



“Having worked with Royal HaskoningDHV on previous schemes I had no hesitation in contacting Peter Gallagher, who headed up the team that delivered the scheme within time and budget. It was a pleasure to work with such a well lead and efficient team of engineers.”

Terry Gurr, Head of Streetcare,  
Blyth Valley Borough Council

## Maritime history under your feet

Blyth Harbour in Northumberland was a thriving port specialising in the transport of coal by ship right up until the 1960s. Trains from the nearby collieries would use the coal staithes – a long riverside timber ramp – to drop coal directly into the waiting ships for export all over the world.

As the coal industry declined, so did the Harbour area around the old staithes before Blyth Valley Borough Council stepped in to promote the area for high quality residential and office use. Part of this scheme included the redevelopment of the old timber staithes into a public riverside walkway. The old staithes had been partially dismantled from their original 10m height in the '50s and had since fallen into disrepair.

Royal HaskoningDHV was called in to help Blyth Valley Borough Council deliver the project, which came with a very precise deadline: funding dictated that it had to be completed within just five months. As well as undertaking the concept and detailed engineering design, we provided project management, procurement, contract administration and construction supervision services – all professional services that are available in house within Royal HaskoningDHV.

Working closely with the project architect we devised a fast-track project solution that included a new timber pedestrian promenade, architectural lighting, seating and display boards detailing the area's industrial heritage. We conducted a structural survey of the existing timbers which, because of their original use as support for a busy railway and despite having been in the river for over 100 years, were mostly shown to be robust enough to safely support the new promenade. Those that weren't were replaced with new timber piles.

To meet the project programme some materials had to be ordered before the construction contractor was appointed so, acting as agent for the client, we sourced over 30km of new timber, managing storage and just-in-time delivery as well as negotiating a very competitive price for the timber.

The success of the project lay in our comprehensive understanding of the key risks and constraints that govern the successful execution of physical construction projects. By demonstrating our technical and commercial expertise, the client could delegate the management of the scheme with total confidence. The project was completed within the deadline and opened by Princess Anne in 2003.



# Maritime history under your feet

A major feature of the overall Blyth scheme was the commissioning of a striking steel sculpture that would capture the historic and industrial context of the new promenade.

The 'Spirit of the Staithes' was designed by artist Simon Packard and at first glance appears to be an abstract artwork, consisting of 13 curved steel beams supporting seven flat blocks. However, when viewed from the nearby park, the blocks come together to form a life size image of a steam train and tender set at the height of the original timber ramp. Again, we were tasked with the procurement, supervision and implementation of the project, working closely with the artist and choosing contractors for the fabrication, construction and erection of the different elements.

The artist was keen to have the steel beams curved into different shapes to give a random appearance, but we found that this could be a very costly exercise as each 18 metre beam would have to be rolled separately. However, one of our technical experts came up with a simple but effective solution.

Using the AutoCAD model, he designed a single curve that could be applied to each beam but when turned, angled or reversed would still give the random feel that the artist was looking for. This meant that each beam could be curved using the same roller template, saving around £30-40,000 – around a tenth of the capital cost for the whole project.

A series of public consultations and workshops made sure that the sculpture had the approval of the local communities and the final artwork was unveiled in 2003.

Balancing aesthetic quality, engineering practicality and cost effectiveness is not always easy to do but it was achieved by working in close partnership with the client, the artist and the contractors to produce a stunning addition to the Blyth waterfront.

## Peter Gallagher

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