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

A

Permit Number HS001627

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* 11255 N 56 Street City Lincoln, NE Zip 68514
(no rural route)

Legal Description S11 T11 -7E 30 NE
1/4 1/4 Section Township Range Subdivison Addition Block Lot

PID 18-17-200-013-000 *Approx. Address (If to be determined)

B. Owner

Name James Nagel Signature James Nagel

Address 16100 N 14 St City/State/Zip Raymond, Ne. 68428

Home Phone Work Phone 402 430-2468

C. Certified Installer

Name: Harry L. Muhlbach Signature Harry L. Muhlbach

Address 5701 Vine Str. City/State/Zip Lincoln, Ne 68505

Work Phone 402-430-7304

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 N/A Whirlpool Bathtub? ☐ Yes ☒ No Total Acres 20.48
Garbage Grinder? ☐ Yes ☒ No

☐ Commercial Establishment/Other Facility Specify Farm shop Design flow in gallons per day 100 gpd

Type of Wastewater ☐ Domestic ☒ Non-Domestic

DO NOT WRITE BELOW THIS LINE

Approval Process

1. Health Department
Site visits
Comments
Date rec'd 3/20/18
Date frwd 3/20/18
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

Business Office Use Only
Date Received 3-20-18 Amount Paid $405.00
Received By JAO Cash/Check No. 6857

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: 402-441-8022

B

Permit Number:

Onsite Wastewater Treatment System
Soil Evaluation Report

PLEASE PRINT OR TYPE

Onsite System Location

Address 11255 N 56th str, (no rural route) City Lincoln NE, Zip 68517

Owner James Nagel Address 16100 N 14th, Raymond, Ne 68428-4237

Date of Tests 12-7-18 to 12-8-18 Weather: Precipitation None - Clear Temperature 55° a.m.

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	24"	12-7	9:00am	12-8	9:30	12-8	10:00am	6	12-8	2:00pm	30 min	.75	40
2	"	"	9:05am	"	9:35	"	10:05am	6	"	2:05pm	30 min	.55	55
3	"	"	9:10am	"	9:40	"	10:10am	6	"	2:10pm	30 min	.65	46
4	"	"	9:15	"	9:45	"	10:15	6	"	2:15	30 min	.70	43
								6					
								6					
								6					
								6					

Person Conducting Percolation Test

Name: Harry Muhlbach
Phone: 402-430-7304
Address 3701 Vine str, Lincoln, Ne 68505

Sum of Percolation Rates: 184
Average of Rates: 46
Rate Used for Calculation: the slowest 55/10

Soil type (NRCS Maps/Other) Shelby Loam, Clay
Groundwater Depth 20 plus ft

DO NOT WRITE BELOW THIS LINE

Reviewing Action

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

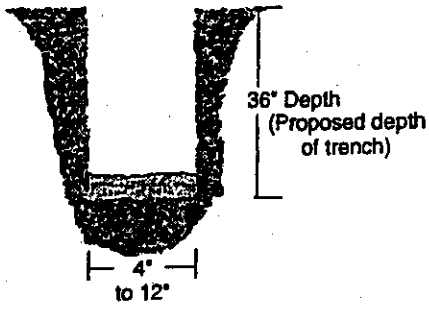
Signature of Reviewing Official _____ Date _____

READ THOROUGHLY

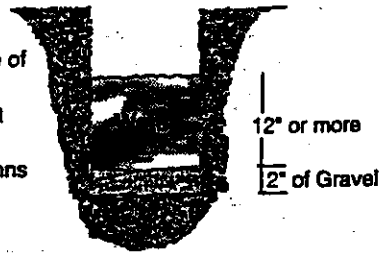
DIAGRAM OF PERCOLATION TEST PROCEDURE

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.

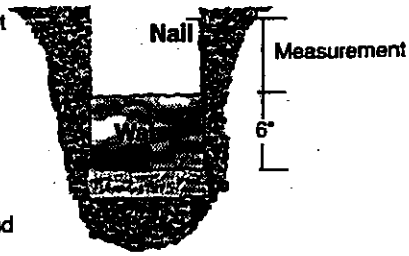


II. Saturation of Soil (Pre-soak)
   - A. Fill hole with 12" or more of water.
   - B. MAINTAIN THIS WATER LEVEL FOR 4 HOURS.
   - C. Record on Form B columns a thru f.



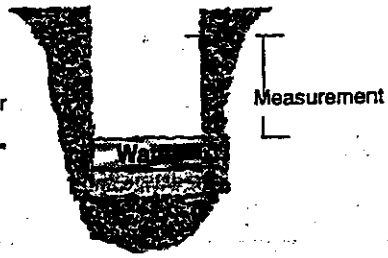
24 Hours Later

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.

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

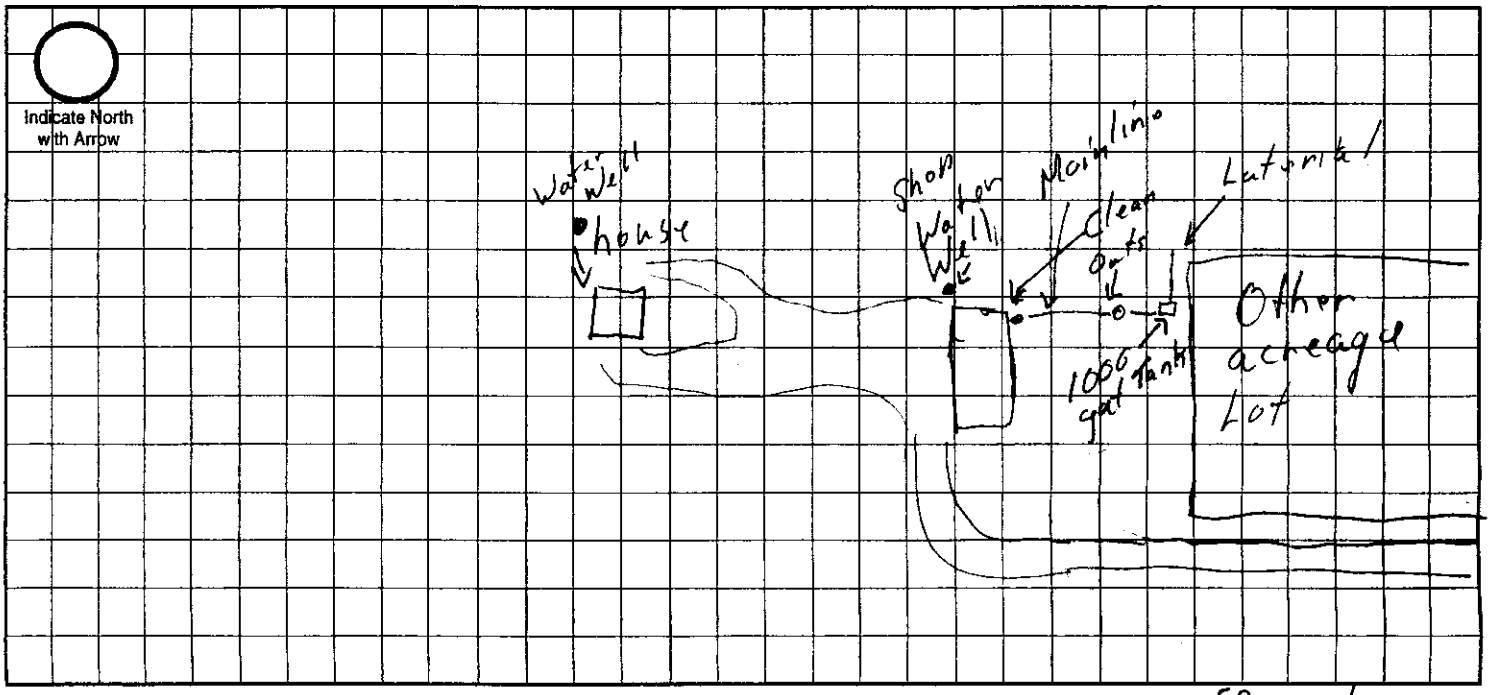
C

Permit Number:

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: 50 ft. = 1 grid line/s

A. Onsite System Location

Address (no rural route) 11255 N 56th St. City Lincoln NE, Zip 68517

B. Proposed Septic Tank/s

Septic Tank Cap. 1000 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 55 (min/inch = mpi) No. of Bedrooms 0 Soil Type Sharpsburg Loamy Clay Land Slope 1 %

☐ Trench ☒ Bed ☐ Non-Standard (engineer designed and NDEQ approved Total Square feet of drainfield 185 sq.ft.

Total length of laterals 50' w/gravel Type of distribution: ☐ Perforated pipe ☐ Half-Round ☒ Chamber ☐ Other

No. of absorption trenches_____ Width_____ No. of drop boxes — Distrubtion Box 0

No. of absorption beds 1 Width 48" 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 Harry T. Mullard Date 3-19-18

Installer Harry T. Mullard Date 3-19-18

H L Muhlbach Construction
5701 Vine St
Lincoln NE 68505
402-430-7304

March 19, 2018

James Nagel
11255 N 56th Street
Lincoln NE 68514

Re: Shop septic system

This shop septic system is designed for the employer and 1 employee's use. It includes one toilet and handwashing sink.

The amount of water used is about 60 gal/day plus 40 gal/day for back up usage if needed.

If water usage is changed upward over this amount, more laterial footage may be needed.

Sincerely,

Harry T. Muhlbach

Harry Muhlbach
Designer

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. HS001627

System Type: Standard

Situs: 11255 N 56TH ST, LINCOLN, NE 68517

Issued: 3/21/2018

Expires: 3/21/2019

Description: S17, T11, R7, 6th Principal Meridian, LOT 30 NE

Owner: NAGEL, JAMES
16100 N 14 ST
RAYMOND, NE 68428

Shavonna M. Lausterer, MPH, CPH, 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.

Shavonna M. Lausterer, MPH, CPH
Health Director

JAMES NAGEL
16100 N 14TH ST
RAYMOND, NE 68428

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

SCANNED

A

Permit Number HS001627

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* 11255 N 56 Street City Lincoln, NE Zip 68514
(no rural route)

Legal Description S11 T11 -7E 30 NE
1/4 1/4 Section Township Range Subdivison Addition Block Lot

PID 18-17-200-013-000 *Approx. Address (If to be determined)

B. Owner

Name James Nagel Signature James Nagel

Address 16100 N 14 St City/State/Zip Raymond, Ne. 68428

Home Phone Work Phone 402 430-2468

C. Certified Installer

Name: Harry L. Muhlbach Signature Harry L. Muhlbach

Address 5701 View Str. City/State/Zip Lincoln, Ne 68505

Work Phone 402-430-7304

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 N/a Whirlpool Bathtub? ☐ Yes ☒ No Total Acres 20.48
Garbage Grinder? ☐ Yes ☒ No

☐ Commercial Establishment/Other Facility Specify Farm shop Design flow in gallons per day 100 gpd

Type of Wastewater ☐ Domestic ☒ Non-Domestic

DO NOT WRITE BELOW THIS LINE

Approval Process

1. Health Department
Site visits
Comments
Date rec'd 3/20/18
Date frwd 3/20/18
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 5/6/19

Business Office Use Only
Date Received 3-20-18 Amount Paid $405.00
Received By JAO Cash/Check No 6857

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

Form A Updated: 4/15

* Existing (for an outbuilding)

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

D Exhibit 4

Permit Number:

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: James Nagel Address 12555 N 56 st, Lincoln, Ne 68514

A. Wastewater Piping

1. Material: PVC sch 40 Diameter: 4 in.
2. Distance between dwelling and septic tank: 400 ft.

B. Septic Tank

1. Material Concrete
2. Capacity: 1000 gal
3. Depth to top of tank, below unfinished grade: ____ in.
4. Distance to:
   Well 200 ft.
   Pressure line 150 ft
   Property Line 10 ft.
   Foundation 150 ft.

C Distribution Box or Drop Box

Distance **and** Direction from septic tank: x ft. x

D. Drainfield/Absorption Field

☒ Trench ☐ Bed

1. Type: ☐ Perforated Pipe ☒ Chamberless ☐ Other
   Material brand and inside width of Chamberless: Infiltrator Systems Inc 36"
2. Number of Laterals: 2
3. Length of each lataral (linear): ft. 35 ft. 15
   ft. ____ ft. ____
4. Drainfield size: 200 sq. ft.
5. Distance to:
   Well 200 ft.
   Pressure line 180 ft.
   Property line 7 ft.
   Depth of Groundwater 13'4"

UNH

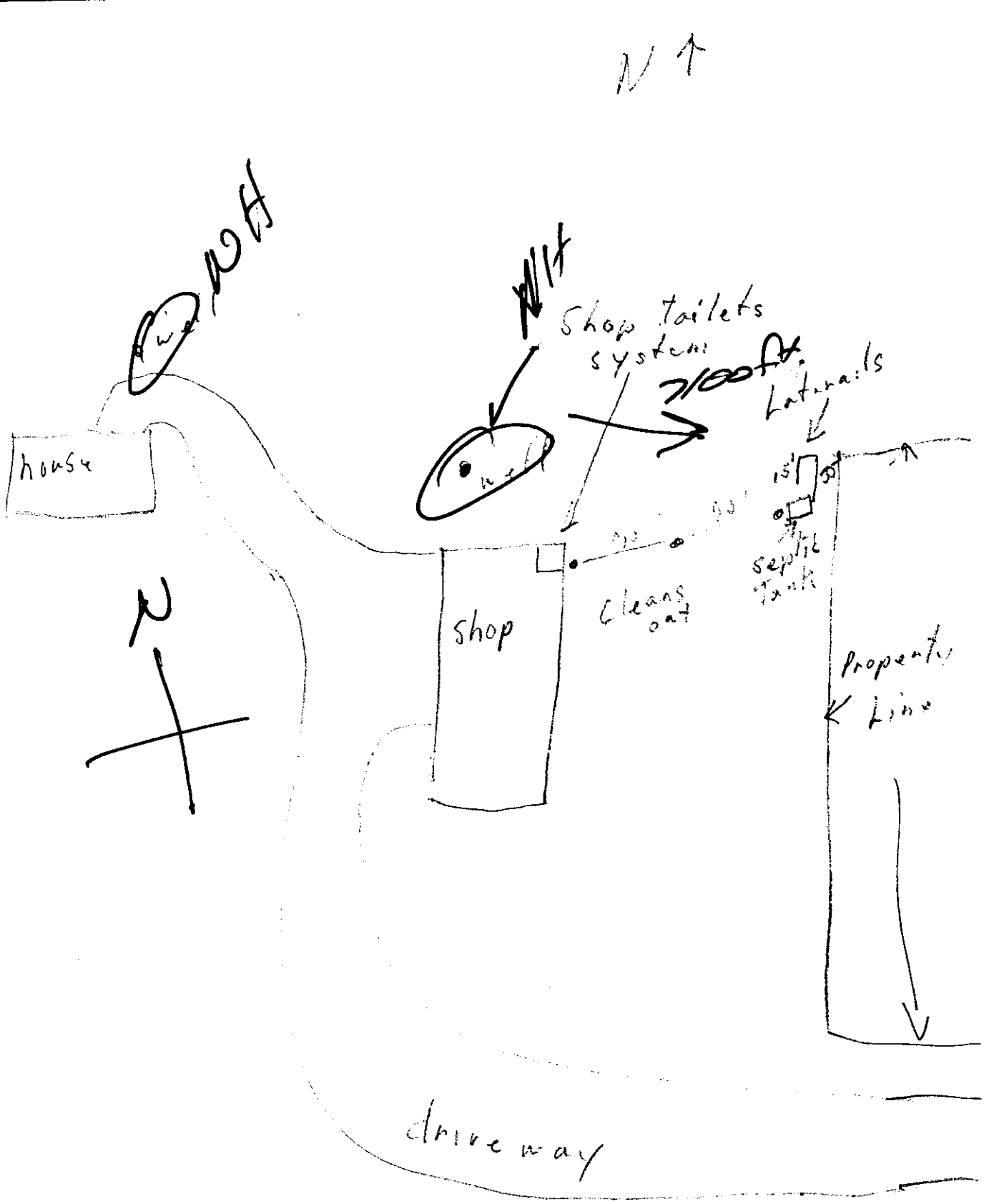
Was the Onsite Wastewater System covered prior to LLCHD inspection? ☐ Yes ☒ No

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.

Certified Professional Signature: Harry Nielsen Date: 10-10-18

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


N
house
shop
Shop Toilets system
Laterals
Cleans out
septic tank
Property Line
driveway

FILE NO. 550

CITY OF LINCOLN NEBRASKA

DEPARTMENT OF LICENSES AND PERMITS

INDIVIDUAL SEWAGE SYSTEM CONSTRUCTION — TYPE OF LICENSE OR PERMIT

April 28, 1975 — THIS LICENSE OR PERMIT EXPIRES

Thomas W. Sullivan — LICENSEE OR PERMITTEE

Route #3, Box 194B, Lincoln — ADDRESS

T9N; R7E; Sec. 17-NE1/4; Lot 7 I.T., ALTERATION — NAME OF ESTABLISHMENT, IF ANY

ADDRESS

REMARKS: NON-TRANSFERABLE

PERMIT	INSPECTION FEE	OCCUPATION TAX	LICENSE	TOTAL
$ 30.00	$	$	$	$ 30.00

ACCOUNTING NO.	ACCOUNTING NO.	ACCOUNTING NO.	CODE
624-1333 110.15	110.16	148.14	6-2

SERIAL NO.	DATE	AMOUNT

VALID RECEIPT ONLY IF MACHINE RECEIPTED IN THIS SPACE

APPLICATION

THIS LICENSE OR PERMIT IS ISSUED SUBJECT TO REVOCATION AS PROVIDED BY LAW

FORM HD-41(73) APPLICATION FOR PERMIT TO ALTER, EXTEND OR REPAIR INDIVIDUAL SEWAGE DISPOSAL SYSTEM

City Ordinance No. 9150 [X]
County Resolution No. 2832 [ ]

LINCOLN-LANCASTER COUNTY HEALTH DEPARTMENT
Division of Environmental Health
2200 St. Marys Ave.
Lincoln, Nebraska 68502 (Phone: 475-6221)

FILE NO. _____

TO: Division of Environmental Health
Lincoln-Lancaster County Health Dept.

DATE: October 28, 1974

The undersigned hereby applies for a permit to ALTER [X], EXTEND [ ], or REPAIR [ ] an existing Individual Sewage Disposal System, in conformance with appropriate Ordinance or Resolution, as described in this application and drawings attached hereto.

1. Legal description of property: Twp. 11N ; Range 7E ; Section 17 NE¼ ;
Block _____ ; Lot 7 I.T. ; Addition ~~NE¼ SW¼~~
Street Address R.RT. 3, Box 194B Lincoln, Nebr. 68507

2. Property Use: Residential _____ [X]; Commercial _____ [ ]
No. Bedrooms 5 Describe _____
Other Use [ ]
Describe _____

3. Type of existing Individual Sewage Disposal System: Septic Tank [X]; Other [ ]

4. Description of proposed alteration, extension or repair: Gopher Mound Effluent disposal system; An alternative for lateral field

5. Work to be done by: Owner [X] ; or Contractor [ ] , _____
Contractor's Name

6. Estimated cost of project:

a. Materials	$ 1200 00
b. Labor	$ 300 00
c. Other	$
TOTAL	$ 1500 00

Thomas W. Sullivan
Signature of Applicant (owner or lessee)

R.RT. 3, Box 194B
Address
Lincoln, NE 68507

(Do not write below this line)

REVIEWING ACTION

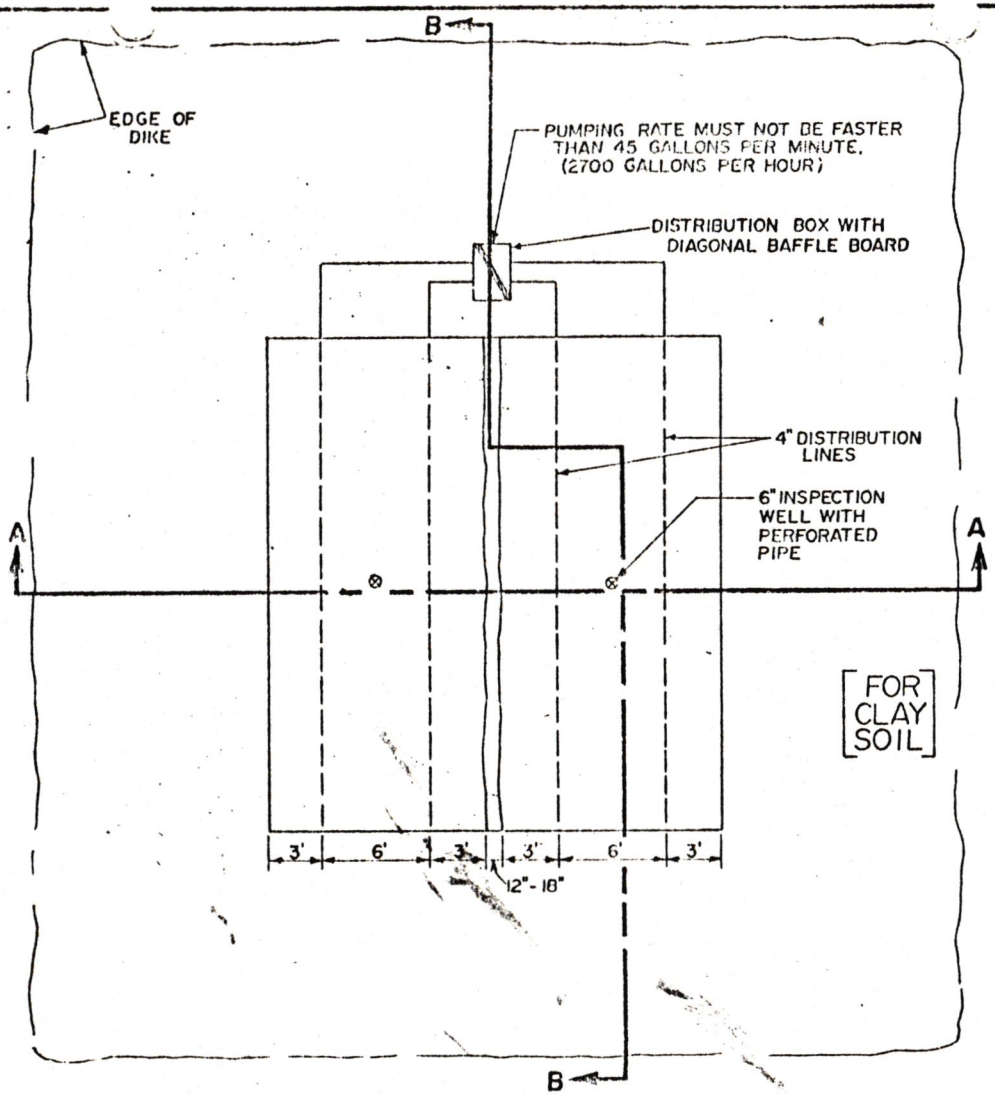
1. Date Rec'd: _____
Filing Fee: $ 30.00

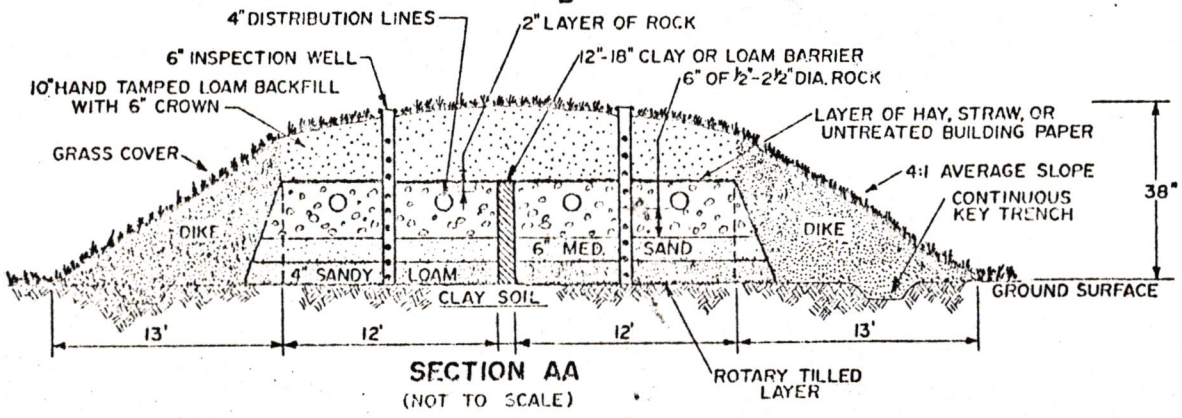
2. Site Visits:
Date: 4-8-81 by: rm (sewage seeping)
Date: 6-16-81 by: rm (violation corrected) *
Date: _____ by: _____

3. Date: Approved [X]; Disapproved [ ]
by: Jerrold C. Hood
Covered W/O Inspection

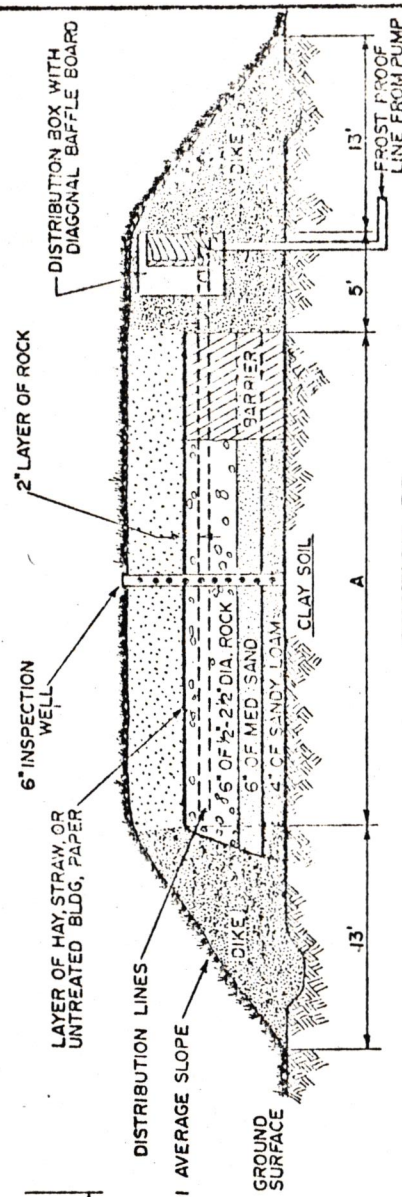
4. INSTALLATION FINAL WRITTEN APPROVAL
Date: _____ by: _____

* Owner built up berm side with more clay soil





SECTION AA
(NOT TO SCALE)



SECTION BB
(NOT TO SCALE)

NOTES:

1. ORIGINAL SOIL AND ALL MOUND LAYERS TO BE DEAD LEVEL.
2. DISTRIBUTION LINES MUST 4" RIGID PERFORATED PIPE LAID ON A SLOPE OF 2" PER 100 FEET WITH ONE ROW OF HOLES AT BOTTOM OF PIPE.
3. THE 4" LAYER OF SANDY LOAM TOP SOIL MUST BE ROTARY TILLED AT LEAST 2" INTO THE CLAY SOIL. THE MOISTURE CONTENT OF THE CLAY SOIL SHALL BE SUCH AS TO MINIMIZE COMPACTION. THE CONSISTENCY OF THE ROTARY TILLED SANDY LOAM AND CLAY MIXTURE SHALL BE LIKE A PROPERLY PREPARED GARDEN SEEDBED.
4. THE 6" LAYER OF MEDIUM SAND SHALL BE CAREFULLY PLACED SO AS NOT TO COMPACT THE ROTARY TILLED SAND-CLAY MIXTURE.
5. ALL SUBSEQUENT LAYERS SHALL BE CAREFULLY PLACED SO AS NOT TO COMPACT THE PRECEEDING LAYERS.
6. THE DIKE MATERIAL SHALL BE LOAM SOIL, COMPACTED SO AS TO HAVE A PERCOLATION RATE AS SLOW OR SLOWER THAN THE SOIL BELOW THE MOUND. A CONTINUOUS KEY TRENCH SHALL BE CONSTRUCTED TO MINIMIZE SIDE SEEPAGE.
7. THE MOUND SHALL BE DIVIDED INTO TWO PARTS BY A CLAY OR LOAM BARRIER. HALF OF MOUND IS USED WHILE THE OTHER HALF IS RESTING. CHANGE THE DIVIDER BOARD POSITION ANNUALLY.
8. DIMENSION "A", EFFECTIVE LENGTH, REQUIRED FOR THE MOUND DEPENDS UPON THE NUMBER OF BEDROOMS. SEE TABLE.
9. GALLONS OF EFFLUENT PUMPED PER CYCLE TO BE NOT LESS THAN 75% OR MORE THAN 100% OF TABLE VALUES.
10. SUCCESS OF THE PERFORMANCE OF THE MOUND DEPENDS UPON EXTREME CARE TO PREVENT SOIL COMPACTION DURING CONSTRUCTION. THE USE OF HEAVY CONSTRUCTION EQUIPMENT IS DISCOURAGED.

NUMBER OF BEDROOMS	DIMENSION "A" EFFECTIVE LENGTH	GALLONS PUMPED PER CYCLE
2 OR LESS	32	480
3	40	600
4	45	675
5	52	780
6	60	900

DESIGNED BY:
ROGER E. MACHMEIER
EXTENSION AGRICULTURAL ENGINEER

UNIVERSITY OF MINNESOTA
EXTENSION AGRICULTURAL ENGINEERING

GOPHER MOUND
FOR CLAY SOIL

Drawn by G.L.D.
Checked by
Date 3-8-72
Rev 3-21-73

INTER-DEPARTMENT COMMUNICATION

TO: Charlie Seale

DEPARTMENT: Building Inspection

ATTENTION:

CARBONS TO:

DATE: October 28, 1974

FROM: Jerrold C. Hood

DEPARTMENT: Health

SUBJECT: Individual Sewage System Construction - File No. 550 (Thomas W. Sullivan Route #3, Box 194B

The application and plans have been reviewed and approved for the construction of ALTERATION (exceeding the cost of $200.000) to an individual sewage disposal system on property legally described as:

T11N; R7E; Sec. 17-NE1/4; Lot 7 I.T., ALTERATION

Jerrold C. Hood, R.S., Chief
General Sanitation Section
Division of Environmental Health

JCH: ch