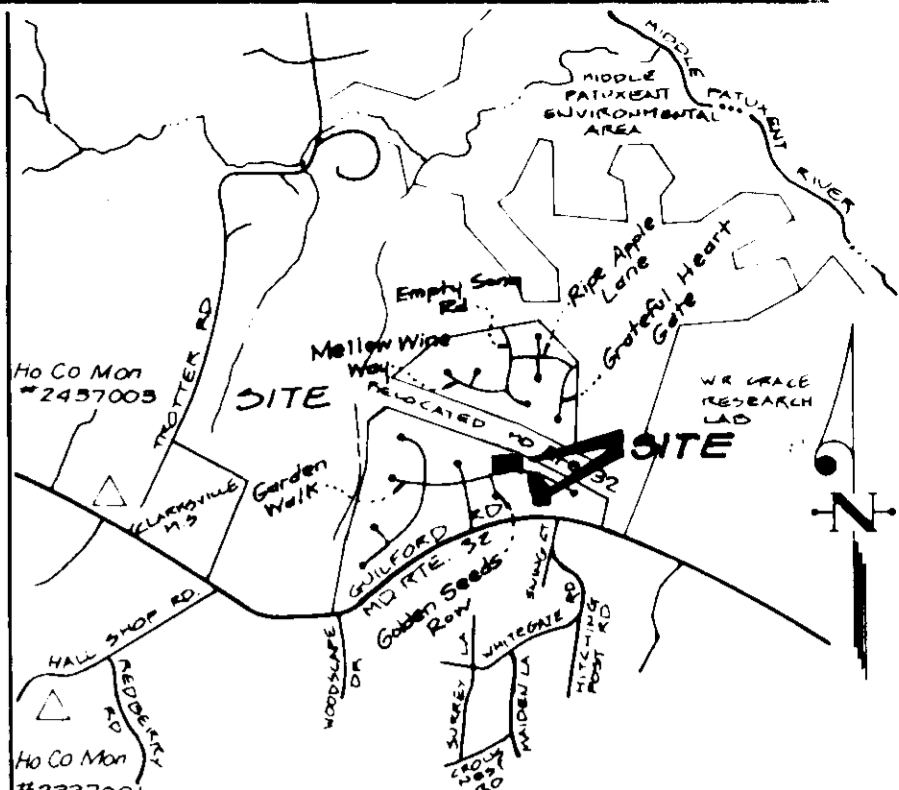


No	REVISIONS	DATE
1	Rev. hse. & grad. Lot 83	12-07-94
2	Rev. hse. & grad. lot 90	3-28-98
3	Rev. hse. & grad. lot 96	4-19-98
4	Rev. hse. & grad. lots 84 & 86	4-26-98
5	Rev. hse. & grad. lot 85; Add Newport house typical	8-9-98

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
83	7042 Garden Walk
84	7044 Garden Walk
85	7040
86	7036
96	7001 Jeweled Hand Circle
97	7005
98	7009
99	7013
100	7017

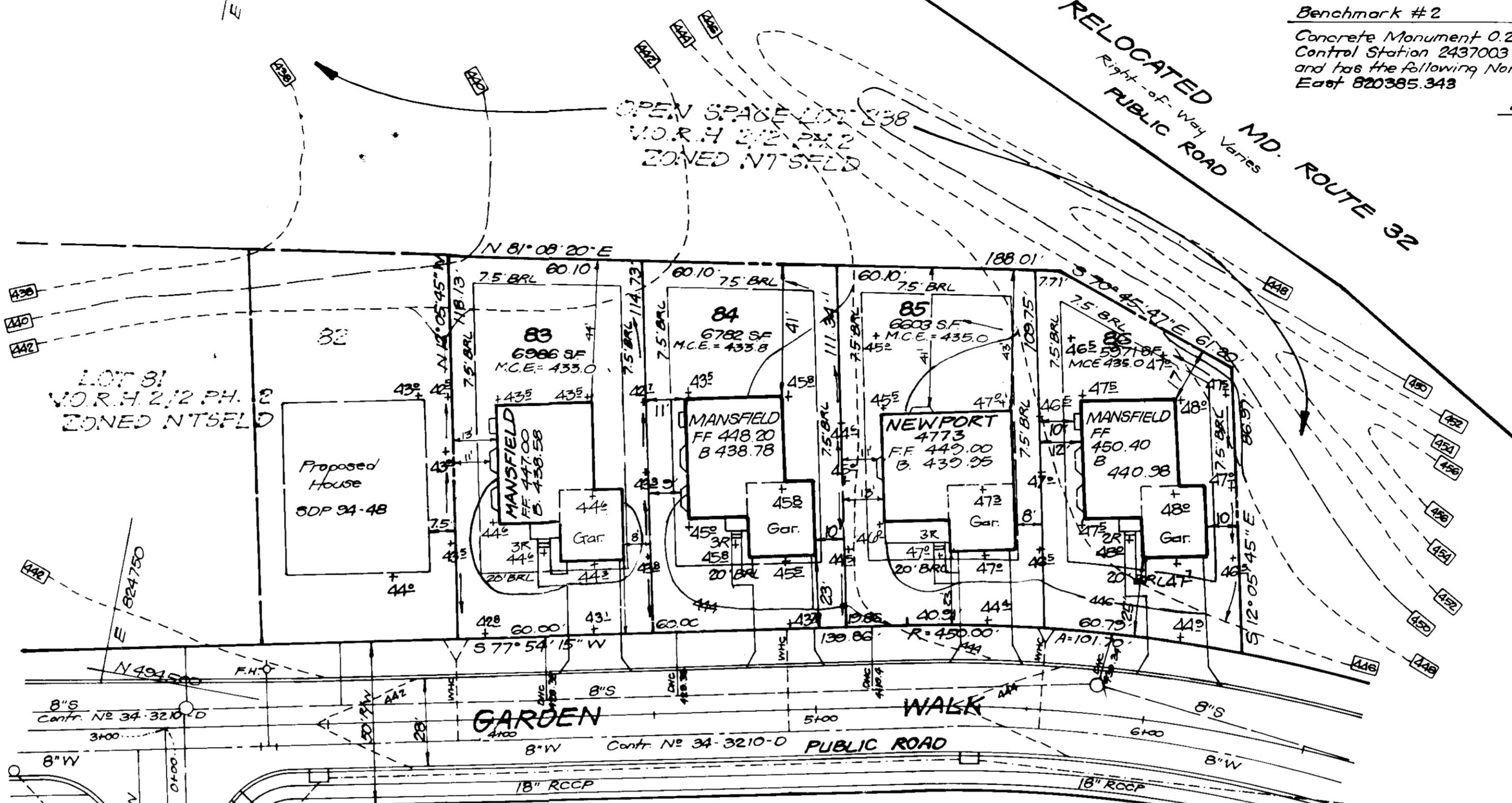
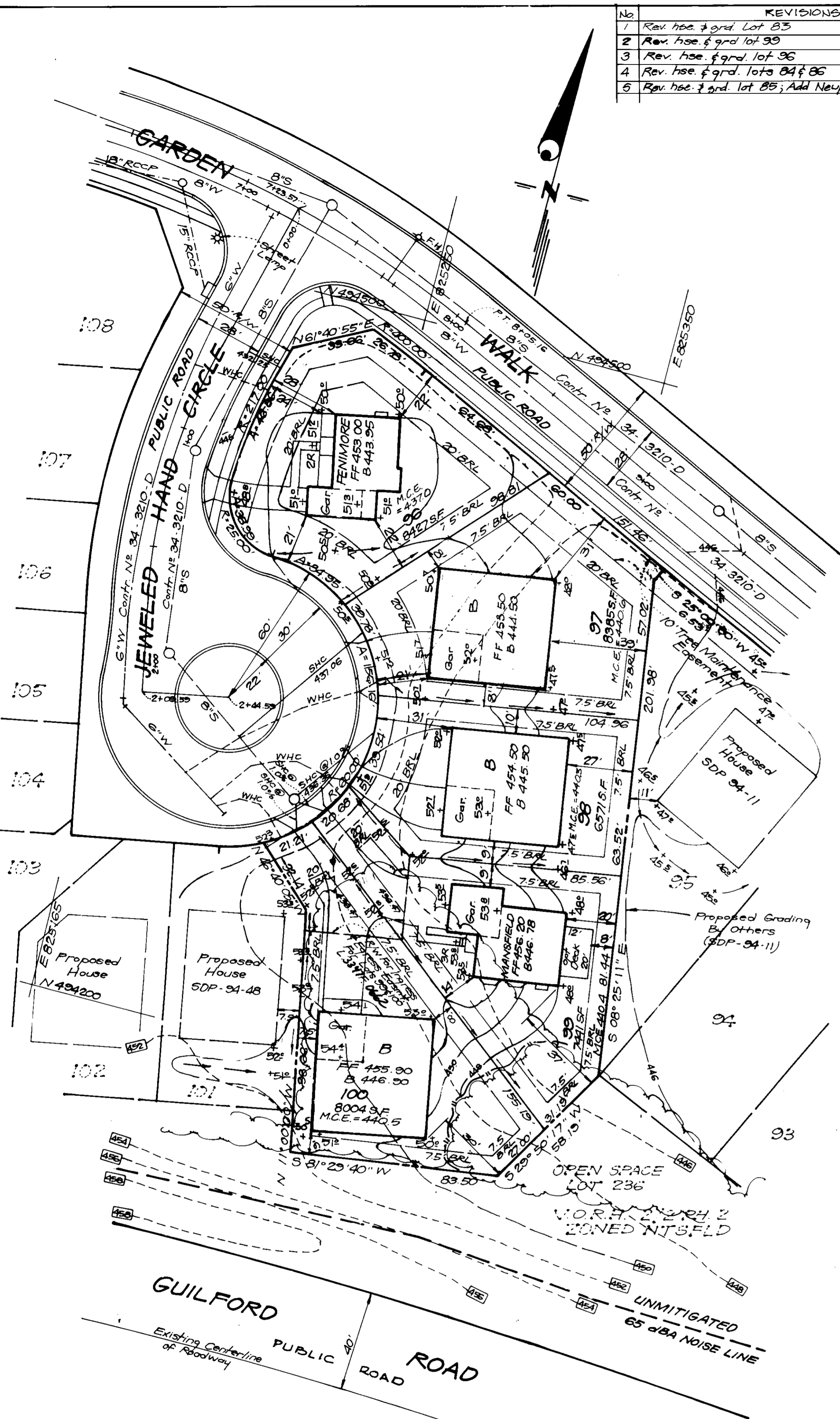
LEGEND	
Contour Interval	2 FT
Existing Contour	---
Proposed Contour	---
Spot Elevation	+105
Direction of Drainage	→
Walk out Basement	---
Trees to be Saved	○
Tree protection Fence	---



Benchmark #2
Concrete Monument 0.25' below surface known as Ho Co. Control Station 2437003 which has been on the vicinity map and has the following Northing and Easting: North 494265.231 East 820385.348

Benchmark #1
Reinforcing Rod, 3/4" 0.6' below surface known as Ho Co. Control Station 2337001-R which is shown on the vicinity map and has the following Northing and Easting: N 491612.385 East: 819527.789

VICINITY MAP
SCALE: 1" = 2000'



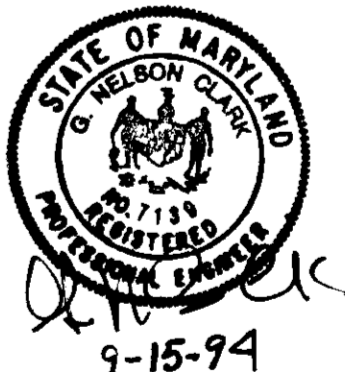
- GENERAL NOTES:**
- Subject property is zoned: NTSFLD per 10 18 93 Comprehensive Zoning Plan.
 - The total area included in this submission is: 65,170 SF or 1.5 A.
 - The total number of lots included in this submission are: 9
 - Improvement to property: Single family detached
 - The maximum lot coverage permitted is: 30%
 - Department of Planning and Zoning reference file numbers are: S-91-03, P-92-15, F-93-81, WP-92-13
 - Utilities shown as existing are taken from approved water and sewer plan Contract #34-3210-0 approved road construction plans F-93-81, 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-93-81, Water Quality is provided by approved water and sewer plan.
 - All roadways are public and existing.
 - The existing topography shown was taken from: Road Construction plans prepared by Fisher Collins and Carter, Inc.
 - The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System - Howard County Monument Nos.: 2337001 and 2337003.
 - The contractor shall notify the Department of Public Works/Division of Construction Inspection at (410) 313-1880 at least forty-eight (48) hours 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 as per: FOP Phase 209, Part II
 - SAC elevations shown are located at the property line.
 - The 65 dBA Noise Contour Line represents the approximate location of the 65 dBA (occasional) noise exposure level generated by Md. 32 Traffic in the year: 2015 based upon assumptions about actual conditions at that time. This value represents the average sound level during the single noisiest one-hour period of vehicular traffic during a typical day. This calculation is based on the SWA's estimate of year 2015 highway traffic volume. The contour line shown on this plan is advisory as required by Ho Co. Design Manual, Vol. III, Chapter 5, Revised Feb. 1992, and cannot be considered to locate exactly the 65-dBA exposure.
 - Landscaping will be provided per The Howard Research and Development Corp. guidelines for residential construction and will meet or exceed the planting requirements of The Ho. Co. Landscape Manual.
 - For driveway entrance details refer to Howard County Design Manual Volume II' 9nd. Details R-6-03 and R-6-05.

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

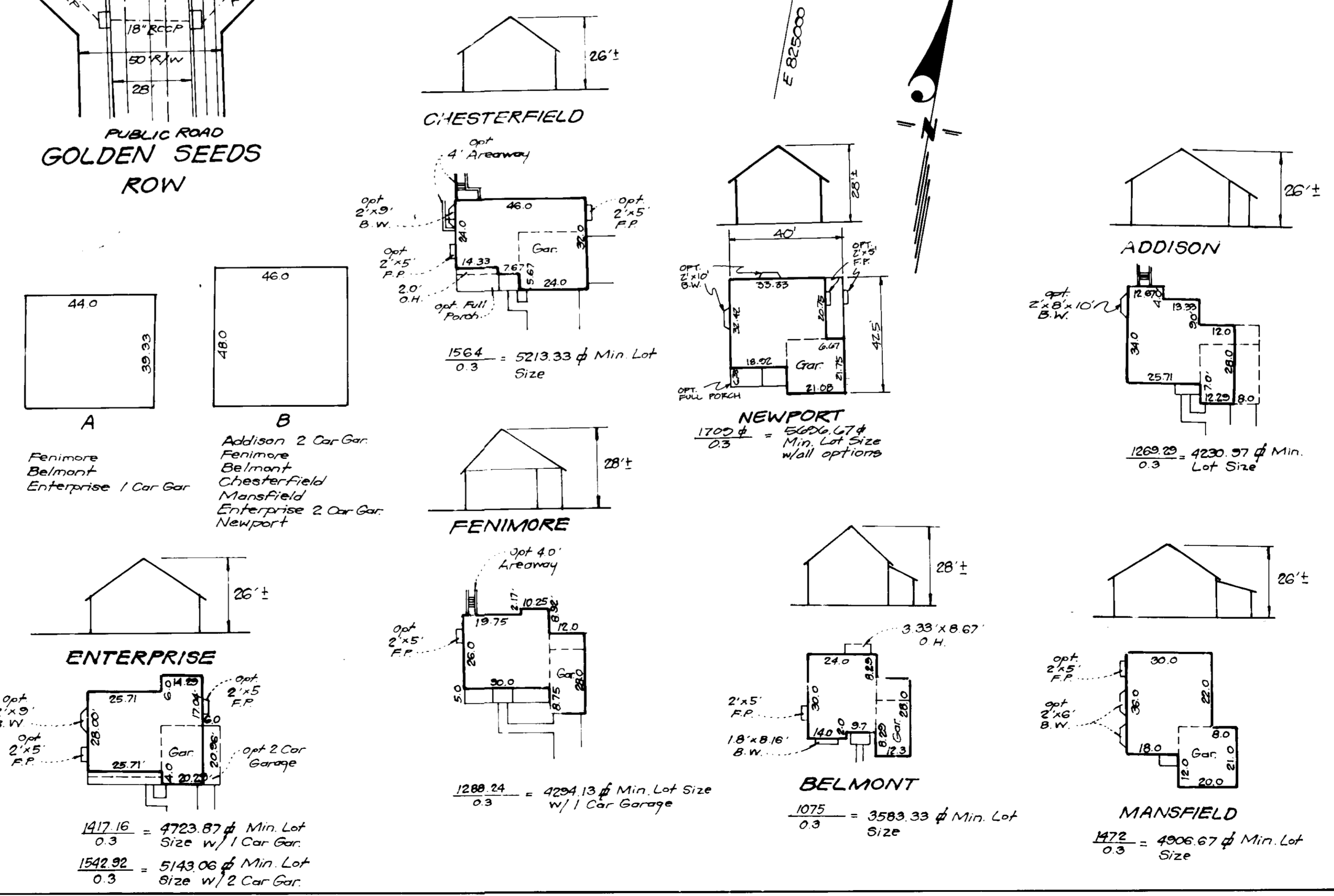
SPECIAL NOTES:
This plan is for house siting and lot grading only. Improvements shown within the rights-of-way on this S.D.P. are not to be used for construction. For construction, see approved Road Construction Plans F-93-81 and/or approved Water and Sewer Plans Contract #34-3210-0.

OWNER/DEVELOPER
HOWARD RESEARCH AND DEVELOPMENT CORP.
10275 LITTLE BLAUNT PK WY.
Columbia, Md. 21044

SUBMISSION NAME	COLUMBIA	SECTION/AREA	LOTS/PARCELS
Village of River Hill		2/2 Ph. 2	83-86, 96-100
PLAT NO.	10394-10396	ZONE	N.T. SFLD
TAX MAP NO.	21	ELECTION DIST.	35
CENSUS TRACT			57H 6055
WATER CODE	B-01	SEWER CODE	2159000



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 Director: *Michael Blagden* DATE: 10/3/94
 Chief Division of Land, Development and Research: *Cott* DATE: 9/30/94
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Director: *Oliver M. Pappas* DATE: 9/23/94
 Chief Bureau of Engineering

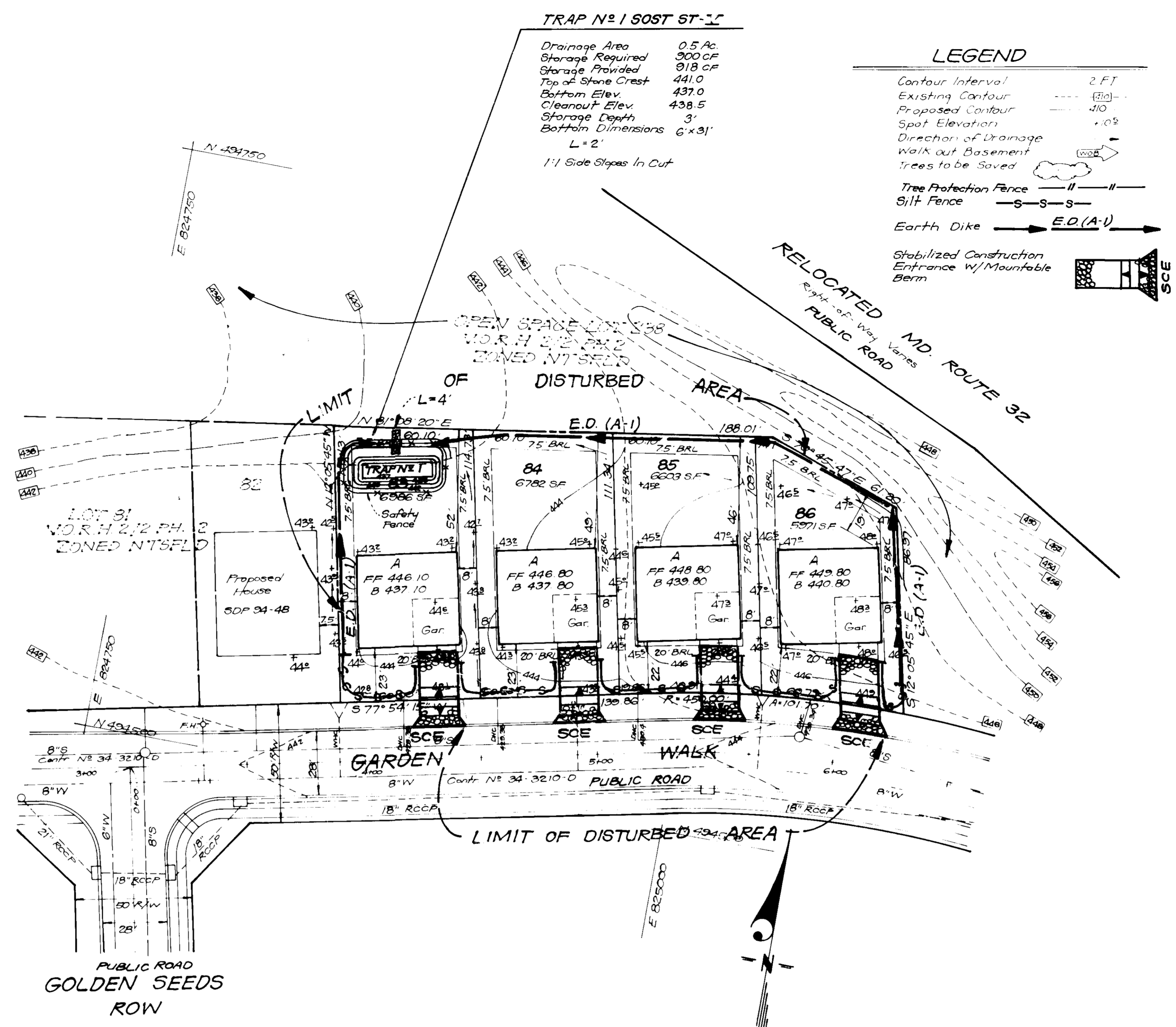
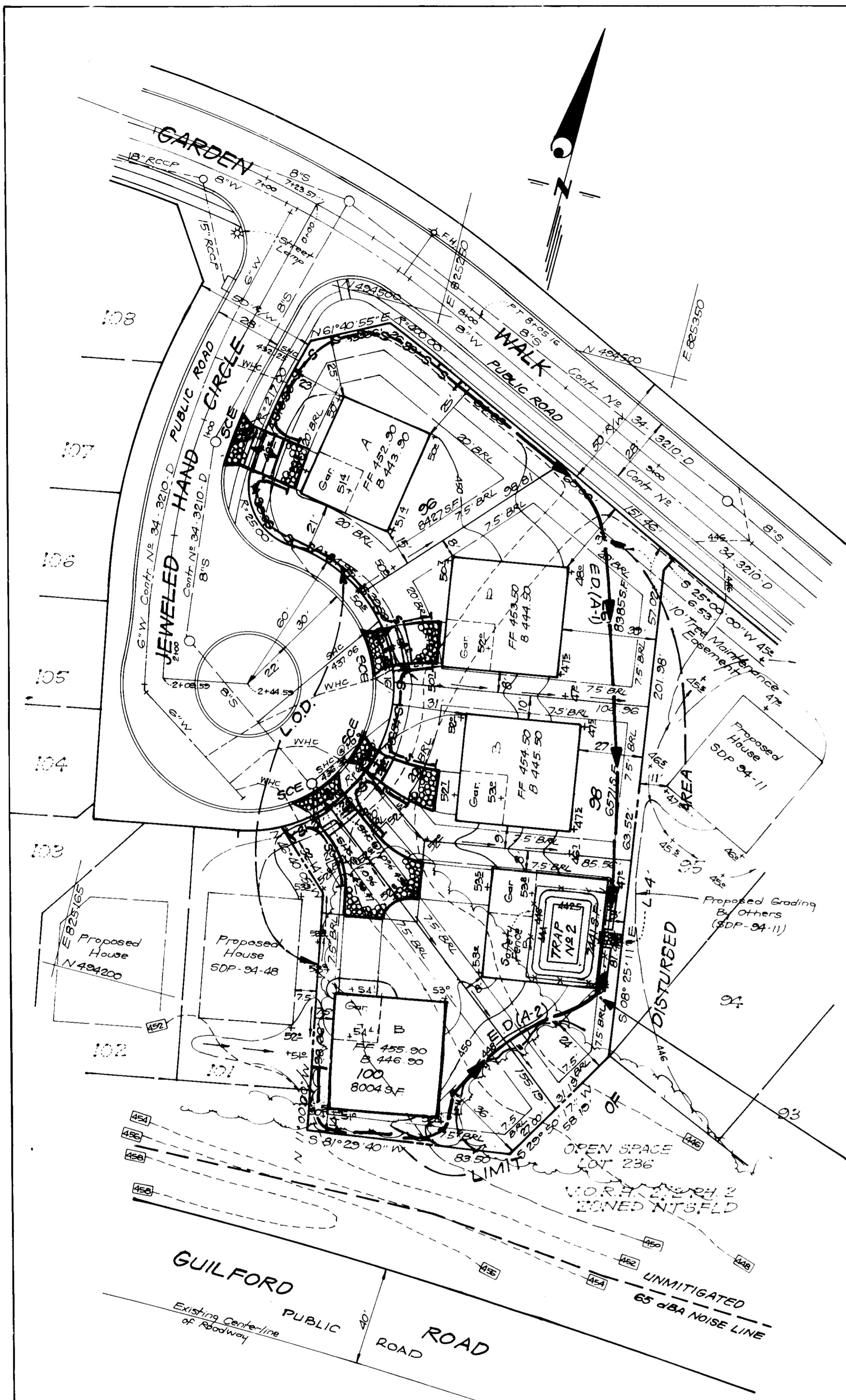


CLARK • FINEFROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO. • (301) 621-8100 - WASH.

DESIGNED	RMT	SCALE
DRAWN	BAL	1" = 30'
CHECKED	JME	DRAWING
DATE	7-20-94	JOB NO.
		93-003
		FILE NO.
		93-003X

SITE DEVELOPMENT PLAN
 LOTS 83-86 and 96-100
COLUMBIA
 VILLAGE OF RIVER HILL
 SECTION 2 AREA 2 PHASE 2
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY MARYLAND
 For: THE RYLAND GROUP INC.
 7130 Minstrel Way
 Columbia, Md. 21045

SDP 95-00

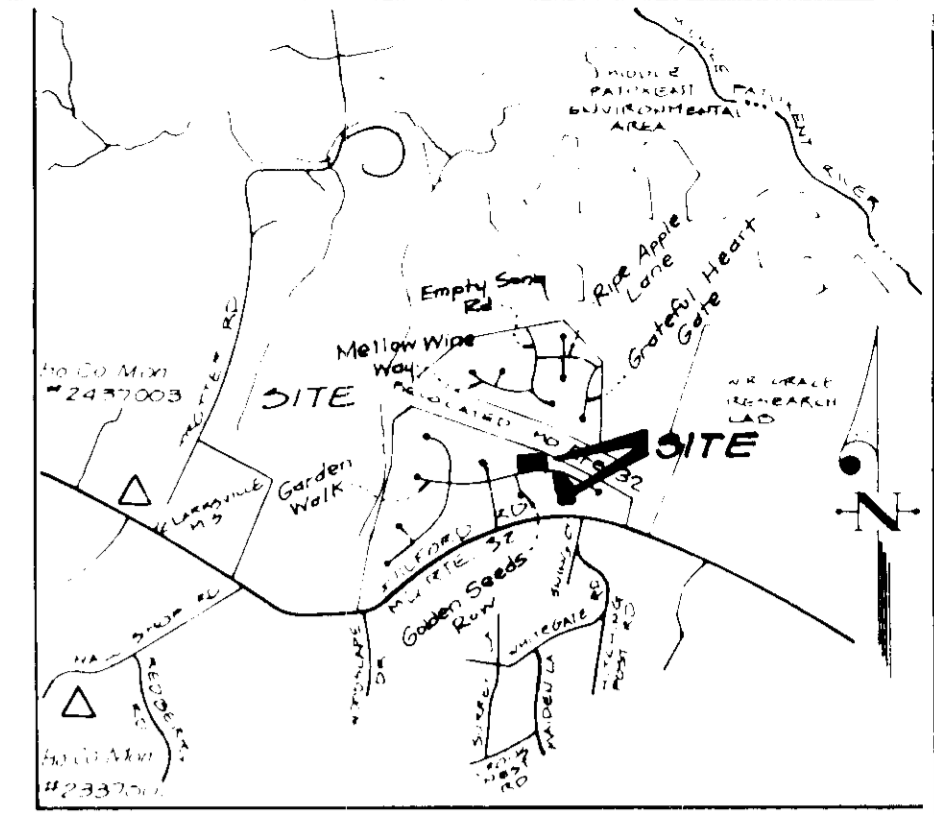


TRAP #1 SOST ST-V

Drainage Area 0.5 Ac
 Storage Required 300 CF
 Storage Provided 918 CF
 Top of Stone Crest 441.0
 Bottom Elev. 437.0
 Cleanout Elev. 438.5
 Storage Depth 3'
 Bottom Dimensions 6'x31'
 L=2'
 1:1 Side Slopes In Cut

LEGEND

Contour Interval 2 FT
 Existing Contour (---) (E)
 Proposed Contour (---) (P)
 Spot Elevation (•) (S)
 Direction of Drainage (---) (D)
 Walk out Basement (---) (W)
 Trees to be Saved (---) (T)
 Tree Protection Fence (---) (TF)
 Silt Fence (---) (SF)
 Earth Dike (---) (ED)
 Stabilized Construction Entrance w/ Mountable Berm (---) (SCE)



TRAP #2 SOST ST-V

Drainage Area 0.9 Ac
 Storage Required 1620 CF
 Storage Provided 1820 CF
 Top of Stone Crest 446.5
 Bottom Elev. 442.5
 Cleanout Elev. 444.0
 Storage Depth 3'
 Bottom Dimensions 12'x24'
 L=4'
 2:1 Side Slopes In Cut

Reviewed for HOWARD S.C.D.
 Name: Howard S.C.D.
 Signature: [Signature]
 Date: 9/22/94
 U.S. Soil Conservation Service

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

John P. [Signature] 9/22/94
 APPROVED Date

DEVELOPER/BUILDERS CERTIFICATE

I hereby certify that the plan for development and construction will be done in accordance with the plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction will have a Certificate of Attendance at a Dept. of the Environment and Planning for the Control of Sediment and Erosion before construction begins and will have periodic on-site inspection by the U.S. Soil Conservation District or its authorized agencies, as required.

[Signature] 7-20-94
 Derek McDaniels Date

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] 7-20-94
 G. NELSON CLARK Date



OWNER / DEVELOPER
 THE HOWARD RESEARCH and DEVELOPMENT CORP.
 10275 Little Patuxent Pkwy
 Columbia, Md. 21044

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Director: [Signature] 10/3/94
 DATE

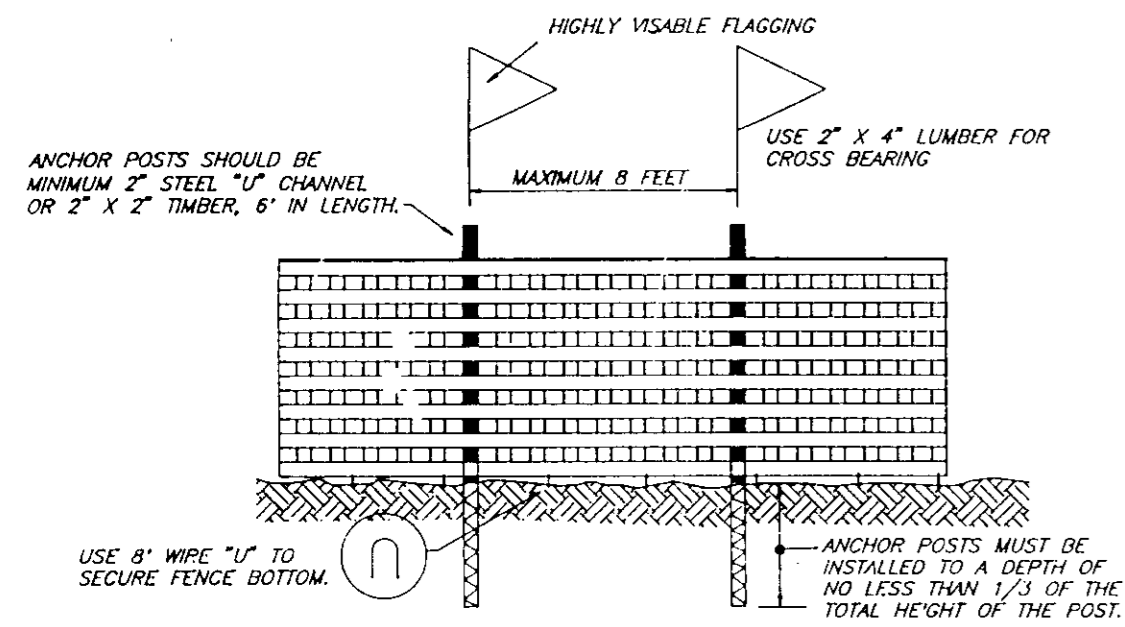
CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH

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

Director: [Signature] 9/21/94
 DATE

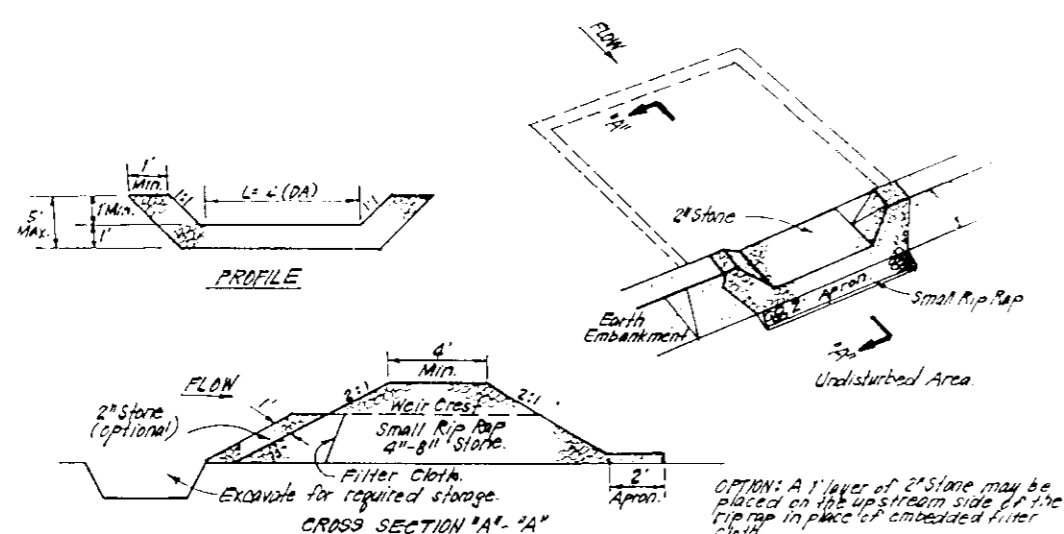
CHIEF BUREAU OF ENGINEERING

CLARK • FINEFROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS 7150 MONTICELLO LANE • COLUMBIA, MD. 21046 • (410) 393-7500 • BALTO. • (410) 393-7500 • WASH. DC. • (301) 424-1100		
DESIGNED	SEDIMENT & EROSION CONTROL PLAN LOTS 83-86 and 96-100 COLUMBIA VILLAGE OF RIVER HILL SECTION 2 AREA 2 PHASE 2 FIFTH ELECTION DISTRICT HOWARD COUNTY MARYLAND	SCALE
DRAWN		1" = 30'
CHECKED		DRAWING
DATE		2 OF 3
7-20-94		JOB NO.
		33-003
		FILE NO.
		33-003SE



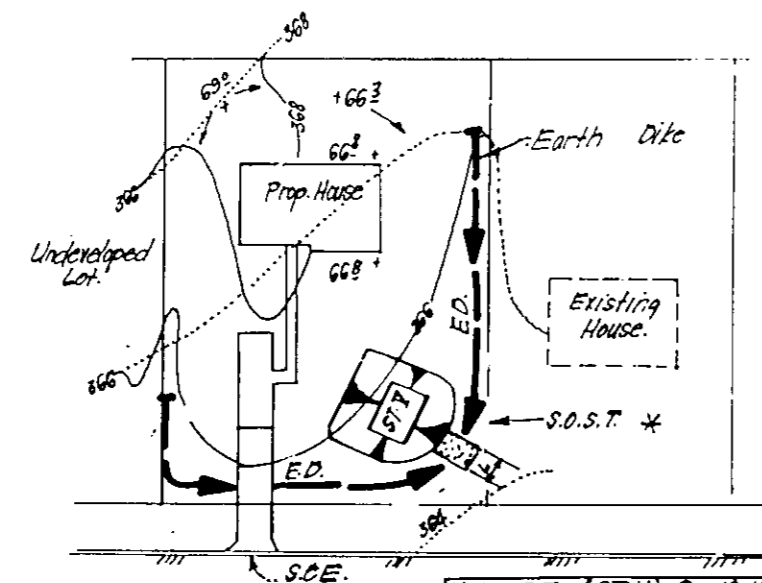
BLAZE ORANGE PLASTIC MESH TYPICAL TREE PROTECTION FENCE DETAIL
NO SCALE

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



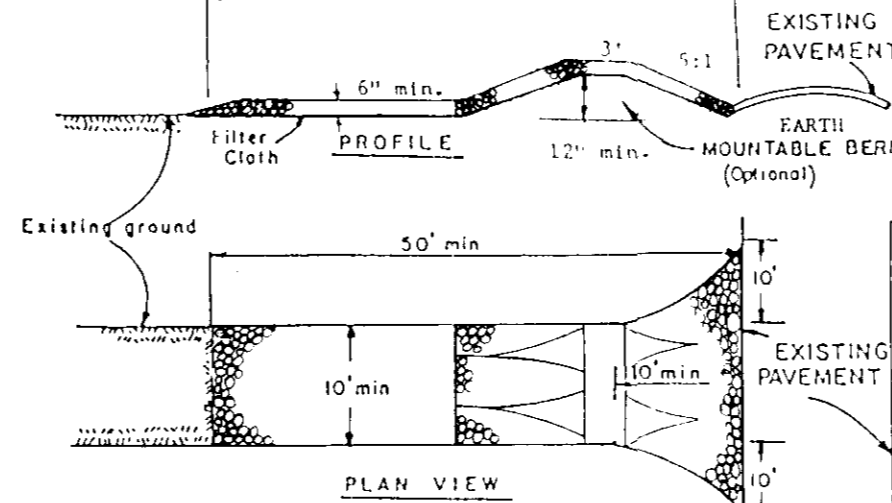
STONE OUTLET SEDIMENT TRAP (S.O.S.T.) ST.V.
NO SCALE

- CONSTRUCTION SPECIFICATIONS:
1. All pipe and equipment shall be cleaned, washed and disinfected of any vegetation and root mat. The 12" dia. shall be 12" dia.
 2. The 1/2" mesh filter cloth shall be one of the best quality available and shall be secured to the structure with staples or other fasteners. The structure shall be constructed with 12" dia. stone.
 3. The 6" filter cloth shall be 1/2" thick.
 4. The 12" earth berm shall be 12" thick with 1" thickness of 2" aggregate placed on the upstream side of the stone trap.
 5. Sediment trap shall be installed in the rip rap area.
 6. The structure shall be inspected after each rain and repairs made as required.
 7. Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
 8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.



SINGLE LOT SEDIMENT CONTROL PLAN
NO SCALE

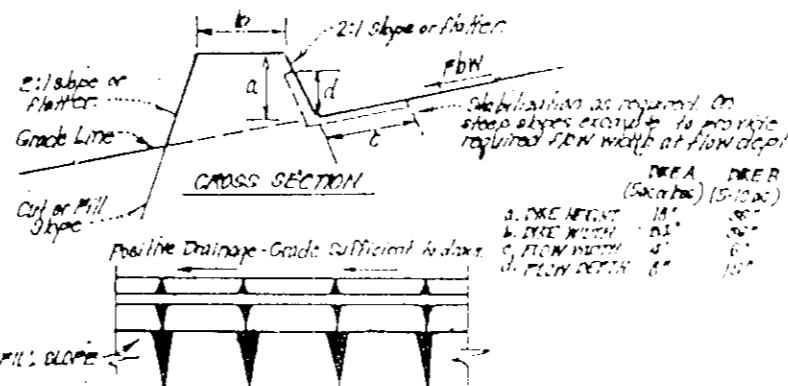
- * NOTE: Single lot detail can not be utilized if any two lots sharing common property lines are to be disturbed at the same time or on any lots showing a sediment trap.
- | NO. | DESCRIPTION | DATE |
|-----|-------------|---------|
| 1 | DESIGNED | 9/22/94 |
| 2 | CHECKED | 9/22/94 |
| 3 | APPROVED | 9/22/94 |



CONSTRUCTION SPECIFICATIONS

1. Stone Size - Use 2" stone, or recycled or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width at points where increase or excess occurs.
5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water - All surface water flowing or diverted toward construction entrance shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slope will be permitted.
7. 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 measure used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. 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.
9. Periodic inspection and needed maintenance shall be provided after each rain.

STABILIZED CONSTRUCTION ENTRANCE (SCE)
NO SCALE



CONSTRUCTION SPECIFICATIONS

1. All pipes shall be blocked at the end of each day (see detail this sheet).
2. The total amount of silt fence = 440 LF.

EARTH DIKE DETAIL (E.D.)
NO SCALE

PERMANENT SEEDING NOTES

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

SEEDING 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./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.

SEEDING: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 6000 lbs per acre (1.4 lbs./1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs./1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 29, 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 unrattled 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 reseedsings.

TEMPORARY SEEDING NOTES

SEEDING 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 weeping lovegrass (.07 lbs./1000 sq ft). For the period November 16 thru February 29, 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 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.

SEDIMENT AND EROSION CONTROL NOTES

1. A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permitting prior to the start of any construction. (313-1895).
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. I, 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 mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
7. SITE ANALYSIS:

Total Area of Site:	1.5 Ac.
Area Disturbed:	0.75 Ac.
Area to be seeded or paved:	0.44 Ac.
Area to be vegetatively stabilized:	1.01 Ac.
Total Cut:	1895 cu.
Total Fill:	2056 cu.

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 DPW 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. All pipes to be blocked at the end of each day (see detail this sheet).
12. The total amount of silt fence = 440 LF.

* It is the responsibility of the contractor to identify from 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 Specs. 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: 99 See single lot sediment control detail, this sheet.

OWNER / DEVELOPER

THE HOWARD RESEARCH AND DEVELOPMENT CORP.
10275 Little Patuxent Pkwy.
Columbia, Md. 21044



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: 7-20-94

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.

Derek McDaniel
Date: 7-20-94

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Richard Smith
DATE: 10/3/94
Richard Beard
DATE: 9/30/94

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

Col M. Morgan
DATE: 9/21/94

CHIEF BUREAU OF ENGINEERING

DATE: 9/21/94

Reviewed for HOWARD S.C. Name: John R. Peltano 9/22/94
Signature: Date: US Soil Conservation Service

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

John R. Peltano 9/22/94
Approved

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7130 MINISTREL WAY • COLUMBIA, MD. 21046 • (410) 881-5500 • BALTO. • (410) 881-5500 • WASH. DC. • (202) 462-1100

DESIGNED ZAL	SEDIMENT & EROSION CONTROL PLAN LOTS 83-86 and 96-100 COLUMBIA VILLAGE OF RIVER HILL SECTION 2 AREA 2 PHASE 2 FIFTH ELECTION DISTRICT HOWARD COUNTY MARYLAND	SCALE As Shown
DRAWN BAL		DRAWING 30F 3
CHECKED JLS		JOB NO. 93-003
DATE 7-20-94		FILE NO. 93-003se
		For: THE RYLAND GROUP, INC. 7130 Ministrel Way Columbia, Md. 21045

SDP 95-06