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REGULATION OF TELECOMMUNICATION TOWERS

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I. WHAT ARE CELLULAR AND PCS SERVICES AND HOW DO THEY OPERATE?

Cellular telephone service has been offered commercially for more than ten years. Prior to the development and introduction of cellular phone service, mobile telephone service offerings were limited. The older, non-cellular systems used a single high-powered radio transmitter to cover an entire community. With few allocated frequencies and channels, the old systems could only provide service to a limited number of subscribers.

Today's cellular systems overcome this limitation by subdividing their service areas into small cells, each with a low-powered radio transmitter. With this design, channels may be reused in the service area; the same channels are assigned to multiple, nonadjacent cells, significantly increasing the number of calls the system can handle at any one time and thus the number of subscribers served. A call is automatically transferred from one channel in one cell to another channel in the next cell as a subscriber moves through the service area. Most cellular systems today use conventional analog transmission technology.

PCS is a new technology and a competitor to cellular telephone service. The first broadband PCS systems began operations in 1996. PCS systems share the same "cell-shaped" design that characterizes cellular service. However, broadband PCS systems may require more antenna sites because PCS systems operate at higher frequencies than cellular phone services, frequencies at which the effective coverage area of a cell decreases. In this band, PCS systems also may provide other communications services, such as data transmission and paging, over the same frequencies.

PCS systems also differ from cellular telephone systems because they use lower power transmitters and digital transmission technologies. Future PCS services may include computer networking and wireless Internet access.

Both cellular and broadband PCS subscribers use portable phones to access or receive calls from the public switched telephone network (PSTN) through cell site antenna facilities. Antenna facilities are connected to a Mobile Telephone Switching Office

(MTSO) by landline or microwave links. Trunks to the PSTN connect the MTSO. The MTSO switches calls between the PSTN and the cell sites.

Cellular and PCS antenna facilities have been installed on communications towers, water tanks, rooftops, and street lights. In some areas, facilities have been installed in church steeples, clock towers, or camouflaged as artificial trees to address aesthetic concerns of the community.

Communications towers take many forms and vary significantly in height. A tower may be free standing or “guyed,” anchored with cables. A guyed tower needs significantly more land than a freestanding tower. Free standing or self-supporting towers include monopoles and three- or four-sided steel-lattice towers. Tower and tower foundation specifications depend on a variety of factors including design load, wind speed, ice load, soil conditions, building code requirements, and antenna loading.

Whether the antenna is installed on a communications tower or on another structure, an antenna’s height depends on several factors, including the range and characteristics of the geographic area it is expected to serve. Antenna towers generally range in height from 50 to 300 feet. In some remote areas they may even reach 500 feet. The number of antennas in a community also depends on several factors, most commonly service demand and local geography. As a system grows, the number of antenna sites increases as channels are reused at closer intervals to accommodate more subscribers.

II. LOCAL ZONING AUTHORITY OVER TELECOMMUNICATION TOWERS

A. Section 704 of the Act: Preservation of Local Zoning Authority

Over the last several years, the wireless industry has made repeated efforts to preempt local zoning authority over the siting and placement of wireless telecommunications facilities. These efforts have targeted state public utility commissions, the Federal Communications Commission (“the FCC”) and Congress. When the Telecommunications Act of 1996 (“the Act”) and previous omnibus telecommunications bills were being debated in Congress, local governments made the protection of local zoning authority one

of their highest priorities. Section 704 of the Act and its legislative history illustrate that local government efforts were, to a great degree, successful. [Section 704 is codified at 47 U.S.C. § 332(c)(7). This section of the Act addresses zoning authority over personal wireless facilities only. Section 207 of the Act addresses local authority over satellite dishes and antennas. Section 207 of the Act restricts local authority more significantly than Section 704 and is beyond the scope of this presentation.]

The Act emerged from a conference agreement that reconciled conflicting provisions of the bills that had been adopted in the House and Senate. The bill originally adopted by the House of Representatives (H.R. 1555) did not address local zoning authority over personal wireless service facilities. The bill originally adopted by the Senate (S. 652) called on the FCC to undertake a rulemaking to adopt a uniform policy for the siting of wireless facilities. The conference agreement rejected the Senate proposal and directed the FCC to terminate a pending rulemaking concerning the preemption of local zoning authority. The conference report states that Section 704:

prevents Commission preemption of local and State land use decisions and preserves the authority of State and local governments over zoning and land use matters except in the limited circumstances set forth in the conference agreement. The conference agreement also provides a mechanism for judicial relief from zoning decisions that fail to comply with the provisions of this section. It is the intent of the conferees that other than under section 332(c)(7)(B)(iv) of the Communications Act of 1934 as amended...the courts shall have exclusive jurisdiction over all other disputes arising under this section.

Joint Explanatory Statement of the Committee of Conference. So long as local zoning authorities exercise their power in a manner consistent with the specific limitations set forth in Section 704, the Act protects local zoning authorities in two ways. It provides statutory protection from FCC efforts to preempt local zoning authority by regulation, and it limits FCC jurisdiction over individual disputes between local zoning authorities and industry applicants.

A good source for current information on a variety of issues is the FCC Wireless Telecommunications Bureau's Facility Siting website: <http://wireless.fcc.gov/> .

On April 23, 1996, the Wireless Telecommunications Bureau of the FCC issued Fact Sheet #1 to inform the public about the provisions of Section 704 of the 1996 Act and to assist state and local governments as they deal with the complex issues of personal wireless facilities siting in their local communities. The Wireless Telecommunications Bureau discusses this topic on their web site, at <http://wireless.fcc.gov/siting/local-state-gov.html>.

ISSUE ALERT

The FCC has proposed rule MM Docket No. 97-182, which would preempt the application of state and local zoning and land use ordinances regarding the placement of telecommunication towers. Be sure to watch for more activity on this issue.

Definitions

Before addressing the specific limitations established in Section 704, it is important to identify several definitions that are useful in understanding Section 704. When considering a particular permit application or facility, don't assume Section 704 applies to the facility in question.

Personal wireless services means "commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services." 47 U.S.C. § 332(c)(7)(C)(i). The definitions of "commercial mobile services" and "unlicensed wireless services" are discussed below. Common carrier wireless exchange access services are services that are intended to compete with providers of traditional wireline local telephone service.

Commercial mobile services means "any mobile service (as defined in section 153(n) of this title) that is provided for profit and makes interconnected service available (A) to the public or (B) to such classes of eligible users as to be effectively available to a substantial portion of the public, as specified by regulation by the Commission." 47 U.S.C. § 332(d)(1). Personal communications services (PCS), cellular services and paging services are all commercial mobile services.

Mobile Service means "a radio communication service carried on between mobile stations or receivers and land stations, and by mobile stations communicating among themselves, and includes (A) both one-way and two-way radio communication services, (B) a mobile service which provides a regularly interacting group of base, mobile, portable, and associated control and relay stations (whether licensed on an individual, cooperative, or multiple basis) for private one-way or two-way land mobile radio communications by eligible users over designated areas of operation, and (C) any service for which a license is required in a personal communications service...." 47 U.S.C. §

153(27). The FCC has specified the kinds of services that are considered to be mobile services at 47 C.F.R. § 20.9.

Interconnected Service means “service that is interconnected with the public switched network (as such terms are defined by regulation by the FCC) or service for which a request for interconnection is pending....” 47 U.S.C. § 332(d)(2).

Personal wireless service facilities mean “facilities for the provision of personal wireless services.” 47 U.S.C. § 332(c)(7)(C)(ii). Such facilities are likely to include transmitters, antennas, structures supporting antennas, and electronic equipment that is typically installed in close proximity to a transmitter. This equipment is often called base transceiver equipment. In outdoor locations, base transceiver equipment is often installed in cabinets roughly the size of a refrigerator.

Unlicensed services means “the offering of telecommunications services using duly authorized devices which do not require individual licenses, but does not mean the provision of direct-to-home satellite services (as defined in section 303(v)).” 47 U.S.C. § 332(c)(7)(C)(iii). Many cities have been approached by a provider of wireless data transmission services called Metricom. Metricom has sought authority to install transmitters on light poles. Metricom is an example of a company offering unlicensed wireless telecommunications service.

B. Limitations on Zoning Authority Established by Section 704

Section 704 of the Act establishes three significant substantive limitations on the decisions of local zoning authorities. It also establishes procedural limitations on the processing of permit requests, and establishes procedures for resolving disputes.

1. Substantive Limitations

Section 704 provides that local and state regulation of the placement, construction and modification of personal wireless services facilities:

- “shall not prohibit or have the effect of prohibiting the provision of personal wireless services” 47 U.S.C. § 332(c)(7)(B)(i)(I).
- “shall not unreasonably discriminate among providers of functionally equivalent services” 47 U.S.C. § 332(c)(7)(B)(i)(II).
- and shall not be based on “the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission’s regulations concerning such emissions.” 47 U.S.C. § 332(c)(7)(B)(iv).

(a) Prohibitions: Local zoning requirements may not prohibit or have the effect of prohibiting the provision of wireless telecommunications service.

The Act leaves room for many questions about what actions will be considered to prohibit or have the effect of prohibiting the provision of personal wireless services. Is a temporary moratorium on the processing of applications a prohibition on the provision of service during the moratorium? Is a decision that personal wireless service facilities cannot be installed on residential structures in residential districts a prohibition? Is a decision or rule that prevents a particular company from servicing a particular area a prohibition even if other companies already have facilities serving that area? Only a handful of courts have addressed these questions. Their decisions are discussed in Section C below.

(b) Unreasonable Discrimination: Local zoning requirements may not unreasonably discriminate among wireless telecommunications providers that compete against one another.

The obligation to avoid unreasonable discrimination among providers of functionally equivalent services does not mean that all applications and providers must be treated exactly the same and subjected to identical conditions. The conference report explains that functionally equivalent services are services “that directly compete against one another.” It further explains that this section “will provide localities with the flexibility to treat facilities that create different visual, aesthetic, or safety concerns differently to the extent permitted under generally applicable zoning requirements even if those facilities provide functionally equivalent services. For example, the conferees do not intend that if a State or local government grants a permit in a commercial district, it must also grant a permit for a competitor’s 50-foot tower in a residential district.” Joint Explanatory Statement of the Committee of Conference.

(c) Radio Frequency (RF) Emissions: A local government may not deny a request to construct a facility on grounds that its RF emissions would be harmful to the environment or to the health of residents if those emissions meet FCC standards.

As required by the Act, on August 1, 1996 the FCC adopted rules governing allowable RF emissions for all transmitters licensed or authorized by the FCC. On August 25, 1997, the FCC revised its RF emissions guidelines for all licensees, including those in the wireless services. The FCC issued a fact sheet that provides a very useful summary of the original RF regulations. *See Fact Sheet #2, National Wireless Facilities Siting Policies*, September 17, 1996, Federal Communications Commission, Wireless Telecommunications Bureau. Fact Sheet #2 is available from the FCC's "fax-on-demand" system at (202) 418-2830. To obtain Fact Sheet #2, reference Document Number 6508. Both Fact Sheets #1 and #2 are available on the Internet, from the Wireless Telecommunications Bureau website, referenced above. A copy of the FCC's August 1996 Report and Order and the FCC's August 1997 Second Memorandum Opinion and Order are also available from the Wireless Telecommunications Bureau website.

In some communities, concern about the health effects of RF emissions is the biggest source of opposition to the installation of personal wireless service facilities. Citizens testifying about these concerns before a local zoning authority may not be satisfied to be told that the Act has taken this issue out of local hands. It is clear that state and local governments are not free to adopt their own RF standards; nevertheless, there *are* actions local governments can take to respond to citizen concerns.

Practice Tips

- Require that all personal wireless service facilities comply with the current FCC's RF regulations.
- Require that operator demonstrate compliance with the FCC regulations when they submit a permit application and on a periodic basis thereafter.
- Where members of the public testify against a permit application based on concerns about the health effects of RF emissions, ensure that any subsequent decision to deny the permit is supported by a legitimate basis.

Industry representatives have grown frustrated over decisions they consider to be based on RF emissions, even where the zoning authority does not rely on this basis in the record. Where a local decision is based on RF emissions, an appeal may be taken directly to the FCC. The Wireless Telecommunications Bureau of the FCC appears to be

sympathetic to industry concerns that zoning authorities have begun to assert pretextual bases for decisions to deny permits. When asked about a situation in which a provider alleged that a zoning authority heard substantial testimony about the health effects of RF emissions and made reference to public opposition in its denial of a permit, the Bureau responded. “[T]o the extent that the evidence establishes that the Board’s decision was in fact based directly or indirectly on such impermissible considerations, and the evidence does not establish non-compliance with the FCC’s regulations, the Board’s decision would apparently be subject to preemption under § 332(c)(7)(B)(iv). The Bureau indicated that it is considering recommending to the FCC a Notice of Proposed Rulemaking that would suggest specific standards and procedures for resolving cases of this sort.” Letter to CTIA president from Bureau Chief Michele Farquhar, 1997 WL 14744.

****ISSUE ALERT****

On August 25, 1997, the FCC initiated a proceeding concerning whether state and local governments may regulate the RF emissions of personal wireless service providers. On October 27, 1997, a communications company filed a petition for declaratory ruling seeking a declaratory ruling by the Wireless Telecommunications Bureau that § 332(c)(7)(B)(iv) of the Act preempts state courts from regulating or enjoining the placement or construction of cellular facilities based on RF emission concerns, where such facilities comply with federal emission regulations. On December 3, 1997, the FCC issued a public notice seeking comments on this petition.

2. Procedural Limitations

(a) A local government must act within a reasonable time period on requests for permission to place or construct wireless telecommunications facilities.

In many jurisdictions, the procedural requirements established by the Act are no more burdensome than existing state and local law. The Act first requires local Governments to “act on any request for authorization to place, construct, or modify personal wireless service facilities within a reasonable period of time after the request is duly filed...taking into account the nature and scope of such request.” 47 U.S.C. § 332(c)(7)(B)(ii).

Congress contemplated that state or local law governing timeliness would prevail: “If a request for placement of a personal wireless service facility involves a zoning variance or a public hearing or comment process, the time period for rendering a decision will be the usual period under such circumstances. It is not the intent of this provision to give preferential treatment to the personal wireless service industry in the processing of

requests, or to subject their requests to any but the generally applicable time frames for zoning decision.” Joint Explanatory Statement of the Committee of Conference at 208.

(b) Any administrative board decision denying a request for permission to install or construct wireless telecommunications facilities must be in writing and must be based on evidence in a written record before the board.

The Act also prescribes that “any decision by a state or local government or instrumentality thereof to deny a request to place, construct, or modify personal wireless service facilities shall be in writing and supported by substantial evidence contained in a written record.” 47 U.S.C. § 332(c)(7)(B)(iii). The Conference Committee clarified that the phrase “substantial evidence in a written record” is the traditional standard used for judicial review of agency actions. Nevertheless, three courts reviewing decisions from local zoning authorities have concluded that the agency action violated these requirements. These cases are discussed in Section C below.

3. Dispute Resolution

Where a local decision is alleged to violate the prohibition against basing denials on the health effects of RF emissions, the Act provides that persons may petition the FCC directly for relief. 47 U.S.C. § 332(C)(7)(b)(v). In all other cases, the Act provides that a person adversely affected by a final action, or failure to act, by a local zoning authority may, within 30 days, commence an action “in any court of competent jurisdiction.”

Congress intended to ensure that judicial review would be available in a forum reasonably convenient to local governments. “The conferees intend that the court to which a party appeals a decision under section 332(c)(7)(B)(v) may be the federal district court in which the facilities are located or a state court of competent jurisdiction, at the option of the party making the appeal, and that the courts act expeditiously in deciding such cases.” Joint Explanatory Statement of the Committee of Conference. In addition, Section 704 provides that “the court shall hear and decide such action on an expedited basis.” 47 U.S.C. §332(c)(7)(B)(v). Two courts have concluded that the requirement of timely review justifies mandamus relief.

C. Cases Interpreting Section 704

1. Tower Siting Moratoria

State and local governments are precluded from taking action that has the effect of prohibiting the provision of wireless service. However, the FCC has recognized that local governments may benefit from a brief, finite period of consideration in order to develop its tower siting process. There is currently pending before the FCC a Petition for Declaratory Ruling filed by the Cellular Telecommunications Industry Association (CTIA) seeking federal preemption of state and local government regulations imposing moratoria on the siting and zoning of telecommunications facilities. In response to the enactment of the Telecommunications Act of 1996, and the subsequent deluge of applications for the siting of wireless facilities by telecommunications providers, many state and local governments promulgated regulations creating moratoria of varying durations. In its petition to the FCC, CTIA asserts that those moratoria constitute a “barrier to entry” in violation of Sections 332, 253 and 704(c) of the Act. CTIA alleges that these “regulations exceed the bounds of reasonableness by imposing absolute restrictions for extended periods of time.”

The reply comments, submitted by the National League of Cities and the National Association of Telecommunications Officers and Advisors on behalf of local governments, challenge the jurisdiction of the FCC to preempt state and local zoning and siting moratoria.

****ISSUE ALERT****

As noted above, on December 16, 1996, the Cellular Telecommunications Industry Association (CTIA) filed a Petition for Declaratory Ruling asking that the FCC preempt local moratoria on the siting of telecommunications facilities. The FCC has twice sought comment on CTIA’s petition. The most recent comment period ended September 26, 1997. Some of the comments filed are available from the Wireless Telecommunications Bureau’s website.

A United States District Court has held that the Telecommunications Act of 1996 has no effect on the power of local governments to impose moratoria on the issuance of permits for cellular communication towers. *Sprint Spectrum, L.P. v. City of Medina*, 924 F. Supp. 1036 (W.D. Wash. 1996). In that case, the Medina, Washington City Council, seeking time to deal with an unexpected flurry of siting applications following enactment of the Act, adopted a six-month moratorium on the issuance of new special use permits for wireless communications facilities. The court determined that Medina’s moratorium was not a prohibition on wireless facilities, and did not have a prohibitory effect. Rather, it was a short-term suspension of permit issuing while the City gathered information and

processed applications. Nothing in the record suggested that there was anything other than a necessary bona fide effort to act carefully in a field with rapidly evolving technology. *Id.* at 1040.

However, the United States District Court for the Northern District of Alabama recently held that three successive resolutions adopted by Jefferson County, Alabama declaring a moratorium on the processing of rezoning applications and processing of Board of Adjustment applications intended to authorize the installation of communication towers, “represented an anti-competitive impediment to expansion of communication services” in violation of Section 704 of the Act. *Sprint Spectrum v. Jefferson County*, 968 F. Supp. 1457 (N.D. Ala. 1997). *The court distinguished this case from the Medina moratorium, which only suspended the issuance of permits. Unlike the Medina moratorium, the Jefferson County moratorium suspended the processing of applications and offered no legitimate reason for doing so.*

The court determined that the Jefferson County moratorium more closely resembled the case of Sprint Spectrum. L.P. v. Town of West Seneca, 659 N.Y.S.2d 687 (N.Y. Sup. Ct. 1997) where, for reasons not apparent from the record, West Seneca postponed all action on applications for communications towers for a ninety (90) day period. The court held that West Seneca had not complied with the Act, specifically the provisions that required the Town to act on requests for permission to site telecommunications facilities within a reasonable time, to deny permission in writing, and to support a determination of denial by substantial evidence.

Practice Tips

- *Consider whether a moratorium is really necessary to develop local policy or legislation.*
- *If a moratorium is necessary, clearly identify its objectives and duration.*
- *Maintain communication with the industry during a moratorium. In particular, structure the moratorium so that it doesn’t prevent filing of permit applications.*
- *Adopt the shortest possible moratorium that will enable the jurisdiction to formulate local policy and adopt local legislation.*

2. Requirement of a Written Denial Based on Substantial Evidence

In *Bellsouth Mobility Inc. v. Gwinnett County, Georgia*, 944 F. Supp. 923 (N.D. Ga. 1996), the court considered whether the denial by the county board of commissioners of a permit to construct a 197-foot monopole was supported by substantial evidence, as required by the Act. The court concluded that the board's denial was an act of discretion "lacking in any articulable, objective ground" and was inconsistent with the requirement that a permit denial be based on substantial evidence in a written record. The court granted a writ of mandamus ordering the county to grant the plaintiff's application.

The Planning Department in this case had recommended that the permit application be approved. Homeowners in proximity to the proposed facility objected, apparently based on both aesthetic and health and safety concerns. In response to these concerns, Bellsouth agreed to additional conditions. According to the court, only one homeowner finally testified against approval of the application.

The court noted that local law authorized the county commissioners to reject an application in their discretion only under certain circumstances: where the proposed structure could interfere with the use of air facilities, endanger persons or property, or would be unacceptable from an aesthetic or architectural standpoint. *Id.* at 924-925. The court concluded that the written record included no evidence that the facility would interfere with navigable airspace. The record demonstrated that the proposal had been approved by the county departments of transportation and public safety and recommended by the county's planning and development department. The record included appraiser's reports indicating that monopoles have no impact on residential property values and evidence that radio frequency emissions generated by the pole would fall well below limits imposed by FCC regulations. In addition, Bellsouth had agreed to satisfy aesthetic and safety conditions. The court concluded that the oral testimony of one opponent does not constitute "substantial evidence."

In considering whether to remand the case for further action by the local zoning authority or to grant a writ of mandamus, the court considered the Act's direction that courts should hear and decide actions under § 704 "on an expedited basis." 47 U.S.C. § 332(c)(7)(B)(v). The court concluded that remanding the matter to the commissioners for further action would frustrate the intent of the Act. Therefore, the court granted mandamus relief.

In *Sprint Spectrum L.P. v. Town of Easton*, 1997 WL 659375 (D. Mass. 1997) [copy available by contacting Maine Municipal Association's Legal Services Dept.], the United States District Court for the District of Massachusetts found that the Town of

Easton had violated Section 704 in three respects when the Zoning Board of Appeals denied Sprint Spectrum's application for a special permit to construct a 150-foot telecommunications tower for its PCS network, one of them being the failure to make findings supported by substantial evidence in the record.

Practice Tip

If a zoning authority is inclined to reject an application that has been recommended by local officials and that is supported by significant evidence, suggest continuing the item so that department reports can be amended to reflect the concerns expressed by members of the planning body that remain unsatisfied.

3. No Unreasonable Discrimination

In *Western PCS II Corporation v. Extraterritorial Zoning Authority*, 957 F. Supp. 1237 (D.N.M. 1997), the court considered whether a decision by the County of Santa Fe's Extraterritorial Zoning Commission ("EZA"), which denied an application to place antennas on a water tank on property owned by the county, violated the Act. The court concluded that the EZA decision was improper and granted a writ of mandamus.

In this case, a preliminary review body voted unanimously to approve the application with several conditions. These conditions included a height limit, a graffiti-removal requirement, and a requirement that Western PCS construct a retention pond to mitigate increased run-off from the concrete pad on which base equipment was to be located. Western PCS agreed to these and other conditions. The EZA and the public became concerned that the applicant's property interest in the site, which was based on a reserved easement for "water utility, other utility purposes and fire protection purposes" was not sufficient. According to the court, the EZA denied the application because Western PCS had insufficient property interest and because no residents testified that they wanted the service to be offered.

The court concluded that this decision violated the Act in four ways. First, it failed to comply with the requirement that a denial be issued by written decision. The court noted that the requirement of a written decision was intended to allow a reviewing court to determine the rationale behind a denial so that its validity under the Act could be analyzed. The court determined that a transcript of the proceedings prepared after the appeal did not satisfy the written decision requirement.

Second, the court concluded that the decision did not meet the substantial evidence standard. The absence of public comment in favor of the proposal did not constitute substantial evidence supporting denial, and the court determined that the property interest of the applicant was an issue not properly before the EZA. The record did not support denial based on the visual blight and other concerns that were properly before the EZA given the applicant's agreement to conditions addressing these concerns.

Third, the court concluded that the denial constituted unreasonable discrimination between providers of functionally equivalent services. This conclusion was based on the fact that two analog cellular providers already served the freeway corridor that Western intended to serve from the requested location, and on Western's testimony that the requested site was unique and that identification of another site from which to serve this corridor would be costly and burdensome. The court found that significantly increasing Western's costs by requiring the company to find an alternative site reduced the company's ability to compete with the existing analog providers. [A Wisconsin court articulated a very different view of the Act's prohibition on unreasonable discrimination: Congress's command that local authorities "shall not" discriminate indicates that it wants local decision makers to consider how their zoning decisions affect the marketplace for communication services. Congress, however, has not placed competition above all local concerns as the Act nonetheless strikes a balance between local zoning power and promotion of free competition. The Act prohibits such local discrimination only if it is "unreasonable." Westel-Milwaukee Co. v. Walworth County, 556 N.W.2d 107, 109 (Wisc. 1996).]

Fourth, the court concluded that the denial had the effect of prohibiting the provision of personal wireless services because it would prevent Western PCS, the only provider of digital wireless services, from serving an important freeway corridor.

In *Sprint Spectrum L.P. v. Town of Easton*, 1997 WL 659375 (D. Mass. 1997) [Contact **Maine Municipal Association's Legal Services Department** for a copy of this], the federal district court for the District of Massachusetts found that the Town of Easton had violated Section 704 in three respects when the Zoning Board of Appeals denied Sprint Spectrum's application for a special permit to construct a 150 foot telecommunications tower for its PCS network, one being the unreasonable discrimination among providers of functionally equivalent services. In addition, the board's decision had the effect of prohibiting the provision of PCS services in the Easton area, also in violation of Section 704.

Practice Tips

Adopt policies that give providers as much advanced information as possible about the kinds of sites that will be considered acceptable so that applicants do not invest significant resources in developing plans for sites that will be unacceptable.

When the jurisdiction believes alternative sites are available, identify them in the written record.

Prepare written findings identifying every consideration that supports a denial. Don't rely solely on a transcript.

III. KEY ELEMENTS OF A TELECOMMUNICATION TOWERS ORDINANCE

Overview

To begin implementing the provisions of the 1996 Act, local governments must have or enact zoning ordinances that consider the placement of telecommunication towers in local communities. After reviewing the Act's provisions, local officials should have appropriate personnel review the locality's zoning ordinance. Many communities may find that they have no local ordinance regulating the placement of telecommunication towers, that their current ordinance completely prohibits towers, or that it is not designed to accommodate emerging technologies such as personal communications services. Any of these situations presents a problem for the municipality.

In the absence of an ordinance, the industry might argue that it has a right to place towers in any location in the community. On the other hand, an ordinance that bans the placement of towers anywhere in the community violates the 1996 Telecommunications Act if the ban prohibits access to the services provided by the industry.

In drafting or reviewing local zoning ordinances, municipalities should remember that they can regulate the placement, modification, and construction of a tower so long as the regulation does not preclude the ability of a consumer to use wireless services.

Otherwise, municipalities are free to enact ordinances that permit the placement of towers in accordance with the concerns and needs of the community.

While ordinances are as different as the city, town, or county for which they are written, local governments should consider the issues discussed below as they review and revise their ordinances. These examples are cited because they balance three important things: 1) the need to protect communities from the disadvantages of uncontrolled proliferation and placement of wireless facilities, 2) the legitimate desires of local citizens to access and use the new technologies as quickly as possible and 3) the legitimate right of businesses to exercise free trade. The International Municipal Lawyers Association (“IMLA”) Model Ordinance, Article 22-5, is a sample ordinance dealing with telecommunications towers [**Contact MMA’s Legal Services Department for a copy of this model ordinance**]. [Note that this sample ordinance does not regulate satellite dishes and antennas. Separate (and more restrictive) FCC regulations govern the local zoning of satellite dishes and antennas. See Section 207 of the Telecommunications Act of 1996: 61 Fed. Rea. 46557.]

A. Statement of Purposes

The statement of purposes should reflect the community’s needs assessment and identification of community benefit resulting from the regulation of telecommunication towers and facilities. It is important to ensure that the purposes outlined are consistent with the regulatory structure of the community. The statement of purposes may vary considerably based upon the differing needs of communities and the different views communities may have about the requirements of its residents, schools, government, and institutions.

B. Defining What is Covered by the Ordinance

The ordinance should provide a full and complete definition of what the ordinance intends to cover. Modern technology evolves so rapidly that trying to describe the full array of currently available wireless facilities is difficult. Several major types of facilities have been used for telecommunications transmissions, however. They include broadcasting towers, two-way radio towers, fixed point microwave dishes, commercial satellites and receiving dishes, and, most recently, cellular and PCS towers.

In order for local officials, industry representatives, and the public to engage in discussions about the siting of telecommunications facilities, and to make accurate decisions about their placement and construction, the ordinance should define each type of wireless facility and be amended, as necessary to accommodate technological changes.

C. Application Requirements

Application requirements and procedures for telecommunications providers requesting a permit to site a wireless facility are also of primary importance since a clear, concise application often can avert future problems. Jefferson County, Colorado provides an excellent explanation of what it requires from any tower applicant. Its provisions demonstrate serious research by the county's planning department and other local agencies and indicate that a fair and efficient review process is in place. Their ordinance requires that applicants provide:

- site and landscape plans drawn to scale;
- a report including a description of the tower with technical reasons for its design;
- documentation establishing the structural integrity for the tower's proposed uses;
- the general capacity of the tower, and information necessary to assure that ANSI standards are met;
- a statement of intent on whether excess space will be leased;
- proof of ownership of the proposed site or authorization to utilize it;
- copies of any easements necessary;
- an analysis of the area containing existing topographical contours; and
- a visual study depicting "where within a three mile radius any portion of the proposed tower could be seen."

D. Zoning Classifications

The drafter should examine whether in certain areas the use can be a permitted use or a conditional use and what the conditions of approval will be. There are generally three approaches to telecommunications tower zoning classifications. One is criteria-based regulation that allows telecommunications towers anywhere in town with a special permit. The regulations are geared toward protection of abutters and the aesthetics of the town. Towns that are almost completely residential in nature favor this approach. It

allows a certain fairness in town by not having to single out one residential neighborhood over another.

A second approach is to designate areas within the town where telecommunication towers will be allowed. This includes town-owned land, existing utility easements, industrial, and/or commercially zoned areas. Some towns allow facilities by right in industrial areas, while others require special permits.

A third approach is a combination of the two previous methods. This usually involves a wireless telecommunications facility overlay district that allows wireless facilities with fewer restrictions either by right or by a more streamlined special permit process. A wireless overlay district could include town-owned property, industrial areas, and commercially zoned areas. Under this approach, facilities are allowed anywhere in town outside the wireless district; however, structures are subject to the underlying zoning outside the overlay district. This often means special permits and variances for height are necessary because zoning seldom allows for a sufficient building height. Here are several practice tips with respect to the overlay method, which allows facilities throughout town but with the preferred location of the towers being in the overlay zone:

- *In an overlay district, make the zoning requirements easier to comply with.*
- *Develop separate criteria for towers and antennas.*
- *Don't forget to include utility rights of way and easements in an overlay district.*
- *Allow for a reasonable height restriction within the overlay district.*
- *Don't forget town-owned properties.*
- *Allow facilities that are completely hidden to be granted by right with a building permit only.*
- *Set up reasonable requirements for "falldown zones."*

E. Setback, Separation, and Buffering Requirements

Most ordinances require some setback from adjoining property lines. Setback distances are the minimum distance between the tower and the site's lot lines. These are

usually expressed as a percentage of tower height. In tower siting, setbacks are useful for their aesthetic impact and to establish safe zones for falling tower debris or collapse.

Prince George's County, Maryland has adopted an extensive ordinance with standards that affect the installation of towers, the equipment building, and accompanying landscaping. The ordinance includes a section that not only sets the height and the setback requirements, but also states what color the tower must be painted. Durham, North Carolina includes a special section on "Dimensions" in its ordinance. This section includes specific dimension requirement for towers as well as setbacks, minimum lot size and buffers. Like many other communities, the City of Roswell, Georgia adopted an ordinance requiring a setback equal to the height of the tower.

While scientists have conducted numerous studies, no study can successfully alleviate concerns with positive proof that there are absolutely no health risks associated with RF emissions emanating from antennas and other wireless facilities.

Some municipalities use setbacks in an effort to address the issue of potential health risks of electromagnetic radiation. For example, the Jefferson County, Colorado telecommunication plan suggests practical measures to reduce exposure to residents, such as placement of facilities on tall, existing towers or buildings, an adequate buffer separating towers from residential and commercial uses, and a calculation of expected radio frequency levels for the habitable structure nearest to the proposed tower. In Greenburgh, New York's ordinance, the health issue is addressed by creating a body to monitor antennas to make sure that federal emission standards are met. It is financed by an escrow account make up of a percentage of permit and leasing fees.

The IMLA Model Ordinance includes a number of setback, separation, and buffering requirements. The purpose of these is to reduce the visual impact of towers to the greatest extent possible and also, to a degree, to ensure safety in the event of a tower collapse.

F. Aesthetics

Another major consideration for many communities is the aesthetic quality of telecommunication towers and their compatibility with adjoining property. In order to maintain the aesthetic and historic nature of Mount Vernon, the home of George Washington, a telecommunication tower had been camouflaged as a tree. Other towers have been mounted on billboards or hidden in church steeples.

Jefferson County, Colorado established visual impact policies in its Telecommunications Plan. It devotes an entire section of its ordinance to minimizing the visual and noise impacts of communications equipment. It states that telecommunication facilities “should result in a minimal visual impact for those residents in the immediate area and for those in the larger community who view these facilities from a distance.” To assist communities in minimizing visual impact, the ordinance provides examples and measures that can be implemented for both new and existing structures. These include providing a three-year time period for existing sites to comply with requirements to make “equipment buildings compatible with the surrounding area by considering coloring, texture of materials, landscaping and screening.”

Landscaping, painting, and other miscellaneous requirements relating to the appearance of the structure and facilities constructed at the base of the structure are incorporated in the IMLA Model Ordinance again for the purpose of keeping the structure as unsightly as possible.

G. Design and Co-Location Requirements

Local ordinances often require service providers to maximize the use of an existing or proposed wireless tower through co-location. Co-location occurs when two or more providers place their transmitting facilities together in the same location or on the same tower or monopole. These facilities may provide identical, competing services or a variety of different telecommunications services. By using existing towers or poles, the need to erect new structures can be reduced and their overall visual presence in a jurisdiction can be minimized, without compromising their technical utility.

Although competitors may complain, most communications towers can—and typically do—carry several transmitters of different providers. A local government that wants to encourage co-location may want to provide incentives, such as a shorter processing time for applicants who are willing to locate on a tower that has already been approved. (This

would be based on the reasonable conclusion that such a site requires less additional evaluation compared to the legitimate evaluation and review needed for a new site.)

Another way to foster co-location is to require that service providers exhaust all possible avenues for sharing space before granting a permit for a new tower. Carroll County, Maryland's Ordinance No. 122 requires the applicant for a tower siting to show the need for the tower and to show that all alternatives to the construction of a new tower have been exhausted. The ordinance also requires the applicant to submit an affidavit stating that space on the proposed tower will be made available to future users when technically possible.

Local governments may specifically require in their ordinances that competitors cooperate and negotiate fairly with each other regarding co-location leases. To facilitate co-location among competitors, local governments also may request that providers in an area develop plans for co-location when building their systems. Service providers have been reluctant to engage in such collaborative planning; arguing that cooperation among competitors could raise antitrust concerns. Local governments have a right, however, to adopt ordinances that promote co-location among providers as long as they do not discriminate among them.

When construction of a new facility is needed, local governments may require that the structure be built with the capacity to enable co-location. The Wentzville, Missouri ordinance is a good example of this. It states, "If a tower is constructed, it shall be three times the capacity of intended use in order that secondary users could lease the balance of the tower capacity at a reasonable rate."

In Palm Beach County, Florida, tower applicants must send a certified-mail announcement to all other tower users in the area, stating their siting needs and/or sharing capabilities. Applicants cannot be denied space on a tower unless mechanical, structural, or regulatory factors prevent sharing.

Stealth design, co-location, and other requirements are included as part of the IMLA Model Ordinance to encourage the operator of the tower to utilize technologies, although possibly more expensive, that would reduce the visual impact of the tower by blending the tower into the surrounding area. The provisions also will help to reduce the number of

towers through a requirement of construction of towers capable of holding the facilities of a similar provider.

H. Joint Ventures and Use of Public Property

Local governments can invite private telecommunications providers to bid on the construction of towers which would be shared by the local government for public safety communications and by the telecommunications provider for its own needs.

Examples of joint ventures include: leasing space to telecommunications providers on an existing or new public safety tower; leasing space to telecommunications providers on public structures that are not otherwise used for telecommunications, such as a water tower or on top of a city or county office building, leasing street light stations and publicly-owned utility poles, or leasing publicly-owned land for construction of wireless facilities. Local governments also may consider constructing new towers on publicly owned lands expressly for the purpose of generating lease revenues from providers who will site their facilities on such towers.

A city or county that seeks to construct or lease public property for use by telecommunications providers must take care to subject its own site and structural plans to the same close scrutiny that it expects of outside applicants. Otherwise, its actions, though serving the public interest, may be challenged as discriminatory by wireless providers or private property owners.

Local governments should also remember that as a tower owner they may incur additional liabilities and that leasing public structures requires compatibility reviews. For example, if a single water tower serves the entire community, the risks of damage or water contamination may outweigh the benefits of co-location. Any structure that has a radio antenna on it that extends more than 20 feet above the structure also is subject to FCC and FAA aeronautical limitations and requirements and must be registered with the FCC by the owner. Moreover, federal law makes the tower owner, not just the wireless service provider, responsible for safety, compliance with FCC and FAA rules, and other regulations, including painting and lighting. In this context, the term “tower” includes any structure to which an antenna is attached, including buildings.

The management responsibilities involving multiple user antenna sites can be time-consuming, and the local government may wish to hire a site manager, using a percentage of the rental revenue.

I. Antenna Support Structure Requirements

The IMLA Model Ordinance contains provisions that deal with the construction of antennas and other similar telecommunications facilities on top or sides of buildings and other structures. For example, roofline and screening requirements are included for the purpose of reducing any adverse visual impacts and yet not causing a problem from an operation standpoint to the facilities themselves.

J. Lighting, Structural Integrity, and Extra jurisdictional Rights

Lighting for communication towers is required when the towers are tall enough to be under FAA regulation. The Jefferson Parish, Louisiana ordinance states, “When lighting is required and is permitted by the FAA or other federal or state authority, it shall be oriented inward so as not to project onto surrounding residential property.”

The ordinance prepared by the City of Durham, North Carolina requires all towers to comply with the lighting restrictions of the FAA and conform to all applicable building requirements. To ensure a tower’s structural integrity, Greenburgh, New York’s ordinance requires an operational certificate prepared by a professional engineer from the owner or operator of a new tower within 45 days of the initial operation. This certification must indicate compliance with all applicable regulations.

K. Modification or Variance of Requirements

Recognizing that there may be circumstances under which height of towers, setbacks, buffering, and other requirements may not make sense in particular locations, the IMLA Model Ordinance includes a mechanism that enables an applicant to seek a modification or variance to the requirements. For example, if it makes more sense to place a tower on a lot line when the lot line is adjacent to a large forested area that the tower could blend into, that location would be more preferable than placing the tower in the center of the property where it would stand out visually.

L. Radio Frequency (RF) Emissions

There is concern on the part of many property owners that microwave and radio frequency towers contain emissions that are hazardous to health. A local government may not regulate the placement, construction, and modification of telecommunications towers based upon the environmental effects of RF emissions because the FCC has exclusive jurisdiction in this area. However, a local government may help to allay citizen concerns about RF emissions by requiring the applicant to comply with the rules and standards of the FCC. *See* 62 Fed. Reg. 3232 (1996).

The FCC has proposed rules concerning procedures for preemption of local zoning decisions related to telecommunications facilities that impermissibly are based on RF emissions. The FCC has jurisdiction over any dispute where a telecommunications provider claims that a local government's zoning decision concerning such facilities was based on the environmental effects of RF emissions. *See* 62 Fed. Reg. 48034 (1997).

M. Abandonment of Towers

The IMLA Model Ordinance includes a provision that provides for the event that the tower goes into disuse or is simply abandoned. Under those circumstances, a local government must have the ability to remove the tower facility and follow procedures either locally or under state law, governing discontinued or abandoned properties.

IV. BIBLIOGRAPHY

The following resources provide further information on the local regulation of telecommunications towers:

(1) Barbara A. Adams, *Preparing Zoning Regulations for Wireless Services Communications Facilities*, International Municipal Lawyers Association Mid-Year Seminar Paper No. 41 (Apr. 1997);

(2) Ben Campanelli. *Cellular Tower Guide* (September 1997);

(3) Julie M. C. Friedlander, *Advising Local Zoning Authorities About Siting Personal Wireless Telecommunications Facilities After the Telecommunications Act of 1996*, International Municipal Lawyers Association Mid-Year Seminar Paper No. 40 (April 1997);

(4) John H. Gibbon, *The Telecommunications Act of 1996 and Its Impact on Municipal Regulation*, International Municipal Lawyers Association Conference Paper No. 68 (Oct. 1996);

(5) Adrian E. Herbst, *Get A Clear Picture of the New Telecommunications Act and Its Impact on Municipalities: Telecommunications Planning Including Zoning Control*, International Municipal Lawyers Association Conference Paper No. 49 (Oct. 1996);

(6) Kreines & Kreines, Inc., *Plan Wireless Newsletter*. Website:
<http://www.infinitefaculty.com/planwireless>;

(7) National League of Cities, *Local Official's Guide to Siting Cellular Towers: What You Need to Know/What You Need to Do* (1997); and

(8) Planning Commissioners Journal. *Wireless Towers*, No. 28 (Fall 1997).