LINCOLN-LANCASTER COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION

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

NON TRANSFERABLE

PERMIT

Permit

SEWAGE INSTALLATION
LAGOON

No. 98380181101

Issued 07/27/98
Expires 01/27/99
Revenue Code 3157

FEES: $150.00

PAID

TOTAL $150.00

Establishment

ALLEN CROW
T9N R6E SEC 21
BURR OAKS ADD BLK 2 LOT 7
8201 SW 13 ST

Permittee

ALLEN CROW
2200 S BRANDT CIR
LINCOLN NE 68506-2854

Issued By Health Director
Lincoln-Lancaster County Health Department

007887

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

JUL 24 1998 **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 S.W. 13th Street (no rural route) City Lincoln NE, Zip

Legal Description 21 9N 6E Burr Oaks Addn. 2 7
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 Allen Crow Signature

Address 2200 S. Brandt Circle City/State/Zip Lincoln, NE 68506

☐ Check if owner designed system Home Phone 489-9759 Work Phone 423-6622

C. Contractor

Name James A. Arrigo Company Name J. Anthony's Custom Homes Inc.

Address 8025 Prescott Circle City/State/Zip Lincoln, NE 68506

☐ Check if contractor designed system Work Phone 483-0275

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

Designer Name Clint Presnell Firm Wellmann Plumbing Work Phone 462-4342400

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 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 7/24/98 Date frwd 7/27/98	ACTION ☒ Approved ☐ Disapproved Signature Jerrold C. Hood	
2. Supt. Bldg. Insp. or Village Clerk	Date rec'd 7/27/98 Date frwd 7/27/98	ACTION ☒ Approved ☐ Disapproved Signature	
3. City or County Engineer	Date rec'd 7-27-98 Date frwd 7-27-98	ACTION ☒ Approved ☐ Disapproved Signature Dennis Bartels	

Installation Final Written Approval

By Jerrold C. Hood

Date NOVEMBER 25, 1998

Business Office Use Only

Date Rec'd 07/24/98

Amt Paid 150.00

Rec'd By Cash/Check No. 1578

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

JUL 24 1998 **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.W. 13th in Burr Oaks Addt. City Lincoln NE, Zip
(no rural route)

Owner Allen Crow Addresss 2200 S. Brandt Cir.

Soil Type (SCS): Rocky Clay Percolation Rate: 250 min./inch

Date of Tests 7/19/98 to 7/20/98 Weather: Precipitation None Temperature 100° F.

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)
DH-1	35.5"	7/19	3:15	7/20	11:08	7/20	11:08	19.8	7/20	11:38	30	0.12	250.0
DH-2	37.2"	7/19	3:18	7/20	11:11	7/20	11:11	16.2	7/20	11:41	30	0.24	125.0
DH-3	37.2"	7/19	3:21	7/20	11:14	7/20	11:14	21.0	7/20	11:44	30	0.12	250.0
DH-4	36"	7/19	3:24	7/20	11:17	7/20	2:47	21.8	7/20	3:17	30	1.68	17.86
DH-5	36"	7/19	3:27	7/20	11:20	7/20	2:50	19.32	7/20	3:20	30	1.08	27.78
DH-6	36"	7/19	3:30	7/20	11:23	7/20	2:53	18.36	7/20	3:23	30	0.24	125.0
DH-7	120"-	Drilled to monitor groundwater - none encountered.											

Sum of Percolation Rates: 795.6
Average of Rates: 132.6
Rate Used for Calculation: 250

Person Conducting Percolation Tests

Name: Geotechnical Services, Inc. (Reed Colton)
Phone: 4817 N. 56th St; STE 27
Address Lincoln NE 68504

GSI#26L161

DO NOT WRITE BELOW THIS LINE

Reviewing Action

Remarks

Signature of Reviewing Official Date

FORM 23-101 10-96

JUL 24 1998

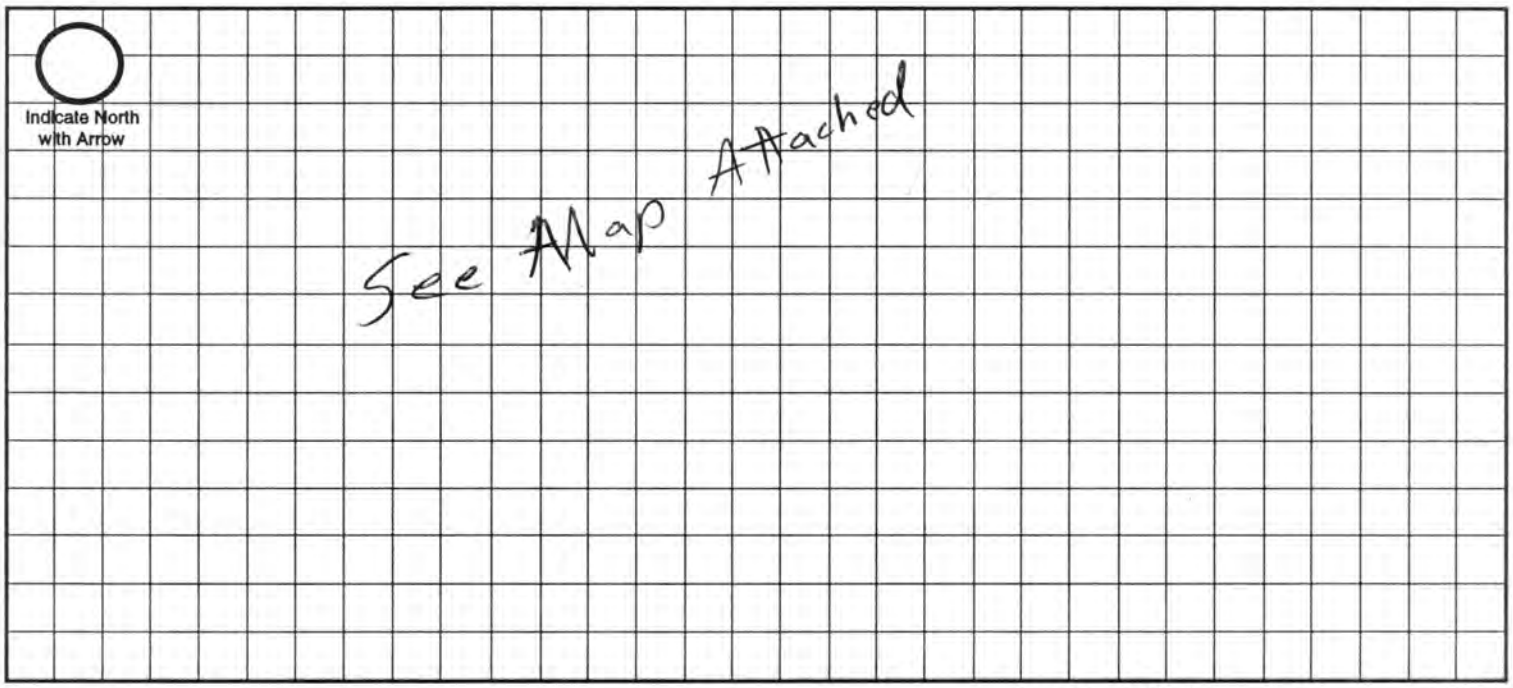
C

Lincoln-Lancaster County Health Department
Environmental Health Division
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Phone: 402-441-8022

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: _____ ft. = _____ grid line/s

A. System Location (Indicate correct number and street)

Address (no rural route) 8201 S.W. 13th street City Lincoln NE, Zip _____

B. Proposed Septic Tank/s

Tank Material: ☐ Concrete ☐ Plastic ☑ Other Lagoon

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 7-22-98

Installer _____ Wellmann Plumbing Date 7-24-98

FORM 23-102 10-96

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 11/25/98

System Location (Indicate correct number and street)

Address 820 SW 13th (no rural route) City Lincoln NE, Zip

A. Building Sewer

1. Material: Schedule 40
   Diameter: 4 in.
2. Distance above basement floor: _____ in.
   or distance below basement floor: _____ in.
3. Distance between dwelling and septic tank: 35 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: _____
   Number of compartments: 1
2. Capacity: 1850 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: _____ in.
8. Distances to: Well or suction line _____ ft.
   Stream _____ ft.
   Pressure line _____ ft.
   Property line _____ ft.

C. Distribution Box

1. Material: _____
   Number available outlets: 5
2. Factory built: ☐ Yes ☐ No
3. Distance from septic tank: 8 ft.

D. Absorption Field

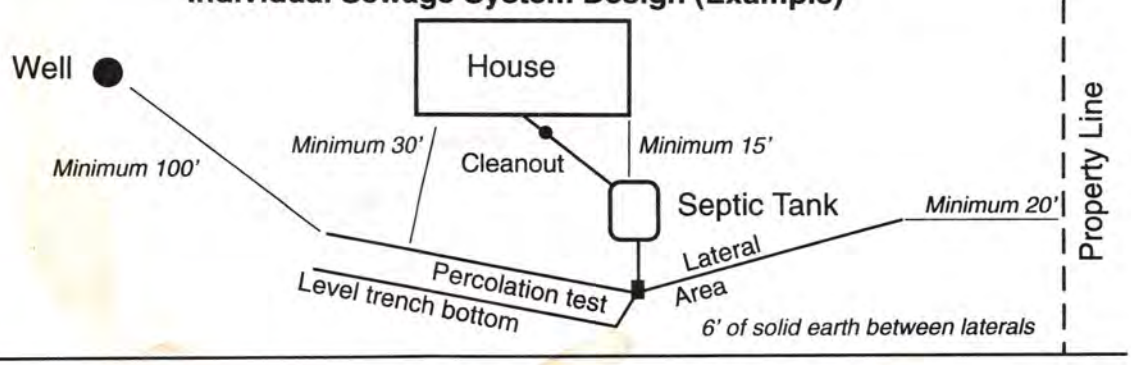
(Provide as-built drawings on back of this form)

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

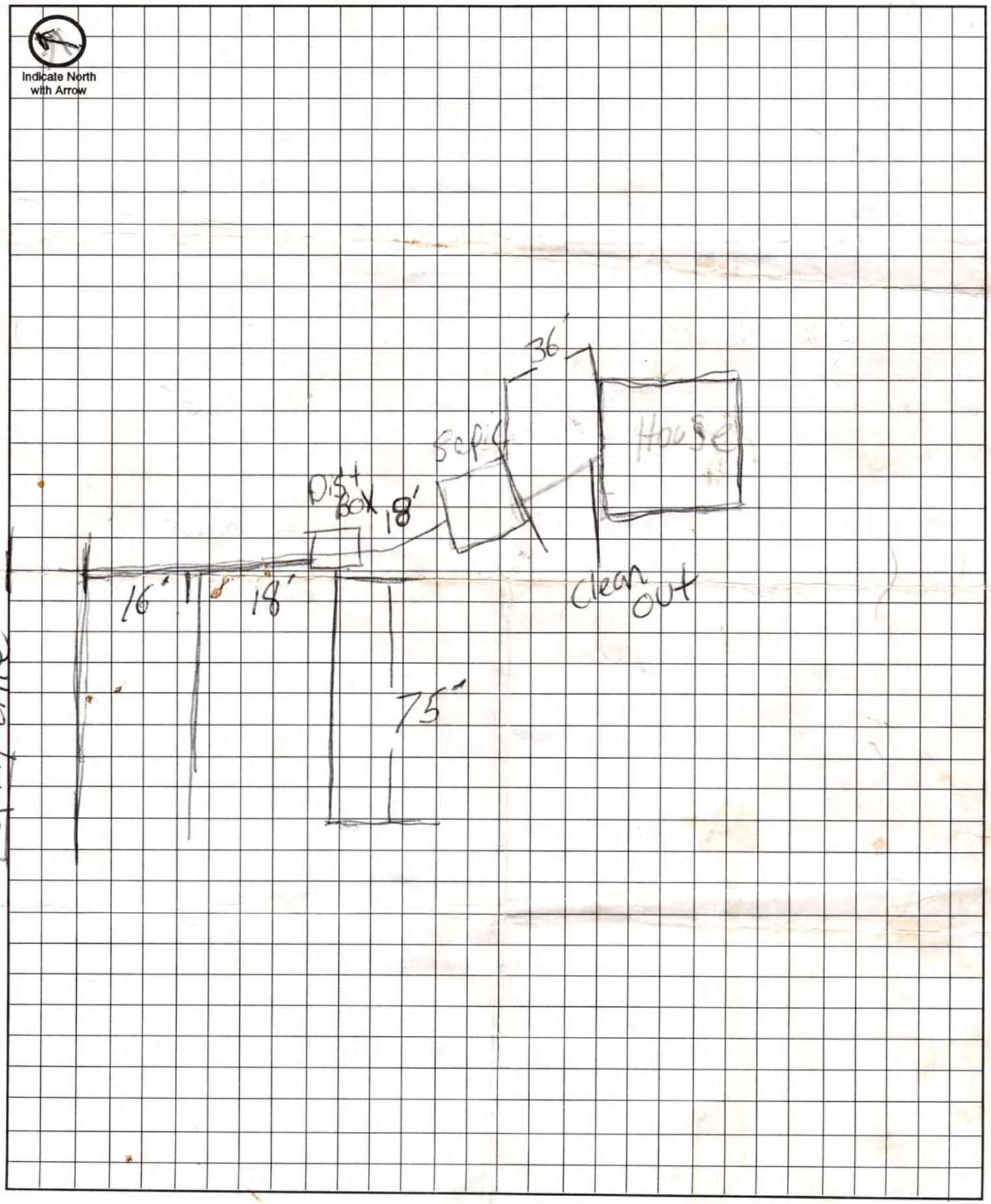
Complete "As Built" drawing on back of this form.

Indicate North with Arrow

Individual Sewage System Design (Example)



As Built Drawing



Approximate Scale: _____ft. = _____ grid line/s

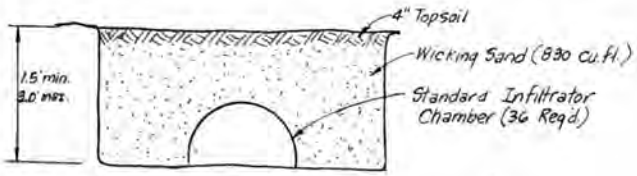
EVAPOTRANSPIRATION/ABSORPTION SYSTEM

OWNER:	Al Crow
ADDRESS:	SW 13th Street
LEGAL:	Lot 7, Block 2, Burr Oaks Addition SE 1/4, Section 21, T 9 N., R 6 E.
SIZE OF HOUSE:	4 Bedrooms
DESIGN FLOW:	4 BR x 150 gal/day/BR = 600 gal/day
PERCOLATION RATE:	240 minutes/inch
EVAPORATION LOSS:	8" per year = 0.0135 gal/sq ft/day
ABSORPTION RATE:	Allowable Absorption based on Formula: $Q = 54\sqrt{T}$ t = Percolation Rate For t = 240 min/in, Q = 0.323 gal/day
TOTAL LOSSES:	0.013 + 0.323 = 0.336 gal/sq ft/day
REQUIRED AREA:	600 gal/day ÷ 0.336 = 1786 sq ft 1278 sq ft x 37.5% = 670 sq ft Standard Infiltrator Base Area 670 sq ft ÷ 18.75 sq ft per chamber = 35.7 chambers

Use 3 trenches with 12 Standard Infiltrator Chambers per trench

Each Trench to be 8' wide x 75' long

36 Standard Infiltrator Chambers @ 77 gal = 2772 gal
2.04 gal/cu ft of Wicking Sand x 830 cu ft = 1692 gal
Total Storage Volume = 4464 gal.

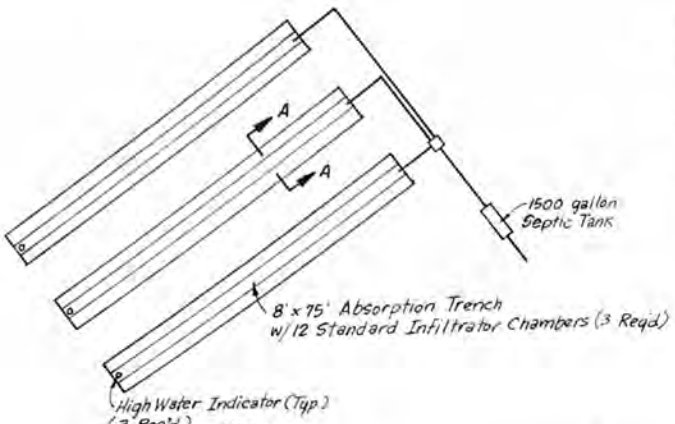


SECTION A-A

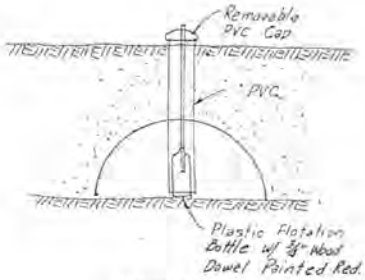
NOTE: The Contractor shall excavate an inspection pit to confirm that a 4' separation can be maintained from any seasonal water table (perched or otherwise) or impermeable clay or rock layer.

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.

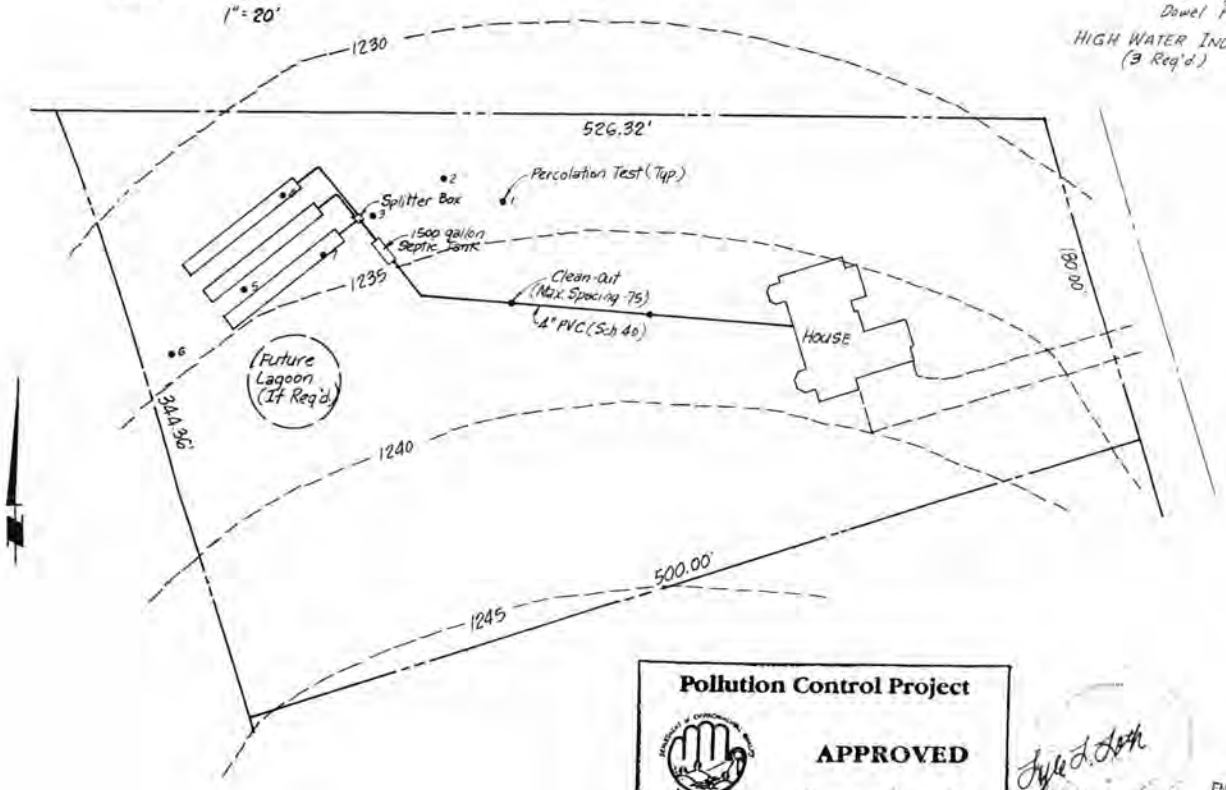
It may be necessary to adjust the orientation of the trenches so that the minimum (1.5') and maximum (3.0') depths are not exceeded.



PLAN
1" = 20'



HIGH WATER INDICATOR
(3 Req'd.)



Pollution Control Project

APPROVED

9/30/98

DEPARTMENT OF ENVIRONMENTAL QUALITY
SEP 24 1998
RECEIVED

Al Crow SW 19th St. - BURR OAKS	EVAPORATION/TRANSPIRATION/ABSORPTION SYSTEM	**Garber & Work, Inc.** Lincoln, Nebraska ENGINEERING • ARCHITECTURE Scale: 1" = 50' Date: 9-21-98	Drwg. No. 9585