

# NYU Langone Medical Center Foundation Repairs

New York, NY, USA (2017)

## PRODUCTS USED:

**Krytol Plug™ Krytol Repair Grout™ Krytol T1®  
Krytol Internal Membrane™ (KIM®) Krytol® Waterstop System**

### OWNER:

NYU Langone Medical Center

### ENGINEER:

Langan

### DISTRIBUTOR:

Dry Concrete

## BACKGROUND

After Superstorm Sandy struck New York in 2012, much of the lower infrastructure for the New York University Langone Medical Center (NYULMC) building had flooded. In response, the NYULMC took great measures to protect the infrastructure from future flooding. These included a variety of flood control tools, such as waterproof doors and mechanical flood prevention systems that spring into action when flooding occurs.

Even with these floodproofing solutions, the lowest levels of the NYULMC building remained vulnerable to water ingress during high water events. That's because the sudden increase in water pressure from such events could push water through weak points in the concrete. To add to the risk of water ingress, the area's foundation elevations are lower than the adjacent East River, which is influenced by the tide and had been prone to flooding during heavy storms in the past.

All of which led to the foundation of the NYULMC building to form cracks and leaks. To repair the damage to the building and to prevent it from happening again, the NYULMC worked with Langan and Dry Concrete to apply Kryton's leak repair and waterproofing systems.

## SOLUTION

As part of this project, Gregory Maugeri from Dry Concrete worked with Langan in New York for several years on the use of Kryton's crystalline products to protect the lower levels of the NYULMC building. As a result, the Dry Concrete team took the lead on repairing the area first. They permanently fixed leaking cracks with Krytol Plug and Krytol Repair Grout, which combined a rapid-setting hydraulic cement with a crystalline slurry that can chemically block water from entering concrete. Then, they chiseled out non-leaking cracks and applied Krytol Repair Grout to protect them from future leakage.



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Once they had addressed the cracks, the full slab and wall area was coated with Krytol T1 to waterproof the surrounding concrete. Some sections of this concrete were in poor condition, however. So those areas were removed and replaced with new concrete that was treated with KIM, an integral waterproofing admixture.

For further protection, Dry Concrete installed Kryton's Krytol Waterstop System to ensure there was a watertight joint between the old and the new concrete.

After the waterproofing repairs and application were completed, builders finished the NYULMC building foundation by pouring a self-leveling topping to provide it with a smooth and level floor surface.

It was a successful project overall, properly protecting and fortifying the NYULMC building so that it's remained standing ever since. It was also the third successful project where NYULMC was pleased to rely on Kryton solutions for concrete infrastructure waterproofing, showing just how effective such solutions can be.

