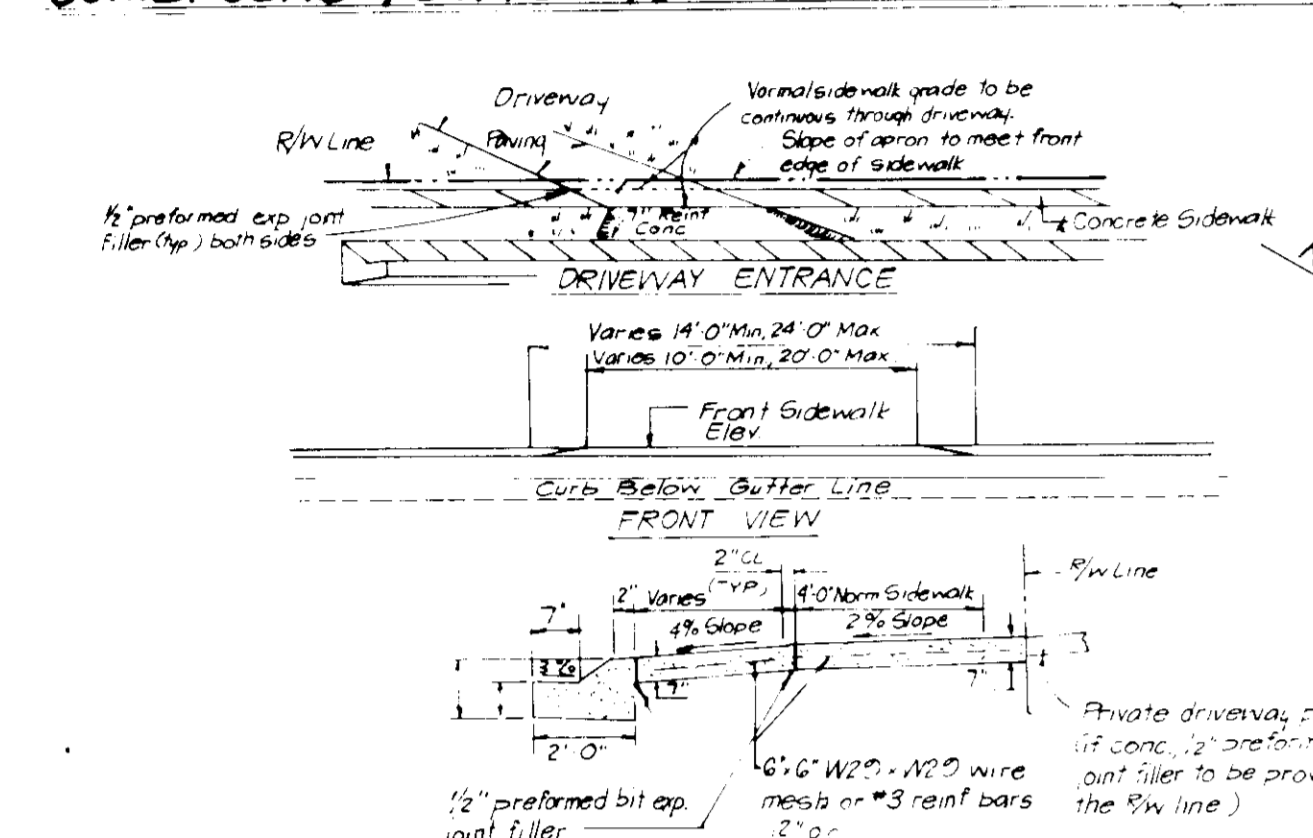


**DRIVEWAY ABUTTING CLOSED SECTION WITH 6\"/>**



**DRIVEWAY ABUTTING CLOSED SECTION WITH MODIFIED COMB CURB & GUTTER & SIDEWALK**

LOT NO.	STREET ADDRESS
23	9387 SPRING WATER PATH
24	9391 " " "
25	9395 " " "
26	9399 " " "
27	9403 " " "
28	9407 " " "
29	9411 " " "
30	9415 " " "
31	9419 " " "
32	9423 " " "
33	9427 " " "
34	9431 " " "
35	9435 " " "

**LEGEND**

- 1 Contour Interval 2 Ft
- 2 Existing Contour 410
- 3 Proposed Contour 410
- 4 Spot Elevation +105
- 5 Direction of Drainage
- 6 Existing Trees to be Saved
- 7 Walk-Out Basement

**SPECIAL NOTES**

1. Approved Road Construction plans shall be used for all public utilities.
2. Public Water & Sewer shown for reference only. For more detailed information - See Water and sewer Contract No. 24-1542-D.
3. The water & sewer house connections not included in a "Developer's Agreement" shall conform to Howard County Plumbing Code. The on-site WHC shall be 1" copper and the SHC shall be 4" iron.
4. Stormwater Management provided for in previously approved plans F-87-91.

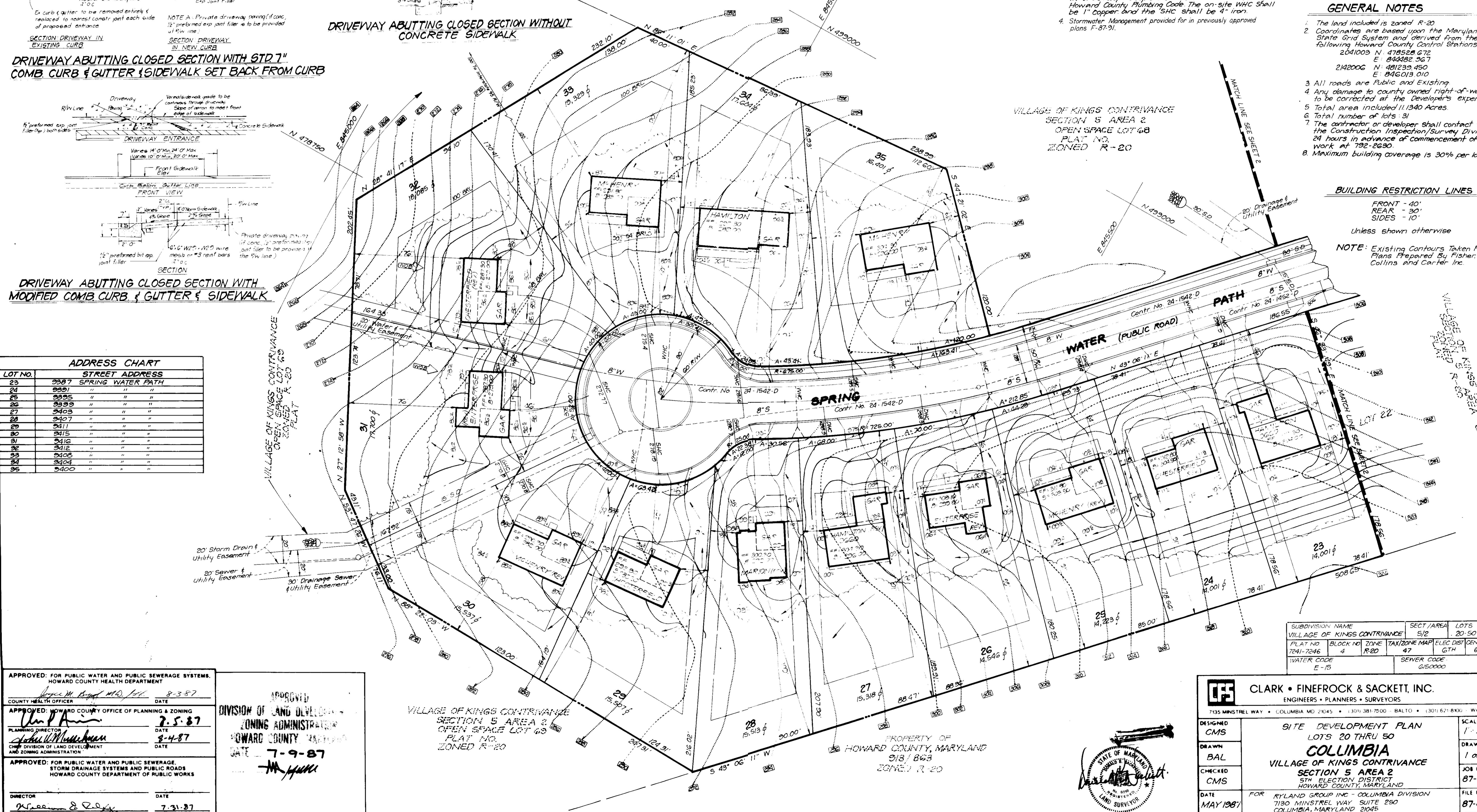
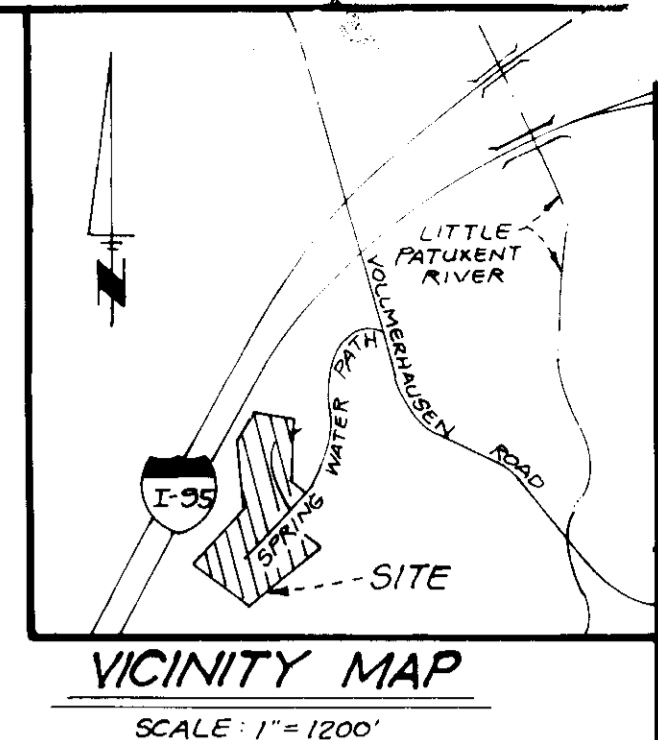
**GENERAL NOTES**

1. The land included is zoned R-20
2. Coordinates are based upon the Maryland State Grid System and derived from the following Howard County Control Stations:  
2041003 N: 418528.072 E: 84482.967  
2142006 N: 481239.450 E: 846013.010
3. All roads are Public and Existing
4. Any damage to county owned right-of-way to be corrected at the Developer's expense
5. Total area included 11.1340 Acres
6. Total number of lots 31
7. The contractor or developer shall contact the Construction Inspection/Survey Division, 24 hours in advance of commencement of work at 792-2630.
8. Maximum building coverage is 30% per lot.

**BUILDING RESTRICTION LINES**

FRONT - 40'  
REAR - 30'  
SIDES - 10'

Unless shown otherwise  
NOTE: Existing Contours Taken From Plans Prepared By Fisher, Collins and Carter, Inc.



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.  
HOWARD COUNTY HEALTH DEPARTMENT  
DATE: 8-3-87

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
DATE: 7-5-87

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE,  
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DATE: 8-4-87

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE,  
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DATE: 7-31-87

APPROVED  
DIVISION OF LAND DEVELOPMENT  
ZONING ADMINISTRATION  
HOWARD COUNTY  
DATE: 7-9-87

VILLAGE OF KINGS CONTRIVANCE  
SECTION 5 AREA 2  
OPEN SPACE LOT 43  
PLAT NO.  
ZONED R-20

PROPERTY OF  
HOWARD COUNTY, MARYLAND  
918 / 863  
ZONED R-20

SUBDIVISION NAME	VILLAGE OF KINGS CONTRIVANCE	SECT./AREA	5/2	LOTS	20-50
PLAT NO.	7241-7246	BLOCK NO.	4	TAX/ZONE MAP	ELEC. DIST. DENNIS/ TR
WATER CODE	E-15	SEWER CODE	G-50000		

**CLARK • FINEROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
7135 MINSTREL WAY • COLUMBIA MD 21045 • (301) 381-7500 • BALTO. • (301) 621-8300 • WASH.

DESIGNED: CMS  
DRAWN: BAL  
CHECKED: CMS  
DATE: MAY 1987

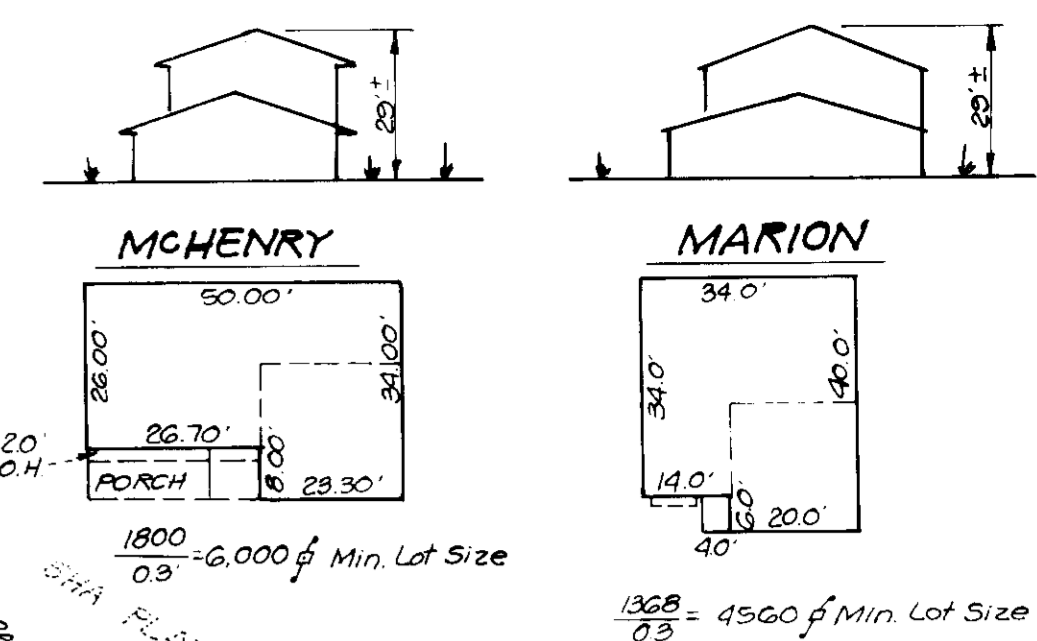
**SITE DEVELOPMENT PLAN**  
LOTS 20 THRU 50  
**COLUMBIA**  
VILLAGE OF KINGS CONTRIVANCE  
SECTION 5 AREA 2  
5TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

FOR RYLAND GROUP INC - COLUMBIA DIVISION  
7130 MINSTREL WAY SUITE 250  
COLUMBIA, MARYLAND 21045

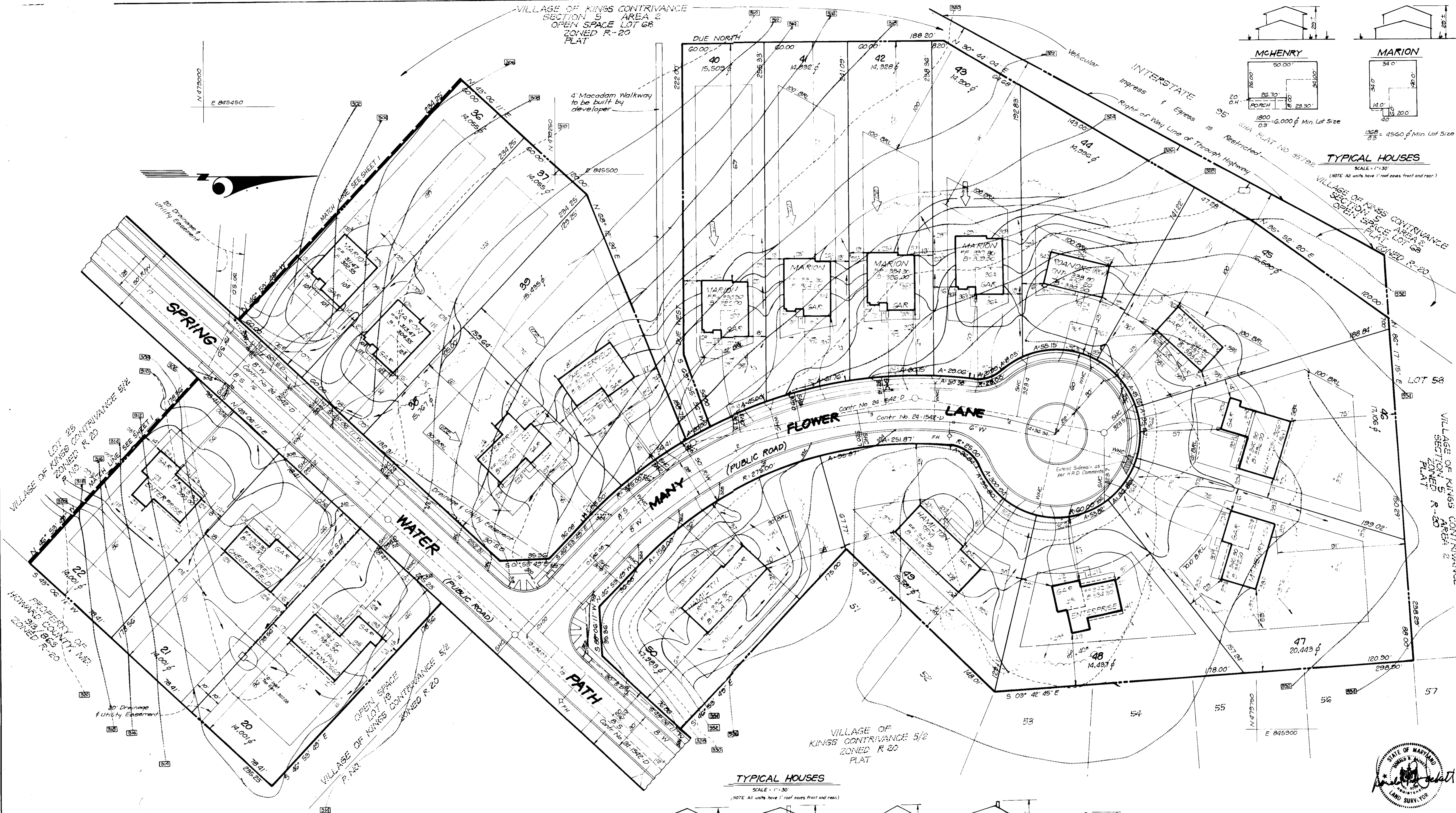
SCALE: 1" = 30'  
DRAWING: 1 of 5  
JOB NO: 87-032  
FILE NO: 87-032 X

SDP-87-239

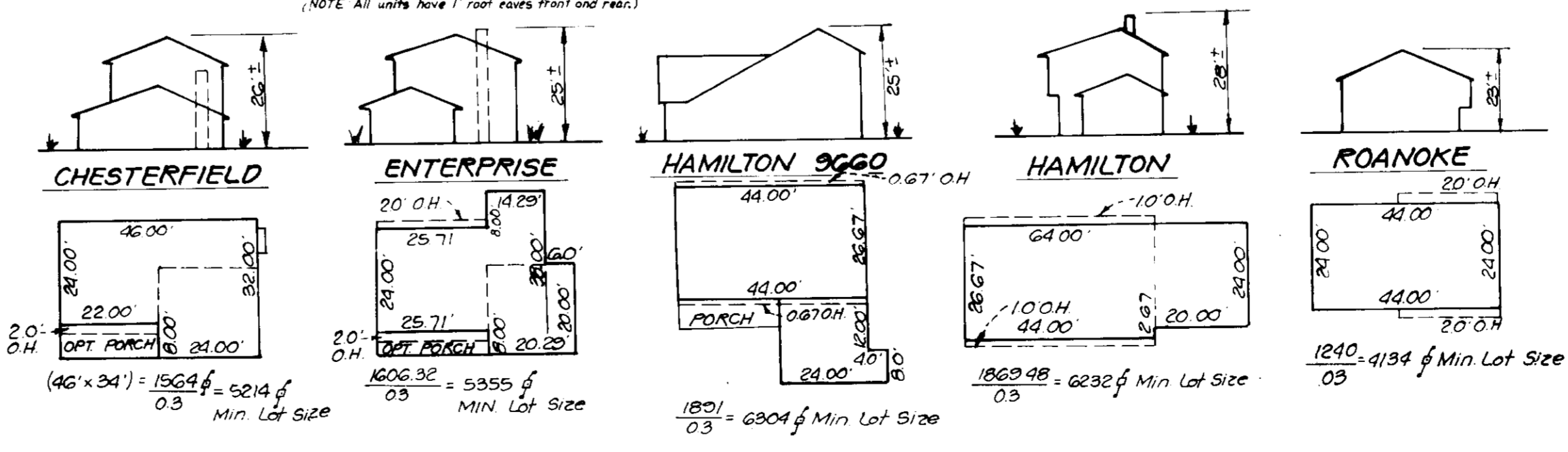
VILLAGE OF KINGS CONTRIVANCE  
SECTION 5 AREA 2  
OPEN SPACE LOT 68  
ZONED R-20  
PLAT



TYPICAL HOUSES  
SCALE: 1" = 30'  
(NOTE: All units have 1" roof eaves front and rear.)



TYPICAL HOUSES  
SCALE: 1" = 30'  
(NOTE: All units have 1" roof eaves front and rear.)



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.  
HOWARD COUNTY HEALTH DEPARTMENT  
COUNTY HEALTH OFFICER: *[Signature]* DATE: 8-5-87  
APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
PLANNING DIRECTOR: *[Signature]* DATE: 8-7-87  
CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION: *[Signature]* DATE: 7-9-87  
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DIRECTOR: *[Signature]* DATE: 7-31-87  
CHIEF BUREAU OF ENGINEERING: *[Signature]*

APPROVED:  
DIVISION OF LAND DEVELOPMENT  
ZONING ADMINISTRATION  
HOWARD COUNTY, MARYLAND  
DATE: 7-9-87  
*[Signature]*

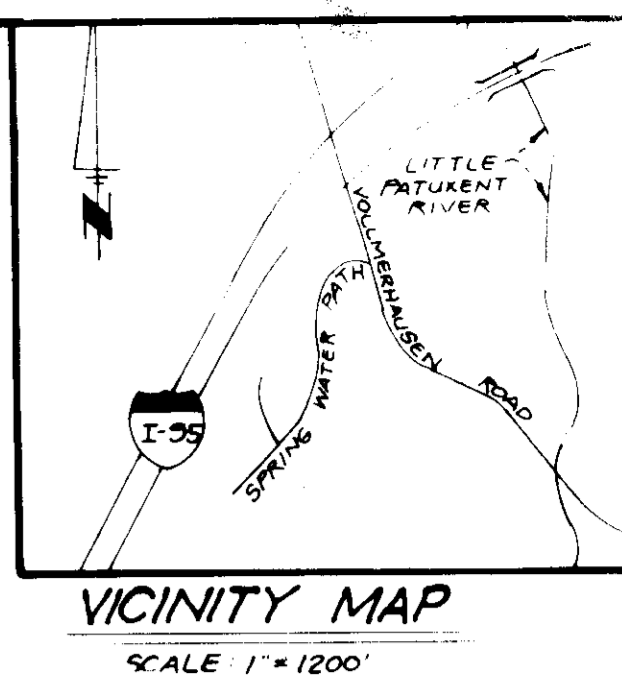
LOT NO.	ADDRESS CHART STREET ADDRESS
20	9375 SPRING WATER PATH
21	9379 " " " "
22	9383 " " " "
36	9384 " " " "
37	9380 " " " "
38	9303 MANY FLOWERS LANE
39	9307 " " " "
40	9311 " " " "
41	9315 " " " "
42	9319 " " " "
43	9323 " " " "
44	9327 " " " "
45	9331 " " " "
46	9324 " " " "
47	9320 " " " "
48	9316 " " " "
49	9312 " " " "
50	9302 " " " "

**CLARK • FINEROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
715 MINSTREL WAY • COLUMBIA, MD. 21045 • (410) 871-2100 • BALTO. • (410) 871-2100

DESIGNED CMS	<b>SITE DEVELOPMENT PLAN LOTS 20 THRU 50 COLUMBIA</b> VILLAGE OF KINGS CONTRIVANCE SECTION 5 AREA 2 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1" = 30'
DRAWN BAL		DRAWING 2 of 5
CHECKED CMS		JOB NO. 87-032
DATE MAY 1987		FILE NO. 87-032 X
FOR RYLAND GROUP INC. - COLUMBIA DIVISION 7150 MINSTREL WAY, SUITE 250 COLUMBIA, MARYLAND 21045		

SOP-87-237





- LEGEND**
- 1 Contour Interval 2ft
  - 2 Existing Contour
  - 3 Proposed Contour
  - 4 Spot Elevation
  - 5 Direction of Drainage
  - 6 Existing Trees to be Saved
  - 7 Walk-Out Basement
  - 8 Straw Bale Dike / Silt Fence
  - 9 Earth Dike
  - 10 Stabilized Construction Entrance
  - 11 Safety Fence

**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 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."

*Anne M. Hopkins* 6-2-87  
Signature of Developer/Builder Date

**TRAP NO. 1 S.O.S.T. ST.V \***

D.A. = 1.4 Acres  
Storage Required = 14 x 1800 = 2520 of  
Storage Provided = 2520 of  
Depth = 4'  
Top of Stone Crest = 267.0  
Bottom Elevation = 262.0  
Cleanout Elevation = 264.0  
Bottom Dimension 26'x17'

\* 1:1 Side Slopes in cut

**TRAP NO. 2 S.O.S.T. ST.V \***

D.A. = 2.5 Acres  
Storage Required = 2.5 x 1800 = 4500 of  
Storage Provided = 4500 of  
Depth = 4'  
Top of Stone Crest = 278.0  
Bottom Elevation = 273.0  
Cleanout Elevation = 280.0  
Bottom Dimension = 21'x41'

\* 1:1 Side Slopes in cut

Reviewed for: **SCD**  
Name: \_\_\_\_\_  
and meets Technical Requirements  
*Anne M. Hopkins* 7-29-87  
Signature Date  
U.S. Soil Conservation Service

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

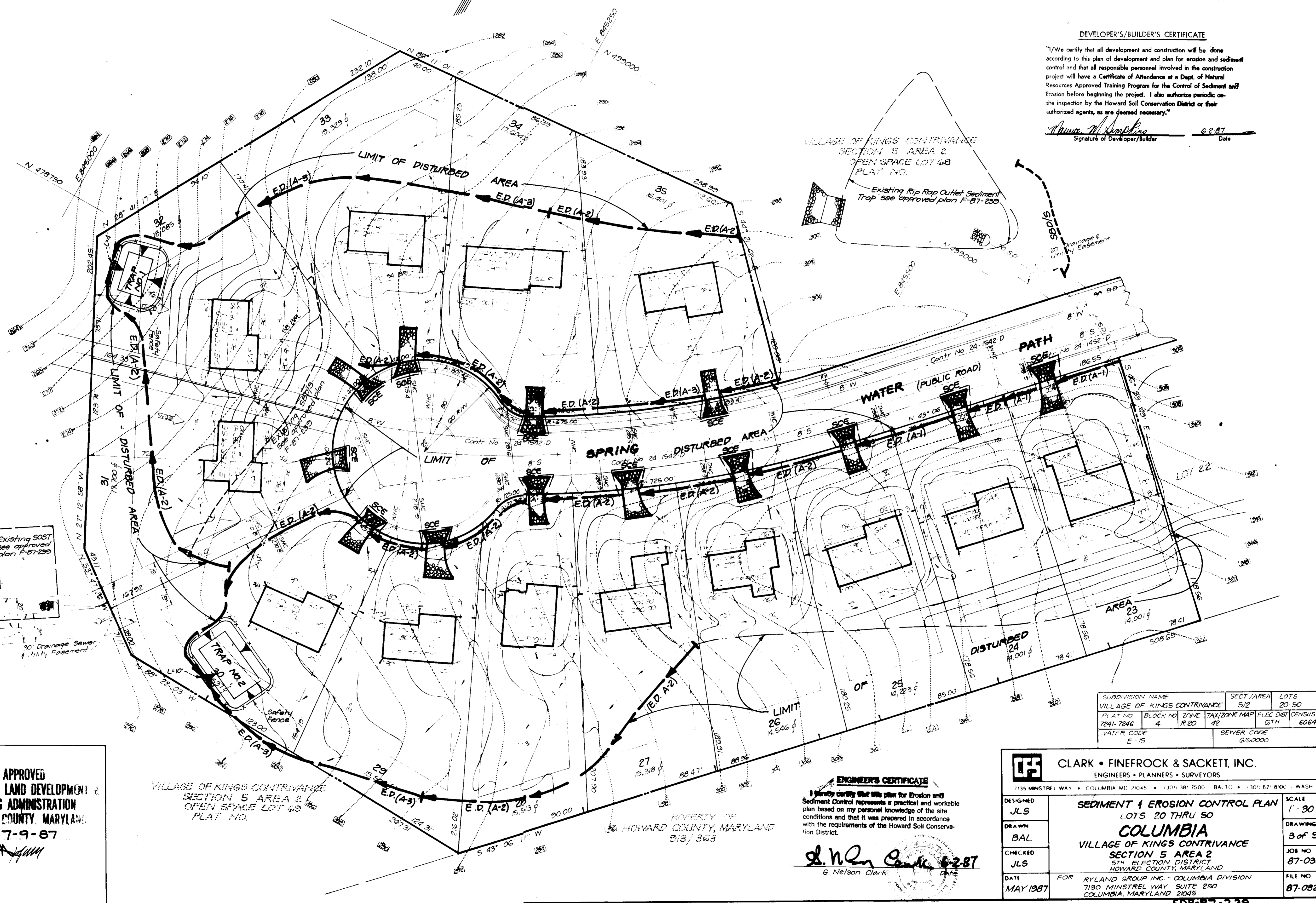
Approved \_\_\_\_\_ Date \_\_\_\_\_

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS  
HOWARD COUNTY HEALTH DEPARTMENT  
DATE 8-5-87

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
DATE 8-5-87

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE  
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DATE 7-31-87

APPROVED  
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION  
HOWARD COUNTY, MARYLAND  
DATE 7-9-87



**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* 6-2-87  
G. Nelson Clark Date

SUBDIVISION NAME	VILLAGE OF KINGS CONTRIVANCE	SECT./AREA	5/2	LOTS	20-50
PLAT NO.	7241-7246	BLOCK NO.	4	TRK./ZONE MAP	R-20
ELEC. DIST.	42	CENSUS TR.	6TH	CENSUS TR.	6064
WATER CODE	E-15	SEWER CODE	G-50000		

**CLARK • FINEFROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
7135 MINSTREL WAY • COLUMBIA, MD 21045 • (301) 881-7500 • BALTO. • (301) 621-8900 • WASH.

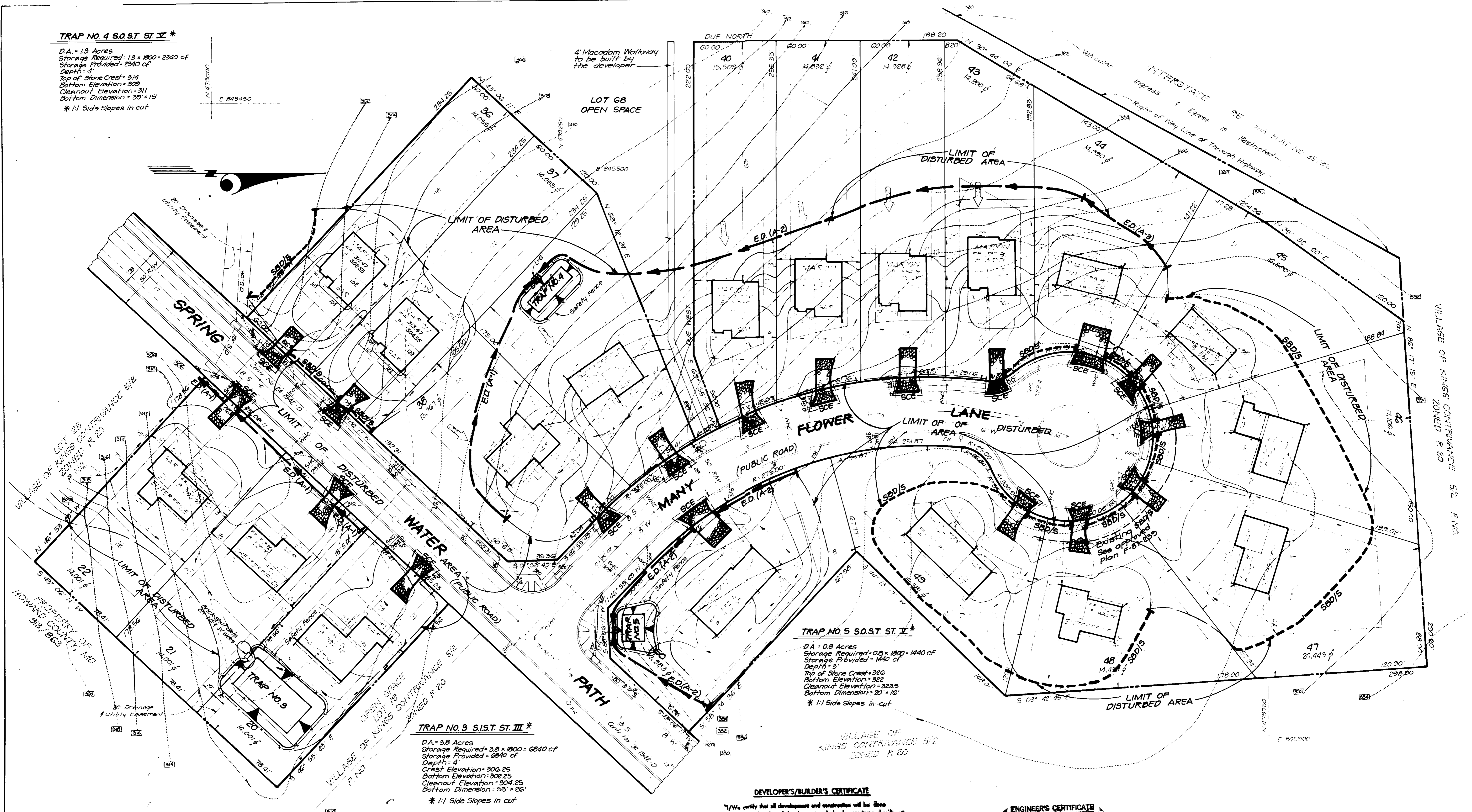
DESIGNED	JLS	SCALE	1" = 30'
DRAWN	BAL	DRAWING	3 of 5
CHECKED	JLS	JOB NO.	87-032
DATE	MAY 1987	FILE NO.	87-052 SE

**SEDIMENT & EROSION CONTROL PLAN**  
LOTS 20 THRU 50  
**COLUMBIA**  
VILLAGE OF KINGS CONTRIVANCE  
SECTION 5 AREA 2  
5TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
FOR RYLAND GROUP INC - COLUMBIA DIVISION  
7130 MINSTREL WAY SUITE 250  
COLUMBIA, MARYLAND 21045

SDP-87-239

**TRAP NO. 4 S.O. ST. ST. V \***

D.A. = 1.3 Acres  
 Storage Required = 1.3 x 1800 = 2340 cf  
 Storage Provided = 2340 cf  
 Depth = 4'  
 Top of Stone Crest = 314  
 Bottom Elevation = 308  
 Cleanout Elevation = 311  
 Bottom Dimension = 30' x 15'  
 \* 1:1 Side Slopes in cut



**TRAP NO. 5 S.O. ST. ST. V \***

D.A. = 0.8 Acres  
 Storage Required = 0.8 x 1800 = 1440 cf  
 Storage Provided = 1440 cf  
 Depth = 3'  
 Top of Stone Crest = 306  
 Bottom Elevation = 302  
 Cleanout Elevation = 323.5  
 Bottom Dimension = 20' x 16'  
 \* 1:1 Side Slopes in cut

**TRAP NO. 9 S.I. ST. ST. III \***

D.A. = 3.8 Acres  
 Storage Required = 3.8 x 1800 = 6840 cf  
 Storage Provided = 6840 cf  
 Depth = 4'  
 Crest Elevation = 306.25  
 Bottom Elevation = 302.25  
 Cleanout Elevation = 304.25  
 Bottom Dimension = 53' x 26'  
 \* 1:1 Side Slopes in cut

**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 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."

**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."

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS  
 HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER: *[Signature]* DATE: 8-3-87

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 PLANNING DIRECTOR: *[Signature]* DATE: 8-5-87  
 CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION: *[Signature]* DATE: 8-4-87

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR: *[Signature]* DATE: 7-31-87  
 CHIEF BUREAU OF ENGINEERING: *[Signature]* DATE: 7-31-87

APPROVED  
 DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION  
 HOWARD COUNTY, MARYLAND  
 DATE: 7-9-87  
*[Signature]*

Reviewed for: Howard County S.C.D.  
 Name: *[Signature]*  
 Date: 7-24-87  
 U.S. Soil Conservation Service

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

*[Signature]* 6287  
 Developer/Builder

*[Signature]* 6287  
 Engineer

CLARK • FINEROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS		SCALE 1" = 30'
DESIGNED JLS	SEDIMENT & EROSION CONTROL PLAN LOTS 20 THRU 50 <b>COLUMBIA</b> VILLAGE OF KINGS CONTRIVANCE SECTION 5 AREA 2 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
DRAWN BAL	DRAWING 4 of 5	
CHECKED JLS	JOB NO. 87-082	
DATE MAY 1987	FOR RYLAND GROUP INC - COLUMBIA DIVISION 7130 MINSTREL WAY, SUITE 250 COLUMBIA, MARYLAND 21045	FILE NO. 87-082SE

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, disking or other acceptable means before seeding.

**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. Narrow 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 (21 lbs/1000 sq ft) before seeding. Narrow 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 unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2 1/2 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 3 1/2 gallons per acre (8 gal/1000 sq ft) for anchoring.

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

TEMPORARY SEEDING NOTES

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

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

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

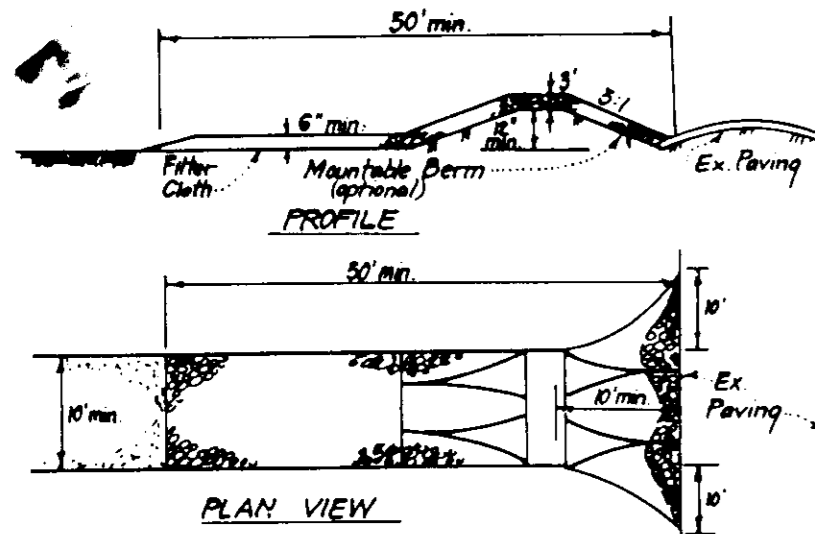
**Seeding:** For periods March 1 thru April 30 and from August 15 thru November 15, seed with 25 bushels per acre of annual ryegrass (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 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 2 1/2 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 3 1/2 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.

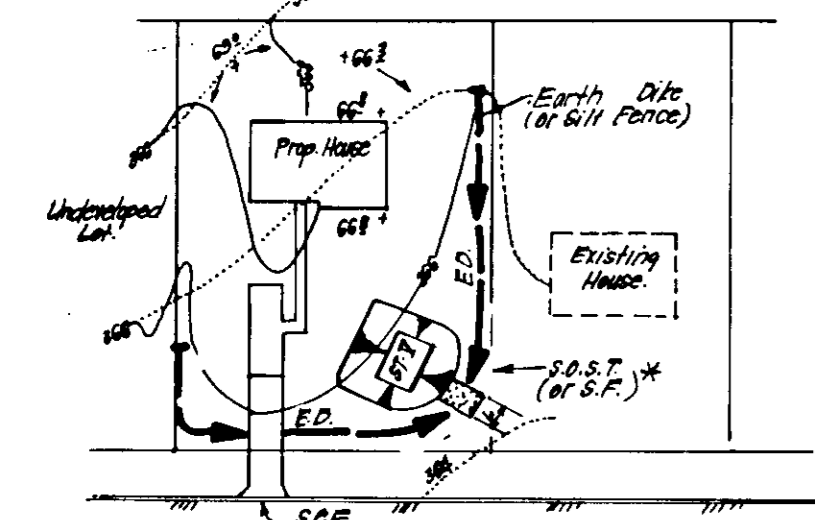
SEDIMENT CONTROL NOTES

- 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. (192-1437)
- 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. 31) and sod (Sec. 34), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seedings data 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: 11,184 Acres  
 Area Disturbed: 7,745 Acres  
 Area to be roofed or paved: 1,762 Acres  
 Area to be vegetatively stabilized: 5,276 Acres  
 Total Cut: 13,700 Cu. Yds.  
 Total Fill: 10,310 Cu. Yds.  
 Office 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 DMI 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 "hard-hat" basins, 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). N/A
- 13) The total amount of straw bale dikes/silt fence equals 1.1 F.



- 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 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 of 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 3:1 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 repairs or replacement of any areas not covered by this sediment control. Sediment applied, dropped, washed or tracked onto public rights-of-way must be removed immediately.
  8. Washing - Vehicles 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)

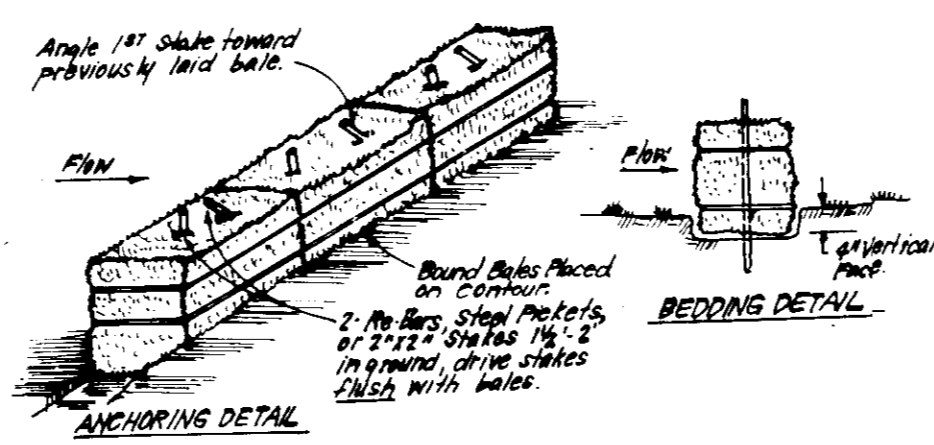


\* NOTE: Single lot detail can not be utilized if any two lots sharing common property lines are to be disturbed at the same time or on any lots showing a sediment trap.

SINGLE LOT SEDIMENT CONTROL PLAN

CONSTRUCTION SEQUENCE

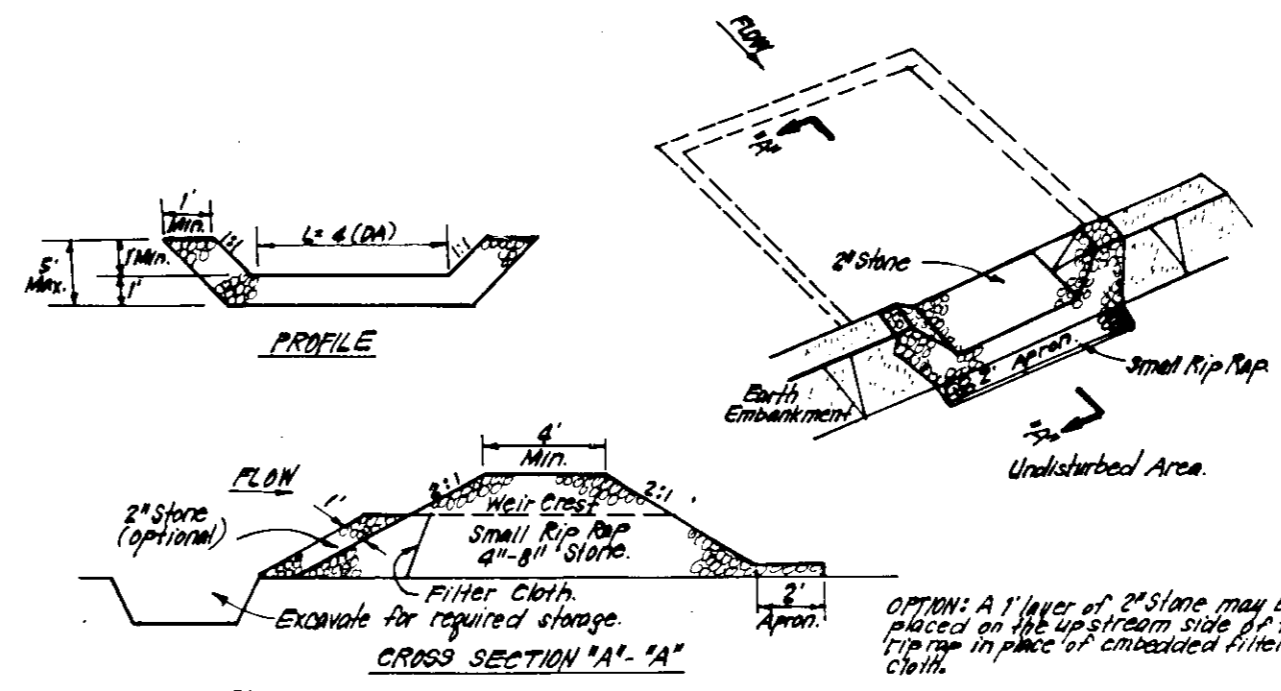
NO.	DESCRIPTION	NO. OF DAYS
1.	Obtain grading permit	5
2.	Install sediment & erosion control measures	30
3.	Clear & rough grade site	30
4.	Construct house driveways and walks	180
5.	Final grade and stabilize all other disturbed areas on-site in accordance with standards and specifications.	30
6.	Upon approval of the Sediment Control Inspector remove sediment and erosion control measures and stabilize.	14



**CONSTRUCTION SPECIFICATIONS:**

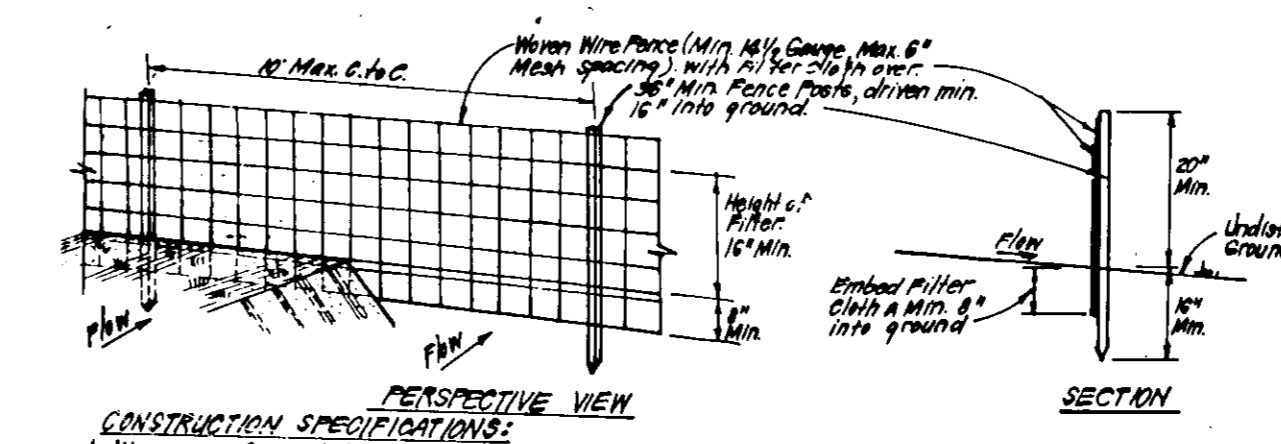
1. Bales shall be placed at the top of a slope or on the contour and in a row with ends tightly abutting the adjacent bales.
2. Each bale shall be embedded in the soil a min of 4" and placed so the bindings are horizontal.
3. Bales shall be secured in place by either 2 stakes or 10 heavy driven thru the bale. The 1st stake in each bale shall be driven closer the previously laid bale at an angle to force the bales together. Stakes shall be driven flush with the bale.
4. Inspection shall be frequent and repair/replacement shall be made promptly as needed.
5. Bales shall be removed when they have served their usefulness so as not to block or impede storm flow or drainage.

STRAW BALE DIKE DETAIL (SBD)



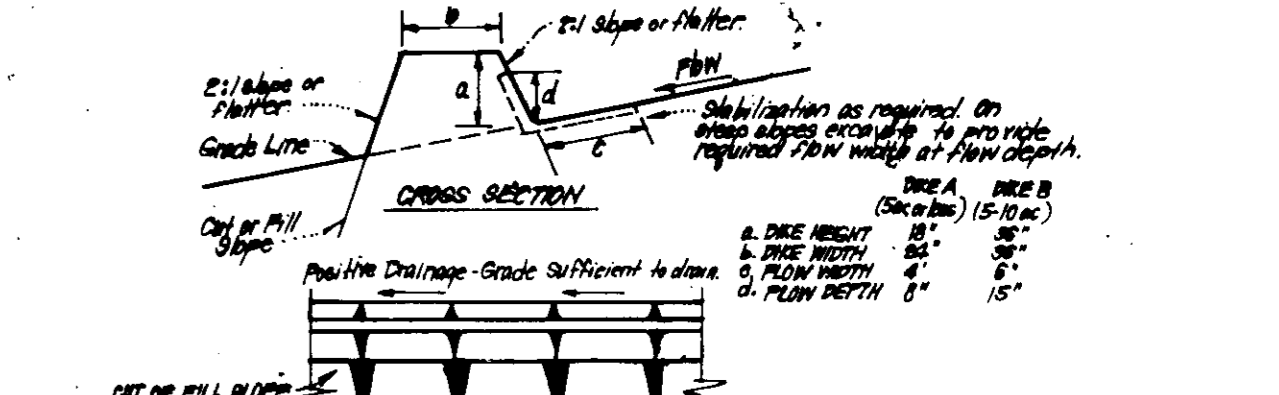
- CONSTRUCTION SPECIFICATIONS:**
1. Any utility embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The soil shall be cleared.
  2. The fill material for the embankment shall be free of rocks and other hard vegetation as well as over-size stones, rock, organic material or 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" x 4" with 1" thickness of 2" aggregate placed on the up-slope side in the small rip rap or embedded filter cloth in the rip rap.
  5. Sediment shall be trapped and stored in the normal drainage area until 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.) ST.V. IN SOIL



- CONSTRUCTION SPECIFICATIONS:**
1. When wire fence is installed securely to fence posts with wire ties or staples.
  2. Filter cloth to be fastened securely to wire fence posts with ties spaced every 8ft at top and mid section.
  3. When 6 sections of filter cloth begin each other they shall be interlaced by 6" and overlapped.
  4. Maintenance shall be performed as needed and material removed when it begins to develop in silt fence.

SILT FENCE DETAIL (S)



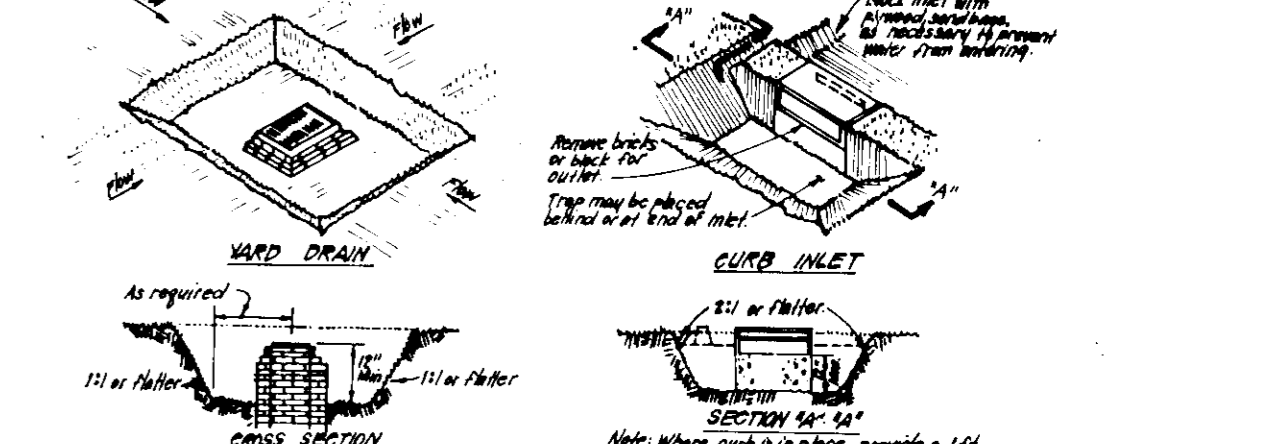
- CONSTRUCTION SPECIFICATIONS:**
1. All dikes shall be constructed by earth-moving equipment.
  2. All dikes shall have positive drainage to an outlet.
  3. Top width may be wider and side slopes may be flatter if desired, to facilitate cleaning by construction vehicles.
  4. Final location should be adjusted as needed to utilize a stabilized safe inlet.
  5. Earth dikes shall have an outlet that functions with a minimum of erosion. Runoff shall be controlled 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. Silt control shall be (A) in accordance with standard specifications for sod 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 SLOPE	DIKE A	DIKE B
1	0.5 - 0.7%	Seed & Straw Mulch	Seed & Straw Mulch
2	0.7 - 1.0%	Seed & Straw Mulch	Seed & Straw Mulch
3	1.0 - 2.0%	Seed & Straw Mulch	Seed & Straw Mulch

A dike to be 2' high, or recycled concrete equivalent, in a layer at least 3" thick and be placed into soil with construction equipment.  
 B. Flow dikes to be 4" high or less as they are placed, exposed into soil.  
 C. Approved equivalent shall 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. Sediment shall be removed and the area stabilized with straw mulch when sediment has reached a depth of 1/2 the design depth of the trap.
  2. The volume of sediment trapped shall be 100% of the contributing drainage.
  3. The structure shall be inspected after each rain and repairs made as needed.
  4. Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
  5. The structure shall be removed and the area stabilized when the constructed drainage area has been properly stabilized.
  6. All cut slopes shall be 1:1 or flatter.

STORM INLET SEDIMENT TRAP (S.I.S.T.) ST.III NO SCALE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER: [Signature] DATE: 8-3-87  
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 PLANNING DIRECTOR: [Signature] DATE: 8-5-87  
 CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION: [Signature] DATE: 7-4-87  
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR: [Signature] DATE: 7-31-87  
 CHIEF BUREAU OF ENGINEERING: [Signature]

APPROVED  
 DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION  
 HOWARD COUNTY, MARYLAND  
 DATE: 7-9-87  
 [Signature]

Reviewed for HOWARD S.C.D. Name: [Signature] and meets Technical Requirements of the U.S. Soil Conservation Service. Date: 7-24-87

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
 Approved: [Signature] Date: [Signature]

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 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."  
 Signature of Developer/Builder: [Signature] Date: 8-2-87

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 of Engineer: [Signature] Date: 8-2-87  
 6. Nelson Clark

CLARK • FINEFROCK & SACKETT, INC.  
 ENGINEERS • PLANNERS • SURVEYORS  
 7135 MINISTREL WAY • COLUMBIA, MD 21045 • (301) 381-7200 - BALTO • (301) 621-8100 - WASH  
 DESIGNED: JLS  
 DRAWN: BAL  
 CHECKED: JLS  
 DATE: MAY, 1987  
 SCALE: 1" = 30'  
 DRAWING: 5 of 5  
 JOB NO: 87-092  
 FILE NO: 87-092 SE  
 SEDIMENT & EROSION CONTROL PLAN LOTS 20 THRU 50 COLUMBIA VILLAGE OF KINGS CONTRIVANCE SECTION 5 AREA 2 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 FOR: RYLAND GROUP INC. COLUMBIA DIVISION 7100 MINISTREL WAY SUITE 250 COLUMBIA, MARYLAND 21045  
 SDP-87-239