



ABOUT US

Civil Engineering services are performed under a Registered Professional Engineer licensed by the Commonwealth of Massachusetts. All service provided meet Massachusetts certifications and requirements.

HCCE is located in Ashburnham, MA providing homeowners and developers civil engineering services to facilitate the design and permitting process for land development in Massachusetts. Engineering services include:

- Residential Development
- Residential Subdivision
- Stormwater Management
- Drainage Design/Analysis
- Wetland Permitting
- Septic System Design and Permitting
- Title V Inspections
- Soil Evaluations



HC HIGH COUNTRY CIVIL ENGINEERING

—LAND DEVELOPMENT AND DESIGN—

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HIGH COUNTRY CIVIL ENGINEERING is a Civil Engineering Firm offering professional services in residential septic design, subdivision, stormwater management and Title V Inspections. High Country is staffed with a licensed Professional Engineer, Certified Title V Inspector and Soil Evaluator for the State of Massachusetts.



Title V Inspections

A Homeowners Guide To Understanding Septic Systems And The Process For Title V Inspections

CONTACT US

Ashburnham, MA
978-252-5597
info@highcountryce.com
www.highcountryce.com

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How They Work: SEPTIC TANKS & LEACH FIELDS



What is a Title V Inspection?

A Title V Inspection is a systematic process that evaluates the operational condition of the septic system, in a noninvasive way as possible. The inspection includes inspecting the septic tank (pump chambers if present), distribution box and leaching field.

Who needs a Title V Inspection?

People who are buying or selling a property with a septic system are required to have the system inspected within 2 years of the sale or 6 months afterward.

Who can perform a Title V Inspection?

A Title V inspection should be done by a certified professional, licensed in the state of Massachusetts. For a state-wide list of certified inspectors visit...

<https://www.mass.gov/guides/hiring-title-5-system-inspectors-and-soil-evaluators>

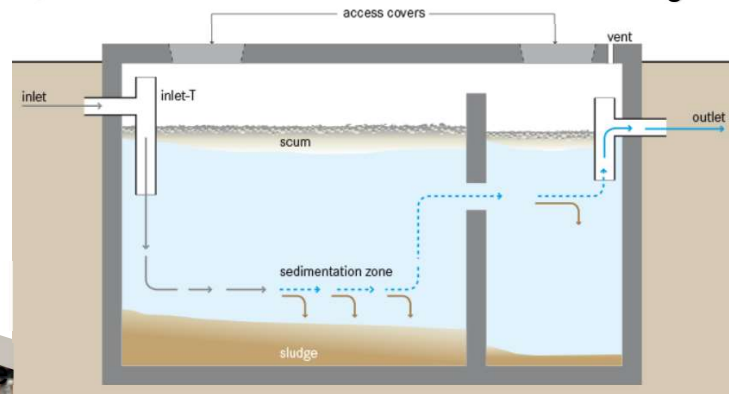
What if I don't pass a Title V Inspection?

The inspector can let you know after the inspection if the system has passed, failed or requires more inspection by the Board of Health.

If it is determined that the system has failed, you should contact an engineer to see what options you have to repair or replace a portion of the system or install a new system all together. The average cost for a new system depends on a number of factors but plan on spending \$30-50,000. There is financing available through the Massachusetts Housing Finance Agency (MHFA), the Farmers Home Administration (FHA) and the USDA Rural Development Program.

1. Solids and liquids from your toilet, shower, sink and dishwasher are all drained to a single pipe that leads to a Septic Tank.

2. The solids and liquids flow into the septic tank where the heavy solids (sludge) are allowed to sink and lighter solids, such as grease and fats, (scum) remain floating. The clear liquid in the middle (sedimentation zone) flow through the baffles and ultimately through the outlet. The baffles are designed to reduce the scum and sludge layers near the outlet to help ensure solids do not get to the leach field.



3. The liquid from the septic tank flow into a distribution box to evenly spread the liquid to the leaching field perforated pipes. As the liquid travels down the perforated pipe(s), the liquid exfiltrates through the washed gravel and original soil, where the liquid waste is naturally filtered. Title V regulations require specific depths of soil below the washed gravel to filter the liquid adequately before it can reach the groundwater. Backfill is placed over the leaching field to protect the pipes.

