
Brighton Pier, UK – Innovation in Renovationⁱ

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Brighton's Piers

The Victorian piers remaining around the coast of the UK are iconic structures that represent more than just the skill of the engineers that built them. After the technical and commercial challenges of originally building the piers, they have often become an integral part of the local community and history. Within harsh marine environments, piers will always require maintenance to contribute to their safety, and managing these costs can be fundamental to the survival of the pier. Today's engineers play a vital role in helping to sustain these structures. The 537 m long Brighton Palace Pier (now just known as Brighton Pier) was opened in 1899. Designed by Richard St George Moore, the pier also featured cast iron screw piles. It has undergone many changes and events during its life. In 1940, a section was removed as a precaution against enemy invasion in the war. In 1973, during demolition of the landing stage, a barge collided with the pier head, and significant damage was caused. In 1995, a large, piled extension to the pier head was undertaken. The owner, to his credit, has demonstrated a responsible approach to planned maintenance of the pier structure, realizing that this is necessary to ensure viable long-term business on the pier (*Fig. 1*). Repair work was funded entirely by the private owner and received no public or charitable funding.

The Boat Deck

The central Victorian core still retains its cast iron piles and columns, although the bracing and most of the deck structure has been replaced. In the 1930s, an area known as the "boat deck" was added, approximately 35 m by 15 m on plan. A single-story building was added over

ⁱThis essay is based on a paper published in *Engineering History and Heritage*, which should be consulted for full details in Ref. [1].