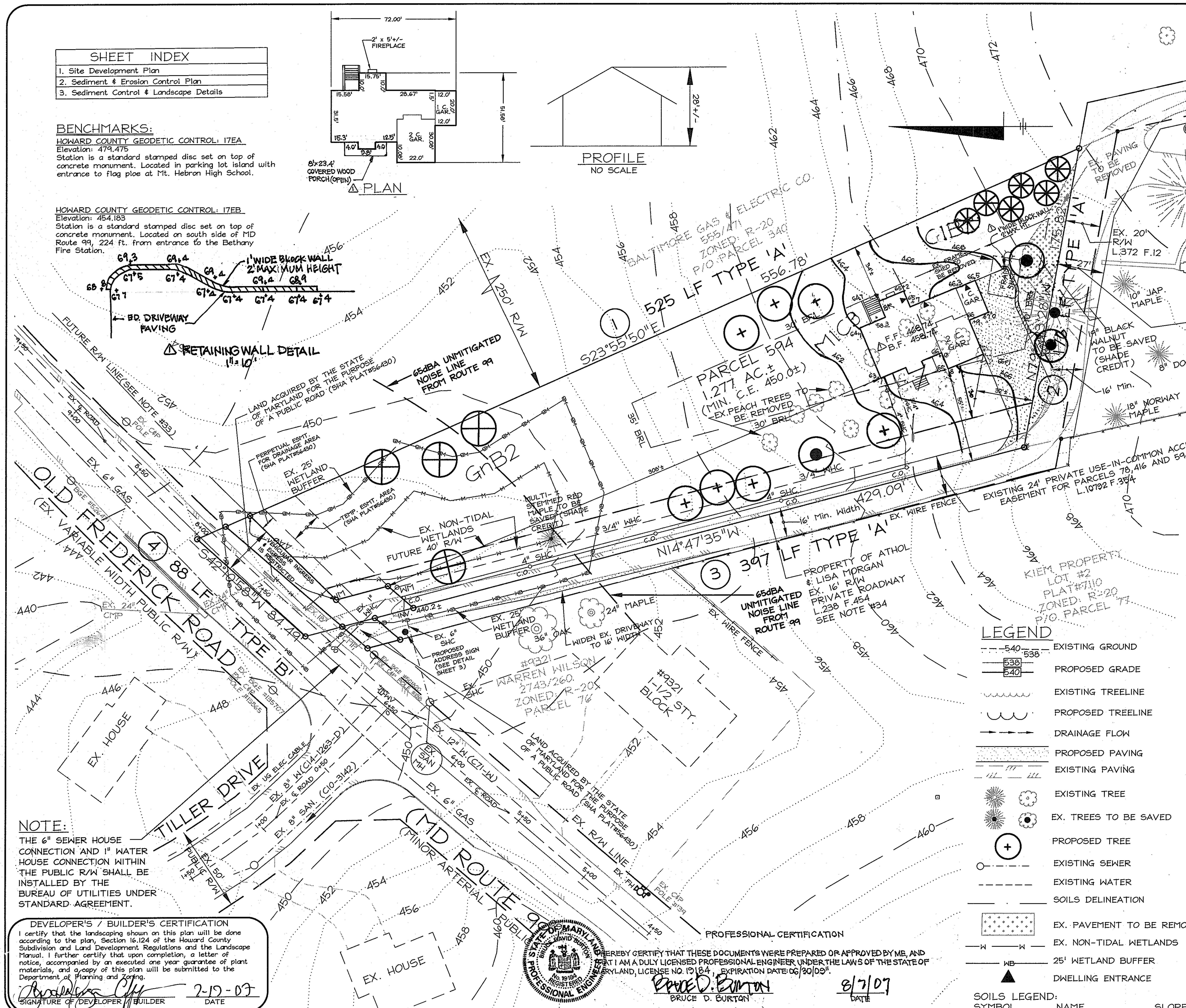
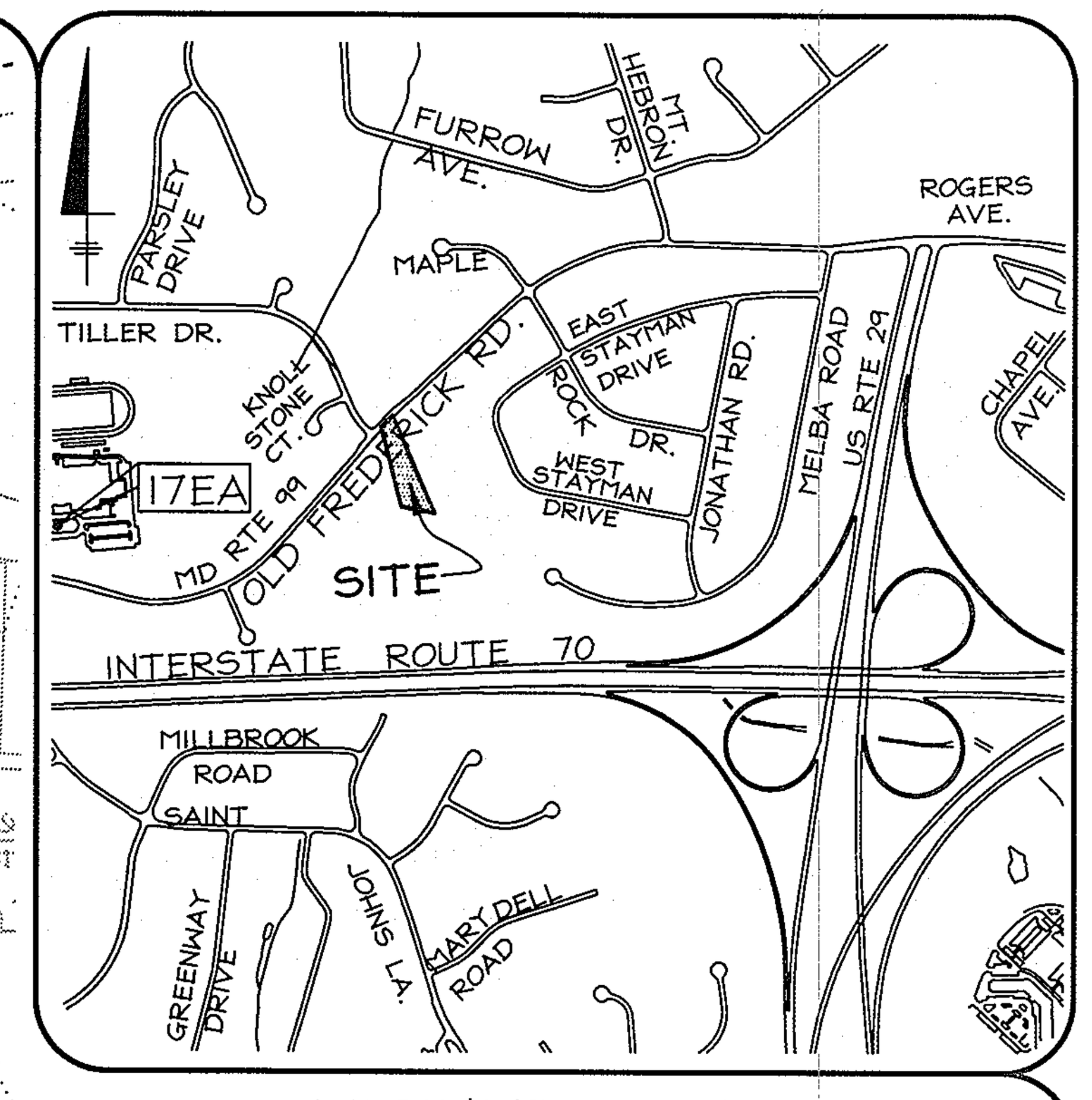
SHEET INDEX
1. Site Development Plan
2. Sediment & Erosion Control Plan
3. Sediment Control & Landscape Details

BENCHMARKS:

HOWARD COUNTY GEODETIC CONTROL: 17EA
Elevation: 479.475
Station is a standard stamped disc set on top of concrete monument. Located in parking lot island with entrance to flag ploe at Mt. Hebron High School.

HOWARD COUNTY GEODETIC CONTROL: 17EB
Elevation: 454.183
Station is a standard stamped disc set on top of concrete monument. Located on south side of MD Route 99, 224 ft. from entrance to the Bethany Fire Station.





VICINITY MAP
Scale: 1" = 2000'

NOTE:
THE 6" SEWER HOUSE CONNECTION AND 1" WATER HOUSE CONNECTION WITHIN THE PUBLIC R/W SHALL BE INSTALLED BY THE BUREAU OF UTILITIES UNDER STANDARD AGREEMENT.

LEGEND

- EXISTING GROUND (540 538)
- PROPOSED GRADE (538 540)
- EXISTING TREELINE
- PROPOSED TREELINE
- DRAINAGE FLOW
- PROPOSED PAVING
- EXISTING PAVING
- EXISTING TREE
- EX. TREES TO BE SAVED
- PROPOSED TREE
- EXISTING SEWER
- EXISTING WATER
- SOILS DELINEATION
- EX. PAVEMENT TO BE REMOVED
- EX. NON-TIDAL WETLANDS (W)
- 25' WETLAND BUFFER (WB)
- DWELLING ENTRANCE

SOILS LEGEND:

SYMBOL	NAME	SLOPE/CHARACTERISTICS
GIA	Glenelg Loam	0 to 3% slopes
GIB2	Glenelg Loam	3 to 8 % slopes-moderately eroded
GnB2	Glenville Silt Loam	3 to 8% slopes-moderately eroded
MIC3	Manor Loam	8 to 15% slopes-moderately eroded

Taken from Soils Map# 10

OWNER/DEVELOPER
Athol & Lisa Morgan
9311 Old Frederick Road
Ellicott City, MD 21042
(410) 383-4135

GENERAL NOTES:

1. The subject property is zoned R-20 per the 2/2/04 Comprehensive Zoning Plan and Comp-Lite Zoning Amendments dated 7/28/06.
2. All construction shall be in accordance with the latest Standards and Specifications of Howard County Design Manual Vol. IV and current MSHA Standards & Specifications.
3. Project Background:
   - Location: Ellicott City
   - Tax Map: Map 17
   - Tax Map Parcel: 594
   - Grid: 17
   - Election District: 2nd
   - Current Deed Reference: L.6195 F.690
4. The Boundary shown hereon is based on a field run boundary by LDE, Inc. dated April, 2003.
5. The topography shown hereon was field run by LDE, Inc. in June, 2004.
6. Horizontal and Vertical Datums are related to the Maryland State Plane Coordinate System (NAD 83) as projected from from Howard County Control Stations No. 17EA & 17EB.
7. 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 contractors expense.
8. The existing utilities shown hereon 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.
9. 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.
10. Site Analysis Data:
    - a. Total Project Area: 1.277 Acres
    - b. Area of Plan Submission: 1.277 Acres
    - c. Limit of Disturbed Area: 0.47 Acres
    - d. Present Zoning Designation: R-20
    - e. Proposed Site and Structure Use: One (1) SFD house
    - f. Building coverage of site: 2475 s.f. (0.06 Ac), 4.4% of site area
    - g. Applicable DPZ File References: N/A
11. The wetlands shown on this site are per a field investigation by LDE, Inc. dated June, 2004.
12. In accordance with Section 128 of the Howard County Zoning Regulations, bay windows, chimneys or exterior stairways not more than 16 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 setbacks.
13. The existing private common driveway will provide vehicular access to Parcels 594, 78 & 416.
14. For flag or pipestem lots, refuse collection, snow removal and road maintenance are provided to the junction of the flag or pipestem and road right-of-way line and not onto the lot driveway.
15. See Architectural Plans for building dimensions and design details.
16. This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscaping Manual.
17. Landscaping for Parcel 594 is provided in accordance with a certified landscape plan on file with this SDP. In accordance with Section 16.124 of the Howard County Code and Landscape Manual, Financial Surety for the required landscaping shall be posted as part of the builders grading permit for (17) new shade trees in the amount of $5100.00
18. There are no streams, stream buffers, steep slopes or 100 year floodplain within the boundary of this Parcel.
19. 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.
20. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least forty-eight (48) hours prior to any excavation work.
21. The exisiting driveway shall be upgraded to the use-in-common driveway standards as required by the Howard County Design Manual prior to residential occupancy for any new dwellings to insure safe access for fire and emergency vehicles per the following minimum requirements:
    - a. Width- 12' (16' serving more than one residence);
    - b. Surface - 6" of compacted crusher run base with tar and chip coating (1-1/2" min.);
    - c. Geometry - Max. 14% grade, max. 10% grade change minimum 45 ft. radius;
    - d. Structures (culverts/bridges)-capable of supporting 25 gross tons (H25 loading);
    - e. Drainage Elements - capable of safely passing 100 year flood with no more than 1 ft. depth over driveway surface;
    - f. Maintenance - sufficient to insure weather use.
22. Public water connection is provided for this Parcel via Water Contract No. 71-W. Public sewer connection is provided for this Parcel via Sewer Contract No. 10-3142. The proposed extensions within the public right-of-way shall be constructed by the Bureau of Utilities under standard agreement.
23. Stormwater Management for the proposed improvements is exempt since new impervious area is less than 5000 square feet.
24. Any damage to Public "Right-of-Ways" or paved public roads shall be repaired immediately at the contractors expense in accordance with the Howard County Standards and Specifications and / or current MSHA Standards and Specifications.
25. All fill shall be rolled to a minimum degree of compaction of 95% of the dry unit weight as determined by AASHTO T-180.
26. 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.
27. Deviations from these plans and specifications without prior written consent of the civil engineer may cause the work to be unacceptable.
28. The dimensioned distances shall govern if scaled and dimensioned distances on this plan are found to be in disagreement.
29. See sheet 3 for Landscaping Schedule 'A', Planting Detail, Landscape Notes and Landscape Perimeter Summary.
30. This project is conditionally exempt from the requirements of Section 16.1200 of the Howard County Code for Forest Conservation for development activity on a single lot of any size since the total area of forest to be cut, cleared or graded does not exceed 40,000 square feet; these areas are not subject to previously approved Forest Conservation restrictions and a Declaration of Intent (DOI) has been submitted with this plan to the Department of Planning and Zoning.
31. This plan is subject to WP06-59, on 1/18/07, on December 4, 2006, additional information was submitted regarding the above referenced waiver petition in response to the request for additional information to satisfy the concerns of the Development Engineering Division and the Division of Land Development, letter dated October 20, 2006. Based on additional information, this office has determined that a waiver to Section 16.120. (b).(5) of the Subdivision and Land Development Regulations (Lot Layout/ Excessive Noise Levels for Construction of a Single Family Residence, requires that the site development plan lay-out shall ensure that the noise level in the rear yard does not exceed the standard set in the Design Manual, and where necessary, noise mitigation shall be provided) is no longer needed in order to proceed with the processing of SDP- 06-018 for the proposed single family dwelling in this parcel. This decision is based primarily on the following: MDSHA had provided updated traffic data for design year 2025 which was obtained as a result of Route 99 intersection improvements, right-of-way acquisition and coordination of utility connections. By utilizing this data, the Stamina Noise Program predicts that the unmitigated 65dBA line will not impact the proposed dwelling's useable rear yard. Upon review, the Development Engineering Division has concured with the revised analysis dated December 2006.
32. This subdivision plan is subject to the amended Fifth Edition of the Subdivision and Land Development Regulations per Council Bill No. 45-2003 effective October 2nd, 2003. Development or construction of this Parcel must comply with setback and buffer regulations in effect at the time of submission of the site development plan, waiver petition application, or building permit application.
33. The right-of-way shown on the MD Route 99 frontage will be dedicated per State Highway Administration Contract HO 8615130 / Plat#56430.
34. Access to the Kiem Property Lot 1 & Lot 2 is restricted to the approved vehicular access point shown on Plat #7110. Deed - Liber 238 Folio 454 establishes use of the 16 foot right-of-way by the Grantors (Kiem) Grantees (Dampman). Use and Maintenance Agreement is recorded in Liber 5871 Foilio 364.
35. The 65 dBA noise contour line drawn on this development plan is advisory as required by the Howard County Design Manual, Chapter 5, revised February, 1992, and cannot be considered to exactly locate the 65dBA noise exposure. The 65dBA noise line was established by Howard County to alert developers, builders and future residents that areas beyond this threshold may exceed generally accepted noise levels established by the U.S. Department of Housing and Urban Development.
36. Noise Study for this project prepared by LDE, Inc. dated 8/05 (rev. 12/4/06) approved 1/18/07 under WP06-59.
37. The Department of Planning and Zoning considers the wetland buffer disturbance created by the existing use-in-common driveway to be an essential / necessary disturbance per Section 16.116(c) of the Subdivision Regulations for the reasonable development of this property.
38. Vehicular ingress and egress is restricted to Route 99 from Parcels 594, 78 and 416 in accordance with Section 16.119.f.3 of the Subdivision Regulations.
39. Parcel 594 is subject to a thirty (30) foot building restriction from the Baltimore Gas & Electric Company Right-Of-Way (Power Lines) in accordance with Section 16.120.b.9.1 of the Subdivision Regulations.
40. The 24' Use-In-Common Access Easement and Maintenance Agreement for Parcels 78, 416 and 595 was recorded in the Land Records of Howard County, Maryland on July16, 2007, Liber 10792, Folio 354.

ADDRESS CHART

Parcel No.	Street Address
594	9305 Old Frederick Road (MD Rte. 99)

Subdivision Name:		Sect/Area	Parcel No.
Property of Athol & Lisa Morgan		N/A	594

Plat Ref.	Grid No.	Zoning	Tax Map No.	Election District	Census Tract
L.6195 F.690	17	R-20	17	2nd	602100

Water Code	Sewer Code
H03	1455800

LDE Inc.
Engineers, Surveyors, Planners
9250 Rumsey Road, Suite 106 Columbia, Maryland - 21045
(410)715-1070 - (301)596-3424 - FAX(410)715-9540

DESIGNED BDB	SITE DEVELOPMENT PLAN	SCALE 1" = 30'
DRAWN KBW	PROPERTY OF ATHOL & LISA MORGAN LIBER 6195 FOLIO 690	DRAWING 1 OF 3
CHECKED BDB	TAX MAP No. 17 - GRID No. 17 - PARCEL 594 2nd ELECTION DISTRICT - HOWARD COUNTY, MD Previous Submittals: WP06-59	JOB NO. 02-023.3
DATE 7/2007	BUILDER: ARTISAN FINE HOMES P.O. Box 360 Parkton, MD 21120 301-881-1345	FILE NO. SDP06-018

REVISIONS

No.	Date	Description
1	8/21/2009 LDE	REVISE HOUSE, LOT GRADING, DRIVEWAY, ADD RETAINING WALL

PROFESSIONAL CERTIFICATION
"I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19184, EXPIRATION DATE: 06/30/09".
Bruce D. Burton 8/7/07
BRUCE D. BURTON DATE

DEVELOPER'S / BUILDER'S CERTIFICATION
I 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 further certify that upon completion, a letter of notice, accompanied by an executed one year guarantee of plant materials, and a copy of this plan will be submitted to the Department of Planning and Zoning.
2-19-07
SIGNATURE OF DEVELOPER / BUILDER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
DIRECTOR 8/9/07 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT 8/09/07 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION YQ 7/27/07 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.
Jim Meyers 7/24/07
NATURAL RESOURCE CONSERVATION SERVICE DATE

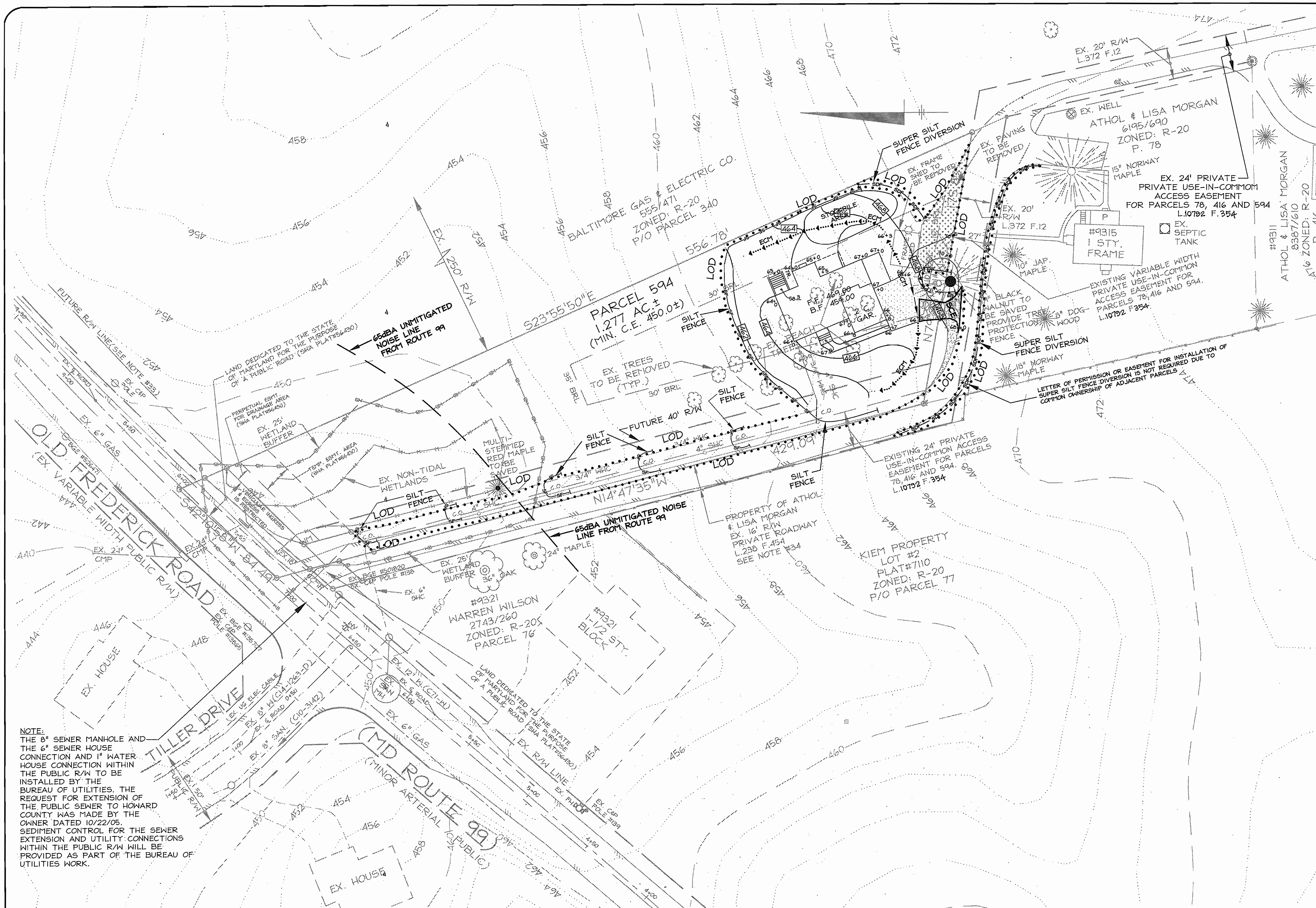
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
7/24/07
HOWARD SOIL CONSERVATION DISTRICT DATE

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.
Bruce D. Burton 7/17/07
SIGNATURE OF ENGINEER DATE

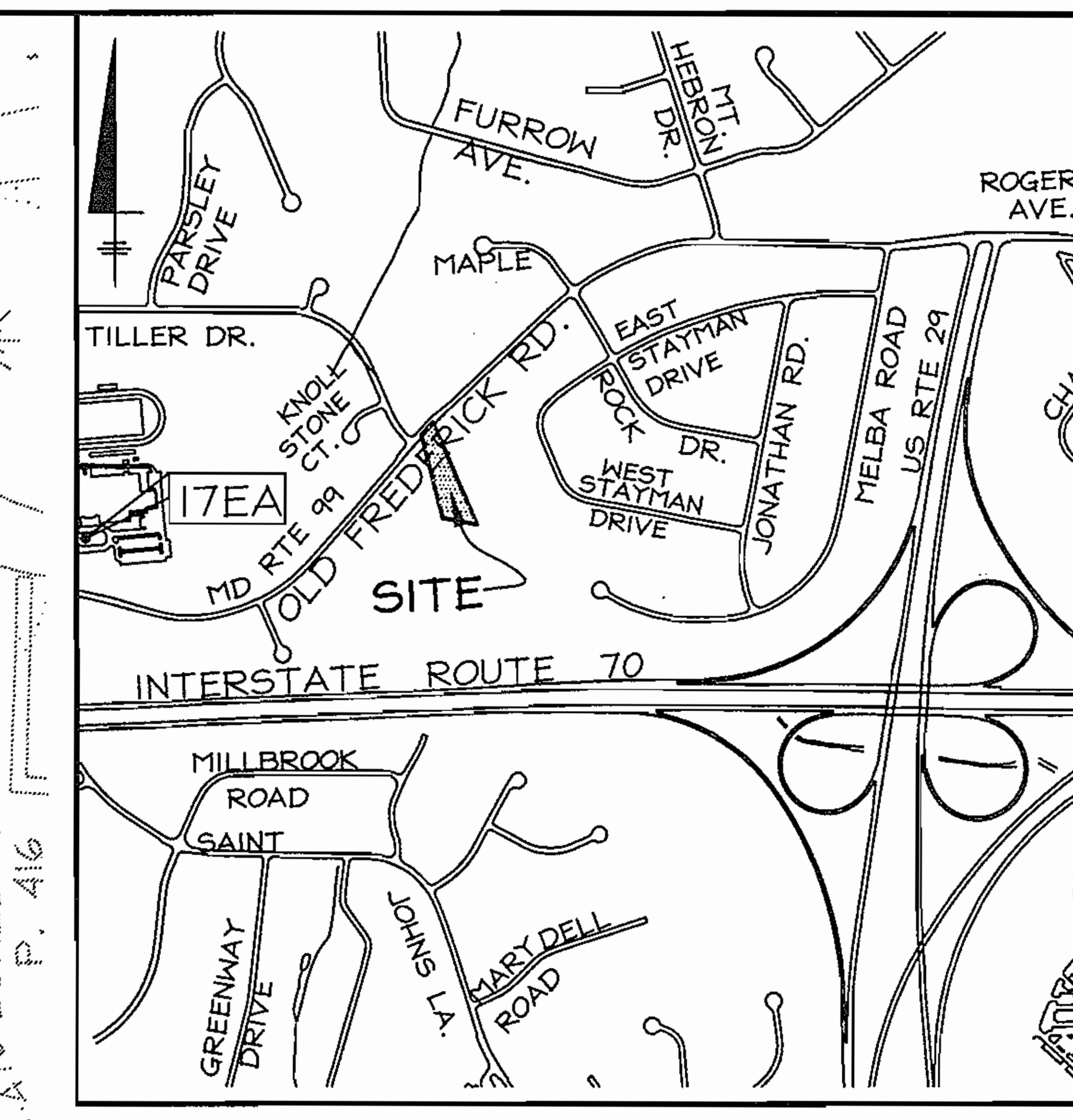
DEVELOPER'S CERTIFICATE
"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."
7/17/07
SIGNATURE OF DEVELOPER DATE

STATE OF MARYLAND BRUCE DAVID BURTON No. 19184 REGISTERED PROFESSIONAL ENGINEER
7/17/07

SDP-06-018



NOTE:
THE 8" SEWER MANHOLE AND THE 6" SEWER HOUSE CONNECTION AND 1" WATER HOUSE CONNECTION WITHIN THE PUBLIC R/W TO BE INSTALLED BY THE BUREAU OF UTILITIES. THE REQUEST FOR EXTENSION OF THE PUBLIC SEWER TO HOWARD COUNTY WAS MADE BY THE OWNER DATED 10/22/05. SEDIMENT CONTROL FOR THE SEWER EXTENSION AND UTILITY CONNECTIONS WITHIN THE PUBLIC R/W WILL BE PROVIDED AS PART OF THE BUREAU OF UTILITIES WORK.



VICINITY MAP
SCALE: 1" = 2000'

LEGEND

Symbol	Description
538 / 540	EXISTING GROUND
538 / 540	PROPOSED GRADE
	EXISTING TREELINE
	PROPOSED TREELINE
	DRAINAGE FLOW
	PROPOSED PAVING
	EXISTING PAVING
	EXISTING TREE
	EXIST. TREE TO BE SAVED
	EXISTING SEWER
	EXISTING WATER
	SOILS DELINEATION
LOD	LIMIT OF DISTURBANCE
SF SF SF	SILT FENCE
SSF SSF	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
SCE	STABILIZED CONSTRUCTION ENTRANCE
TPF TPF	TREE PROTECTION FENCE
SDF SDF SDF	SUPER SILT FENCE DIVERSION

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DIRECTOR — DATE 8/8/07

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 8/09/07

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7/27/07

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

NATURAL RESOURCE CONSERVATION SERVICE — DATE 7/24/07

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 7/24/07

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.

Bruce D. Burton
SIGNATURE OF ENGINEER — DATE 7/17/07

STATE OF MARYLAND — BRUCE DAVID BURTON — No. 19184 — 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 BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

SIGNATURE OF DEVELOPER — DATE 7-17-07

STATE OF MARYLAND — BRUCE DAVID BURTON — No. 19184 — REGISTERED PROFESSIONAL ENGINEER
7/17/07

REVISIONS		
No.	Date	Description

LDE Inc.
Engineers, Surveyors, Planners
9250 Rumsey Road, Suite 106 Columbia, Maryland - 21045
(410)715-1070 - (301)596-3424 - FAX(410)715-9540

DESIGNED: BDB	SEDIMENT & EROSION CONTROL PLAN	SCALE: 1"=30'
DRAWN: KBW	PROPERTY OF ATHOL & LISA MORGAN	DRAWING: 2 OF 3
CHECKED: BDB	LIBER 6195 FOLIO 690 TAX MAP No. 17 - GRID No. 17 - PARCEL 594 2nd ELECTION DISTRICT - HOWARD COUNTY, MD Previous Submittals: WP06-59	JOB NO. 02-023.3
DATE: 7/2007	BUILDER: ARTISAN FINE HOMES, P.O. Box 360, Parkton, MD 21120, 301-881-1345	FILE NO. SDP06-018

SDP-06-018

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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	1.277	Acres
Area Disturbed	0.47	Acres
Area to be roofed or paved	0.08	Acres
Area to be vegetatively stabilized	0.39	Acres
Total Cut	315	Cu. Yds.
Total Fill	315	Cu. Yds.
Offsite waste 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.

HOWARD SOIL CONSERVATION DISTRICT

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-termvegetative 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.

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 1-1/2" 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 fe composted sludge and amendments may be applied as specified below:

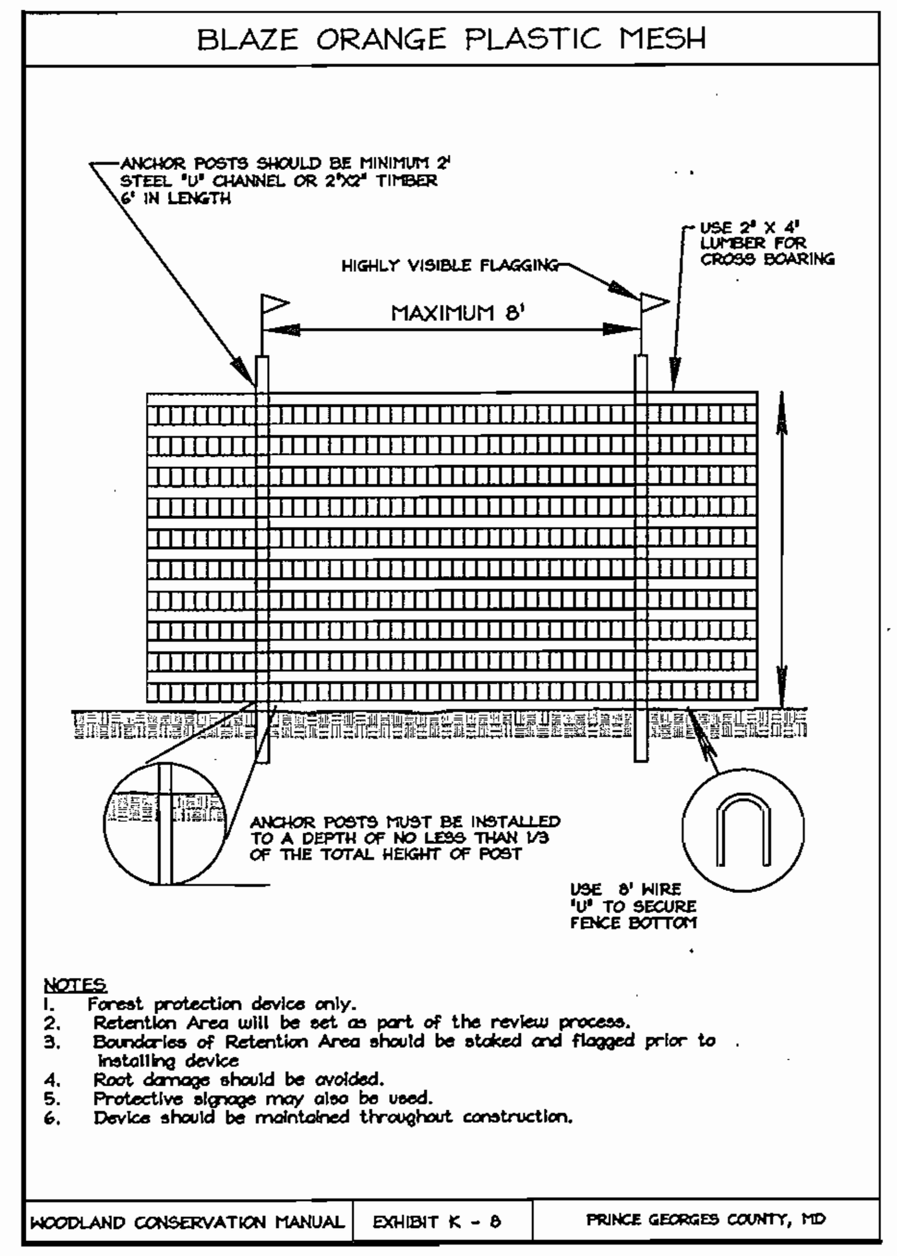
i. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
a. Composted sludge shall be supplied by, or originate from, a person or 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.

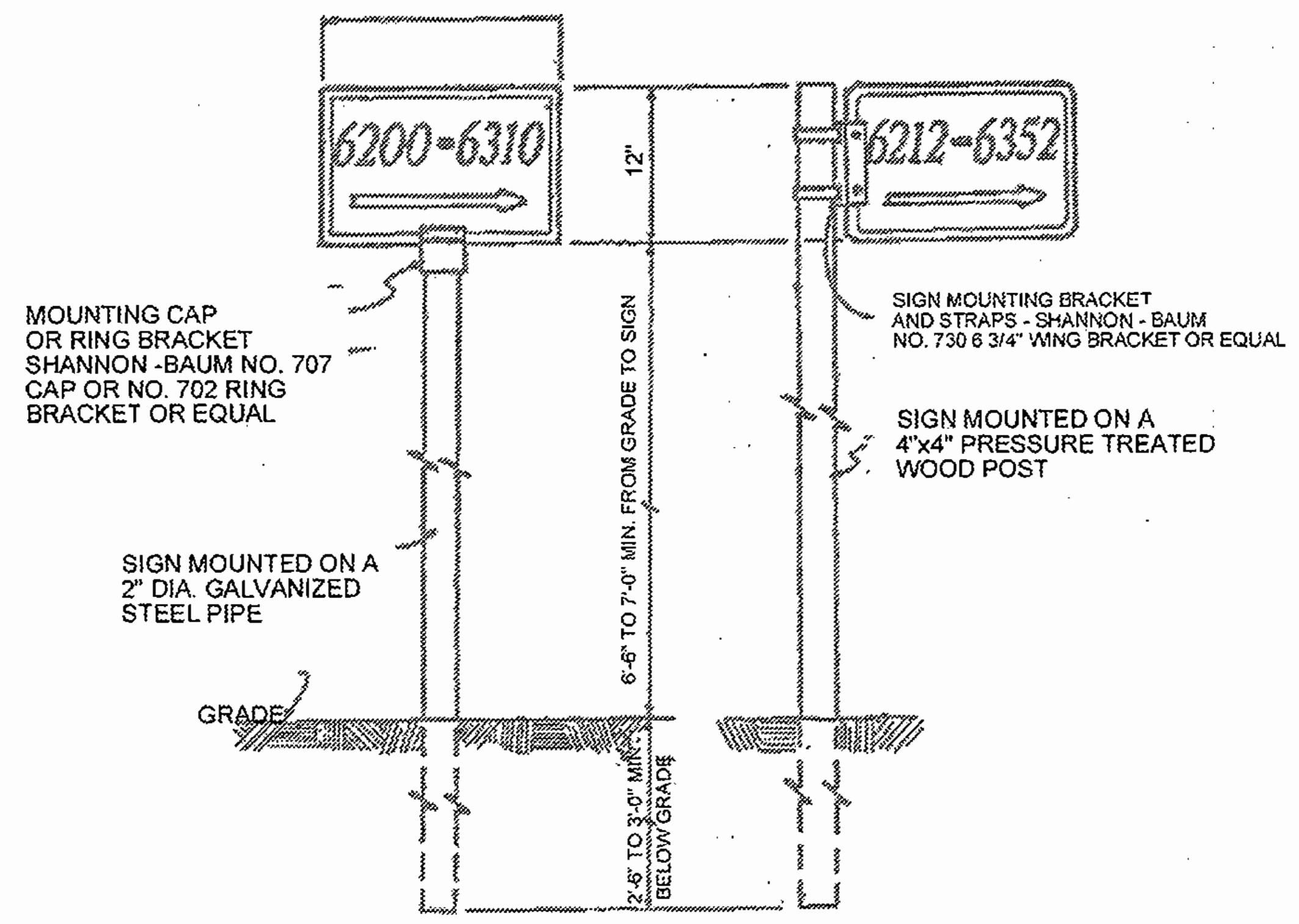
References:Guideline Specifications, Soil Preparation and Sodding. MD-VA, Pub.#1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

SCHEDULE A PERIMETER LANDSCAPE EDGE					
Category	Adjacent to Perimeter Properties			Adjacent to Roadways	Total
Perimeter	P-1	P-2	P-3	P-4	
Landscape Type	A	A	A	B	
Linear Feet of Roadway Frontage / Perimeter	525 L.F.	176 L.F.	397 L.F.	88 L.F.	
Credit for Existing Vegetation* (Yes, No, Linear Feet)	No	Yes 1 Shade	Yes 1 Shade	N/A	
Credit For Wall, Fence or Berm (Yes, No, Linear Feet)	No	No	No	N/A	
Number of Plants Required Shade Trees	9	3	7	N/A	
Number of Plants Provided Shade Trees Evergreen Trees	6 6	2*	6*	N/A	14 Shade 6 Evergreen @2:1=3 Shade
					17 Total

* Credit is being taken for a 19" Black Walnut along P-2 and a Multi-Stemmed Red Maple along P-3.



TREE PROTECTION FENCE



SIGN OPTION NUMBER 1 AND NUMBER 2

SIGN DESIGN AND INSTALLATION DETAIL

NO SCALE

SIGN SPECIFICATIONS

1. The sign size shall be 12" x 18".

2. The sign material shall be .080 gauge thickness anodized aluminum.

3. The sign shall have a green background with 3" high white reflective numbers and arrow with a white reflective border.

4. 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.

5. The sign will be installed within the common driveway easement area as noted on the final plat.

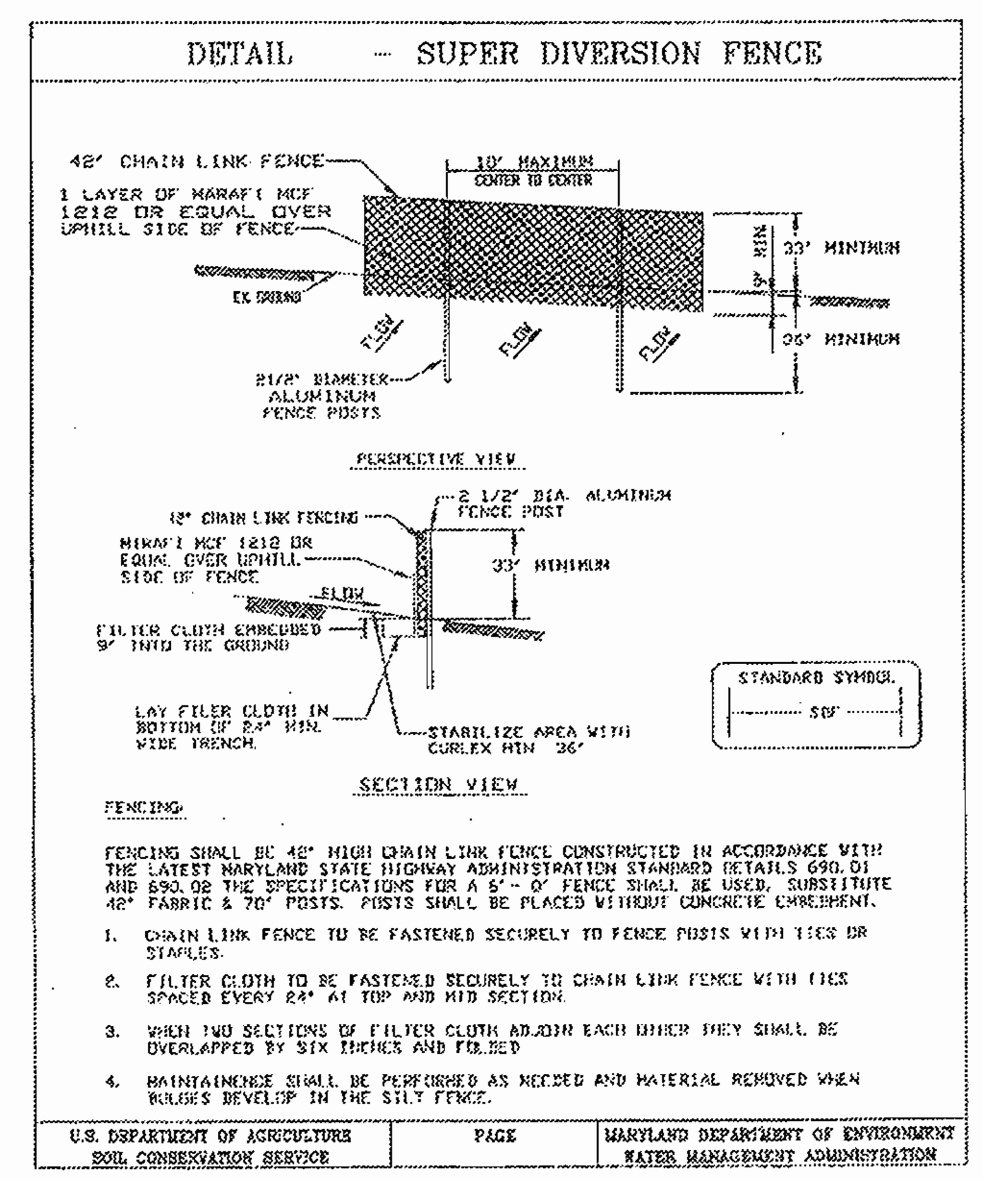
6. Address number identification signs are to be provided under the tenants of the Homeowner's Association Incorporation or a Property Management Company for installation and maintenance in accordance with the Department of Planning and Zoning Address Numbering System and per Section 3.503(a) of the 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.

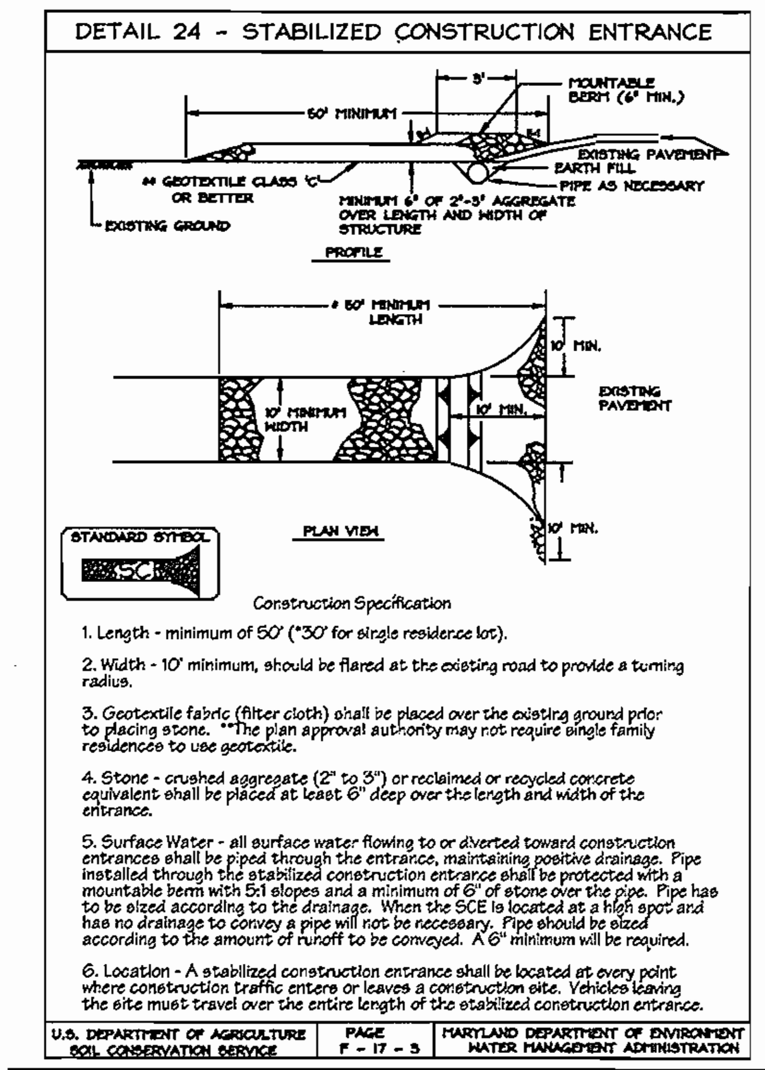
7. Compliance regarding the installation of the new address number directional signs will be enforced by the Department of Inspections, Licenses and Permits at the time of final approval for issuance of the Use and Occupancy permits.

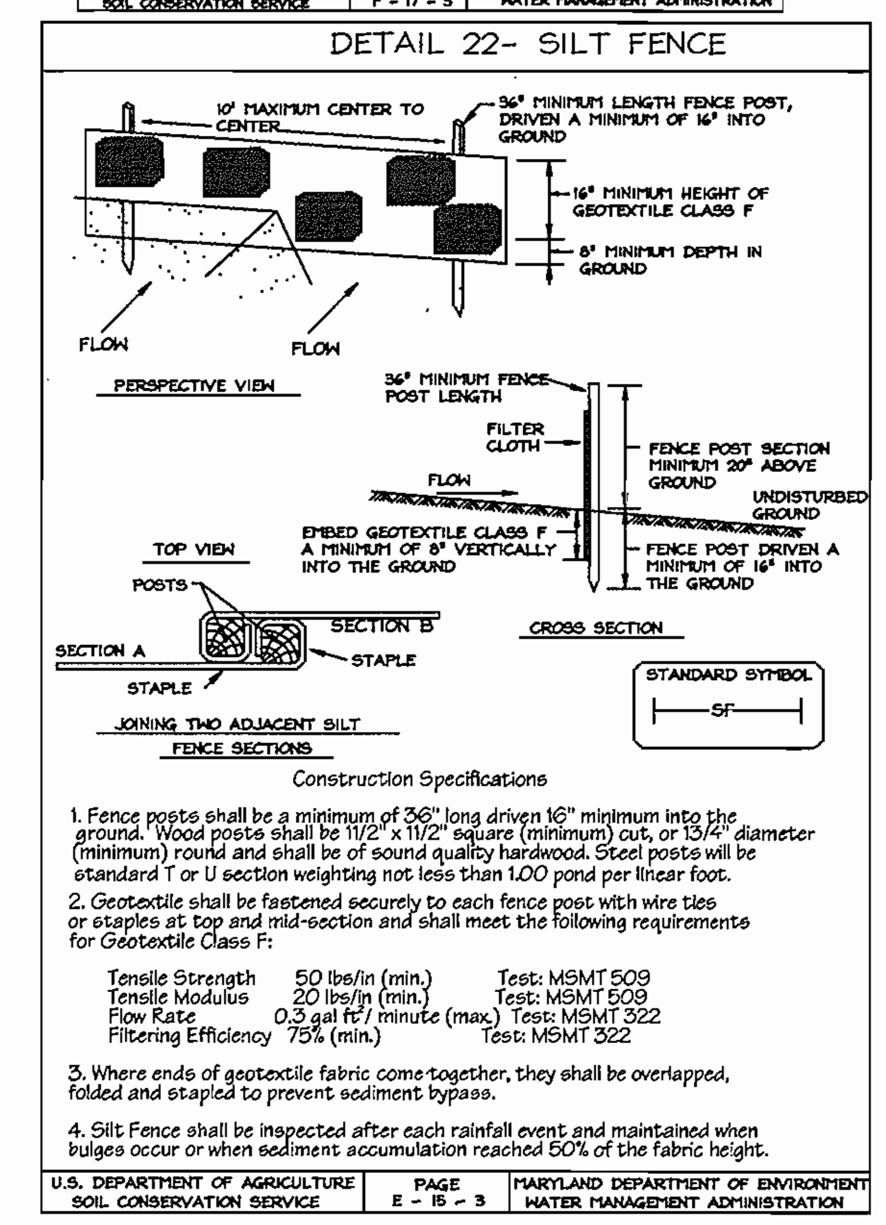
LANDSCAPE NOTES:

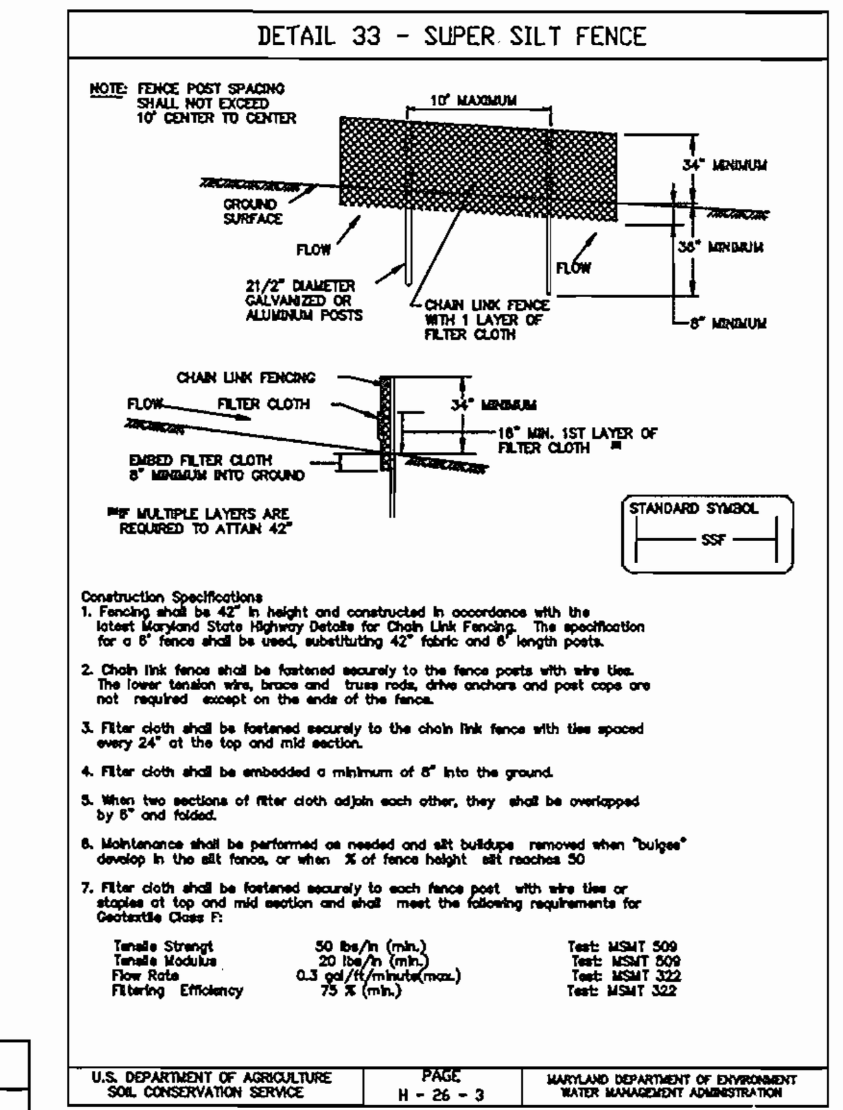
1. This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and Howard County Landscape Manual.
2. The Owner/Developer is responsible for planting of all material required to meet the standards established by the Howard County Landscape Manual.
3. Financial Surety for the required landscaping will be posted with the builder's grading permit in the amount of $5100.00.
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 shal be maintained in 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 Associated Nurserymen's publication, American nursery stock.
6. At the time of installment, all shrubs and other plantings herewith listed and approved for this site shall be of the proper height requirements in accordance with the Howard County Landscape Manual. In addition, no substitutions or relocation of required plantings may be made without prior review and approval from the Department of Planning and Zoning. Any deviation from this approved Landscape Plan may result in denial or delay in the release of landscape surety until such time as all required materials are planted and/or revisions are made to applicable plans and certificates.

PLANT LIST CHART					
SYMB.	QUANTITY	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
(+)	7	October Glory Red Maple	Acer rubrum October Glory	2 1/2"-3" Cal.	B & B
(●)	3	Red Oak	Quercus rubra	2 1/2"-3" Cal.	B & B
(⊕)	4	Bloodgood London Plane	Platanus x acerifolia 'Bloodgood'	2 1/2"-3" Cal.	B & B
(✳)	6	Eastern White Pine	Pinus strobus	6'-8' Ht.	B & B









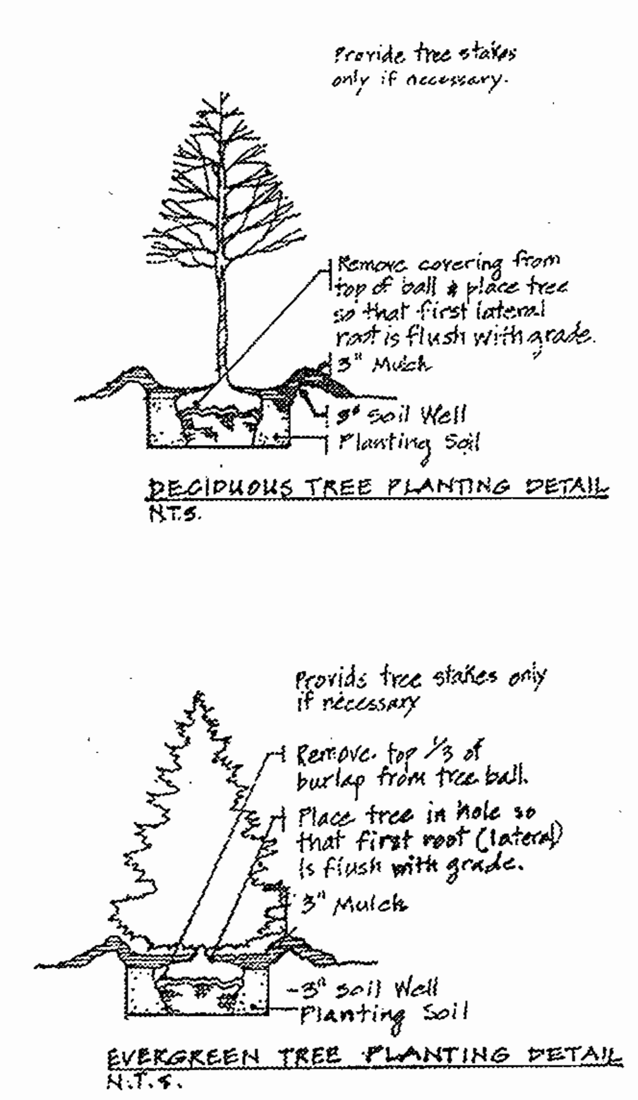
SUPER SILT FENCE

Design Criteria

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE H - 26 - 3A | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

TREE PLANTING DETAILS



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 Super Silt Fence as shown hereon.	3 Days
5. Clear & grub site to subgrade.	5 Days
6. Begin excavation for house foundation and begin house construction. Install water and sewer house connections.	60 Days
7. The Contractor shall inspect and provide necessary maintenance on the sediment and erosion control structures shown hereon after each rainfall and on a daily basis.	Daily
8. Remove sediment from roadways and dress Stabilized Construction Entrance as required.	Maintenance
9. Fine grade and stabilize with permanent seeding mixture and straw mulch. Install individual driveway and house walk.	5 Days
10. 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:	81 Days

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[signature] 8/5/07
DIRECTOR DATE

[signature] 8/08/07
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[signature] 7/27/07
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

[signature] 7/24/07
NATURAL RESOURCE CONSERVATION SERVICE DATE

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

[signature] 7/24/07
HOWARD SOIL CONSERVATION DISTRICT DATE

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.

Bruce D. Burton 7/17/07
SIGNATURE OF ENGINEER DATE

STATE OF MARYLAND · BRUCE DAVID BURTON · No. 19184 · 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 BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

[signature] 7-17-07
SIGNATURE OF DEVELOPER DATE

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

7/17/07

REVISIONS		
No.	Date	Description

LDE Inc.
Engineers, Surveyors, Planners
9250 Rumsey Road, Suite 106 Columbia, Maryland - 21045
(410)715-1070 - (301)596-3424 - FAX(410)715-9540

DESIGNED BDB	SEDIMENT CONTROL, CONSTRUCTION & LANDSCAPE DETAILS PROPERTY OF ATHOL & LISA MORGAN LIBER 6195 FOLIO 690 TAX MAP No. 17 - GRID No. 17 - PARCEL 594 2nd ELECTION DISTRICT - HOWARD COUNTY, MD Previous Submittals: WP06-59	SCALE As Shown
DRAWN KBW		DRAWING 3 OF 3
CHECKED BDB		JOB NO. 02-023.3
DATE 7/2007	BUILDER: ARTISAN FINE HOMES P.O. Box 360 Parkton, MD 21120 301-881-1345	FILE NO. SDP06-018

SDP-06-018