

LEGEND

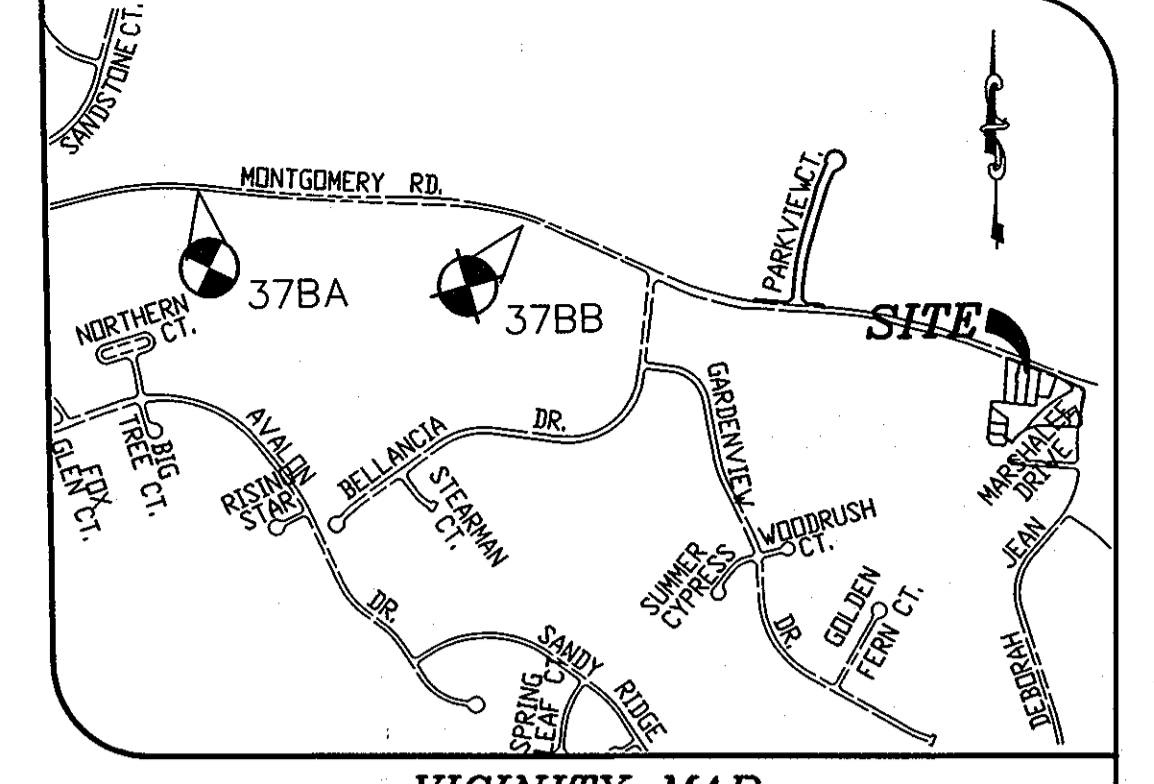
- M-7, RAIN GARDEN
EXISTING WATER SEWER AND UTILITY EASEMENT
EXISTING USE-IN-COMMON ACCESS EASEMENT
SLOPES GREATER THAN 25%
15% TO 25% SLOPES
LAND DEDICATED TO HOWARD COUNTY FOR THE PURPOSE OF PUBLIC ROAD
LIMIT OF DISTURBANCE
POWER POLE
OVERHEAD ELEC.
SANITARY MH
CLEAN OUT
EX. TREELINE
PROP. TREELINE
WATER METER
MINOR CONTOUR
MAJOR CONTOUR

SOILS DESCRIPTION

- CeB - CHILLUM LOAM, 2-5% SLOPES (C)
DhC - DOWNER-HAMMONTON SANDY LOAM, 5-10% SLOPES (B)
SrC - SASSAFRAS AND CROOM SOILS, 5-10% SLOPES (B/C)
SrD - SASSAFRAS AND CROOM SOILS, 10-15 SLOPES (B/C)
UcD - URBAN LAND-CHILLUM-BELTSVILLE COMPLEX, 5-15% SLOPES

FOREST CONSERVATION WORKSHEET

NET TRACT AREA:
A. Total tract area...=3.98
B. Area within 100 year floodplain...=0.00
C. Area of the residue parcel (Non-Buildable Bulk Parcel "B")...=3.37
D. Net tract area...=0.61
LAND USE CATEGORY:
(from table 3.2.1, page 40, Manual) input the number "1" under the appropriate land use zoning, and limit to only one entry.
ARA MDR IDA HDR MPD CIA
0 0 0 0 0 0
E. Afforestation Threshold... 15% x D =0.09
F. Conservation Threshold... 20% x D =0.12
EXISTING FOREST COVER:
G. Existing forest cover (excluding floodplain)...=0.20
H. Area of forest above afforestation threshold...=0.11
I. Area of forest above conservation threshold...=0.08
BREAK EVEN POINT:
J. Forest retention above threshold with no mitigation...=0.14
K. Clearing permitted without mitigation...=0.06
PROPOSED FOREST CLEARING:
L. Total area of forest to be cleared...=0.20
M. Total area of forest to be retained...=0.00
PLANTING REQUIREMENTS:
N. Reforestation for clearing above conservation threshold...=0.02
P. Reforestation for clearing below conservation threshold...=0.24
Q. Credit for retention above conservation threshold...=0.00
R. Total reforestation required...=0.26
S. Total afforestation required...=0.00
T. Total reforestation and afforestation required...=0.26



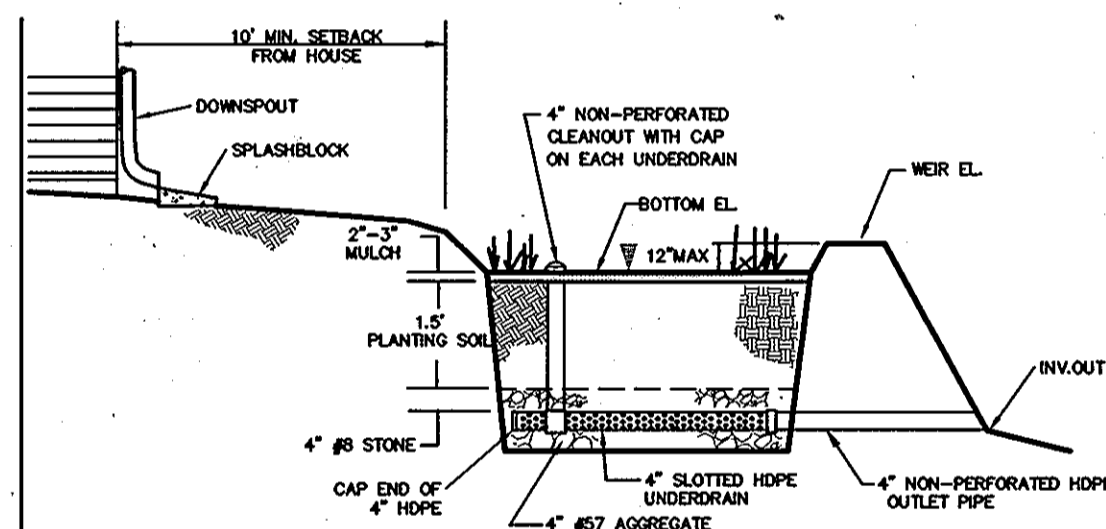
VICINITY MAP
SCALE: 1"=1000'
ADC MAP 35 GRID A1

GENERAL NOTES

- 1. SUBJECT PROPERTY ZONED R-12 AND R-20 PER 2-2-04 COMPREHENSIVE ZONING PLAN AND THE "COMP LITE" ZONING AMENDMENTS EFFECTIVE 7/26/2006.
2. THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
3. TOPOGRAPHY SHOWN HEREON IS BASED ON AERIAL SURVEY PREPARED BY WINGS TOPOGRAPHY INC. DATED MARCH 2008.
4. BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT JUNE 2010 BY MILDENBERG, BOENDER AND ASSOC.
5. COORDINATES BASED ON NAD '83 (HORIZONTAL) AND NAVD '88 (VERTICAL) MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS
378A N 563785.6421 E 1376343.2088 ELEV. 393.935
378B N 563663.4488 E 1378040.5059 ELEV. 373.014
6. PROJECT BACKGROUND:
TAX MAP #: 37, PARCEL #: 320 AND 354, GRID: 5
ELECTION DISTRICT: 1
ZONING: R-12 AND R-20
DEED REFERENCE: 2964/87; 2964/98
PREVIOUS PROJECT NUMBERS: ECP-11-034, SP-11-002, F-10-080, F-04-095
7. AREA TABULATION
GROSS AREA OF PROPERTY TRACT: 3.98AC±
MINIMUM LOT SIZE PROPOSED: 12,000 SQ.FT. FOR ZONING R-12
20,000 SQ.FT. FOR ZONING R-20
NUMBER OF BUILDABLE LOTS PROPOSED: 1
NUMBER OF BULK PARCELS PROPOSED: 2 LOTS (IN ZONING R-12)
AREA OF PROPOSED LOTS: 0.61 AC±
8. WATER IS AND SEWER IS PUBLIC. EXISTING CONTRACT NO. 14-4217-D WILL BE UTILIZED.
9. STORMWATER MANAGEMENT IS PROVIDED VIA MICRO BIO-RETENTIONS (M-6) AND PERMEABLE PAVEMENT (A-2) IN ACCORDANCE WITH THE 2000 MDE STORMWATER DESIGN MANUAL. ALL ESD PRACTICES WILL BE PRIVATELY OWNED AND MAINTAINED. PRIOR TO SIGNATURE APPROVAL OF THE FINAL PLAT OR SITE DEVELOPMENT PLAN, THE DEVELOPER WILL BE REQUIRED TO EXECUTE THE DECLARATION OF COVENANTS AND/OR A DEVELOPER'S AGREEMENT FOR THE CONSTRUCTION OF THE STORMWATER MANAGEMENT PRACTICES AND A MAINTENANCE AGREEMENT FOR THE PRIVATELY OWNED AND MAINTAINED ESD PRACTICES.
10. THERE IS NO FLOODPLAIN ON THE PROPERTY.
11. FOREST STAND AND WETLANDS DELINEATION PREPARED BY MILDENBERG, BOENDER AND ASSOC., INC. DATED NOVEMBER 2010 WAS APPROVED UNDER SP-11-002. NO WETLANDS EXIST ON SITE.
12. APFO ROAD TEST WAS PREPARED BY THE TRAFFIC GROUP, DATED DECEMBER, 2010, APPROVED UNDER SP-11-002.
13. NOISE STUDY WAS PREPARED BY MILDENBERG, BOENDER AND ASSOC., INC. DATED DECEMBER 2010, APPROVED UNDER SP-11-002.
14. NO HISTORIC STRUCTURES, CEMETERIES, OR GRAVE SITES EXIST ON SITE. SITE IS NOT ADJACENT TO A DESIGNATED SCENIC ROAD.
15. NO STEEP SLOPES THAT AVERAGE 25% OR GREATER OVER 10 VERTICAL FEET WITH A 20,000 SF OR GREATER ONSITE AND OFFSITE CONTIGUOUS AREA ARE LOCATED ON THIS SITE.
16. FOREST CONSERVATION, IN ACCORDANCE WITH SECTION 16.1202 OF THE FOREST CONSERVATION MANUAL, SHALL BE PROVIDED BY A PAYMENT OF A FEE-IN-LIEU OF 0.26 ACRES OF AFFORESTATION, IN THE AMOUNT OF \$8,494.20. THE RESIDUE PARCEL (NON-BUILDABLE BULK PARCEL "B") WAS EXCLUDED FROM THE FOREST CONSERVATION CALCULATIONS AND REQUIREMENTS WITH THIS SUBDIVISION PLAT; HOWEVER, UPON FURTHER RESUBDIVISION OF THE NON-BUILDABLE BULK PARCEL "B", SEPARATE FOREST CONSERVATION CALCULATIONS AND REQUIREMENTS WILL BE PROVIDED BASED ON ITS ACREAGE.
17. THIS PLAN IS IN COMPLIANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED PERIMETER LANDSCAPING (LOTS 1 AND 2) WILL BE POSTED AS PART OF THE GRADING PERMIT IN THE AMOUNT OF \$1,950.00 (4 SHADE TREES @ \$300.00 EACH AND 5 EVERGREEN TREES @ \$150.00 EACH).
18. THE OPEN SPACE REQUIREMENT, BASED ON CREATION OF 2 LOTS, WILL BE SATISFIED VIA A PAYMENT OF A FEE-IN-LIEU IN THE AMOUNT OF \$3,000.00.
19. A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY FOR EACH ENTRANCE 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 ESTIMATE.
20. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 30' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
21. W-94-90 GRANTED 1/31/95 TO WAIVE
(A) SECTION 16.119(D)(2), TO PERMIT PRIVATE SHARED DRIVEWAYS TO HAVE DIRECT ACCESS TO A MINOR ARTERIAL ROADWAY, MARSHALEE DRIVE.
(B) SECTION 16.116(A)(2) TO NOT REQUIRE A USEABLE YARD 25' MINIMUM BETWEEN THE 75' STREAM BUFFER AND THE REAR OF THE PROPOSED UNITS (LOTS 87-90), APPLICABLE TO F-96-62.
22. PROPOSED LIGHT SHALL BE 150-WATT HPS VAPOR "PREMIER" POST-TOP MOUNTED ON A 14" BLACK FIBERGLASS POLE. LOCATION OF POLE SHALL BE DETERMINED BY HOWARD COUNTY TRAFFIC AT TIME OF INSTALLATION.
23. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURES AND POLES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (2006), SECTION 5.5.A. A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
24. DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
A) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE).
B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING.
C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45-FOOT TURNING RADIUS.
D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
F) STRUCTURE CLEARANCES - MINIMUM 12 FEET
G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
25. DRIVEWAY ENTRANCE IS PER HOWARD COUNTY STANDARD DETAIL R-6.06.
26. THIS PROPOSED SUBDIVISION WILL CONSIST OF SINGLE FAMILY DETACHED DWELLINGS.
27. A SITE DEVELOPMENT PLAN IS REQUIRED FOR THIS DEVELOPMENT OF LOTS 1 AND 2 PRIOR TO ISSUANCE OF ANY GRADING OR BUILDING PERMITS IN ACCORDANCE WITH SECTION 16.155(a)(2)(ii) OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
28. PAVEMENT MARKING CHANGES ALONG MARSHALEE DRIVE FOR THIS PRIVATE ROADWAY ARE SHOWN ON SDP-10-078. THE DEVELOPER IS RESPONSIBLE FOR THE COST OF THESE CHANGES WHEN THE PRIVATE ROADWAY BASE PAVEMENT IS COMPLETED. THE R1-1 ("STOP") SIGN MUST BE IN PLACE WHEN THE BASE PAVEMENT IS COMPLETED.

OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

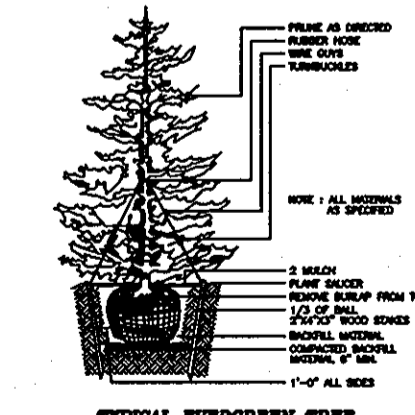
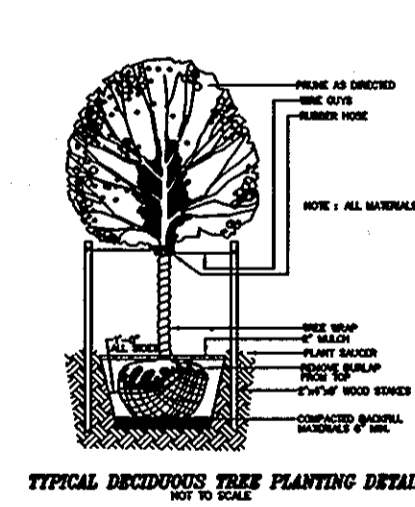
ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.



PLANT LIST

Table with 5 columns: QUANTITY, SYMBOL, BOTANICAL NAME, COMMON NAME, SIZE. Lists plants like ILEX GLABRA, LOBELIA SIPHERLITICA, etc.

MICRO-BIO-RETENTION PLANTING DETAIL



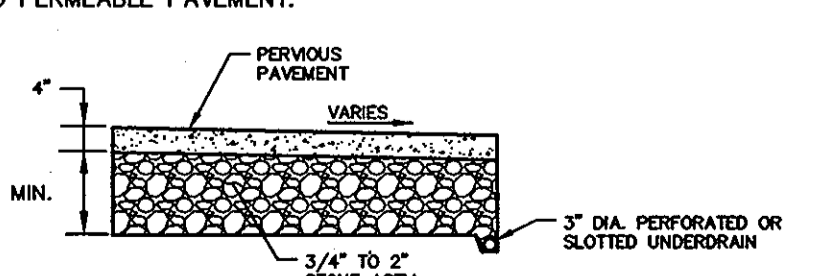
MICRO-BIO-RETENTION DESIGN DATA

Table with 5 columns: FACILITY LOT#, BOTTOM EL., SURFACE AREA, MAX. PONDING DEPTH, MER ELEVATION, INV. OUT. Lists data for two facilities.

OPERATION AND MAINTENANCE SCHEDULE FOR PERMEABLE PAVEMENT

OWNER SHALL PERIODICALLY SWEEP (OR VACUUM POROUS CONCRETE PAVEMENT) THE PAVEMENT SURFACES TO REDUCE SEDIMENT ACCUMULATION AND ENSURE 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. FLOWED SNOW PILES AND SNOWMELT SHOULD NOT BE DIRECTED TO PERMEABLE PAVEMENT.



SCHEDULE A: PERIMETER LANDSCAPED EDGE

Table with 3 columns: CATEGORY, ADJACENT TO ROAD, TOTAL. Lists landscaping requirements for perimeter edge.

LANDSCAPE REQUIREMENT PLANTING SCHEDULE

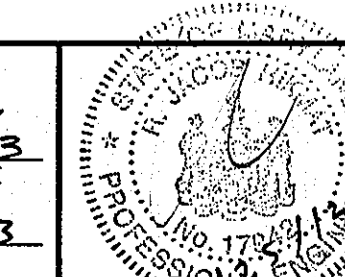
Table with 5 columns: QUANTITY, SYMBOL, BOTANICAL NAME, COMMON NAME, SIZE. Lists landscaping requirements for perimeter edge.

STORMWATER MANAGEMENT PRACTICES

Table with 10 columns: LOT #, ADDRESS, GREEN ROOF PAVEMENTS, REINFORCED TURF, DISCONNECTION OF ROOFTOP RUNOFF, DISCONNECTION OF NON-ROOFTOP RUNOFF, SHEETFLOW TO CONSERVATION AREAS, RAINWATER HARVESTING, SUBMERGED GRAVEL WETLANDS, LANDSCAPE INFILTRATION, INFILTRATION BOWNS, DRY WELLS, MICRO-BIORETENTION, RAIN GARDENS, SWALES, ENHANCED FILTERS. Lists stormwater management practices for two lots.

OWNER
COLUMBIA-HOWARD PROPERTIES, LLC
MARSHALEE WOODS LIMITED PARTNERSHIP
7310 ESQUIRE COURT, SUITE 14
ELKRIDGE, MD 21075
(443) 398-1286

APPROVED: DEPARTMENT OF PLANNING AND ZONING
[Signature] 4/10/13
[Signature] 4/10/13
CHIEF, DEVELOPMENT ENGINEERING DIVISION
CHIEF, DIVISION OF LAND DEVELOPMENT



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. 17942, EXP DATE 9/3/18.
R. JACOB HIKMAT P.E.

Project: 12-026, Date: MARCH 2013, Illustration: MAM, Approval: MMK, Scale: 1"=50', Description: MONTGOMERY CROSSING, PHASE 1, LOTS 1 AND 2 AND NON-BUILDABLE BULK PARCEL B, A RESUBDIVISION OF MONTGOMERY SECTION 2, AREA 5, NON-BUILDABLE BULK PARCEL A (PLAT # 17080 & 17083) & PARCEL 354, TAX MAP # 37 GRID 5, PARCEL 320 (L. 8271 F. 638) & PARCEL 354, FIRST ELECTION DISTRICT, HOWARD COUNTY

MILDENBERG, BOENDER & ASSOC., INC.
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(410) 997-0298 Fax