

Yard Upgrade at PTSC MC Yard

Vung Tau City, Vietnam

Keller's proposed Ground improvement solution, Vibro stone columns enabled an early start of mechanical structure construction enabling our client to accelerate their program.



The project

PTSC MC yard upgrading project is intended to increase the existing capacity for fabrication of offshore oil & gas structures. Part of the upgrade was the enhancement of the working platform to allow safe use of heavy crawler cranes.

The challenge

The soil in the area comprised of about 1m of well compacted sandy gravel, followed by 4m of medium dense silty sand and another 8 m of soft marine clay. This was underlain by firm to stiff sandy clay.

The solution

Keller designed and built a foundation system for this upgrade. Stone columns were installed in very soft clay and geogrids were laid to improve 12,000 m² of working platform. For a loading of 500kPa, the settlement criterion is less than 100 mm in the short term and less than 250 mm in the long term. As part of the optimization process, two layouts were proposed for different soil conditions and requirements. A 950T load test was also carried out on a specially designed plate for each layout to simulate the crane track.

Project facts

Owner(s)

PTSC Mechanical & Construction

Keller business unit(s)

Keller ASEAN

Main contractor(s)

Keller ASEAN

Solutions

Bearing capacity / settlement control

Markets

Infrastructure

Techniques

Vibro stone columns

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