

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: 10-20-20 **ONSITE SEWAGE DISPOSAL SYSTEM** P 572819

APPROVAL DATE: 03/05/2021 **PERMIT: CONSTRUCTION** A _____

PROPERTY ADDRESS: 13616 OLIVIA WAY, CLARKSVILLE, MD 21029

SUBDIVISION: THE ESTATES AT RIVER HILL LOT: Par A TAX ID: _____

CONTRACTOR: FREEDOM SEPTIC EMAIL: kasey@freedomseptic.com

CONTRACTOR ADDRESS: 2809 LIBERTY ROAD, SYKESVILLE, MD 21784 PHONE: (410)795-2947

PROPERTY OWNER: ESTATES AT RIVER HILL, LLC EMAIL: tkeane@trinityhomes.com

OWNER ADDRESS: 3675 PARK AVE., SUITE 301, ELLICOTT CITY, MD 21043 PHONE: (443)324-9806

SEPTIC TANK SIZE (GALLONS): 1500 TANK MANUFACTURER: MAYER BROS., INC.

PUMP MODEL: n.a. PUMP SIZE n.a. PUMP TANK CAPACITY: n.a.

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 5 APPLICATION RATE: 1.2

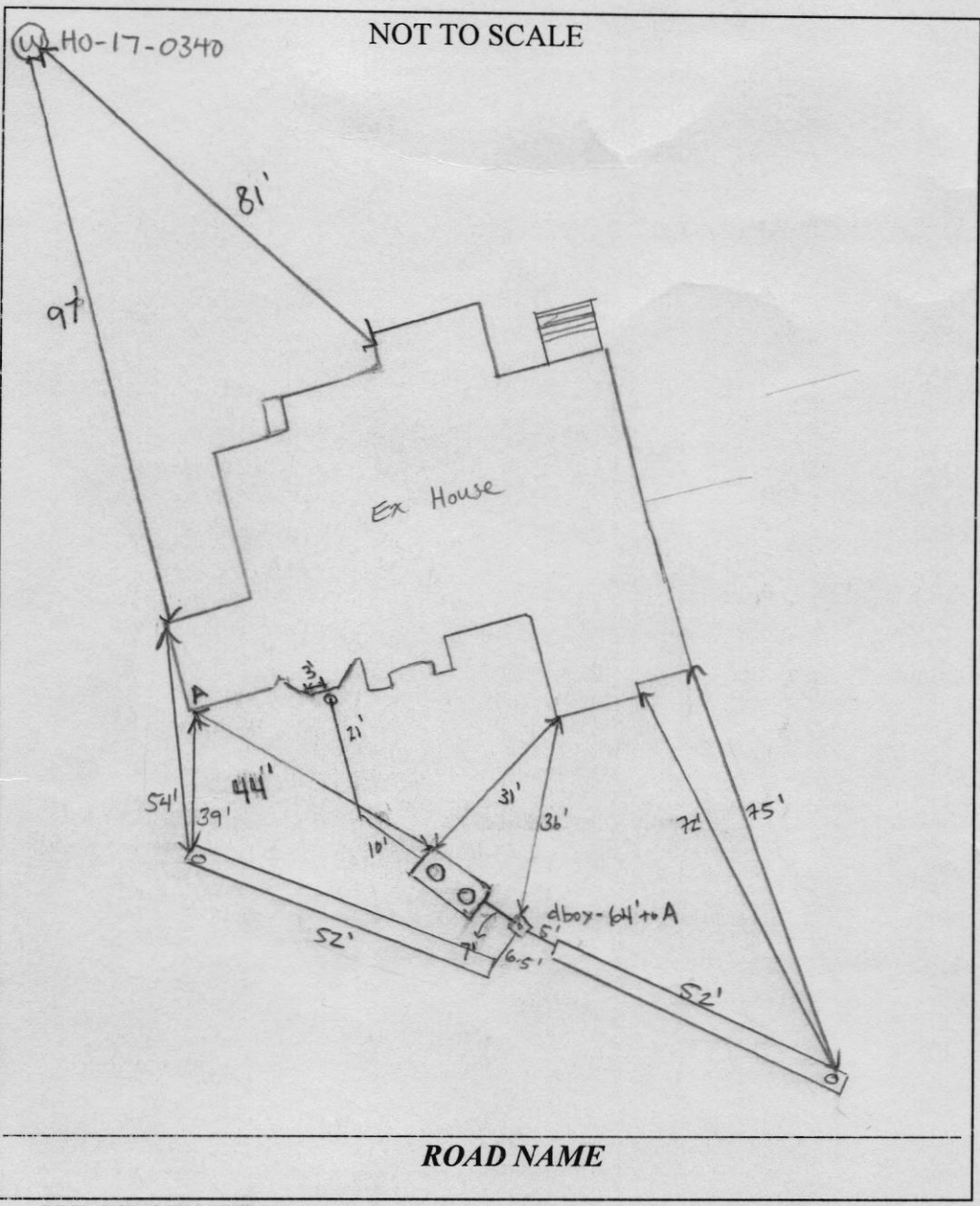
TRENCHES:	LINEAR FEET REQUIRED: <u>104</u>	INLET DEPTH: <u>3.5</u>
	TRENCH WIDTH: <u>32</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>12</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>3.5</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:		

ISSUED BY: R BRICKER ISSUE DATE: _____ EXPIRATION DATE: 10/20/21

- 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.**



TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
2'	2.5'	8'
NUMBER OF TRENCHES		2
TOTAL LENGTH		104 F
ABSORPTION AREA		312 SF + SIDE WALL
DISTRIBUTION BOX LEVEL		SPEED
DISTRIBUTION BOX BAFFLE		YES
DISTRIBUTION BOX PORT		YES

SEPTIC TANK DATA

SEPTIC TANK I LEVEL

MANUFACTURER	Babylon
CAPACITY	1500 GAL
SEAM LOC	top
TANK LID DEPTH	18"
BAFFLES	6" front/back
BAFFLE FILTER	-
MANHOLE LOC	front/back
6" PORT LOC	-
WATERTIGHT TEST	-
SLOTTED	YES
DATE ON LID	12/11/20

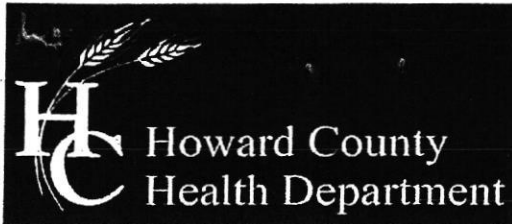
PUMP/SEPTIC TANK LEVEL

MANUFACTURER	
CAPACITY	GAL
SEAM LOC	
TANK LID DEPTH	
BAFFLES	
BAFFLE FILTER	
MANHOLE LOC	
6" PORT LOC	
WATERTIGHT TEST	
SLOTTED	
DATE ON LID	

PRE-CONSTRUCTION:
 3/3/21 2 x 52' trenches staked out according to plan. Some fill on SDA but contractor will use stakes in grass to stay on contour (SD)

INSTALLATION: 3/4/21 - sewer line complete but SHC not done yet, tank is set and 6" x 4" baffles are in place, ok to backfill & continue (PR) 3/5/2021 D box SET; SPEED LEVELLED; TRENCHES COMPLETE OK TO BACKFILL (+)

FINAL INSPECTOR *[Signature]* DATE OF APPROVAL 03/05/2021



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Facebook: www.facebook.com/hocohealth

Twitter: HowardCoHealthDep

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

AGREEMENT FOR APPROVAL OF AN INDIVIDUAL DRINKING WELL WITH AN ON-SITE TREATMENT SYSTEM

This agreement is entered into by and between the Howard County Health Department ("the Health Department") and Kwesi + Andrina Yankah ("the Owner");

WHEREAS, the Owner owns a tract of land at street address 13616 Olivia Way, Highland MD 20777 and the deed and subdivision plat of the property is recorded among the Land Records of Howard County, Maryland, Tax Map # 34, Block # 23, Parcel # 389; Prop. Parcel "A", Deed Reference # 2508594 and Tax Account # 05-601943 ("the Property").

WHEREAS, the Property lacks an available public drinking water source and is required to have an individual well as the source of drinking water for the residence of the property.

WHEREAS, the Owner has installed a residential drinking well under well permit HO-17-0340 that has been tested by the Health Department (or a private laboratory certified to perform testing) for radionuclide particles. The results of the tests have shown that the gross alpha particle content and/or the gross beta particle content and/or the combined radium 226/228 levels exceeds the standards of 15 picocuries per liter (pCi/L), 4 millirems per year (mrem/yr) and/or 5pCi/L respectively.

WHEREAS, The Maryland Department of the Environment (MDE) has promulgated rules and regulations under which a Certificate of Potability may be issued and has delegated the authority to issue such Certificate to the Health Department.

WHEREAS, MDE regulations permit the Health Department to issue as a special condition, a permanent deviation to the Certificate of Potability for individual wells where treatment has been installed to meet the maximum contaminate levels (MCL's) for radionuclides.

WHEREAS, MDE has determined that radium can be effectively removed from the drinking water by the use of treatment devices (e.g., ion exchange or reverse osmosis).

WHEREAS, the Owner is requesting that the Health Department issue a Certificate of Potability contingent upon installation and maintenance of a water treatment device to reduce radionuclides.

WHEREAS, neither the Owner nor the Health Department has knowledge of an alternative safe source of water for the Property.

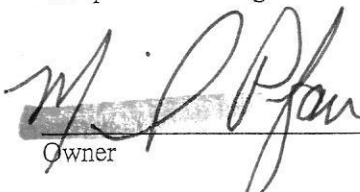
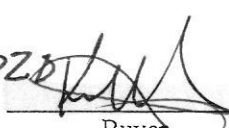
NOW THEREFORE, the parties have agreed to the following terms and conditions:

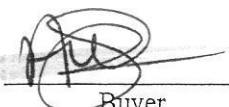
1. The Owner will record this Agreement among the Land Records of Howard County, Maryland and provide confirmation to the Health Dept.
2. The Owner agrees to install and maintain a water treatment device, which effectively reduces the gross alpha, gross beta and radium levels to below their respective MCL. The Health Department

shall verify that the treatment device is operating effectively and the Owner agrees to allow access to the Health Department to collect a follow-up sample(s).

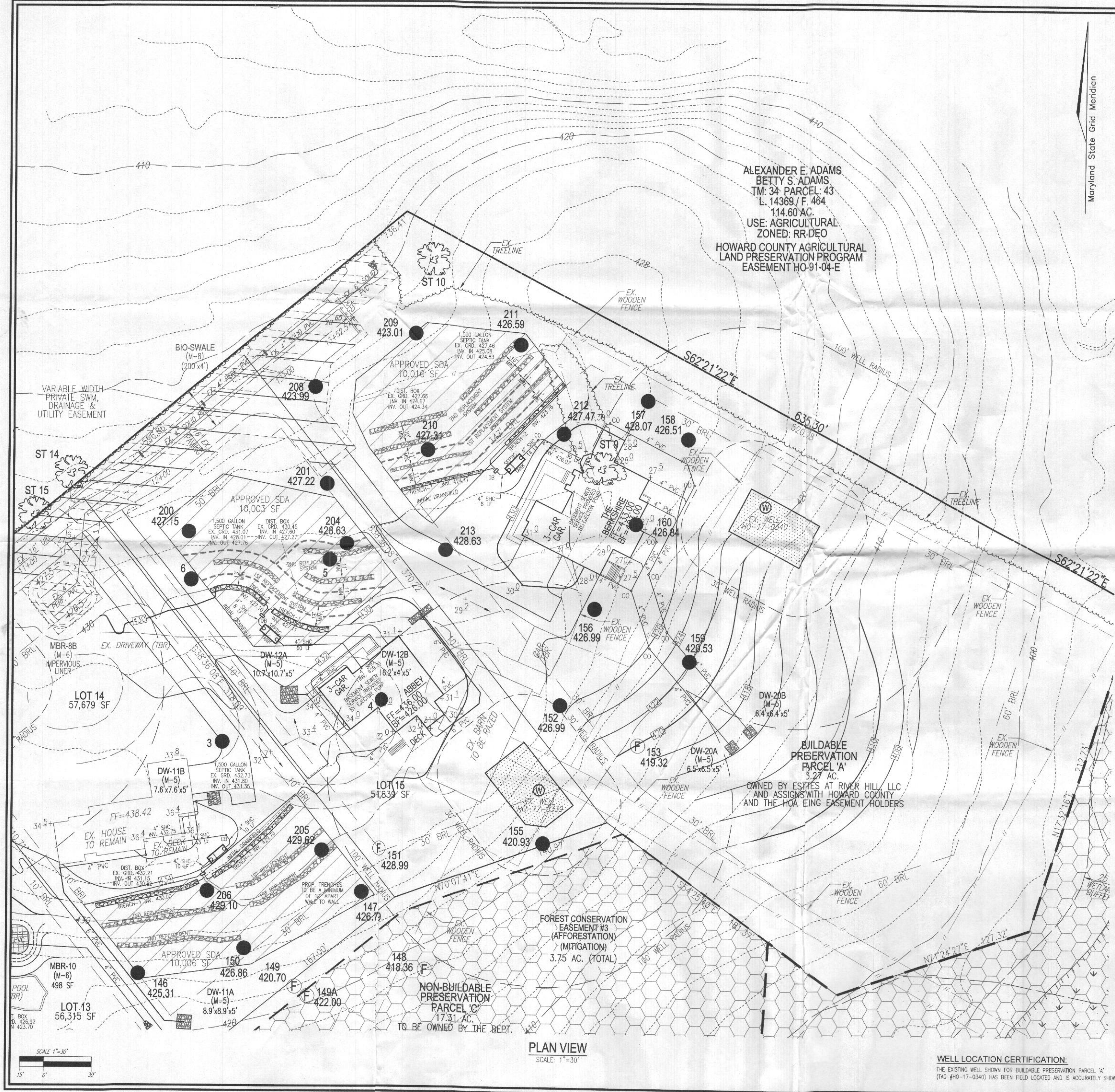
3. The Health Department shall issue a Certificate of Potability for the well once follow-up sampling shows acceptable gross alpha, gross beta (short and long term) and radium 226 / 228 levels.
4. The Owner agrees that there shall be no liability on part of the Health Department for any immediate or long term impacts to health or property, under any circumstance or including, but not limited to, treatment device failure, improper maintenance or installation, or defect. The Health Department does not warranty or guarantee that the device will adequately or properly function and the Owner agrees to implement and pay for any necessary changes or corrections.
5. The Owner acknowledges and agrees that neither the Health Department nor any of its agents or employees, either officially or individually, underwrites the operation of any system or treatment device.
6. This Agreement shall not be construed to limit any authority of the Health Department to protect the public health, safety or enjoyment of property or to issue any other orders to take any other action, which is now or may hereafter be within its authority.
7. This agreement contains the entire agreement and understanding between the Health Department and the Owner. There are no additional terms other than as contained in this Agreement. This Agreement may not be modified except in writing signed by each of the parties or their authorized representatives.
8. The Agreement shall run with the land and binds the Owner, his heirs, successors, and assigns. The owner agrees to provide a copy of this agreement to any purchaser or lessee of the property.
9. The laws of the State of Maryland govern the provisions of all transactions.

The parties have signed and sealed this Agreement on the dates set forth below.

 06-10-2020  06-10-2020
Owner Date Buyer Date

KWESI & ANDRINA YANKAH  06-10-2020
Owner Date 6/10/20 Buyer Date

 6/22/20
Howard County Health Department Date



ALEXANDER E. ADAMS
 BETTY S. ADAMS
 TM: 34 PARCEL: 43
 L: 14369 / F: 464
 114.60 AC.
 USE: AGRICULTURAL
 ZONED: RR-DEO
 HOWARD COUNTY AGRICULTURAL
 LAND PRESERVATION PROGRAM
 EASEMENT HO-91-04-E

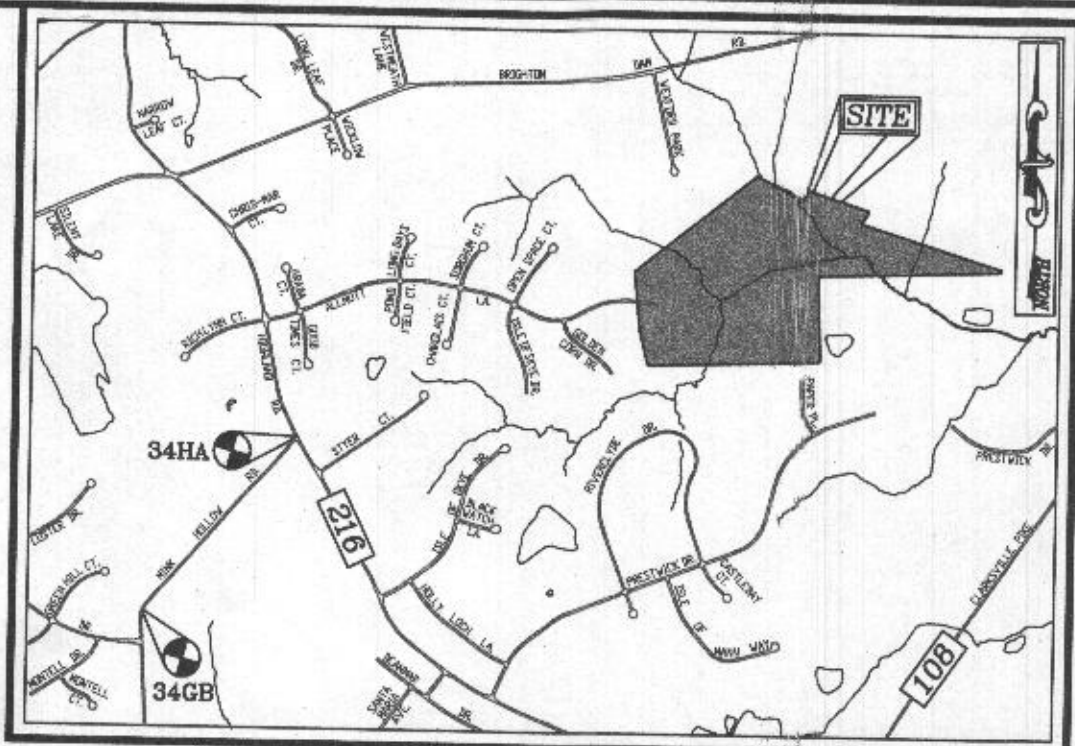
THIS AREA DESIGNATES A PRIVATE SEWAGE AREA OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE AREAS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE AREA. RECORDATION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY.

TRENCH	TRENCH INVERT	TRENCH TOP	TRENCH BOTTOM	EXISTING GROUND
1	52'	424.17	418.67	427.67
2	52'	423.76	419.26	427.26

SYSTEM CALCULATIONS:

INITIAL AND FIRST REPLACEMENT SYSTEM:
 5 BEDROOMS AT 750gpd / 1.2 ABSORPTION RATE = 625 SQ. FT.
 625 SQ. FT. / 2 (TRENCH WIDTH) x .33 (SIDEWALL REDUCTION) = 103 LINEAR FEET
 104 TOTAL LINEAR FEET OF TRENCH ARE PROVIDED WITH THE INITIAL AND THE FIRST REPLACEMENT SYSTEM.
 (2 TRENCHES OF 52 FEET IN LENGTH FOR EACH SYSTEM)

SECOND REPLACEMENT SYSTEM:
 5 BEDROOMS AT 750gpd / 0.8 ABSORPTION RATE = 938 SQ. FT.
 938 SQ. FT. / 3 (TRENCH WIDTH) x .63 (SIDEWALL REDUCTION) = 197 LINEAR FEET
 200 TOTAL LINEAR FEET OF TRENCH ARE PROVIDED WITH THE SECOND REPLACEMENT SYSTEM.
 (4 TRENCHES OF 50 FEET IN LENGTH)

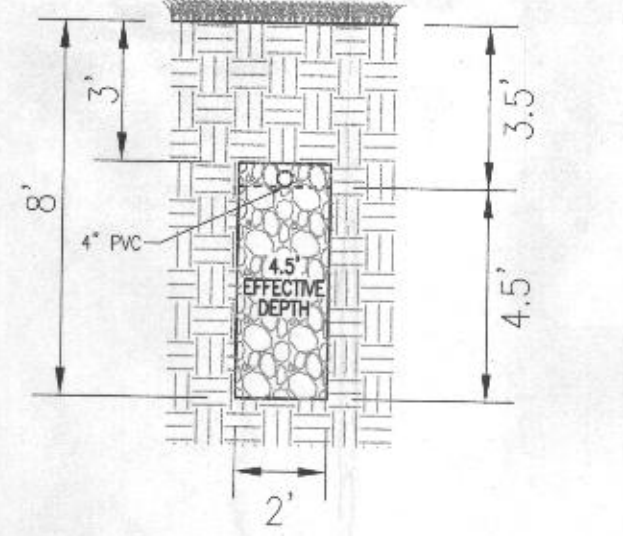


VICINITY MAP
 SCALE: 1"=2000'
 ADC MAP: PAGE: 31 / GRID: B2, B3, & C2

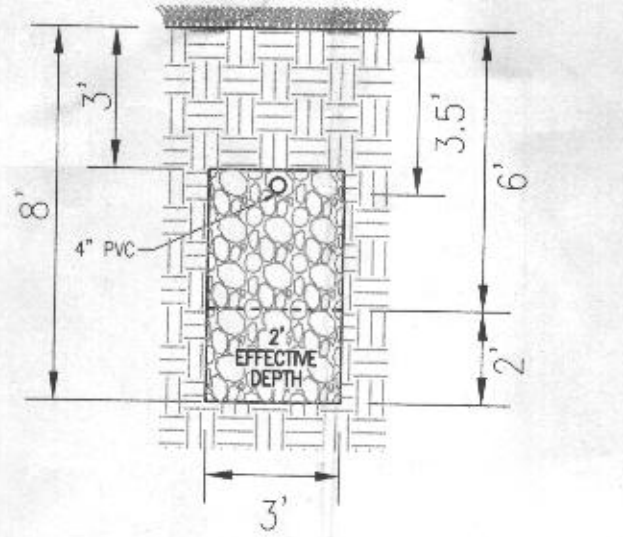
BENCHMARKS
 HOWARD COUNTY BENCHMARK 34GB (CONC. MON.)
 N 553966.73 E 1317752.53 ELEV. 505.18
 LOCATION: MINK HOLLOW RD. 0.45 MI. SW OF
 HIGHLAND RD.
 HOWARD COUNTY BENCHMARK 34HA (CONC. MON.)
 N 555780.15 E 1319355.57 ELEV. 535.23
 LOCATION: CORNER OF HIGHLAND RD. & MINK
 HOLLOW RD.

LEGEND:

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING EDGE OF PAVING
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING SPECIMEN TREES
- EXISTING WOOD FENCE
- EX. PUBLIC 100-YEAR FLOOD PLAN
- PROP. PRIVATE USE-IN-COMMON ACCESS EASEMENT
- PROP. PRIVATE SEWER, DRAINAGE & UTILITY EASEMENT
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- APPROVED SEWAGE DISPOSAL AREA (SDA)
- APPROVED WELL AREA
- EXISTING WELL
- PASSED PERC. TEST
- FAILED PERC. TEST



INITIAL & 1ST REPLACEMENT SYSTEM TRENCH DETAIL
 NOT TO SCALE



2ND REPLACEMENT SYSTEM TRENCH DETAIL
 NOT TO SCALE

- GENERAL NOTES:**
- ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
 - THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
 - THE EXISTING TOPOGRAPHY SHOWN HEREON IS TAKEN FROM HOWARD COUNTY GIS AND SURVEILMENTED WITH FIELD RUN TOPOGRAPHICAL SURVEYS PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED MARCH AND MAY OF 2016.
 - ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
 - EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND THOSE WELLS WITHIN 200' DOWNGRADEMENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS OR SEWAGE DISPOSAL AREAS HAVE BEEN SHOWN USING ALL REASONABLE EFFORTS.
 - THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP, WIDTH, AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.

OWNER
 ESTATES AT RIVER HILL, LLC
 MICHAEL PFAU, MEMBER
 3675 PARK AVE., SUITE 301
 ELLICOTT CITY, MD 21043
 (410) 480-0023

DEVELOPER
 TRINITY HOMES MARYLAND, LLC
 3675 PARK AVE., SUITE 301
 ELLICOTT CITY, MD 21043
 (410) 480-0023

*Approved Septic System Plan
 Howard County Health Department
 500-gallon Septic Tank
 To Gravity Drain Field
 for 5-Bedroom SFD
 RB Miller
 Signature
 9/1/2020
 Date*

ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN
THE ESTATES AT RIVER HILL
BUILDABLE PRESERVATION PARCEL 'A'
 13616 OLIVIA WAY
 HIGHLAND, MD 20777

PARCEL: 388
 TAX MAP: 34 GRID: 23
 5TH ELECTION DISTRICT
 ZONED: RR-DEO
 L: 18487 / F: 262
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 3300 N. RIDGE ROAD, SUITE 110
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

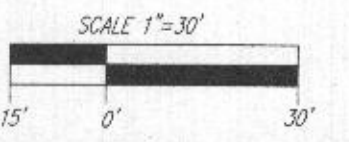
PROFESSIONAL CERTIFICATE

DESIGN BY: RHV
 DRAWN BY: JMR
 CHECKED BY: RHV
 DATE: AUGUST 2020
 SCALE: AS SHOWN
 W.O. NO.: 15-39

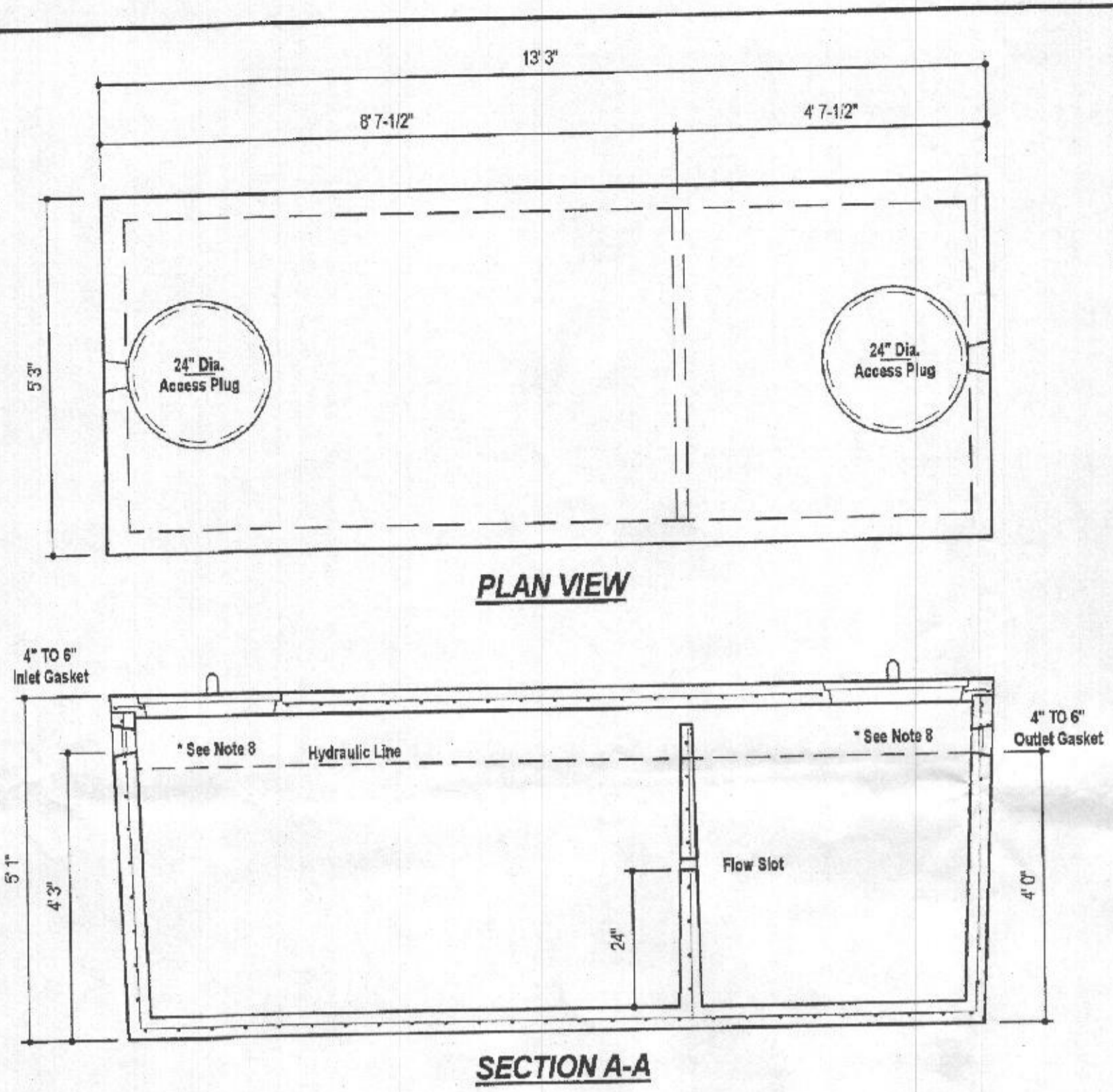
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2020

1 SHEET OF 2

WELL LOCATION CERTIFICATION:
 THE EXISTING WELL SHOWN FOR BUILDABLE PRESERVATION PARCEL 'A' (TAG #HO-17-0340) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN



PLAN VIEW
 SCALE: 1"=30'



PLAN VIEW

SECTION A-A

DESIGN DATA & GENERAL NOTES

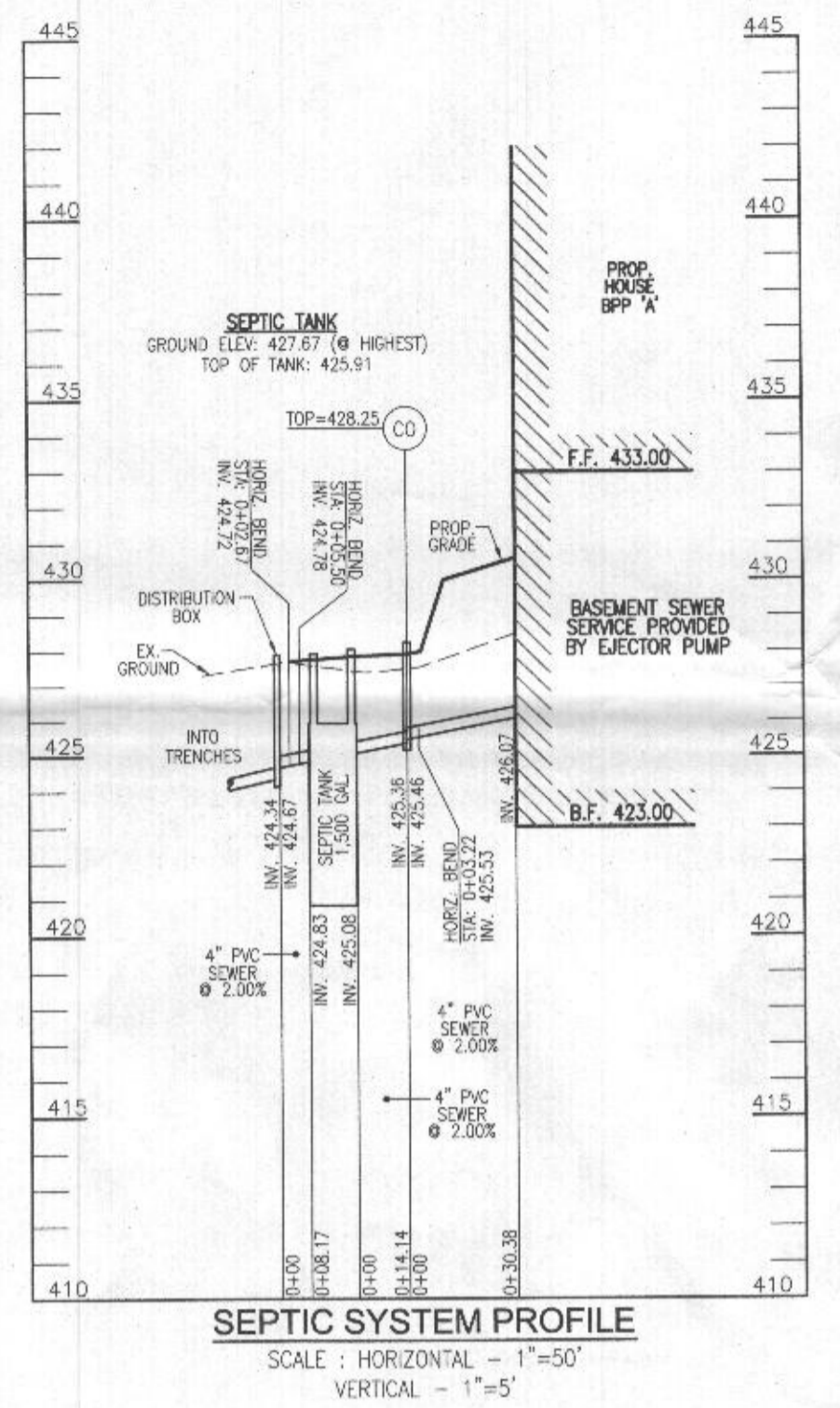
- [1] Concrete strength f_{cm} = 4,000 p.s.i. @ 28 days. Density = 150 pcf.
- [2] Cement - Portland Type III per ASTM C 150-82.
- [3] Admixtures & plasticizers per ASTM C 260-86 & C 494-82.
- [4] Reinforcing per ASTM A196. Min. 1-1/2" cover.
- [5] Top slab sealed with butyl rope mastic.
- [6] 4" wall, base, & top thickness.
- [7] Max 3-1/2" of cover.
- [8] Depending on use of tank, Inlet & Outlet baffles may be required by code.

WEIGHT = 16,750 lbs.

MBI
Mayer Bros., Inc.
6254 Race Road
Elkridge, Maryland 21075
Tel. 410.738.1434
Fax. 410.738.1438
www.mayerbrosprecast.com

1,500 GALLON TANK (Non-Traffic) 2-Compartment		
Stock Item		
Dwg. No. 1500-2C	No Scale	Aug. 11, 2008

'OK' reb. 9/1/2020



SEPTIC SYSTEM PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

OWNER
ESTATES AT RIVER HILL, LLC
MICHAEL PFAU, MEMBER
3675 PARK AVE., SUITE 301
ELLCOTT CITY, MD 21043
(410) 480-0023

DEVELOPER
TRINITY HOMES MARYLAND, LLC
3675 PARK AVE., SUITE 301
ELLCOTT CITY, MD 21043
(410) 480-0023

ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN
THE ESTATES AT RIVER HILL
BUILDABLE PRESERVATION PARCEL 'A'
13616 OLIVIA WAY
HIGHLAND, MD 20777

PARCEL 389
TAX MAP: 34 GRID: 23
5TH ELECTION DISTRICT

ZONED: RR-DEE
L 18487 / F 282
HOWARD COUNTY, MARYLAND

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ENGINEERS • SURVEYORS • PLANNERS
3300 N. RIDGE ROAD, SUITE 110 TEL: 410.461.7666
ELLCOTT CITY, MD 21043 FAX: 410.461.8951

PROFESSIONAL CERTIFICATE

STATE OF MARYLAND
ROBERT HARRIS VOGEL
No. 16193
PROFESSIONAL ENGINEER

DESIGN BY: RHY
DRAWN BY: JMR
CHECKED BY: RHY
DATE: AUGUST 2020
SCALE: AS SHOWN
W.O. NO.: 15-39

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 08-27-2020.

2 SHEET OF 2