

Project Title : 19-STOREY RESIDENTIAL APARTMENT TOWER AT NO. 3 MEYER PLACE

Owner : Meyer Development Pte Ltd

Architect : HUAY Architects

Engineer : DE Consultants Pte

Client : Zap Piling Pte Ltd (Management Contractor : Bovis Land Lease Pte Ltd)

Contract Sum : S\$ 126,530.00

Period : Feb 2007 to Mar 2007

Scope of Works : 15 nos of 700mm diameter bored piles – Length between 52 & 55m

Jack-in spun piles were used for the project originally. However, the works were called off due to substantial soil movement from the jack-in spun pile installation operation which had caused some cracks / heaves to nearby structures.

To prevent further complication / damages to nearby structures, a non vibration casing installation method (by rotary method) had to be deployed.

As there was potential running sand layers below the lower layer soft marine clay, bentonite was used to stabilize this layer.

Sub soil condition : 0 to 7/9m Loose Sand Fill
7/9 to 18/20m Soft Marine Clay
18/20 to 20/25m M Stiff Silty Clay
20/25 to 34/38m Soft Marine Clay
34/38 to 40/43 M Stiff to Stiff Sandy Silt / Silty Clay with occasionally sand lenses
> 40/43m V Hard Clayey Silt / V Dense Sand

Stabilization fluid : bentonite

Major equipment deployed :

- Boring Rig Soilmec R618
- Crawler Crane – 55ton
- Excavator
- Bentonite plant (desander, slurry/water tanks, mixer, pumps, etc)
- Rotary drive adaptor for casing installation

Tools :

- Boring Bucket, Auger, Cleaning Bucket
- Casing lengths 6/7m

Pile Load Tests :

- Kentledge
- PDAs

