

London's major infrastructure projects

An overview of upcoming developments

August 2009



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Introduction

This document summarises the major infrastructure projects that are planned or anticipated in London over the coming years. London's infrastructure is under increasing pressure, due in part to the age of some of the assets – notably the sewerage system. Capacity constraints on the existing transport networks are also driving a new generation of transport developments.

Undoubtedly there will be opportunities for engineering companies, but there will be challenges of delivery. Several major projects – notably Crossrail, the Olympics and the Tideway Tunnels – are likely to experience a degree of overlap, potentially increasing competition for delivery resources.

Given the economic climate, the next Comprehensive Spending Review will likely result in cuts to public spending, which may impact some of the projects listed here.

Key observations

- Activity on significant infrastructure projects in the capital is currently underway, focusing mainly on rail and roads.
- The 2012 Olympics is a significant driver of activity. Post 2012, prospects are less clear.
- 2012 is likely to be a notable year for infrastructure activity in the capital, suggesting that skills and capacity to deliver may be at a premium unless industry capacity is planned accordingly.
- The abandonment of certain key projects – for example the Thames Gateway crossing – indicates a tightening of capital budgets. The legacy of the recession may be an increased focus on schemes with high benefit-cost implications.
- The carbon agenda is also likely to influence the direction of future investment, particularly in transport and energy.



- The potential for a change of government by 2010 remains. Prospects under a future Conservative government are uncertain at present. A Conservative government may, for example, disband the Infrastructure Planning Commission.

Analysis and recommendations

The indications are that public investment is likely to be constrained in the coming years. Rising levels of public debt and declining tax income mean that public projects will be competing for a smaller public purse.

Post 2012, this suggests a difficult situation for investment in infrastructure. Private sector projects may begin to fill the gap, assuming that the early signs of easing of private investment are followed by a general recovery. However, given the length of time needed to progress complex projects, the chances are that London's infrastructure developments will be dominated by Crossrail, the Tideway Tunnels and widening of the M25 for the foreseeable future.

For the consultancy and engineering industry, this means a less certain post-Olympics future. ACE recognises the difficult choices that clients and investors are facing; clients and industry should therefore continue to work closely together to navigate the difficult waters ahead.

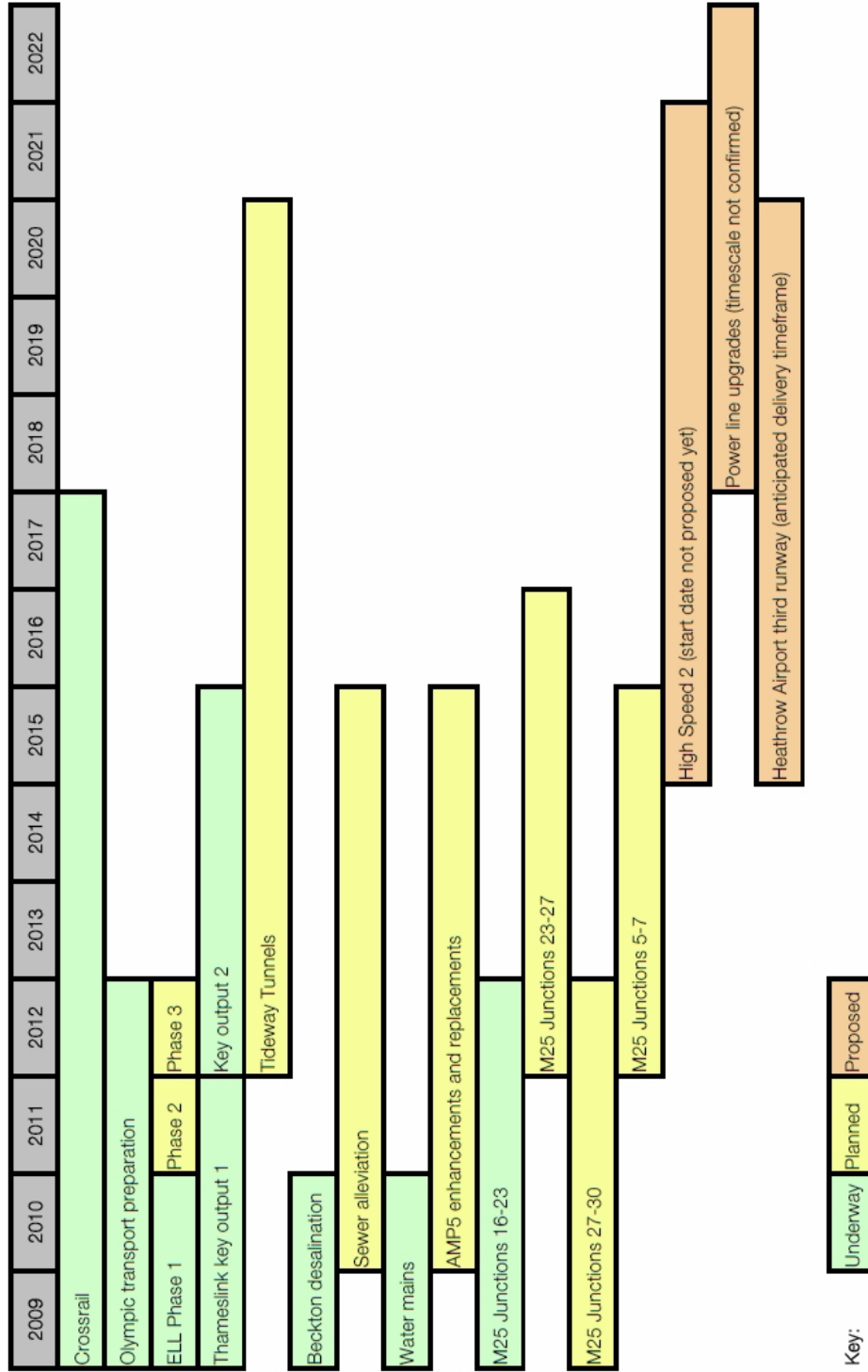
Specifically, ACE recommends that:

- Clients and investors should engage with industry at an early stage. This can help to identify how limited investment can be put to best use, including identifying efficient means of delivery. ACE can provide a central point of contact to engage with the consultancy and engineering industry.
- Clients should not seek to use the current financial difficulties to offload risk onto the supply chain. Risk should be placed with those best able to manage it; projects can be de-risked, but this generally comes at a premium.
- Public clients should honour their existing investment plans as far as possible, so that industry can have a degree of certainty regarding the future.
- Clients should target investment at those projects that can deliver quick wins, such as capital investment in asset maintenance. Regular engagement with industry will help to identify the best schemes to invest in.
- The government should consider some form of underwriting scheme similar to the Treasury PFI unit. This could help to encourage private investment in infrastructure to help restore confidence.
- The Mayor of London should use his influence to encourage continued investment in London's essential infrastructure, to ensure that there is a future beyond Tideway and Crossrail.



Timeline of major infrastructure projects in London

August 2009



Key: Underway Planned Proposed



Summary of projects

The following section summarises major projects underway and planned. Where possible, indicative timescales and total project values have been included.

Crossrail

Status: Underway
Timescale: Preparatory work beginning 2009; main tunnelling commencing 2010; completion due 2017
Total value: £16 billion approximately

Crossrail is one of the largest individual railway projects in the UK, involving around 22 km of tunnels, rebuilding of existing stations, and numerous on-network works on the existing rail network in preparation. This work will include the further electrification of the Great Western main line from Paddington. Much of the work will be delivered through framework arrangements, with two consortiums providing programme and delivery management.

Olympics transport

Status: Underway
Timescale: Games take place in 2012

Preparations are underway to transport up to 800,000 spectators per day to and from the Olympic venues in 2012. Work is underway on a number of projects, including extending the Docklands Light Railway to Stratford International (due 2010). However, some related projects – including step-free access at some Underground stations – was deferred in Transport for London's 2009/10 budget.

East London Line extension

Status: Underway
Timescale: Phase 1 due for completion in 2010; further works planned up until 2012.

The East London Line of the London Underground closed in 2008 to allow for development works and incorporation into the London Overground network. The first phase (Dalston – Croydon) is due to open in 2010, with an extension to Highbury due to be completed by February 2011. A future extension from Surrey Quays to Clapham Junction is planned for 2012.



Thameslink programme

Status: Underway
Timescale: Final phase to come into operation by end of 2015
Total value: £5.5 billion

A major programme of upgrades to London's existing north-south cross-city railway. Enhancements include platform lengthening, track renewals and modifications, and upgrades to electrical and telecommunications systems. Initial works began in 2009; much of the capacity enhancing work is timed for completion to coincide with the 2012 Olympics, but further infrastructure work will continue up to 2015.

London water main replacement

Status: Underway
Timescale: Completion due for 2010

Thames Water is undertaking a major upgrade of London's 19th century water mains. Works are scheduled to be completed in 2010.

Beckton desalination plant

Status: Underway
Timescale: Completion due for 2010

A new desalination plant is being constructed in Beckton. When operational in 2010, the plant should provide up to 140 million litres of water per day – enough to meet the needs of around one million people.

Thames Water sewer alleviation

Status: Planned
Timescale: Works to be completed by 2015
Total value: Up to £50 million

Thames Water is planning sewer upgrade works to alleviate the risk of flooding in various locations around London, as part of their wider flood alleviation programme. The programme is part of the draft business plan submitted to Ofwat, and is likely to be part of the final determinations when published.



Water and sewerage capital works

Status: Planned
Timescale: Work to be scheduled for 2010 – 2015
Total value: Draft determination in the region of £4.8 billion

Thames Water are likely to carry out a significant further programme of capital maintenance and replacements on the water and sewerage systems in London during the next investment cycle. Final details will emerge following the publication of Ofwat's determination of Thames Water's business plan later in 2009. However, the draft figure for capital spend of £4.8 billion is less than Thames Water's initial proposals.

Tideway Tunnels

Status: Planned
Timescale: Construction to commence in 2012; completion due 2020.
Total value: Approximately £2 billion

Thames Water plans to construct 32 km of tunnels along the course of the Thames to capture storm runoff and prevent discharge of untreated sewage into the river. Upon completion the tunnel parallel to the Thames will be the largest storm relief sewer in the world. C2HM Hill have been appointed as programme managers, overseeing preparation, design and construction.

M25 widening

Status: Underway/planned
Timescale: Commenced May 2009; completion planned on final section for 2016
Total value: £5.5 billion

The Highways Agency plans to widen several further stretches of the M25 to four lanes. Status is as follows:

- Junctions 16 – 23: underway; due for completion Spring 2012
- Junctions 23 – 27: planned; construction scheduled for 2012 to 2016
- Junctions 27 – 30: planned; construction scheduled for 2009 to 2012
- Junctions 5 – 7: planned; construction scheduled for 2012 to 2015



High Speed Two

Status: Proposed
Timescale: Potentially complete by 2021

In January 2009 the Department for Transport announced that a company, High Speed Two Ltd, would be established to examine the case for a second high speed railway line. The current proposals are for a high speed line connecting London and the West Midlands, with an interchange serving Heathrow on the Great Western Main Line and potential for extending further north. Firmer proposals from High Speed Two Ltd are due to emerge by the end of 2009.

The Conservative Party have expressed support in principle for a high speed railway linking London, Birmingham, Manchester and Leeds.

Crossrail 2

Status: Proposed
Timescale: Potentially operational by 2016

Also referred to as the Chelsea-Hackney line, a route has been safeguarded by Crossrail for a second cross-London underground railway. The proposed route would involve a new tunnel section between Parsons Green and Leytonstone, and would take over sections of the District line (Parsons Green to Wimbledon) and the Central line (Leytonstone to Epping). According to Islington Council, the line is expected to be operational by 2016, although this has not been confirmed.

Power grid reinforcements

Status: Proposed
Timescale: Completion by 2022
Total value: £275 million

Proposals in made in March 2009 envisage the upgrade of two 275 kV lines to 400 kV. Factors driving the proposals include increased generation in East Anglia and the Thames estuary, potential increases in interconnection with mainland Europe, and the future electrification of transport and decarbonisation of space heat.

Heathrow Airport third runway

Status: Proposed
Timescale: To be delivered between 2015 and 2020

In early 2009 the Secretary of State for Transport gave support for a third runway at Heathrow Airport. Construction is likely to be timed to deliver the new runway by 2020. However, the Conservatives have pledged to reverse this decision should they form the next government.