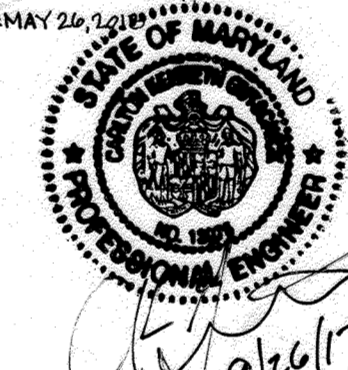


SYMBOL	RATING	NAME	K FACTOR	SOIL MAP
BaB	(B)	BENEVOLE SILT LOAM, 3-8% SLOPES.	.28	22
GgB	(B)	GLENVILLE SILT LOAM, 3-8% SLOPES.	.20	22
GhB	(C)	GLENVILLE-BAILE SILT LOAM, 0-8% SLOPES	.37	22
MaB	(B)	MANOR LOAM, 3-8% SLOPES	.24	22
McC	(B)	MANOR LOAM, 8-15% SLOPES	.24	22
MaD	(B)	MANOR LOAM, 15-25% SLOPES	.24	22
MkF	(B)	MANOR-BRINKLOW COMPLEX, 25-65% SLOPES	.24	22
WbB	(C)	WILTSHIRE SILT LOAM, 3-8% SLOPES	.24	22

KEY	SPECIES	SIZE (IN DBH/FEET RADII)	COMMENTS
1	RED MAPLE	30	FAIR CONDITION, SOME DIEBACK
2	RED MAPLE	31	POOR CONDITION, MAJOR LIMB DAMAGE
3	SILVER MAPLE	32.5	POOR CONDITION, TRUNK ROT AND LIMB DAMAGE
4	SILVER MAPLE	31	POOR CONDITION, LIMB FAILURE AND TRUNK ROT
5	SILVER MAPLE	42	POOR CONDITION, CANOPY TRIMMED AND TRUNK ROT
6	SILVER MAPLE	37	FAIR CONDITION, LIMB DIEBACK

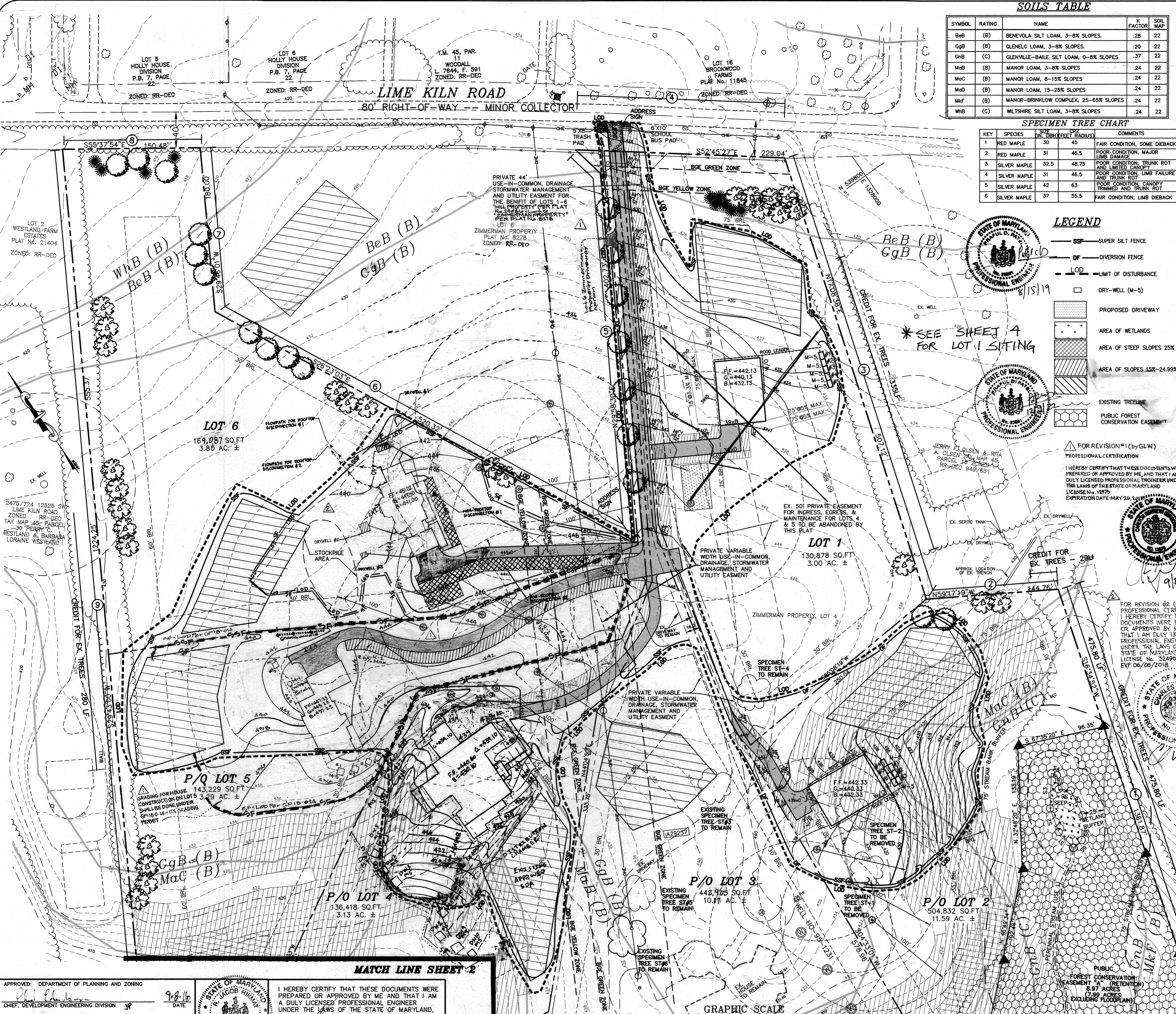
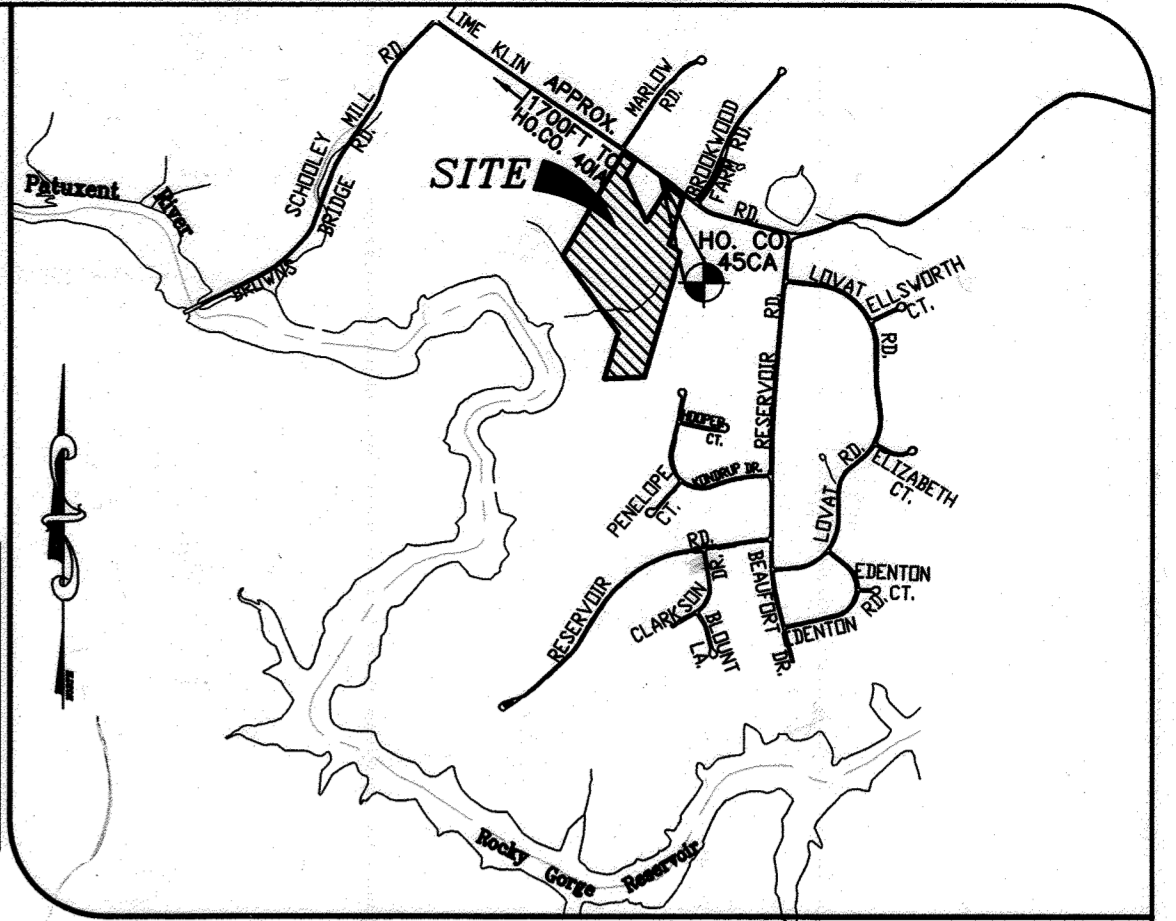
LEGEND

- SSF - SUPER SILT FENCE
- DF - DIVERSION FENCE
- LOD - LIMIT OF DISTURBANCE
- - DRY-WELL (M-5)
- ▨ - PROPOSED DRIVEWAY
- ▩ - AREA OF WETLANDS
- ▧ - AREA OF STEEP SLOPES 25% OR GREATER
- ▦ - AREA OF SLOPES 15%-24.99%
- ▤ - EXISTING TREELINE
- ▣ - PUBLIC FOREST CONSERVATION EASEMENT



GENERAL NOTES

1. TAX MAP: 45, PARCEL: 59, BLOCK: 5, LOTS: 4, 5, & 7.
2. SUBJECT PROPERTY ZONED RR-DEO PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
3. TOPOGRAPHIC DATA SHOWN HEREON IS BASED ON AERIAL TOPOGRAPHY BY WINGS AERIAL MAPPING CO., INC. DATED NOVEMBER 12, 2002 AND FIELD VERIFIED JUNE 2015.
4. COORDINATES BASED ON NAD 83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 45CA & 40IA. STA. NO. 45CA: N 540,071.002 ELEV. 426.81; E 1,327,702.745. STA. NO. 40IA: N 541,725.800 ELEV. 360.07; E 1,325,316.89.
5. NO CEMETERIES OR BURIAL GROUNDS EXIST ON-SITE.
6. NO HISTORIC STRUCTURES EXIST ON-SITE.
7. EXISTING FLOODPLAIN AND DRAINAGE & UTILITY EASEMENT SHOWN HEREON IS TAKEN FROM PLAT # 8278.
8. WETLANDS SHOWN BASED ON FIELD INVESTIGATION BY ECO-SCIENCE PROFESSIONALS, INC. IN JUNE 2015.
9. FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL FOR THIS SUBDIVISION HAS BEEN FULFILLED BY THE RETENTION OF 11.02 ACRES (480,91 SQ. FT.) OF FOREST INTO AN ON-SITE FOREST CONSERVATION AREA.
10. FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF HOWARD COUNTY CODE. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OR CONSERVATION EASEMENT ARE ALLOWED.
11. NO SCENIC ROADS ARE ADJACENT TO THIS SITE.
12. □ DENOTES EXISTING 100 YEAR FLOODPLAIN.
13. ▨ DENOTES AN EXISTING OR PROPOSED PRIVATE USE-IN-COMMON DRIVEWAY.
14. THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 SQ. FT. AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT AND RECORDATION OF A MODIFIED EASEMENT SHALL NOT BE NECESSARY.
15. SITE ANALYSIS DATA: LOCATION: TAX MAP: 45 PARCEL: 59 GRID 5. ELECTION DISTRICT: FIFTH ZONING: RR-DEO TOTAL GROSS SITE AREA: 35.07 AC ± PREVIOUS DPZ NUMBERS: EOP-16-001, F-79-131, F-89-32, WF-16-090 AREA OF THE SMALLEST LOT = 130,680 SQ.FT (3.00 ACRES).
16. THERE IS AN EXISTING STRUCTURE ON LOT 3 KNOWN AS 12435 S. LIME KILN ROAD. NO NEW BUILDINGS, EXTENSIONS OR ADDITIONS TO THE EXISTING DWELLINGS ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATIONS. 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 (1-1/2"). C) GEOMETRY: MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. 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 PLAN WITH NO MORE THAN 1 FOOT OF DEPTH OVER DRIVEWAY SURFACE. F) STRUCTURE CLEARANCES - MINIMUM 12 FEET. G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
17. FOR FLAG OR PIPESTEM TONS, 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 TO THE PIPESTEM LOT DRIVEWAY. STORMWATER MANAGEMENT REQUIREMENTS WILL BE MET ON-SITE VIA ROOFTOP DISCONNECTION, NON-ROOFTOP DISCONNECT, GRASS CHANNEL, AND NATURAL AREA CONSERVATION CREDITS IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL.
18. LANDSCAPING FOR LOTS 1, 2, 4, 5, & 6 HAS BEEN PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED PERIMETER LANDSCAPING AND TRASH PAD SCREENING (44 SHADE TREES, 10 EVERGREENS AND 10 SHRUBS) SHALL BE POSTED WITH THE GRADING PERMIT IN THE TOTAL AMOUNT OF \$15,000.00.
19. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, OR PLACEMENT OF NEW STRUCTURES IS PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR BUFFERS OR FOREST CONSERVATION RETENTION CREDIT AREAS.
20. PRIVATE WATER AND PRIVATE SEWERAGE WILL BE UTILIZED.
21. STEEP SLOPES AREA = 15,241 SQ. FT. GRADING ON STEEP SLOPES WITH A CONTIGUOUS AREA OF 20,000 SQ. FT. OR MORE IS NOT PERMITTED WITHOUT A WAIVER APPROVAL.
22. A PRE-SUBMISSION COMMUNITY MEETING WAS HELD FOR THIS PROJECT ON JULY 7, 2015 AT THE ST PAUL'S EVANGELICAL LUTHERAN CHURCH.
23. A FEE-IN-LIEU OF OPEN SPACE HAS BEEN PAID IN THE AMOUNT OF \$7,500.00 FOR FIVE LOTS.
24. THIS PROJECT IS SUBJECT TO WAIVER PETITION WF-16-090, WHICH WAS APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF PLANNING AND ZONING ON FEBRUARY 23, 2016. THIS WAIVER IS TO SECTION 16.1205(a)(7) WHICH REQUIRES RETENTION OF SPECIMEN TREES 30" OR MORE IN DIAMETER. TWO SPECIMEN TREES WILL BE REMOVED WITH THIS DEVELOPMENT. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
 1. REMOVAL IS APPROVED FOR ST#1 IDENTIFIED AS A 30" RED MAPLE AND SITE IDENTIFIED AS A 31" RED MAPLE AS SHOWN ON THE WAIVER PETITION EXHIBIT.
 2. THE DEVELOPER PROPOSES MITIGATION FOR THE REMOVAL OF THE TWO SPECIMEN TREES BY PLACEMENT OF APPROXIMATELY 11.02 ACRES OF EXISTING FOREST INTO ON-SITE FOREST CONSERVATION RETENTION EASEMENT AREAS AND BY PERIMETER PLANTINGS. ALL PROPOSED PLANTINGS AND THE CREATION OF FOREST CONSERVATION RETENTION EASEMENT WILL SERVE TO MITIGATE AND PROVIDE AN ALTERNATIVE PROPOSAL FOR THE REMOVAL OF THE TWO SPECIMEN TREES.
25. APPROVAL OF WAIVER TO DESIGN MANUAL VOLUME III, SECTION 2.6.B ON 8/17/2177 ALLOWS THE USE-IN-COMMON EASEMENT TO BE USED FOR LOTS 1-6 "HILL PROPERTY" PER PLAT NO. 24088-1 LOT 6 ZIMMERMAN PROPERTY" PER PLAT NO. 8278.



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 DATE: 9/8/16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION JR
 DATE: 9/12/16
 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 09/03/17
 R. JACOB HRKMAT P.E. 9/11/16 DATE:

(IN FEET)
 1 inch = 50 ft.

MATCH LINE SHEET 2

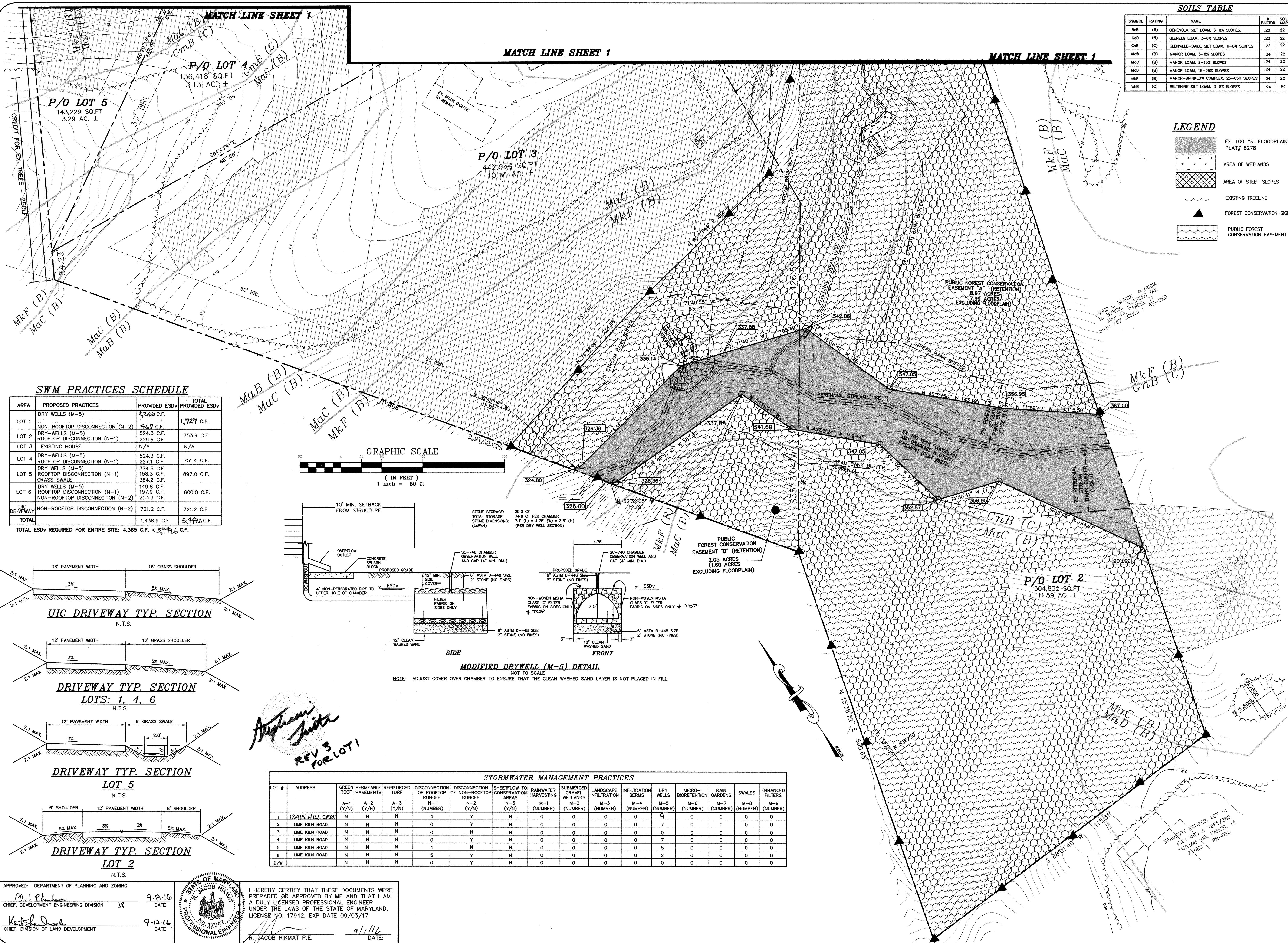
MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 7350-B Grace Drive, Columbia, Maryland 21044
 (410) 997-0296 Tel. (410) 997-0296 Fax

HILL PROPERTY, LOTS 1-6
 (ZIMMERMAN PROPERTY, LOTS 4, 5, & 7)
 TAX MAP 45 - PARCEL 59 - BLOCK 5
 FIFTH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
 SUPPLEMENTAL PLAN

1 OF 4
 F-16-071

SOILS TABLE				
SYMBOL	RATING	NAME	K FACTOR	SOIL MAP
BaB	(B)	BENEVOLE SILT LOAM, 3-8% SLOPES	.28	22
GaB	(B)	GLENELG LOAM, 3-8% SLOPES	.20	22
GnB	(C)	GLENVILLE-BAILE SILT LOAM, 0-8% SLOPES	.37	22
MaB	(B)	MANOR LOAM, 3-8% SLOPES	.24	22
MaC	(B)	MANOR LOAM, 8-15% SLOPES	.24	22
MaD	(B)	MANOR LOAM, 15-25% SLOPES	.24	22
MaF	(B)	MANOR-BRINKLOW COMPLEX, 25-65% SLOPES	.24	22
WnB	(C)	WILTSHIRE SILT LOAM, 3-8% SLOPES	.24	22

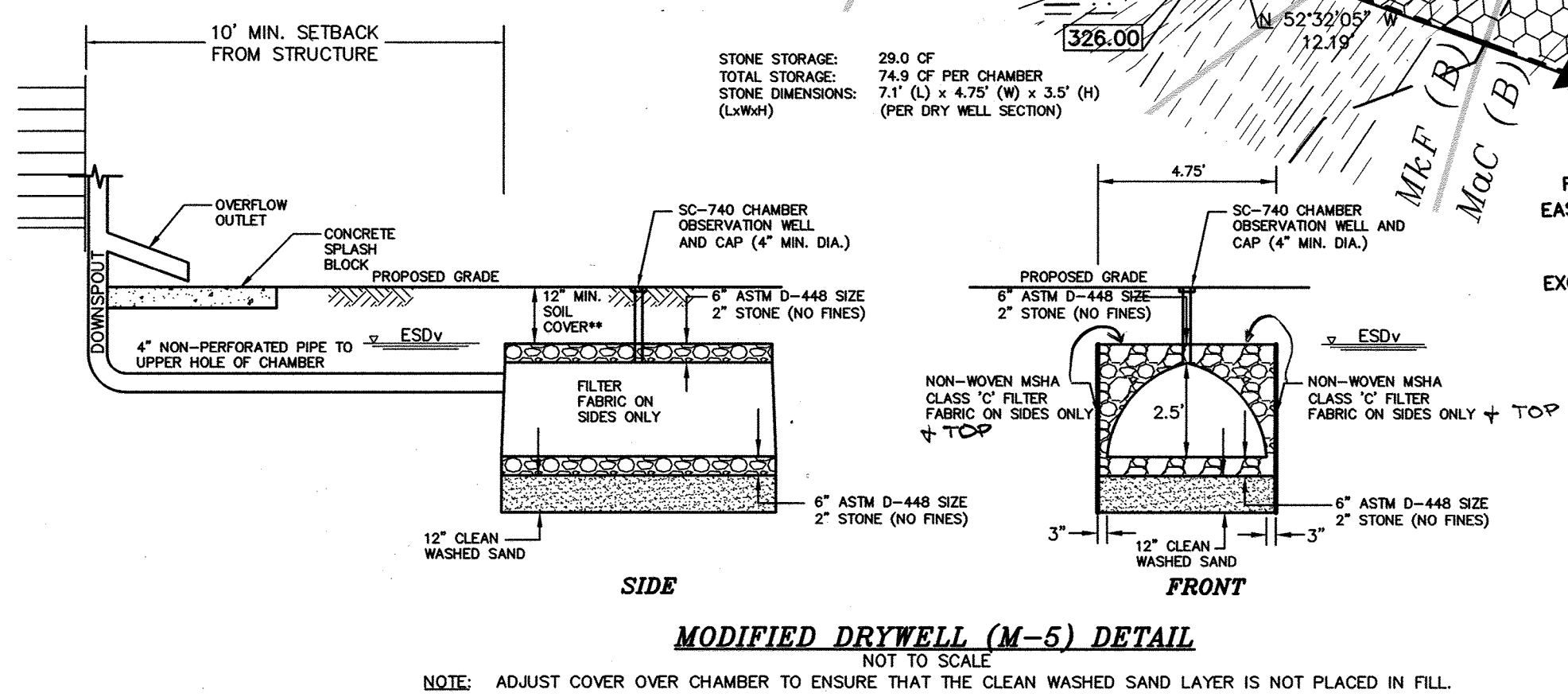
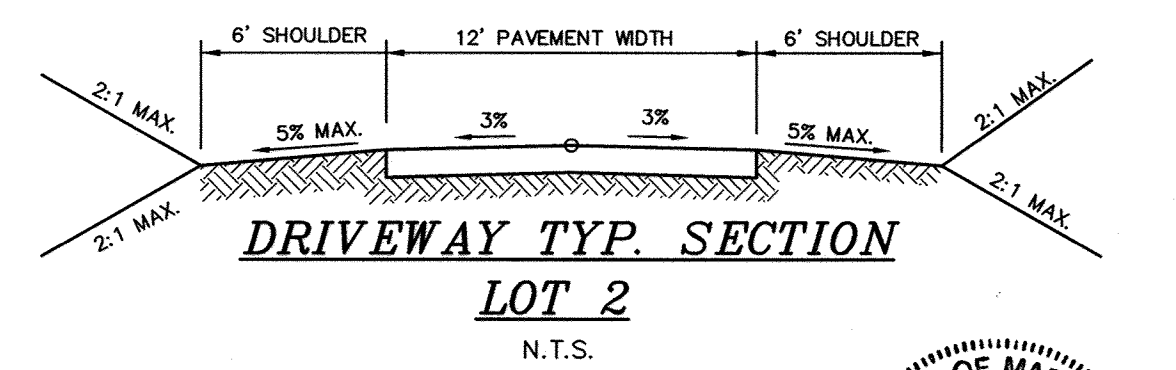
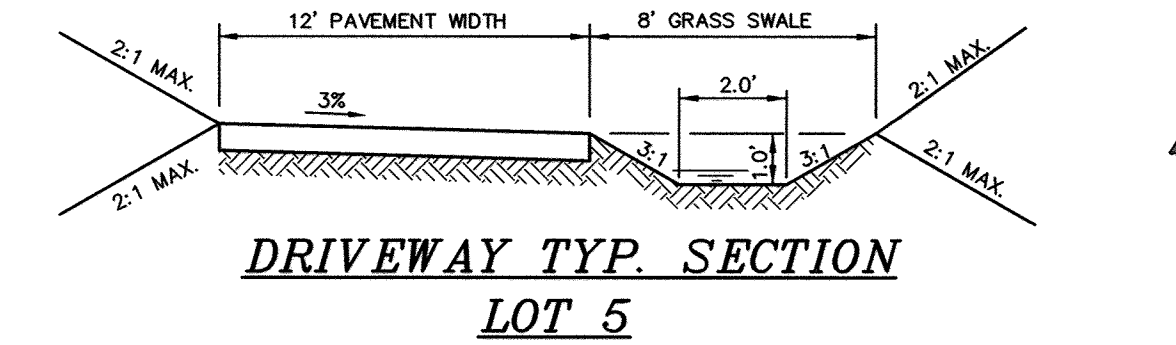
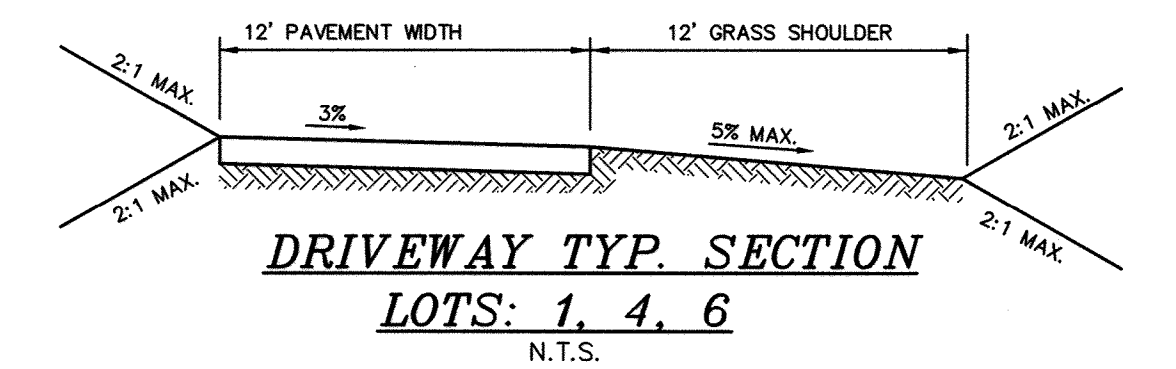
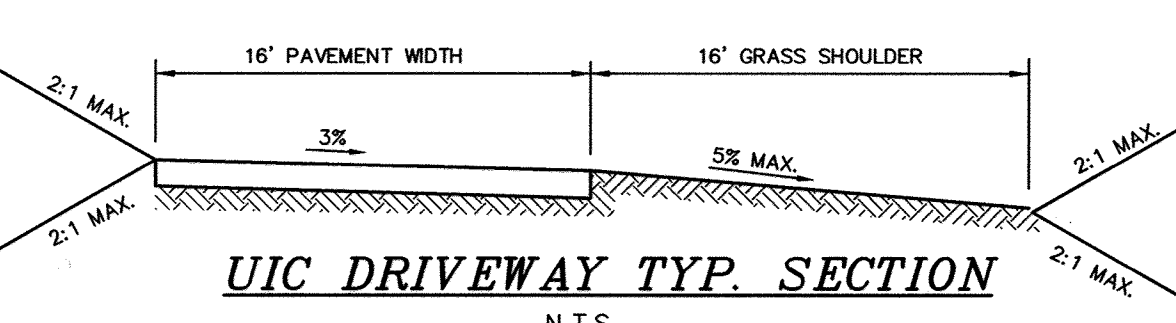
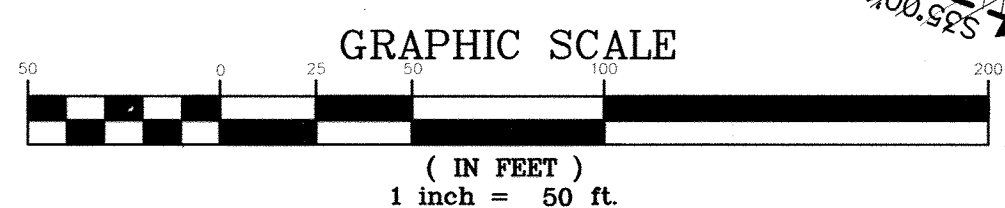
LEGEND	
	EX. 100 YR. FLOODPLAIN PLAT # 8278
	AREA OF WETLANDS
	AREA OF STEEP SLOPES
	EXISTING TREELINE
	FOREST CONSERVATION SIGNAGE
	PUBLIC FOREST CONSERVATION EASEMENT



SWM PRACTICES SCHEDULE

AREA	PROPOSED PRACTICES	PROVIDED ESDv	TOTAL PROVIDED ESDv
LOT 1	DRY WELLS (M-5)	1,726.60 C.F.	1,727 C.F.
	NON-ROOFTOP DISCONNECTION (N-2)	46.7 C.F.	
LOT 2	DRY WELLS (M-5)	524.3 C.F.	753.9 C.F.
	ROOFTOP DISCONNECTION (N-1)	229.6 C.F.	
LOT 3	EXISTING HOUSE	N/A	N/A
LOT 4	DRY WELLS (M-5)	524.3 C.F.	751.4 C.F.
	ROOFTOP DISCONNECTION (N-1)	227.1 C.F.	
LOT 5	DRY WELLS (M-5)	374.5 C.F.	897.0 C.F.
	ROOFTOP DISCONNECTION (N-1)	522.5 C.F.	
	GRASS SWALE	148.9 C.F.	600.0 C.F.
	DRY WELLS (M-5)	197.9 C.F.	
	ROOFTOP DISCONNECTION (N-1)	253.3 C.F.	721.2 C.F.
	NON-ROOFTOP DISCONNECTION (N-2)	48.8 C.F.	
UIC DRIVEWAY	NON-ROOFTOP DISCONNECTION (N-2)	721.2 C.F.	721.2 C.F.
TOTAL		4,438.9 C.F.	5,149.6 C.F.

TOTAL ESDv REQUIRED FOR ENTIRE SITE: 4,365 C.F. < 5,149.6 C.F.



Stephen J. Hix
REV 3 FOR LOT 1

STORMWATER MANAGEMENT PRACTICES																
LOT #	ADDRESS	GREEN ROOF (Y/N)	PERMEABLE PAVEMENTS (Y/N)	REINFORCED TURF (Y/N)	DISCONNECTION OF ROOFTOP RUNOFF (NUMBER)	DISCONNECTION OF NON-ROOFTOP RUNOFF (NUMBER)	SHEETFLOW TO CONSERVATION AREAS (Y/N)	RAINWATER HARVESTING (NUMBER)	SUBMERGED GRAVEL WETLANDS (NUMBER)	LANDSCAPE INFILTRATION (NUMBER)	INFILTRATION BERMS (NUMBER)	DRY WELLS (NUMBER)	MICRO-BIORETENTION (NUMBER)	RAIN GARDENS (NUMBER)	SWALES (NUMBER)	ENHANCED FILTERS (NUMBER)
1	12415 HILL CREST	N	N	N	4	Y	N	0	0	0	0	0	0	0	0	0
2	LIME KILN ROAD	N	N	N	0	Y	N	0	0	0	0	7	0	0	0	0
3	LIME KILN ROAD	N	N	N	0	Y	N	0	0	0	0	7	0	0	0	0
4	LIME KILN ROAD	N	N	N	0	Y	N	0	0	0	0	7	0	0	0	0
5	LIME KILN ROAD	N	N	N	4	N	N	0	0	0	0	5	0	0	0	0
6	LIME KILN ROAD	N	N	N	5	Y	N	0	0	0	0	2	0	0	0	0
D/W		N	N	N	0	Y	N	0	0	0	0	0	0	0	0	0

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division: *[Signature]* DATE: 9-8-16
 Chief, Division of Land Development: *[Signature]* DATE: 9-12-16

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 09/03/17
 R. JACOB HIKMAT P.E. DATE: 9/11/16

PROJECT: 15-009
 DATE: SEP. 2016
 ENGINEERING: 06-076
 ILLUSTRATION: MAM/MMT
 SCALE: 1"=50'
 APPROVAL: RJH

ILLUSTRATION: MAM/MMT
 DATE: 10/1/16
 REVISIONS: 2. CHANGE FROM N-1 TO N-2 FOR LOT 1 & 2. MODIFY PRACTICES TO INCLUDE E P2E LOT 1.

HILL PROPERTY, LOTS 1-6
 (ZIMMERMAN PROPERTY, LOTS 4, 5, & 7)
 TAX MAP 45 - PARCEL 59 - BLOCK 5
 FIFTH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
 SUPPLEMENTAL PLAN

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 7350-B Grace Drive, Columbia, Maryland 21044
 (410) 997-0298 Tel. (410) 997-0298 Fax.

SCHEDULE A: PERIMETER LANDSCAPED EDGE

CATEGORY	ADJACENT TO PERIMETER PROPERTIES				ADJACENT TO ROADWAY				TOTAL	
	A (PERIMETER 1)	A (PERIMETER 2)	A (PERIMETER 3)	B (PERIMETER 4)	A (PERIMETER 5)	A (PERIMETER 6)	B (PERIMETER 7)	B (PERIMETER 8)		A (PERIMETER 9)
LANDSCAPE TYPE	475.80 LF	144.72 LF	507.24 LF	227.19 LF	402.73 LF	520.32 LF	180.00 LF	150.48 LF	1224.25 LF	13 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	YES, 475.80 LF OF EX. TREES	YES, 29 LF OF EX. TREES	YES, 335 LF OF EX. TREES	NO	NO	YES, 800 LF OF EX. TREES	NO	NO	YES, 530 LF OF EX. TREES	NO
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	2 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	5 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	7 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	8 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 4 EVERGREEN TREES 0 SHRUBS	12 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 1 EVERGREEN TREES 0 SHRUBS
NUMBER OF PLANTS PROVIDED	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	2 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 0 SUBSTITUTION TREES 0 SHRUBS	5 SHADE TREES 0 SUBSTITUTION TREES 0 SHRUBS	7 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	8 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 4 EVERGREEN TREES 0 SHRUBS	12 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 10 SUBSTITUTION TREES 10 SHRUBS

LANDSCAPE REQUIREMENT PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
25		ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
19		GLEDITSIA TRIACANTHOS INERMIS 'IMPERIAL'	IMPERIAL THORNLESS HONEYLOCUST	2 1/2" - 3" CAL.
10		PINUS STROBUS	WHITE PINE	6' - 8' HT.
10		TAXUS MEDIA 'HICKSII' (TM) (SHRUBS)	HICKS YEW	2 1/2" - 3" HT.
TOTAL 44 SHADE TREES, 10 EVERGREENS, 10 SHRUBS				

FOREST CONSERVATION DATA

NET TRACT AREA:
 A. Total tract area=35.07
 B. Area within 100 year floodplain=1.42
 C. Area to remain in agricultural production.....=0.00
 D. Net tract area.....=33.65

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 1 0 0 0 0

E. Afforestation Threshold..... 20% x D =6.73
 F. Conservation Threshold..... 25% x D =8.41

EXISTING FOREST COVER:
 G. Existing forest cover (excluding floodplain).....=14.10
 H. Area of forest above afforestation threshold.....=7.37
 I. Area of forest above conservation threshold.....=6.69

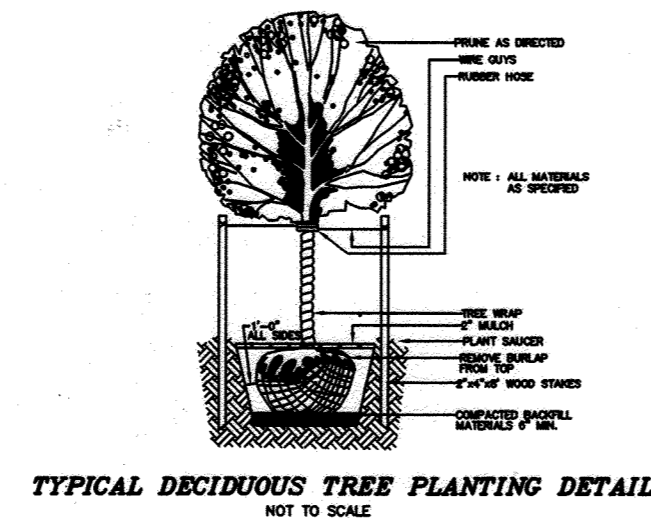
BREAK EVEN POINT:
 J. Forest retention above threshold with no mitigation.....=9.55
 K. Clearing permitted without mitigation.....=4.55

PROPOSED FOREST CLEARING:
 L. Total area of forest to be cleared.....=4.55
 M. Total area of forest to be retained.....=9.55

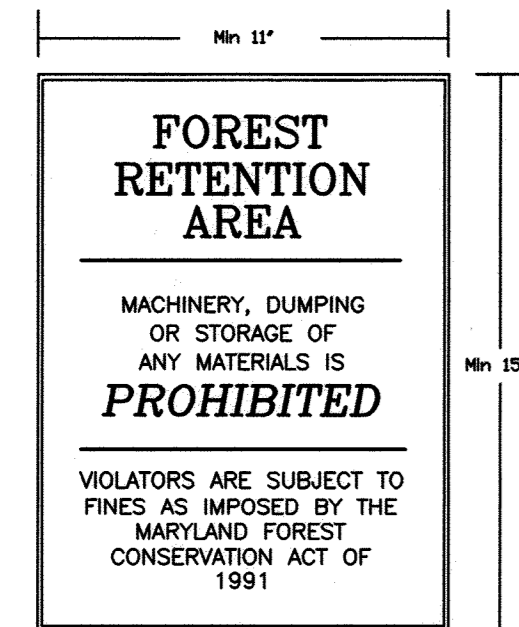
PLANTING REQUIREMENTS:
 N. Reforestation for clearing above conservation threshold.....=1.14
 P. Reforestation for clearing below conservation threshold.....=0.00
 Q. Credit for retention above conservation threshold.....=1.14
 R. Total reforestation required.....=0.00
 S. Total afforestation required.....=0.00
 T. Total reforestation and afforestation required.....=0.00

GENERAL NOTES

- ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH FENCING AND SIGNAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY LAND CLEARING, GRUBBING, OR GRADING ACTIVITIES.
- THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE RETENTION AREA NOT OTHERWISE PROTECTED WILL BE WITHIN FOREST PROTECTION DEVICES.
- ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCE BEING USED AS PROTECTIVE FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.
- ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS.
- INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND DRAINING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
- THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORING OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS.
- REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED.
- THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS. ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVATION AREAS, AS NECESSARY.



TYPICAL EVERGREEN TREE PLANTING DETAIL NOT TO SCALE



SIGNAGE DETAIL NOT TO SCALE

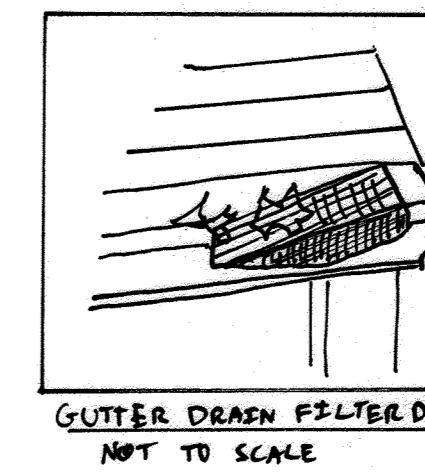
MINIMUM LOT SIZE CHART

LOT NO.	MINIMUM LOT AREA	PIPESTEM	TOTAL LOT AREA
2	500,958 SQ. FT. (11.50 ACRES)	4,043 SQ. FT. (0.09 ACRES)	504,998 SQ. FT. (11.59 ACRES)
3	440,435 SQ. FT. (10.11 ACRES)	2,470 SQ. FT. (0.06 ACRES)	442,905 SQ. FT. (10.17 ACRES)
4	133,147 SQ. FT. (3.05 ACRES)	3,279 SQ. FT. (0.08 ACRES)	136,426 SQ. FT. (3.13 ACRES)
5	140,850 SQ. FT. (3.23 ACRES)	2,607 SQ. FT. (0.06 ACRES)	143,457 SQ. FT. (3.29 ACRES)
6	166,195 SQ. FT. (3.81 ACRES)	2,892 SQ. FT. (0.07 ACRES)	169,087 SQ. FT. (3.88 ACRES)

DEYWELL CHART LOT 4

DREYWELL NO.	AREA OF ROOF	VOLUME R.O.B.	VOLUME PROPOSED TREATMENT	AREA OF TREATMENT	LWD
DW1	874	554	1402	100% #	10'x10'x3.5'
DW2	927	732	1402	100% #	10'x10'x3.5'
DW3	925	782	1402	100% #	10'x10'x3.5'
DW4	933	742	1402	100% #	10'x10'x3.5'
DW5	924	742	1402	100% #	10'x10'x3.5'
DW6	895	522	1402	100% #	10'x10'x3.5'
DW7	895	472	1402	100% #	10'x10'x3.5'
DW8	760	462	1402	100% #	10'x10'x3.5'
DW9	420	362	1402	100% #	10'x10'x3.5'
DW10	434	742	1402	100% #	10'x10'x3.5'

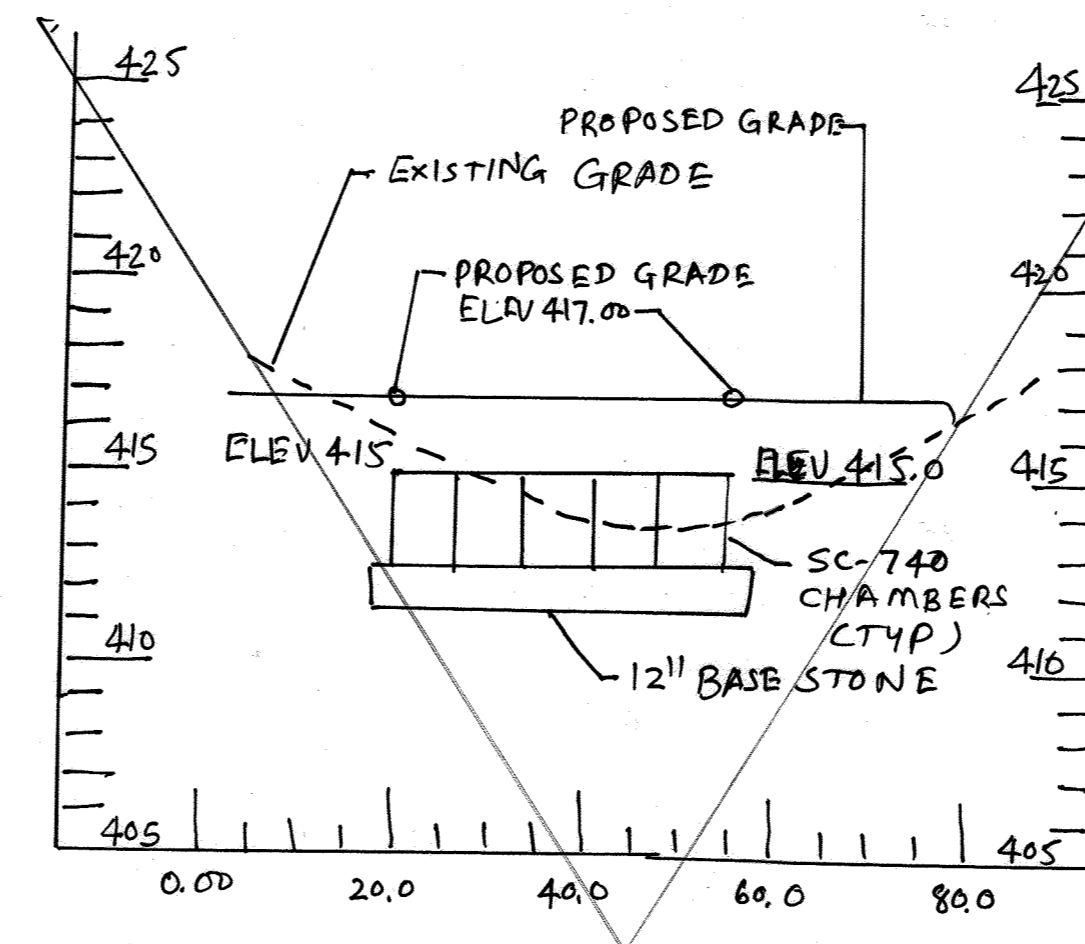
* AREA OF TREATMENT EXCEEDS THAT REQUIRED.



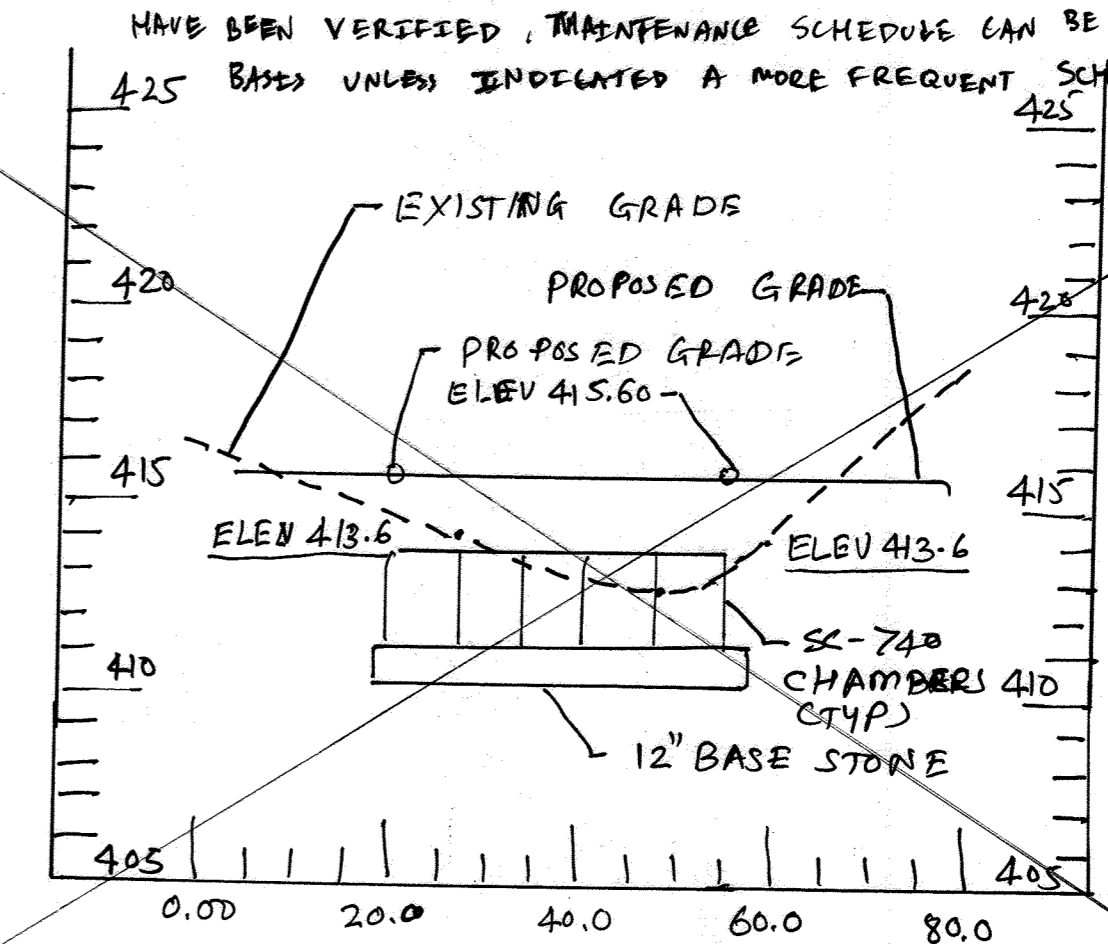
LOT 4 WELL PROPERTY
 12430 HILL CREST
 FULTON, MD 20759

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED STORMWATER DRY WELL (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.
- MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE W/ OPERATION AND MAINTENANCE CRITERIA.
- ONCE PERFORMANCE CHARACTERISTICS OF INFILTRATION FACILITY HAVE BEEN VERIFIED, MAINTENANCE SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS INDICATED A MORE FREQUENT SCHEDULE IS REQUIRED.



MODIFIED DRYWELL CHAMBERS M#1 TO M#5
 SCALE 1" = 20' HORIZONTAL
 1" = 5' VERTICAL



MODIFIED DRYWELL CHAMBERS M#6 TO M#10
 SCALE 1" = 20' HORIZONTAL
 1" = 5' VERTICAL

MODIFIED DRYWELL CHAMBERS M-5 FOR LOT 4

Project No.	15-009
Date	SEP. 2016
Author	JACOB HIKMAT
Check	JACOB HIKMAT
Scale	1" = 50'

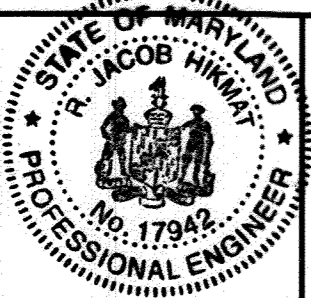
Revision	1	Revise house type grading and setbacks	10/14/16
Revision	2	Revise markers	10/14/16
Revision	3	CHANGE TOTAL SHEET NUMBER	10/14/16

HILL PROPERTY, LOTS 1-6
 (ZIMMERMAN PROPERTY, LOTS 4, 5, & 7)
 TAX MAP 45 - PARCEL 59 - BLOCK 5
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
NOTES AND DETAILS

MILDENBERG, ASSOC., INC.
BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 7850-B Orce Drive, Columbia, Maryland 21044
 (410) 997-0296 Tel. (410) 997-0298 Fax.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 9-12-16



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 09/03/17
 JACOB HIKMAT P.E. DATE: 9/11/16

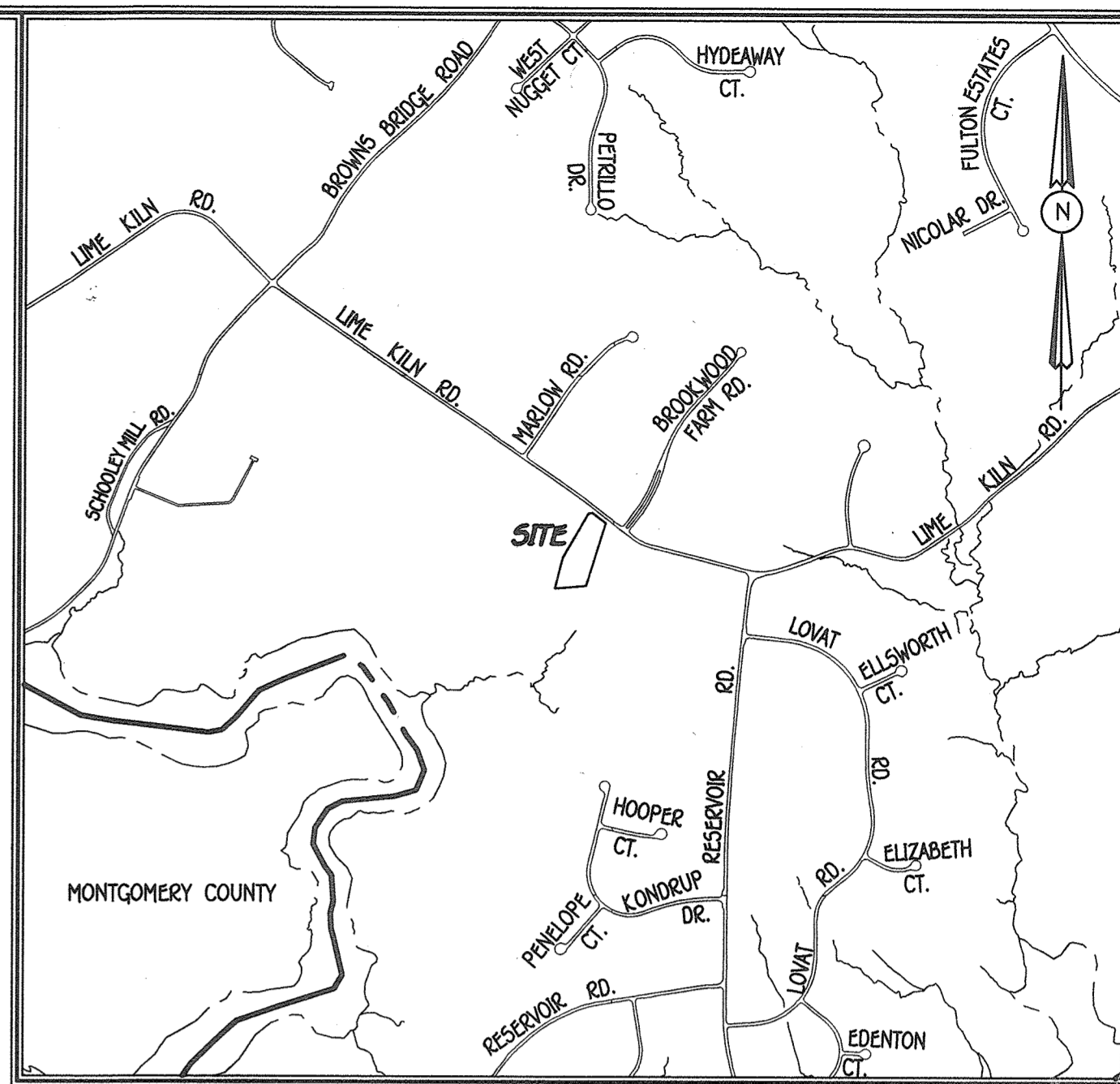


SOILS LEGEND

SOIL	NAME	CLASS	K FACTOR
BeB	Benevola silt loam, 3 to 8 percent slopes	B	0.28
GgB	Glenelg loam, 3 to 8 percent slopes	B	0.20
MaC	Manor loam, 0 to 15 percent slopes	B	0.24

LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
- - - - -	EXISTING 2' CONTOURS	- - - - -	PROPOSED CONTOUR
- - - - -	EXISTING 10' CONTOURS	+	SPOT ELEVATION
---	SOILS LINES AND TYPE	---	LIMITS OF DISTURBANCE
- - - - -	EXISTING TREELINE	- - - - -	PROPOSED TREELINE
---	15% TO 24.9% STEEP SLOPES	---	EXISTING & PROPOSED PAVING
---	25% AND GREATER STEEP SLOPES	---	SILT FENCE
---	100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT	---	PERMANENT SOIL STABILIZATION MATING
---	WETLAND AREA	---	SUPER SILT FENCE
---	25' WETLAND BUFFER	---	STABILIZES CONSTRUCTION ENTRANCE
---	STREAM BANK BUFFER	---	SPECIMEN TREE
---	100 YEAR FLOODPLAIN LINE	---	TREE PROTECTION



VICINITY MAP
SCALE: 1"=1200'

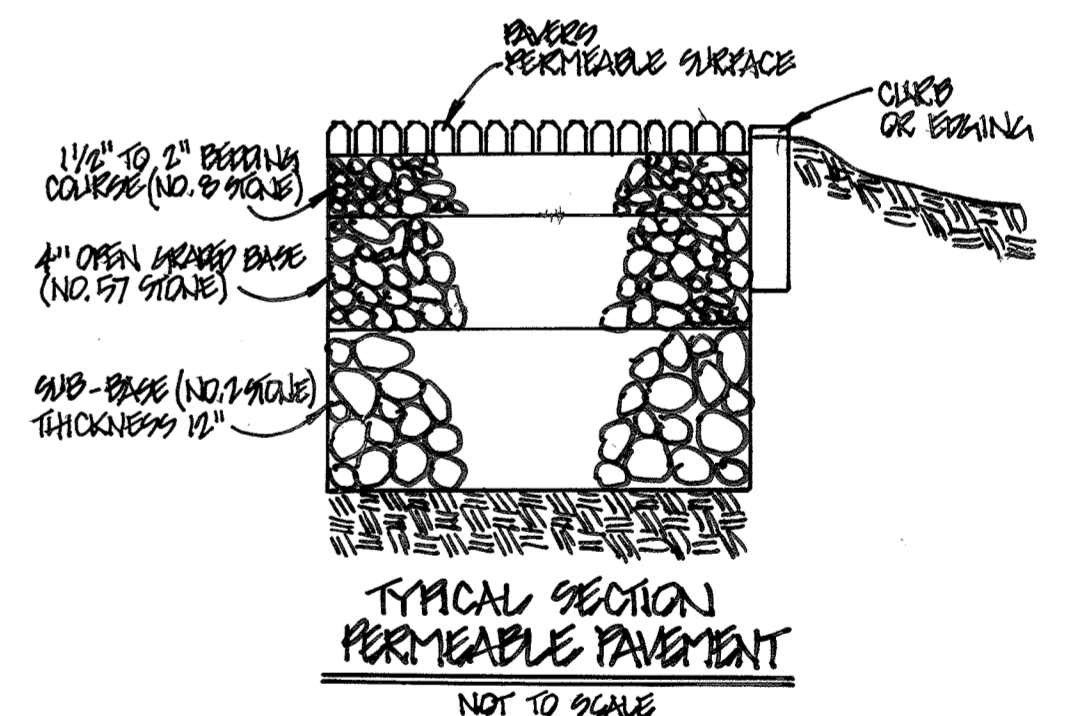
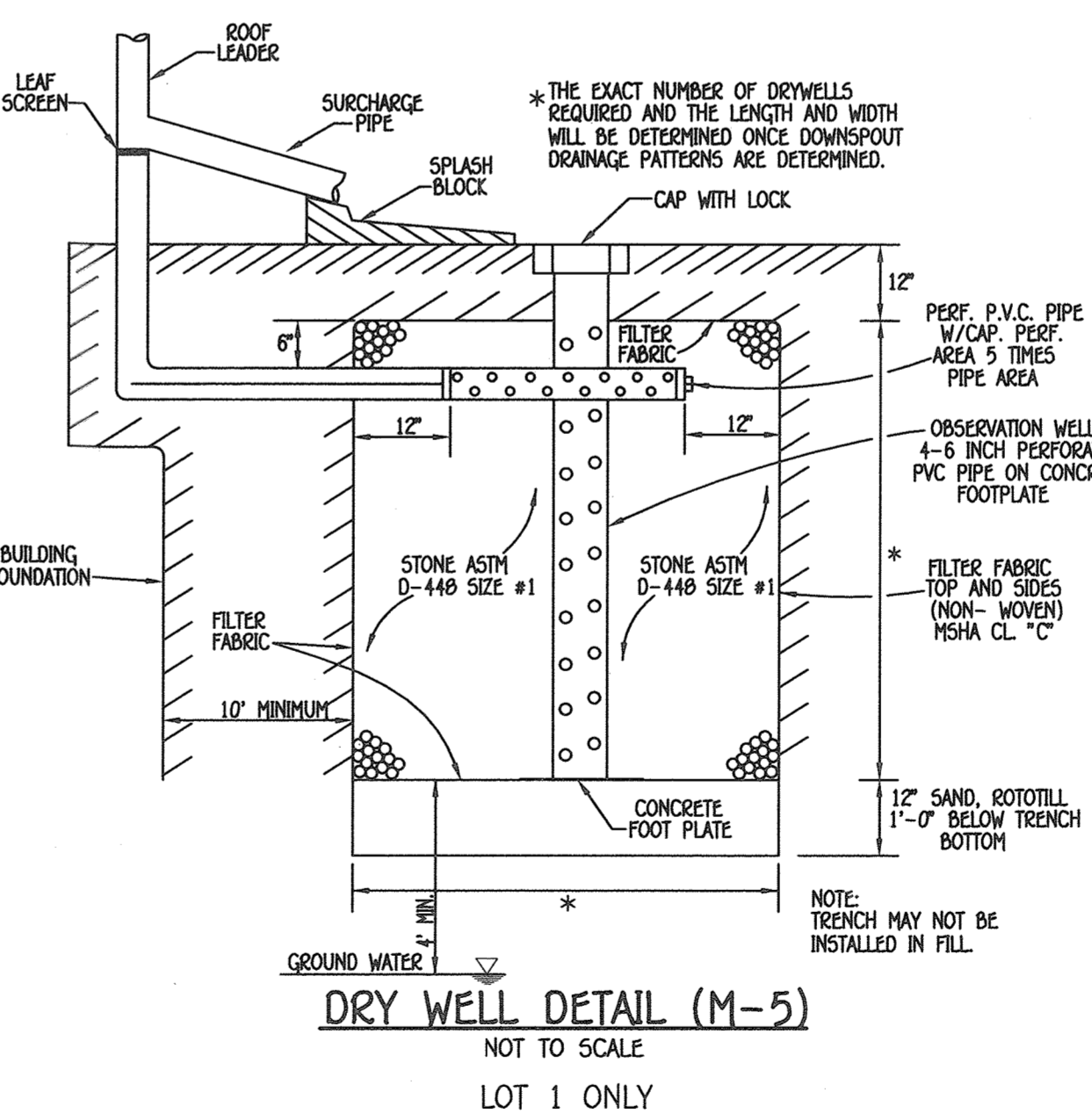
GENERAL NOTES

1. 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.
2. THE CONTRACTOR SHALL NOTIFY (MISS UTILITY) AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
3. BOUNDARY SHOWN HEREON IS BASED ON BOUNDARY SURVEY CONDUCTED BY FISHER, COLLINS & CARTER, INC. IN JUNE 2018.
4. TOPOGRAPHY SHOWN HEREON IS FIELD RUN SURVEY CONDUCTED BY FISHER, COLLINS & CARTER, INC. IN JUNE 2018 AND SUPPLEMENTED WITH HOWARD COUNTY GIS TOPOGRAPHY.
5. DEED REFERENCE: LIBER 1822B, FOLIO 212
6. PREVIOUS DPZ FILE NUMBERS: F-79-131, F-89-032, MP-16-090, F-16-071, BCP-16-001.
7. STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. NON-STRUCTURAL PRACTICES IN ACCORDANCE WITH CHAPTER 5 ARE BEING UTILIZED.
8. THIS PROPERTY IS LOCATED OUTSIDE THE METROPOLITAN DISTRICT. PARCEL IS TO BE SERVED BY PRIVATE WELL AND SEPTIC SYSTEMS.
9. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
10. THE SUBJECT PROPERTY IS ZONED RR-DEO (PER DATE 10/06/2013 COMPREHENSIVE ZONING PLAN).
11. NO 100 YEAR FLOODPLAIN, WETLANDS, STREAM(S) AND/OR THEIR BUFFERS, NOR STEEP SLOPES EXIST IN THE AREA OF PROPOSED DEVELOPMENT.
12. NO WETLANDS EXIST ON-SITE PER PLAT 24085
13. NO SOIL BORINGS ARE NOT REQUIRED FOR THE PROPOSED STORMWATER MANAGEMENT DEVICES. PERC HOLES WERE EXCAVATED IN CLOSE PROXIMITY TO THE PROPOSED INFILTRATORS.
14. NO STRUCTURES EXIST ON THE PROPERTY.
15. PROPERTY LOCATED ON HOWARD COUNTY SOIL SURVEY MAP #23.

DRY WELL CHART

DRYWELL NO.	AREA OF ROOF PER DOWN SPOUT	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF TREATMENT	L	W	D
DW#1	850 SQ. FT.	68 C.F.	140 C.F.	100%*	10'	10'	3.5'
DW#2	1036 SQ. FT.	83 C.F.	140 C.F.	100%*	10'	10'	3.5'
DW#3	804 SQ. FT.	64 C.F.	140 C.F.	100%*	10'	10'	3.5'
DW#4	862 SQ. FT.	69 C.F.	140 C.F.	100%*	10'	10'	3.5'
DW#5	908 SQ. FT.	72 C.F.	140 C.F.	100%*	10'	10'	3.5'
DW#6	853 SQ. FT.	68 C.F.	140 C.F.	100%*	10'	10'	3.5'
DW#7	809 SQ. FT.	65 C.F.	140 C.F.	100%*	10'	10'	3.5'
DW#8	796 SQ. FT.	64 C.F.	140 C.F.	100%*	10'	10'	3.5'
DW#9	1019 SQ. FT.	81 C.F.	140 C.F.	100%*	10'	10'	3.5'

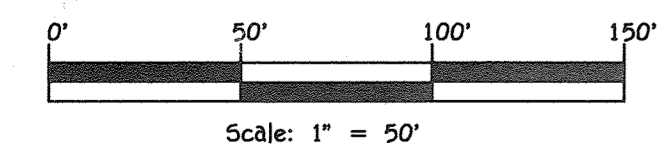
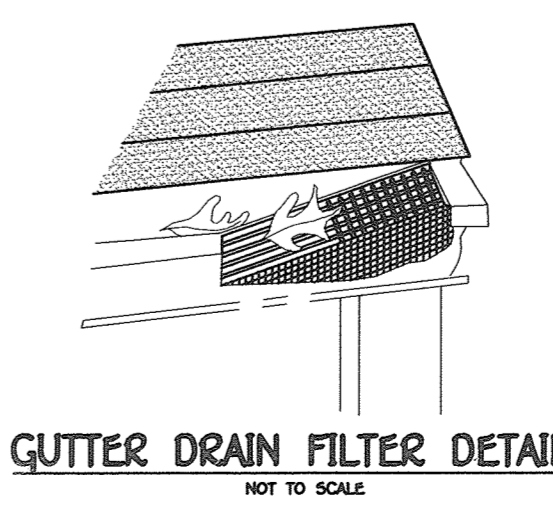
* AREA OF TREATMENT EXCEEDS THAT REQUIRED.



PURPOSE:
THIS PLAN SHEET IS TO SHOW THE REVISIONS TO THE PROPOSED HOUSE, DRIVEWAY, SWM, WELLS TO, GRADING AND SEDIMENT CONTROL FOR LOT 1.

STORMWATER MANAGEMENT NOTES

1. STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, ENVIRONMENTAL SITE DESIGN OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
2. MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 1,000 SQ. FT. OR LESS.
3. DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5% SLOPE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.
4. FINAL GRADING IS SHOWN ON THE PLAN.



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Karl S. ...
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 10-15-18

Chad ...
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 10-12-18

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21142
(410) 461-2005

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. 38386, EXPIRATION DATE: 01/12/2020.

Stephen ...
Signature of Professional Engineer
DATE: 10/26/18



NO.	REVISION	DATE
1	REVISE DRIVEWAY COURT, MOVE DRYWELL, SHOW POOL, & SHOW PERMEABLE PAVING	10/19/18

REVISED FINAL ROAD CONSTRUCTION PLAN GRADING & SEDIMENT CONTROL PLAN HILL PROPERTY, LOT 1 12415 HILL CREST

ZONING: RR-DEO
BLOCK No. 5
PARCEL No. 59
FIFTH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
SCALE: 1"=50' DATE: SEPTEMBER 2018
SHEET 4 OF 4