

Clacton Pier

Case study

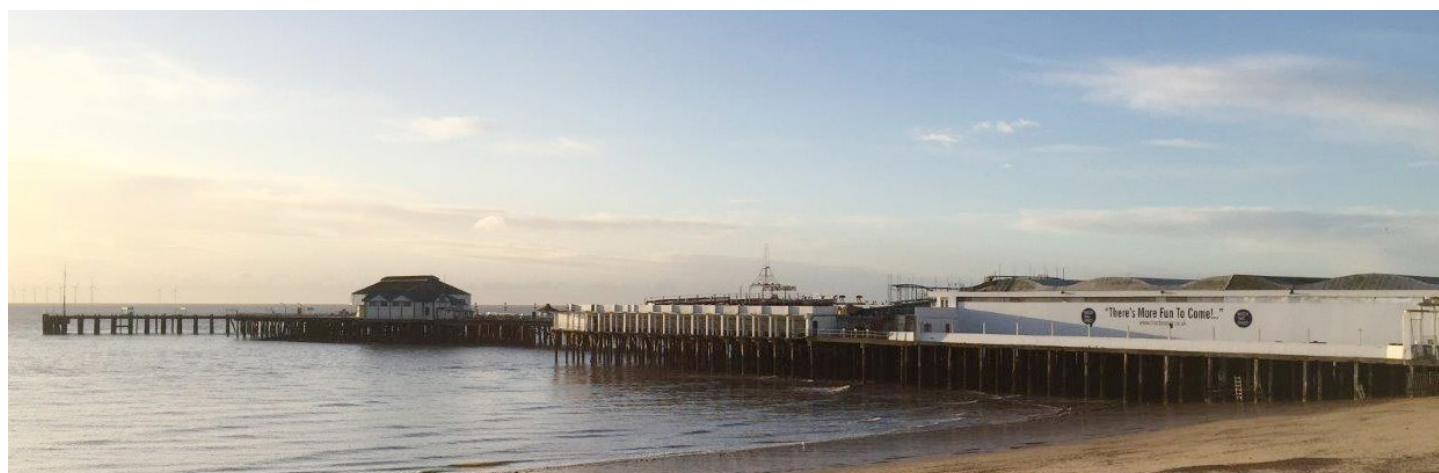
Focus products: Intercrete® 4871, Intercrete 4800, Intercrete 4820, Intercrete 4841

Location: Essex, UK

Client: The Clacton Pier Company

Contractor: The Clacton Pier Company Maintenance Team

Summary: Concrete repair and protection of reinforced concrete columns and beams



Background

Clacton Pier is located in the seaside resort of Clacton-on-Sea. First opened to the public in 1871, it was originally used as a landing point for goods and passengers, as well as a docking point for steamships. By 1893, Clacton had become such a popular destination for day trippers that the pier was lengthened to 1,180ft, almost three times the original length, and entertainment facilities were added.

The Clacton Pier Company acquired the pier in 2009 and it now boasts a variety of indoor and outdoor entertainment, including rides spread across six acres, such as bumper boats, go karts, a traditional helter skelter and a roller coaster, as well as an amusement arcade, cafes, a SeaQuarium and a 10 pin bowling alley. Much of the Pier has remained untouched for 90 years or so and as part of a seven-figure makeover, work is being carried out to modernise and strengthen the landmark's infrastructure. The Pier is supported by 2,500 reinforced concrete columns and beams which were showing signs of chloride attack from years of tidal salt laden sea water. An effective refurbishment solution was required, and sustainability is a key issue in making the 146 year-old structure relevant to today's leisure needs.

The solution

The refurbishment work is being carried out by Clacton Pier Company's own Maintenance Team and Intercrete has been called upon to provide a solution due to our long-standing record of providing effective and affordable materials for concrete repair and protection work in coastal areas. The environmentally friendly nature of Intercrete products is of particular benefit, in order to meet the sustainability requirements of this project. Intercrete materials are water-based and offer distinct advantages over solvent borne products, in that they are easy to apply with ultra-low VOC levels and minimal odour. They can be applied in public areas or confined spaces with minimal disruption.

To ensure familiarisation with Intercrete products, the Maintenance Team initially carried out application training at Intercrete's head office and manufacturing complex in Leyland, Lancashire. A specification for the structural renovation work has been devised which comprises Intercrete 4871, a corrosion preventative flexible coating for steel re-bars, followed by Intercrete 4800, a high performance, waterproof mortar which can be applied up to 80mm in a single application. The columns and beams are being finished with Intercrete 4820, an engineering quality fairing coat to reinstate cover and provide a fair faced, waterproof and anti-carbonation finish. The final protection overall is with Intercrete 4841 which provides structural waterproofing and importantly protection from future chloride ingress. With some 2,500 columns to be refurbished, this is a long-term project which is likely to extend over several years.