

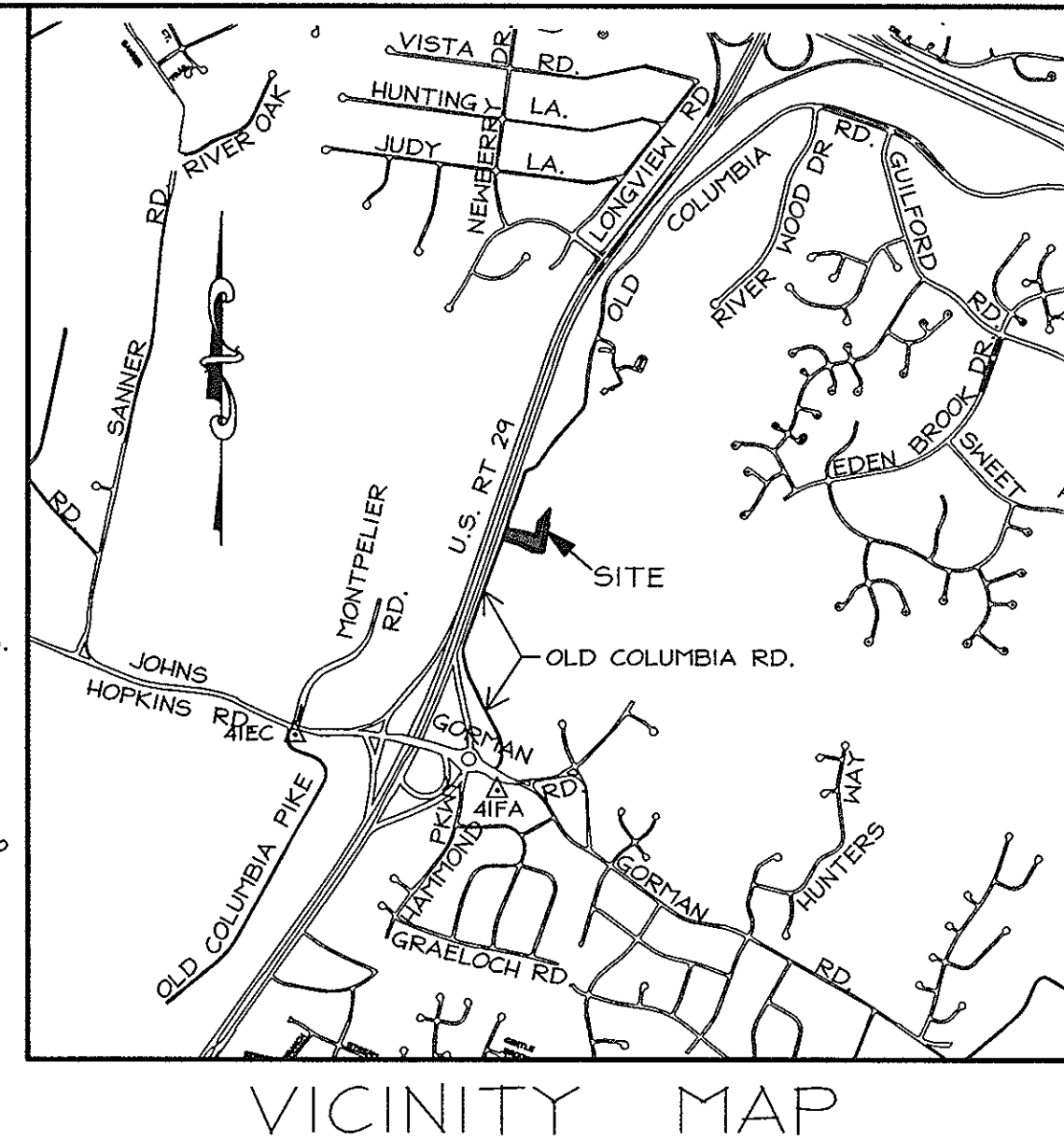
- SEWAGE SYSTEM DESIGN DATA**
- Invert at Foundation Wall: 340.50 Basement Service
  - 1500 Gallon Septic Tank (4 Bedrooms) Provide Manhole to Finished Grade
    - Ex. Ground Over Pit: 342.00
    - Prop. Grade Over Tank: 342.00
    - Invert In: 339.30
    - Invert Out: 339.00
  - 1500 Gallon Pump Pit
    - Ex. Ground Over Pit: 341.70
    - Prop. Grade Over Pit: 341.70
    - Invert In: 338.70
    - Invert Out: 339.20
  - Distribution Box: (Provide 4 Outlets Minimum)
    - Ex. Ground Over Box: 346.00
    - Prop. Grade Over Box: 346.00
    - Invert In: 343.00
- NOTE:** Trench design may be revised at time of installation based on site conditions.

- NOTES:**
- The proposed septic system for this lot requires a pump.
  - Pump chamber to be a minimum 1500 gallon top seamed pump pit with single effluent pump. Pump shall be equipped with audible and visual alarm system for high water and pump malfunction. Alarm system shall be installed on a separate electrical circuit. Install check valves as required.
  - Provide manhole cleanout to finished grade at proposed septic tank and the pump chamber.
  - Details and specification of the proposed pump within the pump pit to be supplied by the contractor for review and approval by the Howard County Health Department prior to issuance of a septic permit.

INDEX OF SHEETS	
SHEET NO	TITLE
1	Site Development Plan
2	Sediment & Erosion Control Plan
3	Stormwater Management, Sediment Control and Landscape Details

**GENERAL NOTES:**

- The subject property is zoned R-20 per the 2/2/04 Comprehensive Zoning Plan and Comp-Lite Zoning Regulations dated 7/28/06.
- All construction shall be in accordance with the latest Standards and Specifications of Howard County Design Manual Vol. IV and current MSHA Standards & Specifications.
- Project Background:
  - Location: Laurel
  - Tax Map: Map 41
  - Tax Map Parcel: 270
  - Grid: 17
  - Election District: 6th
  - Current Deed Reference: L-976 F.194
- The Boundary shown hereon is based on a field run boundary by LDE, Inc. dated February, 2006.
- The topography shown hereon was field run by LDE, Inc. in February, 2006.
- Horizontal and Vertical Datums are related to the Maryland State Plane Coordinate System (NAD 83) as projected from Howard County Control Stations No. 41EC & 41FA.
- 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.
- 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.
- 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:
  - Total Project Area: 0.7019 Acres
  - Area of Plan Submission: 0.7019 Acres
  - Limit of Disturbed Area: 0.48 Acres
  - Present Zoning Designation: R-20
  - Proposed Site and Structure Use: One (1) SFD house
  - Building coverage of site: 1228 s.f. (0.028 Ac), 4.0% of site area
  - Applicable DPZ File References: WP07-54, F06-184



11. Vehicular access to Old Columbia Road for Lots 1 & 2 is provided by a 24' wide private access easement within the subdivision and a 30' wide private access easement within adjacent Parcel 295 (owned by the Maryland State Highway Administration). The existing driveway within the subdivision shall be widened to a 16' minimum width where practical.
12. Maintenance access to Open Space Lot 3 is provided through the adjacent Recreation and Parks property (Parcel 343). Lot 1 is provided with a private 12' pedestrian access easement to Open Space Lot 3. Howard County shall not be responsible for maintenance of the shared driveway to Lots 1 and 2.
13. 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.
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 prior to stakeout for construction. It shall be the Architect's/Builder's responsibility to provide LDE, Inc. with the most recent set of house plans prior to construction stakeout.
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. Perimeter landscaping for Lot 2, in accordance with Section 16.124 of the Howard County Code and the Landscaping Manual, shall be provided as shown on this Site Development Plan. Financial prep in the amount of \$4800.00 for 16 shade trees on Lot 2 shall be posted with the Developers Agreement under this Site Development Plan (SDP 07-107).
18. There are no wetlands, streams, stream buffers, steep slopes or 100 year floodplain within the boundary of this Lot.
19. The contractor shall contact the Construction Inspection Division 24 hours in advance of commencement of work at (410) 313-1880.
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 existing 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:
  - Width - 12' (16' serving more than one residence);
  - Surface - 6" of compacted crusher run base with tar and chip coating (1-1/2" min.);
  - Geometry - Max. 14% grade, max. 10% grade change minimum 45 ft. radius;
  - Structures (culverts/bridges) - capable of supporting 25 gross tons (H25 loading);
  - Drainage Elements - capable of safely passing 100 year flood with no more than 1 ft. depth over driveway surface;
  - Maintenance - sufficient to insure weather use.
22. These areas designate a private sewage easement of at least 10,000 square feet as required by the Maryland State Department of the Environment for individual sewage disposal. (COMAR 26.04.03) Improvements of any nature in this area are restricted until public sewage is available. These easements shall become null and void upon connection to a public sewage system. The County Health Officer shall have the authority to grant variances for encroachments into the private sewage easement. Recordation of a modified sewage easement shall not be necessary.
23. The lot shown hereon complies with the minimum lot area and ownership width as required by the Maryland State Department of the Environment.
24. The lot will be served by public water and private septic systems. Lot 2 will connect to Contract 647-14 by a 1" water house connection installed by the Bureau of Utilities under standard fee.
25. Stormwater management for Lot 2 will be met via an infiltration drywell and disconnection credits (approved under F06-184). The execution of the Developers Agreement and appropriate surety for the infiltration drywell shall be executed prior to site development signature approval for Lot 2.
26. Forest conservation obligations in accordance with Section 16.122 of the Forest Conservation Manual was fulfilled by a fee-in-lieu for 0.11 acres of required afforestation, in the amount of \$3,543.70 which was paid to The Forest Conservation Fund (see F06-184).
27. 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.
28. The 65 dBA noise contour line drawn on this subdivision plan is advisory as required by the Howard County Design Manual, Chapter 5, revised February, 1992 and cannot be considered to exactly locate the 65 dBA noise exposure. The 65 dBA 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.
29. 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 and / or current MSHA Standards and Specifications.
30. All fill shall be rolled to a minimum degree of compaction of 95% of the dry unit weight as determined by AASHTO T-180.
31. 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.
32. Deviations from these plans and specifications without prior written consent of the civil engineer may cause the work to be unacceptable.
33. The dimensions distances shall govern if scaled and dimensioned distances on this plan are found to be in disagreement.
34. See sheet 3 for Landscaping Schedule 'A', Planting Detail, Landscape Notes and Landscape Perimeter Summary.
35. The plat is subject to WP07-54, approved on 1/17/07, waiving Section 16.120(b)(5) for noise mitigation subject to requiring future lots to have useable rear yards without noise mitigation lines.
36. The plat is subject to a waiver to Section 5.2.9 of Design Manual Volume III, on 1/9/07, the Development Engineering Division Chief approved the request not to require noise mitigation on the existing lot (Lot 1).
37. The establishment of Lot 2 was approved on 2/6/07 as a "Single Family Lot Exemption" of the Adequate Public Facilities Ordinance requirements in accordance with Section 16.1107.b.i.vi of the Howard County Subdivision and Land Development Regulations.

**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. 10847 F. 261, EXPIRATION DATE: 6/30/09."

*Bruce D. Burton* 9/4/07  
SIGNED: BRUCE D. BURTON

**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.

*Jim Mays* 9/20/07  
SIGNATURE OF DEVELOPER / BUILDER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Mark A. Lytle* 9/2/07  
DIRECTOR DATE

*Cindy Hamm* 9/20/07  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*John R. Robertson* 9/11/07  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

APPROVED: For Public Water and Private Sewerage Systems  
Howard County Health Department

*Bruce D. Burton* 9/20/07  
Signature of Peter Bilenson Date  
Howard County Health Officer

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

*Jim Mays* 9-7-07  
NATURAL RESOURCE CONSERVATION SERVICE DATE

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

*John R. Robertson* 9-7-07  
HOWARD SOIL CONSERVATION DISTRICT DATE

**SOILS LEGEND**

HYDROLOGIC SOIL GROUP	SOIL SYMBOL	DESCRIPTION	REMARKS
D	Ba	Baile Silt Loam	
B	M1B2	Manor loam, 3% - 8% slopes, moderately eroded	
B	MgC2	Manor Gravelly loam, 8% - 15%, moderately eroded	
B	M1D2	Manor loam, 15% - 25% slopes, moderately eroded	
B	M1E	Manor loam, 25% - 45% slopes	

**ENGINEER'S CERTIFICATE**

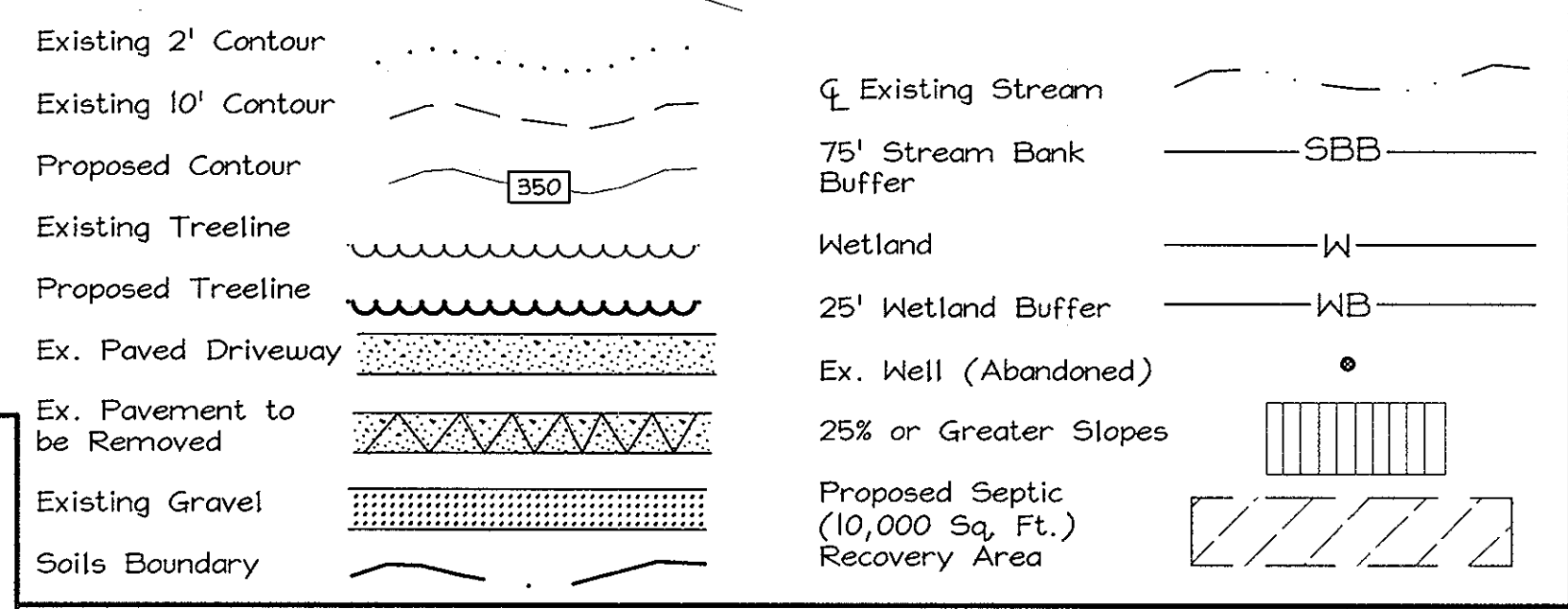
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Bruce D. Burton* 9/4/07  
SIGNATURE OF ENGINEER DATE

**DEVELOPER'S CERTIFICATE**

I HEREBY 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 FIELD AGENTS, AS ARE DEEMED NECESSARY.

*Jim Mays* 9/4/07  
SIGNATURE OF DEVELOPER DATE



**REVISIONS**

No.	Date	Description

**ADDRESS CHART**

Lot No.	Street Address
2	7527 Old Columbia Road

Property Name: Larenas Property Section: Lot No. 2

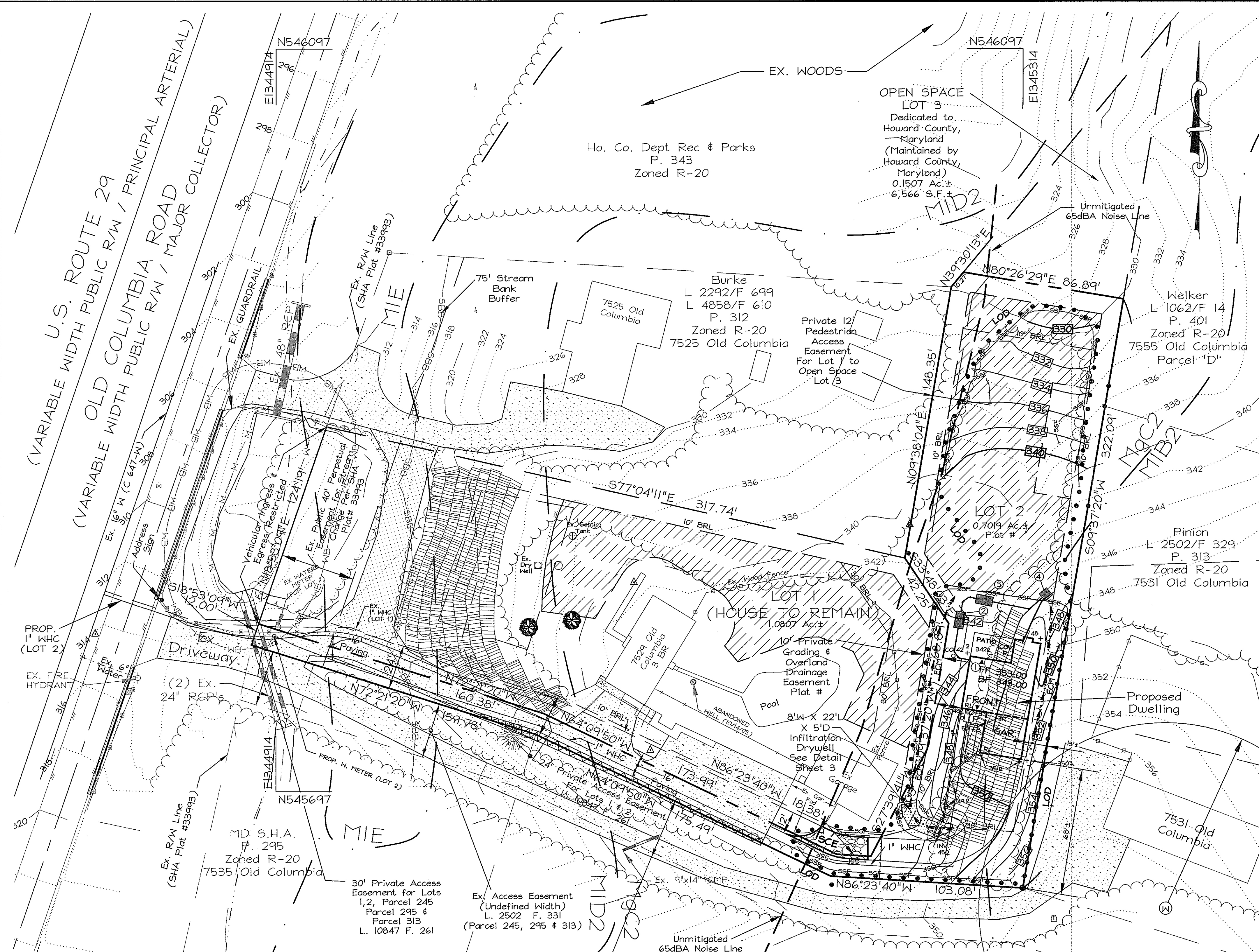
Plat Ref.	Grid No.	Zoning	Tax Map No.	Election District	Census Tract
Plat #19337	17	R-20	41	6th	606802

Water Code: E16 Sewer Code: N/A

**LDE Inc.**  
Engineers, Surveyors, Planners  
9230 Ramsey Road, Suite 106 Columbia, Maryland - 21045  
(410)715-1070 - (301)596-3424 - FAX (410)715-9540

DESIGNED	SITE DEVELOPMENT PLAN	SCALE
BDB	LOT 2	1" = 30'
DRAWN	LARENAS PROPERTY	DRAWING
STB	TAX MAP 41 GRID 17 PARCEL 270	1 OF 3
CHECKED	6th ELECTION DISTRICT HOWARD COUNTY, MD	JOB NO.
BDB	Previous Submittals: WP07-54, F06-184	04-026.2
DATE	OWNER/DEVELOPER: EFRAN R. LARENAS, ET AL 7501 Flamewood Drive Clarksville, MD 21224	FILE NO.
9/2007		SDP-07-107





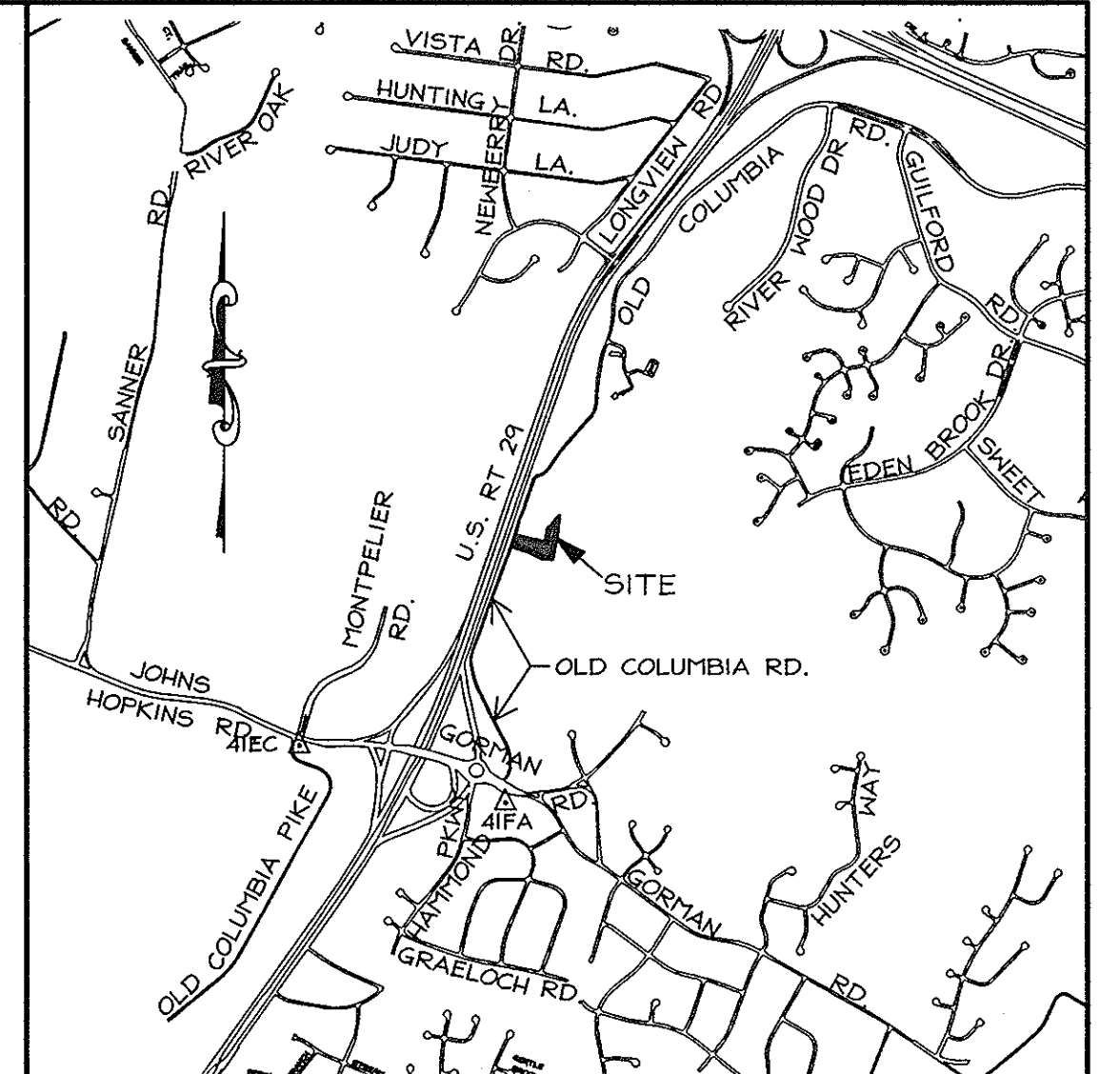
**HOWARD SOIL CONSERVATION DISTRICT  
STANDARD SEDIMENT CONTROL NOTES**

- 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. (315-1055).
- 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 a 7 calendar days for all perimeter sediment control structures, ditches, perimeter slopes and all slopes greater than 3:1, by 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 stabilized 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	0.7019 Acres ±
Area Disturbed	0.48 Acres ±
Area to be roofed or paved	0.10 Acres ±
Area to be vegetatively stabilized	0.23 Acres ±
Total Cut	250 Cu. Yds.
Total Fill	250 Cu. Yds.
Offsite waste area location	N/A
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- 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.

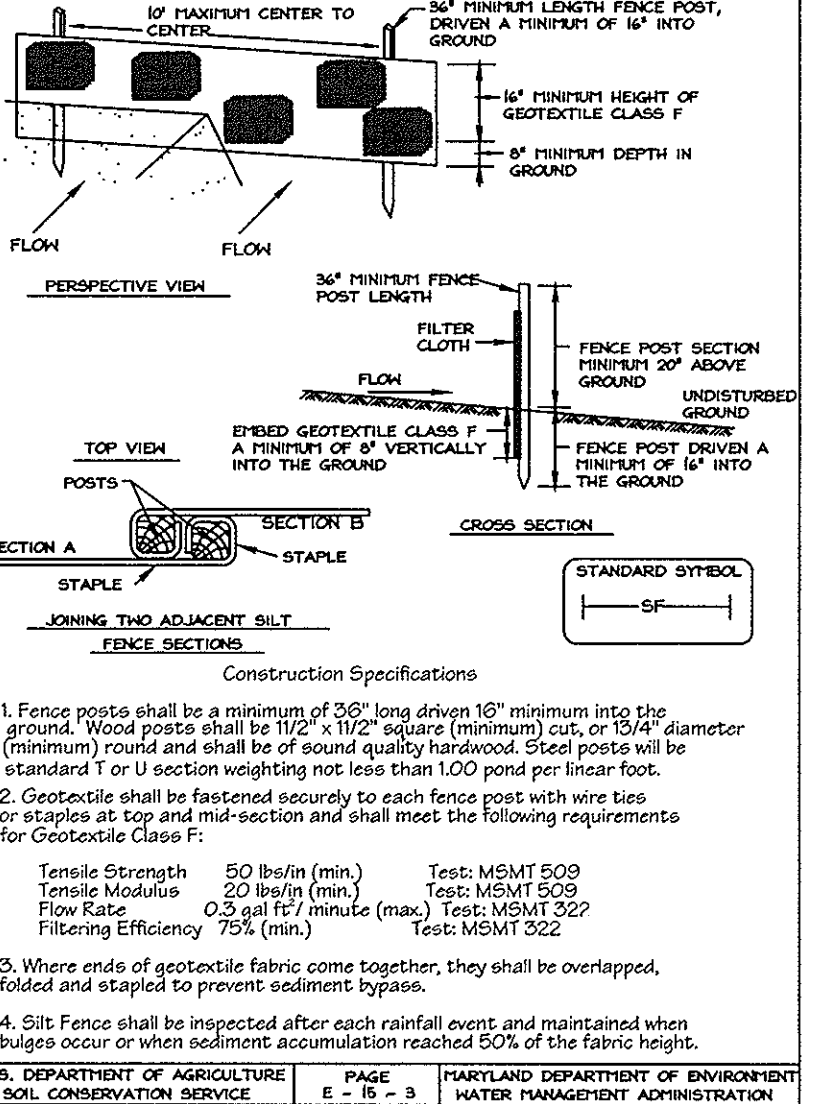
**LEGEND**

- Existing 2' Contour
- Existing 10' Contour
- Proposed Contour
- Existing Treeline
- Proposed Treeline
- Ex. Paved Driveway
- Ex. Pavement to be Removed
- Existing Gravel
- Soils Boundary
- Existing Stream
- 75' Stream Bank Buffer
- Wetland
- 25' Wetland Buffer
- Ex. Well (Abandoned)
- 25% or Greater Slopes
- Proposed Septic (10,000 Sq. Ft.) Recovery Area
- Stabilized Construction Entrance
- Limit of Disturbance
- Super Silt Fence
- Erosion Control Matting

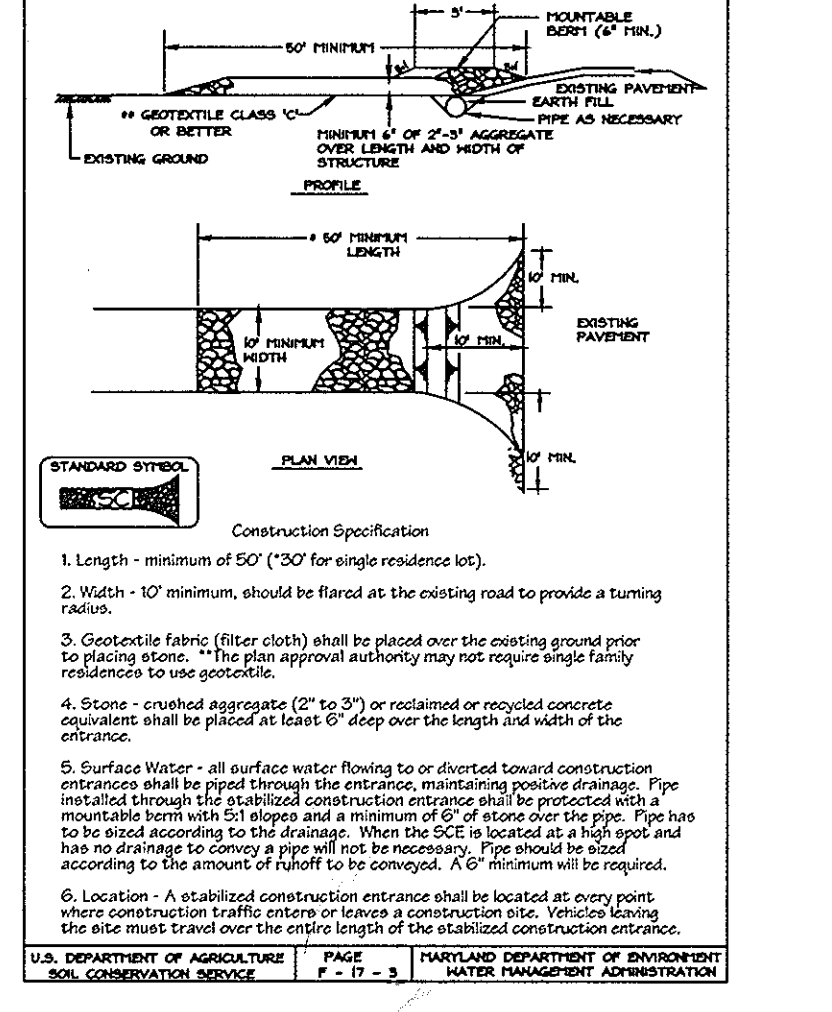


**VICINITY MAP**  
1" = 2000'

**DETAIL 22- SILT FENCE**



**DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE**



APPROVED: For Public Water and Private Sewerage Systems  
Howard County Health Department

*Brian Peter Bulenson* 9/20/2007  
Howard County Health Officer 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.

*F. Miller* 9/14/07  
SIGNATURE OF DEVELOPER / BUILDER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*David L. Long* 9/20/07  
DIRECTOR DATE

*Steve Smith* 9/20/07  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*William* 9/14/07  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

*Jim Meyer* 9/17/07  
NATURAL RESOURCE COMMISSION SERVICE DATE

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

*John R. Robertson* 9/17/07  
HOWARD SOIL CONSERVATION DISTRICT DATE

**ENGINEER'S CERTIFICATE**

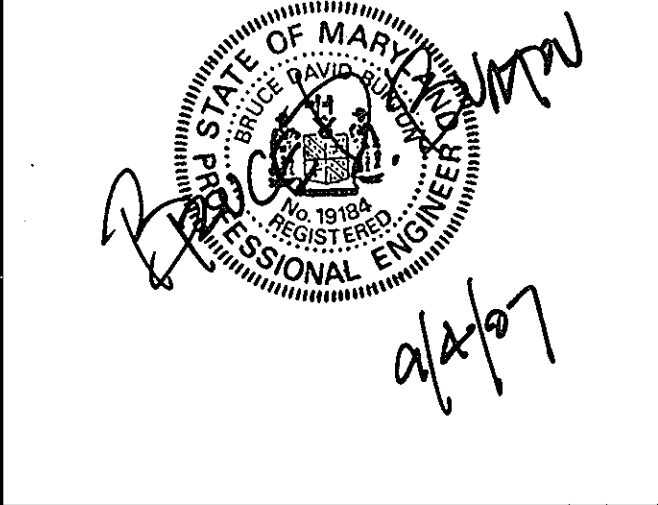
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Bruce D. Bump* 9/14/07  
SIGNATURE OF ENGINEER DATE

**DEVELOPER'S CERTIFICATE**

I HAVE CERTIFIED 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.

*F. Miller* 9/14/07  
SIGNATURE OF DEVELOPER DATE



No.	Date	Description

**LDE Inc.**  
Engineers, Surveyors, Planners  
9250 Rumsay 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	STB		
CHECKED	BDB	LOT 2 LARENAS PROPERTY	DRAWING 2 OF 3
DATE	9/2007		
Previous Submittals: WP07-54, F06-189		TAX MAP 41 GRID 17 PARCEL 270	JOB NO. 04-026.2
OWNER/DEVELOPER: EFRAN R. LARENAS, ET AL 7501 Flamewood Drive Clarksville, MD 21024		6th ELECTION DISTRICT HOWARD COUNTY, MD	FILE NO. SDP-07-107



**HOWARD SOIL CONSERVATION DISTRICT  
PERMANENT SEEDING NOTES**

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-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:** In lieu of soil test recommendations, use one of the following schedules:

- PREFERRED** -- Apply 2 tons per acre dolomitic limestone (92 lbs/1000sq. ft.) and 600 lbs per acre 10-10-10 fertilizer (24 lbs/1000sq. 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.).
- ACCEPTABLE** -- Apply 2 tons per acre dolomitic limestone (92 lbs/1000sq. ft.) and 1000 lbs per acre 10-10-10 fertilizer (24 lbs/1000sq. 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 and 2 lbs. per acre (0.5 lbs/1000sq. ft.) of creeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) - 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) - Use seed, Option (3) - Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons of well anchored straw.

**MULCHING** -- Apply 1/2 to 2 tons per acre (70 to 90 lbs/1000sq. ft.) of untreated weed free small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gallons per acre (5 gal/1000sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 548 gallons per acre (8 gal/1000sq. ft.) for anchoring.

**MAINTENANCE** -- Inspect all seeding areas and make needed repairs, replacements and reseeding.

**HOWARD SOIL CONSERVATION DISTRICT  
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, 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 212 pounds per acre of annual ryegrass (3.2 lbs/1000sq. ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.7 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 seed.

**MULCHING** -- Apply 1/2 to 2 tons per acre (70 to 90 lbs/1000sq. ft.) of untreated weed free small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gallons per acre (5 gal/1000sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 548 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.

**210 STANDARD AND SPECIFICATIONS FOR TOPSOIL**

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/parent 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 continuing 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. 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 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 cinders, 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, ruzickgrass, poison ivy, thistle, or others as specified.
  - Where the subsoil is either highly acidic or composed of heavy clay, ground limestone shall be spread at the rate of 8 tons/acre (200-400 pounds per 1000 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 1 - Vegetative Stabilization Methods and Materials.

**INFILTRATION DRYWELL DETAIL**  
DRYWELL DIMENSIONS  
8' WIDE X 22' LONG X 5' DEEP

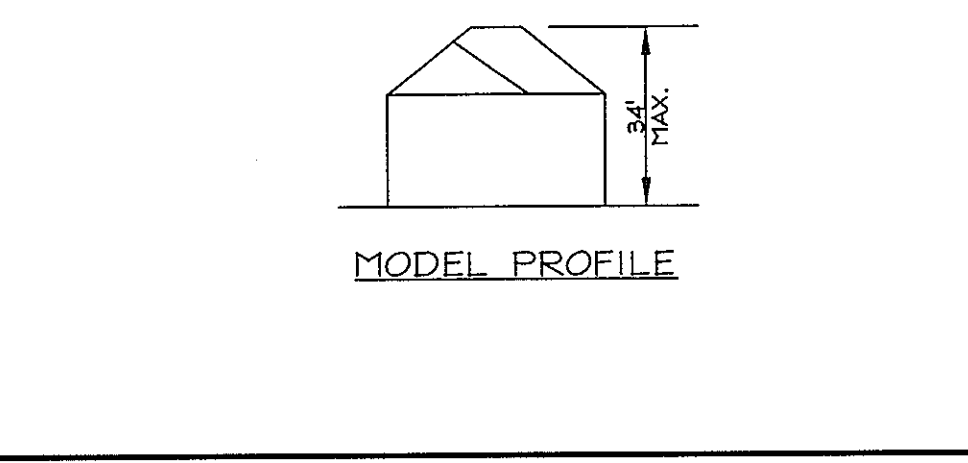
**Construction Specifications for INFILTRATION DRYWELL:**

- The Infil. Drywell may not receive run-off until the entire contributing drainage area to the infiltration drywell has received final stabilization.
- Heavy equipment and traffic shall be restricted from traveling over the proposed location of the infiltration drywell to minimize compaction of the soil.
- Excavate the infiltration drywell to the design dimensions. Excavated materials shall be placed away from the drywell to enhance trench wall stability. Large tree roots must be trimmed flush with the trench sides in order to prevent fabric puncturing or tearing of the filter fabric during subsequent installation procedures. The side walls of the trench shall be roughened where sheared and sealed by heavy equipment.
- A Class "C" geotextile or better (see Section 24.0, Material Specifications, 1994 Standards and Specifications for Soil Erosion and Sediment Control, MDE, 1994) shall interface between the trench side walls and between the stone reservoir and gravel filter layers. A partial list of non-woven filter fabric types that meet the Class "C" criteria follows. Any alternative filter fabric must be approved by the plan approval authority.
 

Amoco 4552	Caribag FX-80S
GEOLON N70	Mirafl 180-N
WEBTEC N07	

The width of the geotextile must include sufficient material to conform to trench perimeter irregularities and for a 6-inch minimum top overlap. The filter fabric shall be tucked under the sand layer on the bottom of the infiltration drywell for a distance of 6 to 12 inches. Stones or other anchoring objects should be placed on the fabric at the edge of the trench to keep the trench open during windy periods. When overlaps are required between rolls, the uphill roll should lap a minimum of 2 feet over the downhill roll in order to provide a shingled effect.

- If a 3 inch sand filter layer is placed on the bottom of the infiltration drywell, the sand for the infiltration drywell shall be washed and meet AASHTO-M-43, Size No. 9 or No. 10. Any alternative sand gradation must be approved by the plan approval authority.
- The stone aggregate should be placed in a maximum loose lift thickness of 12 inches. The gravel (rounded "bank run" gravel is preferred) for the infiltration drywell shall be washed and meet one of the following AASHTO-M-43, Size No. 2 or No. 3, 1/2" to 1 1/2" Top Sand Layer followed by Geotextile Fabric & Topsoil Cover.
- Following the stone aggregate, the filter fabric shall be folded over the stone aggregate to form a 6-inch minimum longitudinal lap. The desired fill soil or stone aggregate shall be placed over the lap at sufficient intervals to maintain the lap during subsequent backfilling.
- Care shall be exercised to prevent natural or fill soils from intermixing with the stone & sand aggregate. All contaminated stone aggregate shall be removed and replaced with uncontaminated stone aggregate.
- VOIDS may occur between the fabric and the excavation sides shall be avoided. Removing boulders or other obstacles from the trench walls is one source of such voids. Therefore, natural soils should be placed in these voids at the most convenient time during construction to ensure fabric conformity to the excavation sides.
- Vertically excavated walls may be difficult to maintain in areas where soil moisture is high or where soft cohesive or cohesionless soils are dominant. These conditions may require laying back of the side-slopes to maintain stability.
- PVC distribution pipes shall be Schedule 40 and meet ASTM-D-1785. All fittings shall meet ASTM-D-2729. Performances shall be 3/8" inch in diameter. A perforated pipe shall be provided only within the infiltration drywell and shall terminate 1 foot short of the infiltration drywell wall. The end of the PVC pipe shall be capped. Note: PVC pipe with a wall thickness classification of SDR-35 meeting ASTM-D-3034 is an acceptable substitute for the Schedule 40 pipe.
- The observation well is to consist of 6-inch diameter perforated PVC Schedule 40 pipe (M 278 OR F758, Type PS 28) with a cap set 6 inches above ground level and is to be located near the longitudinal center of the infiltration drywell. The pipe shall have a plastic collar with ribs to prevent rotation when removing the cap. The screw top lid shall be a cleanout with a locking mechanism or special bolt to discourage vandalism. The depth to the invert shall be marked on the lid. The pipe shall be placed vertically within the gravel portion of the infiltration drywell and a cap provided at the bottom of the pipe. The bottom of the cap shall rest on the infiltration drywell bottom.



APPROVED: For Public Water and Private Sewerage Systems  
Howard County Health Department

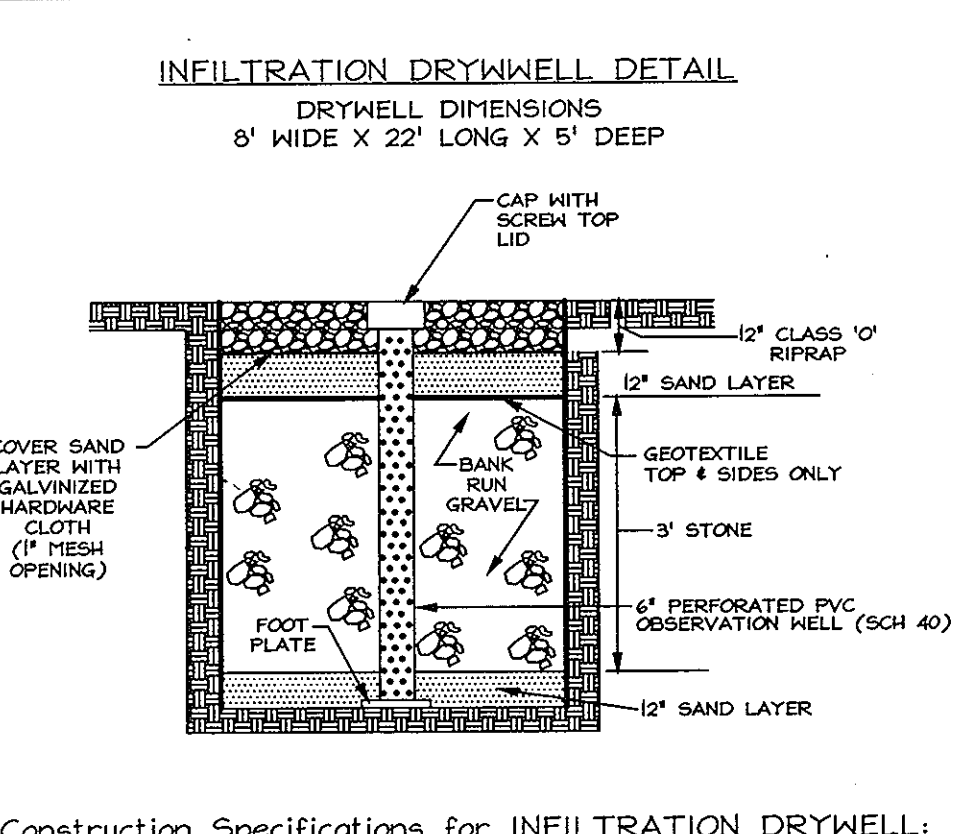
*Barbara Peter Brulenson* 9/20/2007  
Howard County Health Officer Date

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

*Jim Maylin* 9-7-07  
NATURAL RESOURCE CONSERVATION SERVICE DATE

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

*John R. Robertson* 9-7-07  
HOWARD SOIL CONSERVATION DISTRICT DATE



**Construction Specifications for INFILTRATION DRYWELL:**

- Heavy equipment and traffic shall be restricted from traveling over the proposed location of the infiltration drywell to minimize compaction of the soil.
- Excavate the infiltration drywell to the design dimensions. Excavated materials shall be placed away from the drywell to enhance trench wall stability. Large tree roots must be trimmed flush with the trench sides in order to prevent fabric puncturing or tearing of the filter fabric during subsequent installation procedures. The side walls of the trench shall be roughened where sheared and sealed by heavy equipment.
- A Class "C" geotextile or better (see Section 24.0, Material Specifications, 1994 Standards and Specifications for Soil Erosion and Sediment Control, MDE, 1994) shall interface between the trench side walls and between the stone reservoir and gravel filter layers. A partial list of non-woven filter fabric types that meet the Class "C" criteria follows. Any alternative filter fabric must be approved by the plan approval authority.
 

Amoco 4552	Caribag FX-80S
GEOLON N70	Mirafl 180-N
WEBTEC N07	

The width of the geotextile must include sufficient material to conform to trench perimeter irregularities and for a 6-inch minimum top overlap. The filter fabric shall be tucked under the sand layer on the bottom of the infiltration drywell for a distance of 6 to 12 inches. Stones or other anchoring objects should be placed on the fabric at the edge of the trench to keep the trench open during windy periods. When overlaps are required between rolls, the uphill roll should lap a minimum of 2 feet over the downhill roll in order to provide a shingled effect.

- If a 3 inch sand filter layer is placed on the bottom of the infiltration drywell, the sand for the infiltration drywell shall be washed and meet AASHTO-M-43, Size No. 9 or No. 10. Any alternative sand gradation must be approved by the plan approval authority.
- The stone aggregate should be placed in a maximum loose lift thickness of 12 inches. The gravel (rounded "bank run" gravel is preferred) for the infiltration drywell shall be washed and meet one of the following AASHTO-M-43, Size No. 2 or No. 3, 1/2" to 1 1/2" Top Sand Layer followed by Geotextile Fabric & Topsoil Cover.
- Following the stone aggregate, the filter fabric shall be folded over the stone aggregate to form a 6-inch minimum longitudinal lap. The desired fill soil or stone aggregate shall be placed over the lap at sufficient intervals to maintain the lap during subsequent backfilling.
- Care shall be exercised to prevent natural or fill soils from intermixing with the stone & sand aggregate. All contaminated stone aggregate shall be removed and replaced with uncontaminated stone aggregate.
- VOIDS may occur between the fabric and the excavation sides shall be avoided. Removing boulders or other obstacles from the trench walls is one source of such voids. Therefore, natural soils should be placed in these voids at the most convenient time during construction to ensure fabric conformity to the excavation sides.
- Vertically excavated walls may be difficult to maintain in areas where soil moisture is high or where soft cohesive or cohesionless soils are dominant. These conditions may require laying back of the side-slopes to maintain stability.
- PVC distribution pipes shall be Schedule 40 and meet ASTM-D-1785. All fittings shall meet ASTM-D-2729. Performances shall be 3/8" inch in diameter. A perforated pipe shall be provided only within the infiltration drywell and shall terminate 1 foot short of the infiltration drywell wall. The end of the PVC pipe shall be capped. Note: PVC pipe with a wall thickness classification of SDR-35 meeting ASTM-D-3034 is an acceptable substitute for the Schedule 40 pipe.
- The observation well is to consist of 6-inch diameter perforated PVC Schedule 40 pipe (M 278 OR F758, Type PS 28) with a cap set 6 inches above ground level and is to be located near the longitudinal center of the infiltration drywell. The pipe shall have a plastic collar with ribs to prevent rotation when removing the cap. The screw top lid shall be a cleanout with a locking mechanism or special bolt to discourage vandalism. The depth to the invert shall be marked on the lid. The pipe shall be placed vertically within the gravel portion of the infiltration drywell and a cap provided at the bottom of the pipe. The bottom of the cap shall rest on the infiltration drywell bottom.

**OPERATION, MAINTENANCE AND INSPECTION SCHEDULE**

- The lot owners and their heirs, successors, or assigns shall be solely responsible for the safety of the facility and the continued operation, surveillance, inspection and maintenance thereof.
- Inspection of the facility shall be performed minimally on an annual basis. When sediment is visually apparent within the stone voids, the portion of the stones that are affected by sedimentation shall be removed and replaced with clean stone. Replacement of the infiltration trench may be warranted when the voids of the stone are obviously impacted with sediment fills and water no longer drains (percolates) into and through the stone.
- Direct access shall be provided to the infiltration trench for maintenance and rehabilitation. The stone reservoir used to temporarily store runoff prior to infiltration shall not be covered by an impermeable surface (paving, etc.).
- Accumulated paper, trash and debris shall be removed from the facility as necessary.
- The grass vegetation along the sides of the facility shall be inspected for erosion rills or gullies and corrected as required. Any bare areas should be stabilized by seeding with erosion control matting or sodded as necessary.

**ENGINEER'S CERTIFICATE**

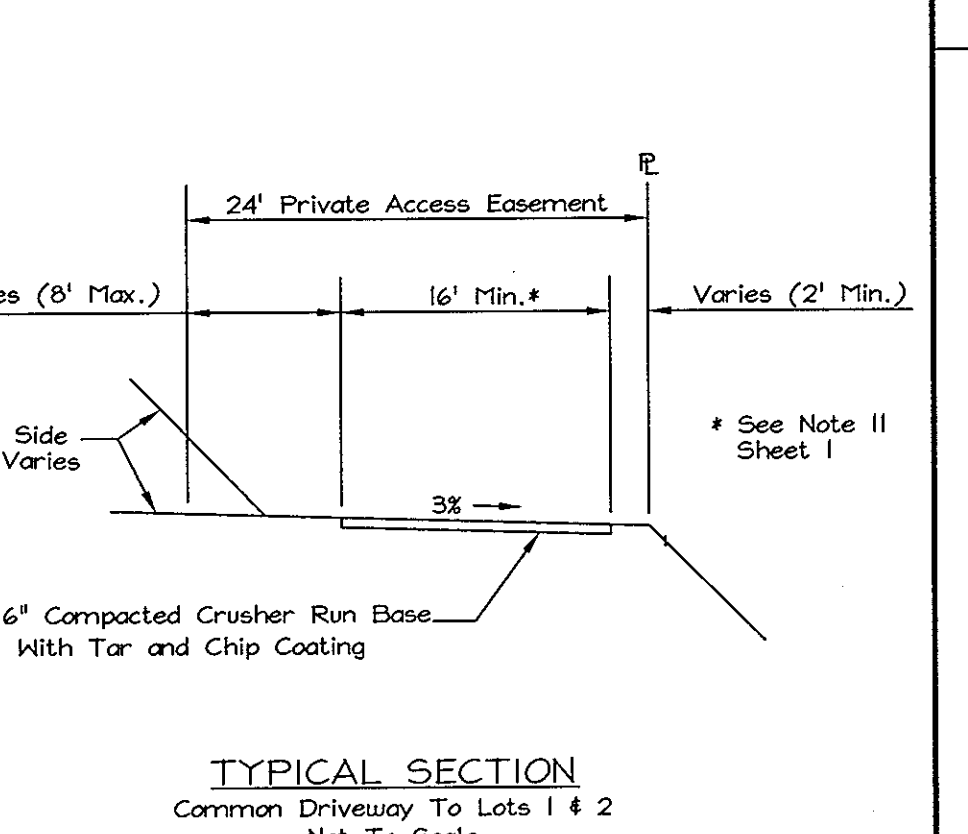
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Bruce D. Bump* 9/4/07  
SIGNATURE OF ENGINEER DATE

**DEVELOPER'S CERTIFICATE**

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND ANY RESPONSIBILITY AND LIABILITY INCURRED 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 AGENTS, AS ARE DEEMED NECESSARY.

*John R. Robertson* 9/4/07  
SIGNATURE OF DEVELOPER DATE



**Construction Specifications for INFILTRATION DRYWELL:**

- Heavy equipment and traffic shall be restricted from traveling over the proposed location of the infiltration drywell to minimize compaction of the soil.
- Excavate the infiltration drywell to the design dimensions. Excavated materials shall be placed away from the drywell to enhance trench wall stability. Large tree roots must be trimmed flush with the trench sides in order to prevent fabric puncturing or tearing of the filter fabric during subsequent installation procedures. The side walls of the trench shall be roughened where sheared and sealed by heavy equipment.
- A Class "C" geotextile or better (see Section 24.0, Material Specifications, 1994 Standards and Specifications for Soil Erosion and Sediment Control, MDE, 1994) shall interface between the trench side walls and between the stone reservoir and gravel filter layers. A partial list of non-woven filter fabric types that meet the Class "C" criteria follows. Any alternative filter fabric must be approved by the plan approval authority.
 

Amoco 4552	Caribag FX-80S
GEOLON N70	Mirafl 180-N
WEBTEC N07	

The width of the geotextile must include sufficient material to conform to trench perimeter irregularities and for a 6-inch minimum top overlap. The filter fabric shall be tucked under the sand layer on the bottom of the infiltration drywell for a distance of 6 to 12 inches. Stones or other anchoring objects should be placed on the fabric at the edge of the trench to keep the trench open during windy periods. When overlaps are required between rolls, the uphill roll should lap a minimum of 2 feet over the downhill roll in order to provide a shingled effect.

- If a 3 inch sand filter layer is placed on the bottom of the infiltration drywell, the sand for the infiltration drywell shall be washed and meet AASHTO-M-43, Size No. 9 or No. 10. Any alternative sand gradation must be approved by the plan approval authority.
- The stone aggregate should be placed in a maximum loose lift thickness of 12 inches. The gravel (rounded "bank run" gravel is preferred) for the infiltration drywell shall be washed and meet one of the following AASHTO-M-43, Size No. 2 or No. 3, 1/2" to 1 1/2" Top Sand Layer followed by Geotextile Fabric & Topsoil Cover.
- Following the stone aggregate, the filter fabric shall be folded over the stone aggregate to form a 6-inch minimum longitudinal lap. The desired fill soil or stone aggregate shall be placed over the lap at sufficient intervals to maintain the lap during subsequent backfilling.
- Care shall be exercised to prevent natural or fill soils from intermixing with the stone & sand aggregate. All contaminated stone aggregate shall be removed and replaced with uncontaminated stone aggregate.
- VOIDS may occur between the fabric and the excavation sides shall be avoided. Removing boulders or other obstacles from the trench walls is one source of such voids. Therefore, natural soils should be placed in these voids at the most convenient time during construction to ensure fabric conformity to the excavation sides.
- Vertically excavated walls may be difficult to maintain in areas where soil moisture is high or where soft cohesive or cohesionless soils are dominant. These conditions may require laying back of the side-slopes to maintain stability.
- PVC distribution pipes shall be Schedule 40 and meet ASTM-D-1785. All fittings shall meet ASTM-D-2729. Performances shall be 3/8" inch in diameter. A perforated pipe shall be provided only within the infiltration drywell and shall terminate 1 foot short of the infiltration drywell wall. The end of the PVC pipe shall be capped. Note: PVC pipe with a wall thickness classification of SDR-35 meeting ASTM-D-3034 is an acceptable substitute for the Schedule 40 pipe.
- The observation well is to consist of 6-inch diameter perforated PVC Schedule 40 pipe (M 278 OR F758, Type PS 28) with a cap set 6 inches above ground level and is to be located near the longitudinal center of the infiltration drywell. The pipe shall have a plastic collar with ribs to prevent rotation when removing the cap. The screw top lid shall be a cleanout with a locking mechanism or special bolt to discourage vandalism. The depth to the invert shall be marked on the lid. The pipe shall be placed vertically within the gravel portion of the infiltration drywell and a cap provided at the bottom of the pipe. The bottom of the cap shall rest on the infiltration drywell bottom.

**OPERATION, MAINTENANCE AND INSPECTION SCHEDULE**

- The lot owners and their heirs, successors, or assigns shall be solely responsible for the safety of the facility and the continued operation, surveillance, inspection and maintenance thereof.
- Inspection of the facility shall be performed minimally on an annual basis. When sediment is visually apparent within the stone voids, the portion of the stones that are affected by sedimentation shall be removed and replaced with clean stone. Replacement of the infiltration trench may be warranted when the voids of the stone are obviously impacted with sediment fills and water no longer drains (percolates) into and through the stone.
- Direct access shall be provided to the infiltration trench for maintenance and rehabilitation. The stone reservoir used to temporarily store runoff prior to infiltration shall not be covered by an impermeable surface (paving, etc.).
- Accumulated paper, trash and debris shall be removed from the facility as necessary.
- The grass vegetation along the sides of the facility shall be inspected for erosion rills or gullies and corrected as required. Any bare areas should be stabilized by seeding with erosion control matting or sodded as necessary.

**ENGINEER'S CERTIFICATE**

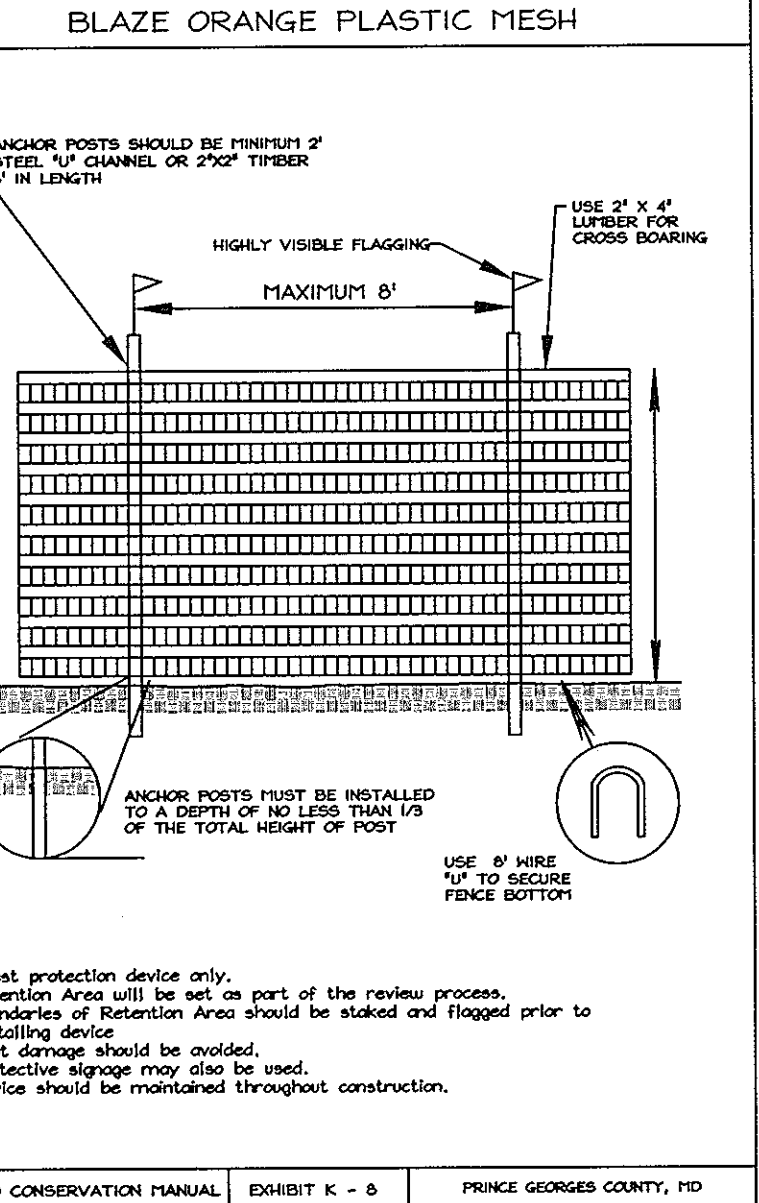
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Bruce D. Bump* 9/4/07  
SIGNATURE OF ENGINEER DATE

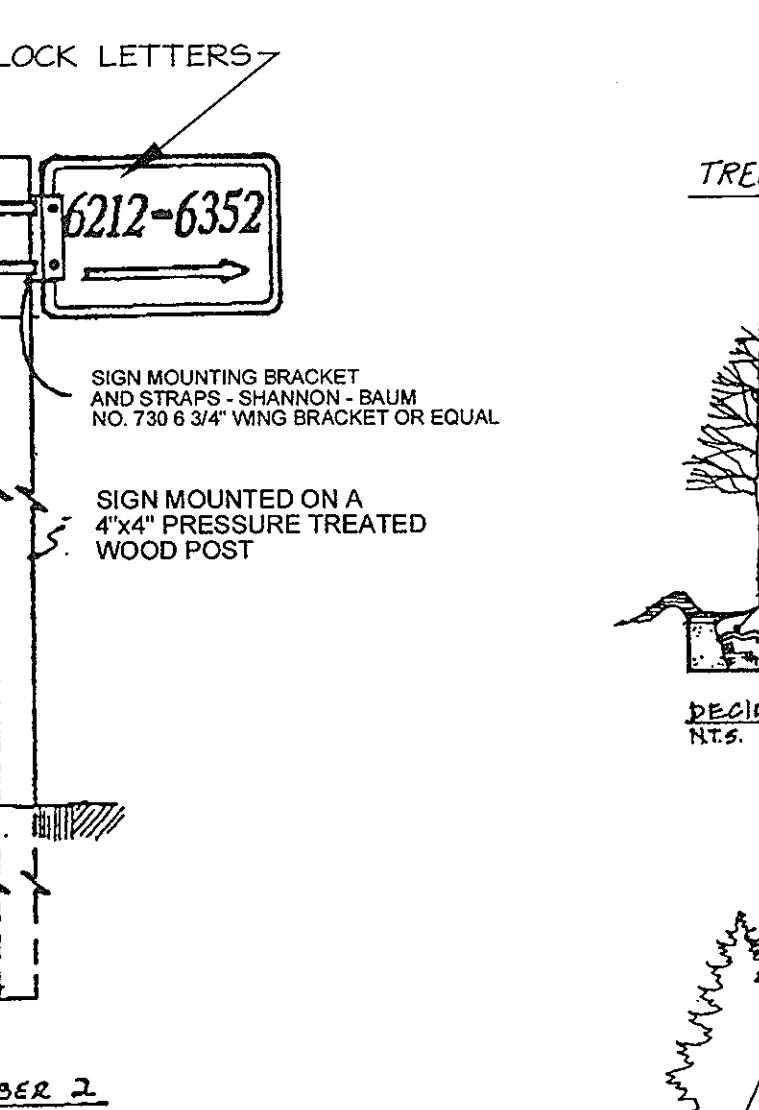
**DEVELOPER'S CERTIFICATE**

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND ANY RESPONSIBILITY AND LIABILITY INCURRED 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 AGENTS, AS ARE DEEMED NECESSARY.

*John R. Robertson* 9/4/07  
SIGNATURE OF DEVELOPER DATE



**TREE PROTECTION FENCE**



**SIGN DESIGN AND INSTALLATION DETAIL**

- SIGN 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 plan.
  - 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.
  - 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:**

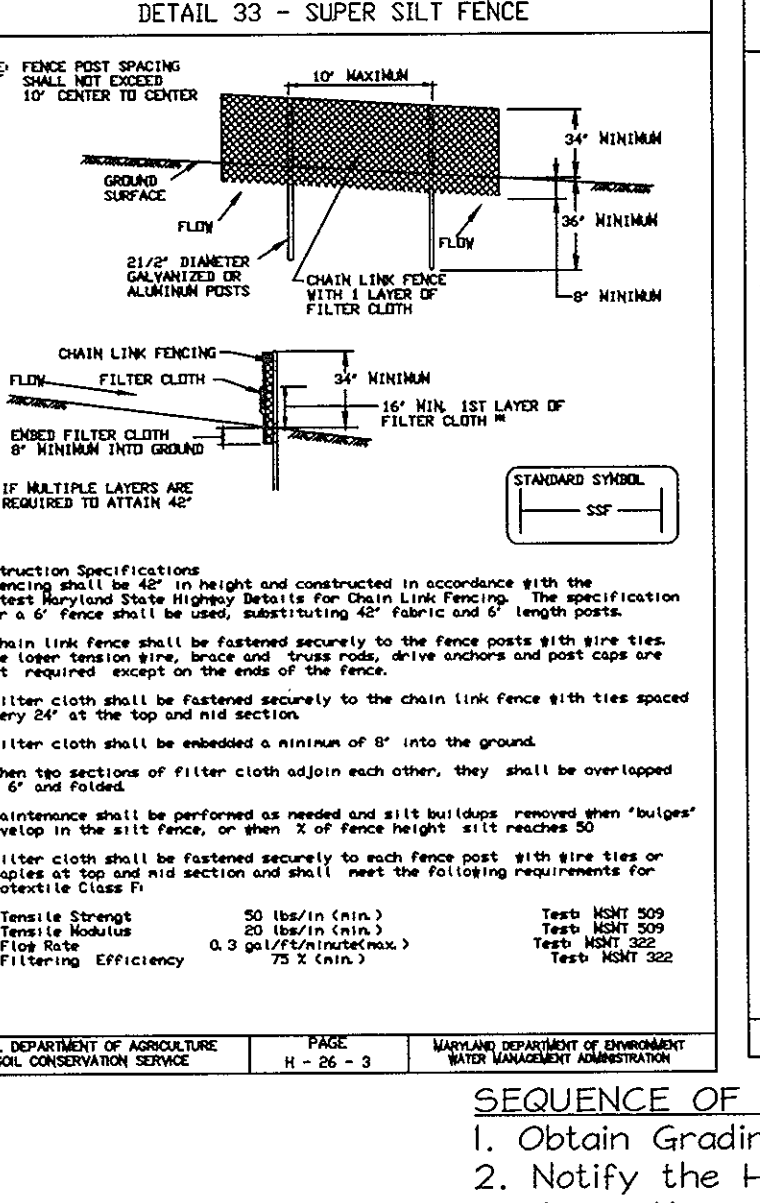
- This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and Howard County Landscape Manual.
- The Owner/Developer is responsible for planting of all material required to meet the standards established by the Howard County Landscape Manual.
- Perimeter landscaping for Lot 2, shall be provided as shown on this Site Development Plan. Financial surety in the amount of \$4800.00 for 16 shade trees on Lot 2 shall be posted with the Developers Agreement under this Site Development Plan (SDP 07-107).
- 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 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.
- All plant materials shall conform to the American Associated Nurserymen's publication, American nursery stock.
- As the time of installation, 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
(+)	16	Red Maple October Glory'	Acer rubrum	2"-2 1/2" Cal.	B & B

**REVISIONS**

No.	Date	Description

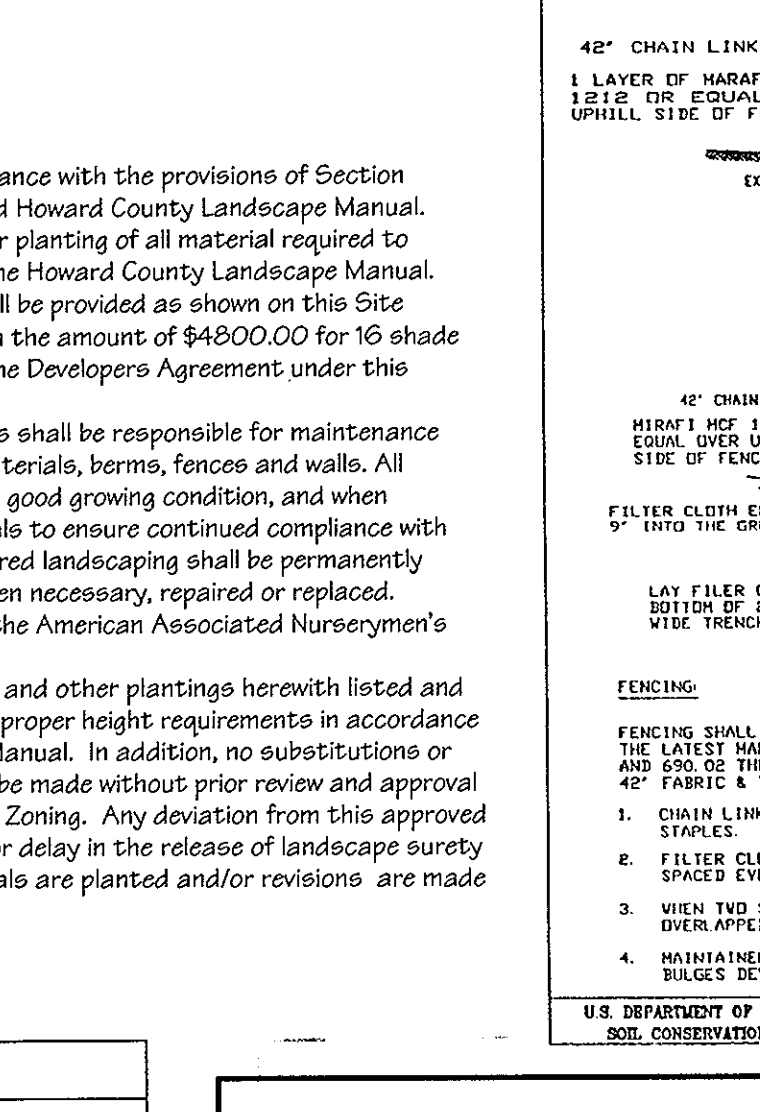


**SEQUENCE OF CONSTRUCTION:**

- Obtain Grading Permit 1 Day
- Notify the Howard County Dept. of Inspections, Licenses and Permits at least 24 hours prior to starting work. 1 Day
- Construct Stabilized Construction Entrance. 1 Day
- Install Super Silt Fence as shown hereon. 3 Days
- Clear & grub site to subgrade. 5 Days
- Begin excavation for house foundation and begin house construction. Install water and sewer house connections. 60 Days
- 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
- Remove sediment from roadways and dress Stabilized Construction Entrance as required. Maintenance
- Fine grade and stabilize with permanent seeding mixture and straw mulch. Install individual driveway and house walk. 5 Days
- Only after all areas have been stabilized and with permission from the Sediment Control Inspector, install infiltration drywell. 5 Days
- 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

**DETAIL - SUPER DIVERSION FENCE**



**LDE Inc.**  
Engineers, Surveyors, Planners  
9250 Ramsey Road, Suite 106 Columbia, Maryland - 21045  
(410)715-1070 - (301)596-3424 - FAX:(410)715-9340

DESIGNED: BDB  
DRAWN: STB  
CHECKED: BDB  
DATE: 9/2007

STORMWATER MANAGEMENT, SEDIMENT CONTROL & LANDSCAPE DETAILS  
**LOT 2**  
LARENAS PROPERTY  
TAX MAP 41 GRID 17 PARCEL 270  
6th ELECTION DISTRICT HOWARD COUNTY, MD

Previous Submittals: WP07-54, F06-189  
OWNER/DEVELOPER: EFRAIN R. LARENAS, ET AL  
7501 Parkwood Drive  
Clarksville, MD 21029

SCALE: AS SHOWN  
DRAWING: 3 OF 3  
JOB NO.: 04-026.2  
FILE NO.: SDP-07-107

**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

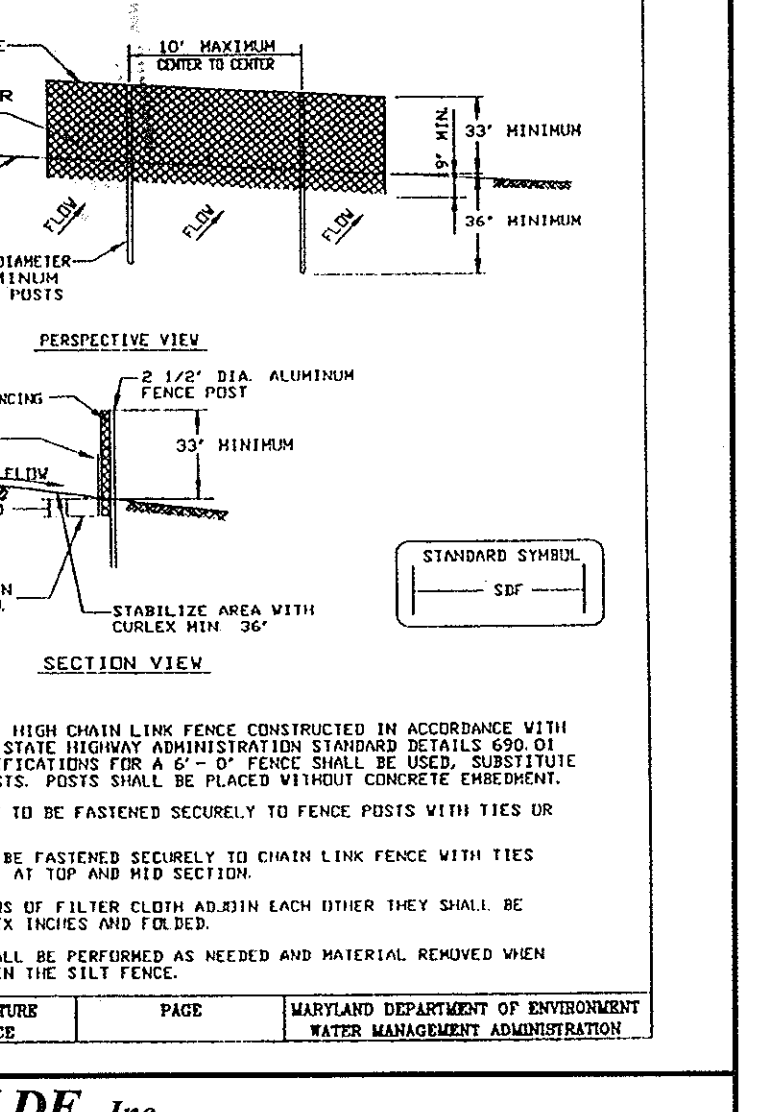
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE # 26 - 28 MARYLAND DEPARTMENT OF ENVIRONMENT & WATER MANAGEMENT ADMINISTRATION

**SEQUENCE OF CONSTRUCTION:**

- Obtain Grading Permit 1 Day
- Notify the Howard County Dept. of Inspections, Licenses and Permits at least 24 hours prior to starting work. 1 Day
- Construct Stabilized Construction Entrance. 1 Day
- Install Super Silt Fence as shown hereon. 3 Days
- Clear & grub site to subgrade. 5 Days
- Begin excavation for house foundation and begin house construction. Install water and sewer house connections. 60 Days
- 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
- Remove sediment from roadways and dress Stabilized Construction Entrance as required. Maintenance
- Fine grade and stabilize with permanent seeding mixture and straw mulch. Install individual driveway and house walk. 5 Days
- Only after all areas have been stabilized and with permission from the Sediment Control Inspector, install infiltration drywell. 5 Days
- 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

**DETAIL - SUPER DIVERSION FENCE**



**LDE Inc.**  
Engineers, Surveyors, Planners  
9250 Ramsey Road, Suite 106 Columbia, Maryland - 21045  
(410)715-1070 - (301)596-3424 - FAX:(410)715-9340

DESIGNED: BDB  
DRAWN: STB  
CHECKED: BDB  
DATE: 9/2007

STORMWATER MANAGEMENT, SEDIMENT CONTROL & LANDSCAPE DETAILS  
**LOT 2**  
LARENAS PROPERTY  
TAX MAP 41 GRID 17 PARCEL 270  
6th ELECTION DISTRICT HOWARD COUNTY, MD

Previous Submittals: WP07-54, F06-189  
OWNER/DEVELOPER: EFRAIN R. LARENAS, ET AL  
7501 Parkwood Drive  
Clarksville, MD 21029

SCALE: AS SHOWN  
DRAWING: 3 OF 3  
JOB NO.: 04-026.2  
FILE NO.: SDP-07-107