



Bureau of Environmental Health
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Peter L. Beilenson, M.D., M.P.H., Health Officer

March 14, 2008

Patrick Hannon
308 N. Bentz St.
Frederick, MD 21701

RE: PERCOLATION TEST RESULTS, 11517 Crows Nest Road, A-528497

Dear Mr. Hannon,

Percolation testing conducted on March 7, 2008, on the referenced property indicated unsatisfactory soil conditions. The purpose for conducting these tests was to identify potential areas for sand mound wastewater treatment systems. Of the eight locations tested and/or observed, only two passing profiles and infiltration rates.

To 'Pass' testing for a sand mound location a site cannot be fill, nor have indications of water saturation for extended periods of time within 24 inches of the soil surface. The rate of infiltration must be consistently within 1/16-inch for three successive timed periods after hydraulic equilibrium is attained, and must be equal to or exceed 1-inch per hour. The two passing locations, #3 and #4, meet the above requirements, but they are oriented parallel with the hill slope and do not represent an area wide enough (perpendicular to the slope) to accommodate a sand mound base.

Locations #1, #2 and #7 failed due to infiltration rates much slower than the required 1 inch per hour. Locations #6 and #8 failed due to redoximorphic depletions (indicating extended periods of saturation) at depths of 20 inches and 22 inches, respectively. Location #5 failed as it had evidence of 'Fill' was observed to a depth of 30 inches.

Locations #1, #2, #3 and #4 represent the western boundary of the lot. The soil properties observed at locations #1, #2 and #3 typify the Glenville soil series, which characteristically have a relatively dense layer of fine texture that inhibits water movement within the soil. Percolation test conducted on the east portion of the lot in October 1985, have similar soil profiles, and with water seeps at 9 feet depth. Infiltrometer tests conducted in the eastern portion of the lot may reasonably be expected to have similar results as #1, #2 and #3.

Locations #3, #4, #5, #6, #7 and #8 represent the breadth of the south portion of the lot, adjacent to the 100-foot stream setback. The northern portion of the lot, adjacent to Crows Nest Road has been affected by excavation activities associated with creating the grade for the roadbed.

If you have further questions regarding this project, you may contact me by calling (410) 313-2691.

Respectfully,

Robert Bricker, RS, CPSS
Well and Septic Program
Development Coordination Section

Copy: File



APPLICATION

FOR PERCOLATION TESTING AND SITE EVALUATION

TEST DATE(S) _____ TEST TIME _____

A/P 528497

AGENCY REVIEW: _____

DATE 2/13/08

DO NOT WRITE ABOVE THIS LINE

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

CHECK AS NEEDED:

- ☒ CONSTRUCT NEW SEPTIC SYSTEM(S)
☐ REPAIR/ADD TO AN EXISTING SEPTIC SYSTEM
☐ REPLACE AN EXISTING SEPTIC SYSTEM

CHECK AS NEEDED:

- ☒ NEW STRUCTURE(S)
☐ ADDITION TO AN EXISTING STRUCTURE
☐ REPLACE AN EXISTING STRUCTURE

CHECK ONE:

- ☒ CREATE NEW LOT(S)
☒ BUILD ON AN EXISTING LOT IN A SUBDIVISION
☐ BUILD ON AN EXISTING PARCEL OF RECORD

IS THE PROPERTY WITHIN 2500' OF ANY RESERVOIR?

- ☒ YES
☒ NO

THE TYPE OF STRUCTURE IS:

- ☒ RESIDENTIAL WITH 4 PROPOSED BEDROOMS IN THE COMPLETED STRUCTURE (NOTE **UNKNOWN** IF APPROPRIATE)
☐ COMMERCIAL (PROVIDE DETAIL OF NUMBERS AND TYPES OF EMPLOYEES/ CUSTOMERS ON ACCOMPANYING PLAN)
☐ INSTITUTIONAL/GOVERNMENT (PROVIDE DETAIL OF NUMBERS AND TYPES OF EMPLOYEES/USERS ON ACCOMPANYING PLAN)

PROPERTY OWNER(S) Robert and Ann Hannon

DAYTIME PHONE (410) 531-3244 CELL (410) 245-5502 FAX _____

MAILING ADDRESS 11513 Crows Nest Rd Clarksville MD 21029
STREET CITY/TOWN STATE ZIP

APPLICANT Patrick Hannon

DAYTIME PHONE (410) 245-8555 CELL (410) 245-8555 FAX _____

MAILING ADDRESS 308 N. Bentz St Frederick MD 21701
STREET CITY/TOWN STATE ZIP

APPLICANT'S ROLE: DEVELOPER BUILDER BUYER RELATIVE/FRIEND REALTOR CONSULTANT

PROPERTY LOCATION
SUBDIVISION/PROPERTY NAME Clarksville Ridge LOT NO. 41
11517

PROPERTY ADDRESS 11517 Crows Nest Rd Clarksville
STREET TOWN/POST OFFICE

TAX MAP PAGE(S) 35 GRID 21 PARCEL(S) 203 PROPOSED LOT SIZE 1.16 acre

AS APPLICANT, I UNDERSTAND THE FOLLOWING: THE SYSTEM INSTALLED SUBSEQUENT TO THIS APPLICATION IS ACCEPTABLE ONLY UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS APPLICATION IS COMPLETE WHEN ALL APPLICABLE FEES AND A SUITABLE SITE PLAN HAVE BEEN RECEIVED. I ACCEPT THE RESPONSIBILITY FOR COMPLIANCE WITH ALL M.O.S.H.A. AND "MISS UTILITY" REQUIREMENTS. APPROVAL IS BASED UPON SATISFACTORY REVIEW OF A PERC CERTIFICATION PLAN.

TEST RESULTS WILL BE MAILED TO APPLICANT.

SIGNATURE OF APPLICANT

HOWARD COUNTY HEALTH DEPARTMENT, BUREAU OF ENVIRONMENTAL HEALTH, WELL AND SEPTIC PROGRAM
7178 COLUMBIA GATEWAY DRIVE COLUMBIA, MARYLAND 21046 (410) 313-1771 FAX (410) 313-2648
TDD (410) 313-2323 TOLL FREE 1-877-4MD-DHMH

A/P _____

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H

REMARKS _____

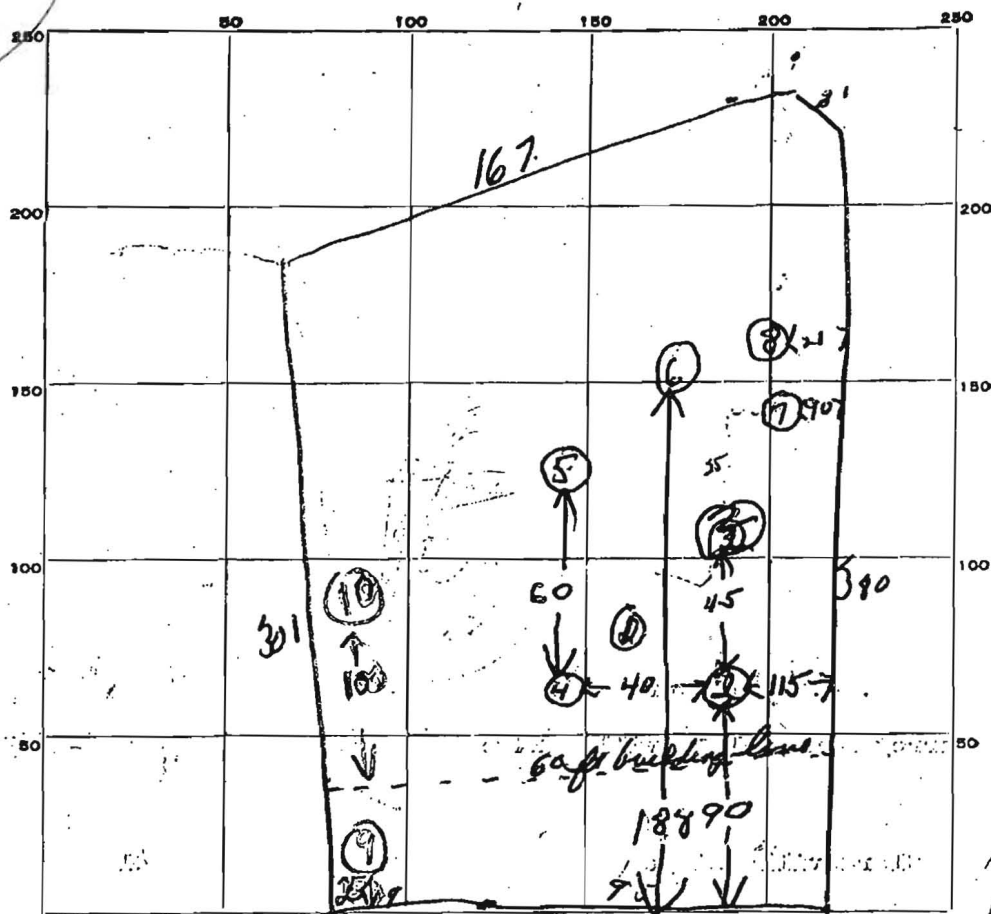
SANITARIAN _____ BACKHOE _____ OTHERS _____

TEST HOLES USED IN SDA _____ AVG. PERC TIME _____ SQ. FT/BR _____

TRENCH WIDTH _____ INLET DEPTH _____ MAX. BOT DEPTH _____ EFFECTIVE S/W _____

11513 Crows Nest Rd.

Previous Tests



INDICATE NORTH. - NAME ADJOINING ROADWAY AS BASE LINE.

95
19
114
95 1/2
45
46
108

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
7/9/64	1	9 ft -	945	water came in at 9 ft + 7 ft			
	2	3 ft	1001	1008	1008	1016	8 min
	3	3 1/2 ft	1009	1049	water came in at 3 1/2 ft		
	4	3 1/4 ft	1019	1059	water came in at 3 1/4 ft		
	5	3 ft	1023	1057	1057		
	6	7 ft			water at 6 3/4 ft		
	7	6 1/2 ft			hit water at 5 3/4 ft		
	8	6 1/2 ft			hit water		
10/2/65	9	12	3 clay THEN SAND				
	10	11	SOIL DAMP AT 9' - TOO CLOSE TO WIRE SITE				
			3 clay THEN SAND				
			WATER AT 8' AT VERY DAY TIME OF YEAR				

SOIL AUGER FINDING: first 1/2 ft clay - then gravel

TESTED BY: J. J. S. - TSC

REMARKS

ALSO PRESENT

[Signature]

LOT NO. 41

C WILLIAMS
FYOCK
MRS HANCOCK

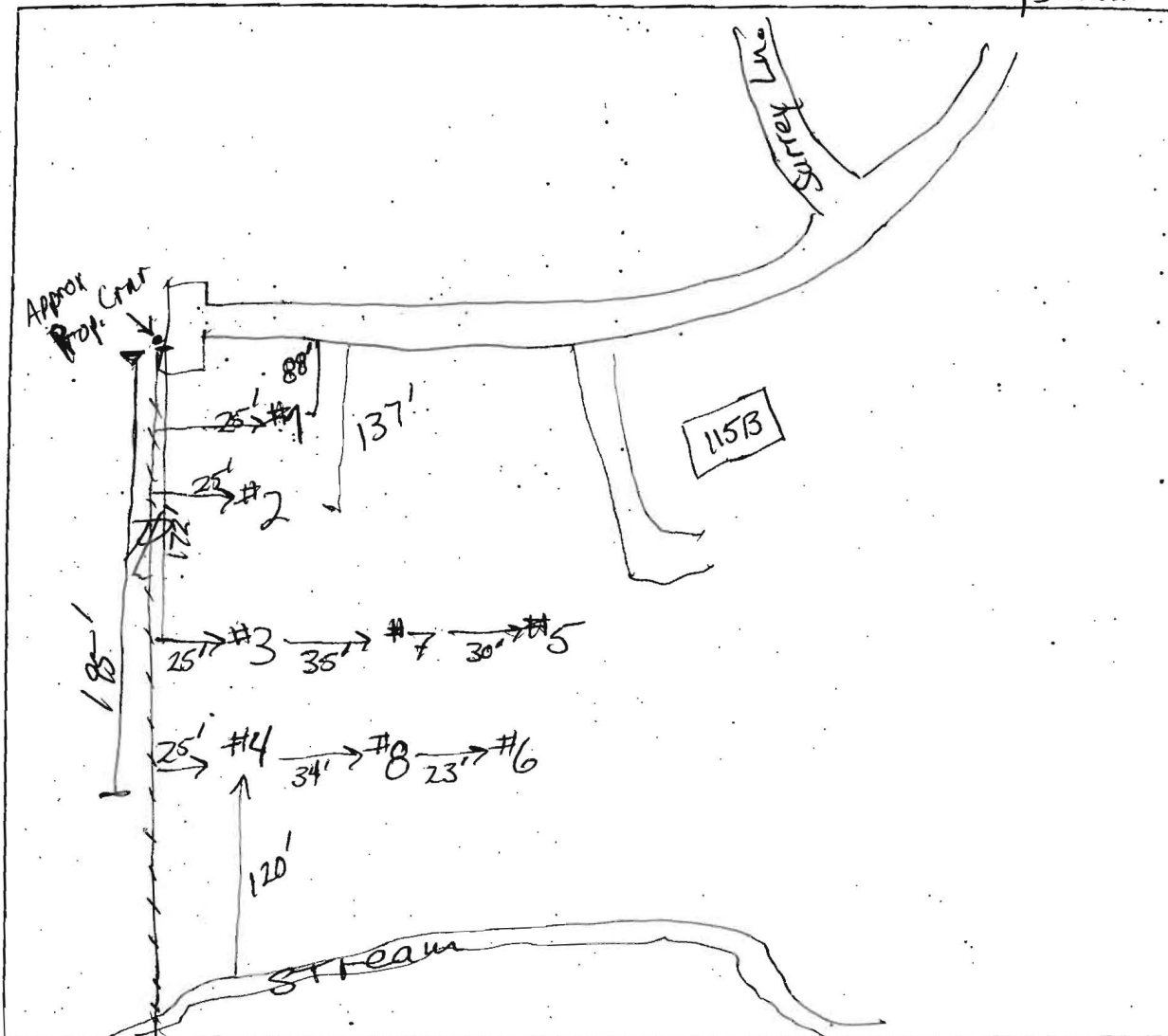
SITE INSPECTION SHEET

OWNER: Hannon PHONE #: _____
ADDRESS: 11317 Crows Nest Road CONTRACTOR: Sam's Excavating
WELL TAG #: _____
SUBDIVISION: Clarksville Ridge LOT: 41 COUNTY #: _____
PROPOSAL: Infiltration tests of vacant lot

Previously, standard Percolation Tests were conducted; profile descriptions

LOCATION DIAGRAM

indicated water seeps about 9' in October



COMMENTS: Vacant Lot applicant is Patrick Hannon, son of
Robert & Ann Hannon (owners, 11513 & 11517 Crows Nest Rd.)

MOUND TEST DATA SHEETS

Property I.D. (Hannow) 11517 Crows Nest Rd
Clarksville Ridge Lot # 41 Date 3/7/08

Sanitarian RB Landscape Position side slope

% Slope _____ Soil Type Glennville Contractor Todd Penner
Saw's Excavating

HOLE # 1 DEPTH OF TEST 20" (~27') START TIME 9:51

	Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
2" dk. brn loam 1 fskb & v fskb	9 16/16	Begin	0	—	—
brn loam 1 fskb; 10% gravel	9 15/16	5 min	1/16		
9" 0.8'	9 15/16	5 min	0		
brn Ref gr fsc	9 14/16	5 min	1/16		
2 msbk	9 14/16	5 min	0		
20" 1.7'					
brn fsc					
1 msbk					
30" 2.5'					
brn fsc dense					
7.5YR 5/6 matrix					
10YR 6/2 depletions (C1f)					
42" 3.5'					

12%

Fail
 1/8" 20 min
 3/8" hr

Begin Equilibration at 9:30

HOLE # 2 DEPTH OF TEST 19" START TIME 11:05

	Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
2" dk brn loam 1 fskb & v fskb	9 16/16	Begin	0	—	—
brn loam, 1 fskb	9 16/16	5 min	0		
9" 1/16"	9 31/32	5 min	1/32		
brn fsc, 2 msbk	9 31/32	5 min	0		
16" brn fsc, 1 msbk					
20" brn gr fsc (ss)					
7 fskb; 5% gravel					
25" 7.5YR 5/6 scl					
10YR 7/3 m2d					
5YR 5/6 m2d					
30" 10YR 6/2 C2d					
2.5Y 7/1 depletions C3f					
36" 2.5Y 6/2 matrix					
42"					

7%

~0 in/hr
 Fail
 E

Begin Equilibration at 10:45

MOUND TEST DATA SHEETS

Property I.D. Hannon 11517 Crows Nest Rd
Clarksville Ridge Lot # 41 Date 3/7/08

Sanitarian RB Landscape Position Side slope

% Slope 6% Soil Type Glennville-1 Contractor Todd Penner (Sam's Excavating)

HOLE # 3 DEPTH OF TEST 18" START TIME 11:24

2" dk brn loam 1 fgr
 brn loam
 1 msbk m. fine roots
 9" 2" brn grscl
 1 msbk & fskb
 7.5 YR 5/6
 24" 7.5 YR 5/8 matrix
 10 YR 7/2 m2p
 sandy loam - heavy
 30" ↓

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
9 16/16	Begin	—	—	
9 8/16	10	8/16		
9 2/16	10	6/16		
8 11/16	10	2/16		
8 4/16	10	2/16		

Pass
 42 1/16 / Hr.
 ≈ 3 5/8" / hr.

Begin equilibration at 11am.

HOLE # 4 DEPTH OF TEST 19" START TIME 12:37

2" dk, brn loam, 1 fgr
 brn loam, 1 fskb
 common med roots
 few coarse roots
 9" brn grscl, 20%
 2 msbk
 16" brn scl, 1 fskb
 7.5 YR 5/6
 24" 7.5 YR 5/6 scl
 10 YR 6/1 m2p
 10 YR 6/2 m2p
 40" ↓

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
9 16/16	Begin	—	—	
9 12/16	5 10	4/16		
9 9/16	10	3/16		
9 6/16	10	3/16		
9 2.5/16	10	3.5/16		
8 15.5/16	10	3/16		

Pass
 18/16
 1 1/8" / hr.

Begin equilibration 12:12 pm

MOUND TEST DATA SHEETS

(Hannon) 11517 Crows Nest Road

Property I.D. Clarksville Ridge Lot # 41 Date 3/2/08

Sanitarian _____ Landscape Position _____

% Slope _____ Soil Type _____ Contractor _____

HOLE # 5 DEPTH OF TEST Fail - Fill START TIME _____

pieces
of cinder block
dug out,
triangular
chunk of concrete
12" diameter
piece of
cinder block

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change

Fill
Fail

found in pit wall at 20" depth

2.5Y 7/1 depletion at 16" & 2d 2.5Y 6/3 depletion at 21"

more cinder block at 30" 10YR 5/4 matrix 7.5YR 4/4 matrix
water seeps at ~30"

HOLE # 6 DEPTH OF TEST _____ START TIME _____

dk brn loam
1Egr
brn loam
1Esbk
brn g rsc
7.5YR 5/6
7.5YR 7/6
10YR 6/2 c3d
grsc l

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change

Depletions
common to many
at 20 inches

Fail

MOUND TEST DATA SHEETS

Hannon 11577 Crows Nest Road

Property I.D. Clarksville Ridge Lot # 41

Date 3/7/08

Sanitarian RB

Landscape Position Side slope

% Slope 6%

Soil Type Glennville (mapped)

Contractor Todd Penner (Sam's Excavating)

HOLE # 7

DEPTH OF TEST 4"

START TIME 3:25

2" 7.5YR 4/2
loam, 1 fgr
8" 7.5YR 6/6
common mica
14" 7.5YR 4/3
2 ssbk, loam
26" 7.5YR 5/6
scl, 1 fssbk

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
10 1/16	begin	—	—	
10 1/16	3	12/16	2 1/4"	
9 5/16	3	15/16		
8 9/16	3	13/16		
7 11/16	3	13/16		
7 1/16	3	10/16		

Begin equilibration
3:05

HOLE # 7

DEPTH OF TEST 20"

START TIME 3:21

#8 at 22"
matrix 7.5YR 5/6
w/ 10YR 6/2
10YR 7/1
30" depletions

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
9 1/16	begin	—	—	
9 15/16	10	1 5/16		
9 13/16	10	1 1/16		
9 12/16	10	1 5/16		
9 11/16	10	1 1/16		

3.5/16, 30 min
Fail

Begin equilibration
3:09

#8 Fail

Reborn



Howard County

By:
Office:
Map Width: 930.00 ft.
Print Date: 2/2/2007
Scale: 1 in. = 100 ft.