SOILS LEGEND					
50IL	SOIL NAME				
GgB	Glenelg loam, 3 to 8 percent slopes	В	0.28		
GmB	Glenville silt loam, 3 to 0 percent slopes	С	0.43		
MaB	Manor loam, 3 to 0 percent slopes	В	0.28		
MaC	Manor loam, 8 to 15 percent slopes	В	0.20		

NON-ROOFTOP DISCONNECTION (N-2)

STORMWATER MANAGEMENT PRACTICES

3050 LANCELOT CROSS	***	(NUMBER)
3060 LANCELOT CR055	4	
LEAF ROOF LEADER	SURCHARGE PIPE 51	*THE EXACT NUMBER OF DRYWELLS REQUIRED AND THE LENGTH AND WIDTH WILL BE DETERMINED ONCE DOWNSPOUT DRAINAGE PATTERNS ARE DETERMINED. CAP WITH LOCK
	12-12-	PERF. P.V.C. PIPE W/CAP. PERF. AREA 5 TIMES PIPE AREA O 12" OBSERVATION WELL 4-6 INCH PERFORATED PVC PIPE ON CONCRETE
BUILDING FOUNDATION FILTER FABRIC -) - 4	NE ASTM 40 SIZE #1 STONE ASTM D-440 SIZE #1 * FILTER FABRIC TOP AND SIDES (NON- WOVEN) MSHA CL "C"
		CONCRETE 12" SAND, ROTOTILL 1"-0" BELOW TRENCH BOTTOM
	GROUND WATER	* NOTE: TRENCH MAY NOT BE INSTALLED IN FILL.

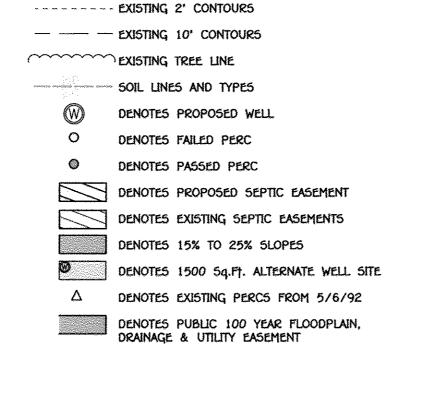
DRY WELL CHART							Charles Consulted the Consulted to	
	DRYWELL NO.	AREA OF ROOF PER DOWN SPOUT	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF TREATMENT	L	W	D
Ī	LOT 2 (FRONT RT)	500 5Q. FT.	48 C.F.	128 C.F.	100%*	8'	x 8'	x 5'
	LOT 2 (FRONT LT)	1,000 SQ. FT.	95 C.F.	162 C.F.	100%*	9'	x 9'	x 5'
	LOT 2 (REAR RT)	500 SQ. FT.	40 C.F.	128 C.F.	100%*	8'	x 8'	x 5'
	LOT 2 (REAR LT)	1,000 SQ. FT.	95 C.F.	162 C.F.	100%*	9'	x 9'	x 5'

* AREA OF TREATMENT EXCEEDS THAT REQUIRED.

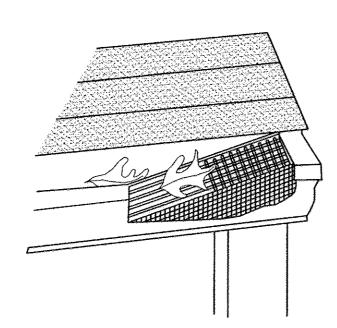
see Appendix A; Table A.4

SUPPLEMENTAL PLAN CHARLES FEAGA PROPERTY, LOTS 1 & 2

TAX MAP No. 23 GRID No. 4 PARCEL No. 62 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND



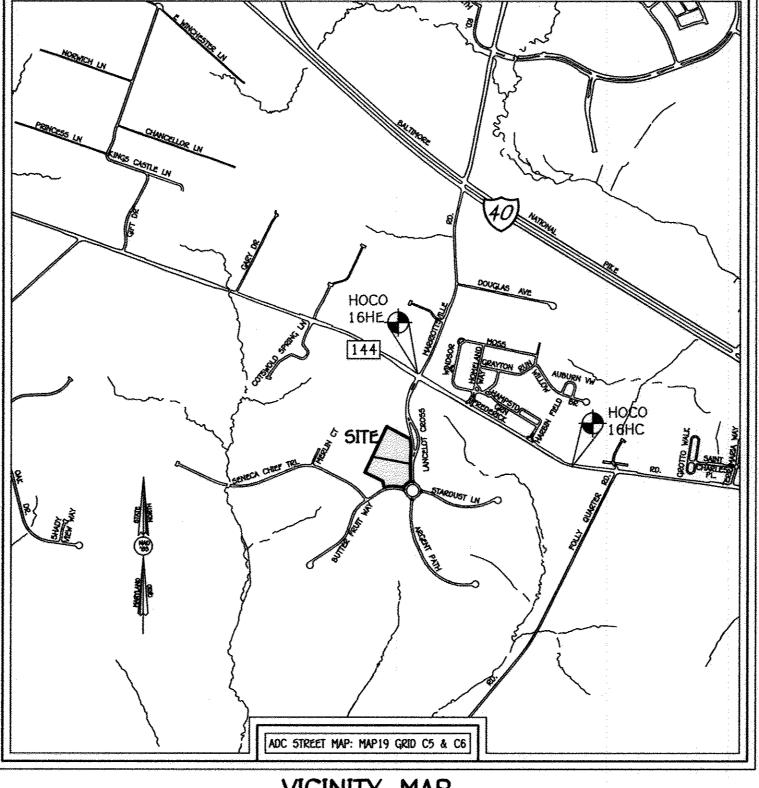
LEGEND



GUTTER DRAIN FILTER DETAIL NOT TO SCALE

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 TO BE SHOWN ON A GRADING PLAN.



VICINITY MAP SCALE: 1" = 1200'

BENCHMARK INFORMATION
B.M.# 16HC - HOWARD COUNTY CONTROL STATION #16HC - HORIZONTAL - NAD '03) N 509,700.930 E 1,341,529.066 ELEVATION = 440.644 - VERTICAL - (NAVD '00)
B.M.# 16HE - HOWARD COUNTY CONTROL STATION #16HE - HORIZONTAL - (NAD '03) N 590,940.693 E 1.339.596.619

ELEVATION = 537.975 - VERTICAL - (NAVD '88)

OPERATION & MAINTENANCE SCHEDULE

Notes

plantings are site-specific

1 the state of the	I was in the second of the sec	1	Extractivida with rife minerity
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 gravei: ASTM-D-440	No. 8 or No. 9 (1/8" to 3/8")	
Curtain drain	ornāmentāl stone: wāshed cobbles	stone: 2" to 5"	
Georgestile		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 50R35	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 350.8/89; vertical loading EH-10 or H-201; allowable horizontal loading (based on soil pressures); and analysis of potential cracking
5ànd	AASHTO-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone (AASHTO) #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING 1-17-18 Date

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER

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.

12" DISCONNECTION AREA 12' DRIVEWAY 5% MAX. ON-SITE P-1 PAVING SECTION— ENTRANCE 1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH

HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.

2. SWALES ARE FOR CONVEYANCE OF RUNOFF AND NOT UTILIZED FOR

12' DRIVEWAY CROSS SLOPE SECTION

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED, DISCONNECTION OF NON-ROOFTOP RUNOFF (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.

CHARLES FEAGA BARBARA FEAGA 3050 LANCELOT CROSS ELLICOTT CITY, 21042

410-489-7900

DEVELOPER HERITAGE LAND DEVELOPMENT 15950 NORTH AVE. P.O. BOX 482 U580N, MD 21765 410-489-7900

SITE ANALYSIS DATA CHART

TOTAL AREA OF ROAD DEDICATION = 0 AC

TOTAL AREA OF THIS SUBMISSION = 6.75 AC.+. LIMIT OF DISTURBED AREA = 42,412 SQ.FT. OR 0.97 Ac. + (SWM BASED ON LOD) PRESENT ZONING DESIGNATION = RC-DEO (PER 10/06/2013 COMPREHENSIVE ZONING PLAN)

PROPOSED USE: RESIDENTIAL PREVIOUS HOWARD COUNTY FILES: F-98-138; ECP-17-059 TOTAL AREA OF FLOODPLAIN LOCATED ON-SITE = 0 AC TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0 AC TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0 AC TOTAL AREA OF STREAM (INCLUDING BUFFER) = 0 AC TOTAL AREA OF EXISTING FOREST = 0 AC

TOTAL AREA OF FOREST TO BE RETAINED = 0 AC (SUBDIVISION IS EXEMPT FROM FOREST CONSERVATION REGULATIONS, SINCE IT IS A SINGLE LOT WITH NO FURTHER SUBDIVISION POTENTIAL) TOTAL AREA OF LOTS / BUILDABLE PARCELS = 6.75 AC+ (3.45 AC LOT 2) TOTAL GREEN OPEN AREA = 0.79 AC2 (WITHIN LOD) TOTAL IMPERVIOUS AREA = 0.18 AC+ (WITHIN LOD, EXCLUDES EXISTING IMPERVIOUS) TOTAL AREA OF ERODIBLE SOILS = 0.0 AC

SUPPLEMENTAL PLAN - TITLE SHEET CHARLES FEAGA PROPERTY, LOTS 1 & 2

General Notes:

10. All Areas Are More Or Less (+).

Fisher, Collins And Carter, Inc. B.R.L. Denotes Building Restriction Line

Depth Over Surface;

County Cemetery Inventory Map.

17. Site Is Not Adiacent To A Scenic Road.

23. This Subdivision Is In The Tier IV Growth Area.

26. This Property is Not Located Within The Metropolitan District. 27. Private Water And Sewage Will Be Used Within This Site.

Moderate Income Housing Unit (M.I.H.U.) Tabulation: a. M.I.H.U. Required = (1 Lot x 10%) = 0.1 M.I.H.U.

Recorded Simultaneously With The Plat.

Maryland State Department Of The Environment.

Plus MSHA Standards And Specifications, If Applicable

And Supplemented With Howard County GIS Topography.

Fisher, Collins & Carter, Inc. Dated January, 2017.

Volume iii, Roads, Bridges, Section 5.2.F.2.

Work Being Done.

Recording Of The Plat.

Each, (00) Evergreens @ \$150.00 Each And (00) Shrubs @ \$30.00 Each.

30. A Traffic Study Is Not Required For This Project Since This Is A Minor Subdivision.

Pay The Fee-In-Lieu.

f). Structure Clearance - Minimum 12 Feet;

Denotes Iron Pin Set Capped "F.C.C. 106". Denotes Iron Pipe Or Iron Bar Found.

Subject Property Zoned RC-DEO Per 10/06/13 Comprehensive Zoning Plan.

O Denotes Angular Change in Bearing Of Boundary Or Rights-Of-Way.

Denotes Concrete Monument Set With Aluminum Plate "F.C.C. 106".

Denotes Concrete Monument Or Stone Found.

Control Stations No. 16HC And No. 16HE. Sta. 16HC N 589,780.930 E 1,341,529.866 Elev.= 448.644

Sta. 16HE N 590,948,693 E 1,369,596,619 Elev. = 537,975

3. This Plat Is Based On Field Run Monumented Boundary Survey Performed On Or About January, 2017 By

11. Distances Shown Are Based On Surface Measurement And Not Reduced To Nad '83 Grid Measurement. 12. Driveways Shall Be Provided Prior To Issuance Of A Use And Occupancy Permit For Any New Dwellings To

g). Maintenance — Sufficient To Ensure All Weather Use.

13. Property Subject To Prior Department Of Planning And Zoning File No's: F-98-138; ECP-17-059.

14. No Cemeteries Exist On The Subject Property Based On Visual Observation Or Listed In Available Howard

15. There is An Existing Dwelling On Lot 1 To Remain (Circa 1952). There Existing Barn On Lots 1 And 2. The Portion Of The Barn on Lot 2 is To Be Removed. No New Buildings, Extensions Or Additions To The

18. 100 Year Floodplain, Wetlands, Stream(s) And/Or Their Buffers, And Steep Slopes Do Not Exist On-Site. 19. This Subdivision is Exempt From Forest Conservation Requirements Since it is A Minor Subdivision

20. Stormwater Management Is In Accordance With The M.D.E. Storm Water Design Manual, Volumes I & II.

16. There Are No Forest Stands Existing On-Site. See Environmental Findings Letter Prepared By Eco-Science Professionals, Inc. Dated May 15, 2017.

Officer Shall Have The Authority To Grant Adjustments To The Private Sewage Easement.

24. This Plan Is In Compliance With The Amended Fifth Edition Of The Subdivision And Land Development

25. Section 16.121 Of The Subdivision Regulations Requires A \$1,500.00 Payment For Fee-In-Lieu Of

29. A Community Meeting Was Conducted March 9, 2017 For The Purpose Of The Developer To Provide Information To The Community Regarding The Proposed Residential Development And To Allow The Community To Ask Questions And To Make Comments, Per Section 16.128(d) Of The Subdivision

Existing Dwelling Are To Be Constructed At A Distance Less Than The Zoning Regulation Requirements.

Creating One Additional Lot With No Further Subdivision Potential Per Section 16.1202(b)(1)(viii) Of The

Revised 2009. Non-Structural Practices in Accordance With Chapter 5 Are Being Utilized. Non-Rooftop Disconnection (N-2) and Drywells (M-5) Are Proposed. Stormwater Management Devices Will Be Privately

21. This Plan Is Subject To The Amended Fifth Edition Of The Subdivision And Land Development Regulations.

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

This Area Designates A Private Sewage Easement Of At Least 10,000 Square Feet As Required By The Maryland State Department Of The Environment For Individual Sewage Disposal (COMAR 26.04.03). Improvements Of Any Nature In This Area Are Restricted Until Public Sewage Is Available. These

Easements Shall Become Null And Void Upon Connection To A Public Sewage System. The County Health

Regulations Per Council Bill 45–2003 And The Zoning Regulations As Amended By Council Bill 75–2003. 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

Providing Open Space For Non-Cluster Subdivisions in The RC-DEO Zoning District. The Developer Will

20. This Plan Has Been Prepared In Accordance With The Provisions Of Section 16.124 Of The Howard County Code And The Landscape Manual. Financial Surety For The Required Perimeter Landscaping Will Be Posted As Part Of The Building Permit For Lot 2 In the Amount \$900.000 Based On (03) Shade Trees 3300.00

31. Subdivision is Subject To Section 104.0.F. Of The Zoning Regulations. At Least 10% Of The Dwelling Units Shall Be Moderate Income Housing Units (M.I.H.U.) Or An Alternative Compliance Will Be Provided. The

b. M.I.H.U. Proposed = Developer Will Pursue Alternative Compliance By Paying A Fee-In-Lieu To The

34. The Lots Shown Hereon Comply With The Minimum Ownership Width And Lot Area As Required By The

35. No Noise Study Is Required Because The Project Does Not Fall Within The Guidelines Of Design Manual,

37. All Construction Shall Be In Accordance With The Latest Standards And Specifications Of Howard County

36. Historic Structures Exist Within The Limits Of This Plan Submission. Existing House is 50+ years old (circa

38. The Contractor Shall Notify The Department Of Public Works/Bureau Of Engineering/Construction Inspection

39. The Contractor Shall Notify "Miss Utility" At 1-800-257-7777 At Least 40 Hours Prior To Any Excavation

40. The Existing Topography Shown Hereon Is Based On Field Run Location Of Existing Driveway And On-Site Structures Based On A Field Run Survey Prepared By Fisher, Collins & Carter, Inc. Dated January, 2017.

41. Existing Utilities Shown Based On Available County Information And Field Locations By Survey Prepared By

45. The Maintenance Agreement For The Use-In-Common Driveway Is To Be Recorded Concurrent With The

43. Sight Distance At Lancelot Cross Was Determined To Be Adequate, Approved On August 23, 2017. 44. Well Must Be Drilled Prior To Howard County Health Department Signature Of The Final Plat.

Howard County Housing Department For The Units Required by The Development.

Division At (410) 313-1880 At Least Five (5) Working Days Prior To The Start Of Work.

42. Driveway Entrance To be Provided in Accordance With Howard County Detail R-6.06.

Developer Shall Execute A M.I.H.U. Agreement With The Department Of Housing To Indicate How The M.I.H.U. Requirement Will Be Met. The M.I.H.U. Agreement And Covenants Will Be Recorded Simultaneously With This

Plat In The Land Records Office Of Howard County, Maryland. This Development Will Meet M.I.H.U. Alternative Compliance By A Payment Of A Fee-In-Lieu To The Department Of Housing For Each Required Unit.

c. An Executed M.I.H.U. Agreement With The Howard County Housing Department Has Been Completed And

Ensure Safe Access For Fire And Emergency Vehicles Per The Following (Minimum) Requirements:

a). Width — 12 Feet (16 Feet Serving More Than One Residence);

b). Surface — Six (6") Inches Of Compacted Crusher Run Base With Tar And Chip Coating.

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

> 3050 LANCELOT CROSS ZONED: RC-DEO TAX MAP #23 GRID 0004 PARCEL: 62

THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: DECEMBER, 2017

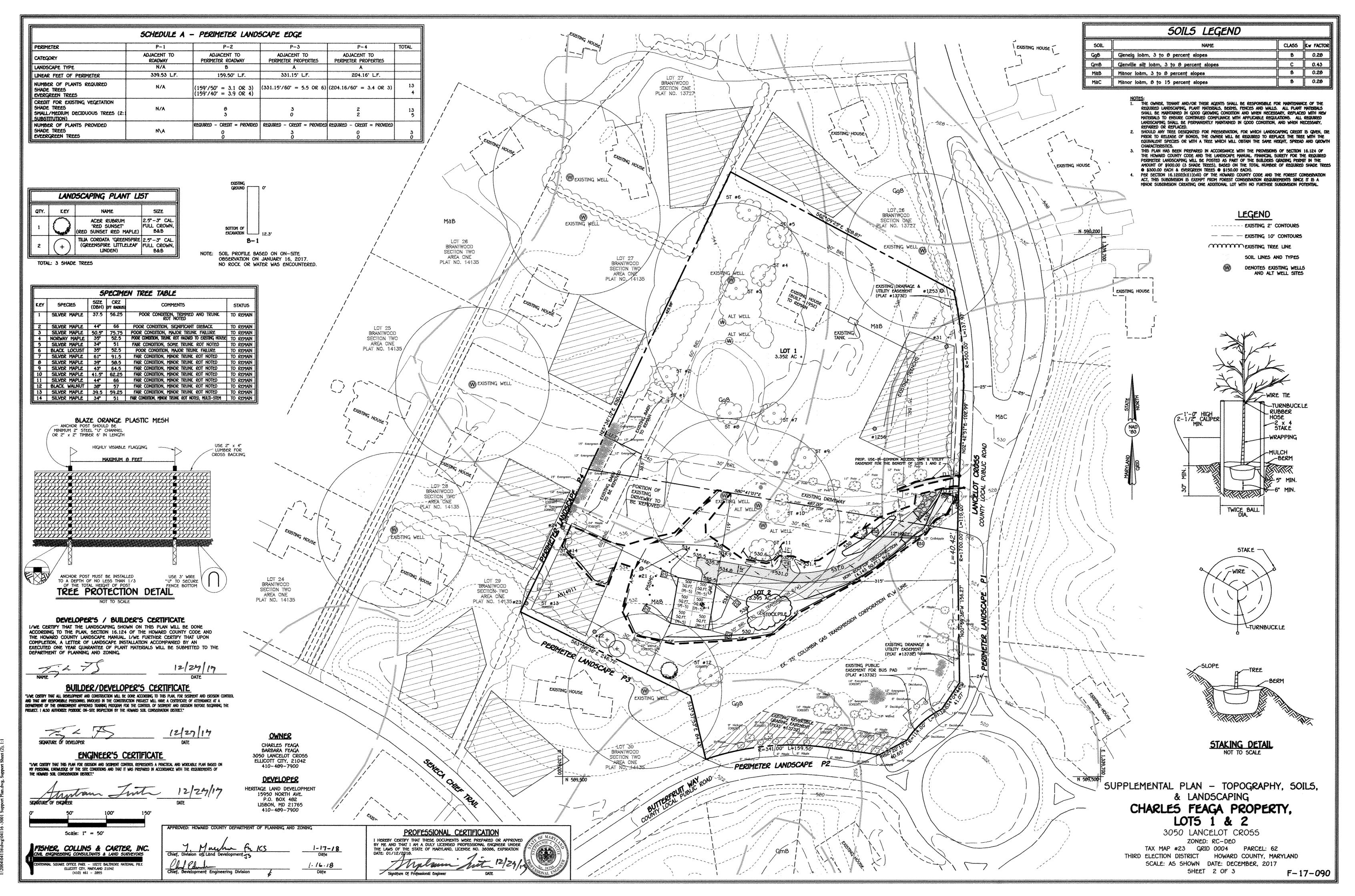
SHEET 1 OF 3

F-17-090

Material

FISHER, COLLINS & CARTER, INC.

ENGINEERING CONSULTANTS & LAND SURVEYORS



SOIL PREPARATION. TOPSOILING AND SOIL AMENDMENTS (B-4-2)

A. Soil Preparation

 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 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.

b. 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.

1. 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, sit loam, sandy clay loam, or loamy sand. Other soils may be used it 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, stag, 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 ivy, 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.

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

b. Uniformly distribute topsoil in à 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)

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

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 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 t

such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve. 4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or

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.

8-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

Conditions Where Practice Applies

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

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.

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 mixture must be applied

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 cook as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.

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.

Application
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 i. 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 be firm after

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

thydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer).

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 pounds per acre; K 0 (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.

1. Mulch Materials (in order of preference) a. Straw consisting of thoroughly threshed wheat, rye, out, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Low and not musty, moldy, caked, decayed, or excessively dusty. Note: Use only sterile straw mulch in areas where one species of grass is desired. Wood Cellulose Fiber Mulch (WCFM) consisting of specialty prepared wood cellulose processed into uniform fibrous physical state.

ENGINEER'S CERTIFICATE

"Live 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."

Moham Jun

1-17-18

TALL FESCUE

BUILDER/DEVELOPER'S CERTIFICATE

AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT VIII. HAVE A CERTIFICATE OF ATTENDANCE AT A

DEPARTMENT OF THE EMISCOMENT 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."

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, FOR SEDIMENT AND EROSION CONTROL

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

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 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum.

a. Apply mulch to all seeded areas immediately after seeding.
 b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.

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

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

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

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.

Exposed soils where ground cover is needed for a period of 6 months or less. For longer

1. Select one or more of the species or seed mixtures listed in Table 8.1 for the appropriate

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

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.

Depths

a. Select one or more of the species or mixtures listed in Table B.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(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 desthetic treatment may be found in USDA-NRCS Technical Field Office

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

a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will

b. Select one or more of the species or mixtures listed below based on the site conditions or purpose

Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The

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

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

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

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

Select turfgrass varieties from those listed in the most current University of 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

Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"

Ideal Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1, August 1

d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and

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 seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

Fertilizer Rate (10-20-20) Lime Rate

(1.0 lb/ 1000 sf) | (2 lb/ (90 lb/ 1000 sf) | 1000 sf)

P205

Mar. 1-May 15 1/4-1/2 45 lbs. 90 lb/ac 90 lb/ac 2 tons/ac Aug. 15-Oct. 15 in. per acre (2 lb/ (2 lb/ (90 lb/

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 moving of grasses will pose no difficulty.

Permanent Seeding Summary

Dates

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

a reliable means of consumer protection and assures a pure genetic line

bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.

Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.

ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid

Lime Rate

2 tons/ac

(90 lb/

1000 sf)

Fertilizer Rate

436 lb/ac

(10 lb/

1000 sf)

(10-20-20)

Temporary Seeding Summary

Seeding

Dates

9/9 - S/9S.

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

Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below

TEMPORARY SEEDING NOTES (8-4-4)

Hardiness Zone (from Figure 8.3): ____6b_

(lb/ac)

992

PERMANENT SEEDING NOTES (8–4–5)

Guide, Section 342 - Critical Area Planting.

in the Permanent Seeding Summary

summary is to be placed on the plan.

pounds per 1000 saudre feet.

ardiness Zone (from Figure B.3): <u>6b</u>

100

Seed Mixture (from Table 8.3): 8

Seed Mixture (from Table B.1):

BARRLINY

@ats

RYE

A. Seed Mixtures General Use

To stabilize disturbed soils with vegetation for up to 6 months

duration of time, permanent stabilization practices are required.

testing agency. Soil tests are not required for Temporary Seeding.

To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies

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.

operate safety. 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 the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

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. 38386, EXPIRATION DATE: 01/12/2018.

WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter). inspection of the uniformly spread slurry.

ii. 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

a. Class of turforass sod must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector. b. Sod must be machine cut at a uniform soil thickness to % inch, plus or minus % inch, at the time of cutting. Measurement for thickness must exclude top

growth and thatch. Broken pads and torn or uneven ends will not be acceptable. Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm

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

e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its installation.

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

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

c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface. d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet Complete the operations of laying, tamping, and irrigating for any piece of sod within eight hours.

a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day to prevent wilting.

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

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREAS

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

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions Where Practice Applies

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

1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.

2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching

1. Access the stockpile area from the upgrade side. 5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.

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

7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard 8-4-1 Incremental Stabilization and Standard 8-4-4 6. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated

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 exceeds 20 feet for 2:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section 8-3 Land Grading.

HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-313-1855 after the future LOD and projected areas are marked clearly in the field. A minimum of 48 hour notice to CID must be given at the following stages:

a. Prior to the start of earth disturbance,
b. Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading,
c. Prior to the start of another phase of construction or opening of another grading unit,
d. Prior to the removal or modification of sediment control practices.

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.

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.

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

controls, cases, swales, oricles, perimeter slopes, and all slopes steeper than 3 nonzontal 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.

All disturbed areas must be stabilized within the time period specified above in accordance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EXOSION 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-4-8) 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. B-4-6).

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 CD.

the CID. Site Analysis: Total Area of Site: Total Area of Site: 3.40 Acres (Lot 2)
Area Disturbed: 0.97 Acres
Area to be roofed or paved: 0.10 Acres
Area to be vegetatively stabilized: 0.79 Acres

Offsite waste/borrow area location: N/A.

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

Additional sediment control must be provided, if deemed necessary by the CID. The site and all controls shall be inspected by the contractor weekly; and the next

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 precipit 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 (NPDE5, MDE).

Trenches for the construction of utilities is limited to three pipe lengths or that which

an and shall be back-filled and stabilized by the end of each workday, whichever is

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 CID per the list of HSCD-approved field changes. Disturbance shall not occur outside the LO.D. A project is to be sequenced so th grading activities begin on one grading unit (maximum acreage of 20 ac. per grading unit) at a time. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the CID. Unless otherwise specified and approved by the CID, no more

than 30 acres cumulatively may be disturbed at a given time.

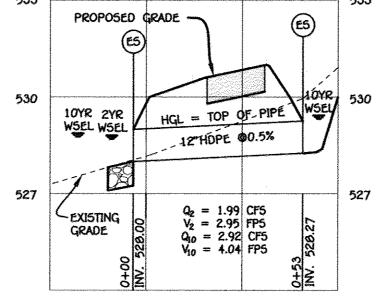
Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a sediment basin or other approved washout structure.

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

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

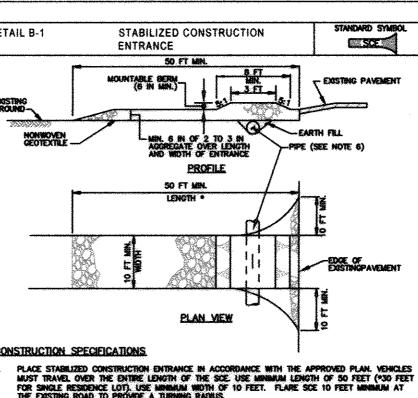
Use I and IP March 1 - June 15
Use III and IIP October 1 - April 30
Use IV March 1 - May 31

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.



STORM DRAIN PIPE SCHEDULE SIZE LENGTH 12" HOPE 53 LF.

STR #	COORDINATES	TOP ELEV	TYPE	INV IN	INV OUT
£51	N 589,810.4385 E 1,339,459.291		12" HDPE END SECTION		528.00
E52	N 509,010.4305 E 1,339,406.357	~~~	12" HDPE END SECTION	528.27	***************************************



DETAIL E-1

CONSTRUCTION SPECIFICATIONS

SILT FENCE

ELEVATION

CROSS SECTION

JOINING TWO ADJACENT SILT FENCE SECTIONS (TOP VIEW)

USE WOOD POSTS 1% X 1% \pm % INCH (MINIMUM) SQUARE OUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "1" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.

USE 36 INCH MIRIARIA POSTS DRIVEN 18 INCH MINIMARIA 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.

WARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

2011

USE MATTING THAT HAS A DESIGN VALUE FOR SIEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR

SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "I" SHAPED S WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AN 1 TO 1 % INCHES WIDE AND BE A MINIMUM OF 8 INCHES LONG. "I" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAMUST BE ROUGH-SAWN HARD-WOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND I SHAPE AT THE BOTTOM.

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

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL BROSION AND SEDIMENT CONTROL

SHEAR STRESS FOR PSSMC (LEFT) = 62.4 LBS/FT x 0.14 FT x 0.025 = 0.2 LBS/FT

2011

SEQUENCE OF CONSTRUCTION

OBTAIN A GRADING PERMIT AND HOLD PRE-CONSTRUCTION MEETING WITH COUNT

1-800-257-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 AT LEAST 24 HOURS BEFORE STARTING WORK.

EARTH DIKE. (1 DAY)
REMOVE NECESSARY TREES AND ROUGH GRADE LOT. (3 DAYS)
RISTALL TEMPORARY SEEDING WHERE NECESSARY. (1 DAY)
CONSTRUCT HOUSE AND DRIVEWAY. INSTALL SEPTIC SYSTEM. (4 MONTHS)
INSTALL ROOF LEADERS & DRYWELLS UPON CONSTRUCTION OF HOUSE, FINE GRADE.

INSTALL PERMANENT SOIL STABILIZATION MATTING IN SWALE AS SHOWN. (1 DAY) INSTALL PERMANENT SEEDING WITH CONSTRUCTION WHERE NECESSARY. (1 DAY)

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 MAY BE REMOVED. (3 DAYS PER LOT)

INSPECTOR. (2 WEEKS)
NOTIFY "MISS UTILITY" AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT

STABILIZATION MATTING CHANNEL APPLICATION

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

USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.

CENTER TO CENTER

WOVEN SLIT FRUM-

|----SF-----|

16 IN MEN. HEIGHT OF WOVEN SUT FILM GEOTEXTILI

PSSMC - * 0.2 lb/ft*
(* MOLIDE TREAR STREET)

DRIVEN WIN. FENCE POST LENGTH DRIVEN WIN. 18 IN INTO GROUND

LE IN MEN. DEPTH INTO GROUND

FENCE POST 18 IN MIN. — ABOVE GROUND

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 MINIMAIN OF 12 NICHES 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 NONHOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.

MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDMENT, ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDMENT SPILED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACULATING, SCRAPING, AND/OR SMEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDMENT CONTROL PRACTICE.

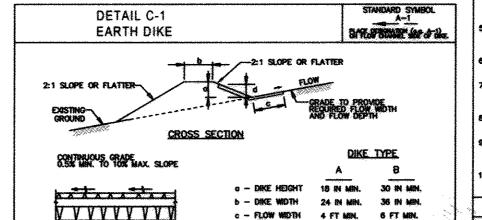
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

DETAIL E-3 SUPER SILT FENCE ----SSF----10 FT WAX. GALVANIZED CHAIN LINK FENCE WITH WOVEN SLIT FILM GEOTEXTILE MOVEN SUIT FILM GEOTEXTILE-ROW____

FASTEN WOVEN SUT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THUPSLOPE 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 SEDMENT BY PASS.

EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AS DEGREES TO THE MAIN FENCE AUXIMUM TO PREVENT RUNOFF FROM CODIC ARCUND THE EN PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING TO GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.

WARMAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL 2011



d - FLOW DEPTH 12 IN MIN. 24 IN MIN.

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

FLOW CHANNEL STABILIZATION

PLAN VIEW

SEED WITH STRAW WILLOH AND TACK. (NOT ALLOWED FOR CLEAR WATER SEED WITH SOIL STABILIZATION MATTING OR LINE WITH SOD. 4 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE PRESSED INTO SOIL A MINIMUM OF 7 INCHES AND FLUSH WITH GROUND.

CONSTRUCTION SPECIFICATIONS REMOVE AND DISPOSE OF ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF EARTHDRE.

EXCAVATE OR SHAPE EARTH DRIC TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROJECTIONS OR OTHER REPORTABLES ARE NOT ALLOWED. CONSTRUCT FLOW CHANNEL ON AN UNINTERRUPTED, CONTINUOUS GRADE, ADJUSTING THE LOCATION DUE TO FIELD CONDITIONS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.

PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

2011

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

ARTH DIKE. (1 DAY)

3050 LANCELOT CROSS

ZONED: RC-DEO TAX MAP #23 GRID 0004 PARCEL: 62 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

F-17-090

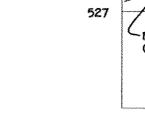
FISHER, COLLINS & CARTER. INC. VIL ENGINEERING CONSULTANTS & LAND SURVEYORS PLLICOTT CITY, MARYLAND 21042

OWNER CHARLES FEAGA BARBARA FEAGA 15950 NORTH AVE. P.O. BOX 462 LISBON, MD 21765 410-469-7900

3050 LANCELOT CROSS ELLICOTT CITY, 21042

DEVELOPER HERITAGE LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING



CULVERT PROFILE HORIZONTAL SCALE: 1"=30'

VERTICAL SCALE: 1"=3"

STRUCTURE SCHEDULE

SEDIMENT CONTROL NOTES & DETAILS CHARLES FEAGA PROPERTY, LOTS 1 & 2

SCALE: AS SHOWN DATE: DECEMBER, 2017 SHEET 3 OF 3