



## **WHITE MOUNTAIN SURVEY & ENGINEERING, INC.**

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### **SEPTIC SYSTEM DESIGN SERVICES**

Septic system designs are prepared for both residential and commercial uses by several on staff, licensed septic system designers. A septic design can be as simple as one based on traditional concepts, or one as complicated as including special drainage design, solar orientation, tree preservation, and grading plans for a more completely designed home or building site. WMS&E's staff is licensed in both New Hampshire and Maine. For "standard" residential designs, our design services are provided on a flat fee basis excluding the costs for backhoe rental and state and local application fees. While our design fees may sometimes be greater than our competitors, the difference is generally more than made up in reduction of the installation cost or improved function and aesthetics.

The design process typically starts with field work. A field crew topographically maps the proposed building site, disposal area, and other relevant site features which might impact the proposed design. In addition, a perc test and test pit are dug in an area believed to be suitable for a disposal area based on an above ground site evaluation. The test pit is a hole dug by a backhoe to a depth from 5 to 10 feet depending on the soil conditions encountered. An evaluation of the soil profile in the pit will determine how high the proposed leach field will be above existing grade. A perc test is a small hole, dug with a spade, into which water is poured. The rate in which water is absorbed into the soil is the percolation rate and it is these results which determine the size of a proposed disposal area.

This field data is reduced to a plan format and the final design is prepared. This design along with the application is then submitted to the state for approval. The duration of the approval process of a system can vary based on the complexity of the site and system. The state can require the submission of additional materials. Once an approval is received, WMS&E provides its clients with two stamped copies of the design and information outlining the upkeep of the system once it is constructed.