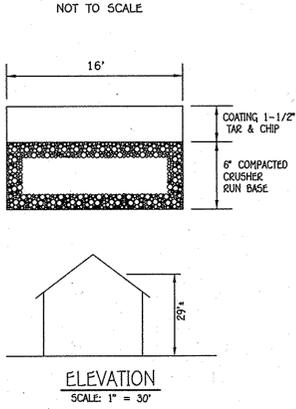


COMMON DRIVEWAY DETAIL



NOTE: CONTRACTOR TO REGRADE, SOO OR HYDROSEED AND STRIP MULCH ALL AREAS DISTURBED AS A RESULT OF THEIR WORK.

SPRAY WITH MILT-PROOF ACCORDING TO MANUFACTURERS STANDARDS

PRUNE 1/3 LEAF AREA BUT RETAIN NATURAL FORM OF TREE

2 PIECES OF REINFORCED RUBBER HOSE

DOUBLE #12 GALVANIZED WIRE GUYS TWISTED

3-2"x 2" OAK STAKES, NOTCH STAKES TO HOLD WIRE

WRAP TRUNK TO SECOND TIER OF BRANCHES WITH WATERPROOF TREE WRAP (TIE AT 2' INTERVALS EXCEPT EVERGREENS)

REMOVE ANY COVERING FROM TOP OF ROOT CROWN

3" MULCH

MAINTAIN GROUND LINE WITH TOP OF ROOT CROWN

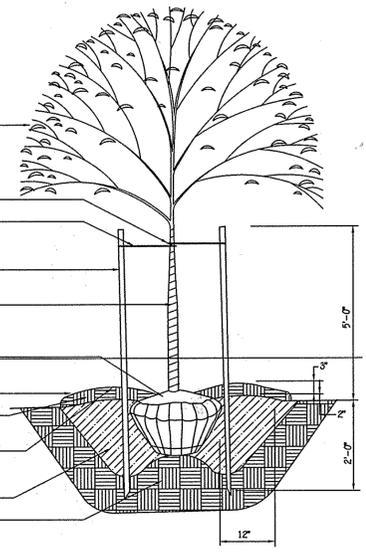
CONSTRUCT 3" SAUCER 6" FLOOD WITH WATER TWICE WITHIN 24 HOURS

TOP SOIL MIXTURE

CONVEX BOTTOM 6" MIN. HT.

TREE PLANTING DETAIL

NOT TO SCALE



- 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 required landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced.
- At 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.
- Should any tree designated for preservation, for which credit is given, die prior to release of bonds, the owner will be required to replace the tree with the equivalent species or with a tree which will obtain the same height, spread and growth characteristics. The replacement tree must be a minimum of 3 inches in caliper and installed as required in the Landscape Manual.

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 the 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.

John M. R. 2/4/14
Developer/Builder Date

SCHEDULE A - PERIMETER LANDSCAPE EDGE AND LANDSCAPE BUFFER

PERIMETER	P-1	P-2	P-3	P-4	P-5	P-6	P-7	P-8	TOTAL
ADJACENT TO PERIMETER ROADWAYS								LANDSCAPE BUFFER	
LANDSCAPE TYPE	A	A	A	A	A	A	A	B	
LINEAR FEET OF PERIMETER	96'	804'	128'	215'	292'	92'	183'	1311'	3,613'
NUMBER OF PLANTS REQUIRED	NONE	(804'/60' = 13.4) = 14	(128'/60' = 3.47) = 4	(215'/60' = 3.58) = 4	(292'/60' = 4.86) = 5	(92'/60' = 1.53) = 2	(183'/60' = 3.05) = 3	(1311'/60' = 21.85) = 22	56
CREDIT FOR WALL, FENCE OR BERM	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	
CREDIT FOR EXISTING VEGETATION	NONE	YES	YES	YES/100%	YES	YES	YES	NONE	20
SHADE TREES	0	9	2	4	4	1	0	0	20
EVERGREEN TREES	0	0	0	1	0	0	0	0	1
NUMBER OF PLANTS PROVIDED	NONE	14 REQUIRED-9 CREDIT	4 REQUIRED-2 CREDIT	4 REQUIRED-4 CREDIT	5 REQUIRED-4 CREDIT	2 REQUIRED-1 CREDIT	3 REQUIRED-0 CREDIT	13 REQUIRED-0 CREDIT	56
NUMBER OF PLANTS TO BE PLANTED	0	5	2	0	1	1	3	0	12
SHADE TREES	0	5	2	0	1	1	3	0	12
EVERGREEN TREES	0	0	0	0	0	0	0	0	1

*PLEASE SEE GENERAL NOTE NO. 24 FOR LANDSCAPING SURETY

SITE ANALYSIS DATA

- TOTAL AREA OF SUBJECT PROPERTY = 2.4874 ACRES OR 108,355 Sq. Ft.
- TOTAL AREA OF SUBMISSION = 2.1377 ACRES OR 93,118 Sq. Ft.
- LIMIT OF DISTURBANCE = 2.1377 ACRES OR 93,118 Sq. Ft.
- PRESENT ZONING DESIGNATION: R-20
- PROPOSED USES FOR SITE: SINGLE FAMILY DETACHED
- APPLICABLE DPZ FILE REFERENCES: 9-W, SEWER CONTR. NO.10-1133, W&S CONTR. NO.14-3446-D, WF-06-137, F-06-055, F-05-148, F-05-147, F-06-081, Plat #6300, Plat #17391, Plat #22043, L 0772-F-218, L 0782-F-629, L 14238-F-290, F-14-057, Plat #22634
- TOTAL NUMBER OF UNITS ALLOWED: 3
- TOTAL NUMBER OF UNITS PROPOSED: 3
- NUMBER OF PARKING SPACES REQUIRED: 2 SPACES PER UNIT = 6
- 0.5 SPACES OVERFLOW PARKING PER UNIT = 3
- TOTAL NUMBER OF PARKING SPACES PROVIDED: 12 SPACES (EACH LOT HAS 2 SPACES IN DRIVEWAY AND A 2 CAR GARAGE)

PLANT LIST

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
12		ACER RUBRUM OCTOBER GLORY	OCTOBER GLORY, MAPLE	2 1/2" - 5"
13		CHAMAECYPARIS LEYLANDII	LEYLAND CYPRESS	2 1/2" - 5"

SOILS LEGEND

SOIL	NAME	CLASS
# Ucb	URBAN LAND-CHILLUM- BELTSVILLE COMPLEX, 0 TO 5 PERCENT SLOPES	D

NOTES:
* HYDRIC SOILS AND/OR CONTAINS HYDRIC INCLUSIONS

SURVEYOR'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."

Frank John Manalansan II 2/4/14
Signature Date
FRANK JOHN MANALANSAN II

BUILDER/DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan, for sediment and erosion control 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 inspection by the Howard Soil Conservation District."

John G. Rice 2/4/14
Signature Date
David T. Maerten 2/4/14
Signature Date
John G. Rice
David T. Maerten

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/15

Frank John Manalansan II 2/4/14
Signature Date
FRANK JOHN MANALANSAN II

OWNER/DEVELOPER

MR. JOHN G. RICE
MR. DAVID T. MAERTEN
5874 MONTGOMERY ROAD
ELKBRIDGE, MARYLAND 21075
(240) 882-3049

ADDRESS CHART

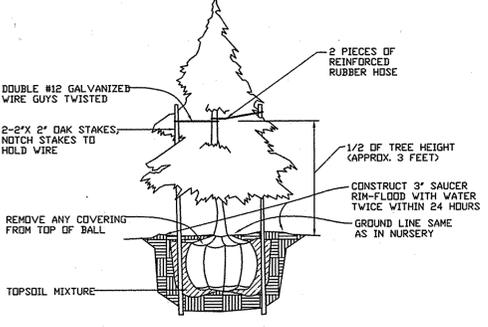
LOT NUMBER	STREET ADDRESS
5	7966 OLD MONTGOMERY ROAD
6	7968 OLD MONTGOMERY ROAD
8	7972 OLD MONTGOMERY ROAD

SHEET INDEX

SHEET	DESCRIPTION
SHEET 1	TITLE SHEET, HOUSE TYPES, LANDSCAPE & GENERAL NOTES
SHEET 2	SITE DEVELOPMENT PLAN, LANDSCAPE, SEDIMENT & EROSION CONTROL PLAN
SHEET 3	SEDIMENT/EROSION CONTROL NOTES & DETAILS

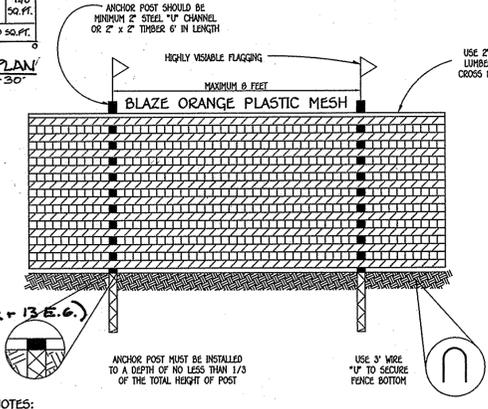
TREE PROTECTION DETAIL

NOT TO SCALE



EVERGREEN PLANTING DETAIL

NOT TO SCALE



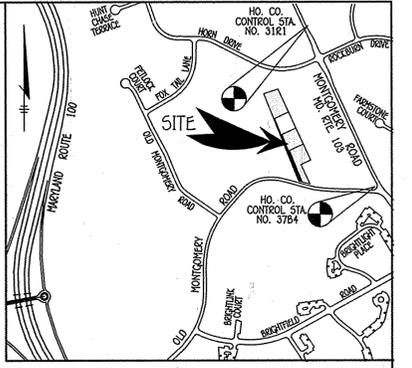
- NOTES:
- FOREST PROTECTION DEVICE ONLY.
 - RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
 - BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
 - ROOT DAMAGE SHOULD BE AVOIDED.
 - PROTECTIVE SIGNAGE MAY ALSO BE USED.
 - DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

Minimum Lot Size Chart

LOT No.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
6	22,403 Sq.Ft.	2,245 Sq.Ft.	20,158 Sq.Ft.
7	24,677 Sq.Ft.	3,398 Sq.Ft.	21,279 Sq.Ft.
8	34,260 Sq.Ft.	4,616 Sq.Ft.	29,644 Sq.Ft.

BENCH MARKS

- T.P. 3181 ELEV. 401.00
N. 963,303.4806
E. 1,372,517.7105
LOC. NEAR INTERSECTION OF
MONTGOMERY ROAD &
ROCKBURN DRIVE
- T.P. 3784 ELEV. 401.40
N. 963,928.5590
E. 1,373,103.1034
LOC. NEAR INTERSECTION OF
MONTGOMERY ROAD &
ROCKBURN DRIVE



VICINITY MAP

SCALE: 1" = 2000'
ADC MAP COORDINATES:
34 1E

GENERAL NOTES

- SUBJECT PROPERTY ZONED R-20 per 10/06/13 COMPREHENSIVE ZONING PLAN.
- TOTAL AREA OF SITE: 2.487 ACRES.
- TOTAL NUMBER OF LOTS SUBMITTED: 3 SFD
- THE CONTRACTOR OR DEVELOPER SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION AT (410)313-1800 24-HOURS PRIOR TO THE COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THIS PROJECT IS SUBJECT TO HOWARD COUNTY FILES: F-06-081, WF-06-137 AND CONTRACT NO. 14-3446-D
- THIS PLAN IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT FEBRUARY 15, 2005 BY FISHER, COLLINS AND CARTER, INC.
- COORDINATES BASED ON NAD 83 - MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 3181 AND NO. 3784.
STATION NO. 3181 NORTH 563928.5590 EAST 1,372,517.7105
STATION NO. 3784 NORTH 563928.5590 EAST 1,373,103.1034
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- PORTIONS OF THE EXISTING GRAVEL DRIVEWAY SERVING THE EXISTING HOUSE ON LOT 7 SHALL BE REMOVED, AS SHOWN ON THE SITE DEVELOPMENT PLAN. THE REMAINDER OF THE EXISTING GRAVEL DRIVEWAY SHALL BE IMPROVED TO MEET THE MINIMUM STANDARDS AS OUTLINED IN GENERAL NOTE NO. 20 TO SERVE LOTS 5 THRU 8.
- A FEE IN LIEU OF FOREST CONSERVATION EASEMENT HAS BEEN PAID IN THE AMOUNT OF \$13,722.00 TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOREST CONSERVATION ACT.
- IN THE TIME OF SUBDIVISION, A FEE IN LIEU OF PROVIDING OPEN SPACE HAS BEEN PAID IN THE AMOUNT OF \$4500.00 UNDER F-06-081.
- THERE IS AN EXISTING DWELLING/STRUCTURE(S) LOCATED ON LOT 7 TO REMAIN. NO NEW BUILDINGS, EXTENSIONS OR ADDITIONS TO THE EXISTING DWELLING(S) ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATIONS REQUIRE.
- A PRIVATE USE-IN-COMMON DRIVEWAY ACCESS AND MAINTENANCE AGREEMENT FOR SHARED DRIVEWAY FOR LOTS 5 THRU 8 HAS BEEN RECORDED IN LIBER 14238 AT FOLIO 290.
- LOTS 5 THRU 8 DO NOT INCLUDE WETLAND, STREAM, ASSOCIATED WETLAND BUFFERS AND STREAM BUFFERS, FOREST CONSERVATION EASEMENTS AND ASSOCIATED BUFFERS OR STEEP SLOPES.
- FOR DRIVEWAY ENTRANCE DETAIL REFER TO HO.CC. DESIGN MANUAL VOL. IV DETAILS R.6.06.
- MINIMUM BUILDING RESTRICTION SETBACKS FROM PROPERTY LINES AND PUBLIC ROAD RIGHTS-OF-WAY ARE TO BE IN ACCORDANCE WITH THE DEVELOPMENT CRITERIA.
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL NO. 45-2003 AND THE ZONING REGULATIONS AS AMENDED UNDER COUNCIL BILL NO. 75-2003. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION OR BUILDING/GRADING PERMIT AND B. IT WAS DETERMINED THAT THIS PROJECT MET THE CRITERIA OUTLINED IN THE MSB STORMWATER MANAGEMENT REGULATIONS GUIDANCE FOR IMPLEMENTATION FOR ACCEPTANCE OF THE 2000 DESIGN CRITERIA AND GRANTED A WAIVER. THIS PLAN RECEIVED FINAL APPROVAL (F-06-081) ON AUGUST 4, 2006. THIS PLAN IS ALSO SUBJECT TO THE EXPIRATION OF THIS WAIVER UNLESS ALL STORMWATER MANAGEMENT IS CONSTRUCTED BY MAY 4, 2017.
- PLAN SUBJECT TO WF-06-137 WHICH ON AUGUST 10, 2006 THE PLANNING DIRECTOR APPROVED A WAIVER TO THE FOLLOWING:
A) SECTION 16.132(A)(2)(I) WHICH REQUIRES CONSTRUCTION OF ONE SIDE OF THE ROAD UP TO ONE-HALF OF THE FULL-DESIGNATED PAVEMENT WIDTH.
B) SECTION 16.133 WHICH REQUIRES THE INSTALLATION OF A STORM DRAIN SYSTEM WITH THE RIGHT-OF-WAY.
C) SECTION 16.134(A) WHICH REQUIRES INSTALLATION OF SIDEWALKS ALONG THE PROPERTY FRONTAGE.
D) SECTION 16.135(A) WHICH REQUIRES INSTALLATION OF STREET LIGHTING IN ACCORDANCE WITH THE DESIGN MANUAL.
E) SECTION 16.136 WHICH REQUIRES THE INSTALLATION OF STREET TREES IN ACCORDANCE WITH THE LANDSCAPE MANUAL.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY LANDSCAPE MANUAL. FINANCIAL SURETY FOR LOTS 5, 6 AND 8 WILL BE PROVIDED WITH THE BUILDING/GRADING PERMIT FOR LOT 5 IN THE AMOUNT OF \$5,550.00 FOR 12 SHADE TREES AND 13 EVERGREEN SCREEN TREES.
- THE EXISTING 3/4" WVC FOR LOT 7 SHALL BE REMOVED IN ITS ENTIRETY FOLLOWING CONNECTION OF THE EXISTING DWELLING ON LOT 7 TO THE EXISTING 4" WATER INSTALLED UNDER CONTRACT NO. 14-3446-D. THE EXISTING SERVICE CONNECTION FROM THE EXISTING MAN ALONG OLD MONTGOMERY ROAD SHALL BE ABANDONED IN ACCORDANCE WITH THE PROCEDURES APPROVED BY THE BUREAU OF UTILITIES.
- PER LETTER DATED DECEMBER 13, 2013, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS GRANTED APPROVAL TO THE REQUEST FOR A WAIVER OF BASEMENT GRAVITY SEWER SERVICE FOR LOTS 5, 6 AND 8. A NOTE STATING THAT "GRAVITY SEWER SERVICE, FRESH FLOOR ONLY. BASEMENT SEWER SERVICE TO BE PROVIDED BY PRIVATE ON-SITE PUMP. HAS BEEN ADDED TO THE SITE DEVELOPMENT PLAN.
- EXISTING DRIVEWAY SERVING THE EXISTING DWELLING ON LOT 7 SHALL BE RELOCATED UNDER THIS SITE DEVELOPMENT PLAN.

APPLICABLE DPZ FILE REFERENCES:
9-W, SEWER CONTR. NO.10-1133, W&S CONTR. NO.14-3446-D, WF-06-137, F-06-055, F-05-148, F-05-147, F-06-081, Plat #6300, Plat #17391, Plat #22043, L 0772-F-218, L 0782-F-629, L 14238-F-290, F-14-057, Plat #23634

SITE DEVELOPMENT PLAN

SINGLE FAMILY DETACHED
HARRIS ACRES
LOTS 5, 6 & 8
AND RELOCATION OF DRIVEWAY SERVING LOT 7

TAX MAP NO.: 37 PARCEL NO.: 12 GRID NO.: 2
FIRST ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
SCALE: 1"=30' DATE: JANUARY 31, 2014
SHEET 1 OF 3

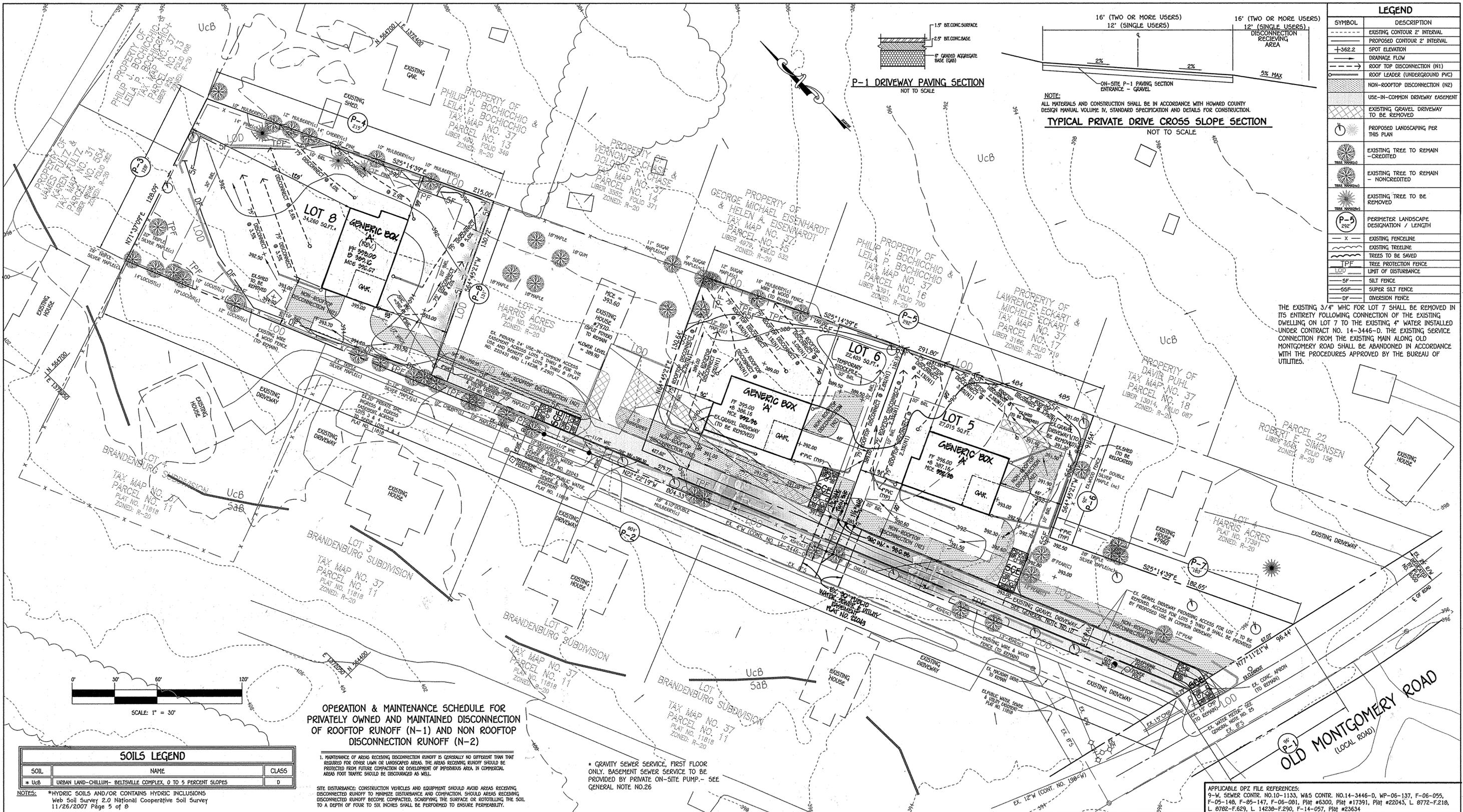
SDP-14-008

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SERVICE OFFICE: 10672 BALTIMORE NATIONAL PIKE
ELKRIOT CITY, MARYLAND 21042
(410) 461-2995

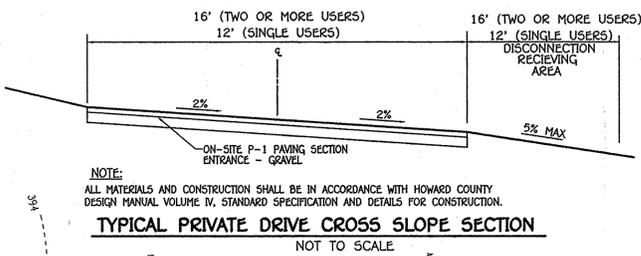
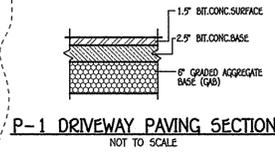


NO.	REVISION	DATE
2	ADD ADDITIONAL HOUSE TYPE - TEMORA	10/28/15
1	REMOVE HOUSE TYPES AND GENERIC BOX	9/24/15

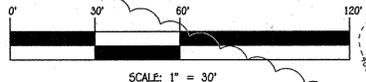
1:20041041515.dwg(SDP) SDP 5, 6 & 8 Sheet 1-3.DWG, Model, 2/4/2014 10:30:28 AM, 1:30



LEGEND	
SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
- - - -	PROPOSED CONTOUR 2' INTERVAL
+	SPOT ELEVATION
→	DRAINAGE FLOW
---	ROOF TOP DISCONNECTION (N1)
---	ROOF LEADER (UNDERGROUND PNC)
---	NON-ROOFTOP DISCONNECTION (N2)
---	USE-IN-COMMON DRIVEWAY EASEMENT
---	EXISTING GRAVEL DRIVEWAY TO BE REMOVED
○	PROPOSED LANDSCAPING PER THIS PLAN
○	EXISTING TREE TO REMAIN - CREDITED
○	EXISTING TREE TO REMAIN - NON-CREDITED
○	EXISTING TREE TO BE REMOVED
○	PERIMETER LANDSCAPE DESIGNATION / LENGTH
X	EXISTING FENCELINE
---	EXISTING TREELINE
---	TREES TO BE SAVED
---	TREE PROTECTION FENCE
---	LIMIT OF DISTURBANCE
---	SILT FENCE
---	SUPER SILT FENCE
---	DIVERSION FENCE



THE EXISTING 3/4\"/>



OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF ROOFTOP RUNOFF (N-1) AND NON ROOFTOP DISCONNECTION RUNOFF (N-2)

1. MAINTENANCE OF AREAS RECEIVING DISCONNECTION RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR UNIMPAVED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPROVED AREA IN COMMERCIAL AREAS FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.
2. SITE DISTURBANCE: CONSTRUCTION VEHICLES AND EQUIPMENT SHOULD AVOID AREAS RECEIVING DISCONNECTED RUNOFF TO MINIMIZE DISTURBANCE AND COMPACTION. SHOULD AREAS RECEIVING DISCONNECTED RUNOFF BECOME COMPACTED, SCRAPING THE SURFACE OR ROLLING THE SOIL TO A DEPTH OF FOUR TO SIX INCHES SHALL BE PERFORMED TO ENSURE PERMEABILITY.

* GRAVITY SEWER SERVICE, FIRST FLOOR ONLY. BASEMENT SEWER SERVICE TO BE PROVIDED BY PRIVATE ON-SITE PUMP. - SEE GENERAL NOTE NO.26

SOILS LEGEND		
SOIL	NAME	CLASS
* Ucb	URBAN LAND-CHILLUM- BELTSVILLE COMPLEX, 0 TO 5 PERCENT SLOPES	D

NOTES:
 *HYDRIC SOILS AND/OR CONTAINS HYDRIC INCLUSIONS
 Web Soil Survey 2.0 National Cooperative Soil Survey
 11/26/2007 Page 5 of 8

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10072 BALTIMORE NATIONAL PIKE
 ELLSWORTH CITY, MARYLAND 21042
 (410) 461 - 2895



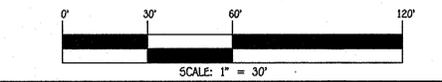
SURVEYOR'S CERTIFICATE
 "I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
 Signature: *Frank John Manalansan II* Date: 2/4/14
 FRANK JOHN MANALANSAN II

BUILDER/DEVELOPER'S CERTIFICATE
 "I/We certify that all development and construction will be done according to this plan, for sediment and erosion control 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 inspection by the Howard Soil Conservation District."
 Signature of Developer: *John G. Rice* Date: 2/4/14
 Signature of Developer: *David T. Maerten* Date: 2/4/14

Reviewed for HOWARD SCD and meets Technical Requirements.
 This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *John R. Klutznick* Date: 2/11/14
 HOWARD SCD

OWNER/DEVELOPER
 MR. JOHN G. RICE
 MR. DAVID T. MAERTEN
 5874 MONTGOMERY ROAD
 ELK RIDGE, MARYLAND 21075
 (240) 882-3049

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development: *Veronica...* Date: 3/07/14
 Chief, Development Engineering Division: *...* Date: 2-27-14
 Director - Department of Planning and Zoning: *...* Date: 2/3/14



APPLICABLE DPZ FILE REFERENCES:
 9-W, SEWER CONTR. NO.10-1133, WAS CONTR. NO.14-3446-D, WP-06-137, F-06-055, F-05-148, F-05-147, F-06-091, Plat #6300, Plat #17391, Plat #22043, L 8772-F-218, L 8782-F-623, L 14238-F-230, F-14-057, Plat #23634

SITE DEVELOPMENT, LANDSCAPE, SEDIMENT AND EROSION CONTROL PLAN
 SINGLE FAMILY DETACHED
HARRIS ACRES
 LOTS 5, 6 & 8
 AND RELOCATION OF DRIVEWAY SERVING LOT 7
 TAX MAP NO.: 37 PARCEL NO.: 12 GRID NO.: 2
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1"=30' DATE: JANUARY 31, 2014
 SHEET 2 OF 3 **SDP-14-008**

1:2004/04/15/14.dwg SDP Lots 5, 6 & 8 Sheet 1-3.DWG Model: 2/4/2014 10:32:16 AM 1:30

SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS (B-4-2)

A. Soil Preparation

- Temporary Stabilization
 - Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
 - Apply fertilizer and lime as prescribed on the plans.
 - Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.
- Permanent Stabilization
 - A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
 - pH between 6.0 and 7.0.
 - Soluble salts less than 500 parts per million (ppm).
 - Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if leovgrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
 - Soil contains 1.5 percent minimum organic matter by weight.
 - Soil contains sufficient pore space to permit adequate root penetration.
 - Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
 - Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.
 - Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.
 - Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

B. Topsoiling

- Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is 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.
- Topsoil salvaged from an existing site may be used provided 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-NRCS.
- Topsoiling 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.
- Areas having slopes steeper than 2:1 require special consideration and design.
- Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:
 - Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, trash, or other materials larger than 1 1/2 inches in diameter.
 - Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
 - Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
 - Topsoil Application
 - Erosion and sediment control practices must be maintained when applying topsoil.
 - Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil must not be placed if 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.

C. Soil Amendments (Fertilizer and Lime Specifications)

- Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
- Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
- Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 90 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 90 to 100 percent will pass through a #20 mesh sieve.
- Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.
- Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

TEMPORARY SEEDING NOTES (B-4-4)

- Definition**
To stabilize disturbed soils with vegetation for up to 6 months.
- Purpose**
To use fast growing vegetation that provides cover on disturbed soils.
- Conditions Where Practice Applies**
Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.
- Criteria**
- Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.
 - For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
 - When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3A.1.b and maintain until the next seeding season.

Temporary Seeding Summary

Hardness Zone (from Figure B.3): 6b				Fertilizer Rate (10-20-20)			Lime Rate
Seed Mixture (from Table B.1):							
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P ₂ O ₅	K ₂ O
BARLEY	96	3/1 - 5/15, 8/15 - 10/15	1"	436 lb/ac (10 lb/1000 sf)	2 tons/ac (50 lb/1000 sf)		
OATS	72		1"				
RYE	112		1"				

PERMANENT SEEDING NOTES (B-4-5)

- A. Seed Mixtures**
- General Use
 - Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
 - Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planning.
 - For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.
 - Turfgrass Mixtures
 - Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
 - Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.
 - Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
 - Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass/Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
 - Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes: Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
 - Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes: Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 square feet.
- Notes:**
Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland".
Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.
- c. Ideal Times of Seeding for Turf Grass Mixtures** Western MD: March 15 to June 1, August 1 to October 1 (Hardness Zones: 5b, 6a) Central MD: March 1 to May 15, August 15 to October 15 (Hardness Zones: 6b) Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardness Zones: 7a, 7b)
- d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1 1/2 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.**
- e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.**

Permanent Seeding Summary

Hardness Zone (from Figure B.3): 6b				Fertilizer Rate (10-20-20)			Lime Rate
Seed Mixture (from Table B.3):							
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P ₂ O ₅	K ₂ O
8	TALL FESCUE	100	Mar. 1-May 15, Aug. 15-Oct. 15	1/4-1/2 in.	45 lb. (2 lb./1000 sf)	90 lb./ac (22 lb./1000 sf)	2 tons/ac (50 lb./1000 sf)

B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

- General Specifications
 - Classes of turfgrass sod must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector.
 - Sod must be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 1/4 inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable.
 - Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
 - Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
 - Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period ~~must be approved~~ by an agronomist or soil scientist prior to its installation.
- During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod.
 - Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.
 - Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.
 - Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping, and irrigating for any piece of sod within eight hours.
- Sod Maintenance
 - In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day to prevent wilting.
 - After the first week, sod watering is required as necessary to maintain adequate moisture content.
 - Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

B-4-B STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREAS

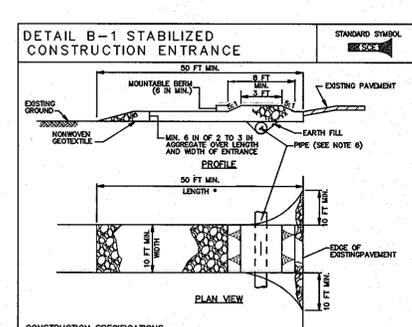
A mound or pile of soil protected by the appropriately designed erosion and sediment control measures.
Purpose
To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.
Conditions Where Practice Applies
Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

- The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
- The topsoil of the stockpile must be stored to accommodate the indicated volume of material and based on a side slope ratio no steeper than 2:1. Bunching must be provided in accordance with Section B-3 Land Grading.
- Runoff from the stockpile area must drain to a suitable sediment control practice.
- Access the stockpile area from the up-slope side.
- Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.
- Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.
- Stockpiles must be established in accordance with the 3:7 day establishment requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.
- If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting.

HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

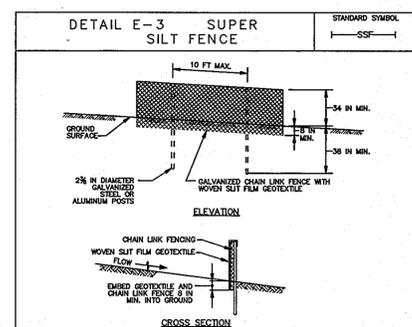
- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1055).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THEREOF.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN A) 3 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). 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 PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:

TOTAL AREA OF SITE	2.49 ACRES
AREA DISTURBED	2.14 ACRES
AREA TO BE ROOFED OR PAVED	0.46 ACRES
AREA TO BE VEGETATIVELY STABILIZED	1.69 ACRES
TOTAL CUT	910 CU.YDS.
TOTAL FILL	1,712 CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION	N/A
- ANY SEDIMENT CONTROL PRACTICE THAT 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 SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
- ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
- A PROJECT IS TO BE GRADED IN SEVERAL GRADING UNITS (MAXIMUM ACREAGE OF 20 ACRES PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PROCEEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY, UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.



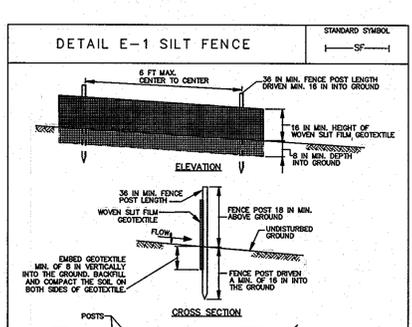
- CONSTRUCTION SPECIFICATIONS**
- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SOE. USE MINIMUM LENGTH OF 50 FEET (30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. PLACE SOE TO FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
 - PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SOE UNDER THE ENTRANCE. MAINTAIN POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SOE WITH A MOUNTABLE BEAM BARRIER AND A MINIMUM OF 18 INCHES OF 2" X 4" JOIST. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SOE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT ACCEPTABLE. A MOUNTABLE BEAM BARRIER IS NOT LOCATED AT A HIGH SPOT.
 - PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
 - PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) ON EQUIVALENT RECYCLED CONCRETE (WITHOUT FIBER) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SOE.
 - MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT AND STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAR SURFACE. MAINTAINABLE BEAM BARRIER DIMENSIONS: IMMEDIATELY REMOVE STONE AND/OR SEDIMENT, SLOPPED, OR TRACKED ONTO ADJACENT ROADWAY BY GEOTEXTILE AND CHAIN LINK FENCE. MAINTAIN FENCE TO REMAIN AND TRACKED ON PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



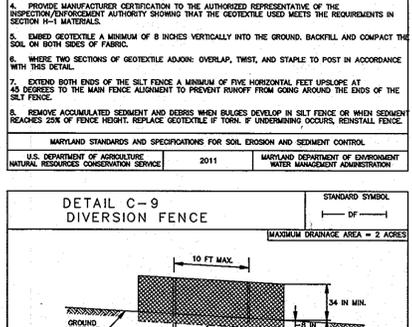
- CONSTRUCTION SPECIFICATIONS**
- INSTALL 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
 - FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2 1/2 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR RING RODS.
 - FASTEN WOVEN SILT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. ENDED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
 - WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEEDING BY PASS.
 - EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF 6 HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
 - PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USE MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
 - REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



- CONSTRUCTION SPECIFICATIONS**
- USE WOOD POSTS 2" X 4" OR 3" X 6" (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD, OR AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "V" SECTION STEEL POSTS WELDING NOT LESS THAN 1/4 INCH BORE LINEAR SURFACE.
 - USE 36 INCH MINIMUM POSTS DRIVE 18 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
 - USE WOVEN SILT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
 - PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
 - ENDED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND, BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF GEOTEXTILE.
 - EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF 6 HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
 - REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



- CONSTRUCTION SPECIFICATIONS**
- USE 42 INCH HIGH, 9 GAUGE OR THICKER CHAIN LINK FENCING (2 1/2 INCH MAXIMUM OPENING).
 - USE 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS DO NOT NEED TO BE SET IN CONCRETE.
 - FASTEN CHAIN LINK FENCE SECURELY TO THE FENCE POSTS WITH WIRE TIES.
 - SECURE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT TOP, MID SECTION, AND BELOW GROUND SURFACE.
 - EXTEND SHEETING A MINIMUM OF A FEET ALONG FLOW SURFACE AND ENDED END A MINIMUM OF 8 INCHES INTO GROUND. SOIL STABILIZATION MATTING MAY BE USED IN LIEU OF IMPERMEABLE SHEETING ALONG FLOW SURFACE.
 - JOIN TWO SECTIONS OF SHEETING AGAIN EACH OTHER, OVERLAP BY 6 INCHES AND FOLD WITH SEAM FACING DOWNSTREAM.
 - KEEP FLOW SURFACE ALONG DIVERSION FENCE AND POINT OF DISCHARGE FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN MAINLINE DRAINAGE. REPLACE IMPERMEABLE SHEETING IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SEQUENCE OF CONSTRUCTION

- OBTAIN A GRADING PERMIT AND HOLD PRE-CONSTRUCTION MEETING WITH COUNTY INSPECTOR. (2 WEEKS)
 - NOTIFY "HES UTILITY" AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 AT LEAST 24 HOURS BEFORE STARTING WORK.
 - INSTALL THE STABILIZED CONSTRUCTION ENTRANCE, TREE PROTECTION FENCE, SUPER SILT FENCE, SILT FENCE AND DIVERSION FENCE. (3 DAYS)
 - CLEAR AND GRUB TO THE LOD. (1 WEEK)
 - INSTALL TEMPORARY SEEDING. (3 DAYS)
 - CONSTRUCT PROPOSED PERMANENT TO SEVE LOTS 5-9 - SEE GENERAL NOTES NO.10 AND NO.20. (1 WEEK)
 - CONSTRUCT BUILDINGS. (6-12 MONTHS)
 - ONE GRADE SITE AND INSTALL PERMANENT SEEDING. (2 WEEKS)
 - ALL FINAL GRADES AND STABILIZATION SHOULD BE COMPLETED BEFORE ANY REMOVAL OF CONTROLS, WHEN ALL CONTRIBUTING AREAS TO THE SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, THE SEDIMENT CONTROL DEVICES MAY BE REMOVED. (3 DAYS)
- NOTE: THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE EACH RAINFALL AND ON A DAILY BASIS.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-3999

NO.	REVISION	DATE

SURVEYOR'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."

Signature: *Frank John Mawlan II* Date: 2/4/14
FRANK JOHN MAWLAN II

BUILDER/DEVELOPER'S CERTIFICATE
"I/We certify that all development and construction will be done according to this plan, for sediment and erosion control 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 inspection by the Howard Soil Conservation District."

Signature: *John G. Rice* Date: 2/4/14
Signature of Developer: *David T. Maerten* Date: 2/4/14

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Signature: *John R. Robertson* Date: 2/4/14
John R. Robertson
Howe County SCD

OWNER/DEVELOPER
MR. JOHN G. RICE
MR. DAVID T. MAERTEN
5874 MONTGOMERY ROAD
ELK RIDGE, MARYLAND 21075
(240) 892-3049

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Signature: *John G. Rice* Date: 3/07/14
Signature: *David T. Maerten* Date: 2-27-14
Signature: *John G. Rice* Date: 2/3/14

Chief, Division of Land Development
Chief, Development Engineering Division
Director - Department of Planning and Zoning

SCALE: 1" = 30'

APPLICABLE DPZ FILE REFERENCES:
9-W, SEWER CONTR. NO.10-1133, W&S CONTR. NO.14-3446-0, WF-06-137, F-06-055, F-05-148, F-05-147, F-06-081, Plat #6300, Plat #17391, Plat #22043, L 8772-F-218, L 8782-F-629, L 14238-F-290, F-14-057, Plat #23634

SEDIMENT/EROSION CONTROL NOTES AND DETAILS

SINGLE FAMILY DETACHED
HARRIS ACRES
LOTS 5, 6 & 8
AND RELOCATION OF DRIVEWAY SERVING LOT 7

TAX MAP NO.: 37 PARCEL NO.: 12 GRID NO.: 2
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: JANUARY 31, 2014
SHEET 3 OF 3 SDP-14-008