

MEMORANDUM

TO: All Sanitarians in West Virginia
All Certified Septic System Installers

FROM: Rick Hertges, Program Manager
Onsite Sewage Program, PHSD

DATE: September 22, 2008

RE: **Installation of Inspection Ports in Absorption Field Laterals**

PURPOSE: To raise homeowner awareness of the existence and location of their septic system absorption field; as well as to promote improved maintenance, and facilitate inspection and observation of operational status of the system.

The West Virginia Sewage Advisory Board has recommended installation of inspection ports as a method to protect, and enhance the longevity of septic tank system drainfields, while expending minimal effort and expense.

The Public Health Sanitation Division therefore makes a strong recommendation that soil absorption systems installed after this date be fitted with at least one inspection port per drainfield lateral.

Inspection ports shall consist of capped, vertical piping to the ground surface, with either an attached "Tee", or 90 degree "Ell" fitting situated at the bottom of the absorption trench. Four inch pipe is recommended, although 2" pipe may serve adequately in some "non-chamber" installations. In absorption fields and beds using gravel, it is recommended that the inspection port be independent of the distribution piping so as to allow extension to the trench or bed bottom. Absorption fields in a "bed" configuration should have at least two inspection ports, installed at opposite ends, or corners, of the bed. While it is recommended that the inspection port remain extended above grade to facilitate ease of location, pipes can be cut off near the surface for cosmetic purposes. Further guidance, and construction details for inspection ports, will be provided by separate document.

[See details on back of page]

Inspection Port Construction Guidelines

1. Septic system absorption field inspection ports should be installed for several reasons: A) To help protect the system by marking its location; B) To allow measurement of the depth of ponding in the trench; C) To facilitate pumpout, and venting, of the trench.
2. Inspection ports most commonly will be constructed of 4" PVC pipe, allowing for access to pump out the contents of a ponded absorption lateral or bed.
3. Inspection ports should be designed so as to protect from being easily removed, or, from being easily forced down into the soil beneath the trench. The preferred way to accomplish this would be to place a "T" fitting on the bottom of the vertical pipe. An "L" fitting, or elbow, will perform the same function. In either case, a short piece of pipe extending in one direction along the trench bottom will add to the stability of the installation. Fittings must be glued.
4. Inspection ports installed in chamber system laterals may not need to be extended down to the trench bottom, if, the pipe is properly secured both above, and within the chamber, using glued unions. [Extensions to the trench bottom may protect against damage, however]
5. Pipes must extend to the surface. It is recommended that inspection port pipes extend some distance above grade so as to be resistant to getting lost below the soil surface. Shrubbery can be used to hide pipes when located in open lawns. If this is not possible, and exposed piping is objectionable to the property owners, piping can be cut off at the soil surface. [Exposed piping can be painted so as to be less conspicuous. Shrubbery or paint will also help protect the PVC from sun damage].
6. Pipes must be capped at or above the surface. While a threaded cap is preferred, "slip" caps are suitable for the purpose.
7. At least one inspection port should be installed in each drainfield lateral. In most cases, the inspection ports should be located at the same end of the drainfield, opposite from the septic tank.
8. In complex drainfield layouts, on problem sites, or, where you might like more information or protection, inspection ports can be installed at both ends of each lateral.
9. When absorption fields are installed in a "bed" configuration, there should be at least two inspection ports installed, at opposite corners of the absorption bed.
10. Schedule 40, SDR 35, or "thinwall" pipe can be used to construct inspection ports.
11. When constructing inspection ports in gravelless pipe system laterals, the piping should be placed in the trench next to the gravelless pipe. Openings at the bottom of the inspection port piping should be covered with gravel. [Of course, these ports will not allow for pump-out of ponded laterals, only serving to mark lateral location, and to measure ponding levels.]
12. When "drop boxes" are used in drainfield construction, and the drop boxes are exposed at the ground surface, these can substitute for inspection ports.