURCES ASSESSMENT IS DOCUMENTED IN THE REPORT TITLED "WETLAND AND SIMPLIFIED FOREST STAND DELINEATION REPORT" BY ECO-SCIENCE PROFESSIONALS, INC. THE REPORT IS DATED SEPTEMBER 29, 2022.
- 3 SPECIMEN TREES (TO REMAIN) ARE LOCATED ON THE PROPERTY.
- CONCEPTUAL FOREST CONSERVATION EASEMENTS HAVE BEEN ADDED HEREON AND ARE SUBJECT TO REVIEW AND APPROVAL WITH A FUTURE PLAN SUBMISSION.
- TEST PITS SHALL BE COMPLETED AS PART OF A FUTURE PLAN SUBMISSION.
- ROVER MILL ROAD IS CLASSIFIED AS A PUBLIC MINOR COLLECTOR.
- ROVER MILL ROAD IS NOT A SCENIC ROAD. NO IMPROVEMENTS ARE PROPOSED.
- OLD ROVER MILL ROAD IS A PUBLIC LOCAL ROAD L.658 F.55 (NO IMPROVEMENTS PROPOSED).
- THE PROPOSED ACCESS POINT TO LOT 1 IS AS SHOWN.
- THE PROPOSED ACCESS POINT TO LOT 2 WILL UTILIZE THE EXISTING DRIVEWAY LOCATION.
- THIS SITE IS NOT LOCATED WITHIN THE HISTORIC DISTRICT.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED WITHIN THE DEVELOPMENT AREA.
- THERE ARE A DWELLING AND STRUCTURES TO REMAIN ON LOT 2.
- STORMWATER MANAGEMENT FOR THE PROJECT SHALL BE MET THROUGH THE USE OF DRY WELLS (M-5), ROOFTOP DISCONNECTION (N-1) AND NON-ROOFTOP DISCONNECTION PRACTICES (N-2).
- THESE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
- APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SITE DEVELOPMENT PLAN. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY ZONING REGULATIONS, AND THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, SHALL OCCUR AT THE FINAL SUBDIVISION PLAN, SITE DEVELOPMENT PLAN AND/OR PERMIT 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. EROSION AND SEDIMENT CONTROL WILL BE PROVIDED FOR THIS SITE.
- A FLOODPLAIN STUDY FOR THE TRIBUTARY ALONG THE EASTERN BOUNDARY SHALL BE COMPLETED WITH THE SUBMISSION OF THE FUTURE FINAL PLAN.
- SPOT ELEVATIONS ALONG THE ROVER MILL ROAD EDGE OF PAVEMENT AND PROFILES SHALL BE PROVIDED WITH THE SUBMISSION OF THE FINAL PLAN TO DETAIL THE EXTENT OF OVERTOPPING.

SITE ANALYSIS DATA CHART

A. TOTAL AREA:	11.12 AC. ±
B. AREA OF PLAN SUBMISSION:	11.12 AC. ±
C. AREA OF WETLANDS AND BUFFERS:	0.38 AC. ±
D. AREA OF FLOODPLAIN (1):	1.61 AC. ±
E. AREA OF FOREST:	1.38 AC. ±
F. AREA OF STEEP SLOPES (25% & GREATER):	0.27 AC. ±
G. AREA OF MDE SLOPES (20% & GREATER):	0.39 AC. ± (ON-SITE)
H. AREA OF ERODIBLE SOILS:	5.07 AC. ±
I. LIMIT OF DISTURBED AREA:	0.69 AC. ±
J. PROPOSED USES FOR SITE AND STRUCTURES:	RESIDENTIAL SINGLE FAMILY DETACHED HOMES
K. GREEN OPEN AREA:	10.72 AC.
L. PROPOSED IMPERVIOUS AREA:	0.40 AC.
M. PRESENT ZONING DESIGNATION:	RR-DEO
N. OPEN SPACE REQUIRED:	N/A
O. TOTAL NUMBER OF UNITS ALLOWED:	2 SFD (1 NEW & 1 EXISTING)
P. DPZ FILE REFERENCES:	GP-18-029, WF-21-074

- PRELIMINARY FLOODPLAIN PER GP-18-029 SHALL BE ANALYZED WITH FUTURE PLAN SUBMISSION

ENVIRONMENTAL SITE DESIGN NARRATIVE

IN ACCORDANCE WITH CHECKLIST ITEM III.K.

- THE PROJECT SITE IS ZONED RR-DEO, LOCATED IN WEST FRIENDSHIP, MARYLAND ON THE NORTH SIDE OF OLD ROVER MILL ROAD. INGRESS AND EGRESS TO LOT 2 BE PROVIDED BY THE EXISTING DRIVEWAY TO REMAIN AND LOT 1 SHALL PROVIDE ITS SEPARATE DRIVEWAY.
- THE ENVIRONMENTAL AREAS FOR THIS SITE ARE LOCATED ON LOT 2 INCLUDING A PERENNIAL STREAM, NON-TIDAL WETLANDS, BUFFERS AND 100 YEAR FLOODPLAIN. LOT 1 HAS NON-QUALIFYING STEEP SLOPES GREATER THAN 25%.
- NATURAL AREAS WILL BE PROTECTED TO THE MAXIMUM EXTENT POSSIBLE.
- THE NATURAL RESOURCES WILL REMAIN UNDISTURBED AND NO DRAMATIC DISTURBANCE TO THE NATURAL DRAINAGE PATTERNS ARE PROPOSED.
- CONCEPTUAL REDUCTION IN IMPERVIOUS AREA THROUGH BETTER SITE DESIGN IS ACHIEVED THROUGH ENVIRONMENTAL SITE DESIGN (ESD) FOR THE PROJECT.
- ESD CONCEPT PROPOSES THE USE OF DRY WELLS (M-5), ROOFTOP DISCONNECTION AND NON-ROOFTOP DISCONNECTION (N-2).
- ALL PRACTICES WILL BE PRIVATELY OWNED AND MAINTAINED.
- SEDIMENT CONTROL FOR THIS SPECIFIC SITE PLAN WILL BE PROVIDED THROUGH THE USE OF PERIMETER SILT FENCE AND/OR SUPER SILT FENCE CONTROLS. SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH CURRENT REQUIREMENTS AND SHALL BE APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT.
- STORMWATER MANAGEMENT FOR THE PROJECT SHALL BE MET THROUGH THE USE OF DRY WELLS (M-5), ROOFTOP DISCONNECTION AND NON-ROOFTOP DISCONNECTION (N-2).
- THE RESULT BEING MANAGED "WOODS IN GOOD CONDITION".
- TARGET PE = 1.00" PROVIDED PE = 1.03"
TARGET ESDV = 478 CUFT PROVIDED = 494 CUFT
- THIS DESIGN DOES NOT COMPLY WITH THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. AN ALTERNATIVE COMPLIANCE SHALL BE REQUESTED FOR SECTION 16.120(b)(4)(iii)(b). ENVIRONMENTAL FEATURES ON LOTS LESS THAN 10 ACRES. NO DESIGN MANUAL WAIVERS ARE REQUIRED FOR THE STORMWATER MANAGEMENT DESIGN.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION *123.23* DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT *11/15/23* DATE

DESCRIPTION	SHEET NO.
COVER SHEET & CONCEPT PLAN	1 OF 2
CONCEPT PLAN, SWM NOTES AND DETAILS	2 OF 2

THIS AREA DESIGNATES A PRIVATE SEWAGE AREA OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE AREAS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE AREA. RECORDATION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY.

ENVIRONMENTAL CONCEPT PLAN

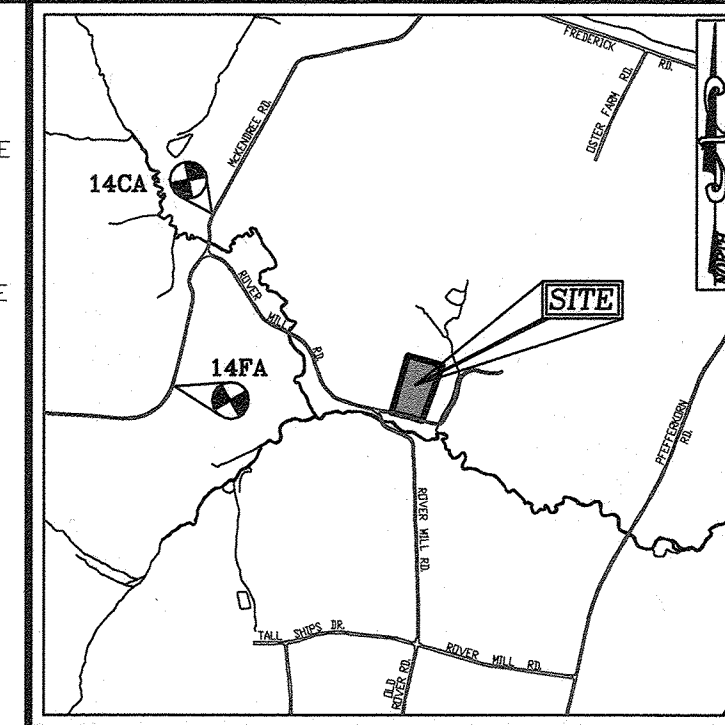
KRUGER PROPERTY

LOTS 1 AND 2
 A REVISION TO TAX MAP 15 - PARCELS 206 & 241
 14132 & 14130 ROVER MILL ROAD
 WEST FRIENDSHIP, MD 21794

BENCHMARKS

HOWARD COUNTY BENCHMARK 14CA (CONC. MON.)
 N 595824.976 E 1311015.534 ELEV. 513.995
 LOCATED 17.2' WEST OF CENTERLINE OF MCKENDEE ROAD, 73' FROM G&E POLE 71072 C&P 17

HOWARD COUNTY BENCHMARK 14FA (CONC. MON.)
 N 595829.622 E 1311015.534 ELEV. 560.183
 LOCATED 16.8' EAST OF CENTERLINE OF MCKENDEE ROAD, 72.2' FROM BGE POLE 359228

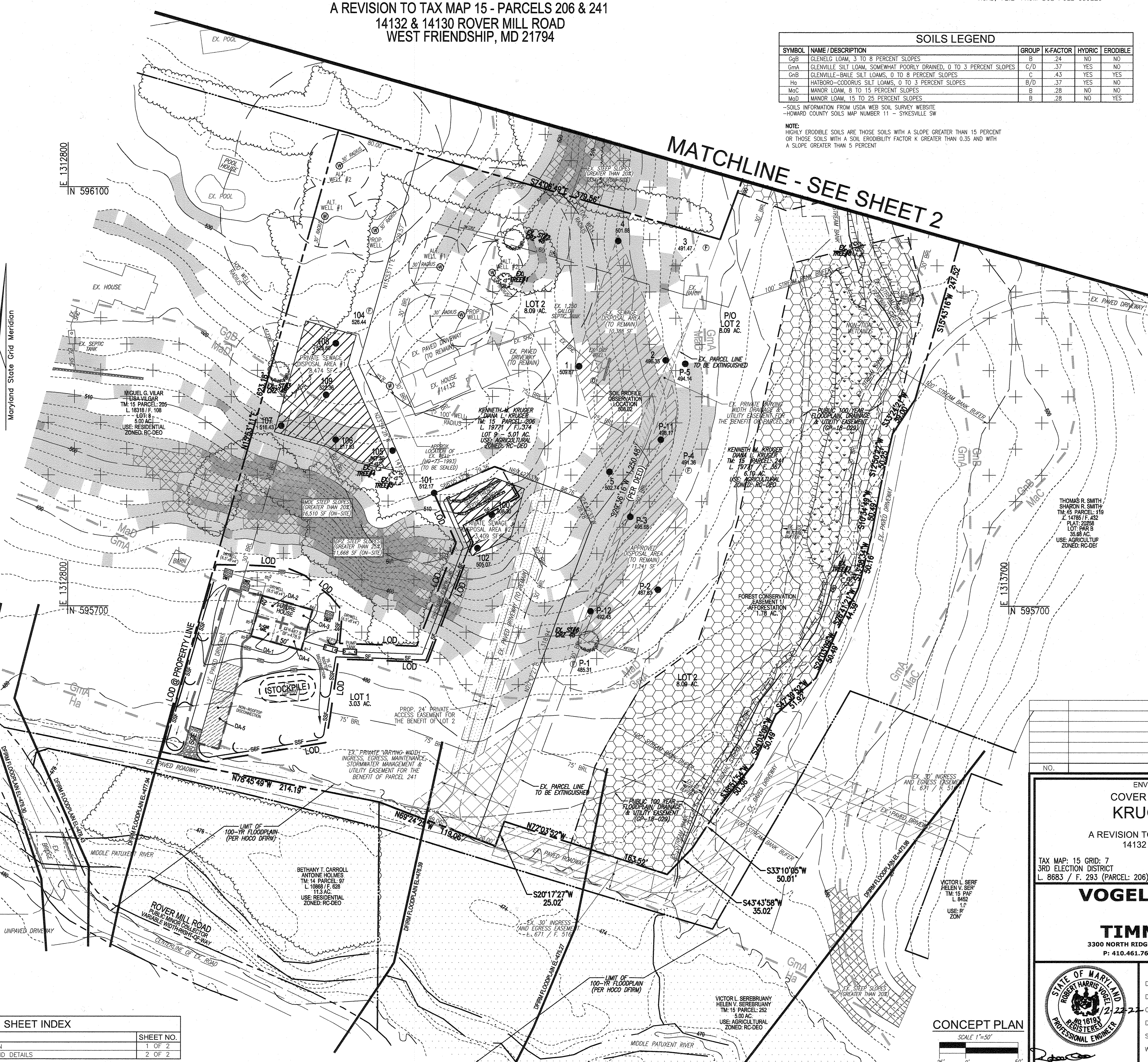


SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	HYDRIC	ERODIBLE
GgB	GLENVILLE LOAM, 3 TO 8 PERCENT SLOPES	B	24	NO	NO
GmB	GLENVILLE SILT LOAM, SOMEWHAT POORLY DRAINED, 0 TO 3 PERCENT SLOPES	C/D	37	YES	NO
GhB	GLENVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	43	YES	YES
Hs	HARBORO-CODORUS SILT LOAMS, 0 TO 3 PERCENT SLOPES	B/D	37	YES	NO
MdS	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	28	NO	NO
MdD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	28	NO	YES

SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE
 -HOWARD COUNTY SOILS MAP NUMBER 11 - SYKESVILLE SW

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



LEGEND:

---	PROPERTY LINE
---	ADJACENT PROPERTY LINE
---	EXISTING EDGE OF PAVING
---	EXISTING STREAM
---	EXISTING WELL
---	PROPOSED WELL
---	EXISTING TREELINE
---	EXISTING 10' CONTOUR
---	EXISTING 2' CONTOUR
---	S&E
---	SIC2
---	SOILS
---	PAILED PERC. TEST
---	FILLED PERC. TEST
---	EXISTING MDE SLOPES (20% SLOPES OR GREATER)
---	EXISTING DPZ MODERATE SLOPES (15%-24.99% SLOPES)
---	EXISTING DPZ STEEP SLOPES (25% SLOPES OR GREATER)
---	HIGHLY ERODIBLE SOILS
---	DRY WELL (M-5)
---	FOREST CONSERVATION EASEMENT (AFFORESTATION/REFORESTATION)
---	SEWAGE DISPOSAL AREA
---	DRAINAGE AREA DIVIDE
---	AREA OF DRAINAGE TO GO TO DRY WELL (M-5)
---	AREA OF DRAINAGE TO GO TO NON-ROOFTOP DISCONNECTION AREA (N-2)
---	ROOFTOP DISCONNECTION PATH (N-1)
---	PROPOSED 10' CONTOUR
---	PROPOSED 2' CONTOUR
---	EXISTING WETLANDS
---	EX. SPECIMEN TREE
---	EX. CRITICAL ROOT ZONE
---	DIAMETER

OWNER/DEVELOPER
 KENNETH & DIANA KRUGER
 14132 ROVER MILL ROAD
 WEST FRIENDSHIP, MD 21794

NO. _____ REVISION _____ DATE _____

ENVIRONMENTAL CONCEPT PLAN
 COVER SHEET & CONCEPT PLAN
KRUGER PROPERTY
 LOTS 1 AND 2
 A REVISION TO TAX MAP 15 - PARCELS 206 & 241
 14132 & 14130 ROVER MILL ROAD
 (PARCEL 206: 5.01 AC.) (PARCEL 241: 6.10 AC.)

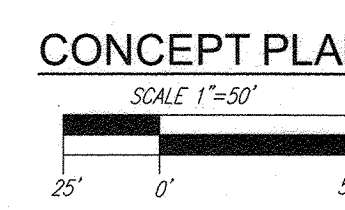
TAX MAP: 15 GRID: 7
 3RD ELECTION DISTRICT
 L. 8683 / F. 293 (PARCEL: 206) HOWARD COUNTY, MARYLAND ZONED: RC-DEO

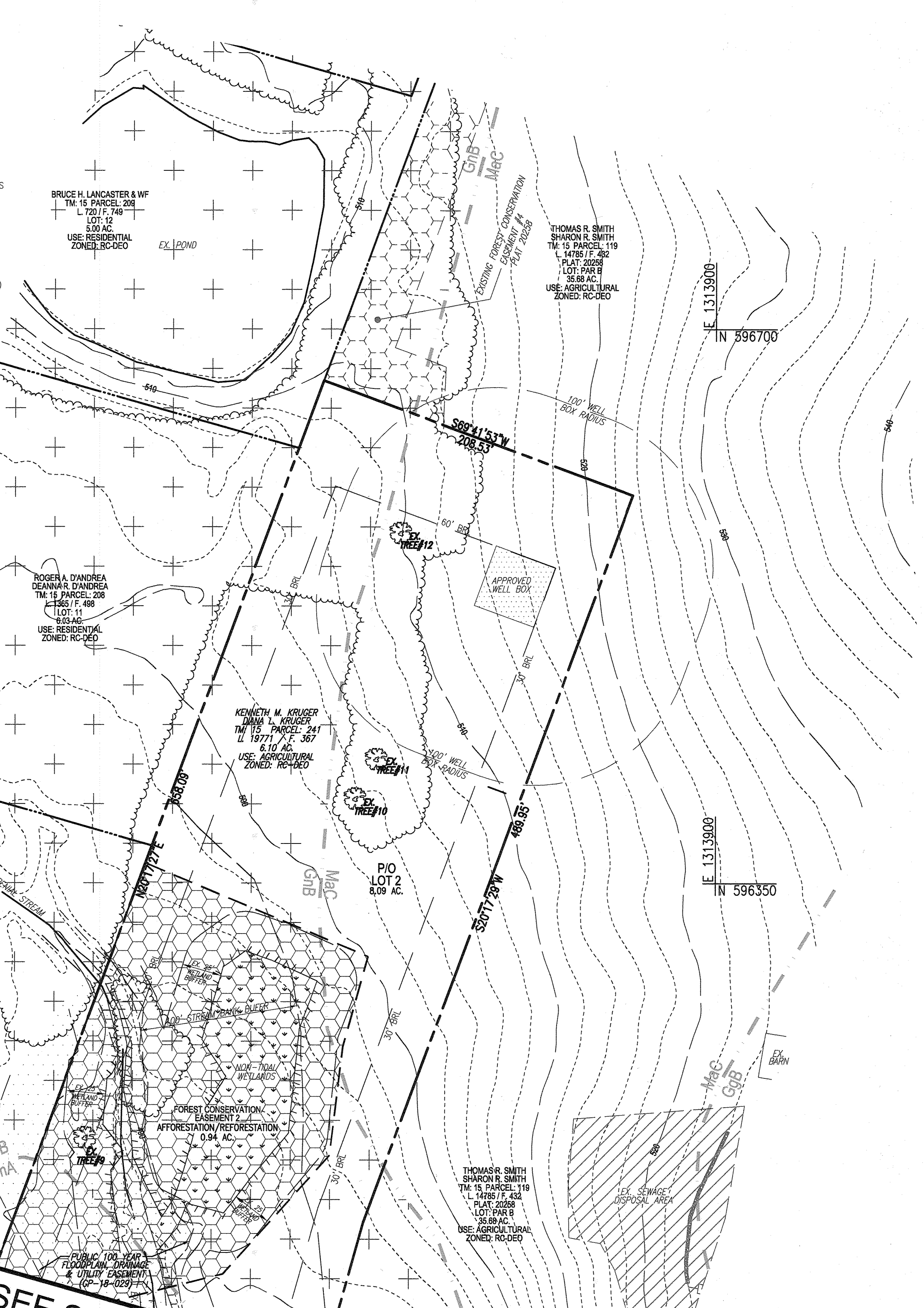
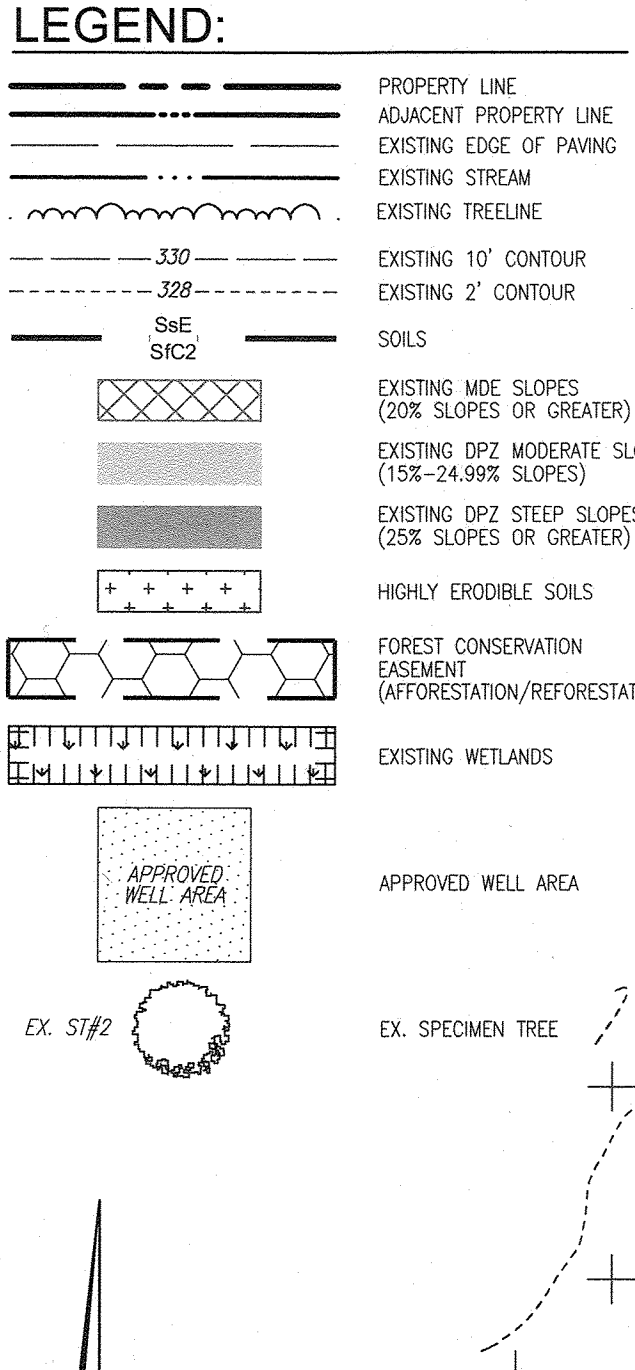
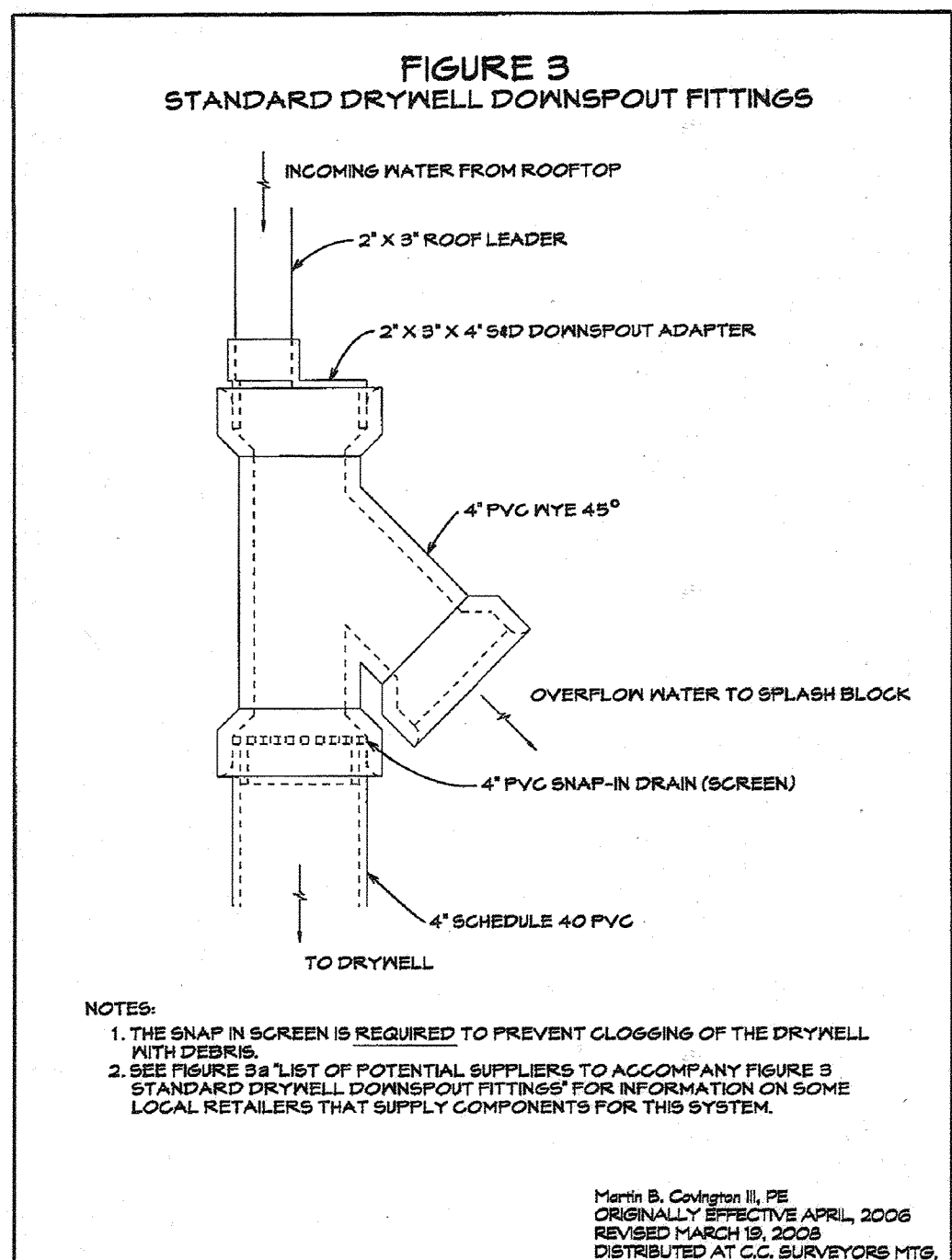
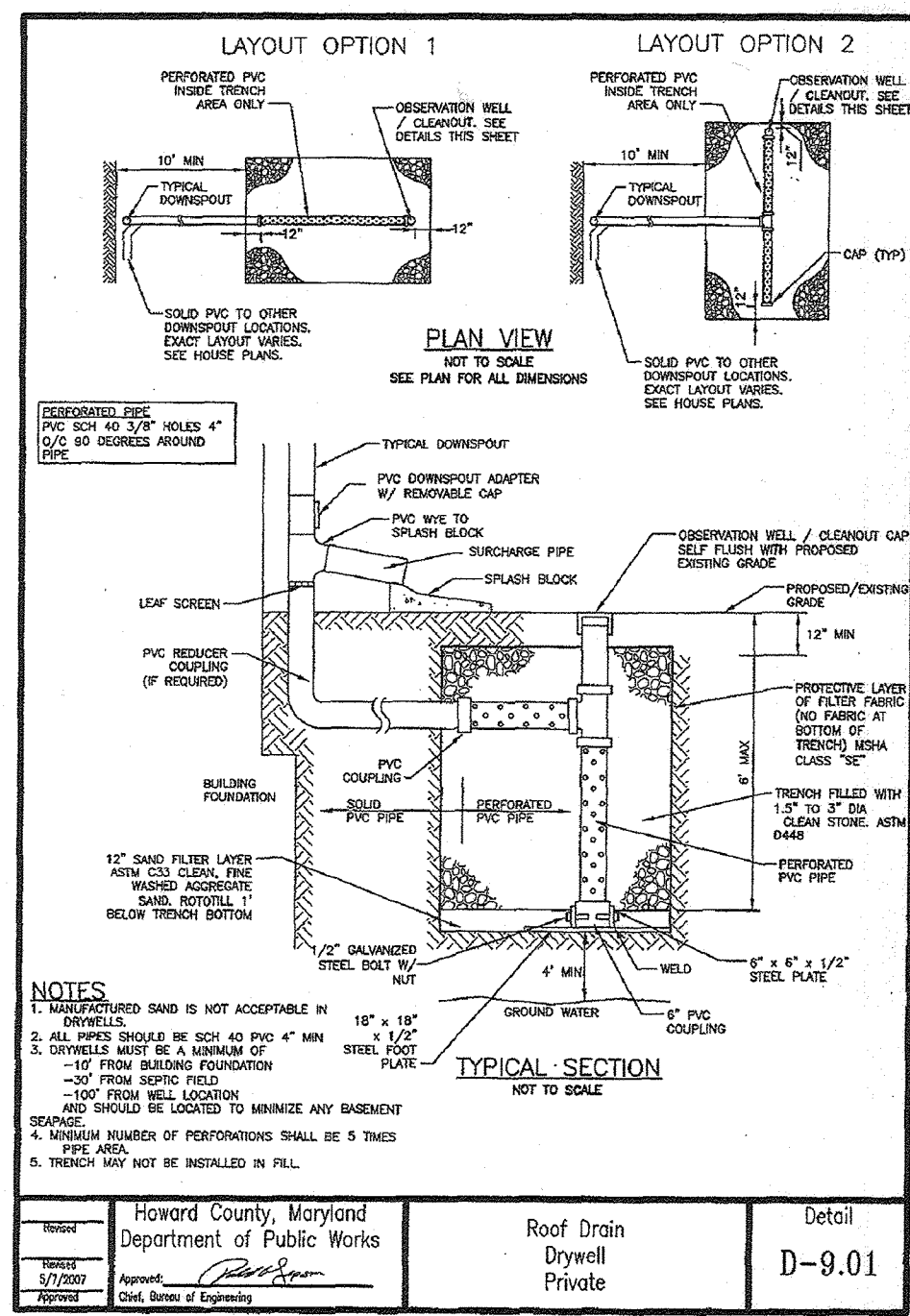
VOGEL ENGINEERING
 TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2024

DESIGN BY: JMR/RHV
 DRAWN BY: JMR/RHV
 CHECKED BY: RHV
 DATE: DECEMBER 2022
 SCALE: 1"=50'
 W.O. NO.: 46261

1 SHEET OF 2





OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRYWELL (M-5)

1. DRY WELLS SHALL BE INSPECTED AND CLEANED ANNUALLY. THIS INCLUDES PIPES, GUTTERS, DOWNSPOUTS AND ALL FILTERS.
2. PONDING, STANDING WATER OR ALGAE GROWTH ON TOP OF A DRYWELL MAY INDICATE FAILURE DUE TO SEDIMENTATION IN THE GRAVEL MEDIA.
3. IF WATER PONDING FOR MORE THAN 48 HOURS AFTER A MAJOR STORM OR MORE THAN 6" OF SEDIMENT HAS ACCUMULATED, THE GRAVEL MEDIA SHOULD BE EXCAVATED AND REPLACED.
4. PRIVATELY OWNED PRACTICES SHALL HAVE A MAINTENANCE PLAN AND SHALL BE PROTECTED BY EASEMENT, DEED RESTRICTION, ORDINANCE OR OTHER LEGAL MEASURES PREVENTING ITS NEGLIGENCE, ADVERSE ALTERATION AND REMOVAL.

N-1. DISCONNECTION OF ROOFTOP RUNOFF

CONSTRUCTION CRITERIA:

THE FOLLOWING ITEMS SHOULD BE ADDRESSED DURING THE CONSTRUCTION OF PROJECTS WITH PLANNED ROOFTOP DISCONNECTIONS:

- EROSION AND SEDIMENT CONTROL: EROSION AND SEDIMENT CONTROL PRACTICES (E.G., SEDIMENT TRAPS) SHALL NOT BE LOCATED IN VEGETATED AREAS RECEIVING DISCONNECTED RUNOFF
- SITE DISTURBANCE: CONSTRUCTION VEHICLES AND EQUIPMENT SHOULD AVOID AREAS RECEIVING DISCONNECTED RUNOFF TO MINIMIZE DISTURBANCE AND COMPACTION. SHOULD AREAS RECEIVING DISCONNECTED RUNOFF BECOME COMPACTED, SCARIFYING THE SURFACE OR ROTOTILLING THE SOIL TO A DEPTH OF FOUR TO SIX INCHES SHALL BE PERFORMED TO ENSURE PERMEABILITY. ADDITIONALLY, AMENDMENTS MAY BE NEEDED FOR TIGHT, CLAYEY SOILS.

INSPECTION:

A FINAL INSPECTION SHALL BE CONDUCTED BEFORE USE AND OCCUPANCY APPROVAL TO ENSURE THAT SIZING FOR TREATMENT AREAS HAVE BEEN MET AND PERMANENT STABILIZATION HAS BEEN ESTABLISHED.

MAINTENANCE CRITERIA:

MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION (E.G., BY PLANTING TREES OR SHRUBS ALONG THE PERIMETER). IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

N-2. DISCONNECTION OF NON-ROOFTOP RUNOFF

CONSTRUCTION CRITERIA:

THE FOLLOWING ITEMS SHOULD BE ADDRESSED DURING THE CONSTRUCTION OF PROJECTS WITH NON-ROOFTOP DISCONNECTIONS:

EROSION AND SEDIMENT CONTROL: EROSION AND SEDIMENT CONTROL PRACTICES (E.G., SEDIMENT TRAPS) SHALL NOT BE LOCATED IN AREAS DESIGNATED FOR NON-ROOFTOP DISCONNECTIONS.

SITE DISTURBANCE: TO MINIMIZE DISTURBANCE AND COMPACTION, CONSTRUCTION VEHICLES AND EQUIPMENT SHOULD AVOID AREAS RECEIVING DISCONNECTED RUNOFF. SHOULD AREAS RECEIVING DISCONNECTED RUNOFF BECOME COMPACTED, SCARIFYING THE SURFACE OR ROTOTILLING THE SOIL TO A DEPTH OF FOUR TO SIX INCHES SHALL BE PERFORMED TO ENSURE PERMEABILITY. ADDITIONALLY, AMENDMENTS MAY BE NEEDED FOR TIGHT, CLAYEY SOILS.

INSPECTION:

FINAL INSPECTION SHALL BE CONDUCTED BEFORE USE AND OCCUPANCY APPROVAL TO ENSURE THAT ADEQUATE TREATMENT AREAS AND PERMANENT STABILIZATION HAS BEEN ESTABLISHED.

MAINTENANCE CRITERIA:

MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION (E.G., BY PLANTING TREES OR SHRUBS ALONG THE PERIMETER). IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF ROOFTOP RUNOFF (N-1) AND DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)

MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE OWNER SHALL ENSURE THE AREAS RECEIVING RUNOFF ARE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREA. IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

KRUGER - ESDV PER AREA COMPUTATIONS

DEVELOPED / SITE AREA	0.73	AC	AC
TARGET Pp:	1.00	IN	IN
SITE IMPERVIOUS:	14.4	PERCENT ESTIMATED	PERCENT ESTIMATED
SITE Rv:	0.1800	ESTIMATED	ESTIMATED
Rv=0.05+0.0090			
V min=1.0' rainfall			
V max=1.5' rainfall			
	(1.0x0.95xV)/12		
	(2.6x0.95xV)/12		

DA #	% IMPERV	Rv	DA (SF)	DA (AC)	MINIMUM VOLUME	MAXIMUM VOLUME	1.0' VOLUME PROVIDED*	IMPERV (SF)	IMPERV (AC)	GREEN AREA	REMARKS	
AREA-1 DRY WELL 1 (M-5)	100.00	0.9500	500	0.011	40	103	63	83	500	0.01	0.00	Drywell 6.5'x8.0'x4'0" cf
AREA-2 DRY WELL 2 (M-5)	100.00	0.9500	500	0.011	40	103	63	83	500	0.01	0.00	Drywell 6.5'x8.0'x4'0" cf
AREA-3 DRY WELL 3 (M-5)	100.00	0.9500	500	0.011	40	103	63	83	500	0.01	0.00	Drywell 6.5'x8.0'x4'0" cf
AREA-4 ROOFTOP DIS (N-1)	100.00	0.9500	500	0.011	40	103	63	40	500	0.01	0.00	75% LENGTH
AREA-5 NON-ROOFTOP DIS (N-2)	100.00	0.9500	2600	0.060	206	535	329	206	2600	0.06	0.00	
MEASURED PROJECT TOTALS	100.00	0.9500	4600	0.11	364	583	494	4600	0.11	0.00		

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	HYDRIC	ERODIBLE
GgB	GLENNELC LOAM, 3 TO 8 PERCENT SLOPES	B	24	NO	NO
GgA	GLENNELC SILT LOAM, SOMEWHAT POORLY DRAINED, 0 TO 3 PERCENT SLOPES	C/D	37	YES	NO
GgB	GLENNELC-SHALE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	43	YES	YES
Ho	HATBORO-CODORUS SILT LOAMS, 0 TO 3 PERCENT SLOPES	B/D	37	YES	NO
McC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	28	NO	NO
McD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	28	NO	YES

*SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE
 *HOWARD COUNTY SOILS MAP NUMBER 11 - SKEWVILLE SW

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 1/23/23
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 1/23/23
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Eco-Science Professionals, Inc.
 CONSULTING ECOLOGISTS
 670 20th St. #200, Annapolis, MD 21403
 Tel: 410.293.8800 Fax: 410.293.8801 www.ecosciencemgmt.com

Key (X#)	Species	Size (in DBH)	State Champion (in DBH)	CRZ (ft radius)
1	Tulip Poplar	25	101.3	37.5
2	Silver Maple	36	94	54
3	Black Cherry	31.5		47.3
4	Norway Crimson Maple	29	66.6	43.5
5	Pignut Hickory	26.5	47.5	39.8
6	Black Cherry	32	64	48
7	White Pine	27.5	53.5	41.3
8	Red Maple	25	96.9	37.5
9	Silver Maple	25.5	94	38.3
10	Silver Maple	26.5	94	39.8
11	Red Maple	24.75	86.9	37.1
12	Black Cherry	24	64	36

* SPECIMEN TREE TO REMAIN

OWNER/DEVELOPER
 KENNETH & DIANA KRUGER
 14132 ROVER MILL ROAD
 WEST FRIENDSHIP, MD 21794

ENVIRONMENTAL CONCEPT PLAN
 CONCEPT PLAN, SWM NOTES & DETAILS
KRUGER PROPERTY
 LOTS 1 AND 2
 A REVISION TO TAX MAP 15 - PARCELS 206 & 241
 14132 & 14130 ROVER MILL ROAD
 (PARCEL 206: 6.01 AC.) (PARCEL 241: 6.10 AC.)

TAX MAP: 15 CRID: 7
 3RD ELECTION DISTRICT
 L. 8683 / F. 293 (PARCEL: 206) HOWARD COUNTY, MARYLAND ZONED: RC-DEO

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
 DRAWN BY: JMR/EDS
 CHECKED BY: RHV
 DATE: DECEMBER 2022
 SCALE: 1"=50'
 W.O. NO.: 46281

ROBERT H. VOGEL, PE No.16193

2 SHEET OF 2