BOBAE CENTER
Bumrung Muang Plaza

Object
Deep foundations, comprising large bored piles with steel stanchions, barrettes and diaphragm walls for construction of underground car park for the Bobae Center (Bumrung Muang Plaza).

Project Description
5 level basements for car parking. Deep excavation up to –19.10m with diaphragm walls using top-down method.

Type of Work
Foundation Piling and Diaphragm Walling.

Owner
Bumrung Muang Plaza Company Limited.

Main Contractor
Powerline Engineering Public Company Limited.

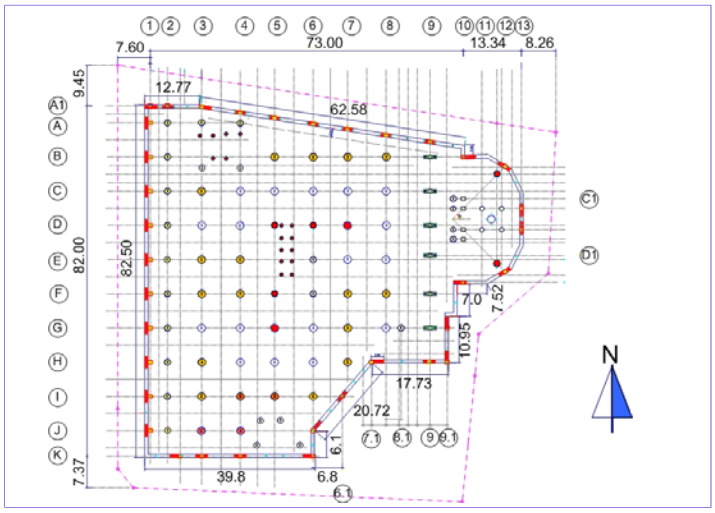
Project Schedule
August 2003– May 2004

Construction Details

Foundation bored pile:	16 (ϕ0.80mx60m)
	4 (ϕ1.00mx60m)
	8 (ϕ1.20mx60m)
	22 (ϕ1.50mx60m)
	2 (ϕ1.65mx60m)
	38 (ϕ1.80mx60m)
Barrette:	40 (0.80mx3.00mx60m)
Stanchion:	74 steel stanchions
Diaphragm Wall:	7,600sq.m. (0.80m thick, 24.00m deep)

Subsoil Conditions

Soft clay:	0.0-11.5m
Medium clay:	11.5-13.5m
Stiff silty clay:	13.5-31.5m
Medium dense sand:	31.5m-37.5m
Hard clay:	37.5m-42.0m
Dense sand:	42.0m-



Layout of diaphragm walls, bored piles and barrettes.


Diaphragm wall construction in progress.


Exposed diaphragm wall faces, laterally supported by basement slabs.

REFERENCES:

- Submaneewong, C., Worapong, A., and Somsak, S. (2004), "Case Study: Excavation Technique for Deep Basement by Using Top-Down Construction Method ". The 10th National Convention on Civil Engineering, Thailand, Pattaya, Chonburi, 2005, Pp.283-288.

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