

**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](http://www.hchealth.org)  
 Facebook: [www.facebook.com/hocohealth](http://www.facebook.com/hocohealth)

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

RECEIPT DATE: 7-26-2022 **ONSITE SEWAGE DISPOSAL SYSTEM** P 572105

APPROVAL DATE: 10/4/22 (RR) **PERMIT: CONSTRUCTION** A \_\_\_\_\_

PROPERTY ADDRESS: 1438 HERITAGE RIDGE ROAD, WOODBINE, MD 21797

SUBDIVISION: LINDEN GROVE, PHASE 2 LOT: 36 TAX ID: 04-603258

CONTRACTOR: CHAVIS ENTERPRISES & SEPTIC SERVICES EMAIL: Ryan@chavisenterprisesllc.com

CONTRACTOR ADDRESS: 23 EAST ELLENDALE, BEL AIR, MD 21014 PHONE: (410)838-3007

PROPERTY OWNER: TOLL MID-ATLANTIC LP COMPANY, INC EMAIL: nbrandenburg@tollbrothers.com

OWNER ADDRESS: 250 GIBRALTER ROAD, HORSHAM, PA 19044 PHONE: (410)381-3271

SEPTIC TANK SIZE (GALLONS): 2000 TANK MANUFACTURER: Back River Pre-Cast, LLC

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

DISTRIBUTION SYSTEM:  GRAVITY  PRESSURE DOSED BEDROOMS: 6 APPLICATION RATE: 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>157</u>	INLET DEPTH: <u>2.5</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8.0</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>11</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>4.0</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	INSTALL TWO CLEANOUTS IN SHC, AS ILLUSTRATED.	

ISSUED BY: R BRICKER ISSUE DATE: 7/26/2022 EXPIRATION DATE: 7/26/2023

- 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.**

NOT TO SCALE

See separate sheet  
for as built

ROAD NAME

**TRENCH/DRAINFIELD DATA**

WIDTH	INLET	BOTTOM
3	2.5'	8'
NUMBER OF TRENCHES		2
TOTAL LENGTH		160
ABSORPTION AREA		480'sqft + sidewall
DISTRIBUTION BOX LEVEL		
DISTRIBUTION BOX BAFFLE		
DISTRIBUTION BOX PORT		Yes

**SEPTIC TANK DATA**

SEPTIC TANK 1 LEVEL	Yes
MANUFACTURER	Baker
CAPACITY	2000 GAL
SEAM LOC	Top
TANK LID DEPTH	1'-3"
BAFFLES	Yes
BAFFLE FILTER	
MANHOLE LOC	Front / Rear
6" PORT LOC	None
WATERTIGHT TEST	-
SLOTTED	Yes
DATE ON LID	6-18-22

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:

08/18/2022 SHC TO BE RELOCATED TO MATCH PLANS. CONFIRMED  
CONTOUR FOR 2x 79' TRENCH. (P)

INSTALLATION:

8/19/2022: Tank set plumbed in. 4" sewer installed to tank. Need SHC @ house. Dbox set plumbed in upper trench installed. Soil w/ 25% shale throughout. OK to continue (P) 08/22/2022 LOWER TRENCH COMPLETE. D BOX LEVELED w/ SPEED LEVELS. SHC NOT INSTALLED; REINSPECT SHC (P) 9/12/22 - SHC trench is under water & mud so it's difficult to see the connection, looks like concrete in basement. Turn up to install the sewer line at the right location. (P) 9/14/22 - SHC confirmed, also observed regrading @ ST and the addition of 1' of riser on back manhole of ST - cover could exceed 3' (P)

FINAL INSPECTOR

R. Roppoort

DATE OF APPROVAL

7/14/22 10/4/22

Final grading verified in field - RR







# HOWARD COUNTY HEALTH DEPARTMENT

72105

DATE 7/22/22

FS

Received From

Chavis Ent

PHONE #

410 557-2455

For

Septic permit / Lot 36  
1438 Heritage Ridge

- CASH
- CHECK

NO.

22453

Three hundred ninety five Dollars

\$

390.00

Received By

Kemp

## Rappaport, Ryan

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**From:** Rappaport, Ryan  
**Sent:** Thursday, September 15, 2022 9:14 AM  
**To:** 'gsimmons@tollbrothers.com'; 'wrandall@tollbrothers.com'  
**Cc:** Wolf, Kevin; Cabahug, Joseph  
**Subject:** Linden Grove - Lot 36 1438 Heritage Ridge Rd  
**Attachments:** Linden Grove Lot 36 - 1438 Heritage Ridge Rd.pdf

Hello, I wanted to reach out and say that the Health Dept has observed regrading near the septic tank and dbox on this lot. Additionally, 1 foot of riser was added to the back end manhole on the septic tank. Please keep in mind that this type of septic tank is only approved for 3 feet of cover. There also seems to be an area of pooling water right at the dbox cleanout because of the way this yard was graded after the osds install. I wanted to put this on your radar because issues like this can hold up the ICOP.

*Ryan Rappaport, LEHS*  
Howard County Health Department  
Bureau of Environmental Health  
8930 Stanford Blvd.  
Columbia, MD. 21045  
Phone 410-313-1781  
Fax 410-313-2648  
[rrappaport@howardcountymd.gov](mailto:rrappaport@howardcountymd.gov)  
[www.co.ho.md.us](http://www.co.ho.md.us)



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Linden Grove - Lot 36 – 1438 Heritage Ridge Rd

Photo from 9/12/2022



Photos from 9/14/2022



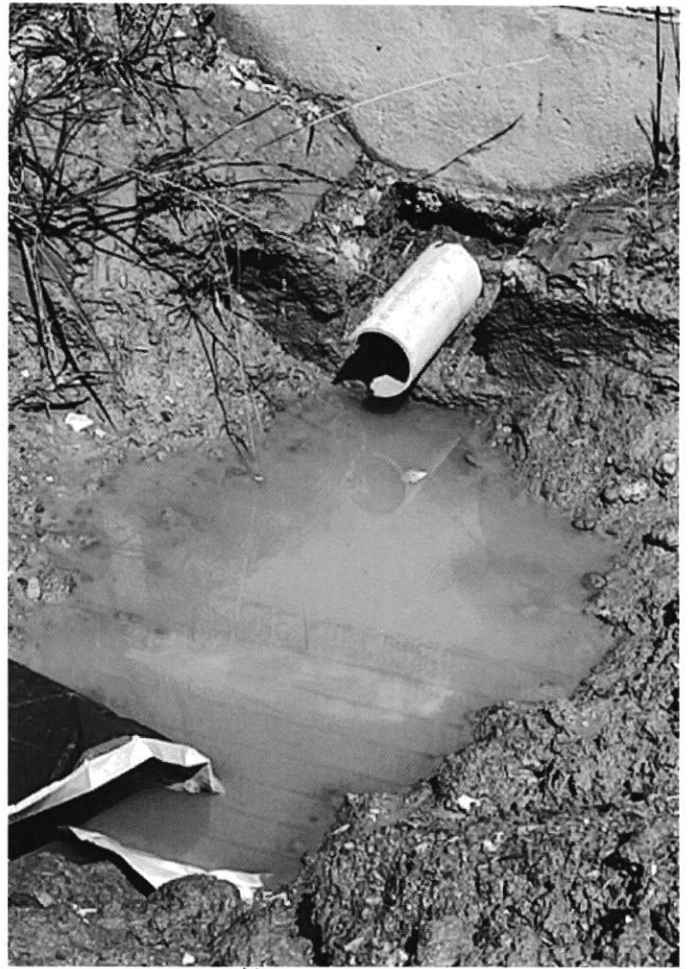


9/14/22.

1' of riser added to  
back end manhole on  
Septic tank - grading completed  
by builder around ST & DB.  
ponding observed @ DB c/o.

(AK)

9/12/22 SHC not observed



Builder regraded around ST





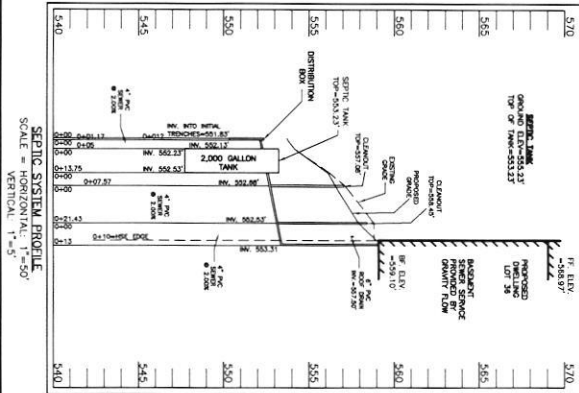
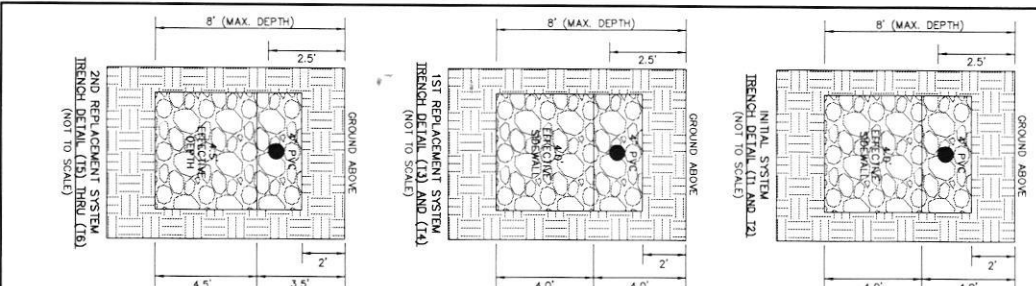


**HOUSE TYPE: PARTRIDGE (MODERN FARMHOUSE)**

- 1. TWO CAR SIDE ENTRY GARAGE
- 2. FINISHED LOWER LEVEL
- 3. WALK-OUT BASEMENT FINISHED BASEMENT
- 4. WALK-OUT BASEMENT FINISHED BASEMENT
- 5. WALK-OUT BASEMENT FINISHED BASEMENT
- 6. WALK-OUT BASEMENT FINISHED BASEMENT
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- 8. WALK-OUT BASEMENT FINISHED BASEMENT
- 9. WALK-OUT BASEMENT FINISHED BASEMENT
- 10. WALK-OUT BASEMENT FINISHED BASEMENT
- 11. WALK-OUT BASEMENT FINISHED BASEMENT
- 12. WALK-OUT BASEMENT FINISHED BASEMENT
- 13. WALK-OUT BASEMENT FINISHED BASEMENT
- 14. WALK-OUT BASEMENT FINISHED BASEMENT

**INITIAL TRENCH DATA**

- BOTTOM MAX DEPTH (6.0)
- TRENCH 1 (L1) 78.75 LF
- GROUND ABOVE = 553.80
- NAN LN = 551.30 = 545.80
- BOTTOM TRENCH = 545.80
- TRENCH 2 (L2) 78.75 LF
- GROUND ABOVE = 552.80
- BOTTOM TRENCH = 544.80



**SEPTIC SYSTEM PROFILE**  
SCALE: VERTICAL 1" = 5'-0"

**LEGEND:**

- PROPOSED RESTRICTION LINE
- TOP OF WALL
- GRADE FLOOR
- PROPOSED PERC LOCATION
- PROPOSED PERC LOCATION
- SEWAGE DISPOSAL AREA
- WELL BOY AREA
- PROPOSED FENCE
- PROPOSED FENCE

**SEWAGE DISPOSAL SYSTEM DATA (6 BDRM)**

- PROPOSED 14" CONCRETE WALL: 553.30'
- PROPOSED GRADE OVER TANK: 553.23'
- INVERT LN: 552.53'
- INVERT DATE: 552.23'

**2. DISTRIBUTION BOX**

- EXISTING GRADE OVER TANK: 553.77'
- PROPOSED GRADE OVER TANK: 553.77'
- INVERT LN: 552.13'
- INVERT DATE: 551.83'

**3. INITIAL TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)**

- 900 GPD x 0.8 APP. RATE = 1,125 SF
- USE 3" WIDE TRENCH WITH 72" GRAVEL BELOW PIPE
- 1,125 SF ÷ 3" WIDE TRENCH = 375 LF x 0.42 (SIDEWALL REDUCTION) = 157.50 LF MIN.

**USE 2 78.75' LONG TRENCHES = 157.50 LF**

**4. 1ST REPLACEMENT TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)**

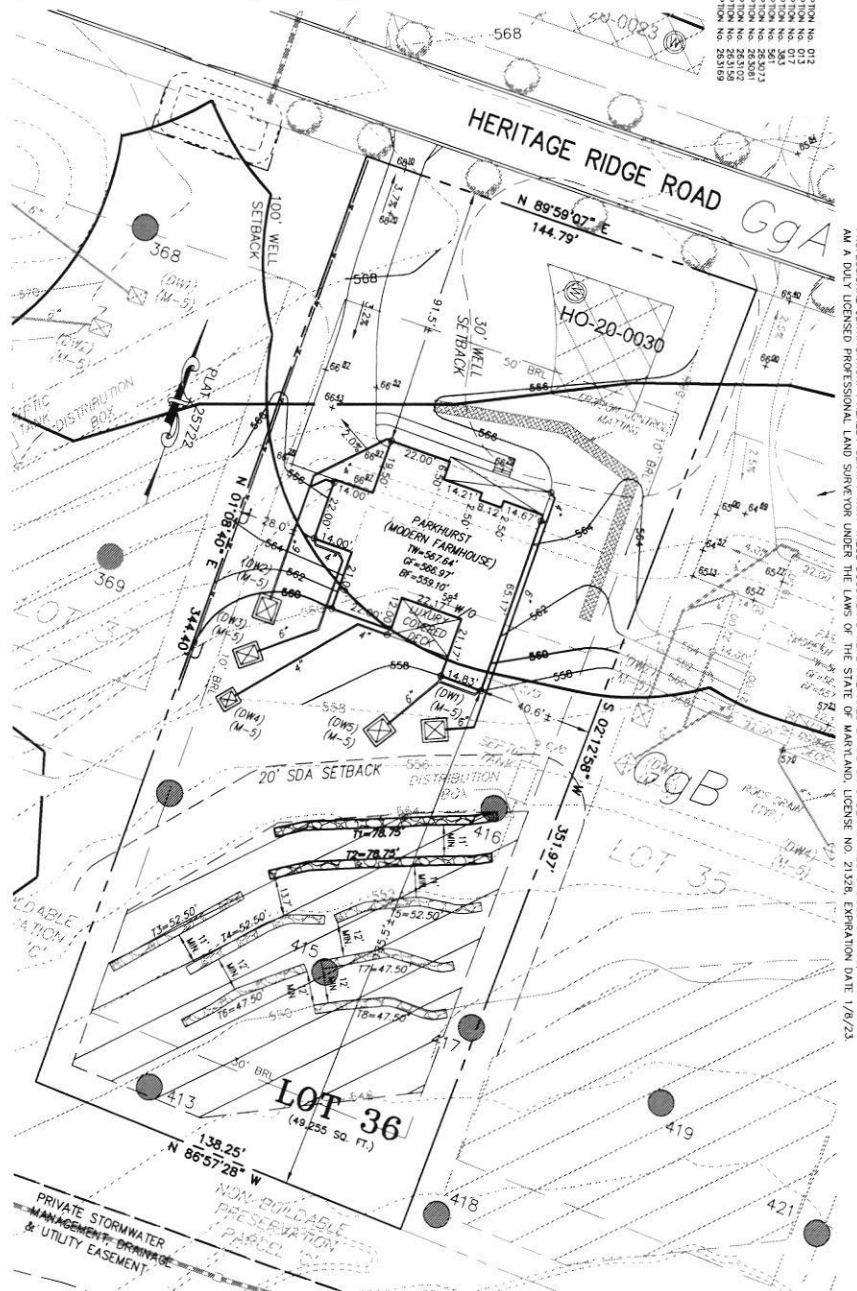
- 900 GPD x 0.8 APP. RATE = 1,125 SF
- USE 3" WIDE TRENCH WITH 48" GRAVEL BELOW PIPE
- 1,125 SF ÷ 3" WIDE TRENCH = 375 LF x 0.42 (SIDEWALL REDUCTION) = 157.50 LF MIN.

**USE 2 78.75' LONG TRENCHES = 157.50 LF**

**5. 2ND REPLACEMENT TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)**

- 900 GPD x 0.8 APP. RATE = 1,125 SF
- USE 3" WIDE TRENCH WITH 48" GRAVEL BELOW PIPE
- 1,125 SF ÷ 3" WIDE TRENCH = 375 LF x 0.38 (SIDEWALL REDUCTION) = 142.50 LF MIN.

**USE 2 71.25' LONG TRENCHES = 142.50 LF**



**GENERAL NOTES:**

1. THESE AREAS DESIGNATE A PRIVATE SEWAGE AREA AT LEAST PART OF THE PROPERTY FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE TO BE PROVIDED BY THE OWNER. THE COUNTY HEALTH OFFICER SHALL BECOME INVOLVED WITH ANY CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENDOUSEMENTS UNTO THE 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.) SHOW HEREON PER SITE DEVELOPMENT PLAN SETBACK DISTANCES SHOWN HEREON AS "X" HAVE AN ACCURACY OF ±0.1' TO 1'.
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 REVERSE 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 COMPLETES WITH THE ANNUAL MARSHLAND STATE DEPARTMENT OF THE ENVIRONMENT AND FIELD VERIFIED BY FISHER, COLLINS AND CARTER, INC.
8. THE EXISTING TOPOGRAPHY SHOWN HEREON IS FROM HOWARD COUNTY HEALTH DEPARTMENT AND FIELD VERIFIED BY FISHER, COLLINS AND CARTER, INC.

**SOILS LEGEND**

SOIL	NAME	CLASS	REV
B1	BROWN OR GRAY BROWN SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B2	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B3	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B4	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B5	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B6	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B7	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B8	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B9	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B10	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B11	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B12	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B13	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B14	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B15	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B16	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B17	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B18	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B19	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B20	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B21	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B22	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B23	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20
B24	CLAYEY SILTY CLAY TO SILTY CLAY WITH SILTY SHALES	B	20

**NOTES:**

- HYDRIC SOILS AND/OR CONTAINS HYDRIC INCLUSIONS
- MAY CONTAIN HYDRIC INCLUSIONS
- ... DENOTES PROPOSED SOILS

**WELL LOCATION CERTIFICATION:**

THE EXISTING WELL SHOWN FOR LOT 36 (TAG NO. HO-20-0030) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN HEREON.

**ON-SITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN**

**LOT 36**

**LINDEN GROVE**

LIBER 15899, FOLIO 246

PLAT NO. 25722

ELECTION DISTRICT NO. 4

HOWARD COUNTY, MARYLAND

ADDRESS: 1438 HERITAGE RIDGE ROAD

WOODBINE, MARYLAND 21797

**DATE:** 02/17/2022

**SCALE:** 1" = 30'

**FILE:** 0205 LOT 36

**DRAWN:** VJP



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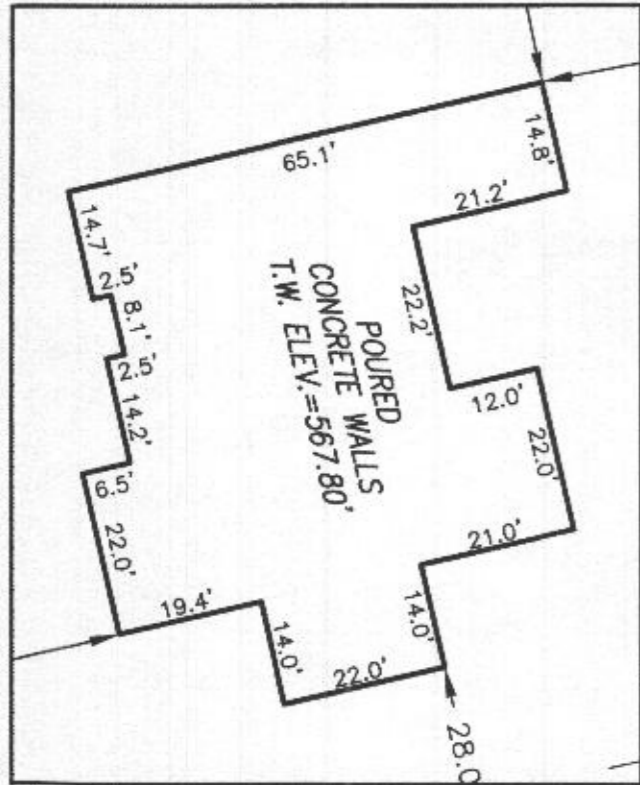
**ESE CONSULTANTS, Inc.**

6731 Columbia Gateway Drive - Suite 120 - Columbia, MD 21046

T: 410-872-9105

**LEGEND:**

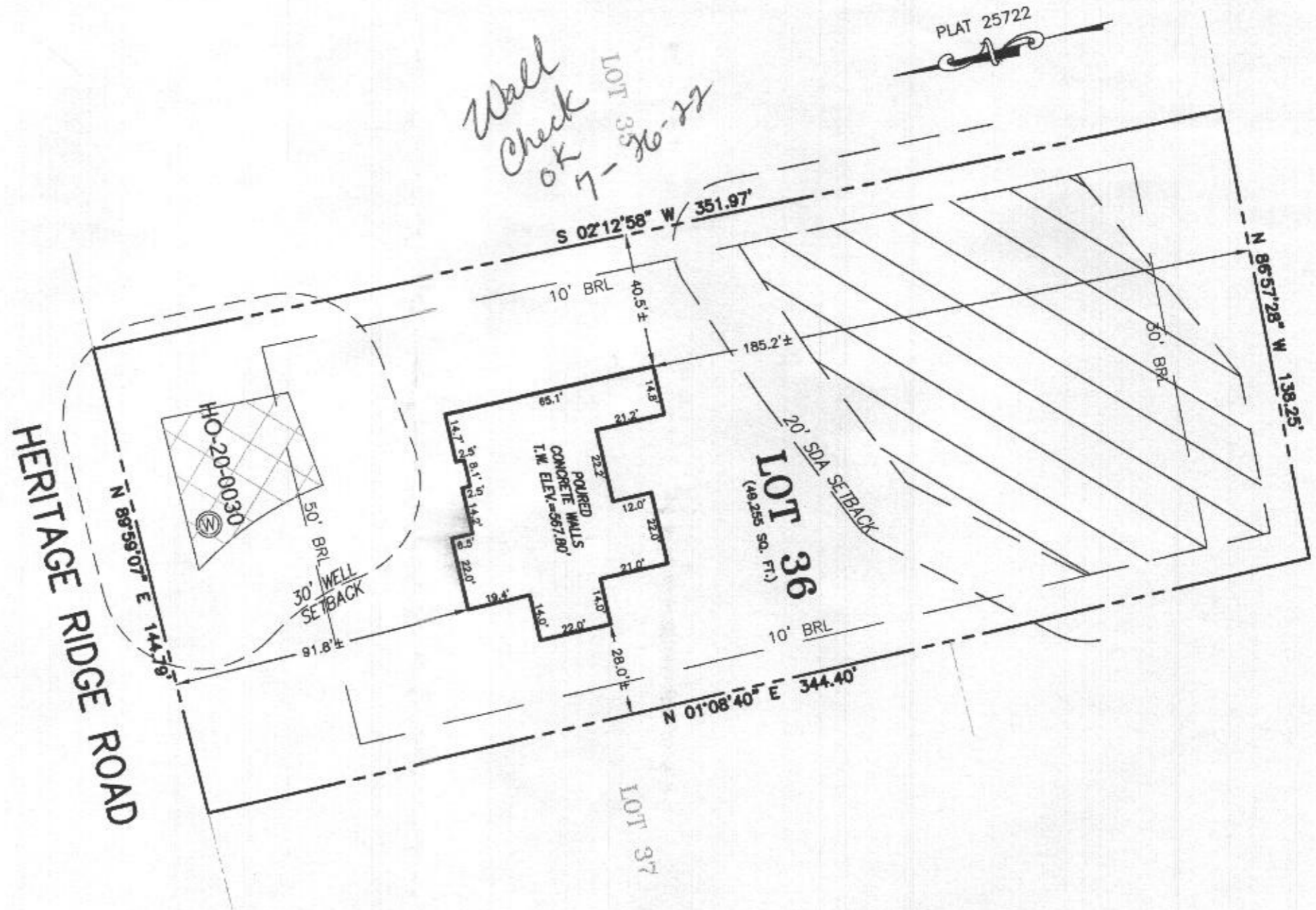
- BRL BUILDING RESTRICTION LINE
- ⊙ WELL LOCATION
- T.W. TOP OF WALL
-  SEWAGE DISPOSAL AREA
-  WELL BOX AREA



HOUSE ENLARGEMENT  
NOT TO SCALE

**WELL NUMBER:** HO-20-0030  
**ADDRESS:** 1438 HERITAGE RIDGE ROAD  
 WOODBINE, MD 21797  
**PERMIT NO.:** B21003074

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



NON BUILDABLE  
PRESERVATION  
PARCEL C

**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.**

*Michael Joe Boyce*  
 SIGNATURE: MICHAEL JOE BOYCE MD. LIC NO. 21328 DATE 07/21/22

WALLCHECK  
 LOT 36  
**LINDEN GROVE**  
 LIBER 15899, FOLIO 246  
 PLAT NO. 25722  
 ELECTION DISTRICT No. 4  
 HOWARD COUNTY, MARYLAND

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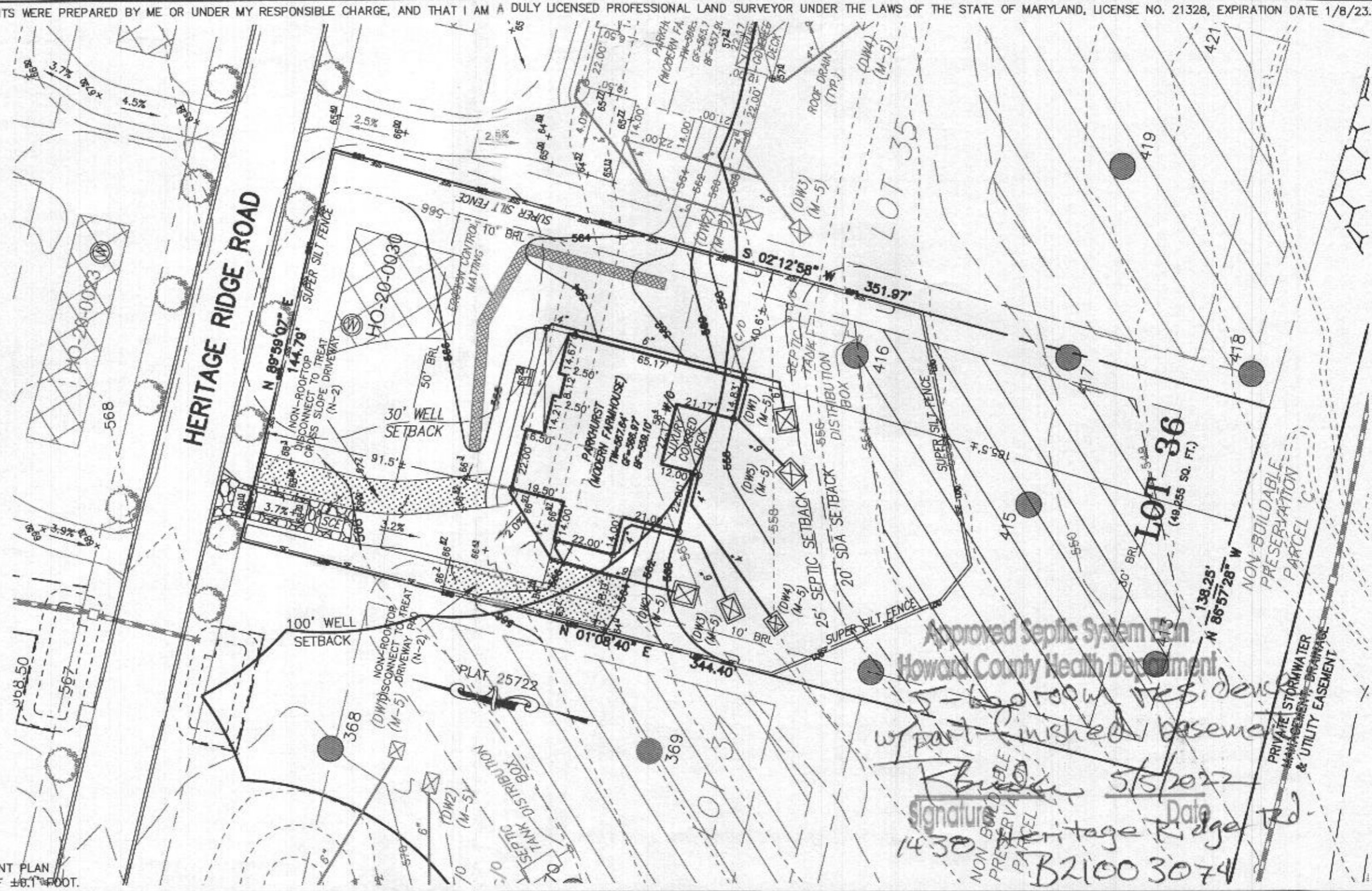
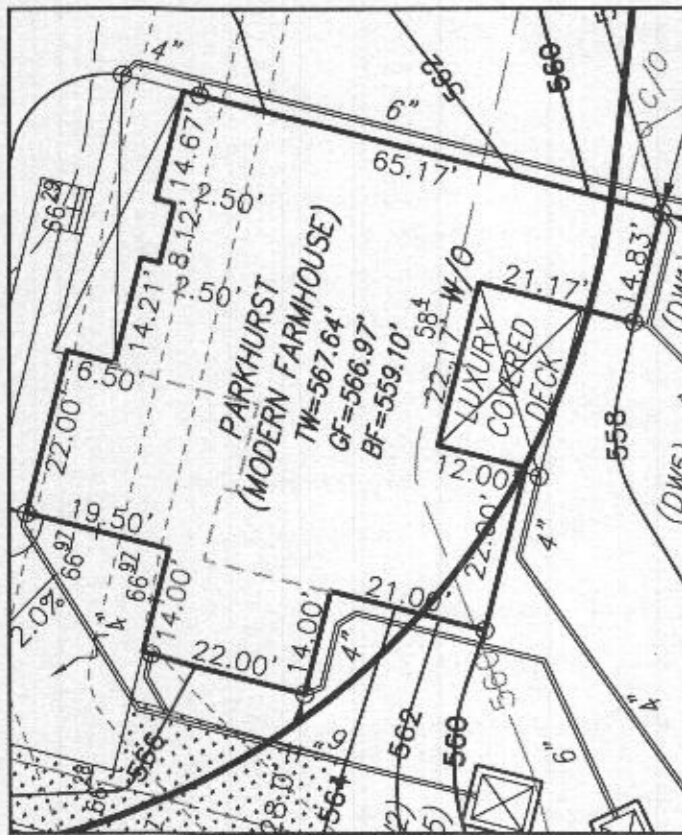
DATE: 07/21/2022 SCALE: 1" = 40' FILE: WC LOT 36  
 CHK'D: M.J.B. JOB NO: 4683 DRAWN: R.C.K.



**LEGEND:**

- BRL BUILDING RESTRICTION LINE
- W WELL LOCATION
- T.W. TOP OF WALL
- G.F. GARAGE FLOOR
- B.F. BASEMENT FLOOR
- PASSED PERC LOCATION
- FAILED PERC LOCATION
- ▨ SEWAGE DISPOSAL AREA
- ▩ WELL BOX AREA
- PROPOSED TREE
- PROPOSED TREE
- PROPOSED TREE

NOTE:  
TOTAL LIMITS OF DISTURBANCE (LOD) = 33,959 SQ. FT.



Approved Septic System Plan  
Howard County Health Department  
5-Bedroom Residence  
w/ Part-Finished Basement  
K. B. [Signature] 5/10/2022  
Date  
Heritage Ridge Rd  
B21003074

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



HOUSE TYPE: PARKHURST (MODERN FARMHOUSE)

TWO CAR SIDE ENTRY GARAGE	OPTION No. 012
FINISHED LOWER LEVEL	OPTION No. 013
WALK-OUT BASEMENT	OPTION No. 017
ADDITIONAL BATH - FINISHED BASEMENT	OPTION No. 383
WET BAR - FINISHED BASEMENT	OPTION No. 561
MULTI-GENERATIONAL SUITE ADDITION	OPTION No. 263073
OPTIONAL DROP ZONE	OPTION No. 263081
ADDITIONAL ONE CAR FRONT ENTRY GARAGE - 14'	OPTION No. 263102
PREP KITCHEN	OPTION No. 263158
OUTDOOR LIVING DECK - WALK-OUT	OPTION No. 263169

WELL NUMBER: HO-20-0030

ADDRESS: 1438 HERITAGE RIDGE ROAD  
WOODBINE, MD 21797

PERMIT PLOT PLAN  
LOT 36  
LINDEN GROVE  
LIBER 15899, FOLIO 246  
PLAT NO. 25722  
ELECTION DISTRICT No. 4  
HOWARD COUNTY, MARYLAND

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ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL

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

DATE: 02/17/2022 SCALE: 1" = 40' FILE: PP LOT 36 - PARKHURST M.F.\_rev1  
CHK'D: M.J.B. JOB NO: 4683 DRAWN: V.X.P.

**HOUSE OPTIONS:**

HOUSE TYPE: PARKHURST (MODERN FARMHOUSE)

- TWO CAR SIDE ENTRY GARAGE
- FINISHED LOWER LEVEL
- WALK-OUT BASEMENT
- ADDITIONAL BATH - FINISHED BASEMENT
- WET BAR - FINISHED BASEMENT
- MULTI-GENERATIONAL SUITE ADDITION
- OPTIONAL DROP ZONE
- ADDITIONAL ONE CAR FRONT ENTRY GARAGE - 14'
- PREP KITCHEN
- OUTDOOR LIVING DECK - WALK-OUT

- OPTION No. 012
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- OPTION No. 383
- OPTION No. 561
- OPTION No. 263073
- OPTION No. 263081
- OPTION No. 263102
- OPTION No. 263158
- OPTION No. 263169

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.

**INITIAL TRENCH DATA:**

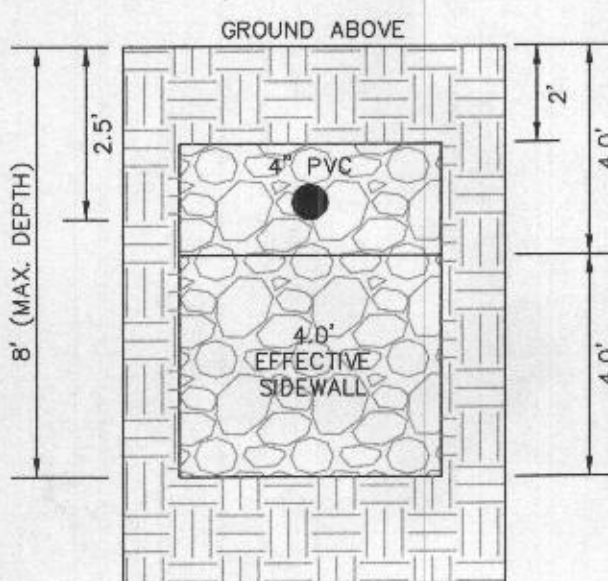
BOTTOM MAX. DEPTH (8.0')

**TRENCH 1 (T1): 78.75 LF.**

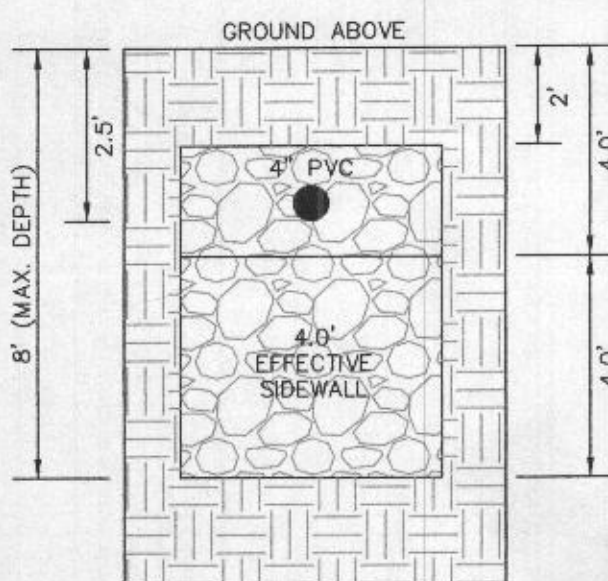
GROUND ABOVE = 553.80'  
INV. IN = 551.30'  
BOTTOM TRENCH = 545.80'

**TRENCH 2 (T2): 78.75 LF.**

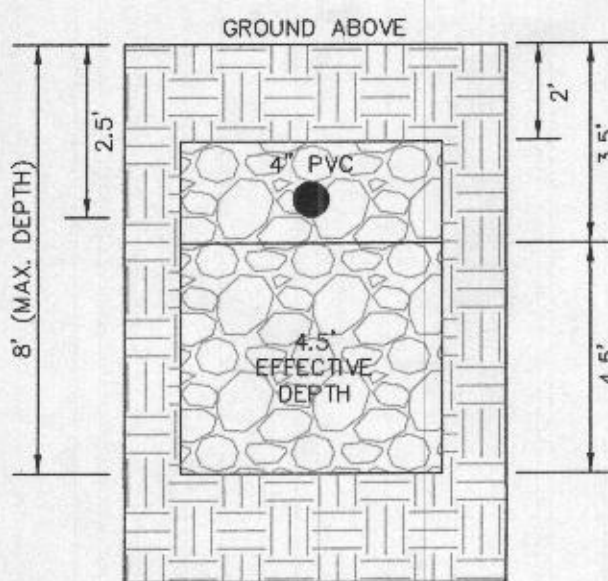
GROUND ABOVE = 552.80'  
INV. IN = 550.30'  
BOTTOM TRENCH = 544.80'



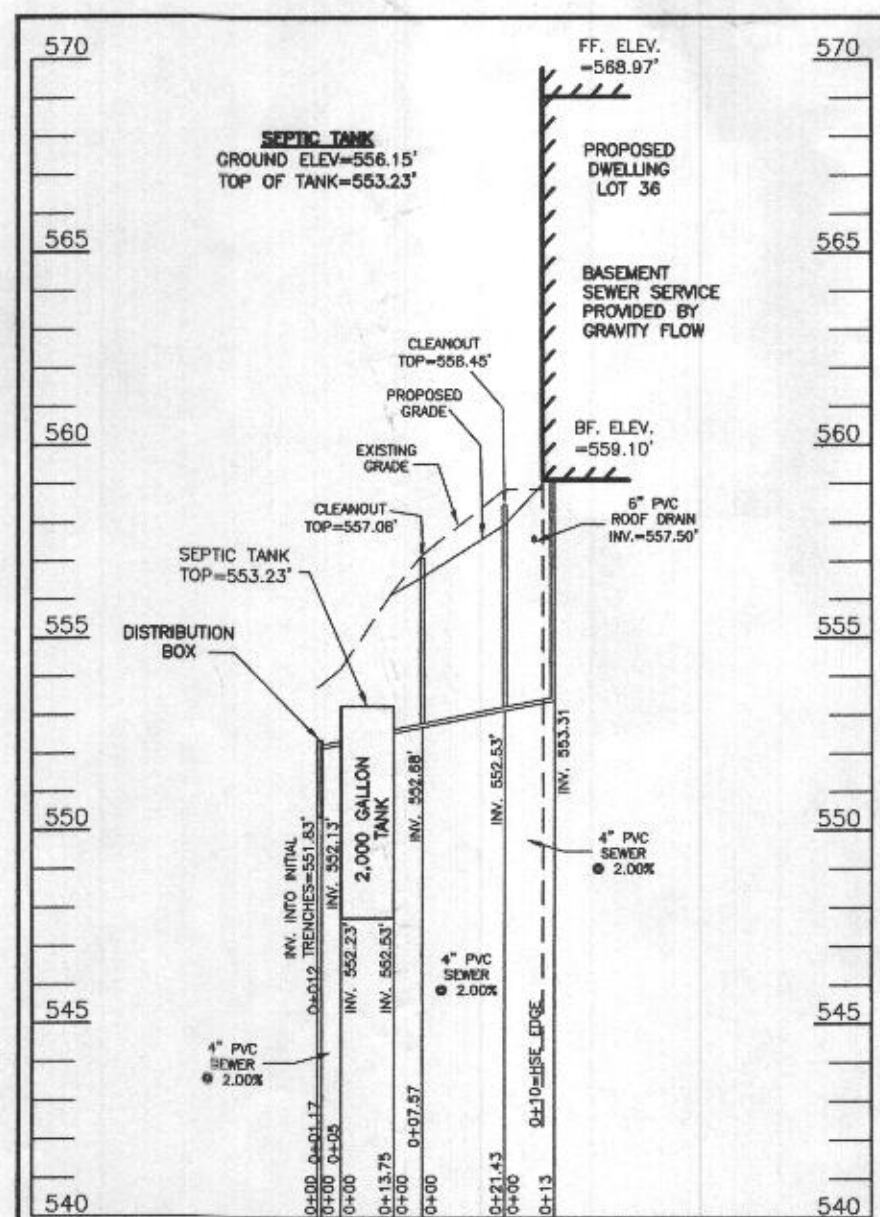
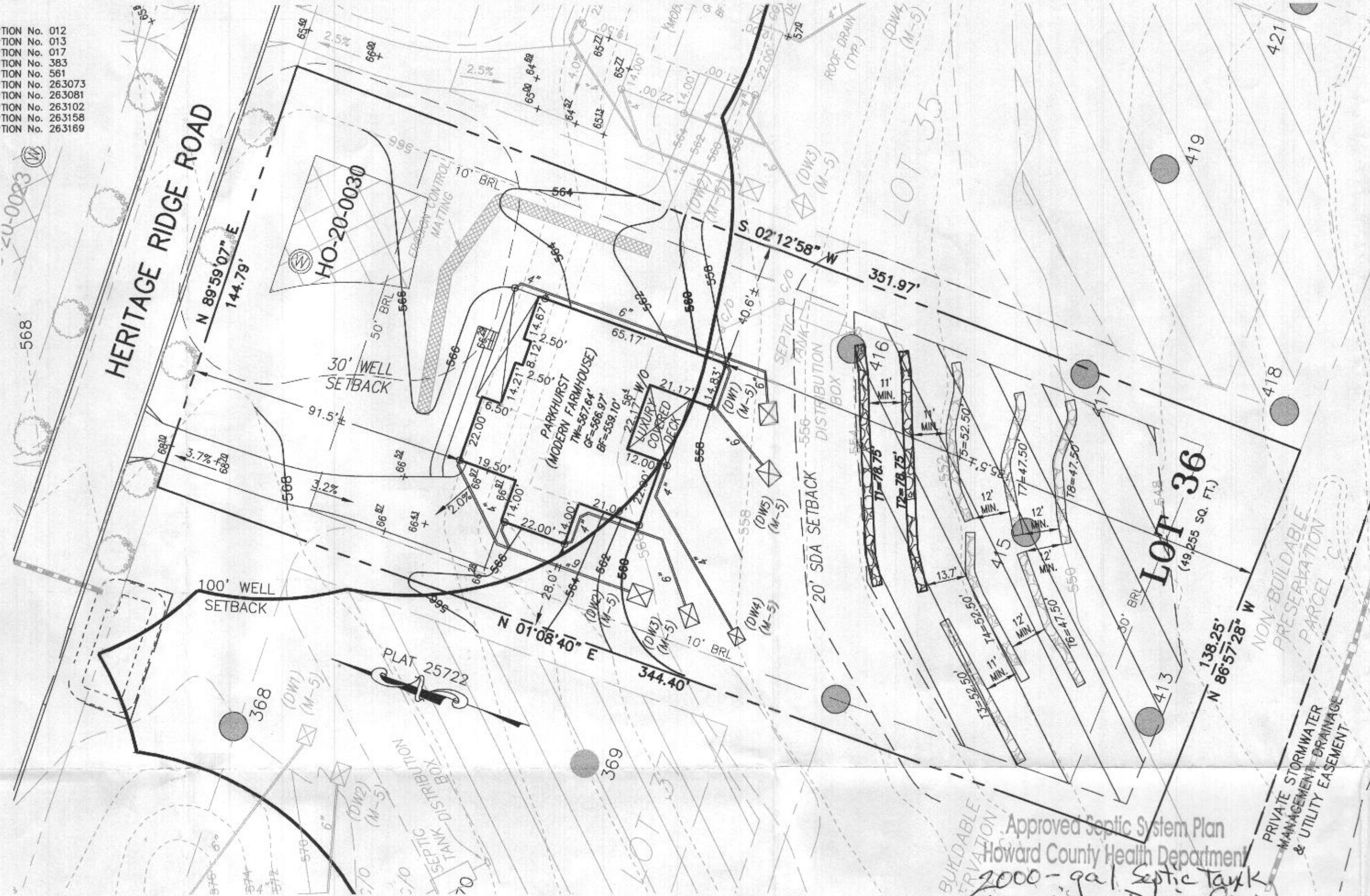
INITIAL SYSTEM TRENCH DETAIL (T1 AND T2) (NOT TO SCALE)



1ST REPLACEMENT SYSTEM TRENCH DETAIL (T3 AND T4) (NOT TO SCALE)



2ND REPLACEMENT SYSTEM TRENCH DETAIL (T5 THRU T6) (NOT TO SCALE)



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

**LEGEND:**

- BRL BUILDING RESTRICTION LINE
- (W) WELL LOCATION
- T.W. TOP OF WALL
- G.F. GARAGE FLOOR
- B.F. BASEMENT FLOOR
- (DWS) PASSED PERC LOCATION
- (DWF) FAILED PERC LOCATION
- (S) SEWAGE DISPOSAL AREA
- (WB) WELL BOX AREA
- (T) PROPOSED TREE
- (D) PROPOSED TREE

**SEWAGE DISPOSAL SYSTEM DATA (6 BDRM):**

PROPOSED INVERT AT FOUNDATION WALL: 553.30'

1. EX. GRADE OVER TANK: 556.15'  
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INVERT IN: 552.53' INVERT OUT: 552.23'
2. DISTRIBUTION BOX  
EXISTING GRADE OVER TANK: 553.72'  
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3. INITIAL TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)  
900 GPD ÷ 0.8 APP. RATE = 1,125 SF  
USE 3' WIDE TRENCH WITH 72" GRAVEL BELOW PIPE  
11' MIN. SPACING BETWEEN TRENCH EDGES  
1,125 SF ÷ 3' WIDTH = 375 LF x 0.42 (SIDEWALL REDUCTION) = 157.50 LF MIN.  
**USE 2 78.75' LONG TRENCHES = 157.50 LF**
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1,125 SF ÷ 3' WIDTH = 375 LF x 0.42 (SIDEWALL REDUCTION) = 157.50 LF MIN.  
**USE 2 78.75' LONG TRENCHES = 157.50 LF**
5. 2ND REPLACEMENT TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)  
900 GPD ÷ 0.8 APP. RATE = 1,125 SF  
USE 3' WIDE TRENCH WITH 24" GRAVEL BELOW PIPE  
12' MIN. SPACING BETWEEN TRENCH EDGES  
1,125 SF ÷ 3' WIDTH = 375 LF x 0.38 (SIDEWALL REDUCTION) = 142.50 LF MIN.  
**USE 2 71.25' LONG TRENCH = 142.50 LF**



Approved Septic System Plan  
Howard County Health Department  
2000-gal. Septic Tank  
w/ Gravity Drain Field  
for 6-bedroom residence  
R. Buehler 5/5/2022  
Signature Date

**SOILS LEGEND**

SOIL	NAME	CLASS	Kw
BtD	BRINKLOW CHANNERY LOAM, 15 TO 25 PERCENT SLOPES	B	.20
GgA	GLENELG LOAM, 0 TO 3 PERCENT SLOPES	B	.20
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B	.20
GgC	GLENELG LOAM, 8 TO 15 PERCENT SLOPES	B	.20
*GmA	GLENVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES	C	.37
*GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	*** .37
*GmC	GLENVILLE-SAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	*** .37
MaC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	.24

- NOTES:
- \* HYDRIC SOILS AND / OR CONTAINS HYDRIC INCLUSIONS
- \*\* MAY CONTAIN HYDRIC INCLUSIONS
- \*\*\* DENOTES ERODIBLE SOILS

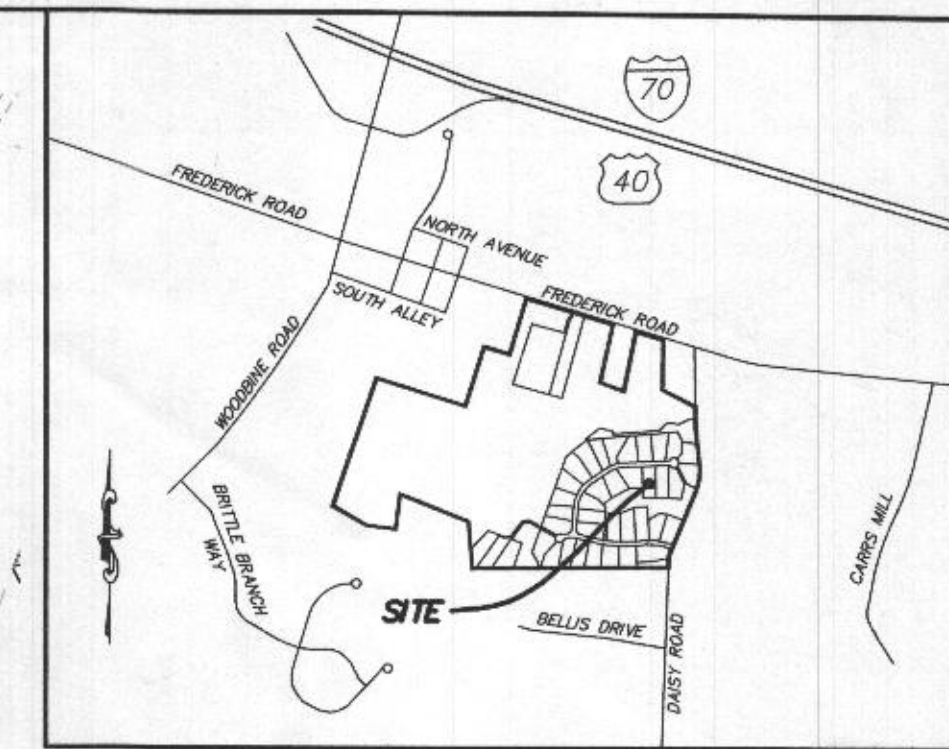
**WELL LOCATION CERTIFICATION:**

THE EXISTING WELL SHOWN FOR LOT 36 (TAG NO. HO-20-0030) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN HEREON.

ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN  
**LOT 36**  
**LINDEN GROVE**  
LIBER 15899, FOLIO 246  
PLAT NO. 25722  
ELECTION DISTRICT No. 4  
HOWARD COUNTY, MARYLAND  
ADDRESS: 1438 HERITAGE RIDGE ROAD  
WOODBINE, MARYLAND 21797

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

DATE: 02/17/2022 SCALE: 1"= 30' FILE: OSDS LOT 36 rev1  
CHK'D: M.J.B. JOB NO: 4683 DRAWN: V.X.P.

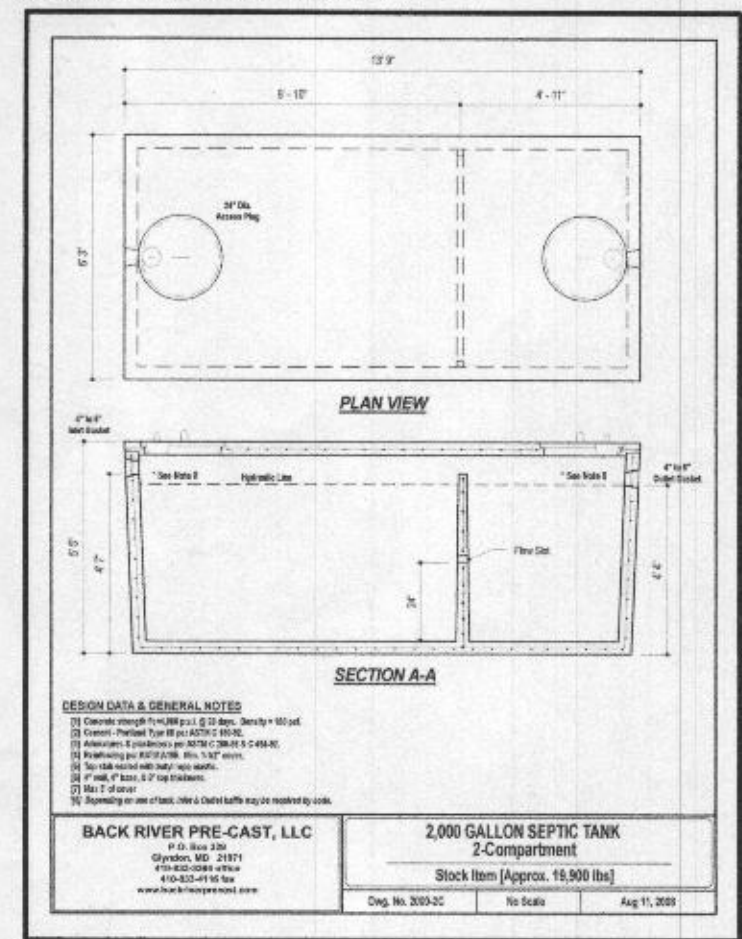


**VICINITY MAP**

1" = 1000'

**GENERAL NOTES:**

1. 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 FISHER, COLLINS AND CARTER, INC.



BACK RIVER PRE-CAST, LLC  
2,000 GALLON SEPTIC TANK  
2-Compartment  
Stock Item (Approx. 16,900 lbs)  
Aug 11, 2005

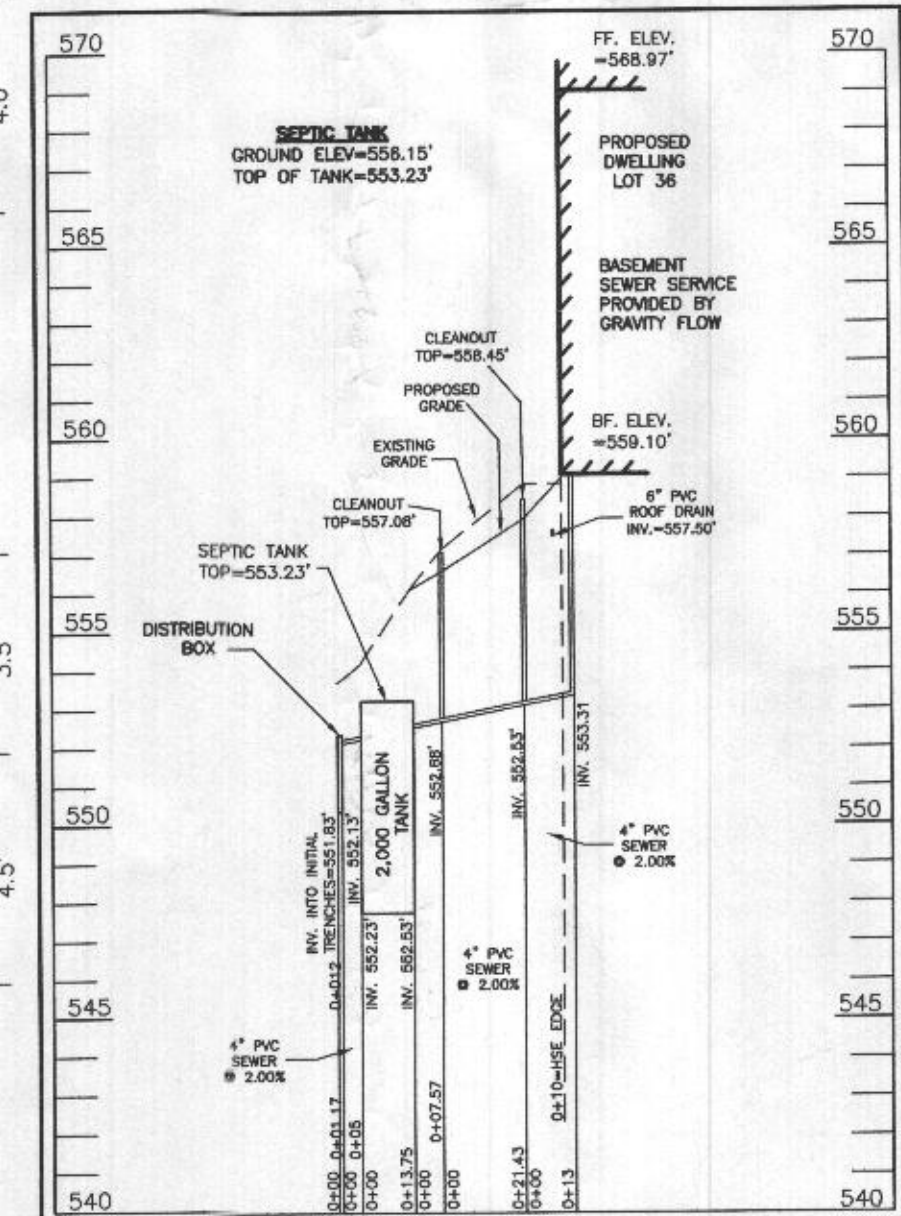
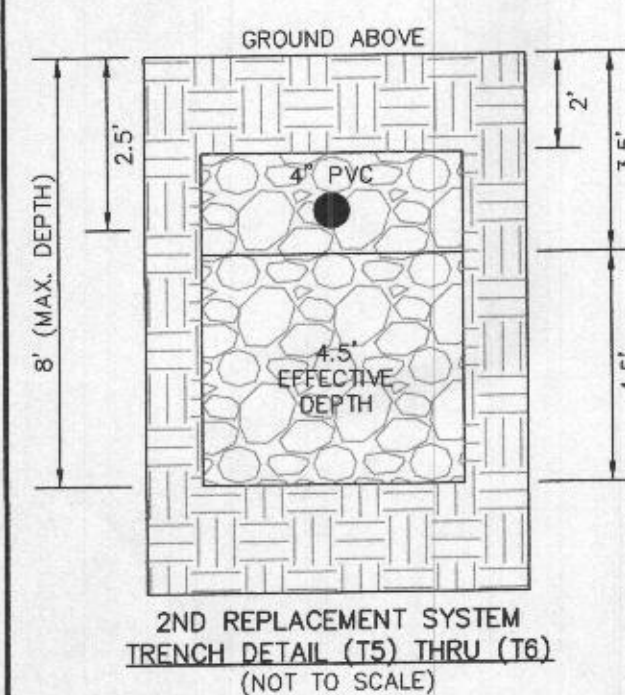
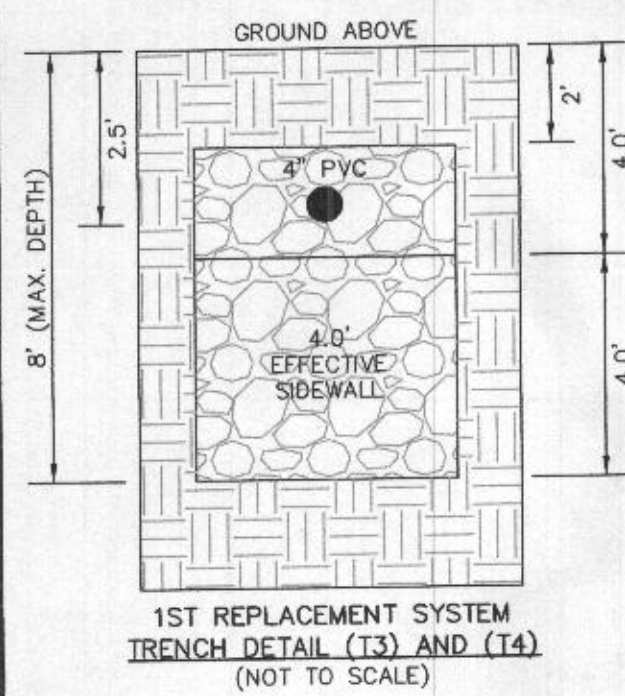
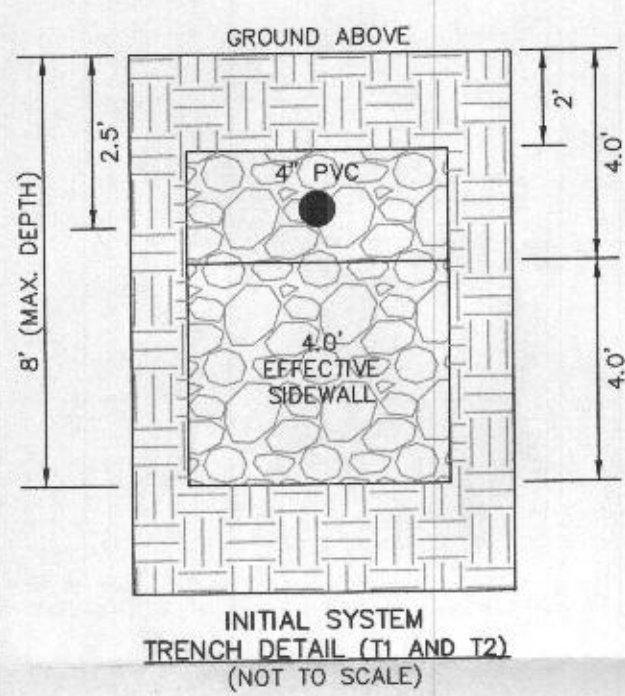
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21328, EXPIRATION DATE 1/8/23.

**HOUSE OPTIONS:**  
 HOUSE TYPE: PARKHURST (MODERN FARMHOUSE)  
 TWO CAR SIDE ENTRY GARAGE  
 FINISHED LOWER LEVEL  
 WALK-OUT BASEMENT  
 ADDITIONAL BATH - FINISHED BASEMENT  
 WET BAR - FINISHED BASEMENT  
 MULTI-GENERATIONAL SUITE ADDITION  
 OPTIONAL DROP ZONE  
 ADDITIONAL ONE CAR FRONT ENTRY GARAGE - 14'  
 PREP KITCHEN  
 OUTDOOR LIVING DECK - WALK-OUT

OPTION No. 012  
 OPTION No. 013  
 OPTION No. 017  
 OPTION No. 383  
 OPTION No. 561  
 OPTION No. 263073  
 OPTION No. 263081  
 OPTION No. 263102  
 OPTION No. 263158  
 OPTION No. 263169

**INITIAL TRENCH DATA**

BOTTOM MAX. DEPTH (8.0')  
**TRENCH 1 (T1): 78.75 LF.**  
 GROUND ABOVE = 553.80'  
 INV. IN = 551.30'  
 BOTTOM TRENCH = 545.80'  
**TRENCH 2 (T2): 78.75 LF.**  
 GROUND ABOVE = 552.80'  
 INV. IN = 550.30'  
 BOTTOM TRENCH = 544.80'



**LEGEND:**  
 BRL BUILDING RESTRICTION LINE  
 W WELL LOCATION  
 T.W. TOP OF WALL  
 G.F. GARAGE FLOOR  
 B.F. BASEMENT FLOOR  
 P.P. PASSED PERC LOCATION  
 F.P. FAILED PERC LOCATION  
 SEWAGE DISPOSAL AREA  
 WELL BOX AREA  
 PROPOSED TREE  
 PROPOSED TREE

**SEWAGE DISPOSAL SYSTEM DATA (6 BDRM)**

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Approved Septic System Plan  
 Howard County Health Department  
 2000-gal Septic Tank  
 w/Gravity Distribution  
 for 5-bedroom residence  
 Signature: [Signature] Date: 5/5/2022

**SOILS LEGEND**

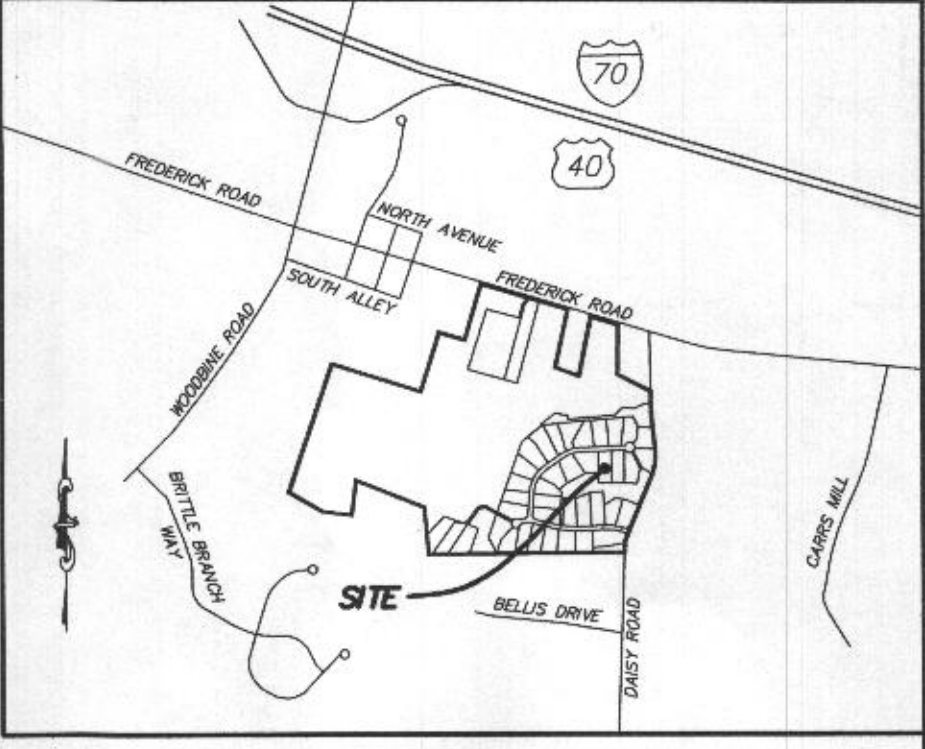
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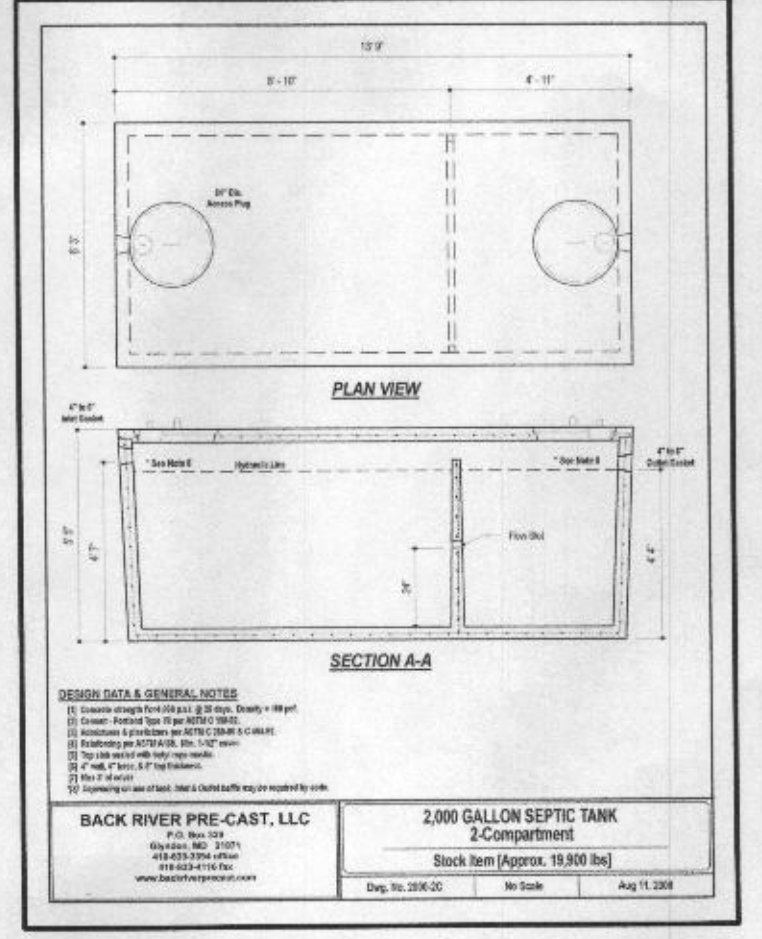
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