

REVISIONS	DATE
1. Address sheet letter dated 3-3-95	3-23-95
2. Rev. hse. gr. dwy. and address chart for lot 25	3-20-95
3. Rev. hse. gr. and hse. typical	3-6-95
4. Rev. hse. f. gr. lot 16	6-7-95
5. Rev. hse. f. gr. lot 18 to reflect As-Built Card	12-20-95

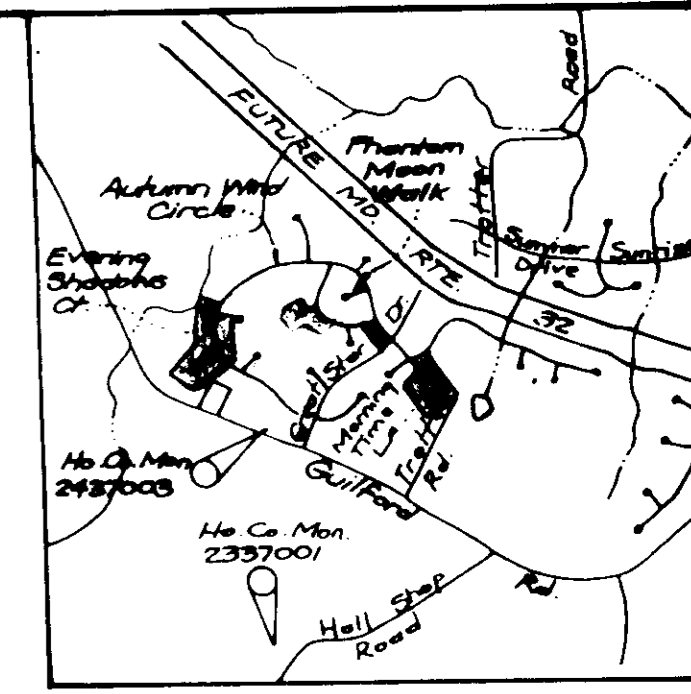
**LEGEND**

- Contour Interval 2 FT
- Existing Contour - - - - -
- Proposed Contour - - - - -
- Spot Elevation
- Direction of Drainage
- Walk out Basement
- Trees to be Saved
- Tree Protection
- Fence
- Minimum Cellar Elevation MCE
- ELECTRIC TRANSFORMER

**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 N 494285 231 E 820385 343

LOT	ADDRESS CHART
14	6501 RADIANT GLEAM WAY
15	6502
16	6503
17	6504
18	6505
19	6506
20	6507
21	6508
22	6509
23	6510
24	6511
25	6512
26	6500 RADIANT GLEAM WAY



**GENERAL NOTES:**

1. Subject property is zoned NT-5FLD per 10 18 53 Comprehensive Zoning Plan
2. The total area included in this submission is: 10.86 Ac.
3. The total number of lots included in this submission are: 37
4. Improvement to property: Single family detached
5. The maximum lot coverage permitted is: 30%
6. Department of Planning and Zoning reference file numbers are S-91-03, P-94-01, F-94-108 and C-34-3356-D.
7. Utilities shown as existing are taken from approved water and sewer plan Contract # C-34-3356-D, approved road construction plans F-94-108, and actual field survey.
8. Any damage to county owned rights-of-way shall be corrected at the developer's expense.
9. Storm water management is provided per F-94-108
10. All roadways are public and existing.
11. The existing topography shown was taken from field run topography by Clark, FineFrock & Sackett, Inc. 2-22-95 thru 3-2-95
12. 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.
13. The contractor shall notify the Department of Public Works/Division of Construction Inspection at (410) 313-1880 at least twenty four(24) hours prior to the start of work.
14. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
15. 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 feet into building setbacks, as cited in FDP Phase 209, Part II.
16. SHC elevations shown are located at the property line.
17. For Driveway Entrance details refer to Ho. Co. Design Manual Vol. IX. Std. details R-6-01 & R-6-03
18. No clearing, grading or construction is permitted with the Wetlands or Stream Buffers except as determined essential by the Dept. of Planning & Zoning in accordance with Section 16.116 (c) of the Subdivision and Land Development Regulations.

**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 # 34-3356-D.

**SHEET INDEX**

SITE DEVELOPMENT PLAN Sheets 1-3 of 7  
 EROSION CONTROL PLAN Sheets 4-7 of 7

**OWNER/DEVELOPER**  
 HOWARD RESEARCH AND DEVELOPMENT  
 10115 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MD 21044

SUBDIVISION NAME	COLUMBIA	SECTION/AREA	2/4	LOTS/PARCELS	14-31, 35-41, 107-110, 153-158
VILLAGE OF RIVER HILL					
PLAT NO.	11466	BLOCK NO.	NT-5FLD	ZONE	NT-5FLD
DATE	11/14/93	DAY	25	ELECTION DIST.	5-D4
WATER CODE	I-11	SEWER CODE	6650000		

**CLARK • FINEFROCK & SACKETT, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS  
 735 MINTHILL WAY • COLUMBIA, MD 21045 • (410) 881-7500 BALTIC • (301) 621-8100 WASH

DESIGNED	JME	SITE DEVELOPMENT PLAN	SCALE	1" = 20'
DRAWN	MCR	COLUMBIA	DRAWING	1 of 7
CHECKED	GLI	VILLAGE OF RIVER HILL	JOB NO.	95-021
	jme	FIFTH ELECTION DISTRICT	FILE NO.	95-021X
DATE	5-10-95	HOWARD COUNTY, MARYLAND		

FOR: THE RYLAND GROUP, INC.  
 7130 Minutal Way  
 Columbia, Md. 21043

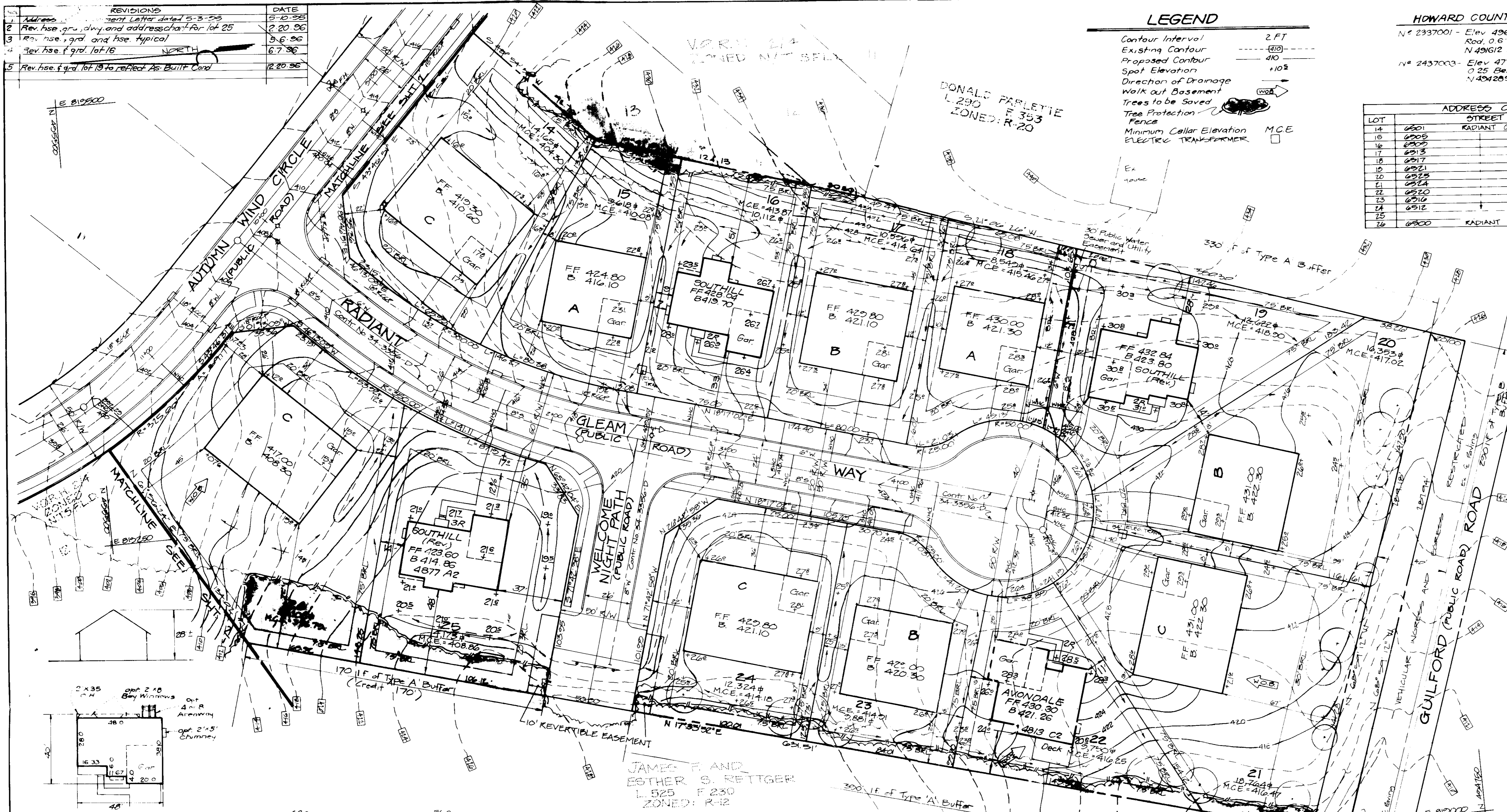
**APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING**

*Michael Blood* 5/21/95  
 DIRECTOR DATE

*Jane G. Selman* 5/20/95  
 DIRECTOR DATE

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

*John G. Selman* 5/25/95  
 DIRECTOR DATE



<p><b>HAWTHORNE</b>          1780 = 5033 # Min Lot Size</p>	<p><b>C</b>          All house types shown with all options will fit in this box.          Except Southhill w/opt Sunroom</p>	<p><b>B</b>          Ashley          Briarwood w/NO opt          Bradley w/NO opt          Hawthorne          Carlistle          Avondale          Hampton          Southhill w/2-Car w/o opt Sunroom          Chartwell</p>	<p><b>A</b>          Briarwood w/NO opt          Bradley w/NO opt          Hawthorne          Carlistle          Chartwell w/out wraparound porch          Ashley</p>
<p><b>CARLISTLE</b>          1234.05 = 6446.85 # Min Lot Size          2046.05 = 6713.50 # Min Lot Size          0.3 = w/opt Fam. Room Ext</p>	<p><b>AVONDALE</b>          2267.1 = 7557 # Min Lot Size          2237.1 = 8790 # Min Lot Size w/all options.</p>	<p><b>BRIARWOOD</b>          1561.24 = 5205.8 # Min Lot Size          1803.44 = 6011.5 # Min Lot Size w/3 Car Garage</p>	<p><b>SOUTHHILL</b>          2129.76 = 7099.2 # Min Lot Size          2692 = 8,996.66 # Min Lot Size w/all options</p>
<p><b>BRADLEY</b>          2852 = 6833 # Min Lot Size w/all options          1598 = 5325 # Min Lot Size w/o options</p>	<p><b>HAMPTON</b>          1892.5 = 6321.67 # Min Lot Size          1016.75 = 4689.17 # Min Lot Size w/opt Fam. Room Ext</p>		

Lot No.	Street Address
100	Autumn Wind Circle
101	
102	
103	
104	
105	
106	
107	
108	
109	
110	

No.	REVISIONS	DATE
1	Address to Go Concept Letter dated 5-3-95	5-3-95
2	Rev. hse. 4' grad. lot 28	4-18-96
3	Adv. Chartwell hse. typical	5-21-96
4	Rev. hse. 4' grad. lot 31 to show As-Built Cond.	11-19-96
5	Rev. hse. 4' grad. lot 107	3-12-97

**PLANT LIST**

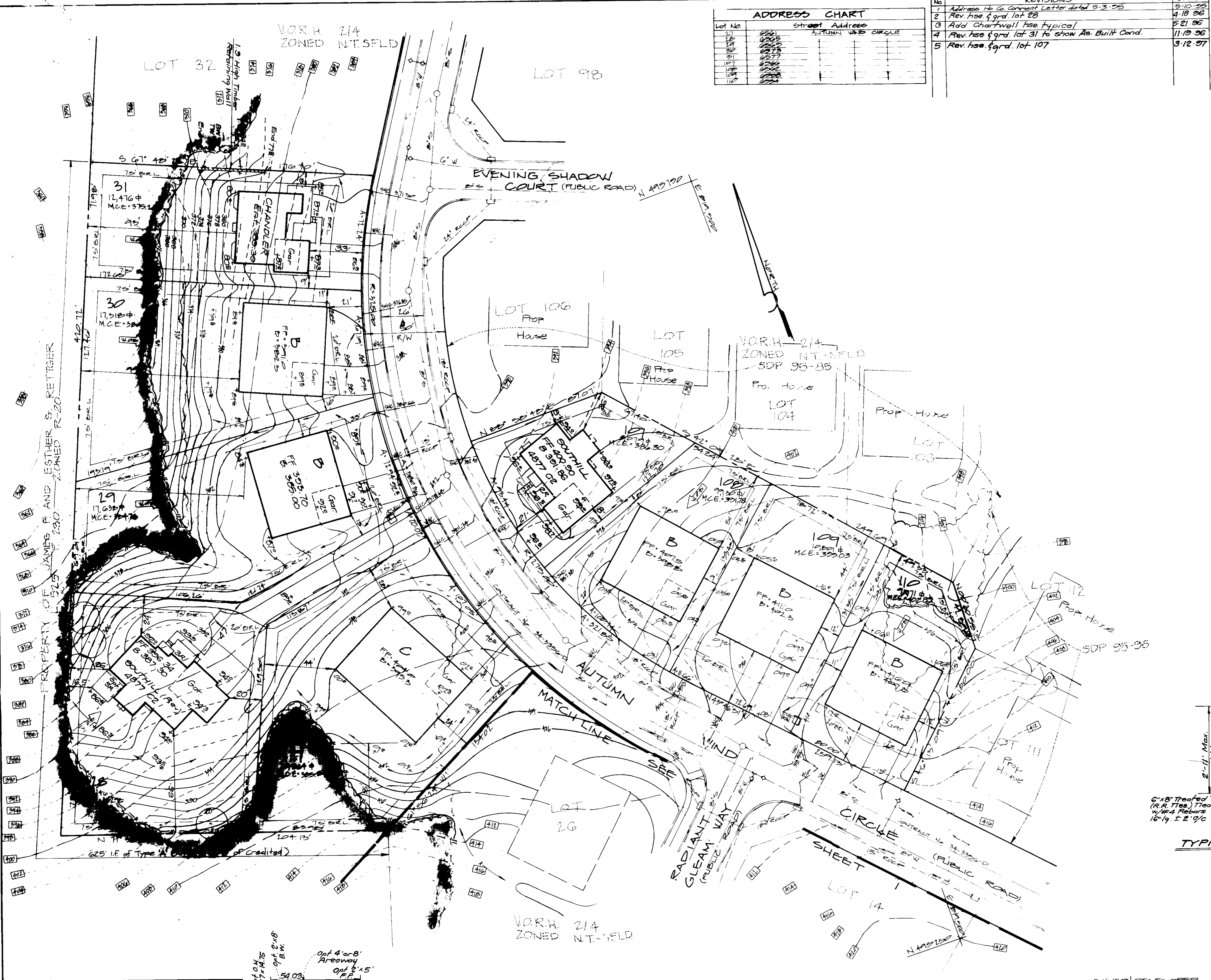
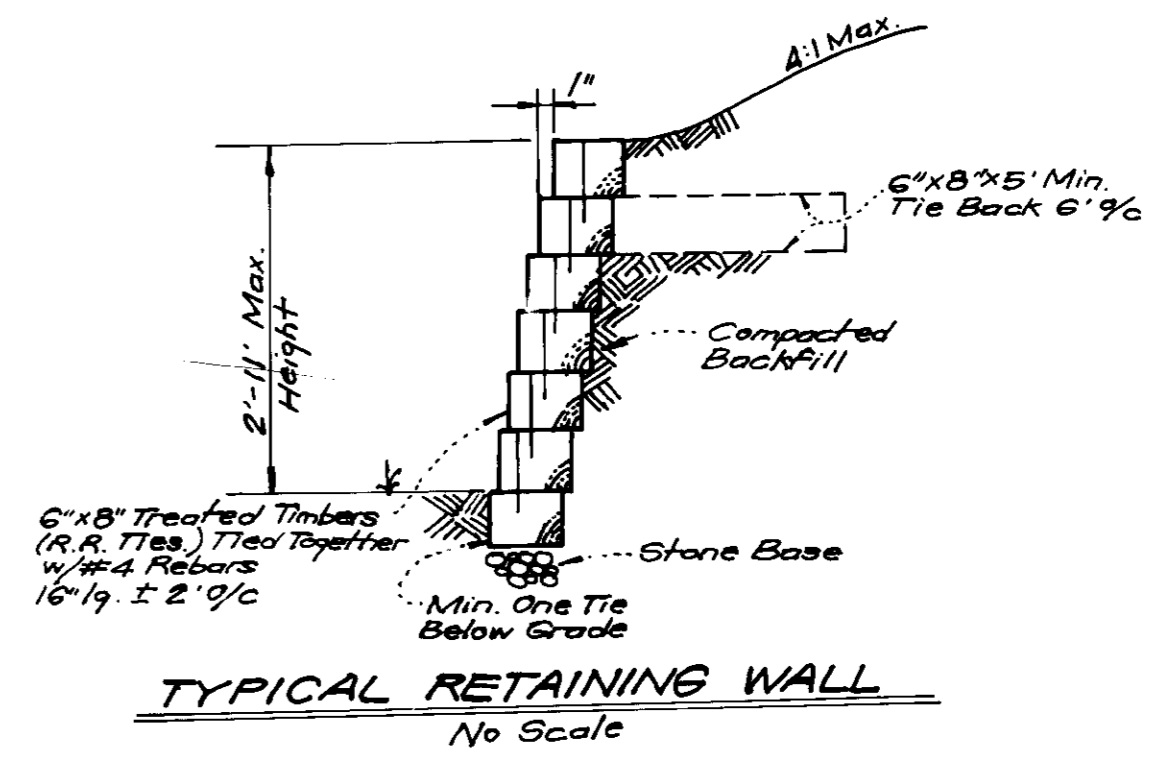
KEY	QTY	PLANT TYPE	SIZE	REMARKS
+	31	SHADE TREES	2 1/2"-3" CAL.	B & B
o	7	EVERGREEN TREES	6'-8' Ht.	B & B

**NOTES:**

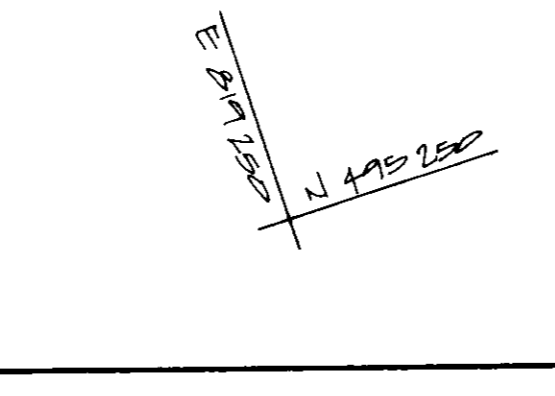
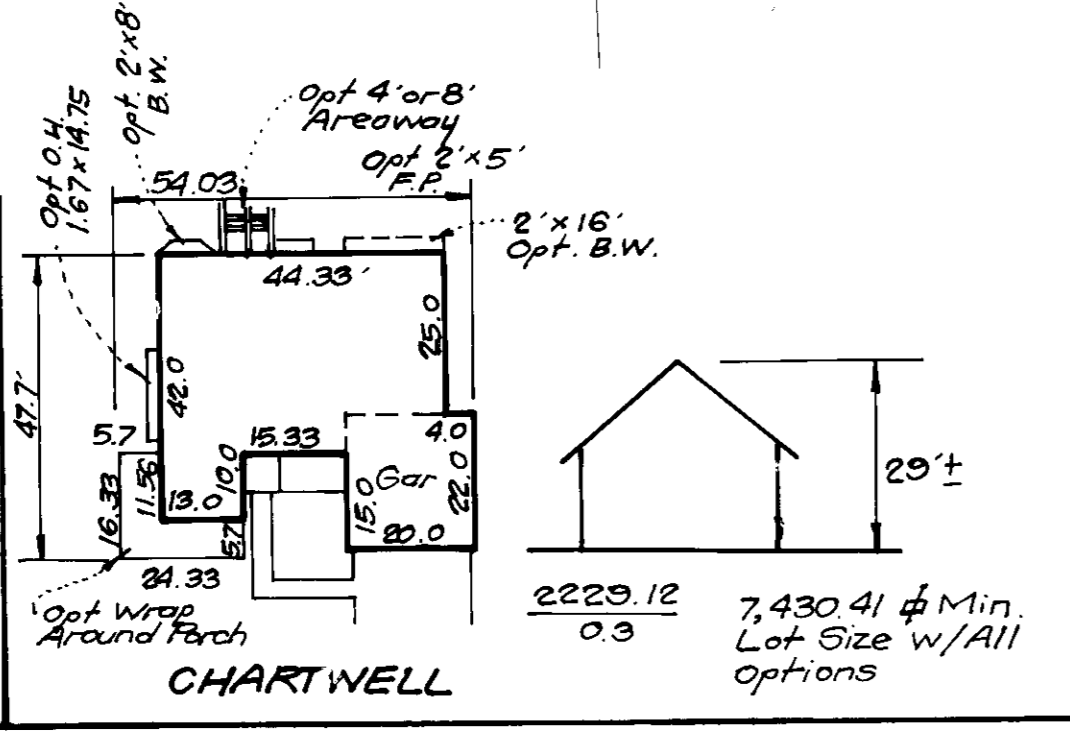
- The locations and type of trees shown on these plans are for bond purposes only. The final location and plant type may vary to accommodate field conditions and the builders landscape program. Bond release is contingent upon Section 16.124 of the Howard County Subdivision Regulations.
- This has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual. Financial Surety for the required 38 landscape trees, in the amount of \$3,800.00, is part of the builders grading permit application.

**SCHEDULE A  
PERIMETER LANDSCAPE EDGE**

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	B	A
Linear Feet of Roadway Frontage/Perimeter	200	2058 (1513)
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	-	545
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	-	-
Number of Plants Required		
Shade Trees	6 (1:50)	25 (1:60)
Evergreen Trees	7 (1:40)	
Shrubs		
Number of Plants Provided		
Shade Trees	6	25
Evergreen Trees	7	
Other Trees (2:1 substitution)		
Shrubs (10:1 substitution)		
(Describe plant substitution credits below if needed)		



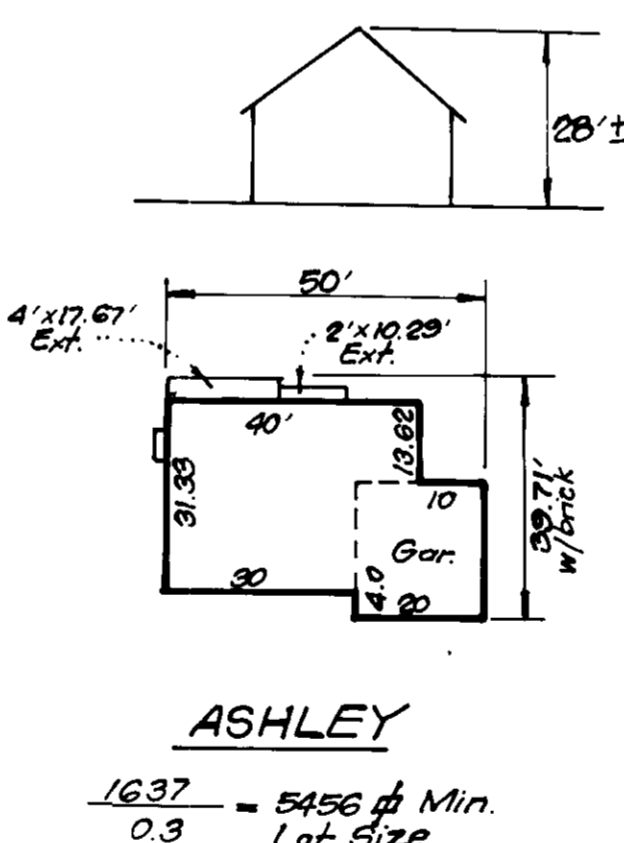
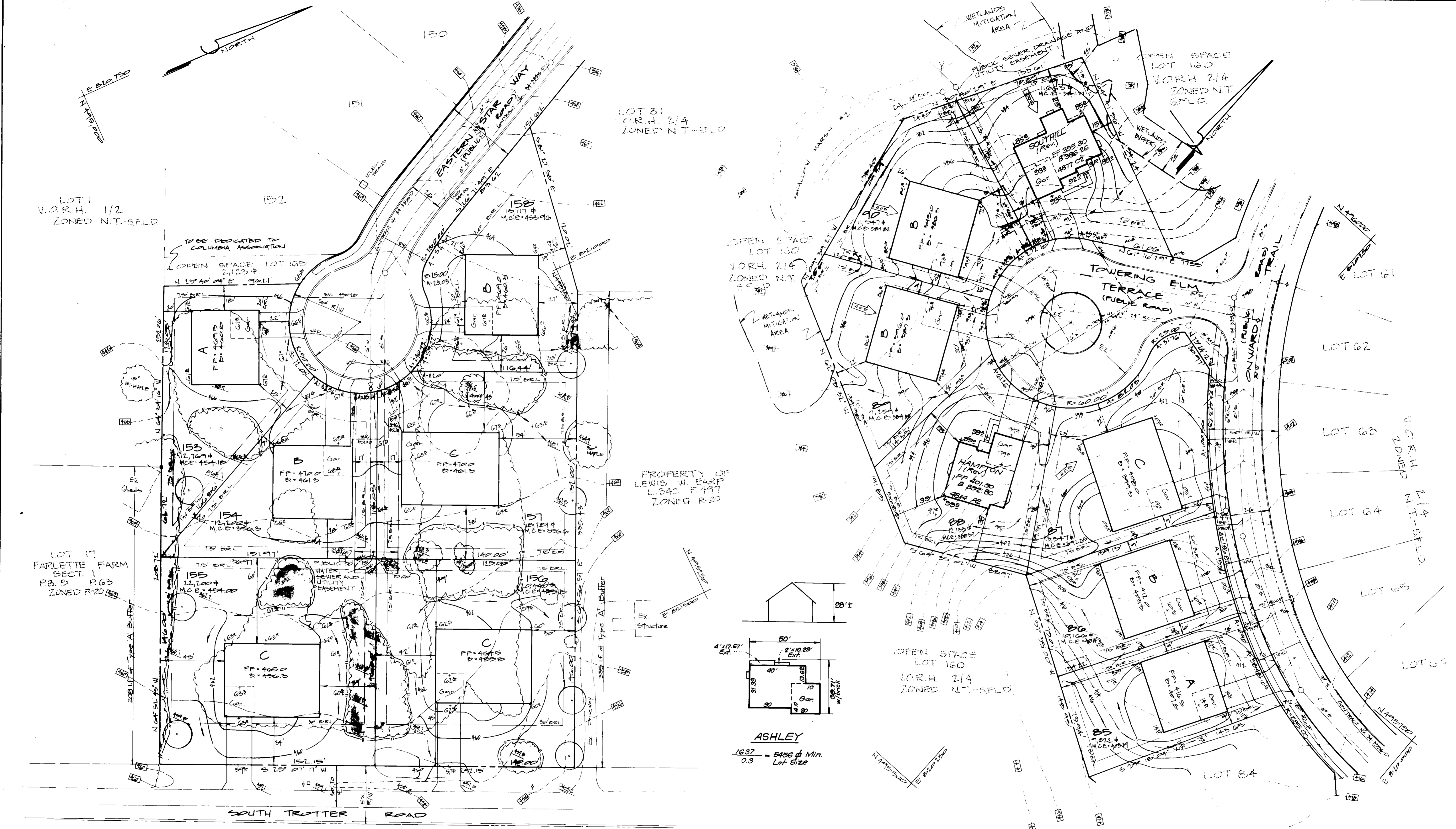
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
 DIRECTOR: [Signature] DATE: 5/21/95  
 CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH  
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR: [Signature] DATE: 5/26/95  
 CHIEF BUREAU OF ENGINEERING DATE: 5/25/95



OWNER/DEVELOPER  
 HOWARD RESEARCH AND DEVELOPMENT  
 10115 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MD 21044

<b>CLARK • FINEFROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS 1105 MANSFIELD WAY • COLUMBIA, MD 21046 • (410) 381-7500 • BALTO. • (301) 621-8100 • WASH.		
DESIGNED J.M.E.	SITE DEVELOPMENT PLAN SECTION 2 AREA 4 LOTS 14-31/1107-1110/1133-1138	SCALE 1"=30'
DRAWN C.L.V.	COLUMBIA VILLAGE OF RIVER HILL	DRAWING 2 of 7
CHECKED jme	FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 95-031
DATE 5-10-95	FOR: THE RYLAND GROUP 1135 Munster Way Columbia, Md. 21045	FILE NO. 95-031X

SDP 95-95



LOT NO.	STREET ADDRESS
66	1417 ONWARD TRAIL
65	1417 ONWARD TRAIL
64	1417 ONWARD TRAIL
63	1417 ONWARD TRAIL
62	1417 ONWARD TRAIL
61	1417 ONWARD TRAIL
31	1314 EASTERN STAR WAY
158	1317 EASTERN STAR WAY
157	1210 EASTERN STAR WAY
156	1240 EASTERN STAR WAY
155	1240 EASTERN STAR WAY
154	1240 EASTERN STAR WAY
153	1270 EASTERN STAR WAY
152	1270 EASTERN STAR WAY
151	1270 EASTERN STAR WAY
150	1270 EASTERN STAR WAY

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
 DIRECTOR: *[Signature]* DATE: 5/18/05  
 CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH: *[Signature]* DATE: 5/18/05

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR: *[Signature]* DATE: 5/20/05  
 CHIEF BUREAU OF ENGINEERING: *[Signature]* DATE: 5/25/05

NO.	REVISIONS	DATE
4	Add Ashley hse. typical	8.27.07
3	Rev. hse. of grad. lot 66	6.7.06
2	Rev. hse. of grad. lot 61	5.17.05
1	Address the Co. Consent Letter dated 8-3-05	5.10.05

OWNER / DEVELOPER  
 HOWARD RESEARCH AND DEVELOPMENT  
 1215 LITTLE PATRICK PARKWAY  
 COLUMBIA, MD 21044



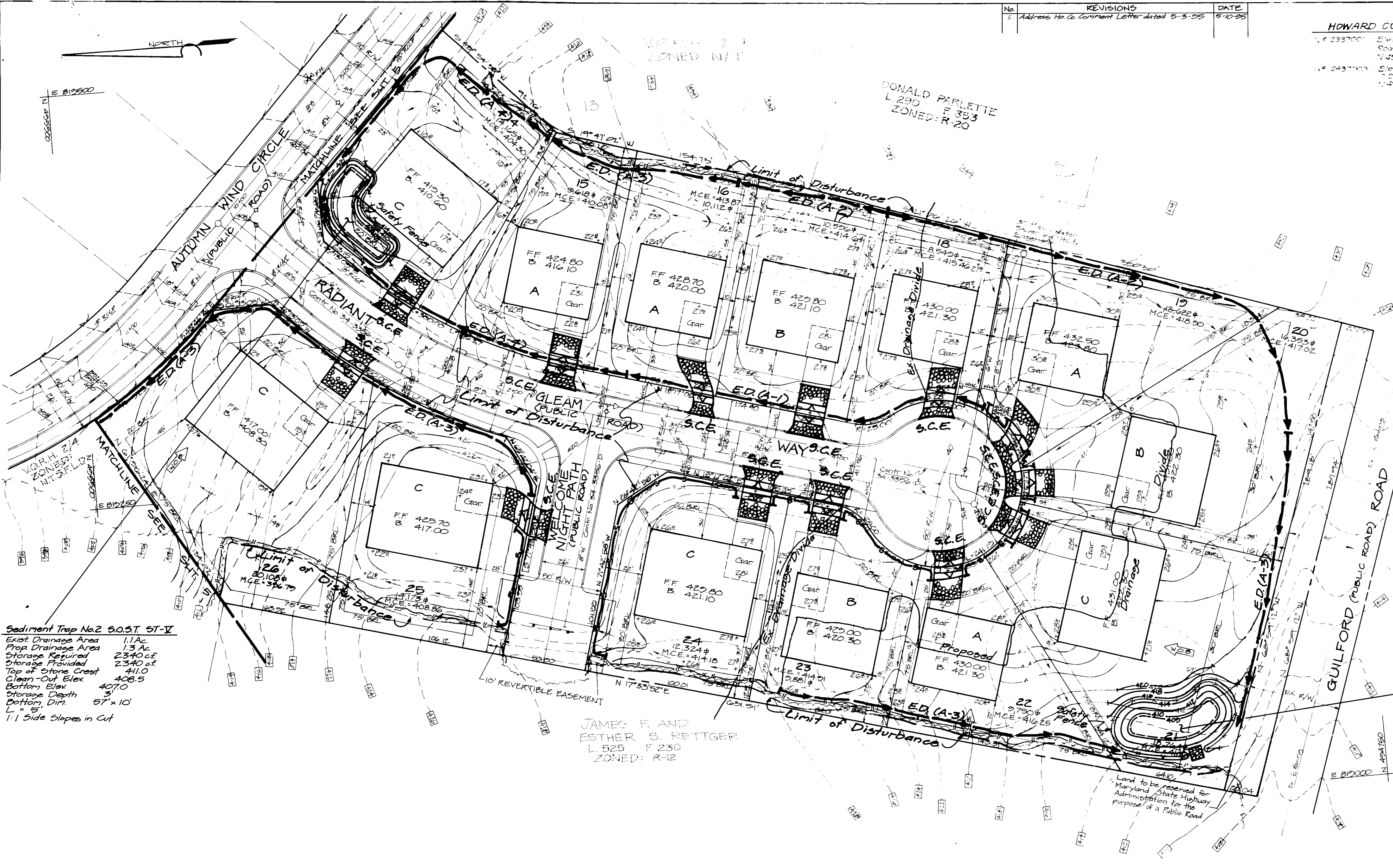
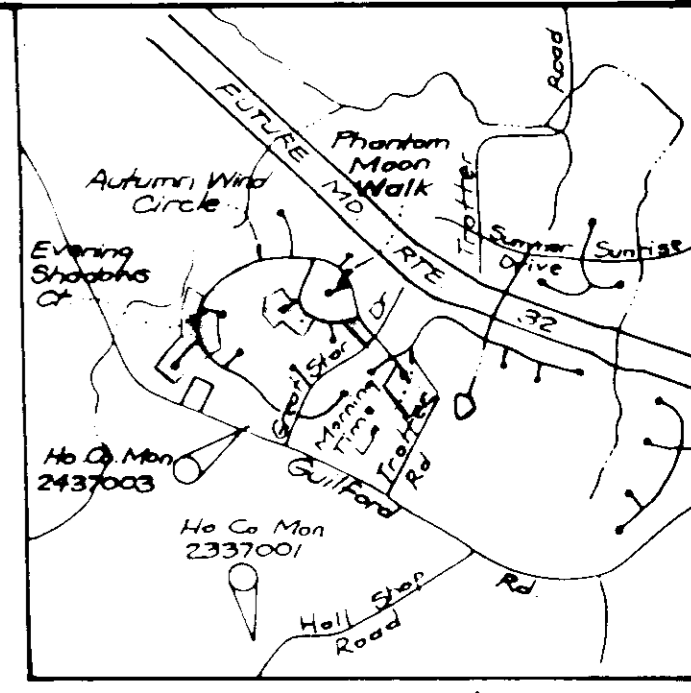
**CLARK • FINEROCK & SACKETT, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS  
 1100 MINNELL WAY, COLUMBIA, MD 21046

DESIGNED: JME	SITE DEVELOPMENT PLAN	SCALE: 1"=30'
DRAWN: CLI	SECTION 2 AREA 4 LOTS 14-31/105-110/153-158	DRAWING: 3 of 7
CHECKED: jme	COLUMBIA VILLAGE OF RIVER HILL	JOB NO: 95-031
DATE: 5-19-05	FIFTH ELECTION DISTRICT	FILE NO: 95-031X
	HOWARD COUNTY, MARYLAND	
	For: THE RYLAND GROUP, INC.	
	7130 Minnetel Way	
	Columbia, Md. 21043	

No.	REVISIONS	DATE
1.	Address Ho. Co. Government Letter dated 5-3-95	5-10-95

**HOWARD COUNTY MONUMENTS**

2337001	Elev. 496.095, 3.4 Reinforcing Rod, 2.6 Below Surface
2437003	Elev. 477.122, Concrete Mon., 1.05 Below Surface
2437003	Elev. 477.122, Concrete Mon., 1.05 Below Surface
2437003	Elev. 477.122, Concrete Mon., 1.05 Below Surface



**LEGEND**

Contour Interval	2.4'
Exist Contour	---
Prop Contour	---
Spot Elevation	---
Drainage Flow	→
Walk-Out Basement	---
Trees to be Saved	---
Tree Protection Fence	---
Minimum Cellar Elev.	M.C.E.
Limit of Disturbance	---
Silt Fence	---
Ex. Silt Fence	---
Super Silt Fence	---
Earth Dike	---
Ex Earth Dike	---
Stabilized Construction Entrance	---
Prop Drainage Divide	---
Ex. Drainage Divide	---

**Sediment Trap No. 2 S.O.S.T. ST-V**  
 Exist Drainage Area 1.1 Ac  
 Prop Drainage Area 1.3 Ac  
 Storage Required 2340 cf  
 Storage Provided 2340 cf  
 Top of Stone Crest 411.0  
 Clean-Out Elev. 408.5  
 Bottom Elev. 407.0  
 Storage Depth 3'  
 Bottom, Dim. 57' x 10'  
 L = 5'  
 1:1 Side Slopes in Cut

**Sediment Trap No. 1 S.O.S.T. ST-V**  
 Existing Drainage Area 1.5 Ac  
 Proposed Drainage Area 0.83 Ac  
 Storage Required 2700 cf  
 Storage Provided 2700 cf  
 Top of Stone Crest 413.00  
 Clean-Out Elev. 410.5  
 Bottom Elev. 409.0  
 Storage Depth 3'  
 Bottom, Dimension 54' x 9'  
 2:1 Side Slopes in Cut

**JAMES F AND ESTHER S. RETTGER**  
 L. 525 F. 230  
 ZONED: R-12

**APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING**  
 Director: *Richard Belmont* 5/23/95  
 Chief Division of Land Development and Research: *John P. Robertson* 5/23/95

Reviewed for HOWARD COUNTY S.O.D. Name: *Patricia Engle/PA* 5/23/95  
 and meets Technical Requirements  
 Signature: *Patricia Engle/PA* Date: 5/23/95  
 U.S. Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.  
 APPROVED: *John P. Robertson* 5/23/95

**DEVELOPER'S BUILDER'S CERTIFICATE**  
 I/We certify that all development and construction will be done according to the 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 of a Dept. 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 Howard Soil Conservation District or their authorized agencies, as case deemed.

Signature of Developer/BUILDER: *Derek A. McDaniels* Date: 3/29/95  
 DEREK A. McDANIELS

**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: *G. Nelson Clark* Date: 3/23/95  
 G. NELSON CLARK



SUBMISSION NAME	SECTION/AREA	LOTS/PARCELS
COLUMBIA VILLAGE OF RIVER HILL	2/4	10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100
PLAT NO.	BLOCK NO.	ZONE
114669 Prop 11475		R-12
WATER CODE	SEWER CODE	
I-11	665000	

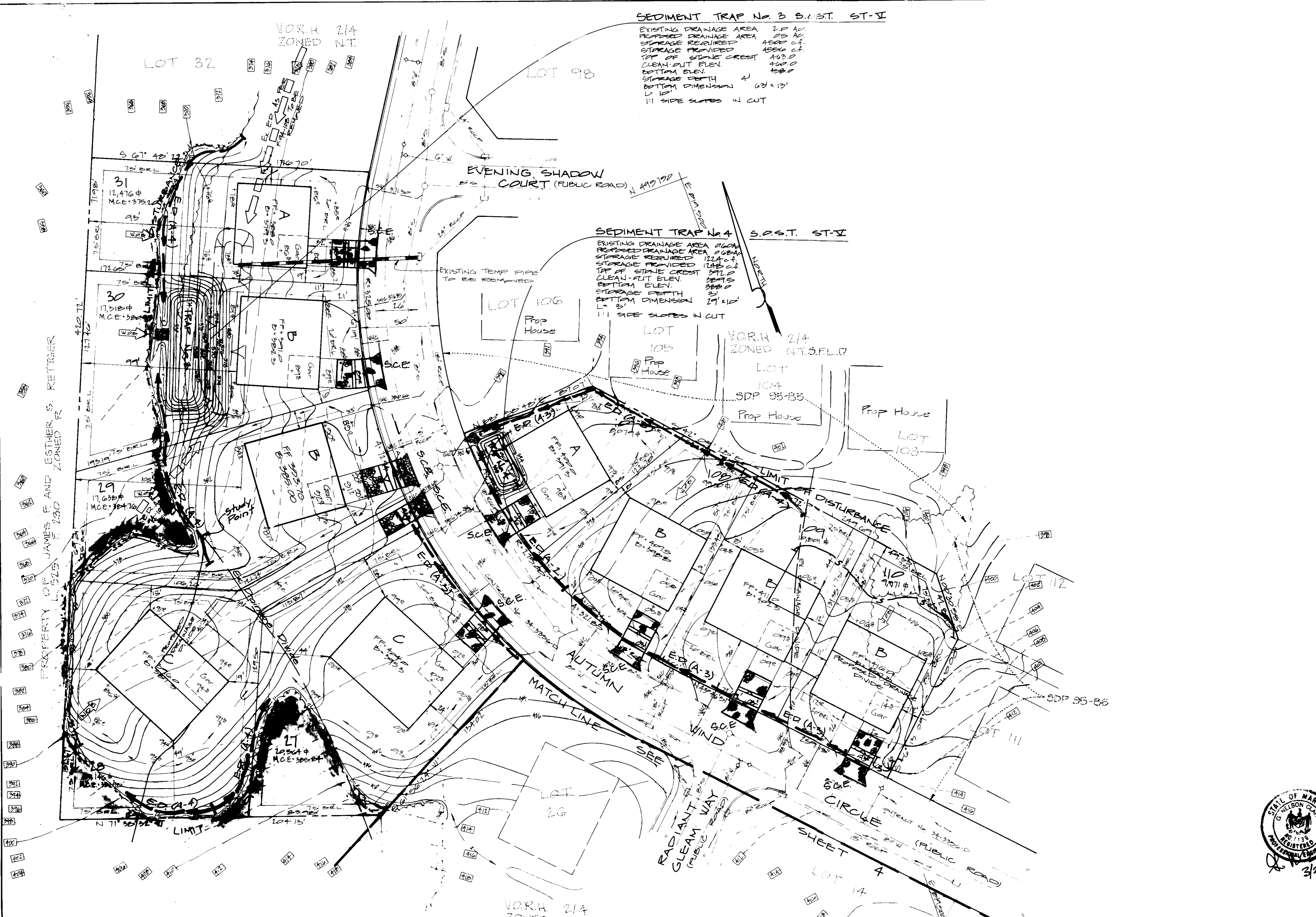
**CLARK • FINEFROCK & SACKETT, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS  
 7135 MINTKEL WAY • COLUMBIA, MD 21045 • BALT (410) 381-7800 • WASH. (301) 621-8100

DESIGNED	ZAL	SCALE	1" = 50'
DRAWN	MCR	DRAWING	4 of 7
CHECKED	JRS	JOB NO.	75-221
DATE	5-10-95	FILE NO.	75-221-88

**SEDIMENT & EROSION CONTROL PLAN**  
 SECTION 2 | AREA 4 | LOTS 14-31 | 35-41 | 45-51 | 55-61 | 65-71 | 75-81 | 85-91 | 95-101

**COLUMBIA VILLAGE OF RIVER HILL**  
 FIFTH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

Prep: THE RYLAND GROUP, INC.  
 7135 Mintkel Way  
 Columbia, Md. 21044

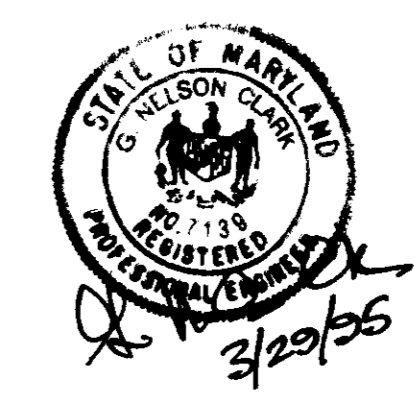


**SEDIMENT TRAP No. 3 S.O.S.T. ST-VI**  
 EXISTING DRAINAGE AREA 2.8 AC  
 PROPOSED DRAINAGE AREA 2.8 AC  
 STORAGE REQUIRED 45000 c.f.  
 STORAGE PROVIDED 45000 c.f.  
 TOP OF STONE CREST 403.0  
 CLEAN-OUT ELEV. 400.0  
 BOTTOM ELEV. 400.0  
 STORAGE LENGTH 4'  
 BOTTOM DIMENSION 6'8" x 13'  
 1:1 SIDE SLOPES IN CUT

**SEDIMENT TRAP No. 4 S.O.S.T. ST-VI**  
 EXISTING DRAINAGE AREA 2.00 AC  
 PROPOSED DRAINAGE AREA 2.00 AC  
 STORAGE REQUIRED 12240 c.f.  
 STORAGE PROVIDED 12240 c.f.  
 TOP OF STONE CREST 391.0  
 CLEAN-OUT ELEV. 388.0  
 BOTTOM ELEV. 388.0  
 STORAGE LENGTH 2'  
 BOTTOM DIMENSION 2'9" x 10'  
 1:1 SIDE SLOPES IN CUT

**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.



*G. Nelson Clark* 3/29/95  
 G. NELSON CLARK DATE

**DEVELOPER'S/BUILDERS CERTIFICATE**

"We certify that all development and construction will be done according to the 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 the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by Howard Soil Conservation District or their authorized agencies, as are deemed necessary."

*Derek A. McDaniel* 3/29/95  
 Signature of Developer/Builder Date  
 DEREK A. McDANIELS

Reviewed for HOWARD S.C.D. Name  
 and meets Technical Requirements  
*Patricia Ingraham* 5/23/95  
 Signature Date  
 U.S. Soil Conservation Service

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

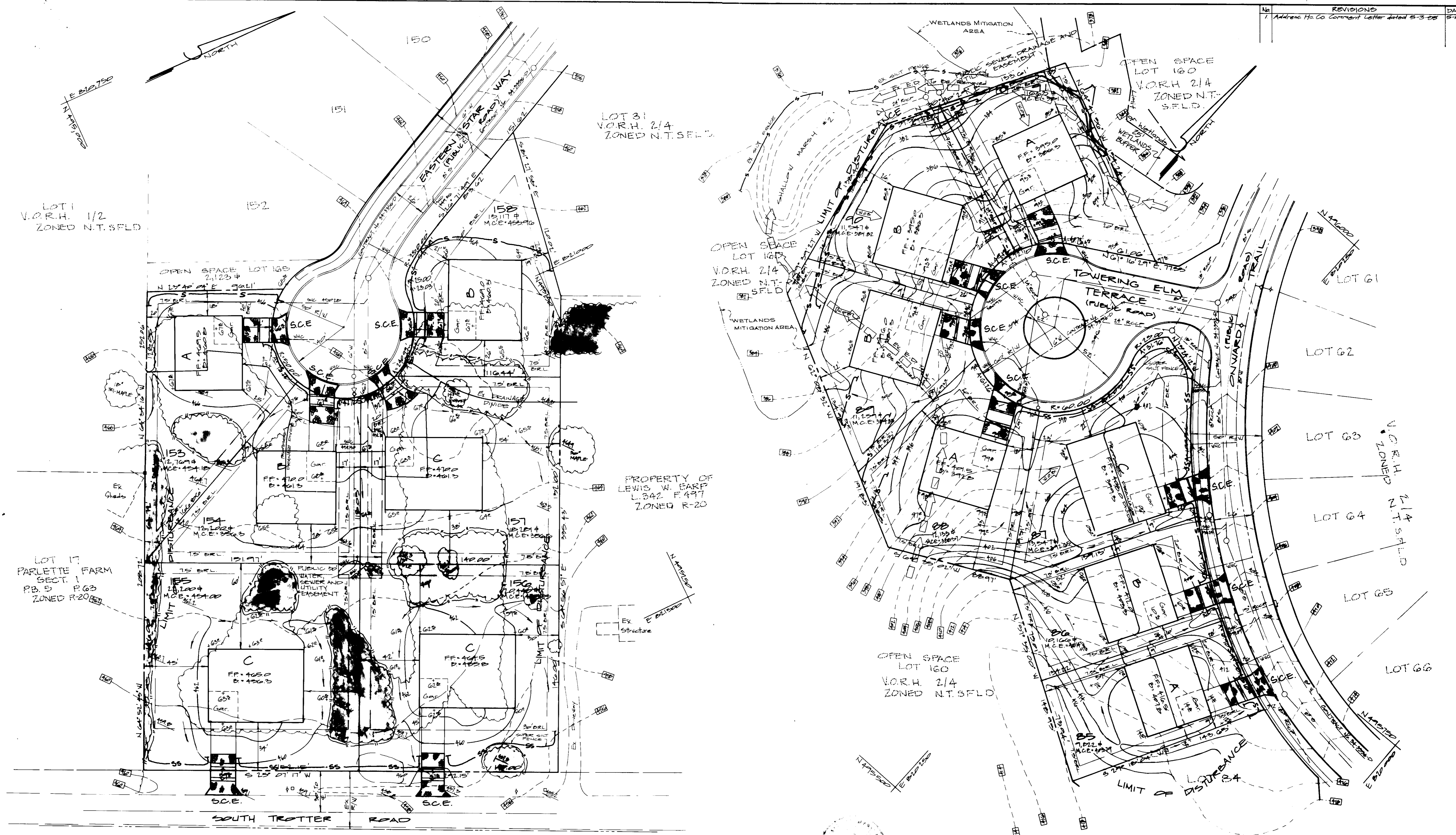
*John P. Blanton* 5/23/95  
 APPROVED

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
*Richard Blood* 5/21/95  
 DIRECTOR DATE  
 COUNTY DIVISION OF LAND DEVELOPMENT AND RESEARCH  
*James A. Elmer* 5/26/95  
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR DATE  
 CHIEF BUREAU OF ENGINEERING 5/25/95 DATE

OWNER/DEVELOPER  
 HOWARD RESEARCH AND DEVELOPMENT  
 10115 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MD 21044

<b>CLARK • FINEFROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS		SCALE 1"=30'
DESIGNED ZAL	SECTION 2   AREA 4   LOTS 14-31   89-91   101-110   102-110	DRAWING 5-8-7
DRAWN C.L.I.	COLUMBIA VILLAGE OF RIVER HILL	JOB NO 95-031
CHECKED <i>J.R.S.</i>	FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	FILE NO 95-031SE
DATE 5-10-95	For: The RYLAND GROUP 7150 Minnie Way Columbia, Md 21045	

NO.	REVISIONS	DATE
1	Address Ho Co Comment Letter dated 5-3-95	5-10-95



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
*[Signature]* 5/21/95  
 DATE  
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE  
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 5/26/95  
 DATE  
 CHIEF BUREAU OF ENGINEERING  
*[Signature]* 5/25/95  
 DATE

Reviewed for HOWARD COUNTY SCD  
 Name  
 and meets Technical Requirements  
*[Signature]* 5/23/95  
 Date  
 U.S. Soil Conservation Service  
 THIS DEVELOPMENT PLAN IS APPROVED  
 FOR SOIL EROSION AND SEDIMENT  
 CONTROL BY THE HOWARD SOIL  
 CONSERVATION DISTRICT.  
*[Signature]* 5/23/95  
 APPROVED

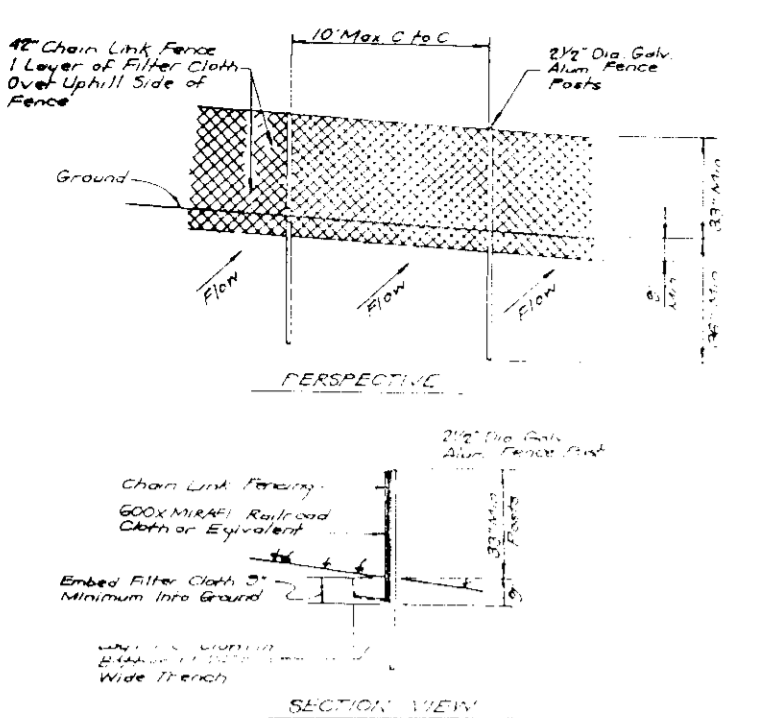
**DEVELOPER'S/BUILDERS CERTIFICATE**  
 We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance of a Dept. 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 Howard Soil Conservation District or their authorized agencies, as are deemed necessary.  
*[Signature]* 3/29/95  
 Signature of Developer/Builder  
 DEREK A. MCDANIEL

**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]* 3/29/95  
 G. NELSON CLARK  
 DATE

**OWNER/DEVELOPER**  
 HOWARD RESEARCH AND DEVELOPMENT  
 PLUS LITTLE PATUXENT PARKWAY  
 COLUMBIA, MD 21044

<b>CLARK • FINEFROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS 735 MINISTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALTO • (301) 621-8100 WASH		
DESIGNED I.A.L.	SECTION 2 / AREA 4 LOTS 14-31 / 05-91107-110 / 1153-150	SCALE 1"=30'
DRAWN C.L.I.	COLUMBIA VILLAGE OF RIVER HILL	DRAWING 6077
CHECKED J.L.B.	FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO 95-031
DATE 5-19-95	FOR: THE RYLAND GROUP, INC. 7150 Ministrel Way Columbia, Md. 21045	FILE NO. 95-031E

**SUPER SILT FENCE**



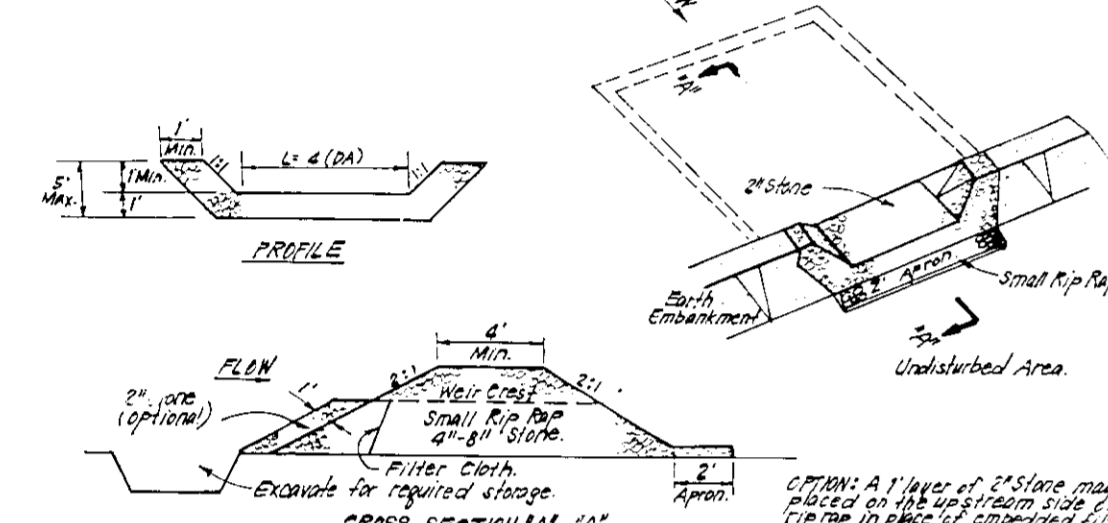
**FENCING**

Fencing shall be 42" high chain link fence constructed in accordance with the latest Maryland State Highway Administration Standard Details 690.01 and 690.02. The specifications for a 3" x 6" fence shall be used, substitute 42 inch fabric and posts. Posts shall be placed without concrete embedment.

- Chain link fence to be fastened securely to fence posts with ties or staples.
- Filter cloth to be fastened securely to chain link fence with ties spaced every 24 inches at top and mid section.
- When two sections of filter cloth adjoin each other they shall be overlapped by 6 inches and folded.
- Maintenance shall be performed as needed and material removed when bulges develop in the silt fence.

**SUPER SILT FENCE (SS)**

NO SCALE

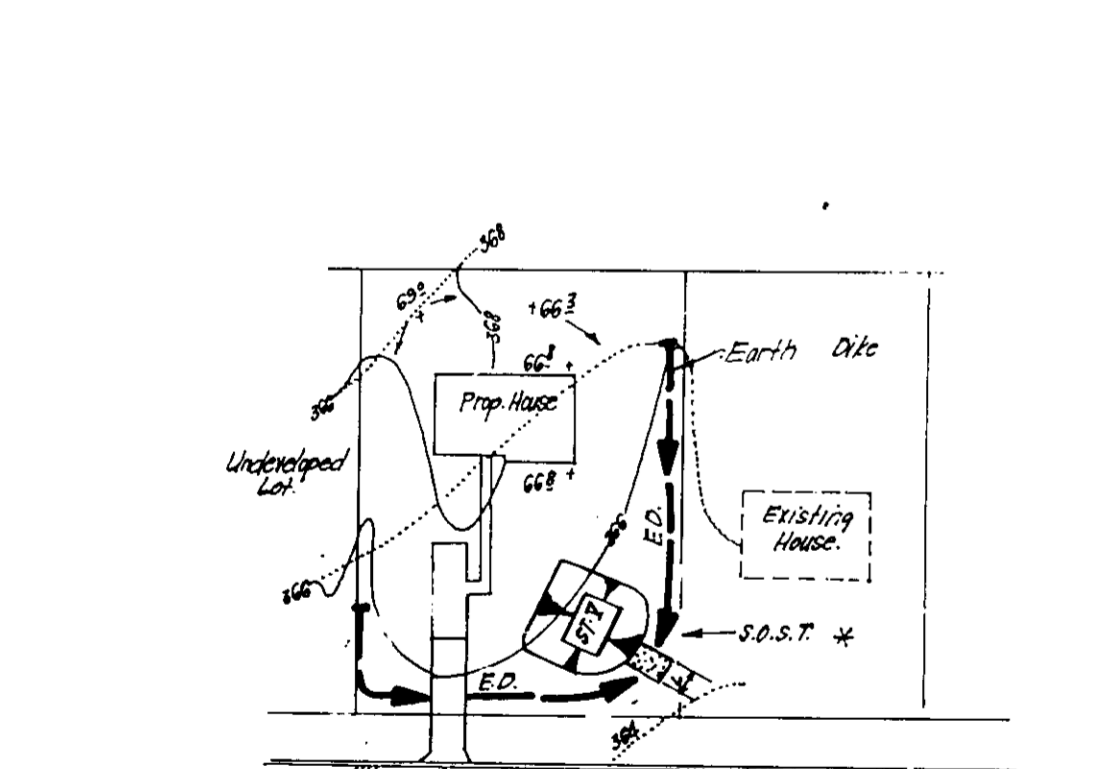


**CONSTRUCTION SPECIFICATIONS:**

- Filter cloth shall be constructed by earth moving equipment.
- All ditches shall have positive drainage to an outlet.
- Top width may be wider and side slopes may be steeper if desired to facilitate cleaning by construction vehicles.
- Filter cloth shall be fastened to a stabilized soil mat.
- Earth ditches shall have an outlet that functions with a minimum of erosion. Runoff shall be conveyed to a sediment trap or device such as a sediment trap or sediment basin where filter cloth ditches or drainage areas above the ditches are not adequately stabilized.
- Installation shall be: (a) in accordance with standard specifications for silt and stone outlet trap or (b) in accordance with standard specifications for silt and stone outlet trap as per chart below.
- Periodic inspection and required maintenance must be provided after each rain.

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

NO SCALE

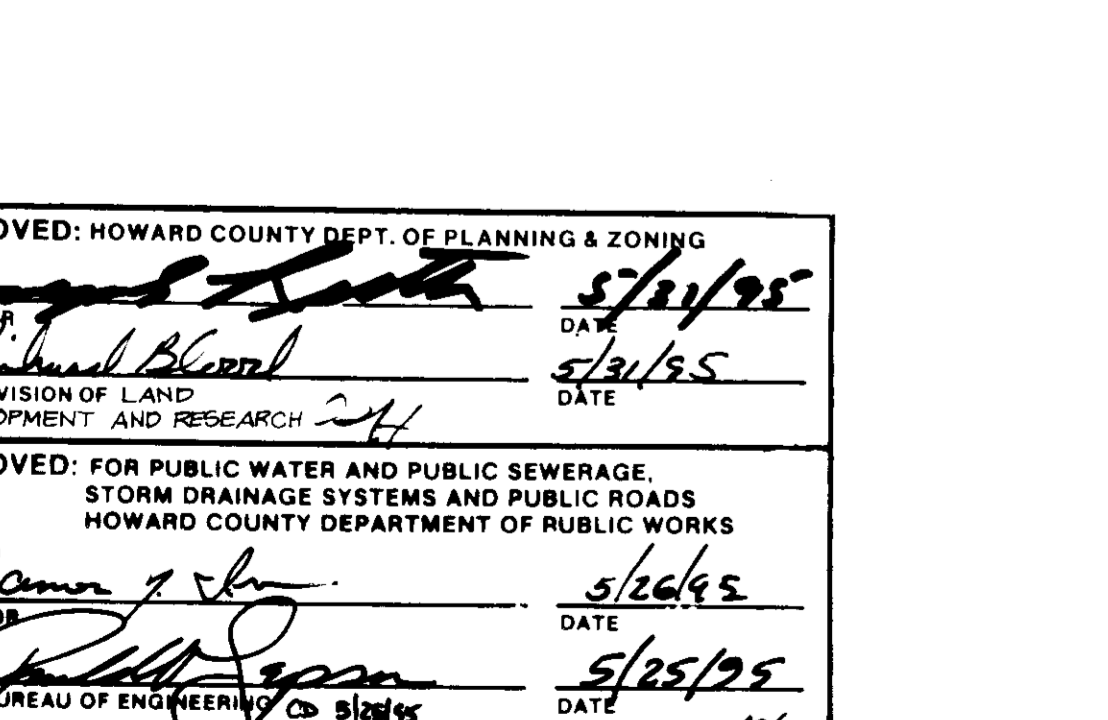


**CONSTRUCTION SPECIFICATIONS:**

- Any under construction shall be cleared, graded and stripped of any vegetation and rock mat. The top soil shall be stored.
- Filter cloth shall be fastened to a stabilized soil mat. The filter cloth shall be secured to the stone outlet trap with staples or ties.
- When two sections of filter cloth adjoin each other they shall be overlapped by 6 inches and folded.
- Maintenance shall be performed as needed and material removed when bulges develop in the silt fence.
- Periodic inspection and required maintenance must be provided after each rain.

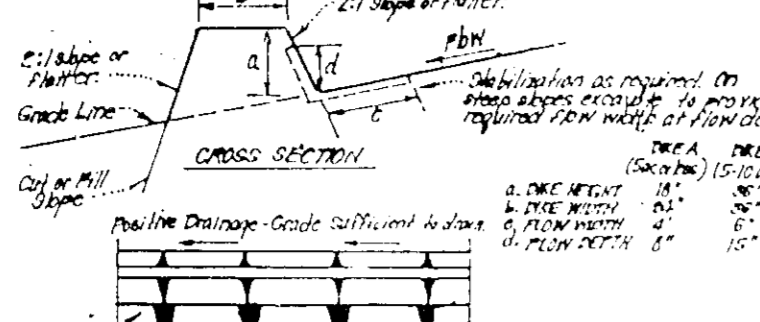
**SINGLE LOT SEDIMENT CONTROL PLAN**

NO SCALE



\*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 any lots sharing a sediment trap.

**CONSTRUCTION SPECIFICATIONS:**

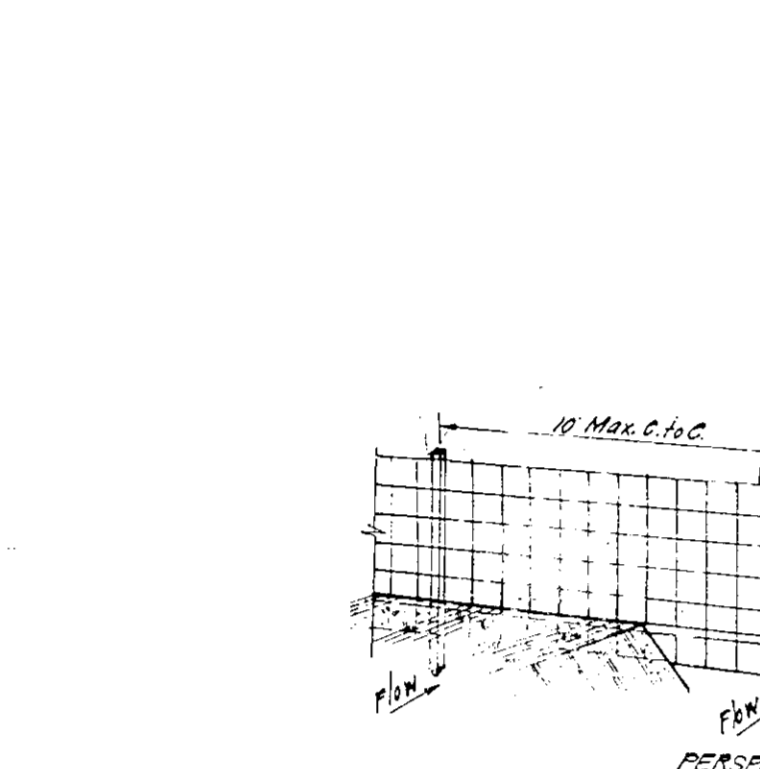


**CONSTRUCTION SPECIFICATIONS:**

- Stone size - Use 2" stone or reclaimed or recycled concrete equivalent.
- Length - As required, but not less than 50 feet except on a single residence lot where a 30 foot minimum length would apply.
- Thickness - Not less than six (6) inches.
- Width - Ten (10) feet minimum, 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 single 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 mountable berm with 3" ditches 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 construction demands and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, tracked, 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 required maintenance shall be provided after each rain.

**STABILIZED CONSTRUCTION ENTRANCE (SCE)**

NO SCALE

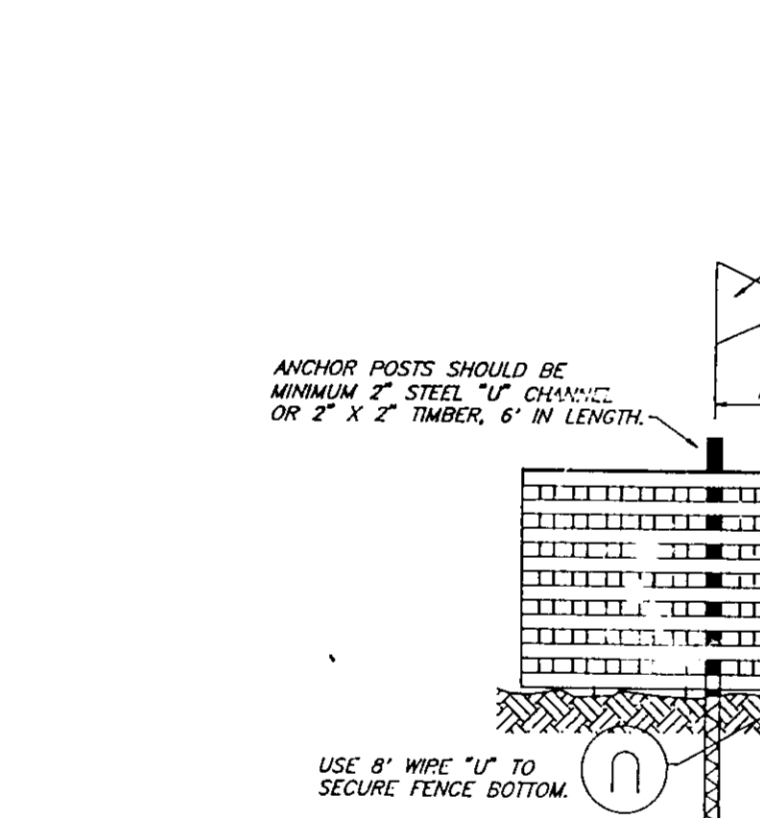


**CONSTRUCTION SPECIFICATIONS:**

- Woven wire fabric to be fastened securely to fence posts with wire ties or staples.
- Filter cloth to be fastened securely to woven wire fabric with wire staples every 24" at top and mid sections.
- When two sections of filter cloth adjoin each other they shall be overlapped by 6 inches and folded.
- Maintenance shall be performed as needed and material removed when bulges develop in silt fence.
- Periodic inspection and required maintenance shall be provided after each rain.

**SILT FENCE DETAIL (S)**

NO SCALE



**BLAZE ORANGE PLASTIC MESH TYPICAL TREE PROTECTION FENCE DETAIL**

NO SCALE

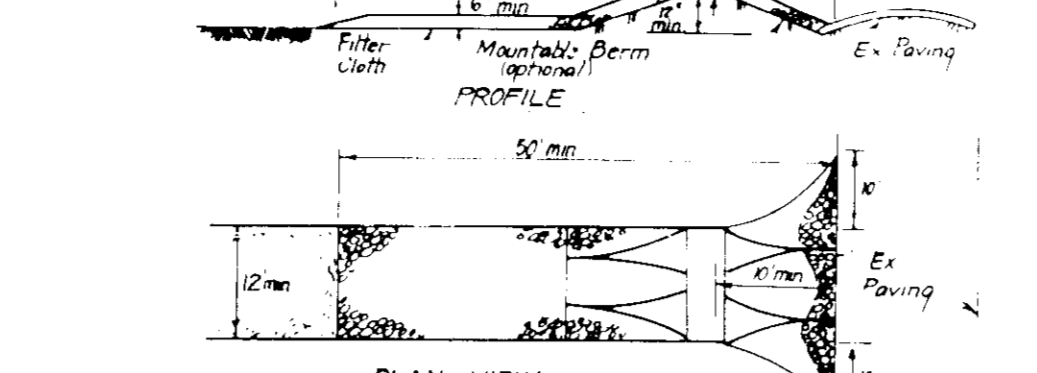


NOTES:

- 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.
- Root damage should be avoided.
- Protection signage may also be used.
- Device should be maintained throughout construction.

**PERMANENT SEEDING NOTES**

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.



**CONSTRUCTION SPECIFICATIONS:**

**SEEDING:** For the periods March 1 thru April 30, and August 1 thru October 15, seed with 6000 lbs per acre (14 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 (0.5 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 well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 50 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 unrattled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 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 reseeding.

**TEMPORARY SEEDING NOTES**

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 (0.7 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 unrattled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 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.**

**SEDIMENT AND EROSION CONTROL NOTES**

1. 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. (S19-105.1)

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 SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL.

3. 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 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 perimeters 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 seedings (Sec.51) sod (Sec.54), temporary seeding (Sec.50) and mulching (Sec.52). Temporary stabilization with sod shall 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: 10.86 AC.

Area to be roofed or paved: 2.08 AC.

Area to be vegetatively stabilized: 8.78 AC.

Total Fill: 0.00 AC.

Offsite Waste/Borrow 'Yea Location: \_\_\_\_\_

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 DFW 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 inspection approvals may not be authorized until this initial approval by the inspection agency is made.

11. The total amount of silt fence: 2669 L.F.

\*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.	REVISIONS	DATE
1	Obtain grading permit	7
2	Install free 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

\*Delay construction of houses on lots 14, 30 & 107. See single lot sediment control detail, this sheet.

OWNER/DEVELOPER  
HOWARD RESEARCH AND DEVELOPMENT  
10715 LITTLE PATUXENT PARKWAY  
COLUMBIA, MD 21044

CLARK • FINEFROCK & SACKETT, INC.  
ENGINEERS • PLANNERS • SURVEYORS  
7158 MINISTREL WAY • COLUMBIA, MD 21045 • BALTO (410) 301-7800 • WASH (301) 621-8100

DESIGNED: SEDIMENT & EROSION CONTROL PLAN  
SCALE AS NOTED  
DRAWN: SECTION 2 | AREA 2 | LOTS 21 & 22  
DRAWING: COLUMBIA VILLAGE OF RIVER HILL  
JOB NO: 7-97  
MCR: FIFTH ELECTION DISTRICT  
JOB NO: 75-021  
CHECKED: HOWARD COUNTY, MARYLAND  
DATE: 5-19-95  
FILE NO: 75-021-98

DATE: 5-19-95

DATE: 5/22/95

DATE: 5/25/95

DATE: 5/29/95

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APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
DIRECTOR: [Signature] 5/21/95  
DATE: 5/21/95  
CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH: [Signature]

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DIRECTOR: [Signature] 5/26/95  
DATE: 5/25/95  
CHIEF BUREAU OF ENGINEERING: [Signature]

Reviewed for: HOWARD S.C.D.  
Date: 5/23/95  
Signature: [Signature]  
US Soil Conservation Service

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.  
NAME: DEREK A. Mc DANIELS  
DATE: 5/29/95

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 Howard Soil Conservation District.  
G. NELSON CLARK  
DATE: 3/29/95



SDP 95-95