When Soil Investigation Reports are Required

Purpose:

To establish a policy, in order to clarify when a soils investigation report is required.

Background:

The California Building Code (CBC) states: “The classification of the soil at each building site shall be determined where required by the building official.”

Policy:

A: Bearing Pressure
B: Expansive Soils within Subdivisions
C: Excavations

Bearing Pressure

A: A soil investigation report, prepared by a licensed civil or geotechnical engineer, is required to be submitted for all new buildings and additions, unless the allowable soil pressure used in the foundation design is 1,500 psf or less. Allowable soil pressure over 1,500 psf but not exceeding 3,000 psf may be accepted by Building Inspection when the foundation design is accompanied by a letter prepared and signed by a registered civil or geotechnical engineer. The letter must indicate that the engineer has examined the soil and that the class of the soil, based on their observation, is 3, 4 or 5 as defined in the current CBC ‘Presumptive Load Bearing Values Table.

Expansive Soils within Subdivisions

B: In subdivisions and individual lots within subdivisions, Section 66426 of the California Government Code requires that a preliminary soil investigation report be prepared when expansive soil conditions exist. LDSIR shall provide a copy of the preliminary soil report to Building Inspection when a subdivision is created containing five or more lots. If the preliminary soils report indicates that the expansion index is greater than 20 or other soil irregularities exist, a soil investigation report for each individual lot within the subdivision shall also be performed. Building Inspection shall flag each lot within the subdivision for special inspections. Section 17954 of the California Health and Safety Code requires that a civil engineer licensed by the State of California to prepare the soil investigation report. The report may be based upon either observation of trenching and/or testing of materials. It shall recommend corrective action which is likely to prevent structural damage to each dwelling proposed to be constructed on the expansive soil. Prior to approval of the plans, a stamped and signed letter from the project engineer shall be provided to Building Inspection stating that the approved recommended action of the soil report has been incorporated into the design of each dwelling. Prior to approval of the foundation, Special Inspection shall be performed by observation and/or any necessary tests of materials disclosed by borings or excavations made within the buildable area of each lot. Verification of observation and testing shall be presented to Building Inspection field staff prior to placement of any concrete. Any corrective actions shall be made and approved by the engineer of record, and if needed, by Building Inspection plan review staff, prior to placement of any concrete.

Excavations

C: Slope cuts exceeding 1 unit vertical in 2 units horizontal shall require a soil engineering or engineering geology report as per CBC.

Note: All soil investigation reports over three years old will require a letter from the geotechnical or civil engineer stating that the report is still valid.