

CROSSRAIL BOARD

**Minutes of the Meeting of the Board of Directors of Crossrail Limited
held on Thursday 27 March 2014 at 13.30
28th Floor, 25 Canada Square, Canary Wharf, E14 5LQ**

<u>Members:</u>	<u>In Attendance:</u>	<u>Apologies:</u>
Terry Morgan (Chairman) <i>Chairman</i>	Martin Buck <i>Commercial Director</i>	
Andrew Wolstenholme <i>Chief Executive</i>	Mark Fell <i>Legal Services Director & Company Secretary</i>	
David Allen <i>Finance Director</i>	Hugh Norie (part) <i>Chair of the Engineering Expert Panel</i>	
Ian Brown <i>Non-executive Director</i>	Niamh O'Sullivan <i>Head of Secretariat</i>	
Michael Cassidy <i>Non-executive Director</i>	Will Parkes <i>External Affairs Director</i>	
Phil Gaffney <i>Non-executive Director</i>	Duncan Reed <i>Condign Consulting</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 & Resources Director</i>	
Daniel Moylan <i>Non-executive Director</i>		
Andy Mitchell <i>Programme Director</i>		
Heather Rabbatts (part) <i>Non-executive Director</i>		

The meeting was quorate, and no directors declared conflicts of interest in relation to any matters discussed.

95/14	The Chairman welcomed Board members and attendees.
BD MIN 270314	<p>Minutes of the Meeting of the Board held on 27 February 2014</p> <p>The Chairman signed the minutes of the meeting as a correct record subject to the following amendment:</p> <p>Crossrail Board Report</p> <p>However, the expectation continued that the slippage in tunnelling would reduce to nearly zero by the end of March April 2014.</p>
BD AC 270314	<p>Actions and Matters Arising</p> <p>The Board noted the updates on the outstanding actions.</p> <p>Action: 41/14 – The Executive and Investment Committee had agreed to retain the current target for the number of apprentices. However it was anticipated that this number would be</p>

	<p>overachieved and that about 480 apprentices would be taken on by the project.</p> <p>Action: 42/14 –Good progress had been made in resolving misunderstandings and issues relating to the designs of Hayes and Harlington, Southall, and Ealing Broadway stations. The designs were expected to be 90% complete before Easter 2014. Hillingdon and Ealing Borough Councils had indicated that they would like to initiate an informal public consultation as soon as possible. A stakeholder meeting with Ealing and Southall MPs, chaired by Isabel Dedring, was planned for 28 March 2014. Design work on Romford and Ilford stations continued and further meetings were scheduled for early April 2014. Two London Assembly members had attended the London Assembly Transport Committee site visit to Ealing Broadway on 13 March 2014. The Chairman and the CEO would be meeting the Mayor of London in the week following the Board meeting and would provide an update on progress with regard to station design.</p>
<p>BD CBR 270314</p>	<p>Crossrail Board Report</p> <p>Tragically, there had been a fatality at the Fisher Street site on 7 March 2014. Rene Tkacik, a nozzleman carrying out sprayed concrete lining works, died as a result of injuries sustained from a fall from the crown of newly sprayed concrete lining. The Police had not yet relinquished primacy and a Health and Safety Executive (HSE) investigation was underway. Following the accident, all SCL works were immediately brought to a controlled safe stop. Appropriate checks and reviews had been undertaken to ensure that working practices and organisational arrangements were safe before any SCL work resumed. Work had subsequently recommenced at all sites including Fisher Street. The HSE were content that CRL and its contractors should manage that process. The HSE investigation was currently focusing on arrangements to enforce the exclusion zone at the face of SCL works. Enhanced measures were being trialled by BFK and BBMV including the use of ropes and chains to demarcate the exclusion zone and CCTV monitoring. Similar measures had been trialled previously and been found to be impractical. In addition to re-examining those measures, the use of more advanced technology would be explored. Consideration would also be given to ways of avoiding over-spraying SCL so as to minimise the requirement for trimming. The Health and Safety Committee will oversee the Crossrail response to the accident.</p> <p>The overall improvement in safety performance had continued in Period 12 (which ended before the Fisher Street accident). The RIDDOR AFC (including 3+ day lost time cases) had decreased to 0.30 (P11: 0.31), with two RIDDOR major injuries. HSPI had increased to 2.11 (P11: 2.07). 15 out of 16 contracts had an HSPI score of 2.00 or above which equated to 94% of contracts and exceeded the corporate objective for the fifth Period running.</p> <p>Total costs in the Period were £127.5m, £4.7m above the 2013/14 Business Plan forecast and £17.9 m below the Year to Date plan. At the end of Period 12, the Anticipated Final Crossrail Direct Cost (AFCDC) at P50 increased by £0.53m to £11,654m, which was £106m below Intervention Point 0. The P80 AFCDC was now £12,007m – £7m above Intervention Point 1. IPO increased by £1m in the Period, predominantly due to an increase in projected interest accruing on the Sponsor Funding Account. The cumulative Cost Performance Index (CPI) remained at 0.95. The cumulative Schedule Performance Index (SPI) held at 0.99. The Finance Director had briefed the Joint Sponsors on the methodology of measuring Cost and Schedule Performance and would provide a copy of the briefing note to any Board member on request.</p> <p>Overall delivery was 50.2% complete and remained behind the plan by 0.8%. Slippage in tunnelling was forecast to steadily reduce to zero over the next 4 Periods.</p> <p>The Rolling Stock and Depot Contract had been awarded during the Period. The role of senior responsible officer would now pass from Martin Buck to Howard Smith. The RSD</p>

Team had been selected as the National Procurement Team of the Year at the GO Procurement Awards. Martin Rowark won the individual award in recognition of the success of the Crossrail procurement programme. The Board noted its congratulations and thanks to the RSD Team.

The Semi Annual Construction Report 11 would be completed in Period 13. Current indications are that some of the headroom below IPO would be eroded.

After intensive management effort, 6 of the Tier 1 stations contractors had entered into sub-contracts with Otis and Kone to provide lifts and escalators.

The number of high value NCEs was decreasing. The priority was now turning to resolving the 'aged' NCEs.

The cost of change had reduced by £33m in the Period. To date in the SACR 11 period, there had been a reduction in the cost of change to £96m from £213m in the SACR10 period. However, at the two most recent meetings of the Investment and Change Subcommittee, approximately £75m of change had been funded from programme contingency. This would be included in the SACR 11 figures. The Executive's focus remained on the costs associated with change.

The half time reviews had focused on resolving CRL's and the contractors' different views of costs legitimately incurred. CRL has made provision for its estimate of costs in the Quantitative Risk Assessment (QRA). The Board requested a regular update on progress in resolving the issues outstanding from the half-time reviews.

Action: David Allen

The extension of the Interim Funding Agreement between CRL and Network Rail had been agreed and would be signed shortly. Sponsors had decided that some of the savings which would accrue to CRL from the agreement should be used as part of the funding for the additional train and signalling required for extending Crossrail to Reading. It was unclear whether there would be an adjustment to the Intervention Points arising from this extension in scope.

The Board discussed the Sponsors' ability under the Project Development Agreement (PDA) to impose additional scope on CRL without any additional funding or adjustments to the Intervention Points. This represented a significant departure from the principle embodied in the Heads of Terms (which preceded the PDA) and which had been endorsed by Treasury. The change had been resisted by CRL when negotiating the PDA but CRL had been required to accept it. The Board requested that a statement with regard to the impact of unfunded additions to project scope should be included in SACR11.

Network Rail remained on target to achieve all key output dates for the surface work. There had been some concern over the number of senior personnel changes at Network Rail. The Executive was working with Network Rail to manage the impact of these changes.

The Land and Property Team continued to make good progress with delivering sites in line with the construction programme. The team was close to finalising an agreement with Derwent regarding the oversite development at Tottenham Court Road East on the basis of a continuing 15% participation by TfL which offered scope for an enhanced return, albeit with greater risk exposure.

After the conclusion of the second round of evaluation, the Innovation Programme had committed to invest in an additional 13 ideas totalling £277,000. Consideration was now

	<p>being given to accessing external sources of funding.</p> <p>The media tonality score was positive in 92% of articles, which included very positive reporting of the Rolling Stock and Depot contract.</p> <p>Interviews for the Programme Director post would begin in the following week. The response to the recruitment exercise had been very positive.</p> <p>The Executive were monitoring the impact of legislative changes in PAYE and National Insurance Contributions legislation which could impose additional cost to the project. This had been included on the project risk register.</p> <p>The Board NOTED the report.</p>
96/14	<p>37/14 – Project Representative Report</p> <p>The Board received the Project Representative’s Project Status Report for Period 11.</p> <p>The report had commented positively on the improvement in safety KPIs and noted that cumulative delivery over-spend has stabilised. However, further reduction in the rate of Board and Programme Contingency drawdown was needed to achieve a trajectory to achieve IPO. It had also noted that the total value of open NCEs had reduced to £214m, the lowest since 2012. The report referred to the sustained schedule performance but noted a number of poor performing contracts relating in the main to the Durward Street shaft and Area East. The report highlighted the good work done in securing the Rolling Stock and Depot procurement contract two months early.</p> <p>The Board NOTED the report.</p>
97/14	<p>38/14 – Engineering Expert Panel Report</p> <p>The Board received a paper and a presentation from Hugh Norie, Chair of the Engineering Expert Panel who reported as follows:</p> <p>An enormous amount of high quality tunnelling work had now been completed. The completed Westbound and Eastbound TBM drives had gone well with minimal ground movement or disturbance to buildings and generally good standards of safety. The tunnel linings had experienced some cracking, but this was not considered likely to become a problem in the future. There is still an open question as to whether the Eastbound TBMs should be buried or dismantled and removed once they reach Farringdon.</p> <p>The TBM drive from Limmo to Victoria Dock was expected to start in late May. Work to date had been centred on ground stabilisation in the alluvia and gravels west of the Victoria Dock Portal, where the TBMs would run at shallow depth in difficult ground and close to sensitive existing structures and services. This was a difficult and sensitive section of the TBM tunnelling work, and was being handled carefully to ensure all risks are properly anticipated and mitigated. There was still adequate time to complete proper trials of ground treatment, and good results were expected from that work. Careful TBM driving techniques and precautions would be required.</p> <p>The complex work for the Moorgate Box and the shallow tunnelling beneath Electra House had presented technical challenges but was progressing. For this tunnelling, grouting tubes had been installed under Electra House to allow grouting so as to stabilise and strengthen the gravels and clay lenses beneath the building foundations before the start of tunnelling. The work to date had caused some cracking in one section of the building and was being closely monitored by CRL and</p>

	<p>the owners (City of London). No movement of the nearby Hammersmith & City Line tunnel has occurred.</p> <p>The sequence of excavation and propping of the Moorgate Box itself was influenced by the programme for allowing the Westbound TBM drive from Whitechapel to traverse through the shaft at the earliest practicable date. The design of the box was being reviewed to enable this without significantly affecting the programme for box completion; a particular restraint is the need to minimise ground movement during construction given the close proximity of the Northern Line to the box wall. The grouting and tunnelling methods under Electra House were being developed further to deal with the more difficult ground conditions revealed by recent drilling and probes. This was a critical part of the whole project, and all issues, including active risk management, needed to be considered very carefully and agreed fully by the project teams.</p> <p>Management systems was being developed for the trackbed & track installation, fit-out, services and architectural work, with procedures being developed and put in place. This would become the most critical next stage of the project.</p> <p>All safety concerns had been properly addressed to the satisfaction of the Panel. Issues included dust exposure and occupational health, vehicle safety, fire suppression requirements, machinery guarding and electrical equipment safety. Issues of site safety relevant to SCL working raised by the Panel have also been addressed, but require continuous attention on site to maintain a safe environment. CRL had put in place measures to ensure that its safety processes are actively monitored at all times.</p> <p>The work at Whitechapel had gone very well and the contractors had achieved a great result particularly in creating the cross-overs which were of the same size as the Stepney Green caverns. The potential safety issues associated with the reverse tunnelling sequence were receiving close attention.</p> <p>The Board thanked Hugh Norie for his presentation and noted that it would be holding a Board meeting at Whitechapel in the near future, including a site visit.</p> <p>The Board NOTED the paper and presentation.</p>
98/14	<p>39/14 – C610 (Railway Systems) Opportunities/ MCS Programme Safeguarding</p> <p>The Board received a paper which set out a schedule of improvement opportunities which had been agreed by the Executive. The improvement opportunities had been identified with the C610 contractors with the aim of building 5 months of float into the back end of the Master Control Schedule (MCS). These had been taken into account in the Semi Annual Construction Report 10 submission.</p> <p>The C610 improvements which had been agreed by the Executive were as follows;</p> <ol style="list-style-type: none"> 1 Early Floating Track Slab (FTS) at TCR/Bond Street; 2 Early Floating Track Slab (FTS) at Barbican; 3 Replace sections of Floating Track Slab (FTS) “light” with High Attenuation Sleepers (HAS)¹; 4 Early installation of standard track in the Connaught Tunnel; 5 Early installation of standard track at Connaught Tunnel approaches; 6 Early Victoria Dock Portal switch install;

¹ **Note:** already instructed as a Compensation Event.

	<p>7 Early completion of OHLE & M&E Fix in Tunnels; and 8 Early track installation at Pudding Mill Lane.</p> <p>The overall cost was £29.98m.</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>The Board NOTED the paper.</p>
99/14	<p>40/14 – Crossrail’s 2014/15 Objectives and Performance Metrics</p> <p>The Board received a paper which sought approval of a revised set of metrics that would be used to calibrate CRL’s performance.</p> <p>The Board noted that following the discussion at the February 2014 meeting, Board members had provided individual comments which had been taken into account when drafting the final objectives and performance metrics.</p> <p>The Board discussed the importance of managing cost and headroom to the intervention points and agreed to amend the proposed target relating to IPO to >£120m above IPO = 0%. The Board noted that as risks were retired this target would become increasingly more difficult to achieve.</p> <p>The Board noted that achievement of P80 confidence in meeting the end date would be very challenging and should attract a 100% score. It was agreed that a score of < P65 confidence should achieve a score of 0%, and that scores should be straight-lined between these two points. The Board commented that the Board expected to tighten up that objective in a year’s time given the de-risking to the project that the C610 schedule opportunities should achieve.</p> <p>The Board APPROVED the Crossrail KPIs for 2014/15 subject to the agreed revisions being included in the finalised document which should be circulated to members with the minutes of the Board meeting.</p> <p>Action: David Allen</p>
100/14	<p>41/14 – Art Programme Funding Update</p> <p>The Board received a paper which provided an update on recent developments with regard to funding for the Crossrail Art Programme.</p>

	<p>The Board noted that to date, £2,025,000 funding had been secured for the Art Programme, with the promise of an additional £2.5 million in match-funding once future sponsors had committed to the programme. CRL remained confident that additional sponsorships would be secured over the coming months.</p> <p>Discussions had been taking place with City of London (CoL) regarding a charitable vehicle for the Crossrail Art Programme. It had been confirmed that CoL was prepared to make available a charitable vehicle to hold and disperse funds raised for the Art Programme. A steering group would be established with representatives from CRL and CoL to administer the funds.</p> <p>Michael Cassidy had confirmed that he was in discussions with the Tate Gallery regarding the potential to display art on station platforms.</p> <p>The Board NOTED the paper.</p>
101/14	<p>42/14 - Increase in the Authorised Share Capital of CRL and Issue and Allotment to Transport Trading Limited</p> <p>The Board received a paper which set out changes authorised by Transport Trading Limited (TTL) to CRL's authorised share capital and CRL's articles of association and seeks a Board resolution to issue and allot additional shares to TTL.</p> <p>The CRL Board</p> <p>(1) NOTED the shareholder resolution to:</p> <ul style="list-style-type: none"> • increase the authorised share capital for the Company to £3910 million, divided into 1955 million A shares of £1 each and 1955 million B shares of £1 each; • authorise the directors of the Company to issue and allot shares in the Company up to the newly increased amount provided that this authority shall, unless renewed, varied or revoked, expire on the date five years from the date of this resolution; and • amend CRL's articles of association to reflect the increase. <p>(2) RESOLVED to issue and allot to TTL 800 million 'A' Shares at £1 each and 800 million 'B' Shares at £1 each.</p>
102/14	<p>43/14 – Making changes to Pension Benefits for CRL Employees joining after 30 June 2014</p> <p>The Board received a paper which provided an update on progress towards establishing a defined contributions pension scheme for new CRL employees. This work had been undertaken with input from a number of Non-Executive members of the Board.</p> <p>The Board noted the objectives of establishing a defined contributions scheme in terms of aiding recruitment and retention of new employees, portability of benefits, simplicity of administration and governance, and value for money.</p> <p>The Board was advised that there were legal constraints on closing the existing defined benefit scheme to existing employees and that this could also immediately trigger the section 75 debt. The Executive continued to work with the pension advisors to identify and evaluate all options and would report back to the Board.</p> <p>Action: Valerie Todd</p>

	<p>The Board requested that further consideration should be given to a defined contributions scheme which had variable rates of employee contributions which could be matched by CRL as this should increase the attractiveness of the scheme to both existing and new employees.</p> <p>The Board noted that four potential schemes had been investigated and that two of those schemes were being given further consideration with the aim of implementing a preferred scheme by July/August 2014.</p> <p>The Board commented that it would require further information regarding the section 75 debt implications and legal constraints relating to a closure of the existing defined benefit scheme before it could reach any decision regarding that scheme. The initial results of an actuarial valuation of the scheme should be available at the end of May 2014.</p> <p>The Board agreed that the Executive should continue to formulate the new defined contribution scheme and take initial steps to implement such a scheme for new employees including consultation with existing employees and on-going consultation with TfL. The Executive would report back to the Board on the outcome of the consultation and with details of the proposed new scheme and seek the Board's direction on implementation.</p> <p>Action: Valerie Todd</p>									
103/14	<p>Minutes of Board Committees for Reference</p> <p>The Board received the following minutes for reference;</p> <table border="0"> <tr> <td>- Executive and Investment Committee</td> <td>EIC MIN190214 EIC MIN 030314</td> <td>Andrew Wolstenholme</td> </tr> <tr> <td>- Health & Safety Committee</td> <td>HS MIN 170214</td> <td>Andrew Wolstenholme</td> </tr> <tr> <td>- Audit Committee</td> <td>AUC MIN 161213</td> <td>Robert Jennings</td> </tr> </table>	- Executive and Investment Committee	EIC MIN190214 EIC MIN 030314	Andrew Wolstenholme	- Health & Safety Committee	HS MIN 170214	Andrew Wolstenholme	- Audit Committee	AUC MIN 161213	Robert Jennings
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104/14	<p>Verbal Updates of Recent Board Committee Meetings</p> <p>The Board received verbal updates on recent meetings of Board Committees;</p> <table border="0"> <tr> <td>- Executive and Investment Committee</td> <td>EIC 190314</td> <td>Andrew Wolstenholme</td> </tr> <tr> <td>- Health & Safety Committee</td> <td>HS 170314</td> <td>Andrew Wolstenholme</td> </tr> <tr> <td>- Audit Committee</td> <td>AUC 170314</td> <td>Robert Jennings</td> </tr> </table>	- Executive and Investment Committee	EIC 190314	Andrew Wolstenholme	- Health & Safety Committee	HS 170314	Andrew Wolstenholme	- Audit Committee	AUC 170314	Robert Jennings
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105/14	<p>AOB</p> <p>The Board noted that Robert Jennings would be taking up the position of Chairman of Southern Water and congratulated him on his appointment.</p> <p>The Board noted that it was Niamh O'Sullivan's last meeting as Board Secretary and thanked her for her contribution to the project.</p> <p>There was no other business.</p>									

Signed by:



Terry Morgan
Non-executive Chairman

Pre-meeting Board Briefing-Thursday 27 March 2014

Terry Morgan (Chairman) <i>Chairman</i>	Martin Buck Commercial Director	
Andrew Wolstenholme <i>Chief Executive</i>	Mark Fell Legal Services Director & Company Secretary	
David Allen <i>Finance Director</i>	Steve Hails (part) Health and Safety Director	
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Daniel Moylan <i>Non-executive Director</i>	Valerie Todd Talent & Resources Director	
Andy Mitchell <i>Programme Director</i>	Bill Tucker (part) Area Director Central	
Heather Rabbatts <i>Non-executive Director</i>	Ian Rannachan (part) Head of Planning	

Crossrail External Relations Strategy

The Board received a presentation from Will Parkes, CRL External Affairs Director.

The Board noted that consideration needed to be given to constructing a mock-up of the train and platforms and that the Tunnelling Academy could be an option for this purpose.

The Board NOTED the presentation.

Update on Crossrail Archaeology

The Board received a presentation from Jay Carver, Crossrail Archaeology Specialist.

The Board requested that consideration should be given to mounting an exhibition of the Crossrail Archaeology finds.

Action: Will Parkes

The Board NOTED the presentation.

Update on Crossrail Ltd Pension Arrangements

The Board received a presentation from Valerie Todd, Talent and Resources Director.

The Board NOTED the presentation.

Central Section – TBM Sequencing

The Board received a presentation from Andy Mitchell, CRL Programme Director.

The Board NOTED the presentation.

C610 Schedule Opportunities

The Board received a presentation from Andy Mitchell, CRL Programme Director.

The Board NOTED the presentation.

Accident Update

The Board received an update on the fatality at Fisher Street on 7 March 2014.

The Board NOTED the update.