PERIMETER ANALYSIS:

PERIMETER 1 : 107 L.F = 2 SHADE/3 EVERGREEN REQUIRED

CREDIT TAKEN FOR:

A. EXISTING SHADE: 12" PERSIMMON (1 SHADE) AND 1½" PIN OAK (1 SHADE) = CREDIT 2 SHADE

B. EXISTING EVERGREEN : 8" SPRUCE (1 EVERGREEN) = CREDIT 1 EVERGREEN

C. EXISTING SHRUBS : 5' TALL FORSYTHIA (1 SHRUB), 6' TALL WEIGELA (1 SHRUB), 60 LF OF 4'-5' HT. AZALEA HEDGE (60÷4 = 15 SHRUBS) = 17 SHRUBS ÷ 10 = 1.7 CREDIT 2 EVERGREENS

D. PERIMETER REQUIREMENT MET AS PREVIOUSLY APPROVED ON F99-65

PERIMETER 2 : 175 L.F = 3 SHADE REQUIRED

CREDIT TAKEN FOR:

A. EXISTING SHADE : 15" JAPANESE MAPLE (1 SHADE) : CREDIT 1 SHADE

B. EXISTING EVERGREEN : 8" SPRUCE (½ SHADE), 12" HOLLY (½ SHADE) : CREDIT 1 SHADE

C. EXISTING SHRUBS : 90 L.F OF 10'-12' HT. LILAC HEDGE (90÷4 = 22.5 SHRUBS) = 23 SHRUBS ÷ 10 = 2.3 = CREDIT FOR 2 SHADE

D. PERIMETER REQUIREMENT MET AS PREVIOUSLY APPROVED ON F99-65.

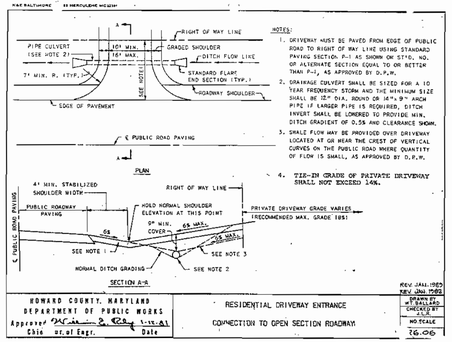
SCHEDULE A
PERIMETER LANDSCAPE EDGE

Category	P-1 Adjacent to Roadways	P-2 Adjacent to Perimeter Properties
Landscape Type	B	A
Linear Feet of Roadway Frontage/Perimeter	107 LF	175 LF
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	Yes 60 LF	Yes 175 LF
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	Yes 107 LF	No
Number of Plants Required		
Shade Trees	2	3
Evergreen Trees	3	1
Shrubs	1	1
Number of Plants Provided		
Shade Trees	2	1
Evergreen Trees	1	2
Other Trees (2:1 substitution)		
Shrubs (10:1 substitution) (Describe plant substitution credits below if needed)	17	23

Comments SEE PERIMETER ANALYSIS ABOVE

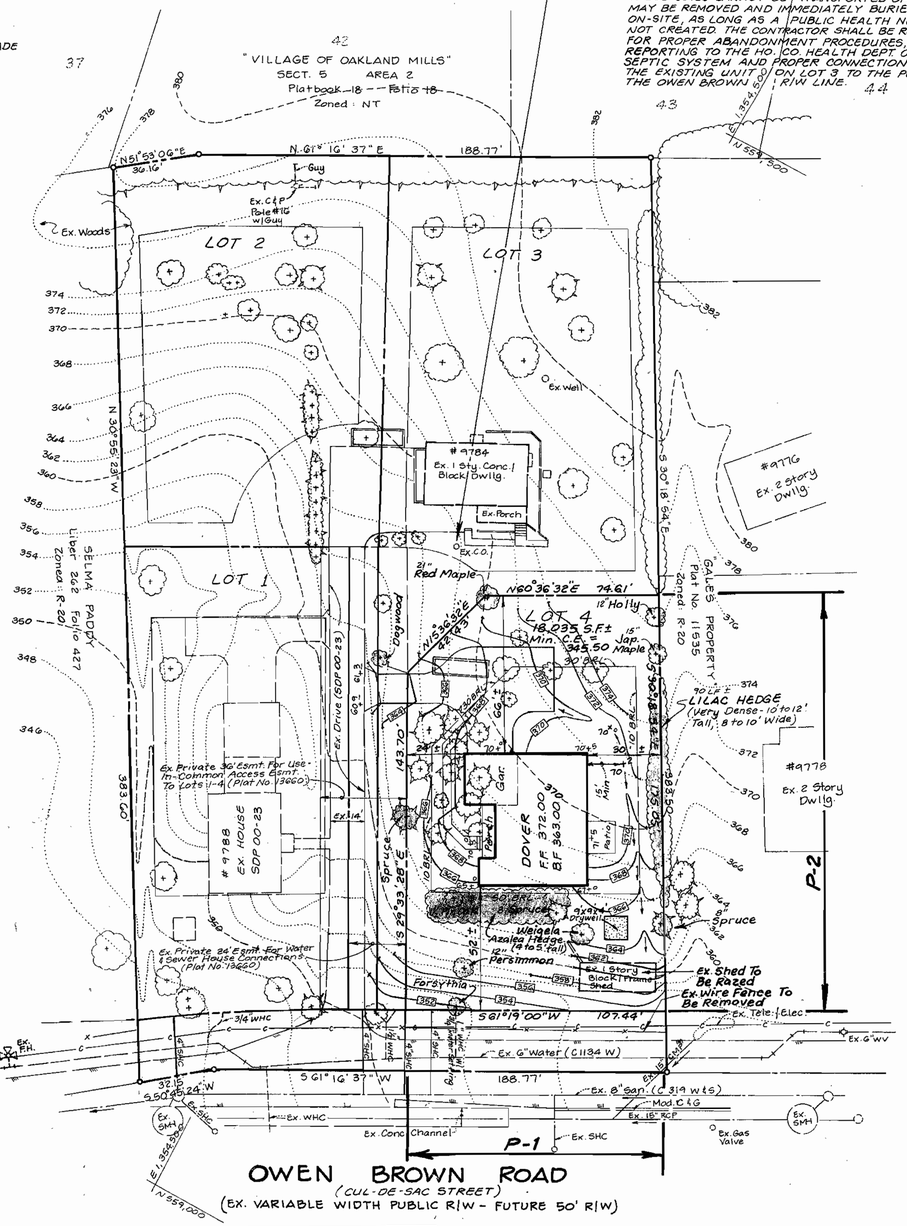
Note: Complex projects may require expansion of the schedule to accommodate multiple land uses on-site or on adjacent properties.

1. This plan has been prepared in accordance with provisions of Section 16.124 of the Howard County Code and the Landscape Manual.
2. Any existing vegetation removed or damaged within the Landscape Perimeters by the Builder shall be replaced with comparable material. Financial Surety for the replaced Landscaping shall be posted by the Builder as part of the Grading Permit.



NOTE:

APPROXIMATE LOCATION OF EXISTING SEPTIC TANK. IN ACCORDANCE WITH THE APPROVAL OF THIS PLAN AND APPROVED HEALTH DEPARTMENT PROCEDURES, THE SEPTIC TANK AND DRYWELL SHALL BE PUMPED AND COLLAPSED. THE LOCATION OF ANY DRAINFIELDS MAY ALSO REQUIRE REMOVAL IN ACCORDANCE WITH APPROVED HEALTH DEPARTMENT PROCEDURES. IF SEWAGE FILLED SOILS ARE ENCOUNTERED, THESE SOILS CANNOT BE TRANSPORTED OFF-SITE, BUT MAY BE REMOVED AND IMMEDIATELY BURIED ELSEWHERE ON-SITE, AS LONG AS A PUBLIC HEALTH NUISANCE IS NOT CREATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER ABANDONMENT PROCEDURES, NOTIFICATION, REPORTING TO THE HO. CO. HEALTH DEPT. OF THE EXISTING SEPTIC SYSTEM AND PROPER CONNECTION OF SEWER FROM THE EXISTING UNIT 8 ON LOT 3 TO THE PUBLIC SYSTEM AT THE OWEN BROWN R/W LINE.

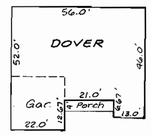


LEGEND:

- 382 — EXISTING GROUND
- 382 — PROPOSED GRADE
- EXISTING TREES TO BE REMOVED ON LOT 1 ONLY
- EXISTING TREES TO REMAIN / LANDSCAPE CREDIT
- EXISTING FENCE
- PROPOSED DRYWELL
- DRAINAGE DIRECTION

FLOOR PLAN NOTES:

1. Dimensions shown reflect normal foundation plan (No brick).
2. Unless otherwise noted, all bumpouts, bay windows etc., reflect first floor projections.
3. The location of minor structures and minor architectural features including cornices, eaves, cantilevered building features, bay windows and window wells, oriels, vestibules, balconies, chimneys, heating or air conditioning units and exterior stairways and ramps (above or below grade) and open or enclosed porches are subject to Section 128.A.1 Supplementary Zoning District Regulations of the Howard County Zoning Regulations.



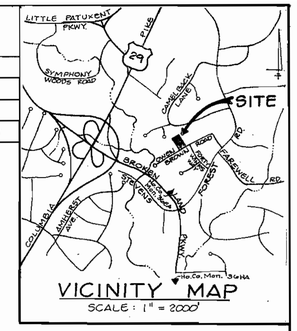
PLAN
Scale : 1" = 30'

PROFILE
Not To Scale

TYPICAL HOUSE PLAN AND PROFILE

GENERAL NOTES: (Continued)

21. No new building extensions or additions to the existing dwelling (on Lot 3) or structures on Lots 3 and 4 are to be constructed at a distance less than the Zoning Regulations require. The existing septic system serving Lot 3 shall be removed and connected to the public system prior to issuance of building permits to Lot 4. The existing septic shall be removed in accordance with approved Howard County Health Department procedures.



VICINITY MAP
SCALE : 1" = 2000'

SHEET INDEX

SHEET No.	TITLE
1	SITE DEVELOPMENT PLAN
2	SEDIMENT CONTROL PLAN
3	SEDIMENT CONTROL NOTES & DETAILS

GENERAL NOTES

1. Site Analysis:
   a. Total area of lot: 0.41Ac+/-
   b. Zoning : R-20 per 10/18/93 Comprehensive Zoning Plan
   c. Proposed use of structure: Residential Single Family Detached Dwelling
   d. Total number of units allowed: 1
   e. Total number of units provided: 1
2. All construction shall be in accordance with Howard County Standards, Specifications and Details, Volume IV.
3. The Contractor shall notify the Department of Public Works/ Bureau of Engineering/Construction Inspection at (410)313-1880 at least five (5) working days prior to the start of work.
4. The Contractor shall notify "Miss Utility" at 1-800-257-7777 at least forty-eight (48) hours prior to any excavation work.
5. Previous submittals: F99-65, SDP 00-23
6. Any damage caused by the Contractor to existing public right-of-way, 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 field surveys and construction drawings of record and Water and Sewer Contract #319 W & S and #1134 W. The approximate location of existing utilities is 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. Horizontal and vertical datums are related to the Maryland State Plane Coordinate System as projected from Howard County Control Stations No. 36EA and 36HA.
9. Stormwater management for this lot is provided by payment of a Fee-In-Lieu for Quality Control. The Public Works Director approved the Fee-In-Lieu payment as part of the Final Plat (F99-65) on 12/11/98. Water Quality Control for this lot is provided by on-lot drywell. The drywell will be privately maintained by the lot owner.
10. Open Space for this lot is provided by payment of a Fee-In-Lieu as part of the Final Plat (F99-65).
11. Forest Conservation obligation for this lot is provided by payment of a Fee-In-Lieu as part of the Final Plat (F99-65) to the Howard County Conservation Fund.
12. The Landscaping obligation for this lot is provided by preservation of existing vegetation in accordance with the provisions of Section 16.124 of the Howard County Code and Landscape Manual as part of the Final Plat (F99-65).
13. For flag or pipestem lots, refuse collection, snow removal and road maintenance are provided to the junction of the pipestem or flag and the right-of-way line only and not onto the pipestem or flag driveway.
14. Covenants governing the Use-In-Common driveway maintenance responsibilities are recorded in the Howard County Land Records. The driveway will be privately maintained by lots 1, 2, 3 and 4. Liber 4677 Folio 0374.
15. Driveways shall be provided prior to residential occupancy to insure safe access for fire and emergency vehicles per the following minimum requirements:
    a. Width: 12 ft. (14 ft. serving more than one residence).
    b. Surface: 6 inches of compact crusher run base tar and chip coating.
    c. Geometry: maximum 15% grade, maximum 10% grade change and minimum 45 ft. turning radius.
    d. Structures: (culverts and bridges) capable of supporting 25 gross tons – H25 loading
    e. Drainage Elements: capable of safely passing a 100 year flood with no more than one ft. depth over driveway surface.
    f. Structure Clearances: minimum 12 ft.
    g. Maintenance: sufficient to insure all weather use.
16. The boundary shown is based on a field run monumented boundary survey performed on or about June 1998 by Bruce E. Doak L.S. Reg. No. 531 Gerhold, Cross & Etzel, Inc.
17. The contractor shall be responsible for maintaining full vehicular ingress and egress to the ex. dwellings on lots 1 & 3 via the private Use-In-Common driveway to Owen Brown Road.
18. Lots 1, 2 and 3 are not part of this Site Development Plan.
19. In accordance with Section 128 of the Howard County Zoning Regulations, bay windows, chimneys, or exterior stairways not more than 6 feet in width may project not more than 4 feet into any setbacks, porches or decks, open or enclosed may project not more than 10 feet into the front or rear yard setback.
20. There are no wetlands on site.

OWNER
ROBERT W. SIMMONS
4201 Falconwood Place
Burtonsville, MD. 20866
Phone: (301) 924-5659

PROPERTY OF: WESS HAVEN	SECTION / AREA —	LOT No. / PARCEL 4 / P/O 36

PLAT REF.	BLOCK No.	ZONE	TAX / ZONE	EL. DIST.	CENSUS TRACT
13660	9	R-20	36	6th	6066.03

WATER CODE:	SEWER CODE:
E09	5980000.

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

DESIGNED: B.D.B.	SITE DEVELOPMENT PLAN	SCALE: 1" = 30'
DRAWN: K.B.W.	WESS HAVEN Lot 4	DRAWING 1 OF 3
CHECKED: B.D.B.	TAX MAP No. 36 BLOCK 9 P/O PARCEL No. 36 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB No. 99-033
DATE: 4/00	Previous Submittal: F99-65, SDP 00-23	FILE No. SDP00-111

Owner	Builder
ROBERT W. SIMMONS 4201 Falconwood Place Burtonsville, MD. 20866 (301) 924-5659	HAL C. MARKER CO., INC 10524 Hunters Way Laurel, Maryland 20723 (301) 776-8228

NO.	DATE	DESCRIPTION
		REVISIONS
4		9782 OWEN BROWN ROAD
LOT No.		ADDRESS
		ADDRESS CHART

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 WAS PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Bruce D. Burtoft — 5/16/00
SIGNATURE OF ENGINEER — DATE

STATE OF MARYLAND · BRUCE DAVID BURTOFT · NO. 19182 · REGISTERED 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 BECOMING THE PROJECT. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

Hal C Marker — 3-30-00
SIGNATURE OF DEVELOPER — DATE

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

Natural Resource Conservation Service — 4/24/00 DATE

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

HOWARD SOIL CONSERVATION DISTRICT — 4/24/00 DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

Chief, Development Engineering Division — 5/25/00 Date

Chief, Division of Land Development — 5/31/00 Date

Director — 6/1/00 Date

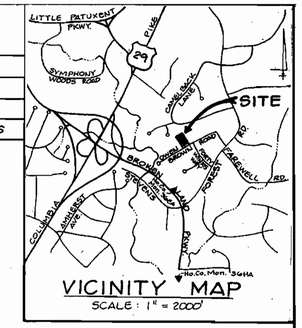
E 1,354,150
N 559,000

STATE OF MARYLAND · BRUCE DAVID BURTOFT · NO. 19182 · REGISTERED PROFESSIONAL ENGINEER

5/16/00

SDP 00-111

SHEET INDEX



VICINITY MAP
SCALE: 1" = 2000'

LEGEND:

- 382 ..... EXISTING GROUND
- 382 PROPOSED GRADE
- EXISTING TREES TO BE REMOVED ON LOT 1 ONLY
- EXISTING TREES TO REMAIN
- EXISTING FENCE
- PROPOSED DRYWELL
- DRAINAGE DIRECTION
- SSF — SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- ECM — EROSION CONTROL MATTING
- SSFD — SUPER SILT FENCE DIVERSION

CONSTRUCTION SEQUENCE

1. OBTAIN GRADING PERMIT. (1 DAY)
2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE (1 DAY)
3. INSTALL SUPER SILT FENCE AS SHOWN. (2 DAYS)
4. CLEAR AND GRUB SITE TO SUBGRADE. (2 DAYS) RAZE EXISTING SHED.
5. BEGIN EXCAVATION FOR HOUSE FOUNDATION AND BEGIN HOUSE CONSTRUCTION. (60 DAYS)
6. CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT DEVICES SHOWN ON THIS PLAN AFTER EACH RAINFALL AND ON A DAILY BASIS. (DAILY)
7. REMOVE SEDIMENT FROM OWEN BROWN ROAD, THE PRIVATE USE-IN-COMMON DRIVEWAY AND DRESS STABILIZED CONSTRUCTION ENTRANCE AS REQUIRED. (DAILY)
8. FINE GRADE ALL DISTURBED AREAS AND STABILIZE. INSTALL DRYWELL. (1 DAY)
9. AFTER PERMISSION HAS BEEN GIVEN BY THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES. GRADE AND STABILIZE ALL REMAINING DISTURBED AREAS. (1 DAY)

TOTAL TIME: 68 DAYS

GENERAL NOTES

1. Site Analysis:
   a. Total area of lot: 0.41Ac+/-
   b. Zoning: R-20 per 10/18/93 Comprehensive Zoning Plan
   c. Proposed use of structure: Residential Single Family Detached Dwelling
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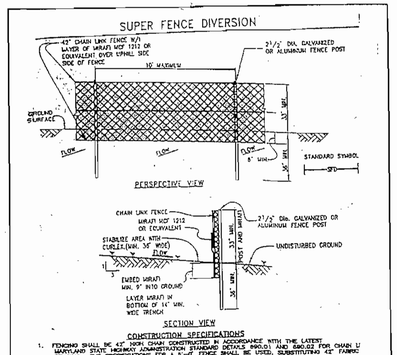
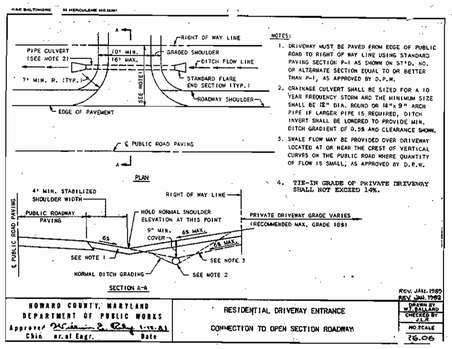
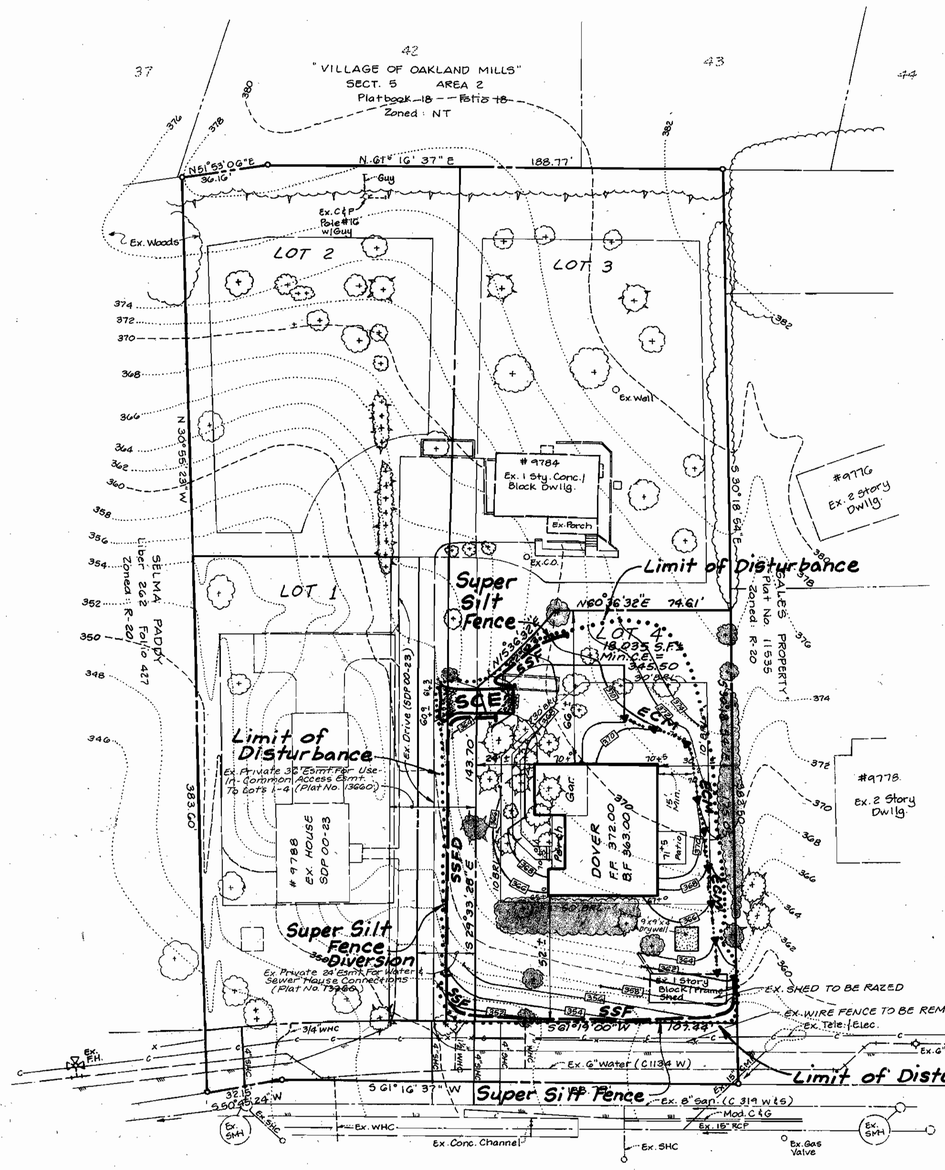
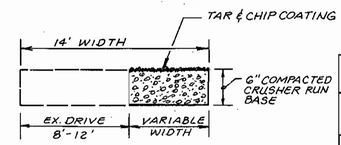






OWEN BROWN ROAD
(CUL-DE-SAC STREET)
(EX. VARIABLE WIDTH PUBLIC R/W - FUTURE 50' R/W)



PAVING SECTION FOR USE-IN-COMMON DRIVEWAY
NOT TO SCALE

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 BARTON — No. 19184 — REGISTERED PROFESSIONAL ENGINEER

Bruce D. Barton — 5/16/00
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 BECOMING THE PROJECT. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

Hal C. Marker — 3-30-00
SIGNATURE OF DEVELOPER — DATE

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

Cheryl Simmons — 5/24/00
NATURAL RESOURCE CONSERVATION SERVICE — DATE

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

5/24/00
HOWARD SOIL CONSERVATION DISTRICT — DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

Chief, Development Engineering Division — 5/25/00 Date

Chief, Division of Land Development — 5/11/00 Date

Director — 6/1/00 Date

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

5/16/00

No.	DATE	DESCRIPTION

REVISIONS

4	9782 OWEN BROWN ROAD
LOT No.	ADDRESS

ADDRESS CHART

PROPERTY OF: WESS HAVEN			SECTION/AREA —		LOT No./PARCEL 4 / P/O 36
PLAT REF. 13660	BLOCK No. 9	ZONE R-20	TAX/ZONE 36	EL. DIST. 6th	CENSUS TRACT 6066.03
WATER CODE: E09		SEWER CODE: 5480000.			

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

DESIGNED: B.D.B.	SEDIMENT CONTROL PLAN
DRAWN: K.B.W.	WESS HAVEN
CHECKED: B.D.B.	LOT 4
DATE: 4/00	TAX MAP No. 36 BLOCK 9 P/O PARCEL No. 36
	6th ELECTION DISTRICT
	HOWARD COUNTY, MARYLAND
	Previous Submittal: F99-65, SDP 00-23

Owner	Builder
ROBERT W. SIMMONS	HAL C. MARKER CO., INC
4201 Falconwood Place	10524 Hunters Way
Burtonsville, MD 20866	Laurel, Maryland 20723
(301) 924-5669	(301) 776-8228

SCALE: 1" = 30'	
DRAWING 2 of 3	
JOB No. 99-033	
FILE No. SDP00-111	

SDP 00-111

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, (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 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 7, 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (Section G) 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.
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	0.41	Acres
Area Disturbed	0.45	Acres
Area to be roofed or paved	0.10	Acres
Area to be vegetatively stabilized	0.35	Acres
Total Cut	400	Cu. Yds.
Total Fill	400	Cu. Yds.
Offsite waste/borrow area location	N/A	

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment control must be provided, if deemed necessary by the Howard County 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/1000sq. 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 30-0-0 ureaform fertilizer (9 lbs/1000sq. ft.)

2) ACCEPTABLE — Apply 2 tons per acres dolomitic limestone (92 lbs/1000sq. 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/1000sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs per acre (1.4 lbs/1000sq. ft.) of Kentucky 31 Tall Fescue and 2 lbs. per acre (.05 lbs/1000sq. 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 2 tons / acre well anchored straw.

MULCHING — Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000sq. 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/1000sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 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 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.

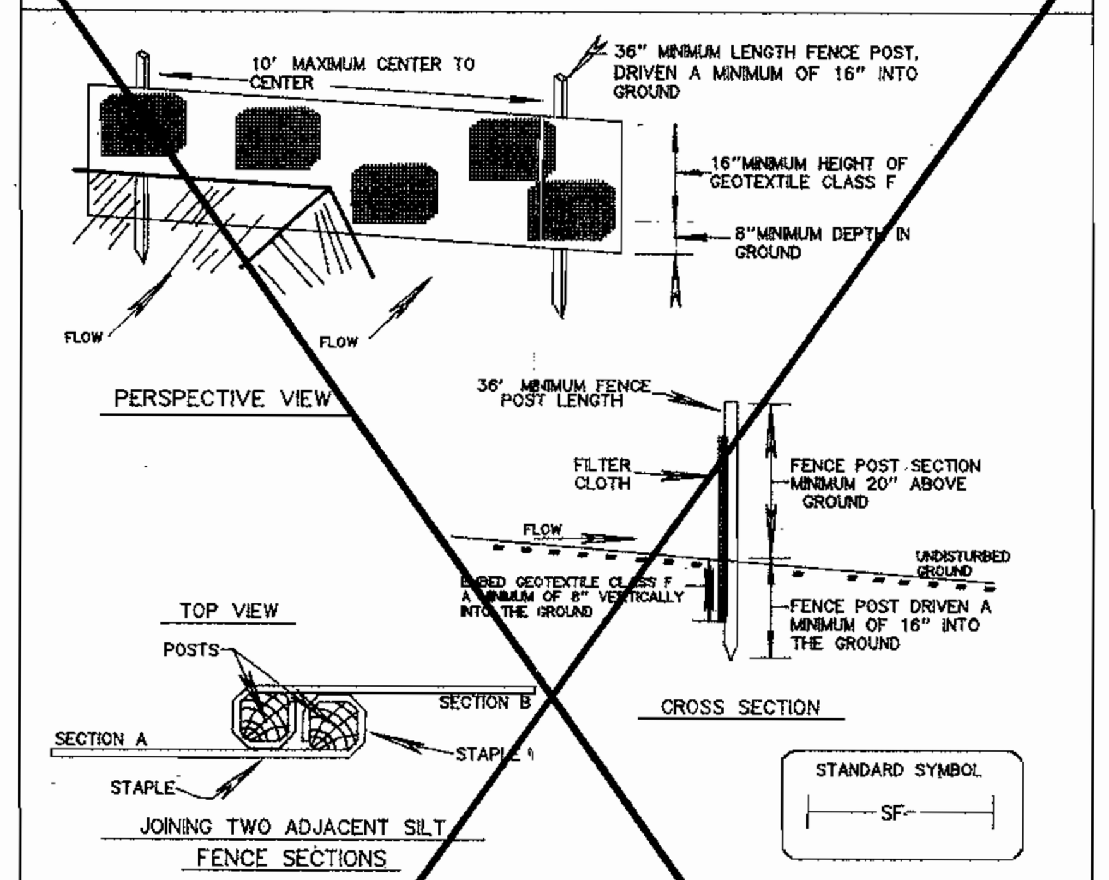
SOIL AMENDMENTS: — Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000sq. ft.).

SEEDING — For periods March 1 thru April 30, and from August 15 thru October 15 seed with 2-12 bushels per acre of annual rye (3.2 lbs/1000sq. ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs/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 sod.

MULCHING — Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000sq. ft.) of unrotted weed free small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 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.

DETAIL 22 – SILT FENCE



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighing not less than 1.00 pound per linear foot.

2. 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:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft / minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

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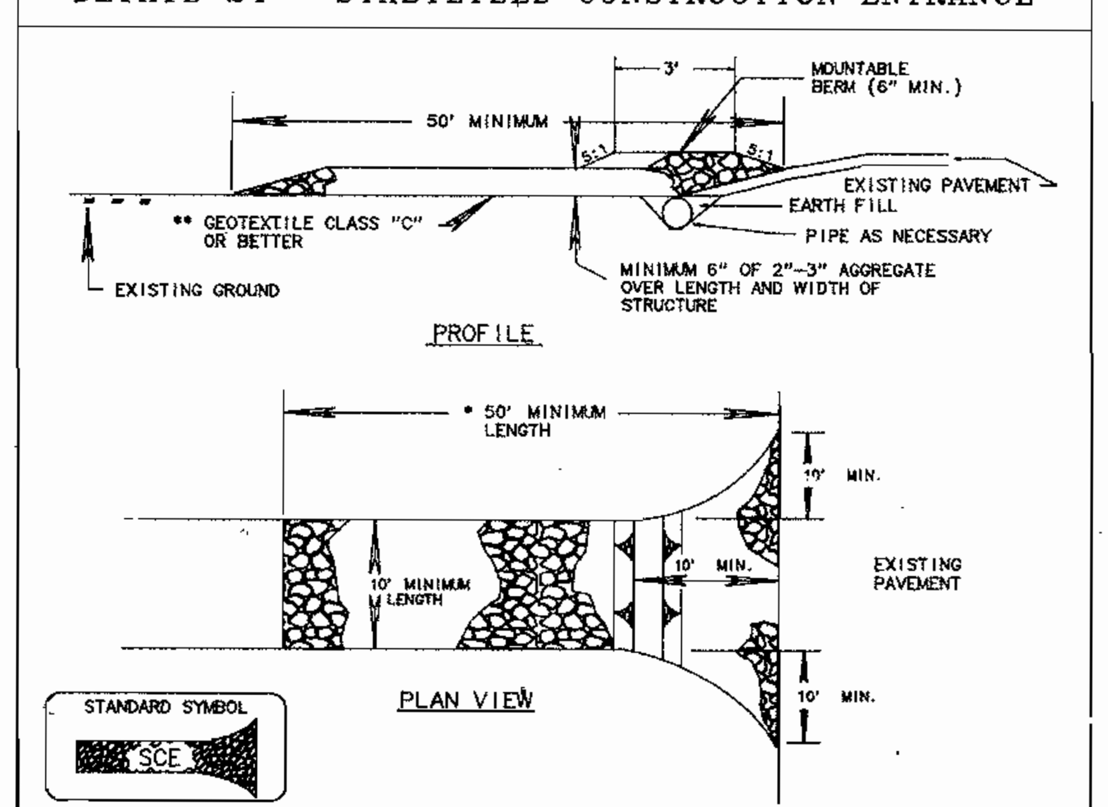
DETAIL 24 – STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length – minimum of 50' (*30' for single residence lot).

2. Width – 10' minimum, should be flared at the existing road to provide a turning radius.

3. 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.

4. 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.

5. 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.

6. 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.

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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

I. This practice is limited to areas having 2:1 or flatter slopes where:

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

II. 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

I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, 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 Experimental Station.

II. Topsoil Specifications – Soil to be used as topsoil must meet the following:

i. 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 cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 11/2" in diameter.
ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.
iii. 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.

III. For sites having disturbed areas under 5 acres:

i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – Section I – Vegetative Stabilization Methods and Materials.

IV. For sites having disturbed areas over 5 acres:

i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
a. 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 prescribed to raise the pH to 6.5 or higher.
b. Organic content of topsoil shall be not less than 1.5 percent by weight.
c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
d. 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 (14 days min.) to permit dissipation of phyto-toxic materials.

Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization —Section I – Vegetative Stabilization Methods and Materials.

V. Topsoil Application

i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" – 8" higher in elevation.
iii. Topsoil shall be uniformly distributed in a 4" – 8" layer and lightly compacted to a minimum thickness of 4". 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 prevent the formation of depressions or water pockets.
iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

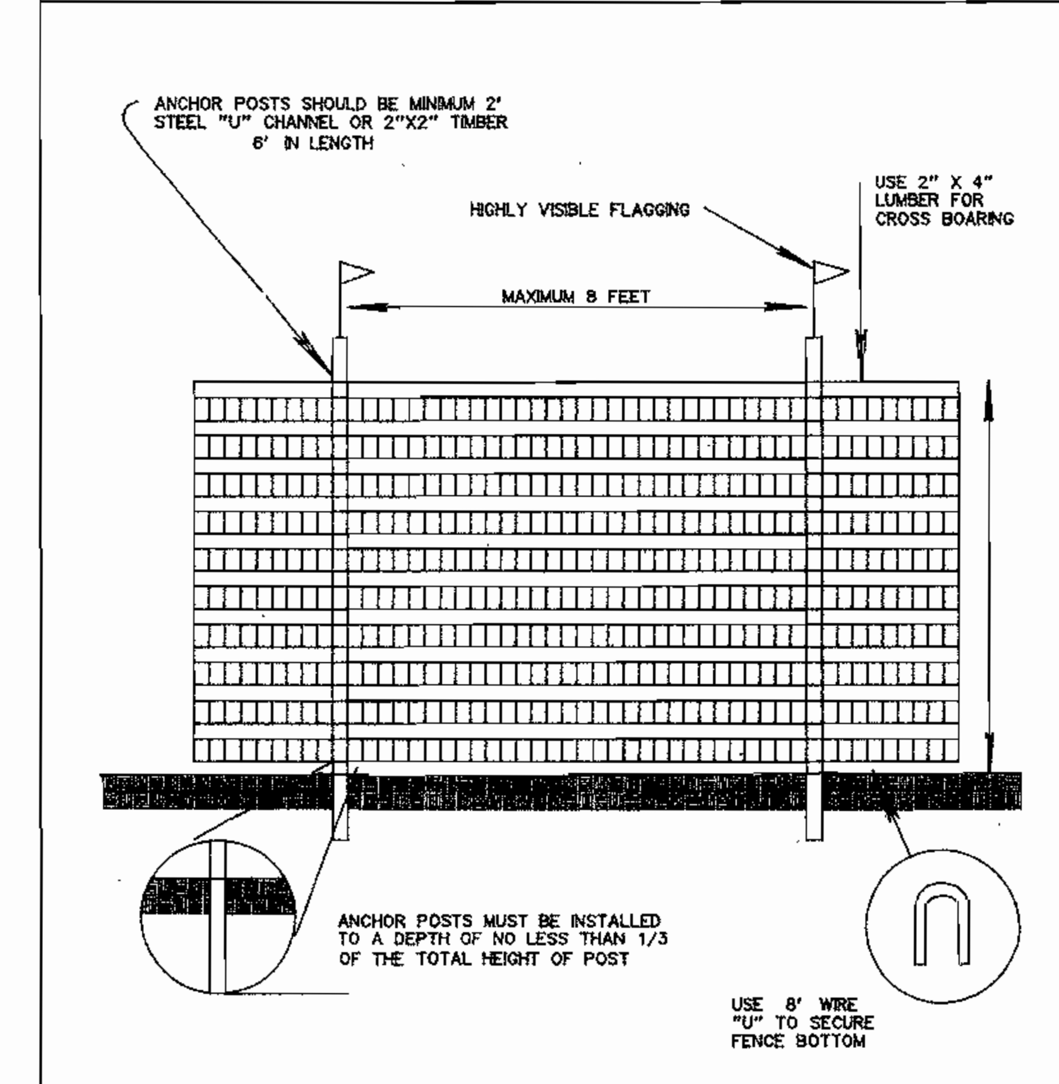
VI. Alternative for Permanent Seeding – Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:

i. Composted 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:
a. Composted 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.
b. Composted 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.
c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet,

ii. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb./1,000 square feet, and 1/3 the normal lime application rate.

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

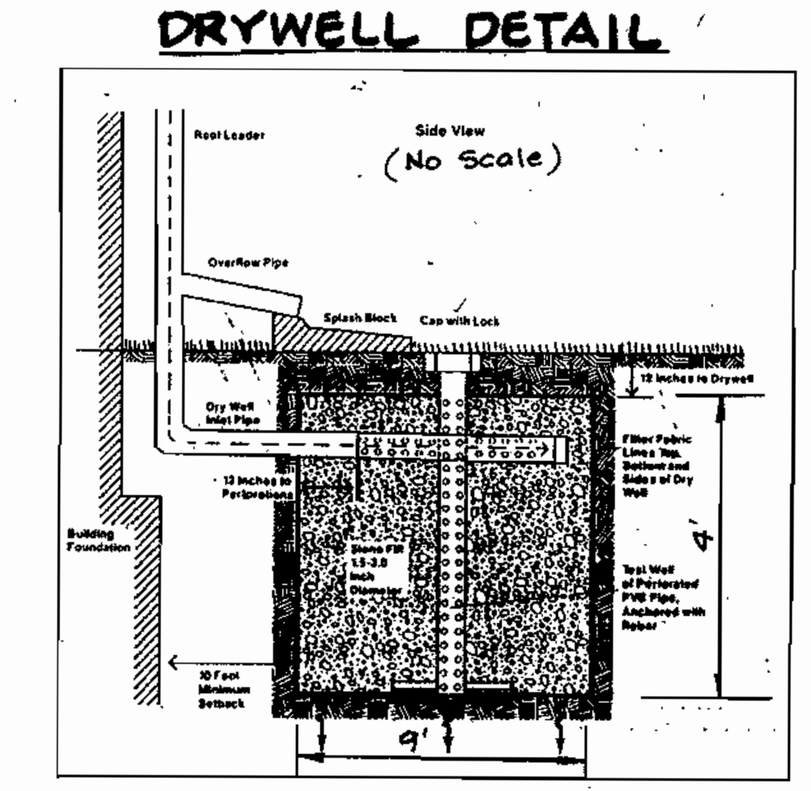
Blaze Orange Plastic Mesh



NOTES
1. Forest protection device only.
2. Retention Area will be set as part ofthe review process.
3. Boundaries of Retention Area should be staked and flagged prior to installing device
4. Root damage should be avoided.
5. Protective signage may also be used.
6. Device should be maintained throughout construction.

WOODLAND CONSERVATION MANUAL	EXHIBIT K - 8	PRINCE GEORGES COUNTY, MD

DRYWELL DETAIL



3.4.6. CONSTRUCTION SPECIFICATIONS

3.4.6.1. Timing

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 well 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 wall 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 inch 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

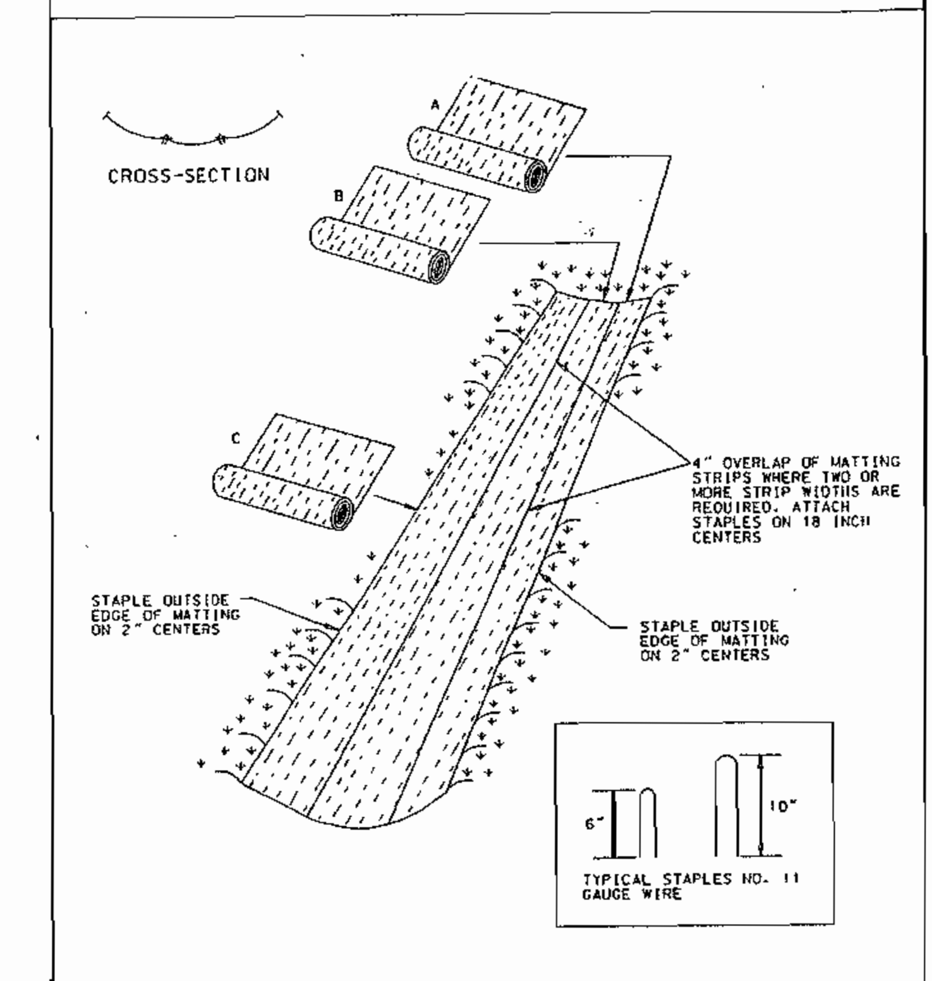
An observation well, as described in subsection 3.4.4.8 and Figure 3-5, will be provided. The depth of the well, at the time of installation, will be clearly marked on the well cap.

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.

DETAIL 30 EROSION CONTROL MATTING



Construction Specifications

1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".

2. Staple the 4" overlap in the channel center using an 18" spacing between staples.

3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.

4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.

5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.

6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

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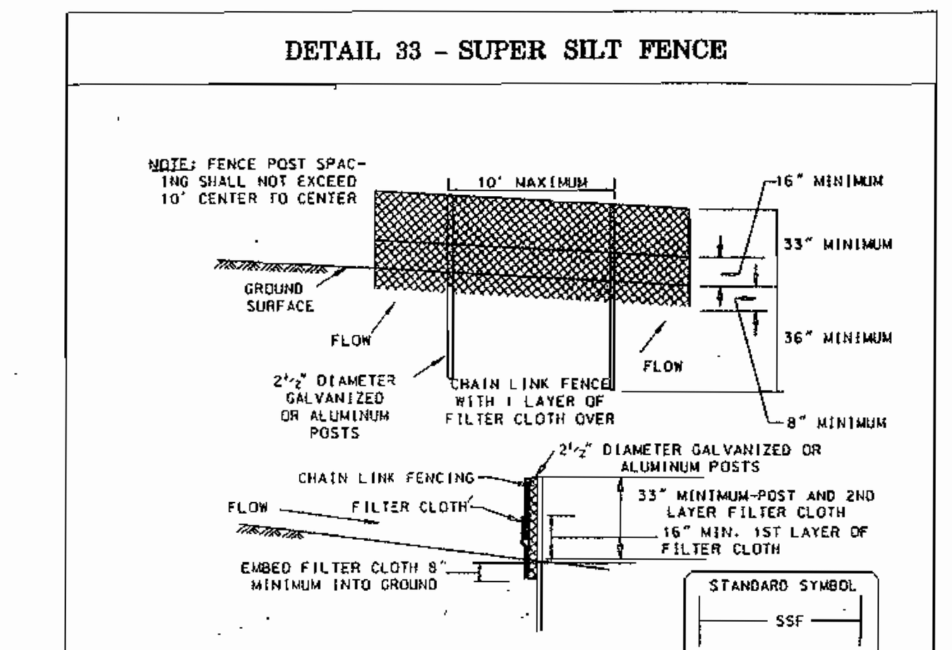
DETAIL 33 - SUPER SILT FENCE



Construction Specifications

Fencing shall be 42 inches in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6 foot fence shall be used, substituting 42 inch fabric and 6 foot length posts.

1. The poles do not need to set in concrete.

2. Chain link fence shall be fastened securely to the fence posts with wire ties or staples.

3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.

4. Filter cloth shall be embedded a minimum of 8" into the ground.

5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.

6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence.

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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."

SIGNATURE OF ENGINEER — DATE 5/16/00

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 ONSITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

SIGNATURE OF DEVELOPER — DATE 3-30-00

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

NATURAL RESOURCE CONSERVATION SERVICE — DATE 5/24/00

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 5/24/00

APPROVED: DEPARTMENT OF PLANNING & ZONING

Chief, Development Engineering Division — Date 5/25/00

Chief, Division of Land Development — Date 5/31/00

Director — Date 6/1/00

5/16/00

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

DESIGNED BDB	SEDIMENT CONTROL NOTES and DETAILS	SCALE N/A
DRAWN KBW	WESS HAVEN Lot 4	DRAWING 3 OF 3
CHECKED BDB	TAX MAP No. 36 BLOCK 9 P/O PARCEL No. 36 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND Previous Submittal: F99-65, SDP00-23	JOB NO. 99-033
DATE 4/00	Owner: ROBERT W. SIMMONS, 4201 Falconwood Place, Burtonsville, MD. 20866, (301) 924-5659 Builder: HAL C. MARKER CO., INC, 10524 Hunters Way, Laurel, Maryland 20723, (301) 776-8228	FILE NO. SDP00-111

SDP00-111