

**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](https://www.facebook.com/hocohealth)

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

RECEIPT DATE: 3/22/21 **ONSITE SEWAGE DISPOSAL SYSTEM**

P 508806 B

APPROVAL DATE: 8/25/21 **PERMIT: CONSTRUCTION**

A \_\_\_\_\_

PROPERTY ADDRESS: 18435 Hidden Creek Way

SUBDIVISION: Windsor Forest Knolls LOT: 10 TAX ID: \_\_\_\_\_

CONTRACTOR: Farm + Home EMAIL: \_\_\_\_\_

CONTRACTOR ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_

PROPERTY OWNER: Keystone Custom Homes EMAIL: \_\_\_\_\_

OWNER ADDRESS: 227 Granite Run Drive PHONE: \_\_\_\_\_

SEPTIC TANK SIZE (GALLONS): 2000 TANK MANUFACTURER: Mayor Bros

PUMP MODEL: \_\_\_\_\_ PUMP SIZE \_\_\_\_\_ PUMP TANK CAPACITY: \_\_\_\_\_

DISTRIBUTION SYSTEM:  GRAVITY  PRESSURE DOSED BEDROOMS: 5 APPLICATION RATE: 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>195</u>	INLET DEPTH: <u>2</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</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 4 trenches at 48.9 LF	

ISSUED BY: H.O. ISSUE DATE: 3/22/21 EXPIRATION DATE: 3/22/22

- 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

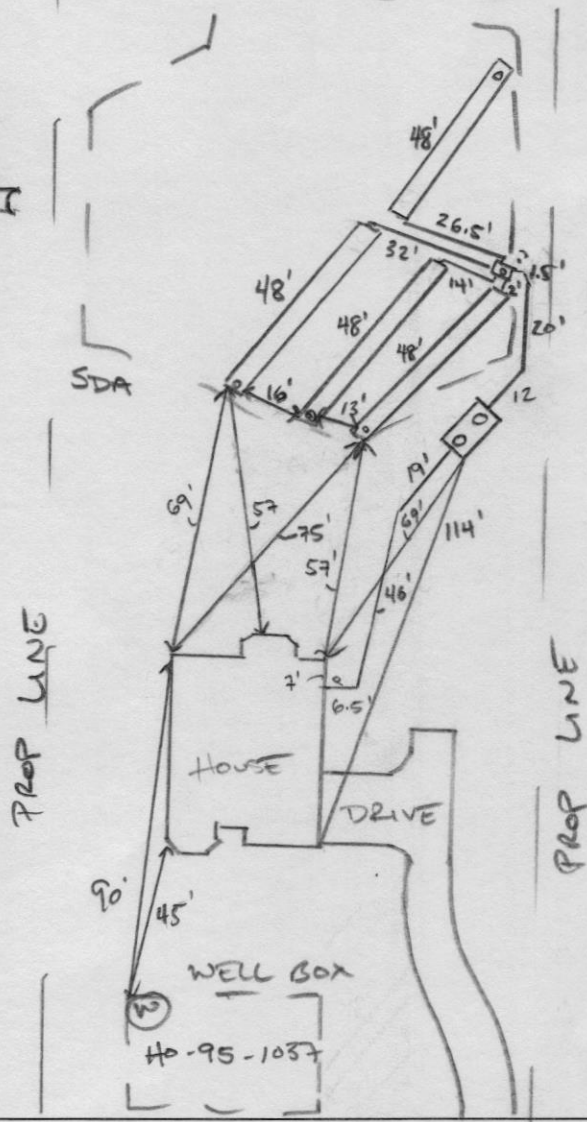
**NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.**

**PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.**

**CALL 410-313-1771 TO SCHEDULE INSPECTIONS.**

NOT TO SCALE

~ 1:50



ROAD NAME

HIDDEN CREEK COURT

**TRENCH/DRAINFIELD DATA**

WIDTH	INLET	BOTTOM
3'	2'	6"
NUMBER OF TRENCHES		4
TOTAL LENGTH		196 F
ABSORPTION AREA		788 sq + 2' SIDE WALL
DISTRIBUTION BOX LEVEL		SPEED
DISTRIBUTION BOX BAFFLE		YES
DISTRIBUTION BOX PORT		YES

**SEPTIC TANK DATA**

SEPTIC TANK 1 LEVEL	YES
MANUFACTURER	BABYLON
CAPACITY	2000 GAL
SEAM LOC	TOP
TANK LID DEPTH	
BAFFLES	
BAFFLE FILTER	
MANHOLE LOC	FRONT/BACK
6" PORT LOC	
WATERTIGHT TEST	
SLOTTED	YES
DATE ON LID	05/14/2021

**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:**

8/3/21 Laid out 4x49' trenches on contour according to plan. (SB)

INSTALLATION: 08/04/2021 INSTALLED SHC AND SET TANK (A) 08/05/2021 INSTALL SL + EFFLUENT LINE TO D BOX, COMPLETED UPPER 3 TRENCHES. (A)

08/05/2021 LOWER TRENCH COMPLETE. D BOX LEVELED w/ SPEED LEVELS. (A)

FINAL INSPECTOR

DATE OF APPROVAL

08/05/2021

**HIDDEN CREEK WAY**  
(Public Access Place)  
(R/W 40')

10' Public Tree  
Maintenance  
Easement

**LOT 10**

H0-95-1037

50' BRL

80.9'

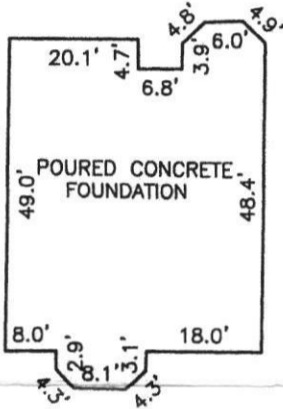
56.2'

33.9'

SEE DETAIL

**LOT 9**

**LOT 11**



**FOUNDATION DETAIL**  
SCALE: 1" = 30'

N 02°08'52" E 130.00'

N 87°51'08" W 302.45'

10' BRL

S 87°51'08" E 336.96'

134.50'  
S 17°00'59" W

RIDGE VIEW LLC  
L.8810 F.091

**SURVEYOR'S CERTIFICATE**

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. 21320, EXPIRATION DATE 1-7-2023 AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF, THAT THE DIMENSIONS OF THE BUILDING WALLS SHOWN HEREON ARE CORRECT; THAT THEY ARE BASED ON A FIELD RUN SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. ON 03/11/2021.

TOP OF FOUNDATION WALL = 801.9'  
OFFSET DIMENSIONS TO PROPERTY LINES ARE ± 0.1'

*not to scale*

**WALL CHECK**

**WINDSOR FOREST KNOLLS**  
**LOTS 1 THRU 18**  
**PLAT No. 19396**  
**LOT No. 10**

18435 HIDDEN CREEK WAY

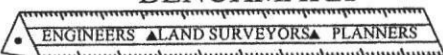
4TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

DONALD A. MASON  
PROFESSIONAL LAND SURVEYOR  
MARYLAND REG. No. 21320

FEMA FIRM No. 24027C0010D  
ZONE: X  
DATED: 11/6/2013

**BENCHMARK**



**ENGINEERING, INC.**

8480 BALTIMORE NATIONAL PIKE SUITE 315  
ELLCOTT CITY, MARYLAND 21043  
(P) 410-465-6105 (F) 410-465-6644

WWW.BEI-CMLENGINEERING.COM

FIELD OBS. BY AS  
COMP. BY EWF  
DRAWN BY EWF SCALE: 1" = 50' DATE: 03/11/2021

# BENCHMARK

ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS

## ENGINEERING, INC.

8480 Baltimore National Pike \* Suite 315 \* Ellicott City, Maryland 21043  
(410) 465-6405 (410) 465-6644 FAX  
www.bei-civilengineering.com \* E-mail: bei@bei-civilengineering.com

## LETTER OF TRANSMITTAL

DATE: 6-11-21 PROJECT NO.: 2986

TO: Howard County Environmental  
Health Department  
8930 Stanford Blvd  
Columbia, MD 21045

ATTN: Susan Thomas  
RE: Windsor Knoll  
Lot 10

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:

- Photocopies  Prints  Originals  Samples  
 Specifications  Invoices  Change Order  Other \_\_\_\_\_

# of Copies	# of Sheets	DESCRIPTION
1	1 of 1	Wallcheck with scale corrected.

THESE ARE TRANSMITTED as checked below:

- For Comment  For Your Use  For Approval  
 For Review  As Requested  Other \_\_\_\_\_

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

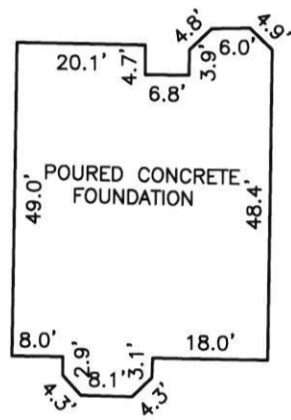
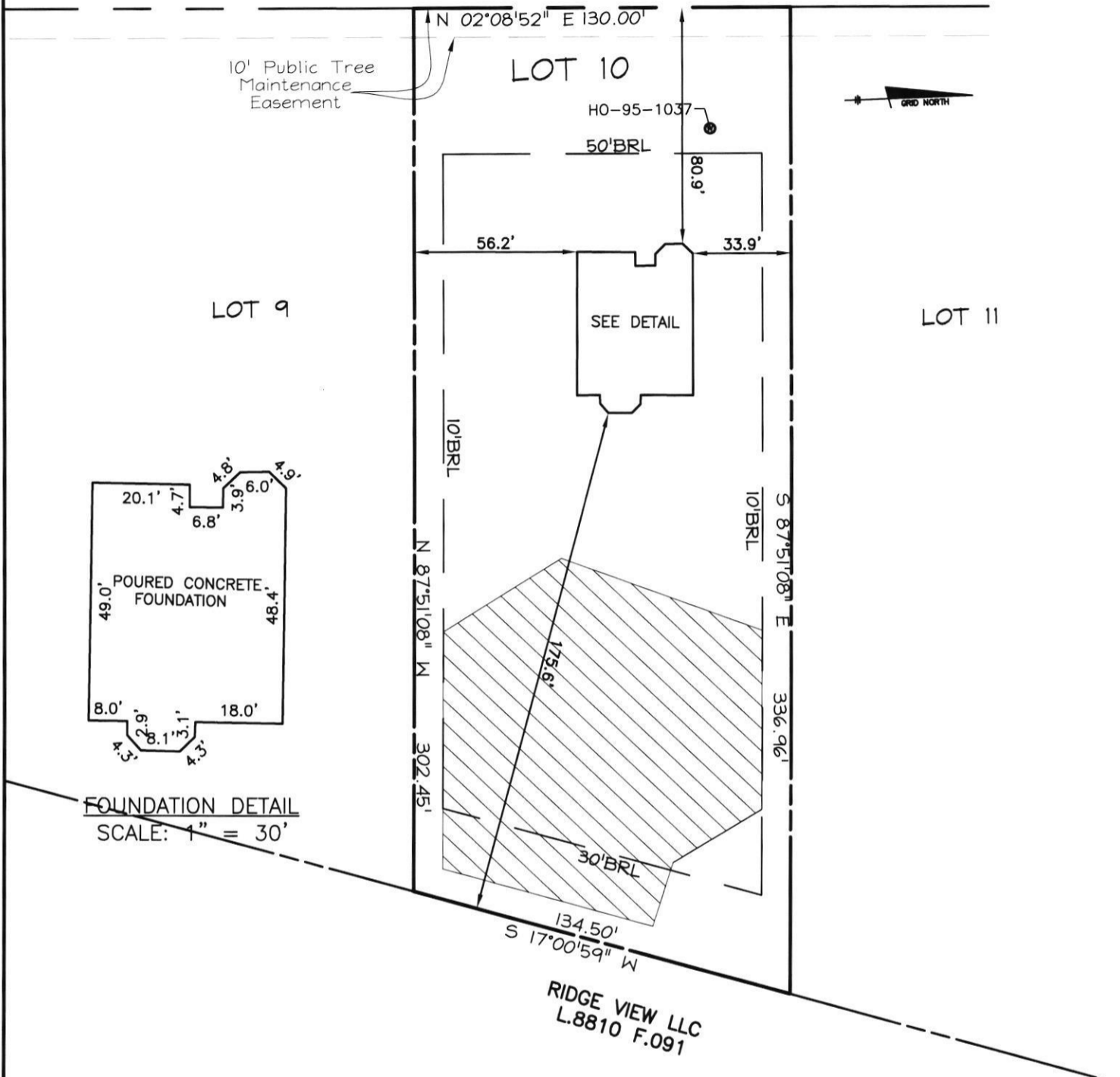
COPY TO: \_\_\_\_\_

SIGNED: Donald Mason

RECEIVED BY: \_\_\_\_\_

E-MAIL: dmason@bei-civilengineering.com

HIDDEN CREEK WAY  
(Public Access Place)  
(R/W 40')



FOUNDATION DETAIL  
SCALE: 1" = 30'

RIDGE VIEW LLC  
L.8810 F.091

SURVEYOR'S CERTIFICATE

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. 21320, EXPIRATION DATE 1-7-2023 AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF, THAT THE DIMENSIONS OF THE BUILDING WALLS SHOWN HEREON ARE CORRECT; THAT THEY ARE BASED ON A FIELD RUN SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. ON 03/11/2021.

TOP OF FOUNDATION WALL = 801.9'  
OFFSET DIMENSIONS TO PROPERTY LINES ARE ± 0.1'

*6.14.21 - Wall check approved - H.S.*

*Donald A. Mason*  
DONALD A. MASON  
PROFESSIONAL LAND SURVEYOR  
MARYLAND REG. No. 21320



FEMA FIRM No. 24027C0010D  
ZONE: X  
DATED: 11/6/2013

WALL CHECK

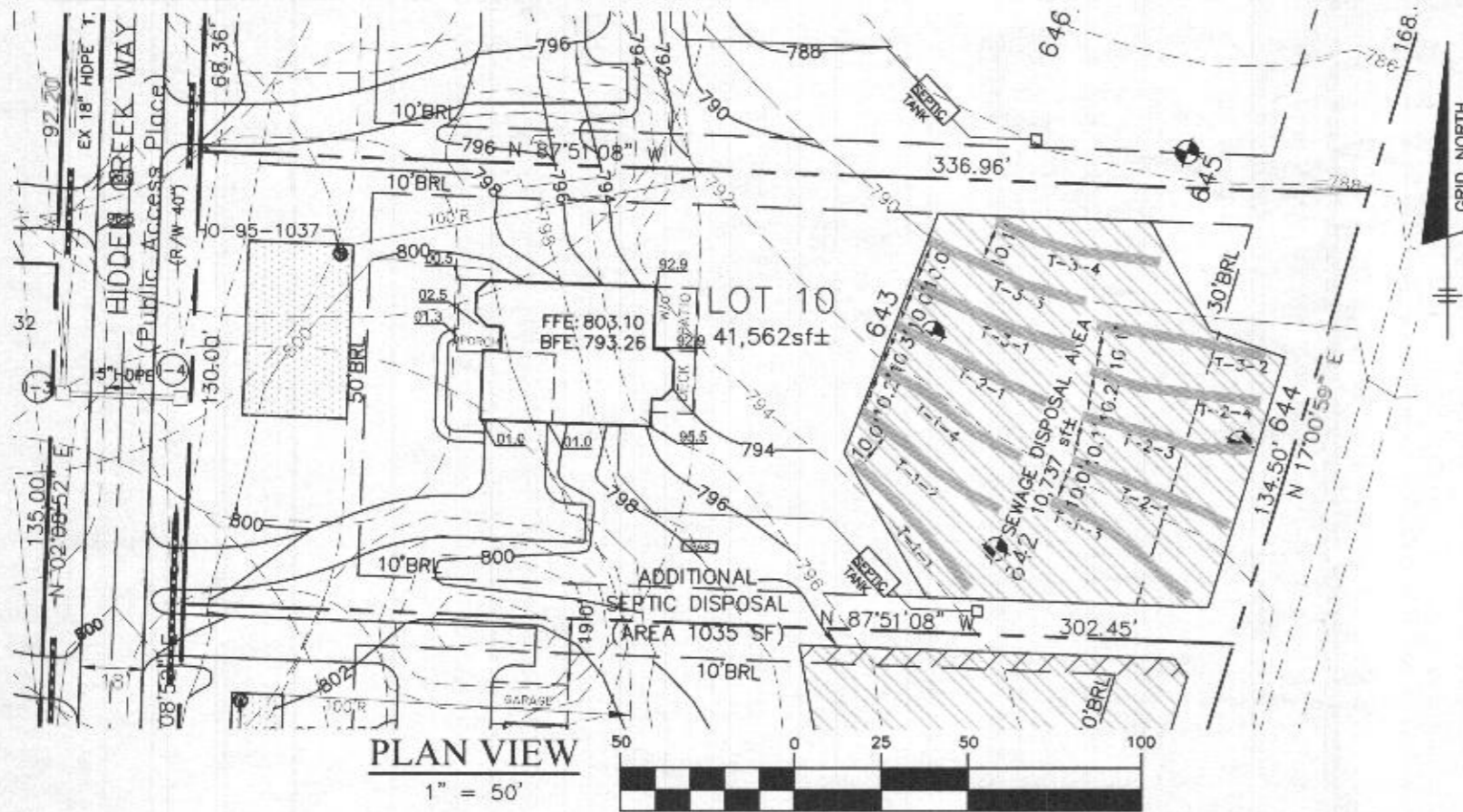
WINDSOR FOREST KNOLLS  
LOTS 1 THRU 18  
PLAT No. 19396  
LOT No. 10

18435 HIDDEN CREEK WAY

4TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

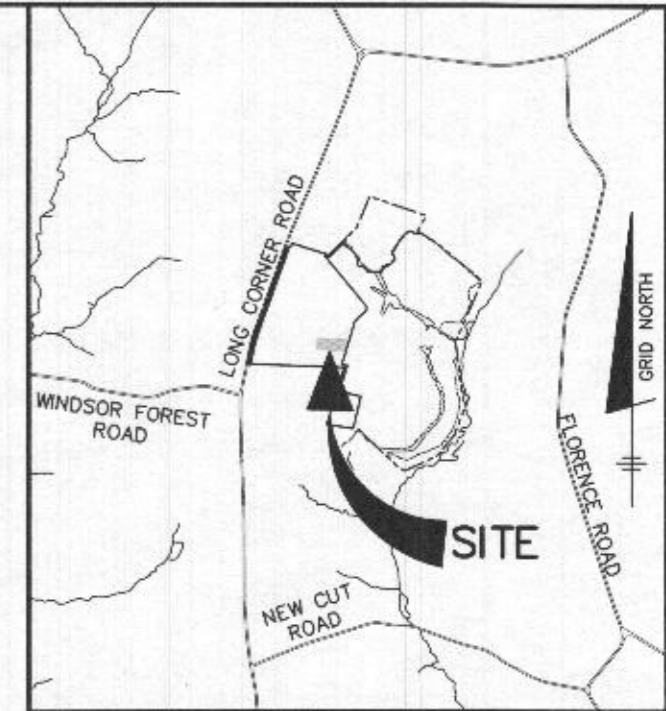
FIELD OBS. BY AS  
COMP. BY EWF  
DRAWN BY EWF SCALE: 1" = 50' DATE: Rev 06/11/2021

BENCHMARK  
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS  
ENGINEERING, INC.  
8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315  
ELLCOTT CITY, MARYLAND 21043  
(P) 410-465-6105 ▲ (F) 410-465-6644



Approved Septic System Plan  
Howard County Health Department

Mark Oswald 11/19/2020  
Signature Date

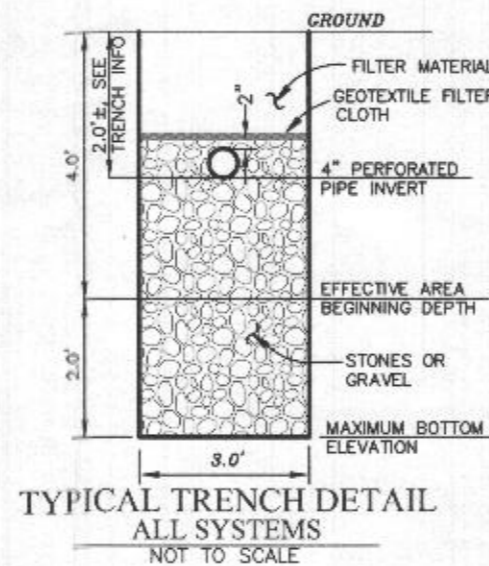


VICINITY MAP

SCALE: 1" = 2000'

### GENERAL NOTES

1. THE LOT SHOWN HEREON WAS RECORDED ON THE PLAT FOR WINDSOR FOREST KNOLLS, PLAT NUMBER 19395. REFER TO THE PLAT FOR LOT DIMENSIONS, LOT AREA, ALL EASEMENTS AND CONDITIONS.
2. THE EXISTING WELL SHOWN ON THIS PLAN (HO-95-1037) HAS BEEN FIELD LOCATED BY BENCHMARK ENGINEERING INC. JULY 2020 AND IS ACCURATELY SHOWN.
3. THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THIS PROJECT'S BOUNDARY EXCEPT AS NOTED.
4. TOPOGRAPHY SHOWN WAS BASED ON FIELD RUN TOPOGRAPHY BY C.B. MILLER & ASSOCIATES IN APRIL, 2002, AND WAS SUPPLEMENTED BY FIELD RUN TOPOGRAPHY BY BENCHMARK ENGINEERING, INC. JULY 2020.
5. SEDIMENT AND EROSION CONTROLS WILL BE SUBMITTED BY HOWARD SOILS CONSERVATION DISTRICT AS A CUSTOM GRADING PLAN.
6. ALL DRAINAGE AND STORMWATER MANAGEMENT FEATURES USED ON THIS SITE MUST COMPLY WITH THE APPROVED BUILDING PERMIT AND CUSTOM GRADING PLANS.
7. ANY CHANGES TO A PRIVATE SEWAGE DISPOSAL AREA OR WELL BOX SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
8. 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.
9. ANY ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
10. THE SEPTIC TANK WILL BE A 2000 GALLON TWO COMPARTMENT TANK.
11. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
12. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS/OR SEPTIC SYSTEM HAVE BEEN SHOWN.



TYPICAL TRENCH DETAIL  
ALL SYSTEMS  
NOT TO SCALE

### LEGEND

- 400 PROPOSED CONTOURS
- 398 EXISTING CONTOURS
- 400 EXISTING PRIVATE SEWAGE DISPOSAL AREA
- ADDITIONAL SEWAGE DISPOSAL AREA
- EXISTING WELL BOX
- SOILS MAP SYMBOL
- PERC TEST PASSED

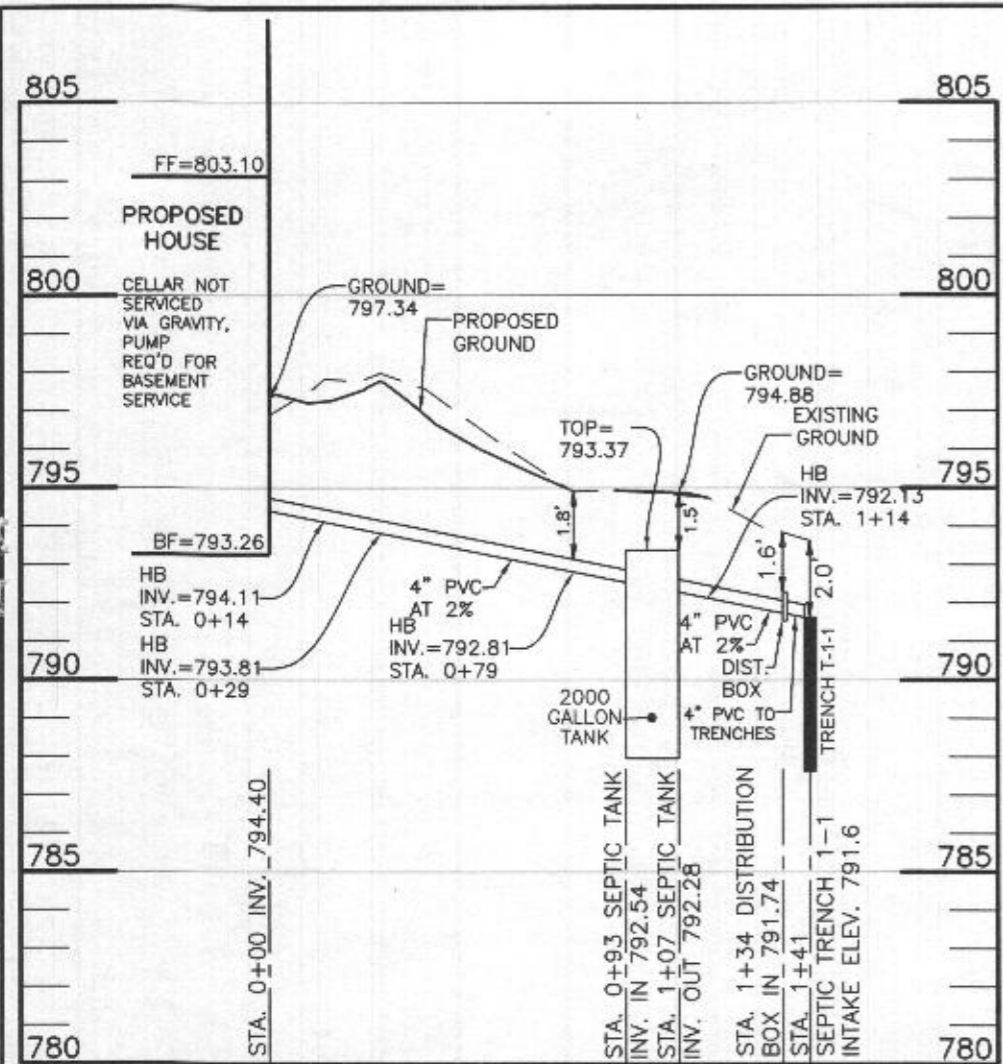
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 28376, Expiration Date: 01-01-2021.



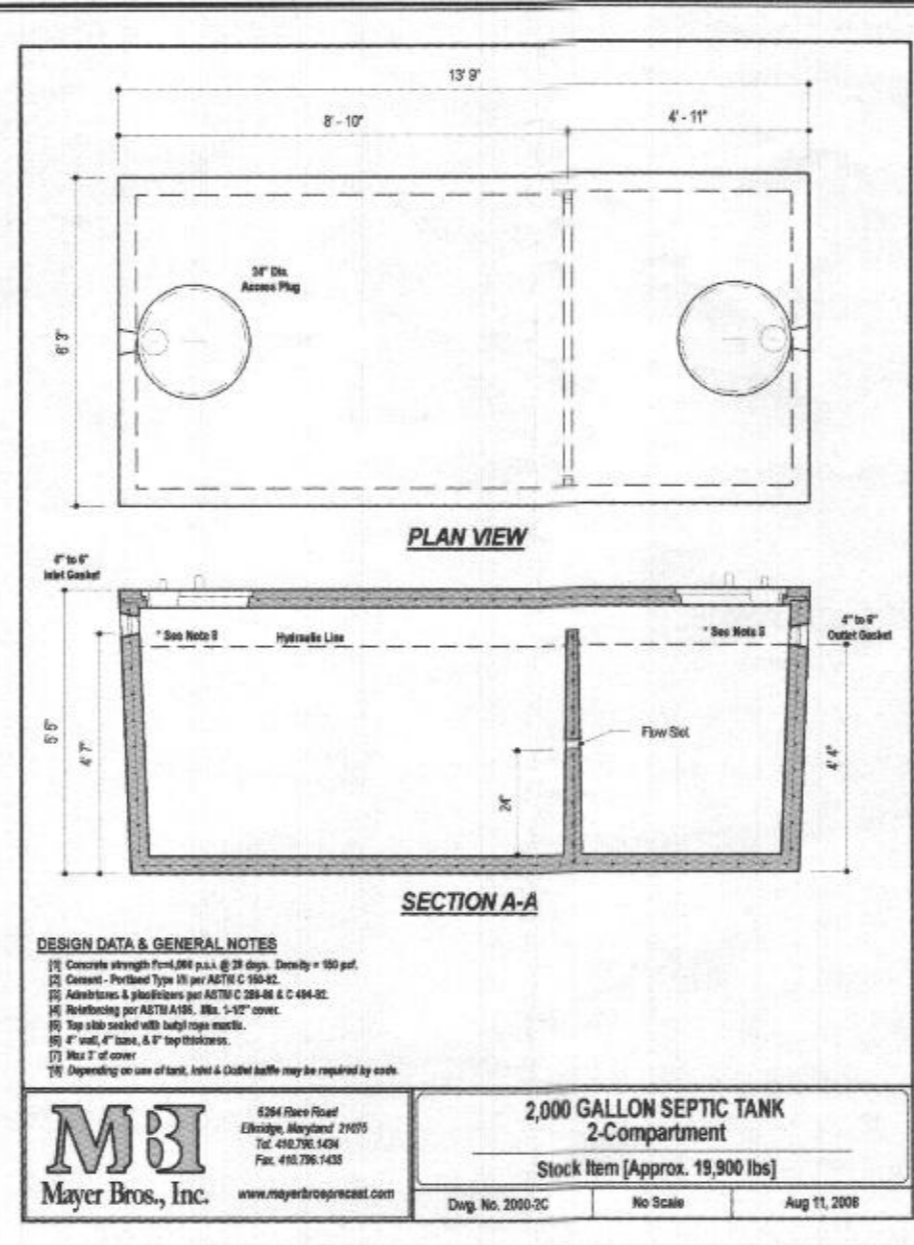
Oct 29 2020 3:10 PM DocuSign

PROJECT:		WINDSOR FOREST KNOLLS LOT 10	
LOCATION:		TAX MAP: 6 - GRID: 16 - PARCEL: 57 18435 HIDDEN CREEK WAY - TAX ID # 04-373251 ELECTION DISTRICT NO. 4 - HOWARD COUNTY, MARYLAND	
TITLE:		ONSITE SEWAGE DISPOSAL PLAN	
HOUSE TYPE:		CUSTOM - KEYSTONE HOMES	
DATE:	OCTOBER, 2020	PROJECT NO.	2986
SCALE:	AS SHOWN	DRAWING	1 OF 2

OWNER/BUILDER: KEYSTONE CUSTOM HOMES, INC. 227 GRANITE RUN DR. SUITE 100 LANCASTER, PA 17601 717-464-9060	<p align="center"><b>BENCHMARK</b></p> <p align="center">ENGINEERS • LAND SURVEYORS • PLANNERS</p> <p align="center"><b>ENGINEERING, INC.</b></p> <p align="center">8480 BALTIMORE NATIONAL PIKE SUITE 315 ELLCOTT CITY, MARYLAND 21043 (P) 410-465-6105 • (F) 410-465-6844 WWW.BEI-CIVILENGINEERING.COM</p>
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**LOT 10 SEPTIC PROFILE**  
SCALE: 1"=50' HORIZ., 1"=5' VERT.



**DESIGN DATA & GENERAL NOTES**

- 1) Concrete strength f'c=4,000 p.s.i. @ 28 days. Density = 150 pcf.
- 2) Cement - Portland Type III per ASTM C 150-92.
- 3) Admixtures & plasticizers per ASTM C 390-96 & C 494-92.
- 4) Reinforcing per ASTM A193, Min. 5-12" cover.
- 5) Top slab sealed with butyl rope mastic.
- 6) 4" wall, 4" base, & 6" top thickness.
- 7) Max 7' of cover.
- 8) Depending on use of tank, Inlet & Outlet baffle may be required by each.

**MBI**  
Mayer Bros., Inc.  
www.mayerbrosprecast.com

6264 Race Road  
Elkridge, Maryland 21075  
Tel. 410.796.1434  
Fax. 410.796.1433

**2,000 GALLON SEPTIC TANK**  
**2-Compartment**  
Stock Item [Approx. 19,900 lbs]

Dwg. No. 2000-2C    No Scale    Aug 11, 2008

TRENCH DESIGN - Lot 10					
<b>INITIAL SYSTEM</b>					
<b>T-1-1</b>	LENGTH	48.9 ft	<b>T-1-2</b>	LENGTH	48.9 ft
	GROUND ELEVATION	793.6		GROUND ELEVATION	792.8
	INVERT ELEVATION	791.6		INVERT ELEVATION	790.8
	MAX BOTTOM ELEVATION	787.6		MAX BOTTOM ELEVATION	786.8
<b>T-1-3</b>	LENGTH	48.9 ft	<b>T-1-4</b>	LENGTH	48.9 ft
	GROUND ELEVATION	792.3		GROUND ELEVATION	792.1
	INVERT ELEVATION	790.3		INVERT ELEVATION	790.1
	MAX BOTTOM ELEVATION	786.3		MAX BOTTOM ELEVATION	786.1
<b>1ST REPLACEMENT SYSTEM</b>					
<b>T-2-1</b>	LENGTH	48.9 ft	<b>T-2-2</b>	LENGTH	48.9 ft
	GROUND ELEVATION	791.8		GROUND ELEVATION	791.4
	INVERT ELEVATION	789.8		INVERT ELEVATION	789.4
	MAX BOTTOM ELEVATION	785.8		MAX BOTTOM ELEVATION	785.4
<b>T-2-3</b>	LENGTH	48.9 ft	<b>T-2-4</b>	LENGTH	48.9 ft
	GROUND ELEVATION	791.3		GROUND ELEVATION	790.9
	INVERT ELEVATION	789.3		INVERT ELEVATION	788.9
	MAX BOTTOM ELEVATION	785.3		MAX BOTTOM ELEVATION	784.9
<b>2ND REPLACEMENT SYSTEM</b>					
<b>T-3-1</b>	LENGTH	48.9 ft	<b>T-3-2</b>	LENGTH	48.9 ft
	GROUND ELEVATION	790.7		GROUND ELEVATION	790.3
	INVERT ELEVATION	788.7		INVERT ELEVATION	788.3
	MAX BOTTOM ELEVATION	784.7		MAX BOTTOM ELEVATION	784.3
<b>T-3-3</b>	LENGTH	48.9 ft	<b>T-3-4</b>	LENGTH	48.9 ft
	GROUND ELEVATION	790.0		GROUND ELEVATION	789.4
	INVERT ELEVATION	788.0		INVERT ELEVATION	787.4
	MAX BOTTOM ELEVATION	784.0		MAX BOTTOM ELEVATION	783.4

INITIAL SYSTEM		
Number of Bedrooms	5	
Application Rate	0.8	gpd/sf
Effective Area Beginning Depth	4.0	ft
Bottom Max Depth	6.0	ft
Design Flow	750	gpd
Drainage Field square footage	937.5	sf
Sidewall Reduction Credit	0.63	
Trench width	3	ft
Effective Area Depth	2	ft
Trench Spacing	10	ft
<b>Trench Length Required</b>	<b>195</b>	<b>lf</b>

1ST REPLACEMENT SYSTEM		
Number of Bedrooms	5	
Application Rate	0.8	gpd/sf
Effective Area Beginning Depth	4.0	ft
Bottom Max Depth	6.0	ft
Design Flow	750	gpd
Drainage Field square footage	937.5	sf
Sidewall Reduction Credit	0.63	
Trench width	3	ft
Effective Area Depth	2	ft
Trench Spacing	10	ft
<b>Trench Length Required</b>	<b>195</b>	<b>lf</b>

2ND REPLACEMENT SYSTEM		
Number of Bedrooms	5	
Application Rate	0.8	gpd/sf
Effective Area Beginning Depth	4.0	ft
Bottom Max Depth	6.0	ft
Design Flow	750	gpd
Drainage Field square footage	938	sf
Sidewall Reduction Credit	0.63	
Trench width	3	ft
Effective Area Depth	2	ft
Trench Spacing	10	ft
<b>Trench Length Required</b>	<b>195</b>	<b>lf</b>

HEALTH DEPARTMENT SPEC SHEET INFORMATION - Lot 10			
System	Application Rate	Effective Depth	Bottom Depth
1st System	0.8	4.0	6.0
2nd system	0.8	4.0	6.0
3rd System	0.8	4.0	6.0

**OWNER/BUILDER:**  
KEYSTONE CUSTOM HOMES, INC.  
227 GRANITE RUN DR.  
SUITE 100  
LANCASTER, PA 17601  
717-464-9060

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ELLCOTT CITY, MARYLAND 21043  
(P) 410-465-6105 ▲ (F) 410-465-6644  
WWW.BEI-CIVLENGINEERING.COM

SEPTIC INVERT CHART - Lot 10	
INV @ HOUSE	794.4
GROUND @ HOUSE	797.3
INV IN SEPTIC TANK	792.5
INV OUT SEPTIC TANK	792.3
TOP OF SEPTIC TANK	793.4
GROUND OVER SEPTIC TANK	794.9
INV IN DIST BOX	791.7
INV OUT DIST BOX	791.6
GROUND AT DIST BOX	793.9

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. 28376, Expiration Date: 01-01-2021.



Oct 29 2020 3:10 PM DocuSign

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TITLE:	ONSITE SEWAGE DISPOSAL PLAN		
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DATE:	OCTOBER, 2020	PROJECT NO.	2986
SCALE:	AS SHOWN	DRAWING	2 OF 2