



BD MIN 170427

CROSSRAIL BOARD

**Minutes of the Meeting of the Board of Directors of Crossrail Limited
Held on Thursday 27 April 2017 at 13.00
28th Floor Boardroom, 25 Canada Square, Canary Wharf, London E14 5LQ**

Members:	In Attendance:	Apologies:
Terry Morgan <i>Chairman</i>	Victoria Burnett <i>Head of Secretariat</i>	Will Parkes <i>External Affairs Director</i>
Pam Alexander <i>Non-executive Director</i>	Mark Fell <i>Legal Services Director and Company Secretary</i>	
Michael Cassidy <i>Non-executive Director</i>	Lucy Findlay <i>Chief of Staff</i>	
Mathew Duncan <i>Finance Director</i>	Paul Grammer <i>Commercial Director</i>	
Phil Gaffney <i>Non-executive Director</i>	Chris Green (Part of meeting) <i>Operations & Systems Expert Panel</i>	
Terry Hill <i>Non-executive Director</i>	Howard Smith <i>Operations Director</i>	
Robert Jennings <i>Non-executive Director</i>	Valerie Todd <i>Talent and Resources Director</i>	
Mark Wild <i>Non-executive Director</i>		
Andrew Wolstenholme <i>Chief Executive</i>		
Simon Wright <i>Programme Director</i>		

The meeting was quorate.

	<p>The Chairman 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>It was NOTED that Pam Alexander, Michael Cassidy and Terry Hill would be recused from Item 10, Re-appointment of Directors. Otherwise, there were no interests declared in relation to the day's business.</p> <p>Independent Commercial and Cost Review and MOHS 2017</p> <p>It was NOTED that, at an informal session of the Board held earlier in the day, David Orr and Dick McIlhattan had presented the findings of their independent commercial and cost review which had been commissioned by Terry Morgan.</p> <p>The Report had praised Crossrail's leadership and management systems to monitor and manage costs and risk. It also acknowledged that supplemental</p>
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agreements put in place so far with contractors demonstrated value for money and that on-going commercial pressures, such as those relating to C610, C512, C530, C405, C412 and C360, were to be expected on major programmes of the complexity and scale of Crossrail.

Recommendations to come out of the Report had included:

- That the AFCDC should be regarded as a range of possible out-turns with it being most unlikely that the outcome would be at the P50 level;
- That the leadership team should be allowed to focus on the challenge of delivering the railway as that would be the most effective way to constrain final cost;
- That the QRA should be monitored as the quantum had eroded over time and there might be insufficient reserves to fund emerging cost pressures;
- That Crossrail continues to pursue a plan to deal with any aggressive commercial behaviour by contractors;
- That opportunities for cost savings should be scored at an appropriately cautious value in the QRA which would ease pressure on AFCDC; and
- That 'simmering' cost pressures should be flushed out as soon as possible to drive the QRA to a more realistic level and therefore provide more stability around the AFCDC.

The Board had discussed the Report and made a number of comments, including:

- Whether more assurance could be provided to support the Report's view that final costs would amount to less than IP2 by some margin;
- Whether more assurance could be provided that risks due to external factors had been captured in the risk management process;
- How soon it would be possible to get more stability around the AFCDC – given that there would be future costs to emerge;
- A request for an explanation of which contracts had breached P80 and why;
- A suggestion that the Learning Legacy should capture work around probability calculations for projects and why P50 was not the most appropriate indicator of the likely outcome.

The Board had **REQUESTED** that the Executive prepare a response to the Report and the comments and queries raised by Board members.

Action: Mathew Duncan

Following the Independent Commercial and Cost Review, Simon Wright had presented an overview of MOHS 2017 which showed how the schedule and critical path had evolved since 2016.

The Board had **REQUESTED** that a process be put in place for London Underground to share learning on the complexity of station handover.

Action: Simon Wright/Howard Smith

The MOHS 2017 presentation had also included a section on productivity. The Board **REQUESTED** that an update on the regulatory approvals schedule should be presented to the Board at a future informal session.

Action: Simon Wright

170330	The Board APPROVED the minutes of the meeting held on 30 March 2017 for signature.
BD AC 170427	<p>Actions and Matters Arising</p> <p>The Board NOTED the completed actions. There were no other actions due.</p>
BD CBR 170427	<p>Crossrail Board Report Period 13</p> <p>Andrew Wolstenholme introduced the Board Report for Period 13 highlighting that:</p> <ul style="list-style-type: none"> • In Period 13 a number of key milestones had been achieved including Ilford Yard being ready to receive the first Class 345 train in preparation for Stage 1 opening in May. The programme was now 83% complete against a revised plan of 86.3%; • The RIDDOR AFR rate had fallen to a new record low for the project of 0.08 with only one major injury being reported in the period; • Earned value would continue to be calculated for SPI and CPI from 2017/18 but reporting would focus on the key dates in the 2017 MOHS in support of Stage 3 Opening in December 2018; • Commercial pressures, previously identified, had been recognised in the AFCDC in Period 13 resulting in a P50 AFCDC which was now £209m in excess of IP1 with a 95% chance that IP1 would be exceeded at completion of the project in 2019; • The QRA process had gone some way to build greater stability into the cost position but there were still some areas of cost uncertainty and the Executive continued to pursue opportunities for savings and remained committed to delivering Crossrail on time and within its funding envelope; and • An extra £30m funding had been identified by the DfT for ONW but the additional cost growth beyond £2.3bn needed resolution urgently. NR was presenting to the DfT Portfolio Board a request for additional funding of £86m to enable the Crossrail Programme to proceed with the letting of contracts for GRIP 5-8 delivery of enhanced station work on Western Route and other scope variations. Assuming the request was granted that still left a gap of £60m from the previous request of £176m. The reduction had taken account of the de-scoping/deferral items set out in the joint NR CRL paper but also assumed deferral of Ilford station works which CRL did not support. Andrew Wolstenholme would meet Mark Carne next week and a more detailed session would take place between the NR and CRL teams to discuss progress of the variations. <p>Are We Safe?</p> <p>It was NOTED that:</p> <ul style="list-style-type: none"> • Crossrail's Health and Safety record had continued to improve with the lost time case rate falling to 0.20; • HSPI remained at 2.35 in the Period with 11 contracts out of 13 having

achieved an HSPI score of 2.20 or above;

- In the Period there had been 3 incidents reported, (1 RIDDOR and 2 lost time cases), and 1 high potential near miss; and
- The Stepping Up Week programme had been developed in close collaboration with the contractors and would be ready for delivery starting on 24 April.

Are We Within Funding?

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

- The AFCDC had increased by £146m to £12,123m in the Period due to increased forecast costs for [REDACTED].
[REDACTED] In addition to these increases, further provision had been made in the Programme Unallocated Risk for these same projects, as well as for increased completion costs at [REDACTED] Custom House Station and C340 Victoria Dock Portal. A provision had also been made for a CRL contribution to the cost of solving the exit line speed at Ilford depot;
- For the full year, Crossrail had spent £138.4m above the 2016/17 Business Plan. [REDACTED]
[REDACTED] and other net underspends (£4.0m);
- The QRA exercise carried out in Period 13 had resulted in the amount of total risk increasing to £488m, (previously £384m), of which £126m represented programme risk not allocated to projects;
- The overall contingency budget of £304m was inadequate to cover the P50 risk exposure of £488m by £184m and also inadequate at P95 by £361m;
- The range of AFCDC scenarios in Period 13 showed a significant change in the P-Rep result from Period 12.

The Board **REQUESTED** a one-page report to explain the change.

Action: Mathew Duncan

Commercials Update

Paul Grammer provided an update on progress with the following contracts: C405 Paddington; C412 Bond Street; C422 Tottenham Court Road; C435 Farringdon; C502 Liverpool Street; C510/512 Whitechapel; C300/410 Tunnels West; C305 Tunnels East; C610 Systemwide; C828 Ilford Yard; C530 Woolwich; C620 Signalling; C660 Communications; and C360 Portals and

Shafts.

It was **NOTED** that the total gap between CRL's and its contractors' views of target had increased by [REDACTED] and the total forecast gap in defined cost decreased by [REDACTED]

In response to a request by the Board at a previous meeting, Paul Grammer provided more explanation of the cost growth for contracts C610, C512, C530 and C360. The Board **REQUESTED** that a similar analysis be provided for C828 at the next meeting.

Action: Paul Grammer

Are We on Time?

Simon Wright presented an overview of delivery performance highlighting some of the key issues for the Period. It was **NOTED** that:

- The Contractor at Bond Street had maintained steady progress in delivery of the master plan shaft. However, it had now become apparent that both the Western and Eastern Ticket Halls presented the bigger critical path challenges. Although the contractor had still not issued an acceptable schedule, the team had instructed 15 out of 21 measures identified to bring the schedule back by up to 3 months;
- The contractor at Woolwich Station had made satisfactory progress in the Period, completing the installation of the ticket hall roof beams as well as completing the SCADA route, essential to testing. However, productivity of electricians remained critical and the contractor was continuing its review of the Tier 2 working arrangements;
- Installation of Platform Screen Doors had been completed on the Paddington westbound platform. Due to manufacturing and installation issues, the schedule still showed a slippage of 4 weeks. Installation at Bond Street was underway and a solution had been identified to address the accumulation of tolerances issue that was delaying the commencement of work on site;
- Signalling integration remained the principal technical risk in terms of rolling stock and depot, including AWS/TPWS for Stage 1 and TCMS/ETCS v6.1, for Stage 2. The first set of CBTC tests at Melton had been completed, and Siemens and BT were working on the open items and next set of tests have been booked. Work continued to conclude the change at Old Oak Common necessitated by the second link to the Great Western Depot
- Since delivery of the Crossrail Integration Facility (CIF) hardware at the end of 2016, the CIF had continued to be exercised. However, there was ongoing concern regarding the availability of the necessary Bombardier software (AWS/TPWS only) to support the Integration Facility. The plan was being investigated with Bombardier to provide a version of fully Integrated CBTC/TPWS/ETCS software in July 2017 for use on the CIF.

Operations

Howard Smith provided an update on key operations matters **NOTING** some of the key issues for Stage One and Stage Two.

	<p>It was also NOTED that the joint launch plan for Stage One opening was under review following the announcement of the general election to take place in June.</p> <p>The Board REQUESTED that consideration be given as to the quantity and layout of the priority seats on the Elizabeth line rolling stock.</p> <p>Action: Howard Smith</p> <p><i>Are we world class?</i></p> <p>It was NOTED that:</p> <ul style="list-style-type: none"> • A Learning Legacy “meet the people” event had taken place on 28 March which had been attended by over 300 people from across the industry; • Balfour Beatty’s implementation of an incentive bonus at C512 Whitechapel continued to have low impact elsewhere. Other contractors continued to keep their future MEP resourcing and reward under review. CSJV/SRW was still finalising proposals for MEP resourcing and incentivisation at C405; • The changes to off-payroll working in the public sector had been introduced on 6 April. 33 agency workers from the 231 in scope of the changes had resigned from the project. 28 roles were currently being recruited through existing recruitment channels with 5 roles not being replaced; • The Integration Steering Group was continuing to meet regularly with the last meeting having taken place on 9 March; • TUCA had re-opened following its transfer to TfL and the Advisory Panel was due to meet on 26 April; <p>The Board NOTED the Board Report for Period 13</p>
01/18	<p>CRLB 01/18 – Operations and Systems Expert Panel Update</p> <p>Chris Green presented the Panel's Report which focused on train readiness and Stage 4 readiness. It was NOTED that the Panel supported CRL issuing the 24 month notice statement to Sponsors for Stage 4.</p>
02/18	<p>CRLB 02/18 – Project Representative (PRep) Reports Periods 12 & 13 2016/17</p> <p>The PRep report for Period 12 had been included in the Board Pack and was taken as read.</p> <p>Andrew Woistenholme outlined the issues that would be raised in the Period 13 Report. These related to: costs; schedule and progress; assurance; handover material; rolling stock; interoperability; operations performance; and other issues specific to each of the staged openings.</p> <p>The Board NOTED the PRep reports.</p>
03/18	<p>CRLB 03/18 – [REDACTED]</p>

04/18	<p>CRLB 04/18 – 2016/17 Performance Measure – Objectives and targets (Corporate Scorecard)</p> <p>Mathew Duncan presented the Period 13 results for the 2016/17 Corporate Scorecard. The provisional score was 51% which included the effect of the Health and Safety multiplier (at 100%).</p> <p>It was NOTED that the QSRA analysis had not yet been completed and the final outcome could affect the score for T1. Also the Key Milestone measure, T2, had been calculated on the assumption that the TCR OSD Supplemental Agreement milestone could be excluded from the results.</p> <p>The Board APPROVED the results for 2016/17 noting that the final QSRA result may change the final score.</p>
05/18	<p>CRLB 05/18 - Notification to Sponsors of Stage 4 Opening</p> <p>Howard Smith presented a paper that provided an update on the preparations for Stage 4 and included a copy of the formal notification to be submitted to Sponsors 24 months in advance of Stage 4 Opening.</p> <p>The Board ENDORSED the notification of Stage 4 Opening which would be submitted to Sponsors after the meeting subject to the addition of a reference to Sponsors ensuring the completion of the Great Eastern Power Supply Upgrade project.</p>
06/18	<p>CRLB 06/18 – Re-appointment of Non-Executive Directors (NEDs) (Pam Alexander, Michael Cassidy and Terry Hill were recused from this item.)</p> <p>Terry Morgan presented a proposal for the re-appointment of Non-Executive Directors.</p> <p>It was NOTED that:</p> <ul style="list-style-type: none"> • There were three NEDs due to retire in 2017 namely: Michael Cassidy (31 July 2017); Terry Hill (31 August 2017); and Pam Alexander (30 November 2017); • It was likely that discussions would take place during the next 12 months to decide on the appropriate Board arrangements required to govern the organisation through the final stages of the project; and • Until that time CRL's constitution required that the Board include at least four NEDs in addition to the Sponsor Nominated NEDs <p>It was therefore AGREED that it was in the best interests of Crossrail, and subject to approval by the Sponsors, to re-appoint each NED who was retiring in 2017 for a limited period until 30 June 2018.</p>
	<p>Minutes of Board Committees for Reference The Board received the following minutes for reference:</p>

	Executive and Investment Committee	EIC MIN 170322	Andrew Wolstenholme
	Health and Safety Committee	HS MIN 160320	
Verbal Updates of Recent Board Committee meetings			
	Executive and Investment Committee 19 April 2017 Matters covered by the Committee were: <ul style="list-style-type: none"> • 2016/17 Performance Measure – end of year review • Notification to Sponsors of Stage 4 • IR 35 Update • 2017/18 Base Pay & Incentive Review 	EIC MIN 170419	Andrew Wolstenholme
	Health and Safety Committee 18 April 2017 Matters covered by the Committee were: <ul style="list-style-type: none"> • Period 13 Health and Safety Report • Industry Partner Assurance Update • Health and Wellbeing Update 	HS MIN 170418	
AOB	It was NOTED that the recent judicial review relating to Mr Pritchett’s claim had found in favour of Crossrail who would now pursue the reimbursement of costs.		

Signed by:

Terry Morgan
Non-executive Chair

