

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	SITE LAYOUT / LANDSCAPE PLAN, NOTES AND DETAILS
3	STORMWATER MANAGEMENT PLAN, NOTES AND DETAILS
4	GRADING, EROSION/SEDIMENT CONTROL PLAN

SOILS LEGEND			
SOIL	NAME	CLASS	K-VALUE
Ucb	Urban land-Chillum-Beltville complex, 0 to 5 percent slopes	D	---

HOWARD COUNTY SOILS MAP PAGE 19; SAVAGE NE

STORMWATER MANAGEMENT PRACTICES	
LOT NO.	MICRO BIO-RETENTION (M-6)
2	1

# SUPPLEMENTAL PLAN DANIEL PROPERTY

LOTS 1 AND 2  
ZONED R-20

TAX MAP No. 31 GRID No. 13 PARCEL NO. 48  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

### GENERAL NOTES

- THE SUBJECT PROPERTY IS ZONED R-20 (PER 10/06/13 COMPREHENSIVE ZONING PLAN).
- BOUNDARY IS BASED ON A FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS & CARTER ON OR ABOUT FEBRUARY, 2019.
- CONTOURS ARE BASED ON A TOPOGRAPHIC FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS & CARTER, ON OR ABOUT AUGUST, 2019.
- COORDINATES BASED ON NAD'83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 3104 AND NO. 3108.  
HOWARD COUNTY MONUMENT NO. 3104 N 571,700.664 E 1,369,606.417 ELEV. 494.445'  
N 569,583.509 E 1,359,155.211 ELEV. 429.348'  
HOWARD COUNTY MONUMENT NO. 3108
- STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. THIS PLAN PROPOSES THE USE OF ONE (1) M-6 BIO RETENTION FACILITY.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND SEWER WILL BE UTILIZED FOR THIS PROJECT.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- A PRE-SUBMISSION COMMUNITY MEETING WAS HELD ON APRIL 8, 2019 FOR THIS PROJECT.
- THIS PROJECT IS EXEMPT FROM FOREST CONSERVATION BASED ON SECTION 16.1202(b)(viii) OF HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL SINCE IT IS A MINOR SUBDIVISION THAT CREATES ONE ADDITIONAL LOT AND HAS NO FURTHER SUBDIVISION POTENTIAL.
- PERIMETER LANDSCAPING SHALL BE IN ACCORDANCE WITH SECTION 16.124 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF \$4,800.00 FOR 15 SHADE TREES (5'00" @) WILL BE PROVIDED AS PART OF THE BUILDING / GRADING PERMIT FOR LOT 2. PER SECTION 16.127.c.8.a OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS FOR INFILL DEVELOPMENT A TYPE 'A' LANDSCAPE BUFFER HAS BEEN PROVIDED.
- DRIVEWAY SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) REQUIREMENTS:  
A) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE)  
B) SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING  
C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45 FOOT TURNING RADIUS  
D) STRUCTURES (CULVERTS/BRIDGES) CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING)  
E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE  
F) STRUCTURE CLEARANCES - MINIMUM 12 FEET  
G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE
- STORM WATER MANAGEMENT DEVICES WILL BE OWNED AND MAINTAINED BY PROPERTY OWNER OF LOT 2.
- EXISTING UTILITIES ARE BASED ON MISS UTILITY MARKINGS, FIELD LOCATIONS AND AVAILABLE COUNTY INFORMATION.
- TO THE BEST OF OUR KNOWLEDGE, NO CEMETERIES ARE LOCATED ON-SITE BASED ON THE HOWARD COUNTY CEMETERY INVENTORY MAP.
- B.C.L. DENOTES BUILDING RESTRICTION LINE.
- SITE IS NOT ADJACENT TO A SCENIC ROAD.
- ALL LOT/PARCEL AREAS ARE MORE OR LESS.
- LETTER OF FINDINGS DATED FEBRUARY 19, 2019 PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DETERMINED THAT THERE ARE NO WETLANDS, WETLAND BUFFERS, STREAM AND STREAM BUFFER LOCATED WITHIN THE LIMITS OF THE FINAL PLAN.
- THERE IS AN EXISTING DWELLING ON LOT 1 TO REMAIN AND AN EXISTING SHED TO REMAIN. NO NEW BUILDINGS, EXTENSIONS OR ADDITIONS TO THE EXISTING DWELLING ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATION REQUIREMENTS.
- WATER AND SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122B OF THE HOWARD COUNTY CODE.
- PUBLIC WATER AND SEWER ALLOCATION WILL BE GRANTED AT THE TIME OF ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.
- THIS PLAN IS IN COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE 10/06/13 COMPREHENSIVE ZONING PLAN. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REQUIREMENTS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN. WAIVER PETITION APPLICATION OR BUILDING/GRADING PERMIT.
- APPROVAL OF A SITE DEVELOPMENT PLAN IS REQUIRED FOR THE DEVELOPMENT OF ALL RESIDENTIAL LOTS WITHIN THIS SUBDIVISION PRIOR TO ISSUANCE OF ANY GRADING OR BUILDING PERMITS FOR NEW HOUSE CONSTRUCTION IN ACCORDANCE WITH SECTION 16.195 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- FEE IN LIEU OF PROVIDING OPEN SPACE HAS BEEN PAID IN THE AMOUNT OF \$1,500.00.
- NO HISTORIC STRUCTURES EXIST WITHIN THE LIMITS OF THIS PLAN SUBMISSION.
- PROPERTY IS A MINOR SUBDIVISION AND IS EXEMPT FROM APFO TRAFFIC REPORT IN ACCORDANCE WITH SECTION 4.7.B.5. OF THE HOWARD COUNTY DESIGN MANUAL, VOLUME III - ROADS AND BRIDGES.
- THE 65 DBA NOISE CONTOUR LINE DRAWN ON THIS PLAN IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5, REVISED FEBRUARY, 1992, AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65 DBA NOISE EXPOSURE. THE 65 DBA NOISE LINE WAS ESTABLISHED TO ALERT DEVELOPERS, BUILDERS AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
- SUBDIVISION IS SUBJECT TO SECTION 10B.D.E. OF THE ZONING REGULATIONS. AT LEAST 10% OF THE DWELLING UNITS SHALL BE MODERATE INCOME HOUSING UNITS (M.I.H.U.) OR AN ALTERNATIVE COMPLIANCE WILL BE PROVIDED. THE DEVELOPER SHALL EXECUTE A M.I.H.U. AGREEMENT WITH THE DEPARTMENT OF HOUSING TO INDICATE HOW THE M.I.H.U. REQUIREMENT WILL BE MET. THE M.I.H.U. AGREEMENT WILL BE RECORDED SIMULTANEOUSLY WITH THIS PLAN IN THE LAND RECORDS OFFICE OF HOWARD COUNTY, MARYLAND. THIS DEVELOPMENT WILL MEET M.I.H.U. ALTERNATIVE COMPLIANCE BY A PAYMENT OF A FEE-IN-LIEU TO THE DEPARTMENT OF HOUSING FOR EACH REQUIRED UNIT. MODERATE INCOME HOUSING UNIT (M.I.H.U.) TABULATION:  
a. M.I.H.U. REQUIRED = (1 LOT X 10%) = 0.1 M.I.H.U.  
b. M.I.H.U. PROPOSED = DEVELOPER WILL PURSUE ALTERNATIVE COMPLIANCE BY PAYING A FEE-IN-LIEU TO THE HOWARD COUNTY DEPARTMENT FOR THE UNITS REQUIRED BY THE DEVELOPMENT.
- REFUSE COLLECTION AND MAIL DELIVERY FOR LOT 2 IS PROVIDED AT THE JUNCTION OF THE PRIVATE DRIVEWAY AND THE ROAD RIGHTWAY LINE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS, BUREAU OF ENGINEERING, CONSTRUCTION INSPECTION DIVISION AT (410) 313-1800 AT LEAST (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- BY LETTER DATED MAY 11, 2020, HOWARD COUNTY, OFFICE OF PLANNING AND ZONING, DEVELOPMENT ENGINEERING DIVISION APPROVED A FEE IN LIEU REQUEST FOR SIDEWALK IMPROVEMENTS IN THE AMOUNT OF \$15,923.70.

### SITE ANALYSIS DATA CHART

- TOTAL AREA OF THIS SUBMISSION: 584,395 Sq.Ft. (1.342 Ac.)  
LOT 1 = 21,003 sq.ft. (0.482 Ac.) (TO REMAIN UNDISTURBED)  
LOT 2 = 32,802 sq.ft. (0.753 Ac.)
- LIMIT OF DISTURBED AREA = 0.38 Ac.±
- PRESENT ZONING DESIGNATION = R-20
- PROPOSED USE: SINGLE FAMILY DETACHED HOUSING
- NET TRACT AREA = 1.342 AC.
- DENSITY ALLOWED:  
2 UNITS/ACRE X 1.34 AC. = 2.68 UNITS
- BUILDING COVERAGE OF SITE: 3,400 Sq.Ft. (0.078 AC.) OR 10.4% (INCLUDES LOT 2 ONLY)
- PREVIOUS HOWARD COUNTY FILES: ECP-19-049
- TOTAL AREA OF FLOODPLAIN LOCATED ON SITE: 0.0 AC.
- TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0 AC.
- TOTAL AREA OF WETLANDS (INCLUDING BUFFER) LOCATED ON SITE = 0 AC.
- TOTAL AREA OF FOREST: 0.0 AC.±
- TOTAL GREEN OPEN AREA OF LOT 2 = 0.62 AC.±
- TOTAL IMPERVIOUS AREA = (0.13 AC.±) (INCLUDES LOT 2 ONLY)
- AREA OF ERODIBLE SOILS = 1.34 AC.



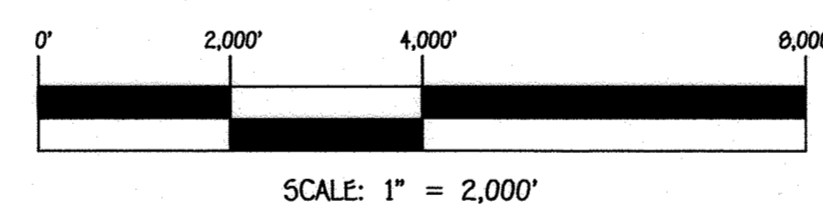
HOWARD COUNTY GEODETIC SURVEY CONTROL NO. 3104  
N 571,700.664 E 1,369,606.417  
ELEVATION: 494.445'

HOWARD COUNTY GEODETIC SURVEY CONTROL NO. 3108  
N 569,583.509 E 1,359,155.211  
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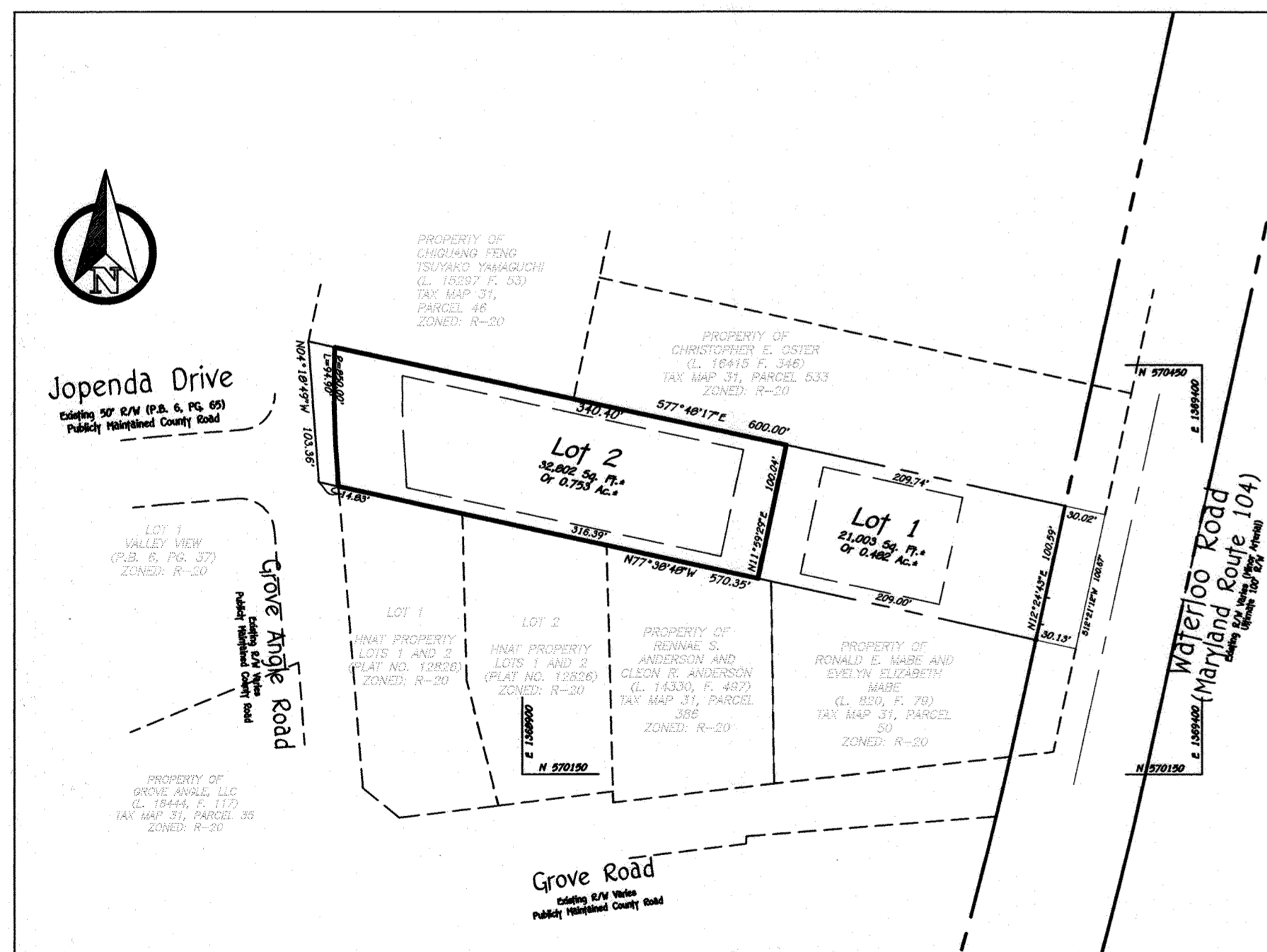
REFER TO HOWARD CO. ADC MAP 28-66

### VICINITY MAP

SCALE: 1" = 2,000'

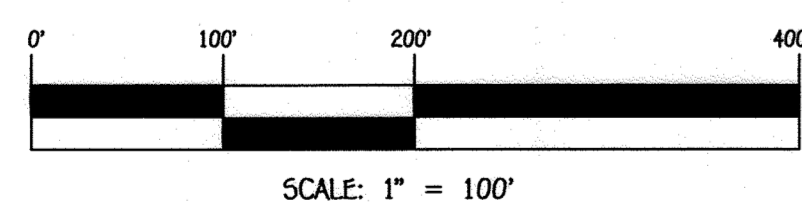


SCALE: 1" = 2,000'



### SITE MAP

SCALE: 1" = 100'



SCALE: 1" = 100'

LEGEND	
SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	EXISTING CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 2' INTERVAL
---	EXISTING FENCE
---	SPOT ELEVATION
---	EXISTING STORM DRAIN
---	EXISTING WATER LINE
---	EXISTING SEWER LINE
---	EXISTING OVERHEAD WIRE
---	EXISTING FENCE LINE
---	PROPOSED PAVING
---	PRIVATE UIC EASEMENT
---	PRIVATE DRAINAGE & UTILITY EASEMENT
---	LIMIT OF DISTURBANCE
---	SUPER SILT FENCE/TREE PROTECTION FENCE
---	DIVERSION FENCE/TREE PROTECTION FENCE
---	EXISTING TREE LINE
---	PROPOSED TREE LINE
---	DRAINAGE DIVIDE
---	PERMANENT SOIL STABILIZATION CONTROL MATTING
---	SOIL LINES AND TYPES
---	BIO RETENTION FACILITY (F-6) OR (M-6) AS NOTED
---	PROPOSED ROOF LEADER
---	DENOTES EXISTING TREES TO BE REMOVED
---	DENOTES EXISTING TREES TO REMAIN
---	SPECIMEN TREE
---	CRITICAL ROOT ZONE
---	DENOTES SWM TEST BORING LOCATION
---	FUTURE 2040 UN-MITIGATED 65DBA NOISE LINE
---	DENOTES HBR OVERLAND FLOWPATH

### OWNER/DEVELOPER

Linda & Gigi Daniel  
5020 Waterloo Road  
Ellicott City, Maryland 21043  
267-253-4849

TITLE SHEET  
DANIEL PROPERTY  
LOTS 1 AND 2

TAX MAP NO.: 31 GRID NO.: 13 PARCEL NO.: 48  
ZONED R-20  
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: AS SHOWN DATE: NOVEMBER, 2020  
SHEET 1 OF 4

F-20-056

NO.	DESCRIPTION	DATE
REVISIONS		
Approved: Department Of Planning And Zoning		
Chief, Division Of Land Development	12/18/20	Date
Chief, Development Engineering Division	12/18/20	Date

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - 18272 BALTIMORE NATIONAL PkE  
ELICOTT CITY, MARYLAND 21042  
(410) 461-2895



### PROFESSIONAL CERTIFICATION

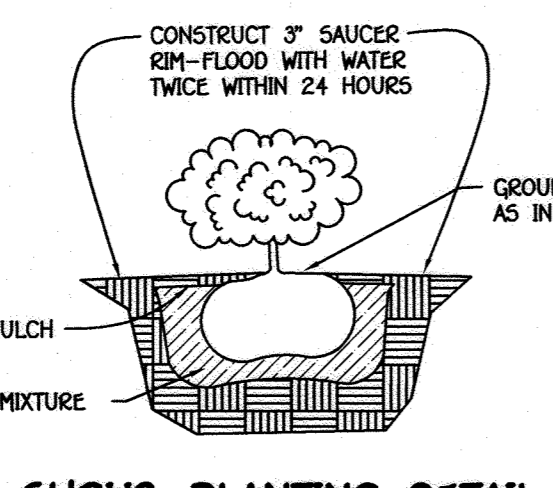
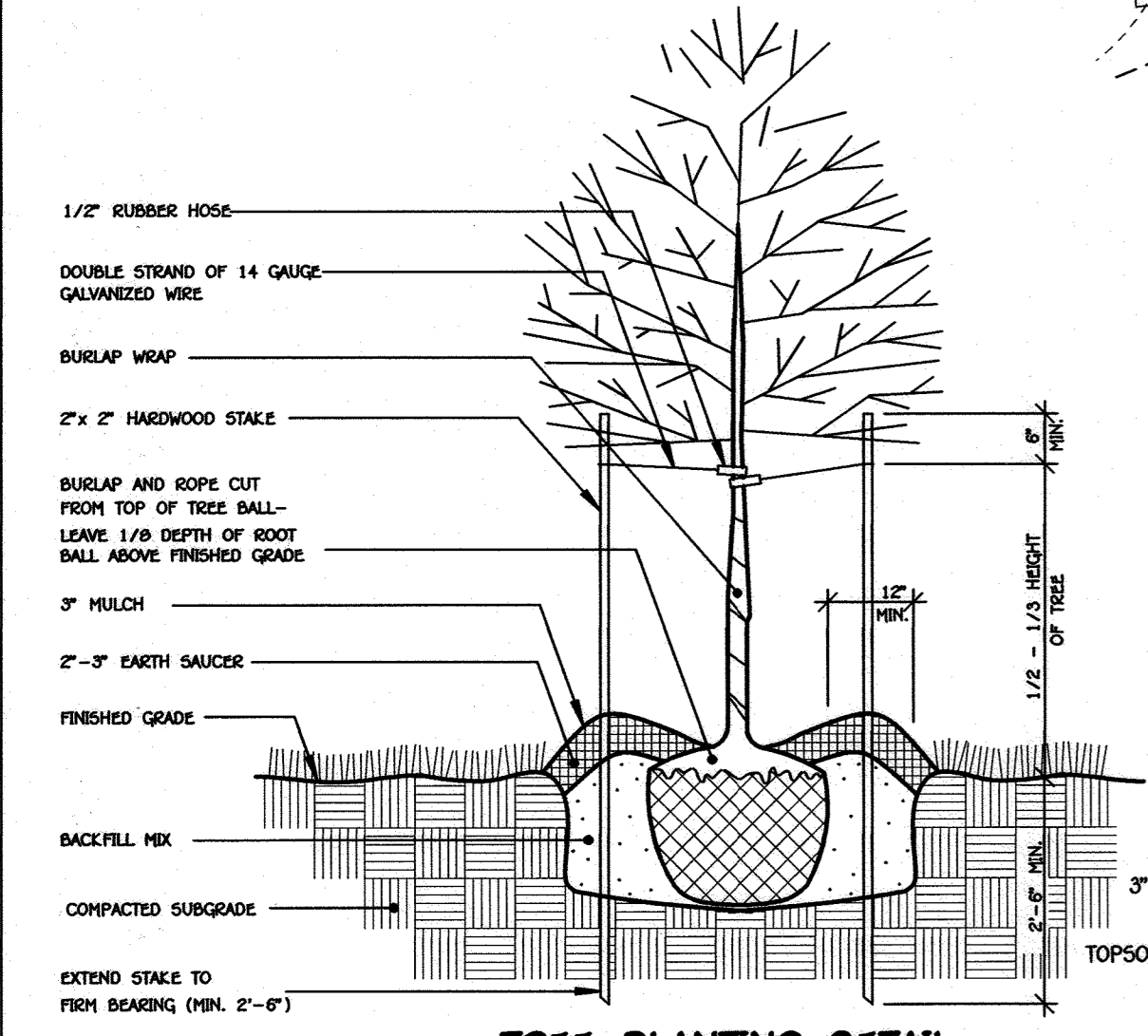
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21.

Frank Havalansan II  
Date: 11/23/20



LEGEND	
SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	EXISTING CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 2' INTERVAL
---	EXISTING FENCE
X 448.5	SPOT ELEVATION
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---	DENOTES EXISTING TREES TO BE REMOVED
---	DENOTES EXISTING TREES TO REMAIN
ST 3	SPECIMEN TREE
---	CRITICAL ROOT ZONE
B-1	DENOTES SWM TEST BORING LOCATION
---	FUTURE 2040 UN-MITIGATED 65DBA NOISE LINE
---	DENOTES MBR OVERLAND FLOWPATH

LANDSCAPING PLANT LIST			
QTY.	KEY	NAME	SIZE
15		ACER RUBRUM OCTOBER GLORY (OCTOBER RED MAPLE)	2 1/2" - 3" CALIPER FULL CROWN, BAB



NO.	DESCRIPTION	DATE
REVISIONS		
	Approved: Department of Planning And Zoning	
	Chief, Division Of Land Development	12/13/20
	Chief, Development Engineering Division	12/13/20

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PK.  
 ELICOTT CITY, MARYLAND 21042  
 (410) 461-2995



**LANDSCAPE DEVELOPER'S CERTIFICATE**  
 I/we certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/we further certify that upon completion a letter of landscape installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.  
 Name: *Daniel* Date: 11/20/20  
**PROFESSIONAL CERTIFICATION**  
 HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21.  
 Name: *Frank HAWLANSAN II* Date: 11/23/20

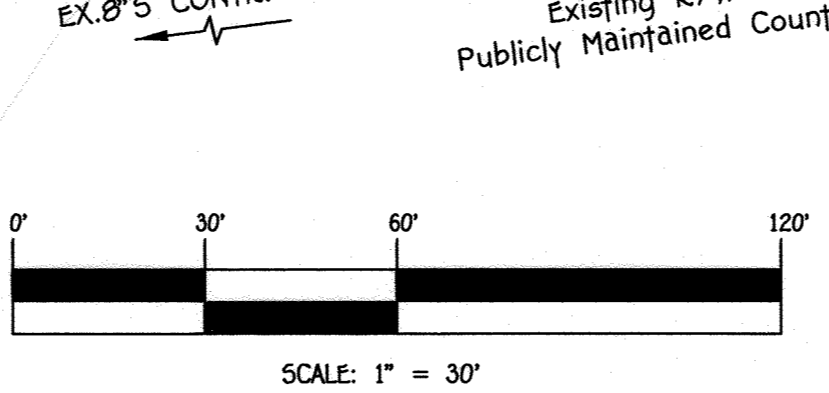
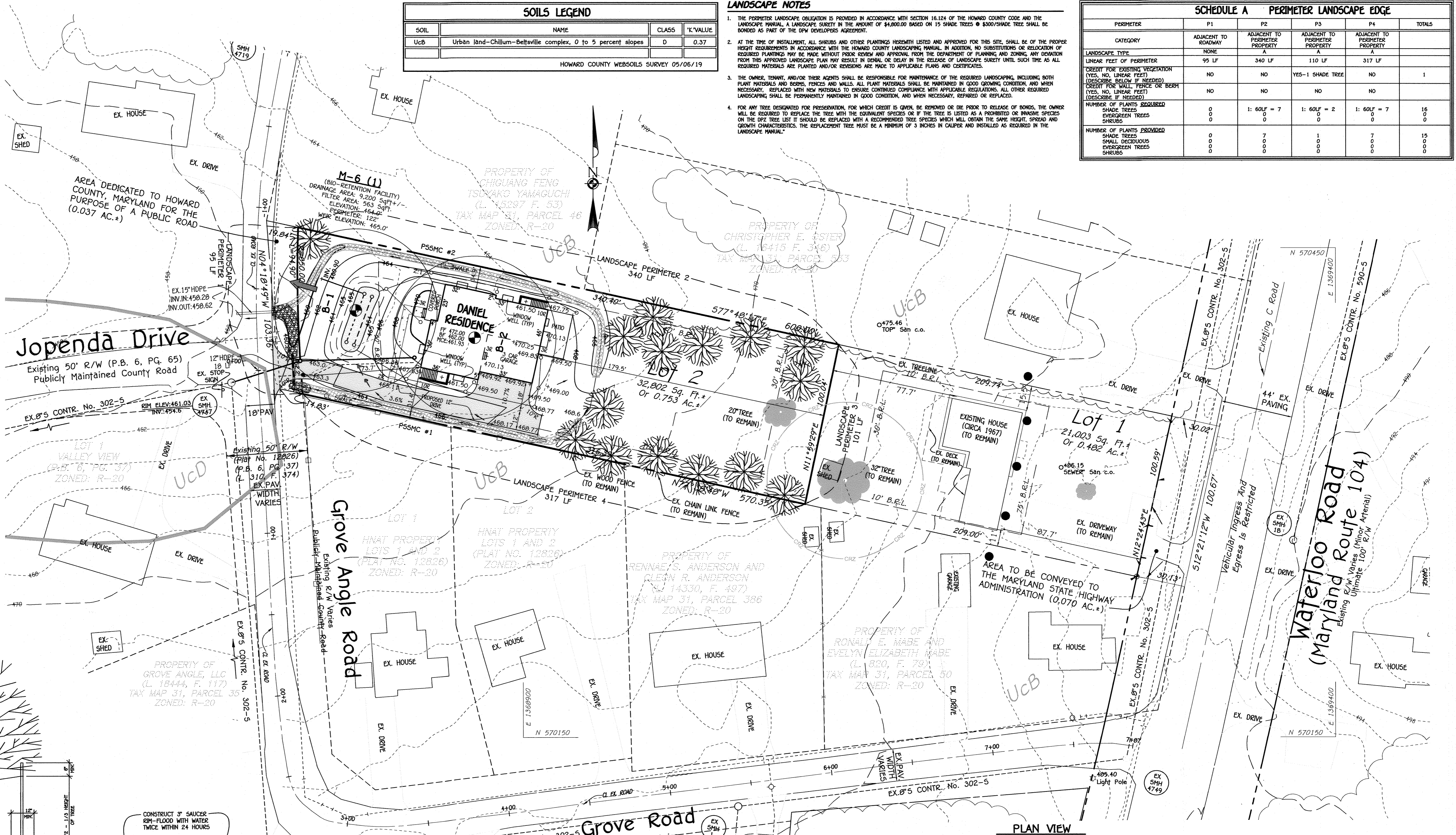
SOILS LEGEND			
SOIL	NAME	CLASS	K VALUE
UcB	Urban land-Chillum-Beltville complex, 0 to 5 percent slopes	D	0.37

HOWARD COUNTY WEBSOILS SURVEY 05/06/19

**LANDSCAPE NOTES**

- THE PERIMETER LANDSCAPE OBLIGATION IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A LANDSCAPE SURETY IN THE AMOUNT OF \$4,800.00 BASED ON 15 SHADE TREES @ \$300/SHADE TREE SHALL BE BONDED AS PART OF THE CIVIL DEVELOPER'S AGREEMENT.
- AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
- THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
- FOR ANY TREE DESIGNATED FOR PRESERVATION, FOR WHICH CREDIT IS GIVEN, BE REMOVED OR DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR IF THE TREE IS LISTED AS A PROHIBITED OR INVASIVE SPECIES ON THE DPZ TREE LIST IT SHOULD BE REPLACED WITH A RECOMMENDED TREE SPECIES WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE LANDSCAPE MANUAL.

SCHEDULE A PERIMETER LANDSCAPE EDGE					
PERIMETER	P1	P2	P3	P4	TOTALS
CATEGORY	ADJACENT TO ROADWAY	ADJACENT TO PERIMETER PROPERTY	ADJACENT TO PERIMETER PROPERTY	ADJACENT TO PERIMETER PROPERTY	
LANDSCAPE TYPE	A	A	A	A	
LINEAR FEET OF PERIMETER	95 LF	340 LF	110 LF	317 LF	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	YES-1 SHADE TREE	NO	1
CREDIT FOR WALL FENCE OR BERR (YES, NO, LINEAR FEET) (DESCRIBE IF NEEDED)	NO	NO	NO	NO	
NUMBER OF PLANTS REQUIRED					
SHADE TREES	0	1: 60LF = 7	1: 60LF = 2	1: 60LF = 7	16
EVERGREEN TREES	0	0	0	0	0
SHRUBS	0	0	0	0	0
NUMBER OF PLANTS PROVIDED					
SHADE TREES	0	7	1	7	15
SMALL DECIDUOUS EVERGREEN TREES	0	0	0	0	0
SHRUBS	0	0	0	0	0



**PLANTING SPECIFICATIONS**

PLANTS, RELATED MATERIAL, AND OPERATIONS SHALL MEET THE DETAILED DESCRIPTION AS GIVEN ON THE PLANS AND AS DESCRIBED HEREIN.

ALL PLANT MATERIAL UNLESS OTHERWISE SPECIFIED, SHALL BE NURSERY GROWN, UNIFORMLY BRANCHED, HAVE A VIGOROUS ROOT SYSTEM, AND SHALL CONFORM TO THE SPECIES, SIZE, ROOT AND SHAPE SHOWN ON THE PLANT LIST AND THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) STANDARDS. PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, FREE FROM DEFECTS, DECAY, DISFIGURING ROOTS, SUN SCALD INJURIES, ABRASIONS OF THE BARK, PLANT DISEASE, INSECT PEST EGGS, BORERS AND ALL FORMS OF INSECT INFESTATIONS OR OBJECTIONABLE DISFIGUREMENTS. PLANT MATERIAL THAT IS WEAK OR WHICH HAS BEEN CUT BACK FROM LARGER GRADES TO MEET SPECIFIED REQUIREMENTS WILL BE REJECTED. TREES WITH FORKED LEADERS WILL NOT BE ACCEPTED. ALL PLANTS SHALL BE FRESHLY DUG, NO HEALED-IN PLANTS FROM COLD STORAGE WILL BE ACCEPTED.

UNLESS OTHERWISE SPECIFIED, ALL GENERAL CONDITIONS, PLANTING OPERATIONS, DETAILS AND PLANTING SPECIFICATION SHALL CONFORM TO "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS", (HEREINAFTER "LANDSCAPE GUIDELINES") APPROVED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE POTOMAC CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECT, LATEST EDITION, INCLUDING ALL AGENDA.

CONTRACTOR SHALL BE REQUIRED TO GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE IN ACCORDANCE WITH THE APPROPRIATE SECTION OF THE LANDSCAPE GUIDELINES. CONTRACTOR'S ATTENTION IS DIRECTED TO THE MAINTENANCE REQUIREMENTS FOUND WITHIN THE ONE YEAR SPECIFICATIONS INCLUDING WATERING AND REPLACEMENT OF SPECIFIED PLANT MATERIAL.

BID SHALL BE BASED ON ACTUAL SITE CONDITIONS. NO EXTRA PAYMENT SHALL BE MADE FOR WORK ARISING FROM SITE CONDITIONS DIFFERING FROM THOSE INDICATED ON DRAWINGS AND SPECIFICATIONS.

ALL SHRUBS SHALL BE PLANTED IN CONTINUOUS TRENCHES OR PREPARED PLANTING BEDS AND MULCHED WITH COMPOSTED HARDWOOD MULCH AS DETAILS AND SPECIFIED EXCEPT WHERE NOTED ON PLANS.

POSITIVE DRAINAGE SHALL BE MAINTAINED IN PLANTING BEDS 2 PERCENT SLOPE).

PLANTING MIX SHALL BE AS FOLLOWS: DECIDUOUS PLANTS - TWO PARTS TOPSOIL, ONE PART PART-WELT-ROTTED COW OR HORSE MANURE, ADD 3 LBS. OF STANDARD FERTILIZER PER CUBIC YARD OF PLANTING MIX. EVERGREEN PLANTS - TWO PARTS TOPSOIL, ONE PART HUMUS OR OTHER APPROVED ORGANIC MATERIAL, ADD 3 LBS. OF EVERGREEN (ACIDIC) FERTILIZER PER CUBIC YARD OF PLANTING MIX. TOPSOIL SHALL CONFORM TO THE LANDSCAPE GUIDELINES.

WEED CONTROL: INCORPORATE A PRE-EMERGENT HERBICIDE INTO THE PLANTING BED FOLLOWING RECOMMENDED RATES ON THE LABEL. CAUTION: BE SURE TO CAREFULLY CHECK THE CHEMICAL USED TO ASSURE ITS ADAPTABILITY TO THE SPECIFIC GROUND COVER TO BE TREATED.

ALL AREAS WITHIN CONTRACT LIMITS DISTURBED DURING OR PRIOR TO CONSTRUCTION NOT DESIGNATED TO RECEIVE PLANTS AND MULCH SHALL BE FINE GRADED AND SEEDDED.

**CONSTRUCTION NOTES**

THE GRADING AND STORMWATER MANAGEMENT SHOWN ON THESE PLANS IS FOR INFORMATIONAL PURPOSES ONLY. FINAL STORMWATER MANAGEMENT DESIGN AND SITE GRADING FOR LOT 2 WILL BE PROVIDED AT THE SITE DEVELOPMENT PLAN STAGE

**OWNER/DEVELOPER**  
 Linda & Gigi Daniel  
 5020 Waterloo Road  
 Ellicott City, Maryland 21043  
 267-253-4849

**SITE LAYOUT / LANDSCAPE PLAN, NOTES AND DETAILS**  
**DANIEL PROPERTY**  
 LOTS 1 AND 2

TAX MAP NO.: 31 GRID NO.: 13 PARCEL NO.: 49  
 ZONED R-20  
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN DATE: NOVEMBER, 2020  
 SHEET 2 OF 4



**INFILTRATION AND FILTER SYSTEM CONSTRUCTION SPECIFICATIONS**

INFILTRATION AND FILTER SYSTEMS EITHER TAKE ADVANTAGE OF EXISTING PERMEABLE SOILS OR CREATE A PERMEABLE MEDIUM SUCH AS SAND FOR WC), AND RE V. IN SOME INSTANCES WHERE PERMEABILITY IS GREAT, THESE FACILITIES MAY BE USED FOR QP AS WELL. THE MOST COMMON SYSTEMS INCLUDE INFILTRATION TRENCHES, INFILTRATION BASINS, SAND FILTERS, AND ORGANIC FILTERS. WHEN PROPERLY PLANTED, VEGETATION WILL THIN AND ENHANCE THE FUNCTIONING OF THESE SYSTEMS. FOR EXAMPLE, PRE-TREATMENT BUFFERS WILL TRAP SEDIMENTS THAT OFTEN ARE BOUND WITH PHOSPHOROUS AND METALS. VEGETATION PLANTED IN THE FACILITY WILL AD IN NUTRIENT UPTAKE AND WATER STORAGE. ADDITIONALLY, PLANT ROOTS WILL PROVIDE ARTERIES FOR STORMWATER TO PERMEATE SOIL FOR GROUNDWATER RECHARGE. FINALLY, SUCCESSFUL PLANTINGS PROVIDE AESTHETIC VALUE AND WILDLIFE HABITAT MAKING THESE FACILITIES MORE DESIRABLE TO THE PUBLIC.

- DESIGN CONSTRAINTS:**
- > PLANTING BUFFER STRIPS OF AT LEAST 20 FEET WILL CAUSE SEDIMENTS TO SETTLE OUT BEFORE REACHING THE FACILITY, THEREBY REDUCING THE POSSIBILITY OF CLOGGING.
  - > DETERMINE AREAS THAT WILL BE SATURATED WITH WATER AND WATER TABLE DEPTH SO THAT APPROPRIATE PLANTS MAY BE SELECTED (HYDROLOGY WILL BE SIMILAR TO BIORETENTION FACILITIES, SEE FIGURE A.5 AND TABLE A.4 FOR PLANTING MATERIAL GUIDANCE).
  - > PLANTS KNOWN TO SEND DOWN DEEP TAPROOTS SHOULD BE AVOIDED IN SYSTEMS WHERE FILTER FABRIC IS USED AS PART OF FACILITY DESIGN.
  - > TEST SOIL CONDITIONS TO DETERMINE IF SOIL AMENDMENTS ARE NECESSARY.
  - > PLANTS SHALL BE LOCATED SO THAT ACCESS IS POSSIBLE FOR STRUCTURE MAINTENANCE.
  - > STABILIZE HEAVY FLOW AREAS WITH EROSION CONTROL MATS OR SOO.
  - > TEMPORARILY SEEDED AREAS UNTIL VEGETATION IS ESTABLISHED.
  - > SEE TABLE A.5 FOR ADDITIONAL DESIGN CONSIDERATIONS.

**BIO-RETENTION SOIL BED CHARACTERISTICS**

THE CHARACTERISTICS OF THE SOIL FOR THE BIORETENTION FACILITY ARE PERHAPS AS IMPORTANT AS THE FACILITY LOCATION, SIZE, AND TREATMENT VOLUME. THE SOIL MUST BE PERMEABLE ENOUGH TO ALLOW RUNOFF TO FILTER THROUGH THE MEDIA WHILE HAVING CHARACTERISTICS SUITABLE TO PROMOTE AND SUSTAIN A ROBUST VEGETATIVE COVER CROP. IN ADDITION, MUCH OF THE NUTRIENT POLLUTANT UPTAKE (NITROGEN AND PHOSPHORUS) IS ACCOMPLISHED THROUGH ABSORPTION AND MICROBIAL ACTIVITY WITHIN THE SOIL PROFILE. THEREFORE, SOILS MUST BALANCE THEIR CHEMICAL AND PHYSICAL PROPERTIES TO SUPPORT BIOTIC COMMUNITIES ABOVE AND BELOW GROUND.

THE PLANTING SOIL SHOULD BE A SANDY LOAM, LOAMY SAND, LOAM (USDA), OR A LOAM/SAND MIX (SHOULD CONTAIN A MINIMUM 35 TO 60% SAND, BY VOLUME). THE CLAY CONTENT FOR THESE SOILS SHOULD BE LESS THAN 25% BY VOLUME. ENVIRONMENTAL QUALITY RESOURCES (EQR), 1996; ENGINEERING TECHNOLOGY INC. AND BIOHABITATS, INC. (ETAB), 1993. SOILS SHOULD FALL WITHIN THE SM, ML, SC CLASSIFICATIONS OR THE UNIFIED SOIL CLASSIFICATION SYSTEM (USCS). A PERMEABILITY OF AT LEAST 1.0 FEET PER DAY (0.27 IN/H) IS REQUIRED (A CONSERVATIVE VALUE OF 0.5 FEET PER DAY IS USED FOR DESIGN). THE SOIL SHOULD BE FREE OF STONES, STUMPS, ROOTS, OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER. BRUSH OR SEEDS FROM NOXIOUS WEEDS (E.G., JOHNSON GRASS, MUWORT, NUTSEDGE, AND CANADA THISTLE OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.08.01.05.) SHOULD NOT BE PRESENT IN THE SOILS. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN 12 TO 18 LIFTS THAT ARE LOOSELY COMPACTED (TAMPED LIGHTLY WITH A BACKHOE BUCKET OR TRAVERSED BY DOZER TRACKS). THE SPECIFIC CHARACTERISTICS ARE PRESENTED IN TABLE A.3.

**TABLE A.3 PLANTING SOIL CHARACTERISTICS**

PARAMETER	VALUE
PH RANGE	5.2 TO 7.00
ORGANIC MATTER	1.5 TO 4.0% (BY WEIGHT)
MAGNESIUM	35 LBS. PER ACRE, MINIMUM
PHOSPHORUS (PHOSPHATE - P2O5)	75 LBS. PER ACRE, MINIMUM
POTASSIUM (POTASH - K2O)	85 LBS. PER ACRE, MINIMUM
SOLUBLE SALTS	500 PPM
CLAY	10 TO 25 %
SILT	30 TO 55 %
SAND	35 TO 60%

**MULCH LAYER**

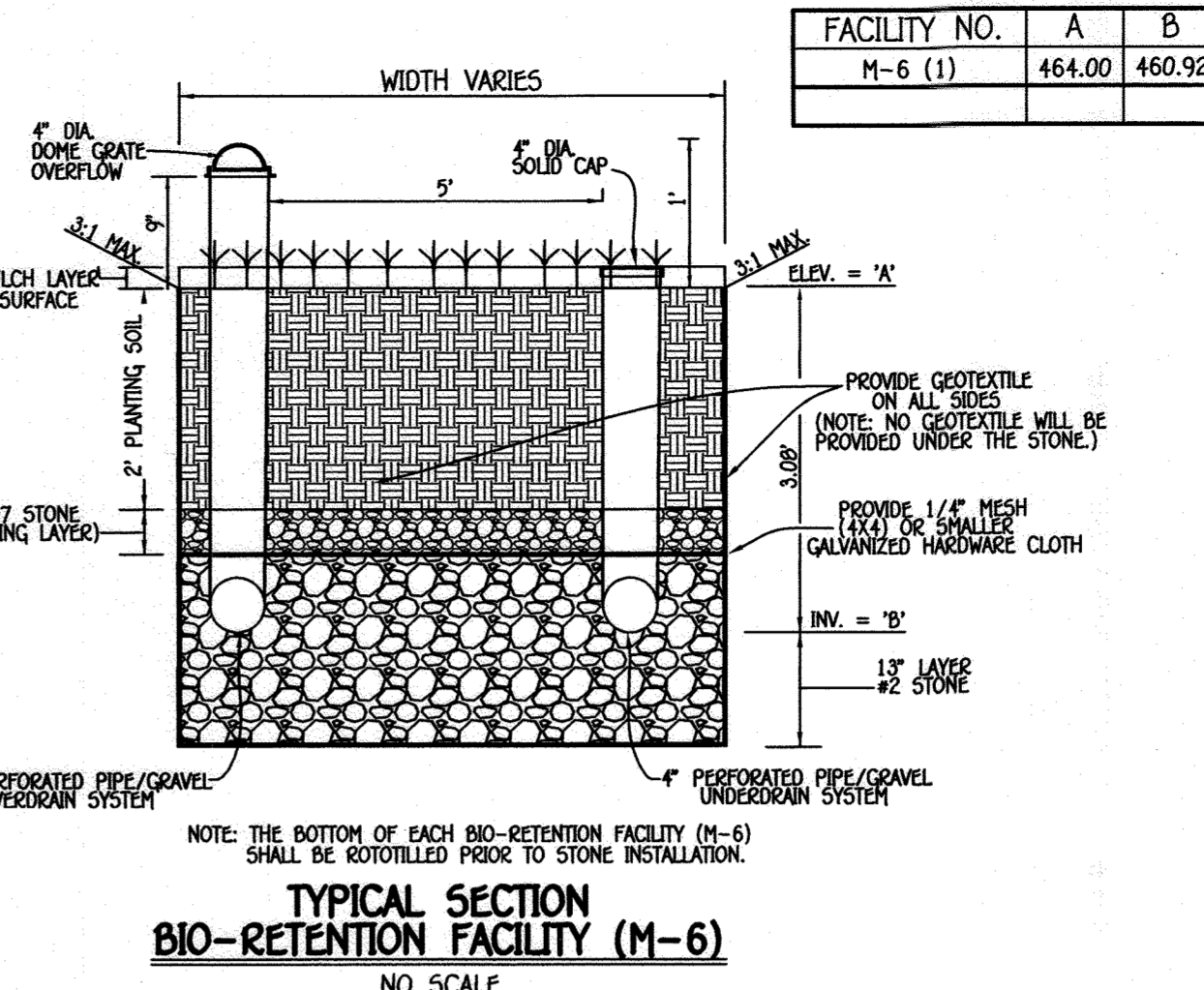
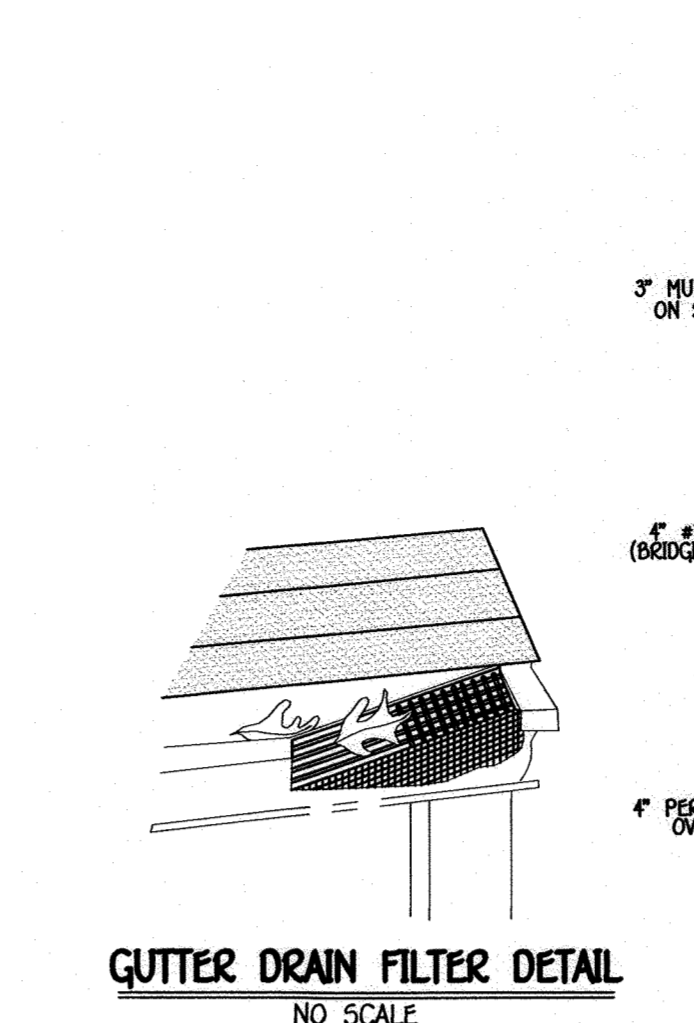
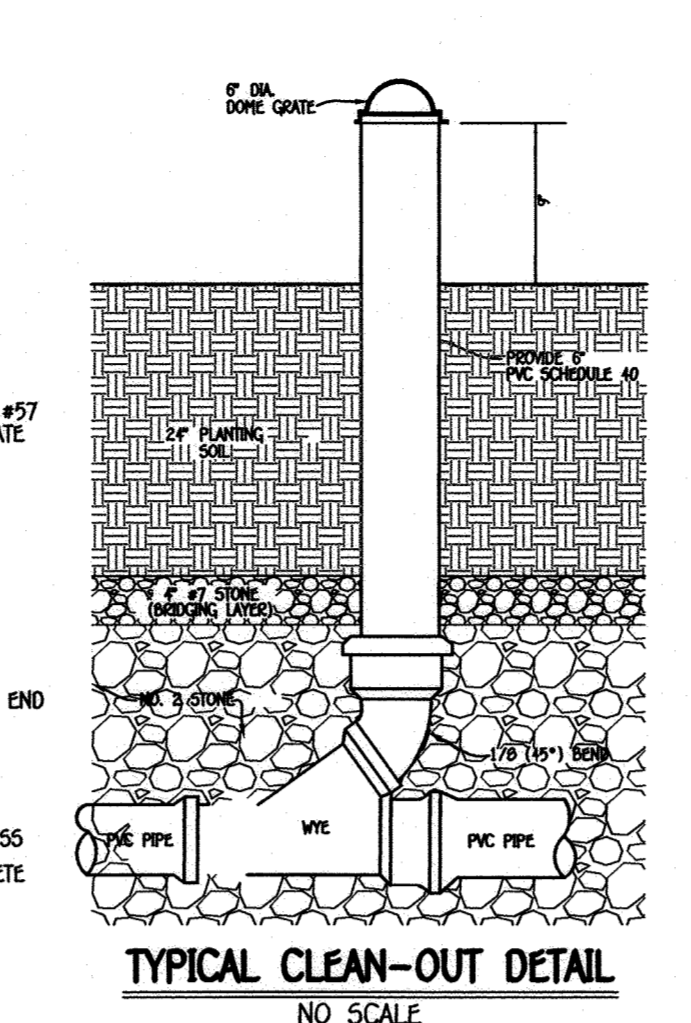
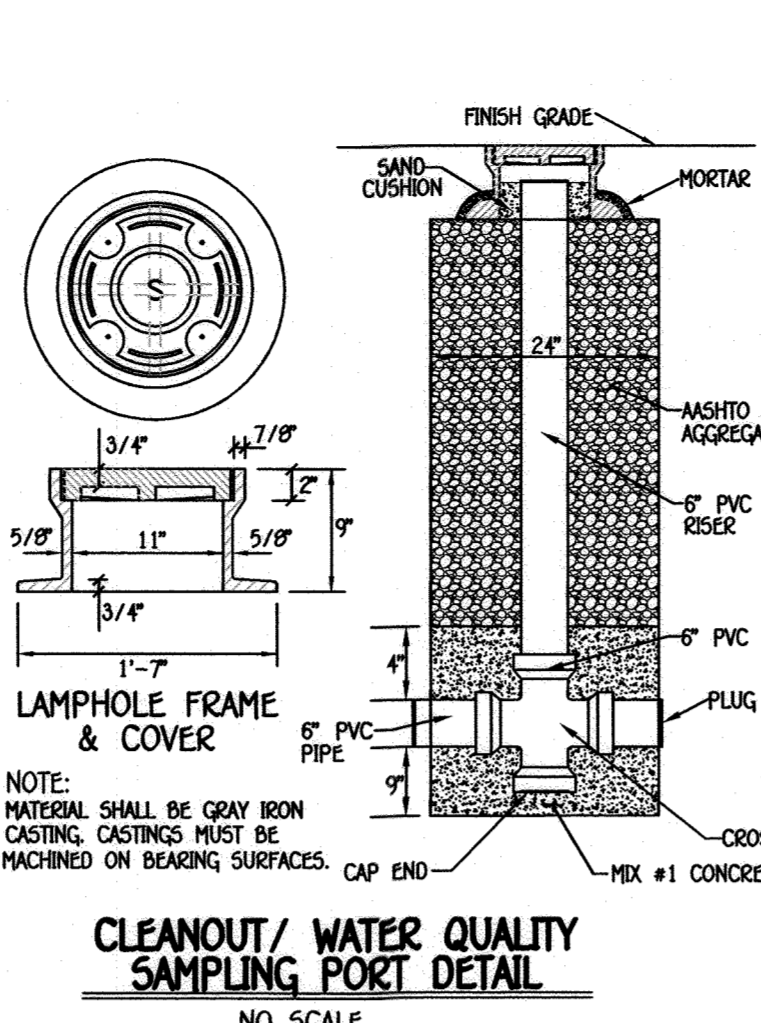
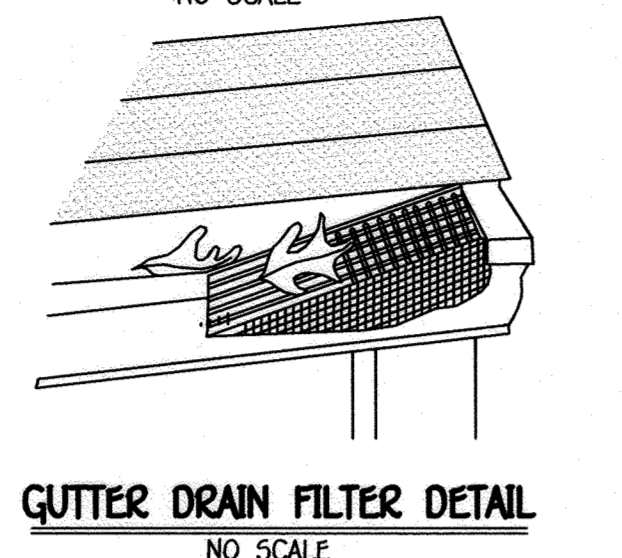
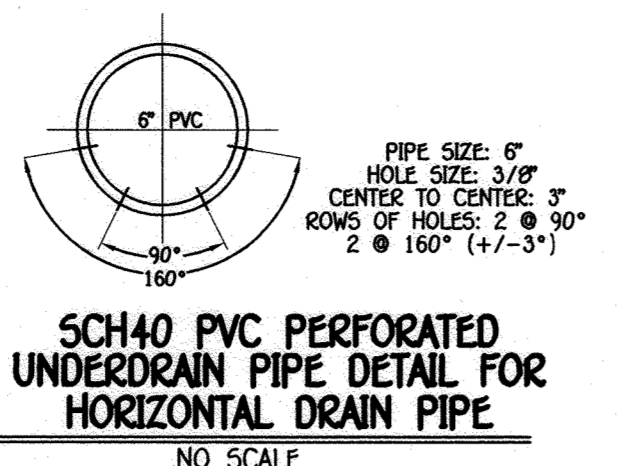
THE MULCH LAYER PLAYS AN IMPORTANT ROLE IN THE PERFORMANCE OF THE BIORETENTION SYSTEM. THE MULCH LAYER HELPS MAINTAIN SOIL MOISTURE AND AVOIDS SURFACE SEALING, WHICH REDUCES PERMEABILITY. MULCH HELPS PREVENT EROSION, AND PROVIDES A MICROENVIRONMENT SUITABLE FOR SOIL BIOTA AT THE MULCH/SOIL INTERFACE. IT ALSO SERVES AS A PRETREATMENT LAYER, TRAPPING THE FINER SEDIMENTS, WHICH REMAIN SUSPENDED AFTER THE PRIMARY PRETREATMENT.

THE MULCH LAYER SHOULD BE STANDARD LANDSCAPE STYLE, SINGLE OR DOUBLE SHEEDED HARDWOOD MULCH OR CHIPS. THE MULCH LAYER SHOULD BE WELL AGED (STOCKPILED OR STORED FOR AT LEAST 12 MONTHS), UNIFORM IN COLOR, AND FREE OF OTHER MATERIALS, SUCH AS WEED SEEDS, SOIL, ROOTS, ETC. THE MULCH SHOULD BE APPLIED TO A MAXIMUM DEPTH OF THREE INCHES. GRASS CLIPPINGS SHOULD NOT BE USED AS A MULCH MATERIAL.

**PLANTING GUIDANCE**

PLANT MATERIAL SELECTION SHOULD BE BASED ON THE GOAL OF SIMULATING A TERRESTRIAL FORESTED COMMUNITY OF NATIVE SPECIES. BIORETENTION SIMULATES AN UPLAND-SPECIES ECOSYSTEM. THE COMMUNITY SHOULD BE DOMINATED BY TREES, BUT HAVE A DISTINCT COMMUNITY OF UNDERSTORY TREES, SHRUBS AND HERBACEOUS MATERIALS. BY CREATING A DIVERSE, DENSE PLANT COVER, A BIORETENTION FACILITY WILL BE ABLE TO TREAT STORMWATER RUNOFF AND WITHSTAND URBAN STRESSORS FROM INSECTS, DISEASE, DROUGHT, TEMPERATURE, WIND, AND EXPOSURE.

THE PROPER SELECTION AND INSTALLATION OF PLANT MATERIALS IS KEY TO A SUCCESSFUL SYSTEM. THERE ARE ESSENTIALLY THREE ZONES WITHIN A BIORETENTION FACILITY (FIGURE A.5). THE LOWEST ELEVATION SUPPORTS PLANT SPECIES ADAPTED TO STANDING AND FLUCTUATING WATER LEVELS. THE MIDDLE ELEVATION SUPPORTS PLANTS THAT LIKE DRIER SOIL CONDITIONS, BUT CAN STILL TOLERATE OCCASIONAL INUNDATION BY WATER. THE OUTER EDGE IS THE HIGHEST ELEVATION AND GENERALLY SUPPORTS PLANTS ADAPTED TO DRIER CONDITIONS. A SAMPLE OF APPROPRIATE PLANT MATERIALS FOR BIORETENTION FACILITIES ARE INCLUDED IN TABLE A.4. THE LAYOUT OF PLANT MATERIAL SHOULD BE FLEXIBLE, BUT SHOULD FOLLOW THE GENERAL PRINCIPALS DESCRIBED IN TABLE A.5. THE OBJECTIVE IS TO HAVE A SYSTEM, WHICH RESEMBLES A RANDOM, AND NATURAL PLANT LAYOUT, WHILE MAINTAINING OPTIMAL CONDITIONS FOR PLANT ESTABLISHMENT AND GROWTH. FOR A MORE EXTENSIVE BIORETENTION PLAN, CONSULT ETAB, 1993 OR CLAYTOR AND SCHUELEK, 1997.



FACILITY NO.	A	B
M-6 (1)	464.00	460.92

**LEGEND**

SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	EXISTING CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 2' INTERVAL
○	EXISTING FENCE
○	EXISTING STORM DRAIN
○	SPOT ELEVATION
○	EXISTING WATER LINE
○	EXISTING SEWER LINE
○	EXISTING OVERHEAD WIRE
○	EXISTING FENCE LINE
○	PROPOSED PAVING
○	PRIVATE UIC EASEMENT
○	PRIVATE DRAINAGE & UTILITY EASEMENT
○	LIMIT OF DISTURBANCE
○	SSF
○	SUPER SILT FENCE/TREE PROTECTION FENCE
○	DF
○	DIVERSION FENCE/TREE PROTECTION FENCE
○	EXISTING TREE LINE
○	PROPOSED TREE LINE
○	DRAINAGE DIVIDE
○	PERMANENT SOIL STABILIZATION CONTROL MATTING
○	SOIL LINES AND TYPES
○	BIO RETENTION FACILITY (F-6) OR (M-6) AS NOTED
○	PROPOSED ROOF LEADER
○	DENOTES EXISTING TREES TO BE REMOVED
○	DENOTES EXISTING TREES TO REMAIN
○	SPECIMEN TREE
○	CRITICAL ROOT ZONE
○	DENOTES SWM TEST BORING LOCATION
○	FUTURE 2040 UN-MITIGATED 65DBA NOISE LINE
○	DENOTES MBR OVERLAND FLOWPATH

**STORMWATER MANAGEMENT PRACTICES BY LOT**

AREA ID	MICRO-BIO (M-6) NUMBER	REMARKS
LOT 1	N/A	EXISTING HOUSE/DRIVEWAY TO REMAIN
LOT 2	1	HOUSE AND PORTION OF UIC DRIVEWAY DRAINS TO BIO ON LOT

**STORMWATER MANAGEMENT PRACTICES**

AREA ID	LOCATION	DRAINAGE AREA SF.	% IMPERVIOUS	ESDV REQUIRED CUFT.	ESDV PROVIDED CUFT.	BIO-RETENTION (Y/N)
1	LOT 2	9,560	63.0%	784	1,081	Y

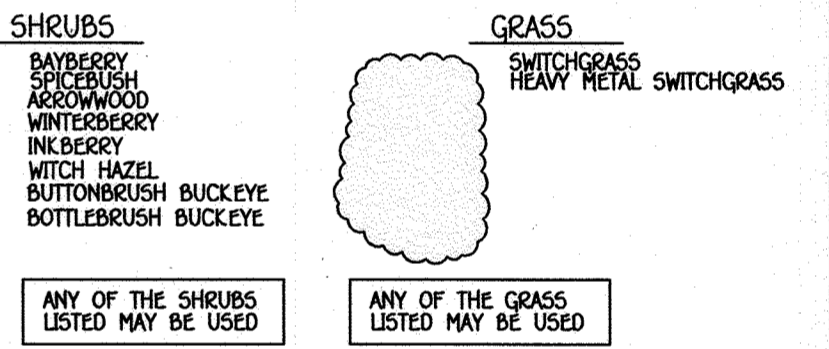
GROSS AREA = 1.34 ACRES  
 LOD = 0.38 ACRES  
 RCN = 77  
 TARGET PE = 1.6"

**STORMWATER MANAGEMENT NOTES**

- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
- MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 500 SQ. FT. OR LESS.

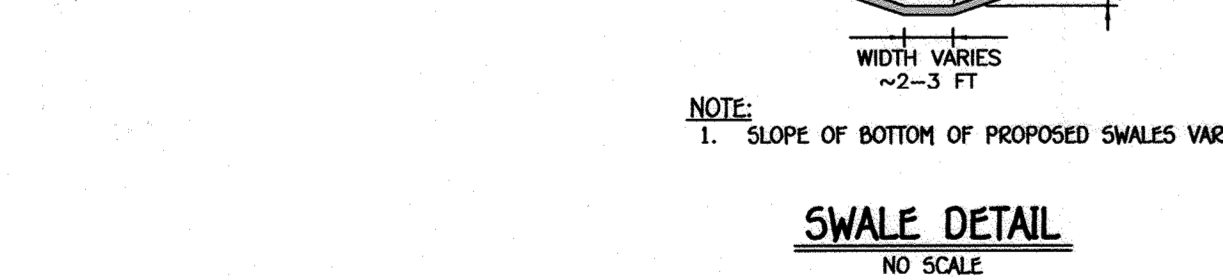
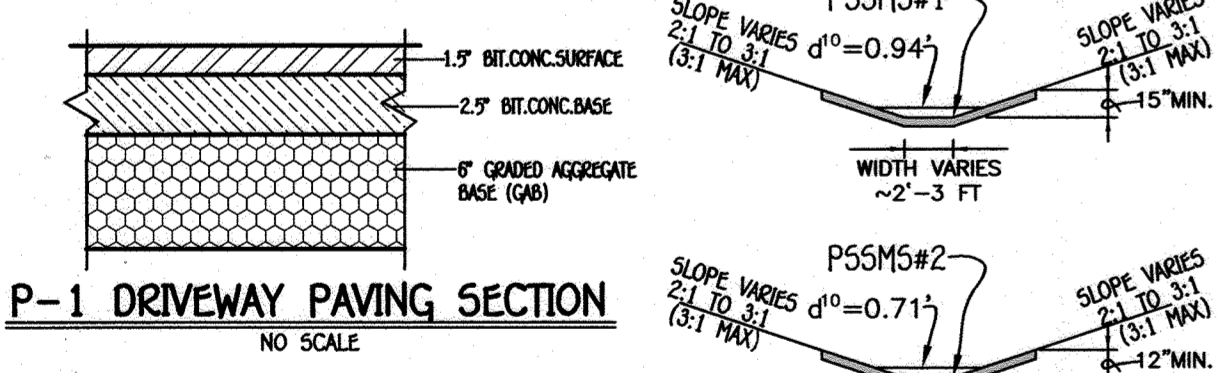
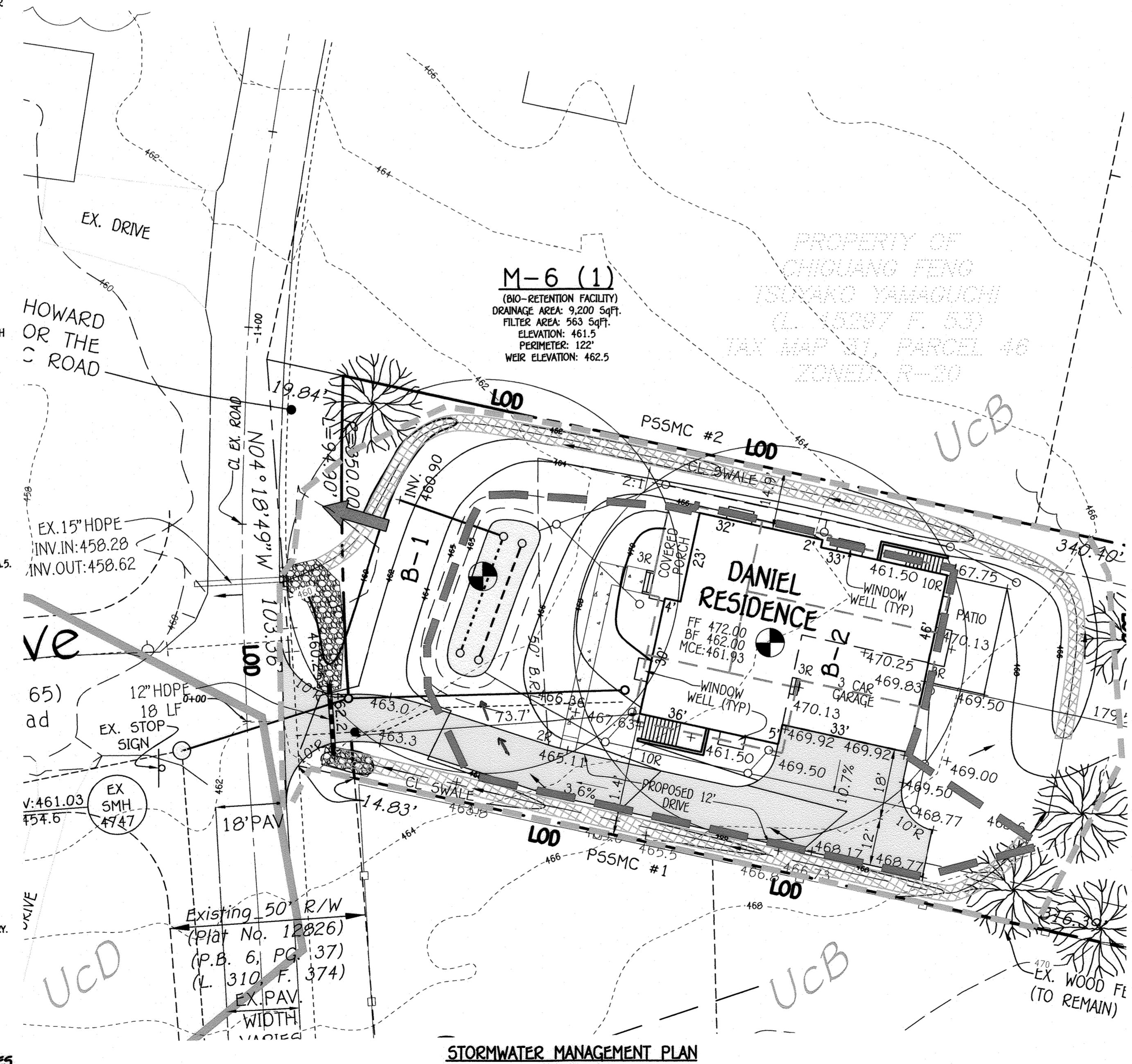
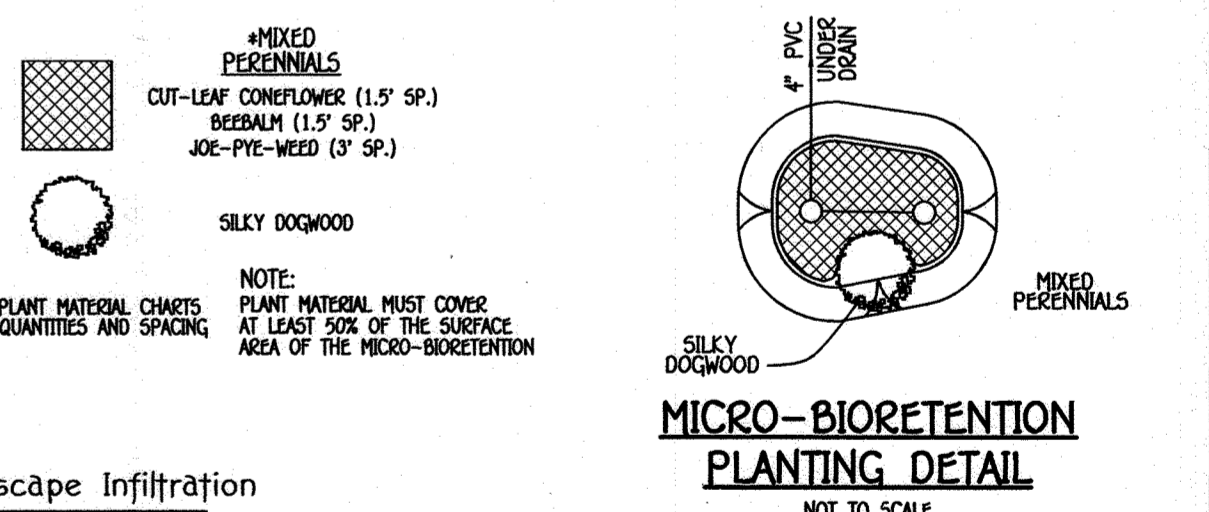
**OPERATION & MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)**

- 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 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, VOLUME II, TABLE A.4.1 AND 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 STAVES AND WIRES.
- 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.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.



**MICRO-BIORETENTIONS PLANT MATERIAL**

MICRO-BIO #	QUANTITY	NAME	MAXIMUM SPACING (FT.)
140	MIXED PERENNIALS		1.5 TO 3.0 FT.
2	SILEY DOGWOOD		PLANT AWAY FROM INFLOW LOCATION



**CONSTRUCTION NOTES**

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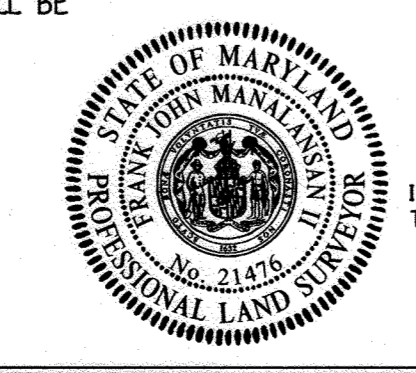
NO.	DESCRIPTION	DATE
	REVISIONS	

Approved: Department Of Planning And Zoning

Chief, Division Of Land Development

Chief, Development Engineering Division

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL: SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK  
 ELICOTT CITY, MARYLAND 21042  
 (410) 461 - 2855



**PROFESSIONAL CERTIFICATION**

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21.

FRANK HAULMAN II

Table B.4. Materials Specifications for Micro-Bioretenion, Rain Gardens & Landscape Infiltration

Material	Specification	Size	Notes
Plantings	see Appendix A: Table A.4	n/a	plantings are site-specific
Filtering soil (2' to 4' deep)	loam; sand 60-65% compost 35-40% or sandy loam 30% coarse sand 30% compost 40%		USDA soil types loamy sand or sandy loam; clay content <5%
Organic Content	max. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum
Pea gravel diaphragm	pea gravel: ASTM-D-448	No. 8 or No. 9 (1/8" to 3/8")	
Curb/drain	ornamental stone: washed cobbles	stone: 2" to 3"	
Geotextile	ASTM M-43	n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	No. 57 or No. Aggregate (3/8" to 3/4")		
Underdrain piping	1/2" Type P5 2B or ASTM M-276	4" to 6" rigid schedule 40 PVC or 50635	slotted or perforated pipe; 3/8" perft. @ 6" on center; 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/4 inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3; f = 3500 psi at 28 days; normal weight, air-entrained; reinforcing to meet ASTM-615-60	n.a	on-site testing of poured-in-place concrete required; 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using preapproved State or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 308.2/09; vertical loading 01-10 or H-20; allowable horizontal loading (based on soil pressures); and analysis of potential cracking
Sand	ASTM-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Gneiss (ASTM) #10 are not acceptable. No calcium carbonate or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

**OWNER/DEVELOPER**

Linda & Gigi Daniel  
 5020 Waterloo Road  
 Ellicott City, Maryland 21043  
 267-253-4849

**STORMWATER MANAGEMENT PLAN, NOTES AND DETAILS**

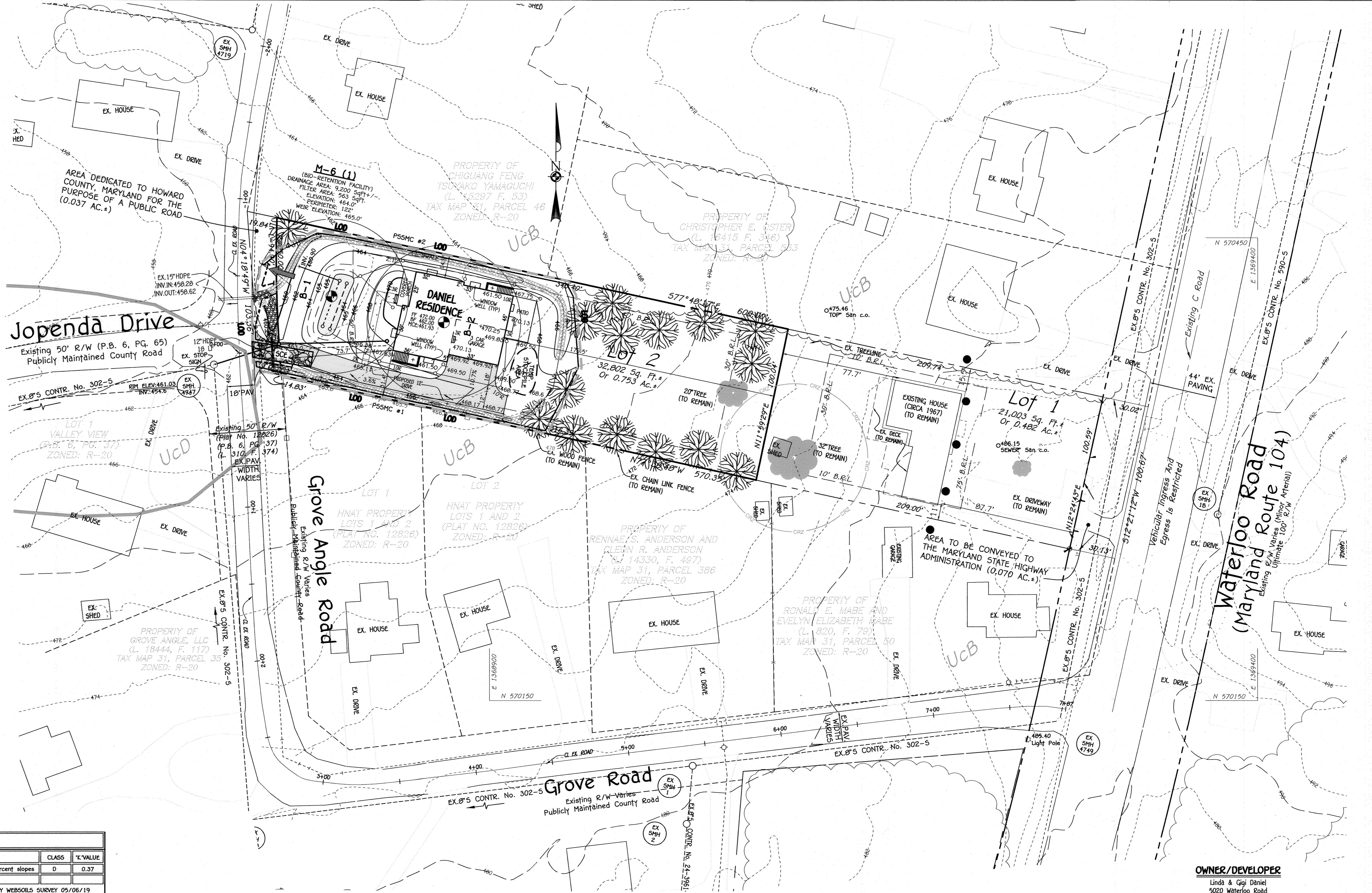
**DANIEL PROPERTY**

LOTS 1 AND 2

TAX MAP NO.: 31 GRID NO.: 13 PARCEL NO.: 48  
 ZONED R-20  
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN DATE: NOVEMBER, 2020  
 SHEET 3 OF 4



LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	EXISTING CONTOUR 10' INTERVAL
	PROPOSED CONTOUR 10' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
	EXISTING FENCE
	SPOT ELEVATION
	EXISTING STORM DRAIN
	EXISTING WATER LINE
	EXISTING SEWER LINE
	EXISTING OVERHEAD WIRE
	EXISTING FENCE LINE
	PROPOSED PAVING
	PRIVATE UIC EASEMENT
	PRIVATE DRAINAGE & UTILITY EASEMENT
	LIMIT OF DISTURBANCE
	SUPER SILT FENCE/TREE PROTECTION FENCE
	DIVERSION FENCE/TREE PROTECTION FENCE
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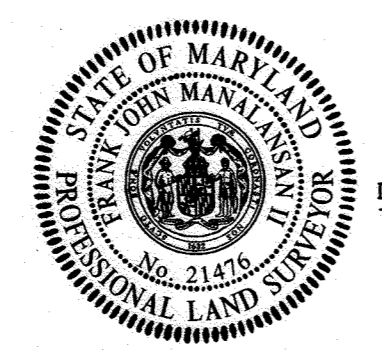


SOILS LEGEND			
SOIL	NAME	CLASS	Kc VALUE
UcB	Urban land-Chillum-Beltsville complex, 0 to 5 percent slopes	D	0.37

HOWARD COUNTY WEBSOILS SURVEY 05/06/19

NO.	DESCRIPTION	DATE
REVISIONS		
1	Approved: Department Of Planning And Zoning	12/23/20
2	Chief, Division Of Land Development	12/10/20
3	Chief, Department Engineering Division	11/23/20

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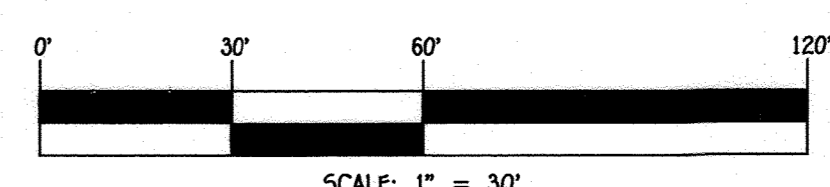


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Frank Nawlangan II  
 11/23/20

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

**SEDIMENT AND EROSION CONTROL NOTE**  
 THE GRADING, STORMWATER MANAGEMENT AND EROSION/SEDIMENT CONTROL SHOWN ON THESE PLANS IS FOR INFORMATIONAL PURPOSES ONLY. FINAL STORMWATER MANAGEMENT DESIGN, SITE GRADING AND EROSION/SEDIMENT CONTROL FOR LOT 2 WILL BE PROVIDED AT THE SITE DEVELOPMENT PLAN STAGE.



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 267-253-4849

**GRADING AND EROSION/SEDIMENT CONTROL PLAN**  
**DANIEL PROPERTY**  
 LOTS 1 AND 2

TAX MAP NO.: 31 GRID NO.: 13 PARCEL NO.: 48  
 ZONED R-20  
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN DATE: NOVEMBER, 2020  
 SHEET 4 OF 4