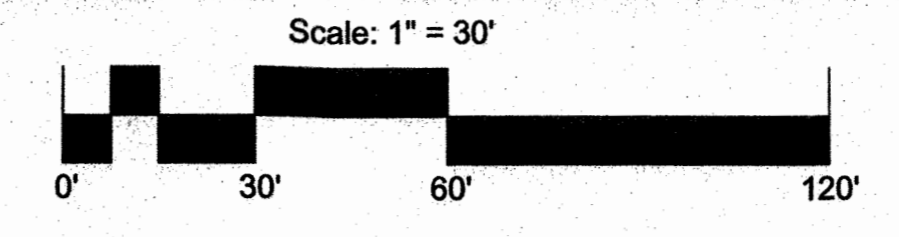


LEGEND:

- NEW HOUSE
- EXISTING HOUSE
- LIMIT OF DISTURBANCE
- SOIL TEST SITE
- EXISTING SHADE TREE
- EXISTING EVERGREEN TREE
- PROPERTY LINE
- LOT LINE
- SUPER SILT FENCE
- EARTH DIKE
- DRAINAGE AREA
- MICRO BIORETENTION
- NEW PRIVACY FENCE
- PROPOSED SHADE TREE
- PROPOSED EVERGREEN TREE
- WATER HOUSE CONNECTION
- SEWER HOUSE CONNECTION

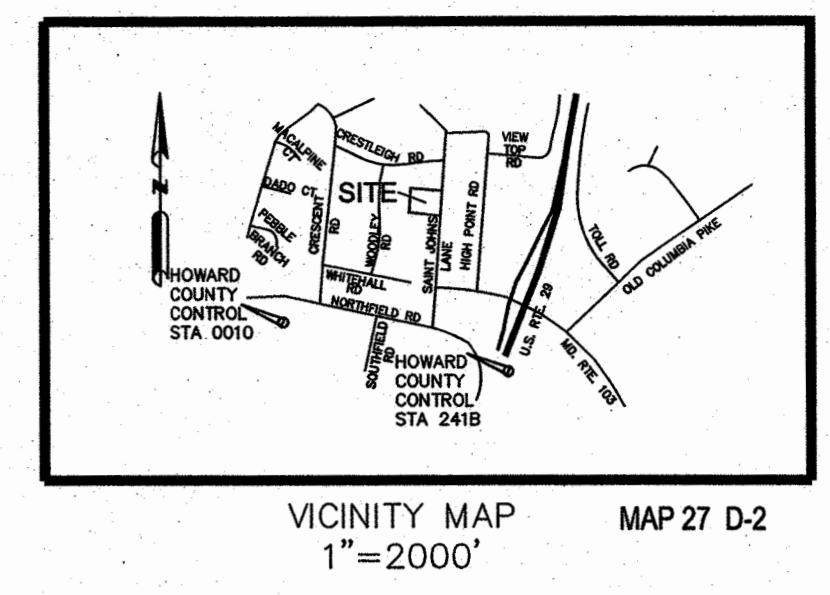
Notes:
 1. This "F" Drawing may not be used to obtain permits.
 2. Howard SCD Standard Sediment Control Plan may not be used to obtain permits for this project.
 3. A custom plan addressing sediment and erosion control submitted to Howard SCD for review and approval will be needed prior to issuance of permits.

- SHEET INDEX:**
1. Supplemental Plan
 2. SWM Details
 3. Landscaping Notes & Details, SWM Calculations



SITE ANALYSIS DATA CHART:

1. TOTAL PROJECT AREA: 23,579 SF
2. LIMIT OF DISTURBED AREA: 27,757 SF
3. ZONING: R-20
4. PROPOSED USE: RESIDENTIAL
5. TOTAL AREA OF FLOODPLAIN LOCATED ON SITE: 0.0 AC.
6. TOTAL AREA OF MODERATE STEEP SLOPES: 15%-24.9% 0.0 AC.
7. TOTAL AREA OF STEEP SLOPES: 25% or Greater 0.0 AC.
8. TOTAL AREA OF ON SITE WETLANDS (INCL. BUFFER): 0.0 AC.
9. TOTAL AREA OF ON SITE STREAM BUFFER: 0.0 AC.
10. TOTAL AREA OF FOREST: 0.0 AC.
11. TOTAL GREEN OPEN AREA:
 LOT 2 - 0.39 AC.
12. TOTAL IMPERVIOUS AREA:
 LOT 2 - 0.15 AC.



NOTE:
 Soil type for entirety of Lot 2 is LoB - Legore Montalto Urban Complex

- GENERAL NOTES**
- 1) THE SUBJECT PROPERTY IS ZONED R-20 PER THE 10/06/13 COMPREHENSIVE ZONING PLAN.
 - 2) DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLING TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 A) WIDTH--12(16 SERVING MORE THAN ONE RESIDENCE)
 B) SURFACE--8" OF COMPACTED CRUSHER RUN BASE W/TAR AND CHIP COATING (1" 1/2" MIN)
 C) GEOMETRY-- MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS.
 - 3) STRUCTURES (CULVERTS/BRIDGES)-- CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
 - 4) DRAINAGE ELEMENTS-- CAPABLE OF SAFELEY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1' OVER DRIVEWAY SURFACE.
 - 5) MAINTENANCE-- SUFFICIENT TO INSURE ALL WEATHER USE.
 - 6) NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLAND, STREAMS, OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS.
 - 7) FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM LOT AND THE ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY.
 - 8) THIS SUBDIVISION IS EXEMPT FROM THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION PER SECTION 16.1202 (D)(1)(viii) OF THE FOREST CONSERVATION MANUAL -- A MINOR SUBDIVISION THAT CREATES ONE ADDITIONAL LOT WITH NO FURTHER SUBDIVISION POTENTIAL.
 - 9) HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND PLANE COORDINATE SYSTEM AS PROJECTED FROM HOWARD COUNTY CONTROL STATIONS 241A&241B.
 241A - N 579167.067 E 1360250.183 EL. 357.155
 241B - N 578753.518 E 1362302.921 EL. 390.564
 - 10) WATER AND SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 16.1228 OF THE HOWARD COUNTY CODE.
 - 11) PUBLIC WATER AND SEWER ALLOCATION WILL BE GRANTED AT THE TIME OF ISSUANCE OF BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.
 - 12) THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL WITH 6 SHADE TREES PROVIDED WITH LANDSCAPE SURETY IN THE AMOUNT OF \$1,800.00 WITH THE BUILDERS GRADING PERMIT.
 - 13) LANDSCAPE SURETY TO BE POSTED AT TIME OF GRADING PERMIT. LANDSCAPING TO BE DEFERRED UNTIL THE SITE DEVELOPMENT PLAN.
 - 14) THE SUBJECT PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT WHICH IS SERVED BY PUBLIC WATER AND SEWER.
 - 15) THERE ARE NO WETLANDS, WETLAND BUFFERS, STREAMS, STREAM BUFFERS, FOREST, OR STEEP SLOPES ON THE SITE.
 - 16) PER SECTION 16.134(a)(1)(ii) OF HOWARD COUNTY SUBDIVISION REGULATIONS FOR MINOR SUBDIVISIONS, IF A DEVELOPER CHOOSES NOT TO CONSTRUCT SIDEWALKS ALONG THE PORTION OF THE DEVELOPMENT THAT FRONTS ON A COUNTY OR STATE ROAD, THE DEVELOPER SHALL PAY A FEE-IN-LIEU OF SIDEWALK CONSTRUCTION. THE FEE-IN-LIEU SHALL BE BASED ON THE UNIT PRICES FOR THE COST TO CONSTRUCT THE SIDEWALK, INCLUDING THE ASSOCIATED CURB AND GUTTER, AND SHALL BE SPENT ON SIDEWALKS IN THE SAME GENERAL PLAN PLANNING AREA AS THE DEVELOPMENT [OB 15-2006 eff. 06/07/06].
 - 17) SIDEWALK REQUIREMENTS ARE TO BE MET BY SUBMISSION OF A FEE-IN-LIEU.
 - 18) DUE TO THE NEW DRIVEWAY BEING LESS THAN 10' FROM THE PROPERTY LINE A NEW PRIVACY FENCE WILL BE CONSTRUCTED TO MEET THAT PORTION OF LANDSCAPING REQUIREMENTS.
 - 19) LOT 2 IS SUBJECT TO THE MIHU FEE-IN-LIEU REQUIREMENTS THAT ARE TO BE CALCULATED AND PAID TO THE DEPARTMENT OF INSPECTORS, LICENSES AND PERMITS AT THE TIME OF BUILDING PERMIT ISSUANCE BY THE PERMIT APPLICANT.
 - 20) PER SECTION 16.121(b)(2)(ii) OF HOWARD COUNTY SUBDIVISION REGULATIONS, THE DEVELOPER SHALL PAY A FEE-IN-LIEU IN PLACE OF ESTABLISHING OPEN SPACE FOR THE SUBDIVISION.
 - 21) THERE ARE NO CEMETERIES PRESENT ON THE SITE.
 - 22) STORMWATER MANAGEMENT IS PROVIDED FOR THE 100-YEAR AND 2016 STORM.
 - 23) IN ACCORDANCE WITH SECTION 16.128 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS A PRE-SUBMISSION MEETING WAS HELD AT THE MILLER BRANCH LIBRARY ON JANUARY 6, 2015 AT 7PM.

ADDRESS CHART	
LOT/PARCEL #	STREET ADDRESS
LOT 2	4024 SAINT JOHN'S LANE

PERMIT INFORMATION CHART			
Subdivision Name	Section/Area	Section District	Lot/Parcel No.
VAN STONE PROPERTY			LOT 2
Plot # or No.	Zone #	Section District	Genus Dist.
Plot No. 23675	12	R-20	6056.02
Water Code			
Sewer Code			

REVISIONS	

MODERATE INCOME HOUSING UNITS (MIHU) ALLOCATION EXEMPTIONS TRACKING

TOTAL NUMBER OF LOTS / UNITS PROPOSED	1
NUMBER OF MIHU REQUIRED	0.1
NUMBER OF MIHU PROVIDED ONSITE (Exempt from APD allocations)	0
NUMBER OF APD ALLOCATIONS REQUIRED (remaining lots / units)	0
MIHU FEE-IN-LIEU	1

OWNER/DEVELOPER
PRIAM CHUN
 5458 AUTUMN FIELD COURT
 ELLICOTT CITY, MD 21043
 301-332-2888

ENGINEER'S CERTIFICATE
 "I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
 Signature of Engineer (print name below signature) *Jan Shianco* Date 04/13/2020
DEVELOPER'S CERTIFICATE
 "We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."
 Signature of Developer (print name below signature) *Priam Chun* Date 4/13/2020

APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION *[Signature]* DATE 4/29/20
 CHIEF, DEVELOPMENT OF LAND DEVELOPMENT *[Signature]* DATE 3/1/2020

DEVELOPER / BUILDER CERTIFICATE
 "We certify that the landscaping shown on this plan will be done according to Section 16.124 of the Howard County Code and the Howard County Landscape Manual. We further certify that upon completion of Certification of Landscaping Installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning."
 Signature *[Signature]* Date 4/13/2020

Note:
 This plan complies with the 2016 Stormwater Management requirements as required by CR-123-2019.

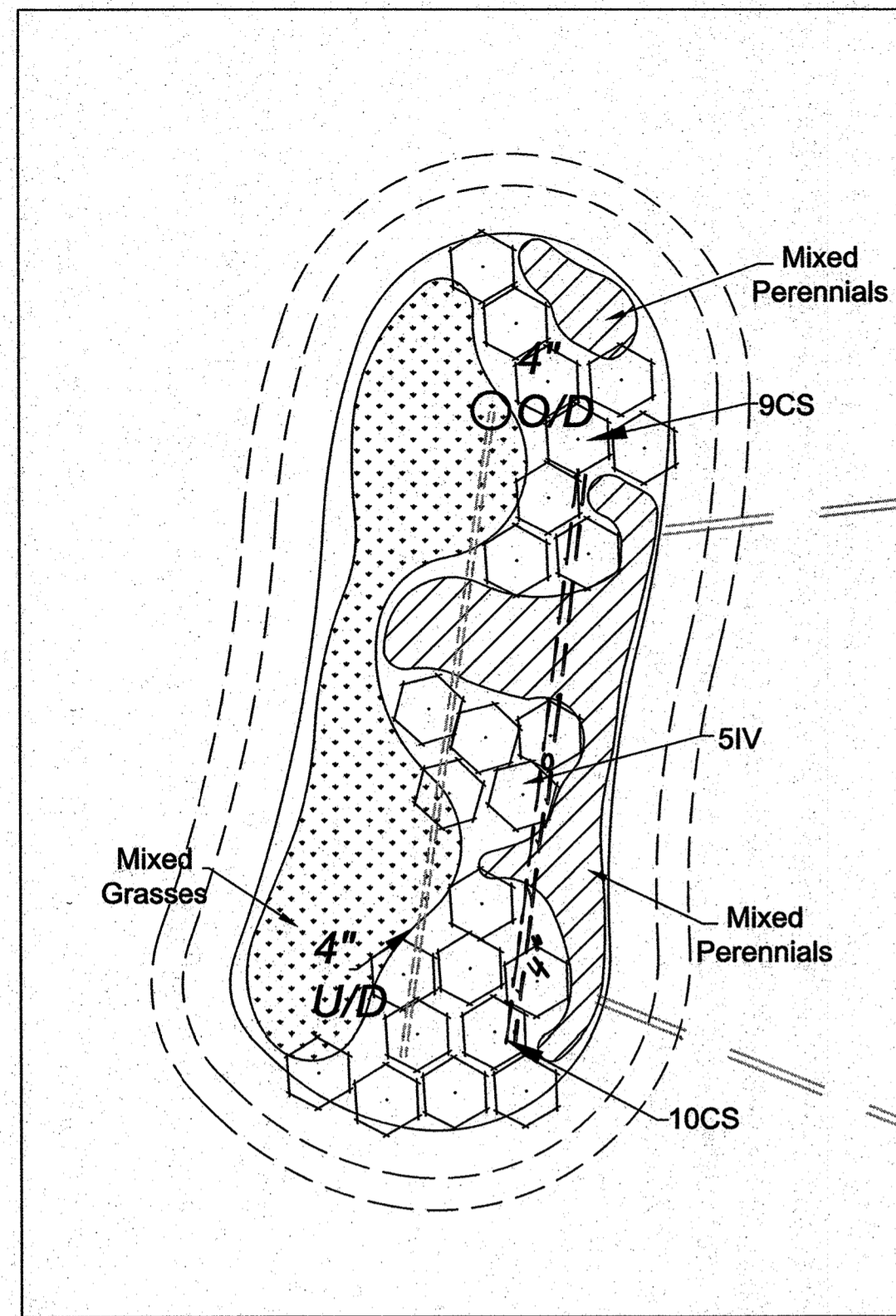
This development plan is approved for soil erosion and sediment control by the HOWARD COUNTY CONSERVATION DISTRICT
 Signature *[Signature]* Date

SUPPLEMENTAL PLAN
Lot 2 of the Van Stone Property
Plat No. 23675
Tax Map No. 24 2nd Election District
Grid 17 Parcel 953
Howard County, Maryland

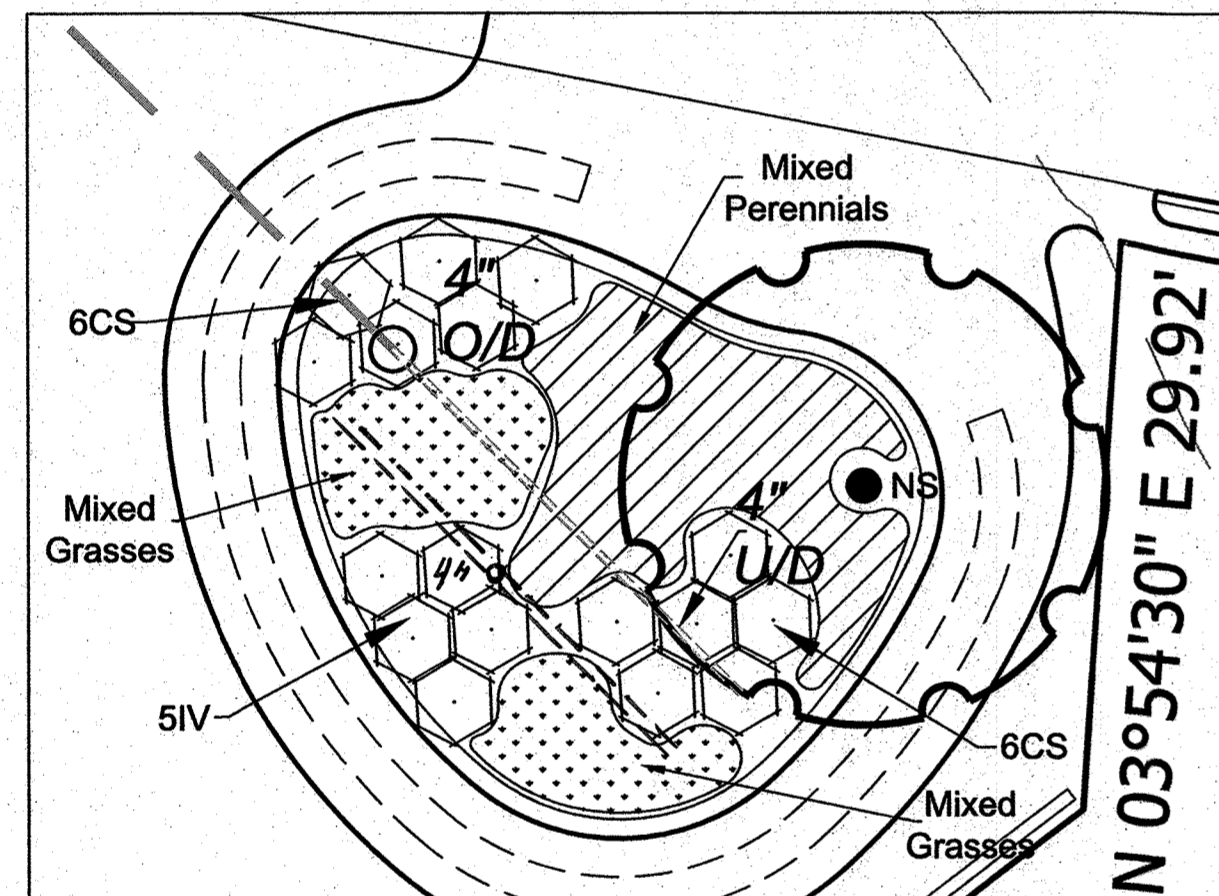
DESIGN BY: JAS
 DRAWN BY: PHS
 CHECKED BY: JAS
 DATE: January 2020
 SCALE: 1" = 30'

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. 25725 EXPIRATION DATE

1 SHEET OF 3



**DETAIL VIEW:
MICRO BIORETENTION #1 PLANTING**
1"=10'



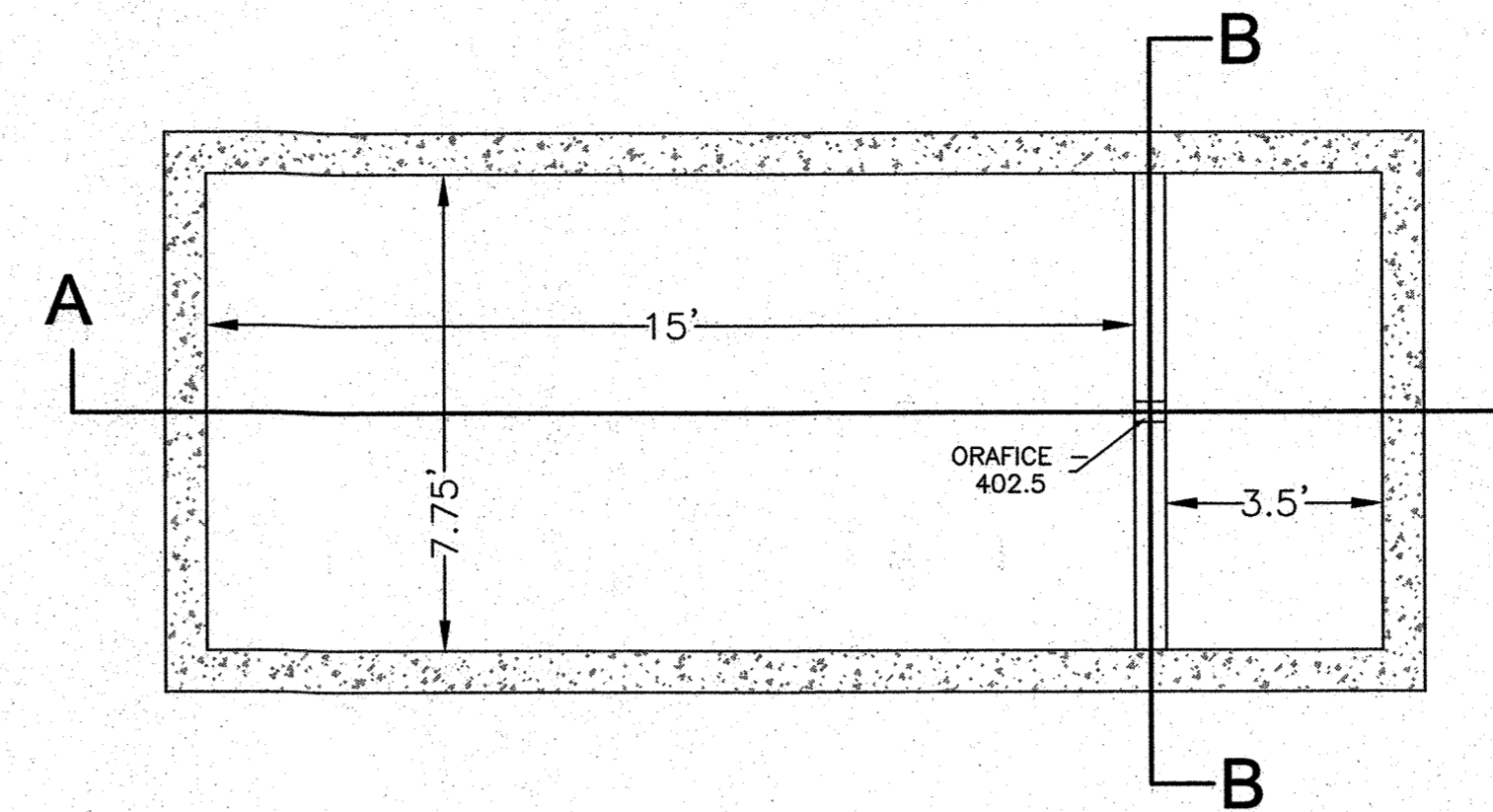
**DETAIL VIEW:
MICRO BIORETENTION #2 PLANTING**
1"=10'

MICRO BIORETENTION #1 PLANT SCHEDULE - RECOMMENDED SPECIES LIST

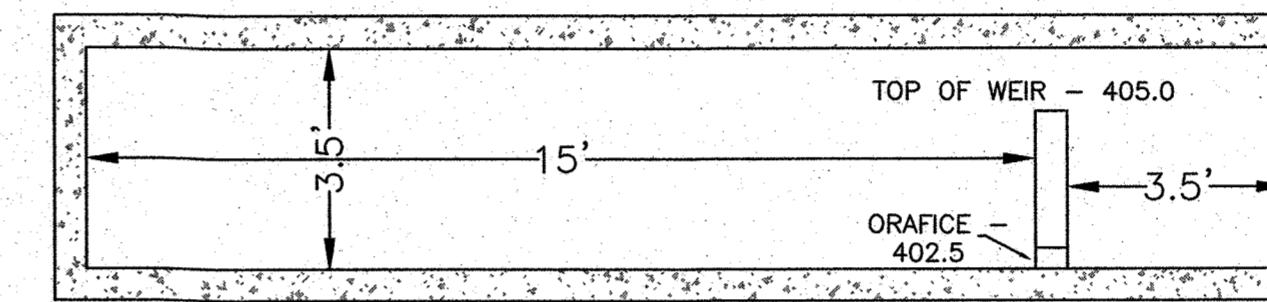
KEY	QUANTITY	SIZE	SCIENTIFIC NAME	COMMON NAME	SPACING	COMMENTS
SHRUBS:24						
CS	19	3 Gal.	<i>cornus sericea</i>	Redtwig Dogwood	4' o.c.	
IV	5	3 Gal.	<i>Itea virginica 'Sprich'</i>	Little Henry Virginia Sweetspire	4' o.c.	
GRASSES:80						
	25	1 Gal.	<i>Andropogon virginicus</i>	Broom Sedge	2' o.c.	
	25	1 Gal.	<i>Alopecurus carolinianus</i>	Tufted Foxtail	2' o.c.	
	30	1 Gal.	<i>Panicum virgatum 'Heavy Metal'</i>	Heavy Metal Switchgrass	2' o.c.	
PERENNIALS:250						
	80	1 Qt.	<i>Echinacea</i>	Coneflower	10' o.c.	
	80	1 Qt.	<i>Aster</i>	Aster	10' o.c.	
	90	1 Qt.	<i>Lobelia cardinalis</i>	Coneflower	10' o.c.	

MICRO BIORETENTION #2 PLANT SCHEDULE - RECOMMENDED SPECIES LIST

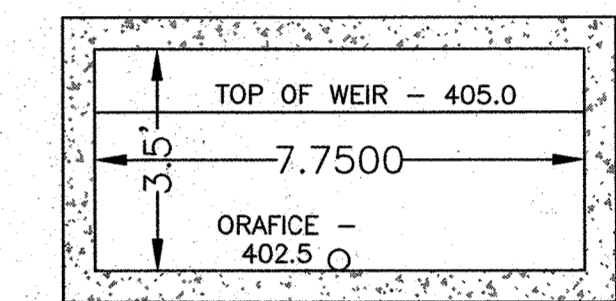
KEY	QUANTITY	SIZE	SCIENTIFIC NAME	COMMON NAME	SPACING	COMMENTS
TREES:1						
NS	1	2.5-3" Cal'	<i>Nyssa sylvatica</i>	Black Gum	As Shown	B&B
SHRUBS:17						
CS	12	3 Gal.	<i>cornus sericea</i>	Redtwig Dogwood	4' o.c.	
IV	5	3 Gal.	<i>Itea virginica 'Sprich'</i>	Little Henry Virginia Sweetspire	4' o.c.	
GRASSES:40						
	20	1 Gal.	<i>Andropogon virginicus</i>	Broom Sedge	2' o.c.	
	20	1 Gal.	<i>Alopecurus carolinianus</i>	Tufted Foxtail	2' o.c.	
PERENNIALS:280						
	90	1 Qt.	<i>Echinacea</i>	Coneflower	10' o.c.	
	90	1 Qt.	<i>Aster</i>	Aster	10' o.c.	
	100	1 Qt.	<i>Lobelia cardinalis</i>	Coneflower	10' o.c.	



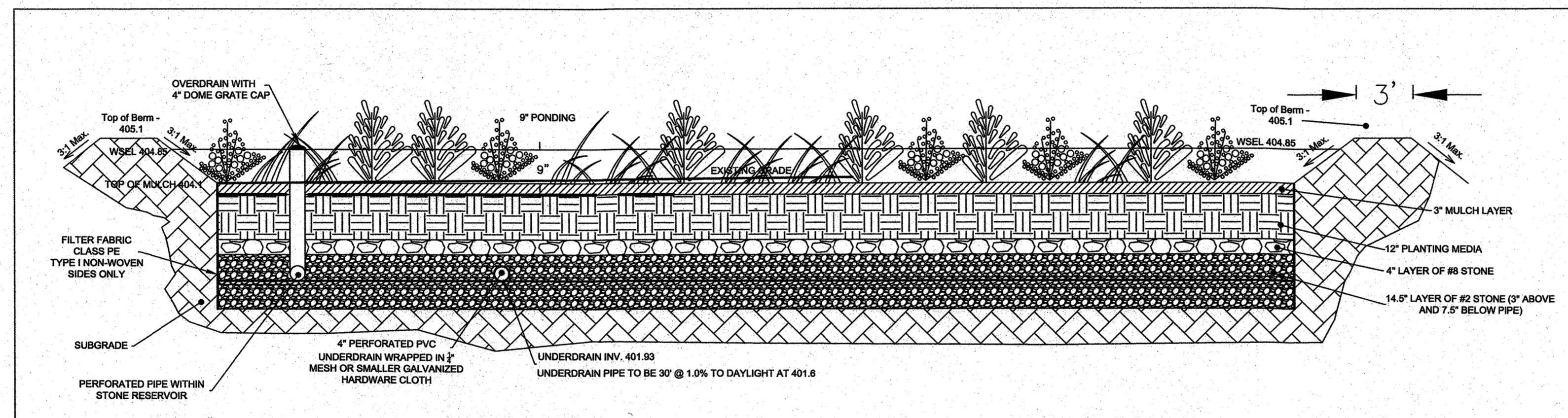
STORAGE VAULT - PLAN VIEW
1"=3'



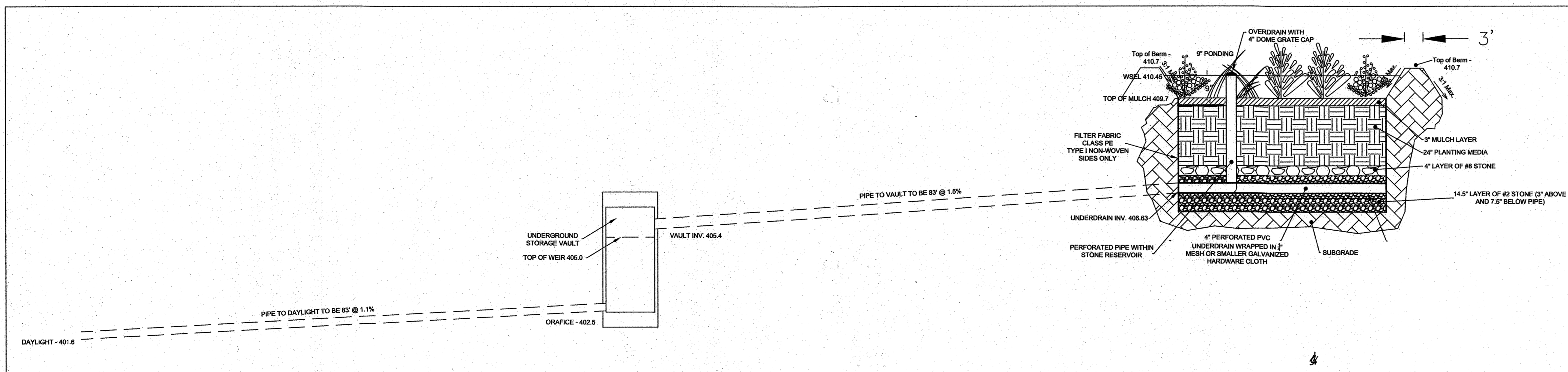
STORAGE VAULT - SECTION A-A
1"=3'



STORAGE VAULT - SECTION B-B
1"=3'



MODIFIED SECTION: MICRO-BIORETENTION AREA #1
V 1"=2'
H 1"=5'



SCHEMATIC PROFILE: MICRO-BIORETENTION AREA #2
V 1"=2'
H 1"=10'

OWNER/DEVELOPER
PRIAM CHUN
5458 AUTUMN FIELD COURT
ELLCOTT CITY, MD 21043
301-332-2888

APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION *[Signature]* 4/29/20 DATE

CHIEF, DEVELOPMENT OF LAND DEVELOPMENT *[Signature]* DATE

LOT/PARCEL #	ADDRESS CHART
LOT 2	STREET ADDRESS 4024 SAINT JOHN'S LANE

PERMIT INFORMATION CHART					
Subdivision Name VAN STONE PROPERTY	Section/Area	Lot/Parcel No. LOT 2			
Plot # or L.P. Plot No. 10688	Grid # 12	Zoning R-20	Yard Map No. 35	Junction District 05	Comma Trust 6056.02
Water Code	Sewer Code				

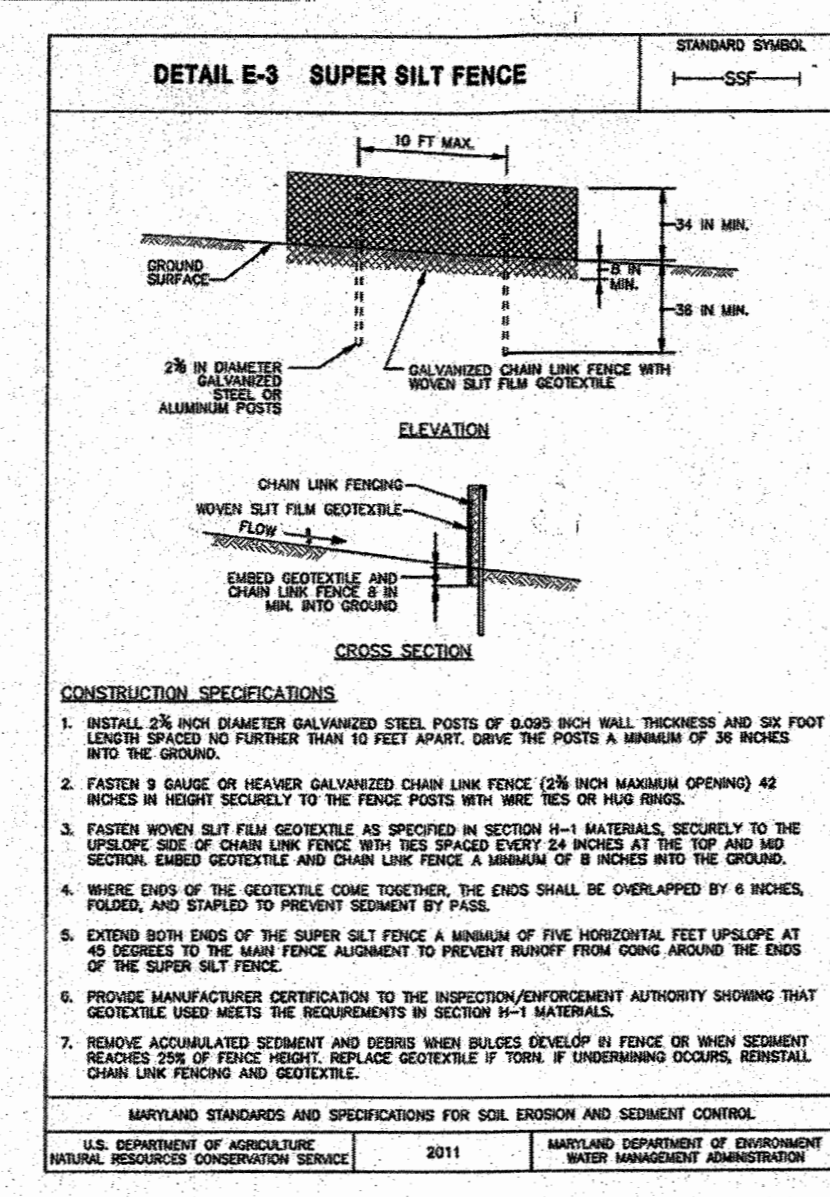
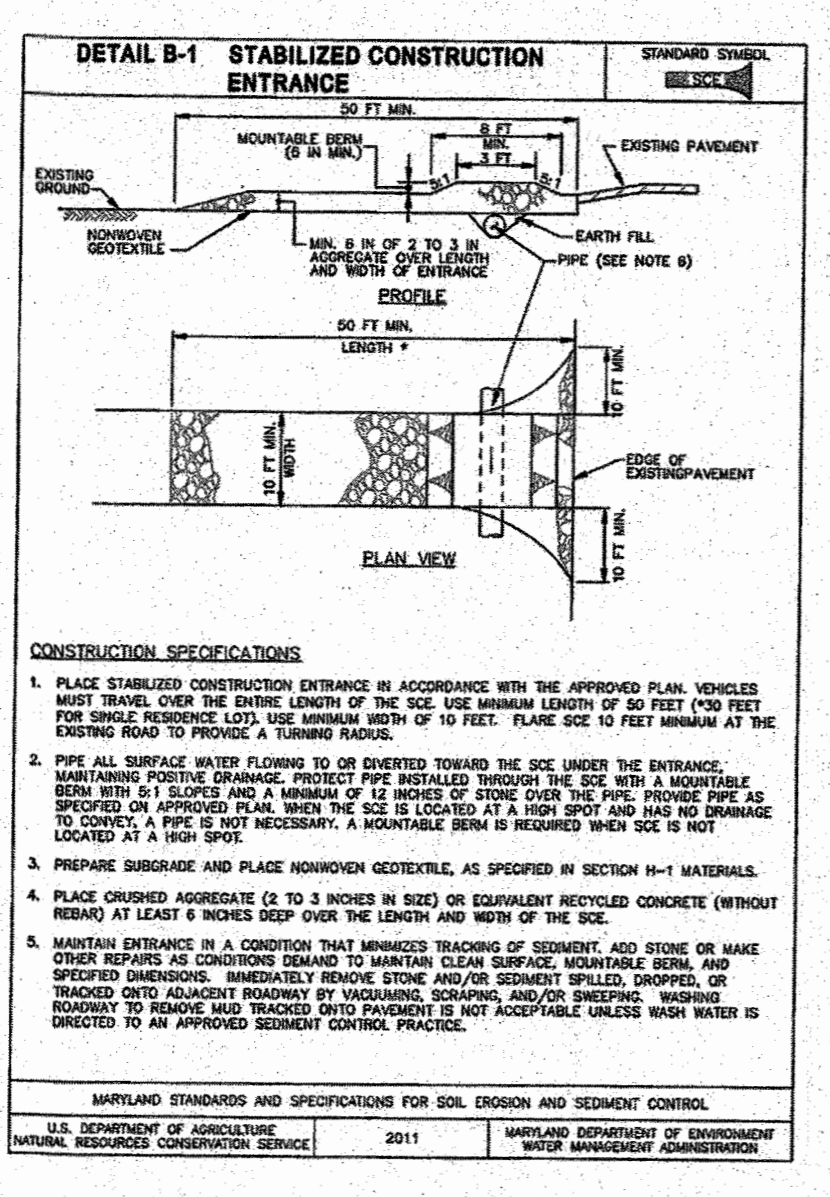
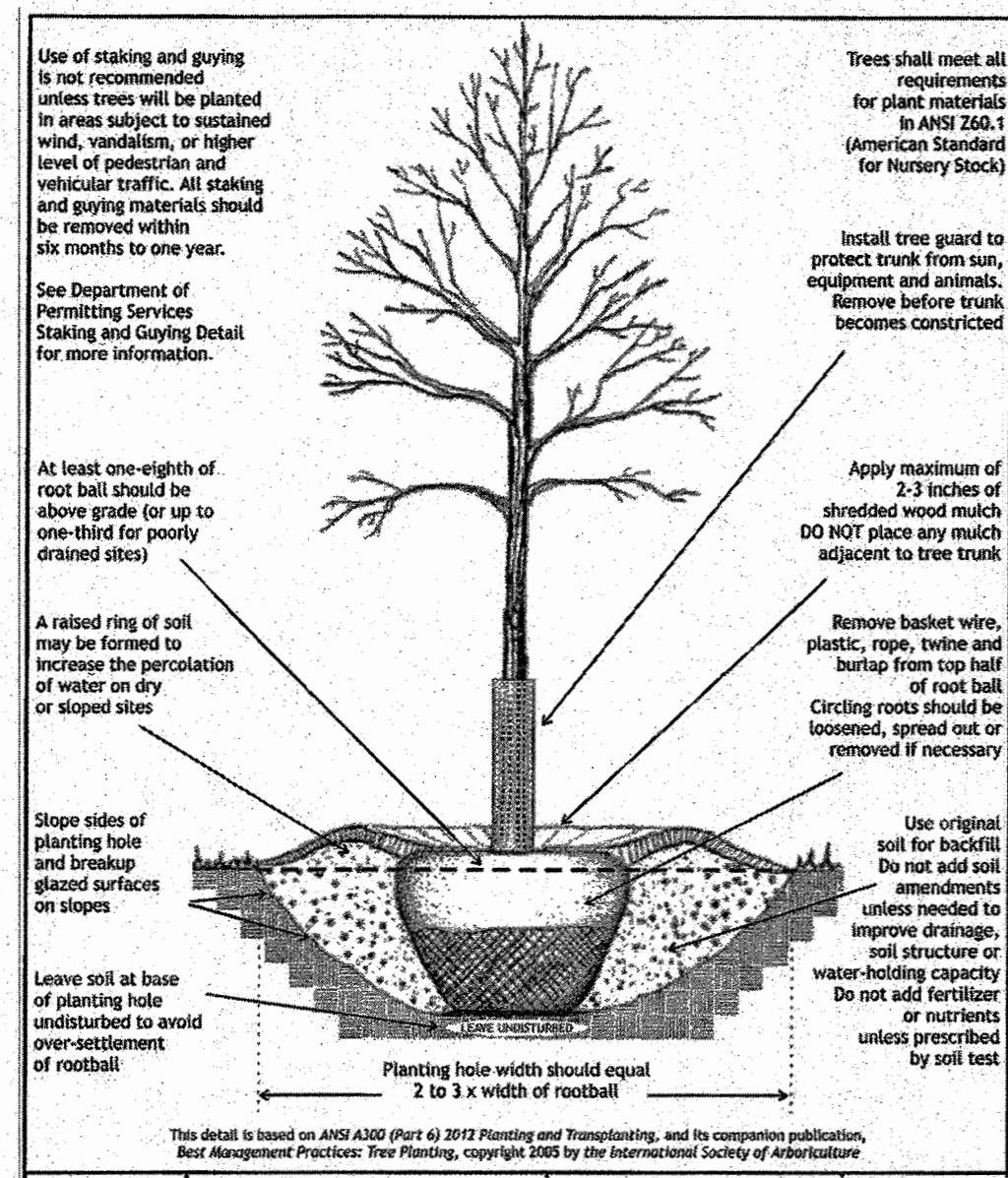
REVISIONS	

**SUPPLEMENTAL PLAN -
SWM Details**
Lot 2 of the Van Stone Property
L.15786 F.29
Tax Map No. 24 Fifth Election District
Grid 17, Parcel 953
Howard County, Maryland

DESIGN BY: JAS
DRAWN BY: PH
CHECKED BY: BS
DATE: January 2020
SCALE: 1"=30'

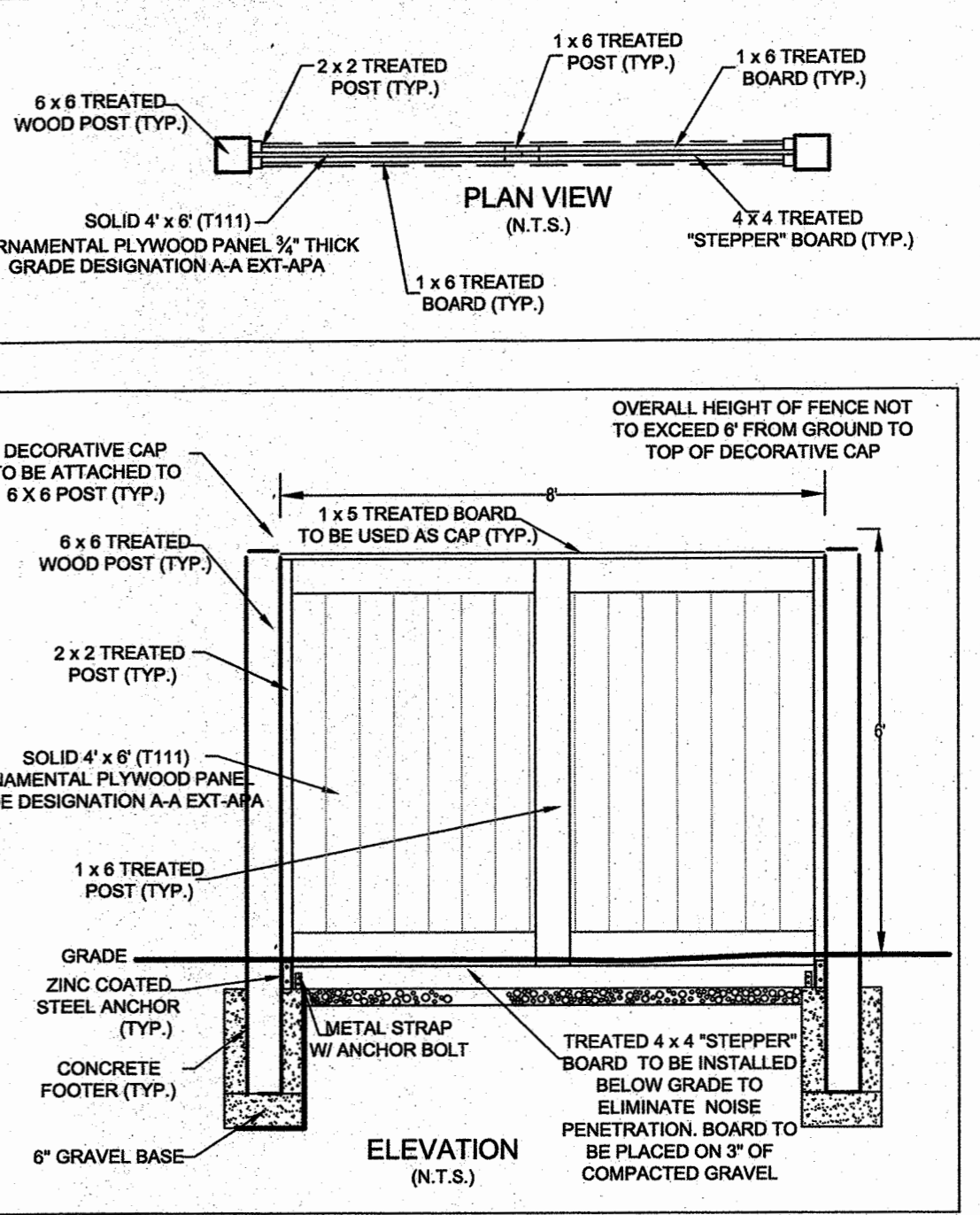
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 2001 EXPIRATION DATE

2 SHEET OF 3



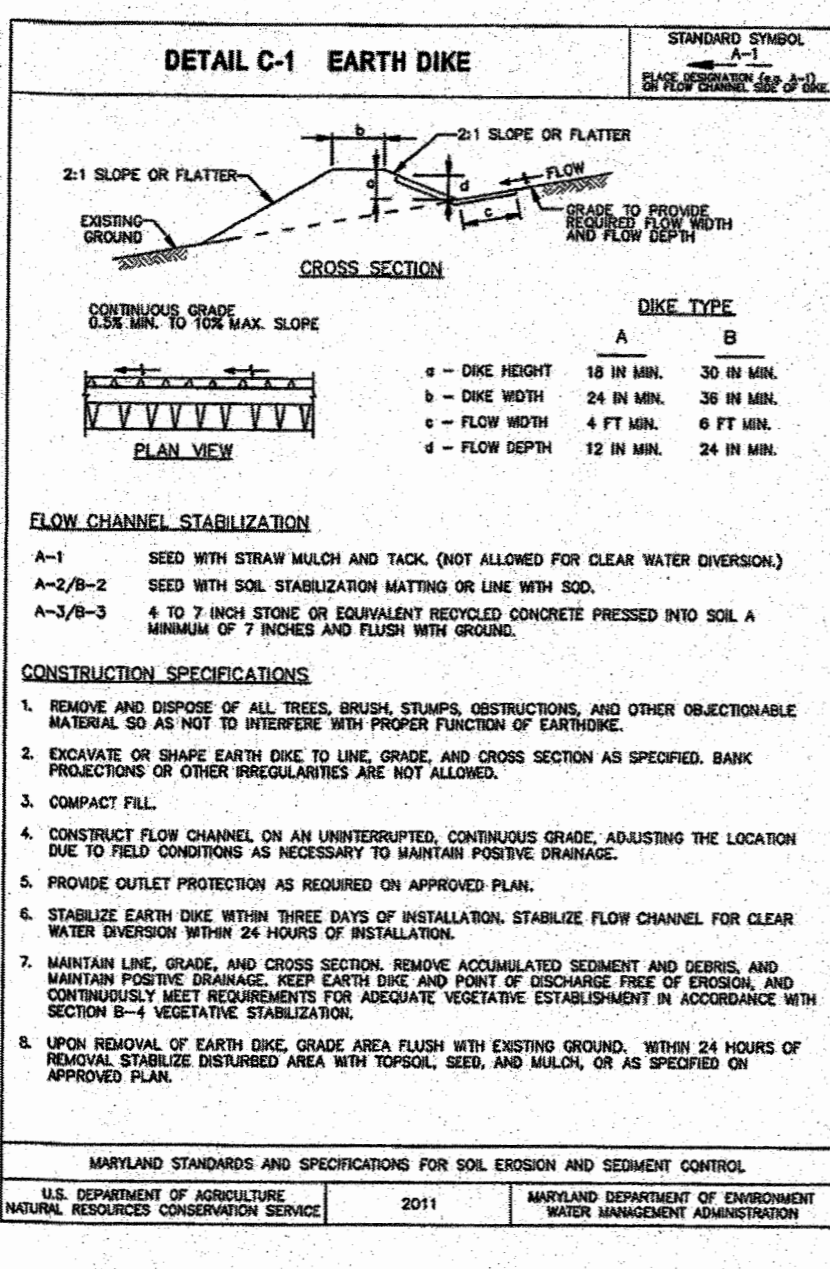
Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number			
D.A. #1	Woods	(good) C	.12	70			
Total Area / Weighted Curve Number							
Sub-Area Time of Concentration Details							
Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Manning's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
D.A. #1	100	0.0500	0.150			0.113	
SUBAREA	98	0.0610	0.050			0.007	
Time of Concentration							
Hydrograph Peak/Peak Time Table							
Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period						
D.A. #1	0.35 0.88						

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number			
D.A. #1	Open space; grass cover > 75%	(good) C	.04	74			
Total Area / Weighted Curve Number							
Sub-Area Time of Concentration Details							
Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Manning's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
D.A. #1	100	0.0500	0.150			0.113	
SUBAREA	98	0.0610	0.050			0.007	
Time of Concentration							
Hydrograph Peak/Peak Time Table							
Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period						
D.A. #1	0.68 1.26						



HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspection, Licenses and Permits, Sediment Control Division prior to the start of any construction (D13-1835).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in accordance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
- Following initial soil disturbance or site disturbance, permanent or temporary stabilization shall be completed within 2 (two) calendar days for all permanent sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, 7 (seven) days as to all other disturbed or graded areas on the project site.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 2013 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, for permanent seeding (Sec. B1-4.3), temporary seeding (Sec. B1-4.4) and mulching (Sec. B1-4.5). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grass.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:
Total Area of Site: _____ Acres
Area Disturbed: _____ Acres
Area to be seeded or planted: _____ Acres
Area to be vegetatively stabilized: _____ Acres
Total Site: _____ Cu. Yds.
Total Fill: _____ Cu. Yds.
Obtain waste/closure area location.
- Any sediment control practice that is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be required upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Thickness for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized by the end of each working shift.
- Any changes or revisions to the sequence of construction must be reviewed and approved by the plan approval authority prior to proceeding with construction.
- A project is to be sequenced so that grading activities begin on one grading unit (maximum average of 20 ac per grading unit) at a time. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the enforcement authority. Other activities specified and approved by the approval authority, no more than 50 acres cumulatively may be disturbed at a given time.



ESD NARRATIVE

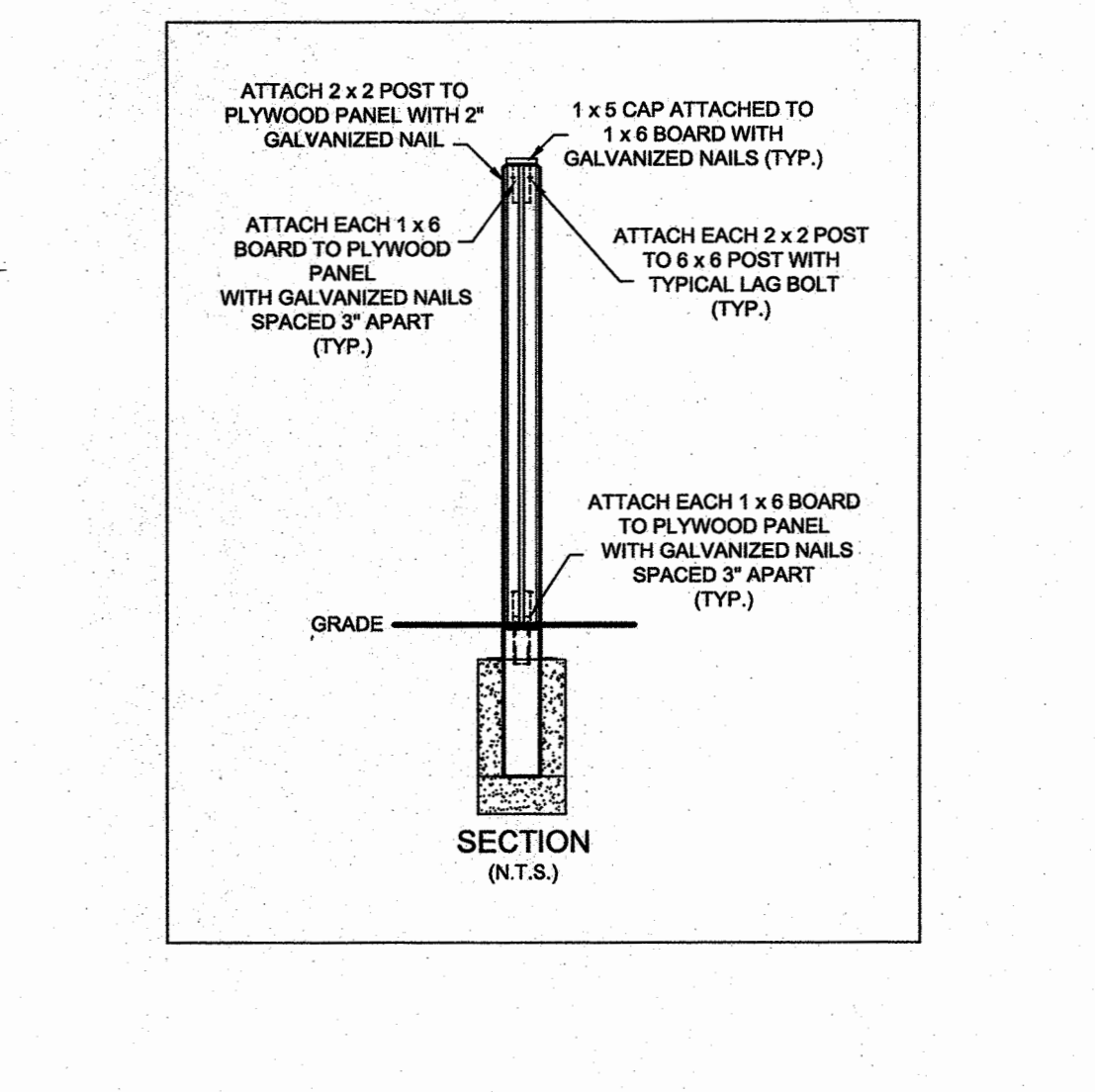
- THERE ARE NO STEEP SLOPES, EXISTING WETLANDS, WETLAND BUFFERS, STREAMS, STREAM BUFFERS, OR 100 YEAR FLOODPLAIN LOCATED ON THE PROPERTY.
- THE EXISTING DRAINAGE PATTERNS WILL BE MAINTAINED AS CLOSELY AS POSSIBLE DURING AND AFTER THE DEVELOPMENT OF THE SITE.
- IMPVIOUS AREAS FOR LOT 2 ARE BASED ON ARCHITECTURAL PLANS PROVIDED TO DATE.
- THE REQUIRED SEDIMENT AND EROSION CONTROL MEASURES CONSISTING OF SUPER SILT FENCE, A STABILIZED CONSTRUCTION ENTRANCE, AND AN EARTH DIKE HAVE BEEN UTILIZED IN ACCORDANCE WITH THE LATEST HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MARYLAND DEPARTMENT OF ENVIRONMENTAL REGULATIONS.
- THE PROPOSED ENVIRONMENTAL SITE DESIGN MEASURES HAVE BEEN DESIGNED TO THE MAXIMUM EXTENT POSSIBLE AND MEET THE TARGET P₆ FOR THE PROJECT. THERE ARE NO MAJOR STRUCTURAL PRACTICES REQUIRED AS DESCRIBED IN CHAPTER 3 OF THE ABOVE REFERENCED MANUAL.
- DEVELOPMENT OF LOT 2 IS SUBJECT TO STORMWATER MANAGEMENT REQUIREMENTS ASSOCIATED WITH COUNTY COUNCIL RESOLUTION #123-2019. THIS REQUIRES ALL DEVELOPMENT WITHIN THE TIBER BRANCH AND PLUMTREE WATERSHEDS TO MANAGE AND CONVEY RUN-OFF FOR THE 24 HOUR 100-YEAR, 24 HOUR 10-YEAR, AND 3.6 HOUR 6.8 INCH STORM EVENT TO A STORMWATER MANAGEMENT FACILITY.

LANDSCAPING NOTES

AT THE TIME OF PLANT INSTALLATION ALL PLANT MATERIAL LISTED AND APPROVED SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE REQUIREMENTS MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF THE LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number			
D.A. #2	Woods	(good) C	.18	70			
Total Area / Weighted Curve Number							
Sub-Area Time of Concentration Details							
Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Manning's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
D.A. #2	100	0.0500	0.150			0.113	
SUBAREA	98	0.0610	0.050			0.007	
Time of Concentration							
Hydrograph Peak/Peak Time Table							
Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period						
D.A. #2	0.54 1.34						

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number			
D.A. #2	Open space; grass cover > 75%	(good) C	.18	74			
Total Area / Weighted Curve Number							
Sub-Area Time of Concentration Details							
Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Manning's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
D.A. #2	100	0.0500	0.150			0.113	
SUBAREA	98	0.0610	0.050			0.007	
Time of Concentration							
Hydrograph Peak/Peak Time Table							
Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period						
D.A. #2	0.82 1.69						



SOIL	NAME	COMMENTS	K VALUE	HIGHLY ERODIBLE
LcB	Legore Montalto Urban Complex	Testing shows high water table	0.64	No

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	NONE	A
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	20.16'	904.32'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	SEE COMMENT 1 BELOW
CREDIT FOR WALL, FENCE, OR BEHM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	SEE COMMENT 2 BELOW
NUMBER OF PLANTS REQUIRED SHADE TREES	NONE	360 7' 60" x 6 SHADE TREES
EVERGREEN TREES	NONE	SEE COMMENT 4 BELOW
SHRUBS	NONE	
NUMBER OF PLANTS PROVIDED SHADE TREES	NONE	6 SHADE TREES
EVERGREEN TREES	NONE	
OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) (DESCRIBE BELOW IF NEEDED)	NONE	

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 PLANT REPLACEMENT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
- ACCORDINGLY STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, 'ENVIRONMENTAL SITE DESIGN' OF THE 2007 MARYLAND STORMWATER DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
- MAXIMUM CONTRIBUTING DRAINAGE AREA TO EACH MICRO BIO RETENTION AREA SHALL BE 20,000 SF OR LESS.
- STORMWATER MANAGEMENT REQUIREMENTS FOR THIS SITE WILL BE MET USING ENVIRONMENTAL SITE DESIGN TO THE MAXIMUM EXTENT POSSIBLE IN ACCORDANCE WITH THE MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I & II, EFFECTIVE MAY 2010. PROPOSED PRACTICES WILL BE LOCATED ON AN INDIVIDUAL LOT AS FOLLOWS:
- LOT 2 WILL MEET STORMWATER REQUIREMENTS USING 2 MICRO BIORETENTION (M-6) AREAS. THESE PRACTICES SHALL BE PRIVATELY OWNED AND MAINTAINED IN ACCORDANCE WITH INDIVIDUAL DECLARATION OF COVENANCE.

STORMWATER MANAGEMENT PRACTICES

LOT	ADDRESS	FACILITY
2	4024 Saint John's Lane	2 Micro Bioretention (M-6)

LANDSCAPING PLANT LIST

KEY	QTY	NAME	SIZE
AR	3	Red Maple (Acer rubrum)	2.5' Cal., B&B, 8'-10'
NS	2	Black Gum (Nyssa sylvatica)	2.5' Cal., B&B, 8'-10'
QC	1	Quercus coccinea (Scarlet Oak)	2.5' Cal., B&B, 8'-10'

SPECIMEN TREE DATA

KEY	SPECIES	COMMENTS
ST-1	31.2" Boxelder (acer negundo)	Poor/Dead Condition, dead loose bark, dead leaders, tree poses a potential hazard

THE OWNER, TENANTS, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITIONS, 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.

DEVELOPER'S / OWNER'S LANDSCAPE 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. We further certify that upon completion a letter of landscape installation, accompanied by an executed one (1) year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.

Priam Chun, 4/13/2020, DATE
Signature of Developer (print name below signature)

COMMENTS:

- CREDIT IS TAKEN FOR AN EXISTING EVERGREEN HEDGE ROW ALONG REAR PROPERTY LINE (121.68')
- ALONG THE 365.21' PROPERTY LINE CREDIT IS TAKEN FOR NEW PRIVACY FENCE (245') ALONG DRIVEWAY.
- A WAIVER IS REQUESTED ALONG THE 176.94' PROPERTY LINE DUE A SPATIAL CONSTRAINT. THERE IS NOT ADEQUATE SPACE TO PLANT WITHIN THE PIPESTEM AND MAINTAIN A SAFE SETBACK FROM THE NEW DRIVEWAY. AT THE DATE OF THIS PLAN THE OWNER OF LOT 1, 4024 SAINT JOHN'S LANE, HAS INSTALLED A PRIVACY FENCE ALONG THIS SHARED PROPERTY LINE.
- TOTAL PERIMETER CALCULATION - 904.32' (245' FENCE) - (121.68' EX. VEGETATION) - (176.94' WAIVER) = 360.7'

STORMWATER MANAGEMENT PRACTICES

LOT	ADDRESS	FACILITY
2	4024 Saint John's Lane	2 Micro Bioretention (M-6)

LANDSCAPING PLANT LIST

KEY	QTY	NAME	SIZE
AR	3	Red Maple (Acer rubrum)	2.5' Cal., B&B, 8'-10'
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SPECIMEN TREE DATA

KEY	SPECIES	COMMENTS
ST-1	31.2" Boxelder (acer negundo)	Poor/Dead Condition, dead loose bark, dead leaders, tree poses a potential hazard

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL WITH 6 SHADE TREES PROVIDED WITH LANDSCAPE SURETY IN THE AMOUNT OF \$1,800.00 WITH THE BUILDERS GRADING PERMIT.

APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 4/29/20

CHIEF, DEVELOPMENT OF LAND DEVELOPMENT
DATE: 4/30/20

OWNER/DEVELOPER
PRIAM CHUN
 5458 AUTUMN FIELD COURT
 ELLICOTT CITY, MD 21043
 301-332-2888

ADDRESS CHART

LOT/PARCEL #	STREET ADDRESS
LOT 2	4024 SAINT JOHN'S LANE

PERMIT INFORMATION CHART

Subdivision Name	Section/Area	Cell/Parcel No.
VAN STONE PROPERTY		LOT 2

REVISIONS

NO.	DATE	DESCRIPTION

SUPPLEMENTAL PLAN - Landscaping Notes and Details, SWM calculations
Lot 2 of the Van Stone Property
 L.15786 F.29
 Tax Map No. 24 Fifth Election District
 Grid 17, Parcel 953
 Howard County, Maryland

DESIGN BY: JAS
 DRAWN BY: PHS
 CHECKED BY: JAS
 DATE: January 2020
 SCALE: 1" = 30'

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. 2001
 EXPIRATION DATE: _____

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