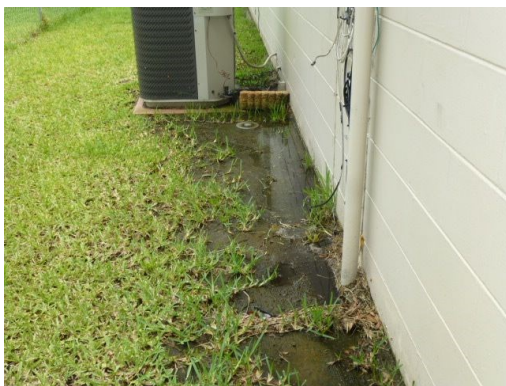


NEWS FROM: The Region's One-stop Professional Claims Support Engineers

Water Infiltration in Basements

The causes of water infiltration are numerous, but are typically related to the immediate grading and drainage around homes. Water infiltration can result in damage to structural elements of the home and health issues resulting from biological growth under structural basement floors or in the wall cavities of finished basements. Storage items could also be damaged by water exposure, resulting in property loss.

Our firm has observed numerous sites where the grading adjacent to homes was flat or negatively sloped toward the structures. This is a serious defect resulting in serious claims. The Uniform Building Code (UBC) states "Provisions shall be made



for the control and drainage of surface water around buildings." In addition to this requirement, the UBC requires a minimum slope of 6 inches in the first 6 feet adjacent to the foundation. During construction, the grading adjacent

to the home is often installed to slope away from the home, but as the backfill settles, the grading becomes flat to negative. The grading should be installed with enough slope, that even after settlement, there is still positive grading away from the home.

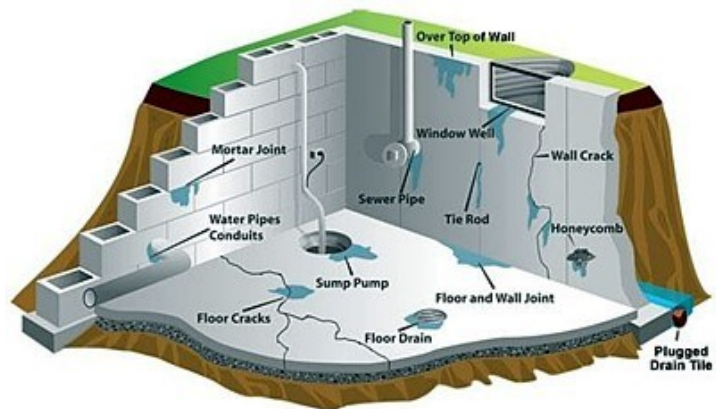
Wet and saturated soil adjacent to foundation walls is typically a result of several factors including:

- Improper roof drainage
- Poor surface drainage
- Window well problems
- Inadequate foundation drains



In most cases, grading adjacent to the home is the leading cause of the problems. Grading problems and the resultant water infiltration may result in insurance claims arising from:

- Basement slab movement and damage to finish systems
- Biological growth and high humidity under structural floors
- Wood rot and structural failure of structural floors
- Damage to finish materials such as carpet and drywall
- Inward foundation wall movement and cracks from increased hydrostatic pressure on foundation walls
- Exterior concrete flatwork (porches and sidewalk) movement (heave or settlement) as a result of water infiltration into the backfill



In order to prevent water infiltration into basements and damage from water adjacent to the foundation walls:

- Install and maintain a good gutter and downspout system
- Provide positive slope away from the foundation in accordance with all governing building codes and engineering recommendations
- Keep landscape irrigation away from the foundation walls
- Provide proper perimeter drains around the foundation walls

For a small upfront investment by the builder that allows for proper drainage, maintenance, accessibility and redundancy, many damages and subsequent claims can be avoided. Homeowners and contractors must work together to prevent water from adversely affecting the home.

For more information on KPE, please visit our website www.kpe-inv.com.