

**Board**



**Date: 20 October 2021**

**Item: Elizabeth Line Operational Readiness and Crossrail Update**

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## **This paper will be considered in public**

### **1 Summary**

- 1.1 This paper provides an update on the status of the remaining work on the Crossrail project (or Crossrail) and of the readiness of the Infrastructure Managers (IM) for the operations and maintenance of the railway after handover from Crossrail.
- 1.2 Crossrail is in the complex final stage of delivery of the Elizabeth line with Trial Running making good progress and preparations for Trial Operations advancing. The project remains aligned to the scheduled opening of the railway to passengers in the first half of 2022.

### **2 Recommendation**

- 2.1 **The Board is asked to note the paper.**

### **3 Crossrail Update**

- 3.1 With the project being in the final complex stages of delivering the railway the focus remains on ensuring that it is completed safely, and the overall Health and Safety indicators remain within the parameters set by the programme. There were two recent reportable or lost time accidents where a person twisted their ankle missing the last step leaving a welfare cabin with poor lighting conditions the cause and a person had a finger injury when a door closed on the finger. Learnings from these accidents will help inform corrective measures to ensure we remain as safe as possible.
- 3.2 The Health and Safety elements of the transition planning are being defined for the project as it enters its final phases. This includes the arrangements for the management and interface coordination between stakeholders and final project works. Contractor safety performance will remain a key area of focus as part of any revised governance structure.
- 3.3 The project completed an 18-day blockade in July 2021. During this period, Trial Running services were suspended to allow work activity to proceed uninterrupted. The objective of the blockade was to reduce the number of the remaining intrusive activities in the tunnels and stations. It was a successful blockade with productivity at 95 per cent. The significantly reduced number of items that remain are being reprofiled and will be completed in the coming months. During autumn 2021, a further blockade will take place to complete elements of outstanding

works in the tunnels, including the commissioning of the tunnel ventilation system upgrade works.

- 3.4 The Delivery Control Schedule (DCS) 1.2 has been agreed and forms the a refreshed baseline for all future reporting. It covers all remaining work through the opening of the central section and full Elizabeth line services from Reading and Heathrow through the central section to Shenfield and Abbey Wood.
- 3.5 Trial Running resumed following the blockade in July 2021 with 12 trains per hour (tph) in operation in the Central Operating Section. During this phase, as expected with a new system, we have identified several issues with the infrastructure and signalling, some of which require us to implement temporary Operational Restrictions. Many of the issues relate to known issues in the current software configuration and are expected to be resolved with the ELR100 software release later in the year.
- 3.6 The final railway integration tests to ensure all the components work together seamlessly will be completed during the remaining Trial Running period. These tests apply to the tunnel ventilation system, trains, software, signalling and power systems and can only be done at this stage now that the whole system railway is available. This testing is coming to an end and has been successful in generating the required assurance evidence and identifying the final modifications needed to complete the railway and get the right level of reliability for opening the Elizabeth line.

## **4 Elizabeth Line Operational Readiness**

- 4.1 We have established a countdown process as a control mechanism to monitor progress prior to Elizabeth line passenger service. The aim of the process is to ensure that the configuration of the railway and the entry criteria for Trial Operations are defined, approved and achieved. It will also capture the collective readiness perspective of infrastructure managers and operators.
- 4.2 Operational hours will increase during Trial Operations allowing us to really stress test the system and move towards our next significant objective of improving the process of moving between operational and maintenance activities.
- 4.3 We continue to make good progress against the training and assessment programme for our colleagues and despite coronavirus related challenges impacting on colleague availability, we have been able to keep open the Route Control Centre in Romford.
- 4.4 On the 6 August 2021, Paddington station, followed by Whitechapel station on 23 August 2021 and Abbey Wood on 1 October 2021, were handed over by Crossrail, bringing the total number of stations under our responsibility, as Infrastructure Manger, to eight. Whitechapel is also step-free. We continue to work closely with the Crossrail Programme team on progressing the remaining two stations. The next station to be handed over in the autumn is Canary Wharf where final modifications to the safety systems are being carried out. Bond Street has met its requirements to support Trial Operations and Crossrail is continuing works at the station for it to be ready for passenger service.

- 4.5 Network Rail completed works at Southall on 26 August 2021 and at Hayes & Harlington on 14 September 2021; the fifth and sixth stations to be upgraded. As well as providing step-free access, other station improvements works including new ticket machines and clearer customer information were delivered. Station improvements at Ilford and Romford are expected to be completed in early 2022.
- 4.6 TfL Rail continues to deliver a good service with the Public Performance Measure beating target during period 5, the four-week period between 25 July and 21 August 2021. We were second best in the industry with only Merseyrail performing better. The East section of the line achieved 97.2 per cent with the West section achieving 93.6 per cent of trains meeting their reliability target. Overall, the Moving Annual Average trend continues to be better than target at 95.4 per cent.

**List of Appendices:**

None

**List of Background Papers:**

None

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