Lincoln-Lancaster County Health Department
Environmental Public Health Division
3140 N Street • Lincoln NE 68510-1514
Phone: 402-441-8643

A

Permit Number
HS001144

Onsite Wastewater Treatment System
Request for Site Clearance and Permit

Include Form B and C. Submit correct fee with this Application

3 acres or more required for: ❑ Septic System ❑ Lagoon ❑ Other (Refer to Form C)

The undersigned hereby requests site clearance and permit to construct a Wastewater Treatment System in conformance with appropriate regulations.

PLEASE PRINT OR TYPE

A. Onsite System Location

Address ~~16580~~ S 73rd City Hickman, NE Zip
16580 (no rural route)

Legal Description Mueller 3 4

1/4	1/4	Section	Township	Range	Subdivison	Addition	Block	Lot

PID 15-22-10-7 004-000 SB

B. Owner

Name Patrick A Kelley Signature
Address 9020 S 72nd St City/State/Zip Lincoln NE
Home Phone Work Phone 402 610 1652

C. Certified Installer

Name: Kevin Lewis Signature
Address 4810 W Claire Ave City/State/Zip Lincoln NE 68523
Work Phone 402 310 9160

D. Engineer

❑ **Check and complete if engineer designed system** P.E. License Number:

Designer Name Firm Work Phone

E. This system will serve a

☒ Residential Dwelling Number of Bedrooms 5 Whirlpool Bathtub? ❑ Yes ☒ No Total Acres 3½
Garbage Grinder? ☒ Yes ❑ No

❑ Commercial Establishment/Other Facility Specify Design flow in gallons per day

Type of Wastewater ❑ Domestic ❑ Non-Domestic

DO NOT WRITE BELOW THIS LINE

Approval Process ❑ Municipal Code 24.38 ❑ County Resolution No. 02-30

1. Health Department
Site visits Date rec'd **ACTION** ❑ Approved ❑ Disapproved
Date frwd Signature
Comments

2. Supt. Bldg. Insp. or Village Clerk
Comments Date rec'd **ACTION** ❑ Approved ❑ Disapproved
Date frwd Signature

3. City or County Engineer
Comments Date rec'd **ACTION** ❑ Approved ❑ Disapproved
Date frwd Signature

Installation Final Written Approval
By
Date

Business Office Use Only
Date Received 10-1-15 Amount Paid $385.00
Received By SB Cash/Check No. 1072

White - Health Department Yellow - Engineer Pink - Building & Safety

Lincoln-Lancaster County Health Department (LLCHD)
Environmental Public Health Division
3140 "N" Street • Lincoln, NE 68510-1514
Phone: 402-441-8022

B

Permit Number: HS001144

Onsite Wastewater Treatment System

Soil Evaluation Report

PLEASE PRINT OR TYPE

Onsite System Location

Address 68580 S 73rd (no rural route) City _____ NE, Zip _____

Owner Patrick Kelley Address 9020 S 72nd

Date of Tests 9-30-15 to 9-31-15 Weather: Precipitation 0 Temperature 50°

Percolation Test Data Table

A.	B.	C.	D.	E.	F.	G.	H.	I.	J.	K.	L.	M.	N.
		Saturation/Swelling Time				Water Level Drop: Last 30 mins of 4 hr or last 10 mins of 1 hr					Results		
		Start		End		Start			End				
Hole No.	Hole Depth (in)	Date (Mo/Da)	Time (Hr/Min)	Date (Mo/Da)	Time (Hr/Min)	Date (Mo/Da)	Time (Hr/Min)	Initial Water Lev (in.)	Date (Mo/Da)	Time (Hr/Min)	Elapsed Time Interval	Water Level Drop (in)	Percolation Rates (Min/in = mpi)
1	36	9-30	8:4n	9-31	3:00	9-31	3:30	6	9-31	4:00	30	½	60
2	35	"	"	"	"	"	"	6	"	"	"	¾	40
3	35	"	"	"	"	"	"	6	"	"	"	1	30
4	36	"	"	"	"	"	"	6	"	"	"	½	60
5	34	"	"	"	"	"	"	6	"	"	"	¾	48
6	33	"	"	"	"	"	"	6	"	"	"	¾	40
								6					
								6					

Person Conducting Percolation Test

Name: Kevin Lewis
Phone: 402 310 9160
Address 4810 W Claire Ave
Lincoln NE 68523

Sum of Percolation Rates: 278
Average of Rates: 46.3
Rate Used for Calculation: 60

Soil type (NRCS Maps/Other) _____

Groundwater Depth over 12

DO NOT WRITE BELOW THIS LINE

Reviewing Action

Comments (Soil type, groundwater, floodplain, etc.) _____

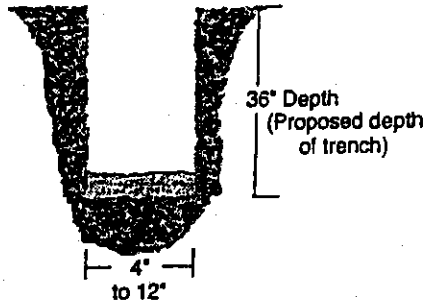
Signature of Reviewing Official _____ Date _____

READ THOROUGHLY

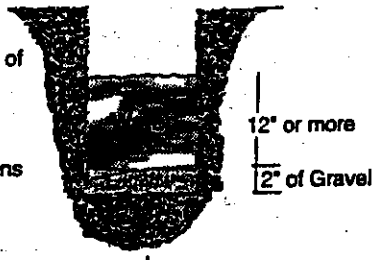
DIAGRAM OF PERCOLATION TEST PROCEDURE

Finished Grade or Natural Ground Level

I. Size, Number, and Location or Test Holes
   - A. Dig six or more holes spaced uniformly over proposed lateral field site.
   - B. Scratch smeared spots on sides of hole.
   - C. Remove loose material from hole.
   - D. Add 2" of gravel to hole.

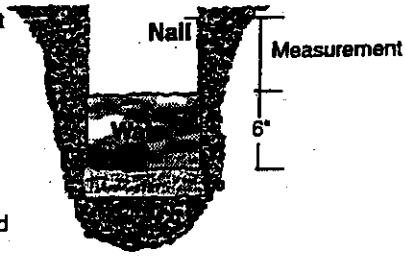


II. Saturation of Soil (Pre-soak)
   - A. Fill hole with 12" or more of water.
   - B. MAINTAIN THIS WATER LEVEL FOR 4 HOURS.
   - C. Record on Form B columns a thru f.



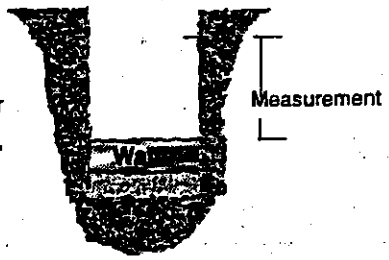
24 Hours Later

III. Percolation-rate Measurement **(refer to Instructions 5a, 5b, or 5c.)**
   - A. Add 6" of water.
   - B. Measure from fixed reference point (nail) to water.
   - C. Record measurement and time on front of Form B.



½ hour later
(30 minutes)

   - D. 30 minutes later remeasure and record time.
   - E. If water will be too low for another reading 30 minutes later, adjust to 6" of water and remeasure and record time.



   - F. Continue for 3½ hours taking readings every 30 minutes.
   - G. Last 30 minute reading is used in filling out Form B. Record date, time, intervals and water level drops in column g thru m.

Instructions

1. **Number and location of tests.** Percolation tests shall be made in 6 or more separate test holes which shall be spaced uniformly over the proposed lateral field site.
2. **Type of test hole.** Dig or bore a hole 3 feet deep with a diameter of 4 to 12 inches. (To save time, labor and the volume of water required per test, a 4-inch auger hole is recommended).
3. **Preparation of the test hole.** Scratch or roughen any smeared spots on the sides of the hole with a knife blade or sharp pointed instrument to provide a natural soil interface into which water may percolate. Remove all loose material from the hole. Add 2 inches of gravel to protect the bottom from scouring when water is poured into the hole.
4. **Saturation and swelling of the soil.** Fill the hole with clear water to a depth of 12 inches or more above the gravel and maintain this water level at least 4 hours and preferably overnight. The accuracy and true value of the percolation data depends on thorough saturation and swelling of the soil.
5. **Percolation-rate measurement.** Percolation-rate measurements shall be made 24 hours after starting the saturation and swelling procedure described above. Record results on the front of this form and complete all calculations.
   a. If water remains in the test hole after the overnight swelling period, adjust the depth to approximately 6 inches over the gravel. From a fixed reference point, measure the drop in water level over a 30 minute period to the nearest 1/8 of an inch. This drop is used to calculate the percolation rate.
   b. If no water remains in the test hole after the overnight swelling period, add clear water to bring the depth to approximately 6 inches over the gravel. From a fixed point, measure the drop in water level to the nearest 1/8 of an inch at 30-minute intervals for 4 hours. Refill to the 6 inch level over the gravel as often as necessary. The drop that occurs during the final 30 minutes is used to calculate the percolation rate.
   c. In sandy soils (or other soils in which the first 6 inches of water seeps away in less than 30 minutes after the overnight swelling period) the time interval between measurements shall be 10 minutes instead of 30 minutes and the test run for 1 hour instead of 4 hours. The drop that occurs during the final 10 minutes is used to calculate the percolation rate.
6. **Record the test results and complete all calculations on the front of this form.** The average of the percolation rates calculated for all holes in the last 30 (10) minutes will normally be the rate used for calculations to size the system. ***Exceptions are the use of the greatest percolation rate when rates vary more than 20 min/in between holes or when other soil analysis indicates potential percolation problems.***

LLCHD reserves the right to require additional testing based on knowledge of soil types, percolation tests results on nearby properties, or due to concerns with procedures followed. In some situations, LLCHD staff will require and perform on-site observation of percolation tests.

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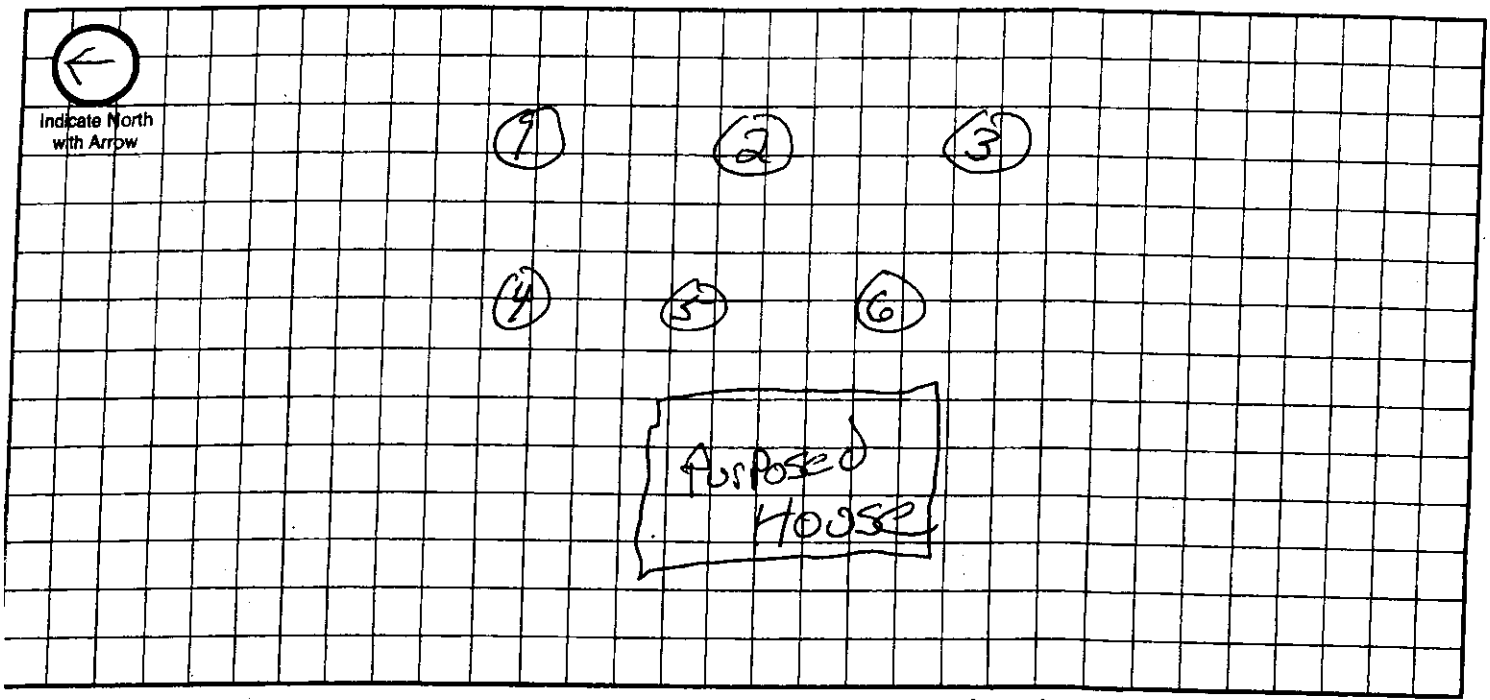
C

Permit Number: HS001144

Onsite Wastewater Treatment System

Preliminary Plan Specifications

Draw a plot plan showing onsite system sewer lines, drop of distribution boxes, tank, drainfields, percolation test holes, well, residence, direction of groundwater flow, property lines, and reserve area for replacement onsite system.



Approximate Scale: _____ ft. = _____ grid line/s

A. Onsite System Location

Address (no rural route) 68580 S 73rd City _____ NE, Zip _____

B. Proposed Septic Tank/s

Septic Tank Cap. 1750 gals Tank Material: ☒ Concrete ☐ Plastic ☐ Other_____ ☐ Lagoon(Max. seepage 1/8" per day)

C. Reserve Area for Replacement Onsite System

☒ Drainfield Absorption Area (percoloation test required) ☐ Lagoon

D. Drainfield Absorption System

Percolation Rate 60 (min/inch = mpi) No. of Bedrooms 5 Soil Type_____ Land Slope_____%

☐ Trench ☐ Bed ☐ Non-Standard (engineer designed and NDEQ approved Total Square feet of drainfield 1750 sq.ft.

Total length of laterals 483 Type of distribution: ☐ Perforated pipe ☐ Half-Round ☐ Chamber ☐ Other

No. of absorption trenches_____ Width_____ No. of drop boxes_____ Distrubtion Box_____

No. of absorption beds_____ Width_____ No of Distribution lines per bed_____

E. Setbacks Check the Boxes Below if the Required Setback has been Satisfied

Distance From	Private Well	Public Well	Surface Water	Gound Water	Pressure Water Lines	Property Lines	Foundations Yours	Foundations Neighbors	All Other Setbacks
Tank (ft)	50 ☐	500 ☐	50 ☐	NA ☐	25 ☐	20 ☐	15 ☐	25 ☐	☐
Field (ft)	100 ☐	500 ☐	50 ☐	4 ☐	30 ☐	20 ☐	30 ☐	40 ☐	☐
Lagoon (ft)	100 ☐	500 ☐	50 ☐	N/A ☐	30 ☐	50 ☐	100 ☐	200 ☐	☐

F. Required Signatures

Home Building Contractor _____ Date 10/1/15

Installer Ryan Cook Date 10-1-15

Lincoln-Lancaster County Health Department
Environmental Public Health Division (402) 441-8027
3140 N Street Lincoln, Nebraska 68510-1514

ON-SITE WASTE WATER SYSTEM
CONSTRUCTION - INSTALLATION PERMIT
No. HS001144

System Type: Lagoon

Situs: No Site Address Specified

Description: MUELLER ADDITION, BLOCK 3, Lot 4

Issued: 10/2/2015

Expires: 10/2/2016

Owner: PATRICK ALAN HOMES LLC
9020 S 72 ST
LINCOLN, NE 68516

Judith A Halstead
Judith A. Halstead, MS, Health Director

Dear Applicant:

The above document is your permit to construct a new On-site Waste Water System at the location listed. Please contact this office once the sytem is complete in order to schedule a final inspection before use.

Judith A Halstead
Judith A. Halstead, MS
Health Director

PATRICK ALAN HOMES LLC
9020 S 72ND ST
LINCOLN, NE 68516

Lincoln-Lancaster County Health Department
Environmental Public Health Division
3140 N Street • Lincoln NE 68510-1514
Phone: 402-441-8643

Exhibit 5

Permit Number: H 500/144

Onsite Wastewater Treatment System

Inspection Sheet

Date 11/3/15 Legal Description Mueller Blk 3 Lot 4

¼ ¼ Section/Township/Range

Onsite System Location

Address (no rural route) 16580 S 73rd City Hickman

Owner _____ Address _____

Mark One: ❑ Dwelling ❑ Non-dwelling

~~☒ New~~ System ❑ Alteration [❑ Tank Only ❑ Trench Only] ❑ Lateral Only

❑ Temporary modification (Describe problem causing discharge and reason for temporary modification): _____

_____

Drainfield Absorption System:

☒ Lateral ❑ Bed ❑ Non-standard (engineer-designed and NDEQ approved) ❑ Holding Tank ❑ Trench

Total square feet of drainfield 1,750 Sq. Ft. Tank Size 1750 gals

Total length of laterals 483 Type of Distribution: ☒ Chamber ❑ Perforated Pipe ❑ Other (describe)_____

4 installed at time of Inspection - 3 to be completed

No. of Absorption Laterals _____ Width 3.625 factor No. of Drop Boxes 3 Distribution Box _____

Leveling Method Used Laser

Setbacks (Check the Boxes Below if the Required Setback has been Satisfied):

Distance From	Private Well	Public Well	Surface Water	Ground water	Pressure Water Lines	Property Lines
Tank (ft)	50 ❑	500❑	50 ❑	NA ❑	10❑	5 ❑
Field (ft)	100 ❑	500❑	50 ❑	4 ❑	25❑	5 ❑

Geographical Coordinates to 6 Decimals:

Tank N/A

Lateral #1 _____ Lateral #3 _____

Lateral #2 _____ Lateral #4 _____

Comments:

Inspections prior to Final Approval
Initial DS Date 10/30/15

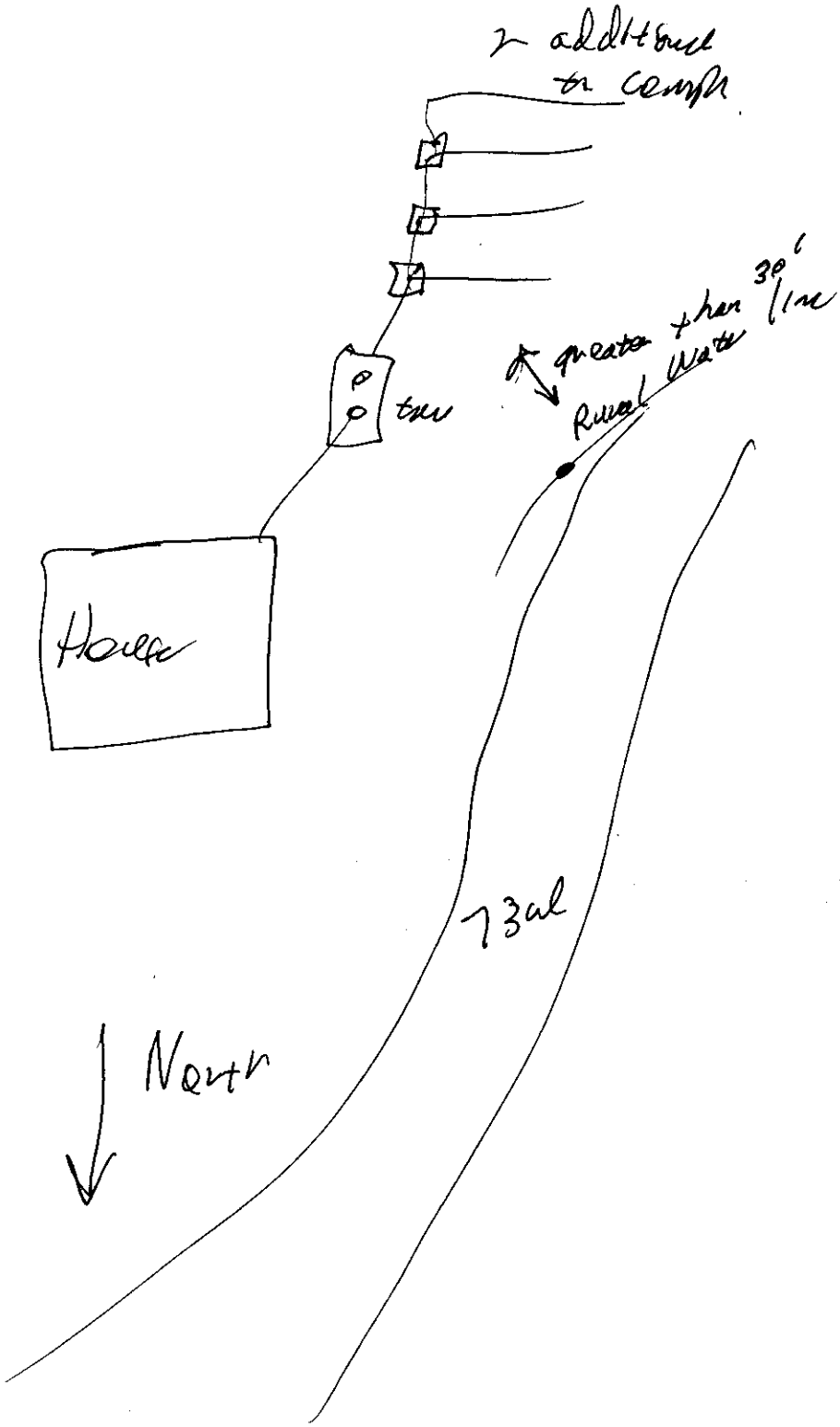
Follow-Up _____ Date _____

Follow-Up _____ Date _____

Installation Final Written Approval
By Doug Thrasher

Date 11/3/15

Field Note Drawing (See Reverse Side):


2 additional
to comp
30°
line
greater than
Rural Water
tank
House
73rd
North