

# Mining resumes in new 150 acre quarry zone after modular bridge solution enables access over the River Trent

Bridging Case Study



**Swarkestone Quarry, UK**

**m|a|b|e|y|bridge**

**Customer:** Tarmac Aggregates Ltd. | **Solution:** Compact 200™

## The Challenge

Tarmac's Swarkestone Quarry, located near Barrow upon Trent (about seven miles south of Derby), has been mined continuously since the mid-1990s, covering approximately 222 acres to date. However, by 2018 aggregate extractions were entirely exhausted, and operations had come to a complete halt. Tarmac gained permission to expand the site adjacent to the River Trent, in an area prone to flooding. This extension to the quarry would allow operations to continue over the next decade. Access to the new extraction area would require the existing road to extend across the River Trent via a bridge capable of carrying the quarry's heavy-duty vehicles, including large dump trucks and articulated lorries.

Tarmac approached Mabey Bridge to provide a proposal to meet their specific requirements. They needed a durable solution which could be rapidly installed in challenging terrain, within a small footprint and causing minimal impact on the surrounding area. The single-lane carriageway had to be robust and at least 5m in width to safely accommodate the size of the lorries. The structure had to be low maintenance and easily removable because the long-term plan was to reinstate the land after 25 years.

## The Solution

Mabey Bridge proposed their Compact 200™ (C200™) as the optimum solution to meet the immediate bridging requirements of Tarmac's project. The product of choice in numerous extractive projects worldwide, the C200™ can be designed and configured to accommodate specific road widths and loading requirements. For the Swarkestone Quarry, a 3-span, 83.46m long and 5.25m wide C200™, decked with Durbar steel plate and Smartedge parapets, was assembled along the riverbank before being simply crane-lifted into position. In total, it took 10 days to assemble the structure plus another two days to install into position.

## The Result

The new road extension over the river has enabled the operations at Swarkestone to resume – an extension which will see sand and gravel extracted for the next eight years in a new quarry zone of more than 150 acres. The new bridge also ensures that HGVs, used to carry away the aggregate, are diverted from the main road.



Mabey Bridge, Unit 9, Lydney Harbour Estate, Lydney, Gloucestershire GL15 4EJ, United Kingdom  
Office: +44 (0)1291 623 801 Email: [mail@mabeybridge.com](mailto:mail@mabeybridge.com) [www.mabeybridge.com](http://www.mabeybridge.com)

