



# Crossrail C300 Royal Oak to Farringdon (Drive X). London

info



Crossrail will 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. It will bring an additional 1.5 million people within 45 minutes commuting distance of London's key business districts.

Keller Getec itmsoil working as a joint venture KGI JV on the Crossrail Project C300 as the I&M contractors for the Bam Ferrovial Kier JV.

Installations of various types of instrumentation have taken place along the tunnel drive section between the Royal Oak Portal and Farringdon Station in Central London. These have included precise Levelling points, bre levelling studs, robotic total stations, 3D Geodetic Prisms , hydrostatic levelling cells , shape arrays, strain gauges as well as sub-surface instrumentation. This instrumentation, combined with Getec's specialist monitoring software gtcVisual, is being used to effectively monitor ground and structural movements of buildings and third party assets along the tunnel alignments for both TBMs. To help reduce the likelihood of settlement while the tunnels are constructed, the TBMs have to run nearly 24 hours a day, 7 days a week, 365 days a year. The monitoring does too!.

Compensation Grouting methods are being utilised at Bond Street, Tottenham Court Road and also Fisher Street from a total of 13 grout shafts. By using gtcVisual and GroutControl the influence of grouting events can be both monitored and controlled to a high degree of accuracy with Getec's Hydrostatic Levelling Cell System and then measured against anticipated ground movements through advanced settlement calculations.

KGI JV are also monitoring contract C410 which involves the construction of sprayed concrete lining station boxes at Bond Street and Tottenham Court Road. gtcVisual will be used to monitor SCL progress to maximise efficiency of monitoring as these works progress. gtcVisual is used by the project team to monitor the works and export data to the clients archival database in AGS format.

## Client

Crossrail

## Main Contractor

Bam Ferrovial Kier JV

## Location

Central London

## Catergory

Instrumentation and Monitoring

TBM Tracking

gtcVisual

GroutControl

## Value

>£20 million

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