



A structurally demanding bridge was designed to support heavy agricultural vehicles over a seasonal watercourse while meeting environmental requirements. coordination

Location: Stoke, Andover

Contractor: RJ Bull

Vehicle Bridge / High-Load / Prefab / Collaboration



Design Challenges

Garston Bridge presented a complex engineering challenge, primarily focused on accommodating exceptionally high agricultural loads over the Bourne Rivulet. The bridge needed a minimum clearance of 300mm to allow for stormwater flow, necessitating extensive groundwork to raise the riverbank. AWA's design of the reinforced concrete abutments ensured both structural integrity and bank retention while enabling efficient construction.

Engineering Solutions

Reinforced concrete abutments were designed to harness the weight of the earth for stability. Steel reinforcing cages were prefabricated off-site for rapid positioning, and steel beams were installed with sliding bearings to manage thermal expansion. A durable timber deck and handrail completed the structure, combining functionality with longevity. Throughout construction, AWA collaborated closely with RJ Bull Environmental Contractors, ensuring designs were implemented smoothly and that the project remained within budget.



Project Delivery and Impact

Although planning permission delays extended the timeline to two years, AWA remained actively involved from the five-month design phase through on-site coordination. The finished bridge now supports heavy agricultural traffic while meeting environmental and safety requirements. The project highlights AWA's expertise in bridge design and its capacity to work seamlessly with contractors to achieve successful outcomes.