

HS2 Phase 1 – M6 Motorway South Viaducts

CLIENT: Arcadis for BBV Joint Venture

LOCATION: Warwickshire, UK

YEAR OF COMPLETION: Ongoing

We have been appointed to undertake the Category 3 independent checks of the permanent works design for a number of the key viaducts on the northern section of HS2 Phase 1. These viaducts all carry the HS2 mainline or Birmingham Spur and are thus subject to rigorous dynamic and rail-structure interaction performance criteria.

Of these structures the twin deck M6 Motorway South Viaducts are probably the most complex having an unusual two cell orthotropic box girder for each deck (pictured). The viaducts have a total length of 314m with a maximum span of 84.5m where it crosses the M6 on a skew. The pier and abutment foundations are supported on large diameter bored piles of up to 2.1m in diameter.

In addition to checking the in-service condition we are also checking the permanent works for incremental launching of the motorway viaducts.

We are working proactively with the designers to resolve our comments to achieve certification.

KEY FACTS:

- High speed railway viaduct over a motorway
- Steel orthotropic box deck construction
- Dynamic and rail-structure checks
- Incremental launch condition checks

