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. HS001299

System Type: Standard

Situs: 11701 N 79 ST, RURAL, NE

Issued: 6/30/2016

Expires: 6/30/2017

Description: FINIGAN RIDGE ADDITION, BLOCK 1, Lot 5

Owner: ROBERTSON, GREGORY & LUKE,
ANGELLETA
11701 N 79 ST
LINCOLN, NE 68517

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

LOFTUS SEPTIC
410 CO RD C
ASHLAND, NE 68003

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

JUL 18 2016

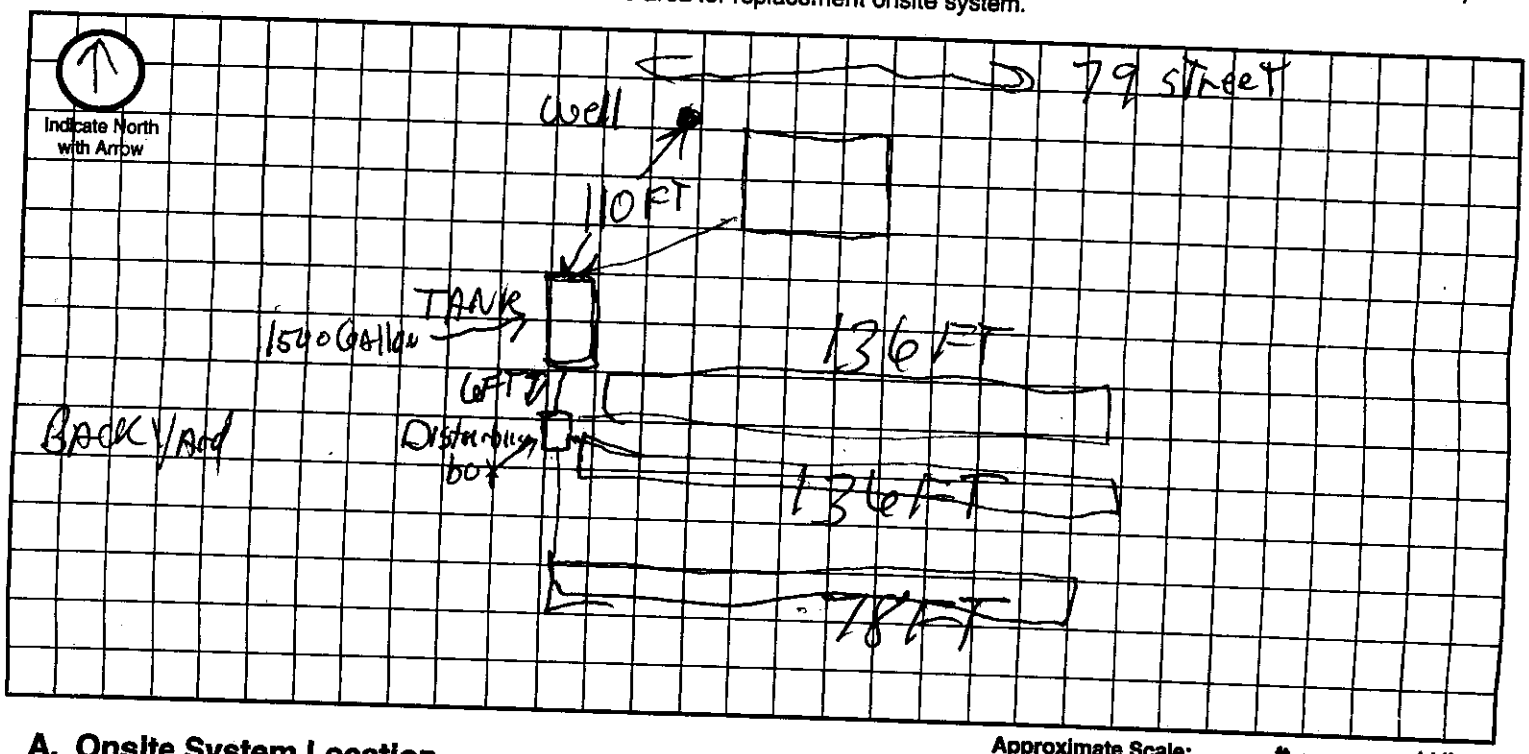
C

Permit Number: HS001299

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) 11701 N. 79th City Lincoln NE, Zip 68517

B. Proposed Septic Tank/s

Septic Tank Cap. 1500 gals Tank Material: ☑ Concrete ☐ Plastic ☐ Other_____ ☐ Lagoon(Max. seepage 1/8" per day)

C. Reserve Area for Replacement Onsite System

☐ Drainfield Absorption Area (percolation test required) ☐ Lagoon

D. Drainfield Absorption System

Percolation Rate 50.88 (min/inch = mpi) No. of Bedrooms 4 Soil Type_____ Land Slope 1 %

☑ Trench ☐ Bed ☐ Non-Standard (engineer designed and NDEQ approved Total Square feet of drainfield [redacted]/400 sq.ft. 1400

Total length of laterals 350 Type of distribution: ☐ Perforated pipe ☐ Half-Round ☑ Chamber ☐ Other

No. of absorption trenches 3 Width 4 FT No. of drop boxes_____ Distrubtion Box 1

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_____

Installer Loftus Septic Douglas Loftus Date 7-12-2016

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

D

Permit Number: HS001299

Sewage Disposal System

As Built Plans & Specifications

Date 6-30-16

System Location (Indicate correct number and street)

Address 11701 N. 79th (no rural route) City Lincoln NE, Zip 68517

A. Building Sewer

1. Material: _____
   Diameter: _____ in.
2. Distance above basement floor: _____ in.
   or distance below basement floor: _____ in.
3. Distance between dwelling and septic tank: 75 ft.
4. Number of clean-outs: 2
5. Distances to: well or suction line 110 ft.
   stream _____ ft.
   pressure line 75 ft.
   property line 25 ft.

B. Septic Tank

1. Material: Concrete
   Number of compartments: 1
2. Capacity: 1500 gal.
3. Factory built: ☑ Yes ☐ No
4. Manholes: Over inlet, diameter 24 in.
   Over outlet, diameter 24 in.
   Riser: ☑ above ☐ below grade 24 in.
5. Inlet: ☑ baffle ☐ tee
6. Outlet: ☑ baffle ☐ tee
7. Depth to top of tank, below unfinished grade: 24 in.
8. Distances to: Well or suction line 110 ft.
   Stream None ft.
   Pressure line 110 ft.
   Property line 25 ft.

C. Distribution Box

1. Material: Plastic 9 hole
   Number available outlets: _____
2. Factory built: ☑ Yes ☐ No
3. Distance from septic tank: 6 FT ft.

D. Absorption Field

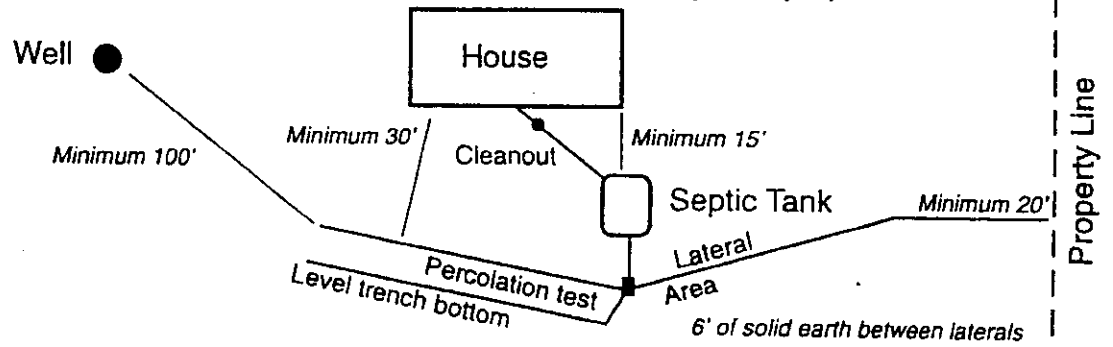
(Provide as-built drawings on back of this form)

1. Type: ☐ Half rounds ☐ Perforated pipe
   Diameter of half round: _____
   or perforated pipe: _____
   Material: ☐ fiberglass ☑ plastic ☐ concrete
   ☑ other Infiltrators
2. Lateral lines: Number 350 FT
   Length of each line: 136 ft. 136 ft.
   78 ft. _____ ft., _____ ft.
3. Trench dimensions: Width 4 ft.
   Slope _____ in/100 ft.
   Average depth 36 in
4. Filter material: Gravel over Laterals
   Depth of material 20 in.
5. Distances to: Well or suction line 120 ft.
   Stream N/A ft.
   Pressure line 100 ft.
   Property line 25 ft.

Indicate North with Arrow

Complete "As Built" drawing on back of this form.

Individual Sewage System Design (Example)



RM 23-103 10-96

SEP 26 2016

D Exhibit 4

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

OK gr 9/27/16

Permit Number: HS001299

Onsite Wastewater Treatment System
As-Built Description and Drawing

Type of Onsite Wastewater System: ☐ Lagoon (Skip to Back Page) ☑ Subsurface Septic ☐ Mound

Onsite Wastewater System Location

Address or Legal Description or Parcel Identification Number (PID) _____

Owner: Robertson Address 11701 N29

A. Wastewater Piping

1. Material: PVC Sch 40 Diameter: 4 in.
2. Distance between dwelling and septic tank: 80 ft.

B. Septic Tank

1. Material Concrete
2. Capacity: 1500
3. Depth to top of tank, below unfinished grade: 24 in.
4. Distance to:
   Well 120 ft.
   Pressure line 100 ft
   Property Line 25 ft.
   Foundation 80 ft.

C Distribution Box or Drop Box

Distance **and** Direction from septic tank: 10 ft. west

D. Drainfield/Absorption Field

☑ Trench ☐ Bed

1. Type: ☐ Perforated Pipe ☑ Chamberless ☐ Other
   Material brand and inside width of Chamberless: Infiltrator 30 inch outside 35
2. Number of Laterals: 3
3. Length of each lateral (linear): ft. 136 ft. 136 ft. 78 ft. _____
4. Drainfield size: 1400 sq. ft.
5. Distance to:
   Well 130 ft.
   Pressure line 130 ft.
   Property line 30 ft.
   Depth of Groundwater 25

Was the Onsite Wastewater System covered prior to LLCHD inspection? ☑ Yes ☐ No

If Yes, the Certified Professional must sign below for final approval:

I swear and affirm that the system complies with Lincoln Municipal Code (LMC) 24.38 and/or County Resolution R-13-0062 requirements and that the information and documentation submitted are true and accurate.

X Certified Professional Signature: Douglas A Date: 9-22-2016

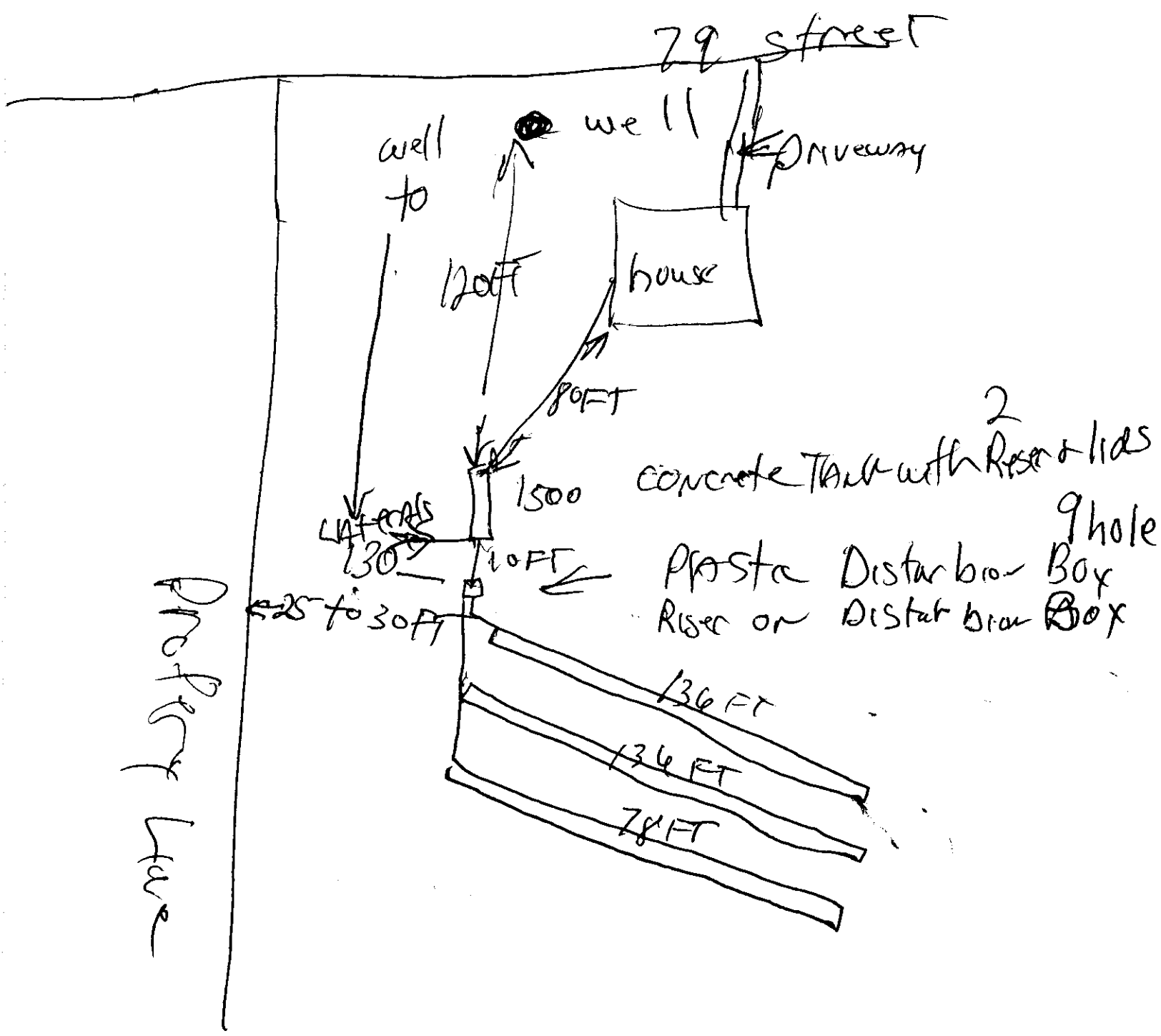
Complete As-Built drawing on the back of this form.

Please complete + mail back

AS & P

Gravel system

60 TON over Laterals



All sch 40 4 inch Glued Fittings —

<TANK WAS There>

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

Exhibit 5

Permit Number: 1300129?

Onsite Wastewater Treatment System

Inspection Sheet

Date _____ Legal Description _____ ¼ ¼ Section/Township/Range

Onsite System Location

Address (no rural route) 11701 N 79th City _____

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 _____ Sq. Ft. Tank Size _____ gals

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

No. of Absorption Laterals _____ Width _____ No. of Drop Boxes _____ Distribution Box _____

Leveling Method Used _____

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 _____

Lateral #1 _____ Lateral #3 _____

Lateral #2 _____ Lateral #4 _____

Comments: * approach for cover prior to inspection

Refer to O-sheet

Field Note Drawing (See Reverse Side):

Inspections prior to Final Approval

Initial _____ Date _____

Follow-Up _____ Date _____

Follow-Up _____ Date _____

Installation Final Written Approval

By _____

Date 8/26/16

JUN 24 2016

A

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

Permit Number
HS001299

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 11701 North 79th ST. (no rural route) City Lincoln, NE Zip 68517

Legal Description 18-15-201-005-000 Finigan Ridge 1 5

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

Geographical Location (if known): Lat/Long: _____ PID _____

B. Owner

Name Greg Robotson Signature _____

Address 11701 North 79th City/State/Zip Lincoln 68517

Home Phone _____ Work Phone 402-429-5261

C. Certified Installer

Name: Loftus Septic Signature Doug Loftus

Address 410 CO RD C City/State/Zip Ashland Ne 68003

Work Phone 402-540-5019

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 4 Is there a Whirlpool Bathtub? ☐ Yes ☒ No Total Acres _____

☐ Commercial Establishment/Other Facility Specify _____ Design flow in gallons per day 500

Type of Wastewater ☑ Domestic ☐ Non-Domestic Well Permit Applied for ☐ Yes ☐ No ☐ Not Applicable

DO NOT WRITE BELOW THIS LINE

Approval Process ☐ Municipal Code 24.38 ☒ County Resolution No. 02-38

1. Health Department
Site visits _____
Date rec'd 6/30/16
Date frwd 6/30/16
ACTION ☒ Approved ☐ Disapproved
Signature _____

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

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

Installation Final Written Approval
By _____
Date 8/24/16

Business Office Use Only
Date Received 6-30-16 Amount Paid $385
Received By SB Cash/Check No. 14538

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

Form A Updated: 5/10

JUN 24 2016

B

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

Permit Number: HS001299

Onsite Wastewater Treatment System
Soil Evaluation Report

PLEASE PRINT OR TYPE

Onsite System Location

Address 11701 N 79th (no rural route) City Lincoln NE, Zip 68517

Owner Gregory [redacted] Robertson Address 11701 N 79th Street

Date of Tests 6-9-16 to 6-10-16 Weather: Precipitation 0 Temperature 90s

Percolation Test Data Table

A.	B.	C. D. E. F. Saturation/Swelling Time				Water Level Drop G. H. I. J. K. Last 30 mins of 4 hr or last 10 mins of 1 hr					L. M. N. Results		
		Start		End		Start		Initial	End				
Hole No.	Hole Depth (in)	Date (Mo/Da)	Time (Hr/Min)	Date (Mo/Da)	Time (Hr/Min)	Date (Mo/Da)	Time (Hr/Min)	Water Lev (in.)	Date (Mo/Da)	Time (Hr/Min)	Elapsed Time Interval	Water Level Drop (in)	Percolation Rates (Min/in = mpi)
1	24	6-9	7 AM	6-9	11:00AM	6-10	11 05	6	6-10	3:05	30	.625	48
2	24	6-9	"	6-9	"	6-10	11 06	6	6-10	3:06	30	.625	48
3	24	6-9		6-9		6-10	11:07	6	6-10	3:07	30	.50	60
4	24	6-9		6-9		6-10	11:08	6	6-10	3:08	30	50	60
5	24	6-9		6-9		6-10	11:09	6	6-10	3:09	30	5625	53.33
6	24	6-9		6-9		6-10	11:10	6	6-10	3:10	30	625	48
	4	has	with 12					6					
	inches	water in Hole						6					

Person Conducting Percolation Test

Name: Doug LoFtus
Phone: 402 944-7636
Address 410 CO RD C
Ashland Ne 68003

Sum of Percolation Rates: 317.33
Average of Rates: 52.89
Rate Used for Calculation:

Soil type (NRCS Maps/Other)
Groundwater Depth 20

DO NOT WRITE BELOW THIS LINE

Reviewing Action

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

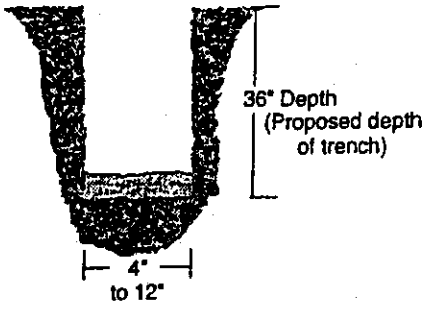
Signature of Reviewing Official Date

READ THOROUGHLY

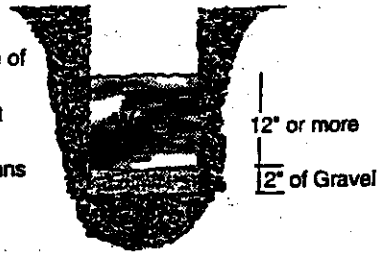
DIAGRAM OF PERCOLATION TEST PROCEDURE

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.

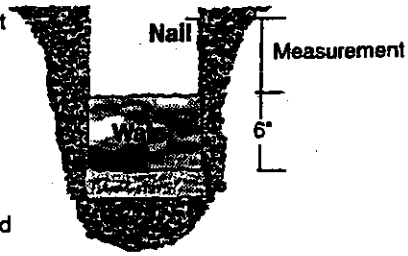


II. Saturation of Soil (Pre-soak)
   - A. Fill hole with 12" or more of water.
   - B. MAINTAIN THIS WATER LEVEL FOR 4 HOURS.
   - C. Record on Form B columns a thru f.



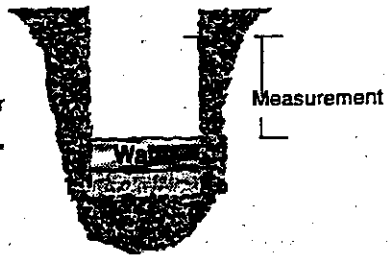
24 Hours Later

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.