

Date: 1 December 2021

**Item: Elizabeth Line Programme Assurance Quarter 2 Report
2021/22**

This paper will be considered in public

1 Summary

- 1.1 This paper provides an overview of programme assurance activity in relation to the Elizabeth line during Quarter 2 of 2021/22.
- 1.2 A paper is included on Part 2 of the agenda which contains supplementary information that is exempt from publication by virtue of paragraph 3 of Schedule 12A of the Local Government Act 1972 in that it contains information relating to the business affairs of TfL. Any discussion of that exempt information must take place after the press and public.

2 Recommendation

- 2.1 **The Committee is asked to note the paper and the supplemental information in Part 2 of the agenda.**

3 Background

- 3.1 The Crossrail Integrated Assurance Framework (IAF) was established in June 2019, based on a Three Lines of Defence (3LoD) model comprising:
 - (a) Line 1 - Crossrail management controls functions;
 - (b) Line 2 - Crossrail's Project Programme Assurance (PPA) team; and
 - (c) Line 3 - TfL Internal Audit and (as of January 2021) a sub-group of the Independent Investment Programme Advisory Group (IIPAG-CRL).
- 3.2 This paper reports specifically on Line 2 (PPA), Line 3 (Internal Audit) and Line 3 (IIPAG-CRL) assurance progress.
- 3.3 The teams meet periodically with a panel of advisers and the Project Representative to ensure that assurance is carried out by the right team, at the right time and to avoid duplication and minimise overlap of effort. This forum has recently been renamed from CPAG (Crossrail Programme Assurance Group) to ELPAG (Elizabeth Line Programme Assurance Group), highlighting the shift from Crossrail Construction Project to cover the full operation of the Elizabeth line.

4 Line 2 (PPA) Assurance

- 4.1 As part of the transition arrangements between TfL and Crossrail, Line of Defence 2 (LoD2) has now transferred to TfL's Risk and Assurance Directorate.
- 4.2 Overall, the Elizabeth line is now at a more mature level of readiness and while there are several performance and reliability issues to be addressed, there is increased confidence that the railway is on track to Revenue Service, and the question is now one of precise timing of its opening.
- 4.3 LoD2 assurance continues to be undertaken, principally, on a real-time, continual assurance basis, through participation in project meetings and related activities, and providing real-time feedback to the project and operational teams. Additionally, where deemed appropriate, a series of Targeted Assurance Reviews will be recommended where there is evidence of a number of risks to either the entry into Trial Operations or Revenue Service, or to the live operation whilst in Revenue Service. Reporting is through the LoD2 Periodic Assurance Review (PAR) Reports.
- 4.4 Since the last meeting of the Committee, LoD2 has issued PAR Reports covering Periods 5, 6 and 7 2021/22, which have provided input to the periodic Integrated Assurance Report to the Elizabeth Line Delivery Group and this Committee.
- 4.5 In relation to the timeline to complete, based upon our Period 7 assessment, it is the opinion of LoD2 assurance that whilst the schedule for completing Crossrail is under significant pressure, considering the balance of risks, it is currently most likely to be on-track to open within 'first half of 2022'. Positive progress has been made in the last period in readiness for Trial Operations. The Trials Operations plan has been split into two phases to enable Phase One, which started on 20 November 2021, with the lower risk trials using staff only, and Phase Two to commence in January 2022 following the completion of a number of critical activities during December 2021. This enables mass evacuations using large numbers of public volunteers to be carried out. In taking this approach, the integrity of the Trial Operations plan remains intact, whilst also allowing the completion of critical works.
- 4.6 Regarding cost to complete, current costs and financial commitments are still within the approved budget. Costs to complete the works remain under pressure but cost reduction works are ongoing, as are contract close out negotiations with the Tier 1 suppliers ensuring all remaining costs are fully understood and provisioned for.
- 4.7 On completion of the works, the project has continued to make significant progress since the last report, key progress highlights including:
- (a) the introduction of a new release of Siemens software ELR100, improving the system reliability performance;
 - (b) Trial Running in the Central Operating Section continues with increasing periods of 12 trains per hour;

- (c) stations progress continues with the total transfer of responsibility for eight stations to their respective Infrastructure Manager; four stations to Rail for London (Infrastructure) Limited – Paddington, Woolwich, Custom House and Abbey Wood; and four stations to London Underground (LU) – Tottenham Court Road, Farringdon, Liverpool Street and Whitechapel; and
 - (d) maintenance productivity and access continue on the trajectory to support projected Revenue Service requirements.
- 4.8 Key indicators of maintenance performance are being refined to provide greater clarity around the average fault identification and diagnosis interval and the overall fault-to-fix cycle time.
- 4.9 The upcoming LoD2 assurance activity is currently being planned and approval will be sought with all key stakeholders.

5 Line 3 (TfL Internal Audit) Assurance

- 5.1 The Crossrail Internal Audit Plan for 2021/22 was approved by the Crossrail Audit and Assurance Committee on 16 March 2021.
- 5.2 In Quarter 2 2021/22 (Q2) we issued three reports, have two in progress and have a number of audits being planned to commence in Quarter 3 2021/22 (Q3).

Audit Delivery

- 5.3 Summary information of the three reports issued in Q2 are set out below.
- 5.4 The Alternative Delivery Model Strategy audit was found to be 'Requires Improvement' and there was one high priority issue which was around a lack of management oversight of any issues which may arise in the delivery of the strategy.
- 5.5 The Monitoring Professional Service and Framework Development Consultants audit was found to be "Adequately Controlled". There was one medium and three low priority issues. The medium issue was around inconsistent completion of Works Orders.
- 5.6 The Management of works deferred to LU audit was found to be 'Requires Improvement' and identified two high, two medium and one low priority issue. The high priority findings are:
- (a) Crossrail had not confirmed and communicated the full scope and programme of planned works to be transferred to the Residual Works Team (RWT); and
 - (b) the RWT sponsorship team does not have an equivalent representative at Crossrail to liaise with.
- 5.7 A full list of audit reports issued during Q2 is included as Appendix 1. Audits in progress at the end of Q2 is included as Appendix 2, work planned to start in Q3 is included as Appendix 3, and details of changes to the Audit Plan is included as Appendix 4.

Management Actions

5.8 There were no actions overdue.

Changes to the Audit Plan

5.9 Line of Defence 3 (LoD3) (TfL Internal Audit) regularly review and update the Audit Plan throughout the year, in liaison with management, to reflect changing business priorities. There was one change to the plan in Q2.

6 Line 3 (IIPAG-EL) Assurance

6.1 The terms of reference of the IIPAG-EL sub-group require the group to provide a look ahead of its proposed areas of interest and work. The work plan has been integrated into the overall Integrated Audit and Assurance Plan, which is maintained by LoD2 and is reviewed and coordinated regularly within the Elizabeth Line Programme Assurance Group coordinated by LoD2/ PPA. Progress with the three main areas of focus is summarised as follows:

- (a) Baseline 1.2 (BL1.2) – the sub-group has received regular updates from LoD2, the Project Representative and other stakeholders with a particular interest in the transition period between Trial Running and Trial Operations. Details have been reviewed and feedback provided to the Trial Operations Readiness review. A number of recommendations were made together with LoD2 in support of the transition to Phase 1 of Trial Operations;
- (b) supporting the work of the Railway Assurance Board – Crossrail (RAB-C) and its successor, the Integrated Technical Assurance Panel (ITAP) – the sub-group has engaged with RAB-C and ITAP, gaining an understanding of the planning arrangements and implications for closing out the remaining assurance dependencies. This continues to be a key area of focus for the Assurance team; and
- (c) digital railway – the sub-group has completed its review of this area including an assessment of cyber security concerns.

6.2 The overall assessment by LoD3 (IIPAG-EL sub-group) is that the overall assurance framework has continued to operate effectively over the last quarter.

7 Integrated Audit and Assurance Plan

7.1 The 3LoD IAF maintains an integrated plan of assurance activity coordinated through the Elizabeth Line Programme Assurance Group forum. The areas proposed to be covered prior to Revenue Service is attached as Appendix 5.

List of Appendices to this report:

- Appendix 1 – Line 3 (TfL Internal Audit) Reports issued by the end of Q2 2021/22
- Appendix 2 – Line 3 (TfL Internal Audit) Work in progress at the end of Q2 2021/22
- Appendix 3 – Line 3 (TfL Internal Audit) Work due to start in Q2 2021/22
- Appendix 4 – Line 3 (TfL Internal Audit) Changes to the 2021/22 Audit Plan
- Appendix 5 – Audit and Assurance List

Supplemental information on Part 2 of the agenda

List of Background Papers:

None

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