

Telecommunication Towers Subject Guide

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Telecommunication towers include all types of structures that transmit any communication signal such as radio and TV broadcasting, emergency medical services (EMS), microwave, global positioning satellite (GPS), and cellular phone antennas and towers. There are two aspects to consider when using the resources on this guide. The first is the valuation of telecommunication towers, and the second is the impact of telecommunication towers on property values. Both types of resources are intermingled below.

Telecommunication towers enable people to lead 21st century connected lives in a mobile ecosystem. The demand for new towers will continue to grow as the number of new cellular users and new services expands. The benefits of having towers is tax revenue and improved connectivity, but assessors must value these towers accurately and take into account the impact of the structure on property values.

Chart showing the top 10 populated areas in the US with the average cell tower lease rate in 2016 for ground leases:

BTA Name	State	Population	SITA Anticipated Data
New York	NY	18713662	\$1,900
Los Angeles	CA	15989520	\$1,500
Chicago	IL	8813457	\$1,300
San Francisco-Oakland-San Jose	CA	7100609	\$2,500
Philadelphia, Wilmington, Trenton	PA, DE, NJ	5992183	\$1,400
Dallas-Fort Worth	TX	5253673	\$1,000
Detroit	MI	4987981	\$1,200
Houston	TX	4874875	\$1,000
Washington	DC	4591764	\$1,750
Boston	MA	4281396	\$1,500

Taken from **Steel in the Air, Inc.**, by Ken Schmidt, <http://www.steelintheair.com/cell-tower-lease-rates>, accessed on March 30, 2018.

Articles & Books in LibraryLink Catalog

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Cell phone towers and house prices in New Zealand: Economic effects and policy implications, by Olga Filippova and Michael Rehm. *International Journal of Housing*, 2014, 7 (1), 18-29.

Cell phone towers do not affect property values, by Richard A. Forsten, Wendie C. Stabler, and Olufunke O. Fagbami. *Probate and Property*, 2016, 30 (3), 10-15.

Cell site and wireless technology overview: identifying parts of the tower, how cellular technology works, site selection, leasing principles, by Michael S. Heaton and Dale A. Dale. Presented at the 72nd Annual International Conference on Assessment Administration, 2006.

Cell tower and carrier equipment valuations, by Walt Woodard and Randy Scott. Presented at the 78th Annual International Conference on Assessment Administration, 2012.

The changing landscape of telecommunications valuations, by Tom Mannion. *Valuation Strategies*, 2014, 18 (2), 34-40.

Cost approach revisited: A more appropriate property tax valuation model for telecommunications properties, by John H. Davis. *Journal of Property Tax Management*, 2000, 12 (2), 33-40.

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Impact of cell phone towers on house prices in residential neighborhoods, by Sandy Bond and Ko-Kang Wang. *The Appraisal Journal*, 2005, 73 (3) 256-277.

Impact of communication towers on residential property values, by Allen G. Dorin and Joseph W. Smith. *Right of Way*, 1999, 46 (2), 10-17.

Impact of proximity to cell phone towers on residential property values, by Olga Filippova and Michael Rehm. *International Journal of Housing Markets and Analysis*, 2011, 4 (3), 244-267.

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Price effects of HVTLS on abutting homes, by Steven C. Bottemiller and Marvin L. Wolverton. *The Appraisal Journal*, 2013, 81 (1), 45.

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Telecommunications infrastructure properties, by Judson H. Clendaniel. *The Appraisal Journal*, 2005, 73 (3), 278-287.

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Wireless communications: local valuation, on-site inventory, and replacement cost new estimates, by Gregory Popham. *Fair & Equitable*, 2015, 13 (9), 15-17.

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[Appraisal of cell towers and billboards](#), by John A. Hillas, Benjamin Scott, and Brett I. Reynolds. Presented at the Northern California Chapter of the Appraisal Institute Fall Conference, 2016.

[Average lease rates in the top 10 cities](#), by Ken Schmidt. *Steel in the Air*, 2013.

[Perpetually yours: easements, like diamonds, may last forever](#), by Scott Vandermergel and Peter K. Ewald, Jr. *The Michigan Assessor*, May 2016, 57 (5), 10-11.

[Power lines and property prices](#), by Richard J. Roddewig and Charles T. Brigden. *Real Estate Issues*, 2014, 39 (2), 15-33.

[Valuation of towers and associated real property](#), by the New York State Office of Real Property Services, 2001.

Websites & Software

[Cell Site Leasing Market Data](#) by Tower Cap Advisors (based on TCA sales)

[Cellular Telecommunications Industry Association](#) (CTIA) Annual Industry Survey and general industry statistics.

[FCC Registered Cell Phone and Antenna Towers](#) in the United States.

[Lease Rate Calculator & Lease Buyout Calculator](#) by Steel in the Air.

[OpenSignal](#). Survey signal strength in any area to identify if it's a good prospect for additional tenants (i.e. network providers). Many websites rank network providers by network type (2G, 3G, 4G) by coverage area, signal strength, data transfer speed, etc.

[Telecommunications Industry Association](#) (TIA) Standard on tower construction.

[Top 100 Tower Companies in the US](#) by WirelessEstimator.com

[Wireless Industry Information](#) by WirelessEstimator.com

[Wireless Infrastructure Association](#) (WIA)