

Title (en)
RAPID CONSOLIDATION AND COMPACTION METHOD FOR SOIL IMPROVEMENT OF VARIOUS LAYERS OF SOILS AND INTERMEDIATE GEOMATERIALS IN A SOIL DEPOSIT

Title (de)
SCHNELLES KONSOLIDIERUNGS- UND VERDICHTUNGSVERFAHREN ZUR BODENVERBESSERUNG VERSCHIEDENER SCHICHTEN VON BÖDEN UND GEOZWISCHENPRODUKTEN IN EINEM BODENDEPOT

Title (fr)
PROCÉDÉ DE CONSOLIDATION ET DE COMPACTAGE RAPIDE POUR L'AMÉLIORATION DU SOL DE DIVERSES COUCHES DE SOLS ET DE GÉOMATÉRIAUX INTERMÉDIAIRES DANS UN DÉPÔT DE SOL

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- US 202017075244 A 20201020
- US 202017090858 A 20201105
- US 2020061495 W 20201120

Abstract (en)
[origin: WO2021262223A1] The rapid consolidation and compaction method comprises (i) first driving a hollow pipe, (ii) driving a pipe with a removable end plate after filling and compacting the sandy material in it, through the hollow pipe, to required depth, creating high excess pore-water pressures in the range of 50 to 300 KPa in clayey soils, (iv) pulling out the pipe section leaving behind the removable end plate and thereby installing porous displacement piles which allows dissipation of the excess pore-water pressures horizontally to the porous displacement pile, in which the excess water flows out vertically to the ground surface, and (v) the length of the drainage path is reduced to half the spacing between adjoining porous displacement piles, allowing rapid consolidation resulting in increase in density. Installing the porous displacement piles in the layer of loose to medium dense sand layer results in the instantaneous increase in its density.

IPC 8 full level
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