

Crow Wing County Trench/Pressure Bed Design

Property Owner: _____ Date: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Home Phone Number: _____ - _____ - _____ Cell: _____ - _____ - _____

Site Address: _____

City: _____ State: _____ Zip: _____

Driving directions if no address issued: _____

Legal Description: _____

Sec: _____ Twp: _____ Range: _____ Township Name: _____

Parcel Number: _____ - _____ - _____ - _____ - _____

Lake/ River: _____ Lake/River Classification: _____

Flow Data

Number of Bedrooms: _____

Dwelling Classification: I II III

System Type: I II III IV V

GPD: _____

Estimated Flow in Gallons per Day (GPD)			
Bedrooms	Class I	Class II	Class III
2	300	225	180
3	450	300	218
4	600	375	256
5	750	450	294
6	900	525	332
7	1050	600	370
8	1200	675	408

Wells

Deep Well: Y or N Proposed or Existing

Shallow Well: Y or N Proposed or Existing

Wells to be sealed (if applicable)? _____

Setbacks

Tank(s) to: Well _____ Drainfield to: Well _____ Sewer Line to well: _____

House _____ House _____ Air Test (Y or N) _____

Property Line _____ Property Line _____

Designer Name: _____ License Number: _____

Address: _____

City: _____ State: _____ Zip: _____

Home Phone Number: _____ - _____ - _____ Cell: _____ - _____ - _____

E-Mail Address: _____

I hereby certify that I have completed this work in accordance with all applicable requirements.

Designer Signature: _____ Date: _____

Crow Wing County Trench/Pressure Bed Design

Property Owner: _____

Date: _____ Designer's Initials: _____

Tank Sizing

- A. Septic Tank ☐ *Existing ☐ New

*Sewage Tank Integrity Assessment Form must be attached

Capacity: _____ Gallons

Compartmentalized (Y or N): _____ Filter (Y or N): _____

Garbage Disposal (Y or N): _____ Bsmnt Lift Station (Y or N): _____

- B. Pump Tank ☐ Existing ☐ New

Capacity: _____ Gallons (7080.2100)

a. Alarm Type: _____

Septic Tank Capacity		
Bedrooms	Minimum	GD/BL
5 or less	1,500	2,250
6 or 7	2,000	3,000
8 or 9	2,500	3,750

Soils

- C. Depth to Restricting Layer: _____ ft.

- D. Native SSF: _____ (Perc. Rate [Optional] _____ MPI)

Rock Trenches

- E. 6 in. Trench Depth GPD _____ $\times D =$ _____ sq. ft.

- F. 12 in. Trench Depth GPD _____ $\times D \times .8 =$ _____ sq. ft.

- G. 18 in. Trench Depth GPD _____ $\times D \times .66 =$ _____ sq. ft.

- H. 24 in. Trench Depth GPD _____ $\times D \times .6 =$ _____ sq. ft.

- I. Divide Sq. Ft. by Trench Width for lineal feet (E-H) _____ \div _____ = _____ Lineal Feet

- J. Sq. Ft. of Trenches _____ ft. \times Rock Depth (Trench Depth + 0.5 ft.) _____ ft. $\div 27 =$ _____ yds³ of rock

Chamber Trenches

- K. Brand: _____ Length of one chamber: _____ Width of one chamber: _____

- L. 6-11 in. Chamber Depth GPD _____ $\times D =$ _____ sq. ft.

- M. 12 in. Chamber Depth GPD _____ $\times D \times .8 =$ _____ sq. ft.

- N. Divide Sq. Ft. by Trench Width for lineal feet (L-M) _____ \div _____ = _____ Lineal Feet

- O. Divide Lineal Feet by Chamber Length for Total Chambers Needed (Round Up) N \div Chamber Length: _____

Seepage Beds

- P. Seepage Bed GPD _____ $\times D$ _____ $\times 1.5 =$ _____ sq. ft.

- a. Bed Dimensions _____ ft. \times _____ ft.

- b. Bed Length _____ ft. \times Bed Width _____ ft. \times Rock Depth _____ ft. $\div 27 =$ _____ yds³ of rock

Additional System Notes and Information: _____

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Please record the depths of all horizons, redoximorphic features, restricting layers, and saturated soils. Include all chroma and hue values.

#1 Proposed Site

Depth (in.)	Texture	Color

#1 Alternate Site

Depth (in.)	Texture	Color

#2 Proposed Site

Depth (in.)	Texture	Color

#2 Alternate Site

Depth (in.)	Texture	Color

Soil Sizing Factors/Hydraulic Loading Rates

Perc. Rate	Texture	SSF	HLR	Perc. Rate	Texture	SSF	HLR
<0.1	Coarse Sand			16 to 30	Loam	1.67	0.60
0.1 to 5	Sand	0.83	1.20	31 to 45	Silt Loam	2.00	0.50
0.1 to 5	Fine Sand	1.67	0.60	46 to 60	Clay Loam	2.20	0.45
6 to 15	Sandy Loam	1.27	0.79	> 60	Clay Loam	****	0.24

Description of Soil Treatment Areas

	Proposed Site					Alternate Site				
Disturbed Areas?	Yes or No					Yes or No				
Compacted Areas?	Yes or No					Yes or No				
Flooding Potential?	Yes or No					Yes or No				
Run on Potential?	Yes or No					Yes or No				
Limiting Layer Depth	Proposed #1		Proposed #2			Alternate #1		Alternate #2		
Slope % and Direction										
Landscape Position										
Vegetation Types										
Soil Texture										
Soil Sizing Factor	0.83	1.27	1.67	2.0	2.2	0.83	1.27	1.67	2.0	2.2

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Please Draw to Scale with North Arrow to top or Left Side of Page



Please show all that apply (Existing or Proposed):

Wells within 100 ft. of a Drainfield	Boring Locations	Access Route for Tank Maintenance
Water lines within 10 ft. of a Drainfield	Component Location	Property Lines
Disturbed/Compacted Areas	OHW	Structures
Drainfield Areas	Lot Easements	Setbacks

Elevations:

_____ Benchmark Elevation	_____ Pump Elevation
_____ Elevation of Sewer Line at House	_____ Pump Discharge Elevation
_____ Tank Inlet Elevation	_____ Restricting Layer Elevation
_____ Drainfield Elevation	

Designer Signature: _____ Date: _____
License Number: _____ Page _____ of _____