

TRAP SCHEDULE

TRAP NUMBER	1
TRAP TYPE	ST#4
EXISTING DRAINAGE AREA, AC	1.4
INTERIM DRAINAGE AREA, AC	1.4
PROPOSED DRAINAGE AREA, AC	1.4
STORAGE REQUIRED, CU FT.	
WET	2520
DRY	2520
TOTAL	5040
STORAGE PROVIDED, CU FT.	
WET	3739
DRY	3739
TOTAL	7478
TOP OF EMBANK. ELEV.	382.5
WEIR CREST ELEV.	381.0
CLEANOUT ELEV.	378.8
BOTTOM ELEV.	378.0
OUTLET WIDTH	6 ft.
BOTTOM DIMENSIONS	5'6" x 3'4"
TRAP SIDE SLOPES	2H to 1V
TRAP DEPTH	
WET	1.5
DRY	1.5
TOTAL	3
WET STORAGE ZONE ELEV.	379.5
DRY STORAGE ZONE ELEV.	381.0

NOTES: 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. Remove sediment from roadway and dress stabilized construction entrance as required.

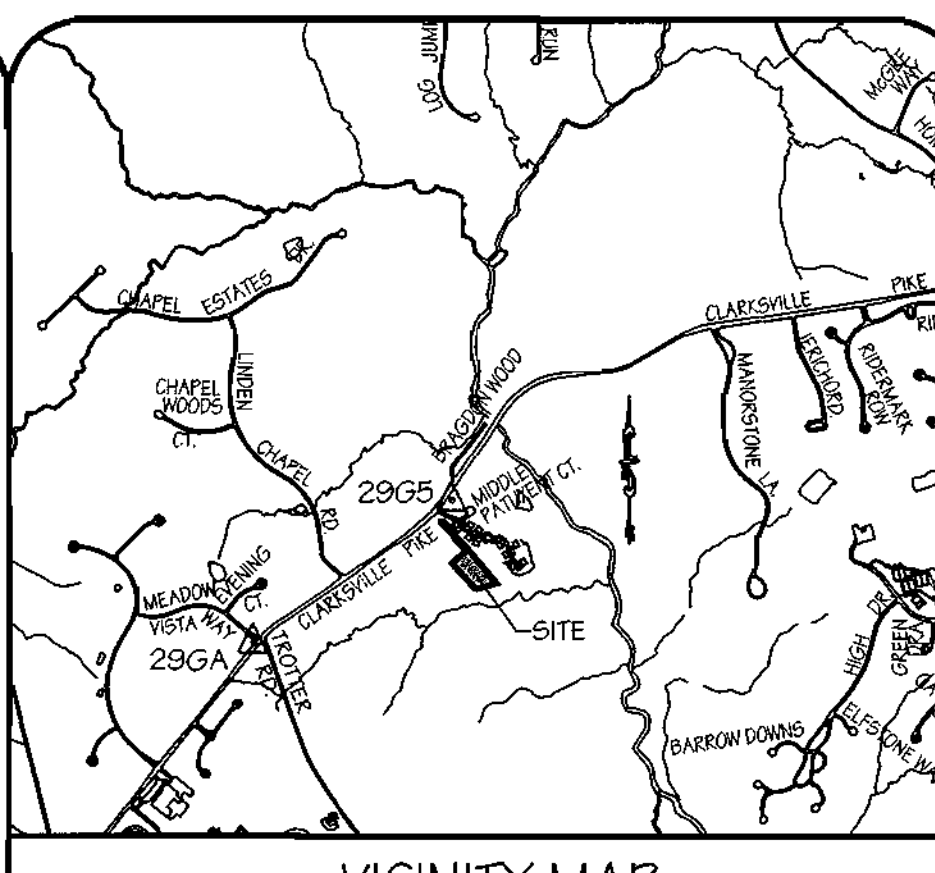
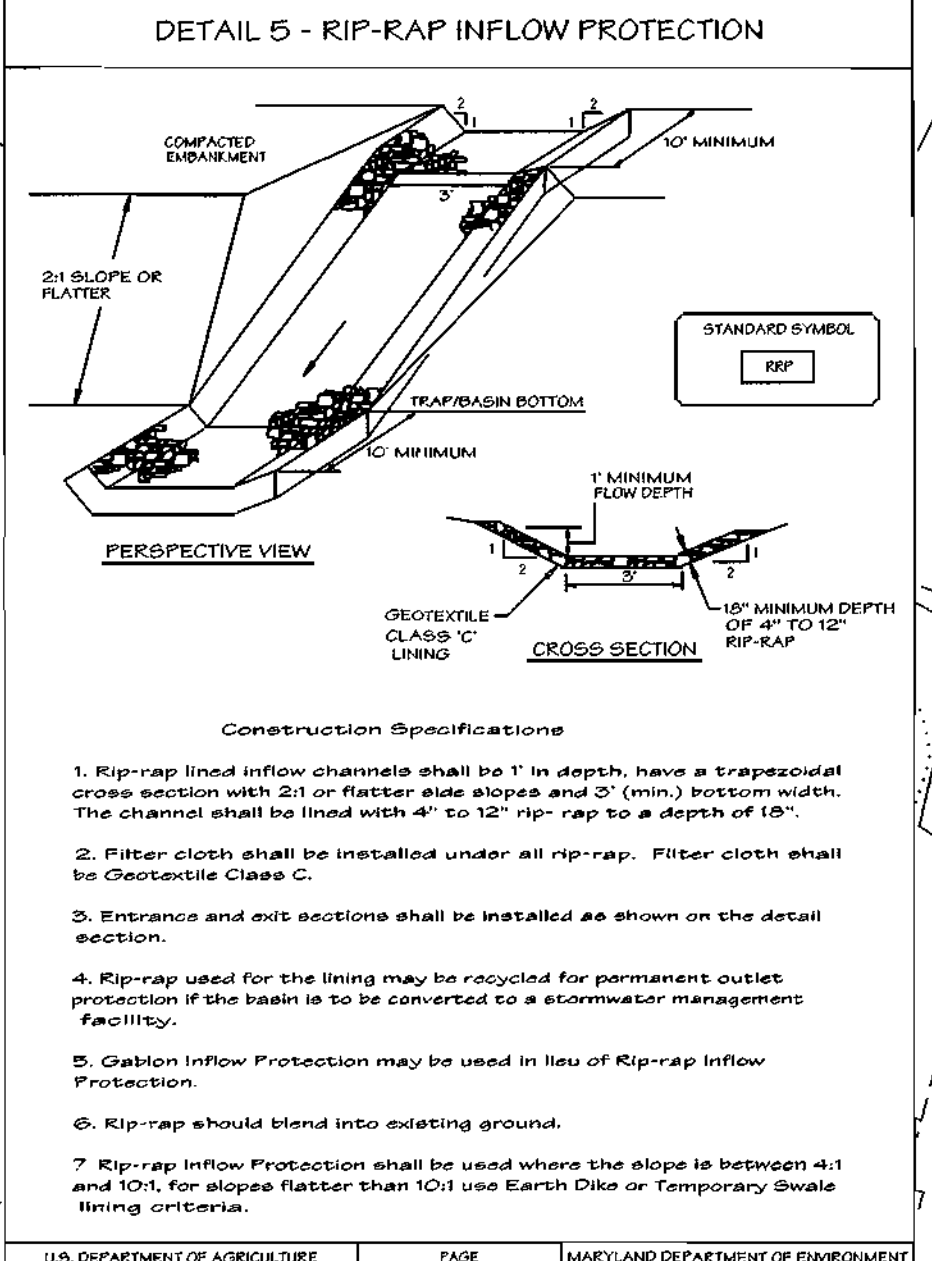
Sequence of Construction

1. Obtain Grading Permit 1 Day
 2. Notify the Howard County Dept. of Inspections. Licenses and permits at least 24 hours prior to starting work. 1 Day
 3. Construct Stabilized Construction Entrance 1 Day
 4. Install Silt Fence at Limits of Disturbance shown hereon. Install Sediment Trap #1. 3 Days
 5. Clear and grub site to sub-grade. Place excess soil in stockpile area. 5 Days
 6. Begin excavation for house foundations and begin house construction. 90 Days
 7. Construct patio and pool. 30 Days
 8. Fine grade and stabilize with permanent seeding mixture and straw mulch. Install individual driveway and house walk. 5 Days
 9. With permission from the Sediment Control Inspector, fill sediment Trap #1 with soil from stockpile area. Grade and install Tennis Court Area. 8 Days
 10. Construct grass swales and check dams per details hereon. 5 Days
 11. With permission from the sediment control inspector remove all sediment and erosion control measures and stabilize any remaining disturbed areas with permanent seeding mixture and straw mulch. 5 Days
- Total Time: 154 Days

Landscape Notes:

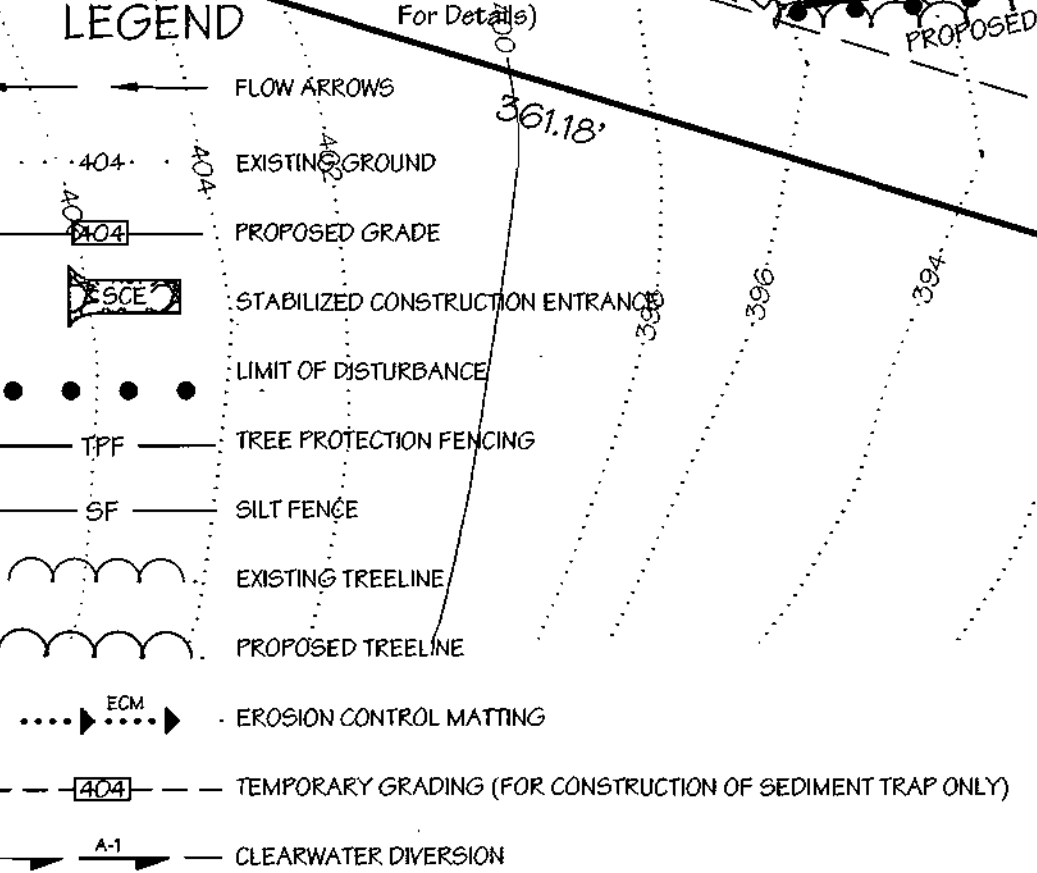
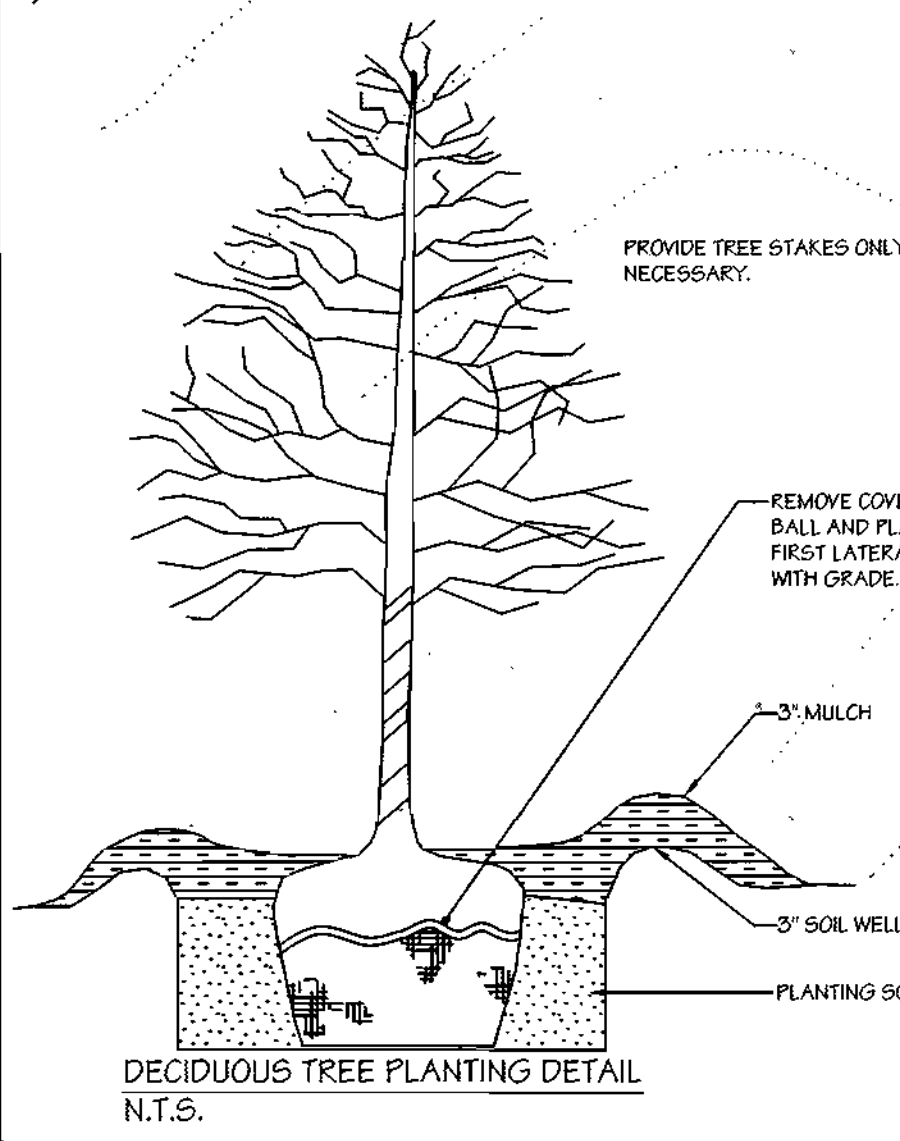
1. This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Howard County Landscape Manual.
2. The Owner/Developer is responsible for the planting of all plant material required to meet the standards established by the Howard County Landscape Manual.
3. Financial Surety for the required landscaping will be posted with the builder's grading permit in the amount of \$8000.00.
4. The Owner, tenant, and/or their agents shall be responsible for maintenance of the required landscaping, plant materials, berms, fences and walls. All plant materials shall be maintained in a good growing condition, and when necessary, replaced with new materials to ensure continued compliance with applicable regulations. All other required landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced.
5. All plant materials shall conform to the American Association of Nurserymen's publication, American Nursery stock.

DEVELOPER'S / BUILDER'S CERTIFICATE
 I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Subdivision and Land Development Regulations and the Landscape Manual.
 I/We further certify that upon completion, a letter of notice, accompanied by an executed one-year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.
 Date: 12-17-03



SCHEDULE A PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	N/A	A
Linear Foot of Roadway Frontage/Perimeter	N/A	586 LF.
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	N/A	YES-466LF.
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	N/A	NO
Number of Plants Required (Shade Trees, Evergreen Trees, Shrubs)	N/A	BASED ON 120 LF. 1600±
Number of Plants Provided (Shade Trees, Evergreen Trees, Other Trees (21 substitution) Shrubs (201 substitution) (Describe plant substitution credits below if needed)	N/A	2 SHADE TREES



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Paul D. Unger 1/17/04 DATE
 DIRECTOR

Cindy Hamstra 1/6/04 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT

William W. Schomig 1/5/04 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.

Jim Myles 12-30-03 DATE
 NATURAL RESOURCE CONSERVATION SERVICE

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

William W. Schomig 12-30-03 DATE
 HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL IS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE PLANNING PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Bruce D. Burton 12/17/03 DATE
 PROFESSIONAL ENGINEER

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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT OF THEIR PERFORMANCE AS DEEMED NECESSARY.

William W. Schomig 12/17/03 DATE
 DEVELOPER

STATE OF MARYLAND
 PROFESSIONAL ENGINEER

Bruce D. Burton 12/17/03 DATE
 PROFESSIONAL ENGINEER

REVISIONS

No.	Date	Description

Project: VETICK PROPERTY

Block No.	14 & 20	Zone	R-20	Tax Map No.	29	Election District	5th	Census Tract	6055.02
Plat No.	16345	Water Code	1-04	Sever Code	6740000				

LDE, INC.
 9250 Rumsay Road, Suite 106, Columbia, MD. 21045
 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED: SDH
 DRAWN: MJB, JLM
 CHECKED: BDB
 DATE: 12/20/03

GRADING AND SEDIMENT CONTROL PLAN

VETICK PROPERTY
 LOT 2
 PLAT #16345
 F10 PARCEL 328
 Tax Map No. 29, Grids 14 & 20
 5th Election District, Howard County, Maryland

PREVIOUS SUBMITTALS: F 78-28

OWNER/BUILDER: WILLIAMSBURG GROUP, LLC
 P.O. Box 1018
 Columbia, Maryland 21044
 410-397-8800

SCALE: 1"=30'
 DRAWING: 2 of 3
 JOB NO.: 03-018
 FILE NO.: SDP-04

STANDARD SEDIMENT CONTROL NOTES

- 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, (SDS-1955).
- 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.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within 7 calendar days for all permanent 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.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be established within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (Section C) for permanent seeding, sod, temporary seeding, and mulching. Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for 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	225	Acres
Area Disturbed	1185	Acres
Area to be roofed or paved	0.34	Acres
Area to be vegetatively stabilized	1.02	Acres
Total Cut	2005	Cu. Yds.
Total Fill	266	Cu. Yds.
Offsite waste area location	To be trucked to an offsite location with an approved recycling permit.	

PERMANENT SEEDING NOTES

- Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetation cover is needed.
- SEEDBED PREPARATION:** Loosen upper three inches of soil by raking, disk, or other acceptable means before seeding, if not previously loosened.
- SOIL AMENDMENTS:** In lieu of soil test recommendations, use one of the following schedules:
- PREFERRED** -- Apply 2 tons per acre dolomitic limestone (92 lb/1000sq. ft.) and 600 lb per acre 10-10-10 fertilizer (14 lb/1000sq. ft.) before seeding. Narrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 urea fertilizer (8 lb/1000sq. ft.) before seeding. Narrow or disk into upper three inches of soil.
 - ACCEPTABLE** -- Apply 2 tons per acre dolomitic limestone (92 lb/1000sq. ft.) and 1000 lbs per acre 10-10-10 fertilizer (23 lb/1000sq. ft.) before seeding. Narrow or disk into upper three inches of soil.

- SEEDING** -- For the period March 1 thru April 30, and August 15 thru October 15, seed with 60 lbs per acre (1.4 lb/1000sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lb per acre (1.4 lb/1000sq. ft.) of Kentucky 31 Tall Fescue and 2 lbs. per acre (0.2 lb/1000sq. ft.) of weeping lovegrass. During the period of October 16 thru February 28, seed 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 soil. Option (3) - Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch 2 tons / acre well anchored straw.

- MULCHING** -- Apply 1-1/2 to 2 tons per acre (70 to 90 lb/1000sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2/8 galloons per acre (0 gal/1000sq. ft.) of emulsified asphalt on flat areas. On slopes 3 feet or higher, use 3/4 galloons per acre (0 gal/1000sq. 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 redistributed where a short-term vegetative cover is needed.
- SEEDBED PREPARATION:** Loosen upper three inches of soil by raking, disk, or other acceptable means before seeding, if not previously loosened.
- SOIL AMENDMENTS:** -- Apply 600 lbs per acre 10-10-10 fertilizer (14 lb/1000sq. ft.).
- SEEDING** -- For periods March 1 thru April 30, and from August 15 thru October 15 seed with 2-1/2 bushels per acre of annual ryegrass (3.2 lb/1000sq. ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.7 lb/1000sq. 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 soil.

- MULCHING** -- Apply 1-1/2 to 2 tons per acre (70 to 90 lb/1000sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2/8 galloons per acre (0 gal/1000sq. ft.) of emulsified asphalt on flat areas. On slopes 3 feet or higher, use 3/4 galloons per acre (0 gal/1000sq. ft.) for anchoring.
- Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.

PLANTING SCHEDULE				
NO.	KEY	BOTANICAL / COMMON NAME	SIZE	COMMENT
2		Acer rubrum Red Maple	2 to 2-1/2" - 3" cal.	Local Stock only
2		Total Shade Trees		

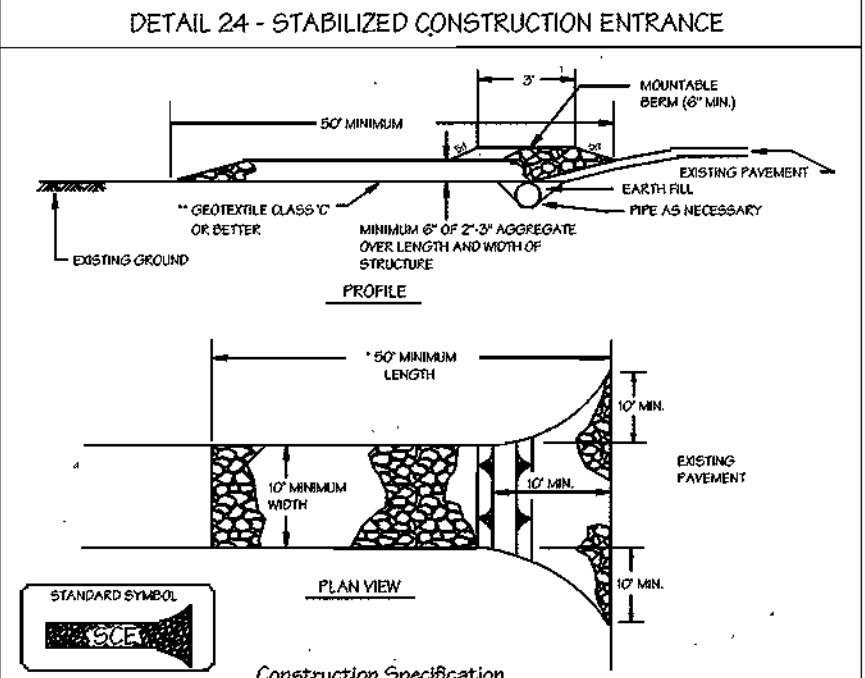
LANDSCAPE PERIMETER TABLE			
PERIMETER NO.	LINEAR FOOTAGE	EDGE TYPE	ADJACENT LAND USE
1	225	A	OPEN SPACE-PARK
2	361	A	OPEN SPACE-PARK
TOTAL LENGTH: 586			

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Mark A. Ugh 10/14 DATE
DIRECTOR

John H. Hoffer 10/14 DATE
CHIEF DIVISION OF LAND DEVELOPMENT

John H. Hoffer 11/5/04 DATE
CHIEF DIVISION OF ENGINEERING DESIGN



21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

Definition
Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose
To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

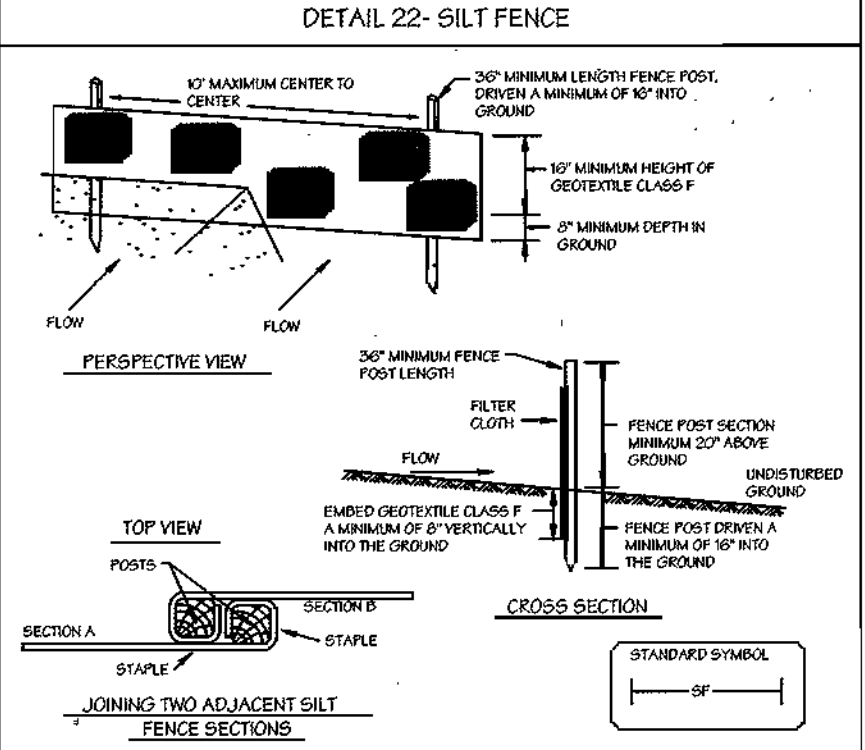
Conditions Where Practice Applies
This practice is limited to areas having 2:1 or flatter slopes where:

- The texture of the exposed subsoil/petroleum material is not adequate to produce vegetative growth.
- The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish containing supplies of moisture and plant nutrients.
- The original soil to be vegetated contains material toxic to plant growth.
- The soil is so acidic that treatment with limestone is not feasible.

For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. The depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of clinkers, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic 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) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- For sites having disturbed areas under 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
- For sites having disturbed areas over 5 acres:
 - On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be provided to raise the pH to 6.5 or higher.
 - Organic content of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No soil 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 (14 days min.) to permit dissipation of phytotoxic materials.
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.



22.0 STANDARD AND SPECIFICATIONS FOR SILT FENCE

Definition
A structure designed to reduce sediment transport by trapping sediment in a depression behind the structure.

Purpose
To reduce sediment transport from a disturbed area to a receiving water body or to another area of the site.

Conditions Where Practice Applies
This practice is limited to areas having slopes of 2:1 or flatter.

Construction and Material Specifications

- Fence posts shall be a minimum of 3/4" long driven 18" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum cut), or 2" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lb/in (min)	Tests: MSMT 509
Tensile Modulus	20 lb/in (min)	Tests: MSMT 509
Flow Rate	0.3 gal/ft ² /minute (max)	Tests: MSMT 322
Filtration Efficiency	75% (min)	Tests: MSMT 322
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.



30.0 STANDARD AND SPECIFICATIONS FOR EROSION CONTROL MATTINGS

Definition
A matting of natural or synthetic fibers designed to stabilize soil and prevent erosion.

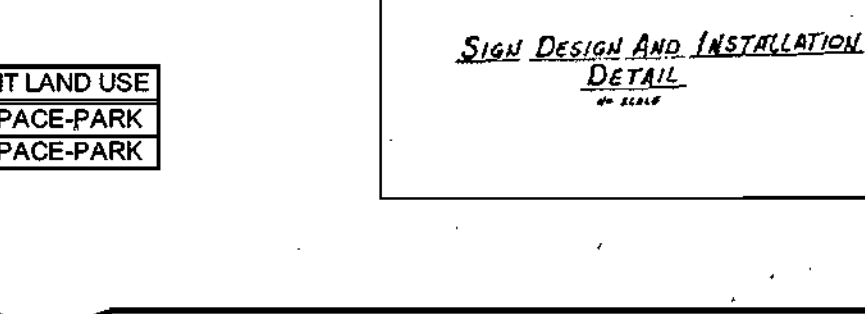
Purpose
To stabilize soil and prevent erosion on slopes of 2:1 or flatter.

Conditions Where Practice Applies
This practice is limited to areas having slopes of 2:1 or flatter.

Construction and Material Specifications

- Composited Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
 - Composited sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
 - Composited sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
 - Composited sludge shall be applied at a rate of 1 ton/1000 square feet.
- Composited sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1000 square feet, and 1/2 the normal lime application rate.

References: Guidelines and Specifications, Soil Preparation and Sowing, MD-VA, Pub.#1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institute, Revised 1973.



21.0 STANDARD AND SPECIFICATIONS FOR SIGN

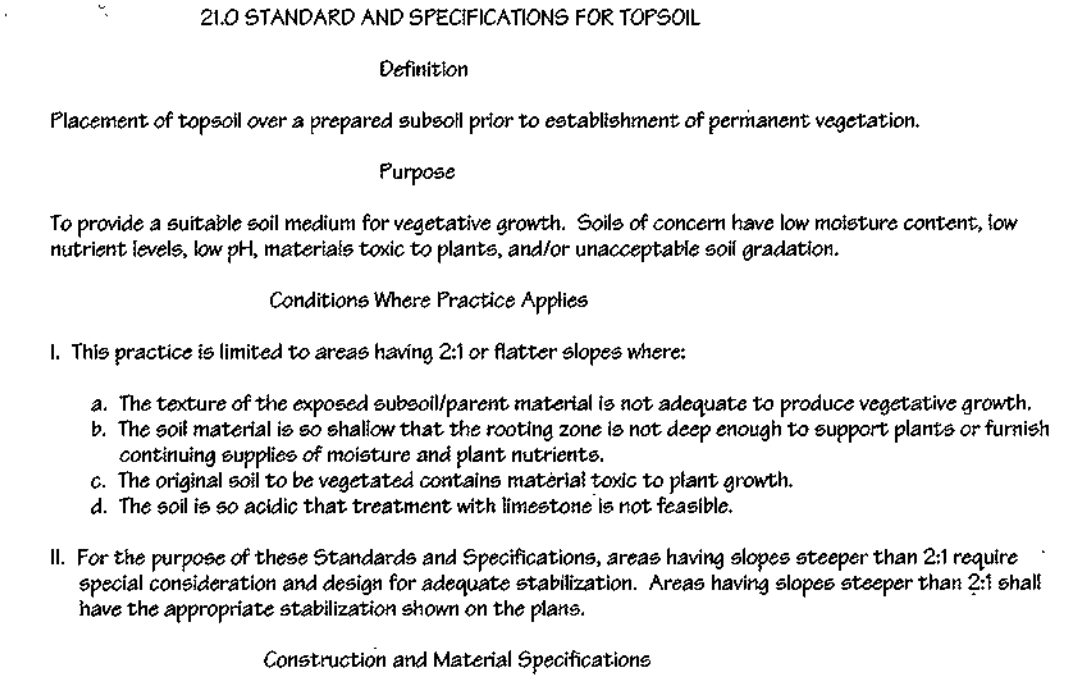
Definition
A sign used to identify a site or to provide information to the public.

Purpose
To identify a site or to provide information to the public.

Conditions Where Practice Applies
This practice is limited to areas having slopes of 2:1 or flatter.

Construction and Material Specifications

- The sign size shall be 12' x 18'.
- The sign material shall be .080 gauge thickness anodized aluminum.
- The sign shall have a green background with 3" high white reflective numbers and arrow with a white reflective border.
- Where a private road name is in use or part of a private Homeowner's Articles of Incorporation agreement the sign size will be enlarged to accommodate the necessary lettering but remain proportional to the above design limits.
- The sign will be installed within the common driveway easement area as noted on the final plat.
- Address number identification signs are to be provided under the terms of the Homeowner's Association Incorporation or a Property Management Company for installation and maintenance in accordance with the Department of Planning and Zoning Address Numbering System and per Section 3.80(a) of the Howard County Code - Public Signs. Maintenance/repair and replacement of the address number directional signs will be the responsibility of the Homeowner's Association or a Property Management Company.
- Compliance regarding the installation of the new address number directional signs will be enforced by the Department of Inspections, Licenses and Permits at the time of final approval for issuance of the Use and Occupancy permits.



21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

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Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose
To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

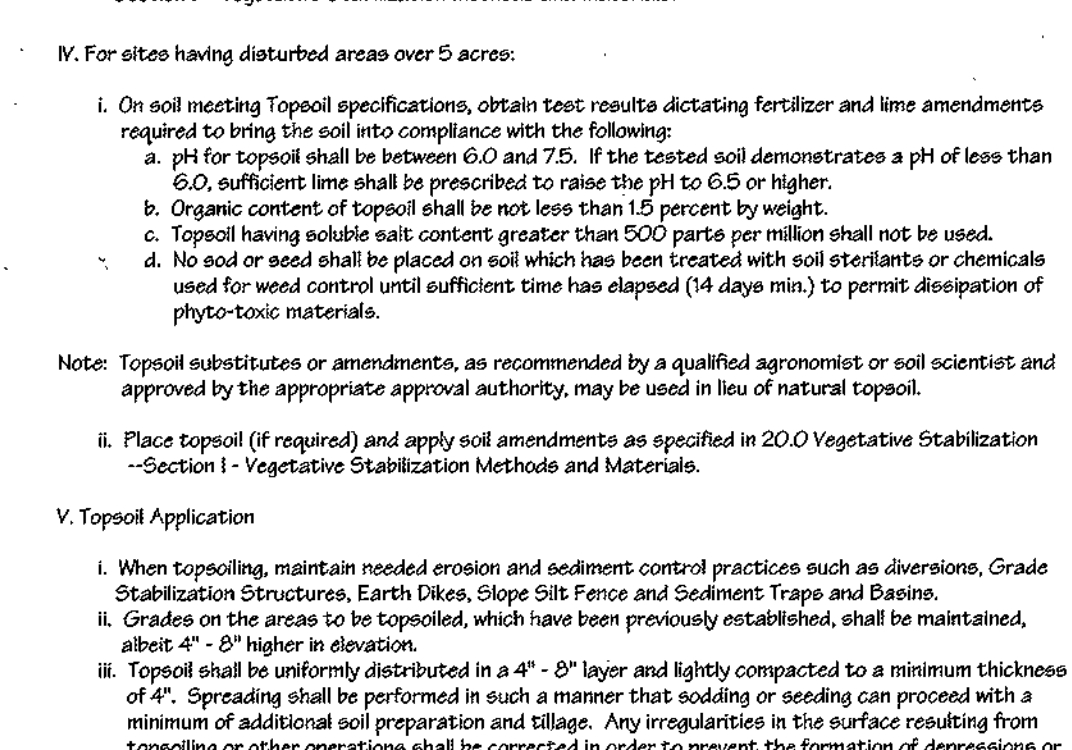
Conditions Where Practice Applies
This practice is limited to areas having 2:1 or flatter slopes where:

- The texture of the exposed subsoil/petroleum material is not adequate to produce vegetative growth.
- The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish containing supplies of moisture and plant nutrients.
- The original soil to be vegetated contains material toxic to plant growth.
- The soil is so acidic that treatment with limestone is not feasible.

For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. The depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of clinkers, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic 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) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- For sites having disturbed areas under 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
- For sites having disturbed areas over 5 acres:
 - On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be provided to raise the pH to 6.5 or higher.
 - Organic content of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No soil 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 (14 days min.) to permit dissipation of phytotoxic materials.
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22.0 STANDARD AND SPECIFICATIONS FOR SILT FENCE

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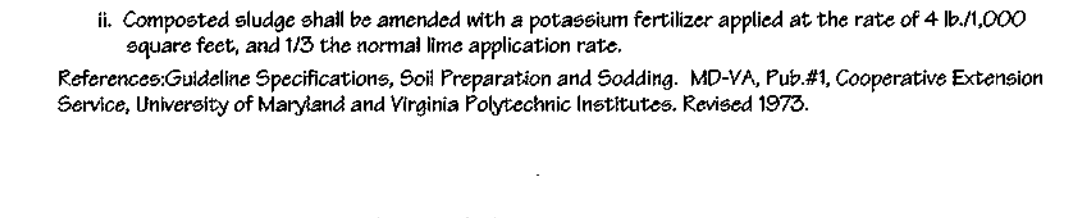
Purpose
To reduce sediment transport from a disturbed area to a receiving water body or to another area of the site.

Conditions Where Practice Applies
This practice is limited to areas having slopes of 2:1 or flatter.

Construction and Material Specifications

- Fence posts shall be a minimum of 3/4" long driven 18" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum cut), or 2" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lb/in (min)	Tests: MSMT 509
Tensile Modulus	20 lb/in (min)	Tests: MSMT 509
Flow Rate	0.3 gal/ft ² /minute (max)	Tests: MSMT 322
Filtration Efficiency	75% (min)	Tests: MSMT 322
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.



30.0 STANDARD AND SPECIFICATIONS FOR EROSION CONTROL MATTINGS

Definition
A matting of natural or synthetic fibers designed to stabilize soil and prevent erosion.

Purpose
To stabilize soil and prevent erosion on slopes of 2:1 or flatter.

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Construction and Material Specifications

- Composited Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
 - Composited sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
 - Composited sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
 - Composited sludge shall be applied at a rate of 1 ton/1000 square feet.
- Composited sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1000 square feet, and 1/2 the normal lime application rate.

References: Guidelines and Specifications, Soil Preparation and Sowing, MD-VA, Pub.#1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institute, Revised 1973.



21.0 STANDARD AND SPECIFICATIONS FOR SIGN

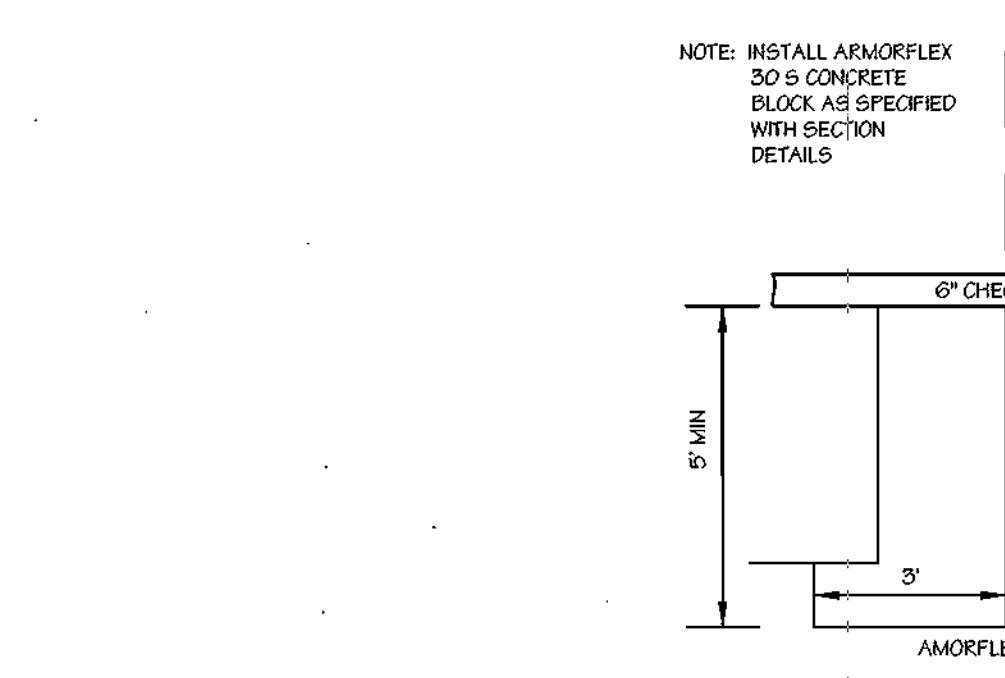
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A sign used to identify a site or to provide information to the public.

Purpose
To identify a site or to provide information to the public.

Conditions Where Practice Applies
This practice is limited to areas having slopes of 2:1 or flatter.

Construction and Material Specifications

- The sign size shall be 12' x 18'.
- The sign material shall be .080 gauge thickness anodized aluminum.
- The sign shall have a green background with 3" high white reflective numbers and arrow with a white reflective border.
- Where a private road name is in use or part of a private Homeowner's Articles of Incorporation agreement the sign size will be enlarged to accommodate the necessary lettering but remain proportional to the above design limits.
- The sign will be installed within the common driveway easement area as noted on the final plat.
- Address number identification signs are to be provided under the terms of the Homeowner's Association Incorporation or a Property Management Company for installation and maintenance in accordance with the Department of Planning and Zoning Address Numbering System and per Section 3.80(a) of the Howard County Code - Public Signs. Maintenance/repair and replacement of the address number directional signs will be the responsibility of the Homeowner's Association or a Property Management Company.
- Compliance regarding the installation of the new address number directional signs will be enforced by the Department of Inspections, Licenses and Permits at the time of final approval for issuance of the Use and Occupancy permits.



9.0 STANDARD AND SPECIFICATIONS FOR STONE OUTLET SEDIMENT TRAP - ST II

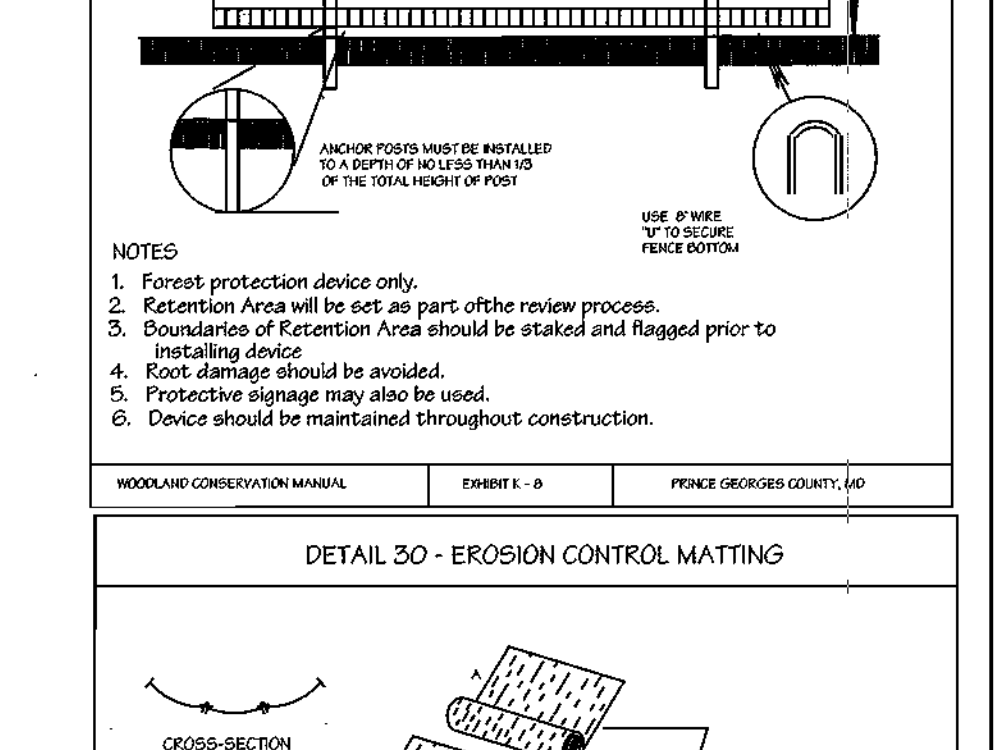
Definition
A structure designed to trap sediment in a depression behind the structure.

Purpose
To trap sediment in a depression behind the structure.

Conditions Where Practice Applies
This practice is limited to areas having slopes of 2:1 or flatter.

Construction and Material Specifications

- Area under embankment shall be cleared, grubbed and stripped of any vegetation and rock roots. The grab area shall be cleared.
- The fill material for the embankment shall be free of roots and debris and shall be compacted to a minimum density of 95% of the maximum density of the material. The embankment shall be completed by compacting with equipment with a minimum of 2000 lbs. of weight.
- Air cut and fill slopes shall be 3:1 or flatter.



1.0 STANDARD AND SPECIFICATIONS FOR EARTH DIKE

Definition
A structure designed to prevent erosion by trapping sediment in a depression behind the structure.

Purpose
To prevent erosion by trapping sediment in a depression behind the structure.

Conditions Where Practice Applies
This practice is limited to areas having slopes of 2:1 or flatter.

Construction and Material Specifications

- Soil and cover with straw mulch.
- Soil and cover with Erosion Control Matting or tie with soil.
- 4" x 4" x 7" stone or recycled concrete equivalent placed into the soil 7" minimum.

Construction Specifications

- All temporary earth dikes shall have a minimum top width of 4 feet. Spot elevations may be necessary for grade base turn T.
- Runoff directed from a disturbed area shall be conveyed to a sediment trapping device.
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- All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
- The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and the face of bank, projections or other irregularities which would impede runoff flow.
- Dike shall be completed by earth moving equipment.
- All earth contact and not used for construction shall be placed so that it will not interfere with the functioning of the dike.
- Inspection and maintenance must be provided periodically and after each rain event.



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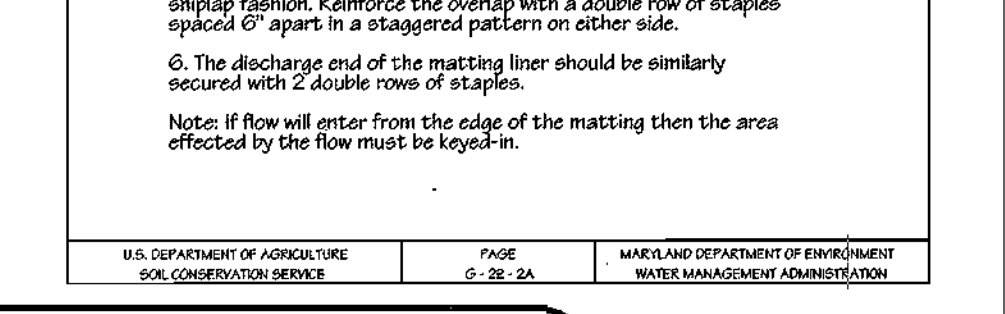
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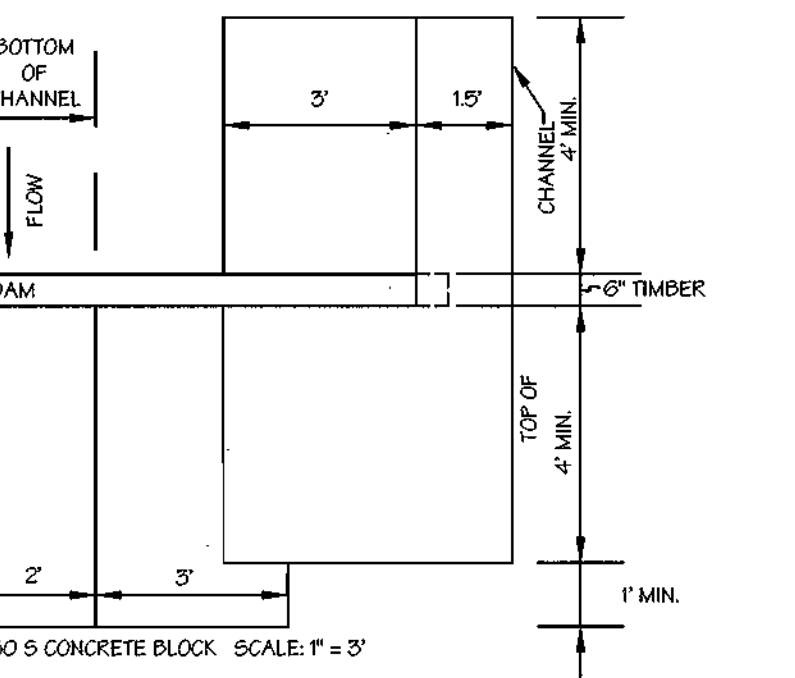
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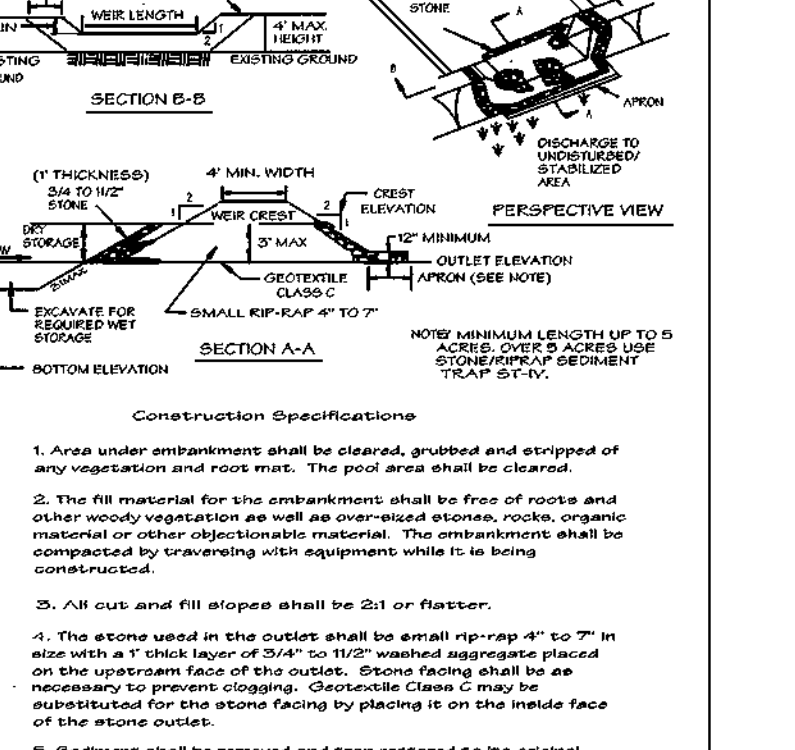
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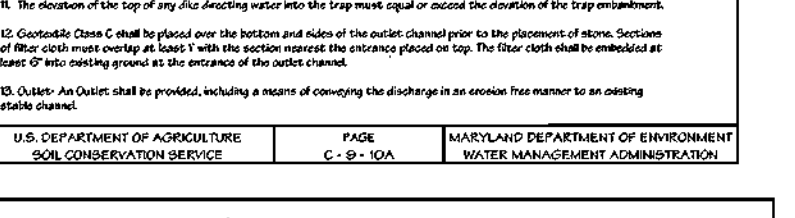
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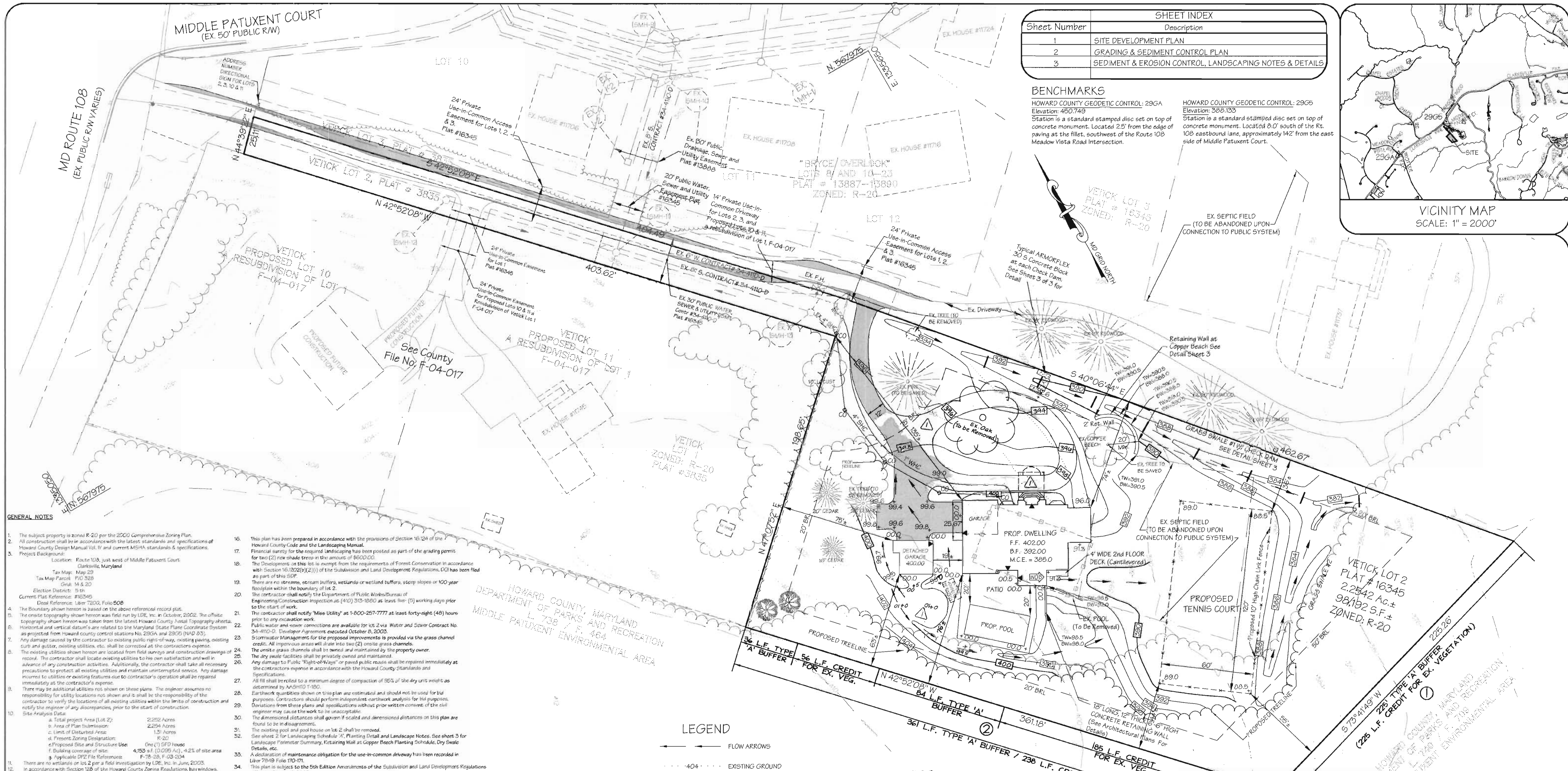
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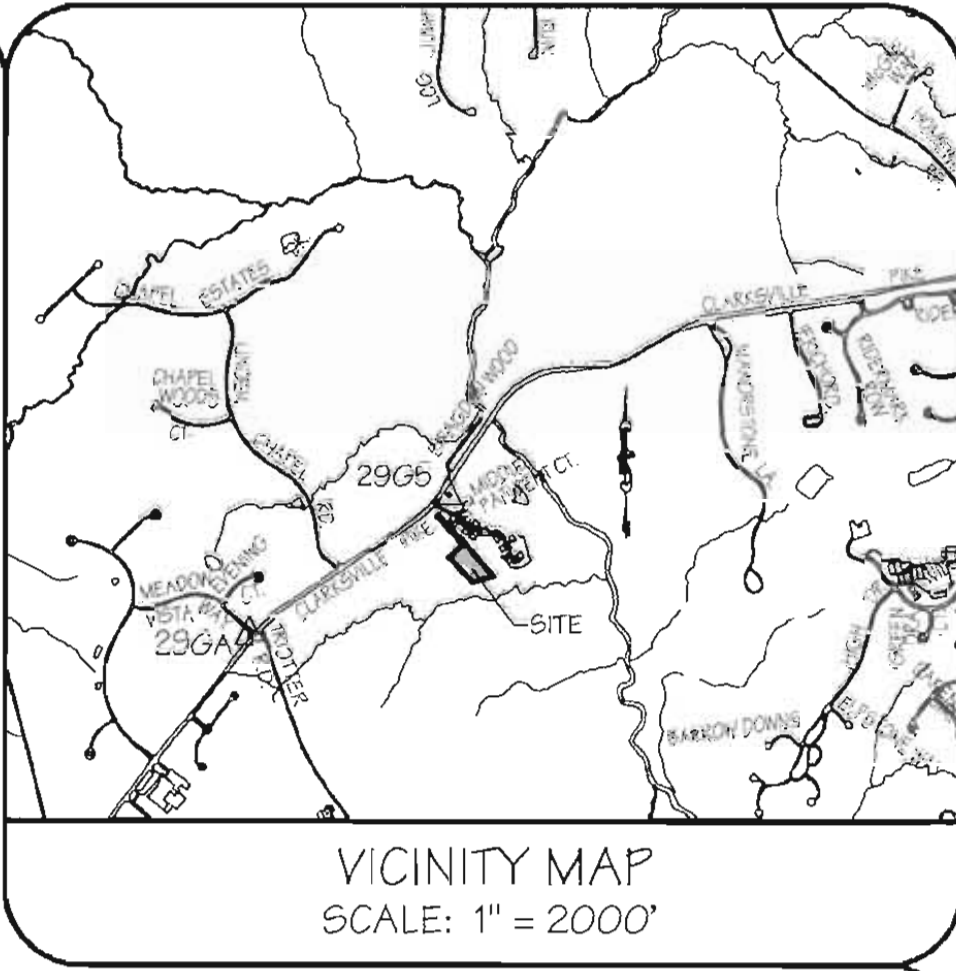
Construction Specifications</



SHEET INDEX	
Sheet Number	Description
1	SITE DEVELOPMENT PLAN
2	GRADING & SEDIMENT CONTROL PLAN
3	SEDIMENT & EROSION CONTROL, LANDSCAPING NOTES & DETAILS

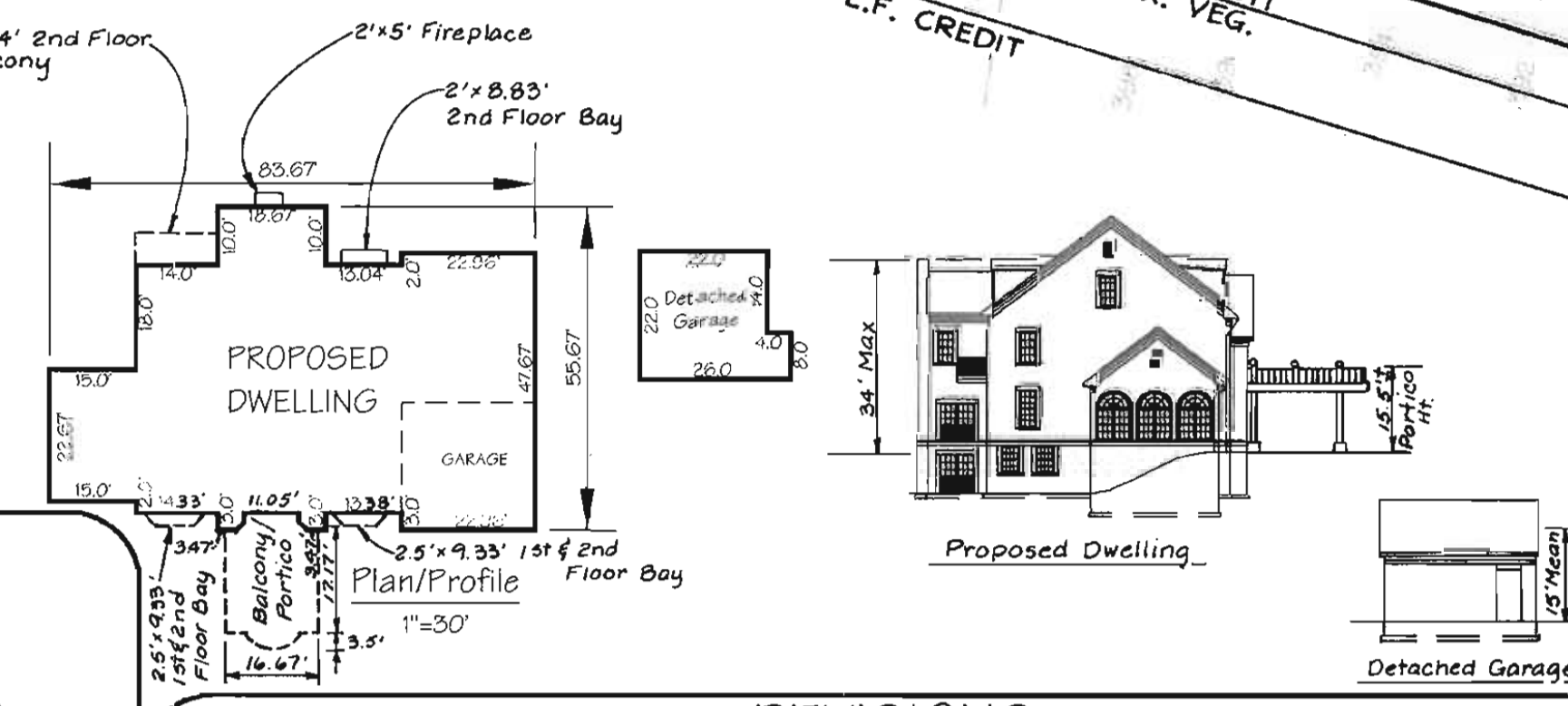
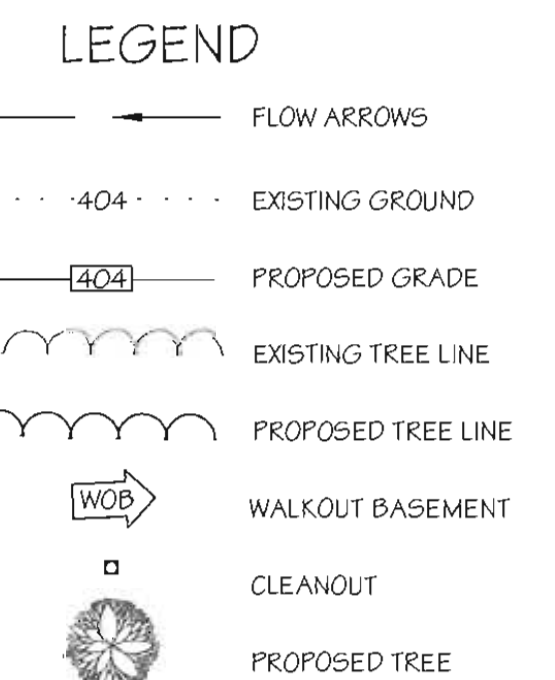
BENCHMARKS
 HOWARD COUNTY GEODETIC CONTROL: 29GA
 Elevation: 450.749
 Station is a standard stamped disc set on top of concrete monument. Located 2.5' from the edge of paving at the fillet, southwest of the Route 108 Meadow Vista Road Intersection.

HOWARD COUNTY GEODETIC CONTROL: 29GB
 Elevation: 388.133
 Station is a standard stamped disc set on top of concrete monument. Located 8.0' south of the Rt. 108 eastbound lane, approximately 142' from the east side of Middle Patuxent Court.



- GENERAL NOTES**
- The subject property is zoned R-20 per the 2000 Comprehensive Zoning Plan.
 - All construction shall be in accordance with the latest standards and specifications of Howard County Design Manual Vol. 7 and current MSHA standards & specifications.
 - Project Background:
 Location: Route 108, just west of Middle Patuxent Court, Clarksville, Maryland
 Tax Map: Map 29
 Tax Map Parcel: P10 329
 GMA: M & 20
 Election District: 5th
 Current Plat Reference: #16345
 - Deed Reference: LHM 7200, File 508
 - The boundary shown herein is based on the above referenced record plat.
 - The on-site topography shown herein was field run by LDE, Inc. in October, 2002. The off-site topography shown herein was taken from the latest Howard County Aerial Topography sheets. Horizontal and vertical datum is related to the Maryland State Plane Coordinate System as projected from Howard County control stations No. 2359A and 2359B (NAD 83).
 - Any damage caused by the contractor to existing public rights-of-way, existing paving, existing curb and gutter, existing utilities, etc. shall be corrected at the contractor's expense.
 - The existing utilities shown herein are located from field surveys and construction drawings of record. 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. Any damage incurred to utilities or existing features due to contractor's operation shall be repaired immediately at the contractor's expense.
 - There may be additional utilities not shown on these plans. The engineer assumes no responsibility for utility locations not shown and it shall be the responsibility of the contractor to verify the locations of all existing utilities within the limits of construction and notify the engineer of any discrepancies prior to the start of construction.
 - Site Analysis Data:
 a. Total Project Area (Lot 2): 2.252 Acres
 b. Area of Plan Submission: 2.254 Acres
 c. Limit of Disturbed Area: 1.31 Acres
 d. Present Zoning Designation: R-20
 e. Proposed Site and Structure Use: One (1) SFD house
 f. Building coverage of site: 4,153 sq. ft. (0.095 Ac.) - 4.2% of site area
 g. Applicable DZ2 File Reference: F-78-08, F-03-204
 - There are no wetlands on lot 2 per a field investigation by LDE, Inc. in June, 2003.
 - In accordance with Section 12B of the Howard County Zoning Regulations, any windows, doors or exterior openings not more than 10 feet in width may project not more than 4 feet into any setback, porch or deck, open or enclosed may project not more than 10 feet into the front or rear yard setbacks.
 - The existing driveway serving lot 2 shall be improved to meet common driveway standards and utilized by both lots 2 and 3. Driveway shall be provided prior to issuance of a use and occupancy permit for any new dwellings to insure safe access for fire and emergency vehicles per the following minimum requirements:
 Width - 12' (6' if serving more than one residence)
 Surface - 1/2" of compacted crushed run base with and chip coating (1 1/2" min.)
 Geometry - Max. 10% grade, max. 10% grade change and min. 40' turning radius
 Structures (overhead lines) - capable of safely passing the 100 year flood with no more than 10" face depth over driveway.
 - Maintenance - sufficient to insure all weather use
 - Routine collection, snow removal and road maintenance is to be provided at the junction of the private use-in-common driveway and the Rt 108 right-of-way.
 - See Architectural Plans for building dimensions and design details of retaining wall at pool area.

- This plan has been prepared in accordance with the provisions of Section 16.24 of the Howard County Code and the Landscaping Manual.
- Financial security for the required Landscaping has been posted as part of the grading permit for two (2) row shade trees in the amount of \$600.00.
- The development on this lot is exempt from the requirements of Forest Conservation in accordance with Section 16.1022(2)(i) of the Subdivision and Land Development Regulations. DOI has been filed as part of this SDP.
- There are no streams, stream buffers, wetlands or wetland buffers, steep slopes or 100 year floodplain within the boundary of lot 2.
- The contractor shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection at (410) 310-1000 at least five (5) working days prior to the start of work.
- The contractor shall notify 'Miss Utility' at 1-800-257-7777 at least forty-eight (48) hours prior to any excavation work.
- Public water and sewer connections are available for lot 2 via Water and Sewer Contract No. 34-410-D. Developer Agreement executed October 8, 2003.
- Stormwater Management for the proposed improvements is provided via the grass channel credit. All impervious areas will drain into two (2) on-site grass channels.
- The on-site grass channels shall be mowed and maintained by the property owner.
- The dry swale facilities shall be privately owned and maintained.
- Any damage to Public "Right-of-Ways" or paved public roads shall be repaired immediately at the contractor's expense in accordance with the Howard County Standards and Specifications.
- All fill shall be rolled to a minimum degree of compaction of 95% of the dry unit weight as determined by ASTM D 1557.
- Earthwork quantities shown on this plan are estimated and should not be used for bid purposes. Contractors should perform independent earthwork analysis for bid purposes. Deviations from these plans and specifications without prior written consent of the civil engineer may cause the work to be unacceptable.
- The dimensional distances shall govern if scaled and dimensional distances on this plan are found to be in disagreement.
- The existing pool and pool house on lot 2 shall be removed.
- See sheet 2 for Landscaping Schedule 'A', Planting Detail and Landscape Notes. See sheet 3 for Landscape Farmer Summary, Retaining Wall at Copper Beach Planting Schedule, Dry Swale Details, etc.
- A declaration of maintenance obligation for the use-in-common driveway has been recorded in LHM 7849 File 170-17.
- This plan is subject to the 5th Edition Amendments of the Subdivision and Land Development Regulations effective October 2, 2003.



Address Chart
11741 Clarksville Pike

Project: VETICK PROPERTY		Sheet/Block: N/A	Lot No: 2
Plat No: 16345	Block No: 14 & 20	Zone: R-20	Tax Map No: 29
Water Code: 1-04	Shed Code: 6740000	Tract No: 5th	Lot No: 6055.02

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Handwritten signature 1/4/04
 DIRECTOR

Handwritten signature 1/6/04
 CHIEF ENGINEER

Handwritten signature 1/5/04
 CHIEF DEVELOPMENT ENGINEERING DIVISION

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.

Handwritten signature 12-30-03
 DATE

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

Handwritten signature 12-30-03
 DATE

ENGINEER'S CERTIFICATE
 I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL MEETS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Handwritten signature 12/17/03
 DATE

DEVELOPER'S CERTIFICATE
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT I AM RESPONSIBLY PERSONALLY INVOLVED IN THE CONSTRUCTION PERMITS PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THIS PROJECT. I ALSO AUTHORIZE FIELD ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT OF THIS PROJECT.

Handwritten signature 12-17-03
 DATE

STATE OF MARYLAND
 DEPARTMENT OF PLANNING AND ZONING
 CIVIL ENGINEER
 12/17/03

REVISIONS

No.	Date	Description
1	12-2004	Revise driveway, grading and front of house.

LDE, INC.
 9250 Rumsey Road, Suite 106, Columbia, MD. 21045
 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

VETICK PROPERTY
 LOT 2
 PLAT #16345
 P10 PARCEL 329
 Tax Map No. 29, Sheet 14 & 20
 5th Election District, Howard County, Maryland

DESIGNED: SDH
 DRAWN: MJB, JLM
 CHECKED: BDB
 DATE: 12/2003

SCALE: 1"=30'
 SHEETS: 1 of 3
 JOB NO: 03-018
 FILE NO: SDP-04-031

PREVIOUS SUBMITTALS: F-78-28
 OWNER/DRAWER: WILLIAMSBOURG GROUP, LLC
 P.O. Box 1018
 Columbia, Maryland 21044
 410-997-8800

