

**Sewage Systems:
Installation Requirements, Pump System Requirements &
Septic Tank Abandonment Guidelines**

General Sewage System Installation Requirements

1. This permit is null and void if the site conditions are found to be different or are changed from those shown on the application or permit.
 2. It is the owner's and builder's responsibility to ensure that the house and/or structures are located such that this lot and all neighboring properties meet the setback requirements to existing or proposed wells and/or drainfields. If a water supply is located within 200 feet of the proposed house site, please contact the Health Department for setback verification.
 3. If wells, springs, cisterns, pit privies, septic tanks, cesspools, drainfields, underground storage tanks or other pollution sources or pertinent features are discovered within 200 feet of the proposed installation, but are not shown on the survey sketch, please contact the Health Department immediately. **DO NOT** proceed with construction until, or unless, clearance is granted by the Health Department.
 4. All contractors must be licensed by the Loudoun County Health Department to install sewage disposal systems. Contractors not yet licensed by the Loudoun County Health Department must be interviewed by a Health Department staff member prior to start of work.
 5. Sewage disposal system installation and repair areas must not be physically altered (vehicular traffic, cutting, filling, compaction, etc.) prior to system installation. Protect drainfield and reserve areas from compaction - flag or rope off as required.
 6. All drainfield components must be a minimum of 20 feet from a house with a basement and 10 feet from a house with a crawl space.
 7. All unused ports on concrete septic tanks and distribution boxes must be purged flush with original exterior surfaces.
 8. The drainfield must be installed on contour on original grade. **DO NOT** install the drainfield during wet weather.
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General Sewage System Installation Requirements continued...

9. All roof drainage must be diverted away from drainfield.
 10. Contact the Health Department if there are **ANY** questions regarding system location or design.
 11. A satisfactory Health Department inspection is required for all system components prior to backfilling any and all portions of the drainfield.
 12. A reinspection fee is required prior to scheduling reinspection's (exception; reinspection that is necessary for incomplete electrical pump components).
 13. The Health Department reserves the right to conduct future inspections of the complete sewage disposal systems for the purpose of determining if the system is being operated and maintained in a sanitary manner.
 14. Any part of the sewage disposal system (including building sewer and conveyance line) must maintain a minimum of 10 feet from all the water lines. If the water line must cross the sewer line or conveyance line, it must be constructed in accordance with the applicable BOCA codes.
 15. A permit issued by this Health Department is for a Health Department permit only, all other County regulations, ordinances, procedures, and policies must be met.
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General Sewage Pump System Requirements (if Applicable)

Pump Chamber

Pumping station wet wells must be sized to allow one-quarter day storage above the high-level alarm point. An access manhole terminating above the ground surface must be provided.

Pumps

All pumps must be of the open-faced centrifugal type designed to pump sewage. Pumps must have a minimum capacity of 36 gallons per minute at a system head per 1,200 linear feet of percolation piping. Suitable shutoff valves must be provided on the discharge line. A check valve must be placed on the discharge line between the pump and the shutoff valve. When the pump discharge is at a lower elevation than the high liquid level in the pump station, an anti-siphon device must be provided. Pumps must be installed so they can be removed for servicing without having to de-water the pump chamber.

Pump Controls

Pumps must be provided with controls for starting and stopping the pump based on the water level. It is preferred that float type controls with separate on and off floats be used. Float controls must be placed so as to be unaffected by flow entering the wet well. The electrical motor control center must be placed in a secure location above grade and must be remote from the pumping station. Normally, this is in the house or building being served by the sewage disposal system. The motor control center must be equipped with a master disconnect switch and a manual override switch. All electrical connections at the pump station must be hardwired, above grade, in a watertight NEMA 4X electrical box and mounted on the outside of the pump chamber access port.

Pump Alarms

Each pump chamber must be provided with a high-water level alarm. **THE ALARM CIRCUITRY MUST BE ENTIRELY SEPARATE FROM THE MOTOR CONTROL CIRCUITRY** (Wired to a separate breaker). Alarms must be audio/visual and must be mounted in an area where they can be easily monitored. All alarms must be hardwired so they cannot be accidentally unplugged.

It is the responsibility of the system installer to ensure that the appropriate system components and adequately sized pump be installed. The pump specification sheet included with this permit must be completed by the contractor or pump dealer and must be submitted along with an appropriate pump curve at the time of the final system inspection.

Disclaimer

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Septic Tank Abandonment Guidelines

1. All abandonment procedures must be witnessed by the Loudoun County Health Department staff, except pumping the tank.
 2. The existing septic tank must be pumped by a licensed and bonded septic hauler. (A list can be provided by this office by calling (703) 777-0234).
 3. The empty septic tank is to be limed with 40 pounds of hydrated lime, crushed (the top and one side at a minimum) and filled with a clean compactable fill material. If the empty tank must be removed, it must be properly disposed of. This department does not recommend offsite disposal of tanks.
 4. If the structure is to be constructed over the old tank location, a structural engineer should be contacted concerning bearing loads involved. This office cannot address future settling and gaseous vapor issues that may be involved with abandoned septic tanks.
 5. Ensure that ALL plumbing exiting any structures have been permanently disconnected and reconnected to public sewer facilities.
 6. It is the responsibility of the owner/contractor to call this department for the proper inspections listed above. 48-hour advance notice is required.
 7. In certain circumstances, pump chambers, privies and cesspools are to be abandoned. They must be pumped out (to the greatest extent possible) and abandoned as previously described. This department must also witness these abandonments.
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