

Preliminary & Field Evaluation Form

www.SepticResource.com vers 12.4

Owner Information			
Date	<u>10/10/2022</u>	Sec / Twp / Rng	<u>S-21, T-49, R-23</u>
Parcel ID	<u>29-1-158100</u>	LUG (county, city, township)	<u>Aitkin Co.</u>
Property Owner:	<u>Robbie Danko</u>	Owners address (if different)	
Property Address:	<u>48525 194th Pl. McGregor MN 55760</u>		<u>3315 Rolling Hills Ct.</u>
City / State / Zip:			<u>Eagan MN 55121</u>

Flow Information and Waste Type / Strength			
Estimated Design flow Date	<u>300</u>	Anticipated Waste strength	<input type="checkbox"/> Hi Strength <input checked="" type="checkbox"/> Domestic
Comments: Existing System is failing Inspector thinks gravity bed is under garage. Abandon Existing Drainfield, Abandon existing septic tank. Found South Property line pipes, and NE lot corner Pipe.		Any Non-Domestic Waste	<input type="checkbox"/> Yes (class V) <input checked="" type="checkbox"/> No
		Sewage ejector/grinder pump	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Water softener	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Garbage Disposal	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Daycare / In home business	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Site Information					
Estimated Design flow Date					
Existing & proposed lot improvements located (see site map)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Well casing depth	Existing Shallow well Inside cabin	
Easements on lot located (see site map)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Drainfield w/in 100' of residential well	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Property lines determined (see site map) By Owner	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Site w/in 200' of transient noncommunity water supply (TNCWS)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Req'd setbacks determined (see site map)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Site w/in an inner wellhead mgmt zone (CWS/NTNCWS)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Utilities located & identified (gopher state one call)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Buried water supply pipe w/in 50' of system	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Access for system maintenance (shown on site map)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Site located in Shoreland (w/in 1000' of lake, 300' of river)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Soil treatment area protected	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Site map prepared with previous items included	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Construction related issues	<u>Connect to existing sewer pipe at old tank location. Plus 20 ft from well.</u>				

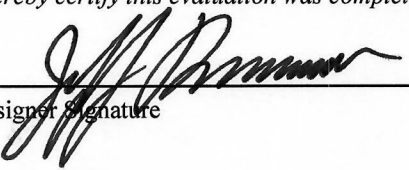
Soil Information

		Evidence of site:	
		Cut	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Filled	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Compacted	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Disturbed	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Original soils	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Soil logs completed and attached	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Perk test completed and attached (if applicable)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Soil loading rate (gpd/ft ²)	<u>0.78</u>	Percolation rate (if applicable)	_____
Depth/elev to SHWT	<u>27"</u>	Flooding or run-on potential (comments)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to system bottom maximum (or elev minimum)	<u>(+ 12")</u>	Flood elevation (if applicable)	_____
Depth/elev to standing water (if applicable)	_____	Elevation of ordinary high water level (if applicable)	<u>1224.7'</u>
Depth/elev to bedrock (if applicable)	_____	Floodplain designation and elev - 100 yr/10 yr (if applicable) Cabin at Approx. 1250'	<u>1225.4</u>
Soil Survey information determined (see attachment)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Differences between soil survey and field evaluation (if applicable)	_____ _____		

Depth/elev to bedrock (if applicable)

Soil Survey information determined (see attachment)

I hereby certify this evaluation was completed in accordance with MN 7080 and any local req's.


Brummer Septic LLC.
L-1347

Designer Signature
Company
License #

Depth/elev to bedrock (if applicable)

Soil Survey information determined (see attachment)

Soil Observation Log

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Owner Information	
Property Owner / project: <u>Robbie Danko</u>	Date <u>10/10/2022</u>
Property Address / PID: <u>48525 194th Pl. McGregor MN 5576</u>	

Soil Survey Information	
<input type="checkbox"/> refer to attached soil survey	
Parent mat'l's:	<input checked="" type="checkbox"/> Till <input type="checkbox"/> Outwash <input type="checkbox"/> Lacustrine <input type="checkbox"/> Alluvium <input type="checkbox"/> Organic <input type="checkbox"/> Bedrock
landscape position:	<input checked="" type="checkbox"/> Summit <input type="checkbox"/> Shoulder <input checked="" type="checkbox"/> Side slope <input type="checkbox"/> Toe slope
soil survey map units:	<u>928C</u> slope <u>0</u> % direction- <u>Flat</u>

Soil Log #1							
		<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation <u>99'</u>	Depth to SHWT <u>39"</u>		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 9	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular
9 - 22	Sandy Loam	<35	10YR5/4		Loose	Loose	Granular
22 - 39	Med Sand	<35	10YR5/4		Loose	Loose	Granular
39 - 42	Med Sand	<35	10YR5/4	7.5YR5/6	Loose	Loose	Granular
Comments: _____ _____ _____							

48525 194th Pl. McGregor MN 55760

Soil Log #2

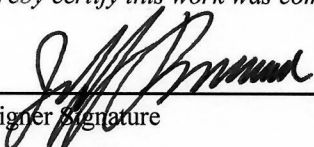
		<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation <u>99"</u>	Depth to SHWT <u>27"</u>		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 9	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular
9 - 27	Sandy Loam	<35	10YR4/4		Loose	Loose	Granular
27 - 33	Sandy Loam	<35	10YR4/4	7.5YR5/6	Loose	Loose	Granular

48525 194th Pl. McGregor MN 55760

Soil Log #3

		<input type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation _____	Depth to SHWT _____		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive

I hereby certify this work was completed in accordance with MN 7080 and any local req's.


 Designer Signature

Brummer Septic LLC.
 Company

L-1347
 License #

Mound Design - Aitkin county

Property Owner: Robbie Danko

Date: 10/10/2022

Site Address: 48525 194th Pl. McGregor MN 55760

PID: 29-1-158100

Comments: _____

instructions: = enter data = adjust if desired = computer calculated - DO NOT CHANGE!

- 1) bedroom Type Residential System
- 2) GPD design flow
- 3) Garbage disposal or pumped to septic Install 1650 Jacobson 2/Compartment tank
- 4) Gal Septic tank (code minimum) Gal Septic tank (design size / LUG req'd)
Tank options: none
- 5) GPD/ft² mound sand loading rate contour loading rate of req's a min ft. long rockbed
- 6) ft rockbed width ft rockbed length
- 7) ft lateral spacing ft perforation spacing (maximum of 3 for both)
 end feed manifold connection
- 8) laterals feet long perfs / lateral perfs total
(1/2 a perf means the first perf starts at the middle feed manifold)
- 9) inch perfs at feet residual head gives gpm flow rate per perforation
for this perf size & spacing, & pipe size on line 12, max perfs/lateral = , line #8 must be less --> OK
- 10) doses per day (4 minimum)
- 11) gallons per dose (treatment volume) 1.50 5x
- 12) inch diameter laterals must be used to meet "4x pipe volume" requirement 2.00 3x
- 13) feet of inch supply line leads to gallons of drainback volume
(Tip: "top feed" manifold to control the drainback)
- 14) gallons TOTAL pump out volume (treatment + drainback)
- 15) feet vertical lift from pump to mound laterals, leads to a:
- 16) GPM @ feet of head, Pump requirement (note: >50gpm may require an extra 3-6' of head)
- 17) gal Dose tank (code minimum) gal Dose tank (design size / LUG req'd) at gpi
leads to a
- 18) inch swing on Demand float, or timed dosing of min ON (confirm pump rate with drawdown test and adjust as necessary)
(this delivers Average flow, =70% of Peak design flow) hrs OFF
- 19) inches from bottom of tank to "Pump OFF" float
- 20) inches from bottom of tank to "Pump ON" float, or inches to "Timer ON" float if time dosed
- 21) inches from bottom of tank to "Hi Level" float, or inches to "Hi Level" float if time dosed
- 22) gallons reserve capacity (after High Level Alarm is activated)

23) 0.78 gpd/ft² Absorption area Soil Loading Rate, which gives a mound ratio of 1.5 (minimum)
 (this must match the soil boring log) desired mound ratio 1.5

24) 0 percent site slope (0-20% range) 0 (% downslope site slope, if different than upslope)

25) 24 inches, or 2.0 ft. to Redox or other limiting condition (need at least 12" to be a Type I)
 Treatment zone contains 0 inches of 0% soil credit, and 0 inches of 50% soil credit. Giving a:

26) 12 inch, or 1.0 ft. Sand Lift Mound **CRITICAL FOR FUTURE CERTIFICATIONS!!!**

27) 15.0 ft. base absorption width (with sand beyond rockbed as follows):
 15.0 greater of: absorption width OR sand slope

28) 2.5 ft. upslope and sideslope sand upslope 2.5
 2.5 ft. Downslope sand down slope 2.5

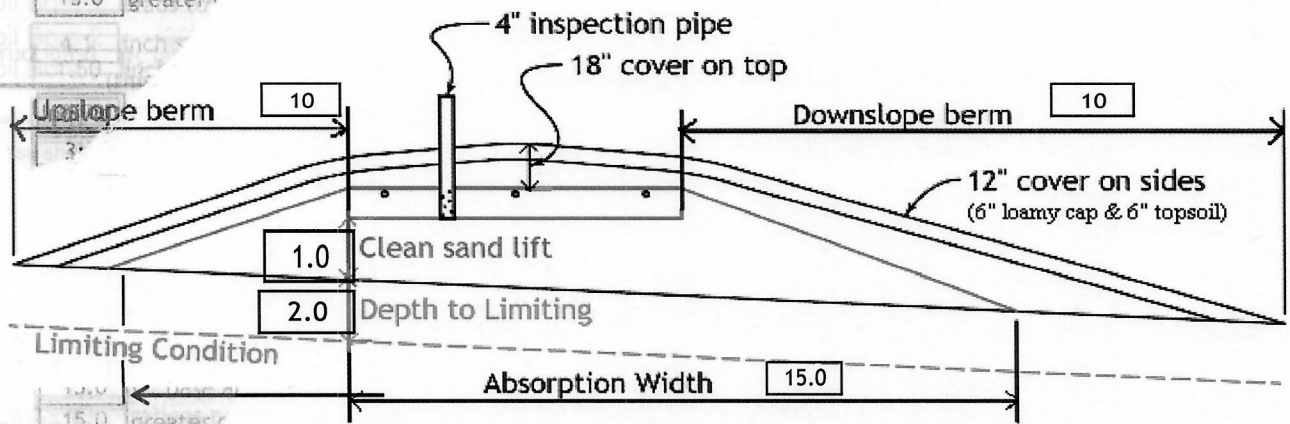
Individual slope ratios give BERM widths (topsoil beyond rockbed) of:

29) 3:1 upslope ratio 10 ft. upslope berm Use 10 Ft for all Berm Widths

30) 3:1 sideslope 10 ft. sideslope berms

31) 3:1 downslope 10 ft. downslope berm

32) Overall Dimensions: 10.0 ft. wide by 25.0 ft. long Rock bed
 30 ft. wide by 45 ft. long Mound footprint



Note:
 For 0 to 1% slopes, Absorption Width is measured from the Bed equally in both directions.
 For slopes >1%, Absorption Width is measured downhill from the upslope edge of the Bed.

33) Rock Bed: 10.0 ft. by 25.0 ft. by 9 inches under pipe, plus 20% gives 12 yd³ or *1.4= 17 ton

34) Mound Sand: (note: volume is based on 3:1/4:1 slope from top of rockbed, Exchange sand for loamy cap if desired)
 8.7 up + 8.7 downslope + 4.4 ends + 9.3 under rock = 37 yd³ or *1.4= 52 ton plus 20%

35) Loamy Cap: 26 ft. by 41 ft. 6" deep, plus 20% gives 24 yd³ or *1.4= 34 ton

36) Topsoil: 30 ft. by 45 ft. 6" deep, plus 20% gives 30 yd³ or *1.4= 42 ton

I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.

Designer Signature: *[Signature]* Brummer Septic LLC. L-1347 10/10/2022
 Company License# Date

Installer Summary

1000 gallon Septic tank (minimum)

Tank options: none

Install 1650 Jacobson 2/Compartment tank

533 gallon Dose tank (minimum)

at 12.69 gpi

18 GPM @ 21 ft. of head, Pump required

4.1 inch swing on Demand float which translates to roughly 3.1 inches of float tether length
if time dosing is required --> 2.9 minutes ON time & 5.1 hours OFF time

16 inches from bottom of tank to "pump ON" float, or 12 inches to "timer ON" float

19 inches from bottom of tank to "Hi Level Alarm" or 29 inches to "Hi level alarm" if time dosed

50 ft. of 2.0 inch supply line with end feed manifold connection

(Tip: "top feed" manifold to control drainback)

12 inch, or 1.0 ft. Sand Lift Mound

10.0 ft. wide by 25.0 ft. long Rock bed

3 laterals 1.50 inch diameter 23.0 ft. long 3.0 ft. lateral spacing

1/4" inch perfs 3.0 ft. perforation spacing

No Effluent filter & alarm

3 clean out & valve box assemblies

15.0 ft. Total sand ABSORPTION width (minimum)

2.5 ft. upslope and sideslope (sand beyond rockbed, minimum)

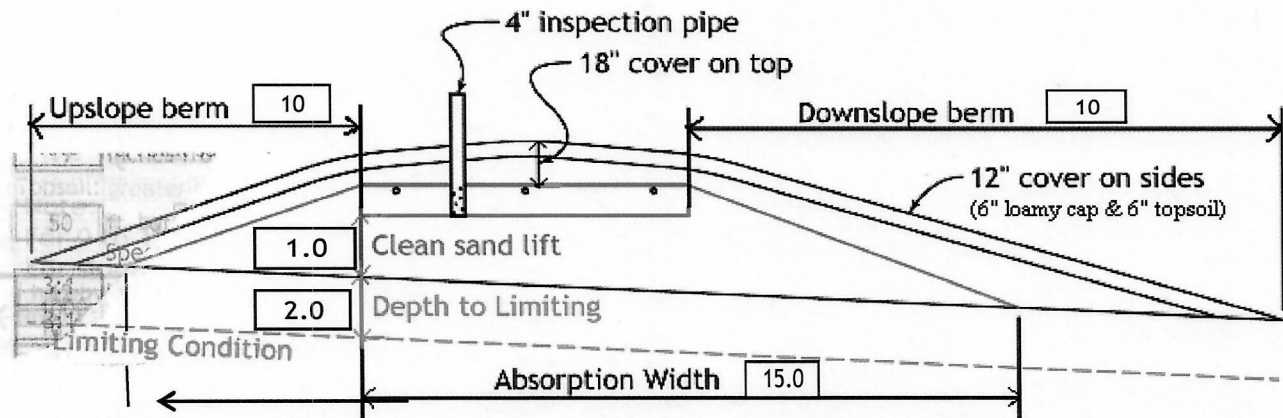
50 ft. of 2.5 ft. Downslope (sand beyond rockbed, minimum)

Specific slope ratios give BERM widths (topsoil beyond rockbed) of:

3:1 upslope ratio 10 ft. upslope berm

3:1 sideslope 10 ft. sideslope berms

3:1 downslope 10 ft. downslope berm



Note:

For 0 to 1% slopes, *Absorption Width* is measured from the *Bed* equally in both directions.
For slopes >1%, *Absorption Width* is measured downhill from the upslope edge of the *Bed*.

Rock Bed:	12.0 yd ³ or *1.4=	17 ton	9 inches under pipe
Mound Sand:	37 yd ³ or *1.4=	52 ton	
Loamy Cap:	24 yd ³ or *1.4=	34 ton	6" deep
Topsoil:	30 yd ³ or *1.4=	42 ton	6" deep

INSPECTOR CHECKLIST - mound

48525 194th Pl. McGregor MN 55760

- WELL setbacks: 20' to pressure tested sewer line (5 psi for 15 min)
- Leamy Cap: 50' to everything 100' to dispersal area with shallow well
- PROPERTY LINES setback: 10' to everything
- Road setback: platted: 10' prop line. Metes & bounds: out of road easement, or outer ditch.
- LAKE / BLUFF setback: 20' for bluff. Lakes: GD ____, RD ____, NE ____. Protected wetland ____.
- Building setbacks: 10' for everything, 20' for dispersal area.
- WATER LINE under pressure se 10' to bed, tank & sewer line. (else sewer line > 12" below, else ok w/pvc)

- Sewer line & baffle connection (no 90's, 3' between 45's, slope min 1" in 8', max 2" in 8')
(no depth req's, clean out every 100', Sch 40 pipe)

- Septic tank and risers (water tight, insulated, proper depth, existing verified by pumping)
- mfg _____ 1000 gallons none _____
- Leamy Cap: _____
- Riser over outlet, riser over inlet or center, and 6"+ inspection pipe over any remaining baffles.
- No _____ effluent filter & alarm
- Dose tank risers and piping (water tight, insulated, proper depth, drainback)
mfg _____ 533 gallons
- dose pump _____ 18 gpm 21 head VERIFY PUMP CURVE 2.9 min ON 5.1 hr OFF
- float setting drop 4.1 inches at 12.7 gpi "DESIGNED" 3.1 inches approx float tether length
52.0 gal dose divided by _____ gpi "INSTALLED" = _____ inches float drop (field corrected)
- LABEL pump requirements and drawdown on riser or panel
- Cam lock reachable from grade - 30" max. J-hook weep hole. Supply line access (no hard 90's)
2.0 inch supply pipe: Sch40, sloped 1/8"+, supported by 4" sch40 sleeve or compacted, and buried 6"+.
- splice box / control panel / electrical connections
- flow measurement: CT, ETM, time dosed, home water meter
- No _____ mound absorption area rough up
- Dose mound rock dimensions 10.0 X 25.0
- Sand lift depth 12 inches. (Jar test : 2" sand leaves < 1/8" silt after 30 min)

- Absorption Sand beyond rock 2.5 upslope 2.5 downslope
- Bermed topsoil beyond rockbed 10 upslope 10 sideslope 10 downslope

- cover depth of 12-18"+ VERIFY
- 3.0 laterals (1-2' from edge of rock)
- 1.50 inch pipe size (Sch40 pipe & fittings)
- 3.0 ft lateral spacing
- mound 1/4" inch perforations
- 3.0 ft perforation spacing

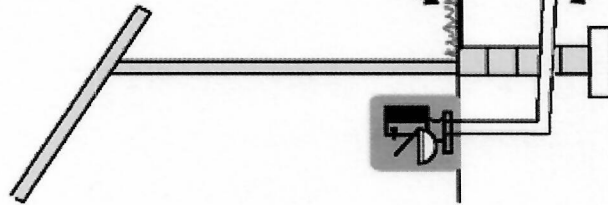
- Air inlet at end of laterals, and at top feed manifold if necessary. VERIFY
- clean outs (no hard 90's)
- 4" inspection pipe to bottom of rock, anchored VERIFY

- Abandon existing system - if necessary Re-use existing tank certification
- monitoring plan and type _____
- well abandonment form - if necessary _____

System Elevations

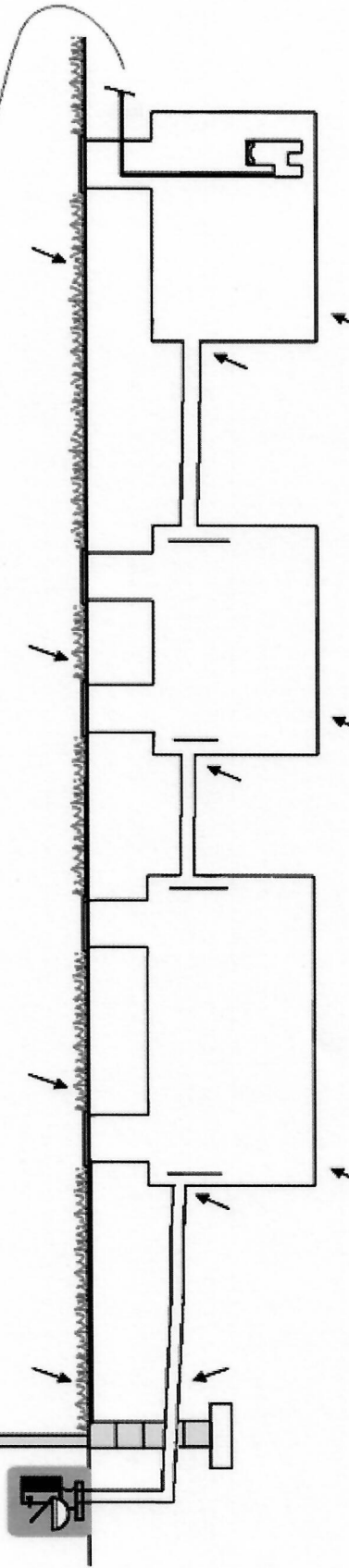
Elv = 100' benchmark Nail on Power Pole

(Grade elevations are existing. If a different final grade is desired it should be shown and described here.)



Mound

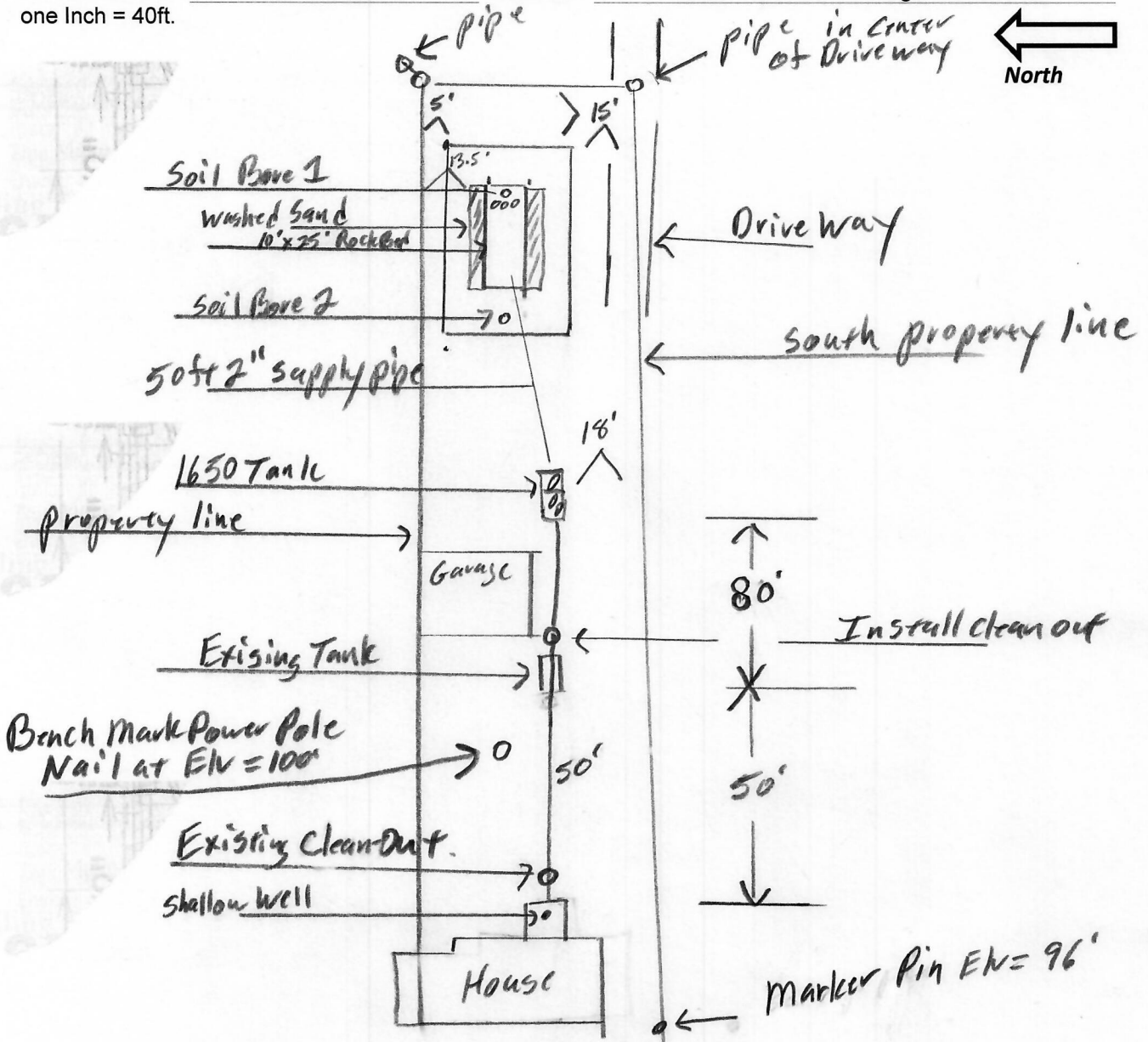
- 102' loamy cap
- 100.7' lateral
- 100' bottom rock
- 99' grade (at upslope rock bed)
- 27" SHWT (at upslope rock bed)



Sewer pipe exiting house	Septic Tank	Septic Tank (if applicable)	Pump Tank
<u>90.8'</u> Grade	<u>99'</u> Grade	Grade	<u>99'</u> Grade
<u>97.6'</u> Pipe	<u>95.7'</u> inlet	inlet	<u>95.4'</u> inlet
	<u>91.5'</u> Tank bottom	Tank bottom	<u>91.5'</u> Tank bottom

{ Design Drawing }

Property Owner: Robbie Danko Date: 10/10/22 Designer's Initials: JB
 Parcel ID. Number: 29-1-158100 Address: 48525 194th Pl. McGregor MN 55760
 one Inch = 40ft.



Existing tank inlet Elv. = 97.2' Estimated New 1650 tank inlet Elv. = 95.7'
 Grade at Power pole near House Elv. = 98.7' Nail on Power Pole near House Elv. = 100'
 Top of Survey Pin at SW of House Elv. = 96' Grade at Pin Elv. = 95.1'

	Surface/ SHWT	Nail on power pole Elv. = 100'		Existing Grade	
Soil Bore 1	99' / 39"	Bench Mark	100'		Upslope Edge of Rockbed Elv. = 99'
Soil Bore 2	99' / 27"	Ground Elv. BM	98.7'		Bottom of Rockbed Elv. = 100'
Soil Bore 3		Ground Elv. Tank	99'	New	Top of Washed Sand Elv. = 100'
	Ground at	Existing house	98.8'	East end	Elv. Of Sewer pipe at House Elv. = 97.6'

Please show all that apply (Existing)
 Wells within 100ft. Of Drain field.
 Water lines within 10 ft. of Drain field.
 Drain field Areas:

Please Draw to Scale with North to Top or Left Side of Page:

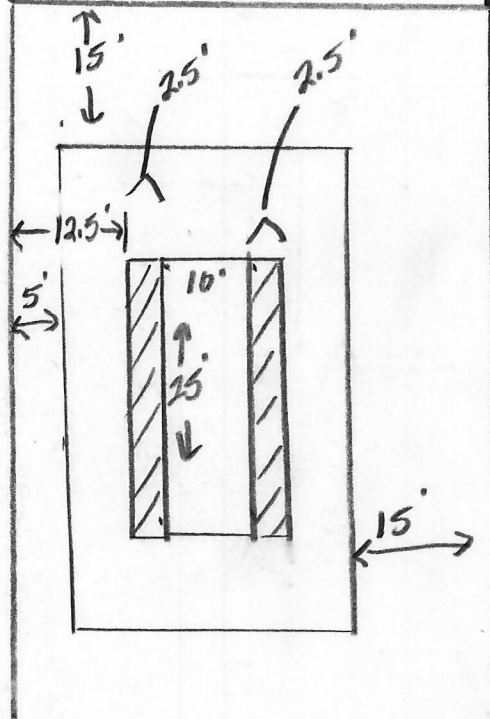
- | | |
|---------------------------|-----------------------------------|
| Disturbed/Compacted Areas | Access Route for Tank Maintenance |
| Component Location | Property Lines |
| OHW ordinary high water | Structures |
| Lot Easements | Setbacks |

{ Design Drawing }

Property Owner: Robbie Danko Date: 10/10/22 Designer's Initials: JB
 Parcel ID. Number: 29-1-158100 Address: 48525 194th Pl. McGregor MN 55760
 one inch = 40ft.

Designer's Signature
 10 Install a 2
 Install

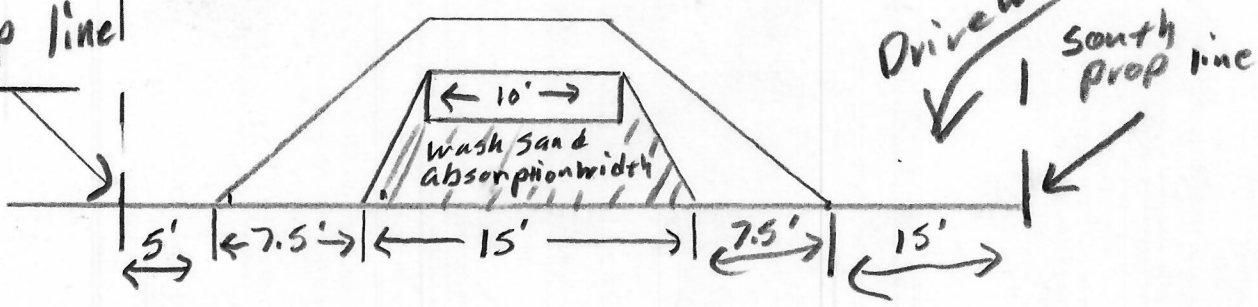
pipe → *NE lot corner* ← *pipe in middle of Driveway* ← North



Property Owner:
 Parcel ID. Number
 one inch =
 Designer's Signature
 10 Install a 2
 Install

Property Owner:
 Parcel ID. Number
 one inch =
 Designer's Signature

North prop line



Existing tank inlet Elv. = 97.2' Estimated New 1650 tank inlet Elv. = 95.7'
 Grade at Power pole near House Elv. = 98.7' Nail on Power Pole near House Elv. = 100'
 Top of Survey Pin at SW of House Elv. = 96' Grade at Pin Elv. = 95.1'

	Surface/ SHWT	Nail on power pole Elv. = 100'		Existing Grade	
Soil Bore 1	99' / 39"	Bench Mark	100'		Upslope Edge of Rockbed Elv. = 99'
Soil Bore 2	99' / 27"	Ground Elv. BM	98.7'		Bottom of Rockbed Elv. = 100'
Soil Bore 3		Ground Elv. Tank	99'	New	Top of Washed Sand Elv. = 100'
	Ground at	Existing house	98.8'	East end	Elv. Of Sewer pipe at House Elv. = 97.6'

Please show all that apply (Existing)
 Wells within 100ft. Of Drain field.
 Water lines within 10 ft. of Drain field.
 Drain field Areas:
 Existing tank inlet Elv.
 Grade at Power po'
 Top of Survey Pi'

Please Draw to Scale with North to Top or Left Side of Page:
 Disturbed/Compacted Areas
 Component Location
 OHW ordinary high water
 Lot Easements
 Access Route for Tank Maintenance
 Property Lines
 Structures
 Setbacks

Mound Design Notes - Aitkin county

Property Owner: Robbie Danko

Date: 10/10/22

Site Address: 48525 194th Pl. McGregor MN 55760

PID: 29-1-158100

Comments: **Mound design may not follow Aitkin co. Auto fill form for mound design.**

- 1 This is a type I mound for a 2 bedroom House. Existing Shallow well is inside house near east end.
- 2 Because the lot is narrow (50 ft wide), designer used 3:1 berm slopes, to stay off driveway and keep North absorption area 12.5 ft away from North property line.
Abandon existing gravity bed and septic tank. (inspector thinks gravity bed is under garage. Remove existing tank).
- 3 Property line has a pipe on NE corner, and one in middle of driveway at SE lot corner.
There is a property line Marker SW of house.
- 4 Bench Mark Elevation = 100' , is a nail on a power pole near house.
- 5 Install Jacobson 1650 Compartment tank for gravity flow from house, approx. 130 ft.
Keep existing clean-out near house, connect to existing sewer pipe at old septic tank. (+ 20 ft from well).
Install another clean-out near garage, need one every 100 ft.
- 6 Elevation contour of rock bed upslope edge is 99'.
The area size of the rock bed is 10' x 25' . Absorption area is 25' x 15'.
Sand absorption area is 2.5 ft. up slope + 10 ft. rockbed + 2.5 downslope = approx. 15 ft. wide sand base.
Berms are 10ft. Upslope, 10ft. Down slope, 10ft. Rock bed = approx. 30ft. Wide.
Overall mound size is approx. 30' wide x 45' long and approx. 3' high. End berms are 10 ft wide.
- 7 The bench mark is the nail on the Power pole near the house, BM = Elv. 100'.
Installer to double check bench mark. Installer should confirm bench mark and sand height Elv. with inspector.
Installer should record bench mark Elv. and sand height on installation inspection form.
- 8 The top of the washed sand and bottom of rock bed is Elv. 100'.
It is important that the soils do not get compacted, and that clean washed sand is used.
- 9 The Jacobson 1650 compartment tank will be gravity flow from dwelling. Install the pump for 7 demand doses per day approx. 52 gallons per dose, 4.1 inches of tank level. Install alarm at 3 inches from pump on level.
Install all manholes, inspection pipes and clean-outs to grade or above, (recommend manholes 4" above finished grade).
- 10 Install a 2" supply pipe from pump tank to end manifold in rock bed, install so pipe drains back to tank.
Install 1.5" laterals with 9" of rock under them. (Install Lateral clean-outs at far end of laterals. Recommended)
- 11 **Drill 1/4" holes for Perf sizing, 36" on centers.**
Install 4" inspection pipe to bottom of rock bed, secure in rock bed and raise to above final grade.
- 12 Recommend Installing an Effluent filter and Alarm on septic tank outlet.

Designed to Aitkin Co. and MPCA recommendations and requirements.

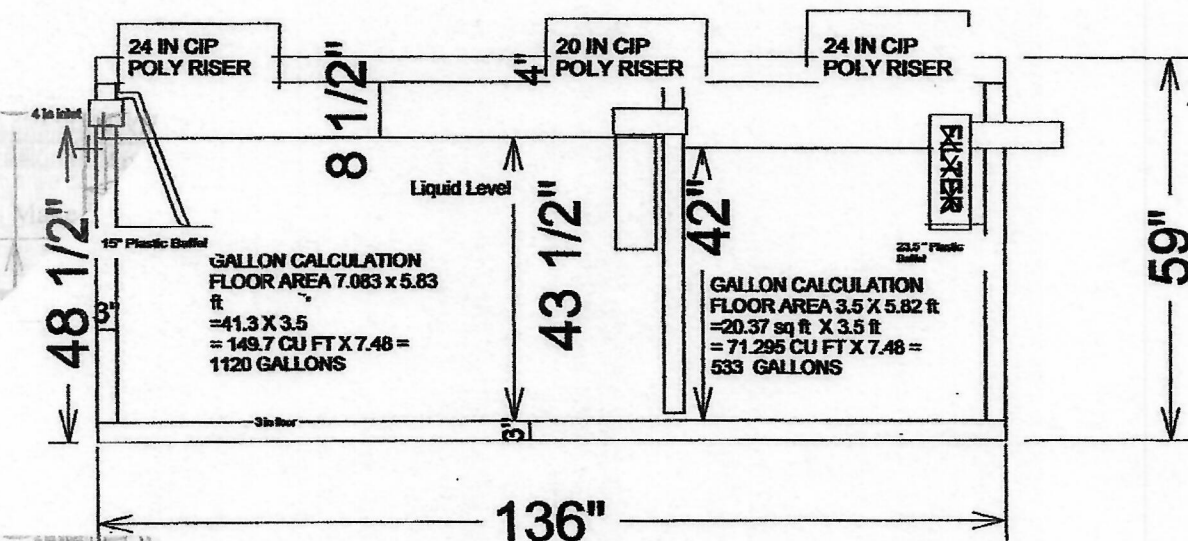
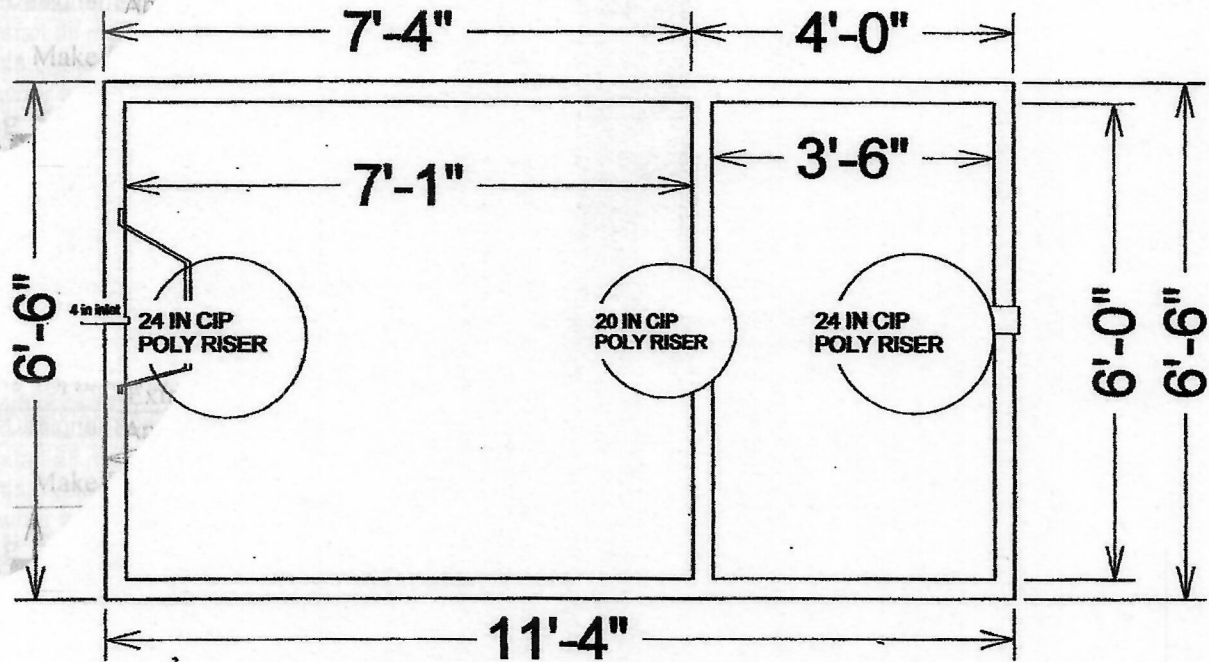

Designer's Signature

Brummer Septic LLC.
Design Company

L-1347
License#

1650 Gallon 2 Compartment Septic Tank

TOP VIEW



$533 / 42'' = 12.69 \text{ GPI}$

SIDE VIEW

Drawings Owned BY Jacobson Precast, Inc.
36641 HWY 169, Aitkin, Mn 56431



Detailed Parcel Report

Parcel Number: 29-1-158100

General Information

Township/City: SHAMROCK TWP
 Taxpayer Name: DANKO, JOEL A & ROBBIE
 Taxpayer Address: 3315 ROLLING HILLS COURT
 EAGAN MN 55121
 Property Address: 48525 194th Pl
 Township: 49 Lake Number: 1003300
 Range: 23 Lake Name: MINNEWAWA LAKE
 Section: 21 Acres: 0.00
 Green Acres: No School District: 4.00
 Plat: SHESHEBE POINT
 Brief Legal Description: LOT 151

Tax Information

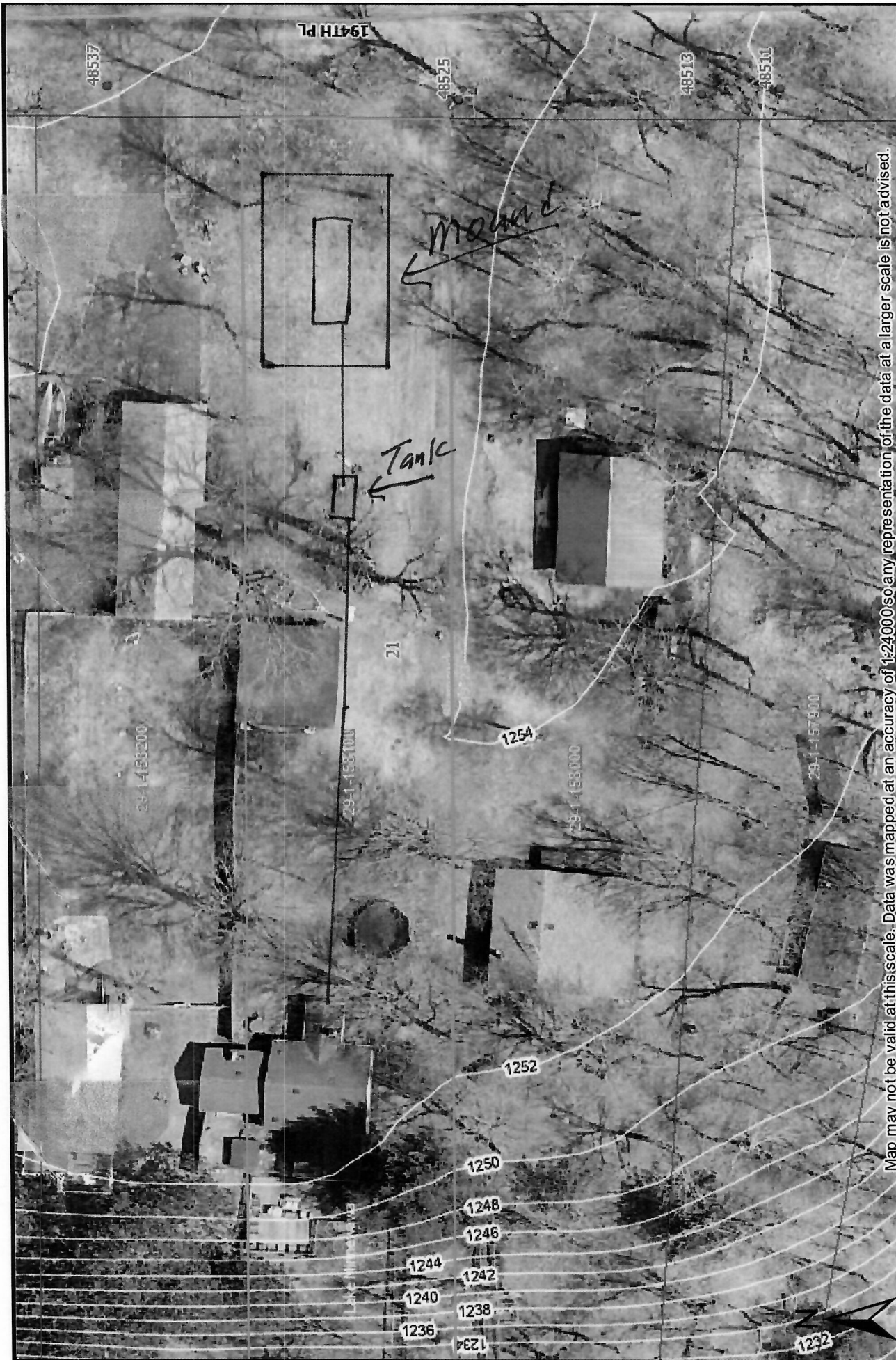
Class Code 1: Non-Comm Seasonal Residential Recreational
 Class Code 2: Unclassified
 Class Code 3: Unclassified
 Homestead: Non Homestead
 Assessment Year: 2022

Estimated Land Value: \$123,300.00
 Estimated Building Value: \$104,700.00
 Estimated Total Value: \$228,000.00
 Prior Year Total Taxable Value: \$165,300.00
 Current Year Net Tax (Specials Not Included): \$1,433.00
 Total Special Assessments: \$65.00
 **Current Year Balance Not Including Penalty: \$749.00
 Delinquent Taxes: No

* For more information on delinquent taxes, please call the Aitkin County Treasurer's Office at 218-927-7325.

** Balance Due on a parcel does not include late payment penalties.

Sale History



These data are provided on an "AS-IS" basis, without warranty of any type, expressed or implied, including but not limited to any warranty as to their performance, merchantability, or fitness for any particular purpose.

Danko



Web App Builder for ArcGIS

1:584
0 0.003 0.006 mi 1 inch = 47 feet

Date: 9/22/2022

d

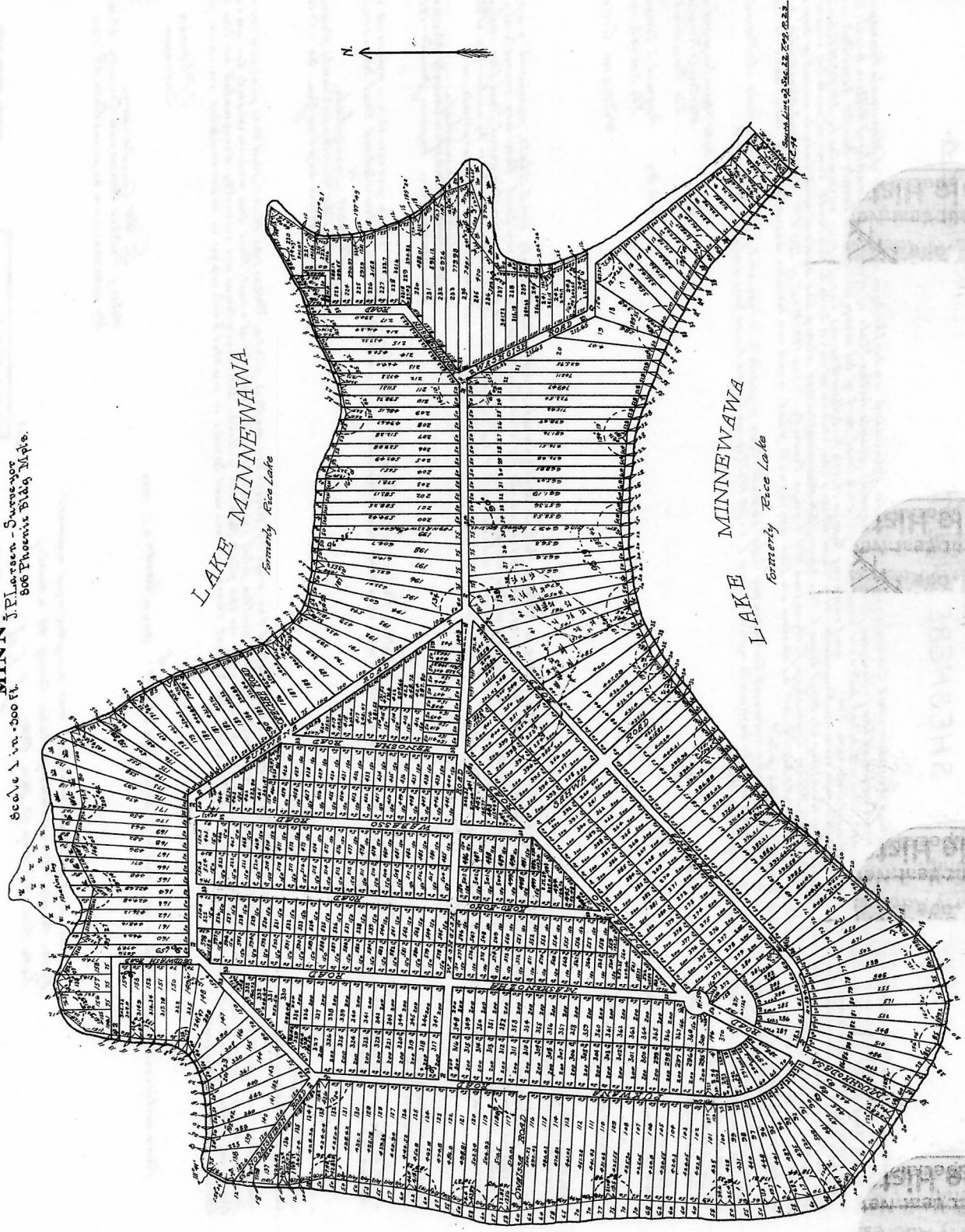
Sheet B.

SHE SHEBE POINT

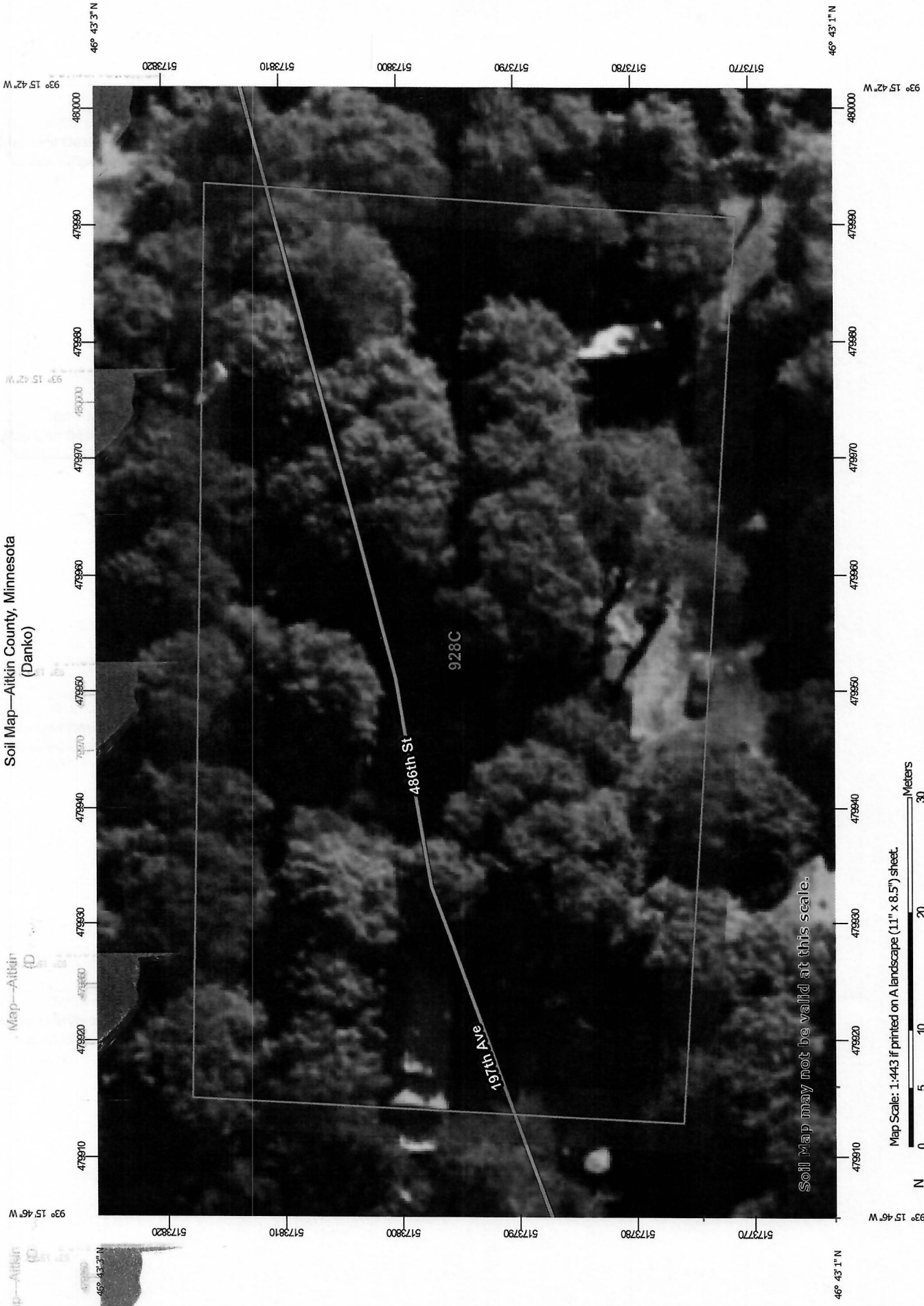
AITKIN COUNTY

MINN. J. ELARSEN - Surveyor
806 Phoenix Bldg. Supt.

Scale 1 in. = 500 Ft.

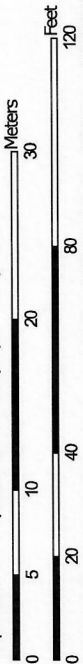


Soil Map—Aitkin County, Minnesota
(Danko)



Soil Map may not be valid at this scale.

Map Scale: 1:443 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Aitkin County, Minnesota

928C—Cushing-Mahtomedi complex, 2 to 10 percent slopes

Map Unit Setting

National map unit symbol: gjk4
Elevation: 980 to 1,640 feet
Mean annual precipitation: 25 to 30 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 120 to 140 days
Farmland classification: Not prime farmland

Map Unit Composition

Cushing and similar soils: 50 percent
Mahtomedi and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cushing

Setting

Landform: Moraines
Landform position (two-dimensional): Backslope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy till

Typical profile

E - 0 to 16 inches: very fine sandy loam
B/E - 16 to 19 inches: loam
Bt - 19 to 44 inches: loam
C - 44 to 60 inches: loam

Properties and qualities

Slope: 2 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Available water supply, 0 to 60 inches: High (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Forage suitability group: Sloping Upland, Acid (G090AN006MN)

Other vegetative classification: Sloping Upland, Acid (G090AN006MN)
Hydric soil rating: No

Description of Mahtomedi

Setting

Landform: Moraines
Landform position (two-dimensional): Backslope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy and gravelly outwash

Typical profile

A - 0 to 4 inches: loamy sand
E - 4 to 15 inches: coarse sand
Bw - 15 to 26 inches: gravelly coarse sand
C - 26 to 60 inches: gravelly sand

Properties and qualities

Slope: 2 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: A
Forage suitability group: Sandy (G090AN022MN)
Other vegetative classification: Sandy (G090AN022MN)
Hydric soil rating: No

Minor Components

Cathro and similar soils

Percent of map unit: 4 percent
Landform: Bogs
Hydric soil rating: Yes

Meehan and similar soils

Percent of map unit: 4 percent
Hydric soil rating: No

Sandwick and similar soils

Percent of map unit: 4 percent
Landform: Flats
Hydric soil rating: Yes

Alstad and similar soils

Percent of map unit: 3 percent

Hydric soil rating: No

Data Source Information

Soil Survey Area: Aitkin County, Minnesota

Survey Area Data: Version 22, Sep 10, 2021