9 September 2021

Mr. Mitchell Mason

Reference: Existing System Investigation

Mason Property (7 Acres); NCPIN 0505-72-2409

Dear Mr. Mason,

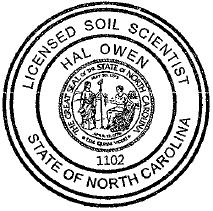
A site investigation has been conducted for the above referenced property, located on the western side of Ray Road (SR 1120) in Harnett County, North Carolina. It is our understanding that you wish to add approximately 1,500 square feet, including two bathrooms, to the existing gymnasium. The purpose of the investigation was to determine the existence of a subsurface sewage waste disposal system and to make surface observations relative to its apparent operation. All soil ratings and determinations were made in accordance with "Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A .1900".

The property has an existing building with an existing septic system that appeared to be functioning properly on the day of the investigation. This existing septic system appeared to be located within any setback requirements for this property. A soil investigation was conducted and it appears that an adequate amount of provisionally suitable soil exists on this lot to 100 % repair the system if it should fail.

Based on this investigation, it appears that the existing system is adequate to support a septic system that generates as much as 600 gallon of effluent per day. You provided water usage data from the Harnett County Public Utilities Services for each month from November 2019 to December 2020. You noted that the usage data in December 2019 was high due to the use of a water buffer to diamond-cut the floor. You also noted there was a leaky toilet that caused water usage in April and May 2020 to be almost 15 times higher than normal. Data from these three abnormal months was discarded, and the remaining months were averaged. It appears that the water usage at the gym averages **1,527 gallons per month, or 48 gallons per day**.

Given that the building currently has only two bathrooms, and the proposed addition will serve only to convenience the existing clients as the new bathrooms will be located downstairs, while the existing bathrooms are upstairs. We do not anticipate that this addition will significantly increase the daily flow, particularly in the short term. If we assume that adding the additional space and two more bathrooms could increase the flow by three times, it appears that the existing system is adequate to support that increase. If we estimate the new daily flow to be about 96 gallons per day, it appears the new daily flow will be well below the 600 gallons per day of effluent that the current system is capable of handling.

It appears that the existing septic system is adequate to support the proposed additions without any modification. I appreciate the opportunity to provide this service and hope to be allowed to assist you again in the future. If you have any questions or need additional information, please contact me at your convenience.



Sincerely,

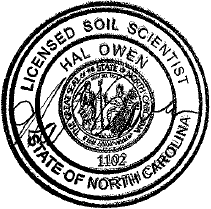


Hal Owen

Licensed Soil Scientist

Existing System Investigation

Mason Property (7 Acres); NCPIN 0505-72-2409



9 September 2021

*Site Map*



Ray Road



*Soil Map Legend*

Suitable Soils

