

11. Evaluation for Profile and Quality of Soil Improvement Body by Electrical Resistivity Tomography

Tomoaki Shimizu, Kazutoshi Imaizumi, Tetsuaki Takabatake, Kazuhiko Kurata

Electrical resistivity tomography was used as a method for confirming the two-dimensional profile and the quality of soil improvement carried out as a measure of liquefaction. In each step of the chemical grouting, analytical results indicated that resistivity in the region corresponding to the grouted zone was decreasing. Upon completion of the chemical grouting, comparison was made with the results of grout component analyses of boring cores taken to check on the quality of the soil improvement body. The comparison results confirmed that the region in which resistivity had decreased had been successfully grouted. These results showed that the two-dimensional profile and the quality of soil improvement can be identified by electrical resistivity tomography.

Key words : electrical resistivity tomography, chemical grouting, liquefaction, visualization