



COUNTY OF LOUISA, VIRGINIA Shrink / Swell Soil Policy

2012 Virginia Uniform Statewide Building Code – Effective date July 14, 2014

Referenced Codes: 2012 Virginia Residential Code and 2012 Virginia Construction Code

R401.4 Soil Tests: Where quantifiable data created by sound soil science methodologies indicate expansive, compressible, shifting or unknown soil characteristics are likely to be present, the building official shall determine whether to require a soil test to determine the soil's characteristics at a particular location. This test shall be made by an approved agency using an approved method.

R403.1.8 Foundations on Expansive Soil: Foundation and floor slabs for buildings located on expansive soils shall be designed in accordance with Section 1808.6 of the **International Building Code**

Section 1803.1 General: Geotechnical Investigations shall be conducted in accordance with Section 1803.02 and reported in accordance with Section 1803.6. Where required by the "building official" or where geotechnical investigations involve in-situ testing, laboratory testing or engineering calculations, such investigations shall be conducted by a "registered design professional".

Section 1803.03 Basis of Investigation: Soil Classifications shall be based on observation and any necessary tests of the materials disclosed by boring, test pits or other subsurface exploration made in appropriate locations. Additional studies shall be made as necessary to evaluate slope stability, soil strength, position and adequacy of load-bearing soils, the effect of moisture variation on soil-bearing capacity, compressibility, liquefaction and expansiveness.

Section 1808.6 of the International Building Code: Foundations for buildings and structures founded on expansive soils shall be designed in accordance with Section 1808.6.1 or 1808.6.2 for Commercial and or Residential Construction

The following tax map pages represent areas that are designated as probable areas of Moderate to High shrink/swell soils.

If your land is in these designated tax map areas, you will need to consult a Soil Scientist and include that report when applying for a building permit. If the report confirms

shrink/swell, an engineer's design for footings and foundation shall also accompany the application for the building permit.

Tax Maps designated with areas of moderate to high shrink swell capacities are:

**10, 17, 21, 22, 36, 37, 38, 42, 45, 46, 47, 51, 53, 54, 55, 56, 61, 63, 67, 73, 74, 83,
84, 88, 89, 97**

Disclaimer:

Any parcel may or may not have unstable soils. All parcels are subject to testing if it is determined to be an issue during an inspection.

**Paul R. Snyder
Building Official**

Created 05/11/2006
Revised 08/15/2019