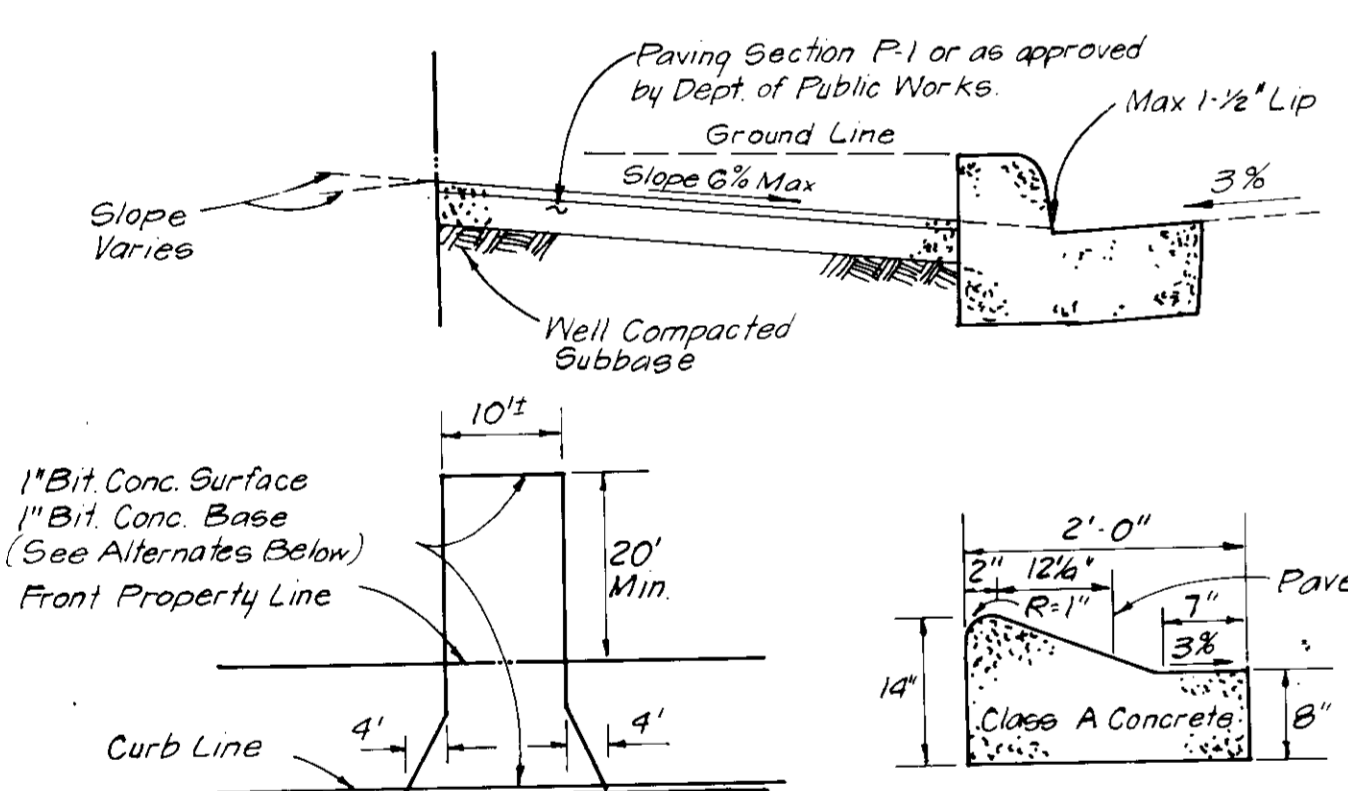


- GENERAL NOTES:**
- The land included in this plan is zoned R-20
 - All coordinates are based upon Howard County Geodetic Control Monuments 2841002 and 2942002 which are based upon the Maryland State Plane Coordinate System
 - All roads are public and existing
 - Any damage to county owned rights-of-way to be corrected at the Developer's expense
 - Total Area included: 2.66 Acres
 - Total Number of Lots: 7
 - Stormwater Management provided by plans submitted under F-70-46

- LEGEND:**
- Contour Interval 2 Ft.
 - Existing Contour 40'
 - Proposed Contour 40'
 - Spot Elevation 40.5'
 - Direction of Drainage
 - Existing Trees to be Saved
 - Walk-Out Basement

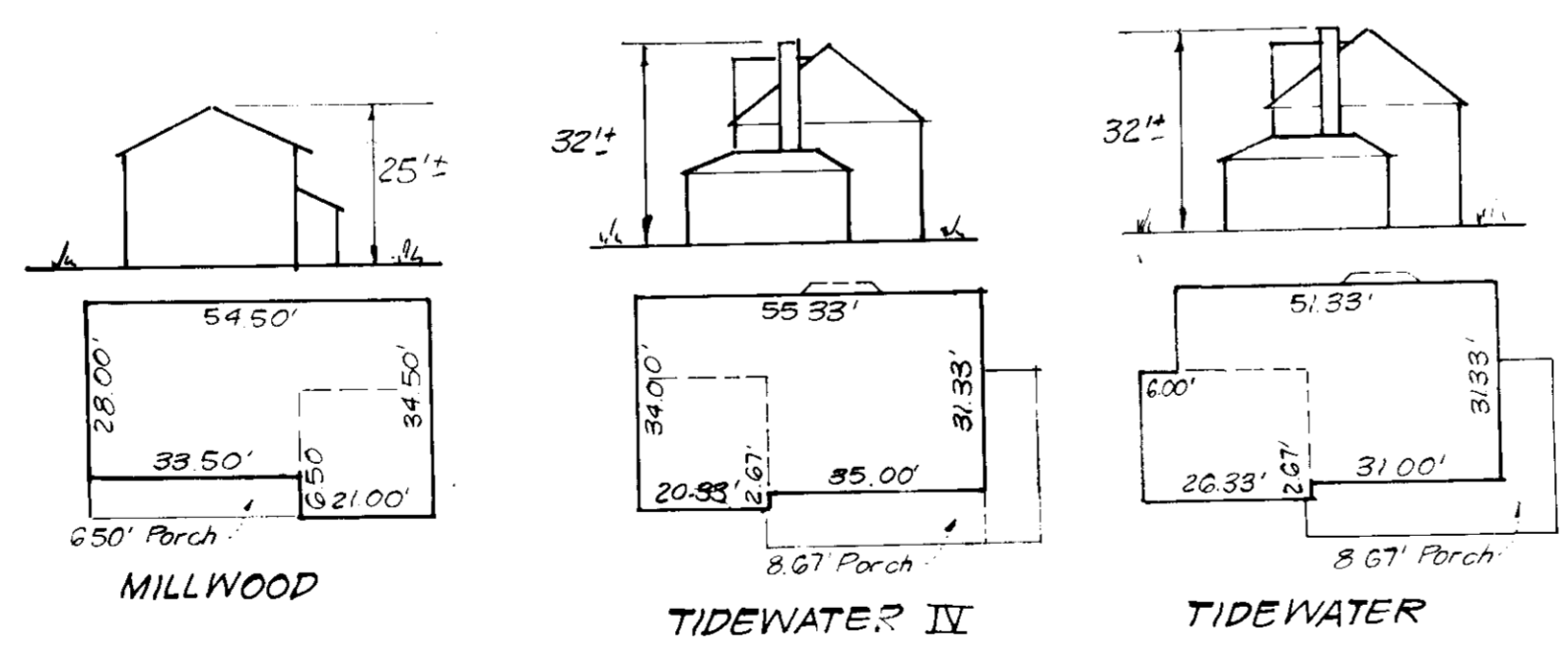
NOTE: Materials and Construction shall be done in accordance with Ho. Co. Road Construction Code



DRIVEWAY ABUTTING MODIFIED COMB CURB & GUTTER*

ALTERNATE #1
1" Bit Conc. Surface
1" Bit Conc. Base
5" Gravel

* See Ho. Co. Std. R-3.01 for Std. 7" Comb Curb & Gutter necessary on the Cul-De-Sac.



TYPICAL HOUSES
Scale: 1"=30'

ADDRESS CHART

LOT #	STREET ADDRESS
A-22	4549
A-23	4553
A-24	4557
A-25	4561
A-26	4565
A-27	4569
A-28	4573

SUBDIVISION NAME	SECT./AREA	LOTS
DORSEY HALL	2/2	A-22-A-28

PLAT	BLOCK #	ZONE	TAX ZONE	MAP/ELEC. DIST.	CENSUS TRACT
6892	22	R-20	24	2ND	0023.01

WATER CODE	SEWER CODE
F08	5751400



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

DATE: 10-31-86

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
PLANNING DIRECTOR

DATE: 11-3-86

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

DATE: 10-28-86

APPROVED: LAND DEVELOPMENT DIVISION

DATE: 10-15-86

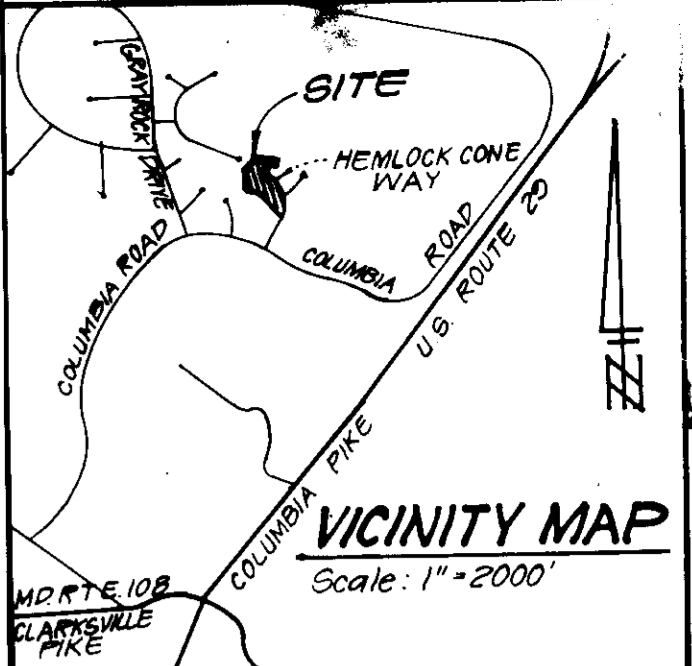
CLARK · FINEFROCK & SACKETT
ENGINEERS · PLANNERS · SURVEYORS

11315 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 (301) 593-3400

DESIGNED BAF	SITE DEVELOPMENT PLAN LOTS A-22 THRU A-28 DORSEY HALL SECTION 2 AREA 2 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1"=30'
DRAWN VHL		DRAWING 1 of 3
CHECKED JME		JOB NO. 86-085
DATE 8-2-86		FILE NO. 86-085

FOR: NuHomes, INC.
8950 Route 108 - Suite 221
Columbia, Maryland 21045

Owner/Developer:
Howard County Research & Development Corp.
10275 Little Patuxent Pkwy.
Columbia, MD 21045

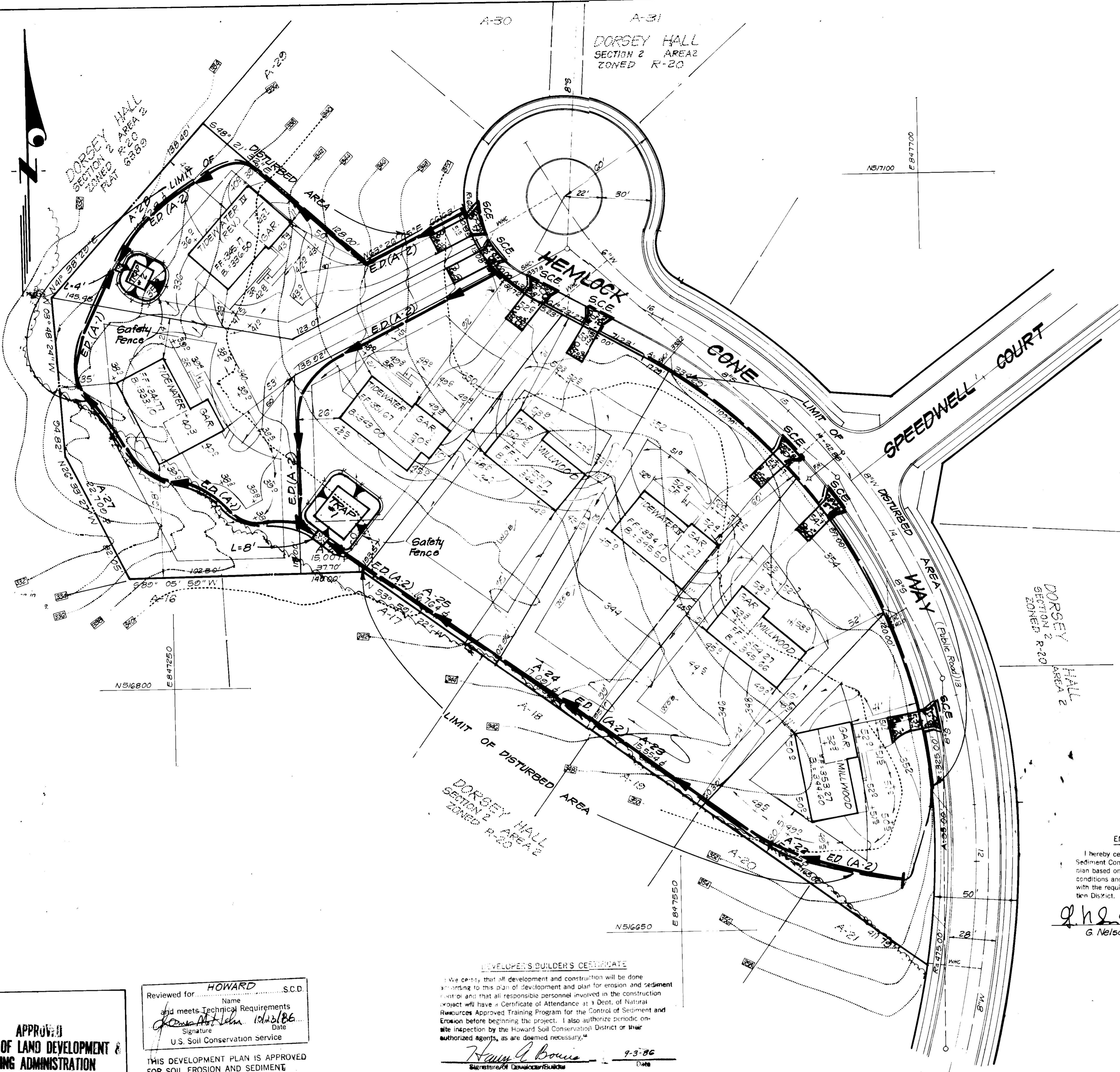


TRAP #2 (S.O.S.T. STY)

DA = 0.6 Ac.
 Storage Required = 1080 cf
 Storage Provided = 1156 cf
 Top of Stone Crest = 335.0
 Depth = 4'
 Bottom Elevation = 330.0
 Bottom Dimension = 13'x13'
 Clean Out Elevation = 332.0
 NOTE:
 Trap #2 and it's dikes may be replaced with silt fence.

TRAP #1 (S.O.S.T. STY)

DA = 1.7 Ac.
 Storage Required = 3060 cf
 Storage Provided = 3136 cf
 Top of Stone Crest = 340.0
 Depth = 4'
 Bottom Elevation = 335.0
 Bottom Dimension = 24'x24'
 Clean Out Elevation = 337.0



LEGEND:

- 1 Contour Interval 2 Ft
- 2 Existing Contour - - - - -
- 3 Proposed Contour - - - - -
- 4 Spot Elevation +105
- 5 Direction of Drainage
- 6 Existing Trees to be Saved
- 7 Walk-Out Basement
- 8 Earth Dike
- 9 Stabilized Construction Entrance

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
 G Nelson Clark
 Rate



DEVELOPER'S/BUILDER'S 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 at a Dept. of Natural Resources 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.

Harry A. Bowie 9-3-86
 Harry Bowie
 Secretary/Developer/Builder

Reviewed for HOWARD S.C.D.
 Name
 and meets Technical Requirements
Stephen R. F. Rubin 10/23/86
 Signature Date
 U.S. Soil Conservation Service

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

Stephen R. F. Rubin 10/23/86
 Approved Date

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
 DATE 10-31-86

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 DATE 11-3-86

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DATE 10-28-86

APPROVED:
 DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
 HOWARD COUNTY, MARYLAND
 DATE 10-15-86

CLARK • FINEFROCK & SACKETT
 ENGINEERS • PLANNERS • SURVEYORS
 11315 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 • (301) 593-3400

DESIGNED M.C.B.	SEDIMENT AND EROSION CONTROL PLAN LOTS A-22 THRU A-28 DORSEY HALL SECTION 2 AREA 2 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND FOR: NuHomes, INC. 8950 Route 108 - Suite 221 Columbia, Maryland 21045	SCALE 1"=30'
DRAWN V.H.L.		DRAWING 2 of 3
CHECKED M.C.B.		JOB NO. 86-085
DATE 9-2-86		FILE NO. 86-0858
OWNER/DEVELOPER: Howard Research & Development Corp. 10275 Little Patuxent Pkwy. Columbia, MD. 21045		

SEDIMENT CONTROL NOTES

- 1) 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. (992-2437)
- 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 SPECIFICATIONS 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 perimeter 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 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	268 Acres
Area Disturbed	234 Acres
Area to be roofed or paved	066 Acres
Area to be vegetatively stabilized	179 Acres
Total Cut	1450 Cu. yds
Total Fill	2240 Cu. yds
Offsite waste/borrow area location	N/A
- 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) If houses are to be constructed on an "As-Sold" basis, at random, Single Lot Sediment Control as shown below shall be implemented.
- 12) All pipes to be blocked at the end of each day (see detail below).
- 13) The total amount of straw bale dikes/silt fence equals 0 L.F.

CONSTRUCTION SEQUENCE:	No. of Days
A. Obtain Grading Permit and Install Sediment and Erosion Control Devices and Stabilize.	7
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.	30
E. Upon approval of the sediment control inspector, remove sediment and erosion controls and stabilize.	7

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

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 square 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 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 50 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 28, protect site by: Option (1) 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 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.

Inspection - Inspect all seeded areas and make needed repairs, replacements and reseeds.

TEMPORARY SEEDING NOTES

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

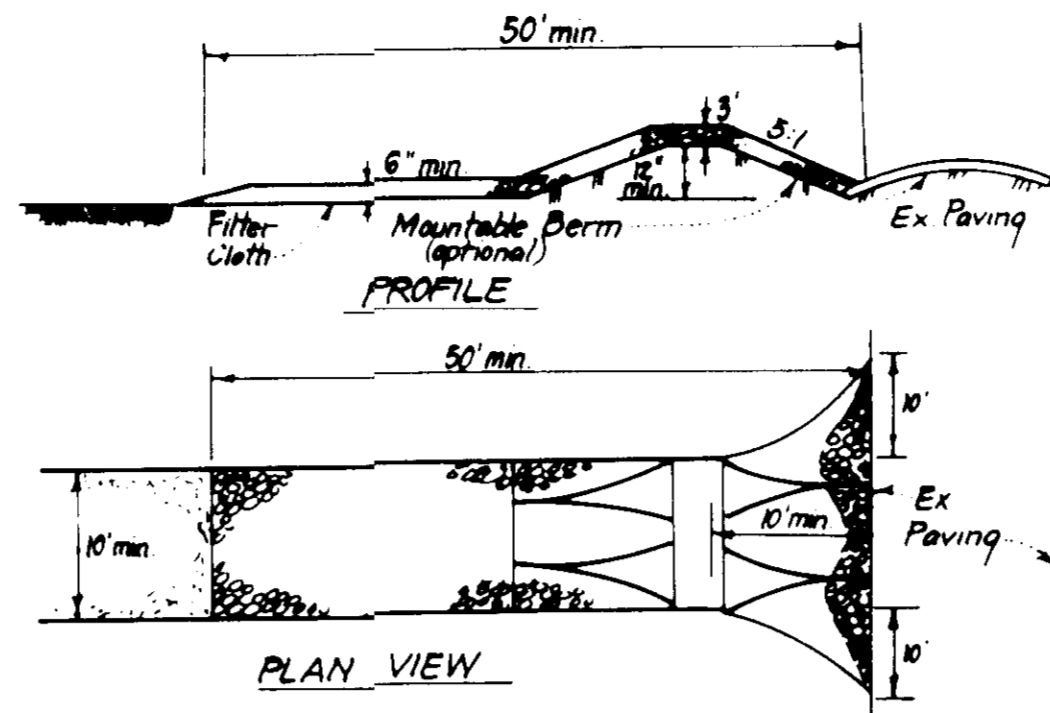
Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

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 rye (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 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.

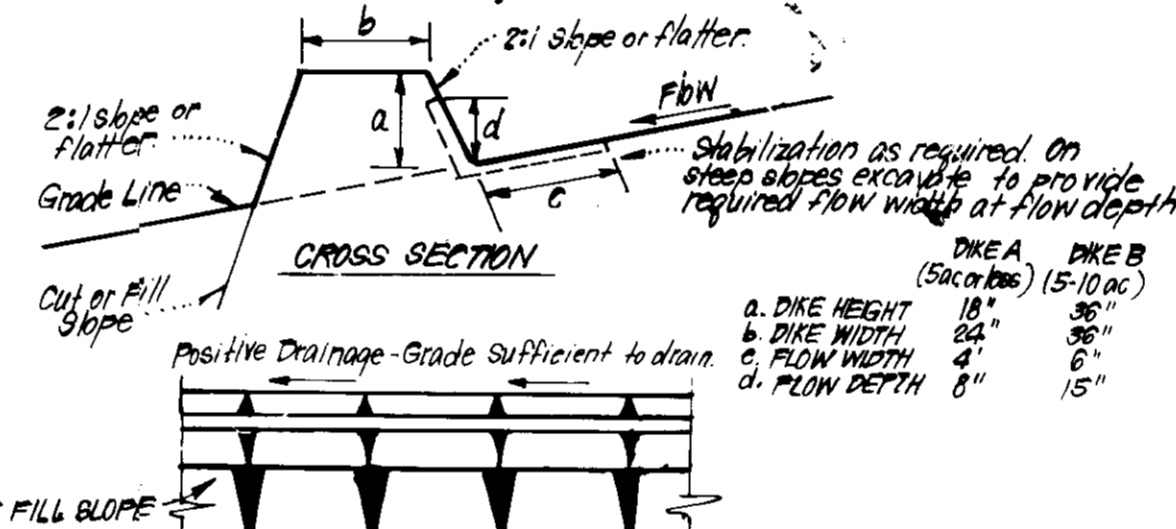
Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.



CONSTRUCTION SPECIFICATIONS:

1. Stone size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (exception a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) feet minimum, but not less than the full width at points where ingress or egress 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 entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes 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 applied, 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)



CONSTRUCTION SPECIFICATIONS:

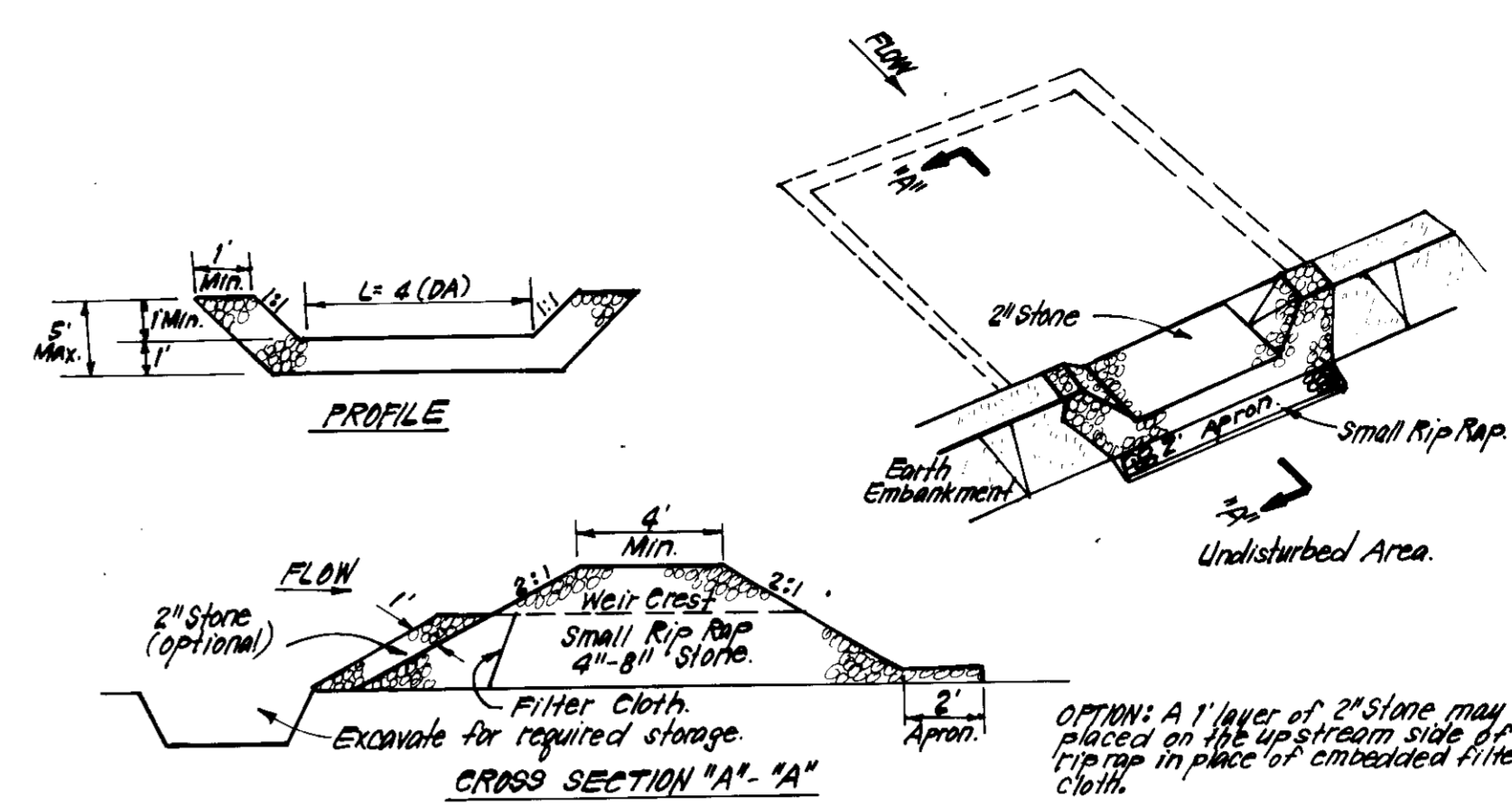
1. All dikes shall be compacted by earth-moving equipment.
2. All dikes shall have positive drainage to an outlet.
3. Top width may be wider and side slopes may be flatter if desired to facilitate crossing by construction traffic.
4. Field location should be acquired as needed to utilize a stabilized safe outlet.
5. Earth dikes shall have an outlet function 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.
6. 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 chart below.

TYPE OF TREATMENT	FLOW CHANNEL STABILIZATION		
	CHANNEL GRADE	DIKE A	DIKE B
1	0.5 - 3.0%	Seed & Straw Mulch	Seed or Straw Mulch
2	3.1 - 5.0%	Seed & Straw Mulch	Seed, White, or Excelsior; Sod; 2" Stone
3	5.1 - 8.0%	Seed, White, or Sod; 2" Stone	Lined Rip Rap 4"-8" Stone
4	8.1 - 20.0%	Lined Rip Rap 4"-8" Stone	Engineering Design

- 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.
 - B. Rip Rap to be 4"-8" in a layer at least 3" thick, pressed into 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.

EARTH DIKE DETAIL (E.D.)

NO SCALE

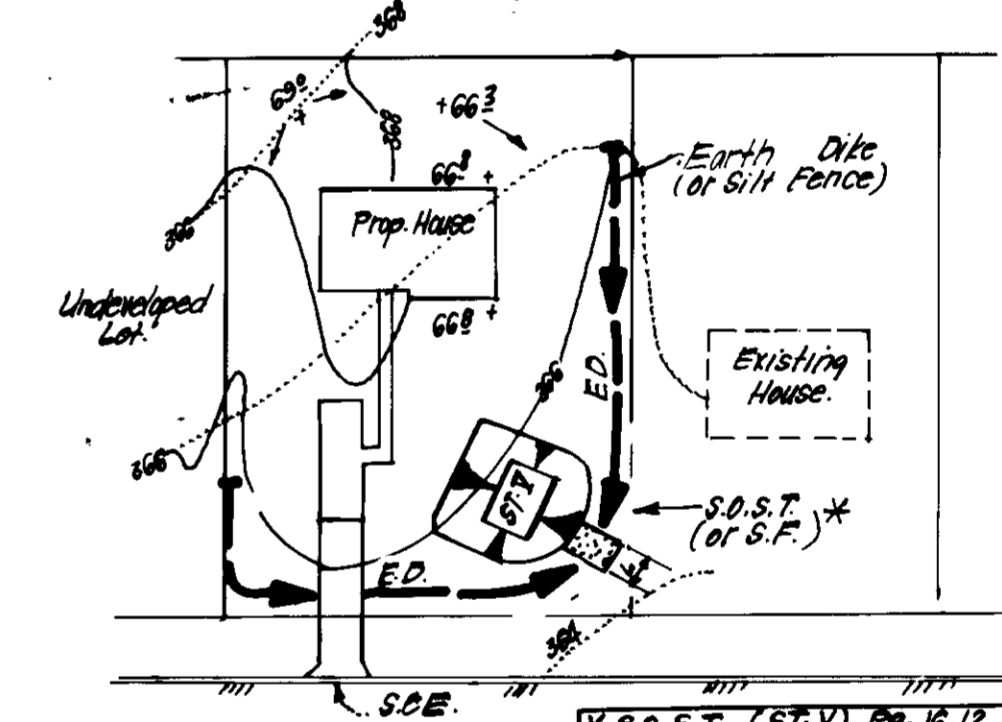


CONSTRUCTION SPECIFICATIONS:

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

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

NO SCALE



* NOTE: Single lot dikes 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.

S.O.S.T. (STV) PER 1/2 AC			
LOT SIZE	1/4 AC	1/2 AC	1 AC
Length	5'	5'	5'
Depth	5'	5'	5'
Rip Rap	11"	11"	11"
Top Width	11"	11"	11"
Bot. Area	121 sq ft	121 sq ft	121 sq ft

* can be adjusted in field, but 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

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

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

DIRECTOR: *William E. Poley* DATE: 10-28-86

APPROVED DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION, HOWARD COUNTY, MARYLAND

DATE: 10-15-86

Reviewed for HOWARD COUNTY S.C.D. Name: *Howard County S.C.D.* Date: *10/23/86*

U.S. Soil Conservation Service

THIS PLAN HAS BEEN APPROVED FOR THE DISTRICT OF SEDIMENT CONTROL BY THE HOWARD COUNTY DISTRICT.

Approved: *Howard County S.C.D.* Date: *10/23/86*

DEVELOPER'S/BUILDER'S CERTIFICATE

I hereby 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 at a Dept. of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize persons, under the inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

Harry C. Bowie DATE: 9-3-86

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 DATE: 9-3-86

Owner/Developer: Howard Research & Development Corp. 10275 Little Patuxent Pkwy. Columbia, MD. 21045

CLARK · FINEFROCK & SACKETT ENGINEERS · PLANNERS · SURVEYORS

11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 (301) 593-3400

DESIGNED: MCB SCALE: As Shown

DRAWN: VHL DRAWING: 3 OF 3

CHECKED: MCB

DATE: 9-3-86

FOR: DORSEY HALL SECTION 2 AREA 2 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FILE NO: 86-085 SE

SD.P. 81-57