

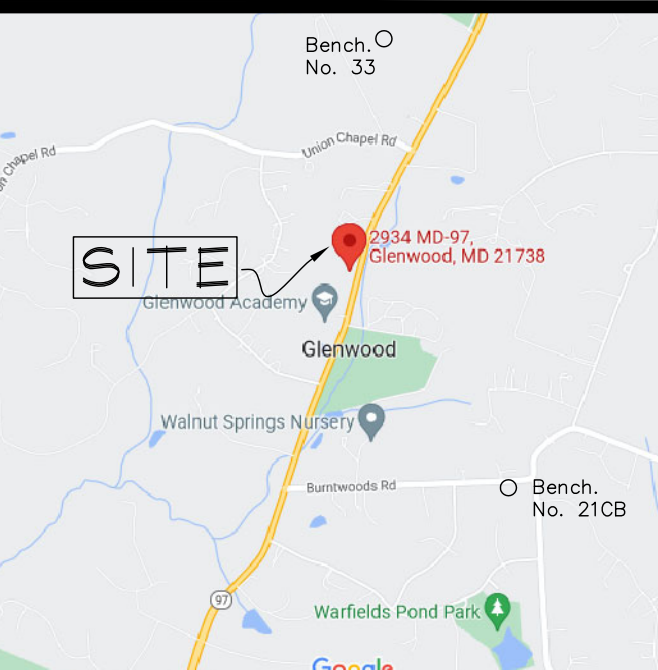
SHEET INDEX

Table with 2 columns: SHEET NO. and DESCRIPTION. Lists sheets 1 through 4.

SOILS DATA TABLE

Table with 5 columns: SYMBOL, SOIL, HYDRIC, K-FACTOR, ERODIBLE, GROUP. Lists soil types GcC, Baa, and GgB.

SOILS INFORMATION TAKEN FROM USDA WEB SOIL SURVEY WEBSITE. NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15% OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR 'K' GREATER THAN 0.35 WITH A SLOPE GREATER THAN 5 PERCENT.



VICINITY MAP

SCALE: 1" = 2000'

GENERAL NOTES

- 1. THE SUBJECT PROPERTY IS ZONED RC-DEO (PER 10/06/13 COMPREHENSIVE ZONING PLAN.)
2. BOUNDARY IS BASED ON FIELD RUN SURVEY PERFORMED BY JNM ENGINEERING, INC. IN SEPTEMBER 2022.
3. CONTOURS ARE BASED ON FIELD RUN SURVEY PERFORMED BY JNM ENGINEERING IN JANUARY 2023.
... 28. THE FOREST CONSERVATION OBLIGATIONS FOR THIS PROJECT WILL BE MET BY 1.2 ACRES OF ON-SITE AFFORESTATION. SURETY IN THE AMOUNT OF \$ 26,136.00 WILL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT.

MINIMUM LOT SIZE CHART

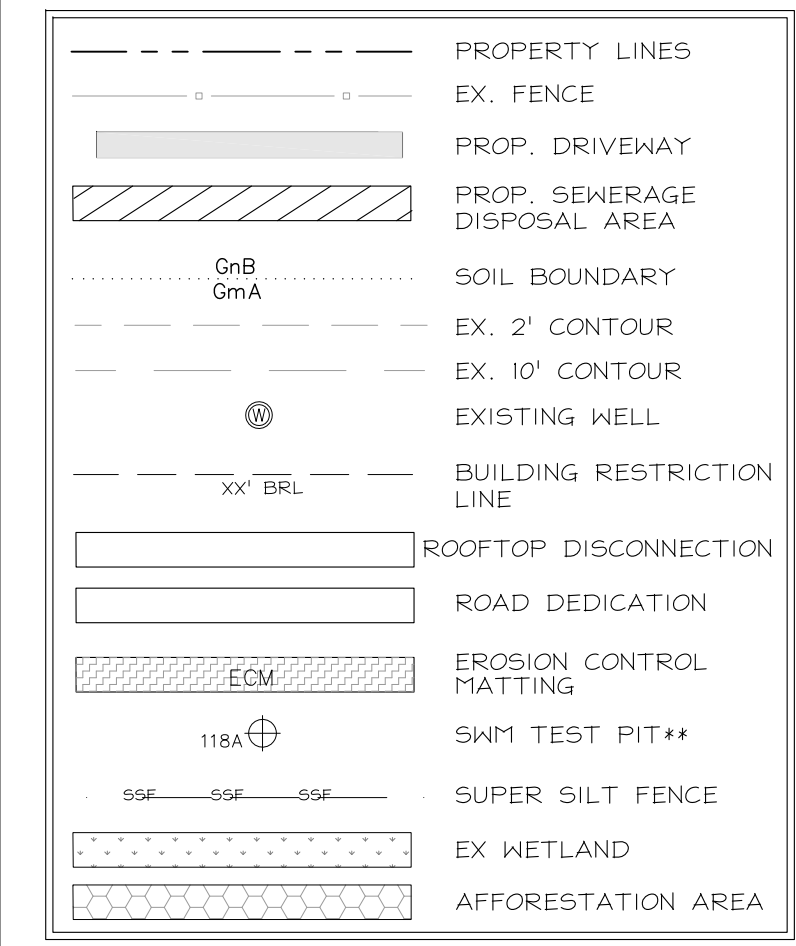
Table with 4 columns: LOT NO., GROSS AREA, PIPE STEM AREA, MINIMUM LOT AREA. Lists lots 1, 2, and 3.

PER SECTION 104.01E OF THE SUBDIVISION REGULATIONS, LOT SIZES HAVE BEEN INCREASED TO 60,000 SQ. FT. DUE TO VARIOUS SITE CONDITIONS RELATED TO THE SEWAGE DISPOSAL AREAS. ROCK WAS ENCOUNTERED DURING PERCOLATION TESTING AT SOME OF THE PROPOSED SEPTIC AREA LOCATIONS. THE SEPTIC AREAS ARE RELOCATED TO SOILS WITH ADEQUATE INFILTRATION RATES. THIS, IN CONJUNCTION WITH THE WELL LOCATIONS, SHIP SETBACKS AND OTHER CONSTRAINING FACTORS RELATED TO THE SITE LAYOUT YIELDING AN INCREASE IN LOT SIZE.

ZONING DATA

ZONING: RC-DEO
MIN. LOT AREA = 60,000 SQ FT
MIN. LOT WIDTH AT R/W = 100 FT
MIN. LOT WIDTH AT B.R.L. = 100 FT
FRONT B.R.L. = 50 FT
REAR B.R.L. = 30 FT
SIDE B.R.L. = 10 FT

LEGEND



\*\* SNM TEST PITS ARE TAKEN FROM THE PERC PLAN AND REPORT.

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. APPROVED: Alexander Bratchie 9/24/2024

APPROVED: DEPARTMENT OF PLANNING & ZONING Chad Edmondson 9/24/2024

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 9/25/2024

CHIEF, DIVISION OF LAND DEVELOPMENT DATE

SURVEYORS CERTIFICATION FOR DENSITY SENDING PARCEL

I hereby certify that the final easement plat shown hereon is correct; that it defines a preservation parcel easement of 24.06 acres on part of the land conveyed by Alan Sharp to Francesca DiMarco by deed date September 30, 2022 and recorded in the land records of Howard County in Liber 21749 Folio 81. All monuments are in place.

Registered Land Surveyor James Witmer 472138A836A7428

DESIGN CERTIFICATION I hereby certify that this plan has been designed in accordance with 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.

Designer's Signature Date James Witmer 21931 Printed Name MD PE Registration No.

DEVELOPER'S CERTIFICATE

I/We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion sediment control plan, including inspection and maintaining controls, and the responsible personnel involved in the construction project will have a Certificate of Training at the 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.

Signature of Developer Date Francesca DiMarco 91381CE07467



OWNERS:

FRANCESCA DIMARCO 10416 OLD FREDERICK ROAD MARRIOTTVILLE, MD 21104 (410) 810-4336

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. 46793, EXPIRATION DATE: 06/07/2024.

James Witmer 472138A836A7428



SITE ANALYSIS DATA SHEET

TOTAL PROJECT AREA: 9.007 ACRES±
AREA OF PLAN SUBMISSION: 9.007 ACRES±
AREA OF WETLANDS & BUFFER: 0.91 ACRES
AREA OF STREAM BUFFER: 0.000 ACRES
AREA OF FLOODPLAIN: 0 ACRES
AREA OF FOREST: 0 ACRES
AREA OF STEEP SLOPES 15% & > 0 ACRES
ERODIBLE SOILS: 0.00 ACRES
LIMIT OF DISTURBED AREA: 3.2 ACRES
PROP. USE OF SITE: RESIDENTIAL
PROPOSED IMPERVIOUS AREA: 0.75 ACRES
PRESENT ZONING DESIGNATION: RC-DEO
OPEN SPACE REQUIREMENT: 0 ACRES
TOTAL NUMBER OF UNITS ALLOWED: 4
TOTAL NUMBER OF UNITS PROPOSED: 4
DPZ FILE REFERENCE: ECP-23-048

SWM PRACTICE CHART

Table with 6 columns: LOT, ADDRESS, DISCONNECTION OF ROOF TOP RUNOFF (N-1), DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2), SHEETFLOW TO CONSERVATION AREA (N-3), DRYWELLS (M-1-5), SHALE (M-1-8). Lists lots 1, 2, and 3.

Project information sidebar including DATE (3/2023), PROJECT (21-0526), ILLUSTRATION (JWW), SCALE (1"=50'), and company information for JNM ENGINEERING, LLC and BALDWIN ESTATES.

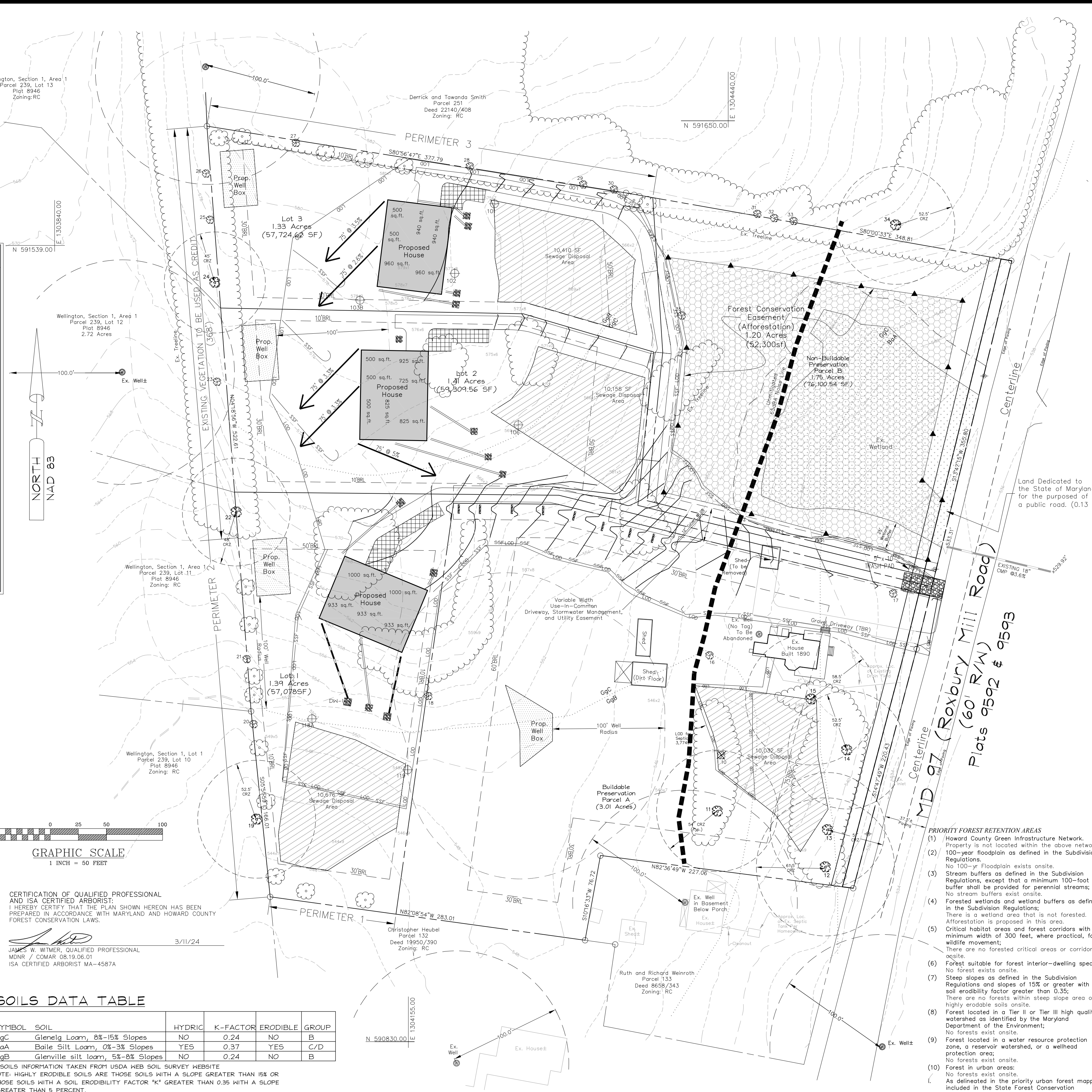
LANDSCAPE NOTES
1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.

Figure E-2: Forest Conservation Easement Signs (continued)
FOREST CONSERVATION AREA
Dumping, Machinery, or Storage of Materials, Cutting or Disturbance of Vegetation or Soil in This Area IS STRICTLY PROHIBITED.

Figure E-2: Forest Conservation Easement Signs
FOREST CONSERVATION DECAL
TREES FOR YOUR FUTURE
DUMPING, MACHINERY, OR STORAGE OF MATERIALS, CUTTING OR DISTURBANCE OF VEGETATION OR SOIL IN THIS AREA IS STRICTLY PROHIBITED.

LEGEND
PROPERTY LINES
EX. FENCE
PROP. DRIVEWAY
PROP. SEWERAGE DISPOSAL AREA

APPROVED: DEPARTMENT OF PLANNING & ZONING
Chief, Development Engineering Division
Date: 9/24/2024



SOILS DATA TABLE
SYMBOL SOIL HYDRIC K-FACTOR ERODIBLE GROUP
GcC glenville loam, 8%-15% Slopes NO 0.24 NO B
Baa Baile Silt Loam, 0%-3% Slopes YES 0.37 YES C/D
GgB glenville silt loam, 5%-8% Slopes NO 0.24 NO B

SPECIMEN & SIGNIFICANT TREE DATA SHEET
Table with columns: No., Species, Size, Health, Comments, DBH, Height, etc.

POST CONSTRUCTION PERIOD PROTECTION AND MANAGEMENT PROGRAM
1. ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
2. ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY DEAD OR DISEASED PLANTINGS.

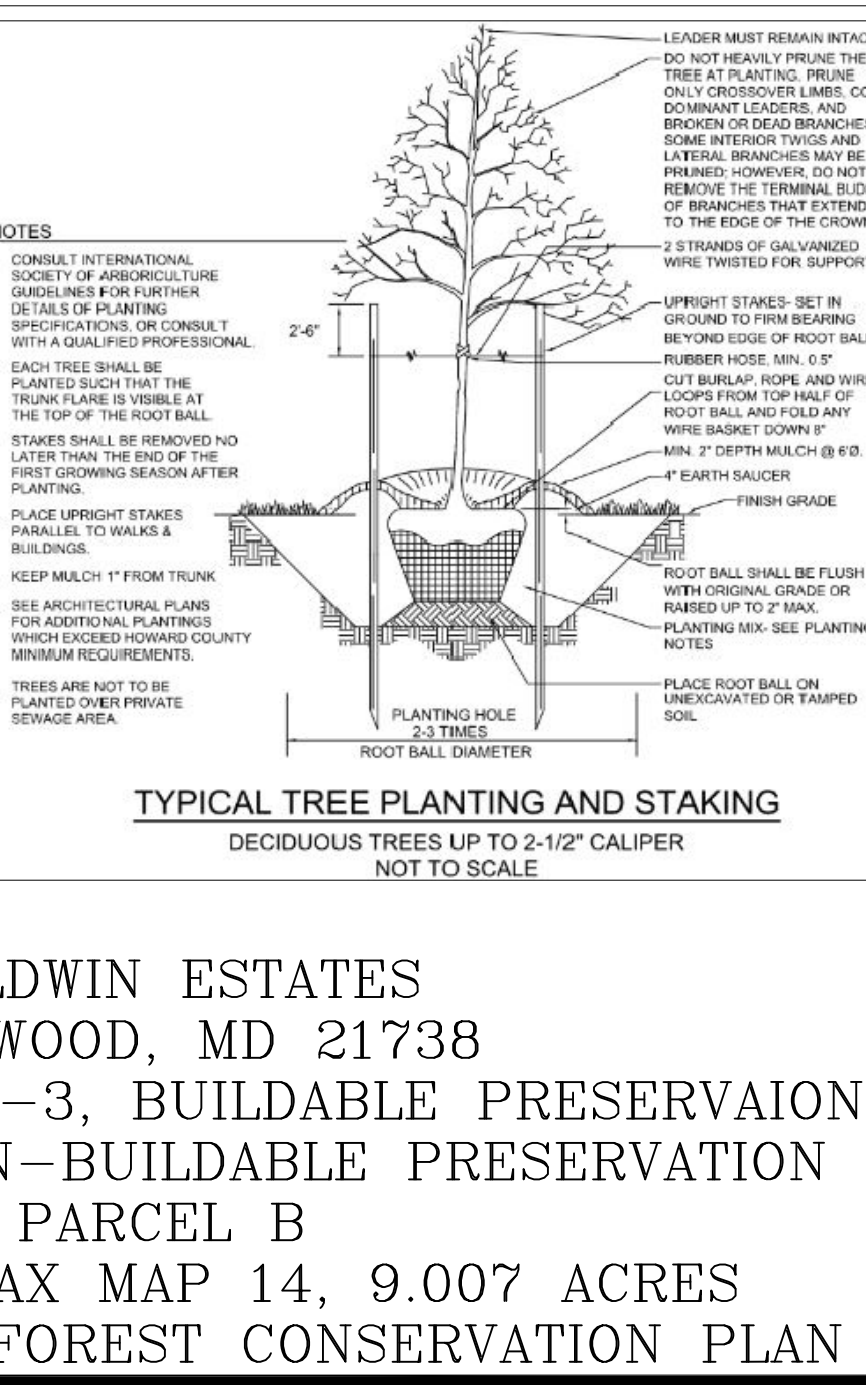
PLANTING SPECIFICATIONS AND NOTES
SITE PREPARATION AND SOILS
1. CONTRACTOR FENCING AND SILT FENCES FOR SEDIMENT AND EROSION CONTROL ARE TO BE INSTALLED AS A FIRST ORDER OF BUSINESS.

FERTILIZING
1. DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPURT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADD ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.

SCHEDULE A PERIMETER LANDSCAPE EDGE
Table with columns: CATEGORY, ADJACENT TO PERIMETER PROPERTIES, LANDSCAPE TYPE, LINEAR FEET OF PERIMETER, CREDIT FOR EXISTING VEGETATION, etc.

AFFORESTATION PLANT LIST EASEMENT: 1.2 ACRES (420 TREES)
Table with columns: QTY., COMMON NAME, BOTANICAL NAME, SIZE

FOREST CONSERVATION WORKSHEET FOR: Baldwin Estates
Net Tract Area, Existing Forest Cover, Break Even Point, Proposed Forest Clearing, Planning Requirements Inside Watershed, Planning Requirements Outside Watershed.



BALDWIN ESTATES
JNM ENGINEERING, LLC
PROPOSED LOTS 1-3, BUILDABLE PRESERVAION PARCEL A & NON-BUILDABLE PRESERVAION PARCEL B
PARCEL 78, TAX MAP 14, 9.007 ACRES
LANDSCAPE AND FOREST CONSERVATION PLAN

B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

Definition: The process of preparing the soils to sustain adequate vegetative stabilization. Purpose: To provide a suitable soil medium for vegetative growth. Conditions Where Practice Applies: Where vegetative stabilization is to be established. Criteria: A. Soil Preparation 1. Temporary Stabilization a. Seeded preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment...

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

Definition: The application of seed and mulch to establish vegetative cover. Purpose: To protect disturbed soils from erosion during and at the end of construction. Conditions Where Practice Applies: To the surface of all perimeter controls, slopes, and any disturbed area not under active grading. Criteria: A. Seeding 1. Specifications a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory...

B-4-4 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

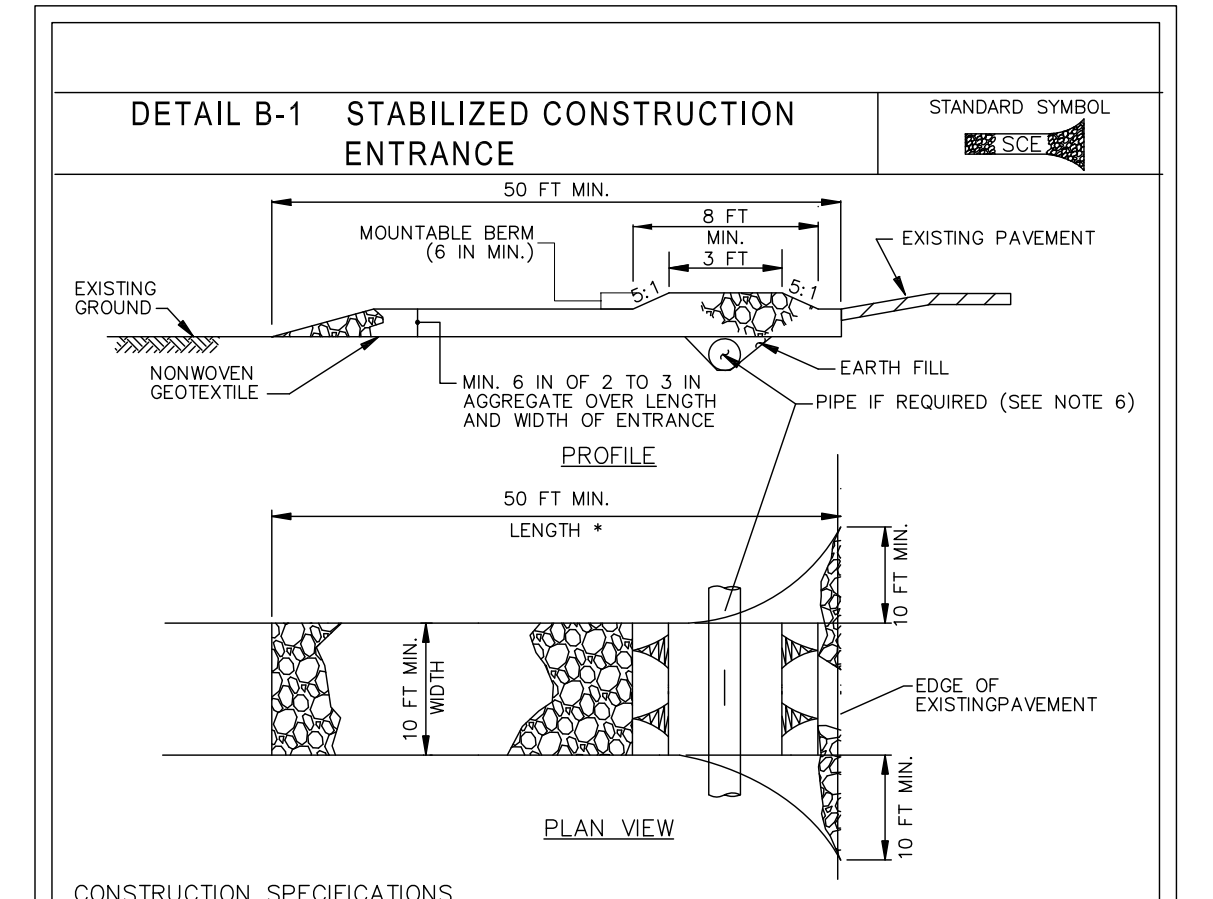
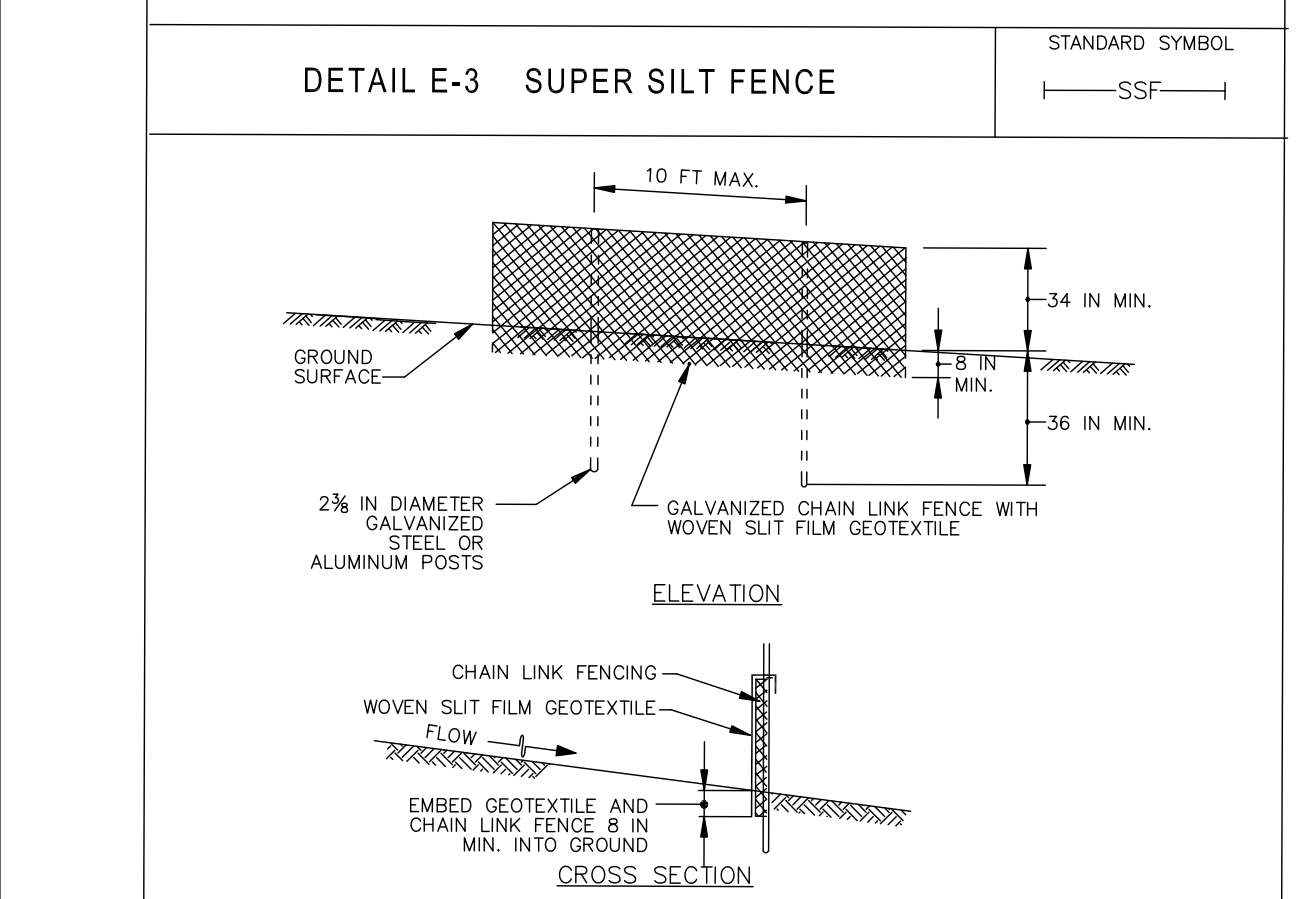
Definition: A mound or pile of soil protected by appropriately designed erosion and sediment control measures. Purpose: To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns. Conditions Where Practice Applies: Stockpile areas are utilized when it is necessary to salvage and store soil for later use. Criteria: 1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan...

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

Definition: To stabilize disturbed soils with permanent vegetation. Purpose: To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils. Conditions Where Practice Applies: Exposed soils where ground cover is needed for 6 months or more. Criteria: A. Seed Mixtures 1. General Use a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone...

HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

1. A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-313-1855 after the future LOD and protected areas are marked clearly in the field. A minimum of 48 hour notice to CID must be given at the following stages: a. Prior to the start of earth disturbance, b. Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other grading or grading...



CONSTRUCTION SPECIFICATIONS 1. INSTALL 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.045 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.

CONSTRUCTION SPECIFICATIONS 1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (430 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE TO FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.

DESIGN CERTIFICATE I hereby certify that this plan has been designed in accordance with 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.

Designer's Signature: James Wilmer Date: 4/26/21 Printed Name: MD PE Registration No. DocuSigned by: James Wilmer

Table B.1: Temporary Seeding for Site Stabilization. Table with columns for Plant Species, Seeding Rate, Seeding Depth, and Recommended Seeding Dates by Plant Hardiness Zone.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011. MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011. MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

APPROVED: DEPARTMENT OF PLANNING & ZONING Chief, Development Engineering Division Date: 9/24/2024

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. Approved: Alexander Bratovic Date: 9/24/2024

DEVELOPER'S CERTIFICATE I/We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion sediment control plan, including inspection and maintaining controls, and the responsible personnel involved in the construction project will have a Certificate of Training at the Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project.

OWNERS: FRANCISCA DIMARCO 1416 OLD FEDERICK ROAD HARRISVILLE, MD 21104 (410) 810-4336

BALDWIN ESTATES GLENWOOD, MD 21738 PROPOSED LOTS 1-3, BUILDABLE PRESERVAION PARCEL A & NON-BUILDABLE PRESERVATION PARCEL B PARCEL 78, TAX MAP 14, 9.007 ACRES SUPPLEMENTAL PLAN

BALDWIN ESTATES TAX MAP 14, GRID 22, PARCEL 78, 9.007 ACRES 4TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND SEDIMENT & EROSION CONTROL NOTES & DETAILS

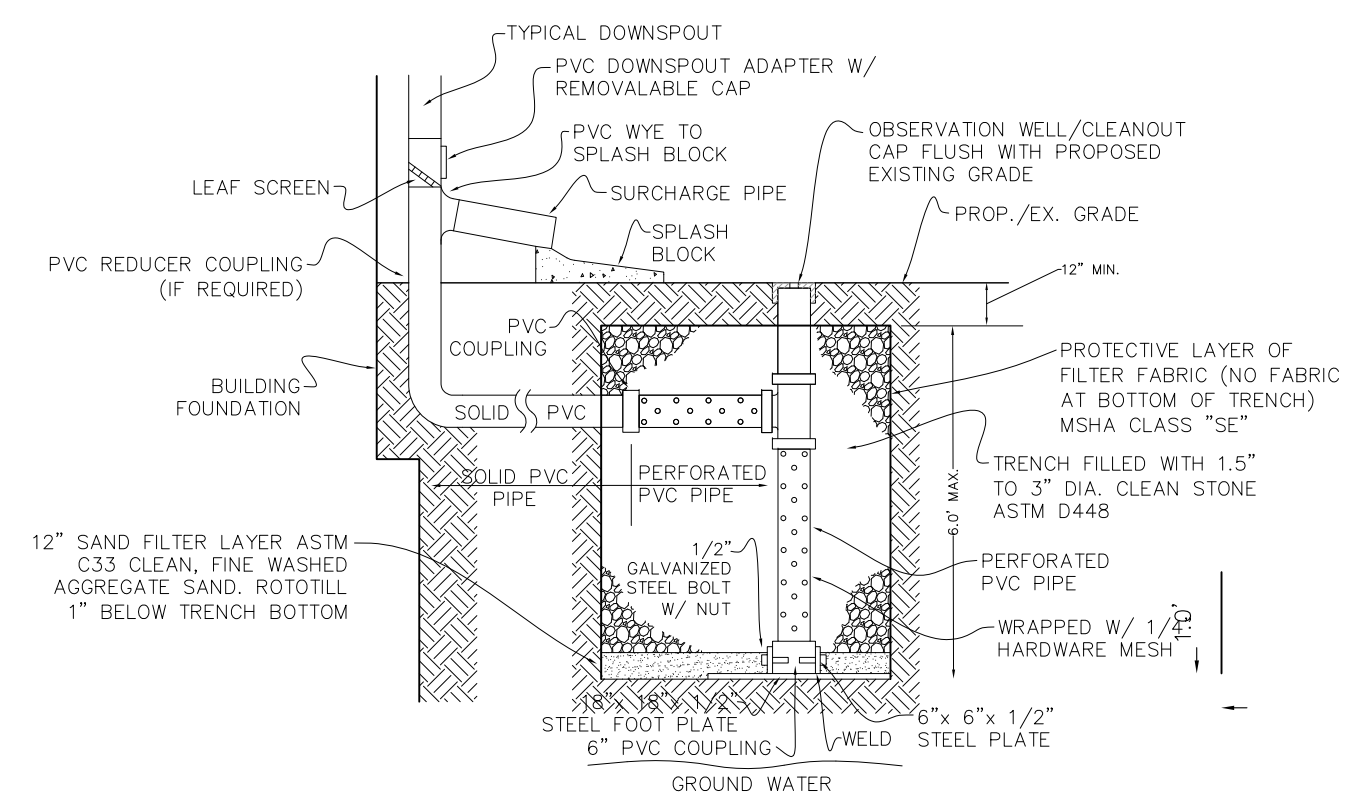
Revision table with columns: DATE, REVISION, BY. Includes entries for 3/2023 and 05/26/2023.

Table with columns: DATE, REVISION, BY. Includes entries for 05/26/2023 and 06/07/2025.

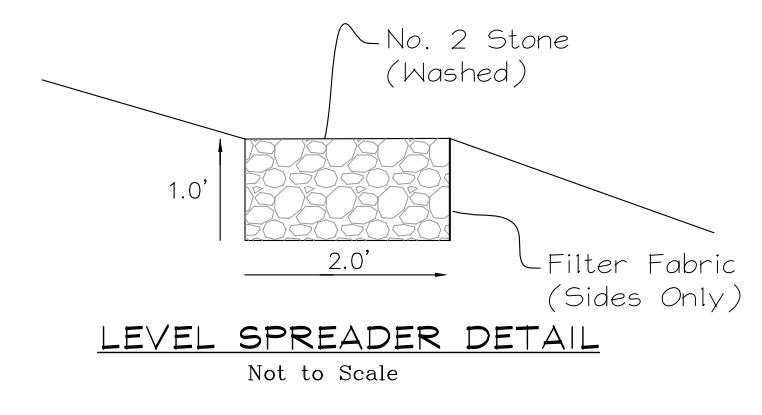
JNM ENGINEERING, LLC CIVIL ENGINEERING, SURVEYING, LAND PLANNING, ENVIRONMENTAL, AGRICULTURAL, LEED PROFESSIONALS 1105 LEAFY HOLLOW CIRCLE, MOUNT AIRY, MD 21771 (301) 514-2809, JNMENGINEERING@GMAIL.COM

**DRY WELL TABLE**

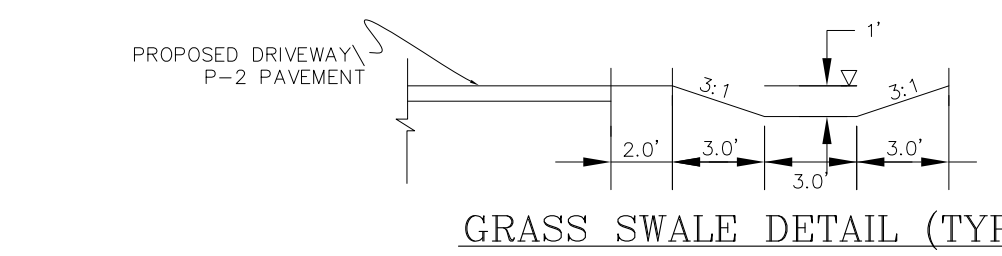
DRYWELL NO.	DIMENSION	ESDv REQUIRED (CU.FT.)	ESDv PROVIDED (CU.FT.)
DW-1	6.5'x6.5'x5'	73.86	84.5
DW-2	6.5'x6.5'x5'	73.86	84.5
DW-3	6.5'x6.5'x5'	73.86	84.5
DW-4	6.5'x6.5'x5'	79.17	84.5
DW-5	6.5'x6.5'x5'	79.17	84.5
DW-6	6.0'x6.0'x5'	65.31	72.0
DW-7	6.0'x6.0'x5'	65.31	72.0
DW-8	6.0'x6.0'x5'	57.39	72.0
DW-9	6.25'x6.25'x5'	73.23	75.13
DW-10	6.5'x6.5'x5'	76.0	84.5
DW-11	6.5'x6.5'x5'	74.42	75.13
DW-12	6.25'x6.25'x5'	74.42	75.13
DW-13	6.25'x6.25'x5'	74.42	75.13



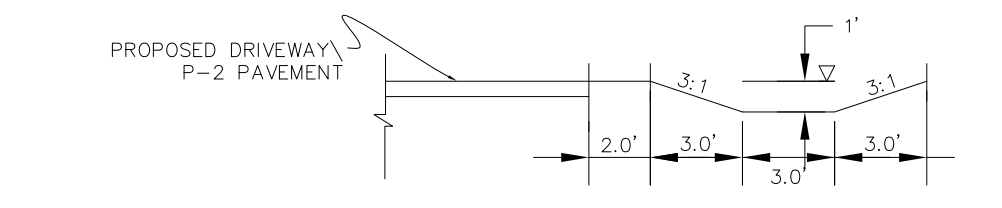
**DRY WELL DETAIL**



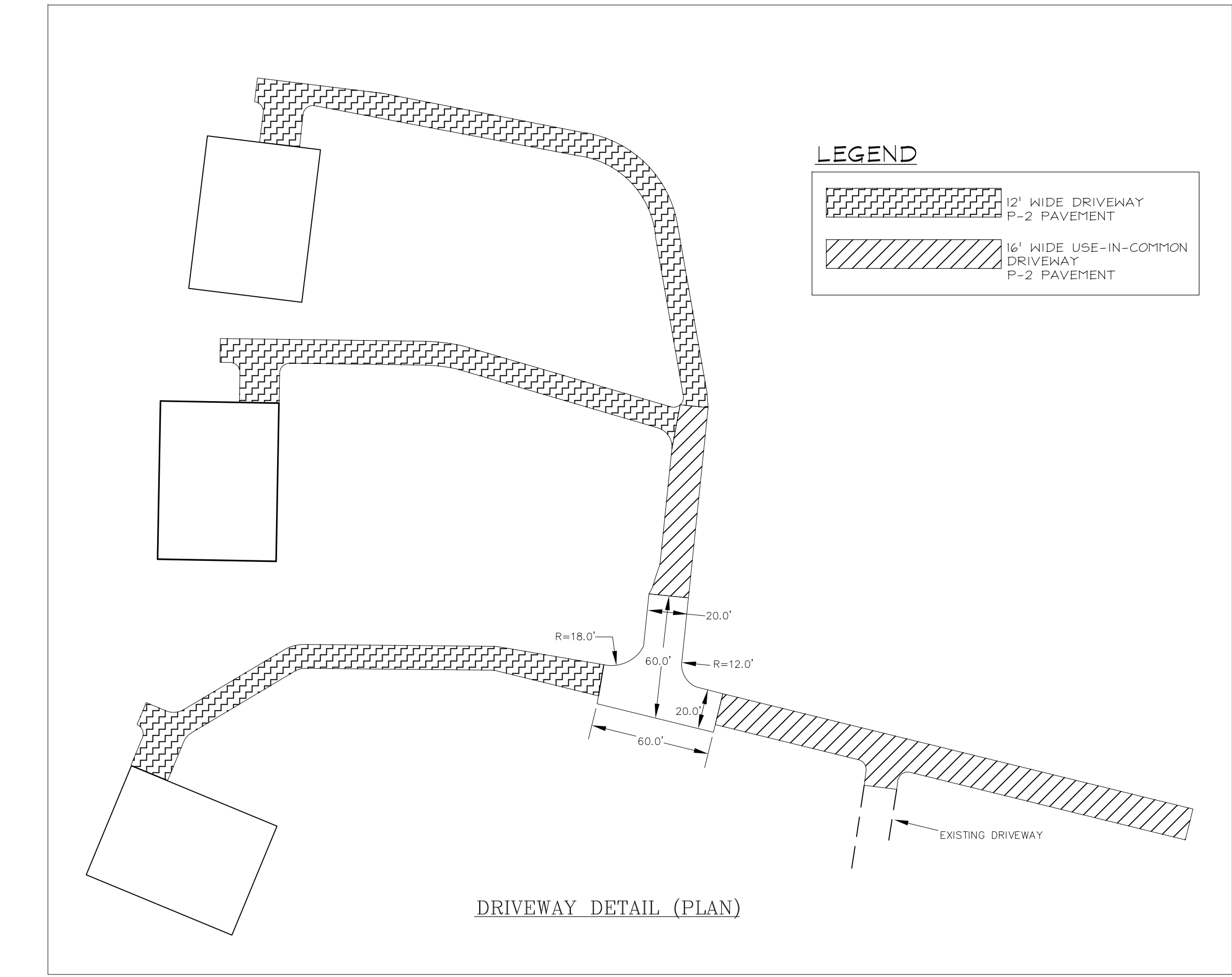
**LEVEL SPREADER DETAIL**



**GRASS SWALE DETAIL (TYP)**

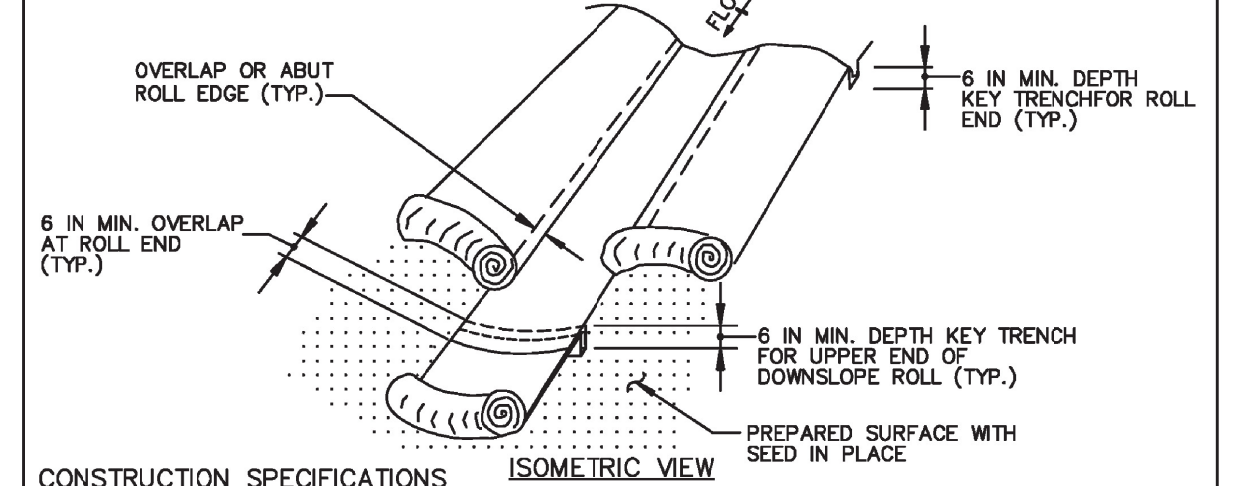


**LOT 3 DIVERSION SWALE DETAIL (TYP)**



**DRIVEWAY DETAIL (PLAN)**

**DETAIL B-4-6-A TEMPORARY SOIL STABILIZATION MATTING CHANNEL APPLICATION**



- CONSTRUCTION SPECIFICATIONS**
- USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
  - USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SHOULDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
  - SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1 1/2 INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1 1/2 INCH IN GROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
  - PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDING PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
  - UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTERLINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MAT SMOOTHLY AND FIRMLY ON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
  - KEY-IN UPSTREAM END OF EACH MAT ROLL BY DIGGING A 6 INCH (MINIMUM) TRENCH AT THE UPSTREAM END OF THE MATTING, PLACING THE ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END.
  - OVERLAP OR ABUT THE ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
  - STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
  - ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL  
 U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION  
 B.38

**[OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF ROOFTOP RUNOFF (N-1), DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)]**

Maintenance of areas receiving disconnected runoff is generally no different than that required for other lawn or landscaped areas. The Owner shall ensure the areas receiving runoff are protected from future compaction or development of impervious area. In commercial areas, foot traffic should be discouraged as well.

**[OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED STORMWATER DRY WELLS (M-5)]**

- The monitoring wells and structures shall be inspected on a quarterly basis and after every large storm event.
- Water levels and sediment build up in the monitoring wells shall be recorded over a period of several days to insure trench drainage.
- A log book shall be maintained to determine the rate at which the facility drains.
- When the facility becomes clogged so that it does not drain down within the 72 hour time period, corrective action shall be taken.
- The maintenance log book shall be available to Howard County for inspection to insure compliance with operation and maintenance criteria.
- 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.

**[OPERATION AND MAINTENANCE SCHEDULE FOR (M-8) GRASS SWALE]**

- For grassed swales, regular mowing (at least bi-annually) is critical in order to reduce competition from weeds and irrigation may be needed during dry weather to establish vegetation. Sparsely vegetated areas need to be re-seeded to maintain dense coverage.
- If water does not drain within 48 hours, the bottom soil should be tilled and revegetated.
- Inspections should be performed once a year to assess slope integrity, vegetative health, soil stability, compaction, erosion, ponding and sedimentation. Periodic removal of sediment, litter, or obstructions should be done as needed. Eroded side slopes and the swale bottom should be repaired and stabilized where needed.

SECTION NUMBER	ROAD AND STREET CLASSIFICATION / TYPE	CALIFORNIA BEARING RATIO (CBR)	3 TO <5		5 TO <7		≥ 7		
			MIN. SUPERPAVE ASPHALT MIX WITH GAB	SUPERPAVE ASPHALT MIX WITH CONSTANT GAB	MIN. SUPERPAVE ASPHALT MIX WITH GAB	SUPERPAVE ASPHALT MIX WITH CONSTANT GAB	MIN. SUPERPAVE ASPHALT MIX WITH GAB	SUPERPAVE ASPHALT MIX WITH CONSTANT GAB	
P-1	NEW STREET TYPE	RETROFIT PROJECTS ONLY	PAVEMENT MATERIAL (INCHES)	MIN. SUPERPAVE ASPHALT MIX WITH GAB	SUPERPAVE ASPHALT MIX WITH CONSTANT GAB	MIN. SUPERPAVE ASPHALT MIX WITH GAB	SUPERPAVE ASPHALT MIX WITH CONSTANT GAB	MIN. SUPERPAVE ASPHALT MIX WITH GAB	SUPERPAVE ASPHALT MIX WITH CONSTANT GAB
			PARKING BAYS: RESIDENTIAL AND NON-RESIDENTIAL	1.5	1.5	1.5	1.5	1.5	1.5
			PARKING DRIVE ASLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY	2.0	2.0	2.0	2.0	2.0	2.0
P-2	ALLEY NEIGHBORHOOD YIELD STREET SINGLE FAMILY DETACHED	PARKING DRIVE ASLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	1.0	1.0	1.0	1.0	1.0	1.0	
			2.0	2.0	2.0	2.0	2.0	2.0	
			8.0	4.0	3.0	4.0	4.0	4.0	
P-3	RURAL DEVELOPMENT STREET NEIGHBORHOOD YIELD STREET EXCEPT SINGLE FAMILY DETACHED	PARKING DRIVE ASLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	1.0	1.0	1.0	1.0	1.0	1.0	
			3.0	3.0	3.0	4.5	3.0	2.0	
			10.0	6.0	3.0	6.0	6.0	6.0	
P-4	NEIGHBORHOOD STREET 1 NEIGHBORHOOD STREET 2 INDUSTRIAL STREET COUNTRY ROAD	MINOR COLLECTORS: NON-RESIDENTIAL MAJOR COLLECTORS	2.0	2.0	2.0	2.0	2.0	2.0	
			4.0	4.0	3.0	6.0	5.0	3.0	
			13.0	7.0	4.0	6.0	6.0	6.0	

**NOTES**

- HEAVY TRUCKS ARE DEFINED AS THOSE WITH SIX (6) WHEELS OR MORE INCLUDING GARBAGE TRUCKS.
- SUPERPAVE ASPHALT MIX LAYERS SHALL BE PLACED IN APPROPRIATE COMPACTED LIFT THICKNESS: 19.0 MM BASE (2.0" MIN. TO 4.0" MAX.), 12.5 MM SURFACE (1.5" MIN. TO 3.0" MAX.), AND 9.5 MM SURFACE (1.0" MIN. TO 2.0" MAX.).
- GRADED AGGREGATE BASE (GAB) TO BE PLACED AND COMPACTED IN 6" MAX. COMPACTED THICKNESS LAYERS.
- THE INTERMEDIATE SURFACE COURSE LAYER MUST BE PLACED WITHIN 2 WEEKS OF PLACEMENT OF BASE COURSE, AND IS REQUIRED PRIOR TO SUBSTANTIAL COMPLETION INSPECTION AND BOND REDUCTION.
- IN LIEU OF PLACING THE INTERMEDIATE SURFACE COURSE LAYER FOR COMMERCIAL/INDUSTRIAL ENTRANCE APRONS WITHIN THE COUNTY RIGHT-OF-WAY WHERE AUXILIARY LANES ARE NOT REQUIRED, THE THICKNESS OF THE INTERMEDIATE PAVEMENT LAYER CAN BE ADDED TO THE REQUIRED THICKNESS OF THE BASE ASPHALT LAYER.
- THE CONSTRUCTION DRAWINGS SHALL SHOW THE PAVING SECTION, ROAD CLASSIFICATION AND CBR VALUE FOR EACH ROADWAY.

**PAVING SECTIONS P-1 to P-4**

**Detail R-2.01**

APPROVED: DEPARTMENT OF PLANNING & ZONING  
 [Signature] 9/24/2024  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 [Signature] 9/25/2024  
 CHIEF, DIVISION OF LAND DEVELOPMENT

**OWNERS:**  
 FRANCESCA DIMARCO  
 11416 OLD FREDERICK ROAD  
 MARRIOTTSTVILLE, MD 21104  
 (410) 810-4336

**BALDWIN ESTATES**  
 GLENWOOD, MD 21738  
 PROPOSED LOTS 1-3, BUILDABLE PRESERVAION PARCEL A & NON-BUILDABLE PRESERVATION PARCEL B  
 PARCEL 78, TAX MAP 14, 9.007 ACRES  
 SWM NOTES AND DETAILS

**JNM ENGINEERING, LLC**  
 CIVIL ENGINEERING, SURVEYING, LAND PLANNING, ENVIRONMENTAL, ARBORCULTURE, LEED PROFESSIONALS  
 1105 LEAFY HOLLOW CIRCLE, MOUNT AIRY, MD 21771  
 (301) 514-2808, JNMEENGINEERING@GMAIL.COM

**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. 4679, EXPIRATION DATE: 06/07/2025.  
 [Signature] James Witmer  
 DATE 4/21/2025

**DATE** 3/2023  
**PROJECT** 21-0526  
**REVISION** JWW  
**ILLUSTRATION** JWW  
**APPROVAL** JWW  
**SCALE** 1" = 50'

**BALDWIN ESTATES**  
 TAX MAP 14, GRID 22, PARCEL 78, 9.007 ACRES  
 4TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

**SWM NOTES AND DETAILS**

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