



Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

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

Date: August 2, 2023

To: Zach Sill

Re: ***Percolation Test Report***
13071 Wainwright Road
Highland, MD 21738

Percolation tests were conducted at 13071 Wainwright Road (Tax Map 0040, Parcel 39) on July 28th, 2023. The purpose of conducting percolation tests was to establish a Sewage Disposal Area (SDA) for the existing lot. Tests and profile descriptions were documented for staked locations 601, 602, 603, 604, and 605, test holes 606 through 608 were added while out in the field. Perc hole 602 was reshelled at a 5' depth due to a failed rate at a 4'. Test hole 607 was repoured due to less than a minute percolation on the first attempt. The middle & lowest perc holes 604 and 603 were visually FAILED holes due to predominantly clay, redox features and rock content in the upper 8'. All holes were dug to a 12' depth and perc testing was carried out at a 4' test depth and 4-5' at 602. The upper 4 ft. to 5 ft. of soil layers were generally restrictive, and water was present in the lower soil horizons for lower holes 602 and 606. All holes on contour 372 were influenced by a water table ranging from 8'-12'. It was decided that the best course of action based on a failed middle hole and a failed lower hole was to push the proposed SDA northwest. It will be up to the engineer to re-work the area, but extra perc holes were carefully chosen to keep the desired goals for the property on task. The soil unit that was encountered on this site was Gaila loam (GaC) with a range of 8-15% slopes. Field data collected is shown on the Percolation Test Worksheet enclosed with this letter.

All percolation tests conducted were standard tests, measuring rate of fall for a pre-wet period followed by measurement and recordation of the time required for the water level to drop 1 inch. Locations that may be included in the sewage disposal area are represented by test pits having satisfactory soil conditions. The SDA must be large enough to accommodate 3 systems (initial and 2 replacements). There is no guarantee that a suitable SDA can be established based on passing perc holes alone. If 3 systems cannot fit, the Health Dept. may consider allowing 2 systems (initial and 1 replacement) which will require Best Available Technology (BAT). The next step in the process is to have an engineer/consultant submit a finalized percolation certification plan to the Health Dept. for review and signature.

Should you have any questions regarding this evaluation, please contact me. I may be reached at (410) 313-7324 or by email Meshenbaugh@howardcountymd.gov

Respectfully,
Melanie Eshenbaugh

Melanie Eshenbaugh
Bureau of Environmental Health
Well & Septic Program

DP5-74147

13071 Wainwright Rd

NTS

603

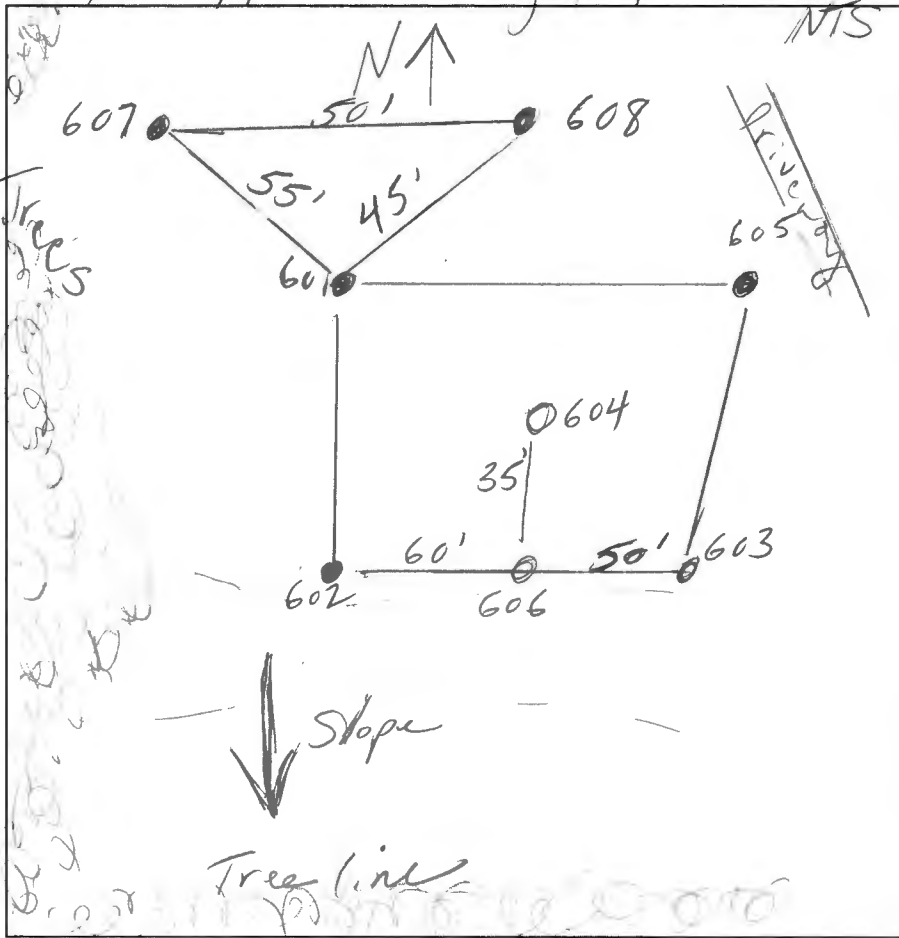
Topsoil 0-3"
 SCL 3"-215"
 Br/tan friable
 SCL 2.5-5'
 tight
 Br/tan/red
 SL 5'-9"
 Tan/gray/red
 SL 8'-9"
 Redox wet,
 30% quartz
 Visual fail

605

Topsoil 0-4"
 CL Br/Red 4"-1"
 CL
 Red/tan Blocky
 SCL 2'-3'
 friable w/
 m.c. Tan/Red
 SCL 3'-4'
 Tan/Red
 w/g quartz/m.c.
 SL Tan/yellow 4'-10"
 SL Redox 10-11"
 features

607

Topsoil 0-3"
 CL brown 3"-8"
 SCL 8"-1.5'
 tight friable
 Red/Br 1.5'-3'
 SCL
 Br/tan
 Loose
 friable
 SCL 3'-4'
 tight but
 friable
 Red/Tan
 LS 4'-12"
 Tan/yellow
 w/m.c.
 Redox/quartz 11-12'



604
 Visual fail
 Topsoil 0-3"
 CL Br/tan/red 3"-1"
 SCL 1'-7"
 Tan/Red
 Rock @ 2.5'-7'
 75% quartz

601
 Topsoil 0-3"
 CL Red/Br 3"-1"
 SCL 1'-2"
 tan/red friable
 SCL friable 2'-3"
 tan/red w/m.c. + quartz 10%
 SL w/ m.c./quartz 3'-11"
 Tan/yellow
 SL w/ m.c./shale 11'-12"
 quartz 30%
 Tan/yellow/red

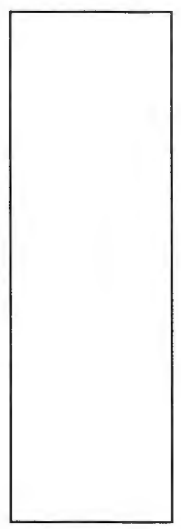
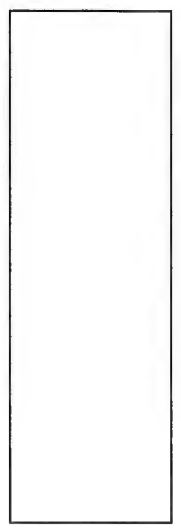
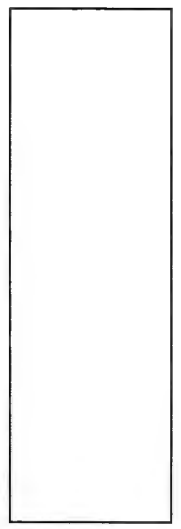
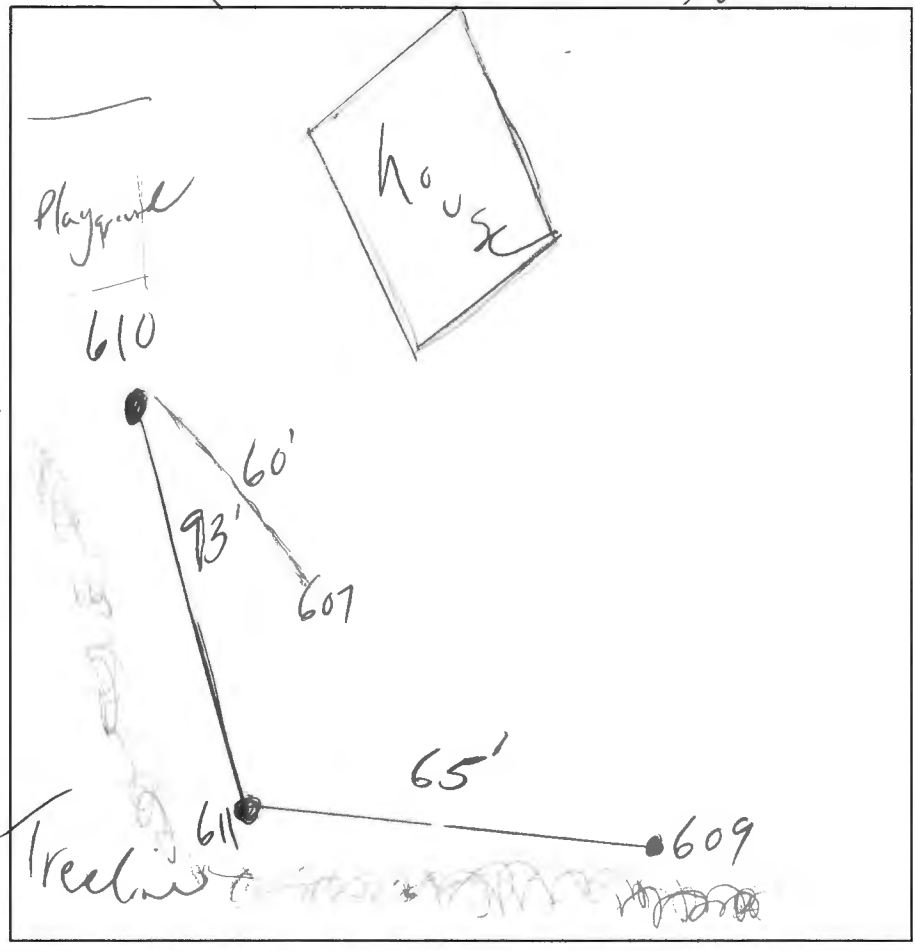
602
 Topsoil 0-3"
 CL Br/Red 3"-1"
 CL 1'-3"
 Red/tan/br w/m.c. + quartz
 SCL 3'-5"
 Tan/Red w/m.c. Tan/Red
 SL Tan/gray w/m.c. 5'-10"
 SCL 10'-12"
 Tan/Red
 water @ 13-14 ft

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H
7/28/23	601	4'	11:02	11:03	11:07	4min	P
7/28/23	605	4'	10:24	10:28	10:35	8min	P
7/28/23	602	4'	11:16	7	30	mins	F
7/28/23	602	5'	11:36	11:43	11:53	2mins	P
7/28/23	606	4'	12:34	12:36	12:40	4mins	P
7/28/23	607	4'	12:56	12:56	12:58	1:30	
7/28/23	607	4'	Repair				
7/28/23	607	4'	12:59	1:01	1:03	2mins	P
7/28/23	608	4'	1:28	1:33	1:43	10mins	P

REMARKS Water table higher closer to stream buffer
 SANITARIAN Melanie Festerbauer BACKHOE Rickey Fegles OTHERS Cevin, Gilmer
 TEST HOLES USED IN SDA _____ AVG. PERC TIME _____ SQ. FT/BR _____
 TRENCH WIDTH _____ INLET DEPTH _____ MAX. BOT DEPTH _____ EFFECTIVE SW _____

AVP 5-74147

NTS



609
 0-3" Topsoil
 3"-1' CL platy
 Br/tan/red
 1'-2' SCL
 Tan/Br
 Moist w/ mica
 2'-4' SCL
 Tan/Br Moist
 w/ 20% quartz
 and mica
 4'-7' LS w/ mica
 clay deposits
 Tan/gray
 7'-12' LS w/ mica
 Tan/gray

610
 0-3" Topsoil
 3"-1' CL
 Br/tan/red
 1'-2' SCL
 Br/red
 platy
 2'-4' SCL
 Br/tan
 friable w/
 mica
 4'-5' SL
 Tan/Br
 w/ clay deposits
 + mica
 5'-12' LS Tan/gray
 w/ mica

611
 0-4" Topsoil
 4"-1' CL
 Br/tan/red
 1'-2.5' SCL
 Tan/Br/red
 w/ mica
 + quartz 10%
 2.5'-4' SCL
 Tan/Br
 friable w/
 mica quartz
 4'-5' SL
 Tan/Br
 w/ clay deposits
 5'-12' LS
 gray/tan

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H
12/20/23	610	5'	9:30	9:32	9:38	6 min	P
12/20/23	611	5'	9:48	9:49	9:52	3 min	P
12/20/23	609	5'	10:05	10:06	10:07	2 min	P

REMARKS _____
 SANITARIAN M. Eschenburg BACKHOE Picky/Kevin OTHERS Z. Silva
 TEST HOLES USED IN SDA _____ AVG. PERC TIME 3 SQ. FT/BR _____
 TRENCH WIDTH _____ INLET DEPTH _____ MAX. BOT DEPTH _____ EFFECTIVE SW _____

Eshenbaugh, Melanie

To: Zach Sill
Subject: RE: 13071 Wainwright Road - Gray property Perc App

Good afternoon Zach,

After review of the submitted perc certification plan, I have the following revision comments:

1. The area proposed between hole 605 & 601 just below the existing trench would be unusable given the proximity to the failed hole 604. Suggest gaining area between holes 602 & 607 above contours 372 & 374 extending to hole 607.
2. Block for Health Office signature mentions in accordance with the "Master Plan of Howard County" and should be removed as this portion of the statement doesn't apply.
3. Add the note stating " Any changes to a private sewage disposal area shall require a revised percolation certification plan."
4. Note 12 mentions replacement well locations which doesn't apply due to the existing well being shown without alternate well site or well box locations.
5. The perc holes should have spot elevations for each tested boring.
6. The designated symbol "F" for future wells should have a 100' well arc around them.
7. Suggest showing the septic for 13081 Wainwright Road.
8. Add a symbol in the legend for the existing well.

Melanie Eshenbaugh
Bureau of Environmental Health
Howard County Health Dept.
8930 Stanford Blvd. Columbia, MD 21045
www.hchealth.org



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From: Eshenbaugh, Melanie
Sent: Friday, August 18, 2023 11:05 AM
To: Zach Sill <zach@sillengineering.com>
Subject: RE: 13071 Wainwright Road - Gray property Perc App

Good morning Zach,

Please do submit the paper copies to our office as that is our process/procedure for review. Also, yes there will be a few comments concerning the electronic copy you sent to us based on a preliminary review. Thank you kindly.

Melanie Eshenbaugh
Bureau of Environmental Health
Howard County Health Dept.
8930 Stanford Blvd. Columbia, MD 21045
www.hchealth.org



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From: Zach Sill <zach@sillengineering.com>
Sent: Friday, August 18, 2023 10:35 AM
To: Eshenbaugh, Melanie <MEshenbaugh@howardcountymd.gov>
Cc: Silvast, Zackary <zsilvast@howardcountymd.gov>
Subject: FW: 13071 Wainwright Road - Gray property Perc App

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

Hi Melanie,

Just checking in to see if you had seen my previous email. I'm coming by Health today for another project, and plan to drop off paper copies of this plan.

Thanks,

Zachary Sill
Civil Drafter & Designer
Erosion & Sediment Control No. RPC016242



SILL ENGINEERING GROUP, LLC
SEG LAND SURVEYING, LLC
16005 Frederick Road, 2nd Floor
Woodbine, MD 21797
Office: 443-325-5076 ext. 107 | Fax: 410-696-2022
Website: www.sillengineering.com

From: Zach Sill
Sent: Thursday, August 17, 2023 9:40 AM
To: Eshenbaugh, Melanie <MEshenbaugh@howardcountymd.gov>
Cc: Silvast, Zackary <zsilvast@howardcountymd.gov>
Subject: RE: 13071 Wainwright Road - Gray property Perc App

Hello,

Please see the attached revised SDA area. I would like to submit paper copies this afternoon, but wanted to run the SDA by you before I dropped them off. The shape is pretty odd due to the location of the failed tests.

Thank you,

Zachary Sill
Civil Drafter & Designer
Erosion & Sediment Control No. RPC016242



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SEG LAND SURVEYING, LLC
16005 Frederick Road, 2nd Floor
Woodbine, MD 21797
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Website: www.sillengineering.com

From: Eshenbaugh, Melanie <MEshenbaugh@howardcountymd.gov>
Sent: Friday, August 04, 2023 11:59 AM
To: Zach Sill <zach@sillengineering.com>
Cc: Silvast, Zackary <zsilvast@howardcountymd.gov>
Subject: RE: 13071 Wainwright Road - Gray property Perc App

Good afternoon Zach,

Please see attached perc test report and results for Wainwright Rd., at the Gray property and let us you know if you have any questions. Have a wonderful weekend!

Melanie Eshenbaugh
Bureau of Environmental Health
Howard County Health Dept.
8930 Stanford Blvd. Columbia, MD 21045
www.hchealth.org



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From: Zach Sill <zach@sillengineering.com>
Sent: Tuesday, August 1, 2023 9:00 AM
To: Eshenbaugh, Melanie <MEshenbaugh@howardcountymd.gov>
Cc: Silvast, Zackary <zsilvast@howardcountymd.gov>
Subject: RE: 13071 Wainwright Road - Gray property Perc App

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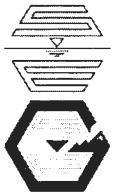
[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Hello,

That's pretty short notice to have the existing trenches marked for perc testing since it's a bit more involved than having my Survey guy go drive some stakes. We would appreciate a bit more of a heads up in the future since we were not always staking out existing trenches for perc testing. Most recently, I had another project on Saint Michaels Road where we were not asked to stake existing trenches. I'll speak with Fogles and see what I can do about getting the existing trenches staked. If they can't do it in the next few days, do we have to reschedule our testing?

Thank you,

Zachary Sill
Civil Drafter & Designer
Erosion & Sediment Control No. RPC016242



SILL ENGINEERING GROUP, LLC
SEG LAND SURVEYING, LLC
16005 Frederick Road, 2nd Floor
Woodbine, MD 21797
Office: 443-325-5076 ext. 107 | Fax: 410-696-2022
Website: www.sillengineering.com

From: Eshenbaugh, Melanie <MEshenbaugh@howardcountymd.gov>
Sent: Monday, July 24, 2023 5:15 PM
To: Zach Sill <zach@sillengineering.com>
Cc: Silvast, Zackary <zsilvast@howardcountymd.gov>
Subject: RE: 13071 Wainwright Road - Gray property Perc App

OK great, please ensure the existing trenches are marked prior to the test date. Thank you kindly and have a nice evening.

Melanie Eshenbaugh
Bureau of Environmental Health
Howard County Health Dept.
8930 Stanford Blvd. Columbia, MD 21045
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From: Zach Sill <zach@sillengineering.com>
Sent: Monday, July 24, 2023 12:05 PM
To: Eshenbaugh, Melanie <MEshenbaugh@howardcountymd.gov>

Cc: Silvast, Zackary <zsilvast@howardcountymd.gov>
Subject: RE: 13071 Wainwright Road - Gray property Perc App

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

Hello,

I just heard back from our septic contractor. Please set the date for 7/28.

Thank you,

Zachary Sill
Civil Drafter & Designer
Erosion & Sediment Control No. RPC016242



SILL ENGINEERING GROUP, LLC
SEG LAND SURVEYING, LLC
16005 Frederick Road, 2nd Floor
Woodbine, MD 21797
Office: 443-325-5076 ext. 107 | Fax: 410-696-2022
Website: www.sillengineering.com

From: Eshenbaugh, Melanie <MEshenbaugh@howardcountymd.gov>
Sent: Monday, July 24, 2023 12:01 PM
To: Zach Sill <zach@sillengineering.com>
Cc: Silvast, Zackary <zsilvast@howardcountymd.gov>
Subject: RE: 13071 Wainwright Road - Gray property Perc App

Hi Zach,

I am reaching out again to ensure that the email was received last Thursday in order to schedule testing for this property. If there is not enough advance notice with the two test dates provided on July 26th or July 28th, we can schedule into next week for August 1st or August 2nd. Please let us know so that we can confirm a test date and thank you kindly.

Melanie Eshenbaugh
Bureau of Environmental Health
Howard County Health Dept.
8930 Stanford Blvd. Columbia, MD 21045
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From: Zach Sill <zach@sillengineering.com>
Sent: Thursday, July 20, 2023 2:06 PM
To: Eshenbaugh, Melanie <MEshenbaugh@howardcountymd.gov>
Cc: Silvast, Zackary <zsilvast@howardcountymd.gov>
Subject: RE: 13071 Wainwright Road - Gray property Perc App

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

Hello Melanie,

Please let me know what dates you have available for Perc Testing so I can keep this moving please.

Thank you,

Zachary Sill
Civil Drafter & Designer
Erosion & Sediment Control No. RPC016242



SILL ENGINEERING GROUP, LLC
SEG LAND SURVEYING, LLC
16005 Frederick Road, 2nd Floor
Woodbine, MD 21797
Office: 443-325-5076 ext. 107 | Fax: 410-696-2022
Website: www.sillengineering.com

From: Silvast, Zackary <zsilvast@howardcountymd.gov>
Sent: Tuesday, July 18, 2023 8:47 AM
To: Zach Sill <zach@sillengineering.com>
Cc: Eshenbaugh, Melanie <MEshenbaugh@howardcountymd.gov>
Subject: RE: 13071 Wainwright Road - Gray property Perc App

Good Morning Zach,

Made a site visit on Friday, everything looked good. And setbacks were measured. Melanie will be reaching out to schedule a perc shortly. Thank you.

- ZS

From: Zach Sill <zach@sillengineering.com>
Sent: Monday, July 10, 2023 11:17 AM
To: Silvast, Zackary <zsilvast@howardcountymd.gov>
Cc: Eshenbaugh, Melanie <MEshenbaugh@howardcountymd.gov>
Subject: RE: 13071 Wainwright Road - Gray property Perc App

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

Hello Zack,

The perc holes have been staked out at the above referenced property. Please let me know what day you intend to do a site visit, and I can let the property owner know.

Thank you,

Zachary Sill
Civil Drafter & Designer



SILL ENGINEERING GROUP, LLC
SEG LAND SURVEYING, LLC

16005 Frederick Road, 2nd Floor
Woodbine, MD 21797
Office: 443-325-5076 ext. 107 | Fax: 410-696-2022
Website: www.sillengineering.com

From: Silvast, Zackary <zsilvast@howardcountymd.gov>
Sent: Friday, June 30, 2023 6:50 PM
To: Zach Sill <zach@sillengineering.com>
Cc: Silvast, Zackary <zsilvast@howardcountymd.gov>; Eshenbaugh, Melanie <MEshenbaugh@howardcountymd.gov>
Subject: RE: 13071 Wainwright Road - Gray property Perc App

Zach,

You guys can go ahead and stake these holes, but I would like to make a site visit before assigning it out to one of my staff and scheduling a perc date. SO let me know when the field staff has finished staking. Thank you and have a great holiday.

- ZS

From: Silvast, Zackary
Sent: Thursday, June 29, 2023 6:03 PM
To: Zach Sill <zach@sillengineering.com>
Subject: RE: 13071 Wainwright Road - Gray property Perc App

Hey Zach,

I should have revision comments out to you by tomorrow. We have a large number of high priority projects right now and the sheer volume of all projects has been overwhelming in the office so there are some small delays going on right now. Hard to keep a 10 business day rule on everything when you have hundreds of ongoing projects. I also cannot control office days lost through perc testing, field work, sick days, holidays, and vacations. But to be honest I've had little let up since April.

Once the revisions come back in, I will assign a specific plan reviewer to this project. I do not assign late projects on my team, I always take responsibility and am catching up on things. It is in my queue and has not been forgotten.

Thank you!

- ZS

From: Zach Sill <zach@sillengineering.com>
Sent: Thursday, June 29, 2023 2:29 PM
To: Silvast, Zackary <zsilvast@howardcountymd.gov>
Subject: FW: 13071 Wainwright Road - Gray property Perc App

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

Hello Mr. Silvast,

I'm emailing you to inquire about the review of the above referenced perc app. I'm looking to find out who the reviewer is, so I can check in with them on the review. We submitted this perc app on June 1st.

Thank you!

Zachary Sill
Civil Drafter & Designer



SILL ENGINEERING GROUP, LLC
SEG LAND SURVEYING, LLC
16005 Frederick Road, 2nd Floor
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Office: 443-325-5076 ext. 107 | Fax: 410-696-2022
Website: www.sillengineering.com

From: Oswald, Hank <hoswald@howardcountymd.gov>
Sent: Wednesday, June 21, 2023 10:22 AM
To: Zach Sill <zach@sillengineering.com>
Subject: RE: 13071 Wainwright Road - Gray property Perc App

Hi Zach:

I forwarded your email to my supervisor Zack Silvast. His email address is zsilvast@howardcountymd.gov. His # is 410.313.1777 Hopefully, he will get back to you soon.

Thanks,

Hank

Hank Oswald
Licensed Environmental Health Specialist
Bureau of Environmental Health
Howard County Health Department
8930 Stanford Blvd. Columbia, MD 21045
(410) 313 - 1786
www.hchealth.org

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From: Zach Sill <zach@sillengineering.com>
Sent: Wednesday, June 21, 2023 9:45 AM
To: Oswald, Hank <hoswald@howardcountymd.gov>
Subject: 13071 Wainwright Road - Gray property Perc App

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Hey Hank,

I submitted the above referenced Per App on June 1 and have yet to hear anything on it. Would you happen to know who the reviewer is?

Thanks in advance,

Zachary Sill
Civil Drafter & Designer
Erosion & Sediment Control No. RPC016242



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