An Evaluation Method of a Seismic Performance of Pier Structure Deeply Embedded in the Soil

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In evaluation of a seismic performance of pier which is deeply embedded in the soil, the covered soil affecting the dynamic behavior of the pier should be properly taken into consideration. In this paper, we conducted numerical simulations to clarify the effect of the covered soil. As a result, we confirmed that its effect on the structure can be classified as two factors: restriction and action. In addition, we proposed a new evaluation method for a seismic performance of a pier structure considering those effects for seismic design.