

Preliminary & Field Evaluation Form

24-177

www.SepticResource.com vers 12.4

Owner Information			
Date	<u>9/23/2024</u>	Sec / Twp / Rng	<u>S-9, T-49, R-23</u>
Parcel ID	<u>29-0-019822</u>	LUG (county, city, township)	<u>Aitkin Co.</u>
Property Owner:	<u>John Plahn</u>	Owners address (if different)	
Property Address:	<u>Near 19962 507th Ln. McGregor</u>	<u>104 Collen St.</u>	
City / State / Zip:	<u>McGregor MN 55760</u>	<u>East Bethal MN 55092</u>	

Flow Information and Waste Type / Strength			
Estimated Design flow	<u>600 GPD</u>	Anticipated Waste strength	<input type="checkbox"/> Hi Strength <input checked="" type="checkbox"/> Domestic
Comments: Big Sandy 100 yr flood Elv.= 1223.9' Tank and Mound will be within 100 Yr flood zone. Neighbor to the South has Shallow Well 30 ft from his house Shallow well is buried in yard, approx. 37 ft from property line Designe is Approx. 114 ft from shallow well to rockbed.		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					
Existing & proposed lot improvements located (see site map)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Well casing depth	Proposed deep well	
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)	<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>Set Septic Tank near mound with gravity flow through low area between house and tank.</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 Yes No

Soil logs completed and attached Yes No

Perk test completed and attached (if applicable) Yes No

Soil loading rate (gpd/ft²) 0.78

Percolation rate (if applicable) _____

Depth/elev to SHWT 27"

Flooding or run-on potential Yes No
(comments)

Depth to system bottom maximum (or elev minimum) (+ 12")

Flood elevation (if applicable) _____

Depth/elev to standing water (if applicable) _____

Designer's Elv.= 100' is approx. Elv.= 1222.7'
Elevation of ordinary high water level (if applicable) 1216.56' OR 93.8'

Depth/elev to bedrock (if applicable) _____

Floodplain designation and elev - 100 yr/10 yr (if applicable) 1223.9' OR 101.2'

Soil Survey information determined (see attachment) Yes No

Differences between soil survey and field evaluation (if applicable) _____

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



Designer Signature

Brummer Septic LLC.

Company

L-1347

License #

Soil Observation Log

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Owner Information	
Property Owner / project: <u>John Plahn</u>	Date <u>9/23/2024</u>
Property Address / PID: <u>Near 19962 507th Ln. McGregor</u>	

Soil Survey Information	
<input type="checkbox"/> refer to attached soil survey	
Parent matl's:	<input type="checkbox"/> Till <input checked="" type="checkbox"/> Outwash <input type="checkbox"/> Lacustrine <input type="checkbox"/> Alluvium <input type="checkbox"/> Organic <input type="checkbox"/> Bedrock
landscape position:	<input type="checkbox"/> Summit <input type="checkbox"/> Shoulder <input type="checkbox"/> Side slope <input type="checkbox"/> Toe slope
soil survey map units:	<u>D458B</u> slope <u>4</u> % direction- <u>NW</u>

Soil Log #1								
		<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation <u>98.5'</u>	Depth to SHWT <u>27"</u>			
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape	
0 - 4	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular	
4 - 10	Sandy Loam	<35	10YR4/3		Loose	Loose	Granular	
10 - 27	Sandy Loam	<35	10YR5/4		Loose	Loose *	Granular	
27 - 38	Med Sand	<35	10YR5/4	7.5YR5/6 Faint	Loose	Loose	Granular	
Comments:								

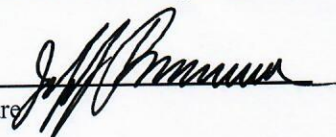
Near 19962 507th Ln. McGregor **Soil Log #2**

		<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation <u>98.1'</u>	Depth to SHWT <u>32"</u>		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 7	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular
7 - 15	Sandy Loam	<35	10YR4/3		Loose	Loose	Granular
15 - 32	Sandy Loam	<35	10YR5/4		Loose	Loose	Granular
32 - 36	Med Sand	<35	10YR6/4	7.5YR5/6 Faint	Loose	Loose	Granular

Near 19962 507th Ln. McGregor **Soil Log #3**

		<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation <u>98.1'</u>	Depth to SHWT <u>31"</u>		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 6	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular
6 - 16	Sandy Loam	<35	10YR4/3		Loose	Loose	Granular
16 - 31	Sandy Loam	<35	10YR5/4		Loose	Loose	Granular
31 - 36	Med Sand	<35	10YR5/4	7.5YR5/6 Faint	Loose	Loose	Granular

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 #

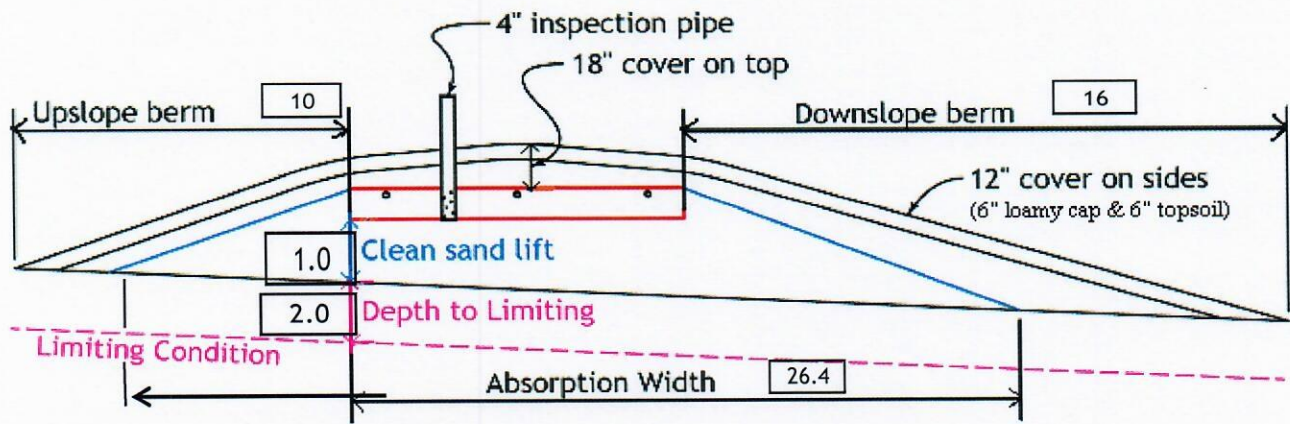
Mound Design - Aitkin county

Property Owner: John Plahn Date: 9/23/2024
 Site Address: Near 19962 507th Ln. McGregor PID: 29-0-019822
 Comments: Libby Dam Lake Elv. = 1216.25 on 9/23/24

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

- 1) 4 bedroom Type I Residential System
- 2) 600 GPD design flow
- 3) No Garbage disposal or pumped to septic Install 1650 Jacobson 2/Compartment Septic/Pump tank
- 4) 1500 Gal Septic tank (code minimum) 1500 Gal Septic tank (design size / LUG req'd)
 Tank options: none
- 5) 1.2 GPD/ft² mound sand loading rate contour loading rate of 12 req's a min 50 ft. long rockbed
- 6) 10.0 ft rockbed width 50.0 ft rockbed length
- 7) 3.0 ft lateral spacing 3.0 ft perforation spacing (maximum of 3 for both)
end feed manifold connection
- 8) 3 laterals 48.0 feet long 17.0 perfs / lateral 51 perfs total
 (1/2 a perf means the first perf starts at the middle feed manifold)
- 9) 7/32 inch perfs at 1 feet residual head gives 0.56 gpm flow rate per perforation
 for this perf size & spacing, & pipe size on line 12, max perfs/lateral = 19, line #8 must be less --> OK
- 10) 7.0 doses per day (4 minimum)
- 11) 86 gallons per dose (treatment volume) 1.50 5x
- 12) 1.50 inch diameter laterals must be used to meet "4x pipe volume" requirement 2.00 3x
- 13) 45 feet of 2.0 inch supply line leads to 8 gallons of drainback volume
 (Tip: "top feed" manifold to control the drainback)
- 14) 94 gallons TOTAL pump out volume (treatment + drainback)
- 15) 15 feet vertical lift from pump to mound laterals, leads to a:
- 16) 29 GPM @ 22 feet of head, Pump requirement (note: >50gpm may require an extra 3-6' of head)
- 17) 500 gal Dose tank (code minimum) 533 gal Dose tank (design size / LUG req'd) at 12.69 gpi
 leads to a
- 18) 7.4 inch swing on Demand float, or timed dosing of 3.2 min ON (confirm pump rate with drawdown
 (this delivers Average flow, =70% of Peak design flow) 5.1 hrs OFF test and adjust as necessary)
- 19) 12 inches from bottom of tank to "Pump OFF" float
- 20) 19 inches from bottom of tank to "Pump ON" float, or 12 inches to "Timer ON" float if time dosed
- 21) 22 inches from bottom of tank to "Hi Level" float, or 32 inches to "Hi Level" float if time dosed
- 22) 254 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) 4 percent site slope (0-20% range) 4 (% 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):
 26.4 greater of: absorption width OR sand slope
- 28) 0.0 ft. upslope and sideslope sand upslope 5.0 Use 5 ft upslope
 5.0 ft. Downslope sand down slope 11.4
- Individual slope ratios give BERM widths (topsoil beyond rockbed) of:
- 29) 4:1 upslope ratio 10 ft. upslope berm
 30) 4:1 sideslope 14 ft. sideslope berms
 31) 4:1 downslope 16 ft. downslope berm
- 32) Overall Dimensions: 10.0 ft. wide by 50.0 ft. long Rock bed
 36 ft. wide by 78 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 50.0 ft. by 9 inches under pipe, plus 20% gives 23 yd³ or *1.4= 32 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)
 17.9 up + 35.5 downslope + 8.5 ends + 22.2 under rock = 101 yd³ or *1.4= 141 ton
 plus 20%
- 35) Loamy Cap:
 32 ft. by 74 ft. 6" deep, plus 20% gives 53 yd³ or *1.4= 74 ton
- 36) Topsoil:
 36 ft. by 78 ft. 6" deep, plus 20% gives 63 yd³ or *1.4= 88 ton

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

Designer Signature: [Signature]
 Company: Brummer Septic LLC.
 License#: L-1347
 Date: 9/23/2024

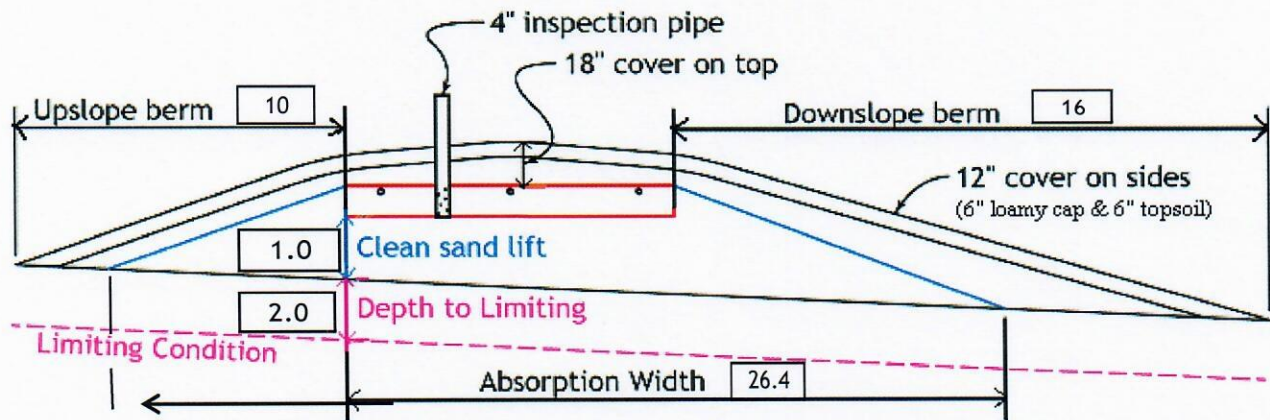
Installer Summary

- 1500 gallon Septic tank (minimum) Tank options: none
 Install 1650 Jacobson 2/Compartment Septic/Pump tank
- 533 gallon Dose tank (minimum) at 12.69 gpi
- 29 GPM @ 22 ft. of head, Pump required
 7.4 inch swing on Demand float which translates to roughly 4.7 inches of float tether length
 if time dosing is required --> 3.2 minutes ON time & 5.1 hours OFF time
- 19 inches from bottom of tank to "pump ON" float, or 12 inches to "timer ON" float
 22 inches from bottom of tank to "Hi Level Alarm" or 32 inches to "Hi level alarm" if time dosed
- 45 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 50.0 ft. long Rock bed
 3 laterals 1.50 inch diameter 48.0 ft. long 3.0 ft. lateral spacing
 7/32 inch perfs 3.0 ft. perforation spacing
- No Effluent filter & alarm
 3 clean out & valve box assemblies

- 26.4 ft. Total sand ABSORPTION width (minimum)
 5.0 ft. upslope and sideslope (sand beyond rockbed, minimum)
 11.4 ft. Downslope (sand beyond rockbed, minimum)

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

- 4:1 upslope ratio 10 ft. upslope berm
 4:1 sideslope 14 ft. sideslope berms
 4:1 downslope 16 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:	23.0 yd ³ or *1.4=	32 ton	9 inches under pipe
Mound Sand:	101 yd ³ or *1.4=	141 ton	
Loamy Cap:	53 yd ³ or *1.4=	74 ton	6" deep
Topsoil:	63 yd ³ or *1.4=	88 ton	6" deep

INSPECTOR CHECKLIST - mound

Near 1996Z 50/th Ln. McGregor

- WELL setbacks: 20' to pressure tested sewer line (5 psi for 15 min)
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 _____ 1500 gallons none _____

- 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 _____ 29 gpm 22 head VERIFY PUMP CURVE 3.2 min ON 5.1 hr OFF

- float setting drop 7.4 inches at 12.7 gpi "DESIGNED" 4.7 inches approx float tether length
94.0 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
mound absorption area rough up
mound rock dimensions 10.0 X 50.0
Sand lift depth 12 inches. (Jar test : 2" sand leaves < 1/8" silt after 30 min)

- Absorption Sand beyond rock 5.0 upslope 11.4 downslope

- Bermed topsoil beyond rockbed 10 upslope 14 sideslope 16 downslope

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

- 7/32 inch perforations
- 3.0 ft perforation spacing

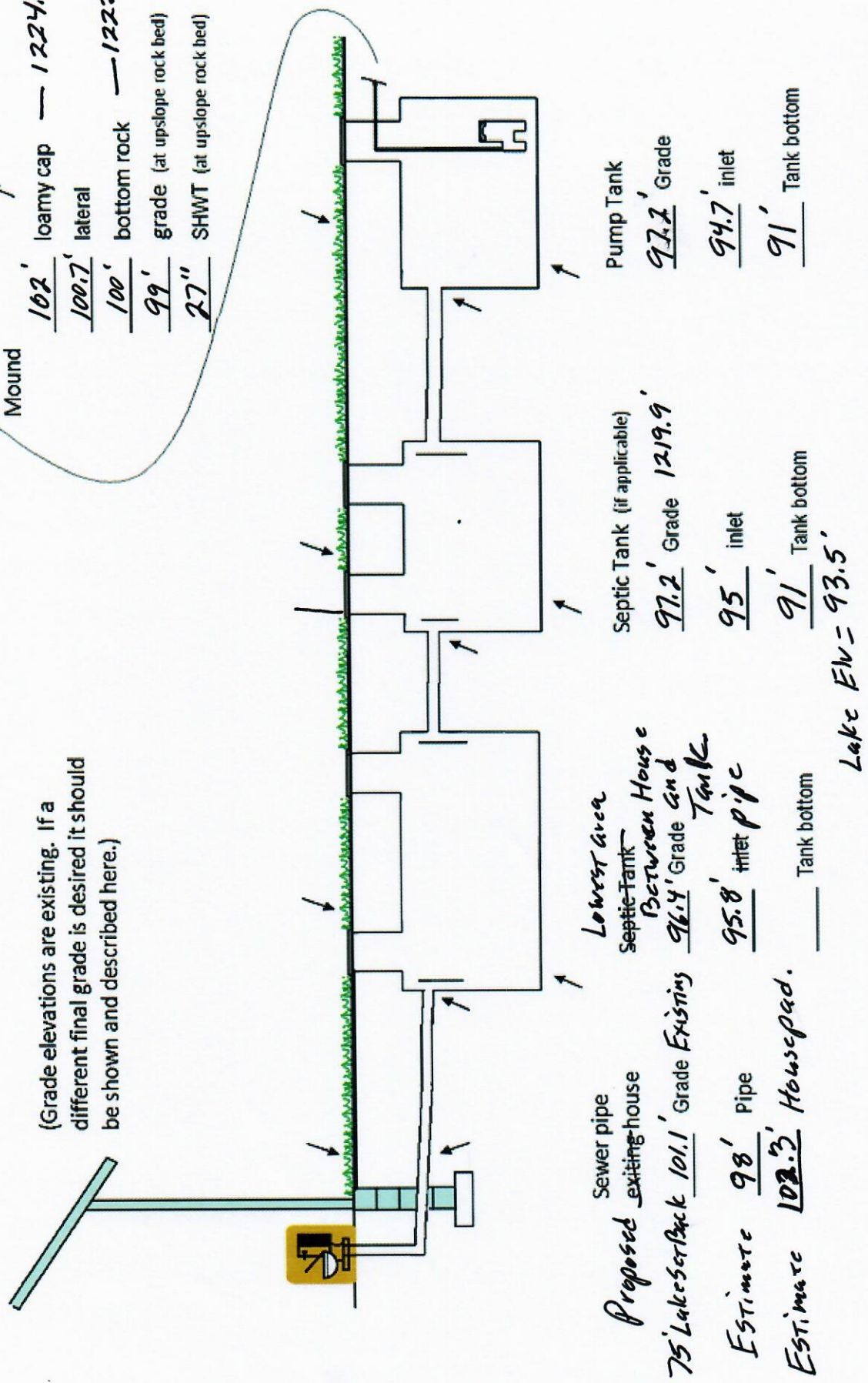
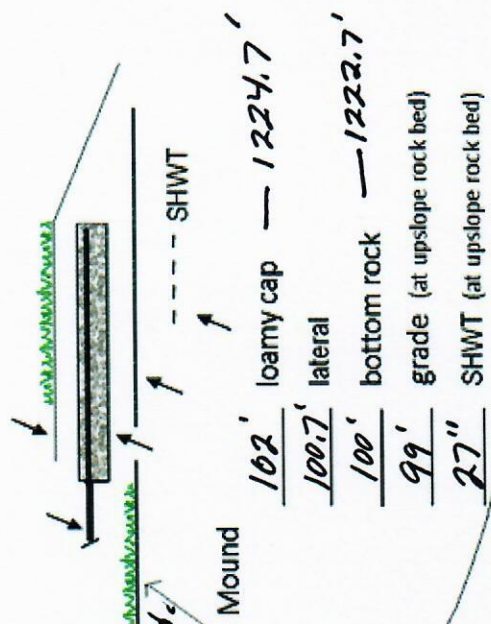
- Air inlet at end of laterals, and at top feed manifold if necessary. VERIFY
- clean outs (no hard 90's)
- 4" inspection pipe to bottom of rock, anchored VERIFY

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

System Elevations

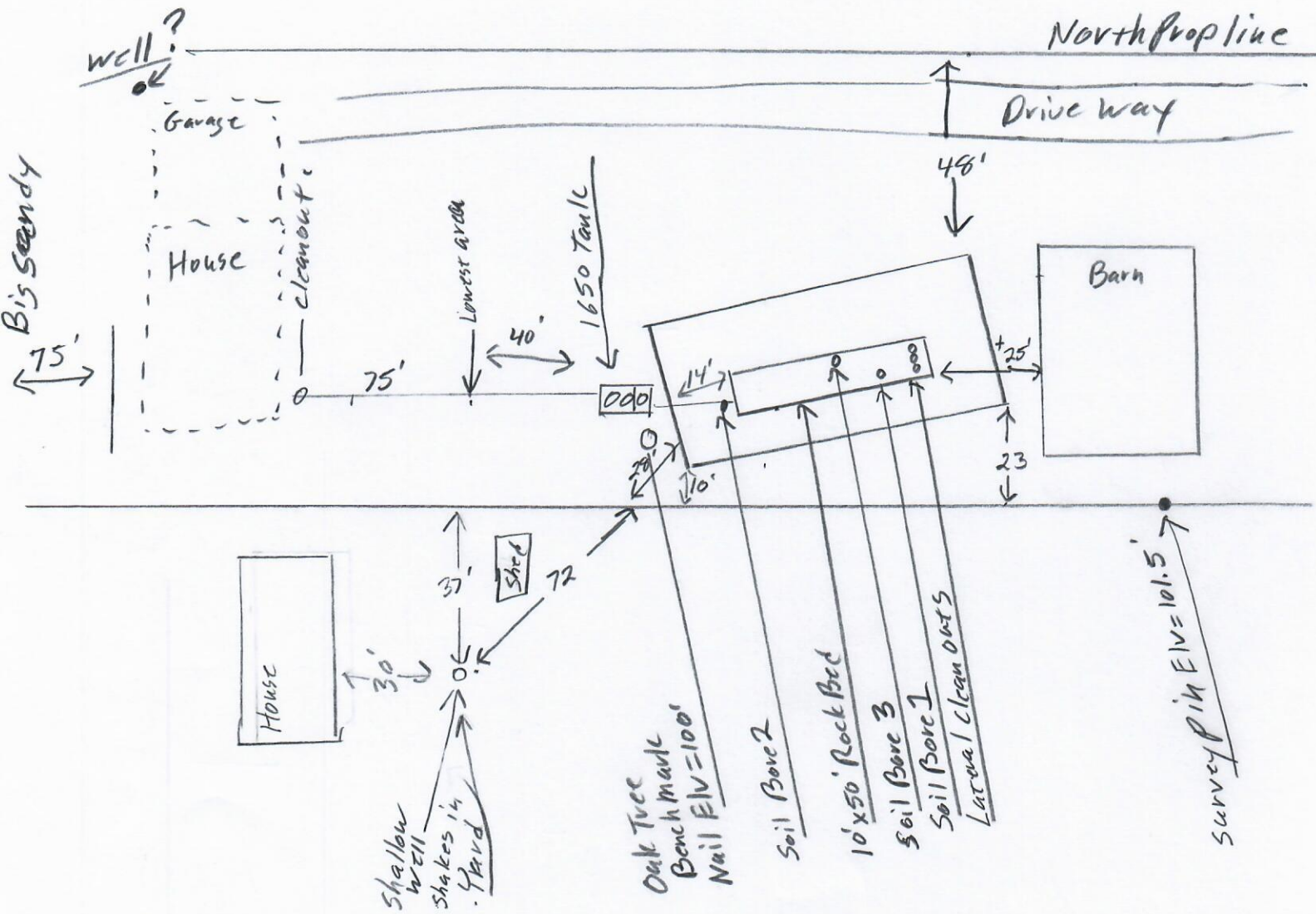
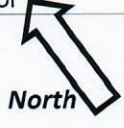
Elv = 100' benchmark Nail on oak tree west of mound.

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



{ Design Drawing }

Property Owner: John Plahn Date: 9/23/24 Designer's Initials: JB
 Parcel ID. Number: 29-0-019822 Address: Near 19962 507th Ln. McGregor
 one Inch = 40ft.



Designer's Benchmark Nail Elv. = 100' OR approx. Elv. = 1222.7'
 Libby Dam Lake Elv. = 1216.2 on 9/23/24 or 93.5' Shore Elv. = 95.1'

	Surface/ SHWT	Nail on Oak Tree = Bench Mark 100'		Existing Grade
Soil Bore 1	98.5' / 27"	Bench Mark	100'	Upslope Edge of Rockbed Elv. = 99'
Soil Bore 2	98.1' / 32"	Ground Elv. BM	98.9'	Bottom of Rockbed Elv. = 100'
Soil Bore 3	98.1' / 31"	Ground Elv. Tank	97.2' 1219.9'	Top of Washed Sand Elv. = 100'
Grade at 75ft Lake setback	Proposed house	101.1'		Lowest Area between house and tank Elv. = 96.4'

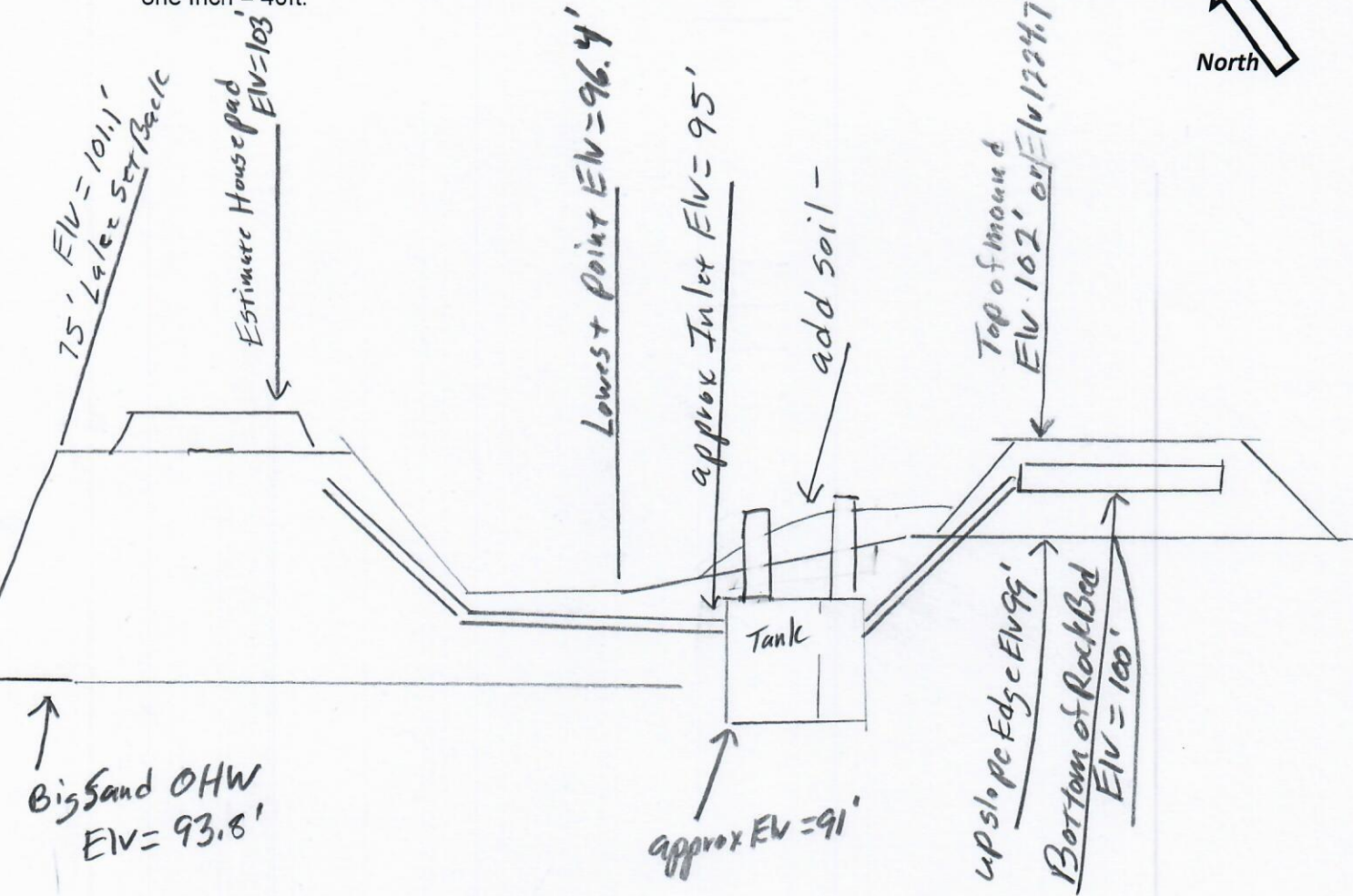
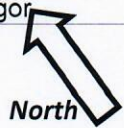
Please show all that apply (Existing)
 Wells within 100ft. Of Drain field.
 Water lines within 10 ft. of Drain field.
 Drain field Areas:

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: John Plahn Date: 9/23/24 Designer's Initials: JB
 Parcel ID. Number: 29-0-019822 Address: Near 19962 507th Ln. McGregor
 one Inch = 40ft.



Designer is NOT a Surveyor, All Lake Elevations are Approx. based on Libby Dam Info

Estimated Pad for House EIV. = 102.3' OR EIV. = 1225' Big Sandy Lake OHW EIV. = 1216.56'
 Designer's Benchmark Nail EIV. = 100' OR approx. EIV. = 1222.7' 100 Yr Flood EIV. = 1223.9'
 Libby Dam Lake EIV. = 1216.2 on 9/23/24 or 93.5' Shore EIV. = 95.1' Lowest Floor EIV. = 1224.9'

	Surface/ SHWT	Nail on Oak Tree = Bench Mark 100'		Existing Grade	
Soil Bore 1	98.5' / 27"	Bench Mark	100'	Upslope Edge of Rockbed EIV. = 99'	
Soil Bore 2	98.1' / 32"	Ground EIV. BM	98.9'	Bottom of Rockbed EIV. = 100'	
Soil Bore 3	98.1' / 31"	Ground EIV. Tank	97.2'	1219.9'	Top of Washed Sand EIV. = 100'
Grade at 75ft Lake setback	Proposed house	101.1'			Lowest Area between house and tank EIV. = 96.4'

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
- Component Location
- OHW ordinary high water
- Lot Easements
- Access Route for Tank Maintenance
- Property Lines
- Structures
- Setbacks

Mound Design Notes - Aitkin county

Property Owner: John Plahn Date: 9/23/24
Site Address: Near 19962 507th Ln. McGregor PID: 29-0-019822
Comments: **Mound design may not follow Aitkin co. Auto fill form for mound design.**

- 1 This is a Type I mound for a 4 bedroom House. Proposed deep well location will be NW of House ?
- 2 Mound and Tank will be in the 100 year flood zone. Top of mound should be above 100 Yr.
Tank will be too low to extend manholes to above 100 yr flood Elevation.
Add cover soil up to approx. 4 ft deep on tank. Raise manholes 6" above finished grade.
Seal manholes as best as possible. Do not raise septic/pump tank inspection pipes
**Flood Notes: Mound pump must have a disconnect in case of flood water inundation
If the Tank is Inundated with flood water it must be pumped out (Septic Tank Pumper)
before started up again. Flood water has a lot of silt and the silt will plug up the mound.**
- 3 Designer is NOT a surveyor, all references to Lake Elevations are approx. Based on Libby Dam lake elevation.
Designer's Benchmark Elv.= 100' is Elv.= 1222.7'
Neighbor to the south has a shallow well that is approx. 30 ft from east side of house.
Designer added 14 ft to the rockbed setback distance to the approx. well location.
There are 2 fiberglass markers approx. 30 ft East of the house, marking the approx. shallow well location.
- 4 Bench Mark Elevation= 100' is a nail on an Oak tree near West end of mound.
- 5 Install Jacobson 1650 Compartment tank for gravity flow from Slab on grade house (Elv. not set)
- 6 Elevation contour of rock bed upslope edge is 99'.
The area size of the rock bed is 10' x 50' . Absorption area is 50' x 26.4'.
Sand absorption area is 5 ft. up slope + 10 ft. rockbed + 11.4 downslope = approx. 26.4 ft. wide sand base.
Berms are 10ft. Upslope, 16ft. Down slope, 10ft. Rock bed = approx. 36ft. Wide.
Overall mound size is approx. 36' wide x 78' long and approx. 3' high. End berms are 14 ft wide.
- 7 The bench mark is the nail on the Oak tree near mound area, 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. 94 gallons per dose, 7.4 inches of tank level. Install alarm at 3 inches from pump on level.
See notes on Manhole installation.
- 10 Install a 2" supply pipe from 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 7/32" 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.
MPCA recommends Installing an Effluent filter and Alarm on septic tank outlet.
MPCA recommends installing an event counter on all systems with a pump.

Designed to Aitkin Co. and MPCA recommendations and requirements.

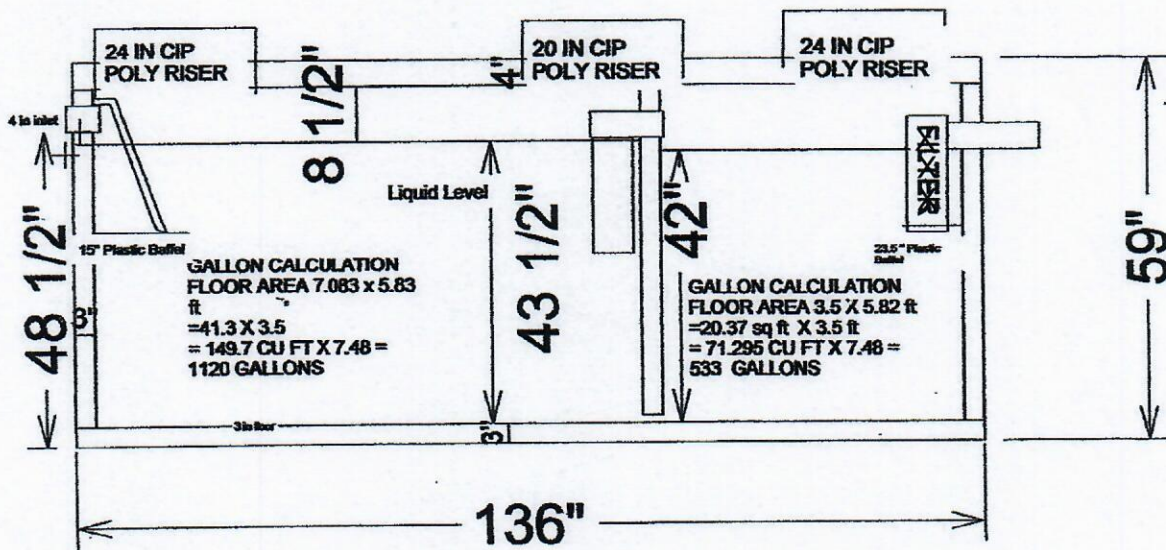
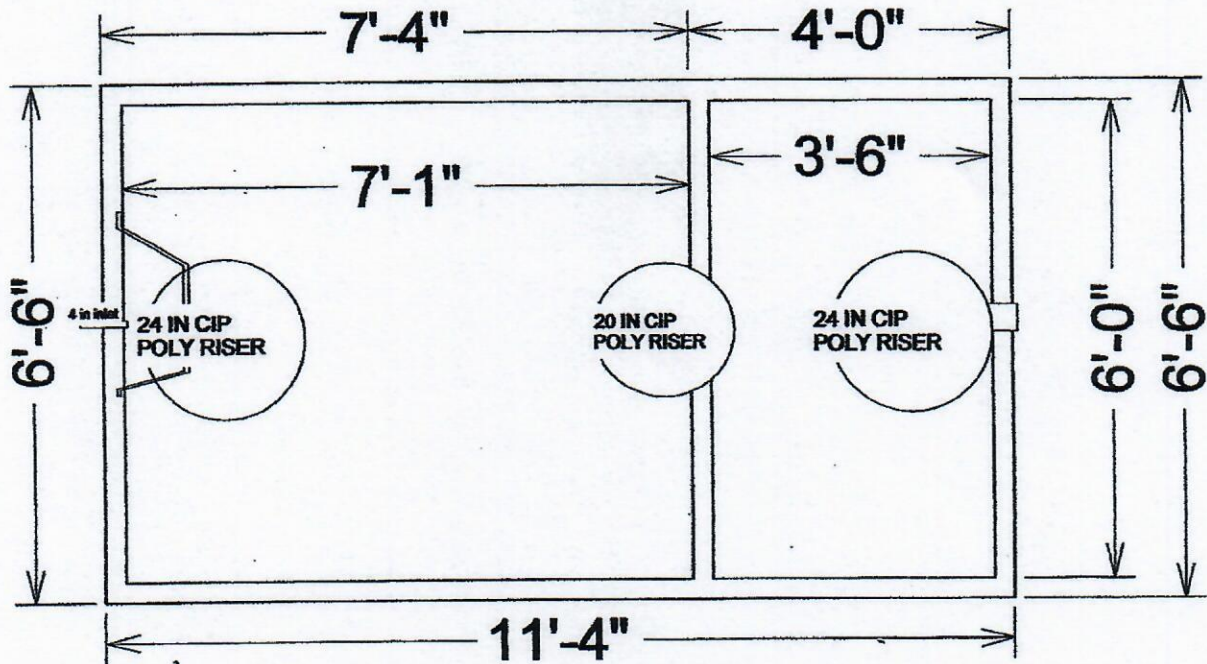

Designer Signature

Brummer Septic LLC.
Design Company

L-1347
License#

1650 Gallon 2 Compartment Septic Tank

TOP VIEW



SIDE VIEW

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

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



Detailed Parcel Report

Parcel Number: 29-0-019822

General Information

Township/City: SHAMROCK TWP
 Taxpayer Name: MICHAEL, DENNIS A & CATHERINE A
 Taxpayer Address: 6987 BAYVIEW DR SE
 PORT ORCHARD WA 98367

Property Address:

Township: 49 Lake Number: 1006200
 Range: 23 Lake Name: BIG SANDY LAKE
 Section: 9 Estimated Acres: 2.38
 Green Acres: No School District: 4.00
 Plat:
 Brief Legal Description: 2.38 AC OF GOVT LOT 3

*RD'
75' SSTS.*

Tax Information

Class Code 1: Rural Vacant Land
 Class Code 2: Unclassified
 Class Code 3: Unclassified
 Homestead: Non Homestead
 Assessment Year: 2024

*OHW = 1216.56'
100 YR = 1223.9'*

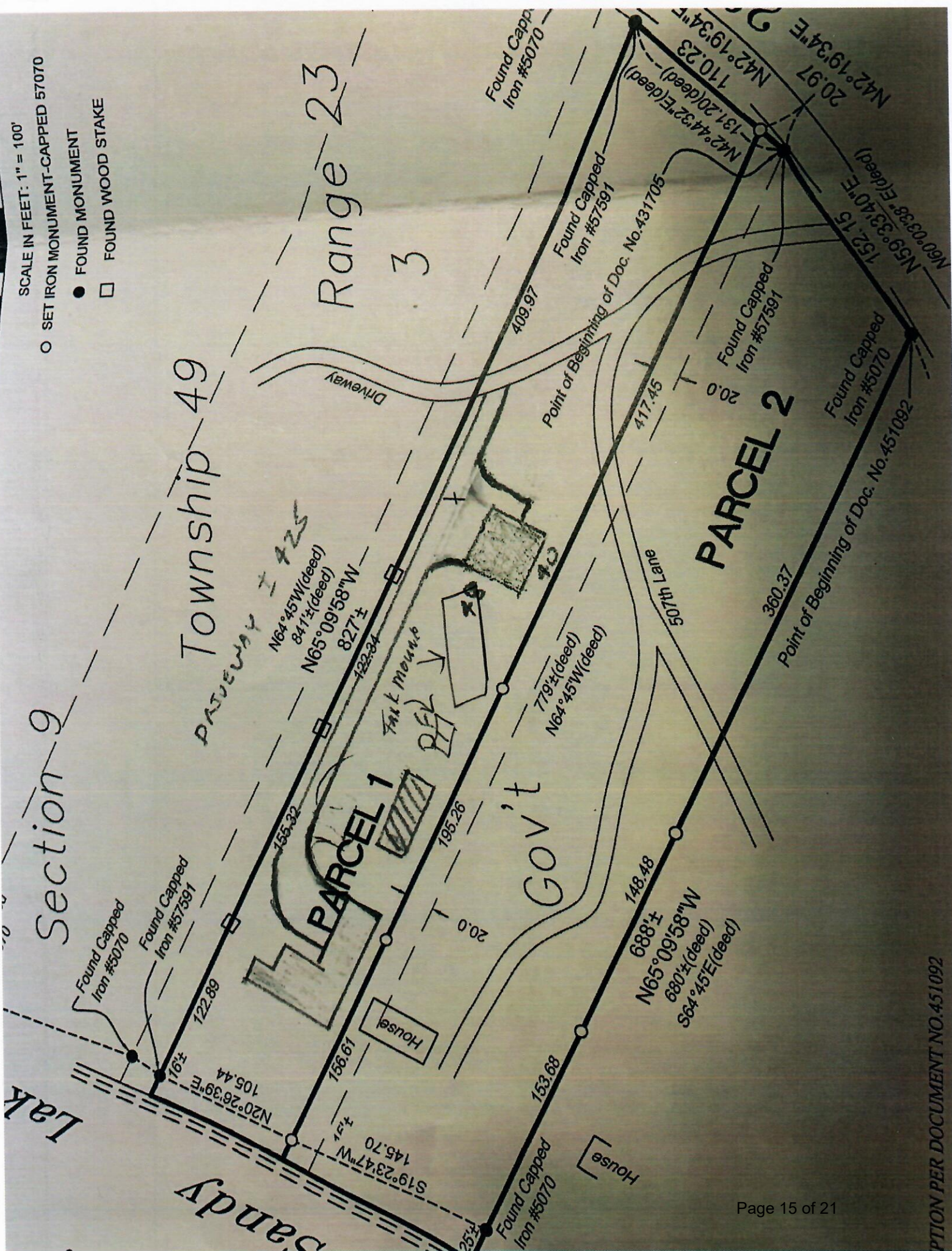
Estimated Land Value:	\$371,200.00
Estimated Building Value:	\$0.00
Estimated Total Value:	<u>\$371,200.00</u>
Prior Year Total Taxable Value:	\$443,600.00
Current Year Net Tax (Specials Not Included):	\$2,070.00
Total Special Assessments:	\$0.00
**Current Year Balance Not Including Penalty:	\$1,035.00
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.

SCALE IN FEET: 1" = 100'

- SET IRON MONUMENT-CAPPED 57070
- FOUND MONUMENT
- FOUND WOOD STAKE



Parcel 1:

A parcel of land lying in Government Lot 3, Section 9, T49N, R23W of the Fourth Principal Meridian according to the United States Government Survey, thereof, and being in the County of Aitkin and the State of Minnesota, and more particularly described as follows: Assuming the West Boundary Line of said Government Lot 3 (also the West Boundary Line of said Section 9) to have a bearing of N 00° 00' 00" E, and starting at a point on said West Boundary Line a distance of 338.00 feet North of the Southwest Corner of said Government Lot 3; thence N 49° 15' 00" E for a distance of 495.00 feet to a point; thence N 25° 15' 00" E for a distance of 100.00 feet to a point; thence S 71° 47' 16" E for a distance of 122.43 feet to a point; thence N 72° 20' 34" E for a distance of 183.60 feet to a point; thence N 60° 00' 38" E for a distance of 152.15 feet to a point of beginning; thence N 42° 44' 32" E for a distance of 131.20 feet to a point; thence N 64° 45' 00" W for a distance of 841 feet to the shoreline of Big Sandy Lake; thence Southwesterly along said shoreline for a distance of 125 feet more or less, to a point on a line having a bearing of N 64° 45' 00" W from the point of beginning; thence S 64° 45' 00" E for a distance of 779 feet, more or less, to the point of beginning; EXCEPT the Southwesterly 20.00 feet thereof.

subject to any rights-of-way or encumbrances of record.

Parcel 2:

A parcel of land lying in Government Lot 3, Section 9, Township 49 North, Range 23 West of the Fourth Principal Meridian, according to the United States Government Survey thereof, and being in the County of Aitkin and the State of Minnesota, and more particularly described as follows, to-wit: Assuming the West Boundary Line of said Government Lot 3 (also the West Boundary Line of said Section 9) to have a bearing of North 00° 00' 00" East, and starting at a point of said West boundary line a distance of 338.00 feet North of the Southwest corner of said Government Lot 3; thence North 49° 15' 00" East for a distance of 495.00 feet to a point; thence North 25° 15' 00" East for a distance of 100.00 feet to a point; thence South 71° 47' 16" East for a distance of 122.43 feet to a point; thence North 72° 20' 34" East for a distance of 183.60 feet to a point of beginning; thence North 60° 00' 38" East for a distance of 152.15 feet to a point; thence North 64° 45' 00" West for a distance of 779 feet, more or less, to the shoreline of Big Sandy Lake; thence Southwesterly along said shoreline for a distance of 125 feet, more or less, to a point on a line having a bearing of North 64° 45' 00" West from the point of beginning; thence South 64° 45' 00" East for a distance of 680 feet, more or less, to the point of beginning.

AND

The Southwesterly 20.00 feet of the following described Parcel: A parcel of land lying in Government Lot 3, Section 9, T49N, R23W of the Fourth Principal Meridian according to the United States Government Survey, thereof, and being in the County of Aitkin and the State of Minnesota, and more particularly described as follows: Assuming the West Boundary Line of said Government Lot 3 (also the West Boundary Line of said Section 9) to have a bearing of N 00° 00' 00" E, and starting at a point on said West Boundary Line a distance of 338.00 feet North of the Southwest Corner of said Government Lot 3; thence N 49° 15' 00" E for a distance of 495.00 feet to a point; thence N 25° 15' 00" E for a distance of 100.00 feet to a point; thence S 71° 47' 16" E for a distance of 122.43 feet to a point; thence N 72° 20' 34" E for a distance of 183.60 feet to a point; thence N 60° 00' 38" E for a distance of 152.15 feet to a point of beginning; thence N 42° 44' 32" E for a distance of 131.20 feet to a point; thence N 64° 45' 00" W for a distance of 841 feet to the shoreline of Big Sandy Lake; thence Southwesterly along said shoreline for a distance of 125 feet more or less, to a point on a line having a bearing of N 64° 45' 00" W from the point of beginning; thence S 64° 45' 00" E for a distance of 779 feet, more or less, to the point of beginning.

subject to any rights-of-way or encumbrances of record.

LEGAL DESCRIPTION PER DOCUMENT NO. 451092

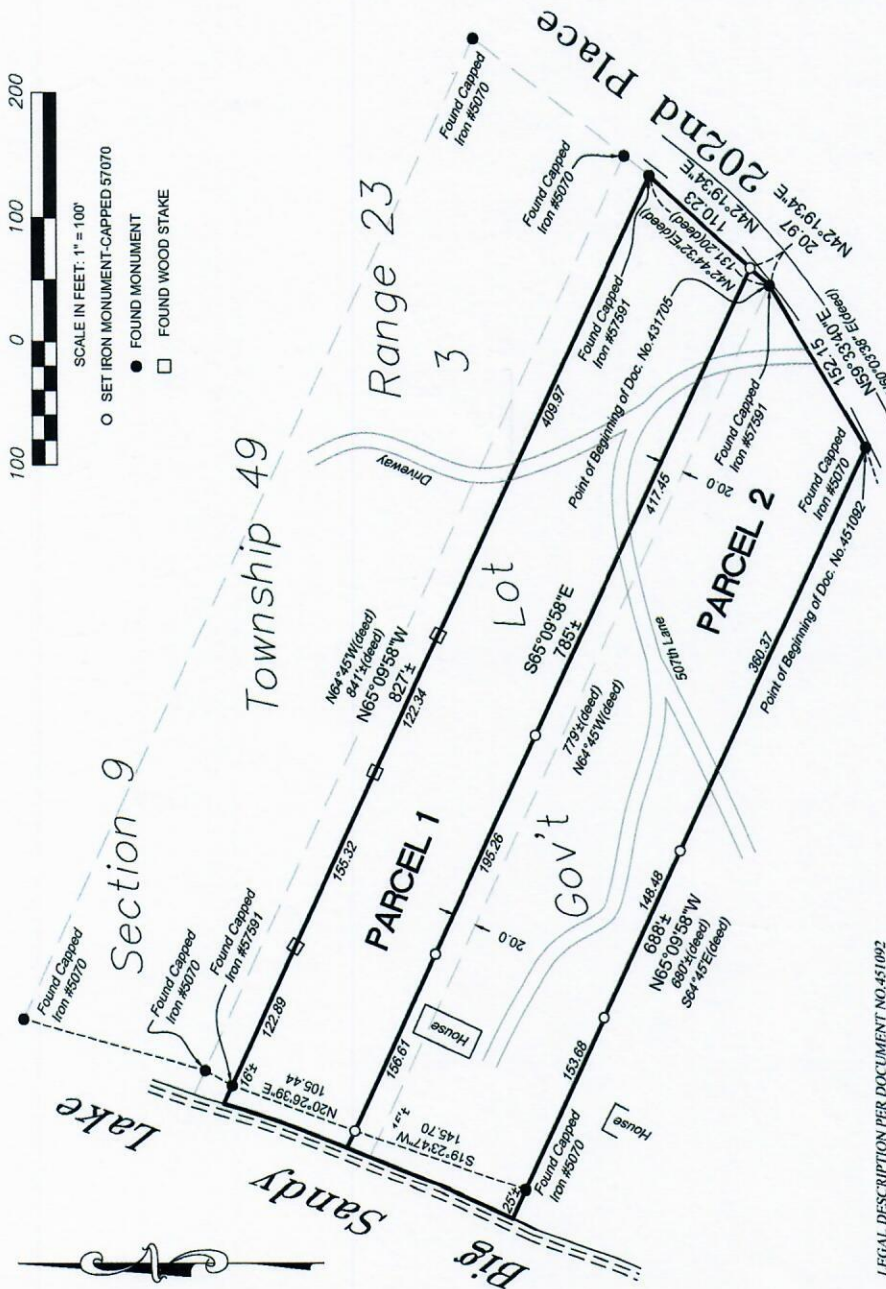
A parcel of land lying in Government Lot 3, Section 9, Township 49 North, Range 23 West of the Fourth Principal Meridian, according to the United States Government Survey thereof, and being in the County of Aitkin and the State of Minnesota, and more particularly described as follows: Assuming the West Boundary Line of said Government Lot 3 (also the West Boundary Line of said Section 9) to have a bearing of N 00° 00' 00" E, and starting at a point on said West Boundary Line a distance of 338.00 feet North of the Southwest corner of said Government Lot 3; thence North 49° 15' 00" East for a distance of 495.00 feet to a point; thence North 25° 15' 00" East for a distance of 100.00 feet to a point; thence South 71° 47' 16" East for a distance of 122.43 feet to a point; thence North 72° 20' 34" East for a distance of 183.60 feet to a point; thence North 60° 00' 38" East for a distance of 152.15 feet to a point of beginning; thence North 42° 44' 32" E for a distance of 131.20 feet to a point; thence N 64° 45' 00" W for a distance of 841 feet to the shoreline of Big Sandy Lake; thence Southwesterly along said shoreline for a distance of 125 feet more or less, to the point of beginning; thence S 64° 45' 00" E for a distance of 779 feet, more or less, to the point of beginning; EXCEPT the Southwesterly 20.00 feet thereof.

subject to any rights-of-way or encumbrances of record.

LEGAL DESCRIPTION PER DOCUMENT NO. 431705

A parcel of land lying in Government Lot 3, Section 9, T49N, R23W of the Fourth Principal Meridian according to the United States Government Survey, thereof, and being in the County of Aitkin and the State of Minnesota, and more particularly described as follows: Assuming the West Boundary Line of said Government Lot 3 (also the West Boundary Line of said Section 9) to have a bearing of N 00° 00' 00" E, and starting at a point on said West Boundary Line a distance of 338.00 feet North of the Southwest corner of said Government Lot 3; thence N 49° 15' 00" E for a distance of 495.00 feet to a point; thence N 25° 15' 00" E for a distance of 100.00 feet to a point; thence S 71° 47' 16" E for a distance of 122.43 feet to a point; thence N 72° 20' 34" E for a distance of 183.60 feet to a point; thence N 60° 00' 38" E for a distance of 152.15 feet to a point of beginning; thence N 42° 44' 32" E for a distance of 131.20 feet to a point; thence N 64° 45' 00" W for a distance of 841 feet to the shoreline of Big Sandy Lake; thence Southwesterly along said shoreline for a distance of 125 feet more or less, to a point on a line having a bearing of N 64° 45' 00" W from the point of beginning; thence S 64° 45' 00" E for a distance of 779 feet, more or less, to the point of beginning.

subject to any rights-of-way or encumbrances of record.



SURVEYORS CERTIFICATION:

I HEREBY CERTIFY THAT THIS SURVEY, PLAN, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINNESOTA

Kaleb J. Kadelbach
KALEB J. KADELBACH (LICENSE NO. 57070)

8/13/2024
DATE

CLIENT INFORMATION:

Ryan Ervin
19662 507th Lane
McGregor, MN 55780

FIELD DATE: 8/06/2024
APEX JOB NO. 24042-JRK



kaleb.kadelbach@aper-landsurveying.com PH: (763) 388-0056



Map may not be valid at this scale. Data was mapped at an accuracy of 1:24000 so any representation of the data at a larger scale is not advised.

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.

Plann

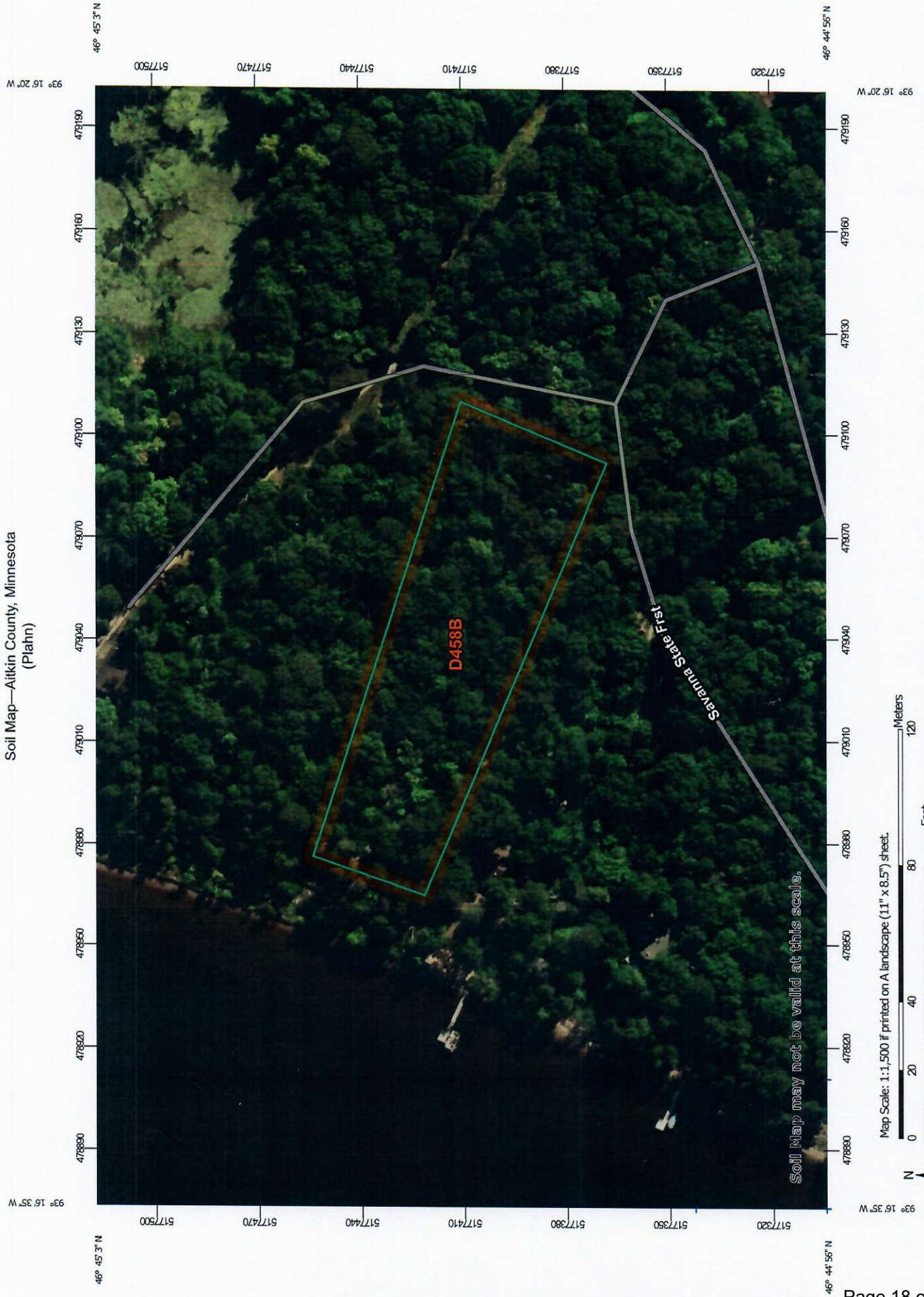


Web AppBuilder for ArcGIS

1:2,257 0 0.01 0.03 mi 1:2,257

Date: 9/23/2024

Soil Map—Aitkin County, Minnesota
(Plahn)



Soil Map may not be valid at this scale.

Map Scale: 1:1,500 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

D458B—Menahga loamy sand, 1 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2t4t1
Elevation: 590 to 2,030 feet
Mean annual precipitation: 23 to 33 inches
Mean annual air temperature: 36 to 48 degrees F
Frost-free period: 90 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition

Menahga and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Menahga

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy outwash

Typical profile

A - 0 to 3 inches: loamy sand
Bw - 3 to 17 inches: loamy sand
C - 17 to 79 inches: sand

Properties and qualities

Slope: 1 to 8 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: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): 4s
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A

Ecological site: F057XY023MN - Dry Sandy Upland Coniferous Forest

Forage suitability group: Sandy (G057XN022MN)

Other vegetative classification: Sandy (G057XN022MN)

Hydric soil rating: No

Minor Components

Eagleview

Percent of map unit: 8 percent

Landform: Hillslopes

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex

Ecological site: F088XY012MN - Very Dry Sandy Upland Coniferous Forest

Other vegetative classification: Sandy (G057XN022MN)

Hydric soil rating: No

Roscommon

Percent of map unit: 2 percent

Landform: Swales

Down-slope shape: Concave

Across-slope shape: Linear

Ecological site: F088XY008MN - Wet Mixed Forest

Other vegetative classification: Level Swale, Low AWC, Acid (G057XN007MN)

Hydric soil rating: Yes

Meehan

Percent of map unit: 2 percent

Landform: Swales

Down-slope shape: Concave

Across-slope shape: Linear

Ecological site: F088XY011MN - Moist Sandy Mixed Forest

Other vegetative classification: Level Swale, Low AWC, Acid (G057XN007MN)

Hydric soil rating: No

Leafriver, frequently ponded

Percent of map unit: 1 percent

Landform: Depressions

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: F088XY007MN - Wet Depressional Forest

Other vegetative classification: Organic (G057XN014MN)

Hydric soil rating: Yes

Andrusia

Percent of map unit: 1 percent

Landform: Hillslopes

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Side slope

Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: F088XY012MN - Very Dry Sandy Upland
Coniferous Forest
Other vegetative classification: Sloping Upland, Low AWC, Acid
(G057XN008MN)
Hydric soil rating: No

Wurtsmith

Percent of map unit: 1 percent
Landform: Flats
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F088XY013MN - Dry Sandy Upland Coniferous
Forest
Other vegetative classification: Sloping Upland, Low AWC, Acid
(G057XN008MN)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Aitkin County, Minnesota
Survey Area Data: Version 24, Sep 9, 2023