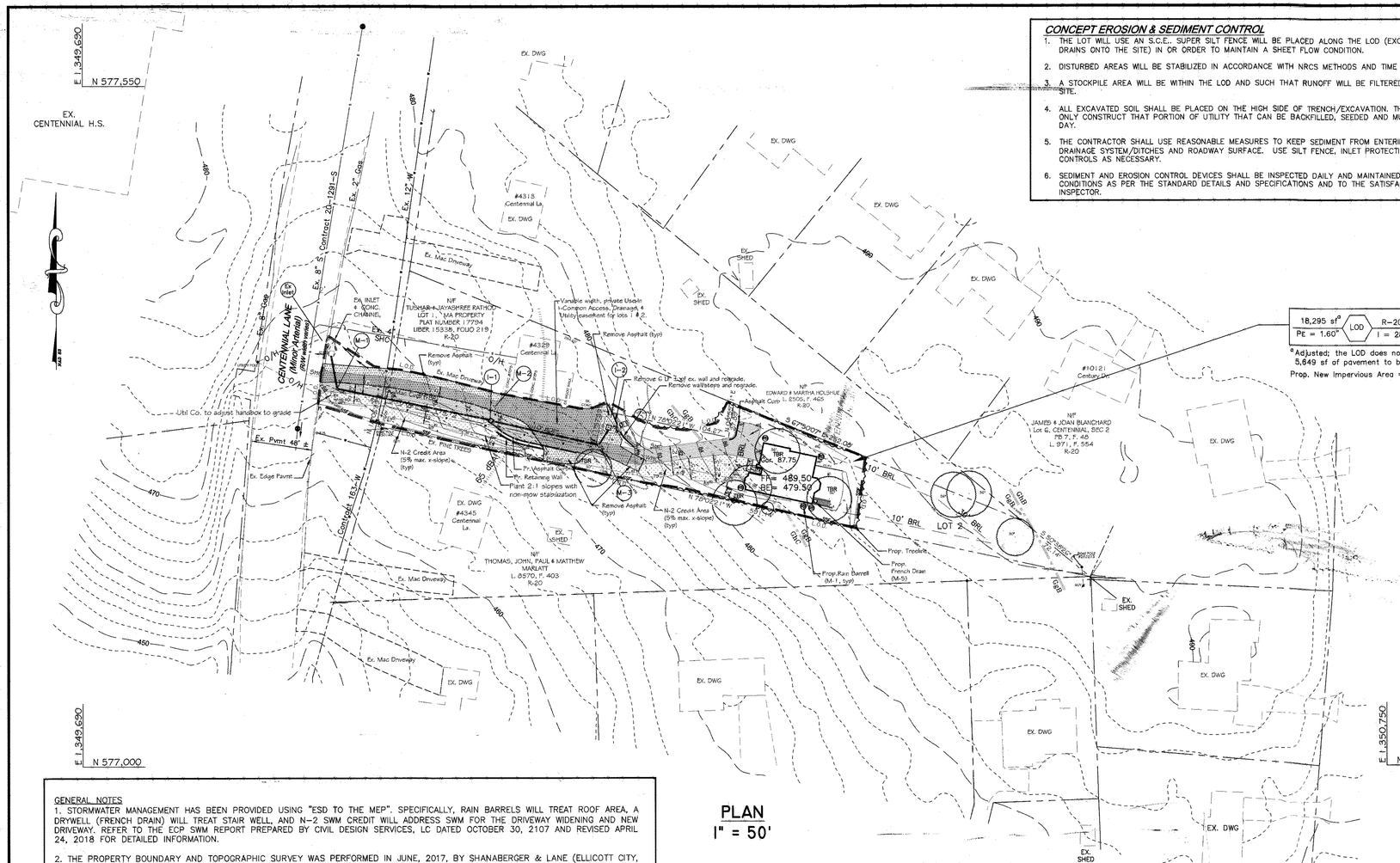


PLAN
1" = 50'

CONCEPT EROSION & SEDIMENT CONTROL

1. THE LOT WILL USE AN S.C.E., SUPER SILT FENCE WILL BE PLACED ALONG THE LOD (EXCEPT WHERE WATER DRAINS ONTO THE SITE) IN OR ORDER TO MAINTAIN A SHEET FLOW CONDITION.
2. DISTURBED AREAS WILL BE STABILIZED IN ACCORDANCE WITH NRCS METHODS AND TIME FRAMES.
3. A STOCKPILE AREA WILL BE WITHIN THE LOD AND SUCH THAT RUNOFF WILL BE FILTERED WHEN LEAVING THE SITE.
4. ALL EXCAVATED SOIL SHALL BE PLACED ON THE HIGH SIDE OF TRENCH/EXCAVATION. THE CONTRACTOR SHALL ONLY CONSTRUCT THAT PORTION OF UTILITY THAT CAN BE BACKFILLED, SEEDED AND MULCHED IN THAT SAME DAY.
5. THE CONTRACTOR SHALL USE REASONABLE MEASURES TO KEEP SEDIMENT FROM ENTERING THE EXISTING DRAINAGE SYSTEM/DITCHES AND ROADWAY SURFACE. USE SILT FENCE, INLET PROTECTION, OR OTHER CONTROLS AS NECESSARY.
6. SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED DAILY AND MAINTAINED IN WORKING CONDITIONS AS PER THE STANDARD DETAILS AND SPECIFICATIONS AND TO THE SATISFACTION OF THE INSPECTOR.

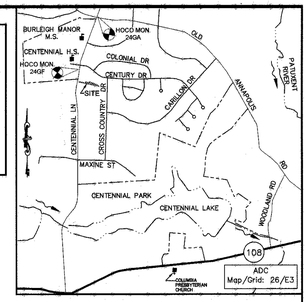
18,295 sf* | LOD | R-20
Pt = 1.60" | I = 28.9%*

*Adjusted; the LOD does not include 5,849 sf of pavement to be removed/overlaid).
Prop. New Impervious Area = 5,284 sf

BENCH MARKS (NAD '83 & NAVD '88)

HO. CO. #24GA ELEV. 491.735
Stamped (brass or aluminum) disc set on top of a concrete column 1" or 2" below grade.
N 579,160.328 E 1,350,477.552

HO. CO. #24GF ELEV. 482.158
Stamped (brass or aluminum) disc set on top of a concrete column 1" or 2" below grade
N 577,631.588 E 1,349,886.408



VICINITY MAP
1" = 2,000'

LEGEND

- Property Line
- Ex. 2' Contour
- Ex. 10' Contour
- Proposed Contour
- LOD
- SSF — Super Silt Fence
- Edge of Existing Paving
- GgB / GhB — Soils Divide
- Ex. Public Sewer
- Proposed SHC
- Ex. Public Water Line
- Proposed WHC
- Existing Tree Line
- Proposed Tree Line
- Rain Barrel (Not To Scale)
- Proposed Dwelling
- Existing Asphalt Paving
- Prop. Asphalt Paving
- Prop. Asphalt Overlay/Repair
- Pavement to be removed
- Drainage Direction
- 65 dBA (Plat F-04-090)
- Proposed UIC Access Easement
- TBR — To Be Removed

ECP DESIGN NARRATIVE

1. Natural Resources Protection Enhancement: This residential site does not contain wetlands, floodplains, forests, steep slopes or associated buffers. Therefore, these resources are not impacted. Groundwater recharge will be provided with infiltration via disconnection credit and infiltration trenches.
2. Maintenance of Natural Flow Patterns: There is no significant on-site proposed grading that will alter drainage patterns. Stormwater generally flows to the same location after development as before development. A small drainage area (<0.25 acres) from the north will be diverted to the existing inlet adjacent to the driveway.
3. Reduction of impervious areas through better site design, alternative surfaces, non-structural practices: The SWM concept is consistent with "ESD to the MEP" practices. The existing driveway is used to serve the rear lot thereby saving additional impervious area for an adjacent parallel driveway. Existing impervious areas has been removed to the maximum extent practicable.
4. Integration of E&SC into SWM strategy: The E&SC design will follow HSCD standards & specifications and will meet the goal of keeping sediment from leaving the site. The practices will be integrated in SWM strategy by embracing sheet flow patterns where practicable and is a preferred ESD practice.
5. Implementation of ESD planning techniques and practices: Non-structural practices were incorporated where possible.
6. Environmental waivers are not anticipated for this project.

SITE DATA
Site (Property) Area: 0.539 acre ±
Wetland and Wetland Buffers: 0.0 acre
Floodplain: 0.0 acre
Forests: 0.0 acre
Steep Slopes: None
Erodible Soils: None
LOD: 0.56 acre
Proposed Site Use: Residential
File References: F-04-090
Impervious Area: 0.21 acre ± (in LOD)
Green Open Area: 0.35 acre ± (in LOD)
Environmental Waivers for Necessary Disturbance: N/A.

GENERAL NOTES

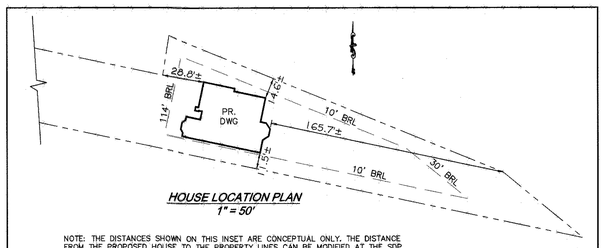
1. STORMWATER MANAGEMENT HAS BEEN PROVIDED USING "ESD TO THE MEP". SPECIFICALLY, RAIN BARRELS WILL TREAT ROOF AREA, A DRYWELL (FRENCH DRAIN) WILL TREAT STAIR WELL, AND N-2 SWM CREDIT WILL ADDRESS SWM FOR THE DRIVEWAY WIDENING AND NEW DRIVEWAY. REFER TO THE ECP SWM REPORT PREPARED BY CIVIL DESIGN SERVICES, LC DATED OCTOBER 30, 2107 AND REVISED APRIL 24, 2018 FOR DETAILED INFORMATION.
2. THE PROPERTY BOUNDARY AND TOPOGRAPHIC SURVEY WAS PERFORMED IN JUNE, 2017, BY SHANABERGER & LANE (ELLICOTT CITY, MD). MOST OF THE TOPOGRAPHY SHOWN OUTSIDE THE BOUNDARY WAS TAKEN FROM HOWARD COUNTY AERIAL TOPO (LIDAR) MAPS.
3. APPROVAL OF THIS ECP DOES NOT CONSTITUTE APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION, SITE DEVELOPMENT, FOREST CONSERVATION, GRADING, OR BUILDING PERMIT PLAN. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS, INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN (i.e., LOCATION OF HOUSE, DRIVEWAY, GRADING, LOD, ETC.) AS THIS PROJECT PROGRESSES THROUGH THE REVIEW PROCESS IN ACCORDANCE WITH THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
4. THERE ARE NO WETLANDS LOCATED ON THIS PROPERTY AS PER APPROVED PLAT F-04-090.
5. THIS PROPERTY IS NOT SUBJECT TO HOWARD COUNTY FOREST CONSERVATION REQUIREMENTS AS PER THE APPROVED PLAT F-04-090.
6. THE EXISTING VEGETATION ON THIS PROPERTY IS MOSTLY UNDERGROWTH AND MATURE TREES. THE PIPE STEM CONTAINS GRASS.
7. THE 65 dBA LINE WAS TAKEN FROM THE APPROVED PLAT F-04-090.
8. THE PROPERTY OWNER SHALL OBTAIN WRITTEN GRADING PERMISSION FROM THE LOT 1 OWNER.
9. STORMWATER PRACTICES SHOWN ON THIS PLAN WILL BE PRIVATELY OWNED AND MAINTAINED.
10. EXISTING UTILITY LOCATIONS ARE CONSIDERED APPROXIMATE AND WERE TAKEN FROM FIELD SURVEY, HOWARD GIS, AND INFORMATION OF RECORD.
11. THIS PLAN IS FOR CONCEPTUAL PURPOSES ONLY AND WAS PREPARED TO EVALUATE ENVIRONMENTAL IMPACTS AND IDENTIFY THE FEASIBILITY OF THE PROPOSED STORMWATER MANAGEMENT DESIGN. THIS PLAN IS A CONCEPT ONLY AND NOT FOR CONSTRUCTION.
12. ALL TREES > 30"ø AT BREAST HEIGHT (DBH) WILL BE REMOVED WITHIN THE LIMIT OF DISTURBANCE.
13. THE HOUSE LOCATION AND SWALE LOCATION DIMENSIONS ARE APPROXIMATE AND MAY BE MODIFIED DURING THE SDP PROCESS.
14. THE RAIN BARRELS SHALL BE PROPERLY-SIZED PER THE ROOF DRAINAGE AREA AT THE SDP DESIGN.

SOILS TABLE

SYMBOL	NAME	HSG	Kw
GhC	Glenelg Urban land complex, 8-15% slope	B	0.20
GgB	Glenelg loam, 3-8% slope	B	0.20
GhB	Glenelg Urban land complex, 0-8% slope	B	0.20

MA PROPERTY
SITE ESDv SUMMARY TABLE

Location	Required ESDv (cf)	Provided ESDv (cf)	Practice/Credit
New House (roof)	248	285	Five (5) 56 cf Rain Barrels, or appropriately-sized barrels sized per roof area and required ESDv [8]
Basement Stairwell	10	10	French Drain (2.5'×2.5'×4')
8' Driveway Widening; New 12' Driveway; Walk	Non-rooftop disconnection credit (N-2) (flat grass strip < 5% cross slope w/ "high side" drainage diversion); 3,468 sf credit area > 3,250 sf impervious area		
TOTAL	258	295	



HOUSE LOCATION PLAN
1" = 50'

NOTE: THE DISTANCES SHOWN ON THIS INSET ARE CONCEPTUAL ONLY. THE DISTANCE FROM THE PROPOSED HOUSE TO THE PROPERTY LINES CAN BE MODIFIED AT THE SDP STAGE SO THE PROPOSED DWELLING HONORS THE BRLs.

GRAPHIC SCALE:
0 25' 50' 100' 200'

CIVIL DESIGN SERVICES, LC
6123 Holly Ridge Court, Columbia, Maryland 21044
240.755.0380; civildesign@comcast.net

I hereby certify that I prepared this plan and the seal signifies that I am a duly licensed professional engineer under the laws of the State of MD, License No. 15,838 w/expiration December 17, 2019.

Andrew A. Porter 5/14/18
ANDREW A. PORTER, P.E. DATE

NO.	REVISION	DATE

OWNER/DEVELOPER
Mr. Hong Tao Ma
4268 Maisel Farm Lane
Ellicott City, Maryland 21042
410.493.4950
greathomes111@yahoo.com

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 5/16/18

Chief, Development Engineering Division — Date 5.24.18

PROJECT	SECTION	LOT NO.
Ma Property (L.5515/F.202)	N/A	2

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
F-04-090	19	R-20	24	2nd	602304

ENVIRONMENTAL CONCEPT PLAN

MA PROPERTY, LOT 2
4335 Centennial Lane, Ellicott City, MD 21042
(A Single Family Dwelling)

Zoning: R-20
TAX MAP NO: 24 PARCEL NO.: 1037 GRID NO.: 19
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

May 14, 2018

SHT 1 OF 1

ECP-18-017