Lincoln-Lancaster County Health Department

ENVIRONMENTAL PUBLIC HEALTH DIVISION

3140 N STREET · LINCOLN, NE 68510-1514

002801

(402) 441-8000

Permit

SEWAGE INSTALLATION
SEPTIC SYSTEM
ENGINEER DESIGNED SYSTEM

Permit # 02380248801

Issued 06/27/03
Expires 12/27/03
Revenue Code 3157

Establishment

TED H POLIVKA
T12N R7E SEC 14 QTR NE
LOT 7IT
9655 AGNEW RD-WAVERLY

FEES: $200.00
$100.00

Permittee

TED POLIVKA
7800 ARBOR RD
LINCOLN NE 68517

TOTAL: $300.00

Bruce D. Dart

Bruce D. Dart, Health Director

EPH COPY

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

A

Permit Number: 02380248801

Sewage Disposal System

Request for Site Clearance and Permit

Include Form B, Form C and Applicable Fees with this Application.

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

The undersigned hereby requests site clearance and permit to construct a Sewage Disposal System in conformance with appropriate resolution or ordinance, as described herein:

PLEASE PRINT OR TYPE

A. System Location (Indicate correct number and street)

Address 9655 Agnew Rd (no rural route) City Waverly NE, Zip 68462

Legal Description NE 1/4 1/4 Section 14 Township 12N Range 7E Subdivision _____ Addition _____ Block _____ Lot 7 I.T.

Geographical Location (if known): Longitude _____ Latitude _____

☒ Check if system mail address is not the same as the owner's address

B. Owner

Name Ted Polivka Signature Ted Polivka

Address 7800 Arbor RD City/State/Zip Lincoln / NE 68517

☐ Check if owner designed system Home Phone 402/464-6140 Work Phone _____

C. Contractor

Name Ted Polivka Company Name _____

Address 7800 Arbor RD City/State/Zip Lincoln NE 68517

☐ Check if contractor designed system Work Phone _____

D. Engineer/Installer ☒ Check and complete if engineer designed system

Designer Name Nickel Engr Firm Stephen Nickel Work Phone 402 423-0559

E. This System Will Serve a

☒ Residential Dwelling Number of Bedrooms 3 Is there a Whirlpool Bathtub 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. 2832

1. **Health Department** Date rec'd 6/27/03 Date frwd _____ **ACTION** ☒ Approved ☐ Disapproved Signature Jerold C. Hood
2. **Supt. Bldg. Insp. or Village Clerk** Date rec'd _____ Date frwd _____ **ACTION** ☐ Approved ☐ Disapproved Signature _____
3. **City or County Engineer** Date rec'd _____ Date frwd _____ **ACTION** ☐ Approved ☐ Disapproved Signature _____

7-24-03, rec. need loading

Installation Final Written Approval

By Ron Meyer

Date 7-30-03

Business Office Use Only

Date Rec'd 6-27-03

Amt Paid 100.00

Rec'd By TW Cash/Check No. 3230

FORM 23-100 10-96 White - Health Dept. Yellow - Engineer Pink - Bldg. Inspector

NICKEL ENGINEERING
INCORPORATED

7941 Portsche Lane
Lincoln, NE 68516

Phone 402-423-0559
Facsimile 402-423-1859

June 26, 2003

Mr. Ted Polivka
7800 Arbor Road
Lincoln, NE 68517

Dear Mr. Polivka,

As shown on the attached Soil Absorption Test Data Reports, Nickel Engineering performed one percolation test, consisting of six holes, at 9655 Agnew Road to assess the soil's ability to accept a drain field for a septic system. Six test holes were used to determine the percolation rate of the drain field area. This percolation test was conducted by the Nickel Engineering staff. Attached are the Soil Absorption Test Data Report (to be submitted to the Health Department for a permit) and a Disposal System Plan, including soil absorption test hole locations to accompany the report.

Based on the results of the soil absorption test, Nickel Engineering has found that the soil is suitable to handle a drain field provided that the following recommendations are followed:

1. We have based the design of the drain field on a percolation rate of 60 minutes per inch in accordance with regulations. This will require 207 square feet of trench per bedroom. At a maximum trench width of 3 feet, this will require 207 linear feet of trench for 3 bedrooms. All aspects of the design are standard, with the exception of the trench depth, as discussed below.
2. Excavate the trenches to 60 inches of depth, backfill with gravel to a normal lateral depth of 36 inches. Have the excavated trenches inspected by a geotechnical engineer to verify that the parent soil, Peoria loess, is exposed in the trench bottoms. This is important because the soils at shallower depths have significantly slower percolation rates.
3. Construct the system in accordance with the attached layout drawing and with the details provided in *On-site Wastewater Treatment Systems, Chapter 4.10.*
4. As much as possible, avoid sodium in the wastewater (use potassium chloride in any water softener).
5. Use reasonable water conservation measures to limit the quantity of wastewater in the waste disposal system.
6. To the extent possible, keep fats out of the waste disposal system. Do not dump cooking fats or oils down the drain.
7. Maintain beneficial bacteria in the system. Avoid waste that will kill bacteria.
8. Have the septic tank pumped at intervals of 5 years or less. If more than 2 feet of sludge is found at the time of pumping, reduce the pumping interval.

The disposal system shown on the attached Disposal System Plan is twice as large as required. Only the west half is to be constructed at this time. The drain lines on the east side are to be constructed at some time in the future only if the system fails.

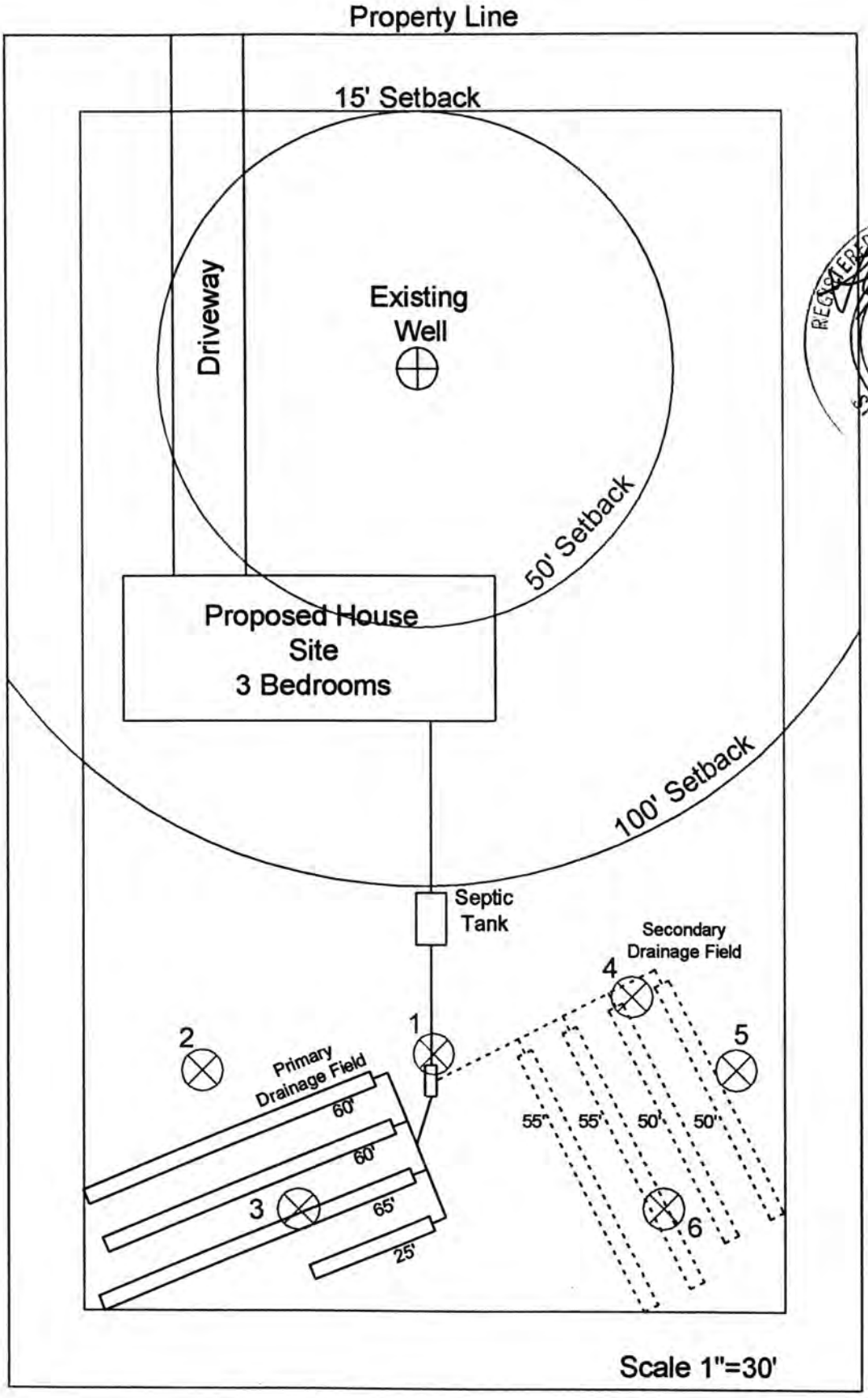
Don't hesitate to call if you have any questions.

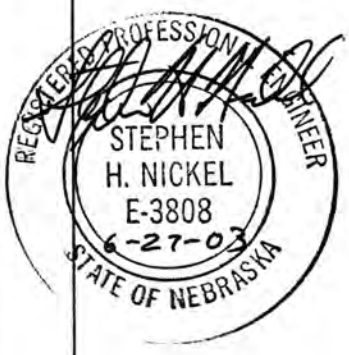
Sincerely,
Nickel Engineering, Inc.



Stephen H. Nickel, P.E.
Principal Engineer

Disposal System Plan





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

B

Permit Number:

Sewage Disposal System

Soil Absorption Test Data Report

Annex to Application

PLEASE PRINT OR TYPE

System Location (Indicate correct number and street)

Address 9655 AGNEW RD (no rural route) City WAVERLY NE, Zip 68462

Owner TED POLIVKA Addresss 7800 ARBOR RD. LINCOLN, NE 68517

Soil Type (SCS): SHARPSBURG SILTY CLAY LOAM Percolation Rate: _____ min./inch

Date of Tests 6/19/03 to 6/20/03 Weather: Precipitation 0 Temperature 80

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	33	6/19	0930	6/19	1330	6/20	1000	6	6/20	1400	30	½	60
2	60	6/19	0935	6/19	1335	6/20	1003	6	6/20	1403	30	3	10
3	60	6/19	0940	6/19	1340	6/20	1007	6	6/20	1407	30	3	10
4	33	6/19	0947	6/19	1350	6/20	1010	6	6/20	1410	30	3⅛	9.6
5	33	6/19	0953	6/19	1353	6/20	1013	6	6/20	1413	30	1	30
6	33	6/19	1000	6/19	1400	6/20	1015	6	6/20	1415	30	2¼	13.3

Sum of Percolation Rates: 132.9 MIN/IN

Average of Rates: 22.15 MIN/IN

Rate Used for Calculation: 60 MIN/IN

Person Conducting Percolation Tests

Name: NICKEL ENGINEERING, INC

Phone: (402) 423-0559

Address 7941 PORTSCHE LANE
LINCOLN, NE 68516

REGISTERED PROFESSIONAL ENGINEER
STEPHEN H. NICKEL
E-3808
6-27-03
STATE OF NEBRASKA

DO NOT WRITE BELOW THIS LINE

Reviewing Action

Remarks _____

Signature of Reviewing Official _____ Date _____

FORM 23-101 10-96

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

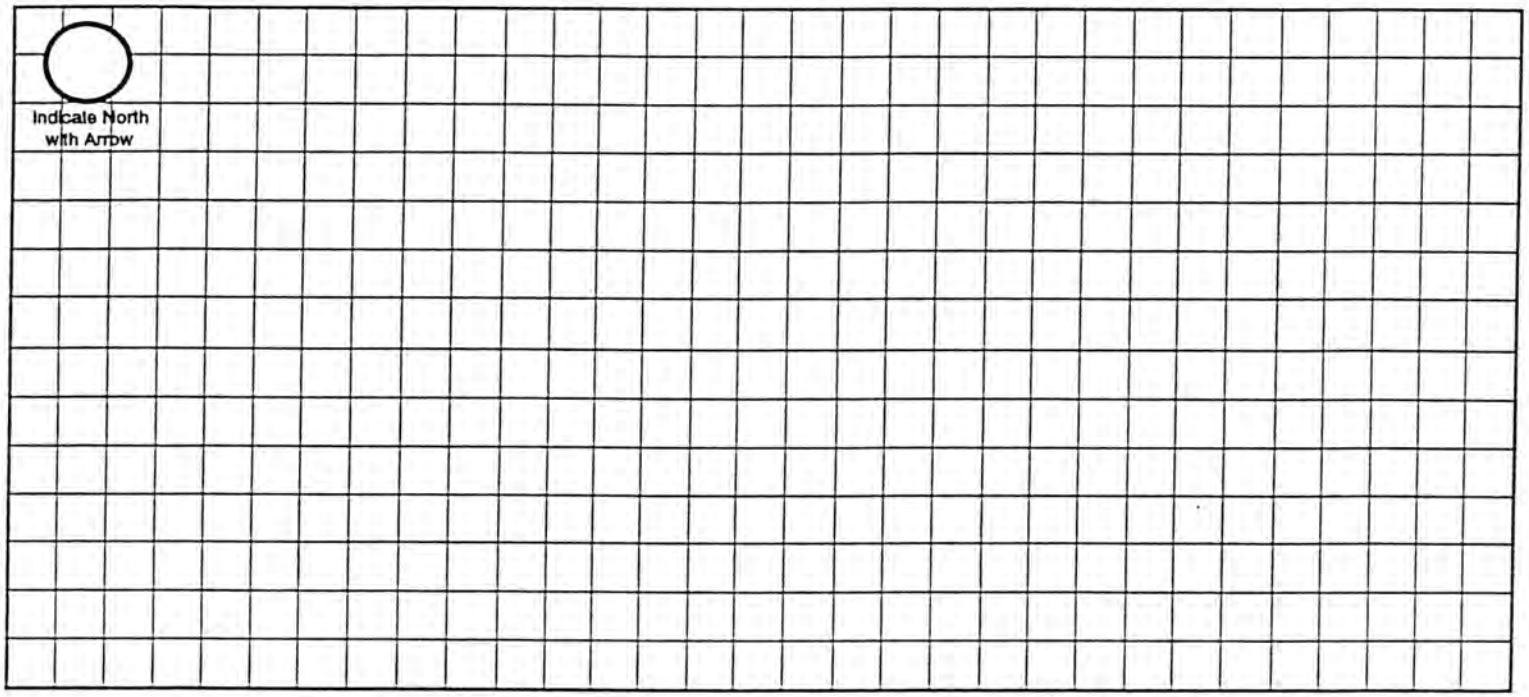
C

Permit Number: 023802488

Sewage Disposal System

Preliminary Plan Specifications

Draw a plot plan showing system location, lines, distribution box, tank and laterals, percolation test hole locations, well, residence, compass direction and property lines. Indicate on drawing if residence and well are existing or proposed.



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

A. System Location (Indicate correct number and street)

Address (no rural route) _____ City _____ NE, Zip _____

B. Proposed Septic Tank/s

Tank Material: ☐ Concrete ☐ Plastic ☐ Other _____

C. Proposed Absorption System (See Form B for Percolation Information)

Percolation Rate _____ (min. per inch) Soil Type: _____ Land Slope: _____ %

Type of Absorption System: ☐ Trench ☐ Bed ☐ Other _____

Total Square Feet of Field Required: _____ sq. ft.

Type of Lateral: ☐ Half-Moon ☐ Perforated Pipe ☐ Other Lateral Material: _____

Capacity of Septic Tank _____ gals Number of Absorption Beds: _____ Number of Distribution Laterals per Bed _____

Total Length of Laterals _____ ft. Number of Trenches _____ Trench Width _____

D. 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 ☐	☐

E. Required Signatures

Home Building Contractor _____ Date _____

Installer Jack H. Pavlovich Date 6/27/03

FORM 23-102 10-96

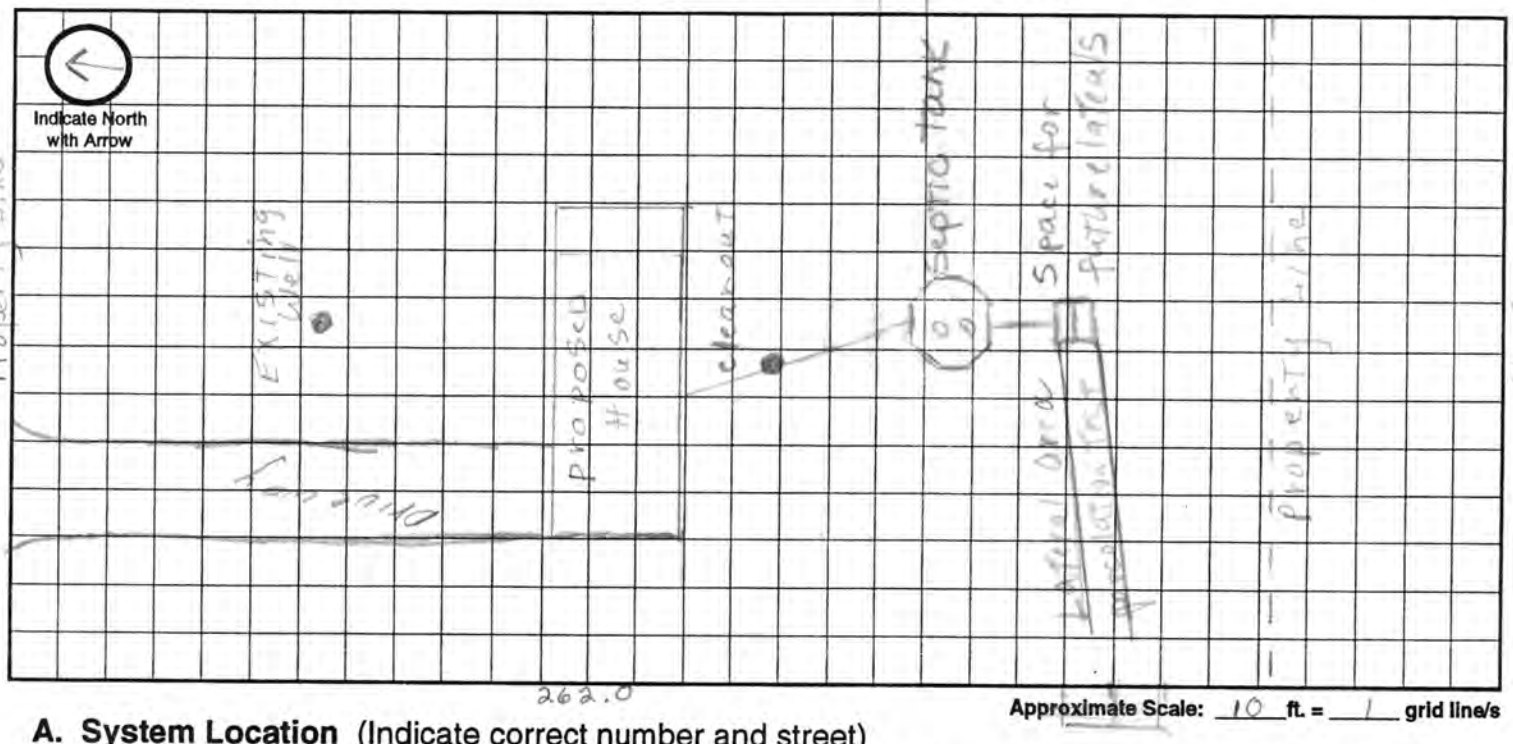
Lincoln-Lancaster County Health Department
Environmental Health Division
3140 "N" Street • Lincoln, NE 68510-1514
Phone: 402-441-8022

C

Permit Number: 07380248

Sewage Disposal System
Preliminary Plan Specifications

Draw a plot plan showing system location, lines, distribution box, tank and laterals, percolation test hole locations, well, residence, compass direction and property lines. Indicate on drawing if residence and well are existing or proposed.



Approximate Scale: 10 ft. = 1 grid line/s

A. System Location (Indicate correct number and street)

Address (no rural route) 9655 Agnew Rd City Waverly NE, Zip 68462

B. Proposed Septic Tank/s

Tank Material: ☒ Concrete ☐ Plastic ☐ Other _____

C. Proposed Absorption System (See Form B for Percolation Information)

Percolation Rate 21 (min. per inch) Soil Type: Sharpsburg silty clay loam Land Slope: _____ %

Type of Absorption System: ☒ Trench ☐ Bed ☐ Other _____

Total Square Feet of Field Required: 500 sq. ft.

Type of Lateral: ☐ Half-Moon ☐ Perforated Pipe ☒ Other Lateral Material: _____

Capacity of Septic Tank 1000 gals Number of Absorption Beds: _____ Number of Distribution Laterals per Bed _____

Total Length of Laterals _____ ft. Number of Trenches _____ Trench Width _____

D. 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 ☐	☐

E. Required Signatures

Home Building Contractor _____ Date _____

Installer _____ Date _____

FORM 23-102 10-96

Attn: Ron Marcuart

JUL 2 8 2003

D

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

Permit Number:

Sewage Disposal System

As Built Plans & Specifications

Date 7/25/03

System Location (Indicate correct number and street)

Address 9655 Agnew Rd (no rural route) City Waverly NE, Zip 68428

A. Building Sewer

1. Material: Plastic
   Diameter: 4 in.
2. Distance above basement floor: 12 in.
   or distance below basement floor: _____ in.
3. Distance between dwelling and septic tank: 43 ft.
4. Number of clean-outs: 1
5. Distances to: well or suction line 45 ft.
   stream _____ ft.
   pressure line _____ ft.
   property line 60 ft.

NOT 3&4 YET

B. Septic Tank

1. Material: concrete
   Number of compartments: 1
2. Capacity: 1000 gal.
3. Factory built: ☒ Yes ☐ No
4. Manholes: Over inlet, diameter 16 in.
   Over outlet, diameter 16 in.
   Riser: ☐ above ☒ below grade 1 in.
5. Inlet: ☒ baffle ☐ tee
6. Outlet: ☒ baffle ☐ tee
7. Depth to top of tank, below unfinished grade: 6 in.
8. Distances to: Well or suction line 116 ft.
   Stream _____ ft.
   Pressure line 71 ft.
   Property line 80 ft.

C. Distribution Box

1. Material: concrete
   Number available outlets: 5 used 4
2. Factory built: ☒ Yes ☐ No
3. Distance from septic tank: 20 ft.

D. Absorption Field

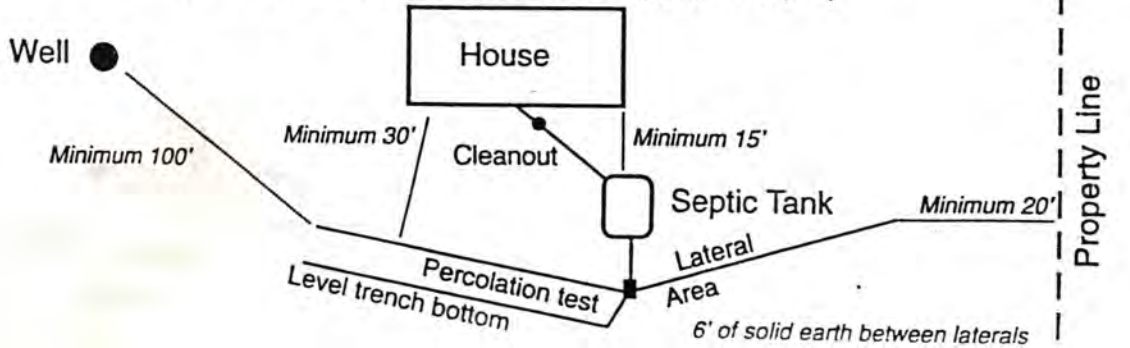
(Provide as-built drawings on back of this form)

1. Type: ☐ Half rounds ☒ Perforated pipe
   Diameter of half round: _____
   or perforated pipe: 4"
   Material: ☐ fiberglass ☒ plastic ☐ concrete
   ☐ other _____
2. Lateral lines: Number 4
   Length of each line: 60 ft. 60 ft.
   65 ft. 25 ft., _____ ft.
3. Trench dimensions: Width 3' ft.
   Slope Level in/100 ft.
   Average depth 5' in
4. Filter material: gravel
   Depth of material 4 in.
5. Distances to: Well or suction line 134 ft.
   Stream _____ ft.
   Pressure line 81 ft.
   Property line 16 ft.

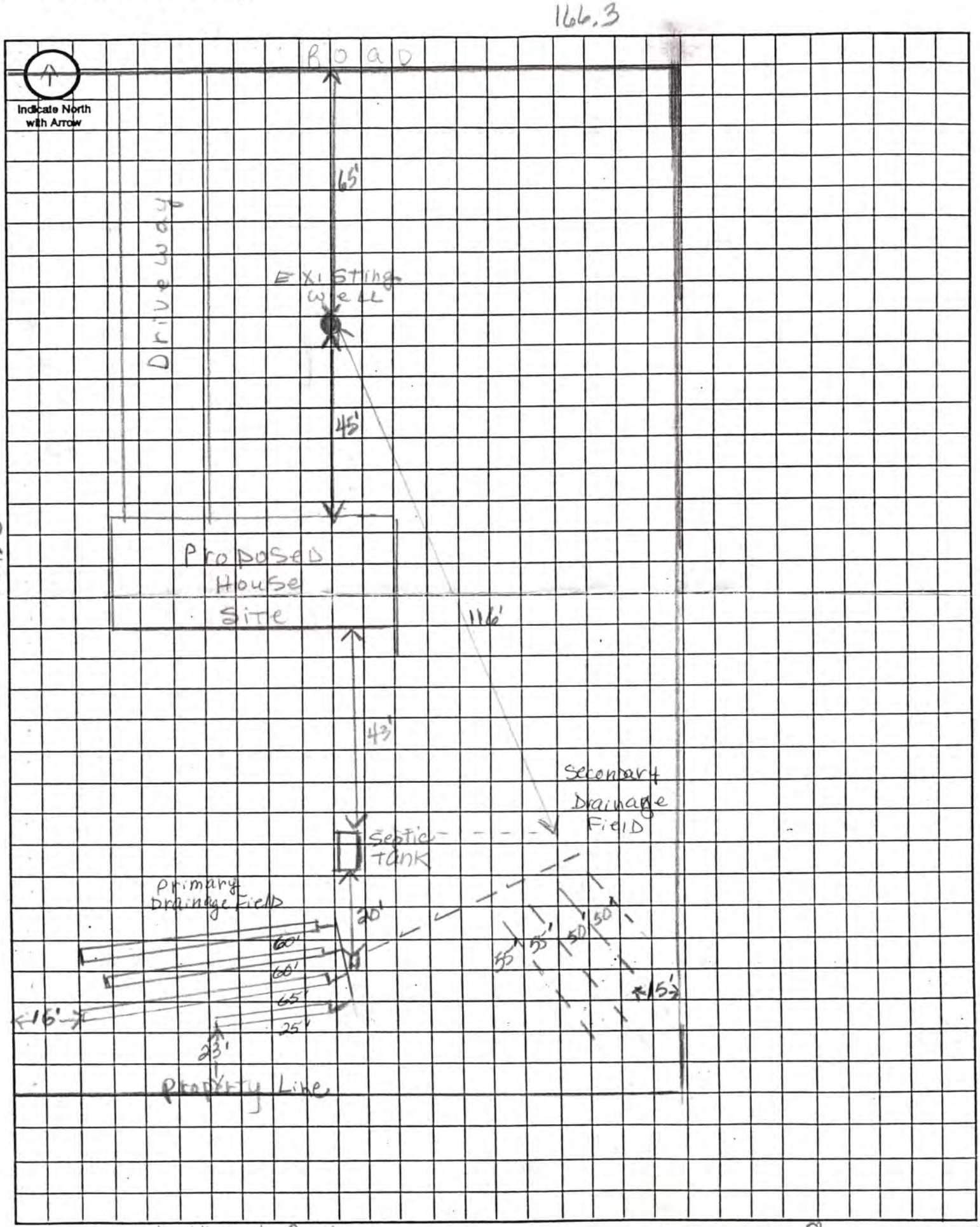
Indicate North with Arrow

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

Individual Sewage System Design (Example)



As Built Drawing



Level trench Bottom
6' of solid Earth between laterals

Approximate Scale: 8 ft. = 1 grid line/s

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

A

Permit Number:

Sewage Disposal System

Request for Site Clearance and Permit

Include Form B, Form C and Applicable Fees with this Application.

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

The undersigned hereby requests site clearance and permit to construct a Sewage Disposal System in conformance with appropriate resolution or ordinance, as described herein:

PLEASE PRINT OR TYPE

A. System Location (Indicate correct number and street)

Address 9655 Agnew Rd (no rural route) City Waverly NE, Zip 68462

Legal Description NE 14 12N 7E 7 I.T.
1/4 1/4 Section Township Range Subdivision Addition Block Lot

Geographical Location (if known): Longitude _____ Latitude _____

☒ Check if system mail address is not the same as the owner's address

B. Owner

Name Ted Polivka Signature Ted M Polivka

Address 7800 Arbor Rd City/State/Zip Lincoln NE 68517

☒ Check if owner designed system Home Phone 402 464-6140 Work Phone _____

C. Contractor

Name owner Company Name _____

Address _____ City/State/Zip _____

☐ Check if contractor designed system Work Phone _____

D. Engineer/Installer ☐ Check and complete if engineer designed system

Designer Name _____ Firm _____ Work Phone _____

E. This System Will Serve a

☒ Residential Dwelling Number of Bedrooms 2 Is there a Whirlpool Bathtub 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. 2832

1. **Health Department** Date rec'd 4/29/02 Date frwd 6/7/02 ACTION ☒ Approved ☐ Disapproved Signature Jerrold C. Hood
2. **Supt. Bldg. Insp. or Village Clerk** Date rec'd 6/7/02 Date frwd _____ ACTION ☑ Approved ☐ Disapproved Signature _____
3. **City or County Engineer** Date rec'd _____ Date frwd _____ ACTION ☑ Approved ☐ Disapproved Signature _____

Installation Final Written Approval

By _____

Date _____

Business Office Use Only

Date Rec'd 6/7/02

Amt Paid $200

Rec'd By _____ Cash/Check No. 2916

FORM 23-100 10-96 White - Health Dept. Yellow - Engineer Pink - Bldg. Inspector

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

B

Permit Number: 02380248

Sewage Disposal System

Soil Absorption Test Data Report
Annex to Application

PLEASE PRINT OR TYPE

System Location (Indicate correct number and street)

Address 9655 Agnew RD (no rural route) City Waverly NE, Zip 68462

Owner Ted Polivka Addresss 7800 Arbor RD Lincoln NE 68517

Soil Type (SCS): Silty Clay Loam Sharpsburg Percolation Rate: _____ min./inch

Date of Tests 4/14/02 to 4/15/02 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	36	4/14	8:45	4/14	12:45	4/15	12:30	6"	4/15	1:00	30	1 3/8	22
2	36	4/14	8:45	4/14	12:45	4/15	12:30	6"	4/15	1:00	30	2	15
3	36	4/14	8:45	4/14	12:45	4/15	12:30	6"	4/15	1:00	30	1 1/4	24
4	36	4/14	8:45	4/14	12:45	4/15	12:31	6"	4/15	1:01	30	1 7/8	16
5	36	4/14	8:45	4/14	12:45	4/15	12:31	6"	4/15	1:01	30	1 4/8	20
6	36	4/14	8:45	4/14	12:45	4/15	12:31	6"	4/15	1:01	30	1 1/8	27

Person Conducting Percolation Tests

Name: Ted Polivka

Phone: 464-6140

Address 7800 Arbor RD
Lincoln NE 68517

1 acre plot?

Sum of Percolation Rates: 9 1/8 - 124

Average of Rates: 21

Rate Used for Calculation: 24

125' trench

~ 500 sq. ft. drain field
4 ft trench
infiltrator w/ gravel

DO NOT WRITE BELOW THIS LINE

Reviewing Action

Remarks _____

Signature of Reviewing Official _____ Date _____

FORM 23-101 10-96