

ENVIRONMENTAL CONCEPT PLAN

ECP-13-016

HOLIDAY HILLS LOTS 105 AND 106

A RESUBDIVISION LOT 43 SECOND ADDITION TO HOLIDAY HILLS SUBDIVISION PLAT BOOK 13525, FOLIO 372

SITE DATA
 LOCATION: TAX MAP 41, GRID 6, PARCEL 220
 DEED REFERENCE: L.13525 F.372
 5TH ELECTION DISTRICT
 EXISTING ZONING: R-20
 PER THE COMPREHENSIVE ZONING PLAN DATED 2/02/04.
 GROSS AREA OF PARCEL: 1.0031 AC.
 AREA OF FLOODPLAIN: 0.00000 AC.
 AREA OF STEEP SLOPES: N/A
 NET AREA OF PROJECT: 1.0031 AC
 NUMBER OF RESIDENTIAL LOTS PROPOSED: 2 LOTS
 AREA OF PROPOSED RESIDENTIAL LOTS: 43,693 SF (1.00 AC)
 AREA OF SMALLEST BUILDABLE LOT PROPOSED: 21,846 SF
 NUMBER OF PROPOSED OPEN SPACE LOTS: 0
 NUMBER OF NON-BUILDABLE BULK PARCELS: 0

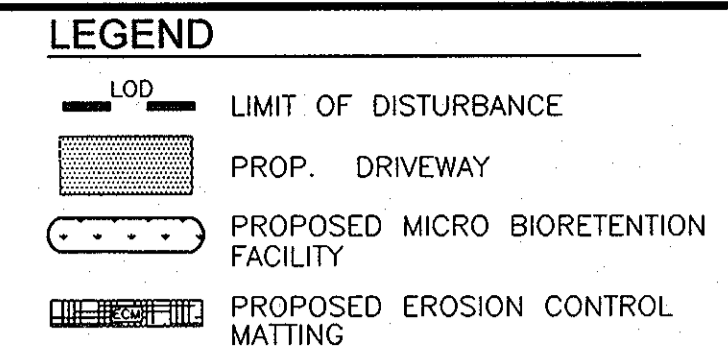
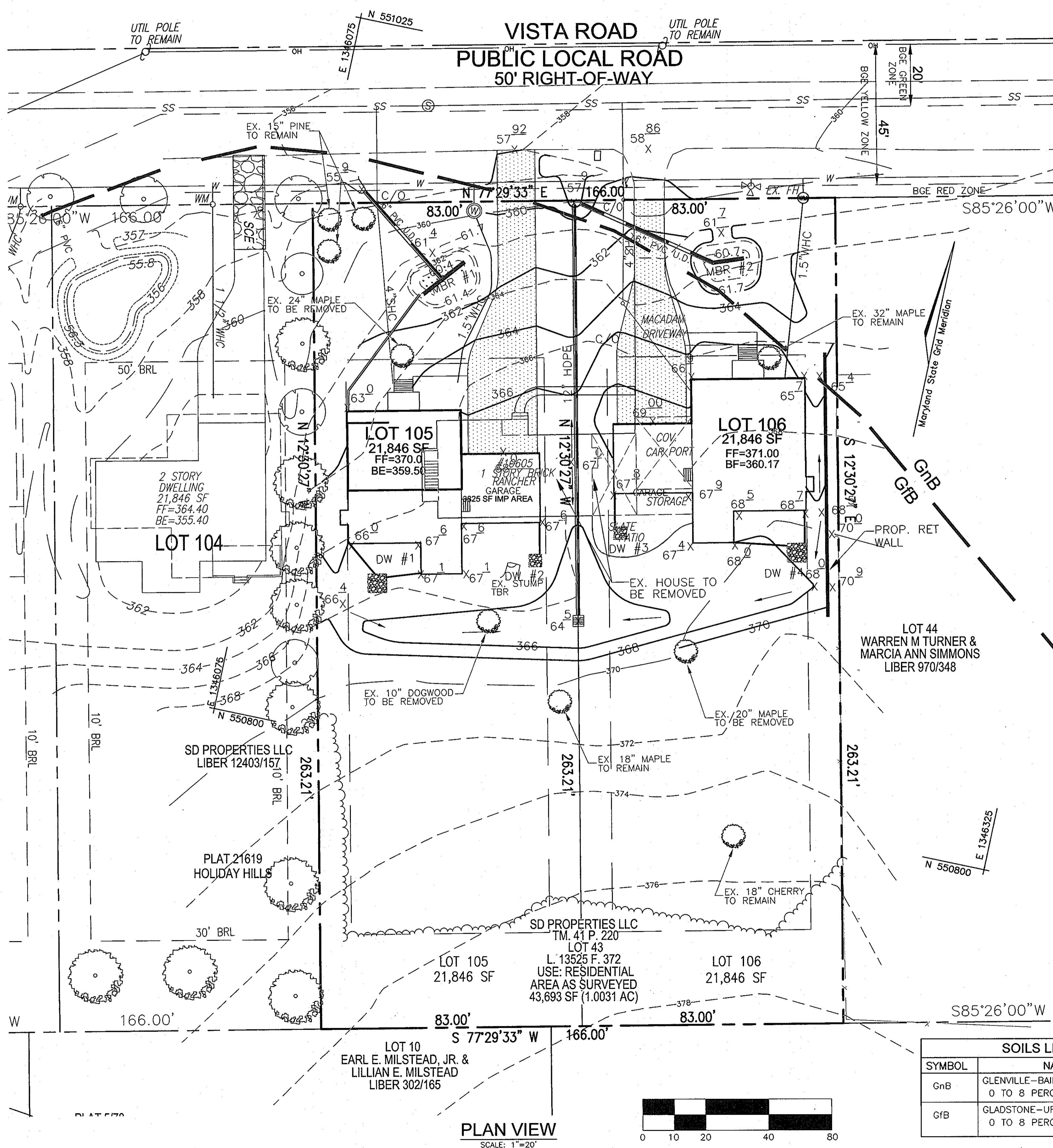
GRADING DATA
 TOTAL DISTURBED AREA = 0.552 AC
 IMPERVIOUS COVER = 0.149 AC
 AREA TO BE STABILIZED = 0.403 AC

- GENERAL NOTES**
- THE PROJECT BOUNDARY IS BASED ON A FIELD RUN BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC. IN AUGUST 2012.
 - THE TOPOGRAPHY SHOWN HEREON IS BASED ON FIELD RUN TOPOGRAPHY PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC. IN AUGUST 2012.
 - PUBLIC WATER AVAILABLE THROUGH CONTRACT 34-1810-D AND PUBLIC SEWER AVAILABLE THROUGH CONTRACT 30-3123-D. WATER AND SEWER SERVICE WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122B OF THE HOWARD COUNTY CODE.
 - THIS PROJECT IS EXEMPT FROM Cpv STORM WATER MANAGEMENT SINCE THE SITE P_e IS LESS THAN 1".
 - THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT.
 - SUBJECT PROPERTY ZONED R-20 PER 2/02/04 COMPREHENSIVE ZONING PLAN, AND AMENDED BY THE COMPREHENSIVE LITE AMENDMENT DATED 07/28/06.
 - THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS (COUNCIL BILL 45-2003). 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.
 - THE EXISTING DWELLING/STRUCTURE AND SHED LOCATED ON THIS SITE ARE TO BE REMOVED PRIOR TO RECORDATION OF THIS PLAN.
 - THE FOREST CONSERVATION OBLIGATION WILL BE MET BY A FEE-IN-LIEU PAYMENT OF \$6,534.00 MADE OUT TO HOWARD COUNTY FOREST CONSERVATION FUND FOR THE 0.20 ACRE FORESTATION REQUIREMENT FOR THIS PROJECT.
 - STORM WATER MANAGEMENT ADDRESSED FOR SITE USING 2007 MARYLAND STORMWATER DESIGN MANUAL (CHAPTER 5).
 - CHANNEL PROTECTION VOLUME (CPV) IS NOT REQUIRED (P_e FOR ENTIRE SITE IS UNDER 1.0")
 - WATER QUALITY VOLUME (WQV) AND RECHARGE VOLUME (REV) TO BE PROVIDED BY MICRO BIORETENTION FACILITIES AND OPEN CHANEL FLOW (WHEN IMPERVIOUS AREAS CAN NOT BE DIRECTED TO ONE OF THE MICRO BIORETENTION FACILITIES)
 - THERE ARE NO FLOODPLAINS, STREAMS, STEEP SLOPES, WETLANDS OR THEIR BUFFERS LOCATED ON THIS SITE.
 - SITE DEVELOPMENT PLAN APPROVAL BY THE DEPARTMENT OF PLANNING AND ZONING IS REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED FOR THE CONSTRUCTION OF RESIDENTIAL DWELLINGS ON THESE LOTS.
 - THIS DEVELOPMENT IS DESIGNED TO BE IN ACCORDANCE WITH SECTION 16.127 RESIDENTIAL INFILL DEVELOPMENT OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE DEVELOPER OF THIS PROJECT SHALL CREATE COMPATIBILITY WITH THE EXISTING NEIGHBORHOOD THROUGH THE USE OF ENHANCED PERIMETER LANDSCAPING, BERMS, FENCES, SIMILAR HOUSING UNIT TYPES AND THE DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSES.
 - APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION AND/OR SITE DEVELOPMENT PLAN.
 - REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION AND SITE PLAN STAGES. THEREFORE THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED COMMENTS (INCLUDING THOSE THAT MAY ALTER OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES.
 - 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.
 - A FOREST STAND DELINEATION WAS PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC., DATED AUGUST 2012. FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL SHALL BE COMPLIED WITH.

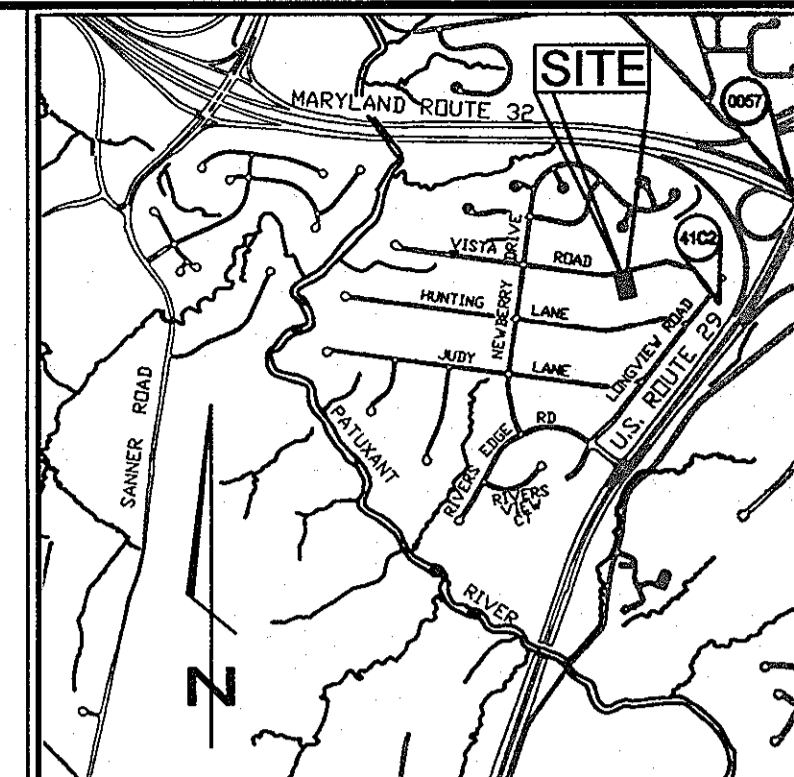
SWM NARRATIVE

THE STORMWATER MANAGEMENT FOR THIS SITE HAS BEEN DESIGN TO PRESERVE THE NATURAL RESOURCES TO THE MAXIMUM EXTENT POSSIBLE. MICRO BIORETENTION FACILITIES AND DRYWELLS WERE USED WHERE IT WAS NOT FEASIBLE TO USE NON STRUCTURAL MEASURES. THE P_e FOR THE SITE WAS 1.0", SO CPV WAS NOT REQUIRED FOR THIS SITE. MANY OF THE EXISTING TREES AND NATURAL FEATURES FOR THIS SUBDIVISION HAVE BEEN SAVED TO KEEP THE EXISTING CHARACTERISTICS IN TACT. DRYWELLS WERE USED ON THE BACKS OF THE LOTS WHERE OVERLAND DRAINAGE TO THE MICRO BIORETENTION FACILITIES WAS NOT FEASIBLE. MANY OF THE SLOPES ON THE SITE EXCEEDED 5% SO DISCONNECTS AND OTHER TYPES OF NON STRUCTURAL MEASURES WERE NOT PRACTICAL. OVERALL, THE ORIGINAL NATURAL INTEGRITY OF THIS SITE IS PRESERVED AS MUCH AS IS PRACTICAL.

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 3/26/13
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 3/21/13
 CHIEF, DIVISION OF LAND DEVELOPMENT



BENCHMARKS
 HOWARD COUNTY BENCHMARK 41C2N
 N 551,616.4187 E 1,348,104.2341
 HOWARD COUNTY BENCHMARK 0057N
 N 550,835.2139 E 1,347,017.6897



VICINITY MAP
 SCALE: 1"=2000'
 ADC MAP 5052, J-2

FOREST CONSERVATION WORKSHEET
Version 1.0

Project: 10605 Vista Road
Date: August 28, 2012

NET TRACT AREA		Acres
A. Total tract area		1.0
B. Area within 100 Year Floodplain		0
C. Area of site included in overhead transmission line		0
D. Net Tract Area		1.0

LAND USE CATEGORY: (from table 3.2.1, page 40, Manual)
 ARA MDR IDA HDR MPD CIA

	(percentage)	0.15	0.2
E. Afforestation Threshold	X	0.15	0.2
F. Conservation Threshold	(percentage)	0.20	0.2

EXISTING FOREST COVER:

G. Existing forest cover (excluding floodplain)	0
H. Area of forest above afforestation threshold	0
I. Area of forest above conservation threshold	0

BREAK EVEN POINT:

J. Forest retention above threshold with no mitigation	-
K. Clearing permitted without mitigation	Break-Even Point

PROPOSED FOREST CLEARING

L. Total area of forest to be Cleared or Retained Outside FCE	0.0
M. Total area of forest to be Retained in FCE	0.0

PLANTING REQUIREMENTS

N. Reforestation for clearing above Conservation Threshold	0
P. Reforestation for clearing below Conservation Threshold	0
Q. Credit for retention above conservation threshold	0
R. Total reforestation required	0
S. Total afforestation required	0.2
T. Total reforestation and afforestation required	0.2

FOREST STAND ANALYSIS TABLE

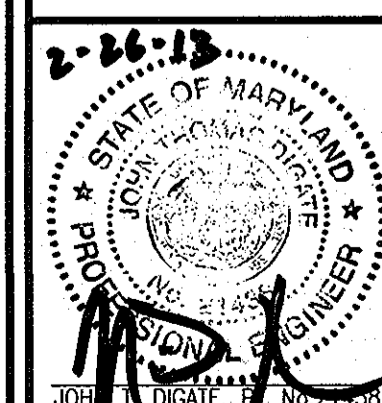
KEY	TYPE OF COMMUNITY	AREA	SOILS INFORMATION				EXISTING VEGETATION	STAND CHARACTERISTICS			FOREST AREA BY GEN. INV.
			1. SOILS TYPES	2. TYPICAL FOREST COVER FOR SOILS TYPE	3. WOODLAND HABITAT	4. HABITAT INDEX		1. SIZE (DIA)	2. AGE (YRS)	3. GEN. COND.	
L-1	LAWN AND OPEN FIELD	1.00 AC	G/B	MIXED UPLAND HARDWOODS, MAINLY OAKS	12	1	MAINTAINED LAWN	12-27"	30-5'	FAR	0.00 AC

OWNERS
 SD PROPERTIES
 3138 ROGERS AVENUE
 ELLICOTT CITY, MARYLAND 21043
 (410-203-2460)

NO.	REVISION	DATE

ENVIRONMENTAL CONCEPT PLAN
COVER SHEET
HOLIDAY HILLS
LOTS 105 AND 106
 A RESUBDIVISION LOT 43 OF
 HOLIDAY HILLS, PLAT BOOK 13525-FOLIO 372
 TAX MAP 41, GRID 6 PARCEL 220
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL
ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7866 FAX: 410.461.8961



DESIGN BY: JTD
 DRAWN BY: JTD
 CHECKED BY: RHV
 DATE: AUGUST, 2012
 SCALE: AS SHOWN
 W.O. NO.: 12-29

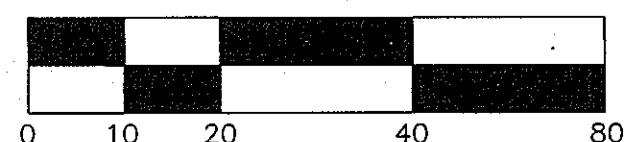
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12148 EXPIRATION DATE: 12-18-2012.

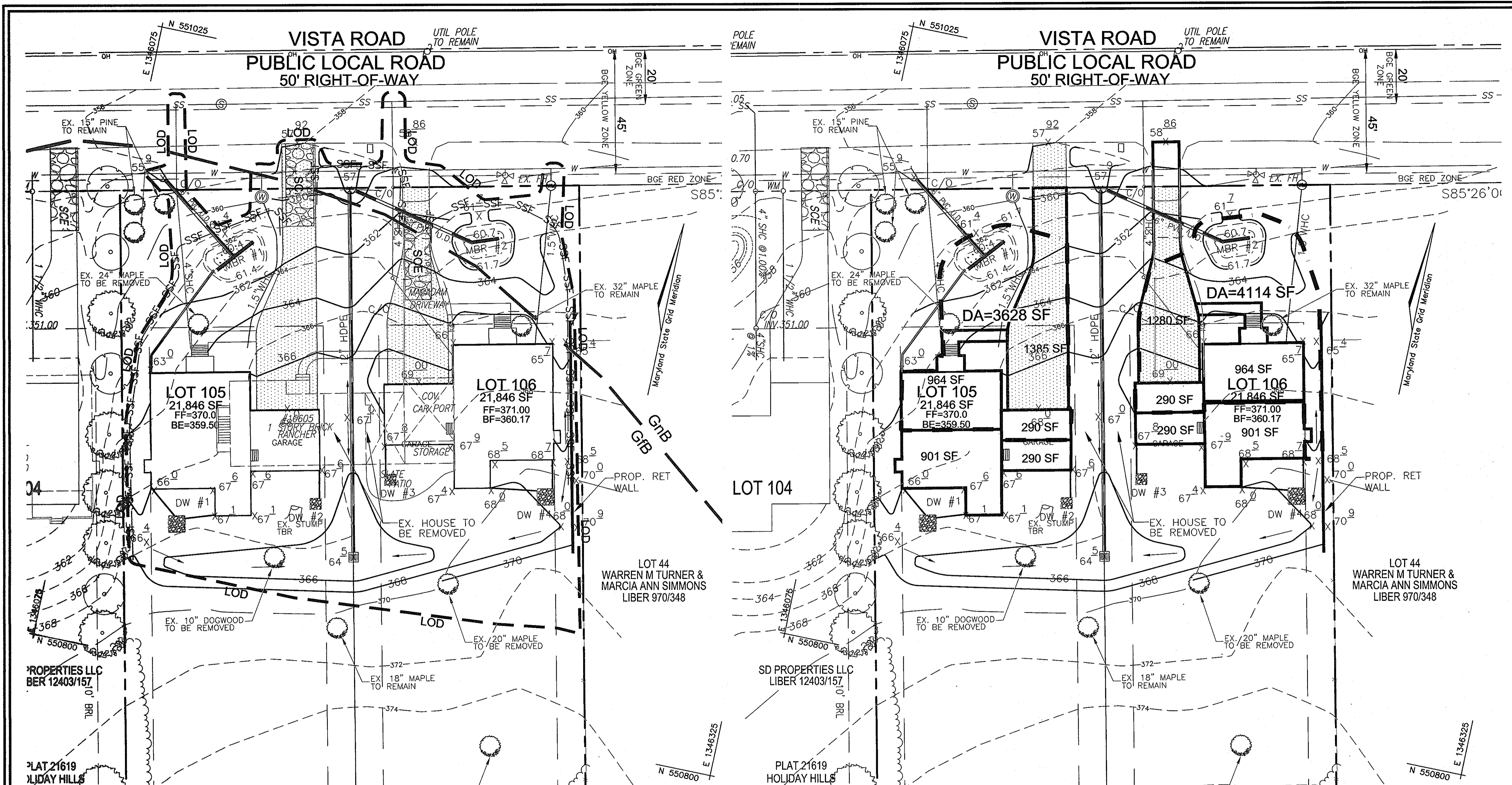
1 SHEET OF 2

SOILS LEGEND

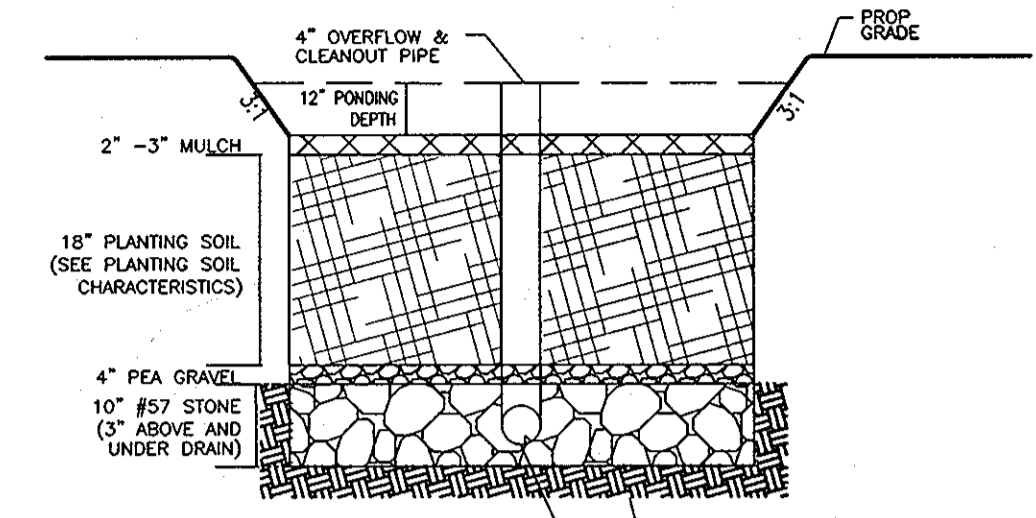
SYMBOL	NAME/DESCRIPTION	TYPE
GnB	GLENVILLE-BAILE SILT LOAM 0 TO 8 PERCENT SLOPES	C
G/B	GLADSTONE-URBAN LAND COMPLEX 0 TO 8 PERCENT SLOPES	B

PLAN VIEW
 SCALE: 1"=20'



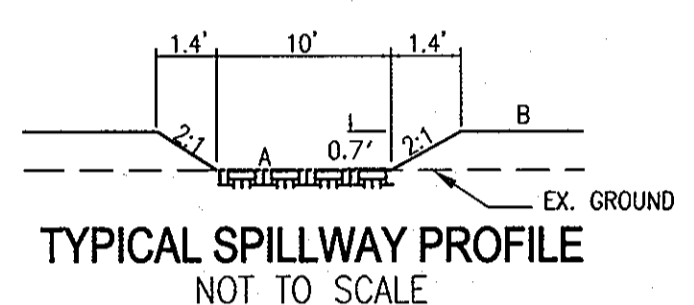


STORMWATER MANAGEMENT CALCULATIONS			
DRAINAGE AREA	METHOD	VOL. REQUIRED	VOL. PROVIDED
MBR #1	MICROBIORETENTION	157 CF	176 CF
MBR #2	MICROBIORETENTION	151 CF	190 CF
DW #1	DRY WELL	71 CF	72 CF
DW #2	DRY WELL	71 CF	72 CF

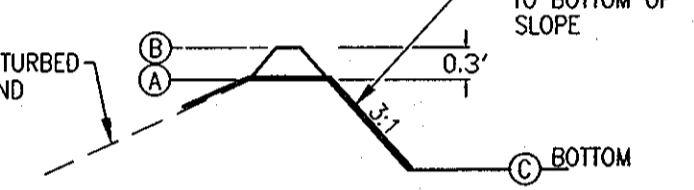


DETAIL - MICROBIORETENTION

- OPERATION AND MAINTENANCE SCHEDULE FOR BIC RETENTION AREAS
- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE SHALL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION, WEEDS, AND MULCH REPLACEMENT AS NEEDED. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.
 - SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DEFICIENT STEMMS AND BRANCHES.
 - MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
 - SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.



TYPICAL SPILLWAY PROFILE NOT TO SCALE



TYPICAL SPILLWAY SECTION NOT TO SCALE

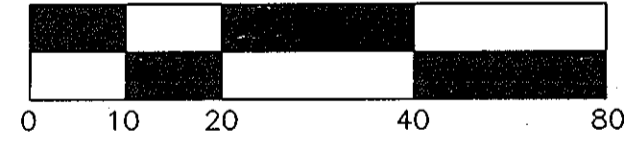
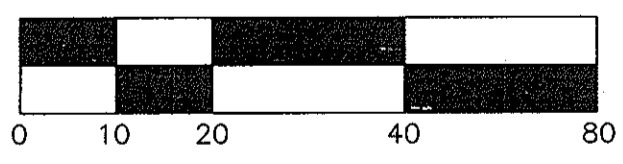
MBR FACILITY	A	B	C
MBR #1	361.4	361.7	360.4
MBR #2	361.7	362.0	360.7

FOREST STAND ANALYSIS TABLE								
KEY	TYPE OF COMMUNITY	AREA	C. SOILS INFORMATION			EXISTING VEGETATION	STAND CHARACTERISTICS	FOREST AREA IN AC. BY
			1. TYPICAL FOREST TYPES	2. WOODLAND FOREST SUITABILITY COVER FOR SOILS TYPE	3. HABITAT			
1-1	LAWN AND OPEN FIELD	1.00 AC	GnB MIXED UPLAND FOREST	12	1	MAINTAINED LAWN MAPLE & APPLE	12-27' 30.2	0.00 AC

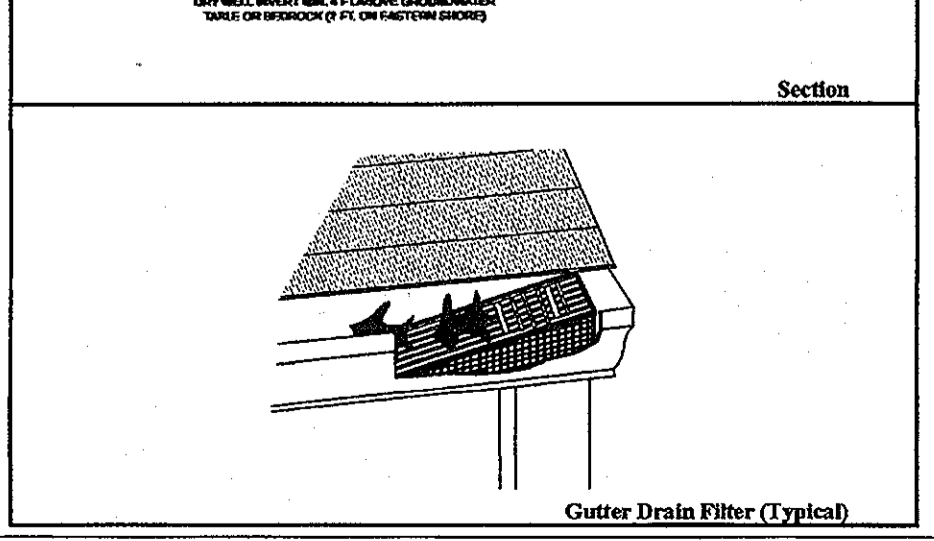
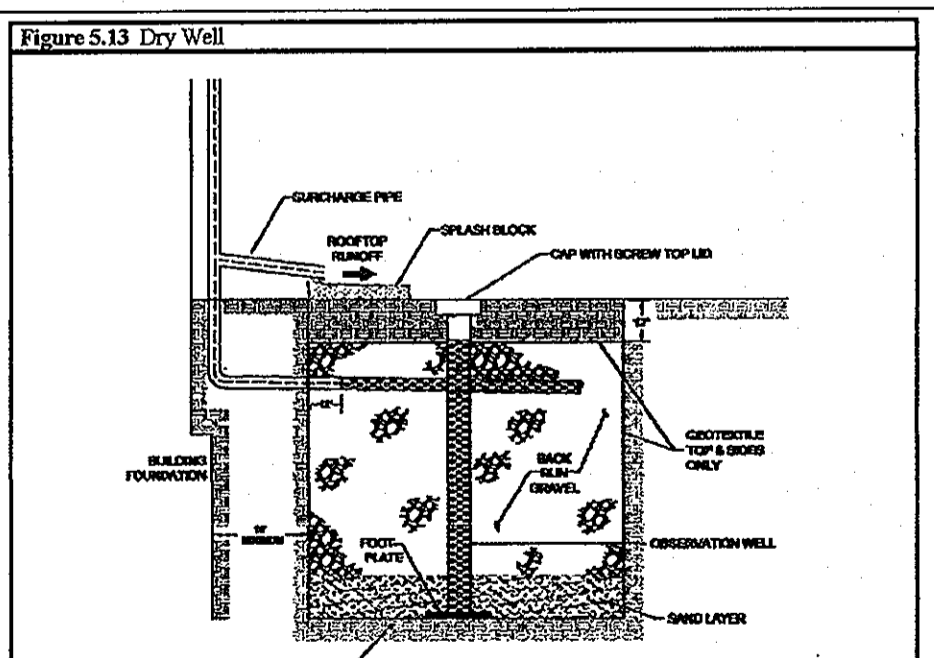
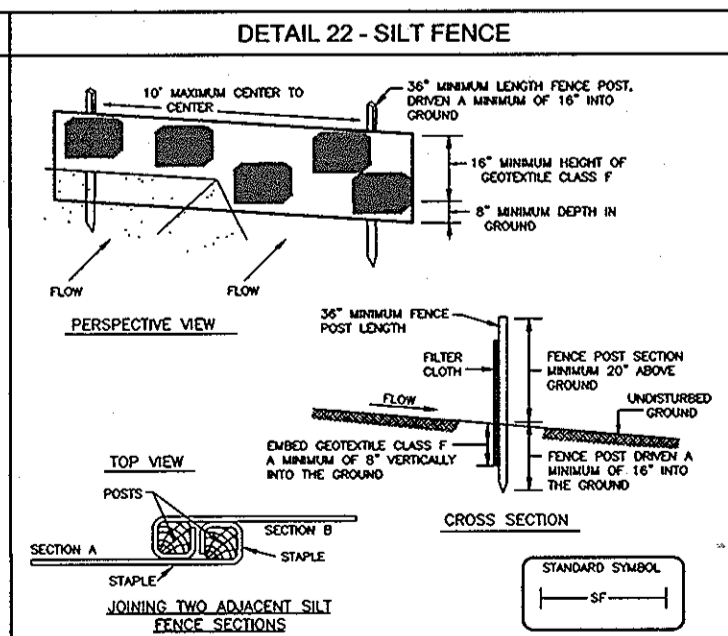
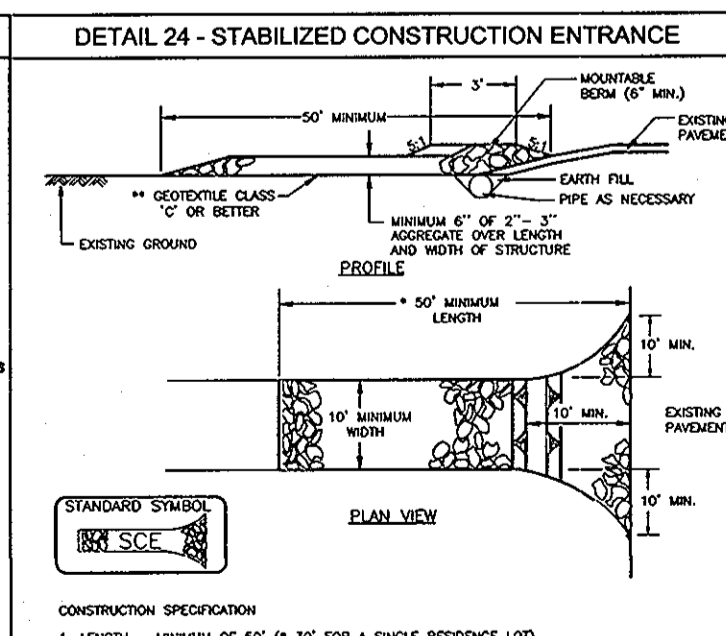
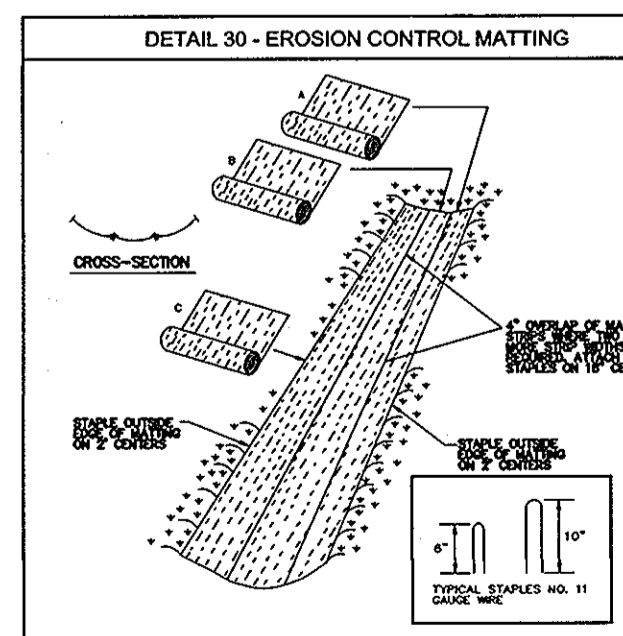
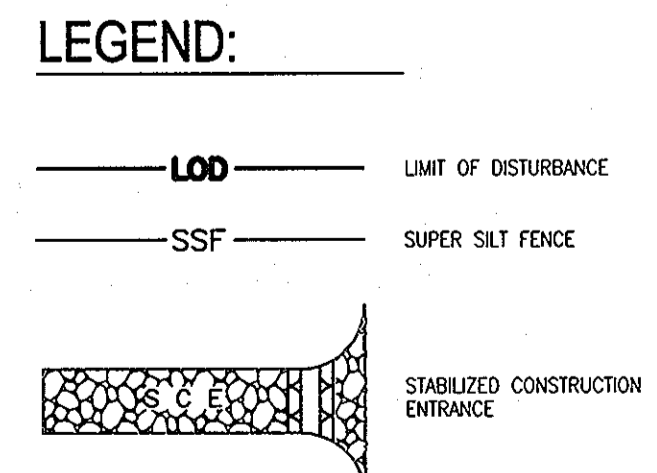
OWNERS
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SEDIMENT CONTROL PLAN VIEW
SCALE: 1"=20'

SWM DRAINAGE AREA PLAN VIEW
SCALE: 1"=20'



SOILS LEGEND		
SYMBOL	NAME/DESCRIPTION	TYPE
GnB	GLENVILLE-BAILE SILT LOAM 0 TO 8 PERCENT SLOPES	C
GfB	GLADSTONE-URBAN LAND COMPLEX 0 TO 8 PERCENT SLOPES	B



CONSTRUCTION SPECIFICATIONS

- KEY-IN THE MATTING BY PLACING THE TOP EDGES OF THE MATTING IN CONTACT WITH THE EXISTING GROUND SURFACE. THE MATTING SHALL BE PLACED IN CONTACT WITH THE EXISTING GROUND SURFACE FOR A MINIMUM OF 12" ON EACH SIDE OF THE MATTING.
- STAPLES FOR 4" OVERLAP IN THE CHANNEL CENTER USING AN 18" SPACING BETWEEN STAPLES.
- BETWEEN STAPLES THE OVER EDGES OF THE MATTING MAKE SURE THE MATTING IS SECURE AND IN FIRM CONTACT WITH THE SOIL.
- STAPLES SHALL BE PLACED AT 12" SPACING FOR EACH STAPLE. 2" SPACING SHALL BE PLACED AT THE END OF EACH STAPLE.
- WHERE THE SOIL IS UNSTABLE OR OTHERWISE UNFIT FOR THE MATTING, THE TOP STAPLE SHALL BE PLACED IN CONTACT WITH THE EXISTING GROUND SURFACE. THE STAPLES SHALL BE PLACED AT 12" SPACING FOR EACH STAPLE.
- STAPLES SHALL BE PLACED AT 12" SPACING FOR EACH STAPLE.
- STAPLES SHALL BE PLACED AT 12" SPACING FOR EACH STAPLE.

NOTE: IF FLOW WILL ENTER FROM THE EDGE OF THE MATTING THEN THE AREA EFFECTED BY THE FLOW MUST BE REVEALED.

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
CHIEF, DIVISION OF LAND DEVELOPMENT

3/26/13
DATE
3/21/13
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A RESUBDIVISION OF LOT 43 OF
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ELLCOTT CITY, MD 21043 TEL: 410.481.7956 FAX: 410.481.7956

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DRAWN BY: JTD
CHECKED BY: RHV
DATE: AUGUST, 2012
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W.O. NO.: 12-29

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21438 EXPIRATION DATE: 12-18-2017

2 SHEET OF 2