

Date: 30 September 2021

Item: Elizabeth Line Readiness and Transition Update

This paper will be considered in public

1 Summary

- 1.1 This paper provides an update on the performance of the TfL Rail operational service and the status of the transition and readiness of the Infrastructure Managers for the operations and maintenance of the railway after handover from Crossrail.

2 Recommendation

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

3 Performance of Operational Service

- 3.1 TfL Rail (RfLI) 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.
- 3.2 Passenger services between Reading and Heathrow continue to be operated by the new nine-car Class 345 trains. We are still experiencing some issues with the train control software, which we are resolving by carrying out a system reset. The impact on our customers is also being minimised by the containment measures implemented by the operator MTREI. The manufacturer, Alstom, is working through the issues which are expected to be fully resolved once the revised software has been rolled out across the fleet.
- 3.3 The number of nine-car Class 345 trains operating passenger services between Shenfield and Liverpool Street increased from three to six in July 2021, supplementing seven-car Class 345 and eight-car 'legacy' Class 315 trains. The transition of the Liverpool Street to Shenfield service to a full nine-car Class 345 operation, with up to 22 trains, will start in autumn 2021.

4 Operational Readiness

- 4.1 Trial Running resumed (following the blockade during late June and early 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. Majority of the issues will be resolved when the next signalling software update is rolled out later in the year.

- 4.2 The Trial Running phase continues to progress well with 12tph timetabled train movements in operation on the central operating section. To date, a number of issues encountered during Trial Running have related to known issues in the current software configuration and are expected to be resolved with the ELR100 software release.
- 4.3 As we move towards Trial Operations in the autumn, operational hours will increase, 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. This process will confirm the railway is ready for passenger service and will be monitored through the Engineering Hours Improvement Programme. However, several key milestones need to be met before this important and final phase can commence.
- 4.4 We have established a transition 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 the operators (Rail for London, RfLI, London Underground and MTREI).
- 4.5 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.
- 4.6 On the 6 August 2021, Paddington station, followed quickly by Whitechapel station on 23 August 2021, were handed over by Crossrail, bringing the total number of stations under our responsibility, as Infrastructure Manger, to seven. Whitechapel also became the 85th step free station across the Tube network. We continue to work closely with the Crossrail Programme team on progressing the remaining three stations. The next station to be handed over is Canary Wharf, alongside the final integration of Abbey Wood station, we expect Canary Wharf to be handed over in the autumn. Bond Street is showing encouraging signs that it will meet its requirements to be able to support Trial Operations, and Crossrail are continuing works at the station for it to be ready for passenger service.
- 4.7 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.

5 Joint Trial Operations Plan (JTOP)

- 5.1 The Joint Trial Operations Plan is undergoing final updates in response to stakeholder commentary and will proceed to the Trials and Operations Review Group for final approval. If approved, it will be shared with Interim Technical Assurance Panel (ITAP) by the end of September 2021.

- 5.2 The detailed programme has now reached final draft (as a 'living' document) to align around the revised Trial Operations duration and also to account for the Christmas and New Year period falling in the middle of the programme. This programme is now undergoing stakeholder review. Draft volunteer logistic plans are in place for all five Live Volunteer exercises and initial volunteer recruitment and registration has started with internal Crossrail and TfL staff communications delivered – current progress is just past our 50 per cent target mark.
- 5.3 A set of three early 'opportunity' Trial Operations exercises are being planned to be run during the Systems Testing with a Train (STT) windows between 15 and 20 September 2021. This includes plans for an evacuation exercise utilising 50 colleagues as volunteers (subject to ITAP approval of a risk assessment against the delta in numbers from the current Trial Running fire strategy of a 20 persons per train limit), which will allow us to validate our logistical, safety and security arrangements around bringing volunteers onto the infrastructure during Trial Operations.
- 5.4 Members of the Independent Advisory Panel to Crossrail undertook a 'Red Team Review' of the JTOP on 26 August 2021 – the overall result was an endorsement of the approach and no red flags were raised, however there were a number of actions identified to improve overall readiness for Trial Operations and build a more resilient capacity to deliver the programme.

6 Train Reliability Review Points

- 6.1 A series of train reliability review points has been established, as part of the process leading to Trial Operations and then Revenue Service. These will be reviewed at the periodic Elizabeth Line Reliability Board (ELRB).
- 6.2 The train reliability review points focus on the reliability and operational performance of the railway, during Trial Running and improvements expected through delivery of fixes and upgrades. The review points consider, in particular, the performance of the trains and train control systems in Trial Running but also performance of wider systems, transitions and the operation of the control room. This is considered against the output of performance modelling and in the context of agreed entry and exit criteria. The view of the ELRB feeds into the assurance process and links into the T-minus process for decision making.

7 Organisational Transition

- 7.1 To review additional efficiencies a series of 'cost to go' workshops were held during week commencing 2 August 2021. A number of actions were agreed, including the dedicated weekly sessions with senior management to address key organisational initiatives and changes. These meetings will help to facilitate efficient communications and ensure smooth decision making between RfLI/Crossrail and TfL. We now have a clear set of strategic principles that the team are working towards and the focus is on the implementation of the Crossrail 'Lite' organisational design. The transition programme team are also working on the production of Transition agreement documents and plans for each transition function.

8 TfL Residual Works Programme

- 8.1 The residual works team are underway progressing a number of pre and post revenue service jobs such as the additional CCTV cameras on the LU and RfL(I) estate and the decommissioning of Whitechapel temporary ticket hall. Discussions have started on how the residual works team can play a larger part in picking up work dropping out of the cost to go workshops. A weekly meeting has been set up to ensure a smooth transition of these works and speedy completion once transferred.

List of Appendices:

None

List of Background Papers:

None

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