

# 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

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

## APPLICATION

### FOR PERCOLATION TESTING AND SITE EVALUATION

#### PROPERTY LOCATION

SUBDIVISION/PROPERTY NAME KEENY PROPERTY

PROPERTY ADDRESS 14041 HOWARD ROAD, DAYTON MD 21036  
STREET TOWN ZIP

TAX ACCOUNT # 352355 TAX MAP Z7 GRID 6 PARCEL 94 LOT NO. 3 PROPOSED LOT SIZE (ACRES) 3.96

ZONING CATEGORY RC-DEO TIER       

PROPERTY OWNER(S) ROY E. KEENY JR.

DAYTIME PHONE        CELL        EMAIL       

MAILING ADDRESS 14026 HOWARD ROAD, DAYTON MD 21036  
STREET CITY, STATE ZIP

APPLICANT Devin Keeny RELATIONSHIP TO OWNER: Son

DAYTIME PHONE 443-677-9886 CELL Same EMAIL devin.keeny@inP.com

MAILING ADDRESS 14043 Howard Road Dayton, MD 21036  
STREET CITY, STATE ZIP

#### I HEREBY APPLY FOR THE NECESSARY TESTING/EVALUATION PRIOR TO ISSUANCE OF SEWAGE DISPOSAL SYSTEM PERMIT(S):

##### PROPERTY:

- ☒ SUBDIVISION: NUMBER OF LOTS INCLUDING RESIDUE: 1 (REBUILDING HOUSE & OSDS/SEPTIC SYSTEM)  
SUBDIVISION CLASSIFICATION (PER DEPT. OF PLANNING AND ZONING) ☐ MAJOR ☐ MINOR
- ☐ CONSTRUCT NEW OSDS ON UNDEVELOPED LOT
- ☐ REPAIR OR REPLACE FAILING OSDS
- ☐ UPGRADE EXISTING OSDS

##### BUILDING:

- ☒ RESIDENTIAL WITH 4 EXISTING OR PROPOSED BEDROOMS IN THE COMPLETED STRUCTURE
- ☐ COMMERCIAL (PROVIDE DETAIL OF TYPE OF USE AND NUMBERS OF EMPLOYEES/CUSTOMERS ON ACCOMPANYING PLAN)

IS THE PROPERTY WITHIN 2500 FEET OF ANY RESERVOIR?

- ☐ YES
- ☒ NO

AS APPLICANT, I UNDERSTAND THE FOLLOWING:

- THIS APPLICATION IS VALID FOR TWO(2) YEARS FROM DATE OF FEE PAYMENT AND APPROVAL IS BASED UPON HEALTH OFFICER SIGNATURE OF A PERC CERTIFICATION PLAN PRIOR TO EXPIRATION OF THIS PERMIT.
- THE APPLICATION FEE IS NON-REFUNDABLE
- THIS APPLICATION MUST BE ACCOMPANIED BY ALL APPLICABLE FEES AND A SUITABLE SITE PLAN IN ORDER TO BE PROCESSED
- THIS IS A PUBLIC DOCUMENT

I declare and affirm that to the best of my knowledge, the information contained herein is correct. I declare that I am the owner of the property or duly authorized to make this application on behalf of the owner. I agree to comply with all applicable state and county regulations.

By signature of this application, I hereby grant Howard County Health Department officials the right to enter onto the property for the purpose of inspecting the property as directly related to the requested permit/service.

Devin Keeny

SIGNATURE OF APPLICANT

10/26/18

DATE

---

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

**MEMORANDUM**

**TO:** Benchmark  
8480 Baltimore National Pike  
Ellicott City, MD 21043

**FROM:** Hank Oswald, L.E.H.S.  
Well & Septic Program

**RE:** 14041 Howard Road

**Date:** December 20, 2018

---

The perc cert plan for 14041 Howard Road has been reviewed with the following comments:

- 1.) Add note - The existing well and septic system must be properly abandoned with documentation sent to the Health Department prior to the issuance of the demo permit.
- 2.) Add note - Existing septic system must be properly abandoned with documentation sent to Health Department prior to issuance of any well permit within 100 feet.
- 3.) Show future septic tank (s) locations on plan.
- 4.) Field locate the existing drywell on plan.
- 5.) Remove existing sewage disposal area from plan and legend.



## Oswald, Hank

---

**From:** Williams, Jeffrey  
**Sent:** Monday, December 31, 2018 9:42 AM  
**To:** 'Chris Malagari'; Oswald, Hank  
**Cc:** Mark Potter  
**Subject:** RE: 14041 Perc Cert resubmission

Hi Chris. The issue is that the approximate drywell location is right next to the corner of the proposed SDA. The existing records have 3 different distances from the septic tank to the drywell. One of the distances has it 65' from the tank, which would put the drywell right in the corner of the SDA. This makes it an issue, because any proposed trenches have to be at least 10' from the old drywell. With the ambiguity of the drywell location in the old records and the possible conflict with the proposed SDA, we need to see an exact drywell location on the perc cert.

The record from 1986 indicates a drywell clean out. I suggest probing or using a metal detector in that area and you might be able to find it without having to get any heavy equipment onsite. Thanks  
Jeff

---

**From:** Chris Malagari [<mailto:cmalagari@bei-civilengineering.com>]  
**Sent:** Wednesday, December 26, 2018 10:11 AM  
**To:** Oswald, Hank  
**Cc:** Mark Potter; Williams, Jeffrey  
**Subject:** Re: 14041 Perc Cert resubmission

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Hank. It is highly unlikely that the drywell is on the side of the house where we dug. The existing septic tank is behind the house and records showed the drywell just down slope from the tank near the location we show on the plan. The house is currently being lived in and the owner does not want to disturb the system until they are ready to tear down house. The drywell will be properly abandoned during house abandonment. Chris

On Wed, Dec 26, 2018 at 8:38 AM Oswald, Hank <[hoswald@howardcountymd.gov](mailto:hoswald@howardcountymd.gov)> wrote:

Hi Mark:

What happens if we discover that the drywell is not where you are showing it on the plan but in the location of the new system or tanks? I don't think there is any way around this. I've copied my supervisor on this email.

Thanks,

Hank

---

**From:** Mark Potter [mailto:[mpotter@bei-civilengineering.com](mailto:mpotter@bei-civilengineering.com)]  
**Sent:** Thursday, December 20, 2018 12:10 PM  
**To:** Oswald, Hank  
**Cc:** 'Chris Malagari'  
**Subject:** 14041 Perc Cert resubmission

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Hank,

Attached is the revised Perc Cert for 14041 Howard Road. I added the two notes, showed the potential septic tank, pump tank, and distribution box locations (for initial and future OSDS), and removed the existing sewage disposal area.

As for field locating the existing dry well, I would like to ask if we can avoid doing that. We did a field survey and they came back with data to their fullest extent, meaning we don't have the ability to locate this dry well without digging. For the client and current tenants sake, we would like to dig up and properly abandon with documentation during the demo/construction phase of the project. Based on the old health department and septic system plans, we believe the approximate location of the dry well is accurate.

Thanks for getting back to us so quick and let me know what you think,

**Mark Potter**

Design Engineer

Benchmark Engineering, Inc.

8480 Baltimore National Pike, Suite 315

Ellicott City, MD 21043

410-465-6105 ext. 1154

# ***Hatfield's Equipment and Dedication Services, Inc.***

P.O. Box 519 • Annapolis Junction, MD 20701-0519  
Office: 301-490-4289 / 888-490-4289 • Fax: 301-490-5794

Howard County Health Department  
8930 Stanford Drive  
Columbia, MD 21045

January 11, 2019

Owner: Sharon Keeny & Roy Keeny Jr.  
Address: 14041 Howard Road  
Dayton, MD 21036

Hatfield's Equipment and Dedication Services, Inc. located the septic and drywell for the above property.

The septic tank has a visible 6" terracotta pipe above grade. The drywell was located with a cement cover just inches below the ground with no cleanout or observation port. The system was installed as per county sketch. A marked wooden stake was placed above the invert area of the drywell. The area is marked in orange paint.



Ken Hatfield, president

## Oswald, Hank

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**From:** Oswald, Hank  
**Sent:** Thursday, January 17, 2019 1:27 PM  
**To:** 'mpotter@bei-civilengineering.com'  
**Subject:** RE: Perc Cert\_14041 Howard Road

Hi Mark:

My coworker field located the well today at 14049 Howard Road. It's located 21 feet off rear of home. I am going to forward the Perc Cert Plan for signature with this information. I will keep you posted.

Thanks,

Hank

---

**From:** mpotter@bei-civilengineering.com <mpotter@bei-civilengineering.com>  
**Sent:** Thursday, January 17, 2019 11:10 AM  
**To:** Oswald, Hank <hoswald@howardcountymd.gov>  
**Subject:** RE: Perc Cert\_14041 Howard Road

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Hank,

The closest the SDA comes to the shared property line with 14049 Howard Road is 251 feet, so I thought it wasn't critical to find out where the existing well(s) for that property are. I did do a quick search for 14049 Howard Road well information, but came up empty. I think I would have to do a Public Information Request through the Health Dept for a chance that the well(s) are shown accurately by old records. But since there's no way a well could be any closer than ~260' from our SDA, I figured I didn't need to spend the time to do so.

Let me know what you think, thanks,  
Mark

---

**From:** Oswald, Hank <hoswald@howardcountymd.gov>  
**Sent:** Thursday, January 17, 2019 10:14 AM  
**To:** mpotter@bei-civilengineering.com  
**Subject:** Perc Cert\_14041 Howard Road

Hi Mark:

I have a quick follow-up question. Do you know where the well is located on 14049 Howard Road? We want to ensure that it's not located downgradient/within the area where you are showing the soil unit on the lot.

Thanks,

Hank

Hank Oswald

Licensed Environmental Health Specialist  
Howard County Health Department  
Bureau of Environmental Health  
Well & Septic Program  
8930 Stanford Boulevard  
Columbia, MD 21045  
410.313.1786 (Office)  
[hoswald@howardcountymd.gov](mailto:hoswald@howardcountymd.gov)

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## Oswald, Hank

---

**From:** Oswald, Hank  
**Sent:** Monday, January 14, 2019 9:56 AM  
**To:** 'mpotter@bei-civilengineering.com'  
**Cc:** cmalagari@bei-civilengineering.com  
**Subject:** RE: 14041 Perc Cert Resubmission

Hi Mark:

Since you are proposing the first system to be located within the smaller SDA, we would like to see how the trench(s) fit. Also, please show the calculations on the plan. I've attached a copy of the septic specs for your convenience. Should you have any questions, please don't hesitate to ask.

Thanks,

Hank

---

**From:** [mpotter@bei-civilengineering.com](mailto:mpotter@bei-civilengineering.com) [<mailto:mpotter@bei-civilengineering.com>]  
**Sent:** Friday, January 11, 2019 4:20 PM  
**To:** Oswald, Hank  
**Cc:** [cmalagari@bei-civilengineering.com](mailto:cmalagari@bei-civilengineering.com)  
**Subject:** 14041 Perc Cert Resubmission

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Hank,

Attached is the revised Perc Cert. Hatfield's Equipment and Dedication Services, Inc. went out and field located the dry well on 1/10/19 and this Per Cert Plan includes the updated location and label. I also attached their confirmation letter.

Can I print out copies and bring them down for approval/signature? If you would like a note or anything added on let me know.

Thanks,

**Mark Potter**  
Design Engineer  
Benchmark Engineering, Inc.  
8480 Baltimore National Pike, Suite 315  
Ellicott City, MD 21043  
410-465-6105 ext. 1154

## Oswald, Hank

---

**From:** Oswald, Hank  
**Sent:** Thursday, December 20, 2018 9:24 AM  
**To:** mpotter@bei-civilengineering.com; Chris Malagari (cmalagari@bei-civilengineering.com)  
**Subject:** Perc Cert Plan\_14041 Howard Road  
**Attachments:** PERC CERT Memo\_Benchmark\_2018.pdf

Hello Mark & Chris:

Attached, please find comments to the perc cert plan for 14041 Howard Road.

Thanks,

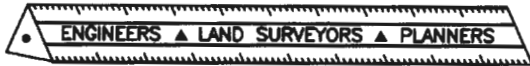
Hank

Hank Oswald  
Licensed Environmental Health Specialist  
Howard County Health Department  
Bureau of Environmental Health  
Well & Septic Program  
8930 Stanford Boulevard  
Columbia, MD 21045  
410.313.1786 (Office)  
[hoswald@howardcountymd.gov](mailto:hoswald@howardcountymd.gov)

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# BENCHMARK



## ENGINEERING, INC.

8480 Baltimore National Pike • Suite 315 • Ellicott City, Maryland 21043  
410-465-6105 410-465-6644 (Fax)

### LETTER OF TRANSMITTAL

TO: HOWARD COUNTY  
HEALTH DEPT.

DATE <u>12/18/18</u>	PROJECT No. <u>2914</u>
ATTENTION <u>HANK OSWALD</u>	
RE: <u>14041 HOWARD RD.</u>	
<u>LOT 3: PERC CERT PLAN</u>	

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

☐ Photocopies    ☒ Prints    ☐ Originals    ☐ Samples  
☐ Specifications    ☐ Invoices    ☐ Change Order    ☐ Other \_\_\_\_\_

COPIES of	No. of SHEETS	DESCRIPTION
<u>3</u>	<u>1</u>	<u>PERC CERT</u>

THESE ARE TRANSMITTED as checked below

☐ For Comment    ☐ For your use    ☒ For Approval  
☐ For Review    ☐ As requested    ☐ Other \_\_\_\_\_

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

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

SIGNED: Mark [Signature]

If enclosures are not as noted, kindly notify us at once.



## Oswald, Hank

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**From:** Oswald, Hank  
**Sent:** Monday, December 10, 2018 10:56 AM  
**To:** 'Mark Potter'  
**Cc:** 'Chris Malagari'; 'Devin Keeny'  
**Subject:** Perc Test Report\_14041 Howard Road  
**Attachments:** Perc Test Report\_14041 Howard Road\_12.18.pdf; Perc test notes and septic specs\_14041 Howard.pdf

Hello All:

Attached, please find the perc test report, field notes and septic specs for 14041 Howard Road.

Should you have any questions, please don't hesitate to ask.

Respectively,

Hank

Hank Oswald  
Licensed Environmental Health Specialist  
Howard County Health Department  
Bureau of Environmental Health  
Well & Septic Program  
8930 Stanford Boulevard  
Columbia, MD 21045  
410.313.1786 (Office)  
[hoswald@howardcountymd.gov](mailto:hoswald@howardcountymd.gov)

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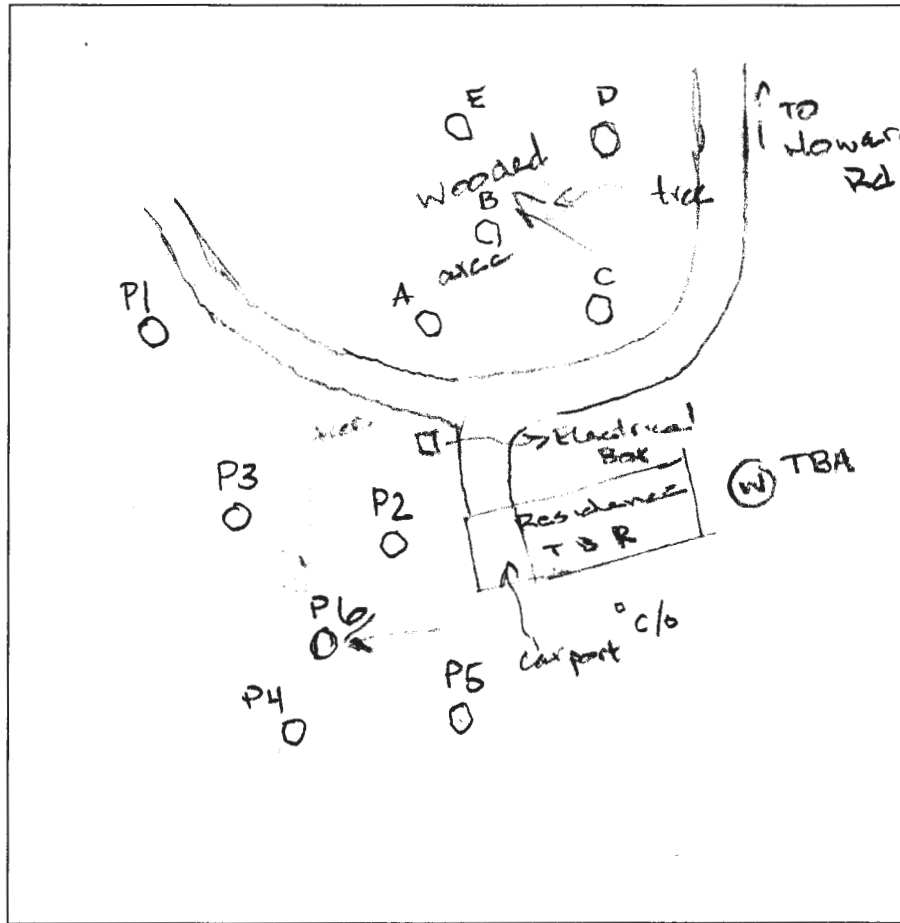
# Howard Rd

AP 564057

P1  
brl  
w/roots  
0.5' -  
ycl br  
scl  
platy  
H<sub>2</sub>O  
seepage  
c  
4'7"

P2  
brl  
0.4' -  
ycl-red  
scl  
3' -  
ycl-tan  
fsl  
w/mica  
13' -

P3  
brl  
0.3' -  
ycl-red  
scl  
3' -  
ycl-tan  
w/mineral  
deposits  
10' -  
H<sub>2</sub>O  
seepage



P4  
brl  
0.3' -  
red br  
scl  
3' -  
tan sl  
platy  
5-10%  
rock  
H<sub>2</sub>O c 8'

P5  
brl  
0.4' -  
red br  
scl  
3' -  
ycl tan  
sl  
w/mica  
12' -

P6  
similar  
to  
P5  
New  
hole

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H
12/6/18	P1	H <sub>2</sub> O c 4'7"	Did not test				F
12/6/18	P2	4'2/13'	8:54	8:55	8:58	3	P
12/6/18	P3	4'10'	9:25	9:28	9:33	5	X P
12/6/18	P4	4'4/10.3	9:13	9:14	9:17	3	X P
12/6/18	P5	4'12'	9:05	9:06	9:09	3	P
12/6/18	P6	4'12'	11:16	11:23	11:36	13	P

REMARKS P1 had H<sub>2</sub>O c 4'7" P3 had H<sub>2</sub>O c 10' P4 had H<sub>2</sub>O c 8' Field locate P6  
SANITARIAN H. O. Swartz BACKHOE Fogles OTHERS Owner & Engineer  
TEST HOLES USED IN SDA \_\_\_\_\_ AVG. PERC TIME \_\_\_\_\_ SQ. FT/BR \_\_\_\_\_  
TRENCH WIDTH \_\_\_\_\_ INLET DEPTH \_\_\_\_\_ MAX. BOT DEPTH \_\_\_\_\_ EFFECTIVE SW \_\_\_\_\_

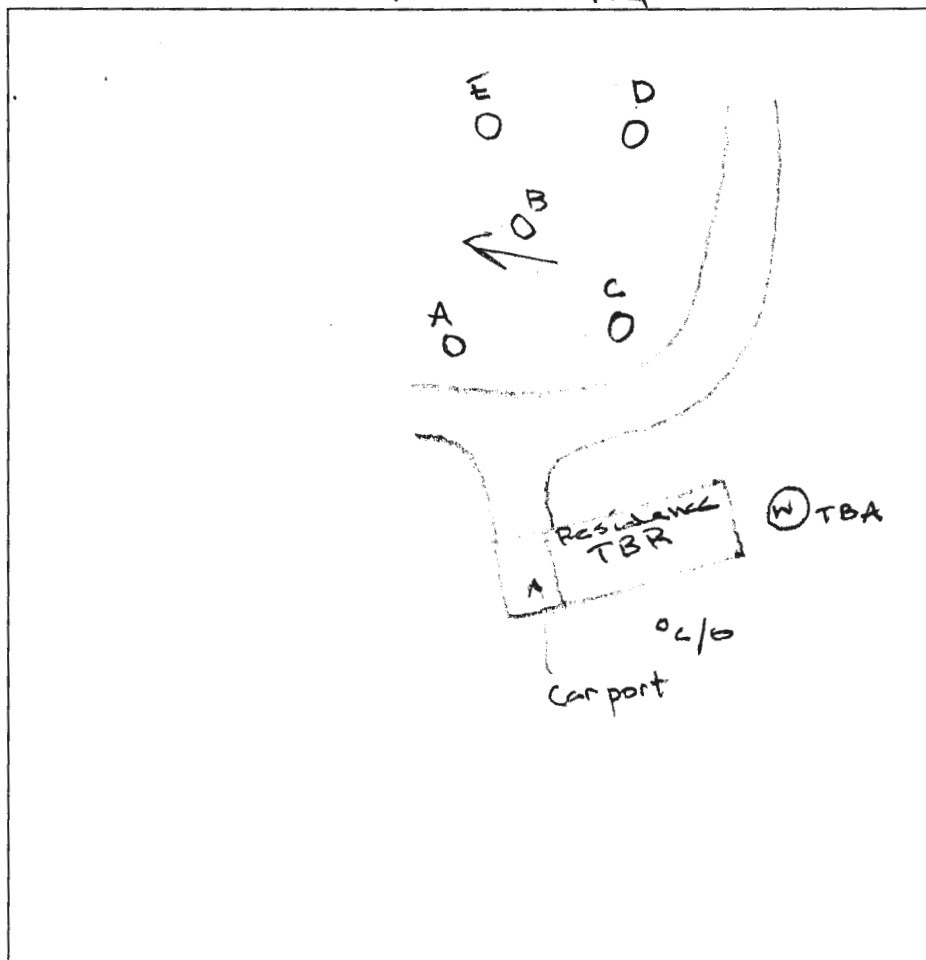
AP 564057

Howard Rd

A  
brl  
-  
ycl-red  
scl  
2.5'  
-3'  
ycl-tan  
sl  
w/ mica  
12'

B  
brl  
-  
ycl-rcb  
scl  
3'  
ycl-tan  
sl  
12'

C  
Similar  
to  
B



D  
brl  
-  
ycl-rcb  
3'  
ycl  
sl  
12'

E  
brl  
-  
ycl-rcb  
scl  
3'  
ycl-tan  
sl  
12'

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H
12/6/18	A	3.5'/12'	10:01	10:02	10:04	2	P
12/6/18	B	4'/12'	10:18	10:21	10:25	4	P
12/6/18	C	4'/12'	10:31	10:34	10:40	6	P
12/6/18	D	4'/12'	10:40	10:44	10:48	4	P
12/6/18	E	5'/12'	11:00	11:01	11:07	6	P

REMARKS Field locate holes A, B, C, D, E  
 SANITARIAN H. Oswald BACKHOE Fogles OTHERS James S. Engineering  
 TEST HOLES USED IN SDA \_\_\_\_\_ AVG. PERC TIME \_\_\_\_\_ SQ. FT/BR \_\_\_\_\_  
 TRENCH WIDTH \_\_\_\_\_ INLET DEPTH \_\_\_\_\_ MAX. BOT DEPTH \_\_\_\_\_ EFFECTIVE S/W \_\_\_\_\_

## Oswald, Hank

---

**From:** Oswald, Hank  
**Sent:** Monday, November 26, 2018 8:49 AM  
**To:** 'Devin Keeny'  
**Subject:** RE: Perc Test Plan\_14041 Howard Road

Hi Devin:

Confirmed. Thanks.

Hank

---

**From:** Devin Keeny [mailto:Devin.Keeny@LongandFoster.com]  
**Sent:** Tuesday, November 20, 2018 10:30 AM  
**To:** Oswald, Hank  
**Subject:** Re: Perc Test Plan\_14041 Howard Road

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Hank - just following up, Fogles confirmed 8:30am on 11/28. See you then.

Happy Thanksgiving,  
Devin

---

**From:** Oswald, Hank <hoswald@howardcountymd.gov>  
**Sent:** Monday, November 19, 2018 8:52:06 AM  
**To:** Devin Keeny  
**Subject:** RE: Perc Test Plan\_14041 Howard Road

You're welcome. I can start as early as 8:30 a.m.

---

**From:** Devin Keeny [mailto:Devin.Keeny@LongandFoster.com]  
**Sent:** Monday, November 19, 2018 8:38 AM  
**To:** Oswald, Hank; Mark Potter  
**Cc:** 'Chris Malagari'  
**Subject:** Re: Perc Test Plan\_14041 Howard Road

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Thanks Hank.

I'll let Fogles know and we'll plan to see you on 11/28. We have some time between now and then, but when you have an idea of what time you plan to start, please let me know so I can coordinate with them to ensure they arrive on time.

Have a Happy Thanksgiving.

Thanks,  
Devin

---

**From:** Oswald, Hank <hoswald@howardcountymd.gov>  
**Sent:** Monday, November 19, 2018 6:54:34 AM  
**To:** Devin Keeny; Mark Potter  
**Cc:** 'Chris Malagari'  
**Subject:** RE: Perc Test Plan\_14041 Howard Road

Hi Devin:

Yes, this works.

Thanks,

Hank

---

**From:** Devin Keeny [mailto:Devin.Keeny@LongandFoster.com]  
**Sent:** Friday, November 16, 2018 2:01 PM  
**To:** Oswald, Hank; Mark Potter  
**Cc:** 'Chris Malagari'  
**Subject:** Re: Perc Test Plan\_14041 Howard Road

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Afternoon Hank,

I spoke with Fogles and they're available to perc on 11/28. Does that date still work for you? I know you said you preferred to do it sooner than later. If it does still work for you - I can confirm the date with them. Considering the unpredictability of the weather, I would also like to keep Hatfields on 12/18 (12/19 weather pending) as a back-up solution. Please let me know if this plan works for you.

Thanks,  
Devin

---

**From:** Oswald, Hank <hoswald@howardcountymd.gov>  
**Sent:** Thursday, November 15, 2018 12:36:55 PM  
**To:** Devin Keeny; Mark Potter  
**Cc:** 'Chris Malagari'  
**Subject:** RE: Perc Test Plan\_14041 Howard Road

Hi Devin:

Attached, please find a list of septic contractors. I've worked with several on the list to include Hatfields, Fogles, Freedom, South Carroll, and Level land. 12/18 (with 12/19 as a back-up date) is confirmed.

Thanks,

Hank

**From:** Devin Keeny [<mailto:Devin.Keeny@LongandFoster.com>]  
**Sent:** Thursday, November 15, 2018 11:40 AM  
**To:** Oswald, Hank; Mark Potter  
**Cc:** 'Chris Malagari'  
**Subject:** Re: Perc Test Plan\_14041 Howard Road

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Hi Hank,

Thanks for taking my call earlier. Following up on our conversation, Hatfields have confirmed they're available on 12/18 to test and will hold 12/19 as a back-up date. Please confirm this works for you.

In the meantime, if you have a list of other approved septic contractors, I can see if there is any one else available to test sooner.

I appreciate your help and flexibility.

Thanks,  
Devin

---

**From:** Oswald, Hank <[hoswald@howardcountymd.gov](mailto:hoswald@howardcountymd.gov)>  
**Sent:** Tuesday, November 13, 2018 6:52:31 AM  
**To:** Mark Potter  
**Cc:** 'Chris Malagari'; Devin Keeny  
**Subject:** RE: Perc Test Plan\_14041 Howard Road

Hello Mark:

Good morning. Yes, this looks fine. Please forward 2 hard copies of the test plan. I can test as early as next Monday, Nov 19 starting at 8 a.m. or Nov. 27 – 29<sup>th</sup>. In addition to my previous email, the test holes will need to be properly labeled and staked prior to the test date.

Please confirm a test date and septic contractor.

Thanks,

Hank

---

**From:** Mark Potter [<mailto:mpotter@bei-civilengineering.com>]  
**Sent:** Thursday, November 08, 2018 10:51 AM  
**To:** Oswald, Hank  
**Cc:** 'Chris Malagari'; 'Devin Keeny'  
**Subject:** RE: Perc Test Plan\_14041 Howard Road

Hank,

Thank you for reviewing the Perc Test Plan for 14041 Howard Road.

To address your comment, we would like to test now, rather than wet season. I have attached a snippet of a new 10,000 sqft sewage disposal area that meets the 25' GnB soil setback while still conforming to the other septic setbacks required for perc testing. If this area is ok with you, we'll proceed with revising our Perc Testing Plan in order to receive the potential test dates from you.

If you have any questions or concerns, please feel free to ask.  
Thank you,

**Mark Potter**  
Design Engineer  
Benchmark Engineering, Inc.  
8480 Baltimore National Pike, Suite 315  
Ellicott City, MD 21043  
410-465-6105 ext. 1154

---

**From:** Oswald, Hank [<mailto:hoswald@howardcountymd.gov>]  
**Sent:** Thursday, November 08, 2018 8:38 AM  
**To:** [devin.keeny@info.com](mailto:devin.keeny@info.com)  
**Cc:** [mpotter@bei-civilengineering.com](mailto:mpotter@bei-civilengineering.com)  
**Subject:** Perc Test Plan\_14041 Howard Road

Hello Mr. Keeny:

The test plan for 14041 Howard Road has been reviewed with the following comment.

- At this time, we can test the 3 upper holes on the plan as shown but we would like to wait on testing the 2 lower holes during wet season of next year. However, if you would like to adjust the proposed area to be 25 to 30 feet away from the GnB soil line, we can test all of them now.

Please let me know how you would like to proceed and I will send some potential test dates. You will need to hire a septic contractor with a backhoe to dig the test holes. Also, you or the septic contractor will need to notify Miss Utility in advance of the test date.

Thanks,

Hank

Hank Oswald  
Licensed Environmental Health Specialist  
Howard County Health Department  
Bureau of Environmental Health  
Well & Septic Program  
8930 Stanford Boulevard  
Columbia, MD 21045  
410.313.1786 (Office)  
[hoswald@howardcountymd.gov](mailto:hoswald@howardcountymd.gov)

#### CONFIDENTIALITY NOTICE

This message and the accompanying documents are intended only for the use of the individual or entity to which they are addressed and may contain information that is privileged, confidential, or exempt from disclosure under applicable law. If the reader of this email is not the intended recipient, you are hereby notified that you are strictly prohibited from

## Oswald, Hank

---

**From:** Oswald, Hank  
**Sent:** Tuesday, November 13, 2018 6:53 AM  
**To:** 'Mark Potter'  
**Cc:** 'Chris Malagari'; 'Devin Keeny'  
**Subject:** RE: Perc Test Plan\_14041 Howard Road

Hello Mark:

Good morning. Yes, this looks fine. Please forward 2 hard copies of the test plan. I can test as early as next Monday, Nov 19 starting at 8 a.m. or Nov. 27 – 29<sup>th</sup>. In addition to my previous email, the test holes will need to be properly labeled and staked prior to the test date.

Please confirm a test date and septic contractor.

Thanks,

Hank

---

**From:** Mark Potter [<mailto:mpotter@bei-civilengineering.com>]  
**Sent:** Thursday, November 08, 2018 10:51 AM  
**To:** Oswald, Hank  
**Cc:** 'Chris Malagari'; 'Devin Keeny'  
**Subject:** RE: Perc Test Plan\_14041 Howard Road

Hank,

Thank you for reviewing the Perc Test Plan for 14041 Howard Road.

To address your comment, we would like to test now, rather than wet season. I have attached a snippet of a new 10,000 sqft sewage disposal area that meets the 25' GNB soil setback while still conforming to the other septic setbacks required for perc testing. If this area is ok with you, we'll proceed with revising our Perc Testing Plan in order to receive the potential test dates from you.

If you have any questions or concerns, please feel free to ask.  
Thank you,

**Mark Potter**  
Design Engineer  
Benchmark Engineering, Inc.  
8480 Baltimore National Pike, Suite 315  
Ellicott City, MD 21043  
410-465-6105 ext. 1154

---

**From:** Oswald, Hank [<mailto:hoswald@howardcountymd.gov>]  
**Sent:** Thursday, November 08, 2018 8:38 AM  
**To:** [devin.keeny@info.com](mailto:devin.keeny@info.com)



Cc: [mpotter@bei-civilengineering.com](mailto:mpotter@bei-civilengineering.com)

Subject: Perc Test Plan\_14041 Howard Road

Hello Mr. Keeny:

The test plan for 14041 Howard Road has been reviewed with the following comment.

- At this time, we can test the 3 upper holes on the plan as shown but we would like to wait on testing the 2 lower holes during wet season of next year. However, if you would like to adjust the proposed area to be 25 to 30 feet away from the GnB soil line, we can test all of them now.

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## Oswald, Hank

---

**From:** Oswald, Hank  
**Sent:** Thursday, November 15, 2018 12:37 PM  
**To:** 'Devin Keeny'; Mark Potter  
**Cc:** 'Chris Malagari'  
**Subject:** RE: Perc Test Plan\_14041 Howard Road  
**Attachments:** Septic Contractors.pdf

Hi Devin:

Attached, please find a list of septic contractors. I've worked with several on the list to include Hatfields, Fogles, Freedom, South Carroll, and Level land. 12/18 (with 12/19 as a back-up date) is confirmed.

Thanks,

Hank

---

**From:** Devin Keeny [mailto:Devin.Keeny@LongandFoster.com]  
**Sent:** Thursday, November 15, 2018 11:40 AM  
**To:** Oswald, Hank; Mark Potter  
**Cc:** 'Chris Malagari'  
**Subject:** Re: Perc Test Plan\_14041 Howard Road

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Hank,

Thanks for taking my call earlier. Following up on our conversation, Hatfields have confirmed they're available on 12/18 to test and will hold 12/19 as a back-up date. Please confirm this works for you.

In the meantime, if you have a list of other approved septic contractors, I can see if there is any one else available to test sooner.

I appreciate your help and flexibility.

Thanks,  
Devin

---

**From:** Oswald, Hank <hoswald@howardcountymd.gov>  
**Sent:** Tuesday, November 13, 2018 6:52:31 AM  
**To:** Mark Potter  
**Cc:** 'Chris Malagari'; Devin Keeny  
**Subject:** RE: Perc Test Plan\_14041 Howard Road

Hello Mark:

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**From:** Mark Potter [<mailto:mpotter@bei-civilengineering.com>]  
**Sent:** Thursday, November 08, 2018 10:51 AM  
**To:** Oswald, Hank  
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**Subject:** RE: Perc Test Plan\_14041 Howard Road

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**Sent:** Thursday, November 08, 2018 8:38 AM  
**To:** [devin.keeny@info.com](mailto:devin.keeny@info.com)  
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# BENCHMARK



## ENGINEERING, INC.

8480 Baltimore National Pike • Suite 315 • Ellicott City, Maryland 21043  
410-465-6105 410-465-6644 (Fax)

### LETTER OF TRANSMITTAL

TO: HOWARD COUNTY  
HEALTH DEPT.

DATE <u>10/31/18</u>	PROJECT No. <u>2914</u>
ATTENTION <u>HANK OSWALD</u>	
RE: <u>14041 HOWARD RD LOT 3</u>	
<u>PERC TESTING PLAN</u>	

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

☐ Photocopies      ☒ Prints      ☐ Originals      ☐ Samples  
☐ Specifications      ☐ Invoices      ☐ Change Order      ☐ Other \_\_\_\_\_

COPIES of	No. of SHEETS	DESCRIPTION
<u>1</u>	<u>1</u>	<u>PERC TESTING APPLICATION</u>
<u>3</u>	<u>1</u>	<u>PERC TESTING PLAN</u>

THESE ARE TRANSMITTED as checked below

☐ For Comment      ☐ For your use      ☐ For Approval  
☒ For Review      ☐ As requested      ☐ Other \_\_\_\_\_

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

RECEIVED BY: [Signature]

If enclosures are not as noted, kindly notify us at once.

SIGNED: [Signature]





#### LEGEND

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- CONTOUR LINES
- SOIL DELINEATION
- EXISTING BUILDINGS
- EXISTING TREELINE
- STREAM
- EXISTING POWER LINE
- EXISTING COMMUNICATIONS LINE
- EXISTING SEWAGE DISPOSAL AREA PER PLAT #7388
- PROPOSED 10,000 SQFT SEWAGE DISPOSAL AREA
- BUILDING RESTRICTION LINE
- EXISTING DRY WELL TO BE ABANDONED
- EXISTING WELL (NO TAG #) TO BE ABANDONED
- PROPOSED WELL
- PROPOSED HOUSE BOX (75'X125')
- PROPOSED PERC TEST LOCATION

#### GENERAL NOTES

- THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- THIS AREA DESIGNATES A PRIVATE SEWAGE DISPOSAL AREA OF AT LEAST 10,000 S.F. AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWER SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE DISPOSAL AREA. RECORDATION OF A MODIFIED SEWAGE EASEMENT PLAT SHALL NOT BE REQUIRED.
- TOPOGRAPHY SHOWN IS BASED ON FIELD SURVEY BY BENCHMARK ENGINEERING, INC. DATED OCTOBER, 2018 AND SUPPLEMENTED WITH HOWARD COUNTY GIS AND CONSISTS OF 2 FOOT CONTOUR INTERVALS.
- TO THE BEST OF OUR KNOWLEDGE, ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELL AND/OR SEPTIC HAVE BEEN SHOWN.
- THE PURPOSE FOR THIS PERCOLATION TEST PLAN IS TO CREATE A SEWAGE DISPOSAL EASEMENT TO SUPPORT A FUTURE 4 BEDROOM HOUSE.
- ANY CHANGES TO A PRIVATE SEWAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
- THERE ARE NO 25% OR GREATER SLOPES WITHIN LOT 3.
- EXISTING WELL (NO TAG #) AND EXISTING HOUSE TO BE ABANDONED AND REMOVED. NEW WELL AND HOUSE ARE PROPOSED.

**BENCHMARK**  
ENGINEERING, INC.  
8480 BALTIMORE NATIONAL PIKE SUITE 315  
ELLICOTT CITY, MARYLAND 21043  
(P) 410-465-8105 & (F) 410-465-6644  
WWW.BE-CHLENGINEERING.COM

OWNER:  
ROY E. KEENEY JR.  
14026 HOWARD RD.  
DAYTON, MD 21036

**LOT 3**  
**14041 HOWARD ROAD**

14041 HOWARD RD, DAYTON, MD 21036  
TAX MAP: 27 - GRID: 6 - PARCEL: 94  
ELECTION DISTRICT NO. 5 - HOWARD COUNTY, MARYLAND

#### PERCOLATION TESTING PLAN

DATE: NOVEMBER, 2018 BEI PROJECT NO. 2914  
SCALE: 1" = 100' SHEET 1 OF 1  
DESIGN: MP DRAFT: MP

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEMS  
HOWARD COUNTY HEALTH DEPARTMENT

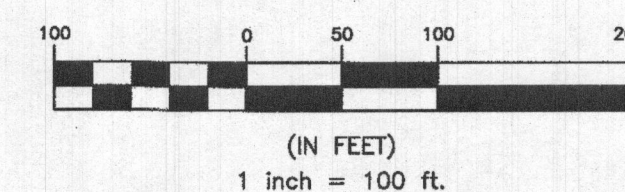
HOWARD COUNTY HEALTH OFFICER DATE

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.

PLAN PREPARER  
MARK POTTER  
FOR BENCHMARK ENGINEERING, INC.

SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND					
SORT	SYMBOL	HYDRIC	HYDROLOGIC GROUP	ALTERNATE GROUP	NAME
	GaC		B		GAILA LOAM, 8 TO 15 PERCENT SLOPES
	GgB		B		GLENELG LOAM, 3 TO 8 PERCENT SLOPES
	GnB*	YES	C	D	GLENVILLE-BAILE SILT LOAM, 0 TO 8 PERCENT SLOPES
	MaC		B		MANOR LOAM, 8 TO 15 PERCENT SLOPES
* INDICATES HYDRIC SOILS					
** HIGHLY ERODIBLE, K>0.35, AND OR 15% OR GREATER SLOPES					
TAKEN FROM THE NRCS WEB SOIL SURVEY MARCH 2016, PAGE 22					
K-VALUE					
					0.24
					0.20
					0.37/0.32
					0.24

PLAN VIEW  
SCALE: 1" = 100'



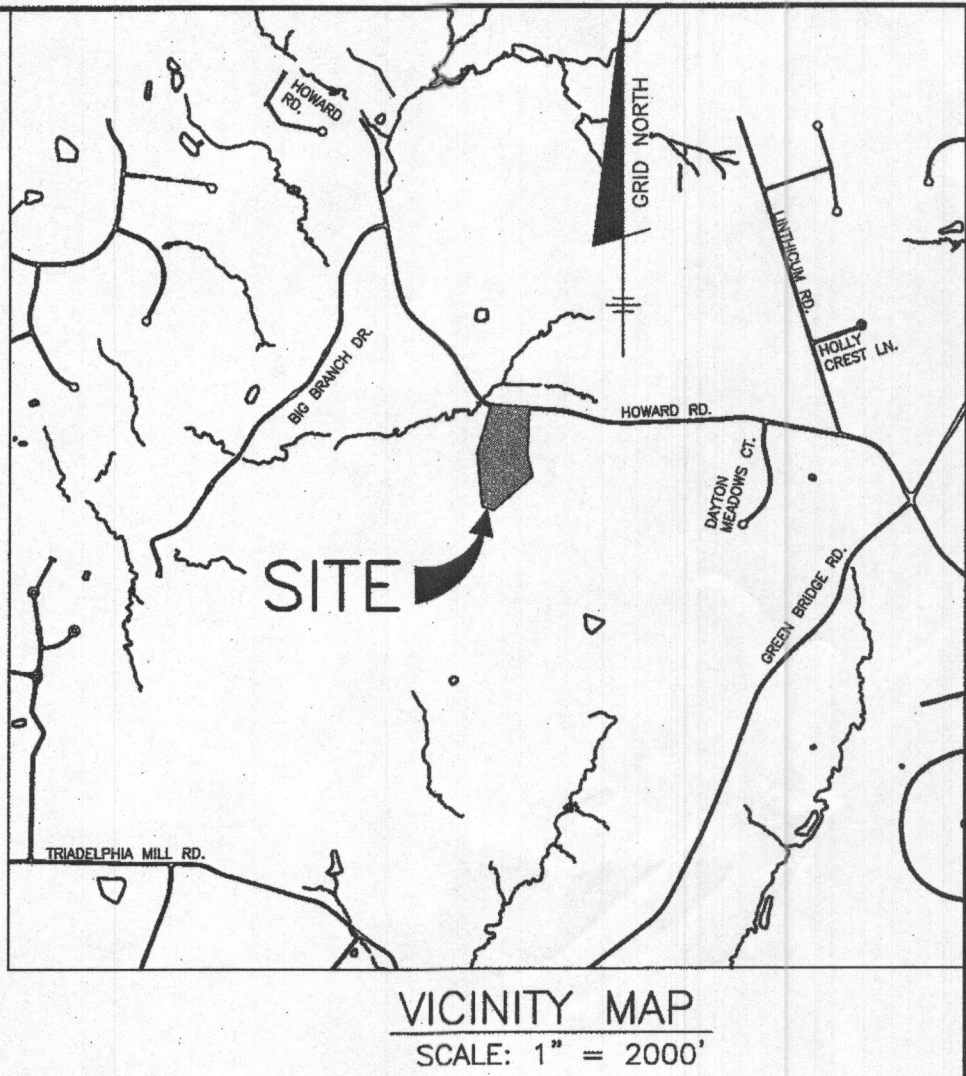
GRID NORTH





LEGEND

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- CONTOUR LINES
- SOIL DELINEATION
- EXISTING BUILDINGS
- EXISTING TREELINE
- STREAM
- EXISTING POWER LINE
- EXISTING COMMUNICATIONS LINE
- PROPOSED SEWAGE DISPOSAL AREA
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- EXISTING WELL (NO TAG #) TO BE ABANDONED
- PROPOSED WELL
- PROPOSED HOUSE BOX (75'X115')
- P# ELEV.
- O ELEV.



GENERAL NOTES

- THIS AREA DESIGNATES A PRIVATE SEWAGE DISPOSAL AREA OF 10,000 SQUARE FEET AS REQUIRED BY THE STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA IS RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
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- TOPOGRAPHY SHOWN IS BASED ON FIELD SURVEY BY BENCHMARK ENGINEERING, INC., DATED OCTOBER, 2018 AND SUPPLEMENTED WITH HOWARD COUNTY GIS AND CONSISTS OF 2 FOOT CONTOUR INTERVALS.
- THERE ARE NO 25% OR GREATER SLOPES WITHIN LOT 3.
- EXISTING WELL (NO TAG #) AND EXISTING HOUSE TO BE ABANDONED AND REMOVED. NEW WELL AND HOUSE ARE PROPOSED.
- THE PURPOSE FOR THIS PERCOLATION CERTIFICATION PLAN IS TO CREATE A NEW SEWAGE DISPOSAL AREA AND DESIGNATE THREE WELL LOCATIONS TO SUPPORT A FUTURE SINGLE FAMILY RESIDENCE.
- THE PROPOSED SEWAGE DISPOSAL AREA SHOWN ON THIS PLAN IS 12,429 SQ. FT. THE PROPOSED RESIDENCE IS A 4 BEDROOM HOUSE.
- THE EXISTING WELL AND SEPTIC SYSTEM MUST BE PROPERLY ABANDONED WITH DOCUMENTATION SENT TO THE HEALTH DEPARTMENT PRIOR TO THE ISSUANCE OF THE DEMO PERMIT.
- EXISTING SEPTIC SYSTEM MUST BE PROPERLY ABANDONED WITH DOCUMENTATION SENT TO THE HEALTH DEPARTMENT PRIOR TO ISSUANCE OF ANY WELL PERMIT WITHIN 100 FEET.
- INITIAL ONSITE SEPTIC DISPOSAL SYSTEM SHALL BE GRAVITY FED TO THE SEPTIC DISPOSAL AREA #1, AND THE 2ND AND 3RD REPLACEMENT SYSTEMS SHALL BE PUMPED TO SEPTIC DISPOSAL AREA #2.
- SEPTIC DESIGN SHALL BE DETERMINED AS PART OF THE BUILDING PERMIT PLAN.
- IF OR WHEN SEPTIC DISPOSAL AREA #2 IS UTILIZED IN THE FUTURE, A PUMP AND PUMP TANK DESIGN SHALL BE REQUIRED.

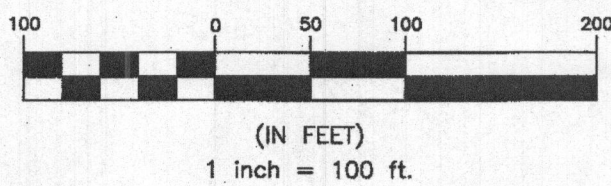
HEALTH DEPARTMENT SPEC SHEET INFORMATION - LOT 3 - 1ST SYSTEM			
System	Application Rate	Effective Depth	Bottom Depth
Initial	0.8	3.0	8.0

INITIAL SYSTEM	
Number of Bedrooms	4
Application Rate	0.8 gpd/sf
Effective Area Beginning Depth	3.0 ft
Bottom Max Depth	8.0 ft
Design Flow	600 gpd
Drainage Field square footage	750 sf
Sidewall Reduction Credit	0.36
Trench width	3 ft
Effective Area Depth	5 ft
Trench Spacing	13 ft
Linear Length of trench Required	89 lf

TRENCH DATA - LOT 3 - 1ST SYSTEM	
INITIAL SYSTEM	
TRENCH 1 (T-1)	
LENGTH	89 ft
GROUND ELEVATION	525.0
INVERT ELEVATION	522.0
MAX BOTTOM ELEVATION	517.0

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PLAN VIEW  
SCALE: 1" = 100'



GRID NORTH

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TAKEN FROM THE NRCS WEB SOIL SURVEY MARCH 2016, PAGE 22					

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEMS  
HOWARD COUNTY HEALTH DEPARTMENT

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PLAN PREPARER  
MARK POTTER  
FOR BENCHMARK ENGINEERING INC.

**BENCHMARK**  
ENGINEERS, LAND SURVEYORS, PLANNERS  
**ENGINEERING, INC.**  
8480 BALTIMORE NATIONAL PIKE & SUITE 315  
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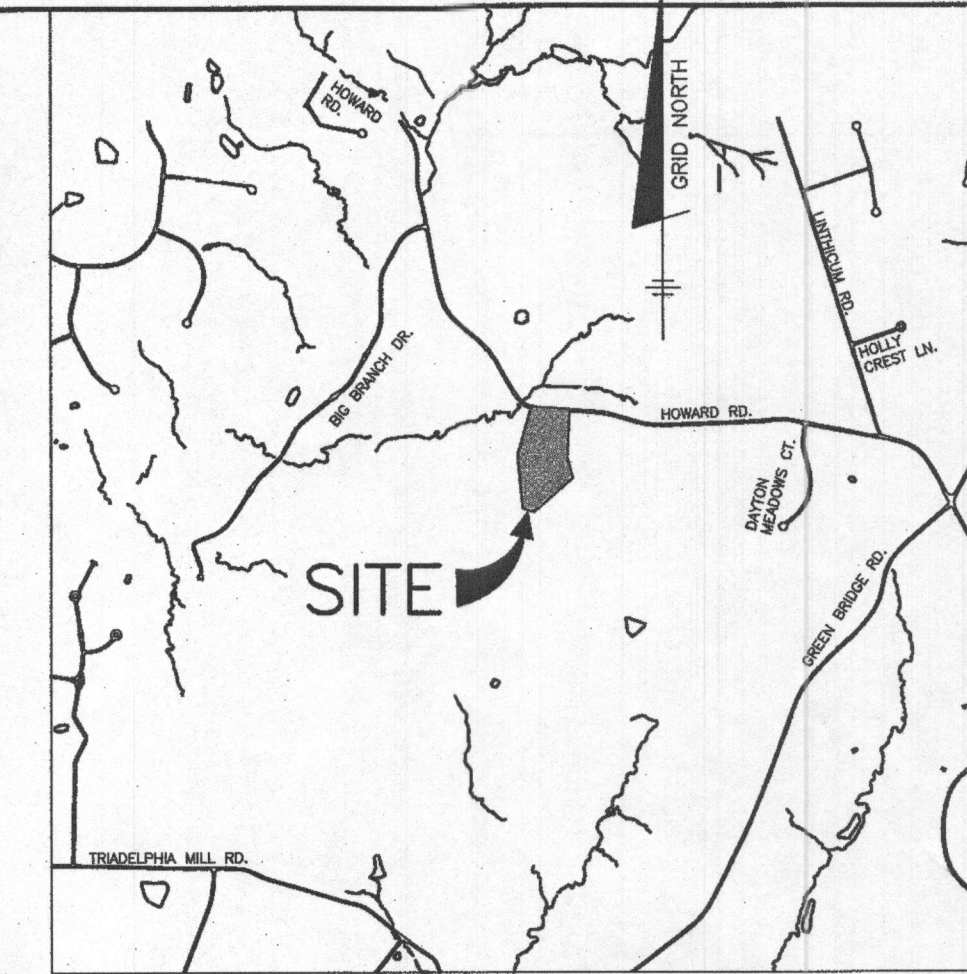
PERCOLATION CERTIFICATION PLAN

DATE: JANUARY, 2019 BEI PROJECT NO. 2914  
DESIGN: MP DRAFT: MP SCALE: 1" = 100' SHEET 1 OF 1









# LEGEND

- PROPERTY BOUNDARY
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- CONTOUR LINES
- SOIL DELINEATION
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- EXISTING TREELINE
- STREAM
- EXISTING SEWAGE DISPOSAL AREA PER PLAT #7388
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- EXISTING DRY WELL TO BE ABANDONED
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APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEMS  
HOWARD COUNTY HEALTH DEPARTMENT

HOWARD COUNTY HEALTH OFFICER

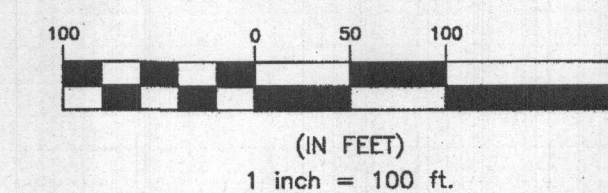
DATE

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PLAN PREPARER  
MARK POTTER  
FOR BENCHMARK ENGINEERING INC.

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	GaB	YES	C	D	GLENVILLE-BAILE SILT LOAM, 0 TO 8 PERCENT SLOPES
	MaC		B		MANOR LOAM, 8 TO 15 PERCENT SLOPES
* INDICATES HYDRIC SOILS					
** HIGHLY ERODIBLE, K=0.35, AND OR 15% OR GREATER SLOPES					
TAKEN FROM THE NRCS WEB SOIL SURVEY MARCH 2016, PAGE 22					

PLAN VIEW  
SCALE: 1" = 100'



GRID NORTH

BENCHMARK  
ENGINEERING, INC.  
8480 BALTIMORE NATIONAL PIKE SUITE 315  
BLUDDITT CITY, MARYLAND 21043  
(P) 410-485-8105 & (F) 410-485-6644  
WWW.BEI-CVLENGINEERING.COM

OWNER:

ROY E. KEENE JR.  
14026 HOWARD RD.  
DAYTON, MD 21036

LOT 3  
14041 HOWARD ROAD

14041 HOWARD RD, DAYTON, MD 21036  
TAX MAP: 27 - GRID: 6 - PARCEL: 94  
ZONED: RG-DEO  
ELECTION DISTRICT NO. 5 - HOWARD COUNTY, MARYLAND

PERCOLATION TESTING PLAN

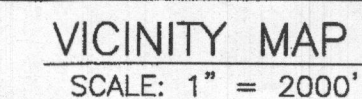
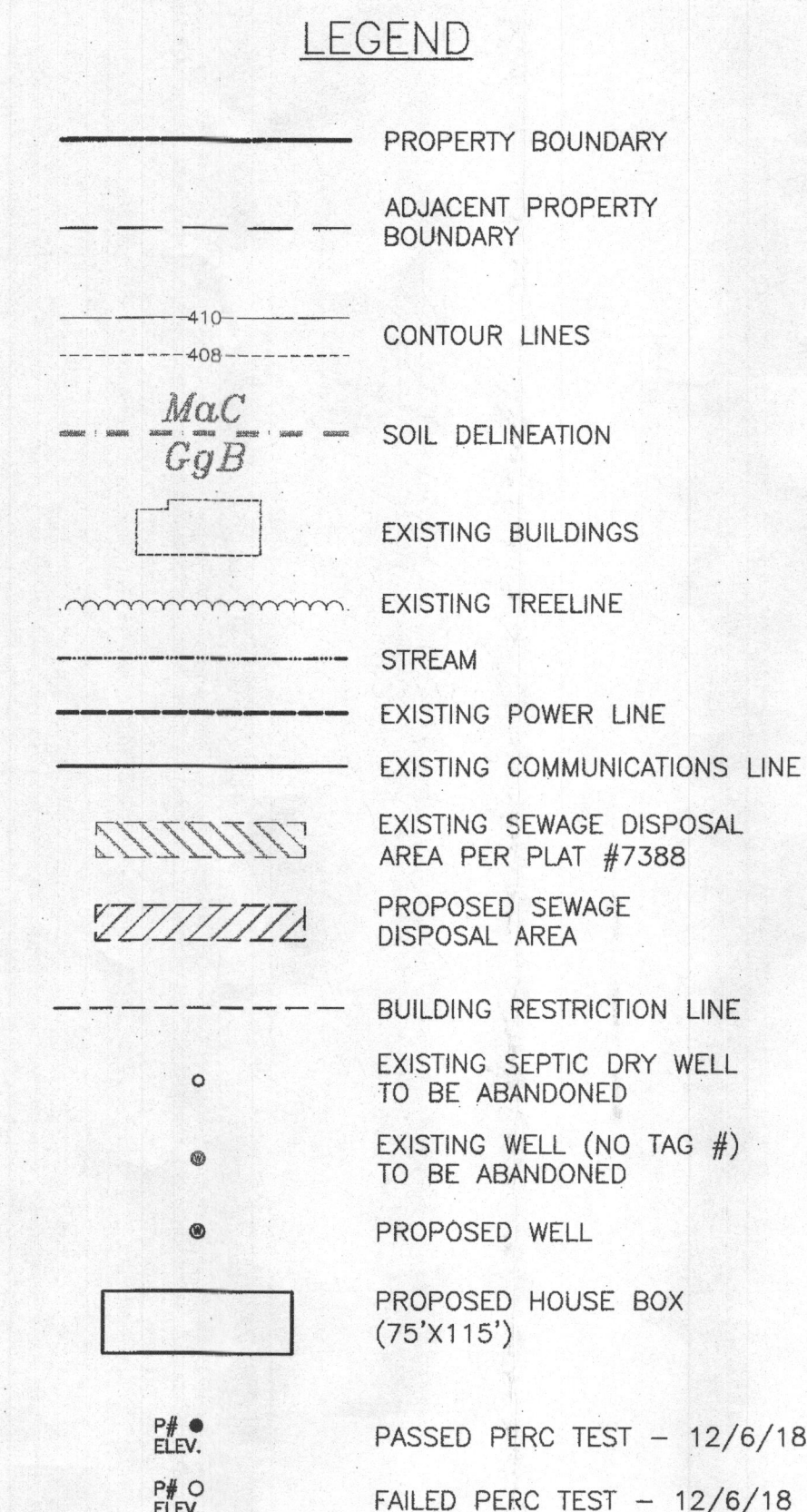
DESIGN: MP

DRAFT: MP

DATE: NOVEMBER, 2018  
SCALE: 1" = 100'

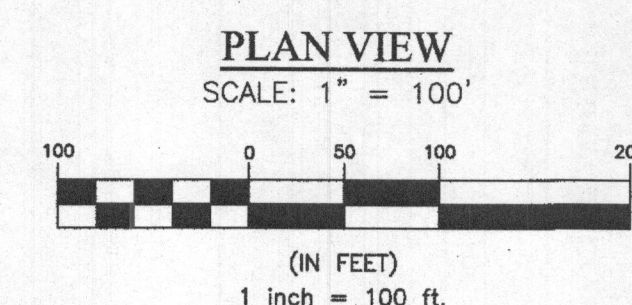
BEI PROJECT NO. 2914  
SHEET 1 OF 1





1. ~~EXISTING~~ THIS AREA DESIGNATES A PRIVATE SEWAGE DISPOSAL AREA OF 10,000 SQUARE FEET AS REQUIRED BY THE STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA IS REQUIRED UNTIL FUTURE PUBLIC SEWAGE TREATMENT PLANT CONSTRUCTION SHALL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE DISPOSAL AREA OF ANY MEASURED AREA OF MORE THAN 10,000 SQUARE FEET. THE AREA OF THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA REQUIREMENTS AS SET FORTH BY THE ZONING ORDINANCE.
2. ANY CHANGES TO A PRIVATE SEWAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
3. TO THE BEST OF OUR KNOWLEDGE, ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELL AND/OR SEPTIC HAVE BEEN SHOWN.
4. THE TOPOGRAPHY SHOWN IS BASED ON FIELD SURVEY BY BENCHMARK ENGINEERING, INC. DATED OCTOBER, 2018 AND SUPPLEMENTED WITH HOWARD COUNTY DATA AND CONSISTS OF 2' FOOT CONTOUR INTERVALS.
5. THERE ARE NO 20% OR GREATER SLOPES WITHIN LOT 3.
6. EXISTING WELL (NO TAG #) AND EXISTING HOUSE TO BE ABANDONED AND REMOVED, NEW WELL AND HOUSE ARE PROPOSED.
7. THE PROPOSED SEWAGE DISPOSAL CERTIFICATION PLAN IS TO CREATE A NEW SEWAGE DISPOSAL AREA AND DESIGNATE THREE WELL LOCATIONS TO SUPPORT A FUTURE SINGLE FAMILY RESIDENCE.
8. THE PROPOSED SEWAGE DISPOSAL AREA SHOWN ON THIS PLAN IS 12,671 SQ. FT. THE PROPOSED RESIDENCE IS A 4 BEDROOM HOUSE.
9. THE PROPOSED LOT 3 SHALL BE SHOWN AS PART OF THE BUILDING PERMIT PLAN BASED ON APPLICATION RATES PROVIDED BY THE BUREAU OF ENVIRONMENTAL HEALTH.

THE PURPOSE FOR THIS PERCOLATION  
CERTIFICATION PLAN IS TO CREATE A NEW  
SEWAGE DISPOSAL AREA AND DESIGNATE  
THREE WELL LOCATIONS TO SUPPORT A  
FUTURE SINGLE FAMILY RESIDENCE.



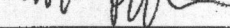
SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND						
SORT	SYMBOL	HYDRIC	HYDROLOGIC GROUP	ALTERNATE GROUP	NAME	k-VALUE
	GaC		B		GAILA LOAM, 8 TO 15 PERCENT SLOPES	0.24
	GnB		B		GLENELG LOAM, 3 TO 8 PERCENT SLOPES	0.20
	Gb*	YES		D	GLENVILLE-BAILE SILT LOAM, 0 TO 8 PERCENT SLOPES	0.37/0.32
	MaC		B		MANOR LOAM, 8 TO 15 PERCENT SLOPES	0.24
*INDICATES HYDRIC SOILS						
**HIGHLY ERODIBLE, K=0.35, AND OR 15% OR GREATER SLOPES						
TAKEN FROM THE NRCS WFR SOIL SURVEY MARCH 2016, PAGE 22						

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEMS  
HOWARD COUNTY HEALTH DEPARTMENT

\_\_\_\_\_  
HOWARD COUNTY HEALTH OFFICER

\_\_\_\_\_  
DATE

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.



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PLAN PREPARER  
MARK POTTER  
FOR BENCHMARK ENGINEERING INC.

<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 A SUITE 315 ELLCOTT CITY, MARYLAND 21043 (P) 410-465-6105 ▲ (F) 410-465-6644</p> <p align="center">WWW.BE-CIVILENGINEERING.COM</p>			
OWNER:		<p align="center"><b>LOT 3</b></p> <p align="center"><b>14041 HOWARD ROAD</b></p>	
ROY E. KEENY JR. 14026 HOWARD RD. DAYTON, MD 21036		14041 HOWARD RD, DAYTON, MD 21036 TAX MAP: 27 - GRID: 6 - PARCEL: 94 ZONED: RC-DEO ELECTION DISTRICT NO. 5 - HOWARD COUNTY, MARYLAND	
		<p align="center"><b>PERCOLATION CERTIFICATION PLAN</b></p>	
DATE: DECEMBER, 2018		BEI PROJECT NO.	2914
DESIGN: MP	DRAFT: MP	SCALE: 1" = 100'	SHEET 1 OF 1