

#### Penny E. Borenstein, M.D., M.P.H., Health Officer

June 23, 2005

Mr. McMracken 14040 Triadelphia Rd. Glenelg Md. 21737

> RE: PERCOLATION TEST RESULTS-A522528 Tax Map 21, Parcel 50 McCracken Property

Dear McCracken:

Percolation testing conducted June 23, 2005 on the referenced property satisfactory soil conditions. Copies of the test results are enclosed.

Further review is contingent upon submission by a registered engineer/surveyor of a percolation certification plan showing the following:

1) Actual locations and elevations of all excavated test holes

2) A suitable house and well site for each lot

3) Two replacement well sites or approximately 1500 square feet of approvable well area for each lot

4) All existing wells and septic reserve areas on the property

5) Locations of any other relevant features such as streams, swales, or existing structures

6) A note must be included certifying that all existing wells and septic systems within 100 feet of property boundaries have been shown

7) A note indicating that depicted topography reflects field-matched information

8) A health officer signature block stating "approved for private water and private sewerage systems"

9) A MDE sewage disposal area statement is required

The percolation certification plat should be submitted within 60 days to allow field verification if necessary. If you have any questions regarding this matter, please contact me at the above address or by calling (410) 313-1771.

Respectfully

Peter A Yencsik Development Coordination Section Well and Septic Program

PY Enclosures Cc: File Williamsburg Group LLC





#### FOR PERCOLATION TESTING AND SITE EVALUATION

TEST DATE(S) \_\_\_\_\_\_ TEST TIME \_\_\_\_\_

Ap 522528 DATE 6/10/05

pd.\$ 506

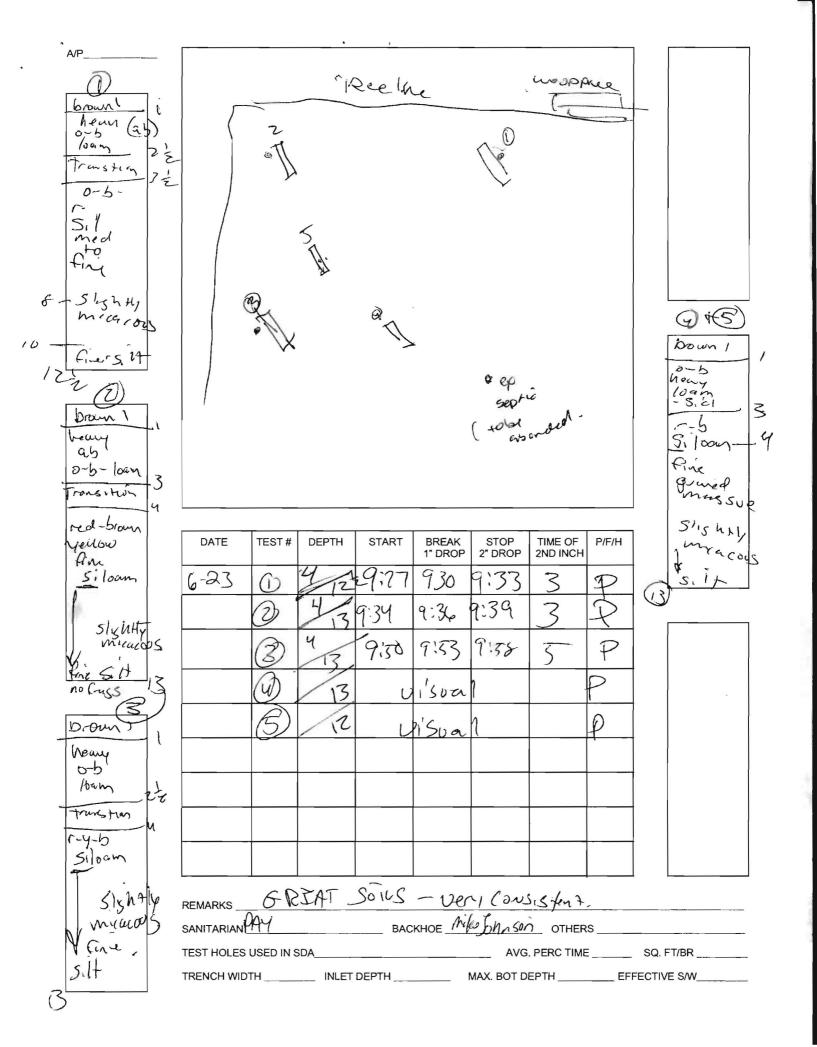
AGENCY REVIEW: \_\_\_\_\_

#### AX TD #04-329104 DO NOT WRITE ABOVE THIS LINE

I HEREBY APPLY FOR THE NECESSARY TESTING/EVALUATION PRICHECK AS NEEDED: CONSTRUCT NEW SEPTIC SYSTEM(S) REPAIR/ADD TO AN EXISTING SEPTIC SYSTEM REPLACE AN EXISTING SEPTIC SYSTEM	IOR TO ISSUANCE OF SEWAGE DISPOSAL SYSTEM PERMIT(S) TO: CHECK AS NEEDED: NEW STRUCTURE(S) ADDITION TO AN EXISTING STRUCTURE REPLACE AN EXISTING STRUCTURE			
CHECK ONE: CREATE NEW LOT(S) BUILD ON AN EXISTING LOT IN A SUBDIVISION BUILD ON AN EXISTING PARCEL OF RECORD	IS THE PROPERTY WITHIN 2500' OF ANY RESERVOIR?			
COMMERCIAL (PROVIDE DETAIL OF NUMBE INSTITUTIONAL/GOVERNMENT (PROVIDE DETAIL OF	MS IN THE COMPLETED STRUCTURE (NOTE <b>UNKNOWN</b> IF APPROPRIATE) ERS AND TYPES OF EMPLOYEES/ CUSTOMERS ON ACCOMPANYING PLAN) NUMBERS AND TYPES OF EMPLOYEES/USERS ON ACCOMPANYING PLAN)			
PROPERTY OWNER(S) GARY G. MCCR	ALKEN			
DAYTIME PHONE CELL	FAX			
MAILING ADDRESS 14040 TRIASELPHI	RKS, GLENELG MD 21737 CITY/TOWN STATE ZIP			
APPLICANT WILLIAMSBURG GROUF				
DAYTIME PHONE 410997-8800×16 CELL 4	10-977-3343 FAX 410-997-4358			
MAILING ADDRESS 5485 HARPERS FARM K	S. SUITE 200, COLUMBIA, MD 21044 CITY/TOWN STATE ZIP			
APPLICANT'S ROLE: DEVELOPER BUILDER E	BUYER RELATIVE/FRIEND REALTOR CONSULTANT			
PROPERTY LOCATION SUBDIVISION/PROPERTY NAME	LOT NO			
PROPERTY ADDRESS 14040 TRIADELP	HIA RD, GLENELG MD 21737			
TAX MAP PAGE(S) 2 GRID / S PARCE	EL(S) 50 PROPOSED LOT SIZE 1.428			
AS APPLICANT, I UNDERSTAND THE FOLLOWING: THE SYS	TEM INSTALLED SUBSEQUENT TO THIS APPLICATION IS ACCEPT-			
ABLE ONLY UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS	APPLICATION IS COMPLETE WHEN ALL APPLICABLE FEES AND A			
SUITABLE SITE PLAN HAVE BEEN RECEIVED. I ACCEPT TH	E RESPONSIBILITY FOR COMPLIANCE WITH ALL M.O.S.H.A. AND			
"MISS UTILITY" REQUIREMENTS. APPROVAL IS BASED UPON SATISFACTORY REVIEW OF A PERC CERTIFICATION PLAN.				
TEST RESULTS WILL BE MAILED TO APPLICANT.				
	OF ENVIRONMENTAL HEALTH, WELL AND SEPTIC PROGRAM A) MARYLAND 21046 (410) 313-2640 FAX (410) 313-2648			

TDD (410) 313-2323 TOLL FREE 1-877-4MD-DHMH

PLEASE SUBMIT ORIGINALS ONLY (BY MAIL OR IN PERSON)



#### 20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION DEFINITION Using vegetation as cover for barren soil to protect it from forces that cause erosion

Vegetative stabilization specifications are used to promote 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 downstream areas, and improving wildlife habitat and visual resources. CONDITIONS WHERE PRACTICE APPLIES

This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration Olup to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary Soil Stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc. EFFECTS ON WATER 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 matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals 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 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. SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS A. Site Preparation

- i. Install erosion and sediment control structures (either temporary of permanent) such as diversions. grade stabilization structures, berms, waterways, or sediment control basins.
- ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding. iii. Schedule required soil tests to determine soil amendment composition and application rates for sites
- having disturbed area over 5 acres.
- 8 Soil Amendments (Fertilizer and Lime Specifications . Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering
- 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. Manure 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. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a "100 mesh sieve and 98-100% will pass through a "20 mesh sieve. iv. Incorporate lime and tertilizer into the top 3-5° of soil by disking or other suitable means.
- . Seedbed Preparation
- Temporary Seeding a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, 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.
- Apply fertilizer and lime as prescribed on the plans. c. In corporate lime and fertilizer into the top 3-5° of soil by disking or other suitable means.
- Permanent Seeding

   Minimum soil conditions required for permanent vegetative establishment:
   Soil pH shall be between 6.0 and 7.0.
- 2. Soluble salts shall be less than 500 parts per million (ppm) 3. The soil shall contain less than 40% clay, but enough fine grained material 0.30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serecia lespedezas is to be planted, then a sandy soil (<30% silt plus clay) would be acceptable.
- 4. Soil shall contain 1.5% minimum organic matter by weight.
- 5. Soil must contain sufficient pore space to permit adequate root penetratio 6. If these conditions cannot be met by soils on site, adding topsoil is required
- in accordance with Section 21 Standard and Specification for Topsoil. b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding 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 topsoil from sliding down a slope.
- c. Apply soil amendments as per soil test or as included on the plans. d. Mix soil amendments into the top 3-5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth 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 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Th top 1-3" of soil should be loose and triable. Seedbed loosening may not be necessary on newly disturbed areas.
- Incremental Stabilization Out Slopes
- i. All cuts slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.
- ii. Construction sequence (Refer to Figure 3 below):
- a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation. b. Perform Phase 1 excavation, dress, and stabilize.
- c. Perform Phase 2 excavation, dress and stabilize. Overseed Phase 1 areas as
- d. Perform final phase excavation, dress and stabilize. Overseed previously seeded
- Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil lif required and permanent seed and mulch. Any interruptions int he operation of completing the operation
- out of the seeding season will necessitate the application of temporary stabilization.
- J. Incremental Stabilization of Embankments Fill Slopes
- Embankments shall be constructed in lifts as prescribed on the plans.
- ii. Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches 15°, or when the grading operation ceases as prescribed in the plans.
- iii. At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the slope in a non-erosive manner to
- a sediment trapping device. iv. Construction sequence: Refer to Figure 4 (below).
- a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used
- to divert runoff around the fill. Construct slope silt fence on low side of fill as shown in Figure 5, unless other methods shown on the plans address this area.
- Place Phase 1 embankment, dress and stabilize. Place Phase 2 embankment, dress and stabilize
- Place final phase embankment, dress and stabilize. Overseed previously seeded

areas as necessary. Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil Gf required and permanent seed and mulch. any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

- SECTION 2 TEMPORARY SEEDING Vegetation - annual grass or grain used to provide cover on disturbed areas for up to 12 months. For longer duration of vegetative cover, Permanent Seeding is required.
- A. Seed mixtures Temporary Seeding
- i. Select one or more of the species or mixtures listed in Table 26 for the appropriate Plant Hardiness Zone (from Figure 5) and enter them in the Temporary seeding summary below, along with application rates, seeding dates and seeding depths. If this summary is not put on the plans
- and completed, then Table 26 must be put on the plans. ii. For sites having soil tests performed, the rates shown on this table shall be deleted and the rates recommended by the testing agency shall be written in Soil tests are not required for Temporary Seeding.
- D. Seed Specifications i. All seed must meet 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 months immediately preceding the date of sowing such material on this job.
- Note: Seed tags shall be made available to the inspector to verify type and rate of seed used.
- ii. Inoculant The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing 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. Use four times the recommended rate when hydroseeding. Note it is very important to keep inoculant as cool as possible until used. Temperatures above 75°-80° F. can weaken bacteria and make the inoculant less effective.
- Methods of Seeding Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast
- or drop 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 infrager maximum of 100 bs, per acre total of soluble nitrogers P205 (phosphorous): 200 bs/ac; K20 (potassium): 200 bs/ac. b. Lime - use only ground agricultural limestone, Up to 3 tons per acre may be applied b
- hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding. c. Seed and tertilizer shall be mixed on site and seeding shall be done immediately an
- without interruption. ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders. a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on th
- Temporary or Permanent 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. Drill 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

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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 poly half the seeding rate in each direction.

- F. Mulch Specifications (In order of preference)
- i. Straw shall consist of thoroughly threshed wheat, rive or oat straw, reasonable bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law. ii. Wood Cellulose Fiber Mulch (WCFM)
- a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
- WCFH shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformit spread slurry.
   WCFH, including dye, shall contain no germination or growth inhibiting factors. d. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under anitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedings. WCFM material shall contain no elements or compounds at concentration levels that will be phytol-toxic.
- . WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of L6.11 maximum and water looking capacity of 90.11 minimum.
- Note: Only 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 immediately 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 secting season returns and seeding can be performed in accordance with these specifications
- ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1° and 2°. Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
- iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water. Securing Straw Mulch Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch
- application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard: i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two 62 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safety. If used on sloping
- land, this practice should be used on the contour if possible. ii. 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 mixed with water and
- the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons iii. 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 iv. 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. SECTION 3 - PERMANENT SEEDING Seeding grass and legumes to establish groung cover for a minimum of one year on disturbed areas generally receiving low maintenance.
- A Seed mixtures Permanent Seeding
- i. Select one or more of the species or mixtures listed in Table 25 for the appropriate Plant Hardiness Zone (from Figure 5) and enter them in the Permanent Seeding Summary below, along with application rates and seeding dates. Seeding depthi can be estimated using Table 26. If this summary is not put on the construction plans and completed, then Table 25 must be put on the plans. Additional planting specifications for exceptional sites such as shorelines, streambanks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-SCS Techinical Field Office Guide, Section 342 - Critical Area Planting. For special lawn maintenance areas, see Sections IV Sod and V Turfgrass ii. For sites having disturbed area over 5 aizas, the rates shown on this table shall be deleted and the rates recommended by the soil testing agency shall be written in.
- iii. For areas receiving low maintenance, apply ureaform fertilizer (46-0-0) at 3 1/2 lbs/1000 sq. ft. (150 lbs/ac), in addition to the above soil amendments shown in the table below, to be performed at the time of seeding.

SOILS LEGEND				
SOIL	NAME	CLASS		
** Ba	Baile silt loam	D		
CgC2	Chester gravelly silt loam, 8 to 15 percent slopes, moderately eroded	В		
ChB2	Chester silt loam, 3 to 8 percent slopes, moderately eroded	В		
ChC2	Chester silt loam, 8 to 15 percent slopes, moderately eroded	В		

NOTES: \* Hydric soils and/or contains hydric inclusions

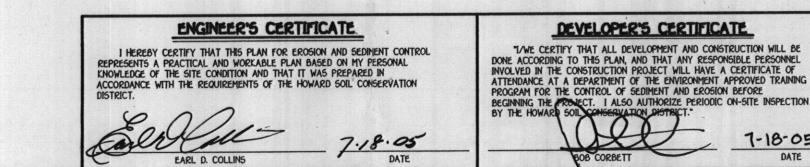
- \*\* May contain hydric inclusions
- Generally only within 100-year floodplain areas

CROSS-SECTION

- TYPICAL STAPLES NO. 11 GAUGE WIRE
- Construction Specifications 1. Key-in the matting by placing the top ends of the matting in a
- narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6". 2. Staple the 4" overlap in the channel center using an 18" spacing

- Staple the 4 overlap in the inclusive center using an to specing between staples.
   Before stapling the outer edges of the matting, make sure the matting is smooth and in firm conflact with the soil.
   Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
   Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4\*, shiplap fashion Reinforce the overlap with a double row of staples spaced 6° apart in a staggered pattern on either side.
   The discharge end of the matting liner should be similarly secured with 2 double rows of staples.
- Note: If flow will enter from the edge of the matting then the area. effected by the flow must be keyed-in. EROSION CONTROL MATTING

NOT TO SCALE



ENGINEERING CONSULTANTS & LAND SURVEYOR QUARE OFFICE PARK - 10272 BALTIMORE NATIONAL F ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2855

# STANDARDS AND SPECIFICATIONS FOR TOPSOIL

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

To provide a suitable soil medium for vegetative 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

1. 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 continuing supplies of moisture and plant nutrients. c. 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. 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

L Topsoil salväged 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. Topsoil shall be a loam, sandy loam, clay loam, sitt 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 11/2° in diameter. ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnson grass, 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 4-0 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.

11. For sites having, disturbed areas under 5 acres: Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

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 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. 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 topsoil Gf required and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials

V. Topsoil Application i. When top soiling, maintain needed erosion and sediment control practices such as diversions, anade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Ba Grades on the areas to be top soiled, 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 top soiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets. iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muldy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper

rading and seedbed prepar VL Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:

i. Composted Studge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:

a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Composted studge shall contain at least I percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a Ph of 7.0 to 8.0. If compost does not meet these requirements.

the appropriate constituents must be added to meet the requirements prior to use. c. Composted studge shall be applied at a rate of 1 ton/1,000 square feet. iv. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 1b/1,000 are feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Sodding, MD-VA, Pub. 4, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

### SEQUENCE OF CONSTRUCTION

OBTAIN GRADING PERMIT	7 DAYS
INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN	7 DAYS
CLEAR AND GRUB TO LIMITS OF DISTURBANCE	4 DAYS
INSTALL TEMPORARY SEEDING	2 DAYS
CONSTRUCT BUILDINGS	60 DAYS
FINE GRADE SITE AND INSTALL PERMANENT SEEDING AND LANDSCAPE	14 DAYS
REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZE	D
AND PERMISSION IS GRANTED BY E/S CONTROL INSPECTOR.	· 7 DAYS

EXISTING PAVEMENT

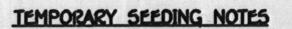
PIPE AS NECESSARY

STANDARD SYMBO

BERS CER

- FARTH FILL

10 10' MIN.



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

Soil Amendments : Apply 600 lbs. per acre 10-10-10 fertilizer 04 bs. per 1000 sa.ft.).

Seeding : For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lbs. per 1000 sa.ft.). For the period May 1 thru August 14, seed with 3 bs. per acre of weeping lovegrass (0.07 lbs. per 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 soon as possible in the spring, or use sod. Mulching : Apply 1-1/2 to 2 tons per acre (70 to 90 lbs, per 1000

sa.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring too or 218 gal per acre (5 gal per 1000 sq.ft) of emulsified asphalt on flat areas. On slopes, & ft. or higher, use 347 gal per acre (8 gal. per 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.

# 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

Soil Amendments : in lieu of soil test recommendations, use one of the following schedules :

D Preferred - Apply 2 tons per acre dolomitic limestone (92 bs. per 1000 so.ft.) and 600 bs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 bs.

per acre 30-0-0 ureaform fertilizer (9 bs. per 1000 saft). 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 bs. per 1000 so.ft) and 1000 bs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into

upper three inches of soil. Seeding : For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 bs. Kentucky 31 Tall Fescue per acre and 2 bs. per acre (0.05 lbs. per 1000 sq.ft.) of weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following

D 2-tons per acre of well-anchored mulch straw and seed as soon as possible in the spring.

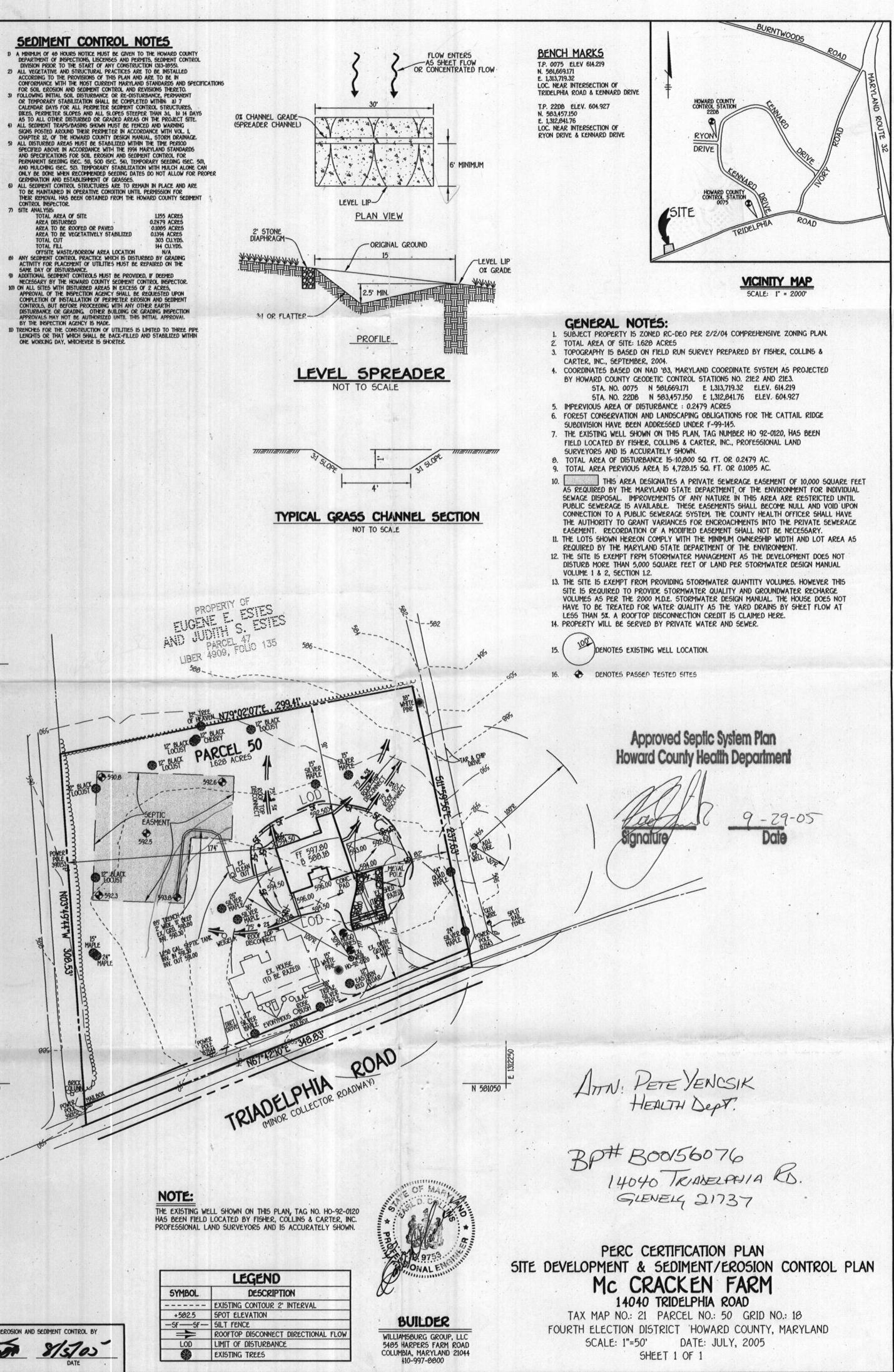
2) Use sod 3) Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw. Mulching : Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal per acre 18 gal. per 1000 sq.ft) for anchoring. Maintenance : Inspect all seeded areas and make needed repairs.

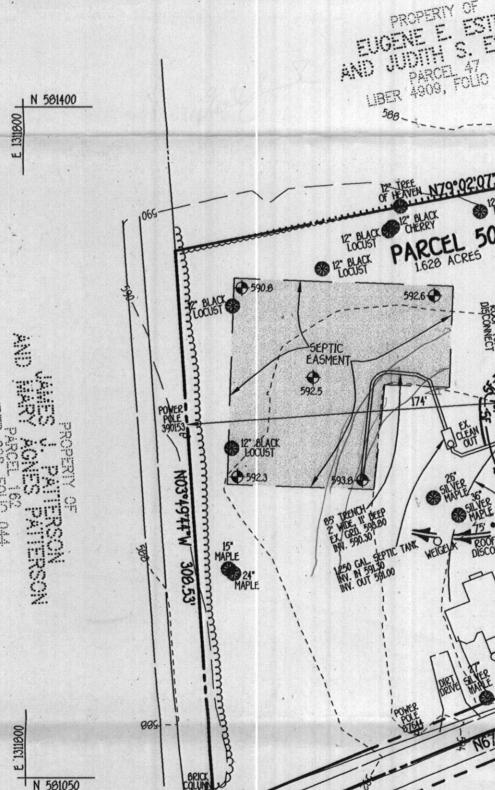
-

replacements and reseedings.

## SEDIMENT CONTROL NOTES

- 10) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGHTS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.





# NOTE:

	LEGEND		
SYMBOL	DESCRIPTI		
	EXISTING CONTOUR 2'		
+582.5	SPOT ELEVATION		
-SFSF	SILT FENCE		
+	ROOFTOP DISCONNECT		
LOD	LIMIT OF DISTURBANCE		
8	EXISTING TREES		

MINIMUM DTH	10' MIN.	EXISTING PAVEMENT
PLAN VIEW	- Aller	10' MIN.
Construction Specificatio		<u> </u>

MINIMUM 6" OF 2"-3" ACCREGATE

OVER LENGTH AND WIDTH OF

STRUCTURE

50' MINIMUM

LENGTH

PROFILE

Construction Specifica 1. Length - minimum of 50' (\*30' for single residence lot).

\*\* GEOTEXTILE CLASS 'C'

OR BETTER

- EXISTING GROUND

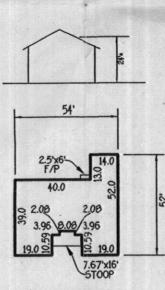
STRIPS WHERE TWO OR More Strip widths ar Required. Attach

> 2. Width - 10° minimum, should be flared at the existing road to provide a turning radius. 3. 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 reclaimed or recycled concrete equivalent shall be placed at least 6° deep over the length and width of the entrance. 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 6. 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 construction entrance. STABILIZED CONSTRUCTION ENTRANCE

# NOT TO SCALE



RANCHER

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS WARD COUNTY HEALTH DEPARTMENT OUNTY HEALTH OFFICER DATE EVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS THE HOWAGE SOIL CONSERVATION DISTRICT ECHNICAL REQUIREMENTS S.D.A. NATURAL RESOURCES CONSERVICE 8/5/05 DATE

G.P. 06-07