

### STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

- 1. CLASS OF TURFGRASS SOD SHALL BE MARYLAND OR VIRGINIA STATE CERTIFIED, OR MARYLAND OR VIRGINIA STATE APPROVED SOD. 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
  SHALL EXCLUDE TOP GROWTH AND THATCH.
- 3. STANDARD SIZE SECTIONS OF SOD SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY 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.

### I, SITE PREPARATION

- FERTILIZER 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 LIME MATERIALS MAY BE APPLIED IN AMOUNTS SHOWN UNDER B. BELOW.
- A. PRIOR TO SODDING, THE SURFACE SHALL BE CLEARED OF ALL TRASH,
  DEBRIS, AND OF ALL ROOTS, BRUSH, WIRE, GRADE STAKES AND OTHER
  OBJECTS THAT WOULD INTERFERE WITH PLANTING, FERTILIZING OR
- 8. WHERE THE SOIL IS ACID 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
- C. ALL AREAS RECEIVING SOD SHALL BE UNIFORMLY FINE GRADED.
  HARD-PACKED EARTH SHALL BE SCAREFIED PRIOR TO PLACEMENT OF SOD.

- A. DURING PERIODS OF EXCESSIVELY HIGH TERMPERATURE THE SOIL SHALL BE LIGHTLY IRRIGATED IMMEDIATELY PRIOR TO LAYING OF 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 EROSION MAY BE A PROBLEM, SOD SHALL BE LAKE WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERED JOHNTS, 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 SOLL SURFACE, SOD SHALL BE WATERED IMMEDIATELY AFTER ROLLING OR TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOO ARE THOROUGHLY WET. 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, WATERING SHALL BE PERFORMED DAILY OR AS AFTEN AS NECESSARY DURING THE FIRST WEEK AND IN 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

D. MAINTENANCE OF ESTABLISHED SOD SHOULD FOLLOW SPECIFICATIONS

OUTLINED IN TABLE 54-1.

REVIEWED FOR HOWARD SOIL CONSERVATION

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND

T CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION

FOR PUBLIC WATER AND SEWERAGE SYSTEMS.

CORM DRAINAGE SYSTEMS AND PUBLIC ROADS

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

2/20/4

1-29-91

HOWARD COUNTY HEALTH DEPARTMENT

U.S. SOIL CONSERVATION SERVICE 6

DIVISION OF COMMUNIT

CHIEF BUREAU OF ENGINEERING

APPROVED: FOR PUBLIC WATER AND SEWERAGE

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AND LAND DEVELOPMENT

C. FIRST MOWING SHOULD NOT BE ATTEMPTED UNTIL SOD IS FIRMLY ROOTED, NO MORE THAN 1/3 OF THE CRASS LEAF SHALL BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS, GRASS HEIGHT SHALL IE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED.

#### SEDIMENT CONTROL NOTES

- 1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits
- 2) All vegetative and structural practices are to be Intalled according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND
- 3) Following intitial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikés, perimeter slopes and an slopes greater than 3:1. b) 14 days as to all other disturbed or graded areas on the project site.
- 4) All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1. Chapter 12. of the HOWARD COUNTY DESIGN MANUAL.
- 5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and estab-
- 6) All sediment control structures are to remain in place and are to be maintained in operative condition uniti permission for their removal has been obtained from the Howard County Sediment Control Inspector.

ishment of grasses.

- 172,916 Acres 1.0 Acres Total Area of Site Area to be roofed or payed 983 Acres 4753±Cu. yds. Area to be vegetatively stabilized Total Cut Total FIN 0
- Offsite waste/borrow area location Waste to be placed Columbia Gateway parcel S-6 Grading permit No. GP-87-49 8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- 9) Additional sediment controls must be provided if deemend necessary by the Howard County DPW sediment
- 10) On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion. and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency

### TEMPORARY SEEDING NOTES

#### FEDRED PREPARATIONS LOOSEN UPPER 3 INCHES BY DISCING, RAKING OR OTHER ACCEPTABLE MEANS

- APPLY 600 LBS. PER ACRE (14 LBS./1,000 SQ. FT.) OF 10-10-10 FERTILIZER.
- FOR PERIODS MARCH 1 THRU APRIL 30, AND FROM AUGUST 15 THRU NOVEMBER 15 SEED WITH 2 1/2 BU, PER ACRE OF ANNUAL RYE (3.2 LBS./1,000 SO.FT.). FOR THE PERIOD MAY 1, THRU AUG. 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1,000 SQ. FT.), FOR PERIOD NOV. 16 THRU FEB. 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 SOO.
- APPLY 1 1/2 TO 2 TONS PER ACRE (TO TO 90 LBS./1,000 SO, FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING, ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 218 GALLONS PER ACRE (5 GALLONS/1,000 SO. FT.)
  OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER USE 348 GALLONS PER ACRE (8 GALLONS/1,000 SO. FT.) FOR ANCHORING.

# PERMANENT SEEDING NOTES

- ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:
- SEEDBED PREPARATION: LOOSEN UPPER 3 INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BERFORE SEEDING.
- SOIL AMENDMENTS: APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1,000 SQ. FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1,000 SQ. FT.). BEFORE SEEDING HARROW OR DISC INTO UPPER THREE INCHES OF SOIL AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER. (9
- FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS, PER ACRE (1.4 LBS./1,000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE, FOR THE PERIOD OF MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (0.05 LBS./ 1.000 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 SOO, OPTION (3) SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.
- APPLY 1 1/2 TO 2 TONS PER ACRE (TO TO 90 LBS./1,000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW MMEDIATELY AFTER SEEDING, ANCHOR MULCH MMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL./1,000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES OF 8 GAL./1,000 SQ. FT.) OF EMULSHIEU ASPHALL UN FLAT AREAS, ST. FOR FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL./1,000 SQ. FT.) FOR

# INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS, AND

- 1. REFER TO 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN.
- 2. WITH THE APPROVAL OF SEDIMENT CONTROL INSPECTOR, MINOR FIELD ADJUSTMENTS CAN AND WILL BE MADE TO INSURE THE CONTROL OF ANY SEDIMENT CHANGES IN SEDIMENT CONTROL PRACTICES REQUIRE PRIOR APPROVAL OF SEDIMENT CONTROL INSPECTOR AND THE HOWARD COUNTY
- 3. AT THE END OF EACH WORKING DAY ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT IN OPERATIONAL CONDITION.
- 4. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN (A) SEVEN CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS. DIKE SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) AND (8) FOURTEEN DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- 5. ANY CHANGE TO THE GRADING PROPOSED ON THIS PLAN REQUIRES RE-SUBMISSION TO HOWARD COUNTY SOIL CONSERVATION DISTRICT FOR
- 6. DUST CONTROL WILL BE PROVIDED FOR ALL DISTURBED AREAS. REFER TO 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL . P.P. 62.01 AND 62.02 FOR ACCEPTABLE METHODS AND SPECIFICATIONS FOR DUST CONTROL.
- 7. ANY VARIATION FROM THE SEQUENCE OF OPERATIONS STATED ON THIS PLAN REQUIRES THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE HOWARD COUNTY SOIL CONSERVATION DISTRICT PRIOR TO THE INITIATION
- 8. ANY EXCESS CUT OR BORROW MATERIAL WILL BE TAKEN TO OR BROUGHT FROM A SITE WITH AN APPROVED SEDIMENT CONTROL PLAN.
- 9. TOTAL AREA OF TRACT: 172.9 ACRES
- 10. TOTAL DISTURBED AREA: 1.0 ACRES
- 11. REFER TO "MARYLAND GUIDELINES TO WATERWAY CONSTRUCTION" BY THE WATER RESOURCES ADMINISTRATION (WRA), DATED JANUARY, 1986 FOR STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN FOR WATERWAY

# CONSTRUCTION SPECIFICATIONS

- L SITE PREPARATION AREAS DESIGNED FOR BORROW AREAS, EMBANKMENT AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSON. ALL TREES, VEGETATION. AREAS TO BE COVERED BY THE POND OR RESERVOIR WILL ANEAS TO BE COVERED BY THE TOWN OF THE TEST OF ALL TREES, BRUSH, LOCS, FLISTES, RUBBISH AND OTHER OBJECTIONABLE MATERIAL UNLESS OTHERWISE DESIGNED ON THE PLANS, TREES, BRUSH AND STUMPS SHALL BE CUT APPROXIMATELY LEVEL WITH THE GROUND SURFACE.
- ALE (LEARED AND CRUBBED MATERIAL SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE DAM AND RESERVOIR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE.
- THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREA OR AREAS. IT SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, OVERSIZE STONES, FROZEN OR OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE CONSTRUCTED TO AN
- ELEVATION WHICH PROVIDES FOR ANTICIPATED SETTLEMENT TO THE DESIGN ELEVATION. PLACEMENT
- AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCARFIED PRIOR TO PLACEMENT OF FILL. FILL MATERIALS SHALL BE PLACED IN 8-INCH MAXIMUM
  THICKNESS (BEFORE COMPACTION) LAYERS WHICH ARE TO
  BE CONTINUOS OVER THE ENTIRE LENGTH OF THE FILL.
  THE MOST POROUS BORROW MATERIAL SHALL BE PLACED
- COMPACTION THE MOVEMENT OF THE HAULING AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SURFACE OF EACH LIFT IS COMPACTED TO 95 PERCENT OF AASHTO SPECIFICATION T-99 (OR TO 95 PERCENT OF ARSHI'U SPELPR ATOM 1-99 FOR EQUIVALENT ASIM SPELIFICATION DENSITY AND CERTIFIED BY THE ENGINEER, FILL MATERIAL MUST CONTAIN ENOUGH MOISTURE TO YIELD THE REQUIRED DEGREE OF COMPACTION WITH THE EQUIPMENT USED.
- WHERE SPECIEES, A CUTOFT TRENCH SHALL BE EXCAVATED ALONG OR PARALLEL LO THE CENTERLINE OF THE EMBANGMENT AS SHOWN ON THE PLANS. THE BOTTOM WINTH OF THE TRENCH SHALL BE AS SHOWN ON THE ORAYINGS, WITH THE MINIMUM WINTH BEING FOOD FEET. THE DEPTH SHALL BE AT LEAST FOUR FEET OR AS SHOWN ON THE PLANS. THE SIDE SLOPES OF THE TRENCH SHALL BE 1.70 1 ON FLATTER, THE BACKFILL MATERIAL SC OR CLIPOR THE CUTOFF TRENCH SHALL BE DIE MOST IMPERIORS MATERIAL AVAILABLE AND SHOULD BE COMPACTED WITH EQUIPMENT OR ROLLEDS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.
- BACKFILM MATERIAL SHALL BE OF THE TYPE MO CHARTY CONFORMING TO THAT SPECIFIED FOR THE ADJOING FILL MATERIAL THE FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEPT FOUR INCHES IN THORIZONTAL LAYERS NOT TO EXCEPT FOUR INCHES IN THORIZONTAL LAYERS NOT TO EXCEPT FOUR INCHES IN THORIZONTAL TAMPERS OR OTHER COMPACTED BY MAND TAMPERS OR OTHER COMPACTORY ALL SPACES UNDER AND ADJACENT TO THE PIPE. AT HOT THE DIRING THE BACKFILLING OPERATION SHALL OFF HE BETTAND THE PRESENT OF THAN FOUR FEET. MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE, UNDER NO CIRCUMSTANCES SHANL COURMENT BE DRIVEN OVER ANY PART OF A CONCRETE STRUCTURE PIPE UNLESS THERE AS A COMPACTED FILL OF DIRECTOR POPE.
- IV. PPE CONDUITS ALL PIPES SHALL BE CIRCULAR IN CROSS SECTION. A CORPLICATED HETAL PIER I. MATERIAL'S ISTEEL PIRE) - THIS BIPE AND ITS APPORTENANCES SHALL BE GALVANIZED AND

# FULLY BITUMENOUS COATED AND SHALL CONFORM TO THE REQUIREMENTS OR AASHFC SPECFICATION M-190 TYPE AF WITH WATERTICHT COUPLING BANDS. ANY BITUMENOUS COATING BANAGED OR OTHERWISE REMOVED SHALL ME REPLACED WITH COLD APPLIED BITUMENOUS COATING COMPOUND. CONNECTIONS - ALL CONNECTIONS WITH PIPES MAST RE COMPLETELY WATERTIGHT, THE DRAIN PIPE OR BARREL CONNECTION TO THE RISER SHALL BE WELDED ALL AROUND WHEN THE PIPE AND RISER ARE METAL. RATERTICHT COMPLING BANDS OR PLANGES SHALL BE USED AT ALL JOINTS, ANTINSEEP COLLARS SHALL BE CONNECTED TO THE PIPE IN SICH A MANNER TO BE COMPLETELY WATERTIGHT, DIMPLE BANDS ARE NOT CONSIDERED TO BE WATERTIGHT. DESCRIPTION OF THE PIPE SHALL BE FINALY AND UNIFORMLY BEDDED THROUGHOUT ILS ENTIRE LENGTH THERE FOR OR SOFT SPONCY OR OTHER DINSTABLE SOLVS ENCOUNTERED, ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH COMPACTED TO PROVIDE ADROUGHTE SUPPORT. 4. AYING PIPE - THE PIPE SHALL BE LACED POPULATED LINE LINE SHALL BE LACED DEFINITION AND WITH THE LONGITUDINAL LAPS AT THE SIDES. 5. BACKFILLING SHACE CONFORM TO STRUCTURAL OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, LETC.) SHALL BE AS SHOWN ON THE DRAWNGS.

- CONCRETE MUNT MEET MANAUM REQUIREMENTS SET FORTH IN THE MARYLARD STATE HIGHWAY ADMINISTRATION STATEMORD STEED FOR CONSTRUCTION AND MATERIALS, SECTION 918 OF RATLAND CEMENT CONCRETE MATERIALS, MICHOR BARS MUST BE ASJAN A36. VL STABLIZATION
- ALL BORROW AREAS SHALL BE GRADED TO PROVIDE PROPER DRAINAGE AND LEFT IN A SIGHTLY CONDITION.
  ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, SPOIL AND BORROW AREAS, AND BERMS SHALL BE STABILIZED BY SEEDING, LIMING, FERTILIZING AND MILLCHING OF REDUINED IN ACCORDANCE WITH THE VECKTATION TO AC SAME VEGETATIVE TREATMENT SPECIFICATIONS OR AS SHOWN ON THE ACCOMPANYING DRAWINGS. VII. EROSION AND SEDIMENT CONTROL
- CONSTRUCTION OPERATIONS WILL BE CARRIED OUT IN SUCH A MANNER THAT EROSION WILL BE CONTROLLED AND WATER AND AIR POLLUTION MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT WILL BE FOLLOWED. CONSTRUCTION PLANS SHALL DETAIL EROSION AND SEDMENT CONTROL MEASURES TO BE EMPLOYED DURING THE CONSTRUCTION PROCESS. VE FLIER CLOSE
- PALTER CLOTH SHALL BE SERAFI 1405, DUPONT TYPER ILÀ BABIONS SHALL BE CLASS IN EPUC COATEDI <u>PLASTIC</u> ALL PVO PLASTIC MATERIALS SHALL CONFORM TO ASTM D-1785

# STABILIZED CONSTRUCTION ENTRANCE STANDARD SYMBOL HOKE 'A'=18'S B'=36' TELTER CLOTH 50' MIN. FILTER CLOTH PLAN YEW CONSTRUCTION SPECIFICATIONS . STONE SIZE - USE 2º STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESE-DENCE LOT WHERE A 30 FOOT MINIMUM LENGER WOULD APPLY). L THICKNESS - NOT LESS THAN SIX (6) INCHES. 1. WIDTH - TEN (10) FOOT MINMANN, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. S, 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.

5. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 511 SLOPES WILL BE PERMITTED. MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDWENT ONTO PUBLIC RIGHTS-OF WAY. THIS MAY REGIME PERIODIC TOP DRESSAU WITH ADDITIONAL JUNE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDWENT, ALL SEDWENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED MAINEDMATELY.

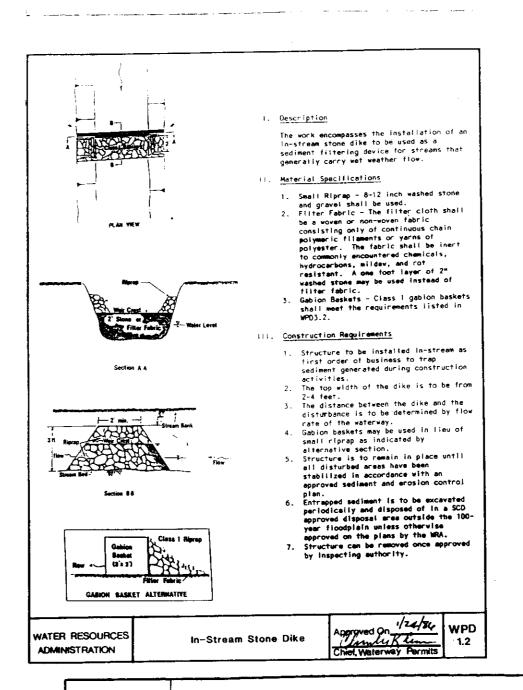
CONSTRUCTION SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND

HIGH STRENGTH POLYPROPYLENE NETTING OR SILT FENCE MOVEN WIRE FENCE HHAHHAH! PERSPECTIVE VEW .-- UNDISTURBED GROUND 16<sup>1</sup> MIN. STANDARD SYMBOL

SECTION CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

HIGH STRENGTH POLYPROPYLENE NETTING OR WOVEN WIRE FENCE TO BE FASTENED SECURELY POSTS: STEEL EITHER T OR U TO FENCE POSTS WITH WIRE TES OR STAPLES. FILTER CLOTH: FILTER X, MIRAF! 100X, STAB:-LINKA T140N OR APPROVED EQUAL

STANDARD DRAWN U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE SF-1 COLLEGE PARK, MARYLAND



DATE

# SEQUENCE OF OPERATIONS

- I. OBTAIN A GRAPING PERMIT.
- 2.NOTIFY THE HOWARD COUNTY SEPIMENT CONTROL INSPECTOR AT LEAST 24 HOURS BEFORE BEGINING WORK.
- 3. INSTALL SEPIMENT CONTROL MEASURES AS SHOWN ON PLAN.
- 4. GRAPE EMERGENT BASIN AND BEGIN STABILIZATION OF BASIN.
- 5.BEGIN CONSTRUCTION OF RIPRAPLINED PLUNGE POOL.
- GWHEN ALL WORK IS COMPLETE, STABILIZE ALL DISTURBED AREAS WITH SEED AND MULCH, OR AS NOTED ON PLAN.
- TWITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE THE SEPIMENT CONTROL MEASURES AND STABILIZE AREAS DISTURBED BY THE REMOVAL.

### **CONSTRUCTION NOTES**

- The proposed project shall be constructed in a manner which will not violate Maryland's Water Quality Standards as set forth in COMAR 26.08.02. The Maryland Department of the Environment, Division of Standards and Certification shall be notified ten (10) days prior to commencing work. Verbal notification is to be followed by written notice within ten (10) days.
- Construction of the proposed project shall begin only when all the required licenses, permits, notifications of approval or letters of permission have been obtained from the appropriate
- All fill and construction materials not used in the project shall be removed and disposed of in a manner which will prevent
- their entry into waters of this State.
- 4. The disturbance of the bottom of the water and sediment transport into the adjacent waters of the State shall be minimized.
- During the construction period, all persons involved in the project shall use sanitary facilities and adhere to sanitary
- wastewater disposal practices and solid waste disposal practices as approved by the local health department. 6. In-stream work shall be done only in the period June 16 to
- 7. The wetland creation project will be either performed o
- supervised by an environmental consultant with documented success in wetland creation. The environmental consultant will be notified when the project has been staked, prior to clearing, to determine if any field
- modifications are warranted. 9. The environmental consultant will survey the wetland creation site prior to any planting to insure the elevations of the existing wetland or newly graded surfaces are correct for successful growth of the wetland plants selected. All fill
- materials must be clean, free of contaminants, and suitable for growth and establishment of wetland plants. Should settlement of the fill material occur after planting, resulting in too low an elevation for marsh establishment, the elevation will be corrected and the area will be replanted
- 10. The wetland creation site will be reinspected by the environmental consultant approximately one year after completion of all work. Any maintenance, repairs, or additional measures necessary to insure the integrity of the contractors under the supervision of the environmental
- 11. All earthwork operations will be carried out in a manner as t
- 12. Upon completion of earthwork operations, all fills and other areas disturbed during construction shall be seeded, ripr or given some other type of protection from subsequent soil
- 13. The contractor shall employ measures during construction to prevent spills of fuels or lubricants. If a spill occurs, it shall be controlled to prevent its entry into the waterway 14. Final grading and sediment control of both the proposed
- development and mitigation site shall be submitted to the Corps (CENAB-OP-RW) prior to commencement of any work. Department of the Army authorization must be obtained for any grading or filling in non-tidal wetlands to emplace any sediment control devices or temporary construction access

ADDRESS CHART

STREET ADDRESS LOT NUMBER KIDDE CONSULTANTS, INC. ENGINEERS PLANNERS SURVEYORS 1020 CROMWELL BRIDGE ROAD BALTIMORE, MARYLAND 21204 30 1-32 1-5500 SCALE SITE DEVELOPMENT PLAN DESIGNED JMK AS SHOWN FOR THE DRAWING DRAWN EMERGENT WETLAND BASIN 3 OF 3 PAP JOB NO. CHECKED COLUMBIA GATEWAY 01-89052A FILE NO. 6TH ELECTION DISTRICT DATE 9/89 HOWARD COUNTY, MARYLAND OWNER DEVELOPER THE HOWARD RESEARCH & DEVELOPMENT LAND COMPANY 10275 LITTLE PATUXENT PARKWAY COLUMBIA. MARYLAND 21044 SECT./AREA LOT/PARCEL SUBDIVISION NAME COLUMBIA GATEWAY PLAT \* OR L/F BLOCK \* ZONE TAX/ZONE MAP ELEC. DIST. CENSUS

M- 1

7542

# OWNERS/DEVELOPERS CERTIFICATION

I/WE HEREBY CERTIFY THAT ANY 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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT, ALSO THAT THE SITE WILL BE INSPECTED AT THE END OF EACH WORKING DAY, AND THAT ANY NEEDED MAINTENANCE WILL BE COMPLETED SO AS INSURF THAT ALL SEDIMENT CONTROL PRACTICES ARE LEFT IN OPERATIONAL CONDITION. I/WE AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY THE HOWARD COUNTY SOIL

HPD. PRINT NAME, TITLE, FIRM & ADDRESS CONSULTANT'S CERTIFICATION ICERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE. AND THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF

THE HOWARD COUNTY SOIL CONSERVATION DISTRICT AND 'STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL', IHAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN WITH THE OWNER/DEVELOPER.

SIGNATURE: KE CLUMBAY MO. LICENSE NO. 10568

CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS

SEWER CODE WATER CODE

REVISION

SDP-90-139

6065.0