

GENERAL NOTES

- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED JUNE 27, 2014, OFFSITE TOPOGRAPHY FROM HOWARD COUNTY GIS AND DRAWINGS OF RECORD.
- THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED NOVEMBER 16, 2013.
- 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. 300A AND 300B WERE USED FOR THIS PROJECT.
- THE SUBJECT PROPERTY IS ZONED "R-APT" IN ACCORDANCE WITH THE 10/6/2013 COMPREHENSIVE ZONING PLAN AND IS SUBJECT TO THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE 10/2/03 PER COUNCIL BILL 75-2003.
- MINOR DISTURBANCES TO THE STREAM BUFFER AND WETLAND BUFFER ARE REQUIRED FOR STORM DRAIN / STORMWATER MANAGEMENT OUTFALL, AND SHOULD BE CONSIDERED ESSENTIAL DISTURBANCES. NO OTHER DISTURBANCES WITHIN THE ONSITE ENVIRONMENTAL FEATURES; STREAM AND STREAM BUFFER, WETLANDS AND WETLAND BUFFER ARE PROPOSED. NO OTHER GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100-YEAR FLOODPLAIN.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- WATER FOR THIS PROJECT IS TO BE PUBLIC EXTENSIONS OF CONTRACT NO. 223-W/S.
- SEWER FOR THIS PROJECT IS TO BE PUBLIC EXTENSIONS OF CONTRACT NO. 223-W/S AND 14-1374.
- EXISTING UTILITIES LOCATED FROM TOPOGRAPHIC SURVEY AND 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.
- NO FLOODPLAIN IS LOCATED ONSITE.
- NO STEEP SLOPES OVER 20,000 SF CONTIGUOUS ARE LOCATED ONSITE.
- FOREST CONSERVATION OBLIGATIONS FOR THIS PROJECT SHALL BE ADDRESSED BY A FOREST CONSERVATION PLAN SUBMITTED WITH A SUBDIVISION OR SITE DEVELOPMENT PLAN.
- WETLANDS AND STREAMS SHOWN ONSITE ARE BASED ON ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, AUGUST 2014.
- GEOTECHNICAL INVESTIGATIONS WERE COMPLETED BY HILLIS CARNES, INC., DATED MARCH 2018.
- A NOISE STUDY SHALL BE PREPARED BY ROBERT H. VOGEL ENGINEERING AS PART OF THE SITE DEVELOPMENT PLAN PACKAGE.
- FOREST STAND DELINEATION PLAN PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, AUGUST 2014.
- OLD ROUTE 108 IS CLASSIFIED AS A LOCAL ROAD TO REMAIN AND SHALL BE IMPROVED. A PORTION OF OLD ROUTE 108 SHALL BE ACQUIRED FROM HOWARD COUNTY AND RE-CLASSIFIED AS PRIVATE ROADWAY. ROUTE 108 IS CLASSIFIED AS A MINOR ARTERIAL.
- COLUMBIA ROAD IS A MAJOR COLLECTOR. THE PROPOSED INTERNAL STREETS AND DRIVEWAYS ARE TO BE CLASSIFIED AS PRIVATE.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
- THE PROPOSED UNITS SHALL HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM.
- STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED BY THE USE OF ALTERNATIVE SURFACES AND MICRO-SCALE PRACTICES IN ACCORDANCE WITH ENVIRONMENTAL SITE DESIGN CRITERIA. MICRO-SCALE PRACTICES INCLUDE MICRO-BIOTENTION, ALTERNATIVE SURFACES INCLUDE PERMEABLE PAVING. 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 SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PLAN. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PROCESS. THE APPLICANT AND CONSULTANT SHOULD ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
- THE LIMITS OF DISTURBANCE (LOD) SHOWN ON THE PLAN EXTENDS OFFSITE INTO THE PUBLIC RIGHT OF WAY FOR OLD ROUTE 108. LETTERS OF PERMISSION AND/OR LAND ACQUISITIONS SHALL BE OBTAINED FROM HOWARD COUNTY AND PROVIDED AS PART OF THE FINAL PLAN/SITE DEVELOPMENT PLAN SUBMISSION.
- APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) BY THE HOWARD COUNTY ZONING DISTRICT DOES NOT GRANT APPROVAL OF THE PROPOSED SEDIMENT CONTROL SCHEME. THE FINAL PLAN SHALL INCLUDE A SEQUENCE OF CONSTRUCTION WHICH SHALL DETAIL SEDIMENT & EROSION CONTROLS AND PHASING AND ADDRESS THE PROJECT TEMPORARY STORMWATER MANAGEMENT REQUIREMENTS.
- IN ACCORDANCE WITH SECTION 16.121 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, THERE IS NO OVERALL OPEN SPACE REQUIREMENT FOR THIS R-APT PROJECT. THE 10% NET AREA AMENITY OPEN SPACE REQUIREMENT IS BEING MET BY 1.06 ACRES OF AMENITY AREA CONSISTING OF A DOG WALKING AREA, SEATING AREAS, AND CREDITS FOR ADDITIONAL GAZEBO AND CLUBHOUSE TOTALING 1.18 AC. OF AMENITY OPEN SPACE. (SEE AMENITY TABULATION, THIS SHEET.)
- IN ACCORDANCE WITH SECTION 112.1.2.F OF THE 10/06/13 COMPREHENSIVE ZONING REGULATIONS, THIS SUBDIVISION IS SUBJECT TO MODERATE INCOME HOUSING UNITS. A MIHU AGREEMENT AND MIHU COVENANTS WILL BE REQUIRED IN ACCORDANCE WITH SECTION 13.402 OF THE HOWARD COUNTY CODE. THE MIHU REQUIREMENTS FOR THIS SUBDIVISION WILL BE 18 UNITS (15% OF 120 UNITS).

ENVIRONMENTAL CONCEPT PLAN

DORSEY OVERLOOK

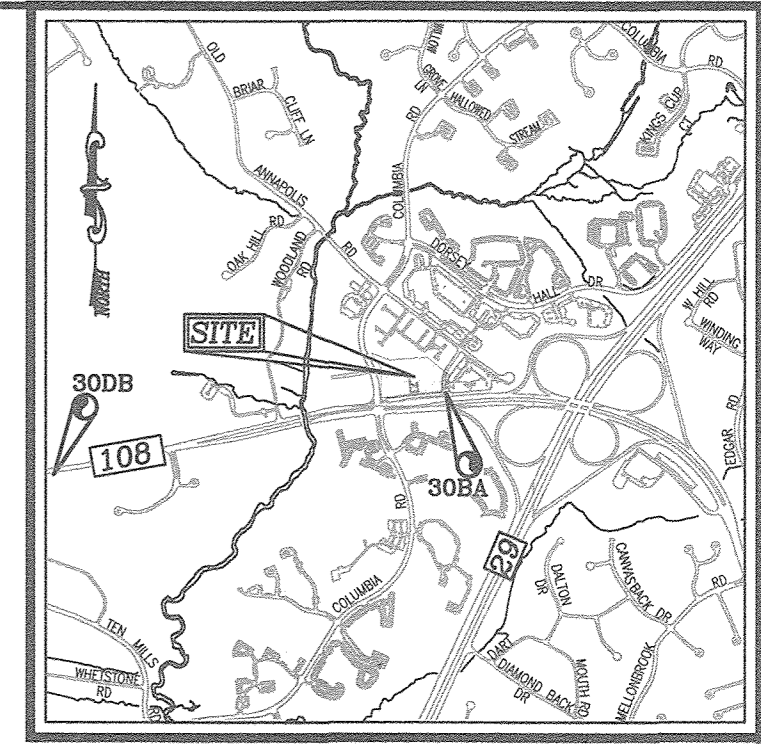
AGE RESTRICTED CONDOMINIUMS

HOWARD COUNTY, MARYLAND

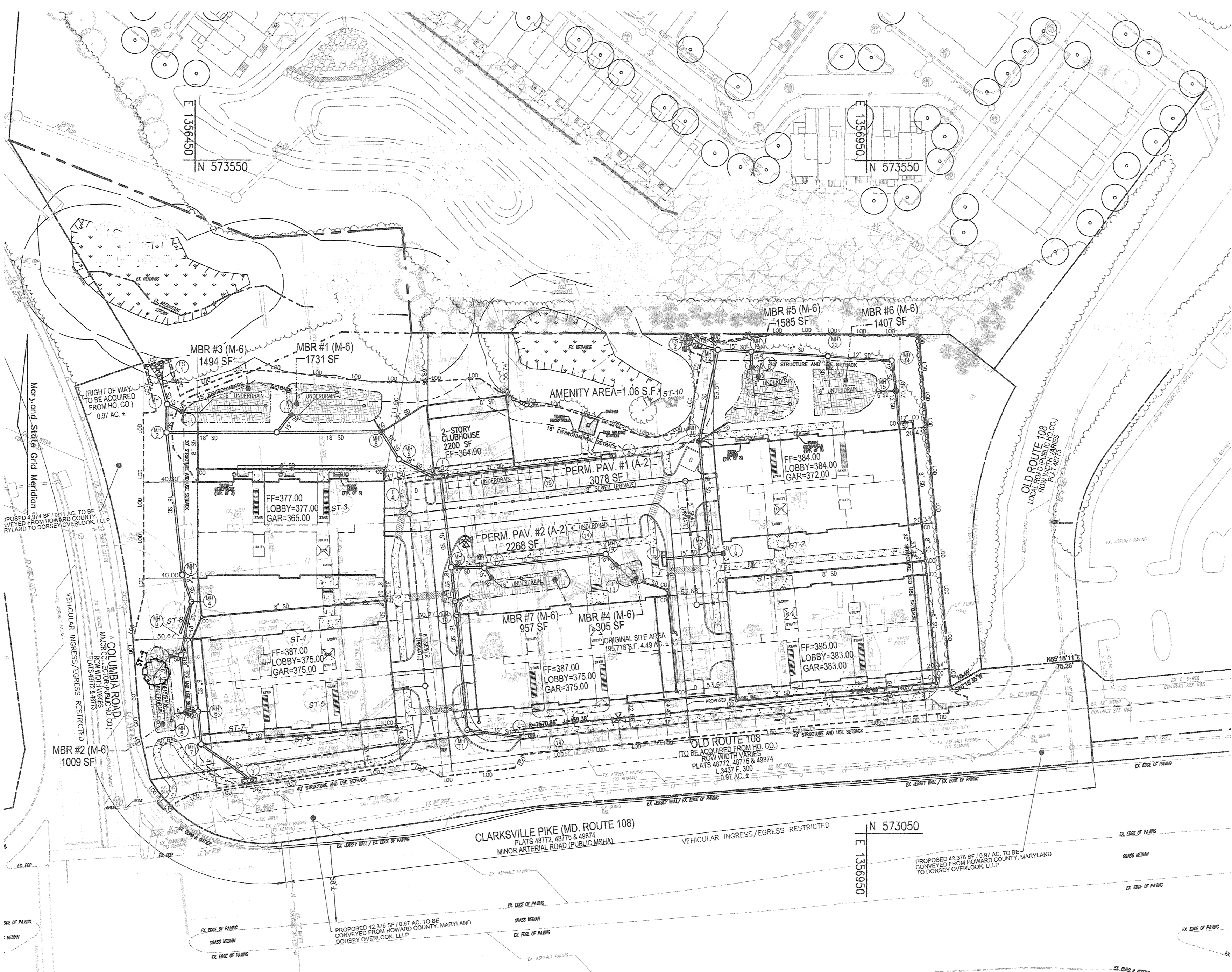
BENCHMARKS

HOWARD COUNTY BENCHMARK - 300A (CONC. MONUMENT)
 N 573149.04 E 1357083.21 ELEV. 397.20
 LOCATION: OLD ROUTE 108, 480' SOUTH OF OLD ANNAPOLIS ROAD

HOWARD COUNTY BENCHMARK - 300B (CONC. MONUMENT)
 N 572298.12 E 1353001.79 ELEV. 409.16
 LOCATION: SOUTH SIDE OF ROUTE 108, 700' EAST ENTRANCE TO CENTENAL PARK



VICINITY MAP
 SCALE: 1"=2000'
 ADC MAP COORDINATE: 15/J,K 1



SHEET INDEX

DESCRIPTION	SHEET NO.
COVER SHEET	1 OF 3
LAYOUT, GRADING, SOIL EROSION AND SEDIMENT CONTROL PLAN	2 OF 3
STORM WATER MANAGEMENT DRAINAGE AREA MAP, NOTES AND DETAILS	3 OF 3

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- CENTERLINE OF EXISTING STREAM
- STREAM BUFFER
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EX. WETLANDS
- EXISTING SANITARY SEWER
- EXISTING WATER MAIN
- EXISTING STORM DRAIN
- PROPOSED STORM DRAIN
- PROPOSED SANITARY SEWER
- LOD LOD
- PERMEABLE SURFACE PAVING (A-2)
- MBR
- BIO-SWALE
- AMENITY AREA
- FIRE HYDRANT

ENVIRONMENTAL SITE DESIGN NARRATIVE:

- IN ACCORDANCE WITH CHECKLIST ITEM III.K.
- THE NATURAL AREAS ON THE DORSEY OVERLOOK PROJECT SITE ARE LOCATED ON THE NORTHERNMOST PORTION OF THE SITE.
 - MINOR DISTURBANCES TO THE STREAM BUFFER AND WETLAND BUFFER ARE REQUIRED FOR STORM DRAIN / STORMWATER MANAGEMENT OUTFALL, AND SHOULD BE CONSIDERED ESSENTIAL DISTURBANCES. NO OTHER DISTURBANCES WITHIN THE ONSITE ENVIRONMENTAL FEATURES; STREAM AND STREAM BUFFER, WETLANDS AND WETLAND BUFFER ARE PROPOSED.
 - NO DRAMATIC DISTURBANCE TO THE NATURAL DRAINAGE PATTERNS ARE PROPOSED, PLEASE REFER TO THE PROPOSED GRADING.
 - THE CONCEPTUAL REDUCTION IN IMPERVIOUS AREA THROUGH BETTER SITE DESIGN IS ACHIEVED THROUGH THE ENVIRONMENTAL SITE DESIGN (ESD) FOR THE PROJECT. THE ESD CONCEPT INCLUDES THE USE OF MICRO-SCALE PRACTICES TO INCLUDE MICRO-BIOTENTION AS WELL AS PERMEABLE SURFACES.
 - SEDIMENT CONTROL FOR THIS SPECIFIC SITE PLAN WILL BE PROVIDED THROUGH THE USE OF PROPOSED SEDIMENT TRAPS, EARTH DIKES, AND SUPER SILT FENCE PERIMETER CONTROLS. SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH CURRENT REQUIREMENTS AND SHALL BE APPROVED BY THE HOWARD COUNTY DISTRICT.
 - STORMWATER MANAGEMENT FOR THE PROJECT SHALL BE MET THROUGH THE USE OF:
 - MICRO-SCALE PRACTICES (M-6) MICRO-BIOTENTION
 - ALTERNATIVE SURFACE (A-2) PERMEABLE SURFACES.
 - THESE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.

TARGET PE = 1.90"	PROVIDED PE = 1.90"
TARGET ESDv = 14,819 CU FT	PROVIDED = 14,924 CU FT
 - THE RESULTS OF THE ENVIRONMENTAL SITE DESIGN FOR THIS PROJECT WILL REFLECT "WOODS IN GOOD CONDITION".
 - AT THIS CONCEPT STAGE OF DEVELOPMENT, NO DESIGN MANUAL WAIVERS AND/OR WAIVER PETITIONS FOR ENVIRONMENTAL AND STORMWATER MANAGEMENT DESIGN ARE REQUIRED.

SITE ANALYSIS DATA CHART

A. TOTAL PROJECT AREA:	5.4682 AC. +/- PAR 67 : 61,266 SQ.FT. OR 1.4065 AC. PAR 51 : 28,721 SQ.FT. OR 0.6593 AC. PAR 52 : 22,463 SQ.FT. OR 0.5157 AC. PAR 288 : 28,830 SQ.FT. OR 0.6619 AC. PAR 53 : 10,508 SQ.FT. OR 0.2412 AC. PAR 54 : 10,397 SQ.FT. OR 0.2387 AC. PAR 55 : 33,593 SQ.FT. OR 0.7712 AC. OLD RT 108 R/W : 42,414 SQ.FT. OR 0.9737 AC.
B. AREA OF PLAN SUBMISSION:	5.47 AC. +/-
C. AREA OF WETLANDS AND BUFFERS:	22,450 S.F. OR 0.51 AC.
D. AREA OF FLOODPLAIN:	0 S.F. OR 0.00 AC.
E. AREA OF FOREST:	0.5 AC. (REFER TO FSD)
F. AREA OF STEEP SLOPES (15% & GREATER):	0 S.F. OR 0.00 AC.
G. ERODIBLE SOILS:	0.92 AC.
H. LIMIT OF DISTURBED AREA:	167,192 S.F. OR 3.84 AC.
I. PROPOSED USES FOR SITE AND STRUCTURES:	RESIDENTIAL - AGE RESTRICTED CONDOMINIUMS
J. GREEN OPEN AREA:	72,212 S.F. = 1.66 AC. +/- (WITHIN LIMIT OF DISTURBANCE)
K. PROPOSED IMPERVIOUS AREA:	94,980 S.F. OR 2.18 AC. +/- (WITHIN LIMIT OF DISTURBANCE)
L. PRESENT ZONING DESIGNATION:	R-APT
M. OPEN SPACE REQUIRED (AMENITY OPEN SPACE):	1.06 AC. (46,047 S.F.)
N. AREAS RESERVED AS AMENITY OPEN SPACE:	6 BENCHES (6X200) = 1,200 S.F. CLUBHOUSE = 2,200 S.F.
O. TOTAL NUMBER OF UNITS ALLOWED:	120
P. DPZ FILE REFERENCES:	1.18 AC (51,447 S.F.) 25 UNITS PER ACRE = (25 x 5.47 AC.) = 136 UNITS CON. #223-W&S, CONT. 14-1374, ECP-15-12 WP-16-112, S-16-004, SDP-18-031, BA-18-004V

LOCATION MAP



SPECIMEN TREE CHART

KEY	SPECIES	SIZE (INCH)	CRZ (FT. RADIUS)	CONDITION	COMMENTS
1	NORWAY MAPLE	41	61.5	NOT NATIVE, GOOD CONDITION	TO BE REMOVED
2	NORWAY MAPLE	38	57	NOT NATIVE, POOR CONDITION	TO BE REMOVED
3	RED MAPLE	32	48	GOOD CONDITION	TO BE REMOVED
4	NORWAY MAPLE	42	63	NOT NATIVE, POOR CONDITION, STORM DAMAGE	TO BE REMOVED
5	NORWAY MAPLE	38	57	NOT NATIVE, POOR CONDITION, SUCKER GROWTH EVIDENT	TO BE REMOVED
6	NORWAY MAPLE	33	49.5	NOT NATIVE, POOR CONDITION, TRUNK DAMAGE	TO BE REMOVED
7	NORWAY MAPLE	34	51	GOOD CONDITION	TO BE REMOVED
8	NORWAY MAPLE	38	57	GOOD CONDITION	TO BE REMOVED
9	RED MAPLE	35	52.5	GOOD CONDITION	TO BE REMOVED
10	TULIP POPLAR	33	49.5	GOOD CONDITION, IN BUFFER	TO REMAIN

PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/ AREA	LOT/ PARCEL
DORSEY OVERLOOK		PARCELS 51, 52, 53, 54, 55
AGE RESTRICTED CONDOMINIUMS		67 & 288
PLAT REF.	BLOCK NO.	ZONE TAX MAP ELECT DIST. CENSUS TR.
	9	R-APT 30 2ND 602306

OWNERS

SHIRLEY A. ECKLES
 9598 OLD ROUTE 108
 ELLICOTT CITY, MD 21042

WILLIAM D. SPICER & WF
 9590 OLD ROUTE 108
 ELLICOTT CITY, MD 21042

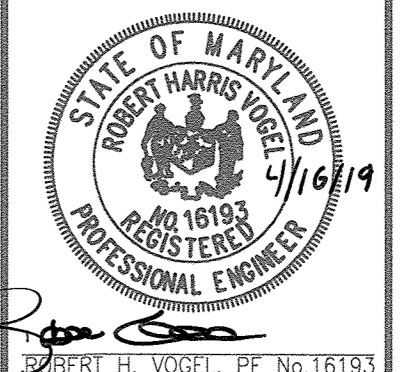
DOROTHY A. HARMAN
 9584 OLD ROUTE 108
 ELLICOTT CITY, MD 21042

NEW LIFE MENNONITE CHURCH INC
 9580/9586/9582 OLD ROUTE 108
 ELLICOTT CITY, MD 21042

DANIEL L. KATHRYN A. MILLER
 9570 OLD ROUTE 108
 ELLICOTT CITY, MD 21042

DEVELOPER
 DORSEY OVERLOOK, L.L.P.
 C/O J. KIRBY DEVELOPMENT, LLC
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 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
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DESIGN BY: RHV/GAH
 DRAWN BY: GAH
 CHECKED BY: RHV
 DATE: APRIL 2019
 SCALE: AS SHOWN
 W.O. NO.: 12-69

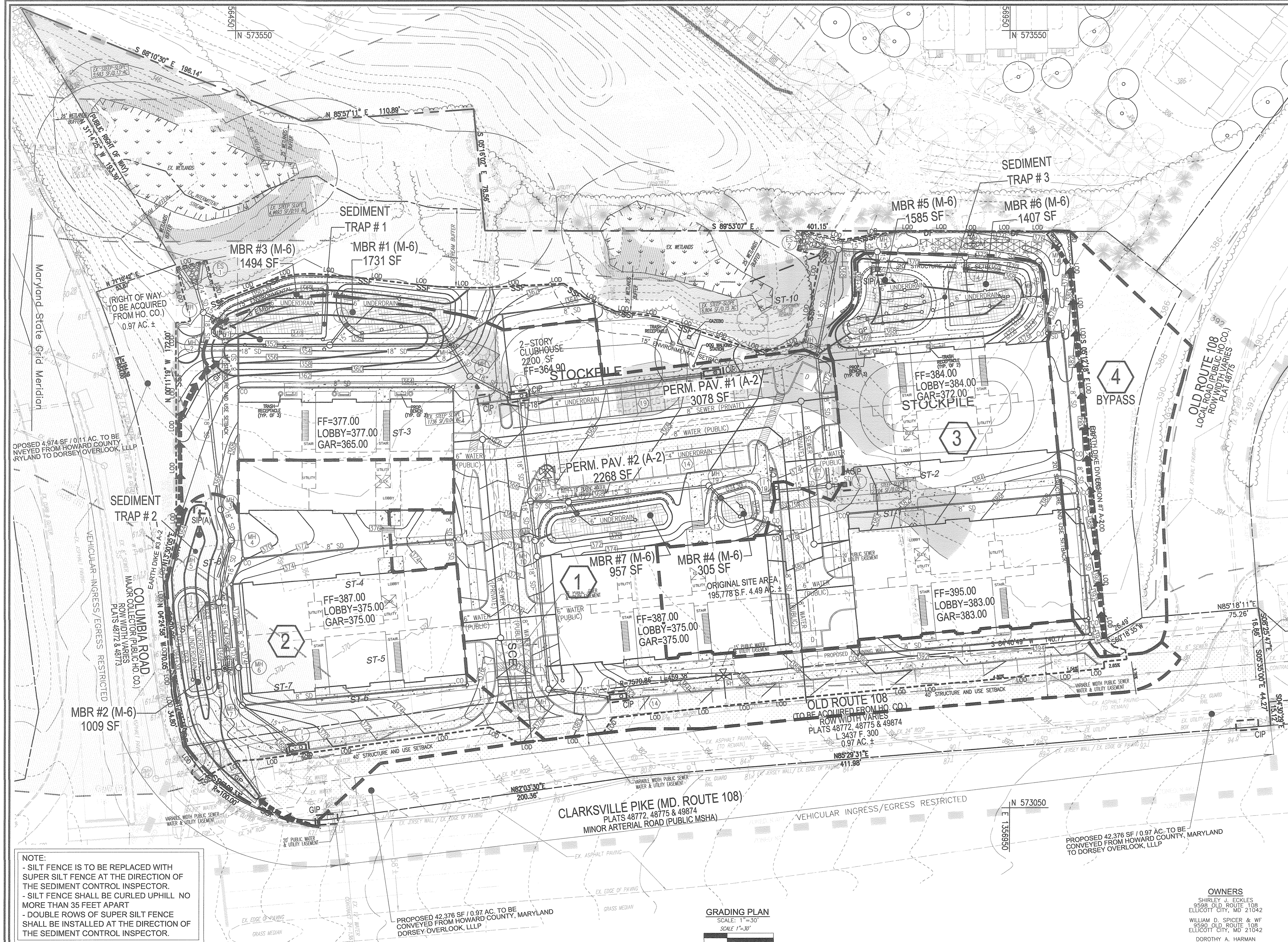
PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193
 EXPIRATION DATE: 09-27-2020

1 SHEET OF 3

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 4-25-19
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 4-22-19
 CHIEF, DIVISION OF LAND DEVELOPMENT



LEGEND

	PROPERTY LINE
	RIGHT-OF-WAY LINE
	ADJACENT PROPERTY LINE
	CENTERLINE OF EXISTING STREAM
	EXISTING CURB AND GUTTER
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING MAILBOX
	EXISTING SIGN
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY LINE
	EXISTING CLEANOUT
	EXISTING FIRE HYDRANT
	EXISTING WATER LINE
	EXISTING TREES (FIELD LOCATED)
	EXISTING TREE LINE (FIELD LOCATED)
	EXISTING FENCE
	PROPOSED TREE LINE
	PROPOSED STORM DRAIN
	PROPOSED STORM DRAIN INLET
	PROPOSED CURB AND GUTTER
	EX. WETLANDS
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PROPOSED SPOT ELEVATION
	SOILS BOUNDARY
	SILT FENCE
	SUPER SILT FENCE
	LIMIT OF DISTURBANCE
	STABILIZED CONSTRUCTION ENTRANCE
	EARTH DIKE
	TEMPORARY DRAINAGE DIVIDE
	STANDARD INLET PROTECTION
	AT GRADE INLET PROTECTION
	TEMPORARY INLET PROTECTION
	BAFFLE BOARDS
	5' CONCRETE SIDEWALK
	PERMEABLE SURFACE PAVEMENT WALKWAY - A-2
	PROPOSED CURB
	ZONING LINE
	MBR
	BIO-SWALE
	PERMEABLE PAVING (A-2)
	PUBLIC WATER & SEWER EASEMENT
	STEEP SLOPES >25%
	MODERATE SLOPES 15%-24.99%
	SOIL BORINGS
	ERODIBLE SOILS

NOTE:
 - SILT FENCE IS TO BE REPLACED WITH SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
 - SILT FENCE SHALL BE CURLED UPHILL NO MORE THAN 35 FEET APART
 - DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 4.25.19

 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 4.22.19

NOTE: LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED. STOCKPILES SHALL BE IN ACCORDANCE WITH SECTION B.4.

- NOTES**
- ALL EARTH DIKES ARE TO BE PLACED IN WORKING ORDER AT THE END OF EACH WORKING DAY.
 - IMBRICATE SF/SSF IN 35' SEGMENTS AS REQUIRED UPHILL BY 2" IN ELEVATION.
 - EITHER PERMANENT OR TEMPORARY STABILIZATION IS TO BE APPLIED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR REGARDLESS OF DAYS/DATES IN THE STANDARD SEDIMENT CONTROL NOTES AND/OR SEEDING SPECIFICATIONS.
 - THE FUTURE SITE DEVELOPMENT PLAN SHALL INCLUDE A SEQUENCE OF CONSTRUCTION OUTLINING INSTALLATION OF EARTHDIKE, PERIMETER CONTROLS AND BASIN CONSTRUCTION. ALSO INCLUDED WILL BE TIMING RELATED TO THE PROPOSED RETAINING WALL INSTALLATION.
 - APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) BY THE HOWARD SOIL CONSERVATION DISTRICT DOES NOT GRANT APPROVAL OF THE PROPOSED SEDIMENT & EROSION CONTROL SCHEME. THE FINAL PLAN SHALL INCLUDE A SEQUENCE OF CONSTRUCTION WHICH SHALL DETAIL SEDIMENT & EROSION CONTROLS AND PHASING AND ADDRESS THE PROJECT TEMPORARY STORMWATER MANAGEMENT REQUIREMENTS.

GRADING PLAN
 SCALE: 1"=30'

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRIC	PERCENT ORGANIC	PERCENT SAND	Kw	ROCKY	ERODIBLE
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES.	B	0	0	PRIME FARMLAND	0.37	YES	NO
GmC	GLENVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES.	C	0	0	STATEWIDE IMPORTANCE	0.49	YES	NO
MgC	MANOR LOAM, 8 TO 15 PERCENT SLOPES.	B	0	0	STATEWIDE IMPORTANCE	0.32	NO	NO
MdD	MANOR LOAM, 15 TO 25 PERCENT SLOPES.	B	0	0	NOT PRIME FARMLAND	0.32	YES	NO
UgF	UDORHENTS, HIGHWAY, 0 TO 8 PERCENT SLOPES.	D	0	0	NOT PRIME FARMLAND	NO	NO	NO
UgB	UDORHENTS, HIGHWAY, 8 TO 15 PERCENT SLOPES.	D	0	0	NOT PRIME FARMLAND	NO	NO	NO

TAKEN FROM USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY

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

ENVIRONMENTAL CONCEPT PLAN
 LAYOUT, GRADING, SOIL EROSION
 AND SEDIMENT CONTROL PLAN

DORSEY OVERLOOK
 AGE RESTRICTED CONDOMINIUMS

2ND ELECTION DISTRICT
 TAX MAP: 30 GRID: 9
 DPZ REF: 5

ZONED: R-AFT
 PARCELS: 67, 51, 52
 288, 53, 54, 55
 HOWARD COUNTY, MARYLAND

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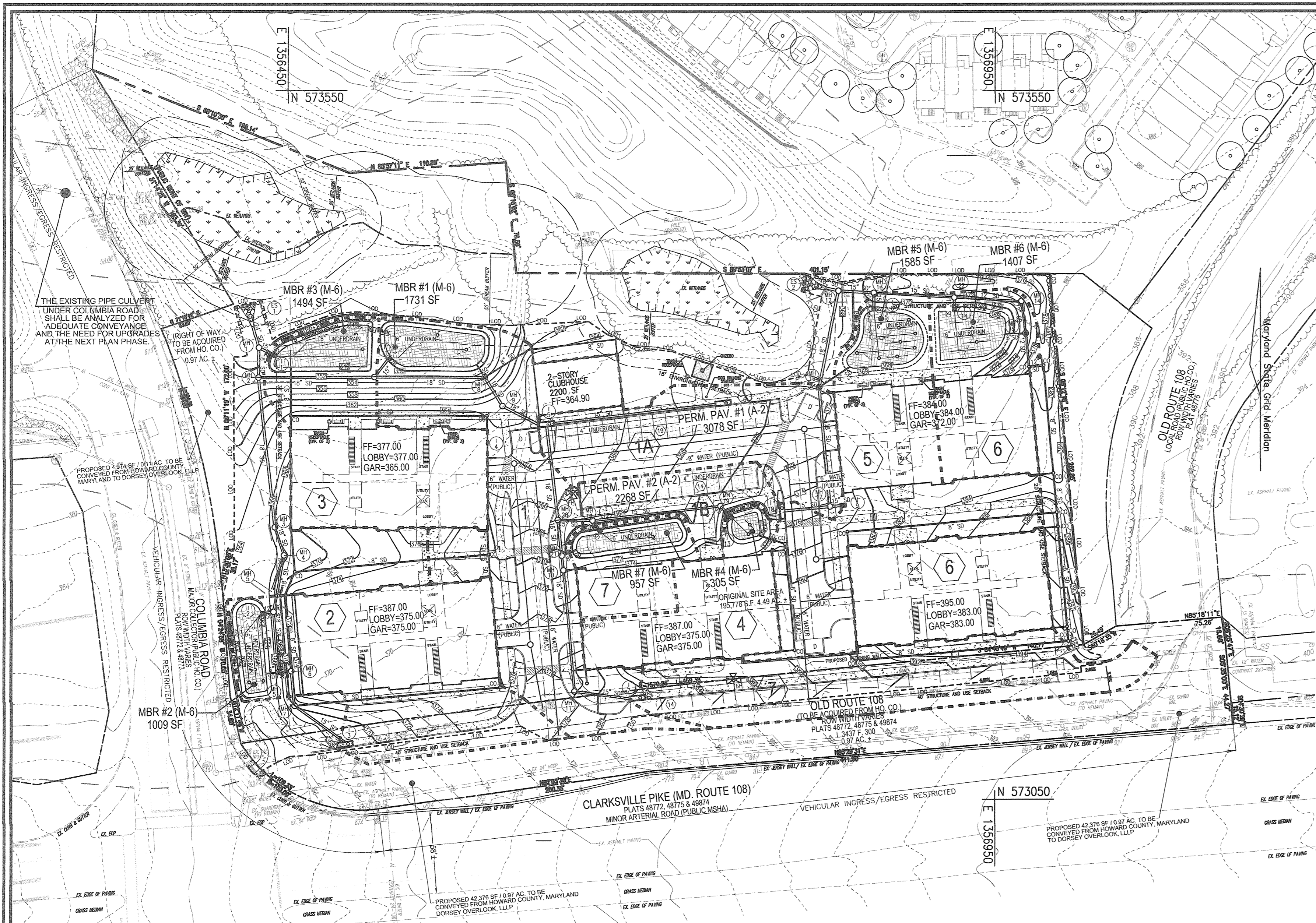
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 WILLIAM D. SPICER & WF
 9590 OLD ROUTE 108
 ELLICOTT CITY, MD 21042
 DOROTHY A. HARMAN
 9584 OLD ROUTE 108
 ELLICOTT CITY, MD 21042

DEVELOPER
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 C/O J. KIRBY DEVELOPMENT, LLC
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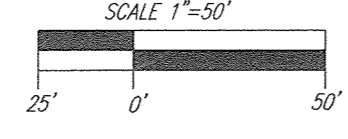
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 EXPIRATION DATE: 09-27-2020

DESIGN BY: RHW/GAH
 DRAWN BY: GAH
 CHECKED BY: RHW
 DATE: APRIL 2019
 SCALE: AS SHOWN
 W.O. NO.: 12-59

2 SHEET OF 3



SWM DRAINAGE AREA MAP
SCALE: 1"=50'

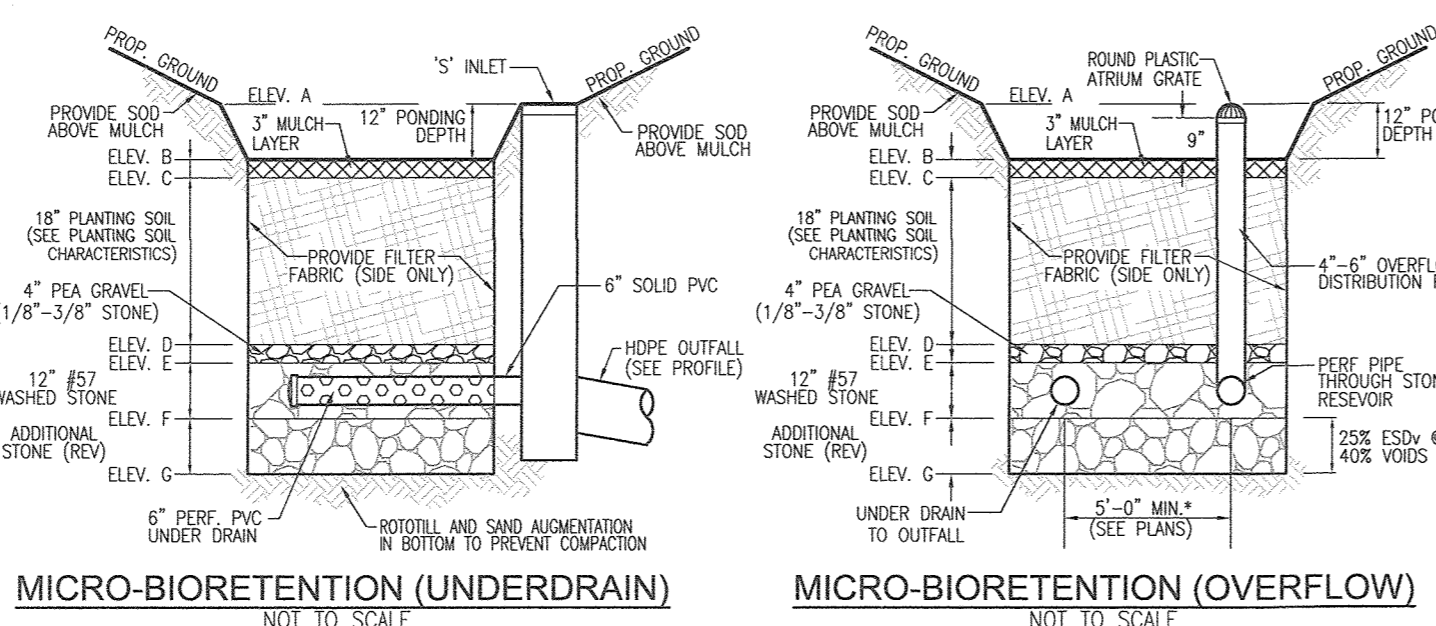


OPERATION AND MAINTENANCE SCHEDULE FOR RAIN GARDENS (M-7), BIORETENTION SWALE (M-8), LANScape INFILTRATION (M-3), MICRO-BIORETENTION (M-6), AND ENHANCED FILTERS (M-9)

1. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUME II, TABLE A.4.1 AND 2.
2. THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT. REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL. TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
3. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
4. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

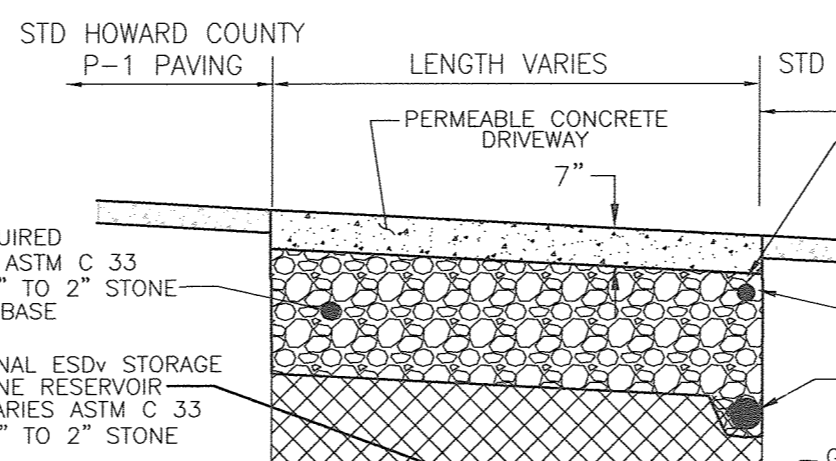
MICROBIORETENTION NOTES:

1. 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.
2. WRAP THE PERFORATED MBR UNDERDRAIN PIPE WITH 1/4" MESH (4x4) OR SMALLER GALVANIZED HARDWARE CLOTH.
3. PROVIDE 5' MINIMUM SPACING BETWEEN UNDER DRAIN AND PERFORATED PIPE THROUGH STONE RESERVOIR OR SPACE PIPE EQUALLY ACROSS BOTTOM FOR SMALL BINS. (SEE PLANS)



MICRO-BIORETENTION (UNDERDRAIN)
NOT TO SCALE

MICRO-BIORETENTION (OVERFLOW)
NOT TO SCALE



- NOTE:**
1. PAVEMENT CROSS SECTION TO BE CONFIRMED BY GEOTECHNICAL ENGINEER
 2. UNDERDRAIN SHALL BE LOCATED SUCH THAT IT CAN DAYLIGHT TO THE CURB INTO A BIO-RETENTION FACILITY OR TO THE REAR OF THE LOT
 3. OVERDRAIN SHALL COMBINE WITH UNDERDRAIN OR DAYLIGHT AS DETAILED FOR UNDERDRAIN. SEE NOTE 2.
- DETAIL - PERMEABLE CONCRETE PAVING - 5% OR LESS**
NOT TO SCALE
- ALL PERMEABLE CONCRETE THICKNESS, MIX AND SUB-BASE TO BE DETERMINED BY GEOTECHNICAL ENGINEER ON-SITE.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED PERMEABLE PAVEMENT (A-2)

1. THE OWNER SHALL PERIODICALLY SWEEP (OR VACUUM POROUS CONCRETE PAVEMENT) THE PAVEMENT SURFACES TO REDUCE SEDIMENT ACCUMULATION AND ENSURE CONTINUED SURFACE POROSITY. SWEEPING SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY WITH A COMMERCIAL CLEANING UNIT. WASHING OR COMPRESSED AIR UNITS SHOULD NOT BE USED TO PERFORM SURFACE CLEANING.
2. THE OWNER SHALL PERIODICALLY CLEAN DRAINAGE PIPES, INLETS, STONE EDGE DRAINS AND OTHER STRUCTURES WITHIN OR DRAINING TO THE SUBBASE.
3. THE OWNER SHALL USE DECERS IN MODERATION. DECERS SHOULD BE NON-TOXIC AND BE APPLIED EITHER AS CALCIUM MAGNESIUM ACETATE OR AS PRETREATED SALT.
4. THE OWNER SHALL ENSURE SNOW PILING IS PERFORMED CAREFULLY WITH BLADES SET ONE INCH ABOVE THE SURFACE. PLOWED SNOW PILES AND SNOWMELT SHOULD NOT BE DIRECTED TO PERMEABLE PAVEMENT.

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRO	HYDRO INCLUSIONS	PRIME FARMLAND	Kw	ROCKY SOILS
GcSd	GLENELO LOAM, 3 TO 8 PERCENT SLOPES.	B	0		PRIME FARMLAND	0.37	YES
GmC	GLENEVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES.	B	0		STATEWIDE IMPORTANCE	0.49	YES
MaC	MANOR LOAM, 8 TO 15 PERCENT SLOPES.	C	0		STATEWIDE IMPORTANCE	0.32	NO
MoD	MANOR LOAM, 15 TO 25 PERCENT SLOPES.	B	0		NOT PRIME FARMLAND	0.32	YES
UaF	UDORTHENS, HIGHWAY, 0 TO 65 PERCENT SLOPES.	D	0		NOT PRIME FARMLAND	NO	NO
UaB	URBAN ULD-UDORTHENS COMPLEX, 0 TO 8 PERCENT SLOPES.	D	0		NOT PRIME FARMLAND	NO	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY
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

APPENDIX B.4.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION BERMS

- 1. MATERIAL SPECIFICATIONS**
THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.4.1.
- 2. FILTERING MEDIA OR PLANTING SOIL**
THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE MICRO-BIORETENTION PRACTICES THAT MAY BE HARMFUL TO PLANT GROWTH, OR MAY INTERFERE WITH THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF GERMINATING GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.08.01.05. THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:
* SOIL COMPONENT - LOAMY SAND OR SANDY LOAM (USDA SOIL TEXTURAL CLASSIFICATION)
* ORGANIC CONTENT - MINIMUM 10% BY DRY WEIGHT (ASTM D 2974). IN GENERAL, THIS CAN BE MET WITH A MIXTURE OF LOAMY SAND (60%-65%) AND COMPOST (35% TO 40%) OR SANDY LOAM (30%), COARSE SAND (30%), AND COMPOST (40%).
* CLAY CONTENT - MEDIA SHALL HAVE A CLAY CONTENT OF LESS THAN 5%.
* PH RANGE - SHOULD BE BETWEEN 5.5 - 7.0. AMENDMENTS (E.G., LIME, IRON SULFATE PLUS SULFUR) MAY BE MIXED IN TO THE SOIL TO INCREASE PH.
THERE SHALL BE AT LEAST ONE SOIL TEST PER PROJECT. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, AND ADDITIONAL TESTS OF ORGANIC MATTER AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.
- 3. COMPACTION**
IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIORETENTION PRACTICES AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING LOADERS, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT OR LIGHT EQUIPMENT WITH TURF TIRE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH-PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.
COMPACTION CAN BE ALLEVATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACTURE THE SOIL PROFILE THROUGH THE 12" INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REMOVE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.
ROTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE. WHEN BACKFILLING THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE. WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.
- 4. PLANT MATERIAL**
RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A.2.3.
- 5. PLANT INSTALLATION**
COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS. MULCH SHOULD BE PLACED IN SURROUNDINGS TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDER OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. FINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDER MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE. ROOTSTOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION. TREES SHALL BE BRACED USING 2" BY 3" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON. STAKES SHALL BE EQUALLY SPACED ON THE CRUISE OF THE TREE SHALL GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-VEGETATION GROUND COVER PLANTING SPECIFICATIONS. THE ABOVE SPECIFICATIONS PROVIDE SUFFICIENT ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CIRCULAR PRIMARY FUNCTION OF THE BIORETENTION SYSTEM. ADDITIONAL ORGANIC MATERIAL TO ADEQUATELY SUPPLY FERTILIZERS DEFICITS, OR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.
- 6. UNDERDRAINS**
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:
* PIPE - SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM F 756, TYPE PS 28, OR AASHTO-M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED, 4" RIGID PIPE (E.G., PVC OR HDPE).
* PERFORATIONS - IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (1/8" OR 1/4") GALVANIZED HARDWARE CLOTH.
* GRAVEL - THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.
* THE MAIN COLLECTOR PIPE SHALL BE AT A MINIMUM 0.5% SLOPE.
* A RIGID, NON-PERFORATED OBSERVATION WELL SHALL BE PROVIDED (ONE PER EVERY 1,000 SQUARE FEET) TO PROVIDE A CLEAN-OUT PORT AND MONITOR PERFORMANCE OF THE FILTER.
* A 4" LAYER OF PEA GRAVEL (1/8" TO 3/8" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT MIGRATION OF FINES IN TO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24". THIS MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET SURFACE AREA).
- 7. MISCELLANEOUS**
THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

B.4.B SPECIFICATIONS FOR PERMEABLE PAVEMENTS & REINFORCED TURF

THESE SPECIFICATIONS INCLUDE INFORMATION ON ACCEPTABLE MATERIALS FOR TYPICAL APPLICATIONS AND ARE NOT EXCLUSIVE OR LIMITING. THE DESIGNER IS RESPONSIBLE FOR DEVELOPING SPECIFICATIONS FOR INDIVIDUAL PROJECTS AND SPECIFIC CONDITIONS.

1. PERVIOUS CONCRETE SPECIFICATIONS

DESIGN THICKNESS - PERVIOUS CONCRETE APPLICATIONS SHALL BE DESIGNED SO THAT THE THICKNESS OF THE CONCRETE SLAB SHALL SUPPORT THE TRAFFIC AND VEHICLE TYPES THAT WILL BE CARRIED. APPLICATIONS MAY BE DESIGNED USING EITHER STANDARD PAVEMENT PROCEDURES (E.G., AASHTO, ACI 325.9R, ACI 330R) OR USING STRUCTURAL VALUES DERIVED FROM FLEXIBLE PAVEMENT DESIGN PROCEDURES. MIX & INSTALLATION - TRADITIONAL PORTLAND CEMENTS (ASTM C 1157) MAY BE USED IN PERVIOUS CONCRETE APPLICATIONS. PHOSPHORUS ADMIXTURES MAY ALSO BE USED. MATERIALS SHOULD BE TESTED (E.G., TRIAL BATCHING) PRIOR TO CONSTRUCTION SO THAT CRITICAL PROPERTIES (E.G., SETTLING TIME, RATE OF STRENGTH DEVELOPMENT, POROSITY, PERMEABILITY) CAN BE DETERMINED. AGGREGATE - PERVIOUS CONCRETE CONTAINS A LIMITED FINE AGGREGATE CONTENT. COMMONLY USED GRADATIONS INCLUDE ASTM C 33 (NO. 87 (3/4" IN.) TO NO. 14), NO. 8 (3/8" IN. TO NO. 18), AND NO. 89 (3/8" IN. TO NO. 50) SIEVES. SINGLE-SIZED AGGREGATE (UP TO 1 INCH) MAY ALSO BE USED. WATER-TO-CEMENT RATIOS BETWEEN 0.27 AND 0.30 ARE USED ROUTINELY WITH PROPER INCLUSION OF CHEMICAL ADMIXTURES. WATER QUALITY SHOULD MEET ACI 308. AS A GENERAL RULE, POTABLE WATER SHOULD BE USED ALTHOUGH RECYCLED CONCRETE PRODUCTION WATER MEETING ASTM C 94 OR AASHTO M 157 MAY ALSO BE USED. ADMIXTURES - CHEMICAL ADMIXTURES (E.G., RETARDERS OR HYDRATION-STABILIZERS) ARE USED TO OBTAIN SPECIAL PROPERTIES IN PERVIOUS CONCRETE. USE OF ADMIXTURES SHOULD MEET ASTM C 494 (CHEMICAL ADMIXTURES) AND ASTM C 260 (AIR ENTRAINING ADMIXTURES) AND CLOSELY FOLLOW MANUFACTURER'S RECOMMENDATIONS. BASE COURSE - THE BASE COURSE SHALL BE ASTM NO. 3 OR 4 COURSE AGGREGATE WITH AN ASSUMED OPEN PORE SPACE OF 30% (n=0.30).

2. PERMEABLE INTERLOCKING CONCRETE PAVEMENTS (PICP)

PAVER BLOCKS - BLOCKS SHOULD BE EITHER 3" OR 4" IN. THICK, AND MEET ASTM C 936 OR CSA A331.2 REQUIREMENTS. APPLICATIONS SHOULD HAVE 20% OR MORE (40% PREFERRED) OF THE SURFACE AREA OPEN. INSTALLATION SHOULD FOLLOW MANUFACTURER'S INSTRUCTIONS, EXCEPT THAT INFILL AND BASE COURSE MATERIALS AND DIMENSIONS SPECIFIED IN THIS APPENDIX SHALL BE FOLLOWED. INFILL MATERIALS AND LEVELING COURSE - OPENINGS SHALL BE FILLED WITH ASTM C-33 GRADED SAND OR SANDY LOAM. PICP BLOCKS SHALL BE PLACED ON A ONE-INCH THICK LEVELING COURSE OF ASTM C-33 SAND. BASE COURSE - THE BASE COURSE SHALL BE ASTM NO. 3 OR 4 COURSE AGGREGATE WITH AN ASSUMED OPEN PORE SPACE OF 30% (n=0.30).

3. REINFORCED TURF

REINFORCED GRASS PAVEMENT (RGP) - WHETHER USED WITH GRASS OR GRAVEL, THE RGP THICKNESS SHALL BE AT LEAST 1-3/4" THICK WITH A LOAD CAPACITY CAPABLE OF SUPPORTING THE TRAFFIC AND VEHICLE TYPES THAT WILL BE CARRIED.

DRAINAGE AREA #	AREA TREATED	FACILITY NUMBER	PERMEABLE PAVEMENT		ADD UNDER STORAGE		ENVIRONMENTAL SITE DESIGN PRACTICE				ADD UNDER MICRO BIO	Recharge Volume (Rev)	ESDv VOLUME	
			PERM. PAV.#1	PERM. PAV.#2	PERM. PAV.#1	PERM. PAV.#2	FILTRERA	TRENCH	ROOF	RETENTION				
1	25596	MBR #1	0	0	0	0	0	0	0	0	2308	0	577	2308
1A	12789	PERM. PAV. #1	923	923	0	0	0	0	0	0	0	0	1846	0
1B	5056	PERM. PAV. #2	681	681	0	0	0	0	0	0	0	0	1362	0
2	19828	MBR #2	0	0	0	0	0	0	0	0	1648	0	336	1648
3	15001	MBR #3	0	0	0	0	0	0	0	0	1992	0	498	1992
4	8537	MBR #4	0	0	0	0	0	0	0	0	406	0	102	406
5	19950	MBR #5	0	0	0	0	0	0	0	0	2113	0	528	2113
6	19086	MBR #6	0	0	0	0	0	0	0	0	1875	0	469	1875
7	20000	MBR #7	0	0	0	0	0	0	0	0	1276	0	139	1276
SUBTOTAL 1			1604	1604	0	0	0	0	0	0	11618	0	2649	14826
TOTALS:			1604	1604	0	0	0	0	0	0	11618	0	2649	14826
ESDv REQUIRED					14824 CF						TOTAL ESDv PROVIDED: 14826			

DA #	% IMPRVY	Rv	DA	ESDv REQ	MINIMUM VOLUME	MAXIMUM VOLUME	VOLUME PROVIDED	AREA SF	PERV AREA	IMP AREA
1	41.21	0.43	0.59	1724	923	2359	2808	2596	34919	10677
1A	84.16	0.81	2.29	1635	863	2237	1847	12789	2026	10763
1B	71.30	0.69	0.12	554	291	738	1362	9256	1451	3605
2	68.40	0.67	0.46	2090	1100	2659	3648	10868	6366	13564
3	69.70	0.65	0.36	814	814	1156	1992	15001	6982	30203
4	85.91	0.82	0.20	586	586	536	406	8537	1203	7354
5	48.98	0.49	0.46	818	818	2126	2113	19950	10399	9791
6	77.83	0.75	0.44	1394	1394	1003	1905	19086	4201	14855
7	67.45	0.66	0.46	1095	1095	2847	1276	20000	6510	13480
TOTAL ESDv BY SUBAREA				7665	19929	14827	14883	52787	94095	

NO.	REVISION	DATE

ENVIRONMENTAL CONCEPT PLAN
STORMWATER MANAGEMENT DRAINAGE AREA MAP
DORSEY OVERLOOK
AGE RESTRICTED CONDOMINIUMS

ZONED: R-APT
PARCELS: 67, 51, 52, 288, 53, 54, 55
HOWARD COUNTY, MARYLAND
2ND ELECTION DISTRICT
TAX MAP: 30 GRID: 9
DPZ REF: 5

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PROFESSIONAL CERTIFICATE
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. 18183
EXPIRATION DATE: 09-27-2020

DESIGN BY: Rev/GAH
DRAWN BY: GAH
CHECKED BY: Rev.
DATE: APRIL 2019
SCALE: AS SHOWN
W.O. NO.: 12-69

3 SHEET OF 3

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 4-25-19
CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature] 4-22-19
CHIEF, DIVISION OF LAND DEVELOPMENT