

b-9/29/2023-8:36:53 AM-G:\2021\2021082\PRELIM\SHEET\(01)PRELIM.dgn--Default

		A	N
SC	ALE	: 1"=	100

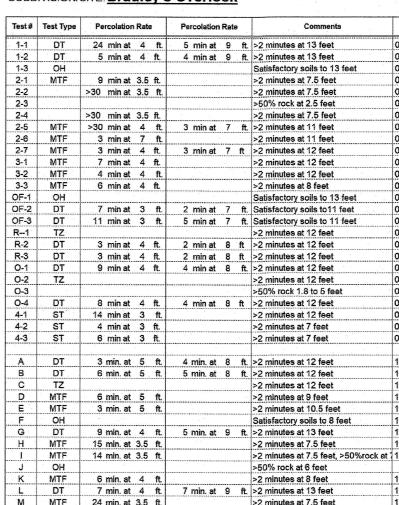
	UND.
LOT AREA	OPEN SPAC REQUIRED
2.01	0.99
1.93	1.07
1.75	1.25
1.94	1.06
3.05	

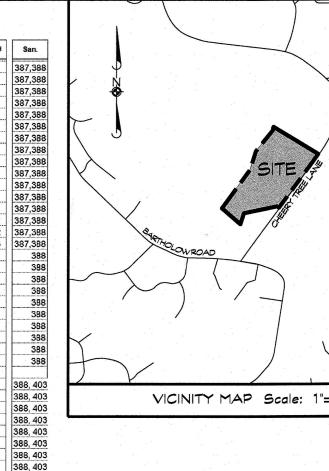
3.33		-
REQUIRED: 4	.37 AC.	, ¹ 2
CONSERVAT	ION	
D: 4.46 AC.		

LOT	NIDTH	
LOT	WIDTH	
LOT 1	242'	
LOT 2	246'	
LOT 3	207	
LOT 4	240'	

LOT	LINEAR FOOTAGE	PU'S REQUIRED	PROVIDED
1	150	7.5	EXISTING SCREENING
4	150	7.5	EXISTING SCREENING

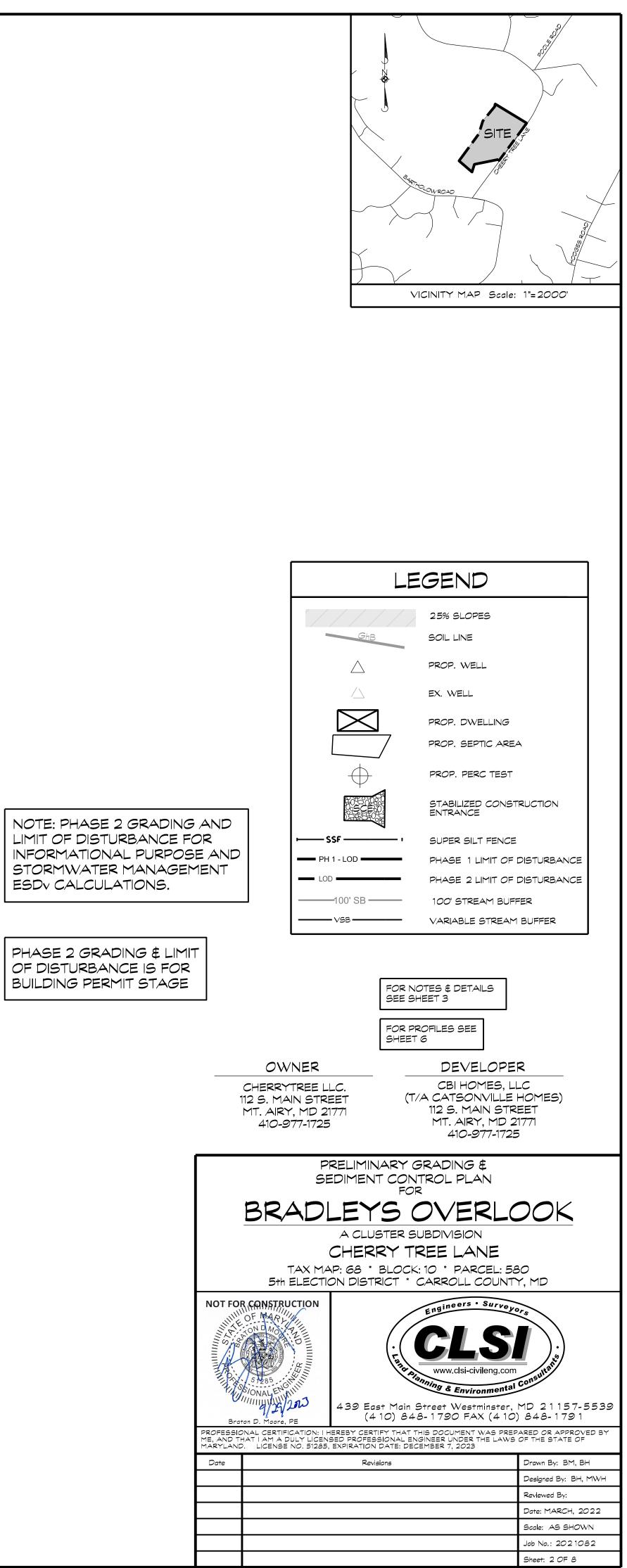












SEDIMENT & EROSION CONTROL NOTES

- 1. All erosion/sediment control measures shall comply with the "Maryland Standards and Specifications for Soil Erosion and Sediment Control" by the Maryland Department of the Environment, Water Management Administration in association with the Natural Resources Conservation Service and Maryland Association of Soil Conservation Districts (referenced as the 2011 Standards and Spec's).
- 2. Areas that have been cleared and/or graded, but will not be constructed on or permanently vegetated for more then 5 days (3 days for sediment control measures steep slopes) must be stabilized with mulch or temporary stabilization. Any areas that are in temporary vegetation for over 6 months will need to be permanently vegetated.
- 3. For specifications on permanent or temporary stabilization see B-4-4 and B-4-5. 4. Mulching can only be used on disturbed areas as a temporary cover where vegetation is not feasible or where seeding germination cannot be completed because of weather
- conditions. For specifications see B-4-3, A.1.B. 5. For specifications on the stabilization of cut and fill slopes greater than 3 horizontal to 1 vertical, see Incremental Stabilization B-4-1.
- 6. The existing topsoil from on or off site that is used must meet the minimum specifications in B-4-2.
- 7. The required sequence of construction must be followed during site development. Any change in the sequence of construction must be approved by the Soil Conservation District.
- 8. Any revisions to the sediment control plan, not covered under the list of plan modifications that can be approved by the sediment control inspector, need to be submitted to the Soil Conservation District for approval.
- 9. No proposed slope that is seeded and/or mulched shall be greater than 2:1.
- Slopes greater that 2:1 shall require an engineered design for stabilization. 10. All sediment control structures will be inspected once a week and after each rainfall and will be repaired, as needed, so that the structure meets the minimum
- specifications as shown in the 2011 Standards and Spec's. 11. The contractor is responsible for maintaining all sediment and erosion control
- measures until the disturbed areas are permanently stabilized. 12. The district approval for this sediment control plan is good for 2 years. At the end of 2 years, if construction of the plan has not started, the plan will need to be
- resubmitted to the soil conservation district for review and re-approval. Any plans that are currently under construction after 2 years may be required to be re-submitted to the soil conservation district by the sediment control inspector.

DUST CONTROL SCHEDULE

May-October - All graded areas not being immediately stabilized

- as noted in the "Required Sequence of Construction" shall be
- watered on a continuing basis as necessary to provide for dust
- proofing. Contractor shall provide tank truck with spray bar on site at any time the disturbed area exceeds three (3) acres.

SITE ANALYSIS

- 1. TOTAL AREA OF SITE: 41.5980 AC.
- 2. AREA DISTURBED: 3.61 AC.
- 3. TOTAL CUT: 21,877 C.Y.
- 4. TOTAL FILL: 20,872 C.Y.

NOTE: EARTHWORK CUT AND FILL QUANTITIES INDICATED ON THIS PLAN ARE SHOWN FOR PURPOSES OF OBTAINING SEDIMENT CONTROL PLAN APPROVAL AND NOT TO BE USED FOR CONTRACTUAL OBLIGATIONS. CONTRACTOR IS RESPONSIBLE TO VERIFY QUANTITIES

REQUIRED SEQUENCE OF CONSTRUCTION

- 1. NOTIFY THE CARROLL COUNTY BUREAU OF SEDIMENT CONTROL (1-4 10-386-22 10) 24 HOURS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. ALL PROTECTION FENCE AND PERMANENT SIGNS REQUIRED UNDER THE CARROLL COUNTY CODE OF PUBLIC LAWS AND ORDINANCES FOREST CONSERVATION (CHAPTER 150) AND WATER RESOURCE MANAGEMENT (CHAPTER 154) SHALL BE INSTALLED PRIOR TO THE PRE
- CONSTRUCTION MEETING WITH THE CARROLL COUNTY SEDIMENT INSPECTOR. 2. INSTALL SUPER SILT FENCE AND SILT FENCE. 3. WITH APPROVAL OF SEDIMENT CONTROL INSPECTOR, CLEAR AND GRUB
- WITHIN THE LIMITS OF DISTURBANCE. 4. GRADE SITE. APPLY TEMPORARY SEEDING AND MULCH TO ALL DISTURBED
- AREAS. 5. CONSTRUCT USE-IN-COMMON DRIVEWAY, INDIVIDUAL DRIVEWAYS AND WIDE
- SHOULDERS. 6. CONSTRUCT INFILTRATION BERMS AND GRASS SWALE
- 7. CONSTRUCT BUILDINGS. INSTALL DRYWELLS (SEE SPECIFIC DRYWELL CONSTRUCTION SEQUENCE OF CONSTRUCTION ON SHEET 5 OF 6. APPLY FINAL SEEDING AND MULCHING.
- 8. WITH APPROVAL OF SEDIMENT CONTROL INSPECTOR REMOVE TEMPORARY SILT FENCE, SUPER SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE AND STABILIZE REMAINING DISTURBED AREAS.
- 9. PLACE FINAL COURSE PAVING ON DRIVEWAY.

<u>Tracking note:</u>

On areas where the slope is 3:1 or steeper and the height is 8' or greater, contractor shall track the slope using cleated dozer prior to placing asphalt binder. Dozer shall run up-and-down so that cleat marks are horizontal. Where tracking is required, it shall be done from existing grade level to finished grade level within the limits established by the 8' height criteria.

UTILITY CONSTRUCTION NOTES

- 1. Place all excavated material on the high side of the trench.
- 2. Only do as much work as can be done in one day so backfilling, final grading, and permanent stabilization can occur.
- 3. Any sediment control measures disturbed by the utility construction will be repaired the same day.

<u>STOCKPILE/TOPSOIL NOTES</u>

- 1. Stockpiling will not be allowed on any impervious area.
- 2. All stockpiles left at the end of the day will need to be temporarily stabilized until they are again disturbed, unless they are within existing perimeter sediment controls.
- 3. All stockpile areas shall be confined within perimeter controls. In the event that stockpile areas must be located outside disturbed areas, the location shall be as directed by the inspector in the field.

STABILIZATION SPECIFICATIONS

TEMPORARY SEEDING NOTES

<u>Scope:</u> Planting short term (no more than 6 Months) vegetation to temporarily stabilize any areas where soil disturbance has occurred, until the area can be permanently stabilized with vegetative or non-vegetative practices.

Standards: The following notes shall conform to Section B-4 of the" 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" published jointly by the Maryland Department of Environment - Water Management Administration, the National Resource Conservation Service and the Maryland Association of Soil Conservation Districts.

- 1. The seed bed shall be prepared by loosening the soil to a depth of 3 to 5 inches and incorporating the lime and fertilizer into this loosened layer of soil. See section B-4-2. 2. For temporary stabilization, fertilizer shall consist of a mixture of 10-20-20 and be applied at a rate of 436 lb. per acre (10 lb. per 1000 sq. ft.) and will meet the
- requirements in section B-4-2. Lime shall be applied at a rate of 2 tons per acre (90 Ib. per sq. ft.) and shall meet the requirements in section B-4-2 and B-4-4. 3. Seed type and application shall meet the requirements in section B-4-3 Seed tags shall
- be made available to the inspector to verify the type and rate of seed used. Mulch type and its application will meet the requirements in section B-4-3 a, b and c and will be applied along with the seed or immediately after seeding
- 4. Seeding mixtures shall be selected from or will be equal to those on Table B. 1 (page B. 20).

Temporary Seeding Summary The seeding chart below will need to be placed on and filled in on the sediment control plan.

		ne (from Figure E e (from Table B.	•		Fertilizer Ra
No.	Species	App li cation Rate (lb/ac)	Seeding Dates	Seeding Depths	(10-20-20
	Annual Ryegrass (Lolium perenne ssp. multiflorum)	40 lb/ac	3/15-5/31 8/1-9/30	0.5"	
					436 lb/ac (b/ 1000 s

PERMANENT SEEDING NOTES

Scope: Planting permanent, long lived vegetative cover on graded and/or cleared areas

and areas that have been in temporary vegetation for more than 6 months.

Standards: The following notes shall conform to Section B-4 of the "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" published jointly by the Maryland Department of Environment - Water Management Administration, the National Resource Conservation Service and the Maryland Association of Soil Conservation Districts.

The seed bed shall be prepared by loosening the soil to a depth of 3 to 5 inches and incorporating the lime and fertilizer into this loosened layer of soil. See section B-4-2.

For sites over 5 ac. soil tests will be performed. Soil tests will be conducted by the University of Maryland or a recognized commercial laboratory. Minimum soil conditions shall meet the requirements of section B-4-2-A-2-a, otherwise soil amendments or topsoil will need to be applied. Topsoiling may occur when soil conditions meet the minimum requirements as stated in section B-4-2-B. Soil amendments must meet the requirements as set forth in section B-4-2-C and must be applied as indicated by the soils tests.

For sites of 5 ac. or less of disturbance, the following fertilizer and lime rates shall apply. Fertilizer shall consist of a mixture of 10-20-20 and be applied at the following rates: N = 45 lb. per acre (1 lb. per 1000 sq.ft.) P205 = 90 lb. per acre (2 lb. per 1000 sq.ft.) K20 = 90 lb. per acre (2 lb. per 1000 sq.ft.)

Lime shall be applied at a rate of 2 tons per acre (90 lb. per 1000 sq.ft.)

Seed type, turfgrass or sod application shall meet the requirements in section B-4-5. Seed tags shall be made available to the inspector to verify the type and application rate of seed used. Mulch type and its application will meet the requirements in section B-4-3 a, b and c, and will be applied along with seed or immediately after seeding

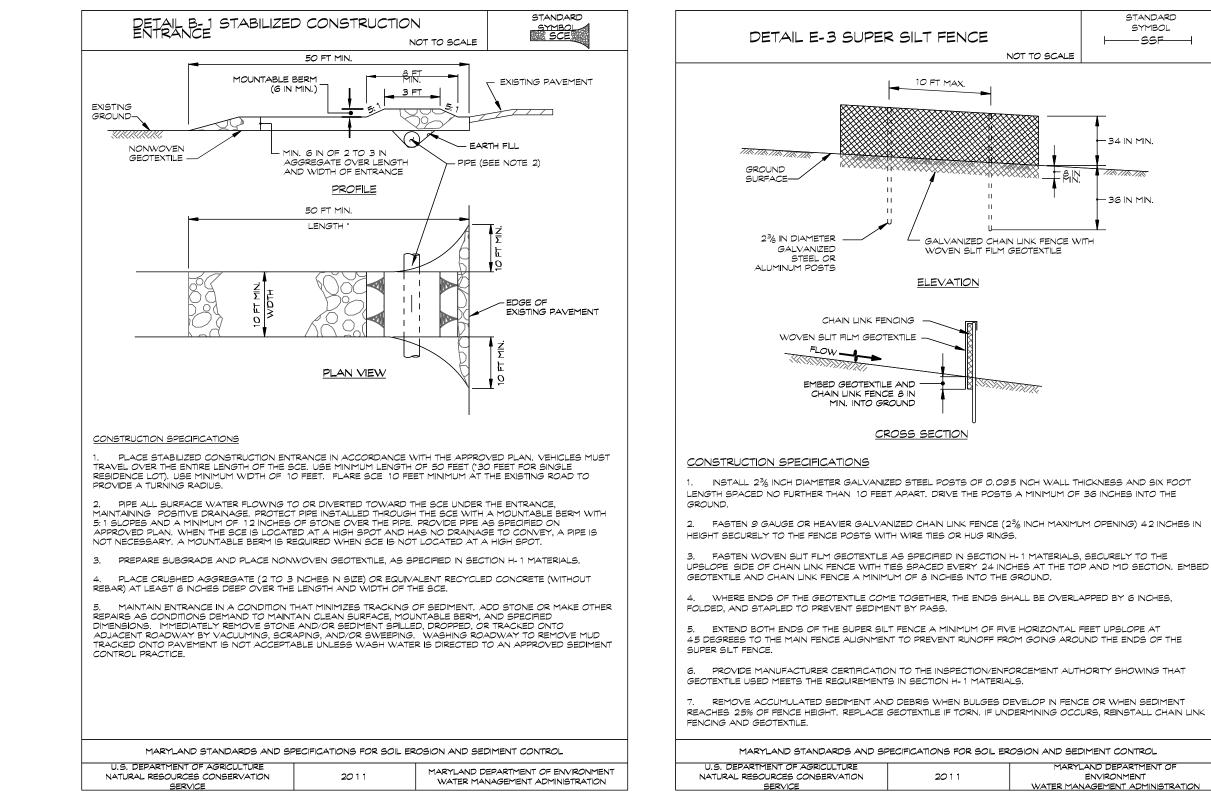
Seeding mixtures shall be selected from or will be equal to those on Table B-3. The seeding chart below will need to be placed on and filled in on the sediment control plan

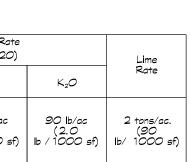
		one (from Figure 1 e (from Table B				Fertilizer Ro (10-20-20
No.	Species	Application Rate (Ib/ac)	Seeding Dates	Seeding Depths	N	P_2O_5
* 1	Improved Tall Fescue (Lolium arundinaceum)	60 lb/ac	3/15-5/31 8/1-10/15	1/4 - 1/2 in	45 pounds	90 lb/ac
*2	Improved Kentucky Bluegrass	10 lb/ac	3/15-5/31 8/1-10/15	1/4 - 1/2 in	per acre (1.0	(2.0) (2.0)
*3	Improved Perenial Ryegrass	10 lb/ac	3/15-5/31 8/1-10/15]	

*1 -use 2-4 varieties on the MD/VA recommended list (TT-77)

*2 -use 1 variety on the MD/VA recommended list (TT-77)

*3 -use 1 varlety on the MD/VA recommended list (TT-77)





Lime Rate

2 tons/ac.

(90 16/ 1000 sf)

NOTE:

ALL SEDIMENT CONTROL MEASURES SHOWN HEREON ARE TEMPORARY UNLESS OTHERWISE NOTED.

NOTE:

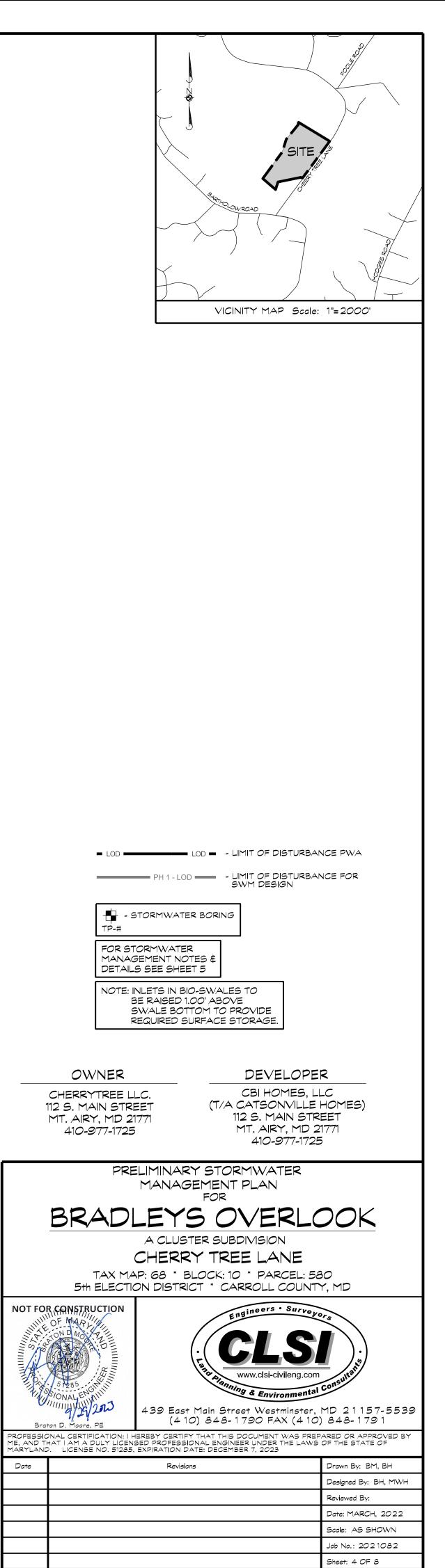
ALL STOCKPILE AREAS SHALL BE CONFINED WITHIN PERIMETER CONTROLS. IN THE EVENT THAT STOCKPILE AREAS MUST BE LOCATED OUTSIDE OF DISTURBED AREAS, THE LOCATION SHALL BE AS DIRECTED BY THE INSPECTOR IN THE FIELD

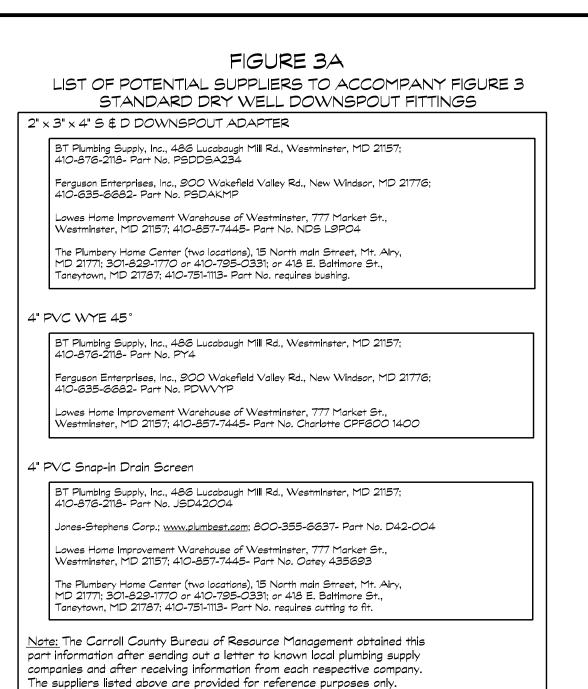
		DEVELOPE CBI HOMES, LI (T/A CATSONVILLE 112 S. MAIN STR	LC HOMES)	
	MT. AIRY, MD 2 410-977-1725		MT. AIRY, MD 2 410-977-1725	1771
SE	EDIMENT C		NOTES AND	DETAILS
	BRAD	_EYS	OVERLO	DOK
			R SUBDIVISION	
	TAX MA	P:68 * BLC	DCK: 10 * PARCEL: 58 * CARROLL COUNT	
HILE S Broots Bro	OF MARL OF MARL ST285 ST285 ST0NALENNIN Ton D. Moore, PE	439 East M (4 10)	Engineers · Surveyo Engineers · Surveyo CCLS www.clsi-civileng.com www.clsi-civileng.com ain Street Westminster, 848-1790 FAX (4 10)	MD 21157-5539 848-1791
	HAT I AM A DULY LICEN	SED PROFESSION/	HAT THIS DOCUMENT WAS PREP AL ENGINEER UNDER THE LAWS : DECEMBER 7, 2023	
Date		Revisions		Drawn By: BH
				Designed By: BH
				Reviewed By: Date: MARCH, 2022
				Scale: AS SHOWN

County File No. P-18-0063

Job No.: 2021082 Sheet: 3 OF 8







Carroll County Supplemental Materials Specifications for Bio-Swale Rain Gardens					
Material	Specification	Size			
Plantings	See Landscape Plan	N/A	Plantings are site specifi		
Seed Mix	Filter Bed Mix – Use Wet Meadow Mix per MD Standards and Specifications §707. See Table 3 (1 lb. minimum/micro-bioretention)	N/A	Used with straw mulch Incorporate seed evenly		
Mulch	Shredded Hardwood	N/A	Aged 6 months, minimu		
Straw Mulch	MD Standards and Specifications §707. (200 lb. minimum/micro- bioretention)	N/A	1" Straw mulch over see		
Geotextile	Class "C" – Apparent opening size (ASTM-D-4751), Grab Tensile Strength (ASTM-D-4632), Puncture Resistance (ASTM-D-4833)	N/A	Sides only Not on bottom unless s		
Underdrain and Reservoir Gravel	AASHTO M-43 No. 8 Stone	³ /8" –	Stone must be clean and		
Underdrain and Observation Well Piping	Slotted PVC or Slotted HDPE Type "SP" Pipes Solid: Scheduled 40 PVC or HDPE Type "S"	See Plan	Refer to the Carroll Cou All pipes must be doubl holes)		
Sand	ASTM-C-33 (3 parts to 6 within Filter Media)	0.02" – 0.04"	Sand substitutions such No calcium carbonate o No "rock-dust" can be u sources may be used for dams.		
Soil	Engineer approved loam with 20% or less clay (1 part to 6 within Filter Media)	N/A			
Wood Chips	Untreated "Green" (2 parts to 6 within Filter Media)	N/A	Untreated "green" wood		
Filter/Planting Media	Comprised of 3 parts sand, 2 parts wood chips, 1 part soil	N/A	See individual material s		

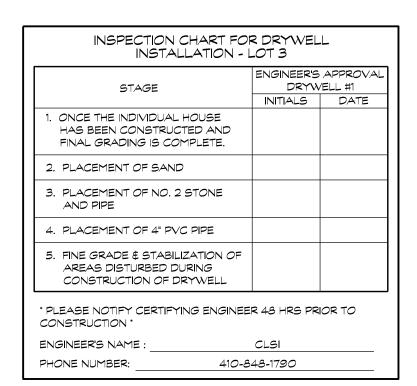
SWM SEQUENCE OF CONSTRUCTION

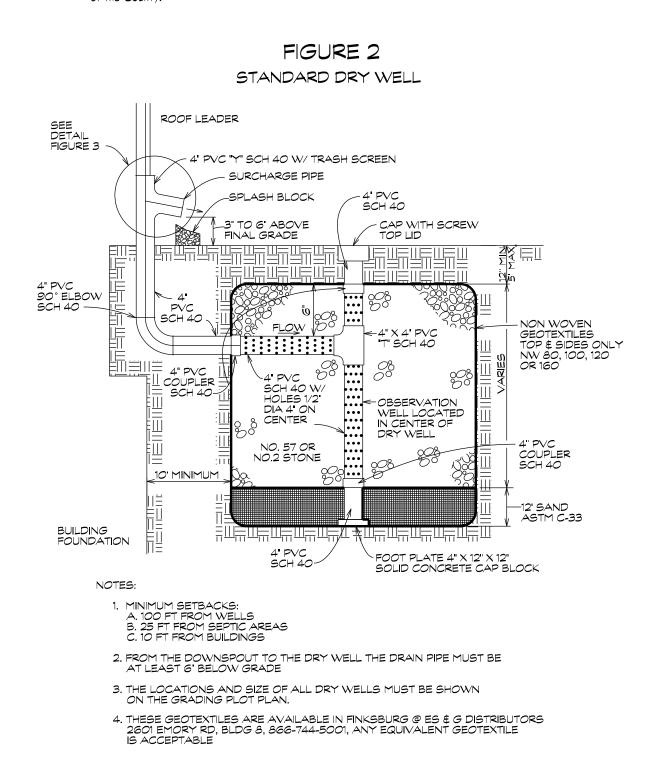
- 1. ONCE THE INDIVIDUAL HOUSE HAS BEEN CONSTRUCTED AND THE FINAL LOT GRADING IS COMPLETE, CONTACT (C.L.S.I.) AT 4 10-848-1790. ONCE THE CERTIFYING PROFESSIONAL HAS GIVEN HIS/HER APPROVAL PROCEED AS FOLLOWS:
- 2. CONSTRUCT DRY WELL AND CONNECT TO DOWNSPOUT PER STANDARD DETAILS UNDER SUPERVISION OF THE CERTIFYING PROFESSIONAL.
- 3. SUBMIT AS-BUILT CERTIFICATION FOR BOND RELEASE.

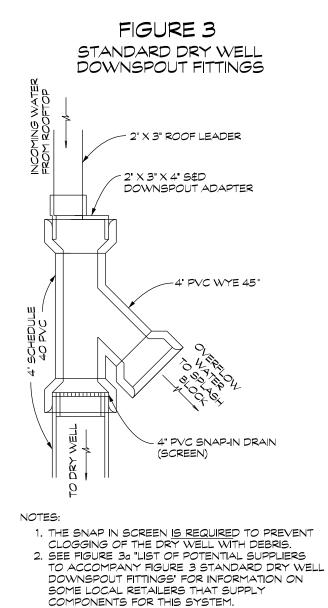
Any equivalent schedule 40 PVC fittings from any vendor may be used.

SWM MAINTENANCE SCHEDULE

- 1. The Stormwater Management Facility/Facilities shown on these plans shall be constructed and maintained by the owner(s).
- 2. Owner/his heirs or assigns shall be responsible for continuing maintenance of the facility/facilities, which shall include such items as mowing, cleaning and removing sediment, trees, shrubs and debris. The time period for this continuing maintenance shall be on "as needed" basis but shall not be delayed longer than thirty (30) days.
- 3. Owner, his heirs or assigns shall be responsible for any structural damages or failure which may occur as a result of negligence, accident or misuse. In the event of structural damage, owner shall be responsible to make the necessary repairs as quickly as possible but in any case within thirty (30) days.
- 4. If after notice by the County to correct a violation requiring maintenance work, satisfactory corrections are not made by the owner(s) within thirty (30) days the County may perform all necessary work to place the facility in proper working condition. The owner(s) of the facility shall be assessed the cost of the work and any penalties. These monles shall be collected from a bond, which the developer is required to post with the County to cover such expenses until "completion of the facility". "Completion of the facility" is construed to mean that all contributory drainage areas are paved or supporting a 2" stand of grass and that the Carroll County Bureau of Resource Management has inspected construction and a registered professional engineer has certified that the "As-Built" plans meet the plans and specifications for construction. After "completion of the facility" the owner(s) will be assessed for any work and penalties. This may be accomplished by placing a lien on the property, which may be placed on the tax bill and collected as ordinary taxes by the County.
- 5. Owners shall grant right of entry to authorized County personnel for purposes of inspection monitoring and \or repair. Site visits for inspection and/or monitoring shall be conducted only during normal County working hours (8:00 a.m. to 5:00 p.m., Monday - Friday).
- 6. This agreement including right of entry for inspection/maintenance and repair shall be recorded by the applicant and/or owner in the Land Records of the County.







Bioretention, Micro-Bioretention &

Notes ific and per approved landscape plan

in place of shredded hardwood mulch

y in top $\frac{1}{2}$ " of filter media

eed bed (facility bottom)

specified on the plans

nd washed

ounty SWM Supplement Pg. 87 ble walled (smooth core) and slotted (no circular h as Diabase and Graystone #10 are not acceptable

or dolomitic sand substitutions are acceptable. used for sand. Manufactured sand from approved or filters. Manufactured sand may not be used in

24" FILTER MEDIA-

12" NO. 8 STONE -

od chips

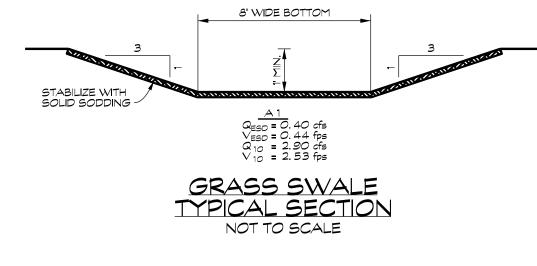
specifications ain Gardens Revised 1.6.23.docx

Martin B Covington, III, P.E. Carroll County Stormwater Management Program Engineer

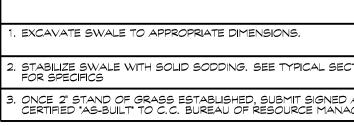
March 20, 2020; December 20, 2022, Revised January 6, 2023

	STORMWATER MAINTEN GRASS SWA					
MONTHLY INSPECTION						
Inspection Item Inspection Requirements Remedial Action						
Debris and Trash	Check for trash and debris in channel including inlets, outlets, and area around facility.	Remove all trash and debris and dispose in an acceptable manner. Unclog all openings.				
Grass Cover	Grass in swale must be maintained at a height of 4 to 6 inches. Check for channelizing and bare spots.	Mow side slopes when grass exceeds 12 inches in height. Mow channel at least bi-annually. Remove grass clippings. Re-plant with topsoil, seed, and matting.				
	SEASONAL INSPECTION AND AI					
Inspection Item	Inspection Requirements	Remedial Action				
Sediment Accumulation	Check for accumulated sediment and clogged openings.	When sediment accumulates to 2 inches in depth, remove sediment. Remove sediment from any clogged openings. Dispose of all sediment in an acceptable location.				
Erosion	Check inflow, channel, outfall, and side slopes for evidence of erosion, rills, gullies, and runoff channelization.	Re-plant with topsoil, seed, and matting. Re-grade if concentrated runoff to the facility is causing rills or gullying. Grade, vegetate, and/or armor to provide stable conveyance in accordance with approved plans.				
	ANNUAL INSPE	CTION				
Inspection Item	Inspection Requirements	Remedial Action				
Maintenance Access	Check for accessibility to facility.	Prevent excessive vegetative growth, erosion, and obstructions on access way.				
Overall Function of Facility	Check that flow conveyance is operating as designed	Repair to good condition according to specifications on the approved plans.				

	MONTHLY INSPI	ECTION		MONTHLY INSPECTION			
Inspection Item	Inspection Requirements	Remedial A	ction	Inspection Item	Inspection Requirements	Remedial Action	
Vegetative Cover and Erosion	Check overflow area for channelizing and bare spots.	landscaping	concentrated flow is causing rills or	Debris and Trash Plant Composition	Check for trash and debris in facility including inlets, outlets, conveyance systems, and area around facility. Compare plant composition with approved	Remove all trash and debris and dispose in an acceptable manner. Unclog all openings. Remove invasive species and weeds.	
	SEASONAL INSPECTION AND AI	FTER A MAJ	OR STORM	and Health	plans.	Replace dead plants in accordance with approved	
Inspection Item	Inspection Requirements	Remedial A	ction		Check for invasive species or weeds. Check for dead or dying vegetation.	landscaping plan.	
Leaves and Debris Inflow and Overflow	Check that gutters and downspouts are clear of leaves and debris. Check for misalignments, broken pipes, and blockages. Inlet pipe and surcharge overflow	Clean out gutters and downspouts and dispose of leaves and debris in an acceptable manner. Provide gutter drain filters in high foliage areas. Repair any broken or faulty piping. Clear out any		Vegetative Cover	Check for channelizing, erosion, and bare spots. Check for vegetation blocking inlets, weirs, and outlet.	Remove or cut back vegetation around inlet, weirs, and outlet structures. Mow side slopes when grass exceeds 12 inches in height, but do not mow filter bed. Remove grass clippings. Re-seed or re-plant in accordance with	
Overnow	pipe must be in good condition.	blockages.				approved landscaping plans.	
Dewatering	Check observation wells for water level. Water stored in media must dewater within 48	Excavate, re	move, clean, and replace media in vith approved plans.	T (1 T (SEASONAL INSPECTION AND AI		
	hours of rainfall. Noticeable odors or the presence of algae or stained water are indicators of anaerobic conditions and inadequate dewatering of the facility.	accordance	viu approved plans.	Inspection Item Dewatering	Inspection Requirements Check ponding levels. Surface storage must dewater within 48 hours of rainfall. Noticeable odors, stained water on the filter surface or at the outlet, or the presence of	Remedial Action Remove and replace top few inches of media. Follow up inspections must confirm adequate dewatering. If the facility does not function as intended after the	
	ANNUAL INSPE	CTION			algae or aquatic vegetation are indicators of	above action, the entire system including the underdrain	
Inspection Item	Inspection Requirements	Remedial A	ction		anaerobic conditions and inadequate dewatering of the facility.	may need refurbishing.	
Maintenance Access Check for accessibility to facility. Overall Function of Facility Check that flow conveyance is operating as designed		Prevent excessive vegetative growth, erosion, and obstructions on access way. Repair to good condition according to specifications on the approved plans.		Erosion	Check inlets, filter bed, outlets, and side slopes for erosion, rills, gullies, and runoff channelization.	Re-grading may be required when concentrated flow causes rills or gullying through the facility. Grade, vegetate, and/or armor to provide stable conveyance in accordance with approved plans.	
			-	Check Dams	Check for evidence of flow cutting around edges of structure and evidence of erosion at the downstream toe.	Re-grade and repair with topsoil, seed and matting. Provide stone at downstream toe.	
		SWA	LE	Sediment Accumulation	Check for accumulated sediment in conveyance systems and on filter bed. Check for clogged openings.	When sediment accumulates to 1 inch depth, remove sediment. Remove sediment from clogged openings. Dispose of all sediment in an acceptable location.	
		ENGINI APPRC	EER'S DVAL	Blockages	Check overflow inlet (riser), piping, and underdrain for blockages. Check observation wells for water level.	Clear out any blockages.	
		INITIALS	DATE		ANNUAL INSPE	CTION	
	ATE DIMENSIONS			Inspection Item	Inspection Requirements	Remedial Action	
ALE TO APPROPRIATE DIMENSIONS.				Maintenance Access	Check for accessibility to facility.	Prevent excessive vegetative growth, erosion, and obstructions on access way.	
LE WITH SOLID SODDING. SEE TYPICAL SECTION				Flow Conveyance System	Check overflow inlet, piping, and bypass for misalignments, breakage, and blockage.	Repair any broken or faulty piping. Clear out any blockages.	
0 OF GRASS ESTABLISHED, SUBMIT SIGNED AND BUILT TO C.C. BUREAU OF RESOURCE MANAGEMENT.				Structural Components	Check for evidence of structural deterioration, spalling, or cracking. Inlet and outlet structures as well as riprap outfalls must be in good condition.	Repair to good condition according to specifications on the approved plans.	
CLSI	IEER 48 HOURS PRIOR TO COMMENC			Overall Function of Facility	Check that practice is functioning as designed.	Repair to good condition according to specifications on the approved plans.	



- SOLID SODDING STABILIZATION



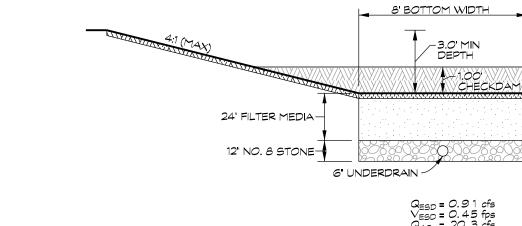
* PLEASE NOTIFY CER

CHECKDA

ENGINEER'S NAME: PHONE NUMBER: (410) 848-1790

ENGINEER'S NAME: PHONE NUMBER:

ENGINEER'S NAME: PHONE NUMBER:



 $Q_{ESD} = 0.91 cfs$ $V_{ESD} = 0.45 fps$ $Q_{10} = 20.3 cfs$ TYPICAL CROSS SECTION BIO-SWALE 'E'

NOT TO SCALE

24" FILTER MEDIA-12" NO. 8 STONE-

1.00 CHECKDAM

<u>BOTTOM SLOPE - 1% MIN - 4% MAX</u> - SOLID SODDING STABILIZATION 6" UNDERDRAIN -

> CHECK DAM LONGITUDINAL DETAIL NOT TO SCALE

SEQUENCE OF CONSTRUCTION/	BIOSWALE 'E'		
ENGINEERS INSPECTION CHART	INITIALS	DATE	INSPECTING AGENT
ONCE THE DRAINAGE AREA IS STABILIZED WITH BUILDINGS AND ROADWAYS COMPLETED AND SUPPORTING 2" STAND OF GRASS, EXCAVATE SUBSURFACE DIMENSIONS.			CLSI
PER DETAILS THIS SHEET, INSTALL NO. 8 STONE LAYER TO MINIMUM OF 3".			CLSI
INSTALL 6" SLOTTED PVC UNDERDRAIN. UNDERDRAIN MUST BE INSPECTED PRIOR TO BACKFILL WITH REMAINING 3" LAYER OF STONE.			CLSI
INSTALL 24" INCHES OF FILTER MEDIA. FILTER MEDIA TO CONFORM TO SPECIFICATIONS THIS SHEET.			CLSI
FINE GRADE AND FULLY STABILIZE DISTURBED AREAS. INSTALL CHECKDAMS			CLSI
INSTALL BASIN BOTTOM SEED MIX PER MANUFACTURERS RECOMMENDATIONS. SEE SEED MIX THIS SHEET. STRAW TO BE TOP DRESSED OVER SEED MIX.			CLSI
 SUBMIT AS-BUILT PAPER PRINTS TO THE BUREAU OF RESOURCE MANAGMENT WITHIN 30 DAYS AFTER CONSTRUCTION COMPLETION.			CLSI

8' BOTTOM WIDTH

 $Q_{ESD} = 1.52 cfs$ $V_{ESD} = 0.49 fps$ $Q_{10} = 26.2 cfs$ $V_{10} = 3.82 fps$

TYPICAL CROSS SECTION

BIO-SWALE 'F'

NOT TO SCALE

6" UNDERDRAIN --

-3.0' MIN DEPTH

VAUEAVA

* PLEASE NOTIFY CERTIFYING ENGINEER 48 HOURS PRIOR TO COMMENCING CONSTRUCTION*

ENGINEER'S NAME: CLSI PHONE NUMBER: (410) 848-1790 (GEOTECH) ENGINEER'S NAME: PHONE NUMBER:

SEQUENCE OF CONSTRUCTION/ ENGINEERS INSPECTION CHART

ONCE THE DRAINAGE AREA IS STABILIZED WITH BUILDINGS AND ROADWAY! COMPLETED AND SUPPORTING 2" STAND OF GRASS, EXCAVATE SUBSURFA DIMENSIONS. PER DETAILS THIS SHEET, INSTALL NO. 8 STONE LAYER TO MINIMUM OF 3". INSTALL 6" SLOTTED PVC UNDERDRAIN. UNDERDRAIN MUST BE INSPECTED F

TO BACKFILL WITH REMAINING 3" LAYER OF STONE. INSTALL 24" INCHES OF FILTER MEDIA. FILTER MEDIA TO CONFORM TO SPECIFICATIONS THIS SHEET. FINE GRADE AND FULLY STABILIZE DISTURBED AREAS. INSTALL CHECKDAM

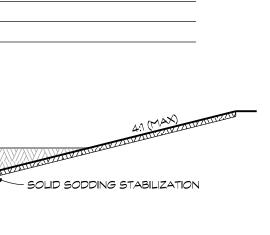
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* PLEASE NOTIFY CERTIFYING ENGINEER 48 HOURS PRIOR TO COMMENCING CONSTRUCTION* ENGINEER'S NAME: CLSI PHONE NUMBER: (410) 848-1790 ENGINEER'S NAME: PHONE NUMBER:

STORMWATER MAINTENANCE SCHEDULE

DRYWELL

	SWALE ENGINEER'S APPROVAL				
	INITIALS	DATE			
ETION					
AND AGEMENT.					



	BIOS	GWALE 'F'	
	INITIALS DATE		INSPECTING AGENT
YS ACE			CLSI
			CLSI
PRIOR			CLSI
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1 5			CLSI
ONS.			CLSI
NT			CLSI

(GEOTECH)

STORMWATER MAINTENANCE SCHEDULE

BIO-SWALE

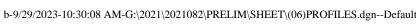
STORMWATER MAINTENANCE SCHEDULE WIDE SHOULDER DISCONNECT

	MONTHLY INSPI	ECTION
Inspection Item	Inspection Requirements	Remedial Action
Debris and Trash	Check for trash and debris in facility including inlets, outlets, conveyance systems, and area around facility.	Remove all trash and debris and dispose in an acceptable manner. Unclog all openings.
Vegetative Cover	Check grass. Check for channelizing, erosion, and bare spots. Check for vegetation blocking inlets, weirs, and outlet.	Mow grass to maintain a height of 4 to 6 inches. Remove clippings. Re-vegetate with topsoil, seed, and matting. Remove or cut back vegetation around inlets, weirs, and outlet structure.
	SEASONAL INSPECTION AND AI	FTER A MAJOR STORM
Inspection Item	Inspection Requirements	Remedial Action
Erosion	Check inlets, channel, outfall, and side slopes for evidence of erosion, rills, gullies, and runoff channelization.	Re-grading may be required when concentrated flow causes rills or gullying through the facility. Grade, vegetate, and/or armor to provide stable conveyance in accordance with approved plans.
Sediment Accumulation	Check for accumulated sediment in conveyance systems and in swale. Check for clogged openings.	When sediment accumulates to 1 inch depth, remove sediment. Remove sediment from clogged openings. Dispose of all sediment in an acceptable location.
Underdrain and Overflow Structures	Check for misalignments, broken pipes, and blockages. Check observation well for water levels.	Repair any broken or faulty piping. Clear out any blockages.
	ANNUAL INSPE	CTION
Inspection Item	Inspection Requirements	Remedial Action
Maintenance Access	Check for accessibility to facility.	Prevent excessive vegetative growth, erosion, and obstructions on access way.
Structural Components	Check for evidence of structural deterioration, spalling, or cracking. Inlet and outlet structures as well as riprap outfalls must be in good condition.	Repair to good condition according to specifications on the approved plans.
Overall Function of Facility	Check that flow conveyance and bypasses are functioning as designed.	Repair to good condition according to specifications on the approved plans.

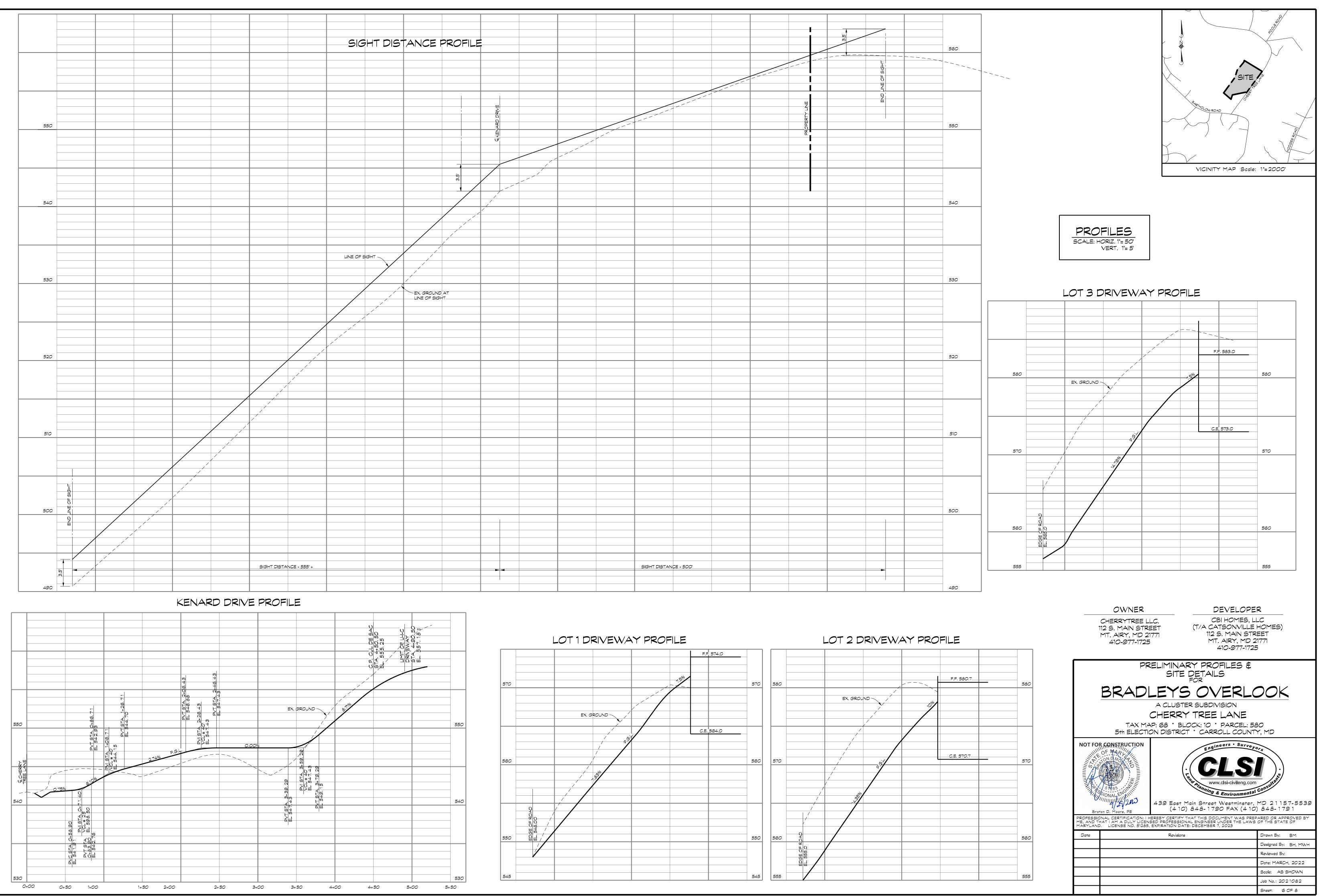
OWNER CHERRYTREE LLC. 112 S. MAIN STREET MT. AIRY, MD 21771 410-977-1725		DEVELOPE CBI HOMES, LI (T/A CATSONVILLE 112 S. MAIN STR MT. AIRY, MD 2 410-977-1725	LC HOMES) EET 1771	
	BRADI TAX MA	NAGEMENT F A CLUSTER CHERRY P: 68 * BLC	RY STORMWATER NOTES AND DETAI FOR OVERLO R SUBDIVISION TREE LANE PCK: 10 * PARCEL: 58 * CARROLL COUNT	DOK 30
HILL S Brand	OF MARL ON DMORTEUCTION ON DMORTEUCTION ON DMORTEUCTION STRUCTION STRUCTION ON DMORTEUCTION	439 East Ma (410)	Engineers · Survey Engineers · Survey CLLS www.clsi-civileng.com www.clsi-civileng.com www.clsi-civileng.com anning & Environmental ain Street Westminster, 848-1790 FAX (4 10)	MD 21157-5539 848-1791
ME, AND TH MARYLANE	HAT I AM A DULY LICENS	BED PROFESSIONA EXPIRATION DATE:	AT THIS DOCUMENT WAS PREP L ENGINEER UNDER THE LAWS DECEMBER 7, 2023	OF THE STATE OF
Date		Revisions		Drawn By: BH
				Designed By: BH
				Reviewed By:
				Date: MARCH, 2022
				Scale: AS SHOWN
				Job No.: 2021082

County File No. P-18-0063

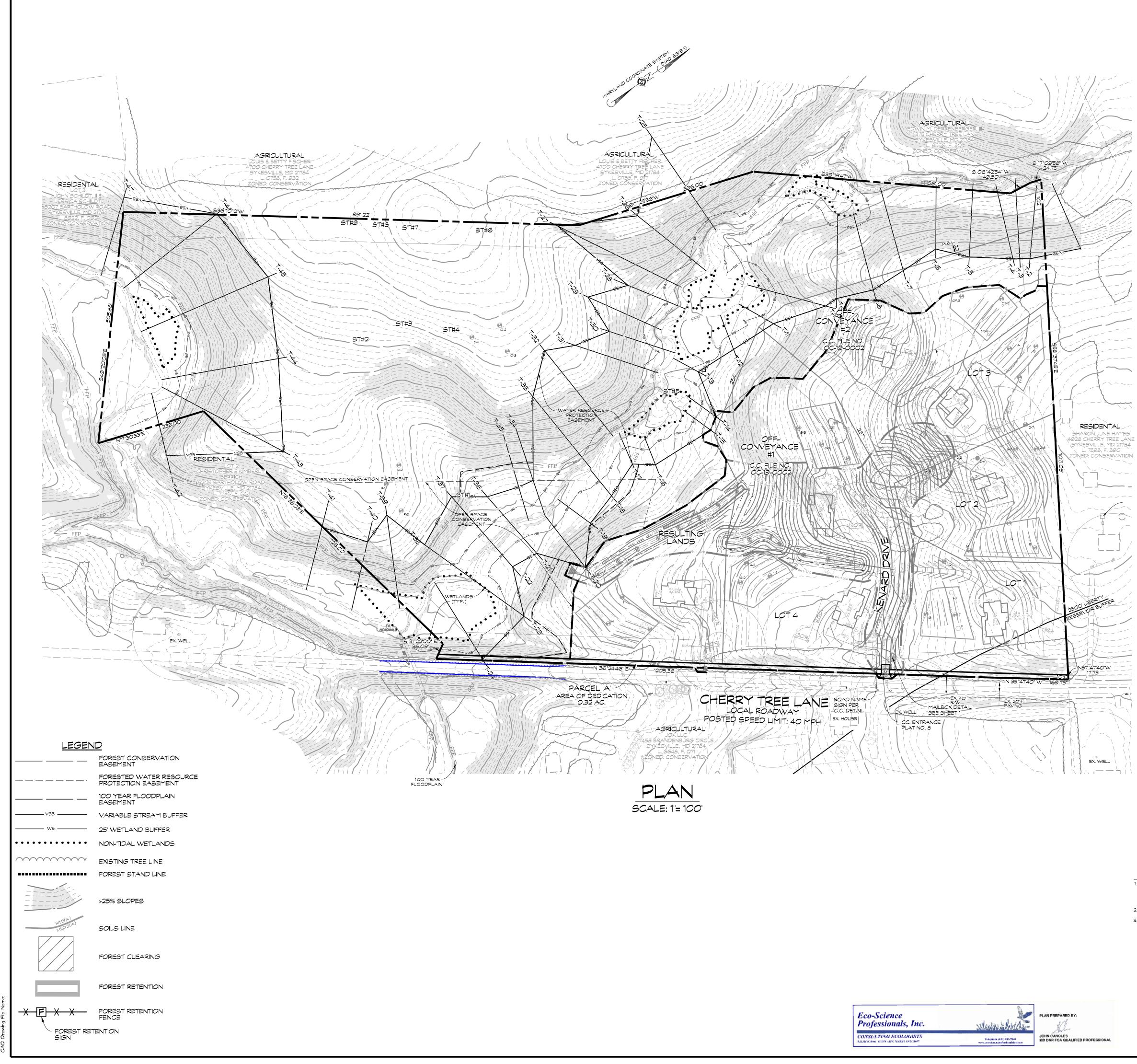
Sheet: 5 OF 8







County File No. P-18-0063



b-9/29/2023-10:30:34 AM-G:\2021\2021082\PRELIM\SHEET\(07)WATERRESOURCE.dgn--Default

	TAX MAP: 68 * BLOCK: 10 * PARCEL: 580 5th ELECTION DISTRICT * CARROLL COUNTY, MD						
03, FOLIO 021 BASED A BOUNDARY ON IS BASED ON BY CARROLL COUNTY.	NOT FOIL WE SAN BE	OF MARLEN NO NO N	439 East N	Tain Street			0
IS BASED	ME, AND TH	NAL CERTIFICATION: H HAT AM A DULY LICENS D. LICENSE NO. 51285,	SED PROFESSION	NAL ENGINEER	UNDER THE LAWS	PARED OR APPROVED BY OF THE STATE OF	
	Date		Revisions			Drawn By: BM	
TOPOGRAPHIC						Designed By:	
						Reviewed By:	
WEB SOIL SURVEY						Date: MARCH, 2022	
						Scale: AS SHOWN	
						Job No.: 2021082	
						Sheet: 7 OF 8	
					County File N	No. P-18-0063	

GENERAL NOTES

NO TIER II WATERS ARE LOCATED ONSITE.

11

3 22

4 28

5 29

9 26

- 3

- 1. CURRENT TITLE REFERENCE OWNER: CHERRYTREE LLC.

- DEED REFERENCE: LIBER 10803
- DATE: JANUARY 4, 2022
- GRANTOR: JGK LLC. 2. THE OUTLINE SHOWN HEREON IS BA SURVEY PERFORMED BY CLSI. 3. THE TOPOGRAPHY SHOWN HEREON TOPOGRAPHY DATA, PROVIDED BY (
 - ENVIRONMENTAL NOTE
- 1. THE OUTLINE SHOWN HEREON IS I ON DEED INFORMATION ONLY.
- 2. TOPOGRAPHY SHOWN HEREON BASED ON CARROLL COUNTY TO DATA.
- 3. ZONING: CONSERVATION 4. SOIL DATA IS FROM THE NRCS W
- 5. WATERSHED NO. 02130907 LIBERTY RESERVOIR

12	5	0	50	27	0	00	
13	6	12	50	0	0	62	
14	10	20	50	10	0	80	
15	9	18	50	7	0	75	
16	7	14	50	3	0	67	
17	7	14	50	0	10	74	
18	12	24	50	0	0	74	
19	14	28	50	0	11	89	
20	24	48	50	0	45	143	
21	11	22	50	0	7	79	
22	7	14	50	0	0	64	
23	7	14	50	45	26	135	140
24	1	2	50	142	0	194	197
25	52	104	50	0	93	247	
26	33	66	50	0	76	192	
27	27	54	50	0	84	188	300
28	14	28	50	0	18	96	136
29	26	52	50	0	74	176	
30	18	36	50	0	22	108	151
31	31	62	50	0	78	190	
32	46	92	50	0	97	239	
33	32	64	50	0	87	201	
34	10	20	50	0	10	80	
35	11	22	50	0	4	76	
36	12	24	50	0	10	84	
37	11	22	50	0	22	94	138
38	16	32	50	19	25	126	
39	30	60	50	31	64	205	
40	20	40	50	5	38	133	153
41	24	48	50	0	42	140	
42	16	32	50	0	15	97	140
43	4	8	50	0	51	109	300
44	21	42	50	0	13	105	258
45	6	12	50	57	6	125	301
46	21	42	50	0	46	138	260
47	22	44	50	0	47	141	178
		44	50		47		

OWNER

CHERRYTREE LLC.

112 S. MAIN STREET

MT. AIRY, MD 21771

410-977-1725

VARIABLE STREAM BUFFER CALCULATION CHART

Total Buffer Ex. 25%

DEVELOPER

CBI HOMES, LLC (T/A CATSONVILLE HOMES)

112 S. MAIN STREET

MT. AIRY, MD 21771 410-977-1725

PRELIMINARY WATER RESOURCE PROTECTION PLAN

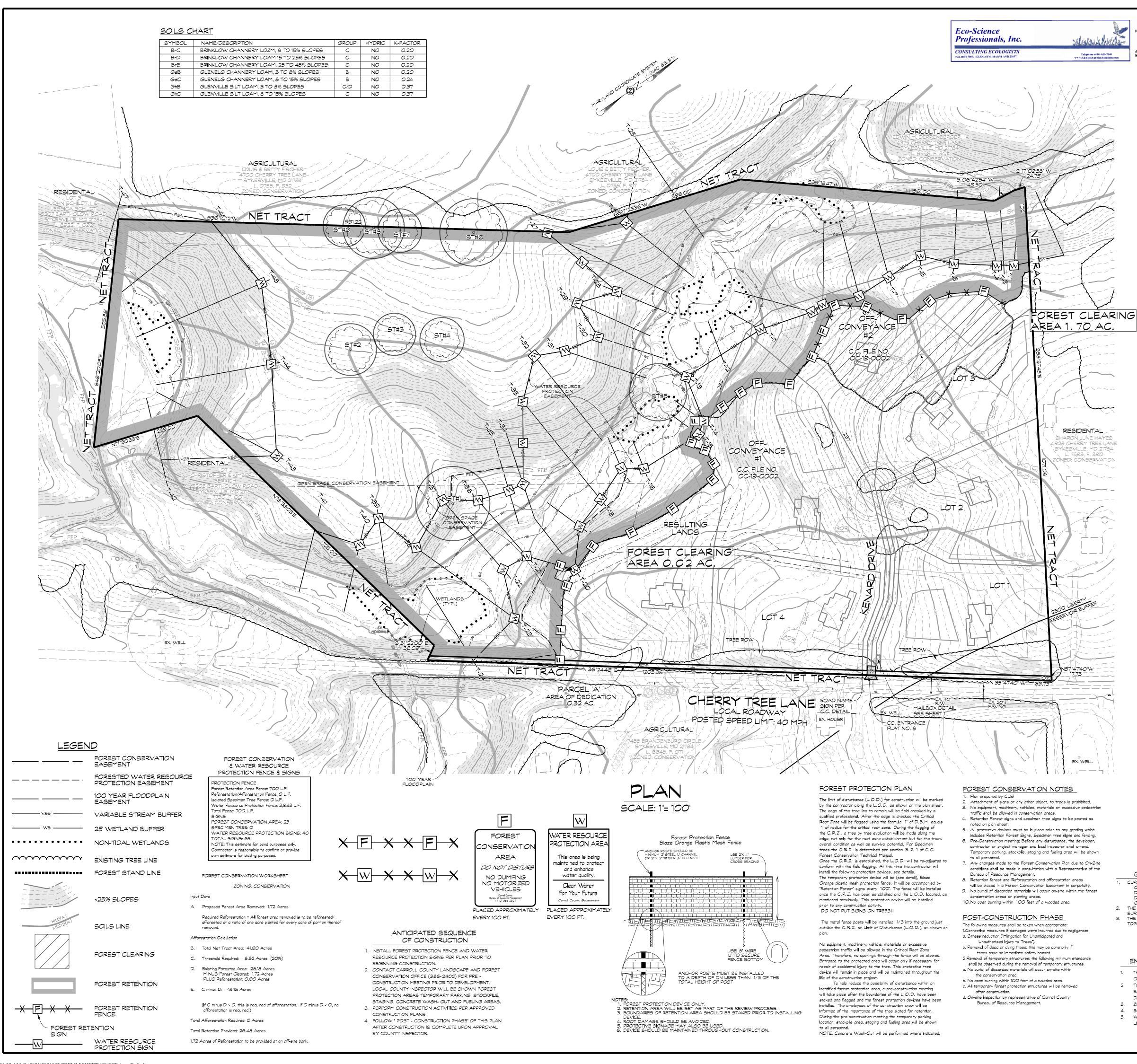
FOR

BRADLEYS OVERLOOK

A CLUSTER SUBDIVISION

CHERRY TREE LANE

 Transect
 % Slope
 Buffer Extension
 Minimum Buffer (50')
 Wetland Width
 25% Steep Slope or >



PLAN PREPARED B JOHN CANOLES MD DNR FCA QUALIFIED PROFESSIONAL

	Specimen Tree Chart						
Key (X#)	Species	Size (in.dbh)	CRZ (feet radius)	Comments			
1	Black oak	54.5	81.75	poor condition, significant dieback			
2	Black oak	38	57	fair condition, dieback noted			
3	Black oak	31	46.5	poor condition, substantial dieback, storm damage, leaning			
4	Red maple	32.5	48.75	poor condition, storm damage, rot and dieback			
5	Tulip poplar	42	63	poor condition, trunk rot noted			
6	Red oak	49.5	74.25	fair condition, limb damage			
7	Scarlet oak	32	48	fair condition, limb damage			
8	Scarlet oak	45	67.5	poor condition, trunk rot			
9	Scarlet oak	31	46.5	poor condition, trunk rot			

VARIABLE STREAM BUFFER CALCULATION CHART

Transect	% Slope	Buffer Extension	Minimum Buffer (50')	Wetland Width	25% Steep Slope or >	Total Buffer	Ex. 25%
1	18	36	50	0	42	128	154
2	25	50	50	0	42	142	160
3	22	44	50	0	30	124	175
4	28	56	50	0	46	152	166
5	29	58	50	0	51	159	162
6	28	56	50	0	47	153	156
7	33	66	50	0	71	187	
8	30	60	50	3	58	171	
9	26	52	50	3	79	184	
10	17	34	50	29	64	177	
11	10	20	50	17	0	87	
12	3	6	50	24	0	80	
13	6	12	50	0	0	62	
14	10	20	50	10	0	80	
15	9	18	50	7	0	75	
16	7	14	50	3	0	67	
17	7	14	50	0	10	74	
18	12	24	50	0	0	74	
19	14	28	50	0	11	89	
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47	22	44	50	0	47	141	178

	OWNER CHERRYTREE LI 112 S. MAIN STRE MT. AIRY, MD 21 410-977-1725	EET(T/A CATSONVILLE771112 S. MAIN STR	LC HOMES) REET 21771
NO TIER II WATERS ARE LOCATED ONSITE.	CONSERV	PRELIMINARY FOREST (ATION PLAN, NOTES & DET FOR LEYS OVERL(
	TAX MA	A CLUSTER SUBDIVISION CHERRY TREE LANE AP: 68 * BLOCK: 10 * PARCEL: 58 ON DISTRICT * CARROLL COUNT	
GENERAL NOTES 1. CURRENT TITLE REFERENCE OWNER: CHERRYTREE LLC. DEED REFERENCE: LIBER 10823, FOLIO 021 DATE: JANUARY 4, 2022 GRANTOR: JGK LLC. 2. THE OUTLINE SHOWN HEREON IS BASED A BOUNDARY SURVEY PERFORMED BY CLSI. 3. THE TOPOGRAPHY SHOWN HEREON IS BASED ON TOPOGRAPHY DATA, PROVIDED BY CARROLL COUNTY.	NOT FOR CONSTRUCTION of Mary Aaron Valentine a/za/2023 Willied Professional	Engineers · Survey Engineers · Survey CLS www.clsi-civileng.com 439 East Main Street Westminster, (4 10) 848-1790 FAX (4 10)	Consultant MD 21157-5539
ENVIRONMENTAL NOTES 1. THE OUTLINE SHOWN HEREON IS BASED			
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BASED ON CARROLL COUNTY TOPOGRAPHIC DATA.			Designed By:
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5. WATERSHED NO. 02130907			Date: MARCH, 2022
LIBERTY RESERVOIR			Scale: AS SHOWN
			Job No.: 2021082