



([https://www5.smartadserver.com/click?](https://www5.smartadserver.com/click?imgid=26833200&insid=10206218&pgid=584791&ckid=-7992365648947847144&uii=379534605363390546&acd=1622570151308&opid=ec10cc10-4d99-41fa-a069-9aee0e375713&opdt=1622570151307&pubid=23&tmstp=4345099621&tgt=%24dt%3d1t%3b%24dma%3d500%3b%24hc&systgt=%24qc%3d1500003912%3b%24q)

imgid=26833200&insid=10206218&pgid=584791&ckid=-7992365648947847144&uii=379534605363390546&acd=1622570151308&opid=ec10cc10-4d99-41fa-a069-9aee0e375713&opdt=1622570151307&pubid=23&tmstp=4345099621&tgt=%24dt%3d1t%3b%24dma%3d500%3b%24hc&systgt=%24qc%3d1500003912%3b%24q

Hello Maureen |  [\(/myapa/\)](#)



[My APA \(/myapa/\)](#) [Log Out \(/logout/\)](#)



MENU

Enter keyword or phrase

Search

[Bookmark This Page](#)  | [My Bookmarks \(/myapa/bookmarks\)](#)

[Home \(/\)](#) > [Knowledge Center \(/knowledgecenter/\)](#) > [Research KnowledgeBase \(/knowledgebase/\)](#) >

KNOWLEDGEBASE COLLECTION

Small Wireless Facilities and Wireless Facilities in the ROW



American Planning Association

As wireless telecommunications carriers face growing demands by the public for ever-increasing capacity, speed, and reliability, and new uses of the internet continue to emerge, the wireless industry is shifting from the older infrastructure model of macrocell monopoles to a new model: "small-cell" wireless systems.

Small-cell wireless technology refers to networks of small wireless telecommunications antennas installed as systems on existing structures, often as stealth or camouflaged installations. It is often conflated with Distributed Antenna Systems (DAS), networks of spatially separated antenna nodes connected to a common source via a transport medium that provides wireless service within a geographic area or structure. DAS networks are physically connected via fiber and can accommodate multiple carriers, while small-cell systems are not connected via fiber and serve a single carrier. However, from a regulatory land-use perspective, both system types are differentiated from larger antenna or monopole systems by their networks of small antennas typically installed on utility poles or existing structures, often in the public right-of-way.

From this page you can search for resources that provide background, policy guidance, and examples of local zoning and other municipal standards for small wireless facilities and wireless facilities in the public right-of-way from across the country. And you can filter these search results by various geographic and demographic characteristics.

Go

▼ APA Resources

DAS and Small-Cell Systems

The small size of DAS and small-cell wireless facilities means they are more easily installed on existing buildings or structures and may be less aesthetically objectionable than larger cell towers. However, the shorter ranges of these antennae mean that more of them are required. Hundreds of thousands of new wireless facilities will be coming online in the coming years, and much of them will likely be installed on structures within the public right-of-way (PROW), such as utility poles.

In several cases, wireless providers or tower companies have argued that they have the right to install wireless facilities in the PROW regardless of local telecommunications regulations. Local governments do have the right to regulate wireless facilities in the PROW, but they must have the right regulations in place to do so. It is important that communities adopt language specific to wireless facility installation in the PROW so that they can appropriately respond to such requests.

Regulating DAS and Small-Cell Systems in the Public Right-of-Way

Many communities have added small-cell or DAS definitions, provisions, and standards to their codes, in some cases expressing preferences for these facilities and allowing the installation of this equipment by right with administrative approval subject to certain standards to reduce negative visual impacts.

Local governments may control height, appearance, location/placement, and safety issues for wireless facilities in the PROW. Ordinances may allow installations with specific encroachment or ROW permits, tighten application requirements, impose design standards, and require public notification to better protect residents.

Agreements to allow installations in the PROW also can and should address compensation to the municipality for use of the PROW or municipal structures. Some jurisdictions charge an annual per-facility fee incorporating CPI adjustments; others require payments of a percentage of gross revenue.

In September 2018, the Federal Communications Commission (FCC) issued an order that clarifies the intent of the Telecommunications Act of 1996 with respect to local regulations for small wireless facilities (FCC Order [18-133](https://www.fcc.gov/document/fcc-facilitates-wireless-infrastructure-deployment-5g) (<https://www.fcc.gov/document/fcc-facilitates-wireless-infrastructure-deployment-5g>)). Notably, this order requires local governments to act on complete applications within specified time periods (i.e., imposes "shot clocks").

BACKGROUND RESOURCES

DAS: The Ultimate Small Cell (/knowledgebase/resource/9128821/)

This short article from the wireless industry article defines, describes, and compares DAS and small-cell wireless facilities.

Misconceptions About Regulating Towers and Wireless Facilities (/knowledgebase/resource/9128910/)

This article debunks more than 40 common misconceptions about regulation of wireless facilities by local governments.

Right-of-Way Turf Wars: Enter DAS Facilities (/knowledgebase/resource/9128911/)

This brief article describes challenges of and provides recommendations for regulating DAS in public rights-of-way.

Small Cell Wireless Technology in Cities (/knowledgebase/resource/9171250)

This guide discusses the importance of small cell wireless facility deployment in dense urban areas and provides policy recommendations to cities.

Small Cell, DAS and Wi-Fi Facilities Siting in the Public Right of Way: Practical Considerations for Local Governments (/knowledgebase/resource/9128655)

This memorandum discusses six interests local governments must consider in reviewing, negotiating, and approving the siting of wireless facilities within the public right of way.

Telecommunications as Infrastructure: Managing Rights of Way and Municipal Infrastructure in the Age of Telecommunications and the Information Economy (/knowledgebase/resource/9128656/)

This law firm memorandum offers an outline on how municipalities can practically and comprehensively address telecommunications infrastructure issues.

ARTICLES

5G Technology: Smart Decisions for Smart Cities (/knowledgebase/resource/9171287)

This article discusses municipal policy considerations for small wireless facility deployment.

DAS: The Ultimate Small Cell (/knowledgebase/resource/9128821/)

This short article from the wireless industry article defines, describes, and compares DAS and small-cell wireless facilities.

Misconceptions About Regulating Towers and Wireless Facilities (/knowledgebase/resource/9128910/)

This article debunks more than 40 common misconceptions about regulation of wireless facilities by local governments.

Right-of-Way Turf Wars: Enter DAS Facilities (/knowledgebase/resource/9128911/)

This brief article describes challenges of and provides recommendations for regulating DAS in public rights-of-way.

[View all articles](#)

STATUTES AND ORDERS

FCC Order: Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment (/knowledgebase/resource/9171260)

This FCC order clarifies the application of the TCA to wireless facilities in the ROW and establishes "shot clocks" for application decisions by local governments.

FCC Order: Acceleration of Broadband Deployment by Improving Wireless Siting Facilities, Report and Order (/knowledgebase/resource/9128909)

This FCC order describes DAS and small-cell wireless facilities and addresses how NEPA applies to these facilities.

[View all statutes and orders](#)

GUIDES

Denver, CO, Small Cell Infrastructure Design Guidelines (/knowledgebase/resource/9171262)

This guide is designed to help wireless facility applicants and installers comply with the city's preferences for small wireless facility deployment in public rights-of-way.

Next Generation Local Zoning Authority (/knowledgebase/resource/9188967)

This guide discusses the opportunities and challenges of 5G network deployment.

Small Cell Wireless Technology in Cities (/knowledgebase/resource/9171250)

This guide discusses the importance of small cell wireless facility deployment in dense urban areas and provides policy recommendations to cities.

Small Cell, DAS and Wi-Fi Facilities Siting in the Public Right of Way: Practical Considerations for Local Governments (/knowledgebase/resource/9128655)

This memorandum discusses six interests local governments must consider in reviewing, negotiating, and approving the siting of wireless facilities within the public right of way.

Summary of Final FCC Small Cell Order (/knowledgebase/resource/9171263)

This guide provides an overview of the effects of FCC Order 18-133 on local control over small wireless facility deployment.

Telecommunications as Infrastructure: Managing Rights of Way and Municipal Infrastructure in the Age of Telecommunications and the Information Economy (/knowledgebase/resource/9128656/)

This law firm memorandum offers an outline on how municipalities can practically and comprehensively address telecommunications infrastructure issues.

[View all guides](#)