This paper will be considered in public

1  Purpose

1.1 The accompanying presentation provides an overview of the transition of Crossrail into an operating railway.

1.2 The presentation covers the following areas:
   (a) the Crossrail project highlighting the phases of the project and the progress made to date;
   (b) forthcoming stages;
   (c) the Crossrail Train Operating Concession;
   (d) the takeover of services in May 2015 and the planned improvements to be undertaken;
   (e) the rolling stock – interim and the introduction of new rolling stock in 2017;
   (f) the services to be introduced under stages 2 and 3;
   (g) the handover from a project to an operational railway highlighting the deliverables, scope and responsibilities pre and post transfer; and
   (h) the services to be operated under stages 4 and 5, including the service frequencies once stage 5 is fully operational in December 2019.

2  Recommendation

2.1 The Panel is asked to note this paper and presentation

List of Background Papers:
None

List of appendices to this report:
Appendix 1 – Crossrail presentation

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Crossrail – Moving to the Operating Railway
Rail and Underground Panel 12
February 2015

Howard Smith, Operations Director
Crossrail
Areas To Cover

- Crossrail the Project
  - Progress
  - Next Steps

- The Operating Railway
  - Objectives
  - Staged Opening 2015-19
  - Handover
The Crossrail journey
Project Phasing

Crossrail TOC

2012

2013

2014

2015

2016

2017

2018

Crossrail TOC

Civils and Tunnelling

Railway Systems

Stations

Rolling Stock & Depot

NR Surface Works

Test and Commission

Trial Operation
2015 Progress

- Elizabeth TBM successfully launched
- 8 out of 10 tunnels complete
- Period 10 total: 653m
- 39KM
- 91%
- Victoria recommenced
Current Delivery - West
Current Delivery - East
Next Steps - Systems
Won by MTR, who run railways in Hong Kong, Melbourne, Stockholm and are 50% of LOROL (London Overground)

Starts operations 31 May 2015 taking over existing Shenfield-Liverpool Street services

Based upon highly successful London Overground structure

- Paid by performance, no revenue risk transfer
- Partnership between the Operator and TfL
Establish the operating business
Early interface with Crossrail Project
Prepare and implement their Staged Opening Plan
Start recruiting new drivers and station staff
Engage in new Rolling Stock design and delivery
Support on network and stations works
May 2015

- Take over ‘metro’ services Liverpool Street - Shenfield
- 12 stations Stratford to Brentwood
- Existing timetable
- Stations and trains branded TfL Rail
Immediate Improvements 2015-16

◆ All stations staffed first to last

◆ Stations
  ◇ Deep cleaned
  ◇ New ticket machines 2015-16
  ◇ Secure Stations accredited
  ◇ New gatelines by December 2016
  ◇ Cleaned twice daily and maintained to improve standards

◆ Turn up and go for all

◆ Better security

◆ Trains
  ◇ Deep cleaned and refreshed (seating, signage, panels)
  ◇ Turn round cleans and exterior washing
Immediate Improvements 2015-16

- Included on TfL’s maps and journey planner
- TfL fares and ticketing including ‘Contactless’
- Pre and post journey customer contact via TfL’s Customer Contact Centre
- TfL Twitter and other media for information and service updates
Interim Rolling Stock
Stations Refurbishment and Access for All
Stage 1: May 2017 - Introduction of new rolling stock on Great Eastern – start of ‘Crossrail’
The Class 345
Rolling Stock - Manufacture

- 65 x 205m long, 9 car, air-conditioned, walk-through trains
- Procurement completed February 2014 - 2 months ahead of programme
- Construction underway in Derby, trains enter service 2017
- Maintenance at Old Oak Common, Ilford and stabling at Plumstead and Maidenhead

- 74% of the value of the contract will be spent in the UK
- Support 840 UK manufacturing jobs building the trains in Derby
Old Oak Common Maintenance Facility
Stage 2: May 2018 - Heathrow to Paddington - surface
Stage 3: December 2018 – Trains run through Central Section
A comprehensive and complete Handover consists of seven key deliverables and activities

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<td><strong>1. Accountabilities change:</strong></td>
<td>• IMs accept the transfer of accountability for the management and maintenance</td>
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| **2. Works are complete:** | • The works are completed as per the contracts  
• IM inspections completed  
• Any remaining snags are documented with agreed close-out plan.  
• All required spares and specialist plant and equipment by the responsible party and are available. |
| **3. Handover documentation:** | • Documentation transferred to the IM to support the assurance evidence, operations & maintenance activities.  
• IM’s asset databases are populated and ready to use |
| **4. Agreements in place:** | • Commercial, Land & Property, Undertakings & Assurances, Regulatory Approvals, Licences. |
| **5. Warranties and liabilities:** | • Relevant defects rectification and/or warranty provisions are transferred to the relevant IM |
| **6. Complete Training:** | • CRL has delivered all necessary training to the IM. |
| **7. IM readiness:** | • The IM demonstrates readiness to accept the assets (both maintenance and operational readiness) |
Handover Strategy defines our approach for the whole of Crossrail, with various types of handover for different assets:

- CRL deliver assets and Handover to IMs
- NR deliver assets procured by CRL and Handover to CRL, then hand-over to RfL as part of the overall COS.
- LU deliver assets procured by CRL and keep them
- Rolling Stock and Depot Handover to RfL and CTOC
- NR deliver assets and keep them (internal Handover)
- NR Handover asset to TOCs
- TOC (Abellio Greater Anglia) Handover asset to CTOC

Central Operating Section
South East Spur
Goslett Yard Box, Bakerloo Line Link, Stations Ops Rooms
Old Oak Common & Train fleet
Great Western & Great Eastern
Station Facility Owner (SFO) responsibility
Transfer of Stations
Handover

“Takeover”

- Contractors
- Crossrail

“Handover”

- Infrastructure Managers
- Dynamic Testing
- Trial Running
- CRL to perform trial running

Resources / Org to manage Handover Activities

CRL in control

RfL / LU / NR in control

Trial Operations

Passenger Service Starts

Operators and Maintainers – preparations for passenger service

Care and Custody
Stage 4: May 2019 - Central Section passenger service connected to Great Eastern Surface Section
Stage 5: December 2019 – Full service operating including Reading
Peak Frequencies

- 24 trains ph. 14 starting or ending at Paddington
- 12 trains ph between c. London - Shenfield
- 4 trains ph H’row – c. London
- 4 trains ph Rdg/Mdhd – c. London
- 2 trains ph c. London – W. Drayton
- 12 trains ph between Whitechapel – Abbey Wood