

SDP 05-100

K:\Drawings 6\61113 Toomey\FINALS-SECTION TWO\61113 SDP LOTS 44-63.dwg, 6/22/20

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SDP 05-100

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 with vegetation, the soil is less likely to erode and more likely to allow infiltration 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, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

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. 50il Amendments (Fertilizer and Lime Specifications) 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. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee iii. Lime materials shall be ground limestone Undrated or burnt lime may be substituted) which contains

at least 50% total oxides (calcium oxide 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 lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

Seedbed Preparation
i. Temporary Seeding
a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of
a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of Seedbed preparation shall consist of loosening 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 loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.

Apply fertilizer and lime as prescribed on the plans.

In corporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means. anent seeding.

manenij seeding Minimum soli conditions required for permanent vegetative establishment: 1. Soli pit shall be between 6.0 and 7.0.

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

The soil shall contain less than 40% clay, but enough fine grained material 030% sift plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass of serecia lespedezas is to be planted, then a sandy soil (<30% sill plus clay) would be acceptable. Soil shall contain 1.5% minimum organic matter by weight.

Soil must contain sufficient pore space to permit adequate root penetration. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil. b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from

sliding down a slope.

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

d. Mix soil amendments into the top 3-5° of topsoil by disking 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 seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) 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 friable. Seedbed loosening may not be necessary on

D. Seed Specifications All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.

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

ii. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria 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 weaken bacteria and make the inoculant less effective.

Methods of Seeding:

Nethods of Seeding:

Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker seeder.

a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen maximum of 100 lbs. per acre total of soluble nitrogen. P205 (phosphorous): 200 lbs/ac; K20 (potassium): 200 lbs/ac.

b. 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 hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any time. Do not use burnt or hydrated lime when hydroseeding. ieed and fertilizer shall be mixed on site and seeding shall be done immediately and

without interruption

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

a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 265 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.

b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

a. 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.

b. Where practical, seed should be applied in two directions perpendicular to each other.

Apply half the seeding rate in each direction. Mulch Specifications (In order of preference)

Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be musty, molor, caked decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.

 ii. Wood Cellulose Fiber Mulch (WCFM)

 a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.

 b. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread shury.

c. WCFM, including dye, shall contain no germination or growth inhibiting factors.

d. WCFM materials shall 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 skurry.

ne mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings. WCFM material shall comtain no elements or compounds at concentration levels that will be phytol-toxic. will be phyto-toxic.

WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum. We sterile straw mulch should be used in areas where one species of grass is desired.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT 2. INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN 7 DAYS 3. CLEAR AND GRUB TO LIMITS OF DISTURBANCE 4 DAYS 4. INSTALL TEMPORARY SEEDING 60 DAYS 5. CONSTRUCT BUILDINGS 6. FINE GRADE SITE AND INSTALL PERMANENT SEEDING AND LANDSCAPE 7. REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED

AND PERMISSION IS GRANTED BY E/S CONTROL INSPECTOR.

G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.

i. If grading is completed outside of the seeding season, mulch along shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.

ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch

shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is uniform distribution and depin so that the soft suple is to be used, the rate should be increased to 2.5 tons/acre.

iii. Wood cellulose fiber used as a much shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.

Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by

reference), depending upon size of area and erosion hazard

preference, depending upon size of 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 two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safety. If used on sloping land, this practice should be used on the contour if possible.

ii. Wood cellulose fiber may be used for anchoring straw. The fiber, binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water. of water.

iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and crest of banks. The remainder of area 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 mulch.

V. Linhtweight plastic mettion may be standed over the mulch according to magnetic transfer.

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

All cuts slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15.

ii. Construction sequence (Refer to Figure 3 below): a. Excayate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excayation.

b. Perform Phase 1 excayation, dress, and stabilize.

c. Perform Phase 2 excayation, dress and stabilize.

Overseed Phase 1 areas as

necessary.

Perform final phase excavation, dress and stabilize. Overseed previously seeded

Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions int he operation of completing the operation out of the seeding season will necessitate the application of temporary stabilization. Incremental Stabilization of Embankments - Fill Slopes Embankments shall be constructed in lifts as prescribed on the plans.

ii. Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches

15." or when the grading operation ceases as prescribed in the plans.

iii. At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge

of the embankment to intercept surface runoff and convey it down the slope in a non-crosive manner to

a sectional variation.

of the embankment to intercept surface runoft and convey it down the slope in a non-excesse a sediment trapping device.

a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoft around the fill. Construct slope silt fence on low side of fill as shown in Figure 5, unless other methods shown on the plans address this area.

b. Place Phase 1 embankment, dress and stabilize.

c. Place Phase 2 embankment, dress and stabilize.

d. Place final phase embankment, dress and stabilize. Overseed previously seeded areas as necessary. areas as necessary.

Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of and placement of topsoil (if required) grading and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

GROUND

FENCE POST SECTION

UNDISTURBED

Test: MSMT 509

Test: MSMT 509

Test: MSMT 322

Silt Fence Length

unlimited

1,000 feet

750 feet

500 feet

250 feet

GROUND

-MINIMUM 20" ABOVE

TISTISTISTISTISTISTIS

THE GROUND

- FENCE POST DRIVEN A

MINIMUM OF 16" INTO

GROUND

10' MAXIMUM CENTER TO

FLOW PERSPECTIVE VIEW

CROSS SECTION

SECTIONING TWO ADJACENT SISTAPLE

Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the

(minimum) round and shall be of sound quality hardwood. Steel posts will be

standard T or U section weighting not less than 1.00 pond per linear foot.

2. Geotextile shall be fastened securely to each fence post with wire ties

or staples at top and mid-section and shall meet the following requirements

20 lbs/in (min.)

3. Where ends of geotextile fabric come together, they shall be overlapped,

4. Silt Fence shall be inspected after each rainfall event and maintained when

bulges occur or when sediment accumulation reached 50% of the fabric height.

Slope Length

unlimited

125 feet

100 feet

60 feet

40 feet

20 feet

system, soil Class A) maximum slope length and silt fence length will be

unlimited. In these areas a silt fence may be the only perimeter control

SILT FENCE

NOT TO SCALE

Note: In areas of less than 2% slope and sandy soils (USDA general classification

75% (min.)

Silt Fence Design Criteria

folded and stapled to prevent sediment bypass.

0.3 gal ft / minute (max.)

FENCE SECTIONS

TOP VIEW

ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter

STAPLE

- CENTER -

36" MINIMUM FENCE

POST LENGTH

FLOW

EMBED GEOTEXTILE CLASS F

INTO THE GROUND

STANDARD SYMBOL

_____SF ____

TISTISTISTISTISTISTISTISTI

A MINIMUM OF 8" VERTICALLY V

for Geotextile Class F

Tensile Strength

Filtering Efficiency

Tensile Modulus

Flow Rate

Slope Steepness

Flatter than 50

50:1 to 10:1

10:1 to 5:1

5:1 to 3:1

3:1 to 2:1

2:1 and steeper

FLOW

- 36" MINIMUM LENGTH FENCE POST,

-16" MINIMUM HEIGHT OF GEOTEXTILE CLASS

NOTE: FENCE POST SPACING

TINTINTINTIN

SHALL NOT EXCEED 10

CENTER TO CENTER

GROUND? SURFACE

21/2" DIAMETER /

GALVANIZED

OR ALUMINUM

P05T5

MINIMUM INTO GROUND

* IF MULTIPLE LAYERS ARE

by 6" and folded.

Geotextile Class F

Tensile Strength

Filtering Efficiency

0 - 10% 0 - 10:1

10 - 20% 10:1 - 5:1

20 - 33% 5:1 - 3:1

33 - 50% 3:1 - 2:1

2:1 +

50% +

Flow Rate

REQUIRED TO ATTAIN 42"

CHAIN LINK FENCING-

EMBED FILTER CLOTH 8"

required except on the ends of the fence.

every 24" at the top and mid section.

DRIVEN A MINIMUM OF 16" INTO

GROUND

SEDIMENT CONTROL NOTES

A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LISCENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855). 2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED CCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS

FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7
CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 31, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

4) ALL SEDIMENT TRAPS/ASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL STORM DRAINAGE.

5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 50), 500 (SEC. 54), TEMPORARY SEEDING (SEC. 50), AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR HEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT 7) SITE ANALYSIS: TOTAL AREA OF SITE AREA DISTURBED 1.473 ACRES

AREA TO BE VEGETATIVELY STABILIZED 8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE

AREA TO BE ROOFED OR PAVED

SAME DAY OF DISTURBANCE.

ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. 10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED OF OUR COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL

11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGHTS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

118/18/11

" MINIMUM

FLOW

TRIKIKIK

- 16" MIN. 15T LAYER OF

STANDARD SYMBOL

-- 55F ---

filter cloth 🛪

CHAIN LINK FENCE

WITH 1 LAYER OF

Construction Specifications

latest Maryland State Highway Details for Chain Link Fencing. The specification

The lower tension wire, brace and truss rods, drive anchors and post caps are not

for a 6' fence shall be used, substituting 42" fabric and 6' length posts.

2. Chain link fence shall be fastened securely to the fence posts with wire ties.

3. Filter cloth shall be fastened securely to the chain link fence with ties spaced

5. When two sections of filter cloth adjoin each other, they shall be overlapped

develop in the silt fence, or when silt reaches 50% of fence height

7. Filter cloth shall be fastened securely to each fence post with wire ties or

6. Maintenance shall be performed as needed and silt buildups removed when "bulges"

staples at top and mid section and shall meet the following requirements following

0.3 gal/ft /minute (max.) Test: MSMP 322

Test: MSMT 509

Test: MSMT 322

1,500 feet

500 feet

250 feet

4. Filter cloth shall be embedded a minimum of 6" into the ground.

50 bs/in (min.)

75% (min.)

20 lbs/in (min.)

Design Criteria

Unlimited

200 feet

100 feet

100 feet

50 feet

SUPER SILT FENCE

1. Fencing shall be 42" in height and constructed in accordance with the

FILTER CLOTH

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed. Seedbed Preparation: Loosen upper three inches of soil by raking. discing or other acceptable means before seeding, if not previously

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs.

per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs. per 1000 sq.ft.). 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 ibs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sa.ft.) before seeding. Harrow or disc into upper three inches of soil.

Seeding: For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.05 lbs. per 1000 sq.ft.) of weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following

1) 2 tons per acre of well-anchored mulch straw and seed as soon as possible in the spring. 2) Use sod.

3) Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw. Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on

Maintenance: Inspect all seeded areas and make needed repairs. replacements and reseedings.

flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal.

per 1000 sq.ft.) for anchoring.

CROSS-SECTION

EDGE OF MATTING

ON 2' CENTERS

TEMPORARY SEEDING NOTES

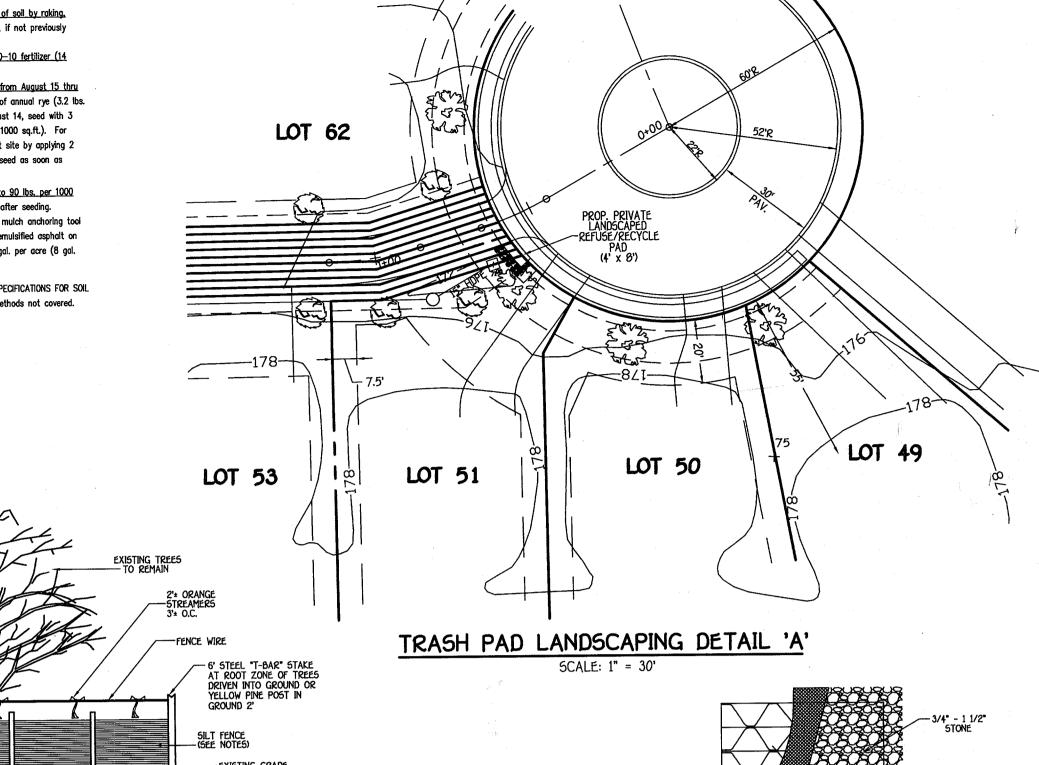
Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed Seedbed Preparation: Loosen upper three inches of soil by raking discing or other acceptable means before seeding, if not previously

Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.).

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lbs per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sa.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

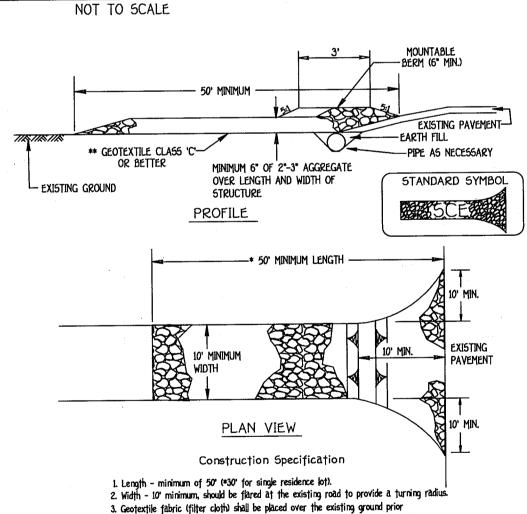


GEOTEXTILE CLASS E-

1. Silt Fence to be heeled into the soil. 2. Wire, snow fence, etc. for tree protection only. 3. Boundaries of Retention Area will be established as part of the forest conservation plan review process.

4. Boundaries of Retention Area should be staked and flagged prior to installing device. 5. Avoid root damage when placing anchor posts 6. Device should be properly maintained throughout construction.

SILT FENCE AND TREE PROTECTION



to placing stone. **The plan approval authority may not require single family residences to use geotextile. 4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete

equivalent shall be placed at least 6" deep over the length and width of the entrance. 5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6° minimum will be required Location - A stabilized construction entrance shall be located at every point

NOT TO SCALE

where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance. STABILIZED CONSTRUCTION ENTRANCE

7. Protection signs are also required, see Figure C-4. 8. Locate fence outside the Crictical Root Zone STANDARD SYMBOL AGIP CROSS SECTION MAX. DRAINAGE AREA = 1/4 ACRE Construction Specifications 1. Lift grate and wrap with Geotextile Class E to completely cover all openings then set grate back in place. 2. Place 3/4" to 11/2" stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration AT GRADE INLET PROTECTION NOT TO SCALE b 21 SLOPE OR FLATTER EXCAVATE TO PROVIDE REQUIRED FLOW WIDTH GRADE LINE-AT DESIGN FLOW DEPTH a-dike height 10" POSITIVE DRAINAGE SUFFICIENT TO DRAIN b-dike width c-FLOW WIDTH 4' PLAN VIEW FLOW CHANNEL STABILIZATION

GRADE 0.5% MIN. 10% MAX. . Seed and cover with straw mulch. 2. Seed and cover with Erosion Control Matting or line with sod. 3. 4" - 7" stone or recycled concrete equivalent pressed into the soil 7" minimum

PLAN/CUT AWAY VIEW

---- INLET GRATE

--- 6" OVERLAP

— GEOTEXTILE CLASS E

DIKE A DIKE B

I-FLOW DEPTH 12°

STANDARD SYMBOL

A-2 B-3

→ -/**→** -

Construction Specifications I. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1% 2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.

3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity. 4. All trees, brush, stumps, obstructions, and other objectionable

material shall be removed and disposed of so as not to interfere with the proper functioning of the dike. 5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be

free of bank projections or other irregularities which will impede 6. Fill shall be compacted by earth moving equipment. 7. All earth removed and not needed for construction shall be placed

each rain event.

so that it will not interfere with the functioning of the dike. 8. Inspection and maintenance must be provided periodically and after EARTH DIKE

NOT TO SCALE

4" OVERLAP OF MATTING

STRIPS WHERE TWO OR

MORE STRIP WIDTHS AR

STAPLES ON 18" CENTERS

REQUIRED. ATTACH

STAPLE OUTSIDE

EDGE OF MATTING

TYPICAL STAPLES NO. 1 GAUGE WIRE

on 2' centers

EROSION CONTROL MATTING NOT TO SCALE

Note: If flow will enter from the edge of the matting then the area

Construction Specifications

between staples.

1. Key-in the matting by placing the top ends of the matting in a

2. Staple the 4" overlap in the channel center using an 10" spacing

3. Before stapling the outer edges of the matting, make sure the

4. Staples shall be placed 2' apart with 4 rows for each strip, 2

5. Where one roll of matting ends and another begins, the end of

the top strip shall overlap the upper end of the lower strip by 4"

shiplap fashion. Reinforce the overlap with a double row of staples

matting is smooth and in firm contact with the soil.

outer rows, and 2 alternating rows down the center.

spaced 6" apart in a staggered pattern on either side.

6. The discharge end of the matting liner should be similarly

secured with 2 double rows of staples.

effected by the flow must be keyed-in.

narrow trench, 6" in depth. Backfill the trench and tamp firmly to

conform to the channel cross-section. Secure with a row of staples

about 4" down slope from the trench. Spacing between staples is 6".

NOT TO SCALE ENGINEER'S CERTIFICATE

DEVELOPER'S CERTIFICATE "I/We certify that all development and construction will be done according to this plan, for sediment and erosion control and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before

Reviewed for HOWARD SCD and meets Technical Requirements 7/7/05 Conservation Service ARD SOIL CONSERVATION DISTRICT

> BUILDER 6200 OLD DOBBIN LANE **SUITE 190** COLUMBIA, MARYLAND 21045

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING 7/21/05 Date anulter gus ector - Department of Planning and Zoning PROJECT 44 THRU 63 SECTION TWO VESLEY WOODS TAX/ZONE | ELEC. DIST. CENSUS TR. BLOCK NO ZONE 17188 THRU 17191 6012.0 FIR5T SEWER CODE WATER CODE

SEDIMENT/EROSION CONTROL NOTES & DETAILS

SINGLE FAMILY DETACHED

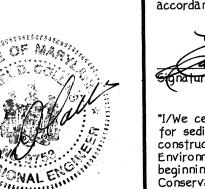
WESLEY WOODS SECTION TWO LOTS 44 THRU 63

TAX MAP NO.: 38 PARCEL NO.: 162 GRID NO.: 4 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND DATE: FEBRUARY, 2005 5CALE: 1"= 30"

SDP 05-100

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

DATE



'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." 6.22.05

Date EARL D. COLLINS

beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

C & C DEVELOPMENT, LLC 10176 BALTIMORE NATIONAL PIKE SUITE 207A ELLICOTT CITY, MARYLAND 21042 410-203-9900

RICHMOND AMERICAN HOMES OF MD. 410-872-0267

NO.

Signature of Engineer

Signature of Developer/Builder JOHN RICE Agent Richmond American Homes of Md

OWNER/DEVELOPER

7640000 E-15

SHEET 4 OF 4