

GENERAL NOTES

- THIS PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- SUBJECT PROPERTY ZONED R-20 PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD SURVEY WITH 2 FOOT CONTOUR INTERVALS PREPARED BY BENCHMARK ENGINEERING, INC. PERFORMED MARCH 2015.
- 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. 41EC AND 41FA WERE USED FOR THIS PROJECT.
- PROJECT BOUNDARY IS BASED ON A FIELD RUN BOUNDARY SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. IN NOVEMBER, 2014.
- THIS PROPERTY WAS ACCEPTED TO THE METROPOLITAN DISTRICT JANUARY 11, 2016; WATER AND SEWER ARE PUBLIC. CONTRACT #34-4090-D AND 34-4613-D.
- EXISTING UTILITIES ARE BASED ON FIELD SURVEY LOCATIONS, CONTRACT DRAWINGS AND HOWARD COUNTY GIS FOR OFFSITE UTILITIES.
- STORMWATER MANAGEMENT FOR THESE LOTS IS PROVIDED IN ACCORDANCE WITH THE STORMWATER MANAGEMENT ACT OF 2007. ENVIRONMENTAL SITE DESIGN HAS BEEN IMPLEMENTED TO THE MAXIMUM EXTENT PRACTICAL BY THE USE OF ESD FACILITIES. ALL ESD PRACTICES SHALL BE PRIVATELY OWNED AND MAINTAINED, AND SHALL BE SUBJECT TO THE REQUIREMENTS AND RESTRICTION OF A RECORDED DECLARATION OF COVENANT.
- A NOISE STUDY HAS BEEN PREPARED BY THE MARS GROUP IN 2014.
- TRAFFIC STUDY AND SPEED STUDY WERE PREPARED BY THE MARS GROUP IN APRIL, 2015.
- THE FOREST STAND DELINEATION AND WETLAND DELINEATION WERE PERFORMED BY ECO-SCIENCE PROFESSIONALS, INC. IN APRIL, 2015.
- THERE ARE NO HISTORIC STRUCTURES LOCATED ON THIS SITE.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO CEMETERIES.
- PREVIOUS DPZ FILES: EOP-15-066, S-15-006, WP-16-009, WP-16-070.
- THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION WITH ON-SITE RETENTION AND OFF-SITE BANKING. 1.24 ACRES WILL BE RETAINED ON-SITE AND THE REFORESTATION OBLIGATION OF 0.60 ACRES WILL BE MET WITHIN EXISTING FOREST BANKS. 0.21 ACRES WILL BE PLACED AT PARK OVERLOOK, F-13-093 AND 0.39 ACRES WILL BE PLACED AT TALLY PARCEL 2, USING A PORTION OF THE REMAINING FOREST ESTABLISHED FOR KINDLER OVERLOOK II, F-03-007.
- THERE ARE STEEP SLOPES (25% AND GREATER), WETLANDS, STREAMS AND THEIR BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS WITHIN THE OPEN SPACE AREA OF THE SITE. TO BE DEDICATED TO HOWARD COUNTY RECREATION AND PARKS. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF STEEP SLOPES, WETLANDS, STREAM, FOREST CONSERVATION EASEMENTS OR THEIR REQUIRED BUFFERS.
- MHU REQUIREMENTS WILL BE ADDRESSED BY FEE-IN-LIEU.
- THE LANDSCAPING FOR THIS PROJECT IS SHOWN WITHIN THESE SUPPLEMENTAL PLANS, AND HAS BEEN DESIGNED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. SURETY SHALL BE PROVIDED WITH THE GRADING PERMIT, IN THE AMOUNT OF \$2550.00 FOR 6 SHADE TREES, ONE EVERGREEN TREE AND TWO MITIGATION TREES.
- THERE IS ONE EXISTING DWELLING AND OUTBUILDINGS ON THIS PROPERTY. ALL EXISTING STRUCTURES ARE TO BE DEMOLISHED PRIOR TO RECORDED OF THE SUBDIVISION PLAT.
- THE DEVELOPER SHALL PROPERLY ABANDON THE EXISTING WELL AND SEPTIC PER THE HEALTH DEPARTMENT REQUIREMENTS BEFORE THE RECORDED OF THE SUBDIVISION PLAT. WELL ABANDONMENT MUST BE DONE BY A LICENSED WELL DRILLER.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS 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.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- 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 ANY WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- THERE IS NO 100-YEAR FLOODPLAIN ON THIS PROJECT.
- WP-16-009 WAS APPROVED AUGUST 13, 2005 TO ALLOW THIS PROJECT TO WAIVE PRELIMINARY PLAT SUBMISSION AS SPECIFIED IN SECTION 16.146 AND PROCEED TO FINAL PLAT WITH SUPPLEMENTAL PLANS. THE WAIVER WAS SUBJECT TO SUBMISSION OF A FINAL PLAT APPLICATION ASSOCIATED WITH KINDLER OVERLOOK III WITHIN 4 MONTHS OF WAIVER APPROVAL, ON OR BEFORE DECEMBER 13, 2015.
- OPEN SPACE LOT 9 SHALL BE DEDICATED TO HOWARD COUNTY, MARYLAND AND MAINTAINED BY THE DEPARTMENT OF RECREATION AND PARKS.
- THE FOREST STAND DELINEATION AND WETLAND DELINEATION WERE PERFORMED BY ECO-SCIENCE PROFESSIONALS, INC. IN APRIL, 2015, AND THE REPORT WAS UPDATED JUNE 11, 2015.
- WP-16-070 WAS APPROVED JANUARY 4, 2016, TO SECTION 16.1205(a)(7) AND 16.1205(a)(10) TO ALLOW REMOVAL OF SPECIMEN TREE #1, SUBJECT TO THE FOLLOWING CONDITIONS:
 - WAIVER APPROVAL IS LIMITED TO THE REMOVAL OF SPECIMEN TREE #1. ANY PROPOSAL TO REMOVE OTHER SPECIMEN TREES WILL REQUIRE A NEW WAIVER REQUEST.
 - A PHOTOGRAPH OF THE AFFECTED TREE SHALL BE PROVIDED FOR THE OFFICIAL WAIVER FILE.
 - MINIMUM OF 2 ADDITIONAL NATIVE 2"-3" CALIBER TREES SHALL BE PROVIDED ON SITE AS PART OF THE MITIGATION FOR THE SPECIMEN TREE REMOVAL. THIS MITIGATION WILL BE ADDRESSED IN KINDLER OVERLOOK III AND WILL BE IN ADDITION TO ANY REQUIRED LANDSCAPE OR FOREST CONSERVATION PLANTINGS. THE MITIGATION WILL BE SHOWN ON THE LANDSCAPE PLAN AND SURETY FOR THE ADDITIONAL TREES WILL BE REQUIRED AS PART OF THE FINAL PLAN.
 - INDIVIDUAL TREE PROTECTIVE DEVICES (TREE FENCING) SHALL BE PLACED COMPLETELY AROUND SPECIMEN TREES #2, #3, #8 AND SPECIMEN TREE #13 PRIOR TO ANY GRADING. THIS SHALL BE OBTAINED IN THE PRE-CONSTRUCTION MANAGEMENT OF THE FINAL FOREST CONSERVATION PLAN AND WITHIN THE SEQUENCED OF CONSTRUCTION PROVIDED ON THE FINAL CONSTRUCTION PLANS, F-16-049.
- PRIVATE ACCESS EASEMENTS TO BENEFIT PARCEL 313, RECORDED IN L 973 F. 591 WERE ABANDONED IN AN AGREEMENT DATED JULY 15, 2016 AND RECORDED JULY, 2016. THE RECORDING REFERENCE WILL BE PROVIDED ON THE RECORD PLAT. NON-BUILDABLE BULK PARCEL 'A' WILL BE CONVEYED TO PARCEL 313 AFTER THE RECORDED OF PLAT F-16-049.

SHEET INDEX	
NO.	DESCRIPTION
1	EXISTING TOPOGRAPHY, SOILS, LOT LAYOUT AND LANDSCAPE PLAN
2	STORMWATER MANAGEMENT PLAN, NOTES AND DETAILS
3	STORMWATER MANAGEMENT PLAN, NOTES AND DETAILS
4	MASS GRADING, SEDIMENT CONTROL PLAN, NOTES AND DETAILS
5	FOREST CONSERVATION PLAN

ON-LOT SWM PRACTICES			
LOT NO.	ADDRESS	MICRO-BIORETENTION FACILITY (M-6)	DRY-WELLS (M-5)
1	KINDLER OVERLOOK DRIVE	1	
2	KINDLER OVERLOOK DRIVE	1	
3	KINDLER OVERLOOK DRIVE	1	
4	KINDLER OVERLOOK DRIVE	1	
5	KINDLER OVERLOOK DRIVE	1	
6	KINDLER OVERLOOK DRIVE	1	
7	KINDLER OVERLOOK DRIVE	1	1
8	KINDLER OVERLOOK DRIVE	1	1

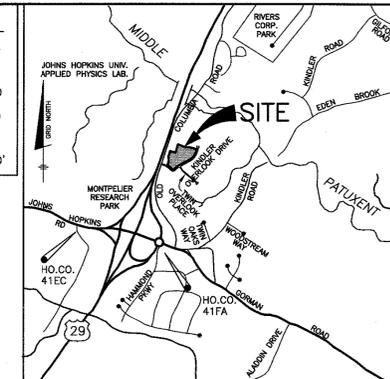
KINDLER OVERLOOK III

LOTS 1 THRU 8, OPEN SPACE LOT 9 AND NON-BUILDABLE BULK PARCEL 'A'

FINAL CONSTRUCTION PLANS

BENCH MARKS-(NAD'83)

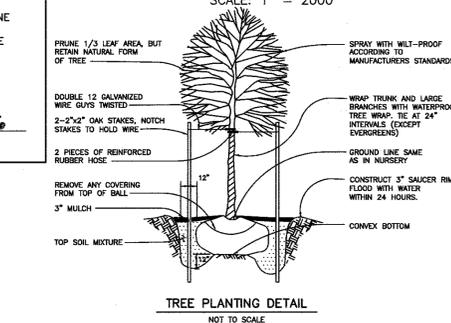
HO.CO. 41EC	ELEV. 430.34
STAMPED DISC SET ON TOP OF 3" DEEP COLUMN OF CONCRETE	
N 543,588.8040	E 1,342,628.7800
HO.CO. 41FA	ELEV. 407.60
STAMPED DISC SET ON TOP OF 3" DEEP COLUMN OF CONCRETE	
N 545210.7590'	E 1344786.9530'



DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE-YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

J.M.B.
DEVELOPMENT PARTNERS, LLC
DATE: 7/25/16



- LEGEND**
- EXISTING CONTOURS
 - PROPOSED CONTOURS
 - EXISTING TREETLINE
 - SOIL DELINEATION AND GROUP
 - EXISTING SPECIMEN TREE PER F-07-003
 - SLOPES >25%
 - SLOPES 15% - 25%
 - WETLANDS
 - ST-5 EXISTING SPECIMEN TREE
 - CRITICAL ROOT ZONE
 - TREE PROTECTION FENCE
 - PUBLIC FOREST CONSERVATION

LANDSCAPING NOTES

- PERIMETER LANDSCAPING SHALL BE PROVIDED BY THE DEVELOPER AS SHOWN ON THESE PLANS.
- TREES MUST BE A MINIMUM OF FOUR(4) FEET FROM PAVEMENT AND MUST BE A MINIMUM OF FIVE(5) FEET FROM ANY STORM DRAIN, IF APPLICABLE.
- TREES MUST BE PLANTED A MINIMUM OF TEN (10) FEET FROM A DRIVEWAY APPROX. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
- THIS LANDSCAPE PLAN IS IN ACCORDANCE WITH SECTION 16.124 OF HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. SURETY IN THE AMOUNT OF \$2550.00 FOR 6 SHADE TREES, ONE EVERGREEN TREE AND 2 MITIGATION TREES IS REQUIRED TO BE POSTED WITH THE GRADING PERMIT.
- ONE SPECIMEN TREE HAS BEEN IDENTIFIED FOR REMOVAL ON THIS PLAN (ST-1). IF ANY CONSTRUCTION IS EXPECTED TO AFFECT THE CRITICAL ROOT ZONE OF ANY SPECIMEN TREE, ROOT PRUNING ALONG THE PROPOSED LIMITS OF DISTURBANCE SHALL BE PROVIDED TO REDUCE IMPACT.
- SHOULD ANY TREE DESIGNATED FOR PRESERVATION FOR WHICH LANDSCAPING CREDIT IS GIVEN, DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIBER AND INSTALLED AS REQUIRED IN THE HOWARD COUNTY LANDSCAPE MANUAL.
- THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BENCH MARKS AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION AND WHEN NECESSARY, REPAIRED OR REPLACED.
- AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITHIN LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPING MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN THE REVOCATION OF THE LANDSCAPE PLAN. LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.

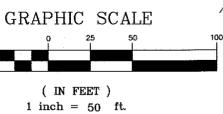
LANDSCAPE PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
(*)	3	PLATANUS ACERIFOLIA 'BLOODGOOD' (Bloodgood London Plane)	2 1/2" MIN. CAL B&B FULL HEAD
(O)	5	QUERCUS COCCINEA SCARLET OAK	2 1/2" MIN. CAL B&B FULL HEAD
(*)	1	ILEX X MIESERVA BLUE PRINCE HOLLY	3 1/2' TO 4' ht.

SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO	FRONT TO ROW	SIDE TO ROW	PERIMETER PROPERTY
LANDSCAPE TYPE	(1) NONE	(2) B	(3) A	
LINEAR FEET OF PERIMETER	763'	184'	1147'	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	YES 148'	YES 828'	
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	
NUMBER OF PLANTS REQUIRED				
SHADE TREES	-	1	5	
EVERGREEN TREES	-	1	-	
OTHER TREES (2:1 SUBSTITUTE) SHRUBS	-	-	-	
NUMBER OF PLANTS PROVIDED				
SHADE TREES	-	1	5	
EVERGREEN TREES	-	1	-	
OTHER TREES (2:1 SUBSTITUTE) SHRUBS (10:1 SUBSTITUTE)	-	-	-	

SITE DATA TABULATION

1. GENERAL SITE DATA	
a.) PRESENT ZONING:	R-20
b.) LOCATION: TAX MAP: 41, GRID 18, PARCEL 245	
c.) APPLICABLE DPZ FILE REFERENCES:	EOP-15-066, S-15-006, WP-16-009, WP-16-070
d.) PROPOSED USE OF SITE: SINGLE FAMILY DETACHED RESIDENTIAL	
e.) PROPOSED WATER AND SEWER SYSTEMS: PUBLIC	
2. AREA TABULATION	
a.) TOTAL AREA OF SITE:	5.18± AC.
b.) APPROXIMATE AREA OF 100 YEAR FLOODPLAIN:	N/A
c.) APPROX. AREA OF STEEP SLOPES (25% OR MORE):	0.23± AC.
d.) NET AREA OF SITE:	4.95± AC.
e.) AREA OF THIS PLAN SUBMISSION:	5.18± AC.
f.) AREA OF PROPOSED BUILDABLE LOTS:	3.35± AC.
g.) AREA OF PROPOSED PUBLIC ROAD RIGHT-OF-WAY:	0.01± AC.
h.) APPROXIMATE AREA OF LIMIT OF DISTURBANCE:	2.15± AC.
i.) AREA OF PROPOSED OPEN SPACE LOTS:	1.61± AC.
j.) AREA OF PROPOSED NON-CREDITED OPEN SPACE:	0.00 AC.
3. UNIT/LOT TABULATION	
a.) TOTAL NUMBER OF RESIDENTIAL UNITS/LOTS PROPOSED ON THIS SUBMISSION:	8
b.) TOTAL NUMBER OF OPEN SPACE LOTS PROPOSED:	1
c.) TOTAL NUMBER OF NON-BUILDABLE PARCELS PROPOSED:	1
4. OPEN SPACE DATA	
MINIMUM RESIDENTIAL LOT SIZE:	18,000 S.F.
OPEN SPACE REQUIRED (10% OF 5.18 AC.):	0.52 AC.±
AREA OF PROPOSED OPEN SPACE LOTS:	1.60 AC.±
AREA OF PROPOSED NON-CREDITED O.S. LOTS:	0.00
AREA OF CREDITED OPEN SPACE PROVIDED:	1.60 AC.±



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature] 8/19/16
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 8/26/16
CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 8/25/16
CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO.	DATE	REVISION

BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS, INC.
8480 BALTIMORE NATIONAL PIKE & SUITE 315 • ELICOTT CITY, MARYLAND 21043
(410) 465-6100
WWW.BE-CIVILENGINEERING.COM

ENGINEER
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. 28376, Expiration Date: 1-1-2017.

OWNER: DEVELOPMENT PARTNERS, LLC
11807 WOLLINGFORD CT
CLARKSVILLE, MARYLAND 21029
301-490-0388

PROJECT: KINDLER OVERLOOK III
LOTS 1-8, OPEN SPACE LOT 9 AND NON-BUILDABLE BULK PARCEL 'A'
7570 KINDLER OVERLOOK DRIVE

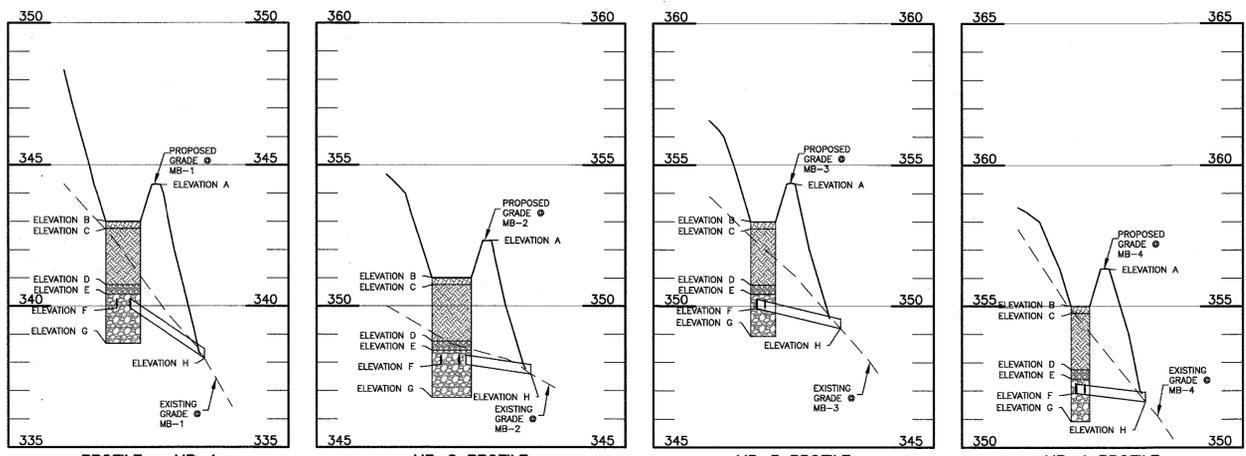
DEVELOPER: DEVELOPMENT PARTNERS, LLC
11807 WOLLINGFORD CT
CLARKSVILLE, MARYLAND 21029
301-490-0388

LOCATION: TAX MAP: 41 PARCEL: 3245
GRID: 18 ZONED: R-20
8th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

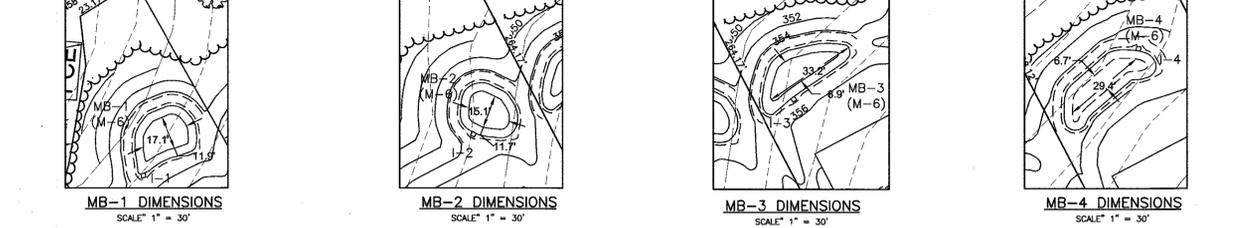
TITLE: EXISTING TOPOGRAPHY, SOILS, LOT LAYOUT AND LANDSCAPE PLAN

DATE: JULY, 2016 PROJECT NO. 2658
SCALE: 1" = 50' SHEET 1 OF 5

DESIGN: AAM DRAFT: AAM CHECK: CAM



PROFILE - MB-1 SCALE: 1"=30' HORIZ., 1"=3' VERT.
MB-2 PROFILE SCALE: 1"=30' HORIZ., 1"=3' VERT.
MB-3 PROFILE SCALE: 1"=30' HORIZ., 1"=3' VERT.
MB-4 PROFILE SCALE: 1"=30' HORIZ., 1"=3' VERT.



MB-1 DIMENSIONS SCALE: 1" = 30'
MB-2 DIMENSIONS SCALE: 1" = 30'
MB-3 DIMENSIONS SCALE: 1" = 30'
MB-4 DIMENSIONS SCALE: 1" = 30'

BORING LOG

Geolab, Inc. BORING LOG

Client: Cornerstone Homes
 Project: Kinder Overlook III
 Date: 11/19/2015

Elevation	Depth	Description of Materials (Classification)	Remarks
356.0	0.0	Forest litter with root matter and organic soil	Boring dry during drilling and at completion.
355.5	0.5	Brown silty CLAY with some fine to medium SAND and little gravel, moist (CL, USDA: Clay Loam)	
354.0	2.0		16.2
353.0	3.0	Brown fine to medium SAND with little silt, moist (SM, USDA: Loamy Sand)	
351.0	5.0		8.0
348.0	8.0		
346.0	10.0	End of Boring	

BORING LOG

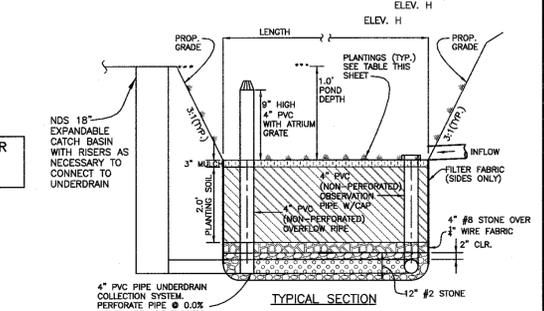
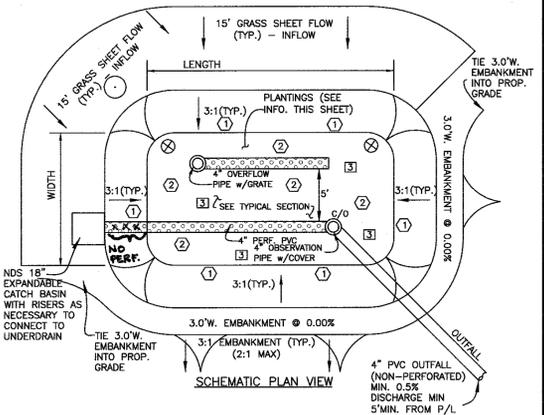
Geolab, Inc. BORING LOG

Client: Cornerstone Homes
 Project: Kinder Overlook III
 Date: 11/19/2015

Elevation	Depth	Description of Materials (Classification)	Remarks
357.5	0.0	Forest litter with root matter and organic soil	Boring dry during drilling and at completion.
357.0	0.5	Brown silty fine SAND, moist (SM, USDA: Loam)	
355.5	2.0	Brown fine to medium SAND with trace silt, moist (SM, USDA: Sand)	
353.5	4.0		7.1
352.5	5.0	Tan fine to medium SAND with little silt, moist (SM, USDA: Loamy Sand)	
349.5	8.0		6.9
348.0	9.5	End of Boring	

- ### MICROBIORETENTION PLANTING SCHEDULE
- (SPECIFIC NUMBER OF PLANTINGS SHALL BE DETERMINED WITH FINAL DESIGN AT PLOT PLAN PHASE)
- ① IRIS VERSICOLOR (IRIS)
 - ② LOBELIA CARDINALIS CARDINAL FLOWER
 - ③ RUBECKIA SUBTORMENTOSA - 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.



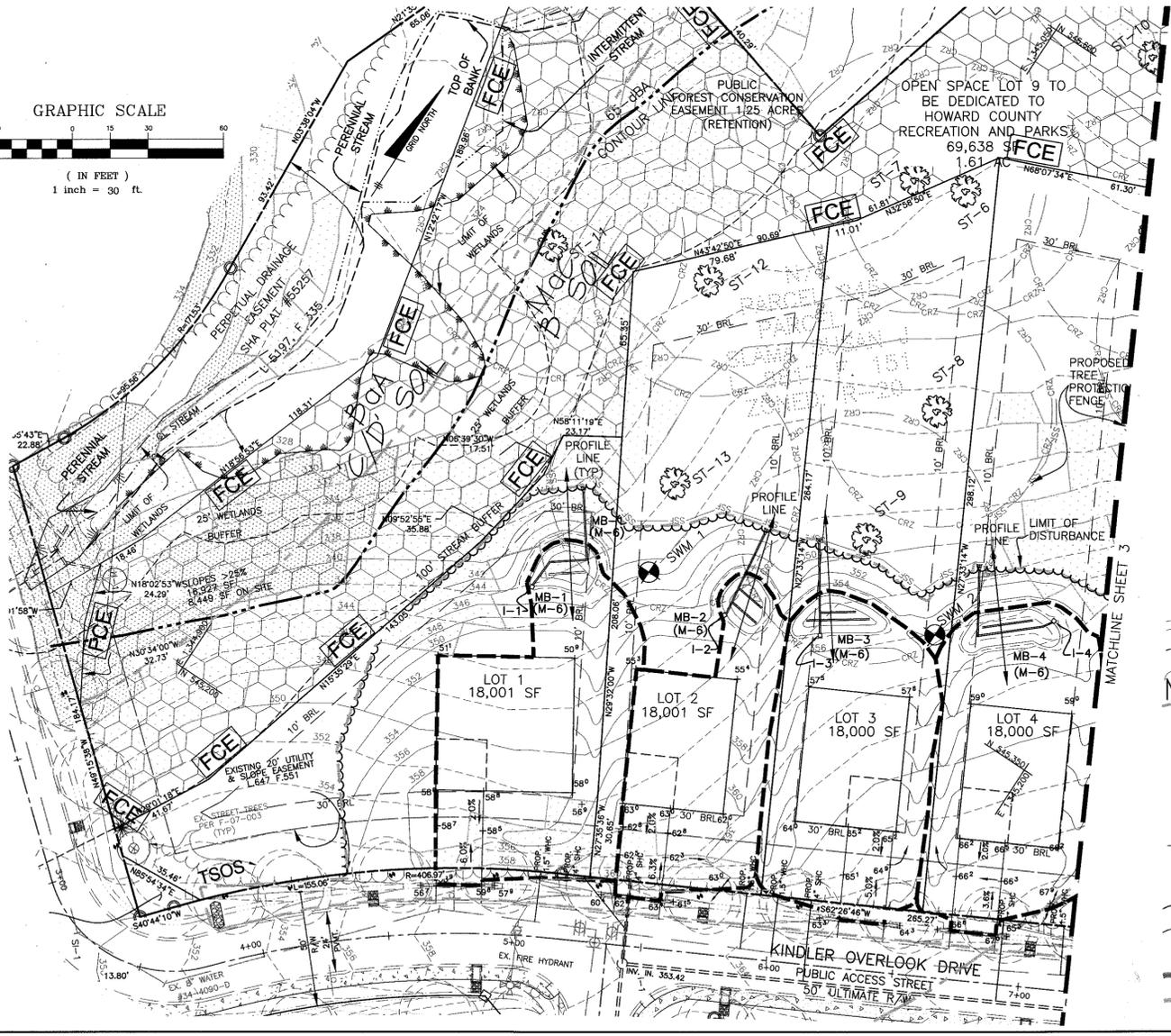
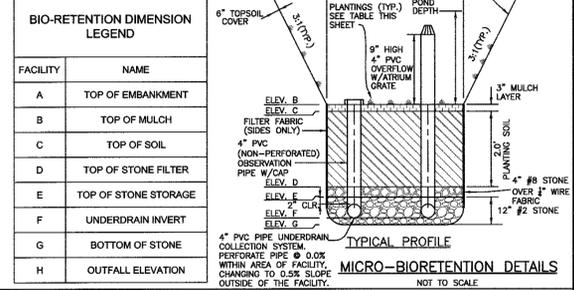
STORMWATER FACILITIES SHALL BE CONSTRUCTED AFTER CONSTRUCTION OF HOUSES, AND SEDIMENT CONTROLS WILL BE PROVIDED WITH A SITE DEVELOPMENT PLAN.

BIORETENTION FACILITIES SUMMARY

FACILITY	Drainage Area	Impervious	I (%)	Rv	ESDv (cf)	75% ESDv (cf)	Volume Stored	Volume treated (V/0.75)	Pe Treated	Stone Storage
MBR-1	8219	3533	43%	0.437	359.1	269.3	277 cf	369 cf	1.23	90.0
MBR-2	5672	2773	49%	0.490	277.9	208.4	232 cf	309 cf	1.33	69.7
MBR-3	7470	2780	37%	0.385	287.6	215.7	239 cf	318 cf	1.33	71.6
MBR-4	7633	2776	36%	0.377	288.0	216.0	321 cf	428 cf	1.78	77.2
					TOTAL:	1067.8 cf	1424 cf			

ON-LOT BIORETENTION DIMENSIONS

FACILITY	DEPTH OF STONE BELOW PIPE (F TO G) (FT)	A	B	C	D	E	F	G	H	FILTER (A)	PLANTINGS	LINER
											① ② ③	
MB-1	1.25	344.33	343.00	342.75	340.75	340.42	339.92	338.67	338.00	180	8 6 6	N/A
MB-2	1.17	352.33	351.00	350.75	348.75	348.42	347.92	346.75	347.00	149	7 5 5	N/A
MB-3	1.00	354.33	353.00	352.75	350.75	350.42	349.92	348.92	349.00	179	8 6 6	N/A
MB-4	1.00	356.33	355.00	354.75	352.75	352.42	351.92	350.92	351.00	193	9 6 6	N/A



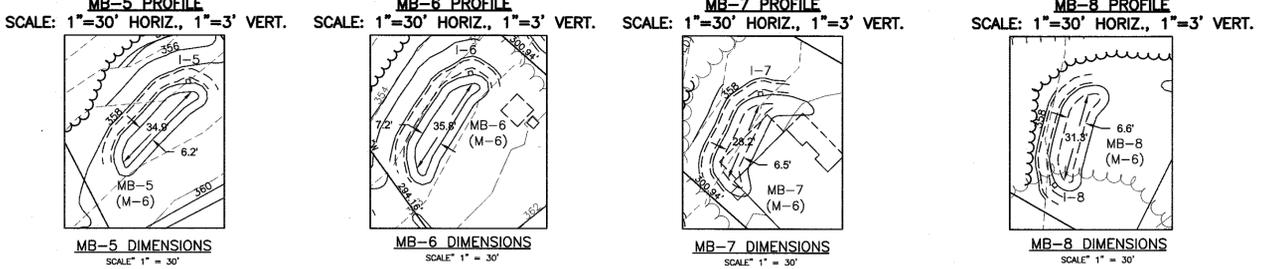
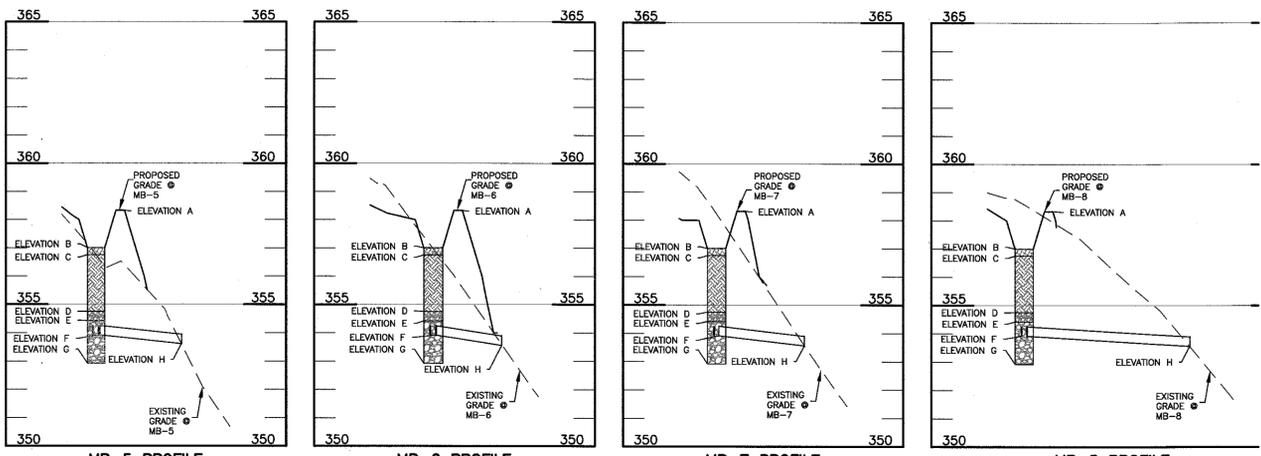
- ### LEGEND
- - - EXISTING CONTOURS
 - - - PROPOSED CONTOURS
 - - - EXISTING TREELINE
 - - - SOIL DELINEATION AND GROUP
 - EXISTING STREET TREE PER F-07-003
 - ▨ SLOPES >25%
 - ▨ SLOPES 15% - 25%
 - ▨ WETLANDS
 - ST-5 EXISTING SPECIMEN TREE
 - - - CRITICAL ROOT ZONE
 - - - TREE PROTECTION FENCE
 - - - PUBLIC FOREST CONSERVATION EASEMENT
 - - - LIMIT OF DISTURBANCE
 - - - FACILITY DRAINAGE AREA

Approved: *Howard County Department of Planning and Zoning*
Verdel D... Chief, Division of Land Development 8.24.16
Shel... Chief, Development Engineering Division 8.29.16

BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS
 ENGINEERING, INC.
 8480 BALTIMORE NATIONAL PIKE & SUITE 315 A ELIJAH CITY, MARYLAND 21043
 (P) 410-468-6105 (F) 410-468-6544
 WWW.BE-CVLENDENGINEERING.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. 28376, Expiration Date: 1-1-2017.

OWNER:	DEVELOPMENT PARTNERS, LLC 11807 WOLLINGFORD CT CLARKSVILLE, MARYLAND 21029 301-490-0388	PROJECT:	KINDER OVERLOOK III LOTS 1-8, OPEN SPACE LOT 9 AND NON-BUILDABLE LOT 10 7570 KINDLER OVERLOOK DRIVE
DEVELOPER:	DEVELOPMENT PARTNERS, LLC 11807 WOLLINGFORD CT CLARKSVILLE, MARYLAND 21029 301-490-0388	LOCATION:	TAX MAP: 41 PARCEL: 245 GRID: 18 ZONED: R-20 8th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DESIGN: AAM	DRAFT: AAM	CHECK: CAM	TITLE: STORMWATER MANAGEMENT PLAN, NOTES AND DETAILS
DATE: JULY, 2016	PROJECT NO. 2658	SCALE: 1" = 30'	SHEET 2 OF 5

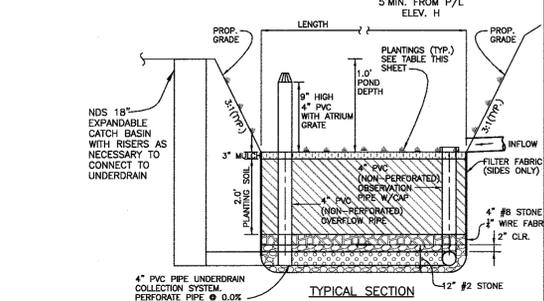
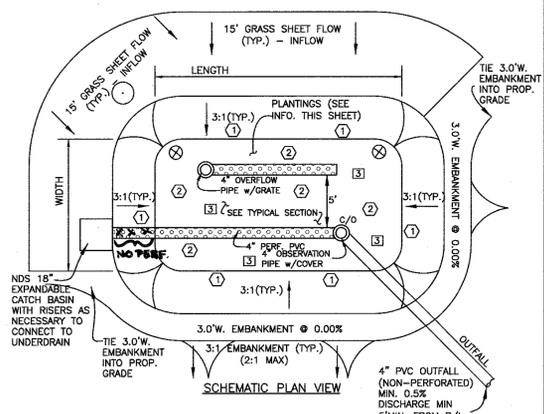


BORING LOG

Geolab, Inc.		Geolab, Inc.	
Project: Cornerstone Homes		Project: 115-147	
Client: Kinder Overlook III		Client: Kinder Overlook III	
Date: 11/19/2015		Date: 11/19/2015	
Type of Boring: Hand Auger		Type of Boring: Hand Auger	
Elevation	Depth	Elevation	Depth
365.0	0.0	357.5	0.0
365.5	0.5	357.0	0.5
354.0	2.0	355.5	2.0
353.0	3.0	353.5	3.0
351.0	5.0	352.5	5.0
348.0	10.0	348.0	10.0
End of Boring		End of Boring	

- #### MICROBIORETENTION PLANTING SCHEDULE
- (SPECIFIC NUMBER OF PLANTINGS SHALL BE DETERMINED WITH FINAL DESIGN AT PLOT PLAN PHASE)
- ① IRIS VERSICOLOR (IRIS)
 - ② LOBELIA CARDINALIS (CARDINAL FLOWER)
 - ③ RUBROCKIA SUBTENTOSA - 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.



BIORETENTION FACILITIES SUMMARY

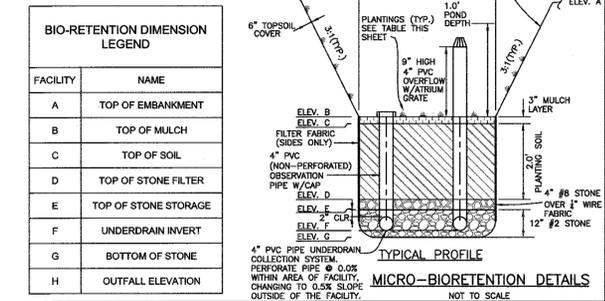
FACILITY	Drainage Area	Impervious	I (%)	Rv	ESDv (cf)	75% ESDv (cf)	Volume Stored	Volume treated (V/0.75)	Pe Treated	Stone Storage
MBR-5	9213	3392	37%	0.381	351.3	263.5	379 cf	505 cf	1.73	85.2
MBR-6	10769	3435	32%	0.337	363.0	272.2	377 cf	503 cf	1.66	94.4
MBR-7	8291	2862	35%	0.361	299.0	224.3	357 cf	475 cf	1.91	76.8
MBR-8	7725	2862	37%	0.383	296.2	222.2	345 cf	459 cf	1.86	78.0
							TOTAL:	1457 cf	1943 cf	

DRYWELL FACILITIES SUMMARY

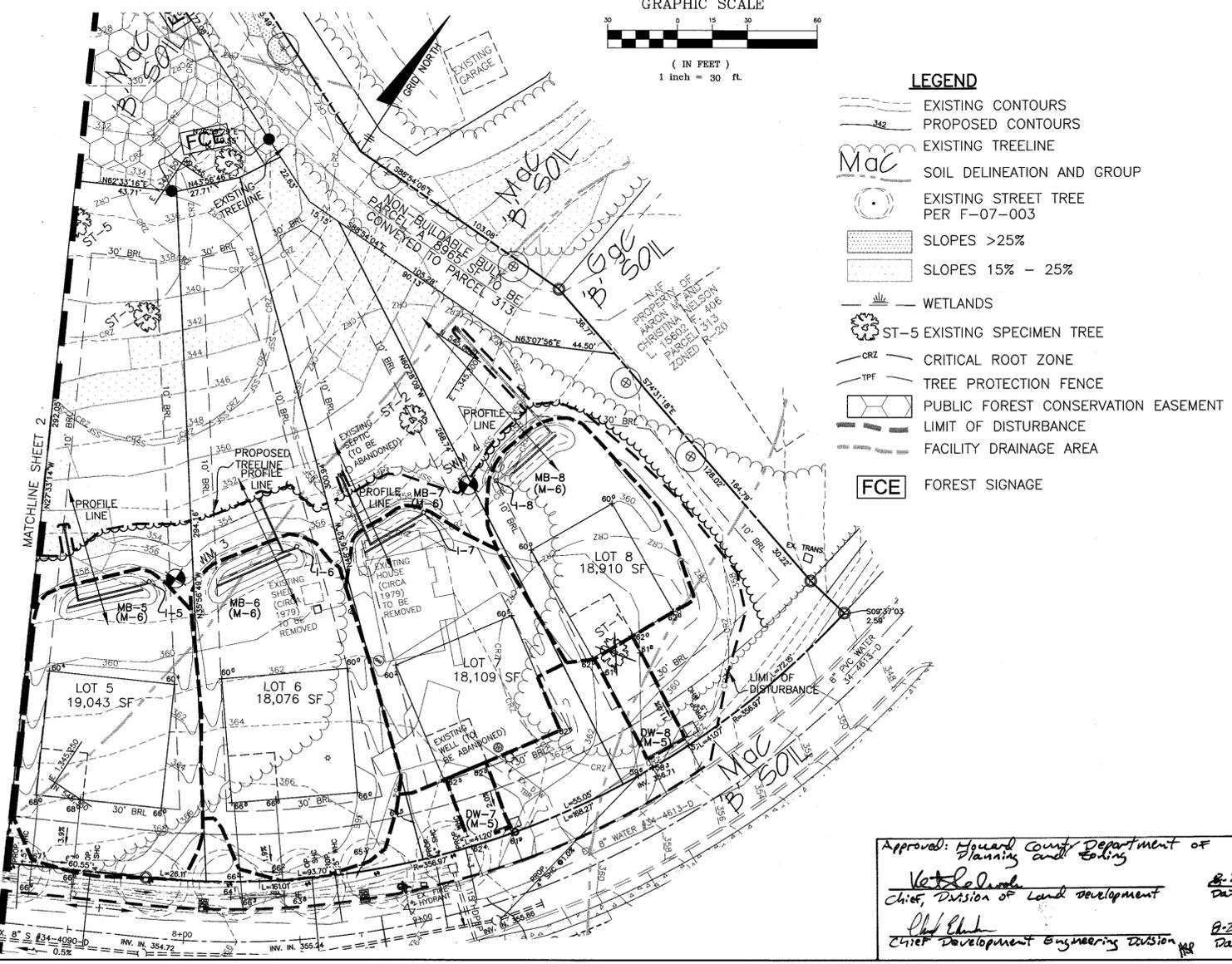
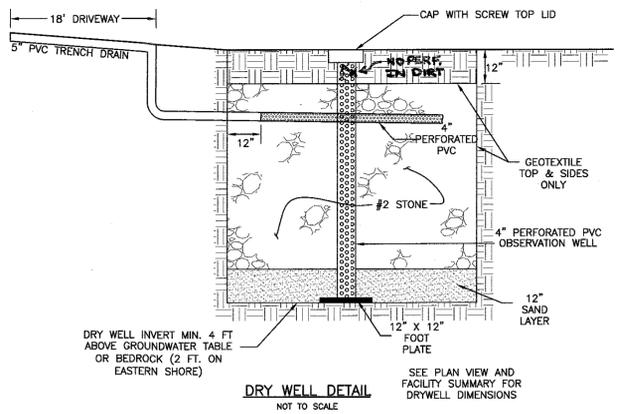
FACILITY	Drainage Area	Impervious	I (%)	Rv	ESDv (cf)	Depth	Porosity	Width	Length	Volume Stored	Pe Treated
DW-7	544	212	39%	0.401	21.8	5.0	0.40	4	4	32	1.76
DW-8	901	492	55%	0.541	48.8	5.0	0.40	5	5	50	1.23
										TOTAL:	82 cf

ON-LOT BIORETENTION DIMENSIONS

FACILITY	DEPTH OF STONE BELOW PIPE (F TO G) (FT)	PLANTINGS								LINER				
		A	B	C	D	E	F	G	H					
MB-5	1.00	358.33	357.00	356.75	354.75	354.42	353.92	352.92	353.00	213	9	7	7	N/A
MB-6	1.00	358.33	357.00	356.75	354.75	354.42	353.92	352.92	353.00	236	10	8	8	N/A
MB-7	1.00	358.33	357.00	356.75	354.75	354.42	353.92	352.92	353.00	192	9	6	6	N/A
MB-8	1.00	358.33	357.00	356.75	354.75	354.42	353.92	352.92	354.00	195	9	7	7	N/A



STORMWATER FACILITIES SHALL BE CONSTRUCTED AFTER CONSTRUCTION OF HOUSES, AND SEDIMENT CONTROLS WILL BE PROVIDED WITH A SITE DEVELOPMENT PLAN.



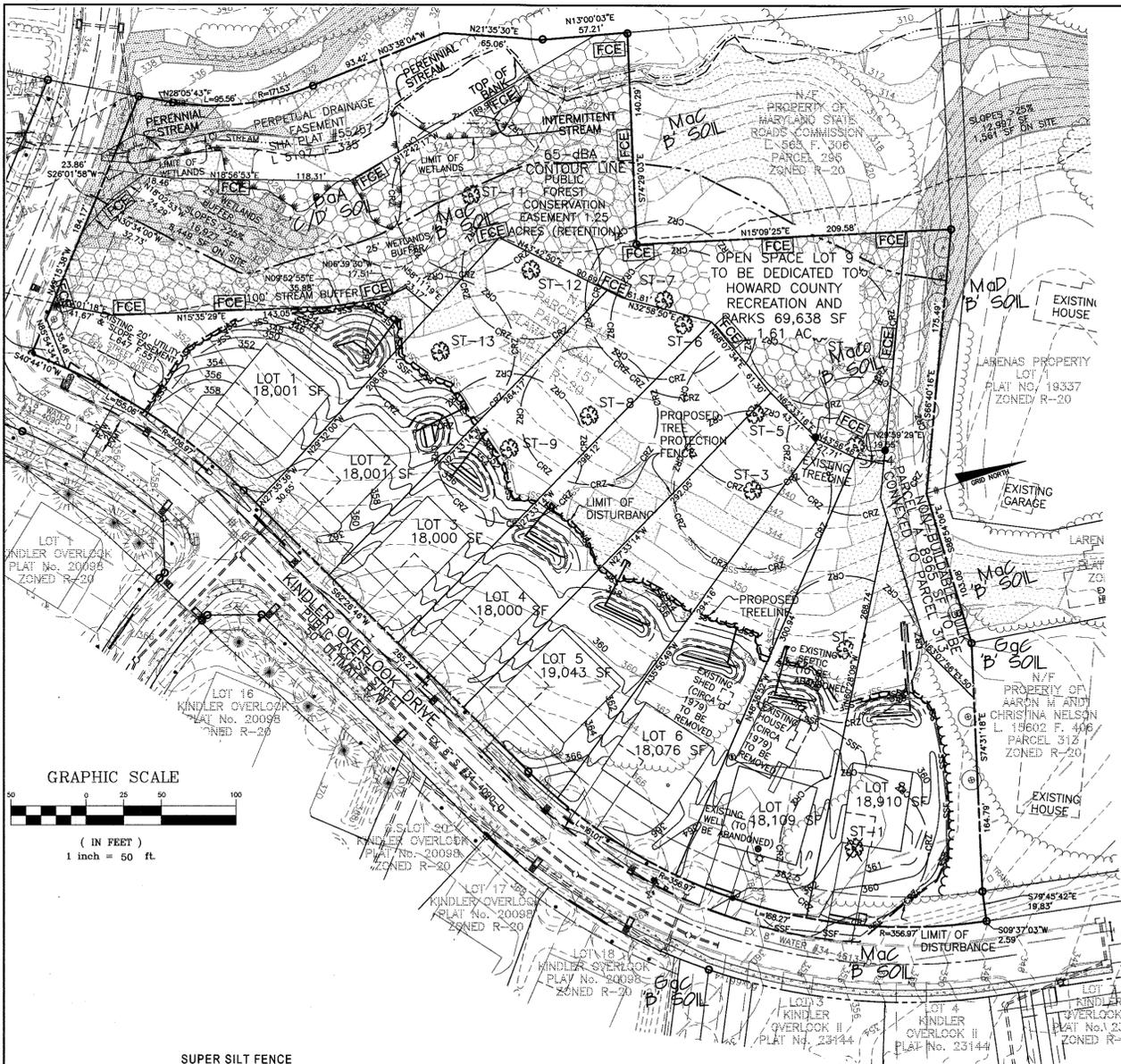
- #### LEGEND
- EXISTING CONTOURS
 - PROPOSED CONTOURS
 - EXISTING TREELINE
 - SOIL DELINEATION AND GROUP
 - EXISTING STREET TREE PER F-07-003
 - SLOPES >25%
 - SLOPES 15% - 25%
 - WETLANDS
 - ST-5 EXISTING SPECIMEN TREE
 - CRZ - CRITICAL ROOT ZONE
 - TPF - TREE PROTECTION FENCE
 - PUBLIC FOREST CONSERVATION EASEMENT
 - LIMIT OF DISTURBANCE
 - FACILITY DRAINAGE AREA
 - FOREST SIGNAGE

Approved: Howard County Department of Planning and Zoning

Veronica L. ... Chief, Division of Land Development 8-26-16 Date:

Phil ... Chief, Development Engineering Division 8-25-16 Date:

<h3 style="margin: 0;">BENCHMARK</h3> <p style="margin: 0;">ENGINEERS & LAND SURVEYORS & PLANNERS</p> <h2 style="margin: 0;">ENGINEERING, INC.</h2> <p style="margin: 0; font-size: small;">8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644 WWW.BEI-ONLINEENGINEERING.COM</p>	
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<p>DESIGN: AAM DRAFT: AAM CHECK: CAM</p>	<p>TITLE: STORMWATER MANAGEMENT PLAN, NOTES AND DETAILS</p> <p>DATE: JULY, 2016 PROJECT NO. 2658</p> <p>SCALE: 1" = 30' SHEET 3 OF 5</p>



Wetland Data

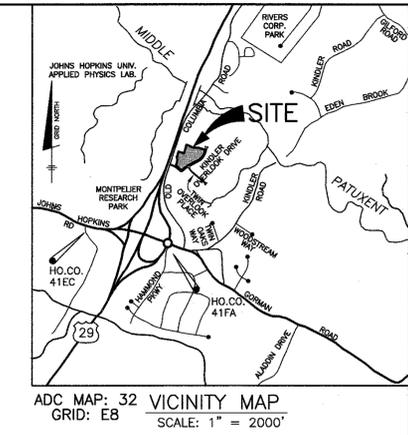
WETLAND SYSTEM	COWARDIN CLASSIFICATION	DOMINANT VEGETATION
A	PF01A	Acer rubrum, Liriodendron benzoin, Symplocarpus foetidus, Osmunda cinnamomea

Forest Stand Data

Key	Community Type	Acreage	Dominant Vegetation	General Condition	Priority Acreage
F1	Oak-Poplar	4.5	Liriodendron tulipifera, Quercus alba, Quercus rubra, Quercus velutina	Good	0.5 ± Buffers, Slopes

LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING TREELINE
- SOIL DELINEATION AND GROUP
- EXISTING STREET TREE PER F-07-003
- SLOPES >25%
- SLOPES 15% - 25%
- WETLANDS
- ST-5 EXISTING SPECIMEN TREE
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- LIMIT OF DISTURBANCE
- FOREST SIGNAGE



CONSTRUCTION PERIOD PROTECTION PROGRAM

A. Forest Protection Techniques

1. Soil Protection Area (Critical Root Zone)

The soil protection area, or critical root zone, of a tree is that portion of the soil column where most of its roots may be found. The majority of roots responsible for water and nutrient uptake are located just below the soil surface. Temporary fencing shall be placed around the critical root zone of the forest in areas where the forest limits occur within 25 feet of the limit of disturbance.

2. Fencing and Signage

Existing forest limits occurring within 25 feet of the limits of disturbance shall be protected using temporary protective fencing. Permanent signage shall be placed around the afforestation area prior to plant installation, as shown on the plan.

B. Pre-Construction Meeting

Upon staking of limits of disturbance a pre-construction meeting will be held between the developer, contractor and appropriate County Inspector. The purpose of the meeting will be to verify that all sediment control is in order, and to notify the contractor of possible penalties for non-compliance with the FCP.

C. Storage Facilities/Equipment Cleaning

All equipment storage, parking, sanitary facilities, material stockpiling, etc. associated with construction of the project will be restricted to those areas outside of the proposed Forest Conservation Easement. Cleaning of equipment will be limited to area within the LOD of the proposed homesites. Wastewater resulting from equipment cleaning will be controlled to prevent runoff into environmentally sensitive areas.

D. Sequence of Construction

The following timetable represents the proposed timetable for development. The items outlined in the Forest Conservation Plan will be enacted within two (2) years of subdivision approval.

Below find a proposed sequence of construction.

1. Install all signage, tree protection fencing (super silt fence) and sediment control devices.
2. Hold pre-construction meeting between developer, contractor and County Inspector.
3. Build access roads, install well and septic systems, and construct houses. Stabilize all disturbed areas accordingly.
4. Remove sediment control.

5. Hold post-construction meeting with County inspectors to assure compliance with FCP. Submit Certification of Installation.
6. Monitor and maintain plantings for 2 years.

E. Construction Monitoring

Eco-Science Professionals, or another qualified professional designated by the developer, will monitor construction of the project to ensure that all activities are in compliance with the Forest Conservation Plan.

F. Post-Construction Meeting

Upon completion of construction, Eco-Science Professionals, or another qualified professional designated by the developer, will notify the County that construction has been completed and arrange for a post-construction meeting to review the project site. The meeting will allow the County Inspector to verify that forest retention requirements have been met.

POST-CONSTRUCTION MANAGEMENT PLAN

Howard County requires a two year post-construction management plan be prepared as part of the forest conservation plan. The plan goes into effect upon acceptance of the construction certification of completion by the County. Eco-Science Professionals, or another qualified professional designated by the developer, will be responsible for implementation of the post-construction management plan.

The following items will be incorporated into the plan:

A. Fencing and Signage

Permanent signage indicating the limits of the retention area shall be maintained.

B. General Site Inspections/Maintenance of Plantings

Site inspections will be performed to insure that retention of the forest is met in accordance with this plan and that the forest edge remains healthy and stable.

C. Education

The developer will provide appropriate materials to property owners informing them of the location and purpose of the afforestation area. Materials may include site plans and information explaining the intent of the forest conservation law.

D. Final Inspection

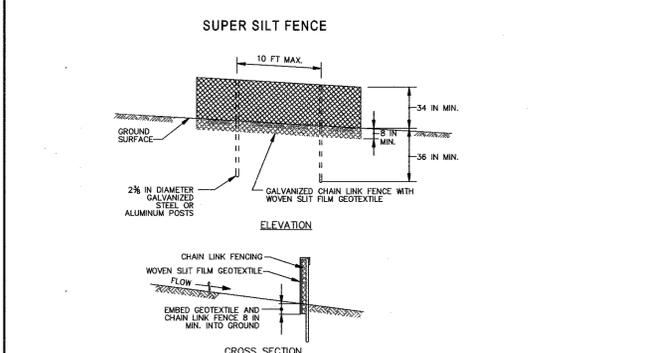
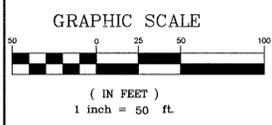
At the end of the two year post-construction management period, Eco-Science Professionals, or another qualified professional, will submit to the administrator of the Howard County Forest Conservation Program certification that all retention/afforestation requirements have been met. Upon acceptance of this certification, the County will release the developer from all future obligations and release the developer's bond.

FOREST CONSERVATION EASEMENTS

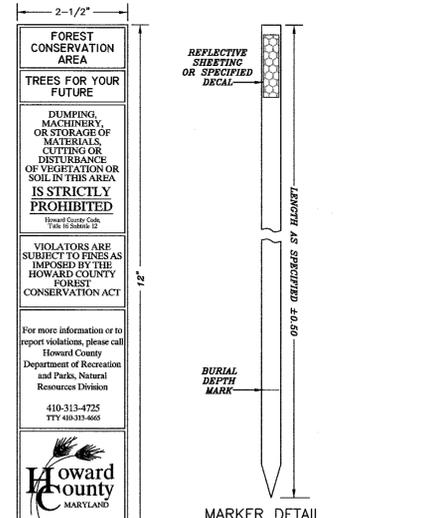
Easements are a legal means of providing permanent protection of forests, farmland and open space. In accordance with the criteria outlined in the Howard County Forest Conservation Manual, a forest conservation easement will be recorded for the retention areas of the subject property. Submission of the easements for recordation will occur prior to commencement of construction activities.

FCP NOTES:

1. No rare, threatened or endangered species were observed on the property, however the DNR Heritage letter dated July 20, 2015 indicates forest interior dwelling bird (FIDS) habitat within the forest area of the property. DNR guidelines for FIDS has been addressed.
2. Surrounding land use is primarily medium density residential development.
3. Approximately 0.8 acres of forest is present within 100 feet of the subject property.
4. The site is located within the Middle Patuxent watershed (02-13-11). This section of the watershed is classified as a Use IV-P.
5. No historic elements or cemeteries are known to occur on the property.
6. No 100 year floodplain is present on the property. An existing drainage and utility easement is located on the property.
7. There are steep slopes (25% and greater), wetlands, streams and their buffers within the open space area of the site, to be dedicated to Howard County Recreation and Parks. No grading, removal of vegetative cover or trees, paving and new structures shall be permitted within the limits of the steep slopes, wetlands, streams, or their required buffers.
8. This project complies with the requirement of section 16.1200 of the Howard County Code for Forest Conservation with onsite retention and offset banking. A total of 1.25 acres of forest will be retained within an easement onsite and the remaining obligation of 0.60 acres of reforestation will be met with existing forest conservation banks. The obligation will be met as follows: 0.21 acre will be credited at the Park Overlook Bank F-13-093, and 0.39 acres will be credited at the Tally Parcel 2 bank, using a portion of the remaining forest established for Kinder Overlook, F-03-007.
9. There shall be no clearing, grading, construction or disturbance of vegetation with areas defined as Forest Conservation Easements.
10. No stockpiles, parking areas, equipment cleaning areas, etc. shall occur within areas designated as non-disturbance areas.
11. Temporary fencing, super silt fence, shall be used to protect forest resources during construction. Super silt fence shall be installed along limits of disturbance occurring within 50 feet of the proposed forest retention limits. Permanent signage shall be installed along the Forest Conservation Easement boundary to prevent future encroachment into the area. Signage shall be placed at 50-100 foot intervals along the boundary.



- CONSTRUCTION SPECIFICATIONS**
1. INSTALL 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.085 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.
 2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2 1/2 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR RIVETS.
 3. FASTEN WOVEN SILT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURING TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 6 INCHES INTO THE GROUND.
 4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
 5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
 6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
 7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 20% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.



DECAL SPECIFICATIONS
 Materials: Number 3690 Scotchcal non-reflective substrate.
 Color: Dark green text and border on beige background.

FCE CARSONITE MARKER
 NOT TO SCALE
 FOREST SIGNAGE SHALL REMAIN IN PLACE FOR PERPETUITY.

FOREST CONSERVATION WORKSHEET
 VERSION 1.0
 (Enter in Yellow Cells)

NET TRACT AREA:

A. Total tract area.....	=	5.20
B. Area within 100 year floodplain.....	=	0.00
C. Area to remain in agricultural production.....	=	0.00
D. Net tract area.....	=	5.20

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	1	0	0	0

E. Afforestation Threshold..... 15% x D = 0.78
 F. Conservation Threshold..... 20% x D = 1.04

EXISTING FOREST COVER:

G. Existing forest cover (excluding floodplain).....	=	4.50
H. Area of forest above afforestation threshold.....	=	3.72
I. Area of forest above conservation threshold.....	=	3.48

BREAK EVEN POINT:

J. Forest retention above threshold with no mitigation.....	=	1.73
K. Clearing permitted without mitigation.....	=	2.77

PROPOSED FOREST CLEARING:

L. Total area of forest to be cleared.....	=	3.25
M. Total area of forest to be retained.....	=	1.25

PLANTING REQUIREMENTS:

N. Reforestation for clearing above conservation threshold.....	=	0.81
P. Reforestation for clearing below conservation threshold.....	=	0.00
Q. Credit for retention above conservation threshold.....	=	0.21
R. Total reforestation required.....	=	0.60
S. Total afforestation required.....	=	0.00
T. Total reforestation and afforestation required.....	=	0.60

Approved: Howard County Department of Planning and Zoning
 Kent Salmons, Chief, Division of Land Development, 8/26/16
 Chad Blanton, Chief, Development Engineering, 8/25/16

SPECIMEN TREE CHART

KEY	SPECIES	SIZE (IN DBH)	CRZ (FT RADIUS)	CONDITION - COMMENTS
1	BLACK OAK	33	49.5	POOR - SEVERE LIMB DIEBACK - REMOVE
2	TULIP POPLAR	32.5	48.75	GOOD - RETAIN
3	RED OAK	35	52.5	GOOD - RETAIN
4	TULIP POPLAR	30.54	45.75	GOOD - RETAIN
5	RED OAK	33	49.5	FAIR - LIMB DIEBACK NOTED - RETAIN
6	TULIP POPLAR	32.5	48.75	GOOD - RETAIN
7	TULIP POPLAR	35	52.5	GOOD - RETAIN
8	TULIP POPLAR	30.54	45.75	GOOD - RETAIN
9	TULIP POPLAR	33	49.5	GOOD - RETAIN
10	BLACK OAK	32.5	48.75	GOOD - RETAIN
11	RED OAK	35	52.5	POOR - BROKEN/MISSING BRANCHES - RETAIN
12	TULIP POPLAR	30.54	45.75	GOOD - MULTI STEMMED ABOVE BREAST - RETAIN
13	WHITE OAK	33	49.5	GOOD - RETAIN

SOILS LEGEND

SYMBOL	TYPE	K _f FACTOR	NAME
Bga	D	37**	BAILE SILT LOAM - 0 TO 3 PERCENT SLOPES
GgC	B	28	GLENELG LOAM - 8 TO 15 PERCENT SLOPES - MODERATELY ERODED
McC	B	28	MANOR LOAM - 8 TO 15 PERCENT SLOPES
MdD	B	28	MANOR LOAM - 15 TO 25 PERCENT SLOPES

SOILS TAKEN FROM NRCS WEB SOIL SURVEY, MARCH, 2015, SOIL SURVEY SHEET 23
 **WHOLE SOIL K FACTOR
 ***HIGHLY ERODIBLE SOILS

NO.	DATE	REVISION

BENCHMARK
 ENGINEERS & LAND SURVEYORS & PLANNERS
ENGINEERING, INC.
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DATE: JULY, 2016 PROJECT NO. 2658	SCALE: 1" = 50' SHEET 5 OF 5

Eco-Science Professionals, Inc.
 Consulting Ecologists
 P.O. Box 2066 Che Ar, Maryland 21057 Telephone (410) 832-2488 Fax (410) 832-2488

John P. Conner
 M.D. DNR Qualified Professional
 USACE Wetland Delimitator
 Certifications: WDCP233AD061044021
 John P. Conner