



**pozament**  
PQ-X CEMENT

# Proven performance

## THE CHALLENGE

The client needed to replace a number of concrete bay sections of the A4232, a busy stretch of dual carriageway connecting Cardiff Bay to the M4 motorway. Given the importance of this route, it was vital that road closures and any resulting disruption to traffic, was kept to a minimum. Work would be carried out over a number of consecutive night shifts with the road fully reopened each morning at 6am. A conventional concrete would have taken too long to cure and gain strength, particularly in the low winter temperatures. For this reason, a specialist concrete was required that would gain strength rapidly and provide long lasting performance on this busy route.



**ACCUMIX**  
Concrete Limited

## OUR SOLUTION

After discussions and close collaboration with the main contractor Alun Griffiths, Accumix recommended Pozament PQ-X Cement, a quick setting, ultra-rapid strength gain cement. Accumix use PQ-X based concrete as a standard part of their product portfolio and a valuable solution for emergency and planned works. The product has a track record of successful use on the UK road network and is ideal for rapid construction, repair and replacement of infrastructure where working windows are restricted. PQ-X Cement is a one component factory blended product comprising of Portland cement and special high-performance binders/modifiers which control hardening rates, volume stability and in-service performance. Pozament PQX sets to 20N/mm<sup>2</sup> in four hours and 25N/mm<sup>2</sup> in 5 hours. It also offers low shrinkage, dimensional stability and like a conventional concrete can be mixed in different consistencies allowing pump placement.

## RESULTS AND BENEFITS

As planned, 22.75m<sup>3</sup> of concrete using Tarmac's Pozament PQ-X based concrete was delivered by Accumix on four separate night shifts to replace full or half bays in the carriage way. Concrete was poured between midnight and 1.00am on each shift, with the road successfully returned to service on time at 6.00am. Throughout the project there was close collaboration between all supply chain partners, with the Tarmac Specialist Products team providing the expertise and guaranteed quality control that this scheme required. Using Pozament PQ-X allowed the contractor Alun Griffiths to work within the limited time window and still reopen to traffic on schedule after each night shift, which was vital on this critical transport route. Waste was also minimised by supplying the exact volume of concrete required. The client was extremely happy that the work completed on time with minimal disruption to road users.