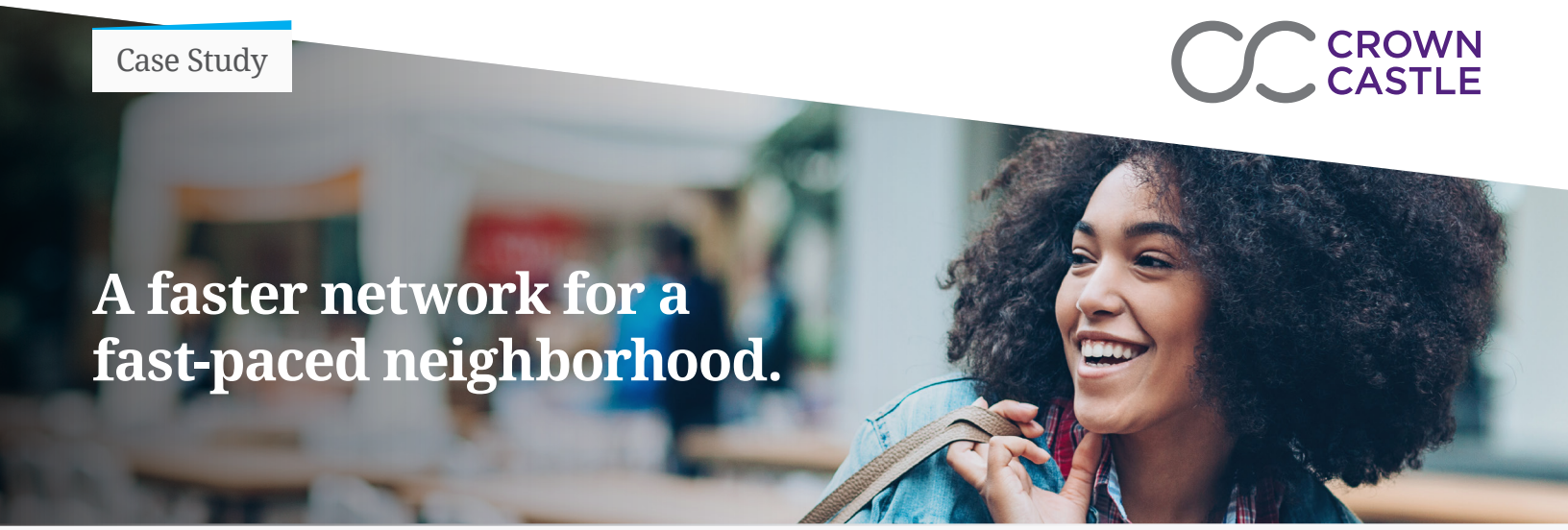
Case Study

CROWN CASTLE



A faster network for a fast-paced neighborhood.

Imagine 56,000 university students and staff. Add thousands of doctors, nurses and other medical professionals, and put them all into an area less than 1/10th of a square mile—all using their smartphones.

It's hard to think of a more data-hungry scenario than this, but it's exactly what you'll find when you go to the Oakland neighborhood in Pittsburgh, PA. It's an education, healthcare and cultural hub, and residents here demand high-speed wireless data to study, work and live their lives. But as smartphones became more prevalent, and data usage increased, the existing infrastructure couldn't keep up with the growth of demand. Crown Castle was brought in to find a solution that met the needs of the community, without disrupting their lives and while improving the aesthetics of the neighborhood.

The Need

The Oakland neighborhood is densely populated, with lots of pedestrian traffic. This created several challenges that had to be addressed:

- The solution had to be a targeted one, but also provide adequate capacity. Existing infrastructure provided sufficient coverage, but couldn't handle the wireless demand.
- In order to keep roads and walkways clear, no new equipment could be installed in the public right of way.
- The solution would have to fit into and preserve the current aesthetics of the neighborhood—taking advantage of underground infrastructure to deploy fiber.
- Any work needed to go through several layers of approval.
- Wireless carriers required a scalable turnkey solution.

The Solution

To meet the high, concentrated data demands of the neighborhood, we installed a fiber-fed small cell network. We connected the network to a hub at an existing macro site in the neighborhood—eliminating the need to install new equipment. New streetlights allowed us to hide the nodes from public view and add to the aesthetics of the neighborhood. This was especially important near historical sites, where it was necessary to win the approval of the City's Public Works Department and Arts Commission. The entire project was completed at night and during off-peak hours in order to minimize disruption to the neighborhood. In the end, the only thing residents noticed was the attractive new streetlights—and, of course, their improved wireless service.

Workers in action, installing fiber to connect the small cells.

Why Crown Castle?

We have more than 20 years of experience implementing small cells in communities of all kinds, from dense urban centers to residential neighborhoods.

Discreet, innovative technology
We provide shared infrastructure that enables the wireless service you have come to depend on—all while blending in with your environment.

Scalable solutions
Small cells are connected by fiber optic cable—making upgrades easy and enabling virtually unlimited future capacity.

Long-Term Commitment
Our business is all about infrastructure, so you can count on us to be here for the long haul no matter how technology or carriers change,

CROWN CASTLE

Crown Castle owns, operates and leases more than 40,000 cell towers and approximately 90,000 route miles of fiber supporting small cells and fiber solutions across every major US market. This nationwide portfolio of communications infrastructure connects cities and communities to essential data, technology and wireless service—bringing information, ideas and innovations to the people and businesses that need them.

For more information, please contact 1-833-634-0918 or visit **CrownCastle.com**