CELLULAR ATTACK

Zoning Ordinances Can Help Townships Fight INVASION of Small Cell Towers

Mini cell towers are cropping up in residential neighborhoods as part of distributed antenna systems. They sometimes make use of existing infrastructure, such as this pole for traffic signs. Note the antenna at the top of the pole.

The past few years have brought an explosion of wireless telecommunications technology, along with the infrastructure necessary to support it. Unlike the cell towers of old that were typically located on high ground in remote areas, the new crop of smaller cell towers is sprouting up in public rights of way. Townships are not powerless in the face of this invasion, however. By updating their zoning ordinances, they can regulate the placement of these structures and preserve their community's character.

BY **DAN COHEN AND NATAUSHA M. HORTON** / COHEN LAW GROUP

On a sunny morning with clear blue skies in May 2012, Janet Swenson opened her front door to get the newspaper at her home in Northampton Township, Bucks County. She was looking forward to catching up on the news over a cup of coffee before heading out to run her daily errands.

Swenson discovered much more than the local paper on her porch, however. There were two workmen on her front lawn. One was painting a white circle on the grass with a can of spray paint, while the other was holding a 30-foot fiberglass pole. A utility truck sat in the street. The men were there to erect a small cell tower.

What Swenson observed was bad enough, but it was made even worse by the fact that in her neighborhood, all utilities were required to be underground. There was not a utility pole or wire in sight. A mini cell tower in her front yard would stick out like a sore thumb.

Swenson was shocked. She demanded that the workmen stop installing the pole and immediately called one of the township supervisors. Before explaining how the supervisors responded, however, let's step back and ask how this could have occurred on a resident's lawn in the first place.

An insatiable demand

Why were workmen preparing to install a 30-foot pole topped by a 5-foot antenna and connected to miles of fiber optic cable in someone's yard? The reason is simple: the insatiable demand for wireless broadband service. As communications technology companies, such as Apple, Google, and Samsung, create more and more applications for smartphones and other mobile devices, consumers need more and more bandwidth to use them.

According to Internet analytics

company comScore, there are about 140 million smartphone owners in the country today. This number increased by 21 percent from 2011 to 2013, according to the Pew Research Center, and Nielson Research says smartphones now comprise 61 percent of all cellphones in the United States.

As for the Internet, or data, usage of these smartphones, Cisco Forecasts reports that global mobile data traffic grew by 83 percent in 2013 alone and is expected to increase a whopping 900 percent by 2018.

This explosion in the demand for wireless broadband service has led to a parallel increase in the types and number of structures needed to provide that service. Wireless signals are no longer being transmitted solely by traditional cell towers — tall structures typically constructed on high ground in fairly remote areas. Because of the large area covered by these traditional cell towers, they are known as "megacells."

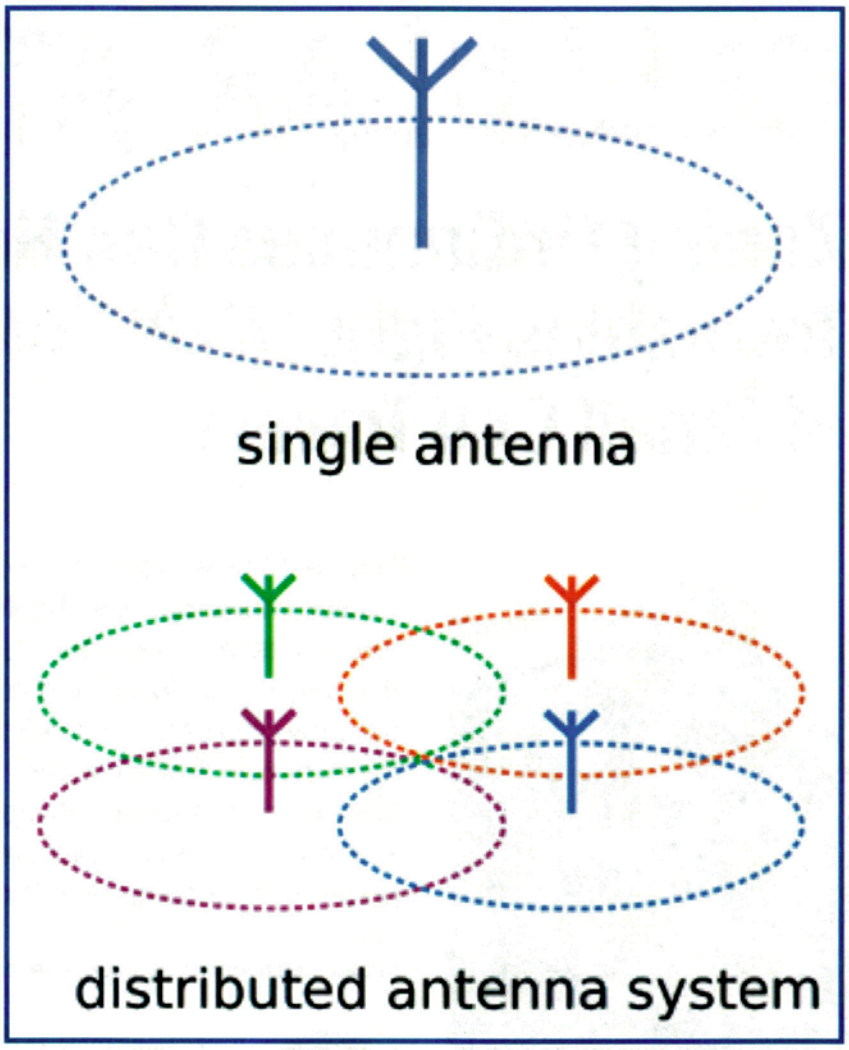
Today, contractors for wireless carriers are rolling out smaller structures that are much more numerous and targeted to individual neighborhoods. They include "macrocells," with a typical coverage area of one-half to 2½ miles, and "microcells," typically covering about 325 feet to about half a mile.

The number of these smaller structures that have been installed to meet the increased demand has also exploded. In 1997, there were roughly 51,600 mega-, macro-, and microcell sites across the country. Now, just 15 years later, there are more than 301,779 sites, according to industry trade group CTIA – The Wireless Association.

What's more, the major wireless carriers plan to dramatically increase the number of these cell towers. For example, Verizon Wireless told the Federal Communications Commission that it plans to increase its cell sites by 53 percent, from 42,600 to 65,000. CTIA reports that AT&T Wireless plans to deploy more than 40,000 new small-cell sites.

More small towers cropping up

The most common of these new mini cell towers form distributed antenna systems, or DAS. While there are a variety of DAS facilities, all of them include a central pole, typically 25 to 45 feet tall, with a control box and a 4- to 5-foot antenna. They are connected to a central hub by fiber optic cable. There are usually many miles of fiber optic cable in a DAS network. These networks are much more localized and targeted than traditional cell tower networks.



Rather than relying on a single, traditional cell tower located in a remote area, wireless carriers are installing distributed antenna systems. These consist of numerous smaller structures that cover a targeted area, such as a neighborhood. *(Diagram by Tod Robbins/Wikimedia Commons/Public Domain.)*

According to a representative of Crown Castle, one of the leading DAS owners and developers in the country, DAS is all about capacity, not coverage. In other words, the purpose of DAS networks is to increase the ability of smartphone users to download information more quickly by expanding the size of the virtual pipe through which the information flows.

At the end of 2012, there were an estimated 20,000 DAS sites installed in the U.S. This number is projected to reach 150,000 by the end of 2017, according to PCIA – The Wireless Infrastructure Association.

Another type of small cell structure that is being rolled out in Pennsylvania, primarily by electric utilities, is called a data collection unit, or DCU. These units communicate with so-called "smart" meters for meter reading, outage restoration, and other services.

PECO, the electric company for southeastern Pennsylvania, is planning to invest about $650 million to install DCUs to cover all of its 1.6 million customers over the next 10 years. PECO will place these units, which will

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Distributed antenna systems are sprouting up in communities across the country, such as this neighborhood in Colorado Springs, Colo. The black cell tower is topped by a cylindrical antenna. *(Photo courtesy of Bill Vogrin/Colorado Springs Gazette.)*

include "refrigerator-sized" cabinets, on existing and newly erected utility poles.

'The game changer'

While there have been dramatic advances in the types and number of wireless facilities, the game changer for townships is that these towers are being placed directly in public rights of way. This is completely different from the cell towers of old, which have typically been placed on fairly remote property far from the road grid. The mini cell towers dotting the DAS and DCU networks are being installed directly along streets and roads.

Contractors for the major wireless companies, including Verizon, AT&T, Sprint, and T-Mobile, have obtained certificates of public convenience from the Pennsylvania Public Utility Commission that grant them the authority to occupy these rights of way.

For townships, these mini cell towers add a physical obstruction to the rights of way. Their placement can interfere with other utilities' infrastructure, impact traffic patterns during and after construction, and affect public safety. Moreover, all of these potential impacts add to townships' costs of managing their rights of way, including the costs of permitting, inspection, traffic control, and administration.

These towers can also be an eyesore. This is especially true in residential neighborhoods where utilities are required to be placed underground.

The good news is that Pennsylvania townships have strong zoning authority to control and manage the placement of mini cell towers. Unfortunately, most townships' ordinances do not address these new technologies.

In fact, most township regulations take the form of cell tower ordinances that were enacted in the late 1990s after the passage of the federal Telecommunications Act of 1996. As a general rule, these ordinances are woefully out of date, do not cover wireless facilities in the rights of way, and do not incorporate recent changes in state and federal law.

It is critical that townships update their regulations *before* they get a visit from the next wireless contractor; otherwise, it may be too late. Wireless companies demand "speed to market" and will not wait until a township drafts and adopts a new wireless facilities ordinance before installing their structures.

What townships can do under the law

Let's take a look at what legal authority townships have to regulate wireless facilities and what they are allowed to do. We must begin with the federal Telecommunications Act of 1996. At first blush, it seems to minimize town-

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ship authority over wireless structures because it states that local governments may not "prohibit or have the effect of prohibiting wireless facilities."

However, the act expressly preserves local zoning authority over the "placement, construction, and modification of wireless facilities." This preservation of local zoning authority is a powerful tool townships may use to exercise control over the location and operation of wireless facilities.

This authority does not, however, give free reign to zoning officers and zoning hearing boards to overregulate wireless facilities. Indeed, this authority is preserved only to the extent that it does not exceed any limitations specifically implemented by Congress or indirectly imposed by judicial case law.

Some of the key limitations are as follows:

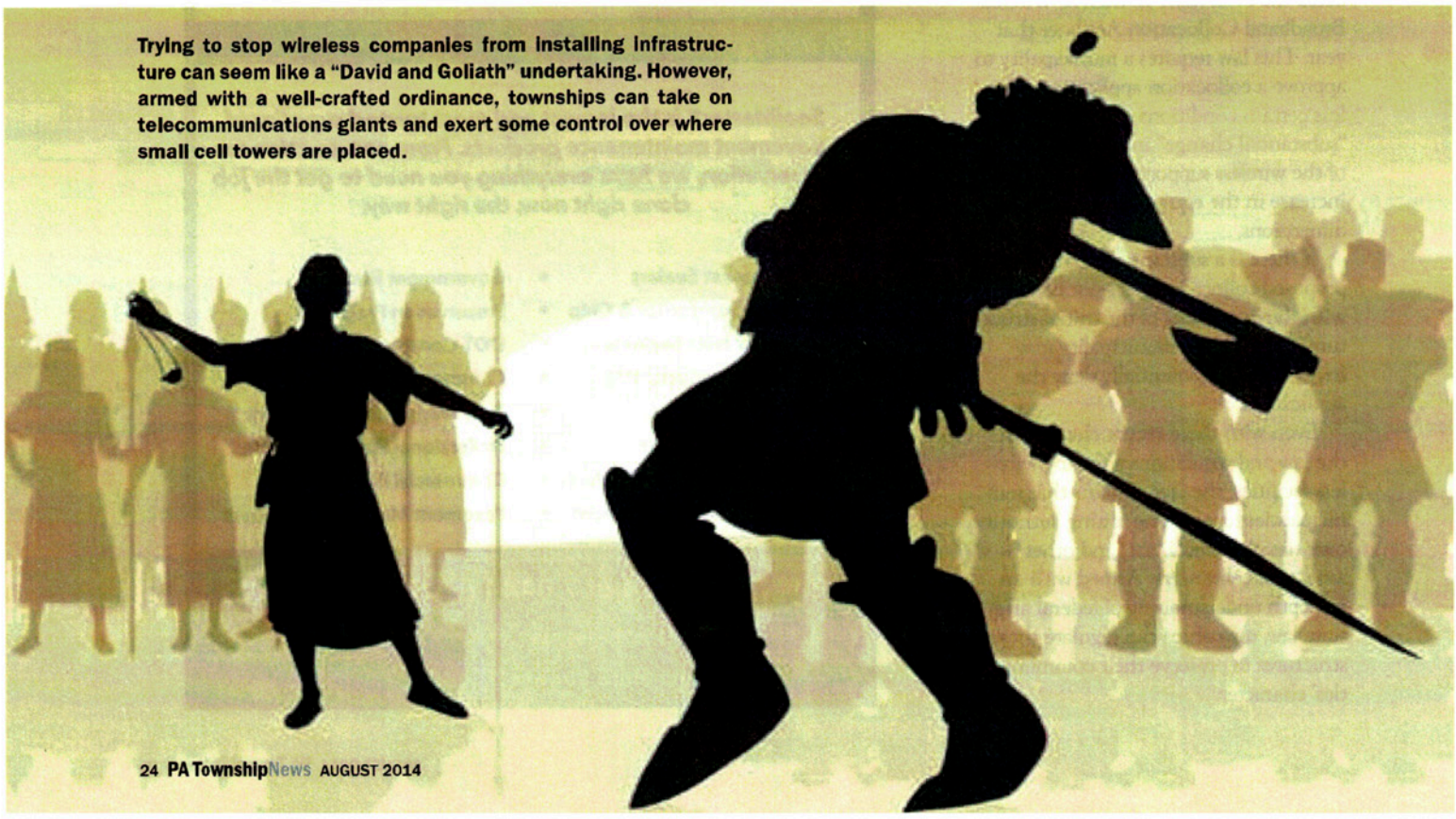
• First, as noted above, the local zoning code may not "prohibit or have the effect of prohibiting" wireless facilities. This restriction is vague but has been examined at length by federal and state courts across the country.

Generally, the courts have interpreted it to mean that a municipality may not use its zoning power to prohibit the construction or operation of wireless facilities within its boundaries. Implementing unreasonably high permit fees, for example, as well as enacting overly restrictive zoning regulations, have both led to litigation in cases that were ultimately decided in favor of wireless providers.

• Also, townships may not unreasonably discriminate among providers of "functionally equivalent services." For example, a township may not deny Sprint from installing wireless facilities within its boundaries on the basis that T-Mobile and Verizon already own and operate similar wireless facilities in the township.

• Likewise, a municipality may not deny or regulate wireless facilities based on the health impact of radio frequency emissions as long as the wireless provider can ensure and, if necessary, prove that its emissions fall within FCC emissions standards. Practically speaking, zoning provisions that restrict antennae and towers from "sensitive areas," such as schools, daycare centers, and hospitals because of radio frequency emissions, would almost certainly be stricken from the code by a court.

• Finally, once a municipality receives an application for a wireless facility, it must make a decision on the application within a "reasonable period of time." In 2009, the FCC issued its "shot clock" ruling to establish uniform response times. This ruling states that if an applicant proposes a new facility, such as a cell tower, the municipality must either approve or deny the application within 150 days of receipt.



Trying to stop wireless companies from installing infrastructure can seem like a "David and Goliath" undertaking. However, armed with a well-crafted ordinance, townships can take on telecommunications giants and exert some control over where small cell towers are placed.

If the applicant simply wants to add antennae to wireless facilities or other vertical support structures, the municipality must respond within 90 days of receipt. The U.S. Supreme Court upheld the "shot clock" ruling in May 2013.

In either circumstance, if a municipality decides to deny a request for a wireless facility installation, such denial must be in writing and supported by "substantial evidence." The amount and type of evidence necessary to be considered substantial vary from place to place and are subject to court interpretation.

Adding antennas to existing towers

Townships may also regulate collocation, or the addition of an antenna to cell towers or other structures. Collocated facilities have become a hot topic of conversation in the wireless arena, particularly following Congress's adoption in 2012 of a collocation-by-right provision as part of the Middle Class Tax Relief and Job Creation Act. This provision requires local governments to approve requests to modify eligible, existing wireless facilities as long as their physical dimensions are not *substantially* changed.

The Pennsylvania legislature enacted the even more restrictive Wireless Broadband Collocation Act later that year. This law requires a municipality to approve a collocation application unless certain conditions exist, such as a "substantial change" in the dimensions of the wireless support structure or an increase in the equipment compound's dimensions.

If there is a substantial change or the proposed collocation does not comply with the conditions of the initial structure approval, the municipality may investigate and potentially deny the application.

Even with these recent changes in the law and regulations affecting wireless facilities, the fact remains that municipalities have strong zoning authority over the placement, size, and other aspects of cell towers. Armed with an in-depth understanding of federal and state law, townships can regulate these structures to preserve their communities' character.

Review your current ordinance

Now let's return to Janet Swenson's front lawn, where workmen were preparing to erect a mini cell tower. At the time, wireless contractor American Tower Company was installing many such towers in Northampton Township. Swenson, along with hundreds of other residents, appealed to the board of supervisors.

After several township board meetings and many procedural twists and turns, the township sued ATC in federal court, citing its zoning authority to regulate the placement of the wireless facilities. Eventually, after meeting several times with township staff and attorneys, ATC agreed to settle the case by relocating the towers to primary roads outside of residential subdivisions that required underground utilities.

While the settlement favored Northampton Township, the outcry of township residents, the dispute with the wireless contractor, and the legal fees incurred were less than favorable. The

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township was unfortunate to be one of the first municipalities to face the new model of wireless facilities in Pennsylvania.

To avoid the same fate and ensure that your township regulates cell towers and antennae to the fullest legal extent possible, we recommend that you review your current wireless facilities ordinance to make sure it does all of the following:

- addresses new technologies, such as DAS and DCUs;
- regulates wireless facilities both inside and outside public rights of way;
- addresses collocation and other "second generation" facilities;
- complies with current federal and state laws and regulations;
- preserves the character of your township, as well as the integrity of residential neighborhoods; and
- provides appropriate legal protections for your township consistent with its zoning code.

If your current ordinance does not have these provisions, your township likely is not prepared to meet the next invasion of wireless facilities or to protect your community to the fullest extent of the law. With knowledge and preparation, however, you can convert your old ordinance to a comprehensive wireless facilities ordinance that addresses new technologies, protects your residents, and complies with current law.

Keep in mind that as is true of most municipal challenges, it is easier and less expensive to be proactive than reactive. ✦

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About the authors: Dan Cohen and Natausha Horton are attorneys with the Cohen Law Group in Pittsburgh. The firm represents municipalities in cable, telecommunications, broadband, and right-of-way matters. It helped Northampton Township in its dispute with American Tower Company in 2012.