



Structural Engineer:
Klepper, Hahn & Hyatt

Owner:
Crouse Hospital

Location:
Syracuse, NY

Completed:
2015



Crouse Hospital Emergency Department Parking Deck Replacement

Klepper, Hahn & Hyatt designed the replacement of Crouse Hospital's original waterproofing system under the emergency department parking deck. The 1972 coal-tar waterproofing system had protected four surgical operating rooms located directly below the parking deck. However, the system had begun actively leaking at the drains and along a building expansion joint, necessitating its replacement.

KHH collaborated with hospital personnel early on in the design process. Given the continued use of the operating rooms below the project area, critical criteria such as acceptable noise levels, vibration sensitivity, and the project schedule needed to be defined to maintain the functionality and safety of these rooms.

The new waterproofing system offered a unique combination of protective measures and enabled the existing coal-tar waterproofing system to remain in place. Leaving the existing system in place accelerated the fall construction schedule and allowed the operating rooms below the project area to remain watertight.

The completed project included an electronic leak detection system, custom-fabricated drains designed to intercept surface flow and membrane level flow, and the ability to withstand heavy vehicle wheel loads.