1		SHEET INDEX	
SHEET	NO.	DESCRIPTION	
1		TITLE SHEET	
2		SITE DEVELOPMENT & LANDSCAPE PLAN	
3		SEDIMENT CONTROL NOTES AND DETAILS	

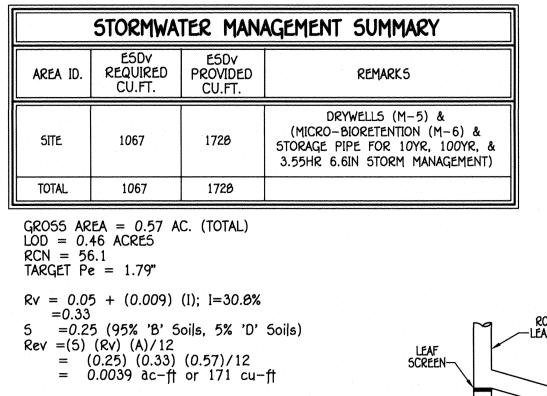
	ADDRESS CHART	
LOT NUMBER	STREET ADDRESS	
21-A	3018—A Southview Road	

SITE DEVELOPMENT PLAN HOWARD HEIGHTS

LOT 21A

TAX MAP No. 17 GRID No. 22 PARCEL NO. 211 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SOILS LEGEND CLASS K FACTOR Baile Silt Loam, 0 to 3 percent slope D .32 Glenelg-Urban Land Complex. 0 to 8 percent slope В .20 Soil Map Number: 13 (Ellicott City, SW)



STORMWATER MANAGEMENT NOTES

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

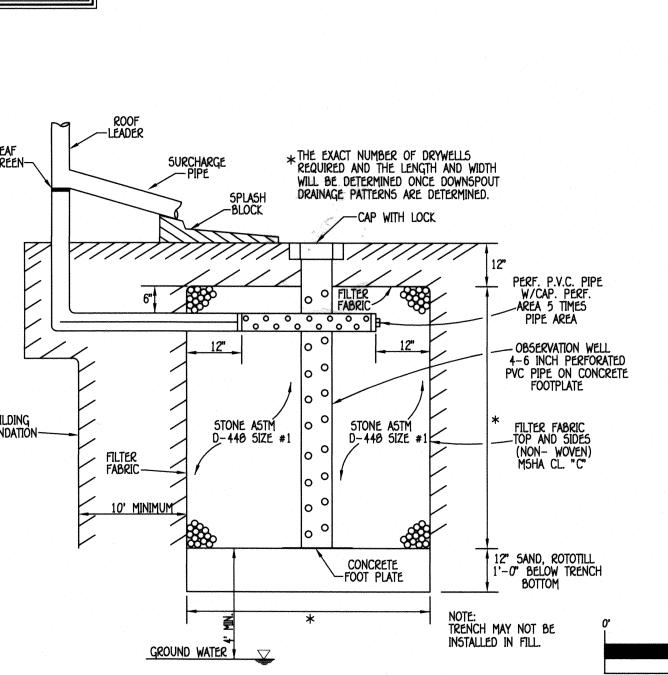
OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)

- A. THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT. MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO ENSURE TRENCH
- C. THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS. D. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN
- WITHIN A SEVENTY-TWO (72) HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE
- E. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR
- INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA F. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED. THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED. Table B.4. Materials Specifications for Micro-Bioretention, Rain Gardens & Landscape Infiltration

Specification

uare office park - 10272 baltimore national pik

ELLICOTT CITY, MARYLAND 21042

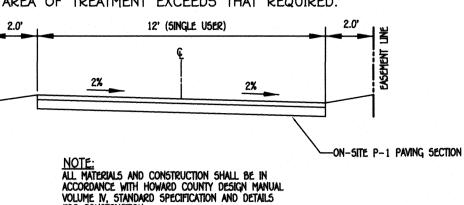


DATE

DRY WELL DETAIL (M-5) 5CALE: 1" = 2,000"DRY WELL CHART

Material	Decilication	Size	INOTES
Plantings	see Appendix A; Table A.4	n/ā	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%		USDA soil types loamy sand or sandy loam; clay content <5%
Organic Content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum
Pea gravel diaphragm	pea gravel: ASTM-D-440	No. 0 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
Grāvel (underdrāins ānd infiltrātion berms)	AA5HTO M-43	No. 57 or No. Aggregate (3/8" to 3/4")	
Underdrāin piping	F 750, Type P5 20 or AA5HTO M-270	4" to 6" rigid schedule 40 PVC or 5DR35	Slotted or perforated pipe; 3/8" pert. © 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/4 inch galvanized hardware cloth
Poured in place concrete (if required)	M5HA Mix No. 3; f = 3500 psi at 20 days, normal weight, air-entrained; reinforcing to meet A5TM-615-60	n.ā	on-site testing of poured-in-place concrete required: 20 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved 5tate or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the 5tate of Maryland - design to include meeting ACI Code 350.R/09; vertical loading [H-10 or H-20]; allowable horizontal loading (based on soil pressures); and analysis of potential cracking
and	AA5HTO-M-6 or A5TM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone (AASHTO) #10 are not acceptable. No calcium carbonated or dolomitic

DRYWELL AREA OF ROOF | VOLUME | VOLUME | AREA OF PER DOWN SPOUT REQUIRED PROVIDED TREATMENT 750 Sq. Ft. | 107 C.F. | 288 C.F. | 100%* | 12 × 12 × 5 750 5q. Ft. | 107 C.F. | 200 C.F. | 100%* | 12 x 12 x 5 12 x 12 x 5 750 Sq. Ft. | 107 C.F. | 288 C.F. | 100%* 750 Sq. Ft. | 107 C.F. | 288 C.F. | 100%* 1000 5q. Ft. | 142 C.F. | 200 C.F. | 100%* | 12 x 12 x 5 DW#5 1000 5q. Ft. | 142 C.F. | 200 C.F. | 100%* | 12 x 12 x 5 * AREA OF TREATMENT EXCEEDS THAT REQUIRED



TYPICAL PRIVATE DRIVE CROSS SLOPE SECTION

SLOPE THE DRIVEWAY SO THAT WATER DOES NOT FLOW DIRECTLY ONTO THE ADJACENT SOUTHERN PARCEL.

MIN. BMP #1 SWITCH GRASS (Panicum virgatum TUSSOCK SEDGE (Carex Stricta) CUTLEAF CONEFLOWER (Rudbeckia laciniata) @ 3' c/c min. + + + + + + + + + Flower @ 4' c/c min. JP JOE PYE WEED (Eupatorium maculatum 'Gateway') 1 gal 9 RED OSIER DOGWOOD (Cornus sericea) @ 7' c/c.

BIORETENTION FACILITY (BMP#1) PLANTING

ADC STREET MAP: MAP 20 GRID 5-D

VICINITY MAP

5CALE: 1" = 2,000'

1. PLANT INSTALLATION SHALL BE PER MDE SPECIFICATIONS IN THE 2000 STORMWATER DESIGN MANUAL, PER THE PROJECT SPECIFICATIONS, AND AS BELOW.

ADDITIONAL SPECIFICATIONS: 1. PLANT BMP LEVEL SURFACE AS SHOWN IN THE ABOVE TABLE WITH AN EVEN DISTRIBUTION DENSITY. STABILIZE BMP SIDE SLOPES WITH PERMANENT GRASS SEED PER NRCS SPECIFICATIONS. SIDE SLOPE PERMANENT GRASS AREAS SHALL HAVE 3" OF CLEAN TOPSOIL ON TILLED SUB-SOIL AND CURLEX MATTING. WATER AS NECESSARY UNTIL ESTABLISHED

2. THE CONTRACTOR SHALL PROVIDE PLANT MAINTENANCE AND GUARANTEE IN ACCORDANCE WITH THE PROJECT LANDSCAPING SPECIFICATIONS.

3. PLANT MATERIAL SHALL CONFORM TO THE U.S. STANDARD FOR NURSERY STOCK BY THE 4. PLANTING PERENNIALS & GRASSES: ROOT SYSTEMS SHALL BE SPLIT OR CRUMBLED. POTTED PLANTS SHALL BE SET SO THAT THE TOP OF THE POT IS EVEN WITH EXISTING GRADE. TREAT

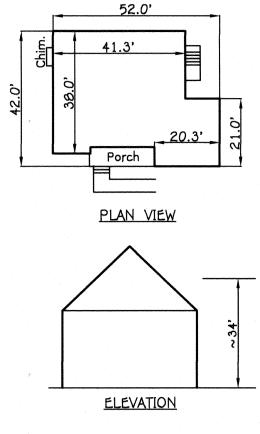
THE MULCHED AND PLANTED AREA WITH A PRE-EMERGENT HERBICIDE. 5. ALL PLANTS MUST BE THOROUGHLY AND REGULARLY WATERED PRIOR TO ACCEPTANCE. 6. DO NOT PLANT VEGETATION WITHIN 1.5 ft OF THE FOREBAY WEIR SPLASH APRONS AND IN THE NO PLANTING ZONE NEAR THE RISER.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED UNDERGROUND S.W.M. FACILITY

- A. ROUTINE MAINTENANCE RESPONSIBILITIES:
- 1. THE UNDERGROUND S.W.M. FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE FACILITY IS FUNCTIONING PROPERLY.
- MAINTENANCE OF THE 84-INCH PIPES SHALL BE PERFORMED BY FLUSHING THE SYSTEM THROUGH THE CLEAN-OUTS PROVIDED AND BY VACUUMING AT MANHOLE CS-1. THE DISCHARGE ORIFICE OF THE UNDERGROUND S.W.M. FACILITY SHALL BE TEMPORARILY
- DISPOSAL OF MATERIAL SHALL BE IN ACCORDANCE WITH SIMILAR B.M.P. THAT RANGE FROM DISPOSAL IN A SANITARY LANDFILL TO INCINERATION IN A LICENSED FACILITY. PETROLEUM WASTE PRODUCTS SHOULD BE REMOVED BY A LICENSED WASTE MANAGEMENT COMPANY.
- 1. STRUCTURAL COMPONENTS OF THE UNDERGROUND FACILITY SUCH AS THE MANHOLES, PIPES AND ORIFICE SHALL BE REPAIRED UPON DETECTION OF ANY DAMAGE. THE COMPONENTS SHOULD BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS.
- SHALL ALSO BE BROUGHT TO THE ATTENTION OF THE HOWARD COUNTY DEPT. OF PUBLIC WORKS TO INSURE THAT PUBLIC SAFETY IS MAINTAINED. BLOCKED DURING SAID MAINTENANCE

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

- 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 THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS AND REPLACE ALL DEFICIENT STAKES AND
- THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH



HOUSE MODEL 5CALE: 1"=30'

General Notes:

- SUBJECT PROPERTY ZONED R-20 PER 10/06/13 COMPREHENSIVE ZONING PLAN. COORDINATES BASED ON NAD '83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 17EF AND NO. 17HA. Sta. 17EF N 594,243.880 E 1,358,578.658
- 5ta. 17HA N 590,619.092 E 1,360,433.437 Elev.= 437.548 THIS PLAN IS BASED ON FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT NOVEMBER.
 - 2019 BY FISHER, COLLINS AND CARTER, INC. B.R.L. DENOTES BUILDING RESTRICTION LINE
 - DENOTES IRON PIN SET CAPPED "F.C.C. 106"
 - DENOTES IRON PIPE OR IRON BAR FOUND. DENOTES ANGULAR CHANGE IN BEARING OF BOUNDARY OR RIGHTS-OF-WAY.
 - DENOTES CONCRETE MONUMENT SET WITH ALUMINUM PLATE "F.C.C. 106". DENOTES CONCRETE MONUMENT OR STONE FOUND.
 - ALL AREAS ARE MORE OR LESS (±).
 - DISTANCES SHOWN ARE BASED ON SURFACE MEASUREMENT AND NOT REDUCED TO NAD '83 GRID MEASUREMENT. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM)
- A). WIDTH 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE); B). SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING.
- (1-1/2" MINIMUM);C). GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS; D). STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25-LOADING); E). DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT
 - DEPTH OVER SURFACE: F). STRUCTURE CLEARANCE - MINIMUM 12 FEET; G). MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- PROPERTY SUBJECT TO PRIOR DEPARTMENT OF PLANNING AND ZONING FILE NO'S: ECP-20-019, WP-20-064. 14. NO CEMETERIES EXIST ON THE SUBJECT PROPERTY BASED ON VISUAL OBSERVATION OR LISTED IN AVAILABLE HOWARD COUNTY CEMETERY INVENTORY MAP.
- NO DWELLINGS OR HISTORIC STRUCTURES EXIST ON LOT 21-A. 10. NO STEEP SLOPES EXIST ON-SITE, HOWEVER THE SITE CONTAINS 100 YEAR FLOODPLAIN, WETLANDS, STREAM(S)
- AND/OR THEIR BUFFERS. SEE ENVIRONMENTAL FINDINGS LETTER PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED JUNE 14, 2018 SITE IS NOT ADJACENT TO A SCENIC ROAD.
- THIS PROJECT IS EXEMPT FROM THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT, PER SECTION 16.1202.(b)(1)(i) A SUBDIVISION, SITE DEVELOPMENT OR GRADING PERMIT FOR DEVELOPMENT ON LAND WHICH IS LESS THAN 40,000 SQUARE FEET
- 13. WATER AND SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 16.1228 OF THE HOWARD COUNTY CODE. PUBLIC WATER AND SEWER ALLOCATION WILL BE GRANTED AT THE TIME OF ISSUANCE OF THE BUILDING PERMIT
- CAPACITY IS AVAILABLE AT THAT TIME.
- 15. STORMWATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. ESD PRACTICES IN ACCORDANCE WITH CHAPTER 5 ARE BEING UTILIZED, MICROBIORETENTION (M-6) 16. THIS PLAN IS IN COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL 45-2003 AND THE 10/06/13 COMPREHENSIVE ZONING PLAN. DEVELOPMENT OR
- CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION, OR BUILDING/GRADING PERMIT. 17. LANDSCAPING IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. THIS IS AN EXISTING LOT OF RECORD. LANDSCAPING IS NOT REQUIRED. PLANTING
- PROVIDED WITHIN THE STREAM BUFFER PER ALTERNATIVE COMPLIANCE. A LANDSCAPE SURETY IN THE AMOUNT OF \$1,050.00 BASED ON (3) SHADE TREES @ \$300/SHADE TREE AND (1) EVERGREEN TREE @ \$150/EVERGREEN TREE WILL BE BONDED WITH THE BUILDING/GRADING PERMIT.
- 18. A NOISE STUDY IS NOT REQUIRED. 19. A SPEED STUDY WAS NOT REQUIRED FOR THIS SITE. 20. THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT AND WILL BE SERVED BY PUBLIC WATER AND
- SEWER (SEE CONTRACT NO. 11-W and 32-5). 21. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- 22. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1000 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK. 23. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-000-257-7777 AT LEAST 40 HOURS PRIOR TO ANY
- EXCAVATION WORK BEING DONE. 24. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST 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. 25. DRIVEWAY SHALL BE PROVIDED IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAIL R-6.06 IN THE VOL. IV
- 26. SOILS INFORMATION BASED ON NRCS WEB SOIL SURVEY FOR HOWARD COUNTY, MARYLAND. 27. IN ACCORDANCE WITH SECTION 120 (0)(A)(1)(E)OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS,
- CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK. 20. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE
 - STARTING WORK SHOWN ON THESE PLANS: STATE HIGHWAY ADMINISTRATION BGE(CONTRACTOR SERVICES) 410.850.4620 BGE(UNDERGROUND DAMAGE CONTROL)
 - 1.800.257.777 COLONIAL PIPELINE COMPANY 410,795,1390 HOWARD COUNTY, DEPT. OF PUBLIC WORKS, BUREAU OF UTILITIES 410.313.4900 HOWARD COUNTY HEALTH DEPARTMENT 410.313.2640
- 1.800.743.0033/410.224.9210 29. ANY DAMAGE TO PUBLIC RIGHT-OF WAYS, PAVING OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. 30. THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY PERFORMED BY FISHER,
- COLLINS & CARTER, INC. IN NOVEMBER, 2019 AND SUPPLEMENTED WITH HOWARD COUNTY GIS TOPOGRAPHY AT 2' CONTOUR INTERVAL. 31. EXISTING UTILITIES ARE BASED ON FIELD LOCATION OF VISIBLE STRUCTURES AND SUPPLEMENTED WITH HOWARD
- COUNTY GIS DATA. 32. SEWER HOUSE CONNECTION (5HC) ELEVATIONS ARE LOCATED AT THE PROPERTY LINE. 33. MAINTAIN 10 FEET OF SEPARATION BETWEEN THE WATER HOUSE CONNECTION (WHC) AND THE SEWER HOUSE
- CONNECTION (SHC) AT THE STREET RIGHT-OF-WAY. 34. WATERSHED: LITTLE PATUXENT RIVER - 02131105.
- 35. SHOULD WELL OR SEPTIC SYSTEMS BE DISCOVERED, THEIY ARE TO BE PROPERTLY ABANDONED IN ACCORDANCE WITH HEALTH DEPARTMENT REQUIREMENTS.
- 36. THIS PLAN IS SUBJECT TO A WAIVER TO DESIGN MANUAL VOLUME III, SECTION 2.6, TABLE 2.0 WHICH WAS APPROVED ON SEPTEMBER 10, 2020 TO REDUCE THE 12 FT DRIVEWAY WIDTH TO 10 FT. IT IS SUBJECT TO THE LIMITS SHOWN IN THE REQUEST AND SHALL BE 12 FT WHERE THE RESTRICTIONS ARE NO LONGER RELEVANT. 37. THIS PLAN IS SUBJECT TO A WAIVER TO DESIGN MANUAL VOLUME II, SECTION 4.5.D. WHICH WAS APPROVED ON
- AUGUST 4, 2020 TO ALLOW 1% SLOPE ON THE SEWER HOUSE CONNECTION. APPROVAL WAS SUBJECT TO THE FOLLOWING CONDITIONS: MAINTAIN A MINIMUM DISTANCE OF 5 FEET BETWEEN THE DRY WELL AND THE SHC.
- OBTAIN A PRIVATE EASEMENT FROM LOT 21 OWNER FOR THE PROPOSED WHO AND SHO.
- 36. THIS PLAN IS SUBJECT TO WP-20-004 APPROVED ON AUGUST 27, 2020 TO HAVE ALTERNATIVE COMPLIANCE TO SECTION 16.116(A)(2)(III) IS SUBJECT TO THE FOLLOWING CONDITIONS: 1. THE PROPOSED DISTURBANCE SHALL NOT EXCEED 3,750 SQUARE FEET AND SHALL BE LOCATED IN THE AREA SHOWN ON THE ALTERNATIVE COMPLIANCE PLAN EXHIBIT. IF CHANGES ARE REQUIRED, ANOTHER ALTERNATIVE COMPLIANCE
- 2. THE APPLICANT SHALL COMPLY WITH ALL BUILDING PERMIT REQUIREMENTS FROM THE DEPARTMENT OF INSPECTIONS. LICENSES & PERMITS, THE 'R-20' ZONING REGULATION REQUIREMENTS, AND THE SUBDIVISION AND LAND DEVELOPMENT

5	WM SUMMAR	RY TABLE			ВМ	P SUMM	ARY TABLE	_		
PROPOSED 10YR Q (CFS)	EXISTING 100YR Q (CF5)		PROPOSED 3.55HR/ 6.6IN Q(CFS)		10YR W5EL	10YR Q (CF5)	100YR W5EL	100YR Q (CF5)	3.55HR/ 6.6IN W5EL	3.55HR 6.6IN Q(

·	5	WM SUMMAR	RY TABLE				ВМ	P SUMM	ARY TABLE	
EXISTING 10YR Q (CF5)	PROPOSED 10YR Q (CFS)	EXISTING 100YR Q (CF5)	PROPOSED 100YR Q (CFS)		PROPOSED 3.55HR/ 6.6IN Q(CF5)		10YR W5EL	10YR Q (CF5)	100YR W5EL	
0.56	0.45	1.69	1.67	2.49	2.13	MICRO-BIO	420.61	0.45	421.40	
						SITE ANA	ALYSIS	DATA	CHART	-

602800

SECOND

		011	1 001111	MI IMPLE	•		
ED 3.55HR/ I Q(CF5)		10YR W5EL	10YR Q (CF5)	100YR W5EL	100YR Q (CF5)	3.55HR/ 6.6IN W5EL	3.55HR/ 6.6IN Q(CF5)
2.13	MICRO-BIO	420.61	0.45	421.40	1.67	421.92	2.13

TOTAL AREA OF THIS SUBMISSION = 0.57 AC. ± (LOT 21-A)

(PER 10/06/2013 COMPREHENSIVE ZONING PLAN)

PROPOSED USE: 1 SINGLE FAMILY DETACHED DWELLING (RESIDENTIAL) PREVIOUS HOWARD COUNTY FILES: D-1158, ECP-20-018, WP-20-084

LIMIT OF DISTURBED AREA = 20,081 S.F. OR 0.46 AC.

C. PRESENT ZONING DESIGNATION = R-20

1.800.252.113

N/A

22

	STORMWATER M	ANAGEMENT P	RACTICE5	
LOT NO.	ADDRE55	DRY WELLS (M-5) Y/N, NUMBER	MICRO-BIORETENTION (M-6) Y/N, NUMBER	UNDERGROUND PIPE Y/N, NUMBER
21	3010 SOUTHVIEW ROAD	YES, TWO (2)	_	_
21A	3018A SOUTHVIEW ROAD	YES, FOUR (4)	YES, ONE (1)	YES, ONE (1)

APPROVED: DEPARTMENT OF PLANNING AND ZONING

	STORMWATER MANAGEMENT PRACTICES								
LOT NO.	ADDRESS	DRY WELLS (M-5) Y/N, NUMBER	MICRO-BIORETENTION (M-6) Y/N, NUMBER	UNDERGROUND PIPE Y/N, NUMBER					
21	3018 SOUTHVIEW ROAD	YES, TWO (2)	<u>-</u>	-					
21A	3010A SOUTHVIEW ROAD	YES, FOUR (4)	YES, ONE (1)	YES, ONE (1)					
NOTE: AL	L SWM DEVICES TO BE PRIVAT	ELY OWNED & M	AINTAINED BY EACH	LOT OWNER.					

_	STORMWATER MA	NAGEMENT PI	RACTICES	
	ADDRE55	DRY WELL5 (M-5) Y/N, NUMBER	MICRO-BIORETENTION (M-6) Y/N, NUMBER	UNDERGROUND PIPE Y/N, NUMBER
	3010 SOUTHVIEW ROAD	YE5, TWO (2)	-	-
	3018A SOUTHVIEW ROAD	YES, FOUR (4)	YES, ONE (1)	YE5, ONE (1)
-	L CLIM DELECTE TO BE DON'T	TELY OUNED A M	AINITAINISO OV SACIL	LOT OLAIFO

F.	TOTAL AREA OF FLOODPLAIN LOCATED ON-SITE = 0.04 AC.±
G.	TOTAL AREA OF STEEP SLOPES:
	MODERATED STEEP SLOPES: 15%-24.9% = 0.00 AC
	STEEP SLOPES: 25% OR GREATER = 0.00 AC±
H.	TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0.11 AC. ±
I.	TOTAL AREA OF STREAM (INCLUDING BUFFER) = 0.27 AC. ±
J.	TOTAL AREA OF EXISTING FOREST = 0.33 AC±
K.	TOTAL AREA OF FOREST TO BE RETAINED = 0.00 AC±
L.	TOTAL AREA OF LOTS / BUILDABLE PARCELS = 0.57 AC±
M.	TOTAL GREEN OPEN AREA = 0.43 AC±
N.	TOTAL IMPERVIOUS AREA = 0.14 AC±

Ν.	TOTAL	IMPER	OIV:	US ARI	EA =	= 0.14	AC±	
0.	TOTAL	AREA	OF	ERODI	BLE	50IL5 -	= 0.00	AC.±
٩.	TOTAL	AREA	OF	ROAD	DEC	CATION	= 0.00	AC.±

OWNER / DEVELOPER HoCo HOLDING , LLC 4652 SHEPPARD LANE ELLICOTT CITY, MARYLAND 21042 410-409-0333 FISHER, COLLINS & CARTER, INC IL ENGINEERING CONSULTANTS & LAND SURVEYOR

PROFESSIONAL CERTIFICATION

HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED

BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER

THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 30306, EXPIRATION DATE: 01/12/2022.

the HOWARD SOIL CONSERVATION DISTRICT.

This development plan is approved for soil erosion and sediment control by

12/15/20

SIGNATURE OF DEVELOPER ENGINEER'S CERTIFICATE

"I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF

BUILDER/DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, FOR SEDIMENT AND EROSION CONTROL AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A

DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE

PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

3.22.21 Development Engineering Division 3/24/21 hief, Division of Land Development ector Department of B 3/29/21 Department of Planning and Zoning PROJECT SECTION / AREA PARCEL NO. HOWARD HEIGHTS - LOT 21A GRID # TAX MAP # ELEC. DIST. CENSUS TR

R-20

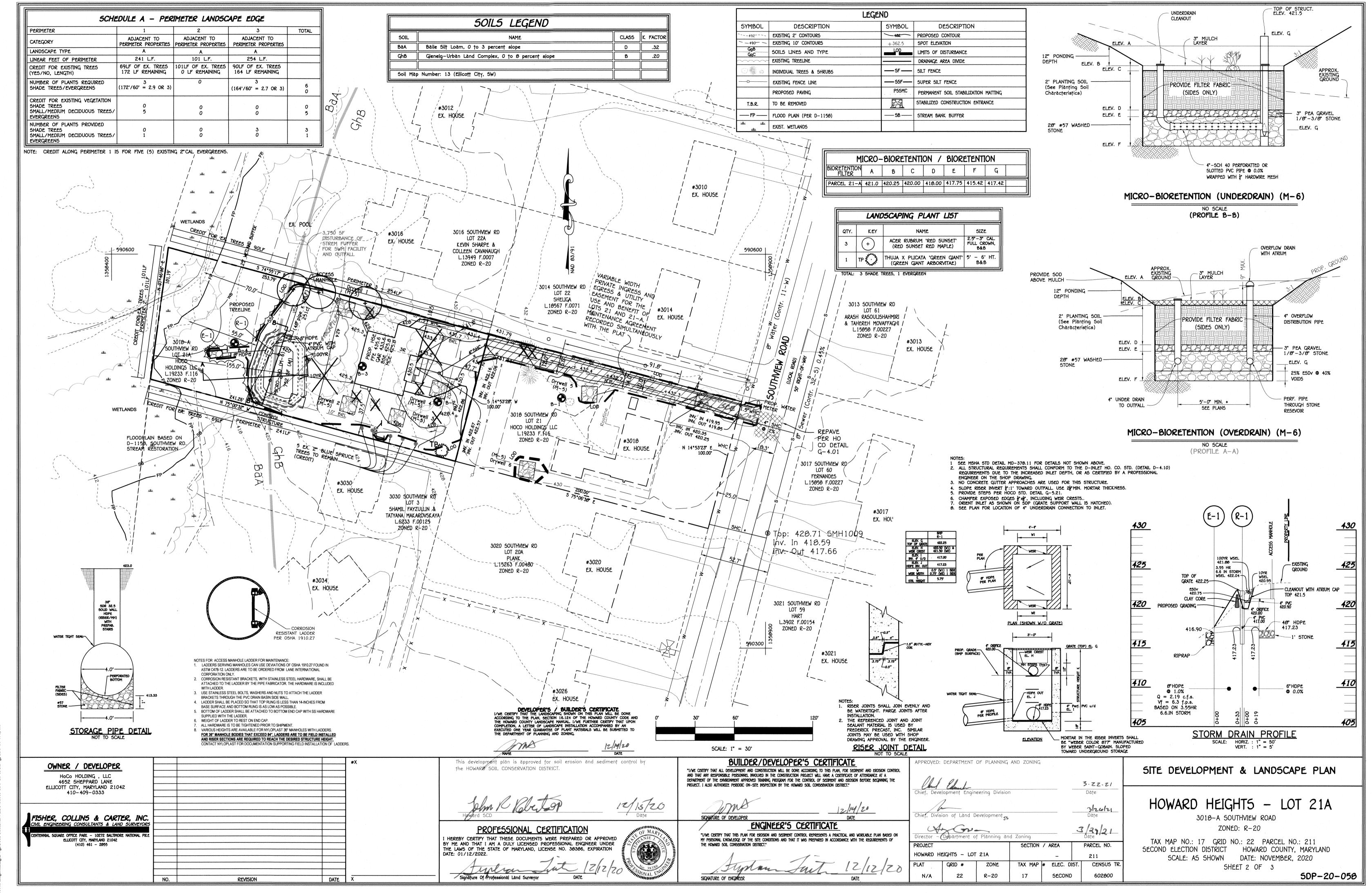
TITLE SHEET

HOWARD HEIGHTS - LOT 21A

3018-A SOUTHVIEW ROAD ZONED: R-20

TAX MAP NO.: 17 GRID NO.: 22 PARCEL NO.: 211 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: NOVEMBER, 2020

> SHEET 1 OF 3 5DP-20-058



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A. Soil Preparation

1. Temporary Stabilization

ā. Seedbed prepārātion consists of loosening soil to ā depth of 3 to 5 inches by meāns of suitāble āgriculturāl or construction equipment, such ās disc hārrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or drāgged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be trācked with ridges running pārāllel to the contour of the slope.

b. Apply fertilizer and lime as prescribed on the plans. c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.

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

required for permanent vegetative establishment are: i. Soil pH between 6.0 and 7.0.

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

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 plus clay) would be acceptable.

iv. Soil contains 1.5 percent minimum organic matter by weight. v. Soil contains sufficient pore space to permit adequate root penetration

. Application of amendments or topsoil is required if on—site soils do not meet the above conditions. c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.

d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test. e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable 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 unnecessary on newly disturbed areas.

Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.

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

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

b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.

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

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

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

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

a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may b used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of confrasting 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 1 1/2 inches in diameter. b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut

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 natural topsoil.

sedge, poison ivy, thistle, or others as specified.

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

b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum 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 corrected in order to prevent the formation of depressions or water pockets.

c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

C. Soil Amendments (Fertilizer and Lime Specifications)

1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or

commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses. 2. 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 according to the applicable laws and must bear the name, trade name or trademark and warranty of the produce

3. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except 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 90 to 100 percent will pass

through a #20 mesh sieve. 4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or

other suitable means. 5. 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 topsoil.

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

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

Conditions Where Practice Applies

a. All seed must meet the requirement 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 tested within the 6 months immediately preceding the date of sowing such material on 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.

must be applied when the ground thaws. c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must 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. Note: It is very important to keep inoculant as

d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

a. Dry Seeding: This includes use of conventional drop or broadcast spreaders. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table 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 in each direction. Roll the seeded area with

weighted roller to provide good seed to soil contact.
b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

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

c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer).
i. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P O (phosphorus), 200 pounds per acre; K O (potassium), 200 pounds per acre.

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

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

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

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

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

WCFM, including dye, must contain no germination or growth inhibiting factors. iii. WCFM materials are to be manufactured and processed in such a 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 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 by phyto—toxic.
v. WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately

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 to 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.

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:

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

Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix t wood cellulose fiber with water at a 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

iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4—15 feet wide and 300 to 3,000 feet long.

TEMPORARY SEEDING NOTES (B-4-4)

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

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.

wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly prohibited.

. Select one or more of the species or seed mixtures listed in Table 8.1 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 8.1 plus fertilizer and lime rates must be put on the plan.

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

		TEMPORARY SEEDI	ng summar	Y	
	IE (FROM FIGURE (FROM TABLE B.1	FERTILIZER RATE (10-20-20)	LIME RATE		
5PECIE5	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	: 1	
BARLEY	96	3/1 - 5/15, 8/15 - 10/15	1"	436 LB/AC	2 TONS/AC
OATS	72	3/1 - 5/15, 8/15 - 10/15	1"	(10 LB/ 1000 5F)	(90 LB/ 1000 SF)
RYE	112	3/1 - 5/15, 8/15 - 10/15	1"		
FOXTAIL MILLET	30	6/1 - 7/31	0.50"		

PERMANENT SEEDING NOTES (8-4-5) A. Seed Mixtures

General Use

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 Guide, Section 342 - Critical Area Planting.

c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency. d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 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

 a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.

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 mixture by weight. 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 1/2 to 3

pounds per 1000 square feet. Select turforass 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 Ideal Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1, August 1 t 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

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 1/2 inches in diameter The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty. e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when

PERMANENT SEEDING SUMMARY FERTILIZER RATE (10-20-20) LIME RATE HARDINESS ZONE (FROM FIGURE 8.3). 68

SEED MIXTURE (FROM TABLE 8.3):					TENTILLE NATE (10 ZO ZO)			LITE WILL
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P ₂ O 5	K ₂ 0	
в	TALL FESCUE	100	MAR. 1-MAY 15 AUG. 1-OCT. 15	1/4-1/2 IN.	45 LBS. PER ACRE	90 LB/AC (2 LB/	90 LB/AC (2 LB/	2 TON5/AC (90 LB/
8	MILLET FOXTAIL	50 50	May 15-June15	1/4-1/2 in.	(1.0 LB/ 1000 5F)	1000 5F)	1000 SF)	1000 SF)
ø	500	100	Mar. 15-May 31 May 16-5ept.14 Sept.15-Nov.15	1/4-1/2 in.				
В	SWITCH GRASS BUSH CLOVER (LEGUME)	10 2	June 1-July 31	4–7 in. Max.				

DATE: 01/12/2022.

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 PROCEEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE TURNBUCKLE -WIRE TIE -TURNBUCKLE -RUBBER HOSE

B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter)

suspended vertically with a firm grasp on the upper 10 percent of the section.

Sod Installation

laying the sod.

changes to drainage patterns.

6) SITE ANALYSIS: TOTAL AREA OF SITE

AREA TO BE ROOFED OR PAVED

OFFSITE WASTE/BORROW AREA LOCATION

STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.

AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.

4. Access the stockpile area from the upgrade side.

tabilization and Standard B-4-4 Temporary Stabilization.

a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to the job foreman and

Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be

c. Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when

d. Sod must not be harvested or transplanted when moisture content (excessively dry of wet) may adversely affect its survival.

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

b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other.

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

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

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

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and

I. 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 and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section 8-3 Land Grading.

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

6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to

7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental

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

STANDARD SEDIMENT CONTROL NOTES

BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT

LL 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 CONTROL FOR PERMANENT SEEDING (SEC. B-4-5), FEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE

3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 3 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES

DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

0.14 ACRES

8) ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL

9) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED

12) A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 ACRE

2 x 4 STAKE

-WRAPPING

-MULCH

-BERM

UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY

OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. 10) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND

400 CU.YD5. 400 CU.YD5.

ANY SEDIMENT CONTROL PRACTICE THAT IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON

i) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS

CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1955).

2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO

GREATER THAN 3:1, b) 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

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

8. If the stockpile is located on an impervious syrface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles

Stagger lateral joints to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and

e, Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be

b. 5od must be machine cut at a uniform soil thickness fo % inch, plus or minus % inch, at the time of cutting.

that all joints are butted tight in order to prevent voids which would cause air drying of the roots.

moist soil to a depth of 4 inches. Water sod during the heat of the day to prevent wilting.

subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREAS

diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.

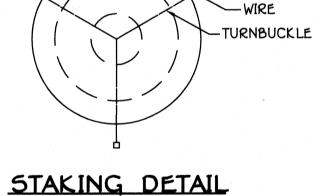
A mound or pile of soil protected by appropriately designed erosion and sediment control measures

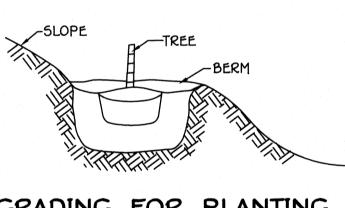
3. Runoff from the stockpile area must drain to a suitable sediment control practice.

containing contaminated material must be covered with impermeable sheeting.

slopes, benching must be provided in accordance with Section 8-3 Land Grading.
HOWARD SOIL CONSERVATION DISTRICT

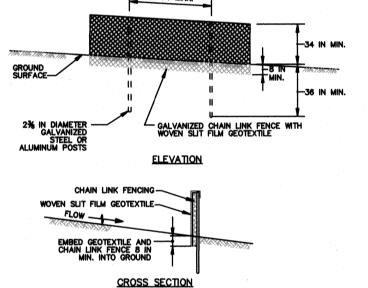
After the first week, sod watering is required as necessary to maintain adequate moisture content





SCE STABILIZED CONSTRUCTION ENTRANCE EXISTING PAVEMENT -EARTH FIL PROFILE 50 FT MIN. LENGTH * PLAN VIEW PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE

MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE. MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE 2011 DETAIL E-3 ----SSF-----I SUPER SILT FENCE



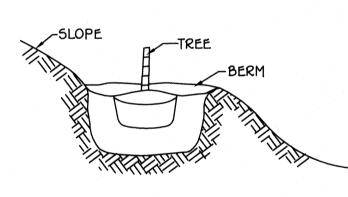
CONSTRUCTION SPECIFICATIONS INSTALL 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.

FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2% INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.

FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 materials, securely to the upslope side of chain link fence with ties spaced every 24 inches at the top and mid section. Embed geotextile and chain link fence a minimum of 8 inches into the ground.

EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE. 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 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION 2011



GRADING FOR PLANTING

STANDARD SYMBOL DETAIL E-1 SILT FENCE ----SF------I 6 FT MAX. CENTER TO CENTER __36 IN MIN. FENCE POST LENGTH DRIVEN MIN. 16 IN INTO GROUND 16 IN MIN. HEIGHT OF WOVEN SLIT FILM GEOTEXTILE ELEVATION MIN. OF 8 IN VERTICALL CROSS SECTION STAPLE-STAPLE----STAPLE STAPLE ----STEP 3 JOINING TWO ADJACENT SILT FENCE SECTIONS (TOP VIEW)

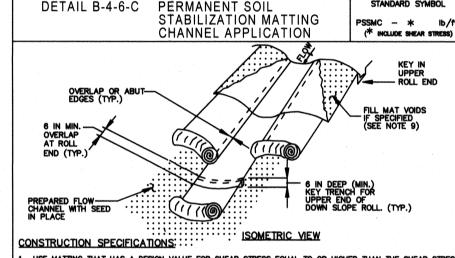
CONSTRUCTION SPECIFICATIONS

USE WOOD POSTS 1% X 1% \pm % INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.

EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.

WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL



USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO O USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND 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 2x2 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 HAVE A 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.

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.

3. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.

O. 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 FROSION AND SEDIMENT CONTROL

MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION 2011 SHEAR STRESS FOR PSSMC = $\gamma(\text{weight density}) * R(\text{water depth}) * Sw(\text{slope}) = \text{shear stress}$ SHEAR STRESS FOR PSSMC (LOT 5, North) = 62.4 LB5/FT8 x 0.153 FT x 0.020 = 0.19 LB5/FT8 SHEAR STRESS FOR PSSMC (LOT 5, South) = 62.4 LB5/FT x 0.146 FT x 0.025 = 0.23 LB5/FT

SEQUENCE OF CONSTRUCTION

OBTAIN A GRADING PERMIT AND HOLD PRE-CONSTRUCTION MEETING WITH COUNTY INSPECTOR. (2 WEEKS)
NOTIFY "MISS UTILITY" AT LEAST 40 HOURS BEFORE BEGINNING ANY WORK AT 1-000-257-7777. NOTIFY THE HOWARD
COUNTY OFFICE OF CONSTRUCTION/ INSPECTION AT 410-313-1330 AT LEAST 24 HOURS BEFORE STARTING WORK. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, SUPER SILT FENCE, AND TREE PROTECTIVE FENCING, IF

REMOVE NECESSARY TREES AND ROUGH GRADE LOT. (2 DAYS)

INSTALL TEMPORARY SEEDING. (1 DAY)

CONSTRUCT HOUSE AND DRIVEWAY. INSTALL SEWER AND WATER HOUSE CONNECTIONS. (4 MONTHS)

UPON CONSTRUCTION OF HOUSE, FINE GRADE. INSTALL PERMANENT SOIL STABILIZATION MATTING IN SWALES AS SHOWN.
INSTALL ROOF LEADERS, DRYWELLS, UNDERGROUND STORAGE PIPE WITH GRAVEL BASE, AND MICRO-BIORETENTION. (7

ALL FINAL GRADES AND STABILIZATION SHOULD BE COMPLETED BEFORE ANY REMOVAL OF CONTROLS. WHEN ALL CONTRIBUTING AREAS TO THE SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE BEDIMENT CONTROL INSPECTOR, THE SEDIMENT CONTROL DEVICES MAY BE REMOVED. (3 DAYS)

NOTE: THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE EACH RAINFALL AND ON A DAILY BASIS.

TREE PLANTING

TWICE BALL DIA.

BUILDER/DEVELOPER'S CERTIFICATE This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT. "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, FOR SEDIMENT AND EROSION CONTROL

> PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT." 12/15/20 SIGNATURE OF DEVELOPER

ENGINEER'S CERTIFICATE

3.21.22 Chief, Development Engineering Division Date 3/26/21 & Gra 3/29/21 Department of Planning and Zoning PARCEL NO. SECTION / AREA 211 ELEC. DIST. CENSUS T GRID # TAX MAP ZONE

SEDIMENT CONTROL NOTES AND DETAILS

HOWARD HEIGHTS - LOT 21A

3018-A SOUTHVIEW ROAD ZONED: R-20

TAX MAP NO.: 17 GRID NO.: 22 PARCEL NO.: 211 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: NOVEMBER, 2020 SHEET 3 OF 3

b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into uniform fibrous physical state. OWNER / DEVELOPER HoCo HOLDING . LLC 4652 SHEPPARD LANE ELLICOTT CITY, MARYLAND 21042 410-409-0333 FISHER. COLLINS & CARTER. INC CIVIL ENGINEERING CONSULTANTS & LAND SURVEYOR QUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PI ELLICOTT CITY, MARYLAND 21042 DATE NO.

Signature Of Professional Land Surveyor

terneran sout

PROFESSIONAL CERTIFICATION

1'-0" HIGH 2-1/2" CALIPER_

HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 30306, EXPIRATION

"I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF

AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE

12/14/20

PROJECT HOWARD HEIGHTS - LOT 21A N/A 22 R-20 SECOND 602800

APPROVED: DEPARTMENT OF PLANNING AND ZONING

5DP-20-058