

## Case Study

# NYC Luxury Department Store Achieves 100% Cell Signal Coverage on Tight Deadline with WilsonPro Boosters



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*In early 2016, a luxury New York City department store introduced a remodeled flagship location in Chelsea. The site was especially meaningful since it was the store's original location when it first opened in 1923. It had operated there for 74 years before being shuttered in 1997. But in 2013, the company announced its flagship would reopen in the same historic space, bigger and better than ever.*

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**As plans came together, store officials envisioned a modernized version of their venerable, beloved Big Apple brand.** The blueprints laid out an open, contemporary design that included stainless steel columns, walls lined with white marble, and a grand spiral staircase.

However, the age of the structure, the store's design aesthetic, and the obstructive materials used for the remodel created challenges for providing mobile phone coverage inside the building.

The reconstruction project was well underway when the company realized there was no cell

## The Goal:

*To boost cell service on every carrier network inside a remodeled 1920s building while accommodating stringent design specifications and meeting a tight deadline.*

phone coverage inside the building. Obviously, this presented a huge problem. Operations plans called for sales associates to use cellular connections for on-the-spot customer checkout, and both staff and customers would need the ability to make calls and access data while working and shopping throughout the store. A strong cell signal throughout the space was integral to the flagship store's renewed, modern presence in downtown New York. But cell signals simply could not penetrate structure's exterior. With the grand opening date looming, this oversight had to be resolved quickly.

The company's IT manager called **RepeaterStore** — a cell signal booster solution integrator — looking for an answer. RepeaterStore had previously deployed similar solutions for two retail stores of another well-known luxury fashion brand and, coincidentally, was currently working on another installation project near Manhattan.

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With its extensive experience in cellular signal booster technology, RepeaterStore knew that every installation is unique. Due to the store's historical structure and extensive remodel, this cell signal booster installation presented several distinct challenges:

- **The 90-year-old building was kept intact and reinforced with modern materials throughout the redesign.** However, structural elements like brick and concrete — along with additional decorative materials like marble and glass — created thick barriers that blocked existing cell signals from entering the building.

- **Only one side of the building had windows,** which created an additional challenge when it came to placing donor antennas (which communicate with cell towers) in locations so they could pick up existing signal.

- **The department store would span more than 50,000 square feet over four floors** and required strong cellular signal throughout, including in the basement.



Furthermore, the building was in the final stages of its remodel. Not only were there stringent design requirements for the finished look of the store, but the installers needed to complete their work within a tight timeline in order to finish the project by the scheduled grand opening. The installation team would need to determine where to install antennas and run cables, even as the walls were being sealed.

Additionally, the installers needed to work within the department store's aesthetic guidelines. That meant minimizing the visibility of antennas on the ceilings and walls. The store also required inspection of equipment samples to ensure that all broadcast antennas (which communicate with cellular devices) met the store's interior aesthetic requirements.

Of course, the most important aspect of the install was that cellular reception inside the building needed to be functional for all service providers when the store opened. RepeaterStore needed to recommend and deploy the most reliable equipment available.

## The Solution:

*Install WilsonPro 70 Plus boosters to provide coverage throughout the store.*

The installation scenario required multiple cell boosters designed for large commercial spaces and capable of providing seamless cellular coverage and data transfer capability. After weighing the options, RepeaterStore chose to recommend **WilsonPro 70 Plus signal boosters** for this commercial installation.

Although up to this point RepeaterStore had worked primarily with signal boosters made by

another manufacturer, they received recommendations for WilsonPro products from other installers — including experts who had left competitive brands to work primarily with WilsonPro. RepeaterStore evaluated WilsonPro boosters and determined that WilsonPro was the best booster for the department store's complex installation.

Among their many benefits, WilsonPro boosters are known throughout the industry for their enhanced indoor cellular coverage capability, even in weak signal areas. The three-year warranty and automatic protection against cell tower interference are additional benefits.

Since the department store's construction was already well underway, RepeaterStore had to fast-track their solution. First, they deployed factory-trained technicians with extensive field experience to perform a site survey of the building. Inspecting the four-story structure took about four hours and was completed in a single evening.



The **WilsonPro 70 Plus** signal booster is designed to amplify weak cellular signals and provide reliable voice and data coverage — including 4G — across multiple frequency bands and all carriers. A self-optimizing microprocessor, built-in graphical signal meter, and uplink and downlink power display allow the integrator to easily determine the location and direction of cell towers and the determine the strength of available signals, which optimizes booster performance and reduces overall installation time.

From there, the technicians met with the store's Chief Information Office and IT team to develop a functional installation plan. RepeaterStore worked up a bill of materials and labor quote, sent it for client approval, and then rush-ordered the necessary equipment. This included:



**20 omnidirectional antennas** to pick up the existing signal from all directions outside the building



**18 dome antennas** to be installed behind the walls and ceilings, as well as smaller antennas (the size of a light switch) to place strategically throughout the five levels to ensure adequate coverage



**1,500 feet of coaxial cable** and several cable splitters



**5 WilsonPro 70 Plus boosters** to amplify incoming and outgoing signals

Once the equipment arrived, RepeaterStore sent its own installation technicians to execute the job. From start to finish, the entire installation took only four days, and was completed just as the department store opened its doors to customers.

## The Results:

*100% cellular coverage throughout the store and basement*

Despite the challenges of this installation — from structural materials to design specifications to a tight deadline — the luxury department store opened with 100% cell coverage for staff and customers within mere weeks of its initial request. The installers were able to implement all necessary antennas, cables, and boosters while adhering to the design team's strict interior aesthetic standards. By the time customers began flocking in, they were able to make and receive cell phone calls as well as send and receive data from every floor of the department store.

What's more, the store clerks could use the cell signal to access tablet-based checkout options for faster customer service and sales processing. Even the basement offices now have excellent connectivity.

Proving its commitment to client satisfaction, RepeaterStore followed up one month after the installation to monitor the system and ensure proper optimization of the boosters' performance.

Thanks to the experienced installation team, efficient planning, and powerful cell signal booster technology, this newly remodeled flagship department store can show off its historic heritage as well as its modern amenities.

[Learn more about how WilsonPro cell signal boosters can improve cellular connectivity in your commercial building.](#)