The project involved the installation of new structural steel members including removal of existing lead coatings and application of protective coatings.

VEC were successful in securing the contract to strengthen the 140 year old structure by replacing 17t of existing steel members and introducing 16t of additional steel plates to strengthen the bridge trusses. The bridge has an overall length of 128 metres and consists of two spans.

**Challenges**

Some of the project challenges included, access, removal of lead containing coatings, removal of rivets and the drilling of 4,900 holes through the existing wrought iron structure. The site crew worked through unfavourable weather conditions, including a rising South Esk River on multiple occasions which resulted in a change to the installation methodology.

VEC sequenced the works in a way to ensure that there were no disruptions to the rail network (at least one train per day passed over the bridge) and ensuring the structural integrity of the bridge throughout the works.

**Innovation**

RARE Innovation (formally Engineering Edge) designed the access gantry structure and the VEC steel manufacturing division fabricated the structure in the VEC steel workshop. The access gantry structure was trial assembled in the workshop prior to site assembly and installation by VEC employees with a 300t crane. The access gantry structure is innovative and provides safe access to allow all works on the bridge to take place concurrently.

While the access gantry structure minimises the working at heights risk, the risk was still present and all works generally required all personnel to wear a harness. VEC carried out a trial of its working at heights emergency rescue procedure where a test dummy was left hanging over the side of the bridge. TasRail were extremely complimentary with our efforts to retrieve the dummy within 8 minutes.