



Sherborn Board of Health
19 Washington Street
Sherborn, MA 01770

January 31, 2017

Attention: Mark Oram, Heath Agent

Re: 16 Nason Hill Lane: request to approve septic system for 5 bedrooms

The residence is currently served by a four bedroom septic system. According to the as built plan dated December 12, 1980, the leaching field consists of 9 stone trenches, each 92 feet long x 1.5 feet deep, providing 1650 sf of leaching area. According to the design plan dated March 26, 1980 (latest revision), the design is based on a 15 mpi perc rate in what would today be called a Class II soil (sandy loam).

The owner would like to expand the existing barn and include a bedroom/living area on the second floor.

Applying the current title 5 design requirements to the witnessed soil data from the original design results in the following:

Class II soil with perc rate of 15 mpi yields a LTAR of 0.56 gpd/sf. SHGW was established @ 90" & 96" and the system was installed at 5 feet above that.

5 bedrooms @ 110 GPD/br = 550 gpd

550 gpd / 0.56 gpd/sf = 982 sf of leaching required

If the requirement to accommodate a garbage grinder is added (50% increase) = $982 \times 1.5 = 1473$ sf.

1473 sf / 6 sf/lf = 245.5 lf, or 3 rows of 82 feet each which is less than 3 rows of 92 feet each. **OK**

The system passed a Title 5 inspection in the spring of 2016.

Sincerely,

Paul Saulnier, P.E.