



Howard County
Health Department

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: 5-2-23

ONSITE SEWAGE DISPOSAL SYSTEM

P 574105

APPROVAL DATE: 9/23/2023

PERMIT: NEW CONSTRUCTION

A

PROPERTY ADDRESS: 10601 Reynolds Court

SUBDIVISION: King's Forrest

LOT: 14

TAX ID:

CONTRACTOR: Fodes Septic Clean Inc

EMAIL: kim@fodesinc.com

CONTRACTOR ADDRESS: 580 Obrecht Rd, Sykesville, MD 21784

PHONE: 410-795-9010

CONTRACTOR CERTIFIED FOR BAT INSTALLATION:

☒ MDE

☒ MANUFACTURER: Norweco

PROPERTY OWNER: Toll Brothers

EMAIL: Sriley1@tollbrothers.com

OWNER ADDRESS: 250 Gibraltar Road

PHONE: 443-309-7792

BAT UNIT MODEL: Norweco

PUMP SIZE:

PUMP TANK CAPACITY:

OPERATION & MAINTENANCE AGREEMENT

DATE SIGNED: 3/21/2023

DATE RECORDED:

DISTRIBUTION SYSTEM: ☒ GRAVITY

☐ PRESSURE DOSED

BEDROOMS: 6

APPLICATION RATE: 1.2

TRENCHES:	LINEAR FEET REQUIRED:	<u>177.75</u>	INLET DEPTH:	<u>3</u>
	TRENCH WIDTH:	<u>3</u>	MAXIMUM BOTTOM DEPTH:	<u>6</u>
	MINIMUM SPACE BETWEEN TRENCHES:	<u>10</u>	EFFECTIVE AREA BEGINNING DEPTH:	<u>4.5</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND BAT UNIT LOCATION MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.			
NOTES:				

ISSUED BY: Dana Bernard

ISSUE DATE: 1-3-23

EXPIRATION DATE: 1-3-24

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 SEPTIC TANKS REQUIRED

NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET DOWNGRAIENT 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

NOTE: AN INDIVIDUAL CERTIFIED BY MDE AND THE MANUFACTURER FOR BAT INSTALLATION MUST BE PRESENT AT ALL TIMES DURING BAT INSTALLATION.

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.

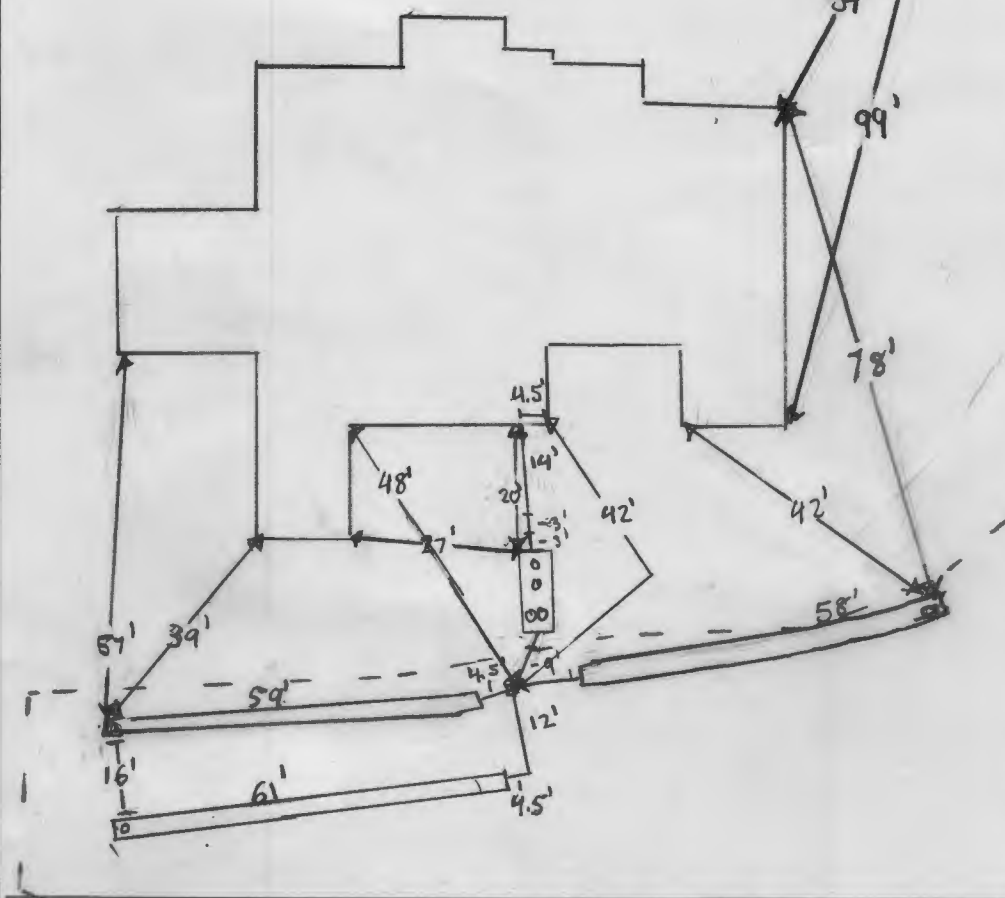
1" ≈ 30'

NOT TO SCALE

Ⓢ AH#1

Ⓢ AH#2

HO-17-0371



TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	3'	6'
NUMBER OF TRENCHES		3
TOTAL LENGTH		178'
ABSORPTION AREA		534 ft ²
DISTRIBUTION BOX LEVEL		yes
DISTRIBUTION BOX BAFFLE		yes
DISTRIBUTION BOX PORT		yes

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL		yes
MANUFACTURER	BANK RIVER	
CAPACITY	750	GAL
SEAM LOC	Top	
TANK LID DEPTH	3'	
BAFFLES		
BAFFLE FILTER		
MANHOLE LOC	front back & middle	
6" PORT LOC		
WATERTIGHT TEST		
SLOTTED		
DATE ON LID	1/18/23	
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:

5/23/2023 - 1st upper trench moved down 2'. 1st upper trench - measured @ 60'. 2nd upper trench moved up 1' for end of trench. Lower trench on contour. Measured 13' between trenches. Soil stable. Give OK to start. Ⓢ

INSTALLATION: 5/23/2023 - Upper right trench inlet @ 3' throughout trench. Finished upper left trench. Give OK to backfill. Upper right trench started. Tank coming 5/24/2023. Ⓢ

5/24/2023 - Tank not set yet, tank coming 5/24. Upper left trench inlet @ 3' throughout trench. width @ 3'. Distance of trench @ 59'. Measured ends of trench to house, gave installer OK to backfill. Ⓢ

5/25/2023 - 3rd lower trench done. length @ 61'. Tank set, depth @ 3'. Adequate fill from house to tank. Tank @ 20' from house. Distance between trenches 16'. D-box set & leveled. Gave installer written OK to backfill. Ⓢ 9/28/2023 start-up w/ manual

FINAL INSPECTOR

KP. 4014

DATE OF APPROVAL

1-9/26/2023



BACK RIVER PRE-CAST, LLC
PO BOX 329
GLYNDON, MD 21071
PH# 410-833-3394

NORWECO CERTIFICATION

PROPERTY OWNER: TOLL MID-ATLANTIC	INSTALLATION COMPANY: FOGLES SEPTIC
ADDRESS: 10601 REYNOLDS CT	CERTIFIED INSTALLER: JAMIE DEAVERS
CITY, ZIPCODE & COUNTY: ELLICOTT CITY, 21042, HOWARD	PERMIT#
SIZE OF SYSTEM INSTALLED:	DATE INSTALLED: 05-24-23
750 GPD CONCRETE	START-UP DATE: 09-05-23
NUMBER OF BEDROOMS:	DATE OF FINAL INSPECTION:
TYPE OF INSTALLATION: NEW	DATE OF ELECTRICAL INSPECTION:
ELECTRICAL WIRING PER ELECTRICAL INSTRUCTIONS: YES	TANK LEVEL: YES
HT. OF CONTROL PANEL ABOVE FINAL GRADE: 52"	BURIAL DEPTH OF TANK: 24"
SYSTEM WIRED ON A 15-AMP DEDICATED CIRCUIT WITH STD. BREAKER: YES	RISERS 4" - 6" ABOVE GRADE: YES
LENGTH(S) OF UF WIRE PAST LAST AERATION RISER(S): 30"+	VENTED LID(S) ON AERATION CHAMBER(S): YES
FEMALE PLUG(S) WIRED TO UF WIRE: YES	ANY GROUND SETTLING AROUND TANK:
CONDUIT(S) ENTERING AERATION RISER MADE WITH A WATERTIGHT CONNECTION: YES	NO
ISTHE INSIDE OF THE CONDUIT ENTERING THE CONTROL PANEL(S) AND AERATION RISER(S) SEALED WITH DUCT SEAL: YES	

ON 2ND PAGE MAKE A ROUGH SKETCH OF THE HOUSE ,WHERE THE SYSTEM IS LOCATED, WHERE THE CONTROL PANEL IS LOCATED , WHERE THE FRONT OF THE IS AND DIRECTIONS TO THE PROPERTY.

DIRECTIONS CAN START A FEW STREETS AWAY

EXAMPLE: RT. X LEFT ONTO XX STREET RIGHT ONTO PRIVATE DRIVEWAY 5TH HOUSE OF THE LEFT.

I certify that the Norweco Singulair TNT Wastewater Treatment System was installed according to the manufacture's specifications.

Matthew Geckle

September 5, 2023

Signature of BRP Representative

Vice-President

Date

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

**OPERATION AND MAINTENANCE AGREEMENT
FOR AN ON-SITE SEWAGE DISPOSAL SYSTEM
HAVING AN ADVANCED PRE-TREATMENT SYSTEM**

THIS AGREEMENT is made this 20 day of March, among L. Fan, hereinafter collectively referred to as "Owner", and the Howard County Health Department hereinafter referred to as the "County".

WHEREAS, Owner is the owner or contract owner of a parcel of land located at 10601 Reynolds Ct., in the 3rd Election District of Howard County, Maryland, and the deed and subdivision plat of the property is recorded among the Land Records of Howard County, Maryland, Tax Map # 23, Block # 23, Parcel # 148, Deed Reference # 25764-68 and Tax Account # 603424 ("the Property").

WHEREAS, The Property is suitable for the installation of a conventional on-site sewage disposal system with an advanced pre-treatment system, utilizing best available technology to perform nitrogen reduction, in accordance with the Code of Maryland Regulations 26.04.02.07, effective November 24, 2016. The pre-treatment device being installed is Norweco TNTLP-7506PD

NOW, THEREFORE, the parties hereto agree as follows:

A. Owner hereby grants to the County the right to enter upon the Property at any reasonable time with prior notice for access to the system to make periodic inspections and the Owner agrees to provide any information and data in Owner's possession reasonably requested and needed by the County.

B. Owner acknowledges and agrees that neither the County nor any of its agents or employees, either officially or individually, underwrites the operation of any system approved by them.

C. The Owner will devote reasonable care and effort to the operation and maintenance of the system in perpetuity or until a public sewer connection is made so that a system malfunction is not the result of poor maintenance, faulty operation, or neglect.

D. The Owner agrees to enter into a contract reasonably acceptable to the Owner and the County with a private entity to operate and maintain on a regularly scheduled basis an approved advanced pre-treatment system. The owner shall supply a copy of the contract to the County when it is renewed or altered.

E. This agreement shall run with the land and upon Owner's taking title to the Property shall bind the Owner, their heirs, successors, and assigns to the provisions of the agreement as long as

the property is in existence and after installation of the system. Owner further agrees that they shall inform in writing any subsequent purchaser or lessee of the Property that the system shall require maintenance or other attention. Upon taking title to the Property, the Owner agrees to cause this agreement to be recorded in the Land Records of Howard County and assure that it becomes part of the Deed for the subject property in order that prospective buyers may be aware of the special conditions affecting this property.

F. This agreement shall not be construed to limit any authority of the County to protect the public health, safety or comfort or to issue any other orders to take any other action which is now or may hereafter be within its authority.


G. This agreement may be voided at any time at the discretion of the County.


H. This agreement contains the entire agreement and understanding between the County 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 by their authorized representatives.

I. The laws of the State of Maryland govern the provisions of all transactions pursuant to this agreement.

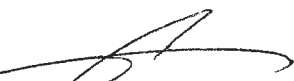
J. Owner acknowledges and agrees that interior renovations to increase the number of bedrooms or an increase in living space shall not be permitted without approval from the County.

IN WITNESS WHEREOF, the parties have signed this agreement on the date indicated above.

 3/21/23
Howard County Health Department

 3/13/2023
Owner #1 Signature Date

FAN LI
Owner #1 Print Name

 3/13/2023
Owner#2 Signature Date

BINGFEI WANG
Owner #2 Print Name

Buyer #1 Signature Date

Buyer #1 Print Name

Buyer #2 Signature Date

Buyer #2 Print Name

LEGEND:

- BRL BUILDING RESTRICTION LINE
- T.W. TOP OF WALL
- G.F. GARAGE FLOOR
- B.F. BASEMENT FLOOR
- SCE STONE CONSTRUCTION ENTRANCE
- DW DRYWELL
- PASSED PERC LOCATION
- FAILED PERC LOCATION
- SEWAGE DISPOSAL AREA
- WELL BOX AREA
- PROPOSED TREE

INITIAL TRENCH DATA

BOTTOM MAX. DEPTH (6")

TRENCH 1 (T1): 59.25 LF

GROUND ABOVE = 419.50'

INV. IN = 417.00'

BOTTOM TRENCH = 413.50'

TRENCH 2 (T2): 59.25 LF

GROUND ABOVE = 419.20'

INV. IN = 419.70'

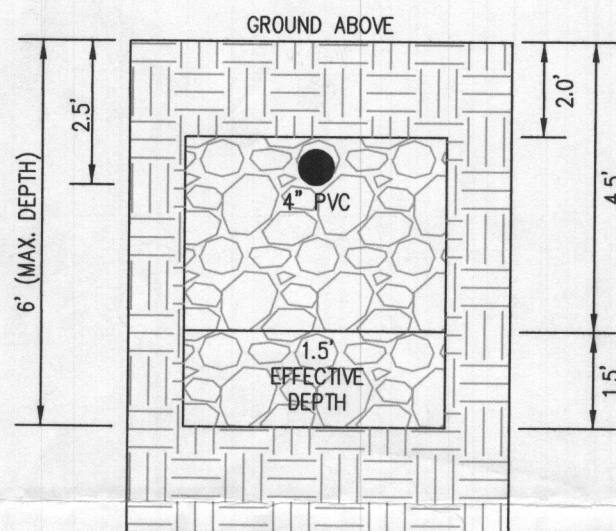
BOTTOM TRENCH = 413.20'

TRENCH 3 (T3): 59.25 LF

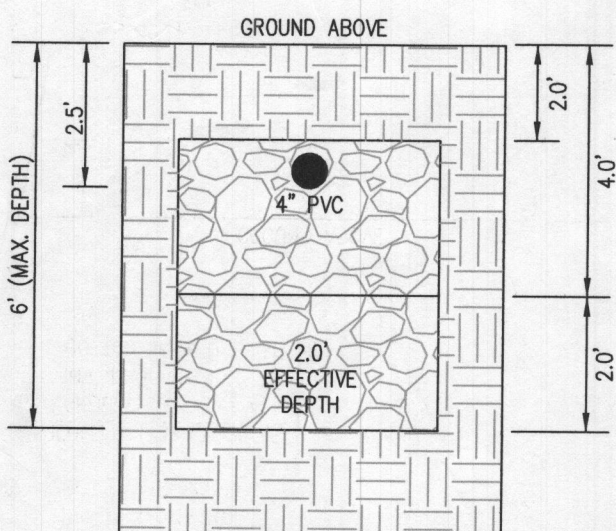
GROUND ABOVE = 417.90'

INV. IN = 415.40'

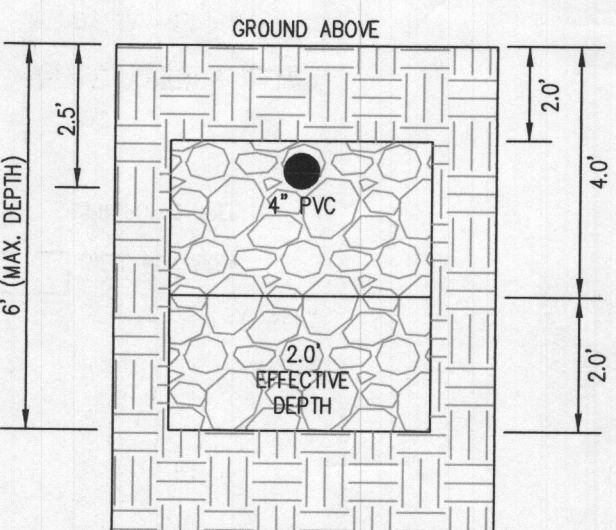
BOTTOM TRENCH = 411.90'



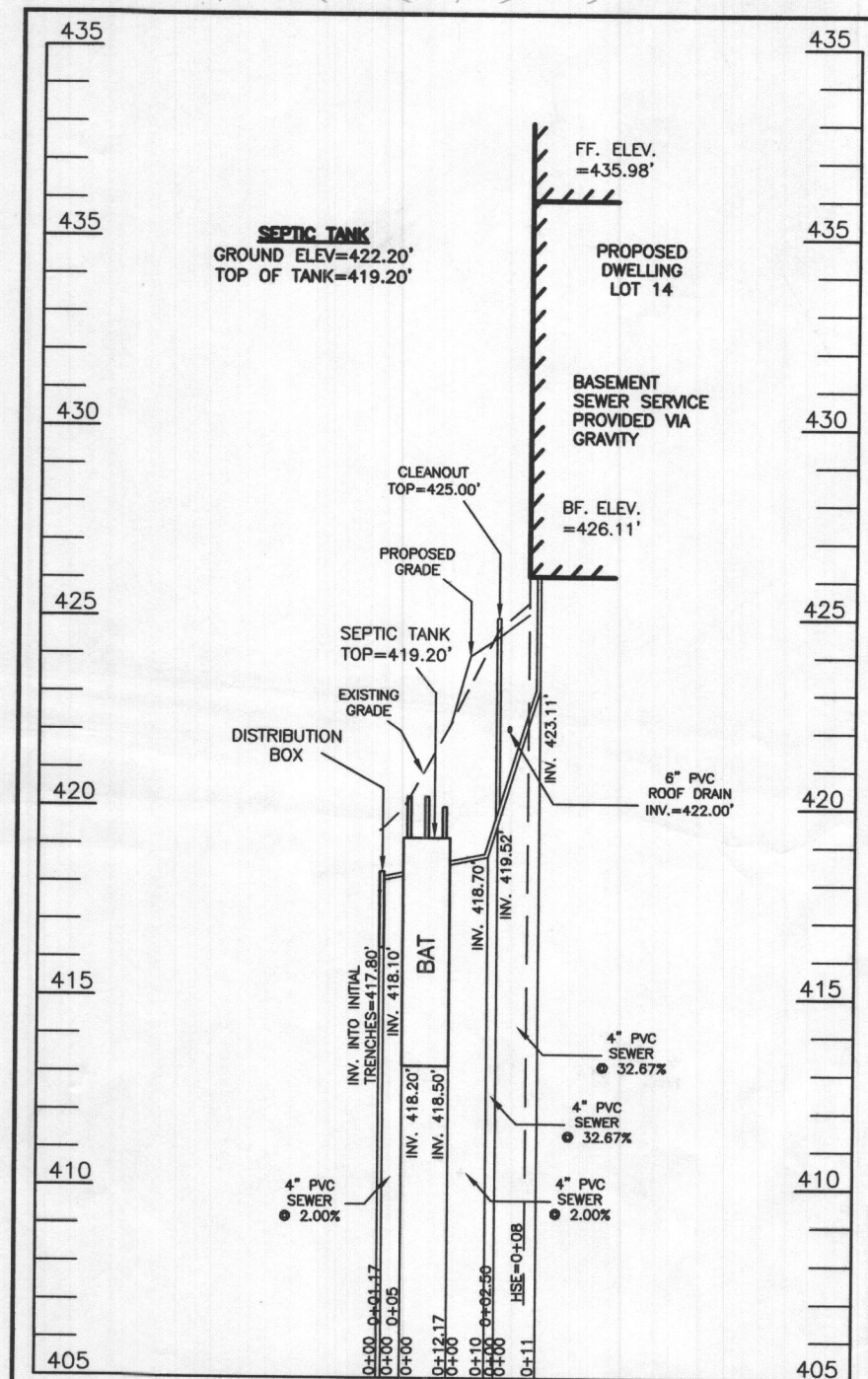
INITIAL SYSTEM
TRENCH DETAIL (T1) THRU (T3)
(NOT TO SCALE)



1ST REPLACEMENT SYSTEM
TRENCH DETAIL (T4) THRU (T6)
(NOT TO SCALE)



2ND REPLACEMENT SYSTEM
TRENCH DETAIL (T7) THRU (T9)
(NOT TO SCALE)



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

SEWAGE DISPOSAL SYSTEM DATA (6 BDRM)

- EX. GRADE OVER TANK: 422.20'
PROPOSED GRADE OVER TANK: 422.20'
INVERT IN: 418.50' INVERT OUT: 418.20'
- DISTRIBUTION BOX
EXISTING GRADE OVER TANK: 419.40'
PROPOSED GRADE OVER TANK: 419.40'
INVERT IN: 418.10' INVERT OUT: 417.80'
- INITIAL TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)
900 GPD ÷ 1.2 APP. RATE = 750 SF
USE 3" WIDE TRENCH WITH 42" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
750 SF ÷ 3' WIDTH = 250 LF x 0.71 (SIDEWALL REDUCTION) = 177.50 LF MIN.
USE 3 59.25' LONG TRENCHES = 177.75 LF
- 1ST REPLACEMENT TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)
900 GPD ÷ 1.2 APP. RATE = 750 SF
USE 3" WIDE TRENCH WITH 42" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
750 SF ÷ 3' WIDTH = 250 LF x 0.63 (SIDEWALL REDUCTION) = 157.50 LF MIN.
USE 3 52.50' LONG TRENCHES = 157.50 LF
- 2ND REPLACEMENT TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)
900 GPD ÷ 1.2 APP. RATE = 750 SF
USE 3" WIDE TRENCH WITH 42" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
750 SF ÷ 3' WIDTH = 250 LF x 0.63 (SIDEWALL REDUCTION) = 157.50 LF MIN.
USE 3 52.50' LONG TRENCHES = 157.50 LF

HOUSE OPTIONS:

HOUSE TYPE: KALORAMA (FAIRVIEW)

TWO CAR SIDE ENTRY GARAGE
WALK-OUT BASEMENT
ADDITIONAL TWO CAR FRONT ENTRY GARAGE
MULTI GEN SUITE ADDITION
GRAND MULTI GEN SUITE ADDITION
EXPANDED CLOSET
ALTERNATE KITCHEN ISLAND DESIGN
DOUBLE WIDE DRIVEWAY TAIL (MODIFIED)

OPTION No. 012
OPTION No. 017
OPTION No. 263019
OPTION No. 263073
OPTION No. 263075
OPTION No. 263111
OPTION No. 263149
OPTION No. 851

Approved Septic System Plan
Howard County Health Department
Signature: [Signature] Date: 1-3-23

WELL LOCATION CERTIFICATION:

THE EXISTING WELL SHOWN FOR LOT 14 (TAG NO. HO-17-0371) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN HEREON.

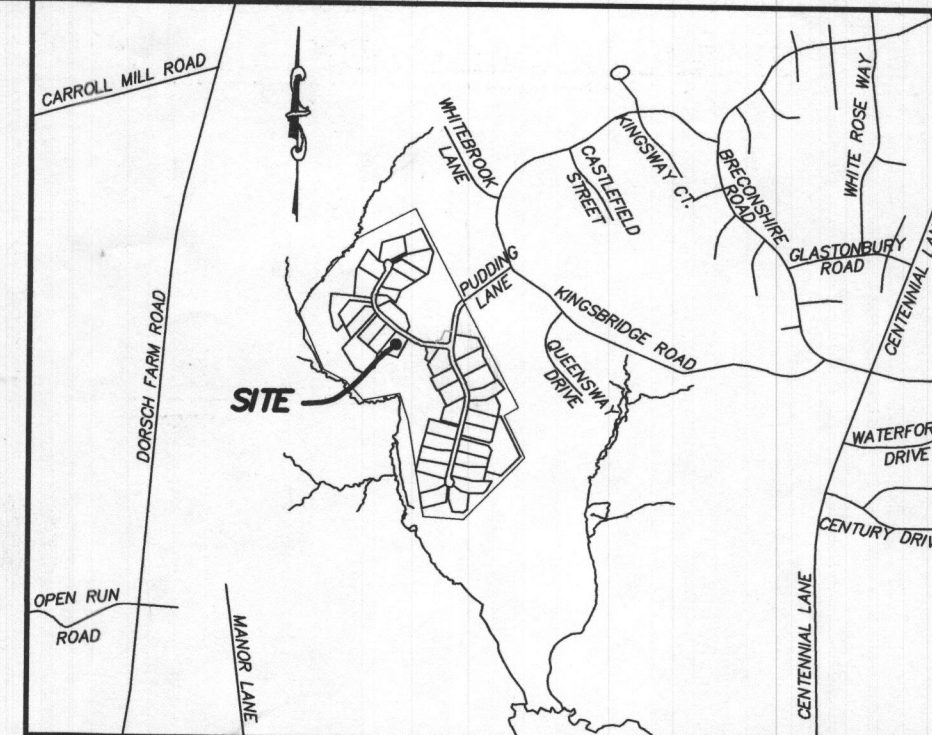
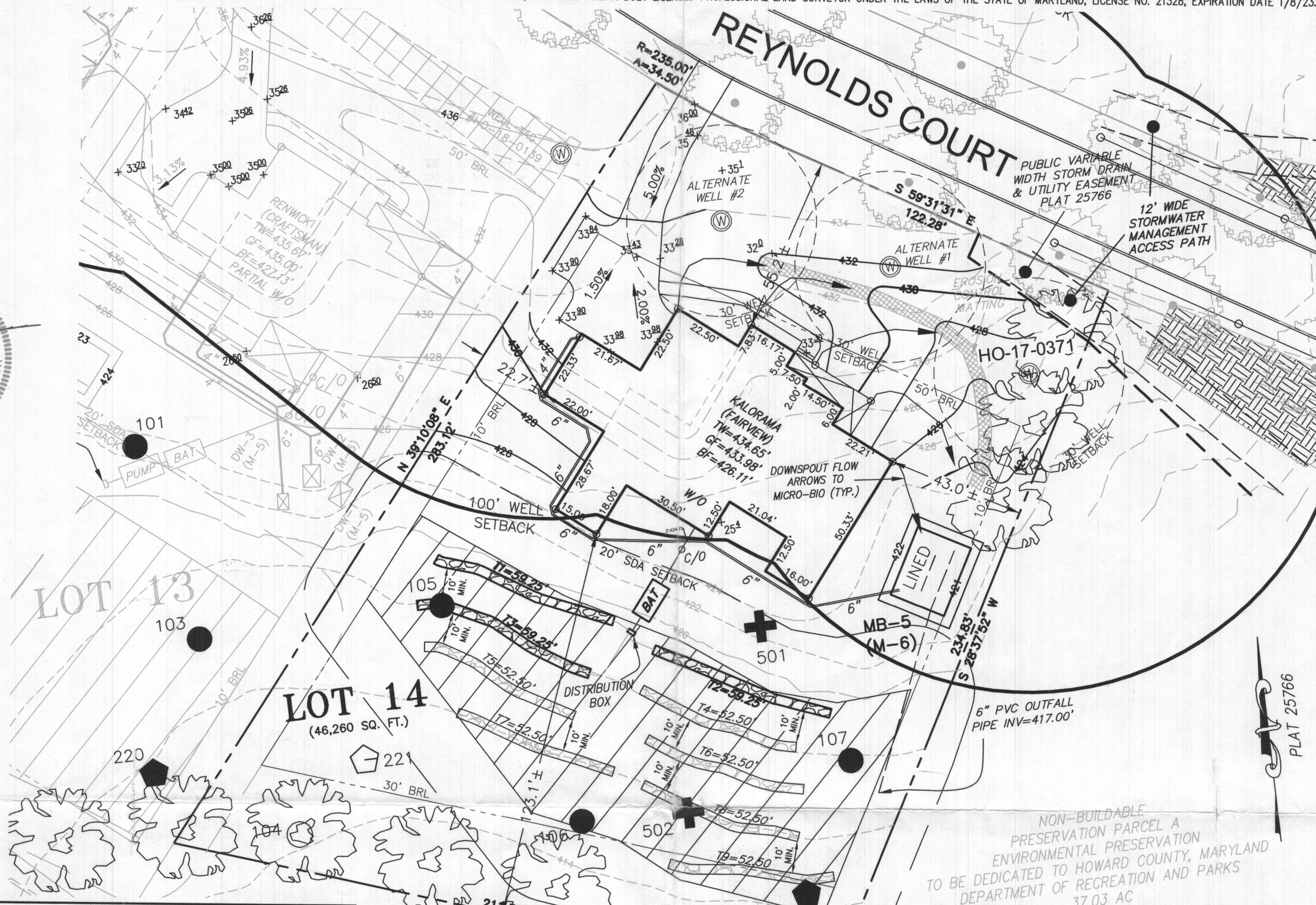
SITE PLAN FOR BAT INSTALLATION
LOT 14
KINGS FOREST
LIBER 20039, FOLIO 212
PLAT NO. 25766
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND
ADDRESS: 10601 REYNOLDS COURT
ELLCOTT CITY, MARYLAND 21042

ESE CONSULTANTS
ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL

ESE Consultants, Inc.
6731 Columbia Gateway Drive • Suite 120 • Columbia, MD 21046
T: 410-872-9105

DATE: 12/13/2022 SCALE: 1" = 30' FILE: BAT LOT 14
CHK'D: M.J.B. JOB NO: 3502 DRAWN: R.C.K.

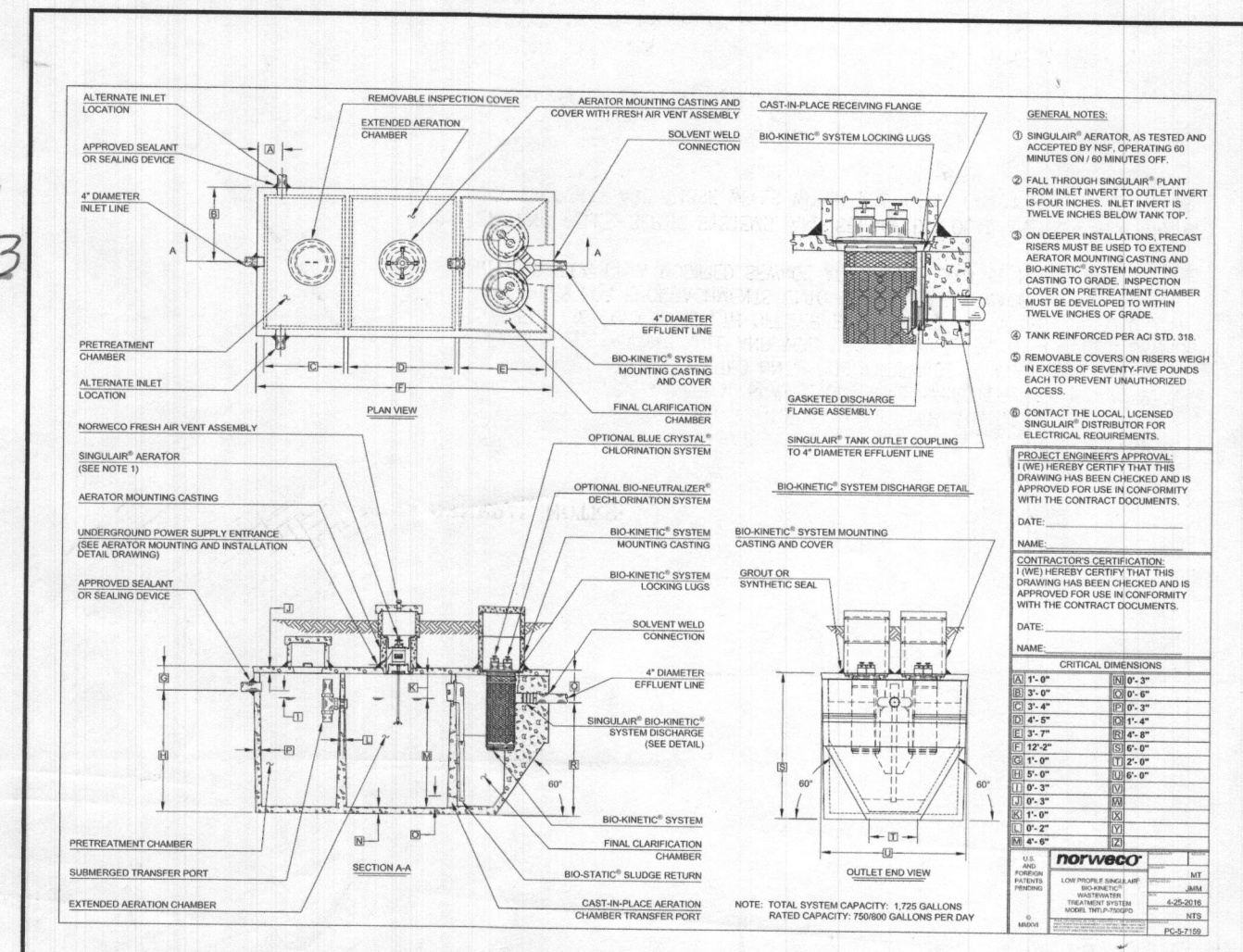
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21328, EXPIRATION DATE 1/8/23.



VICINITY MAP
1" = 1000'

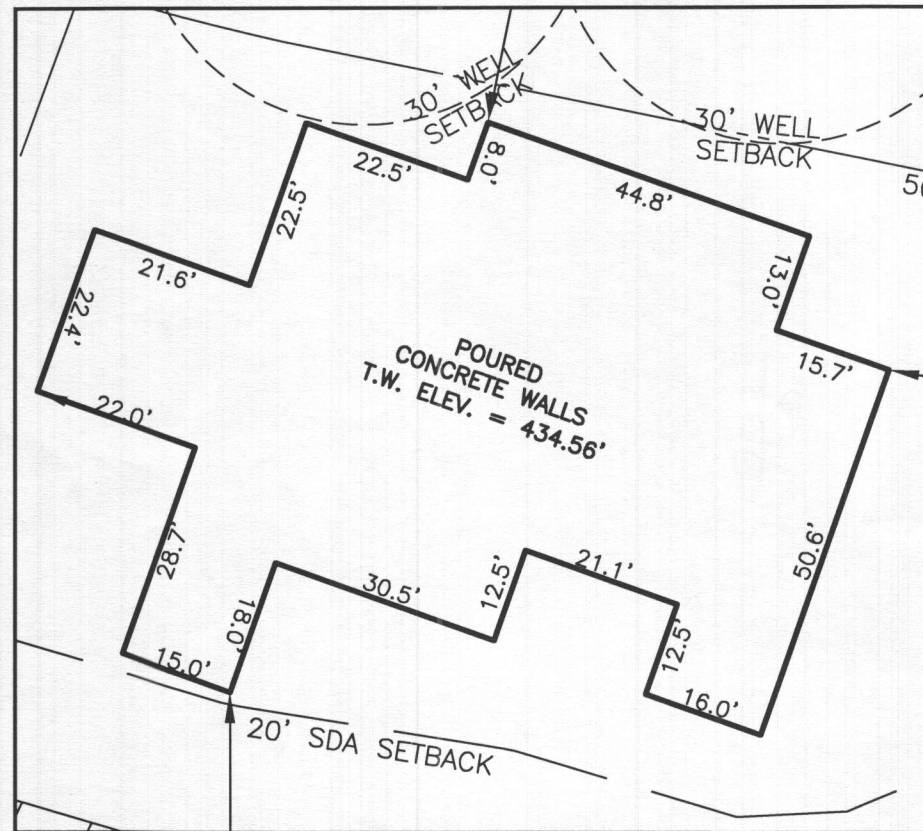
GENERAL NOTES:

- THESE AREAS DESIGNATE A PRIVATE SEWAGE AREA OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE AREAS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS UNTO THE PRIVATE SEWAGE AREA. RECORDATION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY.
- EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND THOSE WELLS WITHIN 200' DOWN GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS OR SEWAGE DISPOSAL AREAS HAVE BEEN SHOWN.
- ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
- BUILDING SETBACKS (B.R.L.'s) SHOWN HEREON PER SITE DEVELOPMENT PLAN SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ±0.1' FOOT.
- ANY CHANGES 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 THREE (3) FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
- THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP, WIDTH, AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS FROM HOWARD COUNTY GIS, 2' CONTOUR INTERVAL AND FIELD VERIFIED BY BENCHMARK ENGINEERING, INC., IN FEBRUARY 2014.



LEGEND:

BRL BUILDING RESTRICTION LINE
W WELL LOCATION
T.W. TOP OF WALL
SEWAGE DISPOSAL AREA
WELL BOX AREA



HOUSE ENLARGEMENT
NOT TO SCALE

WELL NUMBER: HO-17-0371
ADDRESS: 10601 REYNOLDS COURT
ELLICOTT CITY, MD 21042
PERMIT No.: B22004552

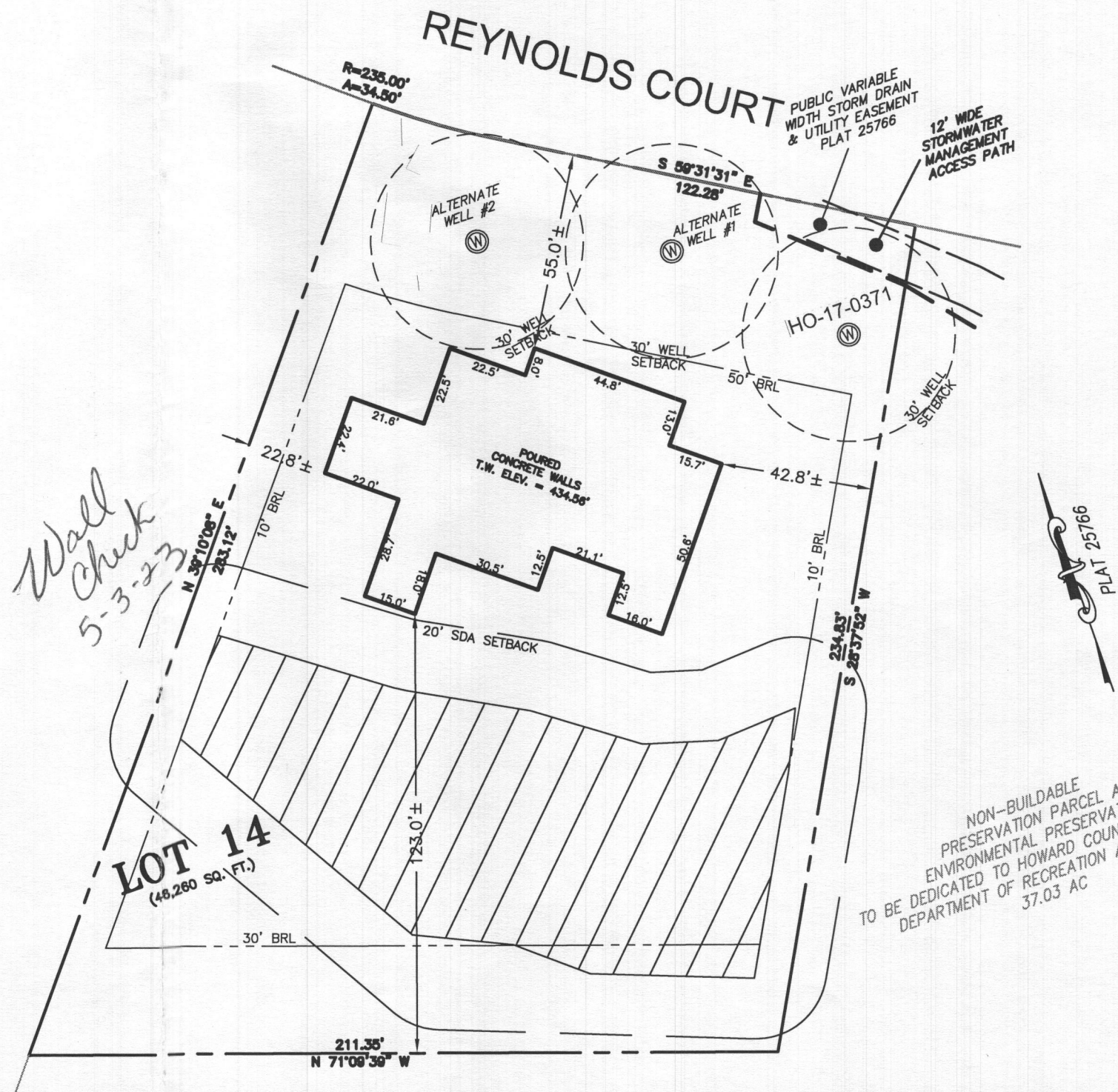
BUILDING SETBACKS (B.R.L.'s) SHOWN HEREON PER SITE DEVELOPEMENT PLAN
SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ±0.1' FOOT.



SURVEYOR'S CERTIFICATE

THIS WALLCHECK WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT. THIS PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS, RIGHT-OF-WAYS, COVENANTS, AND RESTRICTIONS, ETC. OF RECORD, SOME OR ALL OF WHICH MAY OR MAY NOT BE SHOWN AND/OR REFERENCED HEREON. BEARINGS AND DISTANCES OF THE PROPERTY BOUNDARY LINES SHOWN HEREON ARE PER AVAILABLE RECORDS AND HAVE NOT BEEN FIELD VERIFIED.
THIS IS NOT A "LOCATION DRAWING" AND IS NOT TO BE USED FOR SETTLEMENT PURPOSES.

SIGNATURE: MICHAEL JOE BOYCE 21328 04/12/23
MD. LIC NO. DATE



WALLCHECK
LOT 14
KINGS FOREST
LIBER 20039, FOLIO 212
PLAT NO. 25766
2nd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

ESE CONSULTANTS

ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL

ESE Consultants, Inc.
6731 Columbia Gateway Drive • Suite 120 • Columbia, MD 21046
T: 410-872-9105

DATE: 04/12/2023
CHK'D: M.J.B.

SCALE: 1" = 40'
JOB NO: 3502

FILE: WC LOT 14
DRAWN: V.X.P.

LEGEND:

- BRL BUILDING RESTRICTION LINE
- WELL LOCATION
- T.W. TOP OF WALL
- S.F. GARAGE FLOOR
- B.F. BASEMENT FLOOR
- SCE STONE CONSTRUCTION ENTRANCE
- DW DRYWELL
- PASSED PERC LOCATION
- FAILED PERC LOCATION
- SEWAGE DISPOSAL AREA
- WELL BOX AREA
- PROPOSED TREE

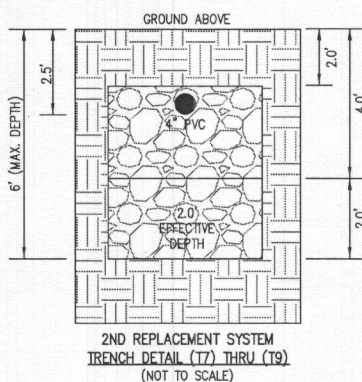
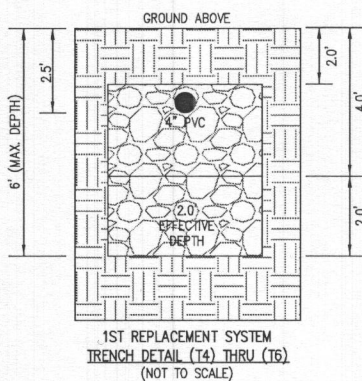
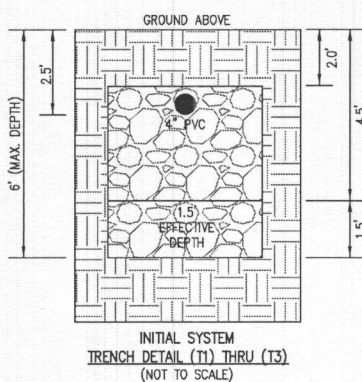
INITIAL TRENCH DATA

BOTTOM MAX. DEPTH (6")

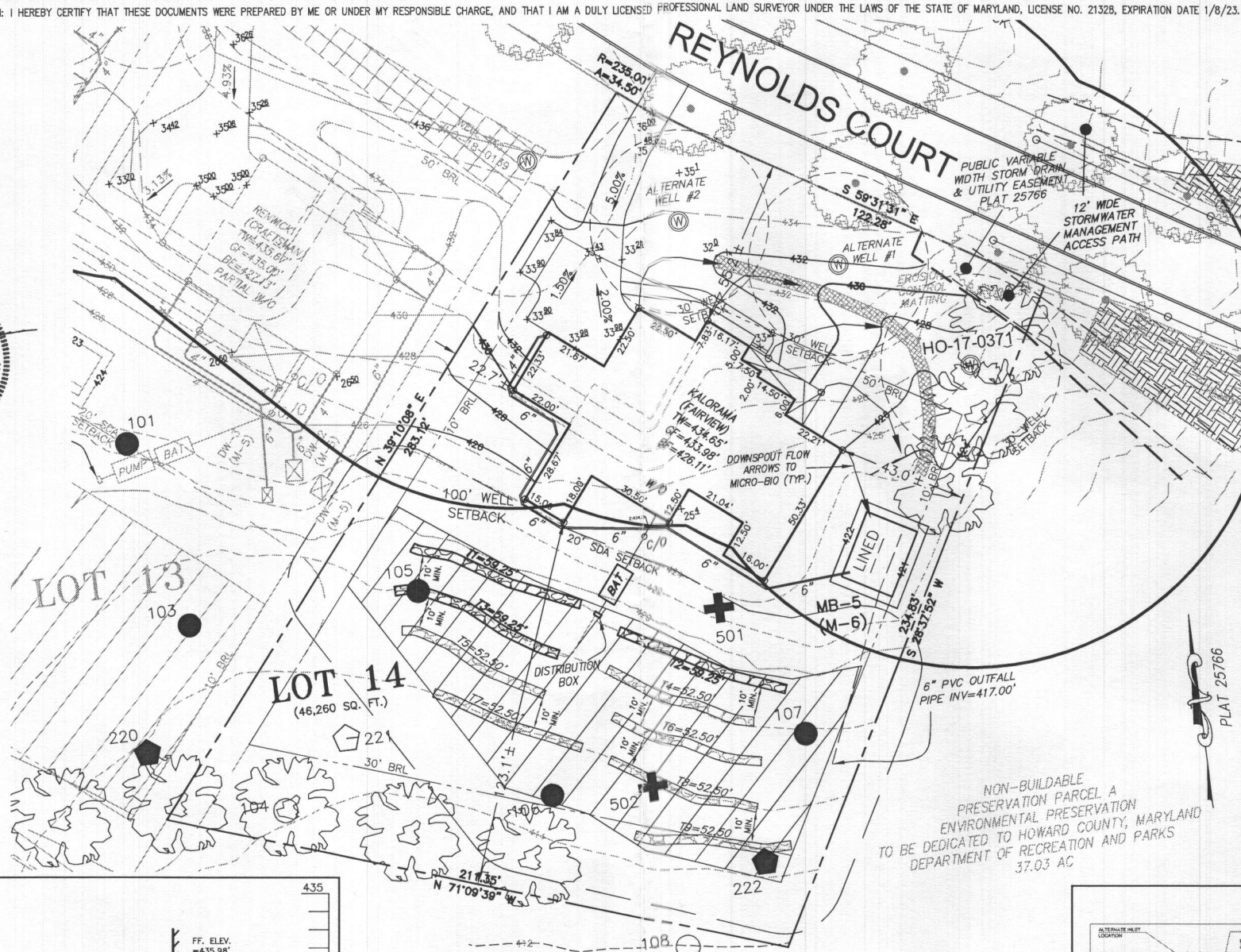
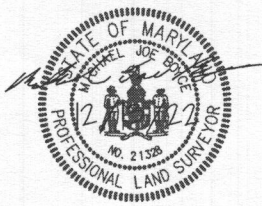
TRENCH 1 (T1): 59.25 L.F.
GROUND ABOVE = 419.50'
INV. IN = 417.00'
BOTTOM TRENCH = 413.50'

TRENCH 2 (T2): 59.25 L.F.
GROUND ABOVE = 419.20'
INV. IN = 419.70'
BOTTOM TRENCH = 413.20'

TRENCH 3 (T3): 59.25 L.F.
GROUND ABOVE = 417.90'
INV. IN = 415.40'
BOTTOM TRENCH = 411.90'



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21328, EXPIRATION DATE 1/8/23.



NON-BUILDABLE PRESERVATION PARCEL A ENVIRONMENTAL PRESERVATION TO BE DEDICATED TO HOWARD COUNTY, MARYLAND DEPARTMENT OF RECREATION AND PARKS 37.03 AC

HOUSE OPTIONS:

HOUSE TYPE: KALORAMA (FAIRVIEW)

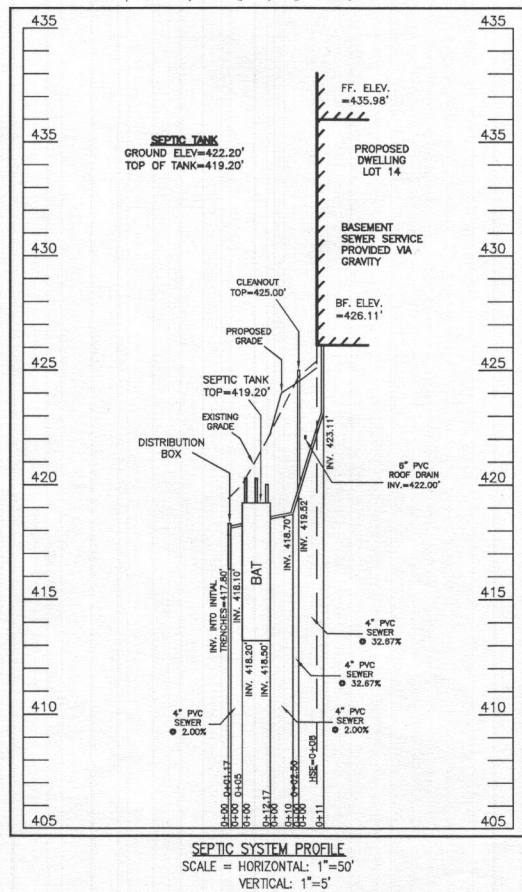
- TWO CAR SIDE ENTRY GARAGE
- WALK-OUT BASEMENT
- ADDITIONAL TWO CAR FRONT ENTRY GARAGE
- MULTI GEN SUITE ADDITION
- GRAND MULTI GEN SUITE ADDITION
- EXPANDED CLOSET
- ALTERNATE KITCHEN ISLAND DESIGN
- DOUBLE WIDE DRIVEWAY TAIL (MODIFIED)

- OPTION No. 012
- OPTION No. 017
- OPTION No. 263019
- OPTION No. 263073
- OPTION No. 263111
- OPTION No. 263149
- OPTION No. 851

SEWAGE DISPOSAL SYSTEM DATA (6 BDRM)

PROPOSED INVERT AT FOUNDATION WALL: 423.11'

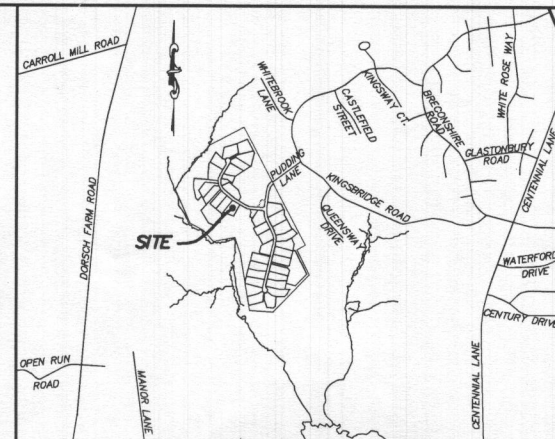
- EX. GRADE OVER TANK: 422.20'
PROPOSED GRADE OVER TANK: 422.20'
INVERT IN: 418.50' INVERT OUT: 418.20'
- DISTRIBUTION BOX
EXISTING GRADE OVER TANK: 419.40'
PROPOSED GRADE OVER TANK: 419.40'
INVERT IN: 418.10' INVERT OUT: 417.80'
- INITIAL TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)
900 GPD ÷ 1.2 APP. RATE = 750 SF
USE 3' WIDE TRENCH WITH 42" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
750 SF ÷ 3' WIDTH = 250 LF x 0.71 (SIDEWALL REDUCTION) = 177.50 LF MIN.
USE 3 59.25' LONG TRENCHES = 177.75 LF
- 1ST REPLACEMENT TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)
900 GPD ÷ 1.2 APP. RATE = 750 SF
USE 3' WIDE TRENCH WITH 42" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
750 SF ÷ 3' WIDTH = 250 LF x 0.63 (SIDEWALL REDUCTION) = 157.50 LF MIN.
USE 3 52.50' LONG TRENCHES = 157.50 LF
- 2ND REPLACEMENT TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)
900 GPD ÷ 1.2 APP. RATE = 750 SF
USE 3' WIDE TRENCH WITH 42" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
750 SF ÷ 3' WIDTH = 250 LF x 0.63 (SIDEWALL REDUCTION) = 157.50 LF MIN.
USE 3 52.50' LONG TRENCHES = 157.50 LF



WELL LOCATION CERTIFICATION:

THE EXISTING WELL SHOWN FOR LOT 14 (TAG NO. HO-17-0371) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN HEREON.

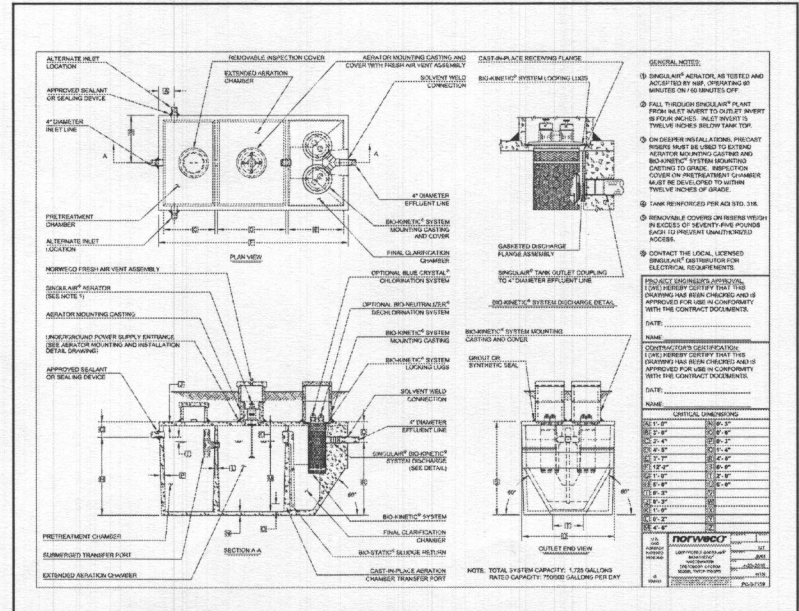
SITE PLAN FOR BAT INSTALLATION
LOT 14
KINGS FOREST
LIBER 20039, FOLIO 212
PLAT NO. 25766
ELECTION DISTRICT No. 2
HOWARD COUNTY, MARYLAND
ADDRESS: 10601 REYNOLDS COURT
ELLICOTT CITY, MARYLAND 21042



VICINITY MAP
1" = 1000'

GENERAL NOTES:

- THESE AREAS DESIGNATE A PRIVATE SEWAGE AREA OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE AREAS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWAGE AREA. RECORDATION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY.
- EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND THOSE WELLS WITHIN 200' DOWN GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS OR SEWAGE DISPOSAL AREAS HAVE BEEN SHOWN.
- ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
- BUILDING SETBACKS (B.R.L.'s) SHOWN HEREON PER SITE DEVELOPMENT PLAN SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ±0.1' FOOT.
- ANY CHANGES 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 THREE (3) FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
- THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP, WIDTH, AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS FROM HOWARD COUNTY GIS, 2' CONTOUR INTERVAL AND FIELD VERIFIED BY BENCHMARK ENGINEERING, INC. IN FEBRUARY 2014.



ESE CONSULTANTS
ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL

ESE Consultants, Inc.
6731 Columbia Gateway Drive • Suite 120 • Columbia, MD 21046
T: 410-872-9105

DATE: 12/13/2022 SCALE: 1" = 30' FILE: BAT LOT 14
CHK'D: M.J.B. JOB NO: 3502 DRAWN: R.C.K.

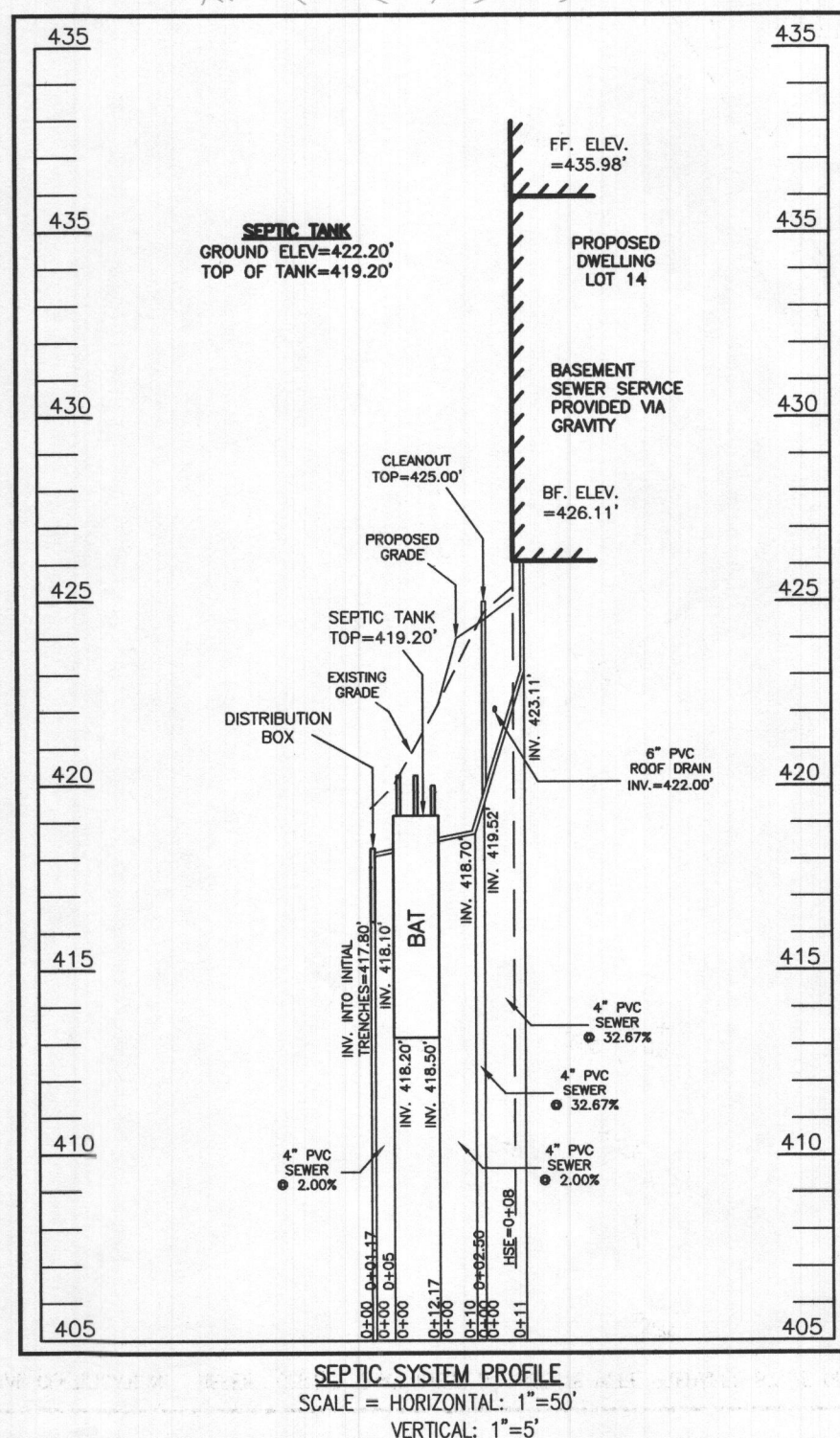
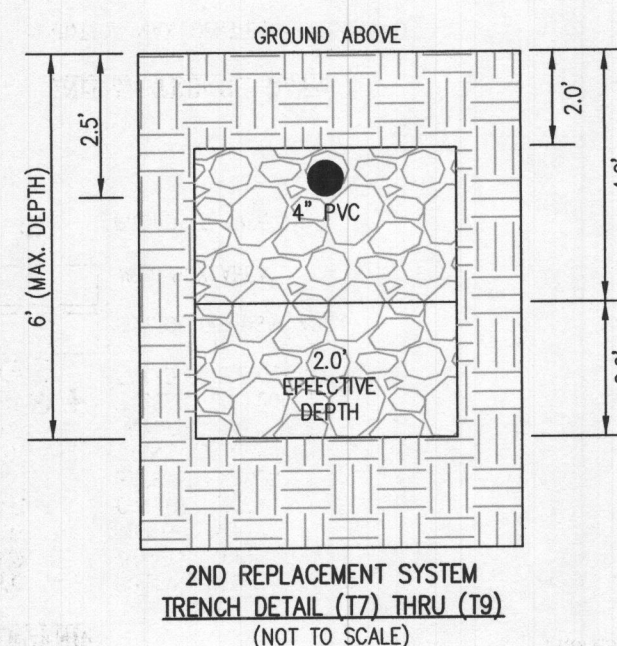
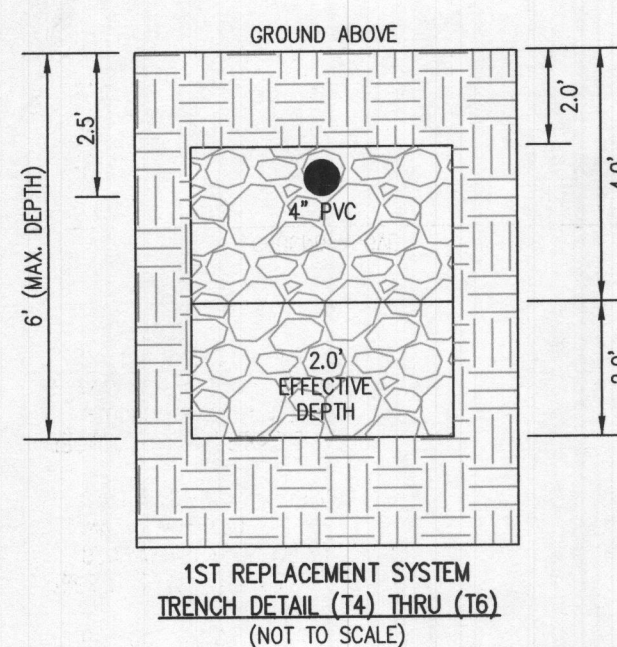
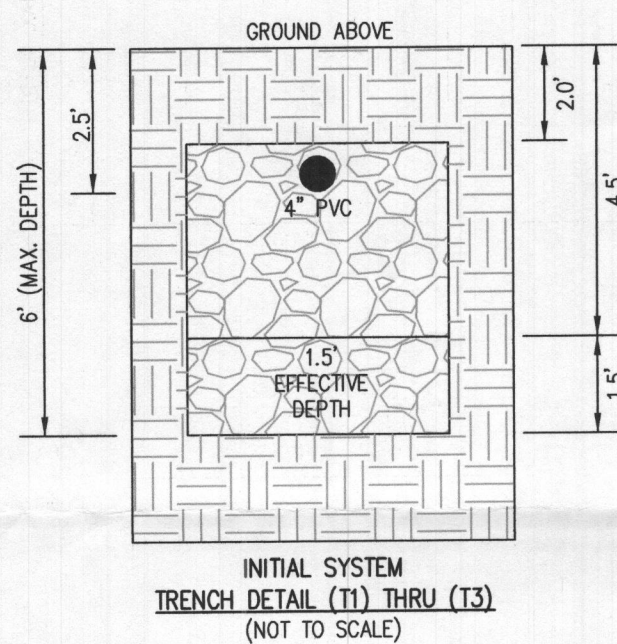
BRL T.W. G.F. B.F. SCE DW	BUILDING RESTRICTION LINE WELL LOCATION TOP OF WALL GARAGE FLOOR BASEMENT FLOOR STONE CONSTRUCTION ENTRANCE DRYWELL PAISED PERC LOCATION FILLED PERC LOCATION
	SEWAGE DISPOSAL AREA
	WELL BOX AREA
	PROPOSED TREE

BOTTOM MAX. DEPTH (6")

TRENCH 1 (T1): 59.25 L.F.
GROUND ABOVE = 419.50'
INV. IN = 417.00'
BOTTOM TRENCH = 413.50'

TRENCH 2 (T2): 59.25 LF.
GROUND ABOVE = 419.20'
INV. IN = 419.70'
BOTTOM TRENCH = 413.20'

TRENCH 3 (T3): 59.25 LF.
GROUND ABOVE = 417.90'
INV. IN = 415.40'
BOTTOM TRENCH = 411.90'



PROPOSED INVERT AT FOUNDATION WALL: 423.11'

1. EX. GRADE OVER TANK: 423.20'
PROPOSED GRADE OVER TANK: 422.20'
INVERT IN: 418.50' INVERT OUT: 418.20'

2. DISTRIBUTION BOX
EXISTING GRADE OVER TANK: 419.40'
PROPOSED GRADE OVER TANK: 419.40'
INVERT IN: 418.10' INVERT OUT: 417.80'

3. INITIAL TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)
900 GPD ÷ 1.2 APP. RATE = 750 SF
USE 3' WIDE TRENCH WITH 42" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
750 SF ÷ 3' WIDTH = 250 LF x 0.71 (SIDEWALL REDUCTION) = 177.50 LF MIN.
USE 3 59.25' LONG TRENCHES = 177.75 LF

4. 1ST REPLACEMENT TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)
900 GPD ÷ 1.2 APP. RATE = 750 SF
USE 3' WIDE TRENCH WITH 42" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
750 SF ÷ 3' WIDTH = 250 LF x 0.63 (SIDEWALL REDUCTION) = 157.50 LF MIN.
USE 3 52.50' LONG TRENCHES = 157.50 LF

5. 2ND REPLACEMENT TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)
900 GPD ÷ 1.2 APP. RATE = 750 SF
USE 3' WIDE TRENCH WITH 42" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
750 SF ÷ 3' WIDTH = 250 LF x 0.63 (SIDEWALL REDUCTION) = 157.50 LF MIN.
USE 3 52.50' LONG TRENCHES = 157.50 LF

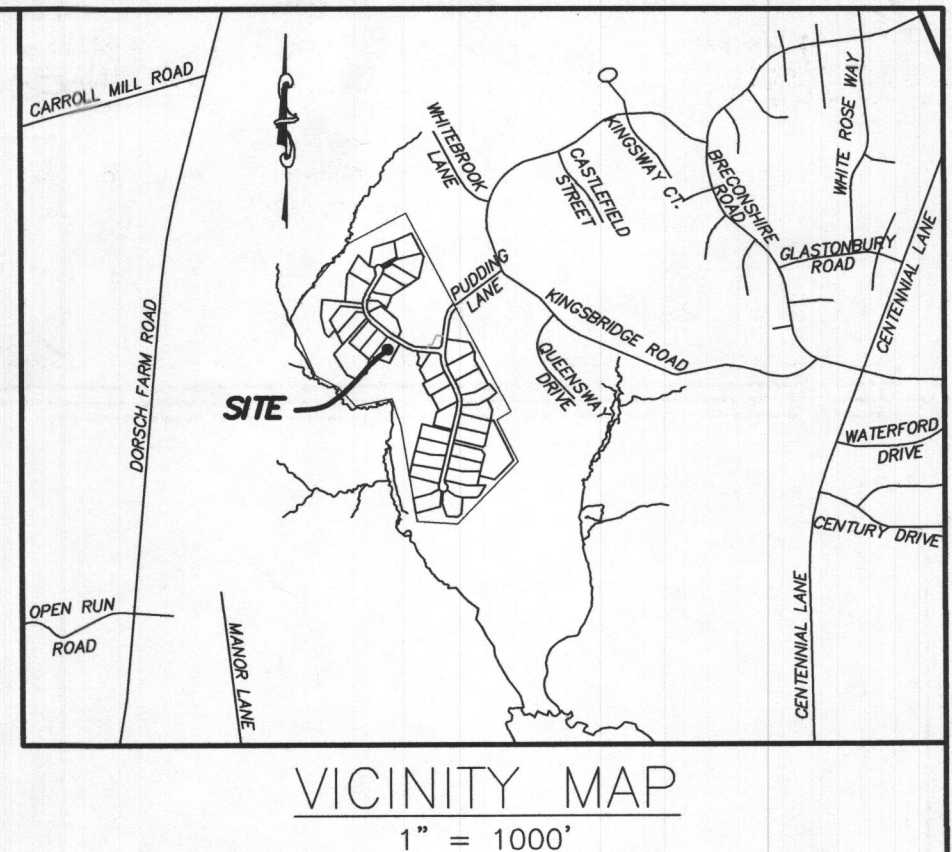
HOUSE TYPE: KALORAMA (FAIRVIEW)
TWO CAR SIDE ENTRY GARAGE
WALK-OUT BASEMENT
ADDITIONAL TWO CAR FRONT ENTRY GARAGE
MULTI GEN SUITE ADDITION
GRAND MULTI GEN SUITE ADDITION
EXPANDED CLOSET
ALTERNATE KITCHEN ISLAND DESIGN
DOUBLE WIDE DRIVEWAY TAIL (MODIFIED)

THE EXISTING WELL SHOWN FOR LOT 14 (TAG NO. HO-17-0371) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN HEREON.

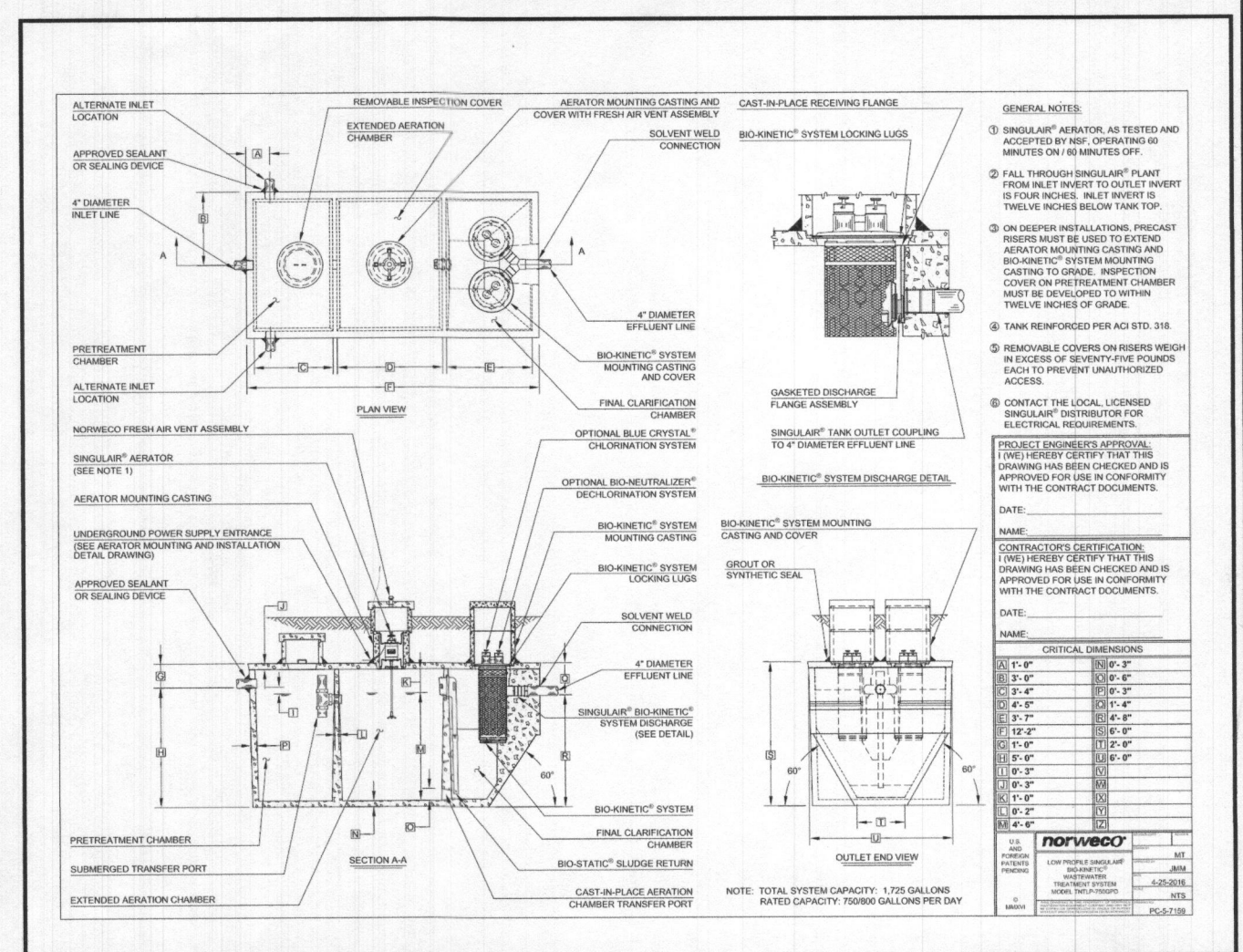
SITE PLAN FOR BAT INSTALLATION
LOT 14
KINGS FOREST
LIBER 20039, FOLIO 212
PLAT NO. 25766
ELECTION DISTRICT No. 2
HOWARD COUNTY, MARYLAND
ADDRESS: 10601 REYNOLDS COURT
FELICOTT CITY, MARYLAND 21042

ESE Consultants, Inc.
6731 Columbia Gateway Drive • Suite 120 • Columbia, MD 21046
T: 410-872-9105

DATE: 12/13/2022 SCALE: 1"= 30' FILE: BAT LOT 14
CHK'D: M.J.B. JOB NO: 3502 DRAWN: R.C.K.



1. [REDACTED] THESE AREAS DESIGNATE A PRIVATE SEWAGE AREA OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE AREAS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS UNTO THE PRIVATE SEWAGE AREA. RECORDATION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY.
2. EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND THOSE WELLS WITHIN 200' DOWN GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS OR SEWAGE DISPOSAL AREAS HAVE BEEN SHOWN.
3. ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
4. BUILDING SETBACKS (B.R.L.'s) SHOWN HEREON PER SITE DEVELOPMENT PLAN SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ±0.1' FOOT.
5. ANY CHANGES 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.
6. THE MAXIMUM EARTH COVER OVER THE TANK IS THREE (3) FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
7. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP, WIDTH, AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
8. THE EXISTING TOPOGRAPHY SHOWN HEREON IS FROM HOWARD COUNTY GIS, 2' CONTOUR INTERVAL AND FIELD VERIFIED BY BENCHMARK ENGINEERING, INC., IN FEBRUARY 2014.



LEGEND:

- BRL BUILDING RESTRICTION LINE
- T.W. TOP OF WALL
- G.F. GARAGE FLOOR
- B.F. BASEMENT FLOOR
- SCE STONE CONSTRUCTION ENTRANCE
- DW DRYWELL
- PASSED PERC LOCATION
- FAILED PERC LOCATION
- SEWAGE DISPOSAL AREA
- WELL BOX AREA
- PROPOSED TREE

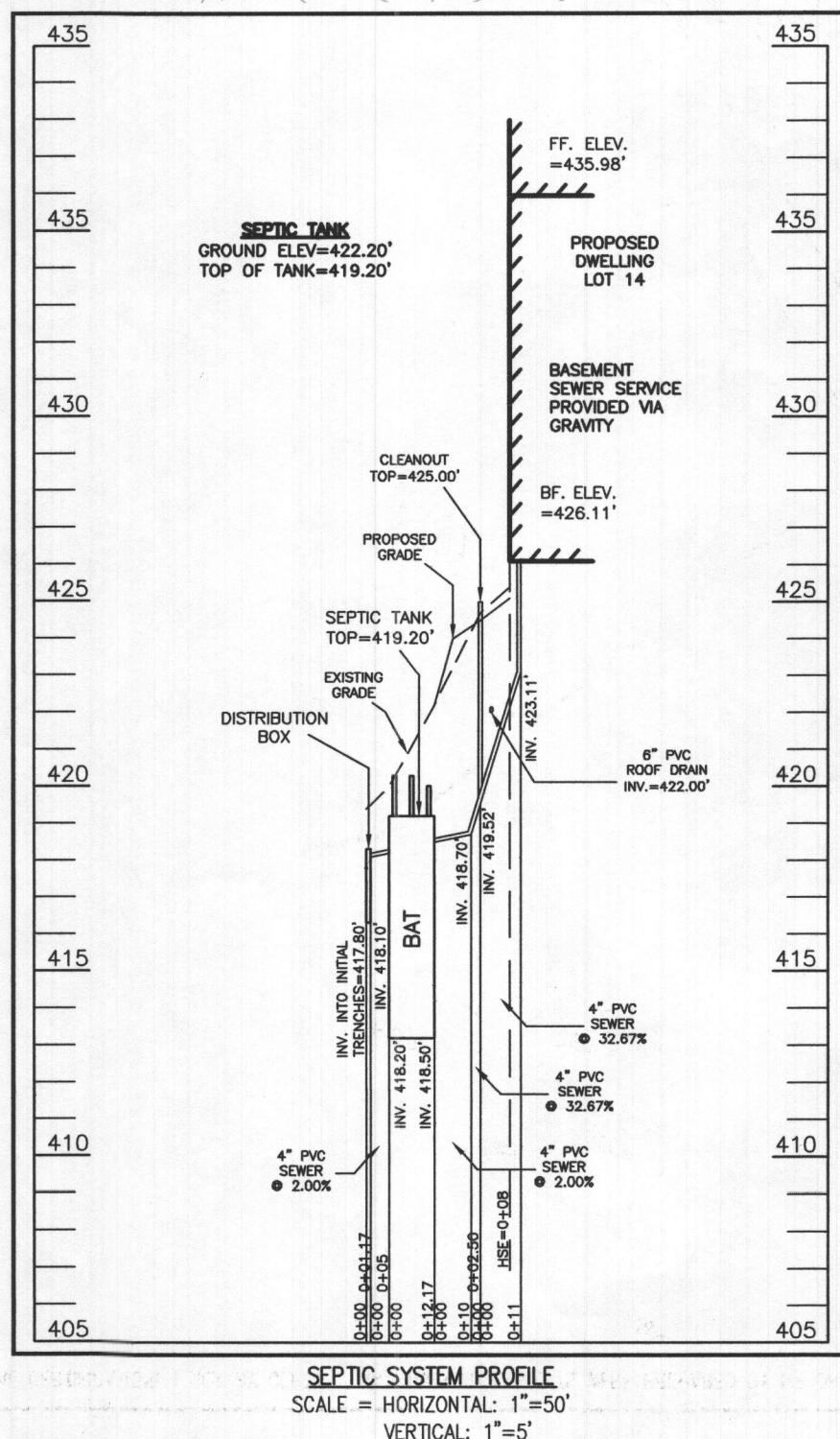
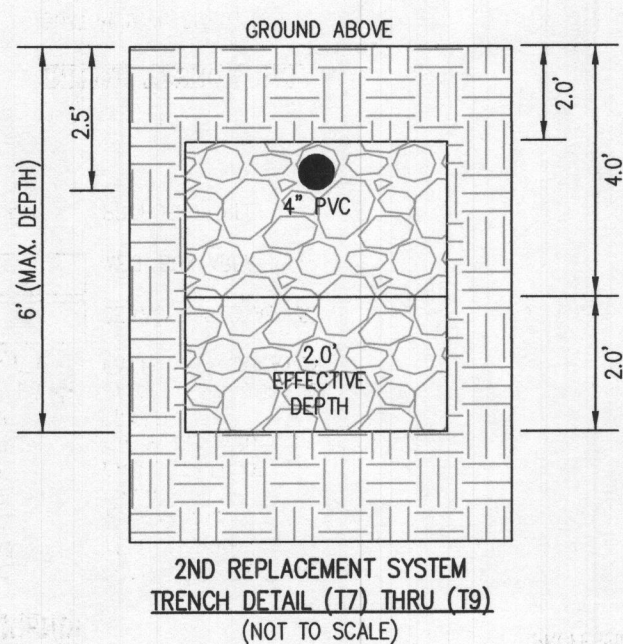
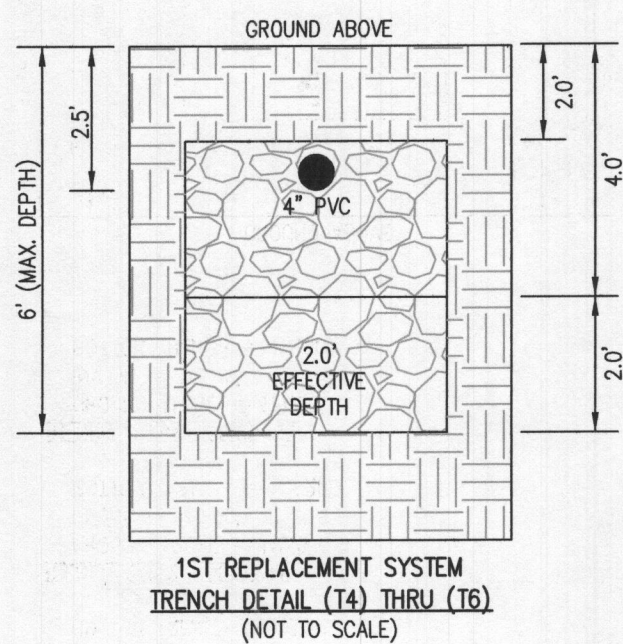
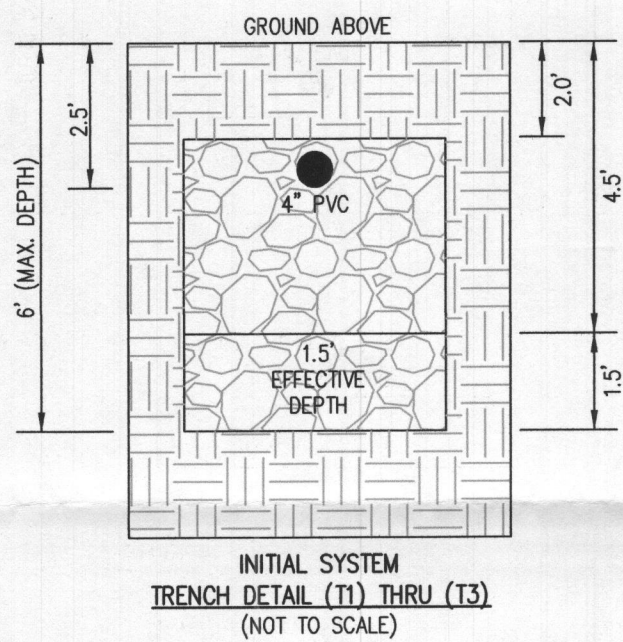
INITIAL TRENCH DATA:

BOTTOM MAX. DEPTH (6")

TRENCH 1 (T1): 59.25 LF
GROUND ABOVE = 419.50'
INV. IN = 417.00'
BOTTOM TRENCH = 413.50'

TRENCH 2 (T2): 59.25 LF
GROUND ABOVE = 419.20'
INV. IN = 419.70'
BOTTOM TRENCH = 413.20'

TRENCH 3 (T3): 59.25 LF
GROUND ABOVE = 417.90'
INV. IN = 415.40'
BOTTOM TRENCH = 411.90'



SEWAGE DISPOSAL SYSTEM DATA (6 BDRM)

- PROPOSED INVERT AT FOUNDATION WALL: 423.11'
- EX. GRADE OVER TANK: 422.20'
PROPOSED GRADE OVER TANK: 422.20'
INVERT IN: 418.50' INVERT OUT: 418.20'
 - DISTRIBUTION BOX
EXISTING GRADE OVER TANK: 419.40'
PROPOSED GRADE OVER TANK: 419.40'
INVERT IN: 418.10' INVERT OUT: 417.80'
 - INITIAL TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)
900 GPD ÷ 1.2 APP. RATE = 750 SF
USE 3' WIDE TRENCH WITH 42" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
750 SF ÷ 3' WIDTH = 250 LF x 0.71 (SIDEWALL REDUCTION) = 177.50 LF MIN.
USE 3 59.25' LONG TRENCHES = 177.75 LF
 - 1ST REPLACEMENT TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)
900 GPD ÷ 1.2 APP. RATE = 750 SF
USE 3' WIDE TRENCH WITH 42" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
750 SF ÷ 3' WIDTH = 250 LF x 0.63 (SIDEWALL REDUCTION) = 157.50 LF MIN.
USE 3 52.50' LONG TRENCHES = 157.50 LF
 - 2ND REPLACEMENT TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)
900 GPD ÷ 1.2 APP. RATE = 750 SF
USE 3' WIDE TRENCH WITH 42" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
750 SF ÷ 3' WIDTH = 250 LF x 0.63 (SIDEWALL REDUCTION) = 157.50 LF MIN.
USE 3 52.50' LONG TRENCHES = 157.50 LF

HOUSE OPTIONS:

HOUSE TYPE: KALORAMA (FAIRVIEW)

- TWO CAR SIDE ENTRY GARAGE
- WALK-OUT BASEMENT
- ADDITIONAL TWO CAR FRONT ENTRY GARAGE
- MULTI GEN SUITE ADDITION
- GRAND MULTI GEN SUITE ADDITION
- EXPANDED CLOSET
- ALTERNATE KITCHEN ISLAND DESIGN
- DOUBLE WIDE DRIVEWAY TAIL (MODIFIED)

- OPTION No. 012
- OPTION No. 017
- OPTION No. 263019
- OPTION No. 263073
- OPTION No. 263075
- OPTION No. 263111
- OPTION No. 263149
- OPTION No. 851

Approved Septic System Plan
Howard County Health Department
Signature: *[Signature]* Date: 1-3-23

WELL LOCATION CERTIFICATION:

THE EXISTING WELL SHOWN FOR LOT 14 (TAG NO. HO-17-0371) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN HEREON.

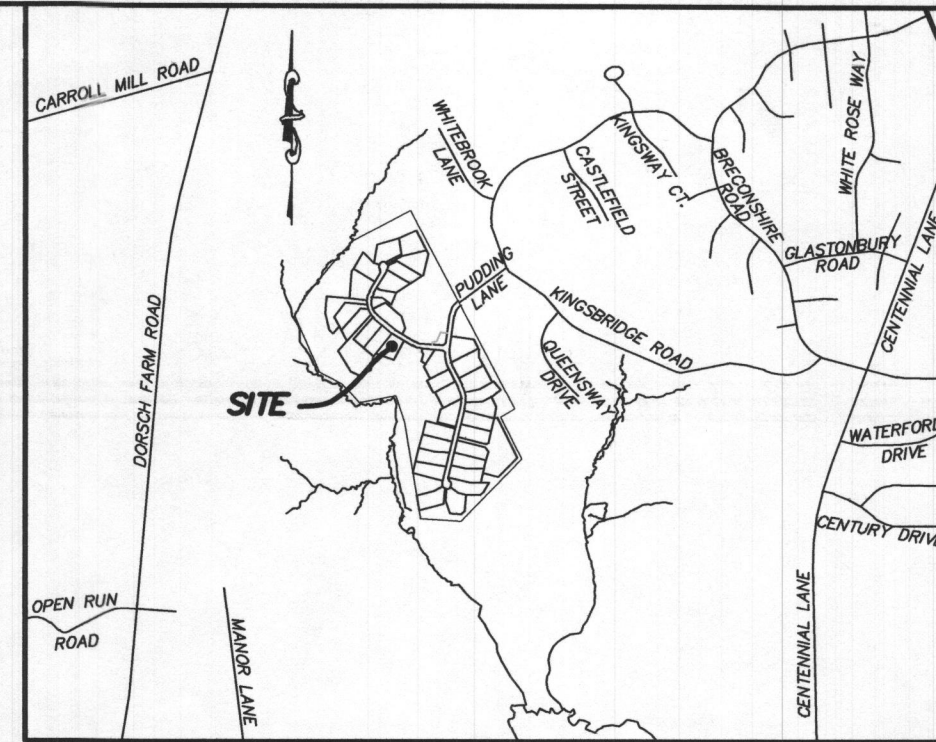
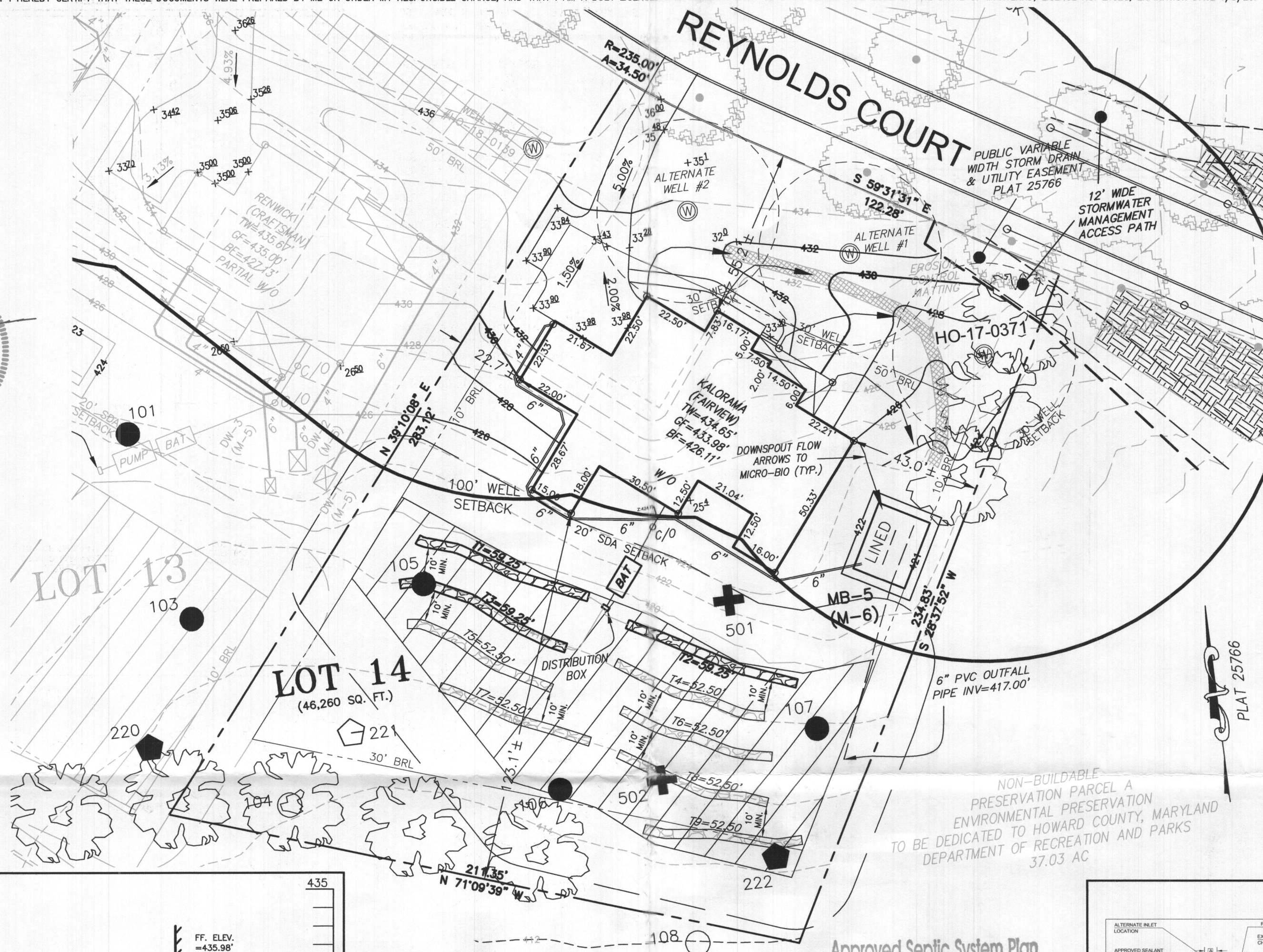
SITE PLAN FOR BAT INSTALLATION
LOT 14
KINGS FOREST
LIBER 20039, FOLIO 212
PLAT NO. 25766
ELECTION DISTRICT No. 2
HOWARD COUNTY, MARYLAND
ADDRESS: 10601 REYNOLDS COURT
ELICOTT CITY, MARYLAND 21042

ESE CONSULTANTS
ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL

ESE Consultants, Inc.
6731 Columbia Gateway Drive • Suite 120 • Columbia, MD 21046
T: 410-872-9105

DATE: 12/13/2022 SCALE: 1"= 30' FILE: BAT LOT 14
CHK'D: M.J.B. JOB NO: 3502 DRAWN: R.C.K.

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21328, EXPIRATION DATE 1/8/23.



VICINITY MAP
1" = 1000'

GENERAL NOTES:

- THESE AREAS DESIGNATE A PRIVATE SEWAGE AREA OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE AREAS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS UNTO THE PRIVATE SEWAGE AREA. RECORDATION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY.
- EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND THOSE WELLS WITHIN 200' DOWN GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS OR SEWAGE DISPOSAL AREAS HAVE BEEN SHOWN.
- ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
- BUILDING SETBACKS (B.R.L.'s) SHOWN HEREON PER SITE DEVELOPMENT PLAN SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ±0.1' FOOT.
- ANY CHANGES 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 THREE (3) FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
- THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP, WIDTH, AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS FROM HOWARD COUNTY GIS, 2' CONTOUR INTERVAL AND FIELD VERIFIED BY BENCHMARK ENGINEERING, INC., IN FEBRUARY 2014.

