ST. LOUIS COUNTY BOARD OF ADJUSTMENT STAFF REPORT

INSPECTION DATE: 05/25/2023 **REPORT DATE: 07/24/2023** **MEETING DATE: 08/10/2023**

APPLICANT INFORMATION

APPLICANT NAME: Christopher Soares

APPLICANT ADDRESS: 3611 Fectos Road Tower MN 55790

OWNER NAME: Same as applicant

SITE ADDRESS: 3611 Fectos Road Tower MN 55790

LEGAL DESCRIPTION: That portion of Lot 23 described as follows: Beginning at the Northeasterly corner of said Lot 23, thence running West along the North boundary line of Lot 23 a distance of 100 feet; thence running South a distance of 50 feet; thence running East a distance of 115.57 feet; thence running N17deg17'W a distance of 52.36 feet to the point of beginning, S5, T62N, R16W (Greenwood)

PARCEL IDENTIFICATION NUMBER (PIN): 387-0360-00225

VARIANCE REQUEST: The applicant is requesting relief from St. Louis County SSTS Ordinance 61 adopted Technical Standards 7080.2150, Subpart 2, Section F, Table VII, to allow a subsurface sewage treatment system installation at a reduced road right-of-way (ROW) setback and a reduced structure setback.

PROPOSAL DETAILS: The applicant is requesting to replace a septic tank at a 0 foot right of way setback where 10 feet is required, and at a 2-foot structure setback where 10 feet is required. This system is a replacement to abandon an imminent public health threat (IPHT) tank that was inspected at point of sale.

PARCEL AND SITE INFORMATION

ROAD ACCESS NAME/NUMBER: Fectos Rd./ C 676

ROAD FUNCTIONAL CLASS: Local Public Road

LAKE NAME: Lake Vermilion

LAKE CLASSIFICATION: GD

RIVER NAME: N/A

RIVER CLASSIFICATION: N/A

DESCRIPTION OF DEVELOPMENT ON PARCEL: The parcel currently contains a dwelling, sleeper house, and storage structure.

ZONE DISTRICT: RES 9

PARCEL ACREAGE: APPROX. 0.12 ACRES

LOT WIDTH: APPROX. 50 FEET

FEET OF ROAD FRONTAGE: 50 FEET

FEET OF SHORELINE FRONTAGE: 0 FEET

PARCEL AND SITE INFORMATION

VEGETATIVE COVER/SCREENING: There is limited vegetation screening the property from the roadway and neighboring properties.

TOPOGRAPHY: There is an approximate elevation change of 10 feet, gently sloping from the West side to the East side.

FLOODPLAIN ISSUES: N/A

WETLAND ISSUES: N/A

ADDITIONAL COMMENTS ON PARCEL: There is a well located on the property, requiring a tank setback of 50 feet.

FACTS AND FINDINGS

A. Official Controls:

1. Ordinance 61 states that all SSTS components must be setback in accordance with Table VII of the SSTS Technical standards.
2. The required setback from a ROW and an existing structure is 10 feet.
3. The applicant is requesting a reduced setback from ROW at 0 feet and building setback at 2 feet.
4. All other setbacks will be met.

5. **Practical Difficulty:**

1. The parcel is zoned Residential – 9. The lot is 0.12 acres and 50 feet wide where 1.0 acre and 150 feet lot width is required.
2. The lot has a well which requires a 50 foot setback, which limits replacement area for the tank.

6. **Essential Character of the Locality:**

1. The plat is zoned Residential – 9 consisting of conforming and nonconforming residences.
2. There have been no similar variance requests within the plat.

7. **Other Factor(s):**

1. There is limited septic replacement area due to the lot width and acreage.
2. A majority of the septic replacement area is occupied by the required well setback.
3. This system is an Imminent Public Health Threat.

BOARD OF ADJUSTMENT CRITERIA FOR APPROVAL OF A VARIANCE

1. **Is the variance request in harmony with the general purpose and intent of official controls?**
2. **Has a practical difficulty been demonstrated in complying with the official controls?**
3. **Will the variance alter the essential character of the locality?**
4. **What, if any, other factors should be taken into consideration on this case?**

CONDITIONS

Conditions that may mitigate the variance for relief from St. Louis County SSTS Ordinance 61 7080.2150 Subpart 2 Item F (Table VII) to allow the replacement of a septic tank at a reduced roadway and building setback as proposed include, but are not limited to:

1. All other Onsite Wastewater SSTS standards shall be met.
2. Following system installation, an inspection shall be performed by a qualified inspector to ensure setbacks are met prior to issuing Certificate of Compliance.
3. All other local, county, state and federal regulations shall be met.

ST. LOUIS COUNTY, MN
PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT
(On-Site Wastewater Division)

Duluth
Government Services Center

320 West 2nd Street, Suite 301
Duluth, MN 55802
Phone (218) 725-5200
Toll Free (800) 450-9278

Virginia
Government Services Center
201 South 3rd Avenue West
Virginia, MN 55792
Phone (218) 749-0625
Toll Free (800) 450-9278

Permit Construction Application Subsurface Sewage Treatment System

General

- This permit application form is used to apply for a Permit to Construct. Additional information: www.stlouiscountymn.gov/septic

Enter the Primary PIN and Associated PIN (if applicable) of the property to be reviewed.
PIN is found on your Property Tax Statement. For example, 123-1234-12345. Primary PIN: Parcel where Structure/SSTS are located. Associated PIN: Additional and/or adjacent property that you own or that is related to the project.
County Land Explorer: https://www.stlouiscountymn.gov/explorer
Property Lookup: http://apps.stlouiscountymn.gov/auditor/parcelInfo2005Iframe

Primary PIN	**387-0360-00225**
Associated PINs	

Enter Applicant Information

I am a:	**Other**
Are you an LLC Business?	**No**
Applicant Name:	**Christopher G Soares**
Address:	**830 N Lake Avenue**
	--
City:	**Duluth**
State:	**MN**
Zip:	**55805**
Primary Phone:	**(301)606-7233**
Mobile Phone:	**--**
Email:	**csoares49@outlook.com**
Preferred Contact Method:	**Any**
Contact Person Name:	**--**
Contact Person Phone:	**--**

Property Owner Name and Contact Information.

If the property owner information we have on file is not correct, please enter the current owner information.
Property Owner Name: **Andrew Latterner and Taylor Glynn**

Site Address:	**3611 FECTOS ROAD**
	--
City:	**TOWER**
State/Province:	**MN**
Zip:	**55790**
Primary Phone:	**(507)475-2597**
Mobile Phone:	**--**
Email:	**taylorglynn@hotmail.com**
Preferred Contact Method:	**Any**
Contact Person Name	**--**
Contact Person Phone	**--**

Mailing Address Information

This address can default from the address you selected. If the values defaulted are not correct, please enter the correct information.

Same as Property address?	☐ **Yes**
Same as Applicant address?	☐ **Yes**
Name:	**Christopher G Soares**
Address:	**830 N Lake Avenue**
	--
City:	**Duluth**
State/Province:	**MN**
Zip:	**55805**
Primary Phone:	**(301)606-7233**
Mobile Phone:	**--**
Email:	**csoares49@outlook.com**

Provide additional email recipients ☑ **Yes**

The Property Owner receives all Permit documents. List any additional recipient emails separated by a semicolon.

Additional email recipients **taylorglynn@hotmail.com**

SITE INFORMATION

Enter Site information

Do you need to request a 911 address number and sign? **No**

Is this a leased property? **No**

Is this for Residential or Commercial?

Residential

Is the property used year round or used seasonally?

Year round

Is this project within 300 feet of a river/stream or 1,000 feet of a lake?

Yes

River/Lake Name **Vermilion**

Is this property connected to a Common Interest Community?

No

Is this serving multiple dwellings sharing a SSTS component?

No

Is this related to a Point of Sale Requirement?

Yes

Is the SSTS located in a floodplain?

No

APPLICATION REASON

What are you applying for?	**Replacing the existing SSTS**
Explain why:	**Taylor Glynn and Andrew Latterner are in the process of selling this property to Christopher G Soares with closing set for May 19, 2023. We had the holding tank inspected to meet point of sale requirements. The inspector found the tank to be a 'imminent threat to public health' due to the fact that the cover does not lock in place. This is happening because there is a dent in the tank. The tank was in this condition at our time of purchase in 2019.**
Permit Number (being replaced, if known):	**4705**

RESIDENTIAL WORKSHEET

Select the System Type

Type I System

"Type I System" means an ISTS that follows a standard trench, bed, at-grade, mound, or graywater system design in accordance with MPCA rules, Minnesota Rules, Chapter 7080.2200 through 7080.2240.

No

Type II System

"Type II System" means an ISTS with acceptable modifications or sewage containment system that may be permitted for use on a site not meeting the conditions acceptable for a standard Type I system. These include systems on lots with rapidly permeable soils or lots in floodplains and privies or holding tanks.

Yes

System Type **Holding Tank**

Type III System

"Type III System" means a custom designed ISTS having acceptable flow restriction devices to allow its use on a lot that cannot accommodate a standard Type I soil treatment and dispersal system.

No

Type IV System

"Type IV System" means an ISTS, having an MPCA registered pretreatment device and incorporating pressure distribution and dosing, that is capable of providing suitable treatment for use where the separation distance to a shallow saturated zone is less than the minimum allowed.

No

Type V System

"Type V System" means an ISTS, which is a custom engineered design to accommodate the site taking into account pretreatment effluent quality, loading rates, loading methods, groundwater mounding, and other soil and other relevant soil, site, and wastewater characteristics such that groundwater contamination by viable fecal coliforms is prevented.

No

WELL INFORMATION

Enter information about the well.

Do you have a proposed water source?

Yes

Proposed Water Source Type	**Well**
Proposed Well Type	**Drilled**

Enter # of existing water sources on the property

1

After completing the following information for the 1st water source, please use the Add Another Water Source button to add the additional water source(s) information.

Water Source Type	**Well**
Well #	**855376**
Well Depth (Feet)	**165**
Case Depth (Feet)	**21**
Well Type	**Drilled**

DESIGNER & INSTALLER INFORMATION

Select the Designer

Licensed Business Name or Designer Name	**Peterson Septic Design and Inspection LLC**
License #	**L2367**
Certification #	**--**
Designer's Comments (To On-Site Wastewater Staff)	**New tank to be installed in same location as the structurally unsound 1000 gallon plastic tank which will be removed. A pumping contract has already been set up with Honey Wagon Septic Pumping**

Select the Installer (if known)

Licensed Business Name or Installer Name	**Holmes Excavating Inc**
License #	**L905**
Certification #	**--**
Installer's Comments (To On-Site Wastewater Staff)	**Quote is included in attachments for replacement.**

STRUCTURE - RESIDENTIAL

Enter Building Type and Water Uses
Home, mobile home, hunting shack, cabin, RV

Dwelling	**Yes**

Dwelling

# of Bedrooms	**1**
Plumbing	☑ **Yes**
Basement Plumbing	☐ **Yes**
Garbage Disposal	☐ **Yes**
Clothes Washer	☐ **Yes**
Dishwasher	☐ **Yes**
Water Conditioning Unit	☐ **Yes**
Furnace w/Humidifier	☐ **Yes**
Bathtub > 40 gal.	☐ **Yes**
Sewer Grinder Pump	☐ **Yes**
Multi-Family	**No**
Accessory Dwelling	**No**
Accessory Structure w/water	**--**
Other	**No**

Other information to be considered for this application

--

Will this project require a Septic Variance?

Yes

VARIANCE WORKSHEET

Enter Variance information. About SSTS Variances Pursuant to Ordinance 61, Article V, Section 3.0 A property owner may request a variance from the standards specified in the Ordinance pursuant to county policies and procedures. Variances shall only be permitted when they are in harmony with the general purposes and intent of this Ordinance where there are practical difficulties or particular hardship in meeting the strict letter of this Ordinance, excluding the technical standards. Certain deviations may require the approval of the MPCA or the MN Department of Health.

Describe the specific provision(s) in the ordinance from which the variance is requested.

7080.2150 Subp. 2 Item F (Table VII) unable to meet property line/building setbacks with Holding Tank

Describe the practical difficulty that prevents compliance with the rule.

The lot is small (50'x150') with a 16' x 24' cabin and a bunkhouse and property entrance (driveway). The property also has a drilled well centrally located. The existing holding tank needs to be replaced and because of the well and building

proximity to lot lines, the current location is the only area to meet setback from the well.

Describe the alternative measures that will be taken to achieve a comparable degree of compliance with the purposes and intent of the applicable provisions.

The tank location will meet setback to the well. That location (existing failed holding tank location) can not meet the setback to the cabin/deck or the setback to the center line of Fectos Road (43 feet).

Identify cost considerations preventing reasonable use of the property under the terms of this ordinance

In order to meet the setback to the seasonal cabin, the wrap around deck and steps would have to be removed, which would eliminate use of the elevated front entryway overlooking the lake. While the holding tank would meet setback to the cabin, it still would not meet setback to Fectos Road. There is no other feasible way to install a tank on the property and meet setbacks to the well and property lines. Not allowing the holding tank would reduce the value of the property and make it difficult to sell.

OFFICE USE ONLY

ES Area	**EA**
Office	**Virginia**
Section	**5**
Township	**62**
Range	**16**
Variance Department Recommendation	**--**

Specify reasons for recommendation:
Hint: (Reference pertinent sections of the Ordinance and ISTS Construction Standards)

--

Hearing Info. and Outcome	**--**
Board of Adjustment Hearing Date	**--**
Permit #	**--**
Variance Granted	**--**
Case #	**--**

VARIANCE AGREEMENT

By submitting this request for variance from the Ordinance and the Construction Standards, I certify and agree that no substantial health hazard is likely to occur therefrom and an unnecessary hardship might result in strict compliance with the Ordinance and Standards.
I further agree to install a sewage treatment system in accordance with the permit application, plans, and specification that are made as part of this variance request, in addition to paying the Variance Fee associated with this request.

St. Louis County, MN

PERMIT

SSTS Design Summary

Subsurface Sewage Treatment System

Form **3002** Rev. 07-27-2022

This form is used to complete a SSTS Design. Additional Information: www.stlouiscountymn.gov/septic

SITE INFORMATION

Site Address **3611 Fectos Road**	City **Tower**	Zip **55790**	Parcel ID **387-0360-00225**

DESIGNER

Name **Mark Peterson**		Date **5/5/23**
Email **nickzach1@msn.com**	Phone **218-290-6532**	Phone

SYSTEM INFORMATION

MPCA Type ☐ Type I ✓ Type II ☐ Type III ☐ Type IV ☐ Type V	Dwelling Classification ☐ I ☐ II ☐ III ☐ IV
☐ Residential ☐ Commercial ✓ Seasonal ☐ Other	Well Casing Depth **21**

# Bedrooms 2	# Water using devices	Total Finished Sq ft	Sq ft / Bedroom
Design Flow **450**	Water Meter **YES**	Pressure Test **NO**	Grinder or Disposal **NO**
CLR	SLR	Limiting Soil Type	Limiting Layer Depth (in)

SSTS Flow Description

1500 gallon Holding tank with high water alarm and water meter

TANK INFORMATION

Type (Septic, Pump, Holding etc.)	**Size** (gallons)	**Status** (New, Existing)	**Material** (Precast, Plastic)	**Alarm** (Yes, No)	**Insulated** (Yes, No)	**Bedded** (Yes, No)	**Building Sewer** (Gravity, Pressure, Both)
Holding	**1500**	**New**	**precast**	**Yes**	**Yes**	**Yes**	**Gravity**

Gallons per inch of pump tank

Tank Installation & Pumping comments

New tank to be installed in same location as the structurally unsound 1000 gallon plastic tank which will be romoved. A pumping contract has already been set up with Honey Wagon Septic Pumping

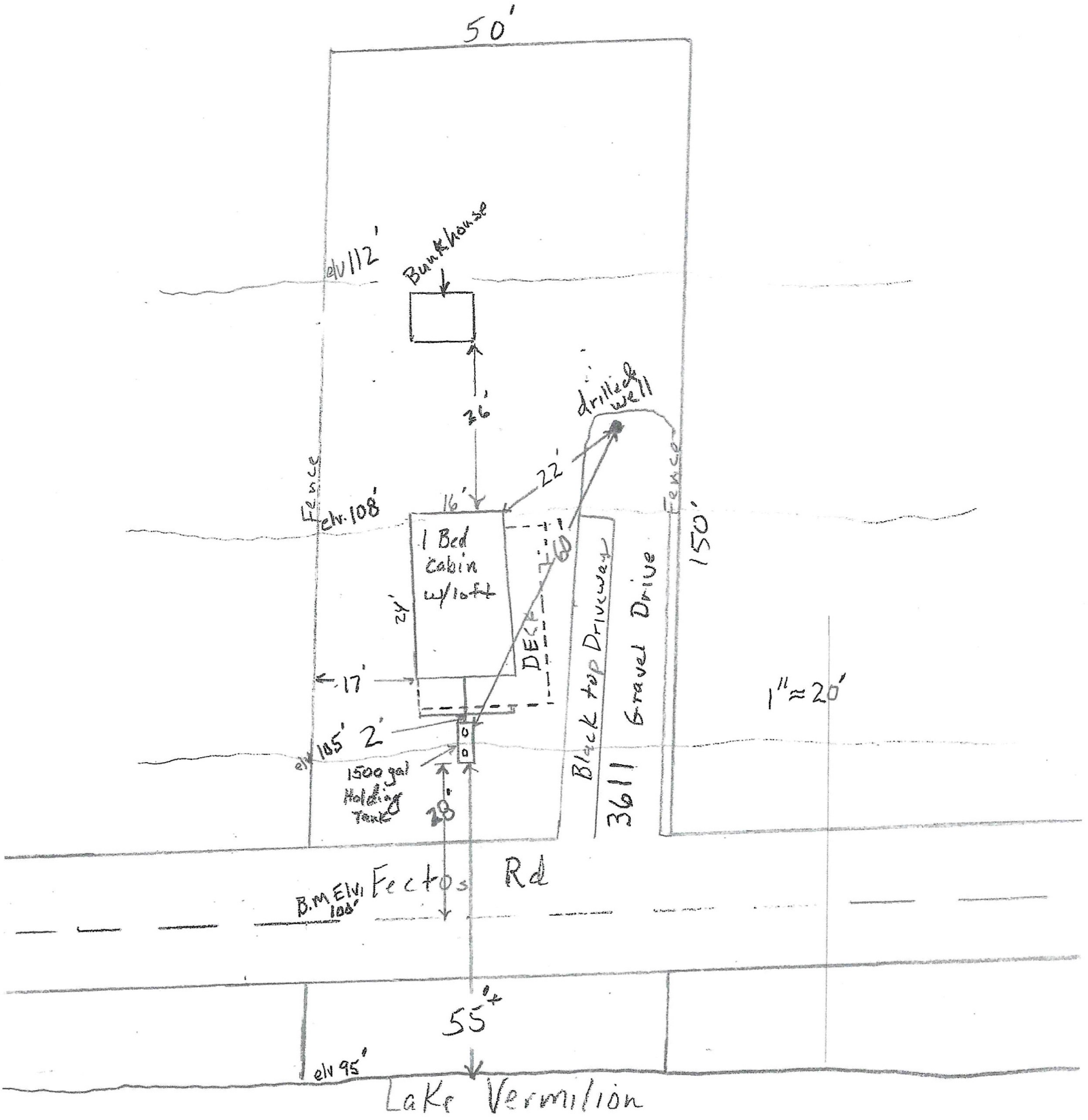
DISTRIBUTION INFORMATION

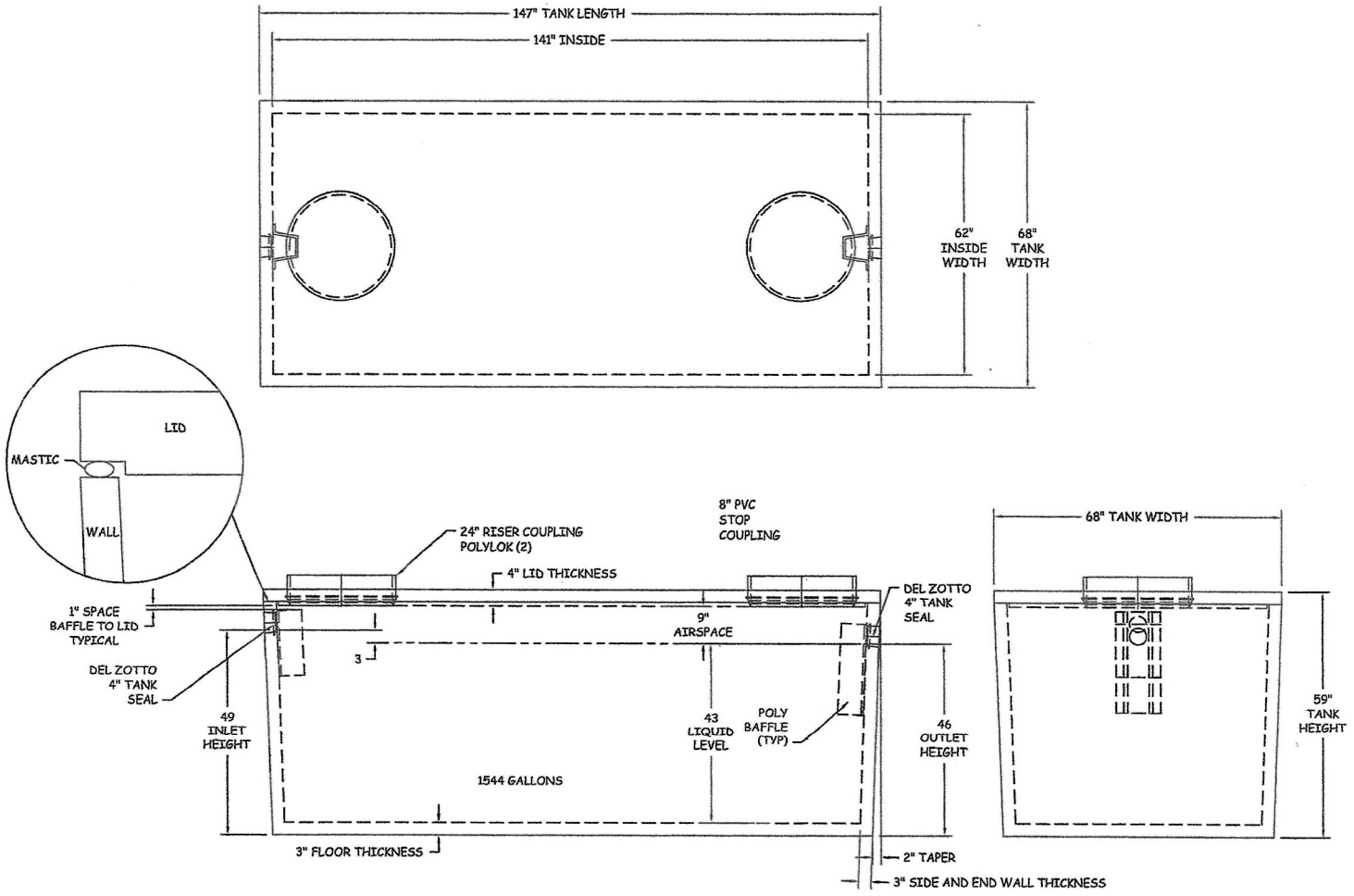
☐ Gravity	☐ Drop Box ☐ Distribution Box		
☐ Pressure	Gal/Min	Ft Head	Pump Model

☐ Event Counter ☐ ETM	Time Dose Panel	Timer On	Timer Off

Max Dose	Min. Dose	Drainback		Dose + Drainback	Float Tether (in)

Manifold		Laterals	
Location ☐ Center ☐ End		Number	Length (ft)
Size (in)		Size (in)	
Insulated		Orifices	
		Size (in)	# Per lateral
		Spacing (in)	Shields


50'
elv 112'
Bunkhouse
36'
drilled well
22'
16'
Fence
elv. 108'
1 Bed Cabin w/loft
24'
DECK
17'
150'
Fence
1" ≈ 20'
elv 105'
2'
1500 gal Holding Tank
28'
Black top Driveway
3611 Gravel Drive
B.M Elv. 100'
Fectos Rd
55'±
elv 95'
Lake Vermilion



SHOWN AS A DZ-1500 -S

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCE ON DECIMALS±.005
FRACTIONS±1/16
WELDMENTS±1/16
ANGLES±1/2°
REMOVE ALL BURRS AND BREAK ALL SHARP EDGES.

Del Zotto Products of Minnesota
1900 County Road #1, Wrenshall, MN 55797 218-384-3066 Fax 218-384-3088

DZ-1500 Gallon -S -H -P
Septic Tank

SIZE	DWN BY	DWG NO.	REV
A	TAV	DZ-1500 S H P	E
	SCALE 1:32	DATE 12/17/12	SHEET 1 OF 1

(DZ-1500-H) Tank to Be used

St. Louis County, MN

OPERATING PERMIT

OPERATING PERMIT WORKSHEET

Subsurface Sewage Treatment System

Form **3010** Rev. 12-28-2021

This form is for an operating permit. Additional Information: www.stlouiscountymn.gov/septic.

PROPERTY IDENTIFICATION NUMBER (PIN) and SITE

Primary PIN	3 8 7 - 0 3 6 0 - 0 0 2 2 5	Associated PIN		Date
Site Address **3611 Fectos Rd**		City **Tower**	Zip **55790**	**5/5/23**

DESIGNER

Licensed Business Name **Peterson Septic Design and Insp. LLC**	License # **L2367**

REASON FOR OPERATION PERMIT

✓ Holding Tank	☐ Type III	☐ Type IV	☐ Type V
☐ Other Establishment	☐ High Waste Strength	☐ Other	

SYSTEM INFORMATION

Design flow **450**	Treatment level

System components **1500 gallon Insulated Holding Tank with existing alarm and water meter**

MONITORING REQUIREMENTS

Parameter	Effluent limits	Frequency	Location
water meter reading		**ANNUAL**	

MAINTENANCE REQUIREMENTS

System component	Maintenance	Frequency
Holding tank	**Pumping**	**As Needed**

OTHER INFORMATION

Water meter and Tank alarm already existing and pumping contract already set up for existing holding tank that is being replaced

SIGNATURE

Date **5/5/23**

CONTACT Planning and Community Development (On-Site Wastewater Division)

Duluth Office		Virginia Office	
Government Services Center 320 W 2nd Street, Suite 301 Duluth, MN 55802	Phone (218) 725-5200 Toll Free (800) 450-9777 www.stlouiscountymn.gov/septic	Government Services Center 201 South 3rd Avenue West Virginia, MN 55792	Phone (218) 749-0625 Toll Free (800) 450-9777 www.stlouiscountymn.gov/septic

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Septic System Management Plan for Holding Tank 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 holding tank system is designed to store your used water before it is recycled back into our lakes, streams and groundwater.

This **management plan** will identify the operation and maintenance activities necessary to ensure compliance with applicable rules and regulations. Some of these activities must be performed by you, the homeowner. Other tasks must be performed by a licensed septic maintainer. 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: Taylor Glynn

Property Address: 3611 Fectos Rd Tower MN 55790 Property ID: 387-0360-00225

System Designer: Mark Peterson License #: L2367

System Installer: License #:

Service Provider/Maintainer: Honey Wagon Phone:

Permitting Authority: St. Louis County Phone: 218-749-0625

Permit #: 4705 Date Inspected: 4/27/23

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-builts 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*, call 1-800-876-8636 or go to http://shop.extension.umn.edu/

http://septic.umn.edu

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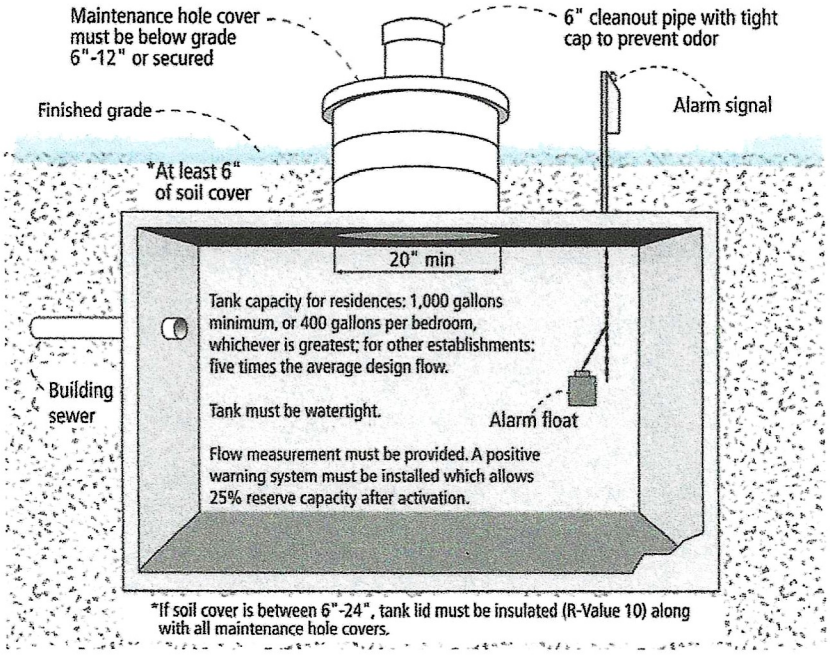
Septic System Management Plan
For Holding Tank Systems

Your Holding Tank



Dwelling Type	Well Construction
Number of bedrooms: 1 plus loft and bunkhouse	Well depth (ft): 165
System capacity/ design flow (gpd): 450	☐ Cased well Casing depth: 21
Anticipated average daily flow (gpd): <50	☐ Other (specify):
Comments seasonal dwelling	Distance from septic (ft): 60
In-home business? ___ What type?	Is the well on the design drawing? (●) Y ( ) N
Number of occupants	

Holding Tank	
(●) One tank: *Tank volume:* 1500 *gallons*	☐ Flow measurement device: water meter
( ) Two tanks: *Tank volume:* _____ *gallons*	☐ Location: bathroom closet
☐ Tank is constructed of concrete	☐ Alarm ✓ visual _____ audible
	☐ Reserve %: 25
☐ Service contract held by: Honey Wagon	
☐ Service contract is attached to this management plan	

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Septic System Management Plan
For Holding Tank Systems

Homeowner Management Tasks

These o*peration and maintenance a*ctivities are your responsibility. *Use the chart on page 6 to track your activities.*

Identify the service intervals recommended by your system designer and your local government. The tank assessment for your system will be the **shortest interval of these three intervals.** Your pumper/maintainer will determine if your tank needs to be pumped.

Tank capacity ÷ (# of occupants X 50 Gallons/day) = # of days between cleaning

OR

Within 24 hours of alarm signal

System Designer: check every _____ days

Local Government: check every _____ days

My tank needs to be emptied every _____ days

Seasonally

- ❑ *Monitor alarm daily – make sure the alarm has not signaled.* Alarms signal when your holding tank is nearly full; contact your maintainer.
- ❑ *Measure* and note your average daily water usage on page 5. Conserving water saves you money!
- ❑ *Leaks.* Check (listen, look) for leaks in toilets and dripping faucets. Repair leaks promptly.

Annually

- ❑ Establish a contract for tank cleaning services with a state licensed maintenance business.
- ❑ *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, discharge clear water sources to another location. Program the recharge frequency based on *water demand (gallons)* rather than *time (days).* Recharging too frequently will result in increased pumping costs.
- ❑ *Review your water usage rate.* Review the Water Use Appliance chart on Page 5. Discuss any major changes with your pumper/maintainer.

During each visit by a pumper/maintainer

- ❑ Ask if your pumper/maintainer is licensed in Minnesota.
- ❑ Make sure that your pumper/maintainer has clear access to the holding tank and completely empties the tank
- ❑ 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. Professionals should refer to the O/M Manual for detailed checklists for tanks, pumps, alarms and other components. Call 800-322-8642 for more details.

- ❑ Written record provided to homeowner after each visit.

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 frequency of maintenance.
- ❑ Review and document water usage rates with homeowner.

Holding Tanks

- ❑ *Maintenance hole 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.
- ❑ *Inspection pipes.* Replace damaged caps.
- ❑ *Alarm.* Verify that the alarm works and that there is at least 25% reserve capacity.
- ❑ *End of year seasonal property pumping.* Remind homeowner of most frequent causes of tank and building sewer freeze-ups. Ensure that there are no "micro-sources" of water such as a high efficiency furnace or other dripping devices. Determine a logical winter water use plan that will not result in need for emergency visit(s).

All other components – inspect as listed here:

_____

_____

_____

Water-Use Appliances and Equipment in the Home

Appliance	Impacts on Holding Tank	Management Tips
Garbage disposal	• Uses water and increases pumping frequency and expense.	• Use of a garbage disposal is not recommended. • Minimize garbage disposal use. Compost instead.
Washing machine	• Uses water and increases pumping frequency and expense.	• Choose a front-loader or water-saving top-loader, these units use less water than older models. • Wash only full loads. • Do laundry off site.
Dishwasher	• Uses water and increases pumping frequency and expense.	• Wash only full loads.
Large bathtub (whirlpool)	• Uses water and increases pumping frequency and expense.	• Take short showers to conserve water.
Clear Water Uses	**Impacts on Holding Tank**	**Management Tips**
High-efficiency furnace	• Drip may result in frozen pipes during cold weather.	• Re-route water into a sump pump or directly out of the house. Do not route furnace recharge to your holding tank.
Water softener Iron filter Reverse osmosis	• Uses water and increases pumping frequency and expense.	• These sources produce water that is not sewage and should not go into your holding tank. • Reroute water from these sources to another outlet, such as a dry well, drain tile 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	• Uses water and increases pumping frequency and expense.	

Maintenance Log

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

Activity	Date accomplished/measured water usage									
Check daily for a period of time and weekly once average use is determined:										
Water usage rate (gallons per day)										
Leaks: check for plumbing leaks										
Annually:										
Establish and maintain contract for holding tank pumping services										
Water use appliances – review use										

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Septic System Management Plan
For Holding Tank Systems

Water Meter Reading and Tank Evacuation Schedule			
Date	**Water Meter Reading (in gallons)**	**Tank Contents Removed?**	**Total Gallons Removed**

Notes:

Mitigation/corrective action plan:

"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.

Property Owner Signature: [signature] Date 5-5-23

Management Plan Prepared By: Mark Peterson Certification # C6536

Permitting Authority: St. Louis County

St. Louis County

July BOA Meeting

Prepared By:	**Planning & Community Development** (218) 725-5000 www.stlouiscountymn.gov
Source:	St. Louis County
Map Created:	6/21/2023

Disclaimer: This is a compilation of records as they appear in the St. Louis County Offices affecting the area shown. This drawing is to be used only for reference purposes and the County is not responsible for any inaccuracies herein contained.

Christopher Soares

Location Map

387-0360-00225

N

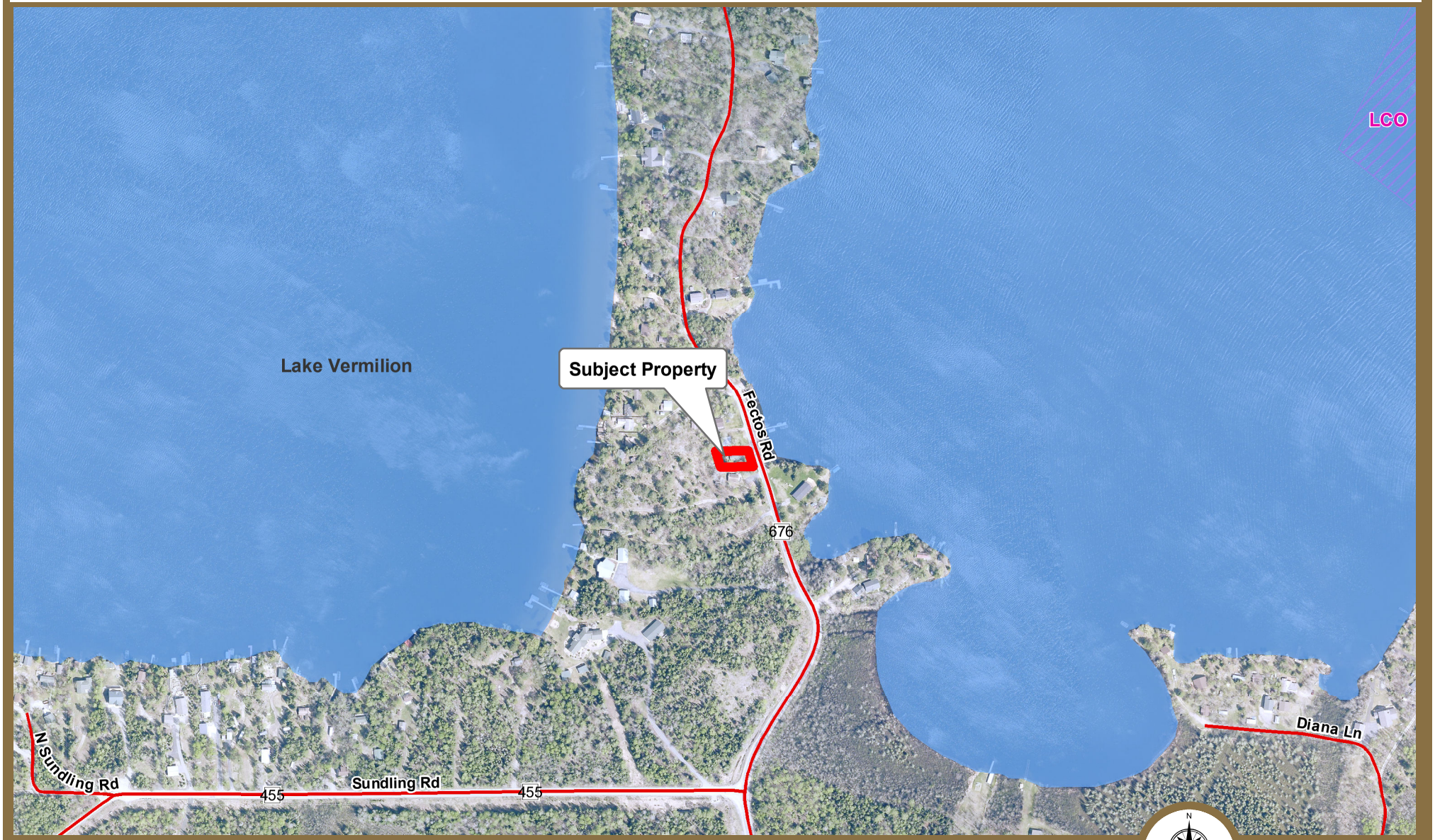
0 0.75 1.5

Miles

St. Louis County MN

St. Louis County

July BOA Meeting



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Location Map

387-0360-00225

N

0 300 600

Feet

St. Louis County MN

St. Louis County

July BOA Meeting

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Zoning Map

387-0360-00225

N

0 300 600

Feet

St. Louis County MN

St. Louis County

August BOA Meeting

Prepared By:	**Planning & Community Development** (218) 725-5000 www.stlouiscountymn.gov
Source:	St. Louis County
Map Created:	7/13/2023

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Christopher Soares

Site Map

PIN: 387-0360-00225

N

0 10 20

Feet

St. Louis County MN

St. Louis County

August BOA Meeting

Prepared By: **Planning & Community Development**
(218) 725-5000
www.stlouiscountymn.gov

Source: St. Louis County

Map Created: 7/13/2023

Christopher Soares

Site & Elevation Map

PIN: 387-0360-00225

N

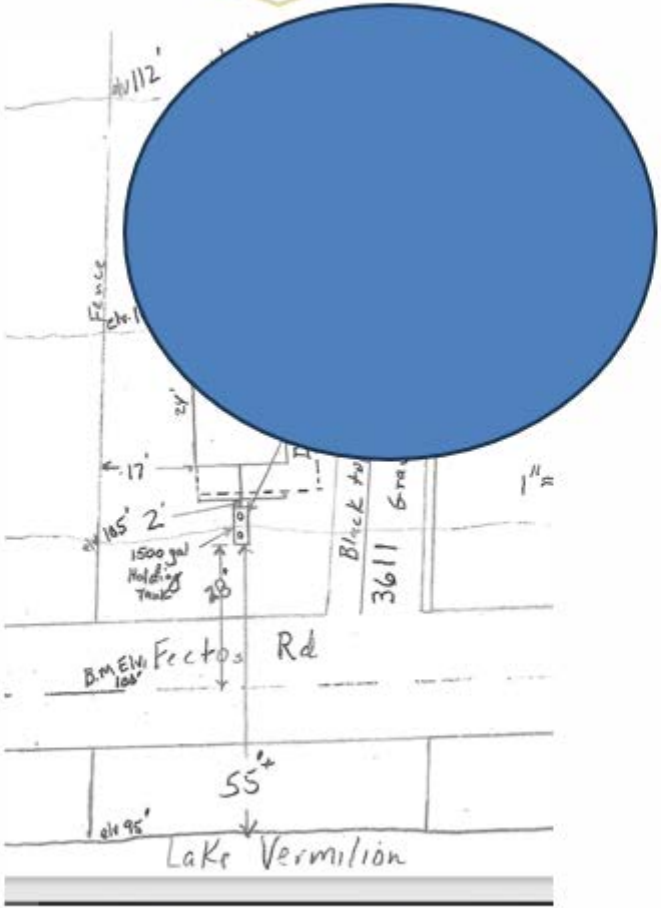
0 10 20

Feet

St. Louis County MN

Site photo showing approx. 2 ft requested setback to structure (attached deck)

Site photo showing approximate edge of tank to ROW



Proposed site sketch with septic layout from designer – with required well setback in blue