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Mr. David Starbuck

Technical Director - Rail
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## **SYNOPSIS**

The First Metro Line of Bogota (PLMB) is a 24km-long elevated Mass Rapid Transit (MRT) line to be built in Bogota, Colombia. Upon completion, the PLMB line 1, which will be fully automated and serve 16 elevated metro stations will also include a Depot Maintenance facility to store and maintain the passenger trains.

The Maintenance Depot for the system is to be located on a constrained site at the end of the current line 1. The site is bounded by a river on two sides and a canal on the third side and is situated on a flood plain.

This depot will provide the maintenance location for  $30 \times 6$  car MRT trains in Phase 1 of the network, with provision for supporting a further  $30 \times 6$  car MRT trains under the planned expansion of the system in Phase 2. In addition, the site will provide the base for the Infrastructure maintenance activities and the support rail vehicles for these activities.

David Starbuck, Technical Director - Rail at WSP Malaysia has acted as the Design Manager of the depot facility for the appointed Concessionaire contractor responsible for developing the 'In principle' reference design into the constructed facility. The depot designs have recently been accepted by the client at 30% Design stage and are now in the process of being developed for the Preliminary Design stage which will include integration with the suppliers of all the major depot equipment.

The depot design and layout fundamentally involve combining the rail and train systems inputs with the architectural, geo-technical and civil/structural elements to develop an integrated model that can deliver the contract requirements. This requires close collaboration with the appointed contractors for the supply of the MRT trains and the signaling contractor, the Infrastructure providers and maintainers, trackworks designers and the traction power design teams.

The webinar will review the challenges faced during the design development and the planned operations and maintenance functional capabilities of the completed facility.

## **SPEAKER BIODATA**

David is a Chartered Engineer with a Bachelor of Science (Hons) degree in Electrical Engineering, from Aston University (UK) and a post graduate Diploma in Management Studies. He has an extensive 46 years of working experience in all facets of railway systems design, construction, operations and maintenance.

David is a member of the Institute of Engineering & Technology and is also an Associate Member with the Chartered Quality Institute.

Having worked in Malaysia previously for more than 25 years, David was one of the pioneer railway electrification engineers in Malaysia working on the Keretapi Tanah Melayu Bhd (KTMB) 'Komuter' project. Amongst his other notable roles was serving Prasarana Malaysia as the LRT Engineering and Operations Advisor for 10 years and as Head of Rail Design for over 7 years at Opus, where he managed the Opus Rail Technical team and provided technical advisory service on all rail system designs and operations of the Prasarana KL LRT extension projects. He led the rail systems design management of the new LRT Extensions, which on the Ampang Line encompassed a new OCC, new depot, remodelling of the existing depot, introduction of CBTC re-signalling of the existing line and migration of rail systems to the expanded network.

His areas of practice cover Multidisciplinary Project Management, Railway Asset Maintenance Management, Depot Design and Management, CBTC Train Control and Signalling Systems, Permanent Way, Systems Assurance & Interface Management, Traction Power Systems and Automatic Driverless Railway Operation.