HOWARD SOIL CONSERVATION DISTRICT

STANDARD SEDIMENT CONTROL NOTES

1) A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction, (880-3453).

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 most current "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", and revisions thereto.

3) Following initial soil disturbance or redisturbance, 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 seeding (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 0.91 Acres
   - Area Disturbed 0.85 Acres
   - Area to be roofed or paved 0.26 Acres
   - Area to be vegetatively stabilized 0.59 Acres
   - Total Cut 2250 Cu. Yds.
   - Total Fill 2250 Cu. Yds.
   - Offsite waste/borrow area location — (Balanced site by Developer)

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 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) Trenches for the construction of utilities is limited to three pipe lengths or that which can be back filled and stabilized within one working day, whichever is shorter.

HOWARD SOIL CONSERVATION DISTRICT

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, if not previously loosened.

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:
1) Preferred -- Apply 2 tons per acres dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs per acre 38-0-0 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 disk 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 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.

Maintenance -- Inspect all seeding 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, disking or other acceptable means before seeding, if not previously loosened.

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

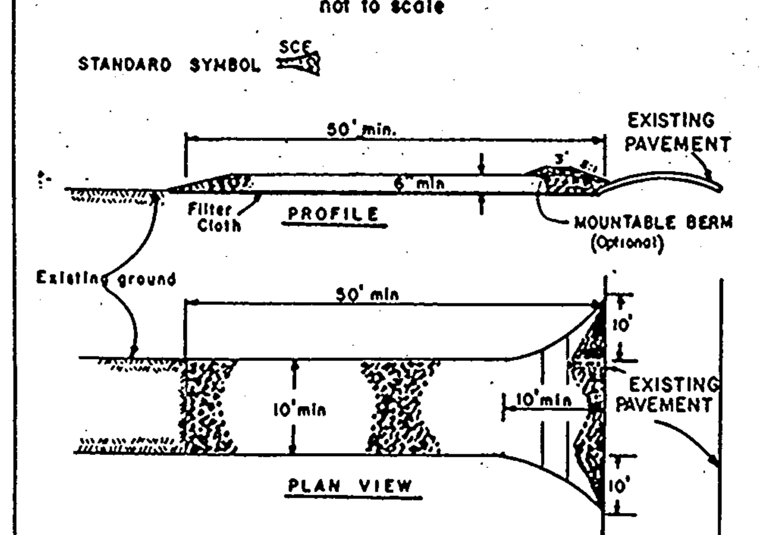
Seeding: -- For periods March 1 thru April 30 and from August 15 thru October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sq. ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq. ft.). For the period November 16 thru February 28, 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 weed free 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 additional rates and methods not covered.

STABILIZED CONSTRUCTION ENTRANCE

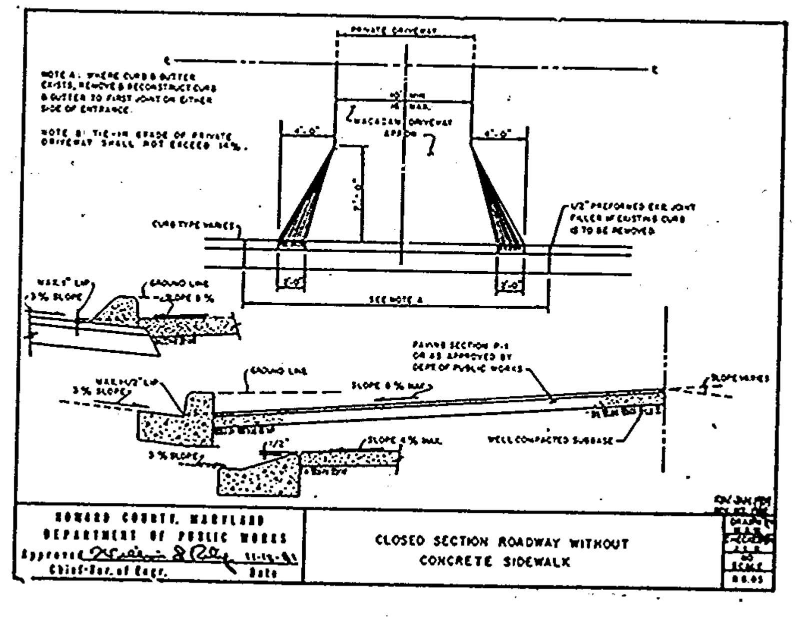
not to scale

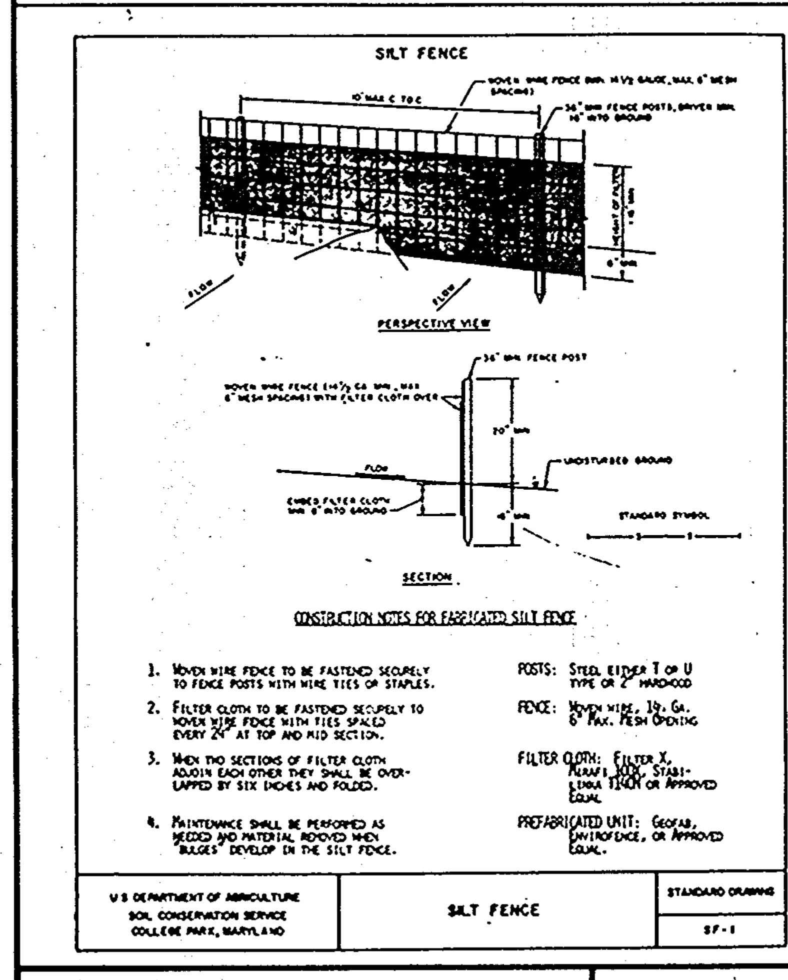


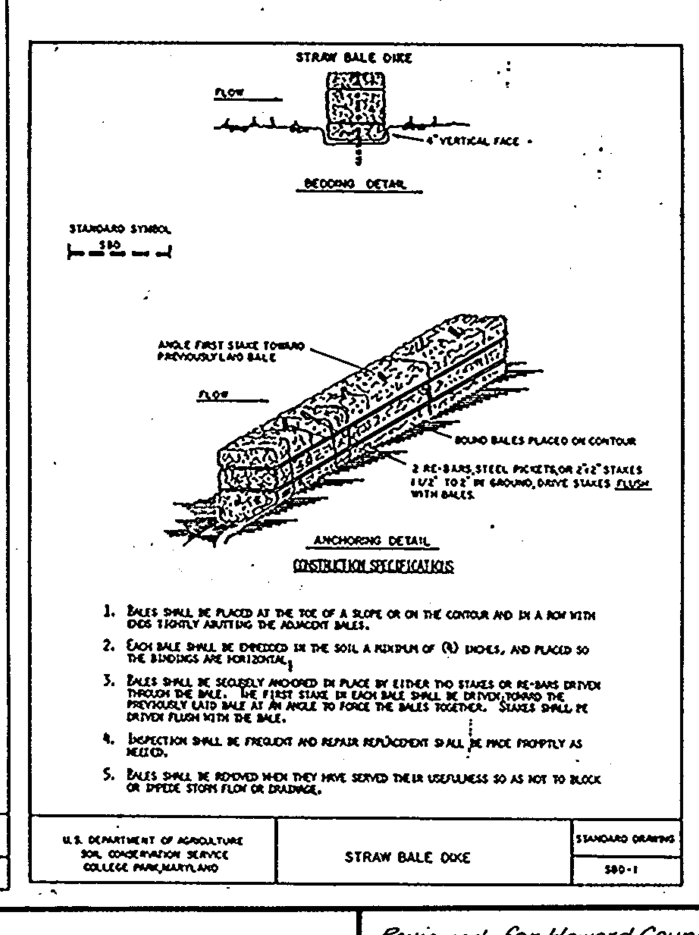
CONSTRUCTION SPECIFICATIONS

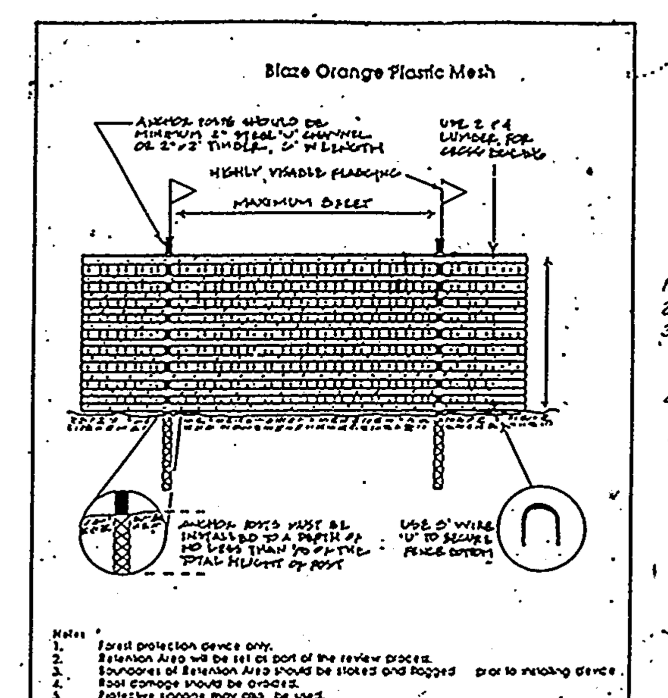
1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) foot minimum, but not less than 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.

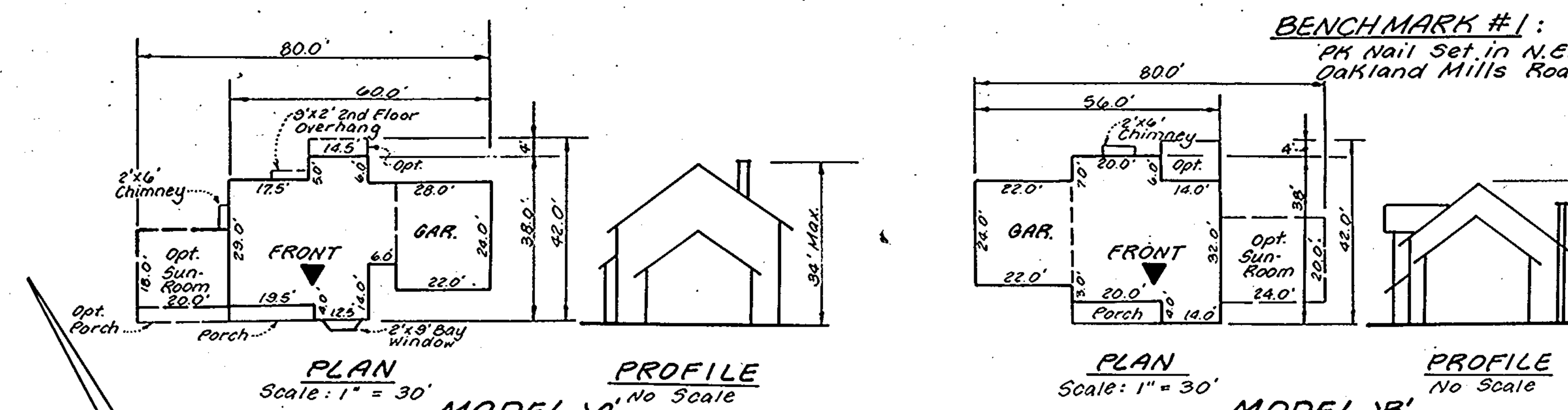
U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE College Park, Md.	STABILIZED CONSTRUCTION ENTRANCE	Standard Drawing SCE-1





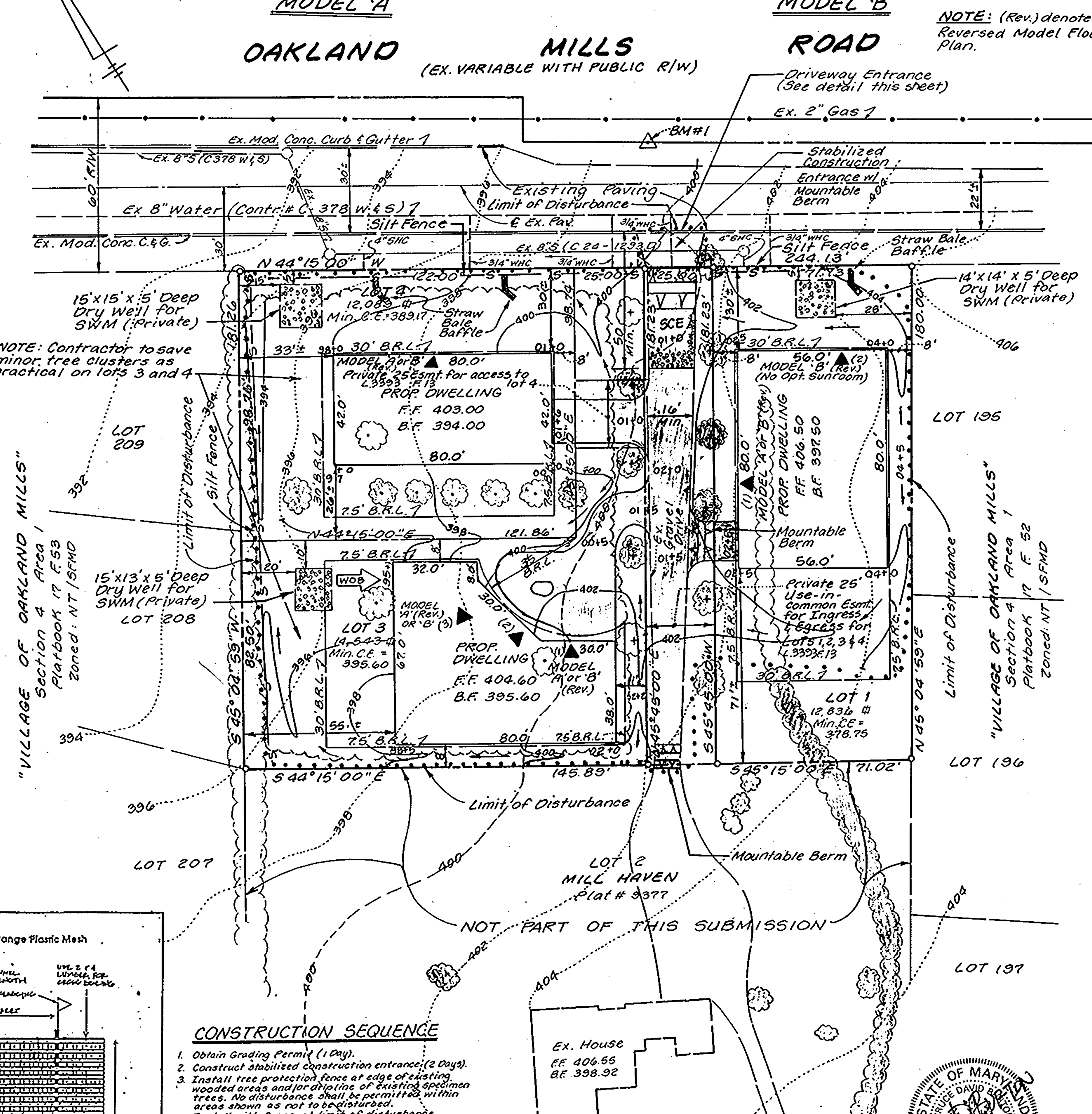






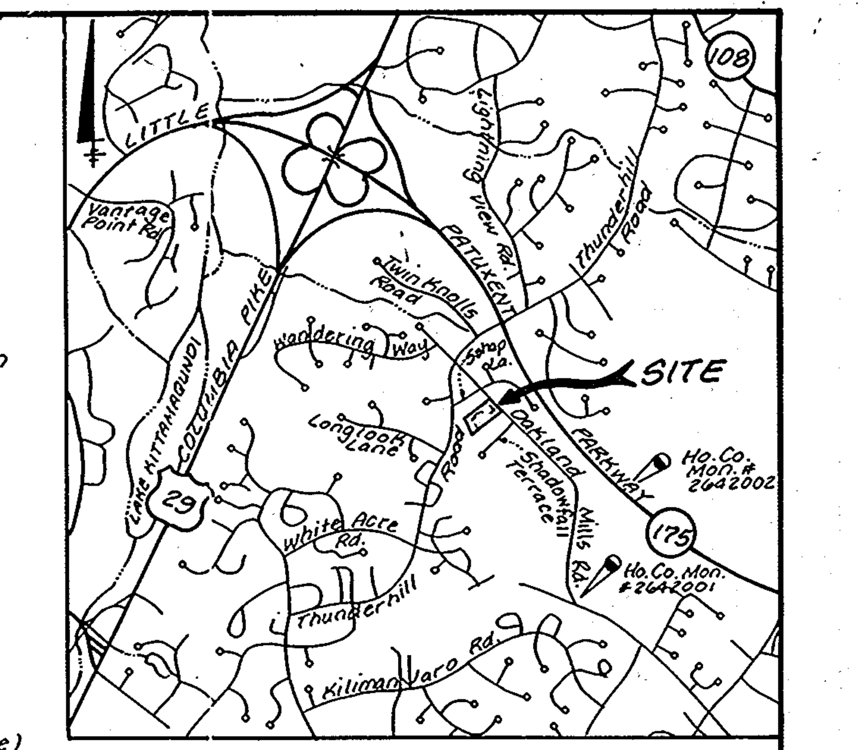
BENCHMARK #1: Elev. 398.16
PK Nail Set in N.E. Edge of Oakland Mills Road.

NOTE: (Rev.) denotes Reversed Model Floor Plan.



LEGEND

Symbol	Description
···400···	Existing Ground
—400—	Proposed Grade
—o— — —	Existing Water
— - — -	Existing Sewer
SCE	Stabilized Construction Entrance
• • • • •	Limit of Disturbance
S——S	Silt Fence
→ →	Drainage Flow
TP——TP	Tree Protection Fence
(+)	Existing Trees (To be removed)
(+)	Existing Trees (To be retained)
[dry well symbol]	Dry Well for SWM (Private)
▲	Front Orientation of Dwelling Unit
[baffle symbol]	Straw Bale Baffle

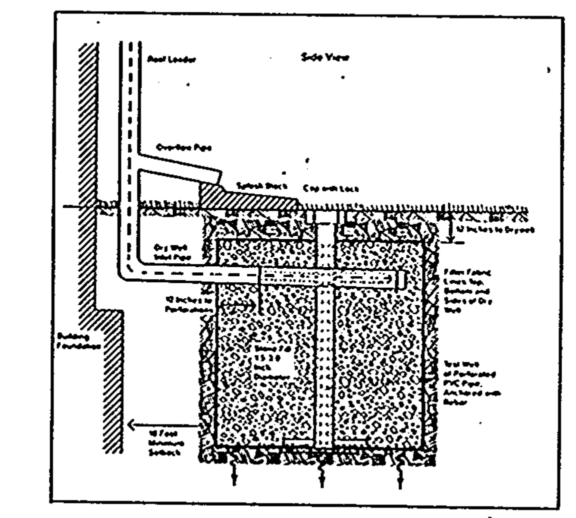


VICINITY MAP

Scale: 1" = 2000'

NOTES:

1. Site Analysis:
   - A. Total area of lots: 0.806 Ac.± or 35,468 Sq. Ft.±
   - B. Present zoning: R-12 (Residential - Single)
   - C. Proposed use of structures: Residential (Single Family Detached)
   - D. Total number of units allowed: 3
   - E. Total number of units provided: 3
   - F. Number of parking spaces required: 2.0/DU or 2×3.0U = 6
   - G. Number of parking spaces provided:
     1. Regular: 6 (2 Car Garages)
     2. Handicapped: N/A
   - H. Open Space (Green area to remain on site): 25,700 S.F. or 0.59 Ac.± (65%)
   - I. Building coverage of site: 6,840 S.F. or 0.16 Ac.± (13.5%)
2. Minimum Building Setbacks per recorded Plat #9377
   - A. Front:
     1. Lots 12,000 Sq. Ft. and greater: 30 Feet
   - B. Rear: 30 Feet
   - C. Side: 7.5 Feet (Corner Lot: 20 Feet)
3. All work shown on these plans shall be done in accordance with Howard County Standards, Specifications and Details for Construction, Volume IV.
4. The Contractor shall notify the Department of Public Works, Construction Inspection Division at (410) 313-1880 at least five (5) days prior to the start of any work.
5. The Contractor shall notify "Miss Utility" at 1(800) 257-7777 at least forty-eight (48) hours prior to any excavation work.
6. Any damage to existing public right-of-ways, existing paving, existing curb and gutter, existing utilities, etc. shall be corrected at the Contractor's expense.
7. The existing utilities shown hereon are located from construction drawings of record and W & S Contract No. 24-1233-D. The approximate location of existing utilities are shown for the Contractor's information and convenience. The Contractor shall locate existing utilities to his own satisfaction and well in advance of any construction activities. Additionally, the Contractor shall take all necessary precautions to protect all existing utilities and maintain uninterrupted service.
8. Topography shown is taken from a field-run survey dated July, 1986 by Riemer-Muegge Associates. Two foot contour intervals are shown.
9. Horizontal and vertical datums are related to the Maryland State Plane Coordinate System as projected from Howard County Control Station Nos. 2642001 and 2642002 (NAD 27).
10. Stormwater management study for this site is provided by this plan. All roof leaders from proposed dwellings on these lots must connect directly to the dry well location shown on this plan.
11. Contractor to place tree protection fence around existing specimen trees prior to beginning any construction shown hereon.



DETAIL DRY WELL

No Scale

3.4.6. Construction Specifications

3.4.6.1. Siting

A dry well shall not be constructed or placed in service until all of the contributing drainage area has been stabilized and approved by the responsible inspector.

3.4.6.2. Dry Well Preparation

Excavate the dry well to the design dimensions. Excavated materials shall be placed away from the excavated sides to enhance wall stability. Large tree roots shall be trimmed flush with the sides in order to prevent fabric puncturing or tearing during subsequent installation procedures. The side walls of the dry well shall be roughened where sheared and sealed by heavy equipment.

3.4.6.3. Fabric Laydown

The filter fabric roll shall be cut to the proper width prior to installation. The cut width must include sufficient material to conform to well perimeter irregularities and for a 6-inch minimum top overlap. Place the fabric roll over the well and unroll a sufficient length to allow placement of the fabric down into the well. Stones or other anchoring objects should be placed on the fabric at the edge of the well to keep the lined well open during windy periods. When overlaps are required between rolls, the upstream roll shall lap a minimum of 2 feet over the downstream roll in order to provide a shingled effect. The overlap ensures fabric continuity or the fabric conforms to the excavation surface during aggregate placement and compaction.

3.4.6.4. Aggregate Placement and Compaction

Drainage aggregate shall be placed in lifts and compacted using plate compactors. As a rule of thumb, a maximum loose lift thickness of 12 inches is recommended. The compaction process ensures fabric conformity to the excavation sides, thereby reducing the potential for soil piping and fabric clogging.

3.4.6.5. Overlapping and Covering

Following aggregate placement, the fabric previously weighted by stones should be folded over the aggregate to form a 6" minimum longitudinal lap. The desired fill soil should be placed over the lap at sufficient intervals to maintain the lap during subsequent backfilling.

3.4.6.6. Contamination

Care shall be exercised to prevent natural or fill soils from intermixing with the drainage aggregate. All contaminated aggregate shall be removed and replaced with uncontaminated aggregate.

3.4.6.7. Voids Behind Fabric

Voids can be created between the fabric and excavation sides and should be avoided. Removing boulders or other obstacles from the trench walls is one source of such voids. Natural soils should be placed in these voids at the most convenient time during construction to ensure fabric conformity to the excavation sides. Soil piping, fabric clogging, and possible surface subsidence will be avoided by this remedial process.

3.4.6.8. Unstable Excavation Sides

Vertically excavated trench walls may be difficult to maintain in areas where the soil moisture is high or where soft cohesive or cohesionless soils predominate. These conditions may require laying back of the side slopes to maintain stability; trapezoidal rather than rectangular cross sections may result.

3.4.6.9. Foundation Protection

Dry wells 3 or more feet deep shall be located at least 10 feet down gradient from foundation walls.

3.4.6.10. Observation Well

An observation well, as described in subsection 3.4.4.8 and Figure 3-5, will be provided. The depth of the well, at the time of installation, will be clearly marked on the well cap.

3.4.7. Maintenance

Dry wells shall be designed to minimize maintenance. However, it is recognized that all infiltration facilities are subject to clogging by sediment, oil, grease, grit and other debris. In addition, the performance and longevity of these structures is not well documented. Consequently, a monitoring observation well is required for all infiltration structures.

The observation well should be monitored periodically. For the first year after completion of construction, the well should be monitored on a quarterly basis and after every large storm. It is recommended that a log book be maintained indicating the rate at which the facility dewaters after large storms and the depth of the well for each observation. Once the performance characteristics of the structure have been verified, the monitoring schedule can be reduced to an annual basis, unless the performance data indicate that a more frequent schedule is required.

The individual homeowner is responsible for the operation and maintenance of the facility located on their respective lots.

CONSTRUCTION SEQUENCE

1. Obtain Grading Permit (1 Day).
2. Construct stabilized construction entrance (2 Days).
3. Install tree protection fence at edge of existing wooded areas and/or dripline of existing specimen trees. No disturbance shall be permitted within areas shown as not to be disturbed.
4. Install silt fence at limit of disturbance shown hereon. (5 Days)
5. Clear and grub site to subgrade. (5 Days)
6. Begin excavation for house foundations and begin house construction. (60 Days)
7. The contractor shall inspect and provide necessary maintenance on the sediment and erosion control structures shown hereon after each rainfall and on a daily basis.
8. Remove sediment from roadways and dress stabilized construction entrance as reqd. (Daily Maintenance)
9. Fine grade site and stabilize with permanent seeding mixture and straw mulch. Install individual driveway and house walk. Install dry well for SWM (10 Days)
10. Remove silt fence and stabilize disturbed area with permanent seeding mixture and straw mulch. (10 Days)

TOTAL TIME: 93 DAYS

LOT OWNERS

LOT 1	LOT 2	LOT 3
Timothy I. French 4617 Roundhill Rd. Ellicott City, MD. 21043	Eugene S. Long 5626 Oakland Mills Rd. Columbia, MD. 21045	Helen G. O'Connell 4617 Roundhill Rd. Ellicott City, MD. 21043

MODEL NOTES

1. LOT 1: Model 'B' use reversed floor plan on North and West orientation.
2. LOT 3: Model 'A' use reversed floor plan on North, Northeast and East orientation.
3. LOT 4: Model 'A' use reversed floor plan on North orientation.
4. All other options shown are standard floor plan.

MODEL MATRIX

MODEL TYPE	LOT 1 (1)	LOT 1 (2)	LOT 3 (1)	LOT 3 (2)	LOT 3 (3)	LOT 4
A						
Sunroom	*	—	*	—	—	*
Rear Bumpout	*	—	—	*	—	*
Front Entry Gar.	*	—	*	*	*	—
Side Entry Gar.	—	—	—	—	—	*
B						
Sunroom	*	—	*	—	—	*
Rear Bumpout	*	*	—	—	—	*
Front Entry Gar.	*	—	*	*	*	—
Side Entry Gar.	—	*	—	—	—	*

(1) Denotes Front Orientation Option
* Buildable for Lot
— Non-Buildable for Lot

ADDRESS CHART

LOT #	STREET ADDRESS
1	5630 Oakland Mills Road
3	5622 Oakland Mills Road
4	5618 Oakland Mills Road

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 requirements of the Howard Soil Conservation District."

STATE OF MARYLAND — BRUCE DAVID BURTON — No. 19184 REGISTERED — PROFESSIONAL ENGINEER

Bruce D. Burton 11/15/94
Signature of Engineer Date

DEVELOPER'S CERTIFICATE

"I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment 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."

12-2-94
Signature of Developer, Pres. AHI Date

Reviewed for Howard County Soil Conservation District and meets technical requirements.

Patricia ... 12/9/94
U.S. Soil Conservation Service Date

This development is approved for Erosion and Sediment Control by the Howard Soil Conservation District.

APPROVED:

John R. Robertson 12/8/94
Howard Soil Conservation District Date

APPROVED: Department of Public Works for Storm Drainage Systems and Roads.

12/15/94
Director, Public Works Date

12/13/94
Chief, Bureau of Engineering Date

APPROVED: Howard County Health Department for public water and public sewerage systems.

Health Officer Date

APPROVED: Department of Planning and Zoning.

12/23/94
Planning Director Date

Gina Irvinmanji 12/22/94
Chief, Division of Land Development and Research Date

T.C.

REVISIONS		
No.	Date	Description

Property of: MILL HAVEN			Section / Area —		Lot Nos. Lots 1,3 & 4
Plat Ref. 9377	Block No. 4	Zone R-12	Tax / Zone 36	El. Dist. 6th	Census Tract 6066.03
Water Code: E 03			Sewer Code: 5612000		

LAND DESIGN ENGINEERING, INC.

8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
(410) 715-1070 (Balto.) (301) 596-3424 (Wash.) (410) 715-0681 (Fax)

Designed: B.D.B.	SITE DEVELOPMENT PLAN & SEDIMENT CONTROL PLAN — for — **MILL HAVEN** LOTS 1, 3 and 4	Scale: 1" = 30'
Drawn: K.B.W.	Tax Map 36 P/O Parcel 2 6th Election District Howard County, MD.	Drawing: 1 of 1
Checked: B.D.B.	Previous Submittals: F86-25, F90-133	Job No. 93-126
Date: Oct. 1993	Developer AHI CONTRACTORS P.O. Box 384 Columbia, Maryland 21045	File No.

SDP 94-74