

BENCHMARKS:

Control Station 37D: Elev. 157.314
 Brass or aluminum disc set on top of concrete column
 (3' deep) Usually 1" - 2" below surface.
 Located on West side of US Route 1375 +/- feet
 north of entrance to Troy Hill Industrial Park, approx. 49.3
 feet north of storm drain, 15 feet east of second steel
 guardrail post.

Control Station 38D6: Elev. 174.506
 Brass or aluminum disc set on top of concrete column
 (3' deep) Usually 1" - 2" below surface.
 Located on South East side of US Route 1 near Atlantic
 Supply Co., 44 feet south of light pole and 148 feet north of
 gate post, 6 feet from fence.

HYDROLOGIC SOIL GROUP	MAP SYMBOL	MAPPING LIMIT	REMARKS
UIC	UIC	Urban Land - Chillum-Beltsville complex, 0% - 5% slopes	

Soils per July 1998 Soil Survey - Howard County, Maryland - Be22 / Be22 Bettsville Silty Loam

NOTE:
 All soils on these lots are Urban Land / Chillum Beltsville
 Complex

REFER TO SOILS MAP NUMBER 26 / "HARWOOD PARK"
 area. There exists no hydric soils, soils with hydric incursions or soils
 with slopes > 15% having significant erosion potential onsite.



HARWOOD PARK HOUSE MODEL
 SCALE: 1"=30'

NOTE:
 In accordance with Section 133
 of the Howard County Zoning
 Regulations, the driveway for a
 garage unit shall be 10' x 18'
 minimum. The driveway for a
 non-garage unit shall be 18' x
 18' minimum; each providing
 the required 2 parking spaces.
 See Note 36.

LEGEND

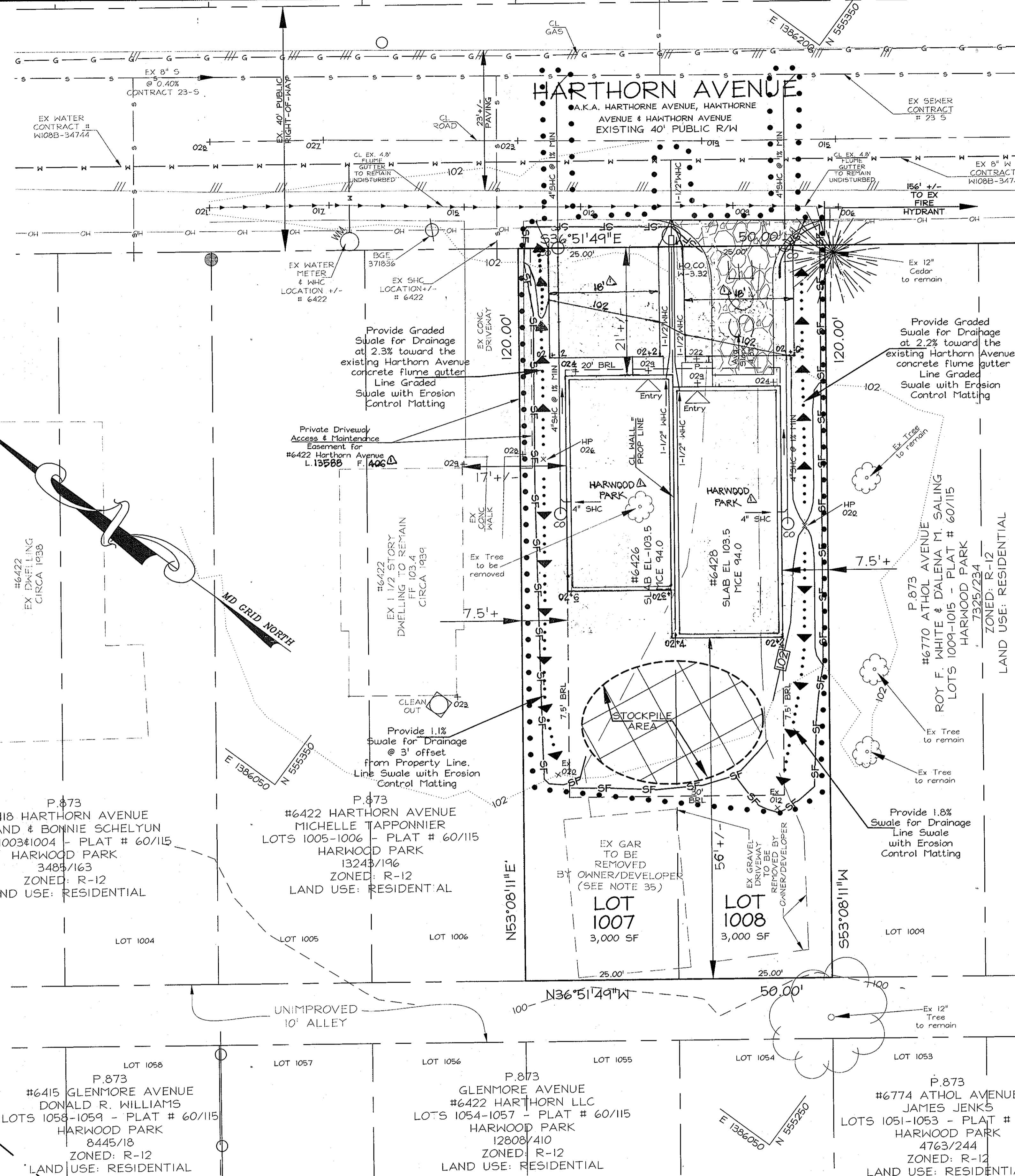
- 340--- EXISTING 10' CONTOUR
- 342--- EXISTING 2' CONTOUR
- 342--- PROPOSED 10' CONTOUR
- 342--- PROPOSED 2' CONTOUR
- 342--- EXISTING TREELINE
- 342--- PROPOSED TREELINE
- 342--- PROPOSED PAVING
- 342--- EXISTING PAVING
- 342--- EXISTING SEWER
- 342--- EXISTING WATER
- 342--- EXISTING GAS
- 342--- EXISTING OVERHEAD UTILITY
- 342--- SOILS DIVIDE
- 342--- EROSION CONTROL MATTING
- 342--- STABILIZED CONSTRUCTION ENTRANCE
- 342--- LIMIT OF DISTURBANCE
- 342--- SF SILT FENCE

APPROVED: HOWARD COUNTY DEPARTMENT
 OF PLANNING AND ZONING

Chad Schuch 11/7/11 DATE
 CHIEF, DEVELOPMENT ENGINEERING
 DIVISION

Kat Schuch 11/23/11 DATE
 CHIEF, DIVISION OF LAND
 DEVELOPMENT

Thomas G. Smith 11/23/11 DATE
 DIRECTOR



INDEX OF SHEETS

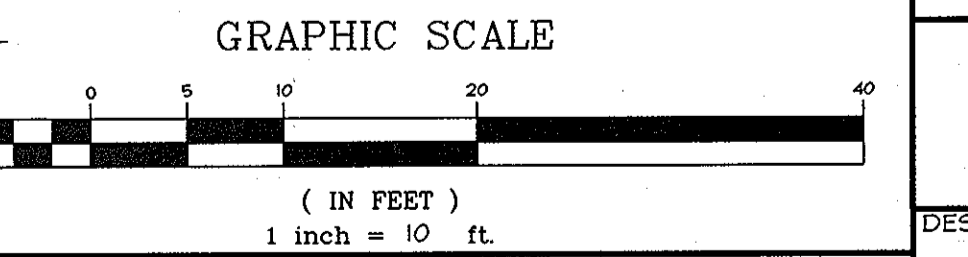
1	SITE PLAN
2	SOIL EROSION & SEDIMENT CONTROL - DETAILS

GENERAL NOTES:

- The subject property is zoned R-12 per the 2/2/04 Comprehensive Zoning Plan and per 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.
- Subdivision Name: "Harwood Park" - Lots 1007 - 1008. Also known as "Flat of Harwood Park". See Note 4.
- Tax Map 38 / Grid 13
 Section / Area N/A
 Lot / Tax Map Parcels: 1007 - 1008 / P/O 873
 Zoning: R-12
 ZB / BA Reference: N/A
 Election District: 1st
 Final Plan Approval Date: N/A
 DPZ Reference Number:
 Number of Proposed Lots: 2 (2 Existing Lots of Record)
 Max. Lot Coverage Permitted: N/A
 Submission Area: 0.14 Ac (Lots 1007 & 1008)
 Improvement to Property: 2 Single Family Attached (SFA)
 Current Deed Reference: LOTS 1007-1008 P/O L. 12808 F. 410
 Deed History: 6731/221, 3521/17, 176/256
- The Boundary shown hereon is based on recorded "Harwood Park" in Liber J.H.O. No. 60, Folio 115. Also known as "Flat of Harwood Park" as prepared by the Howard County Road Department Feb 1966 in CHP 5300. Field boundary evidence recovery by LDE, Inc. dated October, 2010.
- The existing topography is taken from field run survey with maximum two foot contour intervals prepared by LDE, Inc. dated November 2010.
- The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System. Howard County Monument Nos. 371D and 38D6 were used for this project. Horizontal and Vertical Datums are related to the Maryland State Plane Coordinate System (NAD 83/NAVD83).
- 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:
 a. Total Project Area: 0.14 Acres (6,000 SF)
 b. Area of Plan Submission: 0.11 Acres
 c. Limit of Disturbed Area: 0.11 Acres (4,925 SF)
 d. Present Zoning Designation: R-12
 e. Proposed Site and Structure Use: 2 SFA
 f. Total Number Units allowed: 2
 g. Total Number of Units: 2
 h. Building coverage of site: 1,400SF, 23% of site area
 i. Applicable DPZ File References: N/A
- There are no wetlands on this site.
- 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.
- See Architectural Plans for building dimensions and design details. Prior to staking out for construction, it shall be the Owner/Developer's responsibility to provide LDE, Inc. with the most recent set of house plans.
- This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscaping Manual. This plan is exempt from landscaping because it is an internal subdivision.
- No grading, removal of vegetative cover or trees, paving and new structures shall be permitted within the required wetlands, streams or their buffers, Forest Conservation Easement areas and 100 Year Floodplain. No wetlands, streams or their buffers, Forest Conservation Easement areas or 100 Year Floodplain exist on Lots 1007-1008.
- The Contractor or Developer shall notify the Department of Public Works / Bureau of Engineering / Construction Inspection Division at (410) 319-1881 at least five (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least forty-eight (48) hours prior to any excavation work being done.
- Public water connection will be provided for Lots 1007-1008 via Water Contract No. W1008B 34744. Public sewer connection will be provided for these lots via Sewer Contract No. 23-5. The sewer house connection and water house connection within the public right-of-way shall be installed by the Developer/Contractor under the Advanced Deposit Order (ADO) process. The water and sewer connections from the edge of the public right-of-way to the proposed dwelling will be installed under separate permit by the builder's plumber.

NOTE:
 THE WATER CONNECTION TO LOTS 1007 & 1008 SHALL BE A 1-1/2" PUBLIC CONNECTION TO THE MAIN SPLIT INTO TWO SEPARATE 1-1/2" SERVICE CONNECTIONS WITH TWIN OUTSIDE METER VAULT SETTING PER HOWARD COUNTY VOLUME IV STANDARD DETAIL W-3.32.

NOTE:
 Contact Design engineer (LDE, Inc.) if sewer inverts along existing Contract 23-5 are found to be in conflict. Service connection design will require modification.



REVISIONS

No.	Date	By	Description
1	10/22/12	LDE	REVISE HOUSE MODEL, REMOVE GARAGE & PROVIDE 10'x18' PARKING PAD, ESMT. RECORD REF.

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

Bruce D. Burton 11/11/11 DATE
 HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE
 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 12/31/15.

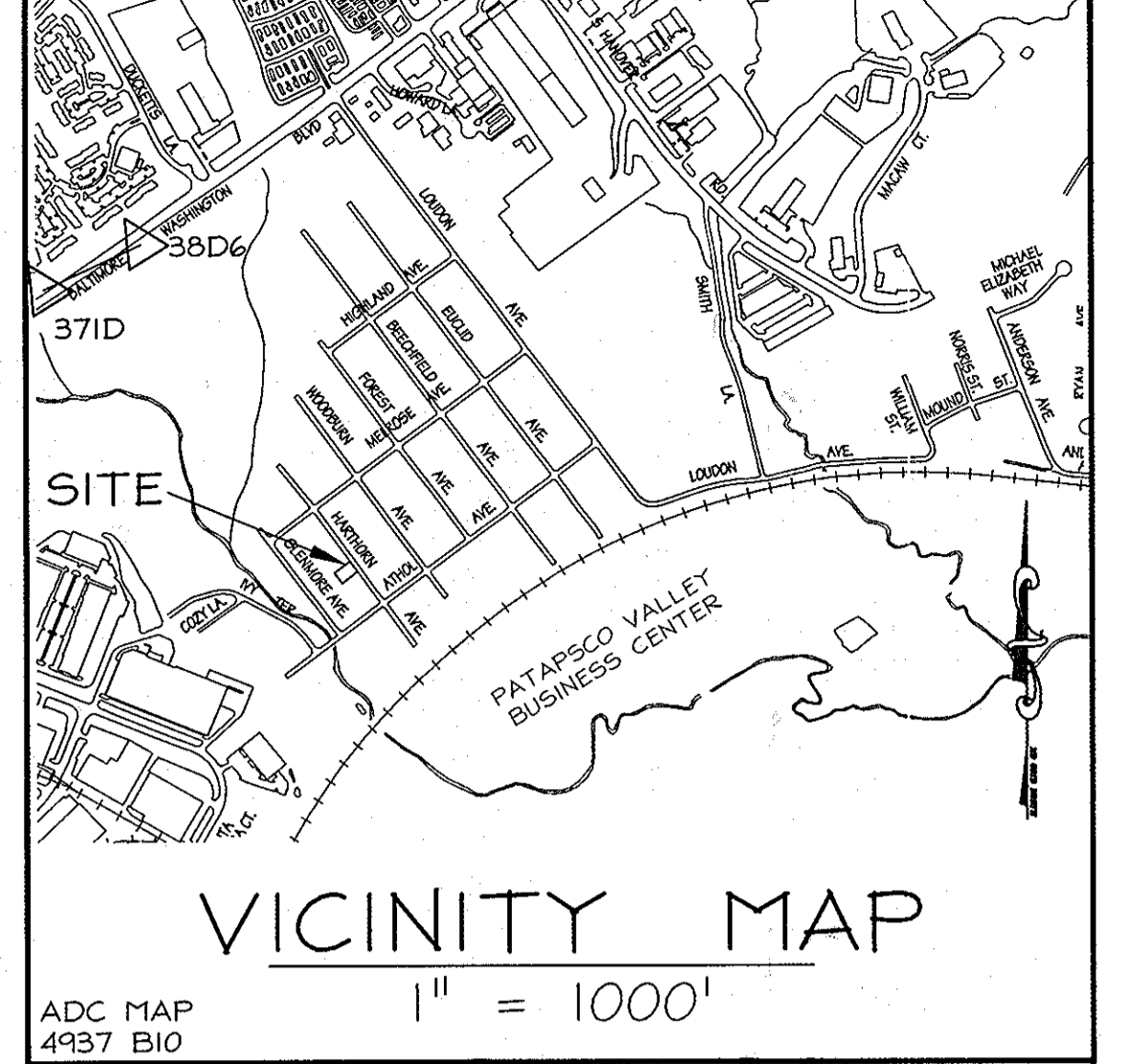
Bruce D. Burton 10/25/11 DATE
 SIGNATURE OF ENGINEER
 BRUCE D. BURTON, P.E. 19184

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL 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.

Nicholas F. Lipinski 10/26/11 DATE
 SIGNATURE OF DEVELOPER
 NICHOLAS F. LIPINSKI

DEVELOPER'S CERTIFICATE
 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 12/31/15.

Bruce D. Burton 10/25/11 DATE
 SIGNATURE OF ENGINEER
 BRUCE D. BURTON, P.E. 19184



ADDRESS CHART

Lot/Parcel#	Street Address
1007	# 6426 Harthorn Avenue
1008	# 6428 Harthorn Avenue

PERMIT INFORMATION CHART

Subdivision Name: HARWOOD PARK	Section/Area: N/A	Lot/Parcel No. P/O 873
Lots 1007 - 1008		
Plot# or L/F: 6015	Grid No. 13	Zoning: R-12
5300		Tax Map No. 38
Water Code		Election District: 1st
		Census Tract: 6011.01
		Sewer Code

LDE Inc.
 Engineers • Surveyors • Planners
 Historic Carriage House • 7520 Main Street • Suite 203 • Sykesville, Maryland • 21784
 (410)795-6391 • (410)795-6392 • FAX(410)795-9540 • www.Landsurveyormd.com

SITE PLAN
 HARWOOD PARK
 LOTS 1007 & 1008
 PLAT J.H.O. 60 / 115
 Also known as: Lots 1007 & 1008 - Flat of Harwood Park
 Plat J.H.O. 60 / 115
 Tax Map 38 Grid 13 P/O Parcel 873
 1st Election District - Howard County MD - Zoned: R-12

DESIGNED: EDS
 DRAWN: LDE
 CHECKED: BDB
 DATE: 10/20/11

OWNER/DEVELOPER: 6422 HARTHORN LLC
 7310 Esquire Court, Suite 14
 Elkridge, MD 21075-5440
 410-374-8681

SCALE: 1"=10'
 DRAWING: 1 OF 2
 JOB NO.: 10-006.1
 FILE NO.: SDP11-035

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, (313-1855).
- 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, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. I, 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 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.
- 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	0.14	Acres
Area Disturbed	0.11	Acres
Area to be roofed or paved	0.04	Acres
Area to be vegetatively stabilized	0.07	Acres
Total Cut	85	Cu. Yds. #
Total Fill	85	Cu. Yds. #

* Contractor shall complete their own earthwork analysis
Offsite waste/borrow 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.

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 acre 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 urea-form fertilizer (9 lbs/1000sq.ft.).
2) ACCEPTABLE Apply 2 tons per acre 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 (.05lbs/1000sq. ft.) of seeding 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 2lb 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 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 2-1/2 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 seeding 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 free small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2lb 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.

NOTE:

Quantities are provided for informational purposes only. Contractor to make his own analysis prior to placing a bid on earthwork.

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 unacceptably low sodicity.

Conditions Where Practice Applies
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 moisture 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.

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 representative soil profiles 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:
1. 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, rocks, trash, or other materials larger than 1/2" in diameter.

2. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or others as specified.
3. Where the subsoil is either highly acidic or composed of heavy clay, 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.
4. For sites having disturbed areas under 5 acres:
a. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
b. 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:
1. 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.
2. Organic content of topsoil shall be not less than 1.5 percent by weight.
3. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
4. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control. If sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.
ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

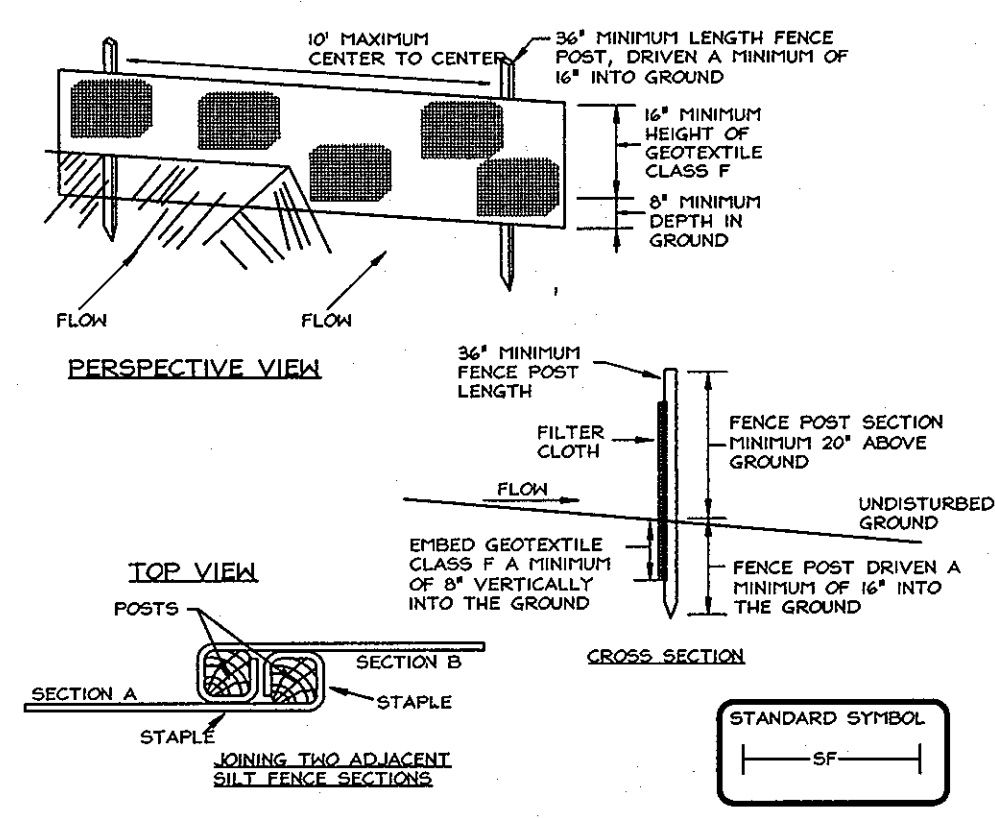
III. Topsoil Application
1. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
2. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, about 4" - 6" higher in elevation.
3. Topsoil shall be uniformly distributed in a 4" - 6" layer and lightly compact to a minimum thickness of 4". Spreading shall be performed in such a manner that adding 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.
4. 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 seeded preparation.

IV. Alternative for Permanent Seeding - Instead of applying the full amount of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:
1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
c. Composted sludge shall be applied at a rate of 1 ton / 1,000 square feet.
2. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lbs/1,000 square feet, and 1/3 the normal time application rate.

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

U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE PAGE G-21-1 thru 3 MARYLAND DEPARTMENT OF ENVIRONMENT - WATER MANAGEMENT ADMINISTRATION

DETAIL 22 - SILT FENCE



Construction Specifications
1. Fence posts shall be a minimum of 3/4" long driven 1/4" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) steel pipe, 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.
2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:
Tensile Strength 50 lbs/in (min.) Test: MFTT 509
Tensile Flexure 20 lbs/in (min.) Test: MFTT 509
Flow Rate 0.3 gal ft / minute (max.) Test: MFTT 322
Filtering Efficiency 75% (min.) Test: MFTT 322
3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE PAGE E-15-3 MARYLAND DEPARTMENT OF ENVIRONMENT - WATER MANAGEMENT ADMINISTRATION

SECTION 30.0 - DUST CONTROL

30.0 DUST CONTROL
Definition
Controlling dust blowing and movement on construction sites and roads.

Purpose
To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health hazards, and improve traffic safety.

Conditions Where Practice Applies
This practice is applicable to areas subject to dust blowing and movement where on and off-site damage is likely without treatment.

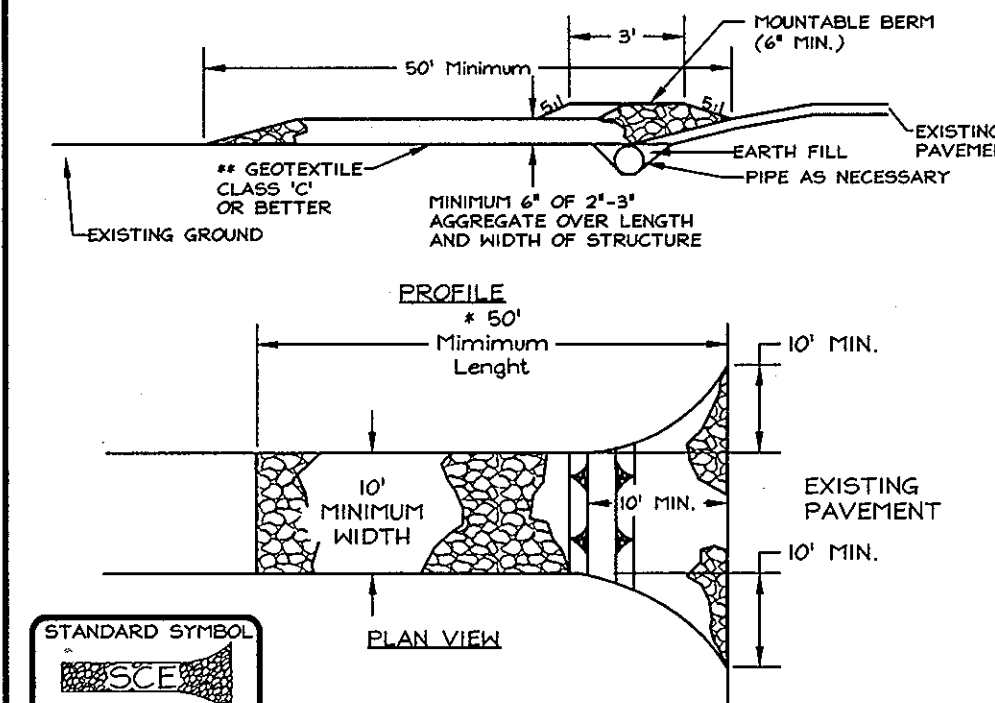
Specifications
Temporary Methods
1. Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or laced to prevent blowing.
2. Vegetative Cover - See standards for temporary vegetative cover.
3. Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12' apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.
4. Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.
5. Barriers - Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil blowing.
6. Calcium Chloride - Apply at rates that will keep surface moist. May need retreatment.

Permanent Methods
1. Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.
2. Topsoiling - Covering with less erosive materials. See standards for topsoiling.
3. Stone - Cover surface with crushed stone or coarse gravel.

References
1. Agriculture Handbook. Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss.
2. Agriculture Information Bulletin 354, How to Control Wind Erosion, USDA-ARS.

U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE PAGE H - 30 - 1 MARYLAND DEPARTMENT OF ENVIRONMENT - WATER MANAGEMENT ADMINISTRATION

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specification
1. Length - minimum of 50' (80' for single residence lot).
2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. If the soil approval authority may not require single family residences to use geotextile.
4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mounding berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE PAGE F-17-3 MARYLAND DEPARTMENT OF ENVIRONMENT - WATER MANAGEMENT ADMINISTRATION

SEQUENCE OF CONSTRUCTION

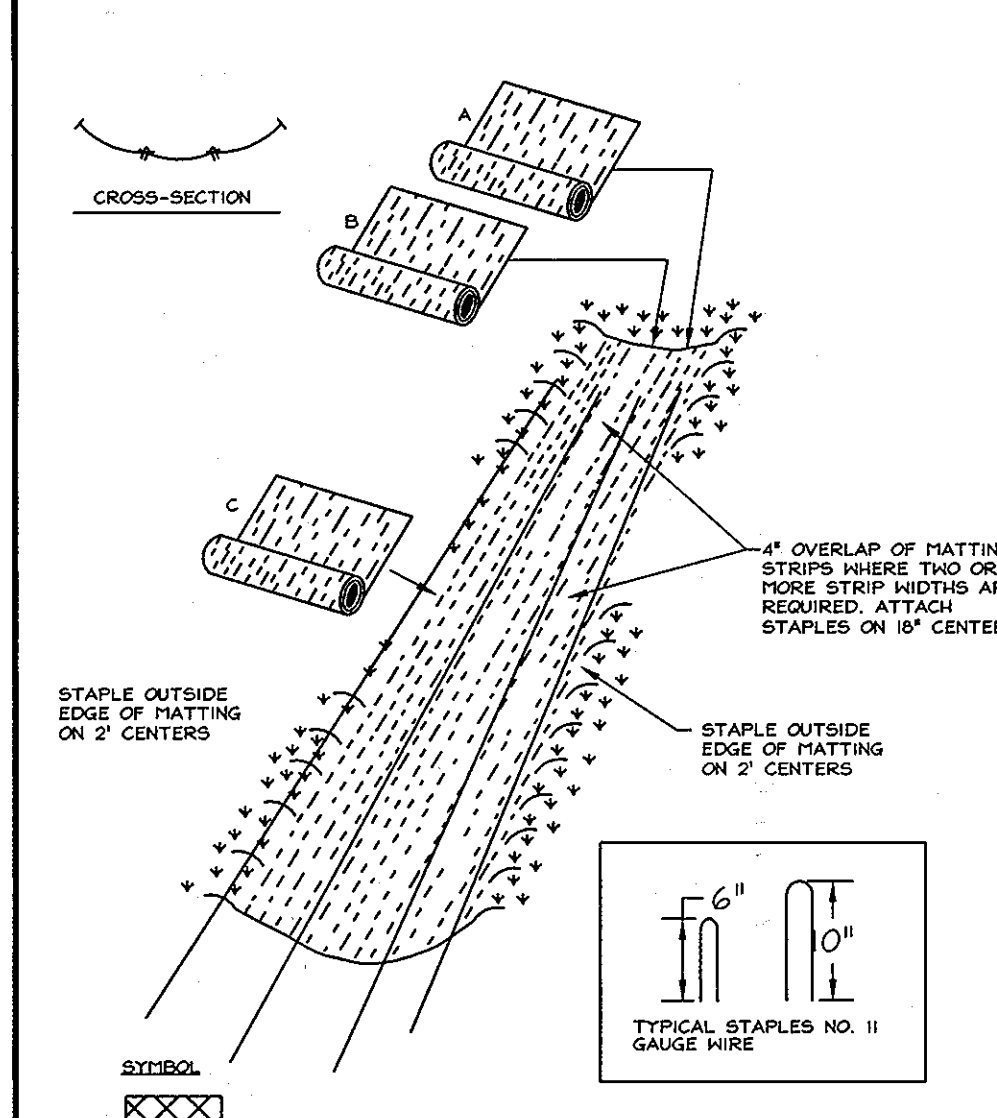
NOTE:
Contractor shall contact the Construction Inspection Division 24 hours in advance of commencement of work at 410-313-1880

- Obtain Grading Permit. - 1 day
- Stakeout limits of disturbance. - 1 day
- Install stabilized construction entrance (SCE) where shown hereon.
- Install Silt Fence (SF) as shown hereon. - 2 days
- Contractor shall remove existing driveway. - 1 day
- Remove trees, clear & grub as required. - 1 day
- Begin excavation for house construction. - 1 day
- Grading should occur in accordance with the requirements of the Dust Control specifications shown on hereon. - Daily
- Begin house construction. - 90 days
- Install water and sewer house connections from existing main (Contract # 100 B 34744 & 235 respectively as shown hereon. - 5 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
- Upon house construction completion, fine grade around house as shown hereon and stabilize with permanent seeding mixture and straw mulch. - 1 day
- With permission from sediment control inspector, remove any remaining perimeter controls and stabilize any disturbed areas with permanent seed mixture & straw mulch or sod. - 1 day

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

U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE PAGE G-22-2A MARYLAND DEPARTMENT OF ENVIRONMENT - WATER MANAGEMENT ADMINISTRATION

DETAIL 30 - EROSION CONTROL MATTING



Construction Specifications
1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
2. Staple the 4" overlap in the channel center using an 18" spacing between staples.
3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shtap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
6. The discharge end of the matting line should be similarly secured with 2 double rows of staples.

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

U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE PAGE G-22-2A MARYLAND DEPARTMENT OF ENVIRONMENT - WATER MANAGEMENT ADMINISTRATION

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

U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE PAGE G-22-2A MARYLAND DEPARTMENT OF ENVIRONMENT - WATER MANAGEMENT ADMINISTRATION

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief Eshbach 11/3/11
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Kathleen 11/28/11
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Pomona & Smith 11/23/11
DIRECTOR DATE

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

John P. Burton 11/11/11
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 AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Bruce D. Burton 10/25/11
SIGNATURE OF ENGINEER DATE
BRUCE D. BURTON, P.E. #19184

DEVELOPER'S CERTIFICATE
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL 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 AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Nicholas F. Libarini 10/26/11
SIGNATURE OF DEVELOPER DATE
NICHOLAS F. LIBARINI

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: 6/30/13.

Bruce D. Burton
SIGNED
BRUCE D. BURTON

DATE 10/25/11

No.	Date	By	Description

LDE Inc.
Engineers • Surveyors • Planners
Historic Carriage House • 7520 Main Street • Suite 203 • Sykesville, Maryland • 21784
(410)795-6391 • (410)795-6392 • FAX(410)795-9540 • www.Landsurveyormd.com

DESIGNED	EDS	SCALE	As Shown
DRAWN	LDE	DRAINING	2 OF 2
CHECKED	BDB	JOB NO.	10-006.1
DATE	10/20/11	FILE NO.	SDP11-035

SOIL EROSION & SEDIMENT CONTROL - DETAILS

HARWOOD PARK
LOTS 1007 & 1008
PLAT J.H.O. 60 / 115

Also known as: Lots 1007 & 1008 - Plat of Harwood Park
Plat CMP 5300
Tax Map 38 Grid 13 P/O Parcel 873
1st Election District - Howard County MD - Zoned: R-12

OWNER/DEVELOPER: 6422 HARTHORN LLC
7310 Esquire Court Suite 14
Elkridge, MD 21075-5440
410-374-8691