The Din Daeng Underpass is the first of its kind in Bangkok Metropolis to ease the traffic congestion. It is an alternative to flyovers and overpasses. The underpass route extends for 415m with two lanes with one way traffic from the Victory monument. It runs along the middle of the Asoke-Din Daeng Road, and passes under the elevated First Stage Expressway as a cut and cover tunnel. 82m long approach sections at both ends of the underpass were constructed with 0.45m thick reinforced concrete walls. The 252m long middle section of the underpass, which includes portals and cut and cover tunnel, is constructed with 1.0m thick diaphragm walls having toe level 21.0m deep. Cantilever walls and reinforced concrete strut-supported walls are used in the portal sections. Excavation depths for base slab construction varied from 4.9m to 6.5m below the pavement level.

**TYPE OF WORK:** Diaphragm Wall  
**OWNER:** Bangkok Metropolitan Administration.  
**MAIN CONTRACTOR:** Unique Engineering and Construction Co., Ltd.  
**DESIGNER:** Epsilon Co., Ltd.  
**PERIOD:** 1996
Diaphragm wall panel excavation in the middle of traffics.

Subsoil conditions at the Site.

Diaphragm wall panel excavation with modified grab crane under the existing expressway.

Lowering a rebar cage section.

General view of Din Daeng Underpass.

Portal section.

Tunnel section.

References:
