

## **RESPONSE TO THE CROSSRAIL SPONSORS ON THE PROJECT REPRESENTATIVE SPONSOR SUMMARY REPORT – PERIOD 5 REPORT**

**Date of Issue (this paper):** 07 December 2020

**Issued to:** Simon Adams, Head of Crossrail Joint Sponsor Team - Transport for London

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**Approved by:** Mark Wild, Chief Executive Officer – Crossrail

### **1. Purpose**

- 1.1. The purpose of this paper is to provide the Crossrail Sponsors with CRL's response to the PRep Sponsor Summary report. It has been produced in consultation with CRL's Subject Matter Experts. A list of consultees is attached as Appendix 1.
- 1.2. The report responded to in this paper is the Period 7 FY2020-21 (20 September 2020 – 17 October 2020) report, issued and received on 13 November 2020.

### **2. Health & Safety (H&S)**

- 2.1 Physical and mental Health and Safety continues to be the utmost priority of the Crossrail programme. In the current climate of the COVID-19 pandemic, the Crossrail Gold Response Team continues to provide agile leadership, meeting frequently and coordinating specialist Silver Teams.

### **3. EOWL Closeout**

- 3.1. Close-out of Element Outstanding Work Lists (EOWLs) continues, with the ongoing November Blockade absorbing all the outstanding EOWLs identified as residual from the August Blockade. All CAT1 & CAT2 (Trace affecting works that are needed for Trial Running) are now in the access plan and scheduled for delivery before Trial Running. The Dynamic Testing programme for TR2 has taken precedence in between the two blockades, delaying non-critical EOWLs completion until a suitable opportunity arises.

### **4. Stage 2B Operations**

- 4.1. In Period 7, Bombardier delivered the first of the two software defect fixes for endurance running on the Great Western MainLine (GWML) and Heathrow routes on empty stock. The fix was successful and will be first introduced to passenger service on eight trains in Period 9. A case has been presented to the Operator that the deployment of this first fix can increase the Full-Length Units (FLUs) limit above eight to allow conversion of Reading services to FLUs from Period 10.
- 4.2. The second defect fix has been delivered and tested in Period 8 on the Heathrow route but assurance of this fix for passenger service has been postponed from November 2020 to January 2021 to protect the Trial Running Safety Justification (SJ) and train software assurance programme.

4.3. Reliability growth of the FLUs is currently dominated by software defects causing 75% of all service affecting failures. The first fix is forecast to reduce service affecting failures caused by the software by 40%; the second by a further 30%.

4.4. Meetings are taking place with Bombardier at the most senior level to ensure their continued commitment and prioritisation to work on the Class 345's.

## 5. SIDT, Trial Running and Reliability Growth

5.1. The TR2 software testing has completed sufficiently for the train-borne TR2 software to be used in Trial Running. There is a planned upgrade (PR6) to the non-train-borne software on 29 January 2021 to improve reliability and secure functionality for the infrastructure.

5.2. The Project Representative notes that [REDACTED] Trial Running is coming under pressure as a result of the assurance process. This is acknowledged and is being actively managed through the governance process for Period 8, and the outcomes will be shared with the Elizabeth Line Delivery Group in December.

## 6. Stations Assurance and Commissioning for Trial Operations

6.1. The challenge in ensuring appropriate MEP resourcing at Paddington was addressed by suppliers in October 2020 and subsequently enabled the successful completion of SC3 as planned on 26 November 2020. This will continue to be monitored to ensure requisite assurance resource is available to secure T-12 commencement to SC3 ROGS.

6.2. Material compliance checks at Paddington station identified 33 sub-mains cables which did not have a Material Compliance Record approval. This volume of non-compliance was subsequently reduced to two manufacturers and necessitated a Project Manager's Instruction being issued to the suppliers to replace the cables on 11 November 2020. It should be noted that these works do not impact upon SC1 Enactment or T-12 commencement.

6.3. Addressing the single point of failure issues regarding the emergency lighting at Paddington and other stations have been planned so as not to impact upon the critical DCS milestones. A weekly detailed review of EOWs is now undertaken at each station with the Chief Engineers Group which has resulted in greater scope stability.

6.4. Canary Wharf remains the only station where there is currently scoping uncertainty due to the magnitude of defective and non-compliant installation being greater than envisaged. This is subject to an ongoing review with the focus being on physical works required to enable SC1 Enactment by 13 January 2021.

6.5. There is now a programme in place for SC1 Enactment, SC2, and SC3 at Bond Street. SC1 Enactment is forecast for completion on 30 December 2020 following RAB-C approval on 23 December 2020. There is a weekly monitor of progress and EOWs closure by the CRL Executive in readiness for SC2. The overall programme to completion will improve as the supply chain is procured and contracted. This enables Clause 32 schedule verification/supplier buy in to the DCS. There is an ongoing review to consider opportunities to better the [REDACTED] completion currently identified in the DCS for SC3.

## 7. Cost and Risk

7.1. The Silver Recovery team is monitoring case numbers daily and directing site specific mitigations as appropriate. A risk assessment focussed on COVID-19 impacts has been carried out with the Silver Recovery team. Consequently, schedule and cost forecasts have been updated.

## 8. Organisation

8.1. The organisation design and readiness for Trial Running is part of a wider programme of readiness work to prepare for Trial Running. Significant detailed work has been conducted across CRL and RfLI to map resourcing requirements for the final organisation structure and design. A series of recommendations and gaps are due to be presented to CRL's Executive team in late November 2020, and a plan for implementing this design, including processes and governance, will be actioned timely and accordingly.

8.2. Flight risk and premature departure of key resources are being actively managed as threats. Most recently, it has been agreed with TfL to secure the extensions of all staff required from December 2020 until March 2021. All staff are clear on the phase of the programme to which they are required to enable the successful delivery of the programme.

8.3. Further work is underway to better develop and retain existing staff through implementing TfL's new Talent Management Framework. Reviews with the Executive team. This will take place over the next period to actively encourage the retention of existing workforce and provide the guidance and tools to proactively manage future roll off, or long-term retention of key resources with critical skills at the appropriate phase of the programme.

## 9. Key Observations in Period

9.1. The Project Representative raises a key observation regarding when the assured baseline (cost, schedule and scope) be completed, and the Programme forecasts updated. In the Executive paper on DCS1.1 Maturity in Period 7, the DCS1.1 schedule was endorsed by the CRL's Executive team as sufficiently assured with appropriate controls in place to enable it to be used as the new schedule baseline for monitoring and reporting performance, noting this was subject to funding approval. While the funding arrangements are outstanding, the cost cannot yet be confirmed. The DCS1.1 is CRL's working schedule, and it is currently under change control. A majority of comments raised have been actioned and closed out, and while there are a limited number of residual close out actions, these have clear timelines for implementation and Executive ownership.

9.2. The programme forecasts of cost and schedule are issued every period against the DCS1.1. Due to the continuing COVID-19 uncertainty, a fully assured baseline schedule and cost is unlikely to be achieved. However, the DCS1.1 budget and QSRA/QCRA is robust enough to form a credible plan to operational service and acknowledges the continuing work to determine COVID-19 resilient resource plans and station integration strategies for each station. Now that Farringdon station integration strategy and plan is complete, this will be rolled out to the remaining stations. It is expected that each station plan will be available in advance of the T-12 for each station handover process (note the final station handover T-12 is not until 3 June 2021).

- 9.3. The Project Representative raises a key observation regarding the risk imported by dependencies in the assurance process, and RfL's reflections on this. The emerging dependencies from the completion of the Safety Justifications (SJs), handover documentation and Element Acceptance Certificates (EACs) are being tracked and monitored by a joint CRL and RfLI team. As the SJs are submitted to the independent safety panel for acceptance, the agreed dependencies are tracked by the RfLI team and plans for resolution are developed by CRL to meet the schedule for the delivery of the RfLI Railway Chapter Acceptance Case (RCAC) documentation.
- 9.4. Where it is evident that residual dependencies are not closed out by chapter, a Structured Engineering Judgement (StEJ) will be developed between CRL and RfLI for submission to the independent Railway Assurance Board for Crossrail (RAB-C). It is expected that all Routeway chapters will complete their assurance activity by mid-January 2021, leaving the Routeway Element and Trial Running Acceptance Case including any StEJ to be completed in early 2021. The integrated plan is being developed by CRL and RFLI teams.
- 9.5. The Project Representative raises a key observation regarding when the Alternative Delivery Model (ADM) strategy will be integrated in the new change management process, and when will material benefits be realised. The new Programme Change Control Process will be implemented when the funding and associated restrictions are made clear as these could affect the delegated change authority levels within CRL. The draft process was discussed at the Period 9 Executive Committee and endorsed subject to some amendments and confirmation of the delegated authority levels. This process will incorporate any change in project scope and ADM.
- 9.6. Generally, the ADM is being progressed and as residual works are identified by the teams in the readiness for the element handovers, these works are confirmed in the available work bank. Characteristically, the works should not be material to Trial Running or Trial Operations.

**END**

## **APPENDIX 1 – LIST OF CONTRIBUTORS**

### **RESPONSE TO THE CROSSRAIL SPONSORS ON THE PROJECT REPRESENTATIVE SPONSOR SUMMARY REPORT**

Period 7 FY2020-21 (20 September 2020 – 17 October 2020) report, issued and received on 13 November 2020.

Chief Finance Officer  
Chief of Staff  
Chief People Officer  
Chief Programme Officer  
Communications Director  
Crossrail Operations Business Manager  
Deputy Programme Controls Director  
Head of Finance  
Head of Risk  
Lead Reliability Engineer  
Operations Business Manager  
Programme Integration Director  
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