Arch action Low Improvement ratio Cement Column

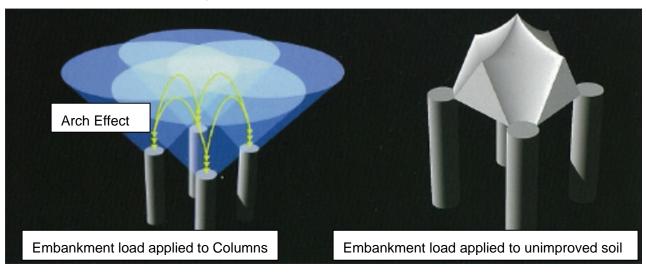
ALICC

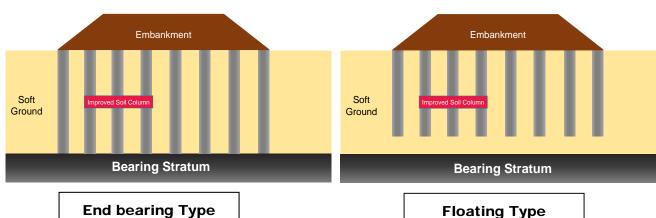
Outline of ALiCC

ALiCC(Arch action Low improvement ratio Cement Column) is the new soil improvement method for Reduction of the consolidation settlement under the Embankment foundation, which is possible to minimize the cost and construction period due to reduction of the ratio of improvement compare with the conventional technology.

Arch effect

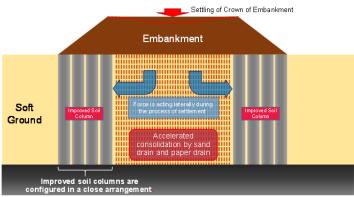
ALiCC is the method which can control the settlement of embankment with low ratio of improvement according to the consideration of Arch effect, compare with the conventional technology.





Comparison with Conventional Method

Conventional Method



ALICC Method

Due to the arch effect, embankment loads are distributed to the improved soil columns

Embankment

Column

Bearing
Stratum

Improved soil columns are evenly spaced immediately beneath the embankment.

Soft ground measures by DMM used conventionally is usually a form to improve as to both sides of the embankment foundation intensively like an upper figure. However, in a conventional improvement form, big pushing power occurs under the embankment which foundation is unimproved with loading. There were problems that the displacement to the sides occurred in the embankment outskirts due to the improved columns were pushed outward by this.

By improving the foundation of embankment overall, as a result the consolidation settlement can be reduced even though the ratio of improvement is low. Therefore, the displacement of the embankment outskirts can be restraint by it.

Settlement varied per month

