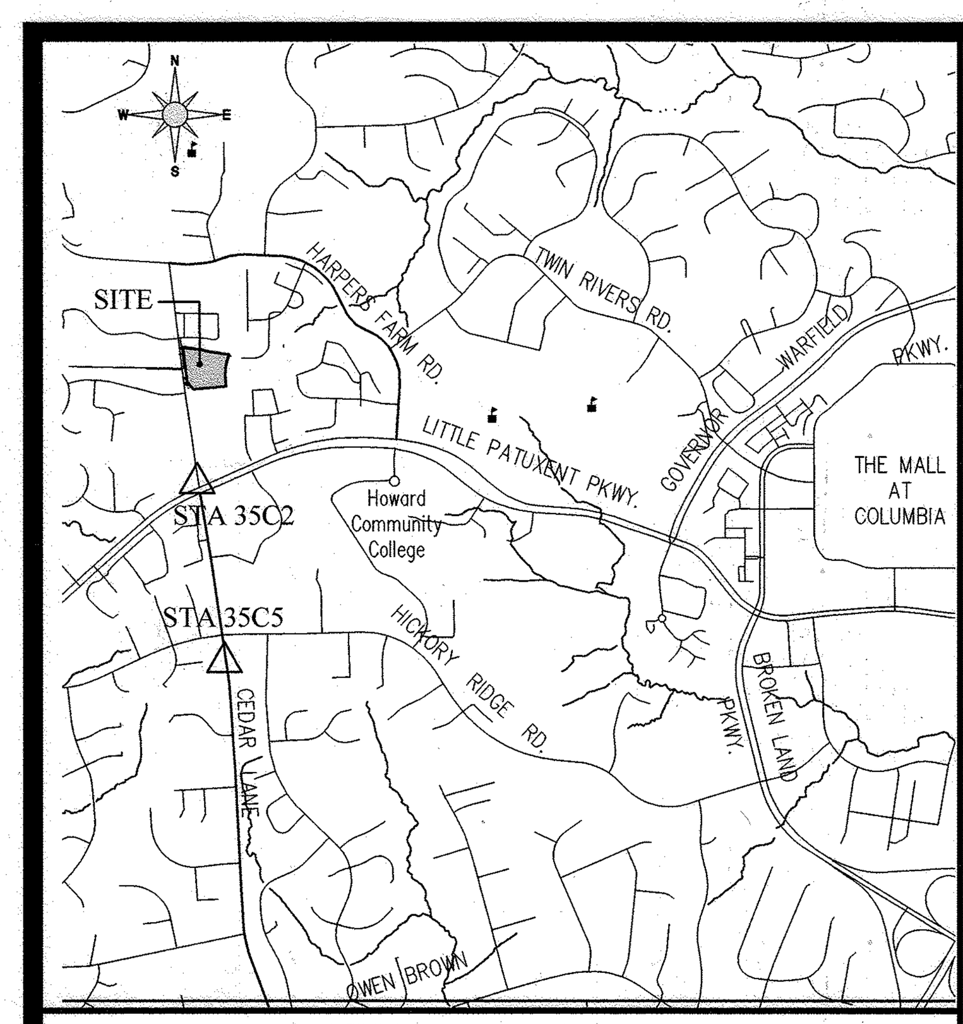


VICINITY MAP
SCALE: 1" = 2,000'

ADC MAP 26
GRID D-8

HC CONTROL STATIONS

35C2	35C5
NORTHING: 563,920.824	NORTHING: 562,148.449
EASTING: 1,344,204.185	EASTING: 1,344,554.499
ELEVATION: 463.405	ELEVATION: 451.541
(LATEST ADJ. FEB. 2014)	(LATEST ADJ. FEB. 2014)

LEGEND

- 400 — EXISTING CONTOUR
- 400 — PROPOSED CONTOUR
- EX. 8"S. — EXISTING SANITARY SEWER
- EX. 8"W. — EXISTING WATERLINE
- EX. SD — EXISTING STORM DRAIN
- SD — PROPOSED STORM DRAIN (MANHOLE, INLET)
- WATER LINE (PRIVATE)
- 8"W. — WATER LINE (PUBLIC)
- 8"S. — PROPOSED SEWER LINE (PRIVATE)
- PROPOSED CURB AND GUTTER
- EXISTING CURB AND GUTTER
- SWM DRAINAGE DIVIDE
- SWM DRAINAGE DIVIDE (TOTAL AREA TO STORMCEPTOR)
- SC-1 — SWM DEVICE NUMBER CORRESPONDING TO DRAINAGE AREA
- DW-1 — PROPOSED DRYWELL
- PROPOSED BUILDING
- PROPOSED CONCRETE SIDEWALK PER HO.CO. DET. R-3.05, 5' UNLESS OTHERWISE NOTED
- PROPOSED ENTRANCE
- LOD — LIMIT OF DISTURBANCE
- SCE — PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- SSF — SUPER SILT FENCE
- DF — DIVERSION FENCE
- [ ]IP — INLET PROTECTION
- PROPOSED PUBLIC UTILITY EASEMENT

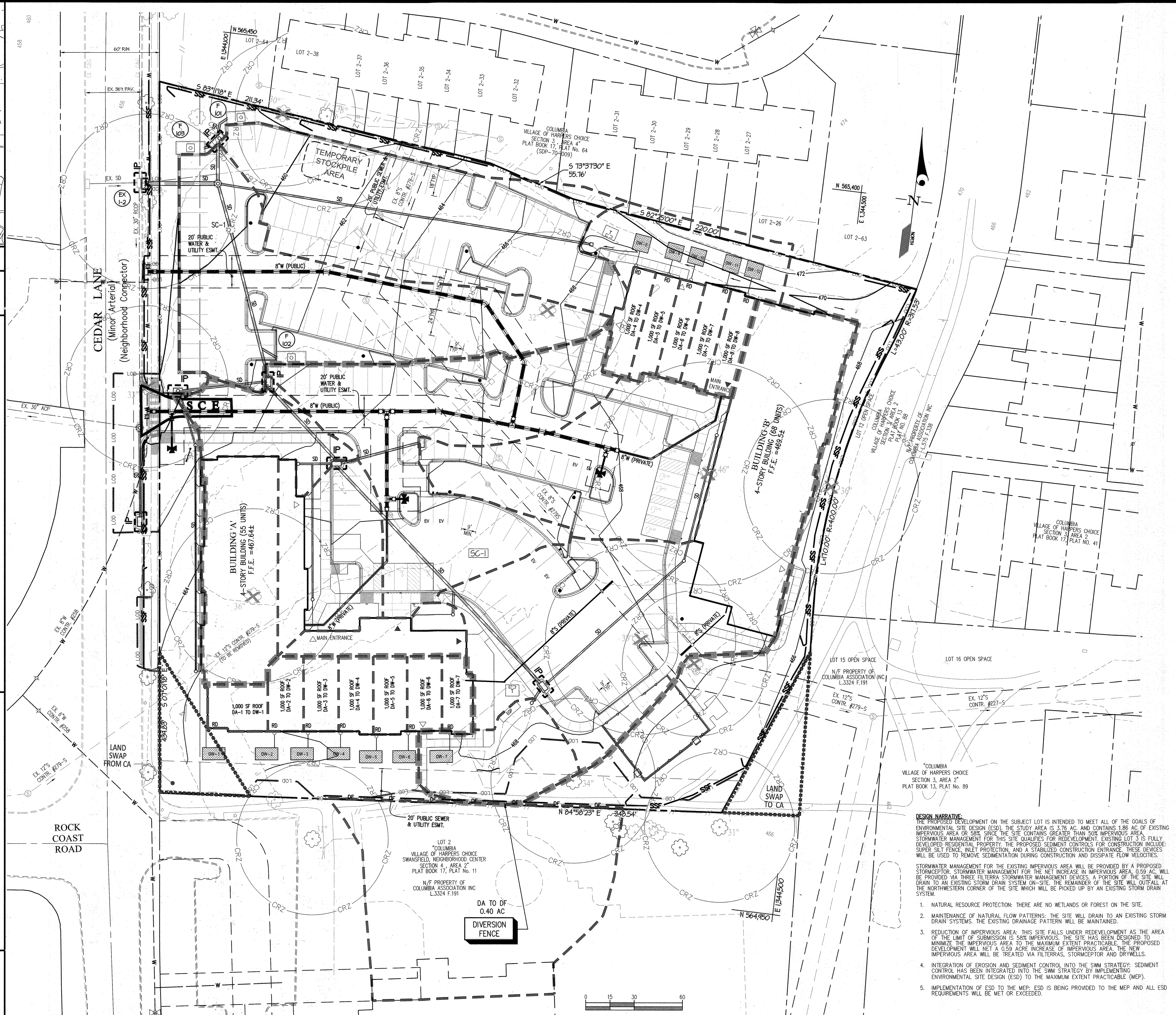
GENERAL NOTES

1. APPLICABLE DEPARTMENT OF PLANNING & ZONING FILE NUMBERS: FDP-34, F-68-012, C-279-S PUBLIC SEWER, C-284-W&S, & SDP-68-006, SDP-74031.
2. SITE ANALYSIS:
   - TOTAL AREA OF SITE (LOT 3): ....3.7 ± ACRES
   - TOTAL AREA OF SUBMISSION (L.O.D.): ....3.7 ± ACRES
   - WETLANDS AND THEIR BUFFER: ....0.0 ± ACRES
   - FLOODPLAINS : ....0.0 ± ACRES
   - FORESTS : ....0.0 ± ACRES
   - STEEP SLOPES 15% AND GREATER (L.O.D.): ....0.0 ± ACRES
   - ERODIBLE SOILS PROJECT AREA (L.O.D.): ....0.0 ± ACRES
   - PROPOSED SITE USE: ....RESIDENTIAL/APARTMENTS
   - GREEN OPEN AREA (L.O.D.): .... 1.72 ± ACRES
   - PROPOSED IMPERVIOUS AREA (L.O.D.): .... 1.94 ± ACRES
3. APPROVAL OF THIS ECP DOES NOT CONSTITUTE APPROVAL OF SUBSEQUENT OR ASSOCIATED SUBDIVISION PLANS OR PLATS AND/OR SITE DEVELOPMENT PLANS. 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 PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN STAGES. 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
4. THIS IS NO FOREST ON THIS PROPERTY; HOWEVER, THE FOREST CONSERVATION OBLIGATIONS FOR THE DEVELOPMENT OF THIS PROPERTY WILL BE ADDRESSED AT THE SDP IN ACCORDANCE WITH SECTION 16.1202(B)(XIII) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
5. NO WETLANDS, STREAM BUFFER OR A 100-YR FLOODPLAIN OR THEIR BUFFERS ARE WITH THE LIMIT OF DISTURBANCE.
6. FOR PLAN CLARITY, EXISTING FEATURES TO BE REMOVED (DEMOLISHED) ARE NOT SHOWN.
7. REPLACEMENT OF LOST TREES ALONG CEDAR LANE FRONTAGE TO BE ADDRESSED AT SDP STAGE.
8. AN ALTERNATIVE COMPLIANCE APPLICATION WILL BE PROCESSED AT THE SDP PLAN STAGE FOR REMOVAL OF TREES CITED IN SECTION 16.1205.(A)(3).

APPROVED: DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 10.24.23

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 10/23/23



SOILS LEGEND

SOIL	NAME	CLASS	'K' FACTOR
GhB	Gladstone-Urban Land Complex, 0 to 8 percent slopes	B	0.32

NO HIGHLY ERODABLE SOILS ON-SITE (highly erodible soils are those soils with a slope > 15% or those with a soil erodiblity K-factor > 0.35 and a slope > 5%)

NOTE:
FILTERRA OPENINGS SHALL REMAIN BLOCKED OR OTHERWISE PROTECTED DURING CONSTRUCTION

LEGEND

EXISTING TREES:
- CRZ=CRITICAL ROOT ZONE INDICATES TREE ≥ 30"DBH
- A BOLD "X" INDICATES TREE TO BE REMOVED

STORMWATER MANAGEMENT REQUIREMENT

STUDY AREA: 3.76 Ac.
EXISTING IMPERVIOUS AREA: 1.86 Ac.
PROPOSED IMPERVIOUS AREA: 2.44 Ac.
NET NEW IMPERVIOUS AREA: +0.58 Ac.

ESDv REQUIRED (EX. IMPERVIOUS):
50% x 1.86 Ac. = 0.93 Ac.
ESDv = [(40,404 sf x 0.95 x 1.0")/12]
ESDv REQUIRED = 3,199 cf

ESDv REQUIRED (NEW IMPERVIOUS):
LOD = NET IMP. AREA = 0.58 Ac.
ESDv = [(25,605 sf x 0.95 x 2.6")/12]
ESDv REQUIRED = 5,270 cf

TOTAL ESDv REQUIRED:
ESDv = 3,199 cf + 5,270 cf
ESDv REQUIRED = 8,469 cf

MINIMUM TREATMENT AREA REQUIRED:
MIN. AREA = 50% EX. IMP AREA + NET NEW IMP. AREA
MIN AREA. = 0.5 x 1.86 Ac. + 0.58
MIN. TREATMENT AREA = 1.51 Ac.

STORMWATER MANAGEMENT RECHARGE

TOTAL RE_V REQUIRED:
NET IMP. AREA = 0.59 Ac.
RE_V = 0.26 x 0.95 x 0.59 Ac.
RE_V REQUIRED = 527 cf

RE_V PROVIDED:
RE_V PROVIDED BY DRYWELLS = 527 cf

ESD VOLUME PROVIDED BY DEVICE

SC-1 (STORMCEPTOR):
D.A. = 84,808 SF
IMPERVIOUS AREA = 33,106 SF.
ESDv = (40,404 x 0.95 x 1")/12
ESDv = 3,199
ESDv PROVIDED = 3,199 cf

F-101 (FILTERRA):
D.A. = 17,061 SF
IMPERVIOUS AREA = 14,499 SF (85%)
R_V = 0.81
A_F = 705 SF
ESD_V PROVIDED = 1,149 cf

F-102 (FILTERRA):
D.A. = 16,437 SF
IMPERVIOUS AREA = 14,666 SF (89%)
R_V = 0.92
A_F = 705 SF
ESD_V PROVIDED = 1,178 CF

F-103 (FILTERRA):
D.A. = 16,272 SF
IMPERVIOUS AREA = 15,548 SF (96%)
R_V = 0.91
A_F = 705 SF
ESD_V PROVIDED = 1,230 CF

DW-1 BLDG A: DRYWELL SIZE (14'x7.5'x5')
D.A. = 1,000 SF
IMPERVIOUS AREA = 1,000 SF (100%)
R_V = 0.95
ESD_V/REv PROVIDED = 210 CF

DW-2 BLDG A: DRYWELL SIZE (14'x7.5'x5')
D.A. = 1,000 SF
IMPERVIOUS AREA = 1,000 SF (100%)
R_V = 0.95
ESD_V/REv PROVIDED = 210 CF

DW-3 BLDG A: DRYWELL SIZE (14'x7.5'x5')
D.A. = 1,000 SF
IMPERVIOUS AREA = 1,000 SF (100%)
R_V = 0.95
ESD_V/REv PROVIDED = 210 CF

DW-4 BLDG A: DRYWELL SIZE (14'X7.5'X5')
D.A. = 1,000 SF
IMPERVIOUS AREA = 1,000 SF (100%)
R_V = 0.95
ESD_V/REv PROVIDED = 210 CF

DW-5 BLDG A: DRYWELL SIZE (14'X7.5'X5')
D.A. = 1,000 SF
IMPERVIOUS AREA = 1,000 SF (100%)
R_V = 0.95
ESD_V/REv PROVIDED = 210 CF

DW-6 BLDG A: DRYWELL SIZE (14'X7.5'X5')
D.A. = 1,000 SF
IMPERVIOUS AREA = 1,000 SF (100%)
R_V = 0.95
ESD_V/REv PROVIDED = 210 CF

DW-7 BLDG A: DRYWELL SIZE (14'X7.5'X5')
D.A. = 1,000 SF
IMPERVIOUS AREA = 1,000 SF (100%)
R_V = 0.95
ESD_V/REv PROVIDED = 210 CF

DW-8 BLDG B: DRYWELL SIZE (10'x10'x5')
D.A. = 1,000 SF
IMPERVIOUS AREA = 1,000 SF (100%)
R_V = 0.95
ESD_V/REv PROVIDED = 200 CF

DW-9 BLDG B: DRYWELL SIZE (10'x10'x5')
D.A. = 1,000 SF
IMPERVIOUS AREA = 1,000 SF (100%)
R_V = 0.95
ESD_V/REv PROVIDED = 200 CF

DW-10 BLDG B: DRYWELL SIZE (10'x10'x5)
D.A. = 1,000 SF
IMPERVIOUS AREA = 1,000 SF (100%)
R_V = 0.95
ESD_V/REv PROVIDED = 200 CF

DW-11 BLDG B: DRYWELL SIZE (10'x10'x5)
D.A. = 1,000 SF
IMPERVIOUS AREA = 1,000 SF (100%)
R_V = 0.95
ESDv/REv PROVIDED = 200 CF

DW-12 BLDG B: DRYWELL SIZE (10'x10'x5)
D.A. = 1,000 SF
IMPERVIOUS AREA = 1,000 SF (100%)
R_V = 0.95
ESD_V/REv PROVIDED = 200 CF

TOTAL ESD_V/REv PROVIDED = 9,226 cf

SWM DRAINAGE AREA SUMMARY TABLE

AREA NO.	AREA (SF)	IMP. AREA (SF)	ESDv (CF) PROVIDED	Pe PROVIDED	REv PROVIDED
DA SC-1	84,808	**33,106	**3,199	1.0	0
DA F-101	17,061	14,499	1,149	1.0	0
DA F-102	16,437	14,666	1,178	1.0	0
DA F-103	16,272	15,548	1,230	1.0	0
*DA DW-1 BLDG A	1,000	1,000	210	2.6	210
*DA DW-2 BLDG A	1,000	1,000	210	2.6	210
*DA DW-3 BLDG A	1,000	1,000	210	2.6	210
*DA DW-4 BLDG A	1,000	1,000	210	2.6	210
*DA DW-5 BLDG A	1,000	1,000	210	2.6	210
*DA DW-6 BLDG A	1,000	1,000	210	2.6	210
*DA DW-7 BLDG A	1,000	1,000	210	2.6	210
*DA DW-8 BLDG B	1,000	1,000	200	2.5	200
*DA DW-9 BLDG B	1,000	1,000	200	2.5	200
*DA DW-10 BLDG B	1,000	1,000	200	2.5	200
*DA DW-11 BLDG B	1,000	1,000	200	2.5	200
*DA DW-12 BLDG B	1,000	1,000	200	2.5	200
TOTAL (Provided)	146,578	89,819	9,226	1.2	2,470

*EACH DRYWELL HAS A MAX CAPACITY OF 1,000 SF AND DISTRIBUTION OF ROOF RUNOFF TO DRYWELLS PROVIDED BY ROOFDRAINS (RD).
**MAX CREDIT, SEE COMPUTATIONS FOR ADDITIONAL INFORMATION.

DESIGN NARRATIVE:

THE PROPOSED DEVELOPMENT ON THE SUBJECT LOT IS INTENDED TO MEET ALL OF THE GOALS OF ENVIRONMENTAL SITE DESIGN (ESD). THE STUDY AREA IS 3.76 AC. AND CONTAINS 1.86 AC OF EXISTING IMPERVIOUS AREA OR 58%. SINCE THE SITE CONTAINS GREATER THAN 50% IMPERVIOUS AREA, STORMWATER MANAGEMENT FOR THIS SITE QUALIFIES FOR REDEVELOPMENT. EXISTING LOT 3 IS FULLY DEVELOPED RESIDENTIAL PROPERTY. THE PROPOSED SEDIMENT CONTROLS FOR CONSTRUCTION INCLUDE: SUPER SILT FENCE, INLET PROTECTION, AND A STABILIZED CONSTRUCTION ENTRANCE. THESE DEVICES WILL BE USED TO REMOVE SEDIMENTATION DURING CONSTRUCTION AND DISSIPATE FLOW VELOCITIES.

STORMWATER MANAGEMENT FOR THE EXISTING IMPERVIOUS AREA WILL BE PROVIDED BY A PROPOSED STORMCEPTOR. STORMWATER MANAGEMENT FOR THE NET INCREASE IN IMPERVIOUS AREA, 0.59 AC, WILL BE PROVIDED VIA THREE FILTERRA STORMWATER MANAGEMENT DEVICES. A PORTION OF THE SITE WILL DRAIN TO AN EXISTING STORM DRAIN SYSTEM ON-SITE. THE REMAINDER OF THE SITE WILL OUTFALL AT THE NORTHWESTERN CORNER OF THE SITE WHICH WILL BE PICKED UP BY AN EXISTING STORM DRAIN SYSTEM.

1. NATURAL RESOURCE PROTECTION: THERE ARE NO WETLANDS OR FOREST ON THE SITE.
2. MAINTENANCE OF NATURAL FLOW PATTERNS: THE SITE WILL DRAIN TO AN EXISTING STORM DRAIN SYSTEMS. THE EXISTING DRAINAGE PATTERN WILL BE MAINTAINED.
3. REDUCTION OF IMPERVIOUS AREA: THIS SITE FALLS UNDER REDEVELOPMENT AS THE AREA OF THE LIMIT OF SUBMISSION IS 58% IMPERVIOUS. THE SITE HAS BEEN DESIGNED TO MINIMIZE THE IMPERVIOUS AREA TO THE MAXIMUM EXTENT PRACTICABLE. THE PROPOSED DEVELOPMENT WILL NET A 0.59 ACRE INCREASE OF IMPERVIOUS AREA. THE NEW IMPERVIOUS AREA WILL BE TREATED VIA FILTERRAS, STORMCEPTOR AND DRYWELLS.
4. INTEGRATION OF EROSION AND SEDIMENT CONTROL INTO THE SWM STRATEGY: SEDIMENT CONTROL HAS BEEN INTEGRATED INTO THE SWM STRATEGY BY IMPLEMENTING ENVIRONMENTAL SITE DESIGN (ESD) TO THE MAXIMUM EXTENT PRACTICABLE (MEP).
5. IMPLEMENTATION OF ESD TO THE MEP: ESD IS BEING PROVIDED TO THE MEP AND ALL ESD REQUIREMENTS WILL BE MET OR EXCEEDED.

GLW
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DESIGNED BY:	DRAWN BY:	CHECKED BY:
MT/LDD	LDD	DS

DATE	REVISION	BY	APP'R.

PREPARED FOR:
Enterprise
Enterprise Community Homes Housing LLC (Owner)
Enterprise Community Development, Inc. (Developer)
875 Hollin Street, Suite 202, Baltimore, MD 21201
410-332-7400

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS 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. 54390, EXPIRATION DATE: MAY 14, 2025
10/4/23

ENVIROMENTAL CONCEPT and CONCEPTUAL SEDIMENT CONTROL PLAN

Village of Harper's Choice

Section 3, Area 4
Lot 3 (Waverly Winds Apartments)
FDP-34
Plat Book 15 Pg. 30

ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1" = 30'	NT	22017
DATE	TAX MAP - GRID	SHEET
Sept., 2023	29 - 23	1 OF 1

ECP-23-034

L:\CADD\DRAWINGS\22017\PLANS BY GLW\ECP\22017 ECP (for mylar)-UPDATED.dwg, PLOTTED:10/4/2023 12:06 PM, LAST SAVED:10/4/2023 12:04 PM, PLOTTED BY: Lloyd Davis