

## X-Shield FS450 - Fountain Waterproofing, Westin Diplomat Hotel, Hollywood FL USA, October 2007

### The Problem:

Only 4 years old and a central feature of the prestigious Westin Diplomat Hotel, the group of 3 fountains was discovered to be leaking water into the foyer and below ground parking area. The fountain constructed from concrete was originally coated with an epoxy coating which was showing signs of cracking and delamination. As these fountains were located in the central reception area of a very busy hotel any remedial work had to be carried out quickly with minimal disruption to guests. The need was for a lining system that would cure quickly allowing quick return to service, flexible UV and chemical resistant and could function under full immersion.

### The Solution:

Polyurea was selected as the best coating material to meet the needs. The polyurea would form a tough elastomeric membrane that could be applied directly on to the substrate. The use of polyurea meant a seamless membrane would be achieved without the need to address all the cracks in the substrates. The base polyurea was top coated with an aliphatic color stable roller grade polyurea to provide exception UV and chemical resistance under immersion.

The following products were specified:

### Polyurea Membrane: X-Shield FS450 Polyurea Top Coat: X-Shield RG40

**X-Shield FS450:** is a high elongation, elastomeric, chemically resistant waterproof coating. This coating is approved by the EPA as a storage tank system.

Other key advantages are its UV resistant with no loss of physical properties when used in direct sunlight. X-Shield FS450 has an elongation of 450% and is very fast setting. The product can be open to service (immersion) in 1 hour.



In order to minimize disruption to guest each fountain was encased in a temporary plywood house.



X-Shield FS450 polyurea coating base coat applied to all tough areas and coated with a black aliphatic topcoat X-Shield RG40 to match with existing marble stone.

**X-Shield RG40:** is a Roller Grade UV resistant aliphatic polyurea coating. It has excellent color stability and resistance to abrasion, weathering and a wide range of chemicals. It can be roller or spray applied on horizontal and vertical surfaces.

### Application:

Each fountain was emptied and the existing coating removed from the concrete substrate by high pressure water blast. Horizontal Bug holes repair with ResiLoc EX22. vertical blowholes and patching repaired with X-Roc UltraPatch. Both products fast cure. Are 4 hours entire substrata primed with X-Shield ChemPrime fast turnaround epoxy primer suitable for constant immersion. Once the primer tack free the whole substrate was sprayed with 80 to 100 mils polyurea thus creating a seamless membrane. After 1hour cure topcoat sprayed in 2 x10 mils coats. Two hour between coats. Allowed to cure 48 hours before immersion and leak test the total project involved spraying 3 fountain a total of 6,000 ft<sup>2</sup> of high build polyurea and of polyurea topcoat.