

Resorts World Sentosa Reclamation

Sentosa Island, Singapore

Keller provided cost effective design and build solution to client . Our suitable machine type mobilized, enabling easy movement on site and timely completion



The project

Resorts World Sentosa built an integrated resort in Sentosa Island, Singapore. Part of the development required reclamation of approximately 64,000 square meters at the northern part of the island.

The challenge

The excavated soil from the Casino basement area was used to reclaim two pieces of land at the waterfront. As the soil was placed in wet conditions, the ground was very soft and required strengthening for future development.

The solution

Keller proposed Deep Soil Mixing for the reclamation fill and soft clay. The works were installed using a combination of twin-shaft and single shaft hydraulic mixing units. The columns were terminated on a stiff silt layer. A total of 20,000 DSM columns were constructed with columns lengths between 5m to 14m. Plate load tests were also carried out on constructed columns at working load where it showed settlement less than the specified maximum settlement.

Project facts

Owner(s)

Resorts World Sentosa

Keller business unit(s)

Keller ASEAN

Main contractor(s)

McConnell Dowell South East Asia Pte Ltd

Solutions

Bearing capacity / settlement control

Techniques

Wet soil mixing

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