

Narrow Water Bridge

CLIENT: Louth County Council

LOCATION: Ireland

YEAR OF COMPLETION: Ongoing

We undertook a full independent design check of Narrow Water Bridge. The scheme comprises a landmark double cable-stayed bridge incorporating a movable span. With main spans of approximately 138 m and 57 m, the bridge carries a two-lane carriageway and pedestrian facilities across the river. The shorter span forms a rolling bascule to accommodate marine navigation.

Our commission included an independent review of the structural design and a detailed check of the performance specifications for the mechanical and electrical (M&E) systems associated with the moving bridge elements. The structure features a steel orthotropic box girder deck supported by stay cables anchored to slender composite pylons. On the northern bank, a reinforced concrete abutment accommodates the counterweight system and hydraulic operating rams required for the opening mechanism.

The original independent design check was completed in 2013; however, the project was placed on hold later that year due to funding constraints. Hewson Consulting Engineers' 2022 appointment supported the successful re-start of the project, providing assurance on design compliance, constructability, and performance during the construction phase of this complex and high-profile structure.

KEY FACTS:

- Independent Cat. III design check
- Steel orthotropic box girder
- Rolling bascule bridge

