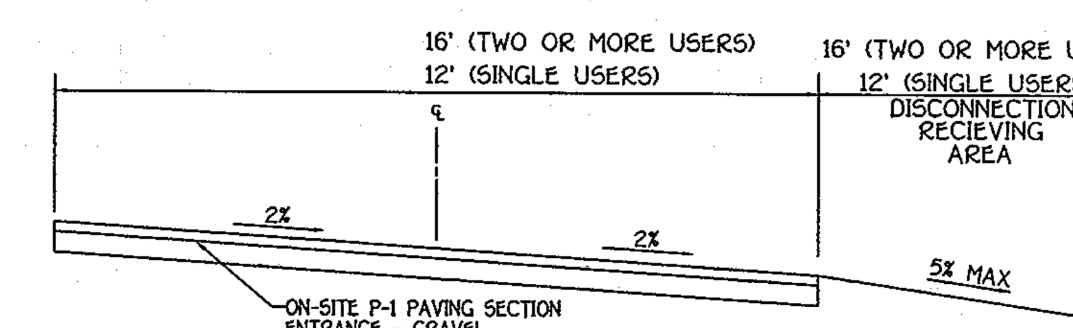
LEGEND

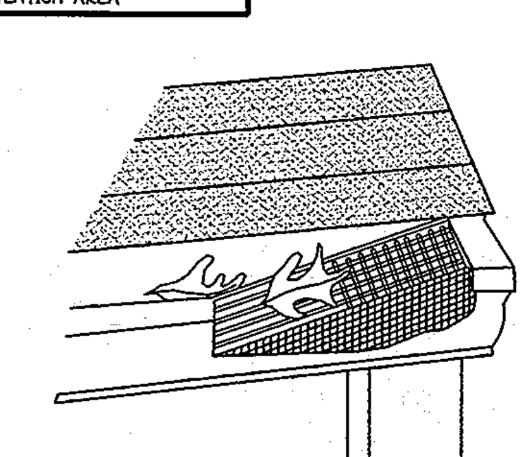
SYMBOL	DESCRIPTION
492	EXISTING 2' CONTOURS
490	EXISTING 10' CONTOURS
482	PROPOSED CONTOUR
+362.5	SPOT ELEVATION
LOD	LIMITS OF DISTURBANCE
	EXISTING TREELINE
	PROPOSED TREELINE
	PROPOSED PAVING
	NON-ROOFTOP DISCONNECTION
GLB2 / MLC2	SOILS LINES AND TYPE
SSF	SUPER SILT FENCE
SCE	STABILIZES CONSTRUCTION ENTRANCE
	FOREST RETENTION AREA



NOTE:
ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.

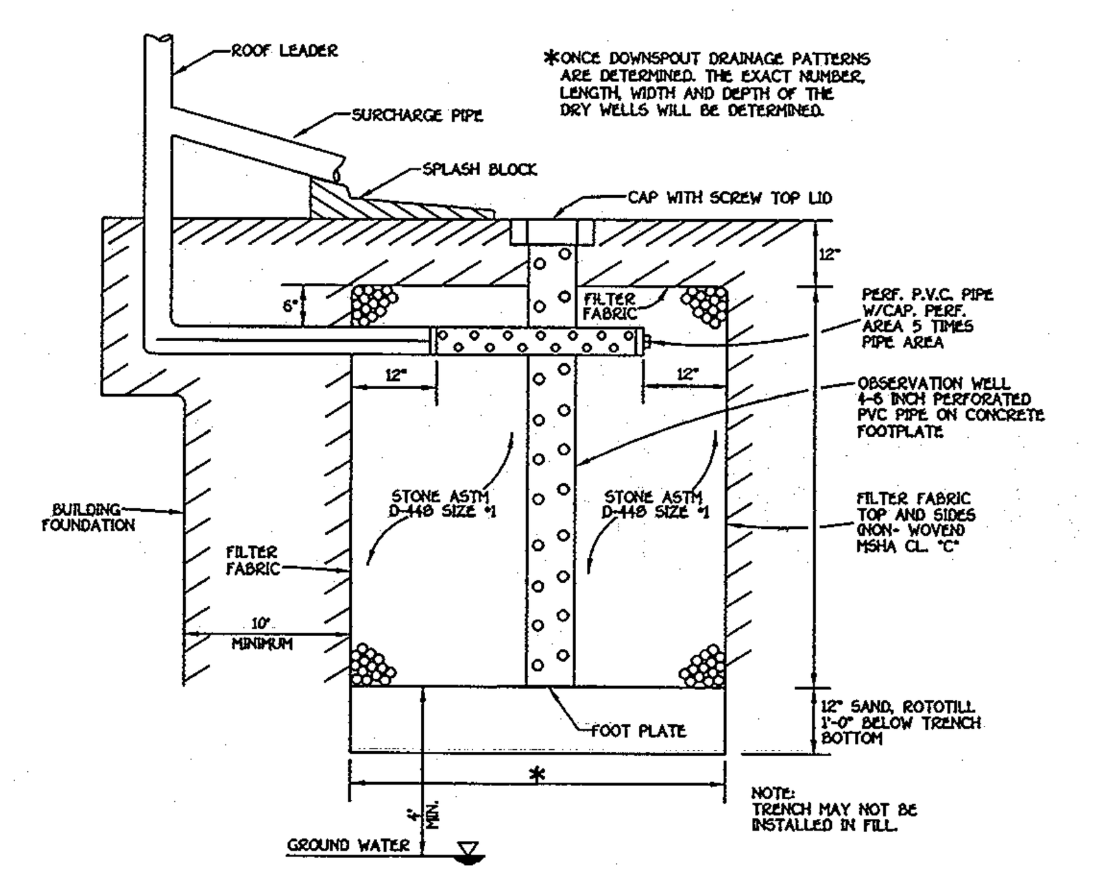
TYPICAL PRIVATE DRIVE CROSS SLOPE SECTION

NOT TO SCALE



GUTTER DRAIN FILTER DETAIL

NOT TO SCALE



DRY WELL DETAIL

NOT TO SCALE

DRY WELL CHART				
DRYWELL NO.	AREA OF ROOF PER DOWN SPOUT	VOLUME REQUIRED	VOLUME PROVIDED	*L W D
1	280 SQ. FT.	26.6 C.F.	28.8 C.F.	8' x 2' x 4.5'
2	235 SQ. FT.	42.41 C.F.	44.8 C.F.	8' x 4' x 3.5'
3	250 SQ. FT.	21.78 C.F.	24 C.F.	5' x 4' x 3.0'
4	615 SQ. FT.	48.68 C.F.	51.2 C.F.	8' x 4' x 3.5'

STORMWATER MANAGEMENT NOTES

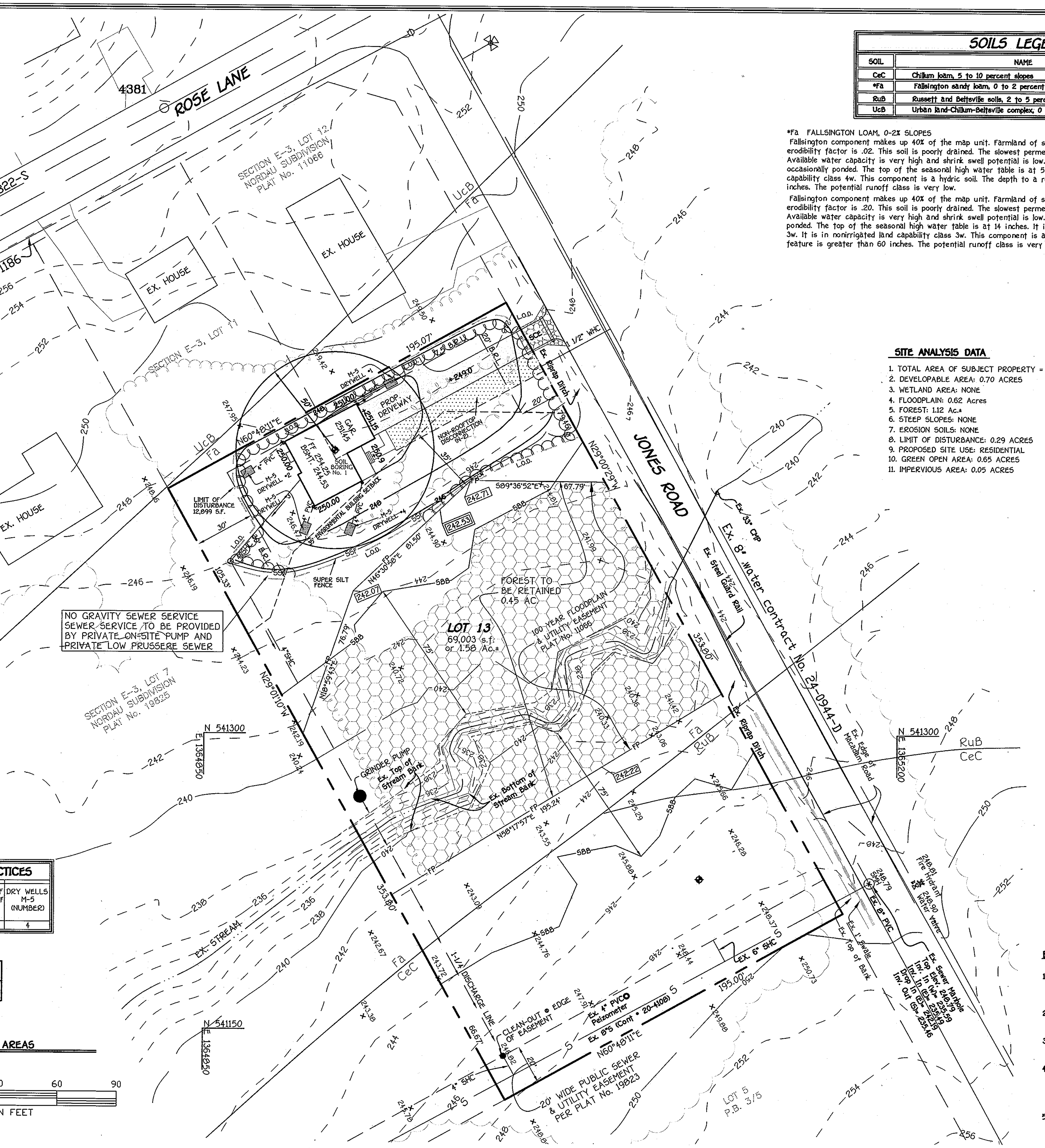
1. STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
2. MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 1000 SQ. FT OR LESS.
3. DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5%. THE SIZE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.
4. FINAL GRADING WILL BE SHOWN AT THE SITE DEVELOPMENT PLAN STAGE.

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

1. MAINTENANCE OF AREAS RECEIVING DISCONNECTION RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREA. IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)

a. THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT.
b. THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO INSURE TRENCH DRAINAGE.
c. THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
d. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTY-TWO (72) HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
e. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
f. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

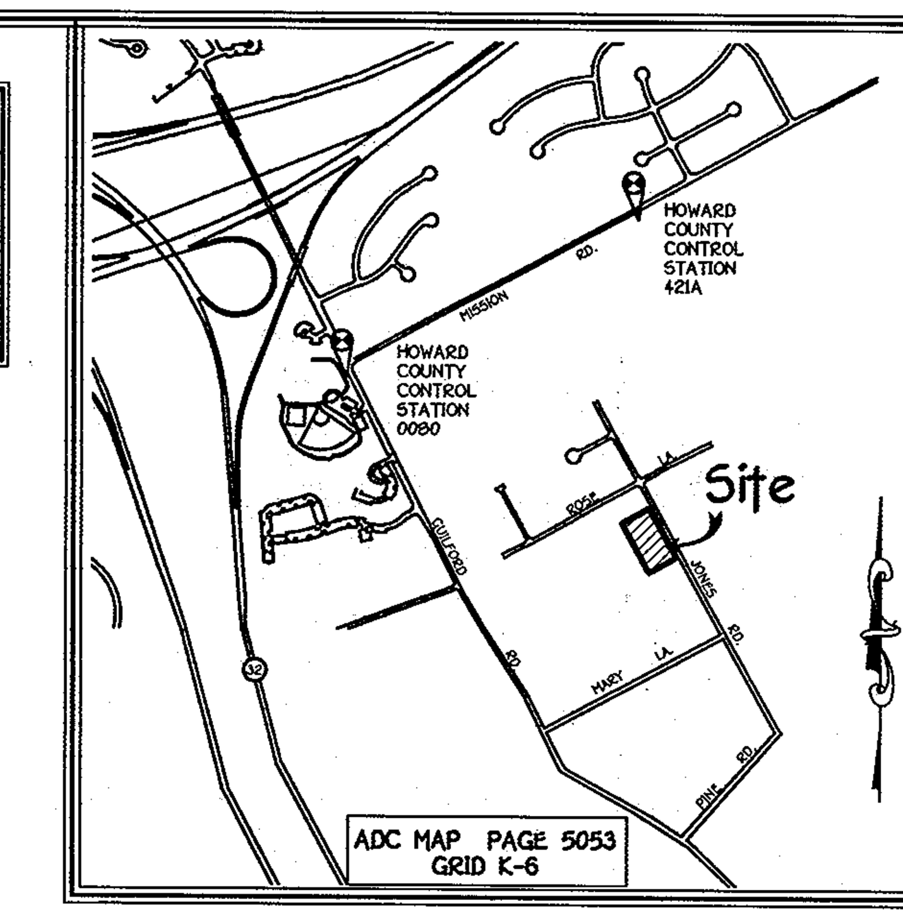


SOILS LEGEND

SOIL	NAME	CLASS
CeC	Chillum loam, 5 to 10 percent slopes	B
*Fa	Fallsington sandy loam, 0 to 2 percent slopes	B
RuB	Russett and Beltsville soils, 2 to 5 percent slopes	C
UcB	Urban land-Chillum-Beltsville complex, 0 to 5 percent slopes	B/C

*Fa FALLSINGTON LOAM, 0-2% SLOPES
Fallsington component makes up 40% of the map unit. Farmland of statewide importance. The assigned Kw erodibility factor is .02. This soil is poorly drained. The slowest permeability within 60 inches in moderate. Available water capacity is very high and shrink swell potential is low. This soil is not flooded and is occasionally ponded. The top of the seasonal high water table is at 5 inches. It is in nonirrigated land capability class 4w. This component is a hydric soil. The depth to a restrictive feature is greater than 60 inches. The potential runoff class is very low.

Fallsington component makes up 40% of the map unit. Farmland of statewide importance. The assigned Kw erodibility factor is .20. This soil is poorly drained. The slowest permeability within 60 inches is moderate. Available water capacity is very high and shrink swell potential is low. This soil is not flooded and is rarely ponded. The top of the seasonal high water table is at 14 inches. It is in the irrigated land capability class 3w. It is in nonirrigated land capability class 3w. This component is a hydric soil. The depth to a restrictive feature is greater than 60 inches. The potential runoff class is very low.



VICINITY MAP

SCALE : 1" = 1200'

SITE ANALYSIS DATA

1. TOTAL AREA OF SUBJECT PROPERTY = 1.58 ACRES
2. DEVELOPABLE AREA: 0.70 ACRES
3. WETLAND AREA: NONE
4. FLOODPLAIN: 0.62 Acres
5. FOREST: 1.12 Ac.±
6. STEEP SLOPES: NONE
7. EROSION SOILS: NONE
8. LIMIT OF DISTURBANCE: 0.29 ACRES
9. PROPOSED SITE USE: RESIDENTIAL
10. GREEN OPEN AREA: 0.65 ACRES
11. IMPERVIOUS AREA: 0.05 ACRES

General Notes:

1. Previous Department Of Planning And Zoning File Number: F-92-166 & F-08-144.
2. Fee In Lieu In The Amount Of $10,236.60 Based On 0.47 Acres X 43,560 Sq.Ft/Acre x $0.50 / Sq.ft. IS Required For Forest Conservation.
3. The SWM Measures Illustrated On This Plan Are Conceptual As Specific House Configurations Have Not Yet Been Established. Specific SWM Measures Will Be Provided With The Associated Plot Plan When Final Design Details Can Be Provided.
4. Elevations Are Based On Field Run Topographic Survey Performed April, 2011 By Fisher, Collins & Carter, Inc.
5. The 100 yr Floodplain & Utility Easement, 25' Wetland Buffer And 75' Stream Bank Buffer Where Approved Under Plat No. 11066 "Nordau Subdivision", Section E-3 Lots 11, 12 & 13, A Resubdivision Of Lot 6 Recorded, On December 15, 1993.

FOREST CONSERVATION WORKSHEET
NORDAU SUBDIVISION

NET TRACT AREA:

A.	Total tract area	1.58 Ac.
B.	Land dedication acres (parks, county facility, etc.) ...	0.00 Ac.
C.	Land dedication for roads or utilities (not being constructed by this plan) ...	0.00 Ac.
D.	Area to remain in commercial agricultural production/use ...	0.00 Ac.
E.	Other deductions (specify)	0.62 Ac.
F.	Net Tract Area =	0.96 Ac.

LAND USE CATEGORY: (from Trees Technical Manual)
Input the number "1" under the appropriate land use, limit to only one entry.

ARA	MDR	IDA	HDR	MPD	CIA
0	0	0	1	0	0

G.	Afforestation Threshold ...	15%	x F =	0.14
H.	Conservation Threshold ...	20%	x F =	0.19

EXISTING FOREST COVER:

I.	Existing forest cover =	0.56 Ac.
J.	Area of forest above afforestation threshold =	
K.	Area of forest above conservation threshold =	0.37 Ac.

BREAK EVEN POINT:

L.	Forest retention above threshold with no mitigation =	0.26 Ac.
M.	Clearing permitted without mitigation =	0.30 Ac.

PROPOSED FOREST CLEARING:

N.	Total area of forest to be cleared =	0.56 Ac.
O.	Total area of forest to be retained =	0.00 Ac.

PLANTING REQUIREMENTS:

P.	Reforestation for clearing above conservation threshold =	0.09 Ac.
Q.	Reforestation for clearing below conservation threshold =	0.38 Ac.
R.	Credit for retention above conservation threshold =	0.00 Ac.
S.	Total reforestation required =	0.47 Ac.
T.	Total afforestation required =	0.00 Ac.
U.	Credit for landscaping (may not exceed 20% of "S") =	0.00 Ac.
V.	Total reforestation and afforestation required =	0.47 Ac.

Stormwater Management requirements for this site will be met using Environmental Site Design to the Maximum Extent Possible in accordance with the Maryland Stormwater Design Manual, Volumes I & II, effective May, 2010. Proposed practices will be located on Lot 13 as follows:

1. Stormwater requirements will be met by using Dry Wells (M-5) for Rooftop runoff. The Driveway runoff will be treated by using Non-Rooftop Disconnection (N-2). These facilities will provide the required ESD volumes for the proposed house and Driveway. These practices shall be privately owned and maintained in accordance with individual Declarations of Covenants.

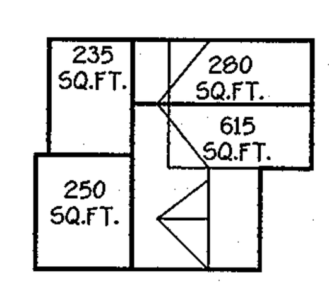
ESD Narrative:

1. There is an existing natural resource, as shown in Table 5.1 of the Maryland Stormwater Management (SWM) Design Manual (Manual), located on the site. It Consists of a 100-Year Floodplain and associated Buffers.
2. The existing drainage patterns will maintained as closely as possible during and after the development of the site.
3. Efforts have been made to reduce the impervious areas; the final house type has been selected, it may be possible to reduce the site imperviousness though better site design.
4. The required Sediment and Erosion control measures consisting of super silt fence; a stabilized construction entrance and Erosion Control Matting have been designed in accordance with the latest Howard County Soil Conservation District and Maryland Department of the Environment regulations. Based on the type and location of the ESD practices, there was no need to incorporate these measures into the SWM strategy.
5. The proposed Environmental Site Design measures have been implemented to the Maximum Extent Possible and meet the targeted Pe for this site. As such, no major structural practices as described in Chapter 3 of the above cited Manual will be required.

IMPERVIOUS AREA

HOUSE - 1,400 SQ.FT.
DRIVEWAY - 900 SQ.FT.
TOTAL 2,300 SQ.FT.

STORMWATER MANAGEMENT PRACTICES			
LOT No.	ADDRESS	DISCONNECTION OF NON-ROOFTOP RUNOFF N-2 (Y/N)	DRY WELLS M-5 (NUMBER)
1	7956 JONES ROAD	Y	4



ROOFTOP DRAINAGE AREAS

30 15 0 30 60 90
SCALE IN FEET

DATE	DESCRIPTION REVISION BLOCK

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

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. 20784, EXPIRATION DATE: 2/22/13.

ALDO M. VITUCCI — 9/13/11
DATE

OWNER/BUILDER
BENCHMARK HOMES, INC.
C/O CHRIS WHITEHEAD
8450 SAVAGE GUILFORD RD.
SAVAGE, MD. 20763

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 9/19/11

Chief, Development Engineering Division — Date 9/20/11

SUBDIVISION				SECTION/AREA	LOT NO.
NORDAU SUBDIVISION				N/A	13
PLAT NUMBER	PARCEL NO.	ZONE	TAX MAP	ELEC. DIST.	CENSUS TR.
19823	P/O 369	R-12	42	6th	

ENVIRONMENTAL CONCEPT PLAN

"NORDAU SUBDIVISION"

SECTION E-3, LOT 13

TAX MAP No.: 42 GRID No.: 24 PARCEL No.: 369

Sixth ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: 1"=30' DATE: SEPTEMBER 12, 2011

SHEET 1 OF 1

ECP-11-066