



C O N F E R E N C E

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San Francisco, CA**



Friday, June 5, 2015 at 8:30am

FEATURED SPEAKER

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**EFFECTIVE PLANE ARRANGEMENT OF DEEP MIXING PILES
TO RESIST LATERAL FLOW OF LIQUEFIED GROUND**

The method in this study, in which cement-treated piles are installed into the ground to decrease the amount of liquefied lateral flow, has been studied. The authors are also investigating the most effective arrangement of piles to optimize cost-effectiveness. In their investigation, they propose shifting the position of the piles to prevent lateral flow in various directions. The present study conducted centrifuge model tests to clarify the improvement effect of piles against the lateral flow of liquefied soil and the effect of the pile arrangement. Then, numerical fluid analyses were conducted to consider the improvement mechanism. As a result, the model tests and numerical analyses showed that the pile improvement dramatically reduced the lateral displacement and that the average total flow velocity decreased in the irregular case.

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