

# Foundation Damage and Expansive Soils

The Village of Lincolnshire, as with much of Lake County, is afflicted with certain geological conditions that can cause significant structural damage to a home and its foundation.

Our clay soils with high plasticity and extreme ground water fluctuations lead to the ideal situation for cracking and settling of concrete foundations.

During our hot dry summers, clay soils will dry and contract leaving visible indicators on bare ground. The gaps and voids left by this contracting soil can leave spaces for settling and differential movement of concrete foundations.



Since concrete and masonry are not flexible, visible cracking can occur where the foundation settles into these voids.

During our wet springtime weather and seasonal flooding conditions the clay soil will absorb moisture and expand like a sponge. As the soil expands, forces of several thousand pounds per square foot are possible. This expanding soil can push foundation walls in causing bowing, cracking, and leaking.

Despite the best design intentions, it can sometimes be necessary to apply remediation techniques to repair structural damage, and/or prevent further damage.



Resistance piers are a common method of stabilizing or raising a sinking foundation.

Tie-backs, or horizontal anchors, can be used to stabilize foundations pushed in by expansive soil.



The Village processes building permits for several of these types of projects each year. There are multiple contractors who provide these services, and the village recommends contacting at least two or three contractors for estimates prior to signing a contract.

As with hiring any company to perform work on your home, we recommend asking the contractor for a list of local references. Take advantage of the provided references by contacting previous customers for their opinion of the contractors work.

If you have any additional questions related to foundation repairs, contact Mike Jesse, building official at 847-913-2318, or [mjesse@lincolnshireil.gov](mailto:mjesse@lincolnshireil.gov)