The MRT Project

By: Ir. Mathew

The main challenge facing the deteriorating urban transportation in the KL metropolitan area is the unsustainable growth in private transport demand. This challenge is made tougher by the declining public transport mode share. The reasons for the decline in public transport ridership include inadequate rail coverage, insufficient connectivity, stations in low-demand areas, unsatisfactory bus network system and poor interchange between modes. KL is lagging far behind other world class cities in terms of public transport ridership and the congestion in the city is escalating at an alarming rate.

The Government acknowledges that the long term solution to improve the current urban transportation problem is to introduce a mass rapid transit system, with a seamless integration with the other forms of public transport, i.e. KTMB, LRT, Monorail and Feeder Bus systems. In 2010 the Government formed a single regulatory body – Land Public Transport Commission (SPAD) – to plan and coordinate all the different forms of land public transport in the country. MMC-Gamuda JV submitted a comprehensive proposal to the Government in 2010 for the implementation of the Klang Valley Mass Rapid Transport (MRT), basically proposing two radial lines between the NW and SE corridors through the City Centre and supplemented by a radial line connecting all the existing and proposed radial lines. The main objective of this proposal is to achieve a targeted 50% peak hour public transport modal share by 2025.

The Government has so far agreed to implement one of the radial lines, i.e. from Sg. Buloh to Kajang (SBK). The Government has appointed Syarikat Prasarana Negara Berhad (SPNB) as the asset and project owner of the MRT Project and MMC-Gamuda as the Project Delivery Partner (PDP). The principal role of the PDP is to manage the planning, design, procurement, construction, integration, testing and commissioning and eventual handover of the project to SPNB for operations. In undertaking this role, the PDP carries with it certain cost and time liabilities.

The SBK line is 51 km long, with 41.5km elevated and 9.5km underground (tunnel). 31 new stations (and 4 future stations) are proposed for the SBK line, out of which 11 stations will be interchanges with existing and future rail lines. 7 of these stations will be underground. There will be 16 potential Park & Ride sites provided, and improved access to new and emerging centres and development sites, such as RRI, Warisan Merdeka, Pudu Jail Redevelopment, Kuala Lumpur International Finance District and Cochrane Redevelopment.

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SPNB has issued an LOI to HSS Integrated Sdn Bhd in a JV with SNC Lavalin (of Canada) to take on the role of Independent Consulting Engineer (ICE). The ICE has submitted its technical and commercial proposal to SPNB and this is being finalized. In the meantime, the ICE has been tasked to proceed with its roles and is already actively involved in the Project.

HSSI was previously involved in the design, construction and supervision of the Kuala Lumpur International Airport (KLIA), the Light Rail Transit System 2, the North-South Expressway, Maju Expressway and the Express Rail Link (ERL). These successes have given HSSI a proven track record in leading as the ICE for the SBK line, which is estimated to cost about RM 20 billion.

The role of the ICE is crucial as it will provide the Government with advice on all the crucial issues and will act as “checks & balances” on the implementation and management of the Project by PDP. The ICE’s role will cover design review, providing an oversight on the construction activities, including tendering, quality and safety assurance, progress monitoring and advising a smooth and seamless transformation of the project into its operational mode. The ICE will also be involved in the underground works (tunnelling and underground stations), which is said to be worth about RM8 billion (40% of the total project cost).

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According to the figures forecast by the Performance Management and Delivery Unit (Pemandu) of the Prime Minister's Office, the contribution of the MRT Project to Malaysia's gross national income (GNI) will be phenomenal. The MRT project when fully completed by 2020, is estimated to contribute up to RM21 billion per annum to the GNI. The increase in GNI will be from the jobs created during the construction of the MRT, increased productivity of workers and appreciation of property values. Pemandu estimates that approximately 1.2 million sq. ft of commercial and residential space will enjoy appreciation in gross development value.

One of the major developments that will gain substantially from the MRT is the RM26 billion KL International Financial District project which covers 75 acres between Jalan Tun Razak, Jalan Sultan Ismail and the Putrajaya elevated highway. The MRT will also run through the proposed 100 storey Menara Warisan located near Stadium Merdeka which will also house SPNB's offices when completed.

Once again HSSI takes an important role in nation building. The MRT is considered to be the single largest infrastructure project undertaken by Malaysia and it will receive valuable and efficient input from HSSI playing the lead role as the Independent Consulting Engineer.