

Success was driven by integrating the Stakeholder needs into the design development so that everyone was invested in the journey from the start through to project completion.



Case Study

Nazeing Road Bridge Integrating the Technical Solution with Stakeholder Needs

PROJECT	Nazeing Road Bridge
CUSTOMER	Hertfordshire County Council
LOCATION	River Lee near Epping
CONTRACT	Herts Structures Framework
COMPLETION	2019





Need

UK bridges built by the Victorians were not designed with maintenance in mind unlike today's CDM compliant structures. For many highway authorities this makes it both a technical and a logistical challenge to maintain and extend the assets life. To add to the difficulty, bridge structures often interface with the public and a myriad of stakeholders from whom consents are required.

Success is often dependent upon the approach taken to integrate the stakeholder needs into the design development so that everyone is invested in the journey through to project completion.

Hertfordshire County Council faced just such a challenge at Nazeing Road Bridge crossing the River Lee. Decades of corrosion had prevented the structure from working in the way it was designed and now the bearings had to be replaced and the bridge repainted. Located over a navigable canal and popular tow path and carrying a road and utility services there were many parties to satisfy.

Solution

Taking an integrator approach, we worked closely with Hertfordshire County Council from the outset to understand the specific needs of the interested and affected parties. It was essential that the road bridge, canal, and tow path remained open throughout the works albeit with some reduced capacity. Early and ongoing consultation included the Canal & River Trust, Environment Agency, the utility companies, and the parish councils and allowed us to manage their expectations.

Painting the bridge was relatively simple but a creative solution was needed to replace the bearings supporting the bridge deck at the free end. The answer was to jack the deck up by just 5mm to remove the load from the bearings. In this way there would be no need to divert the major services crossing the bridge and it could remain open for traffic. It sounds simple but there was concern over damaging the canal wall.

Working with the River & Canal Trust, Ekspan and designers TGP a temporary works solution was developed which transferred the deck load to ground beneath the canal wall. The complex solution required pedestrians to be diverted onto a pontoon while a portadam kept the water back so that 120 tonnes of spoil could be removed by barge. Approval was dependent upon buy-in from all stakeholders.

Outcome

When there is a myriad of interested and affected stakeholders the integrated approach to project management enables better control of the scheme leading to the best outcomes.

At Nazeing Road Bridge, Hertfordshire County Council have brought the stakeholders on the journey with them to safely deliver a difficult technical solution which extends the bridge life for 30 years.

