



320244001

# ON SYSTEM



## CERTIFICATE OF COMPLIANCE With The Becker County Zoning Ordinance

Application Number	11718
Tax Parcel Number	32.0244.00b
Fire Number of Project Location	

### A. GENERAL INFORMATION

1. Applicant's Name (Last, First, M.I.) Conadon, Frederick		2. Authorized Agent (if applicable)	
3. Mailing Address (Street, RFD, Box Number, City, State, Zip Code) P.O. Box 42 Richwood, MN 56577			
4. Day Phone	5. Evening Phone	6. Section 29	7. Township Sugar Bush

### B. PROPERTY DESCRIPTION

1. Lot(s), Block, Subdivision Name  
Lot 4

**SEWAGE SYSTEM DATA**

Anticipated Use

a.  Single Family  
b.  Multiple Family  
c.  Commercial  
d.  Other (specify)

Type of Installation

a.  Septic Tank Only  
b.  Drainfield Only  
c.  Septic Tank & Drainfield  
d.  Holding Tank  
e.  Septic Tank/Drainfield Lift Station

Type of Drainfield

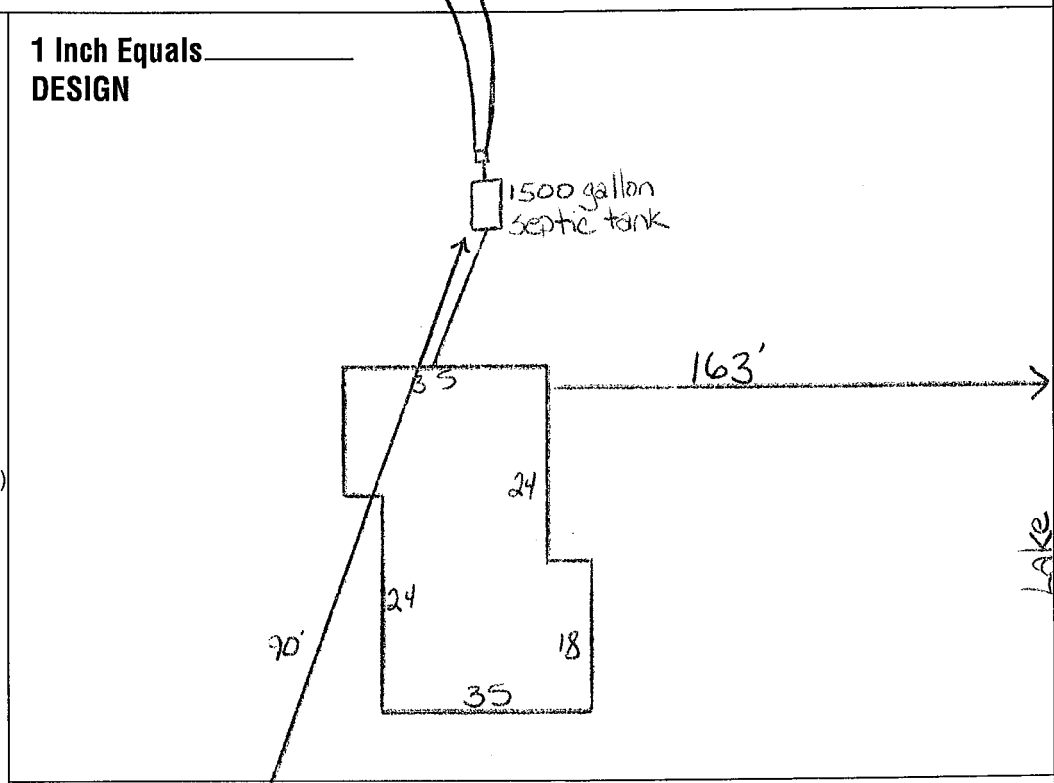
a.  Standard System  
b.  Mound (pressure distribution)

Well Data

a. Depth 50+  
b. Diameter \_\_\_\_\_

Type of Well

a.  Drilled  
b.  Sand Point



Show Distance Between Sewage System And Buildings, Property Lines, Lake, Road And All Wells Within 125 Feet.

Distances to Well:	Tank = <u>90'</u> Drainfield = <u>105'</u>	Distance to Pressure Line:	Tank = <u>50'</u> Drainfield = <u>65'</u>
Distance to Building:	= <u>28'</u> - <u>43'</u>	Tank Capacity (gal. & Area of Drainfield (ft <sup>2</sup> )) =	<u>1500</u> - <u>570ft<sup>2</sup></u>
Distance to Property Line:	= <u>10'+</u> - <u>10'+</u>	Distance to Ordinary High Water Level:	= <u>163'</u> - <u>173'</u>
Drainfield separation from Highest Known Ground Water Level, Impervious Lens or Soil Mottling:			= <u>5 1/2'</u>

I hereby certify with my signature that all data on my application forms, plans and specifications are true and correct:

Signature of Applicant \_\_\_\_\_ Date \_\_\_\_\_

### TO BE COMPLETED BY PLANNING AND ZONING

CERTIFICATE IS HEREBY DENIED: (See back For Reasons)

CERTIFICATE IS HEREBY GRANTED: Based upon the application, addendum from, plans, specifications and all other supporting data. With proper maintenance this system can be expected to function satisfactory, however this is not a guarantee.

**BECKER COUNTY PLANNING AND ZONING**

Jan D. Anderson  
Inspector  
Signature

12-20-97  
Date

**INSTALLATION PERMIT FOR  
INDIVIDUAL SEWAGE TREATMENT**

**PERMIT  
NUMBER** 11718

Property Owner: Fred Congdon

Parcel Number: 32.0204004

<b>WORK CATEGORY</b>	<b>SIZE OF TANK</b> <u>1500</u> GALLONS	<b>SIZE OF LIFT STATION</b> _____ GALLONS
<input checked="" type="checkbox"/> NEW SYSTEM	<b>SIZE OF DRAINFIELD</b> <u>570</u> FT <sup>2</sup>	<b>SIZE OF PUMP</b> _____
<input type="checkbox"/> REPAIR	<b>SYSTEM LENGTH</b> <u>190</u> FT	<b>DEPTH TO RESTRICTING LAYER</b> <u>5 1/2'</u>
<b>TYPE OF SYSTEM</b>	<b>NUMBER OF TRENCHES</b> <u>2</u>	<b>MAXIMUM DEPTH OF SYSTEM</b> <u>2 1/2'</u>
<input checked="" type="checkbox"/> SEPTIC TANK/DRAINFIELD	<b>ESTIMATED FLOW</b> <u>450</u> GPD	<b>PERC RATE</b> _____
<input type="checkbox"/> DRAINFIELD ONLY	<b>TYPE OF DRAINFIELD</b>	<b>SSF</b> <u>1.27</u>
<input type="checkbox"/> HOLDING TANK	<input checked="" type="checkbox"/> STANDARD (gravelless)	<b>SIZE OF GRAVELLESS PIPE</b> <u>10 inches</u>
<input type="checkbox"/> ALTERNATE (specify) _____	<input type="checkbox"/> STANDARD (rock trench)	<b>DEPTH OF ROCK</b> _____
<input type="checkbox"/> LIFT STATION	<input type="checkbox"/> STANDARD (bed)	
	<input type="checkbox"/> MOUND (pressure distb)	
<b>ADDITIONAL INFORMATION</b> _____		
_____		
<b>INSTALLER</b> <u>Harry Muff</u>	<b>LICENSE NUMBER</b> <u>576</u>	
<b>ADDRESS/PHONE</b> _____		

I hereby certify with my signature that all the data contained herein as well as all supporting data are true and correct to the best of my knowledge. I also understand that this permit is valid for a period of six (6) months.

on file 11/18/97  
 \_\_\_\_\_  
 Signature Date

Any changes to the permit must first be approved by Becker County Planning & Zoning. No system shall be covered up without inspection by Becker County Planning & Zoning.

<b>For Office Use Only</b>		
Application Fee <u>45<sup>00</sup></u>	State Surcharge <u>50</u>	Total <u>45<sup>50</sup></u>
<input type="checkbox"/> Application is hereby denied <input checked="" type="checkbox"/> Application is hereby granted to <u>F. Congdon</u> to install an individual septic system according to the specifications of the site evaluation and design submitted to the Becker County Environmental Services Office. By Order of:		
<u>Hebi Moltzau</u> Signature of Becker County Qualified Employee		<u>11/18/97</u> Date
This permit expires on <u>5/18/98</u>		

Date Inspected \_\_\_\_\_ Inspector \_\_\_\_\_

**BECKER COUNTY PLANNING & ZONING**

829 Lake Avenue, P O Box 787  
 Detroit Lakes, MN 56502-0787  
 Phone (218) 846-7314, Fax (218) 846-7266

**Onsite Septic System Site Evaluation/Design**

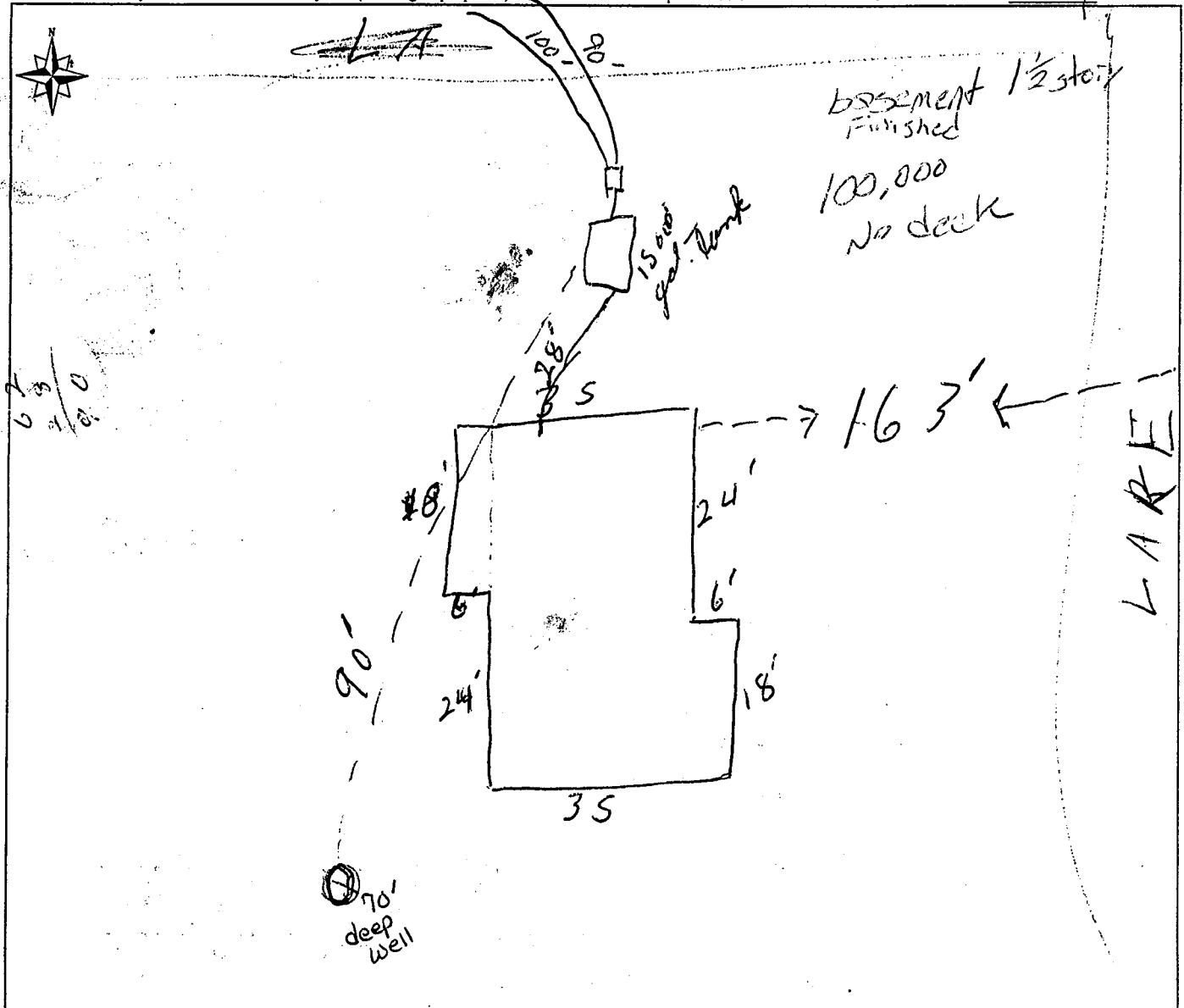
Fire Number \_\_\_\_\_  
 Tax Parcel Number 32, 0244. 004

Legal Description: Sect - 29 TWP - (14) Range - 040 Lot 4 Sugar Bush						
Lake/Stream Name	Lake/Stream Class	Section	TWP	Range	Township Name	
Frederick M Congdon	P.O. Box 42	Dickwood, MN	56577	218-375-4384		
Property Owner		Address			City, State, Zip Code	
Phone Number						
ISTS Designer I / Designer II		License Number		Address		Phone Number
Larry Muff		576				

**Site Plan**

The site plan must be drawn to dimension or to scale:

- \*All Wells within 100 feet of the System
- \*Existing & Proposed Buildings
- \*Distance from OHW
- \*Soil Boring & Perc Test Locations
- \*Distance from all Wells within 100 ft of System
- \*Easements
- \*Distance from Property Lines
- \*Dimensions of Lot
- \*Distance from Water Lines within 50 ft of System (existing & proposed)
- \*Location of any Unsuitable Disturbed/Compacted Soil
- \*Tank Access Route
- \*Scale - One inch = \_\_\_\_\_ ft



TEST HOLE #1

TEST HOLE #2

DEPTH IN INCHES	SOIL TEXTURE	MUNSELL COLOR	STRUCTURE	DEPTH IN INCHES	SOIL TEXTURE	MUNSELL COLOR	STRUCTURE
6"	<del>Coarse</del> Black dirt Gravel	Black	BLOCKY PLATY PRISMATIC NONE	6"	Black dirt	black	BLOCKY PLATY PRISMATIC NONE
18"	Coarse Gravel	Light Brown	BLOCKY PLATY PRISMATIC NONE	18"	Coarse Gravel	Light Brown	BLOCKY PLATY PRISMATIC NONE
			BLOCKY PLATY PRISMATIC NONE				BLOCKY PLATY PRISMATIC NONE
			BLOCKY PLATY PRISMATIC NONE				BLOCKY PLATY PRISMATIC NONE
Depth to standing water	NA			Depth to standing water			
Depth to mottling	15 1/2'			Depth to mottling			

Describe the surface features (slope, runoff, weather conditions, vegetation type, evidence of compaction, etc.)

SYSTEM IS  NEW  REPAIR

SYSTEM DESIGN

GRAVITY FLOW  PRESSURE DISTRIBUTION

WATER USES:

NUMBER OF BEDROOMS 3

DEPTH OF SYSTEM 2'

NUMBER OF BATHROOMS 2

SYSTEM DESIGN FLOW 675 GPD

WASHING MACHINE

TOTAL SQ. FT OF STRUCTURE 1800

SOIL SIZING FACTOR 1.27

DISHWASHER

TANK SIZE 1500

PUMP SIZE NA

WATER SOFTENER

GARBAGE DISPOSAL

LIFT STATION SIZE NA

LENGTH OF LIFT LINE NA

TYPE OF RESIDENCE

SOIL TREATMENT

TYPE I  TYPE II

AREA SIZE 573 SQ FT

TOTAL DYNAMIC HEAD NA

TYPE III  TYPE IV

DOSE VOLUME NA

WELL INFORMATION-Property's Well DEPTH OF WELL 70

TYPE OF WELL deep

Neighboring wells (within 100 ft of system) Depth of Wells None

Type of Wells -

Name of Designer I

Date of Site

Designer II Larry Muff

Evaluation 10-18-96

MPCA Number 576

Phone 218-983-3376

I certify that the site evaluation has been completed in accordance with all provisions of ISTS Minnesota Rules Chapter 7080.

Signature of Evaluator Larry Muff Date 10-18-96

For Office Use Only

Date Site Evaluation / Design received \_\_\_\_\_ Received by \_\_\_\_\_

Date Site Evaluation approved \_\_\_\_\_ Approved by \_\_\_\_\_

**FLOW**  
 A. Estimated 450 gpd  
 measured 450 x 1.5 = 675 gpd  
**SEPTIC TANK VOLUME**  
 B. 1500 gallons

**SOILS (Site evaluation data)**  
 C. Depth to restricting layer = 1 feet  
 D. Maximum depth of system C - 3 ft = 3 feet  
 E. Texture Coarse Sand Percolation rate 5 MPI  
 F. SSF 1.27 sq ft/gpd  
 G. Slope     %

Estimated Sewage Flows in Gallons per day (gpd)				
Number of Bedrooms	Type I	Type II	Type III	Type IV
2	300	225	180	60% of the values in Type I, II or III columns
3	450	300	218	
4	600	375	256	
5	750	450	294	
6	900	525	332	
7	1050	600	370	
8	1200	675	408	

Septic Tank Capacities (in gallons)		
Number of Bedrooms	Minimum Liquid Capacity	Liquid capacity with garbage disposal
2 or less	750	1125
3 or 4	1000	1500
5 or 6	1500	2250
7, 8 or 9	2000	3000

**TRENCH BOTTOM AREA**  
 H. For trenches with 6 inches of rock below the pipe:  
 $A \times F = \underline{\quad} \times \underline{\quad} = \underline{\quad}$  sq ft of bottom area  
 I. For trenches with 12 inches of rock below the pipe:  
 $A \times F \times 0.8 = \underline{\quad} \times \underline{\quad} \times 0.8 = \underline{\quad}$  sq ft of bottom area  
 J. For trenches with 18 inches of rock below the pipe:  
 $A \times F \times 0.66 = \underline{\quad} \times \underline{\quad} \times 0.66 = \underline{\quad}$  sq ft of bottom area  
 K. For trenches with 24 inches of rock below the pipe:  
 $A \times F \times 0.6 = \underline{\quad} \times \underline{\quad} \times 0.6 = \underline{\quad}$  sq ft of bottom area  
**BED BOTTOM AREA**  
 L. For seepage beds with 6 or 12 inches of rock below the pipe;  
 $1.5 \times A \times F = 1.5 \times \underline{\quad} \times \underline{\quad} = \underline{\quad}$  sq ft of bottom area

Soil Characteristics and Required Areas for Sewage Treatment		
Percolation Rate in Minutes per Inch (MPI)	Soil Texture	Square feet per gallon per day
Faster than 0.1 *	Coarse Sand	----
0.1 to 5	Sand	0.83
0.1 to 5	Fine Sand **	1.67
6 to 15	Sandy Loam	1.27
16 to 30	Loam	1.67
31 to 45	Silt Loam	2.00
46 to 60	Clay Loam	2.20
Slower than 60***	Clay	----

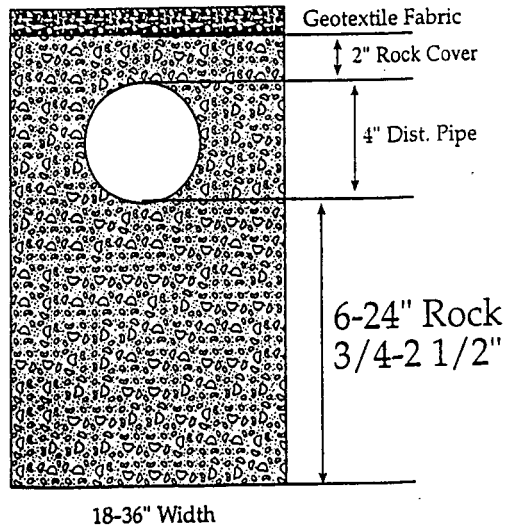
\* Soil too coarse for sewage treatment. Use systems for rapidly permeable soils.  
 \*\* Soil having 50% or more of fine sand plus very fine sand.  
 \*\*\* Soil with too high a percentage of clay for installation of an inground standard system.

**ROCK VOLUME IN CU FT**  
 M. Rock depth below distribution pipe plus 0.5 foot times bottom area:  
 $M = \text{Rock depth} + 6 \text{ inches} \times \text{Area (H,I,J,L,K)}$   
 $(\underline{\quad} + 0.5 \text{ ft}) \times \underline{\quad} = \underline{\quad}$  cu ft  
**ROCK VOLUME IN CU YDS**  
 N. Volume in cu ft divided by 27  
 $M + 27 = \text{cu yds } \underline{\quad} + 27 = \underline{\quad}$  cu yds  
**ROCK WEIGHT**  
 O. Cubic yards times 1.4 = tons  
 $N \times 1.4 = \text{tons } \underline{\quad} \times 1.4 = \underline{\quad}$  tons

**6 inches = 0% Reduction\***  
**12 inches = 20% Reduction**  
**18 inches = 34% Reduction**  
**24 inches = 40% Reduction**  
 \* sizing for gravelless trench

**SYSTEM LENGTH**  
 P. Select trench width =      ft  
 Q. Divide bottom area by trench width: (H, I, J, or K) + P = lineal feet  
 $\underline{\quad} + \underline{\quad} = \underline{\quad}$  lineal feet  
 Q1. Gravelless Design  
 $A \times F + (3 \text{ for } 10'' \text{ pipe, } 2 \text{ for } 8'' \text{ pipe, width of the Chamber})$   
 $\underline{450} \times \underline{1.27} + \underline{3} = \underline{191}$  feet

**LAWN AREA**  
 R. Select trench spacing, center to center =      feet  
 S. Multiply trench spacing by lineal feet R x Q = sq ft of lawn area  
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$  sq ft



If the site evaluation determines a mound system, please attach the mound design worksheets.

2A

2A

