

Footnotes - Table 51-1
Permanent Seedings and Seeding Dates (continued)
1. Use mulch to provide a stand of grass for erosion control during summer.
2. Use hillside seed.
3. Preferable to seed in fall with seed from current year's crop.
4. "South Dakota" certified or "Kentucky" Kentucky bluegrass are the only acceptable varieties for use in these areas.
5. 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.
6. Can be seeded during this period if irrigation water is used. Use 2 tons per acre of mulch.
7. Can use 10 percent Kentucky bluegrass.

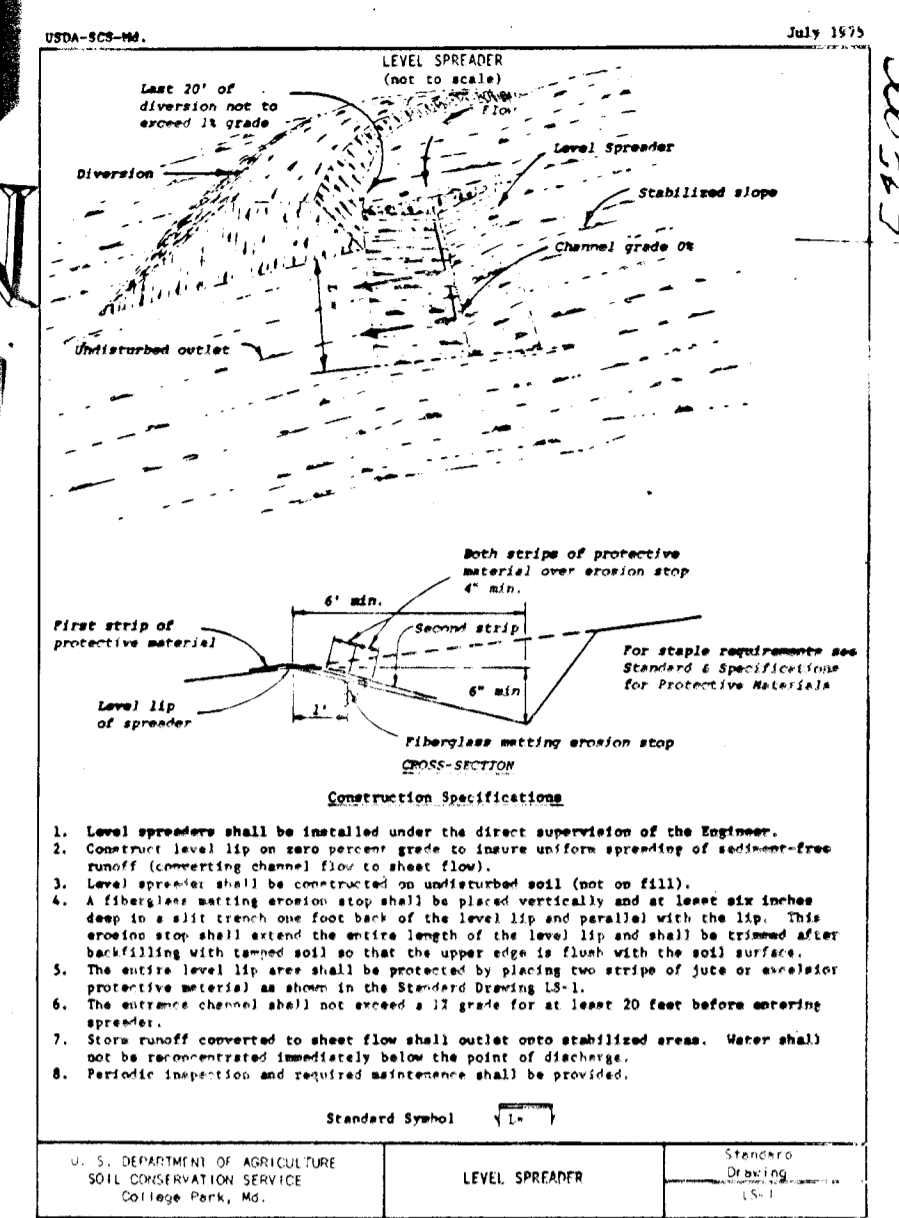
STANDARD RESPONSIBILITY NOTES:
The developer is responsible for the acquisition of all easements, rights, and/or rights-of-way that may be required for the sediment and erosion control practices, storm water management practices and the discharge of storm water onto or across adjacent or downstream properties included in this plan.
All areas remaining or intended to remain disturbed for longer than 45 days shall be stabilized in accordance with the USDA, Soil Conservation Service's "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas" for critical area stabilization.
The developer is responsible for the acquisition of all easements, rights, and/or rights-of-way that may be required for grading and/or work on adjacent properties included in this plan.

TABLE 50-1
Temporary Seedings by Rates, Depths and Dates

Species	Seeding Rate	Planting Depth	Seeding Dates
Coastal Plain	2 1/2 bu. 2.8	1-2"	By 10/15
Non-Timber	3 bu. 2.2	1-2"	By 10/15
Wildlife	3 1/2 bu. 3.2	1-2"	By 10/15

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V. Mulching

A. Materials and Amounts

1. Straw - Straw shall be unrotted small grain straw applied at the rate of 1-1/2 to 2 tons per acre, or 70 to 90 pounds per 1,000 sq. ft. Mulch materials shall be relatively free of all kinds of weeds and shall be free of prohibited noxious weeds which are: Canada thistle, Johnsongrass and quackgrass.
Spread uniformly by hand or mechanically. For uniform distribution of hand spread mulch, divide area into approximately 1,000 sq. ft. section and place 70-90 lbs. of mulch in each section.

USDA-SCS-46 July 1975

3. Mulch Anchoring Tool

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 - primarily used on > 3:1 cut and fill slopes to cut the mulch into the soil with bulldozer cleats.

4. Liquid Mulch Binders

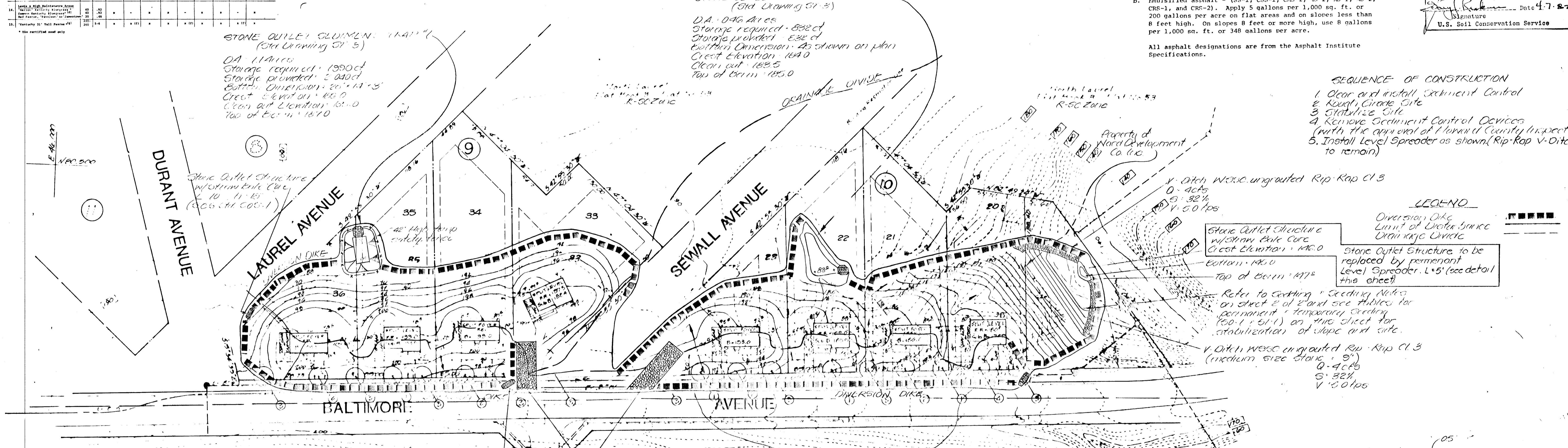
- Applications of liquid binders should be heavier at edges where wind catches mulch, in valleys, and at crests of banks. Remainder of area should be uniform in appearance. Caution should be used with asphalt in residential and similar areas.
- a. Curbcut asphalt - rapid curing (RC-70, RC-250, and RC-800) or medium curing (MC-250 or MC-800). Apply 5 gallons per 1,000 sq. ft. 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 sq. ft. 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 gallons per 1,000 sq. ft. 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 sq. ft. or 348 gallons per acre.
- All asphalt designations are from the Asphalt Institute Specifications.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Approved: *Howard S. D.*
Reviewed for: *Howard S.C.D.*
Land use Technical Requirements
Date: 4-7-82
Signature
U.S. Soil Conservation Service

STONE OUTLET SEWAGE TREATMENT PLANT #2
(See Drawing 51-3)
D.A. 0-06 Aves
Storage required - 832 cu ft
Storage provided - 832 cu ft
Bottom Dimension - 43' x 11' x 3'
Crest Elevation - 184.0
Clean out Elevation - 183.5
Top of beam - 185.0

STONE OUTLET COLUMN #1A (1)
(See Drawing 51-3)
D.A. 11-Aves
Storage required - 1350 cu ft
Storage provided - 1350 cu ft
Bottom Dimension - 20' x 11' x 3'
Crest Elevation - 185.0
Clean out Elevation - 184.0
Top of beam - 187.0

- SEQUENCE OF CONSTRUCTION
1. Clear and install Sediment Control
 2. Layout Grade Site
 3. Stabilize Site
 4. Remove Sediment Control Devices (with the approval of Howard County Inspector)
 5. Install Level Spreader as shown (Rip-Rap V-Ditches to remain)



DEVELOPER'S CERTIFICATE

I certify that a development and/or construction will be done according to this plan of development and plan for erosion and sediment control, and also subject to periodic on site inspection by the Howard Soil Conservation District or their authorized agents as deemed necessary. Deviation from this plan will not be made unless authorized by the Howard Soil Conservation District.

Ward Development Co. Inc.
by *Arthur E. Muesse*
SIGNATURE OF DEVELOPER

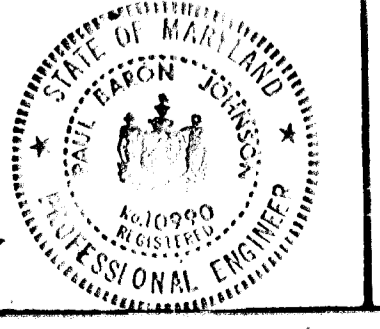
Aug. 11, 1981
DATE

STABILIZED CONSTRUCTION ENTRANCE
(Min. dimensions: 50' x 20')
SCS DISTRICT-1 Reviewed for Howard County Soil Conservation District and Meets Technical Requirements

US Soil Conservation District Date
APPROVED: HOWARD CO. OFFICE OF PLANNING & ZONING
Planning Director: *William Muesseman* Date: 3-16-82
CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

Approved: *William E. R...* Date: 4-14-82
Howard County Dept. of Public Works
Director: *William E. R...* Date: 4-14-82
Chief, Bureau of Engineering

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.
Paul B. ...
SIGNATURE OF ENGINEER
10/6/81
DATE



Johnson, Mirmiran & Thompson, P. A.
ENGINEERS - PLANNERS - SURVEYORS - LANDSCAPE ARCHITECTS
1300 PLEASANT AVENUE, SUITE 200, FALLS CHURCH, VA 22044
1000 K STREET, N.W., WASHINGTON, D.C. 20004

SEDIMENT CONTROL PLAN
LOTS 33-36 BLK 9 & LOTS 20-23 BLK 10
NORTH LAUREL
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

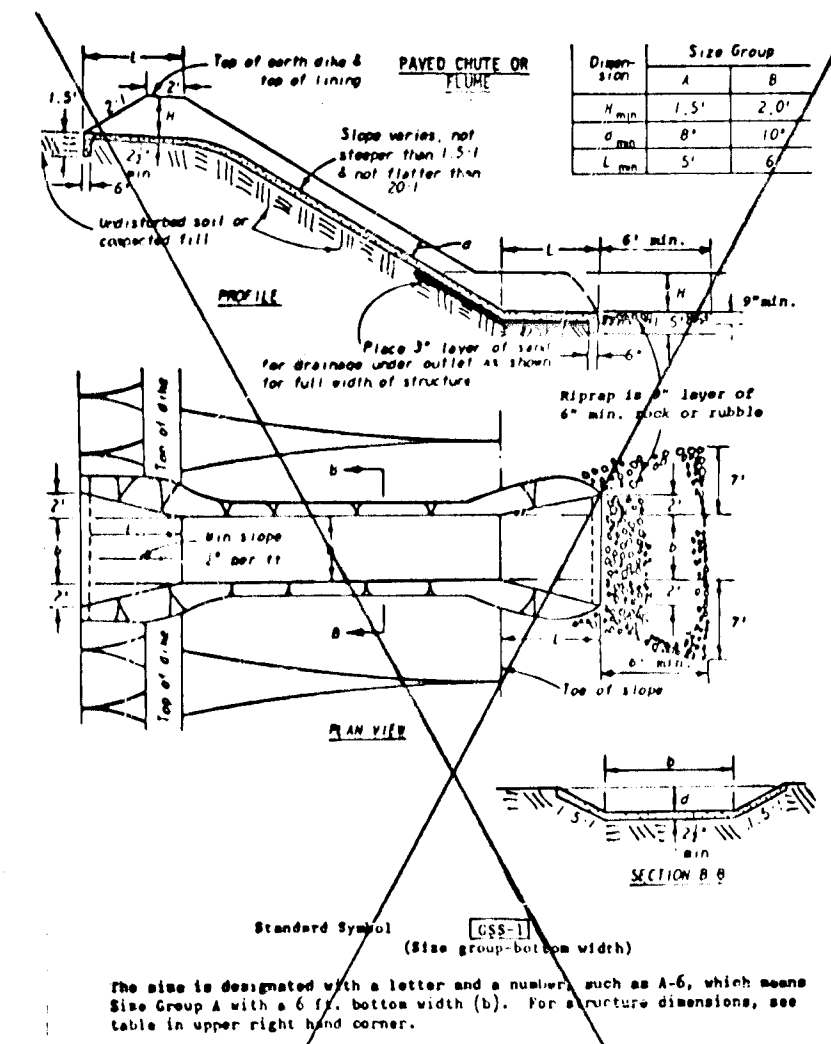
WARD DEVELOPMENT CO., INC.
1300 PLEASANT DR.
ROCKVILLE, MARYLAND 20850

REVISIONS

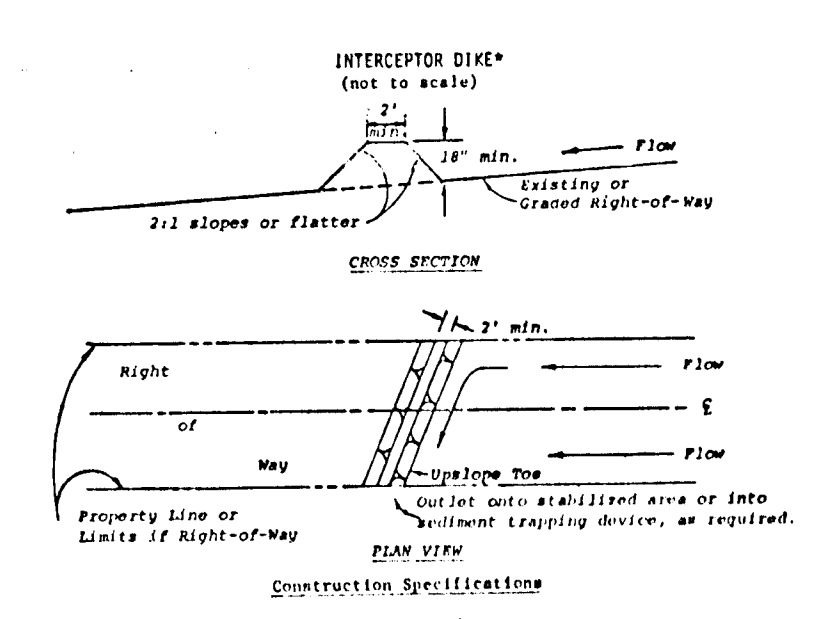
NO.	BY	DATE	REVISIONS
1			Level Spreader added as shown.

SEDIMENT CONTROL NOTES

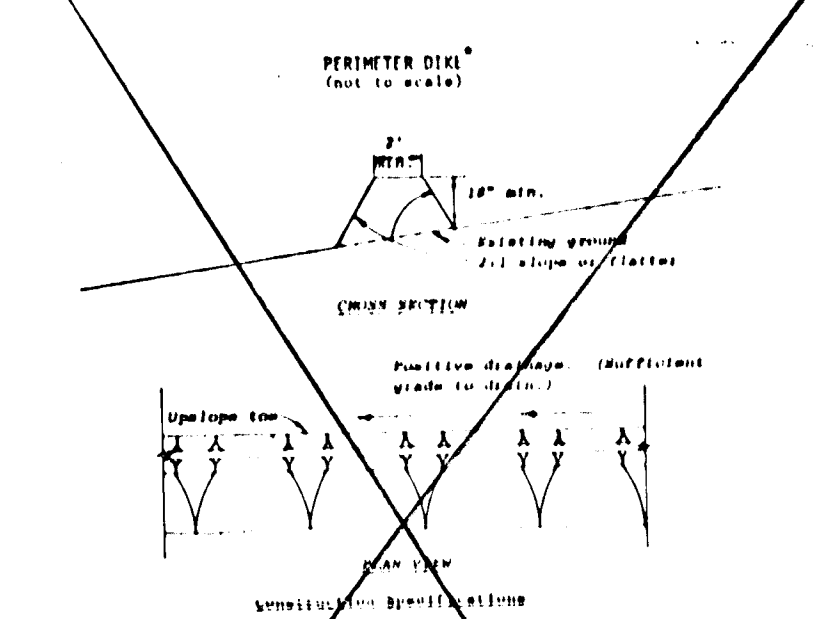
- ALL SEDIMENT CONTROL MEASURES ARE TO BE ADJUSTED TO MEET FIELD CONDITIONS AT TIME OF CONSTRUCTION, UPON APPROVAL OF HOWARD COUNTY S.C.D.
- ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE APPLICABLE PUBLISHED STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS.
- ALL SEDIMENT AND EROSION CONTROL FACILITIES ARE TO BE CONSTRUCTED PRIOR TO GRADING AND THEY SHALL BE IN AN OPERATIONAL CONDITION BEFORE GRADING CONSTRUCTION BEGINS.
- PERIODIC INSPECTION AND MAINTENANCE ARE TO BE PROVIDED TO INSURE EFFICIENCY OF ALL FACILITIES.
- CONTRACTOR INSTALLING THE ABOVE SHALL OBTAIN AND FOLLOW THE STANDARD SPECIFICATIONS FOR SOIL EROSION & SEDIMENT CONTROL AS DISTRIBUTED BY THE HOWARD SOIL CONSERVATION DISTRICT.
- ALL STRUCTURES UTILIZING COMPACTED EARTH FILL ARE TO BE COMPOSED OF MATERIAL TAKEN FROM APPROVED BORROW AREAS AND SHALL BE FREE OF ROOTS, WOODY VEGETATION, ROCKS AND OTHER OBJECTIONABLE MATERIAL. A MINIMUM OF 10% SILT SHALL BE ALLOWED FOR SETTLEMENT FILLS TO BE PLACED IN 6" LIFTS AND COMPACTED AS Laid.
- ALL AREAS OF INGRESS-EGRESS ARE TO BE PROTECTED FROM TRACKING MUD ONTO PUBLIC RIGHTS OF WAY.
- ALL SEDIMENT CONTROL STRUCTURES SHALL BE FUNCTIONAL AT THE END OF EACH DAY.
- GRADING AND CONSTRUCTION MAY BEGIN UPON COMPLETION AND ACCEPTANCE OF ALL ITEMS SHOWN, REQUIRED OR SPECIFIED HEREON.
- AREAS DISTURBED BY ON-SITE GRADING THAT ARE NOT TO BE CONSTRUCTED WITHIN 30 DAYS ARE TO BE STABILIZED WITH A SLIP-PLUMANT TYPY SLIDING AND MULCHING. SEE PAGES 50.01 THRU 50.05 OF REFERENCED STDS. AND SPECS.
- ALL SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED IMMEDIATELY WITH MULCH. SEE PAGES 52.01 THRU 52.03 OF REFERENCED STDS. AND SPECS.
- ALL DISTURBED AREAS SHALL BE FINALLY STABILIZED WITH PERMANENT SEEDINGS UPON COMPLETION OF FINE GRADING. SEE PAGES 51.01 THRU 51.07 OF REFERENCED STDS. AND SPECS.
- SEDIMENT TRAPS AND DIVERSION DIKES ARE TO RECEIVE TEMPORARY SEEDING IMMEDIATELY AFTER THEY ARE CONSTRUCTED. SEE PAGES 50.01 THRU 50.05 OF REFERENCED STDS. AND SPECS.
- THE THROATS OF ALL STORM DRAINAGE IN-ETS. SHALL BE PROTECTED AND KEPT FREE OF ANY DEPOSITS OF SEDIMENT, I.E. THROUGH USE OF SANDRAGS, GRAPHS OR OTHER APPLICABLE METHOD UNTIL THE UPHILL AREAS HAVE BEEN STABILIZED AND THE STREETS HAVE BEEN PAVED.
- SILT TRAPS AND OTHER ITEMS MUST BE MAINTAINED AND PERIODIC CLEANOUT AT THE DESIGN CLEANOUT LEVELS SHALL BE PERFORMED BY THE D.I.H.O.P.L.R.
- THE CONTRACTOR SHALL NOT INSTALL CONCRETE PIPES AND GUTTERS ON SIDEWALKS IN THE AREAS INDICATED UNTIL THE UPHILL AREAS HAVE BEEN STABILIZED.



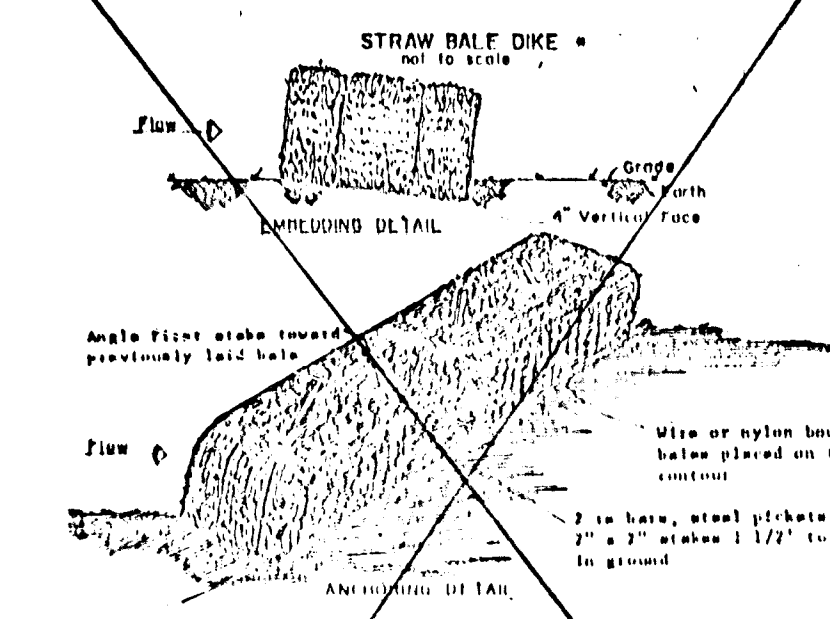
- Construction Specifications:**
- All dikes shall be machine compacted.
 - Top width shall be 4 feet and slope shall be 2:1 on the flatter side and 3:1 on the steeper side.
 - Dike location shall be adjusted as needed to utilize a stabilized safe outlet.
 - Diversion dikes shall have an outlet that functions with a minimum of 12 inches of water.
 - Stabilization shall be provided on the area protected by the dike.
 - Periodic inspection and required maintenance shall be provided.



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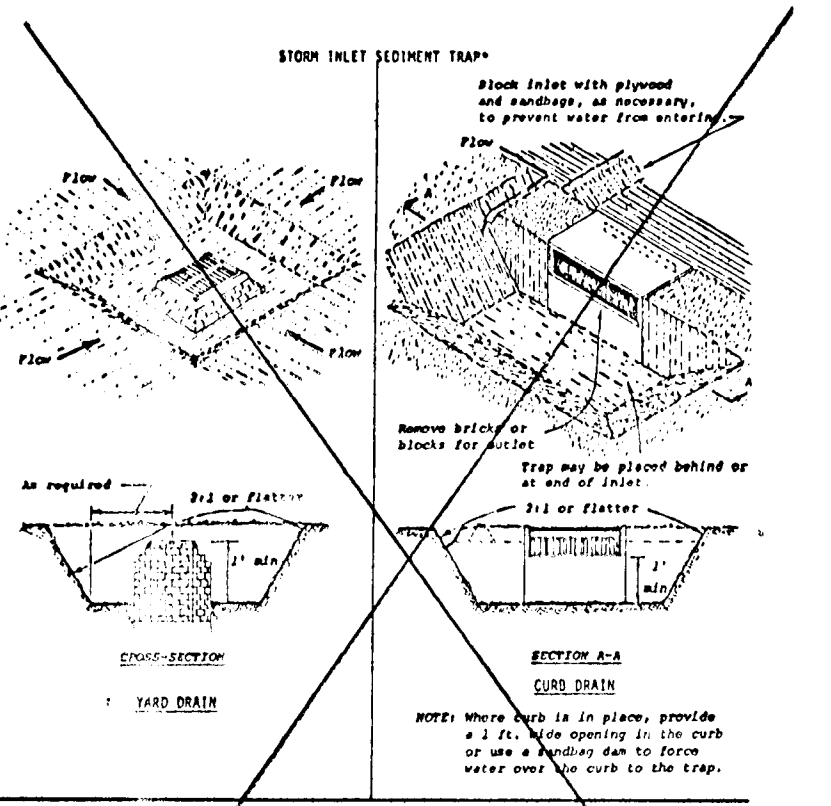
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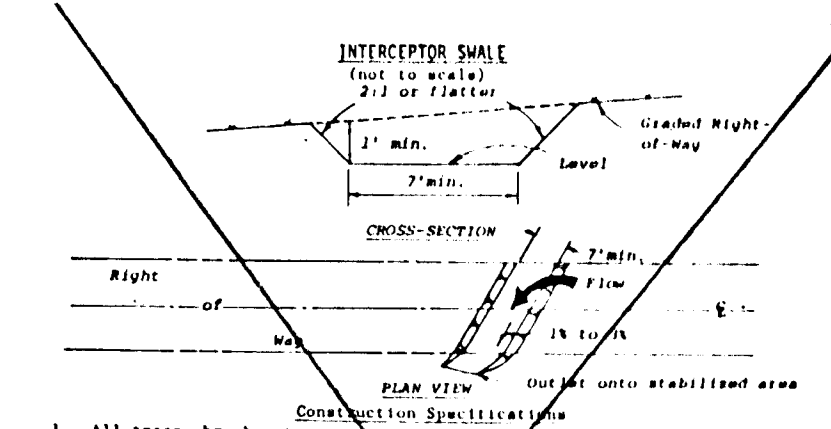
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SODDING AND SEEDING NOTES

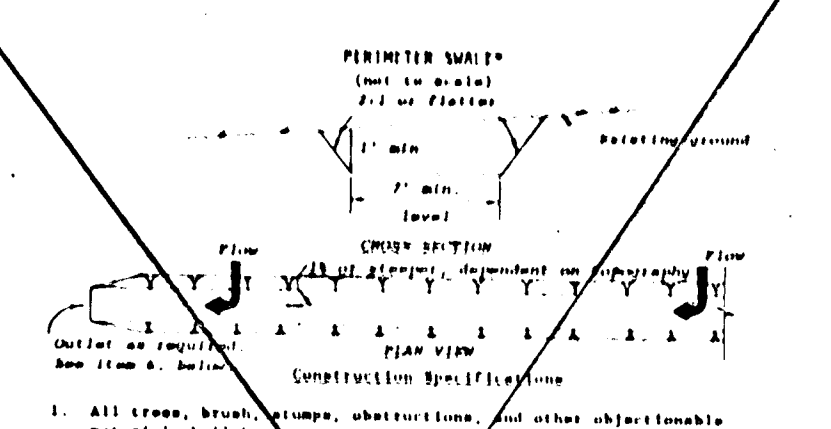
- SEDIMENT TRAPS, DIVERSION DIKES AND INTERCEPTOR DIKES ARE TO BE TEMPORARILY SEEDED WITH KENTUCKY 31 FESCUE 5-7 LBS. PER 1,000 FT² IMMEDIATELY AFTER THEY ARE CONSTRUCTED. THE EMERGENCY SPILLWAY SHALL BE SODDED.
 - ALL TEMPORARILY SEEDED AREAS SHALL BE MULCHED IMMEDIATELY AFTER SEEDING. MULCH STRAW SHOULD BE UNWEATHERED, UNCHOPPED, SMALL GRAIN STRAW SPREAD AT A RATE OF 1-1/2 TO 2 TONS PER ACRE. THE MULCH SHALL BE ANCHORED IMMEDIATELY AFTER PLACEMENT WITH ASPHALT, PEG AND TWINE, PLASTIC NETTINGS OR BY A MULCH ANCHORING TOOL.
 - LIME AND FERTILIZER SHALL BE REQUIRED FOR TEMPORARY SEEDINGS IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:
 - PULVERIZED DOLOMITIC LIMESTONE IS TO BE APPLIED AT THE RATE OF 46 LBS PER 1000 SQ. FT.
 - FERTILIZER SHALL BE 10-10-10 OR EQUIVALENT AND APPLIED AT THE RATE OF 12 TO 18 LBS PER 1000 SQ. FT.
- ALL DISTURBED AREAS SHALL BE FINALLY STABILIZED WITH SEED OR SOD IMMEDIATELY UPON COMPLETION OF FINE GRADING IN ACCORDANCE WITH THE FOLLOWING PROCEDURE.
 - TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED ON THE DESIGNED AREAS AND SHALL BE A MINIMUM DEPTH OF 3-INCHES AFTER FIRING.
 - DOLOMITIC LIMESTONE IS TO BE APPLIED AT THE RATE OF 75 LBS PER 1,000 SQ. FT.
 - FERTILIZER SHALL BE 10-10-10 AND APPLIED AT THE RATE OF 10 LBS. PER 1,000 SQ. FT.
 - SOD IS TO BE APPROVED OR BETTER KENTUCKY 31 FESCUE.
 - LIME AND FERTILIZER SHALL BE UNIFORMLY MIXED INTO THE TOP 4-INCHES OF SOIL BY DISCING, HARROWING OR OTHER APPROVED METHODS.
 - SEED SHALL BE 0-20% KENTUCKY BLUEGRASS, 80-100% KENTUCKY 31 TALL FESCUE AT THE RATE OF 6 TO 8 LBS. PER 1,000 SQ. FT.
 - ALL DISTURBED AREAS NOT SODDED, SHALL BE SEEDDED.
 - SOD SHALL BE PLACED ON ALL ONSITE WELL DEFINED SWALES.



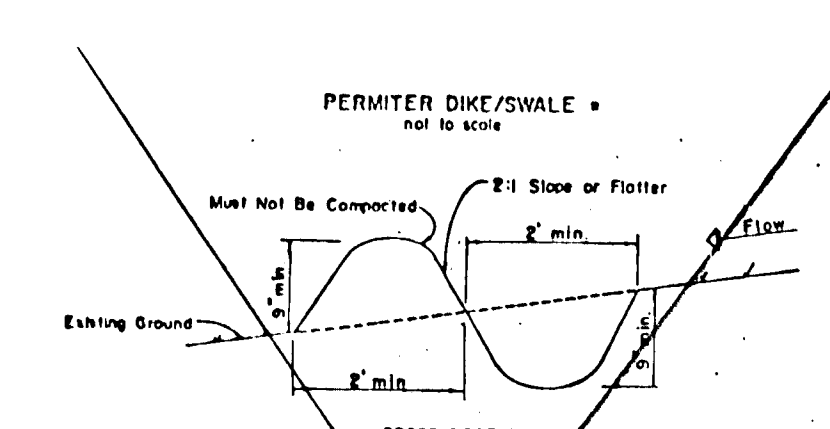
- Construction Specifications:**
- The stone shall be crushed stone. The stone shall meet MSHA size No. 2 or AASHTO designation M33 size No. 20.
 - The crest of the stone shall be at least 12 inches above the lowest elevation of the top of the earth dike.
 - The stone outlet structure shall be embedded into the soil a minimum of four inches.
 - The minimum length in feet of the crest of the stone outlet structure shall be equal to six times the number of acres of contributing drainage area.
 - The stone outlet structure shall be inspected after each rain, and the stone shall be replaced when the structure ceases to function as intended due to accumulation among the stone, without construction traffic damage, etc.



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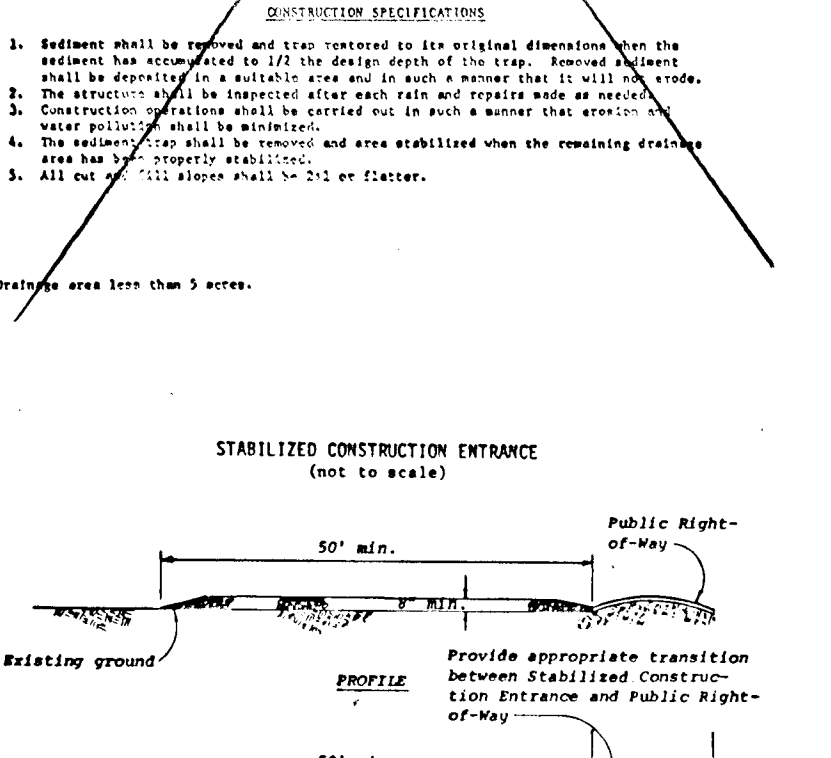


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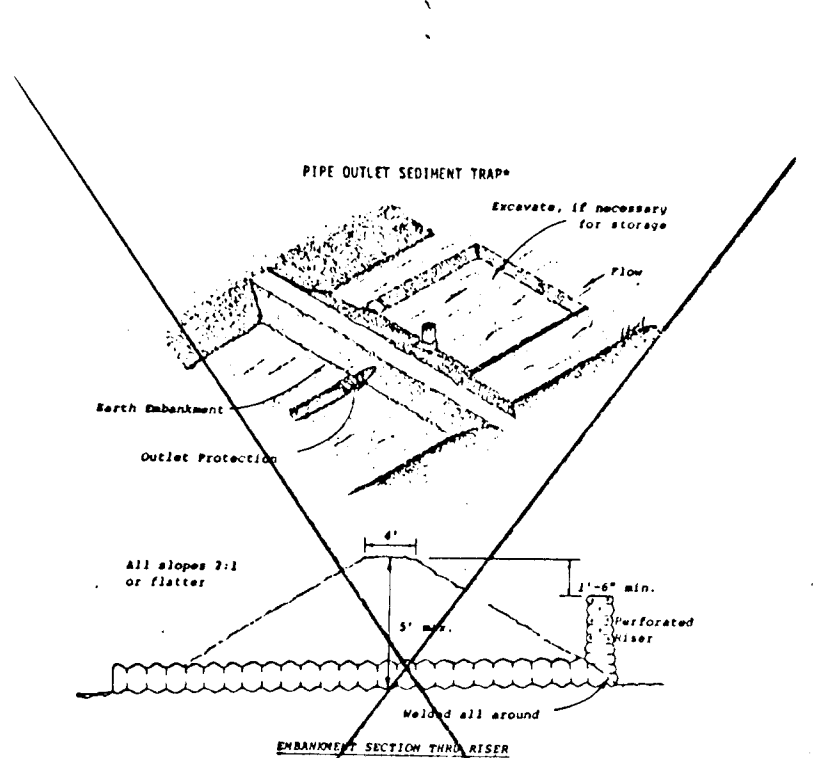


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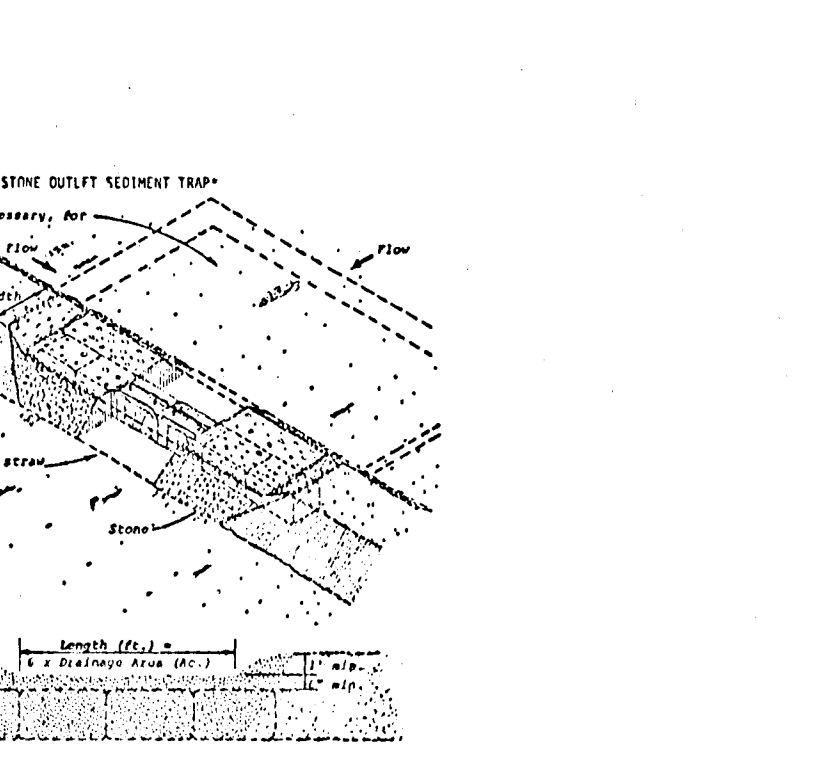
- TEMPORARY SEEDING SHALL BE DONE BETWEEN AUGUST 15TH AND NOVEMBER 30TH.
- PERMANENT SEEDING SHALL BE DONE BETWEEN FEBRUARY 1ST AND APRIL 30TH.
- ALL DISTURBED AREAS REQUIRING STABILIZATION NOT WITHIN THE SEEDING DATES SHALL BE MULCHED. Refer to tables 50-1 & 51-1 on sheet 1 of 2 for more information.



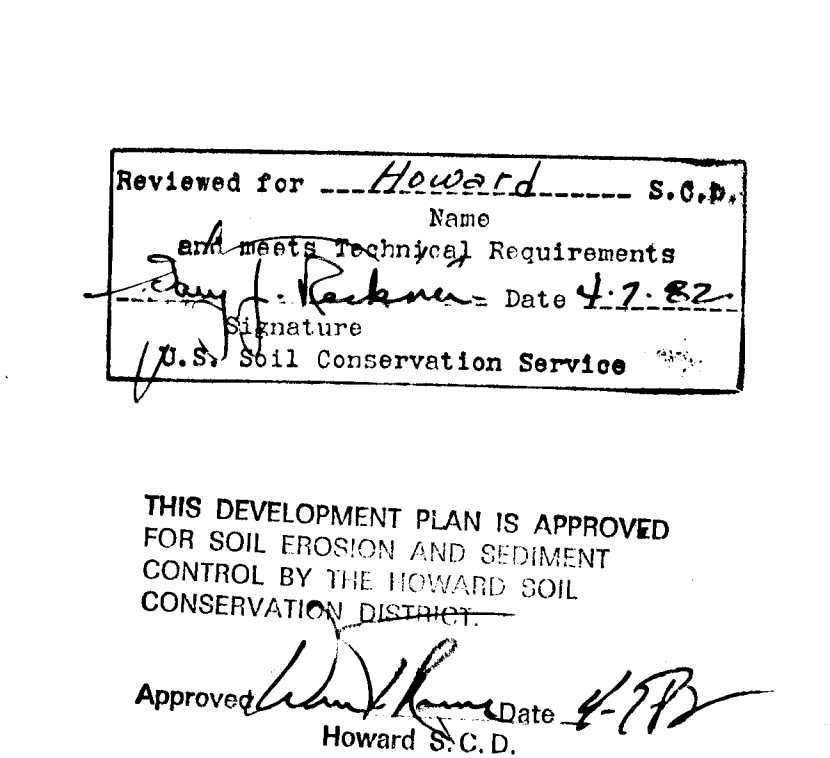
- Construction Specifications:**
- Stone shall be 1/2 inch to 1 1/2 inch in size.
 - Length shall be 10 to 15 feet.
 - Width shall be 4 to 6 feet.
 - The structure shall be inspected after each rain, and the stone shall be replaced when the structure ceases to function as intended due to accumulation among the stone, without construction traffic damage, etc.



- Construction Specifications:**
- The stone shall be crushed stone. The stone shall meet MSHA size No. 2 or AASHTO designation M33 size No. 20.
 - The crest of the stone shall be at least 12 inches above the lowest elevation of the top of the earth dike.
 - The stone outlet structure shall be embedded into the soil a minimum of four inches.
 - The minimum length in feet of the crest of the stone outlet structure shall be equal to six times the number of acres of contributing drainage area.
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APPROVED: HOWARD CO. OFFICE OF PLANNING & ZONING
 Planning Director: *Edith M. Murrain* Date: *3-16-82*
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

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 regulations of the Howard Soil Conservation District.
Edith M. Murrain 10-6-81
 SIGNATURE OF ENGINEER DATE

Johnson, Mirmiran & Thompson, P. A.
 ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS
 1751 LILTON ROAD • SILVER SPRING, MARYLAND 20903 • (301)434-7000
 VIENNA, VA • BALTIMORE, MD

SEDIMENT CONTROL PLAN
 LOTS 33 - 36 BLK 9 & LOTS 20 - 23 BLK 10
 NORTH LAUREL
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER: WARD DEVELOPMENT Co., INC.
 1500 PICCARD DRIVE
 ROCKVILLE, MARYLAND
 20850
 DESIGN: MN SHEET 2 OF 3
 DRAFT: BP DATE: March 1981 JOB NO: 9-073-23
 APPROVED: SCALE: AS SHOWN FILE NO: 9-073-23.B

Reviewed for *Howard* S.O.P.
 Name: *Edith M. Murrain*
 and meets technical Requirements
 Date: *4-7-82*
 Signature: *Edith M. Murrain*
 U.S. Soil Conservation Service

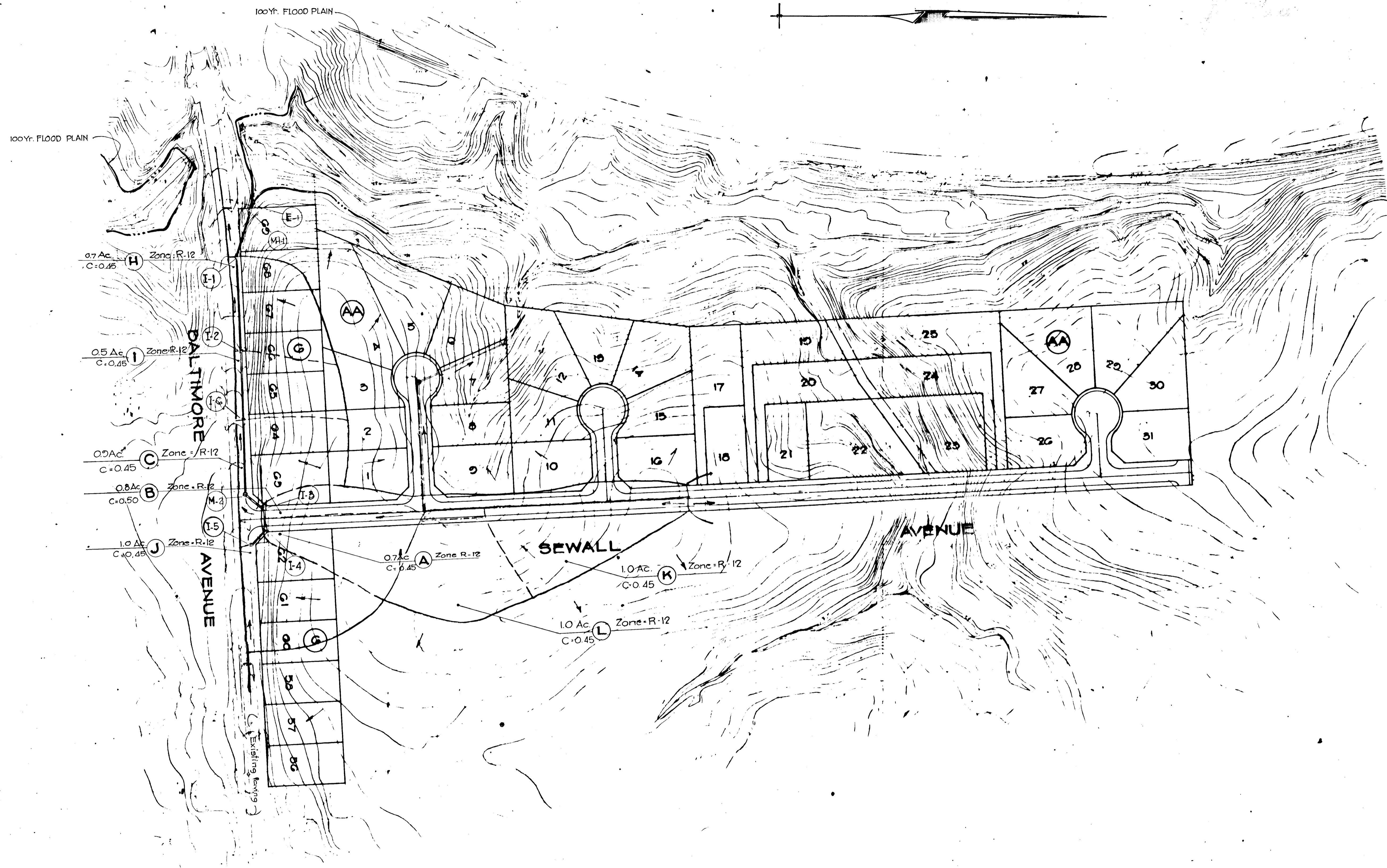
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Approved: *Edith M. Murrain* Date: *4-7-82*
 Howard S.C.D.

Approved: *Howard County Dept. of Public Works*
 Director: *Edith M. Murrain* Date: *4-14-82*
 Chief, Bureau of Engineering

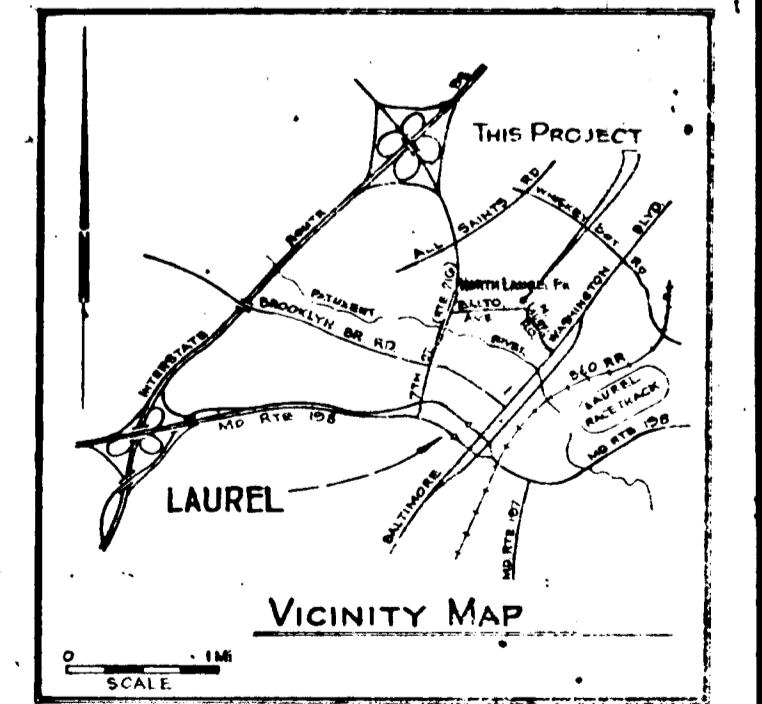
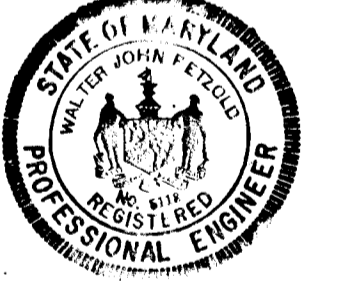
Handwritten initials

NO.	BY	DATE	REVISIONS

APPROVED: DEPARTMENT OF PUBLIC WORKS
W.O. Gilbert 5-15-78
 Chief, Bureau of Engineering Date
 APPROVED: HOWARD CO., OFFICE OF PLANNING & ZONING
William M. Anderson 4-20-78
 Chief, Division of Land Development Date



Walter J. Petzold



DATE	REVISION
8-77	Revised Areas A & I

DRAFTING
 CHECK
 DESIGN
 CHECK

Developer:
 WARD DEVELOPMENT CO., INC.
 1 Bank Street
 Gaithersburg, Maryland 20760

CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS
 OYSTER, IMUS AND PETZOLD, INC.
 810 GREEN DRIVE SUITE 201 GAITHERSBURG, MD 20878

DRAINAGE AREA MAP

BALTIMORE AVENUE
 Election District No 6 Tax Map No 50
NORTH LAUREL PARK
 Howard County, Maryland

DATE	JOB NO.
June, 1977	2073 C-2
SCALE 1"=100'	SHEET NO. 5 of 5

F-77-174