

Recognizing The Effects of Extreme Weather Cycles

Water. Heaven knows we have had plenty of it so far this year! It is mid-summer, and with some amount of rain almost every week throughout the spring, we are already at our average yearly rainfall. Lawns are lush and green, but what unseen issues are lurking from this excess moisture?

Much of the soil in this area has a high composition of clay which is termed an "expansive soil." Too much water causes the soil to swell exerting pressure, not enough water causes the soil to shrink as it did last summer, resulting in potential foundation shifting issues from differential movement due to variations in soil moisture. Cracks appeared where they had not been before or hairline cracks opened up allowing water to enter your basement as the rains began in the fall.

The effects of excess moisture are most evident in houses with block foundations or built on a slab where heaving can occur. The hydrostatic pressure and soil swelling will lift slabs and bow block walls. As we move to summer and what some predict as a repeat of last year of warm and dry, there are steps you can take to minimize the shifting.

An important step is to maintain the

moisture level with a watering program that begins well before the cracks from drought appear in the soil. A soaker hose about 3 feet from the foundation seems to work best at keeping the soil moist all year long. Another item to consider that impacts the soil moisture is the vegetation around your home. Trees with shallow roots systems remove a lot of water from the soil, so either don't plant them close to your home or be prepared to keep the area well watered. It is also important to have proper drainage away from your foundation. All gutter downspouts should either be piped underground well away from the house or if above ground they should discharge at least 4 feet from the foundation.

Also critical is the grade around your foundation.

Water should never be allowed to pocket along the foundation which can create the excess moisture condition.

Periodically, check after a heavy rain-storm to insure you do not have standing water.

What are some of the signs to look for that might indicate you have a foundation problem? The obvious ones are gaping cracks in foundation walls, cracks in bricks and mortar, doors that won't open and close and diagonal cracks projecting from the corners of windows and doors.

Other damage such as cracked ceramic floor tiles and plaster cracks can be signs of foundation problems but could also be just cosmetic damage.

If you have any of these concerns, I would recommend involving a structural engineer before determining if it is a foundation problem and how to best resolve the issue.

Also keep in mind that foundation repair and waterproofing are different technologies. The solution to a problem many times is a combination of the two and determining which to do first. Using a quality contractor for this kind of work is critical to the outcome. Quality doesn't mean the most expensive either. Experience and reputation are better qualifiers.

If you need help finding a good structural engineer, foundations repair contractor or waterproofing contractor, don't assume that the phone book's Yellow Pages are your best answer. Do some research, check references, and consider using a reputable referral service to find the right vendor to meet your needs. Jim Bextermueller is an Indian Hill resident specializing in contractor referral services. For more information, readers can contact him at: HomeServicesLink 513-271-1888 or 1-800-560-1545 www.homeserviceslink.com www.linkedin.com/in/homeserviceslink