



BRITISH TUNNELLING SOCIETY

Thursday 19th September 2019 at 6.00pm

TELFORD THEATRE
INSTITUTION OF CIVIL ENGINEERS
ONE GREAT GEORGE STREET, WESTMINSTER, LONDON SW1P 3AA

Thames Tideway West: The Design and Construction of Hammersmith Connection Tunnel

Speakers;

Ed Batty, Tunnels Agent (Bam Nuttall), **Peter Coppenhall**, Designer Representative
(Morgan Sindall Engineering Solutions)



The Hammersmith Connection Tunnel forms part of the £4.2billion pound Thames Tideway scheme. The tunnel will intercept sewer flows from the Hammersmith Pumping Station, where on average 2 million m³ of untreated sewage is discharged into the River Thames each year. The design of the tunnel includes a sprayed concrete primary lining and cast in place secondary lining. The waterproofing philosophy adopted by the designer omitted the need for a traditional waterproof membrane between the primary and secondary linings. Instead a crystallisation agent was specified and incorporated in the primary lining, with the aim of improving the permeability of the section and watertightness of the sprayed concrete joints. The ability of this crystallization agent to limit water ingress was verified through a programme of pre-construction testing. This testing proved that an admixture dosage of 5kg/m³ was sufficient to satisfy the design. During the construction of the tunnel a number of key innovations were implemented by the project team. These included the use of a fully hydrostatic PLC driven formwork system to cast the tunnel secondary lining. The presentation will discuss this innovation plus others, whilst providing a detailed overview of both design and construction aspects of the works.

This is a free event - advance booking not required

Tea and biscuits will be available at 5:30pm

In case of any query please contact; societyevents@ice.org.uk

or e-mail: bts@ice.org.uk

or visit: www.britishtunnelling.org.uk