

### SEDIMENT CONTROL NOTES

- All Grading Permits shall be obtained prior to the starting of any Grading work.
- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permit prior to the start of any construction (992-2437).
- All vegetation and structural practices are to be installed according to the provisions of the plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 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 (3) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, Storm Drainage, of the Howard County Design Manual.
- 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), and (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 proper germination and establishment of grasses.
- 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.
- Site Analysis
  - Total area of site R/W and easements: 0.88 acres
  - Area disturbed: 0.82 acres
  - Area to be seeded or paved: 0.81 acres
  - Area to be vegetatively stabilized: 0.82 acres
  - Total site: 0.82 cu. yds.
  - Total fill: 0.00 cu. yds.
  - Offsite waste/borrow area location: To be determined by contractor with pre-approval of the Sediment Control Inspector
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- 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.
- See Sheet No. 5 for additional Sediment and Erosion Control Notes and Details.

### PERMANENT SEEDING NOTES

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

Seeded Preparation: Loosen upper 3 inches of soil by raking, dicing, or other acceptable means before seeding, if not previously loosened.

Soil Amendments: Use one of the following schedules:

- Preferred - Apply 2 tons per acre dolomitic limestone (92 lb./1,000 sq. ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lb./1,000 sq. ft.) before seeding. Harrow or disc into upper 3 inches of soil. At time of seeding apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lb./1,000 sq. ft.).
- Acceptable - Apply 2 tons per acre dolomitic limestone (92 lb./1,000 sq. ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lb./1,000 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 lb./1,000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. of Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (.05 lb./1,000 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. per acre Kentucky 31 Tall Fescue, and mulch with 2 tons per acre well anchored straw.

Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lb./1,000 sq. ft.) of unrattled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal./1,000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal./1,000 sq. ft.) for anchoring.

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

### TEMPORARY SEEDING

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

Seeded preparation: Loosen upper three inches of soil by raking, dicing, or other acceptable means before seeding, if not previously loosened.

Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lb./1,000 sq. ft.).

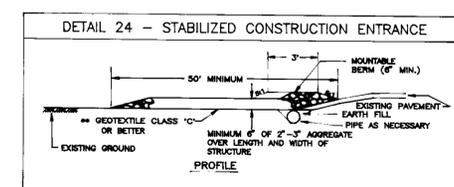
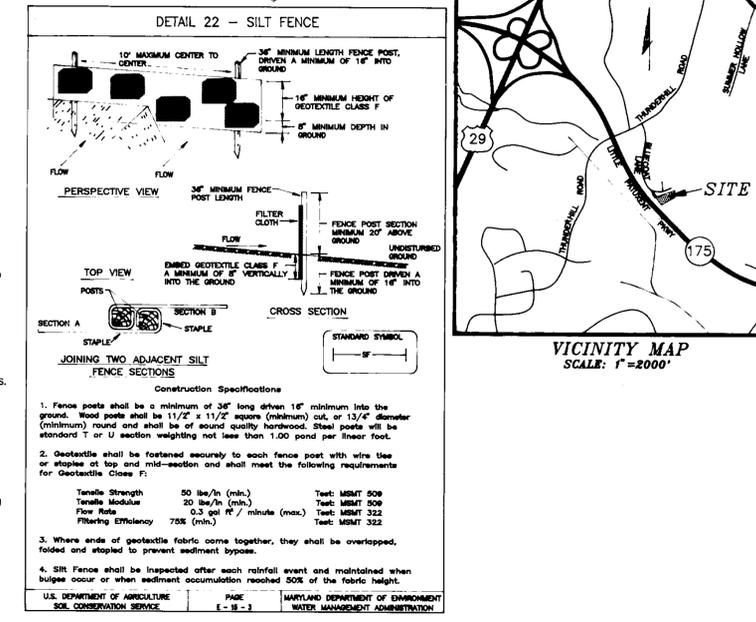
Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual ryegrass (3.2 lb./1,000 sq. ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lb./1,000 sq. ft.). For the period November 16 thru February 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 lb./1,000 sq. ft.) of unrattled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal./1,000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gal. per acre (8 gal./1,000 sq. ft.) for anchoring.

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

### GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
  - MISS UTILITY: 1-800-257-7777
  - HOWARD COUNTY BUREAU OF UTILITIES: 725-9978
  - AT&T CABLE LOCATION DIVISION: 313-2366
  - B.G.A.E. CO. CONTRACTOR SERVICES: 363-3553
  - B.G.A.E. CO. UNDERGROUND DAMAGE CONTROL: 850-4620
  - STATE HIGHWAY ADMINISTRATION: 787-4620
  - STATE HIGHWAY ADMINISTRATION: 531-5533
- SITE ANALYSIS:
  - AREA OF SUBDIVISION = 0.88 AC
  - R-12 (R)
  - USE OF STRUCTURE: RESIDENTIAL SINGLE FAMILY DETACHED
  - NUMBER OF LOTS: 2
  - LOCATION: COLUMBIA, MD
  - DPZ REFERENCE: F-95-156 (RECORD PLAT #11964)
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1860 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS, FIELD SURVEYS AND AVAILABLE RECORD DRAWINGS, APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- COORDINATES AND ELEVATIONS ARE BASED ON HOWARD COUNTY MONUMENTS 0030 AND 4308 (MAD 83).
- STORMWATER MANAGEMENT HAS BEEN WAIVED FOR THIS PROJECT.
- EXISTING TOPOGRAPHY IS BASED ON A FIELD RUN SURVEY PERFORMED BY MARKS & VOGEL ASSOCIATES, INC. DATED JUNE, 1995.
- EXISTING PUBLIC WATER CONTRACT #C-295 WAS.
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- ANY EXISTING STREET TREES DAMAGED OR DESTROYED DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR.
- FOUNDATIONS/FOOTINGS ABOVE EXISTING GROUND REQUIRE A GEOTECHNICAL ENGINEER'S CERTIFICATION FOR COMPACTION OF SOILS.

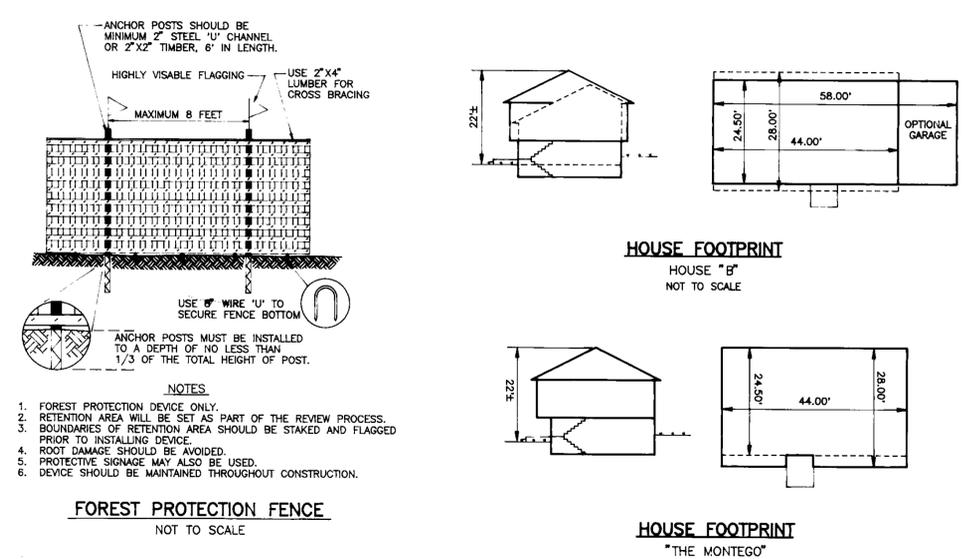
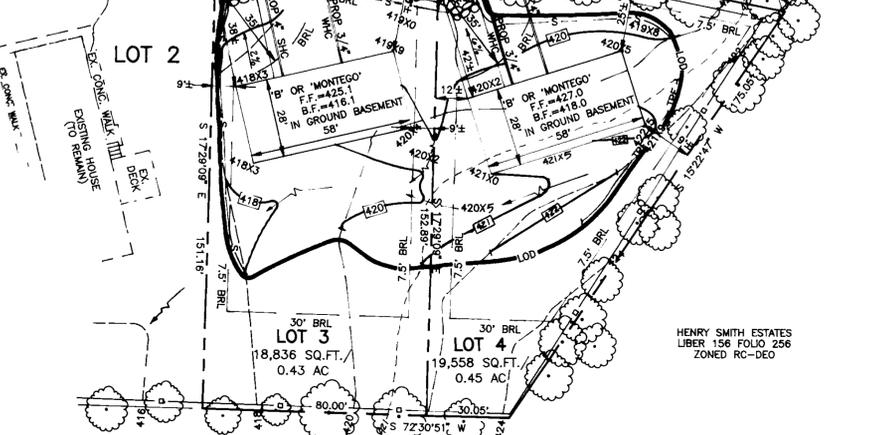


### STABILIZED CONSTRUCTION ENTRANCE

CONSTRUCTION SPECIFICATION

- Length - minimum of 50' (<30' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE



### ENGINEERS 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."

ROBERT H. VOGEL

### DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THIS PLAN, 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."

9-9-96

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

9/14/96

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

9/23/96

9/23/96

9/19/96

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER		DATE
SUBDIVISION NAME	SECTION/AREA	PARCEL NUMBER
OLEM ESTATES		235
PLAT NO.	BLOCK NO.	ZONE
11964	4	R-12
TAX/ZONE	ELECT. DIST.	CENSUS TR.
38	6TH	6066.01
PUBLIC	PUBLIC	
WATER CODE	SEWER CODE	

### OLEM ESTATES LOTS 3 AND 4 SITE DEVELOPMENT PLAN

LOTS 3 AND 4 ZONED R-12 E NT REFERENCE: F-95-156

TAX MAP #36 PARCEL 235 REFERENCE: PLAT #11964

6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

### MARKS & VOGEL ASSOCIATES, INC.

ENGINEERS - SURVEYORS - PLANNERS

3691 PARK AVENUE, SUITE 101, BELLCOTT CITY, MARYLAND 21048

TELEPHONE: (410) 461-5828 FAX: (410) 465-3988

DESIGN BY: R.H.V. DRAWN BY: D.G.H. CHECKED BY: R.H.V. DATE: JUNE, 1996 SCALE: 1"=30' W.O. NO.: 1 SHEET 1 OF