Lincoln-Lancaster County Health Department
Environmental Public Health Division (402) 441-8027
3131 O Street Lincoln, Nebraska 68510-1514

ON-SITE WASTE WATER SYSTEM
CONSTRUCTION - INSTALLATION PERMIT
No. HS001887

System Type: Standard

Situs: 15501 N 1ST ST, RAYMOND, NE 68428

Issued: 9/9/2019

Expires: 9/9/2020

Description: S34, T12, R6, 6th Principal Meridian, LOT 21 SE

Owner: WORKMAN, JOSEPH M & TINA L
15501 N 1 ST
RAYMOND, NE 68428

Patricia D. Lopez

Patricia D. Lopez, RN, MSN, Interim 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.

Patricia D. Lopez

Patricia D. Lopez, RN, MSN
Interim Health Director

JAIME KUBIK
105 LOCUST ST, PO BOX 191
HICKMAN, NE 68372

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

A

Permit Number
S001887

Onsite Wastewater Treatment System Permit Application

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

☐ Septic System ☐ Lagoon ☐ Other (Refer to Form C)

PLEASE PRINT OR TYPE

A. Onsite System Location

Address* 15501 N 1ST ST City RAYMOND, NE Zip 68428
(no rural route)

Legal Description ____ 34 12 6E 6TH PRINCIPAL MERIDIAN 21 SE
1/4 1/4 Section Township Range Subdivison Addition Block Lot

PID 13-34-400-004-000 *Approx. Address (If to be determined)____

B. Owner

Name JOE & TINA WORKMAN Signature____
Address 15501 N 1ST ST City/State/Zip RAYMOND, NE 68428
Home Phone 402-416-3200 Work Phone 402-416-3200

C. Certified Installer

Name: JAIME KUBIK Signature
Address 105 LOCUST ST P.O. BOX 191 City/State/Zip HICKMAN, NE 68372
Work Phone 402-475-2462

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 Whirlpool Bathtub? ☐ Yes ☒ No Total Acres 6.54
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

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 9-09-14 Amount Paid $130.00
Received By JAO Cash/Check No 00214

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

Form A Updated: 4/15

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

B

Permit Number:

Onsite Wastewater Treatment System
Soil Evaluation Report

PLEASE PRINT OR TYPE

Onsite System Location

Address 15501 N 1st (no rural route) City Raymond NE, Zip 68428

Owner Joe and Tina Workman Address 15501 N 1st

Date of Tests 9/1/19 to 9/2/19 Weather: Precipitation 0 Temperature 95

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	30	9/1	5 pm	9/2	8:30am	9/2	11:47	6	9/2	12:17	30	11/2	20
2	30	9/1	5 pm	9/2	8:30am	9/2	11:47	6	9/2	12:17	30	1	30
3	30	9/1	5pm	9/2	8:30am	9/2	11:47	6	9/2	12:17	30	1	30
4	30	9/1	5pm	9/2	8:30am	9/2	11:47	6	9/2	12:17	30	11/2	20
								6					
								6					
								6					
								6					

Person Conducting Percolation Test

Name: Jason Kubik
Phone: 402-475-2462
Address 105 Locust Street P.O. Box 191
Hickman, NE 68372

Sum of Percolation Rates: 100
Average of Rates: 25
Rate Used for Calculation: 25

Soil type (NRCS Maps/Other) 7466 Otoe borings not typical of Otoe
Groundwater Depth +6

DO NOT WRITE BELOW THIS LINE

Reviewing Action

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

Signature of Reviewing Official Date

CONDUCTING A PERCOLATION TEST

READ THOROUGHLY

DIAGRAM OF PERCOLATION TEST PROCEDURE

Natural Ground Level

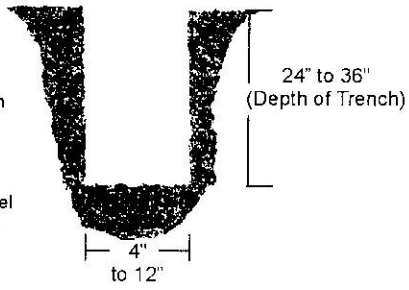
I. Number, Size and Location of Test Holes

A. Dig six or more holes spaced evenly over proposed drainfield.

B. Scratch smeared areas on the bottom 12" of hole.

C. Remove loose material from hole.

D. Add 2" layer of clean gravel in hole. Gravel (1/4"-3/4") may be placed in a nylon mesh bag so it can be used again.



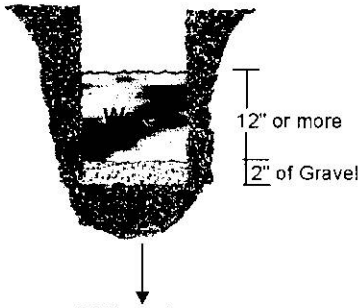
II. Saturation/Swelling of Soil

A. Fill hole with at least 12" of clear water.

B. **MAINTAIN THIS WATER LEVEL FOR 4 HOURS.**

C. Record on Form B, Columns A to F

D. **Must wait 24 hours before beginning Step III.**



24 Hours Later

III. Water Level Drop Measurement (Refer to instructions 4a, b or c)

A. Adjust water level to 6".

B. Measure from fixed reference point (nail) to water, or use a percometer.

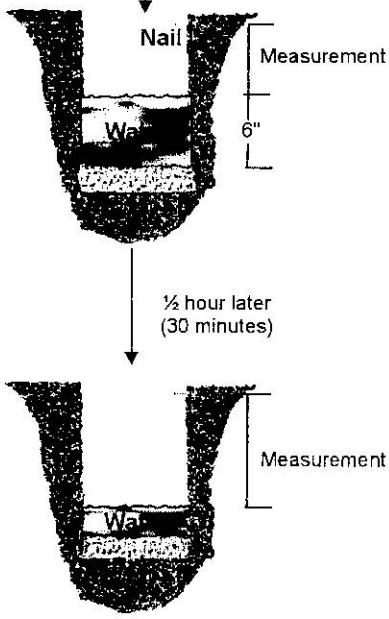
C. Record measurement and time on scratch paper.

D. 30 min. later re-measure and record time.

E. After each measurement, refill to 6" above gravel.

F. Continue for 4 hours taking readings evey 30 min. (Refer to 4b for exception)

G. Last 30 min. reading is used in filing out Form B. Record in Column G through M.



IV. The Department will calculate Percolation Rates.

Instructions

1. Percolation test holes. Percolation tests should be made in 6 or more separate holes spaced uniformly over proposed drainfield. Dig or bore holes 4 to 12" in diameter to the depth of the bottom of drainfield trench. (If sides of hole collapse, a slotted PVC plastic pipe and gravel pack may be needed to support the sides of the hole.) Do not dig holes in soil that is above the plastic limit or where frost is within 12" from the bottom of hole.
2. Preparation of test hole. Scratch any smeared areas on the bottom 12" of hole with nails driven into a 1x2" board to provide a natural soil interface for water to percolate. Remove all loose soil from bottom of hole. Add 2" of clean gravel to protect the bottom from scouring when water is put into hole.
3. Saturation and swelling of the soil. Fill holes with clear water to a depth fo 12" or more above gravel and maintain this water level at least 4 hours (add water as necessary). Do not remove water from holes. Holes should be covered with boards during the 20 hrs. wait before the test begins. Soils with slow permeability or containing greater than 30% clay will require several days saturation for thorough swelling in a dry season. The accuracy of the percolation test depends on thorough saturation and swelling of soil. Sandy soil containing no clay does not swell. The percolation test may proceed immediately if the 12" of water seeps away in 10 min. or less after filling holes twice. Proceed to Step 4c.
4. Measure percolation rate. Measurements must be made 24 hrs after starting saturation/swelling procedure described above. Record results on the front of this form and the Department will complete the calculations.

   a. If water remains in hole after the saturation/ swelling period, adjust depth to 6" above gravel. From a fixed point, measure the drop in water level over a 30 min. period to nearest 1/8". This drop is used to calculate percolation rate.

   b. If no water remains in hole after the saturation/ swelling period, add 6" of clear water above gravel. From a fixed point, measure the drop in water level to nearest 1/8" at 30 min. intervals for 4 hrs. Refill to the 6" level above gravel after each measurement. The drop that occurs during the last 30 min. of the 4 hrs. is used to calculate the percolation rate (when 3 consecutive percolation rates vary by no more than 10%, the test can stop before the end of 4 hr. period).

   c. In sandy soils, or other soils in which t he first 6" of water seeps away in less than 30 min., allow 10 min. between measurements and run the test for 1 hr. The drop that occurs during the last 10 min. of 1 hour is used to calculate the percolation rate. If 6" of water seeps away in less than 10 min., use a stopwatch.
5. Record test results on the front of this form. The average of the percolation rates calculated for all holes in 30 (10) min. will usually be the rate used to size the drainfield. Exceptions are the use of the slowest percolation rate when rates vary more than 20 mpi between holes or when other soil evaluation indicates a problem.

LLCHD reserves the right to witness or perform percolation tests and to required additional soil or groundwater information.



SCANNED

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

A

Permit Number
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PLEASE PRINT OR TYPE

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

PID 13-34-400-004-000 *Approx. Address (If to be determined)

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Name JOE & TINA WORKMAN Signature
Address 15501 N 1ST ST City/State/Zip RAYMOND, NE 68428
Home Phone 402-416-3200 Work Phone 402-416-3200

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Name: JAIME KOBILKA Signature
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Work Phone 402-475-2462

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 Whirlpool Bathtub? ☐ Yes ☒ No Total Acres 6.54
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

1. Health Department
Site visits 9/11, 9/12 D.C
Comments
Date rec'd 9/9/19
Date frwd 9/9/19
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 Doug Thuon
Date 9/20/19

Business Office Use Only
Date Received 9-09-19 Amount Paid $130.00
Received By JAO Cash/Check No 00214

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

Form A Updated: 4/15

* System Replacement

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

6

Exhibit 5

Permit Number: 4500188Z

Onsite Wastewater Treatment System

Inspection Sheet

Date 9/20/19

Legal Description ¼ ¼ 24 12 6 Section/Township/Range

Onsite System Location

Address (no rural route) 15501 N 1st 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: original septic tank used as a pump tank

☑ Lateral ☐ Bed ☐ Non-standard (engineer-designed and NDEQ approved) ☐ Holding Tank ☐ Trench

Total square feet of drainfield 1,125 Sq. Ft. Tank Size 1,500 gals

Total length of laterals 250' Type of Distribution: ☐ Chamber ☐ Perforated Pipe ☒ Other (describe) E-Z flow

No. of Absorption Laterals 3 Width 4.5 factor No. of Drop Boxes Distribution Box 1

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

Lateral #1 N/A Lateral #3

Lateral #2 Lateral #4

Comments:

Inspections prior to Final Approval
Initial D.S & N.H Date 9/11, 9/12

Follow-Up Date

Follow-Up Date

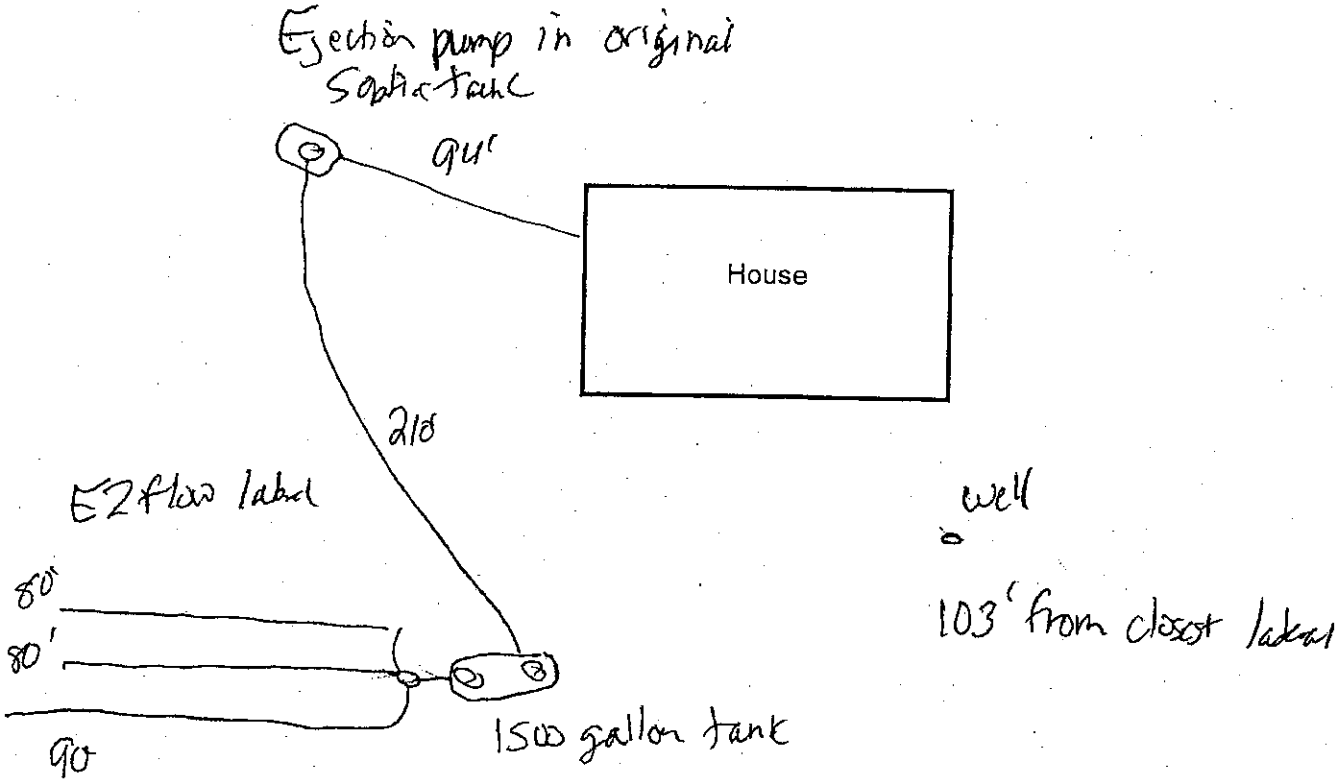
Installation Final Written Approval
By Doug Smith
Date 9/20/19

Field Note Drawing (See Reverse Side):

Updated 4/15

Onsite Wastewater Treatment System Layout
Property Transfer Inspection Report
(Include distances)

N →



1. Indicate location of septic tank (distance and direction from house).
2. Indicate location and distance of wastewater lagoon.
3. Indicate location and distance of closest building foundations.
4. Indicate location of well.
5. Indicate number of laterals. Indicate approximate areas of probing.
6. Age of system (if known) September 2019

General Comments:

SCANNED

