

APPLICATION

PERCOLATION TESTING

A 47340

P _____

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
PO BOX 476 ELLICOTT CITY, MARYLAND 21043
TELEPHONE: 461-9933

REVIEW OK
EXISTING HOUSE
REPAIR FEE REQ'D
C.W.
7/24/91

DISTRICT _____

DATE 7/24/91

TO: THE COUNTY HEALTH OFFICER
ELLICOTT CITY, MARYLAND

I, HEREBY, APPLY FOR THE NECESSARY TEST IN ORDER TO CONSTRUCT (OR RECONSTRUCT) A SEWAGE DISPOSAL SYSTEM.

PROPERTY OWNER Lawrence F & Carol M Linden

ADDRESS 2281 Route 94 PHONE _____

PROSPECTIVE BUYER None

ADDRESS _____ PHONE _____

PROPERTY LOCATION: Parcel 392 Existing House
SUBDIVISION Known as 2281 Rt 94, Map 7 Block 21 LOT NO Proposed Lot #4

ROAD AND DESCRIPTION See Drawing - Property of 20.37 Acres
remaining after subdivision

TAX MAP #7 PARCEL # Block 21, Parcel 392

SIZE OF LOT 10.37 Acres TYPE BLDG Single Family Dwelling
(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.

Lawrence F Linden
(SIGNATURE OF APPLICANT)

* APPROVED BY Charles Bryan Steeles FOR Future Repair areas DATE 8/26/91

REJECTED BY _____ FOR _____ DATE _____

HOLD PENDING FURTHER TESTS _____ DATE _____

REASONS FOR ~~DEFERRED~~ HOLDING for plat - with appropriate info
8/29/91 Letter prepared. C.B.A.
C.B.A.

HD-216

THIS IS NOT A PERMIT

Visual
HOLE ①

SOIL PROFILE

0' to 3 1/2'

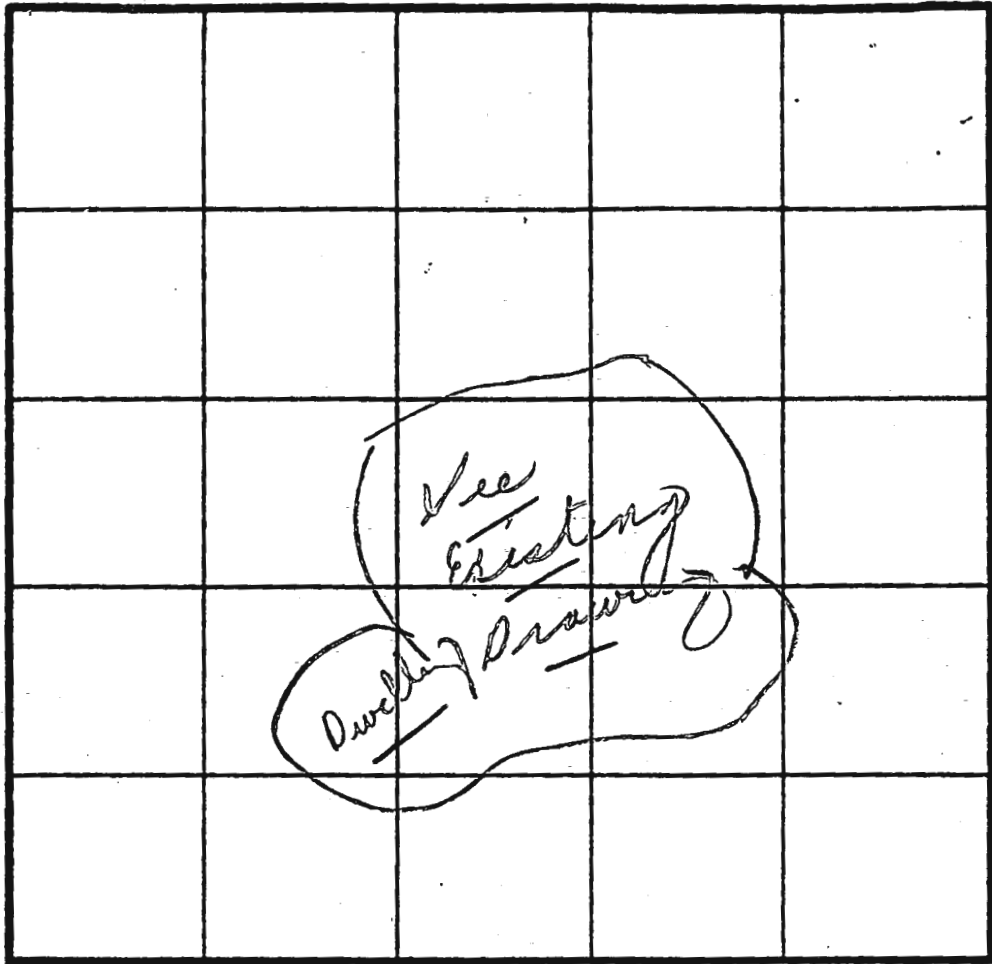
CLAY

3 1/2' to

LOAM



13'
DRY



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
8/28/ 1971	①	13'	(Visual hole)				OK
			see left for soil profile				

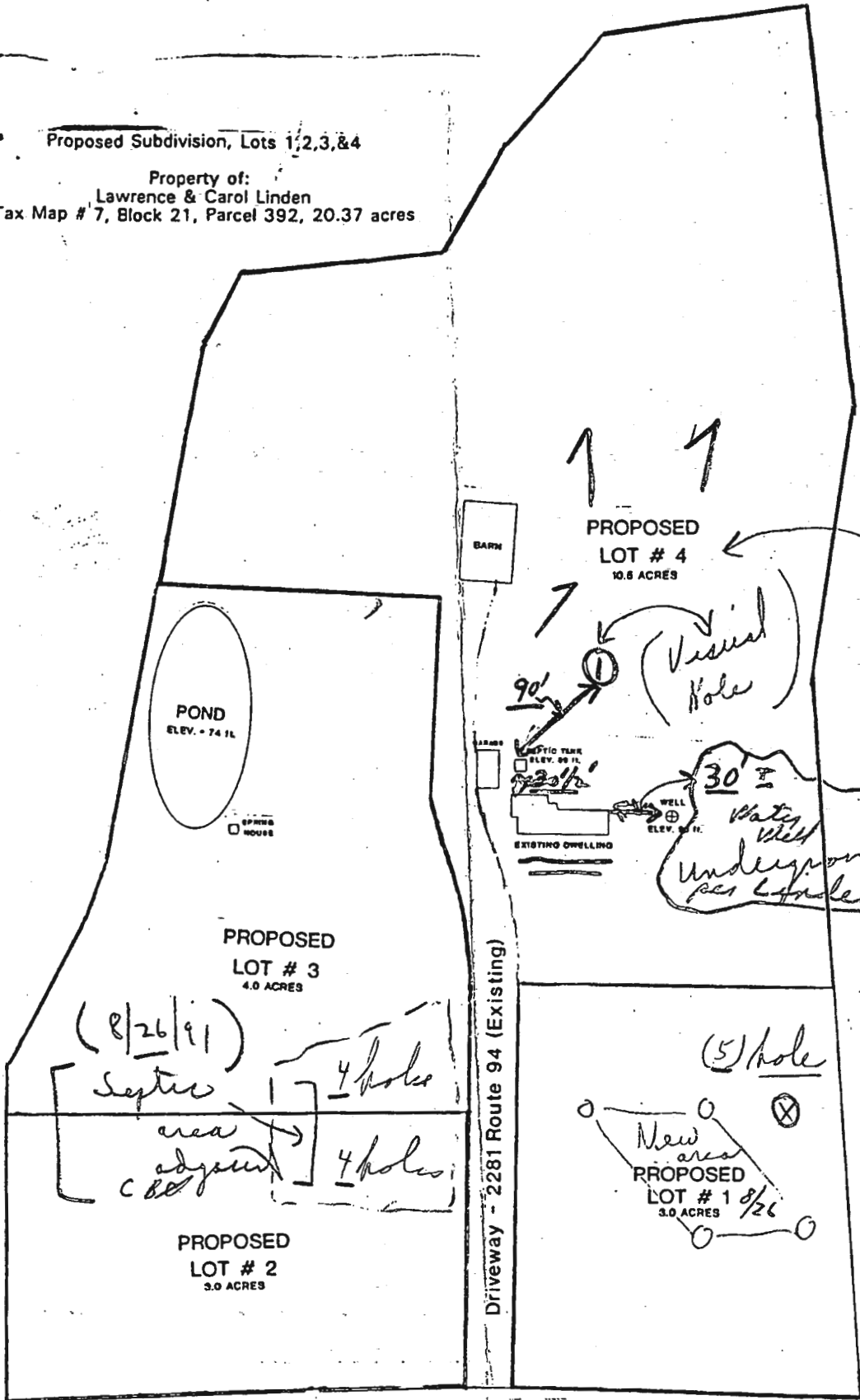
REMARKS (1) hole observed 90' + to [right] of existing S.T.C.O. c. 60 [near]

TYPE OF SOIL _____

TESTED BY C. Bel ALSO PRESENT (2) Arnolds men Mr. & Mrs. [unreadable]

Proposed Subdivision, Lots 1,2,3,&4

Property of:
Lawrence & Carol Linden
Tax Map # 7, Block 21, Parcel 392, 20.37 acres



Maryland Route 94

- inspect station
grade well



HOWARD COUNTY HEALTH DEPARTMENT

70836

DATE 12/3/21

Received From

Benchmark Eng.

PHONE #

410 465-6145

For

Revision/ Perc Cent

Shenandoah Farm Lot 7

CASH

CHECK

NO.

004814

Twenty-two ^{hundred}

Dollars

\$

22 00

Received By

Demp



HOWARD COUNTY HEALTH DEPARTMENT

70886

DATE 12/29/21

Received From

Benchmark Eng.

PHONE #

410-465-6145

CASH

CHECK

NO. 204814

For

Revision/Peric Cost

Spent/earn Lot 7

2010

wanty two

Dollars

\$ 2260

Received By

[Signature]

512011
10:00 Repair C.O.
3/31/97
2M. C.O. ASAP

PERMIT

SEWAGE DISPOSAL SYSTEM

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

04-316312

P 57616

A REPAIR

DISTRICT _____

DATE 12/27/96

DATE SYSTEM APPROVED 3/31/97

INSPECTOR DKS

HOWARD COUNTY HEALTH DEPARTMENT

BUREAU OF ENVIRONMENTAL HEALTH

313-2640

INDEXED

Arnold Backhoe & Septic Services IS PERMITTED TO INSTALL _____ ALTER X

ADDRESS 0, I, Box 15, Woodbine, Maryland 21797 PHONE 795-7873

SUBDIVISION Spring Rock Farm LOT 4 ROAD 2281 Woodbine Road

PROPERTY OWNER Larry Linden

ADDRESS 2281 Woodbine Road
Woodbine, Maryland 21797

SEPTIC TANK CAPACITY _____ GALLONS

NUMBER OF BEDROOMS 3

SQUARE FEET PER BEDROOM _____

LINEAR FEET OF TRENCH REQUIRED 125

**BUILDING PERMIT SIGNED
AND RETURNED**

2-24-04 B20046132-AG PROpane TANK

REPAIR - PURPOSE - SEPTIC SYSTEM HAS FAILED.

Call for inspection when ground is opened so sanitarian can recommend repair.
12/11/96

3-28-97 Install two 65' trenches on contour connect both trenches

into the drywell. Trenches are to be inlet - 3.0

bottom - 6.0
ston - 3.0
wide - 2.0

ALM

PLANS APPROVED BY _____ DATE _____

COVER NO WORK UNTIL INSPECTED AND APPROVED.

NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM

NOTE: CLEANOUT REQUIRED EVERY 70 FEET OF SEWER LINE AND/OR AT 90° SWEEPS IN LINES FROM HOUSE TO DRAIN FIELDS, 90° ELBOWS NOT ACCEPTABLE.

NOTE: ALL PARTS OF SEPTIC SYSTEMS (I.E. TANK, DISTRIBUTION BOX TRENCHES) TO BE 100 FEET FROM WELL (UNLESS OTHERWISE SPECIFICALLY AUTHORIZED)

NOTE: IF DEEP TRENCH(ES) ARE USED CALL FOR INSPECTION BEFORE AND AFTER PLACING GRAVEL IN TRENCH(ES)

NOTE: NO DRY WELL SHALL EXCEED 15 FOOT IN DIAMETER NO ABSORPTION TRENCH TO EXCEED 100 FEET IN LENGTH

NOTE: ALL PIPE FROM HOUSE TO SEPTIC TANK MUST BE CAST IRON OR SCHEDULE 35/40 PVC OR ABS

PERMIT VOID AFTER TWO YEARS

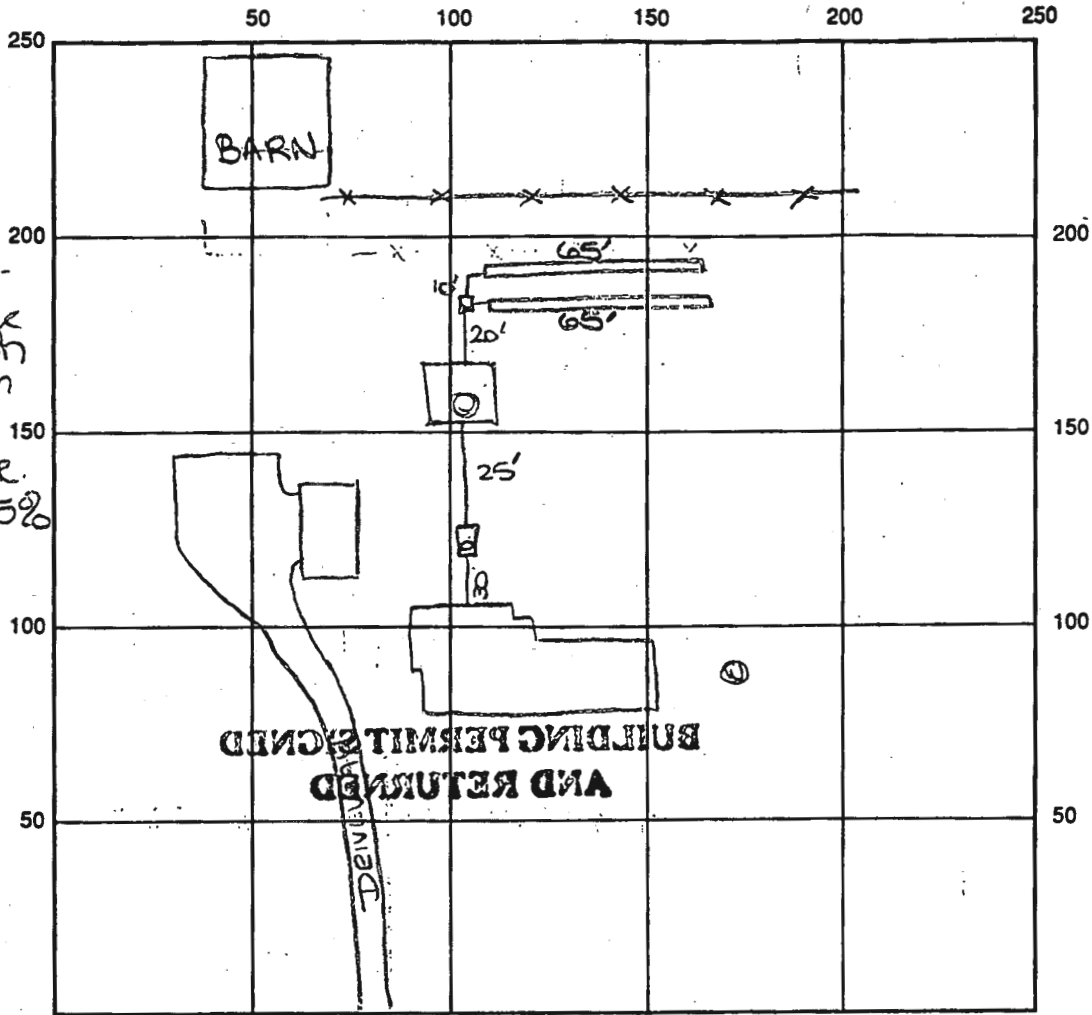
NOTE: INSTALL STAND PIPE ON SEPTIC TANK AND DRY WELL STAND PIPES MUST BE 6 INCHES IN DIAMETER CAST IRON. CONCRETE OR TERRA COTTA OR PVA OR ABS ACCEPTED. IF TOP OF SEPTIC TANK IS DEEPER THAN 3 FEET. MANHOLE TO GRADE REQUIRED.

NOTE: DISTRIBUTION BOXES MUST HAVE BAFFLES

***INSTALLER IS RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT**

57616

2281 WOODBINE ROAD



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE

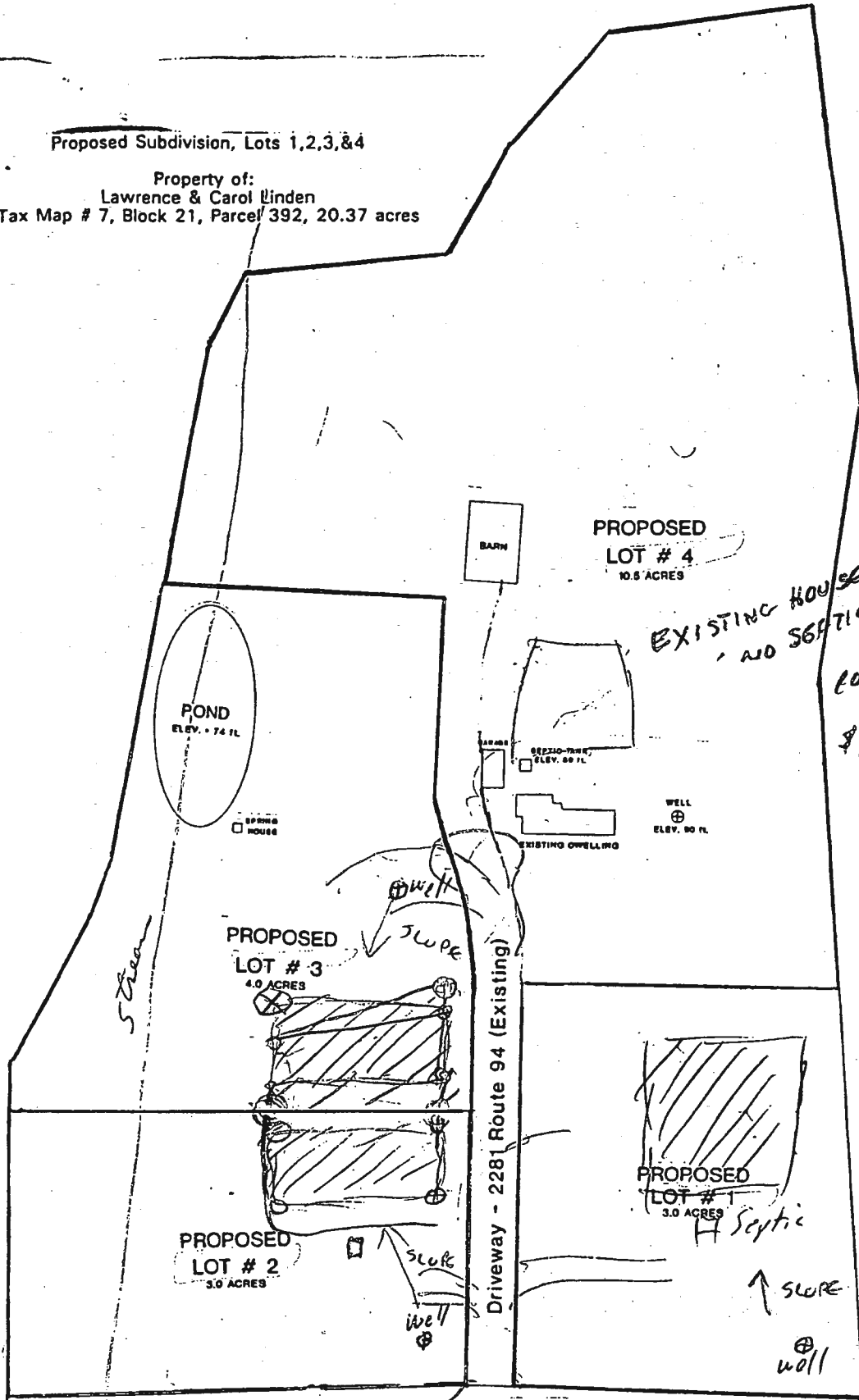
SEPTIC TANK LEVEL Existing CLEANOUTS Ex - one on st. in manhole on D.W.
 DISTRIBUTION BOX LEVEL OK
 DRAIN FIELD/TITLE DEPTH 6 FT. TRENCH WIDTH 2 FT. INLET DEPTH 3 FT.
 EFFECTIVE GRAVEL DEPTH 3 FT. TOTAL LENGTH 2 x 65 FT. → 130'
 NUMBER OF TRENCHES 2 ONE SIDEWALL/BOTTOM AREA 390 SQ. FT.
 DRYWALL INSIDE DIAMETER Ex FT. EFFECTIVE DEPTH BELOW INLET Ex FT.
 ABSORBENT AREA 390 SQ. FT. + Existing

REMARKS: 3/28/97 See front for specs - OK to install repair syst AU
3/31/97 FINAL INSP - OK to cover all work. DKS

DATE SYSTEM APPROVED 3/31/97 INSPECTOR DOUGLAS JOX

Proposed Subdivision, Lots 1,2,3,&4

Property of:
Lawrence & Carol Linden
Tax Map # 7, Block 21, Parcel 392, 20.37 acres



EXISTING HOUSE
NO SEPTIC RECORDS
20,000 SQ. FT.
\$15 REPAIR FEE
ACQUIRED

Maryland Route 94

APPLICATION

PERCOLATION TESTING

A 47337

P _____

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
PO BOX 476 ELLICOTT CITY, MARYLAND 21043
TELEPHONE 461-9933

✓ PREVIEW OK
3 NEW LOTS
1 EXIST'G HOUSE
7/24/91
C.W.H.

DISTRICT 4th Election

DATE July 24, 1991

TO: THE COUNTY HEALTH OFFICER
ELLICOTT CITY, MARYLAND

I HEREBY APPLY FOR THE NECESSARY TEST IN ORDER TO CONSTRUCT (OR RECONSTRUCT) A SEWAGE DISPOSAL SYSTEM.

PROPERTY OWNER Lawrence F. & Carol M. Linden

ADDRESS 2281 Route 94, Woodbine, Maryland 21797 PHONE 301 442 2763

PROSPECTIVE BUYER None - To be listed for sale

ADDRESS _____ PHONE _____

PROPERTY LOCATION:

SUBDIVISION Known as 2281 Route 94, Map # 7, Block 21, Parcel 392 LOT NO Proposed Lot # 1 (see drawing)

ROAD AND DESCRIPTION 3.0 Acres 250 feet on Route 94, and 408 feet deep. (see drawing)

TAX MAP #7 PARCEL # Block 21, Parcel 392

SIZE OF LOT 3.0 Acres 250 feet on Route 94, and 408 feet deep. TYPE BLDG Proposed single family dwelling
(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. Lawrence F. Linden Carol M. Linden
(SIGNATURE OF APPLICANT)

Tentative APPROVED BY Charles Bryan Street FOR (Medium Depth) DATE 8/26/91
8 1/2' Trenches (See Book)

REJECTED BY _____ FOR _____ DATE _____

HOLD PENDING FURTHER TESTS _____ DATE _____

REASONS FOR ~~REJECTION~~ OR HOLDING for plat - with appropriate info.
8/27/91 Letter prepared C.B.H.

HD-216

THIS IS NOT A PERMIT

2261 Woodbine Rd
Spring Rock Farm Lot 3

2281 Woodbine Rd
Spring Rock Farm Lot 4

No record of wells

51201-1
10:00 Repair C.O.
3/31/97
2M. C. O. ASAO

PERMIT

SEWAGE DISPOSAL SYSTEM

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

04-316312

P 57616

A REPAIR

DISTRICT _____

DATE 12/27/96

DATE SYSTEM APPROVED 3/31/97

INSPECTOR DKS

HOWARD COUNTY HEALTH DEPARTMENT

BUREAU OF ENVIRONMENTAL HEALTH

~~XXXXXXXX~~ 313-2640

INDEXED

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SUBDIVISION Spring Rock Farm LOT 4 ROAD 2281 Woodbine Road

PROPERTY OWNER Larry Linden
ADDRESS 2281 Woodbine Road
Woodbine, Maryland 21797

SEPTIC TANK CAPACITY _____ GALLONS

NUMBER OF BEDROOMS 3

SQUARE FEET PER BEDROOM _____

LINEAR FEET OF TRENCH REQUIRED 125

**BUILDING PERMIT SIGNED
AND RETURNED**

2-21-04 BOOK 132- A6 PROpane TANK

REPAIR - PURPOSE - SEPTIC SYSTEM HAS FAILED.

Call for inspection when ground is opened so sanitarian can recommend repair.
12/11/96

3-28-97 Install two 65' trenches on contour connect both trenches into the drywell. Trenches are to be inlet - 3.0
bottom - 6.0
stop - 3.0
wide - 2.0 ALM

PLANS APPROVED BY _____ DATE _____

COVER NO WORK UNTIL INSPECTED AND APPROVED.

NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM

NOTE: CLEANOUT REQUIRED EVERY 70 FEET OF SEWER LINE AND/OR AT 90° SWEEPS IN LINES FROM HOUSE TO DRAIN FIELDS, 90° ELBOWS NOT ACCEPTABLE.

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NOTE: IF DEEP TRENCH(ES) ARE USED CALL FOR INSPECTION BEFORE AND AFTER PLACING GRAVEL IN TRENCH(ES)

NOTE: NO DRY WELL SHALL EXCEED 15 FOOT IN DIAMETER NO ABSORPTION TRENCH TO EXCEED 100 FEET IN LENGTH

NOTE: ALL PIPE FROM HOUSE TO SEPTIC TANK MUST BE CAST IRON OR SCHEDULE 35/40 PVC OR ABS

PERMIT VOID AFTER TWO YEARS

NOTE: INSTALL STAND PIPE ON SEPTIC TANK AND DRY WELL STAND PIPES MUST BE 6 INCHES IN DIAMETER CAST IRON. CONCRETE OR TERRA COTTA OR PVA OR ABS ACCEPTED. IF TOP OF SEPTIC TANK IS DEEPER THAN 3 FEET. MANHOLE TO GRADE REQUIRED.

NOTE: DISTRIBUTION BOXES MUST HAVE BAFFLES

***INSTALLER IS RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT**

5/1/97

LOT I (P.F.)

A# 47337

- HOLES
- ① 0'-6 1/2"
 - ② 0'-6 8"
 - ④ 0'-9'
 - ⑤ 0'-4 1/2"
 - ① 6 1/2'-15 1/2"
 - ② 6 8"-16'
 - ③ 7'-15'
 - ④ 4 1/2'-13'

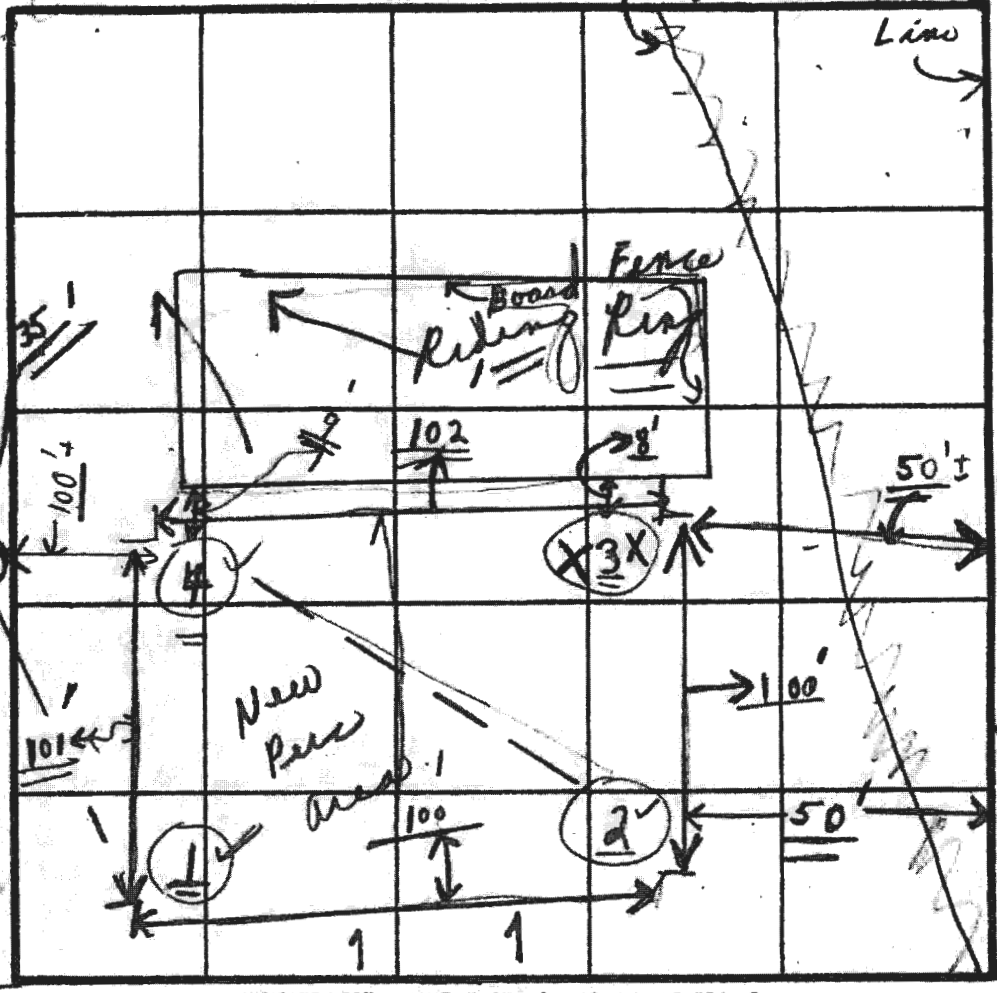
SOIL PROFILE

CLAY

SANDY LOAM

To BOTTOM

ALL DRY



Board Fence Property Line

High Road

Effective 4/7/44 under prop. Law

Tree

Florence

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

Rt. 94

Libon

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME	
			START	STOP	START	STOP		
8/26/71	① ✓	6 1/2'	11:50	11:52	11:52	11:54	2 min	
		15 1/2'	{ 0'-6 1/2" clay 6 1/2'-15 1/2" loam }					
	② ✓	6'-8"	11:57	12:00	12:00	12:08	8 min	
		16'	{ 0'-6'8" clay 6'-8"-16" loam }					
	X ③ X	7'-3"	11:55	12:05	12:05	12:43	38 min	
		14'	(Loam below clay)					overtime
	④ ✓	7'	11:52	12:02	12:02	12:29	27 min	
		15'	{ 0'-7' clay 7'-15" loam }					
	⑤ ✓	4 1/2'	1:08	1:10	1:10	1:13	3 min	
		13'	{ 0'-4 1/2" clay 4 1/2'-13" loam }					

HOLE

③ X X

(NOT APPROVED)

0'-7'-3" + CLAY

To LOAM

14' DRY

REMARKS

Tests in open field - near rd

TYPE OF SOIL

below clay - sandy loam

TESTED BY

C.B.B.

ALSO PRESENT

(Arnoldo (2) men)

(M. + M. Lunden)

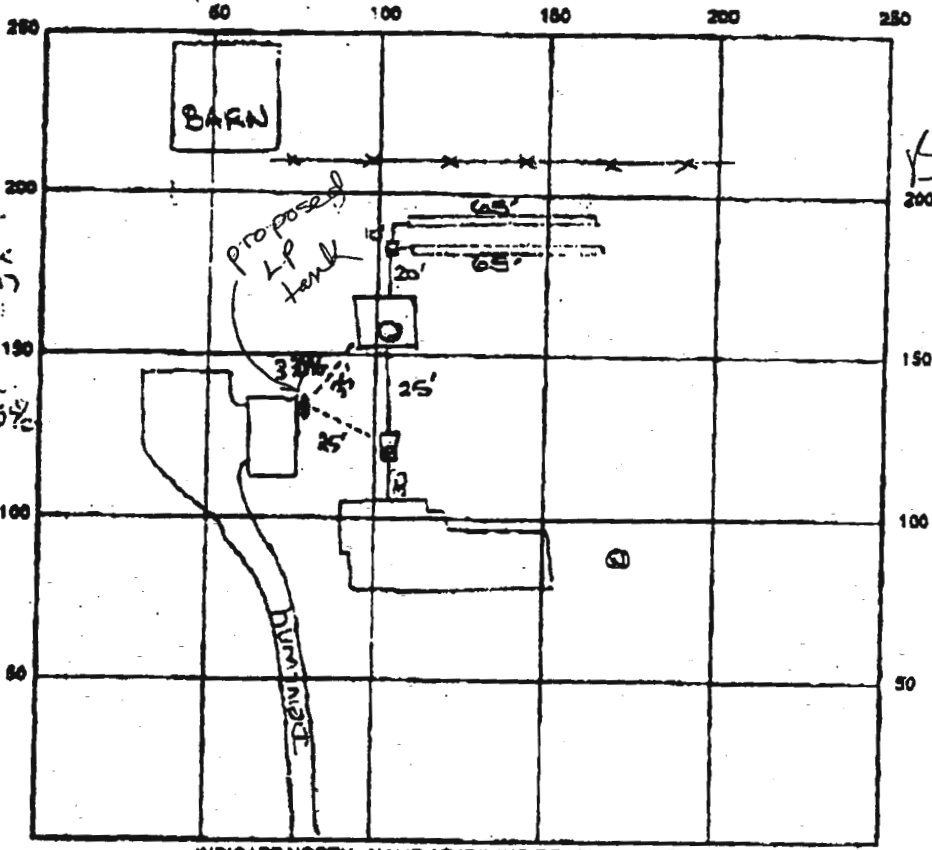
4 1/2

10 1/2

Tree

280

2281 WOODBINE ROAD



15-00746132

2/24/04
proposed
propane
tank
OK

KN

Test hole -
2.5' orange
brandy
S.C. 10%
10%
0' of soil
S.C. 25%
stone

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE

SEPTIC TANK LEVEL Existing CLEANOUTS El - Orc on St. manhole on D.W.
DISTRIBUTION BOX LEVEL OK

DRAIN FIELD/TILE DEPTH 6 FT. TRENCH WIDTH 2 FT. INLET DEPTH 3 FT.

EFFECTIVE GRAVEL DEPTH 3 FT. TOTAL LENGTH 2 x 65 FT. → 130'

NUMBER OF TRENCHES 2 ONE SIDEWALL BOTTOM AREA 390 SQ. FT.

DRYWALL INSIDE DIAMETER Ex FT. EFFECTIVE DEPTH BELOW INLET Ex FT.

ABSORBENT AREA 390 SQ. FT. + Existing

REMARKS: 3/28/97 See front for specs - OK to install (repair) Sept. Aln
3/31/97 FINAL INSP - OK to cover all work. DKS

DATE SYSTEM APPROVED 3/31/97 INSPECTOR DAVID S. SOU

- inspect down
grade work

Visual
HOLE ①

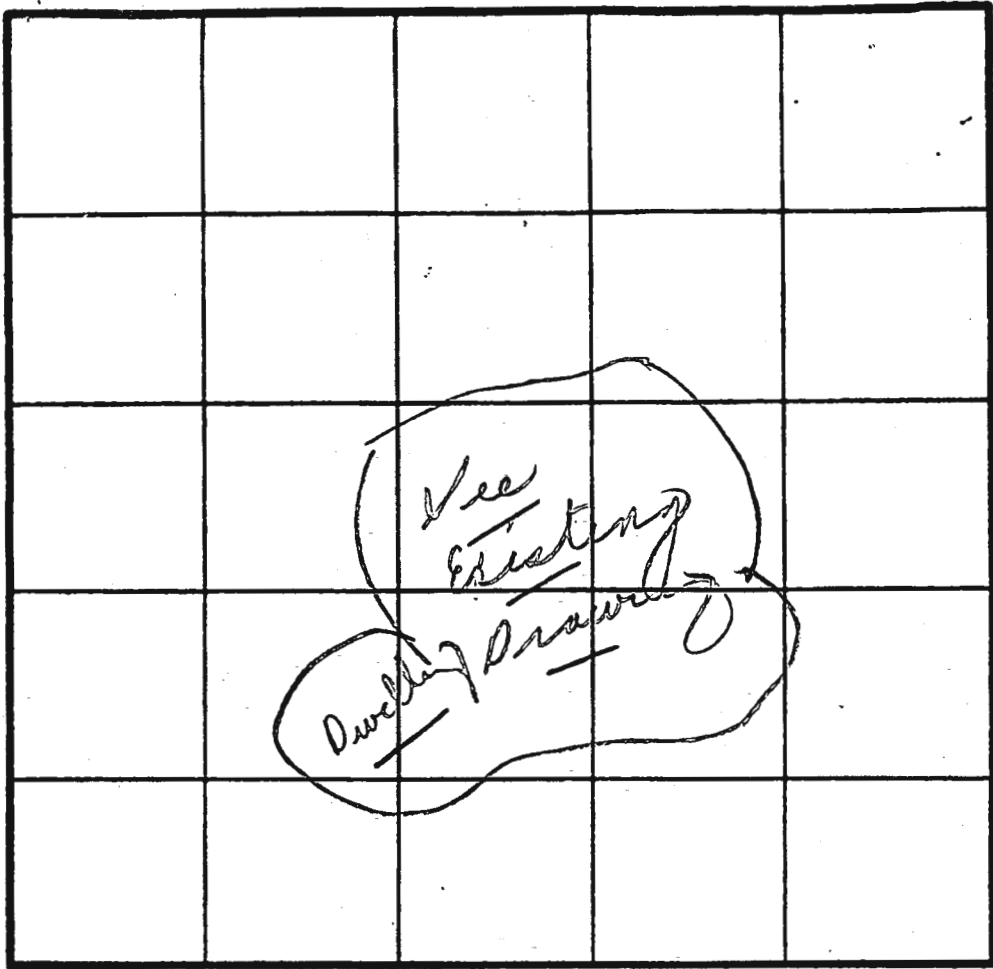
SOIL PROFILE

0' to 3 1/2'
CLAY

3 1/2' to
LOAM

↓

13'
DRY



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
8/28/ 1911	①	13'	(Visual hole see left for soil profile)				OK

REMARKS _____ (1) hole observed 90' + to [right] of existing S.T.C.O. c. 88 [near]

TYPE OF SOIL _____

TESTED BY _____ C. Bel _____ ALSO PRESENT (2) Arnold's men Mr. + Mrs. Linder

Oswald, Hank

From: jcarney@bei-civilengineering.com
Sent: Monday, March 7, 2022 3:26 PM
To: Oswald, Hank
Subject: RE: Perc Cert Plan_2301 Woodbine Road

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

Hank, if you could make the change I would appreciate it. We just dropped off the BAT Site Plan earlier today. Client is anxious to get going. Thanks, John

From: Oswald, Hank <hoswald@howardcountymd.gov>
Sent: Monday, March 7, 2022 3:17 PM
To: John Carney (jcarney@bei-civilengineering.com) <jcarney@bei-civilengineering.com>
Subject: Perc Cert Plan_2301 Woodbine Road

Hi John:

Good afternoon. The perc cert plan was kicked back with the following comment:

1. Change well label on plan for 2281 Woodbine Road to "Existing Well (no-tag) field located".

I can redline the change on the plan, or you may revise and submit new plan. Please let me know.

Thanks,

Hank

Hank Oswald, L.E.H.S.
Howard County Health Department
Well & Septic Program
410.313.1786
hoswald@howardcountymd.gov



This email has been checked for viruses by AVG antivirus software.
www.avg.com

23.1684	771.500.8469
45.8198	771.710.0967
07.1172	771.609.1967
350.7003	771.780.3460
161.8330	771.976.1805
08.9546	772.084.8066
91.3493	771.529.8770
597.9878	771.742.1047
179.5011	771.899.5901
09.8620	771.994.9926

OF WETLANDS BEARING

1°20'E	54.52'
2°37'E	91.26'
4°26'E	175.15'
5°24'E	24.97'
7°20'W	79.90'
4°57'W	156.60'
2°34'W	21.86'
2°54'W	156.60'
4°21'W	92.47'
0°26'W	49.76'
7°14'W	29.98'
5°39'W	14.82'
5°40'E	11.92'
5°04'E	82.43'
1°47'E	60.09'
1°17'E	29.00'
2°39'E	68.92'
3°34'E	62.17'
4°20'E	59.51'
5°17'E	84.72'
4°54'E	86.00'
6°24'E	291.18'
6°51'E	214.15'
0°09'E	79.04'
19°31'W	82.51'
4°45'W	68.92'
18°14'W	79.67'
34°36'W	59.09'
38°W	59.34'
42°W	19.36'
9°41'W	44.46'

LANDS CONT.)

BE CAROL LINDEN
WETLAND ROUTE 94
MARYLAND 21707
6637

SOLUTION

PER OF LOTS AND/OR PARCELS TO BE RECORDED: 4
 OF LOTS AND/OR PARCELS: 853,487 SQ. FT. OR 19.9934 AC.
 OF ROADWAY TO BE RECORDED: 33,897 SQ. FT. OR 0.7768 AC.
 OF SUBDIVISION TO BE RECORDED: 887,924 SQ. FT. OR 20.9102 AC.

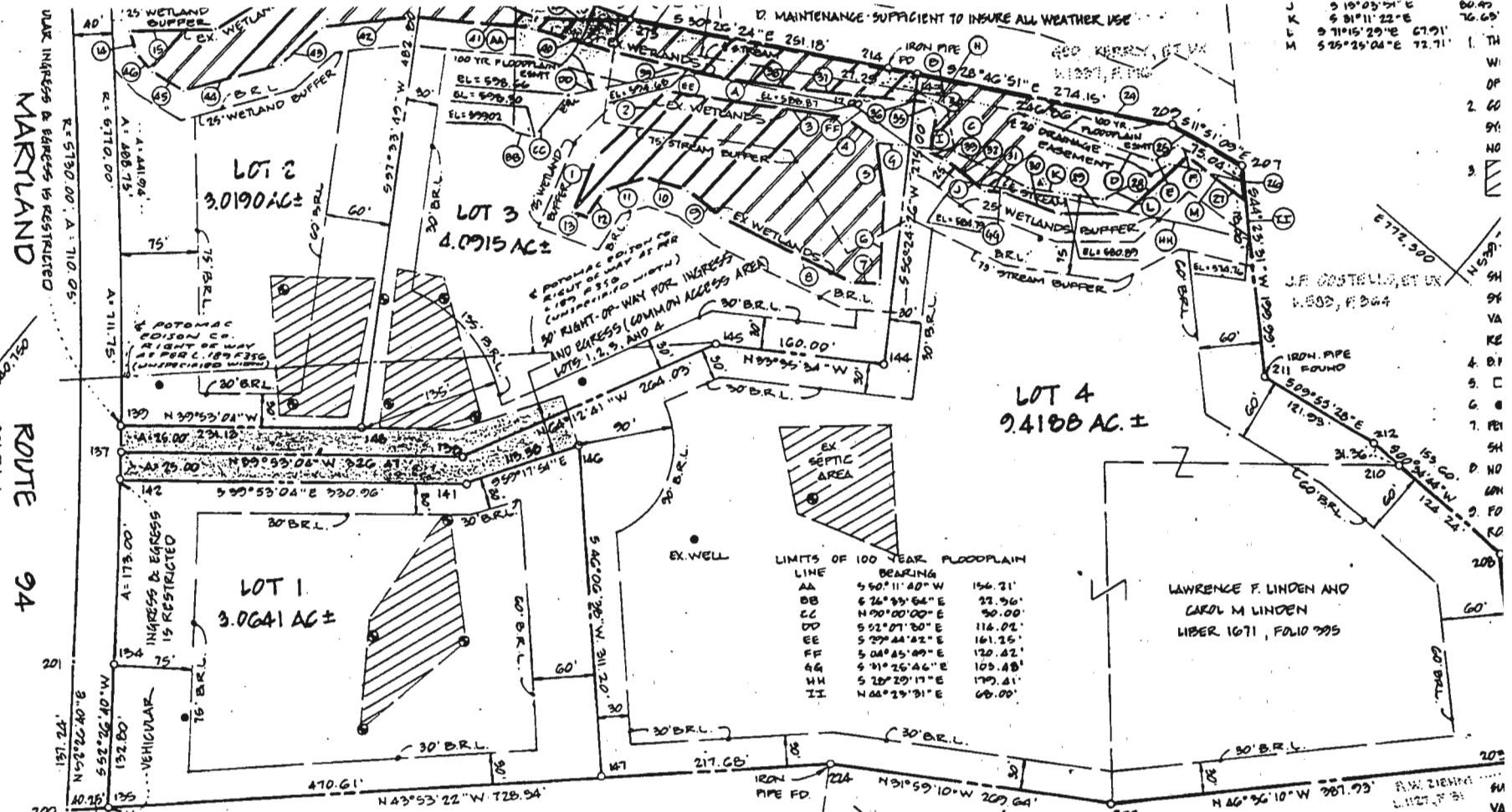
FOR PRIVATE WATER AND PRIVATE SE SYSTEMS HOWARD COUNTY HEALTH DEPT

M. Boyd Moore, Jr. 9-4-92
COUNTY HEALTH DEPARTMENT DATE

FOR STORM DRAINAGE SYSTEMS AND ROADS HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

S. R. R. R. 9/12/92
DIRECTOR DATE

FOR STORM DRAINAGE SYSTEMS AND ROADS HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING



MARKYLAND

ROUTE 94

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MARKYLAND

ROUTE 94

VEHICULAR

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VEHICULAR

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VEHICULAR

MARKYLAND

ROUTE 94

VEHICULAR

VEHICULAR

VEH

Oswald, Hank

From: Oswald, Hank
Sent: Friday, January 7, 2022 9:21 AM
To: John Carney (jcarney@bei-civilengineering.com)
Subject: Revised Perc Cert Plan_2301 Woodbine Road_Spring Rock Farm Lot 1

Hi John:

The revised perc cert plan for 2301 Woodbine Road (Spring Rock Farm Lot 1) has been reviewed with the following comments:

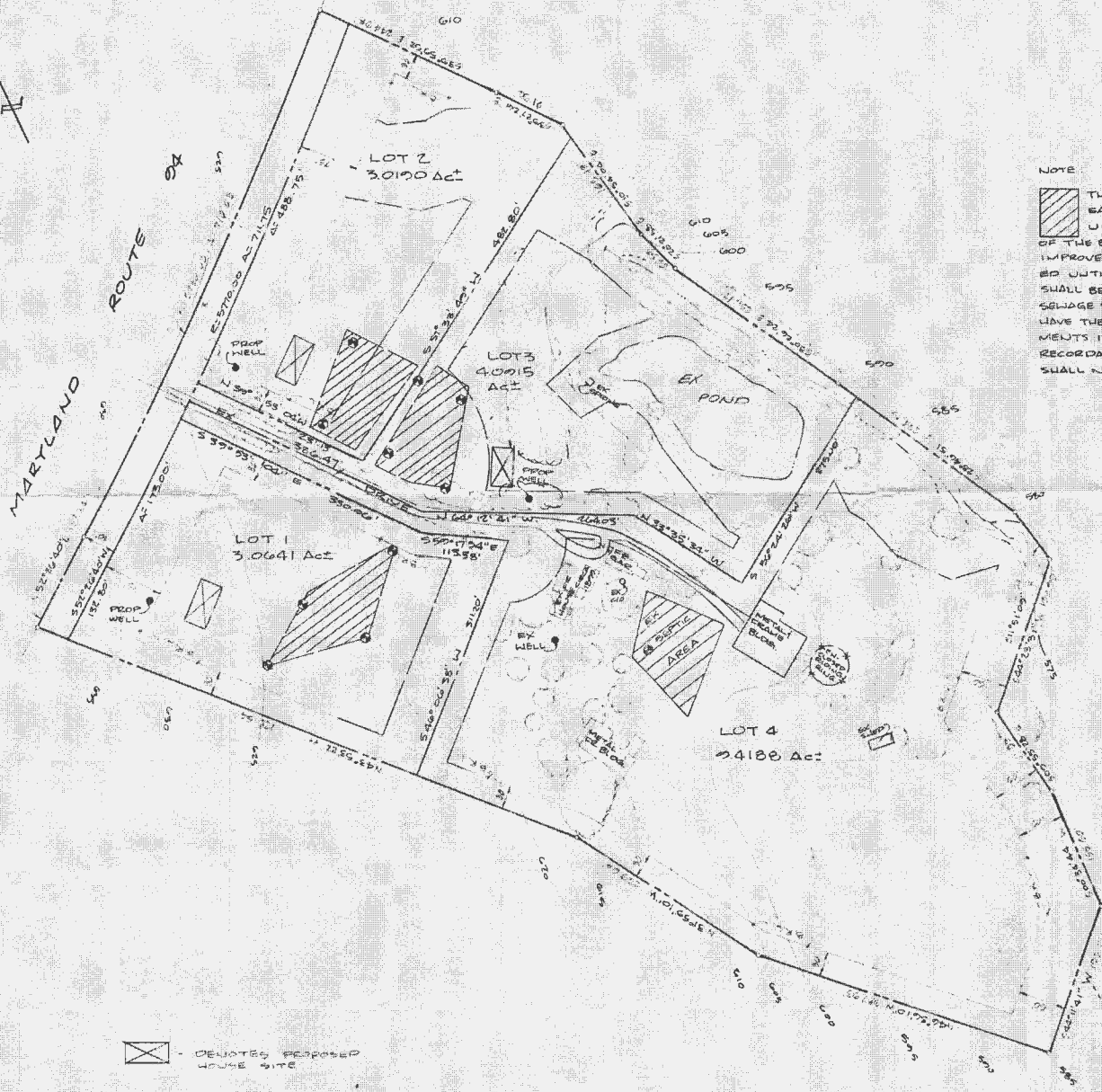
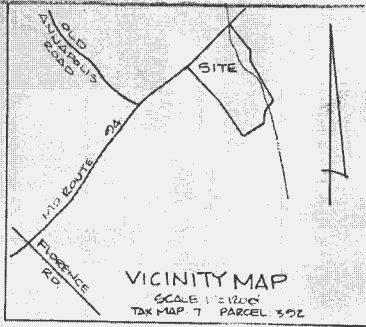
1. In addition to the variance request for the well box on this lot (lot 1), the owners will also need to request a variance for the down grade wells on lots 3 (2261 Woodbine Road) & 4 (2281 Woodbine Road).
2. Show a 200 foot well radius around each neighboring well on lots 3 and 4 and exclude any SDA on lot 1 within that 200 ft radius.
3. Please submit revision with variance request application to the Health Department for MDE review.

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

Thanks,

Hank

Hank Oswald, L.E.H.S.
Howard County Health Department
Well & Septic Program
410.313.1786
hoswald@howardcountymd.gov



NOTE

THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF 10000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL & VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE NECESSARY.

OWNERS:
LAWRENCE & CAROL LINDEN
2281 MARYLAND RTE 24
WOODSIE, MARYLAND 21797
(301) 854-6637

*Received
9-3-92
Signed
slay@orig. final plat
Suzanne
Mumh
-1/27/92*

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

- DENOTES PROPOSED HOUSE SITE
- DENOTES PERCOLATION TEST SITE

Joyce M. Bond 10/25/92 9:49
HOWARD COUNTY HEALTH OFFICER DATE

PERCOLATION TEST
PLAT
**SPRING ROCK FARM
SUBDIVISION**
SECTION ONE - LOTS 1, 2, 3 & 4

EXISTING TOWNSHIP: R
TAX MAP: 7 PARCEL: 302
FOURTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1:1200 FEBRUARY 1992
DB: 2 FILE NO. WP 21-53

VANMAR ASSOCIATES INC.
Engineers - Surveyors - Planners
310 South Main Street, Mount Airy, Maryland 21771
(301) 829-2890 (301) 831-5015 (301) 549-2751

BENCHMARK

ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS

ENGINEERING, INC.

8480 Baltimore National Pike * Suite 315 * Ellicott City, Maryland 21043
 (410) 465-6405 (410) 465-6644 FAX
 www.bei-civilengineering.com * E-mail: bei@bei-civilengineering.com

LETTER OF TRANSMITTAL

DATE: 12/20/21 PROJECT NO.: 3038

TO: Howard County
Health Department
Well and Septic Program

ATTN: Jeff Williams
 RE: Spring Rock Farm, Lot 1
Revised Perc Cert

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:

- Photocopies Prints Originals Samples
 Specifications Invoices Change Order Other _____

# of Copies	# of Sheets	DESCRIPTION
3	1	Revised Perc Cert
1	1	Spec Sheet
1	1	email from 11/16/2020

THESE ARE TRANSMITTED as checked below:

- For Comment For Your Use For Approval
 For Review As Requested Other _____

REMARKS: The owner has the
variance request + we
will submit it as soon
as they return it.

COPY TO: _____

SIGNED: John M. Carney

RECEIVED BY: _____

E-MAIL: jcarney@bei-civilengineering.com

jcarney@bei-civilengineering.com

From: Williams, Jeffrey <jewilliams@howardcountymd.gov>
Sent: Monday, November 16, 2020 2:55 PM
To: jcarney@bei-civilengineering.com
Subject: RE: Spring Rock Farm Lot 1

I think that looks ok. The short trenches are ok as long as they're equal length or LPD

From: jcarney@bei-civilengineering.com <jcarney@bei-civilengineering.com>
Sent: Monday, November 16, 2020 9:50 AM
To: Williams, Jeffrey <jewilliams@howardcountymd.gov>
Subject: Spring Rock Farm Lot 1

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

Jeff, Mike Norton has asked me to look at this lot on woodbine Road (Route 94). You did a spec sheet a few weeks ago showing 0.8 app rate, 7' to effective area and max bottom of 8'. The SDA as shown on the plat is a pretty bad configuration. I'd like to modify the SDA to what is shown on this attachment. The bottom I needed to expand , 28' northwest and 21' southeast of test P5. I didn't expand at all towards failed test P3. I've shown the perc test results on the two lower lots.

The architectural plans call for 4 bedrooms only. I did a trench layout based on the spec sheet, four lots and the modified SDA. System one is six 35' long trenches. The two repair systems are shown also.

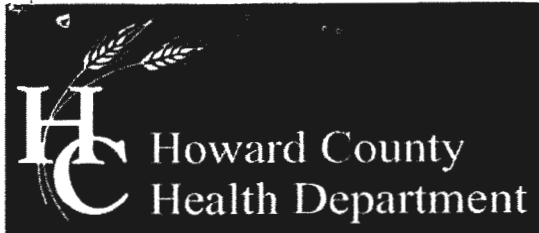
There is a swale in the rear of the immediate backyard. The drainage area is about 0.4 acres. The swale 25' from the end of the trench T-1-1.

Could you give this a quick review and see if the perc revision is approvable? Also are the shorter trenches in the initial system going to be okay? Thanks, John

John M. Carney, P.E.
Benchmark Engineering, Inc.
8480 Baltimore National Pike, Suite 315
Ellicott City, MD 21043
410-465-6105 ext. 1152



This email has been checked for viruses by AVG antivirus software.
www.avg.com



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

Facebook: www.facebook.com/hocohealth

Twitter: HowardCoHealthDep

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

SEWAGE DISPOSAL SYSTEM SPECIFICATIONS WORKSHEET

Address: Woodlake Rd

Subdivision: Spring Rock Lot: 1

Table with 4 columns: Replacement type, Application rate, Effective area beginning depth, Bottom maximum depth. Values include 0.8, 7, and 8.

Design Flow = 150 gallons per day per bedroom
Design flow ÷ application rate = square footage of drainfield required
Linear length of trench required = drainfield square footage x sidewall reduction percentage ÷ trench width

Sidewall reduction credit formula: (W + 2) / (W + 1 + 2D) x 100 = Percent of length of standard trench where W=trench width and D= depth between effective area beginning depth and trench bottom.

- Standard design requirements: Trenches must be located to provide room for 3 systems in the disposal area, All trenches must be equal length unless low pressure dosed, All trenches must be on contour, Tank and trenches must be placed as shallow as possible while maintaining 2% fall in pipe from house and at least 18" cover over trenches. If 2% fall from house is not possible, the minimum allowable fall is 1%, Minimum trench spacing: 10' for all trenches utilizing sidewall reduction credit. Additional spacing may be necessary for any trench using over 3.5' of effective sidewall. In those cases, the spacing formula is 2D +W up to a maximum spacing of 18', Minimum trench spacing for trenches with no sidewall credit (bottom area only) is 6' for a 2' wide trench and 9' for a 3' wide trench (spacing is measured edge to edge), Maximum trench length is 100', Maximum pipe depth is 4'

Additional requirements: 3 systems must fit in area

Approved: J. Williams Date: 10/26/20

Oswald, Hank

From: Oswald, Hank
Sent: Thursday, March 31, 2022 12:03 PM
To: John Carney (jcarney@bei-civilengineering.com)
Subject: BAT Plan_2301 Woodbine Road
Attachments: LPD Design Manual.pdf

Hi John:

Determining Lateral Length per the LPD guidance (see attached):
(208 LF of trench required trench length)

T1 = 41 ft (Trench Length) / 5 holes per lateral = 8.2 ft (perf spacing)
Spacing between holes/2 = 8.2 ft / 2 = 4.1 (Distance from manifold to the closest hole in feet and from end of trench to last hole)
41 ft – 4.1 = 36.9 ft (Lateral Length)

T2 = 56 ft/6=9.33
9.33/2=4.66
56-4.66=51.34 ft (Lateral Length)

T3 = 56 ft/6=9.33
9.33/2=4.66
56-4.66=51.34 ft (Lateral Length)

T4 = 56 ft/5=11.2
11.2/2=5.6
56-5.6=50.4 ft (Lateral Length)

Per MDE guidance, hole spacing must be between 3 – 10 feet. It should not exceed 10 feet. For best use of the trench, my coworker suggests a hole spacing between 3 – 5 feet. Also, bring manifold in closer to the trenches, and move trench 3 to the edge of the SDA (if possible).

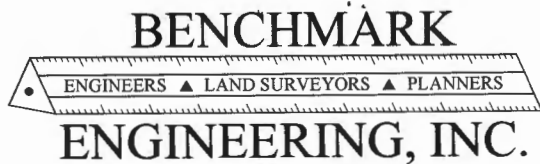
2.) Trench flow rates must also be within 10 % of each other.

Let me know if you have any questions.

Thanks,

Hank

Hank Oswald, L.E.H.S.
Howard County Health Department
Well & Septic Program
410.313.1786
hoswald@howardcountymd.gov



Christopher A. Malagari, P.E., President
Donald A. Mason, P.E., L.S., Vice President

Ellicott City, MD
410-465-6105 410-465-6644 FAX

Hank Oswald, L.E.H.S.
Environmental Specialist II, Well and Septic Program
Bureau of Environmental Health
8930 Stanford Boulevard, Columbia, MD 21045

March 22, 2022

Mr. Oswald:

Re: 2301 Woodbine Road – Bat Site Plan Responses

Comments by Hank Oswald

1. The lateral length = trench length – $\frac{1}{2}$ (perforation spacing). Trench #1 (41 ft.) – $\frac{1}{2}$ (7 ft.) = Lateral Length (37.5 ft.).

Response: The lateral length is defined as the distance from the manifold to the end of the lateral taking into consideration the location of the manifold and accounting for the distance of holes from the ends of the trench. In order to take into account the location of the manifold I added in the distance from the manifold to the trench. I'm afraid your calculation method might result in short trenches. Also, the actual hole spacing on lateral 1 is not 7 ft but rather 5.86'.

2. Per perforation chart on page 5 in the attachment, the lateral diameter should be 1 $\frac{1}{4}$. May want to change the perforation diameter to 5/16 to reduce chance of clogging.

Response: I was able to change the design to provide the 1.25" lateral. Increasing the hole sizes and changing the spacing a little bit I was able to keep the manifold at 2.0". I was concerned that larger flow out of the perforations would result in a flow rate per trench that was difficult to balance. Ended up working fine.

3. Change chart label from **Flow per Lateral** to **Trench Flow Rate**.

Response: Change was done.

4. Change chart label from **Loading Rate per LF of Trench** to **Flow (GPM) per LF Trench**.

Response: Change was done.

5. Change pump tank size to 1500 gallons under calculations and in sewer profile.

Response: Changes were done.

6. Compare pipe/fitting loss #s in table C on page 11 in the attachment with the #s shown on page #3 of the BAT plan.

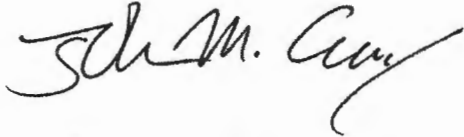
Response: I fixed a small issue with a set of the fittings. Updated them to reflect the new lateral size too.

7. Recommend changing the manifold diameter to 3 inches.

Response: a 3" manifold with 39 gpm resulted in a flow rate of less than 2.0 fps. I kept the manifold at 2.0", the velocity was above 2 fps and below 5 fps.

If you should have any questions, or require additional information, please do not hesitate to call me at 410-465-6105.

Sincerely,

A handwritten signature in black ink, appearing to read "John M. Carney". The signature is fluid and cursive, with the first letters of each name being capitalized and prominent.

John M. Carney, P.E.