

Remote Track Monitoring (RTM) – Supplier Engagement Day

Questions & Answers

Below are some questions raised by suppliers during the supplier engagement day held in July 2019. These are being made openly available for suppliers' reference in order to improve their understanding of the requirements of the RTM project.

1. Has London Underground (LU) considered fitting the track measurement system to a passenger rail vehicle?

LU required a track measurement vehicle that had as much route availability as possible across our network, our passenger rolling stocks are usually restricted to running on certain passenger routes and therefore would not be able to meet our requirements. The intended free-issue wagon will give the RTM project a new asset with a full design and operating life to use and develop.

2. Are suppliers expected to include hardware that will capture location data from RFID tags?

Yes – suppliers are expected to include hardware that will enable capturing location data from the RFID tags on the LU network. The current RFID system on the LU network are 2.45GHz active tags and are located at the ends of platforms and around sets of points. Further details in relation to the RFID tags and data will be provided in the Technical Requirements Specification (TRS), which will be included in the tender pack.

3. Will the power supply for the track measurement system be derived from the battery locomotives?

Yes – the power supply will be drawn from the Battery Locomotive batteries. This will be approximately at 320v output; further details will be provided in the TRS.

4. What standards / requirements will the track measurement system need to comply with?

All requirements and standards that the track measurement system needs to comply with will be included in the TRS; suppliers are encouraged to register on <https://www.ihs.com/permission/lul-standards/index.html> to familiarise themselves with LU standards. The track measurement system will be required to comply with BS EN 13848 as a minimum.

5. Who designed and manufactured the intended free-issue wagon?

CRRC Corporation Ltd are designing and manufacturing the current intended free-issue wagon. LU intends to free-issue a host wagon for suppliers to use in the installation of the track measurement system; however the specific type of wagon will be confirmed once the tender is published.

6. Does the free-issue wagon have suspension?

Yes – the primary suspension is shown in the supplier engagement day presentation pack (Slide 13 or 14), details of the “secondary” suspension are provided in Q11 and more information will be provided as part of the TRS.

7. What approvals / approvals process will the track measurement vehicle be subjected to?

The vehicle will need to follow the LU assurance approval process and also need to be approved for operation on Network Rail to support measurements on the District and Bakerloo Lines. Further details will be included in the TRS.

8. **What is the range of speed detection required? Will the detection be mandatory at all speeds within this range or will only selected parameters be required?**

At present LU will require the measurement system to be able to monitor at zero speed, however this may only be applicable to limited parameters. Further details will be included in the TRS.

9. **Who will bear liability in the event the wagon failure when it is in operation?**

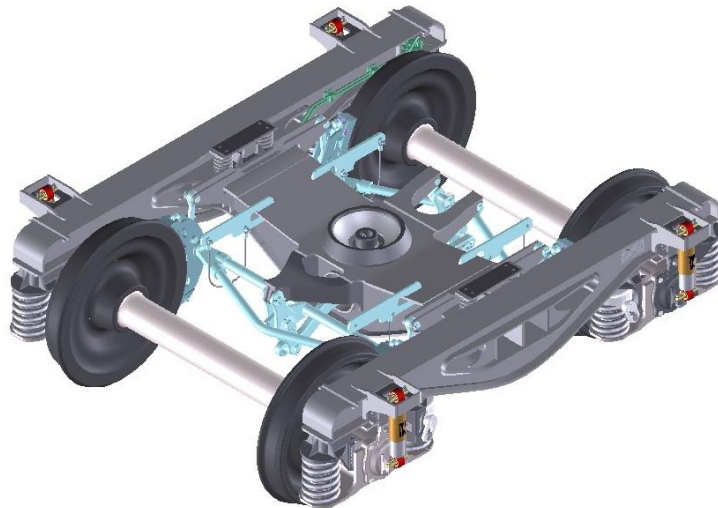
The responsibility will depend on the type of failure; if the failure was caused by modifications to the wagon from installing the track measurement system, the liability will reside with the installer of the system, which is currently anticipated to be the track measurement system provider. Failures will be assessed on whether it was related to the modifications carried out in order to install the track measurement system.

10. **Who designed the bogies and to what standards do they comply with?**

The current intended CRRC Corporation Ltd wagons have Y33A bogies.

11. **Do the free-issue wagons have secondary suspension?**

Yes, please see image below – further details will be included in the TRS.



12. **Will the supplier be required to provide the encoder as part of the track measurement system? Or will LU supply the encoder?**

This will be confirmed in the TRS.