

# STORMCEPTOR WATER QUALITY STRUCTURE

THE STORMCEPTOR WILL BE VISUALLY INSPECTED ANNUALLY FOR THE PRESENCE OF OIL AND FUEL AND SEDIMENT BY REMOVING THE MANHOLE COVER. ANY OBSTRUCTIONS WILL BE CLEARED. THE SEDIMENT IS TO BE REMOVED WHEN THE SEDIMENT DEPTH REACHES 1.00 FEET (FOR STC 1200). REMOVAL OF THE MATERIALS IS TO BE PERFORMED BY A LICENSED WASTE MANAGEMENT COMPANY AND DISPOSAL IN ACCORDANCE WITH CURRENT REGULATIONS.

THE MAINTENANCE OF THE STORMCEPTOR UNIT SHALL BE DONE USING A VACUUM TRUCK WHICH WILL REMOVE THE WATER, SEDIMENT, DEBRIS, FLOATING HYDROCARBONS AND OTHER MATERIALS IN THE UNIT. PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID MUST BE FOLLOWED BY THE OWNER.

ENLARGED OUTLET

CONNECTION DETAIL

STC 1200 PRECAST CONCRETE STORMCEPTOR

1200 US GALLON CAPACITY

NOTE : 1. NON-SMOOTH OUTSIDE WALL PIPE TO BE CROUTED IN PLACE (NO KOR-N-SEAL BOOTS)

MINIMUM OF 60° OR TO THE GRADE (WHICHEVER IS THE LESSER) 3. COVER TO BE LOCATED ADJACENT TO INLET INSPECTION PORT

1. ASTM C 478

08/16/95 NTS U.S.

2. BASE WEIGHT = 7.6 TONS

G.B. 188

THE OWNER SHALL RETAIN AND MAKE THE STORMCEPTOR INSPECTION/ MONITORING FORMS AVAILABLE TO HOWARD COUNTY OFFICIALS UPON THEIR REQUEST.

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION. APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING SOIL EROSION AND SEDIMENT CONTROL. THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS CHIEF, LAND DEVELOPMENT OF THE HOWARD SOIL CONSERVATION DISTRICT. CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE WARD SOIL CONSERVATION DISTRICT

PPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT COUNTY HEALTH OFFICER DATE ADDRESS CHART PARCEL NO. STREET ADRESS B-2 #5460 BEAVERKILL ROAD B-3 BEAVERKILL ROAD SUBDIVISION NAME SECTION/AREA PARCEL NUMBER VILLAGE OF HARPER'S CHOICE 5/8 B-3 & B-2 PLAT NO. | BLOCK NO. | ZONE | TAX/ZONE | ELECT. DIST. | CENSUS TR 6052.01 6475 23 29 SEWER CODE 5583500 WATER CODE 102

MARKS & VOGEL ASSOCIATES, INC.

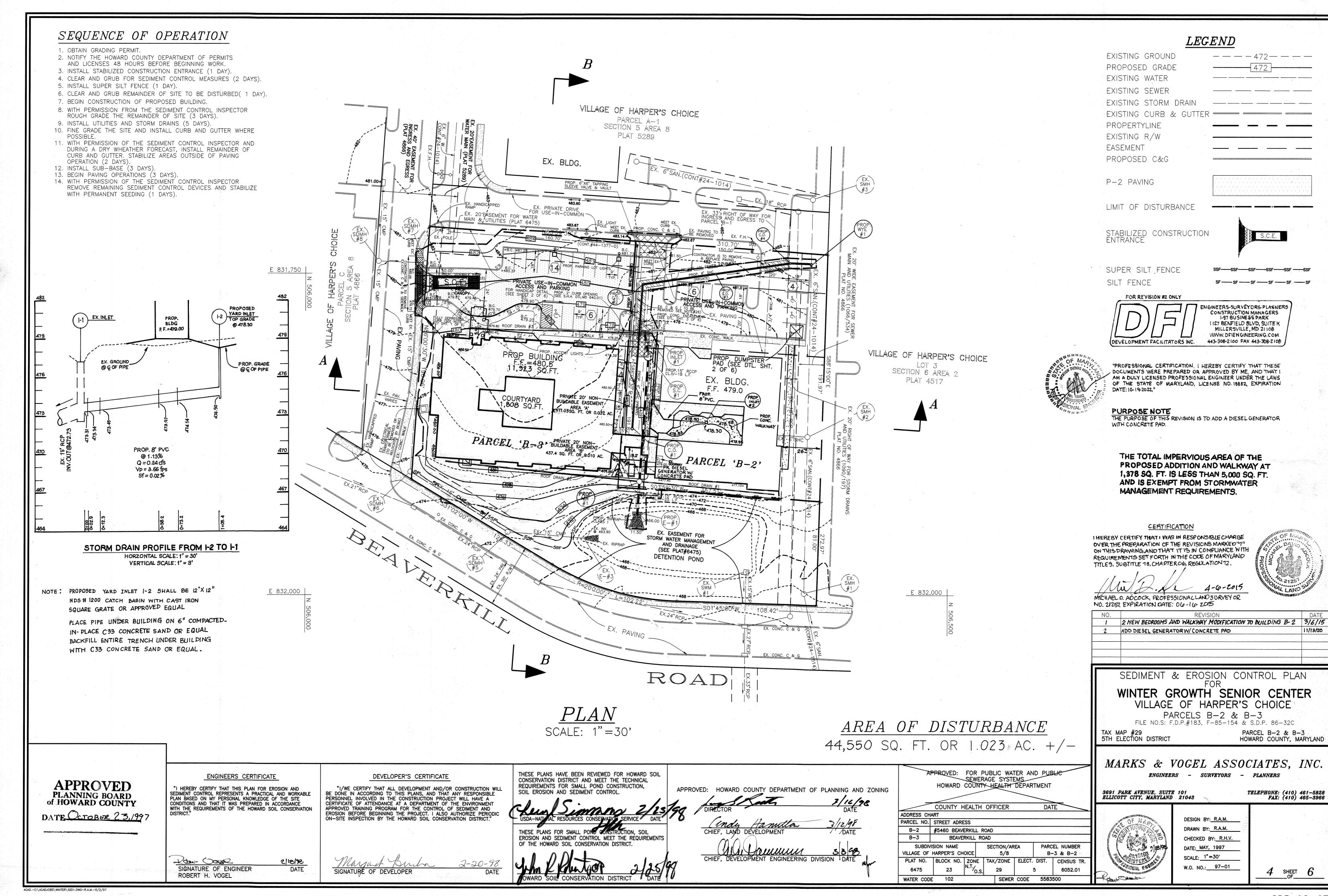
ENGINEERS - SURVEYORS - PLANNERS

3691 PARK AVENUE, SUITE 101 ELLICOTT CITY, MARYLAND 21043 TELEPHONE: (410) 461-5828 FAX: (410) 465-3966



DESIGN BY: R.A.M. DRAWN BY: R.A.M. CHECKED BY: R.H.V. DATE: MAY, 1997 SCALE: AS SHOWN W.O. NO.: 97-01

3 sheet 6



## 21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

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

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

CONDITION WHERE PRACTICE APPLIES

- This practice is limited to areas having 2:1 or flatter slopes where:
- 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 continuing supplies of moisture and plant nutrients.
- The original soil to be vegetated contains material toxic to plant growth.
- d. The soil is so acidic that treatment with limestone is not feasible.

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

opsoil 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 Agriculture Experimental Station.

Topsoil Specifications - Soil to be used as topsoil must

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 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 1/2 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.
- For sites having disturbed areas under 5 acres;

i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization — Section I — Vegetative Stabilization Methods and Material. III. 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 following:
- a pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be perscribed to raise the pH to
- 6.5 or higher. b. Organic content of topsoil shall not be 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 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 a topsoil (if required) and apply soil amendments as specified in 20,0 Vegetative Stabilization Section Vegetative Stabilization Methods and Materials.
- 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 sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the formation of depressions or water pockets.
- . Topsoil shall not be placed 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.

# TEMPORARY SEEDING

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 loosened.

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 16 thru February 28, protect site by applying 2 tons per acre of well-anchored straw mulch, and seed as

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 gal. per acre (5 gal./1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gal. per acre (8 gal./1000 sq. ft.) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

### 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 3 inches of soil by raking, discing, or other acceptable means before seeding, if not previously loosened.

Soil Amendments: Use one of the following schedules:

- 1) Preferred— Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq. ft) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq. ft.) before seeding. Harrow or disc into upper 3 inches of soil. At 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 dolomitic limestone (92 lbs./1000sq. ft.) and 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 60lbs. 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. of 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 of well-anchored straw mulch, and seed as soon as possible in the spring. Option 2- Use sod. Option 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 (70-90 lbs./1000 sq. ft.) of un-rotted 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 emulcified 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.

# SEDIMENT CONTROL NOTES

- 1. All Grading Permits shall be obtained prior to the starting of any Grading work.
- 2. A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction (992-2437).
- 3. All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONAS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 4. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: (a) 7 calendar days for all perimeter sediment control structures, 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.
- 5. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, Storm Drainage, of the Howard County Design Manual.
- 6. All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONSFOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. 51), sod(Sec. 54), temporary seeding (Sec. 50), and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recomended seeding dates do not allow proper germination and establishment of grasses.
- 7. 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.

# 8. Site Analysis

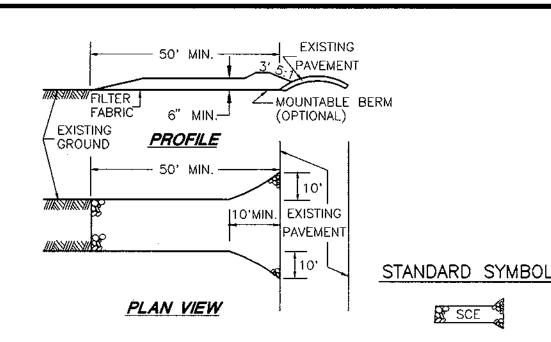
Total area of site R/W and easements: Parcel B-2= Parcel B-3= Total=	0.677 AC.+/- 1.180 AC.+/- 1.857 AC.+/-	_acres
Area disturbed	1.023 AC.+/-	
Area to be roofed or paved: Parcel B-2=	0.33 AC.+/-	acres
Parcel B-3=	0.41 AC.+/-	_ acres
Total= '	0.7 <b>4</b> AC.+/-	acres
Area to be vegetatively stabilized	0. <b>52</b> AC.+/-	_ acres
Total cut	1,570	_ cuvds
T 1 ) CH	1,236	_cu. yds.
Offsite waste/borrow area location	N/A	= 037. ) 407

Excess cut/spoil to be placed on a site with an approved sediment control plan and active grading permit.

9. Any sediment control practice which is disturbed by grading activity for

Howard County Sediment Control Inspector.

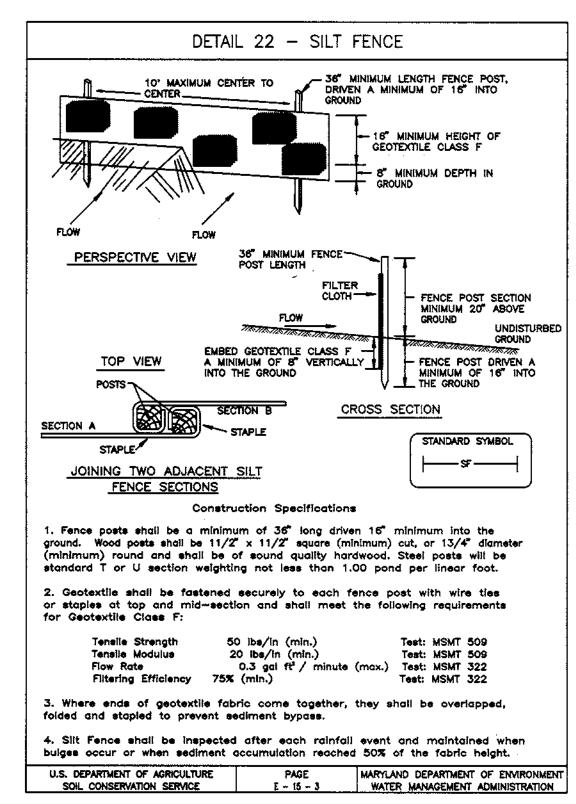
- placement of utilities must be repaired on the same day of disturbance. 10. Additional sediment controls must be provided, if deemed necessary by the
- 11. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of 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 made.
- 12. It is the contractor's responsibility to clean/restore the adjacent SWM facilities due to sediment eminating from construction activities on this site.



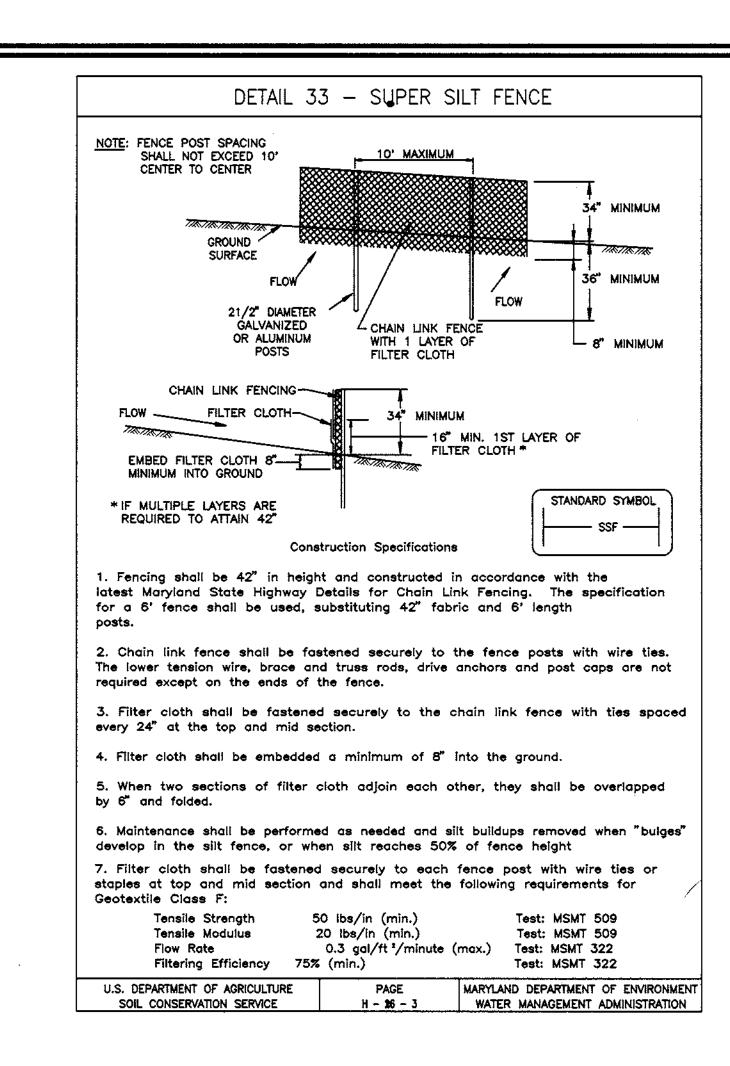
STABILIZED CONSTRUCTION ENTRANCE N.T.S

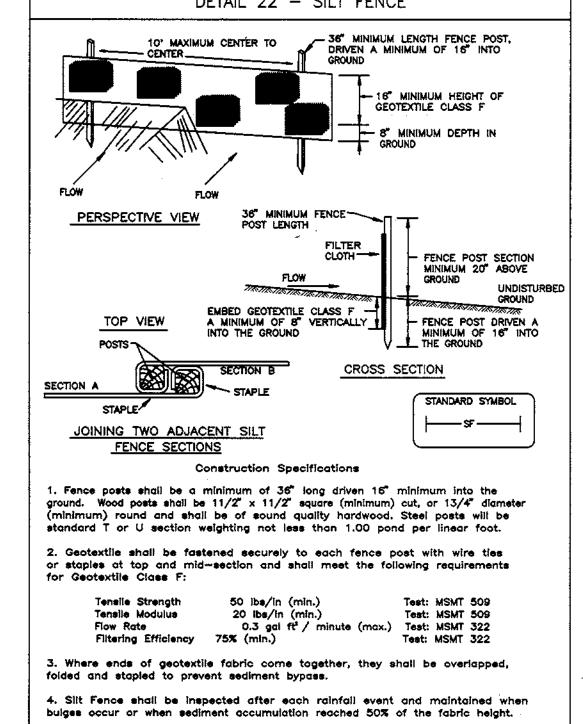
# CONSTRUCTION SPECIFICATIONS (SCE)

- 1. STONE SIZE USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- 2. LENGTH AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENT LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY)
- 3. THICKNESS NOT LESS THAN SIX (6) INCHES.
- 4. WIDTH TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINT WHERE INGRESS AND EGRESS OCCURS
- 5. FILTER CLOTH WILL BE PLACED OVER ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY LOT.
- 6. SURFACE WATER ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. F PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- 7. MAINTENANCE 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 DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED. DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 8. WASHING WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE INTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED. IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER FACH RAIN.



HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING





APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT COUNTY HEALTH OFFICER ADDRESS CHART PARCEL NO. STREET ADRESS #5460 BEAVERKILL ROAD B-3 BEAVERKILL ROAD PARCEL NUMBER SECTION/AREA VILLAGE OF HARPER'S CHOICE B-3 & B-2 5/8

29

ELECT. DIST. CENSUS TR

SEWER CODE 5583500

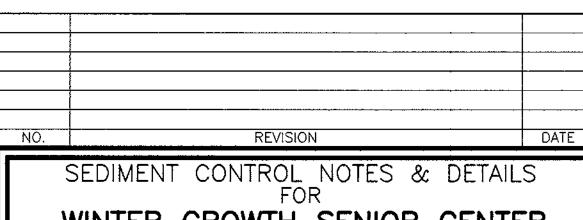
**产的**数数1979年

**通承税**的特色的第三

PLAT NO. BLOCK NO. ZONE TAX/ZONE

23

WATER CODE 102



WINTER GROWTH SENIOR CENTER VILLAGE OF HARPER'S CHOICE

PARCELS B-2 & B-3 FILE NO.S: F.D.P.#183, F-85-154 & S.D.P. 86-320

TAX MAP #29 5TH ELECTION DISTRICT PARCEL B-2 & B-3 HOWARD COUNTY, MARYLAND

MARKS & VOGEL ASSOCIATES, INC. ENGINEERS - SURVEYORS - PLANNERS

3691 PARK AVENUE, SUITE 101 BLLICOTT CITY, MARYLAND 21043



DESIGN BY: R.A.M. DRAWN BY: R.A.M. CHECKED BY: R.H.V. DATE: MAY, 1997 SCALE: 1"=30" W.O. NO.: 97-01

5 SHEET 6

TELEPHONE: (410) 461-5828 FAX: (410) 465-3966

**APPROVED** PLANNING BOARD of HOWARD COUNTY DATE OCTOBER 23,1997

soon as possible in the spring, or use sod.

ENGINEERS CERTIFICATE

SIGNATURE OF ENGINEER

ROBERT H. VOGEL

"I HEREBY 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."

2/18/96

Tarin Come

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDING TO THIS PLANS, 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."

> 2-20-98 Dentre SIGNATURE OF DEVELOPER

DEVELOPER'S CERTIFICATE

RESOURCES CONSERVATION SERVICE USDA-NATU THESE PLANS FOR SMALL PONT CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL

REQUIREMENTS FOR SMALL POND CONSTRUCTION,

SOIL EROSION AND SEDIMENT CONTROL.

CHIEF, DEVELOPMENT ENGINEERING DIVISION

SDP 98-07

