



PROJECT PROFILE

InterContinental Chicago Hotel

Parapet and Facade Repairs | Chicago, IL



CLIENT

Strategic Hotels and Resorts

BACKGROUND

Formerly the Medinah Athletic Club, the InterContinental Chicago Hotel has occupied a prime spot on Chicago's Magnificent Mile since 1929. The 470-foot, 42-story historic south tower, which briefly served as the home of the Shriners' organization in the 1930s, was envisioned as a tower of the Orient with its many setbacks, minarets, and a distinctive gold-colored dome at the top. Its facade is clad in Indiana limestone and boasts numerous decorative friezes, medallions and warriors. The south tower is designated a "Structure of Primary Significance within the Michigan-Wacker National Register Historic District." A modern 25-story north tower was added adjacent to the historic south tower in 1961.

In late-2009, the hotel owner asked WJE to review recommendations prepared by another consultant regarding potential repairs to bowing parapets on several roof levels on the south tower of the hotel. The other consultant had recommended that all subject parapets be completely removed and rebuilt to remediate both the bowing and the corroding steel shelf angles that were the cause of distress. Budgetary estimates for this repair approach were costly due namely to the heavy scaffolding and equipment required to remove parapet stones.



SOLUTION

WJE conducted a preliminary investigation to explore alternate repair approaches and quickly determined that the parapets could be stabilized in place while conventional repairs addressing shelf angle corrosion were implemented. This approach allowed the work to be performed using swing stages, therefore significantly reducing the project cost. In addition, the original parapets and adjacent decorative elements could remain undisturbed, thus preserving an important aesthetic attribute of the building facade. The repair procedure generally included: 1) stabilizing the heavy capstones in place, 2) demolishing the ashlar stones beneath the capstones to expose the corroding shelf angle causing the parapet jacking/bowing, 3) removing the shelf angle and replacing it with a new galvanized steel shelf angle, 4) flashing the shelf angle and other steel components to remain, and 5) rebuilding the limestone ashlar stones.

Initially, the owner elected to proceed with parapet repairs at the 17th, 22nd, and 24th floors, which included approximately 550 linear feet of parapet. When construction costs came in significantly less than originally anticipated, the project scope was expanded to include other floors. In total, approximately 750 linear feet of parapet repairs were implemented from September 2010 to November 2012. The owner also elected to perform extensive facade maintenance repairs concurrent with the parapet project in order to realize economies of scale.