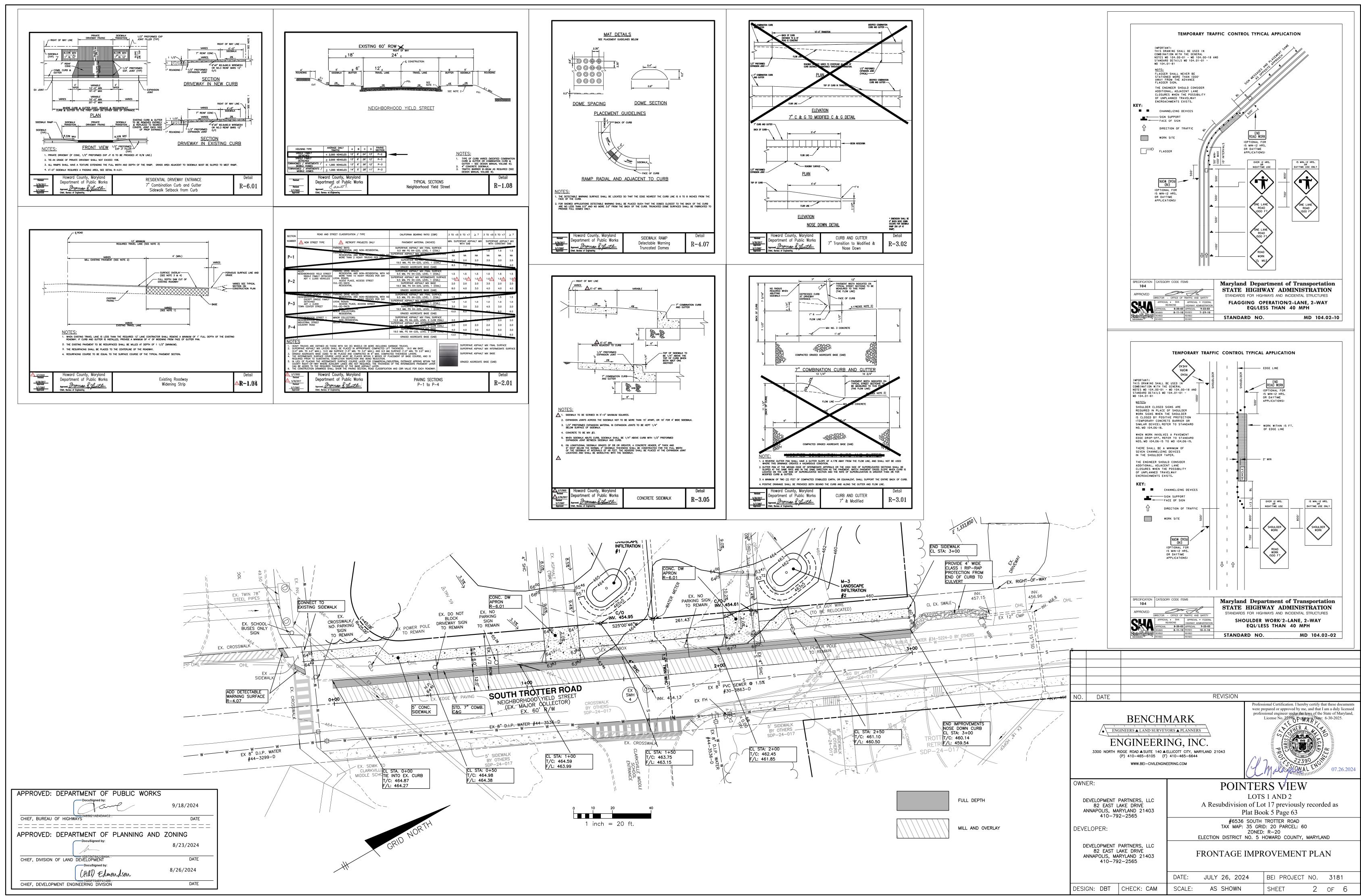
GENERAL NOTES SUPPLEMENTAL PLANS LEGEND OF SYMBOLS RIDGE CT THIS PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS AN ALTERNATIVE COMPLIANCE HAS BEEN APPROVED. 2. SUBJECT PROPERTY IS ZONED R-20 PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN. POINTERS VIEW 3. THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EXISTING SPECIMEN TREE 4. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS NO. 35GB AND 35GG WERE USED FOR THIS PROJECT. LOTS 1 AND 2 CRITICAL ROOT ZONE 5. ALL AREAS ARE "MORE OR LESS". 6. TRACT BOUNDARY IS BASED ON A FIELD SURVEY PERFORMED BY BENCHMARK ENGINEERING, DATED OCTOBER 19, 2023. EXISTING CONTOURS 7. THERE ARE NO WETLANDS, STREAMS, THEIR BUFFERS, 100-YEAR FLOODPLAIN, OR 25% OR GREATER STEEP SLOPES WITH MORE THAN 20,000 SF OF CONTIGUOUS AREA LOCATED ON THIS PROPERTY. FIELD REVIEW WAS PERFORMED BY ECO-SCIENCE PROFESSIONALS, INC. WITH FINDINGS IN THEIR EXISTING TREELINE LETTER DATED DECEMBER 14, 2023. 8. THIS SITE IS WITHIN THE METROPOLITAN DISTRICT PER THE HOWARD COUNTY PLAN FOR WATER AND — S — S — EXISTING SEWER SEWER, DATED NOVEMBER, 2015. WATER AND SEWER IS PUBLIC. THE CONTRACT NUMBERS ARE #30-3863-D AND #44-3536-D — W— W— EXISTING WATER WATER AND SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF NRCS SOILS DELINEATION LINE SECTION 18.122.B OF THE HOWARD COUNTY CODE. SECTION 2, AREA 4 PLAT #11466 \$ ZONED: NT NRCS SOILS TYPE PUBLIC WATER AND SEWERAGE ALLOCATION WILL BE GRANTED AT TIME OF ISSUANCE OF BUILDING PLAT #8922 PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME. LIMIT OF SUBMISSION WATER AND SEWER SERVICE SHALL BE PROVIDED VIA NEW HOUSE CONNECTIONS OFF THE EXISTING MAINS WITHIN SOUTH TROTTER ROAD. THIS SHALL BE ACCOMPLISHED VIA THE N.W.S.S. PROCESS ------ - ----- CL SWALE 9. TO THE BEST OF OUR KNOWLEDGE, INFORMATION, AND BELIEF, THERE ARE NO CEMETERIES OR BUILDING RESTRICTION LINE HORIZONTAL: MARYLAND NAD83 HISTORIC STRUCTURES LOCATED ON THIS SITE. VERTICAL: NAVD88 10. THE EXISTING STRUCTURES ON THIS LOT WERE REMOVED IN MAY, 2024 UNDER DEMO PERMIT PROPOSED ROOF LEADER DRAIN #B24001186. N 554358.875 11. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR FIRST FLOOR ELEVATION E 1333834.183 FF = XXX.XXANY NEW DWELLINGS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM ELEV. 477.962 BASEMENT FLOOR ELEVATION BF = XXX.XXMCE = XXX.XXMINIMUM CELLAR ELEVATION A) WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE). N 554740.098 B) SURFACE - 6" OF CRUSHER RUN BASE WITH TAR AND CHIP COATING (1.5" MIN) E 1333317.635) GEOMETRY — MAX 15% GRADE, MAX 10% GRADE CHANGE & MIN. 45' TURNING RADIUS. PROPOSED IMPERVIOUS AREA ELEV. 464.651 STRUCTURES (CULVERTS/BRIDGES) — CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOAD) VILLAGE OF RIVER HILL E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOODPLAIN WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SECTION 2, AREA 4 F) STRUCTURE CLEARANCES - MINIMUM 12 FEET SHEET INDEX PL)AT #11466 G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE PROPOSED UNTREATED IMPERVIOUS AREA 12. THE REQUIRED PRE-SUBMISSION COMMUNITY MEETING WAS HELD ON MARCH 20, 2024. GRADING AND SITE PLAN PB 5, P 63 1.28 AC± ZONED: R-20 13. THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY LOT 2 SWM DRAINAGE AREA LINE CODE FOR FOREST CONSERVATION BY UTILIZING 0.2 ACRES OF FOREST CONSERVATION EASEMENT FRONTAGE IMPROVEMENT PLAN #8 ON TALLEY PROPERTY PARCEL 1 AND 2 AS SHOWN ON SHEET 12 OF THE F-07-003 KINDLER 27,451 sf ÖVERLOOK ROAD CONSTRUCTION PLANS. INDICATES "TO BE REMOVED" STORMWATER MANAGEMENT DETAILS LOT · FND & PERIMETER LANDSCAPING AND STREET TREE PLAN 14. PERIMETER LANDSCAPING FOR THIS DEVELOPMENT IS IN ACCORDANCE WITH SECTION 16.124 OF 28,224 sf THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF PROPOSED CONC. SIDEWALK SEDIMENT AND EROSION CONTROL PLANS \$2,100.00 (5 SHADE TREES AND 2 MITIGATION TREES FOR SPECIMEN TREE REMOVAL PER BOARD OF EDUCATION APPROVAL OF WP-24-088 AT \$300.00 EA.) SHALL BE PAID AS PART OF THE DPW DEVELOPERS L. 2208 F. 635 15. PUBLIC STREET TREES ARE PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD VILLAGE OF RIVER HILL COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF \$2,700.00 FOR THE REQUIRED 9 TREES SHALL BE COLLECTED WITH THE DPW DEVELOPERS COST ESTIMATE. SECTION 1, AREA 2 PLAT #8922 ZONED: NT 16. THE NOISE STUDY IS NOT REQUIRED FOR THIS RESUBDIVISION AS THE SITE IS NOT LOCATED **Site Analysis Data Chart** WITHIN ANY OF THE AREAS DEFINED IN SECTION 5.2.G.2 WHICH NECESSITATE A NOISE STUDY. R-20 17. A TRAFFIC STUDY IS NOT REQUIRED SINCE THIS RESUBDIVISION DOES NOT GENERATE MORE THAN 5 PEAK HOUR TRIPS PER TRAFFIC LETTER PREPARED BY MARS GROUP INC. DATED FEBRUARY 12, Gross Area 1.28 ac 100-yr Floodplain 0.00 ac 18. THE SPEED STUDY WAS PREPARED BY MARS GROUP IN OCTOBER, 2022. Steep Slopes 25% or greater (outside floodplain) 0.00 ac 19. A MULTIMODAL STUDY IS NOT REQUIRED SINCE THIS RESUBDIVISION DOES NOT GENERATE MORE THAN 5 PEAK HOUR TRIPS. THE MULTIMODAL TRANSPORTATION STUDIES CHECKLIST WAS 1.28 ac Net Area PREPARED BY MARS GROUP, INC DATED FEBRUARY 7, 2024. SECTION 2, AREA 4 LOT 155 Number of Units Proposed (SFD) 20. THE STORMWATER MANAGEMENT REPORT WAS PREPARED BY BENCHMARK ENGINEERING, INC. IN PLAT #11466 MARCH, 2024. STORMWATER MANAGEMENT FOR THIS DEVELOPMENT HAS BEEN PROVIDED VIA Area of Open Space Required * 0.08 ac 2.988 s ENVIRONMENTAL SITE DESIGN TO THE MAXIMUM EXTENT PRACTICAL (ESD TO THE MEP) AND 0.00 ac** Area of Open Space Provided FF=469.00 COMPLIES WITH THE "MARYLAND DEPARTMENT OF THE ENVIRONMENT STORMWATER MANAGEMENT BF = 460.00ACT OF 2007" AND THE "HOWARD COUNTY DESIGN MANUAL VOLUME I. CHAPTER 5". Non-Credited 0.00 ac MCE = 459.37Credited 0.00 ac STORMWATER MANAGEMENT IS PROVIDED BY THE IMPLEMENTATION OF 2 (M-3) LANDSCAPE INFILTRATION PRACTICES. THEY SHALL BE PRIVATELY OWNED AND MAINTAINED. Area of Recreational Open Space Required*** 0.00 ac 2,988 sf . THE GEOTECHNICAL REPORT FOR THE SOILS BORINGS FOR STORMWATER MANAGEMENT WAS FF = 470.57PREPARED BY GEOTECHNICAL LABORATORIES, INC. DATED FEBRUARY 26, 2024. BF=461.57 Area of Bulk Parcels 0.00 ac MCE=459.95 EX. HOUSE 22. THIS DEVELOPMENT IS IN ACCORDANCE WITH SECTION 16.127 "RESIDENTIAL INFILL DEVELOPMENT" 0.00 ac Area of Proposed Public Road Right-of-way OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. * Open Space Required is 6% of gross area (Section 16.121.a.2) 23. A FEE-IN-LIEU PAYMENT OF \$3,000.00 SHALL BE MADE TO SATISFY THE OPEN SPACE ** Fee-in-lieu to be paid. See General Note 21. REQUIREMENT PER SECTION 16.121.(b)(2). THIS FEE IS BASED ON \$1,500.00 PER LOT BASED ON ***No recreational open space is required since it is less than 10 lots GbE (Section 16.121.a.4.i) 24. WP-24-088, AN ALTERNATIVE COMPLIANCE TO SECTION 16.119(f)(3) AND 16.127(c)(4)(i) TO ALLOW THE TWO EXISTING DRIVEWAY ACCESS POINTS OFF SOUTH TROTTER ROAD TO REMAIN AND TO SECTION 16.1205(A)(3) FOR THE REMOVAL OF ONE (1) SPECIMEN TREE WAS APPROVED ON MAY 31. 2024 SUBJECT TO THE FOLLOWING CONDITIONS MODERATE INCOME HOUSING UNIT (MIHU) INFILTRATION . THE ALTERNATIVE COMPLIANCE APPROVAL GRANTS THE APPLICANT THE AUTHORITY TO REMOVE APPLICATION EXEMPTIONS TRACKING ONE SPECIMEN TREE, SPECIMEN TREE #5, AS SHOWN ON THE ALTERNATIVE COMPLIANCE EXHIBIT AND FINAL SUPPLEMENTAL PLAN. THE REMOVAL OF ANY OTHER SPECIMEN TREE ON THE SUBJECT Total Number of Lots/Units Proposed PROPERTY IS NOT PERMITTED UNDER THIS APPROVAL. Total Number of MIHU's Required Number of MIHU's Provided Onsite 2. PROVIDE THE PLANTING OF TWO (2) 3" DBH NATIVE MARYLAND TREES ON-SITE AS MITIGATION FOR THE REMOVAL OF SPECIMEN TREE #5. THE TWO MITIGATION TREES SHALL BE SHOWN ON THE (Exempt from APFO allocations) FND & FINAL SUBDIVISION LANDSCAPE AND FOREST CONSERVATION PLAN SHEETS AND MUST BE BONDED LANDSCAPE NOT HELD Number of APFO Allocations Required ALONG WITH THE DEVELOPER'S REQUIRED LANDSCAPE OBLIGATION. INFILTRATION EX. TWIN 78" STEEL PIPES (Remaining Lots/Units) 3. ACCESS TO SOUTH TROTTER ROAD IS RESTRICTED TO THE 20-FOOT ACCESS POINTS APPROVED PARKING SIGN / C./A MIHU Fee-in-Lieu ON THE FINAL SUBDIVISION PLAN. THE STATEMENT "VEHICULAR EGRESS AND INGRESS IS TO REMAIN / INV. 454.61 Lots 1 & 2 RESTRICTED" SHALL BE SHOWN ALONG THE PROPERTY FRONTAGE, EXCEPT WHERE APPROVED (Indicate Lot/Unit numbers) **→** BLOCK SIGN 25. APPLICABLE DPZ FILE REFERENCES: ECP-24-028, PB 5 PG 63, WP-24-088 CROSSWALK DRIVEWAY SIGN EX. SCHOOL-MIHU NOTE: THIS SUBDIVISION IS SUBJECT TO SECTION NO PARKING TO REMAIN BUSES ONLY 13.402(c)(e) OF THE SUBDIVISION AND LAND DEVELOPMENT 26. ALL EXISTING SIGNAGE ALONG THE FRONTAGE OF THE PROPERTY IS TO REMAIN BOTH DURING AND TO REMAIN REGULATIONS FOR MODERATE INCOME HOUSING UNITS. THIS AFTER CONSTRUCTION. SHALL BE ACCOMPLISHED VIA FEE-IN-LIEU PAYMENT THAT IS O BE CALCULATED AND PAID AT THE TIME OF BUILDING 27. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE, PERMIT ISSUANCE FOR LOT 1 AND FOR LOT 2 28. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK. 29. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY ELEVATION WORK BEING DONE. SIDEWALK 30. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE LATEST NEIGHBORHOOD YIELD STREET EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT. (EX. MAJOR COLLECTOR) EX. 60' R/W REVISION 31. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY NO. DATE SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED "QUICK PUNCH", SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL. PERFORATED, SQUARE TUBE vere prepared or approved by me, and that I am a duly licensed SLEEVE (12 GAUGE) - 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK professional engineer unden the laws of the State of Maryland **BENCHMARK** PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON OTHERS_ License No. 22390 Expiration Date: 6-30-2025. ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS 32. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED. RETREAT EX 8" D.I.P. WATER 33. THE EXISTING TOPOGRAPHY SHOWN IS BASED ON A FIELD SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC `#44-3299-D ENGINEERING, INC. DATED OCTOBER, 2023. 3300 NORTH RIDGE ROAD ▲ SUITE 140 ▲ ELLICOTT CITY, MARYLAND 21043 34. EXISTING UTILITIES SHOWN ARE BASED ON CONTRACT DRAWINGS, HOWARD COUNTY GIS, AND FIELD (P) 410-465-6105 (F) 410-465-6644 SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. DATED OCTOBER, 2023 CLARKVILLE WWW.BEI-CIVILENGINEERING.COM WANAL' STORMWATER MANAGEMENT SUMMARY CHART - INDIVIDUAL PRACTICES Ownership/ OWNER: POINTERS VIEW Practice Provided (cf) | Provided | Required (cf rovided (cf) Maintenance Reauired APPROVED: DEPARTMENT OF PUBLIC WORKS LOTS 1 AND 2 (M-3) Landscape Infiltration 4,635 3,612 78% 1.0 290 375 375 Private DEVELOPMENT PARTNERS, LLC A Resubdivision of Lot 17 previously recorded as 9/18/2024 82 EAST LAKE DRIVE 312 4,610 3,612 78% 290 375 375 (M-3) Landscape Infiltration 1.0 1.3 Private 1 inch = 20 ft.ANNAPOLIS, MARYLAND 21403 Plat Book 5 Page 63 410-792-2565 CHIEF, BUREAU OF HIGHWAYS DATE #6536 SOUTH TROTTER ROAD SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND TAX" MAP: 35 GRID: 20 PARCEL: 60 DEVELOPER: ZONED: R-20 HYDROLOGIC 312 APPROVED: DEPARTMENT OF PLANNING AND ZONING 580 749 749 k-VALUE SYMBOL HYDRIC **ERODIBLE** ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND 8/23/2024 GLADSTONE LOAM, 0 TO 3 PERCENT SLOPES DEVELOPMENT PARTNERS, LLC SUPPLEMENTAL PLANS 82 EAST LAKE DRIVE GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES ANNAPOLIS, MARYLAND 21403 **Stormwater Management Information** GRADING AND SITE PLAN CHIEF, DIVISION OF LAND DEVELOPMENT DATE GLADSTONE-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES 410-792-2565 Lot/Parcel Number Facility Name & Number Practice Type (Quantity) | Public | Private | HOA Maintains Misc. 8/26/2024 HSCD Newsletter dated April, 2013 defines erodible soils as those soils with a slope greater than 15 percent or those with a soil (Hd) Edmondson Landscape Infiltration #1 BEI PROJECT NO. 3181 JULY 26, 2024 erodibility factor K greater than 0.35 and with a slope greater than 5%. Landscape Infiltration #2 ✓ | N/A CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE SCALE: ESIGN: DBT | CHECK: CAM AS SHOWN SHEET 1 of 6



Appendix B.4. Construction Specifications for Environmental Site Design Practices

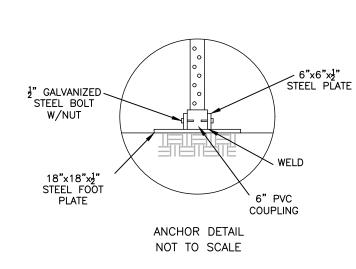
Material	Specification	Size	Notes
Plantings	see Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil [2' to 4' deep]	loamy sand (60 - 65%) & compost (35 - 40%) or sandy loam (30%), coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	pea gravel: ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile		n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" to 3/4")	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with ¼-inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3; f' _c = 3500 psi @ 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 previously approved 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 350.R/89; vertical loading [H-10 or H-20]; allowable horizontal loading (based on soil pressures); and analysis of potential cracking
Sand	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.

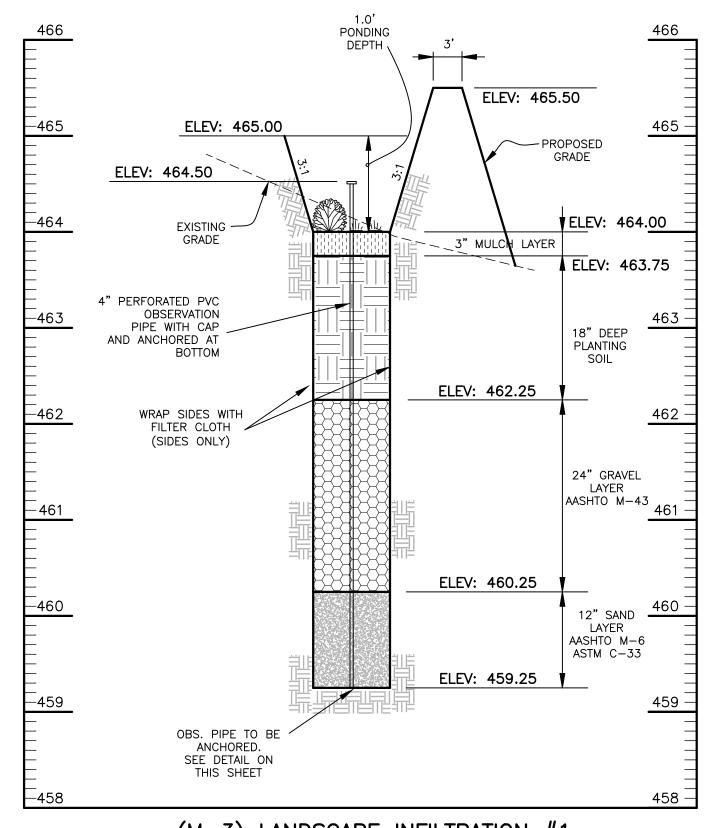
B.4.7

Supp. 1

OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3)

- a. 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.
- b. The Owner shall perform a plant inspection in the spring and in the fall of each year. During the inspection, the Owner shall remove dead and diseased vegetation considered beyond treatment, replace dead plant material with acceptable replacement plant material, treat diseased trees and shrubs, and replace all deficient stakes and wires.
- c. 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 the new layer is applied.
- d. The Owner shall correct soil erosion on an as needed basis, with a minimum of once per month and after each heavy storm.





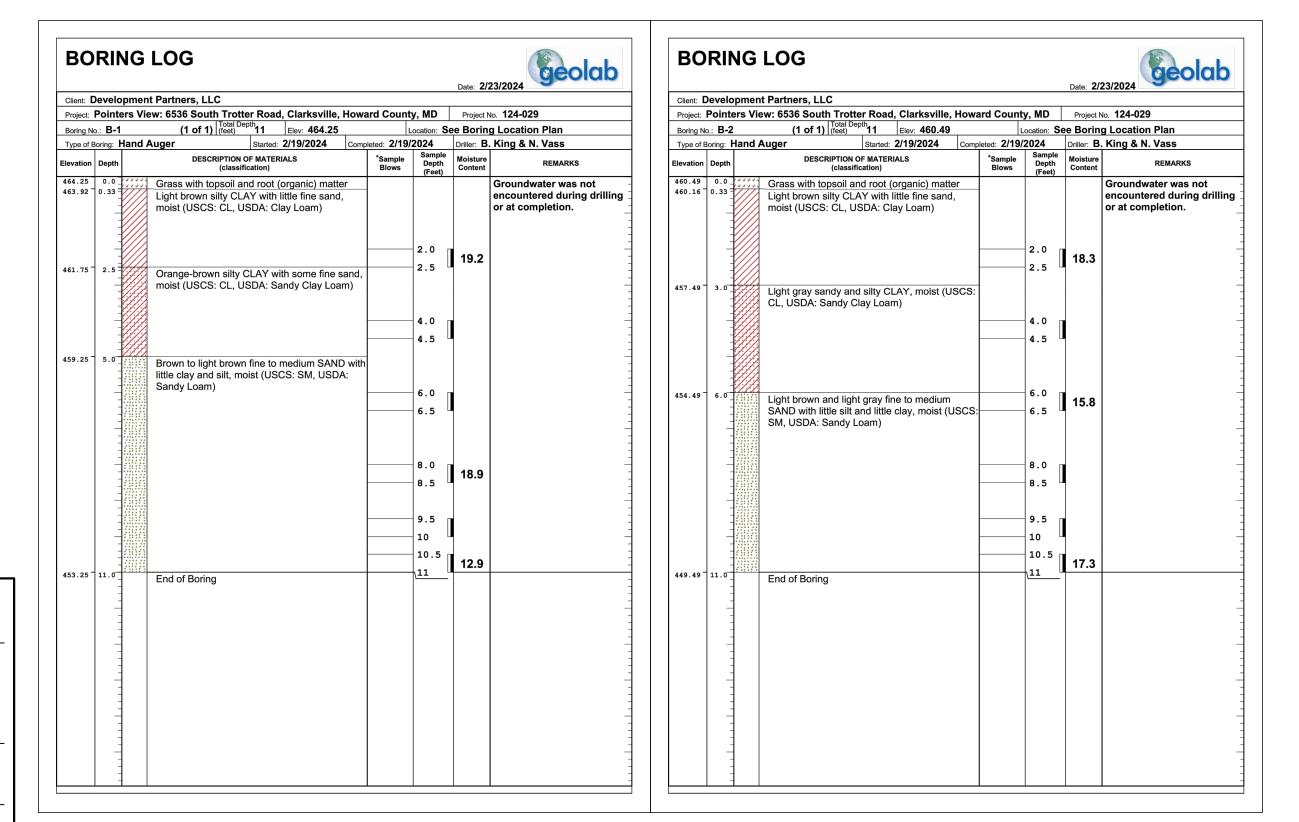
(M-3) LANDSCAPE INFILTRATION #1

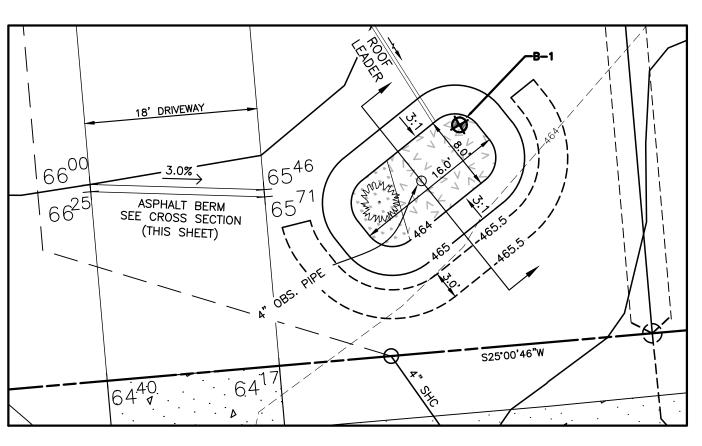
CROSS SECTION

SCALE: 1"=10' HORIZ., 1"=1' VERT.

(M-3) Landscape Infiltration Landscaping Chart								
				#1	#2			
		Surface Area	\longrightarrow	120	120			
PLANT NAME	COMMON NAME	TYPE	SIZE	QUANTITY	QUANTITY			
Cornus Amomum	Silky Dogwood	deciduous shrub	18-24" ht. #3 CAN	1	1			
Echinacea Purpurea	Purple Coneflower	perennial	2 gal. container	8	8			
Juncus Effusus	Common Rush	perennial	1 qt.	23	23			

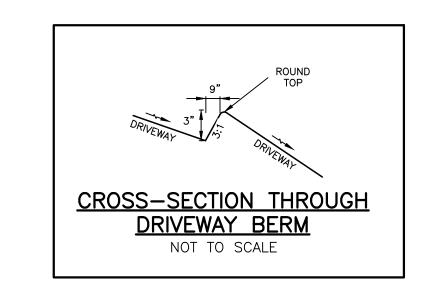
	PLANTING LEGEND
SYMBOL	NAME
White was	SILKY DOGWOOD
ψ ψ ψ ψ ψ ψ	PURPLE CONEFLOWER
> V V	COMMON RUSH





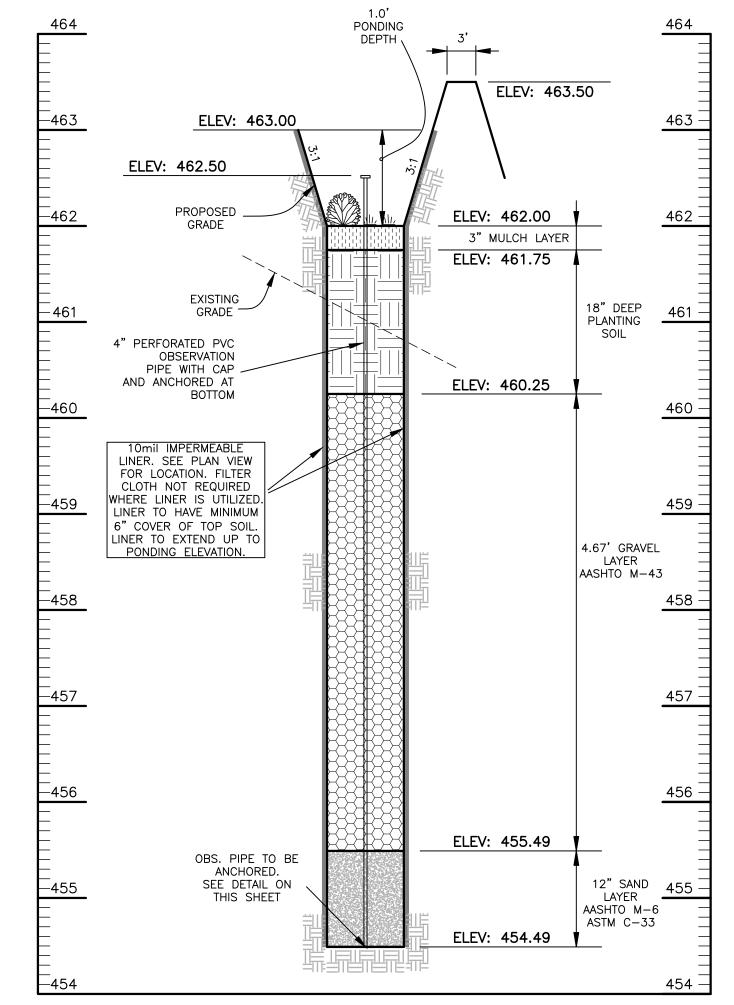
(M-3) LANDSCAPE INFILTRATION #1
PLAN VIEW DETAIL

1 inch = 10 ft.

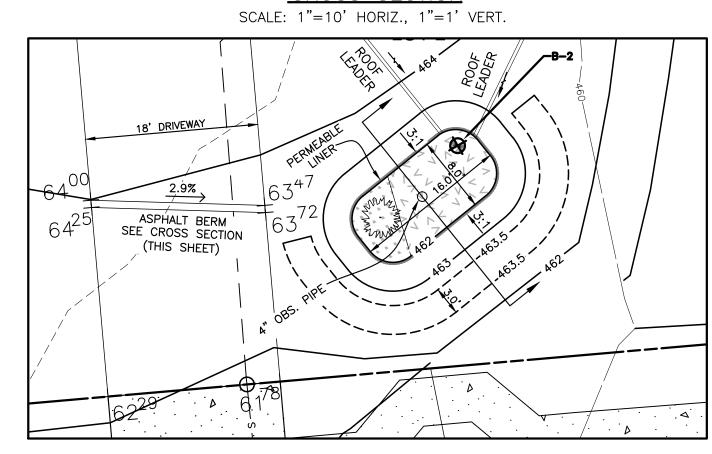


REVISION

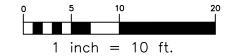
NO. DATE



(M-3) LANDSCAPE INFILTRATION #2 CROSS SECTION



(M-3) LANDSCAPE INFILTRATION #2 PLAN VIEW DETAIL



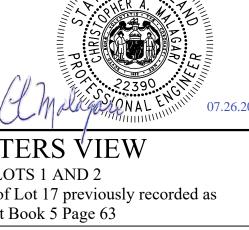
BENCHMARK

ENGINEERS & LAND SURVEYORS & PLANNERS

ENGINEERING, INC.

3300 NORTH RIDGE ROAD & SUITE 140 & ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644

WWW.BEI-CIVILENGINEERING.COM



were prepared or approved by me, and that I am a duly licensed

professional engineer unden the laws of the State of Maryland,

License No. 22390 Expiration Date: 6-30-2025.

OWNER:		POINTERS VIEW								
82 EAST L ANNAPOLIS, MA	AKE DRIVÉ ARYLAND 21403		LOTS 1 AND 2 A Resubdivision of Lot 17 previously recorded as Plat Book 5 Page 63							
DEVELOPER:	- 2000			#6536 SOUTH TAX MAP: 35 GRID ZONED: DISTRICT NO. 5 H	D: 20 PARCEL: 6 : R-20		ND			
82 EAST L ANNAPOLIS, MA	AKE DRIVÉ ARYLAND 21403		STOF	RMWATER	MANAGE	MENT	Γ			
DEVELOPMENT PARTNERS, LLC 82 EAST LAKE DRIVE ANNAPOLIS, MARYLAND 21403 410-792-2565 DEVELOPER: DEVELOPMENT PARTNERS, LLC 82 EAST LAKE DRIVE ANNAPOLIS, MARYLAND 21403 410-792-2565 DESIGN: DBT CHECK: CAM		DATE:	JULY	26, 2024	BEI PROJEC	Γ NO.	318	 31		
DESIGN: DBT	CHECK: CAM	SCALE:	AS	SHOWN	SHEET	3	OF	6		

CHIEF, BUREAU OF HIGHWAYS

CHIEF, DIVISION OF LAND DEVELOPMENT

CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: DEPARTMENT OF PUBLIC WORKS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

(HD) Edmondson

9/18/2024

8/23/2024

8/26/2024

DATE

DATE

DATE

Specimen Tree Chart

			Opoc		oo onan	
	Key (X#)	Species	Size (in.dbh)	CRZ 1:1.5 (feet radius)	Condition (good unless otherwise noted)	State Champion (in. dbh)
	1	Red maple	29	43.5	Good	86.94
	2	Silver maple	33	49.5	Poor, multistem, leaning, dieback, trimmed	93.95
	3	Tulip poplar	40	60	Fair, some dieback, English ivy	101.27
	4	Silver maple	41.5	62.25	Fair, multistem, dieback, impacted by building	93.95
TO BE REMOVE ──► WP-24-088	5	Norway Spruce	31	46.5	Good, not native	57.32

Total (Gross) Tract Area

FOREST CONSERVATION WORKSHEET FOR POINTERS VIEW F-24-048

Α.	Total (Gros	ss) rract Ar		Α =	1.30				
B.	Area within		B =	0.00					
C.	Other Ded)	C =	0.00					
D.	Net Tract A	Area		D =	1.30				
Land Us	e Category								
Insert the	number "1"	under the a	ppropriate	land use (I	imit to only o	one entry)			
	Resid.	Resid.	Resid.	Inst./	Retail/Ind./	Mixed Use	e/		
	Rural LD	Rural MD	Suburban	Linear	Office	PUD			
	0	0	1	0	0	0			
Ε.	Afforestation	on Threshol	d	(Net Tract	: Area x	15%)	E =	0.20
F.	Reforestati	ion Thresho	ld	(Net Tract	: Area x	20%)	F =	0.30
Existing	Forest Cove	er							
G.	Existing Fo	orest Cover	within the	Net Tract A	∖ rea			G =	0.00
H.	Area of Fo	rest above /	Afforestatio	n Threshol	d			H =	0.00
l.	Area of Fo	rest above l	Reforestatio	on Thresho	old			=	0.00
Break Ev	ven Point								
J.	Break Ever	n Point						J =	0.00
K.	Forest Clea	aring Permi	tted withou	t Mitigatio	n			K =	0.00
Propose	d Forest Cle	earing							
L.	Total Area	of Forest to	be Cleare	d				L =	0.00
M.	Total Area	of Forest to	be Retain	ed				M =	0.00
Planting	Requireme	nts Inside	Watershe	d					
N.	Reforestati	ion for Clea	ring above t	the Refores	station Thres	hold		N =	0.00

Reforestation for Clearing below the Reforestation Threshold

Credit for Retention above the Reforestation Threshold

Total Reforestation and Afforestation Requirement

Planting Required Onsite to meet 75% Obligation

Total Planting within Development Site Watershed

Remaining Planting within Watershed for Reforestation Credit

Reforestation for Clearing above the Reforestation Threshold

Reforestation for Clearing below the Reforestation Threshold

Credit for Retention above the Reforestation Threshold

Total Afforestation and Reforestation Requirement

75% of Total Obligation (Retention + Planting)

Total Reforestation Required

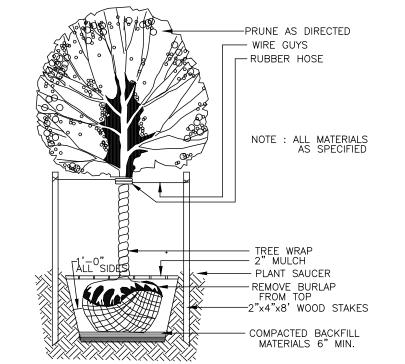
Total Afforestation Required

Planting Requirements Outside Watershed

Total Afforestation Required

Total Reforestation Required

6/7/2024



TYPICAL DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE

BUILDER'S CERTIFICATE	
I/WE CERTIFY THAT THE LANDSCAPING SH ACCORDING TO THE PLAN, SECTION 16.12 SUBDIVISION AND LAND DEVELOPMENT REG I/WE FURTHER CERTIFY THAT UPON COMF LANDSCAPE INSTALLATION, ACCOMPANIED E GUARANTEE OF PLANT MATERIALS, WILL BI OF PLANNING AND ZONING.	24 OF THE HOWARD COUNTY GULATIONS AND LANDSCAPE MANUAL. PLETION OF A LETTER OF BY AN EXECUTED ONE—YEAR
Justin Boy	07/26/2024
DEVELOPMENT PARTNERS, LLC	DATE
APPROVED: DEPARTMENT OF P	PUBLIC WORKS 9/18/2024
CHIEF, BUREAU OF HIGHWAYS 2465821AE4DA4C2	DATE
APPROVED: DEPARTMENT OF P	LANNING AND ZONING
DocuSigned by:	8/23/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE

(Hd) Edmondson

8/26/2024

DATE

LANDSCAPE PLANTING LIST										
SYMBOL	QUANTITY	NAME	DESCRIPTION							
+	9	ARMUR MAPLE, JAPANESE RED MAPLE, BURGUNDY LACE, PAPERBACK MAPLE, TRIDENT MAPLE, TRUNCATUM MAPLE, OR PACIFIC SUNSET	2.5" — 3"cal.	STREET TREES. SPECIES THAT GROWS NO MORE THAN 25 FEET TALL. TO BE PROVIDED BY DEVELOPER						
£ • }	5	RED MAPLE	2.5" — 3"cal.	PERIMETER EDGE SHADE TREE. PROVIDED BY DEVELOPER						
	2	WHITE OAK OR BLACK OAK	3"dbh or greater	SPECIMEN TREE MITIGATION PLANTING FOR THE REMOVAL OF ONE SPECIMEN TREE PER WP-24-088 APPROVAL. SEE GENERAL NOTE 24.						
A CONTRACTOR OF THE PROPERTY O	REN	STING SPECIMEN TREE TO E MOVED AS APPROVED UNDE -24-088								

— W — W — WATER #44-3299-D BY OTHERS SDP-24-017 Schedule A **Perimeter Landscape Edge** P-1 | P-2 | P-3 | P-4 Category Α Α Landscape Type 1 inch = 20 ft.Linear Feet of Road Frontage 262 183 244 208 or Perimeter Credit for Existing Vegetation 0 | 0 | 0 (Yes, No, Linear Feet) (Describe below if needed) Credit for Wall, Fence, or Berm 132 208 (Yes, No, Linear Feet) ex veg ex veg (Describe below if needed) 112 Linear Feet of Planting 262 183 0 Number of Plants Required Shade Trees 2 0 0 0 0 0 0 Evergreen Trees Other Trees (2:1 substitute) 0 0 Shrubs Number of Plant Provided Shade Trees Evergreen Trees Other Trees (2:1 substitute)

Street Tree Schedule

SMALL

Tree Size | Requirement | Trees Required | Trees Provided

9

1 per | 30 | LF |

N/F BOARD OF EDUCATION HOWARD COUNTY L. 2208 F. 635

VILLAGE OF RIVER HILL SECTION 1, AREA 2 LOT 1

PLAT #8922 ZONED: NT

SIDEWALK

Road Name

Trotter Road

LF of ROW

262

0.00

0.00

0.00

0.20

0.20

0.20

0.20

0.00

0.20

0.00

0.00

0.00

0.00

0.20

Q =

CC=

DD=

LANDSCAPE NOTES:

SOUTH TROTTER ROAD

NEIGHBORHOOD YIELD STREET (EX. MAJOR COLLECTOR)

LOT 1 28,224 sf

> 2,988 sf FF = 470.57BF=461.57 MCE=459.95

> > 1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.

EX. CROSSWALK

M-3 LANDSCAPE INFILTRATION

A. WHEN THE DISTANCE BETWEEN THE CURB AND SIDEWALK IS 6 FEET OR GREATER, THE TREES SHALL BE LOCATED WITHIN THE RIGHT-OF-WAY AND SHALL BE CENTERED BETWEEN THE CURB AND SIDEWALK B. WHEN THE DISTANCE BETWEEN THE CURB AND SIDEWALK IS LESS THAN 6 FEET, TREES MAY BE PLANTED 3 FEET FROM THE SIDEWALK IN THE DIRECTION AWAY FROM THE ROAD. A 10-FOOT WIDE TREE MAINTENANCE EASEMENT SHALL BE REQUIRED IF THE RIGHT-OF-WAY IS LIMITED.

EX. OVERHEAD

POWER LINE

27,451 sf

REMAIN

FF = 469.00BF = 460.00MCE = 459.37

25' BGE "YELLOW ZONE"

20' BGE

"GREEN ZONE"

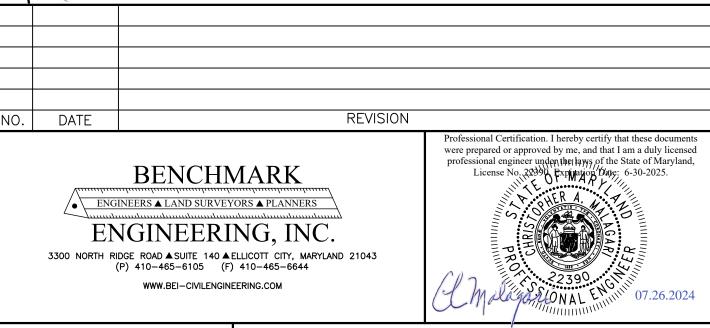
C. TREES SHALL BE PLANTED 6 FEET BEHIND CURB WHEN THERE ARE NO SIDEWALKS.
D. TREES TO BE PLANTED MINIMUM 30 FEET FROM SIGNS AND INTERSECTIONS WHEN PLANTED BETWEEN SIDEWALK AND CURB. TREES MAY NOT BE PLANTED WITHIN 5 FEET OF A STORM DRAIN INLET, OPEN SPACE ACCESS STRIP, OR 10 FEET OF A DRIVEWAY. E. STREET TREES SHALL BE PLANTED TO AVOID WATER AND SEWER HOUSE CONNECTIONS.

3. AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH 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 RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATIONS.

4. THE OWNER, TENANTS 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.

5. BGE ZONES: TREE HEIGHTS AT MATURITY SHALL BE LIMITED TO 25 FEET MAXIMUM WITHIN THE "GREEN ZONE". TREE HEIGHTS AT MATURITY SHALL BE LIMITED TO 40 FEET MAXIMUM WITHIN THE "YELLOW ZONE". IF TREES ARE TO BE PLANTED ON BERMS THE TREE HEIGHTS SHALL BE REDUCED BY THE HEIGHT OF THE BERM AS MEASURED ABOVE THE MEAN GROUND ELEVATION OF THE UTILITY POLE LINE

6. SEE GENERAL NOTE 14 ON SHEET 1 FOR SURETY INFORMATION.



RETREAT

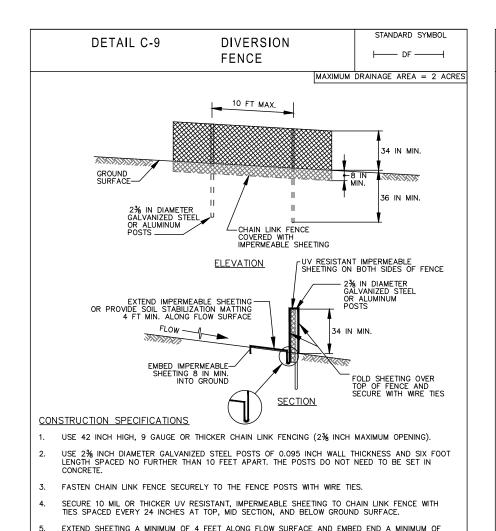
VILLAGE OF RIVER HILL SECTION 2, AREA 4 LOT 155

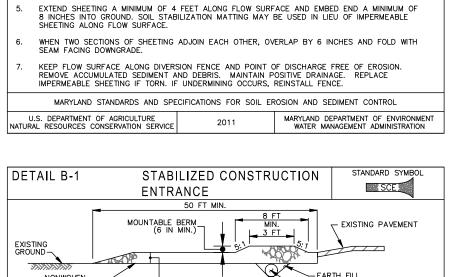
PLAT #11466 ZONED: NT

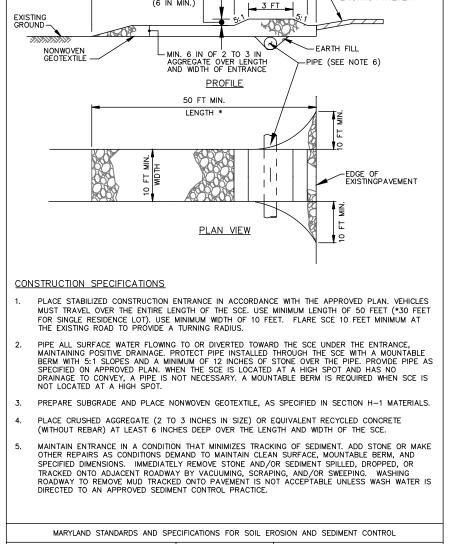
EX. HOUSE

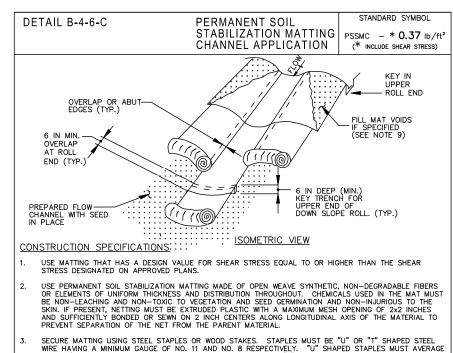
OWNER:	POINTERS VIEW						
DEVELOPMENT PARTNERS, LLC 82 EAST LAKE DRIVE ANNAPOLIS, MARYLAND 21403 410-792-2565	LOTS 1 AND 2 A Resubdivision of Lot 17 previously recorded as Plat Book 5 Page 63						
DEVELOPER:	#6536 SOUTH TROTTER ROAD TAX MAP: 35 GRID: 20 PARCEL: 60 ZONED: R-20 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND						
DEVELOPMENT PARTNERS, LLC 82 EAST LAKE DRIVE ANNAPOLIS, MARYLAND 21403 410-792-2565	PERIMETER LANSCAPING AND STREET TREE PLAN						
	DATE: JULY 26, 2024 BEI PROJECT NO. 3181						
DESIGN: DBT CHECK: CAM	SCALE: AS SHOWN SHEET 4 OF 6						

CHIEF, DEVELOPMENT ENGINEERING DIVISION









- OR ELEMENTS OF UNIFORM THICKNESS AIND MISTRIBUTION THE WEAVE STRINELIC, NON-DEGRADABLE HIBERS OR ELEMENTS OF UNIFORM THICKNESS AIND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2X: INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.

 3. SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1 ½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST AVERAGE MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH—SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.

 4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- 5. UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.

 6. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.

 7. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.

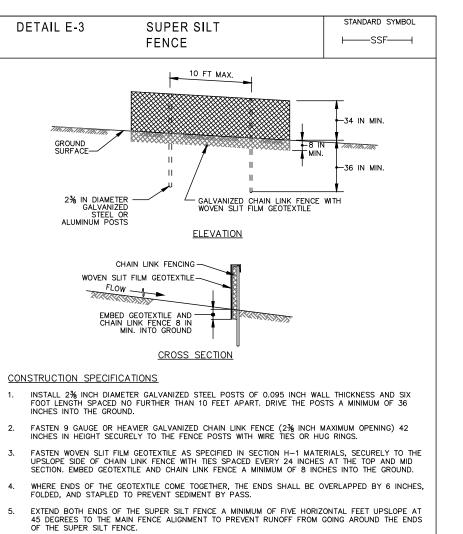
 8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
- 9. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.

 10. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B—4 VEGETATIVE STABILIZATION.
- MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

 U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE

 2011

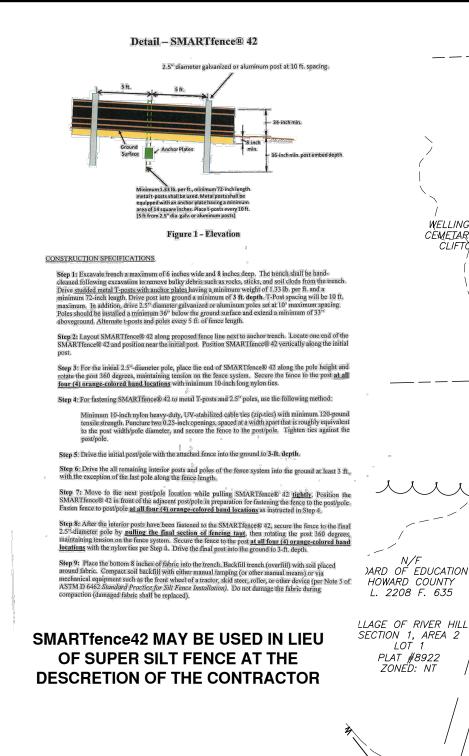
 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

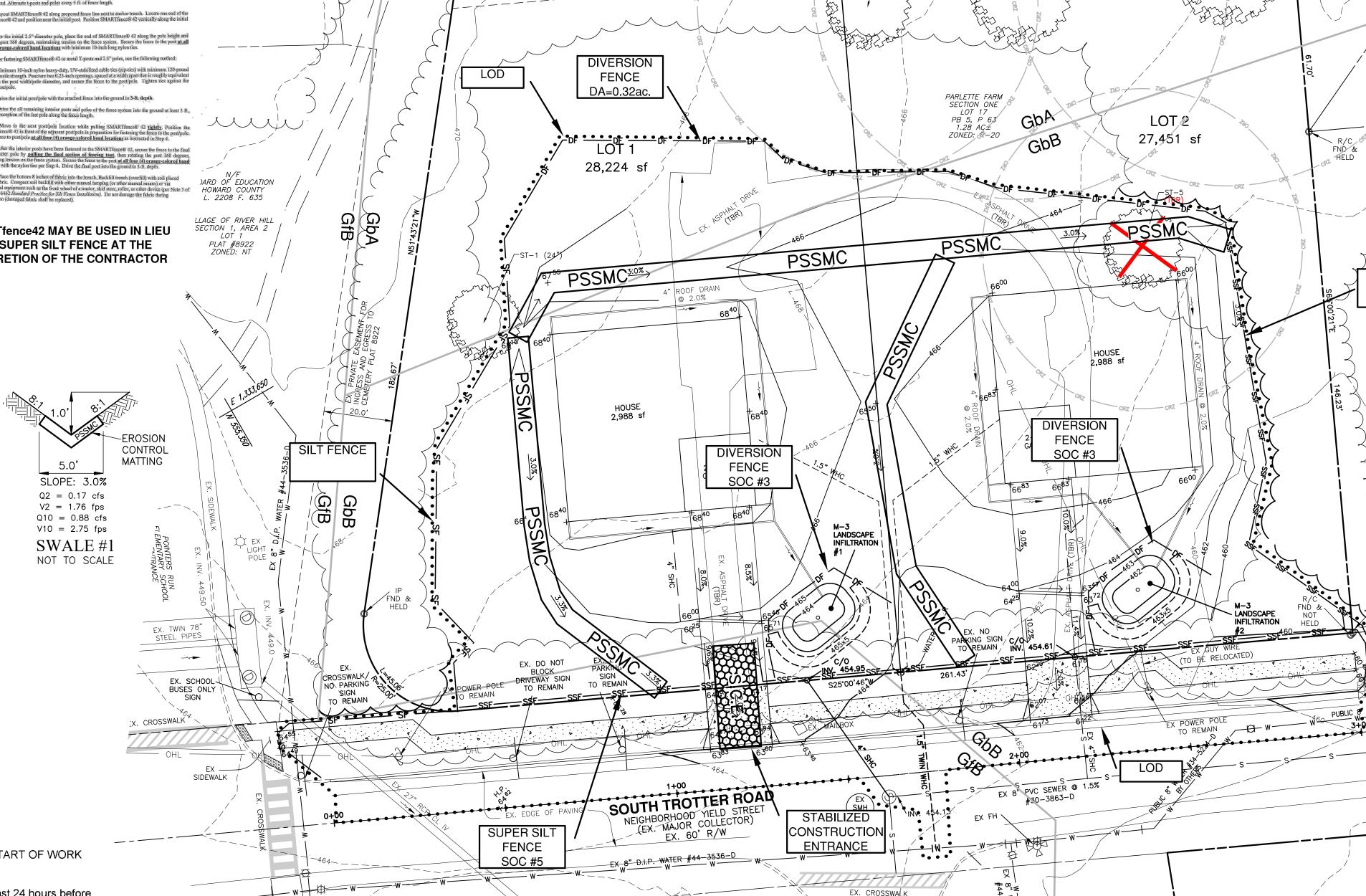


PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION $H\!-\!1$ MATERIALS.

REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

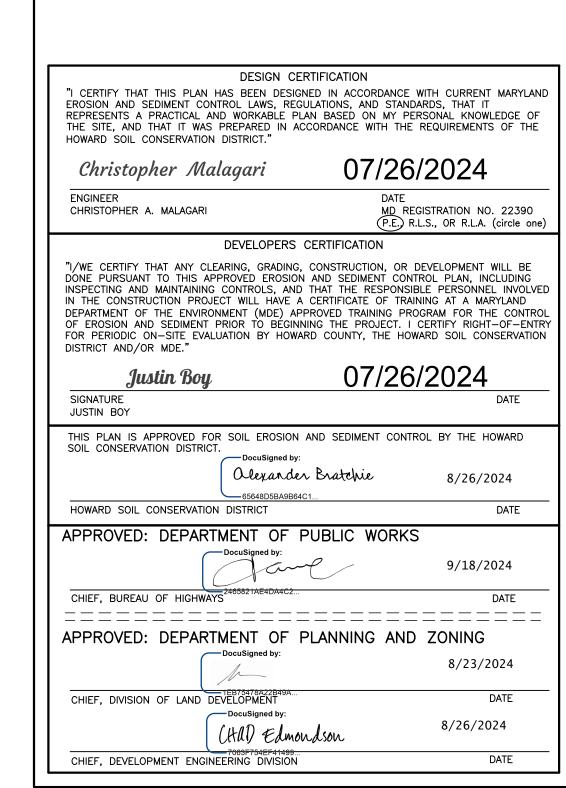




1 inch = 20 ft.

THIS PLAN IS FOR SEDIMENT AND

EROSION CONTROL ONLY.



SEQUENCE OF CONSTRUCTION

NOTIFY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO START OF WORK

1. Obtain grading/building permit. Notify C.I.D. at 410-313-1880 at least 24 hours before starting any work. (1 day)

2. Hold on-site pre-construction meeting. (day 2)

3. Clear and grub as necessary to install perimeter controls (i.e. DF, SCE, SSF and SF). Delineate the SWM Landscape Infiltration locations and install the DF on the uphill side of these practices. (day 3)

4. Install WHC and SHC. (day 4-7)

5. Saw cut and pave for road widening. Install curb and gutter, concrete aprons and sidewalk. Install SSF along the public right of way. (day 8-15)

6. Excavate for house foundation, rough grade, backfill, and stabilize in accordance with the temporary seedbed notes. (day 16-21)

7. Construct houses and driveways. Finalize lot grading and construct the SWM landscape infiltration devices. (day 22-150)

8. Install perimeter and street tree plantings. Install plantings in the landscape infiltration practices. (day 151)

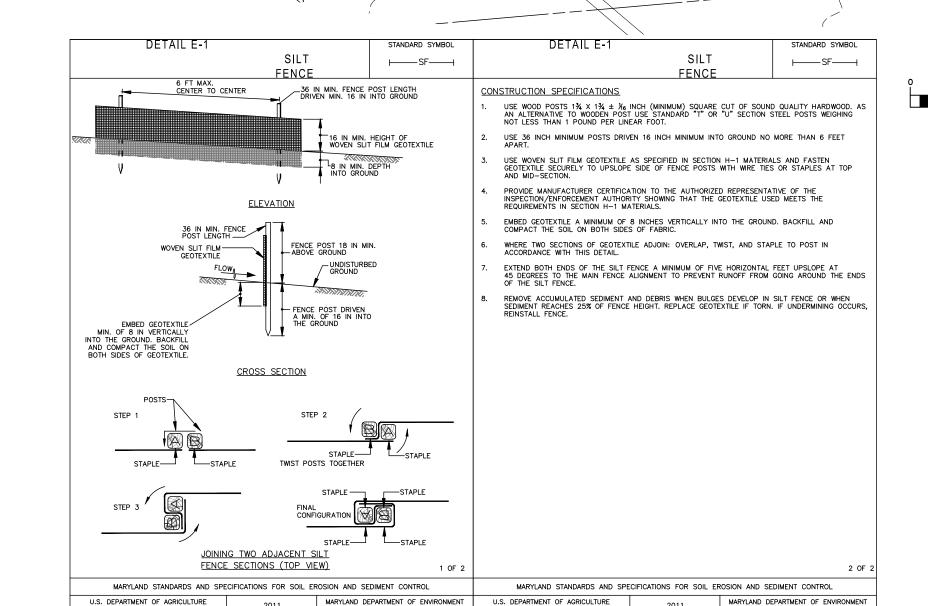
9. Upon approval from the Howard County Sediment Control Inspector, remove all sediment control devices and stabilize any remaining disturbed areas in accordance with the permanent seedbed notes. (day 152)

Note: Following initial soil disturbance or any re-disturbances, permanent or temporary stabilization shall be completed within:

A. 3 calendar days for all perimeter sediment control structures, dikes, swales and all slopes greater than 3:1.

B. 7 calendar days for all other disturbed areas.

During grading and after each rainfall, contractor will inspect and provide necessary maintenance to the sediment control measures of this plan.



BENCHMARK

BENCHMARK

ENGINEER A LAND SURVEYORS A PLANNERS

ENGINEER ROAD A SUITE 140 A ELLICOTI CITY, MARYLAND 21043

(P) 410-465-6105 (F) 410-465-6644

WWW.BEI-CIVILENGINEERING.COM

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer unden their lays of the State of Maryland, License No. 2009 Frank up 10 feet. 6-30-2025.

POINTERS VIEW

O7.26.2024

VILLAGE OF RIVER HILL SECTION 2, AREA 4 LOT 153

SECTION 2, AREA 4

FENCE

SECTION 2, AREA 4

PLAT #11466

FX. HOUSE

OWNER: LOTS 1 AND 2 DEVELOPMENT PARTNERS, LLC A Resubdivision of Lot 17 previously recorded as 82 EAST LAKE DRIVÉ ANNAPOLIS, MARYLAND 21403 Plat Book 5 Page 63 410-792-2565 #6536 SOUTH TROTTER ROAD TAX MAP: 35 GRID: 20 PARCEL: 60 DEVELOPER: ZONED: R-20 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND DEVELOPMENT PARTNERS, LLC 82 EAST LAKE DRIVE SEDIMENT AND EROSION CONTROL ANNAPOLIS, MARYLAND 21403 410-792-2565 PLAN DATE: JULY 24, 2024 BEI PROJECT NO. 3181

AS SHOWN

SCALE:

ESIGN: DBT | CHECK: CAM

SHEET 5 OF 6 F-24-048

B-4 STANDARDS AND SPECIFICATIONS

VEGETATIVE STABILIZATION

Using vegetation as cover to protect exposed soil from erosion. To promote the establishment of vegetation on exposed soil

Conditions Where Practice Applies On all disturbed areas not stabilized by other methods. This specification is divided into sections on

stabilization; soil preparation, soil amendments and topsoiling; seeding and mulching; temporary stabilization: and permanent stabilization.

Effects on Water Quality and Quantity Stabilization practices are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall.

reducing sediment loads and runoff to downstream areas. Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Over time, vegetation

increase organic matter content and improve the water holding capacity of the soil and subsequent plant Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances

Sediment control practices must remain in place during grading, seedbed preparation, seeding, mulching, and vegetative establishment. Adequate Vegetative Establishment

Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and reseedings within the planting season. 1. Adequate vegetative stabilization requires 95 percent groundcover.

2. If an area has less than 40 percent groundcover, restabilize following the original recommendations for lime, fertilizer, seedbed preparation, and seeding. 3. If an area has between 40 and 94 percent groundcover, over-seed and fertilize using half of the rates

originally specified 4. Maintenance fertilizer rates for permanent seeding are shown in Table B.6.

B-4-1 STANDARDS AND SPECIFICATIONS NCREMENTAL STABILIZATION

Establishment of vegetative cover on cut and fill slopes.

A. Incremental Stabilization - Cut Slopes

application of temporary stabilization.

HOWARD SOIL CONSERVATION DISTRICT."

Christopher Malagari

Justin Boy

HOWARD SOIL CONSERVATION DISTRICT

CHRISTOPHER A. MALAGARI

DISTRICT AND/OR MDE."

SOIL CONSERVATION DISTRIC

CHIEF, BUREAU OF HIGHWAYS

JUSTIN BOY

Figure B.

Γο provide timely vegetative cover on cut and fill slopes as work progresses. Conditions Where Practice Applies Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

1. Excavate and stabilize cut slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all cut slopes as the work progresses.

2. Construction sequence example (Refer to Figure B.1): a. Construct and stabilize all temporary swales or dikes that will be used to convey runoff around the excavation.

b. Perform Phase 1 excavation, prepare seedbed, and stabilize. c. Perform Phase 2 excavation, prepare seedbed, and stabilize. Overseed Phase 1 areas as necessary. d. Perform final phase excavation, prepare seedbed, and stabilize. Overseed previously

seeded areas as necessary. Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate

the application of temporary stabilization 3. Incremental Stabilization - Fill Slopes

1. Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all slopes as the work progresses 2. Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or when the grading

operation ceases as prescribed in the plans. 3. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner 4. Construction sequence example (Refer to Figure B.2):

a. Construct and stabilize all temporary swales or dikes that will be used to divert runoff around the fill. Construct silt fence on low side of fill unless other methods shown on the plans address this area. b. At the end of each day, install temporary water conveyance practice(s), as necessary, to

intercept surface runoff and convey it down the slope in a non-erosive manner. c. Place Phase 1 fill, prepare seedbed, and stabilize d. Place Phase 2 fill, prepare seedbed, and stabilize.

e. Place final phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as C. Soil Amendments (Fertilizer and Lime Specifications) Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any

interruptions in the operation or completing the operation out of the seeding season will necessitate the

DESIGN CERTIFICATION

"I CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLANI

REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF

THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE

DEVELOPERS CERTIFICATION

DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED

IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND

DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL

OF EROSION AND SEDIMENT PRIOR TO BÉGINNING THE PROJECT. I CERTIFY RIGHT—OF—ENTRY

FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD

Olexander Bratchie

APPROVED: DEPARTMENT OF PLANNING AND ZONING

(Hd) Edmondson

APPROVED: DEPARTMENT OF PUBLIC WORKS

"I/WE CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE

07/26/2024

07/26/2024

MD REGISTRATION NO. 22390

(P.E.) R.L.S., OR R.L.A. (circle one)

DATE

DATE

DATE

DATE

DATE

Mulchin

8/26/2024

9/18/2024

8/23/2024

8/26/2024

EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT

B-4-2 STANDARDS AND SPECIFICATIONS SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

A. Soil Preparation

Temporary Stabilization

suitable means.

i. Soil pH between 6.0 and 7.0.

nlus clav) would be acceptable.

unnecessary on newly disturbed areas.

Topsoiling is limited to areas having 2:1 or flatter slopes where:

Permanent Stabilization

conditions.

of a soil test.

vegetative growth

1½ inches in diameter.

natural topsoil.

warranty of the producer.

soil by disking or other suitable means.

The application of seed and mulch to establish vegetative cover

1. Specifications

To protect disturbed soils from erosion during and at the end of construction

permit dissipation of phyto-toxic materials.

seeding rate in each direction

200 pounds per acre.

seed to soil contact.

fertilizer).

1. Mulch Materials (in order of preference)

Topsoil Application

The process of preparing the soils to sustain adequate vegetative stabilization ii. WCFM, including dye, must contain no germination or growth inhibiting To provide a suitable soil medium for vegetative growth. iii. WCFM materials are to be manufactured and processed in such a

Conditions Where Practice Applies Where vegetative stabilization is to be established.

Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of

suitable agricultural or construction equipment, such as disc harrows or chisel plows or

rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to

iii. Soil contains less than 40 percent clay but enough fine grained material (greater than

30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture.

An exception: if lovegrass will be planted, then a sandy soil (less than 30 percent silt

Application of amendments or topsoil is required if on-site soils do not meet the above

Apply soil amendments as specified on the approved plan or as indicated by the results

means. Rake lawn areas to smooth the surface, remove large objects like stones and

branches, and ready the area for seed application. Loosen surface soil by dragging with

a heavy chain or other equipment to roughen the surface where site conditions will not

permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment

leaving the soil in an irregular condition with ridges running parallel to the contour of the

slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be

approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.

rippers mounted on construction equipment. After the soil is loosened, it must not be

Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other

a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil

be tracked with ridges running parallel to the contour of the slope.

conditions required for permanent vegetative establishment are:

iv. Soil contains 1.5 percent minimum organic matter by weight.

v. Soil contains sufficient pore space to permit adequate root penetration.

c. Graded areas must be maintained in a true and even grade as specified on the

e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable

Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The

Topsoil salvaged from an existing site may be used provided it meets the standards as set

can be found in the representative soil profile section in the Soil Survey published by

a. The texture of the exposed subsoil/parent material is not adequate to produce

plants or furnish continuing supplies of moisture and plant nutrients.

Areas having slopes steeper than 2:1 require special consideration and design.

Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:

The soil is so acidic that treatment with limestone is not feasible.

The original soil to be vegetated contains material toxic to plant growth.

a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy

b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack

sand. Other soils may be used if recommended by an agronomist or soil scientist and

contrasting textured subsoils and must contain less than 5 percent by volume of cinders,

stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than

Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil

scientist and approved by the appropriate approval authority, may be used in lieu of

thickness of 4 inches. Spreading is to be performed in such a manner that sodding or

seeding can proceed with a minimum of additional soil preparation and tillage. Any

irregularities in the surface resulting from topsoiling or other operations must be

Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition

Soil tests must be performed to determine the exact ratios and application rates for both lime

Fertilizers must be uniform in composition, free flowing and suitable for accurate application by

appropriate equipment. Manure may be substituted for fertilizer with prior approval from the

appropriate approval authority. Fertilizers must all be delivered to the site fully labeled

3. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except

B-4-3 STANDARDS AND SPECIFICATIONS

SEEDING AND MULCHING

Conditions Where Practice Applies

Criteria

a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be

subject to re-testing by a recognized seed laboratory. All seed used must have been

any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be

available upon request to the inspector to verify type of seed and seeding rate.

b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is

c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure

d. Sod or seed must not be placed on soil which has been treated with soil sterilants or

b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

ii. Apply seed in two directions, perpendicular to each other. Apply half the

i. If fertilizer is being applied at the time of seeding, the application rates should

ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be

iii. Mix seed and fertilizer on site and seed immediately and without interruption.

bright in color. Straw is to be free of noxious weed seeds as specified in the

Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dusty,

Note: Use only sterile straw mulch in areas where one species of grass is desired.

iv. When hydroseeding do not incorporate seed into the soil.

a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably

not exceed the following: nitrogen, 100 pounds per acre total of soluble

nitrogen; P2O5 (phosphorous), 200 pounds per acre; K2O (potassium),

applied by hydroseeding). Normally, not more than 2 tons are applied by

hydroseeding at any one time. Do not use burnt or hydrated lime when

c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and

i. Cultipacking seeders are required to bury the seed in such a fashion as to

provide at least 1/4 inch of soil covering. Seedbed must be firm after

a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.

frozen. The appropriate seeding mixture must be applied when the ground thaws.

tested within the 6 months immediately preceding the date of sowing such material on

culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must

Note: It is very important to keep inoculant as cool as possible until used. Temperatures

Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table

in each direction. Roll the seeded area with a weighted roller to provide good

above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less

not be used later than the date indicated on the container. Add fresh inoculants as

directed on the package. Use four times the recommended rate when hydroseeding.

chemicals used for weed control until sufficient time has elapsed (14 days min.) to

B.1, Permanent Seeding Table B.3, or site-specific seeding summaries.

ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate

o the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus

magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will

pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve.

Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone

at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of

Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of

according to the applicable laws and must bear the name, trade name or trademark and

performed by a recognized private or commercial laboratory. Soil samples taken for

when the subsoil is excessively wet or in a condition that may otherwise be detrimental

corrected in order to prevent the formation of depressions or water pockets.

to proper grading and seedbed preparation.

and fertilizer on sites having disturbed areas of 5 acres or more.

engineering purposes may also be used for chemical analyses.

approved by the appropriate approval authority. Topsoil must not be a mixture of

grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.

Erosion and sediment control practices must be maintained when applying topsoil.

Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum

purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low

forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type

The soil material is so shallow that the rooting zone is not deep enough to support

moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil

Apply fertilizer and lime as prescribed on the plans.

ii. Soluble salts less than 500 parts per million (ppm).

manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The

b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose

i. WCFM is to be dyed green or contain a green dye in the package that will

provide an appropriate color to facilitate visual inspection of the

processed into a uniform fibrous physical state.

uniformly spread slurry

mulch material must form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings. iv. WCFM material must not contain elements or compounds at

concentration levels that will be phyto-toxic. v. WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and

water holding capacity of 90 percent minimum. a. Apply mulch to all seeded areas immediately after seeding.

b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre. c. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per

acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

Anchoring a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:

> mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour. ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a

i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor

maximum of 50 pounds of wood cellulose fiber per 100 gallons of water iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks.

Use of asphalt binders is strictly prohibited iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to

B-4-5 STANDARDS AND SPECIFICATIONS PERMANENT STABILIZATION

To stabilize disturbed soils with permanent vegetation.

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils. Conditions Where Practice Applies

Exposed soils where ground cover is needed for 6 months or more.

A. Seed Mixtures

 General Use a Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan. b Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or

for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guild, Section 342 - Critical Area Planting. c For sites having disturbed areas over 5 acres, use and show the rates recommended by the soil

d For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown

in the Permanent Seeding Summary. 2. Turfgrass Mixtures a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance. b. Select one or more of the species or mixtures listed below based on the site conditions or purpose.

Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan. i. Kentucky Bluegrass: Full sun Mixture: For use in areas that receive intensive management Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky Bluegrass Cultivars with each ranging from 10 to 35 percent of the total

ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky Bluegrass Cultivars with each ranging from 10 to 35 percent of the total mixture by weight.

iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes: Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended. iv.Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate:

1 ½ to 3 pounds per 1000 square feet. Notes: Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland" Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

c. Ideal Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a) Central MD:March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b) Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15

(Hardiness Zones: 7a, 7b) d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1 ½ inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (½ to 1 inch

every 3 to 4 days depending on soil texture) until they are firmly established. This is not especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on

B. Sod: to provide quick cover on disturbed areas (2:1 grade or flatter). 1 General Specifications a. Class of turfgrass must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector

b. Sod must be machine cut at a uniform soil thickness of ¾ inch, plus or minus ¼ inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable. c. Standard size sections of sod must be strong enough to support their own weight and retain their

size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section. d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival. e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its installation.

2. Sod Installation a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod.

b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.

c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface. d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and

soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and

irrigating for any piece of sod within eight hours. a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day to

otherwise specified

b. After the first week, sod watering is required as necessary to maintain adequate moisture content. c. Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless

Plant Species			(inches)	5b and 6a	6b	7a and 7b
ool-Season Grasses						
nnual Ryegrass (Lolium perenne ssp. Iultiflorum	40	1.0	0.5		Mar 1 to May 15; Aug 1 to Oct 31	
arley (Hordeum vulgare)	96	2.2	1.0		Mar 1 to May 15; Aug 1 to Oct 31	
ats (Avena sativa)	72	1.7	1.0		Mar 1 to May 15; Aug 1 to Oct 31	
/heat (Triticum aestivum)	120	2.8	1.0		Mar 1 to May 15; Aug 1 to Oct 31	
ereal Rye (Secale cereale)	112	2.8	1.0		Mar 1 to May 15; Aug 1 to Nov 15	
/arm-Season Grasses						
oxtail Millet (Serataria italica)	30	0.7	0.5		May 16 to Jul 31	
earl Millet (Pennisetum glaucum	20	0.5	0.5		May 16 to Jul 31	
otes: / Seeding rates for the warm season grasses	are in pound	ds of Pure Live S	Seed (PLS). Act	tual planting rates sha	all be adjusted to reflect percent seed germ	nation and purity, as

tested. Adjustments are usually not needed for the cool-season grasses.

for barley, oats, and wheat. For smaller-seeded grasses (annual ryegrass, pearl millet, foxtail millet), do not exceed more than 5% (by weight) of the overall permanen seeding mix. Cereal rye generally should not be used as a nurse crop, unless planting will occur very late fall beyond the seeding dates for other temporary seedings. Cereal rye has allelopathic properties that inhibit the germination and growth of other plants. If it must be used as a nurse crop, seed at 1/3 of the rate listed above.

Oats are the recommended nurse crop for warm-season grasses.

3/ The planting dates listed are averages for each Zone and may require adjustment to reflect local conditions, especially near the boundaries of the zone.

Permanent Seeding Summary

	Hardiness Zone (from F Seed Misture (from Tab		6b Tall Fescue/Kentucky B	Fertilizer Rate (10-20-20)			Lime Rate	
	Species	Application Rate (lb/ac.)	Seeding Dates	Seeding Depths	9 N P205 K20			
	Fescue, Tall	60	Mar 1 to May 15 Aug 1 to Oct 15	1/4 - 1/2 in	45 pounds		90 lb/ac 2 lb/	
	Bluegrass, Kentucky	40	Mar 1 to May 15 Aug 1 to Oct 15	1/4 - 1/2 in	per acre (1.0 lb/	90 lb/ac (2 lb/		2 tons/ac (90lb/ 1000 sf)
				1/4 - 1/2 in	100 sf)	1000 sf)	1000 sf)	

1. A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-3133-1855 after the future LOD and protected areas are marked clearly in the field. A minimum of 48 hours notice to CID must be given at the following stages:

a. Prior to the start of earth disturbance, b. Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading,

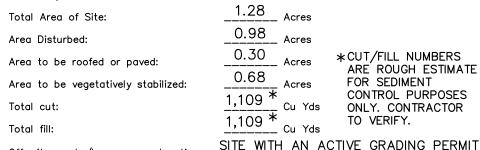
c. Prior to the start of another phase of construction or opening of another grading d. Prior to the removal or modification of sediment control practices. 2. All vegetative and structural practices are to be installed according to the provisions of

this plan and are to be in conformance with the <u>2011 MARYLAND STĂNDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL</u>, and revisions thereto.

3. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization is required within three (3) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1) and seven (7) calendar days as to all other disturbed areas on the project site except for those areas under active grading.

4. All disturbed areas must be stabilized within the time period specified above in accordance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT <u>CONTROL</u> for topsoil (Sec. B-4-2), permanent seeding (Sec. B-4-5), temporary seeding (Sec. B-4-4) and mulching (Sec. B-4-3). Temporary stabilization with mulch alone can only be applied between the fall and spring seeding dates if the ground is frozen. Incremental stabilization (Sec. B-4-1) specifications shall be enforced in areas with >15' of cut and/or fill. Stockpiles (Sec. B-4-8) in excess of 20 feet must be benched with stable outlet. All concentrated flow, steep slope, and highly erodible areas shall receive soil stabilization matting (Sec. B-4-6).

5. 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 CID. 6. Site Analysis:



7. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

8. Additional sediment control must be provided, if deemed necessary by the CID. The site and all controls shall be inspected by the contractor weekly, and the next day after each rain event. A written report by the contractor, made available upon request, is part of every inspection and should include:

•Inspection type (routine, pre-storm event, during rain event) Name and title of inspector

Off-site waste/borrow area location:

Inspection date

• Weather information (current conditions as well as time and an=mount of last recorded precipitation • Brief description of project's status (e.g. percent complete) and/or current activities

 Evidence of sediment discharges Identification of plan deficiencies • Identification of sediment controls that require maintenance

• Identification of missing or improperly installed sediment controls • Compliance status regarding the sequence of construction and stabilization requirements

 Photographs Monitoring/sampling Maintenance and/or corrective action performed

•Other inspection items as required by the General Permit for Stormwater Associated with Construction Activities (NPDES, MDE). 9. Trenches for the construction of utilities is limited to three pipe lengths or that which can

and shall be back filled and stabilized by the end of each work day, whichever is shorter. 10. Any major changes or revisions to the plan or sequence of construction must be reviewed and approved by the HSCD prior to proceeding with construction. Minor revisions may be allowed by the CID per the list of HSCD-approved field changes.

11. Disturbance shall not occur outside the L.O.D. A project is to be sequenced so that grading activities begin on one grading unit (maximum acreage 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 CID. Unless otherwise specified and approved by the HSCD, no more than 20 acres cumulatively

may be disturbed at a given time. 12. Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a sediment basin or other approved washout structure.

13. Topsoil shall be stockpiled and preserved on-site for redistribution onto final grade.

14. All silt fence and super silt fence shall be placed on—the—contour, and be imbricated at

15. Stream channels must not be disturbed during the following restricted time periods

• Use I and IP March 1 - June 15 • Use III and IIIP October 1 - April 30 Use IV March 1 − May 31

16. A copy of this plan, the <u>2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL</u>
<u>EROSION AND SEDIMENT CONTROL</u>, and associated permits shall be on—site and available when

REVISION NO. DATE were prepared or approved by me, and that I am a duly licensed professional engineer unden the laws of the State of Maryland BENCHMARK License No. 3239h Expiration Date: 6-30-2025.

WWW.BEI-CIVILENGINEERING.COM OWNER: DEVELOPMENT PARTNERS, LLC 82 EAST LAKE DRIVE ANNAPOLIS, MARYLAND 21403 410-792-2565

DEVELOPER: DEVELOPMENT PARTNERS, LLC 82 EAST LAKE DRIVE ANNAPOLIS, MARYLAND 21403

410-792-2565

LOTS 1 AND 2 A Resubdivision of Lot 17 previously recorded as Plat Book 5 Page 63 #6536 SOUTH TROTTER ROAD TAX" MAP: 35 GRID: 20 PARCEL: 60 ZONED: R-20 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND

SEDIMENT AND EROSION CONTROL PLAN

DATE: BEI PROJECT NO. 3181 JULY 26, 2024 DESIGN: DBT | CHECK: CAM SCALE: AS SHOWN SHEET 6 of 6

THIS PLAN IS FOR SEDIMENT AND **EROSION CONTROL ONLY**

J:\3181_6536 South Trotter Rd\dwg\7023.dwg, 7/26/2024 1:25:32 PM

CHIEF, DIVISION OF LAND DEVELOPMENT

CHIEF, DEVELOPMENT ENGINEERING DIVISION

TEMPORARY STABLIZATION

To stabilize disturbed soils with vegetation for up to 6 months.

Purpose To use fast growing vegetation that provides cover on disturbed soils. Conditions Where Practice Applies

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

B-4-4 STANDARDS AND SPECIFICATIONS

Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.

Soil tests are not required for Temporary Seeding. 3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

2. For sites having soil tests performed, use and show the recommended rates by the testing agency.

H-5 STANDARDS AND SPECIFICATIONS

DUST CONTROL Controlling the suspension of dust particles from construction activities

To prevent blowing and movement of dust from exposed soil surfaces to reduce on and off-site damage health and traffic hazards.

Conditions Where Practice Applies Areas subject to dust blowing and movement where on and off-site damage is likely without treatment. 1. <u>Mulches:</u> See Section B-4-2 Soil Preparation, Topsoiling, and Soil Amendments, Section B-4-3 Seeding and Mulching, and Section B-4-4 Temporary Stabilization. Mulch must be anchored to

prevent blowing. <u>Vegetative Cover:</u> See Section B-4-4 Temporary Stabilization. Tillage: Till to roughen surface and bring clods to the surface. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and

similar plows are examples of equipment that may produce the desired effect. Irrigation: Sprinkle site with water until the surface is moist. Repeat as needed. The site must not be irrigated to the point that runoff occurs. Barriers: Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar

material can be used to control air currents and soil blowing. Chemical Treatment: Use of chemical treatment requires approval by the appropriate plan

> Table B.1: Temporary Seeding for Site Stabilization Seeding Rate 1/ Seeding | Recommended Seeding Dates by Plant Hardiness Zone 3/

Plant Species	Seeding Rate 1/		Depth 2/		nmended Seeding Dates by Plant Hardiness Zone 3/		
Fiant species	lb/ac	lb/1000 ft2	(inches)	5b and 6a	6b	7a and 7b	
ol-Season Grasses							
nual Ryegrass (Lolium perenne ssp. ultiflorum	40	1.0	0.5		Mar 1 to May 15; Aug 1 to Oct 31		
rley (Hordeum vulgare)	96	2.2	1.0		Mar 1 to May 15; Aug 1 to Oct 31		
its (Avena sativa)	72	1.7	1.0		Mar 1 to May 15; Aug 1 to Oct 31		
neat (Triticum aestivum)	120	2.8	1.0		Mar 1 to May 15; Aug 1 to Oct 31		
real Rye (Secale cereale)	112	2.8	1.0		Mar 1 to May 15; Aug 1 to Nov 15		
arm-Season Grasses							
xtail Millet (Serataria italica)	30	0.7	0.5		May 16 to Jul 31		
arl Millet (Pennisetum glaucum	20	0.5	0.5		May 16 to Jul 31		
otes: Seeding rates for the warm season grasses	are in pound	s of Pure Live S	Seed (PLS). Act	tual planting rates sha	all be adjusted to reflect percent seed germi	nation and purity, as	

For sandy soils, plant seeds at twice the depth listed above.

B-4-8 STANDARDS AND SPECIFICATIONS STOCKPILE AREA A mound or pile of soil protected by appropriately designed erosion and sediment control measures. To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns. Conditions Where Practice Applies

FRONT

TEMPORARY STOCKPILE AT

BACK OF LOTS, AS NEEDED

1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan. 2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material

Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

concentrated flow in a non-erosive manner

impermeable sheeting.

accordance with Section B-3 Land Grading. 3. Runoff from the stockpile area must drain to a suitable sediment control practice. 4. Access the stockpile area from the upgrade side. 5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging

and based on a side slope ratio no steeper than 2:1. Benching must be provided in

6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge. 7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization. 8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile

to facilitate cleanup. Stockpiles containing contaminated material must be covered with

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

● ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS ENGINEERING, INC. 3300 NORTH RIDGE ROAD ▲ SUITE 140 ▲ ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644

POINTERS VIEW

F-24-048