SHEET INDEX SHEET NO DESCRIPTION TILE SHEET SITE DEVELOPMENT PLAN SEDIMENT EROSION & SEDIMENT CONTROL PLAN SEDIMENT EROSION CONTROL NOTES AND DETAILS STORMDRAIN DRAINAGE AREA MAP SWM NOTES, DETAILS & BORING LOGS HANDICAP AND ROAD NOTES AND DETAILS SITE DISTANCE ANALYSIS - DAISY ROAD SITE DISTANCE ANALYSIS - ED WARFIELD ROAD LANDSCAPE PLAN LANDSCAPE DETAILS SEPTIC INSTALL PLAN 13 SEPTIC PROFILE AND DETAIL

	50IL5 LEGEND		
50IL	NAME	CLA55	KW.
G9A	Glenely loam, 0 to 3 percent slopes	В	0.37
GgB	Glenelg loam, 3 to 0 percent slopes	В	0.37
GmA	Glenville silt loam, 0 to 3 percent slopes	С	0.49

STORMWATER MANAGEMENT PRACTICES							
AREA ID.	DRYWELL (M-5) NUMBER	MICRO-BIO (M-6) NUMBER	N.R.T.D. (N-1) NUMBER	REMARK5			
WORKSHOP / OFFICE		1	2	DRIVEWAY DRAINS TO BIO ON OPEN SPACE			
FUTURE SHOP	1, 2, 3	1		CORNER OF PROPOSED SHOP DRAINS TO BIO			

AREA ID	LOCATION	DRAINAGE AREA SF.	% IMPERVIOUS	ESDV REQUIRE CuFt.	ESDV PROVIDED CuFt.	DRY WELLS M-5 (Y/N)	MICRO BIO-RETENTION M-6 (Y/N)	NON-ROOFTOP DISCONNECTION N-2 (Y/N)
FUTURE M-5(1)	PARCEL 'A'	1,000	100%	143	154	Y		
TUTURE M-5(2)	PARCEL 'A'	1,000	100%	143	154	Υ		
FUTURE M-5(3)	PARCEL 'A'	1,000	100%	143	154	Y		·
M-6(1)	PARCEL 'A'	38,724	52%	2,277 (STORAGE) 2,562 (STORAGE)		Υ	
N-2(1)	PARCEL 'A'	2,056	91%	163	160			Y
N-2(2)	PARCEL 'A'	3,504	42%	117	138			Υ

COMMERCIAL PARKING TABULATION
TOTAL COMMERCIAL PARKING REQUIRED: 11 PARKING SPACES (INCLUDING FUTURE STORAGE BUILDING) PROPOSED BUILDING
OFFICE: 4 SPACES (1,300 SQFt.) (3.3 SPACES PER 1,000 SQFt.) STORAGE: 3 SPACES (3,697 SQFt.)
(0.75 SPACES PER 1,000 SqFt.) FUTURE STORAGE BUILDING: 4 SPACES (4,997 SqFt.)
(0.75 SPACES PER 1,000 SqFt.) TOTAL COMMERCIAL PARKING PROVIDED: 12 PARKING SPACES EXTERIOR SURFACE PARKING: 6 SPACES (5 STANDARD, 1 HANDICAP)
INTERNAL PARKING: 6 SPACES (INCLUDES FUTURE STORAGE BUILDING) (1 SPACE PER BAY OF PROPOSED BUILDING - TOTAL 3) (1 SPACE PER BAY OF FUTURE BUILDING - TOTAL 3)

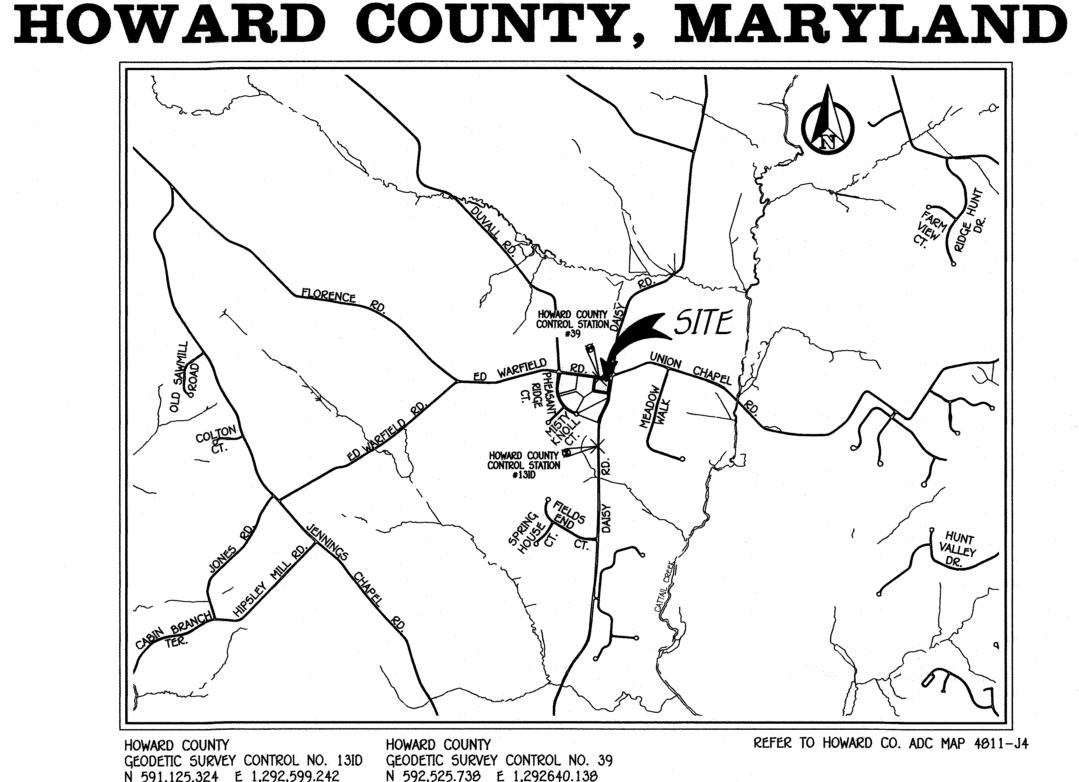
	FOREST CONSERVATION WORKSHEET		
	Tract Area	A -	
A.	Total (Gross) Tract Area Area within 100-year Floodplain	A = . B = .	1
B. C.	Other Deductions (Identify:	C= :	<u>ö</u>
D.	Net Tract Area	D= .	1
	i Use Category t the number "1" under the appropriate land use (limit to only one entry)		
	Resid. Resid. Inst./ Retail/Ind./ Mixed Use/ Rural LD Rural MD Suburban Linear Office PUD 0 0 0 0 1 0		
E	Afforestation Threshold (Net Tract Area x 15%)	E=	0
F.	Reforestation Threshold (Net Tract Area x 15%)	F =	C
Fyis	ting Forest Cover		
G.	Existing Forest Cover within the Net Tract Area	G =	Đ
H.	Area of Forest above Afforestation Threshold	H= .	C
1.	Area of Forest above Reforestation Threshold	1=	C
Rres	k Even Point		- :
J.	Break Even Point	J =	0
K.	Forest Clearing Permitted without Mitigation	K = .	0
Pror	oosed Forest Clearing		
L	Total Area of Forest to be Cleared	L=	C
M.	Total Area of Forest to be Retained	M = -	<u>_</u>
	ting Requirements Inside Watershed		
N.	Reforestation for Clearing above the Reforestation Threshold	N=	. 0
Р	Reforestation for Clearing below the Reforestation Threshold	P= .	
Q.	Credit for Retention above the Reforestation Threshold	Q= .	- 0
R.	Total Reforestation Required	R=	0
S.	Total Afforestation Required	S=	- 0
T	Total Reforestation and Afforestation Requirement		C
Ü	75% of Total Obligation (Retention + Planting)	Ú= ·	O
V	Planting Required Onsite to meet 75% Obligation	v= [C
Plan	ting Requirements Outside Watershed		
W.	Total Planting within Development Site Watershed	W=	
X.	Total Afforestation Required	Χ= .	Õ
Y.	Remaining Planting within Watershed for Reforestation Credit	Υ= .	
Z.	Reforestation for Clearing above the Reforestation Threshold	Z= .	Ō
AA.	Reforestation for Clearing below the Reforestation Threshold	AA=	0
BB.	Credit for Retention above the Reforestation Threshold	BB=	Č
CC.	Total Reforestation Required	CC=	0
DD.	Total Afforestation and Reforestation Requirement	DD=	0

SITE DEVELOPMENT PLAN MCWHORTER PROPERTY

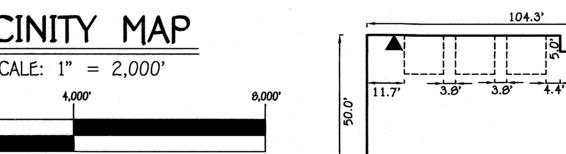
WARFIELD'S GRANT SECTION 1, AREA 1 PARCEL 'A'

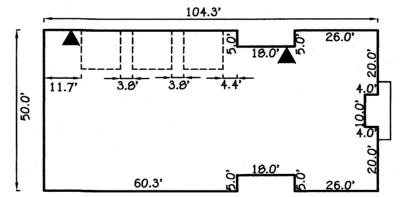
16031 ED WARFIELD ROAD ZONED: B-2 BUSINESS GENERAL

TAX MAP No. 13 GRID No. 23 PART OF PARCEL NO. 334 FOURTH ELECTION DISTRICT



ELEVATION: 545.862' ELEVATION: 533.483' SCALE: 1" = 2,000"









5CALE: 1" = 2,000"

FUTURE STORAGE BUILDING STORAGE BUILDING / OFFICE

NO AS-BUILT INFORMATION ON THIS SHEET

FISHER, COLLINS & CARTER, INC. L ENGINEERING CONSULTANTS & LAND SURVEYORS

REVISION

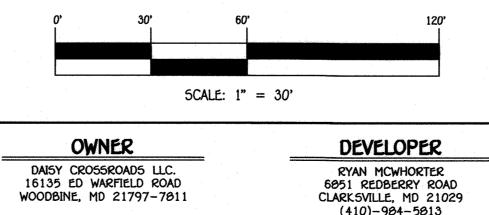


DATE

HOWARD COUNTY HEALTH DEPARTMENT.

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS,

PROFESSIONAL CERTIFICATION HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21.



(410)-984-5813

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING Chief, Development Engineering Division Director - Department of Planning and Zoning 11-30-20 Date PROJECT PARCEL NO. MCWHORTER PROPERTY ELEC. DIST. CENSUS TR. BLOCK NO. TAX/ZONE PREVIOUS HOWARD COUNTY FILES: ECP-19-062, F-90-56

5CALE: 1" = 30"

GENERAL NOTES

39 WERE USED FOR THIS PROJECT.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY STANDARDS AND SPECIFICATIONS IF APPLICABLE. 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. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 40 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE. 4. 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. ALL PLAN DIMENSIONS ARE TO EDGE OF PAVING UNLESS OTHERWISE NOTED. THE EXISTING TOPOGRAPHY AND UTILITIES HAVE BEEN TAKEN FROM A FIELD RUN TOPOGRAPHIC SURVEY PERFORMED BY FISHER, COLLINS AND CARTER, INC. ON OR ABOUT MAY, 2019. THE COORDINATES SHOWN HEREON ARE BASED ON NAD'83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL. HOWARD COUNTY MONUMENT NOS. 13ID AND

THIS PROPERTY UTILIZES PRIVATE WELL AND SEPTIC. SEE SHEETS 12 AND 13 FOR SEPTIC INSTALL PLAN AND DETAILS. PERCOLATION CERTIFICATION WAS SIGNED ON JULY 25, 2005. A REVISED PERCOLATION CERTIFICATION PLAN WAS SIGNED ON MAY 5, 2000 STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.E. STORM WATER DESIGN MANUAL VOLUMES I & II, REVISED 2009. WE ARE PROPOSING THE USE OF TWO AREAS OF (N-2) NON-ROOFTOP DISCONNECTION CREDIT, ONE (M-6) MICRO-BIORETENTION FACILITY AND THREE (M-5) DRY WELLS. ALL OF THE PROPOSED SWM DEVICES WILL BE PRIVATELY OWNED AND

MAINTAINED BY THE PROPERTY OWNER. 10. THERE ARE NO FLOODPLAIN. WETLANDS, STREAMS AND/OR ITS BUFFERS ON THIS SITE AS CERTIFIED BY ECO-SCIENCE, DATED JULY 19, 2019.

11. THE SUBJECT PROPERTY IS ZONED B-2 PER 10/06/13 COMPREHENSIVE ZONING PLAN. 12. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S

AND THE FOREST CONSERVATION MANUAL FOR THIS PROJECT FOR 0.30 ACRES OF REFORESTATION WILL BE FULFILLED BY OFF-SITE RETENTION OF 0.60 ACRES ON A FOREST BANK, SDP-14-005, ENTITLED "PARCEL 2, PROPERTY OF FOREVER-A-FARM, LLC", TAX MAP 13, TAX PARCEL 2. THERE ENTITLED "PARCEL 2, PROPERTY OF FOREVER—A—FARM, LLC", TAX MAP 13, TAX PARCEL 2. THERE IS NO SURETY BECAUSE THIS IS AN APPROVED SITE DEVELOPMENT PLAN—TREE BANK.

14. THE PERIMETER LANDSCAPE OBLIGATION IS PROVIDED IN ACCORDANCE WITH SECTION IS, 124 OF THE HOMARD COUNTY CODE AND THE LANDSCAPE MANUAL. A LANDSCAPE SURETY IN THE AMOUNT OF \$17,450.00 BASED ON (16) SHADE TREES @ \$300/SHADE TREES, (19) EXERCIPED TREES @ \$150/EXERCIPED TREE (GO)CHRUBS @ \$10/LINEAR FOOT SHALL BE SOLUTED AS PARCE OF THE CROSSIAL PERMIT REQUIREMENT.

15. ALL SE MOUNTED ON A 2" CALVANIZED STEEL PROFEDERED, SOLIABE TUBE (14 CALICE)

SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.

16. THIS PARCEL WHICH WAS ZONED NONRESIDENTIAL ON THE EFFECTIVE DATE OF SECTION 16.1107

AND HAS NOT PREVIOUSLY PASSED THE ROADS TEST DURING THE SUBDIVISION PROCESS IS EXEMPT FROM THE REQUIREMENT TO PASS THE TEST FOR ADEQUATE ROAD FACILITIES AS A CONDITION OF SITE DEVELOPMENT PLAN APPROVAL IN ACCORDANCE WITH SECTION 16.1107 - EXEMPTIONS (A)(2)(iii) OF THE HOWARD COUNTY SUBDIMISION REGULATIONS. 17. THIS PARCEL IS LOCATED AT THE CORNER OF ED WARFIELD ROAD AND DAISY ROAD, BOTH OF WHICH ARE SCENIC ROADS AND SUBJECT TO SECTION 16.125 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. ALTHOUGH THIS PROJECT ABUTS TWO SCENIC ROADWAYS, IT DOES NOT REQUIRE PLANNING BOARD APPROVAL FOR SCENIC ROADS BECAUSE IT IS OUTSIDE THE PLANNED SERVICE AREA, PER SECTION 16.125(C)(1) OF THE SUBDIMISION REGULATIONS

18. ALL EXTERIOR LIGHTING SHALL BE MOUNTED TO THE SIDE OF THE BUILDING ON THE PROPOSED ARCHITECTURAL PLANS. EXTERIOR LIGHTING SHALL BE ORIENTED TO DIRECT OR REFLECT LIGHT INWARD AND DOWNWARD AWAY FROM ALL ADJOINING PUBLIC STREETS AND RESIDENTIAL AREAS. ALL OUTDOOR LIGHTING SHALL BE IN COMPLIANCE WITH THE OUTDOOR LIGHTING REQUIREMENT STANDARDS SPECIFIED IN SECTION 134 OF THE ZONING REGULATIONS.

19. THE MINIMUM ILLUMINATION LEVELS OF ALL PARKING AREAS SHALL COMPLY WITH THE VALUES STIPULATED IN TABLE 5.04 SECTION 5.5 - HOWARD COUNTY DESIGN MANUAL VOLUME III.

20. A PRE-SUBMISSION COMMUNITY MEETING WAS HELD ON OCTOBER 10, 2019 TO PROVIDE

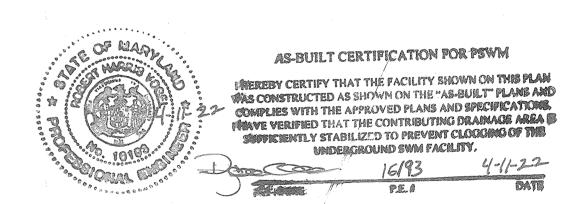
INFORMATION TO THE COMMUNITY REGARDING THE DEVELOPMENT PROPOSAL. 21. THE USE OF THE PROPERTY IS TO STORE CONSTRUCTION EQUIPMENT RELATED TO THE OWNER'S CONSTRUCTION BUSINESS - ALL SUPPLIES AND EQUIPMENT ARE TO BE ENCLOSED WITHIN THE BUILDING. THE ZONING DIVISION DETERMINED THAT A CONSTRUCTION BUSINESS IS PERMITTED IN A

B-2 ZONE, BY LETTER, DATED MAY 16, 2019. 22. THE GEOTECHNICAL INFORMATION RELATED TO THE LOCATION OF ROCK OR GROUND WATER BENEATH THE PROPOSED SWM DEVICES WAS TAKEN FROM HEALTH DEPARTMENT RECORDS OBTAINED DURING FIELD EXCAVATIONS MADE ON APRIL 26, 2005.
23. THE WELL HO-95-0009 HAS BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC.

SHOWN.

24. THIS AREA DESIGNATES A PRIVATE SEWAGE DISPOSAL AREA OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL NATIONAL BASES AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS SEWAGE DISPOSAL AREA SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE DISPOSAL AREA. RECORDATION OF A MODIFIED SEWAGE DISPOSAL AREA SHALL NOT BE NECESSARY.

25. THE EYISTING WELL SHALL BE TESTED AND RESULTS SUBMITTED TO THE HELLT DEPARTMENT FOR POTABILITY, SODIUM CHLORIDES, AND TOTAL DISSOLVED SOLIOS PRIOR TO ISSUANCE OF THE USE AND OCCUPANCY PERMIT.



SITE ANALYSIS DATA CHART

TOTAL AREA OF THIS SUBMISSION = 1.99 AC. ±. LIMIT OF DISTURBED AREA = 1.28 Ac. ± (SWM BASED ON LOD) PRESENT ZONING DESIGNATION = B-2 (PER 10/06/2013) COMPREHENSIVE ZONING PLAN) PROPOSED USE: BUSINESS GENERAL PREVIOUS HOWARD COUNTY FILES: F-90-56, ECP-19-062 TOTAL AREA OF FLOODPLAIN LOCATED ON-SITE = 0 AC TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0 AC± TOTAL AREA OF SLOPES IN EXCESS OF 25% = 0 AC± TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0 AC.± TOTAL AREA OF STREAM (INCLUDING BUFFER) = 0 AC. ± TOTAL AREA OF EXISTING FOREST TOTAL AREA OF FOREST TO BE RETAINED $= 0 AC \pm$ TOTAL AREA OF LOTS / BUILDABLE PARCELS = 0.56 AC± (WITHIN LOD, TOTAL IMPERVIOUS AREA TOTAL AREA OF ERODIBLE SOILS $= 1.07 \text{ AC} \pm$ TOTAL AREA OF GREEN OPEN SPACE $= 1.43 \text{ AC} \pm$

ADDRESS CHART	
PARCEL 'A' STREET ADDRESS	
TORAGE BUILDING / OFFICE 2900 DAIS	Y ROAD
UTURE STORAGE BUILDING 2910 DAIS	Y ROAD

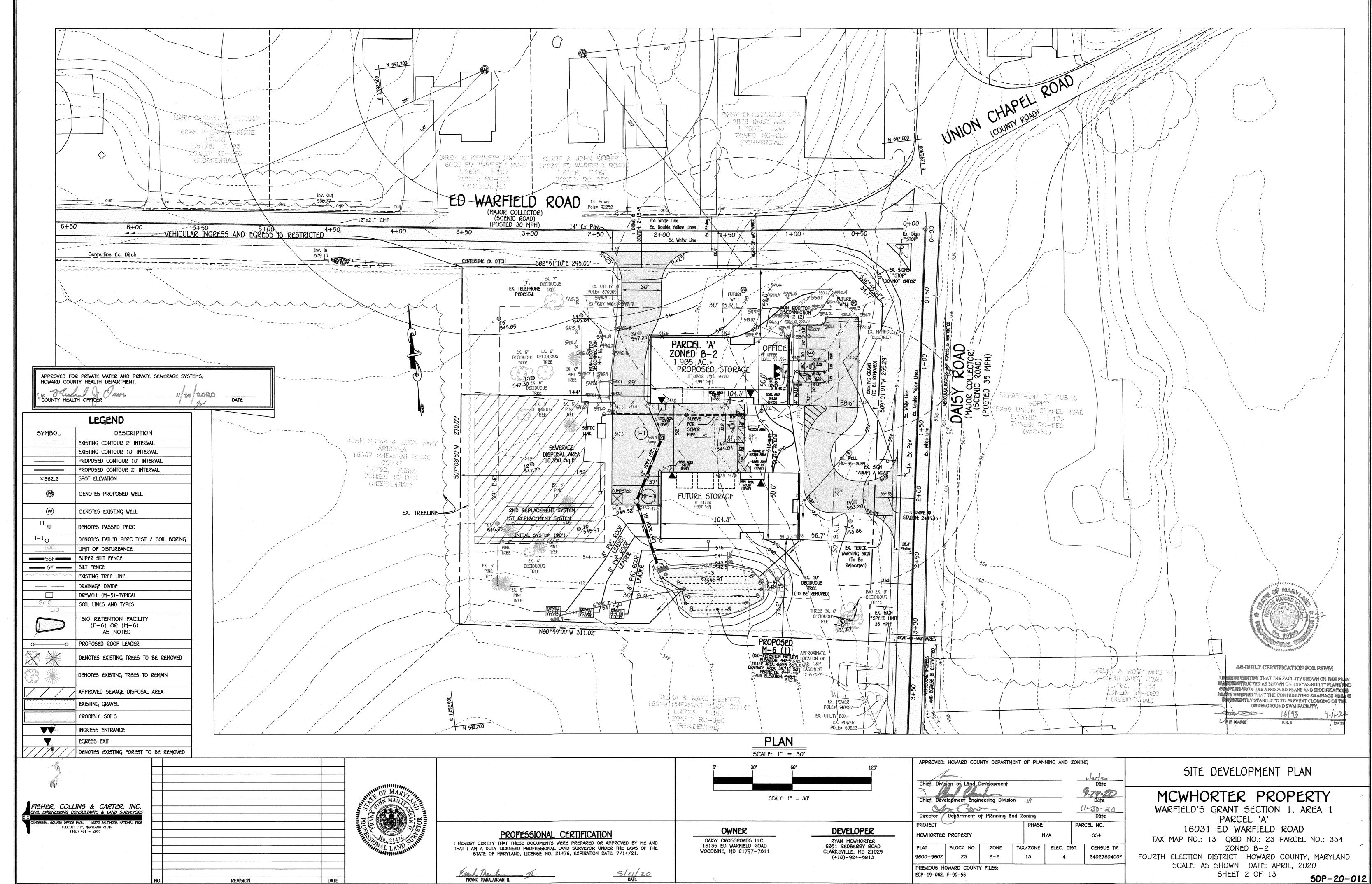
TITLE SHEET

MCWHORTER PROPERTY WARFIELD'S GRANT SECTION 1, AREA 1

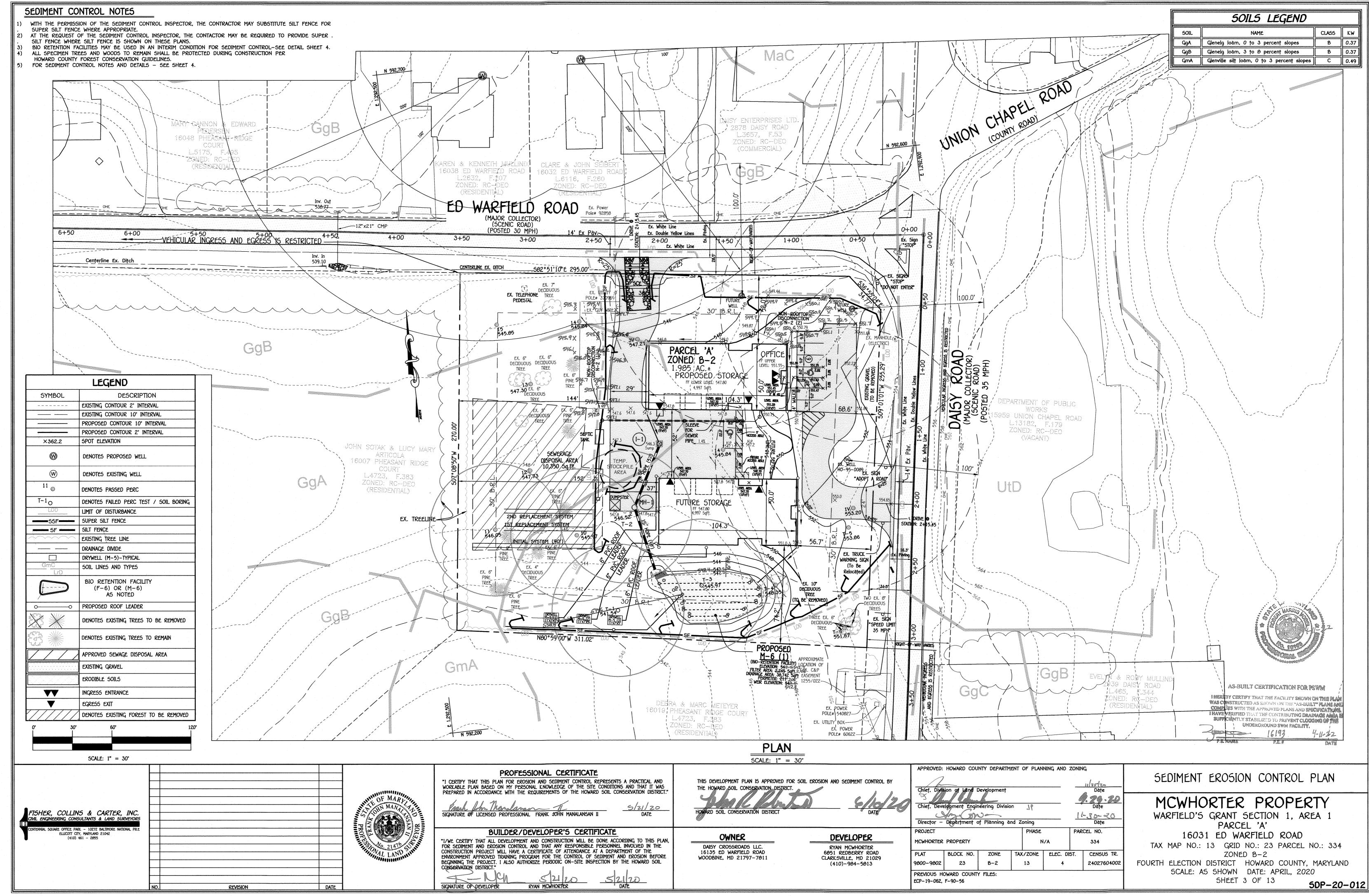
PARCEL 'A' 16031 ED WARFIELD ROAD

TAX MAP NO.: 13 GRID NO.: 23 PARCEL NO.: 334 ZONED B-2 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: APRIL, 2020

> SHEET 1 OF 13 5DP-20-012



00\60541\Engineering\Dwgs\SDP\C-02_SDP



B. TOPSOILING TOPSOIL APPLICATION TEMPORARY METHODS PERMANENT METHODS

<u>PURPOSE</u>

5CALE: 1" = 30"

50IL PREPARATION, TOP50ILING AND SOIL AMENDMENTS (B-4-2) A. SOIL PREPARATION 1. TEMPORARY STABILIZATION A. 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 RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL 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 N. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT. V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION. 6. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS . CRADED 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 THI 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 PROMOF 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. . 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 BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF 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 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 sedge, poison by, thistle, or others as specified. C. 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. 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 C. SOIL AMENDMENTS (FERTILIZER & 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. . 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 PRODUCER. . 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 96 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. . WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 0 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS. TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF-SITE DAMAGE, HEALTH HAZARDS AND IMPROVE TRAFFIC SAFETY. CONDITIONS WHERE PRACTICE APPLIES THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT. 1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING. 2. VEGETATIVE COVER — SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER 3. Tillage – To roughen surface and bring clods to the surface. This is an emergency measure which SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF THE SITE, CHISEL-TYPE PLOWS SPACED ABOUT 12" APART, SPRING-TOOTHED HARROWS AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT. . Irrigation — This is generally done as an emergency treatment. Site is sprinkled with water until THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT 5. BARRIERS - SOLID BOARD FENCES SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALE DIKES AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CONTROLLING SOIL BLOWING, CURRENTS AND SOIL BLOWING. CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN 6. CALCIUM CHLORIDE – APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT . PERMENENT VEGETATION - SEE STANDARDS FOR PERMANENT VEGETATIVE COVER AND PERMANENT STABILIZATION WITH SOD. EXISTING TREES OR LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE. . Topsoiling — covering with less erosive soil materials. See standards for topsoiling. 3. STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL. STANDARD STABILIZATION NOTE THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, SOD INSTALLATION AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1). B.) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER

TEMPORARY SEEDING NOTES (B-4-4) DEFINITION 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.

1. 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. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.

WHEN STABILIZAT	on is required out prescribed in sec	SIDE OF A SEEDI	ng season, 3 and maint	APPLY SEED AND FAIN UNTIL THE NEX	
HARDINESS SEED MIXTU	ZONE (FROM FIGURE RE (FROM TABLE B.1)	B.3): 6b	-	FERTILIZER RATE (10-20-20)	LIME RATE
SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS		
COOL SE	SON GRASSES				-
BARLEY	96		1"	420 10 440	0 7015 (40
OAT5	72	3/01 - 5/15 8/01 - 10/15	1"	436 LB/AC (10 LB/	2 TON5/AC (90 LB/ 1000 5F)
RYE	112	0/01 - 10/15	1"	1000 SF)	1000 31)
WARM SE	ason grasses		· · · · · · · · · · · · · · · · · · ·		
FOXTAIL MILLET	30	F/16 7/21	0.5	436 LB/AC (10 LB/	2 TONS/AC
PEARL MILLET	20	5/16 - 7/31	0.5*	1000 SF)	(90 LB/ 1000 SF)

PERMANENT SEEDING NOTES (B-4-5)

I. GENERAL USE A. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE 8.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE 8.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE 8.2. ENTER SELECTED MIXTURE(5), 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 AESTHEITC 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. TURFGRASS MIXTURFS 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(5), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT seeding summary. The summary is to be placed on the plan. . 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 RECENTING 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; NOTERTIFIED 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 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: 58, 6A) CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 68) SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER (HARDINESS ZONES: 7A, 78) 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

. 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 seedings are made late in the planting season, in abnormally dry OR HOT SEASONS, OR ON ADVERSE SITES.

HARDINESS ZONE (FROM FIGURE B.3): 6b SEED MIXTURE (FROM TABLE B.3): 8				- -	FERTILIZE	LIME RATE		
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P ₂ 0 ₅	K ₂ 0	
	COOL	SEASON GRASSES						
8	TALL FESCUE	100	MAR 1-MAY 15 AUG 1-OCT 15	1/4-1/2 IN.	45 LBS. PER ACRE (1.0 LB/ 1000 SF)	90 LB/AC (2 LB/ 1000 5F)	90 LB/AC (2 LB/ 1000 SF)	2 TONS/A((90 LB/ 1000 SF)
	WARM	SEASON/COOL SE	ason grass mix					
8	TALL FESCUE	100	MAR 1-MAY 15 MAY 16-JUN 15	1/4-1/2 IN.	45 LBS. PER ACRE (1.0 LB/ 1000 SF)	90 LB/AC (2 LB/ 1000 5F)	90 LB/AC (2 LB/ 1000 SF)	2 TONS/AC (90 LB/ 1000 SF)

B. SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER)

1. GENERAL SPECIFICATIONS A. CLASS OF TURFGRASS 500 MUST BE MARYLAND STATE CERTIFIED. 500 LABELS MUST BE MADE AVAILABLE TO THE B. SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS TO 3/4 INCH. PLUS OR MINUS 1/4 INCH. AT THE TIME O cutting, measurement for thickness must exclude top growth and thatch. Broken pads and torn or 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 OF WET) MAY OVERSELY 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.

a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate 1 SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOO. B. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TICHTLY 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 SOO ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING, AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT HOURS. 3. SOD MAINTENANCE

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 B. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT. C. DO NOT MOW UNTIL THE SOO 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

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

THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

CONDITIONS WHERE PRACTICE APPLIES

1. SPECIFICATIONS 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. B. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MOXTURE MUST BE APPLIED WHEN THE GROUND THANS. C. INOCULANTS: THE INOCULANT FOR TREATING LEGIME 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 COOK AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE. D. 500 OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEEDCONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF

A DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS. I. 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 B. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.

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 PLANTING. 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).

L 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 0 (PHOSPHORUS

200 POUNOS PER ACRE: K O (POTASSIUM), 200 POUNOS PER ACRE. IL LINE: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSFFOING), 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.

B. MULCHING 1. MULCH MATERIALS (IN ORDER OF PREFERENCE) 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. B. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO UNIFORM FIBROUS PHYSICAL STATE.

1. WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOT TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY. II. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS. III. WOFM 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.

V. WCPM 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.

M. WORM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BY

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 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:

SURFACE A MINIMUM OF 2 INCHES, THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE FOLIPMENT CAN OPERATE SAFELY IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR WOOD CELLILOSE FIRER MAY BE LISED FOR ANCHORING STRAW APPLY THE FIRER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS 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 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.

FOR STOCKPILE AREAS B-4-8

DEFINITION A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES <u>PURPOSE</u>

) 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

STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR LATER USE. . THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION

AND SEDIMENT CONTROL PLAN. 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. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE. ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE. 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 CONCENTRATED FLOW IN A NON-EROSIVE WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD 8-4-1 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 IMPERMEABLE SHEETING. THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION 8-4 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 EXCEPTS

20 FEET FOR 2:1 SLOPES, OR 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

HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

1. A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1955 AFTER THE FUTURE LOD AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 40 HOUR NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES: A. PRIOR TO THE START OF EARTH 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 UNIT, D. PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES.

TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN.

> 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 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. 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 CONTROL 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-4-9) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE OUTLET. ALL

CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. 8-4-6).

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: 1.99 ACRES TOTAL AREA OF SITE: AREA DISTURBED: 1.00 ACRES AREA TO BE ROOFED OR PAVED: 0.29 ACRES AREA TO BE VEGETATIVELY STABILIZED: 0.71 ACRES

OFFSITE WASTE/BORROW AREA LOCATION: N/A 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 A11 CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR WEEKLY. AND THE NEXT DAY AFTER EACH PAIN EVENT A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE:

• Inspection date
• Inspection type (routine, pre-storm event, during rain event) NAME AND TITLE OF INSPECTOR

WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT 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 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). 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 WORKDAY, WHICHEVER IS SHORTER. . 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 ALLOWED BY THE HSCD 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 HSCD. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE HSCD, NO MORE THAN 30 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

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 25' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UPHILL BY 2' IN ELEVATION. 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

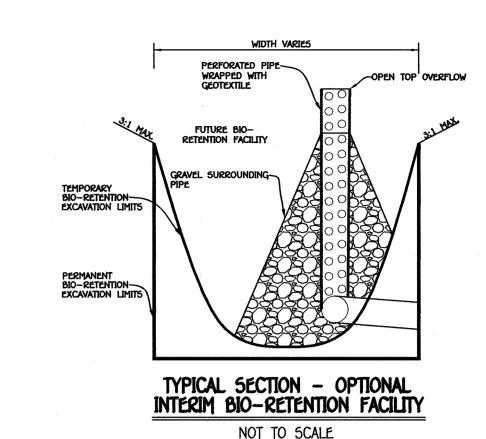
SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE.

16. A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE.

SEQUENCE OF CONSTRUCTION

OBTAIN A GRADING PERMIT AND HOLD PRE-CONSTRUCTION MEETING WITH COUNTY INSPECTOR. (14 DAYS) NOTIFY "MISS UTILITY" AT LEAST 40 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. (7 DAYS) NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/ INSPECTION AT 410-313-1330 AT LEAST 24 HOURS BEFORE STARTING WORK. INSTALL THE STABILIZED CONSTRUCTION ENTRANCE AND SILT FENCE. WITH PERMISSION FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, COMMENCE ROUGH GRADING SITE WITH INTERIM CONDITION BIO RETENTION FACILITY, IF REQUIRED. COMMENCE CONSTRUCTION BUILDING, ACCESS DRIVEWAYS, PARKING AREAS AND UTILITIES. FINE GRADE SITE AND INSTALL PERMANENT SEEDING.
WITH PERMISSION FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR COMMENCE CONVERSION AND FINALIZE INSTALLATION BIO-RETENTION FACILITY M-6 (1) 6. 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 SEDIMENT CONTROL INSPECTOR, THE SEDIMENT CONTROL DEVICES

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

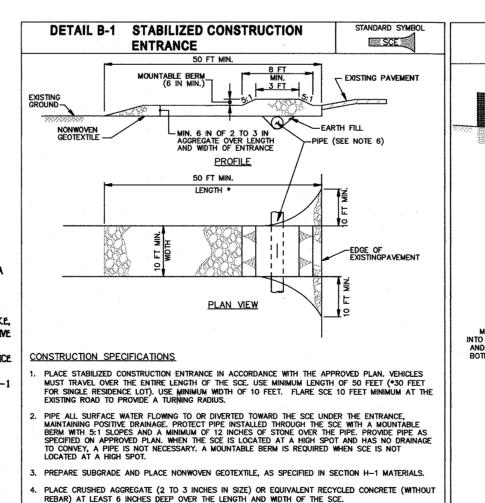




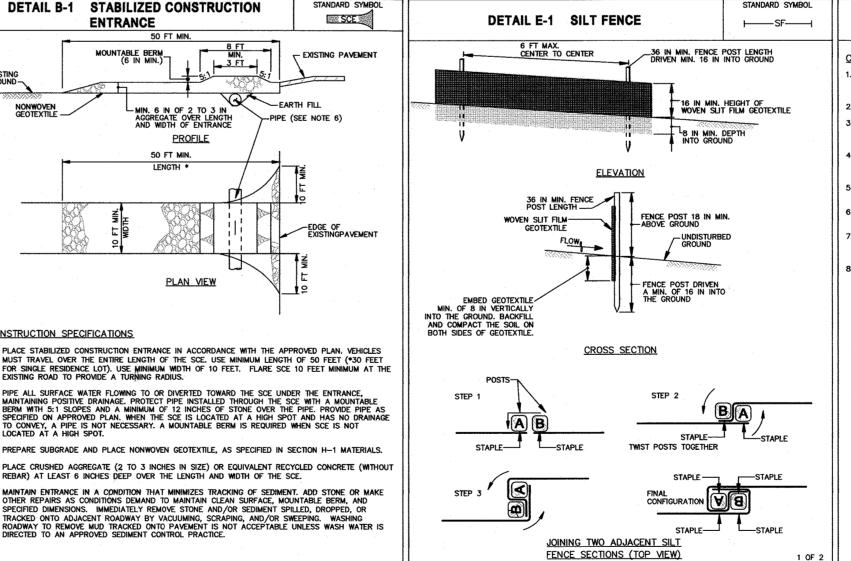
AS-BUILT CERTIFICATION FOR PSWM

I WEREBY CERTIFY THAT THE FACE ITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE TAS BUILT PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. MAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AS EAST SUFFICIENTLY STABILIZED TO PREVENT CLOUDING COTTAIN UNDERGROUND SWM FACILITY. 4-11-22

NO AS-BUILT INFORMATION ON THIS SHEET



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL



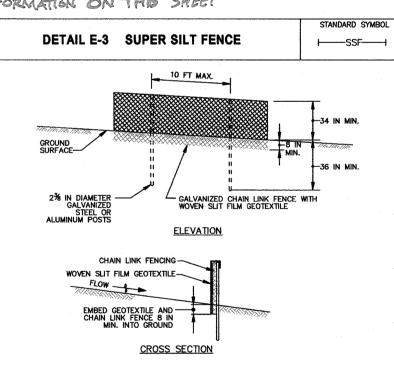
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

DETAIL E-1 SILT FENCE -----SF-----CONSTRUCTION SPECIFICATIONS USE WOOD POSTS $1\frac{1}{4}$ X $1\frac{1}{4}$ \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 than 1 pound per linear foot. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS. . EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACTHE SOIL ON BOTH SIDES OF FABRIC. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL. EXTEND BOTH ENDS OF THE 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 SILT FENCE. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

2011

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

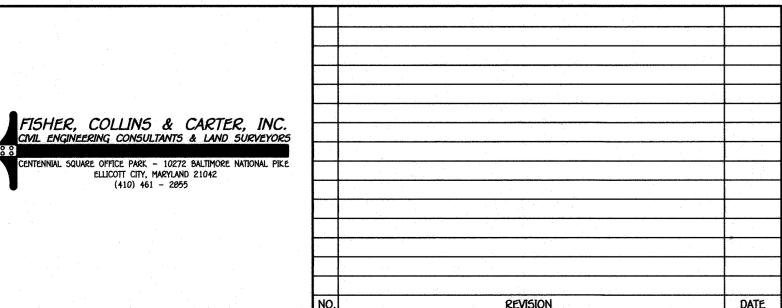


CONSTRUCTION SPECIFICATIONS 1. INSTALL 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.

FASTEN 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. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.

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.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL



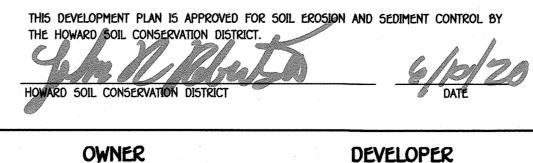


PROFESSIONAL CERTIFICATE "I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. John Thorolousen

BUILDER/DEVELOPER'S CERTIFICATE 1/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."

SIGNATURE OF LICENSED PROFESSIONAL FRANK JOHN MANALANSAN II

SIGNATURE OF DEVELOPER RYAN MCWHORTER



RYAN MCWHORTER

6851 REDBERRY ROAD

CLARKSVILLE, MD 21029

(410)-984-5813

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

OWNER DAISY CROSSROADS LLC. 16135 ED WARFIELD ROAD WOODBINE, MD 21797-7811

Chief. Division of Land Development Chief, Development Engineering Division 1 Gove 11-30-20 Director - Department of Planning and Zoning PROJECT PARCEL NO. PHASE MCWHORTER PROPERTY N/A 334 BLOCK NO. TAX/ZONE | ELEC. DIST. CENSUS TR. ZONE 24027604002 9800-9802 23 PREVIOUS HOWARD COUNTY FILES: ECP-19-062, F-90-56

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

SEDIMENT EROSION CONTROL NOTES & DETAILS

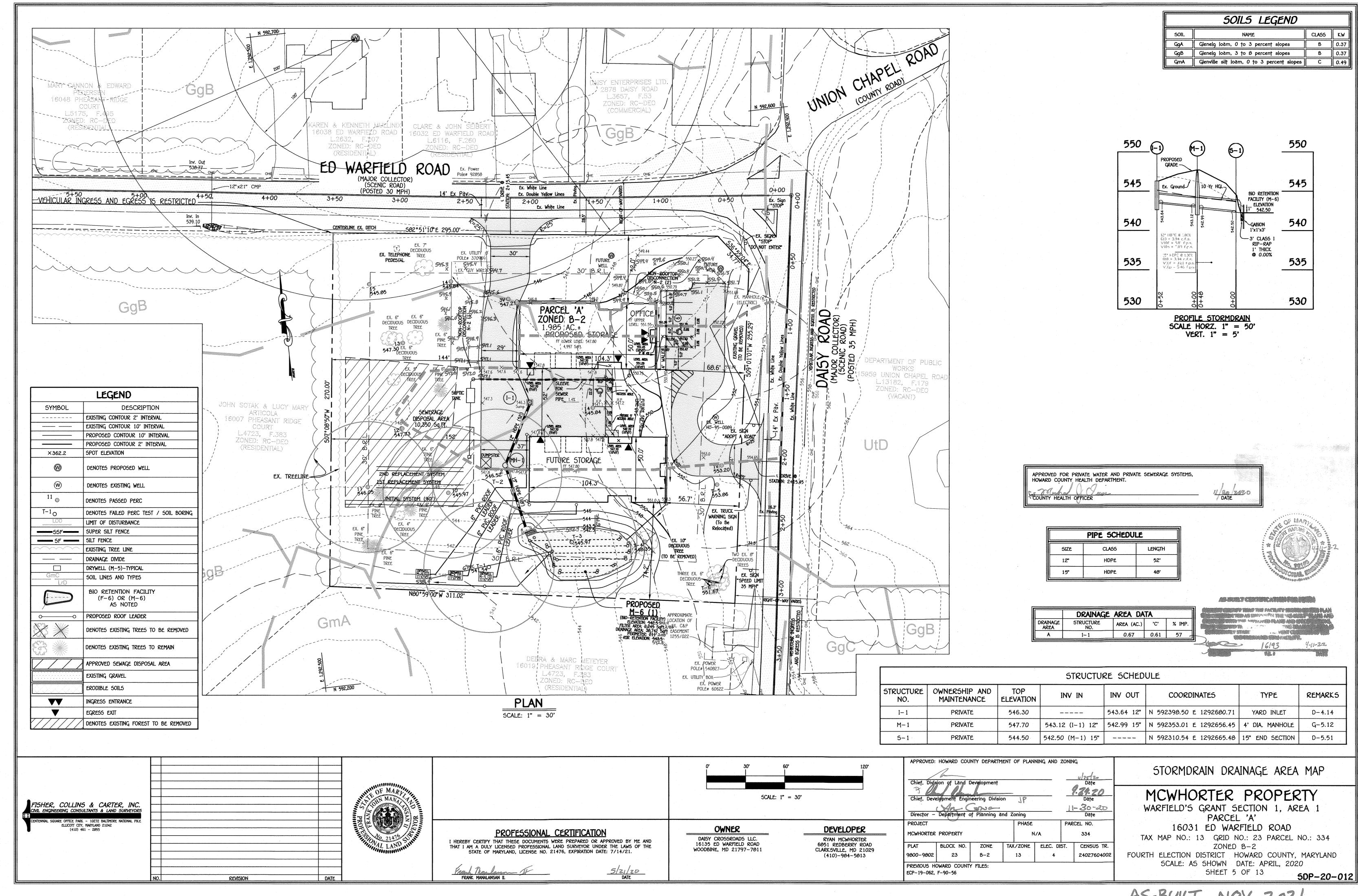
MCWHORTER PROPERTY WARFIELD'S GRANT SECTION 1, AREA 1

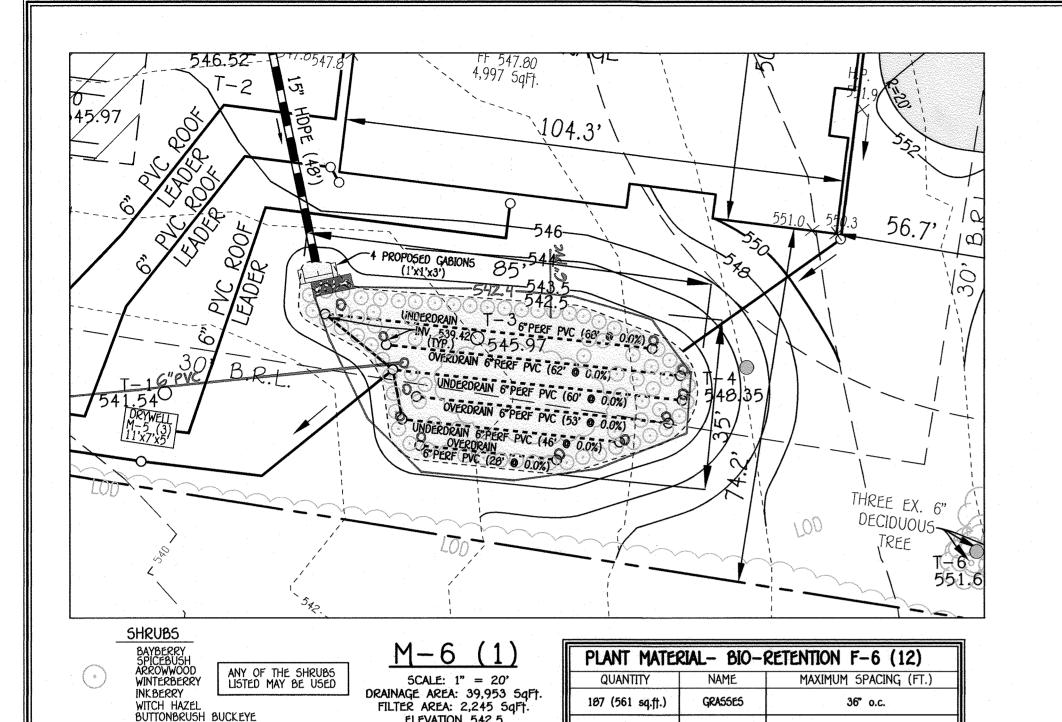
PARCEL 'A' 16031 ED WARFIELD ROAD

TAX MAP NO.: 13 GRID NO.: 23 PARCEL NO.: 334 ZONED B-2 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: APRIL, 2020

SHEET 4 OF 13

5DP-20-012





ELEVATION 542.5

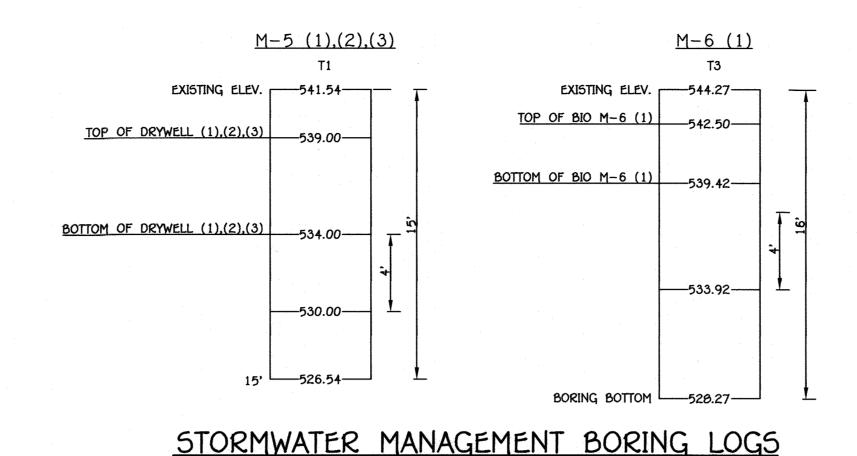
PERIMETER 211' WEIR ELEVATION 543.5

BOTTLEBRUSH BUCKEYE

#2 STONE

*6" PERFORATED PIPE/GRAVEL -

OVERDRAIN SYSTEM



5CALE: 1" = 10'

ANY OF THE GRASS LISTED MAY BE USED SWITCHGRASS HEAVY METAL SWITCHGRASS 5CALE: 1" = 20' 4" PVC PIPE UNDERDRAIN COLLECTION WIDTH VARIES SYSTEM @ 0.5% MIN-*6" dia. DOME GRATE-*6" dia. SOLID CAP---5' MIN. 3" MULCH LAYER -ON SURFACE - PROVIDE GEOTEXTILE 4" PERFORATED PVC OBSERVATION PIPE & UNDERDRAIN -2' PLANTING ON ALL SIDES (NOTE: NO GEOTEXTILE WILL BE PROVIDED UNDER THE STONE.) PLAN 4" #7 STONE NOT TO SCALE - PROVIDE 1/4" MESH (4X4) OR SMALLER (BRIDGING LAYER) GALVANIZED HARDWARE CLOTH 13" LAYER

INV. = 539.42'

- *6" PERFORATED PIPE/GRAVEL

UNDERDRAIN SYSTEM

SHRUBS

36"-40" o.c.

* CONTRACTOR MAY SUBSTITUTE 6" DIAMETER SLOTTED HDPE PIPE CLASS II PER AASHTO SPECIFICATION M252

(ADS N-12 ST 1B PIPE OR EQUIVALENT)

TYPICAL SECTION - BIO-RETENTION FACILITY (F-6)

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

NOTE: THE BOTTOM OF EACH BIO-RETENTION FACILITY (M-6)

SHALL BE ROTOTILLED PRIOR TO STONE INSTALLATION.

- 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 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
- 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 BEFORE THE

REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS AND REPLACE ALL

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.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED, DISCONNECTION OF NON-ROOFTOP (N-2)

MAINTENANCE OF AREAS RECEIVING DISCONNECTION RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREA. IN COMMERCIAL AREAS FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

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%		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 (1/0" to 3/0")	
Curtàin 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. Aggregate (3/8" to 3/4")	
Underdräin piping	F 750, Type P5 20 or AASHTO M-270	4" to 6" rigid schedule 40 PVC or SDR35	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)	MSHA Mix No. 3; f = 3500 psi at 20 days, normal weight, air-entrained; reinforcing to meet ASTM-615-60	n.ā	on-site testing of poured-in-place concrete required: 20 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved 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/09; vertical loading [H-10 or H-20]; allowable horizontal loading (based on soil pressures); and analysis of potential cracking
5and	AASHTO-M-6 or ASTM-C-33	0.02° †o 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.

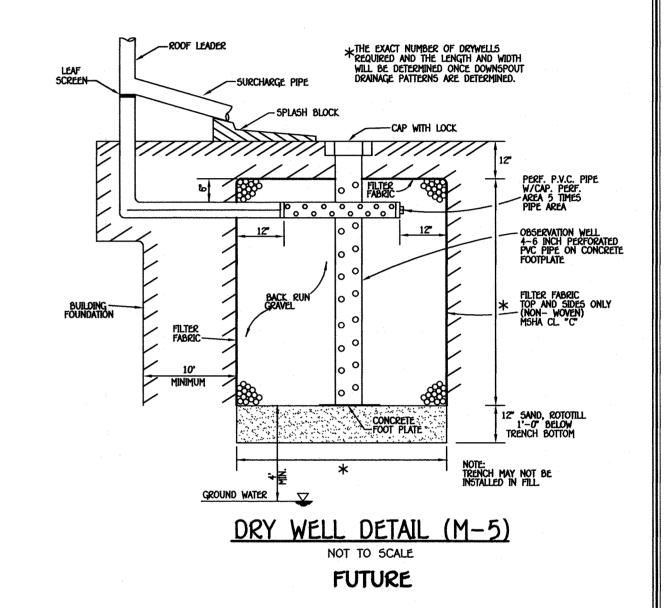
Table B.4. Materials Specifications for Micro-Bioretention, Rain Gardens & Landscape Infiltration

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

	FUTUR	E DRY	WELL	CHART
DRYWELL No.	AREA OF ROOF PER DRYWELL	VOLUME REQUIRED	VOLUME PROVIDED	L W D
1	1000 5Q.FT.	143 CU.FT.	154 CU.FT.	11' x 7' x 5'
2	1000 5Q.FT.	143 CU.FT.	154 CU.FT.	11' x 7' x 5'
3	1000 5Q.FT.	143 CU.FT.	154 CU.FT.	11' x 7' x 5'

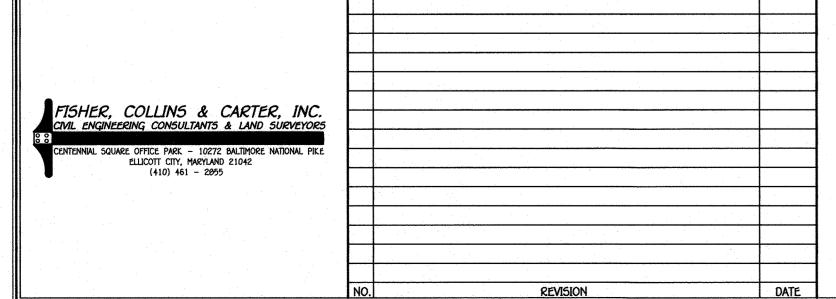
DRYWELLS NOT INSTALLED AS OF JANUARY 18, 2022





AS-BUILT CERTIFICATION FUR PSWM

ENERGY CERTIFY THAT THE FACILITY SHOWN ON THE ELAN CONTRUCTED AS SHOWN ON THE "AS-BUILT" (AS AND COMPLET WITH THE APPROVED PLANS AND SPECIFICATION. TING DRABUAGE ASSAULT INAVIVERIFIED TH. CONTRACTOR STABI ... VENT CLOQUE OF THE UNDERGROUND SWM FACILITY. 4-11-22





PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21.

FRANK MANALANSAN II.

5/21/20 DATE

DEVELOPER OWNER DAISY CROSSROADS LLC. RYAN MCWHORTER 16135 ED WARFIELD ROAD 6851 REDBERRY ROAD WOODBINE, MD 21797-7811 CLARKSVILLE, MD 21029 (410)-984-5813

₩(25f2a Dațe 9.29.20 Date Chief, Development Engineering Division Mar Gon-11-30-20 Date Director - Department of Planning and Zoning PROJECT PHASE PARCEL NO. MCWHORTER PROPERTY 334 BLOCK NO. ZONE TAX/ZONE ELEC. DIST. CENSUS TR. 9800-9802 23 B-2 24027604002 PREVIOUS HOWARD COUNTY FILES: ECP-19-062, F-90-56

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

5WM NOTES, DETAILS & BORING LOGS

MCWHORTER PROPERTY

WARFIELD'S GRANT SECTION 1, AREA 1 PARCEL 'A'

16031 ED WARFIELD ROAD TAX MAP NO.: 13 GRID NO.: 23 PARCEL NO.: 334

ZONED B-2 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

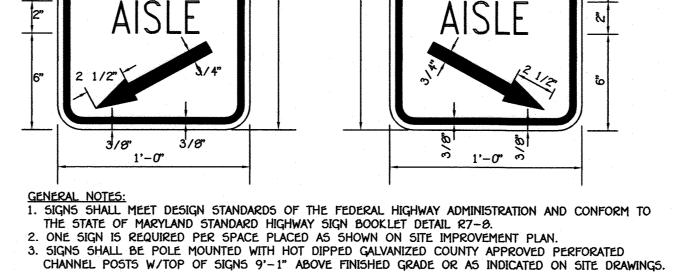
SCALE: AS SHOWN DATE: APRIL, 2020

5ECTI	100.10	CALIFORNIA BEARING RATIO (CBR)	3 TO <5	5 TO <7	<u>≥</u> 7	3 TO <5	5 TO <7	≥7	
NUMB	ER CLASSIFICATION	PAVEMENT MATERIAL (INCHES)		MIN. SUPERPAVE ASPHALT MIX WITH GAB			MIN. SUPERPAVE ASPHALT MIX WITH CONSTANT GAB		
	PARKING BAYS: RESIDENTIAL AND NON-RESIDENTIAL	SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5 MM, PG 64-225, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5	
P-1	PARKING DRIVE AISLES: RESIDENTIAL AND NON-RESIDENTIAL WITH	SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE 9.5 MM. PG 64-225; LEVEL 1 (ESAL)	NA	NA	NA NA	NA	NA	NA NA	
	NO MORE THAN 2 HEAVY TRUCKS PER DAY	5UPERPAVE ASPHALT MIX BASE 19.0 MM. PG 64-225, LEVEL 1 (ESAL)	2.0	2.0	2.0	3.5	3.0	2.5	
		GRADED AGGREGATE BASE (GAB)	8.5	7.0	5.0	4.0	4.0	4.0	

5" | 4 7/*8*"



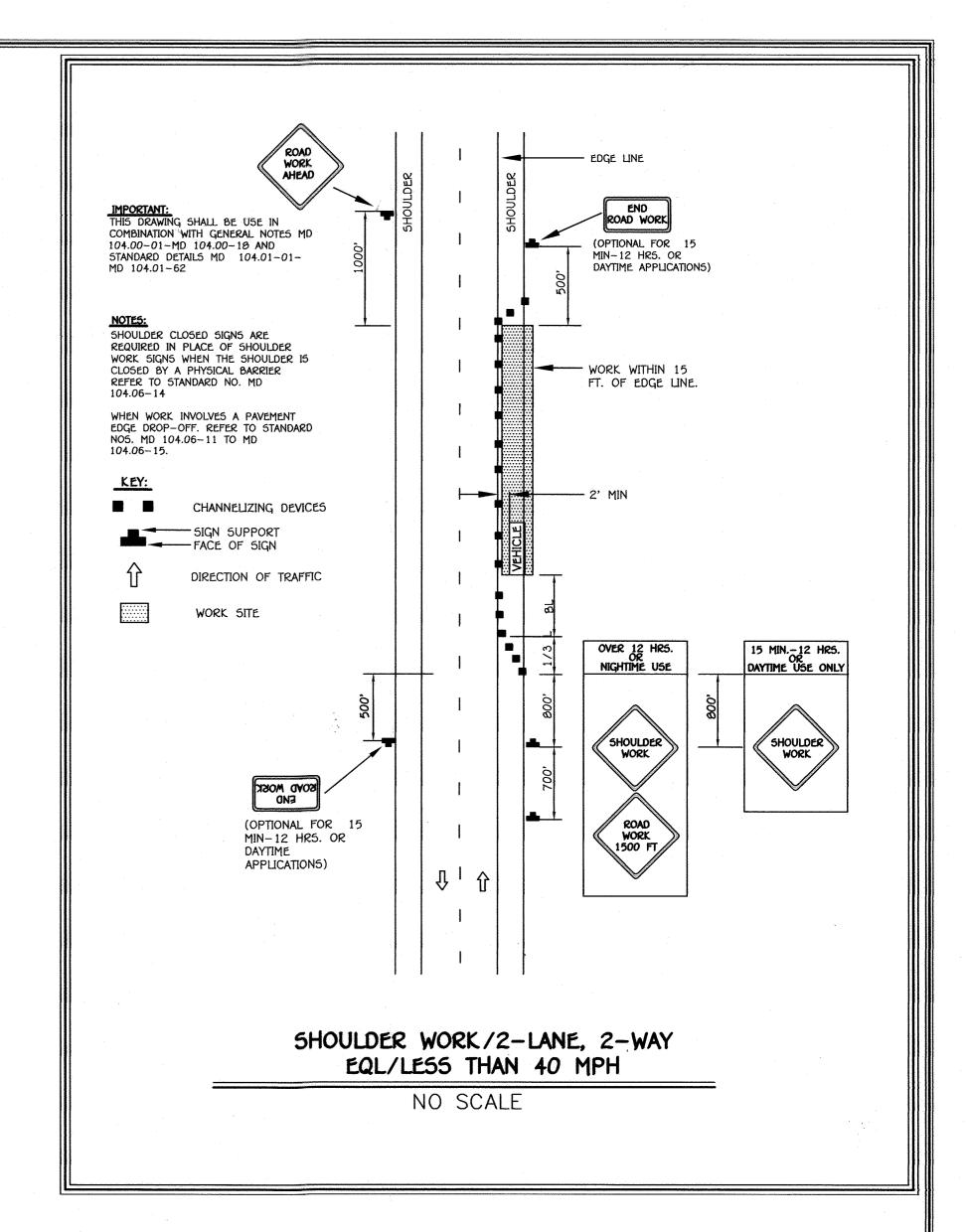
| 4 7/8" |

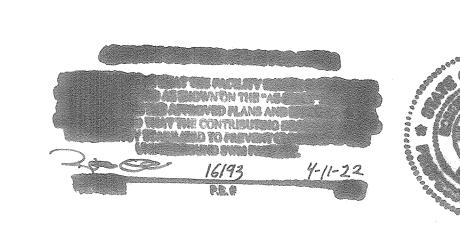


6. CONTRACTOR SHALL COORDINATE ARROW DIRECTION WITH LOCATION OF ADJACENT AISLE.
7. SPACES INDICATED ON SITE DEVELOPMENT PLANS AS "VAN ACCESSIBLE" SHALL BE SIGNED HANDICAP PARKING SIGN DETAIL

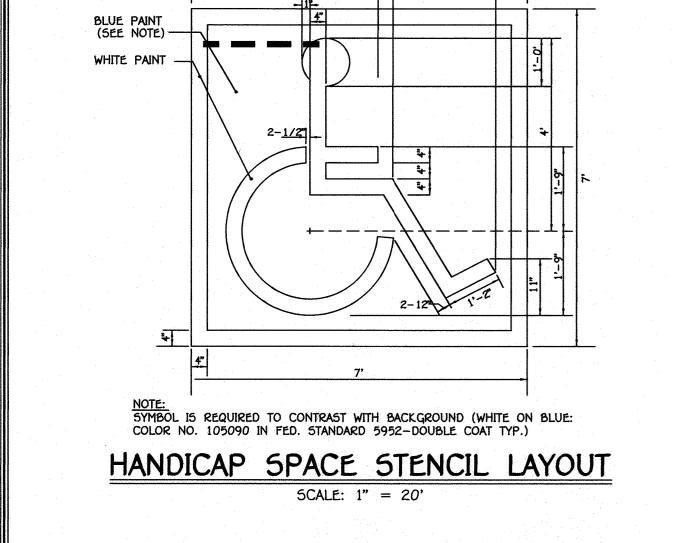
4. SIGN SHALL BE ATTACHED TO FLANGED SIDE OF POST. POST SHALL EXTEND INTO GROUND 2'-6" MIN.

COLORS: LEGEND AND BORDER-GREEN SYMBOL-WHITE ON BLUE BACKGROUND

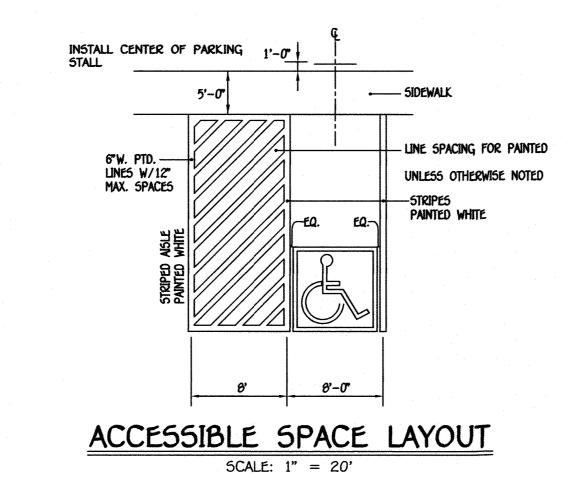


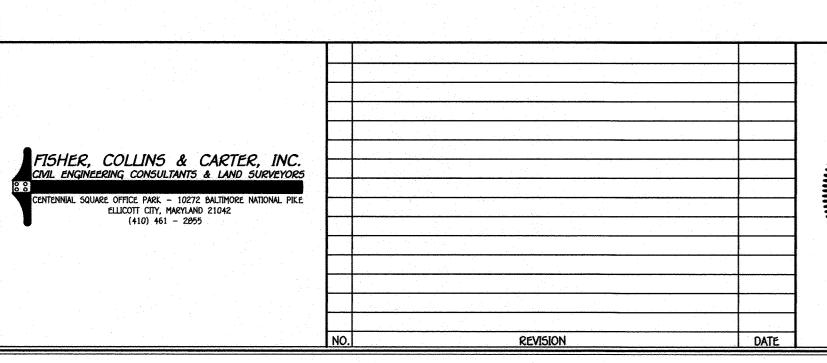


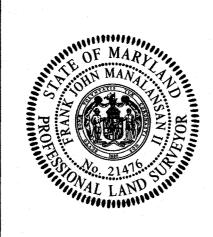
NO AS-BUILT INFORMATION ON THIS SHEET



3'-1/2"

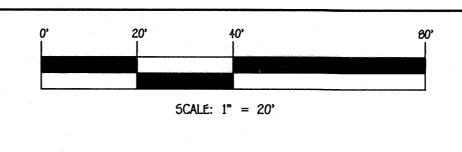






PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21.



NOT TO SCALE

OWNER DEVELOPER DAISY CROSSROADS LLC. RYAN MCWHORTER 6051 REDBERRY ROAD CLARKSVILLE, MD 21029 16135 ED WARFIELD ROAD WOODBINE, MD 21797-7811 (410)-984-5813

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING Chief, Development Engineering Division Director - Department of Planning and Zoning 11-30-20 Date PROJECT PARCEL NO. MCWHORTER PROPERTY N/A BLOCK NO. ZONE TAX/ZONE | ELEC. DIST. CENSUS TR. PREVIOUS HOWARD COUNTY FILES: ECP-19-062, F-90-56

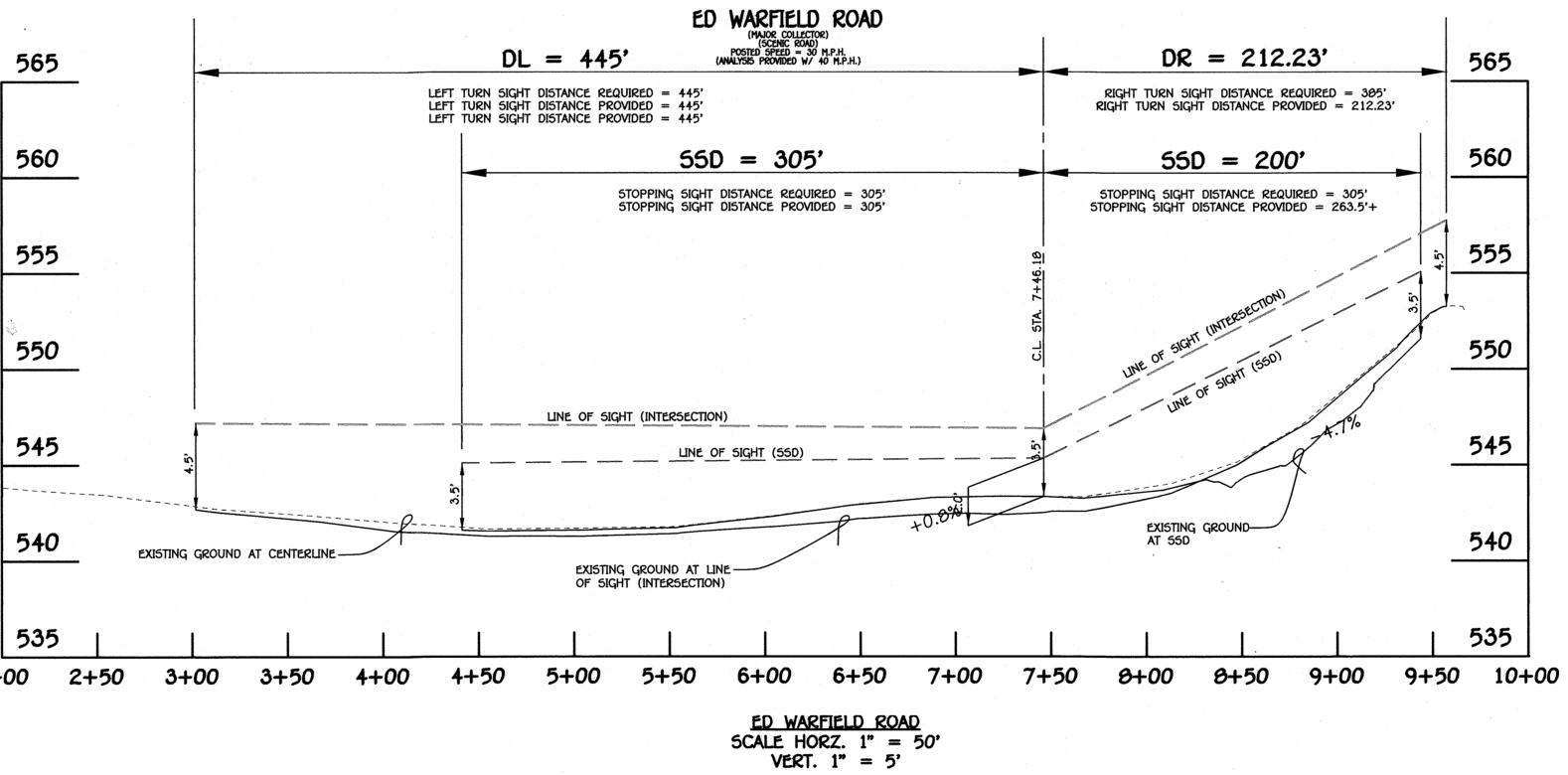
ROAD AND HANDICAP NOTES & DETAILS

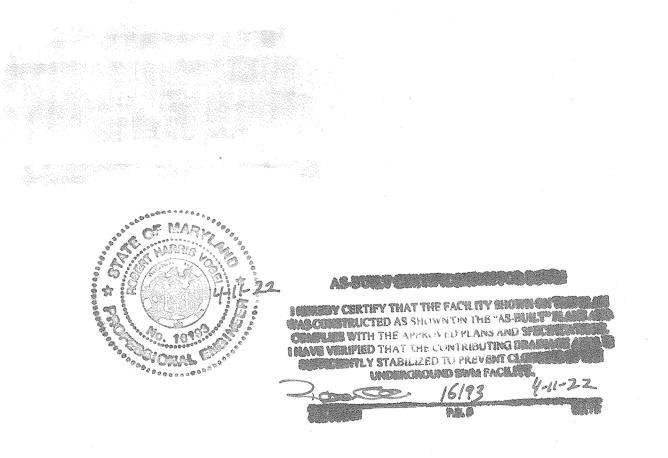
MCWHORTER PROPERTY WARFIELD'S GRANT SECTION 1, AREA 1 PARCEL 'A'

16031 ED WARFIELD ROAD TAX MAP NO.: 13 GRID NO.: 23 PARCEL NO.: 334

ZONED B-2 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: APRIL, 2020 SHEET 7 OF 13 5DP-20-012

AS-BUILT, NOV. 202/





NO AS-BUILT INFORMATION ON THIS SHEET

SITE DISTANCE ANALYSIS

MCWHORTER PROPERTY

WARFIELD'S GRANT SECTION 1, AREA 1 PARCEL 'A'

16031 ED WARFIELD ROAD TAX MAP NO.: 13 GRID NO.: 23 PARCEL NO.: 334 ZONED B-2 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: APRIL, 2020 SHEET 9 OF 13 5DP-20-012

FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS REVISION



PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21. 5/21/20 DATE

OWNER DAISY CROSSROADS LLC. 16135 ED WARFIELD ROAD WOODBINE, MD 21797-7811

SCALE: 1" = 30'

DEVELOPER RYAN MCWHORTER 6051 REDBERRY ROAD CLARKSVILLE, MD 21029 (410)-904-5013

Chief, Division of Land Development

Chief, Development Engineering Division

Director - Department of Planning and Zoning 11-30-20 Date PROJECT PARCEL NO. MCWHORTER PROPERTY N/A BLOCK NO. ZONE TAX/ZONE | ELEC. DIST. CENSUS TR 9800-9802 23 24027604002 PREVIOUS HOWARD COUNTY FILES: ECP-19-062, F-90-56

Q.29.20Date

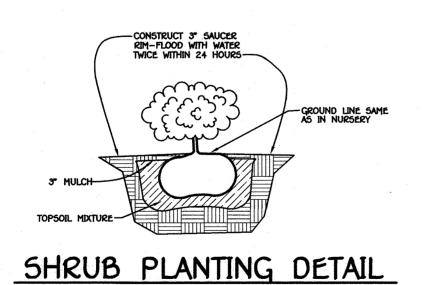
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

PERIMETER	P-1	P-2	P-3	P-4	P-5
CATEGORY	EDGE OF PARKING TO EDGE OF PARKING	COMMERCIAL TO PUBLIC ROAD	Commercial to residential lot	COMMERCIAL TO RESIDENTIAL LOT	COMMERCIAL TO PUBLIC ROAD
LANDSCAPE TYPE	E	В	C	С	В
INEAR FEET OF PERIMETER	151 LF.	175 LF.	かりに (-228) = 83に	270LF (-217) = 53LF	256 LF.
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	(151' /40' = 3.775) = 4 (151' /4' = 37.75) = 30	(175' /50' = 3.50) = 4 (175' /40' = 4.375) = 5	(83'/40'=2) = 2 (83'/20'=4,2)=4	(55'/40' = 1.325) = 2 (210'/20' = 2,65) = 3	(256' /50' = 5.12) = 6 (256' /40' = 6.40) = 7
CREDIT FOR WALL, FENCE OR BERM	0	0	YES 228 UP OF PAUS	yes 217 up of fake	0
Credit for existing vegetation Shade trees Evergreen trees	0 0 0	0 0	0 0 0	0 0 0	0 0 0
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES SHRUBS (10:1 SUBSTITUTION)	4 - 39	4 5	2	2 3	6 7 ~

	LAND5CAPING PLANT LIST								
SYMBOL	QUANTITY	BOTANICAL AND COMMON NAME	SIZE	COMMENTS					
		ACER RUBRUM 'OCTOBER GLORY' RED MAPLE	2 1/2"-3" CAL.						
	7.	ACER SACCHARUM SUGAR MAPLE	2 1/2"-3" CAL.						
0	60	CLETHRA ALNIFOLIA SUMMERSWEET CLETHRA	2 1/2'-3' HGT.						
**	10	THUM PLATA/GIANT AKBURITAE 'GREEN GIANT'	6'-Ø' HGT.						

SYMBOL	DESCRIPTION		
=	EXISTING CONTOUR 2' INTERVAL		
	EXISTING CONTOUR 10' INTERVAL		
	PROPOSED CONTOUR 10' INTERVAL		
	PROPOSED CONTOUR 2' INTERVAL		
×362.2	SPOT ELEVATION		
©	DENOTES PROPOSED WELL		
W	DENOTES EXISTING WELL		
11 🔘	DENOTES PASSED PERC		
T-1 _O	DENOTES FAILED PERC TEST / SOIL BORING		
rentition returns a transcription of the second sec	LIMIT OF DISTURBANCE		
——55F——	SUPER SILT FENCE		
SF	SILT FENCE		
	EXISTING TREE LINE		
##condensions Assertance State Assertance State Assertance Asserta	DRAINAGE DIVIDE		
	DRYWELL (M-5)-TYPICAL		
GMC LrD	SOIL LINES AND TYPES		
	BIO RETENTION FACILITY (F-6) OR (M-6) AS NOTED		
00	PROPOSED ROOF LEADER		
XX	DENOTES EXISTING TREES TO BE REMOVED		
\$3 **	DENOTES EXISTING TREES TO REMAIN		
	APPROVED SEWAGE DISPOSAL AREA		
	EXISTING GRAVEL		
	ERODIBLE SOILS		
•	INGRESS ENTRANCE		
lacktriangle	EGRESS EXIT		
	DENOTES EXISTING FOREST TO BE REMOVED		

LEGEND



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FISHER, COLLINS & CARTER, INC. CML ENGINEERING CONSULTANTS & LAND SURVEYORS		and the same of the same and the		S X
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE				PRC
ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2055		en de la companya de La companya de la co		
				A STON
				111
	H			
	NO.	REVISION	DATE	

I/We certify that the landscaping shown on this plan will be done according to the plan. Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a letter of landscape installation accompanied by an executed one year guarantee of
plant materials will be submitted to the Department of Planning and Zoning.
Janon 5/21/20
Name Date
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND
THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE

THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21.

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Chief, Development Engineering Division 11-30-20 Director - Department of Planning and Zoning PROJECT PARCEL NO. MCWHORTER PROPERTY CENSUS TR. ELEC. DIST. PREVIOUS HOWARD COUNTY FILES:

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

ECP-19-062, F-90-56

1. THE PERIMETER LANDSCAPE OBLIGATION IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY

2. 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 LANDSCAPING 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 THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE

3. THE OWNER, TENANT, 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

4. FOR ANY TREE DESIGNATED FOR PRESERVATION, FOR WHICH CREDIT IS GIVEN, BE REMOVED OR DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR IF THE TREE IS LISTED

AS A PROHIBITED OR INVASIVE SPECIES ON THE DPZ TREE LIST IT SHOULD BE REPLACED WITH A RECOMMENDED TREE SPECIES WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST

BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE LANDSCAPE MANUAL."

PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.

CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

CODE AND THE LANDSCAPE OBLIGATION IS PROVIDED IN ACCORDANCE WITH SECTION 18.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL, A LANDSCAPE SURETY IN THE AMOUNT OF \$17,450,000 ASSED ON (18) SHADE TREES @ \$300/SHADE TREE, (19) EVERGREEN TREES @ \$150/EVERGREEN TREE, AND (60) SHRUBS @ \$30/SHRUB AND (740) LINEAR FOOT OF FRICE @ \$10/LINEAR FOOTSHALL BE BOLDED AS PART OF THE GRADING PREMIT REQUIREMENT,

PLANTING SPECIFICATIONS

PLANTS, RELATED MATERIAL, AND OPERATIONS SHALL MEET THE DETAILED DESCRIPTION AS GIVEN ON THE PLANS AND AS DESCRIBED HEREIN.

ALL PLANT MATERIAL, UNLESS OTHERWISE SPECIFIED, SHALL BE NURSERY GROWN, UNIFORMLY BRANCHED, HAVE A VIGOROUS ROOT SYSTEM, AND SHALL CONFORM TO THE SPECIES, SIZE, ROOT AND SHAPE SHOWN ON THE PLANT LIST AND THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) STANDARDS. PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, FREE FROM DEFECTS, DECAY, DISFIGURING ROOTS, SUN SCALD INJURIES, ABRASIONS OF THE BARK, PLANT DISEASE, INSECT PEST EGGS, BORERS AND ALL FORMS OF INSECT INFESTATIONS OR OBJECTIONABLE DISFIGUREMENTS. PLANT MATERIAL THAT IS WEAK OR WHICH HAS BEEN CUT BACK FROM LARGER GRADES TO MEET SPECIFIED REQUIREMENTS WILL BE REJECTED. TREES WITH FORKED LEADERS WILL NOT BE ACCEPTED. ALL PLANTS SHALL BE FRESHLY DUG; NO HEALED-IN PLANTS FROM COLD STORAGE WILL BE ACCEPTED.

UNLESS OTHERWISE SPECIFIED, ALL GENERAL CONDITIONS, PLANTING OPERATIONS, DETAILS AND PLANTING SPECIFICATION SHALL CONFORM TO "LANDSCAPE SPECIFICATION GUIDELINES" FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS", (HEREINAFTER "LANDSCAPE GUIDELINES") APPROVED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE POTOMAC CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECT, LATEST EDITION, INCLUDING ALL AGENDA.

CONTRACTOR SHALL BE REQUIRED TO GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE IN ACCORDANCE WITH THE APPROPRIATE SECTION OF THE LANDSCAPE GUIDELINES CONTRACTOR'S ATTENTION IS DIRECTED TO THE MAINTENANCE REQUIREMENTS FOUND WITHIN THE ONE YEAR SPECIFICATIONS INCLUDING WATERING AND REPLACEMENT OF SPECIFIED PLANT MATERIAL.

BID SHALL BE BASE ON ACTUAL SITE CONDITIONS. NO EXTRA PAYMENT SHALL BE MADE FOR WORK ARISING FROM SITE CONDITIONS DIFFERING FROM THOSE INDICATED ON DRAWINGS AND SPECIFICATIONS

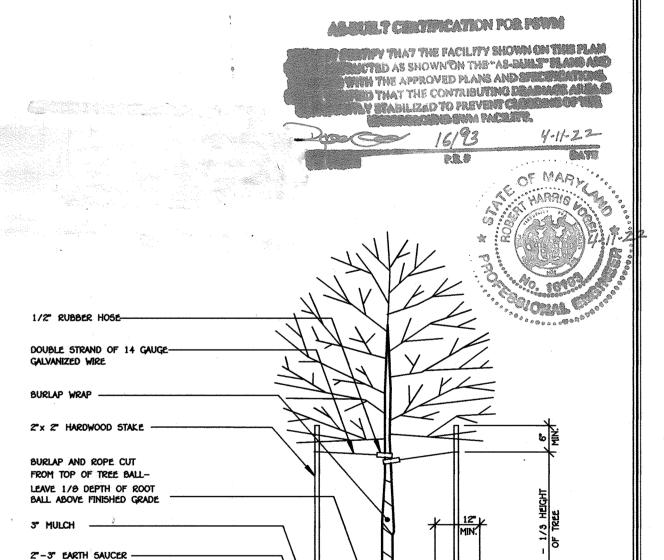
ALL SHRUBS SHALL BE PLANTED IN CONTINUOUS TRENCHES OR PREPARED PLANTING BEDS AND MULCHED WITH COMPOSTED HARDWOOD MULCH AS DETAILS AND SPECIFIED EXCEPT WHERE NOTED ON PLANS.

POSITIVE DRAINAGE SHALL BE MAINTAINED IN PLANTING BEDS 2 PERCENT SLOPE).

PLANTING MIX SHALL BE AS FOLLOWS: DECIDUOUS PLANTS - TWO PARTS TOPSOIL, ONE PART WELL-ROTTED COW OR HORSE MANURE. ADD 3 LBS. OF STANDARD FERTILIZER PER CUBIC YARD OF PLANTING MIX. EVERGREEN PLANTS - TWO PARTS TOPSOIL, ONE PART HUMUS OR OTHER APPROVED ORGANIC MATERIAL. ADD 3 LBS. OF EVERGREEN (ACIDIC) FERTILIZER PER CUBIC YARD OF PLANTING MIX. TOPSOIL SHALL CONFORM TO THE LANDSCAPE GUIDELINES.

WEED CONTROL: INCORPORATE A PRE-EMERGENT HERBICIDE INTO THE PLANTING BED FOLLOWING RECOMMENDED RATES ON THE LABEL. CAUTION: BE SURE TO CAREFULLY CHECK THE CHEMICAL USED TO ASSURE ITS ADAPTABILITY TO THE SPECIFIC GROUND COVER TO BE TREATED.

ALL AREAS WITHIN CONTRACT LIMITS DISTURBED DURING OR PRIOR TO CONSTRUCTION NOT DESIGNATED TO RECEIVE PLANTS AND MULCH SHALL BE FINE GRADED AND SEEDED.



TREE PLANTING DETAIL

LANDSCAPE NOTES & DETAIL PLAN

NO AS-BUILT INFORMATION ON THIS SHEET

EXTEND STAKE TO FIRM BEARING (MIN. 2'-6")

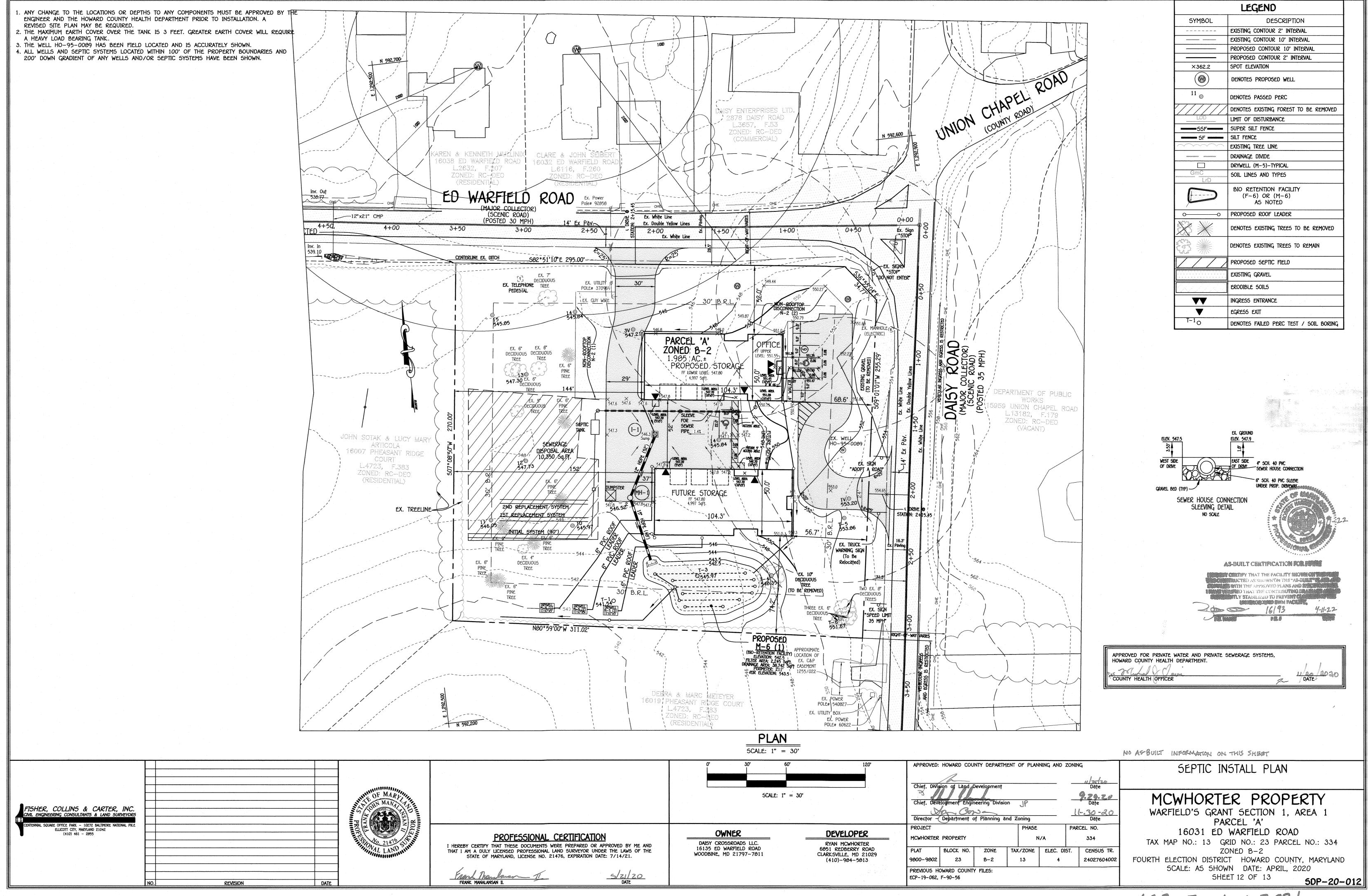
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5DP-20-012



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