



CROSSRAIL INFORMATION PAPER

D15 – IMPLEMENTATION AND STAGING

This paper sets out the proposals for the implementation and staging of Crossrail.

It will be of particular relevance to those interested in the operational aspects of Crossrail.

This is not intended to replace or alter the text of the paper itself and it is important that you read the paper in order to have a full understanding of the subject. If you have any queries about this paper, please contact either your regular Petition Negotiator at CLRL or the Crossrail helpdesk, who will be able to direct your query to the relevant person at CLRL. The helpdesk can be reached at:

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APPROVED

Version 2 – 20/11/07



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1. Introduction

1.1 Detailed enabling works and construction programmes have been produced for Crossrail. An overall duration of around eight years from the commencement of enabling works to the start of passenger service is anticipated, with the main construction phase expected to take around six years. There are a number of factors that determine when works will actually commence, the key ones being the timing of Royal Assent to the Crossrail Bill, and the major procurement process - parcelling the work up into individual contracts, advertising them, inviting tenders and appointing contractors etc - that will take place after Royal Assent.

2. Consents, Procurement and Design

2.1 The Parliamentary process for a hybrid Bill is well established, and as such the steps to be followed for the Crossrail Bill are known. The time that it will take to secure Royal Assent is dependent upon a number of factors, including the number and nature of petitions put to the Select Committees in the House of Lords.

2.2 The Promoter is proceeding with scheme development activity, where possible, in parallel to the Parliamentary process, as opposed to awaiting the securing of powers at Royal Assent. This will allow the project to proceed at the earliest opportunity and deliver the benefits of the new passenger services in a timely and economic manner. Major commitments will however not be entered into nor physical works commenced until after Royal Assent.

3. Enabling Works

3.1 A programme has been developed that specifically addresses preparatory work to be completed in advance of the main construction work. The critical elements, which include significant utility diversions, structural surveys and monitoring and the relocation of various business operations, will start significantly in advance of the main subsurface station and tunnelling works.

4. Construction and Commissioning Phase

4.1 The size and complexity of Crossrail means that even if the whole scheme is built as a single project it will, for sound practical purposes, be brought into service in stages.

4.2 The construction strategy proposed is for the running tunnels to be constructed from a number of sites simultaneously. The pattern of tunnel drives has been chosen to minimise the overall tunnelling duration and allow the earliest practical completion of the Crossrail scheme. It requires that construction work commences, on all central locations including all subsurface stations, at around the same time to allow continuity of construction and the passage of the tunnel boring machines through the excavated sub surface stations

- 4.3 It is estimated that the construction phase for the programme critical central tunnelled section will take at least six years from start of main construction to commencement of passenger service. Following site preparation, the main excavation and civil construction works will typically take around three and a half years for the principal stations with tunnel construction being completed within this period. Completion of these activities will enable equipment, services and systems (signalling, power etc) to be installed followed by commissioning of the railway facilities.
- 4.4 A key factor in managing the schedule on the outer surface routes will be the availability of possessions on the existing railway network. In particular it will be necessary to construct a number of new junctions at route interfaces on both the Great Eastern Main Line (GEML) and the Great Western Main Line (GWML) including the branch to Heathrow.
- 4.5 The new build Crossrail trains will be subject to a programme of service testing prior to the start of passenger services, to provide operational experience and demonstrate reliability prior to introducing services to the tunnelled central section. The Promoter proposes to temporarily re-open Clacton depot on the GEML to commission and test the new Crossrail rolling stock.
- 4.6 The first Crossrail services are expected to come into operation in 2017. The full Crossrail services - including on the south-east section down to Abbey Wood – are expected to be introduced on a phased basis over about 12 months. The start and subsequent build-up of services will be phased in this way to allow time for rolling stock and railway systems testing and to ensure reliable performance. In addition the introduction of new services will need to be aligned with the availability of the new maintenance depot and the train stabling capacity accessible from the new route so that Crossrail can be operated as a self-contained entity.

