

Numerical Static and Seismic Evaluation of Pile Group Settlement: A Case Study

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Abstract : Shallow foundations cannot be used when the bedding soil is soft. A suitable method for constructing foundations on soft soil is to employ pile groups to transfer the load to the bottom layers. The present research used results from tests carried out in northern Iran (Langarud) and the FLAC3D software to model a pile group for investigating the effects of various parameters on pile cap settlement under static and seismic conditions. According to the results, changes in the strength parameters of the soil, groundwater level, and the length of and distance between the piles affect settlement differently.

Keywords : FLACD 3D software, pile group, settlement, soil

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