

## COMPANY CASE STUDY

Restoration and Preservation of Listed and Ancient Monument Structures



### CASE STUDY FOCUS

Over the past several years, Metcalfe Civil Engineering has undertaken numerous design and build contracts focused on the restoration and preservation of listed and ancient monument structures. These projects have involved the meticulous restoration of historic bridges, viaducts, and other architectural gems, aiming to safeguard their heritage value for future generations. Metcalfe's expertise in heritage conservation and specialist access methods has been instrumental in the successful completion of these projects.



### PRECONSTRUCTION:

Metcalfe's preconstruction efforts have included comprehensive environmental surveys, including bat surveys, to ensure compliance with conservation regulations. The team has navigated the complexities of obtaining Listed Building Consents (LBCs) and bat licenses, demonstrating a commitment to regulatory compliance and environmental stewardship. Additionally, stone matching and sample panels have been meticulously crafted to ensure seamless integration with existing listed structures.



### RANGE OF WORKS UNDERTAKEN:

The range of works undertaken on these structures is diverse and encompasses various preservation techniques. General maintenance and pointing repairs have been conducted to address weathering and deterioration, while rebuilds of accident damage have restored structural integrity. Metcalfe has also undertaken the replacement of damaged copings, meticulously replicating existing listed copings to maintain architectural coherence.





## INNOVATIVE PRESERVATION METHODS

Innovative preservation methods have been employed to protect historic foundations from scour and modern vehicle loadings. This has included the installation of concrete inverts and aprons, necessitating the use of cofferdams to dry out entire arch spans. Similarly, the installation of concrete saddles has strengthened and protected arches, involving the meticulous reconstruction of arch fill with specialised materials.



## SPECIALIST LIME MORTARS

Metcalf's commitment to heritage conservation is further underscored by its use and development of specialist lime mortars for the restoration of bridges and other historic structures. This traditional building material ensures compatibility with historic fabric while providing long-lasting protection against decay.



## DEDICATION TO HERITAGE CONSERVATION

Through our dedicated efforts in heritage conservation, Metcalfe Civil Engineering has demonstrated expertise in the restoration and preservation of listed and ancient monument structures. By employing innovative techniques and adhering to stringent conservation standards, Metcalfe has played a pivotal role in safeguarding our cultural heritage for generations to come.

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