

Albrighton Flood Alleviation Scheme

Client: Severn Trent Water

Location: Albrighton, Shropshire

Value: £6.4m

Duration: 17 Months

In Brief...

Barhale were awarded this £6.4 million scheme by Severn Trent Water to upgrade the sewerage system within Albrighton, Shropshire.

The village of Albrighton had experienced substantial flooding in recent years due to lack of capacity in the existing sewerage system, coupled with the volume of surface water flowing into a local brook.

Customer Benefits...

- Adoption of trenchless techniques, minimising disruption to local residents
- Offered an innovative, cost saving solution through carrying out micro-tunnelling operations to a curved profile
- Extensive community engagement to reduce disruption
- Completed to budget and without incident
- Highlighted by the industry as “What Good Looks Like” after the scheme achieved a number of industry awards

Innovations...

Barhale offered an innovative solution to the client through carrying out micro-tunnelling to a curved profile. This was one of the first micro tunnels in the UK to be cut on a curve through rock and provided a £300,000 cost saving to the client, Severn Trent.

Environment...

Throughout the works, Barhale looked to minimise their environmental impact where possible. Barhale worked hard to re-use as much of the excavation arisings as possible, with dried tunnel slurry being recycled as landfill capping and harder sandstone, sands and tarmac being used as pipe-bedding material. This avoided expensive and environmentally unfriendly transport and special waste-tipping charges.

Customer Care...

Strong customer relations were maintained throughout the project. In conjunction with Severn Trent, Barhale opened a drop in centre to provide residents and local businesses with information regarding the project. Barhale looked to minimise disruption to residents where possible and so working hours were restricted to dayshifts only with no works on a Sunday.

Presentations were held at local schools regarding the importance of being safe around a construction site and Barhale sponsored the village Christmas lights as a gesture of goodwill.

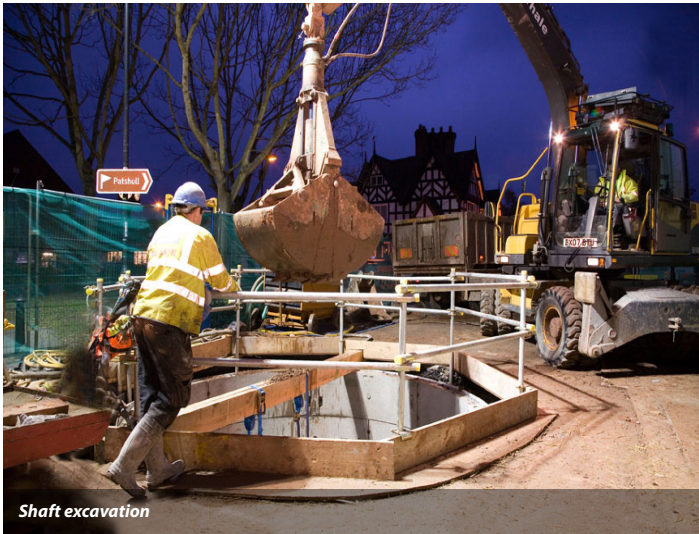
Due to Barhale’s exemplary behaviour during the works and close relationship with the local community they were invited to a “Community Party for the Contractor” which was the subject of a BBC Midlands News item.



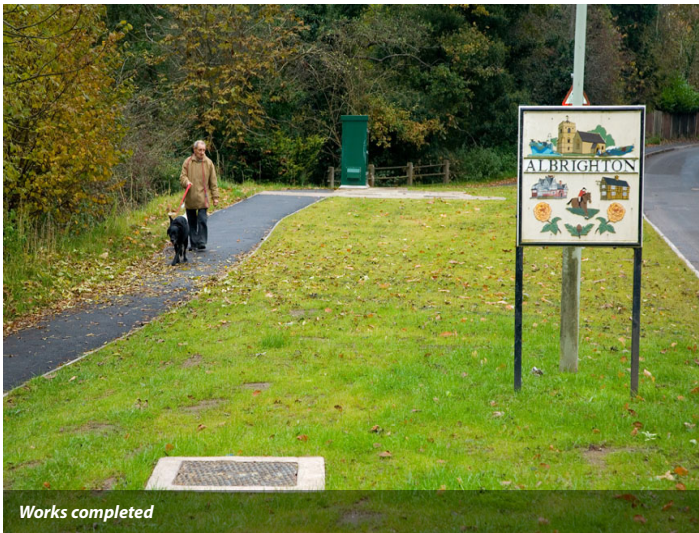
Curved Pipejack



High quality reinstatements



Shaft excavation



Works completed

Awards...

The scheme was highlighted as a huge success within the industry and won a number of awards.

It achieved the Gold Award at the Severn Trent Community Awards, and was also awarded the ICE West Midlands Communication Award due to the schemes excellence in communication, PR and media activity.

The scheme won a Bronze Award with the Considerate Constructors Scheme and arguably its greatest success was the first prize for new installation of a large project for the UK Society of Trenchless Technology Awards.

Technical Features...

The scheme included road, footpath and verge works consisting of four inter-related projects, all combining to overcome severe risk of storm water flooding that had previously affected the town. They were:

- Newport Road UID – storm overflow chamber, gravity storm sewer and outfall, 350metres of open cut storm water sewer, and a reinforced concrete chamber incorporating a rotating screen
- Albrighton Flood Alleviation Foul Sewers – 300 metres of 1.8m diameter catchment sewer constructed by micro tunnelling; 700 metres of 0.6m diameter sewer in microtunnel, 400 metres of other sewers together with associated manholes
- Albrighton Storm Water Scheme – five new storm outfalls to form a stream in open cut, 600 metres of storm sewer in open cut and guided auger boring
- Station Road Clean Water Main – 700 metres of 250mm diameter water main

The scheme to upgrade sewerage in the town was extended to include renewal of some water mains, thereby avoiding duplication of construction activity at a later date.

All works were undertaken through the narrow town streets involving deep 'open trench top-down construction' and tunnelling between shafts through ground heavily congested with other utility services.

Through-out the works, following pipeline installation and backfilling to open trenches and shafts, the carriageway was reinstated with full depth pavement construction, and the verge/footpath soft/hard landscaping was reconstructed as applicable.