

- LEGEND**
- Contour Interval 2 FT
 - Existing Contour ---
 - Proposed Contour - - - -
 - Spot Elevation +10'
 - Direction of Drainage →
 - Walk out Basement
 - Trees to be Saved
 - * Proposed Future Grading Ex. SF
 - Existing Silt Fence S-S-S
 - Existing Earth Dike Ex. ED
 - Proposed Silt Fence - - - -
 - Proposed Earth Dike E.D. (A-1)
 - Stabilized Construction Entrance
- * NOTE: Proposed future grading was taken from a separate SDP already submitted (SDP 90-35)

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
 HOWARD COUNTY HEALTH DEPARTMENT

John M. Boyd 12/14/90
 COUNTY HEALTH OFFICER DATE

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING

James H. Keith 12/24/90
 DATE

CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Richard J. Spon 12/11/90
 DIRECTOR DATE

CHIEF BUREAU OF ENGINEERING

Reviewed for HOWARD S.C.D.
 Name
 Signature
 Date
 U.S. Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED
 FOR SOIL EROSION AND SEDIMENT
 CONTROL BY THE HOWARD SOIL
 CONSERVATION DISTRICT.

Jeffrey F. Sherry 12/3/90
 Approved Date

DEVELOPER'S/BUILDER'S CERTIFICATE

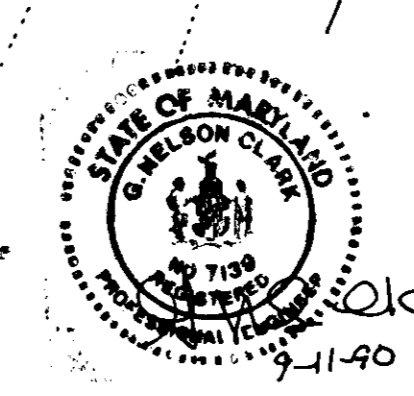
"I/We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as deemed necessary."

John M. Boyd 9/11/90
 Signature of Developer/Builder Date
 TRACTMAN COMPANY

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Erosion and Sediment Control represents a practical and suitable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

G. Nelson Clark 9-11-90
 Signature Date
 G. Nelson Clark



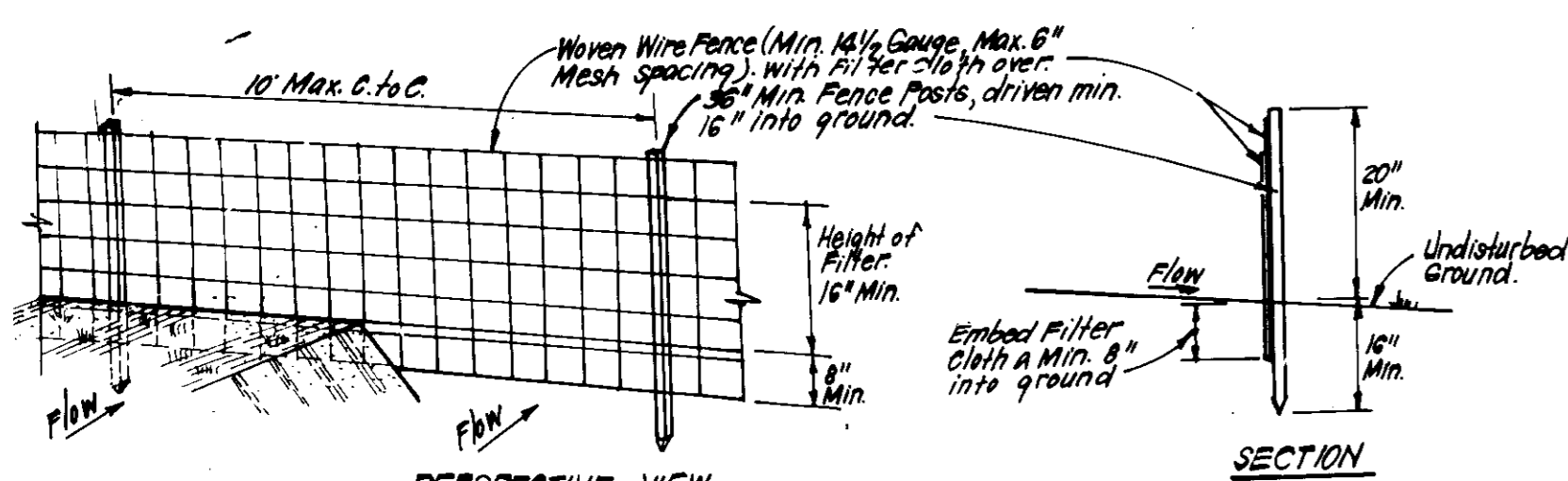
OWNER / DEVELOPER
 HOWARD RESEARCH &
 DEVELOPMENT LAND CO.
 10235 LITTLE PARKWAY DRIVE
 COLUMBIA, MARYLAND 21044

CLARK • FINEROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 7115 MINISTREL WAY • COLUMBIA, MD 21045 • TEL: 410-751-1811 • BALTO: 410-326-1100 • WA: 206-465-1100

DESIGNED KIWM	SEDIMENT & EROSION CONTROL PLAN LOTS F-75 thru F-126 COLUMBIA VILLAGE OF DORSEY'S SEARCH SECTION 3 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1" = 30'
DRAWN BAK		DRAWING 2 OF 4
CHECKED KIWM		JOB NO. 89-027
DATE Sept 1990		FILE NO. 89-0275E

For: The TROUTMAN COMPANY
 Wild Lake Village Green # 300
 Columbia, Maryland 21044

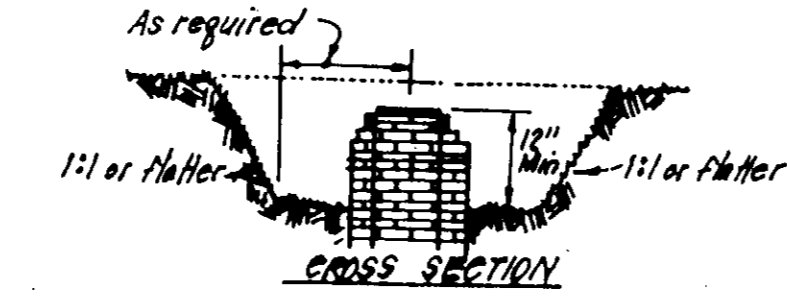
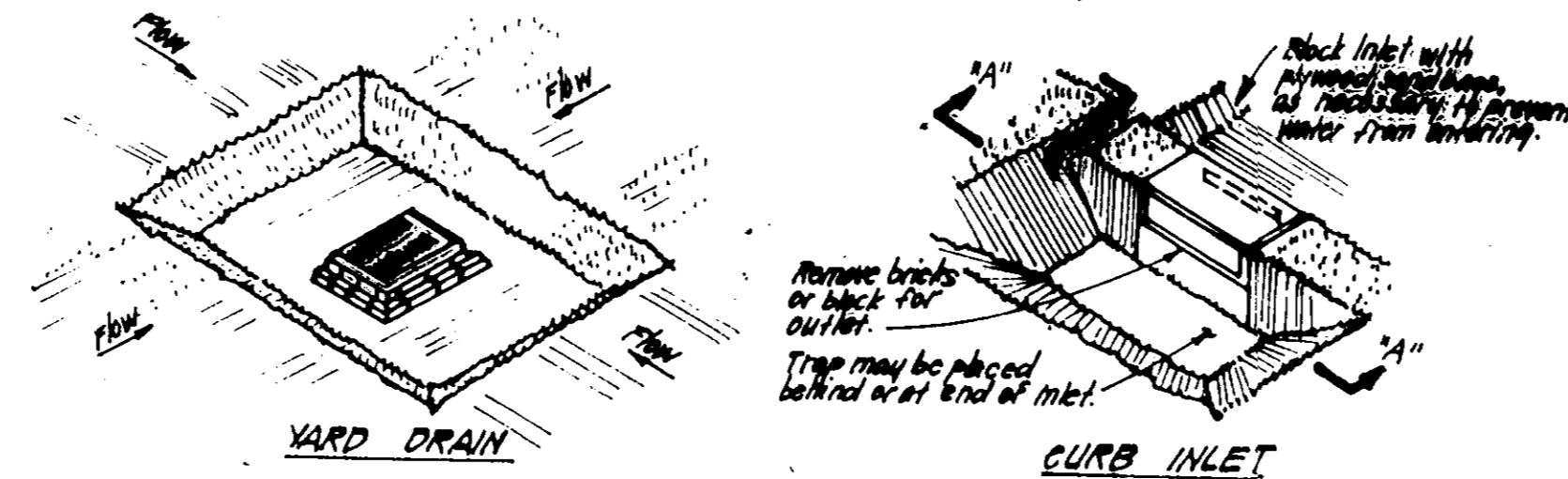
S.D.P. 91-36



CONSTRUCTION SPECIFICATIONS:
 1. Woven wire fence to be fastened securely to fence posts with wire ties or staples.
 2. Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" top and mid section.
 3. When 2 sections of filter cloth adjoin each other they shall be overlapped by 6" and folded.
 4. Maintenance shall be performed as needed and material removed when "bulges" develop in silt fence.

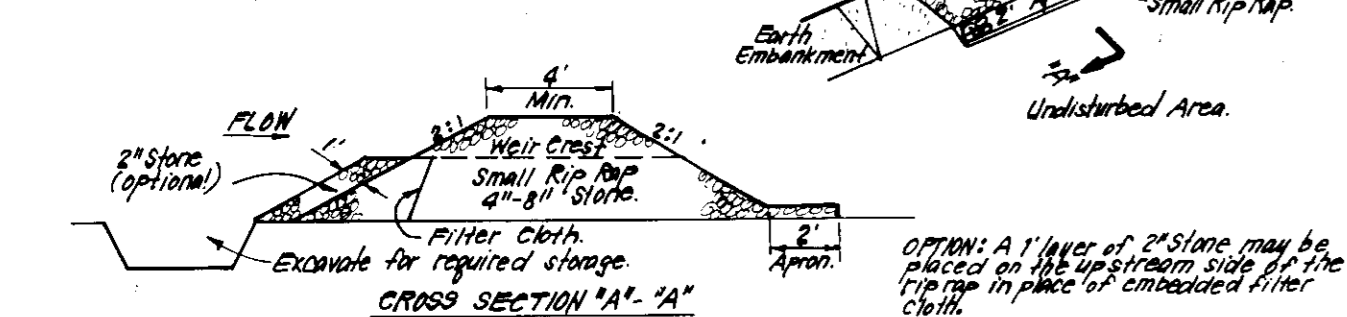
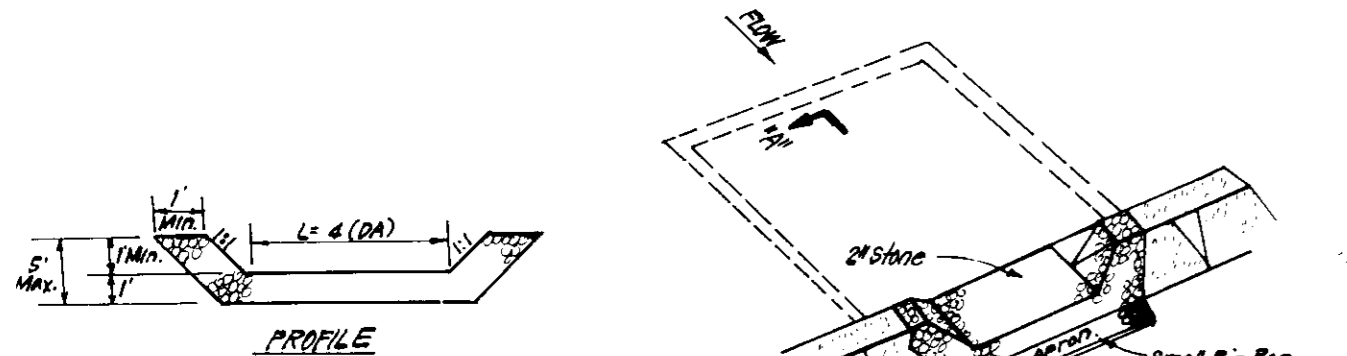
POSTS: Steel, either T or U Type or Hard Wood
FENCE: Woven Wire, 1 1/4 Gauge, 6" Max. Mesh Opening
FILTER CLOTH: Filterk, Mirafix, Mox, Stabilink, T140N or Approx. equal
PREFABRICATED UNIT: Geotex Envirofence, or Approx. equal

SILT FENCE DETAIL (S)
NO SCALE



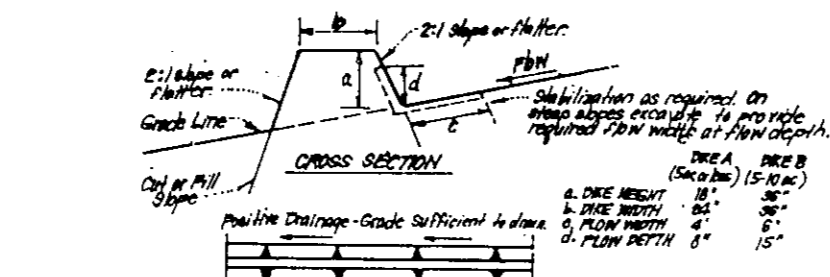
CONSTRUCTION SPECIFICATIONS:
 1. Sediment shall be removed and the trap restored to its original dimensions when sediment has accumulated to 1/4 the catch basin depth or the trap removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
 2. The volume of sediment storage shall be 1000 cu. ft. per acre of contributory drainage.
 3. The structure shall be inspected after each rain and repairs made as needed.
 4. Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
 5. The sediment shall be removed and the area stabilized when the constructed drainage area has been properly stabilized.
 6. All cut slopes shall be 1:1 or flatter.

STORM INLET SEDIMENT TRAP (S.I.S.T.) ST III
NO SCALE



CONSTRUCTION SPECIFICATIONS:
 1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The soil area shall be cleared.
 2. The fill material for the embankment shall be free of roots and other woody vegetation as well as oversized stones, rocks organic material or other objectionable material. The embankment shall be compacted by tamping with equipment while it is being constructed.
 3. All cut and fill slopes shall be 1:1 or flatter.
 4. The stone used in the outlet shall be small rip rap 4" x 8" stone with 1" thickness of 2" aggregate placed on the up-grade side on the small rip rap.
 5. Sediment shall be removed and the area stabilized when the drainage area has been properly stabilized.
 6. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

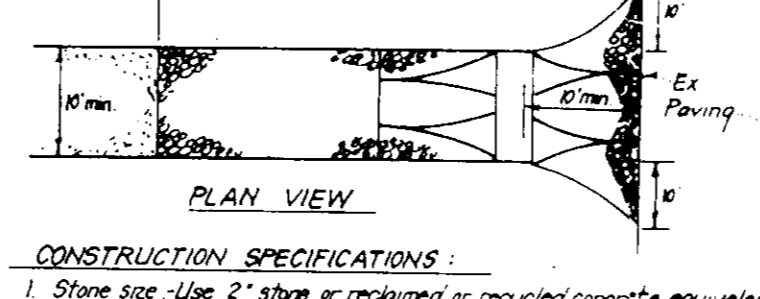
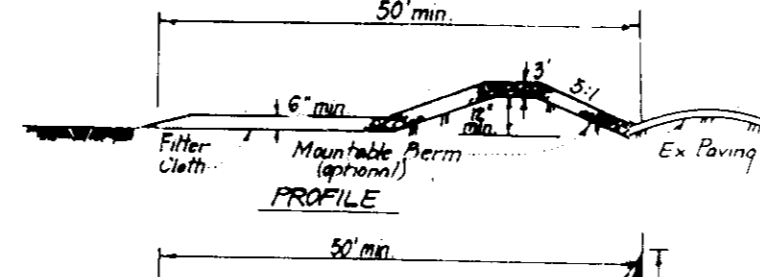
STONE OUTLET SEDIMENT TRAP (S.O.S.T.) STV
NO SCALE



CONSTRUCTION SPECIFICATIONS:
 1. All dikes shall be constructed by earth-moving equipment.
 2. All dikes shall have positive drainage to an outlet.
 3. The width shall be wider and side slopes may be flatter if desired to facilitate opening by construction traffic.
 4. Filter cloth shall be installed as needed to utilize a stabilized soil with earth dikes shall have an outlet that functions with a minimum of erosion. Filter cloth shall be compacted in a manner that provides a minimum of erosion.
 5. Sediment shall be removed and the area stabilized when the drainage area has been properly stabilized.
 6. All cut slopes shall be 1:1 or flatter.

TYPE OF CHANNEL	GRADE	SIZE A	SIZE B
1	1.5-2.0%	Small Stone Mat	Small Stone Mat
2	2.1-3.0%	Small Stone Mat	Small Stone Mat
3	3.1-4.0%	Small Stone Mat	Small Stone Mat
4	4.1-5.0%	Small Stone Mat	Small Stone Mat

EARTH DIKE DETAIL (E.D.)
NO SCALE



CONSTRUCTION SPECIFICATIONS:
 1. Stone size - Use 2" stone or rounded or recycled concrete equivalent.
 2. Length - As required, but not less than 50 feet, (exception a single residence lot where a 30 foot minimum length would apply).
 3. Thickness - Not less than 6" (6) inches.
 4. Width - Ten (10) feet minimum, but not less than the full width of points where ingress or egress occurs.
 5. 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.
 6. Surface Water - All surface water flowing or directed toward construction entrances shall be piped across the entrance. If piping is impractical, a mound of earth with 5:1 slopes will be permitted.
 7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment into public rights-of-way. This may require periodic top dressing with additional stone, as conditions demand and repair and/or cleanup of any materials used to trap sediment. All sediment applied, grappled, washed or tracked onto public rights-of-way must be removed immediately.
 8. Weeping - Wheels shall be cleaned to remove sediment prior to entrance into public rights-of-way. When weeping is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
 9. Periodic inspection and needed maintenance shall be provided after each rain.

STABILIZED CONSTRUCTION ENTRANCE (SCE)
NO SCALE

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 loosened.
Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:
 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.
Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.
Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.
Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.
Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.
Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft)
Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual rye (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.
Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.
 Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

SEDIMENT CONTROL NOTES

1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
 2) All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 3) Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
 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, Storm Drainage.
 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 seeding (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 establishment of grasses.
 6) All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
 7) Site Analysis:
 Total Area of Site 2.44 Acres
 Area Disturbed 4.01 Acres
 Area to be roofed or paved .172 Acres
 Area to be vegetatively stabilized 2.28 Acres
 Total Cur 1009 Cu. yds
 Total Fill 1005 Cu. yds
 Off-site borrow to be taken from an approved borrow site.
 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 control must be provided, if deemed necessary by the Howard County DPM sediment control inspector.
 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 approvals may not be authorized until this initial approval by the inspection agency is made.
 11) If houses are to be constructed on an "As-Sold" basis, at random, single lot sediment control as shown below shall be implemented.
 12) All pipes to be blocked at the end of each day (see detail below).
 13) The total amount of straw bale dikes/silt fence equals - 0 - L.F.

CONSTRUCTION SEQUENCE:

Activity	No. of Days
A. Obtain Grading Permit and Install Sediment and Erosion Control Devices and Stabilize.	7
B. Excavate for Foundations and Rough Grade of Temporarily Stabilize.	30
C. Construct Structures, Sidewalks and Driveways.	60
D. Final Grade and stabilize in accordance with Stds. & Specs.	14
E. Upon approval of the sediment control inspector, remove sediment and erosion controls and stabilize.	7

Notes: 1. Delay construction on Lots F-99 thru F-101 until Trap # 2 is removed.
 2. The owner/developer/builder shall be responsible for the removal of sediments and repair of damages to the SWM Facilities as a result of this S.D.P. construction.

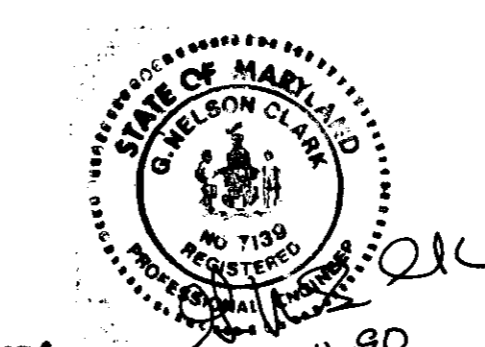
APPROVED PLAN FOR HOWARD COUNTY
 DATE: Oct-23, 1990

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT:
 Signature: [Signature] DATE: 12-14-90
 APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 Signature: [Signature] DATE: 12/24/90
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Signature: [Signature] DATE: 12/11/90
 APPROVED: CHIEF BUREAU OF ENGINEERING
 Signature: [Signature] DATE: 12-11-90

Reviewed for HOWARD COUNTY S.C.D. and made all Requirements
 Signature: [Signature] DATE: 12/18/90
 U.S. Soil Conservation Service
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: [Signature] DATE: 12/3/90

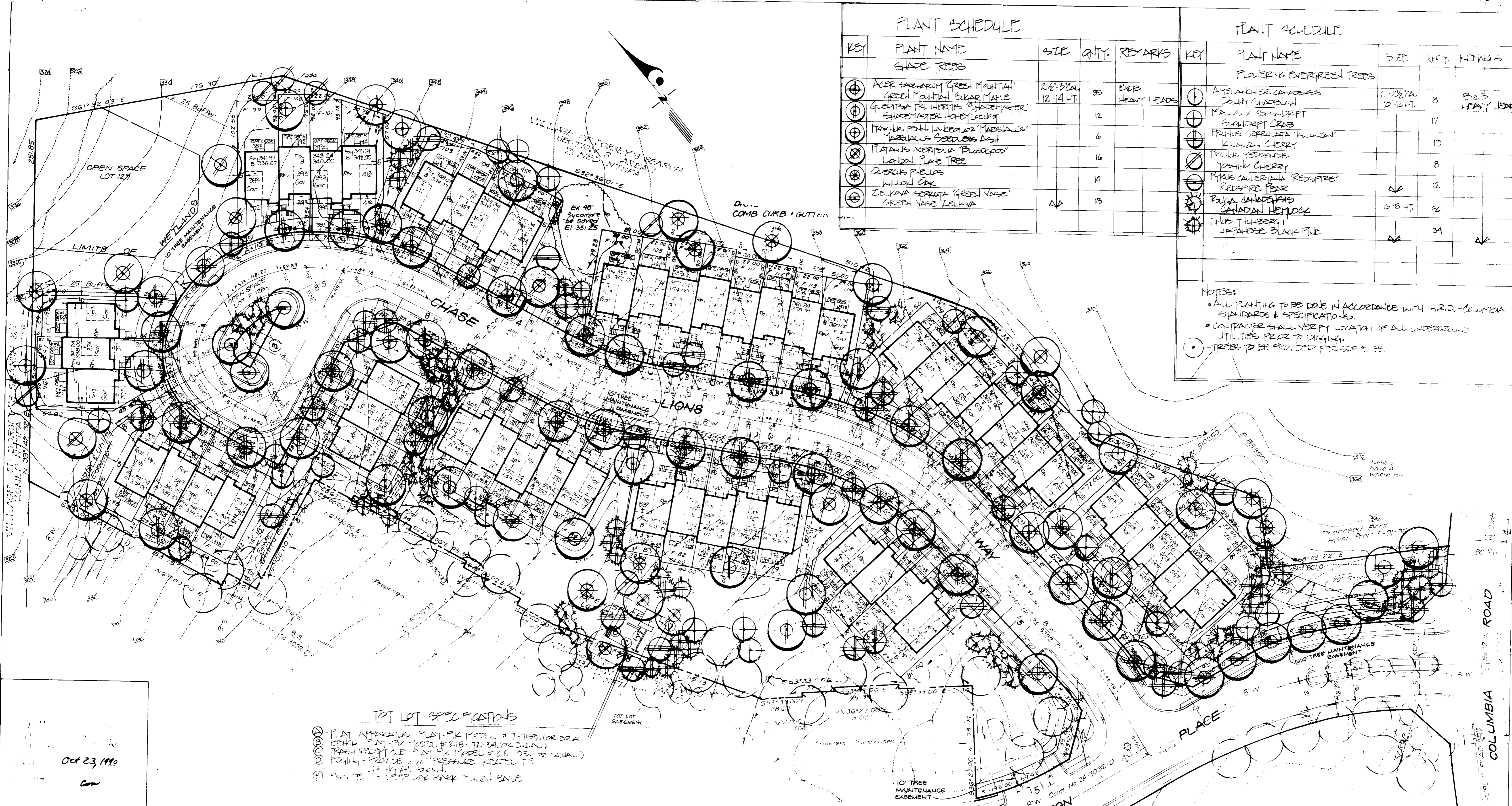
DEVELOPER'S/BUILDER'S CERTIFICATE
 I/We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as it is deemed necessary.
 Signature: [Signature] DATE: 9/11/90
 TRAUTMAN COMPANY

ENGINEER'S CERTIFICATE
 I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
 Signature: [Signature] DATE: 9-11-90
 6 Nelson Clark



CLARK • FINEFROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 7135 MINISTREL WAY • COLUMBIA, MD. 21045 • (301) 381-7500 - BALTO. • (301) 621-8100 - WASH.

DESIGNED KIWM	SEDIMENT & EROSION CONTROL PLAN LOTS F-75 thru F-126	SCALE 1" = 30'
DRAWN BAL	COLUMBIA VILLAGE OF DORSEY'S SEARCH	DRAWING 3 OF 4
CHECKED KIWM	SECTION 3 AREA 1 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 89-027
DATE Sept. 1990	FOR: THE TROUTMAN COMPANY Wild Lake Village Green Suite 300 Columbia, Maryland 21044	FILE NO. 89-027



PLANT SCHEDULE				
KEY	PLANT NAME	SIZE	QTY.	REMARKS
SHADE TREES				
⊕	ACER SACCHARIN GREEN MOUNTAIN	2 1/2-3' CAL	35	B&B
⊕	GREEN MOUNTAIN SUGAR MAPLE	12-14 HT.		HEAVY HEADS
⊕	GLYCOSTRA TRI. HERBIS 'SHADEMASTER'		12	
⊕	SHADEMASTER HONEYLOCUST			
⊕	FRAXINUS PENN. LANCEOLATA 'MARBELLA'S'		6	
⊕	MARBELLA'S SEEDLESS BASH			
⊕	PLATANUS ACERIFOLIA 'BUCCOPPO'		16	
⊕	LONDON PLANE TREE			
⊕	QUERUS PHellos		10	
⊕	WILLOW OAK		13	
⊕	ZELKOVA AEROLATA 'GREEN VASE'			
⊕	GREEN VASE ZELKOA			

PLANT SCHEDULE				
KEY	PLANT NAME	SIZE	QTY.	REMARKS
FLOWERING/OVERGREEN TREES				
⊕	AMELANCHIER CANADENSIS	2-2 1/2' CAL	8	B&B
⊕	DOWNY SHADBLEW	12-14 HT.		HEAVY HEADS
⊕	MAULS X SHADDRIFT		17	
⊕	SHADDRIFT CROSS			
⊕	FRAXINUS SERRULATA 'KAWAZON'		19	
⊕	KAWAZON CHERRY			
⊕	FRAXINUS SERRULATA		8	
⊕	YOSHINO CHERRY			
⊕	PRUNUS SALLERIANA 'REDSPIRE'		12	
⊕	REDSPIRE PEAR			
⊕	PRUNUS CANADENSIS	6-8 HT.	26	
⊕	CANADIAN HEMLOCK			
⊕	PINUS THUNBERGII		34	
⊕	JAPANESE BLACK PINE			

NOTES:
 • ALL PLANTING TO BE DONE IN ACCORDANCE WITH H.R.D.-COLUMBIA STANDARDS & SPECIFICATIONS.
 • CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
 • TREES TO BE PRO. JOE FOR 500 @ 25

TOT LOT SPECIFICATIONS
 (1) PLAY APPARATUS PLAY-PIK MODEL # 7-759 (OR EQUAL)
 (2) BENCH PLAY-PIK MODEL # 218-72-2A (OR EQUAL)
 (3) TRASH RECEPTACLE PLAY-PIK MODEL # 016-02 (OR EQUAL)
 (4) EQUIPMENT PROVIDE 1/2" PRESSURE TREATED TIE
 (5) 2" X 4" X 8" SILL
 (6) 2" X 4" X 8" SILL AT PARK TIE IN BASE

Oct 23, 1990
 Com

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
 HOWARD COUNTY HEALTH DEPARTMENT
 [Signature] 12-14-90
 COUNTY HEALTH OFFICER DATE

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING
 [Signature] 12/24/90
 DIRECTOR DATE

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 12/11/90
 DIRECTOR DATE

1 Rev. EXPRESS TO HEMLOCKS 11-20-90
 2 Rev. TOT LOT LOCATION 11-20-90
 3 Rev. 12-11-90
 TB DATE

Subdivision Name	COLUMBIA	Section/Area	3/1	Lots	F 75 thru F 126
Plot No.		Block No.		Tax/Map No.	
Water Code	E-01	Sewer Code	5680000		

CLARK • FINEROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 7155 MINSTREL WAY • COLUMBIA, MD 21046 • (301) 581-7500 BALTO. • (301) 621-8100 WASH.

OWNER/DEVELOPER
 HOWARD RESEARCH & DEVELOPMENT LAND CO.
 10275 Little Patuxent Pkwy
 Columbia, Maryland 21044

LANDSCAPE PLANNING PLAN
 LOTS F-75 thru F-126
COLUMBIA
 VILLAGE OF DORSEY'S SEARCH
 SECTION 3 AREA 1
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

DATE FOR THE TROUTMAN COMPANY
 Wild Lake Village Green # 300
 Columbia, Maryland 21044

SCALE 1" = 30'
 DRAWING 4 OF 4
 89-027
 89-027

