

M6 Junction Improvement Scheme, Cheshire



The M6 junction 19 improvement works is a £43 million Highways England scheme, which forms part of a collection of projects designed to improve connections between Cheshire and South Manchester.

Junction 19 is a section currently used by over 65,000 vehicles each day and as such is in need of improvement to meet an expected increase in traffic.

This increase will grow as it now enters from the M6 and the A556, as well as any increase from Manchester Airport expansion and the development of the Wythenshawe MediPark.

The project to redevelop the motorway section is being undertaken by joint venture, Amey Sir Robert McAlpine, who awarded the piling and foundation works to Bauer Technologies, a subsidiary of the BAUER Group.

Specifically, Bauer was required to install 124no. abutment CFA piles (62 per abutment), each measuring 900mm x 13m, and 60no. pier rotary bored piles, each measuring 900mm x 16m. 2no. preliminary test piles were also required.

The importance of the transport link meant work had to be undertaken with the motorway live. Narrow lanes and 50mph speed restrictions were applied to the 1.5km section of the M6 carriageway in both directions between the exit and entry slip roads. Safety throughout this project was paramount.

Ensuring the safety of workers was critical and of particularly importance where work required rigs to pile in the central reservation. In addition, Bauer's scope of works commenced during the COVID-19 lockdown restrictions, which meant all work undertaken on-site had to adhere to the Government's strict working

guidance, to ensure that all those working on the project took steps to keep everyone safe. Typically, this began with assessing and managing the risks of COVID-19, and in particular, considering the risks to workers and those other contractors on-site whose task had the potential to overlap with Bauer's employees. In practice, this meant social distancing (2m, or 1m with risk mitigation where 2m was not viable) frequent handwashing and other measures, such as using back-to-back or side-to-side working (rather than face-to-face) whenever possible. Using 'fixed teams or partnering', so each person worked with only a few others was also employed to reduce the number of people each person had contact with.

RAMs App, a Cloud-based health and safety software package, allowed Bauer to carry out multiple tasks in one place: from risk assessment and method

statements to COSHH assessments and staff training. It also allowed Bauer to create, duplicate, download and send health and safety documents, which were safely stored in the cloud, from anywhere to anyone requiring them, to ensure total compliance. Bauer followed Building Information Modelling (BIM) processes throughout the project too, which included the creation of an intelligent 3D model for the document management, coordination, and simulation. Using BIM allowed the company to explore design options and to create visualisations, as well as design documentation for construction.

Bauer mobilised to site early June 2020, with works completed successfully and safely in just 4 weeks, on time, to budget and to the satisfaction of the client.



Principal Contractor:

Amey Sir Robert McAlpine JV

Piling Contractor:

BAUER Technologies Limited

Contract Period:

June 2020 – August 2020

Bauer's Scope of Works:

- 124no. 900mm x 13m abutment CFA piles
- 60no. 900mm x 16m pier rotary bored piles
- 2no. preliminary test piles

Equipment Used:

- BG30 piling rigs x 2no.
- 60 tonne telescopic crawler cranes x 2no.