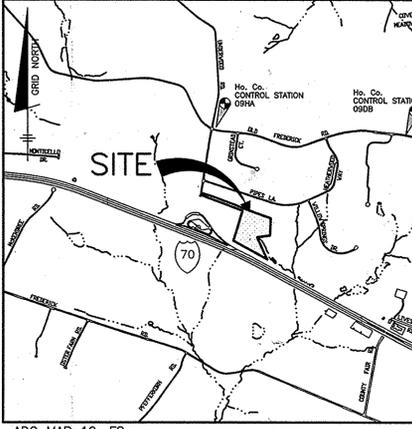




BENCH MARKS

HO. CO. #09HA (NAD '83)	ELEV. 604.471
STANDARD DISC ON CONCRETE MONUMENT UNDERWOOD ROAD 0.1 MILES NORTH OF RTE. 99	N 604263.527 E 1318531.061
HO. CO. #09DB (NAD '83)	ELEV. 609.215
STANDARD DISC ON CONCRETE MONUMENT RTE. 144 0.4 MILES OF UNDERWOOD ROAD (BY #13555)	N 605072.385 E 1318990.416



NOTE:
APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN, SITE DEVELOPMENT PLAN, OR GRADING OR BUILDING PERMIT 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, SITE DEVELOPMENT PLAN, OR GRADING AND BUILDING PERMIT STAGES. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED COMMENTS INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN AS THIS PROJECT PROGRESSES THROUGH THE REVIEW PROCESS.

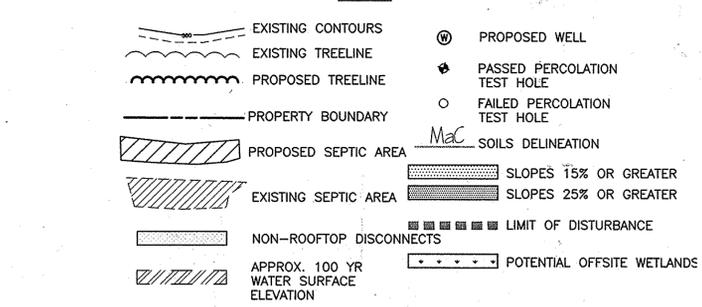
GENERAL NOTES

1. THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
2. COORDINATES BASED ON NAD 83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 09HA AND 09DB.
3. SUBJECT PROPERTY ZONED RC-DEO PER THE 10-06-13 COMPREHENSIVE ZONING PLAN.
4. THE BOUNDARY IS BASED ON A FIELD RUN BOUNDARY SURVEY PERFORMED ON OR ABOUT JANUARY 2, 2015 BY BENCHMARK ENGINEERING, INC.
5. TOPOGRAPHY SHOWN IS BASED ON HOWARD COUNTY GIS AND VERIFIED BY BENCHMARK ENGINEERING, INC. IN THE VICINITY OF THE PROPOSED SEPTIC EASEMENTS.
6. THERE ARE NO WETLANDS LOCATED ON THE PROPERTY BASED ON A FIELD INVESTIGATION BY WRIGHT ENVIRONMENTAL & LAND SERVICES, LLC DATED APRIL, 2015.
7. IT IS ANTICIPATED THAT THE REQUIRED FOREST CONSERVATION OBLIGATIONS FOR THIS DEVELOPMENT WILL BE BY FEE-IN-LIEU.
8. THIS PLAN IS SUBJECT WP-15-034 APPROVED OCTOBER 8, 2014 TO WAIVE SECTION 16.108(b)(46)-DEFINITION OF A RESUBDIVISION, WHICH DEFINES A RESUBDIVISION AS "A FURTHER DIVISION OR MODIFICATION OF AN EXISTING SUBDIVISION PREVIOUSLY APPROVED BY THE COUNTY AND RECORDED IN THE HOWARD COUNTY LAND RECORDS OFFICE. THIS WAIVER REQUEST IS TO CONSIDER THE RESUBDIVISION OF RECORDED PARCEL 2 AS A MINOR SUBDIVISION IN THIS UNIQUE CASE. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
 1. THE MINOR SUBDIVISION PLAT FOR PARCEL 2 MUST BE SUBMITTED WITHIN ONE YEAR OF APPROVAL OF THIS WAIVER, ON OR BEFORE OCTOBER 9, 2015.
 2. AN ENVIRONMENTAL CONCEPT PLAN MUST BE SUBMITTED AND APPROVED BY DPZ PRIOR TO SUBMISSION OF THE MINOR SUBDIVISION PLAT FOR PARCEL 2.
 3. A PRE-SUBDIVISION COMMUNITY MEETING MUST BE HELD PRIOR TO SUBMISSION OF THE MINOR SUBDIVISION PLAT FOR PARCEL 2 IN COMPLIANCE WITH SECTION 16.128 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
 4. IN CONSIDERATION OF PARCEL 2 AS A MINOR SUBDIVISION AND TO ENSURE COMPLIANCE WITH SB-236 "THE SUSTAINABLE GROWTH AND AGRICULTURAL PRESERVATION ACT OF 2012", PARCEL 2 MAY NOT BE SUBDIVIDED INTO MORE THAN 3 ADDITIONAL LOTS, FOR A TOTAL OF 4 LOTS.
9. THE 100 YEAR WATER SURFACE LIMITS SHOWN ARE APPROXIMATE. A DETAILED ANALYSIS WILL BE PROVIDED WITH THE FINAL PLANS.
10. THE STORMWATER MANAGEMENT SHOWN IS CONCEPTUAL. ADDITIONAL STORMWATER MANAGEMENT FOR THE PROPOSED LOTS WILL BE PROVIDED WITH THE FINAL PLAN.

SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND PAGE 4

SYMBOL	HYDRC	HYDROLOGIC GROUP	ALTERNATE GROUP	NAME	Kw
GaA	YES	D		BALE SILT LOAM, 0 TO 3 PERCENT SLOPES	0.32
GaB	B			GLENEGL LOAM, 0 TO 3 PERCENT SLOPES	0.28
GaC	B			GLENEGL LOAM, 3 TO 8 PERCENT SLOPES	0.28
GaD	B			GLENEGL LOAM, 8 TO 15 PERCENT SLOPES	0.28
GcB	YES	C		GLENEGL SILT LOAM, 0 TO 8 PERCENT SLOPES	0.43
GcC	B			MANOR LOAM, 8 TO 15 PERCENT SLOPES	0.28

* INDICATES HYDRIC SOILS
** HIGHLY ERODIBLE, K>0.35, AND/OR 15% OR GREATER SLOPES
TAKEN FROM THE NRCS WEB SOIL SURVEY, AUGUST 2014.
HSCD MAP # 4.



DESIGN NARRATIVE

The subject property comprises of approximately 16 acre located off of Underwood Road. The property is currently vacant and is zoned RC-DEO. The developer is proposing development of 4 single family lots of 3 acres or more. A majority of the property is currently being utilized as a corn field. There are woods located on the northeast portion of the property. There is a perennial stream running south along the southwestern property boundary. There is no floodplain or wetlands located onsite. The soils are Glenelg and Manor soils which are a class 'B' soil with the exception of the area where the stream is located. The watershed is the Patuxent River (02-13-11), which is a Use III-P stream.

The target Pe for this site is 1.0 inches based on the lot sizes. The target Pe was treated using Environmental Site Design practices as outlined in Chapter 5 of the 2000 Maryland Stormwater Design Manual, as amended by Maryland's Stormwater Management Act of 2007. The selected methods include micro bio-retention facilities, rooftop disconnects, non-rooftop disconnects drywells and a grass swale.

As a result of addressing the stormwater management by use of ESDs to the MEP the land conditions have theoretically been returned to woods in good condition and therefore reduced the overall run-off for the 1-year storm. A reduction in impervious area with the use of grass swales, micro bio-retention and nonstructural practices makes for a better site design as well as maintaining the original drainage patterns.

Sediment and erosion control shall comply with the latest edition of the MDE Standards and Specifications for Sediment Control and has been limited to the areas necessary to conduct ESD practices and onsite functionality.

The development was designed to limit the disturbance to environmental features and limit clearing of any forests. It is anticipated that the Forest Conservation obligations for this development will be by fee-in-lieu.

It is concluded that all ESD to the MEP requirements as defined in the Stormwater Management Act of 2007 have been met for the proposed development. The Water Quality has been provided by the implementation of micro bio-retention facilities (M-6), dry wells (M-5), rooftop and non-rooftop disconnects (N-2) and grass swales (M-3) to treat all of the proposed impervious onsite.

ECP Site Analysis Data Sheet

Gross Area	16.30 ac
100yr Floodplain	0.00 ac**
Slopes 25% or Greater	0.28 ac
Slopes 15% or Greater	0.28 ac
Wetlands	0.00 ac
Wetlands Buffer	0.06 ac
Stream	327 lf
Stream Buffer	1.89 ac
Forested Area	5.13 ac
Erodible Soils(Ba)(GnB)	4.68 ac
Limit of Disturbance	6.40 ac
Impervious Area	1.20 ac
Green Space	5.20 ac

*All areas are approximate.
** TBD-SEE GENERAL NOTE 9.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Paul S. Di Marco 8-19-15
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Paul S. Di Marco 8-21-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

BENCHMARK ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLIOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644
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. 28376, Expiration Date: 01.01.17.

OWNER/DEVELOPER: PAUL S. DI MARCO
3844 QUARRY AVE.
BALTIMORE, MD 21211
443-668-0100

PROJECT: WILLOW BROOKE LOTS 1-4

LOCATION: TAX MAP 9 AND 15, GRID 21, PARCEL 328
3rd ELECTION DISTRICT
1751 S. UNDERWOOD RD
WEST FRIENDSHIP, MD 21794
HOWARD COUNTY, MARYLAND

TITLE: COVER SHEET

DATE: AUGUST, 2015 **PROJECT NO.:** 2861

DRAFT: JCO **DESIGN:** JCO **CHECK:** AM **SCALE:** AS SHOWN **SHEET:** 1 OF 2

