# WJE

### **PROJECT PROFILE**

## Perry's Victory and International Peace Memorial

Investigation and Restoration Design | Put-In-Bay, OH



#### **CLIENT** National Park Service

#### BACKGROUND

Located on an isthmus of South Bass Island in Lake Erie, the memorial honors those who fought in the battle of Lake Erie during the War of 1812 and celebrates the long-lasting peace between Britain, Canada, and the United States. The memorial, completed in 1915, is built of Milford Pink granite with an unreinforced concrete backup for the column shaft and a reinforced concrete structure clad with granite for the observation deck and plaza levels. The column is capped by an eleven-ton bronze lantern. In the summer of 2006, a 500-pound granite fascia panel fell 317 feet from the observation deck of Perry's Victory and International Peace Memorial, leaving a crater where it crashed onto the plaza below. When an initial physical assessment revealed other loose fascia stones, the National Park Service sought the help of WJE to complete a detailed inspection of the memorial and to plan for its comprehensive restoration.





#### SOLUTION

After reviewing documentation of the memorial's original construction and analyzing its previous repairs, the experts at WJE used special access techniques, including rappelling and swing stages, to conduct a close-up visual inspection of the entire memorial and collect concrete and granite samples for testing in WJE's laboratories.

From the investigation, WJE determined that ineffective waterproofing systems allowed moisture to penetrate the concrete, resulting in freeze thaw deterioration of both the memorial and the plaza. This deterioration, coupled with through-structure anchors that had been installed as part of earlier repairs, led to cracking. Of particular concern were six fascia panels that exhibited cracking similar to the one from which a portion fell, presenting an imminent hazard.

WJE recommended measures for the memorial's immediate stabilization, including restricting public access, removal of panels, and short-term approaches to preventing further water penetration. These interim solutions allowed for continued public access while WJE developed options for long-term repairs and maintenance to preserve this treasured memorial.



ENGINEERS Architects Materials scientists