

I. SEDIMENT CONTROL NOTES:

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 three inches of soil by raking, disking or other acceptable means before seeding, unless previously loosened.

Soil Amendments: In lieu of soil test recommendations, use

- 1) Preferred - apply 2 tons per acre dolomitic limestone (82 lbs/1000 sq ft) and 1000 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 ureaform fertilizer (9 lbs/1000 sq ft).
- 2) Acceptable - apply 2 tons per acre dolomitic limestone (82 lbs/1000 sq ft) and 1000 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 ureaform fertilizer (9 lbs/1000 sq ft).

Seeding - For the periods March 1 thru April 30, and August 1 thru October 15, seed with 80 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 tall fescue for the period May 1 thru July 31, seed with 80 lbs Kentucky 31 tall fescue per acre and 2 lbs per acre (0.05 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 seed, 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 6 feet or higher, use 348 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 see R-1) 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 seed.

TEMPORARY SEEDING NOTES

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, disking or other acceptable means before seeding, unless 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 November 15, seed with 2 1/2 bushels per acre of annual ryegrass (32 lbs/1000 sq ft) for the period May 1 thru August 15, seed with 3 lbs per acre of weeping lovegrass (0.7 lbs/1000 sq ft).

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 6 feet or higher, use 348 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.

General Notes

- 1) Refer to 1983 Maryland Standards and Specifications for soil erosion and sediment control for standard details and detailed specifications of each practice specified herein.
- 2) With the approval of the sediment control inspector, minor field adjustments can and will be made to insure the control of any sediment changes in sediment control practices require prior approval of the sediment control inspector and the county soil conservation district.
- 3) At the end of each working day, all sediment control practices will be inspected and left in operational condition.
- 4) Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) seven calendar days as to the surface of all perimeter control structures, dikes, silt fences, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1) and b) fourteen days as to all other disturbed or graded areas on the project site.
- 5) Any change to the grading proposed on this plan requires re-submission to county soil conservation district for approval.
- 6) Dust control will be provided for all disturbed areas. refer to 1983 Maryland Standards and Specifications for soil erosion and sediment control, pp 62.01 and 62.02 for acceptable methods and specifications for dust control.
- 7) Any variation from the sequence of operations stated on this plan requires the approval of the sediment control inspector and the county soil conservation district prior to the initiation of the change.
- 8) Excess cut or borrow material shall go to or come from, respectively, a site with an approved sediment control plan.
- 9) Refer to Maryland's guidelines to "waterway construction" by the Water Resources Administration dated January, 1985 for standard details and detailed specifications of each practice specified herein for waterway construction.

1. All dikes shall be compacted 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 that functions 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 the chart below.

STANDARD AND SPECIFICATIONS FOR TOPSOILING

Section I - Site Preparation (Where Topsoil is to be added)

- A. When topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilization structures, berms, dikes, waterways, and sediment basins.
- B. Grading: Grades on the areas to be topsoiled which have been previously established shall be maintained.
- C. Liming: Where the subsoil is either highly acid or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet). Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- D. Tilling: After the areas to be topsoiled have been brought to grade, and immediately prior to dumping and spreading the topsoil, the subgrade shall be loosened by disking or by scarifying to a depth of at least 3 inches to permit bonding of the topsoil to the subsoil. Plow by a passing bullock up and down over the entire surface area of the slope to create horizontal erosion check slots to prevent topsoil from sliding down the slope.

Section II - Topsoil Material and Application

- Note: Topsoil salvaged from the existing site may often be used but it should meet the same standards as set forth in these specifications. The depth described as a representative profile for that particular soil type as described in the soil survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.
- A. Materials: Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand or other soil as approved by an agronomist or soil scientist. It shall not have a mixture of contrasting textured subsoil and contain no more than 5 percent by volume of cinders, stones, coarse fragment, gravel, sticks, roots, trash or other extraneous material larger than 1.5 inches in diameter. Topsoil must be free of plants or plant parts or bermuda grass, quackgrass, Johnsongrass, rutsedge, poison ivy, thistles, or others as specified. All topsoil shall be tested by a recognized laboratory for organic matter content, pH and soluble salts. A pH of 6.0 to 7.5 and an organic content of not less than 6.0, lime shall be applied and incorporated with the topsoil to adjust the pH to 6.5 or higher. Topsoil containing soluble salts greater than 500 parts per million shall not be used.
 - No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed to permit dissipation of toxic materials.
 - Note: topsoil substitutes or amendments as approved by a qualified agronomist or soil scientist, may be used in lieu of natural topsoil.

- B. grading: The topsoil shall be uniformly distributed and compacted to a minimum of four(4) inches. Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to form a uniform surface of depressions or water pockets. Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet, or in a condition that may otherwise be detrimental to proper grading and seeded practices.

STANDARD AND SPECIFICATION FOR VEGETATIVE STABILIZATION WITH SOD

1. Class of turfgrass sod shall be Maryland or Virginia state certified, or Maryland or Virginia state approved sod.
2. Sod shall be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 1/4 inch, at the time of cutting, measurement for thickness shall exclude top growth and thatch.
3. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
4. Individual pieces of sod shall be cut to the suppliers width and length, maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pods and torn or uneven ends will not be acceptable.
5. Sod shall not be harvested or transported when moisture content (excessively dry or wet) may adversely affect its survival.
6. Sod shall be harvested, delivered and installed within a period of 36 hours. sod not transported within this period shall be inspected and approved prior to its installation.

SITE PREPARATION

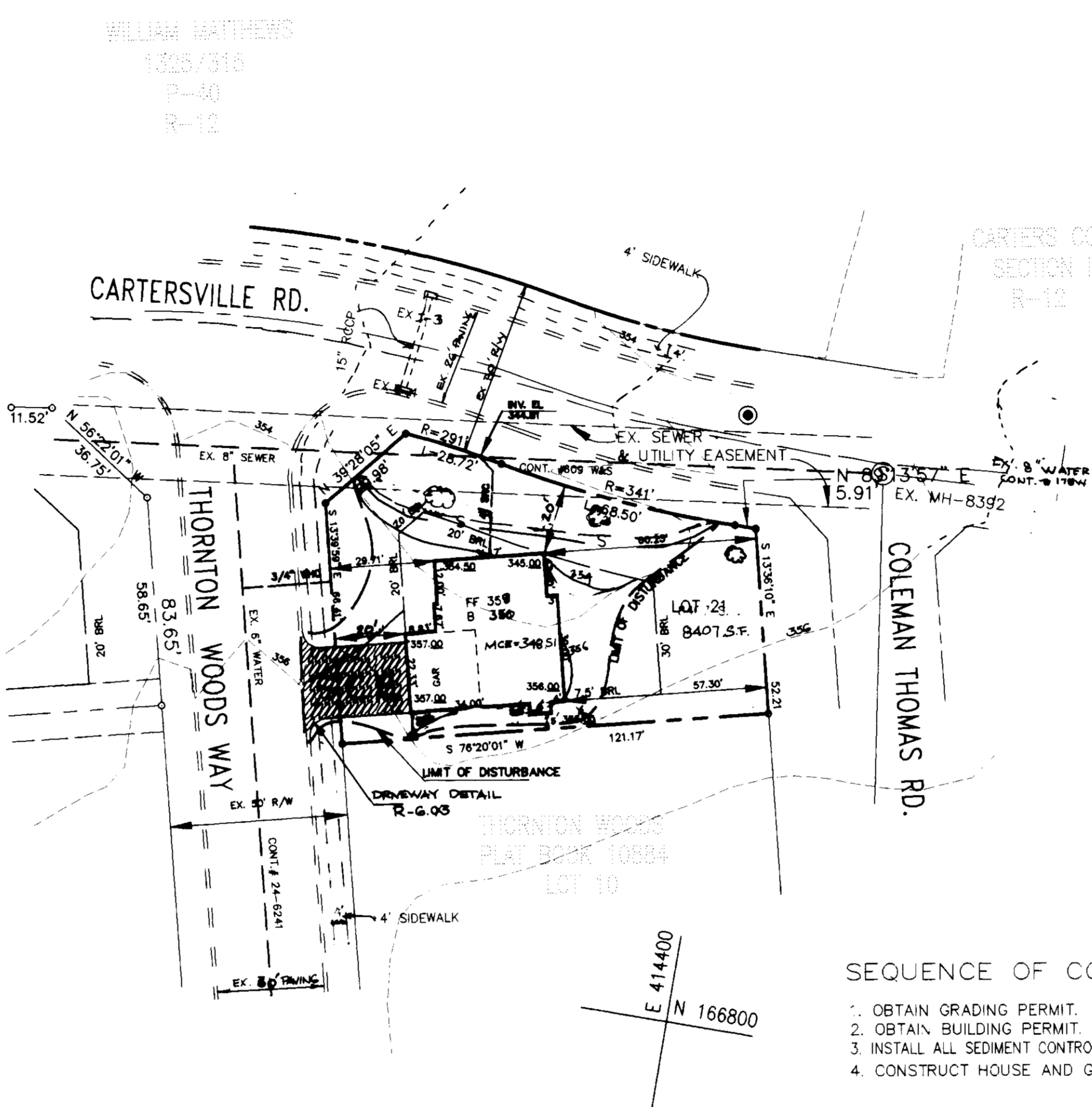
Fertilizer and lime application rates shall be determined by soil tests. Under unusual circumstances where there is insufficient time for a complete soil test, fertilizer and lime materials may be applied in amounts shown under b, below.

- a. Prior to Sodding, the surface shall be cleared of all trash, debris, and all roots, brush, wire, grade stakes and other objects that might interfere with planting, fertilizing or maintenance operations.
- b. Where the soil is acid or composed of heavy clays, ground limestone shall be spread at the rate of 2 tons/acre or 100 pounds per 1,000 square feet, in all soils 1,000 pounds per acre or 25 pounds per 1,000 square feet of 10-10-10 fertilizer or equivalent shall be uniformly applied and mixed into the top 3 inches of soil with the required lime.
- c. All areas receiving sod shall be uniformly fine graded, hard-packed earth shall be scarified prior to placement of sod.

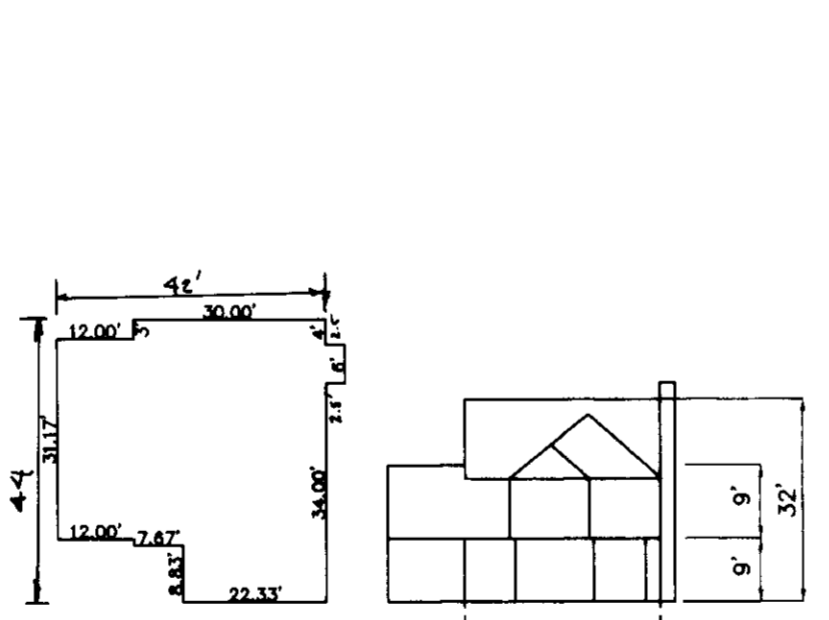
STANDARD SEDIMENT CONTROL NOTES:

- 1) A minimum of 48 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (313-1855)
- 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. 51) and sod (sec. 54), temporary seeding (sec. 50) and mulching (sec. 52), temporary stabilization with mulch alone can only be done when recommended practices 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:

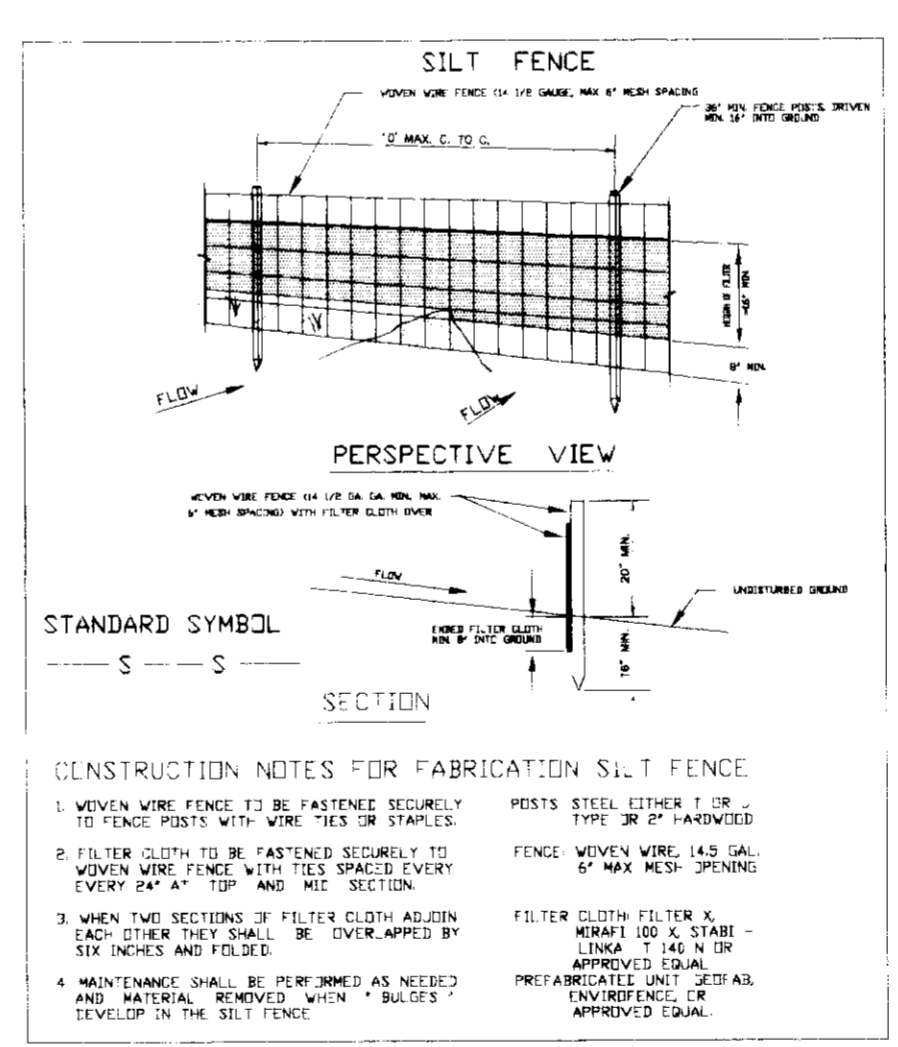
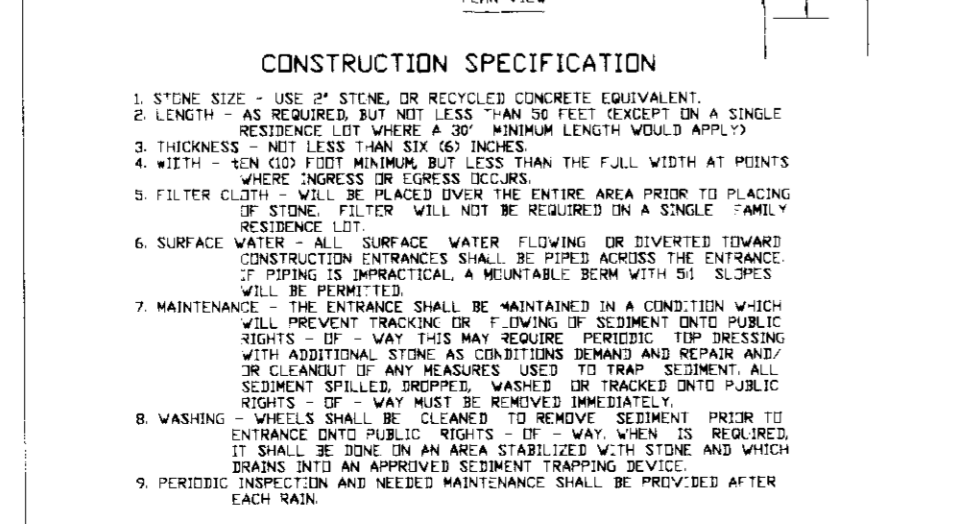
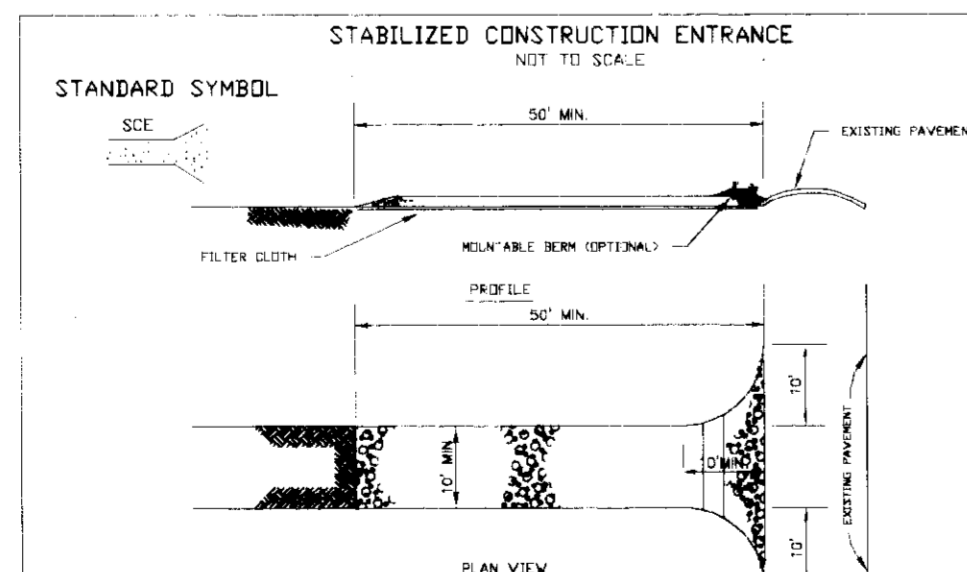
| | |
|------------------------------------|-------------|
| total area of site | 0.19 acres |
| area to be seeded or paved | 0.14 acres |
| area to be vegetatively stabilized | 0.11 acres |
| total cut | 102 cu. yds |
| total fill | n.a. |
| offsite waste/borrow area location | n.a. |
- 8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- 9) Additional sediment controls 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 be authorized until this initial approval by the inspection agency is made.



PLAN SCALE 1" = 30'



HOUSE PLAN & PROFILE SCALE 1" = 30'



CONSTRUCTION NOTES FOR FABRICATION SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. WOVEN WIRE FENCE WITH TELE SPACES EVERY 2 FEET ON 4" AT TOP AND 6" SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJACENT EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FASTENED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED TO PREVENT "BULGES" IN THE SILT FENCE.

DEVELOPER'S CERTIFICATE

"I 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 natural resources approved training program for the control of sediment and erosion before beginning the project."

DEVELOPER'S SIGNATURE: *[Signature]* DATE: 7/16/96

ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District."

ENGINEER'S SIGNATURE: *[Signature]* DATE: 7/16/96

| LANDSCAPE TREE SCHEDULE | | | | | |
|-------------------------|-----------|--------------------|---------------|----------|-----------|
| SYMBOL | LOCATION | BOTANICAL NAME | COMMON NAME | QUANTITY | SIZE |
| ⊙ | PERIMETER | PRUNUS CALIFORNICA | BRADFORD PEAR | 3 | 2 1/2 CAL |

| ADDRESS CHART | |
|---------------------------------|--------------------------------------|
| PARCEL NO. 49 | STREET ADDRESS 8532 CARTERSVILLE RD. |
| CENSUS TRACT TAX MAP 6067.03 42 | ELECTION DISTRICT BLOCK NO. 6TH 10 |
| | SECT. / AREA NA |

| PERMIT INFORMATION CHART | |
|--|--------------------------------|
| WATERCODE E14 | SEWER CODE 5200400 & 5201300 |
| FINAL PLAN APPROVAL DATE JULY 27, 1995 | DPZ REFERENCE NUMBERS F-95-159 |

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: 9/13/96

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH: *[Signature]* DATE: 9/13/96

PROJECT: LOT 21, THORNTON WOODS

LOCATION: TAX MAP # 42, PARCEL # 49 GRID 10 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: SITE DEVELOPMENT PLAN

OWNER/DEVELOPER: HAMILTON REED 18085 HICKORY RIDGE RD. COLUMBIA, MD 21044

DESIGNED: JER CHECKED: JER DATE: 07-15-96 PROJ. NO.: DRAWN: JCS APPROVED: MLL SCALE: AS SHOWN SHEET 1 OF 1