

NOTES:

- SITE ANALYSIS DATA:
ADDRESS: 6467 HANOVER ROAD, HANOVER, MD 21076
LOCATION: TAX MAP : 38 PARCEL: 273 AND 1009 GRID: 15
ELECTION DISTRICT: FIRST
ZONING: R-12
AREA OF PARCEL 273: 1.17 AC±
AREA OF PARCEL 1009: 4.62 AC±
TOTAL AREA: 5.79AC±
AREA OF ROAD DEDICATION: 0.01 AC±
AREA OF ROAD ROW: 0.67 AC±
PROPOSED USE FOR SITE: RESIDENTIAL
TOTAL NUMBER OF UNITS: 15
TYPE OF PROPOSED UNIT: SFD
- HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM AS PROJECTED FROM HOWARD COUNTY CONTROL STATIONS NO. 386A AND 38DA
STA. No. 386A N 555,897.324 E 14390,132.094 ELEV. 80.85
STA. No. 38DA N 556,796.309 E 1,390,221.433 ELEV. 126.15
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS (COUNCIL BILL 45-2003), DEVELOPMENT OR CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SUBDIVISION, SITE DEVELOPMENT PLAN, WAIVER PETITION OR BUILDING/GRADING PERMIT.
- SITE DEVELOPMENT PLAN APPROVAL BY THE DEPARTMENT OF PLANNING AND ZONING IS REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED FOR THE CONSTRUCTION OF RESIDENTIAL DWELLINGS ON THESE LOTS.
- WETLANDS AND ITS BUFFER EXIST ON SITE AS CERTIFIED IN THE WETLAND REPORT PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. IN JUNE 2015.
- FOREST STAND DELINEATION PERFORMED BY ECO-SCIENCE PROFESSIONALS, INC. IN MARCH, 2015. TOTAL OF 3 SPECIMEN TREES EXIST ON SITE. ALL THREE SPECIMEN TREES ARE TO BE REMOVED.
- NO FLOODPLAIN EXISTS ON SITE AS CERTIFIED IN THE LETTER PREPARED BY MILDENBERG, BOENDER & ASSOC., INC. IN JUNE 2015.
- APPROVAL OF THIS ECP DOES NOT CONSTITUTE ANY APPROVAL OF SUBSEQUENT SUBDIVISION OR SITE DEVELOPMENT PLANS. FURTHER COMMENTS WILL BE GENERATED UPON REVIEW OF THE APPLICABLE DEVELOPMENT PLANS IN ACCORDANCE WITH THE SUBDIVISION AND ZONING REGULATIONS. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
- ALL EXISTING STRUCTURES ARE TO BE REMOVED.
- THERE ARE NO CEMETERIES ON THIS SITE.
- NO GRADING OR REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS, 100 YEAR FLOODPLAIN AND AREAS OF STEEP SLOPES GREATER THAN 25% WITH CONTIGUOUS AREAS OF 20,000 SQUARE FEET OR GREATER UNLESS A FORMAL WAIVER PETITION IS GRANTED OR HAS BEEN DETERMINED TO BE A NECESSARY OR ESSENTIAL DISTURBANCE.
- FOREST CONSERVATION AND PERIMETER LANDSCAPING REQUIREMENTS WILL BE ADDRESSED AT A FUTURE STAGE OF THE PROJECT.
- THIS PROJECT IS LOCATED WITHIN THE BW AIRPORT ZONING DISTRICT. APPROVAL BY THE MARYLAND AVIATION ADMINISTRATION IS REQUIRED.
- BASED ON THE LOCATION OF THIS RESIDENTIAL SUBDIVISION ADJACENT TO AND ADJUTING THE CSX (B&O RAILROAD RIGHT-OF-WAY), A NOISE STUDY IS REQUIRED AT THE TIME OF SUBMISSION OF THE SKETCH PRELIMINARY.
- THERE IS ONE HISTORIC STRUCTURE ON THIS SITE, C/RC/A 1930. HRC APPROVAL IS REQUIRED PRIOR TO INITIAL PLAN SUBMISSION.

ECP SITE ANALYSIS DATA:

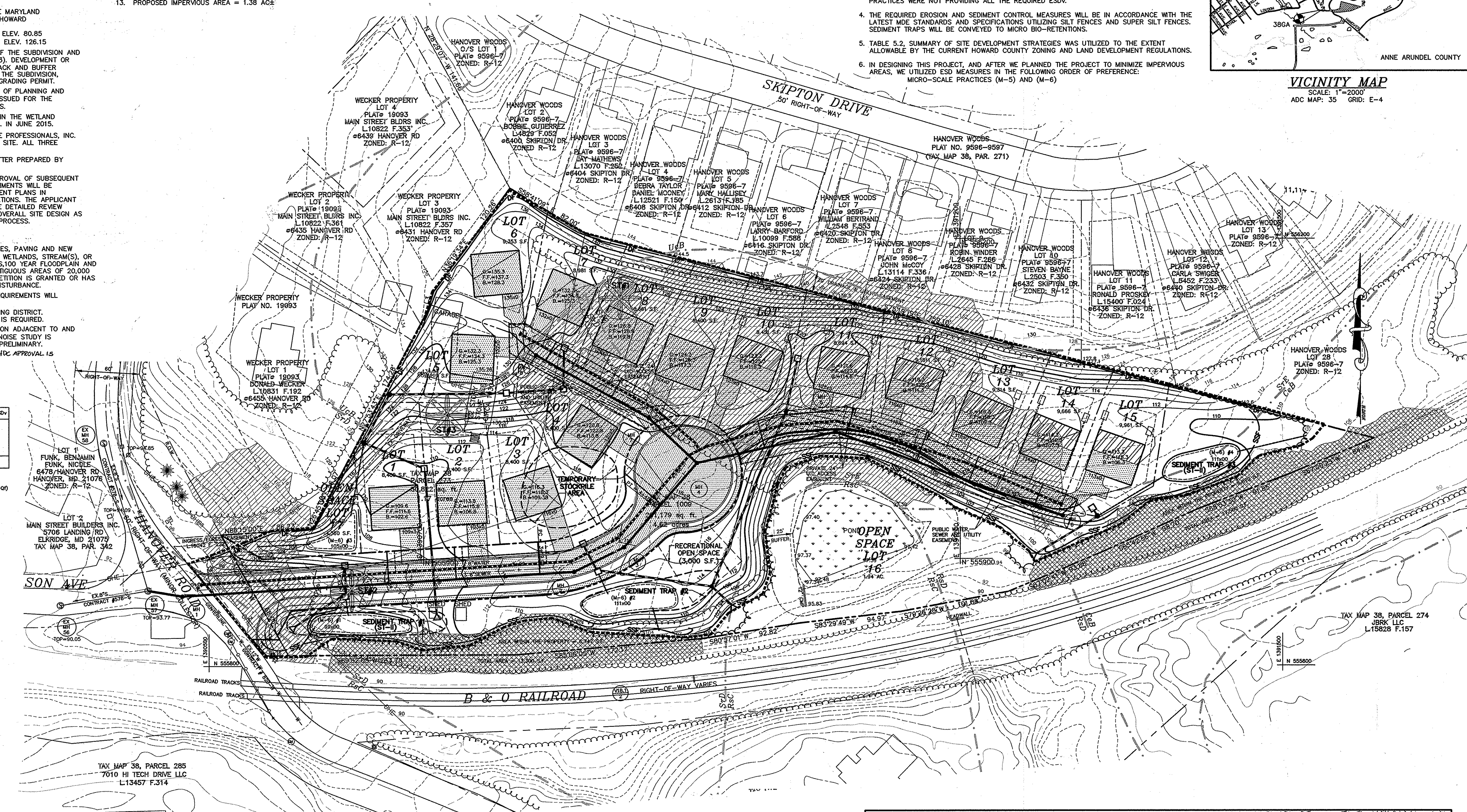
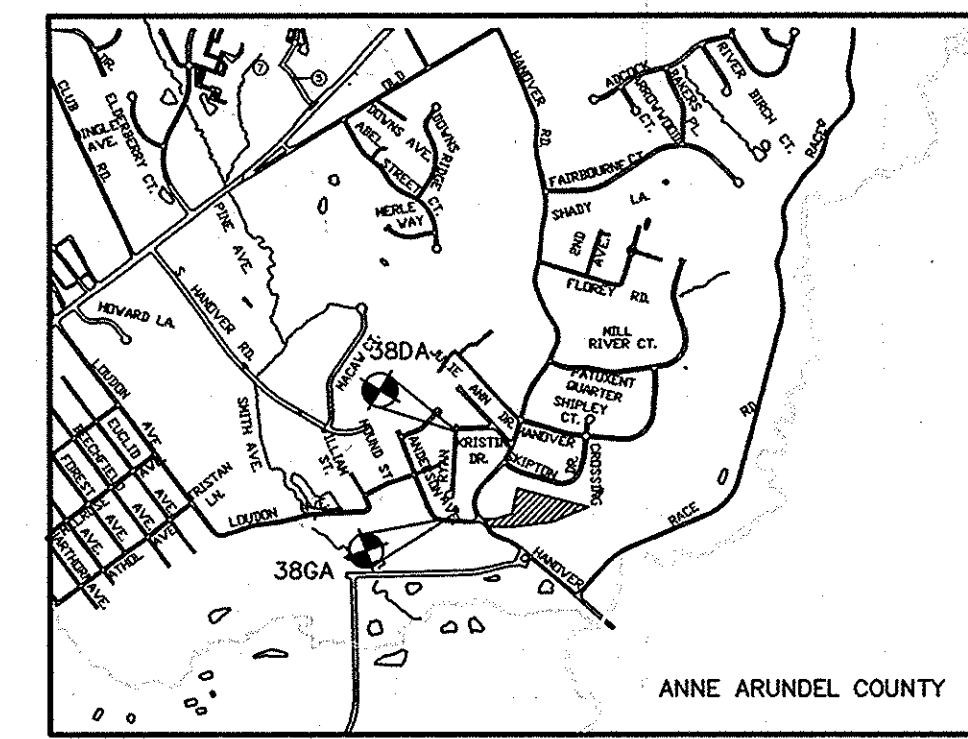
- AREA OF THE SITE = 5.79 AC ±
- AREA OF WETLANDS AND ITS BUFFERS = 0.44 AC ±
- AREA OF FLOODPLAIN = 0
- AREA OF EXISTING FOREST = 3.0 AC ±
- AREA OF STREAM BUFFER = 0
- AREA OF STEEP SLOPES 15% OR GREATER = 1.84 AC ±; 80,157 S.F.
- AREA OF STEEP SLOPES 25% OR GREATER = 0.31 AC ±; 13,617 S.F.
- AREA OF ERODABLE SOILS = 4.2 AC ±
- LIMIT OF DISTURBANCE AREA = 4.8 AC ±
- 15 NEW SINGLE FAMILY DETACHED LOTS ARE PROPOSED.
- GREEN OPEN AREA (PERVIOUS) = 4.41 AC±
- PROPOSED IMPERVIOUS AREA = 1.38 AC±

SOILS TABLE

SYMBOL	RATING	NAME	K FACTOR	MAP #	COMMENTS
R _s C	(C)	RUSSETT FINE SANDY LOAM, 5-10% SLOPES.	.24	20	----
R _s D	(C)	RUSSETT FINE SANDY LOAM, 10-15% SLOPES.	.24	20	----
S _r D	(B)	SASSAFRAS & CROOM SOILS, 10-15% SLOPES	.35	20	HIGHLY ERODABLE
S _r E	(B)	SASSAFRAS & CROOM SOILS, 15-25% SLOPES	.35	20	HIGHLY ERODABLE
U _s B	(D)	URBAN LAND-CHILLUM-BELTVILLE COMPLEX, 0-5%	----	20	----
C _s B	(B)	CHILLUM LOAM 2-5% SLOPES	----	20	----

ESD NARRATIVE

- THERE IS APPROXIMATELY 3 ACRES OF FORESTED AREA ON THE PROPERTY. SITE CONTAINS WETLANDS AND STEEP SLOPES. THE MINIMUM LOT SIZE HAS BEEN REDUCED TO 8,400 S.F. IN ORDER TO INCREASE THE OPEN SPACE AREAS. 30% OF GROSS AREA WILL BE CONTAINED WITHIN THE OPEN SPACE LOTS. INCREASED SIZE OF OPEN SPACE WILL ALLOW TO PRESERVE A LARGER AREA OF THE EXISTING FOREST AND DECREASE LIMIT OF DISTURBANCE. THE PROPOSED DRYWELLS AND MICRO BIO-RETENTION FACILITIES WILL PROVIDE STORMWATER QUALITY TREATMENT FOR THE NEW DEVELOPMENT.
- THE IMPROVEMENTS AND DEVELOPED AREA WILL MAINTAIN THE EXISTING DRAINAGE PATTERNS AS CLOSELY AS POSSIBLE. NO IMPACT IS PROPOSED THAT WOULD ALTER ANY NATURAL FLOW PATTERNS.
- LOT SIZE HAS BEEN REDUCED TO 8,400 SQUARE FEET WHICH CREATED MORE OPEN SPACE AREA. NON-STRUCTURAL PRACTICES WERE USED TO THE MAXIMUM EXTENT POSSIBLE. DUE TO THE EXISTING TOPOGRAPHY AND LIMITED SIZE OF THE LOTS, PROPOSED NON-STRUCTURAL PRACTICES WERE NOT PROVIDING ALL THE REQUIRED ESDV.
- THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES WILL BE IN ACCORDANCE WITH THE LATEST ME STANDARDS AND SPECIFICATIONS UTILIZING SILT FENCES AND SUPER SILT FENCES. SEDIMENT TRAPS WILL BE CONVEYED TO MICRO BIO-RETENTIONS.
- TABLE 5.2, SUMMARY OF SITE DEVELOPMENT STRATEGIES WAS UTILIZED TO THE EXTENT ALLOWABLE BY THE CURRENT HOWARD COUNTY ZONING AND LAND DEVELOPMENT REGULATIONS.
- IN DESIGNING THIS PROJECT, AND AFTER WE PLANNED THE PROJECT TO MINIMIZE IMPERVIOUS AREAS, WE UTILIZED ESD MEASURES IN THE FOLLOWING ORDER OF PREFERENCE:
MICRO-SCALE PRACTICES (M-5) AND (M-6)



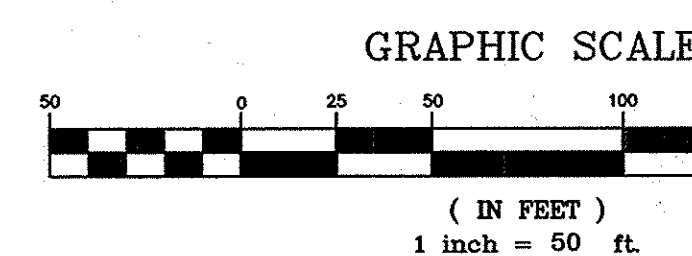
SWM PRACTICES SCHEDULE

AREA	PROPOSED PRACTICES	REQUIRED ESDV	PROVIDED ESDV
1-9	MICRO BIO-RETENTION (M-6)		
10-15	DRY-WELL (M-5)		
ROW	MICRO BIO-RETENTION (M-6)		
TOTAL		8,400 C.F.	8,419 C.F.

* BY DESIGNING ESD MEASURES FOR "WOODS IN GOOD CONDITION", WO, RE, AND CP REQUIREMENTS ARE MET
* STORMWATER MANAGEMENT QUANTITY CONTROL FOR THE 10- AND 100-YEAR (Qp, Q100) STORM EVENTS IS NOT REQUIRED.

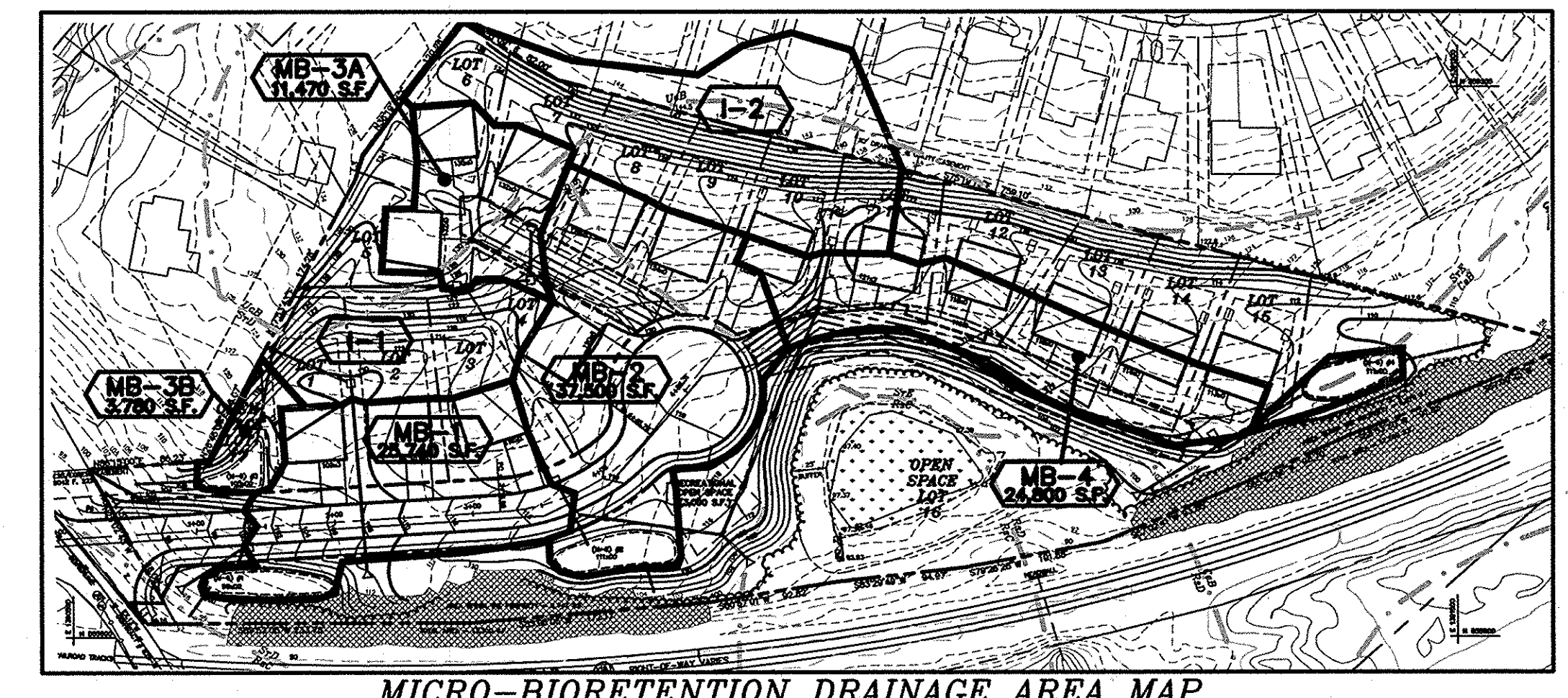
SPECIMEN TREE CHART

KEY	SPECIES	SIZE (DBH)	HT (FEET)	COMMENTS	TO BE REMOVED
1	WHITE OAK	31.5	47.25	GOOD CONDITION	TO BE REMOVED
2	WHITE OAK	41	61.5	GOOD CONDITION	TO BE REMOVED
3	SILVER MAPLE	52	78	FAIR CONDITION, LIMB DIEBACK NOTED	TO BE REMOVED



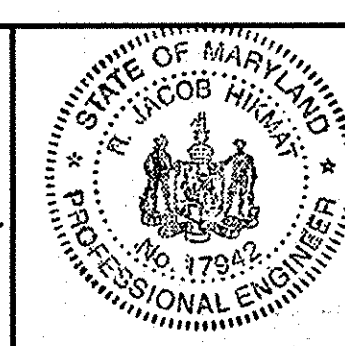
LEGEND

- DRY-WELL (M-5)
- EX. TREE LINE
- PR. TREE LINE
- SPECIMEN TREE TO BE REMOVED
- LIMIT OF DISTURBANCE
- 8" SEWER
- 8" WATER MAIN
- PR. STORM DRAIN PIPE
- PR. STORM DRAIN INLET
- SUPER SILT FENCE
- DIVERSION FENCE
- ▨ AREA TREATED BY DRY WELLS (M-5)
- ▨ AREA TREATED BY MICRO-BIO. (M-6)
- ▨ AREA OF WETLANDS
- ▨ AREA OF SLOPES GREATER THAN 25%
- ▨ AREA OF SLOPES 15-24.9%



OWNER
HARMONY BUILDERS INC
4228 COLUMBIA ROAD
ELLCOTT CITY, MD 21042
410-461-6042

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Jacob Hickmat
CHIEF, DEVELOPMENT ENGINEERING DIVISION JP
DATE: 11/20/15
Heather Lander
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 10-26-15



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 09/03/16
R. JACOB HIKMAT P.E. DATE: 10/16/15

Project	date	description	no.
15-003	OCT. 2015	engineering	
15-003		illustration	
15-003		scale	
15-003		approval	

no.	date	description	revisions

ROBERTS CROSSING
6467 HANOVER ROAD, ELKRDGE MD, 21075
TAX MAP 38, GRID 15, PARCEL 273 & 1009
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
ENVIRONMENTAL CONCEPT PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
7850-B Grace Drive, Columbia, MD 21044
(410) 997-0296 Fax: (410) 997-0288 Fax.