

C1 48599 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

1 2 3 6
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

FILL IN THIS FORM COMPLETELY PLEASE TYPE

COUNTY NUMBER

ST/CO USE ONLY
DATE RECEIVED
MM DD YY
8 13

DATE WELL COMPLETED

08/27/2020

Depth of Well

22 600 26
(TO NEAREST FOOT)

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
HO-20-0019

OWNER Heritage Land Development
WELL SITE ADDRESS last name first name TOWN Woodbine
SUBDIVISION Linden Grove SECTION LOT 25

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Soil	0	5	
Brown Shale	5	60	
Tan Shale	60	95	
Soft Gray Rock	95	170	-
Med Gray Rock	170	600	-
		145	-
		516	-

Storage: 817.5 gal

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES NO
 TYPE OF GROUTING MATERIAL (Circle one) CEMENT BENTONITE CLAY
 NO. OF BAGS 35 NO. OF POUNDS 2025
 GALLONS OF WATER 175
 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 100 ft.
 (enter 0 if from surface)

CASING RECORD
 casing types insert appropriate code below
 STEEL CONCRETE
 PLASTIC OTHER
 MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch)! Total depth of main casing (nearest foot)
 PL 6 100
 60 61 63 64 66 70

OTHER CASING (if used)
 diameter depth (feet)
 inch from to
 PL 4 1/2 100 180

SCREEN RECORD
 screen type or open hole insert appropriate code below
 STEEL BRASS OPEN HOLE
 BRONZE PLASTIC OTHER

NUMBER OF UNSUCCESSFUL WELLS: 0
 WELL HYDROFRACTURED YES NO

CIRCLE APPROPRIATE LETTER
 A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
 E ELECTRIC LOG OBTAINED
 P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. M D 355
 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)
 LIC. NO. D 113

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

C 2 DEPTH (nearest ft.)
 HO 100 600
 8 9 11 15 17 21
 23 24 26 30 32 36
 38 39 41 45 47 51
 SLOT SIZE 1 2 3
 DIAMETER OF SCREEN (NEAREST INCH)
 56 60
 from to

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)
 T (E.R.O.S.) W Q
 70 72 74 75 76
 TELESCOPE LOG OTHER DATA
 CASING INDICATOR

C 3 PUMPING TEST

HOURS PUMPED (nearest hour) 6
 PUMPING RATE (gal. per min.) 140
 METHOD USED TO MEASURE PUMPING RATE Watch/Bucket
 WATER LEVEL (distance from land surface)
 BEFORE PUMPING 45 ft.
 WHEN PUMPING 350 ft.
 TYPE OF PUMP USED (for test)
 A air P piston T turbine
 C centrifugal R rotary O other (describe below)
 J jet S submersible

PUMP INSTALLED
 DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO
 IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.
 TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29.
 CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35
 PUMP HORSE POWER 37 41
 PUMP COLUMN LENGTH (nearest ft.) 43 47
 CASING HEIGHT (circle appropriate box and enter casing height)
 + above LAND SURFACE (nearest foot)
 - below

LATITUDE 39.32976
 LONGITUDE 77.06418
 (DEFAULT COORD. WGS 84)

Pursuant to §10-624 of the State Govt. Article of the Maryland Code personal info. requested on this form is used in processing this form pursuant to COMAR 26.04.04. Failure to provide the info. may result in this form not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment is subject to the Maryland Public Information Act. This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not protected by federal or state law.

B 1 67996 SEQUENCE NO. (MDE USE ONLY) STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL STATE PERMIT NUMBER
 50894-A please type 40-20-0019
 fill in this form completely 79

B 2 Date Received (APA) 07-20-20
 8 MM DD YY 13
 OWNER INFORMATION
 15 Last Name Heritage Land Development Owner First Name
 36 PO BOX 482 Street or RFD 55
 57 Lisbon Md 21765 Town 70 State 72 Zip 76

B 3 LOCATION OF WELL
 8 COUNTY Howard 21
 23 SUBDIVISION Linden Grove 42
 SECTION 44 46 LOT 25 48 50
 52 NEAREST TOWN Woodbine 71

DRILLER INFORMATION
 76 Driller's Name Michael Barrow M D 355 License No. 81
 Firm Name Barrow Well Drilling
 Address 522 Underwood Ln, Bel Air, Md
 Signature [Signature] Date 7-1-2020

B 4 SOURCES OF DRILLING WATER
 1. Well
 11 STREET ADDRESS Heritage Ridge Rd 30
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
 NORTH N
 WEST W 32 EAST E
 SOUTH S
 34 50 37 DISTANCE FROM ROAD
 ENTER FT OR MI 38 39
 TAX MAP: 8 BLK: 7 PARCEL 5

B 2 WELL INFORMATION
 1 2 APPROX. PUMPING RATE 5 (GAL. PER MIN.) 8 12
 AVERAGE DAILY QUANTITY NEEDED 750 (GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)
 D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
 F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
 I INDUSTRIAL, COMMERCIAL, DEWATERING
 P PUBLIC WATER SUPPLY WELL
 T TEST, OBSERVATION, MONITORING
 O OPEN LOOP GEOTHERMAL
 C CLOSED LOOP GEOTHERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL
 COUNTY NAME Howard COUNTY NO. 13
 STATE SIGNATURE [Signature] INSERT S → 41
 DATE ISSUED 07/21/20 CO SIGNATURE [Signature] EXP. DATE 07/21/21
 43 MM DD YY 48
 DON: 8/24/20 (5) DOG: 8/25/20 (5) DOY: 8/27/20 (2)

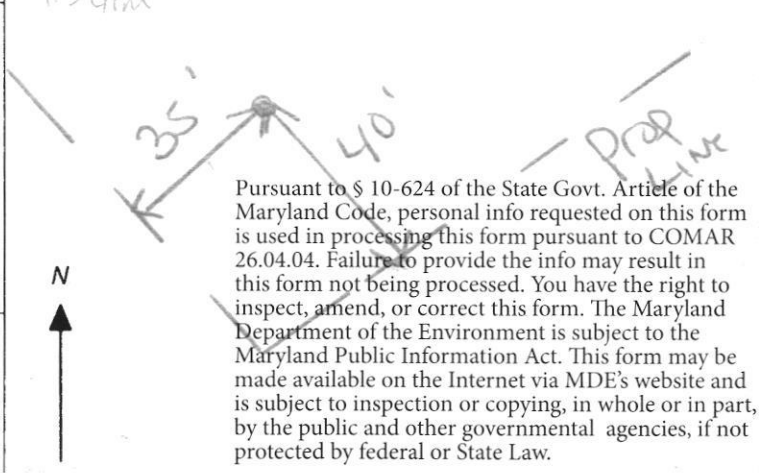
APPROXIMATE DEPTH OF WELL 300 FEET
 24 28

APPROXIMATE DIAMETER OF WELL 6 INCH
 NEAREST INCH

METHOD OF DRILLING (circle one)
 BORED (or Augered) JETTED Jetted & DRIVEN
 30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)
 37 CABLE REVERSE-ROTary DRIVE-POINT
 other

PROPOSED LOCATION OF WELL ON LOT
 SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL
 8/24/20 8/27/20 - yield test - 6 hr.
 100 ft casing pump @ 400', drawdown @ 350'
 80' lines 1.39 gpm (20)
 600' total 1.5 GPM

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)
 N THIS WELL WILL NOT REPLACE AN EXISTING WELL
 Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
 S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
 D THIS WELL WILL DEEPEM AN EXISTING WELL
 PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 52



Not to be filled in by driller (MDE OR COUNTY USE ONLY)
 APPROP. PERMIT NUMBER H02017G002(01)
 PERMIT No. H0-20-0019
 70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS
 NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED



MICHAEL BARLOW WELL DRILLING & SERVICE, INC.
 522 Underwood Lane Bel Air, Maryland 21014
 (410) 838-6910 Fax (410) 838-3582

WELL YIELD REPORT

Date Test Completed:		August 27, 2020	
Well Depth:		600	feet
Customer	Heritage Land Development	Permit #	HO-20-0019
Road	Heritage Ridge Road	Subdivision	Linden Grove
City	Woodbine	Section	
State	MD	Lot #	25

Time	Water Level feet Pump set at 400'	Time to Fill 1-gallon bucket seconds	G.P.M.
8:30 AM	45	4	15.00
8:45 AM	118	4	15.00
9:00 AM	212	5	12.00
9:15 AM	294	7	8.57
9:30 AM	350	43	1.40
9:45 AM	350	43	1.40
10:00 AM	350	43	1.40
10:15 AM	350	43	1.40
10:30 AM	350	43	1.40
10:45 AM	350	43	1.40
11:00 AM	350	43	1.40
11:15 AM	350	43	1.40
11:30 AM	350	43	1.40
11:45 AM	350	43	1.40
12:00 PM	350	43	1.40
12:15 PM	350	43	1.40
12:30 PM	350	43	1.40
12:45 PM	350	43	1.40
1:00 PM	350	43	1.40
1:15 PM	350	43	1.40
1:30 PM	350	43	1.40
1:45 PM	350	43	1.40
2:00 PM	350	43	1.40
2:15 PM	350	43	1.40
2:30 PM	350	43	1.40
2:45 PM	350	43	1.40
3:00 PM	350	43	1.40
3:15 PM	350	43	1.40
3:30 PM	350	43	1.40
This yield test report is for informational purposes only. Please note the yield may increase or decrease over time and the GPM indicated above is not a guarantee.			

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

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: Fogles Well Pump & Water Treatment, LLC Telephone #: 410 795 1535
 Address: PO Box 63
Woodbine MD 21797

Must circle one: Licensed Plumber / ~~Licensed Well Driller~~ / Licensed Well Pump Installer

License # and name of individual responsible for the field installation:
 Name (Print): David C Hoale License #: MS0226

*A licensed individual must perform the actual installation. Apprentices must be under the supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification. Unlicensed individuals may be reported to the appropriate licensing agency.

Name of Property Owner: Toll Brothers Telephone #: _____
 Subdivision: Linden Grove Lot #: _____ Well Tag #: HO-20-0019 (37)
 Site Address: 1421 Heritage Ridge Rd
Woodbine, MD 21797

Submersible Pump Data
 Make: Goulds
 Model #: 54905422
 Pump Capacity: 0
 Well Yield: 1.4
 Depth of well encountered at time of pump installation: 6.00 (feet)

Pitless Adapter
 Make: Campbell +
 Model #: NA
 GPM Depth: 36" (36" min)
 GPM NSF/WSC approved: YES

Well Cap and Electric Conduit
 Two piece watertight cap: YES
 Screened, vented well cap: YES
 Cap secured to casing: YES
 Conduit min 1 1/2" B.G.: YES
 Conduit secured to well cap: YES

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4

Must circle one: Torque restrictors / Cable guards / Other acceptable method used
 Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing NO

Pipes to house
 Type: 1" PEX pipe
 PSI: 200/150 psi min
 Depth of supply line: 36" (36" min)

House Connection
 PVC sleeve to undisturbed soil at wall penetration: YES
 Length of sleeve (5" minimum from foundation): 6'
 Sleeve sealed properly: YES

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation: [Signature] date: 4/14/2022

For Health Department Use Only - Not to be completed by Installer		Inspector:
Date Insp. Requested: <u>4/14/22</u>	Date Insp. Approved: <u>4/14/22</u>	<u>[Signature]</u>
Inspection Date: <u>17'</u>	Pitless adapter watertight & water supply line at least 36" below grade	<u>✓</u> 55'
<u>4</u>	Two piece cap installed and attached to casing securely	<u>✓</u> 40'
	Elec. conduit extends at least 1 1/2" below grade/attached to cap properly	<u>✓</u> 22'
	Safety rope not outside of well cap/casing	<u>✓</u> 8'
	Correct well tag attached properly and casing 8" above finished grade	<u>✓</u>
	Water supply line sleeved adequately at house connection	<u>✓</u>
	Adequate grout observed below pitless adapter	<u>✓</u>

(Revised form 10/24/2018)

INTERIM CERTIFICATE OF POTABILITY
Expiration Date – JANUARY 1, 2022

July 1, 2022

Homeowner
1421 Heritage Ridge Road
Woodbine, MD 21797

RE: Linden Grove, Lot 25
1421 Heritage Ridge Rd
Building Permit: B21003179
Well Permit: HO-20-0019

Dear Homeowner:

This is to advise you that the septic system installation and water well construction for the above referenced property have been inspected and approved. Final approval of the septic system was granted on **5/17/2022**. Final approval of the well line connection to the dwelling was granted on **4/14/2022**. The well construction was completed on **8/27/2020**. Water samples were collected on **6/29/2022**.

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking. This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit HO-20-0019. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

This Interim Certificate of Potability will expire **six months** from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will be issued. **Failure to submit an additional sample and obtain a Final Certificate of Potability will result in a Notice of Violation and is punishable as a misdemeanor under the *Annotated Code of Maryland, Environment Article, 9-1311*, subject to a fine of up to \$500 or imprisonment not to exceed three months.**

Please contact (410) 313-1773 to schedule a final water sample appointment or contact a Maryland certified water laboratory to schedule a water sample. A list of laboratories certified by the state of Maryland may be found at the following website:
<http://www.mde.state.md.us/assets/document/WSP-Labs-2010apr16.pdf>

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

In closing, please refer to our "[Homeowner Fact Sheet](#)" which illustrates a better understanding for your Onsite Sewage Disposal System. You will also find a link to Maryland Department of the Environment's website which describes in further detail operation and maintenance of your septic system.

Approving Authority,



Kevin M. Wolf, LEHS, R.S./REHS, Supervisor
Groundwater Management Section
Well & Septic Program

cc: Howard County Dept. of Inspections, Licenses, and Permits
Community Hygiene Program
File

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554

REPORT OF ANALYSIS

Laboratory ID #: 152935 Account #: 1933
Reference: Linden Grove Lot 25 Client: Fogle's Well Pump & Treatment
Location: 1421 Heritage Ridge Road Requested By: Dave Fogle
Woodbine, MD 21797 Source: Well Water
Date/ Time Collected: 6/29/2022 0830 Site: Kitchen Sink
Date/Time Rec'd: 6/29/2022 0926 Treatment: None
Chlorine ppm: Free: ND Total: ND pH: 6.6
Collected By: J. Evans 0309JE Well #: HO-20-0019

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	6/30/2022 / 0900 / TSD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	6/30/2022 / 0900 / TSD
Nitrate.	5.10	mg/L	10	EPA 300.0	6/29/2022 / 1825 / TSD
Turbidity	<0.30	NTU	<10	SM2130B	6/30/2022 / 0845 / TSD
Sand	ND	mg/L	5	Visual/Gravimetric	6/29/2022 / 1450 / TSD

NOTES:

- 1 mg/L = milligrams per liter (also, parts per million)
- 2 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 3 NTU = Nephelometric Turbidity Units
- 4 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 5 Sample collected by client, analyzed as received
- 6 ND:None Detected
- 7 Visual well check: Sealed, vented cap
- 8 pH and Chlorine level tested in lab (pH tested after recommended holding time)

Reason for Test : Use & Occupancy

Building Permit # : B21003179

Date Reported: 6/30/2022

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

MEMORANDUM

TO: M. Barlow Well Drilling
522 Underwood Lane
Bel Air, MD 21014

FROM: Susan Thomas
Environmental Health Specialist
Howard County Health Department
Well & Septic Program

RE: Linden Grove Lots 24-37 & 39
Special Conditions for wells

DATE: July 21, 2020

The following comments apply to the above referenced Well Permit Applications. Please read through and complete as needed.

- A. The wells for the Linden Grove subdivision lots 24 thru 37 & 39 were staked with only one selected well site per the approved percolation certification plan signed 09/11/2018. If the well driller cannot confirm a successful well on this one well site, they will need to have the surveyor come back out and stake out the entire well box/alt well sites. This will need to be verified through the Health Department.**
- B. Lots 26, 30 & 36 will require samples for Sodium, Chloride and TDS to be collected at the time of the Yield Test.**



Howard County
Health Department

7178 Columbia Gateway Dr., Columbia, MD 21046
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

TO ALL INTERESTED PARTIES

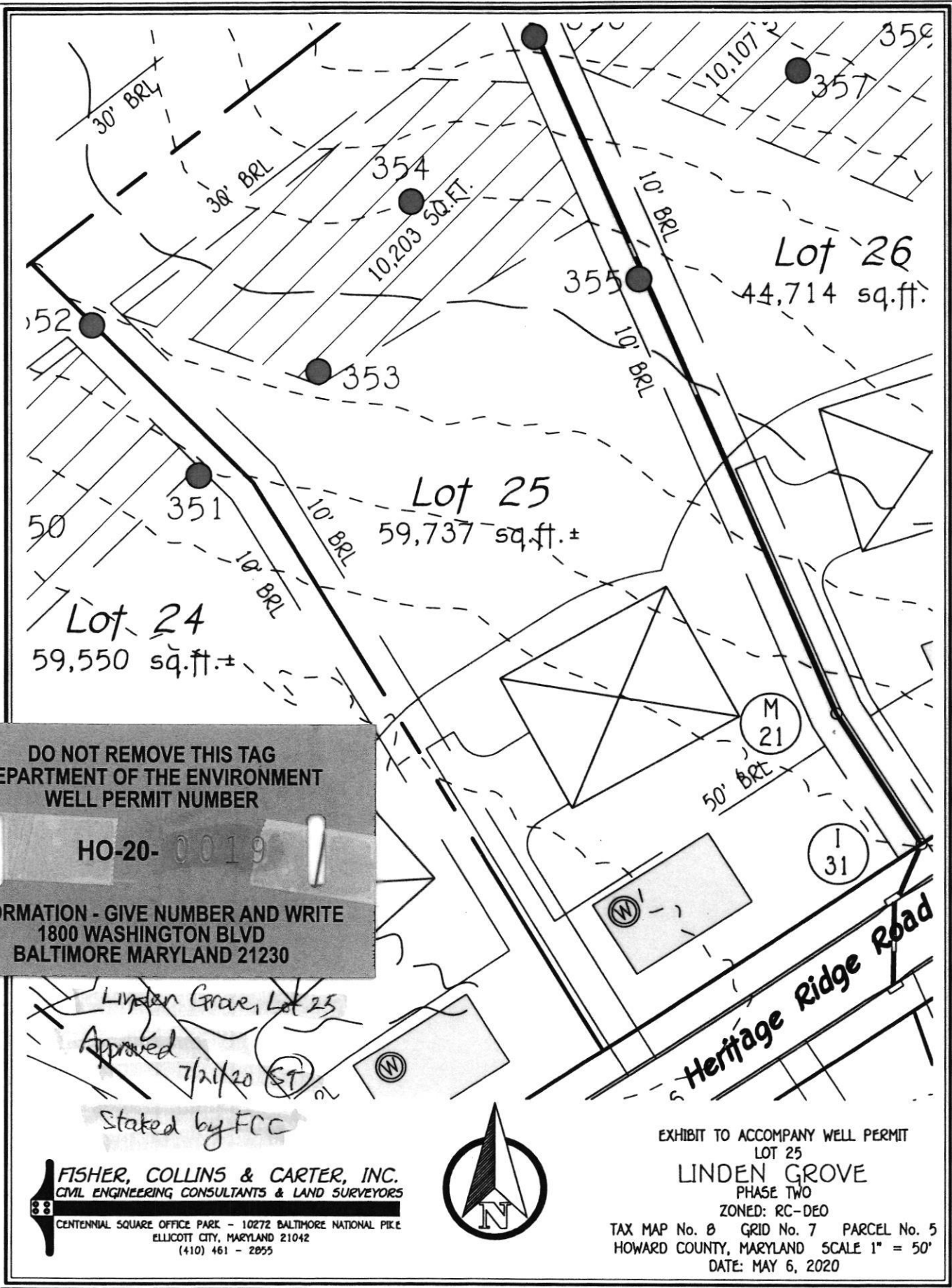
When submitting a well application for a proposed well for new construction, please indicate one of the following:

Well Site Location:

<u>Linden Grove</u>	<u>25</u>	<u>Heritage Ridge Rd.</u>
Subdivision/Property Name	Lot #	Road Name

- The well site has been staked by Fisher, Collins & Carter,
(professional land surveyor or company employing professional land surveyors)
on 06/16/20 (date) and does not require a site inspection.
- The well driller, builder or property owner will call the Health Department to schedule a time to meet in the field to verify the proposed well site location.

This sheet, along with two copies of an acceptable well site plan, must be attached to the green well permit application.



DO NOT REMOVE THIS TAG
DEPARTMENT OF THE ENVIRONMENT
WELL PERMIT NUMBER

HO-20- 0019

INFORMATION - GIVE NUMBER AND WRITE
1800 WASHINGTON BLVD
BALTIMORE MARYLAND 21230

Linden Grove, Lot 25
Approved 7/21/20 (ST)
Stated by FCC

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461 - 2855



EXHIBIT TO ACCOMPANY WELL PERMIT
 LOT 25
LINDEN GROVE
 PHASE TWO
 ZONED: RC-DEO
 TAX MAP No. 8 GRID No. 7 PARCEL No. 5
 HOWARD COUNTY, MARYLAND SCALE 1" = 50'
 DATE: MAY 6, 2020