

SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
BrD	BRINKLOW CHANNERY LOAM, 15 TO 25 PERCENT SLOPES	C	0.32
Cc	CODORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT SLOPES	C	0.55
GgB	GLENELG LOAMS, 3 TO 8 PERCENT SLOPES	B	0.37
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C/D	0.55
OcC	OCOCOQUAN LOAM, 8 TO 16 PERCENT SLOPES	B	0.37

NOTES:  
 1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE; NATURAL RESOURCES CONSERVATION SERVICE; WEB SOIL SURVEY  
 2) HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR 'K' GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

### SEPTIC SYSTEM TRENCH DESIGN SPECIFICATIONS

**INITIAL SYSTEM SYSTEM:**  
 -APPLICATION RATE: 0.8  
 -EFFECTIVE AREA BEGINNING DEPTH: 4.0'  
 -BOTTOM MAXIMUM DEPTH: 7.0'

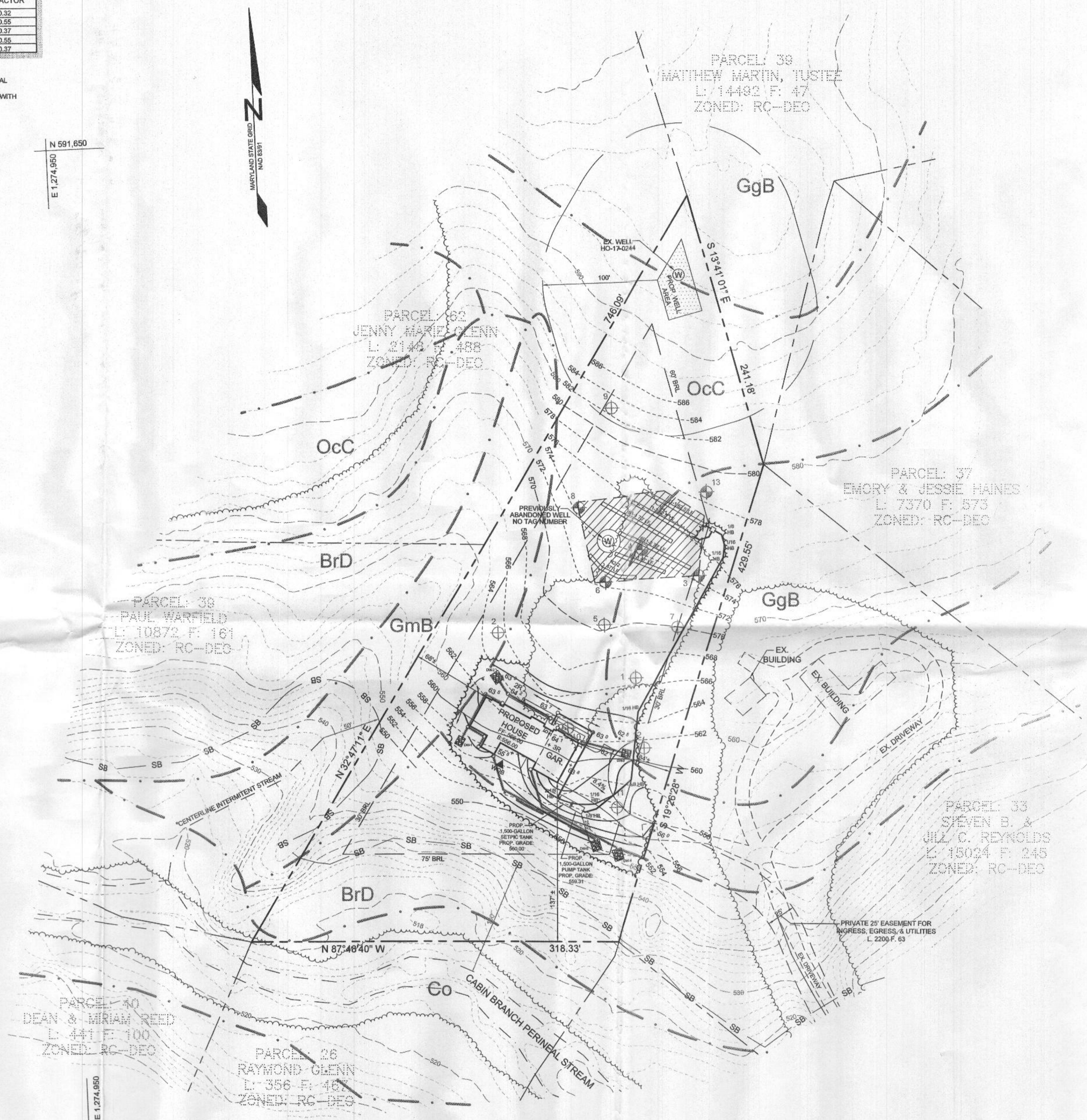
- DESIGN FLOW:  
 -4 BEDROOMS AT 150 GALLONS PER DAY (GPD)  
 -4X150 GPD = 600 GPD
- SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:  
 -DESIGN FLOW (600 GPD) / APPLICATION RATE (0.8) = 750 SF
- SIDEWALL REDUCTION CREDIT:  
 -TRENCH WIDTH (W) = 3.0'  
 -TRENCH EFFECTIVE DEPTH (D) = 3.0'  
 $(W+2) / (W+1+2D) \times 100 = 50\%$
- LINEAR LENGTH OF TRENCH REQUIRED:  
 -DRAIN FIELD SQUARE FOOTAGE (750) X SIDEWALL REDUCTION CREDIT (50%) / TRENCH WIDTH (3.0) = 125'
- LINEAR LENGTH OF TRENCH PROVIDED = 125'
- TWO TRENCHES AT 62.5 LF EACH
- EXISTING GROUND: TRENCH I1: 577.0  
 INVERT: TRENCH I1: 575.0  
 EXISTING GROUND: TRENCH I2: 576.1  
 INVERT: TRENCH I2: 574.1

**FIRST REPLACEMENT SYSTEM:**  
 -APPLICATION RATE: 0.8  
 -EFFECTIVE AREA BEGINNING DEPTH: 4.0'  
 -BOTTOM MAXIMUM DEPTH: 6.5'

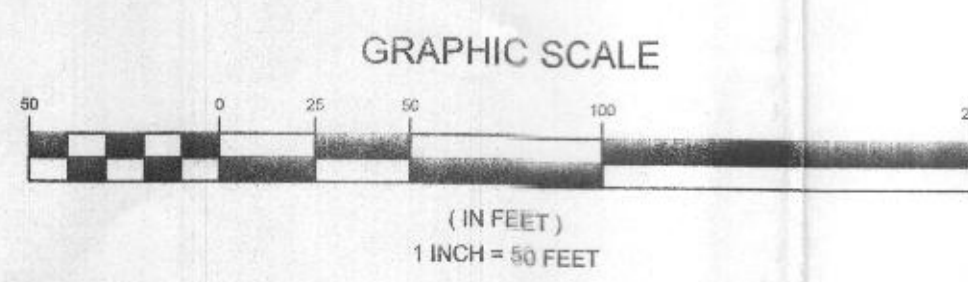
- DESIGN FLOW:  
 -4 BEDROOMS AT 150 GALLONS PER DAY (GPD)  
 -4X150 GPD = 600 GPD
- SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:  
 -DESIGN FLOW (600 GPD) / APPLICATION RATE (1.2) = 750 SF
- SIDEWALL REDUCTION CREDIT:  
 -TRENCH WIDTH (W) = 3.0'  
 -TRENCH EFFECTIVE DEPTH (D) = 2.5'  
 $(W+2) / (W+1+2D) \times 100 = 56\%$
- LINEAR LENGTH OF TRENCH REQUIRED:  
 -DRAIN FIELD SQUARE FOOTAGE (750) X SIDEWALL REDUCTION CREDIT (56%) / TRENCH WIDTH (3.0) = 140'
- LINEAR LENGTH OF TRENCH PROVIDED = 140'
- TWO TRENCHES 70 LF EACH
- EXISTING GROUND: TRENCH R1-1: 575.3  
 INVERT: TRENCH R1-1: 573.3  
 EXISTING GROUND: TRENCH R1-2: 574.5  
 INVERT: TRENCH R1-2: 572.5

**SECOND REPLACEMENT SYSTEM:**  
 -APPLICATION RATE: 1.2  
 -EFFECTIVE AREA BEGINNING DEPTH: 3.5'  
 -BOTTOM MAXIMUM DEPTH: 6.0'

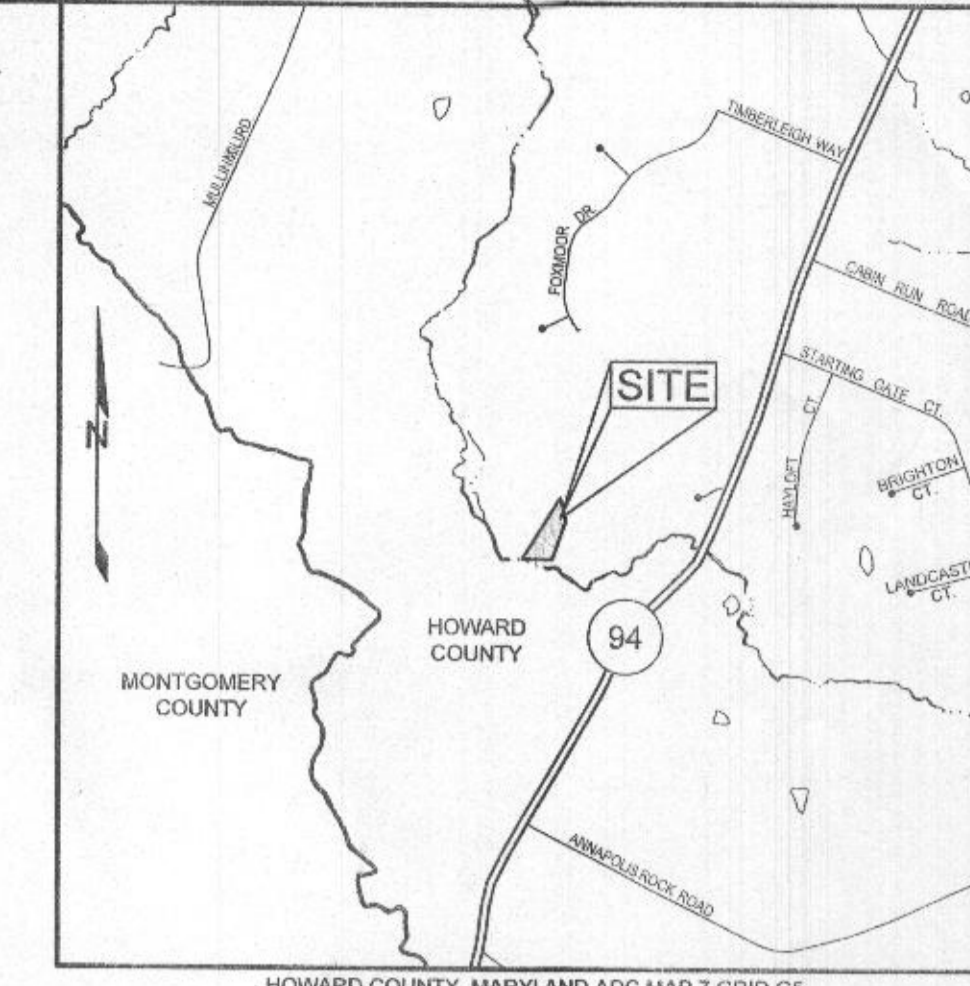
- DESIGN FLOW:  
 -4 BEDROOMS AT 150 GALLONS PER DAY (GPD)  
 -4X150 GPD = 600 GPD
- SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:  
 -DESIGN FLOW (600 GPD) / APPLICATION RATE (1.2) = 500 SF
- SIDEWALL REDUCTION CREDIT:  
 -TRENCH WIDTH (W) = 3.0'  
 -TRENCH EFFECTIVE DEPTH (D) = 2.5'  
 $(W+2) / (W+1+2D) \times 100 = 56\%$
- LINEAR LENGTH OF TRENCH REQUIRED:  
 -DRAIN FIELD SQUARE FOOTAGE (500) X SIDEWALL REDUCTION CREDIT (56%) / TRENCH WIDTH (3.0) = 93.3'
- LINEAR LENGTH OF TRENCH PROVIDED = 94'
- TWO TRENCHES 47.0 LF EACH
- EXISTING GROUND: TRENCH R2-1: 573.6  
 INVERT: TRENCH R2-1: 571.6  
 EXISTING GROUND: TRENCH R2-2: 572.7  
 INVERT: TRENCH R2-2: 570.7



PLAN VIEW  
 SCALE: 1"=50'



LEGEND	
EXISTING GIS CONTOUR	--- 352
EXISTING FIELD RUN CONTOUR	--- 352
PROPOSED CONTOUR	--- 352
SOIL BOUNDARY	---
EXISTING FENCE	-X-
EXISTING TREELINE	~
PROPOSED TREELINE	~
EXISTING SPOT ELEVATION	85.3
PROPOSED SPOT ELEVATION	+82.53
STREAM BUFFER	SB
ROAD CENTERLINE	C
PERCOLATION TEST HOLE, PASSED	⊕



### GENERAL NOTES

- SUBJECT PROPERTY ZONED RC-DEO PER 10/06/13 COMPREHENSIVE ZONING PLAN.
- TOTAL AREA OF LOT = 2.5964 AC ±.
- PRIVATE WATER AND PRIVATE SEWER WILL BE USED WITHIN THIS SITE.
- THIS AREA DESIGNATES A PRIVATE SEWER AREA, OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL (COMAR 26.04.03). 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 SEWERAGE AREA. RECORDATION OF A MODIFIED SEWERAGE AREA SHALL NOT BE NECESSARY.
- ALL EXISTING WELLS, SEPTIC SYSTEMS AND SEWAGE DISPOSAL AREAS WITHIN 100 FEET OF THE PROPERTY BOUNDARIES AND ALL EXISTING AND PROPOSED WELLS THAT ARE LOCATED WITHIN 200 FEET DOWN-GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS AND SEWAGE DISPOSAL AREAS HAVE BEEN FIELD LOCATED.
- DEED REFERENCE: LIBER 3793, FOLIO 705
- PROPERTY ADDRESS: 3610 WOODBINE ROAD, WOODBINE MARYLAND 21797
- THE BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN SURVEY PERFORMED BY SHANABERGER & LANE IN OCTOBER 2020.
- THE TOPOGRAPHY SHOWN HEREON IS AT TWO FOOT INTERVALS AND IS BASED ON A FIELD RUN TOPOGRAPHY SURVEY PREPARED BY SHANABERGER & LANE IN OCTOBER 2020. OFFSITE TOPOGRAPHY IS BASED ON HOWARD COUNTY AERIAL TOPOGRAPHY FLOWN IN 2004.
- THE WELL (HO-17-0244) WAS FIELD LOCATED AND IS ACCURATELY SHOWN.
- THE SOILS SHOWN HAVE BEEN TAKEN FROM THE NRCS WEB SOIL SURVEY WEBSITE.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO HISTORIC STRUCTURES OR CEMETERIES WITHIN THE PROJECT BOUNDARY.
- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP, WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- 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.
- A FIELD REVIEW PERFORMED BY SILL ENGINEERING GROUP, LLC, IN NOVEMBER, 2020 HAS CONFIRMED THAT NO WETLAND, AND NO STREAMS ARE PRESENT ON THE PROPERTY. NO WETLAND BUFFERS ARE PRESENT, AND TWO STREAM BUFFERS ARE PRESENT IN THE SOUTHWEST PORTION OF THE PROPERTY.
- EXISTING UTILITIES ARE LOCATED BY THE USE OF ANY OR ALL OF THE FOLLOWING: ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER PLANS AND OTHER AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF THE EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.

Approved Septic System Plan  
 Howard County Health Department  
 Signature: [Signature] Date: 03/30/2022

### OWNER

THOMAS & CAROL ALLNUTT  
 5121 GRIFFITH ROAD  
 LAYTONSVILLE, MD 20882

### CONTRACT PURCHASER

BRIAN & ANDREA RIDGEWAY  
 723 WOODBINE CROSSING ROAD  
 MOUNT AIRY, MD 21771  
 BRIANRIDGEWAY@GMAIL.COM  
 (443)-568-9241

### DEVELOPER

CUMBERLAND DEVELOPMENT CUSTOM HOMES  
 4132 SALEM BOTTOM ROAD  
 WESTMINSTER, MD 21157  
 CCUMBER547@GMAIL.COM  
 C/O CURTIS CUMBERLAND

### REVISED ONSITE SEWAGE DISPOSAL SYSTEM PLAN

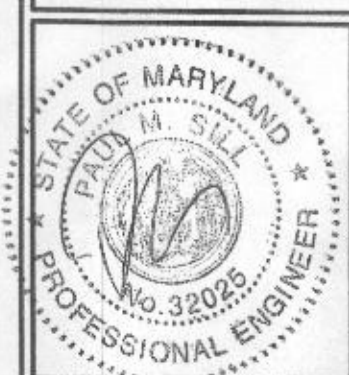
#### RIDGEWAY PROPERTY

3610 ROUTE 94, WOODBINE

ZONED: RC-DEO

TAX MAP 12 GRID 24  
 4TH ELECTION DISTRICT

PARCEL 36  
 HOWARD COUNTY, MARYLAND



**SILL ENGINEERING GROUP, LLC**  
 16005 Frederick Road, 2nd Floor  
 Woodbine, Maryland 21797  
 Phone: 443.325.5076  
 Fax: 410.696.2022  
 Email: info@sillengr.com  
 Civil Engineering for Land Development

DESIGN BY: PS  
 DRAWN BY: TB  
 CHECKED BY: PS  
 SCALE: AS SHOWN  
 DATE: MARCH 28, 2022  
 PROJECT #: 20-048  
 SHEET #: 1 of 2

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 30, 2023.

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWER SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION AND IS CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF.

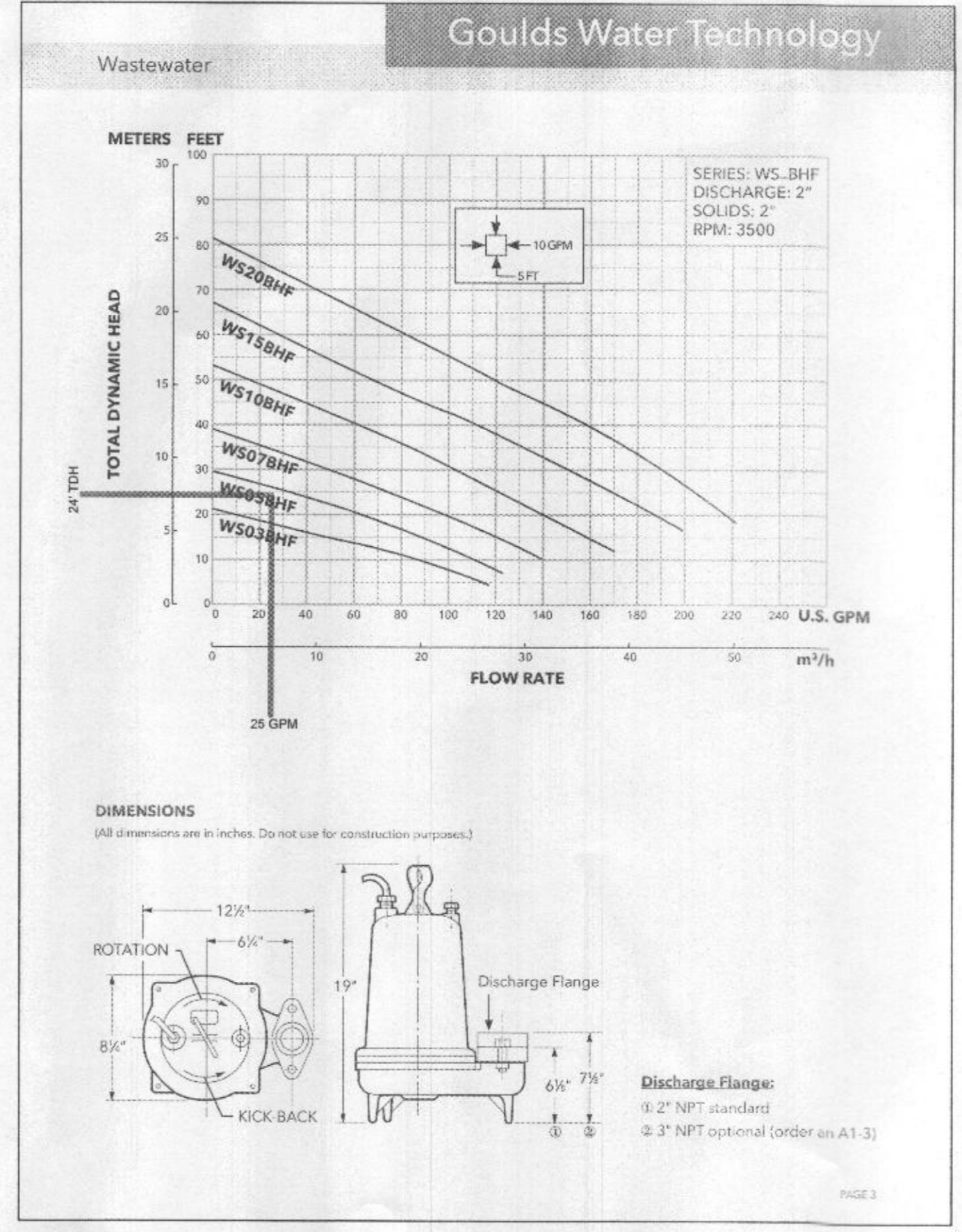
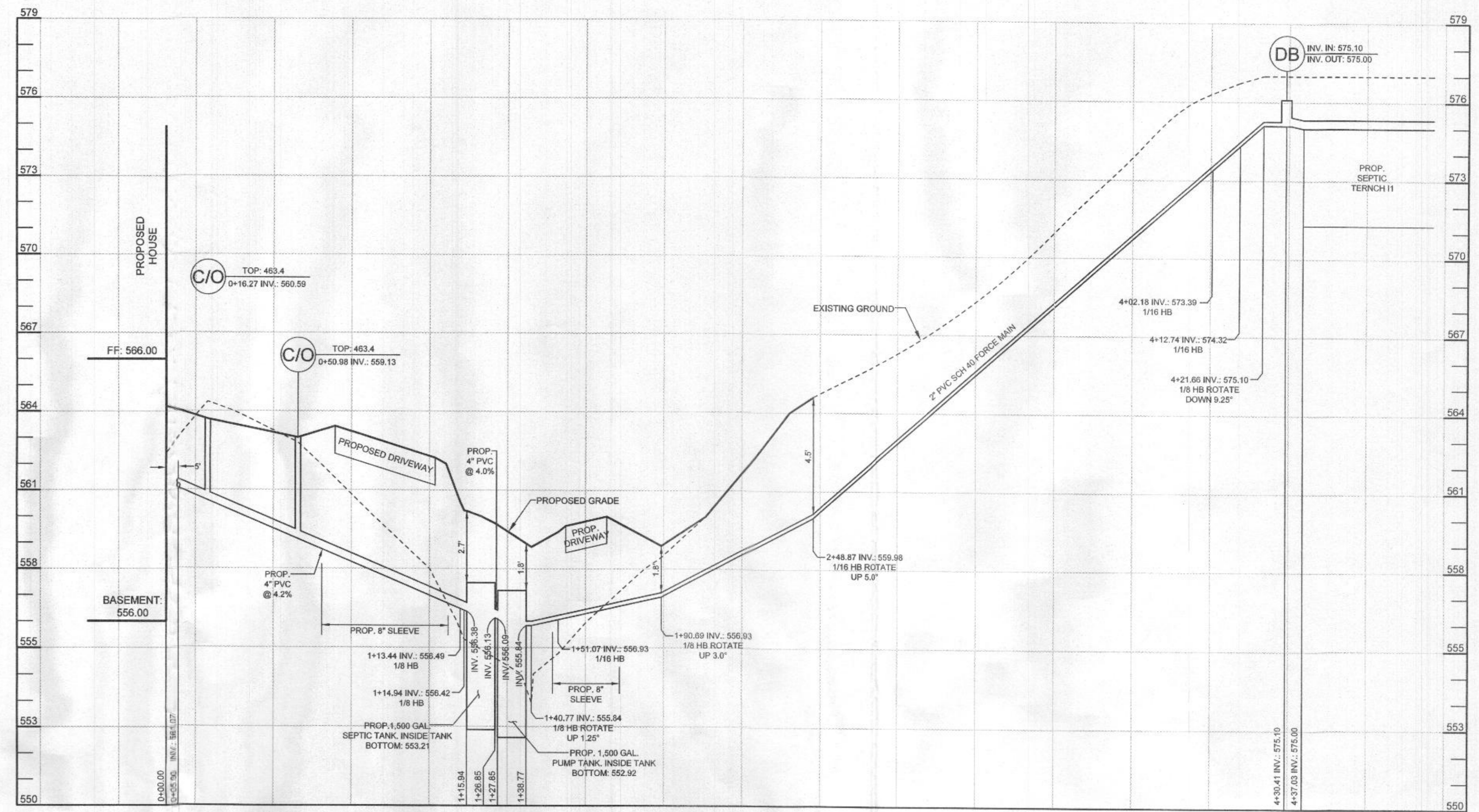
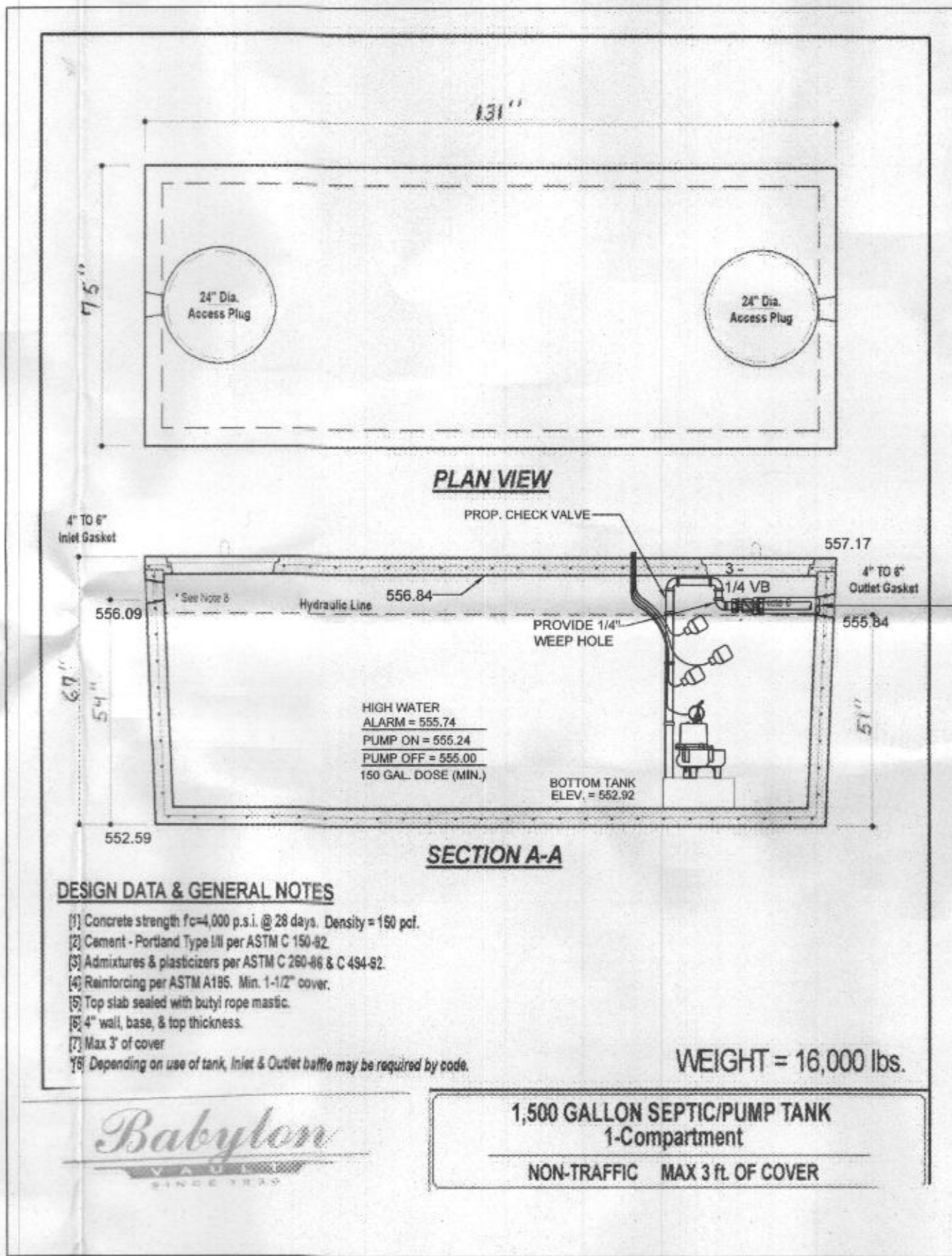
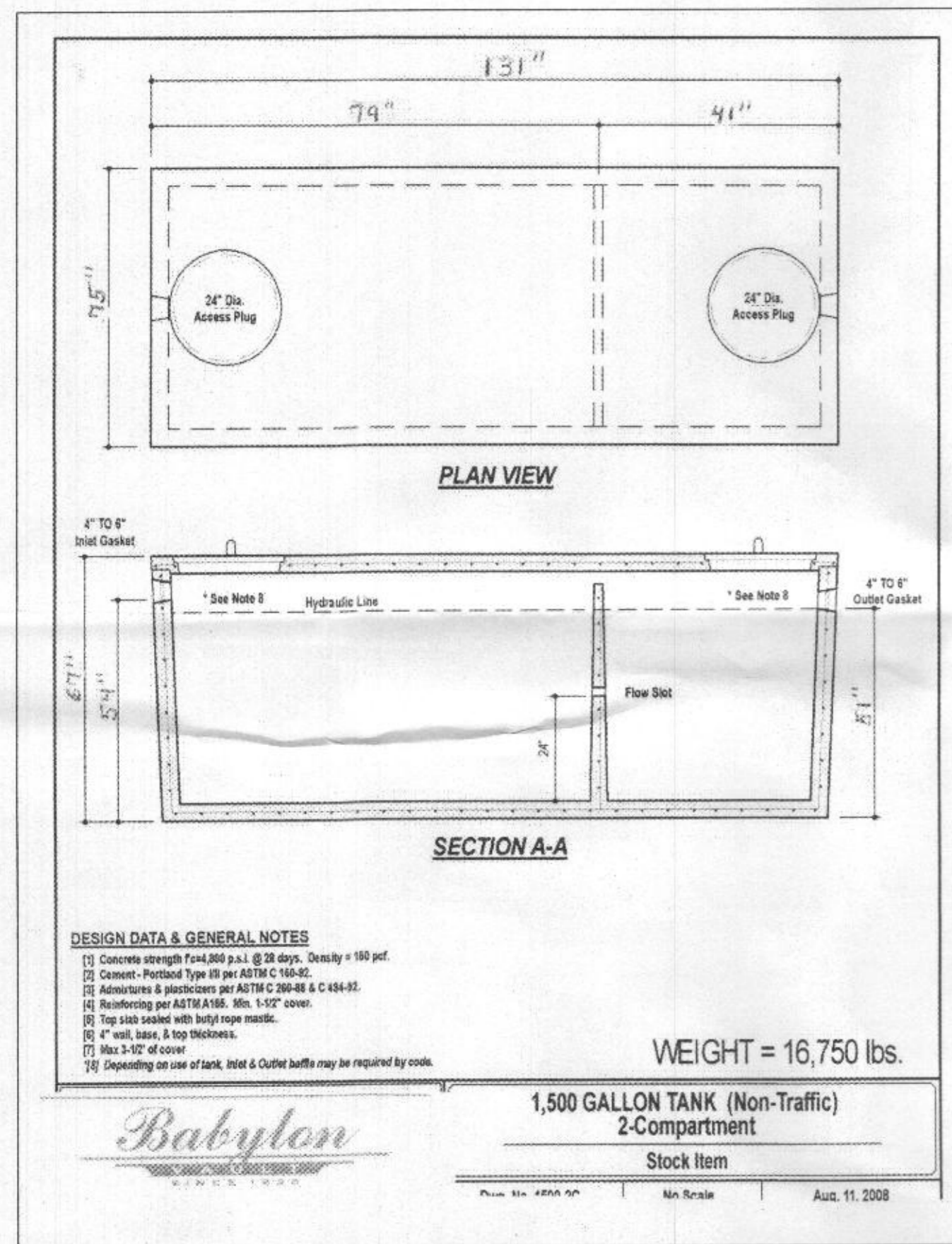
COUNTY HEALTH OFFICER  
 HOWARD COUNTY HEALTH DEPARTMENT

PAUL M. SILL, PE, LEED AP  
 LICENSED PROFESSIONAL ENGINEER #32025  
 DATE: 3/30/22



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SYMBOL	NAME / DESCRIPTION	GROUP	K <sub>f</sub> FACTOR
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OcC	OCCOQUAN LOAM, 8 TO 15 PERCENT SLOPES	B	0.37

NOTES:  
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PROPOSED 1,500-GALLON SEPTIC TANK DETAIL  
 NOT TO SCALE

PROPOSED 1,500-GALLON PUMP TANK DETAIL  
 NOT TO SCALE

1,250-GALLON SEPTIC TANK SYSTEM AND FORCE MAIN PROFILE

**OWNER**  
 THOMAS & CAROL ALLNUTT  
 5121 GRIFFITH ROAD  
 LAYTONVILLE, MD 20882

**CONTRACT PURCHASER**  
 BRIAN & ANDREA RIDGEWAY  
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 MOUNT AIRY, MD 21771  
 BRIAN.RIDGEWAY@GMAIL.COM  
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 WESTMINSTER, MD 21157  
 CCUMBE5437@GMAIL.COM  
 C/O CURTIS CUMBERLAND

**REVISED ONSITE SEWAGE DISPOSAL SYSTEM PROFILE & DETAILS RIDGEWAY PROPERTY**  
 3610 ROUTE 94, WOODBINE  
 ZONED: RC-DEO  
 TAX MAP 12 GRID 24  
 4TH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 PARCEL 36

**SILL ENGINEERING GROUP, LLC**  
 16005 Frederick Road, 2nd Floor  
 Woodbine, Maryland 21797  
 Phone: 443.325.5076  
 Fax: 410.696.2022  
 Email: info@sillengineering.com  
 Civil Engineering for Land Development

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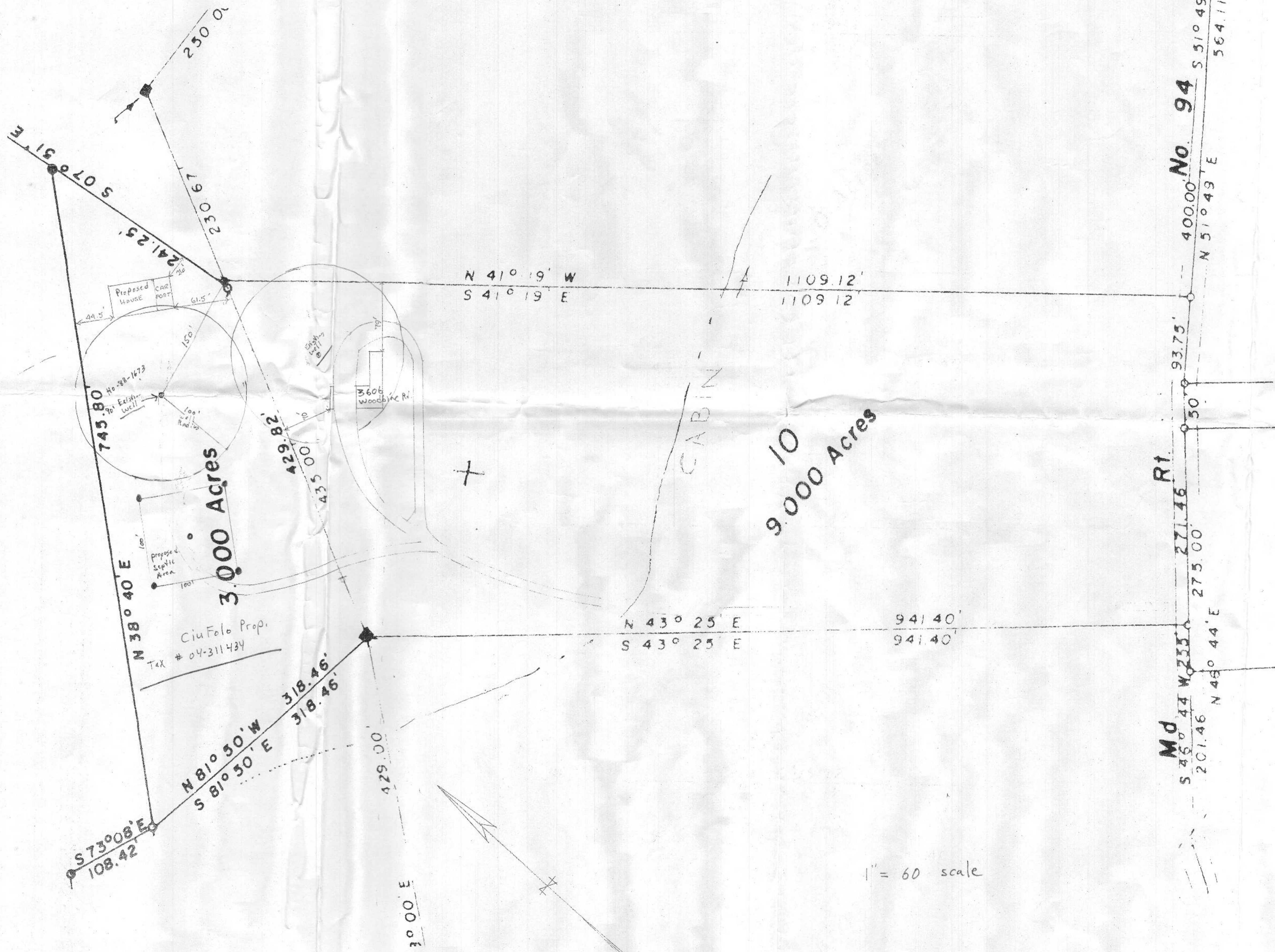
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PAUL M. SILL, PE, LEED AP  
 LICENSED PROFESSIONAL ENGINEER #32025  
 DATE: 3/28/22

COUNTY HEALTH OFFICER  
 HOWARD COUNTY HEALTH DEPARTMENT

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Md  
 S 45° 44' W 201.46  
 N 48° 44' E 275.00  
 271.46  
 Rt.  
 93.75'  
 50'  
 400.00  
 No. 94  
 S 51° 49'  
 N 51° 49' E  
 564.11

1" = 60 scale



