

**This paper will be considered in public**

**1 Summary**

- 1.1 The purpose of this paper is to inform the Board about the work that has been completed to enhance service frequency on the Elizabeth line. The proposal includes higher frequency services in the Off Peak and an enhanced Peak service west of London. The change would be included in the December 2019 timetable, at the final stage of the agreed Elizabeth line Opening Strategy.
- 1.2 On 8 March 2017, the Programmes and Investment Committee considered a similar paper and endorsed the recommendations. There were no issues raised to draw to the attention of the Board.
- 1.3 A paper is included on Part 2 of the agenda, which contains exempt supplemental information and documentation. The information is exempt by virtue of paragraph 3 of Schedule 12A of the Local Government Act 1972 in that it contains information relating to the financial affairs of TfL. Any discussion of that exempt information must take place after the press and public have been excluded from this meeting.

**2 Recommendation**

- 2.1 **The Board is asked to note this paper and the related paper on Part 2 of the agenda to:**
  - (a) **approve Procurement Authority for the acquisition of the additional rolling stock in accordance with the option in the Crossrail Rolling Stock and Depot Contract (RSPA) with Bombardier Transportation, as detailed in the supplemental paper on part 2 of the agenda; and**
  - (b) **approve amendment of the Sponsor Requirements for Crossrail accordingly.**

**3 Background**

- 3.1 Crossrail is planned to open in stages from 2017 until 2019, increasing the capacity of London's rail network and thereby supporting regeneration across the capital. Proposal 5 of the Mayor's Transport Strategy is the successful completion of Crossrail and its integration with the wider transport network.
- 3.2 Crossrail is a project jointly funded by TfL and the Department for Transport (DfT). Delivery of the project is being primarily led by Crossrail Limited (CRL), a

wholly-owned subsidiary of TfL. Responsibility for the Rolling Stock and Depot (RSD) sits with TfL.

- 3.3 In February 2014, TfL awarded the contract for sixty six Class 345 trains and associated depot and maintenance activities to Bombardier. The contract includes options to increase the number of trains to up to eighty four.
- 3.4 In February 2016 it was agreed that Crossrail would be named the Elizabeth line when it becomes operational through Central London in December 2018. As the changes proposed are to be implemented in December 2019, this paper will refer to the operation as the Elizabeth line.
- 3.5 The Elizabeth line timetable has been developed throughout the life of the project. The latest version of the timetable (Iteration 5) was produced in 2013. Whilst this timetable was able to demonstrate compliance with the Sponsors Requirement for a performance level of 95 per cent public performance measure (PPM), options have subsequently been identified to enhance and optimise the Elizabeth line service pattern.

## **4 Proposal**

- 4.1 The key elements of the revised proposal include:
  - (a) Off Peak services in the Central Core increased from 16tph<sup>1</sup> to 20tph with additional services from Paddington to Shenfield and Abbey Wood;
  - (b) an increase in the Peak and Off Peak services West of Paddington; and
  - (c) a revision of the Peak services operating pattern across the network to provide a regular interval of trains, including a train approximately every five minutes proceeding west from Paddington.
- 4.2 The main impacts of the proposed service change are:
  - (a) no additional infrastructure works are required to implement the proposed service change;
  - (b) the proposed service change requires the procurement of four additional trains. No additional rolling stock stabling is required to support the increased fleet;
  - (c) the more regular service pattern will have a positive effect on operational reliability compared to the Iteration 5 timetable. The precise performance and reliability impact of the proposed timetable is being validated through joint modelling with Network Rail, as part of the timetable development process. Initial results indicate that the performance across the network will improve due to the improvement in the interval of trains;
  - (d) additional track access rights will be required to implement the proposal in accordance with standard industry processes;
  - (e) there are associated changes to Great Western Peak services that use the relief lines between Paddington and Reading. On the Great Western Route, the enhanced Elizabeth line Peak service results in a need to remove five

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<sup>1</sup> tph – trains per hour

Great Western Franchise services (in both morning and evening Peak) that are specified to operate throughout the Peak on the relief lines between Paddington and Reading with a semi fast stopping pattern. Great Western Franchise services to Maidenhead, Twyford, Reading and Thames Valley stations will continue to be provided during the Peak period by other trains which operate over the main lines between Paddington and Maidenhead; and

(f) there is no material impact on maintenance activities in the Central Section or Network Rail sections of the route.

4.3 In considering the impact on passengers of implementing the new service proposal, specific attention has been paid to the possible impact of the removal of some GWR services, in the context of the Public Sector Equality Duty (PSED). Using available passenger data, it has been assessed that it is likely that the vast majority of passengers will either be unaffected or see an improvement in terms of frequency and speed from the current operation. In the minority of cases where passengers may no longer be able to use a specific GWR service, there is a reasonable alternative and there is not, therefore, likely to be particular disadvantage for people with a protected characteristic under the PSED.

4.4 The overall service will provide additional benefits in that the Elizabeth line services will have shorter journey times and be able to take passengers directly into Central London, unlike the current GWR services, and so provide improved connectivity, including access to employment and other activities; this supports the PSED principles of advancing equality of opportunity between people who share a protected characteristic and people who do not share it and fostering good relations between people who share a protected characteristic and people who do not share it.

4.5 The approach to the revised service pattern is, therefore, consistent with the requirements of the PSED. The PSED analysis will be validated once the timetable and service pattern are finalised, following completion of the performance modelling in August / September 2017.

## **5 Business Case Summary**

5.1 The overall business case for the combined Off Peak 20tph and Peak 24tph recast service pattern demonstrates an exceptionally strong case as it makes better use of the £15bn investment that has been made in the Crossrail project.

5.2 This proposal delivers significant passenger benefits as represented by a BCR of 13.9:1.

5.3 Social benefits calculated in the business case appraisal are User Time Savings (including crowding relief), road decongestion, accident savings and environmental impacts.

5.4 Further benefits include reduced crowding at Elizabeth line stations and reduced crowding on other public transport services. This is because the revised timetable provides an even spread of services allowing consistent dispersal of passengers across the transport network.

**List of appendices to this report:**

Exempt supplementary information is included in a paper on Part 2 of the agenda.

**List of Background Papers:**

None

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