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"Not in My Back Yard!" Restrictive Covenants as a Basis for Opposing the Construction of Cellular Towers

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In the past few years, all across the country, the telecommunications industry has been constructing towers to provide cellular phone services in record numbers. In fact, this industry has built so many of these "cell towers" that some observers have dubbed it "the pin-cushioning" of America. Other commentators have complained that the unsightly towers are appearing "like mushrooms after the rain."

Putting aside the objectionable aesthetics of the situation, one might wonder why this phenomenon would engender much concern or comment. Yet there is growing

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^{1.} The Federal Communications Commission estimates that the U.S. currently has approximately 22,000 cell towers serving more than 30 million customers. See Tux Turkel, Towering Issue as Wireless Communication Expands, Thousands of New Antennas Are on the Horizon, Portland Press Herald, Oct. 26, 1997, at 1F. With the list of customers growing at the rate of about 30% per year, the demand for thousands of new antennas is inevitable. See id. One source estimates that the telecommunications industry will require 140,000 sites for these towers by the year 2005. See CWA & The EMR Alliance, Your Community Guide to Cellular Phone Towers 15 (Dec. 1996) [hereinafter Community Guide to Cellular Phone Towers].

^{2.} See Steve Adams, Companies Asked To Put Towers on Hold, THE PATRIOT LEDGER, Oct. 8, 1997, at 17 (noting the neighbors often object to the height and appearance of towers, and reporting a comment that one area was "becoming a pincushion for these towers"); News, THE BATON ROUGE ADVOCATE, Oct. 16, 1997, at 2B (reporting adoption of an ordinance requiring co-location of towers to avoid the possibility of the area "looking like a pin cushion"); Counties Flex Power Over Cellular Towers, Business-North Carolina, June 1, 1997 (noting that "[n]o one wants to end up a pin cushion stuck full of 200-foot pins").

^{3.} Philip E. Harriman, Editorial, Cellular Towers Should Be Brought Under State and Local Regulations, PORTLAND PRESS HERALD, Sept. 25, 1997, at 11A ("As we drive on the highways and byways of America today, we see communication towers sprouting like mushrooms after the rain.").

evidence that cell towers might pose significant health risks to those who live in proximity to them.⁴ Such a possibility suggests that we should proceed with caution when constructing towers, particularly in residential neighborhoods.

However, despite the fact that towers are being constructed in record numbers, regulation governing the construction and placement of such towers is, at best, haphazard. Federal law in particular is less than helpful. In 1996, Congress enacted an impressive piece of legislation entitled the Telecommunications Act of 1996 ("the 1996 Act"). Buried among its provisions is a restriction that prevents state and local governments from regulating the placement of cell towers on the basis of "environmental effects." While the proper interpretation of this prohibition may be subject to debate, the prohibition is clearly not helpful to people who are concerned with the issue of whether cell towers should be constructed in residential neighborhoods.

In fact, regardless of how one ultimately views the 1996 Act, it is quite clear that it does not provide much affirmative guidance as to where cell towers should be located. This means that people interested in placement of cell towers must turn to state and local rules for answers. Obviously, the first and most logical source of such rules is zoning and similar land use regulations. Unfortunately, the technological developments in this area have out-paced the efforts of those responsible for promulgating traditional land use regulations. As a result, many communities do not have zoning ordinances or other requirements in place to govern the placement of cell towers. Although numerous communities have adopted temporary moratoria on cell tower construction

^{4.} See infra notes 148-91 and accompanying text (discussing the potential health concerns posed by cell towers).

^{5.} Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified at various sections of 47 U.S.C.).

^{6. 47} U.S.C.A. § 332(c)(7)(B)(iv) (Supp. 1998).

^{7.} See infra Part I (discussing the 1996 Act more thoroughly).

^{8.} The proliferation of towers has basically caught many communities unprepared to deal with proposed construction projects. Stories in the press have emphasized the fact that planning boards in many areas "have not anticipated this new, exploding industry and therefore are not equipped to handle the challenges they face between federal mandated rights the cellular industry secured and the quality of life we expect local town councils and planning boards to preserve." Harriman, *supra* note 3, at 11A.

so that they can study this issue, there are still untold thousands of towns and other areas where the placement of cell towers is virtually unregulated.

Where does this leave the average citizen, living in an unregulated jurisdiction, who learns that a cellular service provider intends to locate a cell tower in his or her neighborhood? One possibility, which may not be immediately obvious, is that existing restrictive covenants may provide some basis for limiting the placement of cell towers in residential areas. Obviously, this technique will only work in areas where restrictive covenants are already in place. In addition, the applicability of these covenants may be questionable, given that they were almost certainly drafted before the proliferation of cell towers. Nevertheless, the dearth of federal, state or local regulation leaves relatively few options for concerned persons wishing to oppose the construction of cell towers in their back yards. Therefore, it is worth considering the potential impact of restrictive covenants on cell tower construction.

The first part of this Article reviews the Telecommunications Act of 1996¹¹ as it applies to the construction of cell towers. In particular, it focuses on the extent to which the 1996 Act preempts or otherwise limits state and local governments' authority to regulate the placement of such towers. The second part of this Article explains how various restrictive covenants might be used to oppose the placement

^{9.} See infra notes 115-29 and accompanying text.

^{10.} The fact that planning board and zoning requirements may be insufficient to protect the quality of life is precisely the reason that restrictive covenants are so common. One source describes the situations as follows:

[[]S]ubdivision developers who seek to make the area more desirable for potential buyers have frequently incorporated a wide variety of restrictions in the deeds of the individual lots, usually seeking to maintain a pleasant residential atmosphere. For example, some very common restrictions limit the use of the property to residences, provide for a setback so that all structures built within the subdivision are set back from the street and separated from adjoining structures by a specified distance, or disallow multiple dwellings, trailers, signs, or offensive uses. These covenant restrictions are ordinarily placed in all the subdivision deeds, and thus they are enforceable through an injunctive action by any one of the buyers against violations or threatened violations by any one of the other buyers.

Jay M. Zitter, Annotation, Waiver of Right To Enforce Restrictive Covenant by Failure to Object to Other Violations, 25 A.L.R.5th 123, 144 (1995) (citation omitted).

^{11.} Pub. L. No. 104-104, 110 Stat. 56 (codified at various sections of 47 U.S.C.).

of towers. The third part reviews briefly the question of who will have standing to enforce restrictive covenants that might be applicable. The final part raises an issue which may be important in some instances—the question of whether restrictive covenants can be invoked to preclude the construction of towers on land if other similar towers are already located in the area.

I. THE TELECOMMUNICATIONS ACT OF 1996 AND LIMITS ON STATE AND LOCAL AUTHORITY TO REGULATE THE PLACEMENT OF TOWERS

A. How Does the Act Relate to Cellular Towers?

The 1996 Act must factor into any discussion of how to oppose construction of cell towers. This Act represents the first major revision to federal telecommunications law since 1934, and it contains provisions which address such diverse issues as interstate telephone services, cable rates, obscene or harassing use of telecommunications facilities and parental choice. Most of the commentary on the 1996 Act focuses on these provisions, that the truth is that the 1996 Act also includes some very important limitations on the right of state and local governments, and instrumentalities thereof, to regulate the placement of wireless service facilities, such as cell towers. Although the portion of the 1996 Act which regulates the provision of wireless services and facilities, such as cell towers, expressly states that local zoning

^{12.} See id.

^{13.} Phillip Rosario & Mark F. Kohler, *The Telecommunications Act of 1996: A State Perspective*, 29 CONN. L. REV. 331 (1997) (describing in detail the various aspects of the Act).

^{14.} See, e.g., Thomas G. Krattenmaker, The Telecommunications Act of 1996, 29 CONN. L. REV. 123 (1996). The fact that these provisions have received the bulk of attention has been remarked upon by other commentators.

One provision of the 1996 Act has received very little attention. Section 704 of the Act limits the authority of state and local governments to regulate the siting of wireless telecommunications towers and other facilities. This oversight is quite understandable given the enormity of the many other issues that the Act attempts to tackle.

Rosario & Kohler, supra note 13, at 347 (citation omitted).

^{15. 47} U.S.C.A. § 332(c)(7)(C)(ii) (Supp. 1998) (defining the term "personal wireless service facilities" to mean "facilities for the provision of personal wireless services").

authority is to be preserved "[e]xcept as provided" in the statute, ¹⁶ the 1996 Act clearly preempts certain types of state action. In particular, state and local authorities are precluded from regulating "the placement, construction, and modification of personal wireless service facilities" in any manner which: (1) discriminates among service providers; (2) prohibits the provision of personal wireless services; (3) unreasonably delays approval of such developments; or (4) regulates the "placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions."¹⁷

Essentially, the 1996 Act preempts state and local authority to do three things: discriminate among service providers, deny or unreasonably delay the provision of wireless services and regulate "the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the [Federal Communication] Commission's regulations concerning such emissions." The effect of these rules is to limit state and local authority to regulate the placement of wireless service facilities—including cell towers.

^{16. &}quot;Except as provided in this paragraph, nothing in this chapter shall limit or affect the authority of a State or local government or instrumentality thereof over decisions regarding the placement, construction, and modification of personal wireless service facilities." 47 U.S.C.A. § 332(c)(7)(A) (Supp. 1998).

^{17.} In pertinent part, 47 U.S.C.A. § 332(c)(7)(B) (Supp. 1998) reads as follows:

⁽i) The regulation of the placement, construction, and modification of personal wireless service facilities by any State or local government or instrumentality thereof—

⁽I) shall not unreasonably discriminate among providers of functionally equivalent services; and

⁽II) shall not prohibit or have the effect of prohibiting the provision of personal wireless services.

⁽ii) A State or local government or instrumentality thereof shall 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 with such government or instrumentality, taking into account the nature and scope of such request.

⁽iv) No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions.

However, the 1996 Act does not preempt *all* state and local authority to regulate such placement. Indeed, the Conference Report explains that Congress intended that state and local authorities would retain the right to "treat facilities that create different visual, aesthetic, or safety concerns differently to the extent permitted under generally applicable zoning requirements...." In the words of certain commentators, "while state or local authorities may not altogether preclude the siting of a telecommunications tower, they may still restrict the siting of such towers from places that would result in significant adverse environmental or aesthetic impacts." ²⁰

In light of the foregoing, it remains unclear what state and local governments may and may not do in this area. Obviously, they cannot adopt rules that would discriminate among providers, and they cannot adopt rules that would preclude the provision of wireless services. The only other limitation on state and local governments is that they may not regulate radio frequency (also referred to as "RF") emissions in ways that are inconsistent with the national standards adopted by the FCC. The FCC has confirmed the limited nature of the 1996 Act's express prohibitions by recognizing that the 1996 Act was intended to establish a "framework for the exercise of jurisdiction by state and local zoning authorities over the construction, modification and placement of facilities for personal wireless facilities."²¹

The foregoing discussion, however, focuses primarily on the authority retained by state and local governments. The question of whether the 1996 Act expressly or impliedly preempts the power of private citizens to enforce restrictive covenants on their land is slightly different. It does not seem likely that private restrictive covenants would either discriminate among service providers or have the effect of denving adequate sites to wireless service providers. As a

^{19.} H.R. CONF. REP. No. 104-458, at 208 (1996), reprinted in 1996 U.S.C.C.A.N. 124, 222.

^{20.} Rosario & Kohler, supra note 13, at 350; see also John M. Phelen et al., Symposium, Panel III: Implications of the New Telecommunications Legislation, 6 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 517, 540-41 (1996) ("The 1996 Act affirms that local governments have the authority to determine, in a reasonable non-discriminatory manner, the placement of mobile services and wireless common carrier sites.").

^{21.} Wireless Telecommunications Bureau, FCC, Fact Sheet # 2, at 1 [hereinafter FCC Fact Sheet # 2] (on file with author and the $Buffalo\ Law\ Review$).

result, the only possible grounds for challenging the enforcement of restrictive covenants would be to argue that such enforcement amounts to a prohibited regulation of "the placement, construction, and modification of personal wireless service facilities on the basis of the environmental

effects of radio frequency emissions."²²

Although it is highly unlikely that the terms of any restrictive covenant will speak directly to RF emission standards for cell towers, it is possible that restrictive covenants might have an indirect impact based partly on such emissions. For example, if a restrictive covenant prohibited offensive or noxious activities, a neighboring landowner might argue that the RF emissions of a cell tower violate the restriction.²³ It might also be argued that such an application of a restrictive covenant would represent an impermissible, indirect regulation of cell towers based on the environmental effects of the tower's radio emissions.

Most of the arguments about whether restrictive covenants should apply to cell towers will likely have nothing to do with RF emissions or their environmental effects. Yet it is possible that these kinds of arguments could be made in a lawsuit wherein the plaintiffs, relying on a restrictive covenant, opposed the construction of cell towers. It is therefore worth considering whether the 1996 Act preempts states from enforcing private restrictive covenants where the plaintiffs to the action are, in whole or in part, trying to enforce a restrictive covenant on the basis of the RF emissions from cell towers.

B. Does the 1996 Act Preempt State Enforcement of Restrictive Covenants that Would Affect the Placement of Cellular Towers Based in Whole or in Part on Radio Frequency Emissions?

The Supremacy Clause of the United States Constitution provides that "the Laws of the United States... shall be the supreme Law of the Land... any Thing in the Constitution or Laws of any State to the Contrary notwithstanding." Congress clearly possesses the power to preempt state law

^{22. 47} U.S.C.A. § 332(c)(7)(B)(iv) (Supp. 1998).

^{23.} For one way in which such an argument might be made see Part II.B. of this Article.

^{24.} U.S. CONST. art. VI, cl. 2.

pursuant to this provision.

There are essentially three situations in which federal preemption of state law can occur: (1) express preemption, where Congress expressly preempts state law; (2) field preemption, where Congress occupies the entire field; and (3) conflict preemption, where there is an actual conflict between federal and state law. The latter two forms of preemption (field and conflict preemption) are both implied rather than explicit forms of preemption.²⁵ In an appropriate case, state tort claims can fall within the preemptive reach of a federal statute.²⁶

In any case where preemption is a possibility, the critical inquiry is whether Congress intended federal law to supersede state law.²⁷ The general presumption is that preemption "will not lie unless it is the 'clear and manifest purpose of Congress."²⁸ In addition, in considering whether a particular matter has indeed been preempted, one must start with the assumption that subjects which have traditionally been subject to state regulation will not be preempted by federal law unless that is the clear and manifest purpose of Congress.²⁹

In this case, the 1996 Act itself recognizes congressional policy to preserve state and local authority over placement of wireless facilities.³⁰ In addition, the legislative history of the

^{25.} See Gade v. National Solid Wastes Management Ass'n, 505 U.S. 88, 98 (1992).

^{26.} See CSX Transp., Inc. v. Easterwood, 507 U.S. 658, 661-62, 664 (1993) (finding that "[l]egal duties imposed on railroads by the common law fall within the scope of" 45 U.S.C. § 434, preempting any state "law, rule, regulation, order, or standard relating to railroad safety"); Cipollone v. Liggett Group, Inc., 505 U.S. 504, 520-23 (1992) (holding that the preemptive reach of the Public Health Cigarette Smoking Act of 1969, § 5(b), Pub. L. No. 91-222, 84 Stat. 87 (codified as amended at 15 U.S.C. § 1334(b) (1994)), is not limited to positive enactments by legislatures and agencies but may also include certain state law damage actions).

^{27.} See Cipollone, 505 U.S. at 516.

^{28.} Easterwood, 507 U.S. at 664 (quoting Rice v. Santa Fe Elevator Corp., 331 U.S. 218 (1947)).

^{29.} See Cipollone, 505 U.S. at 516 (citing Rice, 331 U.S. at 230); see also Medtronic, Inc. v. Lohr, 518 U.S. 470, 485 (1996) ("because the States are independent sovereigns in our federal system, we have long presumed that Congress does not cavalierly pre-empt state-law causes of action"); Easterwood, 507 U.S. at 663-64 ("In the interest of avoiding unintended encroachment on the authority of the States, however, a court interpreting a federal statute pertaining to a subject traditionally governed by state law will be reluctant to find pre-emption."); California Fed. Sav. & Loan Ass'n v. Guerra, 479 U.S. 272, 280-81 (1987)

^{30. 47} U.S.C.A. § 332(c)(7)(A) (Supp. 1998).

1996 Act confirms that Congress did not intend to usurp state and local authority, save for certain narrow provisions set forth in the statute. Similarly, the larger piece of legislation into which the 1996 Act was incorporated, the Communications Act of 1934, also preserves common law rights and remedies.

The extent of the 1996 Act's potential preemptive effect, then, should be evaluated in light of the fact that zoning and land use regulation have traditionally been matters left to state and local law.³⁴ Certainly, states have traditionally regulated land use, and siting authority for projects such as the construction of cell towers has typically been left to states or local governments.³⁵ Thus, there is every reason to believe that the 1996 Act's preemption of state law is limited, and does not extend to judicial enforcement of privately imposed restrictive covenants.

With regard to the possibility of express preemption, there are essentially three reasons why the 1996 Act should not be interpreted to prevent enforcement of private deed restrictions. First, authority suggests that preemption should always be narrowly construed. There is nothing in the context of the 1996 Act which suggests that this general presumption should not apply, and, indeed, because enforceability of private deed restrictions has traditionally been a matter of state law, there is additional force to the argument that this is not a case where preemption should be broadly construed.

Second, and perhaps more importantly, there is the

^{31.} See H.R. Rep. No. 104-458, at 208 (1996), reprinted in 1996 U.S.C.C.A.N. 124, 222 ("The conference agreement creates a new section 704 which . . . 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.").

^{32.} Pub. L. No. 73-416, 48 Stat. 1064 (codified as amended at 47 U.S.C. § 154-614 (1994) (containing chapter 5 of title 47, subtitled "Wire or Radio Communication").

^{33.} The Communications Act of 1934 specifies that "[n]othing in this chapter contained shall in any way abridge or alter the remedies now existing at common law or by statute, but the provisions of this chapter are in addition to such remedies." 47 U.S.C. § 414 (1994). The 1996 Act did not change or limit this language. See 47 U.S.C.A. § 414 (Supp. 1998).

^{34.} See ROBERT R. WRIGHT & MORTON GITLEMAN, LAND USE, CASES AND MATERIALS 955-57 (5th ed. 1997) ("Normally, we do not think of the federal government setting out to override local land use regulations"); see also id. at 956 n.3 (discussing the Telecommunications Act of 1996).

^{35.} See id. at 955-57.

^{36.} See id.

language of the statute itself. The section of the 1996 Act that contains the limited preemption of state regulatory authority is entitled "Preservation of Local Zoning Authority." This supports the idea that the general effect of the following language is to regulate zoning authority over cell towers and not other limitations on the placement of such facilities.

This conclusion is also bolstered by the inclusion of the 1996 Act within the Communications Act of 1934. Because the Communications Act itself contains language which preserves the "remedies now existing at common law" and further provides that the federal statutory remedies are "in addition to such remedies," it seems obvious that the federal preemption of state authority to regulate cell tower placement should be narrowly construed.

Prior case law confirms that this reservation of rights generally means that private causes of action under state law should not be considered to be impaired by the Federal Communications Act, into which the 1996 Act has been incorporated. For example, in Ashley v. Southwestern Bell Telephone Co., 39 the court stated that pursuant to section 414 of the Communications Act:

[F]ederal remedies, therefore, are cumulative to those already existing at common law or by statute. While the national government may have preempted the field in regulation of telephone and wire communication systems under the Communications Act, the Act was not designed as a new code for the adjustment of private rights.

Obviously, *Ashley* was decided before the enactment of the 1996 Act, and does not specifically refer to the new provisions that have been codified as part of that legislation. The reasoning of the court, however, continues to be valid.

The 1996 Act was enacted and incorporated as part of the overall Communications Act. It does not include an express preemption of private rights of action under state law. It is not designed as a "new code for the adjustment of private

^{37. 47} U.S.C.A. § 332(c)(7) (Supp. 1998).

^{38. 47} U.S.C.A. § 414 (Supp. 1998). This provision actually states that "nothing in this chapter" shall abridge such rights, and the provisions of the 1996 Act which might arguably preempt state law relating to cell towers are certainly codified in this chapter. *Id.*

^{39. 410} F. Supp. 1389, 1393 (W.D. Tex. 1976).

^{40.} Id

^{41.} See, e.g., 47 U.S.C.A. § 332(c)(7)(B)(iv) (Supp. 1998).

rights." It did not amend, repeal or supersede section 414 of the Communications Act. Instead, the new provisions are very narrowly tailored to focus on the rights of state and local governments to exercise their zoning authority, and that is how the statue should be interpreted—in accordance with its

plain language.

Finally, express preemption is made highly unlikely by the fact that Congress did not elect to state within the 1996 Act that the preemptive effect of the Act would reach private restrictive covenants, or state law actions designed to enforce such actions. In fact, there is ample authority to support the argument that Congress knows how to extend preemption to private causes of action or state court actions when it wishes to do so. 42 Thus, failure to include language evidencing this intent is itself evidence that preemption should not be interpreted so broadly. Given the failure of the 1996 Act to include language relating to such private restrictions and causes of action, and the complete absence of any legislative history suggesting that Congress intended the 1996 Act to reach so broadly, the obvious conclusion is that the 1996 Act does not expressly preempt enforcement of restrictive covenants, even if the restrictive covenants might in some sense result in regulation based in part on RF emissions.

The next potential argument is that through field preemption, the 1996 Act impliedly preempts state enforcement of restrictive covenants. The issue of implied preemption is one which has recently been addressed by the Supreme Court, albeit in connection with a federal statute which is far different from the Telecommunications Act of 1996.

In Cipollone v. Liggett Group, Inc., 43 the Court considered the viability of state law claims made by and on behalf of

^{42.} If Congress had intended in that clause to preclude state tort claims, it could have easily achieved this result. See Medtronic Inc. v. Lohr, 518 U.S. 470, 487 (1996) ("[I]f Congress intended to preclude all common-law causes of action, it chose a singularly odd word ['requirement'] with which to do it. The statute [21 U.S.C. § 360k(a)] would have achieved an identical result, for instance, if it had precluded any 'remedy' under state law relating to medical devices."); see also Taylor v. General Motors Corp., 875 F.2d 816, 824 (11th Cir. 1989) ("An additional factor militating against a finding that the language of the Safety Act expressly preempts appellants' claims is that Congress did not make explicit reference to state common law in the Act's preemption clause as it has in the preemption clauses of many other statutes. Congress has long demonstrated an aptitude for expressly barring common law actions when it so desires.").

43. 505 U.S. 504 (1992).

former smoker and lung cancer victim Rose Cipollone against various cigarette manufacturers. The manufacturers in *Cipollone* had asserted that the Federal Cigarette Labeling and Advertisement Act and its successor, the Public Health Cigarette Smoking Act, 44 protected them from liability based on their conduct after enactment of this legislation. The Court in *Cipollone* determined that the preemptive scope of these acts was to be governed entirely by the preemption clauses contained in the legislation. In reaching this conclusion, the court stated as follows:

When Congress has considered the issue of pre-emption and has included in the enacted legislation a provision explicitly addressing that issue, and when that provision provides a "reliable indicium of congressional intent with respect to state authority"... "there is no need to infer congressional intent to pre-empt state laws from the substantive provisions" of the legislation. Such reasoning is a variant of the familiar principle of expression unius est exclusio alterius: Congress' enactment of a provision defining the pre-emptive reach of a statute implies that matters beyond that reach are not pre-empted.

In a later decision, however, the United States Supreme Court clarified *Cipollone*, and explained that the fact that there is limited express preemption does not completely preclude the possibility of implied preemption; rather, the Court explained, "*Cipollone* supports an inference that an express pre-emption clause forecloses implied preemption"

In connection with the 1996 Act, there simply is no reason for courts to imply preemption beyond the confines of the statute. *Cipollone* stands for the rule that there is a presumption against expanding the scope of the express preemption, and that there is no justification for taking an extremely narrow express preemption and expanding it to

occupy the field.

First and foremost, then, it is worth noting that the extent of the 1996 Act's express preemption is extremely curtailed. The 1996 Act specifically provides: "Except as provided in this paragraph, nothing in this chapter shall limit or affect the authority of a State or local government or

45. Cipollone, 505 U.S. at 517.

^{44.} See 15 U.S.C. § 1331 (1994) (codifying provisions of the Act).

^{46.} Freightliner Corp. v. Myrick, 514 U.S. 280, 288-89 (1995).

instrumentality thereof over decisions regarding the placement, construction, and modification of wireless service facilities." Moreover, legislative history is quite consistent with the finding that Congress intended a very narrow preemption of state law. Under these circumstances, there is little room to argue that Congress has impliedly preempted the field.

Finally, there does not seem to be a valid argument in favor of implied conflict preemption. Implied conflict preemption can occur in essentially two instances: (1) where it is impossible to comply with both state and federal requirements or (2) where state law obstructs Congressional objectives.49 In the case of the 1996 Act and its impact on the regulation of cell towers, it should be obvious that it would not be impossible to comply with federal requirements and privately imposed restrictive covenants as well. State enforcement of private deed restrictions might mean that wireless service providers would not be able to place towers in every neighborhood; it might also mean that they might have to adopt service plans that are not always optimally efficient. However, the 1996 Act does not guarantee wireless service providers the right to place towers wherever they wish. Instead, the 1996 Act merely prevents state and local governments from exercising their zoning powers to discriminate among providers in a manner which would result in the denial of wireless services, or to regulate placement of facilities based on environmental effects of RF emissions. Preservation of this statutory scheme is not inconsistent with enforcing private restrictive covenants, even if such an enforcement would require a court to consider the effects of RF emissions.

As of the date of this writing, only one reported appellate decision directly addresses the issue of whether the 1996 Act preempts private causes of action not involving zoning or land use regulation. In *Kapton v. Bell Atlantic Nynex Mobile*, ⁵⁰ the court heard an appeal from a trial court's ruling that a property owner's nuisance claim, based on the health risks posed by RF transmissions, was preempted by the 1996 Act. ⁵¹ Unfortunately, the plaintiff abandoned her claims

^{47. 47} U.S.C.A. § 332(c)(7)(A) (Supp. 1998).

^{48.} See supra note 31 and accompanying text.

^{49.} See Myrick, 514 U.S. at 287.

^{50. 700} A.2d 581 (Pa. Commw. Ct. 1997).

^{51.} Id.

before the appeal, and a majority of the court concluded "we need not determine the preemption issue" because the appellant had voluntarily abandoned any claims arising out of the health effects of the electromagnetic radiation.⁵²

However, Judge Kelley, writing in dissent, did reach the issue of preemption and concluded that the 1996 Act would not preempt a private cause of action sounding in nuisance.⁵³

Thus, to achieve the stated purposes of the Act, the Federal Congress has specifically limited the ability of a state or local government to regulate the placement or construction of personal wireless service facilities, and has afforded providers of such services with a form of redress should a state or local government violate the provisions of the Act.... However, Congress has also specifically stated that the provisions of the Act do not "[i]n any way abridge or alter the remedies now existing at common law or by statute...." Clearly, the provisions of section 332 of the Act do not eliminate or affect the ability of Appellant to maintain an action sounding in nuisance under the law of Pennsylvania.

The authority that exists to date therefore suggests that private citizens should be able to oppose the construction of cell towers by relying on existing restrictive covenants, or indeed by making other objections under state law. While the 1996 Act clearly preempts some types of state action, including the adoption of zoning regulations based on the environmental effect of RF emissions, the preemptive scope of the 1996 Act should not extend to judicial enforcement of restrictive covenants.

C. Preemption of Related State Law Claims: FCC Authority over Satellite Receivers and Claims Involving Radio Frequency Interference

Although *Kapton* is the only reported case to date which deals directly with the issue of the 1996 Act's preemptive effect on private causes of action that may turn on the health effects of RF emissions from cell towers, there are other analogous instances in which the FCC's authority to regulate has given rise to claims of federal preemption of state law claims. In order to understand the 1996 Act's preemptive

^{52.} Id. at 583-84.

^{53.} Id. at 583-87 (Kelley, J., dissenting) (citation omitted).

^{54.} Id. at 587 (Kelley, J., dissenting).

scope, an examination of some of those cases is in order. One analogous series of cases deals with federal preemption of state and local zoning laws and regulations that govern the placement of satellite receivers and similar antennas.⁵⁵

In the early 1980s, the FCC determined that local regulation of satellite facilities might interfere with various rights recognized by Congress in the Cable Communications Policy Act of 1984. Therefore, the FCC promulgated a regulation that expressly preempted certain local ordinances. In pertinent part, this FCC regulation provides:

(a) Any state or local zoning, land-use, building, or similar regulation that materially limits transmission or reception by satellite earth station antennas, or imposes more than minimal costs on users of such antennas, is preempted unless the promulgating authority can demonstrate that such regulation is reasonable, except that non-federal regulation of radio frequency emissions is not preempted by this section. For purposes of this paragraph (a), reasonable means that the local regulation: (1) Has a clearly defined health, safety or aesthetic objective that is stated in the text of the regulation itself; and (2) Furthers the stated health, safety or aesthetic objective without unnecessarily burdening the federal interests in ensuring access to satellite services and in promoting fair and effective competition among competing communications service providers.

This FCC regulation is particularly relevant to the issue of determining whether the 1996 Act preempts the enforcement of private restrictive covenants against the construction of cell towers because of the way in which its limitation language resembles the limitations on "state and local zoning" found in the 1996 Act. In fact, an analysis of the cases decided pursuant to this FCC regulation indicates that preemption of such zoning authority should not ordinarily extend to privately imposed restrictive covenants.

The cases are in agreement that the above-cited FCC regulation does in fact preempt certain state and local zoning authority.⁵⁸ Of course, an ordinance which complies with the

^{55.} See 47 C.F.R. § 25.104 (1997).

^{56. 47} U.S.C. § 605(b) (1994). The Cable Communications Policy Act of 1984 left intact preexisting prohibitions against the unauthorized use of radio or wire communications, but added an exemption for the interception or receipt of satellite cable programming for private viewing. See id.

^{57. 47} C.F.R. § 25.104 (1997).

^{58.} See, e.g., Loschiavo v. City of Dearborn, 33 F.3d 548, 552 (6th Cir. 1994)

affirmative requirements of the regulation will be upheld, but any ordinance in violation of the FCC regulation will be preempted and state courts will be without jurisdictional authority to enforce any ordinance adopted in contravention of the FCC's requirements. Several cases interpreting the FCC regulation are of interest because they address the issue of whether this preemption extends to judicial enforcement of private restrictive covenants—an enforcement that would affect the placement of satellite dishes and similar facilities. The courts in all of these cases have held that the FCC regulation's preemptive effect does *not* extend so far as to preempt privately arranged land use restrictions.

Brentmoor Place Residents Association v. Warren⁶¹ is a case illustrative of this line of decisions. In Brentmoor Place, the homeowners' association filed an action for injunctive relief against one of the neighborhood's homeowners, Mr. Warren, alleging that he had installed a satellite dish antenna in violation of restrictive covenants.⁶² In response, the Warrens alleged, among other things, that the FCC had preempted these kinds of attempts to regulate the placement of satellite receivers.⁶³ They cited in support of this argument the FCC regulation that by its terms preempts "State and local government zoning."⁶⁴ In rejecting the contention that enforcement of such privately arranged restrictions had been preempted, the court stated:

The restrictive covenant... gave the [Homeowners' Association] Board authority to deny the Warrens' request to install the

⁽involving a zoning ordinance forbidding antennas exceeding certain size limitations); Town of Deerfield v. FCC, 992 F.2d 420 (2d Cir. 1993) (preempting town ordinance prohibiting satellite dish or tower-type antennas from being erected on any lot under one-half acre; immediate issue dealt with FCC's refusal to issue an order prior to final judicial determination of issue); Neufeld v. City of Baltimore, 820 F. Supp. 963, 968-69 (D. Md. 1993), aff'd on reconsideration, 863 F. Supp. 255 (D. Md. 1994) (involving zoning ordinance regulating size of satellite dishes).

^{59.} See, e.g., Abbott v. City of Cape Canaveral, 840 F. Supp. 880, 884-85 (M.D. Fla. 1994) (upholding municipal ordinance regulating placement of satellite dishes).

^{60.} See Brentmoor Place Residents Ass'n v. Warren, 816 S.W.2d 7, 11 (Mo. App. 1991); Breeling v. Churchill, 423 N.W.2d 469, 471 (Neb. 1988); Ross v. Hatfield, 640 F. Supp. 708, 712 (D. Kan. 1986).

^{61. 816} S.W.2d 7 (D. Kan. 1986).

^{62.} Id. at 9.

^{63.} See id. at 11.

^{64.} Id.

satellite dish antenna. That restrictive covenant cannot be deemed "state and local government zoning," or other state and local government regulation; rather it is a private contractual obligation. 65

Similarly, in Ross v. Hatfield, 666 the plaintiff homeowner wanted to place a satellite receiver on his land in violation of restrictive covenants. The court stated, "[p]laintiffs' complaint alleges that defendants' threatened judicial enforcement of the covenant would impede the federal scheme of preemption under the Communications Act of 1934...." Reciting the rule that "federal law preempts state law where the state law stands as an obstacle to the accomplishment of the purposes and objectives of Congress," the court refused to extend the preemptive reach of the FCC regulation of state and local zoning to private restrictive covenants.

A new federal regulation adopted by the Federal Communications Commission implementing the Communications Act provides that only "state and local zoning or other regulations"... are preempted It is clear then that in order to bring their reemption claims, plaintiffs must allege a state or local law or ordinance, or at a minimum some equivalent state action [P]laintiffs have alleged only the existence of a private covenant ... There being no state action or state law to be preempted in this case, we hold that this court lacks subject matter jurisdiction to hear plaintiffs' preemption claims.

These cases support the conclusion that the preemptive reach of the 1996 Act should not extend so far as to preclude judicial enforcement of privately negotiated restrictive covenants. The type of state action involved in the enforcement of such privately arranged restrictions is simply not equivalent to the adoption of zoning ordinances and similar land use regulations.

There is also case law involving claims of federal preemption where the underlying issue deals with allegations of radio frequency interference (or "RFI"). In *In re Graeme*, ⁷¹

^{65.} Id. (citation omitted).

^{66. 640} F. Supp. 708 (D. Kan. 1986).

^{67.} Id. at 712.

^{68.} Id.

^{69.} Id.

^{70.} See In re Graeme, 975 F. Supp. 570 (D. Vt. 1997); Broyde v. Gotham Tower,

a case which was decided after enactment of the 1996 Act. the court offered a fairly detailed discussion of this issue. In Graeme, the city zoning administrator issued a notice of violation to a radio station operator, alleging that the operation of the broadcast facility caused interference with electronic devices in violation of the terms and conditions of the radio station's zoning permit.72 At the hearing on the notice, the zoning authority found that the radio station had caused "continuous and widespread" radio frequency interference. 73 However, the authority also found that it had no jurisdiction to enforce the zoning condition because the FCC had exclusive jurisdiction over claims of radio frequency interference.74 The neighbors appealed that determination, and the radio station responded with the contention that "the Federal Communications Act preempts the Neighbors' zoning appeal."75

After observing that "Congressional Intent is the 'ultimate touchstone' of preemption analysis," the district court noted that the "Federal Communications Act of 1934 (as amended) does not contain an express provision preempting state or local regulation of radio frequency interference." However, the court also found that the Act was a "unified and comprehensive regulatory system" pursuant to which the FCC had been given "statutory authority to regulate the transmission of radio energy that creates interference." The court also noted that Congress had specifically authorized the FCC to establish "minimum performance standards for home electronic equipment and

Inc., 13 F.3d 994 (6th Cir. 1994); Still v. Michaels, 791 F. Supp. 248 (D. Ariz. 1992); Winfield Village Coop. v. Ruiz, 537 N.E.2d 331 (Ill. App. Ct. 1989); Blackburn v. Doubleday Broad. Co., Inc., 353 N.W.2d 550 (Minn. 1984). The FCC has also addressed the issue of preemption in the context of radio-frequency interference claims. See, e.g., In re 960 Radio, Inc., FCC 85-578, 1985 WL 193883 (holding that zoning board was preempted from requiring FM station to avoid radio frequency interference with existing facilities).

^{71. 975} F. Supp. 570.

^{72.} Id. at 571.

^{73.} Id. at 572.

^{74.} See id.

^{75.} Id.

^{76.} Id. (citing Cipollone v. Liggett Group, 505 U.S. 504, 516 (1992)).

^{77.} *Id*. at 573.

^{78.} *Id.* (relying on National Broadcasting Co. v. U.S., 319 U.S. 190, 214 (1943), for a description of the Communications Act of 1934); *see also* 47 U.S.C. §§ 301, 302a(a)(1), 303(c)-(f) (1994) (concerning the statutory grant of authority to the FCC).

systems to reduce their susceptibility to interference." Finally, the court considered the fact that in connection with the Communications Amendment Act of 1982, Congress clarified the extent of the FCC's authority over radio frequency interference issues (or "RFI issues"): "The House Conference Report which accompanied the Communications Amendments Act of 1982 clarified that 'exclusive jurisdiction over RFI incidents (including preemption of state and local regulation of such phenomena) lies with the FCC.' " This same report also included the following statement:

Such matters [those involving radio frequency interference] shall not be regulated by local or state law, nor shall radio transmitting apparatus be subject to local or state regulation as part of any effort to resolve an RFI complaint. The Conferees believe that radio transmitter operators should not be subject to fines, forfeitures or other liability imposed by any local or state authority as a result of interference appearing in home electronic equipment or systems. Rather, the Conferees intend that regulation of RFI phenomena shall be imposed only by the Commission. ⁸¹

The court then briefly cited to existing case law dealing with issue of preemption of RFI claims.⁸² Each of the cited cases had held that such claims were preempted.

Finally, based upon the court's examination of the Federal Communications Act itself, the explicit legislative history and the existing case law, the court held that "the

history and the existing case law, the court held that "the FCC has exclusive jurisdiction over complaints involving radio frequency interference, whether they are cast as

^{79.} In re Graeme, 975 F. Supp. 570, 573 (D. Vt. 1997) (citing 47 U.S.C. § 302a(a)(1)).

^{80.} Id. at 573-74 (quoting H.R. CONF. REP. No. 97-765, at 16 (1982), reprinted in 1982 U.S.C.C.A.N. 2261).

^{81.} H.R. CONF. REP. No. 97-765, at 33, reprinted in 1982 U.S.C.C.A.N. 2261, 2277; see also Graeme, 975 F. Supp. at 574 (quoting from and discussing this House Conference Report).

^{82.} See Graeme, 975 F. Supp. at 575. The court in Graeme cited the following cases, each of which involved nuisance claims based on RFI: Broyde v. Gotham Tower, Inc., 13 F.3d 994 (6th Cir. 1994); Still v. Michaels, 791 F. Supp. 248 (D. Ariz. 1992) (dismissing RFI nuisance suit); Blackburn v. Doubleday Broad. Co., Inc., 353 N.W.2d 550 (Minn. 1984). See Graeme, 975 F. Supp. at 575. The court also cited two administrative determinations by the FCC: In re Mobilecomm of New York, Inc., 2 F.C.C.R. 5519 (1987) (involving local zoning ordinance regulating RFI in radio paging facility conflicts with federal scheme); In re 960 Radio, Inc., FCC 85-578, 1985 WL 193883 (involving local zoning board preempted from requiring FM station to avoid RFI with existing facilities). See Graeme, 975 F. Supp. at 575.

The cases cited in *Graeme*, including various administrative determinations by the FCC itself, all relied upon findings of Congressional intent sufficient to support preemption of state law claims of radio frequency intererence. They also involved only nuisance claims or claims

arising out of zoning requirements.

The earliest of the cited cases is *Blackburn v. Doubleday Broadcasting Company, Inc.*, ⁸⁴ which involved a nuisance action based on claimed radio frequency interference. The opinion in this case quotes extensively from the Conference Report to the Communications Amendments Act of 1982 in finding that Congress intended to preempt this type of state action. ⁸⁵ *Blackburn* also relied on the United States Supreme Court's opinion in *Head v. New Mexico Board of Examiners in Optometry*, ⁸⁶ as supportive of the FCC's "exclusive" jurisdiction "over 'technical matters' such as frequency allocation."

In turn, the FCC relied on *Blackburn* in its administrative determination in *In re 960 Radio*, *Inc.*⁸⁸ In this decision, the FCC struck down certain zoning requirements which would have regulated radio frequency interference. In finding that state authority to promulgate this type of regulation had been preempted, the FCC stated:

[A]ssuming there was any doubt regarding our jurisdiction to regulate interference, Congress certainly removed such doubts when, in amending the Communications Act in 1982, it stated: The Conference Substitute is further intended to clarify the reservation of exclusive jurisdiction to the Federal Communications Commission over matters involving RFI (radio frequency interference).

^{83.} *Graeme*, 975 F. Supp. at 575.

^{84. 353} N.W.2d 550 (Minn. 1984).

^{85.} See id. at 555-56 (citing to H.R. CONF. REP. No. 97-765, at 33 (1982), reprinted in 1982 U.S.C.C.A.N. 2261, 2277).

^{86. 374} U.S. 424 (1963).

^{87.} *Id.* at 430 n.6, *cited in* Blackburn v. Doubleday Broad. Co., 353 N.W.2d 550, 555 (Minn. 1984). The broad concept of "frequency allocation" clearly encompasses issues concerning the transmission of radio signals.

^{88.} FCC 85-578, 1985 WL 193883 (also available on 1985 FCC LEXIS 2342 (Oct. 29, 1985)).

^{89. 960} Radio, 1985 WL 193883, at *5 (citing the H.R. CONF. REPORT No. 97-765, at 33 (1982), reprinted in 1982 U.S.C.C.A.N. 2261, 2277).

The court in *Still v. Michaels*⁹⁰ relied primarily on the FCC decision in *960 Radio* when it held that state law nuisance actions based on claims of radio frequency interference were preempted, and the court in *Broyde v. Gotham Tower, Inc.*⁹¹ relied on the "explicit congressional pronouncements" found in the House Report in reaching the same conclusion.⁹²

None of these cases, however, actually address the issue of whether private agreements or contracts, such as those imposed by restrictive covenants, are also preempted by state law. In fact, the one opinion that does deal with this issue reached the conclusion that federal preemption of RFI matters does not extend so far. In Winfield Village Cooperative v. Ruiz. 93 a landlord sought to enforce the provisions of an occupancy agreement against a resident who allegedly had violated that agreement by operating a short wave radio transmitter and thereby interfering with consumer electronic equipment of other occupants in the building. 94 The court recognized the extensive authority of the FCC to regulate matters involving claims of RFI, but the court also found that the FCC's exclusive authority did not extend to private disputes between FCC licensees.95 In reaching this conclusion, the court cited to Radio Station WOW, Inc. v. Johnson, 96 wherein the Supreme Court found that the Communications Act of 1934 "did not deprive" state courts of jurisdiction over fraudulent actions by licensed radio stations. The Winfield Village court also cited to Regents of the University System of Georgia v. Carroll, she wherein the Supreme Court stated that the Telecommunications Act "does not specifically empower the [FCC] to adjudicate the contractual liability of a licensee for its contracts or to declare a licensee's contracts unenforceable in the courts "99

Based upon this authority, the Winfield Village court concluded that the dispute before it was essentially "a breach

^{90. 791} F. Supp. 248 (D. Ariz. 1992).

^{91. 13} F.3d 994 (6th Cir. 1994).

^{92.} Id. at 998.

^{93. 537} N.E.2d 331 (III. App. Ct. 1989).

^{94.} See id. at 332.

^{95.} See id. at 332-33.

^{96. 326} U.S. 120 (1945).

^{97.} Winfield Village, 537 N.E.2d at 333; see also Radio Station WOW, 326 U.S. at 131 (containing the authority relied on by the Winfield Village court).

^{98. 338} U.S. 586 (1950).

^{99.} Id. at 600.

of contract action between plaintiff landlord and tenant defendants based on a claim of radio frequency interference." The court ruled that "the defendants voluntarily signed the occupancy agreement" and were therefore "charged with full knowledge of the restrictions on the use of the dwelling unit." Although the lawsuit "incidentally implicated" radio frequency interference claims, the court found that the plaintiffs' case involved "only state laws of contracts and landlord tenant relations" and that, as a result, the trial court "should have retained jurisdiction over its resolution." ¹⁰²

There are therefore two distinct reasons why the FCC's authority over radio frequency emissions should not preempt private actions seeking to enforce the terms of restrictive covenants—even if these enforcement actions could obstruct cell tower construction on the basis of the proposed towers' radio frequency emissions. First, as Winfield Village indicates, restrictive covenants should not be equated with the type of zoning decisions which the 1996 Act undoubtedly preempts. Second, substantial evidence of congressional intent is required in order to infer federal preemption of private state causes of action, and there is no such evidence in the case of the 1996 Act.

With respect to the first of these reasons for limiting the preemptive scope of the 1996 Act, restrictive covenants are clearly in the nature of private agreements inasmuch as they typically involve purchasers of land interests agreeing, as a condition of their purchase, to be bound by certain terms. Even if the judicial enforcement of such covenants "incidentally implicates" radio frequency emissions, the nature of such claims should not be within the FCC's exclusive jurisdiction.

The Telecommunications Act of 1996 has been described as "expansive legislation designed primarily to increase competition in the telecommunications industry." It was passed "in order to provide a 'pro-competitive, deregulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications

^{100. 537} N.E.2d at 333.

^{101.} Id.

^{102.} Id.

^{103.} BellSouth Mobility, Inc. v. Gwinnett County, 944 F. Supp. 923, 927 (N.D. Ga. 1996).

and information technologies and services ' "104 Specifically, the 1996 Act represented a Congressional attempt "to stop local authorities from keeping wireless providers tied up in the hearing process." In other words, the clear focus of the 1996 Act was to prevent large-scale state actions that would have an anti-competitive effect on the industry or that would unduly delay the deployment of facilities such as cell towers.

Significantly, the 1996 Act was *not* an attempt to completely preempt state law that related to the placement of cell towers. In fact, as the court in *Graeme* observed, one of the purposes of the 1996 Act was to "prevent FCC preemption" of certain local and state land use decisions.

Given this context, it seems clear that the rationale of Winfield Village ought to apply to the question of whether the 1996 Act preempts enforcement of restrictive covenants that might have an impact on the placement of cell towers. The fact that such claims might implicate the effects of radio frequency emissions is incidental to the privately imposed terms of the restrictive covenant. The judicial enforcement of such private contractual arrangements governing the use of particular plots of land does not inherently conflict with federal policy as embodied in the 1996 Act.

Even more importantly, with regard to the second reason for limiting the preemptive scope of the 1996 Act, there is a critical distinction between the preemption of claims involving radio frequency interference and claims involving the *effect* of radio frequency emissions. Congress has specifically spoken about its intent to preempt interference claims, albeit in the Conference Report rather than in the legislation itself.¹⁰⁸ There is no similar indication of legislative intent with respect to the preemption of state law claims involving the effects of radio frequency emissions. The FCC has held that state law zoning and nuisance claims based on radio frequency interference are subject to preemption.¹⁰⁹ The

^{104.} Paging, Inc. v. Board of Zoning Appeals, 957 F. Supp 805, 807 (W.D. Va. 1997) (citation omitted).

^{105.} Westel-Milwaukee Co. v. Walworth County Park, 566 N.W.2d 107, 109 (Wis. Ct. App. 1996).

^{106. 975} F. Supp. 570 (D. Vt. 1997).

^{107.} Id. at 574 (citing 47 U.S.C.A. § 332(c)(7) (Supp. 1998)).

^{108.} See H.R. CONF. REP. No. 97-765 (1982), reprinted in 1982 U.S.C.C.A.N. 2261.

^{109.} See In re 960 Radio, Inc., FCC 85-578, 1985 WL 193883 (Oct. 29, 1985).

FCC has made no such pronouncement about claims involving the effects of radio frequency emissions. Absent a clear indication of Congressional intent to preempt such claims, the courts should retain jurisdiction over disputes

involving the applications of restrictive covenants.

Admittedly, cases such as Graeme, Blackburn v. Doubleday Broadcasting Company, Inc., and Still v. Michaels could induce some courts to find that the FCC's authority preempts state court jurisdiction over claims that radio frequency emissions from cell towers violate restrictive covenants. The better result, however, is for courts to resist such a temptation and instead find that FCC preemption extends to zoning authorities' exercise of powers, but not to enforcement of privately agreed upon restrictive covenants.

D. Options for Opposing Cellular Tower Construction Under the 1996 Act

It is, of course, worth remembering that individuals who are concerned about the placement of wireless towers near their homes are not limited to enforcing private deed restrictions when it comes to seeking relief. Obviously, one alternative starting point for such individuals would be to encourage state and local authorities to adopt reasonable regulations governing the placement of such facilities. For example, it would seem quite reasonable to adopt requirements that wireless service providers choose non-residential areas for their facilities, at least where non-residential properties are available. However, it may not be easy for these concerned individuals to secure state or local government action.

The difficulty in securing state or local action arises out of the fact that the necessary regulations may be quite

^{110. 975} F. Supp. 570.

^{111. 353} N.W.2d 550 (Minn. 1984). 112. 791 F. Supp. 248 (D. Ariz. 1992).

^{113.} A brief article in the Portland Press Herald contains a number of approaches that county planning boards might employ in addressing the problem of cell tower proliferation. See Clarke Canfield, Towns and Towers, PORTLAND PRESS HERALD, Oct. 16, 1997, at 4E. In his article, Mr. Canfield discusses the approaches taken by several local authorities: enactment of height limitations on new tower construction; restriction of new towers to certain zones or areas; requirement that proponents of a new tower prepare visual impact assessments and explore the possibility of co-location; and a six-month moratorium so that the town could study the problem more closely. See id.

complex,¹¹⁴ and local planning boards may be unable or unwilling to devote their limited resources to developing appropriate standards, especially in the absence of a significant public outcry. Unfortunately, many individuals tend to be rather passive when faced with issues such as the proliferation of cell towers. Although many of these individuals will be upset by proposed placement of a cell tower near their homes, they often will not lobby planning commissions and other zoning authorities until such a proposal is made. In fact, many people are likely unaware of the proliferation of towers. Furthermore, they may never have given any thought to the possibility that, with very little warning, one or more towers could be placed near or in their community.

Even if a local planning board or other zoning authority is willing to act, it still takes time to develop the appropriate standards. One question likely to arise is whether local planning boards can impose moratoria on the construction of new towers, pending the development of appropriate standards. A number of communities have imposed these moratoria, despite the fact that the wireless services industry has often objected to moratoria on the construction of new facilities. The

As of the date of this writing, a handful of courts have

^{114.} See, e.g, Planning Department, City & County of San Francisco, Wireless Telecommunications (WTS) Facilities Siting Guidelines, Aug. 15, 1998 http://www.abag.ca.gov/bayarea/telco/samples/wtsguide.htm> (detailed guidelines) (on file with author and the Buffalo Law Review); see also Sample Telecomm Documents: A Selection of Local Government Policies, Ordinances and Contracts Related to Telecommunications, Oct. 4, 1998 http://www.abag.ca.gov/bayarea/telco/samples/ html> (on file with author and the Buffalo Law Review).

^{115.} The Cellular Telecommunications Industry Association has indicated that by the end of June 1997 there were 226 tower moratoria in effect across the country. See Karissa Boney, Getting Over It, Wireless World, Oct. 30, 1997, available in 1997 WL 10686271.

^{116.} See, e.g., Nynex Mobile Communications Co. v. Hazlet Township Zoning Bd., 648 A.2d 724 (N.J. Super. Ct. App. Div. 1994) (challenging a zoning board's refusal to grant a variance for the construction of a cellular facility in a residential area); Kingwood Township Volunteer Fire Co. No. One v. Board of Adjustment, 640 A.2d 356 (N.J. Super. Ct. Law Div. 1993) (concerning an attempt to overturn a zoning board's denial of a variance to expand the use of a cellular antenna); Cellular Tel. Co. v. Village of Tarrytown, 624 N.Y.S.2d 170 (N.Y. App. Div. 1995) (challenging a tower moratorium); Cellular Tel. Co. v. Rosenberg, 624 N.E.2d 990 (N.Y. 1993) (seeking review of a zoning board's denial of a variance to construct facilities in a residential district).

addressed the issue of whether it is legal for a community to enact a moratorium on cell tower construction—a process whereby the community's zoning authority gives itself time to consider a plan for development. The cases are not in

agreement.

The first reported decision concerning the enforceability of a moratorium on the construction of cell towers was Sprint Spectrum, L.P., v. City of Medina. In that case, the District Court for the Western District of Washington upheld the propriety of a six-month moratorium on the issuance of special use permits for wireless communications facilities notwithstanding the provisions of the Telecommunications Act of 1996. However, absent the express time limit on the moratorium at issue in Medina, there would have been a different result. In addition, the court in Medina pointed to the fact that the city had acted quickly to impose the moratorium following the enactment of the 1996 Act, something which the court found supported the holding that the city had acted reasonably. A state or local government that takes years to enact a moratorium may well find itself in a position less favorable than Medina, Washington did in the event that such a moratorium on tower construction is challenged

In fact, in Sprint Spectrum, L.P. v. Jefferson County, 120 the court distinguished the Medina case and noted that the city of Medina had issued its moratorium only "five days" after the 1996 Act had become law. The court in Jefferson County further emphasized the fact that the Medina moratorium suspended "only the issuance of permits, not the processing of applications." In addition, the court in Jefferson County noted that the Medina City Council had acted pursuant to and in conformity with a state statute when it enacted its moratorium. By contrast, the Jefferson County Commission issued not one, but three successive moratoria; the third one being issued approximately fifteen months after the Act became law and nearly fourteen months after the county first adopted purportedly comprehensive

^{117. 924} F. Supp. 1036 (W.D. Wash. 1996).

^{118.} See id. at 1040.

^{119.} Id. at 1037 (noting that the Medina City Council had acted a mere five days after the Telecommunications Act of 1996 had become law).

^{120. 968} F. Supp. 1457 (N.D. Ala. 1997).

^{121.} Id. at 1466 (citing Medina, 924 F. Supp. at 1037).

^{122.} See id.

regulations governing tower construction.¹²³ In addition, the moratorium at issue suspended not only the issuance of permits, but also "the processing of rezoning applications."¹²⁴ Finally, the court found it important to note that Alabama state law neither impliedly nor expressly authorized Jefferson county to do what it had done.¹²⁵ The court therefore found that the third moratorium violated the terms of the 1996 Act.¹²⁶

Similarly, in *Sprint Spectrum*, *L.P. v. Town of Farmington*, ¹²⁷ the court concluded that a nine-month moratorium on applications for telecommunications facilities, adopted sixteen months after enactment of the 1996 Act, violated the 1996 Act. ¹²⁸ The court in *Farmington* also factually distinguished its case from *Medina*.

The existence of these, and a handful of other cases, raises some doubt about the viability of moratoria as a means of controlling cell tower construction. However, assuming that other courts adopt the reasoning of the court in the *Medina* case, a limited moratorium on the granting of approvals or permits is likely permissible, particularly if the community adopts the moratorium prior to a particular wireless service provider making an application for a permit. However, even if enacted in a timely manner, such a moratorium will give the community only a narrow window of time in which to develop reasonable regulations governing the placement of such towers. Once developed, those standards may or may not be helpful in limiting the placement of towers in residential areas.¹²⁹

It is therefore quite likely that this entire matter will boil down to the options that homeowners will have when they are faced with a proposed tower. These options are of even greater importance when the local planning regulations fail to adequately address issues such as aesthetics, effects on property values and the like.

^{123.} See id.

^{124.} Id.

^{125.} See id. at 1465, 1467.

^{126.} See id. at 1468.

^{127.} No. 3:97 CV 863(GLG), 1997 WL 631104 (D. Conn. 1997).

^{128.} Id. at *5.

^{129.} It is clear, for example, that these regulations cannot completely preclude the provision of wireless services. See 47 U.S.C.A. § 332(c)(7)(B)(i)(II) (Supp. 1998). In addition, state and local authorities cannot base their zoning requirements on the environmental effects of the radio-frequency emissions. See id. § 332(c)(7)(B) (iy).

Such a state of affairs is especially likely to arise since the 1996 Act preempts local zoning authority to regulate the placement of cell towers on the basis of "environmental effects." Although the actual meaning of the phrase, "environmental effects" might be debated, it at least presents the possibility that Congress has precluded state and local authorities from considering the safety and health consequences of the RF emissions from the towers as a basis for making placement decisions, and has also possibly precluded those authorities from considering factors indirectly based on such considerations—such as the impact on property values stemming from fear of such emissions. Is a such consideration of the considerations.

One leading alternative to the promulgation and enforcement of appropriate land use regulations is the enforcement of restrictive covenants that are already in place—a subject addressed in detail in the remainder of this Article. In some cases, courts may interpret existing restrictive covenants so as to limit the placement of cell towers in certain neighborhoods.¹³²

^{130.} Neither the Act nor any FCC regulations promulgated thereunder provide any definition for the phrase "environmental effects." In addition, while the legislative history speaks in terms of the need to generate a uniform RF (radiofrequency) standard, there may be room to argue that "environmental effects" means something different from "health effects." For example, the FCC, in responding to the "frequently asked questions," has indicated that personal wireless services providers are indeed required to "consider the effect of their proposed facilities on the environment "FCC FACT SHEET # 2, supra note 21, at 16. In response to this inquiry, the FCC offered regulations requiring licensees to determine whether the tower is in an officially designated wilderness or wildlife area, whether the facilities might threaten endangered species or critical habitats and the like. See id. These concerns seem quite distinct from health issues and might support the argument that "environmental effects" means something other than impact on human health. On the other hand, it is possible to take a very broad approach to defining environmental effects. Wireless service providers are likely to urge such an interpretation. For example, in Sprint Spectrum L.P. v. Town of Farmington, No. 3:97 CV 863(GLG), 1997 WL 631104 (D. Conn. 1997), the district court found that the local planning commission improperly regulated the construction of towers on the basis of environmental effects by considering the effect on property values caused by fear of emissions. Id. at *4. The court reasoned that any such regulation would be tantamount to indirectly regulating on the basis of "environmental effects of radio frequency emissions." Id. While the logic of the district court in Sprint v. Farmington may be subject to criticism, such an argument is beyond the scope of this Article.

^{131.} See Sprint Spectrum L.P., 1997 WL 631104.

^{132.} Admittedly, the existence of such covenants is happenstance, since they are likely to have been drafted and adopted prior to the current proliferation of cellular towers.

II. THE USE OF RESTRICTIVE COVENANTS TO PREVENT THE CONSTRUCTION OF CELLULAR TOWERS

A. Restrictive Covenants: General Rules of Construction

Generally speaking, a restrictive covenant is any covenant restricting or regulating either the use of real property or the kind, character and/or location of structures that may be erected on that property. Restrictive covenants are usually, although not always, created by a condition, covenant, reservation or exception in a deed. 133

While it is often stated that covenants imposing restrictions on the free use of land are to be narrowly construed, it is also generally accepted that this rule of interpretation is not to be used to defeat the plain purpose of the restriction. Thus, a general principle in interpreting restrictive covenants is that the "intention of the parties, as shown by the covenants, shall govern." This intent is to be inferred, where possible, by the "plain meaning" of the language employed. Therefore, if the language of the restrictive covenant is clear and unambiguous, the language of the covenant will govern the interpretation of the restriction. In fact, where a covenant is found to be unambiguous, it has been held that it should be given a liberal construction to accomplish its evident purpose.

In the context of using restrictive covenants to oppose the

^{133.} See BALLENTINE'S LAW DICTIONARY 1109 (3d ed. 1969); see generally 20 Am. Jur. 2D Covenants, Conditions and Restrictions § 1 (1995).

^{134.} See 20 Am. Jur. 2D Covenants, Conditions and Restrictions §§ 170, 172 (1995); see also Pirtle v. Wade, 593 P.2d 1098 (Okla. Ct. App. 1979).

^{135.} See Midway Properties, Inc. v. Pfister, 354 S.E.2d 926 (S.C. Ct. App. 1987); Holaday v. Fraker, 920 S.W.2d 4, 6 (Ark. 1996); see also 20 Am. Jur. 2D Covenants, Conditions and Restrictions § 171 (1995).

^{136.} McGuire v. Bell, 761 S.W.2d 904, 908 (Ark. 1988). The following list of citations provides a sample of recent decisions holding that the intent of the parties must govern the court's interpretation of restrictive covenants: Weeks v. Kramer, 696 A.2d 361, 362 (Conn. Ct. App. 1997); Gabriel v. Cazier, 938 P.2d 1209, 1211 (Idaho 1997); Stuart v. Chawney, 560 N.W.2d 336, 339 (Mich. 1997); Munson v. Milton, 948 S.W.2d 813, 816 (Tex. Ct. App. 1997); Riss v. Angel, 934 P.2d 669, 675 (Wash. 1997); Anderson v. Bommer, 926 P.2d 959, 961 (Wyo. 1996).

^{137.} See Hays v. Watson, 466 S.W.2d 272, 275 (Ark. 1971); see also Mannweiler v. LaFlamme, 700 A.2d 57 (Conn. App. Ct. 1997), cert. denied, 702 A.2d 641 (Conn. Oct. 16, 1997).

^{138.} See Candlelight Hills Civic Ass'n, Inc. v. Goodwin, 763 S.W.2d 474, 477 (Tex. Ct. App. 1988).

placement of cell towers, the problem presented is that the large majority of these covenants will not specifically address the issue of cell towers. Thus, courts will be left to interpret these covenants in order to determine whether or not the restrictive covenant precludes this particular use of the land.

The material that follows suggests ways in which some common restrictions might be interpreted so as to prevent the placement of cell towers on land burdened by such

restrictions.

B. Limitations on "Offensive" or "Noxious" Trades or Activities

One very common restrictive covenant prohibits activities that are "offensive" or "noxious." Although the precise formulation of such prohibitions may vary, 139 this sort of covenant may be useful if a wireless service provider attempts to place a cell tower on land subject to such a restriction. Unfortunately, there are very few cases that deal with the question of whether such towers constitute an "offensive" or "noxious" activity. There is, however, at least one case holding that such a restriction should apply to towers.

In Brower v. Hubbard, 140 the Browers owned a single-family home in a subdivision called Suburban Acres. The deed to their property contained restrictive covenants prohibiting noxious or offensive activities that may be a nuisance to the neighborhood. The Browers' eighty-seven foot tower antenna was held to be a violation of these covenants, and they were ordered to remove it based upon a judicial determination that their tower/antenna constituted an offensive activity. 141

Most jurisdictions, however, have produced no case law dealing with the issue of whether towers should be considered "offensive" or "noxious." Thus, it is important to understand the general meaning of a covenant that restricts

^{139.} See 20 Am. Jur. 2D Covenants, Conditions and Restrictions § 184 (addressing the meaning of "offensive purpose" and similar phrases in restrictive covenants).

^{140. 643} So. 2d 28 (Fla. Dist. Ct. App. 1994).

^{141.} See id.; see also Ronald Benton Brown et al., Property Law: 1995 Survey of Florida Law, 20 Nova L. Rev. 257 (1995) (discussing Brower v. Hubbard); cf. Pirtle v. Wade, 593 P.2d 1098 (Okla. Ct. App. 1979) and infra notes 217-23 and accompanying text (discussing Pirtle v. Wade).

"offensive" and/or "noxious" activities, since the ordinary meaning of such words will likely be persuasive in a lawsuit involving the interpretation of such a restriction. In light of the rule that the language of the covenant must control, an obvious starting point in this analysis is to look at the

ordinary meaning of "offensive" and "noxious."

Webster's Ninth New Collegiate Dictionary includes among its definitions of offensive: "causing displeasure or resentment." "Noxious" is defined to include that which "constitut[es] a harmful influence...." Black's Law Dictionary provides a definition consistent with the ordinary meaning of these words. "Offensive," in the context of nuisances and similar matters, "means noxious, causing annoyance, discomfort, or painful or disagreeable sensations." "Noxious" is defined as that which is "offensive" or "[t]hat which causes or tends to cause injury, especially to health...."

Under these definitions, cell towers may constitute a noxious or offensive activity. In fact, cell towers should be considered as such if the plaintiffs can establish that such towers are likely to cause displeasure and resentment, or that they will tend to cause harm. In this analysis, then, it would be important for landowners to prove that a proposed cell tower would adversely affect their quality of life, as well

as their property values.

In fact, case law dealing with what constitutes an "offensive" or "noxious" activity suggests that this *is* the correct approach. In other words, an activity which may adversely affect the quality of life or the residential nature of a neighborhood, or which will result in a decrease in property values, should not be permitted where there is a restriction in the deed prohibiting offensive or noxious activity.

In Guarjardo v. Neece, 146 the deed in question prohibited any "noxious or offensive trade or activity," and the court found that a dog kennel would constitute such an activity, since the property was in a residential neighborhood and it was possible that operation of a kennel might "diminish... the quality of life therein and adversely affect... the value of

^{142.} Webster's Ninth New Collegiate Dictionary 819 (Merriem Webster ed., 1983).

^{143.} Id. at 779.

^{144.} BLACK'S LAW DICTIONARY 975 (5th ed. 1979).

^{145.} Id. at 960.

^{146. 758} S.W.2d 696 (Tex. Ct. App. 1988).

property." Such a test is perfectly consistent with the ordinary meaning of the terms "offensive" and "noxious."

Using these definitions and this test as a starting point, what evidence is there that cell towers are in fact "offensive" or "noxious"? One argument would involve demonstrating that such towers are associated with adverse health consequences. If such an argument proved to be true, this would surely provide compelling evidence that proposed cell towers are indeed offensive or noxious.

1. Scientific Assessment of Potential Health Risks. A number of scientific studies have suggested that the electromagnetic fields ("EMFs") generated by cell phone and radio frequency antennas or base stations pose a risk to human health.

At least one residential study has found a statistically significant link between the incidence of adult leukemia and proximity to various EMF transmitters. Another study demonstrated that there was an increased incidence of various cancers in military personnel who had been exposed to various RF levels; specifically, the incidence of various types of leukemia was 3.7 to 13.9 times greater, the incidence of Hodgkin's disease was three times greater, the incidence of lymphoma and lymphosarcoma was six times greater and the incidence of all cancers was two times greater. Similarly, an article by an Israeli epidemiologist suggests that low-level RF exposure is associated with mutations, reproductive complications and cancer. Another article by an Australian group claims evidence of increased leukemia and childhood leukemia rates among groups living closer to television towers. In a similar vein, the Los Angeles Times reported

^{147.} Id. at 698.

^{148.} H. Dolk et al., Cancer Incidence Near Radio and Television Transmitters in Great Britain, 145 Am. J. Epidemiology 10, 12-13, 15 (Jan. 1, 1997) (discussing the findings of a previous study known as the Sutter Coldfold study)

the findings of a previous study known as the Sutton Coldfield study).

^{149.} See S. Szmigielski, Cancer Morbidity in Subjects Occupationally Exposed to High Frequency (Radiofrequency and Microwave) Electromagnetic Radiation, 180 Sci. Total Env't 9 (1996). The RF levels evaluated in this study were all below current FCC hazard thresholds. For a discussion of such thresholds in general, see infra note 159 and accompanying text.

^{150.} J.R. Goldsmith, Epidemiologic Evidence of Radiofrequency (Microwave) Effects in Military, Broadcasting, and Occupational Studies, 1 INT'L J. OCCUPATIONAL ENVIL. HEALTH 47 (1995).

^{151.} See B. Hocking et al., Cancer Incidence and Mortality and Proximity to TV Towers, 165 MED. J. AUSTL. 601 (1996).

an unpublished study conducted by Dr. Eugene Sobel which indicated that people with high occupational EMF exposure are at least three times as likely to develop Alzheimer's disease as those without significant exposure, and that the number of calcium ions present in nerve cells that were grown in a laboratory was directly proportional to EMF exposure. In addition, there are a large and increasing number of epidemiological studies which have suggested a possible link between RF radiation and various forms of cancer.

The World Health Organization and the International Commission on Non-Ionizing Radiation Protection jointly sponsored a recent international seminar on the biological effects of low-level radio frequency electromagnetic fields. The seminar was limited to a consideration of the effect of RF emissions in the range of about 10 MHz to 300 GHz. A recent report from that seminar indicated that there is a wide variety of biological effects which can be observed from exposure to RF emissions at these levels. Included in this report were studies demonstrating the possible effects on genes, cell function and cancer promotion, as well as studies discussing possible genotoxic, immunological carcinogenic effects associated with chronic low-level RF exposure. The seminar indicated a strong need for additional research on populations with residential exposure from point sources such as broadcasting transmitters, and specifically concluded that "[r]ecent studies that indicate an increased incidence of cancer in exposed populations should be investigated further."¹⁵⁵

One of the most thorough explanations of the possible effects of EMF exposure can be found in the June 13, 1995

^{152.} Thomas Maugh, Studies Link EMF Exposure to Higher Risk of Alzheimer's, LOS ANGELES TIMES, July 31, 1994, at A36.

^{153.} See e.g., B.S. Anderson & A.K. Henderson, Cancer Incidence in Census Tracts with Broadcasting Towers in Honolulu, St. of Haw. Dep't of Health Publication (Oct. 27, 1986); David Savitz et al., Case-Control Study of Childhood Cancer and Exposure to 60-Hz Magnetic Fields, 128 Am. J. Epidemiology 21 (1988); Maria Feychting & Anders Ahlbom, Institute for Miljomedicin, Karolinska Institutet, Magnetic Fields and Cancer in People Residing Near Swedish High-Voltage Power Lines (1992); Ron Winslow, Magnetic Fields Linked to Leukemia, Wall St. J., Mar. 31, 1994, at B7.

^{154.} See M.H. Repacholi, Low-Level Exposure to Radiofrequency Electromagnetic Fields: Health Effects and Research Needs, 19 BIOELECTROMAGNETICS 1 (1998).

^{155.} Id. at 1.

draft report from the NCRP Scientific Committee on Extremely Low Frequency [ELF] Electric and Magnetic Fields. The NCRP report cites epidemiological studies in the United States and Europe, which suggest that exposure to ELF-EMFs has a positive association to childhood cancers, enhanced cell tumorigenicity and immune deficiencies such as leukemia. The conclusion of the report states: "Although incomplete, available epidemiological and laboratory data certain consistencies that would link risks "157 EMFs with increased health environmental Moreover, even though guidelines have been proposed for EMF exposure, the report also notes that these "guidelines proceed on the basis that adverse human health effects from exposure to ELF electric fields . . . have not been established," and so "it is apparent that they are not intended to provide protection against any adverse health effects that may be caused by such exposure, and they would not do so."158

The telecommunications industry would almost certainly respond to the aforementioned studies and commentaries by pointing out that most of the research in this field has, to date, involved RF emissions that are considerably different from the type of emissions produced by the current generation of cell towers. Most cell towers will emit RF radiation in the 825 to 890 MHz range. ¹⁵⁹ Most of the existing studies, however, have dealt with emissions in the 2450 MHz range. Industry supporters, of course, would likely contend that those studies dealing with the effects of emissions in the 2450 MHz range do not inform an analysis of emissions in

the 825 to 890 MHz range.

Studies dealing with RFs similar to or within the spectrum of cell tower emissions may well provide a response to such criticisms from the telecommunications industry. By

^{156.} See NCRP Draft Recommendations on EMF Exposure Guidelines, MICROWAVE NEWS, Sept. 26, 1998 http://www.microwavenews.com/ at http://www.microwavenews.com/ncrp1.html (on file with author and the Buffalo Law Review).

^{157.} Id.

^{158.} See id.

^{159.} See Institute of Electrical and Electronics Engineers, Human Exposure to Radiofrequency Fields from Portable and Mobile Telephones and Other Communication Devices, Sept. 26, 1998 http://www.ieee.org/ at http://www.ieee.org/ usab/documents/forum/library/positions/portable.html> (explaining that cellular towers utilize radiofrequencies between 825 and 890 MHz) [hereinafter IEEE-USA Activities Board] (on file with author and the Buffalo Law Review).

way of example, one study reported that at 900 MHz (a frequency extremely close to the frequencies used for cellular communications systems), an exposure of 50 microwatts per square centimeter (MW/cm²) caused an 18% reduction in adults' REM sleep. Such a level of exposure is very low, representing a little more than eight percent of the FCC's permitted exposure limits. The importance of this finding stems from the fact that REM sleep has been found to be important in memory and learning functions. Thus, it may be said that exposure to even low frequencies has potentially adverse health effects. Such findings may be especially significant with respect to the health of infants, since: (1) infants do a great deal of their sleeping during the day and early evening when power density levels are highest; (2) they normally sleep long hours so the total REM sleep loss could be greater than for adults; and (3) their memory and learning are rapidly developing at this stage of life and thus REM sleep may be especially critical.

Similarly, one study found that exposure to 835 MHz EMFs, with certain modulation patterns, "can cause

^{160.} See Petition for Reconsideration, filed before the Federal Communications Commission in re Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, ET-Docket No. 93-62, FCC Order 96-326, ¶ 4.1, Oct. 20, 1998 http://www.cellulartower.com at http://www.cellulartower.com/emission.htm (citing to a study reported in the May-June 1994 and May-June 1996 issues of Microwave News) [hereinafter Petition for Reconsideration] (on file with author and the Buffalo Law Review).

^{161.} See id. \P 4.1 (concluding that the results of a study reported in Microwave News, see supra note 160, were at these levels); see also Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, 61 Fed. Reg. 41,006 (1996) (to be codified at 47 C.F.R. §§ 1, 2, 15, 24, 97) (providing that the FCC's permitted exposure limits are based on guidelines established by the National Council on Radiation Protection and Measurements (NCRP)) [hereinafter Guidelines for RF Radiation]; National Council on Radiation Protection and Measurements, Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields, NCRP Report No. 96 (12986) (containing the relevant provisions relied on by the FCC in its 1996 exposure limits). The FCC has also based its maximum exposure limits for lower frequency fields on standards promulgated by the Institute of Electrical and Electronic Engineers, Inc. (IEEE); these standards are generally referred to as the "IEEE C95.1-1991 standards." See Guidelines for RF Radiation, 61 Fed. Reg. at 41007, 41016. The IEEE C95.1-1991 standards for RF radiation at frequencies between 825 and 890 MHz range from 2.75-2.97 milliwatts (not microwatts) per square centimeter (mW/cm²) for occupational exposure and 0.41-0.45 mW/cm² for general population exposure. See IEEE-USA U.S. Activities Board, supra note 159 (providing this particular information from the IEEE C95.1-1991 standards).

^{162.} See Petition for Reconsideration, supra note 160, ¶ 4.1.

significant changes in [ornithine decarboxylase] activity" when the exposure was only at 63% of the FCC's hazard threshold. These results are consistent with the results of subsequent research showing that at 2% of the FCC's hazard threshold, there were significant increases in ornithine decarboxylase. The significance of these results can be seen in the role which ornithine decarboxylase activity has in regulating normal cell growth and in potential links to an increased incidence of cancer. The significance of these results can be seen in the role which ornithine decarboxylase activity has in regulating normal cell growth and in potential links to an increased incidence of cancer.

Finally, certain research, relying on exposure levels below the FCC's hazard threshold, has found a link between cancer and 900 MHz fields.¹⁶⁶

In addition to these studies that specifically deal with emissions in or very near to the range of emissions which would be expected from the current generation of cell towers, there are other studies that also inform an assessment of cell towers' RF radiation. For example, a study released in July of 1996 found that 2450 MHz amplitude modulated at 50 Hz with exposure levels of 100 MW/cm² (reportedly 3.5% of the hazard threshold upon which FCC exposure limits are based) had an impact on the immune systems of laboratory mice. The authors of this article noted relevance to mobile telecommunications "because of the ELF [extremely low frequency] modulation frequency and field intensity." This study may also be particularly important because its results have been partially validated by other studies that have

^{163.} L. Penafiel et al., Role of Modulation on the Effect of Microwaves on Ornithine Decarboxylase Activity in L929 Cells, 18 BIOELECTROMAGNETICS 132 (1997).

^{164.} See C. Byus & L. Hawell III, Additional Considerations About the Bioeffects of Mobile Communications, in Mobile Communications Safety 133 (Niels Kuster et al. eds., 1997). This study also found that exposures to RF emissions at this level produced significant decreases in the rate at which cell interiors were able to discharge putrescine. This in turn affects normal cellular activity—particularly repair functions. See id.

^{165.} See id.

^{166.} See M. Repacholi et al., Lymphomas in Em-pim1 Transgenic Mice Exposed to Pulsed 900 MHz Electromagnetic Fields, 147 RADIATION RESEARCH 631 (1997) (reporting near 100% increase in lymphoma cancer incidence).

^{167.} See E. Elekes et al., Effect on the Immune System of Mice Exposed Chronically to 50 Hz Amplitude Modulated 2.45 GHz Microwaves, 17 BIOELECTROMAGNETICS 246 (1996); see also Petition for Reconsideration, supra note 160, ¶ 4.3 (observing that this study tested exposure levels that were only 3.5% of the FCC hazard threshold).

^{168.} See Elekes et al., supra note 167, at 248.

shown similar effects on sleep patterns. 169

Again, the telecommunications industry is likely to respond to such studies by arguing that the towers are in compliance with current regulations, and therefore should be considered safe. Indeed, the argument would continue, the FCC has promulgated regulations for RF emissions, and most proposed cell tower developments will be in compliance with these regulations. The best response to such an argument is to attack the very standards that underpin the relevant FCC regulations.

Again, in order to attack the FCC's regulations on this matter, one must question the validity of the regulations' underlying standards. The relevant FCC regulations are based on standards crafted by the Institute of Electrical and Electronics Engineers, Inc. (the "IEEE"), standards that may themselves be suspect. For example, certain critics have claimed that the process of developing some of the 1991 IEEE standards lacked scientific rigor. Various participants in the IEEE standards adoption process have been able to confirm some of these criticisms. 172 Significantly, two of the three balloting committee members from federal health agencies who voted to reject the 1991 IEEE standards supported their votes by stating that the standards or process: (1) were "not balanced in representing government, industry, and the general public"; (2) lacked "agency review and comment" of a draft; (3) had "very weak justifications" for exposure increases; and (4) "brushed aside" important papers showing "pulsed microwaves may give responses at lower average levels than continuous waves." In addition, representatives from the Environmental Protection Agency ("ĒPA"), the National Institute of Occupational Safety and Health ("NIOSH") and the Food and Drug Administration ("FDA") have objected to claims that the 1991 IEEE limits

^{169.} See Petition for Reconsideration, supra note 160, \P 4.1 (citing to a study reported in the May-June 1994 and May-June 1996 issues of Microwave News).

^{170.} See supra note 161.

^{171.} See Petition for Reconsideration, supra note 160, \P 5 (citing to a report reprinted in the Biological Effects of Electropollution).

^{172.} See Petition for Reconsideration, supra note 160, ¶ 5 & n.13 (discussing the comments that were attached to the ballots of Drs. Mays Swicord and M. Altman, both of the FDA, wherein each explained their reasons for voting against adoption of this IEEE standard).

^{173.} See id.; see also id. ¶ 5 & n.19 (discussing the IEEE Ballot Committee's results on project IEEE C95.1-1991).

are "safe for all."174

Finally, there is an argument to be made that the IEEE, in setting its exposure limits in 1991, disregarded a plethora of studies showing potential adverse effects at exposure levels lower than the thresholds that have been adopted as safety standards. For example, one 1982 study showed various adverse impacts on the development of cancers at exposure levels that were only 50% to 75% of the IEEE exposure limits. A 1977 study showed behavioral disruption and anomalies of the cortex at exposure levels 58% of the IEEE standards. In a 1978 study, fetal anomalies were demonstrated at 50% of the IEEE exposure limit. There were even studies showing various physiological responses at levels of 0.15% to 0.25% of the IEEE exposure limits. All of these studies were available to the IEEE prior to the adoption of its 1991 standards.

In addition to the studies that were available at the time the IEEE promulgated its 1991 standards, there are also a number of pertinent studies that have been published

^{174.} See David Fichtenberg, Ad Hoc Association of Parties Concerned About the Federal Communication Commission's Radiofrequency Health and Safety Rules, Ex Parte Comments Pertaining to ET Docket 93-62 Regarding Petitions for Reconsideration of Commission Rule and Order FCC 96-326 and First Memorandum of Opinion and Order FCC 96-487, §§ 4.1-4.3, 4.4.1, 4.4.2 (1997) (discussing letters from: Margo Oge of the EPA to the FCC (Nov. 9, 1993) in sections 4.1-4.3, R.W. Niemier of NIOSH to the FCC (Nov. 1, 1993) in section 4.4.1 and L.J. Gill of the FDA, Center for Device and Radiological Health, to the FCC (Nov. 10, 1993) in section 4.4.2) (on file with Buffalo Law Review) [hereinafter Ex Parte Comments].

^{175.} S. Szmigielski et al., Accelerated Development of Spontaneous and Benzopyrene-Induced Skin Cancer in Mice Exposed to 2450 MHz Microwave Radiation, 3 BIOELECTROMAGNETICS 179 (1982).

^{176.} See Petition for Reconsideration, supra note 160, ¶ 14.3.10.

^{177.} Ezra Berman et al., Observations of Mouse Fetuses After Irradiation with 2.45 GHz Microwaves, 35 Health Physics 791 (1978).

^{178.} See Petition for Reconsideration, supra note 160, ¶ 14.3.13. The author cites to a study involving lab rats, which linked structural changes in the rats' brains to microwave exposures that were .15% of the IEEE exposure limits. See id. "Thus, it was determined that long-term exposure to NMR [nonionizing microwave radiation] with intensity of 1000 to 10 mW/cm² (3 times a day 40 minutes at a time, for two months) elicits changes in the... hippocampus... [t]he demonstrated changes can most probably [affect] their function and constitutes one of the elements of pathogenesis of early disturbances in people exposed to this environmental factor." Id. (emphasis added); see also K. Oscar et al., Microwave Alteration of the Blood-Brain-Barrier System of Rats, 126 Brain Research 281 (1977) (reporting a variety of effects on the brain at exposure levels equal to 0.25% of the IEEE maximums).

subsequent to the IEEE's 1991 standards adoption. Some of these studies support the contention that the IEEE standards do not adequately protect human health concerns. These subsequent studies continue to document the biological effects of RF exposure at levels below those set in the standards.¹⁷⁹

The most telling criticism levied against the IEEE and FCC standards, however, may have come from other federal agencies—agencies charged with protecting the public's health. As early as 1993, the EPA was expressing concerns about whether the IEEE standards adequately protected public health. The EPA's concern stemmed from the fact that the IEEE standards were designed only to guard against thermal effects of the radiation, rather than also guarding against other possible adverse health effects. In connection with this criticism, the EPA brought attention to certain studies purporting to show a link between RF radiation and cancer. Similarly, Dr. G.P. Schulte of NIOSH has pointedly observed that the FCC's exposure standards are based only on preventing "adverse health effects from body heating." In 1993, the FDA told the FCC that "it is unclear what types of biological effects and exposure conditions are addressed by the standard." 183

One FDA representative specifically criticized the IEEE standards by noting that the scientific rationale behind the standards made little reference to studies dealing with long-

^{179.} See M. Repacholi et al., supra note 166 (reporting near 100% increase in lymphoma cancer incidence); Air Force Microwave—Cancer Study Shrouded in Mystery, Microwave News, Mar.-Apr. 1997, at 13-15 (concerning exposures at 30% of the FCC's hazard threshold). This report indicated that research performed by J. Toler showed that "on the basis of palpation . . . the total of exposed animals with tumors at the end [of the study] rose to 115, with 88 tumors among the controls." Id. In spite of these figures, Toler concluded that "[t]here was no evidence to suggest differences in tumor rates between sham-exposed and exposed animals." Id.; see also Penafiel et al., supra note 163, at 141 (showing "significant changes in [ornithine decarboxylase] activity" associated with stimulation of cell growth at exposure levels equal to 63% of the FCC's hazard threshold at 835 MHz); V. Vorobyov et al., Effects of Weak Microwave Fields Amplitude Modulated at ELF on EEF of Symmetric Brain Areas in Rats, 18 BIOELECTROMAGNETICS 293 (1997) (showing abnormal EEG pattern in rats during sleep at 8% of the FCC's hazard threshold).

^{180.} See Ex Parte Comments, supra note 174, § 4.1.

^{181.} See id.

^{182.} See id. § 4.4.1.

^{183.} *Id.* § 4.4.2 (quoting letter from L.J. Gill of the FDA, Center for Device and Radiological Health, to the FCC, dated Nov. 10, 1993 regarding ET Docket 93-62).

term, low-level exposures on animals. This failure apparently occurred "despite the existence of animal studies that suggest an association between chronic low level exposure and acceleration of cancer. Other studies have been published since finalization of the standard that strengthen this concern." The FDA also raised concerns regarding the general lack of available research and evidence concerning human response to long-term RF exposure.¹⁸⁵

Taken together, these studies and comments constitute a reasonable basis for concern on the part of area residents who may be troubled by proposed construction of cell towers. As summarized by two researchers, "[t]here are persistent indications . . . that these [electromagnetic] fields have biologic activity, and consequently, there may be a deleterious component to their action, possibly in the presence of other factors." While the data is often inconsistent, inconclusive and difficult to interpret, the bottom line is that there is evidence to support concerns about the possible health effects of RF emissions from cell towers. Indeed, certain scientists have concluded that "the data cannot be considered sufficient to recommend a threshold for human tolerance" of chronic low-level RF emissions. 187

The limited legal literature on the question of the potential health consequences associated with cell towers seems consistent with this position. In one law review article, the author stated: "The potential health effects of electrical and magnetic fields ("EMFs") have been a cause for debate since the 1960's. It is still difficult to predict what effect, if any, such fields have on the overall health of an organism."

The same author went on to state that "[n]umerous studies have associated exposure to elevated EMF levels with a variety of illness including birth defects, miscarriage, and central nervous system illness. Several well-publicized studies have linked EMF exposure with certain forms of

^{184.} Id.

^{185.} Id. § 4.4.2.

^{186.} T.E. Aldritch & C.E. Easterly, *Electromagnetic Fields and Public Health*, 75 Environmental Health Perspectives 159, 159 (1987).

^{187.} R.P. Blackwell & R.D. Saunders, *The Effects of Low-Level Radiofrequency and Microwave Radiation on Brain Tissue and Animal Behavior*, 50 INT'L J. RADIATION, BIOLOGY, RELATED STUD., PHYSICS, CHEMISTRY & MED. 761, 761 (1986).

^{188.} John F. Cahill, An Introduction to the Indoor Pollution Problem, 40 PRACTICAL LAW. 27, 50 (1994).

cancer, including childhood leukemia."189

In the end, the problem is that this subject matter is still developing, not so much in terms of the law, but in the scientific community. Indeed, what scientists once thought was safe may now be subject to significant and serious questioning. One legal commentator expressed this concern by noting that while exposure to low levels of EMF "was once believed to be harmless," "[t]hat view is no longer the consensus among experts, especially among epidemiologists."

The reader should not interpret the foregoing discussion to mean that there is clear and convincing evidence that cell tower RF emissions cause an increased incidence of cancer or other adverse health effects. Nevertheless, the mounting evidence shows that we do not fully understand either the precise ways in which these cell towers may adversely affect human health or the mechanisms that may or will cause such adverse effects. It is problematic that neither the industry nor the FCC, in developing standards for RF emissions, adequately addressed the considerable evidence that is suggestive of possible health risks. Existing evidence on this issue seems to support the argument that it is offensive and/or noxious for the telecommunications industry to force certain individuals to serve, in effect, as guinea pigs for the purpose of determining the effects of RF radiation on human beings.

2. Effects on Property Values. Potential health risks are not the only reason why construction of towers in residential areas might be considered offensive or noxious. A showing that the towers are likely to adversely affect the property value of surrounding homes should also be relevant. In this regard, even if one personally disbelieves the scientific evidence about health risks associated with the EMF radiation produced by these towers, the public perception that such risks exist can result in substantial diminution of property values for surrounding property

^{189.} Id. at 51.

^{190.} For example, lead-based paints, asbestos insulation and recreational tobacco use are among the dozens of threats to human health that the scientific community had once regarded as safe, but now understands to be hazárdous to human health.

^{191.} Rufus Young, et al., 1996 Update: Electromagnetic Fields and Their Land Use Implications, ALI-ABA COURSE STUDY, Aug. 15, 1996, at 397.

owners. As one legal commentator has noted, "the public perception of the EMF risk can itself significantly affect the

value of property."192

In San Diego Gas v. Daley, 193 the court discussed the scientific controversy about health risks associated with EMFs. The court pointed out that "[s]everal jurisdictions, perhaps a majority, have recognized that buyer fear of the potential dangers associated with power lines, electromagnetic radiation in particular, have a depressing effect on the market value of adjacent properties." The opinion lists literally dozens of cases which follow this rule. 195

The reality is that the public does consider such towers to be dangerous. There are a number of private cases involving claims of damage from EMF, and the best guess is that such

litigation is likely to increase.

Attorneys, scientists and representatives from private industry concerned with electromagnetic field (EMF) regulation and litigation seem to agree on at least two things—there is no conclusive scientific evidence that EMFs pose a threat to human health and despite this, or because of this, the number of EMF-related lawsuits is likely to increase over the next five to 10 years.

In fact, as of 1993, there were already approximately twenty-five EMF personal injury cases before the courts and an additional twenty or so EMF property cases in which alleged health hazards of EMF were raised either in opposition to construction of new facilities or in support of higher recoveries for loss of property value.¹⁹⁷

^{192.} Cahill, *supra* note 188, at 52, *citing* Power Authority of the State of New York v. Criscuoloa, 691 N.E.2d 1195 (1993); *see also* San Diego Gas & Elec. Co. v. Daley, 205 Cal. App. 3d 1334 (1988).

^{193. 205} Cal. App. 3d 1334 (1988).

^{194.} Id. at 1346-47.

^{195.} See id. at 1349.

^{196.} Attorneys: More EMF Cases Expected Despite Lack of Strong Science, 2 Mealey's Litig. Rep.: Toxic Torts 10 (1993).

^{197.} See id. There is substantial evidence that fear of EMF from other sources has diminished property values. One source estimates that fear of EMF has resulted in 30% to 40% declines in property values for properties close in proximity to powerlines. See COMMUNITY GUIDE TO CELLULAR PHONE TOWERS, supra note 1, at 16. In 1993 the Wall Street Journal reported on a study conducted by a Houston appraiser. This appraiser found that certain properties near powerlines were selling for 13% to 30% less than houses in the same neighborhood that were not near the powerlines. See Alix M. Freedman, Power-Lines Short-Circuit Sales.

Potential health risks are not the only reason why property values will be adversely affected by a proposed cell tower. There are a number of other factors associated with such towers which are likely to cause a diminution in property values, and which independently suggest reasons why the placement of towers in residential areas should be considered to be offensive and noxious.

First, there is the problem of aesthetics. Although the towers can take any number of forms, most often they are metal monopoles or lattice frame steel structures supported by guy wires; they can soar up to four hundred feet in height. One source describes a monopole as "[a] limbless metal trunk, stretching vertically more than 170 feet and topped by a tiny pronged platform." Another concludes that "[t]ower opponents in residential areas... should have little trouble proving the 150- to 200-foot-tall towers are an eyesore and a threat to property values." In fact, virtually no one contests the fact that these towers are generally visually unappealing. Some companies have even specialized in the construction of cell towers which are disguised as a something other than towers in order to minimize the unattractiveness of these structures. However, this type of

Homeowners Claim, WALL St. J., Dec. 8, 1993, at B1. In this same article, the author related how several homeowners were unable to sell their homes at a price that even approached appraised value once the powerlines were constructed in their vicinity. See id.

^{198.} Dean J. Donatelli, Locating Cellular Telephone Facilities: How Should Communities Answer When Cellular Telephone Companies Call? 27 RUTGERS L.J. 447, 448 n.2 (1996) ("A monopole or other tower, often ranging from 50 to 400 feet in height, may be used to mount the antennas unless some other existing structure such as a water tower, tall building or parking ramp can be used."). Another source suggests that cellular towers are most often between 100 and 150 feet in height, and that they can be as tall as 300 feet. See COMMUNITY GUIDE TO CELLULAR PHONE TOWERS, supra note 1, at 17. Furthermore, these towers "can be ugly and unsightly, especially in areas unaccustomed to tall structures." Id.

^{199.} Susan Scantlin, Cellular Towers, Controversy Sprouts in Hills, ARK. DEMOCRAT GAZETTE, NORTHWEST ARK. BUS. MATTERS INSERT, May 25, 1997, at 4.

^{200.} Norm Alster, Do Court Battles Loom for PCSs, Telecom Act? INVESTOR'S BUS. DAILY, Apr. 6, 1997, at A6.

^{201.} For example, one commentator describes the efforts of one company as follows: "An Atlanta company specializes in constructing bell towers, clock towers and artificial trees to house the inner communications working." Scantlin, supra note 199, at 4; see also Jamie Clary, Digital Towers Dot the Landscape in Some of the Strangest Places, NASHVILLE BUS. J., Mar. 24, 1997, at 1 (reporting on the activities of TeleStructures, Inc., of Atlanta). There have also been stories written about Specialty Teleconstructors Inc. of New Mexico, which specializes in the construction of cellular towers. See, e.g., Norm Alster, Phone Guise, INVESTOR'S

construction is extremely expensive, and wireless services providers generally plan on putting up plain metal towers, which will typically soar to a height taller than any surrounding buildings in order to maximize the range of the signals sent out from the tower. This is cheap, but far from appealing. In fact, at least one court has commented on the visual aesthetics as being a particularly significant problem with towers. 2003

In addition to these problems which affect all towers, if a proposed tower will be taller than 200 feet in height, it is also required to be brightly painted and lit with bright strobe lights to warn low flying aircraft.²⁰⁴ This is an obvious and necessary safety precaution, but it also means that very tall towers will have to be visible day and night. Undoubtedly, it will be more than merely unattractive to have these lights shining in one's windows at night.

In fact, in Adams v. Lindberg, 205 the court considered

BUS. DAILY, Apr. 1, 1997. According to this article, one tactic used by this company is to hide the "towers among the 'leaves' of steel structures designed to look like palm trees." *Id.* One wonders, however, at the effectiveness of these ploys in a residential area. Certainly in many neighborhoods, even those with very old trees, there will be no growth or structures which approach 150 feet (which would be the approximate equivalent of 15 stories). A steel palm tree would be especially noticeable in many parts of the country. In addition, a bell or clock tower would likely stick out like a sore thumb in most residential areas.

202. The FCC acknowledges that while camouflaging of towers is technically feasible, it is "expensive and time consuming and most service providers are reluctant to routinely use the camouflage option." FCC FACT SHEET # 2, supra note 21, at 7. Moreover, it is also clear that the towers must be taller than surrounding objects, a fact which makes the success of the camouflaging efforts doubtful. "Wireless technology has certain requirements. It needs a direct line of sight between cells, so signals can be handed off. That means cells must be higher than surrounding trees and roof tops." Dinah Zeiger, Tower Troubles Multiply; City Councils Taking Action, DENVER BUS. J., Mar. 14, 1997. See also Bob Gardinier, A Towering Achievement, TIMES UNION (Albany N.Y.), July 28, 1997, at B1 ("The antennas have to be in line of sight with each other as the frequencies used are radio waves, which cannot pass around or through obstructions such as trees or hills.").

203. See San Diego Gas & Elec. Co. v. Daley, 205 Cal. App. 3d 1334, 1336 (Cal. Ct. App. 1988).

204. "Under authority granted by the Federal Aviation Act, the Federal Aviation Administration (FAA) has jurisdiction over... towers that exceed 200 feet in height... The FAA... may require them to be painted and/or illuminated." COMMUNITY GUIDE TO CELLULAR PHONE TOWERS, supra note 1, at 10.; see also Harriman, supra note 3, at 11A ("[T]owns are being confronted with proposals to develop cellular towers, some reaching 300 feet into the air. Towers that tall must be strobe-lit and painted so they can be seen by airplanes both night and day.").

205. Adams v. Lindberg, 610 P.2d 75 (Ariz. App. 1980).

whether lights intended to illuminate a tennis court would be an "obnoxious or offensive activity" in violation of a restrictive covenant. The trial court specifically found that "[t]he use of these lights at night would be and constitute an annoyance or nuisance to the neighborhood and the occupants of the surrounding property." This determination, the appellate court said, "is supported by the evidence."

Similar findings should apply in the case of towers which have to be lit by lights that are bright enough to be visible to

low-flying aircraft.

Another issue to consider will be the noise level that cell towers produce. Towers that use guy wires for stability "hum" in the wind, quite loudly at times. Even a low-level hum can detract from peace-of-mind for residents living near a cell tower.

Finally, it is reasonable to predict that the building of towers in such residential areas will increase the risk of children climbing on those towers. This is not only likely to reduce the market value of properties in the immediate vicinity of such towers, it is also another reason for contending that such towers are offensive and/or noxious. As such, the towers will arguably constitute an offensive nuisance, which surely should be covered by a restrictive covenant barring "offensive" or "noxious" trades or activities.

Case law indicates that this reasoning is sound. For example, in Arkansas Power & Light Company v. Haskins, ²⁰⁹ Arkansas Power & Light Company had condemned a right-of-way across some land owned by John Haskins. ²¹⁰ Mr. Haskins testified that a proposed tower would constitute an attractive nuisance upon which children might climb. ²¹¹ The Arkansas Supreme Court found that Mr. Haskins had the "right to show every element of damage to his property which would affect the market value and this was certainly one of them."

^{206.} Id. at 76.

^{207.} *Id*.

^{208.} COMMUNITY GUIDE TO CELLULAR PHONE TOWERS, *supra* note 1, at 17 (noting the noise problems which can be associated with towers). In addition, loud generators may be needed to power lights and monitor these devices, thus adding to the noise level. *See id*.

^{209.} Arkansas Power & Light Co. v. Haskins, 528 S.W.2d 407 (Ark. 1975).

^{210.} Id. at 408.

^{211.} Id. at 409.

^{212.} Id. (emphasis added).

C. Prohibitions on "Commercial" Activities

Another relatively common deed restriction in residential areas is the prohibition of "commercial" trades or activities on the premises. This type of restriction may be worded in such a way that it either limits the property to residential purposes or goes so far as to prohibit commercial trades or activities expressly. The former restriction would appear to offer plaintiff landowners the greatest chance of success since there is virtually no way to argue that a tower is a residential structure. However, it is at least possible that wireless providers might argue that a limitation commercial trades or activities does not apply to cell towers because of the fact that the tower itself is basically a passive structure, without the normal traffic associated with an on-going trade or activity.²¹³ If this latter type of restriction is present, the landowners might argue that the construction and operation of such towers does constitute a commercial trade or activity in violation of the restriction. The likely response to this opposition would be that the tower itself does not amount to a trade or activity.

It seems reasonably self-evident that these types of towers are commercial in nature. The rental payments that service providers make to landowners in return for permission to locate their facilities in favorable locations clearly supports this conclusion. For example, one source has reported that cell and wireless service providers have paid up to \$5000 a month to rent space at which they can locate equipment. One location in Columbia, Maryland is reported to generate gross rents of \$60,000 to \$70,000 per year, because of its location on a hill. In addition, the operation of towers at commercial levels suggests that there will be a degree of required maintenance which will support the conclusion that these towers are commercial in nature. Certainly they are profit-making for the wireless service

^{213.} This argument could be made in connection with a restrictive covenant prohibiting offensive "trades or activities," as well as in connection with the issue of whether construction and operation of a cellular tower is a "commercial" trade or activity.

^{214.} See Lorn Singer, Look Before You Lease: Telecommunications Providers Finding Space up on the Roof, WEST'S LEGAL NEWS, Dec. 13, 1996, at 1.0, available in 1996 WL 711733. Another source estimates that the usual rental for space on which to locate a cellular tower is a minimum of \$400 per month. See Clary, supra note 201, at 1.

^{215.} Singer, supra note 214, at 2.0.

providers.216

A less obvious question is whether the placement and operation of cell towers is in itself a "trade or activity," as commonly required by these sorts of restrictive covenants. Unfortunately, there is relatively little case law dealing with

this particular issue.

One case which does offer some insight into this issue is Pirtle v. Wade. 217 In Pirtle, the defendant had attempted to place a radio antenna on his house lot as part of his ham radio operator hobby. 218 Several of his neighbors sought to enjoin this on the basis that the antenna would violate one or more of the restrictive covenants on the land. The restrictive covenants in question included a requirement that lots be used only for residential purposes and that no noxious or offensive trade or enterprise be allowed upon the lots in question. 219 The court found that this particular antenna was associated with a hobby, which was not income-producing and therefore not in violation of the residential limitation on the land. 220 In addition, the court interpreted the second restriction as connoting "some activity rather than the existence of a radio antenna. While this construction is not absolute, it is supported by the injunction to resolve all doubts in favor of the unencumbered use of real property."221

Obviously, there are significant differences between the situation in *Pirtle* and the case of a landowner seeking to prevent the construction of a cell tower on nearby property. First, although the *Pirtle* court never recited the size of the proposed radio antenna other than a single reference to it as being "large," it was described as an antenna rather than a tower. It is unlikely that the antenna was comparable to a commercial cell tower in height or mass, and it was certainly

^{216.} One source has put cellular industry sales at \$20 billion per annum, and estimates this figure to be growing at a rate of more than 30% per year. See Jeff Sturgeon, How To Deal with Towers Is a Tough Call, ROANOKE TIMES & WORLD NEWS, Oct. 6, 1996, at 1. Even if there is not much of an issue about towers put up by the telecommunications industry, the question of whether or not a tower is commercial in nature may be a significant issue for other types of towers. See Perry v. Spavale, 828 S.W.2d 709 (Mo. 1992); see also infra notes 235-40 and accompanying text (discussing Perry v. Spavale).

^{217.} Pirtle v. Wade, 593 P.2d 1098 (Okla. 1979).

^{218.} Id. at 1099.

^{219.} See id. at 1100.

^{220.} See id.

^{221.} Id.

^{222.} Id. at 1099-1100.

dissimilar in that the antenna was not producing income.²²³

D. Miscellaneous Restrictions that Might Apply to Cellular **Towers**

By no means is the foregoing intended to be an exclusive listing of the possible restrictive covenants that might provide a basis for challenging a proposed cell tower. For example, there are apparently a number of neighborhoods across the country where the lots are subject to restrictive covenants limiting the rights of homeowners to build towers, antennas or the like.²²⁴ An express restriction on towers should be clearly applicable in the case of a proposed cell tower.

Restrictive covenants requiring building approval prior to the construction of structures on lots may also apply to cell towers. Although there are not many reported decisions dealing with this issue, case law does generally support the notion that towers are in fact the kind of "structures" or "buildings" to which restrictive covenants are designed to apply, especially when the covenants were designed to preserve the residential character of a neighborhood.

For example, in La Vielle v. Seay, one issue was whether a 64-foot tower to be used for domestic television reception and for ham radio transmitting was a "structure" within the meaning of the word as used in subdivision restrictions.²²⁶ The restriction provided that it was the intention of the grantors to restrict their subdivision only to residences of "real architectural merit, good design and suitable material," and therefore the plans and specifications for the erection or alteration of any building, fence, wall or other "structure" had to be approved, in writing, by the original grantors or their authorized representatives.²²⁷ Notwithstanding the argument that the covenant could not

^{223.} See supra notes 198-204 and accompanying text for a description of towers and associated facilities; Donatelli, supra note 198, at 448 n.2 (describing towers as being between 50 and 400 feet in height).

^{224.} See generally Alois Valerian Gross, Annotation, Radio or Television Aerials, Antennas, Towers, or Satellite Dishes or Discs as Within the Terms of Covenant Restricting Use, Erection, or Maintenance of Such Structures Upon Residential Property, 76 A.L.R.4th 498 (1990).

^{225.} La Vielle v. Seay, 412 S.W.2d 587 (Ky. 1966).

^{226.} Id. at 593.

^{227.} Id. at 591.

be applied to the proposed tower because such towers had been unknown at the time when the covenant was drafted and imposed on the land, the court found that the clear import of the restriction was that such towers would be "structures" subject to these approval requirements.²²⁸

Black Horse Run Property Owners Association-Raleigh, Inc. v. Kaleel²²⁹ is a particularly interesting case because the appellate court affirmed a judgment requiring property owners to dismantle and remove three radio towers, each of which were at least one hundred feet tall. The restrictive covenants in that case were quite detailed. In pertinent part they provided that: (1) lots were limited to residential purposes; (2) an architectural control committee; had to preapprove every "structure or fence or wall"; (3) the only permitted "structures" were one detached single family dwelling, a stable, and other accessory buildings as allowed by the architectural control committee and (4) the only "structures" which could be constructed prior to the main building were a stable, barn and fence.²³⁰

The owners of the towers admitted that they had not obtained the approval of the architectural control committee, but they contended that the restrictive covenants did not apply to the towers which they had constructed.²³¹ The appellate court rejected the contention of the tower owners that the term "structures" was ambiguous and also found that there was no need for the trial court to have made findings of fact with respect to the meaning that the parties intended the term to have.²³² The court pointed out that under generally accepted definitions, a "structure" is something that is constructed or built.²³³ Therefore, the court said, a radio tower comes within this definition.²³⁴ Thus, the

^{228.} This case actually reversed the trial court's judgment permanently enjoining property owners from erecting the tower on their residential property, but did so only on the grounds that the trial court should have decided the case on the merits rather than sustaining motions for judgment on the pleadings. See id. at 591.

^{229.} Black Horse Run Property Owners Ass'n—Raleigh, Inc. v. Kaleel, 362 S.E.2d 619 (N.C. 1987).

^{230.} Id. at 620.

^{231.} See id. at 621.

^{232.} *Id.* at 622 (defining "structure" as "something constructed or built"); *see also* Watson Indus. v. Shaw, 69 S.E.2d 505 (N.C. 1952) (holding that it is "beyond question" that a radio tower is a structure).

^{233.} Black Horse Run Property Owners, 362 S.E.2d at 622.

^{234.} Id.

tower owners should have obtained approval of the towers as required by the terms of the covenants.

In *Perry v. Spavale*, 235 there were a number of restrictive covenants affecting the land in question. The most relevant restrictions were that lots were to be used for residential purposes only, that any building had to be approved by the trustees, and that noxious and offensive activities were prohibited. 236 The trial court enjoined the construction of a radio transmission tower which would have been 120 feet in height.237 On appeal, the defendants argued that the restriction was over-broad in that it prohibited the radio tower not just for commercial purposes, but also for use in connection with a ham radio hobby. 238 Declining to venture into a detailed discussion of the commercial/private use problem, the court concluded that the radio tower was a building" subject to the requirement that it be approved by the trustees, as called for in the restrictive covenants.239 The court therefore affirmed the injunction against construction of the proposed tower.240

Homeowners might also oppose the construction of cell towers on the basis of covenants prohibiting the construction of buildings or structures other than a single family dwelling or those on a specified list of approved structures, such as fences, swing sets or the like. Again, case law generally supports the application of this type of restrictive covenant to towers.

In Mitchell v. Gaulding,²⁴¹ the issue was whether a 125-foot tall radio tower violated a restrictive covenant expressly prohibiting the erection or placement of any "structure" on any lot other than one detached single family dwelling, a garage for not more than three cars and outbuildings necessary for typical single family use.²⁴² Affirming a judgment ordering removal of the tower, the court concluded that the word "structure" was used in a broad sense and included the subject radio tower.²⁴³ The court reasoned that

^{235. 828} S.W.2d 709, 710 (Mo. 1992).

^{236.} See id. at 710.

^{237.} See id. at 710-11.

^{238.} See id. at 711.

^{239.} Id. at 711-13.

^{· 240.} See id. at 713.

^{241. 483} S.W.2d 41 (Tex. 1972).

^{242.} Id. at 41-42.

^{243.} Id. at 43.

the restrictive covenant as a whole showed an intention to develop and maintain a subdivision of first-class, single

family residences.244

Similarly, in Parker v. Hough, 245 a group of developers of and lot owners in a residential development sued to enforce restrictive covenants against another lot owner who had erected a radio tower as part of his hobby as a ham-radio operator.246 In that case the radio tower was normally maintained at a height of fifty feet above the ground and had a television antenna on the top.²⁴⁷ The developers and neighbors maintained first that the tower was "objectionable structure" within the meaning of a provision in the restrictions prohibiting billboards or any other objectionable structures erected or maintained on any lot subject to the restrictions. 248 The radio-antenna owner contended that the restriction contained no definition of or standard for an "objectionable" structure and was therefore indefinite, ambiguous and unenforceable.249 The trial court disagreed, finding that the tower was unsightly and objectionable.250 The appellate court affirmed, concluding that where the language of a deed or a restriction is not clear. then in order to ascertain the intention of the parties its language should be interpreted in the light of the subject matter, the apparent object or purpose of the parties and the conditions existing when it was made.²⁵¹

In that case, the plaintiffs also contended the tower violated a restriction which provided that no structure other than a single family-unit dwelling and an accompanying garage could be erected on any building lot. The radio-antenna owner responded that rather than barring his right to build a radio tower, this portion of the restriction specifically permitted accessory structures, including by implication his tower. Upon reviewing the covenant at issue, the court found that it enumerated the following

^{244.} See id.

^{245. 215} A.2d 667 (Pa. 1966).

^{246.} Id. at 668-69.

^{247.} See id. at 669.

^{248.} Id. at 668-69 (providing the exact language of the restriction).

^{249.} Id. at 670.

^{250.} See id. at 669.

^{251.} See id. at 670.

^{252.} See id. at 668.

^{253.} See id. at 670.

permitted structures: a small tool house, a play house, an outdoor fireplace, a paved outdoor living area with adjacent fences, arbors, "etc."; provided such enumerated "structures" did not exceed twelve feet in height.²⁵⁴ The court explained that the word "etc." was undoubtedly used in this deed to connote structures of the same kind or class as those which were specifically enumerated and could not reasonably be interpreted to mean or include a radio tower fifty feet in height.²⁵⁵

This case might also be relied upon to support the proposition that a height restriction on buildings or other structures ought to apply to towers. Since this type of restrictive covenant is not that uncommon, particularly in residential subdivisions, ²⁵⁶ this type of restriction would also be worth considering when wireless service providers propose

to locate cell towers in residential areas.

One recent case, however, does conclude that a monopole antenna may not be a "building" for all purposes. In *Bell Atlantic Nynex Mobile, Inc. v. Lonergan*, ²⁵⁷ the court held that a monopole antenna was not a "building" for purposes of imposing a building height limitation in a local zoning code. ²⁵⁸ However, the zoning code in question specifically defined building as "any structure having a roof supported by columns or similar supports or walls and intended for the shelter, housing or enclosure of persons, animals or chattels." The fact that this result was reached in connection with the interpretation of a zoning ordinance which included a narrow definition should distinguish it from cases where the legal issue is the applicability of privately imposed restrictive covenants which may not include such a narrow definition. Certainly the case should have no application at all to restrictions that are imposed upon all structures rather than being limited to buildings.

In fact, whenever landowners seek to oppose the construction of cell towers, the landowners' representatives should carefully evaluate any restrictive covenant to see if it provides a potential basis for opposing the construction.

^{254. 215} A.2d 667, 668 (Pa. 1966).

^{255.} Id. at 670-71.

^{256.} See Thomas R. Trencher, Annotation, Restrictive Covenants as to Height of Structures or Buildings, 1 A.L.R.4th 1021 (1980).

^{257. 659} N.Y.S.2d 402 (Sup. Ct. 1997).

^{258.} Id. at 405.

^{259.} Id. at 403.

III. STANDING TO ENFORCE RESTRICTIVE COVENANTS

The issue of who has standing to enforce the terms of private deed restrictions is an issue that grows directly out of the conclusion that restrictive covenants can operate as powerful tools in the hands of those opposed to the construction of cell towers in their neighborhoods. Unfortunately, this can often be a complicated issue. So complicated, in fact, that a number of annotations have been prepared on the subject over the years. However, as one source has explained, "[r]estrictive covenants are designed to enhance the value and marketability of property; they are intended to be binding conditions of mutual benefit to the grantor and grantee." Thus, it is generally true that such restrictions are enforceable against initial and subsequent grantees, by anyone in the chain of title from the original grantor who imposed the restrictions. Generally speaking, then, in the case of restrictive covenants designed to protect the value or character of property in a neighborhood, enforcement powers typically extend not only to the parties to the contract, but also to "their heirs, devisees, or express assigns." A serious designs." The property is a serious contract, but also to "their heirs, devisees, or express assigns."

Thus, if restrictive covenants are placed on lots in a subdivision, or even on other lots which are not included in a subdivision as such, anyone in the chain of title from the landowner or developer who originally imposed the restrictions, as well as the original developer, ought to have standing to enforce the covenants.

On the other hand, these rules also mean that individuals in a subdivision different from the land on which a wireless service provider proposes to locate a cell tower will probably not have standing to enforce restrictive covenants, even if their land is extremely close to the proposed construction. Take for example the situation which faced the

^{260.} See Maurice T. Brunner, Annotation, Who May Enforce Restrictive Covenant or Agreement as to Use of Real Property, 51 A.L.R.3d 556 (1973); see also Annotation, Covenant Restricting Use of Land, Made for Purpose of Guarding Against Competition, As Running with Land, 25 A.L.R.3d 897 (1969); Annotation, Affirmative Covenants as Running with the Land, 68 A.L.R.2d 1022 (1959).

^{261. 20} Am. Jur. 2D Covenants § 150 (1995).

^{262.} See id. § 151.

^{263.} See id. § 251.

^{264.} Brunner, *supra* note 260, at 560; *see also* RESTATEMENT OF PROPERTY: SERVITUDES § 552 (1944).

Arkansas courts in *Rickman v. Mobbs.*²⁶⁵ That case involved two subdivisions, which were acquired "at different times from different owners, platted... into lots at different times, and disposed of... at different times...." The plaintiffs who were seeking to enforce the deed restrictions were the owners of land in one of the subdivisions; the defendant owned land in the other subdivision. The court refused to allow the plaintiffs to enforce the restriction because they were not in the chain of title to land in the subdivision with the restrictive covenant at issue. Although the court refused to allow those plaintiffs to sue, it did note that "[t]here is no doubt that the purchaser of land covered by a bill of assurance is entitled to have the reciprocal obligations of restrictions thus established enforced against the owners and purchasers of other lands subject to the same bill of assurance." Outsiders, however, have no such rights.

Generally speaking, if a wireless service provider proposes to locate a cell tower in a given subdivision, other landowners in the same subdivision should have standing to enforce any applicable restrictive covenants, absent waiver or abandonment. If the land is not in a subdivision, the question is likely to be whether the plaintiff's land and the defendant's land were originally owned together by a single owner; an owner who imposed restrictive covenants on both tracts of land. Thus, even if the original grantor or developer is no longer in the picture, neighboring landowners may well have standing to sue to enforce any applicable restrictive

covenants.

IV. PRE-EXISTING TOWERS: THEIR EFFECT ON THE ENFORCEMENT OF RESTRICTIVE COVENANTS AND THE CONSTRUCTION OF NEW TOWERS

One potential problem with relying on restrictive covenants to prevent the construction of new cell towers is that wireless service providers may strategically choose areas in which other towers already exist. In fact, this specific advice is sometimes given to those in the wireless services industry as one way in which to facilitate approval of

^{265.} Rickman v. Mobbs, 490 S.W.2d 129 (Ark. 1973).

^{266.} Id. at 130.

^{267.} Id. at 131.

^{268.} For a discussion of the issues of waiver and abandonment see infra Part IV.

proposed construction.²⁶⁹ The issue that this raises for potential plaintiffs is whether the failure to object to preexisting towers or similar structures will operate as a bar to claims against additional towers.

To some extent, it is difficult to speak in generalities about whether this amounts to waiver or abandonment of a particular covenant, because "[a] number of jurisdictions may have rules, regulations, constitutional provisions, or legislative enactments directly bearing upon this subject." However, it is well established that the mere fact that area property owners have acquiesced in other violations of a restrictive covenant does not automatically amount to abandonment, waiver, estoppel or laches. 271

For example, it is quite clear that failure to object to insignificant or distant violations will not preclude the enforcement of a covenant against a violation which is significant and nearby. Consistent with this rule, it has also been held that a waiver does not result unless and until there have been general and multiple violations without protest. In fact, a covenant cannot be considered abandoned unless it has been shown that the restrictions have "been violated to such an extent as to reasonably lead to the conclusion that [they have] in fact been abandoned."

In addition, a number of authorities have concluded that waiver occurs only "where, by failing to act, one leads another to believe that he or she is not going to insist upon the covenant and such other person is damaged thereby"²⁷⁵ It is also clear that there can be no waiver in the absence of

^{269.} For example, the FCC advises that "wireless service providers may be able to expedite the zoning authorization process if they target, where possible, site locations that are compatible with the proposed use..." FCC FACT SHEET # 2, supra note 21, at 7.

^{270.} Jay M. Zitter, Annotation, Waiver of Right to Enforce Restrictive Covenant by Failure to Object to Other Violations, 25 A.L.R.5th 123, 142-43 (1995).

^{271.} See Ingram v. Wirt, 869 S.W.2d 685 (Ark. 1993); Welchman v. Norman, 841 S.W.2d 614, 616 (Ark. 1992) ("the mere showing of other violations does not always constitute acquiescence or waiver of the restrictions.").

^{272.} The rule is that landowners "are entitled to ignore inoffensive violations of [a] restriction without forfeiting their right to restrain others which they find offensive." Gordon v. Village of Lawrence, 443 N.Y.S.2d 415, 416 (N.Y. App. Div. 1981) (multiple citations omitted); see also 20 Am. Jur. 2D Covenants § 240 (1995).

^{273.} See Harris v. Pierce, 73 So. 2d 330 (La. 1954).

^{274. 20} Am. Jur. 2D Covenants § 238 (1995).

^{275. 20} Am. Jur. 2D Covenants § 329 (1995); see also Zmotony v. Phillips, 529 S.W.2d 760 (Tex. 1975); Ballard v. Kitchen, 36 S.E.2d 390 (W. Va. 1945).

knowledge of the facts upon which the waiver is based.²⁷⁶

In the case of newly proposed cell towers, these rules provide potential plaintiffs with several arguments if they want to oppose a new tower even though one or more existing towers are already located in the area.

First, if the other towers are smaller, different in character or further away from the plaintiffs' homes, the plaintiffs can argue that the new tower is a violation which is different in kind and character from the prior violations. Thus, the preexisting towers should be disregarded in connection with the current opposition to the proposed tower. The greater the distinctions which can be made, and the more the plaintiffs can show that the proposed tower is a more significant burden on the land than the existing structures, the stronger this argument will be.

In addition, in most jurisdictions, neighbors will be notified prior to the construction of any proposed tower. If the neighbors act quickly to enforce the restrictive covenant, especially if they can act before actual construction has begun, it will be difficult for the tower's proponent to claim that it has been damaged by any failure to enforce the prior restrictions. Thus, the faster landowners act to protect their

rights, the greater their chances of success.277

Finally, it should also be possible to argue that the doctrine of waiver should not apply to current proposals if the preexisting towers were constructed several years ago before the emergence of so much literature informing individuals of the potential health risks and potential damage to property values. The fact is that much of the information suggesting the link between EMF and various health risks is very new. As mentioned earlier, legal commentators have acknowledged the shift in scientific evidence, pointing out that the once-common belief that low levels of EMF are harmless "is no longer the consensus among experts, especially among epidemiologists." In fact, most of the available studies which suggest that there are health risks associated with low levels of EMF were reported in either the late 1980s or the 1990s, and the bulk of such information was

^{276.} See Wald v. West MacGregor Protective Ass'n, 332 S.W.2d 338 (Tex. 1960).

^{277.} See COMMUNITY GUIDE TO CELLULAR PHONE TOWERS, supra note 1, at 18 ("The most important part of opposing tower and antenna siting is to get your voice heard early.").

^{278.} Young et al., *supra* note 191, at 397.

reported in just the last three or four years. Thus, homeowners should also argue that when the existing towers were constructed, area residents did not and could not have known of the health risks and the attendant negative effect

on property values.

While the issue of waiver may be significant, it should not be automatically assumed that the presence of other towers in the vicinity necessarily means that an attempt to prevent additional construction will be futile. The doctrine of waiver is complex and is likely to require a consideration of the special facts of each case. There are, however, a number of potential arguments that might be made in support of the proposition that failure of landowners in the area to object to prior towers should not preclude them from enforcing a restrictive covenant against the construction of a new tower.

CONCLUSION

Ideally, private landowners should not have to rely on the existence of private restrictive covenants to protect the quality of their lives, the character of their neighborhoods and the value of their property. These issues represent some of the primary justifications for the existence of planning boards and similar bodies generally responsible for the promulgation and enforcement of suitable land use regulations.

Unfortunately, the reality of the situation is that in many communities, these authorities are inadequately prepared to protect private citizens against the potential disadvantages caused by the rapid proliferation of cell towers. Planning boards have simply not had the time or, in many cases, the resources to develop adequate rules. They are also limited by the Telecommunications Act of 1996 which precludes state and local authorities from making siting decisions based on the "environmental effects" of the radio frequency emissions of such towers. 279 Thus, landowners who find out that one of their neighbors has leased his or her land to a wireless service provider so that the provider can construct a cell tower in the area are likely to be in need of alternatives if they wish to oppose the construction of the tower in their neighborhood. The strategy of relying on restrictive covenants, as discussed in this Article, provides these

landowners with at least one way in which to oppose the construction of cell towers.