

entinual square office park - 10272 Baltimore national pike

SUPER SILT FENCE

PLANTING SPECIFICATIONS

Plants, related material, and operations shall meet the detailed

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 bifest takens on the instance of the state o infestations or objectionable disfigurements. Plant material that is weak or which has been cut back from larger grades to meet specified requirements will be rejected. Trees with forked leaders will not be accepted. All plants shall be freshly dug; no healed-in plants from cold storage will be accepted.

Unless otherwise specified, all general conditions, planting operations, details and planting specification shall conform to Landscape Specification Guidelines for Baltimore-Washington 'opolitan Areas'. (hereinafter 'Landscape Guidelines') approve 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 the plan take precedence 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

Planting mix shall be as follows: Deciduous Plants - Two parts topsoll, 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. Cautioni 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,

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 pronote 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 downstrean areas, and improving wildlife habitat and visual resources.

CONDITIONS WIERE PRACTICE APPLIES

This practice shall be used on denuded areas as specified on the plans and nay be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration Diup to one year), and Pernanent Seeding, for long term vegetative cover.

Examples of applicable areas for Temporary Seeding are temporary Soil Stockpiles, cleared areas being left lide between construction phases, earth alkes, etc. and for Pernanent Seeding are lawns, dans, cut and fill slopes and other areas at final grade, forner stockpile and staging areas, etc.

EFFECTS DN VATER 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 natter content and improve the water holding capacity of the soil and subsequent plant growth.

Vegetation will help reduce the novement of sediment, nutrients, and other chericals 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 renain in place during grading, seedbed preparation, seeding, nutching and vegetative establishment 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.

A Site Preparation SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

A. Site Preparation

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

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

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

12. Soil Amendments (Fertilizer and Line Specifications)

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

13. Fertilizers shall be uniform in composition, free flowing and suitable for accurate analysis in the second of the secon A. Site Preparation

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. Hance may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the producer.

III. Line materials shall be ground linestone (hydrated or burnt line may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Linestone 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.

reserves that at least 50% will pass through a e100 nesh sieve and 90-100% will pass through a nesh sieve.

Iv. Incorporate line and fertilizer into the top 3-5° of soil by discing or other suitable neans.

C. Seedbed Preparation

I. Temporary Seeding

a. Seedbed preparation shall consist of loosening soil to a depth of 3° to 5° by neans of suitable agricultural or construction equipment, such as disc harrows or chisel place or rippers nounted on construction equipment. After the soil is loosened it should not be rolled or dragged snooth, but left in the roughened condition. Sloped areas (greater than 31) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.

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

c. In corporate line and fertilizer into the top 3-5° of soil by discing or other suitable neans.

I. Pernanent Seeding

a. Minimum soil conditions required for pernanent vegetative establishments.

J. Soil ph shall be between 6.0 and 70.

2. Soluble soits shall be less than 500 parts per million (ppn).

3. The soil shall contain less than 40% clay, but enough fine grained naterial 0.30% sit plus clay) to provide the capacity to hold a noderate anount of noisture. An exception is if lovegrass or serecia lespeciase is to be planted, then a sandy soil (2002 sit plus clay) would be acceptable.

4. Soil shall contain 1.5% nihimum organic natter by weight.

5. Soil nust contain sufficient pore space to pernit adequate root penetration.

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

b. Areas previously graded in confornance with the drawings shall be naintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5° to pernit bonoling 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 t

to the surface area and to create horizontal erosion check slots to prevent topsoil from 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 snooth 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 31) 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 newly disturbed areas.

Seed Specifications

L. All seed must neet 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 nonths inveitately preceding the date of sowing such material on this job.

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

I. Inoculant — The inoculant for treating legune seed in the seed inctures shall be a pure culture of nitrogen-fibring 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, lise four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Tenperatures above 75°-80° F. can weaken bacteria and nake the inoculant less effective.

Methods of Seeding

L. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drap 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; naximum of 100 lbs. per acre total of soluble nitrogen; P205 (phosphorous); 200 lbs/ac; K20 (potassium) 200 lbs/ac.

b. Line — use only ground agricultural linestone, (Up to 3 tons per acre nay be applied by hydroseeding). Hornally, not nore than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated line when hydroseeding shall be done invedictely and without interruption.

c. Seed and fertilizer shall be noted on site and seeding shall be done innediately and without interruption.

i. Bry Seeding: This includes use of conventional drop or broadcast spreaders.

o. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Pernament 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. Brill 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.

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)

Mulch Specifications (In order of preference)
i. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be musty, noldy, called, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.

I. Vood 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 unifornly spread slurry.

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

d. WCFM naterials shall be nanufactured and processed in such a namer that the wood cellulose fiber nulch will renain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a honogeneous slurry. The nulch naterial shall form a blotter-like ground cover, on application, having noisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.

e. WCFM material shall contain no elements or compounds at concentration levels that will be phytol-toxic.

f. VCFM must conform to the foliowing characters.

F. VCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., phi range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

Note: Diny sterile straw mulch should be used in areas where one species of grass is desired. Mulching Seeded Areas - Mulch shall be applied to all seeded areas inmediately 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.

in this section and naintained until the seeding season returns and seeding can be performed in accordance with these specifications.

I. When straw nulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniforn loose depth of between 1° and 2°. Mulch applied shall achieve a uniforn distribution and depth so thot the soil surface is not exposed. If a nulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.

II. Wood cellulose fiber used as a nulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be nixed with water, and the nixture shall contain a naximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.

Securing Straw Mulch Auchoring: Mulch anchoring shall be performed innediately following nulch application to nininize loss by wind or water. This may be done by one of the following nethods (listed by preference), depending upon size of area and erosion hazard:

A mulch anchoring tool is a tractor drawn implement designed to punch and anchor nulch into the soil surface a minimum of two (2) inches. This practice is nost effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour if possible.

I. 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 nixed with water and the nixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

III. Application of liquid binders should be heavier at the edges where wind catches mulch, such as

of water.

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

EARTH DIKE

NOT TO SCALE b 21 SLOPE OR FLATTER 2:1 SLOPE OR FLATTER - EXCAVATE TO PROVIDE REQUIRED FLOW WIDTH AT DESIGN FLOW DEPTH

CUT OR FILL -CRUSS SECTION POSITIVE DRAINAGE SUFFICIENT TO DRAIN CUT DR FILL SLOPE ---PLAN VIEW

HOWARD COUNTY

a-DIKE HEIGHT c-FLOW WIDTH d-FLOW DEPTH STANDARD SYMBOL A-2 B-3

1/3/02 Date

SEDIMENT CONTROL NOTES

1. A Minimum Of 48 Hours Notice Must Be Given To The Howard County Department Of Inspections, Licenses And Pernits, Sediment Control Division Prior To The Start Of Any Construction (313-1855).

2. All Vegetative And Structural Practices Are To Be Installed According To The Provisions Of This Plan And Are To Be In According To The Provisions Of This Plan And Are To Be In Conformance With The Host Current Maryland Standards And

3. Following Initial Soil Disturbance Or Re-Disturbance, Permanent Or Temporary
Stabilization Shall Be Completed Vithin: A) 7 Calendar Days For All Permeter Sediment
Control Structures, Dikes, Permeter Slopes And All Slopes Steeper Than 34, B) 14 Days
As To All Other Disturbed Or Graded Areas On The Project Site. As To All Other

Disturbed Or Graded Areas On The Project Site. 4. All Sediment Traps/Basins Shown Must Be Fenced And Varning Signs Posted Around Their Perimeter In Accordance Vith Vol. 1, Chapter 12, Df The Howard County Besign Manual, Storn Brainage. Chapter 12, Df The Howard County Besign Manual, Storn Brainage.

5. All Disturbed Areas Must Be Stabilized Within The Tine Period Specified Above in Accordance With The 1994 Haryland Standards And Specifications For Soil Erosion And Seclinent Control For Pernanent Seeding (Sec. 51), Soil (Sec. 54), Temporary Seeding (Sec. 50), Pernanent Seeding (Sec. 51), Soil (Sec. 54), Temporary Seeding (Sec. 50), And Mulching (Sec. 52), Temporary Stabilization With Mulch Alone Can Dinly Be Bone When Recommended Seeding Dates Do Not Allow For Proper Germination And Establishment Of Grasses.

6. All Sediment Control Structures Are To Renain In Place And Are To Be Maintained In Operative Condition Until Permission For Their Renoval Has Been Distained From The Howard County Sediment Control Inspector.

7. Site Analysis: Total Area Of Site Area Disturbed Area To Be Roofed Dr Paved 0 44 Acres Area To Be Vegetatively Stabilized 6,71 Ares Total Cut 770 Cuyds. Total Fill 1,374 Cuyds. Iff-Site Waste/Borrow Area Location & 604 CU. YOS

8, Any Sediment Control Practice Which Is Disturbed By Grading Activity For Placement D Itilities Hust Be Repaired On The Same Day Of Disturbance.

9. Additional Sedinent Controls Hust Be Provided, If Deened Necessary By The Howard

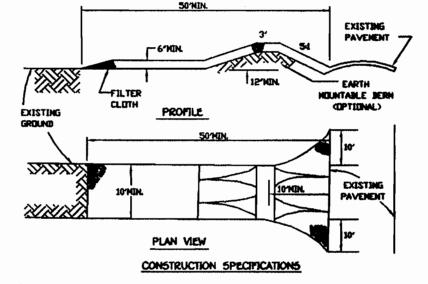
10. On All Sites With Disturbed Areas in Excess Of 2 Acres, Approval Of The Inspection Agency Shall Be Requested Upon Completion Of Installation Of Perheter Erosion And Sediment Controls, But Before Proceeding With Any Other Earth Approvals May Not Be Authorized Until This Initial Approval By The Inspection Agency Is Made. 11. Trenches For The Construction Of Utilities Is Linited To Three Pipe Lengths Or That Which Shall Be Back-Filled And Stabilized Within One Working Day, Whichever Is Sharter

12.The Total Anount Of SAt Fence = --13.The Total Anount Of Super SAt Fence = 3747 L.F.
14.The Total Anount Of Earth Dike = ---

15.The Storm Drain System Is Being Used To Convey Sediment Leden Runoff To SWN Ponds/ Sediment Basins 1 and 2. 16. The Builder Is Responsible For Protecting Constructed and Stabilized Lats From Sedinent Laden Runoff.

It Is The Responsibility Of The Contractor To Identify The Spoil/Borrow Site And Notify And Gain Approval From The Sediment Control Inspector lif The Site And It's Grading Permit Number At The Time Lif Construction.

STABILIZED CONSTRUCTION ENTRANCE - 2 NOT TO SCALE



I. STONE SIZE - USE 2' STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET ŒXCEPT ON A SINGLE RESIDENCE LUT VHERE A 30 FOOT MONOHUM LENGTH VOULD APPLYX.

. THICKNESS - NOT LESS THE SIX (6) INCHES. 4. VIDTH - TEN CLOD FOOT MENDMANN, BUT NOT LESS THAN THE FULL VIDTH AT POINTS WHERE INGRESS OR EGRESS DCCURS. 5. FILTER CLUTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER VILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.

6. SURFACE VATER - ALL SURFACE VATER FLOVING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, HOUNTABLE BERN WITH 54 SLOPES WILL BE PERMITTED.

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS BEHAND AND REPAIR AND /OR CLEANOUT OF ANY NEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, VASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-VAY MUST BE REMEIVED IMMERIATELY.

WHEELS SHALL BE CLEANED TO REMOVE SEDDMENT PRIOR TO ENTRANCE DINTO PUBLIC RIGHTS-OF-VAY. VIEW VASHING IS REQUIRED, IT SHALL BE BONE ON AN AFEA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDDMENT TRAPPING INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

FLOW CHANNEL STABILIZATION

1. 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

Construction Specifications

1. 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. an undisturbed, stabilized area at a non-erosive velocity.

3. Runoff diverted from an undisturbed area shall outlet directly into

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 inpede

6. Fill shall be compacted by earth moving equipment.

7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.

8. Inspection and maintenance must be provided periodically and after each rain event.

5. A.-Natural Resources Hamileo plan is approved for soil erosion and sediment control by Tahtorak Tor niet Development Engineering Division Signature of Enginee Director Department of Planning and Zoning DEVELOPER'S CERTIFICATE PROJECT

"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

beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District. Toleres 12/17 01 12/17/01 Date Signature of Developer STEPHENIF FORNEY

OWNER /DEVELOPER Stonecrest Manor, L.L.C. c/o Land Design And Development, Inc. 8000 Main Street Ellicott City, Md. 21043 (410)480-9105

BUILDER Hamilton Reed 8000 Main Street Ellicott City, Md. 21043 (410)480-9105

1/7/02 SECTION/AREA STONE MANOR 2 THRU 4 BLOCK NO. ZONE TAX/ZONE ELEC. DIST. CENSUS TR. 15003 6028.00 R-20 SECOND WATER CODE SEWER CODE 1253100

DEPARTMENT OF PLANNING AND ZONING

SEDIMENT AND EROSION CONTROL PLAN

STONE MANOR SECTION ONE LOTS 2, 3 AND 4 SINGLE FAMILY DETACHED

PLAT 15063 TAX MAP No: 31 BLOCK! PARCELS 24 805 SECOND ELECTION DISTRICT. HOWARD COUNTY, MARYLAND SCALE: | = 30' DATE: OCTOBER 19, 2001 SHEET 2 OF 2