



CROSSRAIL INFORMATION PAPER

G2 – HEATHROW ACCESS AND STOCKLEY FLYOVER

This paper explains the infrastructure proposed to allow Crossrail trains to serve Heathrow Airport.

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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1. Background

- 1.1 The western route of Crossrail incorporates train services to Heathrow and Maidenhead. Access to the airport from the Great Western Main Line will be via Heathrow Airport Junction and the Heathrow Airport Tunnel constructed for Heathrow Express. The infrastructure at Heathrow Airport Junction, built as part of the Heathrow Express scheme, facilitated separate, non-conflicting train movements between the airport and the fast lines (known as the Main Lines) leading towards London Paddington. Provision was also made for access between the airport and the slow lines (known as the Relief Lines). The existing track configuration involves conflicts between up trains (the running line to or in the general direction of London) from the airport to the Relief Lines and down Relief Line trains (the line carrying trains away from London) to West Drayton and beyond.
- 1.2 The existing infrastructure was used exclusively by Heathrow Express, which operates a non-stop 4 trains per hour Main Line service between Heathrow and London Paddington, until the introduction in June 2005 of a half-hourly stopping Heathrow Connect service which operates between Heathrow and London Paddington on the Relief Lines.
- 1.3 It is proposed that Crossrail will operate a 4 trains per hour service to Heathrow which will replace the Heathrow Connect service and double the number of trains currently operating from the Relief Lines to the airport. There is consensus between BAA as operator of the Heathrow Express services, Network Rail, the Department for Transport and CLRL (Cross London Rail Links Ltd) that for the level of service proposed it will be necessary to create a grade separated junction with the Relief Lines.

2. Operational Assumptions

- 2.1 The proposed grade separated junction at Heathrow Airport Junction has been planned to accommodate a 15 minute frequency non-stop service between Paddington and Heathrow via the fast (Main) lines (Heathrow Express), and a further 15 minute frequency local service between central London and Heathrow via the slow (Relief) lines (Crossrail).
- 2.2 The 8 trains an hour both to and from the airport are assumed to operate throughout the working day.

3. Crossrail Infrastructure Proposals

- 3.1 The grade separated junction scheme that has been designed is referred to as the Stockley Twin Ramp Option. It comprises a new single track viaduct for all trains from Heathrow towards London. This viaduct will start on the western side of the existing airport lines. It will then cross above all of the tracks in the railway corridor, turning eastwards and will continue on the northern side of the railway tracks for approximately 350 metres. The viaduct will then widen and a junction for Crossrail and Heathrow Express services will be installed in the trackwork. This junction will allow Heathrow Express services to cross above the Relief Lines and descend to join the Main Line track as at present. Crossrail services will remain on the northern side, descend on a second ramp and run on an independent track which will then connect with the existing up Relief Line via a new junction constructed at a point just before Hayes & Harlington station.

Crossrail services from London to Heathrow will use the existing Heathrow Express ramp (currently used by trains in the opposite direction), with minor trackwork remodelling as required.

- 3.2 The proposed infrastructure works at Heathrow Airport Junction will remove the possibility of conflicting movements between trains moving between Heathrow and the Great Western Main and Relief Lines and therefore provide the capacity to operate 8 trains an hour to and from Heathrow.
- 3.3 The current and proposed infrastructure changes at Heathrow Airport Junction are shown in the attached single line diagrams (Annex A).
- 3.4 The concept has been developed sufficiently to identify the land and property required and likely to be affected for the purposes of the Crossrail Bill and Environmental Statement (ES¹). Prior to adopting this scheme a number of other options had been considered. These options are outlined in more detail in the main ES (Volume 3, page 115, paragraph 9.18.76). Many of these alternative options would have required either a dive-under or flyover between Southall and Hayes and Harlington stations, and extensive alterations to the existing railway infrastructure in that area, which would entail significant disruption to the existing railway during construction.

¹ The term 'Environmental Statement' refers to the Environmental Statement deposited with the Crossrail Bill in February 2005, the four Environmental Statements accompanying the Additional Provisions, the four Supplementary Environmental Statements submitted during the passage of the Bill, and their Non-Technical Summaries and errata, which together comprise the Crossrail Environmental Statement. The term 'the Main ES' refers specifically to the Environmental Statement produced (with its Non-Technical Summary) in February 2005. See <http://billdocuments.crossrail.co.uk/>.

ANNEX A - HEATHROW AIRPORT JUNCTION TRACK LAYOUTS

