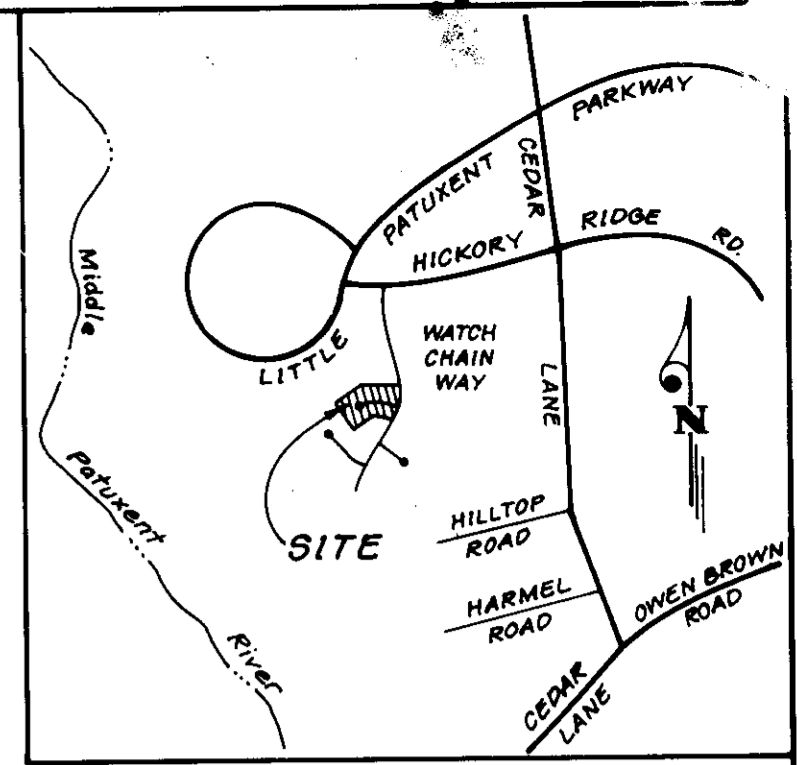


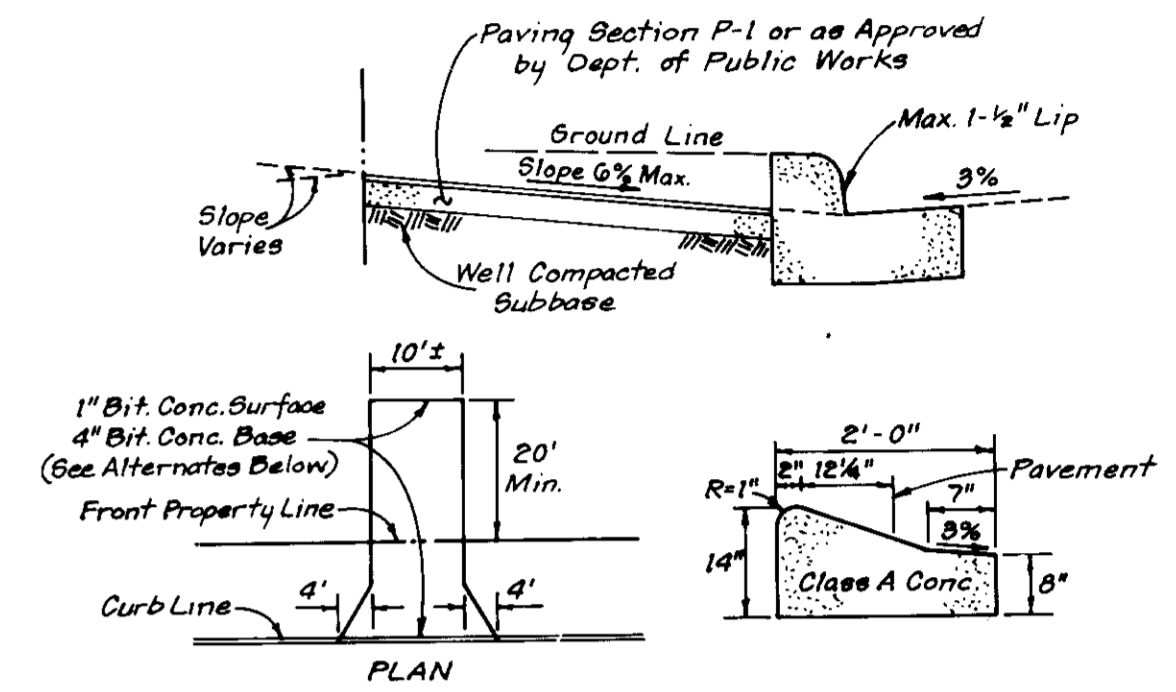
LEGEND

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



VICINITY MAP
SCALE: 1" = 200'

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



DRIVEWAY ABUTTING MODIFIED COMB. CURB & GUTTER*

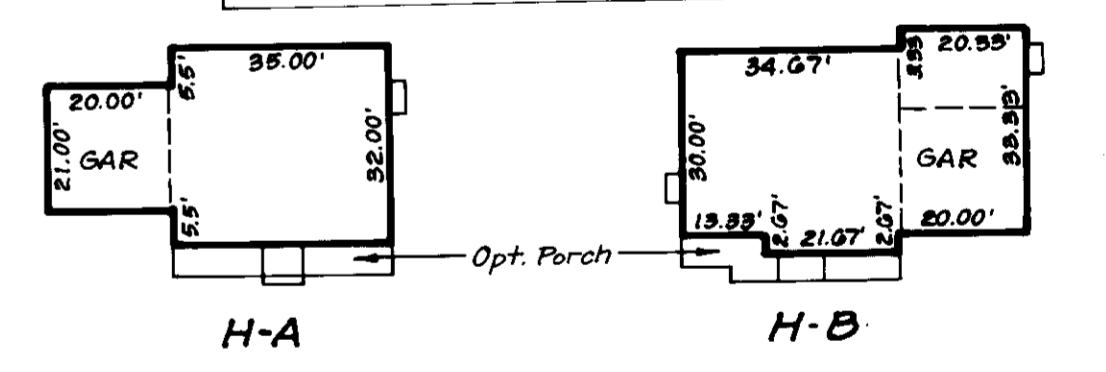
ALTERNATE #1
1" Bit Concrete Surface
2" Bit Concrete Base
5" Gravel

* See Ho. Co. Ord. R-301 for 5th. 7" Comb. Curb & Gutter necessary on the Cul-de-Sac.

GENERAL NOTES

1. The Land included is zoned: New Town, S.F.M.D.
2. Coordinates are based upon traverse controls for Columbia established by Maps, Inc., in 1905 and Purdum & Jeschke in 1908, which controls were tied to the Maryland Bureau of Central Survey Monuments and to U.S. Coast and Geodetic Survey Monuments in the Columbia Area.
3. All roads are public and existing.
4. Any damage to county owned rights-of-way to be corrected at the Developers expense.
5. Total area included: 3,568
6. Total number of lots: 13
7. Reference Final Development Plan Phase 181, Part IX.
8. Storm Water Management is provided by plans submitted under F-89-120.

NOTE: Optional porches and decks shall not extend into any side building restriction line.



TYPICAL HOUSES

ADDRESS CHART

LOT No.	STREET	ADDRESS
48	6003	Middlewater Court
49	6007	"
50	6011	"
51	6015	"
52	6019	"
53	6023	"
54	6027	"
55	6031	"
56	6035	"
57	6039	"
58	6043	"
59	6047	"
60	6051	"

SUBDIVISION NAME	COLUMBIA V.O.H.R.	SECT./AREA	3/12	LOTS/PARCEL	48-60
PLAT #	1/1	BLOCK #	1	TAXI ZONE	35
MAP	6845	MAP	5TH	MAP	6053.01
WATER CODE	E 27	SEWER CODE	659/1000		

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

DATE: 9-26-86

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
DATE: 9-30-86

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

DATE: 9-26-86

APPROVED
DIVISION OF LAND DEVELOPMENT
ZONING ADMINISTRATION
HOWARD COUNTY MARYLAND
DATE: 8-20-86



CLARK · FINFROCK & SACKETT
ENGINEERS · PLANNERS · SURVEYORS

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

DESIGNED: C.M.S. SCALE: 1" = 30'

DRAWN: LAI DRAWING: 1 of 2

CHECKED: JME JOB NO.: 86-040

DATE: July, 1986 FOR: HALLMARK BUILDERS, INC. FILE NO.: 86-040 X

P.O. Box 1018
Columbia, Maryland 21044

- 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. (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 construction, permanent or temporary stabilization shall be installed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1; b) 14 days for 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 (Sec. 34), temporary seedings (Sec. 30) and mulching (Sec. 32). 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: 3.568 Acres
 Area Disturbed: 2.247 Acres
 Area to be seeded or paved: 2.827 Acres
 Area to be vegetatively stabilized: 2.119 Acres
 Total Cut: Cu. yds
 Total Fill: 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 DSW 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 be authorized with this initial approval by the inspection agency in writing.
- 11) If houses are to be constructed on an "A-B-C" basis, at minimum, Single Lot Sediment Control as shown below shall be implemented.
- 12) All plans 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 975 L.F.

CONSTRUCTION SEQUENCE

Activity	No. of Days
A. Obtain Grading Permit and Install Sediment & Erosion Control Devices and Stabilize.	5
B. Excavate for Foundations, Rough Grade and Temporarily Stabilize.	45
C. Construct Structures, Sidewalks and Driveways.	350
D. Final Grade and Stabilize in accordance with Grds and Specs.	10
E. Upon approval of the Sediment Control Inspector, remove Sediment and Erosion Controls & Stabilize.	1

* Resize Existing Sediment Trap to Specifications Shown.
 NOTE: Existing Sediment Trap may not be modified unless approved by the Sediment Control Inspector and only if contributing drainage area is stabilized.

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.

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lb/1000 sq ft) and 600 lb per acre 10-10-10 fertilizer (14 lb/1000 sq ft) before seeding. Narrow or disc into upper three inches of soil. At time of seeding, apply 400 lb per acre 30-0-0 ureaform fertilizer (9 lb/1000 sq ft).
- 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lb/1000 sq ft) and 1000 lb per acre 10-10-10 fertilizer (23 lb/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 50 lbs per acre (1.4 lb/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 lb/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 14, 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 lb/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 lb/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2 1/2 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 3/4 gal 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 restituted where a short-term vegetative cover is needed.

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

Soil Amendments: Apply 600 lb per acre 10-10-10 fertilizer (14 lb/1000 sq ft)

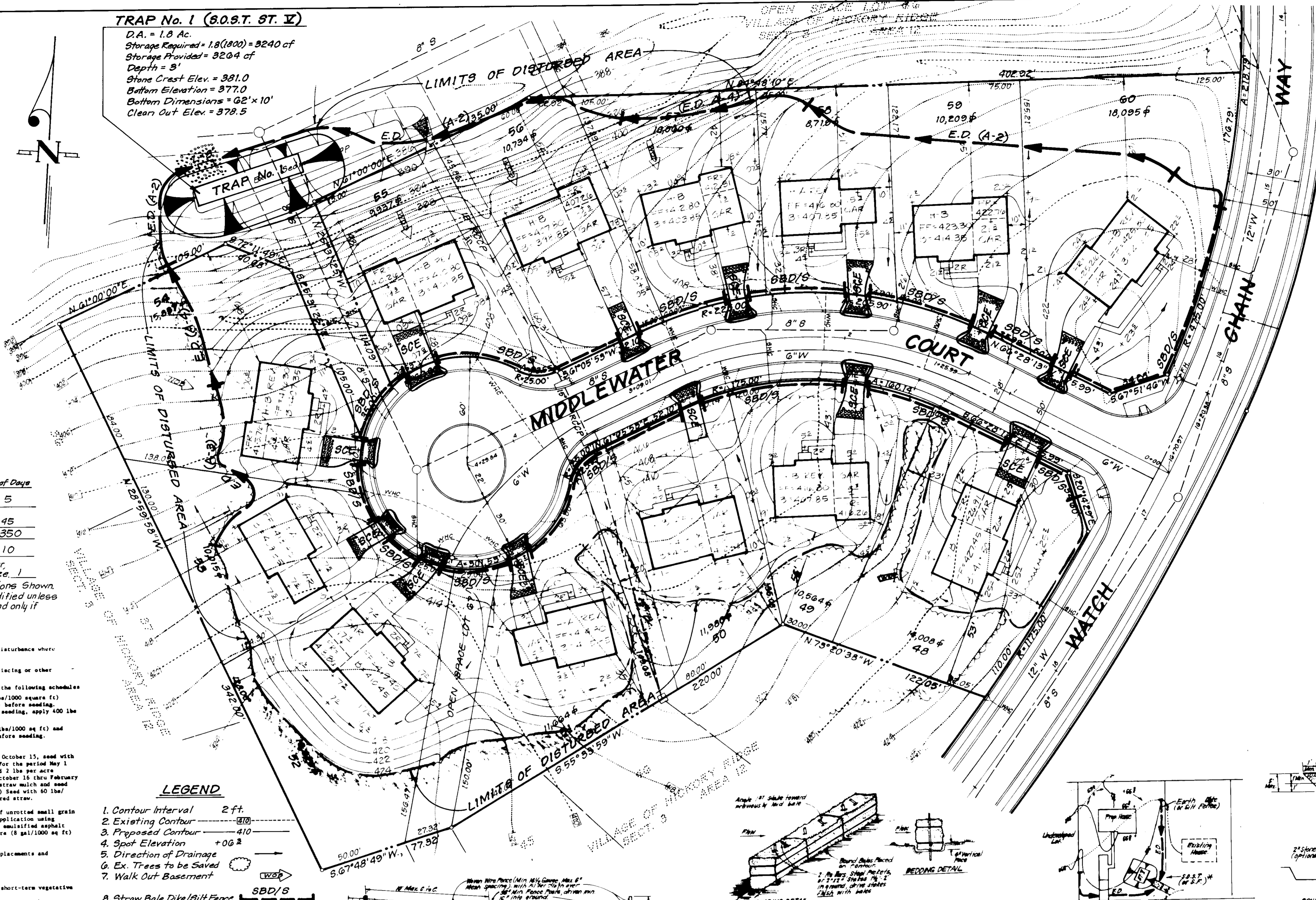
Seeding: For the periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual ryegrass (3.2 lb/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lb/1000 sq ft). For the period November 16 thru February 14, 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 lb/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2 1/2 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 3/4 gal per acre (8 gal/1000 sq ft) for anchoring.

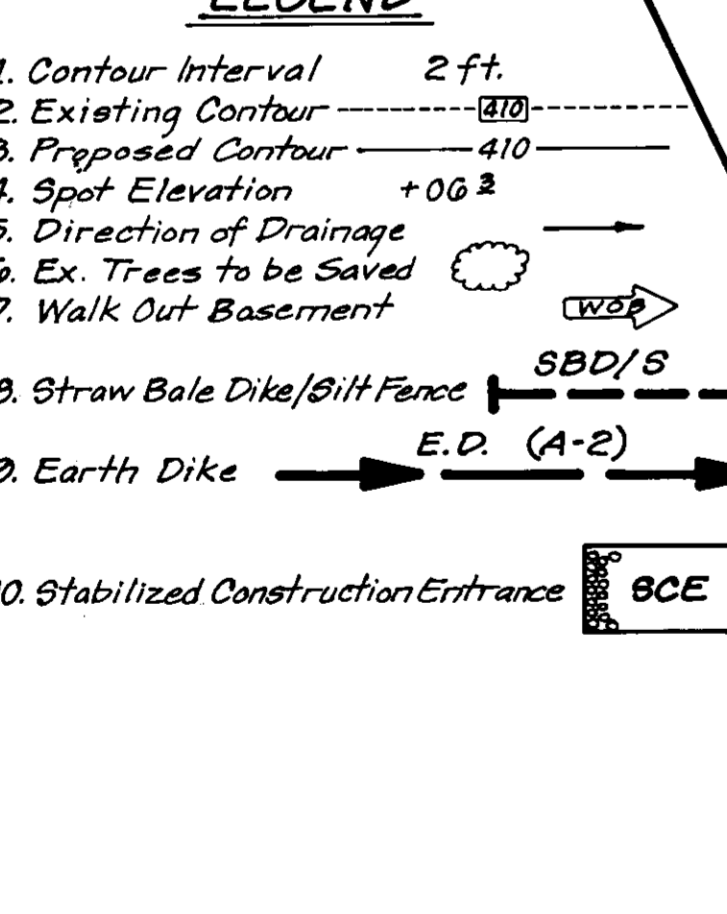
Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rates and methods not covered.

TRAP No. 1 (S.O.S.T. ST. V)

D.A. = 1.8 Ac.
 Storage Required = 1.8(1800) = 3240 of
 Storage Provided = 3204 of
 Depth = 3'
 Stone Crest Elev. = 381.0
 Bottom Elevation = 377.0
 Bottom Dimensions = 62' x 10'
 Clean Out Elev. = 378.5



- LEGEND**
1. Contour Interval 2 ft
 2. Existing Contour
 3. Proposed Contour
 4. Spot Elevation +0.6 ±
 5. Direction of Drainage
 6. Ex. Trees to be Saved
 7. Walk Out Basement
 8. Straw Bale Dike/Silt Fence SBD/S
 9. Earth Dike E.D. (A-2)
 10. Stabilized Construction Entrance SCE



APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER: [Signature] DATE: 9-29-86

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
 PLANNING DIRECTOR: [Signature] DATE: 9-30-86

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: [Signature] DATE: 9-26-86

APPROVED
 DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
 HOWARD COUNTY, MARYLAND
 DATE: 8-20-86
 MJD/JWM

Reviewed for HOWARD COUNTY
 and meets requirements of
 [Signature] DATE: 9-23-86

U.S. Soil Conservation Service

SILT FENCE DETAIL (S)
 NO SCALE

CONSTRUCTION SPECIFICATIONS:
 1. Posts shall be spaced at the top of a slope and in a row with ends tightly abutting the adjacent posts.
 2. Each post shall be embedded in the soil a minimum of 4' and placed so the bindings are horizontal.
 3. Bindings shall be secured in place by either 2 stakes or 16 bars driven from the back.
 4. Stakes shall be secured in place by either 2 stakes or 16 bars driven from the back.
 5. Bindings shall be secured in place by either 2 stakes or 16 bars driven from the back.
 6. Posts shall be removed when they have served their usefulness as well as to block or impede storm flow or drainage.

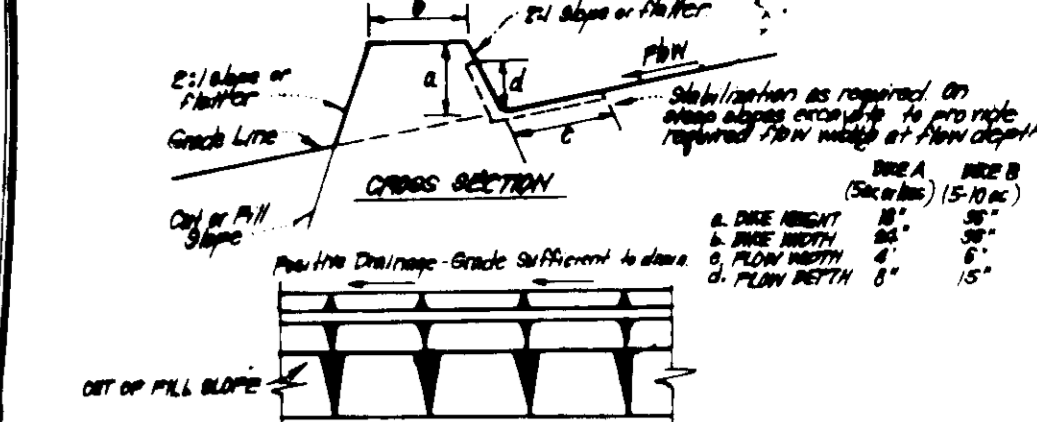
ENGINEER'S CERTIFICATE

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 the requirements of the Howard County Department of Public Works.

[Signature] DATE: 7/14/86

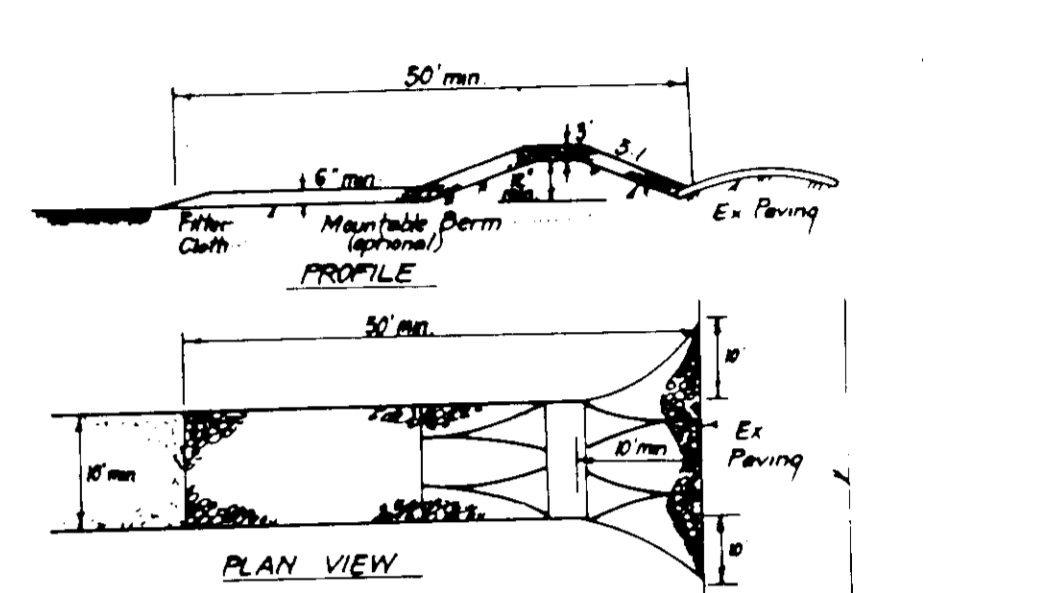
DESIGNED GLB
DRAWN LAI
CHECKED GLB
DATE July, 1986

FOR: HALLMARK BUILDERS, INC
 P.O. Box 1018
 Columbia, Maryland 21044
 56P-87-17c



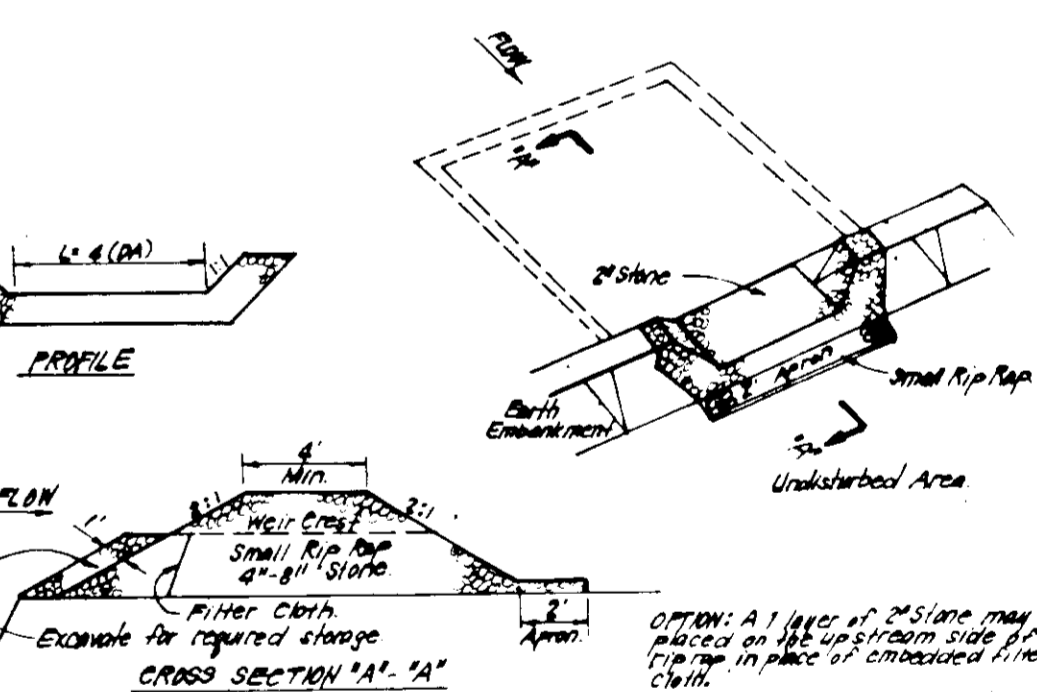
CONSTRUCTION SPECIFICATIONS

1. All dikes shall be constructed by earth-moving equipment.
2. All dikes shall have a minimum slope of 3:1 on the outside and 2:1 on the inside.
3. The width shall be a minimum of 10 feet at the top and 12 feet at the base.
4. The crest shall be a minimum of 4 feet wide.
5. Each dike shall be constructed with a minimum of 18 inches of compacted fill.
6. The crest shall be a minimum of 4 feet wide.
7. The crest shall be a minimum of 4 feet wide.



CONSTRUCTION SPECIFICATIONS

1. Stone size - Use 2" stone 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) feet 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 cloth will be secured on one end by a heavy rubber strip.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a manual silt berm with 3" stone will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment into public rights-of-way. The entrance shall be inspected and cleaned as needed. If any material is tracked onto the entrance, it shall be removed immediately.
8. Washing - Washing shall be obtained to remove sediment prior to entrance into 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.



CONSTRUCTION SPECIFICATIONS

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The soil shall be stabilized.
2. The fill material for the embankment shall be free of rocks and other hard objects as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by tamping with equipment while it is being constructed.
3. All soil and fill dikes shall be 2:1 or flatter.
4. The stone used in the outlet shall be small (1/4" to 1/2") with a thickness of 2" appropriate placed on the up-slope side of the outlet. The stone shall be placed in a layer of 6" thickness.
5. The structure shall be inspected after each rain and repairs made as needed.
6. The structure shall be inspected after each rain and repairs made as needed.
7. The structure shall be inspected after each rain and repairs made as needed.
8. The structure shall be inspected after each rain and repairs made as needed.

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

DESIGNED	GLB	SCALE	1" = 30'
DRAWN	LAI	DRAWING	2 of 2
CHECKED	GLB	JOB NO.	86-040
DATE	July, 1986	FILE NO.	86-040SE