

VICINITY MAP  
SCALE: 1" = 2000'  
ADC MAP 4934; GRID H9

**HOWARD COUNTY BENCHMARKS**

35F1: N 557787.3788  
E 1345217.2645  
ELEV. 400.439  
  
35FA: N 559266.1334  
E 1344682.6389  
ELEV. 410.329

**GENERAL NOTES**

- SUBJECT PROPERTY ZONED R-20 PER THE 2-2-04 COMPREHENSIVE ZONING PLAN AND THE COMP LITE ZONING AMENDMENTS EFFECTIVE 7-28-06.
- THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS EFFECTIVE APRIL 13, 2004.
- PROJECT BOUNDARY AND TOPOGRAPHY WITHIN THE SUBDIVISION AREA ARE BASED ON HOWARD COUNTY GIS INFORMATION.
- THERE ARE NO LIMITS OF WETLANDS, STREAMS, THEIR REQUIRED BUFFERS, 100YR FLOODPLAIN OR STEEP SLOPES GREATER THAN 25% LOCATED ON THESE LOTS.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO CEMETERIES LOCATED ON THIS SITE.
- IT IS ANTICIPATED THAT THE FOREST CONSERVATION ACT OBLIGATION FOR THIS PROJECT WILL BE MET VIA A FEE-IN-LIEU.
- 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/OR SITE DEVELOPMENT 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.
- THE STORMWATER MANAGEMENT PRACTICES SHOWN ON THIS PLAN ASSUME ADEQUATE INFILTRATION RATES. THE DESIGN MAY NEED TO BE ADJUSTED AT THE NEXT STAGE AFTER SOIL BORING TESTING HAS BEEN COMPLETED AND AN ALTERNATE PRACTICE MAY NEED TO BE UTILIZED.

**LEGEND**

- PROJECT BOUNDARY
- ESD SITE AREA (LIMIT OF DISTURBANCE)
- DRAINAGE AREA DIVISION
- IMPERVIOUS AREA
- EXISTING TREELINE
- LANDSCAPE INFILTRATION DEVICE
- DRYWELL
- EARTH DIKE
- SUPER SILT FENCE

**Design Narrative**

For the rooftops, Landscape Infiltration practices have been proposed for treatment. Since the lots slope from the rear to the front the location of any SWM practice would best be placed in the front of the lot. Due to this placement and ground elevation an under drain system would not work as there is no area on the lot that is low enough in elevation for it to daylight on the lot. The drainage area to each practice is relatively small (4,200 sf +/-), and the soils in this area are class 'B'. Therefore, the best practice is Landscape Infiltration.

For the driveways, it is being proposed that the upper portions, mainly the 20'x20' pad shall be treated via the Landscape Filtration located on each lot. The runoff shall be directed to the Landscape Filtration via a trench drain system across the driveway.

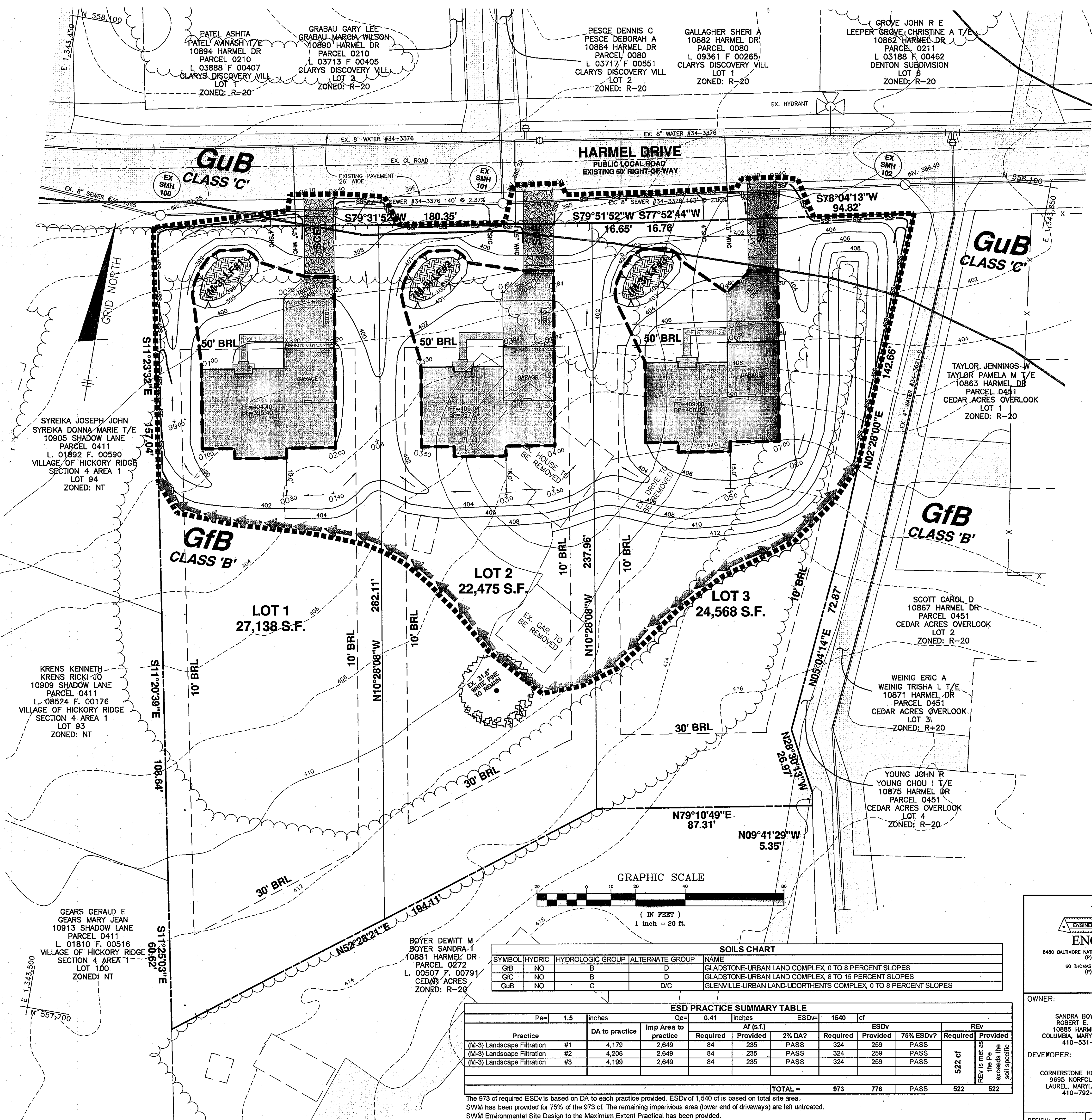
Natural resource protection and/or enhancement shall be achieved as there is no disturbance to any natural resource areas. Natural flow patterns have been preserved by having the proposed grades mimic the existing condition of flow from the rear of the lots to the front of the lots. The Landscape Infiltration practices are located along the lower outer edge of the LOD and shall mimic the layout of the natural ground as runoff re-enters the ground as treated.

Sediment and erosion control shall mainly consist of erosion control matting within the proposed swales around the house to reduce erosion of the swale. A cleanwater diversion dike shall divert water around the site during construction of the homes and SWM practices.

There are no disturbances to environmental features proposed as there are no environmental features located on this property.

As a result of utilizing environmental site design (ESD) to the maximum extent practical (MEP), SWM has been adequately addressed without the need for structural practices.

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*J. Matthews* 10-25-12  
CHIEF, DIVISION OF LAND DEVELOPMENT  
*[Signature]* 10/31/12  
CHIEF, DEVELOPMENT ENGINEERING DIVISION



**SOILS CHART**

SYMBOL	HYDRIC	HYDROLOGIC GROUP	ALTERNATE GROUP	NAME
GIB	NO	B	D	GLADSTONE-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES
GIC	NO	B	D	GLADSTONE-URBAN LAND COMPLEX, 8 TO 15 PERCENT SLOPES
Gub	NO	C	D/C	GLENVILLE-URBAN LAND-UDORTHERENTS COMPLEX, 0 TO 8 PERCENT SLOPES

**ESD PRACTICE SUMMARY TABLE**

Practice	Q <sub>10</sub>	Pe= 1.5 inches	inches	Imp Area to practice	Q <sub>10</sub> = 0.41 inches		ESD <sub>10</sub>	1540	cf	ESD <sub>v</sub>	75% ESD <sub>v</sub>	Required	Provided	REV			
					Required	Provided									2% DA?	75% ESD <sub>v</sub>	
(M-3) Landscape Filtration #1	#1	4,179	2,649	84	235	PASS	324	259	PASS								
(M-3) Landscape Filtration #2	#2	4,208	2,649	84	235	PASS	324	259	PASS								
(M-3) Landscape Filtration #3	#3	4,199	2,649	84	235	PASS	324	259	PASS								
<b>TOTAL =</b>													973	776	PASS	522	522

The 973 cf of required ESD<sub>v</sub> is based on DA to each practice provided. ESD<sub>v</sub> of 1,540 cf is based on total site area. SWM has been provided for 75% of the 973 cf. The remaining impervious area (lower end of driveways) are left untreated. SWM Environmental Site Design to the Maximum Extent Practical has been provided.

**Site Analysis Data Sheet**

Gross Area	1.7 ac
100yr Floodplain	0.0 ac
Steep Slopes 15% or greater	0.0 ac
Net Area	1.7 ac
Wetlands	0.0 ac
Wetlands Buffer	0.0 ac
Stream	0.0 ac
Stream Buffer	0.0 ac
Forested Area (per FSD)	0.0 ac
Erodable Soils	0.0 ac
Green Open Space	0.0 ac
Limit of Disturbance	1.0 ac
Proposed Impervious Area	0.2 ac
Area of SFD lots	1.7 ac

**BENCHMARK ENGINEERING, INC.**  
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WWW.BEI-CIVILENGINEERING.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. 200958, dated 07-22-2013.

**CEDAR OVERLOOK**  
LOTS 1 thru 3  
A RESUBDIVISION OF P/O LOTS 6, 7 AND 8 OF CEDAR ACRES, BLOCK 'C'  
TAX MAP: 35 GRID: 17 PARCEL: 101  
ZONED: R-20  
ELECTION DISTRICT NO. 5  
HOWARD COUNTY, MARYLAND

**ENVIRONMENTAL CONCEPT PLAN**

OWNER: SANDRA BOYER AND ROBERT E. ANDERS  
10885 HARMEL DRIVE  
COLUMBIA, MARYLAND 21044  
410-531-2026

DEVELOPER: CORNERSTONE HOLDINGS, LLC  
9695 NORFOLK AVENUE  
LAUREL, MARYLAND 20723  
410-792-2565

DATE: OCTOBER, 2012 BEI PROJECT NO: 2519  
SCALE: AS SHOWN SHEET 1 OF 1