



Client	Morgan Sindall Infrastructure for Network Rail
Project Description	<p>Eastington Road is a Western Region Llantarnam type box girder underbridge comprising 3 No. steel trapezoidal box girders carrying cross-girders and deck plate. There are steel cantilever walkways and parapets to each elevation. The box girders are supported on steel block bearing plinths on concrete bearing shelves.</p> <p>The substructure comprises of reinforced concrete abutments and wingwalls with stone facings. The remit was as follows; Steelwork repairs to prevent defects associated with Llantarnam type construction; Installation of additional cross girders; Local paint repairs & Local masonry repairs.</p> <p>A previously implemented scheme was shared as an initial concept. This required on site trimming of existing cross girder flanges to provide sufficient space for installation of new intermediate cross girders. A number of risks were identified.</p> <ul style="list-style-type: none">• Site preparation would be very time consuming.• Required to be carried out under dead load only (two blockades required).• Difficulty in achieve a quality cut edge.
Cass Hayward Role(s)	<ul style="list-style-type: none">• Tactile inspection• Development of design though Form A, Form B and AFC stages including Cat II Check• Provision of Construction Support• Production of As Built Drawings
Project Statistics	<p>Detailed design achieved the following benefits: Removed the need for any site cutting; Allowed all the strengthening elements to be installed (but not fully fixed) during normal working hours while the railway remained operational & Final fixing of the strengthening plates took place within a single blockade.</p>
Special Features	<ul style="list-style-type: none">• Both global and local analytical models created in order to inform design• 3D modelling software used in order to consider sequencing and constructability due to tight access• Liaison and collaboration with surveyors in order to extract details from point cloud surveys in order to inform/validate survey information.• Highly Commended under the ‘Innovator of the Year’ category at the contractor’s national rail division supply chain awards.