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Circular Raft Footings Strengthened by Stone Columns under Static Loads

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Abstract : Stone columns have been widely employed to improve the load-settlement characteristics of soft soils. The results of two small scale displacement control loading tests on stone columns were used in order to validate numerical finite element simulations. Additionally, a series of numerical calculations of static loading have been performed on strengthened raft footing to investigate the effects of using stone columns on bearing capacity of footings. The bearing capacity of single and group of stone columns under static loading compares with unimproved ground.

Keywords : circular raft footing, numerical analysis, validation, vertically encased stone column
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