QUICKNOTES

Planning fundamentals for public officials and engaged citizens

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Local Control and Wireless Facilities Siting

Cell towers and antennas are necessary to support the mobile telecommunications networks that allow us to check our email while waiting in line, get weather or traffic alerts in real time, or post selfies from a mountaintop. Wireless facilities can also be critical to providing broadband access in low-density or rural areas or areas with challenging geography, where traditional wired access may not be provided by a telephone company or cable provider.

As our use of smartphones, tablets, and other wireless devices increases, so too does the need for infrastructure to support these devices. Between 2003 and 2013, the number of cell sites in the United States increased 87 percent, from 162,986 to 304,060. By December 2013, there were 335.65 million active wireless subscriptions sending and receiving a combined 3.23 trillion megabytes of data (CTIA 2014).

While the siting of wireless facilities is largely a local issue, subject to local zoning regulations and permitting processes, federal and (in many cases) state laws limit the extent of local control.

Federal Considerations

There are two major federal laws limiting the extent of local control over the siting of wireless facilities: the Telecommunications Act of 1996 and the Middle Class Tax Relief and Job Creation Act of 2012.

The Telecommunications Act of 1996 created the Federal Communications Commission (FCC) and established three different regulatory frameworks for companies providing voice telephone, cable, and information services. The Act also preempts state and local regulations that effectively prohibit any entity from providing telecommunications service. Section 332 of the Telecommunications Act stipulates that local government cannot "unreasonably discriminate among providers of functionally equivalent services," and that local regulations may not "prohibit or have the effect of prohibiting the provision of personal wireless services." Section 332 also prohibits local governments from denying applications based on concerns related to the health or environmental effects of radio frequency emissions, assuming the facility is in compliance with FCC standards.

Finally, Section 332 creates the requirement that local governments must act on applications for wireless facilities within "a reasonable period of time." In 2009 the FCC issued a declaratory ruling, which was upheld by the Supreme Court in the 2013 decision *City of Arlington v. FCC*, defining the period for acting on applications as 90 days for colocation applications (applications that seek to locate equipment on existing structures) and 150 days for other applications. Following the 2009 ruling, this time period for application review has often been likened to the shot clock in basketball, which forces a turnover if a field goal is not attempted in the allotted time period. The review period begins when the application is submitted, and if a local government does not act within that time period, the application is deemed approved.

In addition to extending lower payroll tax rates, unemployment benefits, and job incentives for small businesses, the Middle Class Tax Relief and Job Creation Act of 2012 included provisions reallocating parts of the radio frequency spectrum to mobile broadband services and removing barriers to deploying wireless facilities. Specifically, Section 6409(a) limits the ability of a local government to deny a request for modification to an existing wireless tower or base station, so long as this request does not substantially change the physical dimensions of that facility. This includes requests to remove and replace equipment, as well as requests to colocate new equipment.

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Multiple antennas on a single monopole tower on Sexton Mountain in Beaverton, Oregon.

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In October 2014, the FCC issued the "Wireless Infrastructure Report and Order," which clarifies elements of section 6409(a) and implements a 60-day period for approving applications under Section 6409(a), after which the application will be "deemed granted" should the local government fail to act.

Other relevant information on federal regulation of tower and antenna siting is at www.fcc.gov.

State Trends

Over the last several years, a growing number of states have enacted legislation limiting local control of the siting of wireless facilities.

States including California, Florida, Hawaii, Nevada, New Jersey, North Carolina, Georgia, Wisconsin, Michigan, Missouri, Tennessee, and Washington have legislation to limit local control over siting, addressing issues including colocation by public and private providers, limiting consideration based on height and aesthetic concerns, curbing the ability to restrict towers to specific zoning districts, and creating uniform standards for local governments reviewing wireless facilities applications.

Addressing Wireless Facilities Siting in Local Regulations

Communities must balance the demand for higher quality and faster wireless service with concerns related to the appearance and safety of towers. There are three general areas to address in local regulations on wireless facilities siting: location, aesthetics, and safety. When addressing these three areas, communities generally regulate tower height, facility placement, ancillary facilities (ground equipment), fencing and signage, and surrounding landscaping (PCIA 2006).

For a wireless network to function effectively, towers must have a "line of sight" connection between each other, meaning they must be situated in such a way that the wireless signal is able to move from tower to tower unobstructed (PCIA 2006). In areas with variable building heights, dense tree cover, or changes in topography, this consideration is of particular importance in determining wireless facilities siting.

In terms of facility location, one major area for local governments to address is colocation, or the practice of locating new antennas on existing wireless towers or other facilities that can support wireless infrastructure, such as water towers. Encouraging colocation can increase service while minimizing the need for additional wireless facilities. Effective colocation requires a structure that can physically support multiple antennas with enough vertical height separation between antennas operated by different providers to prevent interference. Local regulations commonly require that tower design accommodate the collocation of three wireless providers.

Aesthetics are often a concern related to wireless facilities siting. Local zoning ordinances can regulate tower height and height of colocated antennas, so long as these regulations do not prohibit the provision of personal wireless services. Communities may allow taller facilities in certain zoning districts to encourage location of towers in those areas. They can also require or encourage camouflaged or concealed facilities (e.g., flagpoles or artificial trees) and landscaping to reduce the visual impact of the ancillary facilities, as well as design compatibility of roof- or wall-mounted systems.

As mentioned under Section 332, communities cannot regulate towers based on concerns related to radio frequency emissions, so long as facilities meet FCC standards. However, local governments can address other safety concerns. These include security fencing requirements, setbacks for freestanding facilities in case of facility failure, structural design specifications sufficient to withstand major natural hazards, and compliance with power line clearance regulations from state public utilities commissions and height limits from the Federal Aviation Administration.

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FURTHER READING

1. Published by the American Planning Association

Pestle, John W. 2011. "Federal Cell Tower Zoning: Key Points and Practical Suggestions." *Zoning Practice*, August. Available at planning.org/zoningpractice.

Pugh, Donna J., and Aubrey V. Refuerzo. 2013. "Telecommunications Act of 1996—What Constitutes Substantial Evidence." *Planning & Environmental Law*, June. Available at planning.org/pel.

Smith, Robert E. 2007. "Managing Wireless Infrastructure Deployment." *Practicing Planner*, Summer. Available at planning.org/practicing-planner.

2. Other Resources

PCIA—The Wireless Infrastructure Association (PCIA). 2006. "Wireless Infrastructure Overview." In *Planning and Urban Design Standards*, ed. American Planning Association. Hoboken, New Jersey: John Wiley & Sons. Available at planning.org/store/product/?ProductCode=BOOK_RPUD.

CTIA—The Wireless Association (CTIA). 2014. "Annual Wireless Industry Survey." Available at ctia.org/your-wireless-life/how-wireless-works/annual-wireless-industry-survey.