MEDIA RELEASE

LONG SPAN VIADUCT CONSTRUCTION ACROSS 3 MAJOR HIGHWAYS ENTAILS DETAILED PLANNING AND CAREFUL EXECUTION

KUALA LUMPUR, 20 SEPTEMBER 2019: Within the scope of construction of elevated structures for rails, stringent planning and a well-thought-out implementation strategy are required for several types of critical works. Long spans are an example of such works as they interface with both the public and live traffic throughout their construction.

Consequently, an informative site visit was today held for members of the media to facilitate better understanding of the key long span erection methods used in the construction of the Mass Rapid Transit Sungai Buloh-Serdang-Putrajaya Line (MRT SSP Line). The event was facilitated by MMC Gamuda KVMRT (PDP SSP) Sdn Bhd **(**MMC-Gamuda) as the Project Delivery Partner and supported by Mass Rapid Transit Corporation Sdn Bhd (MRT Corporation), as the project owner.

During the briefing, the media were updated on the overall construction progress of the MRT SSP Line which is currently at 58.9%, as well as given an explanation regarding the erection techniques being used at the V205 work package to construct a set of 3 long spans which cross the KL-Seremban Expressway, the Besraya Highway and the Middle Ring Road 2 (MRR2) respectively. This was followed-up by a sitewalk at the worksite alongside KM 8 of the Kuala Lumpur-Seremban Expressway to view on-going viaduct construction works.

“Long spans are defined as spans that are above 40m in length (e.g. 50-250m) and are typically used for crossing highways, railways or wide rivers. As the three long spans on the alignment at V205 stretch over busy throughways with space and accessibility constraints, we are employing three variations of the Balanced Cantilever (BC) method to ensure construction proceeds efficiently and with minimal impact,” shared Deputy Project Director, Elevated Section for MMC Gamuda, En Amir Malik Faeiz.

The BC construction method involves using the piers of the span as an erection platform for pre-cast segments, or cast-in-place segments. The superstructure is then erected by cantilevering

out from opposite sides of the pier, and segments are then added either at the same time or alternately in sequence to each cantilever to maintain a relatively balanced system. Stressing is done after the addition of each section, with additional post-tensioning added after all of the segments in the long span are in place and fully joined.

For Long Span A which crosses the MRR2 as well as the Keratapi Tanah Melayu Berhad (KTMB), Express Rail Link (ERL) and Light Rail Transit (LRT) tracks, BC construction via Form Traveller is being employed using cast-in-place segments as they would be too heavy to be transported to the site if pre-cast. Long Span B meanwhile crosses over multiple lanes of the Besraya highway which is a significant obstruction, thus BC construction with pre-cast segments via Segment Lifter is being used. Long Span C is the shortest of the three and consequently BC construction is being accomplished via Mobile Crane which is cost-effective as there are only a small number of segments to be lifted into place.

“We go through several stages of planning and deliberation before choosing the right construction technique for effective viaduct construction at any point of the MRT SSP Line alignment. Using the different variations of the BC method ensures that construction proceeds smoothly despite the topographical challenges while also being safe, making it ideal for long span erection at this location,” shared Dr. Tey Chun Yean the Project Manager for Work Package V205.

“Safety is always a priority however, so stringent checks are always in place to ensure all machinery and the construction process itself is approved by the relevant authorities and the project team before work begins. Machinery like the Segment Lifter for example, is tested and certified by the Department of Occupational Safety and Health (DOSH) and any temporary structures like scaffolding are reviewed and approved by a competent Certified Independent Checking Engineer (CICE),” added Dr. Tey.

All construction on the MRT SSP Line alignment goes through a process of safety checks, and risk evaluation for the creation of a Method Statement (MS) which then is further reviewed and approved by consultants and the project team. Only certified workers are employed, and during the works themselves, every precaution is taken to minimise impact and inconvenience to the public including the implementation of a Traffic Management Plan (TMP) as well as the deployment of adequate signage and an Emergency Response Team (ERT) as safeguards.

Even after the long span is completed, safety measures such as safety netting and handrails are installed to protect against debris fall before the construction of a permanent parapet which also serves as a protective barrier for the emergency walkway. MMC Gamuda remains committed to delivering all aspects of the project successfully for the creation of a safe, reliable and sustainable railway transportation system for the nation.

-end/-

ABOUT THE MRT SUNGAI BULOH-SERDANG-PUTRAJAYA (SSP) LINE

Spanning 52.2km with a total of 35 stations to be constructed, the MRT SSP Line aims to serve a corridor with a population of around 2 million people stretching from Sungai Buloh through the Kuala Lumpur city centre and onwards to Putrajaya. The line will connect Sri Damansara, Kepong, Jalan Sultan Azlan Shah, Jalan Tun Razak, KLCC, Kuchai Lama, Seri Kembangan and Cyberjaya. Phase One from the Sungai Buloh Station to Kampung Batu Station will begin operations by July 2021, while Phase Two from Kampung Batu Station to Putrajaya Sentral Station will be operational by July 2022.

Mass Rapid Transit Corporation Sdn Bhd (MRT Corporation) is the project owner while MMC Gamuda KVMRT (PDP SSP) Sdn Bhd (MMC-Gamuda) is the project delivery partner that is responsible for developing the MRT SSP Line.

For media enquiries, please contact:

Dr Bhavani Krishna Iyer	Tel: +6019-312 8303	Email: Bhavani@kvmrt-ug.com.my
Faslika Das	Tel: +6012-6669791	Email: faslika@mgjv-kvmrt.com.my