



PROJECT PROFILE

Safeco Field

Various Consulting Services | Seattle, WA



CLIENT

Seattle Mariners

BACKGROUND

Safeco Field, home to the Seattle Mariners, occupies almost an entire city block in Seattle's SoDo district. The majority of the structural system consists of steel framing; however, the foundations, lower bowl support, and main concourse framing are constructed of reinforced concrete. The stadium features a retractable roof, which travels on a concrete pad that rests on a steel-trussed bridge structure.

Since the start of its construction, WJE has had the opportunity to assist the Seattle Mariners with various projects at the ballpark.



SOLUTION

WJE developed a roof access layout and provided structural detailing for a fall arrest system on the movable barrel vault roof. The system consisted of a horizontal lifeline threaded through steel tabs and posts that were welded to the roof closure angles, through steel tabs bolted to the steel truss supports, and through several steel pedestals welded to the roof framing. Because of significant cracking of the retractable roof structure's concrete runway pad and the difficulty of performing repairs, the client retained WJE to design a waterproof coating for the runway to prevent water infiltration and to increase the service life of the concrete. WJE also performed nondestructive testing of the roof bogie axles.



Due to the large amount of exposed steel in the structure, WJE performed a study of the paint coatings on the stadium's structural steel elements, including the retractable roof, roof runway trestle, and seating bowl. WJE also performed a field investigation and testing of the seating bowl sealant joints and other waterproofing components in response to water infiltration through the precast concrete seating bowl units. In each project at Safeco Field, WJE provided the client with useful and actionable information and prioritized to most effectively utilize their resources. Additionally, all of the work was completed on short notice and under an accelerated work schedule to coordinate around the baseball season and other events held at the venue.