

# APPLICATION

## PERCOLATION TESTING

A \_\_\_\_\_

P \_\_\_\_\_

HOWARD COUNTY HEALTH DEPARTMENT  
BUREAU OF ENVIRONMENTAL HEALTH  
3525-H ELLICOTT MILLS DRIVE/ELLICOTT CITY, MARYLAND 21043  
TELEPHONE: 313-2640

DISTRICT \_\_\_\_\_

DATE \_\_\_\_\_

TO: THE COUNTY HEALTH OFFICER  
ELLICOTT CITY, MARYLAND

I HEREBY APPLY FOR THE NECESSARY TEST PRIOR TO APPLICATION FOR PERMIT TO CONSTRUCT (OR RECONSTRUCT) A SEWAGE DISPOSAL SYSTEM.

PROPERTY OWNER \_\_\_\_\_

ADDRESS \_\_\_\_\_ PHONE \_\_\_\_\_

AGENT OR PROSPECTIVE BUYER \_\_\_\_\_

ADDRESS \_\_\_\_\_ PHONE \_\_\_\_\_

PROPERTY LOCATION:

SUBDIVISION \_\_\_\_\_ LOT NO. \_\_\_\_\_

ROAD AND DESCRIPTION \_\_\_\_\_

TAX MAP \_\_\_\_\_ PARCEL # \_\_\_\_\_

SIZE OF LOT \_\_\_\_\_ TYPE BLDG. \_\_\_\_\_  
(SINGLE FAMILY DWELLING OR COMMERCIAL)

THE SYSTEM INSTALLED UNDER THIS APPLICATION IS ACCEPTABLE ONLY UNTIL PUBLIC FACILITIES BECOME AVAILABLE. I FULLY UNDERSTAND THE FEE CONNECTED WITH THE FILING OF THIS PERC TEST APPLICATION IS NON-REFUNDABLE UNDER ANY CIRCUMSTANCES. I ALSO AGREE TO COMPLY WITH ALL M.O.S.H.A. REQUIREMENTS IN TESTING THIS LOT. \_\_\_\_\_  
(SIGNATURE OF APPLICANT)

APPROVED BY \_\_\_\_\_ FOR \_\_\_\_\_ DATE \_\_\_\_\_

DISAPPROVED BY \_\_\_\_\_ FOR \_\_\_\_\_ DATE \_\_\_\_\_

HOLD PENDING FURTHER TESTS \_\_\_\_\_

REASONS FOR REJECTION OR HOLDING \_\_\_\_\_

PERCOLATION TEST PLAT/PRELIMINARY PLAT - TITLE OR I.D. # \_\_\_\_\_ DATE \_\_\_\_\_

SITE DEVELOPMENT PLAN/FINAL PLAT - TITLE OR I.D. # \_\_\_\_\_ DATE \_\_\_\_\_

# THIS IS NOT A PERMIT

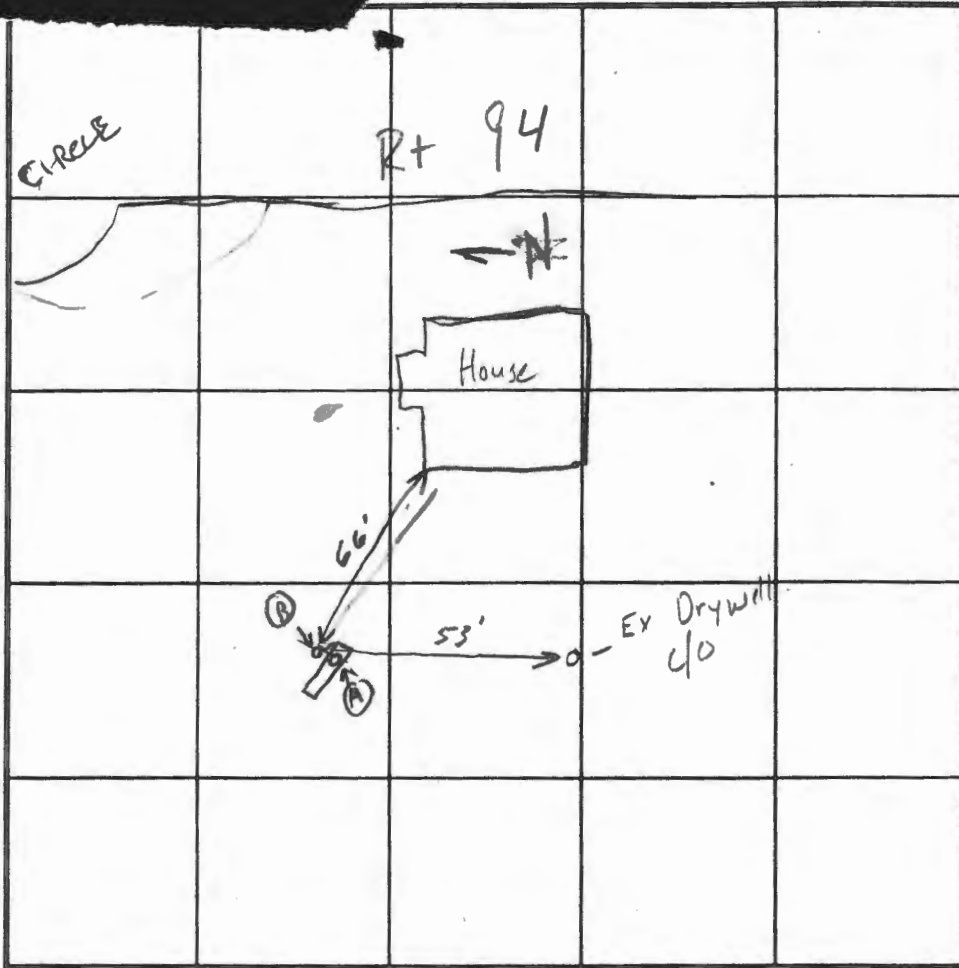
COUNTY #

SOIL PROFILE

0' Brown (Topsoil)  
 1' Orange Brown Clm  
 10-15% cherty quartzite  
 3' Orange Brown Clm ~15% ch gravelly rock  
 4' Orange Brown Clm ~15% gravelly Rock some lighter grey brown  
 8' Refusal

SOIL PROFILE

0'



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
11/22/05	(A)	4' 8"	2:52	Slow	3/4 in	34 min	F
11/22/05	(B)	18" / 10"	3:02	3:06	3:06	3:15	9m

REMARKS Hole A Has been open for ~24 hrs of Rain  
~~TEST NO.~~ Hole opened 11/17  
 TESTED BY RAY/GAC ALSO PRESENT Justin Brindel  
 TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME \_\_\_\_\_ TRENCH WIDTH \_\_\_\_\_  
 INLET DEPTH \_\_\_\_\_ MAXIMUM BOTTOM DEPTH \_\_\_\_\_ SQ. FT./BEDROOM \_\_\_\_\_

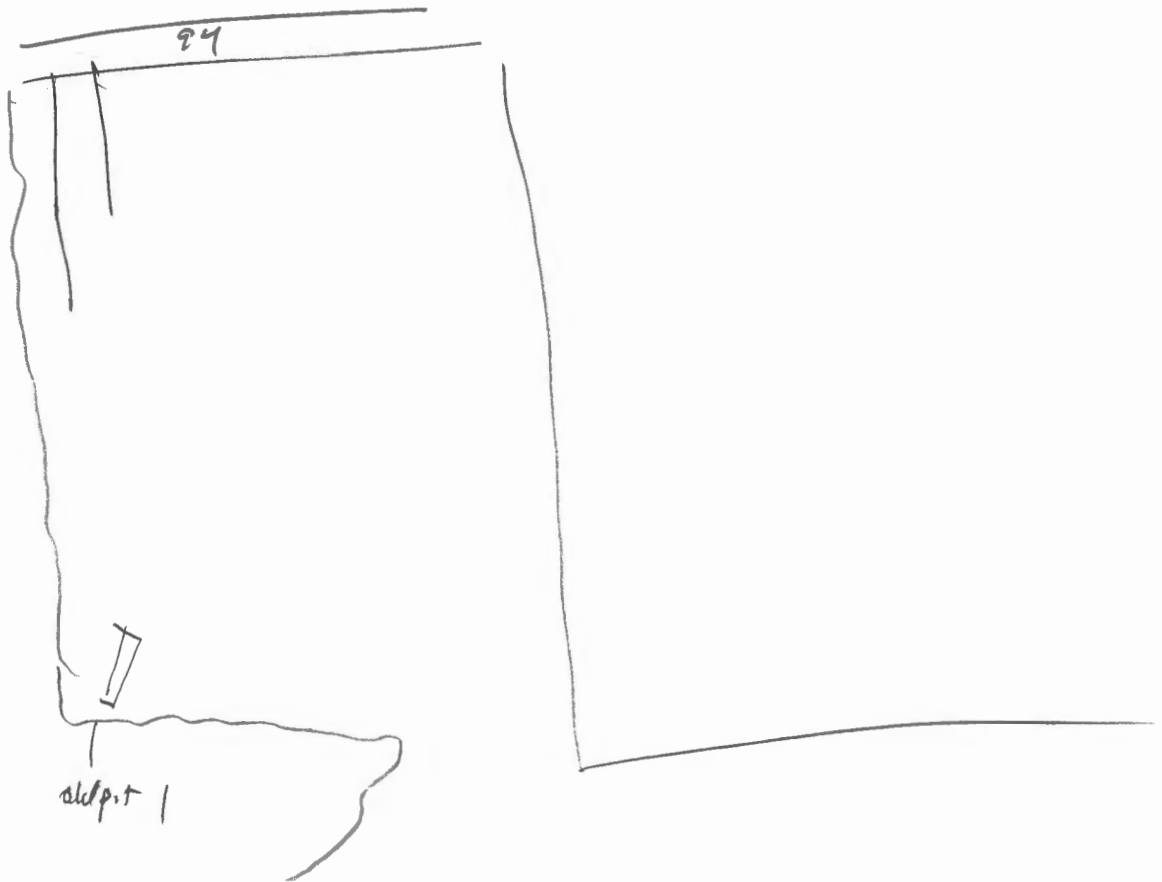


12/13/2005

(Justin  
Leveland - Brandell)

Sen/ - AM  
- RG

1306 Woodbine Rd.  
- failing 2 times a year -



base of req  
10.24

MARYLAND DEPT. OF THE ENVIRONMENT  
 ONSITE SEWAGE DISPOSAL SYSTEM  
 SITE EVALUATION REPORT  
 SOIL PROFILE DESCRIPTION

FILE NO.  
 MD. GRID:  
 TAX MAP/D/P: *Jim McLaughlin*  
 SUBDIVISION:  
 DATE: *12-13-05*  
 BY: *Glatfelter*

Soil Survey Map Unit:  
 Symbol:  
 Name:

Horizon	DEPTH	TEXTURE	MATRIX COLOR	MOTTLES DESCRIPTION	STRUCTURE	CONSISTENCE	% ROCK BY VOL.	REMARKS (Caving, moisture, etc.)
HOLE <i>TP</i>								
<i>0-11</i>		<i>sil</i>	<i>br</i>		<i>3msbk</i>	<i>mvfr</i>	<i>—</i>	
<i>11-18</i>		<i>sil</i>	<i>lt. br.</i>		<i>1-2msbk</i>	<i>mvfr</i>	<i>—</i>	
<i>18-28</i>		<i>sil</i>	<i>orange</i>		<i>1msbk</i>	<i>mvfr</i>	<i>—</i>	
<i>28-53</i>		<i>l</i>	<i>orange &amp; common gray</i>	<i>prom.</i>	<i>1msbk</i>	<i>mfr</i>	<i>—</i>	<i>common large prominent mottles</i>
<i>53-60</i>		<i>l-sil</i>		<i>few</i>		<i>mvfr</i>	<i>50% saprolite</i>	
<i>60+</i>		<i>sl</i>	<i>dull orangish brown</i>					<i>mainly saprolite</i>

D-3

Slope% - *3* EL. (ft) -  
 Chroma 2 - *28* Least Permeable Layers - *28-53*  
 Landscape Position - *foot* Water BLS - *6'* Limiting Zones - *28"*  
 Additional Remarks -  
*perle test 12-18 mpi @ 18"*  
 Comparison to map unit -



**MARYLAND DEPARTMENT OF THE ENVIRONMENT**

1800 Washington Boulevard • Baltimore MD 21230

410-537-3000 • 1-800-633-6101

Mike: FYI  
DJP  
1/17/06

Robert L. Ehrlich, Jr.  
Governor

Kend P. Philbrick  
Secretary

Michael S. Steele  
Lt. Governor

Jonas A. Jacobson  
Deputy Secretary

January 11, 2006

Mr. Robert Weber, Director  
Bureau of Environmental Health  
Howard County Health Department  
7178 Columbia Gateway Drive  
Columbia, Maryland 21046

RE: Jim McClaughlin Property  
1306 Woodbine Road

Dear Mr. Weber:

I have reviewed the referenced property's site evaluation data from your files and visited the property with Peter Yencsik of your office. The results of our site evaluation at the property indicate the rear of the site is marginally suitable for the installation of an innovative shallow or elevated bed system with advanced pretreatment. Because of limitations on the available soil treatment zone a peat filter may be the best option for pretreatment because of its pathogen removal capability. The available pre-manufactured peat filters are typically set on an aggregate bed that may serve as a portion or all of the required absorption area. Because of the proximity to the well and relatively shallow depth to a limiting soil horizon, the filters will need to be placed on a gravel bed a maximum of 6 inches deep below the soil surface so that an adequate setback above saturated soil conditions is maintained. Soil will then need to be bermed around the filters. Following the peat filters, the pretreated effluent could be discharged via serial distribution to shallow trenches also only 6 inches deep with a fill cap if additional absorptive area is required.

The property owner may wish to contact private consultants if they feel that other options for this property can be proposed. Some of these might include sand mounds, aerobic pretreatment units that discharge to elevated beds or drip dispersal methods. Composting toilet(s) to eliminate blackwater flows could also be employed. Since there is increased risk associated with this site, the property owner may want to consider approval of this site for a holding tank if they can comply with the conditions set forth in Policy Directive R.S. 7. An approval for an innovative system or holding tank for this property is for the sewage flow from the existing home only, and is not suitable for any expansion of the dwelling that could increase sewage flows. The following sections summarize requirements necessary for proceeding with the project.

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Re: Jim McClaughlin Property  
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### **Well Variance**

For a system to be sited in the front yard of the property a variance to well separation distance is required. COMAR 26.04.02 contains a reasonable provision for MDE to grant a variance to the required separation distance from a sewage disposal system upon recommendation of the Approving Authority.

### **Pretreatment**

Employing advanced pretreatment on septic tank effluent is beneficial from the standpoint of enhancing the soil absorption component of the system's performance and extending its life. There are a variety of devices and methods for providing advanced pretreatment, including constructed wetlands, aerobic wastewater treatment plants, single pass and recirculating sand filters, peat filters, composting toilets, and greywater re-use systems. Composting toilet options could be advantageous on this site because they substantially reduce the overall flow that the system must treat and dispose of and reduce pathogens- critical concerns for this property. The ability of peat filters to reduce pathogens also recommends them for this site. A good comparison of the available peat filters as well as some other pretreatment units can be found at: <http://www.epa.gov/region1/assistance/ceitts/wastewater/techs.html>. The property owner's consultant may have preferences for a pretreatment unit to complement the soil absorption system selected. I am available to provide further guidance as to how pretreatment options could be incorporated into a system design if requested by you, the property owner, or their consultant.

### **Soil Absorption Component**

Based on a 0.5 gpd/sq.ft. loading rate for pretreated effluent, 600 square feet of absorption area is required for a two-bedroom home. The loading rate is based on a percolation test conducted by your staff as well a soil description approach. A landscape linear loading rate of 3-4 gpd/ft is recommended, but may be impossible to achieve on the property.

### **Plans and Specifications**

If an innovative system is selected by the property owner, upon notification of this, the On-Site Systems Division of the Wastewater Permits Program will develop preliminary design specifications for use in the design of the system. A private consultant should then be retained by the property owner to provide final plans and specifications for the system. Once plans are complete, two sets of plans must be submitted to the On-Site Systems Division and to the local Approving Authority for review before final approval to construct the system can be given

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**Agreement and Easement**

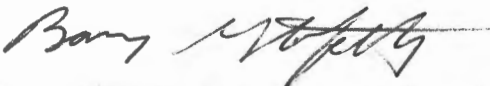
An Agreement and Easement must be signed by all parties, recorded in the land records and returned to the local Approving Authority before permits to construct can be issued. The Agreement and Easement establishes the regulatory conditions associated with the experimental project and provides monitoring access for State and County personnel.

**Linked Deposit**

Financial assistance may be available for this project through the Department of the Environment's Linked Deposit Program. Information concerning this loan program can be found by entering linked deposit in the search box on the MDE website at [www.mde.state.md.us](http://www.mde.state.md.us).

A copy of the site evaluation data is enclosed. Please forward a copy of this letter and the attachments to the property owner. If you have questions regarding this matter please call me at (410) 537-4156.

Sincerely,



Barry Glotfelty, R.S., Regional Consultant  
Wastewater Permits Program

Attachments

BG:je

cc: Mr. Eric Dougherty