

| SHEET INDEX |  |
|-------------|--|
| SHEET NO.   | DESCRIPTION  |
| 1           | TITLE SHEET  |
| 2           | ENVIRONMENTAL CONCEPT PLAN & SEDIMENT CONTROL PLAN |
| 3           | SEDIMENT CONTROL NOTES & DETAILS                   |

| SOILS LEGEND |  |       |         |
|--------------|--|-------|---------|
| SOIL         | NAME   | CLASS | K VALUE |
| Ucb          | Urban land-Chillum-Belleville complex, 0 to 5 percent slopes | B/C   | N/A     |
| Sr           | Sassafras and Croom loam                                     | C     | 0.37    |

| STORMWATER MANAGEMENT SUMMARY |                     |                     |   |
|-------------------------------|---------------------|---------------------|---|
| AREA ID.                      | ESD PROVIDED CU.FT. | ESD REQUIRED CU.FT. | REMARKS                                   |
| ROOF (1,600 Sq.Ft.)           | 241                 | 204                 | 1 MICRO-BIORETENTION FACILITY (M-6)       |
| DRIVEWAY (886 Sq.Ft.)         | 180 (STORAGE)       | 180 (STORAGE)       | 1 PERMEABLE PAVEMENT (A-2)                |
| TOTAL SITE                    | 421                 | 416                 | FROM OVERALL SITE ASSESSMENT COMPUTATIONS |

# ENVIRONMENTAL CONCEPT PLAN EUCLID PROPERTY

LOT 310

**ZONING: R-12 (RESIDENTIAL: SINGLE DISTRICT)**  
**TAX MAP No. 38 GRID No. 13 PARCEL Nos. 873**  
**FIRST ELECTION DISTRICT**  
**HOWARD COUNTY, MARYLAND**

**SWM NARRATIVE**

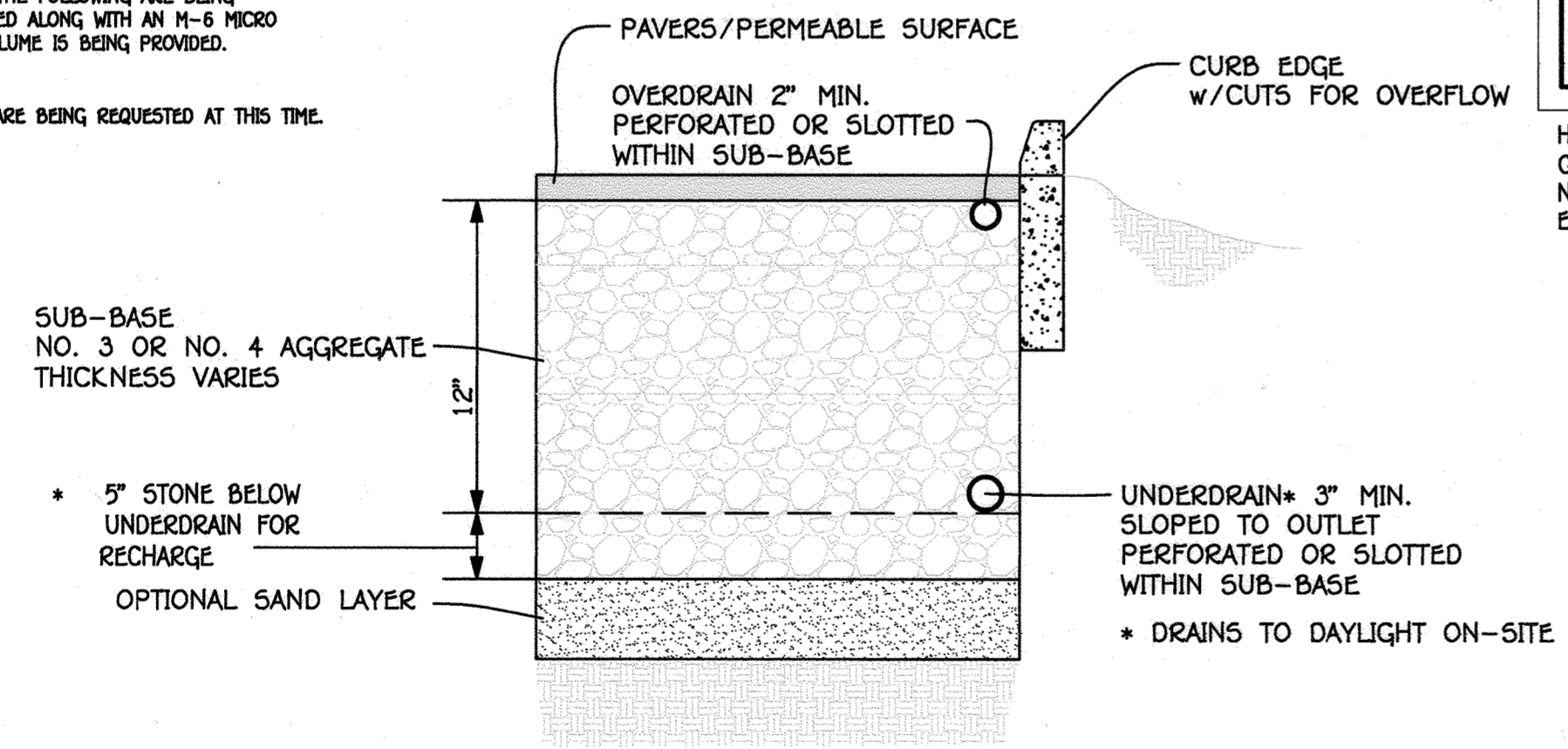
**INTRODUCTION:**  
 THIS REPORT WILL DEMONSTRATE HOW THE CRITERIA SET FORTH IN THE MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I AND II (EFFECTIVE OCTOBER 2000, REVISED MAY 2009) WILL BE SATISFIED ON THIS PROJECT. THE GOAL OF CREATING HYDROLOGY SIMILAR TO THAT OF WOODS IN GOOD CONDITION WILL BE ACCOMPLISHED THROUGH THE USE OF THE PRACTICES CONTAINED WITHIN CHAPTER 5 OF SAID MANUAL.

**GENERAL SITE CONDITIONS:**  
 EUCLID PROPERTY IS A SINGLE LOT AND LOCATED ON TAX MAP 38, GRID 13, PARCEL 873, LOT 310 OF THE HOWARD COUNTY, MARYLAND TAX MAP DATABASE SYSTEM. THIS PROPERTY IS ZONED R-12 AND WILL UTILIZE PROPOSED PUBLIC WATER AND SEWER EXTENSIONS. THE PROPERTY IS LOCATED IN THE ELKIDGE AREA OF HOWARD COUNTY, DRAINS TO A TOWNSHIP TO PATAPSCO RIVER, AND IN THE WATERSHED OF THE PATAPSCO RIVER (021309). WATER RUNOFF FLOWS FROM THE NORTH TO SOUTH. THIS PROPERTY IS RECTANGULAR IN SHAPE. NO FOREST EXISTS ON-SITE. THE WEB SOIL SURVEY SHOWS SOILS ON THE SITE CONSIST OF URBAN LAND-CHILLUM-BELLEVILLE (Ucb), TYPE "B/C" SOILS. THE RUNOFF FROM THE ROOF OF THE PROPOSED HOUSE IS TO BE TREATED BY MICRO-BIORETENTION (M-6) AND RUNOFF FROM THE DRIVEWAY WILL BE TREATED BY PERMEABLE PAVEMENT (A-2).

- NATURAL RESOURCE PROTECTION:**  
 ENVIRONMENTALLY SENSITIVE AREAS DO NOT EXIST ON-SITE.
- MAINTENANCE OF NATURAL FLOW PATTERNS:**  
 IT IS THE INTENT OF THE PROPOSED DESIGN TO DISCHARGE RUNOFF SIMILAR TO THE CHARACTERISTICS AND DIRECTION OF THIS SITE PRIOR TO ANY OF THE PROPOSED IMPROVEMENTS.
- REDUCTION OF IMPERVIOUS AREAS THROUGH BETTER SITE DESIGN, ALTERNATIVE SURFACES AND NONSTRUCTURAL PRACTICES:**  
 THE DESIGN OF THIS PROJECT UTILIZES ONE INDIVIDUAL DRIVEWAY FOR THE PROPOSED SINGLE FAMILY DETACHED HOUSE. NON-STRUCTURAL PRACTICES AS PERMITTED IN CHAPTER 5, MICRO-BIORETENTION (M-6) AND PERMEABLE PAVEMENT (A-2) WILL BE USED.
- INTEGRATION OF EROSION AND SEDIMENT CONTROLS INTO STORMWATER STRATEGY:**  
 SEDIMENT TRAPS WILL NOT BE NEEDED DUE TO THE LIMITED DRAINAGE AREA. SILT FENCE AND SUPER SILT FENCE WILL BE USED. NO OFF-SITE DRAINAGE EASEMENTS WILL BE REQUIRED.
- IMPLEMENTATION OF ESD PLANNING TECHNIQUES AND PRACTICES TO THE MAXIMUM EXTENT PRACTICABLE (MEP):**  
 IN ACCORDANCE WITH THE CHAPTER 5 ESD DEVICES THE FOLLOWING ARE BEING PROVIDED: M-2 PERMEABLE PAVING IS BEING PROVIDED ALONG WITH AN M-6 MICRO BIO-RETENTION FACILITY THE FULL REQUIRED ESD VOLUME IS BEING PROVIDED.
- REQUEST FOR DESIGN MANUAL WAIVER:**  
 NO WAIVERS RELATED TO STORMWATER MANAGEMENT ARE BEING REQUESTED AT THIS TIME.

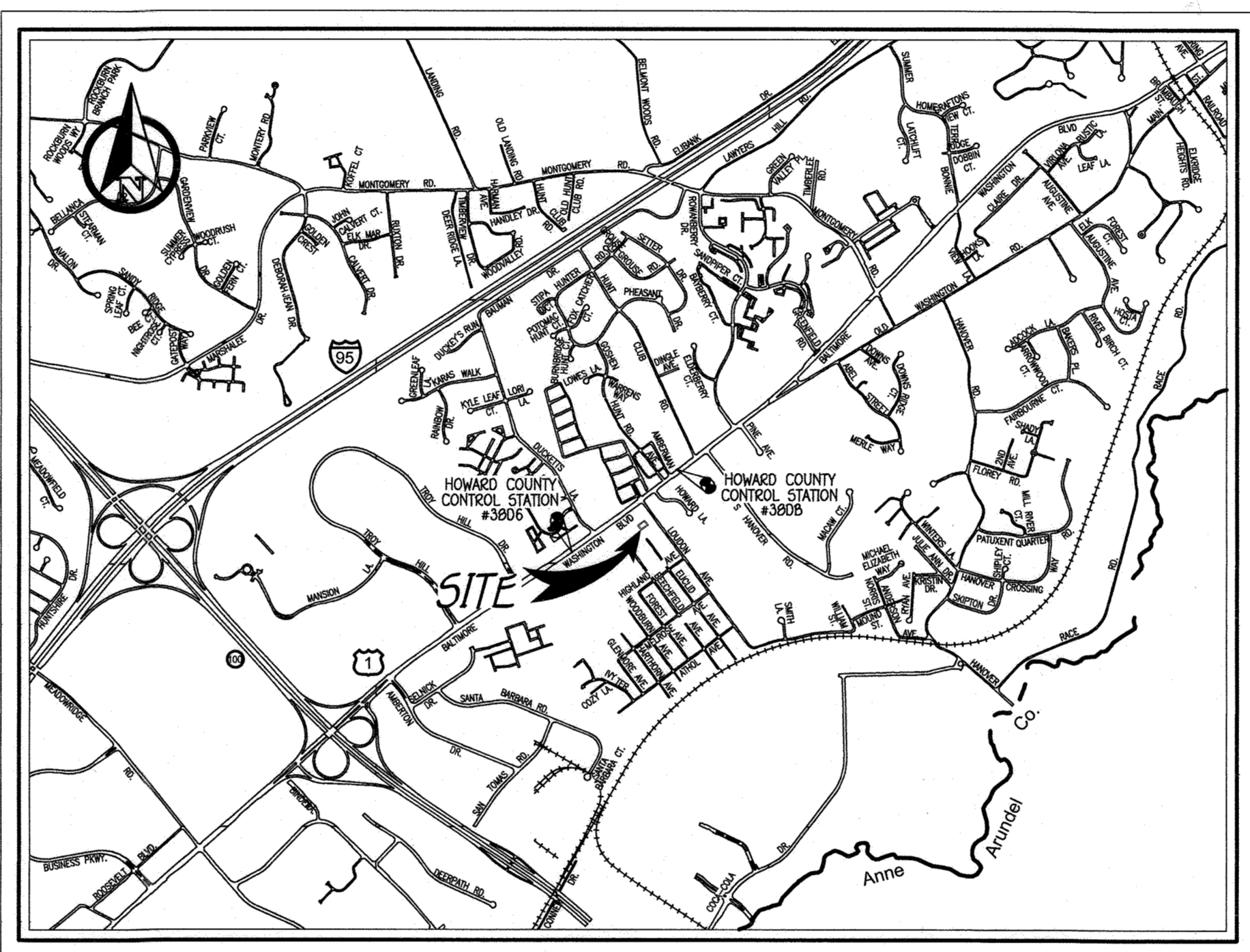
**OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED PERMEABLE PAVEMENT (A-2)**

- The owner shall periodically sweep (or vacuum porous concrete pavement) the pavement surfaces to reduce sediment accumulation and insure continued surface porosity. Sweeping should be performed at least twice annually with a commercial cleaning unit. Washing or compressed air units should not be used to perform surface cleaning.
- The owner shall periodically clean drainage pipes, inlets, stone edge drains and other structures within or draining to the subbase.
- The owner shall use deicers in moderation. Deicers should be non-toxic and be applied either as calcium magnesium acetate or as pretreated salt.
- The owner shall ensure snow plowing is performed carefully with blades set one inch above the surface. Plowed snow piles and snowmelt should not be directed to permeable pavement.

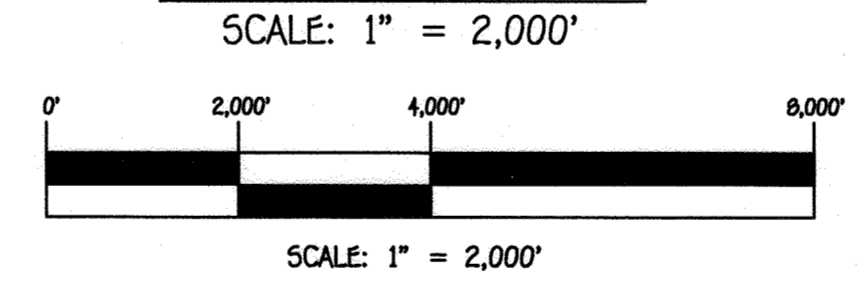


**TYPICAL SECTION - PERMEABLE PAVEMENT w/ OVERDRAIN & UNDERDRAIN**  
 NO SCALE

\* RECHARGE BASIN SHALL BE INSTALLED UNDER SUB-BASE TO EXTENTS SHOWN ON PLANS



**VICINITY MAP**

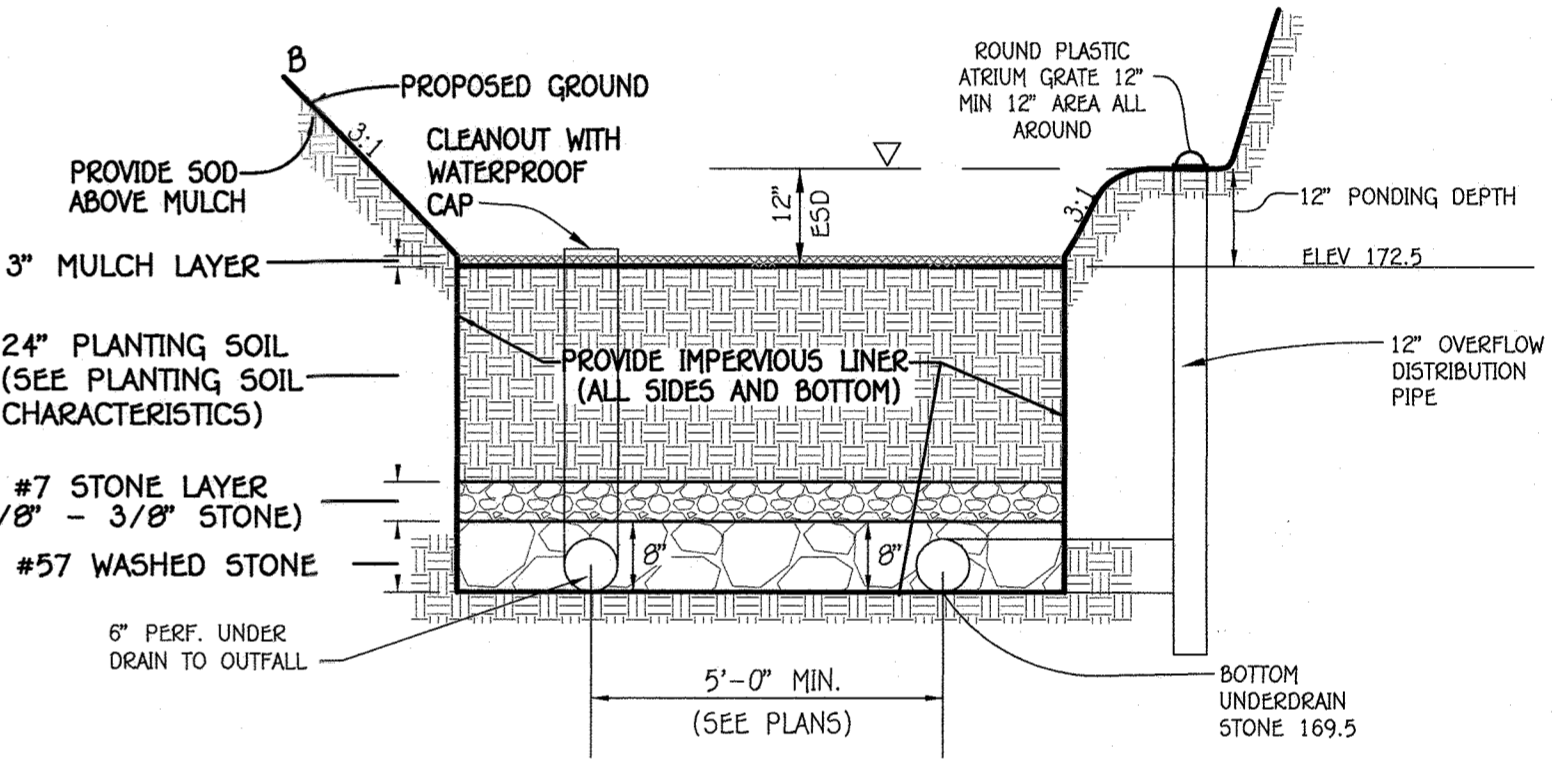


**SITE ANALYSIS DATA CHART**

- TOTAL AREA OF THIS SUBMISSION: 9,000 Sq.Ft. (0.207 Ac.)
- LIMIT OF DISTURBED AREA = 9,740 Sq.Ft. (0.22 Ac.)
- PRESENT ZONING DESIGNATION = R-12
- PROPOSED USE: SINGLE FAMILY DETACHED HOUSING
- NET TRACT AREA = 0.207 AC.
- BUILDING COVERAGE OF SITE: 1,600 Sq.Ft. (0.037 AC) OR 17.7%
- PREVIOUS HOWARD COUNTY FILES: X
- H. TOTAL AREA OF FLOODPLAIN LOCATED ON SITE 0.0 AC.
- J. TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0.0 AC.
- K. TOTAL AREA OF WETLANDS (INCLUDING BUFFER) LOCATED ON SITE = 0.0 AC.
- L. TOTAL GREEN SPACE = 6,600 SF = 0.152 AC.
- M. TOTAL IMPERVIOUS AREA = 2,825 sq.ft. (0.06 Ac.)
- N. AREA OF ERODIBLE SOILS = 0.0 AC.

**GENERAL NOTES**

- THE SUBJECT PROPERTY IS ZONED R-12 (PER 10/06/13 COMPREHENSIVE ZONING PLAN.) BOUNDARY IS BASED ON A FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS & CARTER ON OR ABOUT SEPTEMBER, 2021.
- CONTOURS ARE BASED ON A TOPOGRAPHIC FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS AND CARTER, ON OR ABOUT JUNE, 2021.
- COORDINATES BASED ON MARYLAND STATE COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL.  
 STATIONS NO. 3806 AND NO. 3808:  
 HOWARD COUNTY MONUMENT NO. 3806 N 577,155.424 E 1,384,992.312 ELEV. 174.547  
 HOWARD COUNTY MONUMENT NO. 3808 N 558,427.282 E 1,386,562.476 ELEV. 192.132
- STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. THIS PLAN PROPOSES THE USE OF ONE (1) M-6 MICRO-BIORETENTION FACILITY AND ONE (1) PERMEABLE PAVEMENT.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND SEWER WILL BE UTILIZED FOR THIS PROJECT.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAMS OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
- A PRE-SUBMISSION COMMUNITY MEETING WAS HELD ON DECEMBER 10, 2018 FOR THIS PROJECT.
- THIS DEVELOPMENT IS NOT GOING THROUGH SUBDIVISION AND DOES NOT REQUIRE A FINAL PLAN. LANDSCAPING, IF APPLICABLE, WILL BE PROVIDED AT SITE DEVELOPMENT PLAN STAGE.
- THIS PROJECT IS EXEMPT FROM FOREST CONSERVATION BASED ON SECTION 16.1202(b)(1)(i) OF HOWARD COUNTY CODE.
- SOIL BORING INFORMATION WILL BE PROVIDED AT THE NEXT PLAN STAGE OF THIS PROJECT.
- APPROVAL OF THIS ECP DOES NOT CONSTITUTE APPROVAL OF SUBSEQUENT OR ASSOCIATED SUBDIVISION OR SITE DEVELOPMENT PLANS OR RED-LINE REVISIONS. 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, SITE DEVELOPMENT PLAN, OR RED-LINE REVISION PROCESSES. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THE PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
- THERE WILL BE NO WAIVERS OR ALTERNATIVE COMPLIANCE FOR THIS PROJECT.



**MICRO BIO-RETENTION SECTION WITH 6\"/>**

**OPERATION AND MAINTENANCE SCHEDULE FOR BIO-RETENTION AREAS (M-6)**

- The owner shall maintain the plant material, mulch layer and soil layer annually. Maintenance of mulch and soil is limited to correcting areas of erosion or wash out. Any mulch replacement shall be done in the spring. Plant material shall be checked for disease and insect infestation and miticides will address dead material and pruning. Acceptable replacement plant material is limited to the following: 2000 Maryland stormwater design manual volume II, table A.4.1 and 2.
- The owner shall perform a plant in the spring and in the fall each year. During the inspection, the owner shall remove dead and diseased vegetation considered beyond treatment, replace dead plant material with acceptable replacement plant material. Treat diseased trees and shrubs and replace all deficient species and vines.
- The owner shall inspect the mulch each spring. The mulch shall be replaced every two to three years. The previous mulch layer shall be removed before the new layer is applied.
- The owner shall correct soil erosion on an as needed basis, with a minimum of once per month and after each heavy storm.

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MARYLAND 21042  
 (410) 461-2895

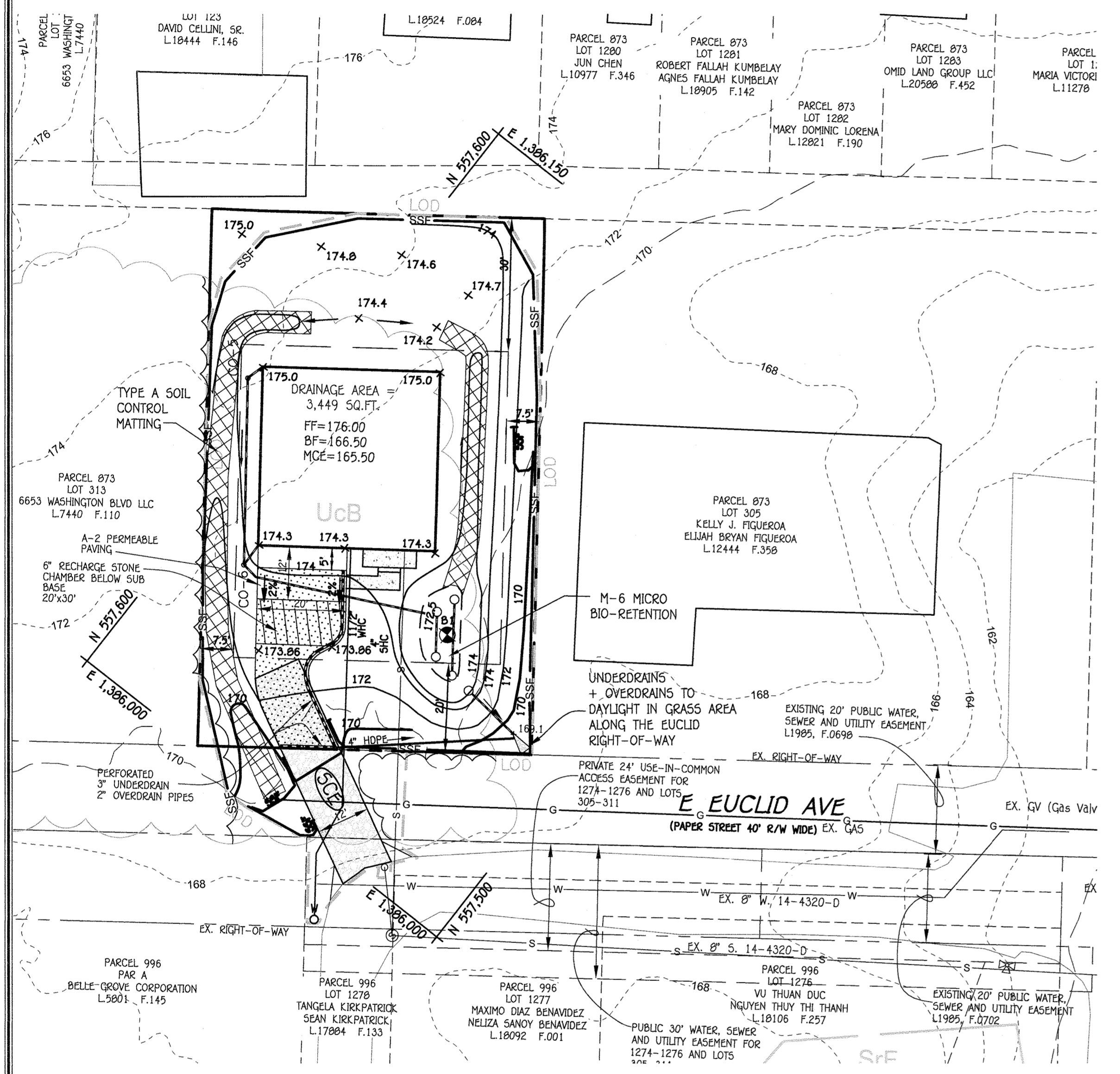
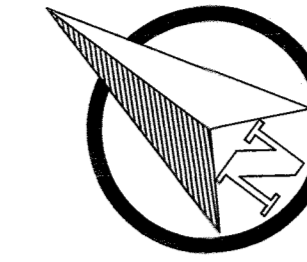
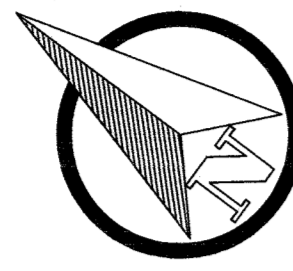
Approved: Department Of Planning And Zoning  
 Chief, Development Engineering Division *[Signature]* 2-17-22 Date  
 Chief, Division Of Land Development *[Signature]* 2/17/22 Date



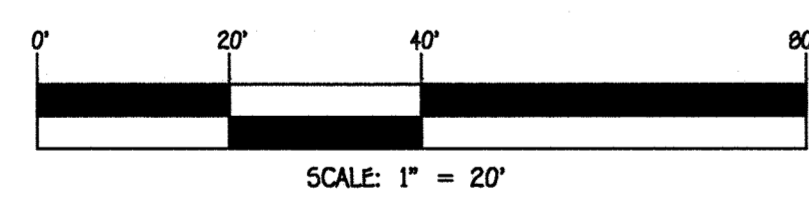
**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 27020, EXPIRATION DATE: 01/25/24.  
*[Signature]* PAUL G. CAVANAUGH DATE 2/17/22

**OWNER/DEVELOPER**  
 HS HOMEBUILDER LLC  
 10610 WARBURTON CT  
 ELLICOTT CITY MD, 21042

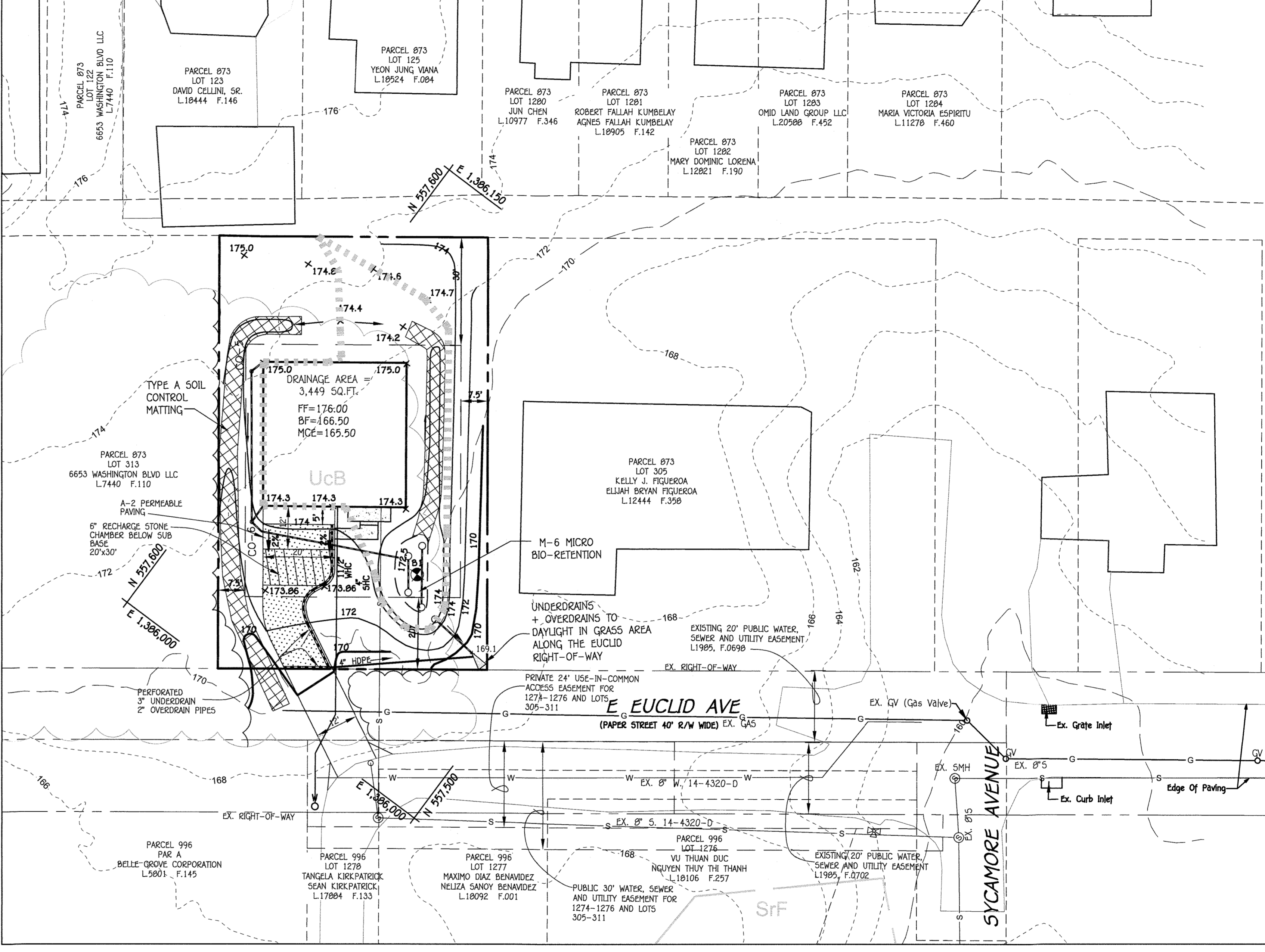
TITLE SHEET  
**EUCLID PROPERTY**  
 6319 E EUCLID AVE  
 TAX MAP NO.: 38 GRID NO.: 13 PARCEL NO.: 873  
 ZONED R-12  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN DATE: JANUARY, 2022  
 SHEET 1 OF 3



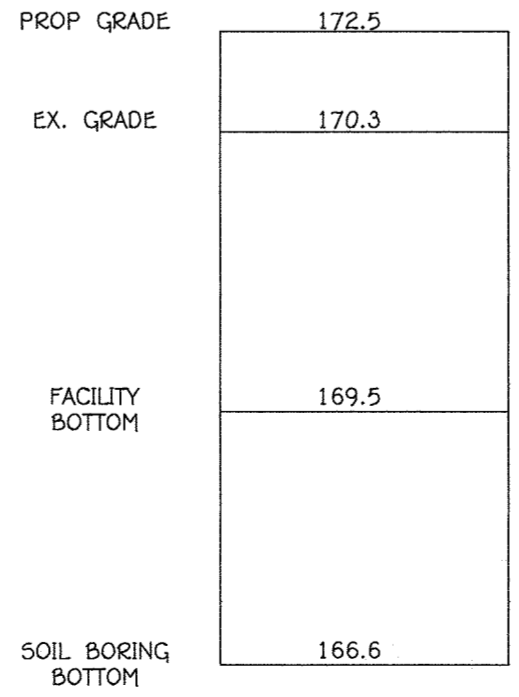
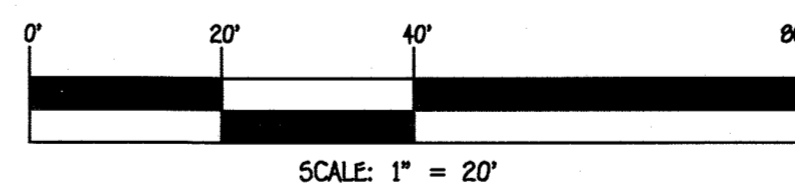
**SEDIMENT CONTROL PLAN**  
SCALE: 1" = 20'



| SYMBOL      | DESCRIPTION                      |
|-------------|----------------------------------|
| --- 172 --- | EXISTING CONTOUR 2' INTERVAL     |
| --- 170 --- | EXISTING CONTOUR 10' INTERVAL    |
| ---         | EXISTING SAN SEWER LINE          |
| ---         | EXISTING WATER LINE              |
| --- 172 --- | PROPOSED CONTOUR 2' INTERVAL     |
| --- 170 --- | PROPOSED CONTOUR 10' INTERVAL    |
| + 169.10    | PROPOSED SPOT ELEVATION          |
| ---         | PROPOSED CONCRETE WALK           |
| ---         | PROPOSED PERMEABLE PAVING        |
| ---         | EXISTING TREELINE                |
| ---         | PROPOSED TREELINE                |
| ---         | LIMITS OF DISTURBANCE            |
| ---         | DRAINAGE DIVIDE                  |
| ---         | SOILS DELINEATION                |
| ---         | EXISTING SUPER SILT FENCE        |
| ---         | BORING                           |
| ---         | STABILIZED CONSTRUCTION ENTRANCE |
| ---         | SEDIMENT CONTROL MATTING         |



**PLAN**  
SCALE: 1" = 20'



**SOIL BORING**  
B-1

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Paul G. Cavanaugh  
Paul G. Cavanaugh  
DATE: Jan 23, 2022

Approved: Department Of Planning And Zoning  
Chief, Development Engineering Division  
Chief, Division Of Land Development

2.17.22  
Date  
Date

**OWNER/DEVELOPER**  
HS HOMEBUILDER LLC  
10610 WARBURTON CT  
ELLCOTT CITY MD, 21042

**ENVIRONMENTAL CONCEPT PLAN**  
**EUCLID PROPERTY**  
6319 E EUCLID AVE

TAX MAP NO.: 30 GRID NO.: 13 PARCEL NO.: 073  
ZONED R-12  
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: AS SHOWN DATE: JANUARY, 2022  
SHEET 2 OF 3

**ECP-22-027**

