# WJE

## Biloxi Lighthouse

Condition Assessment, Stabilization, and Restoration Recommendations | Biloxi, MS



## CLIENT

City of Biloxi and the Federal Emergency Management Agency

### BACKGROUND

The Biloxi Lighthouse, completed in 1848, is the single remaining historic lighthouse of thirteen that once stood along the Mississippi Gulf Coast. The lighthouse, which is 53 feet in height above grade, is constructed with bolted cast iron cladding as a structural shell around a cylindrical brick internal structure. The lighthouse is a National Register property and a Mississippi Landmark. After 150 years of service, the lighthouse withstood the storm surge that occurred during Hurricane Katrina in August 2005 but experienced a partial collapse of its interior brick lining. In cooperation with a local architectural firm, WJE performed a condition assessment and developed stabilization, repair, and restoration recommendations for the lighthouse to address both the recent hurricane damage and other deterioration related to aging and exposure.



### **SOLUTION**

WJE found the historic lighthouse in remarkably good condition given its age and coastal location. To address some corrosion on the exterior and interior ironwork, WJE cleaned the cast and wrought iron, removed the existing coating, and recoated the surfaces. The team also inspected and repaired corroded and fractured elements of the spiral stair system and lantern components.

Shoring installation was necessary to support areas of potentially unsupported brick masonry. In addition, the team replaced or restored missing or displaced brickwork in the interior shaft near the base and at the top of the lighthouse.



ENGINEERS Architects Materials scientists

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