

To temporarily stabilize the soil; to reduce damages from sediment and runoff to downstream areas; improve wildlife habitat; enhance natural beauty.

Conditions Where Practice Applies Graded or cleared areas which are subject to crosion for a period of 14 days

## SPECIFICATIONS

## Site Preparation

- A. Prior to seeding, install needed erosion and sediment control practices such as diversions, grade stabilization structures, berns, dikes, grassed waterways, and sediment basins ..
- B. Final grading and shaping has usually not been completed for

For temporary seedings, fertilizer shall be applied at the rate of 600 lbs/ac. or 15 lbs/1,000 sq. ft., using 10-10-10 or equivalent. Soils which are highly acid should be lived

## III. Scedbed Preparation

When the area to be seeded has been recently loosened to the extent that on alequate seedbod exists, no additional treatment is required.

However, when the area to be seeded is packed, crusted, and hard, the top layer of soil shall be loosened by discing, raking or other acceptable coans before seeding.

## IV. Seeding A. Select a mixture from Table 50-1.

3 B. Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder or hydroseeder (slurry includes seed and fertilizer).

When seedings are made on critical sites or adverse soil conditions, mulch material will be applied immediately after secding. Seedings made during optimum seeding dates and with favorable soils on very flat areas may not need to be mulched. Mulch materials are listed in order of their

- A. Materials and Amounts
- Mulch mattings such as jute or excelsior blanket shall be stapled to the surface in waterways and on steep slopes. Lighter materials of paper, plastic and cotton mulch mattings may be used where erosion hazard is not severe. If the area is to be moved, do not use metal steples.
- 2. Straw Material shall be unrotted small grain, straw applied at the rate of 14 to 2 tons per acre, or 70 to 90 (two bales) pounds per 1,000 sq. ft. Mulch naterials shall be relatively free of all kinds of weeds and shall be free of prohibited noxious weeds such as: thistles, Johnsongrass and quackgrass.
  - Spread uniformly by hand or mechanically. For uniform distribution of hand spread nulch, divide area into approximately 1,000 sq. ft. section and place 70-90 lbs. of culch in each section.
  - Wood chips at the rate of approximately 6 tons per acre or 275 lbs. per 1,000 sq. ft. may be used when available and when
- 4. Wood cellulose fiber mulch at the rate of 1,500 pounds per acre or 35 pounds per 1,000 sq. ft. may be applied by
- B. Mulch anchoring shall be accomp' shed immediately after mulch placement to minimize loss by wind or water. This may be done by one of the following methodo (histed by preference), depending upon size of area, erosion hazard, and cost. On sloping land, practice No. 1 below, should be done on the contour wherever possible, except "tracking" should be done up and down the slope with ly inch cleat marks running across the slope.
  - Mulch Anchoring Tool and Tracking. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the surface 2 inches of soil. This practice affords maximum erosion control but is limited to flatter slopes where equipment can operate safely. Tracking is primarily used on steeper than 3:1 cut and fill slopes to cut the mulch into the soil with cleated buildozer tracks.
- 2. Mulch Nettings Staple lightweight biodegradable paper, plastic or cotten nettings over the mulch according to manufacturer's recommendations. Notting is usually available in rolls 4-feet wide and up to 300-feet long.
- Liquid Mulch Binders
  Application of liquid binders should be heavier at edges where wind catches nulch, in valleys, and at crests of . banks. Remainder of area should be uniform in appearance. Caution should be used with asphalt in residential and similar areas.
- a. Cutback asphalt rapid curing (RC-70, RC-250, and RC-800) or medium curing (MC-250 or MC-800). Apply 5 gallons per 1,000 square feet or 218 gallons per acre on flat areas, and on slopes less than 8-feet high. On slopes 8-feet or more high, use 8 gallons per 1,000 square feet or 348 gallons per acre.
- b. Emulsified asphalt (SS-1, CSS-1, CSS-2, MS-2, RS-1, RS-2, CRS-1, and CRS-2). Apply 5 gallons per 1,000 square feet or 218 gallons per acre on flat areas and on slopes less than 8-feet high. On slopes 8-feet or more high, use 8 gallons per 1,000 square feet or 348 gallons per acre.
- All asphalt designations are from the Asphalt Institute Specifications.
- c. Synthetic binders Synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petroset or Terra Tack may be used at rates recommended by the manufacturer to anchor mulch
- Wood cellulose fiber 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 pounds of wood fiber per 100 gallons.
- mixed with water and the mixture shall contain a maximum of SC Peg and Twine - Drive 8-to 10-inch wooden pegs to within 2 to 3 es of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure

mulch to soil surface by stretching twine between pegs in a

criss-cross within a square pattern. Secure twine around each

peg with two or more round turns. Note: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other

- 1. USDA. Soil Conservation Service Field Office Technical Guides.
- 2. Maryland State Highway Administration Specifications.

THIS DEVELOPMENT PLAN IS APPROVED

FOR SOIL FROSION AND SEDIMENT

Note: Maryland Water Resources Administration has developed an Audiovisus! Training Progrem, Temporary Soil Stabilization," which relates to

## STANDARD AND SPECIFICATIONS VEGETARIVE STABILIZATION

## Definition

Stabilizing sediment producing areas by establishing long-term stands of grass with sod.

Purpose To stabilize the soil; reduce damage from sediment and runoff to downstream

## Conditions Where Practice Applies

On exposed soils where a quick vegetative cover is desired; on sites which can be maintained with ground equipment (2:1 or flatter slopes).

- 1. Class of turfgrass sod shall be Maryland or Virginia State Certified, or Meruland or Virginia State approved and
- 2. Sod shall be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 1/4 inch, at the time of cutting. Measurement for thickness
- 3. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically

shall exclude top growth and thatch.

- with a firm grasp on the upper 10 percent of the section.
- 4. Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard widths and lengths

shall be 5 percent. Broken pads and torn or uneven ends will not be

- 5. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
- 6. Sod shall be harvested, delivered and installed within a period of 36 hours. Sod not transplanted within this period shall be inspected and approved prior to its installation.

## Site Preparation

Pertilizer and lime application rates shall be determined by soil tests. Under unusual circumstances where there is insufficient time for a complete soil test, fertilizer and line materials may be applied in

- A. Prior to sodding, the surface shall be cleared of all trush, debris, and of all roots, brush, wire, grade stakes and other objects that would interfere with planting, fertilizing or maintenance operations.
- B. Where the soil is said or composed of heavy clays, ground limestone shall be spread at the rate of 2 tons/acre or 100 pounds per 1,000 square feet. In all soils 1,000 pounds per acre or 25 pounds per 1,000 square feet of 10-10-10 fertilizer or equivalent shall be uniformly applied and mixed into the top 3 inches of soil with the required line.
- C. All areas receiving sod shall be uniformily fine graded. Hard-packed earth shall be scarefied prior to placement of sod.

- A. During periods of excessively high temperature the soil shall be lightly irrigated immediately prior to laying the sod.
- B. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Insure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.
- C. On sloping areas where crosion may be a problem, sod shall be laid with the long edges parallel to the contour and with staggered joints. Secure the sod by tamping and pegging or other approved
- D. As sodding is completed in any one section, the entire area shall be rolled or tamped to insure solid contact of roots with the sol surface. Sod shall be watered immediately after rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly vet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.

- A. In the absence of adequate rainfall, vatering shall be performed sufficient quantities to maintain moist soil to a depth of 4 inches. Watering should be done during the heat of the day to
- B. After the first week, sod shall be watered as necessary to maintain adequate moisture and insure establishment
- C. First nowing should not be attempted until sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be caintained between 2 and 3 inches unless otherwise specified.
- D. Maintenance of established sod should follow specifications outlined in table 54-1.

- 1. Guideline Specifications, Soil Preparation and Sodding, MD-VA Pub. \$1. Cooperative Extension Service, University of Maryland-Virginia Polytechnic Institute, Revised 1973.
- Guideline Specifications for Sodding. American sod Producers Association, Inc., New Brunswick, N.J.
- USDA, Soil Conservation Service Field Office Technical Guides.

Note: Maryland Water Resources Administration has developed an Audiovisual Training Program, Vegatative Soil Stabilization, which relates to this subject.

## STANDARD AND SPECIFICATIONS VEGETATIVE STABILIZATION WITH MULCHING ONLY

## <u>Definition</u>

Apply plant residues or other suitable asterials not produced on the site to

## <u>Purpose</u>

### To conserve moisture; prevent surface compaction or crusting; reduce runoff and erosion; control weeds, and help establish plant cover.

Conditions Where Practice Applies Where protection of the soil surface is desired and temporary and permanent

I. Site Preparation A. Prior to mulching, install any meded erosion and sediment control practices such as diversions, grade stabilization structures,

berms, dikes, grassed waterways and sediment basins.

seeding is not fessible, then mulching only should be used.

B. Final grading is not required prior to nulching. However, nulching may be applied after final grade is reached.

## A. Materials and Amounts

- Straw Straw shall be unrotted small grain applied at the rate of 1% to 2 tons per acre, or 70 to 90 bounds per 1.000 square feet Mulch materials shall be relatively free of all kinds of weeds and shall be free of prohibited noxious weeds such as: thistles. Johnson crass and quackgrass.
- Spread uniformly by hand or mechanically. For uniform distribution of hand spread mulch, divide area into approxinately 1,000 square foot section and place 70-90 pounds of
- 2. Asphalt emulsion or cutback asphalt at 600 to 1,200 gallons per acre. This is suitable for a limited period of time where travel by people, animals or machines is not a problem.
- facturer's recommendations -- under suitable conditions. 4. Mulch mattings such as jute or excelsior blanket shall be stapled to the surface in waterways and on steep slopes. Lighter materials of paper, plastic and cotton mulch mattings

may be used where erosion hazard is not severe. If area is to

3. Synthetic soil stabilizers may be used according to manu-

5. Wood chips at the rate of approximately 6 tons per acre or 275 pounds per 1,000 square foot may be used when available and

be moved, do not use metal staples.

6. Crushed rock, stones, gravel or shale blankets. Apply at rate of 20 to 100 tons per scre or 900 to 4,500 lbs. per 1,000 sq.

ft. with coarsest material applied at the highest rate.

- Mulch anchoring shall be accomplished immediately after mulch placement 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, erosion hazard, and cost. On sloping land, practice No. I below, should be done on the contour wherever possible, except "tracking" should be done up and down the slope with 14 inch cleat marks running across the slope.
- 1. Mulch Anchoring Tool and Tracking. A mulch anchoring tool is a ractor drawn implement designed to punch and anchor mulch into the surface two (2) inches of soil. This practice affords maximum erosion control but is limited to flatter slopes where equipment can operate safely - primarily used on flatter than 3:1 cut and fill slopes to cut the mulch into the soil. "Tracking" is used primarily on slopes steeper than 3:1 cut and fill slopes to cut the nulch into the soil with cleated tracks.
- 2. Mulch Nettings Staple lightweight biodegradable paper, plastic or cotton netting over the mulch according to manufacturer's recommendations. Netting is usually available in rolls four (4) feet wide and up to 200 feet long.
- 3. Liquid Mulch Binders Applications of liquid binder should be heavier at edges where wind catches mulch, in valleys and at crests of banks. The remainder of the area should be uniform in appearance. Caution should be used with asphalt in residential and similar areas. Cutback asphalt - rapid curing (RC-70, RC-250 and RC-800) or medium curing (KC-250 or MC-800). Apply 5 gallons per
- 1,000 square foot or 200 gallons per sere on flat areas and on slopes less than 3 feet high. On slopes 8 feet or more high, use 8 gallons per 1,000 square feet or 348 gallons per acre. b. Emulsified asphalt - (SS-1, CSS-1, CMS-2, MS-2, RS-1, RS-2 CRS-1, and CRS-2). Apply 5 grillons per 1,000 square foot or 200 gallons per scre on flat areas and on slopes less
- gallons per 1,000 square foot or 348 gallons per acre. All asphalt designations are from the Asphalt Institute

than 8 feet high. On slopes 8 feet or more high, use 8

- Synthetic binders such as Acrylic LLR (Agri-Tac), DCA-70. Petroset or Terra Tac may be used at rates recommended by the manufacturer to anchor mulch material. Note: All pines given above are registered trade names
- This does not constitute a recommendation of these products to the exclusion of other products. 4. Wood cellulose fiber binder - The fiber binder shall be applied at a net dry weight of 750 lbs/ac. The wood cellulose fibre shall be gived with water, and the gixture shall contain a
- maximum of 50 lbs. of wood cellulose fibre per 100 gallons. 5. Peg and Twine - Drive 8-to 10-inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss-cross within a square pattern. Secure twine around each peg with two or more round turns.

## References

Tall fescue makes up 70% or more of

Serices lespèders

Fairly uniform stand of tall fescue and serices

l. pedeza, or ...dsfost trefoll.

rly uniform plant

tentocky bloegrasi

Led fescue:

2,12,13,14

- 1. USDA-Soil Conservation Service Field Office Technical Guides.
- 2. Mulches for Wird and Water Erosin- Control, UT . Arn 41-84, July 1963.
- 3. Applied Mulches and Mulching, USPA, ARS Special Report, ARS 22-71,

10-10-10

10-10-10

0-20-20

5-10-to

5-10-10

20-10-10 20-10-10 20-10-10

Note: Maryland Water Resources . dministration has developed an audiovisual program, "Temporary Soil Stabilization," which relates to this subject.

Maintenance Fertilization for Percanent Seedings

11.5

11.5

11.5

## VEGETATIVE STABILIZATION , PERMANENT SEEDINGS

STANDARD AND SPECIFICATIONS

## Definition

Planting vegetation such as grasses and legumes on critical areas.

To stabilize the soil; to reduce damages from sediment and runoff to downstream areas; improve wildlife habitat; enhance natural beauty.

## Conditions Where Practices Apply

Graded or cleared areas subject to erosion and where a permanent, long-lived vegetative cover is needed.

Vegetation cannot be expected to provide an erosion control cover and prevent soil slippage on a soil that is not stable due to its texture, structure, water movement or excessivly steep slope.

## Minimum soil conditions needed for the establishment and maintenance of a long-lived vegetative cover:

- A. Enough fine-grained materials (over 30 percent silt plus clay) to provide the capacity to hold at least a moderate amount of available moisture. Noticeable exception would be planting lovegrass and serecia lespedeza which can be planted on a sandy soil.
- B. Sufficient pore space to permit adequate root penetration.
- C. The soil shall be free from any material harmful to plant growth.
- D. If these conditions cannot be met, see specification, Topsoiling

## I. Site Preparation A. Install needed erosion and sediment control practices such as dikes,

contour ripping, erosion stops, channel liners, sediment basins, or B. Grade as needed and feasible to permit the use of conventional

## equipment for seedbed preparation, seeding, mulch application, anchoring and maintenance.

## II. Soil Preparation

Plat areas and slopes up to 3 to 1 grade shall be loose and friable to a depth of at least 3 inches. The top layer of soil shall be loosened by raking, discing or other acceptable means before seeding.

Slopes steeper than 3 to 1 shall have the top 1-3 inches of soil loose and friable before seeding.

Line and fertilize according to soil tests. Line and fertilizer needs can be determined by a soil testing laboratory, such as the University of Maryland's Soil Testing Laboratory.

In lieu of soil test results, apply two tons dolomitic limestone per acre and one of the following rates of fertilizer: 1,000 pounds 10-10-10 or equivalent per acre. For a longer lasting fertilizer treatment apply 600 pounds 10-10-10 or equivalent per sore and disk in and at time of seeding apply an additional 400 pounds of a ureaform fertilizer of a grade of at least 30-0-0 per scre. Apply the line and fertilizer before seeding and harrow or disk uniformily into the soil to a minimum depth of 3 inches on slopes flatter than 3:1. On slopes steeper than 3:1 grade, the lime and fertilizer shall be worked the best way possible. On sloping land, the final harrowing or discing operation should be on the contour wherever fessible. No attempt should be made to drag any disked area to make the soil surface smooth after disking.

Note. The slow release ureaform fertilizer will supply nitrogen over a longer period of time.

- A. Select a mixture from table 51-1.
- B. Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder or hydroseeder (slurry includes seed and fertilizer) on a firm, moist seedbed. Maximum seeding depth should be 1/4 inch on clavey soils and 1/2 inch on sandy soils, when using other than hydroseeder method of application. Note: If hydroseeding is used and the seed and fertilizer is nixed, they will be nixed on site and the seeding shall be immediate without interruption.

## V. <u>Mulching</u>

Mulch materials are listed in order of their effectiveness. Mulch nattings are normally only used on critical areas such as waterways or

## A. Haterials and Amounts

- Mulch mattings such as jute or excelsion blanket shall be stapled to the surface in waterways and on steep slopes. Lighter materials of paper, plastic and cotton mulch mattings may be used where erosion hazard is not severe. If the area is to be moved, do not use metal staples.
- rate of 14 to 2 tons per acre, or 70 to 90 (two bales) pounds per 1.000 square foot. Mulch materials shall be relatively free of all kinds of weeds and shall be free of prohibited noxious weeds such as: thistles, Johnsongrass and quackgrass. Spread uniformly by hand or mechanically. For uniform

approximately 1,000 square feet section and place 70-90 pounds

2. Straw - Straw shall be unrotted small grain applied at the

of mulch in each section. Wood chips - at the rate of approximately 6 tons per acre or pounds per 1,000 square foot may be used when available and when feasible. These are particularly well-suited for utility and road rights-of-way. If wood chips are used, increase the application rate of nitrogen fertilizer by 20

distribution of hand spread mulch, divide area into

- pounds (200 pounds 10-10-10 or 66 pounds 30-0-0). 4. Wood cellulose fiber - mulch at the rate of 1,500 pounds per scre or 35 pounds per 1,000 square foot may be applied by
- Mulch anchoring shall be accomplished immediately after mulch placement 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, erosion hazard, and cost. On sloping land, practice No. 1 below, should be done on the contour whenever possible. Contouring of all operations applies to all straw and wood chip practices on more critical sites, except "tracking" should be done up and down the slope with 12 inch cleat marks running across the

1. Mulch Anchoring Tool and Tracking. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the surface 2 inches of soil. This practice affords maximum erosion control but is limited to flatter slopes where equipment can operate safely. "Tracking" is primarily used on 3:1 or steeper cut and fill slopes to cut the mulch into the soil by ly" track cleats of a bulldozer making groves across

- 2. Milch Nettings Staple lightweight biodegradable paper, plastic or cotton nettings over the culch according to manufacturer's recommendations. Netting is usually available in rolls 4 feet wide and up to 300 feet long.
- Liquid Mulch Binders Applications of liquid binders should be heavier at edges where wind catches mulch, in valleys, and at crests of banks. Remainder of area should be uniform in appearance. Caution should be used with asphalt in residential and similar areas
- a. Cutback asphalt rapid curing (RC-70, RC-250, and RC-800) or medium curing (MC-250 or MC-800). Apply 5 gallons per 1,000 square feet or 200 gallons per acre on flat areas and on slopes less than 8 feet high. On slopes 8 feet or more high, use 8 gallons per 1,000 square feet or 348 gallons per scre.
- b. Emulsified asphalt (SS-1, CSS-1, CMS-2, MS-2, RS-1, RS-2, CRS-1, and CRS-2). Apply 5 gallons per 1,000 square feet or 200 gallons per acre on flat areas and on slopes less than 8 feet high. On slopes 8 feet or more high, use 8 gallons per 1,000 square feet or 348 gallons
- All asphalt designations are from the asphalt Institute
- c. Synthetic binders Synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petroset or Terra Tac II or Terra Tack AR may be used at rates recommended by the manufacturer to anchor mulch material.
- 4. Wood cellulose fiber Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/scre. 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.
- Peg and Twine Drive 8-to 10-inch wooden pegs to within 2 to inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss-cross within a square pattern. Secure twine around each peg with two or more complete turns.

Note: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other products.

If soil moisture is deficient, supply new seedings with adequate water

## for plant growth until they are firmly established, if fessible. This is especially true when seedings are nade late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

Maintenance is a vital factor in maintaining an adequate vegetative

- Irrigation If soil moisture becomes deficient, irrigate to prevent loss of stand of protective vegetation, if feasible.
- Repairs Inspect all seeded areas for failures and make necessary repairs, replacements, and reseedings within the planting season,
- 1. If stand is inadequate for erosion control, overseed and fertilize using half of the rates originally applied. 2. If stand is over 60% damaged, reestablish following original

## line, fertilizer, seedbed preparation and seeding recommendations.

erosion control cover.

- 1. Lawn Care in Maryland, Bulletin 171; Cooperative Extension Service, University of Maryland, College Park, Maryland.
- Haryland Agronomy Memo #72.

per acre of well-anchored straw mulch.

required before applying the seed.

DIVISION OF LAND DEVELOPMENT &

HOWARD COUNTY, MARYLAND

MATE 10-17-85

3. Maryland Highway Administration Specifications for Materials. 4. USDA-Soil Conservation Service Field Office Technical Guides.

Note: Maryland Department of Water Resources has developed an

- audiovisual training program, "Plant Materials and Vegetative Soil Stabilization," which relates to this practice. (a) Use Weeping lovegrass to provide a stand of grass for erosion control
- (b) Use hulless seed.
- (c) Preferable to seed in fall with seed from current year's crop-(d) Mixtures 1.3.4.5.6.7.8,10,11,12,13 and 14 may be seeded during winter

months in an emergency if 2 tons per acre of a well-anchored mulch is used.

- (e) Approved State Highway Administration Hixtures. (f) Can be seeded during this period if irrigation water is used. Use 2 tons
- (g) Can use 10 percent Kentucky bluegrass. (MD AGRON MEMO \$72). (h) Leguminous Seeds. All leguminous seeds shall be inoculated or treated with unexpired approved culture for the specific legume in the proper proportions as specified on the package label. The inoculant shall be mixing the inoculant with the seed shall be followed. The culture in
- stored at room temperatures, out of direct sunlight and away from heating units. When seeding dry with mechanical seeders, the following method of powder form is preferred and shall be thoroughly mixed with the seed by using a very small quantity of water; just enough to dampen the seeds before the culture is powdered on. The leguminous seed is then mixed with the other seeds of the formula. Seeds inoculated with the powder shall be sown within 48 hours after treatment. Seeds inoculated with the liquid culture shall be sown within 24 hours after treatment. Inoculated seed not used within these time periods shall be reinoculatd. Inoculant and seed treated with inoculant shall not be exposed to sunlight for more than one hour prior to seeding. When seed is applied by hydraulic seeders, 10 times the quantity of inoculant recommended for dry leguminous seed application shall be used. Inoculated seed shall not be held in a slurry with fertilizer for more than one hour, otherwise reinoculation will be

Notes: (1) Scientific names of these plants are in Appendix B-1.02.

## \*\*Any three(3) varieties at 30 ths. each to make the 90 th mix Temporary Seedings by Rates, Depths and Dates

Persanent Seeding and Seeding Dates

DASTAL PLAIN PLEDMONT MOUNTAINS

5/1- 8/15- 3/1- 5/1- 8/15- 3/15- 6/1- 8/1-- By 10/15 Barley perennial Weeping Boer - x - - x - - x -

Sudangrass 4/ 40 lbs. .92 l-2 - x - - x - - x

- Use only on areas where seed stalks and volunteer growth are acceptable. Applicable on slopes 3:1 or less.
- Use varieties currently recommended for Maryland. Use certified seed when available. Use common sudangrass varieties only. Do not use hybrids,
- Twenty pounds per scre of annual lespedeza may be added to the seeding rate of any species used for seedings. 6/ Between fall and spring seeding dates, use mulching only or sodding practices.
- Applicable during entire period. - Not applicable in period.

| Veeping Lovegrass | Leaturay 31 Tall Feacue\*

incoulated(h)
'Kestucky di' Tall Fescue\*

'Pemlava' Creeping Red Fescue(40%)

ierecia lespatera (b)inoculated

Ptosb', "Birka", 'Parade", 'Yantage'

7 'Kestucky 31" Tall Feacue\*(g)

\*Tre Certified Seed Only

Catota', 'Kemblue', Kentucky Bluegrass) Red Fescue, 'Fenhlavn' or

Redtop Canada Bloegrass

0 | Kectucky 31' Tall Tescies

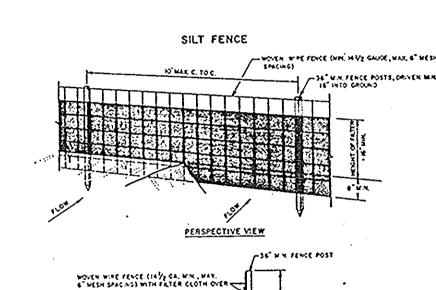
'Keetacky 31' Tall Fracue

3 tend canarygrass (c)

16 I'Rectucky 31'Tall Peacue\*

IS Red Teacue "Jamestova" or

Leuse & Bigh Katotemice Aress



# CUSED PRICE CLOTH

- CONSTRUCTION NOTES FOR FARRICATED SILT FENCE
- POSTS: Steel either T or U 2. Filter cloth to be fastered scorely to haven hise feice hith ties spaced every 24° at top and hid section. FEXE: HOWN HISE, 145 GA.

SECTION

- 3. Wen the sections of filter cloth adding each other they shall be exer-lepted by six incres and folded. 4. Naintenace shall be perfored as needed foo material pendid hen buces develop in the stat fence
- PREFARICATED UTIT: GEOGRAS, ENVIRONED

# GEDIMENT & EROGION CONTROL PLAN BUILDING ADDITIONS & RENOVATIONS TAX MAP: 37 PARCEL: 480

WATERLOO ELEMENTARY SCHOOL GULIFORD FLECTION DISTRICT 46

DEED REPERENCE: LIBER: 307 AT POLIO: 356

HOWARD COUNTY, MARYLAND

CORPORATION Professional Engineers + Land Planning Surveying & Construction Management (301) 595-4353 11033-C BALTIMORE AVENUE, BELTSVILLE, MD 20705 DES.WAJ DFT. APC ISHEET 4 OF 6 SCALE 1'= 30' JOB NO. 84-948

REVIEWED FOR:

HOWARD

AGE STORM DRAIN SYSTEMS & ROADS

FLANNING & ZONING

APPROVED: FOR PUBLIC WATER & SEWER SEWER SYSTEMS

REVISIONS JOYCE ENGINEERING

CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT. HOWARD COUNTY S.C.D.

AND MEETS TECHINAL REQUIRMENTS

CONSURVATION SERVICE DAT

APPROVED: FOR PUBLIC WATER, PUBLIC SEWER-

JEVELOPMENT É ZONING ADMIN.

HOWARD COUNTY OFFICE

DATE MARCH 1085 FILE NO. 84.008

SDP-85-223

HILP BUREAU OF ENGINEERING

Yearly, or as ceeded | \*Not closer than 3" if occa-

Do not wow crownsetch.

Not required. Not conser than 4" if occasional moving is desired, and then in fall

or recuired. Not closer the

if occasional movies is festred, and fall at or ser

Move no closer tian 2" for re-

fescos and Ky bluegrass; and closer than 3" for fescue.

Tall Tearly, or as reeded

Spring the year following establi

Fall the year

following establ

Spring the year following establ

September, 30 days later.

ment and every 3-

December, May 70-June 30, ti needed,

ment and every 4-5

