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

MAY 28 2014

A

Permit Number
HS000905

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 5841 Waverly Rd (no rural route) City Lincoln NE Zip 68517

Legal Description NW 14 11N 7E 14

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

PID 18-14-100-003-000

B. Owner

Name TANVIR H. DEMETRIADES-SHAH Signature T-H. Demetriades-Sh

Address 64 ORCHARD ROAD City/State/Zip BIRMINGHAM B24 9SA, ENGLAND

Home Phone 011-44-121-382-0544 Work Phone 011-44-779 672837

C. Certified Installer

Name: Lloyd Jahnke, Raymond Contracting Inc Signature Nicole Johnson for Lloyd

Address 13800 NW 70th St City/State/Zip Raymond, NE 68428

Work Phone 402-590-6609

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 3 Whirlpool Bathtub? ☐ Yes ☒ No Total Acres 2.41

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
Comments
Date rec'd
Date frwd
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 5/29/14 Amount Paid $365.00
Received By SB Cash/Check No. 8384

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

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

B

Permit Number: HS000905

Sewage Disposal System

Soil Absorption Test Data Report

Annex to Application

PLEASE PRINT OR TYPE

System Location (Indicate correct number and street)

Address 5841 Waverly Rd (no rural route) City Lincoln NE, Zip 68517

Owner Tamur Demetriades Address P.O. Box 29364

Soil Type (SCS): SCL Percolation Rate: 51 min./inch

Date of Tests 5/20/2014 to 5/21/2014 Weather: Precipitation 0 Temperature 70°

Percolation Test Data Table

A.	B.	C. D. E. F. Pre-Saturation Period				G. H. I. J. K. Percolation Readings					L. M. N. 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)	Water Lev (in.)	Date (Mo/Da)	Time (Hr/Min)	Elapsed Time (Min)	Water Level Drop (in)	Percolation Rates (Min/in)
1	20	5/20	9:00a	5/20	11:00a	5/21	12:00p	6	5/21	12:30p	30	9/16	53
2	20	"	"	"	"	"	"	"	"	"	"	1/2	60
3	19	"	"	"	"	"	"	"	"	"	"	3/4	40

Person Conducting Percolation Tests

Name: Terri L. Jablonek, Raymond Contracting, Inc.

Phone: 402-783-2603 or 402-890-3870

Address 13800 NW 70th St

Raymond, NE 68428 # C1198

Sum of Percolation Rates: 153

Average of Rates: 51

Rate Used for Calculation: 51

DO NOT WRITE BELOW THIS LINE

Reviewing Action

Remarks _____

Signature of Reviewing Official _____ Date _____

FORM 23-101 10-96

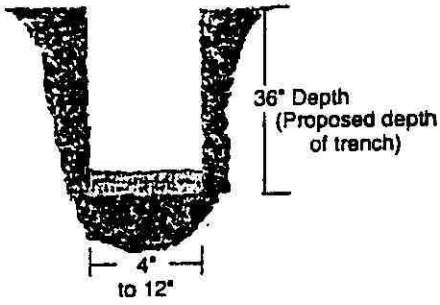
READ THOROUGHLY

DIAGRAM OF PERCOLATION TEST PROCEDURE

Finished Grade or Natural Ground Level

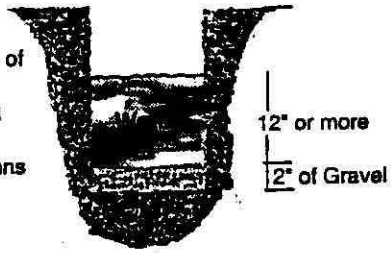
I. Size, Number, and Location or Test Holes

- 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)

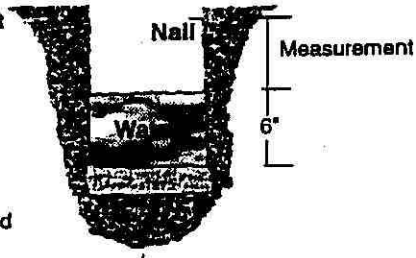
- A. Fill hole with 12" or more of water.
- B. MAINTAIN THIS WATER LEVEL FOR 4 HOURS.
- C. Record on Form B columns a thru f.



24 Hours Later

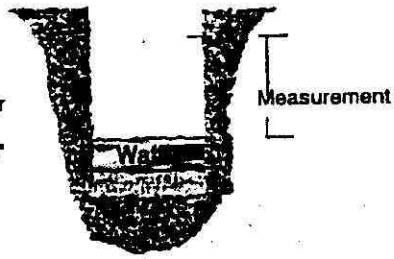
III. Percolation-rate Measurement **(refer to instructions 5a, 5b, or 5c.)**

- 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

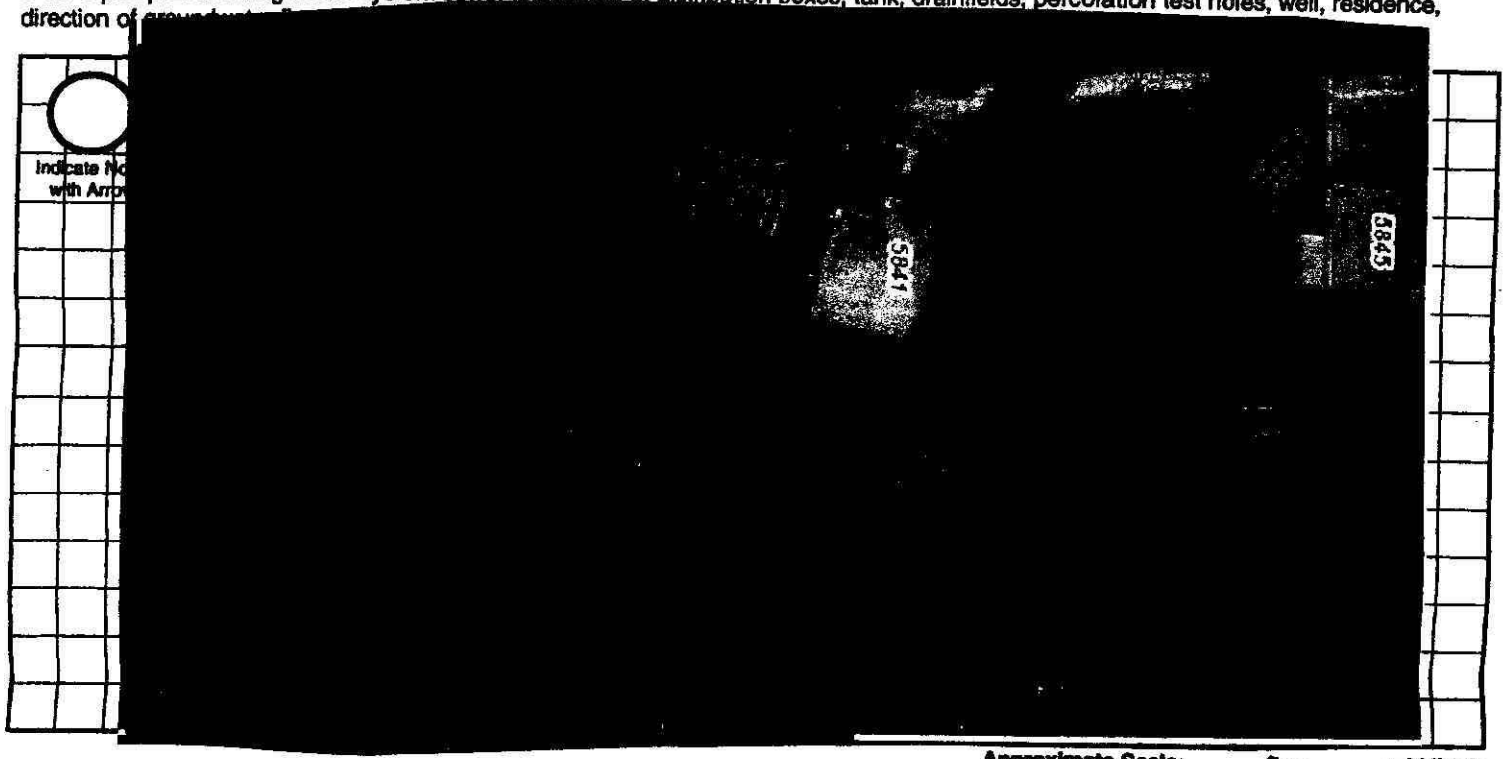
C

Permit Number: HS 000905

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.



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

A. Onsite System Location

Address (no rural route) 5841 Waverly Rd City Lincoln NE, Zip 68517

B. Proposed Septic Tank/s

Septic Tank Cap. 1,000 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 51 (min/inch = mpi) No. of Bedrooms 3 Soil Type SCL Land Slope _____ %

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

Total length of laterals 265 Type of distribution: ☐ Perforated pipe ☐ Half-Round ☒ Chamber ☐ Other

No. of absorption trenches 2 Width 40" No. of drop boxes 2-End Caps 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 Existing Home Date _____

Installer Ronald L. Adamson Date 5/27/2014

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. HS000905

System Type: Standard

Situs: 5841 WAVERLY RD, RURAL, NE

Issued: 6/3/2014

Expires: 6/3/2015

Description: S16, T11, R7, 6th Principal Meridian, LOT 14 NW

Owner: DEMETRIADES-SHAH, TANVIR H
PO BOX 29364
LINCOLN, NE 68529

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

RAYMOND CONTRACTING
13800 NW 70TH ST
RAYMOND, NE 68428

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

MAY 28 2014

SCANNED
A

Permit Number
HS000905

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 5841 Waverly Rd (no rural route) City Lincoln NE Zip 68517

Legal Description NW 16 11N 11E 14

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

PID 18-16-100-003-000

B. Owner

Name TANVIR H. DEMETRIADES-SHAH Signature T.H. Demetriades-Sh

Address 64 ORCHARD ROAD City/State/Zip BIRMINGHAM B24 9SH, ENGLAND

Home Phone 011-44-121-382-0544 Work Phone 011-44-779 672837

C. Certified Installer

Name: Lloyd Jahnke, Raymond Contracting Inc Signature Lloyd Jahnke for Lloyd

Address 13800 NW 76th St City/State/Zip Raymond, NE 68428

Work Phone 402-890-6669

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 3 Whirlpool Bathtub? ☐ Yes ☒ No Total Acres 2.41

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. 02-38

1. Health Department
Site visits 6/6/14
Comments New tank + additional laterals installed
Date rec'd 6/4/14
Date frwd 6/4/14
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 Jones
Date 6/9/14

Business Office Use Only
Date Received 5/29/14 Amount Paid $305.00
Received By SB Cash/Check No. 8384

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

* EXISTING

JUN 10 2014

D

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

Permit Number: HS000905

Onsite Wastewater Treatment System

As Built Plans & Specifications

Date June 6, 2014 Legal Description NW 1/4 16 - 11N - 7E Section Township Range Lot 14

Onsite System Location

Address (no rural route) 5841 Waverly Rd City Lincoln NE, Zip 68517

Owner Tanvir H. Demetriades-Shah Address 64 orchard Rd, Birmingham B24 9JA England

A. Sewer Pipe

1. Material: Tie inTo Clay Tile with SDR26
   Diameter: 4 in.
2. Distance above basement floor: _____ in.
   or distance below basement floor: _____ in.
3. Distance between dwelling and septic tank: 85 ft.
4. Number of clean-outs: _____
5. Distances to: well or suction line 50 ft.
   stream 100 ft.
   pressure line 100 ft.
   property line 50 ft.

B. Septic Tank

☑ Label with Manufacturer, address and gallon capacity

1. Material: New Concrete
   Number of compartments: one
2. Capacity: 1000 gal.
3. Factory built: ☑ Yes ☐ No
4. Manholes: Over inlet, diameter 24 in.
   Over outlet, diameter 24 in.
   Riser: ☐ above ☐ below (grade) AT in.
5. Inlet: ☑ baffle ☐ tee ☐ 6" dia. inspection pipe
6. Outlet: ☑ baffle ☐ tee ☐ 6" dia. inspection pipe
7. Depth to top of tank, below unfinished grade: 100 in.
8. Distances to: Well or suction line 100 ft.
   Stream 100 ft.
   Pressure line 100 ft.
   Property line 50 ft.

C. ☐ Distribution Box ☑ Drop Boxes

(≥ 12" inspection opening) (removable lid to inspect)

1. Material: Plastic End cap.
   Number available outlets: 2 per cap
2. Factory built: ☑ Yes ☐ No
3. Distance from septic tank: 11' + 18' + 12' ft.

D. Drainfield Absorption

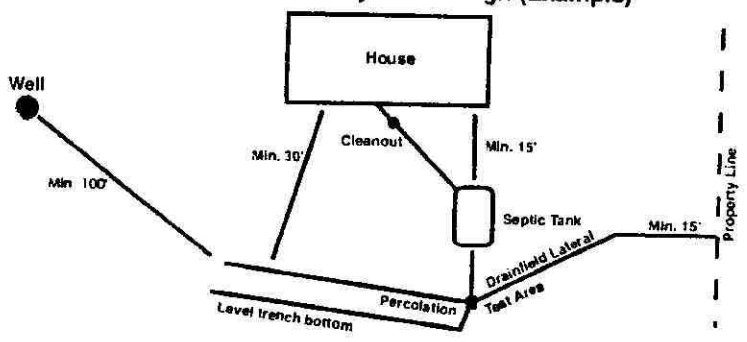
☑ Trench ☐ Bed ☐ Level Bottom

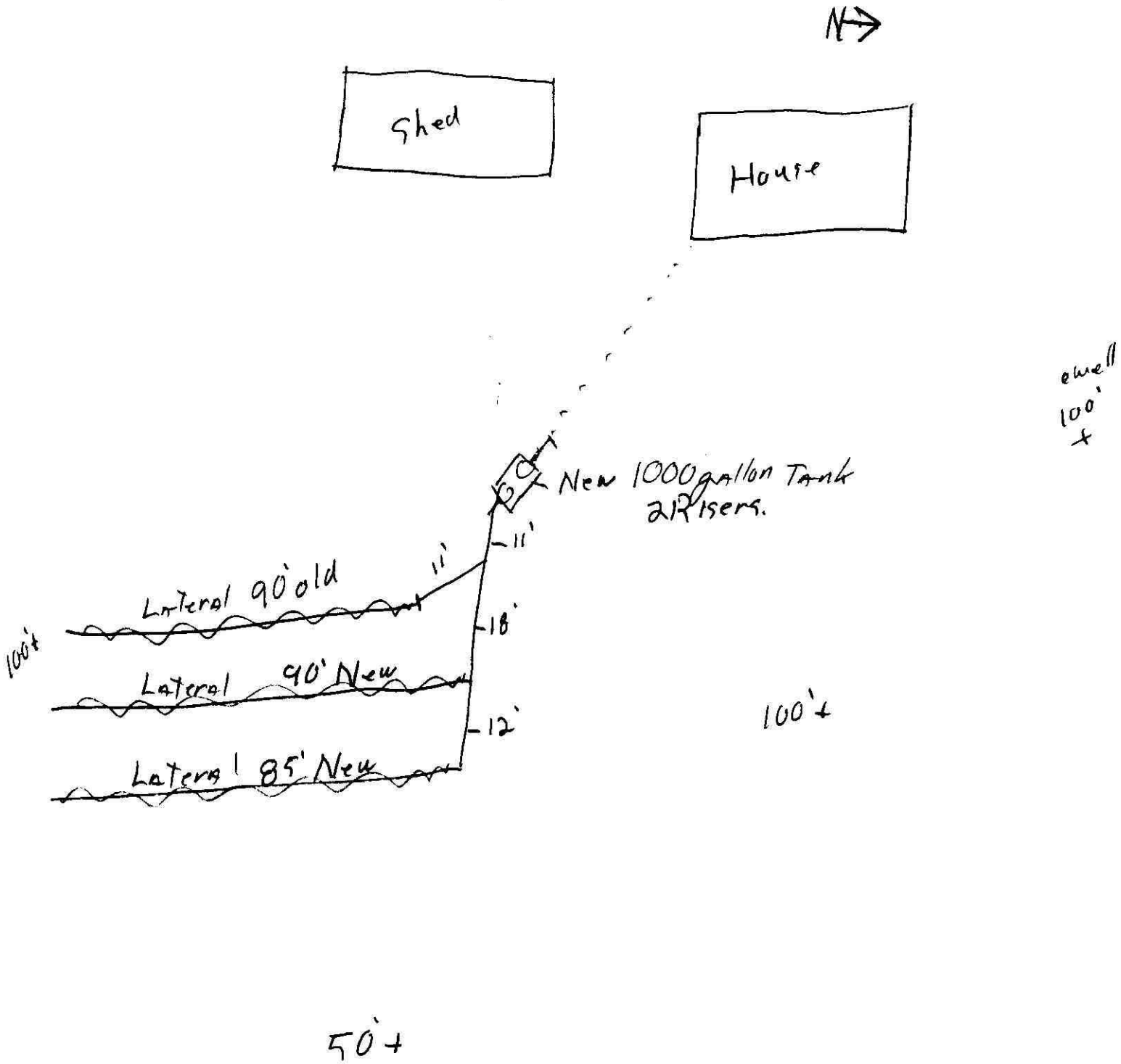
1. Type: ☑ Half rounds ☐ Perforated pipe ☐ Chambers
   Diameter or width: _____
   Number of distribution lines in bed _____
   Material: ☐ fiberglass ☑ plastic ☐ concrete
   ☐ other _____
2. Drainfield Laterals: Number 3
   Length of each line: old 90 ft. New 90 ft.
   New 85 ft. _____ ft., _____ ft.
3. Drainfield dimensions: Width 40 ft.
   Distribution Pipe Slope Flat in/100 ft.
   Average depth 36-28 in
4. Filter material: Soil
   Depth of material 36-28 in.
5. Distances to: Well or suction line 100 ft.
   Pressure line 100 ft.
   Property line 50 ft.
   House or building 100 ft.
   Lake or Stream 100 ft.

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

Indicate North with Arrow

Onsite Wastewater System Design (Example)





6/6/2014

Raymond Contracting, Inc.
Lloyd J Jakoubek
13800 NW 70th St
Raymond, NE 68428
402-783-2663

SCANNED

C

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

Permit Number: HS 000905

Onsite Wastewater Treatment System

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Total length of laterals 265 Type of distribution: ☐ Perforated pipe ☐ Half-Round ☒ Chamber ☐ Other

No. of absorption trenches 2 Width 40" No. of drop boxes 2-End Caps Distrubtion Box_____

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

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Lagoon (ft)	100 ☐	500 ☐	50 ☐	N/A ☐	30 ☐	50 ☐	100 ☐	200 ☐	☐

F. Required Signatures

Home Building Contractor Existing Home Date _____

Installer Ron Gottschalk Date 5/27/2014