

CONTOUR INTERVAL EXISTING CONTOUR PROPOSED CONTOUR DIRECTION OF DRAINAGE WALK OUT BASEMENT SPOT ELEVATION STABILIZED CONSTRUCTION ENTRANCE EROSION CONTROL MATTING SILT FENCE LIMIT OF DISTURBED AREA _____LOD ____ Super Silf Fence _________ VICINITY MAP Scale : 1"=2000' N 562**9**15 N 562800 OWNER/DEVELOPER N 562,585 HOWARD RESEARCH AND DEVELOPMENT CORP 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MD 21044 Reviewed for HOWARD S.C.D. ENGINEER'S CERTIFICATE and medis rechnical Requiren I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan hased on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District. DEVELOPER'S/BUILDERS CERTIFICATE CLARK • FINEFROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS U.S. Natural durces according to this plan of development and plan for erosion and sediment 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH. Conservation Service $\forall S_{\mathcal{G}}$ control and that all responsible personnel involved in the construction SEDIMENT & EROSION CONTROL PLAN

LOTS 84 thru 89

COLUMBIA

VILLAGE OF RIVER HILL

SECTION 4 AREA 5

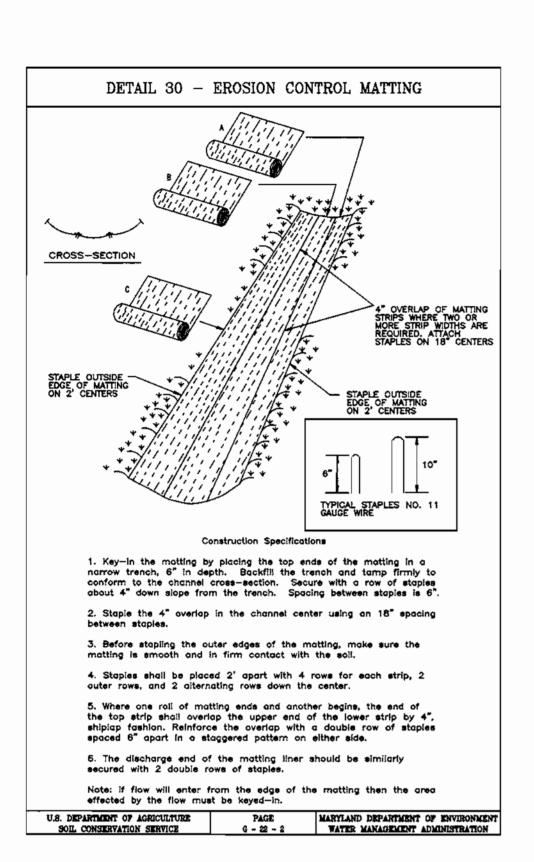
FIFTH (5th) ELECTION DISTRICT

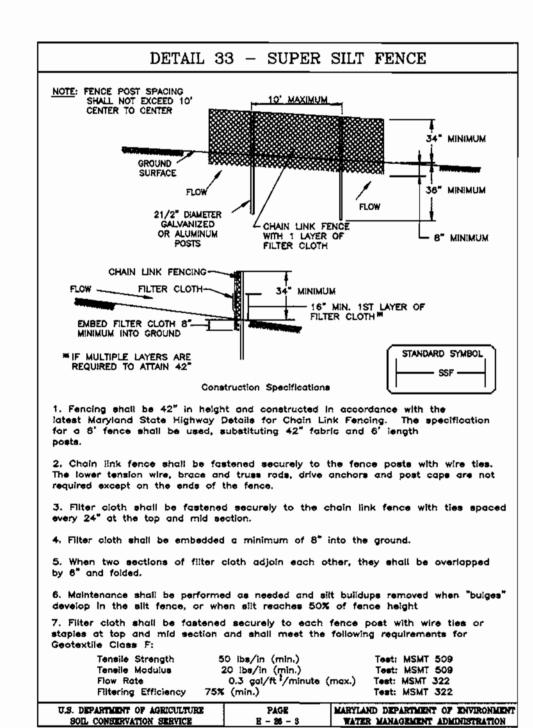
HOWARD COUNTY, MARYLAND project will have a Certificate of Attendance at a Dept. of the Environment This Development Plan is Approved For Soil Erosion and Sediment Approved Training Program for the Control of Sediment and Erosion before 7-12-99 Date beginning the project. I also authorize periodic on-site inspection by APPROVED: DEPARTMENT OF PLANNING & ZONING DRAWING DRAWN Howard Soil Conservation District or their authorized agencies, as are deemed 8 25 99 DATE BAL CHECKED JOB NO. 9/3/99 DATE FOR : ALLAN HOMES 10260 OLD COLUMBIA ROAD RIVERS CORPORATE PARK COLUMBIA, MARYLAND 21046 FILE NO. 99-021**5E** 7-12-99

2 of 3 99-021

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DEPARTMENT OF PLANNING & ZONING

9/13/99

21.0 STANDARDS AND SPECIFICATIONS

HIGHLY VISABLE FLAGGING

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I. Forest protection device only.
2. Retention area will be set as part of the review process.
3. Boundaries of retention area should be staked and flagged prior to installing device,
4. Roof damage should be avoided.
5. Protection signage should be used.
6. Device should be maintained throughout construction.

BLAZE ORANGE PLASTIC MESH TYPICAL TREE PROTECTION FENCE DETAIL

FOR TOPSOIL

Definition

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 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 growth.

b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish

c. The original soil to be vegetated contains material toxic to plant growth.

continuing supplies of moisture and plant nutrients.

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

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

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

Agricultural Experimental Station.

i. 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 I and 1/2" in

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:

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

MINIMUM 2" STEEL "U" CHANNEL OR 2" X 2" TIMBER, 6' IN LENGTH.

NOTES:

ili. 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. In the 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. 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. E: 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

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

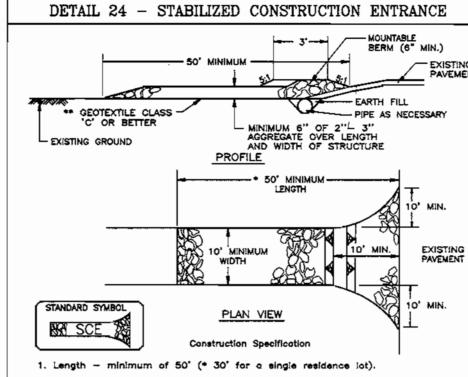
V. Topsoil Application

i. 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 sodding 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.

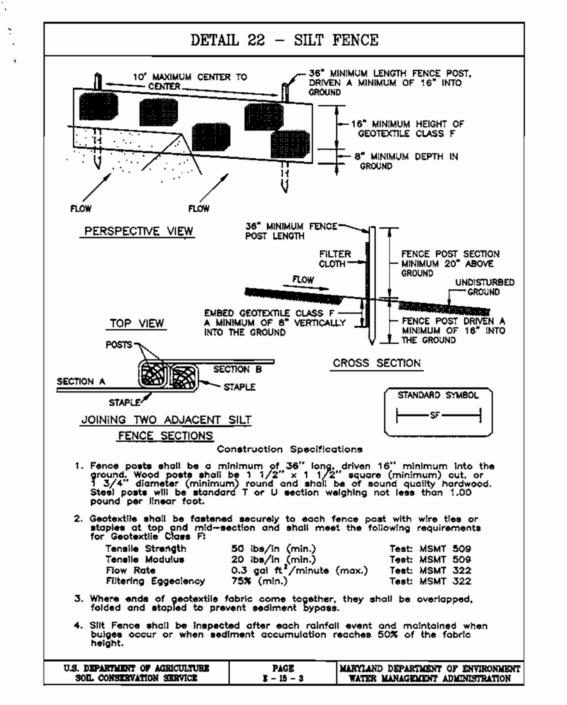


Width — 10' minimum, should be ficred at the existing road to provide a turning radius.

 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. 4. Stone — crushed aggregate (2" to 3") or recidimed 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.

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



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 loosened.

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 vreaform 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 three inches of soil.

SEEDING: For the periods March I thru April 30, and August I thru October 15, seed with 60 lbs. per acre (1.4 lbs/1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May I 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 3I Tall Fescue and mulch with 2 tons/acre well anchored

MULCHING: Apply I I/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 ocre 10-10-10 fertilizer (14 lbs./1000 sq.ft).

SEEDING: For periods March I 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 I thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs./1000 sq.ft.). For the period November I 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 I 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

SEDIMENT AND EROSION CONTROL NOTES

- 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 (3/3-1855).
- 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
- 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
- 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 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: 1.128AC.

Area Disturbed: 1.2 AC.

Area to be roofed or paved: 0.5 AC.

Area to be vegetatively stabilized: 0.7 AC.

Total Cut 1783 CY

Total Fill 1787 CY

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
- Additional sediment control must be provided, if deemed neces-sary 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
- II. 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.
- 2. The total amount of silt fence = 399 L.F.
 3. The total amount of super silt fence = 507 L.F.
 4. The total amount of earth dike = -
- * 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

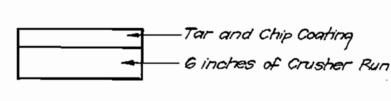
CONSTRUCTION SEQUENCE:

NO.	OF DAYS
1. Obtain grading permit.	
2. Install tree protection fence.	7
3. Install sediment and erosion control devices and stabilize.	14
4. Excavate for foundations, rough grade and temporarily stabilize.	30
5. Construct structures, sidewalks and driveways,	60
Final grade and stabilize in accordance with Stds. and Specs.	14
7. Upon approval of the sediment control inspector, remove	
sediment and erosion control devices and stabilize.	

USE - IN COMMON DRIVE SPECIFICATIONS

Driveway (s) shall be provided prior to residential occupancy to insure safe access for fire and emergency vehicles per the following minimum requirements:

- Width- 12 feet (14 feet serving more than one residence. Surface 6 inches of Compacted crusher run base with tar and Chip
- Geometry- Maximum 15% grade, maximum 10% grade change and a minimum 45-foot furning radius. Structures (culvert/bridges) - Capable of supporting 25 gross tons
- (H25 loading).
- Drainage Elements Capable of safely passing 100 year flood with no more than I foot depth over driveway surface.
- Structure Clearances minimum 12 feet Maintenance - Sufficient to insure all weather use



NO SCALE

OWNER/DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP 10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD 21044



CLARK • FINEFROCK & SACKETT, INC.

ENGINEERS • PLANNERS • SURVEYORS 7135 MINSTREL WAY . COLUMBIA, MD 21045 . (410) 381-7500 BALT. . (301) 621-8100 WASH. DESIGNED SEDIMENT CONTROL NOTES & DETAILS
COLUMBIA SCALE PC DRAWN DRAWING VILLIAGE OF RIVER HILL DSV

AS SHOW 3 of 3 SECTION 4 AREA 5 CHECKED JOB NO. FIFTH (5TH) ELECTION DISTRICT PGC 99-021 HOWARD COUNTY, MARYLAND DATE FOR : ALLAN HOMES, INC. 10260 Old Columbia Road, Rivers Corporate Park Columbia, Maryland 21046 FILE NO. 99-021-x 7-12-50

HOWARD S.C.D. Reviewed for

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL

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 Soil Conservation District or their authorized agents, as are deemed

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

ENGINEER'S CERTIFICATE

