

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

Using vegetation as cover for barren soil to protect it from forces that cause erosion.

Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized Vegetative stabilization specifications are used to promote the establishment of Vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow inflitration of rainfall, thereby reducing sediment loads and run-off to downstream areas, and improving wildlife habitat and visual resources.

CONDITIONS WHERE PRACTICE APPLIES

This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration Olup to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary Soil Stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc. EFFECTS ON WATER QUALITY AND QUANTITY Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration evaporation, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth.

Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone. Sediment control devices must remain in place during grading, seeded preparation, seeding, mulching and vegetative to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

A. Site Preparation

i. Install erosion and sediment control structures (either temporary of permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.

ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.

iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.

5. Soil Amendments (Fertilizer and Lime Specifications)

i. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.

ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Hazure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site tuly labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrame of the producer.

iii. Lime materials shall be ground limestone thydrated or burnt lime may be substituted which contains at least 50% total oxides (calcium code plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a *100 mesh sieve and 90-100% will pass through a *20 mesh sieve.

iv. Incorporate time and fertilizer into the top 3-5" of soil by discing or other suitable means.

Seedbed Preparation

i. Temporary Seeding

a. Seedbed preparation shall consist of loceening soil to a depth of 3" to 5" 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 loceened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 30) should be tracked lesving the surface in an irregular condition with ridges running parallel to the contour of the slope.

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

c. In corporate time and fertilizer into the top 3-5" of soil by discing or other suitable means.

ii. Permanent Seeding

a. Minimum soil conditions required for permanent vegetative establishment:

1. Soil pit shall be between 6.0 and 7.0.

2. Soluble salts shall be less than 500 parts per million (ppm). Soluble salts shall be less than 500 parts per million (opms). The soil shall contain less than 40% clay, but enough fine grained material 030% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegraes or serecia leapedcras is to be planted, then a sandy soil (C30% silt plus clay) would be acceptable.

serecia lespedezas is to be planted, then a sandy soil (CSOX sitt plus clay) would be acceptable.

4. Soil shall contain 1.5% minimum organic matter by weight.

5. Soil must contain sufficient pore space to permit adequate root penetration.

6. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.

Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosaned to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal evenion check slots to prevent topsoil to the surface area and to create horizontal evenion check slots to prevent topsoil to the surface area and to create horizontal evenion check slots to prevent topsoil sliding down a slope.

Apply soil amendments as per soil test or as included on the plans.

Mix soil amendments into the top 3-5" of topsoil by discing or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application. Where site conditions will not permit normal seconded preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 30) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and frishie. Seedbed loosening may not be necessary on nearly disturbed areas.

Note: Seed tags shall be made available to the inspector to verify type and rate of seed used.

Inoculars - The inocularst for treating legume seed in the seed mixtures shall be a pure culture of mitrogen-fixing bacteria prepared specifically for the species. Inocularits shall not be used later than

reprogen-tong pecteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75°-80° F. can welken bacteria and make the inoculant less effective. ethods of Seeding. Apply seed uniformly with hydroseeder (slury includes seed and fertilizer), broadcast or drop seeded, or a cultipactor seeder.

a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogens maximum of 100 lbs. per acre total of soluble nitrogens P205 (phosphorousk 200 be/as. t20 (potaskum): 200 be/as.

b. Lime - use only ground agricultural liminations. 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. On not use burnt or hydrated lims when hydroseeding.

c. Seed and fartilizer shall be mixed on site and seeding shall be done immediately and without interruption.

b. Limbe - use corty ground agricultures threshold the area are applied by indresseeding at any one indresseed the subject of the area and seeding and a content of the con

of water.

elication of liquid binders should be heavier at the edges where wind catches much, such as
in valleys and creet of banks. The remainster of areal should be appear uniform after binder
application. Synthetic binders — such as Acrylic DLR (Agro-Tack), DCA-70 Petroset, Terra Tax
II, Terra Tack AR or other approved equal may be used at rates recommended by the
manufacturer to anchor much.
Ightweight plastic netting may be stapled over the much according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

PATAPSCO VALLEY STATE PARK DORSEY CSPRING COURT _ DRIVE /ROLLING ~ RIDGE COURT **1**311t O HOWARD COUNTY OF CONTROL STATION NO. 17EA DRIVE NO. 17EB HOWARD RUN DRIVE

11. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISION OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE GRADING PERMIT IN THE 15, PAYMENT OF A FEE -IN-LIEU FOR \$ 2613,60 AMOUNT OF \$1500,00 (LOT 3 = \$300.00 & LOT 4 = \$ (200.00) was paid with F.99-165 to address THE 0.2 AC. REFORESTATION SCALE: 1"= 1200' 12. FEE-IN-LIEU OF STORMWATER MANAGEMENT WAS APPROVED 12/15/90 F 99-165. AFFORESTATION WHICH FULFILLED THE 13, FEE-IN-LIEU OF OPEN SPACE WAS FULFILLED UNDER F 99-165. FOREST CONSERVATION REQUIREMENTS THERE ARE NO WETLANDS ON SITE. PRIVATE 24' USE-IN-COMMON ACCESS EASEMENT TO PARCELS 44, 45 AND 46 UPON RELINQUISHING AND ABANDONMENT OF RIGHTS BY OWNERS 35 OF ALL PARCELS (44, 45 AND 46) TO EXISTING 12' PRIVATE RIGHT-OF-WAY PROPERTY OF KIDWELL RECORDED IN PLAT BOOK 4, FOLIO 21 L.1739 F. 59 ZONED: R-20 PARCEL 45 OPTIONAL BAY WINDOW BAY WINDOW PROPERTY OF DRIV DRIV VICTORIA LASZLO F, VERES U. 1444 F. 507 2.0'x5.0' ZONED R-20 FIREPLACE 2.0'x8.0'-OPTIONAL BAY WINDOW 30' PUBLIC WATER, SEWER AND UTILITY SHADE TREE 1:40 -5 TREES PROFILE PARCEL 46 PROPERTY OF ₩ 452.20 LIBER 2864, FOLIO 23 I VICTORIA earth dike type a-1 TO QUERT CLEAN WATER -EXISTING 12" RIGHT-OF-WAY PLAT GAR. PARCELS 44 45 AND 46
ONLY RETAIN LISE OF THE CAMBRIDGE ERS OPTIONAL 2'-M2973757 80.60 - OPTIONAL SUNROOM 20.67 10 2.0'x8.0' OPTIONAL BAY WINDOW L2.0'x5.0' FIREPLACE PROFILE 5.67'x8.00'-PLAN KUMMER PROPERTY PORCH FF 469.75 LOT 2 OPTIONAL 20' FRONT EXTENSION-BE 460,75 PRIVATE USE-IN-COMMON ACCESS EASEMENT ACROSS LOTS 1, 2 AND . ZONED: R-20 467.75 3 FOR THE USE AND BENEFIT OF LOTS 1, 2 AND 3. MAINTENANCE EARTH DIKE TYPE A. AGREEMENT RECORDED AMONG THE LAND RECORDS OF HOWARD TO DIVERT CLEAN COUNTY, MARYLAND. L. 5040 F. 0085 - 0090 tambridge' WATER B 462.90 LEGEND SYMBOL DESCRIPTION --- EXISTING CONTOUR 2' INTERVAL ---- EXISTING CONTOUR 10' INTERVAL PROPOSED CONTOUR 2' INTERVAL PROPOSED CONTOUR 10" INTERVAL SPOT ELEVATION -SF---SF- | SILT FENCE FIRST FLOOR ELEVATION DL.O.D. BASEMENT ELEVATION UTILITY EASEMENT. BOX A PROPERTY OF VICTORIA ** MODEL FITS BUT WITHOUT 2' FRONT AND REAR EXTENSIONS ROBERT E. REINHARDT, SO LIBER 3503, FOLIO 25 CAMBRIDGE** AND OPTIONAL SUNROOM. ZONED: R-20 L.O.D. LIMIT OF DISTURBANCE

> PROP. LANDSCAPE SITE DEVELOPMENT PLAN

KUMMER PROPERTY LOTS 3 AND 4

GR10 12 TAX MAP No: 17 PARCEL: 47 SECOND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND SCALE: 1"=30" DATE: FEBRUARY, 2000 SHEET 1 OF 2

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

1. 14' WIDTH (SERVING MORE THAN ON

2 SURFACE ; SIX INCHES OF COMPACTED

CRUSHER RUN BASE WITH TAR +

CHIP COATING

61476\61476 site plan lots 3 and 4.dwg

RESIDENCE)

USE -IN-COMMON DRIVEWAY



PAVING SECTION 4. INSTALL TEMPORARY SEEDING.

COATING

BASE

- G" COMPACTED CRUSHER RUN

ADDRESS CHART LOT No. STREET ADDRESS 2748 MILLERS WAY DRIVE 2752 MILLERS WAY DRIVE REV HOE. FOOTPRINT & ELEVATION 04.20.01 DESCRIPTION REVISION

SEQUENCE OF CONSTRUCTION

INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN. CLEAR AND GRUB TO LIMITS OF DISTURBANCE AND MASS GRADE.

REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED

AND PERMISSION IS GRANTED BY E/S CONTROL INSPECTOR.

OBTAIN GRADING PERMIT

NONERS CRITICATE "I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District." Earl D. Call 4.14.00

DEVELOPER'S CERTIFICATE

4.13.00 Jarod Spahn signature of Developer (Print name below signature)

DEVELOPER/OWNER CHARLES A. KUMMER III SONDRA CRAWFORD - KUMMER 9528 OLD FREDERICK ROAD ELLICOTT CITY, MD. 21043

U.S.D.A.-Natural Resources

This development plan is approved for soil erosion and sediment control by the Howell SQL CONSERVATION DISTRICT.

Hadrard SCD

Date

Conservation Service

BUILDER OLD TOWN CONSTRUCTION 8000 MAIN STREET ELLICOTT CITY, MD. 21043

GENERAL NOTES:

PRIOR TO THE START OF WORK.

COUNTY GEODETIC CONTROL STATIONS:

AT THE DEVELOPER'S EXPENSE.

TOTAL PROJECT AREA:

PRESENT ZONING: 12-20

IO, SITE ANALYSIS DATA:

THE CONTRACTOR SHALL NOTIFY THE. CONSTRUCTION INSPECTION DIVISION AT (410) 313-1000 AT LEAST (5) FIVE WORKING DAYS

2. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.

3. SUBJECT PROPERTY ZONED R-20 PER 10/18/93 COMPREHENSIVE ZONING

4. BOUNDARY AND PERFORMED BY: FISHER COLLINS AND CARTER INC.
ON OR ABOUT MARCH 1997

HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON HOWARD

7. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED

9. CONTRACTOR WILL CHECK SEWER HOUSE CONNECTION ELEVATION

AT EASEMENT LINE PRIOR TO CONSTRUCTION.

C. LIMIT OF DISTURBED AREA: 0.16 AC.

AREA OF PLAN SUBMISSION: 0.09 AC.+

TOPOGRAPHIC SURVEY PERFORMED BY: FISHER, COLLINS AND CARTER ON OR ABOUT MARCH 1997

Ø. THIS PLAN IS FOR HOUSE SITING AND LOT GRADING ONLY. IMPROVEMENTS SHOWN WITHIN THE RIGHT-OF-WAYS OF THIS S.D.P. ARE NOT USED FOR CONSTRUCTION.

FOR CONSTRUCTION SEE APPROVED ROAD CONSTRUCTION PLANS F98-57

AND/OR APPROVED WATER AND SEWER PLANS CONTRACT NO. 14-3651 D

E. PROPOSED USE FOR SITE AND STRUCTURES: SINGLE FAMILY DETACLEDID.U.

HOWARD COUNTY MONUMENT 17EA N 594357.64 E 1,357519.35

HOWARD COUNTY MONUMENT 17EB N 593013.92 E 1,355731.06

5/12/00 Date 5/15/00 SUBDIVISION SECTION/AREA LOT NO. 3 AND 4 BLOCK NO. ZONE TAX/ZONE ELEC. DIST. CENSUS TR. 14155 SECOND WATER CODE SEWER CODE 402 1454880

5/12/00 Date pl

APPROVED: DEPARTMENT OF PLANNING AND ZONING