



CROSSRAIL BOARD

**Minutes of the Meeting of the Board of Directors of Crossrail Limited
Held on Thursday 8 November 2018 at 13:30
28th Floor Boardroom, 25 Canada Square, Canary Wharf, London E14 5LQ**

Members:	In Attendance:	Apologies:
Andy Pitt <i>Non-executive Director (Chair)</i>	Funmi Amusu <i>Assistant Company Secretary</i>	Susan Beadles <i>Head of Legal Services & Company Secretary</i>
Mathew Duncan <i>Finance Director</i>	Dawn Barker <i>Head of Human Resources</i>	Phil Gaffney <i>Non-executive Director</i>
Robert Jennings <i>Non-executive Director</i>	Lucy Findlay <i>Chief of Staff</i>	Terry Morgan <i>Chair</i>
Anne McMeel (part of the meeting) <i>Non-executive Director</i>	Paul Grammer <i>Commercial Director</i>	
Nelson Ogunshakin <i>Non-executive Director</i>	Karl Havers (part of the meeting – via conference call) <i>Partner, Ernst & Young LLP</i>	
Chris Sexton <i>Programme Director</i>	David Hendry <i>Chief Finance Officer</i>	
Mark Wild <i>Non-executive Director</i>	Dili Origbo (part of the meeting) <i>Head of Internal Audit, TfL</i>	
Simon Wright <i>Chief Executive</i>	Howard Smith <i>Operations Director</i>	

The meeting was quorate.

NEDs Only Session	<p>Non-executive Directors held a session prior to the commencement of the Board meeting.</p> <p>The Board members voted in Andy Pitt as the Chair.</p> <p>The Chair welcomed Board members and attendees.</p> <p>Directors' Interests</p> <p>Members were reminded that any interests in a matter under discussion must be declared at the start of the meeting, or at the commencement of the item of business.</p> <p>There were no interests declared in relation to the business of the meeting.</p>
BD MIN 181011	<p>Minutes of the Meeting of the Board held on 11 October 2018</p> <p>The Board APPROVED the minutes of the meetings held on 11 October 2018 for signature.</p>

<p>BD AC 181108</p>	<p>Actions and Matters Arising</p> <p>19.091 – Contractors – the Board NOTED the contractors whose work was the most critical and who were the least performing. It was NOTED that Simon Wright and Mark Wild would have a discussion to determine how to escalate issues with these contractors and push them for a more reliable output, including what support, if any, would be needed from the Board.</p> <p>The Board NOTED that all the other ‘due’ actions had either been completed or were covered by the agenda for the day’s meeting.</p> <p>The Board discussed the letter from the Sponsors dated 2 November 2018 and NOTED that the finalisation of the Master Operational Handover Schedule (MOHS) was key to responding to the letter. It was NOTED that the MOHS would be the main focus at the Board meeting on 5 December 2018, with a pre-briefing on the MOHS status provided to Board members during the fortnightly call on 21 November 2018.</p>
<p>BD CBR 181108</p>	<p>Crossrail Board Report Period 7</p> <p>Simon Wright introduced the Board Report for Period 7 highlighting that:</p> <ul style="list-style-type: none"> • Following the issue of the updated Remedial Action Plan (RAP) to the Sponsors, the focus had been on delivering the final stages of the programme. The work to update the MOHS continued and was due to be finalised at the end of November 2018. Expectations had been communicated across the supply chain, who were all focussed on completion of the routeway works and the readiness of the train and signalling systems to commence Interim Dynamic Testing (IDT) in December 2018; • An anchor milestone was achieved in the Period with Platform Screen Doors now ready for dynamic testing in Zones 3 and 4; • A staff gathering was held to reflect on progress so far, provide a briefing on activity to come and recognise some of the stars of the organisation who had exemplified the Crossrail values over the last year; • HSPI improved to 2.59 from 2.57 in the previous Period. The ‘Finish Safe’ campaign was successfully launched and there had been significant engagement from most of the contracts; and • The AFCDC increased by £207m to £13,499m (£986m above IP2). This increase was consistent with discussions with the Sponsors and the updated RAP. The additional interim funding of £350m committed to the project post period on 26 October 2018, once confirmed to CRL, would allow the company to continue to meet its obligations to suppliers and commit the necessary Investment Authority (IA) to projects that require it in accordance with CRL’s governance structure. <p>Are We Safe?</p> <p>It was NOTED that:</p> <ul style="list-style-type: none"> • The RIDDOR rate decreased to 0.08 (from 0.09 in the previous Period) and the Lost Time Case (LTC) rate decreased to 0.13 (from 0.15 in the previous Period), both well below the corporate targets;

- In the Period, there were 9 significant incidents – 1 RIDDOR, 1 LTC and 7 High Potential Near Misses; and 14 injuries were sustained; and
- All 11 key contracts had achieved a HSPI score of 2.20 or above, with 9 of the contracts scoring 2.45 or above.

The Board **REQUESTED** an update in the new year on the plans to ensure that health and safety management for the rest of the life of the project continued to remain fit for purpose.

Action: Chris Sexton (Martin Brown)

Are We Within Funding?

Mathew Duncan presented a summary of financial performance for the Period. It was **NOTED** that:

- The AFCDC had been aligned with the dates as presented in the updated RAP and was at £13,499m, now exceeding the financial budget by £689m. The increase was driven by the additional programme risk allowances required to align with the revised dates as indicated in the updated RAP. A paper was on the Board agenda to seek approval of an increase in the Financial Budget and the award of IA; and
- In the Period, CRL had spent £91.9m above the 2018/19 Business Plan (year to date overspend of £392.3m). The Business Plan was set in Period 6 of 2017/18 and a revised Business Plan forecast was to be produced to align with the updated RAP calculations. Also, a paper was on the Board agenda to note the approach for the 2019/20 Business Plan.

Commercials Update

Paul Grammer updated the Board on commercial performance in the Period. The Board **NOTED** that:

- The total gap between CRL's and its contractors' views of target cost had [REDACTED] and the total forecast gap in forecast defined cost [REDACTED] and
- [REDACTED]

The Board **AGREED** that [REDACTED]
[REDACTED]
[REDACTED]

Action: Paul Grammer

Network Rail (NR) On Network Works (ONW) and Funding

- The Forecast Final Outturn Cost (FFOC) remained at £2,430m. CRL assessed the grand total cost mid-point sensitivity to be +£107.1m which now included an allowance for the Enhanced Stations (West) and residual East works;
- The Enhanced Stations (West) package for Southall, Hayes and West Drayton was now in the 'stand still' period. Award letters for Acton, Ealing

Broadway and West Ealing were expected by the end of October 2018. The procurement of both packages was [REDACTED]. There were ongoing funding discussions relating to the £76m and additional cost pressures on core scope which were being considered by DfT, NR and CRL;

- In regard to ETCS on the west, NR was progressing development of a new exemption for the Great Western Main Line with Soterra, expected to be submitted to the Office of Rail and Road in February 2019 following a number of workshops with operators. It was expected that the ORR review might be extended to July 2019 to allow a wide consultation.

Are We on Time?

Chris Sexton presented an overview of delivery performance.

The Board also **NOTED** the following:

- At the West surface stations undergoing re-construction, enabling works had commenced at three locations as planned (Ealing Broadway, West Ealing, Acton) with foundations for the new footbridges. Platform extension works had also commenced at West Drayton. Works to the ticket office at Forest Gate (Anglia) continued with an expected opening at the end of October 2018, subject to the completion of sufficient assurance evidence;
- In line with the revision of the MOHS that had informed the new Stage 3 schedule, a full rebaseline of the Stations contracts had commenced and was expected to report during Period 9. Progress measurement would capture the remaining physical elements but place much greater emphasis on the assurance evidence required for successful Stage Completion and Handover. There remained clear pressure which was building on the forecast Tier One Substantially Demobilised (TOSD) dates and the Stage Completion dates;
- There had been a pre-Board briefing on 7 November 2018 attended by a number of Board members, where the benefits of IDT had been discussed. In line with the updated RAP, the entry into IDT had been set for 10 December 2018. As critical work on the completion of the Systemwide routeway continued in parallel with the train and signalling software development programme, the architecture of what the schedule for IDT looked like continued to be optimised. CRL was seeking to deliver a minimum of 120 hours of testing prior to Christmas to achieve its IDT objectives;
- Test Window 12 was completed in the Period, which included C620 route accessibility and radio coverage testing as well as a number of successful transitions between TPWS and CBTC in both directions but some intermittent failures were experienced. Of the signalling tests, 34 tests remained passed out of a total of 70 conducted. There was an additional 156 tests required to be passed in order to complete the signalling testing. A full rebaseline was now underway as part of the new MOHS. The readiness of infrastructure and the stability of the train remained concerns as these were restricting the scope, efficiency and success rates. The number of complete non-signalling tests now stood at 82 out of a total of 308 tests;

- The challenge of recruiting sufficient radio testing resources to meet the requirements of the schedule continued. However, technical issues had resulted in a two month delay to commissioning radio systems and this was now forecast to be completed in January 2019. The continued slippage in handover of Tier 1 Station Installation Release Notes (IRNs) to C660 was still compressing their Testing and Commissioning window and remained a critical concern;
- The overall production of IRNs (as well as other key documents) to support handover of assets by the Tier 1 contractors remained critical. In the Period, the IRNs were now at 50% complete. A multi-phase review process had been established with the Tier 1 contractors to formulate detailed IRN delivery plans that were supported by Tier 2 and Tier 3 subcontractors;
- With regard to asset data and O&M manuals, the O&M taskforce, which included the contractors and technical authors, completed 3 key sessions designed to take a critical look at inputs, production, review, relationships as well as behaviours. The output from these sessions included clear consolidated templates and potentially up to 2,000 fewer documents required. Good practice had been defined and the process would continue to be monitored very closely;
- A tracker had been produced based on the outcomes of the independent reviews by Boss and Rannachan. The tracker was being monitored and kept up to date;
- Work was ongoing producing a weekly performance report which tracked key areas of the project;
- PA Consulting produced their report on the systems integration review on 29 October 2018. The report focused broadly on integration activities across the programme and recommended establishing a refreshed integration team managed by a new post called the Integration Director who would report directly to the CEO. Detailed job descriptions for the roles and recruitment was ongoing; and
- CRL, Rail for London (RfL) and London Underground (LU) were working closely together on managing Stage Completions.

The Board discussed the coordination of software drops that was necessary between Bombardier Transportation (BT) and Siemens and **NOTED** that, if necessary, it might be beneficial to appoint a software consultant to review the interface between BT and Siemens.

Operations

Howard Smith provided an update on key operations matters, highlighting current operations; software and integration; IM readiness and staged opening.

The Board also **NOTED** the following:

- Central section testing using the current versions of TCMS and CBTC was ongoing. The Siemens CBTC “29 test” test program completed previously (with 12 tests passed and 17 outstanding) all had clear action plans assigned which would be addressed in updated TCMS and CBTC releases; and

	<ul style="list-style-type: none"> As noted in the previous Period, 40 Full Length Units (FLUs) had been built (in addition to 15 Reduced Length Units (RLUs)) and 18 FLUs had been accepted. Further acceptance remained [REDACTED] delivery of software upgrades and increased reliability of the existing fleet. <p>Non-Delivery Activities</p> <ul style="list-style-type: none"> As the finalisation of the MOHS continued, the Integrated Resourcing Group (IRG) continued to manage the resource requirements. Whilst financial provision had been made within the updated RAP, risks on key roles remained a concern as well as the space available to accommodate staff in the 2019 office locations; Outputs of the MOHS, its associated resource plan and any decisions following the KPMG review might change current plans for the future transition of activities from CRL to TfL; and CRL staff were scheduled to relocate from 25 Canada Square to the current CRL office at Westferry Circus and the TfL office at Endeavour Square in Stratford by 14 December 2018. <p>The Board NOTED the Board Report for Period 7.</p>
Verbal	<p>Dynamic Testing Strategy</p> <p>As part of the Programme Update (see above), the Board had been briefed on the plan for Interim Dynamic Testing, to commence on 10 December 2018.</p> <p>The Board APPROVED the plan for Interim Dynamic Testing.</p>
31/19	<p>CRLB 31/19 – Draft Semi-Annual Construction Report 20 (SACR20)</p> <p>Simon Wright presented the draft SACR20 to the Board.</p> <p>Subject to slight amendments as agreed at the meeting, the Board:</p> <ul style="list-style-type: none"> NOTED that the Financial Model which informed the forecast costs in SACR20 has been updated in accordance with the requirements as defined in Schedule 7 ('Financial Model') of the Crossrail Project Development Agreement (PDA); NOTED that the CRL Finance Director had approved the release of the updated Financial Model to the Sponsors; NOTED that at the request of the Sponsors, the SACR20 AFDCDC reported was consistent with the RAP 2 [REDACTED] dates including additional QRA rather than the Period 6 forecast; and APPROVED the SACR20 for submission to the Sponsors.
32/19	<p>CRLB 32/19 – Increase in Financial Budget and Award of Investment Authority</p> <p>The Board received a paper requesting the increase to the Financial Budget of £350m (following the announcement on 26 October 2018 of the additional funding being made available to Crossrail) and the award of IA of £396m to specified contracts.</p> <p>The Board NOTED that part of the amount approved as IA would facilitate the proposed [REDACTED] for a number of contracts including [REDACTED] [REDACTED] [REDACTED]</p>

	<ul style="list-style-type: none"> • DID NOT AUTHORISE the Finance Director to sign the ‘Directors’ Report’, ‘Strategic Report’ and ‘Statement of Financial Position’; and • DID NOT AUTHORISE the Finance Director to sign the Representation Letter. <p>The Board NOTED that the Finance Director, who was scheduled to leave CRL on 9 November 2018, would prepare a ‘letter of comfort’ to the CFO confirming that [REDACTED] he would have been satisfied to sign the Audited Financial Statements for the year ended 31 March 2018.</p> <p>The Board NOTED that a note on the Audit Plan for the current year 2018/19 had been received from Ernst & Young and would be circulated to Board members after the meeting.</p>
35/19	<p>CLRB 35/19 – Crossrail Audit Update</p> <p>The Board NOTED the Crossrail Audit Update. It was also NOTED that the plan was for the update to be presented to the CRL Board on a quarterly basis, as part of the revised governance arrangements for Audit Committee matters going forward.</p> <p>The Board discussed whether it was necessary to revisit the governance arrangements for audit matters and AGREED that the audit governance requirements of CRL (as a result of the extension of life of the project) should be considered and a recommendation on how this could be managed should be made to the Board at the meeting on 10 January 2019.</p> <p>Action: David Hendry (Robert Jennings/ Anne McMeel/ Chris Sexton)</p>
36/19	<p>CRLB 36/19 – Governance Matters</p> <p>The Board received a paper informing it of a number of governance matters.</p> <p>The Board:</p> <ul style="list-style-type: none"> • APPROVED the appointment of David Hendry as an Executive Director to replace Mathew Duncan as a CRL Board member from 10 November 2018; • APPROVED the appointment of Mark Wild as an Executive Director to replace Simon Wright as a CRL Board member from 19 November 2018; • NOTED that following the appointment of Mark Wild as an Executive Director, the TfL nominated Non-Executive Directors on the CRL Board would be reduced to two; • GRANTED the same delegated authority to the CFO, subject to the same conditions and limitations, as the CRL Board has previously granted to the Finance Director, with effect from 10 November 2018; and • APPROVED changes to the Scheme of Authorities to substitute all references to the Finance Director with references to the CFO, with effect from 10 November 2018.
37/19	<p>CRLB 37/19 – Project Representative Report (P-Rep) Period 6</p> <p>The Board reviewed and NOTED the P-Rep Report for Period 6.</p> <p>Simon Wright provided a verbal summary of the issues that were expected to be raised in the Period 7 report which were NOTED by the Board. These included matters relating to: health and safety; financials; Stage 2 Opening; Stage 3 Opening (Infrastructure & Systems and Handover & Operational Readiness); and Stages 4 and 5 Openings.</p>

<p>Minutes of Board Committees for Reference</p> <p>The Board received the following minutes for reference:</p>		
<p>Executive and Investment Committee</p>	<p>EIC D 181003</p>	<p>Simon Wright</p>
<p>Verbal Updates of Recent Board Committee meetings</p>		
<p>Executive and Investment Committee 31 October 2018 Matters covered by the Committee were:</p> <p>Board agenda items:</p> <ul style="list-style-type: none"> • Draft SACR20 • Crossrail Audit Update • Approach for 2019/20 Business Plan • Increase in Financial Budget and Award of IA <p>Other items:</p> <ul style="list-style-type: none"> • Accommodation Update • Strategic/ Programme Risks Review • Business Continuity and Resilience Plan 		<p>Simon Wright</p>
<p>AOB</p>	<p>The Board:</p> <ul style="list-style-type: none"> • APPROVED the change to the registered office address of CRL from 25 Canada Square, Canary Wharf, London E14 5LQ to 5 Endeavour Square, Stratford, London E20 1JN; and • NOTED that it was Simon Wright and Mathew Duncan's last meeting and thanked them for their contribution to the project. <p>There was no other business.</p>	
<p>NEDs Only Session</p>	<p>Non-executive Directors discussed the day's meeting.</p>	
	<p>Remuneration Committee matters</p> <p>Separate Remuneration Committee minutes were prepared for this section of the meeting, to be viewed and approved only by the Non-executive Directors in attendance.</p>	

Signed by: _____

Andy Pitt
Chair