"When we started on this journey, we knew that you were a company that Hertfordshire County Council could trust and rely on to deliver this important project for us, and I can whole heartedly say that your team have not let you down"

Mark Kemp

Director of Environment and Infrastructure, Hertfordshire County Council



Case Study

New River Bridge Hertfordshire A Collaborative Solution

| PROJECT | New River Bridge |
|------------|------------------------------------|
| CUSTOMER | Hertfordshire County Council |
| LOCATION | Essex Road, Hoddesdon |
| CONTRACT | Hertfordshire Structures Framework |
| COMPLETION | 2021 |
| | |





Need

As our towns and cities grow the road infrastructure must keep pace to continue providing safe resilient access for businesses and the community. Where roads contain bridges, they are often not designed for the increased capacity leading to traffic bottlenecks which are disruptive and costly to resolve.

Hertfordshire County Council faced this issue on the only route into Hoddesdon Business Park. The mixed-use park generates over 5000 jobs and is a significant contributor to the local economy, but the bridge crossing New River was too narrow for HGV's to pass. A code compliant wider structure was needed along with a safe cycleway and improved pedestrian access.

There were many interested parties and all of them had to be taken on the design development journey to create a scheme which could guarantee planning consent and be efficiently constructed.



Using the successful Hertfordshire Structures Framework, the council

appointed us as a trusted partner at ECI stage to develop the new road layout and river crossing and support them with gaining permissions and consents. From there we negotiated the design and build contract for the new scheme.

The collaborative ECI phase drew upon our technical capability and a strong understanding of Hertfordshire County Council and local community needs. Thames Water were an important stakeholder as it was essential to carefully protect the manmade New River which draws freshwater from a nearby aquifer to supply water for North London.

A solution was developed with our design partners WSP and key suppliers which reduced disruption and secured planning by:

- Routing the new 270m road and bridge from an existing junction across disused land to the Business Park.
- Designing an integral bridge which eliminated bearings to give the best whole life cost and safety option.
- Providing a 3m cycleway and 2m wide footway to meet the anticipated increase in demand for sustainable journeys.
- Improving the soil for ground bearing abutments as a cheaper less disruptive alternative to piled foundations.

- Protecting the riverbank and local environment during construction using sheet piles installed silently.
- Providing a dedicated temporary access road and bridge for plant and material movements.



Figure 1 - Bridge Installation over canel



Taking a collaborative approach with a trusted supply partner has supported Hertfordshire County Council to deliver a new bridge and link road which fully connects Hoddesdon Business Park with the strategic highway network to benefit existing businesses, attract new business, and unlock the area's economic growth.