

SITE DATA

APPLICANT: GREEN DEVELOPMENT, C/O ERNIE SOTA
 SITE ADDRESS: 408 CHESTERFIELD AVENUE, CENTREVILLE, MARYLAND 21617
 DEED REFERENCE: 2390/473
 PLAT REFERENCE: 45/12
 TOTAL AREA: 46.869 ACRES± ENTIRELY IN THE CRITICAL AREA
 CURRENT ZONING: TRADITIONAL NEIGHBORHOOD DESIGN (TND)

EXISTING CONDITIONS: THE PROPERTY IS A 46.869 ACRE SITE LOCATED ALONG THE SHORES OF THE YELLOW BANK STREAM. THE MAJORITY OF THE BUFFER IS FORESTED (478,673 SF) WITH A MIXTURE OF HARDWOOD OAKS, MAPLE AND SOME PINE. THE SITE OUTSIDE OF THE BUFFER IS CURRENTLY IN AGRICULTURAL PRODUCTION AND BEING TILLED WITH AN EXISTING VACANT RESIDENCE.

PROPOSED CONDITIONS: THIS CONCEPTUAL MAJOR BUFFER MANAGEMENT PLAN IS INTENDED TO SHOW THE PROPOSED APPROACH TO FULLY-ESTABLISH THE EXPANDED BUFFER AS IS REQUIRED FOR CRITICAL AREA GROWTH ALLOCATION FOR THIS SITE. GROWTH ALLOCATION IS PROPOSED TO CHANGE THE PROPERTY'S CLASSIFICATION FROM LIMITED DEVELOPMENT AREA (LDA) TO INTENSELY DEVELOPED AREA (IDA) IN ORDER TO ALLOW TRADITIONAL NEIGHBORHOOD DESIGN (TND), PLANNED UNIT DEVELOPMENT (PUD).

THE MAJORITY OF THE EXPANDED BUFFER IS CURRENTLY FORESTED AND INTENDED TO REMAIN AS SUCH. AREAS OF THE EXPANDED BUFFER NOT CURRENTLY FORESTED WILL BE FULLY-ESTABLISHED AS A MULTI-TIER WOODLAND WITH NATIVE SPECIES CANOPY AND UNDERSTORY LANDSCAPE STOCK AND SHRUBS. DETAILED PLANTING PLANS WILL BE PROVIDED FOR REQUIRED PLANTING AREAS IN CONJUNCTION WITH THE PREPARATION OF DEVELOPMENT SITE PLANS FOR THE PROJECT.

A FUTURE PUBLIC WALKING PATH IS PROPOSED ALONG PORTIONS OF THE SHORELINE PERIMETER OF THE PROPERTY WITH FINAL LOCATION TO BE DETERMINED IN CONJUNCTION WITH DEVELOPMENT SITE PLANS AND FURTHER CONSULTATION WITH TOWN OFFICIALS. THE PATH WILL GENERALLY BE LOCATED BETWEEN THE 100 FOOT AND THE EXPANDED BUFFER AS SHOWN AND WILL UTILIZE SELECTIVE CLEARING AND GRADING TO MINIMIZE BUFFER DISTURBANCE.

A BUFFER MITIGATION PLAN WILL BE REQUIRED IN CONJUNCTION WITH ANY FUTURE CLEARING OR GRADING IN THE BUFFER FOR THE PROPOSED PUBLIC AND COMMUNITY PATHS.

BUFFER ESTABLISHMENT REQUIREMENTS / PROPOSAL

PROPOSED DEVELOPMENT ACTIVITY: RESIDENTIAL SUBDIVISION

PER COMAR 27.01.09.01-1, C-"SUBDIVISION", "LOT CREATED AFTER LOCAL PROGRAM ADOPTION", FULLY ESTABLISH THE UPLAND, NON-FORESTED PORTIONS OF THE BUFFER.

GROSS BUFFER AREA = 546,603 SF
 LESS BUFFER EXISTING IN WOODS = (478,673 SF)
 NET BUFFER AREA AVAILABLE FOR ESTABLISHMENT = 67,930 SF
 BUFFER TO ESTABLISHMENT REQUIRED = 67,930 SF; (1.56 AC)

LANDSCAPE STOCK PROPOSED
 134 - 2" CALIPER, CANOPY TREES @ 200 SF CREDIT = 26,800 SF CREDIT; (39%)
 79 - 3/4" CALIPER, CANOPY TREES @ 100 SF CREDIT = 7,900 SF CREDIT; (12%)
 177 - 3/4" CALIPER, UNDERSTORY TREES @ 75 SF CREDIT = 13,275 SF CREDIT; (20%)
 400 - 3' HGT., LARGE SHRUBS @ 50 SF CREDIT = 20,000 SF CREDIT; (29%)
 67,975 SF CREDIT; (1.56 AC.)

PLANTING STANDARDS

PLANTING REQUIREMENTS IN ACCORDANCE WITH (COMAR 27.01.09.01-2.K): BUFFER ESTABLISHMENT, GREATER THAN 1 ACRE - AT LEAST 10% OF THE BUFFER ESTABLISHMENT AFFORESTATION TO BE PLANTED IN LANDSCAPE STOCK IN ACCORDANCE WITH COMAR 27.01.09.01-2.L.

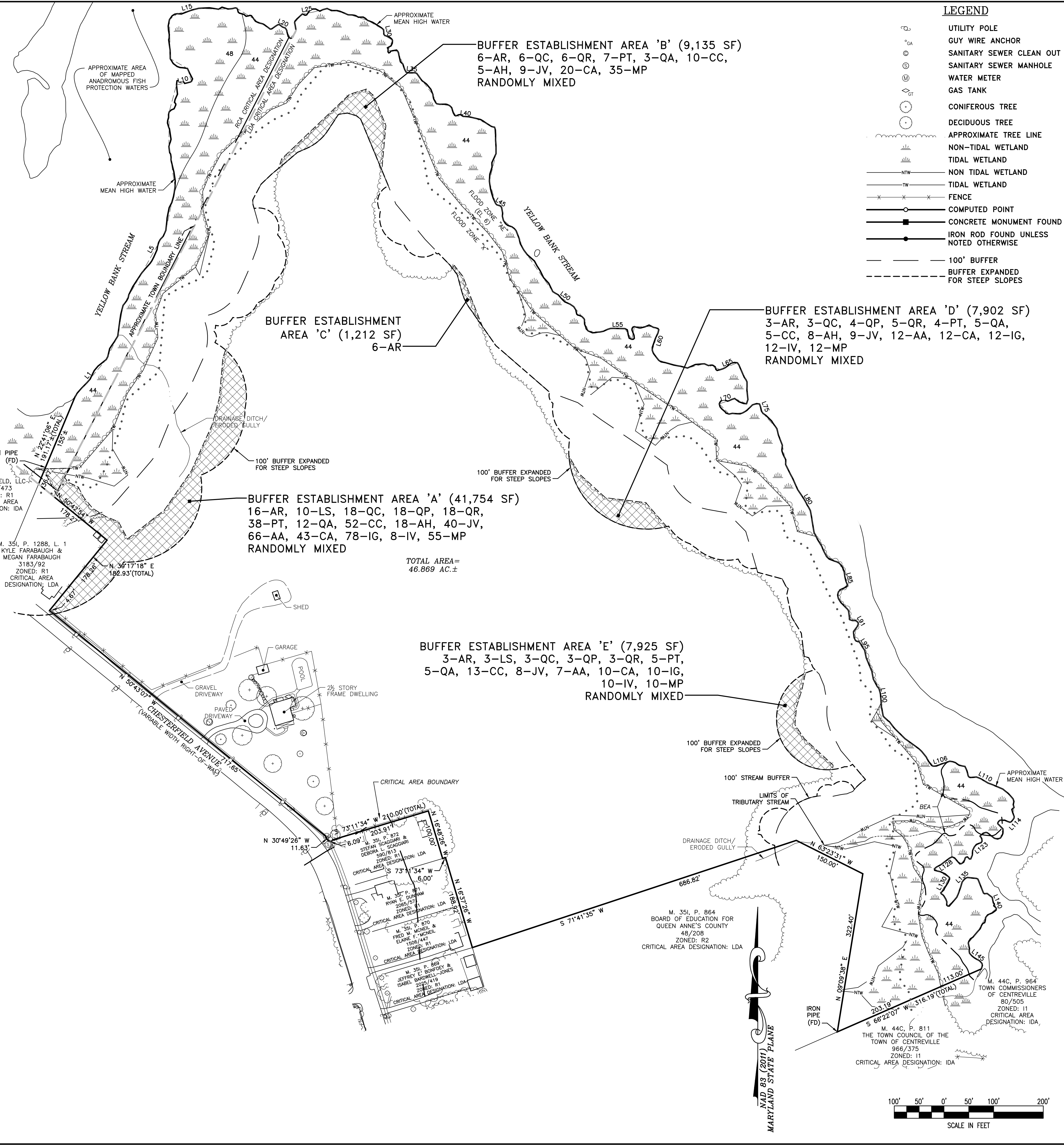
OTHER REQUIREMENTS:
 COMAR 27.01.09.01-3.J. (3) - A SINGLE SPECIES MAY NOT EXCEED 20% OF THE TOTAL PLANTING REQUIREMENT.

BUFFER ESTABLISHMENT STOCKING & SPECIES CHART

SYM QUAN SCIENTIFIC NAME COMMON NAME SPECIFICATION

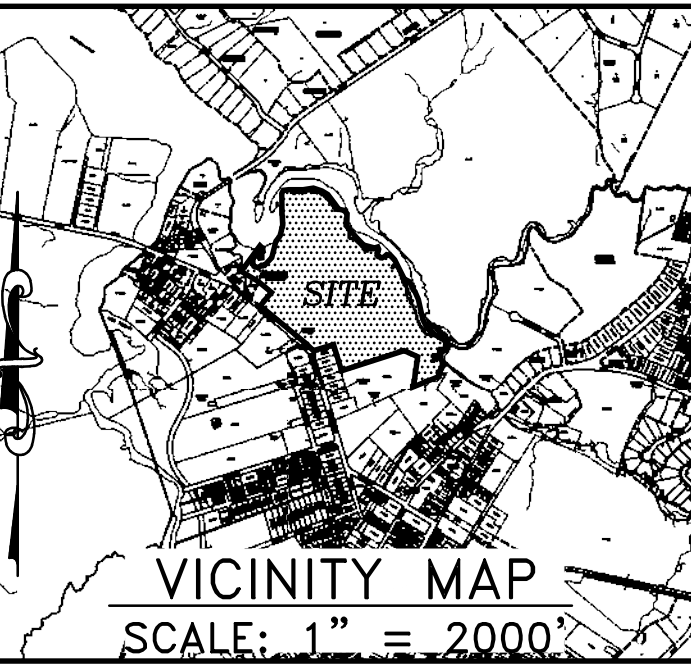
BUFFER ESTABLISHMENT REQUIRED: 67,930 SF MINIMUM

2" CALIPER CANOPY TREES				
AR	34	ACER RUBRUM	RED MAPLE	2" CAL.
LS	13	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	2" CAL.
QC	30	QUERCUS COCCINEA	SCARLET OAK	2" CAL.
QP	25	QUERCUS PHELLOS	WILLOW OAK	2" CAL.
QR	32	QUERCUS RUBRA	RED OAK	2" CAL.
(134 - 2" CALIPER CANOPY TREES @ 200 SQ.FT. CREDIT EACH = 26,800 SF CREDIT PROVIDED)				
3/4" CALIPER CANOPY TREES				
PT	54	PINUS TAEDA	LOBLOLLY PINE	3/4" CAL.
QA	25	QUERCUS ALBA	WHITE OAK	3/4" CAL.
(79 - 3/4" CALIPER CANOPY TREES @ 100 SQ.FT. CREDIT EACH = 7,900 SF CREDIT PROVIDED)				
3/4" CALIPER UNDERSTORY TREES				
CC	80	CERCIS CANADENSIS	EASTERN REDBUD	3/4" CAL.
AH	31	ILEX OPACA	AMERICAN HOLLY	3/4" CAL.
JV	66	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	3/4" CAL.
(177 - 3/4" CALIPER UNDERSTORY TREES @ 75 SQ.FT. CREDIT EACH = 13,275 SF CREDIT PROVIDED)				
3' HEIGHT LARGE SHRUBS				
AA	85	ARONIA ARBUTIFOLIA	RED CHOKEBERRY	3' HGT., 7' O/C
CA	85	CALLIPCARPA AMERICANA	AMERICAN BEAUTYBERRY	3' HGT., 7' O/C
IG	100	ILEX GLABRA	INKBERRY	3' HGT., 7' O/C
IV	30	ILEX VERTICILLATA	WINTERBERRY	3' HGT., 7' O/C
MP	100	MORELLA PENNSYLVANICA	NORTHERN BAYBERRY	3' HGT., 7' O/C
(400 - 3' HIGH LARGE SHRUBS @ 50 SQ.FT. CREDIT EACH = 20,000 SF CREDIT PROVIDED)				



LEGEND

- UTILITY POLE
- GUY WIRE ANCHOR
- SANITARY SEWER CLEAN OUT
- SANITARY SEWER MANHOLE
- WATER METER
- GAS TANK
- CONIFEROUS TREE
- DECIDUOUS TREE
- APPROXIMATE TREE LINE
- NON-TIDAL WETLAND
- TIDAL WETLAND
- NON TIDAL WETLAND
- TIDAL WETLAND
- FENCE
- COMPUTED POINT
- CONCRETE MONUMENT FOUND
- IRON ROD FOUND UNLESS NOTED OTHERWISE
- 100' BUFFER
- BUFFER EXPANDED FOR STEEP SLOPES



REVISIONS

No.	DATE	DESCRIPTION	BY

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 Established 1986
 Civil Engineers • Land Planning • Land Surveyors

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 15 Washington St., Centreville, MD 21613 (410) 221-0818
 354 Pennsylvania Ave., Centreville, MD 21617 (410) 758-2095

CONCEPTUAL CRITICAL AREA MAJOR BUFFER MANAGEMENT PLAN

ON THE LANDS OF CHESTERFIELD, LLC

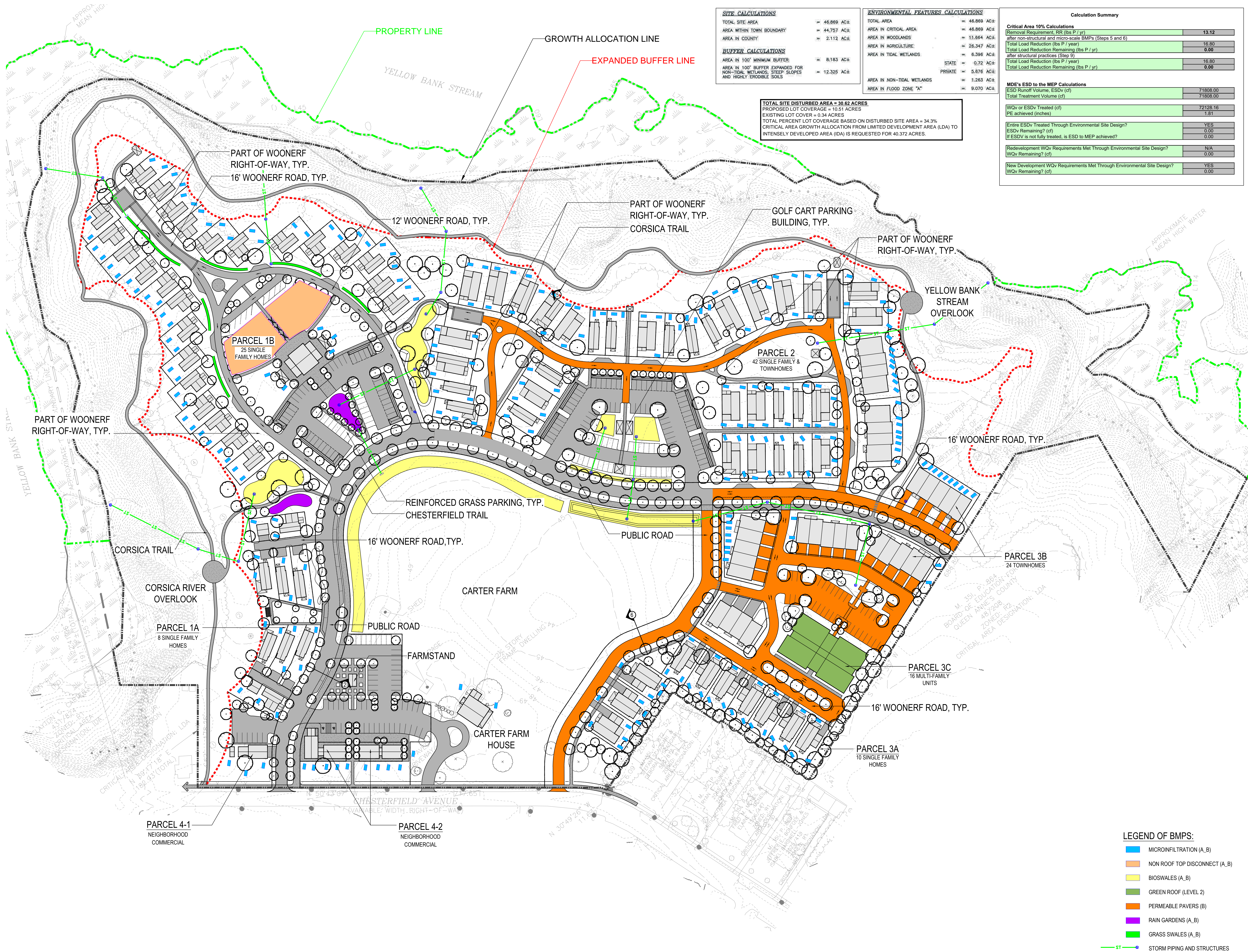
TOWN OF CENTREVILLE, THIRD ELECTION DISTRICT, QUEEN ANNE'S COUNTY, MARYLAND
 TAX MAP 351, GRID 19, PARCEL 1288

ISSUED FOR: TOWN REVIEW DATE: 9/30/21 BY: BFG

SHEET No. 1 OF 1 DATE: 9/30/21

SCALE: AS NOTED JOB No. 210117 FILE No. C923

Date: 09/28/2021 - 11:52am User: edean Project Manager: BFG
 Drawing Path: J:\2021\01000\210117\Draw\Plots\HBP-PLTS-210117.dwg | ConceptualBMP
 XREF File(s): VSP-BASE-210117\MD-BASE-210117\HBP-BASE-210117



SITE CALCULATIONS

TOTAL SITE AREA	= 46.869 AC±
AREA WITHIN TOWN BOUNDARY	= 44.757 AC±
AREA IN COUNTY	= 2.112 AC±

BUFFER CALCULATIONS

AREA IN 100' MINIMUM BUFFER	= 8.183 AC±
AREA IN 100' BUFFER EXPANDED FOR NON-TIDAL WETLANDS, STEEP SLOPES AND HIGHLY ERODIBLE SOILS	= 12.325 AC±

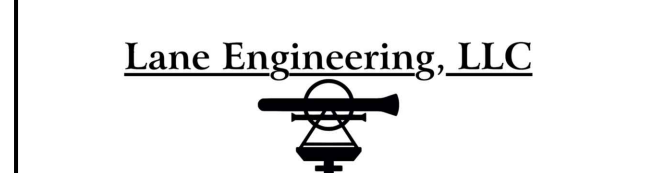
ENVIRONMENTAL FEATURES CALCULATIONS

TOTAL AREA	= 46.869 AC±
AREA IN CRITICAL AREA	= 46.869 AC±
AREA IN WOODLANDS	= 13.664 AC±
AREA IN AGRICULTURE	= 26.347 AC±
AREA IN TIDAL WETLANDS	= 6.396 AC±
STATE PRIVATE	= 0.72 AC±
PRIVATE	= 5.676 AC±
AREA IN NON-TIDAL WETLANDS	= 1.263 AC±
AREA IN FLOOD ZONE "A"	= 9.070 AC±

TOTAL SITE DISTURBED AREA = 30.62 ACRES
 PROPOSED LOT COVERAGE = 10.51 ACRES
 EXISTING LOT COVER = 0.34 ACRES
 TOTAL PERCENT LOT COVERAGE BASED ON DISTURBED SITE AREA = 34.3%
 CRITICAL AREA GROWTH ALLOCATION FROM LIMITED DEVELOPMENT AREA (LDA) TO INTENSELY DEVELOPED AREA (IDA) IS REQUESTED FOR 40.372 ACRES.

Calculation Summary

Critical Area 10% Calculations	
Removal Requirement, RRR (lbs P / yr) after non-structural and micro-scale BMPs (Steps 5 and 6)	13.12
Total Load Reduction (lbs P / yr) after structural practices (Step 9)	16.80
Total Load Reduction Remaining (lbs P / yr)	0.00
Total Load Reduction (lbs P / yr) after structural practices (Step 9)	16.80
Total Load Reduction Remaining (lbs P / yr)	0.00
MDE's ESD to the MEP Calculations	
ESD Runoff Volume, ESDv (cf)	71808.00
Total Treatment Volume (cf)	71808.00
WQv or ESDv Treated (cf)	72128.16
PE achieved (inches)	1.81
Entire ESDv Treated Through Environmental Site Design?	YES
ESDv Remaining? (cf)	0.00
If ESDv is not fully treated, is ESD to MEP achieved?	0.00
Redevelopment WQv Requirements Met Through Environmental Site Design?	N/A
WQv Remaining? (cf)	0.00
New Development WQv Requirements Met Through Environmental Site Design?	YES
WQv Remaining? (cf)	0.00



Project Number:
 20011:1
 Drawn by:
 DM
 Checked by:
 FB | DM
 Date:
 October 1, 2021

Revisions:

Scale:
 1" = 40'

Sheet Name:
 Stormwater
 Concept Plan

Submission:
 PUD Application

Sheet Number:
SWM1

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LEGEND OF BMPs:

	MICROINFILTRATION (A,B)
	NON ROOF TOP DISCONNECT (A,B)
	BIOSWALES (A,B)
	GREEN ROOF (LEVEL 2)
	PERMEABLE PAVERS (B)
	RAIN GARDENS (A,B)
	GRASS SWALES (A,B)
	STORM PIPING AND STRUCTURES