

- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. \*\* The plan approval authority may not require single
- 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.
- Surface Water all surface water flowing to or diverted taward 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" at 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 runaff to be conveyed. A 6" minimum will be required.

where construction traffic enters or leaves a construction site. Vehicles

leaving the site must travel over the entire length of the stabilized construction entrance.

Geotextile Class F

Tensile Strength

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Filtering Efficiency 75% (min.)

Tensile Modulus

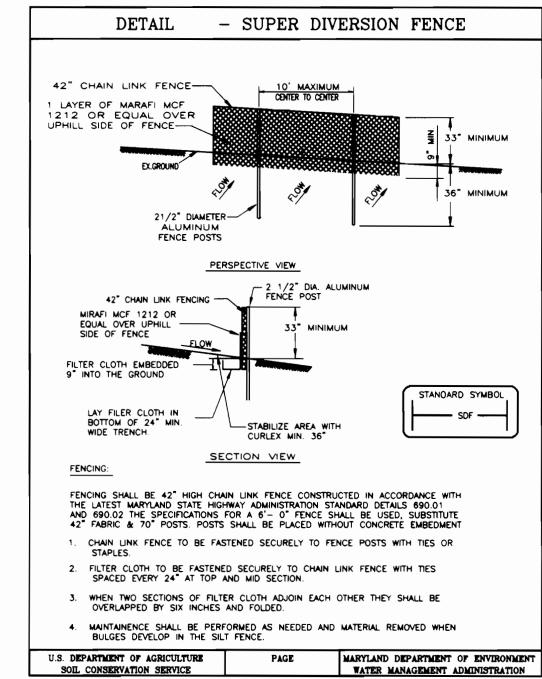
Flow Rate

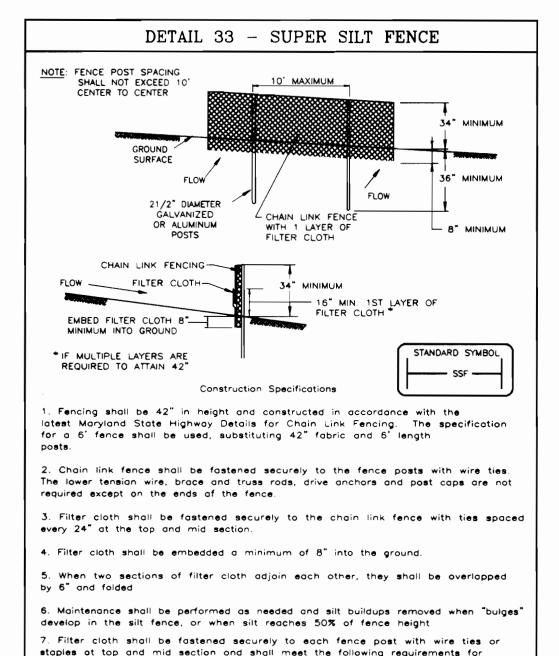
MARYLAND DEPARTMENT OF ENVIRONMEN WATER MANAGEMENT ADMINISTRATION

Test: MSMT 509

MARYLAND DEPARTMENT OF ENVIRONMENT

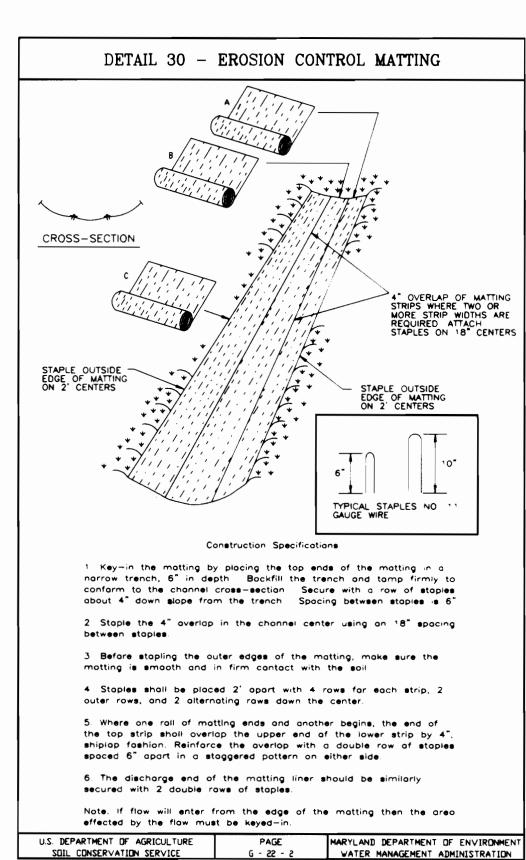
WATER MANAGEMENT ADMINISTRATION

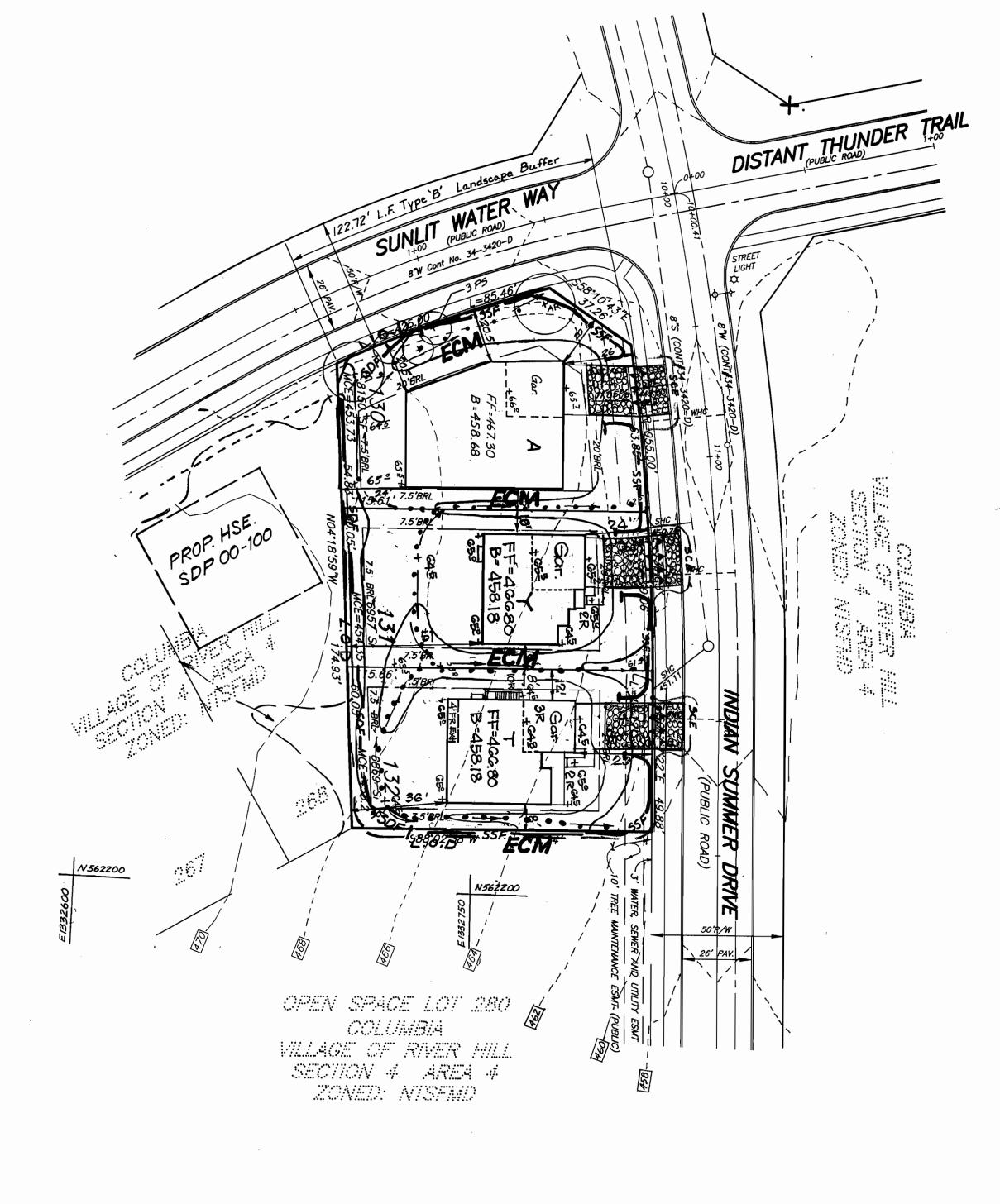




20 lbs/in (min.)

0.3 gal/ft \*/minute (max.) Test: MSMT 322





### 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 occeptable 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/100 sq.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 sq.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

SEEDING: For the periods March 1 thru April 30, and August 1 thru Octaber 15, seed with 60 lbs. per acre (1.4 lbs/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 (.05 lbs./1000 sq.ft.) of weeping lovegrass. During the period of October 16 thru February 2B, 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/acra 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 Morch 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

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.

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

SEDIMENT AND EROSION CONTROL NOTES A <u>minimum of 48 hours</u> notice must be given to the Howard County Department of Inspections, Licenses and Permits,

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

5. All disturbed areas must be stabilized within the time period specified above, in accordance with the 1994 MARYLAND STAND-ARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT 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

7. SITE ANALYSIS: Total Area of Site:
Area Disturbed:
Area to be roofed or paved:

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

9. Additional sediment control must be provided, if deemed necessary

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 made.

by the Howard County DPW Sediment Control Inspector.

11. Trenches for the construction of utilities shall be backfilled and stabilized within one working day, or is limited to three pipe lengths.

12. The total amount of silt fence = 13. The total amount of super silt fence = 365 LF 14. The total amount of super diversion fence: 205 LF

\* 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: NO. OF DAYS Obtain grading permit.
 Install tree protection fence Install sediment and erosion control devices and stabilize . Excavate for foundations, rough grade and temporarily stabilize. 5. Construct structures, sidewalks and driveways.
6. Final grade, install Erosion Control Matting and stabilize accordance with standards and specifications. 7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.

### 21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

### <u>Definition</u>

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

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

slopes where: a. The texture of the exposed subsoil/parent

plant nutrients. c. The original soil to be vegetated contains

material toxic to plant growth. d. The soil is so acidic that treatment with

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.

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

> i. Tapsoil 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 than 1 1/2" in diameter.

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 age operations as described in the following procedures

9-11-2000

\* Delay construction of houses on lots:

<u>Purpose</u>

Conditions Where Practice Applies

This practice is limited to areas having 2:1 or flatter

material is not adequate to produce vegetative

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

limestone is not feasible. II. For the purpose of these Standards and Specifications,

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 areas and worked into the soil in conjunction with till-

# III. For sites having disturbed areas under 5 acres:

Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization -Section 1 - Vegetative Stabilization Methods and

IV. For sites having disturbed areas over 5 acres:

On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments

required to bring the soil into compliance with the

a. pH for topsoil shall be between 6.0 and 7.5. If ne tested soil demonstrates a pH of less than 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 1.5 percent by weight.

c. Topsoil having soluble salt cantent greater than 500 parts per million shall not be used.

d. No sod or seed shall be placed on 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

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.

 Place topsoil (if required) and apply soil amendments specified in 20.0 Vegetative Stabilization—Section I egetative Stabilization Methods and Materials.

phyto-toxic materials.

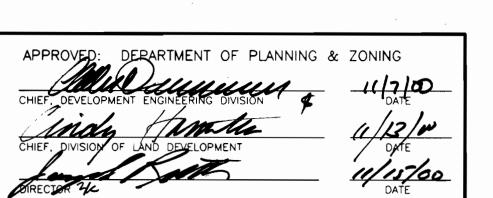
When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.

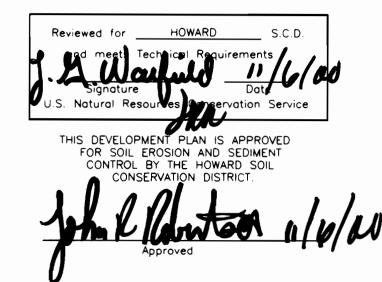
ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintoined, albeit 4"- 8" higher in elevation.

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 sodding ar 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 frazen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

OWNER / DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT CORP. 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044





# 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 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 So Conservation District or their authorized agents, as are deemed necessary"

NAME ROBERT C. GOODIER

<u>9-13-00</u>

Erosion Control represents a practical and workable plan based on my personal knowledge of the site canditions and that it was prepared in accordance with the requirements of the Haward Soil Conservation

ENGINEER'S CERTIFICATE

hereby certify that this plan for Sediment and







FOR : GOODIER BUILDERS

