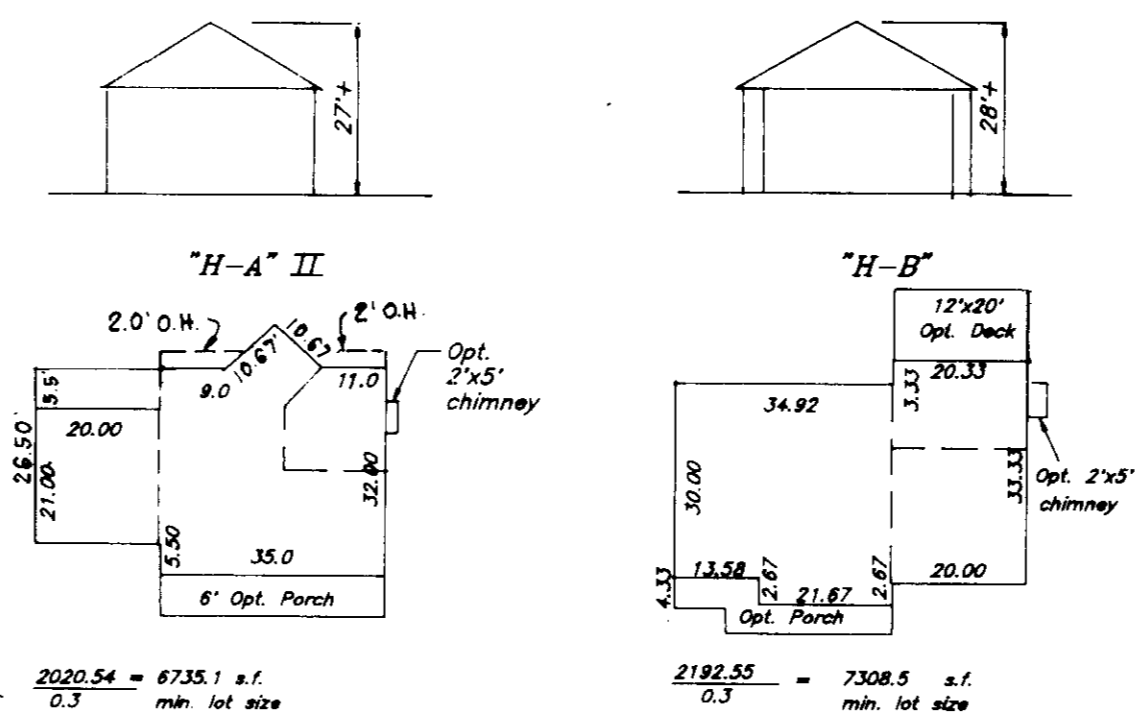


VICINITY MAP

SCALE: 1"=2000'

LEGEND

- CONTOUR INTERVAL 2 FT.
- EXISTING CONTOUR
- PROPOSED CONTOUR
- DIRECTION OF DRAINAGE
- WALK OUT BASEMENT
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING STORM DRAIN
- EXISTING TREES TO REMAIN
- Tree Protection Fence



TYPICAL HOUSES

Scale: 1"=30'  
NOTE: All units have 1" roof eaves front and rear.

GENERAL NOTES

- Subject property zoned New Town per 8/2/85 Comprehensive Zoning Plan.
- The coordinates shown hereon are based upon Howard County Control Geodetic Control which is based upon the Maryland State Plane Coordinate System - Howard County Monuments Nos. 2437002, 2437003, 2737002 and 2637004.
- All roadways are public and existing.
- Total area included in this submission: 5.92 Acres
- Total number of lots: 22
- Any damage to county owned rights-of-way shall be corrected at the developer's expense.
- Maximum lot coverage is 30%
- Reference plans S-90-27, PB Case 265, WP-90-133, P-91-03 FDP Phase 210, F-91-98 and F-91-91, PB-263.
- The Contractor or Developer shall contact the Construction/Inspection Survey Division, 24 hours in advance of commencement of work at 792-2630.
- The existing topography shown was field run by Clark Finerock and Sackett, Inc. on 6-4-91, with the exception of Lots 138 and 139 which was taken from the road construction plans.
- A 10' wide Tree Maintenance Easement along all road frontages.
- For Driveway Abutting Details see Howard County Standards R-6.03 and R-6.05.
- All building setbacks are in accordance with recorded FDP 210.
- No grading, structures or removal of vegetative cover is permitted within the required 25 foot wetlands/75 foot stream buffers.
- S.W.M. and W.B. facilities provided for by F-91-91 and F-91-98.

SPECIAL NOTES

- This plan is for the grading of lots only. Improvements shown within the rights of way on this SDP are not to be used for construction. For construction, see approved Road Construction Plans F-91-98 and F-91-91 and/or approved Water and Sewer Plans C#34-3090-D and C#34-3084-D.
- All work shall be performed in accordance with Howard County standards, specifications and details for construction.

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
96	6505 APPLE BLOSSOM RIDE
97	6509 APPLE BLOSSOM RIDE
98	6513 APPLE BLOSSOM RIDE
99	6516 APPLE BLOSSOM RIDE
100	6512 APPLE BLOSSOM RIDE
101	6508 APPLE BLOSSOM RIDE
102	6504 APPLE BLOSSOM RIDE
28	6310 NODDING NIGHT COURT
29	6306 NODDING NIGHT COURT
30	6302 NODDING NIGHT COURT

SUBDIVISION NAME Village of River Hill	SECTION/AREA 1 3	LOTS/PARCELS 28-30, 55-57, 96-102, 111-116, 105, 138-139
PLAN NO. 9992, 9993, 9994, 9995	BLOCK NO. 14	ZONE NT SFLD
TAX MAP NO. 35	ELECTION DIS. 5	CENSUS TRACT 6053 01
WATER CODE I 04	SEWER CODE 6660000	6700000

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

DESIGNED: MJP  
DRAWN: J.R.  
CHECKED: JME  
DATE: AUG 91

SCALE: 1"=30'  
DRAWING: 1 OF 6  
JOB NO.: 91-086  
FILE NO.: 91-086-X

SITE DEVELOPMENT PLAN  
LOTS 28-30, 55-57, 96-102, 111-116, 105, 138 & 139  
**COLUMBIA**  
VILLAGE OF RIVER HILL  
SECTION 1 AREA 3  
5TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
FOR: HALLMARK BUILDERS  
P.O. BOX 1014  
COLUMBIA, MD 21044

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
COUNTY HEALTH OFFICER: [Signature] DATE: 10-28-91

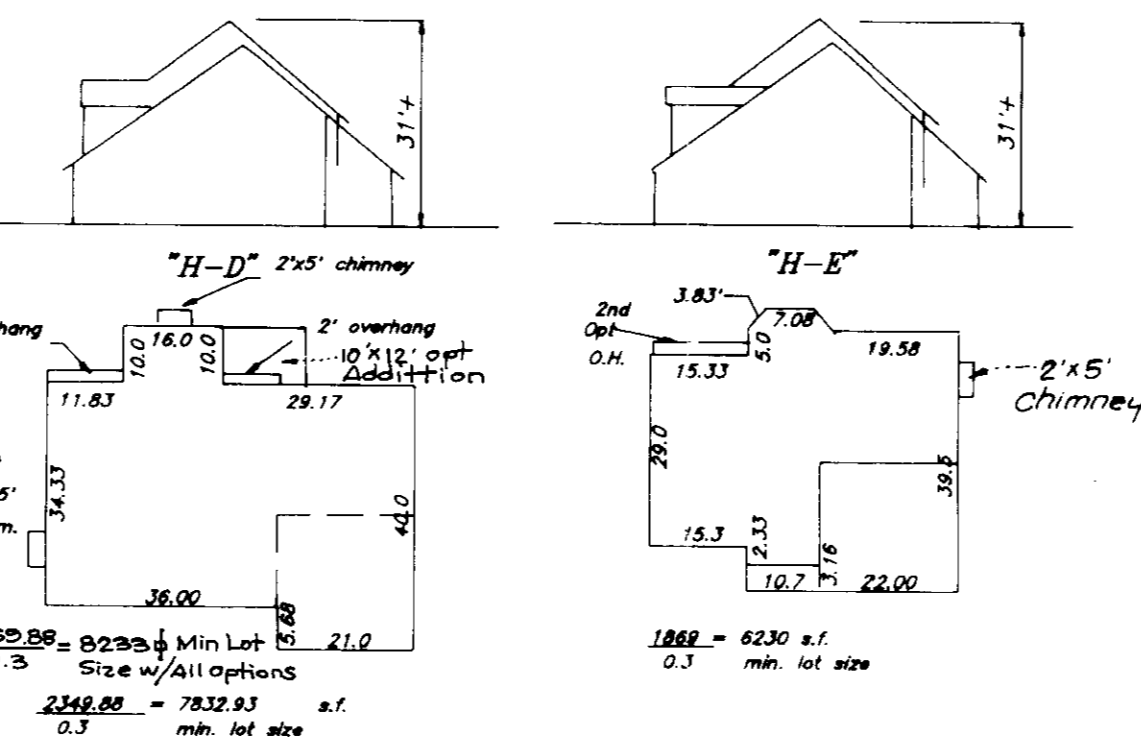
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
PLANNING DIRECTOR: [Signature] DATE: 11/14/91

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DIRECTOR: [Signature] DATE: 10/23/91

CHIEF BUREAU OF ENGINEERING: [Signature] DATE: 10/23/91

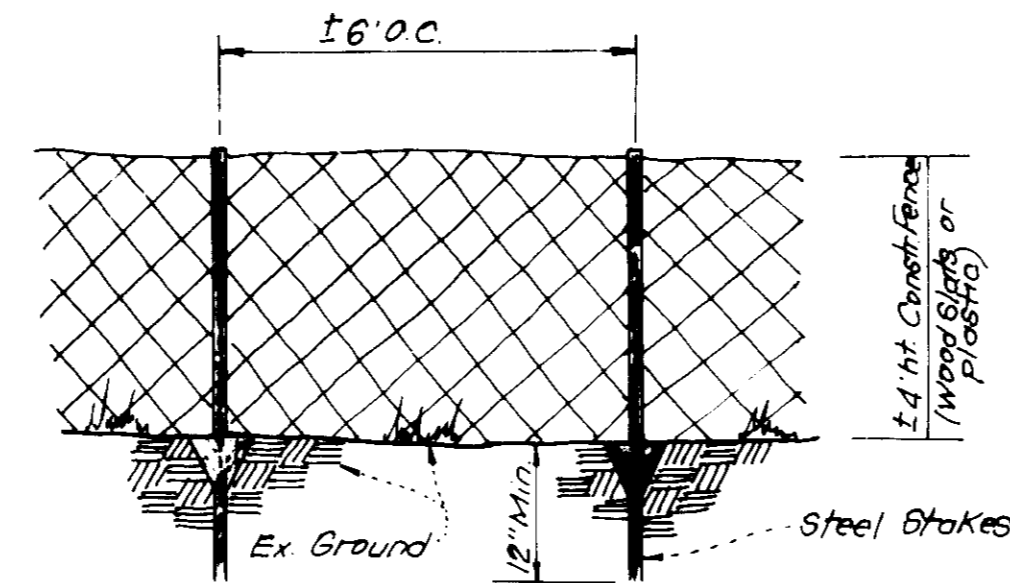
REVISIONS

3	Rev. hse. f. grad. lot 30	9.9.93
2	Rev. hse. f. grad. lot 102	6.22.93
1	Rev. hse. f. grad. lot 99	9.30.92
1/2	DATE	

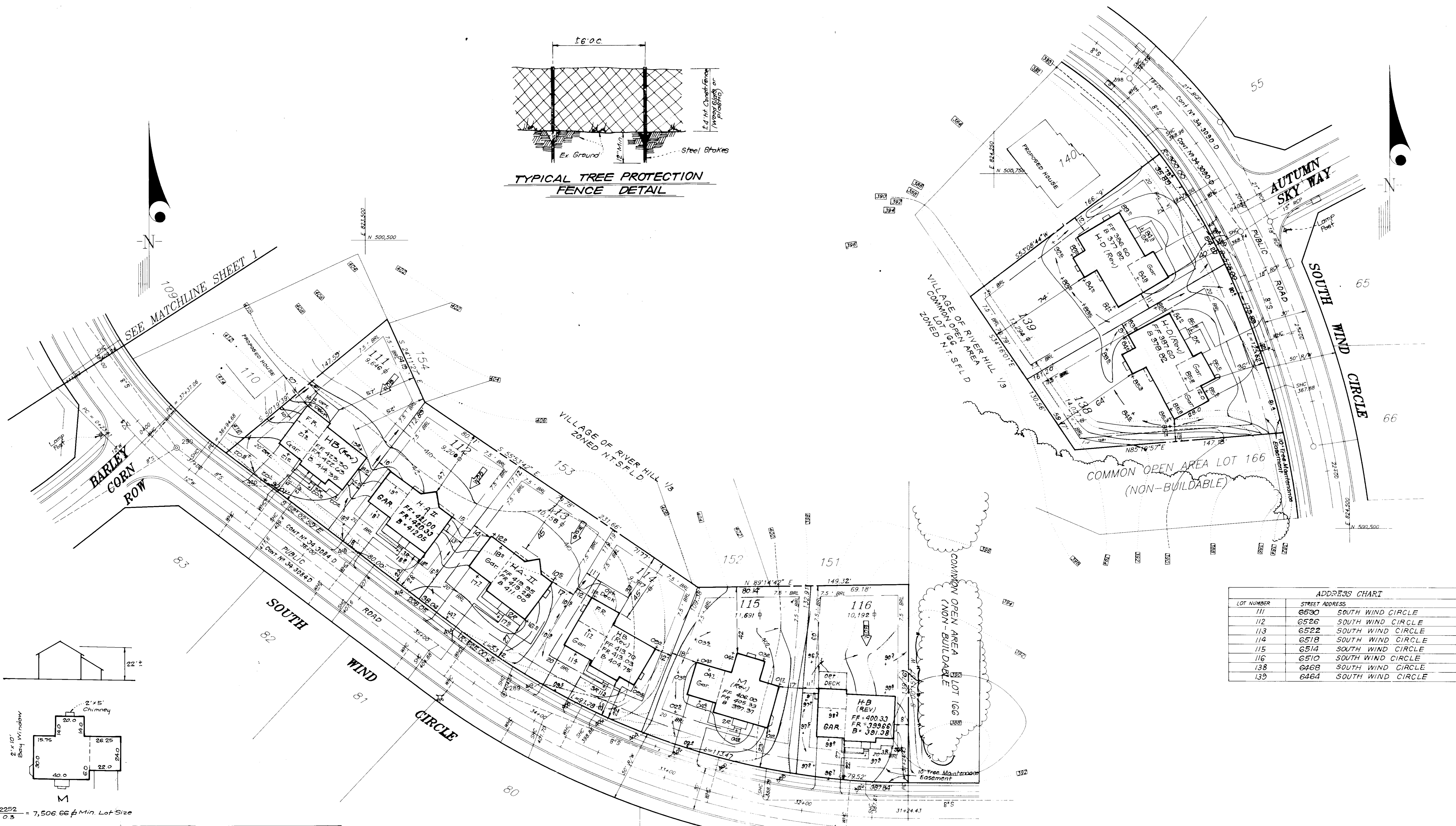


TYPICAL HOUSES

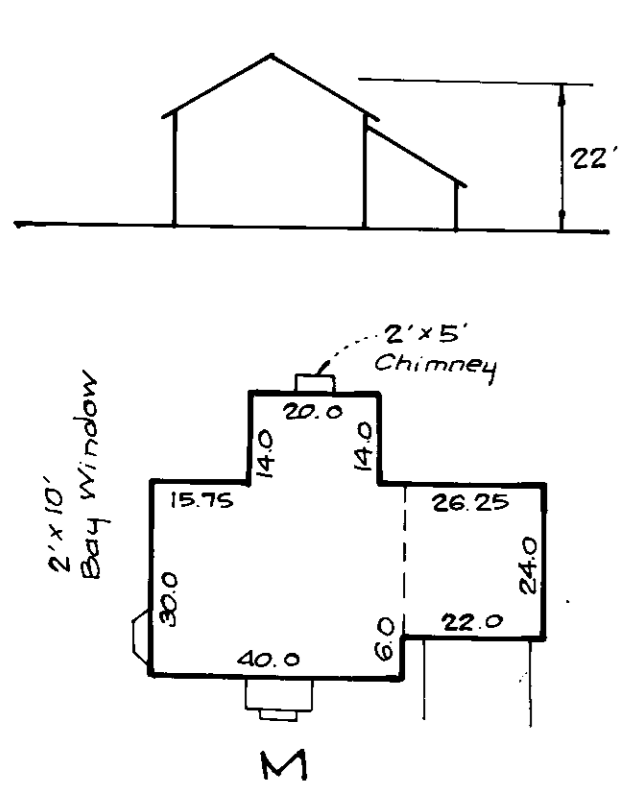
Scale: 1"=30'  
NOTE: All units have 1" roof eaves front and rear.



TYPICAL TREE PROTECTION FENCE DETAIL



ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
111	6500 SOUTH WIND CIRCLE
112	6526 SOUTH WIND CIRCLE
113	6522 SOUTH WIND CIRCLE
114	6518 SOUTH WIND CIRCLE
115	6514 SOUTH WIND CIRCLE
116	6510 SOUTH WIND CIRCLE
138	6468 SOUTH WIND CIRCLE
139	6464 SOUTH WIND CIRCLE



2252  
0.5 = 7,506.66 ft Min. Lot Size

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

*[Signature]* 10-28-91  
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

*[Signature]* 11/14/91  
PLANNING DIRECTOR DATE

*[Signature]* 11/14/91  
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

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

*[Signature]* 10-23-91  
DIRECTOR DATE

*[Signature]* 10-23-91  
CHIEF BUREAU OF ENGINEERING DATE

NO	REVISIONS	Date
6	Rev. hse & grd Lot 111 from HE to HB	9-1-93
5	Rev. hse & grd lot 115, Add house typical	3-2-93
4	Rev. hse & grd lot 114	9-28-92
3	Rev. hse & grd lot 138	9-9-92
2	Rev. hse & grd lot 139	6-22-92
1	Rev. hse & grd lot 113	3-30-92

OWNER DEVELOPER:  
THE HOWARD RESEARCH AND DEVELOPMENT LAND CO.  
10275 Little Patuxent Parkway  
Columbia, Maryland, 21044

**CLARK • FINEFROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
7135 MINSTREL WAY • COLUMBIA, MD 21045 • (301) 981-7500 • BALTO • (301) 621-8100 • WASH

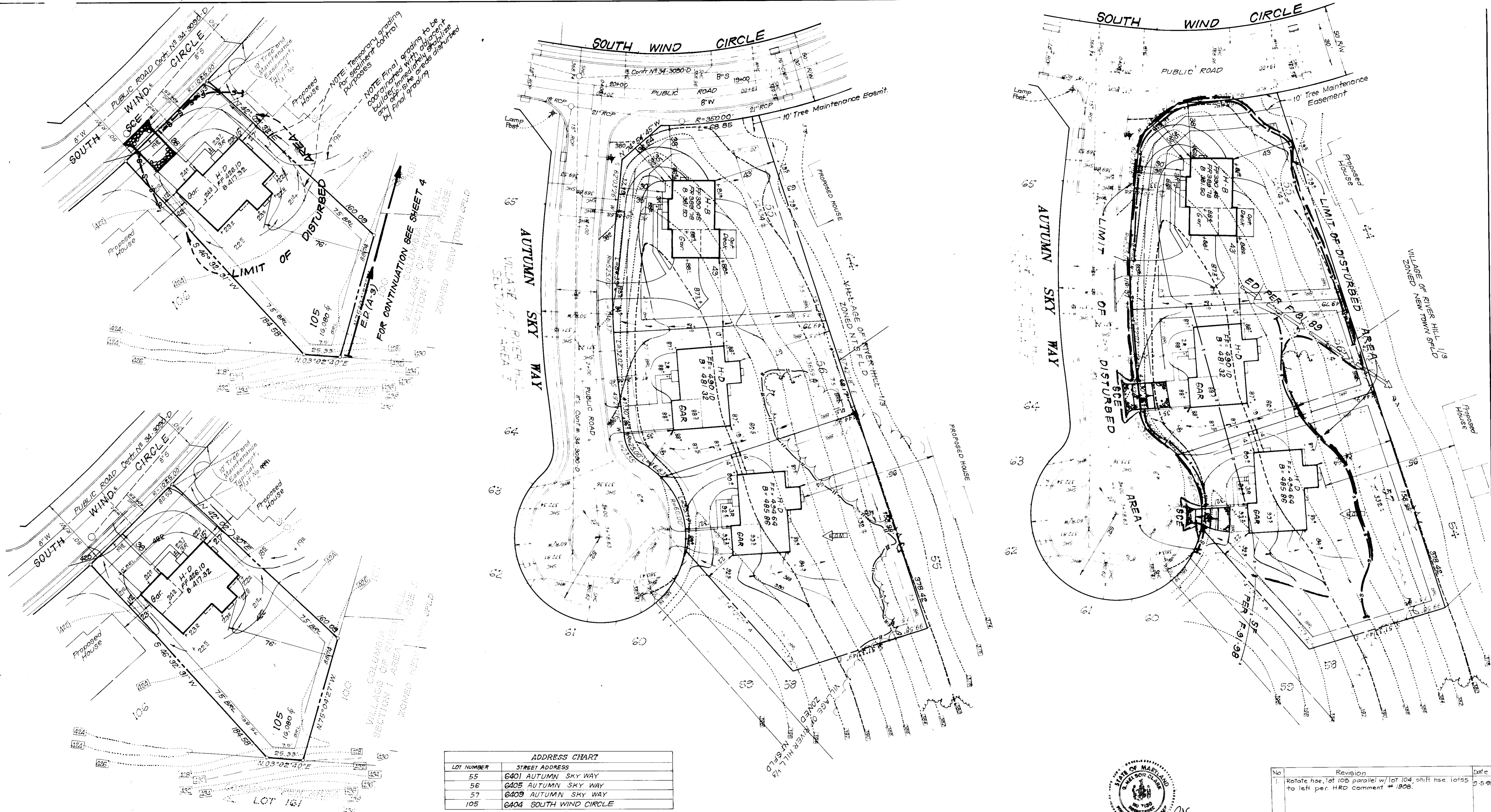
DESIGNED: MJP  
DRAWN: J.R.  
CHECKED: JME  
DATE: AVE 91

SITE DEVELOPMENT PLAN  
LOTS 28-30, 55-57, 96-102, 111-116, 105, 138 & 139

**COLUMBIA**  
VILLAGE OF RIVER HILL  
SECTION 1 AREA 3  
5TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

FOR: HALLMARK BUILDERS  
P.O. BOX 1018  
COLUMBIA, MD 21044

SCALE: 1"=30'  
DRAWING: 2 OF 6  
JOB NO: 91-086  
FILE NO: 91-086-X



**ADDRESS CHART**

LOT NUMBER	STREET ADDRESS
55	6401 AUTUMN SKY WAY
56	6405 AUTUMN SKY WAY
57	6409 AUTUMN SKY WAY
105	6404 SOUTH WIND CIRCLE

**APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS**  
 HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER: *John Salter* 10-28-91  
 DATE: 10-28-91

**APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING**  
 PLANNING DIRECTOR: *James K. Smith* 11/14/91  
 DATE: 11/14/91

**APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS**  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR: *James R. Kelly* 10-23-91  
 DATE: 10-23-91

Reviewed for: HOWARD S.C.D.  
 Name: \_\_\_\_\_  
 Signature: *[Signature]* 10/21/91  
 Date: 10/21/91  
 US Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 Approved: *[Signature]* 10/17/91

**DEVELOPER'S/BUILDER'S CERTIFICATE**

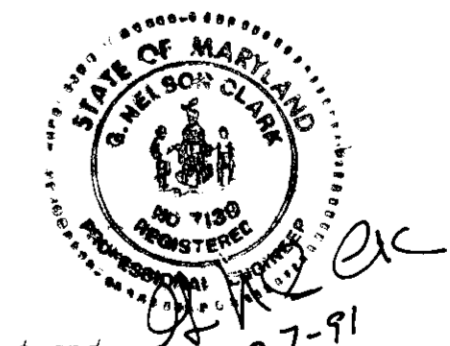
"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training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

Signature of Developer: *[Signature]* 8-5-91  
 Date: 8-5-91

**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 Howard Soil Conservation District.

*[Signature]* 8-7-91  
 Date: 8-7-91  
 G. Nelson Clark

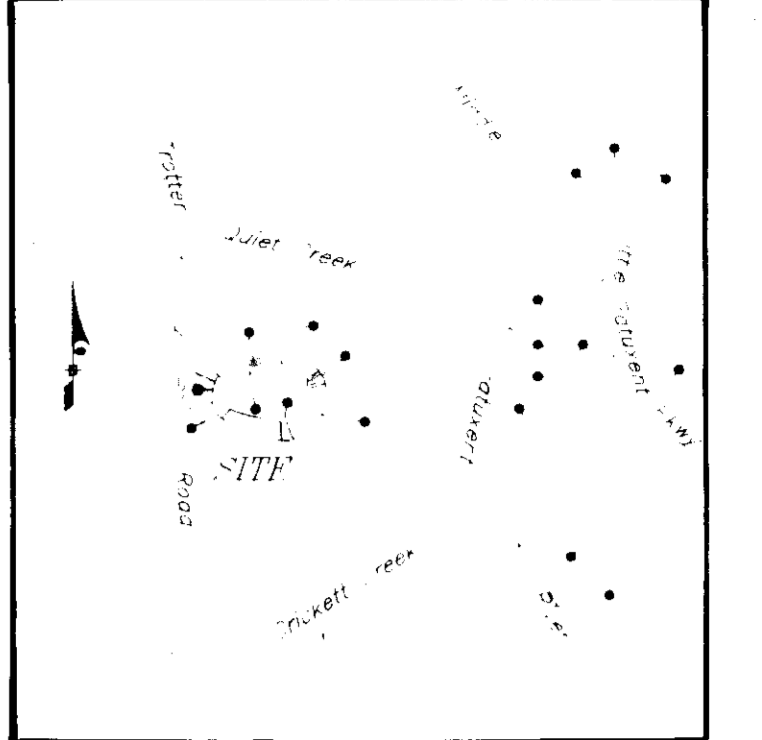
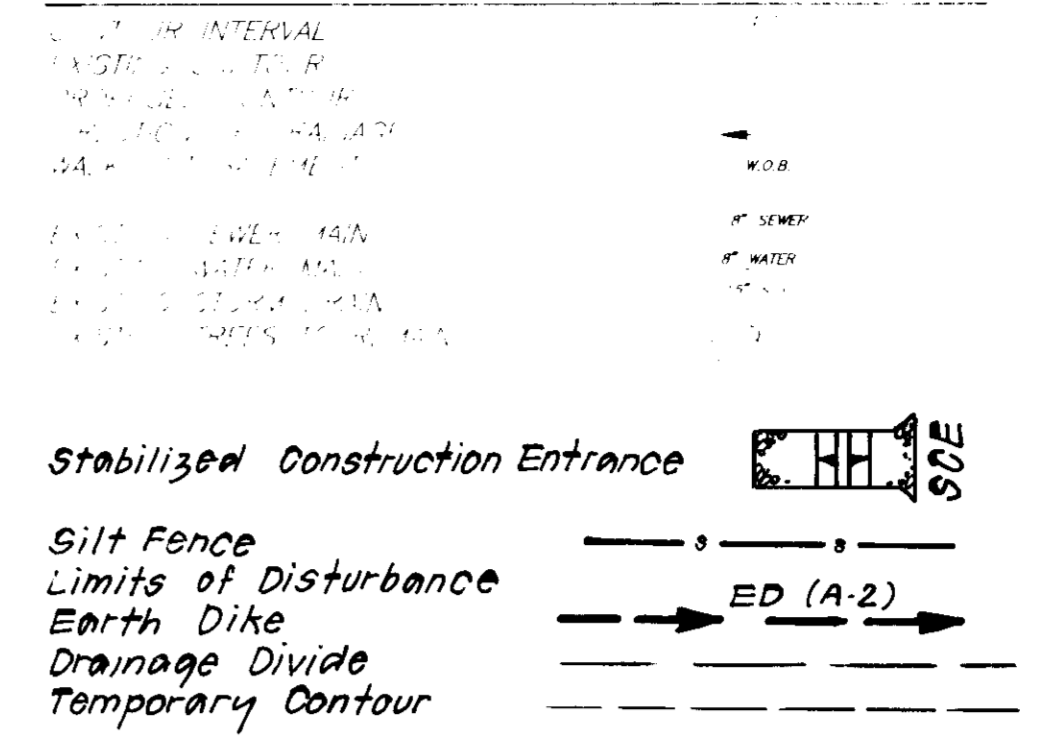


No.	Revision	Date
1	Rotate hse. lot 105 parallel w/ lot 104 shift hse. lot 55 to left per. HRD comment #1808.	5-5-91

**CLARK • FINEROCK & SACKETT, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS  
 7135 MINSTREL WAY • COLUMBIA MD 21045 • (301) 881-7500 BALTO • (301) 621-8100 - WASH

DESIGNED: <i>[Signature]</i> K/IWM	<b>SITE DEVELOPMENT PLAN &amp; SEDIMENT AND EROSION CONTROL PLAN</b> LOTS 28 - 30, 55-57, 96-102, 111-116, 105, 138 & 139 <b>COLUMBIA</b> VILLAGE OF RIVER HILL SECTION 1 AREA 3 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND FOR: HALMARK BUILDERS P.O. BOX 1018 COLUMBIA, MD 21044	SCALE: 1"=30'
DRAWN: J.R.		DRAWING: 3 OF 6
CHECKED: J.M.E. K/IWM	JOB NO: 91-086	FILE NO: 91-086-X
DATE: AUG 91		

**LEGEND**



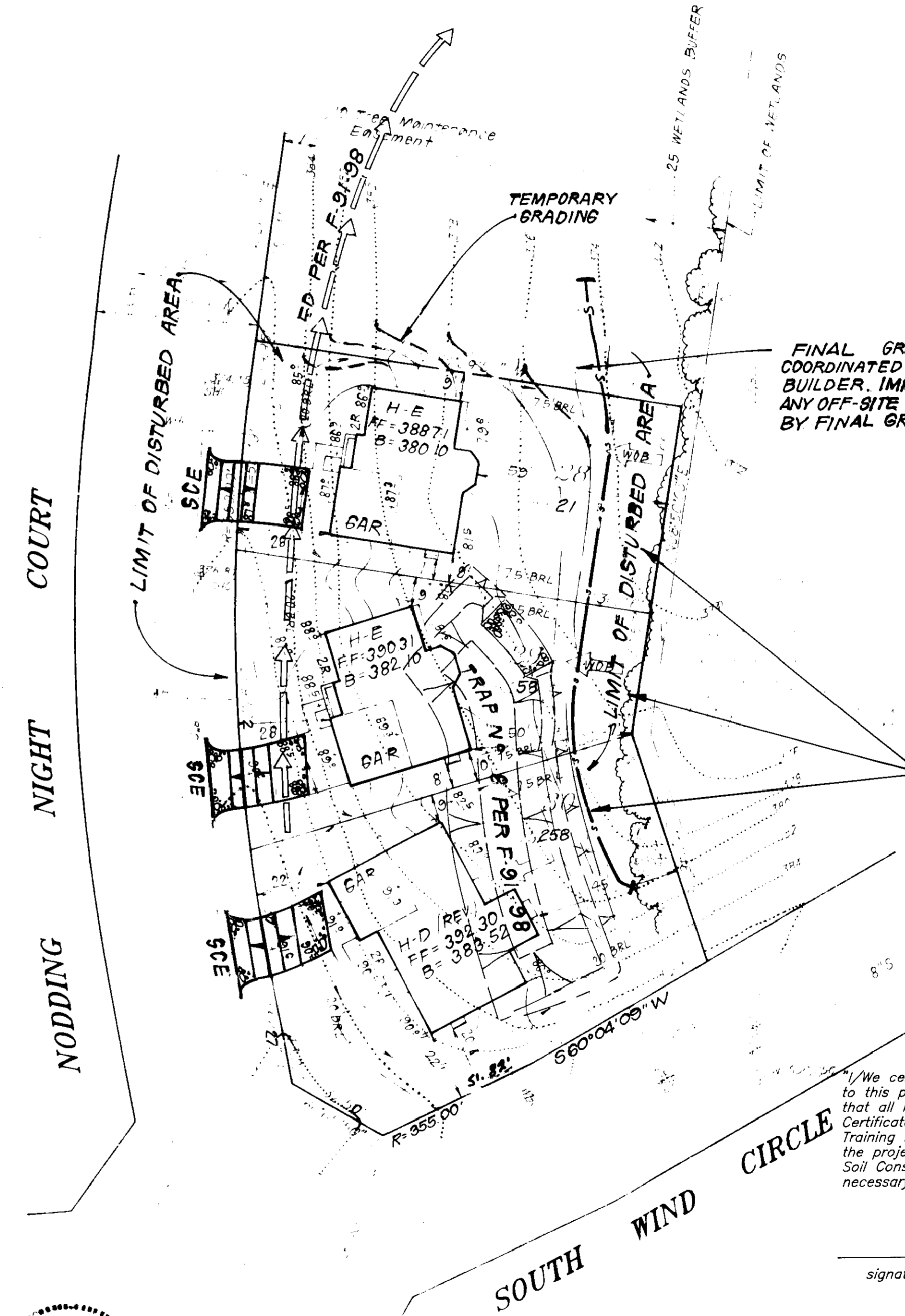
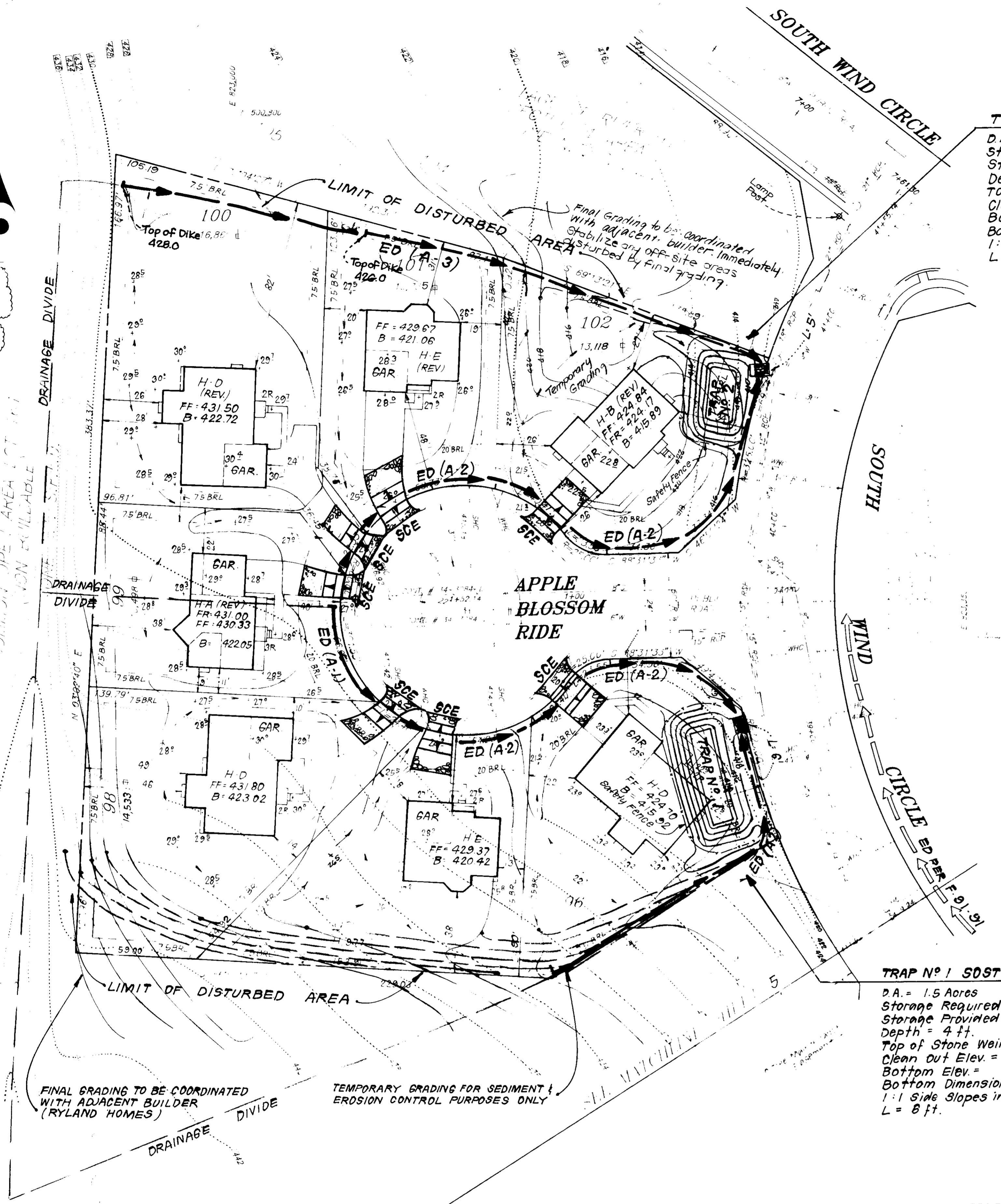
**VICINITY MAP**

**TRAP #2 SOST (ST-V)**

D.A. = 1.1 Acres  
 Storage Required = 1,980 cu.ft.  
 Storage Provided = 2,040 cu.ft.  
 Depth = 4 ft.  
 Top of Stone Weir = 412.00  
 Clean Out Elev. = 409.00  
 Bottom Elev. = 407.00  
 Bottom Dimensions = 13'x26'  
 1:1 Side Slopes in Cut  
 L = 5 ft.

**TRAP #1 SOST (ST-V)**

D.A. = 1.5 Acres  
 Storage Required = 2700 Cu.Ft.  
 Storage Provided = 2800 Cu.Ft.  
 Depth = 4 ft.  
 Top of Stone Weir = 418.00  
 Clean Out Elev. = 415.00  
 Bottom Elev. = 413.00  
 Bottom Dimensions = 46'x10'  
 1:1 Side Slopes in Cut  
 L = 8 ft.



**SPECIAL NOTES**

NOTE: Delay construction on Lots 28, 29 & 30 until trap No. 8 (F-91-98) is removed.

**DEVELOPER'S/BUILDER'S CERTIFICATE**

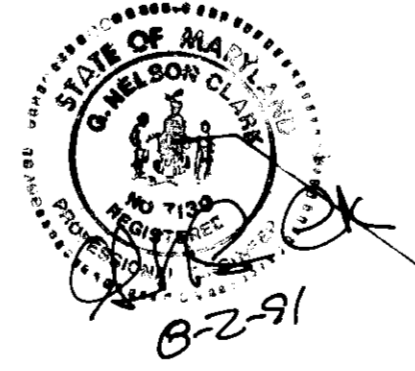
I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training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

Signature: Date: 8-5-91

**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 Howard Soil Conservation District.

Signature: Date: 8-2-91

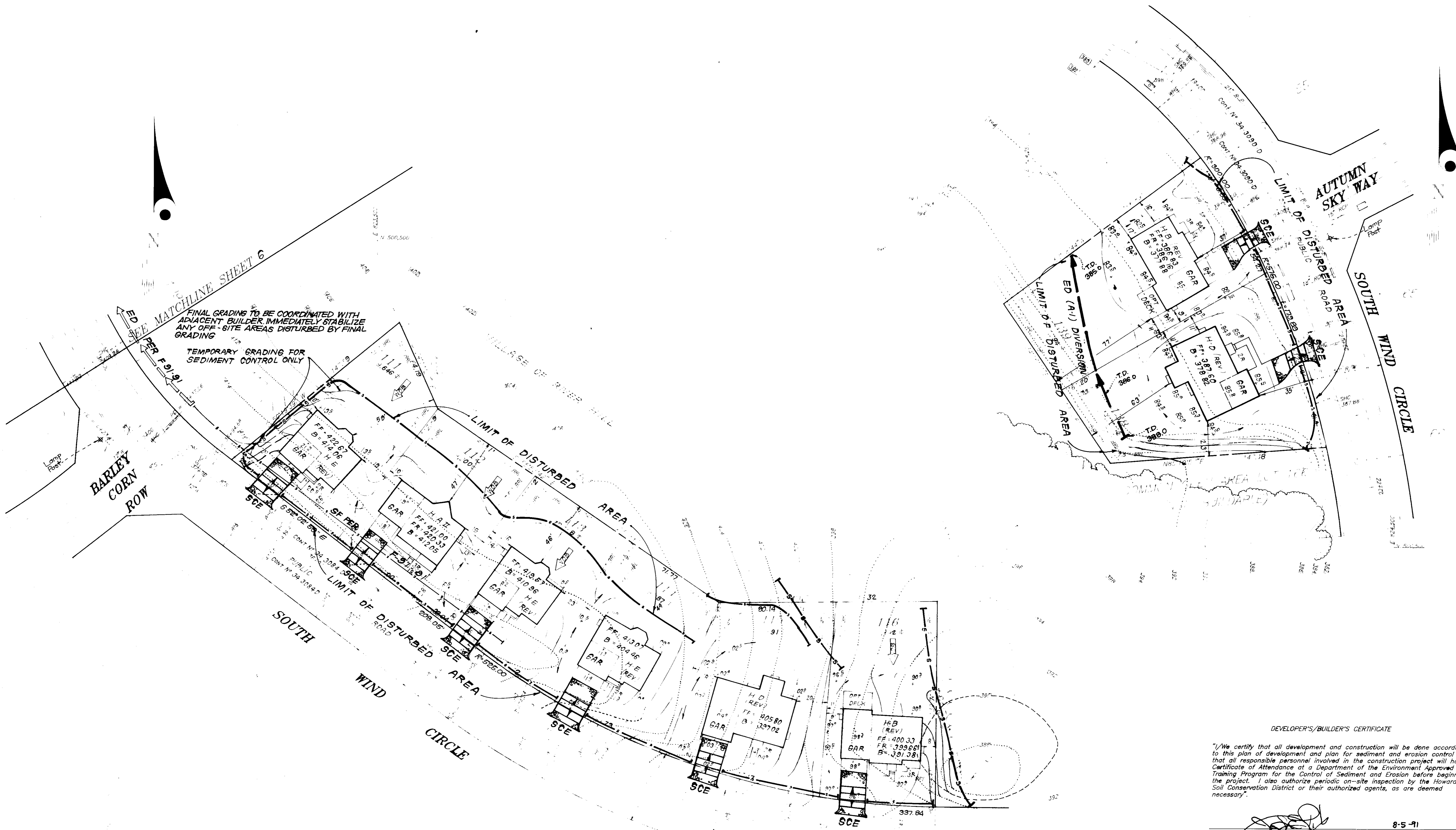


APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	Signature:	DATE: 8-25-91
APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING	Signature:	DATE: 11/14/91
APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	Signature:	DATE: 10/23/91
CHIEF BUREAU OF ENGINEERING	Signature:	DATE: 10/23/91

Reviewed for HOWARD S.C.D. Name: Date: 10/10/91

Signature: Date: 10/17/91

**CLARK • FINEFROCK & SACKETT, INC.**  
 1135 MINSTREL WAY • COLUMBIA MD 21045 • (301) 381-7500 BALTO • (301) 621-8100 - WASH  
 SEDIMENT AND EROSION CONTROL PLAN  
 LOTS 28-30, 55-97, 96-102, 111-116, 105, 138 & 139  
 COLUMBIA VILLAGE OF RIVER HILL SECTION 1 AREA 3 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 OWNER/DEVELOPER: THE HOWARD RESEARCH AND DEVELOPMENT LAND COMPANY  
 SCALE: 1" = 30'  
 DRAWING: 4 OF 6  
 JOB NO: 91-086  
 FILE NO: 91-086SIE



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

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING

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

CHIEF BUREAU OF ENGINEERING

10-28-91  
 11/14/91  
 11/14/91  
 10/23/91  
 10-23-91

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

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

Approved



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 Howard Soil Conservation District.

Signature: [Signature] Date: 8-2-91

OWNER DEVELOPER:  
 THE HOWARD RESEARCH AND DEVELOPMENT LAND CO.  
 10225 Little Patuxent Parkway  
 Columbia, Maryland, 21044

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 Howard Soil Conservation District or their authorized agents, as are deemed necessary."

Signature: [Signature] Date: 8-5-91

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**CLARK • FINEFROCK & SACKETT, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS

DESIGNED KIWM	SEDIMENT AND EROSION CONTROL PLAN LOTS 28-30, 55-57, 96-102, 111-116, 105, 138 & 139	SCALE 1" = 30'
DRAWN J.R.		DRAWING 5 OF 6
CHECKED KIWM	COLUMBIA VILLAGE OF RIVER HILL SECTION 7 AREA 3 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 91-086
DATE AUG 91		FILE NO. 91-086 S1E

FIRM: HALLMARK HILLERS  
 P.O. BOX 1212  
 COLUMBIA, MD 21044

**SEDIMENT AND EROSION CONTROL NOTES**

- 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. (982-2437).
- Any 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 SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days for 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 SPECS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec.51) sod (Sec.54), temporary seeding (Sec.52) 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:	6.29 AC.
Area Disturbed:	5.57 AC.
Area to be roofed or paved:	1.55 AC.
Area to be vegetatively stabilized:	4.02 AC.
Total Cut:	18,453 cu.
Total Fill:	5,508 cu.

 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.  
 If houses are to be constructed on an "as sold" basis, all shall be implemented.  
 All pipes to be blocked at the end of each day (see detail "S-100").  
 The total amount of silt fence = 2760 LF
- It is the responsibility of the contractor to identify the spoil/borrow site, notify and gain approval from HSCD of the site and its grading permit no. at time of construction.
- It is the responsibility of the builder to clean up sediments within the permanent government Management Facility that were caused by the house construction proposed in these plans.

**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, disking 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/100 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.

SEEDING: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 600 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 creeping 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 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**

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, disking, 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 creeping 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.

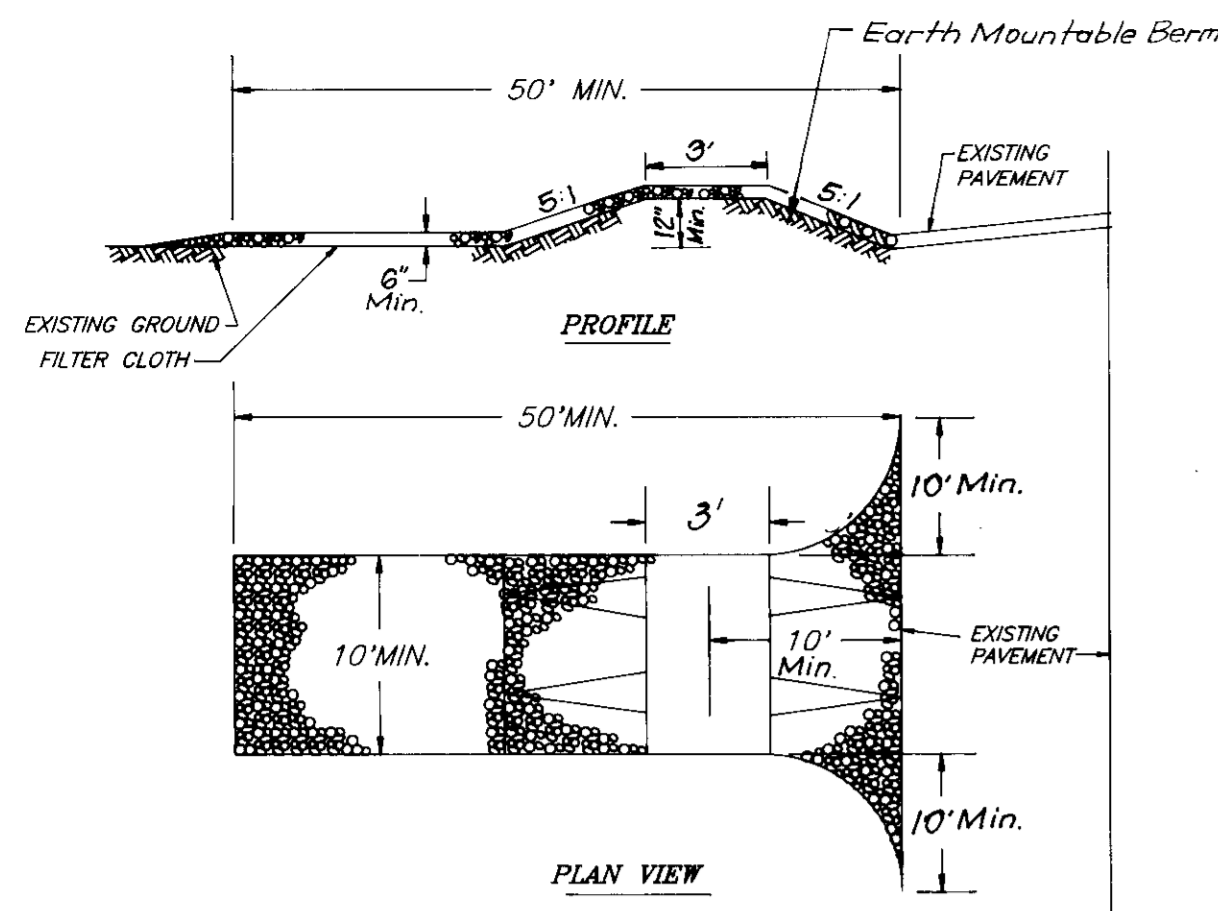
MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher,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

CONSTRUCTION SEQUENCE:	NO. OF DAYS
A. Obtain grading permit and install sediment and erosion control devices, Tree Protection Fences and Stabilize.	7
B. Excavate for foundations, rough grade and temporarily stabilize.	30
C. Construct structures, sidewalks and driveways.	14
D. Final grade and stabilize in accordance with Stds. and Specs.	7
E. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.	7

\*Delay construction of houses on lots: 96 & 102. See single lot sediment control detail, this sheet.

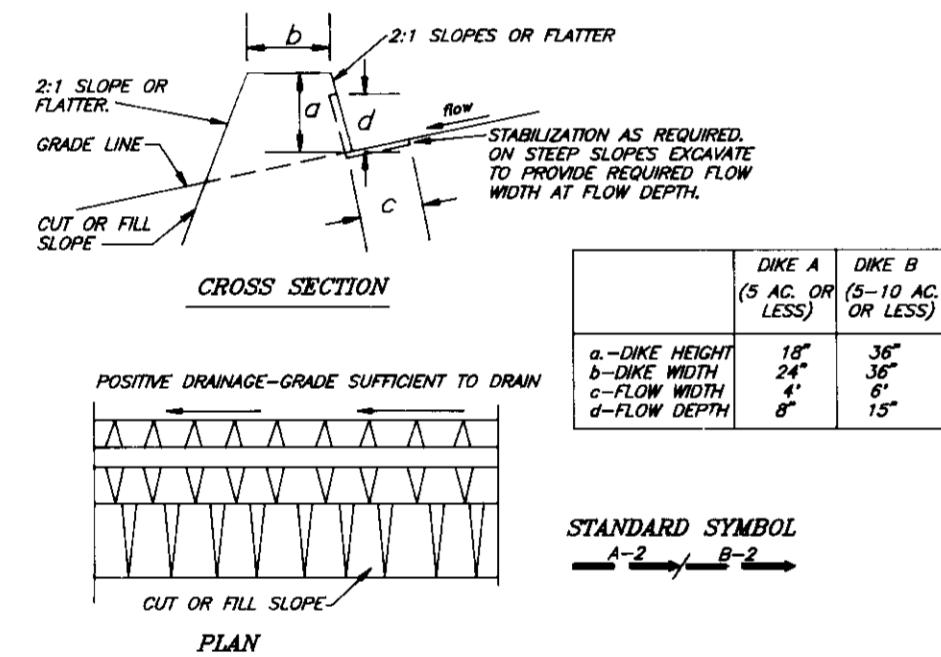


**CONSTRUCTION SPECIFICATIONS**

- STONE SIZE: USE 2" STONE OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.)
- THICKNESS: NOT LESS THAN SIX (6) INCHES.
- WIDTH: TEN (10) FOOT 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 CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE.
- 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 5:1 SLOPES WILL BE PERMITTED.
- MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WASHING: WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAINFALL.

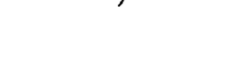
**STABILIZED CONSTRUCTION ENTRANCE (SCE)**

NO SCALE



	DIKE A (6 IN. OR LESS)	DIKE B (10-14 IN. OR LESS)
a-DIKE HEIGHT	16"	36"
b-DIKE WIDTH	24"	36"
c-DIKE LENGTH	6"	15"

**STANDARD SYMBOL**



**CONSTRUCTION SPECIFICATIONS**

- All dikes shall be compacted by earth moving equipment.
- All dikes shall have positive drainage to an outlet.
- Top width may be wider and side slopes may be flatter if desired to facilitate crossing by construction traffic.
- Final location should be adjusted as needed to utilize a stabilized area outlet. Earth dikes shall have an outlet that functions with a minimum of erosion. Runoff shall be conveyed to a sediment trapping device such as a sediment trap or sediment catch where either the outlet channel or the drainage area above the dike are not adequately stabilized.
- Stabilization shall be: (A) in accordance with standard specifications for seed and straw mulch or straw mulch if not in seeding season; (B) flow channel as per the chart below.

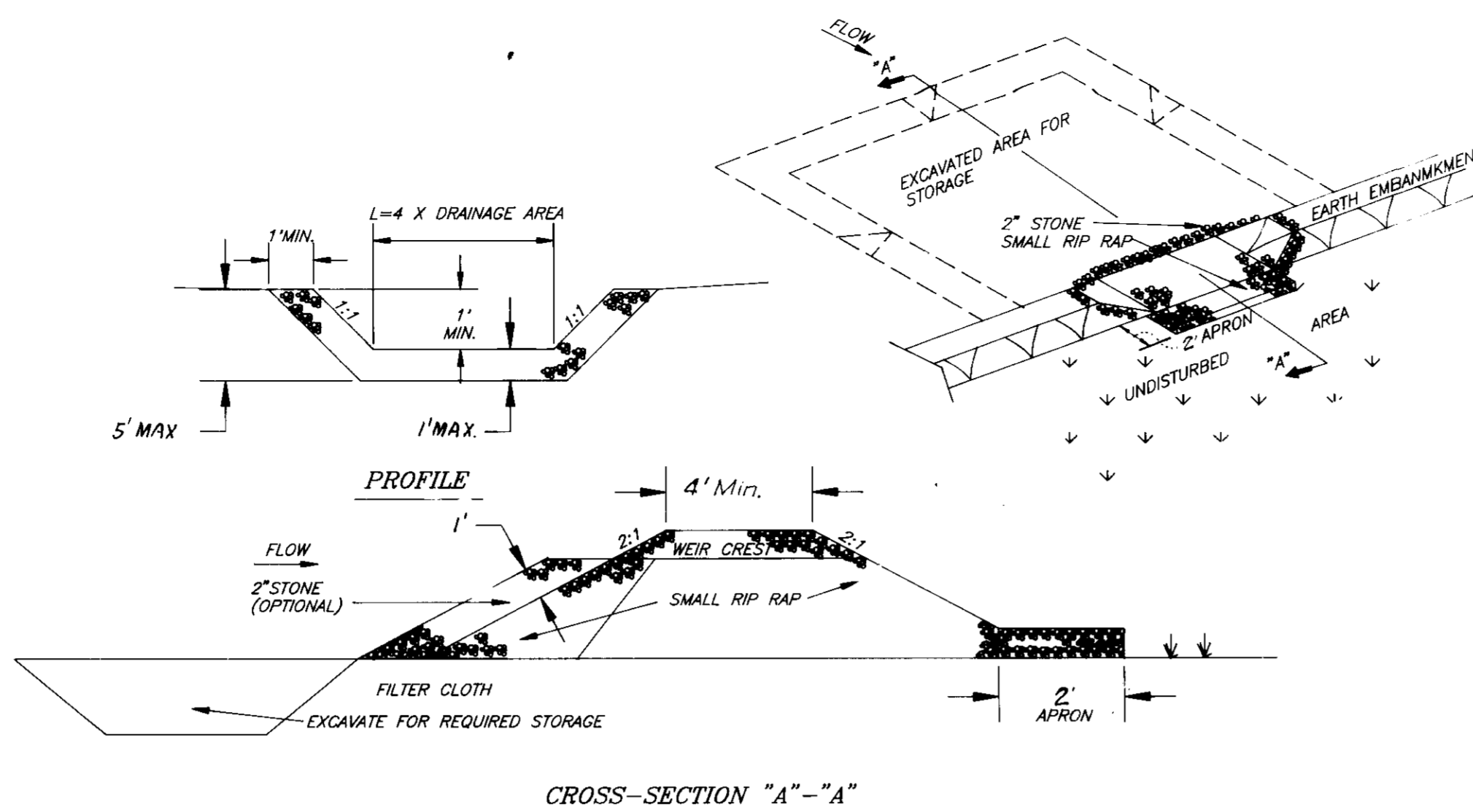
**FLOW CHANNEL STABILIZATION**

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR CROSSBRED SOIL, 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOG, 2" STONE	LINED RIP-RAP 4"-8"
4	8.1-20%	LINED RIP-RAP 4"-8"	ENGINEERING DESIGN

A. Stone to be 2 inch stone, or recycled concrete equivalent, in a layer at least 3 inches in thickness and be pressed into the soil with construction equipment.  
 B. Rip rap to be 4-8 inches in a layer at least 4 inches thick and pressed into the soil.  
 C. Approved equivalents can be substituted for any of the above materials.  
 7. Periodic inspection and required maintenance must be provided after each rain event.

**EARTH DIKE (ED)**

NO SCALE



**CROSS-SECTION "A-A"**

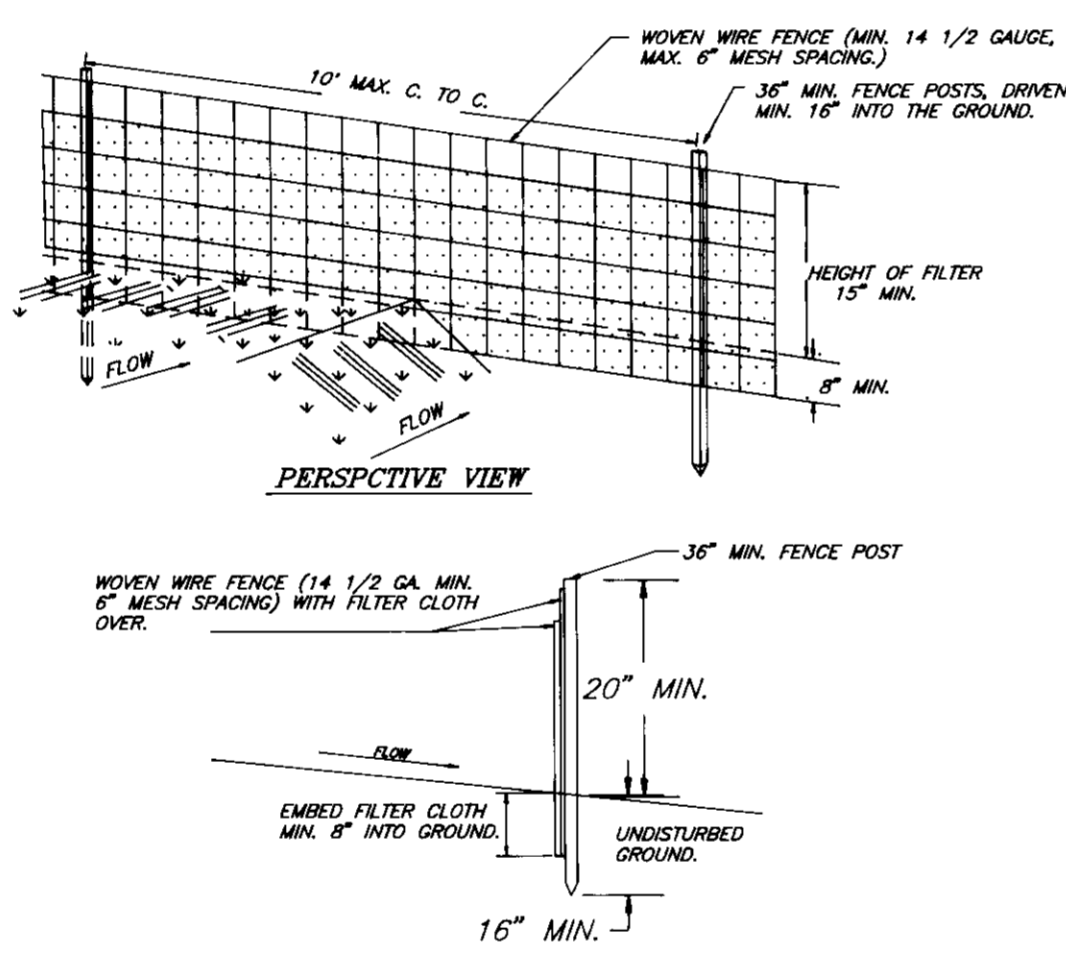
OPTION: A one foot layer of 2" stone may be placed on the upstream side of the rip rap in place of the embedded filter cloth.

**CONSTRUCTION SPECIFICATIONS FOR ST-V**

- Area under embankment shall be cleared, grubbed and stripped of any vegetation on a root mat. The pool area shall be cleared.
- The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. At cut and fill slopes shall be 2:1 or flatter.
- The stone used in the outlet shall be rip rap 4"-8" along with a 1" thickness of 2" aggregate placed on the up-grade side on the small rip rap or embedded filter cloth in the rip rap.
- Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap.
- The structure shall be inspected after each rain and repairs made as needed.
- Construction 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.

**STONE OUTLET SEDIMENT TRAP (ST-V)**

NO SCALE



**STANDARD SYMBOL: -S -S -S -S-**

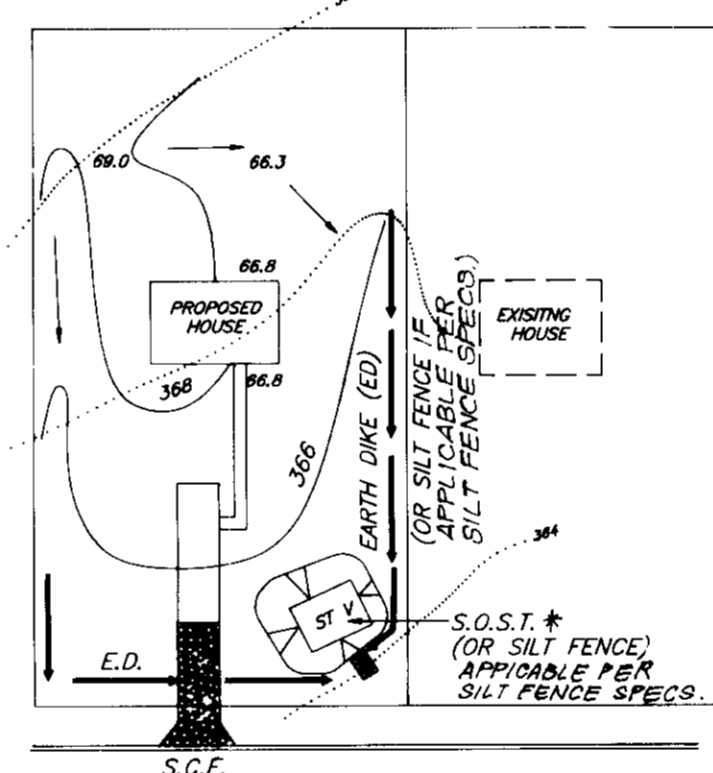
**CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**

- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
- FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

POSTS: STEEL EITHER 1 OR U TYPE OR 2" HARDWOOD.  
 FENCE: WOVEN WIRE, 14 GA., 6" MAX. MESH OPENING.  
 FILTER CLOTH: FILTER X, MIRA1 1000, STARBUKING T140N, OR APPROVED EQUAL.  
 PREFABRICATED UNIT: GEOFAB, ENVROFENCE, OR APPROVED EQUAL.

**SILT FENCE (S)**

NO SCALE



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

LOT SIZE	S.O.S.T. (ST V) PG. 16, 17		
	1/4 ACRE	1/2 ACRE	1 ACRE
L DEPTH	2'	3'	8'
BOT LENGTH	11'	26'	26'
BOT WIDTH	11'	11'	26'
BOT AREA	121SF	286SF	676SF

+ Can be adjusted in the field, but the bottom area must be as given or greater.

**SINGLE LOT SEDIMENT CONTROL PLAN**

NO SCALE

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

*Joseph M. ...* 10-20-91  
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

*...* 11/12/91  
 PLANNING DIRECTOR DATE

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

*James P. ...* 10/23/91  
 DIRECTOR DATE

*...* 10-20-91  
 CHIEF BUREAU OF ENGINEERING DATE

Reviewed for HOWARD S.C.D.

Name: *Howard S.C.D.*

Signature: *...* Date: *10/23/91*

US Soil Conservation Service

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

Signature: *...* Date: *10/23/91*

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 Howard Soil Conservation District or their authorized agents, as are deemed necessary.

Signature: *...* Date: *8-5-91*

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 Howard Soil Conservation District.

Signature: *...* Date: *8-2-91*



OWNER: THE HOWARD RESEARCH AND DEVELOPMENT LAND COMPANY, 10275 LITTLE PATUXENT PARKWAY, COLUMBIA, MARYLAND 21044

CLARK + FINEROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (301) 381-7500 - BALTO • (301) 621-8100 - WASH

DESIGNED	KIWM	SEDIMENT AND EROSION CONTROL DETAILS	SCALE
DRAWN	J.R.	LOTS 28-30, 55-57, 96-102, 111-116, 105, 139 & 138	AS SHOWN
CHECKED	KIWM	COLUMBIA	DRAWING
DATE	AUG 91	VILLAGE OF RIVER HILL SECTION 1 AREA 3 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	6 OF 6
		FOR: HALLMARK BUILDERS P.O. BOX 1018 COLUMBIA, MD 21044	JOB NO. 91-086
			FILE NO. 91-086 SIE

SDP 92 21