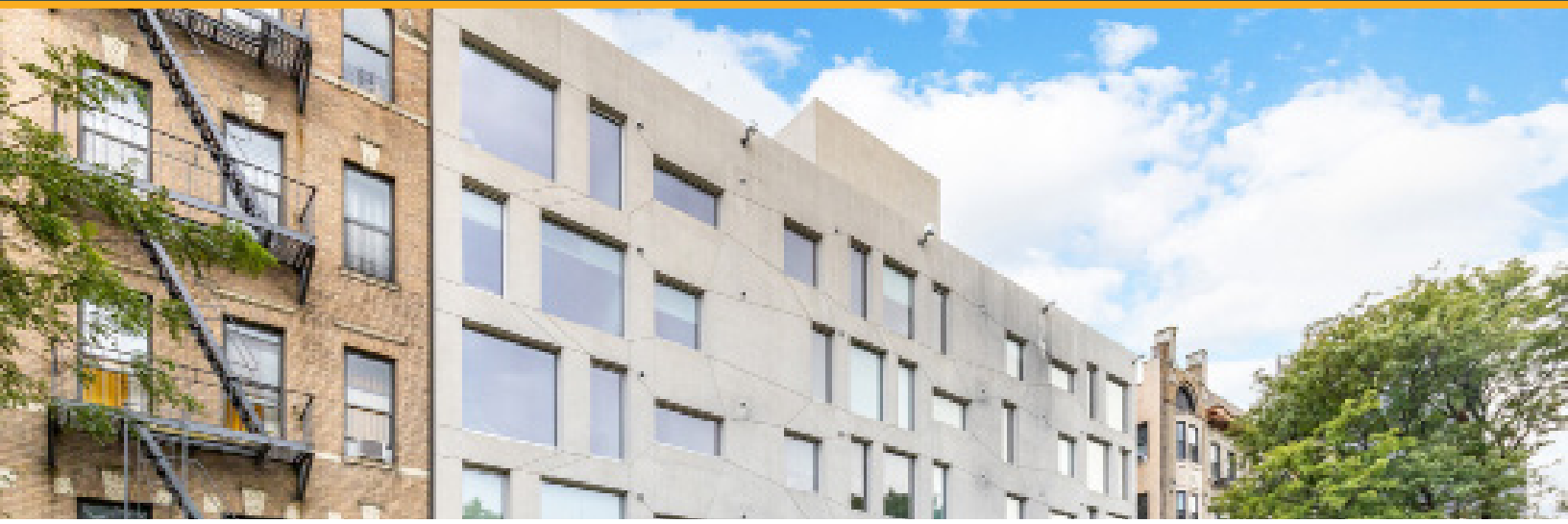
Case Study

Multi-Family Passive House



PROJECT OVERVIEW

PROJECT:
153rd St Apartments

BUILDER:
Synapse Development Group

ARCHITECT:
Upper West Side, Manhattan

LOCATION:
Upper West Side, Manhattan

RESULTS:
Using AeroBarrier, 34 units were sealed to passive house levels of 0.6ACH50 in just 8 days.

AeroBarrier Allows Engineers to Easily Attain Desired Tightness for Energy Efficiency, Comfort, and Livability

Air Sealing Technology Makes Effective Compartmentalization Simple for New York Apartment Building Project

For New York-based architect Chris Benedict, compartmentalization is the holy grail of apartment building design. As a recognized pioneer in energy efficient building, she understands that effectively sealing the envelope that exists between apartments is not only critical for maximum energy efficiency, but it's also key to ensuring indoor air quality and limiting the migration of bugs, smoke, noise, and other common tenant discomforts that can travel from one unit to another.

That's why Benedict was unhappy to learn her latest project, a newly constructed six-story apartment building on Manhattan's upper west side, did not meet the passive house-levels of tightness targeted by her design.

> *It was blowing people's minds – mostly because monitoring compartmentalization in a multi-family building under construction is typically a very difficult, time consuming task. The level of coordination and commitment you need to get from all contractors on the job is as critical as it is nearly impossible to achieve. With AeroBarrier, it's simply not a problem.*
>
> ***Chris Benedict** – Architect*
> CBRA

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While the manual caulking implemented by contractors got them close, it did not meet the industry's highest standard. Now with plumbing, electrical and sheet rock installation finished, the building was almost finished and further manual sealing was impractical and would delay project completion.

Fortunately, Benedict had heard about the AeroBarrier process. The AeroBarrier system allowed precise levels of tightness to be dialed in. After AeroBarrier proved successful at sealing a test unit, contractors sealed the remaining apartments within the building.

The ability to monitor compartmentalization in a multi-family building under construction is typically a very difficult, time-consuming task. The level of coordination and consistency you need to get from all of the contractors on the job is critical yet hard to achieve. With Aerobarrier, that is simply not a problem.

It took the AeroBarrier team just 8 days to seal all 34 units to passive house levels of 0.6 air changes per hour at 50 Pascals pressure (ACH50). Blower door tests conducted after the application of the AeroBarrier technology confirmed the results – AeroBarrier was a project-saving success.