



London 2012 Olympic Park Programme

Project

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Client

Olympic Delivery Authority

Location

Stratford, London, UK

Start Date

2006

End Date

2011

Duration

64 Months

Contract Value

£7m

Services Provided

Electrification and power supply, feasibility design, asset management plan development

Background

The London 2012 Olympic Park development occupies site in the Lower Lea Valley, London. In 2007, the site became part of the 2007 Thames Gateway plan which is the UK's largest economic regeneration programme, covering a 70km corridor from inner east London on both sides of the River Thames and the Thames Estuary.

Network Rail's involvement in the Olympic Park Programme started soon after the July 2005 announcement that London would host the 2012 Games. Regeneration works were already planned for the site and these were accelerated to enable a prompt start of the 2012 programme. The site is bordered and bisected by Network Rail infrastructure.

Network Rail has been closely involved with redevelopment and transformation of the site both in the role of providing asset protection services and by delivering modification work required to railway infrastructure.

The project was a major test of Network Rail's ability to successfully deliver critical infrastructure programmes on time and budget. The subsequent success of the transportation strategy for the London 2012 Olympic Games was achieved in part due to this project.



Scope of Works

The key scope of the work was for protection of Network Rail's assets. The main elements were:

- ▶ removal of 52 pylons and overhead power lines alongside or spanning the operational railway
- ▶ 8 tunnel crossings below the operational railway (forming part of a 13km tunnel system allowing installation of 200km of power cabling – known as the PLUG project (Powerlines Undergrounding Project))
- ▶ 2 new electrical sub stations
- ▶ 11 undertrack utility group drive constructions
- ▶ construction of 15 pedestrian and vehicle bridge structures spanning over the operational railway
- ▶ 5km of 4.8 high electric detection top lineside security fencing to Network Rail boundary

- ▶ new traction supplies from new electrical substations
- ▶ construction of 2012 Olympic facilities adjacent to the railway, i.e. Aquatics Centre
- ▶ track Monitoring
- ▶ lowering of 4 under rail bridges
- ▶ review over 4,000 technical documents for the construction activity.

Network Rail Delivery activities involved:

- ▶ design and implementation works to existing overhead line equipment (OHLE) assets, involving making modifications to OHLE structures and registration arrangements for a number of locations
- ▶ environmental management of invasive vegetation.

Key Project Outputs

The main objective of the project was to provide assurance that works under, over and alongside the operational railway by the Olympic Delivery Authority's development partners were carried out safely and without train performance impact. In so doing, Network Rail was keenly aware of the client's exacting timescale.

Though essentially a set of Asset Protection projects, Network Rail took a flexible approach when it became apparent we were best placed to deliver co-ordination of rail asset changes required by several outside party developers and lowest risk/cost implementation of works required to existing rail assets.

The PLUG project was featured at the 2009 APM Project Management Awards and was awarded Project of the Year for its major technical achievements.