

عنوان مقاله:

Evaluation of unsaturated soil behavior based on consolidated-drained and constant water content tests results

محل انتشار:

نهمین کنگره بین المللی مهندسی عمران (سال: ۱۳۹۱)

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خلاصه مقاله:

The surficial soils in the majority of Iran's region are in unsaturated state, having negative pore-water pressure, which contribute to their strength. The main aim of this study is to investigate the effect of matric suction, net confining pressure and drained condition on the shear strength and volume change characteristics of silty sand. The shear strength and volume change behavior of soil, were studied in this work using triaxial compression tests including; consolidated-drained (CD) and constant water content (CW). The test results indicate that the matric suction has an important role in the mechanical behavior of soil. Also the shear strength of the compacted specimens obtained from the CW tests are completely different from the shear strength obtained from the CD tests for same initial matric suctions and confining pressures

کلمات کلیدی:

Unsaturated soil, Silty sand, Shear resistance, Matric suction, Volume change

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