

CASE STUDY:

DAN RIVER FALLS, DANVILLE, VA



DESIGN INTENT

Built in 1920, the former White Mill is an iconic five-story, 550,000-square-foot reinforced concrete, simplified Gothic Revival-style building that stands as the lone survivor of Danville's first industrial center for textile manufacturing. The City of Danville suffered an enormous economic blow when the mill ceased operations in 1996, and the structure had sat largely vacant since the company's final dissolution in 2006. The Alexander Company partnered with the Danville Industrial Development Authority (IDA) to preserve the landmark by transforming it into a mixed-use development that would not only provide housing but also serve as a new economic engine for the City.



THE CHALLENGE

The structure featured nearly 500 window openings that had been boarded up for decades. The original building featured massive arched openings, some up to 25 feet wide, and would require creative solutions to meet historic commission requirements for historic tax credits.

PROJECT RECOGNITIONS

Innovative Financing Gold Award by the International Economic Development Council

Public Private Partnership Silver Award by the International Economic Development Council

Mid-Atlantic People's Choice Award from the National Brownfields Conference



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THE UNIVERSAL SOLUTION

Using the original architectural drawings and samples from the existing building, Universal engineered replica windows from its 700 Series that satisfied strict historic tax credit requirements while providing modern structural integrity. Instead of a single glass pane, Universal designed a system in which five or more individual windows were fitted into a single 25-foot arched template. This required the creation of custom-engineered mullions that were strong enough to support the load but thin enough to match the original sight lines of the building's 1920s design.

Additionally, shipping hundreds of these oversized (with some fixed pieces measuring 13' X 5' to 6' feet) and heavy (300 to 500 lbs.) windows via tractor-trailer from the factory to Danville, Virginia, posed a significant risk of breakage, but was accomplished with minimal breakage. The windows were then installed using cranes and hydraulic jigs with suction-cup systems to lift and set the heavy frames into the masonry.

THE RESULT

The Alexander Company and the Danville IDA created Dan River Falls, a mixed-use development comprising 190 apartments and 147,000 square feet of commercial space (office, retail, and restaurants). Dan River Falls is now home to the City of Danville's Office of Economic Development & Tourism and Parks & Recreation Department. The project was recognized with the Innovative Financing Gold Award and the Public Private Partnership Silver Award by the International Economic Development Council for its strategic partnerships, historic preservation, and community impact, and also received the Mid-Atlantic People's Choice Award from the National Brownfields Conference.

