

Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

Main: 410-313-2640 | Fax: 410-313-2648

TDD 410-313-2323 | Toll Free 1-866-313-6300

www.hchealth.org

Facebook: www.facebook.com/hocohealth

Maura J. Rossman, M.D., Health Officer

RECEIPT DATE: 11/12/19 ONSITE SEWAGE DISPOSAL SYSTEM

P 566456

APPROVAL DATE: 01/30/2020 PERMIT: CONSTRUCTION

A

PROPERTY ADDRESS: 14542 Ambreen Way

SUBDIVISION: Ambreen Woods

LOT: P/B

TAX ID:

CONTRACTOR: J & A Construction Services

EMAIL:

CONTRACTOR ADDRESS: 7991 Bennett Branch Road, Mount Airy, MD 21771

PHONE: 410-635-2484

PROPERTY OWNER: Burkard Homes

EMAIL:

OWNER ADDRESS: 5850 Waterloo Road, Suite 140, Columbia, MD 21045

PHONE: 240-375-1052

SEPTIC TANK SIZE (GALLONS): 2000

TANK MANUFACTURER: BABYLON

PUMP MODEL:

PUMP SIZE:

PUMP TANK CAPACITY:

DISTRIBUTION SYSTEM:

GRAVITY

PRESSURE DOSED

BEDROOMS: 5

APPLICATION RATE: 1.2

TRENCHES:	LINEAR FEET REQUIRED: 208.5 / 115	INLET DEPTH: 3.5 2'
	TRENCH WIDTH: 3	MAXIMUM BOTTOM DEPTH: 5
	MINIMUM SPACE BETWEEN TRENCHES: 10	EFFECTIVE AREA BEGINNING DEPTH: 2
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:		

ISSUED BY: Dana Bernard

ISSUE DATE: 11/12/19

EXPIRATION DATE: 11/12/20

NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION

NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING

NOTE: STONE MUST BE APPROVED BY HEALTH DEPARTMENT AND GRAVEL TICKET MUST BE AVAILABLE FOR REVIEW.

NOTE: WATERTIGHT TANKS REQUIRED

NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET DOWNGRADIENT FROM ANY WATER WELL

NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS

NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM

ELECTRICAL PERMIT ISSUED E N/A

NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRETREATMENT UNITS BE PUMPED AT A FREQUENCY ADEQUATE TO ENSURE THAT SOLIDS ARE NOT DISCHARGED TO THE DISPOSAL AREA

NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.

PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.

CALL 410-313-1771 TO SCHEDULE INSPECTIONS.

279189279189

NOT TO SCALE

SEE ATTACHED
AS BUILT

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
<u>3'</u>	<u>2'</u>	<u>5'</u>
NUMBER OF TRENCHES		<u>2</u>
TOTAL LENGTH		<u>114'</u>
ABSORPTION AREA		<u>342 SF</u>
DISTRIBUTION BOX LEVEL		<u>SPEED</u>
DISTRIBUTION BOX BAFFLE		<u>YES</u>
DISTRIBUTION BOX PORT		<u>YES</u>

PRE-CONSTRUCTION:

SEPTIC TANK DATA

SEPTIC TANK I LEVEL _____

MANUFACTURER BABYLON

CAPACITY 2000 GAL

SEAM LOC TOP

TANK LID DEPTH 3'

BAFFLES YES

BAFFLE FILTER NO

MANHOLE LOC FRONT/BACK

6" PORT LOC _____

WATERTIGHT TEST -

SLOTTED YES

DATE ON LID 12/13/2019

PUMP/SEPTIC TANK LEVEL

MANUFACTURER _____

CAPACITY _____ GAL

SEAM LOC _____

TANK LID DEPTH _____

BAFFLES _____

BAFFLE FILTER _____

MANHOLE LOC _____

6" PORT LOC _____

WATERTIGHT TEST _____

SLOTTED _____

DATE ON LID _____

PRE CON: SDA TANK STAKED. FALL IS ~~1.4%~~ CAUTION 1.4%.
 SHOT EST @ BASEMENT FLOOR. UNCOVER SHC + CONFIRM INSTALL.
 CALL IF PROBLEM W/ FALL. MOVED TRENCHES UP 10' TO CONSERVE
 SDA. IF FALL DOES NOT WORK, ROLL 10' OFF LOWER TRENCH
 (ORIGINAL PLAN APPROVED 8/22/2019)
 INSTALLATION: 01/24/2020 SHC WAS LOWERED OVER A FOOT, UNABLE TO MAKE FALL
 TANK COVER, AND ~~BEEN~~ TRENCH INLET. STOP INSTALL AND REDESIGN. (X)
 01/30/2020 TANK AND SHC OUT ON HOSE WAS RAISED ~1'. CANNOT MAKE
 TRENCH LAYOUT TO UTILIZE SDA. ENGINEER LEFT TOO MUCH
 WASTED SDA SPACE (X) (PM) TRENCHES COMPLETE. D BOX LEVELLED
 W/ SPEED LEVELS (X)

FINAL INSPECTOR

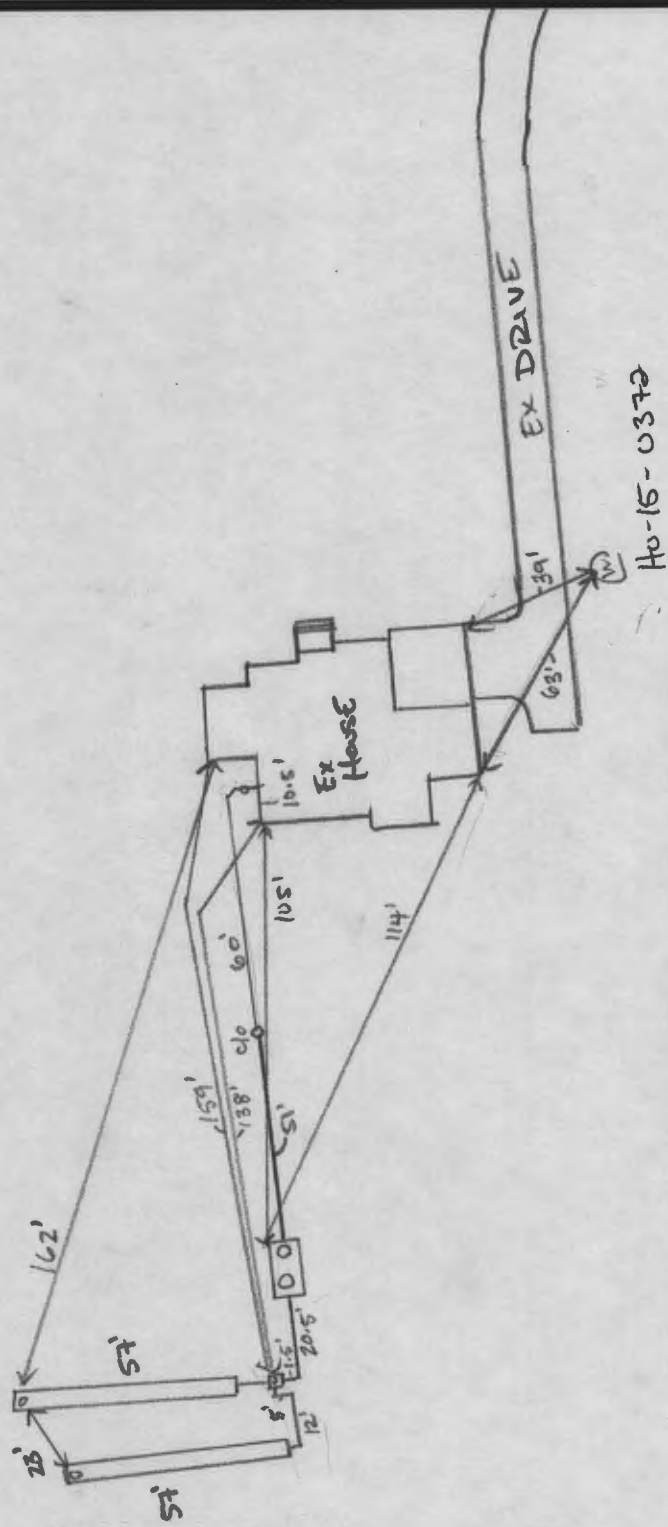
DATE OF APPROVAL

01/30/2020

14542 AMBREEN WOODS

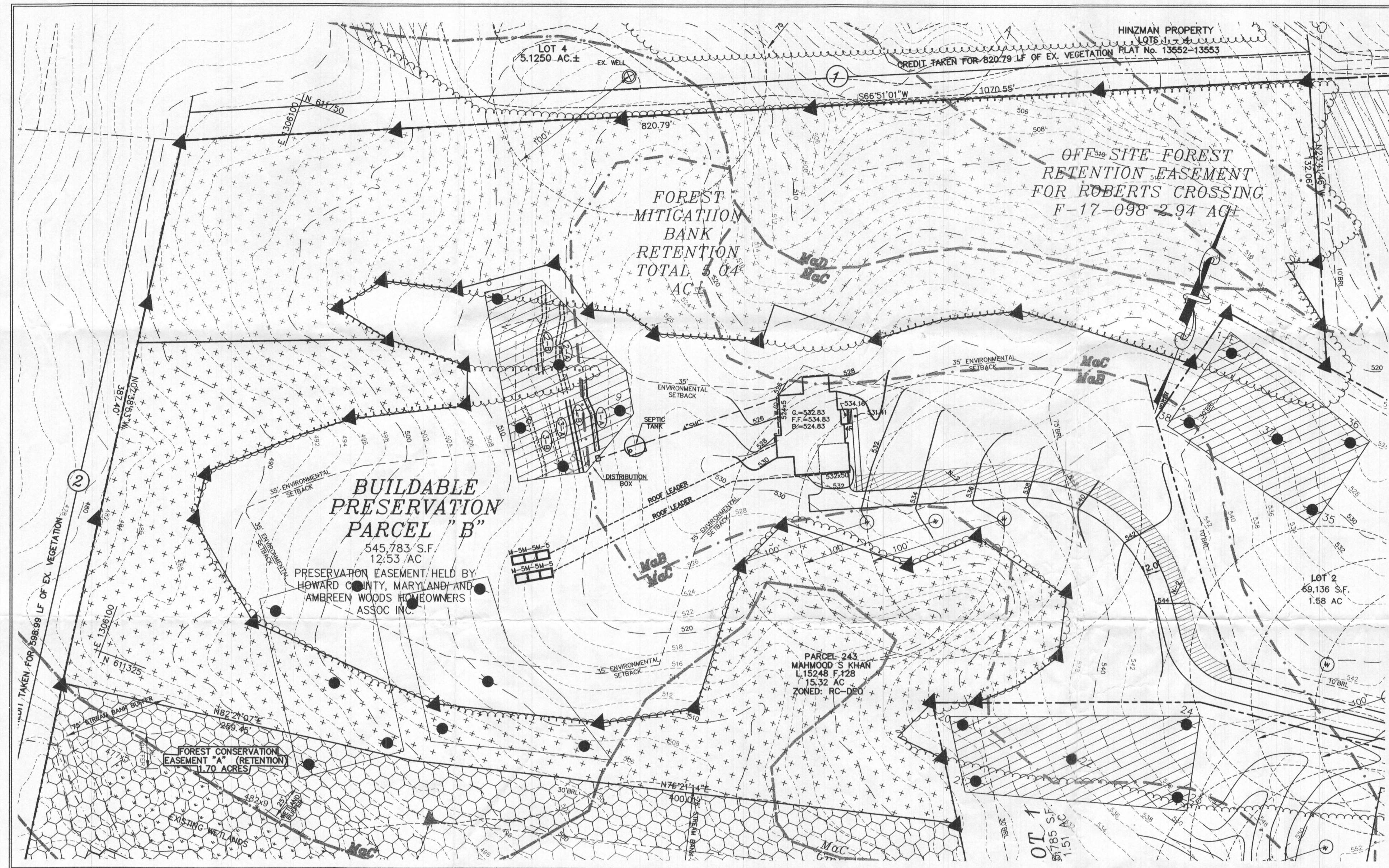
NOT TO SCALE

1" = 50'

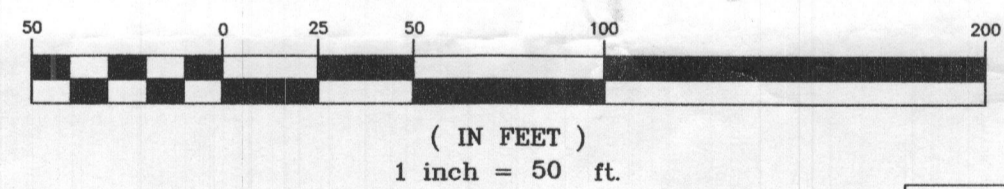


SOILS TABLE (WITHIN LOD)

SYMBOL	RATING	NAME	K FACTOR	MAP #
MaB	(B)	MANOR LOAM, 3-8% SLOPES	.24	3
MaC	(B)	MANOR LOAM, 8-15% SLOPES	.24	3
MaD	(B)	MANOR LOAM, 15-25% SLOPES	.24	3



GRAPHIC SCALE



SEPTIC TRENCH ELEVATIONS

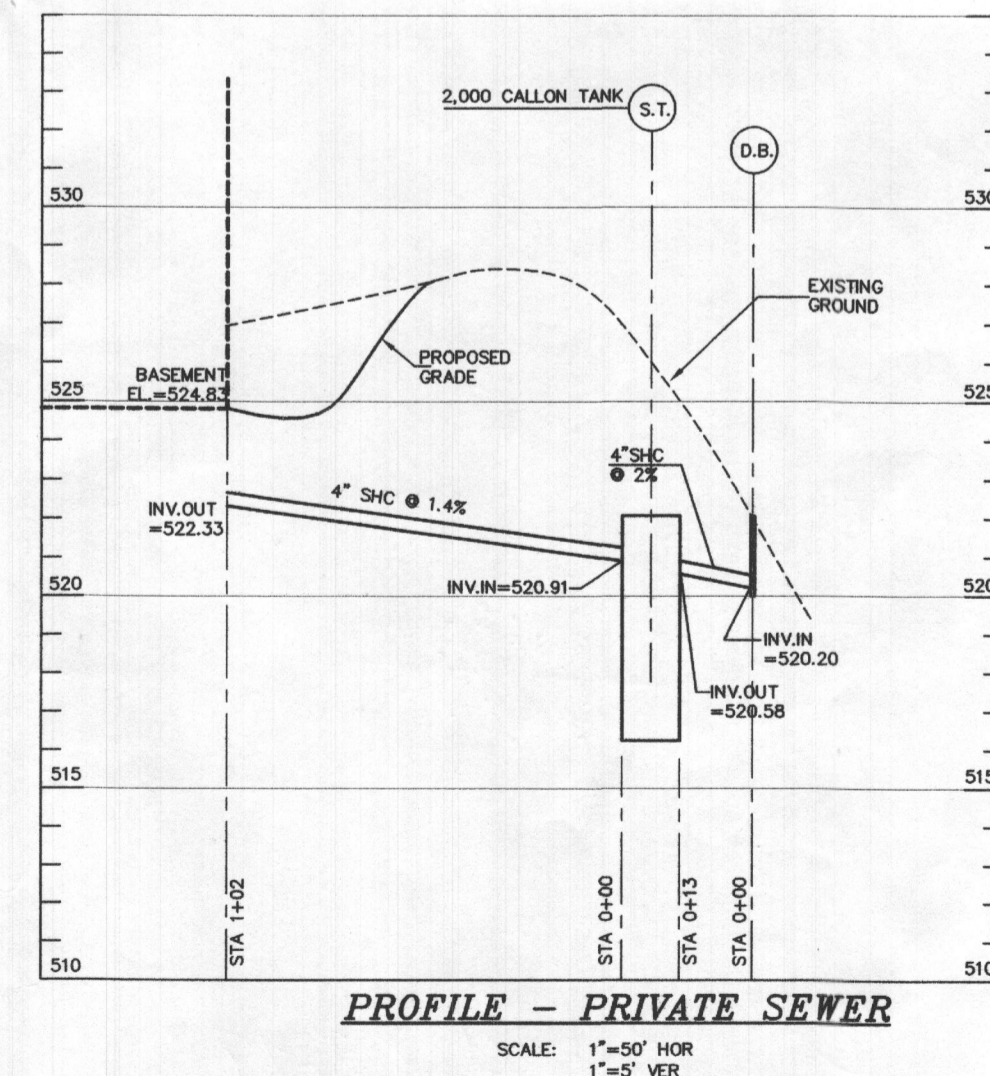
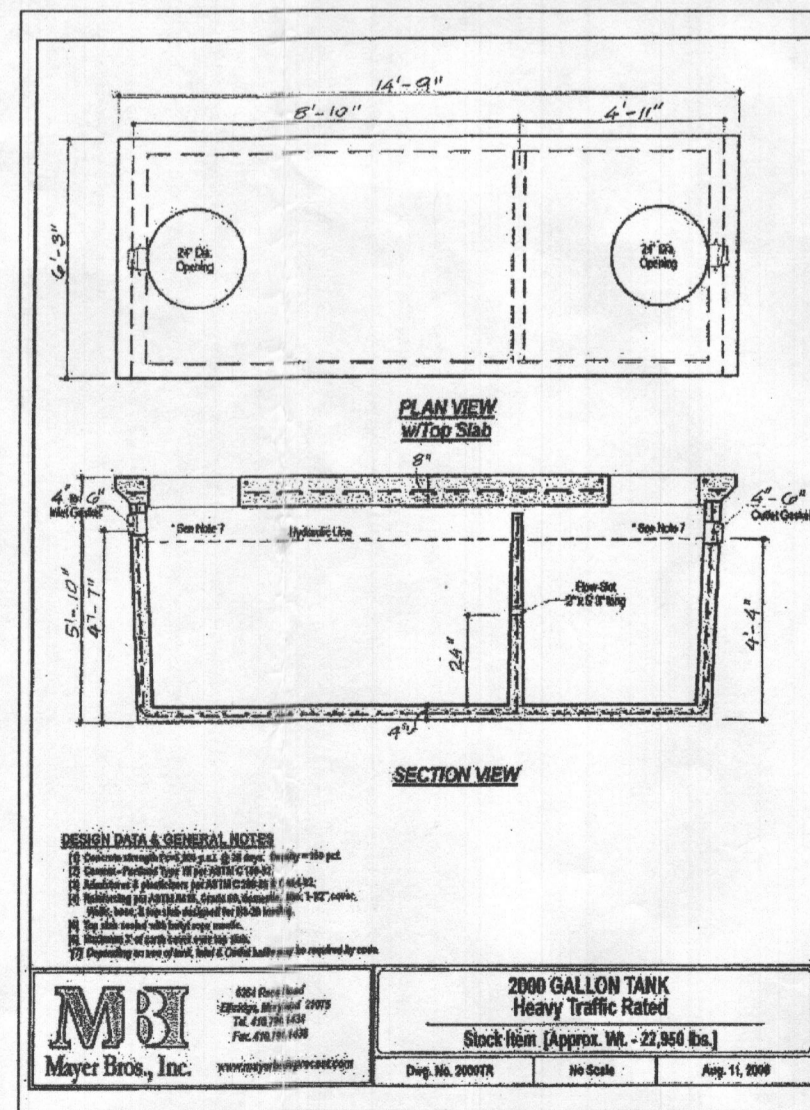
TRENCH	EX. GROUND ELEVATION	INVERT ELEVATION	BOTTOM OF TRENCH EL.
PRIMARY A	522.0	520.0	517.0
PRIMARY B	519.5	517.5	514.5
SECONDARY A	519.5	516.5	514.5
SECONDARY B	517.5	514.5	512.5
TERTIARY A	516.5	514.5	511.5
TERTIARY B	514.0	512.0	509.0

SEWER SYSTEM ELEVATIONS

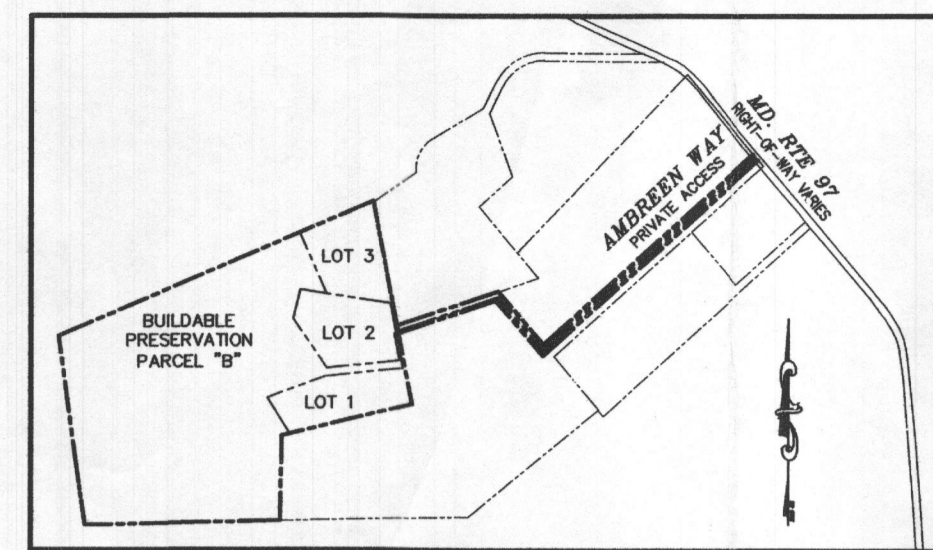
DESCRIPTION	ELEVATION
BASEMENT ELEVATION	524.83
INVERT OUT OF THE HOUSE	522.33
INVERT INTO SEPTIC TANK	520.91
INVERT OUT OF SEPTIC TANK	520.59
FINISHED GRADE AT SEPTIC TANK	526.00
TOP OF THE TANK	522.08
INVERT INTO DISTRIBUTION BOX	520.20

SEPTIC TRENCH SIZING

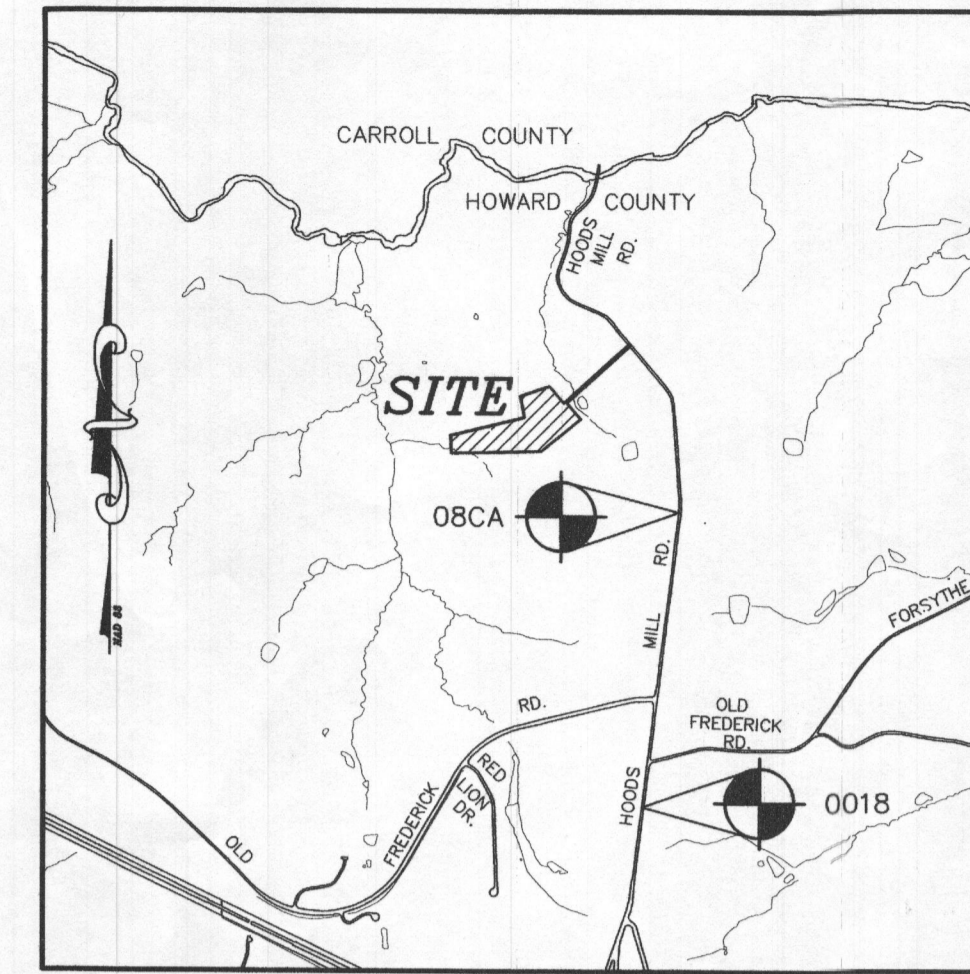
SYSTEM	APPLICATION RATE (GPD / SF)	MAXIMUM FLOW RATE (GPD)	AREA OF REQUIRED TRENCH (SF)	TRENCH WIDTH (FT)	LENGTH OF REQUIRED TRENCH (LF)	EFFECTIVE DEPTH BEGINS (FT)	TRENCH BOTTOM DEPTH (FT)	TRENCH REDUCTION FACTOR**	ADJUSTED LENGTH OF REQUIRED TRENCH (LF)	MINIMUM TRENCH SPACING (FT)	NUMBER OF TRENCHES	PROVIDED TRENCH LENGTH (FT)
PRIMARY	1.2	750	625	3	208.3	2.0	5.0	0.55	114.6	10.0'	2	57.3'
SECONDARY	1.2	750	625	3	208.3	3.0	5.0	0.62	129.0	10.0'	2	64.5'
TERTIARY	1.2	750	625	3	208.3	2.0	5.0	0.55	114.6	10.0'	2	57.3'



PROFILE - PRIVATE SEWER



LOCATION PLAN
SCALE: 1"=600'



VICINITY MAP
SCALE: 1"=2000'
ADC MAP: 10 GRID: B-4

GENERAL NOTES:

- THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- PARCEL BACKGROUND:**
TAX MAP : 243
PARCEL : 243
LOT : BUILDABLE PRESERVATION PARCEL "B"
DEED REFERENCE: 15248/128
ELECTION DISTRICT: FOURTH
ZONING : RR-DEO
AREA : 12.53 AC
DPZ FILES: EOP-16-054, F-17-036
ADDRESS: 14542 AMBREEN WOODS, COOKSVILLE, MD 21723
- TOPOGRAPHY FOR THE DEVELOPED AREAS IS BASED ON FIELD RUN SURVEY PERFORMED BY MILDENBERG, BOENDER & ASSOC., INC. ON OR ABOUT DECEMBER 2014.
- PRIVATE WELL AND SEPTIC WILL BE UTILIZED.
- 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. RECORDATION OF A MODIFIED EASEMENT SHALL NOT BE NECESSARY.
- ANY CHANGES TO THE LOCATION OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED PLAN MAY BE REQUIRED.
- THE MAXIMUM EARTH COVER OVER THE TANK IS THREE (3) FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
- THE WELL TAG # HO-15-0372 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
- ANY WELLS OR SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELL AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.

ON-SITE SEWAGE DISPOSAL SYSTEM:

RESIDENTIAL SYSTEM DESIGN:
5 BEDROOM HOUSE (LIVING AREA=2,330 SQ.FT.)
150 GALLONS X # OF BEDROOMS = VOLUME OF WASTEWATER / DAY
150 X 5 = 750 GPD

PRIMARY AND TERTIARY SYSTEM:

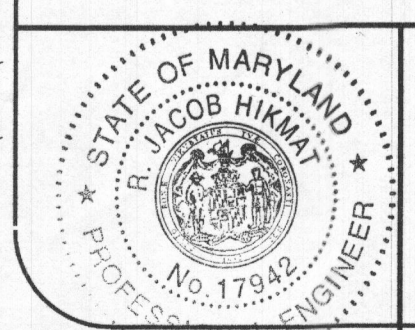
PERC RATE = 2-5 MINUTES/INCH
APPLICATION RATE = 1.2 GPD/SQ.FT.
DESIGN FLOW x APPLICATION RATE = SQ.FT. OF TRENCH REQUIRED
750 ÷ 1.2 = 625 SQ.FT.
SQ.FT. REQUIRED ÷ WIDTH OF TRENCH = LENGTH OF TRENCH
625 ÷ 3.0' = 208.3 FT
USE 36" OF GRAVEL BELOW DRAIN PIPE
208.3 X 0.5 = 104.15
USE TWO (2) REQUIRED LENGTH OF TRENCHES (52'), PROVIDED (57.3')
A MINIMUM OF 10' BETWEEN TRENCHES UTILIZING SIDEWALL REDUCTION CREDIT.
MINIMUM TANK CAPACITY = 2,000 GALLONS
USE MAYER BROS. PRODUCT OR EQUIVALENT.

SECONDARY SYSTEM:

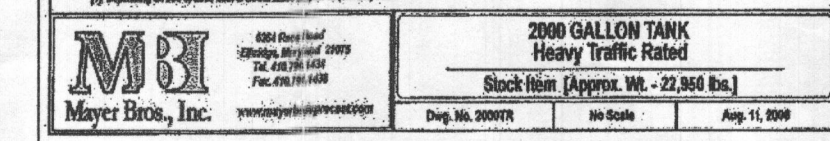
PERC RATE = 6-15 MINUTES/INCH
APPLICATION RATE = 1.2 GPD/SQ.FT.
DESIGN FLOW x APPLICATION RATE = SQ.FT. OF TRENCH REQUIRED
750 ÷ 1.2 = 625 SQ.FT.
SQ.FT. REQUIRED ÷ WIDTH OF TRENCH = LENGTH OF TRENCH
625 ÷ 3.0' = 208.3 FT
USE 24" OF GRAVEL BELOW DRAIN PIPE
208.3 X 0.62 = 129.14 USE TWO (2) TRENCHES (64.5')
A MINIMUM OF 10' BETWEEN TRENCHES UTILIZING SIDEWALL REDUCTION CREDIT.

Approved Septic System Plan
Howard County Health Department
Dana Beard 8/22/19
Signature Date
Approved for 5 Bedrooms Only

P:\2004\18-010 AMBREEN WOODS (TMA)\DWG\PARCEL-B-BURKWARD HOUSE.DWG



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 09/03/2020.
R. JACOB HIKMAT
R. JACOB HIKMAT, P.E. DATE: 07/26/19



Project	date	18-010	JUL 2019
Illustration	engineering	MAM	MAM
scale	approval	1"=60'	RJH

revisions	description	date

AMBREEN WOODS, BUILDABLE PRESERVATION PARCEL "B"
14542 AMBREEN WOODS, COOKSVILLE, MD 21723
TAX MAP 08, GRID 05, PARCEL 243, ZONED RC-DEO
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
ONSITE SEPTIC DISPOSAL PLAN

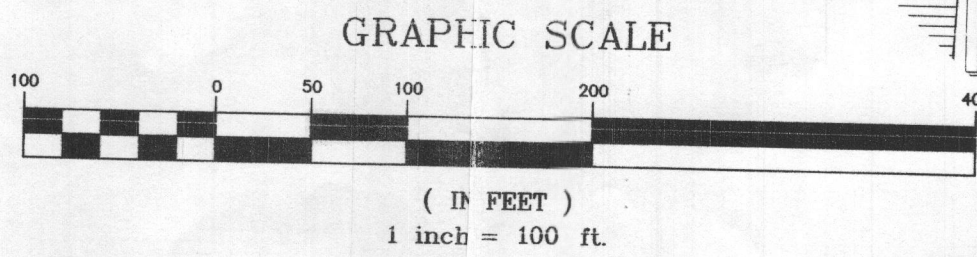
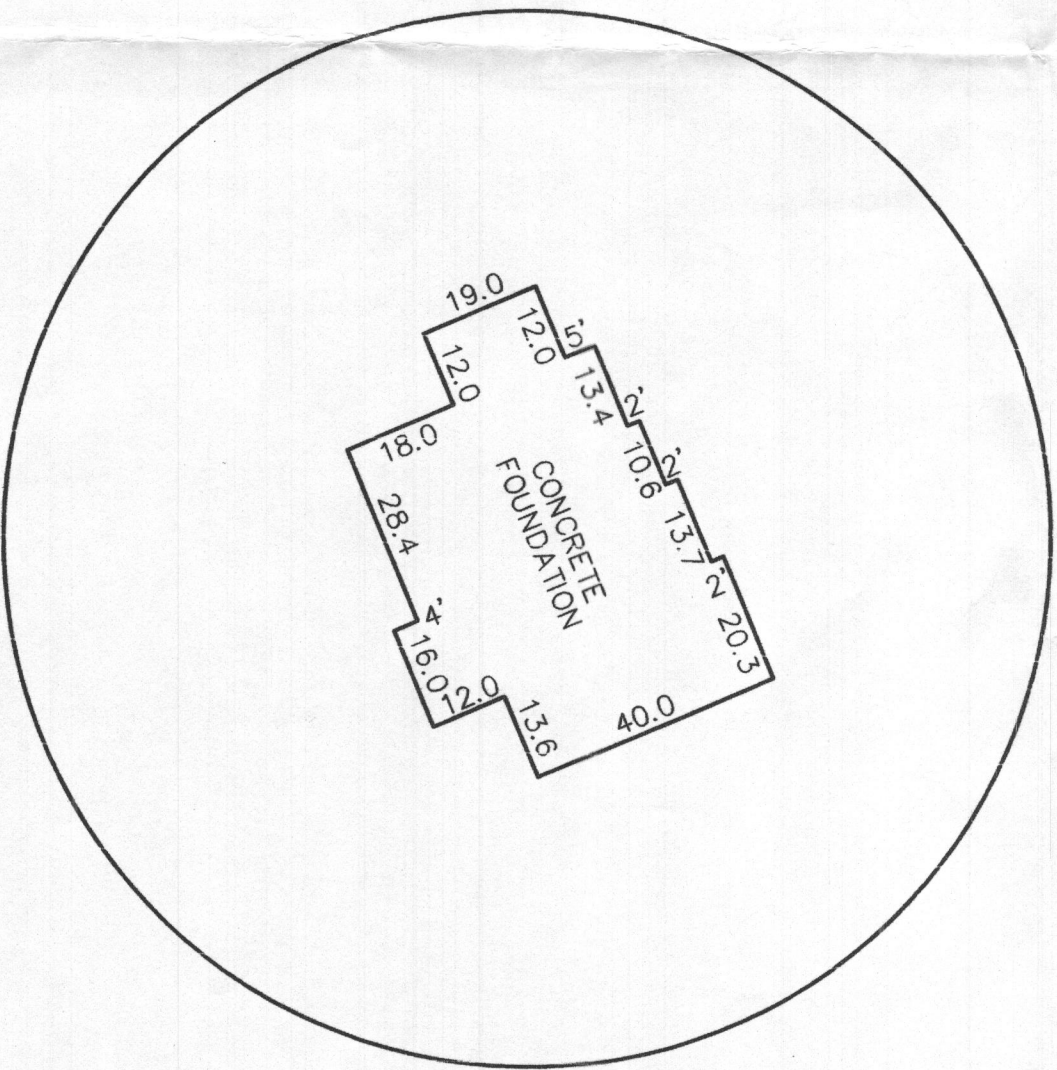
MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
7560-B Grace Drive, Columbia, MD 21044
(410) 997-0236 Tel. (410) 997-0238 Fax.

P:\2004\18-010 AMBREEN\DWG\WALLCHECK.PAR-B.DWG

OWNERS

GREGORY CICHETTI
SANDRA CICHETTI
2665 THOMPSON DRIVE
MARRIOTTSTVILLE, MD 21104

DETAIL A
SCALE: 1"=30'



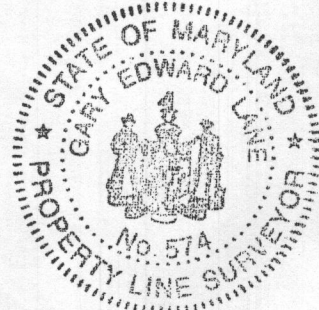
ADDRESS: 14542 AMBREEN WAY
TOP OF WALL ELEV. = 5'3.5±
FIRST FLOOR ELEV. = N/A

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 574, EXPIRATION DATE: 03/21/21.

THE INFORMATION SHOWN HAS BEEN ESTABLISHED BY CURRENT ACCEPTABLE SURVEY PROCEDURES AND FROM AVAILABLE RECORD INFORMATION. THIS DRAWING IS TO BE USED FOR TITLE TRANSFER FINANCING, OR REFINANCING ONLY AND IS NOT TO BE USED FOR THE ESTABLISHMENT OF PROPERTY LINES, LOCATION OF FENCES, GARAGES, BUILDINGS, OR OTHER EXISTING OR FUTURE IMPROVEMENTS.

Gary E. Lane
GARY E. LANE
PROP. LINE SURVEYOR
MARYLAND No. 574

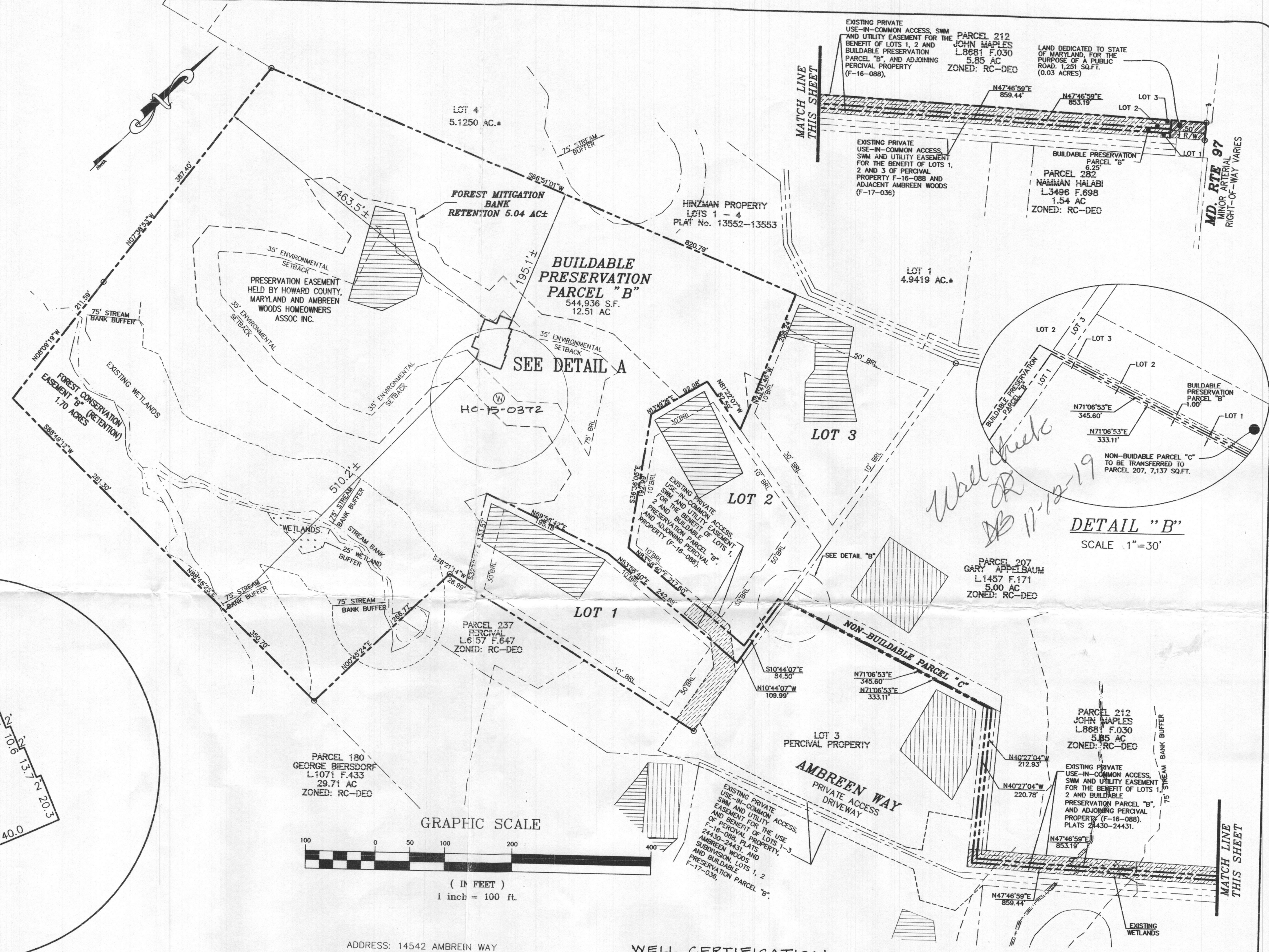
11-06-2019
DATE



WELL CERTIFICATION

THE EXISTING WELL TAG #H015-0372 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.

*Well checks
11-12-19*



DETAIL "B"
SCALE 1"=30'

PARCEL 207
GARY APPELBAUM
L1457 F.171
5.00 AC
ZONED: RC-DEC

PARCEL 212
JOHN MAPLES
L868 F.030
5.85 AC
ZONED: RC-DEC

**LOCATION DRAWING
AMBREEN WOODS
BUILDABLE PRESERVATION PARCEL "B"**

TAX MAP 8
PARCEL NO. 237, 243
GRID NO. 5
FOURTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
EX. ZONING RC-DEC
SCALE: 1"=100'
DATE: 11/04/19

**MILDENBERG,
BOENDER & ASSOC., INC.**

Engineers Planners Surveyors
7350-B Grace Drive, Columbia, Maryland 21044
(410) 997-0296 Tel. (410) 997-0298 Fax.

Cabahug, Joseph

From: Cabahug, Joseph
Sent: Monday, January 27, 2020 8:54 AM
To: Tim@burkardhomes.com
Cc: Wolf, Kevin; Rappaport, Ryan; Thomas, Susan; Martin, Sharhonda; Bricker, Robert
Subject: 14542 Ambreen Way_Septic Install

Hello Tim,

This is a follow-up email to the septic install inspection out at 14542 Ambreen Way. The sewer line out of the house was lowered over one foot and recessed about 10' into the house causing a fall issue to the tank. The lowering of the sewer out of the house causes too much cover to be on top of the tank and, more urgently, the system cannot make the trench inlet depth per design on the approved OSDS plan (Signed 08/22/2019). Because of this, the install cannot proceed.

Corrective actions include redesign of the OSDS system or redesigning the plumbing of the house to raise the sewer house connection. Please submit three copies of an OSDS plan reflecting the corrective action pursuant to a viable septic system.

Bests,

Joseph C. Cabahug - LEHS
Environmental Health Specialist
Howard County Health Department - Well & Septic Program
Bureau of Environmental Health
8930 Stanford Blvd.
Columbia, MD 21045
(o) 410-313-2643
(f) 410-313-2648



jcabahug@howardcountymd.gov

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July 29, 2019

Dana Bernard, R.E.H.S./R.S., L.E.H.S.
Environmental Health Specialist II
Well & Septic Program
Bureau of Environmental Health
Howard County Health Dept.
8930 Stanford Blvd.
Columbia, MD 21045

RE: Ambreen Woods, Buildable Preservation Parcel "B"
(F-17-036)
Tax Map 8, Grid 5, Parcel 243

Dear Ms. Bernard:

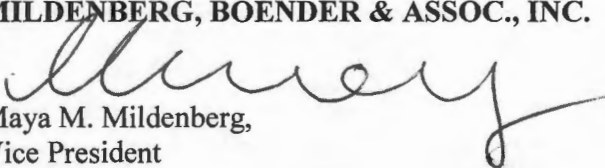
On behalf of our client, we are submitting three (3) copies of the revised Onsite Septic Disposal Plan for your review and approval.

The following is a response to your comments dated July 25, 2019:

1. In order to provide gravity sewer to the basement and maintain the proposed trenches within the "effective area", the slope of the 4" SHC cannot be increased to 2% as recommended. Please note that location of the proposed trenches have been revised to increase SHC slope from 1% to 1.4%. Private Sewer Profile has been revised accordingly.
2. Tank detail has been revised.
3. Address has been provided.

Thank you for your consideration of this submittal. If you have any questions or require any additional information, please do not hesitate to contact this office.

Sincerely,
MILDENBERG, BOENDER & ASSOC., INC.


Maya M. Mildenberg,
Vice President

Cc: Client

July 1, 2019

Mr. Jeff Williams, Program Supervisor
Well & Septic Program
Bureau of Environmental Health
Howard County Health Department
7178 Columbia Gateway Drive
Columbia, Maryland 20146-2147

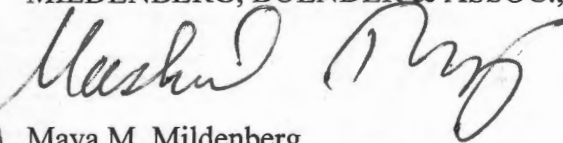
RE: Ambreen Woods, Buildable Preservation Parcel "B"
(F-17-036)
Tax Map 8, Grid 5, Parcel 243

Dear Mr. Williams:

On behalf of our client, we are submitting three (3) copies of Onsite Sewage Disposal Plan for your review and approval.

Thank you for your time and effort. If you have any questions or comments, please do not hesitate to contact this office.

Sincerely,
MILDENBERG, BOENDER & ASSOC., INC.

for 
Maya M. Mildenberg
Vice President

Cc: Client

P:\2004\18-010 AMBREEN WOODS (TIM)\DOX\septic to health.docx

Ambreen Woods
Pres Parc B

OSDS

Maura J. Rossman, M.D., Health Officer

TO: Mildenberg, Boender, and Associates Engineering, Inc.
C/O Maya Mildenberg
Via E-mail: maya@mba-eng.com

FROM: Dana Bernard, REHS/L.E.H.S.
Well and Septic Program

RE: 14542 Ambreen Way
(Ambreen Woods)

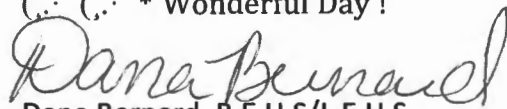
DATE: July 25, 2019

The following items will have to be addressed and a new OSDS plan must be submitted.

- We recommend a 2% fall from house into the septic tank to ensure proper function and distribution.
- We require a 2 compartment tanks. The tank submitted does not show 2 compartments.
- Please place the address on the plan so it can be filed properly. All information in our office is filed according to addresses.

Thank you & Have a

.....*) ..*)
(. . .) * Wonderful Day !

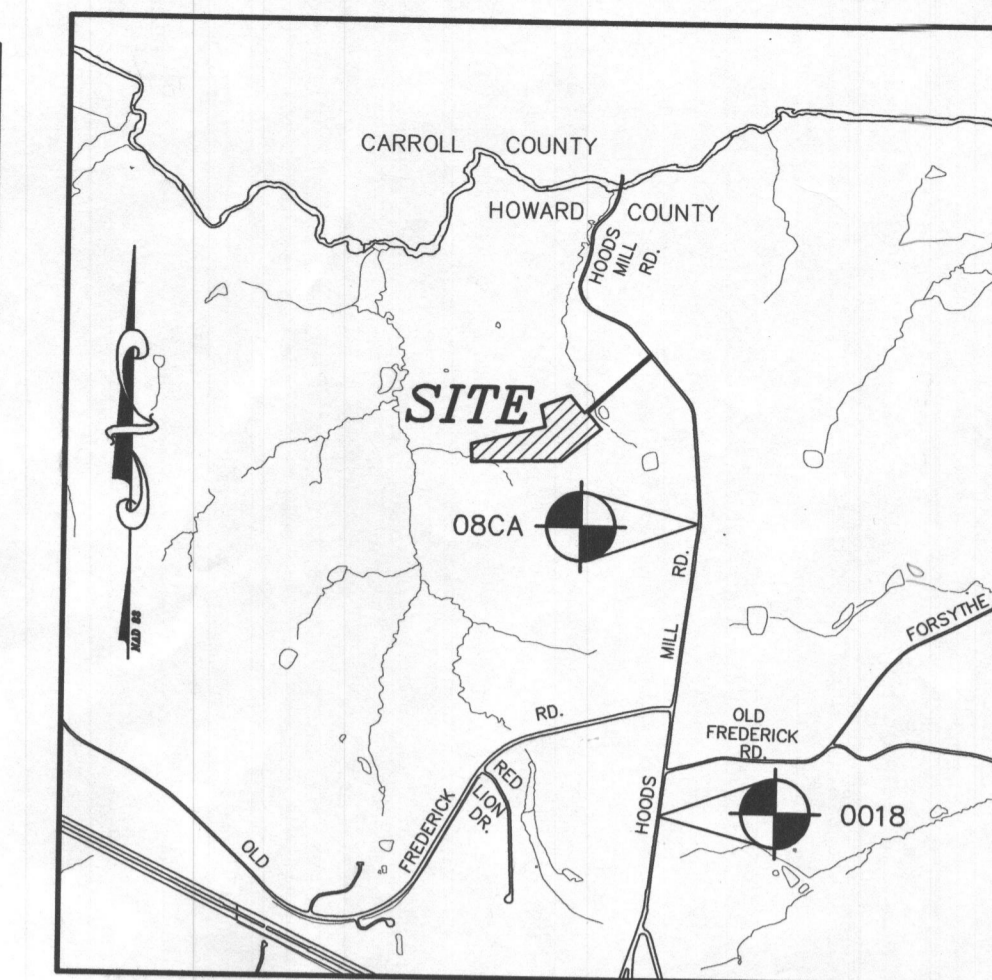
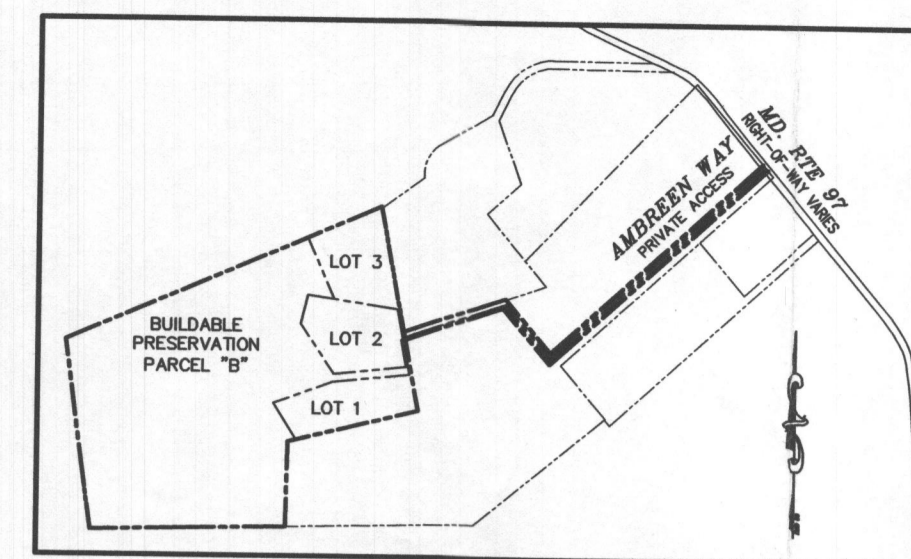
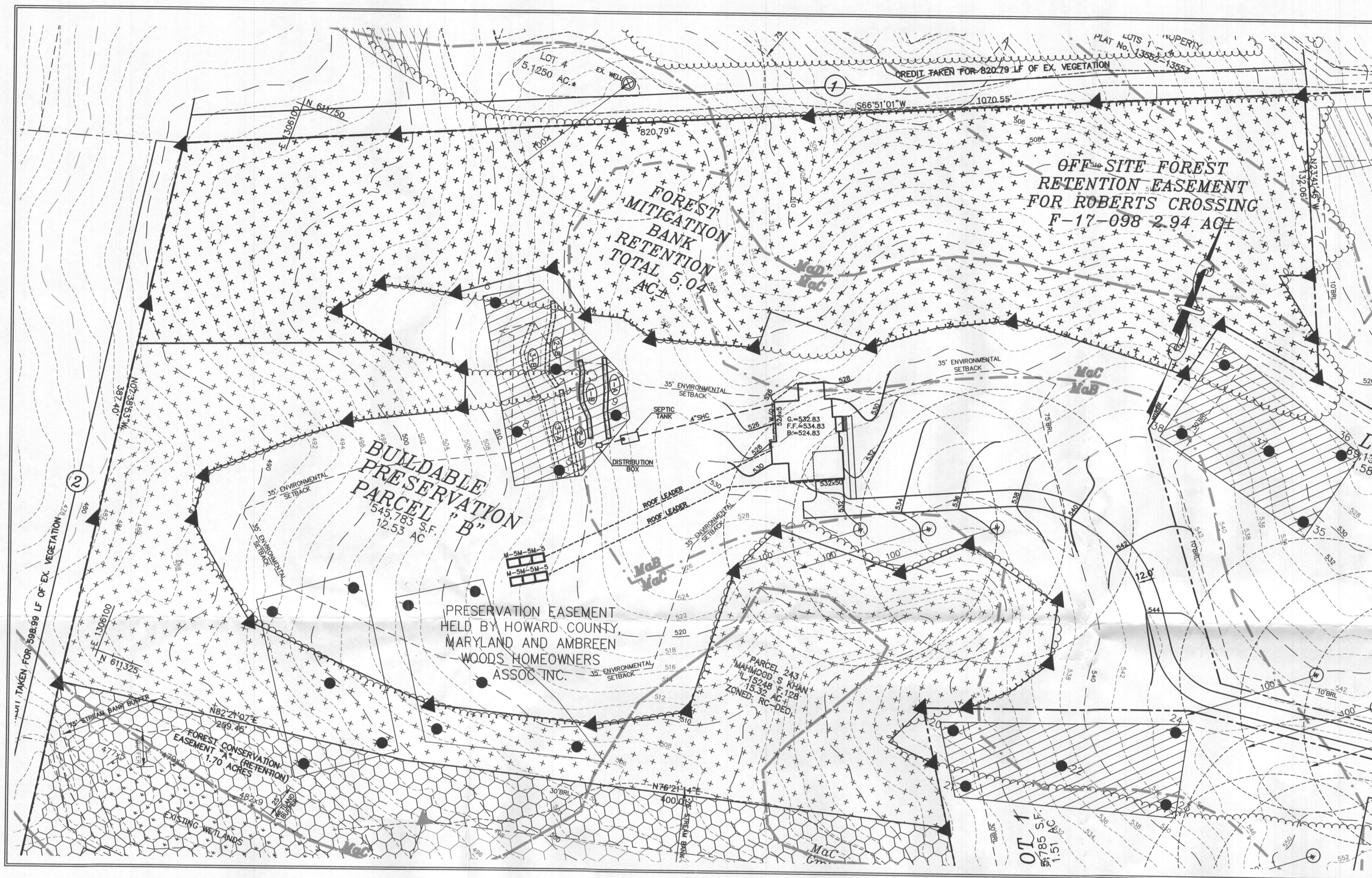


Dana Bernard, R.E.H.S./L.E.H.S.
Environmental Specialist II
Well and Septic Program
Phone (410) 313-2775
E-mail: DBernard@howardcountymd.gov

cc: Well & Septic program file

SOILS TABLE (WITHIN LOD)

SYMBOL	RATING	NAME	K FACTOR	MAP #
MoB	(B)	MANOR LOAM, 3-8% SLOPES	.24	3
MoC	(B)	MANOR LOAM, 8-15% SLOPES	.24	3
MoD	(B)	MANOR LOAM, 15-25% SLOPES	.24	3



GENERAL NOTES:

- THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- PARCEL BACKGROUND:**
TAX MAP : 8
PARCEL : 243
LOT : BUILDABLE PRESERVATION PARCEL "B"
DEED REFERENCE: 15248/128
ELECTION DISTRICT : FOURTH
ZONING : RR-DEO
AREA : 12.53 AC±
DPZ FILES: ECP-16-054, F-17-036
- 2' TOPOGRAPHY FOR THE DEVELOPED AREAS IS BASED ON FIELD RUN SURVEY PERFORMED BY MILDENBERG, BOENDER & ASSOC., INC. ON OR ABOUT DECEMBER 2014.
- PRIVATE WELL AND SEPTIC WILL BE UTILIZED.
- 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. RECORDATION OF A MODIFIED EASEMENT SHALL NOT BE NECESSARY.
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- THE WELL TAG # HO-15-0372 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
- ANY WELLS OR SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELL AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.

ON-SITE SEWAGE DISPOSAL SYSTEM:

RESIDENTIAL SYSTEM DESIGN:
5 BEDROOM HOUSE (LIVING AREA=2,330 SQ.FT.)
150 GALLONS X # OF BEDROOMS = VOLUME OF WASTEWATER / DAY
150 X 5 = 750 GPD

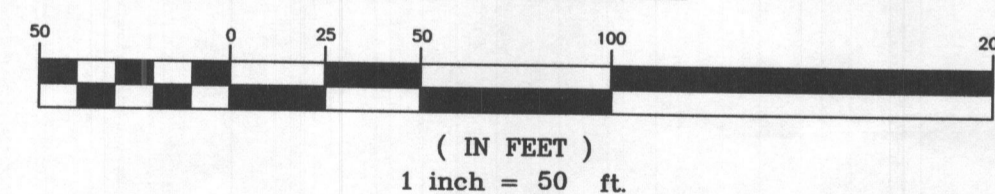
PRIMARY AND TERTIARY SYSTEM:

PERC RATE = 2-5 MINUTES/INCH
APPLICATION RATE = 1.2 GPD/SQ.FT.
DESIGN FLOW + APPLICATION RATE = SQ.FT. OF TRENCH REQUIRED
750 + 1.2 = 625 SQ.FT.
SQ.FT. REQUIRED + WIDTH OF TRENCH = LENGTH OF TRENCH
625 + 3.0' = 208.3 FT
USE 36" OF GRAVEL BELOW DRAIN PIPE
208.3 X 0.5 = 104.15
USE TWO (2) REQUIRED LENGTH OF TRENCHES (52'), PROVIDED (57.3')
A MINIMUM OF 10' BETWEEN TRENCHES UTILIZING SIDEWALL REDUCTION CREDIT.
MINIMUM TANK CAPACITY = 2,000 GALLONS
USE MAYER BROS. PRODUCT OR EQUIVALENT.

SECONDARY SYSTEM:

PERC RATE = 8-15 MINUTES/INCH
APPLICATION RATE = 1.2 GPD/SQ.FT.
DESIGN FLOW + APPLICATION RATE = SQ.FT. OF TRENCH REQUIRED
750 + 1.2 = 625 SQ.FT.
SQ.FT. REQUIRED + WIDTH OF TRENCH = LENGTH OF TRENCH
625 + 3.0' = 208.3 FT
USE 24" OF GRAVEL BELOW DRAIN PIPE
208.3 X 0.62 = 129.14 USE TWO (2) TRENCHES (64.5')
A MINIMUM OF 10' BETWEEN TRENCHES UTILIZING SIDEWALL REDUCTION CREDIT.

GRAPHIC SCALE



SEPTIC TRENCH ELEVATIONS

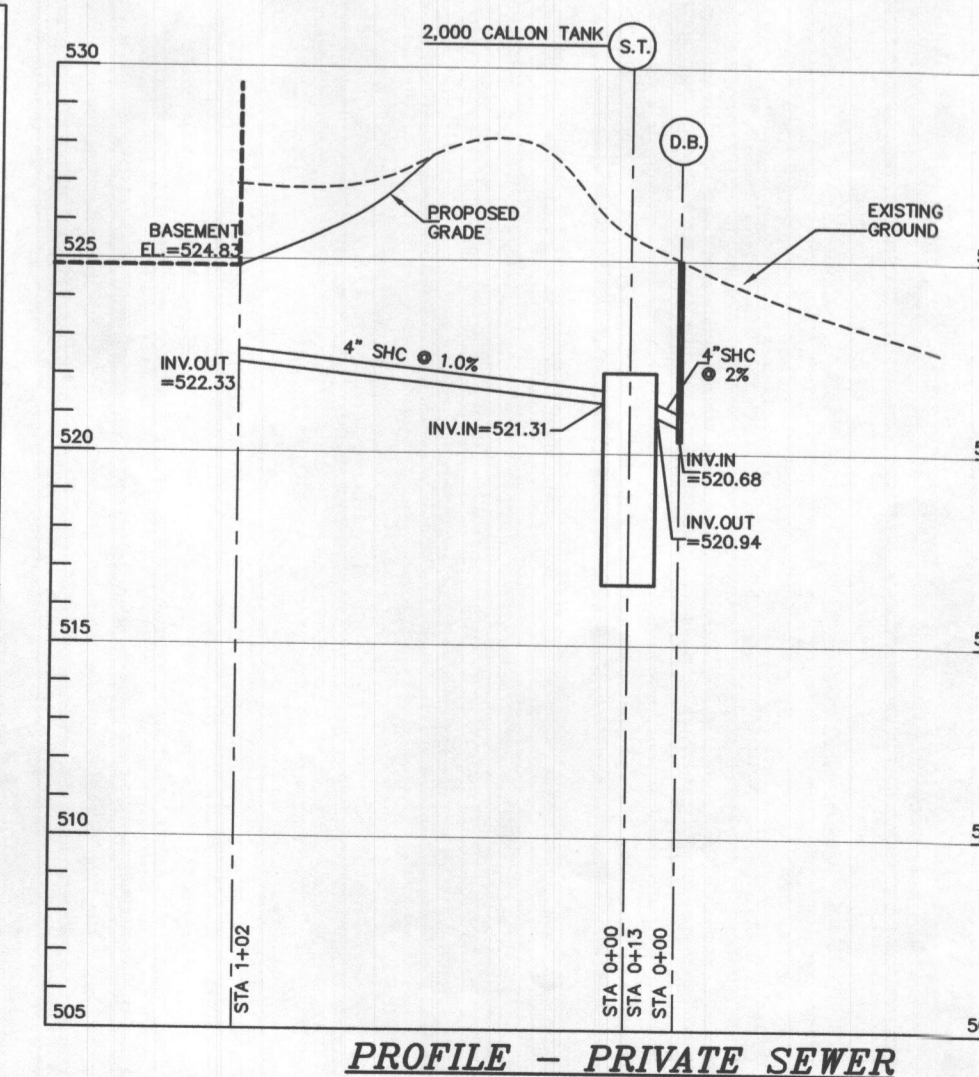
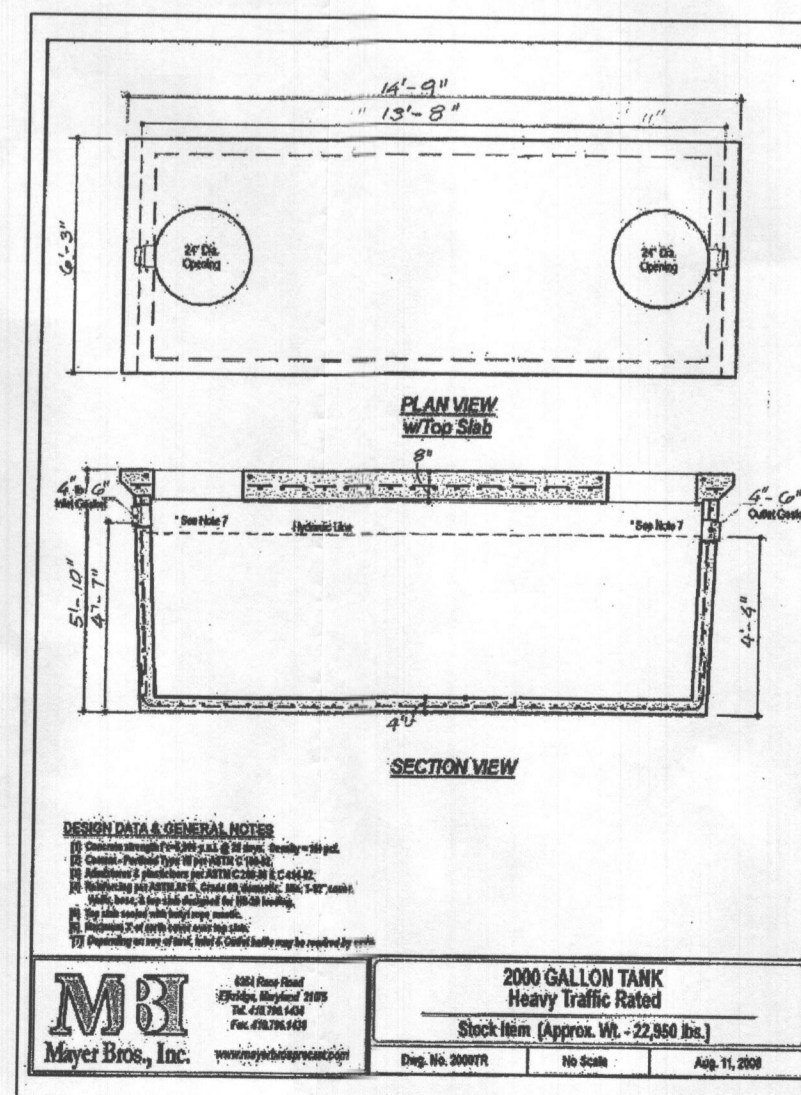
TRENCH	EX. GROUND ELEVATION	INVERT ELEVATION	BOTTOM OF TRENCH EL
PRIMARY A	524.0	522.0	519.0
PRIMARY B	522.0	520.0	517.0
SECONDARY A	519.0	516.0	514.0
SECONDARY B	518.5	515.5	513.5
TERTIARY A	516.5	514.5	511.5
TERTIARY B	516.0	514.0	511.0

SEWER SYSTEM ELEVATIONS

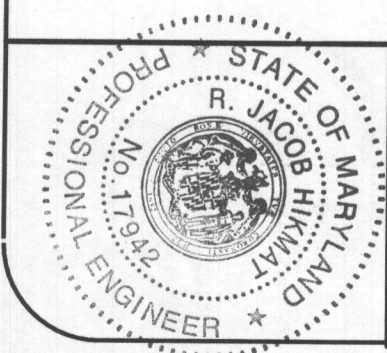
DESCRIPTION	ELEVATION
BASEMENT ELEVATION	524.83
INVERT OUT OF THE HOUSE	522.33
INVERT INTO SEPTIC TANK	521.31
INVERT OUT OF SEPTIC TANK	520.94
FINISHED GRADE AT SEPTIC TANK	526.00
TOP OF THE TANK	522.09
INVERT INTO DISTRIBUTION BOX	520.68

SEPTIC TRENCH SIZING

SYSTEM	APPLICATION RATE (GPD / SF)	MAXIMUM FLOW RATE (GPD)	AREA OF REQUIRED TRENCH (SF)	TRENCH WIDTH (FT)	LENGTH OF REQUIRED TRENCH (LF)	EFFECTIVE DEPTH BEGINS (FT)	TRENCH BOTTOM DEPTH (FT)	REDUCTION FACTOR**	ADJUSTED LENGTH OF REQUIRED TRENCH (LF)	MINIMUM TRENCH SPACING (FT)	NUMBER OF TRENCHES	PROVIDED TRENCH LENGTH (FT)
PRIMARY	1.2	750	625	3	208.3	2.0	5.0	0.55	114.6	10.0'	2	57.3'
SECONDARY	1.2	750	625	3	208.3	3.0	5.0	0.62	129.0	10.0'	2	64.5'
TERTIARY	1.2	750	625	3	208.3	2.0	5.0	0.55	114.6	10.0'	2	57.3'



P: 1200418-010 AMBREEN WOODS (TM) DWG PARCEL-B-BURKARD HOUSE.DWG



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 09/03/2020.

R. JACOB HIKMAT, P.E.
DATE: 7.1.19

project	18-010	date	JUL 2019
illustration	MMM	engineering	MMM
scale	1"=50'	approval	RJH

no.	1	description	revisions
date			

AMBREEN WOODS, BUILDABLE PRESERVATION PARCEL "B"
14542 Ambreen Way
TAX MAP 08, GRID 05, PARCEL 243, ZONED: RC-DEO
HOWARD COUNTY, MARYLAND
FOURTH ELECTION DISTRICT
ONSITE SEPTIC DISPOSAL PLAN

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