

Channel Tunnel Rail Link – Contract 342

CTRL 342 forms part of Section Two of the Channel Tunnel Rail Link project linking Southfleet Junction in North Kent with London's St Pancras Station.





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Client:

Union Railways (North) Ltd

Project Manager & Designer:

Rail Link Engineering (RLE)

Form of Contract:

ECC Option C
(Target Cost + amendments)

Construction Period:

2002 – 2005

Value:

£186 million

The work involves construction of 3.5km of CTRL rail formation; widening of a section of A2 Trunk Road; foundations for the international station at Ebbsfleet; a 500m cut and cover tunnel under the A2; and other significant bridge structures to carry the North Kent Railway and the A226 Galley Hill Road over the CTRL.

There are 36 structures in total comprising 150,000 cubic metres of concrete and 14,000 tonnes of reinforcing steel. There are 1900 piles to install with 740 tonnes of structural steel. There is significant interface with both the A2 Trunk Road and North Kent Rail Lines.

At Pepper Hill, the rail line is carried through cut and cover tunnel beneath the A2 Trunk Road. The work has been planned in five stages to maintain traffic flow. In other locations, road bridges are being constructed over the future alignment of the CTRL whilst maintaining traffic on the existing elevated road located on a tall chalk spine. This involves the

creation of foundations under the road in tunnels, and the construction of the superstructure off-line adjacent to the road. The decks will be jacked into the final position over a weekend possession.

The Hochtief-Norwest Holst Joint Venture successfully moved into position two major, contractor-designed structures below the North Kent Railway Line. The first structure was a 2300 tonne open base box culvert 56 metres long and 8.5 metres high. The second structure was a 3 span bridge weighing 9100 tonnes, which now carries the North Kent Line over the future CTRL lines. The bridge is amongst the heaviest ever slid in the UK.

Due to the scale and complex nature of the project, the planning and execution of the work has required first class management skills and technical expertise. Value Engineering proposals by the contractor played a significant role in reducing not only costs, but also the risks which are inherently associated with such large, complex projects.