

SHEET INDEX	
NO.	DESCRIPTION
1	SITE DEVELOPMENT AND LANDSCAPE PLAN
2	SEDIMENT AND EROSION CONTROL PLANS
3	STORMWATER MANAGEMENT PLAN, NOTES AND DETAILS

SOILS LEGEND		
MAP SYMBOL	SOIL GROUP	SOIL TYPE
Gbb	B	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES
Mac	B	MANOR LOAM, 8 TO 15 PERCENT SLOPES
HYDROIC SOILS - NONE PRESENT		
MODERATELY ERODIBLE - NONE PRESENT		
TAKEN FROM WEB SOIL SURVEY WEBSITE ON 6-13-11		

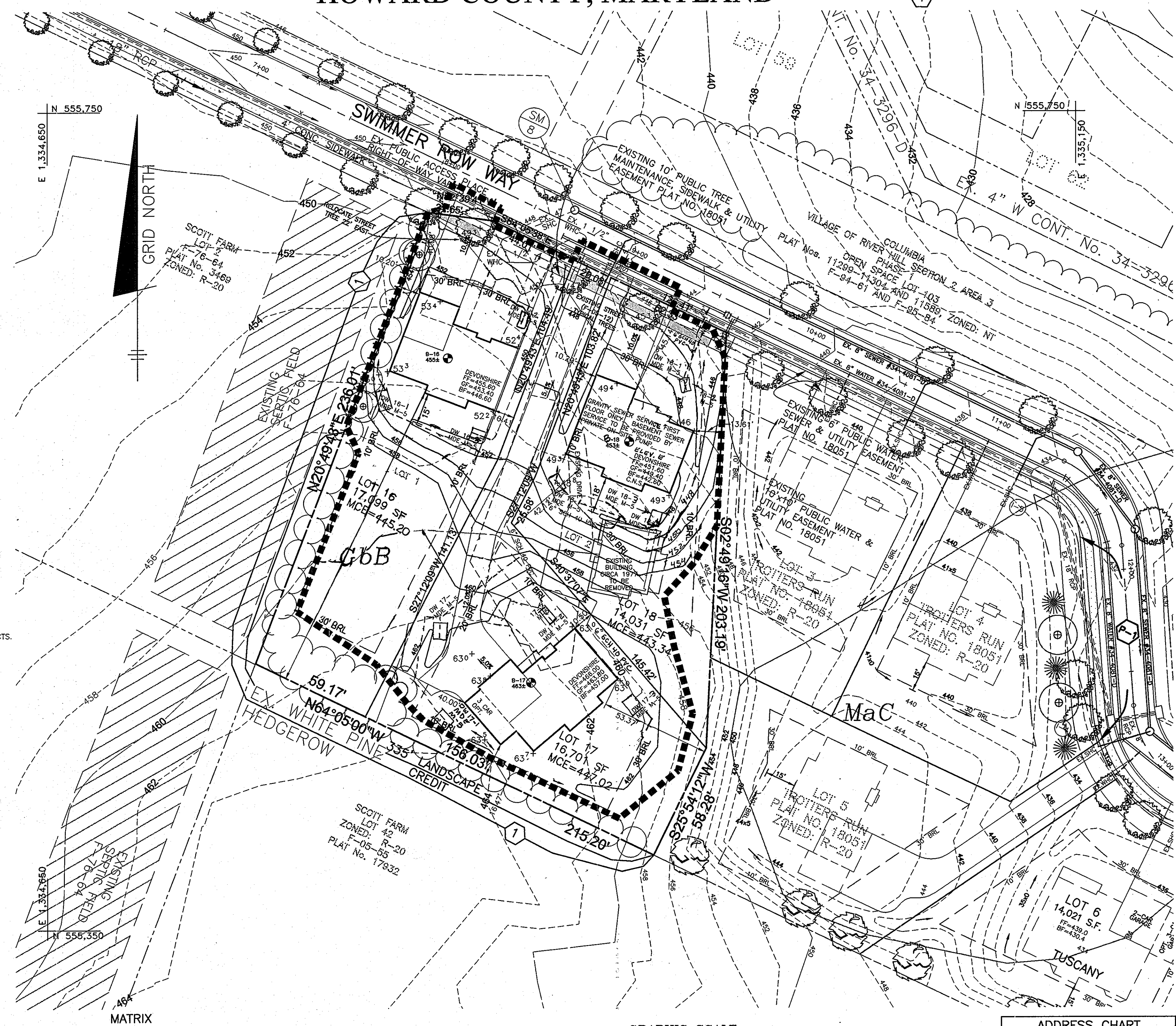
STORMWATER MANAGEMENT PRACTICE CHART		
LOT	ADDRESSES	DRYWELLS
16	6473 SWIMMER ROW WAY	3
17	6469 SWIMMER ROW WAY	3
18	6465 SWIMMER ROW WAY	4

**GENERAL NOTES**

- THE SUBJECT PROPERTY IS ZONED R-20 PER THE 2/02/04 COMPREHENSIVE ZONING PLAN AND PER COM. LITE ZONING AMENDMENTS EFFECTIVE 7/28/06.
- THE EXISTING TOPOGRAPHY AND BOUNDARY ARE TAKEN FROM A MASS GRADING PLAN PREPARED UNDER F-05-012. ALL VERTICAL CONTROLS ARE BASED ON NAVD83.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS NOS. 356A AND 356Z WERE USED FOR THIS PROJECT.
- WATER AND SEWER ARE PUBLIC AND CONNECTIONS WILL BE MADE TO IMPROVEMENTS MADE UNDER CONTRACT 34-4081-D.
- ENVIRONMENTAL SITE DESIGN VOLUME HAS BEEN ADDRESSED TO THE MAXIMUM EXTENT PRACTICABLE BY TREATING THE ROOFTOPS WITH DRYWELLS. A Pp OF 0.5" WAS ACHIEVED FOR THE LOTS. STORMWATER MANAGEMENT HAS BEEN PROVIDED BY A RECHARGE CHAMBER AND A MICROPOOL ED FACILITY DESIGNED UNDER F-05-012.
- EXISTING UTILITIES SHOWN WERE TAKEN FROM RECORD DRAWINGS PER CONTRACT 34-4081-D. IF NECESSARY, CONTRACTOR SHALL ADJUST STRUCTURE TOPS TO MEET SDP GRADES.
- THERE ARE NO WETLANDS ON THE SITE, BASED ON A CERTIFICATION FROM BENCHMARK ENGINEERING, INC. IN JUNE, 2011.
- THIS PROJECT IS EXEMPT FROM A TRAFFIC AND SPEED STUDY.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WILL BE POSTED AS PART OF THE BUILDER'S GRADING PERMIT IN THE AMOUNT OF \$600.00 (2 SHADE TREES AT \$300 EACH).
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS, BUREAU OF ENGINEERING, CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE(5) WORKING DAYS PRIOR TO THE START OF WORK.
- FOREST CONSERVATION FOR THIS SITE WAS PREVIOUSLY ADDRESSED UNDER F-05-012.
- THERE IS NO FOREST STAND DELINEATION FOR THIS SITE.
- UNLESS NOTED AS "PRIVATE", ALL EASEMENTS ARE PUBLIC.
- BRL INDICATES EXISTING RESTRICTION LINE. OTHER RESTRICTIONS MAY APPLY.
- 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 SETBACK.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE BUILDER'S EXPENSE. FOR FLAG OR PIPE STEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE EXTENT OF THE FLAG OR PIPE STEM AND ROAD RIGHT OF WAY LINE ONLY AND NOT ONTO THE FLAG OR PIPE STEM LOT DRIVEWAY.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
  - WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE)
  - SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN.)
  - GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM 45' TURNING RADIUS.
- STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
- DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOODPLAIN WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY.
- STRUCTURE CLEARANCES - MINIMUM 12 FEET.
- MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.

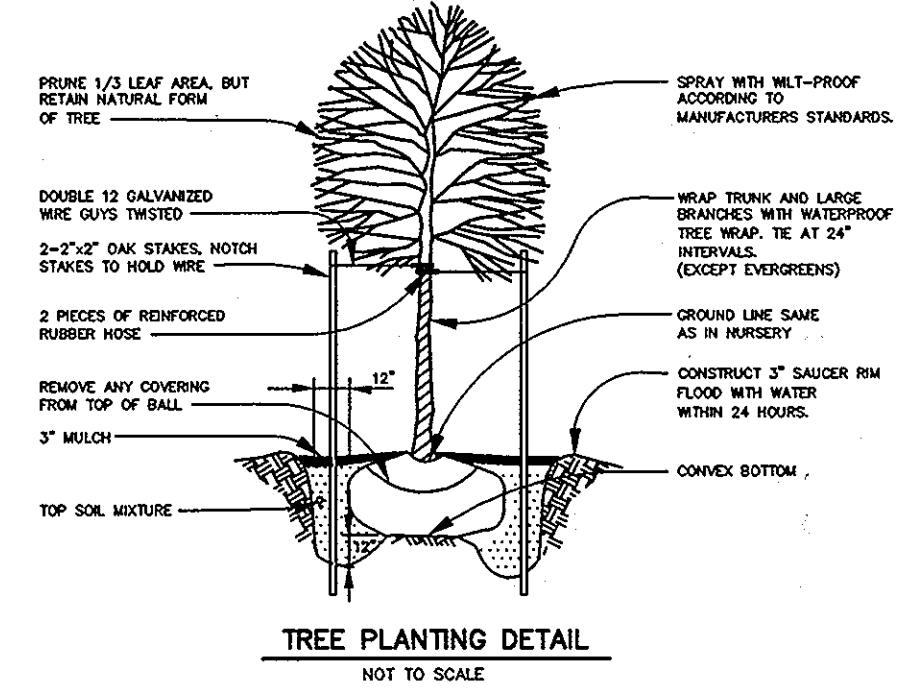
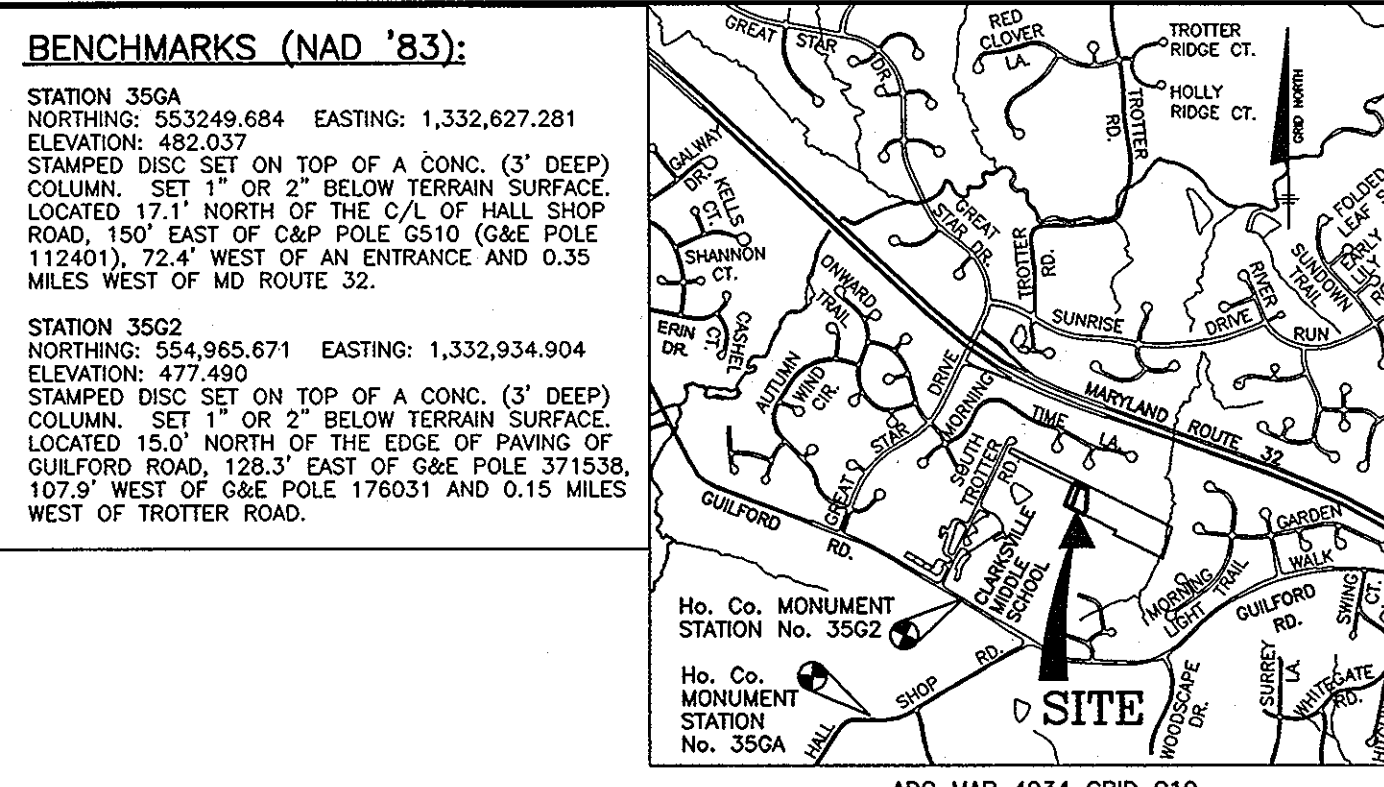
  - THERE ARE NO CEMETERIES ON THIS PROPERTY, TO THE BEST OF OUR KNOWLEDGE.
  - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
  - ALL WATER METERS SHALL BE SET INSIDE.
  - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
  - FOR DRIVEWAY ENTRANCE DETAIL SEE HOWARD COUNTY STANDARD DETAILS R-6.05.
  - SIC ELEVATIONS SHOWN ARE AT THE PROPERTY LINE OR EASEMENT LINE.
  - THE STAKING OF FOUNDATIONS PRIOR TO CONSTRUCTION TO ENSURE COMPLIANCE WITH REGULATORY BUILDING RESTRICTION LINES IS RECOMMENDED.
  - DRIVEWAY SLOPES SHOWN ARE AVERAGE. THE SLOPE AT THE OUTSIDE EDGES COULD BE FLATTER OR STEEPER DEPENDING ON GRADE OF ROADWAY.
  - THIS PLAN CONFORMS WITH THE AMENDED 5th EDITION OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE 1993 ZONING REGULATIONS AMENDED BY CB 50-2001. THE BUILDER SHALL APPLY FOR BUILDING PERMITS FOR ALL LOTS AS SHOWN ON THIS SITE DEVELOPMENT PLAN WITHIN FIVE YEARS OF SIGNATURE APPROVAL OF THIS PLAN.
  - NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
  - WATER AND SEWER HOUSE CONNECTIONS WERE INSTALLED TO THIS PROPERTY UNDER CONTRACT 34-4081-D. THE EXISTING WATER HOUSE CONNECTION IS 1" ECP-11-063 WAS APPROVED 6/23/2011 AND SIGNED 7/13/2011. THE STORMWATER METHODS ON THIS PLAN ARE FINAL DESIGNS OF THE METHOD SHOWN ON THE ENVIRONMENTAL CONCEPT PLAN.
  - A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY FOR THE FLAG LOT DRIVEWAY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-2430 FOR DETAILS AND COST ESTIMATES.
  - FOR DRIVEWAY ENTRANCE DETAIL SEE HOWARD COUNTY STANDARD DETAILS R-6.06.
  - NO NOISE STUDY IS REQUIRED FOR THIS PROJECT.
  - WP-12-077 WAS APPROVED BY THE PLANNING DIRECTOR ON NOVEMBER 23, 2011. THIS WMADES SECTION 18-1210(a)(1) OF THE HOWARD COUNTY SUBDIVISIONS AND LAND DEVELOPMENT REGULATIONS WHICH STATES THAT 200 S.F. OF RECREATIONAL SPACE IS REQUIRED FOR EACH SFD IN THE R-20 AND R-12 ZONING DISTRICTS. APPROVAL IS SUBJECT TO THE FOLLOWING:
    - PROVIDE A 5' PARK BENCH, A PUNCH TABLE, GAZEBO, OR SIMILAR IMPROVEMENT TO THE EXISTING RECREATIONAL OPEN SPACE TO INCREASE ITS USE OPPORTUNITY FOR EXISTING AND NEW RESIDENTS. THE ULTIMATE IMPROVEMENT SHOULD BE AGREED UPON BY THE COMMUNITY.
    - CONFIRMATION OF THE INSTALLATION OF THE IMPROVEMENT THROUGH PHOTO DOCUMENTATION MUST BE PROVIDED PRIOR TO THE RECORDATION OF THE PLAT. CONFIRMATION OF COLLABORATION WITH THE HOMEOWNERS ASSOCIATION SHOULD ALSO BE PROVIDED AT THAT TIME.
    - NOTATION OF THE CREDIT FOR THE RECREATION OPEN SPACE SHALL BE PROVIDED ON F-12-006 AND F-12-019.

THE DEVELOPER HAS CHOSEN TO PUT A BENCH ON OPEN SPACE LOT 13 WITHIN THE RECREATIONAL OPEN SPACE AND OUTSIDE OF ANY OTHER EASEMENT.

# SITE DEVELOPMENT PLAN TROTTERS RUN LOTS 16-18 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

LEGEND	
	EXISTING CONTOURS PER F-05-012
	PROPOSED CONTOURS
	EXISTING TREELINE
	PROPOSED TREELINE
	BUILDING RESTRICTION LINE
	EXISTING EASEMENTS
	LIMIT OF DISTURBANCE
	FIRST FLOOR ELEVATION
	BASEMENT FLOOR ELEVATION
	LANDSCAPE PERIMETER
	EXISTING STREET TREE PER F-05-012
	EXISTING PERIMETER TREE PER F-05-012
	PROPOSED PERIMETER TREE
	DRYWELL



- NOTE:**
- TREES SHOULD BE PLANTED A MINIMUM OF 6 FEET FROM THE EDGE OF PAVING AND MUST BE A MINIMUM OF 5 FEET FROM ANY STORM DRAIN.
  - TREES MUST BE PLANTED A MINIMUM OF 5 FEET FROM AN OPEN SPACE ACCESS STRIP AND 10 FEET FROM A DRIVEWAY.
  - SEE TREE PLANTING DETAIL - THIS SHEET.
  - THE DEVELOPER SHALL BE RESPONSIBLE FOR EXISTING STREET TREES AND PERIMETER PLANTING AND PRESERVATION OF THE PERIMETER VEGETATION AS SHOWN IN THESE PLANS.
  - ALL LANDSCAPING REQUIREMENTS FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL AND SECTION 16.124(b)(3)(ii) OF THE SUBDIVISION REGULATIONS. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WILL BE POSTED AS PART OF THE BUILDER'S GRADING PERMIT IN THE AMOUNT OF \$600.00 (2 SHADE TREES AT \$300 EACH).

SCHEDULE A PERIMETER LANDSCAPE EDGE	
CATEGORY	ADJACENT TO PERIMETER PROP.
LANDSCAPE TYPE	TYPE A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	451 LF.
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES, 335 LF. (1)
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO
NUMBER OF PLANTS REQUIRED	
SHADE TREES	2
EVERGREEN TREES	-
SHRUBS	-
NUMBER OF PLANTS PROVIDED	
SHADE TREES	2
EVERGREEN TREES	-
OTHER TREES (2:1 SUBSTITUTE)	-
SHRUBS (1:1 SUBSTITUTE)	-

PERIMETER AND SWM PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
	2	ACER RUBRUM (October Glory Red Maple)	2 1/2" MIN. CAL. FULL HEAD

**DEVELOPER'S/BUILDER'S CERTIFICATION**

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE, ACCOMPANIED BY AN EXECUTED ONE-YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

NAME: *B. D. B.* DATE: 2-17-12  
 BOYHINK, MEMBER BOYHINK, LLC

NO.	DATE	REVISION
3	11-2-12	REVISE DRYWELL & SWM DESIGN AND LOCATION, ADJUST GRADING
2	10-19-12	REVISE DEVONSHIRE ON LOT 17 TO SHOW ELEV. E
1	8-17-12	REVISE DEVONSHIRE ON LOT 18 TO SHOW ELEV. E & REVISE FOOTPRINT

**BENCHMARK ENGINEERING, INC.**  
 ENGINEERS & LAND SURVEYORS & PLANNERS  
 6480 BULMORE NATIONAL PIKE A SUITE 418 & ELLOTT CITY, MARYLAND 21043  
 (P) 410-465-6105 (F) 410-465-6844  
 60 THOMAS JOHNSON DRIVE A FREDERICK, MARYLAND 21702  
 (P) 301-371-3666 (F) 301-371-3506  
 WWW.BENCHKONENRINC.COM

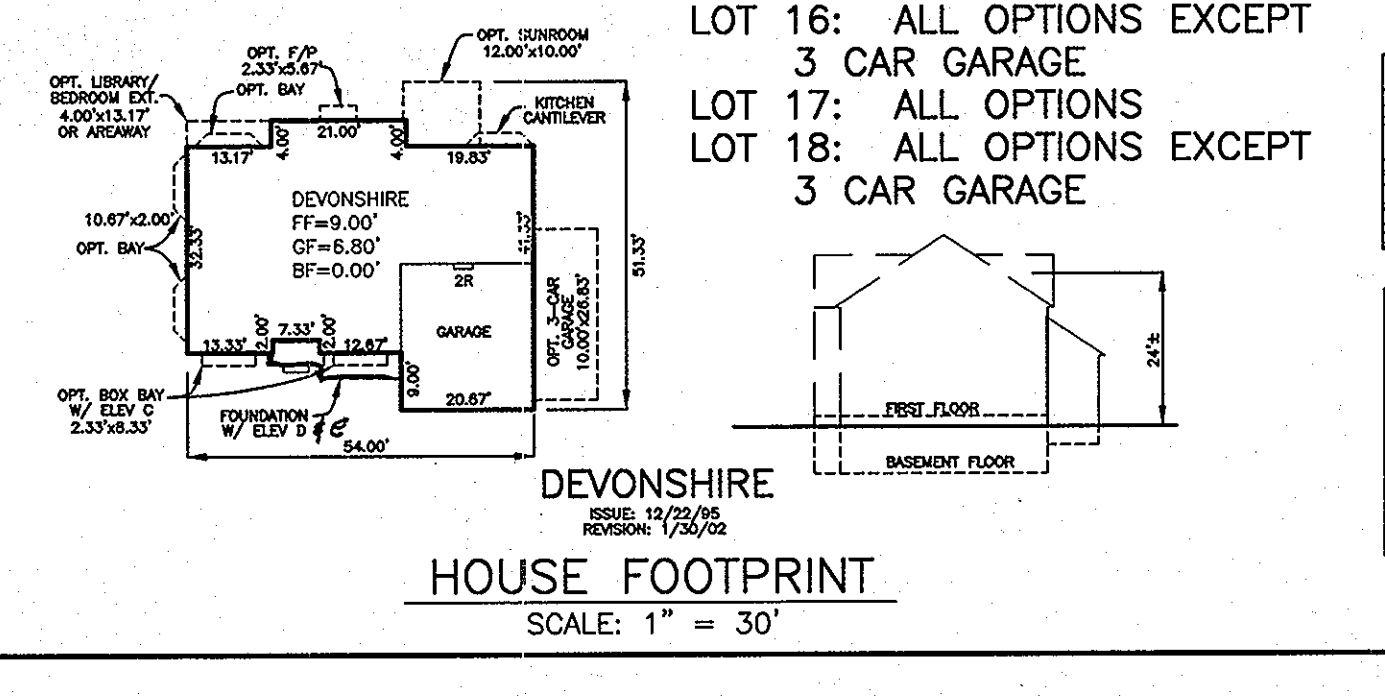
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 28559, Expiration Date: 7-22-2013.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*K. J. ...* 3/19/12  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*...* 3/14/12  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

*...* 3/19/12  
 DIRECTOR



**MATRIX**

LOT 16: ALL OPTIONS EXCEPT 3 CAR GARAGE  
 LOT 17: ALL OPTIONS  
 LOT 18: ALL OPTIONS EXCEPT 3 CAR GARAGE

**ADDRESS CHART**

LOT	STREET ADDRESS
16	6473 SWIMMER ROW WAY
17	6469 SWIMMER ROW WAY
18	6465 SWIMMER ROW WAY

**MINIMUM LOT SIZE CHART**

LOT NO.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
17	16,701 SF	2,583 SF	14,118 SF

**PERMIT INFORMATION CHART**

SUBDIVISION NAME:	SECTION/AREA:	LOT/PARCEL #
TROTTERS RUN	N/A	LOTS 16-18

PLAT No.	GRID No.	ZONE	TAX MAP	ELECTION DISTRICT	CENSUS TRACT
21042	20	R-20	35	5th	6055.01

**OWNER/DEVELOPER**

BOYHINK, LLC.  
 11807 WOLLINGFORD COURT  
 CLARKSVILLE, MARYLAND 21029  
 410-792-2565

**PROJECT:** TROTTERS RUN  
 SINGLE FAMILY DETACHED HOMES  
 LOTS 16 THROUGH 18, PLAT NUMBER 21042.  
 A RESUBDIVISION OF TROTTERS RUN,  
 LOTS 1 & 2, PLAT NUMBER 18051

**LOCATION:** TAX MAP 35  
 PARCEL 342 - GRID 20  
 5th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

**TITLE:** SITE DEVELOPMENT AND LANDSCAPE PLAN

**DATE:** FEBRUARY, 2012  
 PROJECT NO. 2408

Design: JC Draft: EDD Check: JC  
 SCALE: AS SHOWN DRAWING 1 OF 3

**SEDIMENT CONTROL NOTES**

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (513-1850).
- 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, REVISIONS THEREOF.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES, Dikes, PERMETER BARRIERS AND ALL SLOPES GREATER THAN 3:1; B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, 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 FOR PERMANENT SEEDINGS (SEC. 51) SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52), 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	1.10	ACRES
AREA DISTURBED	0.98	ACRES
AREA TO BE ROOFED OR PAVED	0.25	ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.73	ACRES
TOTAL CUT	1000	CY
TOTAL FILL	300	CY
OFFSITE WASTE AREA LOCATION	A SITE WITH AN ACTIVE GRADING PERMIT	
- 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 PERMETER EROSION AND SEDIMENT CONTROL STRUCTURES, 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.

**TEMPORARY SEEDBED PREPARATIONS**

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT).

SEEDING: FOR PERIOD MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT). FOR THE PERIOD MAY 1 THROUGH AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (07 LBS/1000 SQ FT). FOR THE PERIOD NOVEMBER 16 THROUGH 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/1000 SQ FT) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES, 8 FT. OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

**PERMANENT SEEDBED PREPARATIONS**

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING 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/1000 SQ FT) AND 400 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL AT TIME OF SEEDING. APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ FT).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

**ENGINEER'S CERTIFICATE**

I, Brian F. Cleary, P.E., certify that this plan for sediment and erosion 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.

DATE: 2/16/2012

ENGINEER - Brian F. Cleary, P.E. #25559

**DEVELOPER'S CERTIFICATE**

I, Bohnik, LLC, certify that all development and 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 inspection by the HOWARD SOIL CONSERVATION DISTRICT.

DATE: 2-17-12

BOHNIK, LLC

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

APPROVED: Howard County Department of Planning and Zoning

DATE: 3/14/12

DATE: 3/14/12

DATE: 2/15/12

**PERMANENT SEEDBED PREPARATIONS CONTINUED**

SEEDING: FOR THE PERIODS MARCH 1 THROUGH APRIL 30 AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 60 LBS PER ACRE (14 LBS/1000 SQ FT) OF KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (.05 LBS/1000 SQ FT) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH 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 OF KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE OF WELL ANCHORED STRAW.

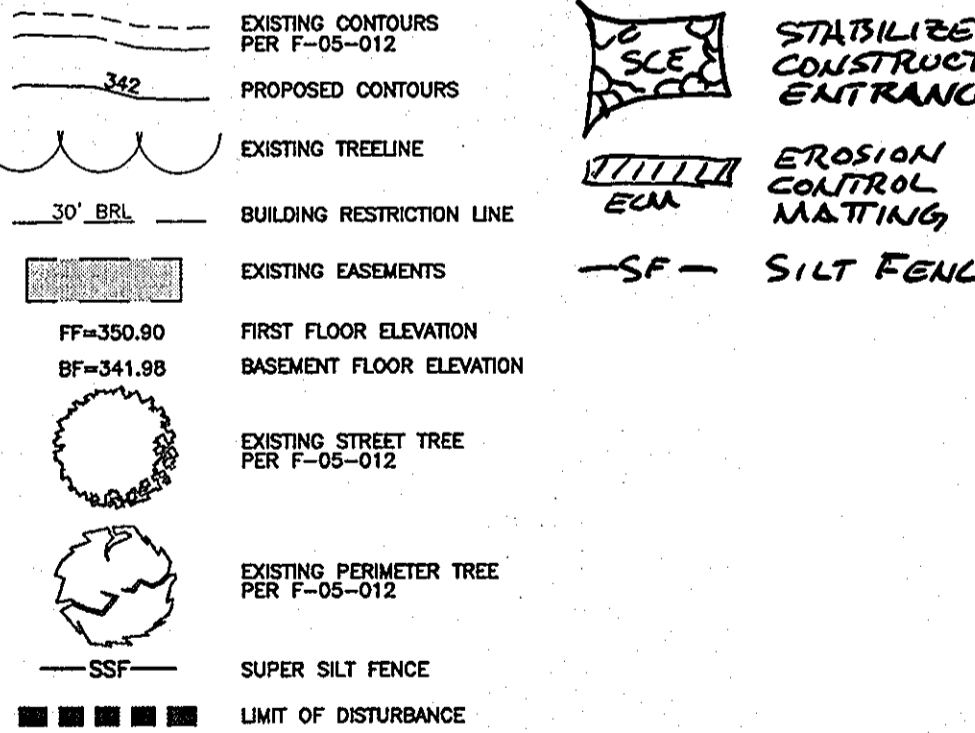
MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

**TOPSOIL 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, 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 clays, silts, sand, gravel, cinders, stones, roots, trash, or other materials larger than 1-1/2" in diameter.
  - Topsoil must be free of plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nutgrass, poison ivy, kales, or others as specified.
  - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- For sites having disturbed areas under 5 acres:
  - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
- For sites having disturbed areas over 5 acres:
  - On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
    - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
    - Organic content of topsoil shall be not less than 1.5 percent by weight.
    - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
    - No 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 phytotoxic materials.
  - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
- Topsoil Application
  - When topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilization structures, earth dikes, slope silt fence and sediment traps and so on.
  - Grades on the areas to be topsoiled, which have been previously established, shall be maintained, about 4" - 8" higher in elevation.
  - Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in 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.
  - 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.
- Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:
  - 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:
    - Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of application of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
    - 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.
    - Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
  - Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/2 the nutrient lime application rate.

**LEGEND**



**30.0 DUST CONTROL**

- Definition**  
Controlling dust blowing and movement on construction sites and roads.
- Purposes**  
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 subjected to dust blowing and movement where on and off-site damage is likely without treatment.
- Specifications**
- Temporary Methods**
- Mulches - See standards for vegetative stabilization with mulches only. Mulch should be irrigated or trucked to prevent blowing.
  - Vegetative Cover - See standards for temporary vegetative cover.
  - Tillage - To rough surface and bring seeds 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.
  - 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.
  - Barriers - Solid board fences, silt fences, snow fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing winds at intervals of about 10 times their height are effective in controlling soil blowing.
  - Calcium Chloride - Apply at rates that will keep surface moist. May need re-treatment.
- Permanent Methods**
- Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or shrubs may afford valuable protection if left in place.
  - Topsoiling - Covering with less erodible soil materials. See standards for topsoiling.
  - Stone - Cover surface with crushed stone or coarse gravel.
- References**
- Agriculture Handbook 346. Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss.
  - Agriculture Information Bulletin 354. How to Control Wind Erosion, USDA-ARS.

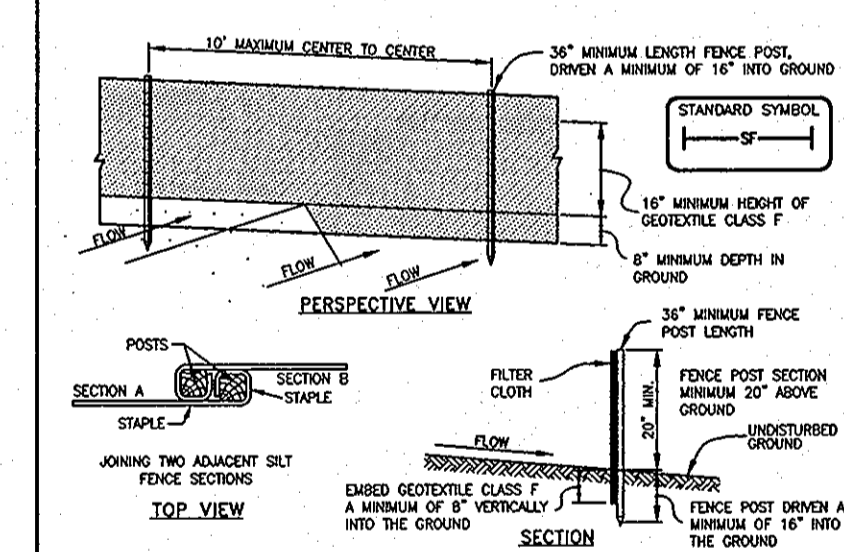
**SEQUENCE OF CONSTRUCTION**

NOTIFY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO START OF CONSTRUCTION

- OBTAIN GRADING PERMIT. (DAY 1)
- INSTALL STABILIZED CONSTRUCTION ENTRANCE AND SUPER SILT FENCES. (DAY 2-4)
- UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, BRING SITE TO GRADE AND STABILIZE SWALES IN ACCORDANCE WITH TEMPORARY SEEDING NOTES. UTILIZE DUST CONTROL METHODS. (DAY 5-20)
- UNSTALL UTILITIES, FINAL GRADE AND PAVE DRIVEWAY. (DAY 21-30)\*
- WHEN CONTRIBUTING AREAS TO DISTURBED AREAS ARE STABILIZED, INSTALL PLANTING SOIL, EROSION CONTROL MATTING AND PERMANENT SEEDING. (DAY 31-36)
- UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES, AND STABILIZED DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDBED NOTES. (DAY 37-40)

\*DELAY CONSTRUCTION OF HOUSE ON LOT 16 UNTIL PERMISSION FROM SEDIMENT CONTROL INSPECTOR IS GRANTED DUE TO TEMPORARY STOCKPILE.

**DETAIL 22 - SILT FENCE**



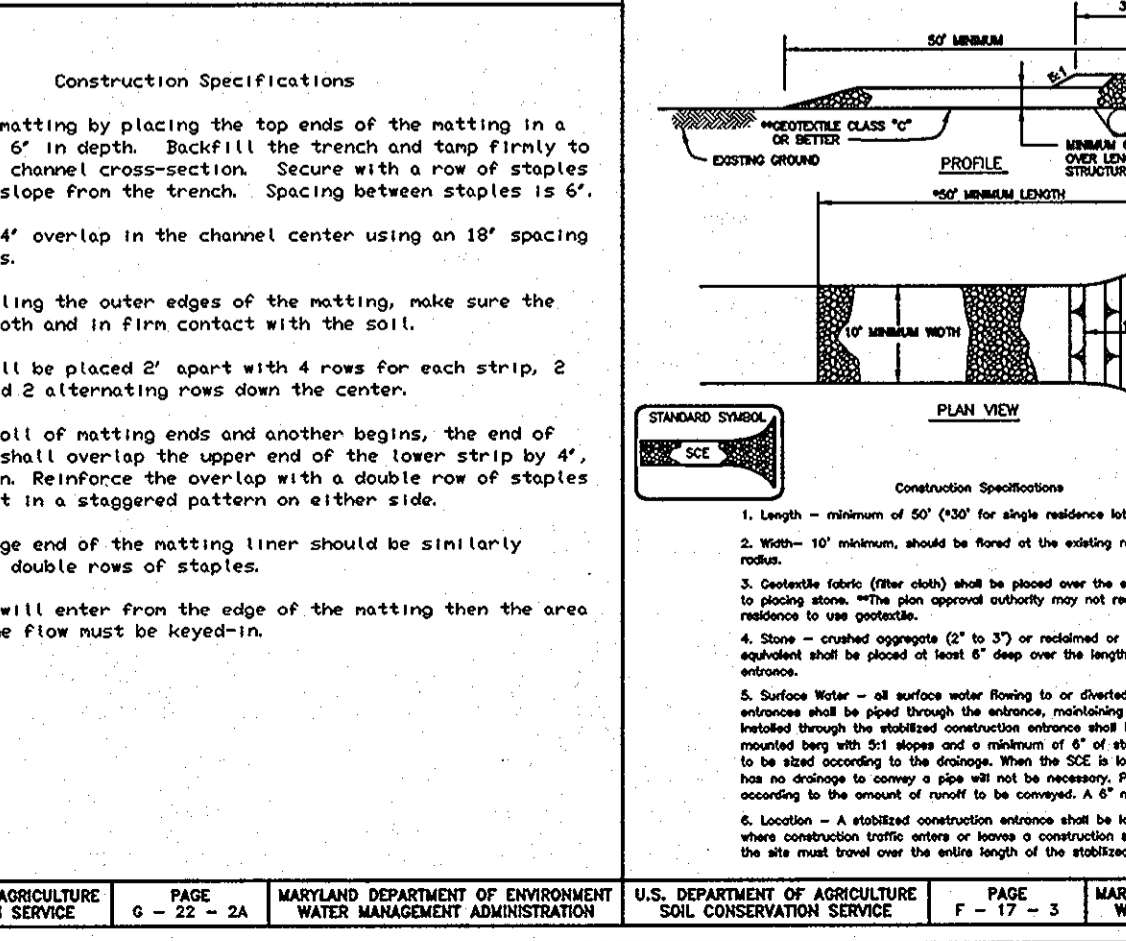
**CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**

- Fence posts shall be a minimum of 36" long driven 18" minimum into the ground. Wood posts shall be 1 1/2" x 4" square (minimum) cut to 13' 6" diameter. (minimum) round and steel pipe of equal quality maximum. Steel posts will be standard 1 or U section weighing not less than 1.00 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or staples of top and mid-section and shall meet the following requirements for Geotextile Class F:
 

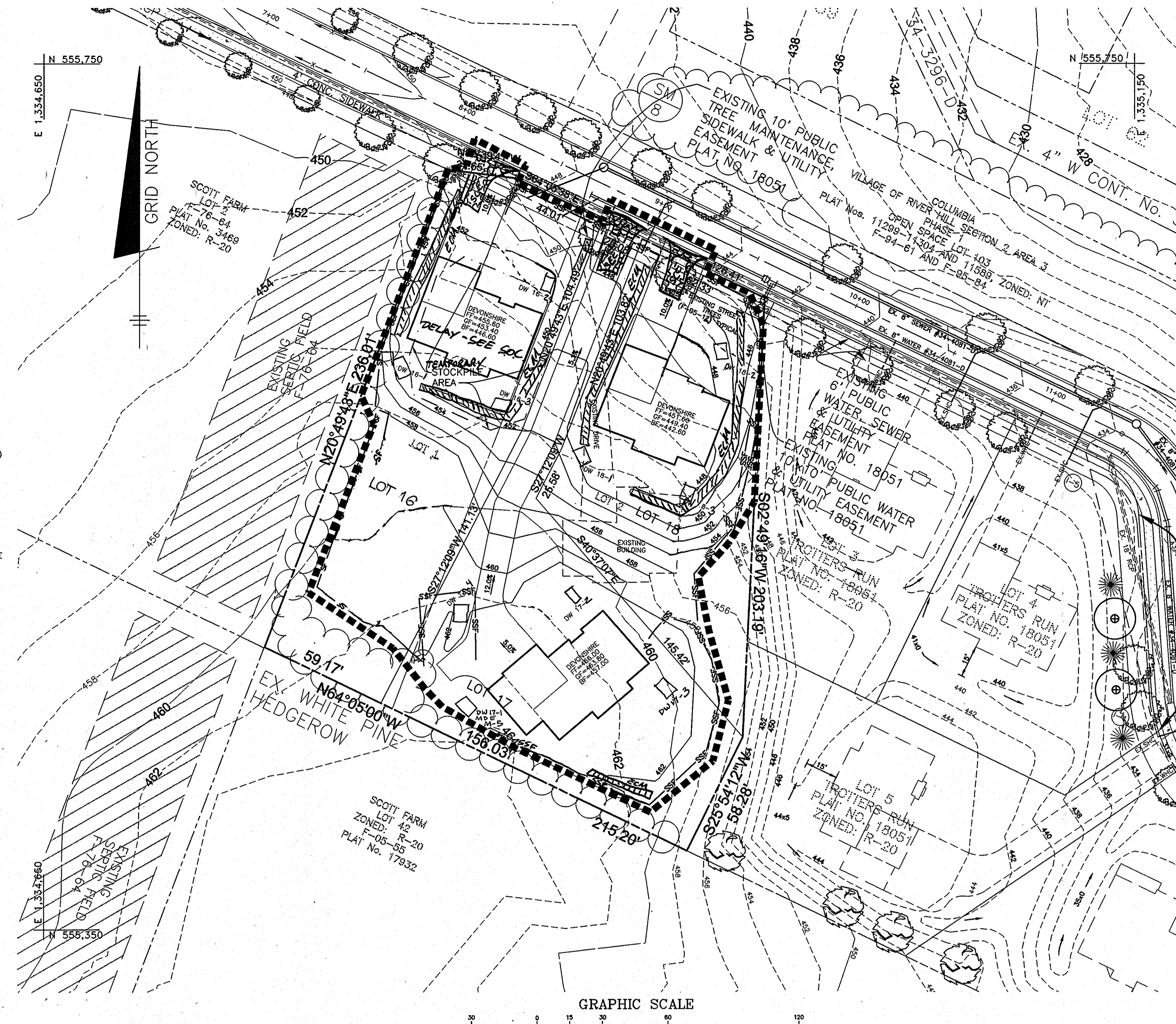
Tensile Strength	50 lb/in. (min.)	Test: MSMT 509
Tensile Modulus	20 lb/in. (min.)	Test: MSMT 509
Flow Rate	50 gpm/minute (max.)	Test: MSMT 509
Filtering Efficiency	75% (min.)	Test: MSMT 322
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment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

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 11-13-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**DETAIL 30 - EROSION CONTROL MATTING**



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 11-22-2 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



NO.	DATE	REVISION
1	11-2-12	REVISE DRYWELL LOCATIONS AND GRADING.

**BENCHMARK ENGINEERS, INC.**  
ENGINEERS & LAND SURVEYORS & PLANNERS  
8480 BALTIMORE AVENUE, SUITE 418, ELKLOTT CITY, MARYLAND 21043  
(P) 410-465-8105 (F) 410-465-6644  
60 THOMAS JOHNSON DRIVE, FREDERICK, MARYLAND 21702  
(P) 301-371-3505 (F) 301-371-3508  
WWW.BE-ONLINEENGINEERS.COM

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. 28559, Expiration Date: 7-22-2013.

OWNER/DEVELOPER: **TROTTERS RUN SINGLE FAMILY DETACHED HOMES**  
LOTS 16 THROUGH 18, PLAT NUMBER 21842  
A RESUBDIVISION OF TROTTERS RUN, LOTS 1 & 2, PLAT NUMBER 18051

LOCATION: TAX MAP 35  
PARCEL 342 - GRID 20  
5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: **SEDIMENT AND EROSION CONTROL PLAN**

DATE: FEBRUARY, 2012 PROJECT NO. 2408

SCALE: AS SHOWN DRAWING 2 OF 3

Design: JC Draft: EDD Check: JC

