

## **FRENCH DRAINS**

A French Drain is nothing more than a time-honored system for eliminating excess water. In essence, they are typically trenches filled with gravel and a 4" perforated PVC drain pipe. This department often recommends that French drains be installed for homes that have a septic system and a water softener with no storm sewer availability.

Water softener discharge is predominately composed of brine (salt). If this discharge is continuously put into a septic tank two potential risks are eminent:

- High brine discharge can disrupt the natural bacterial action within a tank which is required for the normal breakdown of septage.
- High brine levels can damage (pit) the concrete of the septic tank and distribution box leading to premature failure and costly replacement.

## **BASIC INSTALLATION INSTRUCTIONS**

### **HORIZONTAL FRENCH DRAIN**

1. Locate a desirable area. Choose an area that is at least 10' from any area of the sewage system. Choose an area not prone to seasonal pooling or ponding.
2. Dig a trench. The depth and width can vary depending on your soil type. A typical trench is 12"-24" wide and 12"-24" deep and 10'-15' long.
3. Add approximately 2" of stone/gravel (1" or larger) to the bottom of the trench (leach field stone is often used).
4. Install a 4" piece of perforated PVC with holes pointing down to allow for proper drainage and prevent clogging.
5. Add stone/gravel to the trench within a few inches of the surface. A layer of straw can be placed over the stone/gravel to protect the lower layers from getting plugged with silt or sediment.
6. Backfill the trench with 4"-6" of course sand or quality topsoil. Cover with grass if preferable.

### **VERTICAL FRENCH DRAIN**

1. Locate a desirable area. Choose an area that is at least 10' from any area of the sewage system. Choose an area not prone to seasonal pooling or ponding.
2. Obtain a piece of PVC between 6"-12" in diameter and approximately 18"-24" long. Drill holes ¼" around the entire perimeter of the pipe.
3. Excavate a hole at least 2"-4" larger than the diameter of the pipe you are using.
4. Add approximately 2" of stone/gravel (1" or larger) to the bottom of the trench (leach field stone is often used).
5. Insert your pipe into the opening and fill the remaining annular space between the soil and the pipe with stone/gravel to within a few inches of the surface.

6. Backfill the trench with 4"-6" of course sand or quality topsoil. Cover with grass if preferable.

**NOTES:**

- Make sure that the pipe extends a minimum of 6" above grade with a secured cover. Drill a 1/2" hole in the top of the pipe to release the pressure.
- Make sure that the discharge line from the water softener is secure as it enters the drain tile. Spray on foam sealant is recommended.

**REMINDER:**

- Before you dig call OUPS (Ohio Utilities Protection Services) at 1-800-362-2764

Although this project is fairly simple to do, it can require a lot of work. Problems may be encountered such as tree roots, large rocks or underground utilities. Proper grading, pipe sizing, installation, soil conditions and other factors can make or break a drain system. For this reason, you may want to consider hiring a contractor. Please remember that although no permits are required, inspections are always encouraged to assure proper completion of the job and to allow our records for your property to be updated.

If you have any questions please feel free to contact your area Sanitarian at 419-213-4100 Ext #3.