



BD MIN 171207

**CROSSRAIL BOARD**

**Minutes of the Meeting of the Board of Directors of Crossrail Limited  
Held on Thursday 7 December 2017 at 13:15  
28th Floor Boardroom, 25 Canada Square, Canary Wharf, London E14 5LQ**

<b>Members:</b>	<b>In Attendance:</b>	<b>Apologies:</b>
Terry Morgan <i>Chairman</i>	Jeremy Bates (Part of meeting) <i>Head of Integration</i>	Andrew Wolstenholme <i>Chief Executive</i>
Pam Alexander <i>Non-executive Director</i>	Chris Binns (Part of meeting) <i>Chief Engineer</i>	
Michael Cassidy <i>Non-executive Director</i>	Victoria Burnett <i>Head of Secretariat</i>	
Mathew Duncan <i>Finance Director</i>	Mark Fell <i>Legal Services Director and Company Secretary</i>	
Phil Gaffney <i>Non-executive Director</i>	Lucy Findlay <i>Chief of Staff</i>	
Terry Hill <i>Non-executive Director</i>	Colin Gainsford (Part of meeting) <i>Systemwide Delivery Director</i>	
Robert Jennings <i>Non-executive Director</i>	Elizabeth Gillbe (Part of meeting) <i>Finance and Analysis Director</i>	
Mark Wild <i>Non-executive Director</i>	Paul Grammer <i>Commercial Director</i>	
Simon Wright <i>Programme Director</i>	Will Parkes <i>External Affairs Director</i>	
	Chris Sexton (Part of meeting) <i>Technical Director</i>	
	David Sherrin (Part of meeting) <i>Senior Project Manager (Rolling Stock)</i>	
	Howard Smith <i>Operations Director</i>	
	Valerie Todd <i>Talent and Resources Director</i>	

The meeting was quorate.

	<p>The Chairman welcomed Board members and attendees.</p> <p><b>Directors' Interests</b></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>
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	<p><b>Informal Session of the Board 7 December 2017</b></p> <p>It was <b>NOTED</b> that an informal session of the Board had been held earlier in the day covering: a programme schedule update; an operations update; and an update on Stage 2 readiness and actions in respect of lessons learnt from Stage 1.</p> <p><b>Re-appointment of CRL Chairman</b></p> <p>The Board <b>AGREED</b> that Terry Morgan should serve as Chairman for a further year when his current term ended on 31 May 2018 with an option to extend for a further six months if required. It was <b>NOTED</b> that DfT and TfL had approved the re-appointment.</p> <p><b>Will Parkes</b></p> <p>The Board <b>NOTED</b> that Will Parkes would be leaving Crossrail at the end of the year and thanked him for his contribution to the project. External affairs would be managed from January 2018 by the newly appointed Head of External Affairs, Sarah Allen.</p>
BD MIN 171109	<p><b>Minutes of the Meeting of the Board held on 09 November 2017</b></p> <p>The Board <b>APPROVED</b> the minutes of the meeting held on 09 November 2017 for signature.</p>
BD AC 171207	<p><b>Actions and Matters Arising</b></p> <p>The Board <b>NOTED</b> that the actions due had either been completed or were covered by the agenda for the day's meeting.</p>
BD CBR 171207	<p><b>Crossrail Board Report Period 8</b></p> <p>Simon Wright introduced the Board Report for Period 8 highlighting that:</p> <ul style="list-style-type: none"> <li>• In Period 8, overall completion against plan had been positive with achievements including the opening of the new station at Abbey Wood. However, since the Period end, a number of equipment quality issues had emerged including the failure of two voltage transformers resulting in an amended timetable for energisation in zones 1 and 2, which would now start in the new year rather than in December 2017;</li> <li>• The availability and functionality of the train software for dynamic testing and for Stage 2 remained an area of focus in Period with implications for zones 3 and 4 a particular concern;</li> <li>• In the Period, the cost of delivery had increased by an overall amount of £10.6m which had been funded via a drawdown from risk, resulting in no change to the AFDCD, which remained at £12,303m; and</li> <li>• Performance against KPIs in Period 8 had fallen – with three milestones not achieved and acceptance Design Engineering Safety Justification (DESJ) and Railway Assurance Board – Crossrail (RAB-C) performance both moving from the 'excellent' to the 'satisfactory' banding.</li> </ul>

**Are We Safe?**

It was **NOTED** that:

- Good performance had been maintained during Period 8, although RIDDOR AFR and LTC AFR had both increased by 0.01;
- There were six significant incidents during the period, (two RIDDORs, two lost time incidents and two high potential near misses including the voltage transformer failure at Pudding Mill Lane);
- HSPI had increased to 2.56 from 2.53; with all 12 contracts measured achieving a score of 2.2 or above; and
- Significant focus had remained on the health and safety regime for energisation and the dynamic testing periods as well as continuing construction safety.

**Are We Within Funding?**

Mathew Duncan presented a summary of financial performance for the Period **NOTING** that:

- No change to AFCDC in the Period had meant that AFCDC remained at £391m above IP1 at P50 and £444m above IP1 at P80. Potential further pressures on the AFCDC would be reviewed in Period 9 as part of the QRA process. [REDACTED]
- Drawdown in risk to meet delivery [REDACTED]
- In the Period, Crossrail had spent £36.8m above the 2017/18 Business Plan. [REDACTED] offset by apparent unspent Programme risk due to cost being reported in the Sectors (£10.8m);
- Of the £329m QRA total at Period 8, £241m was currently programme risk not allocated to projects. If all £238m of URTs were approved, the QRA total would reduce to £91m; and
- The financial budget had been increased by £157m in the Period to align with the P80 AFCDC forecast (£12,356m). The overall contingency budget of £364m was sufficient to cover the P50 risk exposure of £329m by £35m.

In response to a request made by the Board at a previous meeting, Mathew Duncan also presented a slide showing a cost breakdown for each of the key contracts showing the management view, risk, cost to go and cost to date.

The Board **REQUESTED** that the Executive prepare a mitigation plan to ensure that Crossrail delivers the project within IP2.

**Action:** Mathew Duncan

### Commercials Update

Paul Grammer provided an overview of the commercial position under key contracts, including a detailed presentation on the proposed supplemental agreements with [REDACTED]

It was **NOTED** that:

- The total gap between CRL's and its contractors' views of target had decreased by [REDACTED] and the total forecast gap in forecast defined cost had increased by [REDACTED]
- In line with previous reporting, discussions with [REDACTED] had progressed in the Period on programme and cost. Productivity, particularly at [REDACTED] remained below that required although there were signs of improvement;
- Terms had been agreed for the [REDACTED] supplemental agreements for [REDACTED] and [REDACTED]
- There were a number of risks for [REDACTED] that had not yet been included in the contract AFCs and which would need to be realised as part of the P9 QRA process.

The Board **APPROVED** the introduction of an [REDACTED] following a discussion of the justification for it in the context of an overall commercial settlement with [REDACTED]. That strategy was accepted as providing the best route to the lowest overall cost outcome. It was **NOTED** that the full and final settlement target position for contract [REDACTED]

The Chairman **REQUESTED** an update on the impact of the supplemental agreements on [REDACTED] behaviour at the next Board meeting.

**Action:** Paul Grammer

### NR ONW and Funding

The Board **NOTED** that the forecast final outturn cost (FFOC) had remained at £2,530m. The total additional funding being requested by NR was £154m (£139m for CP5, £15m for CP6). Terms had been agreed with NR regarding termination of the Delivery Incentives Agreement and execution of the Additional Funding Agreement to enable CRL to make a £22m funding contribution. NR had found internal additional funding of £20m, DfT had previously committed £28m, and had now committed to providing the remaining £84m.

Are We on Time?

Simon Wright had presented an overview of delivery performance in the informal session, in relation to which the following current issues were **NOTED**:

- Progress on the essential cable pulling activities of C660 (75% complete) and C620 (8% complete) continued to place more pressure on the delivery of dynamic testing in Zones 3 & 4. Systemwide teams were monitoring this daily but frustrated access was continuing to cause delay and it was now likely that dynamic testing on this part of the network would commence in late April 2018; and
- Siemens' delivery of communications software essential to the testing of the SCADA network was continuing to show significant slippage. CRL was working with Siemens to recover the position to avoid a potential delay to tier 1 station integration and RfL training.

### Operations

Howard Smith had provided an update on key operations matters during the informal session highlighting some of the issues relating to Stages 1, 2, 3, 4 and 5 opening.

The Board **NOTED** that:

- All 15 Class 345 RLUs were now built. The 8th unit has been accepted, with the 9th unit ready for acceptance at Ilford. Units 10, 11 & 12 were at Melton in pre-acceptance state awaiting delivery. Train testing of R6.1.1.8 software at Melton had progressed more slowly than planned. The delay in achieving stable software had impacted the approvals programme, resulting in a further delay to start of GWML testing;
- ETCS dynamic testing was further delayed in the Period by software instability not previously detected on the test rigs. Testing was scheduled to restart on 16 November with new AWS/TPWS software. Approvals to run On Network were now forecast for 8 December; and
- BT readiness for Stage 2 remained critical and CRL would be undertaking a QSRA on BT's readiness for Stage 2 in Period 9. CRL had issued an update to Sponsors on the adverse event notice relating to the uncertainty and delays to BT's on board train signalling and TCMS.

The Board **REQUESTED** that Howard Smith provide an update at the next meeting on Stage 2 Opening providing assurance that Stage 3 Opening would be protected.

**Action:** Howard Smith

The Board also **REQUESTED** details of the additional costs and works associated with the extension from Maidenhead to Reading.

**Action:** Howard Smith

### ***Are we world class?***

It was **NOTED** that:

- CRL was continuing to support tier 1 contractors to reach resolution with their workforces to avoid industrial action, particularly at Woolwich;
- The Chairman had hosted a site visit at Bond Street Station which was attended by Shadow Secretary of State for Transport, Andy McDonald

	<p>MP, the Shadow Secretary of State for Environment, Food and Rural Affairs, Rachel Maskell MP and Reading East MP, Matt Rhodda;</p> <ul style="list-style-type: none"> <li>• The Learning Legacy website had seen an upturn in activity since the September upload and promotion; and</li> <li>• A Land and Property handover procedure had been drafted for the transition of over site developments and other transition arrangements.</li> </ul> <p>The Board <b>NOTED</b> the Board Report for Period 8.</p>
32/18	<p><b>CRLB 32/18 Systems Integration Governance</b></p> <p>In response to a request made at the Board meeting in October, a piece of work had been carried out to assess procedures and governance to ensure that they were appropriate to deliver the testing and commission programme. A meeting on this topic had taken place between Phil Gaffney, Howard Smith, Mark Wild and Simon Wright since the last Board meeting.</p> <p>Jeremy Bates, Chris Binns, Colin Gainsford, Chris Sexton and David Sherrin provided the Board with a detailed presentation which set out the approach, process, documentation and assurance in place to deliver the integration model.</p> <p>A programme governance schematic was also presented which showed where decision making and vital information sharing would take place. In particular, a new group had been established, the Elizabeth Line Strategic Steering Group, which would be the high level forum for taking decisions quickly if plans needed revising and to ensure the project remained on course, especially during testing and commissioning.</p> <p>The Board <b>NOTED</b> the presentation.</p>
33/18	<p><b>CRLB 33/18 2018/19 Business Plan</b></p> <p>Elizabeth Gillbe presented the 2018/19 Crossrail Business plan.</p> <p>It was <b>NOTED</b> that there had been an increase in indirect costs since the 2017/18 Plan with the net effect that AFCDC had increased by £13m since SACR 18. The main areas of increase were IT, Central Delivery and Technical and reflected the need to retain a higher than expected number of resources than previously forecast in order to successively deliver the project in the final stages and particularly through testing and commissioning.</p> <p>Chris Sexton provided an overview of plans for the 'close out' organisation which would be established once the central section had been handed over to RFL later in 2018. Roles associated with the 'close out' organisation had been assumed as part of business planning.</p> <p>The Board <b>APPROVED</b> the 2018/19 Business Plan as presented to the meeting which would be submitted to TfL in due course.</p>
34/18	<p><b>CRLB 34/18 – [REDACTED]</b></p> <p>Paul Grammer presented a request for an increase to Investment Authority for [REDACTED] - explaining that funding was required at this stage in order to release payments to the contractor.</p>

	<p>The Board <b>AGREED</b> to increase Investment Authority funding for [REDACTED]. It was <b>NOTED</b> that provision had already been made in the AFCDC although further cost pressures [REDACTED] were likely which could result in an increase to the budgeted contract AFC. It was further <b>NOTED</b> that CRL was continuing to work with [REDACTED] to encourage reduction in headcount and make improvements to efficiency and productivity.</p>									
<b>35/18</b>	<p><b>CRLB 35/18 – Notification to Sponsors of Stage 5 Operation</b></p> <p>Howard Smith presented a copy of the letter which would provide Sponsors with 24 months notice of Stage 5 Opening on 15 December 2019 together with a readiness status report.</p> <p>The Board <b>NOTED</b> that Chris Green, Chair of the Operations and Systems Expert Panel, had presented the Panel's view on Stage 5 readiness at the Board meeting on 9 November – concluding that it was viable providing certain risks were managed or mitigated.</p> <p>The Board <b>AGREED</b> that the notice should be submitted to Sponsors.</p>									
<b>36/18</b>	<p><b>CRLB 36/18 – Register of Directors' Interests</b></p> <p>The Board <b>NOTED</b> the Register of Directors' Interests as presented to the meeting.</p>									
<b>37/18</b>	<p><b>CRLB 37/18 – Project Representative Report (P-Rep) Period 7</b></p> <p>The Board reviewed and <b>NOTED</b> the P-Rep Report for Period 7.</p> <p>Simon Wright provided a verbal summary of the issues that were expected to be raised in the Period 8 report which were <b>NOTED</b> by the Board. These included matters relating to: Health and Safety, State 2, Stage 3, Assurance and Rolling Stock and Depot.</p>									
<b>38/18</b>	<p><b>CRLB 38/18 – Legal Report</b></p> <p>Mark Fell updated the Board on a number of legal matters including that:</p> <ul style="list-style-type: none"> <li>• Mr Charlesworth had obtained leave to proceed with his application for a Judicial Review of the decision by CRL under the Land Disposal Policy to dispose of a site at Woolwich on the open market; and</li> <li>• A High Court hearing had been set down in February to determine AG Thames Ltd's claim for damages of around £1.1m on the basis that it had suffered a loss of development potential of land which it had purchased without knowledge of a safeguarding direction in relation to the potential future extension of Crossrail to Hoo Junction.</li> </ul> <p>The Board <b>NOTED</b> the Legal Report.</p>									
	<p><b>Minutes of Board Committees for Reference</b></p> <p>The Board received the following minutes for reference:</p> <table border="1" data-bbox="363 1868 1386 2004"> <tr> <td><b>Executive and Investment Committee</b></td> <td><b>EIC D 171101</b></td> <td rowspan="2">Simon Wright</td> </tr> <tr> <td><b>Health and Safety Committee</b></td> <td><b>HS MIN 171030</b></td> </tr> </table> <p><b>Verbal Updates of Recent Board Committee meetings</b></p> <table border="1" data-bbox="363 2072 1386 2105"> <tr> <td><b>Executive and Investment</b></td> <td></td> <td>Simon Wright</td> </tr> </table>		<b>Executive and Investment Committee</b>	<b>EIC D 171101</b>	Simon Wright	<b>Health and Safety Committee</b>	<b>HS MIN 171030</b>	<b>Executive and Investment</b>		Simon Wright
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	<p><b>Committee 31 November 2017</b> Matters covered by the Committee were:</p> <ul style="list-style-type: none"> <li>• Business Plan 2018-19</li> <li>• C610 Request for Investment Authority</li> <li>• Stage 1 Lessons Learnt and Stage 2 Readiness</li> <li>• Notification to Sponsors of Stage 5</li> <li>• C512 Revised Incentive Milestones</li> </ul> <p><b>Health and Safety Committee 27 November 2017</b> Matters covered by the Committee were:</p> <ul style="list-style-type: none"> <li>• Period 8 Health and Safety Report</li> <li>• Dynamic Testing Update</li> <li>• Health and Safety Assurance Update</li> <li>• Industry Partner Assurance – Final Update</li> <li>• Crossrail Learning Legacy – Health and Safety</li> </ul>	<p><b>EIC MIN 171131</b></p> <p><b>HS MIN 171127</b></p>	
<b>AOB</b>	There was no other business.		
<b>NEDs Only Session</b>	<p>Non-executive Directors provided feedback on the day’s meeting.</p> <p>Michael Cassidy reported on the activities of the Remuneration Committee held on 9 November.</p>		

Signed by:

Terry Morgan  
Non-executive Chairman