

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

- Requires additional inspection

INTERNAL USE ONLY:

RECEIVED

JAN 10 2005

Inspector Name: GEORGE CAPONALE

Date: 12/20/04

ISSDS Address (including municipality):

1 KEITHWOOD COURT
HOPWELL, NJ

New Jersey Coordinate: Block: 93 Lot: 18.10
Was GPS used? 0 yes 0 no

Weather: CLEAR - COLD

Last precipitation: 24 Hr

Age of system: 4 YEARS

Type of dwelling? Residential Number of Bedrooms: 5

0 Non residential Describe: _____

How many systems are being inspected? 1

List any commercial activities or high impact hobbies: N/A

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):

NONE KNOWN

Date file review requested with administrative authority:

NOT REVIEWED

Comments:

Yes No

Is there a site plan or septic map available? ☐ ☒

Is the dwelling currently being occupied? ☐ ☒

If so, how many occupants? _____

If no, date last occupied? APPROX 1 YEAR

Is there a washing machine, is it connected to a Separate gray water disposal system? ☒ ☐

Is the dwelling free of additional gray water systems? ☐ ☐

Is the dwelling free of garbage disposal 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: _____

Date of last pumping: _____

Was file review completed prior to inspection? ☐ ☒

If no, explain why below

4 YEAR OLD SYSTEM

Sketch the approximate system location in this space provided:

FRONT
HOME

SOLID STATE
PUMP TANK

MOUNTED
LEACH FIELD

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
Dosing or Pump Tank:			
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?	☒	☐	☐

Is the pump operating?

Do the alarm(s) on the

Is the pump elevated above the tank

Is the lid in satisfactory condition?

Is the tank in satisfactory condition?

Is the tank free of accumulated solids?

Yes

No

00000000 N/A

Summary:	<u>Satisfactory</u>	<u>Satisfactory with Concerns</u>	<u>Unsatisfactory</u>	<u>Requires Additional Investigation</u>	<u>N/A</u>
Condition of the treatment tank(s)	☒	☐	☐	☐	☐
Condition of the conveyance and pump system(s)	☒	☐	☐	☐	☐
Condition of the and absorption area(s)	☒	☐	☐	☐	☐
Condition of any accessory components	☐	☐	☐	☐	☐

Condition of the conveyance and pump system(s)
Condition of the and absorption area(s)
Condition of any accessory components

Satisfactor

**Satisfactory
with Concerns**

Unsatisfactory

Requires Additional Investigation

0000	N/A
------	-----

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 are not designed to emit 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:

Customer authorization:

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

Customer signature:

Andrew Lay

Printed name:

ANDREW LAY

Inspector's signature:

George Capomale

Printed name:

GEORGE CAPOMALE

Disclaimer:

Based on today's observations and the information provided by the owner(s) or their agent, "The Company" submits this sub-surface sewage disposal system inspection form. The inspection is based on the current condition of the onsite sewage disposal system. "The Company" makes no representation that the system was designed, installed or meets N.J.A.C. 7:9A-1.1 et seq. "The Company" 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 "The Company" to supervise or monitor the use and maintenance of the system, this form shall not be construed as a warranty by "The Company" that the system will function properly for any prospective buyer. "The Company" disclaims any warranty, either expressed or implied, arising from the inspection of the septic system.

This form was developed as a cooperative effort of:

Pennsylvania/New Jersey Sewage Management Association;

Rutgers Cooperative Extension New Jersey Agricultural Experiment Station; and

The New Jersey Department of Environmental Protection Septic System Inspection Protocol Subcommittee

Treatment Tank:		Yes	No
Type of system being inspected? ☒ Septic tank ☐ Cesspool ☐ Other _____		☒	☐
Name the material of the system? ☒ Concrete ☐ Block ☐ Steel ☐ Gray water ☐ Multi-compartment # _____		☒	☐
Approximate Treatment Tank Volume: <u>1200</u> gal.		☒	☐
Evaluate the conditions of tank below:		☒	☐
Top and Lids	Satisfactory Unsatisfactory N/A	☒	☐
Inlet baffle	☒ ☐ ☐	☒	☐
Outlet baffle	☒ ☐ ☐	☒	☐
Cracks or Leaks	☒ ☐ ☐	☒	☐
Sewage Flow from structure	☒ ☐ ☐	☒	☐
Main tank lid opened for inspection?		☒	☐
Liquid level below the tank's inlet invert?		☒	☐
Liquid level below the tank's outlet invert?		☒	☐
Treatment tank pumped for this inspection?		☒	☐
Are all portions of the tank(s) clear of structures like a deck or a driveway?		☒	☐
Is the area clear of evidence that sewage has surfaced above the treatment tank?		☒	☐
Does water flow unimpeded from the treatment 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: _____ inches		☒	☐
Depth to top of tank access: _____ inches		☒	☐
Comments: _____		☒	☐

Absorption Area:	
Name the type of the absorption system? ☐ disposal bed ☒ disposal trench ☐ seepage pit ☐ mound ☐ cesspool ☐ other _____	
Was the absorption system located?	☒ yes ☐ no If no, explain below.
Are inspection ports present?	☐ yes ☒ no
If yes, how many? _____	
Were the inspection ports checked?	☐ yes* ☐ no ☐ N/A *All levels observed must be included in report
Was a <u>separate probe dug in the absorption area</u> to confirm the observations in the inspection ports?	☒ 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 or near any of the system components free from visible 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
If not exposed, explain why not: _____	
Is the area directly over any part of the absorption system free of any evidence of, large objects (cars, pools, etc.)?	☒ yes ☐ no
Comments: _____	

Dec 13 04 01:28p

Gary Guarino

609-737-6836

P. 1

10
Kathy Miller
Hopewell Township Health Department
201 Washington Crossing Pennington Road
Titusville, NJ 08560
609-737-0120

APPLICATION FOR LETTER OF REVIEW

Onsite Sewage Disposal System

Block *93* Lot *18,10* Location *1 Keithwood Court*

Russell Reed
dening inspection
12/20/04

Legal Agent for owner

Susan

Gordon

(Kathy Miller Ass't)

Phone

609 921-1411

Fax

609 921-6308

E-mail

susagord@aol.com

Purchaser/Tenant

Name

Purchaser/Tenant

Address

RECEIVED

DEC 14 2004

City

State

Zip

Phone

Legal Agent for Applicant

Susan

Gordon

Phone

609 921-1411

Fax

609 921-6308

E-mail

susagord@aol.com

Ordinance BH 2003-1 There shall be no transfer of real property, change in the use or change in tenancy of a property which utilizes an onsite sewage disposal system until the Administrative Authority or its authorized representative shall have issued a Letter of Review stating that the sewage disposal system complies or does not comply with the requirements of this ordinance and are in addition to and not in lieu of any applicable federal and state laws and regulations. In the event that any present or future federal or state law or regulation imposes standards more stringent than the requirements of this ordinance, the more stringent standards shall govern. The requirements of this ordinance shall pertain to all onsite subsurface sewage disposal systems in Hopewell Township, whether the property served is used for residential, commercial, agricultural or industrial purposes. Effective October 1, 2003

This application must be completed and submitted 10 business days prior to transfer of properties, change in use or change in tenancy. Be sure to include the name and address of all persons owning, purchasing or leasing the property upon which the onsite sewage disposal system is located.

Make check for \$25 payable to Hopewell Township

Transfer of real property:

A report by an independent inspection company indicating that the inspection of the septic system was conducted meeting minimum standards for the inspection of subsurface sewage disposal systems as prescribed by the Administrative Authority and or the NJ DEP.

For the purposes of this ordinance, Appendix A "Minimum Requirements for the Inspection of Septic Systems, Needed for the Sale, Transfer or Lease of Properties in Hopewell Township" shall serve as a minimum guidance document for conducting septic inspections until such time as new rules or regulations are issued by NJDEP. This document is adopted by reference. Revisions to Appendix A may be enacted by the Health Department as required.

Dec 13 04 01:28p

Gary Guarino

609-737-6836

P.2

The report must describe in sufficient detail the basis for the decision that the septic system is in satisfactory condition, is not operating at its design capacity, is not satisfactory and/or appears to be malfunctioning or is in need of repairs or alterations so as to be brought into conformance with the standards of N.J.A.C. 7:9A-3.4.

Additionally, the report must indicate or certify that the system as designed and or installed complies with the provisions of N.J.A.C. 7:9A-3.3 "Existing Systems," with regards to use, expansion, or change in use.

If the application cites evidence of a malfunction, a plan to correct shall be provided to the Health Department.

Changes in Use or Tenancy:

Inspections shall be conducted and submitted each time a property is leased. Changes in use or of occupants must be noted in the report. Determination of wastewater generation for the proposed tenant must be provided and verified that it is within the design volume for the system. Inspection reports conducted within 6 months of the lease or sale may be used if more than one unit is included in the building and if all other design and occupancy conditions remain constant. Occupancy of units will not be allowed if malfunction system noted.

To be completed by Health Department

Upon review of the information submitted to the Administrative Authority or its authorized representative, one of the following documents will be issued within five (5) business days of receipt of the completed application.

- ___ Letter of review will be issued,
Septic system inspector certifies the satisfactory operation of the system per the ordinance.
- ___ Notice issued that Additional information or data must be supplied
- ___ Notice issued that the report, or its methods or conclusions, are rejected.
- ___ Notice issued that the Letter of review will not be issued because, the System is not in compliance and that the system is in need of repair or replacement.

Application incomplete and returned _____

By _____

Temporary approval granted on 12-22-04 By Guarino
pending submittal of the following:

___ A copy of the sales agreement to be provided. Specifically it should specify who is responsible for this work and when it is to be completed. Funding issues should be noted. Remediation does not need to occur before closing, as long as provided for in contract.

___ Engineering certification for the alteration/repair provided.

☒ Other Completed Septic Repair

This must be completed within 30 days of temporary approval

Letter of Review issued on 1/6/05 To _____

Susan Gordon

By _____

Title _____

PHB

Violation: Any person or persons firm or corporation violating any of the provisions of this ordinance upon conviction thereof, pay penalty of not less than \$200.00 for each offense and an additional penalty of \$25.00 for each day of continuance of the violation after notice of the violation shall have been given to such person or persons, firm or corporation by the Administrative Authority, to be collected and enforced by summary proceedings for the collection of penalties pursuant to the New Jersey Penalty Enforcement Law. Such notice shall be given by (1) serving a copy thereof on the property owner as shown on the current tax map or his agent in charge of the property, or (2) mailing a copy thereof by certified mail to the property owner at his address as shown on the said tax map.

12-21-2004 13:25

FROM-COLDWELL BANKER PRINCETON JCT. NJ

609-799-2616

T-471

P. 001/004

F-464

Roxanne Gennari
Realtor® Sales Associate

**#1 Agent in the State of New Jersey &
Ranked in the Top 1% Internationally ***

93/18.10

* For Coldwell Banker New Jersey NRT based on the Number of transactions in 2001 & 2002



In a multibillion dollar business, It all comes down to a Buyer, A Seller, and Roxanne Gennari.
-- New York Times

50 Princeton-Hightstown Road, Princeton Junction, NJ 08550

- ♦ (609) 586-7252 - Direct
- ♦ (609) 306-7148 - Cell
- ♦ (609) 799-8181 - Office
- ♦ (609) 716-6967 - Fax
- ♦ Rox@RoxanneGennari.com



Fax To:	<u>Rox Gennari</u>	From:	_____
Company:	_____	Date:	_____
Fax Number:	<u>737 6836</u>	_____ pages including cover	
Phone Number:	_____	cc:	_____
Re:	<u>We Client Needs Guide Chair</u> <u>with NT occupy since you</u> <u>return outspace ok?</u>		



Independently owned and operated by NRT, Inc. An Equal Opportunity Company



12-21-2004 12:25 FROM:COL DWELL BANKER PRINCETON JCT. NJ
12-21-2004 13:26 FROM:COLDWELL BANKER PRINCETON JCT. NJ

609-798-2616 609-798-2616 T-471 P. 002/004 F-464
T-471 P. 004/004 F-464
SEP. 12 2003 05:41PM PT

House Testers, Inc.

ONE SOURCE INSPECTION SERVICE



200 SHENANDOAH BLVD.
TOMS RIVER, NJ 08753
TEL/FAX (732) 270-5448
CELL (609) 731-1557

DATE: December 20, 2004

TO: Roxanne Gennari

FAX PHONE NO. 609-716-6967

FROM: George Caporale

RE: I Keithwood Court
Hopewell, NJ

I have put the original documents in the mail to you. I can be
reached at 609-731-1557.

George

12-21-2004 13:25 FROM-COLDWELL BANKER PRINCETON JCT. NJ
THA INL, :

609-798-2616

T-471 P. 003/004 F-464
ScP. 12 2003 05:43PM P4

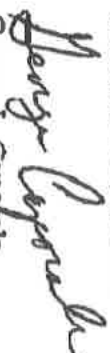
include underground and/or inaccessible components. It cannot be determined whether the underground and/or inaccessible components were constructed in a manner that would assure proper functioning of the system over the long term.

All dye tests are conducted solely for the purpose of detecting health hazards and are not intended to determine septic system design characteristics, type or capacity. This report represents a professional evaluation of the septic system based on the conditions visibly apparent at the time of inspection. No warranty or guarantee for this system is implied.

The enclosed brochure, "SEPTIC SYSTEM CARE" by Rutgers University, should be carefully reviewed to familiarize you with disposal system function and proper maintenance.

I can be reached by cell phone at 609-731-1557 for further assistance.

Respectfully submitted,
HOUSETESTERS, INC.


George L. Caporale
Sanitary Inspector
License No. 0210

A. C. Brown

TRENTON, N.J. 08648

Phone: 882-7888

Fax No.: 882-7887

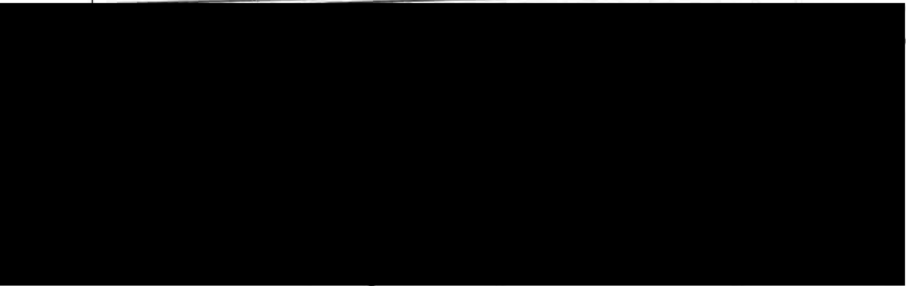
882-0010

NEW SEWERAGE INSTALLED --- CESSPOOLS CLEANED
TRENCHING --- DRAIN WORK --- TOPSOIL --- FILL DIRT --- SWIMMING POOLS

12577

12/22 20 04

Phon



CLEAN CESSPOOL

CLEAN SEPTIC TANK

DUMPING FEE

240 00
150 00

Callwell Benton

Fax (609) 921-6308

Attn: Susan Gordon

c/o Family Menard

THANK IS VERY GOOD

TOTAL

390 00

N.J. State Tax

23 40

TOTAL

413 40

MAUREEN T. SLAVIN

Attorney-at-Law
1 Hamton Court East
Robbinsville, NJ 08691
609-259-0946 (Phone) ~ 609-259-8082 (Fax)
e-mail address: mtslavq@optonline.net

December 22, 2004

ATTN: Mr. Gary Guarino
Hopewell Twp. Health Dept.
Hopewell, New Jersey

Re: Nyce/Nyce Estate to Lay
1 Keithwood Court
Block 18.10, Lot 93

Dear Mr. Guarino:

Please be advised that I represent Andrea Lay in her purchase of the above noted premises. This shall serve to confirm that the buyer is willing to accept a conditional certificate of occupancy/septic certification from the sellers and the Township of Hopewell at time of closing and until such time as the township's conditions have been met. Closing of title may occur as early as Thursday, December 23, 2004.

Please feel free to contact me for any further information in these regards. Your assistance and accomodation in this matter is greatly appreciated.

Very truly yours,



MAUREEN T. SLAVIN

01-06-2005 11:04

FROM-COLDWELL BANKER PRINCETON JCT. NJ

609-798-2616

T-695 P. 001

F-697

Roxanne Gennari
Realtor® Sales Associate

**#1 Agent in the State of New Jersey &
Ranked in the Top 1% Internationally ***

* For Coldwell Banker New Jersey NRT based on the Number of transactions in 2001 & 2002



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-- New York Times

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- ❖ (609) 718-6967 - Fax
- ❖ Rox@RoxanneGennari.com



Fax To: Cathy Guarino From: Roxanne Gennari
Company: _____ Date: 1-6-03
Fax Number: 737-6836 cc: _____
Phone Number: _____
Re: _____

5 pages including cover



Independently owned and operated by NRT, Inc. An Equal Opportunity Company



Dr. Jonathan W. Nyce
1 Keithwood Court
Tinsville, NJ 08560

~~TS~~ 93 / 18.10

BY FAX: 737 0051 and Federal Express

April 22, 2002

Mr. Peter Blicher
Brookside at Hopewell Ridge

Dear Mr. Blicher:

As you know, over a year ago we hired an attorney to represent us in our dispute with you. This triggered an immediate response and promises by your people to complete the unfinished work. However, these turned out to be empty promises. The following items, all of which you know about but have ignored, must be completed in 10 days:

1. The vent to the septic system was destroyed by one of the bulldozers that leveled the grade prior to our closing date
2. One of the air conditioning units continues to work inefficiently, and is producing noise that may indicate a serious situation (e.g., fire hazard)
3. The garage floor was improperly set, and over one inch of water pools at the middle of the floor
4. Interior painting remains unfinished, with some completely unfinished sections
5. Long lists from the building inspector, attached, remain unfixed

I would like to express my anger at the way you handled our air duct problem. As we stated on many occasions, during construction no covers were placed on floor vents. Workers therefore routinely swept all debris into these vents. We noted this to you on several occasions. When air conditioners were turned on, the sawdust and other particulate debris filled the house, setting off fire alarms and causing breathing difficulties in my children. Your solution? You sent over a cleaning lady who asked to borrow our vacuum cleaner to clean the vents! I subsequently did what you were supposed to do, hire a professional duct cleaning company to restore my home to a safe environment. The duct cleaning people were absolutely amazed at the amount and kind of debris, especially saw wood and other particulate matter, they found when they cut into the ductwork.

Failure to complete these remaining items within 10 days will automatically, without recourse, trigger a strong and vocal complaint to the Hopewell Township inspection authority.

Sincerely,

Cc: Hopewell Township Building Inspection


Jonathan W. Nyce



HOPEWELL TOWNSHIP

MUNICIPAL CONSTRUCTION OFFICE

201 Washington Crossing-Pennington Road
Titusville, N.J. 08560-1410

DATE: 3.20.01

PERMIT: 99-790

BLOCK: 93

LOT: 18.10

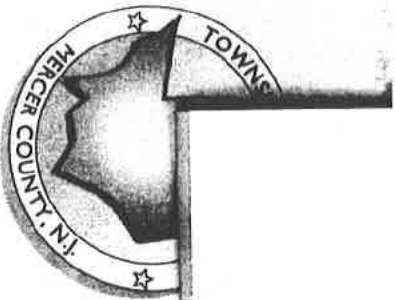
INSPECTION: Final

INSPECTOR: KC

1 Keithwood
For Information Call: 609-737-0612

PERSON ON SITE: Homeowner

- 1 Basement steps not uniform only 3 different permitted
- 2 lag all jolly columns
- 3 no paper ~~after~~ can be showing on insulation
- 4 bottom of french door need cedarizer
- 5 fix exterior basement door broken jamb and door not plumb
- 6 fix to vent chase in basement & finestop & remove wood
- 7 Strap not nailed on knee wall in back corner
- 8 Straps missing in knee wall 2 straps per member
- 9 front steps exceeds 8" per member
- 10 Grading around house need positive pitch first 8' feet
- 11 siding pulling off home in various spots
- 12 Guard rails missing on door to exterior
- 13 window
- 14 Secure dishwasher to counter top
- 15 Secure transition strip from family room to kitchen
- 16 exterior door in breakfast room bowed air entering home.
- 17 window on stair landing not tempered
- 18 landing at top of steps exceed 3/4" different from others



1 Keithwood
For Information Call: 609-737-0612

BLOCK: 93 LOT: 18.10
INSPECTION: Final INSPECTOR: KC
PERSON ON SITE: Home owner

3-20-01
99-790
B.2

- 19 room over garage foam must be cover not allowed to be exposed on door to storage
- 20 need louvered door or hi lo vents for combustion air in laundry room
- 21 guest bath counter top need caulking at edge
- 22 check all windows thru out house lubricate to work properly
- 23 bottom of guard rail on foyer balcony exceed 4"
- 24 valley block missing in attic
- 25 nail down ash at work area of furnace
- 26 label radon pipe in attic
- 27 install duct in attic not in joint near A frame.
- 28 All supply flex lines in attic must be R.C
- 29 Tar paper or truck missing under siding in attic area can see out side.

31010 RAH said tampered glass by back stair window not needed had cleared it from list

4117 on list
Suggested by worker -

Talk to Bill White of Howell township to agree -



Municipal Construction Office

DRAKE A. RIZZO
Building Official
Fire Official

Office: 609-737-0612, ext 660
Fax: 609-737-2770
E-mail: agro@intac.com

201 Washington Crossing-
Pennington Road
Tinsville, N.J. 08560-1410

INSHIP

DN OFFICE

Washington Road
08560-1410

DATE:

3-20-01

PERMIT:

99-790

BLOCK:

93

LOT:

18.10

INSPECTION:

Final

INSPECTOR:

171220

PERSON ON SITE:

1 Kuehn word.

1 Replace Combustion air in the laundry room
and floor.

2 Replace transformer at gas log fire place remote
does not work investigate high pitch noise at
the transformer

3 Replace smoke detectors nuisance alarm
Lampson in detection is dirty Specs recommend
replacement when exposed to a dust filled
environment

Westrum Development Co.

330-DAY INSPECTION CHECKLIST

NYCE

LOT #

57004

FIREPLACE
SWITCHES
REGISTERS

BEDROOMS

DOORS
MOLDINGS
DRYWALL
CLOSETS
WINDOWS
FLOORING
REGISTERS
DRYWALL

BATHROOMS

DOOR
FLOORING
CERAMIC
TUB
SHOWER
GFI
FIXTURES
DRYWALL

EXTERIOR

STOOPS
SERVICE WALKS
DRIVEWAY
GRADING/SEED/SOD
LANDSCAPING
BRICK/STUCCO/STONE
SIDING
GUTTERS AND DOWNSPOUTS
SPLASH BLOCKS
ROOF
RIDGE VENT
POST LIGHT
WINDOW WELLS
SEWER CLEAN OUTS
DECKS/PATIOS
HEAT PUMP/AIR CONDITIONER
CHIMNEY

EXERCISE ROOM

EXERCISE RM IN DOOR
GLASS DOOR CRACK AT SIDE
HALL GLASS DOOR HAND BLADE THREE
ITEMS FOR CORRECTION
INSIDE HINGED TRIM BLADE ON WHITE
SIDE

IN DOOR

DOOR
ENTRY RT SIDE TRIM. BLADE THREE
SIDE WDN TRIM - ROUGH FINISH
LT + RT SIDE H1 - TRIM PAINT
SITTING AREA AREA TV H1 - CRACK
ENTRY TO CLOSET AREA - CORNER BLADE
H2 HAD DOOR
LOOK IN
CLOSET DOOR BLINDS
HANG IN
CLOSET CRACKED STICKS SIDE - INSIDE
LOOKED CLOSET JOINT REMOVED DOOR
UNBLEN

IN DOOR

ENTRY AREA CAVING CAUSE 1 PAINT T.V.
AND BLADE THREE
TOILET DOOR CAVING. BLADE THREE
BEHIND OVER SHOWER WHILE POBS
OFFICE WDN TRIM BLADE THREE

" " OUTSIDE GLASS BLADES
NAIL POBS - H154 RT C TOILET ROOM
TRIM PAINT OVER DOUBLE SWITCH
FOYER AREA - SHOWER CHALK SEPARATION
BETWEEN CORNER ABOVE SHOWER
POTIN - TOILET GLASS UP FREQUENTLY

CHECK FOR RAIN PENETRATION NE AREA
OFF RM RM

FRONT PORCH TRIM GAP H1 - LEFT

SIDE WALL TRIM SEPARATION CEILING
TRIM TRIM W PAINT ON WOOD ON RT CORNER
PAGE 3 OF 4

10/10/11/11/11 11/11/11/11/11 RT CORNER

PROPERTY REPRESENTATIVE:

Nyce

330-DAY INSPECTION CHECKLIST

LOT # _____

ITEMS FOR CORRECTION

ALARMED
THK/STL DOUBT SWITCH ONE SWITCH LOOSE + COVER PLATE BLOWN DECORAT
WAKE-OUT PATCH CEILING - TOP - CAULK SEPARATION
THK N STL TRIM ^{DOOR} SEPARATION - LOW
HALL/OVERLOOK SEAM NEAR DOOR TO GUEST ROOM
GUEST RM ~~ENTRY~~ ~~SEAM~~ SIDE CASING - LOW MIDDLE SEPARATION
" " DOOR SHOWER CAULK SEPARATION
PARKING ENTRY RT CASING W/TH PAINT ON TRIM
" " " TRIM NAIL COMING OUT H1
" " " INSIDE - CAULK SEPARATION H1 - LT
" W/TH @ SWITCH - ROUGH
" FR W/LL @ WDW HOLE DOUBT
" " " BASE TRIM SEPARATION
" CEILING SEAM START OF CORNER
EDGY - WALL LT OF DOOR - H1 @ CEILING
DOOR NAIL POLES NEAR WDW SILL

WESTRUM REPRESENTATIVE _____

SIGN WHEN ALL ITEMS ARE COMPLETED

I CERTIFY THAT I HAVE PARTICIPATED IN A THOROUGH WALK THROUGH OF THE ABOVE REFERENCED LOT, AND EXAMINED THE INSIDE AND OUTSIDE OF THE HOME. I HAVE EXAMINED THE ENTIRE HOME AND ALL OF ITS PARTS. I HAVE HAD A COMPLETE EXPLANATION OF THE HOME AND ITS WORKING PARTS AND HAVE FOUND THE CONSTRUCTION OF THE HOME TO MY SATISFACTION, EXCEPT AS NOTED ABOVE UNDER HEADING "ITEMS FOR CORRECTION".

SIGNATURE Michelle Nyce

DATE June 20, 2021

Westrum Development Co.

NYC

330-DAY INSPECTION CHECKLIST

LOT # _____

FOYER

DOOR
FLOORING
CLOSET
DRYWALL
FIXTURES
SWITCHES
CHIME
SMOKE DETECTOR
MOLDINGS

HALLWAY AND STAIRS

SWITCHES
RAILINGS
DRYWALL
FIXTURES

BOTH ENDS
OF HALL

LT +

BASEMENT

WATER HEATER
AIR HANDLER
SUMP CROCK
STRUCTURAL STEEL
STAIRS
ELECTRICAL PANEL BOX
INSULATION
LAUNDRY AREA
FOUNDATION WALLS
SLAB
DOOR
SHUT OFF VALVES
WATER METER

GARAGE

GARAGE DOOR
SERVICE DOOR
SLAB
SWITCHES AND PLUGS

FAMILY ROOM

drywall

DOOR
MOLDINGS
DRYWALL
FLOORING
MOLDINGS

ITEMS FOR CORRECTION

CEILING NAIL POP AT RT CLOSET
CLOSET WHITE PAINT ON ROOF
BUCKLED @ TOP OF STRINGER ~~AND~~ ^{BOTH} SIDES
DOUBLED DOOR GAP @ BOTTOM

SEPARATE ROUGH
ROOF STRIP WITH COLLAR LT GOING DOWN

ROOF STRIP - NO ASBEST. CEILING TRIM SEPARATION
CEILING AT ATTIC STAIR - CRACK

ATTIC STAIR CASING TRIM SEPARATION

WALK OUT CASING INTERIOR SEPARATION HEMLOCK
WALL CEILING ENTRY TO BED ROOM - SUNKEN OR NAIL
HEADS

RAVUS WDW TRIM CRACK

RT SIDE CASING SIDE - TRIM PAINT
OF WOOD

RAVUS WDW LT SIDE - WHITE PAINT ON WOOD
FLOOR TRIM

BEAR STAIR TRIM BUCKED TRIM - STRAIGHT PIECED TO

WALK OUT ABOVE STAIRWAY ASTHIGAL CRACKED

TOP RAIGER NOT ON
OPERATING DONT OUT @ TOP LITTLE LOSS

SINGLE UNIT TOP PANEL PUSHES OUT STOP

OVERLOOK OAK TRIM BUT - HOLE

LEAVE DAMAGED. 41 WHITE NEAR NEAR ANGEL CORNING

WALL POP @ FIRE MENTEN - RT SIDE

WDW TRIM RT SIDE TRIM PAINT (WALL LT OF FLOOR)

Handwritten Floor GAPS

Westrum Development Co.

330-DAY INSPECTION CHECKLIST

WESTRUM DEVELOPMENT CO. REPRESENTATIVE: ALPH EDDOWES
HOMEOWNERS NAME: NYCE , Johnathan + Michelle
LOT #: 18.10 HOMEOWNER PHONE # (H) 9.737.5154 (W)
ADDRESS: 1720 Keithville Rd Titusville FL 32781
DATE: 6.11.01 REINSPECTION APPOINTMENT DATE: _____

ITEMS FOR CORRECTION

KITCHEN

FLOORING
WINDOWS
CABINETS
APPLIANCES
MOLDINGS
PANTRY
DRYWALL
LIGHT FIXTURES
PLUGS & SWITCHES
SINK
GFI
TILE Behind cm top

GENERAL INFORMATION, WARRANTY
INFORMATION AND PROCEDURE

HVAC
PLUMBING
ELECTRICAL
ROOFING
WESTRUM
THERMOSTAT

DINING ROOM

WINDOWS
DRYWALL
PAINT
REGISTERS
FLOORING
MOLDINGS
FIXTURES
SWITCHES & PLUGS

LIVING ROOM

	CEILING SEAM @ HALL TO GARAGE
	" " ABOVE - LT OF OVEN
	GURGLES SOUNDS - SOMETIMES
	- RT OF COOKTOP - GROUT CRACK
	ATTIC UNIT DOES NOT ANSWER THERMOSTAT
	CEILING NAIL POP NEAR COLUMN NEAR KITCHEN
	" ROUGH FINISH NEAR COL. " "
	DOOR TO KIT. CASING - PAINTED THRU
	CEILING ROUGH @ RT WDW

SEAP DROW SHE NIX CRACKED
BASE NIX CRACKED IN CORNER - LT SIDE
PAGE 1 OF 4
CEILING SEAM @ RETURN GRID NEAR CROWN
MALL REPLESSON
DINK NIX BUT NEAR DOOR TO STUDY

Copy to Geoff

April 17, 2002

031180

Hopewell Township Inspector

Dear Inspector:

Please note that one of the four vent pipes of the septic system was broken off by the bull dozers that were smoothing the grade prior to our move in. I pointed this out to the builder, but without response. I am concerned that the septic system will not properly function with this missing vent pipe. Please take a walk up the hill and see for yourself.

Thank you.

Jonathan Nyce

Jonathan Nyce
Homeowner

PH 609 737 5154

4117102 RE Stopped @ site.



Inspection Port has been removed + hole is filled in.

Spoke w/ owner + advised her (Michelle) to wait to build? If not resolved in ten (10) days, contact me again.

Hose

HOPEWELL TOWNSHIP

MEMORANDUM

TO: Bill White - meo

FROM: George Kiesel Health Department

DATE: 10-02-01

RE: 93/18.10

This office takes no exception to the proposed
Tentative System. The House is served
by Public Water, and no Sprinkler Heads
are to be placed near the Sulfur System

PRINCETON JUNCTION ENGINEERING, P.C.
53 NORTH POST ROAD
PRINCETON JUNCTION, NEW JERSEY 08550
ph. (609) 799-1906 fax. (609) 799-1524

APPLICATION FOR PERMIT TO CONSTRUCT
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 of Change of Use
☐ Alteration/Malfunctioning System
☐ Deviation from Standards
☐ Repairs to Existing System

2. Location of Project:

Municipality Hopewell Twp., Mercer Co., New Jersey
Block 93
Lot 18.10
Street Address: #1 Keithwood Court

3.

4.

5.

6. Type of Facility:

- ☒ Residential Swimming Pool ☐ Yes ☒ No
☐ Commercial/Institutional
Specify Type of Establishment: _____

7.

Type of Wastes Discharged:

- ☒ Sanitary Sewage Garbage Disposal ☐ Yes ☒ No
☐ Industrial Wastes
☐ Other - Specify Type: _____

8.

Other Approval/Certifications/Waivers/Exemptions

(Attach to Application):

- ☐ Pinelands Commission
☐ U.S. Army Corps of Engineers
☐ N.J.D.E.P. & E. - Bureau of Flood Plain Management
☐ Other - Specify: _____

9.

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

Signature of Applicant

Brookside at Hopewell Ridge, LLC Agent

Date 8/9/99

FOR AGENCY USE ONLY

☐ Application Denied - Reason for Denial/Citation of Rules Violated:

☒ Application Approved

☐ Application Approved Subject to Approval by N.J.D.E.P. & E.

Date of Action 8/13/99

Signature of Authorized Agent [Signature]

Name and Title _____

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PRINCETON JUNCTION ENGINEERING COMPANY
53 NORTH POST ROAD
P.O. BOX
PRINCETON JUNCTION, NEW JERSEY 08550
ph.(609) 799-1906 fax.(609) 799-1524

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

Form 2a - General Site Evaluation Data

1. Name of Site Evaluator (print): Frank J. Falcone
2. Business Address of Site Evaluator:
(See Above Header)
3. Business Phone Number of Site Evaluator: 799-1906
4. Special Site Limitations Identified (check appr. 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 1 sheet for each soil log)
* **See attached forms**
6. Considerations Relating to Disturbed Ground: N/A
 - a. Type of Disturbance (check appr. 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: N/A
 - 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:
 - ☒ Site Plan
 - ☒ Key Map showing location of site on U.S.G.S. Quadrangle of other accurate map.
 - ☒ Key Map showing location of site on U.S.D.A. Soils Survey Map.
 - ☐ Other - Specify _____
9. I hereby certify that the information furnished on Form 1 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 Soil Evaluator Frank J. Falcone Date 7/13/99

Signature of Professional Engineer Byron M. Rittenhouse License# 13453

AFFIX SEAL

D:\frankbrooks\dl1810b93\l1810b93fr2a.doc

THE HILL GROUP, INC.
19 BROOKSIDE AVENUE

P.O. BOX 142

PENNINGTON, NEW JERSEY 08534-9998

ph.(609) 737-7700 fax.(609) 730-1222

bertpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot _____ Block _____

Log Number #226 Method (Check One): ☒ Profile pit _____ Boring _____

2. Soil Log: Munsell Color Name and Symbol; Estimated Textural Class; Estimated Volume % Coarse Depth; (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance, Size and Top-Bottom Contrast, (if present.)

DEPTH	MUNSELL COLOR	DESCRIPTION
0"-10"	10YR 4/3	Brown Silt Loam: No coarse fragments content; Moderate-fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.

10"-24"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 3% Mixed gravel coarse fragments content; Moderate, medium, angular, blocky; Moist, very firm; Common, fine roots; Gradual, wavy boundary.
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24"-78"	5YR 4/3	Reddish-Brown Silty Clay Loam: No coarse fragments content; Mottles: Common, medium, distinct, 7.5YR 7/1 & 7.5YR 5/8; 29"-78"; No structure notation; Moist, very firm; Saturated, slightly sticky; Few, Fine roots to 40".
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3. Ground Water Observation:

☒ Seepage - Indicate Depth 42"
____ Pit / Boring Flooded - Depth after _____ Hours: _____

4. Soil Limiting Zones (Check Appropriate Categories):

____ Fractured Rock Substratum - Depth to Top _____
☒ Massive Rock Substratum - Depth to Top 78"
____ Excessively Coarse Horizon - Depth Top to Bottom _____
____ Excessively Coarse Substratum - Depth to Top _____
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-78"
____ Hydraulically Restrictive Substratum - Depth to Top _____
____ Perched Zone of Saturation - Depth Top to Bottom _____
☒ Regional Zone of Saturation - Depth to Top 29"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator

Frank J. Falcone

Date

Signature of Professional Engineer

Albert J. Phillips: PE #32509

Date

AFFIX SEAL

L10aSL226.doc

THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
bertpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot Block
Log Number #227 Method (Check One): ☒ Profile pit Boring

2. Soil Log: Munsell Color Name and Symbol; Estimated Textural Class; Estimated Volume % Coarse
Depth: (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance; Size and
Top-Bottom Contrast, (if present.)

3. DEPTH	MUNSELL COLOR	DESCRIPTION
0"-10"	10YR 4/3	Brown Silt Loam: No coarse fragments content; Moderate- fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.
10"-48"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 1% Mixed gravel coarse fragments content; Mottles: Many, medium, distinct, 7.5YR 7/1 & 7.5YR 5/8; 28"-48"; Moderate, medium, angular, blocky; Moist, very firm; Common, fine roots to 32"; Gradual, wavy boundary.
48"-79"	5YR 4/3	Reddish-Brown Silty Clay Loam: 85% Gravel, cobbles, stone coarse fragments content; Mottles: Common, medium, distinct, 7.5YR 7/1 & 7.5YR 5/8; 48"-79"; No structure notation; Moist, very firm; Saturated, slightly sticky.

3. Ground Water Observation:
☒ Seepage - Indicate Depth 62"
 Pit / Boring Flooded - Depth after Hours:

4. Soil Limiting Zones (Check Appropriate Categories):
 Fractured Rock Substratum - Depth to Top
 ☒ Massive Rock Substratum - Depth to Top 79"
 ☒ Excessively Coarse Horizon - Depth Top to Bottom 48"-79"
 Excessively Coarse Substratum - Depth to Top
 ☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-48"
 Hydraulically Restrictive Substratum - Depth to Top
 Perched Zone of Saturation - Depth Top to Bottom
 ☒ Regional Zone of Saturation - Depth to Top 28"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is
subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator Frank J. Falcone Date 1/10/10

Signature of Professional Engineer Albert J. Phillips: PE #32509 Date

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
berfpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot _____ Block _____
Log Number #228 Method (Check One): ☒ Profile pit _____ Boring _____

2. Soil Log: Munsell Color Name and Symbol; Estimated Textural Class; Estimated Volume % Coarse
Depth; (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance, Size and
Top-Bottom Contrast, (if present.)

3. DEPTH	MUNSELL COLOR	DESCRIPTION
0"-10"	10YR 4/3	Brown Silt Loam: No coarse fragments content; Moderate-fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.
10"-20"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 3% Mixed gravel coarse fragments content; Moderate, medium, angular, blocky; Moist, very firm; Common, fine roots; Gradual, wavy boundary.
20"-72"	5YR 4/3	Reddish-Brown Silty Clay Loam: 75% Gravel, cobbles coarse fragments content; Mottles: Common, fine, distinct, 7.5YR 7/1 & 7.5YR 5/8; 32"-72"; No structure notation; Moist, very firm; Few, fine roots to 60"; Gradual, wavy boundary.
72"-99"	5YR 4/3	Reddish-Brown Silty Clay Loam: 90% Cobbles, stone coarse fragments content; Mottles: Common, fine, distinct, 7.5YR 7/1 & 7.5YR 5/8; 72"-99"; No structure notation; Moist, very firm; Saturated, slightly sticky.

3. Ground Water Observation:
☒ Seepage - Indicate Depth 72"
_____ Pit / Boring Flooded - Depth after _____ Hours: _____

4. Soil Limiting Zones (Check Appropriate Categories):
_____ Fractured Rock Substratum - Depth to Top _____
☒ Massive Rock Substratum - Depth to Top 99"
☒ Excessively Coarse Horizon - Depth Top to Bottom 20"-99"
_____ Excessively Coarse Substratum - Depth to Top _____
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-20"
_____ Hydraulically Restrictive Substratum - Depth to Top _____
_____ Perched Zone of Saturation - Depth Top to Bottom _____
☒ Regional Zone of Saturation - Depth to Top 32"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator _____ Date 7/12/02
Frank J. Falcone

Signature of Professional Engineer _____ Date _____
Albert J. Phillips: PE #32509

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
bertpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot ____ Block ____
Log Number #229 Method (Check One): ☒ Profile pit ____ Boring ____

2. Soil Log: Munsell Color Name and Symbol; Estimated Textural Class; Estimated Volume % Coarse
Depth; (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance, Size and
Top-Bottom Contrast, (if present.)

DEPTH	MUNSELL COLOR	DESCRIPTION
0"-8"	10YR 4/3	Brown Silt Loam: No coarse fragments content; Moderate- fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.

8"-70"	5YR 4/3	Reddish-Brown Silty Clay to Silty Clay Loam: 90% Gravel, cobbles, stone coarse fragments content; Mottles: Common, fine, distinct, 7.5YR 7/1 & 7.5YR 5/8; 26"-70"; Moderate, medium, angular, blocky; Moist, very firm; Common, fine roots to 30".
--------	---------	--

3. Ground Water Observation:

☒ Seepage - Indicate Depth 60"
____ Pit / Boring Flooded - Depth after ____ Hours: ____

4. Soil Limiting Zones (Check Appropriate Categories):

____ Fractured Rock Substratum - Depth to Top ____
☒ Massive Rock Substratum - Depth to Top 70"
☒ Excessively Coarse Horizon - Depth Top to Bottom 8"-70"
____ Excessively Coarse Substratum - Depth to Top ____
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-8"
____ Hydraulically Restrictive Substratum - Depth to Top ____
____ Perched Zone of Saturation - Depth Top to Bottom ____
☒ Regional Zone of Saturation - Depth to Top 26"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is
subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator Frank J. Falcone Date 11.1.01

Signature of Professional Engineer Albert J. Phillips, PE #32509 Date ____

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
bertpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot Block
Log Number #230 Method (Check One): ☒ Profile pit Boring

2. Soil Log: Munsell Color Name and Symbol; Estimated Textural Class; Estimated Volume % Coarse
Depth: (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance, Size and
Top-Bottom Contrast, (if present.)

DEPTH	MUNSELL COLOR	DESCRIPTION
0"-8"	10YR 4/3	Brown Silt Loam: No coarse fragments content; Moderate- fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.
8"-40"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 1% Mixed gravel coarse fragments content; Mottles: Common, fine, distinct, 7.5YR 7/1 & 7.5YR 5/8; 32"-40"; Moderate, medium, angular, blocky; Moist, very firm; Common, fine roots to 40"; Gradual, wavy boundary.
40"-82"	5YR 4/3	Reddish-Brown Silty Clay Loam: 90% Gravel, cobbles, stone coarse fragments content; Mottles: Common, fine, distinct, 7.5YR 7/1 & 7.5YR 5/8; 40"-82"; No structure notation; Moist, very firm; Saturated, slightly sticky.

3. Ground Water Observation:
☒ Seepage - Indicate Depth 70"
 Pit / Boring Flooded - Depth after Hours:

4. Soil Limiting Zones (Check Appropriate Categories):
 Fractured Rock Substratum - Depth to Top
☒ Massive Rock Substratum - Depth to Top 82"
☒ Excessively Coarse Horizon - Depth Top to Bottom 40"-82"
 Excessively Coarse Substratum - Depth to Top
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-40"
 Hydraulically Restrictive Substratum - Depth to Top
 Perched Zone of Saturation - Depth Top to Bottom
☒ Regional Zone of Saturation - Depth to Top 32"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is
subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator Frank J. Falcone Date 7/12/00

Signature of Professional Engineer Albert J. Phillips: PE #32509 Date

AFFIX SEAL

L10aSL230.doc

THE HILL GROUP, INC.
19 BROOKSIDE AVENUE

P.O. BOX 142

PENNINGTON, NEW JERSEY 08534-9998

ph.(609) 737-7700 fax.(609) 730-1222

bertpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot _____ Block _____

Log Number #231 Method (Check One): ☒ Profile pit _____ Boring _____

2. Soil Log: Munsell Color Name and Symbol: Estimated Textural Class; Estimated Volume % Coarse Depth; (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance, Size and Top-Bottom Contrast, (if present.)

3. DEPTH	MUNSELL COLOR	DESCRIPTION
0"-8"	10YR 4/3	Brown Silt Loam: No coarse fragments content; Moderate-fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.
8"-38"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 1% Mixed gravel coarse fragments content; Mottles: Common, fine, distinct, 7.5YR 7/1 & 7.5YR 5/8; 32"-38"; Moderate, medium, angular, blocky; Moist, very firm; Common, fine roots to 32"; Gradual, wavy boundary.
38"-75"	5YR 4/3	Reddish-Brown Silty Clay Loam: 90% Gravel, cobbles, stone coarse fragments content; Mottles: Common, fine, distinct, 7.5YR 7/1 & 7.5YR 5/8; 38"-75"; No structure notation; Moist, very firm.

3. Ground Water Observation:

☒ Seepage - Indicate Depth 72"
____ Pit / Boring Flooded - Depth after _____ Hours: _____

4. Soil Limiting Zones (Check Appropriate Categories):

____ Fractured Rock Substratum - Depth to Top _____
☒ Massive Rock Substratum - Depth to Top 75"
____ Excessively Coarse Horizon - Depth Top to Bottom 38"-75"
____ Excessively Coarse Substratum - Depth to Top _____
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-38"
____ Hydraulically Restrictive Substratum - Depth to Top _____
____ Perched Zone of Saturation - Depth Top to Bottom _____
☒ Regional Zone of Saturation - Depth to Top 32"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator

Frank J. Falcone

Date

Signature of Professional Engineer

Albert J. Phillips: PE #32509

Date

AFFIX SEAL

L10aSL231.doc

THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
bertpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot Block

Log Number #232 Method (Check One): ☒ Profile pit Boring

2. Soil Log: Munsell Color Name and Symbol: Estimated Textural Class: Estimated Volume % Coarse
Depth: (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance, Size and
Top-Bottom Contrast, (if present.)

3. DEPTH	MUNSELL COLOR	DESCRIPTION
0"-8"	10YR 4/3	Brown Silt Loam: No coarse fragments content; Moderate-fine, subangular, blocky; Moist; firm to moist friable; Many, fine roots; Clear, smooth boundary.
8"-20"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 50% Mixed gravel coarse fragments content; Moderate, medium, angular, blocky; Moist; very firm; Common, fine roots; Gradual, wavy boundary.
20"-80"	5YR 4/3	Reddish-Brown Silty Clay Loam: 90% Gravel, cobbles, stone coarse fragments content; Mottles: Common, fine, distinct, 7.5YR 7/1 & 7.5YR 5/8; 32"-80", No structure notation; Moist, very firm; Few, fine roots to 42".

3. Ground Water Observation:

☒ Seepage - Indicate Depth 65"
 Pit / Boring Flooded - Depth after Hours:

4. Soil Limiting Zones (Check Appropriate Categories):

 Fractured Rock Substratum - Depth to Top
☒ Massive Rock Substratum - Depth to Top 80"
☒ Excessively Coarse Horizon - Depth Top to Bottom 20"-80"
☒ Excessively Coarse Substratum - Depth to Top
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-20"
 Hydraulically Restrictive Substratum - Depth to Top
 Perched Zone of Saturation - Depth Top to Bottom
☒ Regional Zone of Saturation - Depth to Top 32"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator

Frank J. Falcone

Date 1/12/09

Signature of Professional Engineer

Albert J. Phillips: PE #32509

Date

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
bertpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot ____ Block ____
Log Number #233 Method (Check One): ☒ Profile pit ____ Boring

2. Soil Log: Munsell Color Name and Symbol: Estimated Textural Class; Estimated Volume % Coarse
Depth: (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance, Size and
Top-Bottom Contrast, (if present.)

3. DEPTH	MUNSELL COLOR	DESCRIPTION
0"-8"	10YR 4/3	Brown Silt Loam: No coarse fragments content; Moderate-fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.
8"-20"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 50% Mixed gravel coarse fragments content; Moderate, medium, angular, blocky; Moist, very firm; Common, fine roots; Gradual, wavy boundary.
20"-64"	5YR 4/3	Reddish-Brown Silty Clay Loam: 90% Gravel, cobbles, stone coarse fragments content; Mottles: Common, fine, distinct, 7.5YR 7/1 & 7.5YR 5/8; 30"-80"; No structure notation; Moist, very firm; Few, fine roots to 36".

3. Ground Water Observation:
* Seepage - Indicate Depth None encountered
Pit / Boring Flooded - Depth after ____ Hours: ____

4. Soil Limiting Zones (Check Appropriate Categories):
Fractured Rock Substratum - Depth to Top ____
☒ Massive Rock Substratum - Depth to Top 64"
☒ Excessively Coarse Horizon - Depth Top to Bottom 20"-64"
Excessively Coarse Substratum - Depth to Top ____
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-20"
Hydraulically Restrictive Substratum - Depth to Top ____
Perched Zone of Saturation - Depth Top to Bottom ____
☒ Regional Zone of Saturation - Depth to Top 30"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator Frank J. Falcone Date 7/12/00

Signature of Professional Engineer Albert J. Phillips: PE #32509 Date ____

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
bertpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot ____ Block ____
Log Number #234 Method (Check One): ☒ Profile pit ____ Boring

2. Soil Log: Munsell Color Name and Symbol; Estimated Textural Class; Estimated Volume % Coarse
Depth; (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance, Size and
Top-Bottom Contrast, (if present.)

DEPTH	MUNSELL COLOR	DESCRIPTION
0"-8"	10YR 4/3	Brown Silt Loam: No coarse fragments content; Moderate- fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.
8"-42"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 1% Mixed gravel coarse fragments content; Mottles: Common, fine, distinct, 7.5YR 7/1 & 7.5YR 5/8; 30"-80"; Moderate, medium, angular, blocky; Moist, very firm; Common, fine roots to 40"; Gradual, wavy boundary.
42"-82"	5YR 4/3	Reddish-Brown Silty Clay Loam: 90% Gravel, cobbles, stone coarse fragments content; Mottles: Common, fine, distinct, 7.5YR 7/1 & 7.5YR 5/8; 42"-82"; No structure notation; Moist, very firm.

3. Ground Water Observation:
* Seepage - Indicate Depth None encountered
Pit / Boring Flooded - Depth after ____ Hours: ____

4. Soil Limiting Zones (Check Appropriate Categories):
Fractured Rock Substratum - Depth to Top ____
☒ Massive Rock Substratum - Depth to Top 82"
☒ Excessively Coarse Horizon - Depth Top to Bottom 42"-82"
Excessively Coarse Substratum - Depth to Top ____
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-42"
Hydraulically Restrictive Substratum - Depth to Top ____
Perched Zone of Saturation - Depth Top to Bottom ____
☒ Regional Zone of Saturation - Depth to Top 27"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is
subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator Frank J. Falcone Date 4/12/09

Signature of Professional Engineer Albert J. Phillips: PE #32509 Date ____

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
bertpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot Block
Log Number #235 Method (Check One): ☒ Profile pit Boring

2. Soil Log: Munsell Color Name and Symbol: Estimated Textural Class; Estimated Volume % Coarse
Depth; (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance, Size and
Top-Bottom Contrast, (if present.)

3. DEPTH	MUNSELL COLOR	DESCRIPTION
0"-8"	10YR 4/3	Brown Silt Loam: No coarse fragments content; Moderate- fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.
8"-30"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 5% Mixed gravel coarse fragments content; Mottles: Common, fine, distinct, 7.5YR 7/1 & 7.5YR 5/8; 28"-30"; Moderate, medium, angular, blocky; Moist, very firm; Common, fine roots; Gradual, wavy boundary.
30"-93"	5YR 4/3	Reddish-Brown Silty Clay Loam: 90% Gravel, cobbles, stone coarse fragments content; Mottles: Common, fine, distinct, 7.5YR 7/1 & 7.5YR 5/8; 30"-93", No structure notation; Moist, very firm; Saturaed, slightly sticky.

3. Ground Water Observation:
☒ Seepage - Indicate Depth 48"
 Pit / Boring Flooded - Depth after Hours:

4. Soil Limiting Zones (Check Appropriate Categories):
 Fractured Rock Substratum - Depth to Top
☒ Massive Rock Substratum - Depth to Top 93"
☒ Excessively Coarse Horizon - Depth Top to Bottom 30"-93"
 Excessively Coarse Substratum - Depth to Top
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-30"
 Hydraulically Restrictive Substratum - Depth to Top
 Perched Zone of Saturation - Depth Top to Bottom
☒ Regional Zone of Saturation - Depth to Top 28"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is
subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator Frank J. Falcone Date 7/12/11

Signature of Professional Engineer Albert J. Phillips: PE #32509 Date

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
bertpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot Block
Log Number #236 Method (Check One): ☒ Profile pit Boring

2. Soil Log: Munsell Color Name and Symbol: Estimated Textural Class: Estimated Volume % Coarse
Depth: (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance, Size and
Top-Bottom Contrast, (if present.)

DEPTH	MUNSELL COLOR	DESCRIPTION
0"-10"	10YR 4/3	Brown Silt Loam: No coarse fragments content; Moderate-fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.
10"-24"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 2% Mixed gravel coarse fragments content; Moderate, medium, angular, blocky; Moist, very firm; Common, fine roots; Gradual, wavy boundary.
24"-72"	5YR 4/3	Reddish-Brown Silty Clay Loam: 90% Gravel, cobbles, stone coarse fragments content; Mottles: Common, fine, distinct, 7.5YR 7/1 & 7.5YR 5/8; 26"-72"; No structure notation; Moist, very firm; Few, fine roots to 48".

3. Ground Water Observation:
* Seepage - Indicate Depth None encountered
Pit / Boring Flooded - Depth after Hours:

4. Soil Limiting Zones (Check Appropriate Categories):
Fractured Rock Substratum - Depth to Top
☒ Massive Rock Substratum - Depth to Top 72"
☒ Excessively Coarse Horizon - Depth Top to Bottom 24"-72"
 Excessively Coarse Substratum - Depth to Top
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-24"
 Hydraulically Restrictive Substratum - Depth to Top
 Perched Zone of Saturation - Depth Top to Bottom
☒ Regional Zone of Saturation - Depth to Top 26"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator Frank J. Falcone Date 1/12/10

Signature of Professional Engineer Albert J. Phillips: PE #32509 Date

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
berpde@mail.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot Block
Log Number #237 Method (Check One): ☒ Profile pit Boring

2. Soil Log: Munsell Color Name and Symbol; Estimated Textural Class; Estimated Volume % Coarse
Depth: (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance, Size and
Top-Bottom Contrast, (if present.)

3. DEPTH	MUNSELL COLOR	DESCRIPTION
0"-8"	10YR 4/3	Brown Silt Loam: No coarse fragments content; Moderate- fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.
8"-38"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 60% Gravel, cobbles coarse fragments content; Mottles: Common, medium, distinct, 26"-38"; Moderate, medium, angular, blocky; Moist, very firm; Common, fine roots; Gradual, wavy boundary.
38"-90"	5YR 4/3	Reddish-Brown Silty Clay Loam: 85% Gravel, cobbles, stone coarse fragments content; Mottles: Common, fine, distinct; 26"-90"; No notation; Moist, very firm; Saturated, slightly sticky; Few, fine roots to 46".

3. Ground Water Observation:
☒ Seepage - Indicate Depth 52"
 Pit / Boring Flooded - Depth after Hours:

4. Soil Limiting Zones (Check Appropriate Categories):
 Fractured Rock Substratum - Depth to Top
☒ Massive Rock Substratum - Depth to Top 90"
☒ Excessively Coarse Horizon - Depth Top to Bottom 8"-90"
 Excessively Coarse Substratum - Depth to Top
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-8"
 Hydraulically Restrictive Substratum - Depth to Top
 Perched Zone of Saturation - Depth Top to Bottom
☒ Regional Zone of Saturation - Depth to Top 26"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is
subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator Frank J. Falcone Date 1/12/00

Signature of Professional Engineer Albert J. Phillips: PE #32509 Date

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
bertpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot Block

Log Number #238 Method (Check One): ☒ Profile pit ☐ Boring

2. Soil Log: Munsell Color Name and Symbol; Estimated Textural Class; Estimated Volume % Coarse Depth; (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance, Size and Top-Bottom Contrast, (if present.)

DEPTH	MUNSELL COLOR	DESCRIPTION
0"-10"	10YR 4/3	Brown Silt Loam: No coarse fragments content; Moderate-fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.
10"-40"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 30% Mixed gravel coarse fragments content; Mottles : Common, medium, distinct; Moderate, medium, angular, blocky; Moist, very firm; Common, fine roots to 40"; Gradual, wavy boundary.
40"-90"	5YR 4/3	Reddish-Brown Silty Clay Loam: 90% Gravel, cobbles, stone coarse fragments content; Mottles : Common, fine, distinct; No structure notation; Moist, very firm.

3. Ground Water Observation:

☒ Seepage - Indicate Depth 55"
☐ Pit / Boring Flooded - Depth after Hours:

4. Soil Limiting Zones (Check Appropriate Categories):

☐ Fractured Rock Substratum - Depth to Top
☒ Massive Rock Substratum - Depth to Top 90"
☒ Excessively Coarse Horizon - Depth Top to Bottom 40"-90"
☐ Excessively Coarse Substratum - Depth to Top
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-40"
☐ Hydraulically Restrictive Substratum - Depth to Top
☐ Perched Zone of Saturation - Depth Top to Bottom
☒ Regional Zone of Saturation - Depth to Top 10"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator

Frank J. Falcone

Date 1/13/77

Signature of Professional Engineer

Albert J. Phillips, PE #32509

Date

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
bertpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot _____ Block _____

Log Number #239 Method (Check One): ☒ Profile pit _____ Boring _____

2. Soil Log: Munsell Color Name and Symbol: Estimated Textural Class; Estimated Volume % Coarse Depth; (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance, Size and Top-Bottom Contrast, (if present.)

3. DEPTH	MUNSELL COLOR	DESCRIPTION
0"-10"	10YR 4/3	Brown Silt Loam: 1% mixed gravel coarse fragments content; Moderate-fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.
10"-40"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 55% Gravel, cobbles coarse fragments content; Mottles : Common, medium, distinct; 7.5YR 7/1 & 7.5YR 6/8; 34"-40" Moderate, medium, angular, blocky; Moist, very firm; Common, fine roots to 40"; Gradual, wavy boundary.
40"-95"	5YR 4/3	Reddish-Brown Silty Clay Loam: No coarse fragments content; Mottles : Common, fine, distinct; 7.5YR 7/1 & 7.5YR 6/8; 40"-95"; No structure notation; Moist, very firm.

3. Ground Water Observation:

☒ Seepage - Indicate Depth 72"
_____ Pit / Boring Flooded - Depth after _____ Hours: _____

4. Soil Limiting Zones (Check Appropriate Categories):

Fractured Rock Substratum - Depth to Top _____
☒ Massive Rock Substratum - Depth to Top 95"
☒ Excessively Coarse Horizon - Depth Top to Bottom 40"-95"
_____ Excessively Coarse Substratum - Depth to Top _____
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-40"
_____ Hydraulically Restrictive Substratum - Depth to Top _____
_____ Perched Zone of Saturation - Depth Top to Bottom _____
☒ Regional Zone of Saturation - Depth to Top 34"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator

Frank J. Falcone

Date

Signature of Professional Engineer

Albert J. Phillips: PE #32509

Date

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE

P.O. BOX 142

PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222

bertpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot _____ Block _____

Log Number #245 Method (Check One): ☒ Profile pit _____ Boring _____

2. Soil Log: Munsell Color Name and Symbol; Estimated Textural Class; Estimated Volume % Coarse
Depth: (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance; Size and
Top-Bottom Contrast, (if present.)

DEPTH	MUNSELL COLOR	DESCRIPTION
0"-8"	10YR 4/3	Brown Silt Loam: No coarse fragments content; Moderate-fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.
8"-36"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: No coarse fragments content; Mottles: Common, medium, distinct; 27"-36" Moderate, medium, angular, blocky; Common, fine roots; Gradual, wavy boundary.
36"-84"	5YR 4/3	Reddish-Brown Silty Clay Loam: No coarse fragments content; Mottles: Common, fine, distinct; 36"-84", No structure notation; Moist, very firm; Few, fine roots to 42".

3. Ground Water Observation:

☒ Seepage - Indicate Depth 52"
____ Pit / Boring Flooded - Depth after _____ Hours: _____

4. Soil Limiting Zones (Check Appropriate Categories):

____ Fractured Rock Substratum - Depth to Top _____
☒ Massive Rock Substratum - Depth to Top 84"
____ Excessively Coarse Horizon - Depth Top to Bottom _____
____ Excessively Coarse Substratum - Depth to Top _____
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-84"
____ Hydraulically Restrictive Substratum - Depth to Top _____
____ Perched Zone of Saturation - Depth Top to Bottom _____
☒ Regional Zone of Saturation - Depth to Top 27"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator

Frank J. Falcone

Date 1/13/11

Signature of Professional Engineer

Albert J. Phillips: PE #32509

Date _____

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
berpoe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot ____ Block ____
Log Number #246 Method (Check One): ☒ Profile pit ____ Boring

2. Soil Log: Munsell Color Name and Symbol: Estimated Textural Class: Estimated Volume % Coarse
Depth, (inches) Fragments (if present); Structure: Moist or Dry Consistency; Mottling-Abundance, Size and
Top-Bottom Contrast, (if present.)

3. DEPTH	MUNSELL COLOR	DESCRIPTION
0"-9"	10YR 4/3	Brown Silt Loam: No coarse fragments content; Moderate-fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.
9"-20"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 2% Mixed gravel coarse fragments content; Moderate, medium, angular, blocky; Moist, firm; Common, fine roots; Gradual, wavy boundary.
20"-80"	5YR 4/3	Reddish-Brown Silty Clay Loam: 75% Gravel, cobbles coarse fragments content; Mottles : Common, medium, distinct; 31"-80"; No structure notation; Moist, very firm; Few, fine roots to 42"; No boundary noted.
80"-96"	5YR 4/3	Reddish-Brown Silty Clay Loam: 90% Cobbles, stone coarse fragments content; Mottles : Common, medium, distinct; 80"-96"; No structure notation; Moist, very firm; Saturated, slightly sticky.

3. Ground Water Observation:
☒ Seepage - Indicate Depth 60"
____ Pit / Boring Flooded - Depth after ____ Hours: ____

4. Soil Limiting Zones (Check Appropriate Categories):
Fractured Rock Substratum - Depth to Top ____
☒ Massive Rock Substratum - Depth to Top 96"
☒ Excessively Coarse Horizon - Depth Top to Bottom 20"-80"
____ Excessively Coarse Substratum - Depth to Top ____
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-20"
____ Hydraulically Restrictive Substratum - Depth to Top ____
____ Perched Zone of Saturation - Depth Top to Bottom ____
☒ Regional Zone of Saturation - Depth to Top 31"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator Frank J. Falcone Date 7/13/99

Signature of Professional Engineer Albert J. Phillips: PE #32509 Date ____

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
bertpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot Block
Log Number #251 Method (Check One): ☒ Profile pit Boring

2. Soil Log: Munsell Color Name and Symbol; Estimated Textural Class; Estimated Volume % Coarse
Depth; (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance, Size and
Top-Bottom Contrast, (if present.)

3. DEPTH	MUNSELL COLOR	DESCRIPTION
0"-8"	10YR 4/3	Brown Silty Loam: No coarse fragments content; Moderate-fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.
8"-32"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 50% Mixed gravel coarse fragments content; Mottles: Common, medium, distinct; 7.5YR 6/8 & 7.5YR 7/1; 25"-32", Moderate, medium, angular, blocky; Moist, very firm; Common, fine roots; Gradual, wavy boundary.
32"-84"	5YR 4/3	Reddish-Brown Silty Clay Loam: 90% Gravel, cobbles, stone coarse fragments content; Mottles: Common, fine, distinct; 32"-84", No notation; Moist, very firm; Saturated, slightly sticky; Few, fine roots to 40".

3. Ground Water Observation:
☒ Seepage - Indicate Depth 60"
 Pit / Boring Flooded - Depth after Hours:

4. Soil Limiting Zones (Check Appropriate Categories):
 Fractured Rock Substratum - Depth to Top
☒ Massive Rock Substratum - Depth to Top 84"
☒ Excessively Coarse Horizon - Depth Top to Bottom 32"-84"
 Excessively Coarse Substratum - Depth to Top
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-32"
 Hydraulically Restrictive Substratum - Depth to Top
 Perched Zone of Saturation - Depth Top to Bottom
☒ Regional Zone of Saturation - Depth to Top 25"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator Frank J. Falcone Date 7/24/11

Signature of Professional Engineer Albert J. Phillips, PE #32509 Date

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
bertpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot _____ Block _____
Log Number #252 Method (Check One): ☒ Profile pit _____ Boring _____

2. Soil Log: Munsell Color Name and Symbol: Estimated Textural Class; Estimated Volume % Coarse
Depth: (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance, Size and
Top-Bottom Contrast, (if present.)

DEPTH	MUNSELL COLOR	DESCRIPTION
0"-8"	10YR 4/3	Brown Silt Loam: 1% Mixed gravel coarse fragments content; Moderate -fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.
8"-20"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 50% Mixed gravel coarse fragments content; Moderate, medium, angular, blocky; Moist, very firm; Common, fine roots; Gradual, wavy boundary.
20"-92"	5YR 4/3	Reddish-Brown Silty Clay Loam: 90% Gravel, cobbles, stone coarse fragments content; Mottles: Common, fine, distinct; 26"-92"; No notation; Moist, very firm; Saturated, slightly sticky; Few, fine roots to 40".

3. Ground Water Observation:
☒ Seepage - Indicate Depth 58"
____ Pit / Boring Flooded - Depth after _____ Hours: _____

4. Soil Limiting Zones (Check Appropriate Categories):
____ Fractured Rock Substratum - Depth to Top _____
☒ Massive Rock Substratum - Depth to Top 92"
☒ Excessively Coarse Horizon - Depth Top to Bottom 20"-92"
____ Excessively Coarse Substratum - Depth to Top _____
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-20"
____ Hydraulically Restrictive Substratum - Depth to Top _____
____ Perched Zone of Saturation - Depth Top to Bottom _____
☒ Regional Zone of Saturation - Depth to Top 26"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is
subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator _____ Date 7/12/11
Frank J. Falcone

Signature of Professional Engineer _____ Date _____
Albert J. Phillips: PE #32509

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
bertpe@email.msn.com

Form 2b - Soil Log and Interpretation: Brookside Estates Section Two

1. Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot #10A Final Lot Block
Log Number #356 Method (Check One): ☒ Profile pit Boring

2. Soil Log: Munsell Color Name and Symbol; Estimated Textural Class; Estimated Volume % Coarse
Depth; (inches) Fragments (if present); Structure; Moist or Dry Consistency; Mottling-Abundance, Size and
Top-Bottom Contrast, (if present.)

DEPTH	MUNSELL COLOR	DESCRIPTION
0"-6"	10YR 4/3	Brown Silt Loam: NO coarse fragments content; Moderate -fine, subangular, blocky; Moist, firm to moist friable; Many, fine roots; Clear, smooth boundary.
6"-72"	7.5YR 4/3	Brown Silty Clay to Silty Clay Loam: 75% Gravel coarse fragments content; Mottles: Common, fine, distinct; 7.5YR 5/8 & 10YR 7/1; 28"-72": Moderate, medium, angular, blocky; Moist, very firm; Common, fine roots to 42"; Gradual, wavy boundary.
72"-89"	5YR 4/3	Reddish-Brown Silty Clay Loam: 90% Gravel, cobbles, stone coarse fragments content; Mottles: Common, fine, distinct; 7.5YR 5/8; 26"-92"; No structure notation; Moist, very firm to very firm; Saturated, slightly sticky.

3. Ground Water Observation:
☒ Seepage - Indicate Depth 70"
 Pit / Boring Flooded - Depth after Hours:

4. Soil Limiting Zones (Check Appropriate Categories):
 Fractured Rock Substratum - Depth to Top
☒ Massive Rock Substratum - Depth to Top 89"
☒ Excessively Coarse Horizon - Depth Top to Bottom 6"-89"
 Excessively Coarse Substratum - Depth to Top
☒ Hydraulically Restrictive Horizon - Depth Top to Bottom 0"-6"
 Hydraulically Restrictive Substratum - Depth to Top
 Perched Zone of Saturation - Depth Top to Bottom
☒ Regional Zone of Saturation - Depth to Top 28"

5. Soil Suitability Classification:

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.A.C. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator Frank J. Falcone Date 7/27/11

Signature of Professional Engineer Albert J. Phillips, PE #32509 Date

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PRINCETON JUNCTION ENGINEERING COMPANY
53 NORTH POST ROAD
P.O. BOX 223
PRINCETON JUNCTION, NEW JERSEY 08550
ph.(609) 799-1906 fax.(609) 799-1524

Form 3a - Soil Permeability Data:

Municipality Hopewell Twp., Mercer Co., New Jersey. Lot 18.10 Block 93

Assign a number for each test and a letter for each test replicate, show test data and calculations on Forms 3b, 3c, 3d, 3e, 3f, or 3g. Use one sheet for separate tests or test replicates.

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

Type of Test	Test #	Replicate #	Depth(in.)	* Result
Pit Bail Test	#227	---	79"	Ka=4.21
Pit Bail Test	#228	---	99"	Ka=1.32
Pit Bail Test	#237	---	91"	Ka=4.46
Pit Bail Test	#239	---	95"	Ka=1.09
Pit Bail Test	#356	---	89.5"	Ka=4.97

* 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 tests, report results in minutes per inch. For basin flooding tests, report results as positive if basin drains completely within 24 hours after second filling, negative if otherwise.

2. Design Permeability/Percolation Rate: Specify Test Number...

- ☐ Average of test replicates
☐ Single replicate
☐ Slowest of replicates
☒ Assumed in place select fill material

3. Type of Limiting Zone Identified	Test Number
_____	_____
_____	_____
_____	_____
_____	_____

4. Attachments: (check items included)

- ☐ Form 3b - Tube Permeameter Test Data - Number of sheets _____
☐ Form 3c - Soil Permeability Class Rating Test Data - sheets _____
☐ Form 3d - Percolation Test Data - Number of sheets _____
☐ Form 3e - Piezometer Test Data - Number of sheets _____
☒ Form 3f - Pit-Bailing Test Data - Number of sheets 5
☐ Form 3g - Basin Flooding Test Data - Number of sheets _____

5. 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.A.C. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator Frank J. Falcone Date 7/13/49

Signature of Professional Engineer Bryce W. Rittenhouse Lic. No. 13453

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
bertpe@email.msn.com

Form 3f - Pit-Bailing Test Data: **Brookside Estates Section Two**
Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot 10A Final _____ Block _____

1. Test Number #227 Reference Soil Log #245 Date Tested 4/23/98
2. Using the referenced level established, measure and record the following:
 - Depth to Bottom of Pit, ft, D_{pit} 6.58 Ft.
 - Depth to Water Level after 2 hr. Stabilization Period, ft, D_{water} 4.70 Ft.
 - Depth to Impermeable Stratum ft, $D_{stratum}$ 6.58 Ft.
 - (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 1.88 Ft. ($H = D_{stratum} - D_{water}$)
 - Length of Time Interval, T, in minutes Variable
3. At the interval chosen, record the following data in the table below:
 - Time of Measurement, t_n , minutes
 - Depth of Water Level Below Reference Level, d_n , inches
 - Water Surface Dimensions, ft: 1, w
4. Calculate the following values and enter in the table below:
 - Water Surface Area, ft^2 , A_n
 - Water level Rise, h_{rise} (subtract current value of d_n from previous value)
 - Ave. Water Surface Area, ft^2 , A_{av} . (Take average of A_n and previous A_n)
 - Ave. Height of Water Level Above Impermeable Stratum, ft, h (Take Ave. of d_n and previous value of d_n , convert to ft., and subtract from $D_{stratum}$)
 - Permeability, in/hr, k_a (calculate using formula):
 $k_a = [h_{rise} / T] \times [A_{av} / 2.27 (H^2 - h^2)] \times 60/hr$

t_n	d_n (in.)	$1, w$ (ft.)	A_n (ft ²)	h_{rise} (in.)	A_{av} (ft ²)	h (ft)	k_a
-	<u>77"</u>	<u>2.00/1.67</u>	<u>3.34</u>	-	-	-	-
18	<u>75.5"</u>	<u>3.17/2.75</u>	<u>8.72</u>	<u>1.5"</u>	<u>6.03</u>	<u>0.23</u>	<u>11.93</u>
36	<u>74"</u>	<u>3.91/3.00</u>	<u>11.73</u>	<u>1.5"</u>	<u>10.23</u>	<u>0.35</u>	<u>3.30</u>
42	<u>72.5"</u>	<u>4.83/3.17</u>	<u>15.31</u>	<u>1.5"</u>	<u>13.52</u>	<u>0.48</u>	<u>3.86</u>
63	<u>71"</u>	<u>5.17/3.25</u>	<u>16.80</u>	<u>1.5"</u>	<u>16.06</u>	<u>0.60</u>	<u>3.18</u>
170	<u>69"</u>	<u>6.25/3.33</u>	<u>20.81</u>	<u>2"</u>	<u>18.81</u>	<u>0.75</u>	<u>1.97</u>
178	<u>67"</u>	<u>6.42/3.33</u>	<u>21.38</u>	<u>2"</u>	<u>21.10</u>	<u>0.92</u>	<u>2.33</u>
743	<u>58.5"</u>	<u>7.00/3.75</u>	<u>26.25</u>	<u>8.5"</u>	<u>23.82</u>	<u>1.35</u>	<u>4.21</u>

5. Record the Following Data:
 - Final Depth of Pit, D_{pit} , ft 6.58 Ft.
 - Depth to Impermeable Stratum, ft, $D_{stratum}$ 6.58 Ft. (If no impermeable stratum is encountered assume $D_{stratum} = D_{pit}$)
 - Height of Static Water Level Above Impermeable Stratum, ft, H 1.88 ($H = D_{stratum} - D_{water}$)
 - Average Height of Water Level Above Impermeable Stratum, ft, h 1.35
(Take average of d_n 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:

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

$$= [8.50 / 743] \times [23.82 / 2.27 (1.88^2 - 1.35^2)] \times 60 \text{ min/hr} = 4.21$$

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 _____ Date _____
Frank J. Falcone

Signature of Professional Engineer _____ Date _____
Albert J. Phillips: PE #32509

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
bertpe@email.msn.com

Form 3f - Pit-Bailing Test Data: **Brookside Estates Section Two**
Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot 10A Final _____ Block _____

1. Test Number #228 Reference Soil Log #246 Date Tested 4/23/98
2. Using the referenced level established, measure and record the following:
 - Depth to Bottom of Pit, ft, D_{pit} 8.25 Ft.
 - Depth to Water Level after 2 hr. Stabilization Period, ft, D_{water} 6.25 Ft.
 - Depth to Impermeable Stratum ft, $D_{stratum}$ 8.25 Ft.
 - (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 2.00 Ft. (H = $D_{stratum} - D_{water}$)
 - Length of Time Interval, T, in minutes Variable
3. At the interval chosen, record the following data in the table below:
 - Time of Measurement, t_n , minutes
 - Depth of Water Level Below Reference Level, d_n , inches
 - Water Surface Dimensions, ft: 1,w
4. Calculate the following values and enter in the table below:
 - Water Surface Area, ft^2 , A_n
 - Water level Rise, h_{rise} (subtract current value of d_n from previous value)
 - Ave. Water Surface Area, ft^2 , $A_{av.}$ (Take average of A_n and previous A_n)
 - Ave. Height of Water Level Above Impermeable Stratum, ft, h (Take Ave. of d_n and previous value of d_n , convert to ft., and subtract from $D_{stratum}$)
 - Permeability, in/hr, K_a (calculate using formula):

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

t_n	d_n (in.)	1,w (ft.)	A_n (ft ²)	h_{rise} (in.)	A_{av} (ft ²)	h (ft)	K_a
-	98"	0.75/0.92	0.69	-	-	-	-
10	96"	1.33/2.33	3.10	2"	1.90	0.17	2.53
25	94.5"	2.00/2.67	5.34	1.5"	4.22	0.31	1.71
39	92.5"	2.42/2.67	6.46	2"	5.90	0.46	2.11
65	90.5"	3.33/2.67	8.89	2"	7.68	0.63	1.73
118	88"	4.75/2.67	12.68	2.5"	10.79	0.81	1.81
174	56"	5.00/2.67	13.35	2"	13.02	1.00	1.32

5. Record the Following Data:
 - Final Depth of Pit, D_{pit} , ft 8.25 Ft.
 - Depth to Impermeable Stratum, ft, $D_{stratum}$ 8.25 Ft. (If no impermeable stratum is encountered assume $D_{stratum} = D_{pit}$)
 - Height of Static Water Level Above Impermeable Stratum, ft, H 2.00 (H = $D_{stratum} - D_{water}$)
 - Average Height of Water Level Above Impermeable Stratum, ft, h 1.00
 - (Take average of d_n 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:

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

$$= [2.0 / 174] \times [13.02 / 2.27(2.00^2 - 1.00^2)] \times 60 \text{ min/hr} = \underline{1.32}$$

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 _____ Date _____
Frank J. Falcone

Signature of Professional Engineer _____ Date _____
Albert J. Phillips: PE #32509

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
berpe@email.msn.com

Form 3f - Pit-Bailing Test Data: **Brookside Estates Section Two**
Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot 10A Final Block

1. Test Number #237 Reference Soil Log #251 Date Tested 4/24/98
2. Using the referenced level established, measure and record the following:
 - Depth to Bottom of Pit, ft, D_{pit} 7.58 Ft.
 - Depth to Water Level after 2 hr. Stabilization Period, ft, D_{water} 6.17 Ft.
 - Depth to Impermeable Stratum ft, $D_{stratum}$ 7.58 Ft.
(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 1.42 Ft. ($H = D_{stratum} - D_{water}$)
 - Length of Time Interval, T , in minutes Variable
3. At the interval chosen, record the following data in the table below:
 - Time of Measurement, t_n , minutes
 - Depth of Water Level Below Reference Level, d_n , inches
 - Water Surface Dimensions, ft: 1, w
4. Calculate the following values and enter in the table below:
 - Water Surface Area, ft^2 , A_n
 - Water level Rise, h_{rise} (subtract current value of d_n from previous value)
 - Ave. Water Surface Area, ft_2 , $A_{av.}$ (Take average of A_n and previous A_n)
 - Ave. Height of Water Level Above Impermeable Stratum, ft, h (Take Ave. of d_n and previous value of d_n , convert to ft., and subtract from $D_{stratum}$)
 - Permeability, in/hr, k_a (calculate using formula):
 $K_a = [h_{rise} / T] \times [A_{av.} / 2.27(H^2 - h^2)] \times 60/hr$

t_n	d_n (in.)	$1, w$ (ft.)	A_n (ft ²)	h_{rise} (in.)	A_{av} (ft ²)	h (ft)	K_a
-	89.5"	0.50/1.17	0.59	-	-	-	-
3	88.5"	1.33/1.67	2.22	1"	1.41	0.17	6.25
10	87.5"	1.50/2.17	3.26	1"	2.74	0.25	3.71
38	86.5"	2.00/2.67	5.34	1"	4.30	0.33	1.57
54	85.5"	2.83/2.75	7.78	1"	6.56	0.42	1.75
73	84.5"	3.00/2.83	8.49	1"	8.14	0.50	1.67
99	83"	3.33/2.83	9.42	1.5"	8.96	0.60	2.17
83	82"	3.58/2.83	10.13	1"	9.78	0.71	2.06
340	80"	4.58/3.08	14.11	2"	12.12	0.83	1.42
638	75"	5.33/3.33	17.75	5"	15.93	1.13	4.46

5. Record the Following Data:
 - Final Depth of Pit, D_{pit} , ft 7.58 Ft.
 - Depth to Impermeable Stratum, ft, $D_{stratum}$ 7.58 Ft. (If no impermeable stratum is encountered assume $D_{stratum} = D_{pit}$)
 - Height of Static Water Level Above Impermeable Stratum, ft, H 1.42 ($H = D_{stratum} - D_{water}$)
 - Average Height of Water Level Above Impermeable Stratum, ft, h 1.13
(Take average of d_n 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:

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

$$= [5.0 / 638] \times [15.93 / 2.27(1.42^2 - 1.13^2)] \times 60 \text{ min/hr} = \underline{4.46}$$

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 Frank J. Falcone Date 4-24-98

Signature of Professional Engineer Albert J. Phillips: PE #32509 Date

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THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
bertpe@email.msn.com

Form 3f - Pit-Bailing Test Data: Brookside Estates Section Two
Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot 10A Final _____ Block _____

1. Test Number #239 Reference Soil Log #252 Date Tested 4/24/98
2. Using the referenced level established, measure and record the following:
 - Depth to Bottom of Pit, ft, D_{pit} 7.92 Ft.
 - Depth to Water Level after 2 hr. Stabilization Period, ft, D_{water} 6.08 Ft.
 - Depth to Impermeable Stratum ft, $D_{stratum}$ 7.92 Ft.
(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 1.83 Ft. ($H = D_{stratum} - D_{water}$)
 - Length of Time Interval, T , in minutes Variable
3. At the interval chosen, record the following data in the table below:
 - Time of Measurement, t_n , minutes
 - Depth of Water Level Below Reference Level, d_n , inches
 - Water Surface Dimensions, ft: 1, w
4. Calculate the following values and enter in the table below:
 - Water Surface Area, ft^2 , A_n
 - Water level Rise, h_{rise} (subtract current value of d_n from previous value)
 - Ave. Water Surface Area, ft_2 , A_{av} . (Take average of A_n and previous A_n)
 - Ave. Height of Water Level Above Impermeable Stratum, ft, h (Take Ave. of d_n and previous value of d_n , convert to ft., and subtract from $D_{stratum}$)
 - Permeability, in/hr, k_a (calculate using formula):

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

t_n	d_n (in.)	l_w (ft.)	A_n (ft ²)	h_{rise} (in.)	A_{av} (ft ²)	h (ft)	K_a
-	<u>94.5"</u>	<u>0.50/1.00</u>	<u>0.50</u>	-	-	-	-
17	<u>93.5"</u>	<u>1.75/2.17</u>	<u>3.80</u>	<u>1"</u>	<u>2.15</u>	<u>0.08</u>	<u>1.00</u>
36	<u>92.5"</u>	<u>2.33/2.67</u>	<u>6.22</u>	<u>1"</u>	<u>5.01</u>	<u>0.17</u>	<u>1.11</u>
48	<u>91.5"</u>	<u>2.58/2.67</u>	<u>6.89</u>	<u>1"</u>	<u>6.56</u>	<u>0.25</u>	<u>1.10</u>
55	<u>90.5"</u>	<u>2.83/2.67</u>	<u>7.56</u>	<u>1"</u>	<u>7.23</u>	<u>0.33</u>	<u>1.07</u>
70	<u>89.5"</u>	<u>3.17/2.67</u>	<u>8.46</u>	<u>1"</u>	<u>8.01</u>	<u>0.42</u>	<u>0.95</u>
354	<u>87"</u>	<u>4.08/2.92</u>	<u>11.91</u>	<u>2.5"</u>	<u>10.19</u>	<u>0.56</u>	<u>0.63</u>
640	<u>82"</u>	<u>4.58/3.33</u>	<u>15.25</u>	<u>5"</u>	<u>13.58</u>	<u>0.88</u>	<u>1.09</u>

5. Record the Following Data:
 - Final Depth of Pit, D_{pit} , ft 7.92 Ft.
 - Depth to Impermeable Stratum, ft, $D_{stratum}$ 7.92 Ft. (If no impermeable stratum is encountered assume $D_{stratum} = D_{pit}$)
 - Height of Static Water Level Above Impermeable Stratum, ft, H 1.83 ($H = D_{stratum} - D_{water}$)
 - Average Height of Water Level Above Impermeable Stratum, ft, h 0.88
(Take average of d_n 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:

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

$$= [5.0 / 640] \times [13.58 / 2.27(1.83^2 - 0.88^2)] \times 60 \text{ min/hr} = \underline{1.09}$$

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 Frank J. Falcone Date 4/24/98

Signature of Professional Engineer Albert J. Phillips: PE #32509 Date _____

THE HILL GROUP, INC.
19 BROOKSIDE AVENUE
P.O. BOX 142
PENNINGTON, NEW JERSEY 08534-9998
ph.(609) 737-7700 fax.(609) 730-1222
berpe@email.msn.com

Form 3f - Pit-Bailing Test Data: Brookside Estates Section Two
Municipality Hopewell Twp., Mercer Co., New Jersey Preliminary Lot 10A Final Block

1. Test Number #356 Reference Soil Log #235 Date Tested 5/14/98
2. Using the referenced level established, measure and record the following:
 - Depth to Bottom of Pit, ft, D_{pit} 7.46 Ft.
 - Depth to Water Level after 2 hr. Stabilization Period, ft, D_{water} 6.25 Ft.
 - Depth to Impermeable Stratum ft, $D_{stratum}$ 7.46 Ft.
(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 1.21 Ft. ($H = D_{stratum} - D_{water}$)
 - Length of Time Interval, T , in minutes Variable
3. At the interval chosen, record the following data in the table below:
 - Time of Measurement, t_n , minutes
 - Depth of Water Level Below Reference Level, d_n , inches
 - Water Surface Dimensions, ft: 1,w
4. Calculate the following values and enter in the table below:
 - Water Surface Area, ft^2 , A_n
 - Water level Rise, h_{rise} (subtract current value of d_n from previous value)
 - Ave. Water Surface Area, ft^2 , $A_{av.}$ (Take average of A_n and previous A_n)
 - Ave. Height of Water Level Above Impermeable Stratum, ft, h (Take Ave. of d_n and previous value of d_n , convert to ft., and subtract from $D_{stratum}$)
 - Permeability, in/hr, K_a (calculate using formula):
 $K_a = [h_{rise} / T] \times [A_{av.} / 2.27(H^2 - h^2)] \times 60/hr$

t_n	d_n (in.)	1,w (ft.)	A_n (ft ²)	h_{rise} (in.)	$A_{av.}$ (ft ²)	h (ft)	K_a
-	89"	0.50/0.50	0.25	-	-	-	-
3	88"	0.67/2.00	1.34	1"	0.80	0.08	4.84
9	87"	1.17/2.67	3.12	1"	2.23	0.17	4.56
15	86"	1.42/2.67	3.79	1"	3.46	0.25	4.35
21	85"	1.67/2.67	4.46	1"	4.13	0.33	3.84
106	82"	2.67/2.67	7.13	3"	5.80	0.50	3.57
217	80"	3.50/2.67	9.55	2"	8.34	0.71	2.12
273	77"	4.33/2.67	11.56	3"	10.56	0.92	4.97

5. Record the Following Data:
 - Final Depth of Pit, D_{pit} , ft 7.46 Ft.
 - Depth to Impermeable Stratum, ft, $D_{stratum}$ 7.46 Ft. (If no impermeable stratum is encountered assume $D_{stratum} = D_{pit}$)
 - Height of Static Water Level Above Impermeable Stratum, ft, H 1.21 ($H = D_{stratum} - D_{water}$)
 - Average Height of Water Level Above Impermeable Stratum, ft, h 0.92
(Take average of d_n 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:

$$K = [h_{rise} / t] \times [A_{av.} / 2.27(H^2 - h^2)] \times 60 \text{ min/hr}$$
$$= [3.0 / 273] \times [10.56 / 2.27(1.21^2 - 0.92^2)] \times 60 \text{ min/hr} = 4.97$$

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 Frank J. Falcone Date 7/2/99

Signature of Professional Engineer Albert J. Phillips: PE #32509 Date

PRINCETON JUNCTION ENGINEERING COMPANY
53 NORTH POST ROAD
P.O. BOX 223
PRINCETON JUNCTION, NEW JERSEY 08550
ph. (609) 799-1906 fax. (609) 799-1525

APPLICATION FOR PERMIT TO CONSTRUCT
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

Form 4 - General Design Data

1. Volume of Sanitary Sewage 950 GPD "Q" gals.

☒ Residential:

Number of Dwelling Units 1

Total Number of Bedrooms 6

Commercial/Institutional - Indicate Type of Establishment and 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. Alterations or Repairs

a. Reason for Alteration or Repair (check appr. categories):

☐ Expansion or Change in Use

☐ Upgrade Existing Facilities

☐ Correct Malfunctioning System

☐ Other - Specify _____

b. Describe Nature of Alteration or Repairs: _____

3. Components

a. Grease Trap Capacity _____ gals.

b. Septic Tank Capacities:

First Compartment (single) 1500 gals.

Second Compartment _____ gals.

Third Compartment _____ gals.

c. Effluent Distribution Method:

☐ Gravity Flow

☐ Gravity Dosing

☒ Pressure Dosing

Dosing Device: ☒ Pump, ☐ Siphon

d. Dosing Tank Capacities:

Total Capacity 1500 gals.

Dose Volume 237.50 gals.

Reserve Capacity 950 gals.

e. Laterals: Number 8 per side/16 total Length 20.5 LF ea./328 LF total

Pipe Size 1"Ø Spacing 36" O.C.

f. Connecting Pipe: Size 4"Ø Length 5 LF Delivery Pipe: Size: 3"Ø Length: 116 LF

g. Manifold: Size 3"Ø Length 21 LF

h. Disposal Field: Type of Installation "MSR" Type _____ Design Permeability (percolation rate) 3-15 MPI

Trenches: Width _____ Total Length _____

Bed: Area 1269 Sq. Ft. ft²

i. Seepage Pits: Design Permeability (percolation rate) _____ Number of Pits _____

Total Percolation Area Provided _____

4. Attachments (check items included):

☒ General Plan showing location of all system components.

☒ X-Section of each system component, including Grease Trap, Septic Tank, Dosing Tank, Disposal Field, Seepage Pits and Interceptor Drain.

☒ Pump Performance Curve.

☒ Other - Specify Distribution Network Detail, General System Details, General System Notes.

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 Design Engineer



Bruce M. Rittenhouse, P.E., S #13453

Date 7/13/99

AFFIX SEAL

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PRINCETON JUNCTION ENGINEERING COMPANY
53 NORTH POST ROAD
P.O. BOX 610
PRINCETON JUNCTION, NEW JERSEY 08550
ph. (609) 799-1906 fax. (609) 799-1524

Form 5 - Design of Pressure Dosing System

Municipality Hopewell Twp., Mercer Co., New Jersey. Lot 18.10 Block 93

1. Configuration of Distribution Network:

Type of Manifolds: End ☒ Central
Distribution Laterals: Number 8 per Side/16 Total Length, ft. 20.5 LF ea./328 LF Total
Hole Diameter, ins. 1/4"Ø Hole Spacing, ins. 36" O.C.
Diameter of Laterals, ins. 1"Ø

2. Lateral Discharge Rate:

Design Pressure Head at Supply End of Laterals, H_p , ft. 2.50 Ft.
Hole Discharge Rate, Q , gpm 1.18 GPM
Number of Holes per Lateral, n 7
Lateral Discharge Rate, $(Q \times n)$ gpm 8.26 GPM

3. Manifold Length, ft. 21 LF Manifold Diameter, ins. 3"Ø

4. System Discharge Rate, gpm 132.16 GPM

5a. Pump Selection:

Diameter of Delivery Pipe 3"Ø Length of Delivery Pipe 116 LF
Friction Loss in Delivery Pipe, H_f , ft. 4.09 Ft.
Elevation of Dosing Tank Low Water Level 153.07
Elevation of Lateral Invert 175.75
Elevation Head, H_e , ft. 22.68 Ft.
Total Operation Head, H_t , $(H_p + H_f + H_e)$, ft. 29.27 Ft.
Pump Model Aurora/Hydraulic S model sewage pump Rated Horsepower 3 HP
Pump Discharge Rate at Total Operation Head, gpm 160 ±

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 Operation Head, H_t , $(H_p + H_f + H_v)$, ft.
Elevation of Lateral Invert
Elevation of Siphon Invert

6. Dose Volume:

Design Volume of Sewage, gal/day 950 GPD "Q"
Design Permeability, in/hr or Percolation Rate, min/in 3-15 MPI
Internal Volume of Distribution Network 63.69 Gal.
Dose Volume 237.50 Gal. (25%Q)

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

Robert M. Dittman

Date 7/13/93

AFFIX SEAL



TOWNSHIP of HOPEWELL

DEPARTMENT of HEALTH Serving Hopewell Borough and Pennington Borough

201 WASHINGTON CROSSING PENNINGTON ROAD, TITUSVILLE, N.J. 08650 MERCER COUNTY
TELEPHONE 609-737-0120 / TELEFAX NO. 609-737-2770

August 13, 1999

Hopewell Ridge Properties, Inc.
#23 Route 31 North
Pennington, NJ 08534

Re: Block 93 Lot 18.10

To whom it may concern:

Your application for 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.

Frank J. Falcone Professional Land Surveyor #32112 & Professional Planner #3760



Princeton Junction Engineering, P.C.
Professional Engineers, Land Surveyors and Planners
P.O. Box 610 - 53 North Post Road
Princeton Junction, New Jersey 08550

Telephone: 609.799.1906 Facsimile: 609.799.1524 Email: FJFC@compuserve.com

Final Asbuilt

of Lot-18.10, Block-93 for
Brookside at Hopewell Ridge, LLC
Hopewell Township • Mercer County • New Jersey

Dryce M. Rittenhouse*
Arnold Ryden Jr.
D. Geoffrey Brown
Wesley J. Lane*
Frank J. Falcone
Peter R. Falekowsky*
Ted W. Provornick
Martin D. Katz

PE#195 No.13453
PLS No.21223
PE#195 No.24327
PLS No.30747
PLS No.32112
PLS No.34001
PLS No.35668
PLS No.36249

Frank J. Falcone: PLS #32112 & PP #3760

ch/c
Date

Date: 6/16/00
Scale: 1"=60'
Drawn: FJF
Check: FJF/BMR

Job#: F98004
Dwg: L1810b93.dwg
View: Plan
Layers: PLOT PLAN



PRINCETON JUNCTION ENGINEERING, P.C.
PROFESSIONAL ENGINEERS AND LAND SURVEYORS

BRYCE M. RITTENHOUSE, P.E., L.S. & P.P.*
ARNOLD RYDEN, JR., L.S. & P.P.
D. GEOFFREY BROWN, P.E., L.S. & P.P.
WESLEY J. LANE, L.S. & P.P.*
FRANK J. FALCONE, L.S. & P.P.
PETER R. ESHEWSKY, L.S. & P.P.*
TED W. PNOVARNICK, L.S.
MARTIN D. KATZ, L.S.

NORTH POST ROAD
P.O. BOX 610
PRINCETON JUNCTION, NJ 08550
609.799.1906
FAX: 609.799.1524
EMAIL: PJEPC@COMPUSERVE.COM
NJ & PA LICENSED

CERTIFICATE OF COMPLIANCE

County/Municipality of Hopewell Township / Mercer County

INSTRUCTIONS: Part A is to be 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 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 an Individual Subsurface Sewage Disposal System which was approved by the administrative authority. Part C will be completed if the administrative authority performs 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 Twp., Mercer Co., NJ Lot 18.10 Block 93
Street Address 1 Keithwood Court, Titusville, NJ 08560

3.



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 an 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.


Bryce M. Rittenhouse, P.E. & L.S. #13453

SEAL

Date: 6/16/00

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 an 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 or Printed) _____

License Number _____

Date _____

For Agency Use Only

Date Received: _____

Form Determined To Be: 2 Complete

Incomplete

Date Certification Approved: 7/2/00

Date Returned _____
Date Received _____

Authorized Signature: 

PRINCETON JUNCTION ENGINEERING COMPANY
53 NORTH POST ROAD
P.O. BOX 610
PRINCETON JUNCTION, NEW JERSEY 08550
ph. (609) 799-1906 fax. (609) 799-1524

Client: Brookside Estates At Hopewell Ridge, LLC

Form 3b - Tube Permeameter Test Data:

Municipality Hopewell Township Lot 18.10 Block 93

1. Test Number 1 Replicate (letter) B Date Collected 12/19/99
2. Material Tested: ☒ Fill ☐ Test in Native Soil-Indicate Depth _____
3. Type of Sample: ☒ Undisturbed ☐ Disturbed
4. Sample Dimensions: Inside Radius of Sample Tube R, in cm. 3.81
Length of Sample, L, in inches 3.5
5. Bulk Density Determination (disturbed samples only): N/A
Sample Weight (Wt. Tube Containing Sample-Wt. of Empty Tube), grams _____
Sample Volume = $(3.50 \times 2.54 \text{ cm/in} \times 3.14 \times 3.81^2) =$ _____
Bulk Density = $606.6 \div 405.21 =$ _____

6. Standpipe Used: ☒ No ☐ Yes - Indicate Internal Radius, cm. _____

7. Height of Water Level above Rim of Test Basin, in inches:
At the beginning of each test interval, H₁ 5.0
At the end of each test interval, H₂ 4.5

8. Rate of Water Level Drop (Add additional lines if needed):

Time, Start of Test Interval, T1	Time, End of Test Interval, T2	Length of Test Interval, T, Minutes
<u>07:23:00</u>	<u>07:24:33</u>	<u>00:01:33</u>
<u>07:24:50</u>	<u>07:26:23</u>	<u>00:01:33</u>
<u>07:27:00</u>	<u>07:28:33</u>	<u>00:01:33</u>

Calculation of Permeability:

$$K, (\text{in/hr}) = 60 \text{ min/hr} \times r^2/R^2 \times L(\text{in})/T(\text{min}) \times \ln(H_1/H_2) \\ = 60 \text{ min/hr} \times \text{--} / \text{--} \times 3.5 / 1.55 \times \ln(5.0 / 4.5) = 14.27$$

10. Defects in the Sample (Check appropriate items):

☒ None ☐ Cracks ☐ Worm Channels ☐ Root Channels ☐ Soil/Tube Contact
☐ Large Gravel ☐ Large Roots ☐ Dry Soil ☐ Smearing ☐ Compaction ☐ Other - Specify _____

11. I hereby certify that the information furnished on Form 3b 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 Frank J. Falcone Date 12/19/99

Signature of Professional Engineer Bryce M. Rittenhouse Date 12/19/99
Bryce M. Rittenhouse N.J.P.E. & L.S.#13453

PRINCETON JUNCTION ENGINEERING COMPANY
53 NORTH POST ROAD
P.O. BOX 610
PRINCETON JUNCTION, NEW JERSEY 08550
ph. (609) 799-1906 fax. (609) 799-1524

Client: Brookside Estates At Hopewell Ridge, LLC

Form 3b - Tube Permeameter Test Data:

Municipality Hopewell Township Lot 18.10 Block 93

1. Test Number 1 Replicate (letter) A Date Collected 12/19/99
2. Material Tested: ☒ Fill ☐ Test in Native Soil-Indicate Depth _____
3. Type of Sample: ☒ Undisturbed ☐ Disturbed
4. Sample Dimensions: Inside Radius of Sample Tube R, in cm. 3.81
Length of Sample, L, in inches 3.5
5. Bulk Density Determination (disturbed samples only): N/A
Sample Weight (Wt. Tube Containing Sample-Wt. of Empty Tube), grams _____
Sample Volume = $(3.50 \times 2.54 \text{ cm/in} \times 3.14 \times 3.81^2) =$ _____
Bulk Density = $606.6 \div 405.21 =$ _____

6. Standpipe Used: ☒ No ☐ Yes - Indicate Internal Radius, cm. _____
7. Height of Water Level above Rim of Test Basin, in inches:
At the beginning of each test interval, H₁ 5.0
At the end of each test interval, H₂ 4.5

8. Rate of Water Level Drop (Add additional lines if needed):

Time, Start of Test Interval, T ₁	Time, End of Test Interval, T ₂	Length of Test Interval, T, Minutes
<u>07:14:10</u>	<u>07:15:45</u>	<u>00:01:35</u>
<u>07:17:00</u>	<u>07:18:35</u>	<u>00:01:35</u>
<u>07:18:50</u>	<u>07:20:25</u>	<u>00:01:35</u>

Calculation of Permeability:

$$K, (\text{in/hr}) = 60 \text{ min/hr} \times r^2/R^2 \times L(\text{in})/T(\text{min}) \times \ln(H_1/H_2) \\ = 60 \text{ min/hr} \times \text{--} / \text{--} \times 3.5 / 1.58 \times \ln(5.0 / 4.5) = \underline{14.00}$$

10. Defects in the Sample (Check appropriate items):

☒ None ☐ Cracks ☐ Worm Channels ☐ Root Channels ☐ Soil/Tube Contact
☐ Large Gravel ☐ Large Roots ☐ Dry Soil ☐ Smearing ☐ Compaction ☐ Other - Specify _____

11. I hereby certify that the information furnished on Form 3b 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 Frank J. Falcone Date 12/19/99

Signature of Professional Engineer Bryce M. Rittenhouse Date 12/19/99
Bryce M. Rittenhouse N.J.P.E. & L.S.#13453

PRINCETON JUNCTION ENGINEERING COMPANY
53 NORTH POST ROAD
P.O. BOX 610

PRINCETON JUNCTION, NEW JERSEY
ph.(609) 799-1906 fax.(609) 799-1524

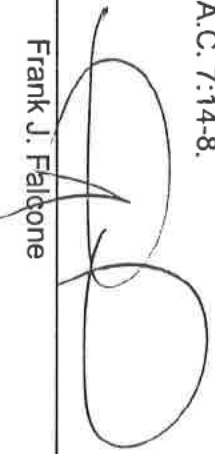
Form 3c - Soil Permeability Class Rating Data:

Client: Brookside Estates at Hopewell Ridge Municipality Hopewell Twp. Lot 18.10 Block 93

1. Test Number 1 Replicate (Letter) A
2. Sample Depth Soil Pit/Boring Number 1 Date Collected 12/13/99
3. Coarse Fragment Content:
Total Weight of Sample, W.T., grams 792.5
Weight of Material Retained on 2 mm sieve, W.C.F., grams 32.0
Wt. % Coarse Fragment (W.C.F./W.T. x 100): 4.04 %
4. Oven Dry Weight (24 hrs, 105°C) of 40 Gram Air Dry Sample, Grams, Wt 39.9
5. Hydrometer Calibration, Rc 4.5
6. Hydrometer Reading - 40 seconds, grams, R1 6.5
Temperature of Suspension, °F 68.0
7. Corrected Hydrometer Reading, grams, R1' 2.00
8. Hydrometer Reading - 2 hours, grams, R2 6.0
Temperature of Suspension, °F 68.0
9. Corrected Hydrometer Reading, grams, R2' 1.50
10. % sand = (Wt. - R1)/Wt. x 100 = $(\frac{39.9 - 2.00}{39.9}) \times 100 = \underline{94.99}$
11. % clay = $R2/Wt. \times 100 = \frac{1.50}{39.9} \times 100 = \underline{3.76}$
12. Sieve Analysis:
 - a. Oven Dry Wt. (2 hrs., 105°C) Total Sand Fraction (Soil Retained in 0.05 mm Sieve), grams 38.6
 - b. Wt. of Fine Plus Very Fine Sand Fraction (Sand Passing 0.25 mm Sieve), grams 7.9
 - c. % Fine Plus Very Fine Sand (b/a) 20.47
13. Soil Morphology (Natural Soil Samples Only):
Structure of Soil Horizon Tested
Consistence of Soil Horizon Tested: Dry Moist
14. Soil Permeability Class Rating (based upon average textural analysis of replicate and other replicate samples)
See below *

• **Passing results for select fill material as per N.J.A.C. 7:9A 10.1 (f)**

I hereby certify that the information furnished on Form 3c 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 subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator  Date 12/13/99
Frank J. Falcione

Signature of Professional Engineer  Date 12/13/99
Bryan M. Rittenhouse N.J.P.E. & L.S. #13453

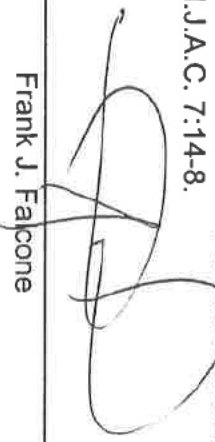
PRINCETON JUNCTION ENGINEERING COMPANY
53 NORTH POST ROAD
P.O. BOX 610
PRINCETON JUNCTION, NEW JERSEY
ph.(609) 799-1906 fax.(609) 799-1524

Form 3c - Soil Permeability Class Rating Data:

Client: Brookside Estates at Hopewell Ridge Municipality Hopewell Twp. Lot 18.10 Block 93

1. Test Number 1 Replicate (Letter) B
2. Sample Depth Soil Pit/Boring Number 1 Date Collected 12/13/99
3. Coarse Fragment Content:
Total Weight of Sample, W.T., grams 792.5
Weight of Material Retained on 2 mm sieve, W.C.F., grams 32.0
Wt. % Coarse Fragment (W.C.F./W.T. x 100): 4.04 %
4. Oven Dry Weight (24 hrs, 105°C) of 40 Gram Air Dry Sample, Grams, Wt 39.9
5. Hydrometer Calibration, Rc 4.5
6. Hydrometer Reading - 40 seconds, grams, R1 6.5
Temperature of Suspension, °F 68.0
7. Corrected Hydrometer Reading, grams, R1' 2.00
8. Hydrometer Reading - 2 hours, grams, R2 6.0
Temperature of Suspension, °F 68.0
9. Corrected Hydrometer Reading, grams, R2' 1.50
10. % sand = (Wt. - R1)/Wt. x 100 = $(\underline{39.9} - \underline{2.00}) / \underline{39.9} \times 100 = \underline{94.99}$
11. % clay = $R2'/Wt. \times 100 = \underline{1.50} / \underline{39.9} \times 100 = \underline{3.76}$
12. Sieve Analysis:
 - a. Oven Dry Wt. (2 hrs., 105°C) Total Sand Fraction
(Soil Retained in 0.05 mm Sieve), grams 38.5
 - b. Wt. of Fine Plus Very Fine Sand Fraction
(Sand Passing 0.25 mm Sieve), grams 8.1
 - c. % Fine Plus Very Fine Sand (b/a) 21.04
13. Soil Morphology (Natural Soil Samples Only):
Structure of Soil Horizon Tested
Consistence of Soil Horizon Tested: Dry Moist
14. Soil Permeability Class Rating (based upon average textural analysis of replicate and other replicate samples)
See below *
 - **Passing results for select fill material as per N.J.A.C. 7:9A 10.1 (f)**

I hereby certify that the information furnished on Form 3c 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 subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator  Date 12/13/99
Frank J. Falcone

Signature of Professional Engineer  Date 12/13/99
Bryce M. Rittenhouse N.J.P.E. & L.S. #13453

99139

AUG 10 1999

(See General Details Sheet.)

Hopewell Township (See General Details Sheet.)
Center Distribution Manifold: _____

Center Distribution Manifold:

Inv. Elev. = 175.75

Delivery Pipe: 116 LF 3"Ø Sched.

1500 Gallon Dosing Tank w/ Pump:

(See Details.)

Inv. Out=156.57

Connecting pipe: 5 LF 4"Ø

Slope.

1500 Gallon Septic Tank:

Inv. In=157.17

Building Sewer line: 10 LF

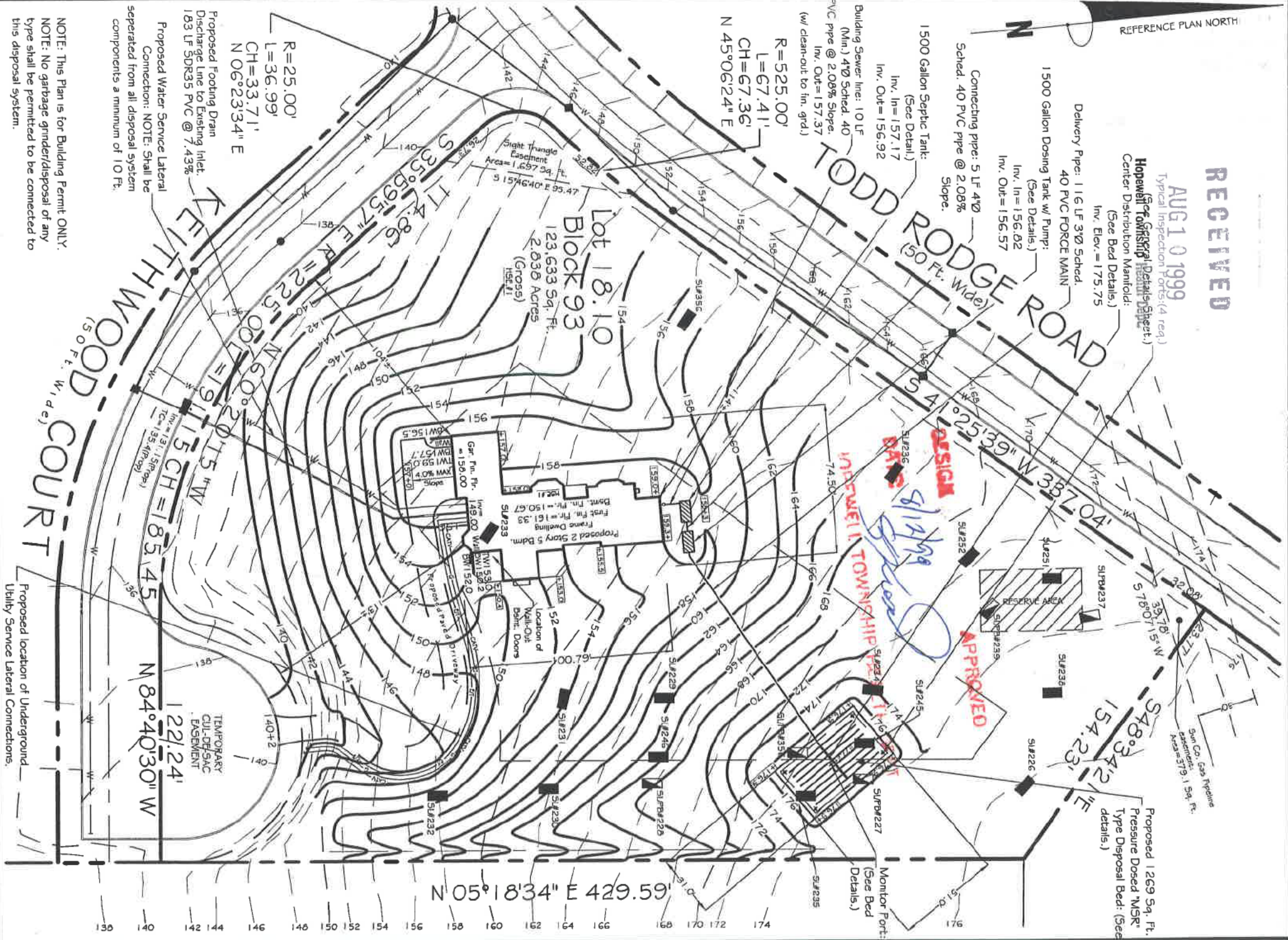
(Min.) 4" x 5" Sec'd. 4U
PVC pipe @ 2.08% Slope.

INV. OUT=137.37
(w/ clean-out to fin. grd.)

R=525.00'

$$L=67.41$$

N 45°06'24" E



Proposed location of Underground Utility Service Lateral Connections.

Proposed Footing Drain
Discharge line to Existing Inlet.
183 LF SDR35 PVC @ 7.43%
Proposed Water Service Lateral
Connection: NOTE: Shall be
separated from all disposal system
components a minimum of 10 Ft.

Proposed Water Service Lateral
Connection: NOTE: Shall be

Bryce M. Rittenhouse Professional Engineer & Land Surveyor #13453

Frank J. Falcone Professional Land Surveyor #32112 & Professional Planner #3760

Princeton Junction Engineering, P.C.
Professional Engineers, Land Surveyors and Planners

Plot Plan & Disposal

System Design

of Lot-18.10, Block-93 for

Brookside at Hopewell Ridge, LLC

Hopewell Township • Mercer County • New Jersey

Telephone: 609.799.1906 Facsimile: 609.799.1524 Email: PJFPC@compuserve.com

Byrne M. Rittenhouse
Arnold Ryden Jr.
D. Geoffrey Brown
Wesley J. Lane*
Frank J. Falcone
Peter R. Eschewsky*
Ted W. Pivomarnick
Martin D. Katz

PE4PL5	No. 13453
PL5	No. 21223
PE4PL5	No. 24327
PL5	No. 30747
PL5	No. 32112
PL5	No. 34001
PL5	No. 35868
PL5	No. 36249

Byrne M. Rittenhouse: PE 11b #13453

7/13/99
Date

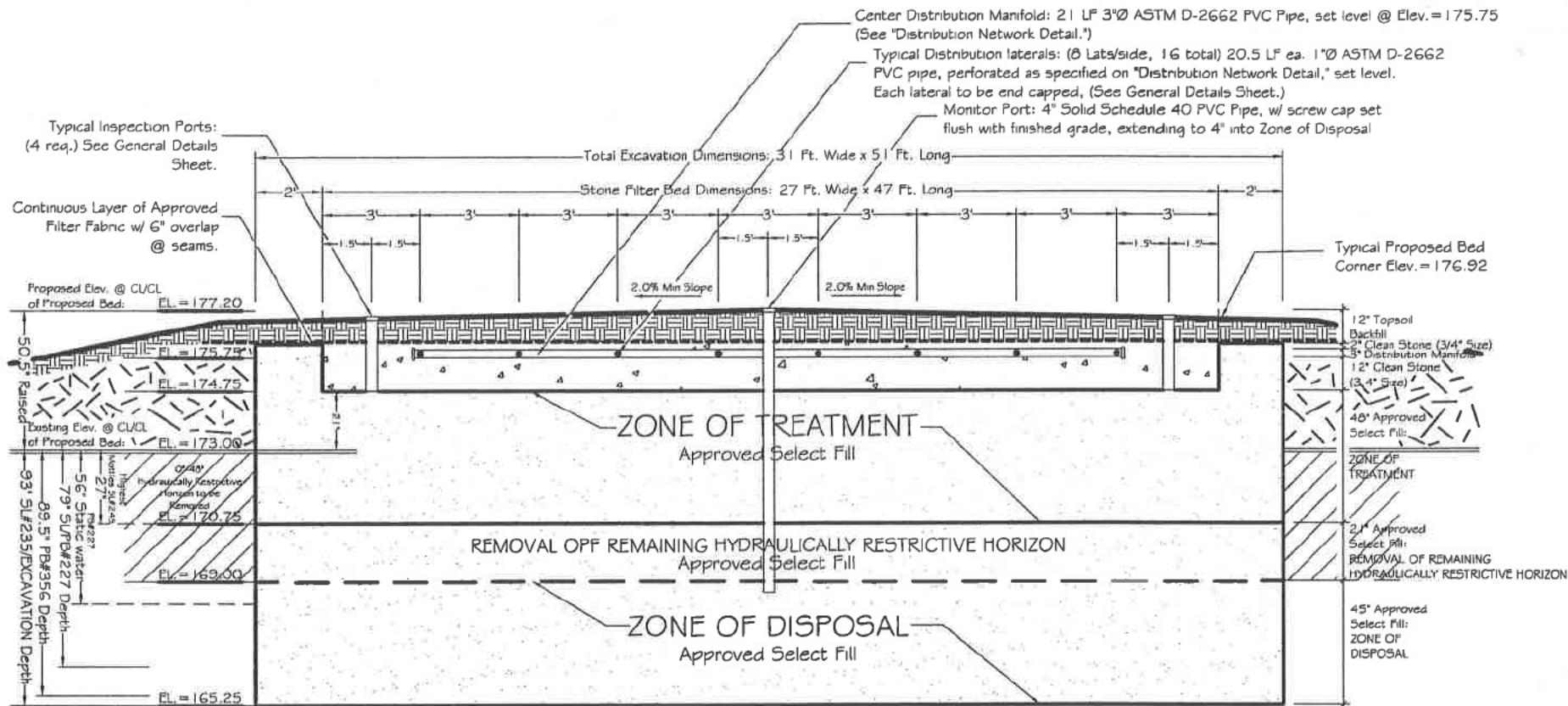
Date: 07/13/99

Scale: 1-60

Check: B-H-E / F-J-F

Revisions:

Job#:F98004
Dwg:LI 810b93.dwg
View:Plan
Layers:PLOT PLAN



MOUNDED-SOIL REPLACEMENT DISPOSAL BED SECTION VIEW DETAIL:
Scale: 1" = 5'

NOTE: The Hopewell Township Health Dept. requires a Soil Permeability Class Rating Test on the stockpiled select fill. The contractor shall notify the Design Engineer 24 hours in advance of the said stockpiling in order to obtain samples of the fill for testing. The select fill shall not be emplaced until a passing soil analysis has been obtained.

The distribution network shall not be constructed until a passing percolation test or tube permeameter test has been performed on the emplaced select fill, to insure proper compaction. The contractor shall notify the Design Engineer 24 hours in advance in order to perform said test.

DISPOSAL BED SIZING CALCULATION:
Proposed 6 Bedroom Dwelling=200 GPD+(5x150 GPD)=950 GPD "Q"
Assume in place select fill @ 3-15 MPI; 1.33 SF/GPD Req'd min. Pressure Dosing
950 GPD x 1.33 SF/GPD= 1263.5 SF Min. Btm. Area (USE 1264 SF)
1264 SF/27' (Prop. bed width)=46.81' (Min. Bed Length/USE 47')
Note: "MSR" Type bed req's 2 Ft. fill extension
Excavate total btm. area of bed: 31 Ft. Wide x 51 Ft. Long (=1581 SF)
Construct stone filter bed: 27 Ft. Wide x 47 Ft. Long (=1269 SF)

Bryce M. Rittenhouse Professional Engineer & Land Surveyor #13453

Frank J. Falcone Professional Land Surveyor #32112 & Professional Planner #3760



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Professional Engineers, Land Surveyors and Planners
P.O. Box 610 - 53 North Post Road
Princeton Junction, New Jersey 08550
Telephone: 609.799.1906 Facsimile: 609.799.1524 Email: PJEC@pjec.com

Disposal Bed Section View Detail
of Lot-1B.10, Block-93 for
Brookside at Hopewell Ridge, LLC
Hopewell Township • Mercer County • New Jersey

Bryce M. Rittenhouse*
D. Geoffrey Brown
Wesley J. Lane*
Frank J. Falcone
Peter R. Falcone
Ted W. Pienkowski
Martin D. Katz

PE#PJS
PJS
PJS
PJS
PJS
PJS
No.13453
No.24327
No.30747
No.32112
No.34001
No.35059
No.36249

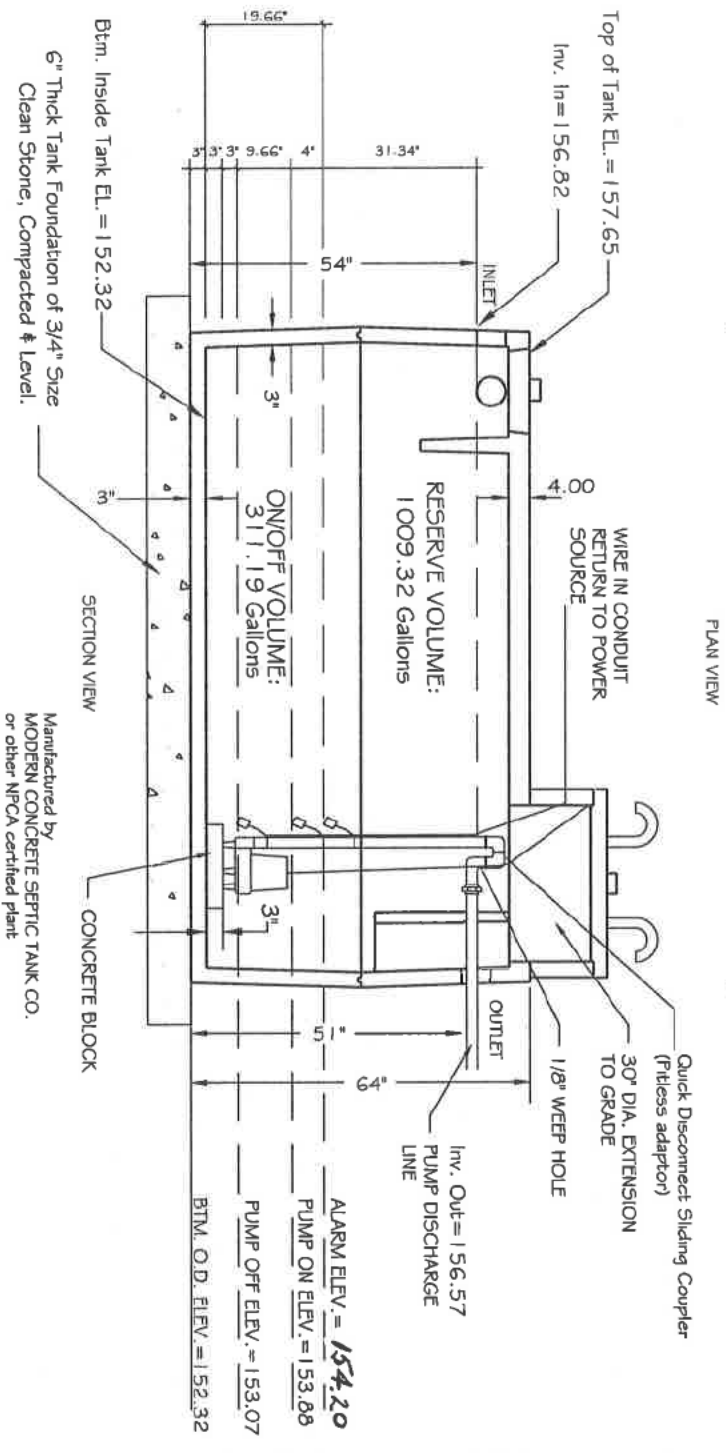
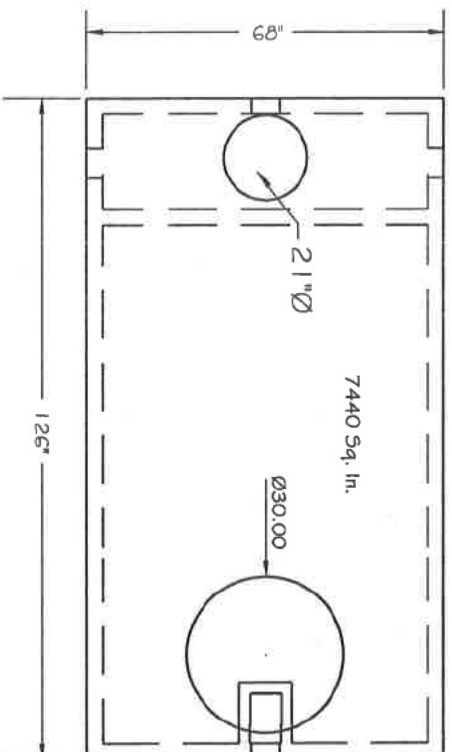
Frank J. Falcone PJS #32112 & PP #3760
Bryce M. Rittenhouse PJS #13453
7/13/99
Date

7/13/99
Date

Date: 07/13/99
Scale: 1"=5'
Drawn: JRM
Check: MJE/KLF

Revisions: 2/9

Job#: F90004
Dwg: L1B10b93b.dwg
View: Plan



NOTE: ELECTRICAL CONNECTIONS IN PUMP TANK TO BE WITH EITHER WET SPICE OR WEATHER PROOF JUNCTION BOX.

1500 GALLON DOSING TANK

DOSING TANK INFORMATION

DETAIL

(NTS)

1500 GALLON CAPACITY
 SWITCH ELEVATIONS:
 ALARM ELEVATION = 154.20
 PUMP ON ELEVATION = 153.88
 PUMP OFF ELEVATION = 153.07
 INVERT IN. = 156.82
 BOTTOM OF TANK ELEVATION = 152.32(Outside) 152.57(Inside)
 PUMP SPECIFICATIONS: AURORA/HYDROMATIC Model "S"
 OR APPROVED EQUAL
 1500 GALLON CAPACITY
 DOSE VOLUME = 237.50gal. (25%) ON/OFF VOLUME = 311.19 gal.
 PUMP DELIVERY @ 29.27 FT. OF HEAD
 = 132.16 (min.) gpm
 TANK ALERT II PLUS ALARM SYSTEM/PUMP
 CONTROL, SJ ELECTRO SYSTEMS INC.
 AUDIO & VISUAL ALARMS REQUIRED PITLESS
 ADAPTER REQUIRED.
 RESERVE CAPACITY BETWEEN INVERT IN AND
 ALARM ELEVATION = 1009.32 gal > 950 gal. OK

Bryce M. Rittenhouse Professional Engineer & Land Surveyor #13453

Frank J. Falcone Professional Land Surveyor #32112 & Professional Planner #3760



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 P.O. Box 610 - 53 North Post Road
 Princeton Junction, New Jersey 08550

Telephone: 609.799.1906 Facsimile: 609.799.1524 Email: PJEPC@pjepc.com

1500 Gallon Pump Tank

of Lot-1B.10, Block-93 for

Brookside at Hopewell Ridge, LLC
 Hopewell Township • Mercer County • New Jersey

Bryce M. Rittenhouse*
 D. Geoffrey Brown
 Wesley J. Lane
 Frank J. Falcone
 Peter R. Eshenasy
 Ted W. Fluckerman
 Martin D. Katz
 * NJ and PA Licensed

PE#15 No.13453
 PE#15 No.24327
 PE#15 No.30747
 PE#15 No.32112
 PE#15 No.34001
 PE#15 No.35666
 PE#15 No.36249

Bryce M. Rittenhouse 7/13/99
 Bryce M. Rittenhouse, PE #13453
 Date

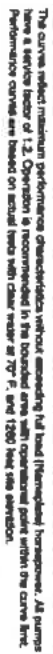
Frank J. Falcone, PLS #32112 & PP #3760

7/13/99
 Date

Date: 07/13/99
 Scale: None
 Drawn: JRM/ELJ
 Check: DME/ELJ

Revisions: 5/9

Job#: F98004
 Dwg: L1010b93pt.dwg
 View: R1



The curves reflect maximum performance characteristics without exceeding full load (thermal) horsepower. All pumps have a service factor of 1.2. Operation is recommended in the hatched area with operational point within the curve line. Performance curves are based on actual tests with clear water at 70° F. and 1200 feet static elevation.

Conditions of Service:
PMT _____ TDH: _____

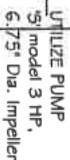
HYDROMATIC PUMPS

5

Date: SEPTEMBER 1973

MODEL: 5-Non-Clog Sewage Pump

REL. HUM.	1750	
MOTOR TYPE	ENCLOSED, OR COOLED INDUCTION	
MOTOR DESIGN NEMA TYPE	B (30)	L (4)
GENERAL INSULATION CLASS	B	
WINDING CLASS	F	
MAXIMUM STATOR TEMPERATURE	311°F	
MOTOR PROTECTION	BIMETALLIC THERMISTOR SENSITIVE DISC SIZED TO OPEN AT 120°C AND AUTOMATICALLY RESET @ 90-95°C	

[illegible]Section NON-LOG Page 201
Dated SEPTEMBER 1993

ALL INFORMATION IS PUBLIC
DATE OF LAST POSTING: 10/11/2011

5

Dated SEPTEMBER 1973

MODEL: S—Non-Clog Sewage Pump

R.P.M.	1750
MOTOR TYPE	ENCLOSED, OIL COOLED INDUCTION
MOTOR DESIGN NEMA TYPE	B (3a) L (1a)
GENERAL INSULATION CLASS	F
STARTER WINDING CLASS	B
MAXIMUM STARTER TEMPERATURE	311°F
MOTOR PROTECTION	BI-METALLIC TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 120°C AND AUTOMATICALLY RESET @ 30-40°C DIFFERENTIAL, ONE IN SINGLE PHASE, TWO IN THREE PHASE
VOLTAJE TOLERANCE	± 10%

[illegible]

Engineer & Land Surveyor #13453

or #32112 & Professional Planner #3760

Pump Details
of lot-18, 10, Block-93 from

Brookside at Hopewell Ridge, LLC
Misc. Township • Misc County • New Jersey

Misc. Township • Misc County • New Jersey

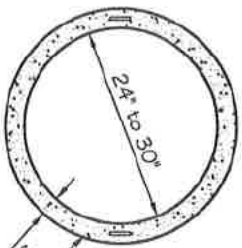
PE4PL5	No.13453
PE4PL5	No.24327
PL5	No.30747
PL5	No.32112
PL5	No.34001
PL5	No.35868
PL5	No.36249

Baker M. J. *7/13/99*
 Office in Greenhouse, PE # 15 #1-2550
 Date _____
 Frank J. Falcone: PLS #32112
 Date _____

Date: 07/13/99
Scale: None
Drawn: JRM
Check: BML/EJF

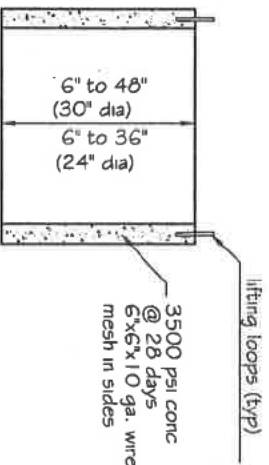
Revisions: 6/9

Job#:F98004
Dwg:LI&I0b93pmp.dwg
View:plan



Plan View

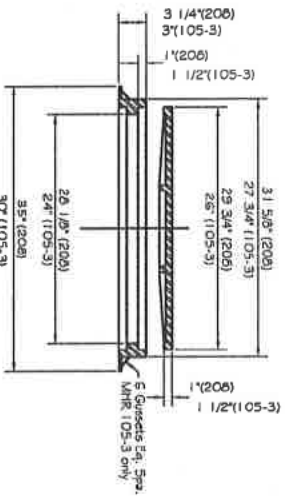
3500 psi conc.
@ 28 days



Section View

CONCRETE EXTENSION

(in/s)



Specifications:

Specifications are from Quinn. The frame and covers are made of gray iron which meets or exceeds ASTM A48, Class 30B. Other grades of gray iron available upon request. Furnished with standard one coat of black asphaltum paint. Uncoated castings available upon

MHR 105-3:

Round flange manhole frame and cover for Septic Tanks. Shall be provided with a bolting and gasket cover.

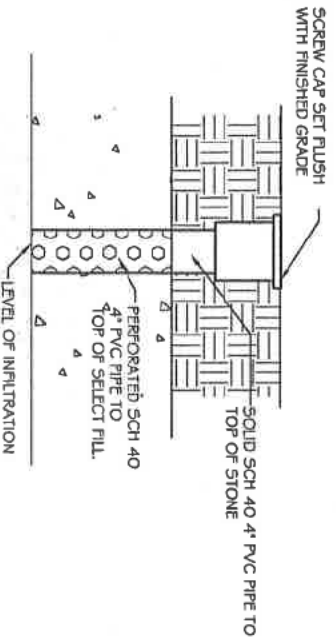
MHR 208 BF:

Light duty manhole frame and cover for Dosing Tanks. Shall be provided with a bolting and gasket cover.

Manhole Frame Detail

no scale

Inspection Port Detail



FILTER FABRIC SPECIFICATIONS

TERRATEX 50 OR EQUAL
GRADE TRIBLE STRENGTH 125 LB5.
MAXIMUM TENSILE STRENGTH 275 LB5./SQ. IN.
ELONGATION 60 %
WATER PERMEABILITY COEFFICIENT < 2 CM/SEC.
THE FABRIC IS TO BE LAYED OVER THE TOP OF STONE A MIN. OF 6"

End Cap Detail

NOT TO SCALE



Bryce M. Rittenhouse Professional Engineer & Land Surveyor #13453

Frank J. Falcone Professional Land Surveyor #32112 & Professional Planner #3760



Princeton Junction Engineering, P.C.
Professional Engineers, Land Surveyors and Planners
P.O. Box 610 - 53 North Post Road
Princeton Junction, New Jersey 08550

Telephone: 609.799.1906 Facsimile: 609.799.1524 Email: JFPC@compuserve.com

General System Details

of Lot-18.10, Block-93 for
Brookside at Hopewell Ridge, LLC
Hopewell Township • Mercer County • New Jersey

Bryce M. Rittenhouse*
D. Geoffrey Brown
Wesley J. Lane*
Frank J. Falcone
Peter R. Gieniewsky*
Ted W. Frowanick
Martin D. Katz

FE#15 No. 13453
FE#15 No. 24327
PLS No. 50747
PLS No. 32112
PLS No. 34001
PLS No. 35966
PLS No. 36249

Bryce M. Rittenhouse: PE #15 #13453
Date: 7/13/99

Frank J. Falcone: PLS #32112 & PP #3760
Date: 7/13/99

Date: 07/13/99
Scale: None
Drawn: JRM
Check: BMR/JFE

Revisions: 7/9

Job#: F98004
Dwg#: L1810b93 det.dwg
View: Plan

Disposal System Notes

1. Prior to the installation of fill material, the disposal field excavation shall be performed in accordance with N.J.A.C. 7:59a 10.3(e) 1 through 5.
2. Work should be scheduled so that the bottom and sidewalls of the excavation will not be exposed to rainfall or windblown silt between time of excavation and time of final inspection and grading.
3. Any loose soil or debris which is washed into or deposited within the excavation shall be removed prior to the construction of the distribution network.
4. Any smeared or compacted soil surfaces within the disposal field excavation shall be removed to expose a fresh soil surface.
5. Excavations in soils other than sands or loamy sands shall not be confirmed when soil moisture content is above the lower plastic limit. This means when a small lump of soil, taken from the depth of the proposed excavation, can be rolled out with the fingers to form a wire or rod one-eighth of an inch in thickness and does not crumble when handled.
6. Clayey soils encountered in the bottom of the excavation shall be removed and replaced with suitable fill.
7. The fill material installed in the zone of disposal shall have a textural analysis (composition by weight of size fraction passing through a two millimeter sieve) 70%+ med.-coarse sand, but not less than 30% total sand. The fill material shall also have a percolation rate faster than 15 minutes per inch.
8. The suitable fill material installed in the zone of treatment shall have a coarse fragment content less than 15% by volume or less than 25% by weight. It shall also have a textural analysis (composition by weight of size fraction passing the two millimeter sieve), from 70% to 90% med.-coarse sand, 0-25% fine sand, 5% to 10% silt & clay; by mm. clay 2%. Fill material shall also have a percolation rate of 3 to 15 min. or a permeability rate of 6-20 in/hr.
9. All fill material shall be spread and compacted in layers one foot or less in thickness and compacted manually or mechanically, by tamping or rolling, by driving over the filled area in a controlled pattern using tracked or rubber tired vehicles, or by puddling.
10. Heavy excavating equipment shall not be operated directly on the exposed bottom of the excavation. If heavy excavating equipment is used to compact the fill material, the first lift shall be one foot in thickness.
11. The filter material shall consist of washed gravel or crushed stone, free of fines, dust, ashes or clay. It shall conform in size and gradation to size #24, #3 or #4 of the N.J.D.O.T. Standard for coarse aggregates.
12. The filter material shall be installed into the disposal system excavation using a backhoe, front end loader or dump truck from the sides.
13. Construction of the distribution network shall be in accordance with 7:9a-10.3(d).
14. PVC distribution laterals shall meet ASTM standards D-2729, D-3033 or D-3034.
15. Filter material is to be covered with drainage fabric as the laying of distribution lines progresses. Drainage fabric shall be overlapped a minimum of 6".
16. Filter fabric shall have a grab tensile strength of 125 lbs., mullen burst strength of 275 lbs., elongation 80% & permeability coefficient of 0.2 cm/sec. Filter fabric shall be Terratex sd or equal.
17. Construction of the distribution box shall be in accordance with 7:9a-9.4.
18. The distribution box shall be set directly on the filter material within the disposal bed.
19. A permanent concrete monument will be installed over the distribution box flush with finished grade.
20. Construction of the connecting pipe or delivery pipe shall be in accordance with 7:9a-9.3.
21. All changes of direction in the soil pipe and connecting pipe shall employ max. 45° fittings and shall include cleanouts.
22. Soil pipe and connecting pipe shall be placed on a stabilized base of quarry blend stone extending to virgin ground.
23. PVC connecting pipes will meet ASTM standard D-2665 - schedule 40, SDR-21 or SDR-26.
24. The building sewer shall be designed and constructed in accordance with the provisions of the state uniform construction code, N.J.A.C. 5:23, adopted pursuant to the uniform construction code act, N.J.S.A. 52:27d119 et seq.
25. Septic tanks shall be precast concrete tanks constructed of concrete conforming to ACI318-16-4.5.1 and 318-16-4.5.2. Certification shall be provided by the manufacturer and the certification displayed on the tank.
26. Septic tank shall be 1300 gal. dual compartment tank.
27. All manhole covers and inspection ports in the septic tank shall have water tight bolted or locked caps set flush with finish grade.
28. All interior concrete surfaces shall be sealed with two coatings of an approved inert coating to minimize corrosion. Coating shall be applied prior to delivery by the manufacturer.
29. Septic tanks shall be fabricated and installed in accordance with 7:9a-8.2.
30. A permanent marker shall be placed on grade above the septic tank upon completion of the installation.
31. Backfill and final grading shall be carried out in accordance with 7:9a-10.3(f).
32. Topsoil shall be lightly compacted by tamping or rolling to prevent settlement and shall be seeded and mulched or sodded immediately upon completion of final grading.
33. All trees with drip lines within 10 ft. of the disposal field shall be removed prior to construction.
34. There shall be no existing or proposed disposal systems within 50 ft. of the proposed disposal field.
35. No garbage disposal unit of any kind shall be connected to this disposal system.
36. Backwash from water softeners or other drainage other than sanitary sewage shall not enter the disposal system.
37. All soil evaluation procedures relied upon as a basis for the design of the subject individual subsurface sewage disposal system were carried out by or under the direct supervision of a professional engineer and witnessed by the administrative authority.
38. Vegetative planting in the disposal area shall be limited to grass unless otherwise specified by the administrative authority.
39. An annual inspection of the system shall begin three (3) years after installation or pump out of the septic tank.
40. The disposal system contractor is responsible for confirmation that all materials utilized in the construction of the disposal system are in accordance with N.J.A.C. 7:9a.
41. When placement of the disposal field is proposed in an area of disturbed ground as defined at 7:9a - 5.10, an acceptable state of compaction of the soil or fill material shall be verified by laboratory tests, and the design engineer shall certify a minimum compaction of 90 percent of the standard proctor density.
42. All regraded areas shall comply with 7:9a-10.3.
43. Storm sewers within 75 ft. of the disposal system shall be constructed with watertight joints.
44. There shall be no existing or proposed wells within 100 ft. of the proposed disposal field.
45. THIS PLAN IS FOR BUILDING PERMIT ONLY.

General Notes

1. The Health Department shall receive 48 hours notification prior to the start of any construction on the system.
2. Once the excavation of bed is complete a bottom of excavation inspection shall be performed by the Design Engineer and approved prior to the placement of the select fill.
3. After suitable fill is placed and compacted a min. of 1 permeability test shall be performed and approved by the Design Engineer, and if required the test shall be witnessed by the Health Department prior to the placement of stone.
4. The results of the select fill analysis shall be forwarded to the Health Department (see note No.8 in the Disposal System notes)
5. All manholes covers and inspection port caps inthe septic tank shall have water tight bolted or locked caps.
6. All interior concrete surfaces shall be sealed with 2 coatings of an approved inert coating to minimize corrosion, coating shall be applied prior to delivery by the manufacturer.
7. The 'D' box shall sit in the disposal bed area on the filter material.
8. This plan is for building permit only.
9. No existing/proposed wells or disposal systems within 100 ft. of the proposed disposal field and well.

Bryce M. Rittenhouse Professional Engineer & Land Surveyor #13453

Frank J. Falcone Professional Land Surveyor #32112 & Professional Planner #3760



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Bryce M. Rittenhouse*
D. Geoffrey Brown
Wesley J. Lane
Frank J. Falcone
Peter K. Eschenasy*
Ted W. Pionawick
Martin D. Kutz
* NJ and PA Licensed

PE#15 No.13453
PE#15 No.24327
PLS No.50747
PLS No.32112
PLS No.34001
PLS No.35868
PLS No.56249

Bryce M. Rittenhouse
Bryce M. Rittenhouse: PE #13453
Frank J. Falcone: PLS #32112 & PP #3760

7/13/99
Date

Date: 07/13/99
Scale: None
Drawn: JRM
Check: EWE/ELF

Revisions: 8/9

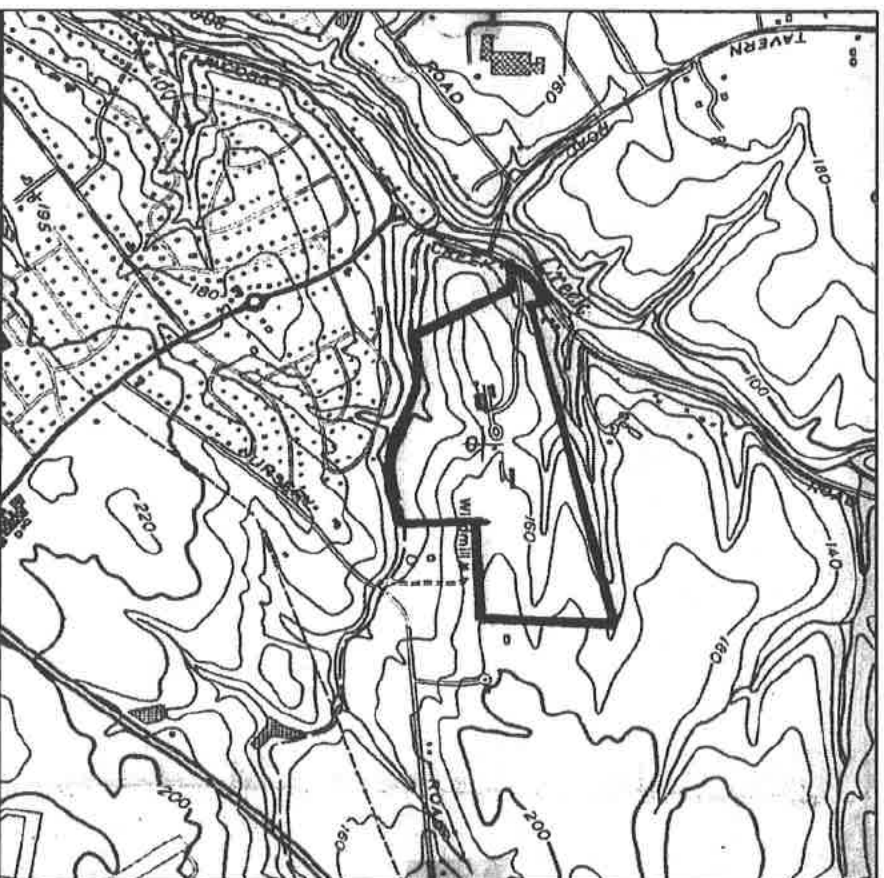
Job#: 199004
Dwg: L1810b93nts.dwg
View: Plan

General Disposal System Notes
of Lot-18-10, Block-93 for
Brookside at Hopewell Ridge, LLC
Hopewell Township • Mercer County • New Jersey



MERCER CO. SOIL SURVEY MAP:

Sheet # 1 & 4; Scale 1"=1320'



U.S.G.S. QUADRANGLE MAP:

Hopewell & Rockyhill Quads.; Scale 1"=2000'

Bryce M. Rittenhouse Professional Engineer & Land Surveyor #13453

Frank J. Falcone Professional Land Surveyor #32112 & Professional Planner #3760



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Professional Engineers, Land Surveyors and Planners
P.O. Box 610 - 53 North Post Road
Princeton Junction, New Jersey 08550

Telephone: 609.799.1906 Facsimile: 609.799.1524 Email: PJEPC@compuserve.com

Key Maps

of Lot-16, 10, Block-93 for

Brookside at Hopewell Ridge, LLC
Hopewell Township • Mercer County • New Jersey

Bryce M. Rittenhouse*
D. Geoffrey Brown
Wesley J. Lane*
Frank J. Falcone
Peter R. Ichniowski*
Ted W. Provarnick
Martin D. Katz

PE#15 No. 13453
PE#15 No. 24327
P15 No. 30747
P15 No. 32112
P15 No. 34001
P15 No. 35060
P15 No. 35249

Bryce M. Rittenhouse 7/13/99
Bryce M. Rittenhouse: PE #13453
Date

Frank J. Falcone: PLS #32112 & PP #3760

7/13/99
Date

Date: 07/13/99
Scale: As Shown
Drawn: JRM
Check: EJC/EMC

Revisions: 9/9

Job#: F98004
Dwg: L1610b93key.dwg
View: Plan

Black: 93
LOT 18-10

May 15, 2001

Mr. Bill White

Hopewell Township

Dr. Jonathan W. Byer
One Richmond Court
Chicawville, New Jersey 08560

5/16/01

Good!
As review and advise

Dear Mr. White,

We have learned that Remington Properties still, after nearly one year, has not obtained a Certificate of Occupancy for our home. The previous inspector found many problems with the construction that Remington Properties, or its successors, should rectify.

There are many such problems, but the two that concern me most are ① The scope of work, which are in the garage and

supporting the main support beam upon floor! and ② possible damage to an a/c system caused by the Remington landscaper bulldozing breaking the work of the system. Some of these not proper have simply been placed back without fixing them. But instead the not when it was broken, and subsequently, my wife began reporting quaking around at kitchen and other drains.

Please make certain Remington Properties make all corrections according to code. Thank you very much, Jonathan W.

HOPEWELL TOWNSHIP HEALTH DEPARTMENT
201 WASHINGTON CROSSING PENNINGTON ROAD
TITUSVILLE, NEW JERSEY 08560
609-737-0120 FAX 609-737-2770

APPLICANT Brookside @ Hopewell Ridge BLOCK Q3 LOT 18.10
LOCATION 1 Keithwood Ct.

Sewage Disposal System

Onsite Water Supply

Installation approved 6/11/00 Well Casing Inspection N/A
Pump and Alarm Approved 6/13/00 Pump Installation Report N/A
Grading Approved 6/13/00 Well Construction Report N/A
As-Built Approved 6/19/00 Water Availability Test N/A
Application to Operate System Primary Water Quality 6/19/00
Sand Certification 6/19/00 (bacterial, nitrate)
Certificate of Compliance 6/19/00 Secondary Water Quality N/A
(Iron, manganese, ph)
Volatile Organics N/A

Final Grade Inspection
Casing must extend 12
inches above grade) N/A
Deed Amendment

This office has performed inspections or received the necessary
certification required for issuance of a certificate of occupancy.

Temporary CO
Date
Inspector
Bond Posted \$
DATE

Final CO
Date 6/19/00
Inspector Robert B English

