

FIELD VISIT TO MRT EXTENSION PROJECTS -THE PURPLE LINE

BANG YAI - RAT BURANA SECTION

PROJECT BACKGROUND

The Purple Line is new lines gathered from vary sections of the previous planned projects (the Blue Line North Extension and the Orange Line). The combination line is proposed to serve commuters between suburban in the northwestern area of Bangkok and the southern area via the central of the old city area. It will help alleviating traffic congestion not only in the north and northwest corridors, but also in the southern area. Most of this line will be constructed as an elevated structure in suburban area while the line located in the central area is planned to be underground with a total length of 40.0 km.

PROJECT CHARACTERISTICS

(1) Alignment

The project starts from Bang Yai, the northwestern area of Bangkok , then goes downward crossing the Chao Phraya River at Phranang- Klao Bridge and goes along Ratana Thibed Road to Nonthaburi Intersection and Wongsawang Intersection. The route then runs along Pracharat Road to Taopoon Intersection, turns right and turns left to Samsen Road , Road, passing the National Library, Bang Lumpu, Ratanakosin Island and crosses Chao Phraya River at to Phra Pok Klao Bridge to Thonburi side. Here, the alignment runs southward along Tak Sin Road , passing Wong Wian Yai to Mahai Sawan Intersection. At this point, the line changes again into elevated structure and runs along Tak Sin Road and Suk Sawat Road . Finally, the line terminates near Bang Na - Dao Kanong Expressway with a total length of 40.0 km.

(2) Structure

For the underground portion in the core city area, twin tunnel is selected. While the rest is planned to be construct as elevated system. The typical structure is a twin-track viaduct deck, supported by a row of single piers in the median of the roads. In certain locations, where the central median does not exist or where the single-column support cannot be constructed without substantially restricting the traffic flow, portalframes may be employed to support the deck.

(3) Stations

There will be 30 stations along the route, 11 of which will be underground and the rest will be elevated. At certain conjunctions, the stations will be integrated with other mass transit systems to allow the transfer of passengers. Escalators, lifts, toilets, information displays, public addresses, and all facilities for the handicapped will be equipped.

(4) Depot

A sub depot will be provided at the end of the route at Bang Yai while the major overhaul will be proceed at the main depot, the same of the ChaloeM Ratchamongkhon Line's at Huai Khwang, as it was designed to accommodate at full scale, upto 500 cars.

(5) Park & Ride

Since this is such a long route alignment serving northwestern to southern part of Bangkok , two park & rides will be facilitated at the both ends of the route at Bang Yai and Rat Burana.

(6) Track

Like the Chaloem Ratchamongkhon Line, 1.435 m. standard track gauge with bottom pick-up third rail will be adopted.

(7) Rolling Stock

The 750 Volts DC rolling stock with 3 to 6 cars will be used. The system will have a service capacity of more than 50,000 passengers/hour/direction.

(8) Systemwide and Fare Collection System

The signalling and communication system, power supply and fare collection system of this section will be the same as those of the Chaloem Ratchamongkhon Line.

PROJECT COST

The project cost is estimated at 2,199.7 million US \$ comprising of :

Land Acquisition	97.1	million US.\$
Civil works	1,334.9	million US.\$
M&E Works	575.6	million US.\$
Consultant	38.6	million US.\$
Total	2,046.2	million US.\$