# 30 Hudson Yards, Retail Podium and Amtrak Wheel Truer Section

New York, NY, USA (2019)

PRODUCTS USED:

Krystol Internal Membrane™ (KIM®) Krytonite™ Swelling Waterstop Krystol Waterstop Treatment™ Krystol T1®

## **OWNERS/DEVELOPERS:**

Oxford Properties Group Related Co.

## **ARCHITECT:**

Kohn Pedersen Fox Associates

### **ENGINEER:**

Thornton Tomasetti

#### **BUILDING ENVELOPE CONSULTANT:**

Wiss, Janney, Elstner Associates, Inc.

#### **CONTRACTOR:**

Tutor Perini Corp.

## **READY-MIX SUPPLIER:**

Greco Brothers Ready-Mix

#### **DISTRIBUTOR:**

Dry Concrete L.L.C.

# **BACKGROUND**

30 Hudson Yards is the tallest of the towers in the Hudson Yards megaproject, which is currently being constructed in New York City's west side. As part of the largest private real estate development in the history of the United States of America, this tall tower covers 241,500 m<sup>2</sup> (2.6 million ft<sup>2</sup>), rises over 400 m (1,300 ft) in height, and features notable tenants such as Wells Fargo.

With 30 Hudson Yards' construction team anticipating the presence of other such Fortune 500 companies, they knew they needed to build a structure that was as functional as it was stunning. They were also aware that the building's design involved a below grade foundation that could be subject to possible water penetration and flooding. That meant they would need a concrete waterproofing system that could fully tank the 30 Hudson Yards' structure for the entirety of its service life.

# SOLUTION

The construction team turned to Kohn Pedersen Fox Associates for a waterproofing specification due to the architecture firm's world-renowned reputation for using the best products possible in all of their designs. The firm recommended the use of Kryton's crystalline admixture, KIM, which was supported by the team's building envelope consultant, Wiss, Janney, Elstner Associates, Inc. As a result, the construction team proceeded to waterproof the 30 Hudson Yards' foundation base slab, elevator pits, flood retention tank, and also a underground Wheel Truer Section for Ambrak with KIM.







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For additional waterproofing protection, they also applied Krystol T1® to the preexisting foundation walls of the 30 Hudson Yards structure, the retail podium's foundation walls and slab, and the machine room.

Then, to ensure all the construction joints and penetrations were watertight, the team applied Krytonite Swelling Waterstop and Krystol Waterstop Treatment to the appropriate areas.

With the help of Krystol® technology and Krytonite Waterstop System, the structure was guaranteed to remain watertight above and below the surface for the rest of its life span. The Krystol technology would ensure the structure's concrete could self-seal and block out water indefinitely, and the waterstop would offer four times the compression sealing that other waterstops could, keeping the construction joints and penetrations safe from water.

In the end, 30 Hudson Yards opened to the public in 2019 free from water intrusion concerns, designed for LEED Gold certification, and awarded the H. Bruce Russell Global Innovator's Award for developing a transformative workplace and smart building environment.





