

TREE PLANTING DETAIL

landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced."

required materials are planted and/or revisions are made to applicable plans and certificates."

P-1

ADJACENT TO

ROADWAY

N/A

105.90 LF

* 17 SHADE TREES REQUIRED - 13 EXISTING SHADE TREES (CREDIT) = 4 SHADE TREES PROVIDED.

TOP OF ROOT CROWN

MAINTAIN GROUND LINE

WITH TOP OF ROOT CROWN

CONVEX BOTTOM 6" MIN. HT.

PERIMETER

LANDSCAPE TYPE

(2:1 SUBSTITUTION)

LINEAR FEET OF PERIMETER

NUMBER OF PLANTS REQUIRED

SHADE TREES SMALL/MEDIUM DECIDUOUS TREES

CREDIT FOR WALL, FENCE OR BERM

SMALL/MEDIUM DECIDUOUS TREES

SHADE TREES SMALL/MEDIUM DECIDUOUS TREES

NUMBER OF PLANTS PROVIDED

CATEGORY

CONSTRUCT 3" SAUCER RIM-FLOOD

WITH WATER TWICE WITHIN 24 HOURS

installed as required in the Landscape Manual."

	ADDRESS CHART
LOT NUMBER	STREET ADDRESS
LOT 1	6551 CEDAR LANE

USE 3' WIRE
"U" TO SECURE
FENCE BOTTOM

TOTAL

7 REQUIRED

13 CREDIT

*4 PROVIDED

TO A DEPTH OF NO LESS THAN 1/3 OF THE TOTAL HEIGHT OF POST

DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION

ROOT DAMAGE SHOULD BE AVOIDED.

ADJACENT TO

PERIMETER PROPERTIES

237.37 L.F.

(237.37'/60' = 3.95) = 4

N/A

1 SHADE TREE CREDIT

EVERGREENS=3 SHADE CREDIT

4 REQUIRED-4 CREDIT = 0

FOREST PROTECTION DEVICE ONLY.

RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.

BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO

TREE PROTECTION DETAIL

ADJACENT TO

Perimeter properties

209.00 L.F.

(209.00'/60' = 3.48) = 4

2 SHADE TREES CREDIT

4 REQUIRED-3 CREDIT = 1

: EVERGREENS=1 SHADE CREDIT

SITE DEVELOPMENT PLAN CEDAR VIEW

GRID No. 23 PARCEL NO. 260 TAX MAP No. 35 5TH FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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

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.

Contractor shall be responsible for notifying utility companies, utility contractors and "Miss Utility" a minimum of 48 hours prior to beginning any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Damage to existing structure and utilities shall be repaired at the expense of the Contractor.

Protection of existing vegetation to remain shall be accomplished by the temporary installation of 4 foot high snow fence or blaze orange safety fence at the drip line. Contractor id responsible for installing all material in the proper planting season for each

plant type. All planting is to be completed within the growing season of completion of site 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 Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on

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.

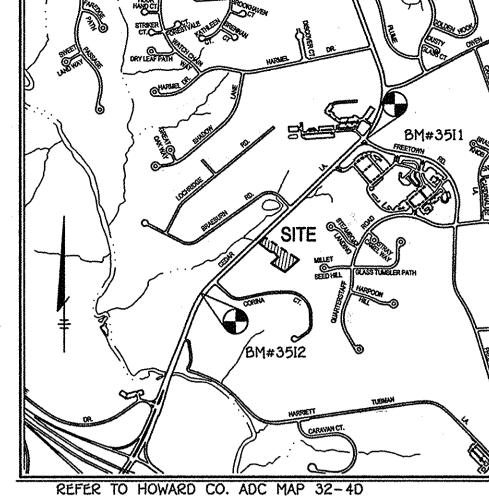
This plan is intended for landscape use only. see other plan sheets for more information on grading, sediment control, layout, etc.

GENERAL NOTES (cont'd)

- 31. ALL RESIDENTIAL DWELLING UNITS SHALL HAVE A 1 1/2" CONNECTION WITH A 1"OUTSIDE METER SETTING.
- 32. STORMWATER MANAGEMENT (SWM) IS PROVIDED FOR THIS PROJECT. THE ON-SITE PE OF 1.6" IS BEING TREATED THROUGH USE OF MICRO-BIORETENTION AND NON-ROOFTOP DISCONNECTION. 33. WATER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.1228 OF THE
- HOWARD COUNTY CODE. 34. PUBLIC WATER ALLOCATIONS WILL BE GRANTED AT TIME OF ISSUANCE OF THE BUILDING PERMIT IF CAPACITY
- IS AVAILABLE AT THAT TIME. COUNTY DESIGN MANUAL WHICH ON JANUARY 27, 2012 THE BUREAU OF ENGINEERING APPROVED A WAIVER TO LOT 1 AND LOT 2 TO CONNECT TO THE PUBLIC SEWER SYSTEM WITH THE FOLLOWING CONDITION: A. LOTS 1 AND 2 OF THE CEDARVIEW DEVELOPMENT MUST CONNECT TO THE PUBLIC SEWER SYSTEM WITHIN ONE YEAR AFTER THE PUBLIC SEWER ABUTTING THE LOTS IS CONSTRUCTED AND PLACED IN
- 36. A COMMUNITY MEETING WAS CONDUCTED AT THE TIME OF SUBDIVISION ON NOVEMBER 28, 2007 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 REGULATIONS. NO MEETING IS REQUIRED FOR THIS PLAN
- 37. THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 SQUARE FE REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS 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 SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE
- 38. ADJUSTMENTS TO SEPTIC EASEMENT AREA ARE NOT PERMITTED WITHOUT ADDITIONAL TESTING.

SITE ANALYSIS DATA CHART

- TOTAL AREA OF THIS SUBMISSION = 1.891 AC.+. LIMIT OF DISTURBED AREA = 1.100 Ac. * PRESENT ZONING DESIGNATION = R-20
- (PER 10/06/2013 COMPREHENSIVE ZONING PLAN) PROPOSED USE: RESIDENTIAL PREVIOUS HOWARD COUNTY FILES: F-08-185, PLAT NO.22364.
- TOTAL AREA OF FLOODPLAIN LOCATED ON SITE = 0.00 AC± TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0.00 AC+ TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0.00 AC. *
- TOTAL AREA OF STREAM (INCLUDING BUFFER) = 0.00 AC.+ TOTAL AREA OF EXISTING FOREST = 0.00 AC+
- TOTAL AREA OF FOREST TO BE RETAINED = 0.00 AC+
- TOTAL AREA OF LOTS / BUILDABLE PARCELS = 1.891 AC+ TOTAL GREEN OPEN AREA = 1.639 AC+
- TOTAL IMPERVIOUS AREA = 0.251 AC+ TOTAL AREA OF ERODIBLE SOILS = 0.00 AC.+



HOWARD COUNTY GEODETIC SURVEY CONTROL NO. 3511 E 1344893.6769 **ELEVATION: 400.103'**

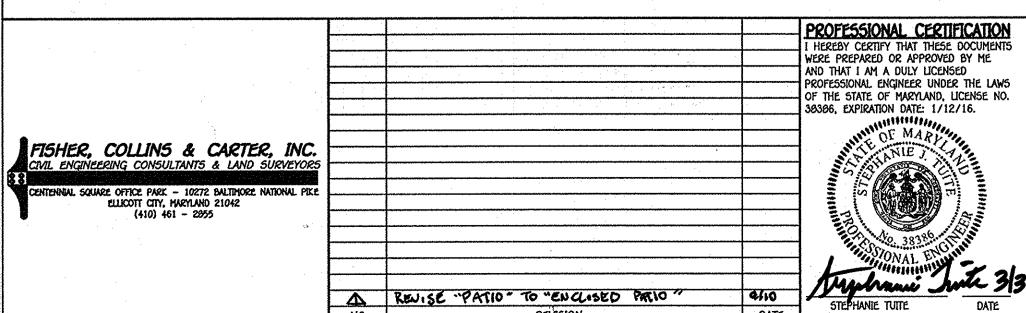
HOWARD COUNTY GEODETIC SURVEY CONTROL NO. 3512 N 555100.7760 E 1342733.0493 **ELEVATION: 329.702'**

GENERAL NOTES

- SUBJECT PROPERTY ZONED R-20 per 10/06/13 COMPREHENSIVE ZONING PLAN.
- TOTAL AREA OF SITE: 1.891 ACRES TOTAL NUMBER OF LOTS SUBMITTED: 1 SFD
- THE CONTRACTOR OR DEVELOPER SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION AT (410)313-1880 24-HOURS PRIOR TO THE COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- 6. THIS PROJECT IS SUBJECT TO HOWARD COUNTY FILES: PLAT NO. 22364, F-08-185 AND CONTRACT NO.44-4566
- 7. THIS PLAN IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT JUNE 7. 2007 BY FISHER, COLLINS AND CARTER, INC.
- 8. COORDINATES BASED ON NAD '83 , MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 3511 GA AND NO. 3512.

STATION NO. 3511 NORTH 557110.4035 EAST 1344893.6769 STATION NO. 3512 NORTH 555100,7760 EAST 1342733,0493

- 11. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- 12. ALL LOT AREAS ARE MORE OR LESS (*). 13. DISTANCES SHOWN ARE BASED ON SURFACE MEASUREMENT AND NOT REDUCED TO NAD '03 GRID
- MEASUREMENT.
- 14. B.R.L. DENOTES BUILDING RESTRICTION LINE. 15. A FEE IN LIEU OF FOREST CONSERVATION EASEMENT HAS BEEN PAID IN THE AMOUNT OF \$13,721.40 TO
- FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOREST CONSERVATION
- 16. A FEE IN LIEU OF PROVIDING OPEN SPACE HAS BEEN PAID IN THE AMOUNT OF \$1,500.00 UNDER
- 17. NOISE STUDY PREPARED BY MARS GROUP DATED OCTOBER, 2007. 10. THE 65 DBA NOISE CONTOUR LINE DRAWN ON THIS PLAN IS ADVISORY AS REQUIRED BY THE HOWARD
- COUNTY DESIGN MANUAL. CHAPTER 5. REVISED FEBRUARY, 1992, AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65 DBA NOISE EXPOSURE. THE 65 DBA NOISE LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN
- 19. LANDSCAPING HAS BEEN PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL, A LANDSCAPE SURETY FOR 1 SHADE TREE IN THE AMOUNT OF \$300.00 FOR LOT 1 WILL BE POSTED AS A PART OF THE GRADING PERMIT.
- 20. A PRIVATE USE-IN-COMMON DRIVEWAY ACCESS AND MAINTENANCE AGREEMENT FOR SHARED DRIVEWAY FOR LOTS 1 AND 2 HAS BEEN RECORDED IN LIBER 14866 AT FOLIO 335.
- 21. FOREST STAND DELINEATION AND WETLAND STUDY WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC DATED OCTOBER 26, 2007. NO WETLANDS OR STREAMS EXIST ON SITE PER F-08-185.
- 22. NO CEMETERIES EXIST ON THIS SITE BASED ON BOTH A SITE VISIT AND AN EXAMINATION OF THE HOWARD
- COUNTY CEMETERY INVENTORY MAP. 23. NO 100 YEAR FLOOD PLAIN EXISTS ON SITE.
- 24. THERE ARE NO 15-24.9% SLOPES ON THE SUBJECT PROPERTY. 25. THERE ARE NO 25% OR GREATER SLOPES ON THE SUBJECT PROPERTY.
- 26. FOR FLAG OR PIPE STEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT OF WAY LINE AND NOT ONTO
- THE FLAG OR PIPE STEM LOT DRIVEWAY. 27. MINIMUM BUILDING RESTRICTION SETBACKS FROM PROPERTY LINES AND PUBLIC ROAD RIGHTS-OF-WAY ARE
- TO BE IN ACCORDANCE WITH THE DEVELOPMENT CRITERIA. 28. THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL NO. 45-2003 AND THE ZONING REGULATIONS AS AMENDED UNDER COUNCIL BILL NO. 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 PERMIT 29. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS,
- CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16' FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACKS. THE 15' MINIMUM DISTANCE BETWEEN STRUCTURES DOES NOT APPLY TO THOSE REFERENCED FEATURES NOR BETWEEN OPEN DECKS AND A DWELLING STRUCTURE OR ANOTHER DECK.
- 30. FOR DRIVEWAY ENTRANCE DETAIL REFER TO HO.CO. DESIGN MANUAL VOL. IV DETAILS R.6.06. 31. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) **REQUIREMENTS:**
 - A.) WIDTH 12' (16' IF SERVING MORE THAN ONE RESIDENCE)
 - B.) SURFACE 6" OF COMPACTED CRUSHER RUN BASE W/TAR AND CHIP COATING (1-1/2" MIN.) C.) GEOMETRY MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45 FOOT TURNING RADIUS. D.) STRUCTURES - (BRIDGES/CULVERTS) CAPABLE OF SUPPORTING 25 GROSS TONS (H25-LOADING) E.) DRAINAGE ELEMENTS CAPABLE OF SAFETY PASSING 100 YEAR FLOOD WITH NO MORE THAN
 - 1 FOOT DEPTH OVER DRIVEWAY SURFACE. F.) STRUCTURE CLEARANCES - MINIMUM 12 FEET
 - G.) MAINTENANCE SUFFICIENT TO INSURE ALL WEATHER USE.
- GENERAL NOTES (CONTINUED THIS SHEET.)



• The owner, tenant and/or their agents shall be responsible for maintenance of the required landscaping, plant materials, 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 required

• "At the time of installment, all shrubs and other plantings herewith listed and approved for this site shall be of the proper height requirements in accordance with the Howard County Landscape Manual. In addition, no substitutions or relocation of required plantings may be made without prior review and approval from the Department

of Planning and Zoning. Any deviation from this approved Landscape Plan may result in denial or delay in the release of landscape surety until such time as all

• "Should any tree designated for preservation, for which credit is given, die prior to release of bonds, the owner will be required to replace the tree with the equivalent species or with a tree which will obtain the same height, spread and growth characteristics. The replacement tree must be a minimum of 3 inches in caliper and

P-2

ADJACENT TO

PERIMETER PROPERTIES

526.56 L.F.

(526.56'/60' = 0.77) = 9

N/A

76LF/60=1 CREDIT 1 SHADE TREE CREDIT

9 EVERGREENS=4 SHADE CREDIT

9 REQUIRED-6 CREDIT = 3

A Total Landscape Surety For 4 Shade Tree @ \$300/each = \$1,200.00 is provided With Grading Permit Surety agreement.

SCHEDULE A - PERIMETER LANDSCAPE CHART

APPROVED FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

5/9/2014

plan, Section 16.124 of the Howard County Subdivision and Land Development Regulations and the Landscape Manual. I/We further certify that upon completion, a letter of notice, accompanied by an executed one year guarantee of plant materials. will be submitted to the Department of Planning and Zoning.

Developer/Builder

1/We certify that the landscaping shown on this plan will be done according to the

OWNER/DEVELOPER MARK E. COLLETT. CHERIE COLLETT 6551 CEDAR LANE COLUMBIA, MARYLAND 21044-4020 410-336-3009

5-16-14 Chief, Development Engineering Division 5.15.14 parol 1. 6-94 5/16/14 irector - Department of Planning and Zoning PROJECT PARCEL NO. SECTION CEDARVIEW LOT 1 CENSUS TR. PLAT NO. BLOCK NO. TAX/ZONE ELEC. DIST. 6056.02 22364 23 R-20 35

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

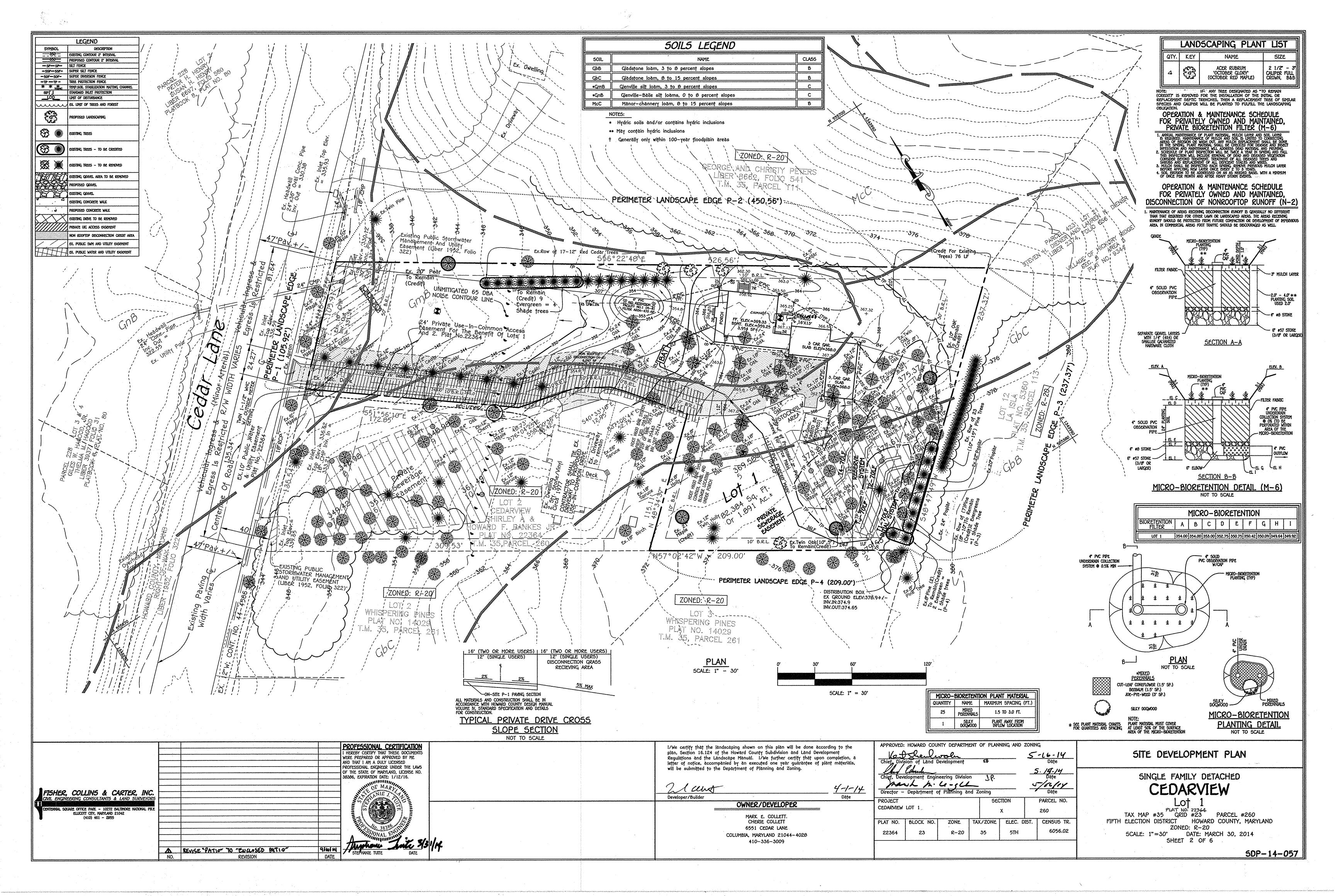
SINGLE FAMILY DETACHED

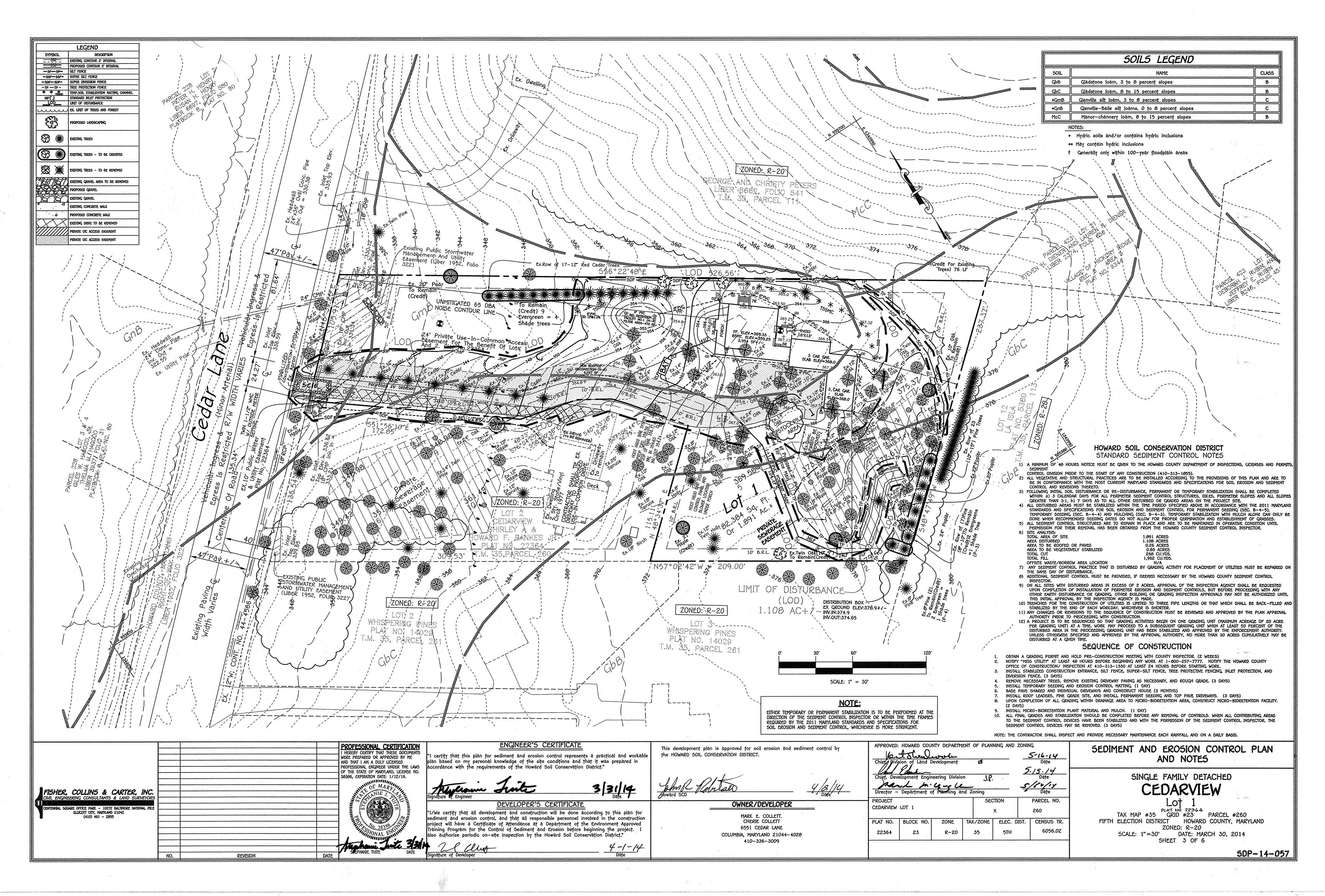
TITLE SHEET

Lot

PLAT NO. 22364
TAX MAP #35 GRID #23 PARCEL #260 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND ZONED: R-20 5CALE: 1"=30' DATE: MARCH 30, 2014 SHEET 1 OF 6

SDP-14-057





SOIL PREPARATION, TOPSOILING 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 to the contour of the slope.

b. Apply fertilizer and lime as prescribed on the plans.

- c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.
- a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:

i. Soil pH between 6.0 and 7.0.

ii. Soluble salts less than 500 parts per million (ppm). iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lovegrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.

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

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

c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.

3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

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 leavin the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to

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:

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 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.

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

b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.

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

C. Soil Amendments (Fertilizer and Lime Specifications)

1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses. 2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate

approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the 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 to

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

other suitable means.

5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

TEMPORARY SEEDING NOTES (B-4-4)

To stabilize disturbed soils with vegetation for up to 6 months

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

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

duration of time, permanent stabilization practices are required.

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.

2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.

3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

	•			
(from Figure B.; om Table B.1):	Fertilizer Rate (10-20-20)	Lime Rațe		
pplication Rate (lb/ac)	Seeding Dațes	Seeding Depths		
96	3/1 - 5/15	1"	436 b/ac (10 b/ 1000 sf)	2 tons/dc (90 lb/ 1000 sf)
72	0/15 - 10/15	1"		
112		1"		
_	oplication Rate (lb/ac) 96 72	96 72 Seeding Dates 3/1 - 5/15, 8/15 - 10/15	Oplication Rate (Ib/ac) Seeding Dates Seeding Depths 96 3/1 - 5/15, 8/15 - 10/15 1"	Oplication Rate (Ib/ac) Seeding Dates Seeding Depths 96 3/1 - 5/15, 8/15 - 10/15 1" 436 lb/ac (10 lb/ 1000 sf)

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

1. 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 B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.

b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or fo 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 in the Permanent Seeding Summary

2. Turfarass Mixtures

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

b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.

i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrication 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 Perennia 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 Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.

iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 square feet.

Select turforass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"

Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line

Ideal Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a) Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b) Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b)

d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1 1/2 inches in diameter The resulting seedbed must be in such condition that future moving of grasses will pose no difficulty.

e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

Permanent Seeding Summary

Hardi Seed	ardiness Zone (from Figure B.3): $6b$ Fertilizer Rate (10-20-20) eed Mixture (from Table B.3): 6							Lime Rațe
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P ₂ O ₅	K ₂ 0	
8	TALL FESCUE	100	Mar. 1-May 15 Aug. 15-Oct. 15	1/4-1/2 in.	45 lbs. per acre	90 lb/ac (2 lb/	90 lb/ac (2 lb/	(90 lb/
					(1.0 lb/ 1000 sf)	1000 sf)	1000 sf)	1000 sf)

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

a. Class of turforass sod must be Maryland State Certified. Sod labels must be made available to the job foreman and b. Sod must be machine cut at a uniform soil thickness to ¾ inch, plus or minus ¼ inch, at the time of cutting.

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

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

when suspended vertically with a firm grasp on the upper 10 percent of the section. d. Sod must not be harvested or transplanted when moisture content (excessively dry of wet) may adversely affect its

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 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

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

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

a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to b. After the first week, sod watering is required as necessary to maintain adequate moisture content. c. Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf must be removed by the initial cutting

or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified. ENGINEER'S CERTIFICATE I certify that this plan for sediment and erosion 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."

3/31/14

DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all 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."

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

MARK E. COLLETT. CHERIE COLLETT 6551 CEDAR LANE COLUMBIA, MARYLAND 21044-4028

410-336-3009

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING Kent Shen 5-16-14 mark polerale 5/16/14 PARCEL NO. SECTION CEDARVIEW LOT 1 TAX/ZONE | ELEC. DIST. CENSUS TR. PLAT NO. | BLOCK NO. | ZONE 6056.02 22364 35 23

CONSTRUCTION M SE ENTRANCE 8 FT WN. 3 FT EXISTING PAVEMENT NONWOVEN
CECTEXTILE ---PROFILE 50 FT MIN. PLAN VIEW CONSTRUCTION SPECIFICATIONS PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE, PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE, PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY, A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAYEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE. 2011

DETAIL E-3 ⊢—SSF—I 10 FT MAX 1-34 N MIN

36 IN MIN

GALVANIZED CHAIN LINK FENCE WITH WOVEN SLIT FILM GEOTEXTILE ELEVATION CHAIN LINK FENCING -WOVEN SLIT FILM GEOTEXTILE-FLOW ____ CROSS SECTION

SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG, "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWM HARDWOOD 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM. ONSTRUCTION SPECIFICATIONS INSTALL 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.

PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDIBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN. FASTEN 9 GAUGE OR HEAVER GALVANIZED CHAIN LINK FENCE (2% INCH MAXINUM OPENING) 42 INCHES IN HEIGHT SCHEELY TO THE FENCE POSTS WITH WIRE TIES OR HIIG RINGS. UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTERLINE, WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MAT SMOOTHI AND FIRMLY ON THE SEEDED SUFFACE. AVOID STRETCHING THE MATTING.

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 IS DECREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE 2011 MARYLAND DEPARTMENT OF ENVIRONMEN MATTER LANAGEMENT ADMINISTRATION

B-4-0 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREAS

[_] *****

Definition

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

slopes, benching must be provided in accordance with Section B-3 Land Grading.

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 teeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading. 3. Runoff from the stockpile area must drain to a suitable sediment control practice.

. 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

. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental stabilization and Standard 8-4-4 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 B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept

free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1

JOINING TWO ADJACENT SILT FENCE SECTIONS (TOP VIEW) CONSTRUCTION SPECIFICATIONS USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.

DETAIL E-1

STAPLE----

SILT FENCE

6 FT MAX. CENTER TO CENTER

WOVEN SLIT FILM

U B IN MIN. DEPT

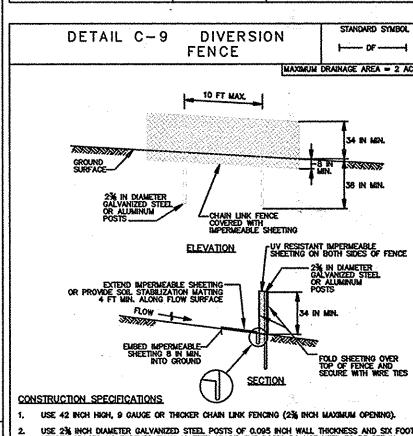
ELEVATION V

CROSS SECTION

STAPLE-

----SF-----

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL 2011



USE 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOO LENGTH SPACED NO FURTHER THAN 10 FEET APART. THE POSTS DO NOT NEED TO BE SET IN CONCRETE.

FASTEN CHAIN LINK FENCE SECURELY TO THE FENCE POSTS WITH WIRE TIES. SECURE 10 MR. OR THICKER UV RESISTANT, IMPERMEABLE SHEETING TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT TOP, MID SECTION, AND BELOW GROUND SURFACE. EXTEND SHEETING A MINIMUM OF 4 FEET ALONG FLOW SURFACE AND EMBED END A MINIMUM OF 8 INCHES INTO GROUND, SOIL STABILIZATION MATTING MAY BE USED IN LIEU OF IMPERMEABLE SHEETING ALONG FLOW SURFACE.

WHEN TWO SECTIONS OF SHEETING ADJOIN EACH OTHER, OVERLAP BY 6 INCHES AND FOLD WITH SEAM FACING DOWNGRADE.

U.S. DEPARTMENT OF AGRICULTURE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT MATER MANAGEMENT ADMINISTRATION

SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

> SINGLE FAMILY DETACHED CEDARVIEW

Lot PLAT NO. 22364 TAX MAP #35 GRID #23 PARCEL #260 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ZONED: R-20 SCALE: 1"=30' DATE: MARCH 30, 2014 SHEET 4 OF 6

5DP-14-057

BFISHER. COLLINS & CARTER. INC. IVIL ENGINEERING CONSULTANTS & LAND SURVEYOR FILLICOTT CITY, MARYLAND 21042

PROFESSIONAL CERTIFICATION

HEREBY CERTIFY THAT THESE DOCUMENTS

WERE PREPARED OR APPROVED BY ME

AND THAT I AM A DULY LICENSED

PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 30306, EXPIRATION DATE: 1/12/16.

OWNER/DEVELOPER

DETAIL E-9-1

-WOVEN SLIT FILM GEOTEXTILE

The application of seed and mulch to establish vegetative cover.

weaken bacteria and make the inoculant less effective

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

~2 IN x 4 IN FRAMIN

-TOP ELEVATION

-16 IN MIN.

ISOMETRIC VIEW

SECTION FOR TYPE A AND B

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDBJENT CONTROL

2011

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.

All seed must meet the requirement of the Maryland State Seed Law. All seed must be subject

to verify type of seed and seeding rate.

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 when the ground thaws.

Inoculants: The inoculant for treating legume seed in the seed in the

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.

Sod 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

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.

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

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.

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

the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P 0 (phosphorus),

hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one 2 5 time. Do not use burnt or hydrated lime when hydroseeding.

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

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

Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into

ii. WCFM, including dye, must contain no germination or growth inhibiting factors.

WCFM materials are to be manufactured and processed in such a manner that the wood

cellulose fiber mulch will remain in uniform suspension in water under agitation and will

blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.

WCFM material must not contain elements or compounds at concentration levels that will by

phyto-toxic.

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.

Apply mulch to all seeded areas immediately after seeding.

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

application rate to 2.5 tons per acre.

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

Perform mulch anchoring immediately following application of mulch to minimize loss by wind or

water. This may be done by one of the following methods (listed by preference), depending upon

the size of the area and erosion hazard:

i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large

areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.

Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

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

iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra

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

the HOWARD SOIL CONSERVATION DISTRICT.

so that the soil surface is not exposed. When using a mulch anchoring tool, increase the

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

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

200 pounds per acre; K O (potassium), 200 pounds per acre.

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

where one species of grass is desired.

of wood cellulose fiber per 100 gallons of water.

1. Mulch Materials (in order of preference)

Use four times the recommended rate when hydroseeding. Note: It is very important to keetp inoculant as cook as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can

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 8.4 regarding the quality of seed. Seed tags must be available upon request to the inspector

EDGE OF ROADWAY OR TOP-OF EARTH DIKE

DETAIL E-9-1

ONSTRUCTION SPECIFICATIONS

U.S. DEPARTMENT OF AGRICULTURE

ONSTRUCTION SPECIFICATIONS ISOMETRIC VIEW

U.S. DEPARTMENT OF AGRICULTURE
TIPAL RESOURCES CONSERVATION SERVICE
2011

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

ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION 8-4 VEGETATIVE STABILITATION

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

IN MIN. OVERLAP_ IT ROLL END

PROTECTION

FOR TYPE A, USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2X4 FRAME AS SHOWN. STRETCH & INCH GALVANIZED HARDWARE CLOTH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. FASTEN GEOTEXTILE SECURELY TO THE HARDWARE CLOTH WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWARE CLOTH A MINIMUM OF 18 INCHES BELOW THE WER CREST. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POSY, BE OVERLAPPED AND FOLDED, THEN FASTENED TO THE POST.

BACKFILL AROUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.

STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOSGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDMENT AND CLEAN, OR REPLACE GEOTEXTRIE AND STONE.

EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION.

USE WOVEN SUT FILM GEOTEXTRE AS SPECIFIED IN SECTION H-1 MATERIALS.

TYPE B

