

GENERAL NOTES

1. THE SUBJECT PROPERTY IS ZONED R-20, IN ACCORDANCE WITH THE 10/06/13 COMPREHENSIVE ZONING PLAN.
2. DEED REFERENCE: 17337/00001
3. PLAT REFERENCE: N/A
4. GROSS AREA OF TRACT: 1.15± AC.
5. AREA OF 100 YEAR FLOODPLAIN: N/A AC.
6. AREA OF STEEP SLOPES: 15% TO 25% = 0.00± AC. 25% OR GREATER = 0.00± AC.
7. NET AREA OF TRACT: 1.15 AC.
8. NUMBER OF PROPOSED LOTS/PARCELS: 2
9. THIS PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
10. THE EXISTING TOPOGRAPHY SHOWN HEREON WAS FIELD RUN BY DEVELOPMENT DESIGN CONSULTANTS, INC. IN FEBRUARY, 2017.
11. A METROPOLITAN DISTRICT PETITION WAS SUBMITTED FOR THIS PROPERTY AND APPROVED ON DECEMBER 18, 2017.
12. STORMWATER MANAGEMENT FOR THIS DEVELOPMENT WILL BE PROVIDED BY THE FOLLOWING MEANS: DRY WELLS AND MICRO-BIORETENTION.
13. EXISTING UTILITIES SHOWN HEREON ARE BASED ON FIELD SURVEYS AND RECORD DRAWINGS. THE CONTRACTOR WILL BE RESPONSIBLE FOR VERIFYING THESE UTILITIES IN THE FIELD AT THE TIME OF CONSTRUCTION.
14. NO TRAFFIC STUDY IS REQUIRED FOR THIS DEVELOPMENT.
15. PROJECT BACKGROUND INFORMATION:
 - A) PROPERTY NAME: 7079 GUILFORD ROAD
 - B) TAX MAP/PARCEL: 35/222
 - C) ZONING: R-20
 - D) ELECTION DISTRICT: 5TH
 - E) TOTAL (GROSS) TRACT AREA: 1.15± AC.
 - F) NUMBER OF PROPOSED LOTS/PARCELS: 2
 - G) APPLICABLE DEPARTMENT OF PLANNING & ZONING FILE NO.'S: N/A
16. SEDIMENT AND EROSION CONTROL MEASURES ARE PROVIDED IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
17. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
18. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE(5) WORKING DAYS PRIOR TO START OF WORK.
19. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
20. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
21. WATER IS PUBLIC.
22. SEWER IS PUBLIC.
23. APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PLAN. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN STAGES AND/OR RED-LINE REVISION PROCESS. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
24. THIS SITE IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS ACCORDING TO TITLE 16, SUBTITLE 12, SECTION 16.1202(b)(vii) OF THE HOWARD COUNTY CODE OF ORDINANCES.

DESIGN NARRATIVE

1. THE PARCEL HAS BEEN INVESTIGATED, AND NO WETLANDS OR FOREST RETENTION / REFORESTATION AREAS OF INTEREST WERE FOUND.
2. THE NATURAL FLOW PATTERNS ARE MAINTAINED BY PROVIDING AN OUTFALL THAT SAFELY CONVEYS WATER VIA OVERLAND FLOW TO THE ADJACENT OPEN SPACE.
3. THE SITE IS WITHIN A RESIDENTIAL AREA, AND ALL OF THE PAVING SHOWN ON THE PLAN IS NECESSARY TO PROVIDE ACCESS TO THE INDIVIDUAL LOTS AND TO PROVIDE THE REQUIRED PARKING PER HOUSE. PAVING WAS MINIMIZED ON-SITE BY ALIGNING THE PROPOSED HOUSE WITH THE EXISTING HOUSE TO MAINTAIN THE CHARACTER OF GUILFORD ROAD FOR THE PARCELS. CONCRETE CURB AND GUTTER IS NOT USED ON-SITE TO ALLOW FOR OVERLAND AND SHEET FLOW TO THE ESD FACILITIES.
4. NONE OF THE FILTERING PRACTICES WILL BE INSTALLED PRIOR TO THE DRAINAGE AREA BEING STABILIZED.
5. THE HYDROLOGY HAS BEEN DEVELOPED BASED ON THE PROPOSED IMPROVEMENTS. THE ESD PRACTICES TO BE UTILIZED WILL BE M-5 DRY WELLS AND M-6 MICRO-BIORETENTION. THE FACILITIES HAVE BEEN SIZED TO TREAT 100% OF THE NEW IMPERVIOUS AREAS.
6. DRY WELLS (M-5) WILL BE CONNECTED TO BOTH REAR CORNERS OF THE PROPOSED HOUSE VIA 4 IN. ROOF DRAINS. THE DRY WELLS SHALL BE LOCATED AWAY FROM THE BASEMENT, SUCH THAT THE PHREATIC LINE WILL NOT BE WITHIN THE BASEMENT ENVELOPE. THE DRY WELLS PROVIDE AN EFFICIENT OPTION FOR TREATING ROOF RUNOFF ON-SITE. PRETREATMENT FOR THE DRY WELLS WILL BE PROVIDED BY A GUTTER DRAIN FILTER IN ORDER TO BLOCK SEDIMENT, LEAVES, OR OTHER DEBRIS FROM ENTERING THE SYSTEM.
7. MICRO-BIORETENTION (M-6) WILL COLLECT RUN-OFF FROM THE SIDEWALK AND DRIVEWAY, IN ADDITION TO THE FRONT HALF OF THE HOUSE. THE DOWNSPOUTS FROM THE FRONT CORNERS OF THE HOUSE WILL DISCHARGE INTO THE MICRO-BIORETENTION VIA 4 IN. ROOF DRAINS.
8. THERE WILL BE NO REQUEST FOR DESIGN MANUAL WAIVERS FOR THE STORMWATER DESIGN. WE WILL SUBMIT A WAIVER TO REMOVE SPECIFIC TREES.
9. THE ESD VOLUME CAN BE FULLY COLLECTED AND TREATED WITHIN THE PROPOSED M-5 DRY WELLS AND M-6 MICRO-BIORETENTION.

FACILITY	PROJ ESD VOL	TARGET ESD VOL	NOTES
M-5 DRY WELLS	563 CF		TWO DRY WELLS
M-6 MICRO-BIORETENTION	969 CF		
REQUIRED ESDv		465 CF	
PROVIDED TOTAL	1,532 CF		PROJECTED VOLUME EXCEEDS TARGET VOLUME
REQUIRED TOTAL	465 CF		

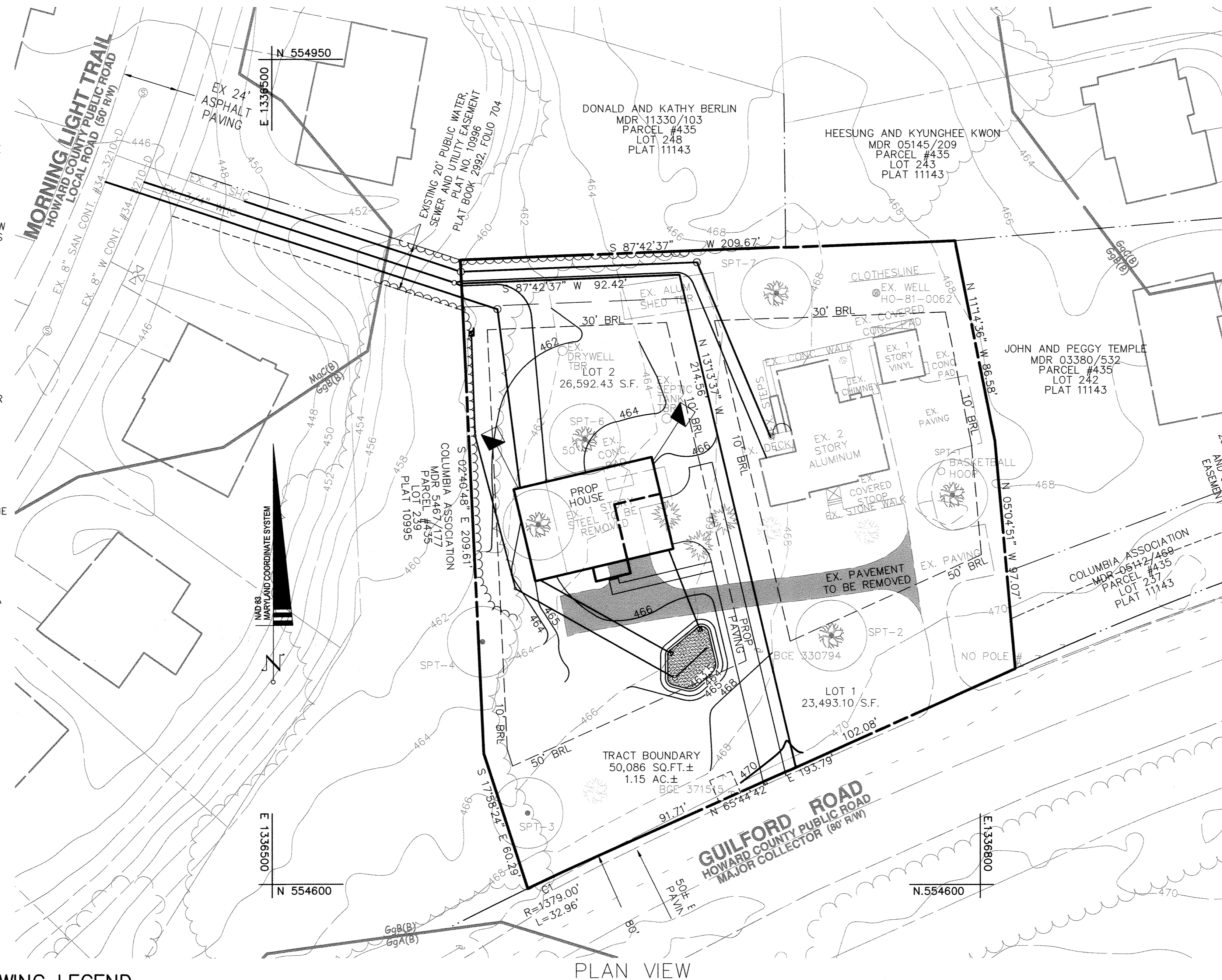
SITE ANALYSIS DATA CHART

1. GENERAL SITE DATA
 - A. PRESENT ZONING: R-20
 - B. APPLICABLE DPA FILE REFERENCES:
 - C. PROPOSED USE OF SITE OR STRUCTURE(S): RESIDENTIAL
 - D. PROPOSED WATER AND SEWER SYSTEMS: PUBLIC
2. AREA TABULATION
 - A. TOTAL AREA OF PARCEL 1.15± AC.
 - B. AREA OF STUDY: 0.64± AC.
 - C. APPROXIMATE WETLANDS AREA INCLUDING BUFFER: 0.00 AC.
 - D. APPROXIMATE AREA OF 100 YEAR FLOODPLAIN: 0.00 AC.
 - E. APPROXIMATE EXISTING FOREST AREA: 0.00 AC.
 - F. APPROXIMATE AREA OF STEEP SLOPES (25% OR GREATER): 0.00 AC.
 - G. APPROXIMATE AREA OF STEEP SLOPES (15% TO 25%): 0.00 AC.
 - H. APPROXIMATE AREA OF ERODIBLE SOILS: 0.00 AC.
 - I. AREA OF LIMIT OF DISTURBANCE: 0.64 AC.
 - J. PROPOSED LAND USE: RESIDENTIAL
 - K. GREEN OPEN AREA WITHIN STUDY AREA: 0.53 AC.
 - L. PROPOSED IMPERVIOUS AREA WITHIN STUDY AREA: 0.11 AC.
 - M. PERCENT IMPERVIOUS WITHIN STUDY AREA: 17%

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 7-12-18
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 7-23-18
 CHIEF, DIVISION OF ENGINEERING

ENVIRONMENTAL CONCEPT PLAN for WILLOW NOOK

TAX MAP 35, GRID 21, PARCEL 222
5TH ELECTION DISTRICT HOWARD COUNTY, MD



DRAWING LEGEND

- 682 --- EXISTING MINOR CONTOUR (2' INTERVAL)
- 680 --- EXISTING MAJOR CONTOUR (10' INTERVAL)
- --- ADJACENT PROPERTY LINE
- N 06°45'45"W 120.00' --- EXISTING PROPERTY BOUNDARY
- EX. ROAD / EDGE OF PAVING --- EX. ROAD / EDGE OF PAVING
- EX. SEWER LINE & MANHOLES, CLEAN-OUTS --- EX. SEWER LINE & MANHOLES, CLEAN-OUTS
- EX. OVERHEAD ELECTRIC & UTILITY POLES --- EX. OVERHEAD ELECTRIC & UTILITY POLES
- PROPOSED PRIVATE ROAD/DRIVE CENTERLINE --- PROPOSED PRIVATE ROAD/DRIVE CENTERLINE
- EX. BUILDING --- EX. BUILDING
- PROPOSED BUILDING --- PROPOSED BUILDING
- EXISTING TREELINE --- EXISTING TREELINE
- PROPOSED TREELINE --- PROPOSED TREELINE
- EXISTING TREES --- EXISTING TREES
- SPECIMEN TREES --- SPECIMEN TREES
- SOIL LINE AND LABEL --- SOIL LINE AND LABEL
- LIMIT OF DISTURBANCE --- LIMIT OF DISTURBANCE
- DRAINAGE AREA --- DRAINAGE AREA

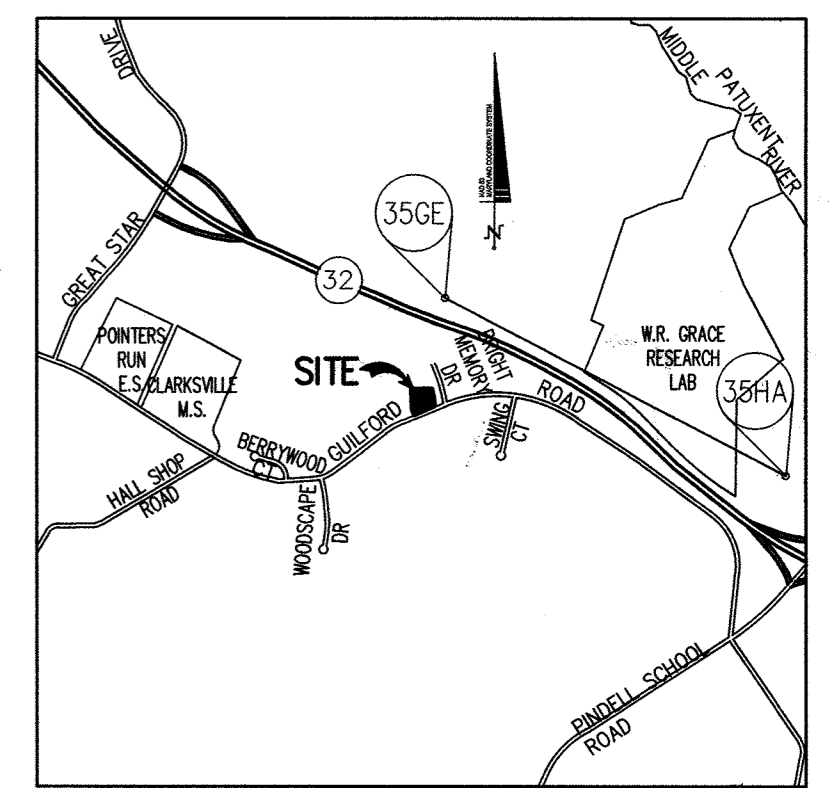
CODE (CLASS)	NAME	HYDRIC (Y/N/INCL.)	K VALUE
GbB(B)	Glenelg Loam - 3 to 8 Percent Slopes	N	0.24

GRAPHIC SCALE



BENCHMARK

BENCHMARK 35GE
 N. 555817.487
 E. 1336928.786
 B.M. CONC. MON.
 ELEV. 418.132
 BENCHMARK 35HA
 N. 553966.737
 E. 1340477.030
 B.M. CONC. MON.
 ELEV. 404.609
 ADC. MAP COORDINATES
 MAP 14 EB
 N 39°12'00", E
 76°56'20"



VICINITY MAP

SCALE: 1"=2000'

SHT #	DRAWING LIST
1	COVER SHEET
2	ENVIRONMENTAL CONCEPT PLAN WITH SEC OVERLAY

ESD FACILITY LEGEND

- PROPOSED M-5 DRY WELLS
- PROPOSED MICRO-BIORETENTION

DATA SOURCES:
 INFORMATION SHOWN HEREON IS BASED ON A DEED PLOT,
 HOWARD COUNTY GIS.

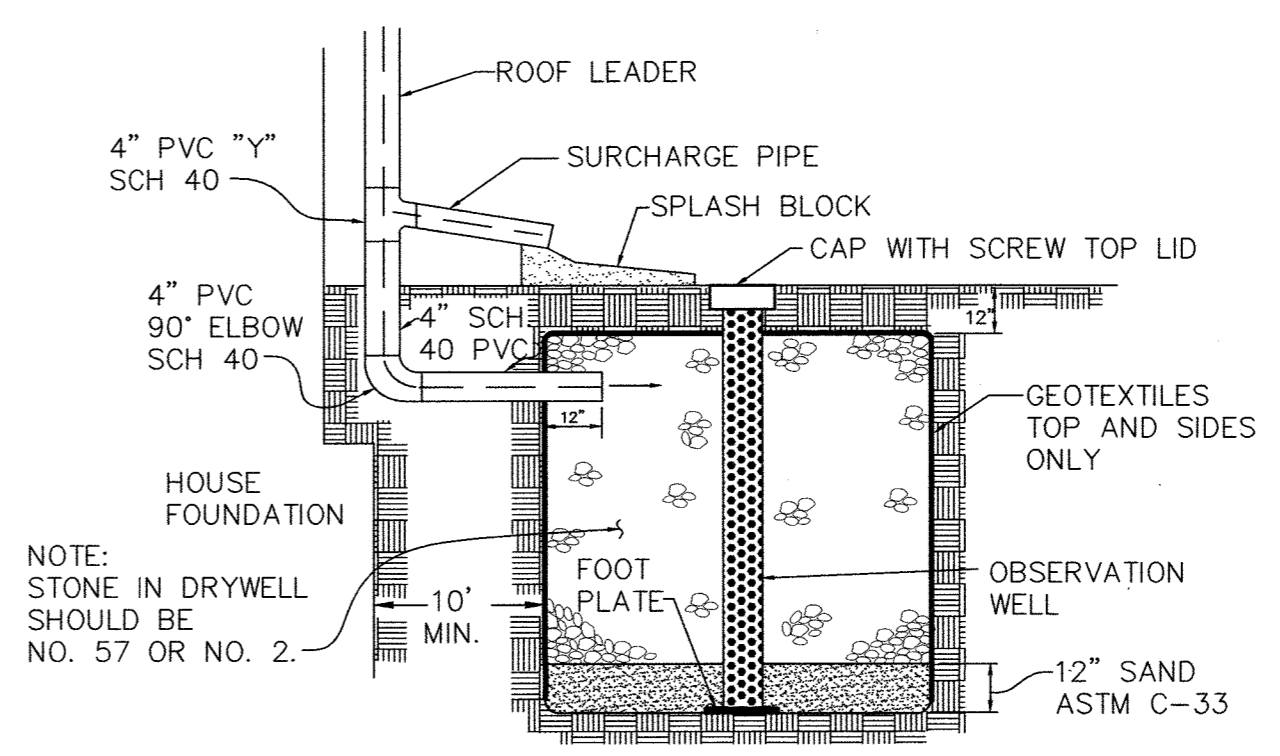
KCI TECHNOLOGIES
 ENGINEERS
 PLANNERS
 SCIENTISTS
 CONSTRUCTION MANAGERS
 936 RIDGEBROOK ROAD
 SPARKS, MARYLAND 21152
 TELEPHONE: (410) 316-7800
 FAX: (410) 316-7818

ELECTION DISTRICT: 5 HOWARD COUNTY, MARYLAND				
REVISIONS				
NO.	DESCRIPTION OF CHANGES	DRN.	REV.	DATE
CO. FILE #:	DES. BY: CTS			
TAX ACC. #: 05366461	DRN. BY: CTS			
TAX MAP: 35	CHK. BY: BCC			
BLOCK / GRID: 21	DATE: 5/22/18			
PARCEL #: 0222	KCI JOB#: 271802313			
ZONE / USE: R-20	SHEET NUMBER:			
DWG. SCALE: 1" = 30'	1 of 2			

6/26/18
 DATE
 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. 28832
 [Signature]
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER



SWM DRAINAGE AREA MAP
SCALE: 1" = 30'



**FIGURE 5.1
SCHEMATIC OF DRY WELL**

DATA SOURCES:
INFORMATION SHOWN HEREON IS BASED ON A DEED PLOT,
HOWARD COUNTY GIS.

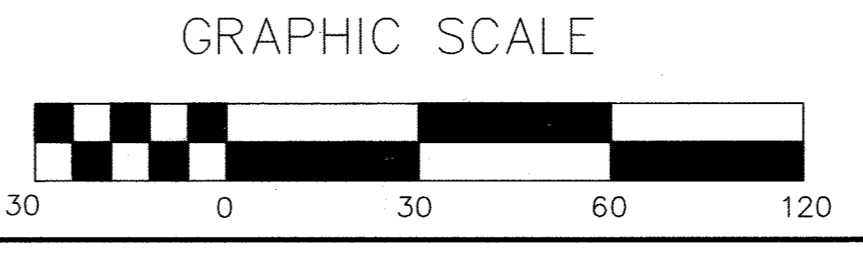
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**WILLOW NOOK
ENVIRONMENTAL CONCEPT PLAN
ENVIRONMENTAL
CONCEPT PLAN WITH
SEC OVERLAY**

ELECTION DISTRICT: 5 HOWARD COUNTY, MARYLAND

REVISIONS	
NO.	DESCRIPTION OF CHANGES

6/26/18
DATE
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. 28836, Expiration Date: 1-1-2019.
STATE OF MARYLAND
PROFESSIONAL ENGINEER



ESD FACILITY LEGEND

- PROPOSED M-5 DRY WELLS
- PROPOSED MICRO-BIORETENTION

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- PROPOSED PRIVATE ROAD/DRIVE CENTERLINE
- EX. BUILDING
- PROPOSED BUILDING
- EXISTING TREELINE
- PROPOSED TREELINE
- 672 ————— PROPOSED MINOR CONTOUR (2' INTERVAL)
- 680 ————— PROPOSED MAJOR CONTOUR (10' INTERVAL)
- PROPOSED PAVING
- EXISTING TREES
- SPECIMEN TREES
- SOIL LINE AND LABEL
- LIMIT OF DISTURBANCE
- DRAINAGE AREA
- SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE W/MOUNTABLE BERM

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kent Shearer 7-12-18
CHIEF, DIVISION OF LAND DEVELOPMENT DATE
Chad Elmore 7-12-18
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE