



CONFERENCE

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FEATURED SPEAKER

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**CORRELATION BETWEEN UNDRAINED SHEAR STRENGTH
IN DRY DEEP MIXING COLUMNS AND UNIMPROVED SOFT
SOIL**

This paper describes the testing procedure (or protocols) for quality control of dry deep mixing columns in a major ground improvement project carried out in Sweden. Quality control was mainly based on column penetration tests performed at different stages in the project and on two occasions after installation. In the paper, the results from the tests are compared with tests on the unimproved clay. As expected, the results show that the correlation between undrained shear strength in the columns and in the unimproved soft soil depends mainly on the in-situ stress. However, the correlation probably depends on when the tests were performed after mixing. When the influence of the in-situ stress was excluded from the analysis, no significant correlation could be identified. This means that the undrained shear strength in the columns and in the unimproved soft can be considered to be uncorrelated when the strengths and the corresponding variability are evaluated with depth from groups of tests.

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