



Soft Soil Improvement on Gateway Upgrade Project

Location: Australia

Application: Soft Soil Improvement



Problem :

The Gateway Upgrade Project including duplication of the existing Gateway Bridge river crossing, lanes additions and widening. Many of the constructions sat on the flood plain area of the Brisbane River. The flood plain was comprised by soft and saturated deposits



Solution :

Layers of high tensile strength PET woven geotextile, ACETex[®], were installed over the granular working platform and drainage layer or above the top of columns. One or more layers of geotextile placed between top of columns comprised a load transfer platform. The load from the embankment must be effectively transferred to the columns to prevent punching of the columns through the embankment fill creating differential settlement at the surface of the embankment. When the columns were placed close enough together, soil arching would occur and the load would be transferred to the columns also.

The use of innovative combination is getting widely adoptable. The duration of settlement and consolidation are shortened substantially; the stability and load carrying capacity are raised significantly.

This is an efficient, beneficial method for road embankment constructed on soft foundation.