LINCOLN-LANCASTER COUNTY HEALTH DEPARTMENT

3140 "N" STREET ENVIRONMENTAL HEALTH DIVISION (402) 441-8000
Lincoln, NE 68510-1514

NON TRANSFERABLE

PERMIT

Permit No. 98380179001

SEWAGE INSTALLATION
OTHER

Issued 06/25/98
Expires 12/25/98
Revenue Code 3157

PAID

FEES: $150.00

Establishment

CHAD LOCKE
T11N R5E SEC 9 QTR SW
LOT 4&5
11100 W WAVERLY RD-MALCOLM

TOTAL $150.00

Permittee

CHAD LOCKE
920 W CUSTER ST
LINCOLN NE 68521-3854

Issued By Health Director
Lincoln-Lancaster County Health Department

THIS LICENSE OR PERMIT IS ISSUED SUBJECT TO REVOCATION AS PROVIDED BY LAW "POST IN A PROMINENT PLACE"

007678

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 11100 West Waverly Road (no rural route) City Malcolm NE, Zip 68402

Legal Description SW 1/4 1/4 9 Section 11N Township 5E Range ____ Subdivision ____ Addition ~~Part of Lot 14 all of Lot 15~~ LOT 22 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 Chad Locke Signature [signature]

Address 920 W. Custer City/State/Zip Lincoln NE 68521

☐ Check if owner designed system Home Phone 477-7571 Work Phone 472-8105

C. Contractor

Name John Kramer Company Name Kramer & Son Construction

Address 4600 Rentfro Dr. City/State/Zip Lincoln NE 68526

☐ Check if contractor designed system Work Phone 489-9209

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

Designer Name Lyle Loth Firm ESP Work Phone ____

E. This System Will Serve a

☒ Residential Dwelling Number of Bedrooms 4 Is there a Whirlpool Bathtub (YES) NO

☐ Commercial Establishment/Other Facility Specify ____

Design flow in gallons per day 600 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 6-18-98 Date frwd 6/25/98	**ACTION** ☒ Approved ☐ Disapproved Signature [signature]	
2. **Supt. Bldg. Insp. or Village Clerk**	Date rec'd 6-26-98 Date frwd 6-25-98	**ACTION** ☒ Approved ☐ Disapproved Signature [signature]	
3. **City or County Engineer**	Date rec'd 6-25-98 Date frwd 6-25-98	**ACTION** ☐ Approved ☐ Disapproved Signature [signature]	

6-30-98 mm needs ☆

Installation Final Written Approval

By Ron Mangen

Date 7-6-98

☆ EXPERIMENTAL SYSTEM

Business Office Use Only

Date Rec'd 06/18/98
Amt Paid 150.00
Rec'd By LS Cash/Check No. 5814

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

B

Lincoln-Lancaster County Health Department
Environmental Health Division
3140 "N" Street • Lincoln, NE 68510-1614
Phone: 402-441-8022

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 11100 West Waverly Road (no rural route) City Malcolm NE. Zip 68402

Owner Chad Locke Address 920 W. Custer Lincoln NE 68521

Soil Type (SCS): Clay Loam 120 min/inch Percolation Rate: 120 min/inch min/inch

Date of Tests 2-21-98 to 2-22-98 Weather: Precipitation 1/4 Temperature 50

N.W. 112th & Waverly Rd.

Percolation Test Data Table

A. Hole No.	B. Hole Depth (in)	C. D. Pre-Saturation Period Start Date (Mo/Da)	Start Time (Hr/Min)	E. F. Pre-Saturation Period End Date (Mo/Da)	End Time (Hr/Min)	G. H. I. Percolation Readings Start Date (Mo/Da)	Start Time (Hr/Min)	Water Lev (in.)	J. K. End Date (Mo/Da)	End Time (Hr/Min)	L. M. N. Results Elapsed Time (Min)	Water Level Drop (in)	Percolation Rates (Min/in)
1	36	2-21	9:30A	2-22	3:00P	2-22	3PM	6	2-22	330P	30	3/8	80
2	36	2-21	930A	2-22	3PM	2-22	3PM	6	2-22	330P	30	3/8	80
3	36	2-21	930A	2-22	3PM	2-22	3PM	6	2-22	330P	30	3/8	80
4	36	2-21	930A	2-22	3PM	2-22	3PM	6	2-22	330P	30	1/4	120
5	36	2-21	9:30A	2-22	3PM	2-22	3PM	6	2-22	330P	30	1/4	120
6	36	2-21	930A	2-22	3PM	2-22	3PM	6	2-22	330P	30	3/8	80

Sum of Percolation Rates: 560
Average of Rates: 93.3
Rate Used for Calculation: 120

Person Conducting Percolation Tests

Name: Brian Shafer
Phone: 464-0638
Address 2700 Dan Ave

DO NOT WRITE BELOW THIS LINE

Reviewing Action

Remarks Approved; see attached comments

Signature of Reviewing Official James E Bare Date 6-18-98

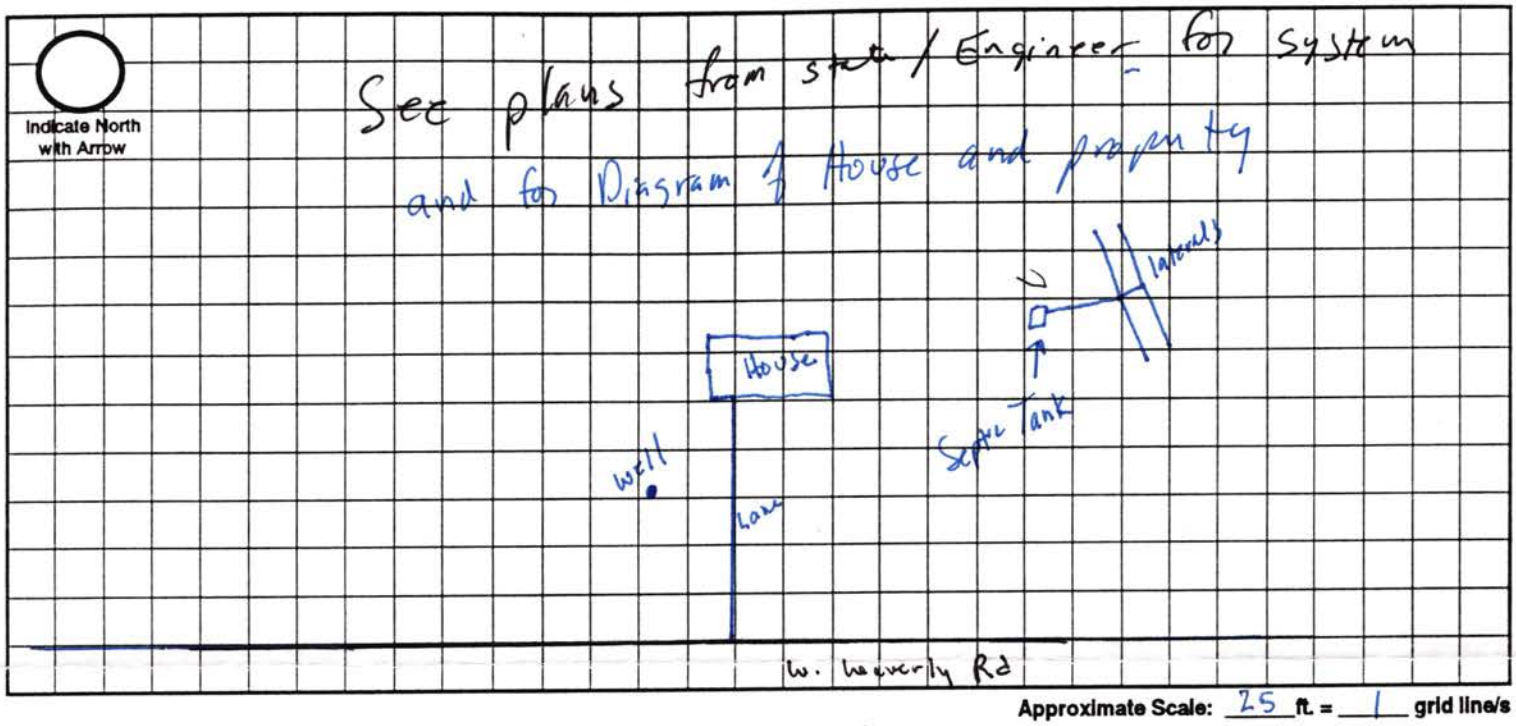
Lincoln-Lancaster County Health Department
Environmental Health Division
3140 "N" Street • Lincoln, NE 68510-1514
Phone: 402-441-8022

C

Permit Number:

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: 25 ft. = 1 grid line/s

A. System Location (Indicate correct number and street)

Address (no rural route) 11100 West Waverly City Malcolm NE, Zip 68402

B. Proposed Septic Tank/s

Tank Material: ☐ Concrete ☐ Plastic ☒ Other Fiberglass

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

Percolation Rate 120 (min. per inch) Soil Type: Pawnee + Sharpsburg silty clay loam Land Slope: < 2 %

Type of Absorption System: ☒ Trench ☐ Bed ☐ Other

Total Square Feet of Field Required: 1279 sq. ft.

Type of Lateral: ☐ Half-Moon ☐ Perforated Pipe ☒ Other Lateral Material: Equalizer 24 chamber

Capacity of Septic Tank ~~1000~~ 1500 gals Number of Absorption Beds: 4-Trenches Number of Distribution Laterals per Bed 1 row of 8 chambers/Bed

Total Length of Laterals 268 ft. Number of Trenches 4 Trench Width 5 ft

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 John P. Kramer Date 6-16-98

Installer Larry Schwarck Trenching Date 6/17/98

FORM 23-102 10-96

JUL 22 1998

D

98380179001

11,5,9

Chad Locke

≥ 100
≥ 500
≥ 100
≥ 400

≥150
≥500
≥100
≥400

≥150
≥500
≥100
≥400

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

JUL 1 1998

Permit Number:

Sewage Disposal System

As Built Plans & Specifications

Date 6-30-98

System Location (Indicate correct number and street)

Address 11100 W Waverly Rd (no rural route) City _____ NE, Zip _____

A. Building Sewer

1. Material: Class 160
   Diameter: 4 in.
2. Distance above basement floor: _____ in.
   or distance below basement floor: 16 in.
3. Distance between dwelling and septic tank: 55 ft.
4. Number of clean-outs: 1
5. Distances to: well or suction line _____ ft.
   stream _____ ft.
   pressure line _____ ft.
   property line _____ ft.

B. Septic Tank

1. Material: Precast
   Number of compartments: _____
2. Capacity: 1500 gal.
3. Factory built: ☒ Yes ☐ No
4. Manholes: Over inlet, diameter _____ in.
   Over outlet, diameter _____ in.
   Riser: ☐ above ☐ below grade _____ 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 _____ ft.
   Stream _____ ft.
   Pressure line _____ ft.
   Property line _____ ft.

C. Distribution Box

1. Material: Precast
   Number available outlets: _____
2. Factory built: ☒ Yes ☐ No
3. Distance from septic tank: 15 ft.

D. Absorption Field

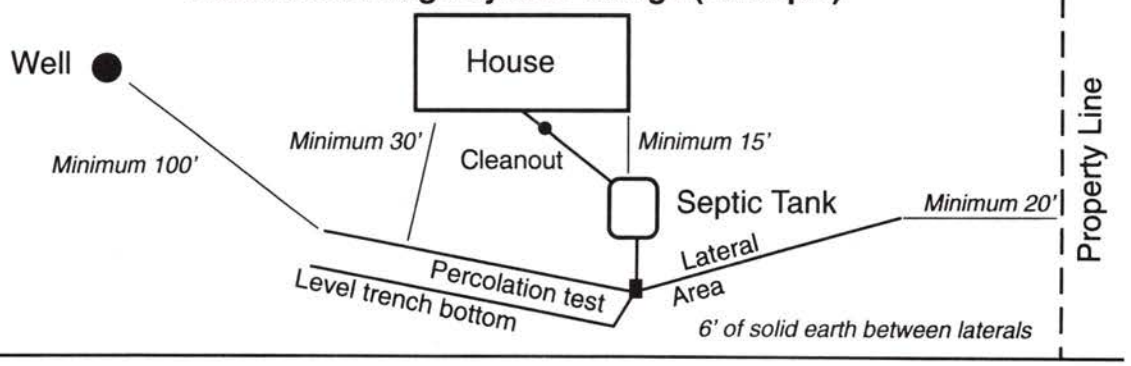
(Provide as-built drawings on back of this form)

1. Type: ☐ Half rounds ☐ Perforated pipe
   Diameter of half round: Infiltrator 16 =
   or perforated pipe: _____
   Material: ☐ fiberglass ☒ plastic ☐ concrete
   ☐ other _____
2. Lateral lines: Number 4
   Length of each line: 75 ft. 25 ft.
   25 ft. 75 ft., _____ ft.
3. Trench dimensions: Width 5 ft.
   Slope 2 in/100 ft.
   Average depth 32 in
4. Filter material: within SAND
   Depth of material 18 in.
5. Distances to: Well or suction line _____ ft.
   Stream _____ ft.
   Pressure line _____ ft.
   Property line _____ ft.

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

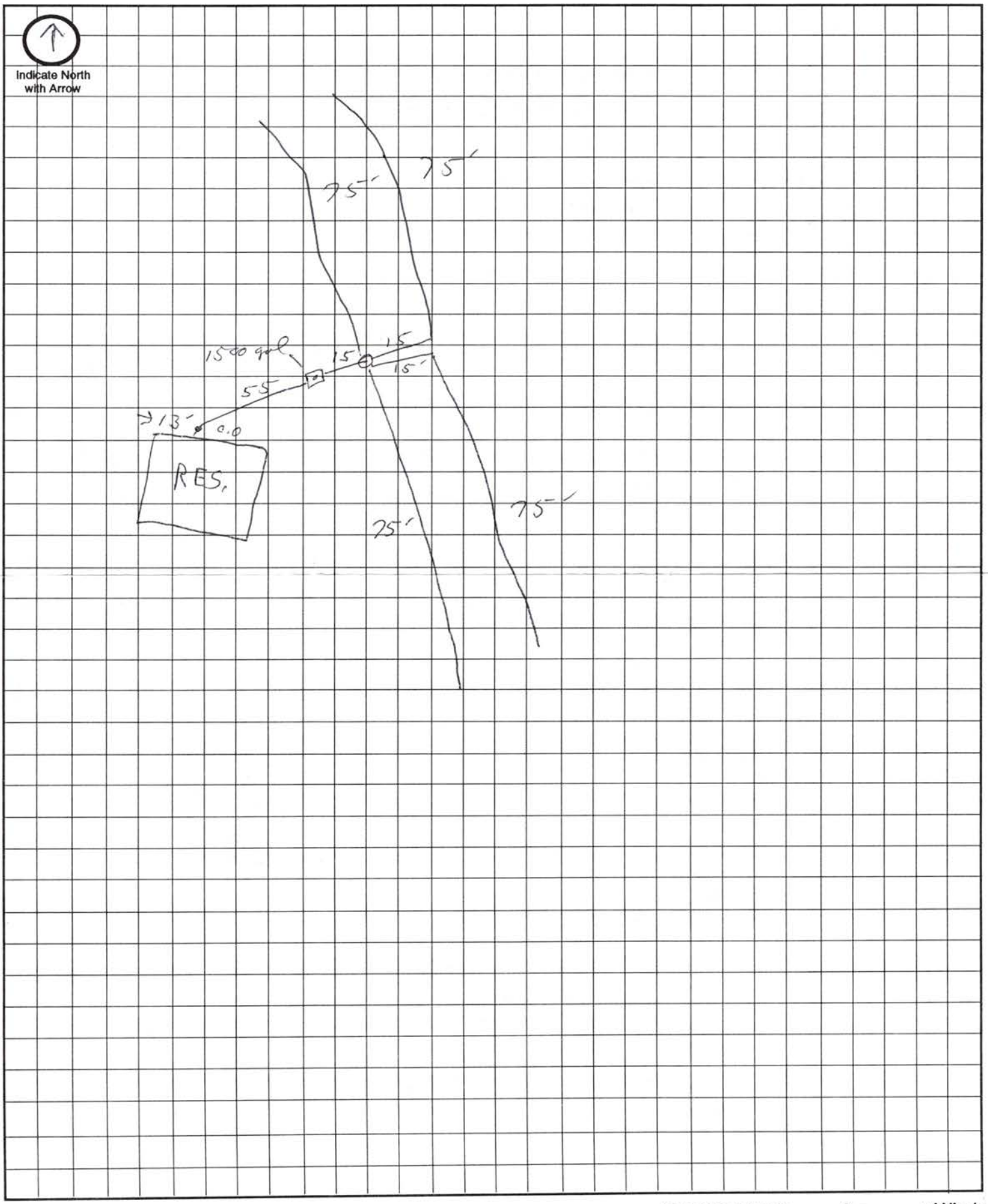
Indicate North with Arrow

Individual Sewage System Design (Example)



FORM 23-103 10-96

As Built Drawing by Larry Schwarck 6-30-98



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

STATE OF NEBRASKA

JUN 5 1998

DEPARTMENT OF ENVIRONMENTAL QUALITY
Randolph Wood
Director
Suite 400, The Atrium
1200 'N' Street
P.O. Box 98922
Lincoln, Nebraska 68509-8922
Phone (402) 471-2186

E. Benjamin Nelson
Governor

Construction Permit # 98S036

Chad and Kristie Locke
920 W. Custer
Lincoln, NE 68521

RE: Onsite Wastewater Treatment System
SW1/4, SW1/4, Sec 9, T11N, R5E LOT 22
Lincoln, NE, Lancaster County

Dear Chad and Kristi Locke:

Documents describing the above-referenced project have been approved and stamped accordingly. Pursuant to Neb. Rev. Stat. Sec. §81-1506(2)(Reissue 1987), a permit for construction is hereby granted. This permit shall also serve as the operating permit for the facility once construction is complete.

Compliance with minimum sanitary engineering design criteria was the only consideration in the review of this project and items such as quality of material, structural soundness, electrical and mechanical design features were not considered unless specifically noted in the review comments. However, this approval does not in any way release the owner from the responsibility of providing an operable facility.

Construction shall be as described in the approved documents. If, for any reason, major changes are necessary, written approval must be obtained from this Department before proceeding.

One set of documents is being made a part of this Department's records, and the remaining documents are being returned to you.

Please complete and return the enclosed card as soon as the information is available. If you have any questions please contact Steven M. Goans, P.E. at (402) 471-2580.

Pursuant to a Delegation Memorandum dated January 30, 1995, and signed by the Director, the undersigned hereby executes this document on behalf of the Director.

Signed the 3rd day of June, 1998.

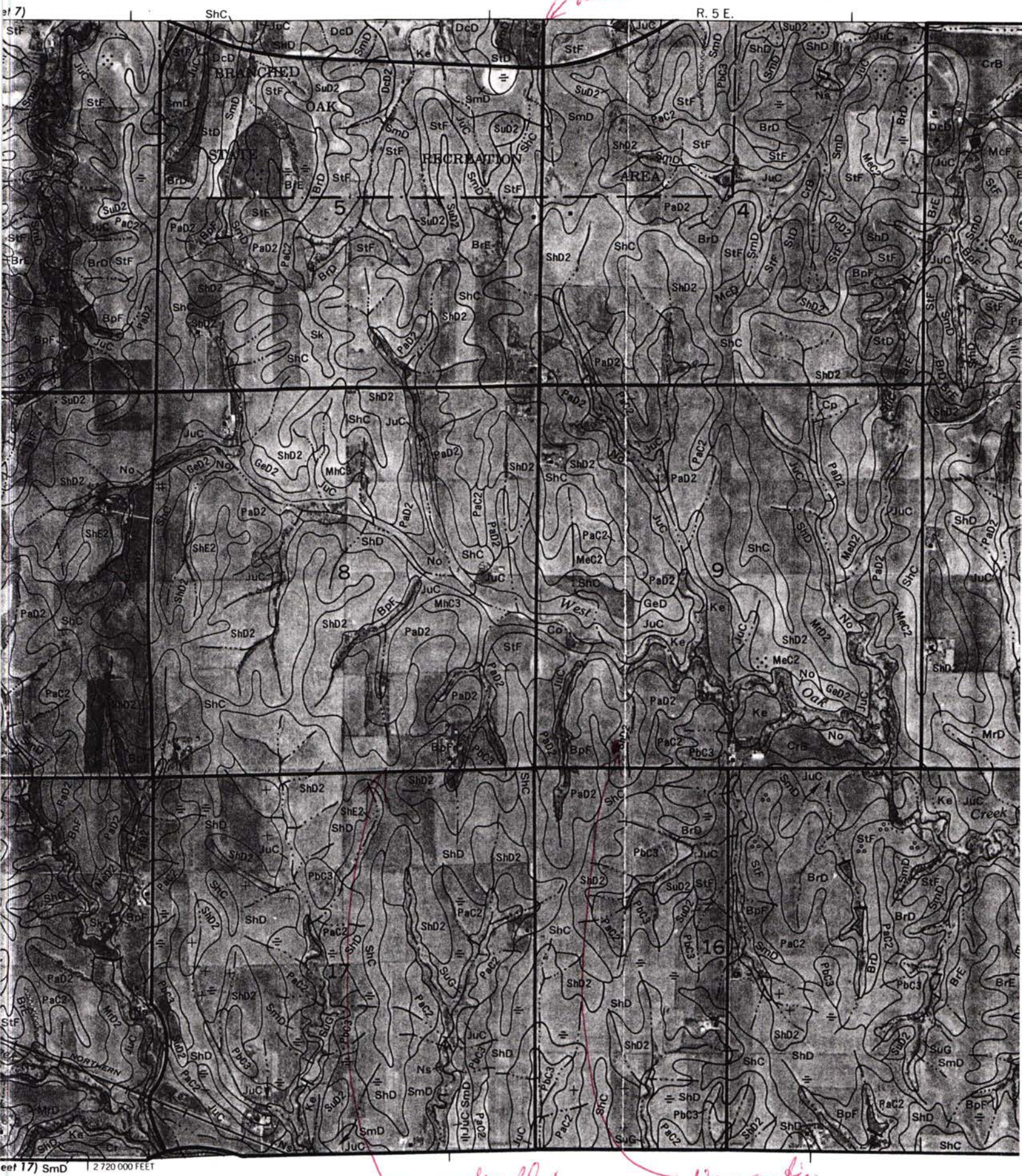
Sincerely,

Patrick W. Rice
for Assistant Director

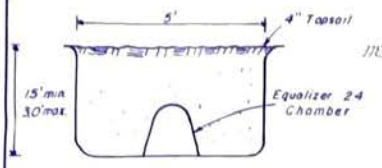
PWR/hrm
cc:Lyle Loth, ESP Engineering
John Minor, Lincoln Lancaster County Health

An Equal Opportunity/Affirmative Action Employer

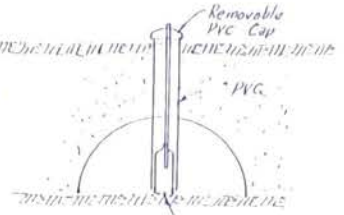
Printed with soy ink on recycled paper


NW 112th
R. 5 E.
BRANCHED OAK STATE RECREATION AREA
West Oak Creek
W. Waverly Rd.
New septic
NORTHERN
5
4
8
9
17
16
2 720 000 FEET

477 7571



SECTION A-A



HIGH WATER INDICATOR
(4 Req'd)

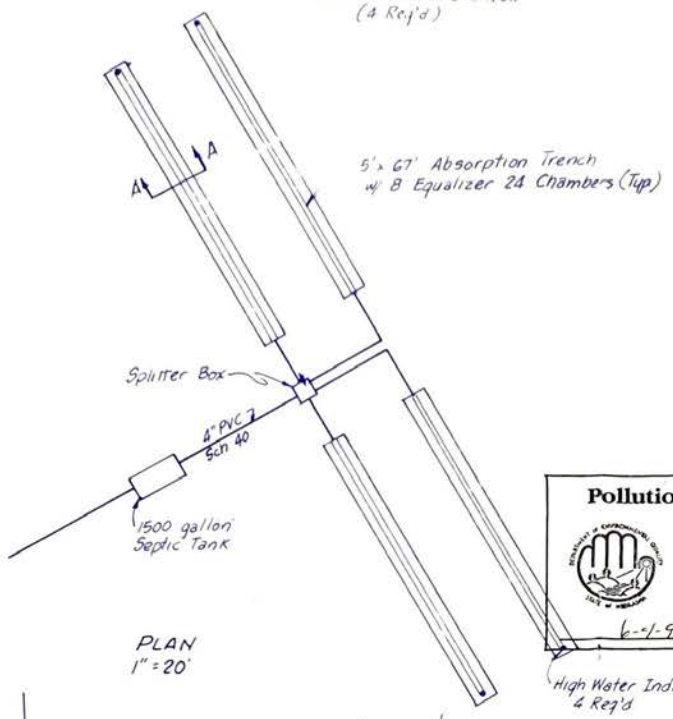
EVAPOTRANSPIRATION/ABSORPTION SYSTEM

OWNER	Chad & Kristie Locke
ADDRESS	11100 West Waverly Road
LEGAL	Part of Lot 4 and All of Lot 5, I.T.'s in the SW 1/4 of Section 9, T-11-N, R-5-E
SIZE OF HOUSE	4 Bedrooms
DESIGN FLOW	4 BR x 150 gal/day/BR = 600 gal/day
PERCOLATION RATE	120 minutes/inch
EVAPORATION LOSS	8" per year = 0.0135 gal/sq ft/day
ABSORPTION RATE	Allowable Absorption based on Formula $Q = \frac{5\sqrt{t}}{t}$ = Percolation Rate For t = 120 mn/in, Q = 0.456 gal/day
TOTAL LOSSES	0.013 + 0.456 = 0.469 gal/sq ft/day
REQUIRED AREA	600 gal/day ÷ 0.469 = 1279 sq ft 1279 sq ft x 25% = 320 sq ft Infiltrator Base Area 320 sq ft ÷ 10.42 sq ft per chamber = 30.7 chambers
	Use 4 trenches with 8 Equalizer 24 Infiltrator Chambers per trench
	Each Trench to be 5' wide x 67' long
	32 Equalizer 24 Chambers @ 33.3 Gal/Chamber = 1066 gal 2.04 gal/cu ft of Wicking Sand x 2538 cu ft = 5178 gal Total Storage Volume = 6243 gal

NOTE: The Contractor shall excavate an inspection pit to confirm that a 4' separation can be maintained from any seasonal water table (perched or otherwise) or impermeable clay or rock layer.

It is recommended that a water meter be installed on the water supply so that the Owner can monitor their water use and ensure that not more than 600 gallons per day are being used.

It may be necessary to adjust the orientation of the trenches so that the minimum (1.5') and maximum (3.0') depths are not exceeded.



PLAN
1" = 20'

Pollution Control Project

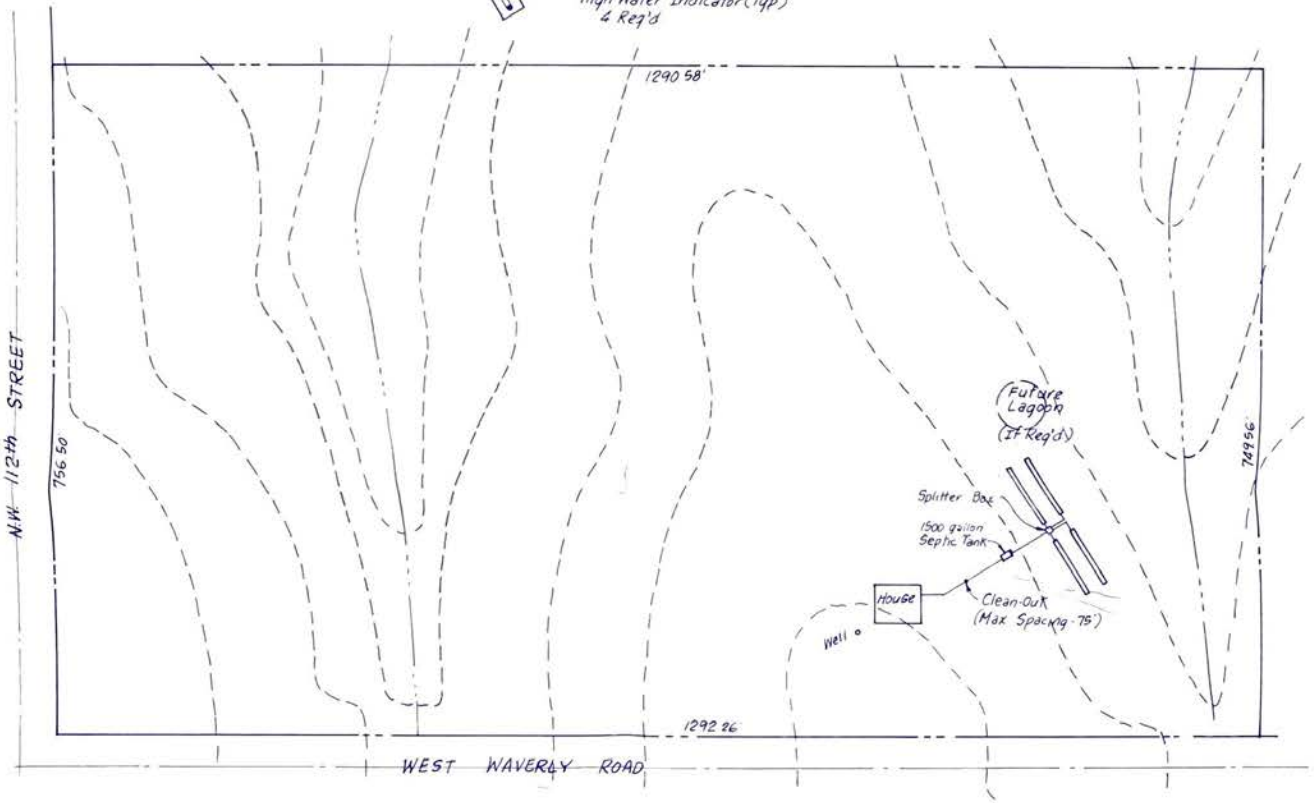
APPROVED

6-1-98

DEPARTMENT OF ENVIRONMENTAL QUALITY

MAY 29 1998

RECEIVED



6-22-98

Chad Locke 11100 West Waverly Road	EVAPORATION/TRANSPIRATION/ABSORPTION SYSTEM	**Garber & Work, Inc.** Lincoln, Nebraska ENGINEERING • ARCHITECTURE Scale: 1" = 100' Date: April 1, 1998	Drwg. No. 9585