

A5 Kilsby to Weedon Multi-Disciplinary Project

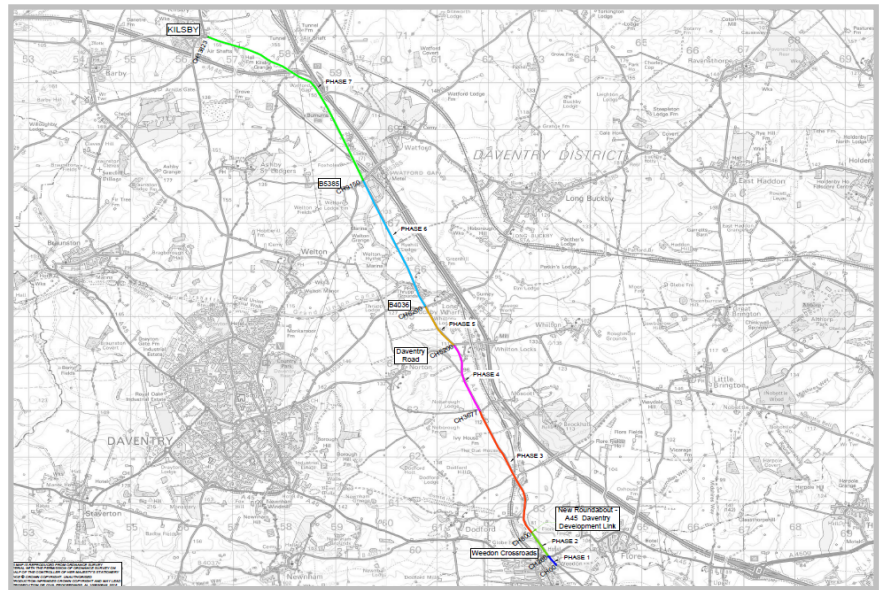
Project Profile

Client: Highways England Area 7
East Midlands Asset Delivery

Designer: Kier

Value: £5.8m

Overall Scheme Value: £13.0m



This scheme involved highway maintenance work to 13km of the A5 Watling Street between the villages of Kilsby and Weedon, Northamptonshire, to address poor highway drainage and to complete pavement re-construction. The scheme was let through Highways England's East Midlands Asset Delivery (EMAD) Construction Works Framework (CWF). This collaborative framework includes appointments for Designer, M&R contractor and a 'community' of specialist contractors to deliver the capital programme.

The scheme was let through Highways England's East Midlands Asset Delivery (EMAD) Construction Works Framework (CWF). This collaborative framework includes appointments for Designer, M&R contractor and a 'community' of specialist contractors to deliver the capital programme.

Kier were scheme designers and Forkers Ltd were appointed Principal Contractor (PC), carrying out the drainage and civil works, also being responsible for programming, management and co-ordination of the other CWF contractors involved in the scheme who included; *HW Martin - Traffic Management, Tarmac - Surfacing Contractor, Wilson & Scott - Road Markings and Anti Skid, Ground Control - Vegetation & Environmental Contractor, Volker Laser - Bridge joint reinstatement and NMCN - Civil works*

The main work included:

- **Pavement, Bridge Joints and Loops** - Pavement repair and reconstruction with depths of renewal varying from 50mm - 220mm. Work also involved re-installing traffic loops and refurbishment of bridge joints.
- **Rectification of Drainage Defects** - Included replacement or repair of damaged pipework, installation of new highway drainage pipework, headwalls, gulleys, catch pits, manhole covers, vegetation clearance and ditch reprofiling.
- **Road Markings, Studs and High Friction Surfacing** - Replacement of road markings and studs within areas of resurfacing, refreshing road markings outside pavement works and placement of High Friction Surfacing at various critical locations throughout the scheme (Buff, Grey and Red).
- **Kerbing** - Replacement of damaged kerbs and kerb inlet units, replacement of standard PPC kerbs with combined kerb drainage systems in areas particularly susceptible to surface water flooding.
- **Landscape Reinstatement, Arboriculture works and Habitat installation** - Tree felling, vegetation clearance and landscape reinstatement to ensure the drainage systems could be installed and easily maintained in the future. A number of bird and bat boxes were installed to promote a thriving ecosystem in the area.
- **Overburden Removal and Channel Clearance** - Overburden clearance to a 0.5m strip behind the kerbline and removal of detritus from the channel to facilitate water flow.



A5 Kilsby to Weedon Multi-Disciplinary Project (cont'd)

Project Profile

Client: Highways England Area 7
East Midlands Asset Delivery

Designer: Kier

Value: £5.8m

Overall Scheme Value: £13.0m



As it was not possible to close the A5 over the full extent of the works, the 13km length was split into 7 phases with full closures put in place between 20:00 and 06:00 each night. In addition, several weekend closures were used to complete major sections of re-surfacing.

In order to minimise the disruption to local residents, businesses, commuters and the public our award winning PLO assisted in development of the COMMS plan for the scheme and ensured effective and continuous communication with all stakeholders was maintained both prior to commencement and throughout the 45week long project. The A5 forms part of the strategic road network and is heavily used by both national haulage companies and local businesses and it was important that we were able to inform them well in advance of the planned works and programmed closure times in order to minimise the effect on their businesses.

This section of the A5 also serves as a primary diversion route for closures of the M1 between Junctions 16 and 18 and on completion of each night shift we had to ensure that the working areas and the carriageway were left in a clean and safe condition, inspected and signed off before the road could be re-opened. This included liaising closely with Highways England and Northants County Council to ensure the road was gritted during the winter periods.

Phase 5 of the scheme bisected the scheduled ancient monument of Bannaventa, a Roman village on Watling Street, and all excavation work in this area required an archaeological watching brief to record any artefacts or items of interest.

As the work progressed, surveys of the existing drainage system revealed that there had been significant deterioration of the assets since the original survey had been carried out and the design finalised, as a consequence the scope of works was significantly increased. To minimise any unnecessary extension of the programme we focussed on completing as much of the repair work to the surface water drainage pipework as possible using trenchless techniques in lieu of dig-down repair or replacement including; root cutting, lateral cutting, epoxy resin patch repairs and epoxy resin liners. This reduced the programme time as well as the additional costs and also had the effect of reducing the carbon footprint of the scheme by minimising disposal of waste and optimising the re-use of existing assets.

As part of the collaborative nature of the project, the opportunity afforded by the lengthy A5 closure was also used by other stakeholders such as Amey and BT for essential repair, maintenance and renewal work.

