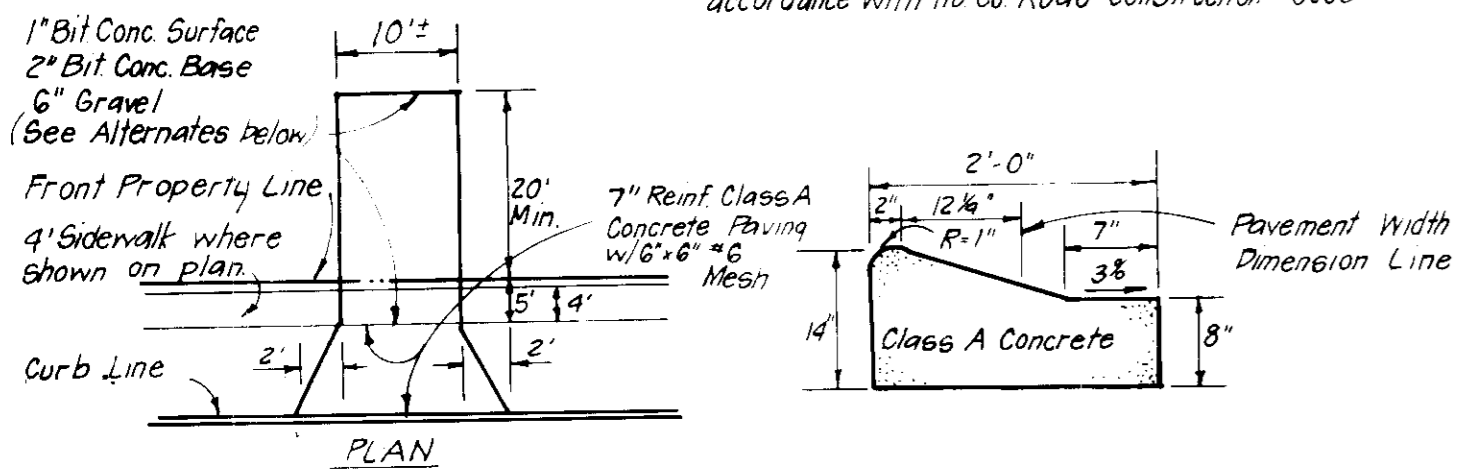
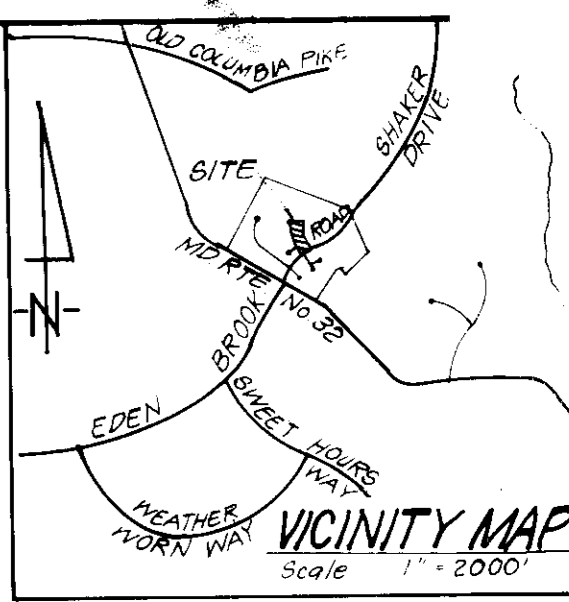


Note: Materials and Construction shall be in accordance with Ho Co Road Construction Code



**DRIVEWAY ABUTTING MOD COMB CURB & GUTTER\***

- ALTERNATE #1  
1" Bit Conc Surface  
4" Bit Conc Base
- ALTERNATE #2  
No Scale  
1" Bit Conc Surface  
3" Bit Conc Base  
3" Gravel
- \* See Ho Co Std. R-301 for 7" Comb Curb & Gutter necessary on Lots



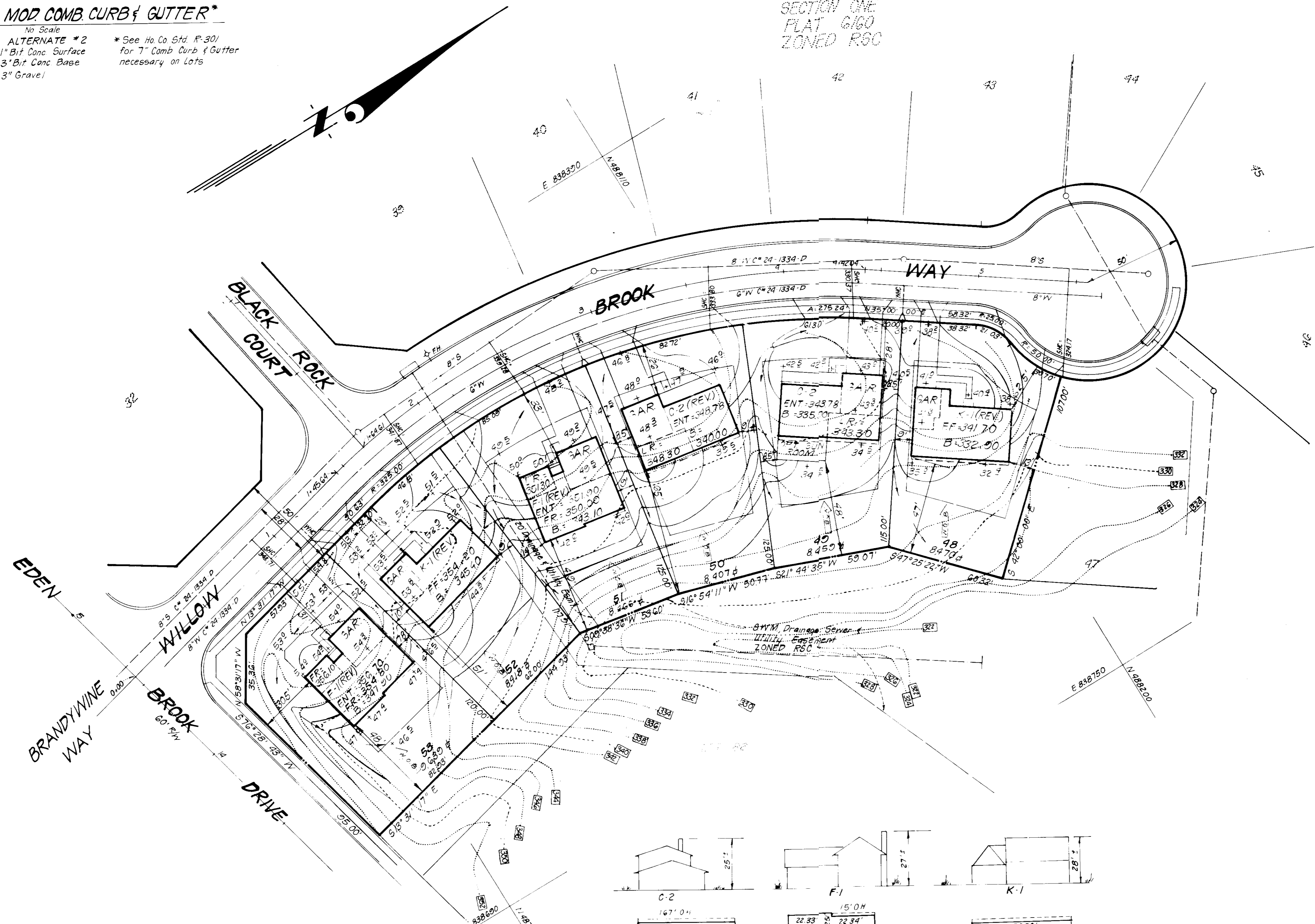
KINGS MEADE  
SECTION ONE  
FLAT 6160  
ZONED R5C

**GENERAL NOTES:**

- The land included is zoned R5C
- Horizontal Control based on Howard County Monuments 2240006-R & 2240004-R
- All roads are public and Existing
- Any damage to county owned rights-of-way shall be corrected at the developer's expense.
- The total area included: 110 Acres.
- The total number of lots: 6

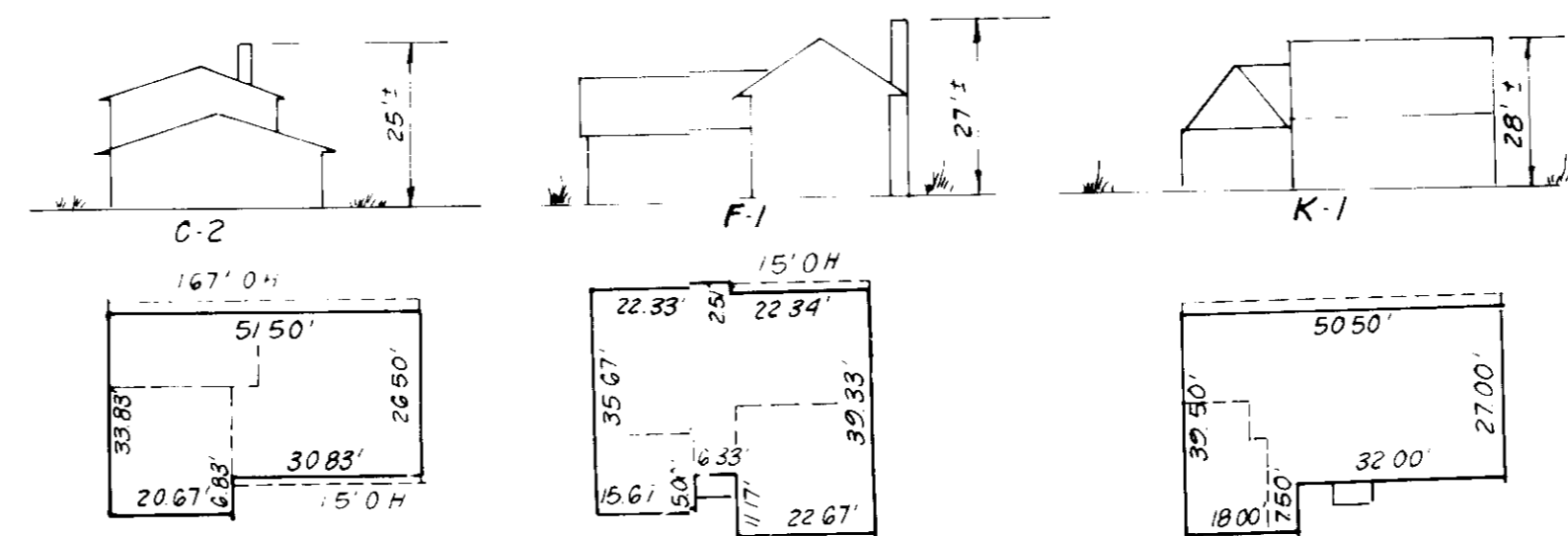
**LEGEND:**

- Contour Interval 2 Ft
- Existing Contour
- Proposed Contour
- Spot Elevation +40.5
- Direction of Drainage
- Walk-Out Basement
- Existing Trees to be Saved



ADDRESS TABLE	
Lot No	STREET ADDRESS
48	7122 WILLOW BROOK WAY
49	7118 " " " "
50	7114 " " " "
51	7110 " " " "
52	7106 " " " "
53	7102 " " " "

SUBDIVISION NAME	KINGS MEADE	SECT. AREA	48.53
PLAT#	6505 & 6506	BLOCK#	7
ZONE	R5C	TAX. ZONE MAP	ELEC. DIST. CENSUS TR.
WATER CODE	E-16	SEWER CODE	529.0000



TYPICAL HOUSES  
No Scale

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.  
HOWARD COUNTY HEALTH DEPARTMENT  
*[Signature]*  
COUNTY HEALTH OFFICER  
DATE 4-9-86

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
*[Signature]*  
PLANNING DIRECTOR  
DATE 4-10-86

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE,  
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DATE 3-24-86  
*[Signature]*

DIRECTOR  
DATE 4-8-86  
CHIEF BUREAU OF ENGINEERING



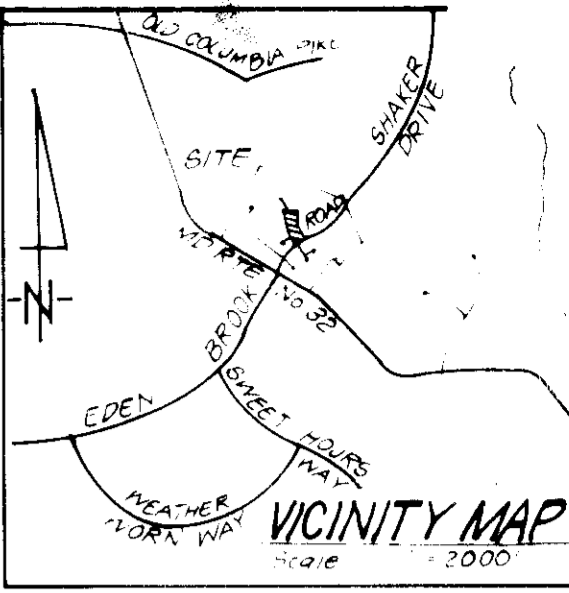
**CLARK · FINEFROCK & SACKETT**  
ENGINEERS · PLANNERS · SURVEYORS  
11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 583-3400

DESIGNED BAF  
DRAWN VHL  
CHECKED BAF J.M.E.  
DATE March 1986

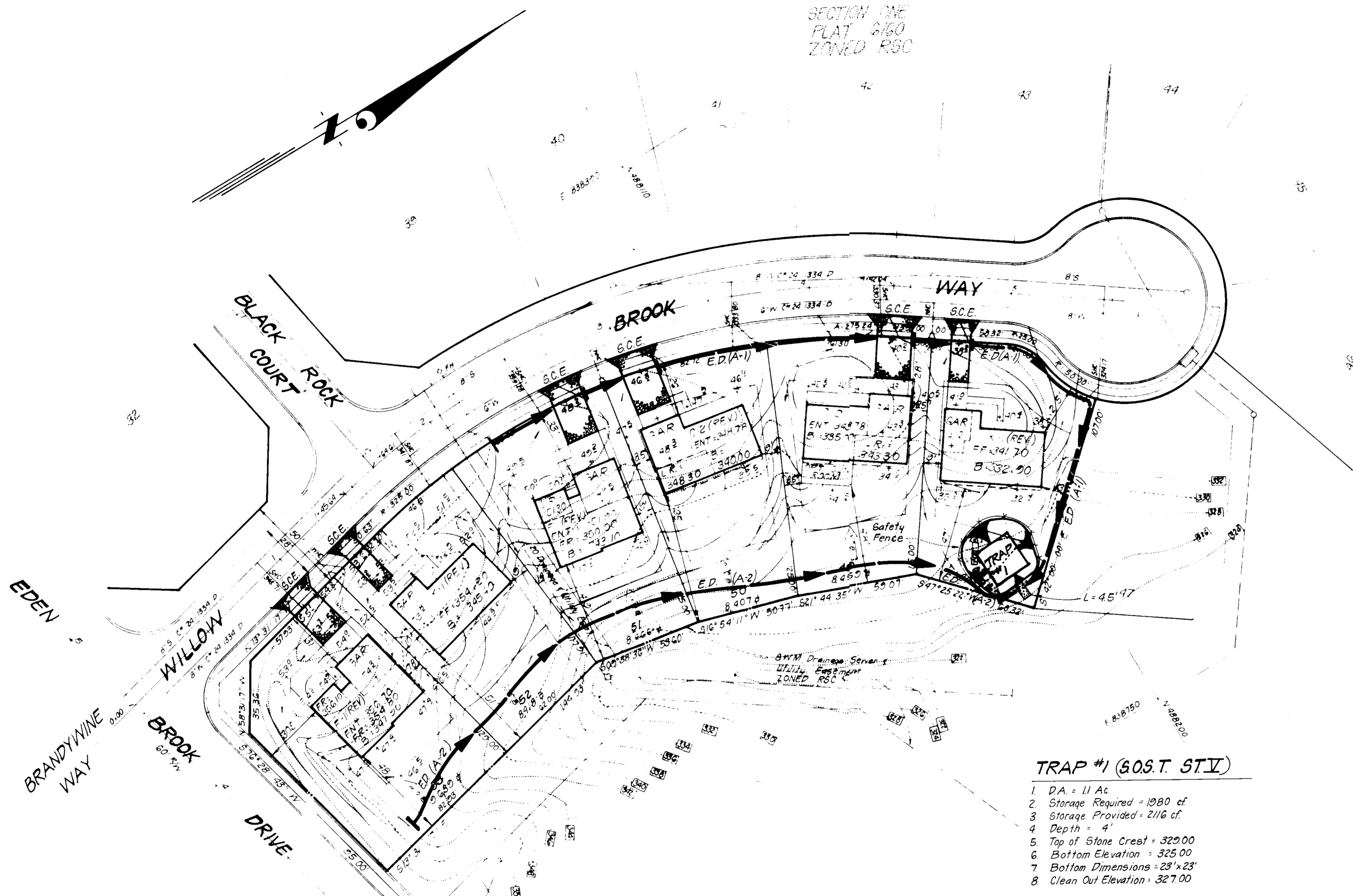
**SITE DEVELOPMENT PLAN**  
LOTS 48 THRU 53  
**KINGS MEADE**  
SECTION ONE  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE 1" = 30'  
DRAWING 1 of 3  
JOB NO. 86-030  
FILE NO. 86-030-X

FOR: COLUMBIA BUILDERS, INC.  
3 Lakelmont North Suite 200  
Columbia, MD 21044



KINGS MEADE  
SECTION ONE  
FLAT 2160  
ZONED R5C



- LEGEND:**
- 1 Contour Interval 2 Ft
  - 2 Existing Contour
  - 3 Proposed Contour
  - 4 Spot Elevation +40.5
  - 5 Direction of Drainage
  - 6 Walk-Out Basement
  - 7 Existing Trees to be Saved
  - 8 Earth Dike
  - 9 Stabilized Construction Entrance

**TRAP #1 (G.O.S.T. STV)**

- 1 D.A. = 11 Ac
- 2 Storage Required = 1980 cf
- 3 Storage Provided = 2116 cf
- 4 Depth = 4'
- 5 Top of Stone Crest = 329.00
- 6 Bottom Elevation = 325.00
- 7 Bottom Dimensions = 23' x 23'
- 8 Clean Out Elevation = 327.00

APPROVED FOR  
COUNTY MAP  
3-24-86  
[Signature]

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.  
HOWARD COUNTY HEALTH DEPARTMENT  
[Signature] DATE 4-9-86

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
[Signature] DATE 4-10-86

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE  
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
[Signature] DATE 4-8-86

Reviewed for HOWARD  
Name  
and meets Testing requirements  
[Signature] Date 4-4-86  
U.S. Soil Conservation Service  
[Signature] Date  
APPROVED  
Date

DEVELOPER'S/BUILDER'S CERTIFICATE  
I/We certify that all construction will be in accordance with the plan and settlement shown hereon and that the construction will be completed in accordance with the plan and settlement shown hereon and that the construction will be completed in accordance with the plan and settlement shown hereon.  
[Signature] DATE 2-28-86  
B. James Greenfield

ENGINEER'S CERTIFICATE  
I hereby certify that the plan for Erosion and sediment control represents a practical and workable plan based on the personal knowledge of the site and that it was prepared in accordance with the requirements of the Federal Soil Conservation Act.  
[Signature] DATE 2-28-86  
B. Nelson Clark

SUBDIVISION NAME		KINGS MEADE		SECT. AREA	48.53	LOTS	48-53
PLAT #	2505 & 6506	BLOCK #	7	ZONE	R5C	TAX / ZONE MAP	42 P-303
WATER CODE	E-16	SEWER CODE	52-0000	ELEC. DIST.	27	CENSUS TR.	806102

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

DESIGNED M.C.B. SCALE 1" = 30'

DRAWN V.H.L. DRAWING 2 of 3

CHECKED J.L.S. JOB NO. 86-030

DATE March 1986 FILE NO. 86-030SE

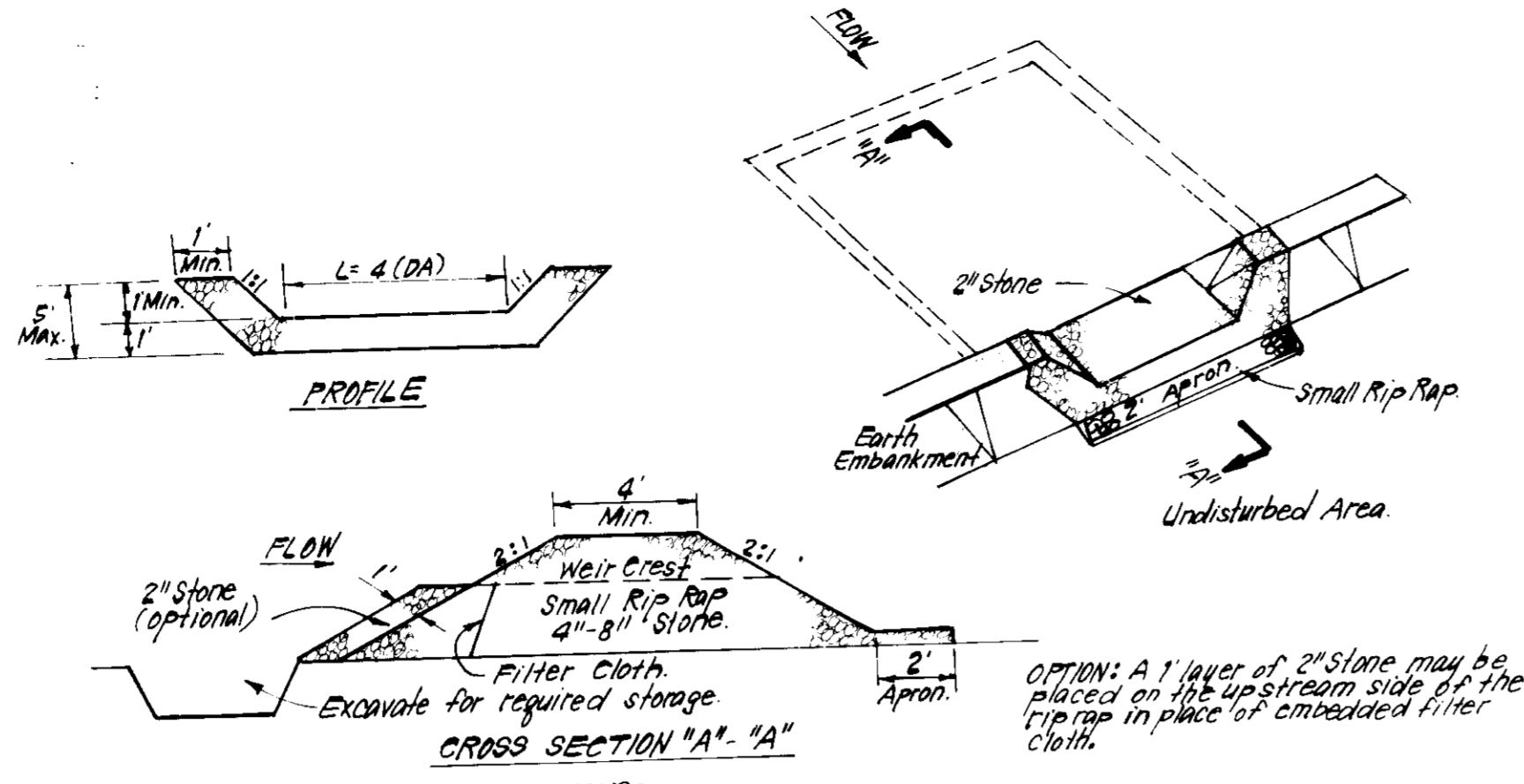
**KINGS MEADE**  
SECTION ONE  
6<sup>TH</sup> ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

FOR COLUMBIA BUILDERS INC  
3 Lakefront North Suite 200  
Columbia, MD 21044

**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 vegetation and structural practices are to be installed according to the provisions of this plan and are to be in accordance with the 1981 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 47 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 1981 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:
 

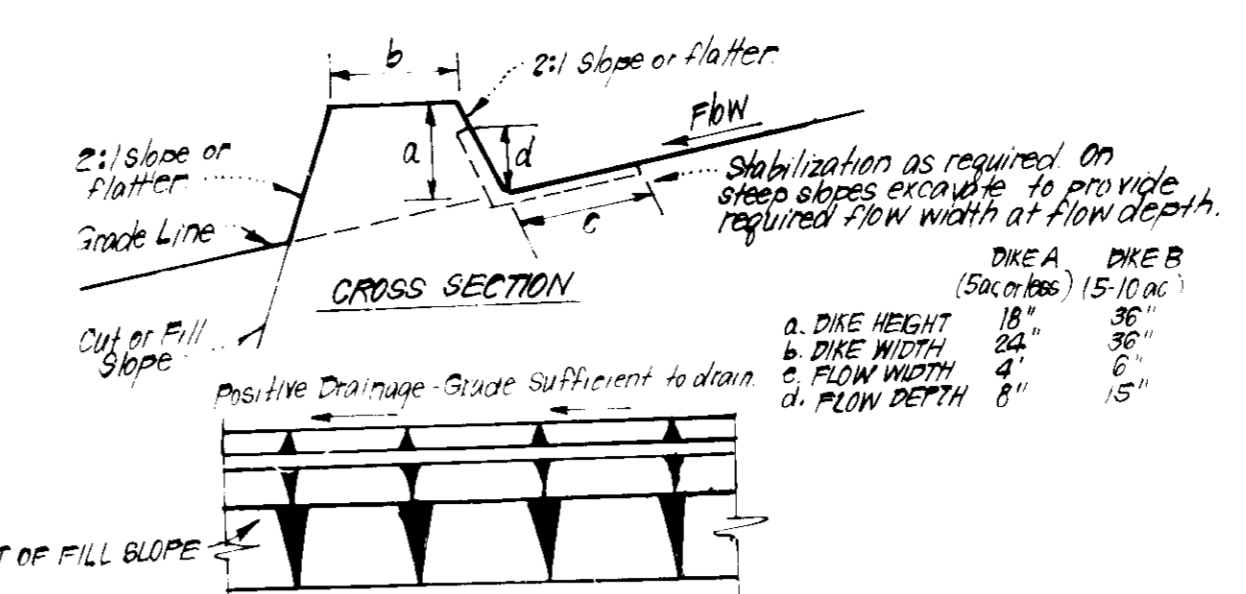
Total Area of Site	121 Acres
Area Disturbed	1.70 Acres
Area to be roofed or paved	0.27 Acres
Area to be vegetatively stabilized	0.83 Acres
Total Cut	1421 Cu. yds
Total Fill	1064 Cu. yds
Offsite waste/borrow area location	NA
- 8) Any sediment control practice which is disturbed by grading activity for 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) The total amount of straw bale dikes/silt fence equals \_\_\_\_\_ L.F.



**CONSTRUCTION SPECIFICATIONS:**

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The top area shall be graded.
2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
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



**CONSTRUCTION SPECIFICATIONS:**

1. All dikes shall be demarcated 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 adjusted as needed to utilize a stabilized safe outlet.
5. Earth dikes shall have an outlet, may terminate 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.

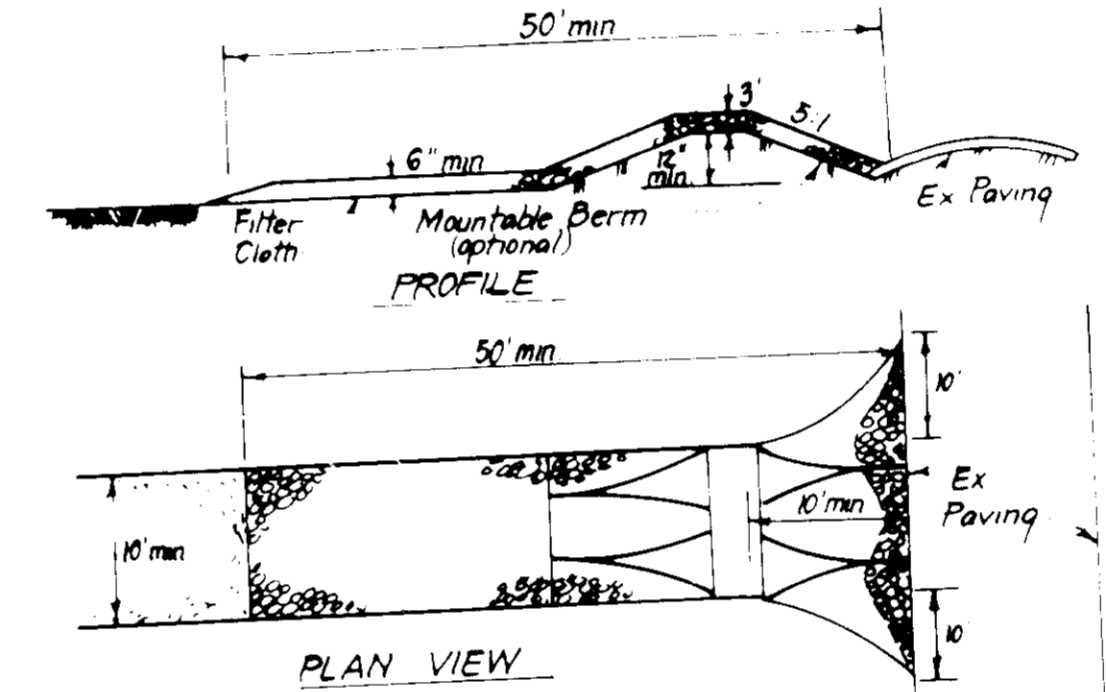
**FLOW CHANNEL STABILIZATION**

TYPE OF TREATMENT	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 w/straw or Excelsior, Sod, 2" Stone
3	5.1 - 8.0%	Seed w/straw or Sod, Excelsior	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 of at least 3" thick and be pressed into soil with construction equipment.  
B. Rip Rap to be 4"-8" in a layer of at least 6" thick, pressed into soil.  
C. Appropriate 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. Stone size - Use 2" stone, or reclaimed 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 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 measures 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

**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 ureaformal 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 60 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 rotted small grain straw immediately after seeding. Anchor mulch immediately after application using straw 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.

**Reseedings:** - Inspect all seeded areas and make needed repairs, replacements and reseedings.

**TEMPORARY SEEDING NOTES**

Apply to graded or cleared areas likely to be redisturbed 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 25 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 rotted small grain straw immediately after seeding. Anchor mulch immediately after application using straw 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 1981 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

**CONSTRUCTION SEQUENCE:**

A. Obtain Grading Permit and Install Sediment and Erosion Control Devices and Stabilize	No. of Days
B. Excavate for Foundations and Rough Grade if temporarily stabilize	7
C. Construct Structures, Sidewalks and Driveways	30
D. Final Grade and stabilize in accordance with Stds. & Specs.	7
E. Upon approval of the sediment control inspector, remove sediment and erosion controls and stabilize.	2

Reviewed for HOWARD S.C.D. Name and meets Technical Requirements Date U.S. Soil Conservation Service

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

Approved \_\_\_\_\_ Date \_\_\_\_\_

**APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.**  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DATE 4-7-86

**APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING**  
DATE 4-10-86

**APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS**  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DATE 4-2-86

APPROVED BY THE DIVISION OF ZONING ADMINISTRATION  
HOWARD COUNTY MARYLAND  
DATE 3-24-86

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

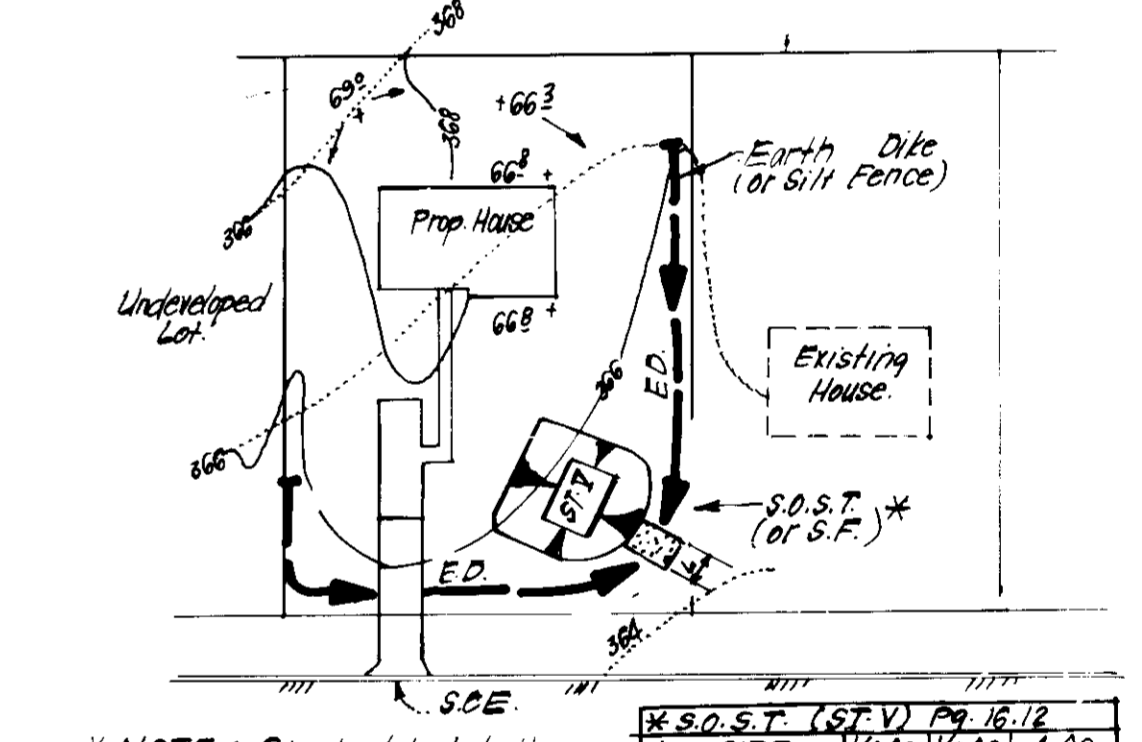
I hereby certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that I understand and am involved in the construction of all structures, retaining walls, etc. in accordance with the plan and specifications herein. I authorize periodic inspection by the Howard Soil Conservation District or their authorized agents as are deemed necessary.

B. James Greenfield 2-28-86

**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 2-28-86



**S.O.S.T. (STV) PA 16.12**

LOT SIZE	WIDE	DEEP	AREA
2	2	2	8
11	26	26	726
2	11	26	572
2	11	26	572
2	11	26	572

+ can be adjusted in field, but bottom area must be as given or greater

**SINGLE LOT SEDIMENT CONTROL PLAN**  
NO SCALE

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

**DESIGNED: M.C.B.** SEDIMENT & EROSION CONTROL PLAN LOTS 48 THRU 53

**DRAWN: V.H.L.** KINGS MEADE

**CHECKED: J.L.S.** SECTION ONE 6TH ELECTION DISTRICT HOWARD COUNTY MARYLAND

**DATE: March, 1986** FOR: COLUMBIA BUILDERS, INC. 3 Lakefront North Suite 200 Columbia, MD 21044

SCALE As Shown  
DRAWING 3 of 3  
JOB NO. 86-030  
FILE NO. 86-030-SE