infinitive group

Case Study

Asset Condition Survey Governance and Schedule of Condition Development

KEOLIS • MHI

In 2021, Keolis Mitsubishi were successfully awarded the 15-year Operations & Maintenance contract by the Dubai Road & Transport Authority (RTA) for the Dubai Metro and tram network.

Dubai Metro is the 4th longest driverless rail network in the world, using level-4 Communications-Based Train Control (CBTC) technology. Dubai Metro's network is made up of two lines, Red and Green, covering a total of 90 km, including 15.8 km of tunnel. The Red line has recently been extended under the Route 2020 initiative to extend passenger services to Expo 2020. All lines are controlled by a single control centre.

The Metro network has 53 fully air-conditioned stations covering key locations across the Kingdom. Each station has platform screen doors and a wide range of facilities, such as retail outlets all offering public Wi-Fi. The Metro network operates 129 trainsets: 79 Kinki Sharyo trains and 50 Alstom Metropolis trains.

The tram network covers 10.6 km with 11 stations and operates 11 Alstom Citadis trams. All rolling stock are serviced and maintained by 3 depots.

infinitive group

The Challenge

As part of Keolis Mitsubishi's mobilisation, to take over from the incumbent operator Serco, a complete asset condition survey before day 1 of operation was required to baseline the status and condition the railway assets.

Formulating the known asset position was a committed obligation for Keolis Mitsubishi within the contract, and critical to ensure that their operational plans were robust enough to deliver the very high asset utilisation and availability targets required for 6 months to support Expo 2020.

Forecasting heavy maintenance and capital projects during the intense, but short-term, period of increased asset availability demand was required to support the accuracy of the whole-life cost model and improve financial forecasting.

Our Response

Infinitive Group readied appropriate technical advisors to supplement the client's team and provided asset survey governance support. This was undertaken within a very challenging time frame and across all the metro railway asset families.

Infinitive Group provided advisory services during procurement selection and appointment of Keolis Mitsubishi's asset condition surveyor. Each of the bidder's responses were reviewed to assure their capability and credibility to deliver the proposed approach to ensure that the best-known asset condition output would be achieved.

Upon Keolis Mitsubishi's final contractor selection, Infinitive Group remained on hand as technical advisors for governance support.

Following the completion of the asset condition survey, Infinitive Group reviewed all asset condition reports, supporting data, and documentation. These were used to compose extended asset condition statements suitable for the drafting of the contractual Schedule of Condition document, required before the commencement of the O&M contract.

The Value to the Client

Introducing a team of highly capable technical advisors, to provide an expert viewpoint on the procurement of the asset condition surveying services, facilitated Keolis Mitsubishi to satisfy their contractual requirements at mobilisation.

Detailing and capturing the best possible known condition of the assets, heavy maintenance and capital project plans, whilst balancing against the high asset utilisation and availability targets, supported the increase of the forecasting accuracy of the whole-life cost model.