

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

<u>Purpose</u>

To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

This practice 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 arowth.

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

d. The soil is so acidic that treatment with limestone is not feasible.

material toxic to plant growth.

II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

Topsoil salvaged from the existing site may be used provided that 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-SCS in cooperation with Maryland 'Agricultural' Experimental Station.

//. Topsoil Specifications — Soil to be used as topsoil must meet the following:

Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or a soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger that 1 and 1/2" in diameter.

ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

II. For sites having disturbed areas under 5 acres:

** GEOTEXTILE CLASS -

- EXISTING GROUND

SCE

i. Place topsoil (if required) and apply soil amendments as specified in <u>20.0 Vegetative Stabilization</u> Section | - Vegetative Stabilization Methods and Materials

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

PROFILE

Construction Specification

2. Width — 10' minimum, should be flared at the existing road to provide a

Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. ** The plan approval authority may not require single family residences to use geotextile.

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

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 where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized con— struction entrance.

. Length — minimum of 50' (* 30' for a single residence lot).

EARTH FILL

AND WIDTH OF STRUCTURE

* 50' MINIMUM ---

----- PIPE AS NECESSARY

DEVELOPER'S/BUILDER'S CERTIFICATE "I/We certify that all development and construction will be done according

to this plan of development and plan for sediment and erosion control and

Certificate of Attendance at a Department of the Environment Approved

Soil Conservation District or their authorized agents, as are deemed

Mallelle

NAME / RW KUNKLE

that all responsible personnel involved in the construction project will have a

Training Program for the Control of Sediment and Erosion before beainning the project. I also authorize periodic on-site inspection by the Howard

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iii. For sites having disturbed areas over 5 acres: i. On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following: a. pH for topsoil shall be between 6.0 and 7.5. If

6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher. b. Organic content of topsoil shall be not less than

the tested soil demonstrates a pH of less than

1.5 percent by weight. c. Topsoil having soluble salt content greater than

500 parts per million shall not be used. d. No sod or seed shall be placed on soil soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

NOTE: 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.

ii. Place topsoil (if required) and apply soil ammendments specified in 20.0 Vegetative Stabilization-Section I-Vegetative Stabilization Methods and Materials.

V. Topsoil Application

When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.

ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.

iii. Topsoil shall be uniformly distributed in a 4" -8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that soddina or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

iv. Topsoil shall not be place while 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.

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

the following schedules:

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

1) Preferred-Apply 2 tons per acre dolomitic limestone (92 lbs/ 100 sa.ft.) and 600 lbs per acre 10-10-10 fertilizer (14 lbs./ 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sa.ft.)

2) Acceptable-Apply 2 tons per acre dolomatic limestone (92 lbs/ 1000 sq.ft.) and apply 1000 lbs. per acre 10-10-10- fertilizer (23 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

SEEDING: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs/1000 sa.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 (.05 lbs./1000 sq.ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

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

TEMPORARY SEEDING NOTES

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./1000 sq.ft).

SEEDING: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual rye (3.2 lbs./1000 sq.ft.) For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs./1000 sq.ft.). For the period November 1 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./1000 sa.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT

SEDIMENT AND EROSION CONTROL NOTES

- 1. A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction
- 2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECS.
- FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto. 3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control stuctures, dikes, perimeter slopes and all slopes greater than 3:1
- project site. 4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeters in accordance with Vol.1, Chapter 7, of the HOWARD COUNTY DESIGN MANUAL, Storm

b) 14 days as to all other disturbed or graded areas on the

- Drainage. 5. All disturbed areas must be stabilized within the time period specified above, in accordance with the 1994 MARYLAND STAND-ÁRDS AND SPÉCIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, sod, temporary seeding and mulching (Sec G).
- 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 their removal has been obtained from the Howard County Sediment Control Inspector.
- 7. SITE ANALYSIS: Total Area of Site: Area Disturbed: Area to be roofed or paved: 0.33 AC. Area to be vegetatively stabilized: 0.81 AC. Total Cut: Total Fill
- Offsite Waste/Borrow Area Location. 8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same
- day of disturbance. 9. Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
- 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 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 by the inspection agency is
- 11. Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.
- 12. The total amount of silt fence = ____ 13. The total amount of super silt fence = <u>554 LF</u>
 14. The total amount **of super diversion fence Z35 LF** 13. The total amount of super silt fence =
- * It is the responsibility of the contractor to identify the spoil/borrow site and notify and gain approval from the sediment control inspector of the site and it's grading permit number at the time of construction.

CONSTRUCTION SEQUENCE:

1. Obtain grading permit. ?. Install tree protection fence. , Install sediment and erosion control devices and stabilize. 4. Excavate for foundations, rough grade and temporarily stabilize. 5. Construct structures, sidewalks and driveways. 6. Final grade and stabilize in accordance with Stds. and Specs. Install Erosion Control Matting if shown. 7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.

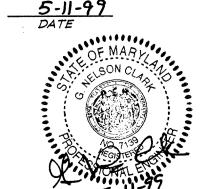
* Delay construction of houses on lots:

OWNER / DEVELOPER BENSON BRANCH OVERLOOK, LLC.

C/O MR. DONALD R. REUWER, JR. LAND DESIGN AND DEVELOPMENT, INC. 8000 Main Street Ellicott City, Md. 21043

ENGINEER'S CERTIFICATE

hereby 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



5-10-99

CLARK • FINEFROCK & SACKETT, INC. **ENGINEERS • PLANNERS • SURVEYORS** 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

DETAILS SEDIMENT & EROSION CONTROL PLAN LOTS 2, 3 AND 4 CLARKS RIDGE K.BCHECKED

SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND FOR : PATRIOT HOMES

PO. BOX 1018 Columbia, Maryland 21044

SDP 99-151

JOB NO.

NO. OF DAYS

AS SHOW! DRAWING 3 of 3

99-059 FILE NO.

99-059-5#1

