

## SealBoss Case Study

**Date of Project:** January 2021

**Location:** Lincoln, Nebraska

**Contractor:** Foundation Repair Contractor

### **Project Scope:**

Client was experiencing water intrusion through hollow core concrete slabs and along exterior wall and sill plate cold joint in below parking garage causing water to drip onto cars and unsightly watermarks on the walls. Contractor was asked to inject cold joint, cracks in hollow core slab, to find and stop source of leak.

### **Repair Method:**

Once the source of the leak had been determined (drainage issues where downspouts fed the run-off onto a grassy area with no sloping to direct the water away from the building), a two-step injection strategy was adopted as the best solution. The initial injection was to inject cracks in the hollow core slab where water was leaking out and dripping onto vehicles. The subsequent injection would be to seal off the end caps of the hollow core cells where the leak originated.

Once the contractor began to drill holes for the injection packers, water poured out and it was obvious that the hollow core was completely filled with water. After the water was drained the crack was injected and sealed.

To verify that water had not traveled between cells, weep holes were drilled into the adjacent cells. Water was found to have also filled another cell of the hollow core and had to be drained.

Using a borescope, it was confirmed that there was water intrusion where the hollow core had been capped off with a plastic cap.

The weep holes were left open to prove that the leak had subsided.

The client was advised to add drainage boxes to help direct flow away from the building in areas where water pooled and to notify contractor of any new leaks this upcoming spring when the ground will thaw.

SealBoss 1510 NSF/ANSI 61 WaterStop Foam was injected into the exterior cold joint along the areas where water intrusion was visible from efflorescence or rust stains. All visible leaks were addressed using the 1, 2, 3, 45 Degree method via injection packers that were placed roughly 12" from the joint where 1/2" holes were drilled at a 45-degree angle back into the joint. 1510 was injected until positive refusal of the hydro-active resin was visible along the cold joint.

All affected cells of the hollow core concrete slabs were injected approximately 6" from the end cap and sealed off using SealBoss 1510 NSF/ANSI 61 Water Stop Injection Foam System.

### **Products Used:**

**Injection Resin:** SealBoss 1510 w/ 15x Accelerator

**Injection Packers:** 1/2" 13-100 Evolution Aluminum Packers

**High Pressure Pump:** P2002 Single Component Injection Pump

**Cleaning Materials:** Xylene, R70 Pump Flush, rags, bucket

**Additional Tools:** 18" x 1/2" drill bit -- 3/8" Crescent Wrench -- Dead Blow Hammer  
Hammer Drill -- Access 110v Power -- Vacuum