

FIELD EVALUATION SHEET

PRELIMINARY EVALUATION DATE 7/1/21, FIELD EVALUATION DATE 7/1/21
PROPERTY OWNER: STACEE & SALLY DORR PHONE _____
ADDRESS: 36166 492ND CITY, STATE, ZIP: PALISADE MN 56169
LEGAL DESCRIPTION: 35-D-024701
PIN# 35-0-024701 SEC 15 T 9 R 26 TWP NAME _____
FIRE# _____ LAKE/RIVER _____ LAKE CLASS _____ OHWL _____ FT.

DESCRIPTION OF SOIL TREATMENT AREAS

	AREA #1	AREA #2	REFERENCE BM ELEV. _____ FT
DISTURBED AREAS	YES _____ NO <u>X</u>	YES _____ NO _____	REFERENCE BM DESCRIPTION _____
COMPACTED AREAS	YES _____ NO <u>X</u>	YES _____ NO _____	_____
FLOODING	YES _____ NO <u>X</u>	YES _____ NO _____	_____
RUN ON POTENTIAL	YES _____ NO <u>X</u>	YES _____ NO _____	_____
SLOPE %	<u>1</u>	_____	_____
DIRECTION OF SLOPE	<u>N</u>	_____	_____
LANDSCAPE POSITION	<u>SLOPE SLOPE</u>		
VEGETATION TYPES	_____		

DEPTH TO STANDING WATER OR MOTTLED SOIL: BORING# 1 12", 1A _____, 2 _____, 2A _____

BOTTOM ELEVATION--FIRST TRENCH OR BOTTOM OF ROCK BED: #1 2' FT., #2 _____ FT.

SOIL SIZING FACTOR: SITE #1 _____, SITE #2 _____

CONSTRUCTION RELATED ISSUES: _____

LIC# 697 SITE EVALUATOR SIGNATURE: Ron Myers

SITE EVALUATOR NAME: RON MYERS TELEPHONE# 218-259-9273

LUG REVIEW _____ DATE _____

Comments: _____

SOIL BORING LOGS ON REVERSE SIDE

TACK TO
KEVIN

Soil Observation Log

www.SepticResource.com vers 12.4

Owner Information	
Property Owner / project: <u>Suzanne Dorr</u>	Date <u>5/25/2018</u>
Property Address / PID: <u>36166 492nd Ln. Palisade MN 5646'</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 type="checkbox"/> Summit <input type="checkbox"/> Shoulder <input checked="" type="checkbox"/> Side slope <input type="checkbox"/> Toe slope
soil survey map units:	<u>204B & 625</u> slope <u>4</u> % direction- <u>N-NW</u>

Soil Log #1A							
<input checked="" type="checkbox"/> Boring <input type="checkbox"/> Pit		Elevation <u>97.5'</u>		Depth to SHWT <u>16"</u>			
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 8	Topsoil Sandy Laom	<35	10YR3/2		Loose	Loose	Granular
8 - 16	Sandy Loam	<35	10YR4/4		Loose	Loose	Granular
16 - 20	Silt Loam	<35	10YR5/3	Mottled 7.5YR5/6	Friable	Loose	Blocky
		<35			Loose	Loose	Granular
		<35			Loose	Loose	Granular

Comments: Pan ... 687

36166 492nd Ln. Palisade MN 56469		Soil Log #2 A						
		<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation <u>97.6'</u>		Depth to SHWT <u>16"</u>		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape	
0 - 8	Topsoil Sandy Laom	<35	10YR3/2		Loose	Loose	Granular	
8 - 16	Sandy Loam	<35	10YR4/4		Loose	Loose	Granular	
16 - 20	Silt Loam	<35	10YR5/3	Mottled 7.5YR5/6	Friable	Loose	Blocky	
		<35			Loose	Loose	Granular	
		<35			Loose	Loose	Granular	

36166 492nd Ln. Palisade MN 56469		Soil Log #3B Alternate Site						
		<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation <u>96'</u>		Depth to SHWT <u>16"</u>		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape	
0 - 8	Topsoil Sandy Laom	<35	10YR3/2		Loose	Loose	Granular	
8 - 16	Sandy Loam	<35	10YR4/4		Loose	Loose	Granular	
16 - 20	Silt Loam	<35	10YR5/3	Mottled 7.5YR5/6	Friable	Loose	Blocky	
		<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 #

Ron Munn 697 7/1/21

36166 492nd Ln. Palisade MN 56469			Soil Log #4B Alternate Site				
		<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation <u>96.3'</u>		Depth to SHWT <u>20"</u>	
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 8	Topsoil Sandy Laom	<35	10YR3/2		Loose	Loose	Granular
8 - 20	Sandy Loam	<35	10YR4/4		Loose	Loose	Granular
20-22	Silt Loam	<35	10YR5/3	Mottled 7.5YR5/6	Friable	Loose	Blocky
		<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

36166 492nd Ln. Palisade MN 56469			Soil Log #5				
		<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 #

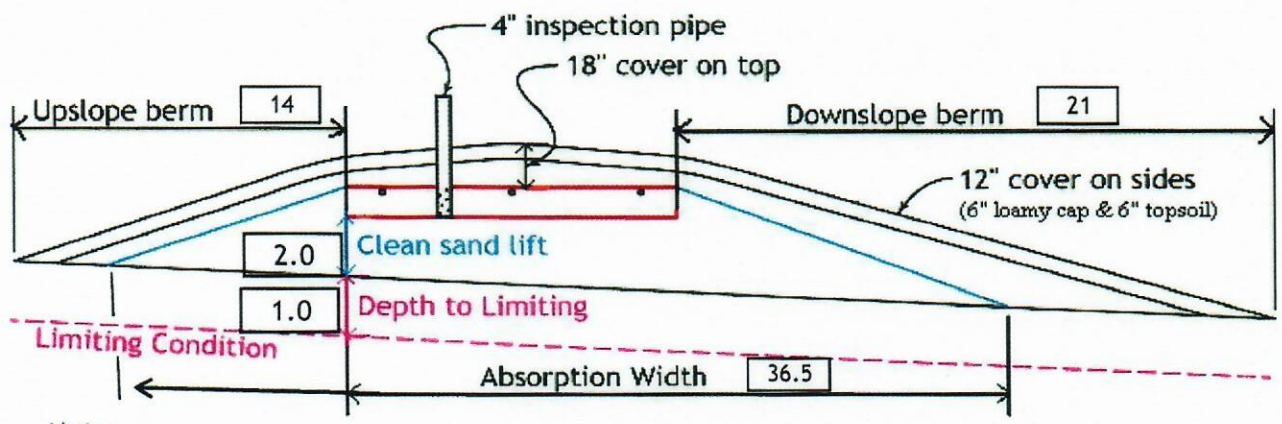
Mound Design - Aitkin county

Property Owner: Suzanne Dorr Date: 5/25/2018
 Site Address: 36166 492nd Ln. Palisade MN 56469 PID: 35-0-024701
 Comments: Mound Design and Alternite Site

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

- 1) 4 bedroom Type I Residential System
- 2) 600 GPD design flow
- 3) Yes No Garbage disposal or pumped to septic Install Jacobson 1650 Compartment septic tank
- 4) 1500 Gal Septic tank (code minimum) 1650 Gal Septic tank (design size / LUG req'd)
 Tank options: Effluent filter & alarm req'd
- 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)
- 12) 1.50 inch diameter laterals must be used to meet "4x pipe volume" requirement 1.50 5x
- 13) 70 feet of 2.0 inch supply line leads to 12 gallons of drainback volume 2.00 3x
 (Tip: "top feed" manifold to control the drainback)
- 14) 98 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) 522 gal Dose tank (design size / LUG req'd) at 16.57 gpi
 leads to a
- 18) 5.9 inch swing on Demand float, or timed dosing of 3.4 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) 18 inches from bottom of tank to "Pump ON" float, or 12 inches to "Timer ON" float if time dosed
- 21) 21 inches from bottom of tank to "Hi Level" float, or 31 inches to "Hi Level" float if time dosed
- 22) 174 gallons reserve capacity (after High Level Alarm is activated)

- 23) 0.60 gpd/ft² Absorption area Soil Loading Rate, which gives a mound ratio of 2 (minimum)
 (this must match the soil boring log) desired mound ratio 2.0
- 24) 4 percent site slope (0-20% range) 4 (% downslope site slope, if different than upslope)
- 25) 12 inches, or 1.0 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) 24 inch, or 2.0 ft. Sand Lift Mound **CRITICAL FOR FUTURE CERTIFICATIONS!!!**
- 27) 20.0 ft. base absorption width (with sand beyond rockbed as follows):
 36.5 greater of: absorption width OR sand slope
- 28) 0.0 ft. upslope and sideslope sand upslope 10.4
 10.0 ft. Downslope sand down slope 16.2
- Individual slope ratios give BERM widths (topsoil beyond rockbed) of:
- 29) 4:1 upslope ratio 14 ft. upslope berm
- 30) 4:1 sideslope 18 ft. sideslope berms
- 31) 4:1 downslope 21 ft. downslope berm
- 32) Overall Dimensions: 10.0 ft. wide by 50.0 ft. long Rock bed
 45 ft. wide by 86 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)
 44.9 up + 79.5 downslope + 17.1 ends + 40.7 under rock = 219 yd³ or *1.4= 306 ton
 plus 20%
- 35) Loamy Cap:
 41 ft. by 82 ft. 6" deep, plus 20% gives 75 yd³ or *1.4= 105 ton
- 36) Topsoil:
 45 ft. by 86 ft. 6" deep, plus 20% gives 86 yd³ or *1.4= 120 ton

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

Designer Signature: Jeff Brummer Company: Brummer Septic LLC. License#: L-1347 Date: 5/25/2018

Handwritten: Brummer 687 7/1/21

Installer Summary

1650 gallon Septic tank (minimum)

Tank options: Effluent filter & alarm req'd

Install Jacobson 1650 Compartment septic tank

522 gallon Dose tank (minimum)

at 16.57 gpi

29 GPM @ 22 ft. of head, Pump required

5.9 inch swing on Demand float which translates to roughly 4.0 inches of float tether length
if time dosing is required --> 3.4 minutes ON time & 5.1 hours OFF time

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

21 inches from bottom of tank to "Hi Level Alarm" or 31 inches to "Hi level alarm" if time dosed

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

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

24 inch, or 2.0 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

Yes No Effluent filter & alarm

3 clean out & valve box assemblies

36.5 ft. Total sand ABSORPTION width (minimum)

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

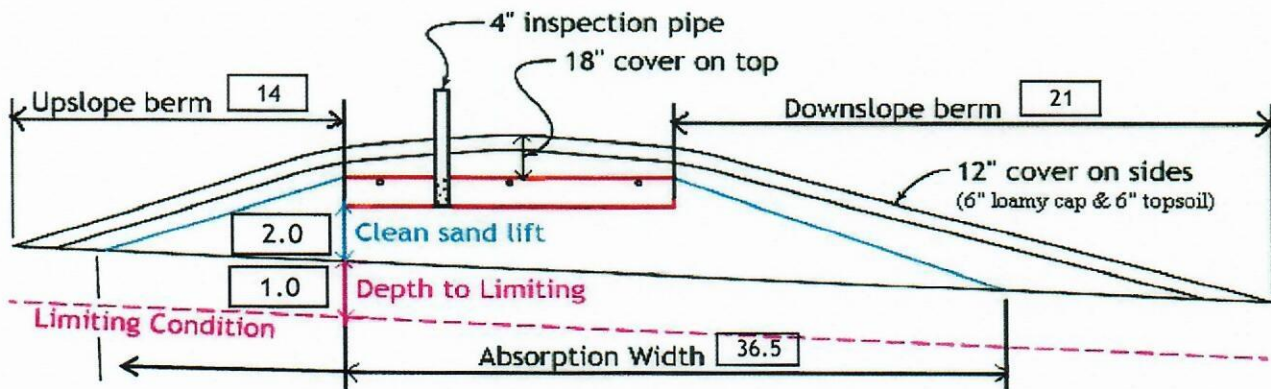
16.2 ft. Downslope (sand beyond rockbed, minimum)

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

4:1 upslope ratio 14 ft. upslope berm

4:1 sideslope 18 ft. sideslope berms

4:1 downslope 21 ft. downslope berm



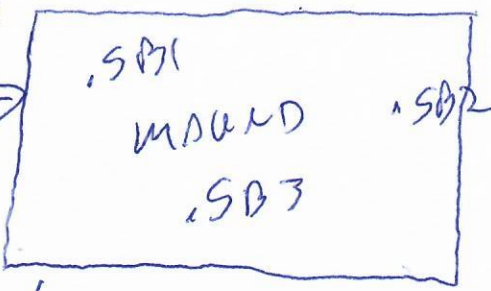
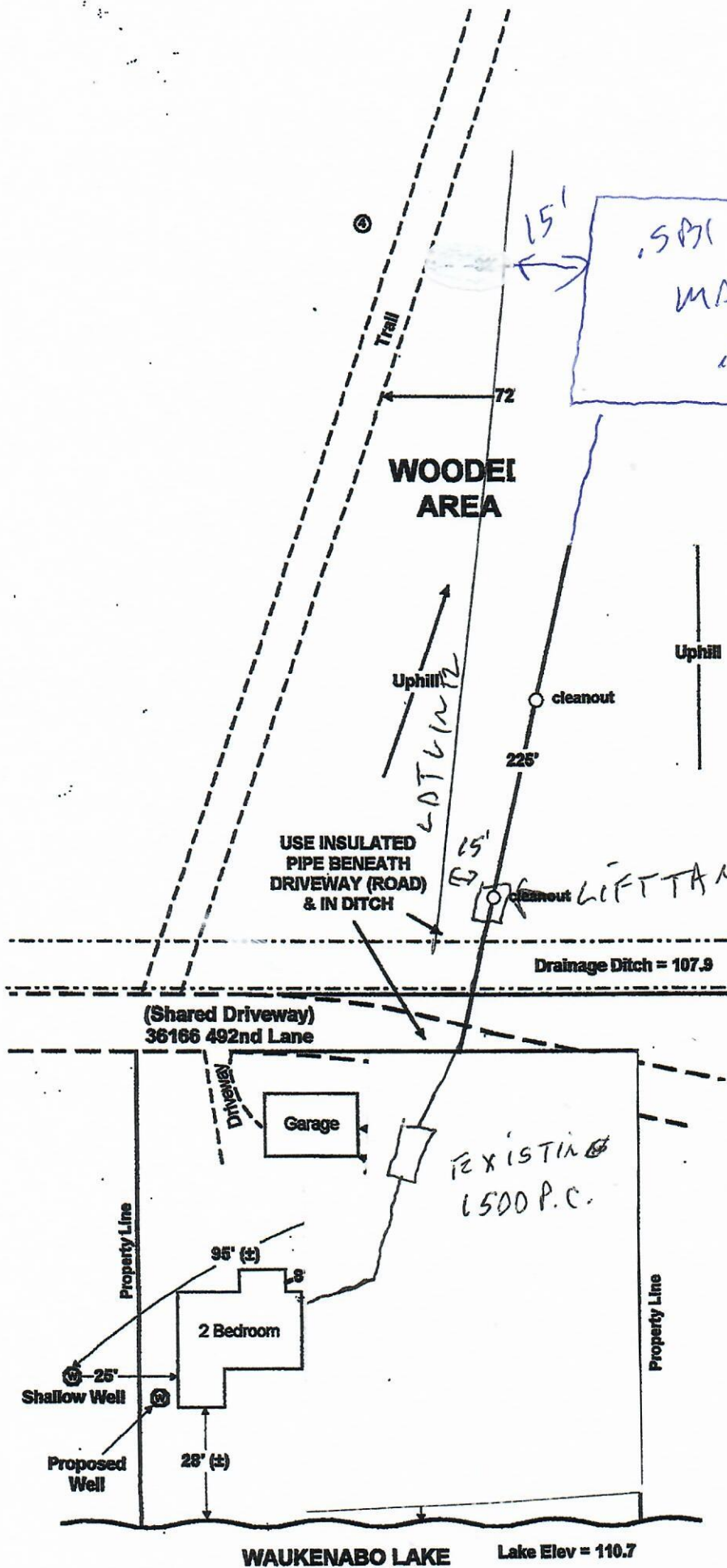
Note:

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:	219 yd ³ or *1.4=	306 ton	calculation based on 3:1/4:1 slope from top of rockbe
Loamy Cap:	75 yd ³ or *1.4=	105 ton	6" deep
Topsoil:	86 yd ³ or *1.4=	120 ton	6" deep

10x50 ROCK-BED



ROCK-BED

24 ACRES

LIFT TANK EXISTING

TANK OPTION #1

1500 Low Profile Tank 4ft deep
 Gr. Elev. = 107.1
 Top of Tank = 107.1
 Inlet = 108.1
 Outlet = 108.4
 Bottom = 111.1

630 Lift Tank 3 ft deep

Gr. Elev. = 107.1
 Top of Tank = 108.0
 Inlet = 109.0
 Pump = 111.0

TANK OPTION #2

OSI 1500 Fiberglass Tank (combo) 5.5 ft deep
 Gr. Elev. = 107.1
 Top of Tank = 107.1
 Inlet = 108.2
 Pump = 112.7

ROCK BED 12' ABOVE
 LIFT TANK COVER
 # = Soil Boring

Scale: 1" = 40'



Septic System Management Plan for Above Grade Systems

The goal of a septic system is to protect human health and the environment by properly treating wastewater before returning it to the environment. Your septic system is designed to kill harmful organisms and remove pollutants before the water is recycled back into our lakes, streams and groundwater.

This **management plan** will identify the operation and maintenance activities necessary to ensure long-term performance of your septic system. Some of these activities must be performed by you, the homeowner. Other tasks must be performed by a licensed septic maintainer or service provider. However, it is **YOUR** responsibility to make sure all tasks get accomplished in a timely manner.

The University of Minnesota's *Septic System Owner's Guide* contains additional tips and recommendations designed to extend the effective life of your system and save you money over time.

Proper septic system design, installation, operation and maintenance means safe and clean water!

Property Owner	Steve Dorr	Email
Property Address	36166 492 nd lane Palisade MN 56469	Property ID 35-0-024701
System Designer	Ron Myers	Contact Info 327-9273
System Installer	Ron Myers	Contact Info 327-9273
Service Provider/Maintainer	Ron Myers	Contact Info 327-9273
Permitting Authority	Atikin county	Contact Info
Permit #		Date Inspected

Keep this Management Plan with your Septic System Owner's Guide. The Septic System Owner's Guide includes a folder to hold maintenance records including pumping, inspection and evaluation reports. Ask your septic professional to also:

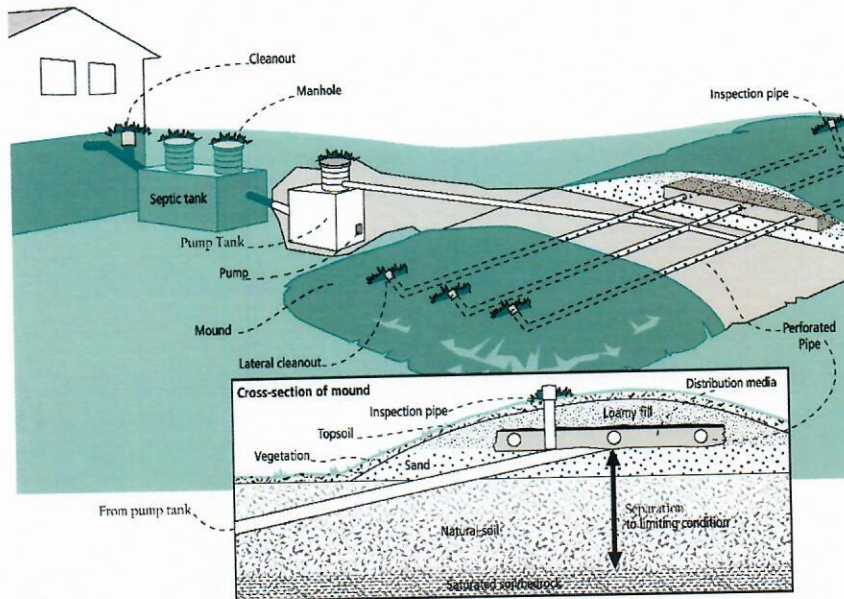
- Attach permit information, designer drawings and as-built of your system, if they are available.
- Keep copies of all pumping records and other maintenance and repair invoices with this document.
- Review this document with your maintenance professional at each visit; discuss any changes in product use, activities, or water-use appliances.

For a copy of the *Septic System Owner's Guide*, visit www.bookstores.umn.edu and search for the word "septic" or call 800-322-8642.

For more information see <http://septic.umn.edu>



Your Septic System



Septic System Specifics	
System Type: <input checked="" type="radio"/> I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV* <input type="radio"/> V* (Based on MN Rules Chapter 7080.2200 – 2400) *Additional Management Plan required	<input type="checkbox"/> System is subject to operating permit* <input type="checkbox"/> System uses UV disinfection unit* Type of advanced treatment unit _____

Dwelling Type	Well Construction
Number of bedrooms: <u>4</u> System capacity/ design flow (gpd): <u>600</u> Anticipated average daily flow (gpd): <u>450</u> Comments _____ Business? : <input type="radio"/> Y <input checked="" type="radio"/> N What type? _____	Well depth (ft): <u>25'</u> <input type="checkbox"/> Cased well Casing depth: _____ <input type="checkbox"/> Other (specify): _____ Distance from septic (ft): <u>150</u> Is the well on the design drawing? <input checked="" type="radio"/> Y <input type="radio"/> N

Septic Tank	
<input type="checkbox"/> First tank Tank volume: <u>1500</u> gallons Does tank have two compartments? <input type="radio"/> Y <input checked="" type="radio"/> N <input type="checkbox"/> Second tank Tank volume: _____ gallons <input type="checkbox"/> Tank is constructed of <u>concrete</u> <input type="checkbox"/> Effluent screen: <input type="radio"/> Y <input checked="" type="radio"/> N Alarm <input type="radio"/> Y <input checked="" type="radio"/> N	<input type="checkbox"/> Pump Tank <u>630</u> gallons <input type="checkbox"/> Effluent Pump make/model: <u>pe-51</u> Pump capacity <u>15</u> GPM TDH <u>16.5</u> Feet of head <input type="checkbox"/> Alarm location <u>ped on tank</u>

Soil Treatment Area (STA)	
Mound/At-Grade area (width x length): <u>45</u> ft x <u>78</u> ft Rock bed size (width x length): <u>10</u> ft x <u>50</u> ft Location of additional STA: <u>no</u> Type of distribution media: <u>rock</u>	<input checked="" type="checkbox"/> Inspection ports <input checked="" type="checkbox"/> Cleanouts <input type="checkbox"/> Surface water diversions <input type="checkbox"/> Additional STA not available



Homeowner Management Tasks

These *operation and maintenance* activities are your responsibility. *Chart on page 6 can help track your activities.*

Your toilet is not a garbage can. Do not flush anything besides human waste and toilet paper. No wet wipes, cigarette butts, disposal diapers, used medicine, feminine products or other trash!

The system and septic tanks needs to be
checked every 24 months

Your service provider or pumper/maintainer should evaluate if your tank needs to be pumped more or less often.

Seasonally or several times per year

- *Leaks.* Check (listen, look) for leaks in toilets and dripping faucets. Repair leaks promptly.
- *Soil treatment area.* Regularly check for wet or spongy soil around your soil treatment area. If surfaced sewage or strong odors are not corrected by pumping the tank or fixing broken caps and leaks, call your service professional. *Untreated sewage may make humans and animals sick.* Keep bikes, snowmobiles and other traffic off and control borrowing animals.
- *Alarms.* Alarms signal when there is a problem; contact your service professional any time the alarm signals.
- *Lint filter.* If you have a lint filter, check for lint buildup and clean when necessary. If you do not have one, consider adding one after washing machine.
- *Effluent screen.* If you do not have one, consider having one installed the next time the tank is cleaned along with an alarm.

Annually

- *Water usage rate.* A water meter or another device can be used to monitor your average daily water use. Compare your water usage rate to the design flow of your system (listed on the next page). Contact your septic professional if your average daily flow over the course of a month exceeds 70% of the design flow for your system.
- *Caps.* Make sure that all caps and lids are intact and in place. Inspect for damaged caps at least every fall. Fix or replace damaged caps before winter to help prevent freezing issues.
- *Water conditioning devices.* See Page 5 for a list of devices. When possible, program the recharge frequency based on *water demand (gallons)* rather than *time (days)*. Recharging too frequently may negatively impact your septic system. Consider updating to demand operation if your system currently uses time,
- *Review your water usage rate.* Review the Water Use Appliance chart on Page 5. Discuss any major changes with your service provider or pumper/maintainer.

During each visit by a service provider or pumper/maintainer

- Make sure that your service professional services the tank through the manhole. (NOT through a 4" or 6" diameter inspection port.)
- Ask how full your tank was with sludge and scum to determine if your service interval is appropriate.
- Ask your pumper/maintainer to accomplish the tasks listed on the Professional Tasks on Page 4.



Professional Management Tasks

These are the operation and maintenance activities that a pumper/maintainer performs to help ensure long-term performance of your system. At each visit a written report/record must be provided to homeowner.

Plumbing/Source of Wastewater

- Review the Water Use Appliance Chart on Page 5 with homeowner. Discuss any changes in water use and the impact those changes may have on the septic system.
- Review water usage rates (if available) with homeowner.

Septic Tank/Pump Tanks

- *Manhole lid.* A riser is recommended if the lid is not accessible from the ground surface. Insulate the riser cover for frost protection.
- *Liquid level.* Check to make sure the tank is not leaking. The liquid level should be level with the bottom of the outlet pipe. (If the water level is below the bottom of the outlet pipe, the tank may not be watertight. If the water level is higher than the bottom of the outlet pipe of the tank, the effluent screen may need cleaning, or there may be ponding in the soil treatment area.)
- *Inspection pipes.* Replace damaged or missing pipes and caps.
- *Baffles.* Check to make sure they are in place and attached, and that inlet/outlet baffles are clear of buildup or obstructions.
- *Effluent screen.* Check to make sure it is in place; clean per manufacturer recommendation. Recommend retrofitted installation if one is not present.
- *Alarm.* Verify that the alarm works.
- *Scum and sludge.* Measure scum and sludge in each compartment of each septic and pump tank, pump if needed.

Pump

- *Pump and controls.* Check to make sure the pump and controls are operating correctly.
- *Pump vault.* Check to make sure it is in place; clean per manufacturer recommendations.
- *Alarm.* Verify that the alarm works.
- *Drainback.* Check to make sure it is draining properly.
- *Event counter or elapsed time meter.* Check to see if there is an event counter or elapsed time meter for the pump. If there is one or both, calculate the water usage rate and compare to the anticipated use listed on Design and Page 2. Dose Volume: _____ gallons; Pump run time: _____ Minutes

Soil Treatment Area

- *Inspection pipes.* Check to make sure they are properly capped. Replace caps and pipes that are damaged.
- *Surfacing of effluent.* Check for surfacing effluent or other signs of problems.
- *Lateral flushing.* Check lateral distribution; if cleanouts exist, flush and clean at recommended frequency.
- *Vegetation* - Check to see that a good growth of vegetation is covering the system.

All other components – evaluate as listed here:



**Water-Use Appliances and
Equipment in the Home**

Appliance	Impacts on System	Management Tips
Garbage disposal	<ul style="list-style-type: none"> • Uses additional water. • Adds solids to the tank. • Finely-ground solids may not settle. Unsettled solids can exit the tank and enter the soil treatment area. 	<ul style="list-style-type: none"> • Use of a garbage disposal is not recommended. • Minimize garbage disposal use. Compost instead. • To prevent solids from exiting the tank, have your tank pumped more frequently. • Add an effluent screen to your tank.
Washing machine	<ul style="list-style-type: none"> • Washing several loads on one day uses a lot of water and may overload your system. • Overloading your system may prevent solids from settling out in the tank. Unsettled solids can exit the tank and enter the soil treatment area. 	<ul style="list-style-type: none"> • Choose a front-loader or water-saving top-loader, these units use less water than older models. • Limit the addition of extra solids to your tank by using liquid or easily biodegradable detergents. Limit use of bleach-based detergents and fabric softeners. • Install a lint filter after the washer and an effluent screen to your tank • Wash only full loads and think even – spread your laundry loads throughout the week.
Dishwasher	<ul style="list-style-type: none"> • Powdered and/or high-phosphorus detergents can negatively impact the performance of your tank and soil treatment area. • New models promote “no scraping”. They have a garbage disposal inside. 	<ul style="list-style-type: none"> • Use gel detergents. Powdered detergents may add solids to the tank. • Use detergents that are low or no-phosphorus. • Wash only full loads. • Scrape your dishes anyways to keep undigested solids out of your septic system.
Grinder pump (in home)	<ul style="list-style-type: none"> • Finely-ground solids may not settle. Unsettled solids can exit the tank and enter the soil treatment area. 	<ul style="list-style-type: none"> • Expand septic tank capacity by a factor of 1.5. • Include pump monitoring in your maintenance schedule to ensure that it is working properly. • Add an effluent screen.
Large bathtub (whirlpool)	<ul style="list-style-type: none"> • Large volume of water may overload your system. • Heavy use of bath oils and soaps can impact biological activity in your tank and soil treatment area. 	<ul style="list-style-type: none"> • Avoid using other water-use appliances at the same time. For example, don’t wash clothes and take a bath at the same time. • Use oils, soaps, and cleaners in the bath or shower sparingly.
Clean Water Uses	Impacts on System	Management Tips
High-efficiency furnace	<ul style="list-style-type: none"> • Drip may result in frozen pipes during cold weather. 	<ul style="list-style-type: none"> • Re-route water directly out of the house. Do not route furnace discharge to your septic system.
Water softener Iron filter Reverse osmosis	<ul style="list-style-type: none"> • Salt in recharge water may affect system performance. • Recharge water may hydraulically overload the system. 	<ul style="list-style-type: none"> • These sources produce water that is not sewage and should not go into your septic system. • Reroute water from these sources to another outlet, such as a dry well, drintile or old drainfield. • When replacing, consider using a demand-based recharge vs. a time-based recharge. • Check valves to ensure proper operation; have unit serviced per manufacturer directions
Surface drainage Footing drains	<ul style="list-style-type: none"> • Water from these sources will overload the system and is prohibited from entering septic system. 	



Homeowner Maintenance Log

Track maintenance activities here for easy reference. See list of management tasks on pages 3 and 4.

Activity	Date accomplished									
Check frequently:										
Leaks: check for plumbing leaks*										
Soil treatment area check for surfacing**										
Lint filter: check, clean if needed*										
Effluent screen (if owner-maintained)***										
Alarm**										
Check annually:										
Water usage rate (maximum gpd _____)										
Caps: inspect, replace if needed										
Water use appliances – review use										
Other:										

*Monthly

**Quarterly

***Bi-Annually

Notes:

"As the owner of this SSTS, I understand it is my responsibility to properly operate and maintain the sewage treatment system on this property, utilizing the Management Plan. If requirements in this Management Plan are not met, I will promptly notify the permitting authority and take necessary corrective actions. If I have a new system, I agree to adequately protect the reserve area for future use as a soil treatment system."

Property Owner Signature: _____

Date _____

Management Plan Prepared By: **Ron Myers**

Certification # **697**

Permitting Authority: **Itasca County**

Waukenabo Township
Aitkin County, Minnesota

**RESOLUTION AUTHORIZING THE TOWN BOARD TO INITIATE THE
VACATION OF A TOWN ROAD**

WHEREAS, the issue of vacating the following described road was raised and discussed at the annual town meeting of the electors of Waukenabo Township, Aitkin County, Minnesota on March 10, 2020;

Vacation of the road right away located between plat #35-1-062201 (Mark Koenig Property) and plat # 35-0-024701 (Steven and Suzanne Dorr Property). Please see attached Quit Claim Deed and plat map.

WHEREAS, Minn. Stat. § 164.06, subd. 1 allows a town board to initiate the town road establishment, vacation, or alteration procedure contained in Minn. Stat. § 164.07 upon receiving authorization of the town electors;

WHEREAS, the town electors determined it is in the best interests of the town to authorize the town board initiate the road procedure in Minn. Stat. § 164.07 without having to obtain the petition described in Minn. Stat. § 164.07, subd. 1;

NOW, THEREFORE, BE IT RESOLVED, the electors of Waukenabo Township, Aitkin County, Minnesota hereby authorize the town board to initiate the road vacation procedure in Minn. Stat. § 164.07 regarding the above referenced road.

Adopted this 10th day of March 2020.

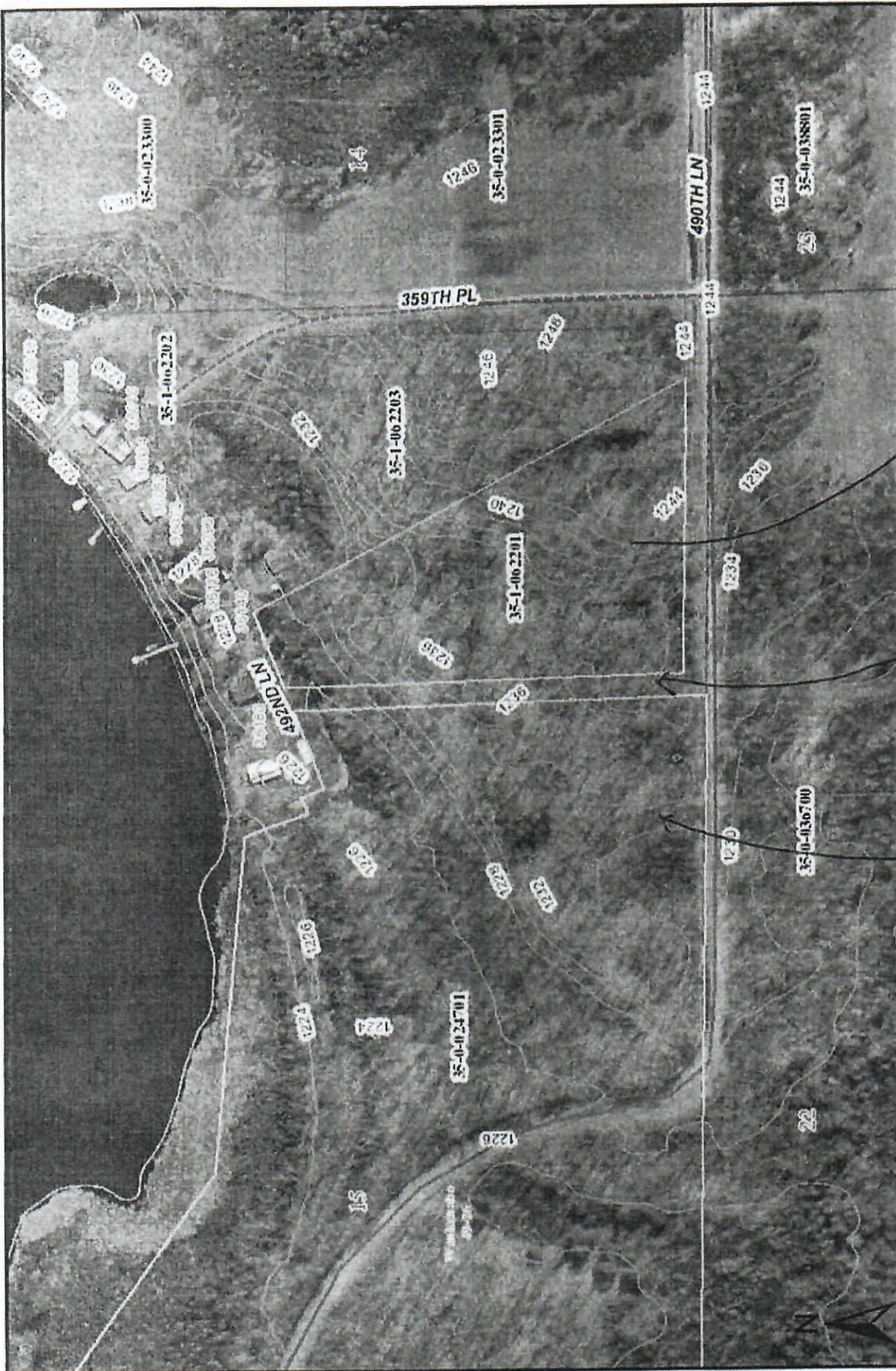


Dale, Shipp, Town Meeting Moderator

Attest:



Heidi A. Olesen, Town Clerk



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.

Steven & Suzanne
Dorr

Right of
way

Mark
Kuenis



Date: 9/5/2019

NO DELINQUENT TAXES AND TRANSFER ENTERED
This 30 Day July 2018
Book 2018
County Auditor
Deputy



Office of the County Recorder
Aitkin County, Minnesota
I HEREBY CERTIFY THE WITHIN INSTRUMENT WAS FILED, AND/OR RECORDED ON 10/25/18 8:56 AM
FACSIMILE: 8222 REG FEE: 248.00

Michael T. Martony, Aitkin County Recorder

CERTIFICATE OF REAL ESTATE VALUE (S) NOT REQUIRED CERTIFICATE OF REAL STATE VALUE (S)

QUIT CLAIM DEED
Individual(s) Individual(s)

DEED TAX DUE: \$ 1.65 Date July 27, 2018
FOR FULL AND FULL CONSIDERATION, Richard Warren Nesbit, aka Richard W. Nesbit and Susan Katherine Nesbit, aka Susan K. Nesbit, spouses, married to each other, Mark William Koenig aka Mark W. Koenig, a single person, and Steven Dorr aka Steven B. Dorr and Suzanne Dorr aka Suzanne E. Dorr, spouses, married to each other, Grantors, hereby convey and quitclaim to Mark William Koenig aka Mark W. Koenig as to an undivided one-half interest, as a tenant in common with the Nesbit Real Estate Family Limited Partnership, a Minnesota Family Limited Partnership, as to an undivided one-half interest, interest, real property in Aitkin County, Minnesota, described as follows:

See attached Exhibit A for legal description.

together with all hereditaments and appurtenances.
(Check box if applicable)
 The Seller certifies that the seller does not know of any wells on the described real property. A well disclosure certificate accompanies this document.
I am familiar with the property described in this instrument and I certify that the status and number of wells on the described real property have not changed since the last previously filed well disclosure certificate

Aitkin Deed Tax Stamp Here
STATE OF MINNESOTA }
COUNTY OF AITKIN }

Richard Warren Nesbit
Susan Katherine Nesbit
Mark William Koenig
Steven Dorr
Suzanne E. Dorr

This instrument was acknowledged before me on 7-27-2018 by Richard Warren Nesbit, aka Richard W. Nesbit and Susan Katherine Nesbit, aka Susan K. Nesbit, spouses, married to each other, Mark William Koenig aka Mark W. Koenig, a single person, and Steven Dorr aka Steven B. Dorr and Suzanne Dorr aka Suzanne E. Dorr, spouses, married to each other.



Amanda McCartan
Notary Public in and for the State of Minnesota

Aitkin County Abstract Company
112 1st St. N.W.
Aitkin, MN 56431

Check rate if not on all of the land is Registered (Taxes)
The instrument for the real property described in this instrument does not do so in (check box) and address of County
Mark William Koenig
Nesbit Real Estate Family Limited Partnership
15640 Wing Lake Drive
Himmetonka, MN 55346

File No 00030577 (J)

AITKIN COUNTY DEED TAX
No 4169 Date 7-30-18
1.65 Dollars Paid
By Lou Granger Deputy

EXHIBIT A

→ All of Lot One (1) of said plat of Appeldorn Beach except the West 93.5 feet of said Lot One (1), also excepting that portion of said Lot One (1) lying Northeastly of a line commencing at a point on the East line of said Lot One (1) distant 387 feet North from Southeast corner of Section 15, Township 49, Range 26 and running thence Northwest to the Southwest corner of Lot Seven (7) of plat of said Appeldorn Beach. Also excepting from said Lot One (1) a strip 40 feet wide along the East line thereof connecting said last above excepted tract with the highway along the South line of said Lot One (1), said Lot One (1) of Appeldorn Beach and except a garden plat on Lot One (1) Appeldorn Beach and situated on the northeast part of said Appeldorn Beach of said Lot One (1) now under fence, and grantors and their grantees and their successors shall have free access to the garden plat which is reserved from Appeldorn Beach of said Lot One (1)

AND

→ The West 93.5 feet of Lot One (1) of the Plat of Appeldorn Beach according to the plat thereof on file and of record in the Office of Register of Deeds of Aitkin County, State of Minnesota.

Steven Dorr and Suzanne Dorr, by execution and delivery of this deed, relinquish and convey any and all rights for themselves and their heirs and assigns, to any portion of the road platted as "Driveway" in the Plat of Appeldorn Beach, according to the filed plat thereof in the office of the Aitkin County Recorder.

→ Steven Dorr and Suzanne Dorr reserve for themselves, their heirs, and assigns, an easement for use of a septic system mound drain field, located on that part of Lot 1, Appeldorn Beach, according to the plat thereof on file and of record in the office of the Register of Deeds of Aitkin County, Minnesota, described and enclosed as follows: Commencing at the northwest corner of said Lot 1; thence South 0 degrees, 36 minutes, 38 seconds east, assumed bearing along the west line of said Lot 1, 141.00 feet to the point of beginning of the easement to be herein described; thence south 44 degrees, 12 minutes, 43 seconds east 50.00 feet; thence south 23 degrees, 18 minutes, 07 seconds west 56.00 feet; thence north 67 degrees, 36 minutes, 45 seconds west 12.80 feet to said west line of Lot 1; thence north 0 degrees, 36 minutes, 38 seconds west, along said west line, 82.40 feet to the point of beginning and there terminating.

Said easement shall terminate when the drain field fails or on August 1, 2035, whichever occurs first. For the purpose of this easement, drain field failure shall be defined as the drain field being nonfunctional and requiring excavation or significant repair to restore use. Upon easement termination, Suzanne Dorr and Steven Dorr shall level the existing drain field mound and meet all Aitkin County and State of Minnesota requirements for septic system drain field abandonment.