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Punching Shear Behavior of RC Column Footing on Stabilized Ground

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Abstract : An experiment on the punching of RC column footing, comparison of test result to established different codes for punching shear calculation of column footings is presented in the paper. The principal aim of this study is to investigate the punching shear behavior of an isolated column footing using brick aggregate as coarse aggregate. Consequence, a RC model footing was constructed on a stabilized soil and tested the footing under field condition. The test result yields that the experimental punching shear capacity is greater than all the theoretical punching shear capacities obtained by using different codes of practices. It can be stated that BNBC 1993, as well as ACI 318, 2002 code formulae are very conservative in predicting the punching shear resistance of RC footing, whereas the CEB-FIP MC, 1990 formula and Eurocode2 formula are less conservative in predicting the punching shear resistance of footing.

Keywords : footing, punching shear, field condition, stabilized soil, brick aggregate
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