



Wet Basements

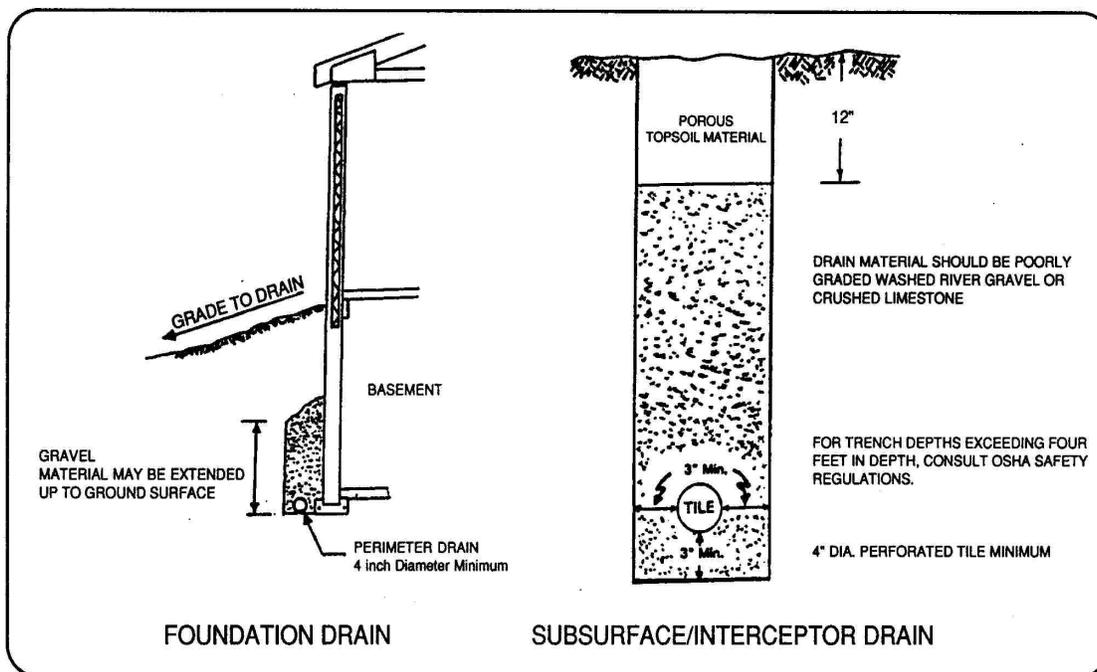
Water generally enters a basement through the basement wall, or through the joints between the basement wall and the basement floor.

If water is entering through the wall the problem may be; 1) a crack in the wall, 2) the parging (exterior mortar coat) or waterproof seal could be cracked, too thin, missing or a combination, or 3) the footer drains may be inadequate, missing or blocked.

To check for cracks in the wall and the parging, expose the exterior wall where the most severe interior leakage is taking place. You can make spot repairs to the parging or if the parging or waterproof seal is missing and the leakage is widely distributed, consult a contractor who specializes in wet basements. Be sure that the exterior surface grading is taking the water away from the wall before you proceed.

If water is entering through the joint between the wall and the basement floor slab, or through cracks in the floor, water is under pressure beneath the floor. Foundation drains relieve this pressure. If you have water along or beneath the basement floor, your home either does not have footer drains or they are not functioning properly. In most cases, the exterior wall will require excavation at the floor to install a drainage system with a pump pit and pump to remove the water collected. Then a functioning drain must be installed.

Check the figure below for an idea of what drains should look like beneath your house.



FOUNDATION / SUBSURFACE DRAINAGE

Control of external water around and beneath a house is essential. Mildew, fungi and wet insulation can occur when surface water saturates the ground around and under a house. Techniques that will reduce external water problems are:

- A functioning lot drainage system
- Properly installed and maintained gutters, downspouts and drains that convey water away from the structure
- A waterproofed foundation wall with properly installed footer drains
- A properly installed subsurface drain tile below the basement floor or slab, and outlet into a sump pump to convey the water away from the house.

A seasonal high water table can be another common cause of poor drainage. The water table, or level below which the soil is saturated with water, may fluctuate by several feet annually depending on soil, topography and weather. Some soils have very high seasonal water tables which are near the ground surface. Typically, the wettest time of the year is winter and early spring.

If a seasonably high water table is already creating difficulties for your home, possible remedies include installing drains around the outside walls or beneath the basement floor. Special care should be taken in lowering the water table under the basement floor because unequal settlement on some soils, especially slow-draining silts and clays, may crack the walls and floors.

In some situations, the lowest floor level may be lower than the closest proper drainage outlet. A sump pump and pit will then be needed to lift the water up to a proper outlet. Since this type of system needs electricity to operate, it is advised that a battery backup system be installed in the sump pit if inside the basement or crawl space. Building code requires sump pump and pit to be installed inside the house.

Other Important Notes

- For a better understanding of how water moves, please see our Rainwater, Surface Drainage and Subsurface Drainage conservation sheets.
- This is for background information, please contact a qualified technician or contractor for project design and implementation.
- Please check out a Franklin County Soil Survey to figure out your soil type and what you need for your property. These can be found at Franklin SWCD office, online at www.franklinswcd.org or at certain public libraries.



1404 Goodale Boulevard, Suite 100
Columbus, OH 43212
(614) 486-9613
www.franklinswcd.org