

Road tunnels - The Hindhead Tunnel opened to traffic in the summer to much deserved acclaim and has resulted in significant improvements in traffic flow on the A3 route between London and the South Coast

Sewage tunnels - Tunnelling was substantially completed on the Brighton Wastewater scheme. Tunnel driving should commence shortly on the Lee Tunnel - the first and very important part of the Tideway scheme to improve the water quality of the River Thames.

Cable tunnels - Driving is underway for the National Grid cable tunnels from Hackney to Willesden Green via Kensal Green and from Kensal Green to Wimbledon, which have been let as one major package. More utility tunnels are in contemplation or in the procurement stage.

Railway Tunnels - Work on the renewal and extension of the underground station at Tottenham Court Road is now well advanced. Shafts have been sunk and SCL tunnelling for the first stage of underground works was underway. The upgrades at Victoria station and Bond Street underground stations are at the preparatory works stages, tunnelling should commence next year. Contracts worth around £1.5bn for the construction of tunnels and underground stations on the Crossrail project serving the Greater London area have now been awarded. Crossrail would deliver a high frequency, high capacity service to 37 stations linking Maidenhead and Heathrow in the west, to Shenfield and Abbey Wood in the east via 21 km of new twin-bore tunnels under central London. A total of 8 TBMs were ordered from Herrenknecht with delivery of the first scheduled to take place in January 2012. The first TBMs would start on their journey from Royal Oak towards the west of Farringdon station. These would be followed by the launch of further TBMs in Docklands that would head under central London towards the east of Farringdon. New Crossrail stations, costing in the region of £2bn, would be constructed along the central route at Paddington, Tottenham Court Road, Bond Street, Farringdon, Liverpool Street, Whitechapel and Canary Wharf. Some of these stations would be excavated, using SCL techniques, below two or three levels of existing underground railway infrastructure. Preparatory work for the SCL activities was well advanced and the first permanent shotcrete lining was due to be placed in early 2012. The Tunnelling and Underground Construction Academy (TUCA), part of the Crossrail legacy, was opened in late 2011.

Tunnel refurbishment - Refurbishment work was also an important activity and the re-equipping of the Northbound Blackwell Tunnel under the Thames east of the City of London, was completed well ahead of programme, bringing much needed relief to the traffic situation in that area. The A1 Hatfield Tunnel was also refurbished and re-opened.

Future work currently in planning and design stages included the Tideway Scheme which should soon complete its consultation stages. The proposed High Speed Two rail link was expected to be given the go-ahead by the government, early in 2012. This railway scheme which should eventually link Glasgow and Edinburgh to



London, is expected to have extensive lengths of track in tunnel. London Underground were close to going to tender on the upgrade to Bank Station. A new road tunnel under the Thames at Greenwich was under consideration and being supported strongly by the Mayor of London.

The future energy situation in the UK remains a matter of some concern but the nuclear programme moves slowly. planned nuclear generating stations would require extensive tunnelling for cooling water circulation but the nuclear programme was impacted by uncertainty following the events in Japan. The problems of the Eurozone may well be the next obstacle.