

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: 8/18/21 ONSITE SEWAGE DISPOSAL SYSTEM

P 570111

APPROVAL DATE: 09/15/2021 PERMIT: CONSTRUCTION

A

PROPERTY ADDRESS: 18434 Hidden Creek Way

SUBDIVISION: Windsor Forest Knolls

LOT: 5

TAX ID:

1404373200

CONTRACTOR: Farm & Home Excavation

EMAIL:

CONTRACTOR ADDRESS: 901 Driver Rd

PHONE: 410-984-0189

PROPERTY OWNER: Keystone Custom Homes

EMAIL:

OWNER ADDRESS: 227 Granite Run Dr. Suite 100 Lancaster, PA 17601

PHONE: 717-464-9060

SEPTIC TANK SIZE (GALLONS): 2000

TANK MANUFACTURER:

Mayer Bros

PUMP MODEL: NA

PUMP SIZE

NA

PUMP TANK CAPACITY:

NA

DISTRIBUTION SYSTEM: GRAVITY

PRESSURE DOSED

BEDROOMS:

5/4

APPLICATION RATE:

0.8

TRENCHES:	LINEAR FEET REQUIRED: 250	INLET DEPTH: 2 1/2
	TRENCH WIDTH: 3	MAXIMUM BOTTOM DEPTH: 6
	MINIMUM SPACE BETWEEN TRENCHES: 10	EFFECTIVE AREA BEGINNING DEPTH: 5.5
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: Robert Freemon H.O.

ISSUE DATE: 8/18/21

EXPIRATION DATE: 8/18/22

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

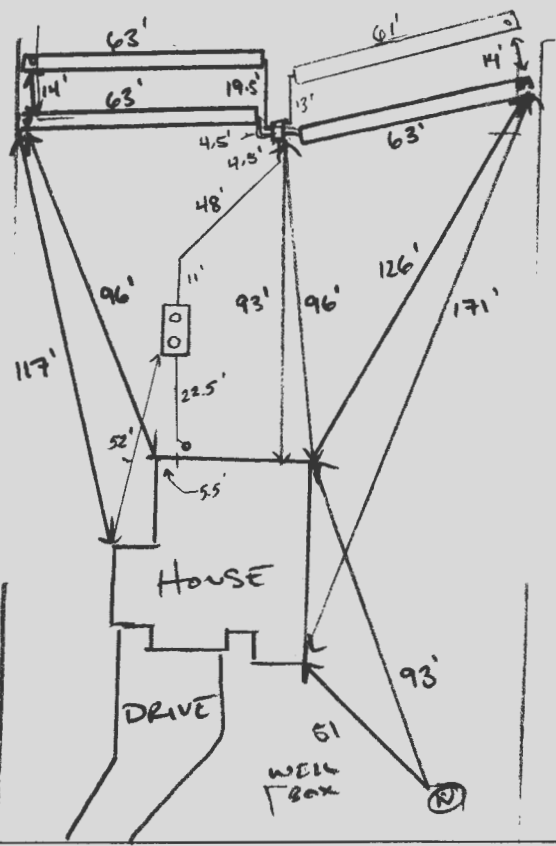
NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.

PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.

CALL 410-313-1771 TO SCHEDULE INSPECTIONS.

NOT TO SCALE ~1:50

SDA



4" CRESLINE
COEA CELL CORE
SCH 40 PVC

ROAD NAME
HIDDEN CREEK WAY

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	2'	6'
NUMBER OF TRENCHES		4
TOTAL LENGTH		250 E
ABSORPTION AREA		750 sq + .5' SIDE WALL
DISTRIBUTION BOX LEVEL		SPEEDY
DISTRIBUTION BOX BAFFLE		YES
DISTRIBUTION BOX PORT		YES

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL	
MANUFACTURER	Babylon
CAPACITY	2000 GAL
SEAM LOC	top
TANK LID DEPTH	1'
BAFFLES	inlet + outlet
BAFFLE FILTER	-
MANHOLE LOC	inlet + outlet
6" PORT LOC	-
WATERTIGHT TEST	-
SLOTTED	yes
DATE ON LID	7-30-21
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:

09/02/2021 CONFIRMED CONTOUR OF TO STREET. ✓

* NEED DESIGNS TO INCLUDE SPACE FOR TR. FEED

INSTALLATION:

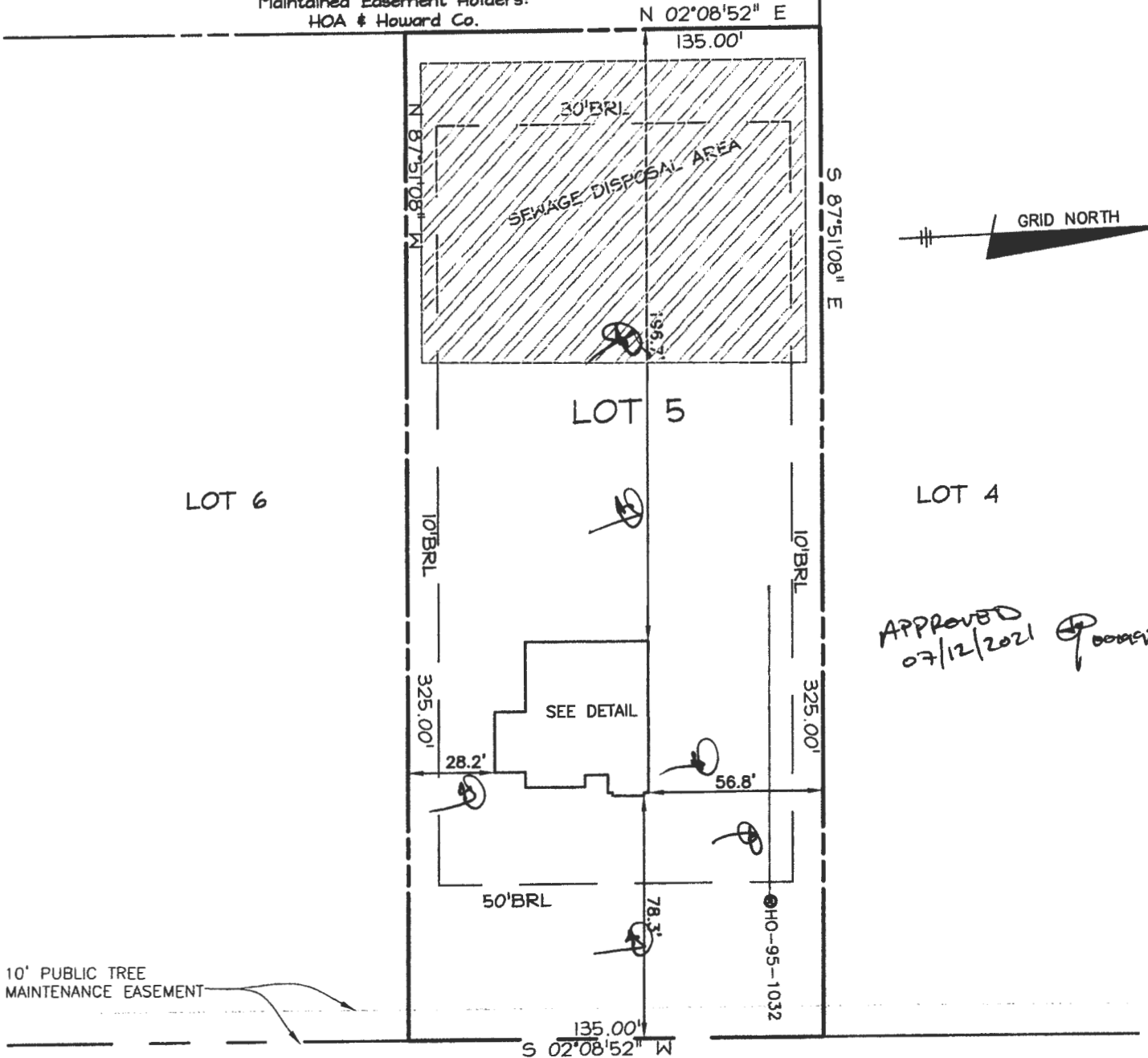
9/3/21 Tank set and SL constructed. Re-insp for SHC. (SP)
 09/07/2021 D BOX INSTALLED + TRENCHES IN PROGRESS. (P) 9/8/21 Last trench complete, re-insp for d-box and SHC. (SP) 9/13/21 SHC complete. (SP)
 09/15/2021 LEVEL D BOX w/ SPEEDY LEVELS. (P)

FINAL INSPECTOR

DATE OF APPROVAL

09/15/2021

ENVIRONMENTAL
NON-BUILDABLE
PRESERVATION
PARCEL 'C' Privately Owned and
Maintained Easement Holders:
HOA # Howard Co.



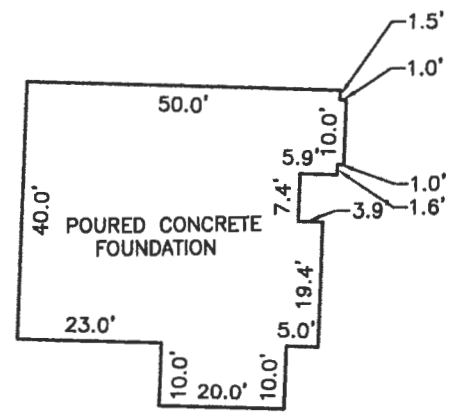
APPROVED
07/12/2021

10' PUBLIC TREE
MAINTENANCE EASEMENT

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

TOP OF FOUNDATION WALL = 804.5'
OFFSET DIMENSIONS TO PROPERTY LINES ARE ± 0.1'

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 06/07/2021.



FOUNDATION DETAIL
SCALE: 1" = 30'

WALL CHECK

WINDSOR FOREST KNOLLS
LOTS 1 THRU 18
PLAT No. 19396
LOT No. 5

18434 HIDDEN CREEK WAY

4TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

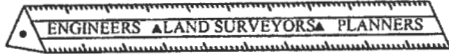
FIELD OBS. BY ML&AS
COMP. BY EWF
DRAWN BY EWF SCALE: 1" = 50' DATE: 06/07/2021

Donald A. Mason 6/8/21

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

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

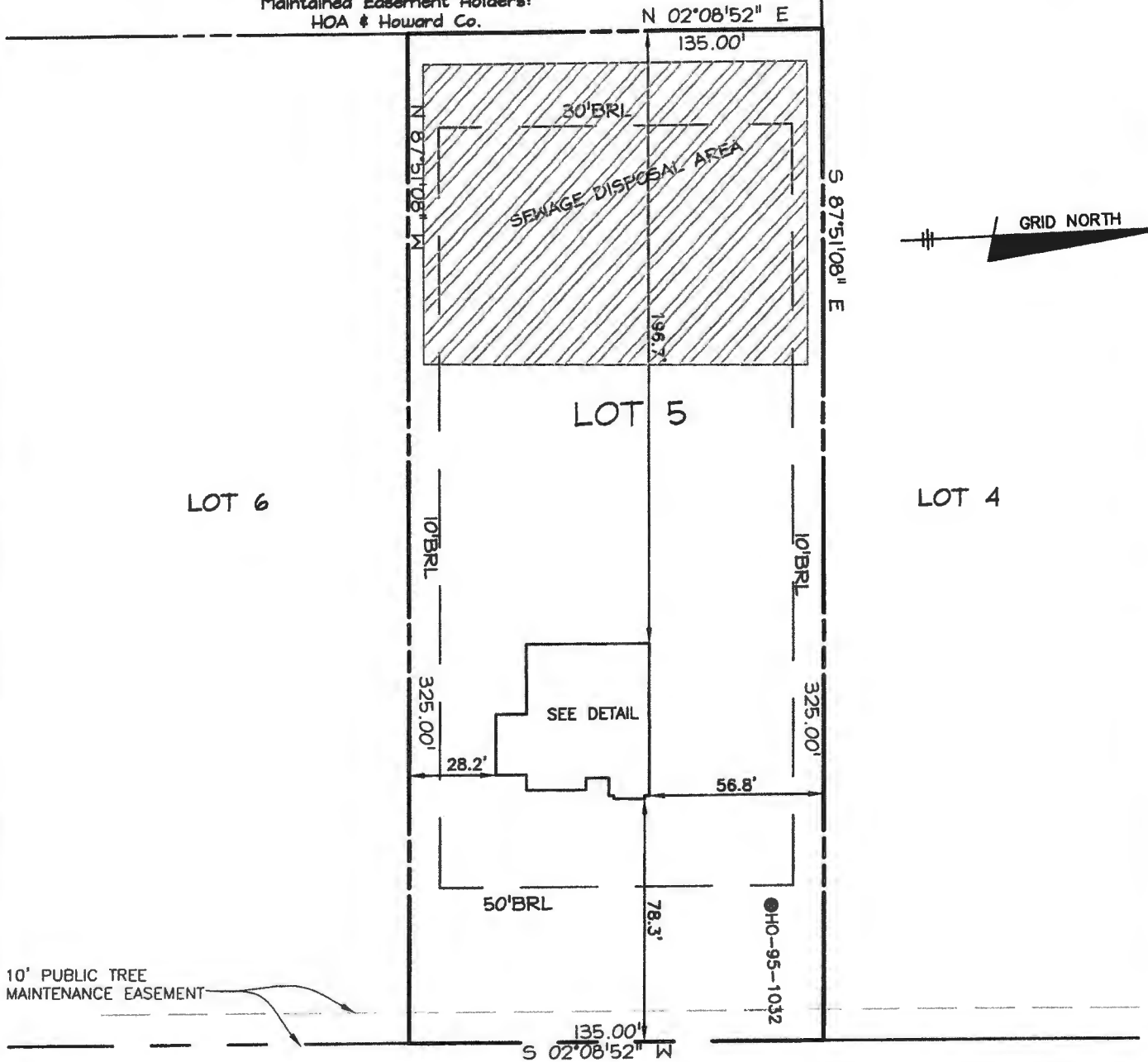
BENCHMARK



ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE SUITE 315
ELLCOTT CITY, MARYLAND 21043
(P) 410-485-8105 (F) 410-465-8644

ENVIRONMENTAL
NON-BUILDABLE
PRESERVATION
PARCEL 'C' Privately Owned and
Maintained Easement Holders:
HOA & Howard Co.



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

Approved 8/18/21
- H.O.

TOP OF FOUNDATION WALL = 804.5'
OFFSET DIMENSIONS TO PROPERTY LINES ARE ± 0.1'

SURVEYOR'S CERTIFICATE

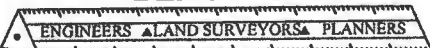
I HEREBY CERTIFY THAT THESE DOCUMENTS, WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21320, EXPIRATION DATE 1-7-2023 AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF, 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 06/07/2021.

Donald A. Mason 6/9/21

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

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

BENCHMARK

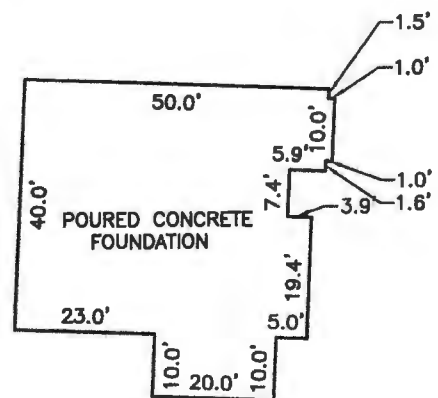


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WWW.BEI-CIVILENGINEERING.COM

J:\2986 Windsor Forest Knolls.dwg 8/8/2021 9:06:49 AM, CS 3253d



FOUNDATION DETAIL
SCALE: 1" = 30'

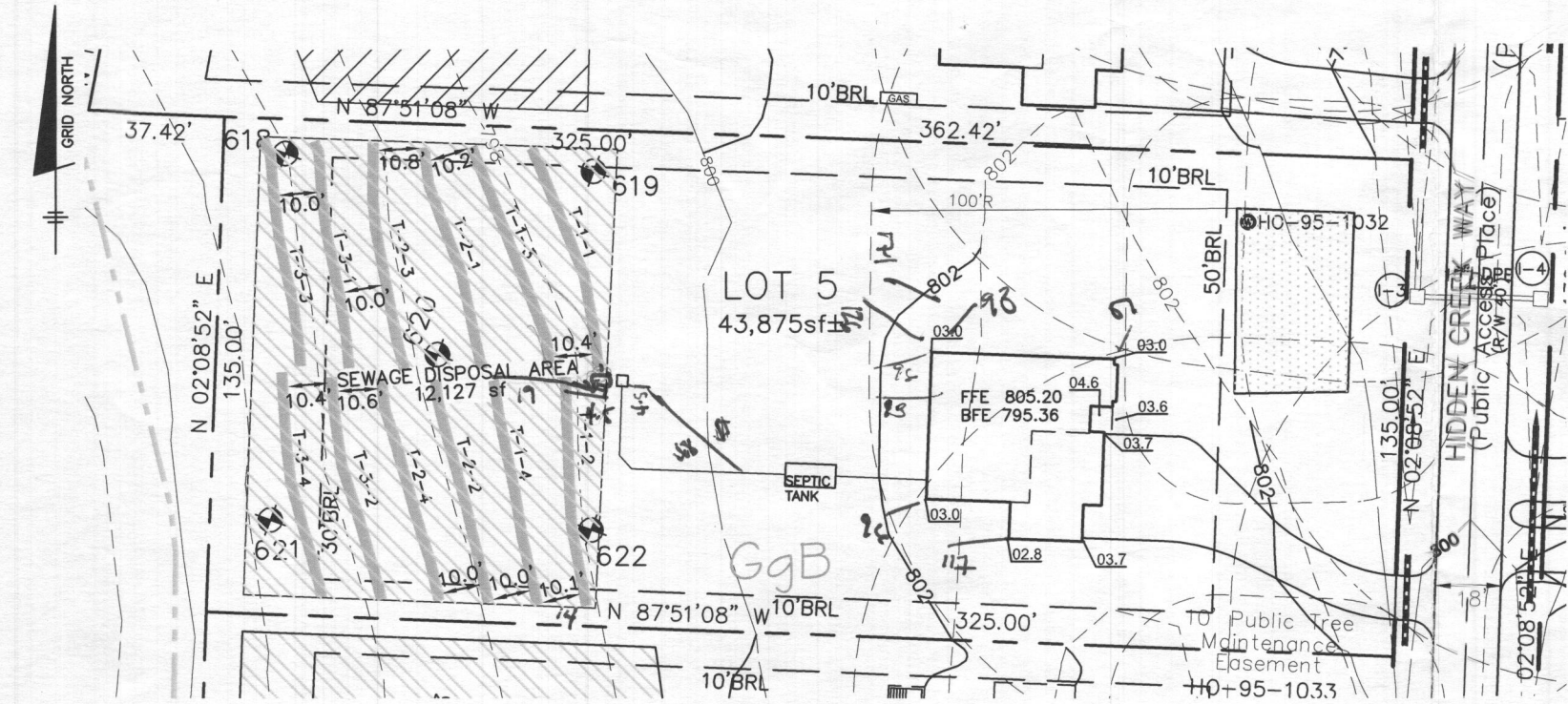
WALL CHECK

WINDSOR FOREST KNOLLS
LOTS 1 THRU 18
PLAT No. 19396
LOT No. 5

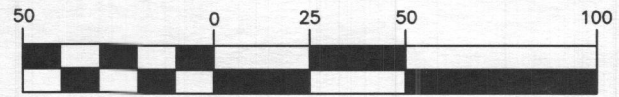
18434 HIDDEN CREEK WAY

4TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FIELD OBS. BY ML&AS
COMP. BY EWF
DRAWN BY EWF SCALE: 1" = 50' DATE: 06/07/2021



PLAN VIEW
1" = 50'

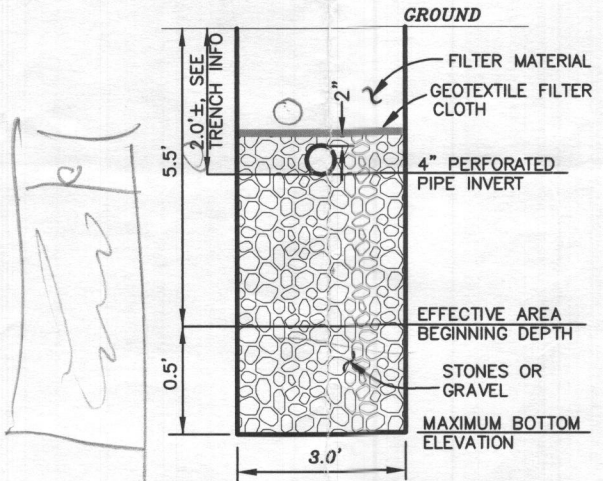


(IN FEET)
1 inch = 50 ft.

*N" CROSSING
CHECK CEN CORN
SET TO PVC*

GENERAL NOTES

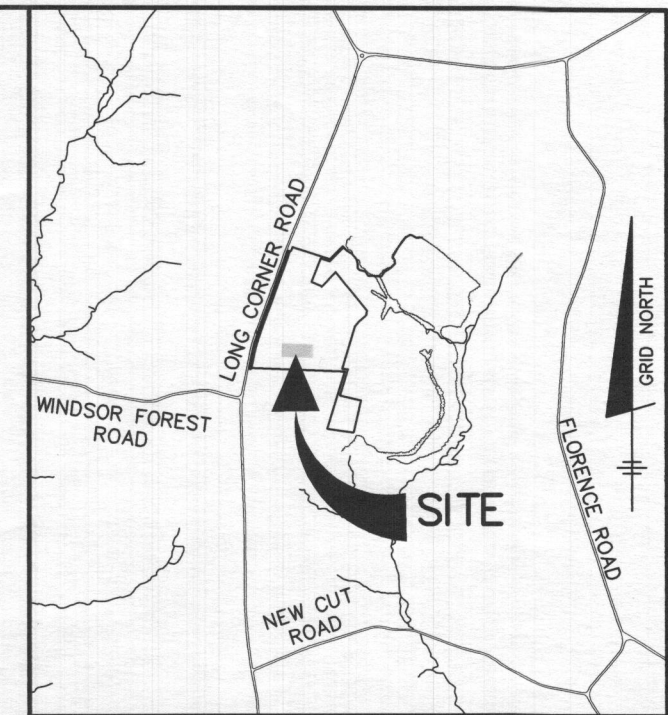
1. THE LOT SHOWN HEREON WAS RECORDED ON THE PLAT FOR WINDSOR FOREST KNOLLS, PLAT NUMBER 19395. REFER TO THE PLAT FOR LOT DIMENSIONS, LOT AREA, ALL EASEMENTS AND CONDITIONS.
2. THE EXISTING WELL SHOWN ON THIS PLAN (HO-95-1032) HAS BEEN FIELD LOCATED BY BENCHMARK ENGINEERING INC. JULY 2020 AND IS ACCURATELY SHOWN.
3. 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.
4. SEDIMENT AND EROSION CONTROLS WILL BE SUBMITTED BY HOWARD SOILS CONSERVATION DISTRICT AS A CUSTOM GRADING PLAN.
5. ALL DRAINAGE AND STORMWATER MANAGEMENT FEATURES USED ON THIS SITE MUST COMPLY WITH THE APPROVED BUILDING PERMIT AND CUSTOM GRADING PLANS.
6. ANY CHANGES TO A PRIVATE SEWAGE DISPOSAL AREA OR WELL BOX SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
7. 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.
8. THE SEPTIC TANK WILL BE A 2000 GALLON TWO COMPARTMENT TANK.
9. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
10. 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
- SOILS DELINEATION LINE
- PERC TEST PASSED



VICINITY MAP
SCALE: 1" = 2000'

Approved Septic System Plan
Howard County Health Department
[Signature] 11/6/2020
Signature Date

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.

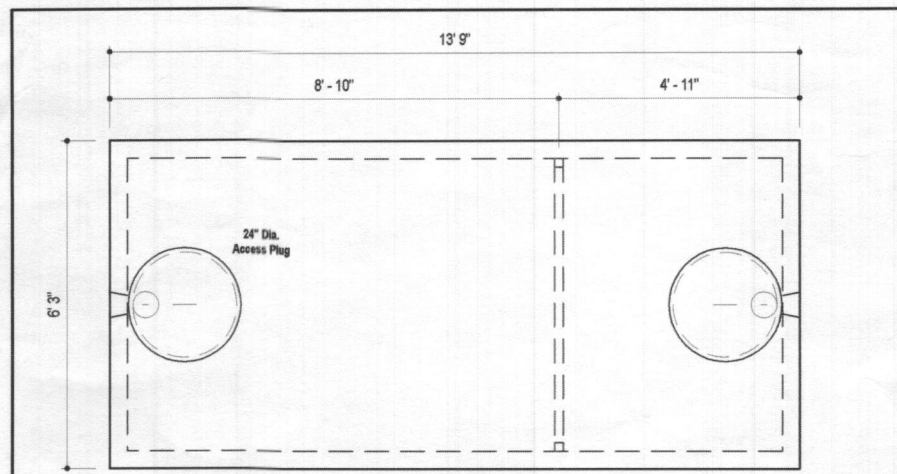


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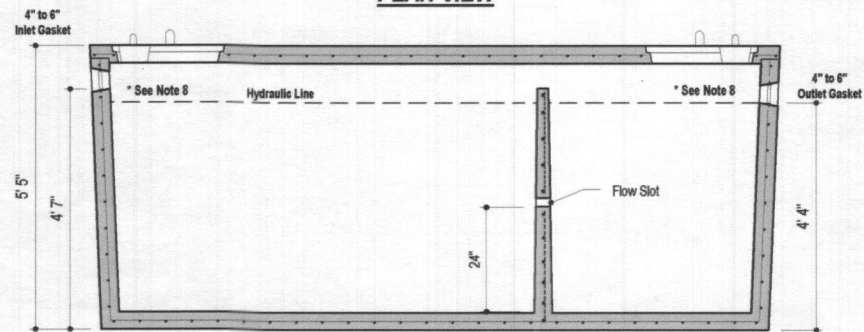
PROJECT:		WINDSOR FOREST KNOLLS LOT 5	
LOCATION:		TAX MAP: 6 - GRID: 16 - PARCEL: 57 18434 HIDDEN CREEK WAY, TAX ID# 04-373200 ELECTION DISTRICT NO. 4 - HOWARD COUNTY, MARYLAND	
TITLE:		ONSITE SEWAGE DISPOSAL PLAN	
HOUSE TYPE:		CUSTOM - KEYSTONE HOMES	
DATE:	OCTOBER, 2020	PROJECT NO.	2986
SCALE:	AS SHOWN	DRAWING	1 OF 2

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

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
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PLAN VIEW



SECTION A-A

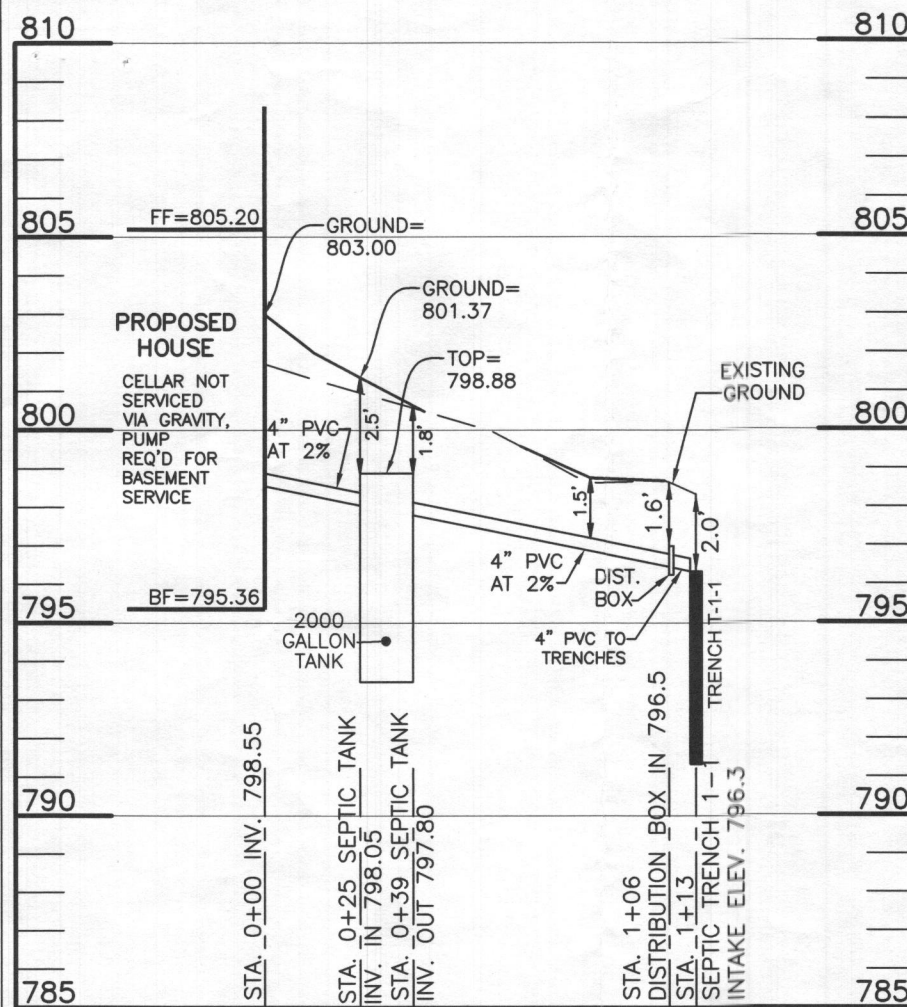
DESIGN DATA & GENERAL NOTES

- [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 260-96 & C 494-92.
- [4] Reinforcing per ASTM A195. Min. 1-1/2" cover.
- [5] Top slab sealed with butyl rope mastic.
- [6] 4" wall, 4" base, & 6" top thickness.
- [7] Max 3" of cover
- [8] Depending on use of tank, Inlet & Outlet baffle may be required by code.



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

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



LOT 5 SEPTIC PROFILE
SCALE: 1"=50' HORIZ., 1"=5' VERT.

TRENCH DESIGN - Lot 5

INITIAL SYSTEM					
T-1-1	LENGTH	62.5 ft	T-1-2	LENGTH	62.5 ft
	GROUND ELEVATION	798.3		GROUND ELEVATION	797.8
	INVERT ELEVATION	796.3		INVERT ELEVATION	795.8
	MAX BOTTOM ELEVATION	792.3		MAX BOTTOM ELEVATION	791.8
T-1-3	LENGTH	62.5 ft	T-1-4	LENGTH	62.5 ft
	GROUND ELEVATION	797.7		GROUND ELEVATION	797.0
	INVERT ELEVATION	795.7		INVERT ELEVATION	795.0
	MAX BOTTOM ELEVATION	791.7		MAX BOTTOM ELEVATION	791.0
1ST REPLACEMENT SYSTEM					
T-2-1	LENGTH	62.5 ft	T-2-2	LENGTH	62.5 ft
	GROUND ELEVATION	796.8		GROUND ELEVATION	796.2
	INVERT ELEVATION	794.8		INVERT ELEVATION	794.2
	MAX BOTTOM ELEVATION	790.8		MAX BOTTOM ELEVATION	790.2
T-2-3	LENGTH	62.5 ft	T-2-4	LENGTH	62.5 ft
	GROUND ELEVATION	795.8		GROUND ELEVATION	795.3
	INVERT ELEVATION	793.8		INVERT ELEVATION	793.3
	MAX BOTTOM ELEVATION	789.8		MAX BOTTOM ELEVATION	789.3
2ND REPLACEMENT SYSTEM					
T-3-1	LENGTH	62.5 ft	T-3-2	LENGTH	62.5 ft
	GROUND ELEVATION	794.6		GROUND ELEVATION	794.3
	INVERT ELEVATION	792.6		INVERT ELEVATION	792.3
	MAX BOTTOM ELEVATION	788.6		MAX BOTTOM ELEVATION	788.3
T-3-3	LENGTH	62.5 ft	T-3-4	LENGTH	62.5 ft
	GROUND ELEVATION	793.6		GROUND ELEVATION	793.0
	INVERT ELEVATION	791.6		INVERT ELEVATION	791.0
	MAX BOTTOM ELEVATION	787.6		MAX BOTTOM ELEVATION	787.0

HEALTH DEPARTMENT SPEC SHEET INFORMATION - Lot 5

System	Application Rate	Effective Depth	Bottom Depth
1st System	0.8	5.5	6.0
2nd system	0.8	5.5	6.0
3rd System	0.8	5.5	6.0

SEPTIC INVERT CHART - Lot 5

INV @ HOUSE	798.6
GROUND @ HOUSE	803.0
INV IN SEPTIC TANK	798.1
INV OUT SEPTIC TANK	797.8
TOP OF SEPTIC TANK	798.9
GROUND OVER SEPTIC TAN	801.4
INV IN DIST BOX	795.5
INV OUT DIST BOX	795.4
GROUND AT DIST BOX	798.7

INITIAL SYSTEM		1ST REPLACEMENT SYSTEM		2ND REPLACEMENT SYSTEM	
Number of Bedrooms	4	Number of Bedrooms	4	Number of Bedrooms	4
Application Rate	0.8 gpd/sf	Application Rate	0.8 gpd/sf	Application Rate	0.8 gpd/sf
Effective Area Beginning Depth	5.5 ft	Effective Area Beginning Depth	5.5 ft	Effective Area Beginning Depth	5.5 ft
Bottom Max Depth	6.0 ft	Bottom Max Depth	6.0 ft	Bottom Max Depth	6.0 ft
Design Flow	600 gpd	Design Flow	600 gpd	Design Flow	600 gpd
Drainage Field square footage	750 sf	Drainage Field square footage	750 sf	Drainage Field square footage	750 sf
Sidewall Reduction Credit	1.00	Sidewall Reduction Credit	1.00	Sidewall Reduction Credit	1.00
Trench width	3 ft	Trench width	3 ft	Trench width	3 ft
Effective Area Depth	0.5 ft	Effective Area Depth	0.5 ft	Effective Area Depth	0.5 ft
Trench Spacing	10 ft	Trench Spacing	10 ft	Trench Spacing	10 ft
Trench Length Required	250 lf	Trench Length Required	250 lf	Trench Length Required	250 lf

OWNER/BUILDER:

KEYSTONE CUSTOM HOMES, INC.
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Approved Septic System Plan
Howard County Health Department
11/6/20
Signature

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 26 2020 1:33 PM DocuSign

PROJECT:	WINDSOR FOREST KNOLLS LOT 5		
LOCATION:	TAX MAP: 6 - GRID: 16 - PARCEL: 57 18434 HIDDEN CREEK WAY, TAX ID# 04-373200 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	2 OF 2