

TOPSOILING

Definition Placement of topsoil over a prepared subsoil prior to establishment of

To provide a suitable soil medium for vegatative growth on areas with low moisture, low nutrient levels, low pH, or the presence of other materials

Conditions Where Practice Applies

- This practice is recommended for sites of 2:1 or flatter slopes where: 1. The texture of the exposed subsoil or parent material is not
- suitable to produce adequate vegetative growth. 2. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture
- 3. The original soil to be vegetated contains material toxic to plant 4. The soil is so acid that treatment with limestone is not feasible.

SPECIFICATIONS

Section I - Site Preparation (Where Topsoil is to be added)

- A. When topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilization structures, berms, dikes, waterways and sediment basins
- B. Grading: Grades on the areas to be topsoiled which have been reviously established shall be maintained.
- C. Liming: Where the subsoil is either highly said or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 squ re feet). Lime shall be distributed uniformly over designated s eas and worked into the soil in conjunction with tillage operations as described in the following procedures.

January 9, 1985

→ 10.55

VEGETATIVE STABILIZATION Permanent and Temporary Seeding, Sodding and Mulching

- I. <u>Site Preparation</u>

 Permanent or temporary stabilization shall be completed within (a.) seven calendar days as to the surface of all sediment control practices such as diversions, grade stabilization structures, berms, dikes, grassed waterways, sediment basins, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:') and (b.) fourteen days as to all other sturbed or graded areas on the project site.
- II. Seedbed Preparation and Seeding application The top layer of soil shall be loosened, limed and fertilized by raking, discing or harrowing or other acceptable means before seeding. Flat areas and slopes up to 3 to 1 grade shall be loose and friable to depth of at least 3 inches. Slopes steeper than 3 to 1 shall have the top 1.3 inches of soil loose and friable before seeding. Flat areas and slopes up to 3 to 1 grade shall be loose and friable to a depth of at least 3 inches. Slopes steeper than 3 to 1 shall have the top 1-3 inches
- of soil loose and friable before seeding. pply seed uniformly with a cyclone seeder, drill cultipacker, seeder or vdroseeder on a firm moist seedbed. III. Soil Amendments

 Lime and fertilize according to soil tests. In lieu of soil test
- apply the following;
 Dolomitic 2 tons per acre or 92 lbs./1000 (permanent and sodding)sq.ft. Limestone: 1 tom per acre or 46 lb/1000 sq. ft. (temporary) Fertilizer: 10-10-10 or equivalent at 1000 lbs. per acre or 23 lbs. per 1000 aq. ft. (permanent and sodding) 10-10-10 or equivalent at 600 lbs. per acre or 15 lbs./
- IV. Sediment Control Practices Seeding
 Seed: 'Kentucky 31' Tall Feacue 60 lbs/acre or 1.38 lbs/1000 eq. ft. and Italian (annual) ryegrass 40 lbs/acre or 2/1 - 10/31 5/1 - 8/14 with irrigation.

1000 eq. ft. (temporary).

- V. Temporary Seeding: Per growing Season Italian or perennial ryegrass 40 lbs/acre or .92 lbs/ 2/1 - 4/30 and 8/15 - 11/30 Millet 40 lbs/acre or .92 lbs/1000 sq. ft.
- VI. Permanent Seiding

 A. Residential and High Maintenance Areas

 1. Kentucky Bluegrass, 'Plush', 'Birka', 'Parade', 'Vantage', 'Columbia', 'Merion', 'Adelphi', 'South Dakota', 'Kenblue' Any three varieties at 30 lbs. to make 90lbs/acre or 2 lbs 1000 sq. ft. and Red Fescue - 'Pennlawn' or Jamestown 10 lbs/1000 sq. ft. tes: 2/1 - 4/30 and 8/15 - 10/31

5/1 - 8/14

D. Tilling: After the areas to be topsoiled have been brought to grade, and immediately prior to dumping and spreading the topsoil, the subgrade shall be loosened by discing or by scarifying to a depth of at least 3 inches to permit bonding of the topsoil to the subsoil. Pack by passing a bulldozer up and down over the entire surface area of the slope to create horizontal erosion check slots to prevent topsoil from sliding down the slope.

Section II - Topsoil Material and Application.

2. 'Kentucky 31' Tall Fescue

C. General and Large Acreage
'Kentucky 31' Tall Fescue

Level crest-

of four inches.

OIL CONSERVATION

shall be six.

B. Low Maintenance and Mining Areas
'Kentucky 31' Tall Fescue
40 lbs/acre or .92 lbs/1000 sq. ft.

60 lbs./acre or 1.38 lbs/1000 sq. ft.

and 'Interstate' Sericea kespedeza (inoculated) 20 lbs/acre or .46 lbs/1000 eq. ft.

2/1 - 4/30 and 8/15 - 10/31

taryland SCS/WRA

- Topsoil salvaged from the existing site may often be used but it should meet the same standards as set forth in these specifications. The depth of topsoil to be salvaged shall be no more than the depth described as a representative profile for that particular soil type as described in the soil survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental
- A. Materials: Topsoil shall be a loam, sandy loam, clay loam, silt oam, sandy clay loam, loamy sand or other soil as approved by an agronomist or soil scientist. It shall not have a mixture of contrasting textured subsoil and contain no more than 5 percent by volume of cinders, stones, slag, coarse fragment, gravel, sticks, roots, trash or other extraneous materials larger than la inches in diameter. Topsoil must be free of plants or plant parts of bermudagrass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistles, or others as specified. All topsoil shall be tested by a recognized laboratory for organic matter content, pH and soluble salts. A pH of 6.0 to 7.5 and an organic content of not less than 1.5 percent by weight is required. If pH value is less than 6.0, lime shall be applied and incorporated with the topsoil to adjust the pH to 6.5 or higher. Topsoil containing soluble salts greater than 500 parts per million shall not be used.
 - 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 to permit dissipation of toxic materials. Note: Topsoil substitutes or amendments as approved by a

qualified agronomist or soil scientist, may be used in

Page 2

lieu of natural topsoil. B. Grading: The topsoil shall be uniformly distributed and compacted to a minimum of four (4) inches. 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

220-260 1bs/acre or 5-6 1bs/1000 eq. ft.

2/1 - 10/31 5/1 - 8/14 irrigation required.

Maryland SCS/WRA

placed while in a frozen or muddy condition, when the subgrade is excessively wet, or in a condition that may otherwise be detrimental to proper grading and seedbed preparation. Alternative for Permanent Seeding

April 1983

As an option to applying the full amounts of lime and commercial fertilizer, apply Composted Sludge as specified below, a potassium fertilizer at the rate of 4 pounds per 1,000 square foot and 1/3 the normal lime applica-

Composted Sludge Material Composted sludge for use as a soil amendment or conditioner shall conform to the following requirements:

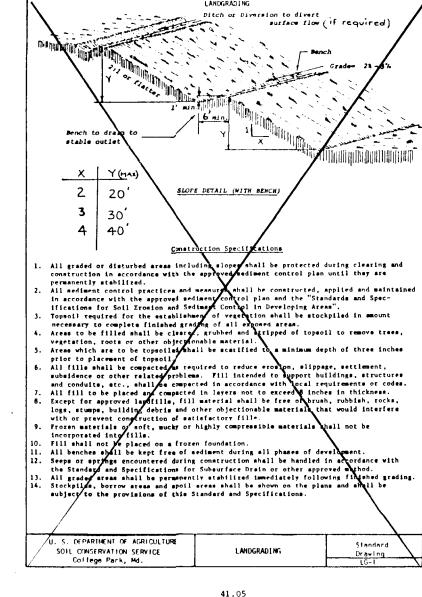
- 1. Be supplied by or orginate from a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of Health and Mental Hygiene under Regulation
- 2. Shall contain at least 1 percent nitrogen, 1.5 percent phosphorus and .2 percent potassium and have a pH of 7.0 and 8.0. If compost does not meet these requirements, the appropriate constituents must be added so that the requirements are met prior to use of the compost.
- 3. Be applied at a rate of 2,000 pounds per 1,000 square feet.

1. Guideline Specifications, Soil Preparation and Sodding. MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

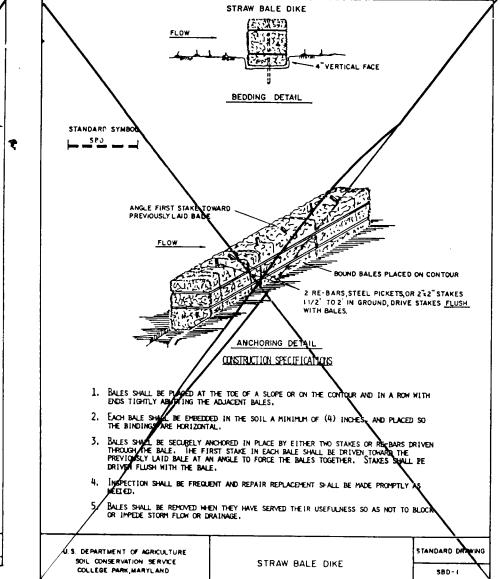
57.03

SILT FENCE

--- WOVEN WIRE FENCE (MIN. 14 V2 GAUGE, MAX. 6" MESH



STONE OUTLET SEDIMENT TRAP T



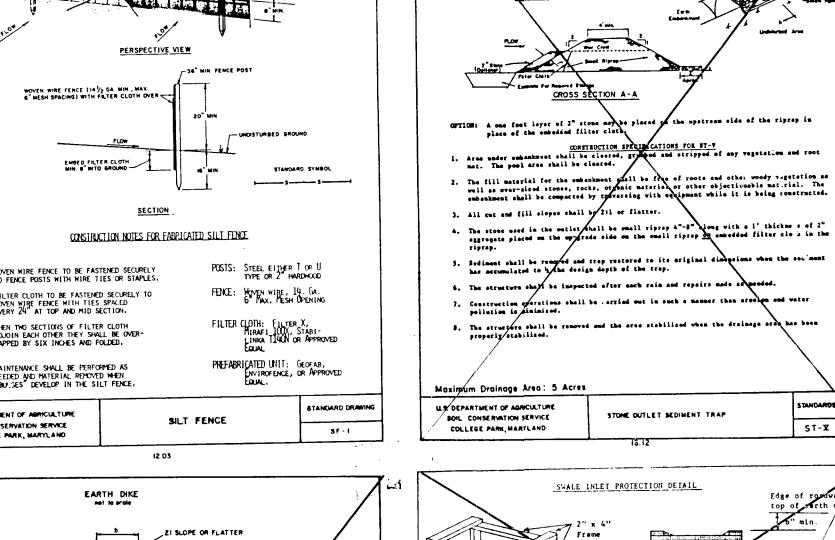
SEDIMENT CONTROL NOTES

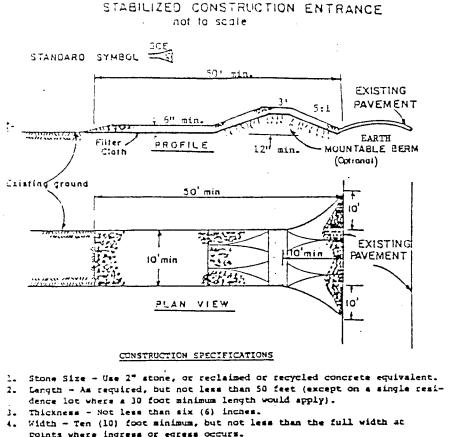
- III erosion and sediment control measures are to be constructed and maintained in accordance with applicable published 1983 Maryland Standards and Specifications for Soil Brosion and Segument Longing All sediment control measures to be adjusted to meet field conditions. cithe time of construction and be constructed prior to any grading or disturbance of existing surface material on paramete of site.
- Periodic inspection and maintenance of all segment control structures. must be provided to insure intended purpose is addomptished. .eveloper shall be responsible for all leatinest leaving the property. legiment control measures small be in working conditions at the end of
- 4. We points of construction ingress and agrees will be protected by prevent 'racking of mud onto public ways.
- 5. All sediment will be prevented from entering inv storm drainage system through use of injet protection. Contractor instailing the above snall obtain and follow thee "1983 Maryland Standards and specifications for Soil grosion and Sediment Control" as listributed by Water Resources Administration, Erosion & Sediment Confro-Division, Tawes State Office Building, Annapolis, Maryland 21401
- All braininge swales and all slopes greater than 3.1 will be sourced. Segment control structures will be inspected for integrity daily. Any tamage tevices shall be corrected immediately,
- Following initial soil disturbance or re-disturbance, bermanent or temporary stabilization shall be completed within T-calendar days to the surface of all perimeter controls, fikes, swales, ditches, perimeter slopes, and all slopes greater than 3:1; and 14 days to all other disturbed or graded areas on the site. The inplace segment control measures will be maintained on a continuing basis until the site is permanently stabilized and all permit requirements are net.
- 3. The developer is responsible for the acquisition of all required easements, right, and/or rights-of-way pursuant to the discharge from the sediment and erosion control practices, stormwater management practices and the discharge of stormwater onto or icross and grading or other work to be performed on adjacent or downstream properties
- On all sites with disturbed area in excess of 2 acres,, approval of the inspection agency shall be requested upon completion of installation of perimeter crossion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized into this initial approval by the inspection agency is made; and
- Approval shall be requested upon final stabilization of illisites with: disturbed areas in excess of 2 acres before lemoval it controls.

SILT AND EROSION CONTROL NOTES a. The developer is responsible for the acquisition of all required easements, right, and/or rights-of-way pursuant to the discharge from the sediment and erosion control practices, storm water

- management practices and the discharge of storm water onto or across and grading or other work to be performed on adjacent or downstream properties affected by this plan.
- b. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a.) seven calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1) and b.) fourteen days as to all other disturbed or graded areas on the project site. The implace sediment control measures will be maintained on a continuing basis until the site is permanently stabilized and all permit requirements
- c. 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 insepction approvals may not be authorized until this initial approval by the inspection agency is made; and
- d. Approval shall be requested upon final stabilization of all sites with disturbed areas in excess of 2 acres before removal of controls.
- e. Disturbed Surface area 375 Cu Yos Volume of spoil material Volume of borrowmaterial NONE
- 6. Predominant soil types and general description per Pats CD soil survey Chillum Silt Loam, Chillum Gravelly SiltLoam Baille SiltLoam, MATTY Channery Loam, and Manor Loam,
- *SPOR SITE TO BE PREADMOVED BY THE SEDIMENT CONTROL INSPECTOR

VII. Mulching All seedings require mulching. Use mulch only during non-seeding date. Mulch shall be unrotted, unchopped small grain straw applied at a rate until seeding can be done. of 14 to 2 tons/acre or 70-90 lbs/1000 sq. ft. (2 bales). Mulch materials PERSPECTIVE VIEW shall be relatively free of all kinds of weedbeds and shall be free of prohibited noxious weeds. Spread mulch uniformly mechanically or by hand. Mulch anchoring shall be accomplished immediately after mulch placement to minimize loss by wind or water. This may be done by mulch nettings, mulch anchoring tool, peg and twine or liquid mulch binders. Liquid mulch binder shall be rapid curing cutback asphalt applied at a rate of 200 gal/acre or 5 gal. per 1000 sq. ft. Slopes 8 feet or more high use 348 gal/acre or 8 gal./1000 sq. ft. VIII. Sodding Class of turfgrass sod shall be Haryland or Virginia State certified, or Md. or Virginia State approved sod. Sod shall be harvested, delivered and installed within a period of 36 hours. Sod is to be laid with the long STANDARD SYMBOL edges parallel to the contour with staggered joints with all ends tightly abutting and not over lapping. Sod shall be rolled and thoroughly water within eight hours of installation. Daily watering to maintain 4 inch depth of moisture for the first week is required in the absence of rainfall. SECTION Sod is not to be applied on frozen ground. CONSTRUCTION NOTES FOR FABRICATED SILT FENCE Irrigation - When soil moisture becomes deficient irrigate to prevent loss of stand of protective vegetation. B. Repairs - If stand is inadequate for erosion control, overseed and Woven wire fence to be fastened securely to fence posts with wire ties or staples. fertilize using half of the rates originally applied. If stand is over 60% damaged, reestablish following original rates and 2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE: WOVEN WIRE, 14. GA. 6" MAX, MESH OPENING Note: Use of this information does not preclude meeting all of the require- When two sections of filter cloth adjoin each other they shall be over-lapped by SIX Inches and Folded. ments of the 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control Vegetative Practices. U.S. DEPARTMENT OF ADRICULTURE SILT FENCE BOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND STONE OUTLET STRUCTURE"





points where ingress or egress occurs. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot. Surface Water - All surface water flowing on diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a nountable berm with 5:1 slopes will be permitted. 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. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area

stabilized with stone and which drains into an approved sediment trapping Periodic inspection and needed maintenance shall be provided after each rain. STABILIZED CONSTRUCTION | Standard

SOIL CONSERVATION

14.03 A

CONSULTANT'S CERTIFICATION

STONE OUTLET STRUCTURE

pecifications

The scone shall be crushed stone. Gravel may be used if crushed stone

The crest of the stone dive shall be at least six inches lower than the

The minimum length, in feet, of the crest of the cone outlet structure

The scone outles structure shall be inspected after each rain, and the

The baffle board shall be extended one foot into the dike, staked and

intended due to silt accumulation among the scone, washout, construction

stone shall be replaced when the structure ceases to function as

is not available. The scone shall meet ASHA Size No. 2 or AASHTO

lowest elevation of the for of the earth dike and shall be level.

The scone outler structure shall be embedded into the soil a minimum

Construction

designation M43 Size No. 2 1 24.

embedded 4 inches into existing ground.

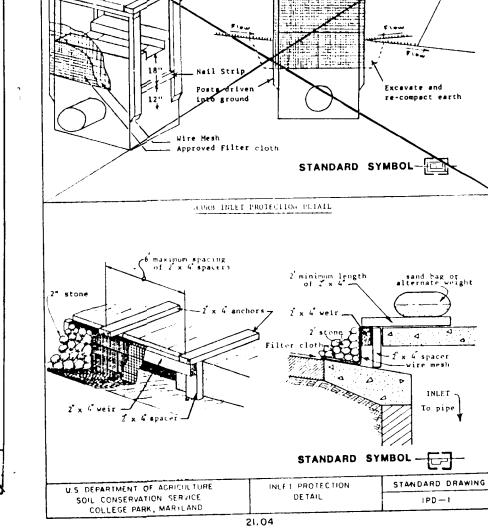
"I certify that this plan of erosion and sediment control represents a practicable and workable plan based on my personal knowledge of the site, and this plan was prepared in accordance with the requirements of the 404460 Soil Conservation District and "Standards and Specifications for Soil Erosion and Sediment Control." I have reviewed this erosion and sediment

control plan with the owner/developer.

Signature Company MD License No. 3702 Date 1/5/92

Name Robert L. Pumphrey, 5. (Include seal, company name, address and phone number if not included elsewhere on plan).

ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT. ALL DIKES SHALL HAVE POSITIVE DRAMMAGE TO AN OUTLET. TOP WIDTH MAY BE WIDER AND SIDE SUBPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC. EIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET. EARTH DIKES SHALL HAVE AN OUTLET THAT PUNCTIONS WITH A MINIMUM OF EROSION. PLANOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR EDIMENT BASIN HERE EITHER THE DIKE CHANNES OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED. STABILIZATION SHALL BE: (A) IMPACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOH CHANNEL AS PER THE CHART BELOW. FLOH CHANEL STABILIZATION SEED AND STRAW MULCH SEED AND STRAW MULCH SEED AND STRAW MULCH LINED RIP-RAP 4-8" SEED WITH JUTE, OR SOD; LINED RIP-RAP 4-8" STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED AND THE SOIL. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN E 9. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND EARTH DIKE



ST-X

OWNER'S/DEVELOPER'S CERTIFICATION

"I/We hereby certify that I have reviewed this erosion and sediment control plan and that all clearing, grading, construction and/or development will be done pursuant to this plan and that any responsible personnel involved in the construction project will have a certificate of attendance at a Department of the Environ nent approved training program for the control of sediment and erosion before beginning the project."

Signature Plan Ray Date ! Name ALEX ROMBACH Title Owner Phone No. 301-420-0754

Complete Address Sec 541



Approved: Department of Planning & Zoning Chief, Division of Community Planning and Land Development

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND



CHIEF, DURGAU OF ENGINEERING DATE SILT & EROSION CONTROL DETAILS

STREET PLAN & PROFILE EXTENSION of TIPTON DR.

600'SCALE MAP NO. 45 BLOCK NO. 12

Tax Map no. 46

ROMBACH PROPERTY Lots 3 through 6

SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO.

Parcel no.319

SCAL

A.S

F-92-157