Exception: A liquefaction study is not required where the building official determines from established local data that the liquefaction potential is low.

J104.5 Geophysical Study. When, in the opinion of the *building official* site conditions suggest a potential for subsurface voids, fractures or caves which could impact proposed structures, a geophysical study shall be performed and submitted to the municipality for approval prior to issuance of a grading permit.

SECTION J105 INSPECTIONS

J105.1 General. Inspections shall be governed by Section 109 of this code.

J105.2 Special inspections. The special inspection requirements of Section 1704.7 shall apply to work performed under a grading permit where required by the *building official*.

SECTION J106 EXCAVATIONS

J106.1 Maximum slope. The slope of cut surfaces shall be no steeper than is safe for the intended use, and shall be no steeper than two units horizontal to one unit vertical (50-percent slope) unless the owner or authorized agent furnishes a geotechnical report justifying a steeper slope.

Exceptions:

- 1. A cut surface shall be permitted to be at a slope of 1.5 units horizontal to one unit vertical (67-percent slope) provided that all of the following are met:
- 1.1. It is not intended to support structures or surcharges.
- 1.2. It is adequately protected against erosion.
- 1.3. It is no more than 8 feet (2438 mm) in height.
- 1.4. It is approved by the building code official.
- 1.5. Ground water is not encountered.
- 2. A cut surface in bedrock shall be permitted to be at a slope of one unit horizontal to one unit vertical (100-percent slope).

SECTION J107 FILLS

J107.1 General. Unless otherwise recommended in the geotechnical report, fills shall comply with the provisions of this section.

J107.2 Surface preparation. The ground surface shall be prepared to receive fill by removing vegetation, topsoil and other unsuitable materials, and scarifying the ground to provide a bond with the fill material.

J107.3 Benching. Where existing grade is at a slope steeper than five units horizontal to one unit vertical (20-percent slope) and the depth of the fill exceeds 5 feet (1524 mm) benching shall be provided in accordance with Figure J107.3. A key shall be provided which is at least 10 feet (3048 mm) in width and 2 feet (610 mm) in depth.