

43.17/2

M&W

INCOM SUPPLY

A Division of Wehrung's

FAX

DATE: March 11, 2014

TO: George Kiesel

COMPANY: Health Department

FROM: Barry R. Helverson

PAGES (Including Cover): 6

REGARDING: 4 Arvida Drive, Pennington, NJ

NOTES:

Includes the following information:

1. Warranty and Registration with Homeowner Information
2. Service Policy with Homeowner Information
3. Installation / Startup Checklist
4. Service and Inspection Form

Please let me know if there is anything else that you need.

Thank You.

208 DURHAM ROAD • OTTSVILLE, PA • 18942

PHONE: 610-847-7203 • FAX: 610-847-1046

E-MAIL: bhelverson@wehrungs.com



LIMITED WARRANTY AND REGISTRATION

HOOT Aerobic Systems, Inc.

2885 Highway 14 East Lake Charles, Louisiana 70607

(337) 474-2804 phone (337) 477-7904 fax

HOOT LIMITED WARRANTY: HOOT Aerobic Systems, Inc. ("HOOT") warrants faulty workmanship or construction of the HOOT treatment system for three (3) years from the date of purchase, subject to the following condition: If HOOT determines that the fault in workmanship or construction of the HOOT treatment system is not the result of improper installation, improper maintenance, failure to service, natural disaster, an act of God (including but not limited to flood, lightning or fire ants), or tampering by any means, then, at HOOT's discretion, HOOT has the right to provide a replacement for such faulty component. The faulty component will be replaced with a rebuilt or new component to the Service Provider for the first three (3) years from the date of purchase. During the initial 2 year service policy, the component will be replaced at no charge. During the third year, components will be provided only to a qualified HOOT Service Provider, at no charge, however any and all installation charges will be the responsibility of the homeowner. The cost of pumping or cleaning of any component or compartment of the sewage treatment system, which becomes necessary for causes other than malfunction of the equipment, is the responsibility of the Home Owner.

DISCLAIMER

NO GENERAL WARRANTY: Hoot Aerobic Systems, Inc. disclaims any and all warranties, except as indicated above, either express or implied, and expressly disclaims the implied warranties of merchantability and fitness for a particular purpose.

WAIVER OF CONSUMER RIGHTS: In exchange for this warranty, I waive my rights under the Deceptive Trade Practices-Consumer Protection Act, Section 17.41 et seq., Business & Commerce Code, a law that gives consumers special rights and protections. After opportunity for consultation with an attorney of my own selection, I voluntarily consent to this waiver. Home Owner Initials _____

SOLE REMEDY

HOOT's liability for any accident, injury, or damage to any person or property shall be limited to the purchase price of the HOOT Aerobic Treatment System. HOOT is not and shall not be liable for any incidental or consequential damages or injury, regardless of fault, to any person or property resulting from misdesign or mismanufacture of the HOOT Aerobic Treatment System, failure to warn, failure to label, or inadequate instructions in the manual. This clause is effective to the full extent allowed by law and shall be void where prohibited.

WARRANTY REGISTRATION

FOR THE ABOVE WARRANTY TO BE EFFECTIVE, THE HOMEOWNER AND ANY USER ATTEMPTING TO CLAIM ANY RIGHT UNDER THIS WARRANTY MUST COMPLETE THIS FORM AND RETURN A SIGNED COPY TO HOOT WITHIN THIRTY (30) DAYS FROM THE DATE OF INSTALLATION.

By signing this agreement, the Home Owner agrees to all terms contained herein.

HOME OWNER

MATTIE HILL
Name (Please Print):
4 Arvida Dr.
Physical Address:
Pennington NJ 08534
City State Zip Code
(571) 218-8021
Phone
M Hill
Signature of Home Owner

SYSTEM INFORMATION

H6006F
Model Number
957
Serial Number
M&W Supply
Service Provider Name
1-29-14
Date of Installation
The Above information can be found on the top of the Control Panel to your system.



TREATMENT SYSTEM INITIAL SERVICE POLICY

HOOT Aerobic Systems, Inc.

2885 Highway 14 East Lake Charles, Louisiana 70607
(337) 474-2804 phone (337) 477-7904 fax

Our Company, M+V Supply, will operate and maintain the Hoot Aerobic System located at Arvida Dr Pennington La 08534 (legal description only)
Permit # _____, for the period of 2 years beginning 1-30-14 and ending 1-30-16.

This contract will provide for all required inspections, testing and service of your HOOT Aerobic Treatment System. The policy will include the following:

- 2 inspections a year/service calls (at least one every 6 months), for a total of 4 over the two-year period including inspection, adjustment and servicing of the mechanical, electrical and other applicable component parts to ensure proper function. This includes inspecting control panel, air pumps, air filters, diffuser operation, and replacing or repairing any component not found to be functioning correctly.
- An effluent quality inspection consisting of a visual check for color, turbidity, scum overflow and examination for odors. A test for chlorine residual and pH will be taken and reported as necessary.
- If any improper operation is observed, which cannot be corrected at the time of the service visit, you will be notified immediately in writing of the conditions and estimated date of correction.
- The Homeowner is responsible for maintaining a chlorine residual of at least 1mg/L in the treatment system. This can be accomplished by using chlorine tablets designed for wastewater use, NOT SWIMMING POOL TABLETS. Upon visit, if the system needs chlorine tablets the service provider will add them and charge the customer. If the customer fails in their responsibility to add the chlorine tablets, they are in violation of law and appropriate action will be taken. Initials of Installer NA Initials of Homeowner NA
- Any additional visits, inspections or sample collections required by specific Municipalities, Water/River Authorities, County Agencies the TNRCC or any other regulatory agency in your jurisdiction will be covered by this policy.

At the conclusion of the initial service policy, the Service Provider will make available, for purchase on an annual basis, a continuing service policy to cover labor for normal inspection, maintenance and repair. According to state law, all owners of aerobic systems must maintain a factory authorized service provider for the lifetime of the system.

The HOOT Homeowners Manual must be strictly followed or warranties are subject to invalidation. Pumping of sludge build-up, for reasons other than due to warranted mechanical failure, are not covered by this policy and will result in additional charges. By signing this form, both Installer and Homeowner agree to the terms of this policy. By signing this form, both the Installer and the Homeowner agree that the Homeowner has received a copy of the Homeowners Manual and the Installer has made a reasonable effort to explain all pertinent information to the Homeowner.

HOOT is not responsible for service, it is the SERVICE PROVIDER indicated below.

HOME OWNER

Mattie Hill
Name Arvida Dr.
Address Pennington La 08534
City (571) 218-8021
Phone NA
Signature of Home Owner

SERVICE PROVIDER

Red Shakhs
Name of Service Company Representative
PO Box 550
Address Ottaville Pa.
City (610) 847-7203
Phone C. Shakhs
Signature of Service Provider and License #.

THIS BOX MUST BE COMPLETED BY THE SERVICE PROVIDER

HOOT Model # H600 Blower/Panel Serial # 957 HOOT Mold # _____

MODERN Precast. / HOOT Systems, LLC

Installation / Start Up Checklist

Date of installation 1 Site Address 4 Arvida Dr. Pennington N.J.
 Installer J.P. Martin Unit Type 1600 Serial Number 957 Chip Type _____
 Date of Start Up 1-30-14 Start Up Technician Fred Shaff Signature C.F. Shaff

1. Is the unit connected to a 30A/115V BREAKER in the house panel? (If this is not correct, YOU CANNOT PROCEED!) YES NO
2. Is there a QUICK DISCONNECT by the panel? (It MUST be compatible with the panel.) YES NO
3. Is the tank LEVEL? (This is VERY critical. The unit has only a slight tolerance front to back.) YES NO
4. Is the tank filled with WATER? (Critical to start up!)
 (Clarifier Chamber must be at least 12" from top. Pump Chamber must be right at 3rd sensor on probe.) YES NO
5. What is the TYPE OF PROBE? (New style: NO wires / Old style - WITH wires, Short High water alarm only)
 NEW OLD SHORT
- a. If the probe is the old style, is it within 60' of the panel? YES NO
6. What is the BURIAL DEPTH of the unit? (Must not be more than 3', or less than 12") Depth: 12"
7. Is the WIRING/CONDUIT between the unit and the panel installed correctly? Are all wires inside a conduit? YES NO
Are all connections correct? YES NO
Are all connections watertight? YES NO
8. Is the PROBE installed correctly? Are all wires attached correctly? YES NO
Is the probe seated correctly? YES NO
Is the probe facing the proper direction? YES NO
9. Is the WIRING IN THE PUMP CHAMBER connected properly? Pump: NA YES NO
Solenoids: YES NO

10. Is the BLOWER installed correctly?	Are connections in LB box and watertight? <u>YES</u> NO Back pressure hose: <u>YES</u> NO Sitting on flat base: <u>YES</u> NO Within 100' of unit: <u>YES</u> NO Is the cap to the air supply piping hand tight? <u>YES</u> NO
11. Is the PUMP installed correctly? (Model # _____ Serial # <u>NA</u>)	Weep hole facing away from probe? YES NO Seated in the well casing? YES NO
12. Are the RISERS installed correctly?	Depth okay? (between 12" and 36") <u>YES</u> NO Ball valve facing the recirculation side? <u>YES</u> NO Recirculation going to proper location? <u>YES</u> NO Discharge going to drain field/mound? <u>YES</u> <u>NA</u> NO Is star stem on solenoid valve opened all the way, with a 1/4 turn closed? YES NO Is the red handle on the ball valve 1/4 turn open? YES NO
13. Is the PANEL installed correctly?	Power supply: <u>YES</u> NO Pump wiring: <u>YES</u> NO Blower wiring: <u>YES</u> NO Probe wiring: <u>YES</u> NO Solenoid wiring: <u>YES</u> NO Is the airline for the back-pressure sensor fully seated into the white Chinese finger (no air leaking)? <u>YES</u> NO Are all openings to the box sealed? <u>YES</u> NO
14. Is the PANEL programmed correctly?	Is Recirculation dosing set correctly? YES <u>NA</u> NO Pump time set correctly? YES NO
15. If applicable, what are the DIP SWITCH POSITIONS ? 1 - on / off 2 - on / off 3 - on / off 4 - on / off	
16. Is the AERATION functioning properly?	Is it bubbling: <u>YES</u> NO What is the back Pressure: <u>64</u>
17. Notes: _____	



Service and Inspection Form

(This is an example only, please check Local Requirements)

All single Family Residences require a minimum of 2 inspections per year, once every 6 months. Some counties and certain commercial applications require more frequent visits. The report is due within 15 days, plus or minus the anniversary date of the contract. This testing and reporting shall be completed, signed and dated after each inspection, whether scheduled inspection or a trouble call for service. One copy shall be retained by the maintenance company. The second copy is sent to the local permitting authority and the third copy is sent to the system owner along with an invoice for services by the maintenance company.

1. Actual Date of Visit: 3-5-14
 2. Scheduled Inspection or Service Call
 3. System Inspection of Owner: Mattie Neel
 Address: 4 Arwida Dr
 City, St, Zip: Remington NY .08534

Inspected Items:	Operational	Inoperative	Not Applicable
Aerator.....	☒	☐	☐
Aeration Plumbing.....	☒	☐	☐
Air Filter.....	☒	☐	☐
Effluent Pump.....	☐	☐	☒
Chlorinator.....	☐	☐	☒
OK System Light.....	☒	☐	☐
Probe.....	☒	☐	☐
Sprinkler Operation.....	☐	☐	☒
Photocell Test.....	☐	☐	☒
Battery.....	☐	☐	☒

Battery must be replaced every three years. Air Filter must be cleaned each service visit. Operation of effluent disposal system must be made each visit, including chlorine residual test, effluent pump operation and sprinkler operation.

4. Repairs to system (list all components replaced): _____

5. Tests Required and Results:

Test	Required	Results	Test Method
BOD (Grab) *	☐	_____	_____
TSS (Grab) *	☐	_____	_____
Fecal Coliform or	☐	_____	_____
Chlorine Residual	☐	_____	_____

6. Comments: 64 psi

Signature of Inspector: C. F. Shaff Installer II or WW Lic # _____

3/21/14



PLUMBING SUBCODE TECHNICAL SECTION



Date Received

Control # 35152

Date Issued

Permit #

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 43.17 Lot 2 Qualification Code _____

Work Site Location 4 ARVIDA DRIVE
PENNINGTON, NJ 08534

Owner in Fee: MATTIE HILL

Tel. (571) 218-8021 e-mail _____

Address 4 ARVIDA DRIVE HOPEWELL 08534

Contractor: E. Navier Plumbing + Heating Tel. (609) 333 8888

Address 45 North H. H. Rd e-mail _____

Contractor License No. 10539 Exp. Date 05/2015

Home Improvement Contractor Registration No. or Exemption Reason (if applicable): _____

Federal Emp. ID No. 204603699 FAX: (609) 333 8888

B. PLUMBING CHARACTERISTICS

Use Group Present _____ Proposed _____

Building Sewer Size _____ Public Sewer _____ Private Septic _____

Water Service Size _____ Public Water _____ Private Well _____

Est. Cost of Plumbing Work \$ 2,000.-

JOB SUMMARY (Office Use Only)		Dates (Month/Day)			
PLAN REVIEW		Failure	Failure	Approval	Initial
☐ No Plans Required					
☐ Partial - Underslab Utilities Approved					
Date: _____	Approved by: _____				
☐ Plumbing Plans Approved					
Date: _____	Approved by: _____				
Joint Plan Review Required:					
☐ Bldg. ☐ Elec. ☐ Fire ☐ Elev.					
SUBCODE APPROVAL for PERMIT					
Date: _____	Approved by: _____				
SUBCODE APPROVAL for CERTIFICATE					
☐ CO ☐ CCO ☐ CA					
Date: _____	Approved by: _____				

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.

Applicant sign/Contractor sign and seal here: _____

Print name here: Ernest Navier

☒ Licensed Plumbing Contractor ☐ Exempt Applicant

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK

INSTALLATION OF ULTRA VIOLET SANITATION UNIT

QTY.	FIXTURE/EQUIPMENT	FEE (Office Use Only)
_____	Water Closet	\$ _____
_____	Urinal/Bidet	\$ _____
_____	Bath Tub	\$ _____
_____	Lavatory	\$ _____
_____	Shower	\$ _____
_____	Floor Drain	\$ _____
_____	Sink	\$ _____
_____	Dishwasher	\$ _____
_____	Drinking Fountain	\$ _____
_____	Washing Machine	\$ _____
_____	Hose Bibb	\$ _____
_____	Water Heater	\$ _____
_____	Fuel Oil Piping	\$ _____
_____	Gas Piping	\$ _____
_____	LPGas Tank	\$ _____
_____	Steam Boiler	\$ _____
_____	Hot Water Boiler	\$ _____
_____	Sewer Pump	\$ _____
_____	Interceptor/Separator	\$ _____
_____	Backflow Preventer	\$ _____
_____	Greasetrap	\$ _____
_____	Sewer Connection	\$ _____
_____	Water Service Connection	\$ _____
_____	Stacks	\$ _____
✓	Other <u>ULTRA VIOLET SANITATION UNIT</u>	\$ _____

5-6-14
Not inspected yet

Administrative Surcharge \$ _____
Minimum Fee \$ _____
State Permit Surcharge Fee \$ _____
TOTAL FEE \$ _____



194 Hempt Rd. Mechanicsburg, PA 17050

phone: (717) 697-4998 • fax: (717) 697-5035 • www.aquat.com

Member
WATER
QUALITY
ASSOCIATION

Performance Data Sheet

Model Number DWS-8C Class A
 Rated Service Flow 8 gallons / minute
 Maximum Working Pressure 100 psi
 Maximum Operating Temperature 110°F

UV Monitor-

The UV Monitor has built-in alarms to warn of inefficient performance or UV lamp failure. When the UV intensity measured by the UV Monitor and Sensor falls below the preset alarm condition (70%) to notify the user that the UV Lamp requires replacement. The alarm will sound and the LED display will flash.

For general installation, operation and maintenance instructions and use limitations please see the Installation and Operation Manual for the DWS-8C Class A System.

For applications-

This Class A system conforms to NSF/ANSI 55 for the disinfection of microbiologically contaminated water that meets all other public health standards. The system is not intended to convert wastewater or raw sewage to drinking water. The system is intended to be installed on visually clear water.

NSF/ANSI 55 defines wastewater to include human and/or animal body waste, toilet paper, and any other material intended to be deposited in a receptacle designed to receive urine and/or feces (blackwaste); and other waste materials deposited in plumbing fixtures (greywaste).

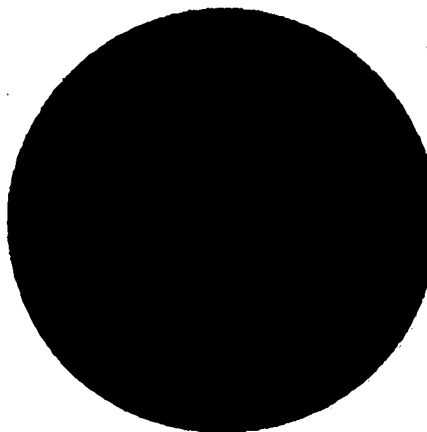
If this system is used for the treatment of untreated surface waters or ground water under the direct influence of surface water, a device found to be in conformance for cyst reduction under the appropriate NSF/ANSI Standard shall be installed upstream of the system.

Electrical Characteristics 120V/60 Hz 0.6 amps
 Recommended Service Life of UV Lamps 9,000 hours
 Maximum Operating Feed Water Temperature 110°F
 Model Number of Replacement Components ATS8-246 UV Lamp
 Minimum Working Pressure 25 psi
 Minimum Operating Temperature 35°F
 Electrical Requirements 120V/60Hz 0.6 amps
 Recommended Replacement Intervals of UV Lamps 9,000 hours

NSF / ANSI

Standard 55 Class A System

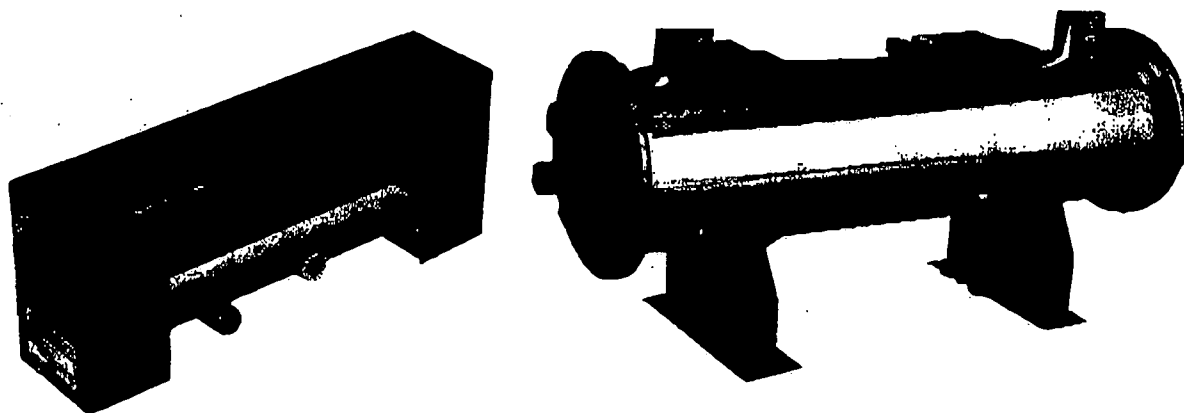
DWS Series



SPECIFICATIONS

Model #	Max. Flow GPM	No. Lamps	KW @ 120V	AMP @ 120V	AMP @ 220V	Pipe Size	Overall Dimensions L x W x D	Shipping Weight
DWS-5C	5	1	0.07	0.6	0.3	3/4" MNPT	36" x 5" x 7"	28 Lbs.
DWS-8C	8	1	0.07	0.6	0.3	1" MNPT	36" x 10" x 7"	45 Lbs.
DWS-15C	15	2	0.14	1.15	0.57	1" MNPT	36" x 10" x 7"	45 Lbs.
DWS-30C	30	4	0.25	2	1	1½" FNPT	36" x 10" x 10"	60 Lbs.
DWS-50C	50	8	0.48	4	2.2	2½" FLANGE	36" x 15" x 25"	105 Lbs.

Note: Wetted Material is 304 Electropolished Stainless Steel on all units.



NSF / ANSI Standard 55 Class A System

This Class A system conforms to NSF Standard 55 for the disinfection of microbiologically contaminated water that meets all other public health standards. This system is not intended for treatment of water that has an obvious contamination source, such as raw sewage; nor is this system intended to convert wastewater to microbiologically safe drinking water. This system is intended to be installed on visually clear water. If this system is used for treatment of untreated surface waters or ground waters under the direct influence of surface waters, a device found to be in compliance for cyst reduction under the appropriate NSF/ANSI Standard shall be installed upstream of this system.

Required Replacement Intervals of Ultraviolet Lamp 1 Year
Maximum Operating Temperature 110°F
Maximum Working Pressure 100 psi
Maximum Operation Feed Water Temperature 110°F

SEE INSTRUCTION
MANUAL FOR USE
CONDITIONS

Boil water in a failure situation.

System Tested and Certified by Water Quality Association against
NSF/ANSI Standard 55 for disinfection performance, Class A

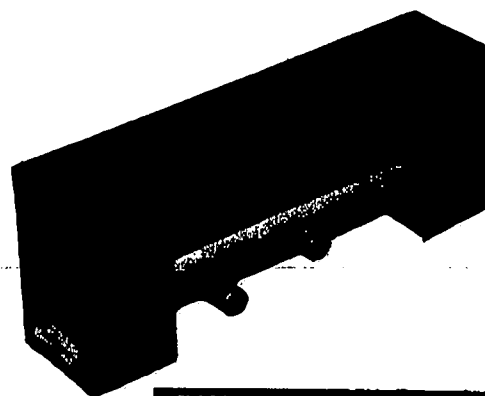
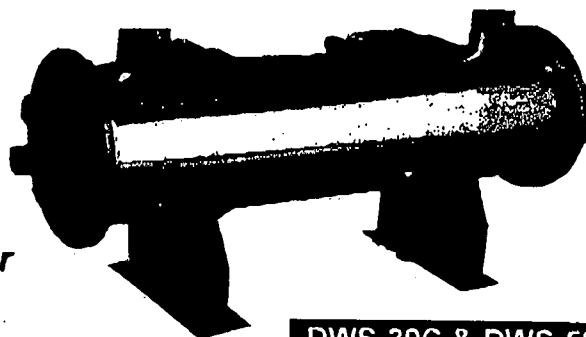


NSF / ANSI

Standard 55 Class A System

DWS Series

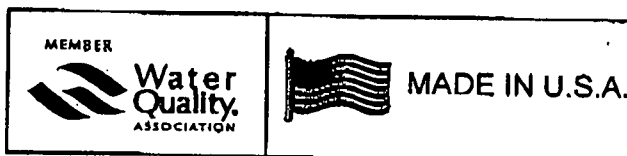
- *Completely Automatic*
 - *Compact & Easy to Install*
 - *No Chemicals Required*
 - *Low Operating Costs*
 - *Low Maintenance*
 - *No Taste or Odor*
-
- *40,000µws/cm² UV Dose at End of Lamp Life*
 - *Flow Controls*
 - *Simple Design, and User Friendly*
 - *Stainless Steel Electropolished Chamber*

**DWS-5C, DWS-8C, DWS-15C****DWS-30C & DWS-50C**

SERIES ACCESSORY



U.V. Monitor- U.V. dosage metering device. This true U.V. Monitor reads only the 254-nm intensity output of the ultraviolet light within the U.V. treatment chamber.



Providing Better Water For Better Living.



Hoot System

no UV noted

DEED

Dated as of: December 11, 2013

DOUGLAS ALLEN FEIN and DEBORAH ALLEN FEIN,
husband and wife

Grantors

TO

MATHILDE T. HILL, unmarried

Grantees

Record & Return To:

~~Robert F. Casey, Esq.
Lenox Socey, et als.
3131 Princeton Pike
Bldg. 1B, Suite 104
Lawrenceville, NJ 08648~~

Robert F. Casey, Esq.
The Lenox Law Firm
3131 Princeton Pike, 1B, Suite 104
Lawrenceville, NJ 08648

Instrument Number: 2014019506
Book / Page : 6193 / 376
Document Type : DEED
Total Pages : 7
Consideration : \$0.00
Realty Fee : \$0.00
Recorded Date : 05/15/2014 1:08PM
Verified Date : 05/16/2014 1:18PM

GRANTORS : ALLEN FEIN DOUGLAS
 : ALLEN FEIN DEBORAH

GRANTEES : T HILL MATHILDE

PROPERTY INFORMATION:
Municipality : HOPEWELL TOWNSHIP
Block : 43.17
Lot : 2

43.17/2

INSTR # 2014001497
D BK 6186 PG 487 Pgs 487 - 491; (5 pgs)
RECORDED 01/14/2014 11:20:53 AM
PAULA SOLLAMI COVELLO, COUNTY CLERK
MERCER COUNTY, NEW JERSEY
RTF TOTAL TAX \$6,987.00

INSTR # 2014019506
D BK 6193 PG 376 Pgs 376 - 382; (7 pgs)
RECORDED 05/15/2014 01:08:24 PM
PAULA SOLLAMI COVELLO, COUNTY CLERK
MERCER COUNTY, NEW JERSEY

[Signature]
Resalind Westlake, Esq.

THIS DEED IS BEING RE-RECORDED TO INCLUDE THE LANGUAGE REQUIRED BY THE TOWNSHIP OF HOPEWELL AS SET FORTH ON THE ATTACHED SCHEDULE "B"

DEED

This Deed is made on this 12th day of December, 2013

BETWEEN

Douglas Allen Fein and Deborah Allen Fein, husband and wife;

whose address is 10019 Hammock Bend, Chapel Hill, NC 27517;

referred to as the Grantors.

AND

Mathilde T. Hill, unmarried;

whose address is about to be 4 Arvida Drive, Pennington, NJ 08534;

referred to as the Grantee.

"Grantor" and "Grantee" means all Grantors and all Grantees listed above.

Transfer of Ownership. The Grantor grants and conveys (transfers ownership of) the property described below to the Grantee. This transfer is made for the sum of \$770,000.00. The Grantor acknowledges receipt of this money.

Tax Map Reference. (N.J.S.A. 46:15-1.1) Municipality of the Township of Hopewell, County of Mercer, Block No. 43.17, Lot No. 2.

Property. The property consists of the land and all the buildings and structures on the land in the Township of Hopewell, County of Mercer, and State of New Jersey. The legal description is:

See Schedule "A" attached hereto.

BEING the same premises conveyed to Douglas Allen Fein and Deborah Allen Fein, husband and wife, by Deed from Richard N. Shaine and Jane M. Shaine, dated December 21, 1998, recorded, December 31, 1998, in the Clerk's Office of the County of Mercer, New Jersey, in Deed Book 3518, Page 175.

Promises by Grantor. The Grantor promises that the Grantor has done no act to encumber the

DD 15pg \$63.00 - 1209449 RTF - 6,987.00 - 1207479
1210990

EXHIBIT "A"

LEGAL DESCRIPTION

File No.: 33301RB-01

REVISED

ALL THAT CERTAIN tract or parcel of land and premises lying, being and situate in Hopewell Township, Mercer County, and State of New Jersey being more particularly described as follows:

BEING shown as Lot 171 on a map entitled "Section Six, Elm Ridge Park West, said map having been duly filed in the Mercer County Clerk's Office on July 2, 1970 as Map No. 2050, and being more particularly bounded and described as follows to wit:

BEGINNING at a point in the Northerly line of Arvida Drive (50 foot right-of-way) said point being measured Westwardly 240.31 feet from the Southerly terminus of an arc connecting the said Northerly line of Arvida Drive with the Westerly line of West Shore Drive, and from said point of beginning running; thence

1. South 79 degrees 31 minutes 31 seconds West, 498.06 feet along the aforesaid Northerly line of Arvida Drive to an iron pin found; thence
2. North 10 degrees 28 minutes 29 seconds West, 201.00 feet along the Easterly line of Tax Lot 3 to a point in the Southerly line of Filed map Lot 167; thence
3. North 79 degrees 31 minutes 31 seconds East, 357.77 feet along the same to a point in the Southwesterly line of Tax Lot 10; thence
4. South 68 degrees 07 minutes 33 seconds East, 166.06 feet along the same to an iron pin found in the Westerly line of Tax Lot 1; thence
5. South 10 degrees 28 minutes 29 seconds East, 112.15 feet along the same to the point and place of **BEGINNING**.

THE above being described according to a survey prepared by Land Map, Inc. dated 11/20/2013.

BEING premises No. 4 Arvida Drive.

BEING Block: 43.17, Lot: 2

BEING the same land and premises which became vested in Douglas Allen Fein and Deborah Allen Fein, husband and wife, by deed from Richard N. Shaine and Jane M. Shaine, dated 12/21/1998, recorded 12/31/1998, in the Mercer County Clerk/Register's Office in Deed Book 3518, Page 175.

SCHEDULE "B"

*"This property is provided with a **Hoot Aerobic** alternative designed onsite sewage disposal system to dispose of its sewage effluent. It is the responsibility of the property owner to maintain it and provide routine service. An annual service contract with the system manufacture's representative must be kept in effect and submitted to the health department per township ordinance. In the event a new conventional septic system or public sewer is provided, the existing alternative onsite septic system must be permanently abandoned.*

This statement may not be removed from the deed with out the written authorization of the Hopewell Township Health Department."



State of New Jersey
NONRESIDENT SELLER'S TAX DECLARATION
(C.55, P.L. 2004)

GIT/REP-1
(6-10)

(Please Print or Type)

SELLER(S) INFORMATION

Name(s)

Douglas Allen Fein and Deborah Allen Fein

Street Address:

10019 Hammock Bend

City, Town, Post Office

Chapel Hill

State

NC

Zip Code

27517

PROPERTY INFORMATION (Brief Property Description)

Block(s)

43.17

Lot(s)

2

Qualifier

Street Address:

4 Arvida Drive

City, Town, Post Office

Pennington

State

NJ

Zip Code

08534

Seller's Percentage of Ownership

100%

Consideration

\$770,000.00

Closing Date

12/11/13

SELLER(S) DECLARATION

The undersigned understands that this declaration and its contents may be disclosed or provided to the New Jersey Division of Taxation and that any false statement contained herein could be punished by fine, imprisonment, or both. I furthermore declare that I have examined this declaration and, to the best of my knowledge and belief, it is true, correct and complete. By checking this box ☐ I certify that the Power of Attorney to represent the seller(s) has been previously recorded or is being recorded simultaneously with the deed to which this form is attached.

11/25/2013

Date

11/25/13

Date

Douglas Allen Fein

Signature (Seller) Please indicate if Power of Attorney or Attorney in Fact

Deborah A Fein

Signature (Seller) Please indicate if Power of Attorney or Attorney in Fact

(Detach on dotted line)

STATE OF NEW JERSEY
AFFIDAVIT OF CONSIDERATION FOR USE BY SELLER

(Chapter 49, P.L. 1968, as amended through Chapter 33, P.L. 2006) (N.J.S.A. 46:15-5 et seq.)

BEFORE COMPLETING THIS AFFIDAVIT, PLEASE READ THE INSTRUCTIONS ON THE REVERSE SIDE OF THIS FORM.

STATE OF NEW JERSEY

COUNTY MERCER } SS. County Municipal Code 1108

FOR RECORDER'S USE ONLY

Consideration \$ _____
RTF paid by seller \$ _____
Date By _____

MUNICIPALITY OF PROPERTY LOCATION Hopewell Twp.

*Use symbol "C" to indicate that fee is exclusively for county use

(1) PARTY OR LEGAL REPRESENTATIVE (See Instructions #3 and #4 on reverse side)

Deponent, Robert F. Casey, Esq. being duly sworn according to law upon his/her oath,
(Name)

deposes and says that he/she is the Legal Representative of Grantee in a deed dated December 11, 2013 transferring
(Grantor, Legal Representative, Corporate Officer, Officer of Title Company, Lending Institution, etc.)

real property identified as Block number 43.17 Lot number 2 located at
4 Arvida Drive, Pennington and annexed thereto.
(Street Address, Town)

(2) CONSIDERATION \$ 1.00 (Instructions #1 and #5 on reverse side) ☐ no prior mortgage to which property is subject.

(3) Property transferred is Class 4A 4B 4C (circle one). If property transferred is Class 4A, calculation in Section 3A below is required.

(3A) REQUIRED CALCULATION OF EQUALIZED VALUATION FOR ALL CLASS 4A (COMMERCIAL) PROPERTY TRANSACTIONS:
(See Instructions #5A and #7 on reverse side)

Total Assessed Valuation + Director's Ratio = Equalized Assessed Valuation

\$ _____ + % = \$ _____

If Director's Ratio is less than 100%, the equalized valuation will be an amount greater than the assessed value. If Director's Ratio is equal to or in excess of 100%, the assessed value will be equal to the equalized valuation.

(4) FULL EXEMPTION FROM FEE (See Instruction #8 on reverse side)

Deponent states that this deed transaction is fully exempt from the Realty Transfer Fee imposed by C. 49, P.L. 1968, as amended through C. 66, P.L. 2004, for the following reason(s). Mere reference to exemption symbol is insufficient. Explain in detail.

This Deed is exempt from the Realty Transfer Fee imposed by C. 49 P.L. 1968, as amended, because it (d) confirms or corrects a deed previously recorded.

(5) PARTIAL EXEMPTION FROM FEE (Instruction #9 on reverse side)

NOTE: All boxes below apply to grantor(s) only. ALL BOXES IN APPROPRIATE CATEGORY MUST BE CHECKED. Failure to do so will void claim for partial exemption. Deponent claims that this deed transaction is exempt from State portions of the Basic, Supplemental, and General Purpose Fees, as applicable, imposed by C. 176, P.L. 1975, C. 113, P.L. 2004, and C. 66, P.L. 2004 for the following reason(s):

A. SENIOR CITIZEN Grantor(s) ☐ 62 years of age or over. * (Instruction #9 on reverse side for A or B)
B. BLIND PERSON Grantor(s) ☐ legally blind or:
DISABLED PERSON Grantor(s) ☐ permanently and totally disabled ☐ receiving disability payments ☐ not gainfully employed*

Senior citizens, blind persons, or disabled persons must also meet all of the following criteria:

☐ Owned and occupied by grantor(s) at time of sale. ☐ Resident of State of New Jersey.
☐ One or two-family residential premises. ☐ Owners as joint tenants must all qualify.

*IN CASE OF HUSBAND AND WIFE, PARTNERS IN A CIVIL UNION COUPLE, ONLY ONE GRANTOR NEED QUALIFY IF TENANTS BY THE ENTIRETY

C. LOW AND MODERATE INCOME HOUSING (Instruction #9 on reverse side)

☐ Affordable according to H.U.D. standards. ☐ Reserved for occupancy.
☐ Meets income requirements of region. ☐ Subject to resale controls.

(6) NEW CONSTRUCTION (Instructions #2, #10 and #12 on reverse side)

☐ Entirely new improvement. ☐ Not previously occupied.
☐ Not previously used for any purpose. ☐ NEW CONSTRUCTION* printed clearly at top of first page of the deed.

(7) RELATED LEGAL ENTITIES TO LEGAL ENTITIES (Instructions #5, #12, #14 on reverse side)

☐ No prior mortgage assumed or to which property is subject at time of sale.
☐ No contributions to capital by either grantor or grantee legal entity.
☐ No stock or money exchanged by or between grantor or grantee legal entities.

(8) Deponent makes this Affidavit to induce county clerk or register of deeds to record the deed and accept the fee submitted herewith in accordance with the provisions of Chapter 49, P.L. 1968, as amended through Chapter 33, P.L. 2006.

Subscribed and sworn to before me
this 15 day of May, 2014

Signature of Deponent
Robert F. Casey
3131 Princeton Pike, 1B, Suite 104
Lawrenceville, NJ 08648

Douglas & Deborah Allen Feln
Grantor Name
4 Arvida Drive
Pennington, NJ 08534

Robert F. Casey
Attorney-At-Law of NJ

Deponent Address
XXX-XXX-662
Last three digits in Grantor's Social Security Number
Grantor Address at Time of Sale
Robert F. Casey, Esq.
Name/Company of Settlement Officer

FOR OFFICIAL USE ONLY

Instrument Number _____ County _____
Deed Number _____ Book _____ Page _____
Deed Dated _____ Date Recorded _____

County recording officers shall forward one copy of each RTF-1 form when Section 3A is completed to: STATE OF NEW JERSEY

PO BOX 251

TRENTON, NJ 08695-0251

ATTENTION: REALTY TRANSFER FEE UNIT

The Director of the Division of Taxation in the Department of the Treasury has prescribed this form as required by law, and may not be altered or amended without prior approval of the Director. For information on the Realty Transfer Fee or to print a copy of this Affidavit, visit the Division of Taxation website at:

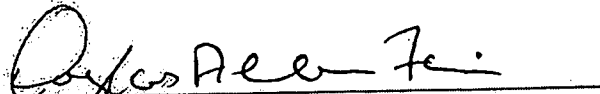
www.state.nj.us/treasury/taxation/lpt/localtax.htm

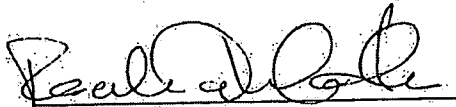
property. This promise is called a "covenant as to grantor's acts" (N.J.S.A. 46:4-6). This promise means that the Grantor has not allowed anyone else to obtain any legal rights which affect the property (such as by making a mortgage or allowing judgment to be entered against the Grantor).

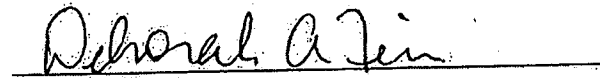
Signatures. The Grantor signs this Deed as of the date at the top of the first page.

Witnessed by:




Douglas Allen Fein



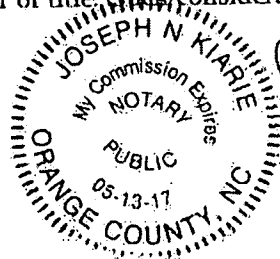

Deborah Allen Fein

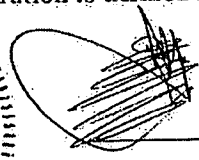
STATE OF NC :
COUNTY OF ORANGE : SS:

I CERTIFY that on the day of 25th NOVEMBER, 2013

DOUGLAS ALLEN FEIN and DEBORAH ALLEN FEIN, personally came before me and stated to my satisfaction that these persons:

- (a) are the makers of the attached Deed;
- (b) executed this Deed as his and her own act; and,
- (c) made this Deed for \$770,000.00 as the full and actual consideration paid or to be paid for the transfer of title. (Such consideration is defined in N.J.S.A. 46:15-5).



 (JOSEPH N. KIARIE)



TOWNSHIP of HOPEWELL

MERCER COUNTY

DEPARTMENT OF HEALTH



Public Health
Prevent. Promote. Protect.

201 Washington Crossing Pennington Road Titusville, New Jersey 08560-1410
Phone: 609-737-0120 Fax: 609-737-6836 www.hopewelltp.org

Date: December 12, 2013

Doug & Deborah Fein
4 Arvida Drive
Pennington, NJ 08534

Temporary Letter of Review Septic & Well

RE: Block 43.17, Lot 2 (4 Arvida Drive)
Septic & Well Review

COPY

Dear Property owner,

This office has received and reviewed the septic and well inspection reports for the sale of the above referenced property. The results are as follows:

1. **The water from the potable well did not initially meet federal, state and local safe drinking water regulations for total coliform.**
 - The well has been chlorinated and a preliminary sample provided 12-12-13, indicating that the water is safe for total coliform bacteria. A confirmatory sample by a licensed laboratory is scheduled for the afternoon of 12-12-13 with a mandatory follow up in 2+ weeks after the property is fully occupied.
 - Purchaser has agreed to limit water consumption while moving in until the confirmatory sample is provided.
 - Additionally, a \$5000 escrow established for the water alone. In the event the re- ✓
test fails, a UV system will be installed immediately.
 - Finally, a contractor already scheduled to meet this contingency and installation if need be.
2. **The inspection report provided for the individual subsurface sewage disposal system indicates the system was found to be un-satisfactory by the inspection company. A replacement septic system is required.**
 - A design and permit have been issued for the new septic system. 12-10-13.
 - An escrow has been established for the installation of this system. This should be completed within 60 days of closing weather permitting.

Based on the information provided to this office, a temporary approval shall be provided for the well and for the septic system. *These items shall be completed within sixty (60) days of closing of this property.*

Your attention to this matter is appreciated. You may contact this office at (609) 737-0120 with any questions you may have regarding this matter. Our office hours are Monday through Friday, 8:30 - 4:30.

Sincerely,
Gary A. Guarino
Health Officer

Email: Owner, Rosalind Westlake, Kim
Robert Casey for purchaser, Judson Henderson.



Proposal for Services

November 27, 2013

Prepared by: Kelly Raimondo

Prepared for: Debbie and Doug Fein

Address : 4 Arvida Drive
Pennington, NJ 08534

DESCRIPTION OF SERVICES	AMOUNT
1. Well Chlorination including bacteria retest	215.00
2. CHG-HR3 WQA Gold Seal Certified Reverse Osmosis Drinking System, including installation.	795.00
Notes: Installation materials and workmanship come with 1 year warranty. We honor all manufacturer warranties. Installation to include all necessary plumbing and materials as required to complete the installation.	Subtotal: 1010.00 Other: Total: \$1010.00

*Payment due at the time of service. Checks
made payable to: Certified Water Services*

THANK YOU FOR YOUR BUSINESS!

Family owned and operated
since 1993.

Refer a friend and receive



12-12-13 this copy from lab

QC Laboratories

Analytical Report

Printed 12/12/13 11:24

Sample Description: HOPEWELL NJ
Sample Number: L4857652-1
Matrix: WATER
Received Temp: 23.1 C

Samp. Date/Time/Temp: 12/10/13 12:09pm NA C
Sampled by: Customer
Iced (Y/N): N

Exceeds recommended temperature

taken by

Realtek

ENVIRONMENTAL MICROBIOLOGY

Analytical Method: SM 9223B
Dilution: 1
Units: col/100ml

Run Date: 12/10/13 01:21PM
Analyst: BHS
Instrument:

Workgroup:
File ID: WM_LOGBOOK_SAT 34329-L4857652-1
Basis:

Parameter	CAS	Result	MDL*	RL
COLIFORM COLILERT P/A	N/A	NEG	1	1
E. COLI COLILERT P/A	N/A	NEG	1	1

Sample Comments:

Samples were received at the laboratory outside of the acceptable temperature range (just above 0 to 8 degrees C) for microbiological testing. Consult with your regulatory agency for further guidance on the use of this data.

A water supply is considered bacteriologically "SAFE" if no Coliform bacteria are detected. To be considered "SAFE" your report should indicate "<1 col/100ml" or "NEG" for the Coliform Test. If your report indicates a positive result "POS" or a value of one (1) or greater then your supply is "UNSAFE FOR DRINKING" contact your local Health Dept. or QC for advice.

General Notes:

Definitions: ND: The analyte tested was either not detected or the concentration was below the MDL/RL; Q= Qualifier; DF= Dilution Factor
NEG=negative; POS=positive; COL=colonies; RLs=laboratory reporting limits; L/A=laboratory accident; TNTC= Too numerous to count; pres=presumptive

MCL= EPA recommended "maximum contaminant level", PLs = Customer-specific permit limits.

A result marked with "DRY" indicates that the result was calculated and reported on a dry weight basis.

The test results meet all requirements of NELAP, where applicable, unless otherwise specified.

The report shall not be reproduced except in full without the written consent of the laboratory.

Unless otherwise specified, the Environmental Chemistry testing except Field Parameters were performed by QC Inc. located at 1205 Industrial Blvd., Southampton, PA 18966; Pharmaceutical, Dairy, Food Chemistry and Food Microbiological tests were performed by QC Inc. located at 702 Electronic Dr., Horsham, PA 19044.

The reported results relate only to the samples.

All samples are collected as "grab" samples unless otherwise identified.

QCL Accreditations: Southampton Div: EPA ID PA00018; NELAP ID's: PA 09-00131, NJ PA166, NY 11223

State ID's: CT PH-0768, DE PA-018, MD 206, SC 89021001; FDA Reg. # : 2515238

Delaware Div: State ID's: DE 00011, MD 138; Wind Gap Div: State ID's: PA 48-01334, NJ PA001

E. Rutherford Div: State ID: NJ 02015; Vineland Div: State ID: NJ 06005; Reading Div: State ID: PA 06-03543

Regulatory authorities are assessing substantial fines for testing omissions. Please track your sample collections and results on a weekly, monthly, or quarterly basis to ensure compliance. QC's internet program 'LIVE ACCESS' will provide you with real-time access to collection dates and results. Please contact Customer Service for further information on acquiring LIVE ACCESS.



*=This limit was used in the evaluation of the final result.

PP 7727

Unserialized Copy



1205 Industrial Blvd. Phone: 215-355-3900
Southampton, PA 18966-0514 Fax: 215-355-7231

CHAIN OF CUSTODY

Page ____ of ____

Bill to/Report to: (if different)

Lab LIMS No:

P4857652-1

LAB USE ONLY



____ Ascorbic/HCl
____ Na₂S₂O₃
____ Na OH/Zn acetate pH
____ HNO₃ pH
____ H₂SO₄ pH
____ NaOH pH
____ Unpreserved
____ Hcl pH

#231 Temp control ID#
No Ice Pm. 5/1

MATRIX CODES

DW: DRINKING WATER
GW: GROUND WATER
WW: WASTEWATER
SO: SOIL
SL: SLUDGE
OIL: OIL
SOL: NON SOIL SOLID
MI: MISCELLANEOUS
X: OTHER

Field pH, Temp (C or F),
DO, Cl₂, S. Cond. etc.

Client/Acct. No.

Callaway Henderson Sclady 15

Address

4 ~~Arvida~~ Nassau St.
4 Nassau St.

Sampling Site Address: (if different)

4 Arvida Drive
Hopewell, NJ

City/State/Zip

Princeton, NJ

Phone/Fax

609-921-1058

P.O. No.

Client Contact

Kimberly Rizz

QC Contact

PROJECT

Collection

G

C

R

A

B

M

P

Matrix

Code

Total

H₂O

HCl

Y

NH₄

NO₃

NH₄

Zn

As

Se

B

As

Se

As

Se

As

Se

As

Se

As

Se

As

Se

Number of Containers

FIELD ID

Date

Military Time

Kitchen

12-10-13 1209

5

2

2

ANALYSIS REQUESTED

Total Coliform

COLIERT TESTED
IN SOUTHAMPTON

PAID
\$5000
CFP

6457

RUS

DELIVERED
BY CUSTOMER

SAMPLED BY: (Name/Company)

Verbal/fax data due: ____/____/____

Hardcopy due: ____/____/____

Report Format: ☐ Standard ☐ Forms

☐ Standard + QC ☐ NJ Reduced ☐ Disk

Field Parameters Analyzed By:

Sig:

Date/Time:

Please call for pricing and availability on rush (<14-21 day) turnaround and on all but standard format.

SAMPLE CUSTODY EXCHANGES MUST BE DOCUMENTED BELOW. USE FULL LEGAL SIGNATURE, DATE AND MILITARY TIME (24 HOUR CLOCK, I.E. 8AM IS 0800, 4 PM IS 1600)

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME	DELIVERY METHOD: ☐ QC COURIER ☐ CLIENT ☐ UPS ☐ FEDEX ☐ OTHER	Custody Seal Number
1 <i>[Signature]</i>	12-10-13	1305	1 <i>[Signature]</i>	12-10-13	1305		
2 <i>[Signature]</i>	12-10-13	1305	2 <i>[Signature]</i>	12-10-13	1305		
3			RECEIVED BY				
4							
5							

L4857652-1

23.1C Iced:N

SCS

CU/PM 12/10/13 1305

12/10/13 1317

Hazardous: yes / no

Emails: Krizk@callawayhenderson.com

ation, see reverse side.

Mattie Hill
 4 Arvida Drive
 Pennington, NJ 08534
 Lot 2, Block 4317
 Hopewell Township
 Mercer County, NJ

2-25-14

NJAL received the samples associated with this batch in compliance with NJDEP guidelines. The requested analysis methods and results are detailed in the following data summary reports. Any exceptions to method procedures are listed in the comments section below. Further information and QA/QC details will be provided in the NJDEP reduced deliverables package if required.

Microbiological Parameters:

This sample meets the NJDEP MCL criteria for Total Coliform and E. Coli.

Microbiological Metals Comments:

None-SM

1st good

Lab ID: 0015576-01

Date Collected: 01/10/14 11:52

Matrix: Drinking Water

Sample ID: Kitchen Tap

Date Received: 01/10/14 14:30

Microbiological Parameters

Analyte	Results	Flag	Units	MDL	RDL	Method	Analyzed	Prepared	MCL
Total Coliform	Absence		CFU/100 ml		1	SM 9223 B	01/10/14 16:55	01/10/14	1
E. Coli	Absence		CFU/100 ml		1	SM 9223B	01/10/14 16:55	01/10/14	1

New Jersey Analytical Laboratories

Susan McGrady

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Susan McGrady, Project Manager



Mattie Hill
4 Arvida Drive
Pennington, NJ 08534
Lot 2, Block 4317
Hopewell Township
Mercer County, NJ

NJAL received the samples associated with this batch in compliance with NJDEP guidelines. The requested analysis methods and results are detailed in the following data summary reports. Any exceptions to method procedures are listed in the comments section below. Further information and QA/QC details will be provided in the NJDEP reduced deliverables package if required.

Microbiological Parameters:

This sample meets the NJDEP MCL criteria for Total Coliform and E. Coli.

Microbiological Comments:

None-SM

*Treated
after UV*

Lab ID: 0017644-01

Date Collected: 04/15/14 12:54

Matrix: Drinking Water

Sample ID: Kitchen Tap

Date Received: 04/15/14 13:30

Microbiological Parameters

<u>Analyte</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>MDL</u>	<u>RDL</u>	<u>Method</u>	<u>Analyzed</u>	<u>Prepared</u>	<u>MCL</u>
Total Coliform	Absence		CFU/100 ml		1	SM 9223 B	04/15/14 15:28	04/15/14	1
E. Coli	Absence		CFU/100 ml		1	SM 9223B	04/15/14 15:28	04/15/14	1

New Jersey Analytical Laboratories

Susan McGrady

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Susan McGrady, Project Manager

Page 2 of 3

Page 2 of 4

CERTIFICATE OF ANALYSIS

NJDEP Certified Lab 11005

Project Name:	4 Arvida Drive	Workorder:	0017644
---------------	----------------	------------	---------

Mattie Hill
Potable Analysis
4 Arvida Drive
Pennington, NJ 08534

Project Name and Number: 4 Arvida Drive

April 17, 2014

Dear Mattie Hill,

This report relates only to the sample(s) as received by the laboratory. Laboratory reports may not be reproduced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Caution is advised for the utilization of preliminary data included in reports labeled as "Preliminary Report" and should not be used for regulatory purposes. A laboratory signature is provided on final reports only.

If you have any questions in reference to this laboratory report, please contact your NJAL project coordinator or laboratory manager listed at the bottom of this report at (609) 737-3477.

Note: This coverage is included as part of the Analytical Report and must be retained as a permanent record thereof.



Laboratory Manager

New Jersey Analytical Laboratories



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Susan McGrady, Project Manager

**RUSH**Retest **RUSH**
Chain Of Custody
Residential/PWT17644 **RUSH**
Page 1 of 1

Page 4 of 4

Property Information

Address	4 Arvida Dr.
Municipality	Hopewell
Muni Code	
County	Mercer
Lot: 2	Block: 4317
Sample Technician (Print/Sign): Joe Todd <i>[Signature]</i>	

Client Information

Name:	Mattie Hill
Street:	4 Arvida Dr.
City, State:	Pennington, NJ
Zip:	08534
Agent/Alternate Contact:	
Phone:	571-218-8021
Fax:	

Field Analysis

Laboratory ID No.	Sample ID/Location	DATE	TIME	Sample Matrix	Field Analysis			
	Kitchen Tap	4/15/14		Aqueous	R. Chlorine = 50.01 mg/L Analysis Time: 1244			
				Aqueous	pH = (S.U.)	Temperature = °C	Analysis Time =	Purge Time = 10 min.
		DATE	TIME	Sample Matrix	Number Bottles	Volume Bottles	Preservative	Analysis
				Aqueous	2	40ml	HCl	Volatile Organic Compounds (EPA Method 524.2)
				Aqueous	1	120ml	Unpres	Nitrate
	Kitchen Tap	4/15/14	1254	Aqueous	1	120ml	Sterile	Total Coliform and E. Coli
				Aqueous	1	250ml	HNO ₃	Iron, Manganese, Arsenic, Lead, Other Metals
				Aqueous	1	500 ml	HNO ₃	Gross Alpha
				Aqueous	1			Other Parameters (specify)

GPS Coordinate Location (circle one): Well Head/Front Door/Sample Collection Point/Other:

Relinquished by: <i>[Signature]</i>	Date: 4/15/14	Time: 1330 Temp: 3.4°C	Treatment System(s):	Neutralizer	Carbon	R/O	☒ DV	Softener	Other/None
			GPS raw data:		corrected:				

New Jersey Analytical Laboratories, LLC

Tel: 609-737-3477

580 Road Road - Suite A1

Fax: 609-737-3052

Pennington, New Jersey 08534

Method of Shipment

All bottles received for Laboratory (NJAL) by: (Signature)

[Signature] 4/15/14 13:30

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the Reporting Detection Limit (RDL)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
<	Less than reporting limit
≤	Less than or equal to reporting limit
>	Greater than reporting limit
≥	Greater than or equal to reporting limit
MDL	Method Detection Limit
RDL	Reporting Detection Limit
MCL/AL	Maximum Contaminant Level/Action Level
mg/kg wet	Results reported as wet weight
TTLC	Total Threshold Limit Concentration
STLC	Soluble Threshold Limit Concentration
TCLP	Toxicity Characteristic Leachate Procedure

New Jersey Analytical Laboratories



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Susan McGrady, Project Manager

Gary Guarino

From: Gary Guarino <gguarino@hopewelltwp.org>
Sent: Wednesday, November 27, 2013 10:55 AM
To: 'T Castiglione'
Subject: RE: well water remediation

Hi, we do not accept reverse osmosis systems. They also need to apply for the treatment system permits.

The only way this can move forward is if the house is not going to be occupied!!

I definitely need the LOR application and fees.

Gary A. Guarino
Health Officer/Registrar
Hopewell Township Health Department
201 Washington Crossing Pennington Road
Titusville, NJ 08560
609-737-0120x653 direct 609-537-0253
fax 609-737-6836

"This message may contain confidential and/or proprietary information and is intended for the person/entity to whom it was originally addressed. Any use by others is strictly prohibited."

From: T Castiglione [<mailto:TCastiglione@lenoxlaw.com>]
Sent: Wednesday, November 27, 2013 10:32 AM
To: Gary Guarino
Subject: FW: well water remediation

Gary - See below for water treatment - Certified going today at 1:00 = if we can't get the written proposal before that time, we will have it then - we are holding an escrow for the clear water results - see also the water test and addendum for septic replacement - do you think there is any chance this could close today

Tommie Castiglione - Assistant to Robert F. Casey, Esq.
Lenox, Socey, Formidoni, Giordano, Cooley, Lang & Casey, LLC
3131 Princeton Pike, B1, Suite 104 Lawrenceville, NJ 08648
609-896-2000; 609-895-1693 fax

NOTICE: This email (including attachments) is covered by the Electronic Communications Privacy Act, 18 USC Sections 2510-2521, is confidential and may be legally privileged. If you are not the intended recipient, you are hereby notified that any retention, dissemination, distribution, or copying of this communication is strictly prohibited. Please reply to the sender if you have received this email in error, then delete it.

IR CIRCULAR 230 DISCLOSURE: Pursuant to Treasury Regulations, any tax advice contained in this communication (including any attachments) is not intended or written to be used, and cannot be used or relied upon by you or any other person, for the purpose of (i) avoiding penalties under the Internal Revenue Code, or (ii) promoting, marketing or recommending to another party any tax advice addressed herein.

From: Rosalind Westlake [rosalind@westlake-law.com]
Sent: Wednesday, November 27, 2013 10:19 AM
To: T Castiglione
Subject: FW: well water remediation

From: Debbie Fein [mailto:debfein821@gmail.com]

Sent: Wednesday, November 20, 2013 9:00 AM

To: Rosalind Westlake; Kim Rizk

Subject: well water remediation

Chlorination of the well and installation of reverse osmosis system by Certified Water Systems is scheduled for Wed 11/27. Doug and I are driving back to NJ that AM, so we'll be there to supervise.

Soil testing should be taking place now.

Debbie



TOWNSHIP of HOPEWELL
MERCER COUNTY

DEPARTMENT OF HEALTH

201 Washington Crossing Pennington Road Titusville,
New Jersey 08560-1410
Phone: 609.737.0120 Fax: 609-737-6836 www.hopewelltp.org

APPLICATION FOR LETTERS OF REVIEW

Block 4317 Lot 2 Street Address 4 Arvida, Pennington, NJ 08534

Check One: ☒ Sale of Property ☐ Rental of Property ☐ Change in Use Settlement Date 11/27/13

Property Owner Information:

Name Doug and Debbie Fein Phone: cell 609-203-5851
Address: 4 Arvida Phone: cell 609-577-6303
City Pennington State NJ Zip 08534 Fax:
Email: Doug dougfein@comcast.net
Debbie debfein@comcast.net
Attorney Rosalind Westlake Phone 609-514-5122
Fax 609-514-5104 E-mail rosalind@westlake-law.com

Purchaser/Tenant Information

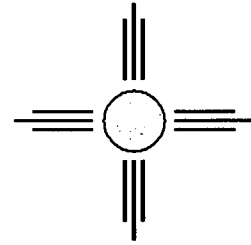
Name Mathilde Hill Phone:
Address: Eagle Ave Fax:
City Hopewell State NJ Zip Email:
Attorney Robert Casey Phone 609-896-2000
Fax 609-895-1693 E-mail rfcasey@msn.com

Applying for: ☒ Septic System Review - \$75.00 ☒ Well Water Quality Review - \$75.00 Total Fee 150.00
NOV 27 2013 Date

To be completed by Health Department

Health Department

Septic System Review	Date	Well Water Quality Review	Date
Report Received	<u>10-21-13</u>	Report Received	<u>10-31-13</u>
Rejected	<u></u>	Rejected	<u></u>
Temporary Approval Granted	<u>12-10-13</u>	Temporary Approval Granted	<u>Quotable Accept</u>
Final Approval Granted	<u>Noted water needed</u>	Final Approval Granted	<u>UV and filter - 1000</u>
Comments:			



BAYER-RISSE ENGINEERING, INC.

**78 ROUTE 173 WEST
SUITE 6
HAMPTON, NJ 08827
Phone (908) 735-2255
Fax (908) 735-5838
www.bayer-risse.com**

October 21, 2013

Ms. Matti Hill
6 Ege Ave.
Hopewell, NJ 08825

*RE: Septic System Evaluation
4 Arvida Dr. (Block 43.17, Lot 2)
Hopewell Twp., Mercer County, NJ*

Dear Ms. Hill:

Bayer-Risse Engineering, Inc. conducted an inspection of the referenced septic system on October 17, 2013. The purpose of our inspection was to determine if the system was functioning in accordance with the provisions of *NJAC 7:9A - Standards for Individual Subsurface Sewage Disposal Systems*. Following is a summary of our findings.

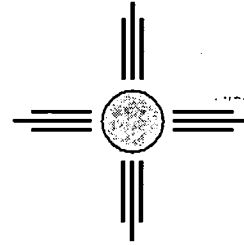
Background Information:

The existing 5 bedroom, 3½ bathroom dwelling was reportedly constructed 38 years ago. The house sits on land that slopes gently to moderately downward from the west side of the property to a pond on the east side of the property. The house has reportedly been occupied by 2 people over the past few months. The current occupants have lived in the dwelling for 15 years. The current owners report that they have pumped the septic tanks 3 times during their occupancy. The septic tanks were last pumped in 2011. There are no records on file with the Hopewell Township Health Department regarding the original construction of the septic system or any repairs that may have been performed on the system.

The USDA Soil Survey of Mercer County maps the soils on this property as Bucks silt loam, 2 to 6% slopes. This soil is categorized as deep and well drained with a seasonal high water table in excess of 6 feet below the ground surface.

Visual Observations:

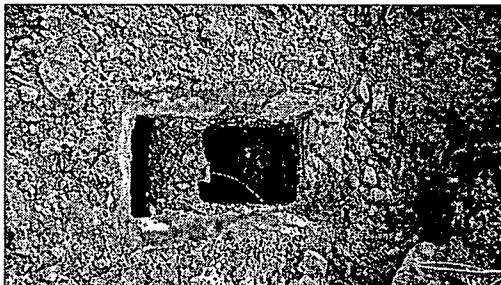
The attached onsite inspection form sketch contains a site sketch that presents the location of the primary septic system components. Located on the east side of the



dwelling, the septic system is comprised of two (2) 1,000 gallon concrete septic tanks and four (4) lateral trenches. An onsite well provides the property with potable water. The water supply is not currently fitted with a water treatment system. The kitchen sink is not equipped with a garbage disposal system at this time. The building is furnished with conventional plumbing fixtures that discharge into two (2) common building sewers that exit the foundation wall on the east side of the dwelling.

The septic tank manhole covers were removed to inspect the integrity of the tanks. The main lids of the tanks were found approximately 12" below the ground surface. We did not observe any evidence of sludge surfacing above the tops of the tanks or within the soil surrounding the tops of the tanks. The liquid level within the northern tank was found to be 24" +/- below the lower lip (invert) of the outlet pipe. The correct operating level is at the invert of the outlet pipe. The liquid level in the southern septic tank was above the invert of the outlet pipe.

A licensed hauler then pumped the contents of the septic tanks. We found both the concrete inlet and outlet baffles on the northern tank to be intact and functional. We found the concrete inlet baffle on the southern tank to be intact and the concrete outlet baffle to be decayed and nonfunctional. The following pictures identify the outlet ends of each septic tank:

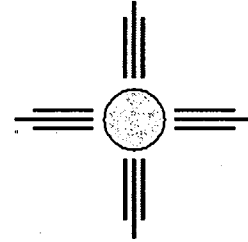


Northern Septic Tank Outlet Opening
(Note Lack of Visible Liquid in Tank)



Southern Septic Tank Outlet Opening
(Note Elevated Liquid Level & Eroded
Outlet Baffle)

We found the cast iron outlet pipe on each septic tank to be completely clogged due to tuberculosis and sludge fouling. This prevented us from televising the outlet line and locating the distribution box in the disposal component of the system and we used a rubber track excavator to expose the lines until the d-box was encountered



The distribution box serves to distribute effluent evenly to all laterals within the disposal field. The lid of the distribution box was found 15" below the ground surface. We found no evidence of sludge surfacing above the distribution box or within the soil surrounding the box. We removed the distribution box lid and found the d-box to be deteriorated and not water tight. We did not find any liquid within the distribution box; however, we found significant sludge accumulation. The sludge level was above the inverts of the four (4) orangeburg outlet pipes. A properly operating d-box will be free of sludge and the liquid level will be at the inverts of the outlet pipes.



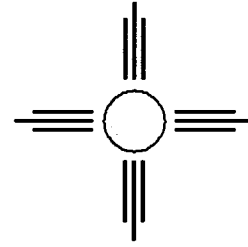
Deteriorated & Sludge Fouled D-Box

We proceeded to insert a sewer line camera equipped with an electronic transmitter into the outlets of the distribution box. We viewed the interiors of the lateral pipes and found them to be partially fouled with roots, sludge, and other debris. Our camera was unable to be advanced to the terminal ends of two (2) of the laterals due to deformation in the pipes caused by the weight of the soil backfill.

Comparison with Code Requirements:

NJAC 7:9A - Standards for Individual Subsurface Sewage Disposal Systems, defines the criteria for recognizing malfunctioning systems at NJAC 7:9A-3.4(b). The six (6) criteria include:

1. *Contamination of nearby wells or surface water bodies by sewage or effluent as indicated by the presence of fecal bacteria where the ratio of fecal coliform to fecal streptococci is 4 or greater;*



2. *Ponding or breakout of sewage or effluent onto the surface of the ground;*
3. *Seepage of sewage or effluent into portions of buildings below ground;*
4. *Back-up of sewage into the building served which is not caused by a physical blockage of the internal plumbing;*
5. *Any leakage from or into septic tanks, connecting pipes, distribution boxes and other components that are not designed to discharge sanitary sewage or effluent; or*
6. *Any discharge of sanitary sewage without a zone of treatment.*

The water supply well on the property must be sampled and analyzed as per the New Jersey Private Well Testing Act (NJPWTA). We have not been provided with this information and therefore can offer no conclusions with respect to the 1st criterion, above.

The NJPWTA requires well sampling and reporting prior to resale of an existing home or residential structure, and may be accessed via the following link: www.nj.gov/dep/pwta/

Should the laboratory analysis of the water sample indicate a presence of total coliform, a second water sample should be collected and analyzed to determine if the septic system is malfunctioning as defined in item one (1) above.

Based upon our inspection, we can conclude that the system is non-compliant as defined by the NJDEP in #5, above. The northern septic tank and the distribution box are not water tight.

Discussion & Conclusions:

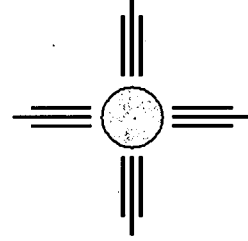
A septic system, like other components of a home has a useful life span. Systems older than twenty (20) years are generally beyond their peak operating efficiency and are likely to require repair or replacement. This septic system is 40 years old and has reached the end of its service life. Specifically, one of the existing septic tanks is not watertight. The second tank has a decayed outlet baffle. The septic tanks must be replaced.

The cast iron connecting pipes leading from each tank to the distribution box have become clogged due to age and sludge accumulation. The distribution box is deteriorated and is not water tight. Finally, the disposal laterals are clogged with sludge and roots.

The only viable option to provide a compliant septic system on this property is a septic system *alteration*. A septic system alteration is defined in NJAC 7:9A-2.1 as meaning “any change in the physical configuration of an existing individual subsurface sewage disposal system or any of its component parts, including replacement, modification, addition or removal of system components such that there will be a change in the location, design, construction, installation, size, capacity, type or number of one or more components.

On this property, a septic system alteration would begin with soil testing conducted in an area that meets the NJDEP and Hopewell Township setback requirements for wells, property lines, wetlands, streams, ponds, etc. The soil testing must be witnessed by a representative of the Hopewell Township Board of Health. Upon completion of acceptable soil testing in an area that meets the setback requirements an engineered

Ms. Matti Hill
October 22, 2013
SSI-NJ-MCR-HPT-B43.17-L2
Page - 5



design can be prepared and submitted to the Hopewell Township Health Department for a permit to construct the proposed alteration.

We estimate that the cost for construction of the system will probably be in the range of \$35,000 to \$40,000. The actual cost depends on the soil testing results and the final design. An additional \$6,000 to \$6,500 should be budgeted for soil testing and design.

Please do not hesitate to contact me if you have any questions or need any additional information.

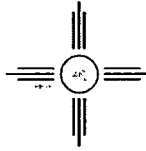
Sincerely,

Theodore H. Bayer, P.E.

SSI-NJ-MCR-HPT-B43.17-L2
THB/pwh

Enclosure: Invoice #8655 (Paid in Full)

Attachment: Onsite Inspection Form



Bayer-Risse Engineering, Inc.
SEPTIC SYSTEM INSPECTION REPORT

ONSITE SYSTEM INSPECTION FORM		
Inspection Overview - Preliminary system information - Inspection of treatment tanks - Absorption system inspection - Disposal/conveyance system assessment - Identification of any alternative technology approved components	Inspection form is not applicable to cesspools, privies, outhouses, pit toilets or latrines. Identification of such units shall be reported to the Administrative Authority.	INTERNAL USE ONLY:

CLIENT INFO	INSPECTION LOCATION
Client Name: <u>Matti Hill</u> Different from owner? ☒ yes ☐ no Client Address: <u>6 Ege Ave.</u> <u>Hopewell, NJ 08825</u> Contact Methods : Cell # : _____ Home tel. : _____ Work tel. : _____ Fax # : _____ E-mail : <u>mhill4119@gmail.com</u>	Inspector Name: <u>Theodore H. Bayer, P.E.</u> Date: <u>10/17/2013</u> Inspection Address : <u>4 Arvida Dr.</u> <u>Pennington, NJ 08534</u> Township : <u>Hopewell Twp.</u> Block : <u>43.17</u> Lot : <u>2</u> Was GPS used? ☐ yes ☒ no

Preliminary Information: Weather: <u>Ptly Cldy 60d</u> Last precipitation: <u>>24 hrs</u> Age of system <u>38 yrs.</u> Type of dwelling: ☒ Residential Number of Bedrooms: <u>5</u> ☐ Non residential Describe: _____ How many systems are being inspected? _____ List any commercial activities or high impact hobbies: <u>N/A</u> Describe prior problems and/or repair history including soil fracturing or use of chemical additives. Include dates and explain why the remedial measures have been applied to the system (if available): <u>N/A</u> Date file review requested with administrative authority? <u>10/24/13</u> Comments: _____	<table style="width: 100%;"><thead><tr><th></th><th style="text-align: center;">Yes</th><th style="text-align: center;">No</th></tr></thead><tbody><tr><td>Is there a site plan or septic map available?</td><td style="text-align: center;">☐</td><td style="text-align: center;">☒</td></tr><tr><td>Is the dwelling currently being occupied?</td><td style="text-align: center;">☒</td><td style="text-align: center;">☐</td></tr><tr><td> If so, how many occupants? <u>2</u></td><td></td><td></td></tr><tr><td> If no, date last occupied? _____</td><td></td><td></td></tr><tr><td>Is the dwelling free of additional gray water systems?</td><td style="text-align: center;">☒</td><td style="text-align: center;">☐</td></tr><tr><td>Is the dwelling free of sump pump discharges to the system?</td><td style="text-align: center;">☒</td><td style="text-align: center;">☐</td></tr><tr><td>Is the dwelling free of any historical sewage back-ups into the structure?</td><td style="text-align: center;">☒</td><td style="text-align: center;">☐</td></tr><tr><td>Does all sewage enter the septic system and no type of sewage bypass exists?</td><td style="text-align: center;">☒</td><td style="text-align: center;">☐</td></tr><tr><td>Septic Tank Pumping:</td><td></td><td></td></tr><tr><td> Is the septic tank pumped regularly?</td><td style="text-align: center;">☒</td><td style="text-align: center;">☐</td></tr><tr><td> Frequency: <u>5 yrs.</u></td><td></td><td></td></tr><tr><td> Date of last pumping: <u>2011</u></td><td></td><td></td></tr><tr><td>Was file review completed prior to inspection? If no, explain why below</td><td></td><td></td></tr></tbody></table>		Yes	No	Is there a site plan or septic map available?	☐	☒	Is the dwelling currently being occupied?	☒	☐	If so, how many occupants? <u>2</u>			If no, date last occupied? _____			Is the dwelling free of additional gray water systems?	☒	☐	Is the dwelling free of sump pump discharges to the system?	☒	☐	Is the dwelling free of any historical sewage back-ups into the structure?	☒	☐	Does all sewage enter the septic system and no type of sewage bypass exists?	☒	☐	Septic Tank Pumping:			Is the septic tank pumped regularly?	☒	☐	Frequency: <u>5 yrs.</u>			Date of last pumping: <u>2011</u>			Was file review completed prior to inspection? If no, explain why below		
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Treatment Tank:				Yes No	
Type of system* being inspected?					
☒ Septic tank	☐ Cesspool			☒	☐
☐ Gray water	☐ Multi-compartment: # _____			☒	☐
What material is the tank made of?					
☒ Concrete	☐ Block			☐	☒
☐ Steel	☐ Other _____			☒	☐
Approximate Treatment Tank Volume: <u>1,000</u> gals.				☒	☐
Evaluate the conditions of tank below:				☐	☒
	Satisfactory	Unsatisfactory	N/A		
Top and Lids	☒	☐	☐	Main tank lid opened for inspection?	
Inlet baffle	☒	☐	☐	Liquid level below the tank's inlet invert?	
Outlet baffle	☐	☒	☐	Liquid level at the tank's outlet invert?	
Cracks or Leaks	☐	☒	☐	Treatment tank pumped for this inspection?	
Sewage Flow from structure	☒	☐	☐	Are all portions of the tank clear of structures like a deck or a driveway?	
* Cesspools, privies, outhouses, latrines and pit toilets are not systems and must not be inspected in accordance with this protocol. If a cesspool, privy, outhouse, latrine or pit toilet is used for onsite wastewater disposal, the administrative authority shall be notified.				Is the area clear of evidence that sewage has surfaced above the treatment tank?	
Comments:				Does effluent flow unimpeded from the Tank?	
				Is an effluent filter a part of the system?	
				If yes, does it appear properly maintained?	
				Are there any other types of accessory units present?	
				Depth to top of tank: <u>12</u> inches	
				Depth to top of tank access: <u>12</u> inches	

Absorption Area:					
Was the absorption system located?			☒ yes	☐ no	If no, see below.
Check the type of the absorption components that apply :					
☐ disposal bed	☐ gravity fed	☐ pressure-dosed	☐ gravity-dosed	☐ raised mound	
☒ disposal trench(es)	☒ # of laterals <u>4</u>	☐ seepage pits(s) _____	☐ cesspool	☐ Other _____	
Are inspection ports present?			☐ yes	☒ no	How Many? _____
Were separate, confirmation probes done throughout the absorption area?			☒ yes	☐ no	☐ N/A
Is the area of the absorption system free of sewage odors?			☒ yes	☐ no	
Does sewage flow from the treatment tank to the absorption system without flowing back?			☐ yes	☒ no	☐ N/A
Is the area above / near any of the system components free from signs of effluent or sewage?			☒ yes	☐ no	
Are the areas at or near the inlet invert of any absorption area component free of visible signs of sewage or effluent?			☐ yes	☒ no	
Are areas above or near system components free of lush vegetation?			☒ yes	☐ no	
If exposed, is the distribution box in satisfactory condition?			☐ yes	☒ no	☐ N/A
Is the area over the absorption system free of large objects (cars, pools, etc.)?			☒ yes	☐ no	☐ N/A
Comments:					
Cast iron outlet pipes constricted due to tuberculois. D-box deteriorated. Laterals sludge laden & root filled.					

Septic System Location Sketch (Not To Scale):

See Attached

Dosing or Pump Tank:

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
Does the system contain a pump tank?	☐	☒	☐
Is the pump operating?	☐	☐	☒
Do the alarm(s) on the pump work?	☐	☐	☒
Is the pump elevated above the tank floor?	☐	☐	☒
Is the lid in satisfactory condition?	☐	☐	☒
Is the tank in satisfactory condition	☐	☐	☒
Is the tank free of accumulated solids?	☐	☐	☒

Summary:

	<u>Satisfactory</u>	<u>Satisfactory with Concerns</u>	<u>Unsatisfactory</u>	<u>Requires Additional Investigation</u>	<u>N/A</u>
Identification of cesspool, privy, outhouse, latrine and pit toilet:					
Condition of the treatment tank	☐	☐	☒	☐	☐
Condition of the dosing system	☐	☐	☐	☐	☐
Condition of the conveyance system	☐	☐	☒	☐	☐
Condition of the absorption area(s)	☐	☐	☒	☐	☐

Summary Comments:

SEPTIC TANK:

Not water tight. Broken/deteriorated baffles

CONVEYANCE SYSTEM:

Cast iron clogged

ABSORPTION SYSTEM:

d-box deteriorated; laterals sludge laden and root bound

Health Department Reporting:

Note if any of the following conditions were observed during the inspection:

- ☐ 1. Ponding or breakout of sewage or effluent onto the surface of the ground
- ☐ 2. Seepage of sewage or effluent into portions of buildings below ground
- ☐ 3. Backup of sewage into the building served which is not caused by a physical blockage of the internal plumbing
- ☒ 4. Any manner of leakage observed from or into septic tanks, connecting pipes, distribution boxes and other components that were not designed to emit sanitary sewage or effluent.

Pursuant to N.J.A.C. 7:9A-3.4 notification of any observation that is consistent with a condition noted above should be reported to the local administrative authority within 24 hours of the observation. Regardless of observations made, a copy of this report should be provided to the local administrative authority within 10 days of the issuance of this report.

If encountered, describe all observed noncompliant conditions encountered during this inspection:

Tank(s) & d-box not water tight. See written report

Disclaimer:

Bayer-Risse Engineering, Inc. (herein after referred to as BRE) performs inspections in accordance with the "Technical Guidance for Inspections of Onsite Wastewater Treatment and Disposal Systems" provided by the New Jersey Department of Environmental Protection, Division of Water Quality, Bureau of Non-Point Pollution Control dated July 2003.

A NJDEP Inspection is:

- an objective evaluation of the onsite wastewater treatment system's characteristics based on the experience and expertise of a qualified inspector.
- an evaluation of each component examined leading to a conclusion about the system's condition.

A NJDEP Inspection is not:

- a warranty or guarantee that the system will properly function for any period of time in the future.
- a result that is certified or endorsed by the State of New Jersey or its related regulatory or governing agencies.
- an assurance that the soil is adequately treating or will adequately treat effluent.

Based on today's observations and the information provided by the owner(s) or their agent, BRE submits this sub-surface sewage disposal system inspection report. The inspection is based on the current condition of the onsite sewage disposal system. BRE makes no representation that the system was designed, installed, or meets NJAC 7:9A-1.1 et. seq. BRE has not been retained to warrant, guarantee, or certify the proper functioning of the system for any period of time. Because of numerous factors (usage, soil type, installation, maintenance, etc.) which affect the proper operation of a sub-surface disposal system, as well as the inability of BRE to supervise or monitor the use and maintenance of the system, this report shall not be construed as a warranty by BRE that the system will function properly for any prospective buyer. BRE disclaims any warranty, either expressed or implied, arising from this inspection of the septic system.

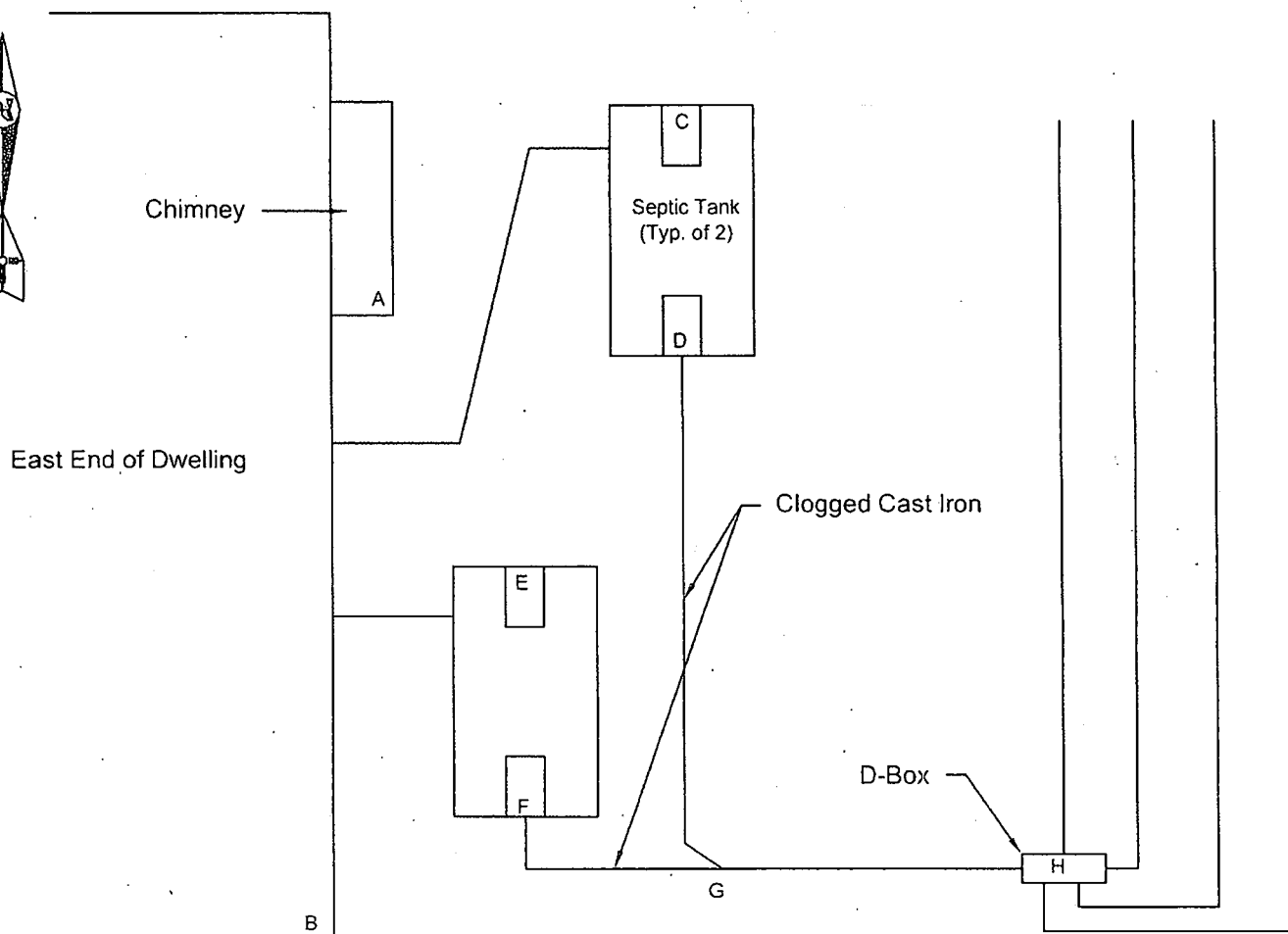
Customer authorization:

I authorize Bayer-Risse Engineering, Inc. to enter the above listed property for the purpose of performing a sub-surface sewage disposal system inspection. I authorized Bayer-Risse Engineering, Inc. to expose parts of the system, if required, to determine the location and condition. I understand that Bayer-Risse Engineering, Inc. relies on information supplied by the owner(s) of the listed property or the agent and administrative authority in the evaluation of the sub-surface disposal system. I authorize Bayer-Risse Engineering, Inc. to provide this form to all parties as required.

Customer Signature: _____ **Printed Name:** _____

Bayer-Risse Engineering, Inc. Signature: Theodore H. Bayer, P.E.

Date: 10/22/2013

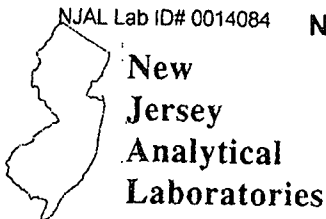


Drawing
Not to Scale

Table of Distances	
AC	21'6"
AD	19'0"
AE	15'6"
AF	19'6"
AG	25'0"
AH	31'0"
BC	36'0"
BD	30'0"
BE	23'0"
BF	19'6"
BG	25'0"
BH	30'3"

Septic System Component Layout 4 Arvida Drive (Block 43.17, Lot 2) Hopewell Township, Mercer County, NJ

Not-to-Scale



New Jersey Private Well Water Test Reporting Form

1580 Reed Road
Suite A1
Pennington, NJ 08534

Tel: (609) 737-3477
www.njal.com

The New Jersey Well Test Reporting Form is a standardized form to be used exclusively by laboratories reporting well test results to their client in accordance with the Private Well Testing Act Regulations N.J.A.C. 7:9E.

These laboratory analyses were completed for the purposes of complying with the Private Well Testing Act. In accordance with the Private Well Testing Act Regulations all analytical results except for coliform (total, fecal, or e.coli) shall remain valid for a period of one year from the date of sample collection. All coliform (total, fecal, or e.coli) analytical results shall remain valid for a period of six months from the date of sample collection.

- ☐ Analytical results meet primary and secondary contaminant standards for drinking water.
- ☒ One or more of the analytical results do not meet primary* contaminant standards for drinking water.
- ☐ One or more of the analytical results do not meet secondary** contaminant standards for drinking water.

Client Information

Name: Debbie Fein
Mailing Address: 4 Arvida Drive
Pennington, NJ 08534
Date Test Requested: 10/31/2013

Property Information

Property Address: 4 Arvida Drive
Muni Code (4 digit): 1106
County: Mercer
Municipality: Hopewell Township
GPS Location-State Plane coordinates (feet):
GPS Coordinate Location (circle one): X: Well Head / Front Door / Sample Collection Point / Other
NJ Well Permit or Well Record Number (if known):
Lot: 2 Block: 43.17

Laboratory Information

Reporting Laboratory Name & ID #: New Jersey Analytical Laboratories, LLC #11005
Reporting Laboratory Address & Phone #: 1580 Reed Road ~ Pennington, NJ 08534
Tel: 609-737-3477

Sample Information:

Sample Collector Name: Haynes Wu
Authorized Representative/Certified Laboratory Employee Lab Certification ID #: 11005
Sample Type: NOTE: Only raw or untreated water samples meet the requirements of the PWTA regulations N.J.A.C. 7:9E.
a.) Indicate Specific Location of Sample collected: Kitchen Tap
b.) Type of Treatment Device(s) Installed (if known):

(*) Primary Drinking Water contaminants are those contaminants that have Maximum Contaminant Levels or Action Levels established to protect health. The Primary Drinking Water contaminants are coliform bacteria, nitrate (total), lead, the volatile organic compounds, arsenic, mercury and gross alpha. The standards for primary contaminants are the maximum permissible levels allowed in drinking water based on ingesting the drinking water over the course of a lifetime.

(**) Secondary Drinking Water contaminants are those contaminants that have Recommended Upper Limits or Optimum Ranges established to protect against those properties that adversely effect the taste, odor, or appearance of drinking water. The Secondary Drinking Water contaminants are iron, manganese and pH.

NJAL Lab ID# 0014084 **New Jersey Private Well Water Test Reporting Form**
New Jersey Analytical Laboratories

The New Jersey Well Test Reporting Form is a standardized form to be used exclusively by laboratories reporting well test results to their client in accordance with the Private Well Testing Act Regulations N.J.A.C. 7:9E.

These laboratory analyses were completed for the purposes of complying with the Private Well Testing Act.

SUMMARY OF WELL WATER TEST RESULTS:						
Required Test Required	Result	Units	Applicable Standard Maximum Contaminant Level Action Level or Limit	Standard Exceeded (N/A)	Laboratory Certification ID #	Analytical Method
Microbial Parameters						
Total Coliform	Pres	Pres/Abs	0 (not present)	Y	11005	SM9223B
E. coli**	Abs	Pres/Abs	0 (not present)	N	11005	SM9223B
Metals						
Arsenic*	2.5	ug/l	5 ug/l	N	11005	EPA 200.8
Mercury	NA	ug/l	2 ug/l	NA	NA	NA
Lead**	<0.5	ug/l	5 ug/l**	N	11005	EPA 200.8
Iron	<0.05	mg/l	0.3 mg/l	N	11005	SM 3111B
Manganese	<0.001	mg/l	0.05 mg/l	N	11005	EPA 200.8
General Chemistry						
pH	6.59	su	6.5-8.5 (optimum range)	N	11005	SM4500 H-B
Nitrate (total)	4,600	ug/l	10,000 ug/l	N	11005	EPA 300
Volatile Organics						
Benzene	<0.1	ug/l	1 ug/l	N	11005	EPA 524.2
Carbon Tetrachloride	<0.1	ug/l	2 ug/l	N	11005	EPA 524.2
meta-Dichlorobenzene	<0.2	ug/l	600 ug/l	N	11005	EPA 524.2
ortho-Dichlorobenzene	<0.3	ug/l	600 ug/l	N	11005	EPA 524.2
para-Dichlorobenzene	<0.3	ug/l	75 ug/l	N	11005	EPA 524.2
1,1-Dichloroethane	<0.1	ug/l	50 ug/l	N	11005	EPA 524.2
1,2-Dichloroethane	<0.1	ug/l	2 ug/l	N	11005	EPA 524.2
1,1-Dichloroethylene	<0.1	ug/l	2 ug/l	N	11005	EPA 524.2
cis-1,2-Dichloroethylene	<0.2	ug/l	70 ug/l	N	11005	EPA 524.2
trans-1,2-Dichloroethylene	<0.1	ug/l	100 ug/l	N	11005	EPA 524.2
1,2-Dichloropropane	<0.1	ug/l	5 ug/l	N	11005	EPA 524.2
Ethylbenzene	<0.1	ug/l	700 ug/l	N	11005	EPA 524.2
Methyl tertiary-butyl ether	<0.1	ug/l	70 ug/l	N	11005	EPA 524.2
Methylene Chloride	<0.1	ug/l	3 ug/l	N	11005	EPA 524.2
Monochlorobenzene	<0.1	ug/l	50 ug/l	N	11005	EPA 524.2
Naphthalene	<0.5	ug/l	300 ug/l	N	11005	EPA 524.2
Styrene	<0.1	ug/l	100 ug/l	N	11005	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	ug/l	1 ug/l	N	11005	EPA 524.2
Tetrachloroethylene	<0.2	ug/l	1 ug/l	N	11005	EPA 524.2
Toluene	<0.1	ug/l	1,000 ug/l	N	11005	EPA 524.2
1,2,4-Trichlorobenzene	<0.3	ug/l	9 ug/l	N	11005	EPA 524.2
1,1,1-Trichloroethane	<0.1	ug/l	30 ug/l	N	11005	EPA 524.2
1,1,2-Trichloroethane	<0.2	ug/l	3 ug/l	N	11005	EPA 524.2
Trichloroethylene	<0.1	ug/l	1 ug/l	N	11005	EPA 524.2
Vinyl Chloride	<0.2	ug/l	2 ug/l	N	11005	EPA 524.2
Xylenes (total)	<0.1	ug/l	1,000 ug/l	N	11005	EPA 524.2
Radiological Parameters						
Gross Alpha (initial)	9.77	pCi/L	5 pCi/L	Y	PA 028	ECLS-R-GA
Gross Alpha (final)	7.90	pCi/L	15 pCi/L	N	PA 028	ECLS-R-GA

UNITS: Pres/Abs=presence or absence; ug/l= micrograms per liter (also known as parts per billion); mg/l=milligrams per liter (also known as parts per million); pCi/L=picocuries per liter; su=standard units.

* If total coliform bacteria are detected then additional analyses are required to determine the specific type (focal or E. coli) present. Focal coliform or E. coli analysis is not required if total coliform sample results indicate the absence of total coliform bacteria.

** The results of a "flushed" raw (unretreated) water sample, which is required by the Private Well Testing Act regulations, should be compared to the Ground Water Quality Standard of 5 ug/l found at N.J.A.C.7: 9-8 et seq. The Load Action Level of 15 ug/l applies to a one liter first-draw tap sample collected from a cold water kitchen or bathroom tap/sink in which the water has remained motionless in the plumbing system for at least six hours [40 CFR 141.86(b)(2)]. This type of standing water sample is NOT required by the Private Well Testing Act regulations.

Arsenic analysis is required in Bergen, Essex, Hudson, Hunterdon, Mercer, Middlesex, Morris, Passaic, Somerset and Union counties. A new MCL of 5 ug/l took effect 1/23/06.

* Mercury analysis is required only in Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Monmouth, Ocean, and Salem counties.

- Gross alpha particle activity testing will be required in Cumberland and Gloucester counties starting March 15, 2003; Atlantic, Burlington, Camden and Salem counties starting September 16, 2003; Cape May, Hunterdon, Mercer, Middlesex, Monmouth and Ocean counties starting March 16, 2004. If the initial Gross alpha particle count exceeds 5 pCi/L a second count is required according to the Method. The MCL for Gross alpha particle activity is 15 pCi/L.

NJAL Lab ID# 0014084 **New Jersey Private Well Water Test Reporting Form**
 New Jersey Analytical Laboratories

The New Jersey Well Test Reporting Form is a standardized form to be used exclusively by laboratories reporting well test results to their client in accordance with the Private Well Testing Act Regulations N.J.A.C. 7:9E. These laboratory analyses were completed for the purposes of complying with the Private Well Testing Act.

ADDITIONAL SAMPLE INFORMATION:		
Coliform Analyses:		
Date/Time Sample Collected: 10/31/13, 1005	Date/Time Sample Analyzed: 10/31/13, 1750	Sample ID Number: 0014084
Date/Time Sample Collected	Date/Time Sample Analyzed:	Sample ID Number:
Volatile Organics:		
Date/Time Sample Collected: 10/31/13, 1005	Date/Time Sample Analyzed: 11/06/13, 2226	Sample ID Number: 0014084
Inorganics:		
Date/Time Sample Collected: 10/31/13, 1005	Date/Time Sample Analyzed: 10/31/13, 1804	Sample ID Number: 0014084
Date/Time Sample Collected	Date/Time Sample Analyzed:	Sample ID Number:
pH Analysis:		
Date/Time Sample Collected: 10/31/13, 0957	Date/Time Sample Analyzed: 10/31/13, 0959	Sample ID Number: 0014084
Gross Alpha Analyses:		
Date/Time Sample Collected: 10/31/13, 1005	Date/Time Sample Analyzed: 11/02/13, 2259	Sample ID Number: 0014084
Date(s) All Analyses Received by Reporting Lab from Subcontracted Lab (if applicable):		

CERTIFICATION OF RESULTS:

I certify in writing that all sampling, analyses, and reporting performed herein, comply with all requirements set forth in N.J.A.C. 7:9E and N.J.A.C. 7:18, and hereby certify that this laboratory is in compliance with all laboratory certification and quality control procedures and requirements as set forth in N.J.A.C. 7:18.

 Laboratory Manager or Designee

 Date

11/13/13

ADDITIONAL INFORMATION:

I. Treatment Options

Listed below are the common treatments available to homeowners having well contamination above a Maximum Contaminant Level, Action Level or Recommended Limit. The goal of water treatment is the removal of contaminants to levels below the Maximum Contaminant Level, Action Level or Recommended Limit. For additional information on home treatment devices contact your local/county health department or the NJDEP Private Well Testing Act Hotline at 1-866-4PW-TEST or visit the Private Well Testing Act webpage at www.state.nj.us/dep/pwta for links to other appropriate websites, such as National Sanitation Foundation www.nsf.org or USEPA's drinking water website www.epa.gov/safewater. You may also call the USEPA Drinking Water Hotline at (800) 426-4791 to obtain a copy of USEPA's pamphlet entitled "Home Water Treatment Units" (WH-550A). All treatment devices must be properly maintained in accordance with manufacturer recommendations to ensure operating efficiency in removing contaminants. As noted below, not all treatment devices remove every contaminant; there may be more than one device installed if multiple contaminants exist in the drinking water. Water treatment companies may be found by consulting the yellow pages of your local area phone book.

CERTIFICATE OF COMPLIANCE

County Mercer Municipality Hopewell Township

MCO

INSTRUCTIONS: Part A is to completely filled in for all Certifications. Only Part B or Part C will be completed. Part B will be completed if the administrative authority relies upon the certification signed and sealed by a New Jersey licensed professional engineer that the system has located, constructed, installed or altered in compliance with the requirements of the N.J.A.C. 7:9A-1 and the Application to Construct/Alter/Repair an Individual Subsurface Sewage Disposal System which was approved by the administrative authority. Part C will be completed if the administrative authority performed the certification.

Part A – General Information

1. Permitted Activities (Check applicable categories)

Permit Number _____

- ☐ New Construction
☒ Alteration/No Expansion or Change of Use
☐ Alteration/Expansion or Change of Use
☒ Alteration/Malfunctioning System
☐ Deviation from Standards
☐ Repairs to Existing System

2. Location of Project:

Municipality Hopewell Township Block 43.17 Lot 2

Street Address 4 Arvida Drive

Name and Present Address of Applicant: Mattie Hill- Address Same as Above

Applicant's Phone Number: 571-218-8021

Part B – Professional Engineers Certification

I certify under penalty of law that the subsurface sewage disposal system identified in Part A has been located, constructed, installed or altered in compliance with the requirements of N.J.A.C. 7:9A-1 and the Application to Construct/Alter/Repair and Individual Subsurface Sewage Disposal System which was approved by the administrative authority. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



(Signature)

Date: 2/6/14

Stephen M. Risse, P.E. License No. GE34795

Name (Type or Print), License #

SEAL

Part C – Certification by Administrative Authority

I certify under penalty of law that the subsurface sewage disposal system identified in Part A has been located, constructed, installed or altered in compliance with the requirements of N.J.A.C. 7:9A-1 and the Application to Construct/Alter/Repair and Individual Subsurface Sewage Disposal System which was approved by the administrative authority. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Authorized Signature

Type of License Held

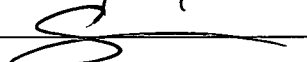
Name (Typed of Printed)

License Number

Date Received: 2/18/14

Form Determined to Be: X Complete

Date Certification Approved: 2/20/14

Authorized Signature: 

For Agency Use Only

Incomplete
Date Returned _____
Date Received _____

HOPEWELL TOWNSHIP HEALTH DEPARTMENT

201 Washington Crossing-Pennington Road
Titusville, New Jersey 08560

ENGINEER CERTIFICATION OF FILL MATERIAL

Block 43.17 Lot 2

Quarry Phoenix Pinelands Sand & Gravel

Disposal System Design Rate 6-20 in/hr

I hereby certify that the fill material used in the: ☒ Zone of Treatment ☒ Zone of Disposal meets the specifications of NJAC 7:9A

Textural Analysis:

	<i>Zone of Treatment</i>	<i>Zone of Disposal</i>
3/8" Sieve	100%	100%
No. 8 Sieve	94%	94%
No. 16 Sieve	85%	85%
No. 30 Sieve	59%	59%
No. 50 Sieve	17%	17%
No. 100 Sieve	3%	3%
Coarse Fragments (No. 8 Sieve)	6% ☐ vol. ☒ wt.	6% ☐ vol. ☒ wt.

☒ Percolation test result 3.1 min/in

☐ Tube permeameter test result ____ in/hr

I certify that the textural analysis, permeability, and compaction of the fill material meet the requirements of N.J.A.C.7:9A-10.4(f).



Stephen M. Risse, P.E.
Engineer's Signature and Seal

Bayer-Risse Engineering, Inc.

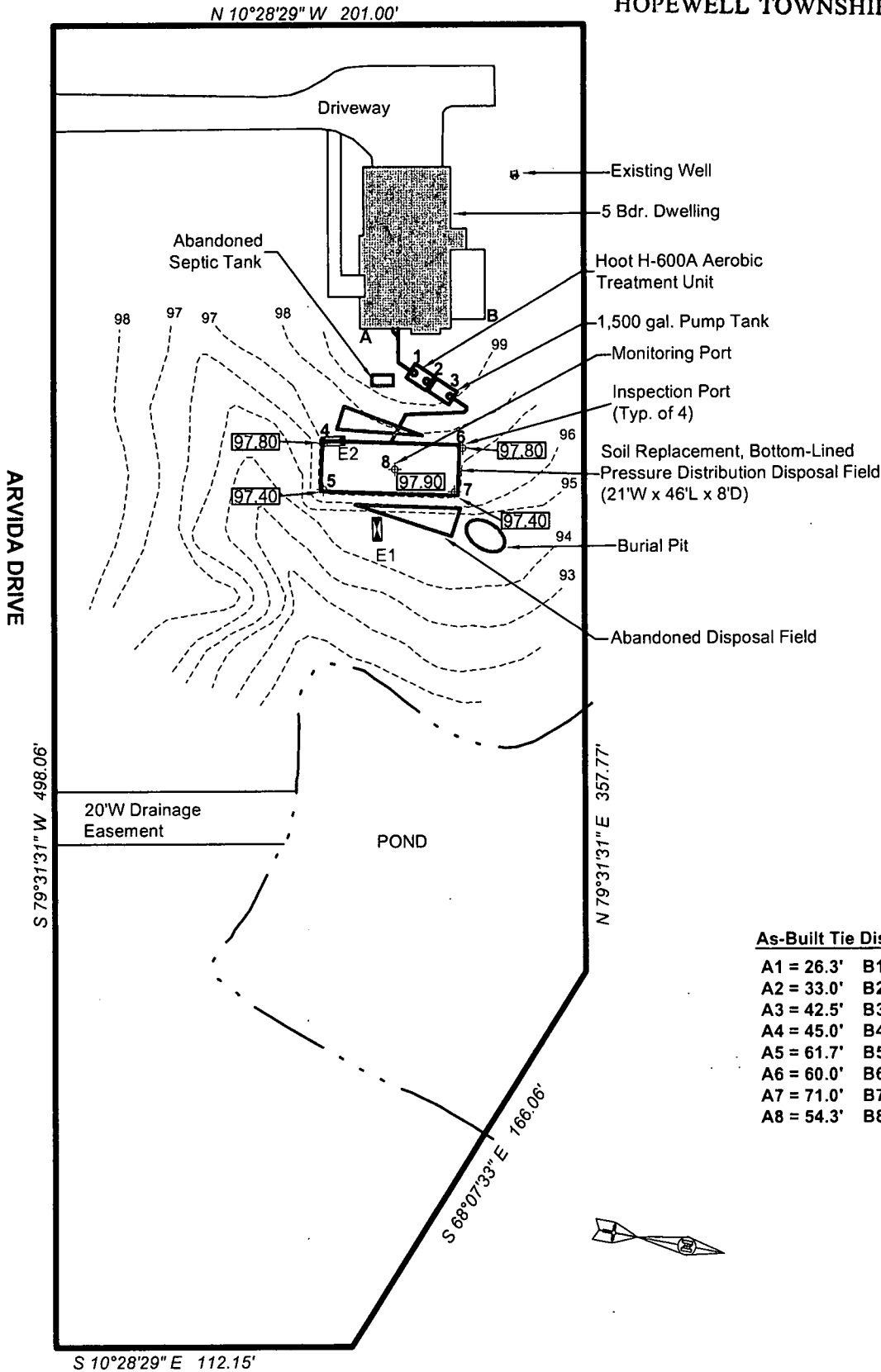
Date 2/6/14

4 Arvida Drive (Block 43.17, Lot 2)
Hopewell Township, Mercer County, NJ
Lot Size: 2.2 Acres

AS - BUILT DESIGN APPROVED

DATE: 2/20/14

HOPEWELL TOWNSHIP HEALTH DEPT.



As-Built Tie Distances

A1 = 26.3'	B1 = 34.9'
A2 = 33.0'	B2 = 28.8'
A3 = 42.5'	B3 = 31.8'
A4 = 45.0'	B4 = 75.0'
A5 = 61.7'	B5 = 88.4'
A6 = 60.0'	B6 = 45.8'
A7 = 71.0'	B7 = 65.8'
A8 = 54.3'	B8 = 65.8'

Graphic Scale



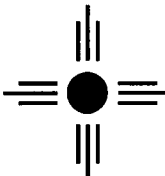
1" = 60'

Septic System Alteration Design
Record Drawing Plan

Mattie Hill		Block 43.17, Lot 2		Hopewell Township, Mercer County, New Jersey			4 Arvida Drive	
DRAWN BY:	DESIGNED BY:	CHECKED BY:	DWG NO.	BRE JOB#:	SCALE:	DATE:	SHEET:	
ARL	SBP	WMJ	REC-1	13-1386	As Noted	February 6, 2014	1 of 1	

THEODORE H. BAYER, P.E.

New Jersey Professional Engineer License No. GE33806



BAYER-RISSE ENGINEERING, INC.
78 ROUTE 173 WEST, SUITE 6
HAMPTON, NEW JERSEY 08827
PHONE 908-735-2255 FAX 908-735-5838
Certificate of Authorization No. 24GA27043900

ADDENDUM TO CONTRACT FOR SALE

**BETWEEN MATHILDE T. HILL, BUYER
AND DOUGLAS FEIN AND DEBORAH FEIN, SELLER**

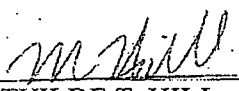
PROPERTY: 4 Arvida Drive, Pennington, NJ 08534

DATED: November 22, 2013

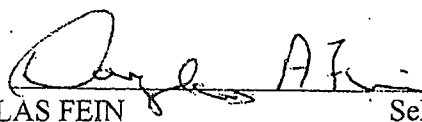
**THE TERMS AND CONDITIONS OF THIS ADDENDUM, WHERE INCONSISTENT WITH
THE CONTRACT OF SALE OR ANY PREVIOUS ADDENDUM LETTER, SHALL
CONTROL.**

It is understood and agreed by and between the parties hereto that the terms and conditions of the Contract of Sale above-referenced are amended as follows:

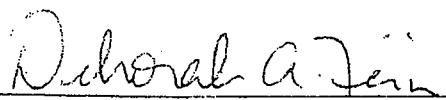
1. The name of Seller, ~~Deborah Fein~~, is hereby amended to Deborah Fein.
2. The total sum of \$61,907.40 will be held in escrow at the time of closing for the replacement of the septic system allocated as follows: \$41,271.60 will be held from the Sellers proceeds and Buyer will bring an additional \$20,635.80. Said escrow will be held in the trust account of Robert F. Casey, Esq.
3. The remaining provisions of the Contract are hereby ratified and are of full force and effect.



MATHILDE T. HILL Buyer



DOUGLAS FEIN Seller



DEBORAH FEIN Seller

FEB-24-2014 21:43

From:610-847-1046



LIMITED WARRANTY AND REGISTRATION

HOOT Aerobic Systems, Inc.

2885 Highway 14 East Lake Charles, Louisiana 70607

(337) 474-2804 phone (337) 477-7904 fax

HOOT LIMITED WARRANTY: HOOT Aerobic Systems, Inc. ("HOOT") warrants faulty workmanship or construction of the HOOT treatment system for three (3) years from the date of purchase, subject to the following condition: If HOOT determines that the fault in workmanship or construction of the HOOT treatment system is not the result of improper installation, improper maintenance, failure to service, natural disaster, an act of God (including but not limited to flood, lightning or fire ants), or tampering by any means, then, at HOOT's discretion, HOOT has the right to provide a replacement for such faulty component. The faulty component will be replaced with a rebuilt or new component to the Service Provider for the first three (3) years from the date of purchase. During the initial 2 year service policy, the component will be replaced at no charge. During the third year, components will be provided only to a qualified HOOT Service Provider, at no charge, however any and all installation charges will be the responsibility of the homeowner. The cost of pumping or cleaning of any component or compartment of the sewage treatment system, which becomes necessary for causes other than malfunction of the equipment, is the responsibility of the Home Owner.

DISCLAIMER

NO GENERAL WARRANTY: Hoot Aerobic Systems, Inc. disclaims any and all warranties, except as indicated above, either express or implied, and expressly disclaims the implied warranties of merchantability and fitness for a particular purpose.

WAIVER OF CONSUMER RIGHTS: In exchange for this warranty, I waive my rights under the Deceptive Trade Practices-Consumer Protection Act, Section 17.41 et seq., Business & Commerce Code, a law that gives consumers special rights and protections. After opportunity for consultation with an attorney of my own selection, I voluntarily consent to this waiver. Home Owner Initials _____

SOLE REMEDY

HOOT's liability for any accident, injury, or damage to any person or property shall be limited to the purchase price of the HOOT Aerobic Treatment System. HOOT is not and shall not be liable for any incidental or consequential damages or injury, regardless of fault, to any person or property resulting from misdesign or mismanufacture of the HOOT Aerobic Treatment System, failure to warn, failure to label, or inadequate instructions in the manual. This clause is effective to the full extent allowed by law and shall be void where prohibited.

WARRANTY REGISTRATION

FOR THE ABOVE WARRANTY TO BE EFFECTIVE, THE HOMEOWNER AND ANY USER ATTEMPTING TO CLAIM ANY RIGHT UNDER THIS WARRANTY MUST COMPLETE THIS FORM AND RETURN A SIGNED COPY TO HOOT WITHIN THIRTY (30) DAYS FROM THE DATE OF INSTALLATION.

By signing this agreement, the Home Owner agrees to all terms contained herein.

HOME OWNER

Name (Please Print)

H. Cavada Jr.

Physical Address

Remington NJ 08534

City

State

Zip Code

()

Phone

Signature of Home Owner

SYSTEM INFORMATION

H6006F

Model Number

957

Serial Number

Mow Supply

Service Provider Name

1-29-14

Date of Installation

The Above information can be found on the top of the Control Panel to your system.



TREATMENT SYSTEM INITIAL SERVICE POLICY

HOOT Aerobic Systems, Inc.

2885 Highway 14 East Lake Charles, Louisiana 70607
(337) 474-2804 phone (337) 477-7904 fax

Our Company, M & W Supply, will operate and maintain the Hoot Aerobic System located at Arvida Dr. Pennington NJ 08534, (legal description only) Permit # _____ for the period of 2 years beginning 1-30-14 and ending 1-30-16.

This contract will provide for all required inspections, testing and service of your HOOT Aerobic Treatment System. The policy will include the following:

- 2 inspections a year/service calls (at least one every 6 months), for a total of 4 over the two-year period including inspection, adjustment and servicing of the mechanical, electrical and other applicable component parts to ensure proper function. This includes inspecting control panel, air pumps, air filters, diffuser operation, and replacing or repairing any component not found to be functioning correctly.
- An effluent quality inspection consisting of a visual check for color, turbidity, scum overflow and examination for odors. A test for chlorine residual and pH will be taken and reported as necessary.
- If any improper operation is observed, which cannot be corrected at the time of the service visit, you will be notified immediately in writing of the conditions and estimated date of correction.
- The Homeowner is responsible for maintaining a chlorine residual of at least 1mg/L in the treatment system. This can be accomplished by using chlorine tablets designed for wastewater use, NOT SWIMMING POOL TABLETS. Upon visit, if the system needs chlorine tablets the service provider will add them and charge the customer. If the customer fails in their responsibility to add the chlorine tablets, they are in violation of law and appropriate action will be taken.
Initials of Installer _____ Initials of Homeowner _____
- Any additional visits, inspections or sample collections required by specific Municipalities, Water/River Authorities, County Agencies the TNRCC or any other regulatory agency in your jurisdiction will be covered by this policy.

At the conclusion of the initial service policy, the Service Provider will make available, for purchase on an annual basis, a continuing service policy to cover labor for normal inspection, maintenance and repair. According to state law, all owners of aerobic systems must maintain a factory authorized service provider for the lifetime of the system.

The HOOT Homeowners Manual must be strictly followed or warranties are subject to invalidation. Pumping of sludge build-up, for reasons other than due to warranted mechanical failure, are not covered by this policy and will result in additional charges. By signing this form, both Installer and Homeowner agree to the terms of this policy. By signing this form, both the Installer and the Homeowner agree that the Homeowner has received a copy of the Homeowners Manual and the Installer has made a reasonable effort to explain all pertinent information to the Homeowner.

HOOT is not responsible for service, it is the SERVICE PROVIDER indicated below.

HOME OWNER

Name Arvida Dr.
Address Pennington NJ 08534
City _____
Phone _____
Signature of Home Owner _____

SERVICE PROVIDER

Pred Khaffar
Name of Service Company Representative
Address PO Box 550
City Ottaville Pa.
Phone (610) 847-7203
Signature of Service Provider and License #. P. J. Khaffar

THIS BOX MUST BE COMPLETED BY THE SERVICE PROVIDER

HOOT Model # H600 Blower/Panel Serial # 957 HOOT Mold # _____

White Copy - Home Owner Yellow Copy - Installer Pink Copy - HOOT Goldwood Copy - Regulatory Agency



INSTALLATION AND DELIVERY TRACKING FORM

2885 Highway 14 East Lake Charles, Louisiana 70607
(337) 474-2804 phone (337) 477-7904 fax

THIS SPACE TO BE COMPLETED BY AUTHORIZED DRIVER OR HOOT REPRESENTATIVE

HOOT Model # 6000 F Blower/Panel Serial # 957 HOOT Mold # _____

IS the System : _____ DRIP _____ Remote Mounted _____ Liquid CL ☒ Auto Dialer

I have unloaded and placed the HOOT Aerobic Treatment System into the hole provided by the installer. I have checked and confirmed that the system is level (plus or minus one inch from center of tank) and provided all custom parts and components required for a proper installation

C.F. Shaff
Signature of HOOT Authorized Driver/Representative _____ Date _____ Delivery Yard _____

INSTALLER INFORMATION

J.P. Martin
Name of Installer Company
42 Ferry Rd
Address
Hamington N.J.
City
(908) 482-2512
Phone

HOME OWNER INFORMATION

4 Arvida Dr.
Name
Hamington N.J.
Address
Hamington
City
County Reg.
Phone

INSTALLER MUST FILL IN OR INITIAL ALL SPACES BELOW

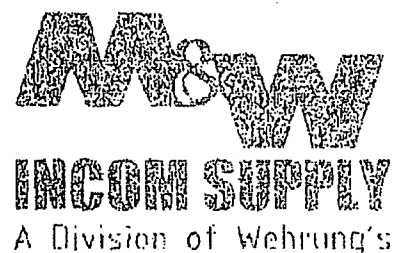
HOOT Driver Arrival Time _____	HOOT Driver Departure Time _____
I have an engineered plan for this site _____	Permit # and Agency _____
I agree to all local service policies _____	I will send in the service policy _____

USE THIS SPACE TO DRAW A SITE MAP AND DIRECTIONS TO SITE

Blank space for drawing a site map and directions to site.

BY SIGNING BELOW I AGREE THAT I AM RESPONSIBLE FOR THE FOLLOWING:

I UNDERSTAND THAT NO WARRANTY WILL BE EFFECTIVE ON THE SYSTEM UNTIL HOOT AEROBIC SYSTEMS, INC., HAS RECEIVED A COPY OF THIS FORM AND A COMPLETED AND SIGNED COPY OF THE INITIAL HOOT TREATMENT SYSTEM SERVICE POLICY.



Septic Tank Vacuum Test Report

Tank Description

Tank Volume (gallons): 1500 Manufacture Date: 11-11-13

Compartments: Dual Single ✓

Vacuum Test

Tank withheld 4" of mercury for 5 minutes without loss of vacuum: Yes ✓ No

Installer

Company Name: J.P. Martin Phone #: 908 581 2889

Company Rep: Harry

Test Location

Moderns Facility:

Job Site

Site Location

Township:

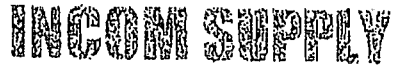
Street Address: 4 Arvida Dr.
Pennington N.J.

Name of Tester

Fred
(Print Name)

C. F. Hoffer
(Signature of Tester)

1-28-14
(Date Tested)



Tank Description

Compartments: Dual ✓ Single

Tank will hold 4" of mercury for 5 minutes without loss of vacuum: Yes / No

Company Name: J. Martin Phone # 908-581-0589

Company Rep: Garry

Moderns Facility. - _____ Job Site: _____

Township _____

Street Address: 4 Arvida Dr.
Pennington N.J.

(Print Name)

(Signature of Tester)

1-28-14
(Date Tested)

Permit No. **13127**

File Copy
Date Issued: **12/10/2013**

Hopewell Township Health Department

201 Washington Crossing Pennington Road

Titusville, New Jersey 08560

Tel. (609) 737-0120 Fax (609) 737-6836

PERMIT

Applicant: **Deborah Fein**

Block: **43.17**

Lot: **2.00**

To: **INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM ALTERATION**

Location: **4 Arvida Drive**

Fee: **\$625.00**

24 Hour Inspection Notification Required

This permit is NOT transferrable

Authorized By:


Hopewell Township Health Department

Permit # 13-127

COUNTY/MUNICIPALITY Mercer/Hopewell

Page 1 of 1

APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

Form 1 - General Information

1. Type of Permit Needed (check applicable categories):

- ☐ New Construction
☐ Alteration/No Expansion or Change of Use
☐ Alteration/Expansion or Change in Use
☒ Alteration/Malfunctioning System
☐ Deviation from Standards
☐ Repairs to Existing System

Township of Hopewell

DEC 05 2013

CH
1092 Health Department

2. Location of Project:

Municipality Hopewell Block No. 43.17 Lot No. 2
Street Address 4 Arvida Drive Zip 08543

3. Name of Applicant (print) Douglas + Deb. Fern

4. Applicant's Present Address 4 Arvida Dr., Pennington NJ 08543

5. Applicant's Phone Number 609.203.5851

6. Type of Facility:

- ☐ Residential
☐ Commercial/Institutional
☐ Specify Type of Establishment _____

7. Type of Wastes to be Discharged:

- ☐ Sanitary Sewage
☐ Industrial Wastes
☐ Other (specify type) _____

8. Other Approvals/Certification/Waivers/Exemptions (attach to application):

- ☐ Pinelands Commission
☐ U. S. Army Corps of Engineers
☐ NJDEP-Bureau of Flood Plain Management
☐ Other (specify) _____

9. I hereby certify that the information furnished on Form 1 of this application is true and correct. I am aware that false swearing is a crime in this State and subject to prosecution.

Signature of Applicant Craig A. Patterson Date 12/2/13
(for applicant)

FOR AGENCY USE ONLY

Application Denied. Reason for Denial/Citation of Rules Violated: _____

☒ Application Approved

Application Approved Subject to Approval by NJDEP

Date of Action 12/10/13 Signature of Authorized Agent [Signature]
Name and Title _____

APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

Form 2a - General Site Evaluation Data

Block No. _____ Lot No. _____

1. Name of Site Evaluator (print): Craig Patterson - Septics by Patterson, Inc.
2. Business Address of Site Evaluator: 887 New Rd, Churchville PA 18966
3. Business Phone Number of Site Evaluator: 215-942-9017
4. Special Site Limitations Identified (check appropriate categories):

- ☐ Flood Plains
☐ Bedrock Outcrops
☐ Wetlands
☐ Excessively Stony
☐ Disturbed Ground
☐ Sink Holes
☐ Sand Dunes
☐ Steep Slopes
☐ Other (specify) _____

5. Soil Logs. Enter on Form 2b. Use one sheet for each soil log.

6. Considerations Relating to Disturbed Ground:

a) Type of Disturbance (check appropriate categories):

- ☐ Filled Area
☐ Excavated Area
☐ Re-graded Area
☐ Subsurface Drains
☐ Other (specify) _____

b) Pre-existing Natural Ground Surface

Elevation Relative to Existing Ground Surface _____

Method of Identification _____

c) Suitability of Disturbed Ground

- ☐ Unsuitable: Objects Subject to Disintegration or Change in Volume
☐ Excessively Coarse
☐ Proctor Test Performed - % Standard Proctor Density = _____

7. Hydraulic Head Test:

- a) Hydraulically Restrictive Horizon: Depth Top to Bottom _____
b) Piezometer A: Depth to Bottom _____ Depth of Water Level (24 hrs.) _____
c) Piezometer B: Depth to Bottom _____ Depth of Water Level (24 hrs.) _____
d) Witnessed by _____

Signature: _____ Date _____

8. Attachments (check items included):

- ☐ Site Plan
☐ Key Map Showing Location of Site on U.S.G.S. Quadrangle or Other Accurate Map
☐ Key Map Showing Location of Site on U.S.D.A. Soil Survey Map
☐ Other (specify) _____

9. I hereby certify that the information furnished on Form 2a of this application (and the attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Soil Evaluator Craig A. Patterson Date 12/2/13
Signature of Professional Engineer [Signature] License # 23805

Form 2b - Soil Log and Interpretation Lot. _____ Block _____

1. Log Number 1 Method (Check One): ☒ Profile Pit ☐ Boring

2. Soil Log

Depth (Inches) Munsel Color Name and Symbol; Estimated Textural Class;
Estimated Volume % Coarse Fragment, If Present; Structure;
Top-Bottom Moist or Dry Consistence; Mottling - Abundance; Size and
Contrast, If Present.

0-13"	Topsoil
13-25"	7.5YR4/4 silt loam, <5% gravel, no mottles, mod subangular blocky structure, dry, friable, few roots, clear boundary
33-97"	5YR3/4 silt loam fillers, 30% gravel, 40% cobbles, 30% boulders, no mottles, saturated @ 76", no roots, BNO

3. Ground Water Observations:

☒ Seepage - Indicate Depth 76"
☒ Pit/Boring Flooded - Depth after 24 Hours 76"

4. Soil Limiting Zones (Check appropriate categories):

☒ Fractured Rock Substratum - Depth to Top 33"
☐ Massive Rock Substratum - Depth to Top _____
☐ Excessively Coarse Horizon - Depth Top to Bottom _____
☒ Excessively Coarse Substratum - Depth to Top 33"
☐ Hydraulically Restrictive Horizon - Depth Top to Bottom _____
☐ Hydraulically Restrictive Substratum - Depth to Top _____
☐ Perched Zone of Saturation - Depth Top to Bottom _____
☒ Regional Zone of Saturation - Depth to Top 76"

5. Soil Suitability Classification: II Sc

6. I hereby certify that the information furnished on Form 2b of this application is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator Craig A. Patterson Date 12/2/13

Signature Professional Engineer [Signature] License # 23805

Form 2b - Soil Log and Interpretation Lot. _____ Block _____

1. Log Number 2 Method (Check One): _____ Profile Pit _____ Boring

2. Soil Log

Depth (Inches) Munsel Color Name and Symbol; Estimated Textural Class;
Top-Bottom Estimated Volume % Coarse Fragment, If Present; Structure;
Moist or Dry Consistence; Mottling - Abundance, Size and Contrast, If Present.

0-16" Topsoil
16-51" 7.5YR4/4 silt loam, 10% gravel, no mottles, mod subangular blocky structure, dry, friable, few roots, clear boundary
51-120" 5YR3/4 silt loam fillers, 30% gravel, 40% cobbles, 30% boulders, no mottles, saturated @ 96", no roots, BNO

3. Ground Water Observations:

☒ Seepage - Indicate Depth 96"
Pit/Boring Flooded - Depth after _____ Hours _____

4. Soil Limiting Zones (Check appropriate categories):

☒ Fractured Rock Substratum - Depth to Top 51"
☐ Massive Rock Substratum - Depth to Top _____
☐ Excessively Coarse Horizon - Depth Top to Bottom _____
☒ Excessively Coarse Substratum - Depth to Top 51"
☐ Hydraulically Restrictive Horizon - Depth Top to Bottom _____
☐ Hydraulically Restrictive Substratum - Depth to Top _____
☐ Perched Zone of Saturation - Depth Top to Bottom _____
☒ Regional Zone of Saturation - Depth to Top 96"

5. Soil Suitability Classification: ISC

6. I hereby certify that the information furnished on Form 2b of this application is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator Craig A. Patten Date 12/2/13

Signature Professional Engineer [Signature] License # 13805

Form 3a - Soil Permeability Data

Lot _____ Block _____

Assign a number for each test and a letter for each test replicate. Show test data and calculations on Form 3b, 3c, 3e, 3f, or 3g. Use one sheet for each separate test or test replicate.

1. Summary of Data - Enter data for each test replicate on a separate line.

Type of Test	Test (number)	Replicate (letter)	Depth (inches)	Result*
Pit Bail	1		97"	190.87 $\frac{m}{hr}$

*For tube permeameter, pit-bailing and piezometer tests report results in inches per hour. For Soil permeability class rating give soil permeability class number. For percolation test report result in minutes per inch. For basin flooding test report result as positive if basin drains completely within 24 hours after second filling, negative otherwise.

2. Design Permeability/Percolation Rate: Specify Test Number _____
_____ Average of Test Replicates _____ Single Replicate
_____ Slowest of Replicates

3. Type of Limiting Zone Identified _____ Test Number _____
_____ Excessively Coarse Substratum _____ 1 _____

4. Attachments (Check Items Included):
_____ Form 3b - Tube Permeameter Test Data - No. of Sheets _____
_____ Form 3c - Soil Permeability Class Rating Test Data No. of sheets _____
_____ Form 3d - Percolation Test Data - No. of Sheets _____
/ Form 3e - Pit Bailing Test Data - No. of Sheets _____ 1 _____
_____ Form 3f - Piezometer Test Data - No. of Sheets _____
_____ Form 3g - Basin Flooding Test Data - No. of Sheets _____

5. I hereby certify that the information furnished on Form 3a of this application (and the attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Soil Evaluator Craig Patterson Date 12/2/13

Signature of Professional Engineer [Signature] License # 73803

Form 3f. Pit-Bailing Test Data

1. Test Number 1 Reference Soil Log 1 Date Tested 11/20/13

2. Using the reference level established, measure and record the following:

-- Depth to Bottom of Pit, ft, D_{pit} 8.08
 -- Depth to Water Level after 2 hr. Stabilization Period, ft. D_{water} 6.33
 -- Depth to Impermeable Stratum, ft., $D_{stratum}$ 12.13
 (If depth is unknown assume it to be 1.5 times the depth of the pit)
 -- Height of Water Level Above Impermeable Stratum, ft., H 5.8
 ($H = D_{stratum} - D_{water}$)
 -- Length of Time Interval, T , in minutes 1, 2, 3

3. At the interval chosen, record the following data in the table below:

-- Time of Measurement, t , minutes
 -- Depth of Water Level Below Reference Level, d , inches
 -- Water Surface dimensions, ft: l, w

4. Calculate the following values and enter in the table below:

-- Water Surface Area, ft^2 , A
 -- Water level rise h_{rise} (Subtract current value of d from previous value)
 -- Ave. Water Surface Area, ft^2 , A_{av} (Take average of A and previous A)
 -- Ave. Height of Water Level Above Impermeable Stratum, ft, h (Take ave. of d and previous value of d convert to ft., and subtract from $D_{stratum}$)
 -- Permeability, in/hr., K_a (calculate using formula):

$$K_a = [h_{rise}/T] \times [A_{av}/2.27 (H^2 - h^2)] \times 60 \text{ min/hr}$$

t	d (in.)	l, w (ft.)	A (ft. ²)	h_{rise} (in.)	A_{av} (ft. ²)	h (ft.)	K_a
t_0	_____	_____	_____	XXXX	XXXX	XXXX	XXXX
t_1	_____	_____	_____	_____	_____	_____	_____
t_2	_____	_____	_____	_____	_____	_____	_____
t_3	_____	_____	_____	_____	_____	_____	_____
t_4	_____	_____	_____	_____	_____	_____	_____
t_0	_____	_____	_____	XXXX	XXXX	XXXX	XXXX
t_1	_____	_____	_____	_____	_____	_____	_____
t_2	_____	_____	_____	_____	_____	_____	_____
t_3	_____	_____	_____	_____	_____	_____	_____
t_4	_____	_____	_____	_____	_____	_____	_____
t_0	_____	_____	_____	XXXX	XXXX	XXXX	XXXX
t_1	_____	_____	_____	_____	_____	_____	_____
t_2	_____	_____	_____	_____	_____	_____	_____
t_3	_____	_____	_____	_____	_____	_____	_____
t_4	_____	_____	_____	_____	_____	_____	_____

See Attached Sheet

Pit Bail Calculations

Fein
Block 43.17 Lot 2

Date 11/20/13
Test #1

$$k \text{ (in/hr)} = (\text{hr/t}) \times [A_{\text{avg.}} / 2.27(H - h)] \times 60 \text{ min/hr}$$

Assumed depth to bottom (ft) - 12.13

two hour water reading (ft) - 6.33

H = 5.8

h = 33.6

t min.	depth min.	D avg. in.	h rise in.	length in.	width in.	area sq. ft.	A avg. sq. ft.	H ft.	K in./hr.
0	94			48	36	12			
3	86	90	8	52	36	13	12.5	4.63	72.2
1	85	85.5	1	60	41	17.08	15.04	5.01	46.28
1	84	84.5	1	66	41	18.79	17.94	5.09	61.19
1	83	83.5	1	68	41	19.36	19.08	5.17	73.14
2	82	82.5	1	70	41	19.93	19.65	5.26	43.09
2	81	81.5	1	72	41	20.5	20.22	5.34	51.95

Form 3f (cont'd)

5. Record the Following Data:

- Final Depth of Pit, D_{pit} , ft 8.08
- Depth to Impermeable Stratum, ft, $D_{stratum}$ 8.08
(If no impermeable stratum is encountered assume $D_{stratum} = D_{pit}$)
- Height of Standpipe Above Reference Level, ft, h_{pipe} —
- Depth to Water Level after 24 hr. Stabilization Period, ft, d_{water} 6.33
(Take measurement from top of standpipe. Subtract h_{pipe})
- Height of Static Water Level Above Impermeable Stratum, ft, H 1.75
($H = D_{stratum} - d_{water}$)
- Average Height of Water Level Above Impermeable Stratum, ft, h 1.29
(Take average of d from beginning and end of last time interval recorded in section 4, convert this to ft., subtract from $D_{stratum}$)

6. Re-calculation of K using data from section 5 above and from final time interval of section 4:

$$K = [h_{rise}/t] \times [A_{gv}/2.27 (H^2 - h^2)] \times 60 \text{ min/hr}$$
$$= [\frac{1}{2}] \times [\frac{20.20}{2.27}] \times 60 \text{ min/hr} = \underline{190.87 \text{ in/hr}}$$

7. I hereby certify that the information furnished on Form 3f of this application is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator Craig A. Patterson Date 12/2/13

Signature Professional Engineer [Signature] License # 123805

APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

Form 4 - General Design Data

Block No. _____ Lot No. _____

1. Volume of Sanitary Sewage, gal 800
☒ Residential: No. of Dwelling Units 1 Total No. of Bedrooms 5
____ Commercial/Institutional - Indicate type of establishment and show method of calculation. If estimate is based on water meter data, indicate source of data, frequency of readings, average daily flow, and maximum recorded daily reading _____
2. Alteration or Repairs
a) Reason for Alteration or Repair (check appropriate categories):
____ Expansion or Change in Use
____ Upgrade Existing Facilities
☒ Correct Malfunctioning System
____ Other (specify) _____
b) Describe Nature of Alteration or Repairs: new aerobic system
3. System Components:
a) Grease Trap Capacity, gals _____
Show Calculation Used _____
b) Septic Tank Capacities, gals:
____ First (Single) Compartment _____
____ Second Compartment _____
____ Third Compartment _____
c) Effluent Distribution
Method: ____ Gravity Flow ____ Gravity Dosing ☒ Pressure Dosing
Dosing Device: ☒ Pump ____ Siphon
d) Dosing Tank Capacities, gals:
Total Capacity 1500 Dose Volume 200 Reserve Capacity 826
e) Laterals: Number 10 Total Length 200' Pipe Size 1" Spacing 3.75'
f) Connecting Pipe: Size 3" PVC Length 20'
g) Manifold: Size 3" PVC Length 15'
h) Disposal Field: Type of Installation MSR
Design Permeability (percolation rate) 3-15 min/in
Trenches: Width _____ Total Length _____ Bed: Area 966 SF
i) Seepage Pits: Design Percolation Rate _____
Number of Pits _____ Total Percolating Area Provided _____
4. Attachments (check items included):
☒ General Plan of System Showing Location of All System Components
☒ X-Sections of Each System Component Including Grease Trap, Septic Tank, Dosing Tank, Disposal Field, Seepage Pits and Interceptor Drains
☒ Pump Performance Curve
____ Other (specify) _____
5. I hereby certify that the information furnished on Form 4 of this application (and attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Professional Engineer



Date

03 Dec 13

Form 5. Design of Pressure Dosing System

1. Configuration of Distribution Network:

Type of Manifold: End ☒ Central

Distribution Laterals: Number 10 Length, ft 20 Spacing, ft 3.75

Hole Diameter, in 1/4 Hole spacing, in 36

Diameter of Laterals, in 1

2. Lateral Discharge Rate:

Design Pressure Head at Supply End of Laterals, H_p , ft 25

Hole Discharge Rate, Q , gpm 1.18

Number of Holes per Lateral, n 5

Lateral Discharge Rate, $(Q \times n)$ gpm 5.9

3. Manifold Length, ft 15 Manifold Diameter, in 3"

4. System Discharge Rate, gpm 59.0

5a. Pump Selection:

Diameter of Delivery Pipe 3" Length of Delivery Pipe 20'

Friction Loss in Delivery Pipe, H_f , ft 0.16

Elevation of Dosing Tank Low Water Level 93.07

Elevation of Lateral Invert 96.4

Elevation Head, H_e , ft 3.33

Total Operating Head, H_t ($H_p + H_f + H_e$), ft 5.99

Pump Model Goulds model 3886 WSD38 Rated Horsepower 1/3

Pump Discharge Rate at Total Operating Head, gpm 108

5b. Siphon Elevation:

Diameter of Delivery Pipe _____ Length of Delivery Pipe _____

Friction Loss in Delivery Pipe, H_f , ft _____

Velocity Head, H_v , ft _____

Total Operating Head, H_t ($H_f + H_v + H_p$), ft _____

Elevation of Lateral Invert _____

Elevation of Siphon Invert _____

6. Dose Volume:

Design Volume of Sewage, gal/day 800

Design Permeability, in/hr _____ or Percolation Rate, min/in 3-15

Internal Volume of Distribution Network 21.02

Dose Volume 200

7. I hereby certify that the information furnished on Form 5 of this application (and attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Professional Engineer [Signature] Date 03/25/13



Submersible Sewage Pump

MODEL

3886

**NEWLY IMPROVED PERFORMANCE
AND 2" SOLIDS HANDLING**

See order number chart for new order number.

Prosurance available for residential applications.

APPLICATIONS

Specifically designed for the following uses:

- Homes
- Sewage systems
- Dewatering
- Water transfer

SPECIFICATIONS

Pump:

- Solids handling capabilities: 2" maximum.
- Discharge size: 2" NPT.
- Capacities: up to 185 GPM.
- Total heads: up to 38 feet TDH.
- Temperature: 104°F (40°C) continuous, 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPM's available.

FEATURES

- **Impeller:** Cast iron, semi-open, dynamically balanced, non-clog with pump out vanes for mechanical seal protection. Optional Silicon bronze impeller available.
- **Casing:** Cast iron volute type for maximum efficiency. Designed for easy installation on A10-20 slide rail.
- **Mechanical Seal:** SILICON CARBIDE VS. SILICON CARBIDE sealing faces for superior abrasive resistance, stainless steel metal parts, BUNA-N elastomers.

- **Shaft:** Corrosion-resistant stainless steel. Threaded design. Locknut on three phase models to guard against component damage on accidental reverse rotation.

- **Fasteners:** 300 series stainless steel.

- Capable of running dry without damage to components.

- Designed for continuous operation, when fully submerged.

MOTORS

- Fully submerged in high grade turbine oil for lubrication and efficient heat transfer. All ratings are within the working limits of the motor.

Class B Insulation. Single phase (60 Hz):

- All single phase models feature capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.
- 1/4 and 1/2 HP – 16/3 SJTO with 115V or 230V three prong plug.
- 3/4 and 1 HP – 14/3 STO with bare leads.

Three phase (60 Hz):

- Overload protection must be provided in starter unit.
- 1 1/4 STO with bare leads.

- **Bearings:** Upper and lower heavy duty ball bearing construction.

- **Power Cable:** Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. 20 foot standard with optional lengths available.

- **Motor Cover O-ring:** Assures positive sealing against contaminants and oil leakage.

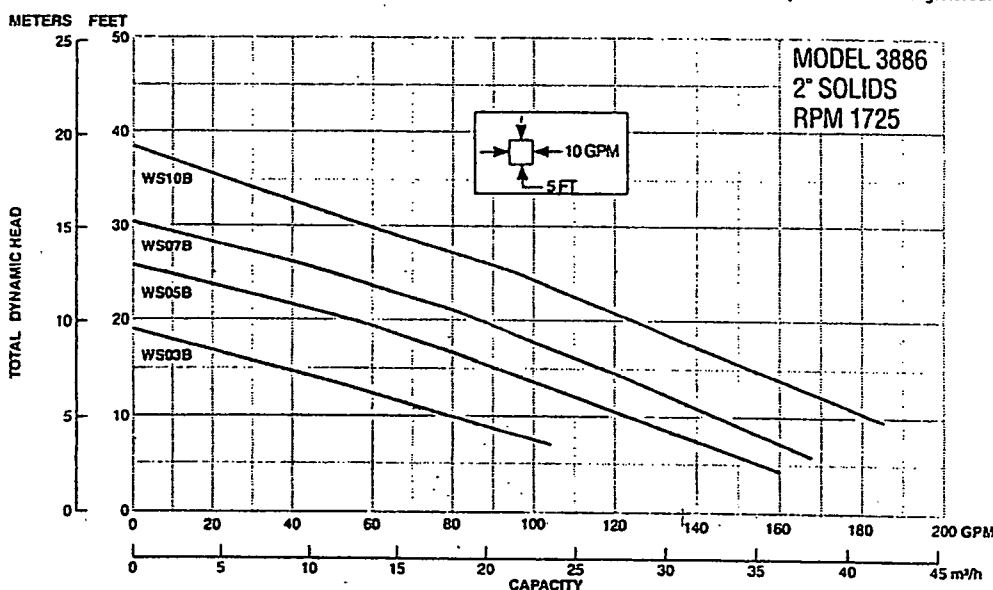
- Consult factory for information on CSA listed models.

AGENCY LISTINGS

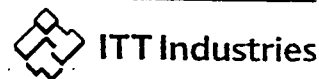
 Canadian Standards Association
File #LR38549

 Underwriters Laboratories
File #83318

Goulds Pumps is ISO 9001 Registered.



Goulds Pumps



Hopewell Township Health Department Septic Design Submittal Checklist

To be submitted with all Septic Applications effective June 1 2007.

In order for the board of health to properly review individual disposal systems, the engineer, preparing the disposal plan shall submit all required information pursuant to NJAC7:9A and include the minimum as follows to satisfy Township Ord. 16-12;

16-12.4 a. *Disposal and Tank Design Sizing Requirements.*

1. All systems disposal field design must incorporate a 25 percent increase over the State disposal system design rate. ☒
2. Depth of disposal system shall be excavated to depth of deepest soil test used to determine zone of disposal. ☒
3. Septic tanks shall provide 250 gallons additional volume more than State design or contain two compartments. ☐ N/A
4. When garbage disposals are installed or proposed, two septic tanks in series are required in addition to an additional 25 percent increase in the disposal field size per subsection 16-12.4a.1. ☐ N/A
5. When sewage ejectors are required to lift sewage up to the septic tank, a multiple compartment septic tank system having a capacity of 50 percent greater than that required in subsection 16-12.4a.3 above shall be installed. Alternatively, an additional two-compartment tank may be installed to accept the effluent solely from the sewage ejector prior to connecting into the septic pump tank or disposal field. ☐ N/A

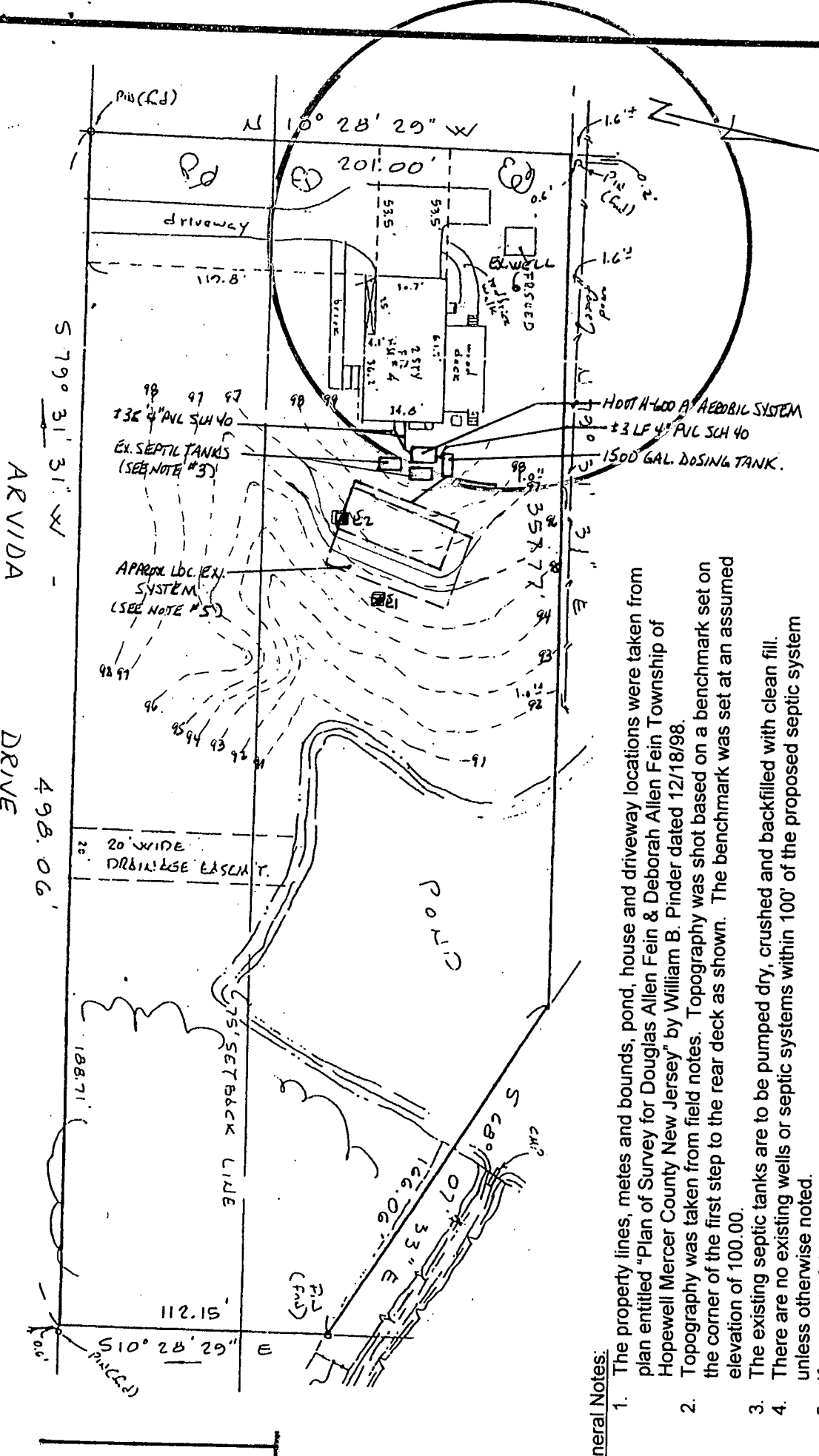
16-12.4b. *Design Submittal Requirements.*

1. Lot elevations in the disposal area showing proposed elevation of disposal trenches or beds, septic tank or distribution box, bottom elevations, ground elevations, proposed and existing in one foot contours. ☒
2. Provide proposed lot grading in the disposal area. A minimum design slope of 5:1 shall be required for mounded or built up systems. Space limited alterations may utilize the State minimum design slope of 3:1 with the approval of the Administrative Authority. ☒
3. Proposed means to control surface, driveway, and sump pump discharge, basement drains and road runoff from entering disposal area. Swales, berms and/or lawn inlets must be considered in directing surface water away from mound and conventional systems. All drain pipes, swales or water diversions must not adversely impact adjoining properties, waterways or wetlands or cause standing water. Connection into storm water system and/or drainage basins may be required and must be also approved by the township engineer and shown on the site grading plan. ☒
4. Average seasonal high water table as related directly to lot elevations. ☒

5. Soil log and soil classifications to a depth of ten feet or to bedrock when encountered, but a minimum of six feet below original grade and eight feet below the level of infiltration. All soil profile pits and corresponding soil logs, both acceptable and unacceptable, within 100 feet of the proposed disposal field must be shown. ☐
6. Cross-sections of the proposed bed showing changes in grade across the beds and shallow and deep inspection ports and distribution line locations, etc. ☐
7. Location of soil log and percolation tests and other approved soil tests (acceptable and unacceptable). All complete, incomplete with explanation, and unacceptable. All acceptable soil logs shall be marked with a durable permanent marker four feet in height and accurately located. PVC pipe is not acceptable. ☐
8. Location of existing wells and septic fields on adjacent lots within 200 feet of proposed or existing wells and septic fields on lot in question. ☐
9. Location of streams, stream corridors, water courses, steep slopes, fresh water wetlands and associated buffers and all other conservation easements or flood plains within 100 feet of disposal system. ☐
10. Submit an as-built drawing of the installed system with the engineer's certification that the installed system complies with the approved design. (Certificate of Compliance with Section B completed). ☐
10. All designs and as-built drawings shall be submitted on 8.5" x 11" or 14" size sheets only. ☐
11. All septic tanks (new and repaired or replaced) shall be provided with cast iron locking manholes raised to grade to facilitate pumping and inspections. ☐
12. Water meters with remote reading units shall be installed in all nonresidential properties. ☐

N/A

DESIGN
DATE: 12/10/13
HOPEWELL TOWNSHIP HEALTH DEPT.
APPROVED



General Notes:

1. The property lines, metes and bounds, pond, house and driveway locations were taken from plan entitled "Plan of Survey for Douglas Allen Fein & Deborah Allen Fein Township of Hopewell Mercer County New Jersey" by William B. Pinder dated 12/18/98.
2. Topography was taken from field notes. Topography was shot based on a benchmark set on the corner of the first step to the rear deck as shown. The benchmark was set at an assumed elevation of 100.00.
3. The existing septic tanks are to be pumped dry, crushed and backfilled with clean fill.
4. There are no existing wells or septic systems within 100' of the proposed septic system unless otherwise noted.
5. If any part of the existing septic system is excavated, the material must be buried on site.
6. The all tanks are to be installed and tested for watertightness as per N.J.A.C. 7:9A-8.2.
7. The owner is to enter into a yearly maintenance contract with the distributor of the aerobic unit. Proof of the contract shall be provided to the Hopewell Township Health Department.
8. The property owner is to record with the deed to the property a notice indicating the use of the aerobic unit along with the owner's responsibility to operate and maintain the unit and granting access to the property for the purpose of monitoring and inspections as well as the requirement for the yearly maintenance contract.
9. This is an alteration to an existing septic system as per N.J.A.C. 7:14A-3.3(d)(e).

REV.	DESCRIPTION	DATE	BY


DONALD P. SCHLACHTER
New Jersey Professional Engineer No. 23805
DATE 03 DEC 13

SEPTICS BY PATTERSON, INC.
SOIL TESTING, SEPTIC DESIGN, INSPECTIONS
887 NEW RD. CHURCHVILLE, PA 18966 215-942-9017

SEPTIC SYSTEM DESIGN
PREPARED FOR
BLOCK 43.17 LOT 2
SITUATED IN
HOPEWELL TOWNSHIP MERCER COUNTY

SCALE: 1"=60' DRAWN BY:
DATE: 12/2/13 CHECKED BY: PAGE: 1 OF 7

INSPECTION POST - 4" PVC PIPE
WITH A SCREEN CAP TIED TO A DEPTH
OF 120" AT LEVEL OF WATER TABLE

EXISTING GROUND
SURFACE ELEV - 97.4

EXCAVATION LENGTH - 46'

PROPOSED
GRAVEL BED

120" SOIL LOG DEPTH

97" EXCAVATION DEPTH

97" PERMEABILITY TEST DEPTH

20' LATERAL
LENGTH CORRS

5' DIA. CENTER MANHOLE

4" PVC SLT TO DEEP MONITOR POST W/
SCREEN ON CAP TO BE INSTALLED TO A
DEPTH OF 6" INTO THE ZONE OF DISPOSAL

APPROVED FILTER FABRIC

9-18" TOPSOIL (LAW)

1" STONE COVER

12" CRUSHED STONE
D.A.T. STANDARD SIZES #3, #4, #24

ELEV. 95.4

18" COARSE SAND (SEE NOTE #5 & 7)
ZONE OF TREATMENT

ELEV. 93.9

55" COARSE SAND
(SEE NOTE #5 & 7)

ZONE OF DISPOSAL

ELEV. 89.32

There are 10 distribution laterals 20' long
Each lateral is to be spaced 45' off center
Individual laterals to have holes. The holes are
The end laterals are to be spaced from the edge of the bed.

REV.	DESCRIPTION	DATE	BY


DONALD P. SCHLACHTER
New Jersey Professional Engineer No. 23805
03 DEC 13
DATE

SEPTICS BY PATTERSON, INC.
SOIL TESTING, SEPTIC DESIGN, INSPECTIONS
887 NEW RD. CHURCHVILLE, PA 18966 215-942-9017

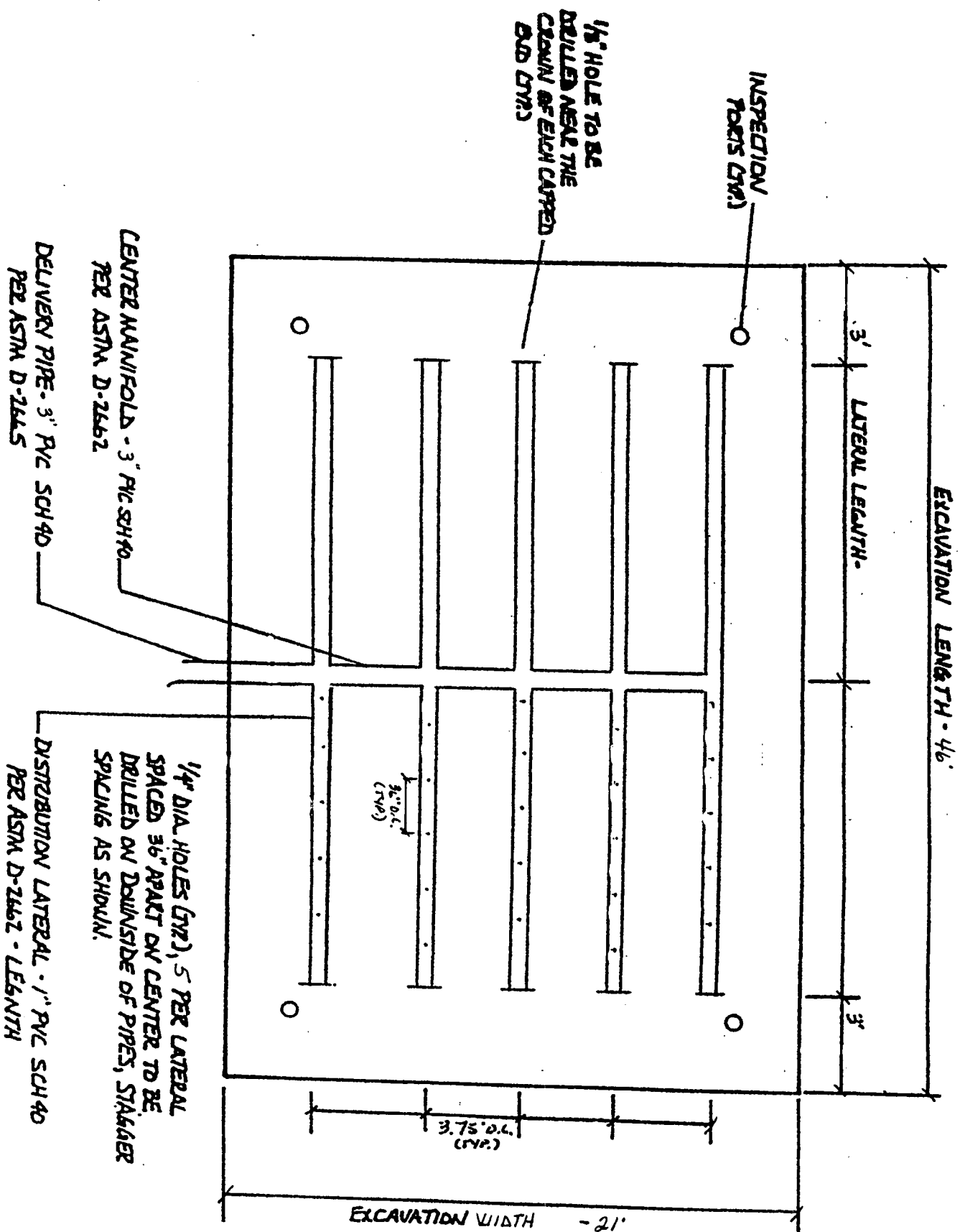
SEPTIC SYSTEM DESIGN

PREPARED FOR

BLOCK 43.17 LOT 2

SITUATED IN
HOPEWELL TOWNSHIP MERCER COUNTY

SCALE: —	DRAWN BY:	
DATE: 12/2/13	CHECKED BY:	PAGE: 2 OF 7



REV.	DESCRIPTION	DATE	BY

[Signature] 03 DEC 13

DONALD P. SCHLACHTER DATE

New Jersey Professional Engineer No. 23805

SEPTICS BY PATTERSON, INC.
 SOIL TESTING, SEPTIC DESIGN, INSPECTIONS
 887 NEW RD. CHURCHVILLE, PA 18966 215-942-9017

SEPTIC SYSTEM DESIGN

PREPARED FOR
BLOCK 43.17 LOT 2
 SITUATED IN
 HOPEWELL TOWNSHIP MERCER COUNTY

SCALE: —	DRAWN BY:	
DATE: 12/2/13	CHECKED BY:	PAGE: 3 OF 7

DISPOSAL BED CALCULATIONS:

System designed for a 5 bedroom dwelling

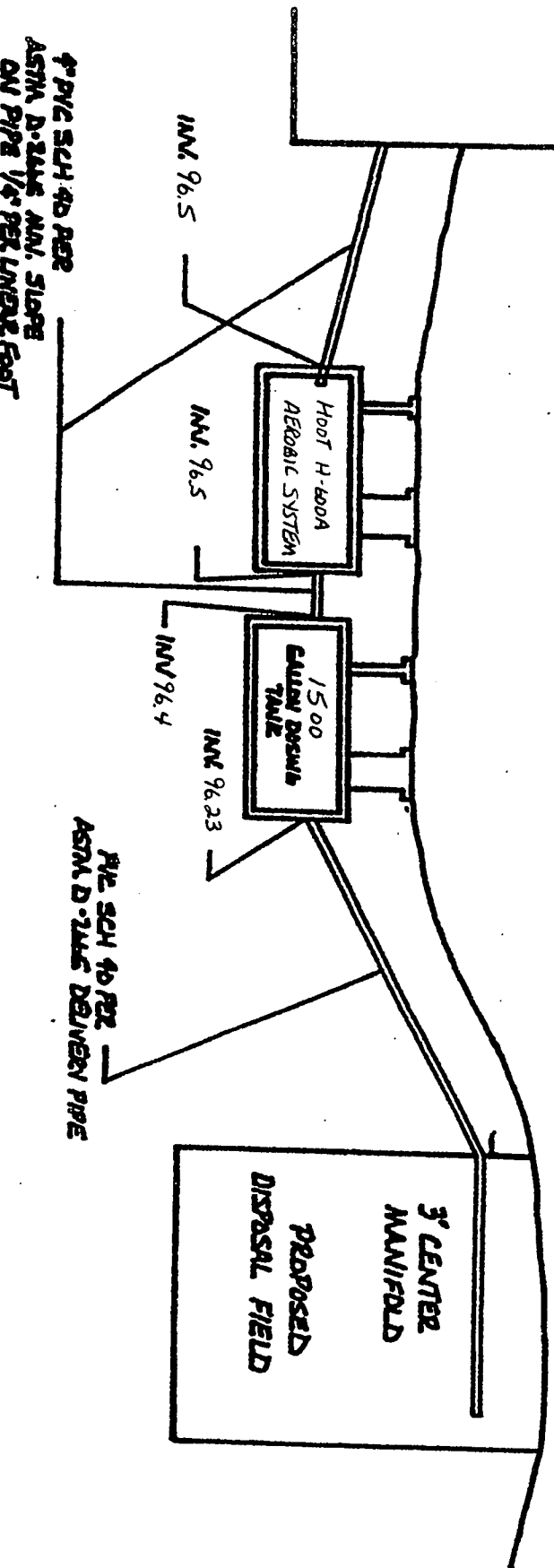
Required Bottom Bed Area:

$800 \text{ GPD} \times 0.828 \text{ SF/GPD} \times 1.25 = 956 \text{ SF}$

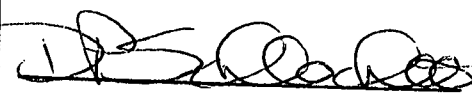
Proposed Bottom Bed Area:

$46' \text{ long} \times 21' \text{ wide} = 966 \text{ SF}$

Concrete risers to be extended flush to the surface and filled with removable water tight cast iron covers. The covers are to be locked or bolted.



REV.	DESCRIPTION	DATE	BY

 03 DEC 13
DONALD P. SCHLACHTER
New Jersey Professional Engineer No. 23805

DATE

SEPTICS BY PATTERSON, INC.
SOIL TESTING, SEPTIC DESIGN, INSPECTIONS
887 NEW RD. CHURCHVILLE, PA 18966 215-942-9017

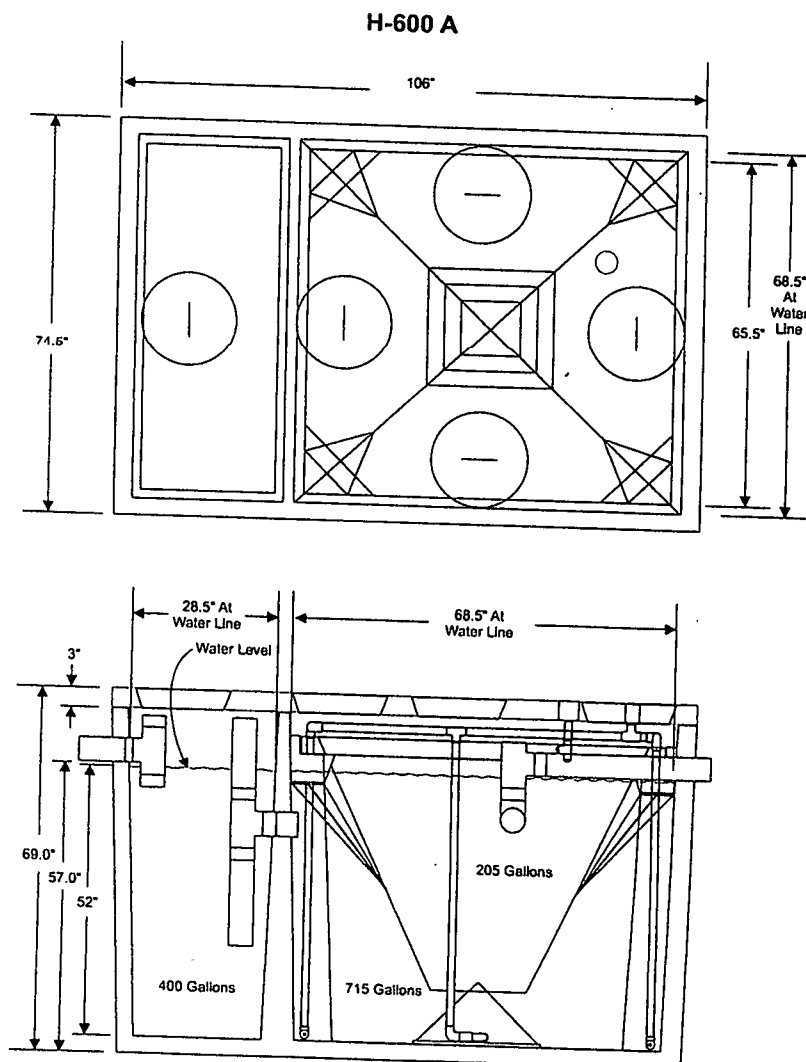
SEPTIC SYSTEM DESIGN

PREPARED FOR

BLOCK 43.17 LOT 2

SITUATED IN
HOPEWELL TOWNSHIP MERCER COUNTY

SCALE: —	DRAWN BY:	
DATE: 10/2/13	CHECKED BY:	PAGE: 4 OF 7



Aerobic Unit Notes:

1. The unit must be NSF Standard 40 and/or Standard 245 certified.
2. Unit must be installed in accordance with all the manufacturer's specifications and recommendations.
3. The control panel used must be able to track at the minimum the pump elapsed time, cycle counts, and high level alarms to determine flow through the system.
4. The unit must be equipped with a telemetry control panel that provides continuous remote monitoring, informational management and control on the unit.
5. The authorized installer shall be present at all times during the installation and either install or directly oversee the installation.
6. The authorized installer shall ensure the property owner has a copy of the service contract and have the owner agree to comply with the requirements by obtaining written acknowledgement of the contract.
7. All tanks must be installed and tested for watertightness as per N.J.A.C. 7:9A-8.2
8. Troy Air Blower must be located no more than 50' from the Hoot Pretreatment device.

Hoot Universal Pump control Panel

1. Provide float level control system to automatically control the operation of the pump as required by the effluent flow. Float level sensors shall be Gould Pump Model No. A2-5
2. The control panel shall be as manufactured by Hoot Systems and be suitable for use with the 1/3 HP sewage pump.
3. The alarm and the pump are to be on separate circuit breakers

REV.	DESCRIPTION	DATE	BY

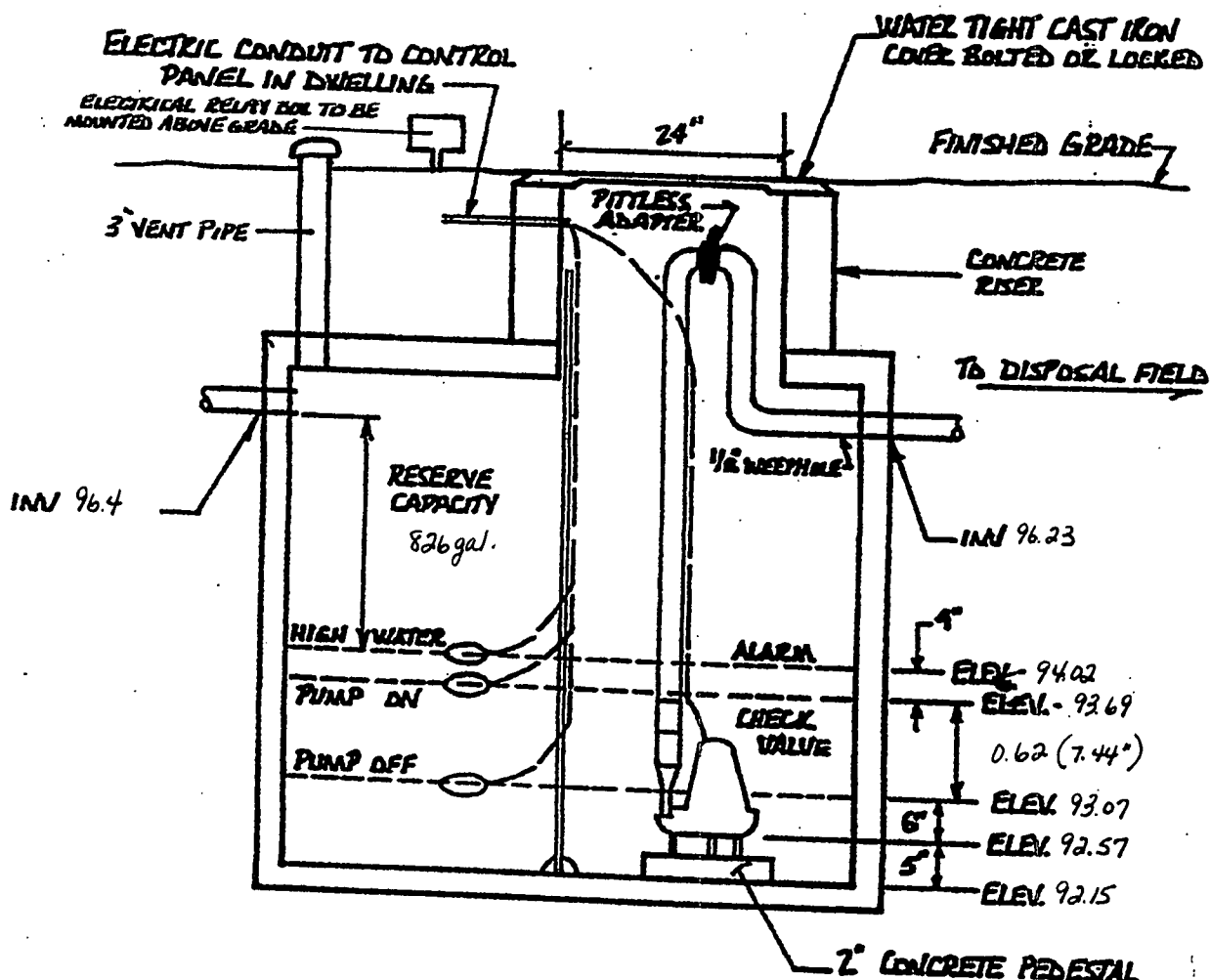

DONALD P. SCHLACHTER
New Jersey Professional Engineer No. 23805
DATE 03 DEC 13

SEPTICS BY PATTERSON, INC.
SOIL TESTING, SEPTIC DESIGN, INSPECTIONS
887 NEW RD. CHURCHVILLE, PA 18966 215-942-9017

SEPTIC SYSTEM DESIGN

PREPARED FOR
BLOCK 43.17 LOT 2
SITUATED IN
HOPEWELL TOWNSHIP MERCER COUNTY

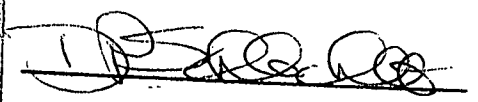
SCALE: —	DRAWN BY:	
DATE: 12/2/13	CHECKED BY:	PAGE: 5 OF 7



Dosing Tank Notes:

1. The dosing tank shall be constructed the same as septic tanks as prescribed in N.J.A.C. 7:9A-8.2(e).
2. The dosing tank is a 1500 gallon concrete tank.
3. The dosing tank is to be installed and tested for watertightness as per N.J.A.C. 7:9A-8.2.
4. The inside tank dimensions are 120" x 60".
5. The dosing tank is to be installed on a firm and stable foundation of $\frac{3}{4}$ " clean stone 6" deep.
6. The pump to be used is a Goulds model 3886BHF WS03B, 1/3 HP pump or approved equal. If the contractor selects a pump other than the pump specified on the approved plans, the contractor shall provide to the engineer the pump model and its specifications for approval prior to its installation.
7. Audio and visual alarms are to be installed in the dwelling. The pump and alarm shall utilize separate electrical circuits.
8. Quick disconnect couplings shall be used to facilitate removal.
9. A weather electrical relay box is to be mounted above grade outside the tank. A gas-tight seal shall be provided where the conduits exit the tank.

REV.	DESCRIPTION	DATE	BY


DONALD P. SCHLACHTER
 New Jersey Professional Engineer No. 23805

DATE

SEPTICS BY PATTERSON, INC.
 SOIL TESTING, SEPTIC DESIGN, INSPECTIONS
 887 NEW RD. CHURCHVILLE, PA 18966 215-942-9017

SEPTIC SYSTEM DESIGN

PREPARED FOR

BLOCK 43.17 LOT 2

SITUATED IN
HOPEWELL TOWNSHIP MERCER COUNTY

SCALE: —

DRAWN BY:

DATE: 12/2/13

CHECKED BY:

PAGE: 6 OF 7

GENERAL NOTES

1. Remove trees in the vicinity of the disposal field as directed by the Health Department.
2. If the excavation is carried below the required depth, it is to be filled with approved fill.
3. If the soil conditions encountered during the excavation for the system differ from what was found during the soil testing. The design engineer is to be contacted immediately.
4. The engineer is to be contacted for the below listed inspections. No certification will be given unless the engineer completes the following inspections:
 - open hole
 - fill emplacement and certification
 - distribution network placement
 - septic tank and/or dosing tank placement
 - pump/alarm float settings
 - final grade
5. Material used in the zone of treatment or zone of disposal shall meet the following requirements:

Course sand to be used as per N.J.A.C. 7:9A-10.1(f)4. Coarse sand used shall meet the following requirements:

 - Coarse fragment content (greater than a No. 8 sieve) less than 15% by volume or less than 20% by weight.
 - Textural analysis (composition, by weight, of size fraction passing the particular sieve as stated): 100% must pass a 3/8" sieve, between 80 and 100% must pass No. 8 sieve (2.36 mm); between 50 and 85% must pass No. 16 sieve (1.18 mm); between 25 to 60% must pass No. 30 sieve (0.6 mm); between 10 and 30% must pass No. 50 sieve (0.3mm); 2 and 10% must pass No. 100 sieve (0.15 mm).
 - Permeability for these materials is established within the range of 6-20 in/hr for design purposes.
6. Fill material to be spread and compacted in one foot lifts. Compaction to be done by sheepsfoot roller or the use of a rubber tired or tracked machine, exerting no more than 8 lbs/sq. in., driven over the area in a controlled pattern.
7. The engineer must perform percolation tests in the emplaced fill material.
8. The contractor is to verify all elevations prior to construction.
9. Fill material compaction to be inspected by the engineer.
10. No grading equipment shall pass over the septic field.
11. Lot grading to be controlled to direct surface water away from the disposal field.
12. The septic and dosing tanks are to be constructed and placed in accordance to N.J.A.C. 7:9A-8.2.
13. All electrical items to be installed per national electrical codes.
14. No garbage grinder disposal units are permitted.
15. The soil logs and permeability tests make no representations or warranties to the presence or absence of obstructions of soil conditions other than those actually encountered. Subsurface conditions other than those actually encountered may vary with regard to elevation, composition, texture, structure, and other characteristics from the descriptions given in the soil logs and the results of the permeability tests. Subsurface conditions differing from those observed at the test areas may require revisions to the design or construction of the on-site disposal system at the owner's expense. Results of soil logs shall be from logs within 15 ft. of the proposed disposal field and meet soil profile pit locations described in N.J.A.C. 7:9A(a-h), and (c)1.
16. Soil Tests were carried out under the direct supervision of a licensed engineer.
17. There are no existing or proposed wells within 100' of the proposed system unless as shown.

REV.	DESCRIPTION	DATE	BY


DONALD P. SCHLACHTER
New Jersey Professional Engineer No. 23805

03 DEC 13
DATE

SEPTICS BY PATTERSON, INC.
SOIL TESTING, SEPTIC DESIGN, INSPECTIONS
887 NEW RD. CHURCHVILLE, PA 18966 215-942-9017

SEPTIC SYSTEM DESIGN

PREPARED FOR

BLOCK 4317 LOT 2

SITUATED IN
HOPEWELL TOWNSHIP MERCER COUNTY

SCALE: —	DRAWN BY:	
DATE: 12/2/13	CHECKED BY:	PAGE: 7 OF 7



TOWNSHIP of HOPEWELL

MERCER COUNTY

DEPARTMENT OF HEALTH

201 Washington Crossing Pennington Road
Titusville, New Jersey 08560-1410

Phone: 609.737.0120 Fax: 609-737-6836 www.hopewelltp.org



Public Health
Prevent, Promote, Protect.

12/10/2013

Deborah Fein
4 Arvida Drive
Pennington NJ 08534

RE: Block: 43.17 Lot: 2.00 - 4 Arvida Drive

To Whom It May Concern,

Your application for an alteration to an onsite subsurface sewage disposal system has been approved with the following conditions:

SEWAGE DISPOSAL PERMITS ARE VALID FOR TWO YEARS FROM DATE OF ISSUE.

1. A copy of this letter must be forwarded to your construction contractor and sewage disposal installer prior to installation of said system.
2. The house location must be staked by a licensed surveyor or professional engineer to assure proper location and elevation as represented on the attached plan.
3. The sewage disposal system must be located and staked prior to installation by a licensed surveyor or professional engineer to guarantee the proper alignment of the system in the area of the soil tests, and to insure it will conform to all site restrictions as represented on the attached design.
4. The required elevation of the sewage disposal system should be verified by the licensed professional engineer or surveyor, the builder and the plumbing contractor as it relates to the foundation height, the point where the sewer line exits the dwelling and the height of the septic tank. If this is a gravity system and the minimum height of the sewer line is not maintained, an ejector system will be required after the septic tank.
5. An onsite conference is required with your installer and a representative from this office prior to installation of any part of this system. This should avoid any problem during the installation which can be costly to all parties concerned.
6. The design engineer must be notified at the beginning of the installation. Field measures must be made for the required as-built design, and grading plan certifications. The as-built must show soil test location, distances to the tank and D-box as measured from two fixed points, also, any changes caused by site conditions, construction changes and installation problems. If this is a raised system, the as-built grading plan must be certified by the engineer that it is as designed, showing all inverts and contour lines. The as-built will provide a detailed location of the installed system so it can be located once it is covered.

7. No excavating machinery shall be permitted in the excavation during construction. A track-hoe or back-hoe must be used to dig the excavation. Sand must be available at the start of construction to cover the bottom and to protect open fractures etc.
8. All trees within 10 feet of a conventional disposal system or within the area of the extended clay fill and sloped area of a raised disposal/mound system must be removed.
9. **All phases of construction of the disposal system must be inspected by the Health Department. It is your responsibility (or your contractors) to notify the Health Department by no later than 9:00 a.m. on every day that construction is underway so inspections can be scheduled. Systems will be dug up if not inspected by this office!**
10. A certificate of occupancy will not be issued if the system is not completed and the grades certified. Raised systems must be stabilized. All systems must be seeded or sodded and have established vegetative growth.
11. All septic tanks must comply with new tank requirements and also be provided with locking manhole access lids to final grade as required by N.J.A.C. 7:9A.
12. All sand and clay fill must be stock piled on site and certified by a licensed laboratory and by the design engineer once in place using a perc test.
13. Hopewell Township requires a two compartment septic tank 50% larger than required in NJAC 7:9a wherever a sewer ejector is utilized. This is in addition to the additional 250 gallons required per Twp Ord. 16-1.
14. **DEED AMENDMENT REQUIRED for alternative systems**
15. **Copy of service contract to be provided to Health Department before final approval can be given.**

Effective January 1, 1990, the New Jersey Department of Environmental Protection enacted a law requiring the certification and licensing of sewage disposal systems.

Very Truly Yours,

A handwritten signature in black ink, appearing to read "G. Kiesel", with a stylized flourish at the end.

George Kiesel

Senior Registered Environmental Health Specialist

George Kiesel

From: Paul Pogorzelski [paulpogo@hopewelltwp.org]
Sent: Monday, December 09, 2013 8:35 PM
To: 'George Kiesel'
Subject: RE: Block 43.17 Lot 2 - septic plans grading review

Approved however the system appears to be within 100 feet of the existing water pond?

Paul E. Pogorzelski, P.E.
Hopewell Township Administrator/Engineer
201 Washington Crossing-Pennington Road
Titusville, NJ 08560
609-737-0605 ext 664
609-737-6839 (fax)

??Please consider the environment before printing this e-mail "This message may contain confidential and/or proprietary information and is intended for the person/entity to whom it was originally addressed.

-----Original Message-----

From: George Kiesel [mailto:gkiesel@hopewelltwp.org]
Sent: Monday, December 09, 2013 3:41 PM
To: 'Paul Pogorzelski'
Subject: Block 43.17 Lot 2 - septic plans grading review

Grading review

George Kiesel
Senior REHS
Hopewell Twp. Health Department
201 Washington Crossing-Pennington Rd 08560
609-737-0120 ext.635
fax-609-737-6836
Gkiesel@Hopewelltwp.org

Your message is ready to be sent with the following file or link attachments:

Block 43.17 Lot 2 - septic plans

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

John Martin Excavating
Phoenix Sed

10.68 below Bm

1/28/14 ^{10'} Pump Tank + Hot Tank set.

1/29/14 - Sed dug - show bottom, OK to Sed

1/30/14 - Sed up to grade
- Tank + Pump Tank connected

1-31-14 - Store + Pipe Set - OK to Cover

2/18/14 ✓ Steel Asb.it, Sed Cert etc

- Service Contract
- Volume Test Certificates

CERTIFICATE OF COMPLIANCE

County Mercer Municipality Hopewell Township

INSTRUCTIONS: Part A is to completely filled in for all Certifications. Only Part B or Part C will be completed. Part B will be completed if the administrative authority relies upon the certification signed and sealed by a New Jersey licensed professional engineer that the system has located, constructed, installed or altered in compliance with the requirements of the N.J.A.C. 7:9A-1 and the Application to Construct/Alter/Repair an Individual Subsurface Sewage Disposal System which was approved by the administrative authority. Part C will be completed if the administrative authority performed the certification.

Part A – General Information

1. Permitted Activities (Check applicable categories)

Permit Number _____

- ☐ New Construction
☒ Alteration/No Expansion or Change of Use
☐ Alteration/Expansion or Change of Use
☒ Alteration/Malfunctioning System
☐ Deviation from Standards
☐ Repairs to Existing System

2. Location of Project:

Municipality Hopewell Township Block 43.17 Lot 2

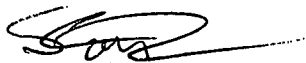
Street Address 4 Arvida Drive

Name and Present Address of Applicant: Mattie Hill- Address Same as Above

Applicant's Phone Number: 571-218-8021

Part B – Professional Engineers Certification

I certify under penalty of law that the subsurface sewage disposal system identified in Part A has been located, constructed, installed or altered in compliance with the requirements of N.J.A.C. 7:9A-1 and the Application to Construct/Alter/Repair and Individual Subsurface Sewage Disposal System which was approved by the administrative authority. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



(Signature)

Date: 2/6/14

Stephen M. Risse, P.E. License No. GE34795

Name (Type or Print), License #

SEAL

Part C – Certification by Administrative Authority

I certify under penalty of law that the subsurface sewage disposal system identified in Part A has been located, constructed, installed or altered in compliance with the requirements of N.J.A.C. 7:9A-1 and the Application to Construct/Alter/Repair and Individual Subsurface Sewage Disposal System which was approved by the administrative authority. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Authorized Signature

Type of License Held

Date: _____

Name (Typed of Printed)

License Number

Date Received: 2/18/14

For Agency Use Only

Form Determined to Be: X Complete

Incomplete

Date Returned _____

Date Received _____

Date Certification Approved: 2/20/14

Authorized Signature: 

HOPEWELL TOWNSHIP HEALTH DEPARTMENT

201 Washington Crossing-Pennington Road
Titusville, New Jersey 08560

ENGINEER CERTIFICATION OF FILL MATERIAL

Township of Hopewell

FEB 18 2014

Health Department

Block 43.17 Lot 2

Quarry Phoenix Pinelands Sand & Gravel

Disposal System Design Rate 6-20 in/hr

I hereby certify that the fill material used in the: ☒ Zone of Treatment ☒ Zone of Disposal meets the specifications of NJAC 7:9A

Textural Analysis:

	<i>Zone of Treatment</i>	<i>Zone of Disposal</i>
3/8" Sieve	100%	100%
No. 8 Sieve	94%	94%
No. 16 Sieve	85%	85%
No. 30 Sieve	59%	59%
No. 50 Sieve	17%	17%
No. 100 Sieve	3%	3%
Coarse Fragments (No. 8 Sieve)	6% ☐ vol. ☒ wt.	6% ☐ vol. ☒ wt.

☒ Percolation test result 3.1 min/in

☐ Tube permeameter test result ____ in/hr

I certify that the textural analysis, permeability, and compaction of the fill material meet the requirements of N.J.A.C.7:9A-10.4(f).



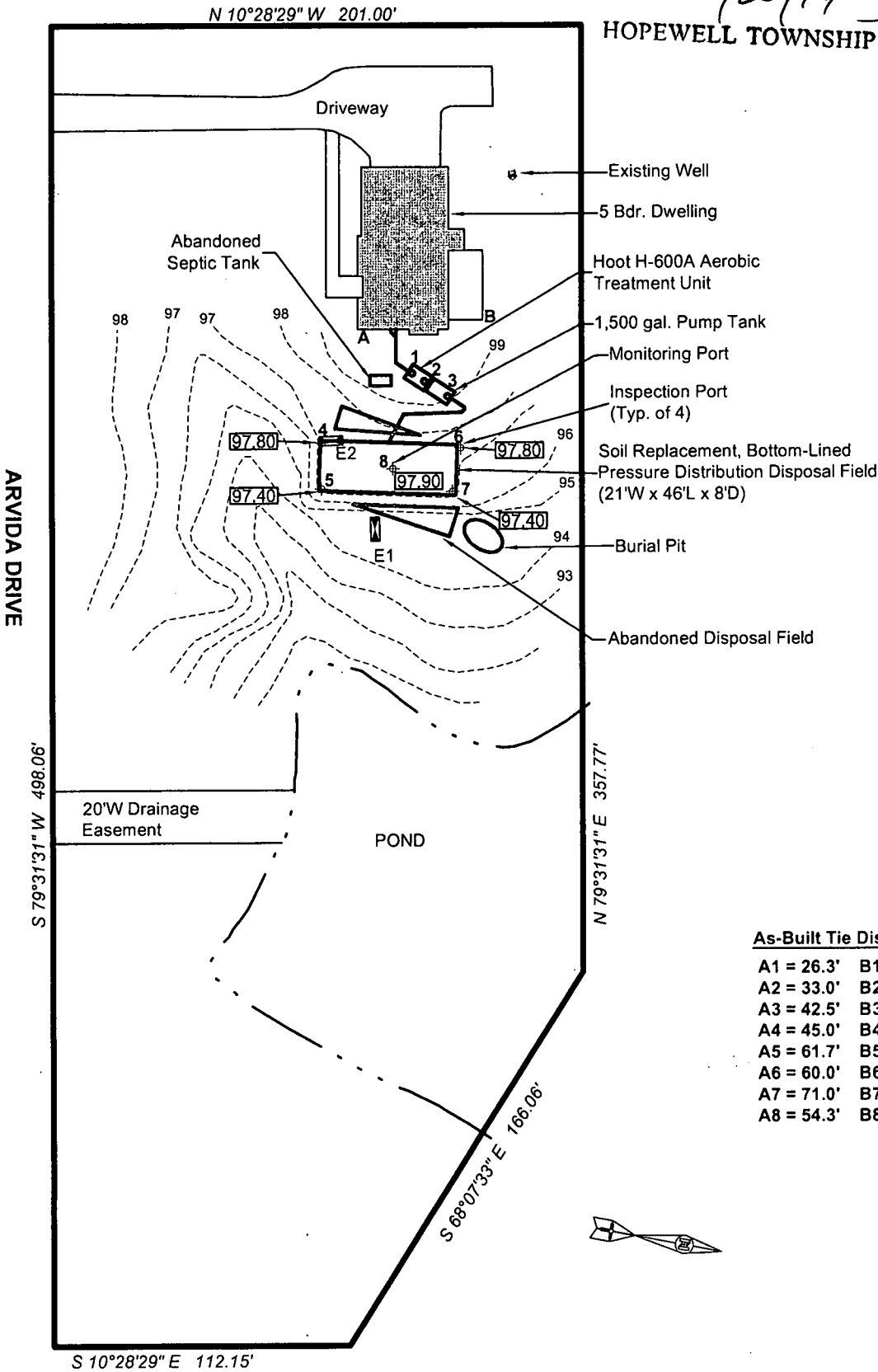
Stephen M. Risse, P.E.
Engineer's Signature and Seal

Bayer-Risse Engineering, Inc.

Date 2/6/14

4 Arvida Drive (Block 43.17, Lot 2)
Hopewell Township, Mercer County, NJ
Lot Size: 2.2 Acres

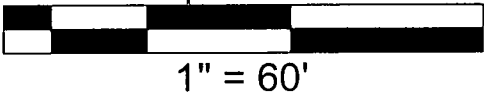
AS - BUILT DESIGN APPROVED
DATE: 2/20/14
HOPEWELL TOWNSHIP HEALTH DEPT.



As-Built Tie Distances

A1 = 26.3'	B1 = 34.9'
A2 = 33.0'	B2 = 28.8'
A3 = 42.5'	B3 = 31.8'
A4 = 45.0'	B4 = 75.0'
A5 = 61.7'	B5 = 88.4'
A6 = 60.0'	B6 = 45.8'
A7 = 71.0'	B7 = 65.8'
A8 = 54.3'	B8 = 65.8'

Graphic Scale

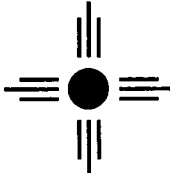


REVISION DESCRIPTION	DATE	APPROVED

Septic System Alteration Design
Record Drawing Plan

Mattie Hill		Block 43.17, Lot 2		Hopewell Township, Mercer County, New Jersey			4 Arvida Drive	
DRAWN BY:	DESIGNED BY:	CHECKED BY:	DWG NO.	BRE JOB#:	SCALE:	DATE:	SHEET:	
ARL	SBP	WMJ	REC-1	13-1386	As Noted	February 6, 2014	1 of 1	

THEODORE H. BAYER, P.E.
New Jersey Professional Engineer License No. GE33806



BAYER-RISSE ENGINEERING, INC.
78 ROUTE 173 WEST, SUITE 6
HAMPTON, NEW JERSEY 08827
PHONE 908-735-2255 FAX. 908-735-5838
Certificate of Authorization No. 24GA27943900

George Kiesel

From: Paul Pogorzelski [paulpogo@hopewelltwp.org]
Sent: Monday, December 09, 2013 8:35 PM
To: 'George Kiesel'
Subject: RE: Block 43.17 Lot 2 - septic plans grading review

Approved however the system appears to be within 100 feet of the existing water pond?

Paul E. Pogorzelski, P.E.
Hopewell Township Administrator/Engineer
201 Washington Crossing-Pennington Road
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609-737-0605 ext 664
609-737-6839 (fax)

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Sent: Monday, December 09, 2013 3:41 PM
To: 'Paul Pogorzelski'
Subject: Block 43.17 Lot 2 - septic plans grading review

Grading review

George Kiesel
Senior REHS
Hopewell Twp. Health Department
201 Washington Crossing-Pennington Rd 08560
609-737-0120 ext.635
fax-609-737-6836
Gkiesel@Hopewelltwp.org

Your message is ready to be sent with the following file or link attachments:

Block 43.17 Lot 2 - septic plans

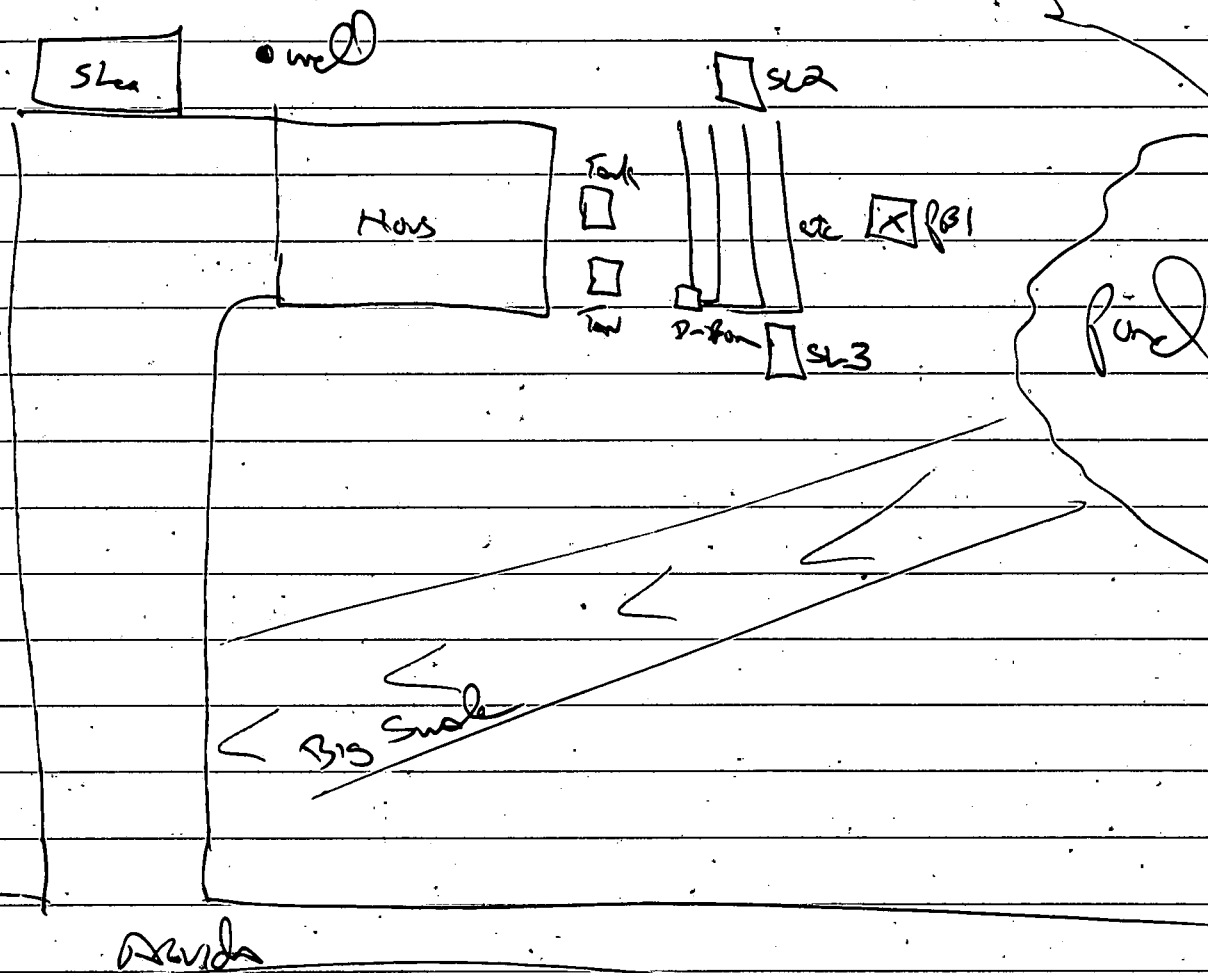
Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

Patterson

43.17/2

9K

11/20/13



QBI = TD = 96"

Static = 72"

Soft Loose Shale

SL #3

TD = 120"

Soft Loose Shale

H₂O @ 80" Fast

SL #2

Hard Shale

Refusal 46"

No mottles / no H₂O

Permit No. **11069**

Date: **7/27/2011**

Hopewell Township Health Department

201 Washington Crossing – Pennington Road

Titusville, New Jersey 08560

Tel. (609) – 737-0120 Fax (609) – 737-6836

PERMIT

Applicant: Deborah Fein

Block 43.17, Lot 2.00

For: INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM REPAIR

Location: 4 Arvida Drive

Fee: \$100.00

24 Hour Inspection Notification Required

This permit is NOT transferrable.

Authorized by:



Hopewell Township Health Department

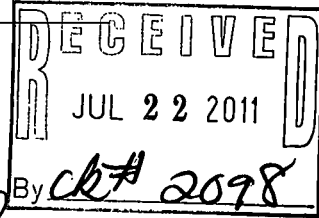
Hopewell Township Health Department

201 Washington Crossing Pennington Road

Titusville, NJ 08560

Phone: (609) 737-0120 Fax: (609) 737-6836

Permit Number 11-069
Date Issued 7-22-11
Fee Received \$100.



Septic System Repair & Abandonment Application

Property Location 4 Arvida Dr, Pennington BLOCK 43.17 LOT 2
Applicant Deborah Fein Address 4 Arvida Dr.
City Pennington State NJ Zip 08534
Phone 609/818-0062 Cell 609/203-5851 Fax _____

Existing Information, (Check one)

☒ Residential Single Family
No. of Bedrooms 5

☐ Residential Multiple Family
No. of Dwelling Units _____
Bedrooms per Unit _____

☐ Commercial/Institutional

Type of Establishment _____ Sq Ft of Facility _____
Total # Occupants or Employees per Shift _____ Meter Reading GPD _____
If estimate is based on water meter data, indicate source of data, frequency of readings average.

Existing Septic Tank Size 1000 gallons Garbage Disposal y/n N Sewage Ejector y/n N

Existing Disposal System (check one) Bed _____ Trenches _____ Seepage Pit(s) _____ Cesspool _____

Proposed Repair - Check Appropriate Category(s) Provide cut sheets for all new components

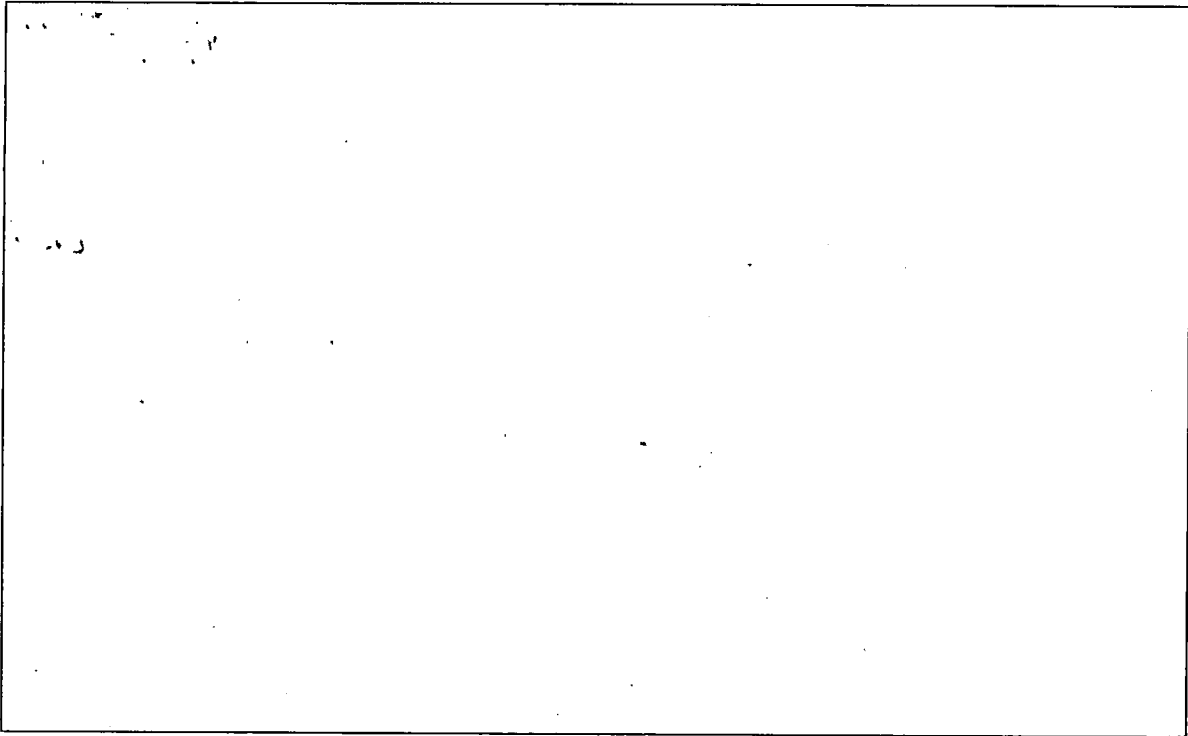
- ☐ Septic Tank Installation or Replacement. Compartment(s) _____ Size _____ gallons
All new & existing tanks must be provided with locking manhole to grade. Add 250gal or 2 compartments
- ☒ Connecting Pipes
- ☐ D-Box Replacement, add monitor pipe to existing field
- ☐ Pump Replacement Provide manufacturer _____ Horsepower _____
- ☐ Connect washer or remove illegal discharge pipes
- ☐ Septic Tank /Cesspool Abandonment
- ☐ Replace filter bed material per engineer Monitor Ports are required
- ☐ Dosing Tank Size _____ gallons Dose Volume _____ gallons Reserve Capacity _____ gallons
- ☐ External Grease Trap - Gallons _____ Calculation _____

Other (Specify) _____

Describe Nature of Alteration or Repair(s):

Replace existing cast iron pipe with PVC between house + tank

General Plan of System Showing Locations of All System Components



I hereby certify that the information furnished on this application (and attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

CONTRACTOR ISSMCO. PHONE # _____

ADDRESS _____ City _____

State _____ Zip _____ Fax _____ Cell Phone # _____

Applicant / Contractor's Signature Deborah A. Ferri

Office use

Application Approved X Inspector _____

Application Denied _____ Inspector _____

Authorizing Signature See Date 7/27/11

Repair Completed 8/1/11 Inspector See

Septic System Abandonment
Tanks Crushed and Filled _____ Inspector _____



TOWNSHIP of HOPEWELL

MERCER COUNTY

DEPARTMENT OF HEALTH

Serving Hopewell Borough & Pennington Borough

201 Washington Crossing Pennington Road Titusville, New Jersey 08560-1410

Phone: 609.737.0120 Fax: 609-737-6836

Deborah Fein
4 Arvida Dr.
Pennington NJ 09534

July 27, 2011

RE: Block 43.17 Lot 2

Enclosed please find your permit to replace the existing Baffles, Lid or Risers and connecting pipe at the above-mentioned property.

All manhole covers must be of cast iron construction and all risers must be of concrete unless otherwise reviewed and approved by this office.

This office recommends the installation of an effluent filter in conjunction with the outlet baffle.

You or your contractor must notify this office at least (24) Twenty-Four Hours in advance of installation to schedule inspections with this office.

This permit is valid only to replace the existing Baffle, Lid, Connecting pipe and Risers. You are not permitted to alter any component of the disposal field without further engineering and approvals from this office.

Very Truly Yours,

George Kiesel
Senior Environmental Health Coordinator

Ken Scherer's
BELLE MEAD NURSERY • HILLSBOROUGH IRRIGATION

P.O. Box 97 Belle Mead, N.J. 08502 • (908) 359-1898 • FAX (908) 281-0529

June 26, 2006

43.17/2

To: Bob
Hopewell Township

Re: Fein
4 Arvida Dr.

Hillsborough Irrigation has been contracted to install a drip irrigation system for the landscape areas, only. No rotary sprinkler heads will be used in this system.



Scott Scherer
Irrigation Sales

Established 1977

LANDSCAPING • LANDSCAPE LIGHTING • LAWN SPRINKLERS • BRICK WALKS

Application for Construction of Driveway and On Site Inspection for DrainageDriveway Must Be Staked Before Inspection

Applications approved as per Site Plan. subject to the following requirements:

1. 7 inch depth of 2½" or 1½" blend 10 ft. in from curb
2. Remove curb and replace with new concrete entrance curb. No capping of curb permitted.
3. Finish driveway entrance 1½" above street level. 3700 lbs. test concrete.
4. Driveway to be paved 20' minimum

Additional Requirements: 2" of ABC topApproval Granted, Road Supt. W. B. Hall Date 3-2-76Certificate of Compliance, Driveway and Surface Drainage approved by
(name) _____ on (date) _____☒ Check Here If Driveway Permit Is Desired

(authorized signature) _____

Date _____

SEWAGE APPLICATION

Maximum Number of Users. _____

Gallons per person. _____

Additional bedroom area available. _____

Type of facilities other than bath: _____

Septic Tank — Liquid Capacity and Type Primary 1250 gal Secondary 1000 galP-4' Width
5-4'

P-10' 5-8' Length

liquid depth
4' 4"distance liquid level to underside of top.
1'-2"Liquid Disposal — number of trenches or bed size P-4 5-2 total = 6

Disposal Trench.

Width
30"depth
40"linear feet of pipe.
600Distance between lines 10' o.c.Type of pipe 4" puf. pipeDescription primary system 4 trenches dist. box 1250 gal tank secondary 2 trenches dist. box 1000 gal tank**PERCOLATION TEST RESULTS**

Hole No.	Time in Min. per In.	Depth	Type of Soil Encountered	Depth of each type
<u>2</u>	<u>18</u>	<u>34</u>	<u>topsoil</u>	<u>8"</u>
<u>3</u>	<u>26</u>	<u>40</u>	<u>red clay & some shale</u>	<u>28"</u>
			<u>red clay & shale</u>	<u>48"</u>
			<u>fractured red shale</u>	<u>30"</u> <u>water at 96" deep</u>

The above fully complies with applicable State and Municipal Regulations.

Certified by William M. Rittenhouse 13453

Engineer

License No.

Date 2/3/76

Date _____

WATER SUPPLY APPLICATION

Describe type of well and existing or proposed water supply system.

Estimated depth of well. 210 Ft.Depth and gauge of casing. 50 Ft. SteelMethod of sealing. CEMENT GROUTCapacity & type of storage facilities. PRESSURE TANK

Treatment facilities. _____

Pumping equipment. SUBMERSIBLE

The undersigned agree to (alter) (construct) the aforesaid water supply in accordance with applicable State and Municipal regulations.

Contractor James M. Rittenhouse 13453

signature

Owner William B. Hallagher

signature

Application approved and fee received for:

() Sewage Disposal System, authorized signature Robert W. Jones 2-18-76

Board of Health, Township of Hopewell

date

() Water Supply System, authorized signature Robert W. Jones 2-18-76

Board of Health, Township of Hopewell

date

Certificate of Compliance:

() Sewage Disposal System approved after inspection by (name) _____

on (date) _____

() Potability of water tested by (name) _____

on (date) _____

and found acceptable.

Date _____

Authorized Signature
Board of Health, Township of Hopewell

Date Received _____

APPLICATION FOR BUILDING PERMIT
Hopewell Township — Titusville, N. J. 08560

Application is hereby made for the issuance of permits checked (✓), pursuant to the Zoning Ordinance of Hopewell Township.

Owner William Gallagher Address 123 Union Street, Titusville, N.J. Phone 610-441-1234

Contractor _____ Address _____ Phone _____

- () Bldg. _____
- () Water _____
- () Sewage _____
- () Driveway _____

N. J. Lic. 10716

Building Plans by (Architect) Thomas A. Kelly, N.J. A.E.

Address 201 N. 1st St., Titusville, N.J. Phone _____ Date _____

Site Plan prepared by (Engineer) Bruce M. Rittenhouse, P.E. & L.S. -13453

Purpose and use of proposed construction single family residential

Lot location street & no.) Arvida Drive Zone R200

Block No. 430 Lot No. 2 Development Elm Ridge Park West

Building Size, Max. width 61.0' Max. depth 34.5' Height 2 stories

Lot size: Front 498.06' Depth 201' Area 93,878 SF

Distance from — right property line 320'± Left property line 53'±

Front Set Back 113'± Rear Yard Depth ~~53'±~~ 54'±

Living Area — First Floor 1467 SF Second Floor 1412.75 SF Other _____

Total 3091.75 SF Building Area 2879.75 SF Percentage of Lot coverage 3.08%

No. of bedrooms 5 No. of Baths 3

Estimated Cost \$1,300,000.00

(owner's signature) William E. Gallagher

Approval (Granted) (Denied) _____

Reason for denial _____

Fee _____ Paid _____ Date _____

Zoning Inspector _____

Soils Log.

DEPTH - 114.0

0-8. TOP SOIL

8-36 CLAY (REDISH) SOME SHALE (RED)

36-84. RED SHALE + CLAY (REDISH)

84-114.0 WELL FRACTURED RED SHALE + BLUE
WATER ENCOUNTERED @ 96.0

PRE-TEST # 3

DEPTH - 40.0

START - 1:35 @ 5.0"

END - 2:25 @ 12.0"

(3 SAT.)

16 to 21

PRE-TEST # 2

DEPTH - 34.0 @ 15.0"

START - 1:55 @ 15.0"

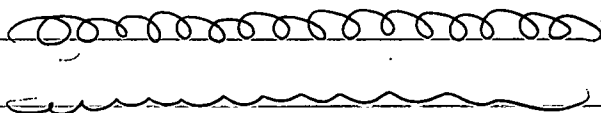
END - 2:45 @ 21.0"

(5 SAT.)

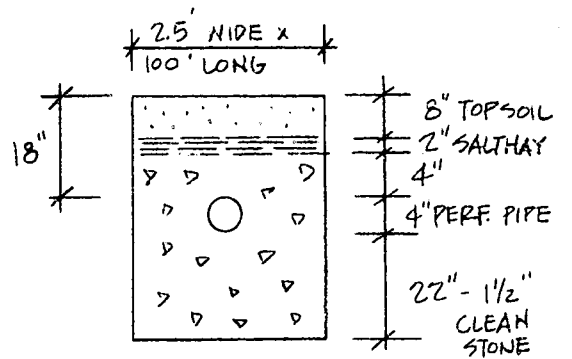
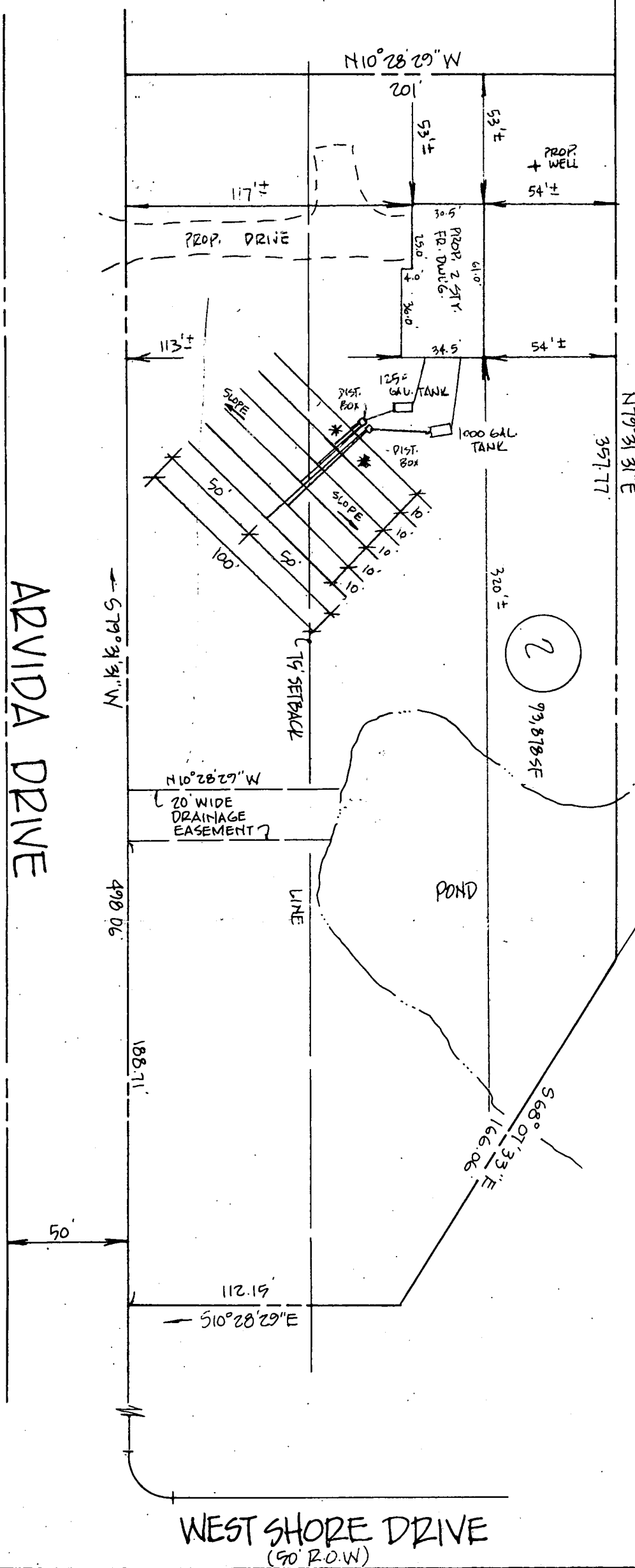
16 to 21

Loc. 100.0' from STREET 25' from
left side

Robert



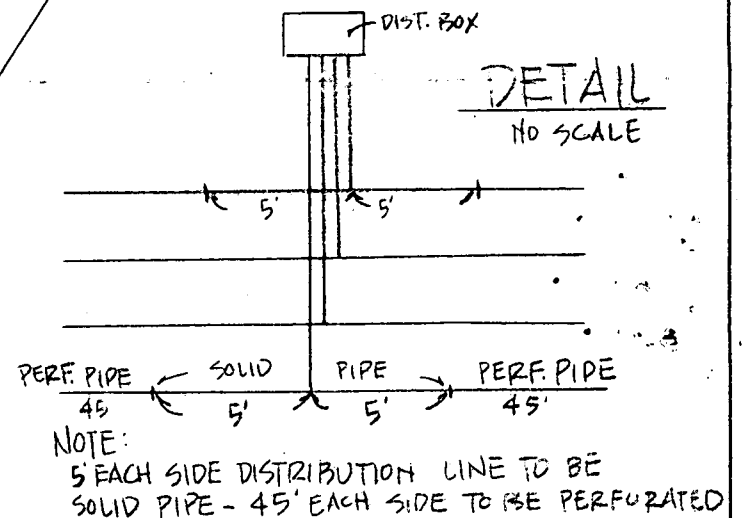
ARVIDA DRIVE



TYPICAL TRENCH DETAIL
NOT TO SCALE

NOTES:

- * INDICATES PERCOLATION TEST
1" PER 22 MIN. AVERAGE
- SLOPE LINES 2" PER 45' IN
DIRECTION AS INDICATED
- PRIMARY SYSTEM
4 LINES AT 100' EA.
- SECONDARY SYSTEM
2 LINES AT 100' EA.



REFERENCE PLAN:

FILED IN THE MERCER COUNTY CLERK'S
OFFICE AS MAP NO. 2050. SHOWN
AS LOT NO. 171.

HOPEWELL TOWNSHIP TAX MAP

SHEET	SECTION	LOT
18	43Q	2

PRINCETON JCT. ENGINEERING CO.

PROFESSIONAL ENGINEERS & LAND SURVEYORS
PRINCETON JUNCTION, NEW JERSEY
NORTH POST ROAD
P.O. BOX 223, 08550

(609) 799 1906

(609) 799 1963

FRANK L. QUINBY
BRYCE M. RITTENHOUSE
WILLIAM R. MC ELROY
ARNOLD RYDEN, SR.
ARNOLD RYDEN, JR.

P.E.

L.S. NO. 11087
L.S. NO. 13453
L.S. NO. 19448
L.S. NO. 11757
L.S. NO. 21223

DRAWN

6

CHECK

REV.

DATE

1-28-76

SCALE

1"=50'

CERTIFIED AS CORRECT

FOR BUILDING PERM.T ONLY

PLOT PLAN & SEPTIC DESIGN
FOR

WILLIAM GALLAGHER

HOPEWELL TOWNSHIP MERCER COUNTY NEW JERSEY

BRYCE M. RITTENHOUSE P.E. & L.S. 13453

DATE

2/3/76

WELL INSPECTION REPORT

Owner Wm. B. GALLAGHER

Address _____

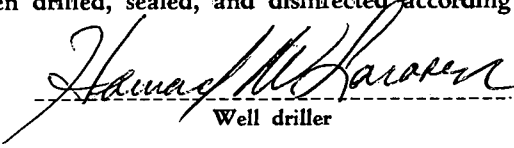
Lot 2 Block 43 Q Map page _____

WELL DATA AS COMPLETED

N. J. State well drilling permit # 28-9214 dated 6/25/76Length of casing 54 ft.Depth 200 ft.Water level below top of casing 40 ft.Depth of suction or jet below top of casing 120 ft.Estimated capacity of well 20 gpmLength of pumping test 1 hr.

I certify that the above information is correct and the well has been drilled, sealed, and disinfected according to the latest Hopewell Township Ordinance.

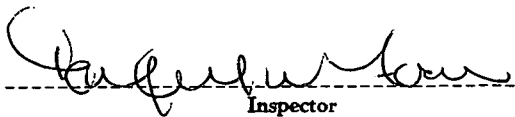
Dated _____


 Well driller

Inspection of construction was made on the following dates: _____

---- Bags of cement used _____

Final construction of well and distribution system is certified to be in accordance with Hopewell Township Ordinance.


 Inspector

WATER QUALITY

Sample No.

Date

 Health Dept.



QUALITY CONTROL LABORATORY DIVISION

1205 Industrial Highway, Southampton, PA 18966

673-4900
355-3900
(AREA CODE 215)

- Hopewell Township Board of Health
R.R. #1, Box 169-A
Titusville, New Jersey 08560

BACTERIOLOGICAL WATER ANALYSIS REPORT

date sampled 8/31/76
date tested 9/1/76
date reported 9/3/76
sampled by DB
frequency _____
copies to _____

SAMPLE	Standard Plate Count per ml	Total Coliform Count per 100 ml MPN	Fecal Coliform Count per 100 ml MPN	Residual Chlorine mg/l	Residual Bromine mg/l	pH	Results *
Gallagher 43-Q Lot 2 18	120	0					SD

- * SD Safe for drinking use: meets EPA bacteriological standards
- NSD not safe for drinking use: evidence of contamination
- SS safe swimming pool bacteriological qualities
- NSS unsafe swimming pool bacteriological qualities
- C swimming pool chlorine residual low: should be over 0.4
- B swimming pool bromine residual low: should be over 1.0
- P swimming pool pH low: should be 7.2-8.2
- W within fecal coliform standard for a bathing beach
- NW not within fecal coliform standard for a bathing beach

Q C INC.

Carl W. Cook, M.D.