

Effect of Base Course Layer on Load-Settlement Characteristics of Sandy Subgrade Using Plate Load Test

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Abstract : The present research has been performed to investigate the effect of base course application on load-settlement characteristics of sandy subgrade using plate load test. The main parameter investigated in this study was the subgrade reaction coefficient. The model tests were conducted in a 1.35 m long, 1 m wide, and 1 m deep steel test box of Imam Khomeini International University (IKIU Calibration Chamber). The base courses used in this research were in three different thicknesses of 15 cm, 20 cm, and 30 cm. The test results indicated that in the case of using base course over loose sandy subgrade, the values of subgrade reaction coefficient can be increased from 7 to 132 , 224 , and 396 in presence of 15 cm, 20 cm, and 30 cm base course, respectively.

Keywords : modulus of subgrade reaction, plate load test, base course, sandy subgrade

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