		<u></u>	
	501L5 LEGEND		
50IL	NAME	CLA55	K FACTOR
GfB	Gladstone - Urban land complex, 0 to 8 percent slopes	A	0.20
GfC	Gladstone - Urban land complex, 8 to 15 percent slopes	A	0.20
Guß	Glenville - Urban land udorthents complex, 0 to 8 per. slopes	С	0.37
Soil Ma	p: 23 (Clarksville, SE)		

	50IL5 LEGEND		
50IL	NAME	CLA55	K FACTOR
GfB	Gladstone - Urban land complex, 0 to 8 percent slopes	. A	0.20
GfC	Gladstone - Urban land complex, 8 to 15 percent slopes	A	0.20
Guß	Glenville - Urban land udorthents complex, 0 to 8 per. slopes	С	0.37

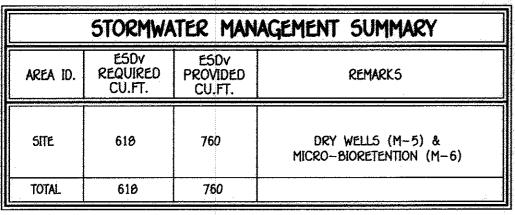
	501L5 LEGEND	74. 13. m 24. m	
50IL	NAME	CLA55	K FACTOR
GfB	Gladstone – Urban land complex, 0 to 0 percent slopes	A	0.20
GfC	Gladstone - Urban land complex, 8 to 15 percent slopes	A	0.20
Guß	Glenville - Urban land udorthents complex, 0 to 8 per. slopes	С	0.37
Soil Ma	ip: 23 (Clarksville, 5E)		

	D	RY WE	LL CH	ART	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
DRYWELL NO.	AREA OF ROOF PER DOWN SPOUT	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF TREATMENT	L	W D
NORTH	960 SQ. FT.	107 C.F.	112 C.F.	100%*	8' x	7' x 5'

* AREA OF TREATMENT EXCEEDS THAT REQUIRED.

SUPPLEMENTAL PLAN HOLIDAY HILLS LOTS 125 AND 126

TAX MAP No. 41 GRID No. 06 PARCEL NO. 174 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



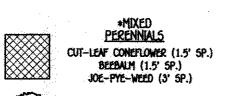
GROSS AREA = 0.532 AC. (LOT 126) 1.029 AC. (TOTAL) LOD = 0.46 ACRE5 (20,100 54.Ft.)RCN = 38.6TARGET Pe = 1.4"

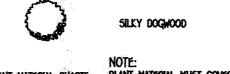
MICR	0-B	IORE	TEN	ITION	/	BIO	RETE	NTIC)N
BIORETENTION FILTER	A	В	С	D	E	F	G	Н	I
LOT 126	361.0	361.0	360.0	359.75	350.25	358.0	357.67	357.5	375.33

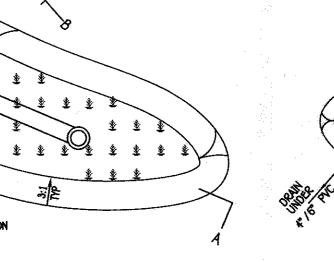
MICRO-	-BIORETENTIC	ON PLANT MATERIAL
MICRO-BIO QUANTITY	NAME	MAXIMUM SPACING (FT.)
40	MIXED PERENNALS	1.5 TO 3.0 FT.
1	SILKY DOGWOOD	PLANT AWAY FROM INFLOW LOCATION

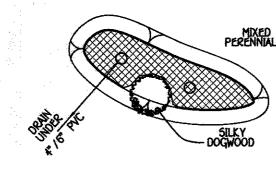
4"/6" PVC PIPE

UNDERDRAIN COLLECTION 5YSTEM 9 0.5% MIN





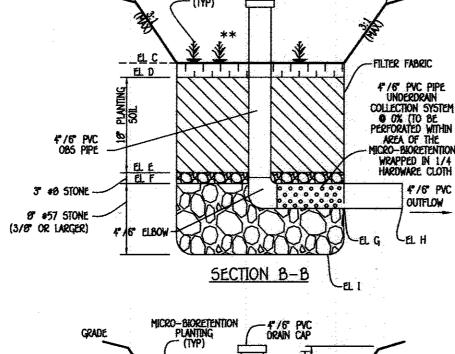


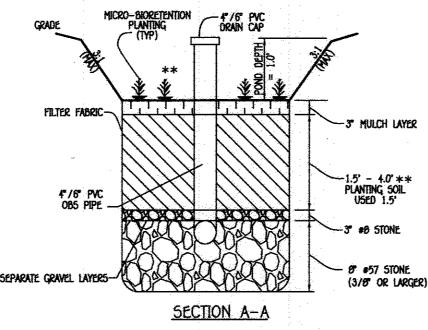


MICRO-BIORETENTION PLANTING DETAIL

			1				and the second second				
			•								
able	B.4.	Materials	Specifications	for	Micro-Bioretention,	Ra	in Gardens	&	Landscape I	nfiltration	

lable B.4. Materials	specifications for M	icro-bioretention, i	Rain Gardens & Landscape Infiltration
Material	Specification	Size	Notes
Plantings Planting soil E2' to 4' deep]	see Appendix A; Table A.4 loamy sand 60-65% compost 35-40% or sandy loam 30% coarse sand 30% compost 40%	n/à	plantings are site-specific USDA soil types loamy sand or sandy loam; clay content <5%
Organic Content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum
Pea gravel diaphragm	peà gravel: ASTM-D-448	No. 8 or No. 9 (1/8 to 3/8)	
Curtain drain	ornāmentāl stone: wāshed cobbles	stone: 2" to 5"	
Geotextile		n/ā	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	No. 57 or No. Aggregate (3/6° to 3/4°)	
Underdråin piping	F 750, Type P5 20 or AASHTO M-270	4" to 6" rigid schedule 40 PVC or 50R35	Slotted or perforated pipe; 3/8" pert. © 5" 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 20 days, normal weight, air-entrained; reinforcing to meet ASTM+615-60	n.ā	on-site testing of poured-in-place concrete required: 20 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved 5tate or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the 5tate of Maryland - design to include meeting ACI Code 350.8/09; vertical loading (H-10 or H-201; allowable horizontal loading (based on soil pressures); and analysis of potential cracking
5and	AASHTO-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone (AASHTO) #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.





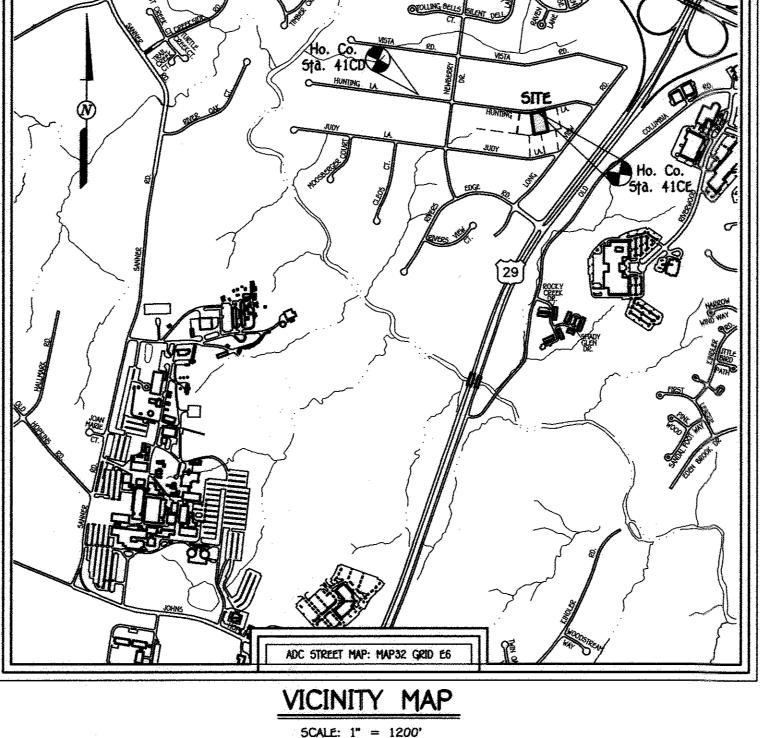
MICRO-BIORETENTION DETAIL (M-6)

STORMWATER MANAGEMENT NOTES

- WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL EFFECTIVE MAY 4, 2010. 2. MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT
- SHALL BE 1,000 SQ. FT. OR LESS. 3. DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5%. THE SIZE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH

1. STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH

- THE DETAIL SHOWN ON THIS SHEET. 4. FINAL GRADING IS SHOWN ON THIS SITE DEVELOPMENT PLAN.



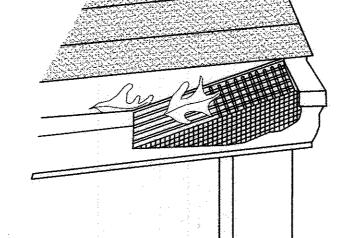
BENCHMARK INFORMATION

- B.M.#1 HOWARD COUNTY CONTROL STATION #41CD HORIZONTAL NAD '83) (LOCATED ON THE NORTH SIDE OF HUNTING LANE WEST OF NEWBERRY DRIVE) E 1,344,386.3850 ELEVATION = 347.74 - VERTICAL - (NAVD '88)
- HOWARD COUNTY CONTROL STATION #41CE HORIZONTAL (NAD '83) (LOCATED ON THE SOUTH SIDE OF HUNTING LANE) N 550.340.9790 £ 1,345,892,2830

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)

ELEVATION = 371.34 - VERTICAL - (NAVD '98)

- A. THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT. B. THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS
- OVER A PERIOD OF SEVERAL DAYS TO ENSURE TRENCH DRAINAGE. C. THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS. D. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTY-TWO
- (72) HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN. E. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
- F. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED. THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

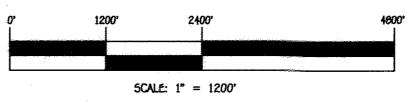


GUTTER DRAIN FILTER DETAIL

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. 21351, **EXPIRATION DATE: 07/15/2017.**







SITE ANALYSIS DATA CHART

PRESENT ZONING DESIGNATION = R-20

PROPOSED USE: RESIDENTIAL

TOTAL AREA OF THIS SUBMISSION = 1.029 AC.+.

PREVIOUS HOWARD COUNTY FILES: ECP-17-010

TOTAL AREA OF EXISTING FOREST = 0.00 AC+

TOTAL AREA OF ERODIBLE SOILS = 0.02 AC. ±

TOTAL AREA OF ROAD DEDICATION = 0.00 AC.±

TOTAL GREEN OPEN AREA = 0.833 AC+

TOTAL IMPERVIOUS AREA = 0.196 AC+

LIMIT OF DISTURBED AREA = 20,100 SQ.FT. OR 0.46 Ac. =

(PER 10/06/2013 COMPREHENSIVE ZONING PLAN)

TOTAL AREA OF FLOODPLAIN LOCATED ON-SITE = 0.00 AC±

TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0.00 AC.+

TOTAL AREA OF STREAM (INCLUDING BUFFER) = 0.00 AC. ±

TOTAL AREA OF LOTS / BUILDABLE PARCELS = 1.029 AC+

TOTAL AREA OF FOREST TO BE RETAINED = 0.00 AC+

TOTAL AREA OF MODERATE STEEP SLOPES: 15%-24.9% = 0.00 AC+

TOTAL AREA OF STEEP SLOPES: 25% OR GREATER = 0.00 AC+

LEGEND							
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION				
492	EXISTING 2' CONTOURS	102-	PROPOSED CONTOUR				
490	EXISTING 10" CONTOURS	+362.5	SPOT ELEVATION				
GgB GgC	SOILS LINES AND TYPE	LOD	LIMITS OF DISTURBANCE				
~~~~	EXISTING TREELINE		DRAINAGE AREA DIVIDE				
O∰e	INDIVIDUAL TREES & 5HRUBS	—-5F——	SILT FENCE				
	EXISTING FENCE LINE	ECM	EROSION CONTROL MATTING				
	EXISTING & PROPOSED PAVING	風	STABILIZES CONSTRUCTION ENTRANCE				

### GENERAL NOTES

- Subject Property Zoned R-20 Per 10/06/13 Comprehensive Zoning Plan Coordinates Based On Nad '83, Maryland Coordinate System As Projected By Howard County Geodetic Control Stations No. 41CD And No. 41CE.
- Sta. 41CD N 550,548.6850 E 1,344,388.3850 Sta. 41CE N 550,340.9790 E 1,345,892.2830 Elev.= 371.34
- This Plan Is Based On Field Run Monumented Boundary Survey Performed On Or About May, 2016 By Fisher, Collins And Carter, Inc.
- B.R.L. Denotes Building Restriction Line

  Denotes Iron Pin Set Capped "F.C.C. 106".
- Denotes Iron Pipe Or Iron Bar Found. O Denotes Angular Change In Bearing Of Boundary Or Rights-Of-Way.
- Denotes Concrete Monument Set With Aluminum Plate "F.C.C. 106".

  Denotes Concrete Monument Or Stone Found.
- 10. All Areas Are More Or Less (±). Distances Shown Are Based On Surface Measurement And Not Reduced To Nad '83 Grid Measurement 12. For Flag Or Pipe Stem Lots, Refuse Collection, Snow Removal And Road Maintenance Are Provided To
- The Junction Of Flag Or Pipe Stem And Road Right-Of-Way Line Only And Not Onto The Flag Or Pipe 13. Driveways Shall be Provided Prior To Issuance Of A Use And Occupancy Permit For Any New Dwellings
- 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 Coatina.
  - (1 -1/2" Minimum); c). Geometry - Maximum 15% Grade, Maximum 10% Grade Change And 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 Surface; f). Structure Clearance - Minimum 12 Feet;
- g). Maintenance Sufficient To Ensure All Weather Use. 14. Property Subject To Prior Department Of Planning And Zoning File No's: ECP-17-010 And WP-17-090.

  15. No Cemeteries Exist On The Subject Property Based On Visual Observation Or Listed In Available Howard
- County Cemetery Inventory Map.
- 16. There is An Existing Dwelling Lot 125 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.
- 17. There are No Forest Stands, Wetlands, Wetland Buffer, Stream, Stream Buffer and Floodplain Existing
  On-Site. See Environmental Findings Letter Prepared By Eco-Science Professionals, Inc. Dated May 13,
- 18. Site Is Not Adjacent To A Scenic Road.
- 19. This Project Complies With The Requirements Of Section 16.1200 Of The Howard County Code And Forest Conservation Act. To Fulfil The 0.15 Acres (6,534 Sq.Ft.) Of Afforestation Requirement, The Developer Has Paid A Fee-In-Lieu In The Amount Of \$4,900.50.
- 20. Water And Sewer Service To These Lots Will Be Granted Under The Provisions Of Section 18.1228 Of The
- 21. Public Water And Sewer Allocation Will Be Granted At The Time Of Issuance Of The Building Permit If Capacity Is Available At That Time.
- 22. Stormwater Management is in Accordance With The M.D.E. Storm Water Design Manual. Volumes I & II, Revised 2009. Design Practices In Accordance With Chapter 5 Are Being Utilized. 23. This Plat Is In Compliance With The Amended Fifth Edition Of The Subdivision And Land Developmen Regulations Per Council Bill 45-2003 And The 10/06/13 Comprehensive Zoning Plan. Development Or
- Construction On These Lots Must Comply With Setback And Buffer Regulations in Effect At The Time Of Submission Of The Site Development Plan, Waiver Petition Application, Or Building/Grading Permit. 24. Landscaping is Provided in Accordance With Section 16.124 Of The Howard County Code And The
- Landscape Manual. A Landscape Surety In The Amount Of \$5,700.00 Based On (9) Shade Trees @ \$300/Shade Tree And (20) Evergreen Trees @ \$150/Evergreen Tree Will Be Completed With The SDP And Bonded With The Building/Grading Permit.
- 25. Site Development Plan Approval By The Department Of Planning And Zoning Is Required Prior To Building Permits Being Issued For The Construction Of Residential Dwellings On These Lots. , 26. This Development Is Designed To Be In Accordance With Section 16.127 - Residential Infill Development
- Of The Subdivision And Land Development Regulations. The Developer Of This Project Shall Create Compatibility With The Existing Neighborhood Through The Use Of Enhanced Perimeter Landscaping, Berms, Fences, Similar Housing Unit Types And The Directional Orientation Of The Proposed House. The Enhanced Landscape Buffer Has Been Provided On Lot 118 To Mitigate Views And To Address Privacy And Compatibility Concerns Expressed By The Adjacent Lot Owners At The Pre-Submission Community
- 27. No Noise Study Is Required Because The Project Does Not Fall Within The Guidelines Of Design Manual,
- Volume III, Roads, Bridges, Section 5.2.F.2.
- 28. Speed Study Dated November, 2016 Was Prepared By Mars Group, Inc. 29. Open Space Requirements Are Provided By A Fee-In-Lieu Payment Of \$1,500.00. 30. A Community Meeting Was Conducted July 22, 2016 For The Purpose Of The Developer To Provide Information To The Community Regarding The Proposed Residential Development And To Allow The
- Community To Ask Questions And To Make Comments, Per Section 16.120(d) Of The Subdivision
- 31. The Traffic Study For This Project Dated April, 2016 Was Prepared By Mars Group.
- 32. This Property Is Located Within The Metropolitan District And Will Be Served By Public Water And Sewer. 33. Subdivision is Subject To Section 104.0.F. 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 And Covenants Will Be Recorded Simultaneously With The Plat In The Land Records Office Of Howard County, Maryland. This Development Will Meet M.I.H.U. Afternative 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 =  $(1 \text{ Lot } \times 10\%) = 0.1 \text{ M.I.H.U.}$
- b. M.I.H.U. Proposed = Developer Will Pursue Alternative Compliance By Paying A Fee-In-Lieu To The Howard County Housing Department For The Units Required By The Development. c. An Executed M.I.H.U. Agreement With The Howard County Housing Department Has Been Completed
- And Recorded Simultaneously With The Final Plan. 34. Topography Shown Hereon is Based On A Topographic Survey Performed By Fisher, Collins & Carter, Inc. In May, 2016 And Supplemented With Howard County GIS Topography At 5' Contour Interval Interpolated For 2' Contour Interval.
- 35. The Private Use-In-Common Driveway Access Easement And Maintenance Agreement For Shared Driveway On Lots 125 And 126 Will Be Recorded With The Final Plat.
- 36. No Historic Structures Exist On-Site. 37. This Plat Is Subject To WP-17-090 Which On April 4, 2017 The Planning Director Approved A Request For An Alternative Compliance Of Section 16.134(a)(2)(1) - Construct One Side Of The Road To One-Half Of The Full Designated Pavement Width; Section 16.132(a)(1)(i) - In Residential Subdivisions And Site Developments, The Developer Shall Construct Sidewalks Along The Project Frontage; Section
- 16.135 Street Lighting And Section 16.136 Street Tree Requirements. Approval Is Subject To The Following Conditions: 1. Compliance With The Attached DED Comments Dated March 29, 2017 And Office Of Transportation Comments Dated March 9, 2017 Requiring The Payment Of A Fee-In-Lieu For The Sidewalks And Road Improvements Along The Property Frontage To Be Determined And Provided With
- 2. Add A General Note Referencing The File Number, Sections Requested, The Approval Date And Any Approval Conditions For WP-17-090.
- 3. The Existing Front Yard Landscape Trees Shall Remain As A Suitable Substitute For Required Street

TITLE SHEET SUPPLEMENTAL,

LANDSCAPE, AND SOILS PLAN

# HOLIDAY HILLS

LOT 125 & 126

10617 & 10619 HUNTING LANE TAX MAP #41 GRID #5 PARCEL #273

SHEET 1 OF 2

FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND ZONED: R-20 SCALE: AS SHOWN DATE: JUNE 12, 2017

F-17-071

Columbia, MD 21044 Tel. 410-531-6207

FISHER, COLLINS & CARTER, INC. ELLICOTT CITY, MARYLAND 21042

OWNER

Mark M Wheeler &

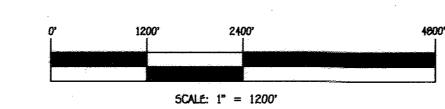
Patricia C. Wheeler

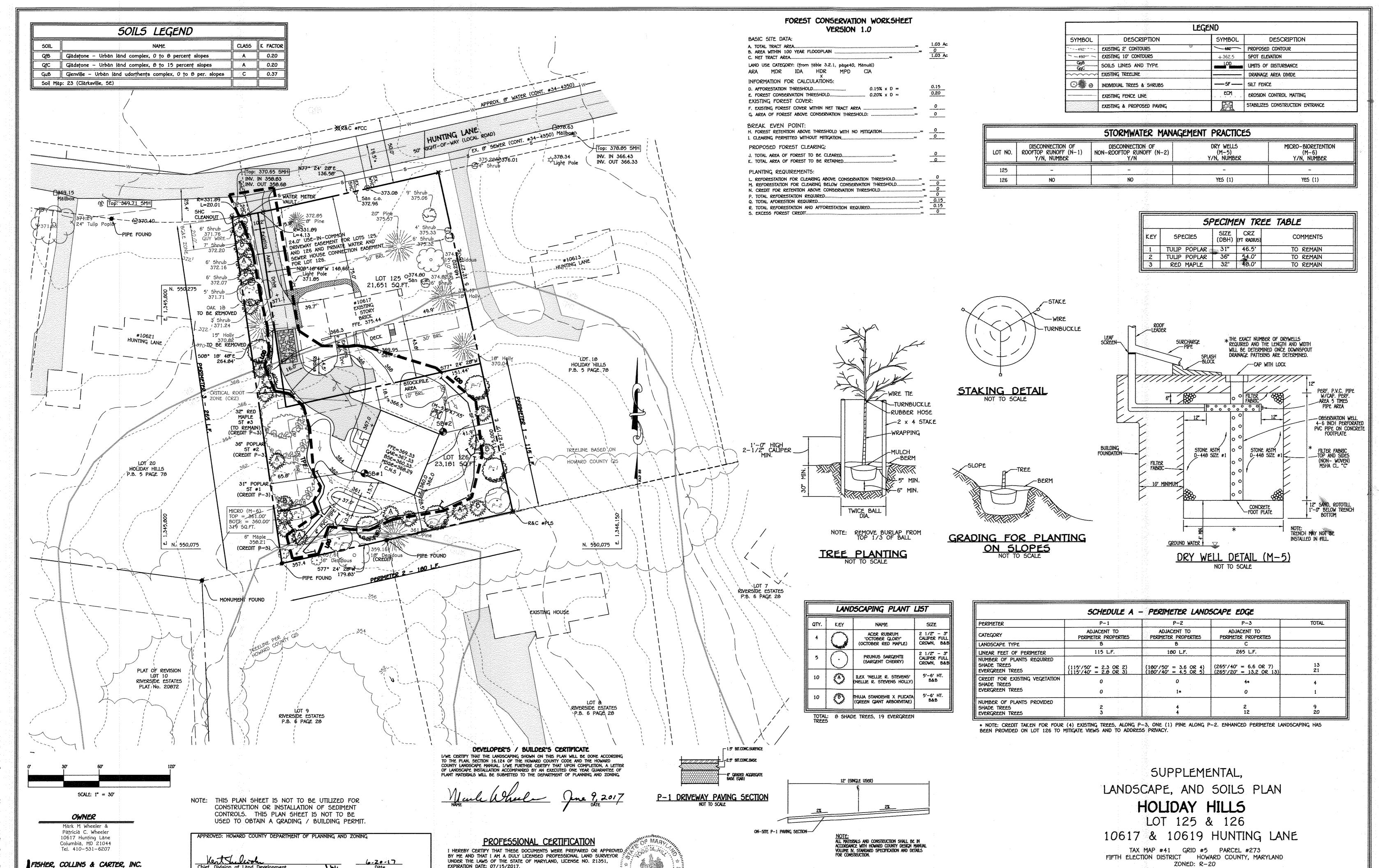
10617 Hunting Lane

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

6-20-17







TYPICAL PRIVATE DRIVE CROSS SLOPE SECTION

SCALE: AS SHOWN DATE: JUNE 12, 2017

SHEET 2 OF 2

F-17-071

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ELLICOTT CITY, MARYLAND 21042

6-19-17