Crow Wing County Trench/Seepage 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: _____ Twp Name: _____

Parcel Number: _____

Lake/ River: _____ Lake/River Classification: Select One

Flow Data

Number of Bedrooms: _____

Dwelling Classification: Select One

System Type: Select One

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: Select One

Shallow Well: Select One

Wells to be sealed (if applicable)? _____

Setbacks

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

House _____ House _____ Air Test: Select One

Property Line _____ Property Line _____

Additional System Notes and Information: _____

_____

_____

Designer Name: _____ License Number: _____

Address: _____

City: _____ State: _____ Zip: _____

Home Phone Number: _____ Cell: _____

E-Mail Address: _____

Designer Signature: _____ Date: _____

Crow Wing County Trench/Seepage Bed Design

Parcel Number: _____ Property Owner:_____ Date: _____

Designer's Initials: _____

Tank Sizing

A. Septic Tank Capacity: _____ Gallons

Tank Type: Select One Filter: Select One

Garbage Disposal/Basement Lift Station: Select One

B. Pump Tank Capacity: _____ Gallons (7080.2100)

a. Alarm Type: Select One

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

Absorption **W**idth **R**atio Table		
Texture	SSF	AWR
Sand	0.83	1.00
Fine Sand	1.67	2.00
Sandy Loam	1.27	1.52
Loam	1.67	2.00
Silt Loam	2.00	2.40
Clay Loam	2.20	2.67

Soils

C. Depth to Restricting Layer: ___ft.

D. Native SSF: SSF Value

(Perc. Rate [Optional] _____MPI)

****Enter GPD next to the type of system****

Rock Trenches

E. 6 in. Trench Depth _____ GPD × D = 0.0 sq. ft. Cubic Yards of Rock: 0.0 yds³

F. 12 in. Trench Depth _____ GPD × D × .8 = 0.0 sq. ft. Cubic Yards of Rock: 0.0 yds³

G. 18 in. Trench Depth _____ GPD × D × .66 = 0.0 sq. ft. Cubic Yards of Rock: 0.0 yds³

H. 24 in. Trench Depth _____ GPD × D × .6 = 0.0 sq. ft. Cubic Yards of Rock: 0.0 yds³

I. Divide (E-H) by Trench Width for lineal feet: 0.0 ÷ 3 = 0.0

Chamber Trenches

J. Brand: _____ Dimensions of one chamber (L x W): 1.0 ft. × 3.0 ft.

K. 6-11 in. Chamber Depth _____ GPD × D = 0.0 sq. ft.

L. 12 in. Chamber Depth _____ GPD × D × .8 = 0.0 sq. ft.

M. Select from (K-L) if installing Chamber Trenches: 0.0

N. Divide (M) by Trench Width for lineal feet: 0.0 ÷ 1.0 = 0.0 Lineal Feet

O. Total Chambers Needed (**Round Up**): 0.0 Chambers

Seepage Beds

P. Seepage Bed _____ GPD × D × 1.5 = 0.0 sq. ft.

a. Bed Dimensions 1.0 ft. × 0.0 ft.

b. Cubic Yards of Rock Bed Length × Bed Width × Rock Depth 1 ft. ÷ 27 = 0.0 yds³

Additional System Notes and Information: _____

_____

_____

_____

Crow Wing County Trench/Seepage Bed Design

Parcel Number: _____ Property Owner: _____ D ate: _____

Designer's Initials: _____

Proposed Site Boring #1

Depth (in)	Texture	Coarse Frag. %	Color	Structure	Redox

Proposed site Boring #2

Depth (in)	Texture	Coarse Frag. %	Color	Structure	Redox

Alternate Site Boring #1

Depth (in)	Texture	Coarse Frag. %	Color	Structure	Redox

Alternate Site Boring #2

Depth (in)	Texture	Coarse Frag. %	Color	Structure	Redox

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	0.78	> 60	Clay Loam	****	0.24

Description of Soil Treatment Areas

	Proposed Site		Alternate Site	
Disturbed Areas?				
Compacted Areas?				
Flooding Potential?				
Run-on Potential?				
Limiting Layer Depth	Proposed #1:	Proposed #2:	Alternate #1:	Alternate #2:
Slope % and Direction				
Landscape Position				
Vegetation Types				
Soil Texture				
Soil Sizing Factor				

Crow Wing County Trench/Seepage Bed Design

Parcel Number: _____ Property Owner: _____ Date: _____

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

Open Map

Click in the sketch area below to import an existing sketch (PDF or JPG format).
Drawing tools are also available in the Comments Toolbar of Adobe Reader.

Please show all that apply (Existing or Proposed):

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

Elevations:

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

Designer Signature: _____ Date: _____ License Number: _____

SUBMIT COMPLETED FORM

SSTS Management Plan required to be submitted with this design

Minnesota Pollution Control Agency Rules Sections 7082.0600 Subp. 1. A and B, and Section 7082.0100 Subpart3. J

revised 4-24-18