

GENERAL NOTES

- THIS PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS ALTERNATIVE COMPLIANCE(S) HAVE BEEN SUBMITTED AND APPROVED.
- THE SUBJECT PROPERTY IS ZONED R-12 PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS NO. 36EB AND 36FC WERE USED FOR THIS PROJECT.
- TRACT BOUNDARY IS BASED ON A FIELD RUN BOUNDARY SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. ON OR ABOUT SEPTEMBER 2021.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM A FIELD SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY BENCHMARK ENGINEERING, INC. IN SEPTEMBER, 2021. ON LOT EXISTING TOPOGRAPHY, BR-1 AND MBR-2 IS BASED ON FINAL GRADES PER F-23-049.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT AS IT DOES NOT MEET ANY OF THE REQUIREMENTS FOR A NOISE STUDY AS DEFINED IN SECTION 5.2.F.2 OF DESIGN MANUAL VOLUME III.
- THE TRAFFIC STUDY WAS PREPARED BY MARS GROUP DATED JUNE 13, 2022 AND APPROVED UNDER THE SKETCH PLAN (S-22-006). SEE "TRAFFIC NOTES" THIS SHEET.
- THE FOREST STAND DELINEATION AND WETLAND DELINEATION WAS PREPARED BY ECO-SCIENCE PROFESSIONALS DATED JANUARY 2022 AND APPROVED OCTOBER 2022 UNDER S-22-006.
- THE GEOTECHNICAL REPORT WAS PREPARED BY GEOTECHNICAL LABORATORIES, INC. ON NOVEMBER 2022.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. THE WATER AND SEWER IS PUBLIC. THE WATER/SEWER UTILITIES HAVE BEEN APPROVED UNDER CONTRACT NUMBER 24-5222-D. THE DRAINAGE AREA IS THE LITTLE PATUXENT.
- WATER AND SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122B OF THE HOWARD COUNTY CODE. PUBLIC WATER AND PUBLIC SEWER ALLOCATIONS WILL BE GRANTED AT THE TIME OF THE ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO CEMETERY LOCATIONS ON-SITE.
- THERE ARE NO HISTORIC SITES/STRUCTURES LOCATED ON THIS SITE.
- THERE ARE NO WETLANDS, WETLANDS BUFFERS, STREAMS, OR STEEP SLOPES 25% AND GREATER THAT ARE MORE THAN 20,000 SF OF CONTIGUOUS AREA LOCATED ON THIS SITE. THERE IS A FLOODPLAIN LOCATED ON OPEN SPACE LOT 1.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE).
 - SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN.)
 - GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM 45' TURNING RADIUS.
 - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
 - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOODPLAIN WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY.
 - STRUCTURE CLEARANCES - MINIMUM 12 FEET.
 - MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY.
- THE PRIVATE USE-IN-COMMON MAINTENANCE ACCESS AGREEMENT FOR LOTS 6 & 7 AND LOTS 8 & 9 WAS RECORDED SIMULTANEOUSLY WITH THE RECORDATION OF THE SUBDIVISION PLAT; LOTS 6 & 7 RECORDED UNDER LIBER 22204, FOLD 93 AND LOTS 8 & 9 RECORDED UNDER LIBER 22204, FOLD 98.
- THE ARTICLES OF INCORPORATION FOR THE HOMEOWNERS ASSOCIATION WERE ACCEPTED BY THE STATE DEPARTMENT OF ASSESSMENTS AND TAXATION ID# D23831274.
- STORMWATER MANAGEMENT HAS BEEN PROVIDED IN ACCORDANCE WITH THE "MARYLAND DEPARTMENT OF THE ENVIRONMENT STORMWATER MANAGEMENT ACT OF 2007" AND THE "HOWARD COUNTY DESIGN MANUAL VOLUME 1, CHAPTER 5" VIA ONE (M-6) MICRO BIO-RETENTION PRACTICE (MR-3), ONE (M-7) RAIN GARDEN (RG-4) AND TWENTY (M-5) DRY WELLS WHICH SHALL BE CONSTRUCTED UNDER THIS SITE DEVELOPMENT PLAN. THE DRY WELLS AND RAIN GARDEN SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE OWNER OF THE LOT ON WHICH THEY RESIDE. STORMWATER MANAGEMENT BONDED AND CONSTRUCTED UNDER F-23-049 INCLUDE BR-1 AND MBR-2 BOTH LOCATED ON OPEN SPACE LOT 13. BR-1 IS TO BE PRIVATELY OWNED AND MAINTAINED BY HOWARD COUNTY AND THE HOA. MBR-2 IS TO BE PRIVATELY OWNED AND MAINTAINED BY THE HOA.
- LANDSCAPING WAS PREVIOUSLY PROVIDED UNDER F-23-049.
- THE FOREST CONSERVATION OBLIGATION WAS PREVIOUSLY ADDRESSED UNDER F-23-049 VIA ONSITE RETENTION AND ONSITE REFORESTATION.
- THE REQUIRED COMMUNITY MEETING FOR THIS PROJECT, PER SECTION 16.128 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, WAS PRESENTED AT A VIRTUAL MEETING ON JANUARY 12, 2022.
- THIS PROJECT IS SUBJECT TO SECTION 13.402 OF THE COUNTY CODE FOR MODERATE INCOME HOUSING UNITS (MIHU). PER SECTION 13.402C.e., THIS REQUIREMENT SHALL MET BY A FEE-IN-LIEU PAYMENT IN AN AMOUNT THAT IS TO BE CALCULATED BY THE DEPARTMENT OF INSPECTIONS LICENSES AND PERMITS AT THE TIME OF BUILDING PERMIT. THE FEE-IN-LIEU SHALL BE PAID FOR ALL LOTS/RESIDENTIAL UNITS WITHIN THIS SUBDIVISION AT TIME OF BUILDING PERMIT ISSUANCE.
- A PRIVATE RANGE OF ADDRESS SIGN SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES.
- IN ACCORDANCE WITH SECTION 128.0 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES, OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- 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 THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- PREVIOUS HOWARD COUNTY FILE REFERENCES: ECP-22-052, WP-22-056, WP-22-093, S-22-006, P-23-003, F-23-049.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- EXISTING UTILITIES SHOWN ARE BASED ON A FIELD SURVEY BY BENCHMARK ENGINEERING, INC. IN SEPTEMBER, 2021, SIGNED CONSTRUCTION DRAWINGS, AND HOWARD COUNTY GIS.
- AN ALTERNATIVE COMPLIANCE TO SECTION 16.1205(a) WAS APPROVED DATED OCTOBER 17, 2022 FOR THE REMOVAL OF SPECIMEN TREES ST1 THRU ST4, ST6 AND ST7. REFERENCE WP-22-093.

- REMOVAL OF THE SIX SPECIMEN TREES IS TO BE MITIGATED AT 2:1 BY THE PLANTING OF 12 NATIVE TREES WITH A DBH OF 3". THE LOCATION OF THE MITIGATION TREES SHALL BE CLEARLY SHOWN AND LABELED ON SUBSEQUENT SUBDIVISION AND SITE PLANS.
- APPROVAL IS FOR REMOVAL OF SPECIMEN TREES 1-4 AND 6 AND 7 AS SHOWN ON THE EXHIBIT PROVIDED WITH THE ALTERNATIVE COMPLIANCE APPLICATION.
- INCLUDE A GENERAL NOTE WITH THE ALTERNATIVE PLAN FILE NUMBER, SUMMARY OF REQUEST, DECISION, DATE OF DECISION AND CONDITIONS OF APPROVAL ON ALL PLANS SUBMITTED TO THE COUNTY FOR REVIEW.
- S-22-006 AND SUBSEQUENT PLAN SUBMITTALS SHALL MINIMIZE LOT ENCRoACHMENT INTO THE ORZ OF SPECIMEN TREE 5 TO LESS THAN 30% AND ST-5 SHALL BE PROTECTED WITHIN THE FOREST CONSERVATION EASEMENT AS SHOWN ON THE REVISED ALTERNATIVE COMPLIANCE APPLICATION EXHIBIT DATED SEPTEMBER 2022.
- APPROVAL OF WP-22-093 IS FOR REMOVAL OF CITED SPECIMEN TREES ONLY. THE APPLICANT MUST COMPLY WITH COMMENTS AT PLAN REVIEW THAT MAY REQUIRE LAYOUT CHANGES IN ORDER TO MEET THE REGULATIONS.
- SUBSEQUENT PLAN SUBMISSIONS SHOULD EXPLORE METHODS OF REMOVING THE BAMBOO THAT MAY PRESERVE ST-2. HOWEVER, COMPLETE REMOVAL OF THE BAMBOO IS THE PRIORITY IN ORDER TO PROTECT THE PROPOSED FOREST CONSERVATION AREAS FROM ENCRoACHMENT.
- PER SECTION 16.116 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AN ESSENTIAL DISTURBANCE REQUEST HAS BEEN APPROVED ON MARCH 17, 2023 FOR THE SWM OUTFALLS AND REMOVAL OF THE BAMBOO WITHIN THE STREAM BUFFER. APPROVAL IS SUBJECT TO THE FOLLOWING:
 - THE INSTALLATION OF THE SWM OUTFALL AND INVASIVE BAMBOO CLEARING SHALL ONLY DISTURB THOSE ENVIRONMENTAL AREAS AS STATED IN THE REQUEST AND AS DELINEATED ON THE OLD MONTGOMERY MEADOWS DEVELOPMENT, P-23-003. ANY DISTURBANCES TO REGULATED ENVIRONMENTAL FEATURES BEYOND THIS REQUEST ARE NOT PERMITTED. THE APPLICANT SUBMITS A FORMAL REQUEST TO THE DEPARTMENT OF PLANNING & ZONING IN ACCORDANCE WITH SECTION 16.116(C).
 - THE DISTURBED AREAS SHALL BE STABILIZED AND SEEDED OR PLANTED WITH NATIVE VEGETATION IN ACCORDANCE WITH THE DESIGN PLANS.
 - THE APPLICANT WILL BE REQUIRED TO OBTAIN ALL NECESSARY APPROVALS AND AUTHORIZATIONS BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) AND THE U.S. ARMY CORPS OF ENGINEERS (USACE) FOR ACTIVITIES IN REGULATED AREAS PRIOR TO BEGINNING CONSTRUCTION.
- SHC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE. REFERENCE SHC CHART ON SHEET 3.
- FOR DRIVEWAY ENTRANCE DETAILS REFER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL R-6.03 AND R-6.02 (ALONG OLD MONTGOMERY ROAD).

APPROVED: DEPARTMENT OF PLANNING AND ZONING

DocuSigned by: *[Signature]* 1/9/2024

CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DocuSigned by: *[Signature]* 1/16/2024

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DocuSigned by: *[Signature]* 1/16/2024

DIRECTOR DATE

A RESIDENTIAL SITE DEVELOPMENT PLAN

OLD MONTGOMERY MEADOWS

11 RESIDENTIAL SINGLE FAMILY LOTS

6TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

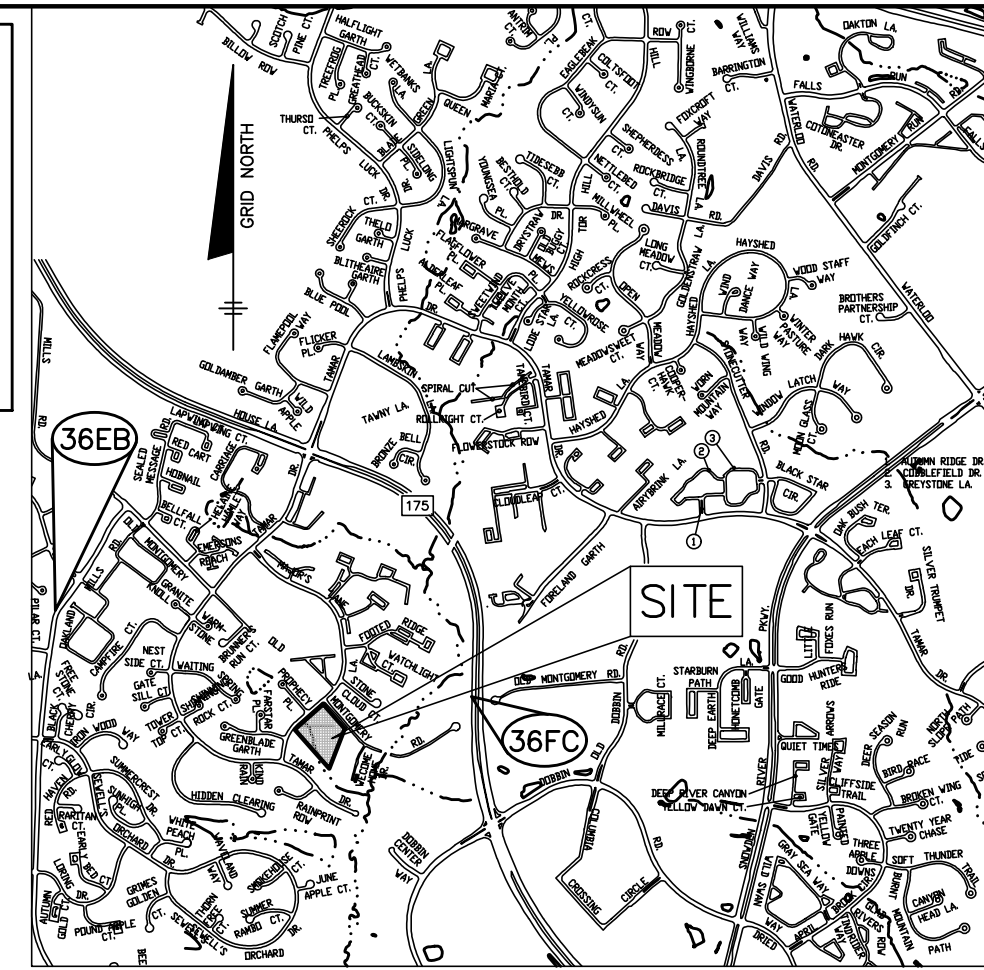
| SHEET INDEX | |
|-------------|--|
| NO. | DESCRIPTION |
| 1 | COVER SHEET |
| 2 | SITE LAYOUT PLAN |
| 3 | GRADING & SEDIMENT CONTROL PLAN |
| 4 | GRADING & SEDIMENT CONTROL NOTES AND DETAILS |
| 5 | STORMWATER MANAGEMENT DRAINAGE AREA MAP |
| 6 | STORMWATER MANAGEMENT PROFILES AND NOTES |

| BENCH MARKS-(NAD'83) | |
|----------------------|---|
| 36FC | EL. 375.747 DISC SET ON TOP OF CONCRETE COLUMN SOUTH SIDE OF RTE 175, WEST OF DOBBIN ROAD. |
| N 559312.559 | E 1363698.217 |
| 36EB | EL. 411.469 DISC SET ON TOP OF CONCRETE COLUMN OAKLAND MILLS RD. ±400'S OF KILMANJARO |
| N 56210.015 | E 1359365.326 |

| MINIMUM LOT SIZE CHART | | | |
|------------------------|----------------|-------------------|----------------------|
| LOT | GROSS AREA(SF) | PIPESTEM AREA(SF) | MINIMUM LOT SIZE(SF) |
| 6 | 8,281 | 1,083 | 7,201 |
| 7 | 9,900 | 1,935 | 7,965 |
| 9 | 8,590 | 1,390 | 7,200 |

SITE DATA TABULATION (F-23-049)

| | |
|--|---|
| 1) TOTAL PROJECT AREA..... | 3.99 AC.± |
| 2) AREA OF 100-YR. FLOODPLAIN..... | 0.01 AC.± |
| 3) AREA OF STEEP SLOPES (15% OR GREATER)..... | 0.00 AC.± |
| 4) AREA OF EXISTING FOREST..... | 0.57 AC.± |
| 5) AREA OF ERODIBLE SOILS..... | 0.00 AC.± |
| 6) AREA OF WETLANDS (INCLUDING BUFFER)..... | N/A |
| 7) AREA OF STREAM BUFFER..... | 0.49 AC.± |
| 8) NET AREA OF SITE..... | 3.98 AC.± |
| 9) MINIMUM RESIDENTIAL DENSITY..... | N/A |
| 10) NUMBER OF LOTS PROPOSED..... | 11 |
| 11) APPROXIMATE LIMIT OF DISTURBANCE..... | 2.14 AC.± |
| 12) PRESENT ZONING DESIGNATION..... | R-12 |
| 13) PROPOSED USES FOR THE SITE & STRUCTURES..... | RESIDENTIAL |
| 14) MINIMUM LOT SIZE..... | 7,200 SF |
| 15) AREA OF ROAD DEDICATION..... | 0.40 AC.± |
| 15) OPEN SPACE AREA REQUIRED..... | 40% OR 1.60 AC.± |
| 17) OPEN SPACE AREA PROPOSED..... | 1.60 AC.± |
| 16) RECREATIONAL OPEN SPACE REQUIRED..... | 2,200 SF (200sq/LOT) |
| 19) RECREATIONAL OPEN SPACE PROVIDED..... | 3,985 SF± |
| 20) NUMBER OF PARKING SPACES REQUIRED..... | 28 SPACES (2.5/UNIT) |
| 21) NUMBER OF PARKING SPACES PROVIDED..... | 33 SPACES (EACH HOUSE HAS 2 IN GARAGE AND 1 IN THE DRIVEWAY) |
| 22) TOTAL IMPERVIOUS AREA..... | 0.74 AC.± |



ADC MAP: 4935-JB VICINITY MAP
SCALE: 1" = 200'

LEGEND

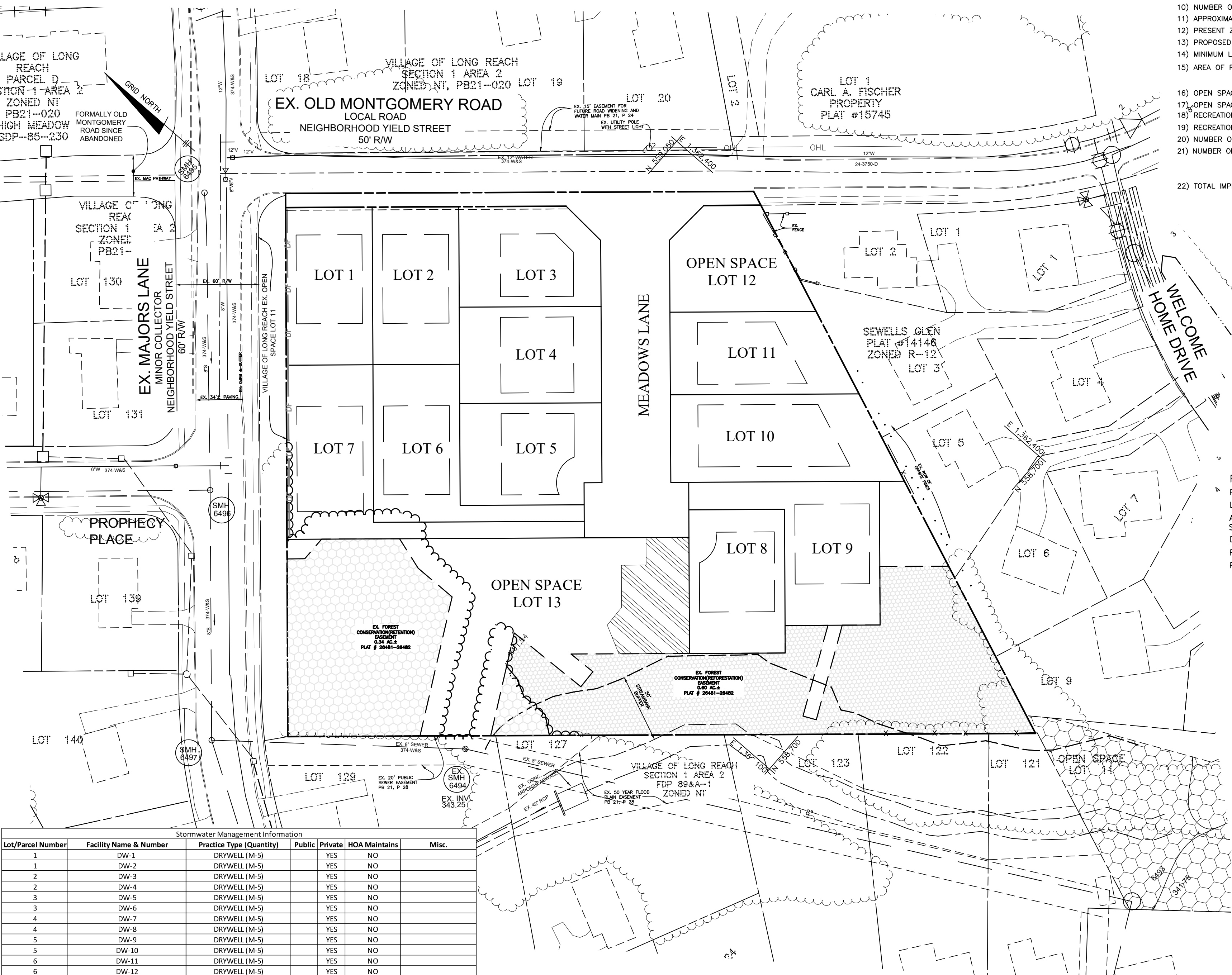
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED HOUSE
- APPROXIMATE 100 YEAR FLOODPLAIN
- LIMIT OF DISTURBANCE
- PROP. MICRO BIORETENTION FACILITY
- PROP. DRYWELL
- TREE PROTECTION FENCING
- ESD DRAINAGE AREA
- SOIL DIVIDES
- SPECIMEN TREE
- PRIVATE USE-IN-COMMON ACCESS EASEMENT
- PUBLIC SEWER & UTILITY EASEMENT
- PUBLIC SWM, DRAINAGE & UTILITY EASEMENT
- FCE (RETENTION)
- FCE (AFFORESTATION)
- EX. UNDERGROUND ELECTRIC
- EX. UNDERGROUND GAS
- EX. UNDERGROUND FIBER OPTIC/CABLE

| ADDRESS CHART | |
|---------------|--------------------------|
| LOT NO. | ADDRESS |
| LOT 1 | 9005 OLD MONTGOMERY ROAD |
| LOT 2 | 9001 OLD MONTGOMERY ROAD |
| LOT 3 | 6400 MEADOWS LANE |
| LOT 4 | 6404 MEADOWS LANE |
| LOT 5 | 6408 MEADOWS LANE |
| LOT 6 | 6412 MEADOWS LANE |
| LOT 7 | 6416 MEADOWS LANE |
| LOT 8 | 6413 MEADOWS LANE |
| LOT 9 | 6417 MEADOWS LANE |
| LOT 10 | 6409 MEADOWS LANE |
| LOT 11 | 6405 MEADOWS LANE |

PROJECT BACKGROUND INFORMATION

PRESENT ZONING: R-12
 LOCATION: TAX MAP 36 - GRID 17 - PARCEL 271
 APPLICABLE DPZ FILE REFERENCES: ECP-22-052, WP-22-093, S-22-006, WP-22-56, P-23-003, F-23-049.
 DEED REFERENCES: L 21110 / F 102
 PROPOSED USE OF SITE: RESIDENTIAL
 PROPOSED WATER AND SEWER SYSTEMS: PUBLIC WATER & SEWER

TRAFFIC NOTES:
 THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY MARS GROUP DATED JUNE 13, 2022 AND APPROVED OCTOBER 19, 2022.
 SUMMARY OF FINDINGS FOR APPO TRAFFIC ANALYSIS:
 A. DATE OF REPORT: JUNE 2022
 B. DATE OF COUNTS: JUNE 2022
 C. REPORT SUBMITTED AS PART OF PLAN NUMBER: S-22-006
 D. COUNTS WERE TAKEN WHEN HOWARD COUNTY SCHOOLS WERE IN SESSION
 E. LIST INTERSECTIONS STUDIED, IDENTIFY INTERSECTION AS STATE OR COUNTY JURISDICTION AND LABEL LOSSES FOR THE HORIZON YEAR OF EACH INTERSECTION: MD 175 @ TAMAR DRIVE (A/D 2025) AND TAMAR DRIVE @ OLD MONTGOMERY ROAD (A/A 2025)
 F. PROVIDE STATEMENT AS TO WHETHER MITIGATION IS REQUIRED AND EXPLAIN THE METHOD OF MITIGATION/IN LIEU FEE: NO MITIGATION/IN LIEU FEE IS REQUIRED.



| Stormwater Management Information | | | | | | |
|-----------------------------------|------------------------|--------------------------|--------|---------|---------------|-------|
| Lot/Parcel Number | Facility Name & Number | Practice Type (Quantity) | Public | Private | HOA Maintains | Misc. |
| 1 | DW-1 | DRYWELL (M-5) | YES | NO | | |
| 1 | DW-2 | DRYWELL (M-5) | YES | NO | | |
| 2 | DW-3 | DRYWELL (M-5) | YES | NO | | |
| 2 | DW-4 | DRYWELL (M-5) | YES | NO | | |
| 3 | DW-5 | DRYWELL (M-5) | YES | NO | | |
| 3 | DW-6 | DRYWELL (M-5) | YES | NO | | |
| 4 | DW-7 | DRYWELL (M-5) | YES | NO | | |
| 4 | DW-8 | DRYWELL (M-5) | YES | NO | | |
| 5 | DW-9 | DRYWELL (M-5) | YES | NO | | |
| 5 | DW-10 | DRYWELL (M-5) | YES | NO | | |
| 6 | DW-11 | DRYWELL (M-5) | YES | NO | | |
| 6 | DW-12 | DRYWELL (M-5) | YES | NO | | |
| 7 | DW-13 | DRYWELL (M-5) | YES | NO | | |
| 7 | DW-14 | DRYWELL (M-5) | YES | NO | | |
| 8 | DW-15 | DRYWELL (M-5) | YES | NO | | |
| 8 | DW-16 | DRYWELL (M-5) | YES | NO | | |
| 8 | RG-4 | RAIN GARDEN (M-7) | YES | NO | | |
| 9 | MRB-3 | MICRO-BIORETENTION (M-6) | YES | NO | | |
| 10 | DW-17 | DRYWELL (M-5) | YES | NO | | |
| 10 | DW-18 | DRYWELL (M-5) | YES | NO | | |
| 11 | DW-19 | DRYWELL (M-5) | YES | NO | | |
| 11 | DW-20 | DRYWELL (M-5) | YES | NO | | |

| STORMWATER MANAGEMENT PRACTICES | | | | | | | | | | | | | | | | |
|---------------------------------|--------------------------|-------------|---------------------|--------------------|---------------------------------|-------------------------------------|-------------------------------|---------------------|---------------------------|------------------------|--------------------|--------------|--------------------|--------------|--------------|-------------------|
| LOT NUMBER | ADDRESS | GREEN ROOFS | PERMEABLE PAVEMENTS | BIRD-FRIENDLY TURF | DISCONNECTION OF ROOFTOP RUNOFF | DISCONNECTION OF NON-ROOFTOP RUNOFF | SUBFLOW TO CONSERVATION AREAS | RAINFALL HARVESTING | SUBMERGED GRAVEL WETLANDS | LANDSCAPE INFILTRATION | INFILTRATION BERMS | DRY WELLS | MICRO-BIORETENTION | RAIN GARDENS | SWALES | EMBIANCED FILTERS |
| | | A-1 (Y/N) | A-2 (Y/N) | A-3 (Y/N) | N#1 (NUMBER) | N#2 (Y/N) | N#3 (Y/N) | M#1 (NUMBER) | M#2 (NUMBER) | M#3 (NUMBER) | M#4 (NUMBER) | M#5 (NUMBER) | M#6 (NUMBER) | M#7 (NUMBER) | M#8 (NUMBER) | M#9 (NUMBER) |
| 1 | 9005 Old Montgomery Road | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 2 | 9001 Old Montgomery Road | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 3 | 6400 Meadow Lane | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 4 | 6404 Meadow Lane | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 5 | 6408 Meadow Lane | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 6 | 6412 Meadow Lane | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 7 | 6416 Meadow Lane | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 8 | 6413 Meadow Lane | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 9 | 6417 Meadow Lane | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 9 | 6413 Meadow Lane | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 10 | 6409 Meadow Lane | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 11 | 6405 Meadow Lane | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |

| MODERATE INCOME HOUSING UNITS (MIHU) ALLOCATION EXEMPTION TRACKING | |
|--|------------------|
| TOTAL NUMBER OF LOTS PROPOSED | 11 |
| NUMBER OF MIHU REQUIRED | 2 |
| NUMBER OF MIHU PROVIDED ONSITE (EXCEPT FROM APPO ALLOCATION) | 0 |
| NUMBER OF APPO ALLOCATIONS REQUIRED (REMAINING UNITS) | 11 |
| MIHU FEE-IN-LIEU | YES LOTS 1-11 |

| PERMIT INFORMATION CHART | | | | |
|--------------------------|---------------|------|----------|-------------------|
| SUBDIVISION NAME: | SECTION/AREA: | LOT | PARCEL # | |
| OLD MONTGOMERY MEADOWS | NA | 1-11 | 271 | |
| PLAT No. | GRID No. | ZONE | TAX MAP | ELECTION DISTRICT |
| 26481-26482 | 17 | R-12 | 36 | 6TH |
| | | | | CENSUS TRACT |
| | | | | 606604 |

| NO. | DATE | REVISION |
|-----|------|----------|
| | | |
| | | |

3300 NORTH RIDGE ROAD & SUITE 140 • ELICOTT CITY, MARYLAND 21043
(P) 410-465-8105 (F) 410-465-8644
WWW.BEI-CVLENGINEERING.COM

OWNER/DEVELOPER: DEVELOPMENT PARTNERS, LLC
9693 GERWIC LANE, SUITE L COLUMBIA, MD 21046 443-676-2417

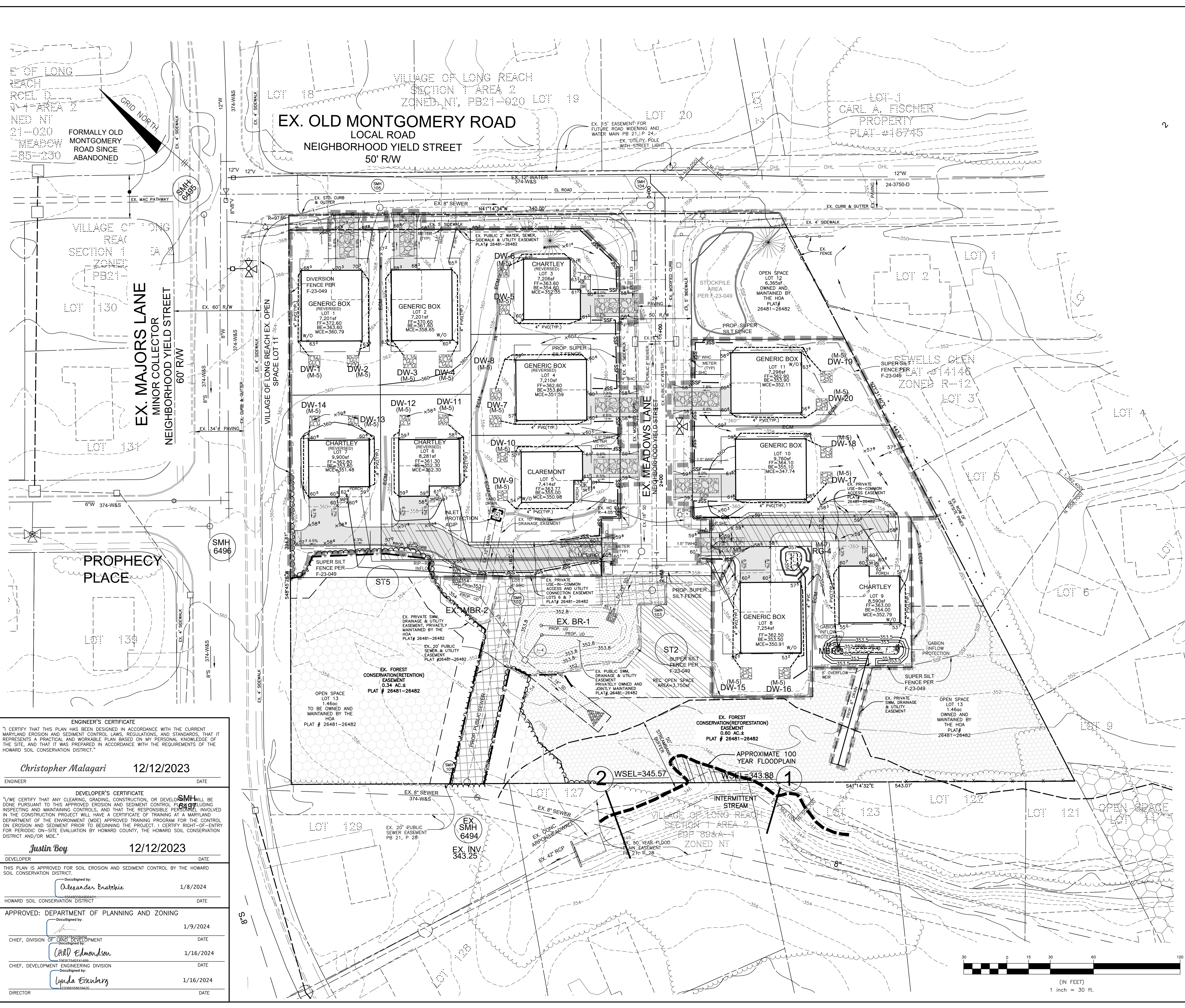
BUILDER: CORNERSTONE HOMES
9693 GERWIC LANE, SUITE L COLUMBIA, MD 21046 443-676-2417

RESIDENTIAL SITE DEVELOPMENT PLAN COVER SHEET

TAX MAP: 36 GRID: 17 PARCEL: 271
ZONED: R-12
ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

DATE: DECEMBER 2023
SCALE: AS SHOWN

BEI PROJECT NO. 3080
SHEET 1 OF 6



| SEWER HOUSE CONNECTION CHART | | | | | | | | | |
|------------------------------|-----------------|--------------|-------|------|------------------------|--------|--------------------|--|--|
| LOT | CONNECTION STA. | INV. AT MAIN | SLOPE | TYPE | INVERT AT EASEMENT/ROW | MCE | BASEMENT ELEVATION | | |
| 1 | SMH 105 | 356.77 | 2% | SHC | 357.09 | 360.79 | 363.60 | | |
| 2 | 1+35.0 | 354.65 | 2% | SHC | 354.95 | 358.65 | 361.60 | | |
| 3 | 1+85.5 | 346.25 | 2% | SHC | 346.69 | 352.35 | 354.60 | | |
| 4 | 1+44.7 | 347.45 | 2% | SHC | 347.89 | 351.59 | 353.60 | | |
| 5 | 0+59.9 | 346.84 | 2% | SHC | 347.28 | 350.98 | 355.00 | | |
| 6 | 0+31.9 | 346.52 | 2% | SHC | 347.20 | 352.30 | 352.30 | | |
| 7 | SMH 102 | 344.84 | 2% | SHC | 345.04 | 351.48 | 353.80 | | |
| 8 | 0+20.0 | 346.39 | 2% | SHC | 347.21 | 350.91 | 353.50 | | |
| 9 | 0+45.0 | 346.67 | 2% | SHC | 347.49 | 352.79 | 354.00 | | |
| 10 | 0+57.0 | 346.81 | 2% | SHC | 347.37 | 347.74 | 355.10 | | |
| 11 | 1+49.5 | 347.85 | 2% | SHC | 348.41 | 352.11 | 353.90 | | |

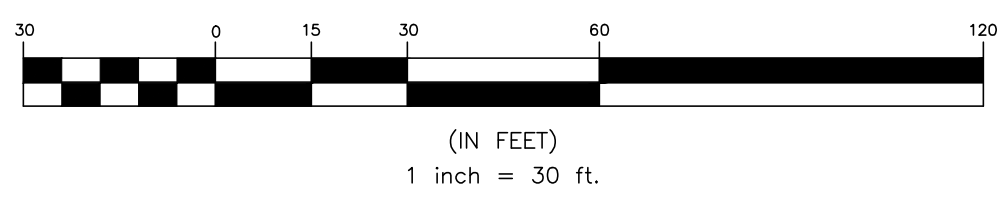
NOTE: ON-LOT HOUSE CONNECTION LOCATIONS ARE CONCEPTUAL AND ARE TO BE DETERMINED AT THE TIME OF INSTALLATION.

CHART BASED ON 24-5222-D

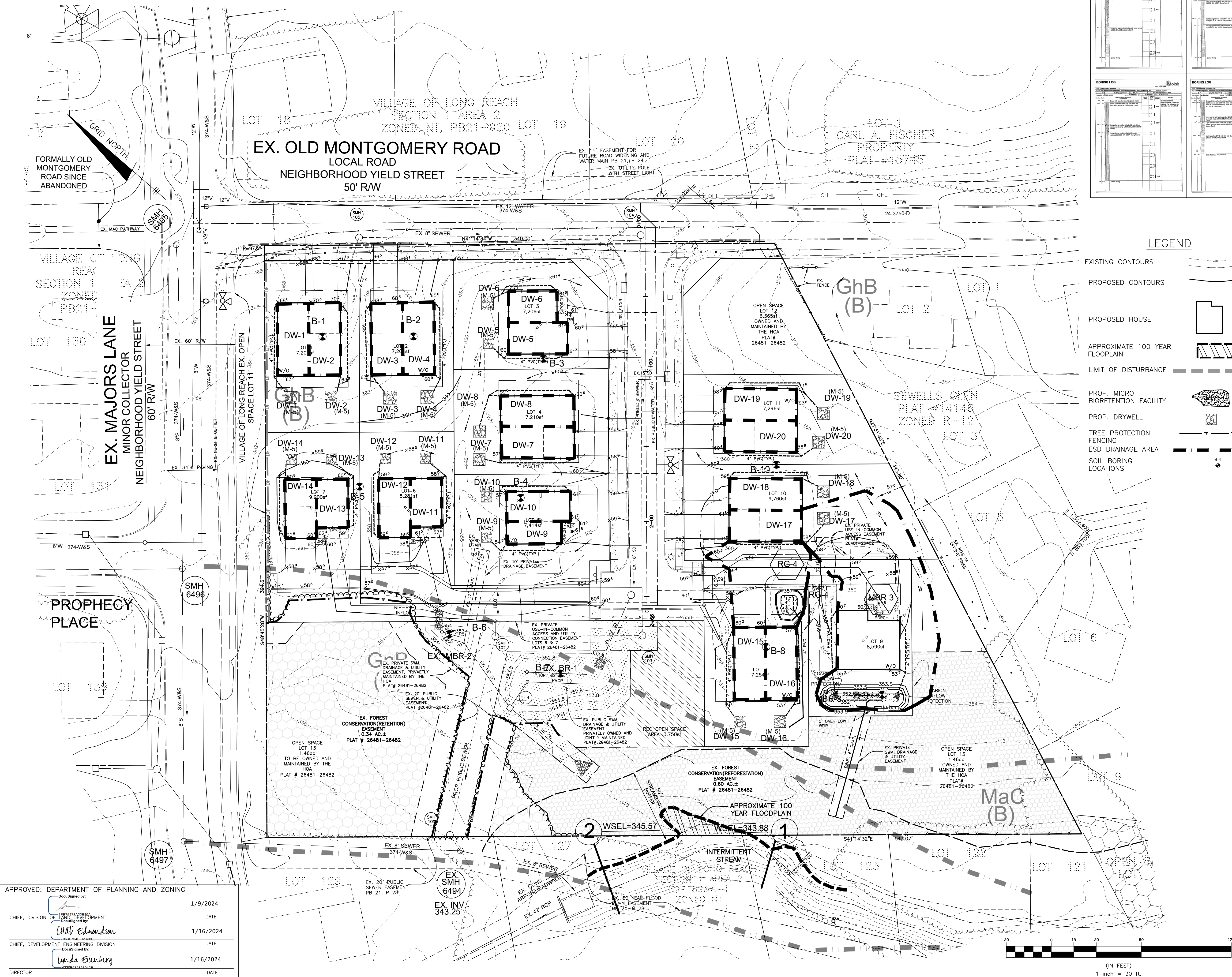


| | |
|---|------------|
| ENGINEER'S CERTIFICATE | |
| I CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH THE CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. | |
| Christopher Malagari | 12/12/2023 |
| ENGINEER | DATE |
| DEVELOPER'S CERTIFICATE | |
| I/WE CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE. | |
| Justin Boy | 12/12/2023 |
| DEVELOPER | DATE |
| THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. | |
| Alexander Bratchie | 1/8/2024 |
| HOWARD SOIL CONSERVATION DISTRICT | DATE |
| APPROVED: DEPARTMENT OF PLANNING AND ZONING | |
| 1/9/2024 | DATE |
| 1/16/2024 | DATE |
| 1/16/2024 | DATE |
| | DATE |

| | | | | | |
|--|--|----------------------|--|-----------------|--|
| NO. | | DATE | | REVISION | |
| BENCHMARK ENGINEERING, INC. ENGINEERS & LAND SURVEYORS & PLANNERS 3300 NORTH RIDGE ROAD & SUITE 140 • ELICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644 WWW.BEI-CIVILENGINEERING.COM | | | | | |
| OWNER/DEVELOPER: | | | OLD MONTGOMERY MEADOWS LOTS 1-11 AND OPEN SPACE LOTS 12 & 13 | | |
| DESIGNER: | | | TAX MAP: 36 GRID: 17 PARCEL: 271 ZONED: R-12 ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND | | |
| CORNERSTONE HOMES | | | RESIDENTIAL SITE DEVELOPMENT PLAN GRADING & SEDIMENT CONTROL PLAN | | |
| DATE: DECEMBER 2023 | | BEI PROJECT NO. 3080 | | SHEET 3 OF 6 | |
| DESIGN: JCO | | DRAFT: JCO | | SCALE: AS SHOWN | |



| SYMBOL | HYDRIC GROUP | ALTERNATE GROUP | NAME | K-VALUE |
|--------|--------------|-----------------|---|---------|
| GhB | B | D | GLENELG URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES | 0.43 |
| GnB* | YES | C | GLENVILLE-BAILE SILT LOAM, 0 TO 8 PERCENT SLOPES | 0.49 |
| MaC | B | D | MANOR LOAM, 8 TO 15 PERCENT SLOPES | 0.32 |



| BORING LOG | BORING LOG | BORING LOG | BORING LOG | BORING LOG |
|------------|------------|------------|------------|------------|
| SMH 6493 | SMH 6494 | SMH 6495 | SMH 6496 | SMH 6497 |
| SMH 6498 | SMH 6499 | SMH 6500 | SMH 6501 | SMH 6502 |

GEOTECHNICAL INFORMATION PROVIDED BY OTHERS.

LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED HOUSE
- APPROXIMATE 100 YEAR FLOODPLAIN
- LIMIT OF DISTURBANCE
- PROP. MICRO BIORETENTION FACILITY
- PROP. DRYWELL
- TREE PROTECTION FENCING
- ESD DRAINAGE AREA
- SOIL BORING LOCATIONS

Stormwater Management Design Recommendations

The "2000 Maryland Stormwater Design Manual", published by the Maryland Department of the Environment, states that stormwater management facilities utilizing infiltration, such as the proposed drywells, micro-bioretenion, bioretention and rain garden facilities, shall have a Hydrologic Soil Group classification (HSG) of A or B. If the bottom of the proposed facilities will be located within soils of HSG C or D, drywells should not be used, however underdrains can be incorporated into the design of the micro-bioretenion, bioretention & rain garden facilities. The bottom of any SWM facility utilizing infiltration should also be located at least four feet above any groundwater or bedrock.

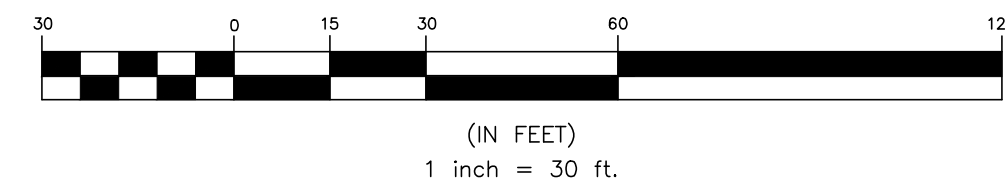
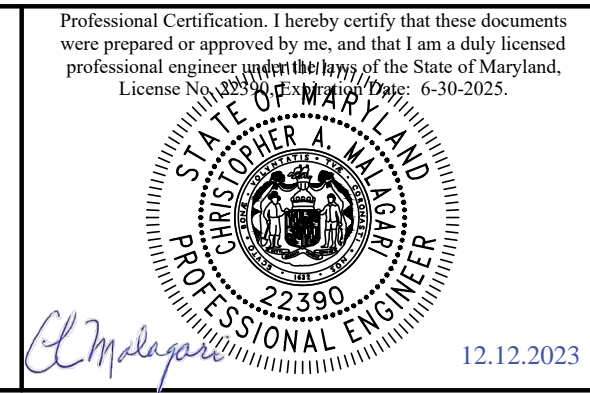
The following table summarizes the minimum depths and elevations until soils suitable for infiltration are encountered at each test boring. Additionally the table provides the lowest elevation that the bottom of the SWM facility should be located to allow for the four-foot clearance between groundwater and bedrock.

| Test Boring No. | Shallowest depth to soils suitable for infiltration (feet) | Shallowest elevation to soils suitable for infiltration | Recommended lowest elevation for bottom of SWM facilities | FACILITY | PROP. FACILITY BOTTOM |
|-----------------|--|---|---|----------|-----------------------|
| B-1 | 3.5 | 361.5 | 354.0 | DW-1 | 352.7 |
| B-2 | 4.5 | 361.5 | 355.0 | DW-3 | 356.0 |
| B-3 | 1.5 | 360.5 | 351.0 | DW-4 | 355.8 |
| B-4 | 3.0 | 355.0 | 347.3 | DW-5 | 355.8 |
| B-5 | 6.5 | 351.5 | 351.5 | DW-6 | 355.8 |
| B-6 | 4.5 | 348.5 | 350.2 | DW-7 | 355.8 |
| B-7 | 3.0 | 349.0 | 346.5 | BR-1 | 349.7 |
| B-8 | 3.0 | 353.0 | 347.0 | DW-8 | 352.7 |
| B-9 | 7.0 | 347.0 | 344.1 | MBR-3 | 346.9 |
| B-10 | 3.0 | 355.0 | 347.0 | DW-9 | 352.7 |

APPROVED: DEPARTMENT OF PLANNING AND ZONING

| | |
|---|-----------|
| DocuSigned by: | 1/9/2024 |
| CHIEF, DIVISION OF LAND DEVELOPMENT | DATE |
| <i>Chad Edmondson</i> | 1/16/2024 |
| CHIEF, DEVELOPMENT ENGINEERING DIVISION | DATE |
| <i>Lynda Bowring</i> | 1/16/2024 |
| DIRECTOR | DATE |

| | |
|---|---|
| NO. DATE REVISION | |
| BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS ENGINEERING, INC. 3300 NORTH RIDGE ROAD & SUITE 140 • ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644 WWW.BEI-CIVILENGINEERING.COM | |
| OWNER/DEVELOPER: DEVELOPMENT PARTNERS, LLC 9693 GERWIC LANE, SUITE L COLUMBIA, MD 21046 443-676-2417 | OLD MONTGOMERY MEADOWS LOTS 1-11 AND OPEN SPACE LOTS 12 & 13 |
| BUILDER: CORNERSTONE HOMES 9693 GERWIC LANE, SUITE L COLUMBIA, MD 21046 443-676-2417 | TAX MAP: 36 GRID: 17 PARCEL: 271 ZONED: R-12 ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND RESIDENTIAL SITE DEVELOPMENT PLAN STORMWATER MANAGEMENT DRAINAGE AREA MAP |
| DATE: DECEMBER 2023 SCALE: AS SHOWN | BEI PROJECT NO. 3080 SHEET 5 OF 6 |



CONSTRUCTION SPECIFICATIONS

B.4.C Specifications for Micro-Bioretenion, Rain Gardens, Landscape Infiltration & Infiltration Berms

1. Material Specifications:

The allowable materials to be used in these practices are detailed in Table B.4.1.

2. Filtering Media or Planting Soil:

The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the micro-bioretenion practices that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05.

The planting soil shall be tested and shall meet the following criteria:

- Soil Component - Loamy Sand or Sandy Loam (USDA Soil Textural Classification)
- Organic Content - Minimum 10% by dry weight (ASTM D 2974). In general, this can be met with a mixture of loamy sand(60%-65%) and compost (35% to 40%) or sandy loam (30%), coarse sand (30%), and compost (40%).
- Clay Content - Media shall have a clay content of less than 2%.
- pH Range - Should be between 5.5 - 7.0. Amendments (e.g., lime, iron sulfate plus sulfur) may be mixed into the soil to increase or decrease pH.

There shall be at least one soil test per project. Each test shall consist of both the standard soil test for pH, and additional tests of organic matter, and soluble salts. A texture analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the topsoil was excavated.

3. Compaction:

It is very important to minimize compaction of both the base of bioretention practices and the required backfill. When possible, use excavation hoers to remove original soil. If practices are excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high-pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to restructure the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the optional sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts 12" to 18". Do not use heavy equipment within the bioretention basin. Heavy equipment can be used around the perimeter of the basin to supply soils and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

4. Plant Material:

Recommended plant material for micro-bioretenion practices can be found in Appendix A, Section A.2.3.

5. Plant Installation:

Compost is a better organic material source, is less likely to float, and should be placed in the invert and other low areas. Mulch should be placed in surrounding to a uniform thickness of 2" to 3". Shredded or chipped hardwood mulch is the only accepted mulch. Fine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance.

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8th of the ball is above final grade surface. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality. Adding fertilizers defeats, and at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch are used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

6. Underdrains:

Underdrains should meet the following criteria:

- Pipe - Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (ASTM F758, Type PS 28, or AASHTO M-278) in a gravel layer. The preferred material is slotted, 4" rigid pipe (e.g., PVC or HDPE).
- Perforations - If perforated pipe is used, perforations should be 3/8" diameter located 6" on center with a minimum of four holes per row. Pipe shall be wrapped with a 1/2" (No. 4 or 4x4) galvanized hardware cloth.
- Gravel - The gravel layer (No. 57 stone preferred) shall be at least 3" thick above and below the underdrain. The main collector pipe shall be at a minimum 0.5% slope.
- A rigid, non-perforated observation well must be provided (one per every 1,000 square feet) to provide a clean-out port and monitor performance of the filter.
- A 4" layer of pea gravel (1/4" to 3/8" stone) shall be located between the filter media and underdrain to prevent migration of fines into the underdrain. This layer may be considered part of the filter bed when bed thickness exceeds 24".

The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

7. Miscellaneous:

These practices may not be constructed until all contributing drainage area has been stabilized.

| MATERIAL | SPECIFICATION | SIZE | NOTES |
|------------------------|---------------------------------|---|--|
| GEOTEXTILE (CLASS "C") | AASHTO M 43 | N/A | PE TYPE 1 NONWOVEN |
| GRAVEL | | 1 1/2" TO 2 1/2" | |
| UNDERDRAIN PIPING | F758, TYPE PS28 OR AASHTO M-278 | 4" TO 6" RIGID SCH.40 PVC, SD32 OR HDPE | 3/8" PERFOR. @ 6" O.C. 4 HOLES PER ROW; MINIMUM OF 2" OF GRAVEL OVER PIPES. |
| SAND | AASHTO M-6 OR ASTM-C-33 | 0.075" TO .04" | SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE (ASHTO) #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND. SUBSTITUTIONS ARE ACCEPTABLE. NO ROCK DUST CAN BE USED FOR SAND. |

| NO. | DATE | REVISION |
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| | | |

BENCHMARK ENGINEERING, INC.
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OLD MONTGOMERY LEADS
 LOTS 1-11 AND OPEN SPACE LOTS 12 & 13

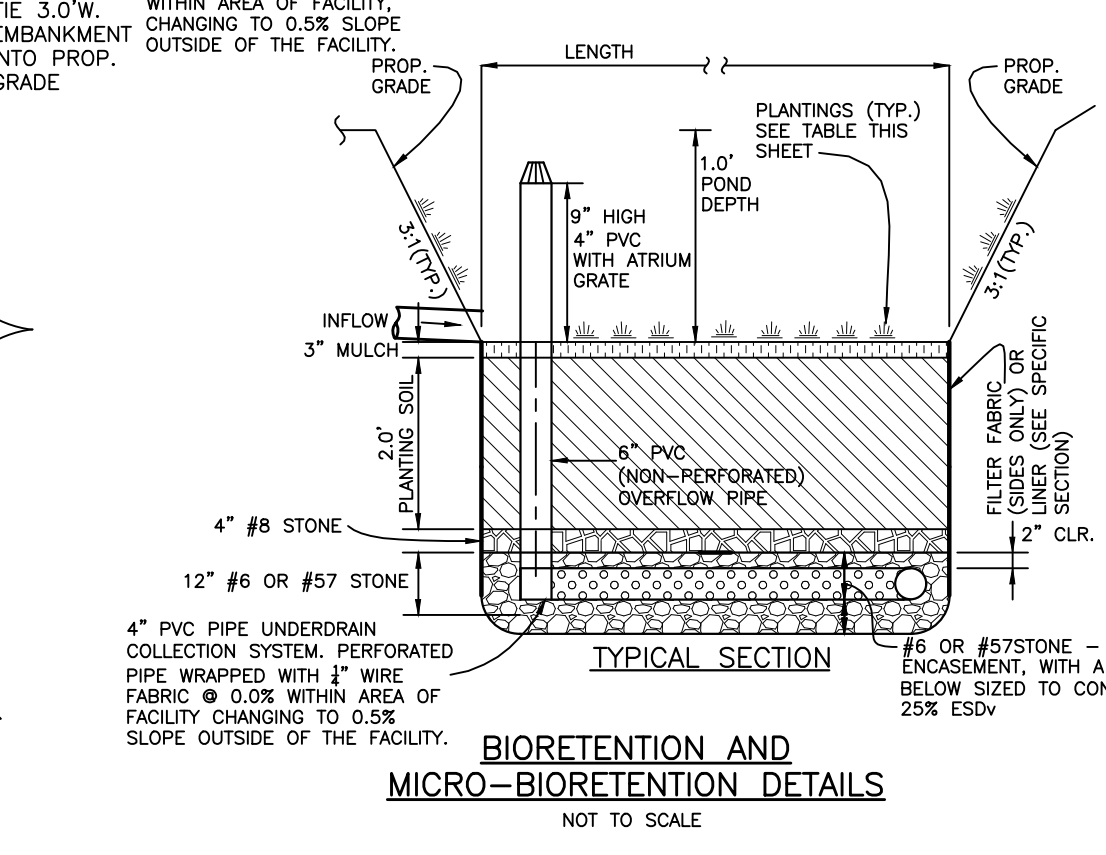
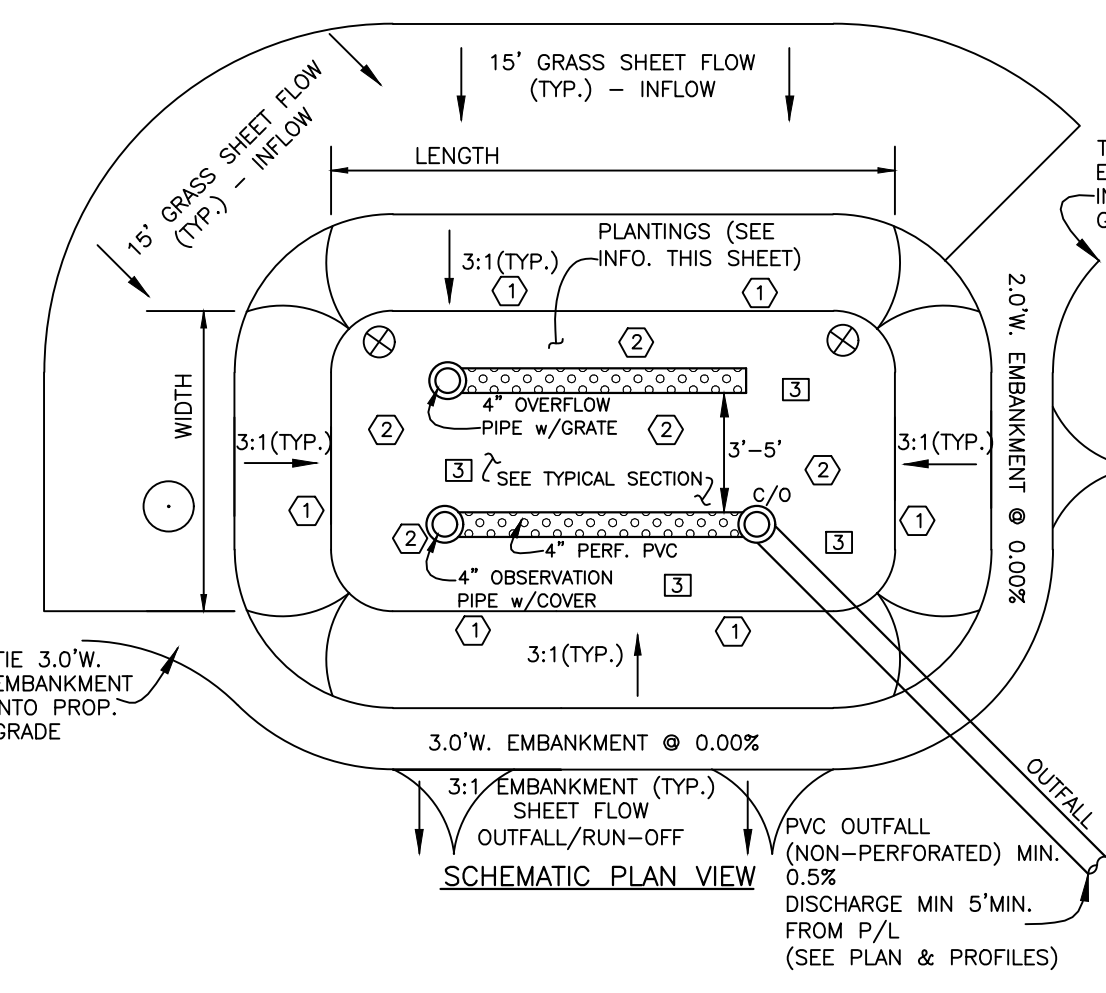
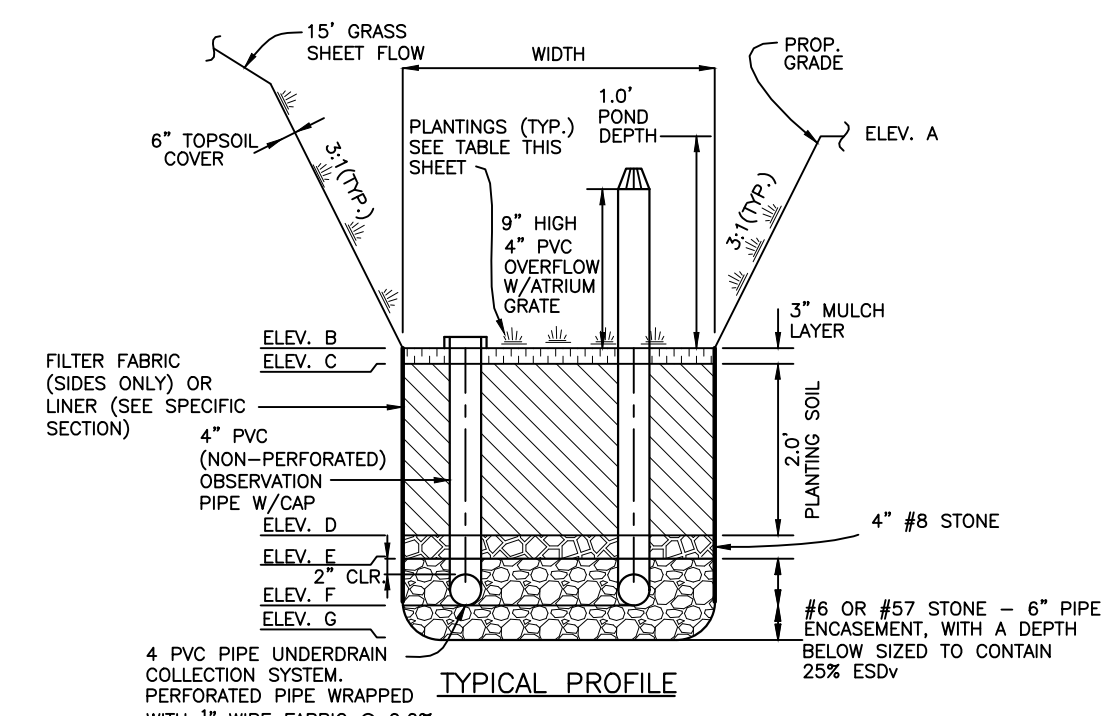
RESIDENTIAL SITE DEVELOPMENT PLAN
 STORMWATER MANAGEMENT PROFILES AND NOTES

DATE: DECEMBER 2023 BEI PROJECT NO. 3080
 DESIGN: JCO DRAFT: JCO SCALE: AS SHOWN SHEET 6 OF 6

| FACILITY | A | B | C | D | E | F | G | LENGTH | WIDTH | FILTER (A/F) | PLANTINGS | LINER |
|----------|-------|-------|--------|--------|--------|--------|--------|--------|-------|--------------|-----------|-------|
| | | | | | | | | | | | 1 2 3 | |
| MBR-3 | 353.0 | 352.0 | 351.75 | 349.75 | 349.42 | 348.83 | 348.42 | 48' | 5' | 240SF | 11 8 8 | NO |
| RG-4 | 357.0 | 356.0 | 355.75 | 353.75 | 353.08 | 352.66 | 352.41 | 13' | 10' | 226SF | 10 8 8 | NO |

- MICROBIORETENTION PLANTING SCHEDULE**
 (SPECIFIC NUMBER OF PLANTINGS SHALL BE DETERMINED WITH FINAL DESIGN AT LOT PLAN PHASE)
- 1 IRIS VERSICOLOR (IRIS)
 - 2 LOBELIA CARDINALIS CARDINAL FLOWER
 - 3 RUDEBECKIA SUBTOMENTOSA - SWEET CONEFLOWER
 - 4 CALLUNA VULGARIS (HEATHER) (2 PER FACILITY)
 - 5 SALIX NIGRA (BLACK WILLOW) (1 PER FACILITY)

- MICROBIORETENTION PLANTING DATA**
1. PLANTINGS WITHIN THE PONDING AREA OF THE MICRO-BIORETENTION FACILITY ARE TO BE OF A MEDIUM TO HIGH WATER TOLERANCE.
 2. PLANTINGS ALONG THE PERIMETER (BERM) AREA OF THE MICRO-BIORETENTION FACILITY ARE TO BE OF A LOW TO MEDIUM WATER TOLERANCE.
 3. AVOID PLANTINGS WITH EXCESSIVE ROOT MASS IN POND AREA OF THE MICRO-BIORETENTION FACILITY NEAR O.B. PIPE AND UNDERDRAIN.



UNDERDRAIN, OVERFLOW AND OUTFALL NOTES

1. THE LAST CLEAN-OUT LOCATION WITHIN EACH MICRO-BIORETENTION FACILITY SHALL BE FITTED WITH A NON-CLOGGING SURFACE DRAIN (EXAMPLE: 6\"/>

OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6), RAIN GARDEN (M-7)

- A. 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 MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL, VOL. I, TABLE A.4.1 AND 2.
- B. THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF 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 STAKES AND WIRES.
- C. 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.
- D. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

Appendix B.4. Construction Specifications for Environmental Site Design Practices

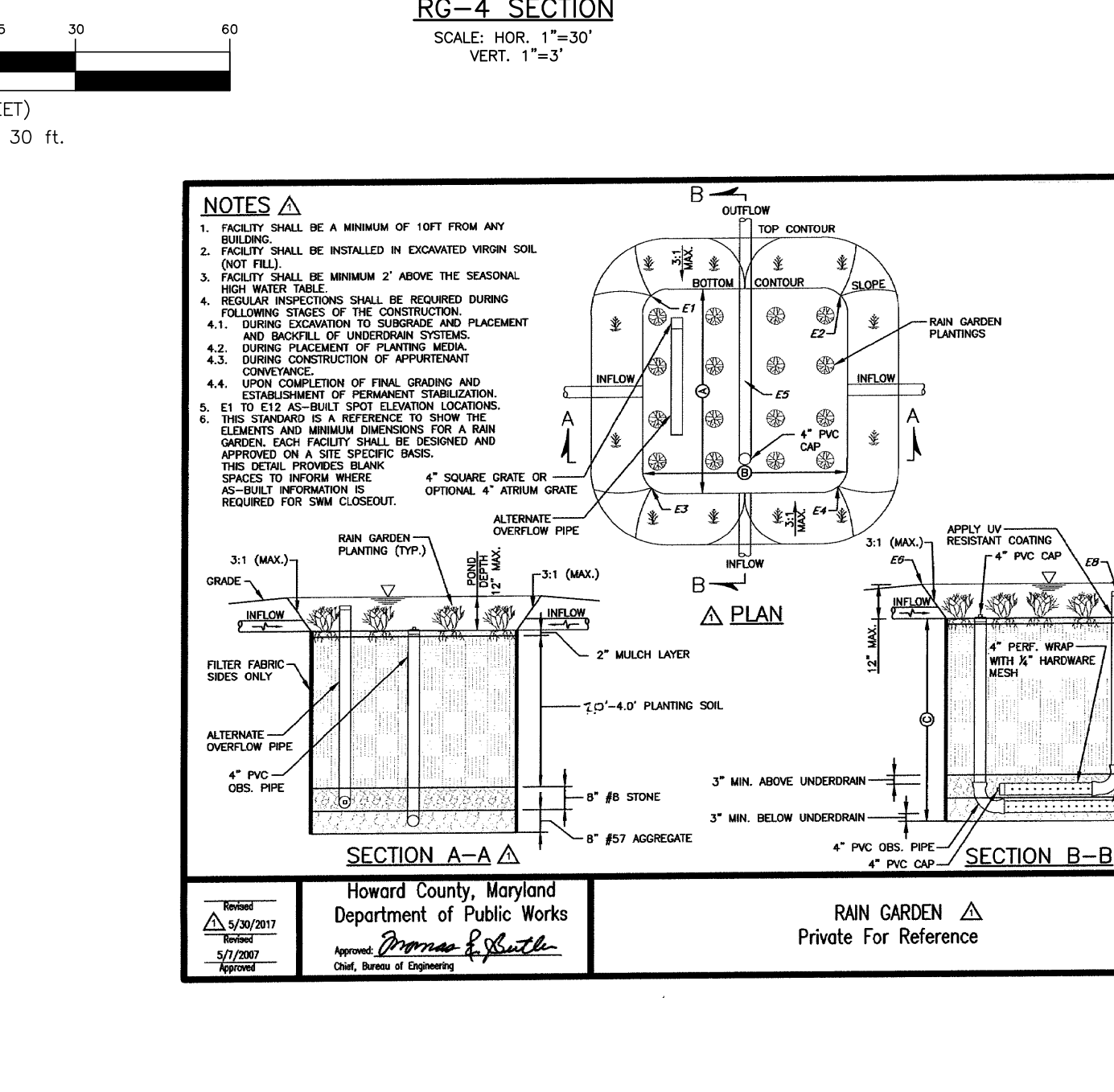
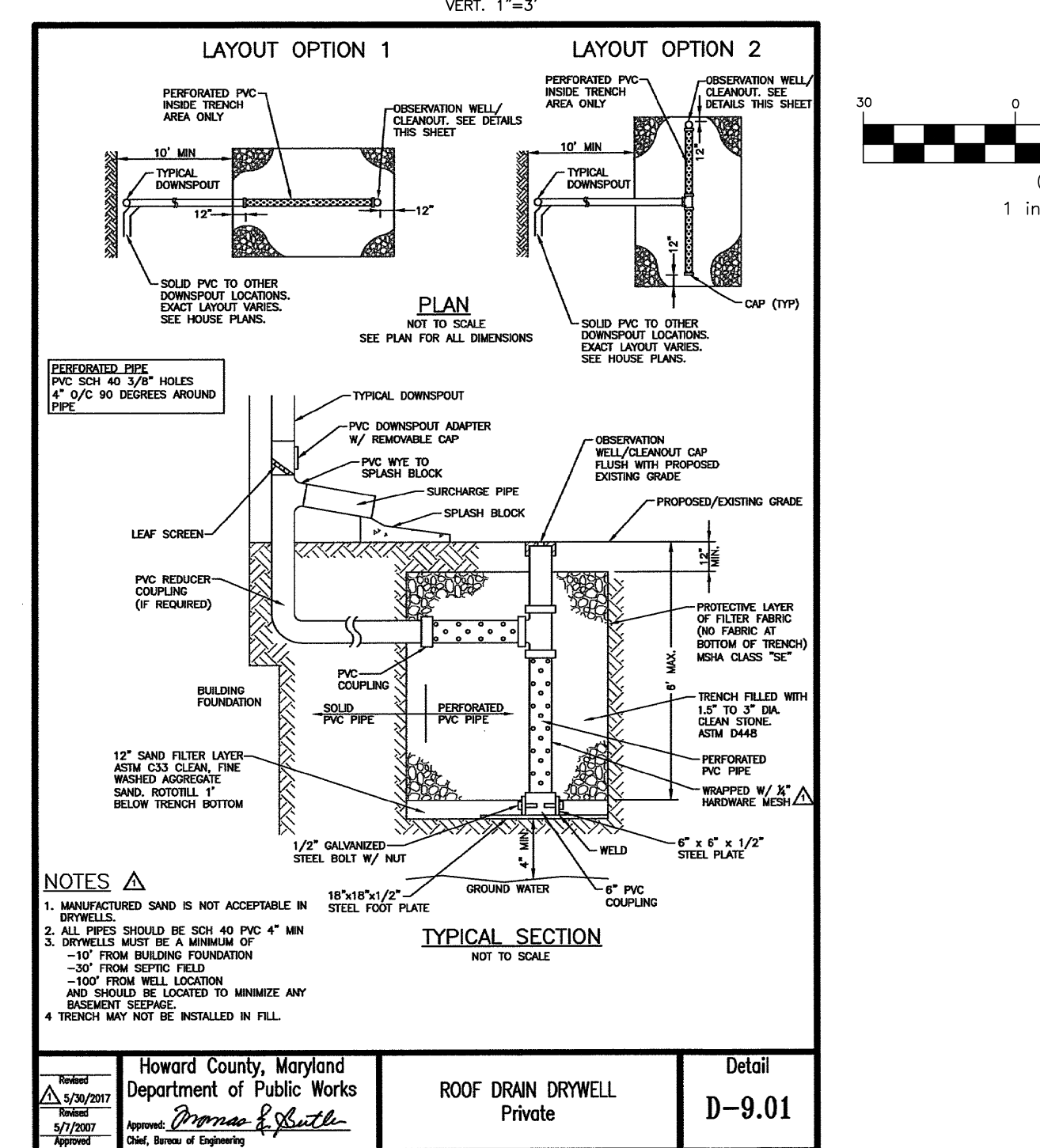
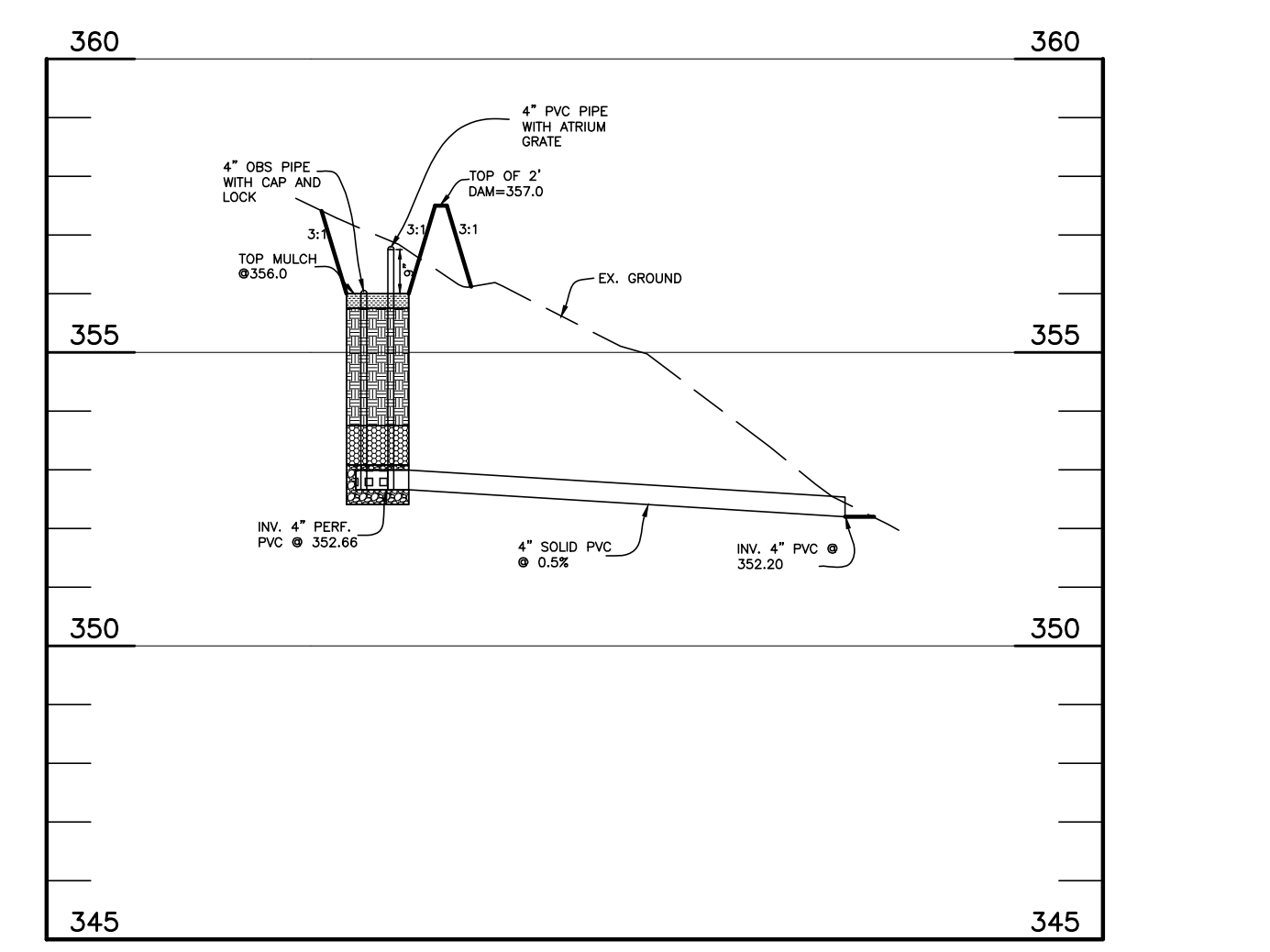
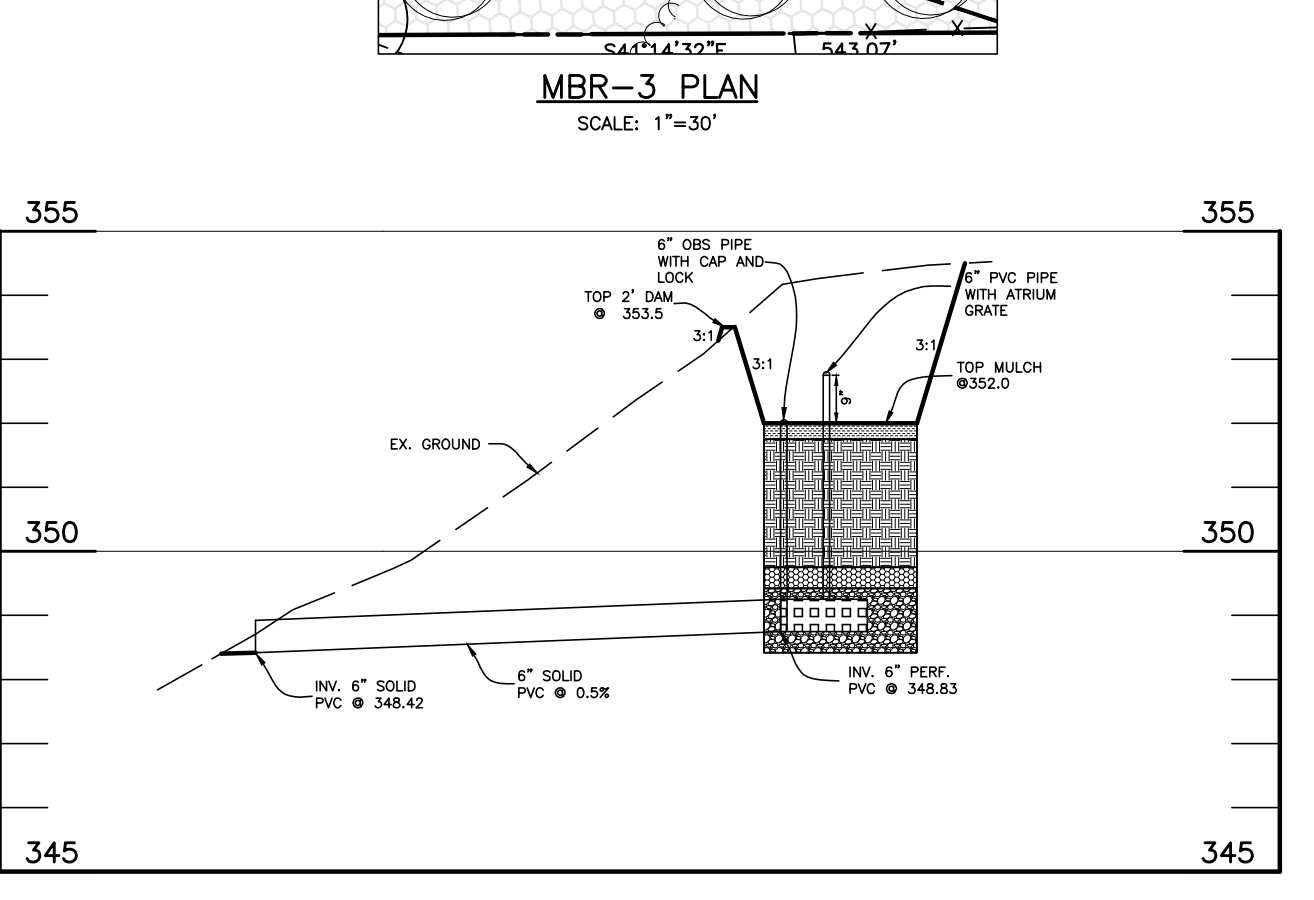
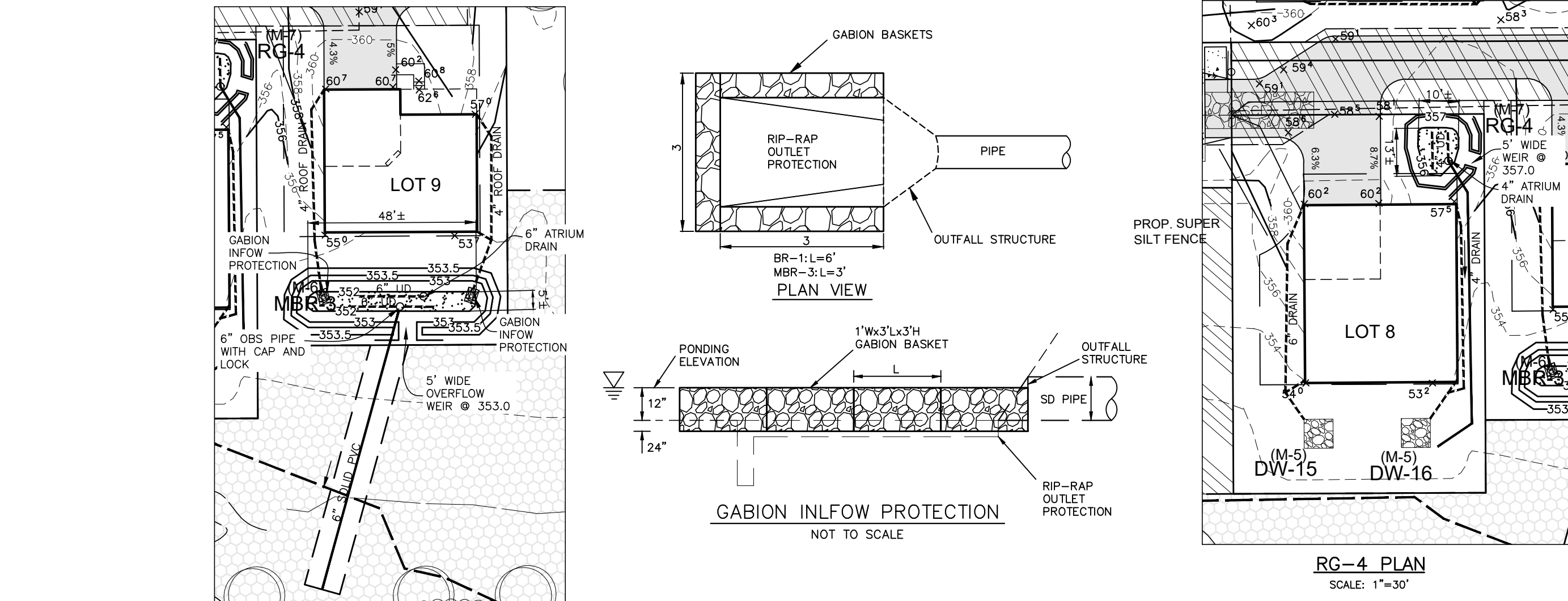
| Material | Specification | Size | Notes |
|---|--|--|--|
| Plantings | See Appendix A, Table A.4 | n/a | Plantings are site-specific. |
| Planting soil | Heavy sand (60 - 65%) & compost (35 - 40%) | n/a | 1.5XN/A soil types heavy sand or sandy loam, clay content < 5% (2' to 4' deep) |
| Organic content | Min. 10% by dry weight | | aged 6 months, minimum; no pine or wood chips |
| Mulch | shredded hardwood | | |
| Pea gravel diaphragm | pea gravel, ASTM-D-448 | NO. 8 OR NO. 9 (18" TO 36") | |
| Curtain drain | corrugated stone: washed cobblestone | stone: 2" to 5" | |
| Geotextile | n/a | | PE Type I nonwoven |
| Gravel (underdrains and infiltration berms) | AASHTO M-43 | NO. 57 OR NO. 6 (18" TO 34") | |
| Underdrain piping | F 758, Type PS 28 or AASHTO M-278 | 4" to 6" rigid schedule 40 PVC or HDPE | Slotted or perforated pipe; 3/8" perft. @ 6" on center; 4 holes per row; minimum of 2" of gravel over pipes; not necessary underdrain pipes. Perforated pipes shall be wrapped with 1/2-inch galvanized hardware cloth. |
| Poured in place concrete (if required) | MSHA Mix No. 3, F _c = 3500 psi @ 28 days, normal weight, air-entrained, reinforcing to meet ASTM-615-60 | n/a | on-site testing of poured-in-place concrete required; 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved State or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting A.C.I. Code 309 R9-7; vertical loading (H-10 or H-20); allowable horizontal loading (based on soil pressure) and analysis of potential cracking. |
| Sand | AASHTO M-6 or ASTM-C-33 | 0.075" to 0.04" | Sand substitutions such as Diabase and Graystone (AASHTO) #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand. |

DRYWELL SCHEDULE

| Lot No. | Drywell No. | Length (ft) | Width (ft) | Stone Depth (ft) | Grade | Top of Stone | Bottom of Stone |
|---------|-------------|-------------|------------|------------------|-------|--------------|-----------------|
| 1 | DW-1 | 8.00 | 8.00 | 5.00 | 361.7 | 360.7 | 355.7 |
| 2 | DW-2 | 8.00 | 8.00 | 5.00 | 362.0 | 361.0 | 356.0 |
| 3 | DW-3 | 8.00 | 8.00 | 5.00 | 361.0 | 360.0 | 356.0 |
| 4 | DW-4 | 9.00 | 9.00 | 4.00 | 361.0 | 360.0 | 356.0 |
| 5 | DW-5 | 7.00 | 7.00 | 5.00 | 359.8 | 357.0 | 352.0 |
| 6 | DW-6 | 7.00 | 7.00 | 5.00 | 359.8 | 357.0 | 352.0 |
| 7 | DW-7 | 8.00 | 8.00 | 5.00 | 357.0 | 356.0 | 351.0 |
| 8 | DW-8 | 8.00 | 8.00 | 5.00 | 357.0 | 356.0 | 351.0 |
| 9 | DW-9 | 7.00 | 7.00 | 5.00 | 354.5 | 353.5 | 348.5 |
| 10 | DW-10 | 7.00 | 7.00 | 5.00 | 355.5 | 354.5 | 349.5 |
| 11 | DW-11 | 7.00 | 7.00 | 5.00 | 358.0 | 357.0 | 352.0 |
| 12 | DW-12 | 7.00 | 7.00 | 5.00 | 358.8 | 357.8 | 352.8 |
| 13 | DW-13 | 7.00 | 7.00 | 5.00 | 359.7 | 358.7 | 353.7 |
| 14 | DW-14 | 7.00 | 7.00 | 5.00 | 359.7 | 358.7 | 353.7 |
| 15 | DW-15 | 8.00 | 8.00 | 5.00 | 353.0 | 352.0 | 347.0 |
| 16 | DW-16 | 8.00 | 8.00 | 5.00 | 353.0 | 352.0 | 347.0 |
| 17 | DW-17 | 8.00 | 8.00 | 5.00 | 357.7 | 356.7 | 351.7 |
| 18 | DW-18 | 8.00 | 8.00 | 5.00 | 357.7 | 356.7 | 351.7 |
| 19 | DW-19 | 8.00 | 8.00 | 5.00 | 354.0 | 353.0 | 348.0 |
| 20 | DW-20 | 8.00 | 8.00 | 5.00 | 356.0 | 355.0 | 350.0 |

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)

1. THE MONITORING WELLS AND STRUCTURES SHALL BE INSPECTED ON A QUARTERLY BASIS AND AFTER EVERY LARGE STORM EVENT.
2. WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS SHALL BE RECORDED OVER A PERIOD OF SEVERAL DAYS TO INSURE TRENCH DRAINAGE.
3. A LOG BOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
4. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN THE 72 HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
5. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
6. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.



APPROVED: DEPARTMENT OF PLANNING AND ZONING

DocuSigned by: *Chad Edmondson* 1/9/2024
 CHIEF, DIVISION OF LAND DEVELOPMENT

DocuSigned by: *Lynda Bowring* 1/16/2024
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

DocuSigned by: *Lynda Bowring* 1/16/2024
 DIRECTOR

| File # | SIZE | 1.6 | Impervious | Area | Q _p | Required | Provided | At | 2% DA | Depth | Required | Provided | 75% ESDv | RV | Pe | | | | | | | | | | | | |
|----------------------|---------|-------|------------|-------|----------------|----------|----------|------|-------|-------|----------|----------|----------|---------------|---------------|--------------|--------------|------------|------------|--------------|-----------|-------------|--|--|--|--|--|
| MBR-3 | 48'x5' | (M-6) | 9,600 | 2,270 | 0.42 | 192 | 240 | PASS | 1.0 | 134 | 188 | PASS | 0.26 | 0.88 | | | | | | | | | | | | | |
| RG-4 | 13'x10' | (M-7) | 2,800 | 1,330 | 0.74 | 110 | 134 | PASS | 1.0 | 134 | 188 | PASS | 0.48 | 1.68 | | | | | | | | | | | | | |
| DW-1 | 8'x6' | (M-5) | 1,015 | 1,015 | 1.52 | 121 | 128 | PASS | 5.0 | 121 | 128 | PASS | 0.95 | 1.59 | | | | | | | | | | | | | |
| DW-2 | 8'x6' | (M-5) | 1,015 | 1,015 | 1.52 | 121 | 128 | PASS | 5.0 | 121 | 128 | PASS | 0.95 | 1.59 | | | | | | | | | | | | | |
| DW-3 | 8'x6' | (M-5) | 1,015 | 1,015 | 1.52 | 121 | 130 | PASS | 4.0 | 121 | 130 | PASS | 0.95 | 1.61 | | | | | | | | | | | | | |
| DW-4 | 8'x6' | (M-5) | 1,015 | 1,015 | 1.52 | 121 | 130 | PASS | 4.0 | 121 | 130 | PASS | 0.95 | 1.61 | | | | | | | | | | | | | |
| DW-5 | 7'x7' | (M-5) | 753 | 753 | 1.52 | 89 | 98 | PASS | 5.0 | 89 | 98 | PASS | 0.95 | 1.64 | | | | | | | | | | | | | |
| DW-6 | 7'x7' | (M-5) | 753 | 753 | 1.52 | 89 | 98 | PASS | 5.0 | 89 | 98 | PASS | 0.95 | 1.64 | | | | | | | | | | | | | |
| DW-7 | 8'x6' | (M-5) | 1,015 | 1,015 | 1.52 | 121 | 128 | PASS | 5.0 | 121 | 128 | PASS | 0.95 | 1.59 | | | | | | | | | | | | | |
| DW-8 | 8'x6' | (M-5) | 1,015 | 1,015 | 1.52 | 121 | 128 | PASS | 5.0 | 121 | 128 | PASS | 0.95 | 1.59 | | | | | | | | | | | | | |
| DW-9 | 7'x7' | (M-5) | 700 | 700 | 1.52 | 83 | 98 | PASS | 5.0 | 83 | 98 | PASS | 0.95 | 1.77 | | | | | | | | | | | | | |
| DW-10 | 7'x7' | (M-5) | 700 | 700 | 1.52 | 83 | 98 | PASS | 5.0 | 83 | 98 | PASS | 0.95 | 1.77 | | | | | | | | | | | | | |
| DW-11 | 7'x7' | (M-5) | 753 | 753 | 1.52 | 89 | 98 | PASS | 5.0 | 89 | 98 | PASS | 0.95 | 1.64 | | | | | | | | | | | | | |
| DW-12 | 8'x6' | (M-5) | 1,015 | 1,015 | 1.52 | 121 | 128 | PASS | 5.0 | 121 | 128 | PASS | 0.95 | 1.59 | | | | | | | | | | | | | |
| DW-13 | 7'x7' | (M-5) | 753 | 753 | 1.52 | 89 | 98 | PASS | 5.0 | 89 | 98 | PASS | 0.95 | 1.64 | | | | | | | | | | | | | |
| DW-14 | 7'x7' | (M-5) | 753 | 753 | 1.52 | 89 | 98 | PASS | 5.0 | 89 | 98 | PASS | 0.95 | 1.64 | | | | | | | | | | | | | |
| DW-15 | 8'x6' | (M-5) | 1,015 | 1,015 | 1.52 | 121 | 128 | PASS | 5.0 | 121 | 128 | PASS | 0.95 | 1.59 | | | | | | | | | | | | | |
| DW-16 | 8'x6' | (M-5) | 1,015 | 1,015 | 1.52 | 121 | 128 | PASS | 5.0 | 121 | 128 | PASS | 0.95 | 1.59 | | | | | | | | | | | | | |
| DW-17 | 8'x6' | (M-5) | 1,015 | 1,015 | 1.52 | 121 | 128 | PASS | 5.0 | 121 | 128 | PASS | 0.95 | 1.59 | | | | | | | | | | | | | |
| DW-18 | 8'x6' | (M-5) | 1,015 | 1,015 | 1.52 | 121 | 128 | PASS | 5.0 | 121 | 128 | PASS | 0.95 | 1.59 | | | | | | | | | | | | | |
| DW-19 | 8'x6' | (M-5) | 1,015 | 1,015 | 1.52 | 121 | 128 | PASS | 5.0 | 121 | 128 | PASS | 0.95 | 1.59 | | | | | | | | | | | | | |
| DW-20 | 8'x6' | (M-5) | 1,015 | 1,015 | 1.52 | 121 | 128 | PASS | 5.0 | 121 | 128 | PASS | 0.95 | 1.59 | | | | | | | | | | | | | |
| Total/Average | | | | | | | | | | | | | | 30,588 | 21,688 | 2,399 | 2,673 | REV | 755 | 1,119 | CF | 1.60 | | | | | |