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

NOV 26 2018

A

Permit Number
HS001772

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* _____ City Linda, NE Zip 68523
(no rural route)

Legal Description 17 T9 R6 Twin Pine 4 4
1/4 1/4 Section Township Range Subdivison Addition Block Lot

PID 09-17-404-004-000 *Approx. Address (If to be determined) _____

B. Owner

Name Marvin N Hey Signature _____
Address 2250 Bryant Rd Unit B City/State/Zip Reca, NE 68430
Home Phone _____ Work Phone _____

C. Certified Installer

Name: Marcus Hackbarth Signature _____
Address PO Box 142 City/State/Zip Eagle, NE 68347
Work Phone 402-730-7746

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 3
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 11-27-18 Amount Paid $420.00
Received By JAO Cash/Check No. 184

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

Form A Updated: 4/15

Lincoln-Lancaster County Health Department (LLCHD)
Environmental Public Health Division
3131 "O" Street • Lincoln, NE 68510-1514
Phone: 402-441-8643

B NOV 26 2018

Permit Number:

Onsite Wastewater Treatment System
Soil Evaluation Report

PLEASE PRINT OR TYPE

Onsite System Location

Address PID 09-17-404-000 (no rural route) City Lincoln NE, Zip 68523

Owner Hoy, Monica Address 2250 Brant Rd, Unit B, Roca, NE 68430

Date of Tests 10-27-18 to 10-28-18 Weather: Precipitation 0 Temperature 42°-48°F

Percolation Test Data Table

A.	B.	C. D. E. F. Saturation/Swelling Time				G. H. I. J. K. Water Level Drop Last 30 mins of 4 hr or last 10 mins of 1 hr					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)	Initial Water Lev (in.)	Date (Mo/Da)	Time (Hr/Min)	Elapsed Time Interval	Water Level Drop(in)	Percolation Rates (Min/in = mpi)
1	40	10/27	6:00	10-28	8:45	10-28	12:15	6	10-28	12:45	30m	1	30
2	40	"	"	"	"	"	"	6	"	"	"	4 3/4	6.32
3	40	"	"	"	"	"	"	6	"	"	"	3/4	40
4	40	"	"	"	"	"	"	6	"	"	"	3/4	40
								6					
								6					
								6					
								6					

Person Conducting Percolation Test

Name: Marcus Hochstein
Phone: 402-770-7749
Address PO Box 412
Eagle, NE 68347
Soil type (NRCS Maps/Other) Wymore silty clay
Groundwater Depth 48 feet

Sum of Percolation Rates: 116.72
Average of Rates: 29.08
Rate Used for Calculation: 40

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

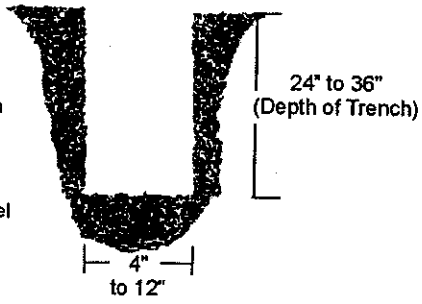
I. Number, Size and Location of Test Holes

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.



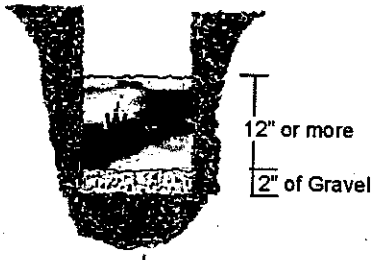
II. Saturation/Swelling of Soil

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.

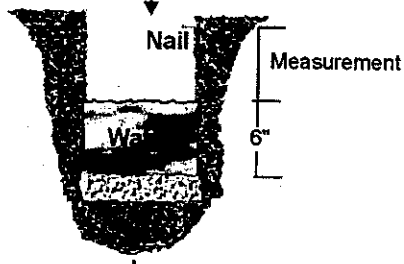
C. Record measurement and time on scratch paper.

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

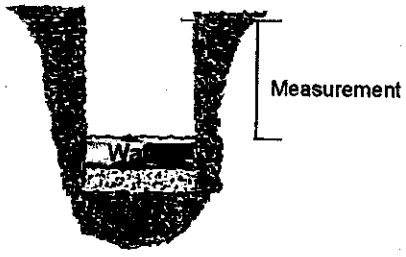
E. After each measurement, refill to 6" above gravel.

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.



½ hour later
(30 minutes)



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.

Lincoln-Lancaster County Health Department
Environmental Public Health Division
3131 O Street • Lincoln NE 68510-1514
Phone: 402-441-8643

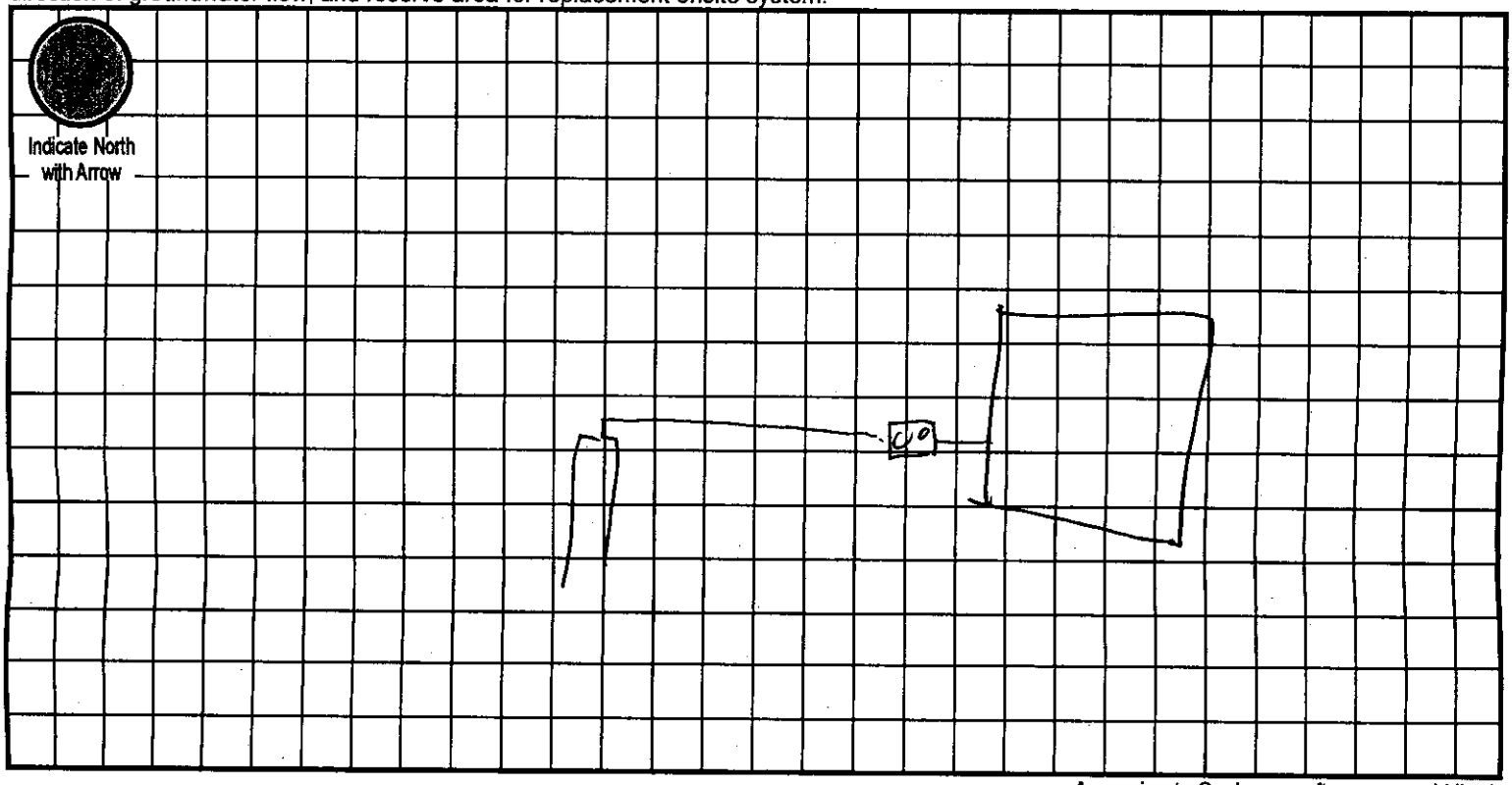
NOV 2 6 2018

C

Permit Number

Onsite Wastewater Treatment System
Preliminary Plan Specification

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



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

A. Onsite System Location

Address (no rural route) PID 09-17-404-[illegible] City Lincoln NE, Zip 68523

B. Proposed Septic Tank/s

Septic Tank Cap. 1500 gals Tank Material: ☑ Concrete ☐ Plastic ☐ Other _____ ☐ Lagoon (Max. Seepage 1/8"/day)

C. Reserve Area for Replacement Onsite System

☑ Drainfield Absorption Area (percolation test required) ☐ Lagoon

D. Drainfield Absorption System

Percolation Rate 40 (min/inch = mpi) No. of Bedrooms 4 Soil Type Wymore silty clay Land Slope 3-6 %

☑ Trench ☐ Bed ☐ Non-standard (engineer-designed and NDEQ approved) Total square feet of drainfield 1170 Sq. Ft.

Total length of laterals 260 Type of Distribution: ☐ Perforated Pipe ☐ Half-Round ☐ Chambers ☐ Other _____

No. of Absorption Trenches 2 Width 36 No. of Drop Boxes _____ Distribution Box 1

No. of Absorption Beds _____ Width _____ No. of Distribution Lines per Bed _____

Installer _____ Date: 11/9/18

Updated 2/18

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. HS001772

System Type: Standard

Situs: No Site Address Specified

Issued: 11/27/2018

Expires: 11/27/2019

Description: TWIN PINES ADDITION, BLOCK 4, Lot 4

Owner: HOY, MARVIN N
2250 BENNET RD UNIT B
ROCA, NE 68430

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

MARCUS HOCHSTEIN
PO BOX 142
EAGLE, NE 68347

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

NOV 2 6 2018
A

Permit Number
HS001772

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* _____ City Lincoln NE Zip 68523
(no rural route)

Legal Description 17 T9 R6 Twin Pine 4 4
1/4 1/4 Section Township Range Subdivision Addition Block Lot

PID 09-17-404-004-ccc *Approx. Address (If to be determined) _____

B. Owner

Name Marcia N Hoy Signature _____
Address 2250 Bennet Rd Unit B City/State/Zip Roca, NE 68430
Home Phone _____ Work Phone _____

C. Certified Installer

Name: Marcus Hochstein Signature _____
Address PO Box 142 City/State/Zip Eagle, NE 68347
Work Phone 402-730-7740

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 3
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 4/19/19 DC
4/23/19 DC
Comments _____
Date rec'd 11/27/18
Date frwd 11/27/18
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 4/24/19

Business Office Use Only
Date Received 11-27-18 Amount Paid $420.00
Received By _____ Cash/Check No. 184

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

Form A Updated: 4/15

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

Exhibit 5

Permit Number: HS001772

Onsite Wastewater Treatment System

Inspection Sheet

Date 4/19/19 Legal Description Twin Pines BLK 4, Lot 4

¼ ¼ Section/Township/Range

Onsite System Location

Address (no rural route) 6855 SW 29th 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 1170 Sq. Ft. Tank Size 1,500 gals

Total length of laterals 260' Type of Distribution: ☐ Chamber ☐ Perforated Pipe ☒ Other (describe) E-Z Flow

No. of Absorption Laterals 2 Width 4.5 Fact. 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

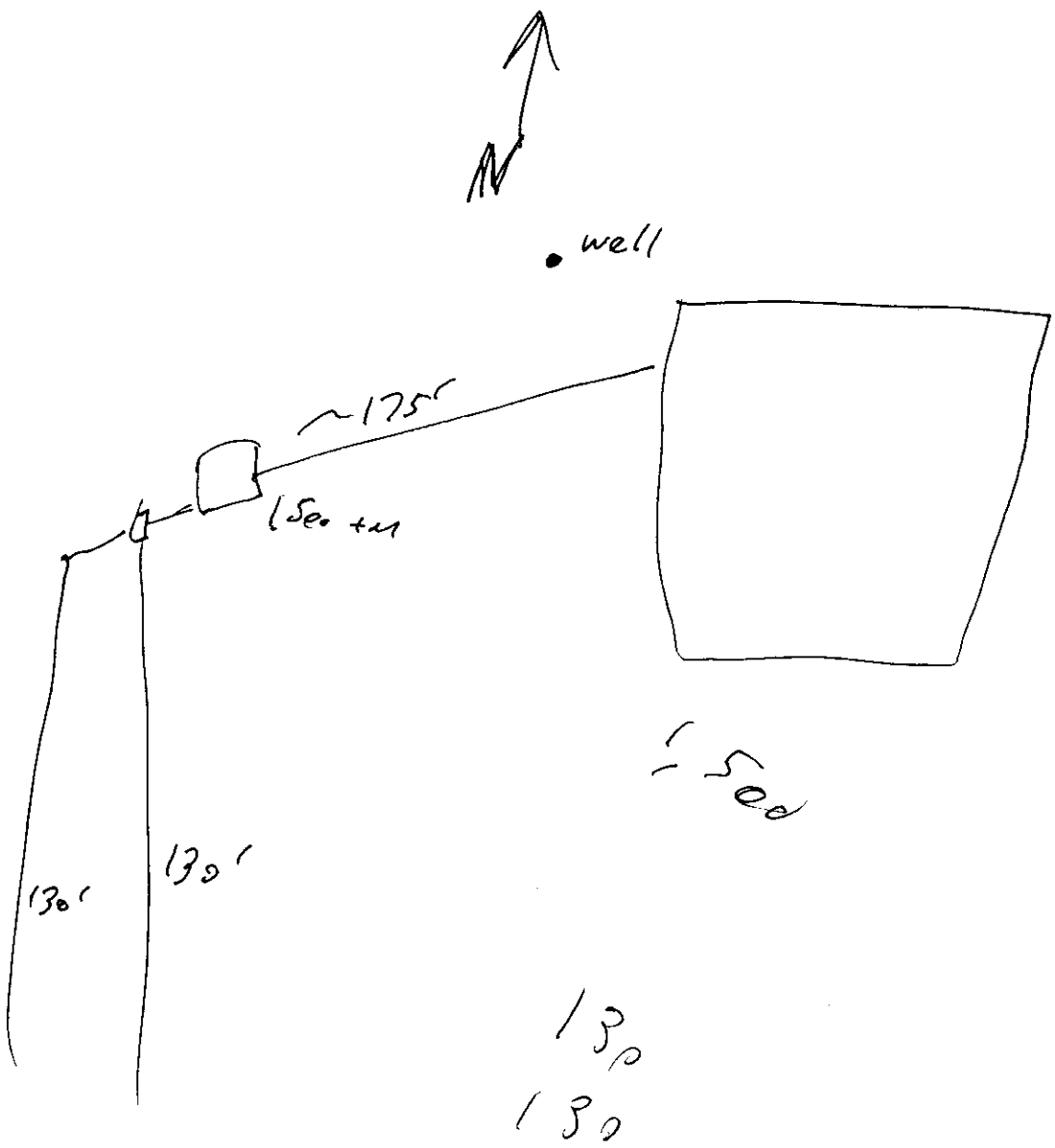
Lateral #1 NA Lateral #3

Lateral #2 Lateral #4

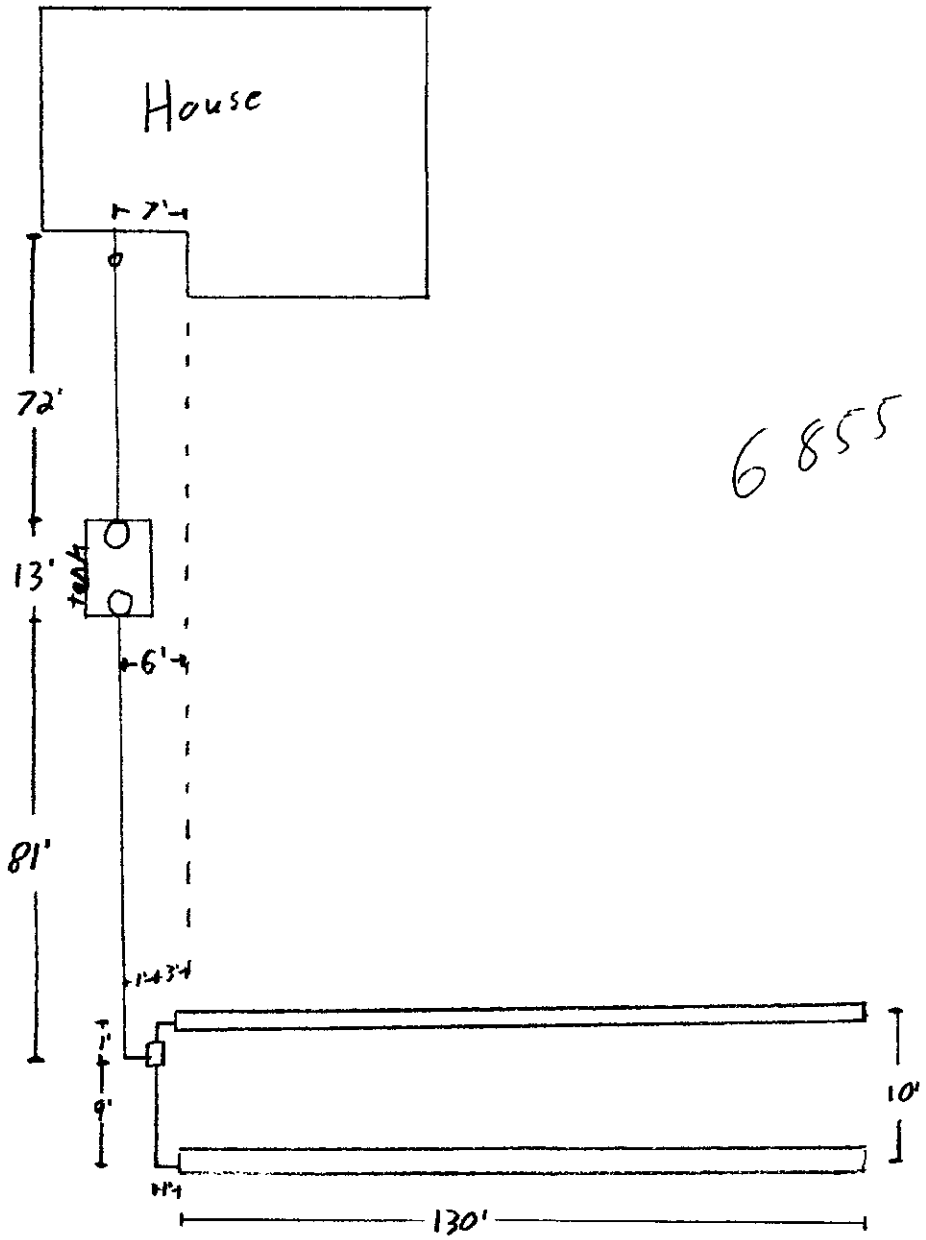
Comments:

Inspections prior to Final Approval
Initial DS. Date 4/19/19
Follow-Up DS. Date 4/23/19
Follow-Up Date
Installation Final Written Approval
By Doug Ahlers
Date 4/24/19

Field Note Drawing (See Reverse Side):


well
~175'
150' +/-
~150'
130'
130'
130'
130'

REC'D APR 25 2019



6855 SW 25th