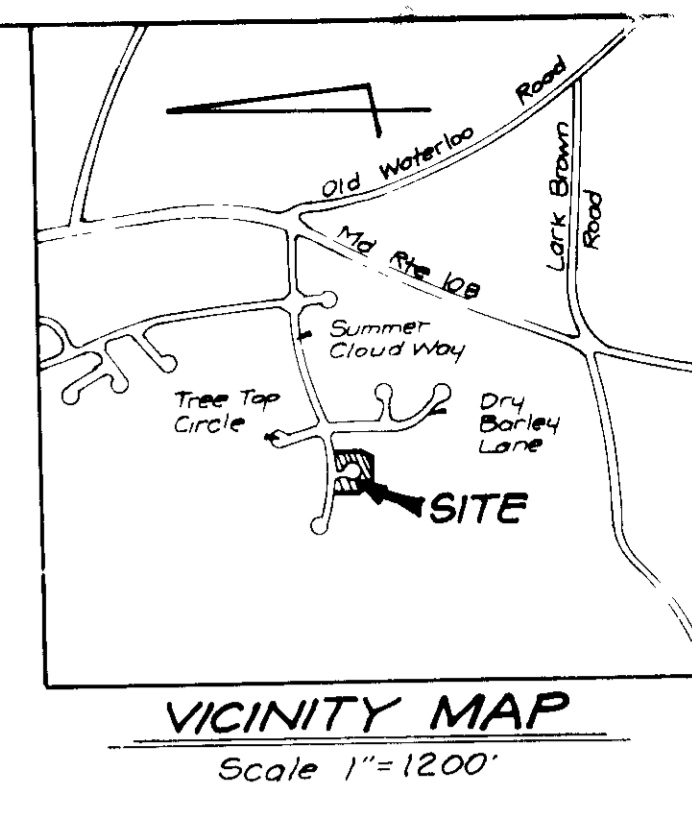


LOT NO	STREET ADDRESS
27	6501 FIRE CLOUD COURT
28	6505
29	6509
30	6515
31	6508
32	6504
33	6500

LEGEND	
Contour Interval	2 FT
Existing Contour	---
Proposed Contour	---
Spot Elevation	1265
Direction of Drainage	→
Existing Trees	(Tree Symbol)
Walk-out Basement	(Symbol)
100 Year Flood Plain Elev	(Symbol)



GENERAL NOTES

- 1 Subject property zoned NTSFMD per Comprehensive Zoning Plan dated 8-2-85
- 2 The coordinates shown hereon are based on the Maryland State Grid System and derived from the following Howard County Control Stations 2544002 and 2544008
- 3 All roads are public and existing
- 4 Any damage to county owned right-of-ways to be corrected at the Developers expense
- 5 Total area included 2.15 Acres
- 6 Total number of lots 7
- 7 Reference Final Development Plan Criteria Section 4 Phase 197 Part 1
- 8 Maximum lot coverage is 30%
- 9 The contractor or developer shall contact the Construction Inspection/Survey Division, 24 hours in advance of commencement of work at 792-2630
- 10 Reference File Numbers 5-87-39, P-87-60 and F-88-76

SPECIAL NOTES

- 1 Approved Road Construction Plans shall be used for all utilities
- 2 The water and sewer house connections not included in a Developers Agreement shall conform to Howard County Plumbing Code The on-site WIC shall be 1" copper The S/C shall be 4" iron
- 3 The Stormwater Management provided see plans for the Village of Longreach, F-88-171
- 4 Public Water and Sewer shown for reference only. For more detailed information see water and sewer plans Contract No. 84-1664-D

BUILDING RESTRICTION LINES

Front	20' Minimum
Side	75' Minimum
Rear	75' Minimum

NOTE Existing contours taken from Road Construction Plans prepared by Fisher Collins & Carter, Inc F-88-76

Subdivision Name	COLUMBIA VILLAGE OF LONGREACH	Sect./Area	4	Lots	27-33
Plot No	7820	Block No	13	Zoned	NTSFMD
Water Code	E 08	Tax/Map No	37	Elec Dist	GTH
Sewer Code	3460000	Consent Tr	6063 02		

OWNER / DEVELOPER
Howard Research and Development Corp
10275 Little Patuxent Parkway
Columbia, Maryland 21044

CLARK • FINEFROCK & SACKETT, INC
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA MD 21045 • (301) 381-7500 BALTO • (301) 611-8144 WASH

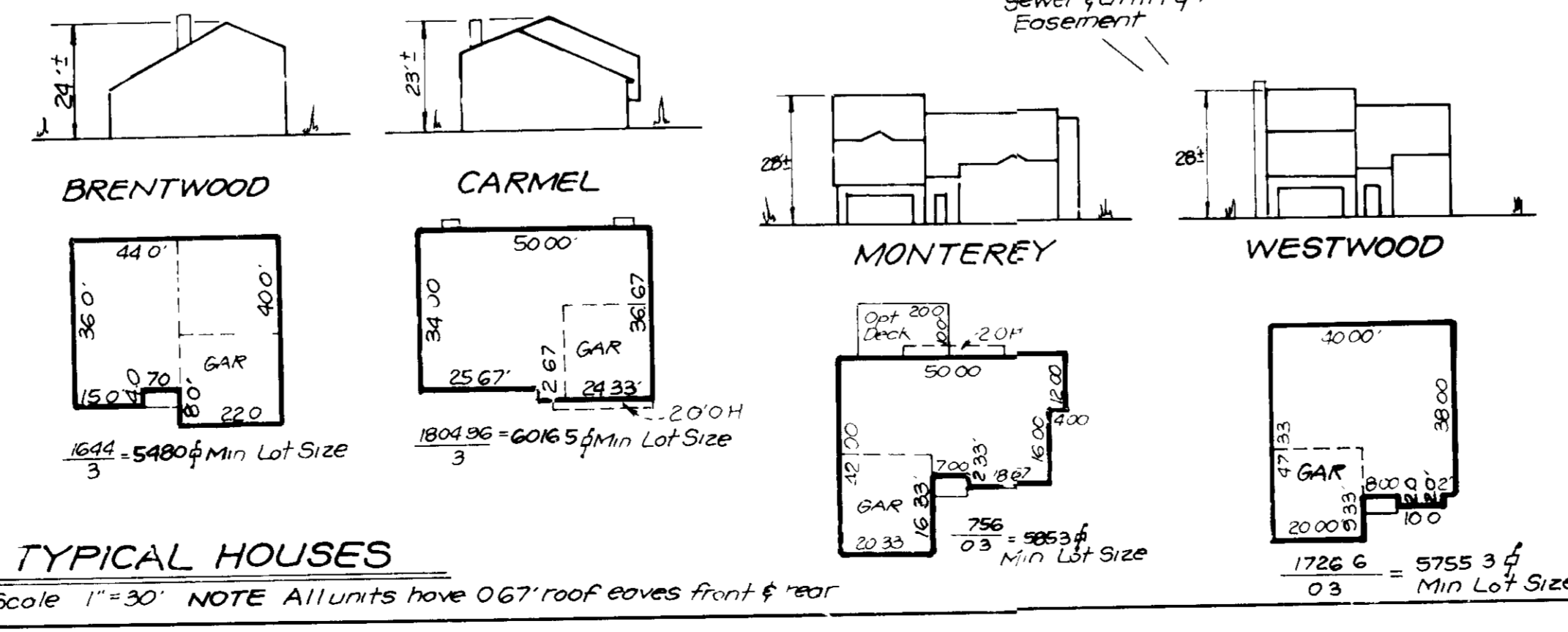
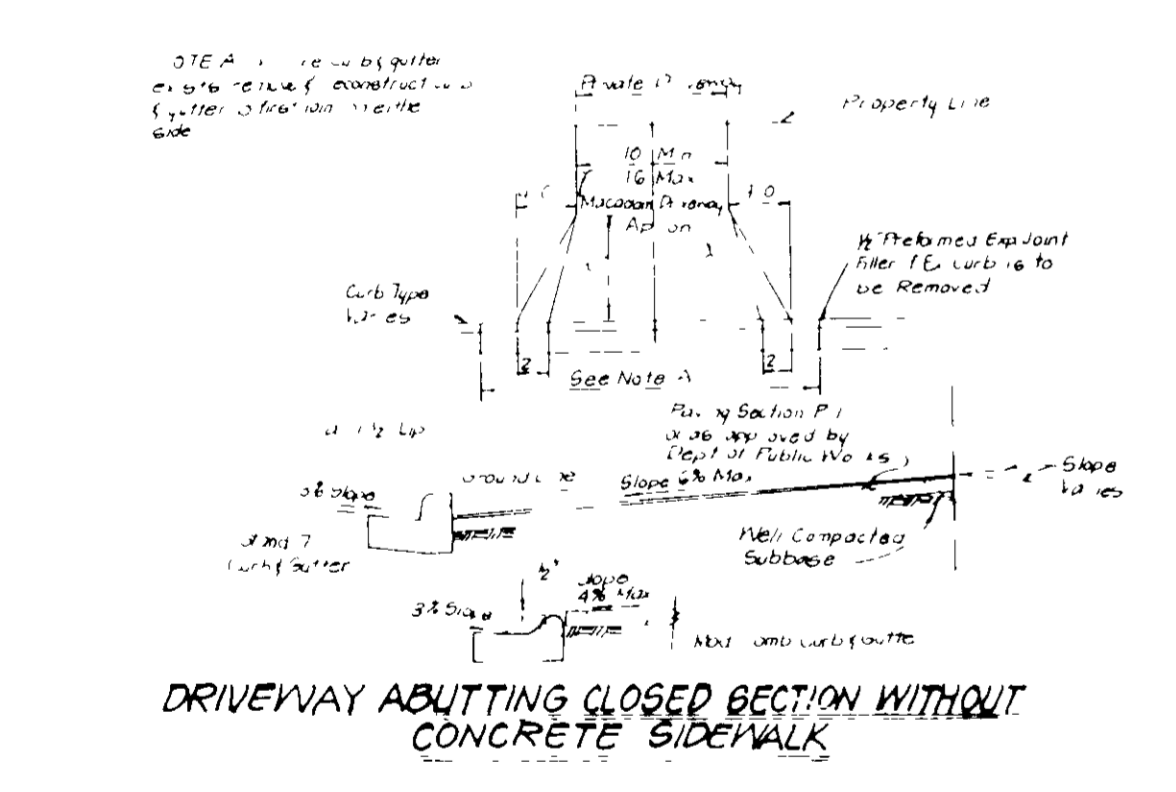
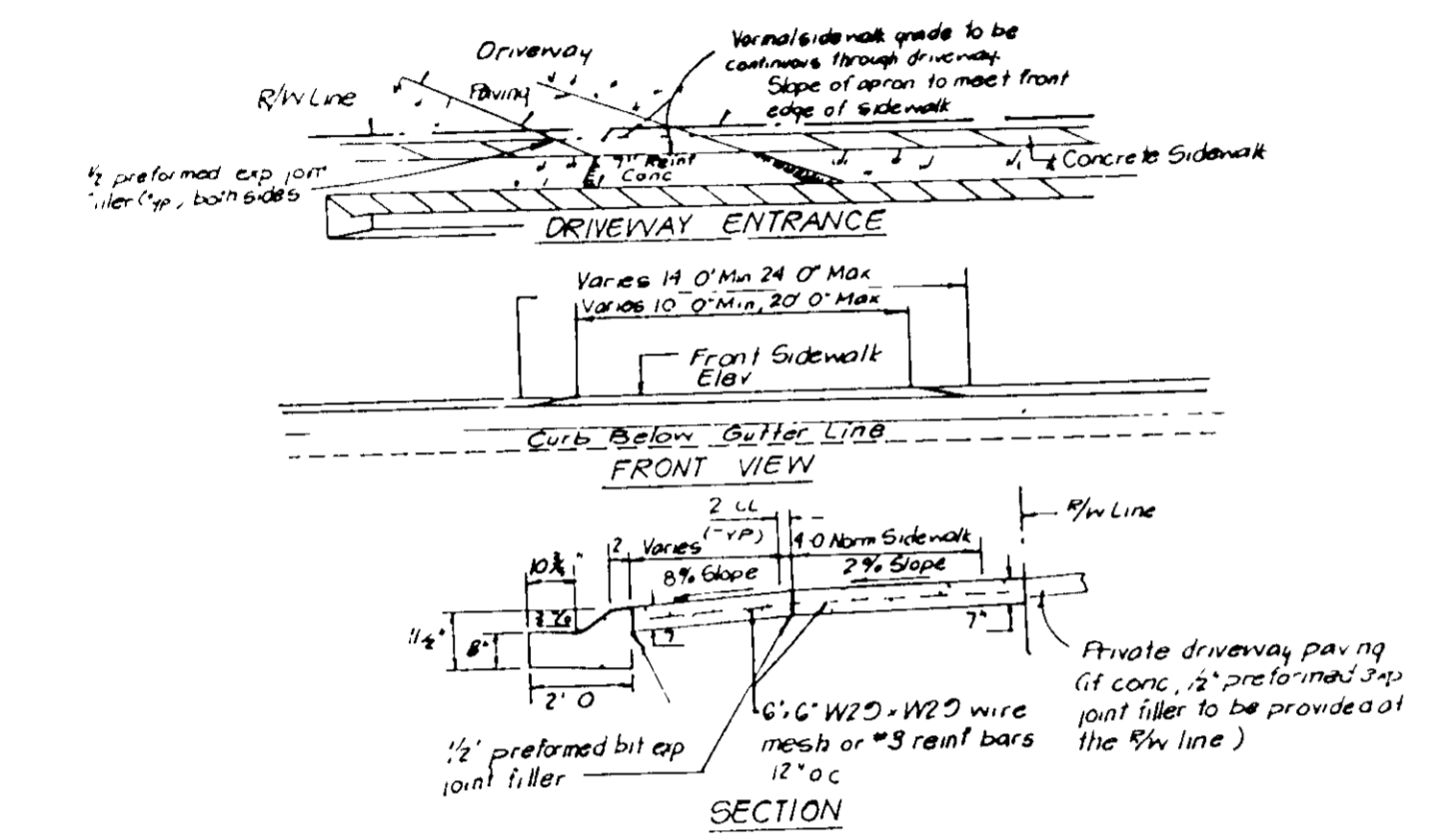
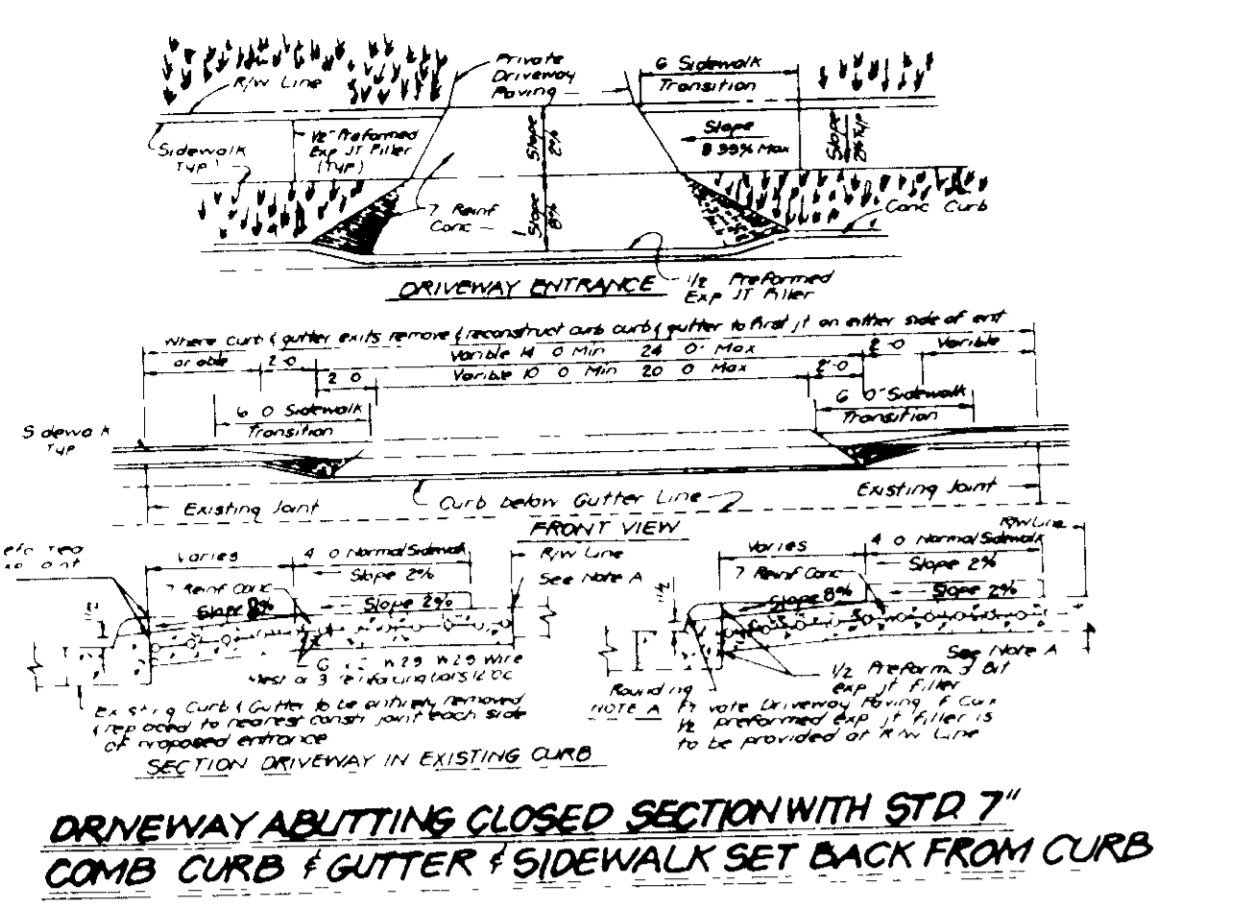
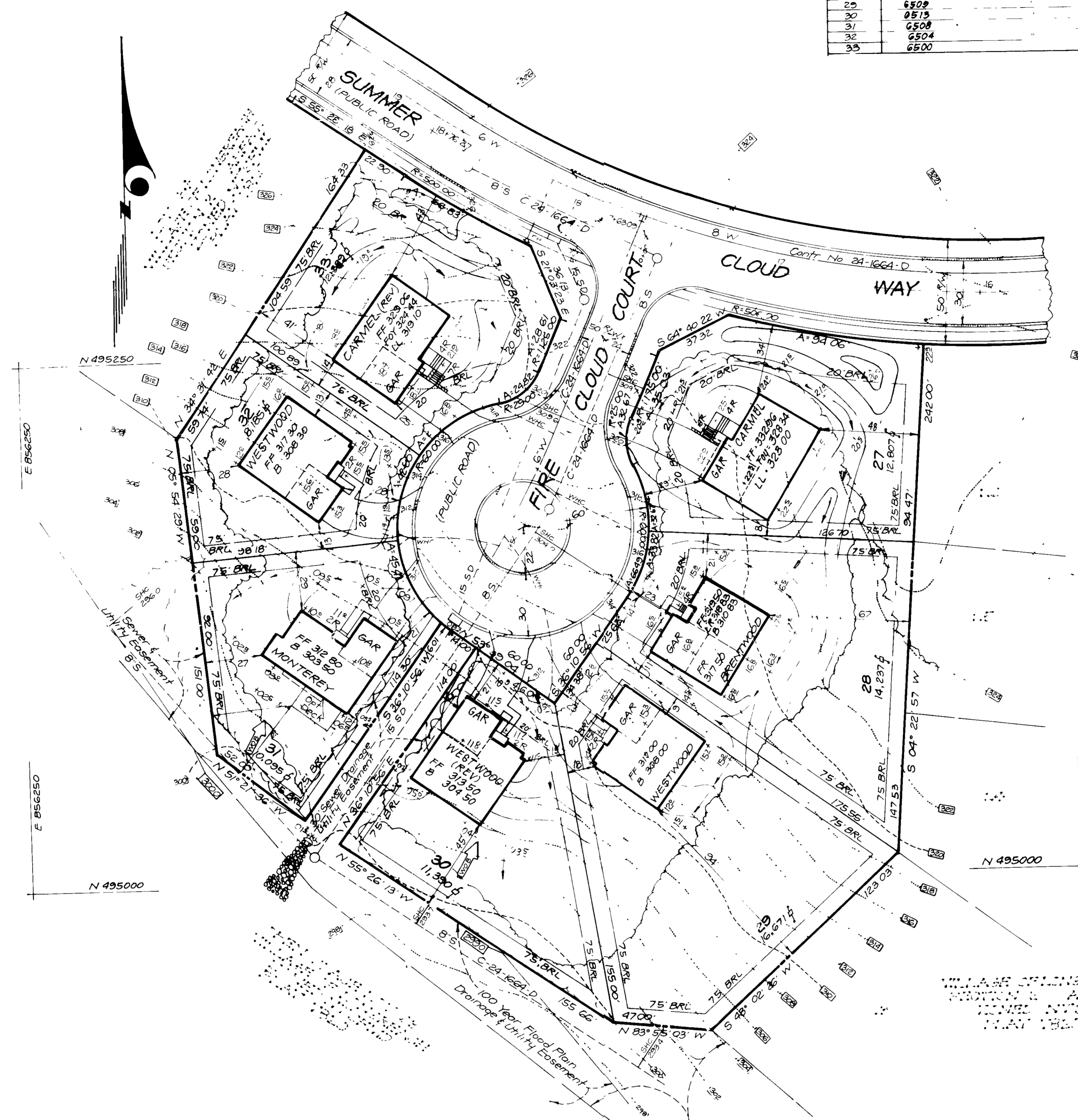
SITE DEVELOPMENT PLAN
LOTS 27 thru 33
COLUMBIA VILLAGE OF LONGREACH
SECTION 4
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FOR ALLAN HOMES, INC
PO Box 1058
Columbia, Maryland 21044

DESIGNED CMS
DRAWN BAL
CHECKED CMS
DATE June 1988

SCALE 1"=30'
DRAWING 1 OF 2
JOB NO 88-038
FILE NO 88-038X

SHP 88-141



REVISION

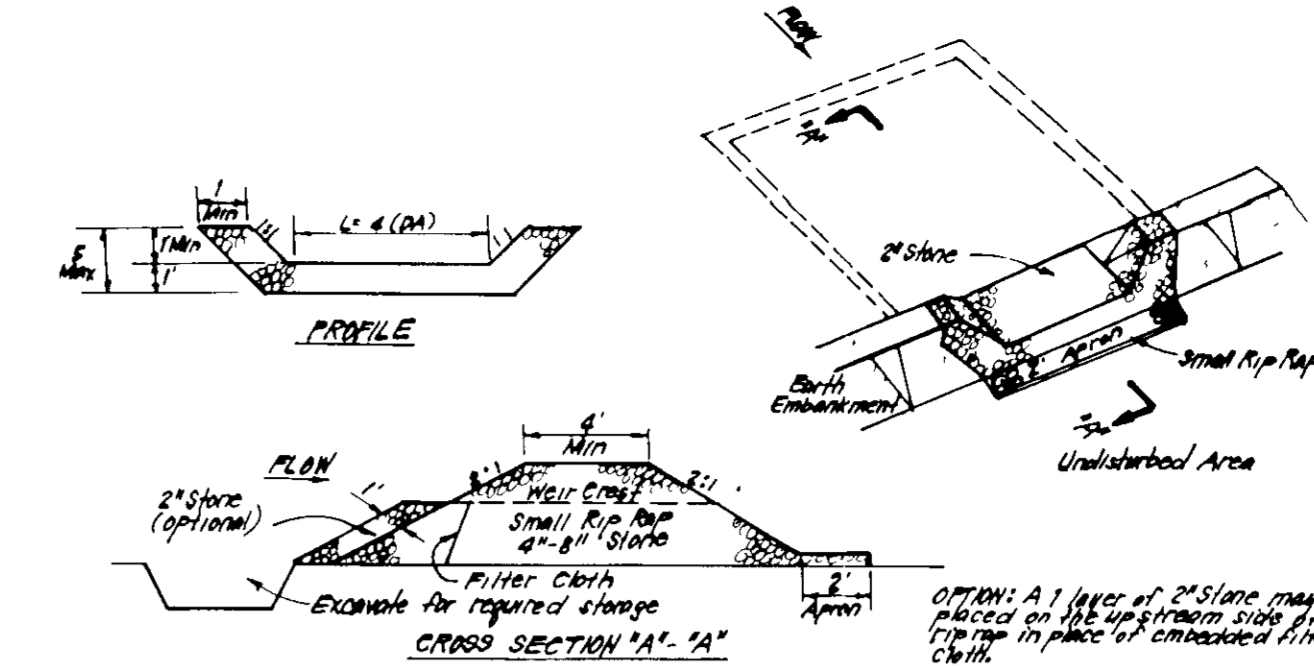
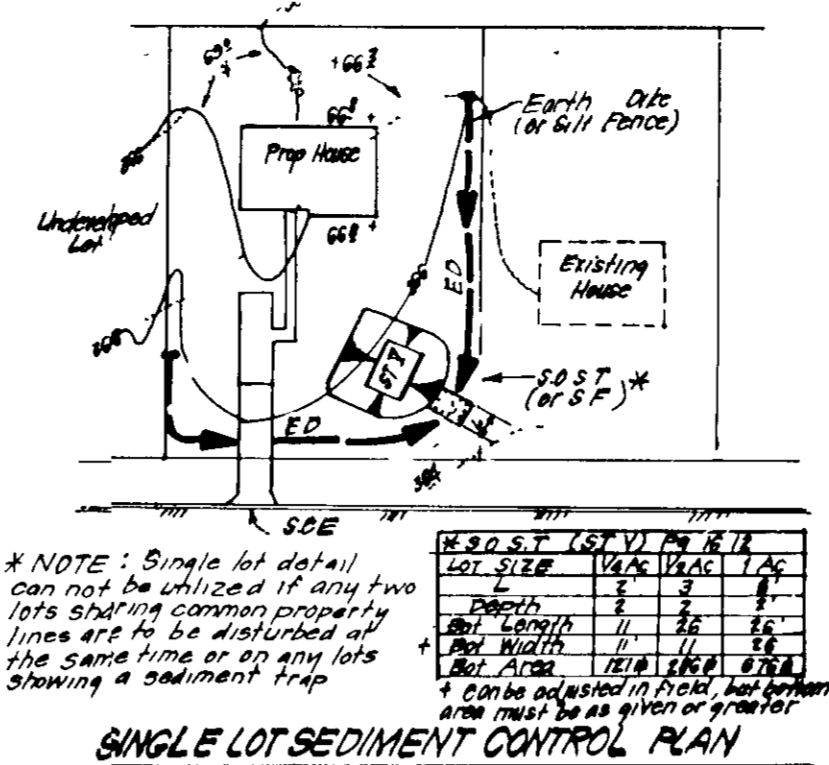
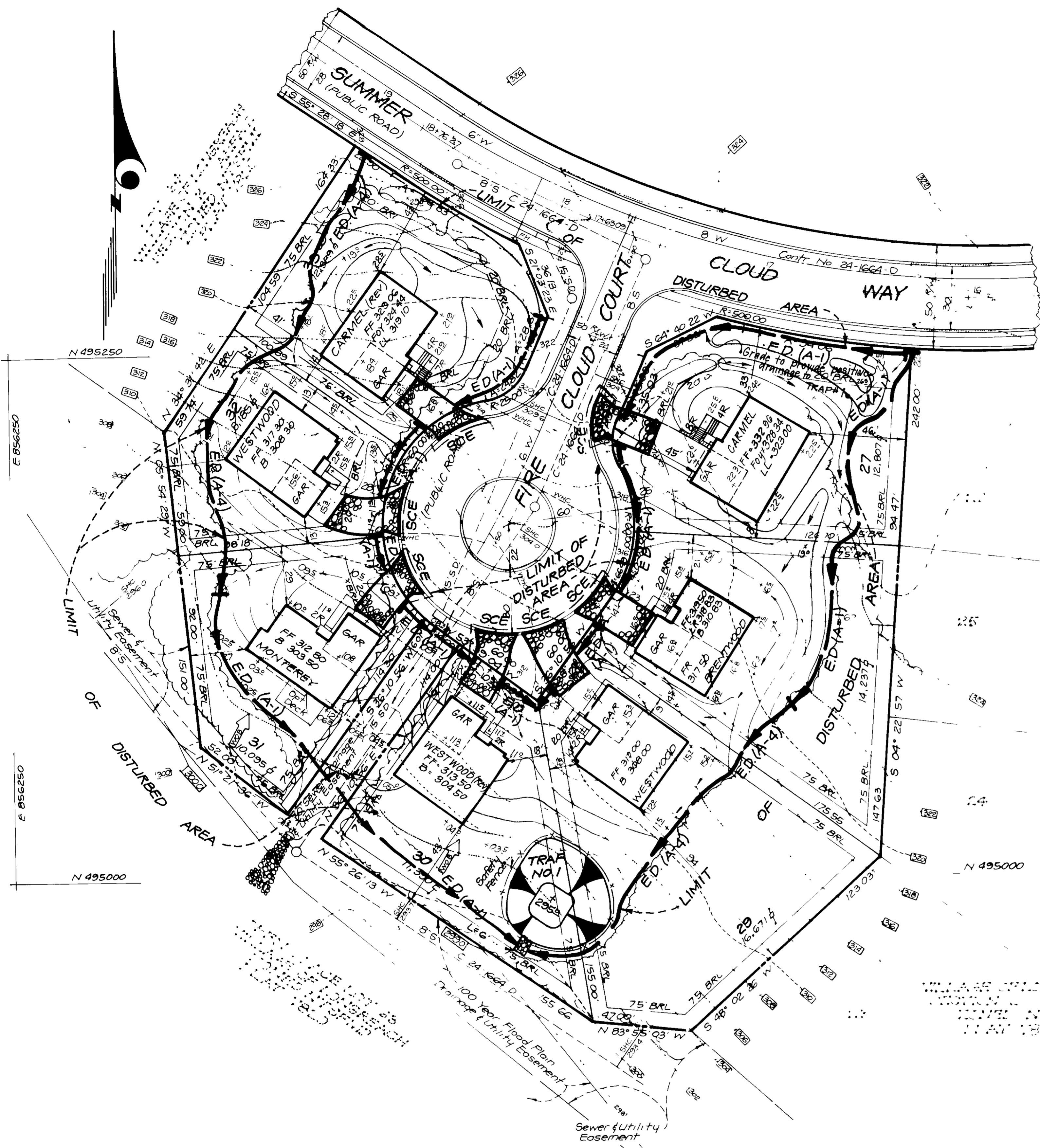
APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
DATE 8-30-88
COUNTY HEALTH OFFICER

APPROVED HOWARD COUNTY OFFICE OF PLANNING & ZONING
DATE 9-7-88
PLANNING DIRECTOR

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DATE 7-7-88
DIRECTOR

CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

CHIEF BUREAU OF ENGINEERING

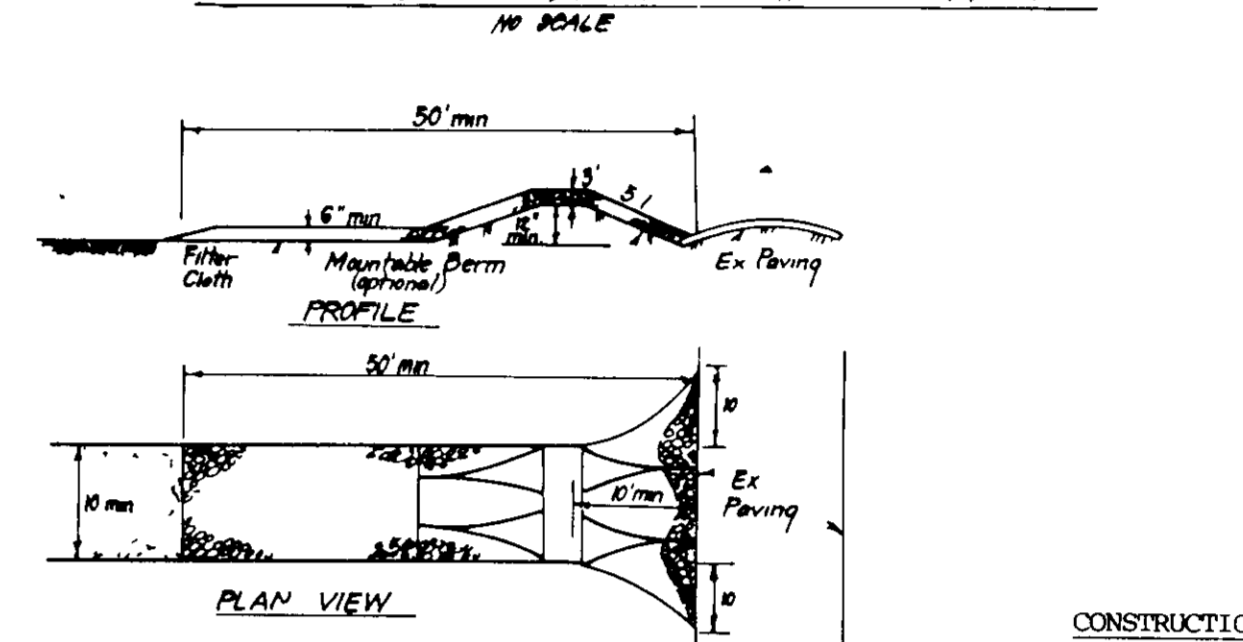


LEGEND

- Contour Interval: 2 FT
- Existing Contour: ---
- Proposed Contour: - - -
- Spot Elevation: +
- Direction of Drainage: →
- Existing Trees: [Tree Symbol]
- Trees to be saved: [Tree Symbol]
- Walk-out Basement: [Symbol]
- 100 Year Flood Plain Elev: [Symbol]
- Earth Dike ED (A-1): [Symbol]
- Stabilized Construction Entrance: [Symbol]

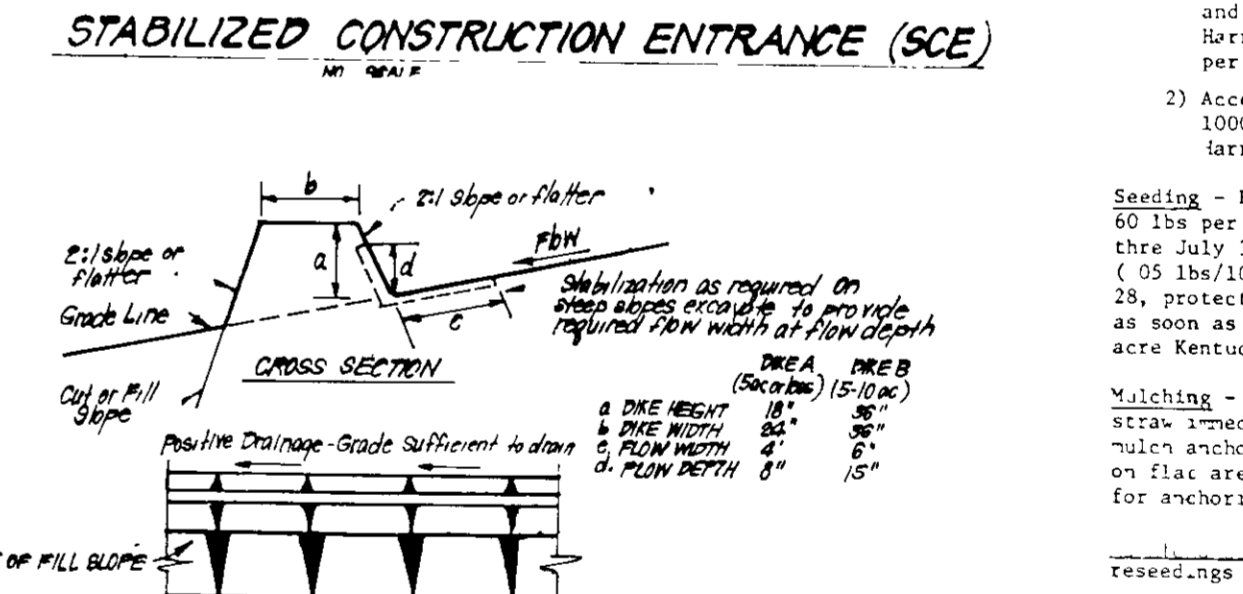
CONSTRUCTION SPECIFICATIONS:

- Area under construction shall be cleared, grubbed and stripped of any vegetation and root mat. The topsoil shall be stored.
- The fill material for the embankment shall be free of roots and other woody vegetation as well as any stones, rocks or other material in other jurisdictions material. The embankment shall be compacted by tamping with equipment while it is being constructed.
- All cut and fill slopes shall be 2:1 or flatter.
- The stone used in the outlet shall be small size 4" x 4" x 4" with a thickness of 2" appropriate placed on the up-grade side on the small rip rap or crushed filter cloth on the rip rap.
- Stones shall be removed and replaced to its original dimensions when the sediment has accumulated.
- 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.



CONSTRUCTION SPECIFICATIONS:

- Stone size - Use 2" stone or reclaimed or recycled concrete equivalent.
- Length - As required, but not less than 50 feet (exception a single 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 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 suitable berm with 2' 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 construction demand and/or cleanup of any residue used to trap sediment. All sediment, 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 which drains into an approved sediment trapping device.
- Periodic inspection and needed maintenance shall be provided after each rain.



TRAP NO. 1 SOST (ST. V)

Drainage Area 1.5 Ac
Storage Required 2700 CF
Storage Provided 2704 CF
Stone Crest Elev 300.0
Depth 4'
Bottom Elev 295.0
Cleanout Elev 297.0
Bottom Dimension 18'x18'

CONSTRUCTION SPECIFICATIONS:

- All dikes shall be constructed by earth-moving equipment.
- All dikes shall have positive drainage.
- Top width may be wider and side slopes may be flatter if desired, to facilitate cleaning by construction traffic.
- Field location should be adjusted as needed to utilize a stabilized side with a 2:1 slope.
- 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 basin where either the dike channel or the drainage area above the dike are not adequately stabilized.
- Grass mulch or straw mulch shall be applied to the top of the dike and the drainage area above the dike as per chart below.

TYPE OF TREATMENT	FLOW CHANNEL STABILIZATION	
	CHANNEL GRADE	DYKE B
1	0.5-3.0%	Seed or Straw Mulch
2	3.1-8.0%	Seed or Straw Mulch
3	8.1-15.0%	Seed or Straw Mulch
4	15.1-30.0%	Seed or Straw Mulch
5	30.1-50.0%	Seed or Straw Mulch
6	50.1-75.0%	Seed or Straw Mulch
7	75.1-100.0%	Seed or Straw Mulch

A stone to be 2" stone or recycled concrete equivalent, in a layer at least 3" thick and be pressed into soil with construction equipment.

Rip rap to be 4" in a layer at least 3" thick, pressed into soil.

Approved equivalent to 2" stone substituted for any of the above rip rap.

7. Periodic inspection and required maintenance must be provided after each rain.

13. All work shall be done in accordance with the provisions of the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
14. 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 steeper than 2:1. 15 days as to all other disturbed or graded areas on this project site.
15. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 10 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
16. 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) and (Sec. 52), temporary seedings (Sec. 50) and (Sec. 53). Temporary stabilization with mulch also can only be done when recommended seeding rates do not allow for proper germination and establishment of grasses.
17. All sediment control structures are to remain in place and are to be maintained in operating condition until permission for their removal has been obtained from the Howard County Soil Sediment Control Inspector.
18. Site Area:
- | | |
|------------------------------------|---------------|
| Total Area of Site | 1.97 Acres |
| Area to be graded or paved | 2.26 Acres |
| Area to be vegetatively stabilized | 1.74 Acres |
| Total Cut | 1566.0 Cu Yds |
| Total Fill | 1833.0 Cu Yds |
| Off-site cut/borrow area | 1087.0 Cu Yds |
19. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired to the same day of disturbance.
20. Additional sediment control must be provided, if deemed necessary by the Howard County SWM Sediment Control Inspector.
21. 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.
22. If houses are to be constructed on a "As-Built" basis, at random, Single Lot Sediment Control as shown below shall be implemented.
23. All papers to be blocked at the end of each day (see detail below).
24. The total amount of straw bale dikes/silt fence equals 0 L.P.

CONSTRUCTION SEQUENCE:

Activity	No. of Days
A. Obtain Grading Permit and Install Sediment and Erosion Control Devices and Stabilize	3
B. Excavate for foundations and Rough Grade & Temporarily Stabilize	60
C. Construct Structures, Sidewalks and Driveways	180
D. Final Grade and stabilize in accordance with Stds. & Specs.	10
E. Upon approval of the sediment control inspector, remove sediment and erosion controls and stabilize	5

PERMANENT SEEDING NOTES:

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent low-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 tilled.

Soil Amendment: 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, 28% protect site by Option (3) 2 tons per acre of 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.
- 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, tarrow 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 60 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 15 thru February 28, protect site by Option (3) 2 tons per acre of 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 28 gal 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.

Inspection: Inspect all seeded areas and make needed repairs, replacements and reseeding.

TEMPORARY SEEDING NOTES:

Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously tilled.

Soil Amendment: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

Seeding: For period March 1 thru April 30 and from August 15 thru November 15, seed with 28 bushel per acre of annual ryegrass (2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 1 lbs per acre of weeping lovegrass (0.1 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 28 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal 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.

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

APPROVED FOR PLANNING AND ZONING
COUNTY HEALTH OFFICER: [Signature] DATE: 8-30-88

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

DATE: 7-7-88

DATE: 7-1-88

DATE: 8/24/88

DATE: 7-14-88

Reviewed for HOWARD S.C.D. Name and meets Technical Requirements

Signature: [Signature] Date: 8/15/88

U.S. Soil Conservation Service

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

Approved: [Signature] Date: 8/15/88

DEVELOPER'S CERTIFICATE

I/We certify that all development and construction will be done according to the plan of development and plan for soil and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a "Treat of Natural Erosion Before Beginning the Project" in accordance with the requirements of the Howard Soil Conservation District or their authorized agents as so deemed necessary."

Signature of Developer/Builder: [Signature] Date: 6/15/88

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on a plan of development and that the site conditions as shown thereon were prepared in accordance with the requirements of the Howard Soil Conservation District.

Signature of Engineer: [Signature] Date: 6/15/88

OWNER/DEVELOPER
Howard Research and Development Corp
10275 Little Patuxent Parkway
Columbia, Maryland 21044

DESIGNED	SEDIMENT & EROSION CONTROL PLAN LOTS 27 thru 33 COLUMBIA VILLAGE OF LONGREACH SECTION 4 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DRAWN	SCALE: 1"=30'
CHECKED	DRAWING: 2 OF 2
DATE	JOB NO: 88-038
	FILE NO: 88-038
	DATE: JUNE 1988
	FOR: ALLAN HOMES, INC. PO BOX 105 Columbia, Maryland 21044