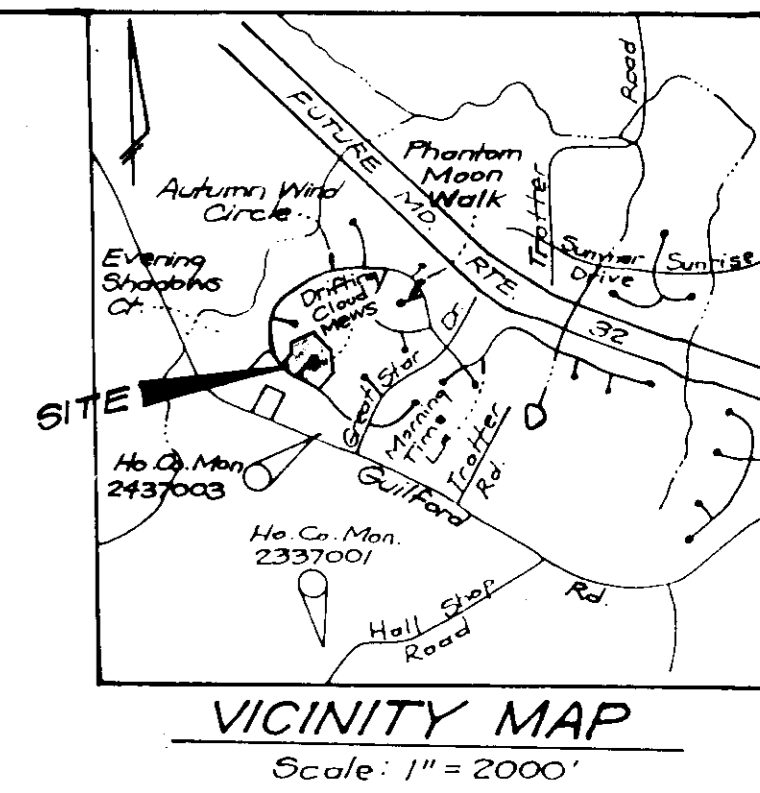


LEGEND
 Contour Interval 2 FT
 Existing Contour (---) 40
 Proposed Contour (---) 40
 Spot Elevation (•)
 Direction of Drainage (→)
 Walk out Basement
 Trees to be Saved (•)
 Tree Protection Fence (---)
 Minimum Cellar Elevation MCE

HOWARD COUNTY MONUMENTS
 N 2337001 - Elev 496.095, 34 Reinforcing Rod, 0.6' Below Surface
 N 491612 385 E 819527 789
 N 2437003 - Elev 477.122, Concrete Mon, 0.25' Below Surface
 N 494265 231 E 820385.343



- GENERAL NOTES:**
- Subject property is zoned: NTSFLO per 10.18.53 Comprehensive Zoning Plan.
 - The total area included in this submission is: 86,851 sq ft or 1.99 Ac.
 - The total number of lots included in this submission are: 6
 - Improvement to property: Single family detached
 - The maximum lot coverage permitted is: 30%
 - Department of Planning and Zoning reference file numbers are: S-91-03, P-94-01, F-94-108 and C-94-3356-D
 - Utilities shown as existing are taken from approved water and sewer plan Contract # C-94-3356-D; approved road construction plans F-94-108; and actual field survey.
 - Any damage to county owned rights-of-way shall be corrected at the developer's expense.
 - Storm water management is provided per: F-94-108
 - All roadways are public and existing.
 - The existing topography shown was taken from approved Road Construction Plans F-94-108
 - The coordinates shown herein are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System - Howard County Monument Nos. 2437003 and 2337001.
 - The contractor shall notify the Department of Public Works/Division of Construction Inspection at (410) 313-1880 at least five (5) business days prior to the start of work.
 - The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
 - Under certain conditions, decks and porches may only extend 3 feet into front and rear setbacks. Bay Windows and Chimneys not more than 10 feet in width may project no more than 4 into building setbacks, as cited in FUP Phase 209, Part II
 - SHC elevations shown are located at the property line.
 - No clearing, grading or construction is permitted within the wetland or stream buffers except as determined by the Dept. of Planning and Zoning in accordance with Section 16.116 (c) of the Subdivision and Land Development Regulations.
 - For driveway entrance details, refer to Ho Co Design Manual Volume II, 5th Edition, R.6.05

SPECIAL NOTES:
 This plan is for house siting and lot grading only. Improvements shown within the rights-of-way on this S.D.P. are not to be used for construction. For construction, see approved Road Construction Plans F-94-108 and/or approved Water and Sewer Plans Contract #94-3356-D.

OWNER/DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP
 10215 Little Patuxent Parkway
 Columbia, Maryland 21044

SUBDIVISION NAME		SECTION/AREA		LOTS/PARCELS	
COLUMBIA VILLAGE OF RIVER HILL		2/4		111-116	
PLAT NO.	BLOCK NO.	ZONE	TAX MAP NO.	ELECTION DIST.	CENSUS TRACT
11470		NTSFLD	35	5TH	G055
WATER CODE		SEWER CODE			
I-11		6650000			



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 DIRECTOR: *Michael Blood* DATE: 5/30/95
 CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH: *Michael Blood* DATE: 2/30/95
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: *James H. Lewis* DATE: 5/25/95
 CHIEF BUREAU OF ENGINEERING: *Paul S. Brown* DATE: 5/24/95

1. Rev. Res. 2 and Lot 113. Add house typical REVISIONS DATE: 7-14-95

ADDRESS CHART

LOT No.	STREET ADDRESS
111	6550 AUTUMN WIND CIRCLE
112	6505 DRIPPING CLOUD MEWS
113	6500
114	6508
115	6504
116	6540 AUTUMN WIND CIRCLE

SHEET INDEX
 Sheet 1 - Site Development Plan
 Sheets 2 & 3 - Sediment & Erosion Control

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

SITE DEVELOPMENT PLAN
 LOTS 111 thru 116
COLUMBIA VILLAGE OF RIVER HILL
 SECTION 2 AREA 4
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

FOR: DOUGLAS HOMES, INC.
 P.O. Box 828
 ELLICOTT CITY, MD 21043

SCALE: 1" = 30'
 DRAWING: 1 OF 3
 JOB NO.: 95-004
 FILE NO.: 95-004X

DATE: 5-15-95

SDP-95-96

TRAP NO 1 SOST - V (TO BE UTILIZED IF TRAP NO 11 HAS BEEN REMOVED)

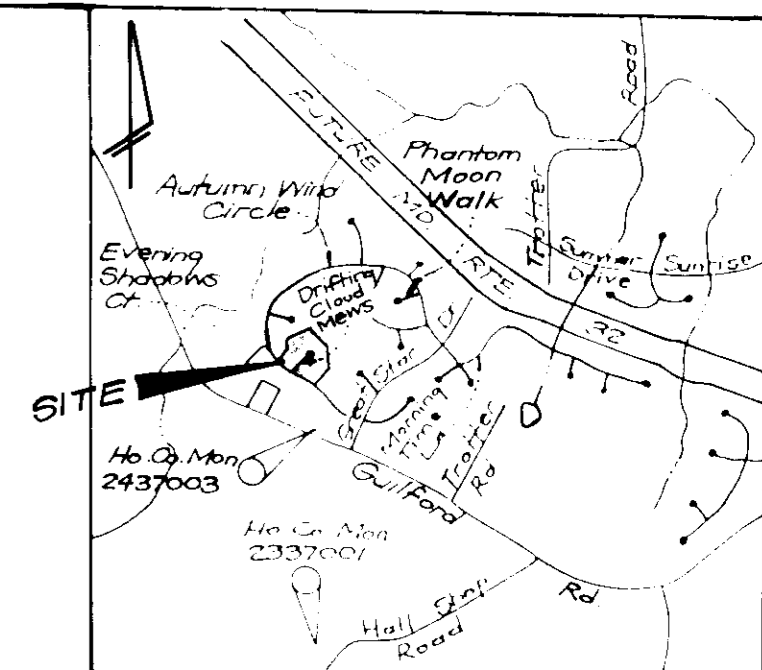
Drainage Area 0.80 Ac. (Prop.)
 Drainage Area 0.74 Ac. (Ex.)
 Storage Required 8,180 CF @ 1440 CF
 Storage Provided 1440 CF
 Storage Depth = 3'
 Crest Elev. 488.0
 Clean Out Elev. 483.5
 Bottom Elev. 484.0
 Bottom Dimensions 6'x34'
 L=4'

LEGEND

- Contour Interval 1.0'
- Existing Contour 40'
- Proposed Contour 40'
- Spot Elevations +10'
- Direction of Drainage
- Wash out Treatment
- Tree Protection Fence
- Minimum Cellar Elevation MCE
- Proposed Silt Fence
- Existing Silt Fence
- Proposed Earth Dike ED(A-2)
- Existing Earth Dike EX ED
- Stabilized Construction Entrance

HOWARD COUNTY MONUMENTS

N# 2337001 - Elev 496.095, 3/4 Reinforcing Rod, 0.6' Below Surface
 N 491612 385 E 819527 789
 N# 2437003 - Elev 477.122, Concrete Mon., 0.25' Below Surface
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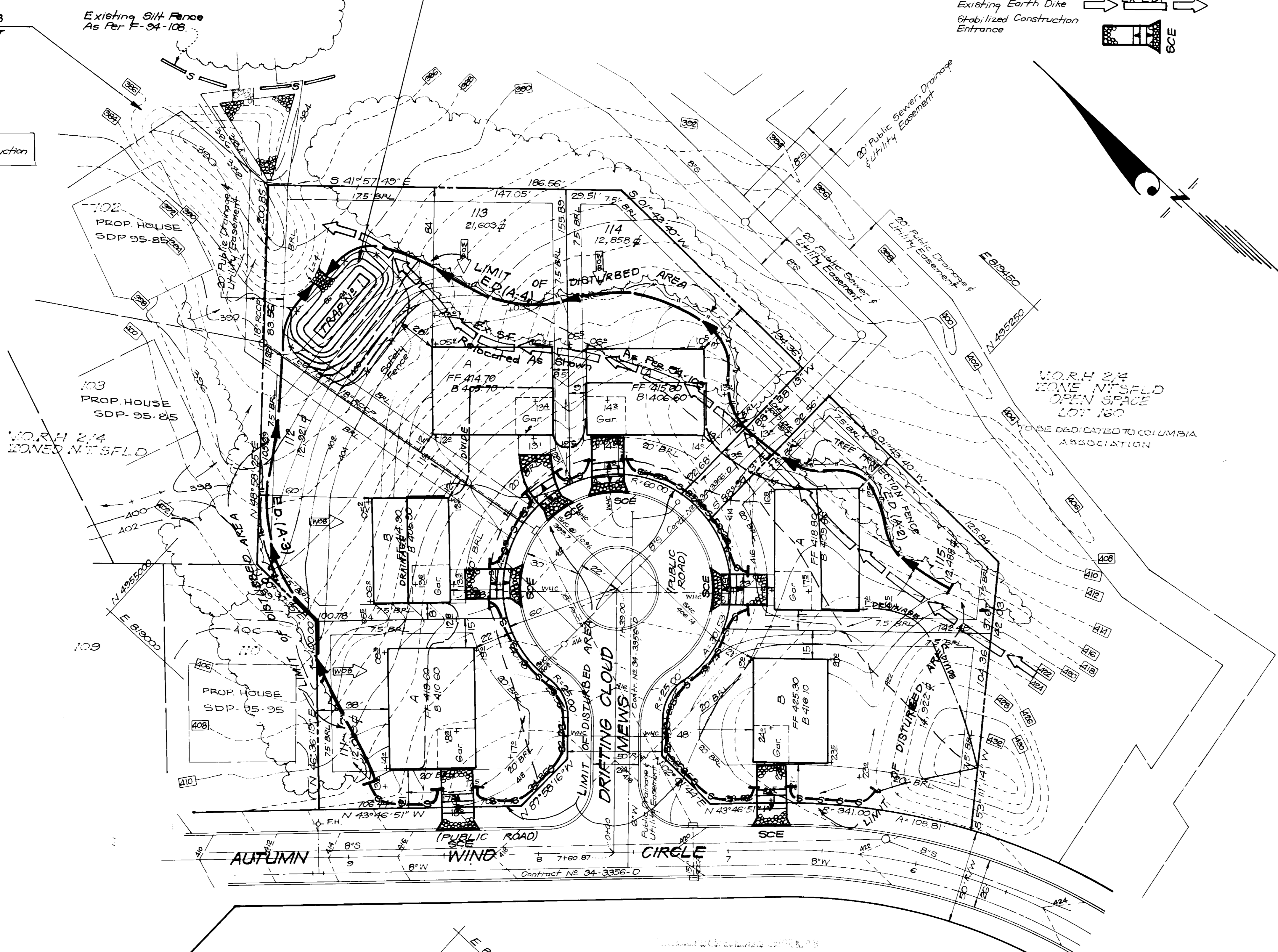


VICINITY MAP
 Scale 1" = 2000'

EXISTING TEMP TRAP NO 11 PER F-94-108
 TO BE UTILIZED IF IT IS STILL IN PLACE AT TIME OF CONSTRUCTION

Drainage Area 4.5 Ac.
 Storage Required 8100 CF
 Storage Provided 900 CF @ 382.0
 Crest Elev. 383.0
 Bottom Elev. 378.0
 Depth 4'
 2:1 Side Slopes
 L=10'
 Clean Out Elev. 380.5

NOTE: The builder will be responsible for clean out of the Sediments created by house construction only.



John R. Robertson 5/22/95
 Howard County District

APPROVED: THE NATURAL RESOURCES SERVICE

Patricia Enke 5/22/95
 Approved Date

Conservation Service, Natural Resources

G. Nelson Clark 5-15-95
 Date

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 5/30/95
 DIRECTOR DATE
 5/30/95
 CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 5/25/95
 DIRECTOR DATE
 5/24/95
 CHIEF BUREAU OF ENGINEERING DATE

Conservation Service the Natural Resources

Douglas H. King 5-30-95

OWNER DEVELOPER
 LAND RESEARCH AND DEVELOPMENT
 1275 LITTLE PATENT ROAD
 COLUMBIA, PA 17512

CLARK • FINEFROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS 7135 MINSTREL WAY • COLUMBIA, MD 21045 • 410-381-7500 - BALTO • 301-621-8100 - WASH		
DESIGNED KIWM	SEDIMENT & EROSION CONTROL PLAN LOTS 111 thru 116 COLUMBIA VILLAGE OF RIVER HILL SECTION 2 AREA 4 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND FOR: DOUGLAS HOMES, INC P.O. Box 628 ELLICOTT CITY, MD 21043	SCALE 1" = 30'
DRAWN BAL		DRAWINGS 2 OF 3
CHECKED RJS		JOB NO 95-004
DATE 5-15-95		FILE NO 95-004
SDP-95-96		

SEDIMENT AND EROSION CONTROL NOTES

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permit's prior to the start of any construction. (919-1895)
- All methods 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 SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redistribution, 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 to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeters in accordance with Vol. 1, Chapter 12 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- 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 establishment of grasses.
- 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.
- SITE ANALYSIS:**

Total Area of Site:	1.99 Ac.
Area Disturbed:	1.85 Ac.
Area to be roofed or paved:	0.44 Ac.
Area to be vegetatively stabilized:	1.71 Ac.
Total Cut:	590 C.Y.
Total Fill:	590 C.Y.

 Offsite Waste/Borrow Area Location: _____
 Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
 Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
 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 is made.
- All pipes to be blocked at the end of each day (see detail this sheet).
- The total amount of silt fence = **590 LF**

*It is the responsibility of the contractor to identify the spoil/borrow site and notify and gain approval from the sediment control inspector of the site and it's grading permit number at the time of construction.

CONSTRUCTION SEQUENCE:	NO. OF DAYS
1. Obtain grading permit	7
2. Install tree protection fence.	7
3. Install sediment and erosion control devices and stabilize.	14
4. Excavate for foundations, rough grade, and temporarily stabilize.	30
5. Construct structures, sidewalks and driveways.	60
6. Final grade and stabilize in accordance with Stds. and Specs.	14
7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.	7

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 the 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.

MULCHING: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs./acre (1.4 lbs./1000 sq ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru August 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs per acre of weeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 90 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 reseatings.

TEMPORARY SEEDING NOTES

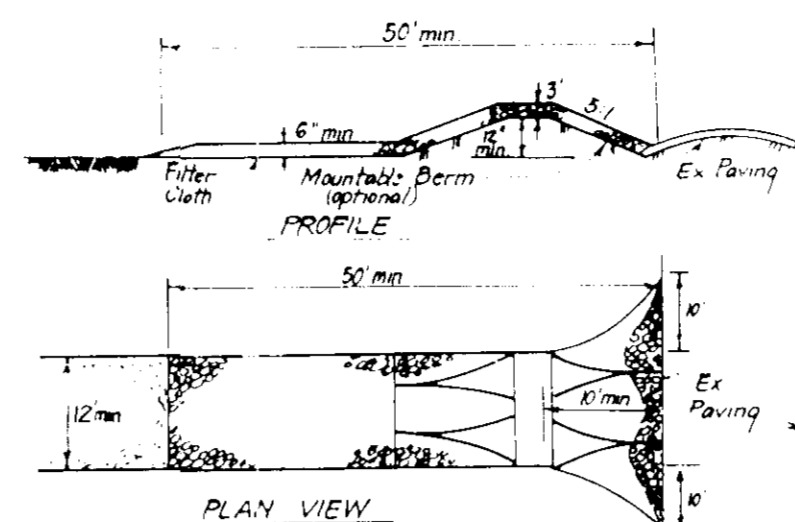
SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing, or other acceptable means before seeding, if not previously loosened.

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 ryegrass (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.

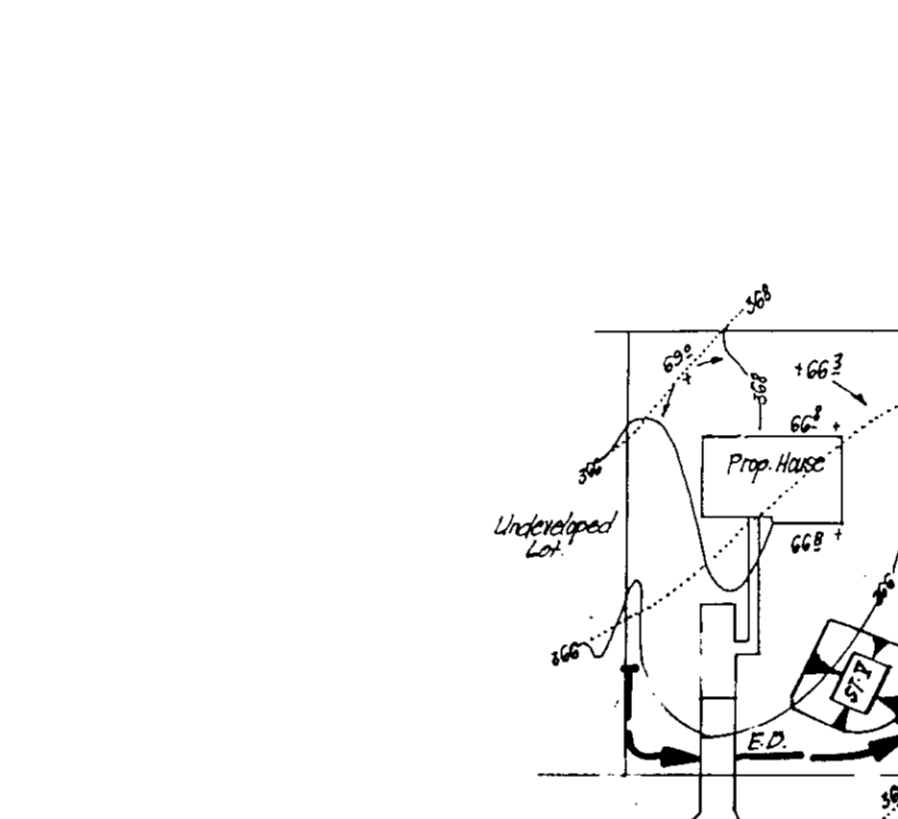
MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal./1000 sq ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal./1000 sq ft.) for anchoring.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



- CONSTRUCTION SPECIFICATIONS:**
- Stone size: Use 2" stone, or rounded concrete equivalent.
 - Length: As required, but not less than 50 feet, except on a simple residence lot where a 30 foot minimum length would apply.
 - Thickness: Not less than six (6) inches.
 - Width: Ten (10) feet minimum, but not less than the full width at points where ingress or egress occurs.
 - Filter Cloth: Will be placed over the entire area prior to placing of stone. Filter will not be required on a simple family residence lot.
 - Surface Water: All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a "mountain" side berm with 5:1 slopes will be permitted.
 - Maintenance: The entrance shall be maintained in a condition which will prevent tracking or blowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as construction demand and repair work or cleanup of any measures used to trap sediment will be required.
 - Periodic inspection and needed maintenance shall be provided after each rain.

STABILIZED CONSTRUCTION ENTRANCE (SCE)



*NOTE: Single lot detail can not be utilized if any two lots sharing common property lines are to be disturbed at the same time or on any lots showing a sediment trap.

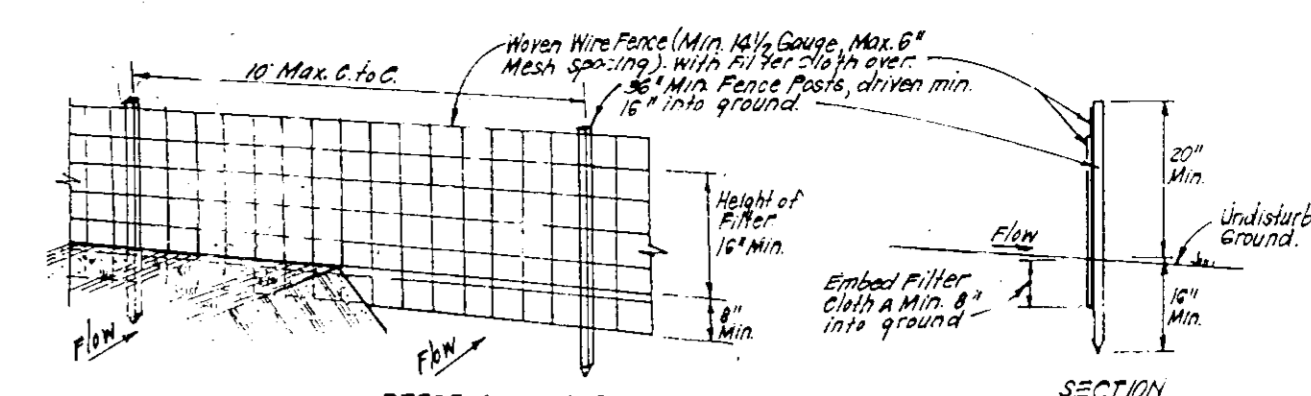
SINGLE LOT SEDIMENT CONTROL PLAN



STONE OUTLET SEDIMENT TRAP (S.O.S.T.)

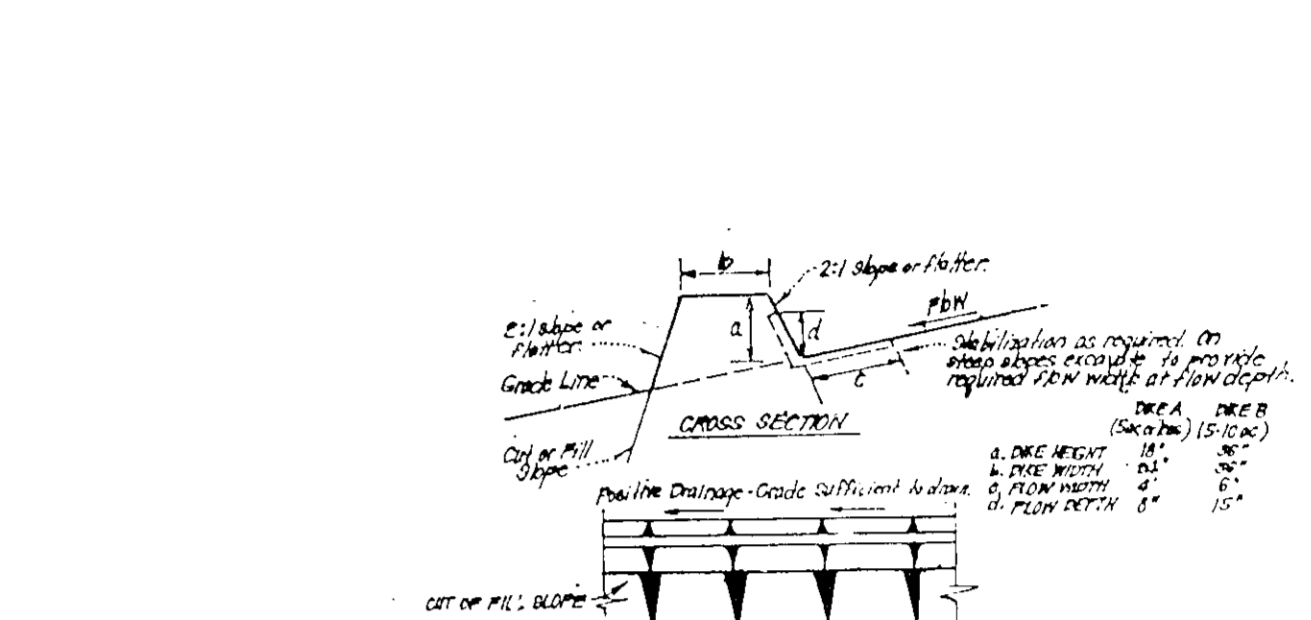
CONSTRUCTION SPECIFICATIONS:

- Trap area shall be cleared, graded and stripped of any vegetation and roof mat. The trap shall be 10' x 10'.
- The trap shall be constructed of 2" stone, or rounded concrete equivalent, as well as any other material that is suitable for the purpose. The construction shall be completed prior to the start of any other construction.
- The trap shall be 10' x 10'.
- The stone used in the outlet shall be small rip rap with a thickness of 2" appropriate placed on the low water side of the trap.
- Sediment shall be removed and top restored to its original dimensions when the sediment has accumulated to the depth of the trap.
- The structure shall be inspected after each rain and repairs made as needed.
- Inspection operations shall be carried out in such a manner that erosion and water pollution is minimized.
- The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

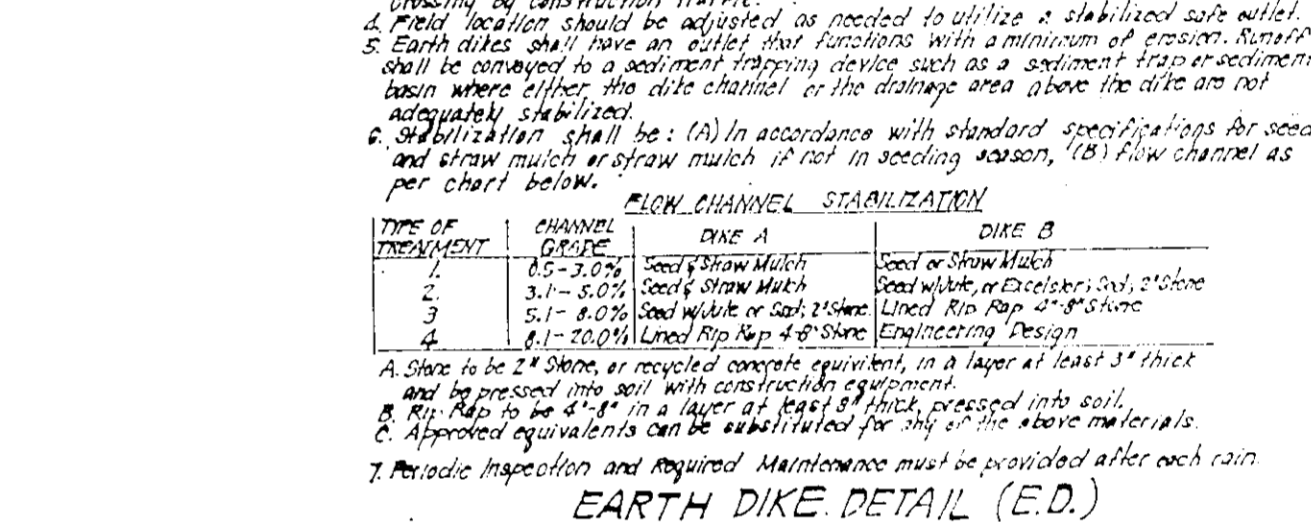


- CONSTRUCTION SPECIFICATIONS:**
- Woven wire fence to be fastened securely to fence posts with wire mesh of staples.
 - Filter cloth to be fastened securely to woven wire fence with 1/2" spacers every 24" at top and mid section.
 - When 2 sections of filter cloth begin each other they shall be overlapped by 6" and stapled.
 - Maintenance shall be performed as needed and material replaced when needed in any place.
 - Silt Fence to be staked at 3' to 5' intervals.

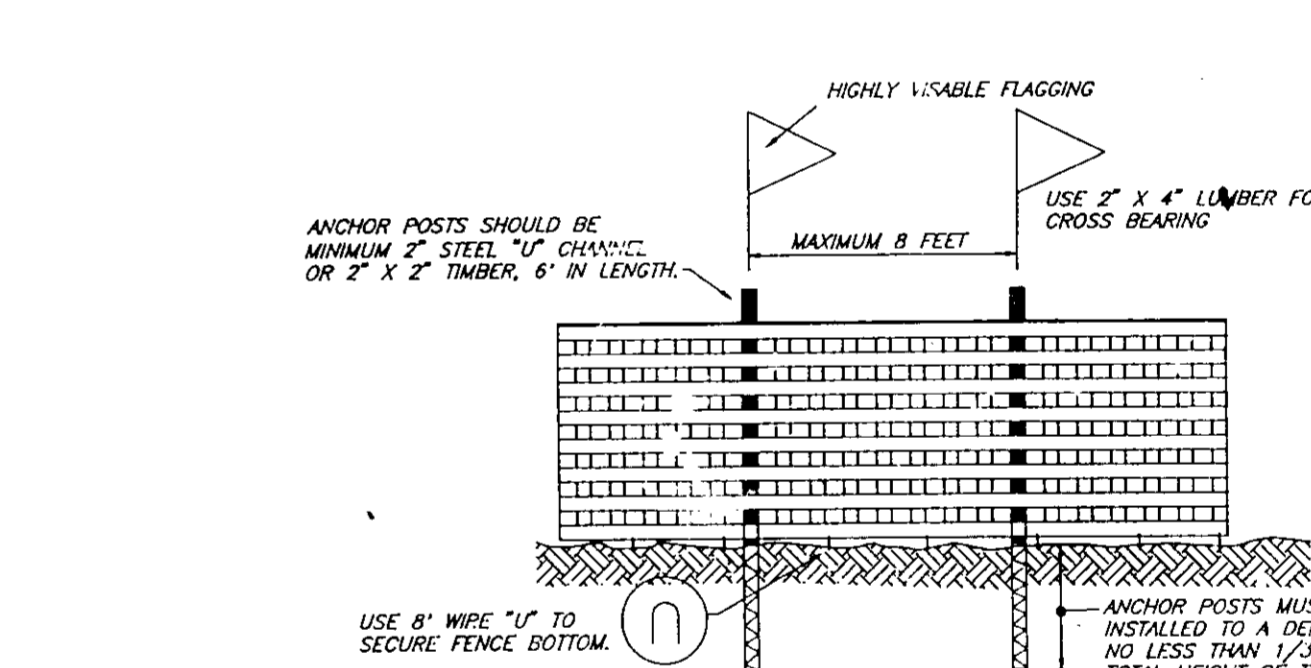
SILT FENCE DETAIL (S)



EARTH DIKE DETAIL (E.D.)



BLAZE ORANGE PLASTIC MESH



TYPICAL TREE PROTECTION FENCE DETAIL

- NOTES:**
- Forest protection device only.
 - Retention area will be set as part of the review process.
 - Boundaries of retention area should be staked and flagged prior to installing device.
 - Road damage should be avoided.
 - Protection signage may also be used.
 - Device should be maintained throughout construction.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 Director: *[Signature]* DATE: 5/30/95
 CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH: *[Signature]* DATE: 5/30/95
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Director: *[Signature]* DATE: 5/29/95
 CHIEF BUREAU OF ENGINEERING: *[Signature]* DATE: 5/29/95

Reviewed for: HOWARD S.C.D.
 and meets Technical Requirements
 Signature: *[Signature]* DATE: 5/22/95
 Soil Conservation District

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE NATURAL RESOURCES CONSERVATION SERVICE.
 Signature: *[Signature]* DATE: 5/22/95
 Approved

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 sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Natural Resources Conservation Service or their authorized agents, as are deemed necessary.
 Signature: *[Signature]* DATE: 5-30-95

ENGINEER'S CERTIFICATE
 I hereby certify that this plan for Sediment and Erosion 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 Natural Resources Conservation Service.
 Signature: *[Signature]* DATE: 5-15-95
 G. NELSON CLARK

[Handwritten Signature]
 5-15-95

CLARK • FINEFROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO • (301) 621-8100 - WASH

DESIGNED	SDP	SCALE	1" = 30'
DRAWN	BAL	DRAWING	3 OF 3
CHECKED	RJS	JOB NO	95-004
DATE	5-15-95	FILE NO.	95-004

SEDIMENT & EROSION CONTROL PLAN
 LOTS 111 thru 116
COLUMBIA
 VILLAGE OF RIVER HILL
 SECTION 2 AREA 4
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 FOR: DOUGLAS HOMES, INC.
 P.O. Box 628
 ELLICOTT CITY, MD 21043

SDP 95-96