JOHANSON
PROFESSIONAL LAND SURVEYORS
SURVEY • DESIGN • SEPTIC • PLANNING
SURVEYING

April 15, 2025
Job. No. S-25-251

Attention: Mark Overdevest
801-440-6140

Re: Summary Letter
Existing Waste Water System Review

2630 North Highway 39
Parcel# 231140002

Lot 2
Kathy Park Subdivision

1. INTRODUCTION

1.1 GENERAL

This Letter Summarizes the results of a review of an existing on-site wastewater system for the above described lot/parcel located in Weber County, Utah. The data collection was performed by Nathan Bseiso (02891-OSP-III) on April 24th, 2024.

1.2 OBJECTIVE AND SCOPE

The objectives and scope of our services were developed in discussions between Mr. Mark Overdevest and Mr. Nathan Bseiso (Johanson Surveying). At the time the original intent was to perform a topographic survey for possible future development, however knowing septic would be an issue in the future, Johanson surveying did collect available septic data at the time.

On March 21st, 2025 Nathan Bseiso (Johanson Surveying) had a phone conversation with Summer Day (Weber County Health Department). During that conversation, it was discussed the need to have the existing system reviewed for sizing to verify adequate absorption area and sizing. Likewise, we discussed offering my professional advice into possible improvements to avoid future issues.

The objectives of our services were to:

1. Review existing system for sizing restrictions
2. Determine system sizing requirements
3. Write report summarizing findings.

In accomplishing the above objectives, our scope included:

1. Calculate required absorption area for proposed site improvements
2. Preparation of this summary letter.

1.3 AUTHORIZATION

Authorization was provided by Mark Overdevest via multiple phone conversations and email.

1.4 PROFESSIONAL STATEMENTS

Supporting data upon which our recommendations are based are presented in subsequent sections of this report as well as provided data from Mark Overdevest. Recommendations presented herein are governed by the provided data and no further testing has been performed on the physical properties of the soils, projected groundwater conditions, bedrock depth, and the layout and design of the system absorption area. If subsurface conditions other than those described in this report are encountered and/or if design and layout changes are encountered or implemented, Johanson Surveying and Waste Water Engineering must be informed so that recommendations can be reviewed and amended, if necessary.

This system review is for a multi use facility with 10 camp visitors, 10 additional food service with toilets, 1 camp (boarding house) employee with up to 2 guests, 10 gym spectators, and 1 gym employee. Failure to uses the system appropriately or over surge of the system could cause a short circuit and system failure.

Our Professional services have been performed, our findings obtained, and our recommendations prepared in accordance with generally accepted engineering principals and practices in use at this time in this area.

2. REVIEW OF THE EXISTING SYSTEM

Existing Septic System

Based upon provided data and conversations with the local Health Department, this site does have an existing septic system that was designed for a three bedroom single family home.

Calculated tank size as 1,250 + Gal.

- Supporting Evidence found in A1 pumping Septic System Report dated October 10th, 2023 showing 1,250 gallons and a sludge depth of only 2".

Effluent Loading Rate

The Loading Rate utilized in original design (Reeve and Reeve, Inc septic design; dated June 3rd, 1994) was **0.35 Gal/Ft/Day.**

3. REVIEW OF REQUIRED SYSTEM

Required Septic System

To best determine the required septic system design calculations, Johanson Surveying read the Conditional Use Application narrative and formulated the possible usages as described. These were done in conservative effort to calculate maximum possible use during any one event. All information on the gallons per day rate have been found and utilized using R-317-4 Table 3. Johanson Surveying calculations are as follows…

1. 10 camp guests with flush toilets
    a. 20 (GPD) X 10 (guests) = 200 (GPD)
2. 10 food service guests with toilet and kitchen waste
    a. 10 (GPD) X 10 (guests) = 100 (GPD)
3. 1 boarding house employee with additional 2 guests
    a. 50 (GPD) boarding house employee
    b. 10 (GPD) X 2 (guests) = 20 (GPD)
    c. 50 (employee) + 20 (guests) = 70 (GPD) Total
4. 1 gym employee and 10 gym guests (spectators)
    a. 25 (GPD) X 1 Employee = 25 (GPD
    b. 4 (GPD) X 10 (guests) = 40 (GPD)
    c. 25 (employee) + 40 (guests) = 65 (GPD)

Based upon these extremely conservative calculations, Johanson Surveying determined the Daily Waste Water flow to be **435 gal/day.**

- Septic Tank Volume
    - 1,000 Gallon (min.)
- Application Rate (from original design) (Reeve and Reeve, Inc septic design; dated June 3rd, 1994)
    - 0.35
- Minimum required absorption area
    - 1,243 sq/ft.

4. SUMMARY

Based upon the review of the records, provided receipts, and the conversation with both Mark Overdevest and Weber County Health, it is the opinion of Johanson Surveying that **the sizing of the existing system will satisfy the installations as described in the conditional use permit provided to Johanson Surveying and dated April 3rd 2025** (see Professional Statement).

4.1 RECOMMENDATIONS

1. Inspect and pump existing system before use
2. Install effluent screen if not installed

3. Install/update system alarm for pump tank if needed
4. Secure and protect any water crossing with a metal pipe, securely fastened and grounded on both sides of crossing to protect in case of flooding

We appreciate the opportunity to perform this service for you, If you have any questions, please do not hesitate to call us.

Respectfully submitted,

Nathan Bseiso (02891-OSP-III)

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Johanson Surveying and Waste Water Engineering

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