LINCOLN-LANCASTER COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION

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

NON TRANSFERABLE

PERMIT

Permit No. 97380155801

SEWAGE INSTALLATION
SEPTIC SYSTEM

Issued 04/01/97
Expires 09/01/97
Revenue Code 18754

Establishment

ROGER DOWNS
T9N R6E SEC 21
RIDGEWOOD BLK 4 LOT 5
8201 SW WOODBERRY DRIVE

FEES: $150.00

Permittee

ROGER DOWNS
322 W LAKESHORE DR
LINCOLN NE 68528

TOTAL $150.00

Issued By M. Jane Ford
Health Director

3475

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

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 8201 SW WOODBERRY DR (no rural route) City LINCOLN NE, Zip 68523

Legal Description 1/4 1/4 Section 21 Township 9N Range 6E Subdivision RIDGEWOOD Addition 4 Block 5 Lot

Geographical Location (if known): Longitude _____ Latitude _____

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

B. Owner

Name ROGER DOWNS Signature Roger Downs

Address 322 N. LAKESHORE DR. City/State/Zip LINCOLN, NE 68528

☐ Check if owner designed system Home Phone 438-3220 Work Phone 476-6581

C. Contractor

Name KEN WHYRICK Company Name STONEWOOD BUILDERS INC

Address 205 S 9th City/State/Zip LINCOLN, NE 68508

☐ Check if contractor designed system Work Phone 402 438-3939

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

Designer Name Randall Casement Firm Capital City Tr. Work Phone 476-6313

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 3/26/97 Date frwd _____ **ACTION** ☒ Approved ☐ Disapproved Signature Jerrold C. Hood
2. **Supt. Bldg. Insp. or Village Clerk** Date rec'd 3/31/97 Date frwd 3/31/97 **ACTION** ☒ Approved ☐ Disapproved Signature _____
3. **City or County Engineer** Date rec'd 3-31-97 Date frwd 3-31-97 **ACTION** ☒ Approved ☐ Disapproved Signature _____

EXPERIMENTAL SYSTEM, PROVISIONAL

Installation Final Written Approval*

By Jerrold C. Hood R.E.H.S.

Date OCTOBER 16, 1997

Business Office Use Only

3188

Date Rec'd 03/26/97
Amt Paid 150.00
Rec'd By _____ Cash/Check No. 2039

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:

Sewage Disposal System

Soil Absorption Test Data Report
Annex to Application

PLEASE PRINT OR TYPE

System Location (Indicate correct number and street)

Address 8201 S. Woodberry (no rural route) City RFD Lincoln NE, Zip 68521

Owner Roger Downs Addresss

Soil Type (SCS): WTC, SHO Percolation Rate: min./inch

Date of Tests 3-17 to 3-18 Weather: Precipitation — Temperature 40's

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	3/17	9:30	3/18	9:00	3/18	12:40	19	3/18	1:10	30	5/8	48
2			A		A		P	20 1/8		P		3/4	40
3								18				5/8	48
4								26				5/8	48
5								21 3/4				5/8	48
6								18 3/4				5/8	48
7								19 1/2				5/8	48

Sum of Percolation Rates: 328
Average of Rates: 47
Rate Used for Calculation:

Person Conducting Percolation Tests

Name: Brad Southwick
Phone: 792-2462/430-7606
Address 17201 So 72
Hickman, Ne 68372

[2 holes approx 25' east of test area perc at 60 min/in only — system has to go where this test was taken]

DO NOT WRITE BELOW THIS LINE

Reviewing Action

Remarks TURNS OUT SYSTEM COULD NOT BE PUT IN THIS AREA SO EXPERIMENTAL SYSTEM IS TO BE INSTALLED.

Signature of Reviewing Official Jerrold C. Hood R.E.H.S. Date MARCH 26, 1997

FORM 23-101 10-96

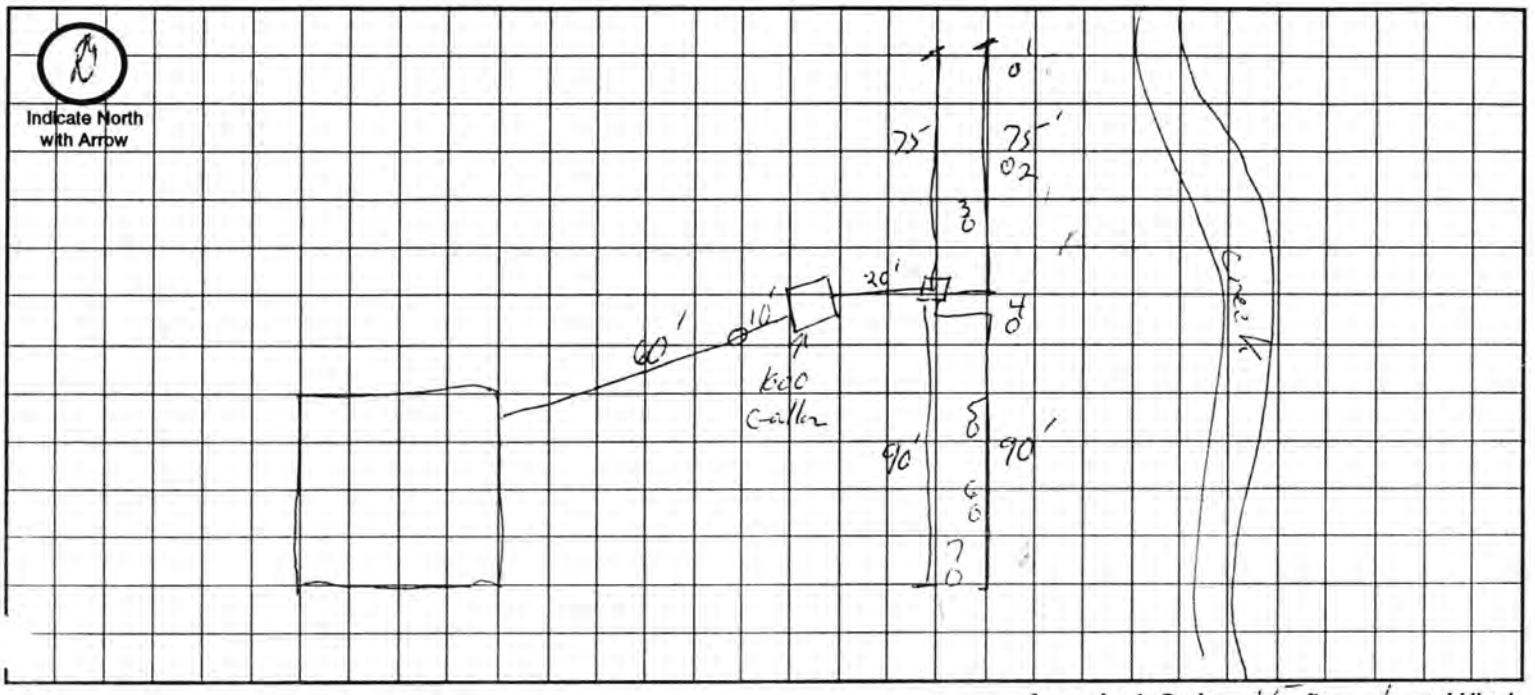
Lincoln-Lancaster County Health Department
Environmental Health Division
3140 "N" Street • Lincoln, NE 68510-1514
Phone: 402-441-8022

C

Permit Number:

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: 15 ft. = 1 grid line/s

A. System Location (Indicate correct number and street)

Address (no rural route) 4201 SW Woodberry 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 52 (min. per inch) Soil Type: Sch/WTC Land Slope: 20 %

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

Total Square Feet of Field Required: 990 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 330 ft. Number of Trenches 4 Trench Width 3'

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 _____

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

D

Permit Number:

Sewage Disposal System

As Built Plans & Specifications

Date _____

System Location (Indicate correct number and street)

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

A. Building Sewer

1. Material: plastic
   Diameter: 4 in.
2. Distance above basement floor: NA in.
   or distance below basement floor: 12 in.
3. Distance between dwelling and septic tank: 52 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: concrete
   Number of compartments: 1
2. Capacity: 1500 gal.
3. Factory built: ☑ Yes ☐ No
4. Manholes: Over inlet, diameter 4x8 in.
   Over outlet, diameter 4x10 in.
   Riser: ☐ above ☐ below grade _____ in.
5. Inlet: ☐ baffle ☐ tee
6. Outlet: ☑ baffle ☐ tee
7. Depth to top of tank, below unfinished grade: 18 in.
8. Distances to: Well or suction line 100+ ft.
   Stream _____ ft.
   Pressure line _____ ft.
   Property line _____ ft.

C. Distribution Box

1. Material: plastic
   Number available outlets: 2
2. Factory built: ☑ Yes ☐ No
3. Distance from septic tank: 24 ft.

D. Absorption Field

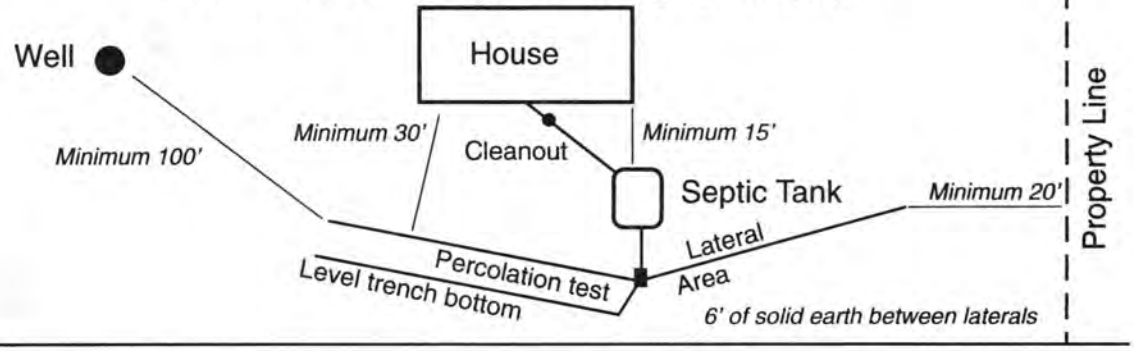
(Provide as-built drawings on back of this form)

1. Type: ☑ Half rounds ☐ Perforated pipe
   Diameter of half round: 12x12
   or perforated pipe: _____
   Material: ☐ fiberglass ☑ plastic ☐ concrete
   ☐ other _____
2. Lateral lines: Number 3
   Length of each line: 60 ft. _____ ft.
   _____ ft. _____ ft., _____ ft.
3. Trench dimensions: Width 21x65 ft.
   Slope 2 in/100 ft.
   Average depth 2 in
4. Filter material: Gravel
   Depth of material 18 in.
5. Distances to: Well or suction line 100+ ft.
   Stream 30+ ft.
   Pressure line _____ ft.
   Property line 35+ ft.

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

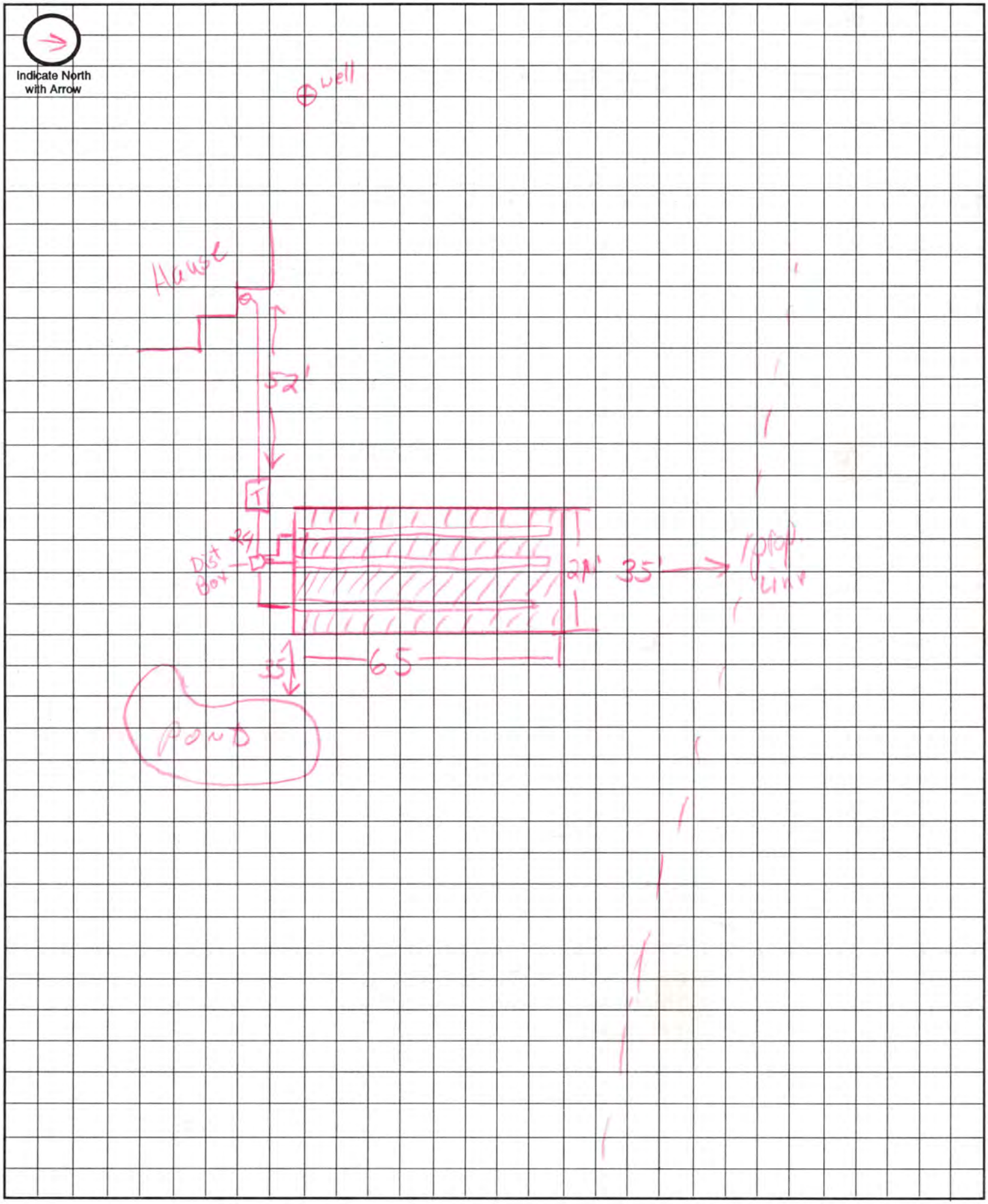
Indicate North with Arrow

Individual Sewage System Design (Example)



FORM 23-103 10-96

As Built Drawing



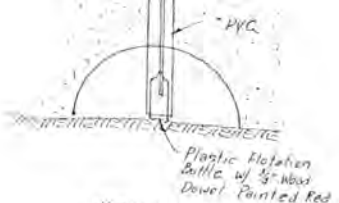
Approximate Scale: _____ft. = _____ grid line/s

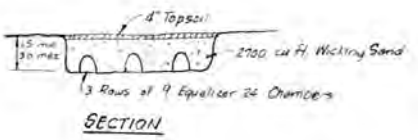
LEGAL:	Lot 5, Block 4, Ridgewood Addition
SIZE OF HOUSE:	4 Bedrooms
DESIGN FLOW:	4 BR x 150 gal/day/BR = 600 gal/day
PERCOLATION RATE:	80 minutes/inch
EVAPORATION LOSS:	8" per year = 0.014 gal/sq ft/day
ABSORPTION RATE:	Allowable Absorption based on Formula Q = 5/t' t = Percolation Rate For t = 80 min/in, Q = 0.559 gal/day
TOTAL LOSSES:	0.014 + 0.559 = 0.573 gal/sq ft/day
REQUIRED AREA:	600 gal/day ÷ 0.573 = 1047 sq ft 1047 sq ft x 25% = 262 sq ft Equalizer Base Area 262 sq ft ÷ 10.4 sq ft per chamber = 26 chambers Use 3 Rows of 9 Equalizer 24 Chambers = 27 Chambers Bed to be 9 x 8.333' = 80' long x 15' wide = 1200 sq ft
STORAGE VOLUME:	27 Chambers x 33.3 gal/chamber = 900 gal. 2.04 gal/cu ft of Wicking Sand x 2700 cu ft = 5500 gal Total Storage Volume = 6400 gal.

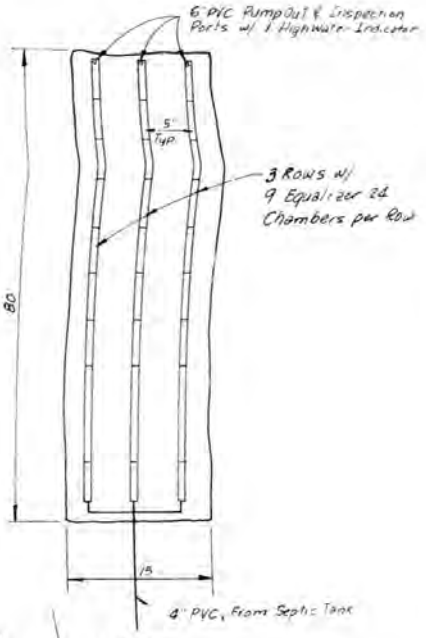
NOTE: The Contractor shall excavate an inspection pit to confirm that a 4' separation can be maintained from any seasonal water table(perched or otherwise) or impermeable clay or rock layer.

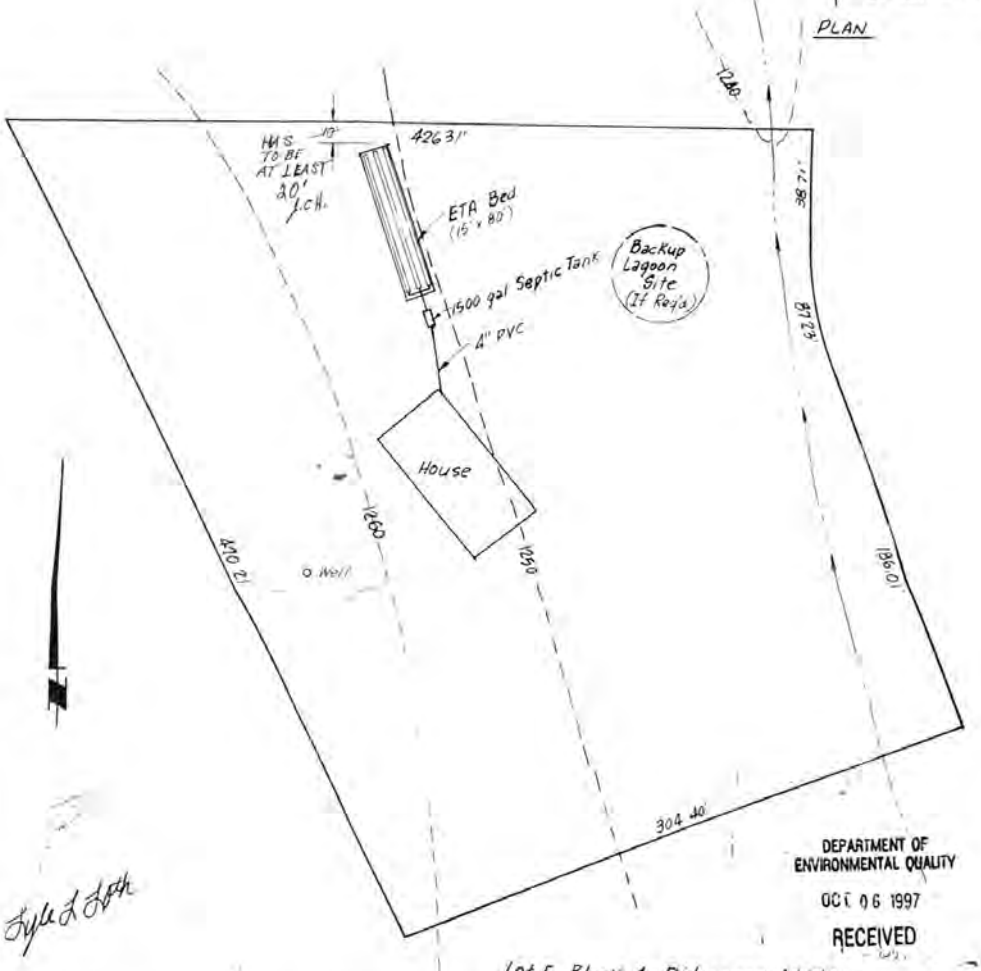
It is recommended that a water meter be installed on the water supply so that the Owner can monitor their water use and ensure that not more than 600 gallons per day are being used.

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









Pollution Control Project

APPROVED

10-7-97

DEPARTMENT OF ENVIRONMENTAL QUALITY

OCT 06 1997

RECEIVED

ROGER DOWNS 8201 S.W. Woodberry Drive	EVAPOTRANSPIRATION/ABSORPTION SYSTEM	E-S-P ENGINEERING Lincoln, Nebraska Scale: 1" = 50' Date: Sept, 1997	Drwg. No.

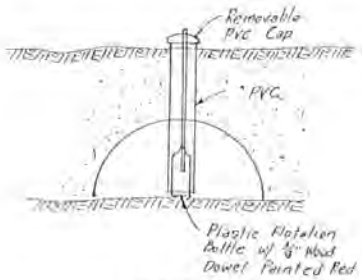
EVAPOTRANSPIRATION/ABSORPTION SYSTEM

OWNER:	Roger Downs
ADDRESS:	8201 S.W. Woodberry Drive
LEGAL:	Lot 5, Block 4, Ridgewood Addition
SIZE OF HOUSE:	4 Bedrooms
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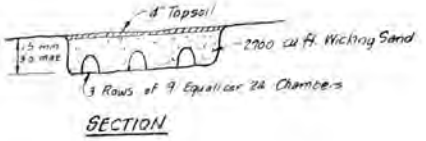
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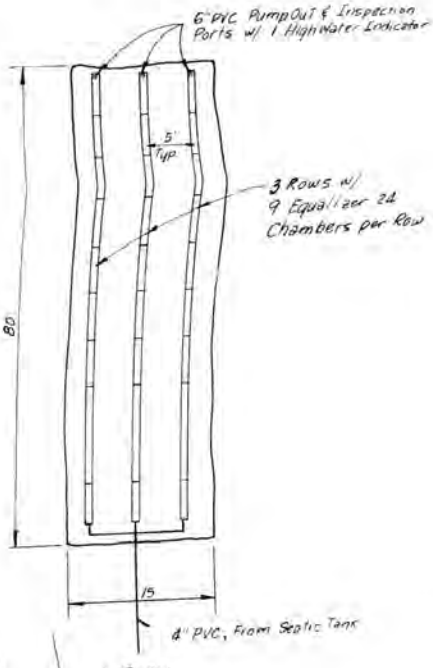
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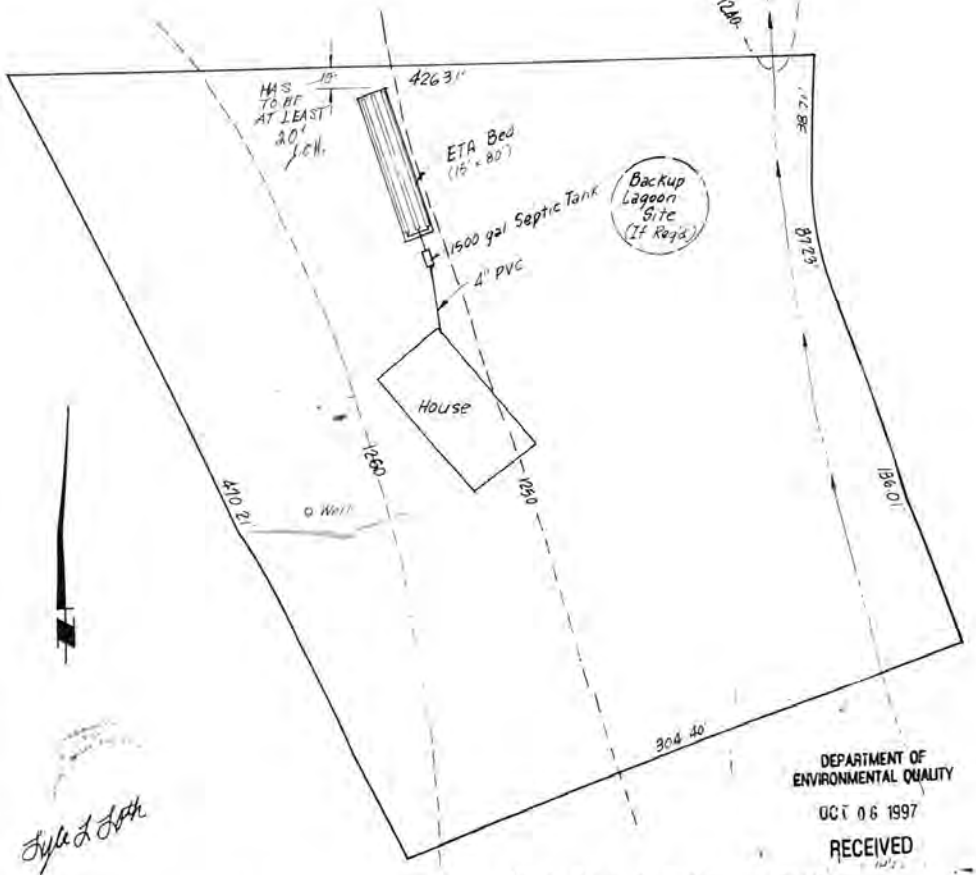
HIGH WATER INDICATOR (Req'd)



SECTION



PLAN



Lot 5, Block 4, Ridgewood Addition

Pollution Control Project

APPROVED

10-7-97

DEPARTMENT OF ENVIRONMENTAL QUALITY

OCT 06 1997

RECEIVED

ROGER DOWNS
8201 S.W. Woodberry Drive

EVAPOTRANSPIRATION/ABSORPTION SYSTEM

S-P ENGINEERING
Lincoln, Nebraska
Scale: 1" = 50'
Drwg. No.
, 1997