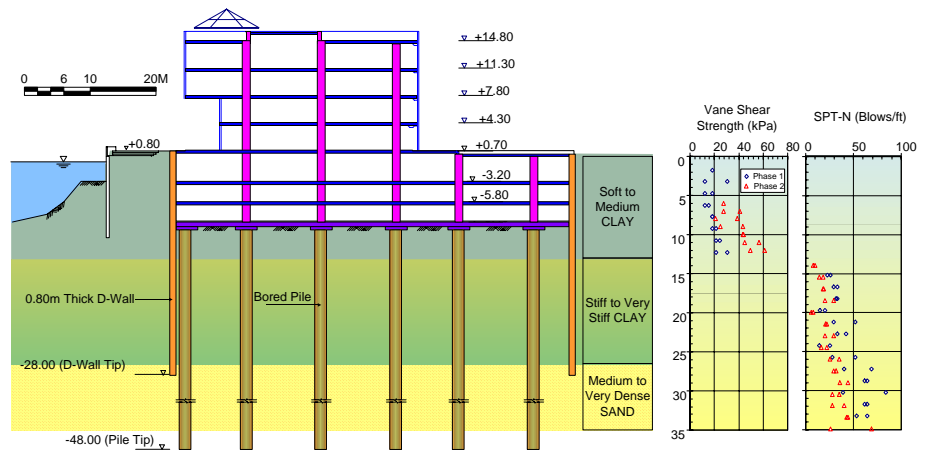


GENERAL

The Thammasat Administration Building project site is located on Tha Prachan Campus, Bangkok nearby the Chao Phraya River. The site is surrounded by a historical building and other existing structures. The construction of this building commenced about one year after completion of library building with three basements being separated by an existing building. Bored piles with pile tip in dense sand layer are used for supporting the building. A diaphragm wall of 0.8m in thickness was designed for excavation 9.7m deep with two levels of temporary bracing. The diaphragm wall toe was embedded down to 28.0m to achieve the overall stability of the excavation on the river bank. Various types of instrumentation were installed in the wall and existing buildings to observe the ground movements and response of the buildings during excavation.



Basement section and soil profile.

WORK UNDERTAKEN

BORED PILES:	Dia. 0.8mx48.0m	17 nos.
	Dia. 1.0mx48.0m	33 nos.
	Dia. 1.2mx48.0m	5 nos.
	Dia. 1.5mx48.0m	23 nos.
DIAPHRAGM WALL:	7,742sq.m. (0.8m Thick)	
EARTH WORK:	59,592cu.m.	
TEMPORARY BRACING:	586.50 tons	
INSTRUMENTATION:	6 Inclinometer Tubes, 10 Tiltmeters, 5 Vertical Beam Sensors, VWSGs in one Panel, 4 Earth Pressure Gauges, 20 Surface and Deep Settlement Plates.	



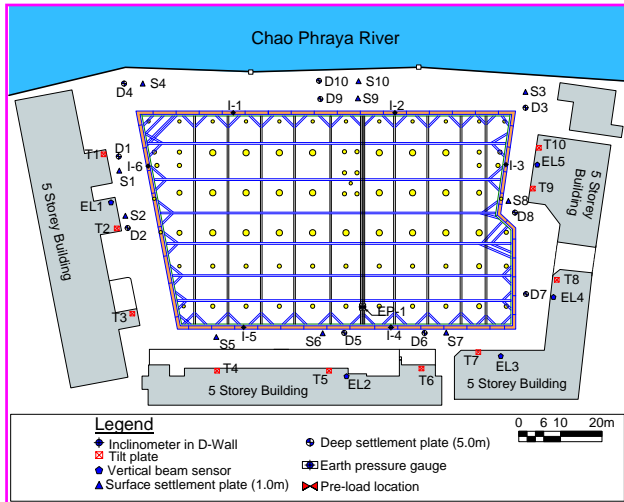
Excavation and basement construction.



Diaphragm wall panel excavation.

TYPE OF WORK:	Foundation Piles, Diaphragm Wall and Excavation
OWNER:	The Thammasat University
MAIN CONTRACTOR:	Ch. Karnchang Public Co., Ltd.
DESIGNER:	SJD-3D Co., Ltd.
PERIOD:	1999



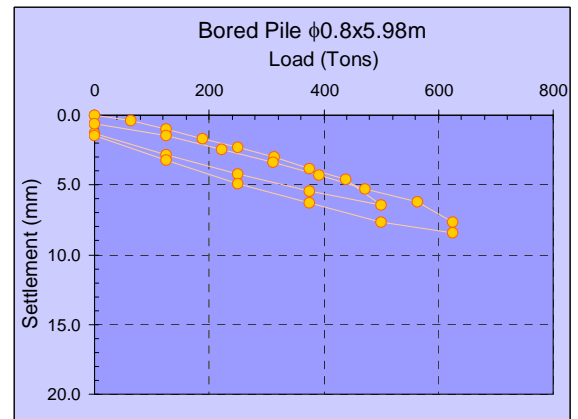


Layout of instrumentation and the project site.

Temporary bracing and working platform.



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Excavation completed to the final depth.

Pile load test results.



Pre-loading the struts.



Earth pressure gauges for checking the strut force.



Preparation for base slab casting.

References:

- Thasnanipan, N., Maung A. W. and Tanseng, P. (1999), "Behavior and Performance of Diaphragm Walls under Unbalanced Lateral Loading along the Chao Phraya River", 5th International Symposium on Field Measurements in Geomechanics- FMGM99, 1-3 December, 1999, Singapore. Pp 267-272.
- Teparaksa, W., Thasnanipan, N. and Tanseng, P. (1999), "Analysis of Lateral Wall Movement for Deep Braced Excavation in Bangkok Subsoils", Civil and Environmental Engineering Conference - New Frontiers & Challenges, AIT, Bangkok, November 8-12, 1999.
- Thasnanipan, N., Maung A. W., Tanseng, P. and Wei, S. H. (1998), "Performance of a Braced Excavation in Bangkok Clay, Diaphragm Wall Subject to Unbalanced Loading Conditions", 13th Southeast Asian Geotechnical Conference, 16-20 November, 1998, Taipei, Taiwan, ROC. Pp 655-660.

