

Project Title : PROPOSED RECONSTRUCTION OF BRIDGE AT MOUNTBATTEN ROAD ACROSS GEYLANG RIVER

Owner : Land Transport Authority

Engineer : Fong Consults

Main Contractor : WY Steel Construction Pte Ltd

Contract Sum : S\$ 778,274.00

Period : Jul 2005 to Jun 2007

Scope of Works : 900mm & 1100mm diameter bored piles for Bridge foundation

7 nos Pier piles in Geylang River (with permanent casings)
16 nos Abutment piles beside the river banks

Pile lengths between 50 & 62m

Bentonite to stabilize the running sand layers between 30 & 40m

Pile tests : Osterberg Cell, PDA, Sonic Logging, Sonic Coring & PIT

Sub soil condition : 0 to 5/7m
5/7 to 16/18m
16/18 to 18/22m
18/22 to 30/34m
30/34 to 34/38m
> 34/38m

Fill
Soft Marine Clay
Firm Clay
Soft Marine Clay
Stiff to Hard Silty Clay /
Silty Sand
Very Dense Silty Sand /
Hard Sandy/Silty Clay

Major equipment deployed :
- Boring Rig Soilmec R618 / R16
- Crawler Crane (65 ton)
- Excavator
- Bentonite Plant (Desander, silos, mixer, pumps, water tank, etc)
- Muller MS20 / ICE 416 Vibro

Stabilization fluid : bentonite

Tools :

- Boring Bucket, Auger & Cleaning Bucket
- Casing lengths bet 12 & 20m
- Double wall casing for coring old raft



coring river bed slab/
wall of thickness up to
3m with 1200mm
double wall casing



slab / wall cores by SI rig



slab / wall reinforced concrete cored by boring rig