



**Committee PHED**  
**Staff:** Jeffrey L. Zyontz, Senior Legislative Analyst  
**Purpose:** To receive testimony – no vote expected  
**Keywords:** #TelecommunicationsTowers

**AGENDA ITEM 7**  
**November 19, 2019**  
**Public Hearing**

## **SUBJECT**

19-07, Telecommunications Towers – Limited Use

## **EXPECTED ATTENDEES**

See speakers list

## **COUNCIL DECISION POINTS & COMMITTEE RECOMMENDATION**

N/A

## **DESCRIPTION/ISSUE**

This is a proposed amendment to the Montgomery County Zoning Ordinance to:

- allow certain telecommunications towers as a limited or conditional use in certain residential zones;
- revise the standards for telecommunications towers allowed as a limited or conditional use;
- revise the conditional use findings required for the replacement of a pre-existing pole; and
- generally amend use requirements to address certain telecommunications towers.

## **SUMMARY OF KEY DISCUSSION POINTS**

The ZTA would allow poles with antennas as a limited use in residential zones where the pole for the antenna would replace a pre-existing utility pole, streetlight pole, or site plan-approved parking lot light pole. The replacement pole must be at least 60 feet from the nearest habitable building, with conditions for screening and design. The poles allowed as a limited use would be limited in height. (For streetlights, the height of the pole that is being replaced is limited to the height of the pre-existing pole plus 6 feet when the abutting right-of-way has a paved section width of 65 feet or less. When the abutting right-of-way has a paved section width greater than 65 feet, the height above pre-existing poles would be 15 feet. For utility poles and parking lot lights, the height of the antenna is limited to the height of the pre-existing utility or parking lot light pole plus 10 feet.) The ZTA would also change the standards and procedures for poles that require conditional use approval.

### **This report contains:**

Staff Public Hearing Memorandum  
ZTA 19-07

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**Public Hearing**

**MEMORANDUM**

November 14, 2020

TO: County Council

FROM: Jeffrey L. Zyontz, Senior Legislative Analyst

SUBJECT: Zoning Text Amendment 19-07, Telecommunications Towers – Limited Use

PURPOSE: Public hearing – no vote required

This public hearing memorandum is unusually long.<sup>1</sup> Based on past public hearings on this topic, this memorandum provides background information on anticipate testimony. Knowing that facts may be challenged, Staff has also attempted to identify the source of information.

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**Summary of ZTA 19-07**

Zoning Text Amendment (ZTA) 19-07, (lead sponsor Councilmember Riemer, co-sponsors Councilmembers Alborno and Rice) was introduced on October 1, 2019. ZTA 19-07 would:

- allow certain telecommunications towers as a limited or conditional use in certain residential zones;
- revise the standards for telecommunications towers allowed as a limited or conditional use;

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<sup>1</sup> If Shakespeare was correct when he said "Brevity is the sole of wit"; there is nothing witty about this memorandum.

- revise the conditional use findings required for the replacement of a pre-existing pole; and
- generally amend use requirements to address certain telecommunications towers.

The ZTA would allow poles with antennas as a limited use in residential zones where the pole for the antenna would replace a pre-existing utility pole, streetlight pole, or site plan-approved parking lot light pole.<sup>2</sup> The replacement pole must be at least 60 feet from the nearest habitable building, with conditions for screening and design. The poles allowed as a limited use would be limited in height. (For streetlights, the height of the pole that is being replaced is limited to the height of the pre-existing pole plus 6 feet when the abutting right-of-way has a paved section width of 65 feet or less. When the abutting right-of-way has a paved section width greater than 65 feet, the height above pre-existing poles would be 15 feet. For utility poles and parking lot light poles, the height of the antenna is limited to the height of the pre-existing utility or the height of a pre-existing parking lot light pole plus 10 feet.)

ZTA 19-07 would also amend the conditional use standards for poles in residential zones that are under 50 feet and do not meet the limited use standards. If the Hearing Examiner determines that additional height above the limited use standards and reduced setback are needed to provide service or that a reduced setback or increased height will allow the support structure to be located on the property in a less visually-obtrusive location, the Hearing Examiner may reduce the setback requirement or increase the height. Under any circumstances, the setback must be at least 30 feet from a building. ZTA 19-07 includes a revision to the conditional use process to allow for a decision to be made within 90 days, which is a Federal Communication Commission (FCC) shot clock requirement for new poles. Reducing the processing time requires that appeals of the Hearing Examiner’s decisions go straight to the Circuit Court. ZTA 19-07 would also allow for batching applications when those applications are in the same neighborhood and have similar issues.

### **Why change the zoning standards for Telecommunications Towers?**

Wireless technology is rapidly changing to offer faster speeds, enhanced reliability, and expanded capabilities. The FCC believes that greater capacity is needed to meet future demands. The next generation of wireless technology (5G) has dramatically more capacity than 4G. The demand for more wireless capacity is coming from the bandwidth and speed required for mobile video, driverless cars, and/or connected appliances.<sup>3</sup> Telecommunications providers have indicated an interest in creating a 5G

<sup>2</sup> Under 59.3.5.14.C, except for single-unit housing, antennas are allowed on existing structures as a limited use in residential zones. Antennas on existing structures are not limited by the setbacks to homes. DOT has not done a survey of existing traffic signals to determine if a small cell antenna can be mounted on them. All antennas on street lights could only be accommodated on new replacement poles. Existing street light poles were not designed to accommodate additional weight. Existing wooden utility poles may be able to accommodate the weight of small cell antennas without replacement. A utility pole replaced for the purpose of adding an antenna would be considered a new structure.

<sup>3</sup> Deloitte, 2019 Telecommunications Outlook:

“Even before the rollout of the 5G, there is work to be done. Consumers continue to display an insatiable appetite for mobile data. With more data-heavy applications securing their place in consumers’ daily lives, we only expect this trend to continue. Consumers demand higher data limits, and they opt in for unlimited data plans. According to the US edition of Deloitte’s 2018 Global Mobile Consumer Survey, 37 percent of respondents now have unlimited data plans—up from 25 percent in 2017.1 We now see providers offering lower prices for these plans as well as a variety of bundled services, decreasing the average revenue per user (ARPU). To balance the competitive landscape and possibly stabilize pricing, telecom companies will likely be looking to expand their boundaries and search for new opportunities.”

<https://www2.deloitte.com/us/en/pages/technology-media-and-telecommunications/articles/telecommunications-industry-outlook.html>.

network in the County.<sup>4</sup> Expanding wireless speed and bandwidth will cost money. Telecommunications companies make money only by providing services for which customers are willing to pay. There is a risk these companies are wrong and there will be excess equipment in rights-of-way; however, these companies will not invest unless they see the possibility of financially beneficial uses. Residents benefit by having their future communications demands met.

Wireless networks will increasingly take advantage of millimeter wave spectrum above 24 GHz.<sup>5</sup> That spectrum can carry a lot of information, but the signal travels a short distance. The technology requires many antennas that are closer to the device sending and receiving information.<sup>6</sup> While today's technology relies on relatively few but tall macro towers, 5G will also need many more, shorter antennas.

In the opinion of the sponsors, the opportunities for innovations in health care, education, transportation, agriculture, entertainment, and many other sectors should not be understated. Wireless technologies increasingly help power the County's economy. The sponsors of ZTA 19-07 believe that a robust 5G network will contribute to County residents' quality of life and do not want the County to be left behind.

The sponsors of ZTA 19-07 also believe that the proposed ZTA strikes the right balance. It ensures that the industry is incentivized to use poles that are 60 feet or more from a building. When the setback distance is between 60 and 30 feet, residents will continue to have a voice in the process to argue that there are less obtrusive locations.

The sponsors are concerned about preemption efforts by the FCC and possibly the Maryland General Assembly. This ZTA is an opportunity for the County to set its own standards. In the opinion of the sponsors, if the Council does not act, state rules will be imposed on the County, and those rules will be less favorable than what this ZTA would achieve. There is also a risk that if the standard in the current FCC orders concerning "effective prohibition" and "shot clocks" are upheld, the County's current regulation may be found non-compliant.<sup>7</sup>

### **The status of applications in residential zones for poles under 50 feet tall**

Of the 134 applications for antennas on poles 50 feet or lower in residential zones since 1996, the Transmission Facilities Coordination Group (Tower Committee) has recommended approval of 84 applications by the Department of Permitting Services or the Hearing Examiner. Of the recommended applications, 24 are on street lights; all street light applications require a new replacement pole. There were 60 approved applications for antennas on utility poles. Exactly 55 of these 84 applications were for co-location (7 of these had setback between 30 and 60 feet. All other setbacks were greater than 60 feet; four applications had a setback greater than 300 feet); 29 applications were for new poles. Of the recommended applications for new poles, all have setbacks for houses at least 30 feet; eight have setbacks of 60 feet or more. Only three recommended applications have a setback of more than 300 feet.

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<sup>4</sup> There are 50 "tableted" applications submitted to the Tower Committee.

<sup>5</sup> FCC FACT SHEET, Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, Fourth Report and Order, GN Docket No. 14-177.

<sup>6</sup> How 5G Networks Will Change America, Miriam Tuerk, Forbes Magazine (Feb. 27, 2019).

<sup>7</sup> Except for antennas on existing structures, cell antennas are prohibited in the right-of-way, except where the antenna can be located 300 feet from a building. There are very few places where the current provision would allow new or replacement poles. Required minimum front setback in residential zones varies between 20 and 60 feet.

There are 50 tabled applications in residential zones. In these cases, the applicant may be hoping for legislation that would allow limited use approval instead of conditional use approval. Of the tabled applications, nine had a setback between 30 and 60 feet and one application had a setback greater than 300 feet.

	<b>Recommended</b>	<b>Tabled</b>	<b>Total</b>
<b>Setbacks</b>			
Between 30-60	15	9	24
Between 60-300	62	40	102
More than 300	7	1	8
<b>Total</b>	<b>84</b>	<b>50</b>	<b>134</b>
<b>Type of Pole</b>			
Utility	60	33	93
Street light or monopole	24	17	41
<b>Total</b>	<b>84</b>	<b>50</b>	<b>134</b>

A map of existing poles in County rights-of-way and their setbacks from buildings is available on a GIS map prepared by Planning staff.<sup>8</sup>

### **Industry standards for 5G**

The deployment of a 5G system will require a network of antennas with equipment. The radio wave frequencies used for 5G are highly susceptible to buildings (no penetration), foliage (exaggerated degradation) and topography. Antenna locations are typically spaced at least 300 feet between each other, depending upon interference. If co-location is not possible, then two antennas may need to be deployed in the same area closer than 300 feet apart to provide service by different providers.

To not exceed FCC radio frequency guidelines, antennas need to be 15 feet from the ground or higher. The industry’s preference is for jurisdictions to allow antennas 10 feet above the height of a pre-existing pole to allow for multi-carrier co-location with 4G and 5G arrays.<sup>9</sup>

Wood utility poles typically need to have at least an 11-inch base diameter to support wireless antennas and equipment. Some, but not all, utility poles need to be replaced to accommodate 5G antennas. All street light poles and most traffic signal poles will need to be replaced to accommodate the weight of antennas and equipment. For metal poles, the top of the pole would need to be 6 inches in diameter at a minimum. Typical pole diameters at the base are 8, 10, or 12 inches. Poles larger than 12 inches in diameter are concealment poles with equipment mounted internally in the pole instead of in a shroud or in a larger-based unit.<sup>10</sup>

<sup>8</sup> <https://mcatlas.org/antennazta> (press “Cancel” at prompt for password).

<sup>9</sup> Wireless carriers can co-locate on the same physical pole but would need a dedicated radio and antenna element (different carriers could not share a single antenna array). There is no engineering reason to not co-locate together.

<sup>10</sup> In the absence of FCC preemption, County regulations could control the design of poles. All replacement poles could be designed to mimic the original pole and structurally capable of supporting any proposed multi-carrier antenna and associated equipment.

Required equipment may be elevated on the pole, in the pole, or at the base of a pole. When equipment is incorporated into the base of poles or into the pole itself, it may require active cooling, which is not preferred. Active cooling and the sound abatement required to meet noise standards can increase the space required for equipment.

## **Federal actions**

FCC regulations and the Communications Act preempts state or local regulations that "effectively prohibit" the provision of wireless services. There are time limits for local consideration of applications, on fees local governments may charge,<sup>11</sup> and on how jurisdictions may regulate issues such as equipment design and other aesthetic concerns. In short, the FCC is making it easier for private companies to take local governments to court if they believe municipal policies are effectively prohibiting network investment.

The County filed petitions for judicial review of several FCC orders.<sup>12</sup> The court has not acted on those petitions. The Declaratory Ruling portion of the FCC Order adopts the position that a state or local government need only "materially inhibit" a particular small wireless facility deployment in order for its action to constitute an "effective prohibition" under Section 253 or 332(c)(7). Unless changed by the County's appeal, the County's current zoning restrictions may be viewed as materially inhibiting 5G deployment.

## **Health Effects**

Under federal law, local jurisdictions are preempted from regulating telecommunications antennas on the basis of health, as long as those facilities are operating within FCC-determined power and frequency ranges.<sup>13</sup>

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<sup>11</sup> The FCC has required that County fees associated with eligible facilities requests be cost-based. There is a presumed safe harbor for application and use fees, but no specific cap on fees. The safe harbor amounts are (a) \$500 for a single up-front application that includes up to five Small Wireless Facilities, with an additional \$100 for each Small Wireless Facility beyond five; (b) \$270 per Small Wireless Facility per year for all recurring fees, including any possible ROW access fee or fee for attachment to municipally-owned structures in the ROW; and (c) \$1,000 for nonrecurring fees for a new pole. Nothing in the Order prevents a local government from charging higher fees. However, under the FCC's framework, if a carrier files a lawsuit challenging the fees imposed by a local government, the burden would be on the local government to demonstrate that the amount is a reasonable approximation of its costs and that its costs are reasonable.

<sup>12</sup> The following issues are of particular focus in the FCC orders being challenged:

1. interpretation of the "prohibit or effectively prohibit" language in Sections 253 and 332 of the Communications Act, and the "material inhibition" standard the FCC adopted;
2. elimination of distinction between actions taken in regulatory vs. proprietary capacity, in rights-of-way;
3. application of one-time and recurring fees for right-of-way access;
4. standard for aesthetic, undergrounding, and spacing requirements;
5. imposition of new shot clocks applicable to small wireless facilities, presumptions localities must overcome to defend shot clock violations, and the expansion of shot clocks to cover all applications;
6. moratoria criteria where time-limited or intended to allow study and planning; and
7. prohibition on mandatory pre-application meetings.

<sup>13</sup> 47 U.S.C. §332(c)(7)B.

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.

Current 5G radio options from Nokia, Samsung, and Ericsson range from 250 to 1000W per panel. The limit for 5G bands is 1585W. Operators have lobbied for the allowed power output to be increased by 20 percent.

The County and several other jurisdictions asked the FCC to first complete a stalled 2013 evaluation to determine if the Commission's existing radio frequency (RF) safety standards would adequately protect the public health from RF emissions.<sup>14</sup> The FCC health study to date only looked at the heat effects of RF transmission and did not look at such non-heat related effects as cancer risks. Academic health studies were conducted after 1996 that suggest there are cancer risks. The FCC refused to review its 23 year-old standards, simply stating, "[w]e disagree" with concerns raised about RF emissions from 5G small cell facilities.<sup>15</sup> In light of the FCC's refusal to address the RF issue, the County joined other jurisdictions in a petition for judicial review. The grounds for the Court's review is to determine if the FCC violated the National Environmental Policy Act and the Administrative Procedure Act. The County alleges a violation of failing to reevaluate RF standards to determine whether these standards remain protective of human health.<sup>16</sup>

The outcome of the County's appeal does not change the fact that the Council is preempted by Congress from regulating RF emissions because of its health effects. Residents are free to address any topic in testimony, but Staff will recommend that the Council base any regulation on considerations other than the possible health effects of RF emissions.

### **Effects on Property values**

Valbridge Property Advisors recently completed market studies in Boston, Dallas, Phoenix, and Raleigh to determine the impact of wireless communications towers on residential property values. The studies were conducted in multiple sub-areas of each city. Home sale values demonstrated no measurable difference for those homes within a 0.25-mile radius sphere of influence of the cell tower and those homes in a 0.5-1.0 mile radius outside of the cell tower sphere of influence.<sup>17</sup> In many of the sub-areas, home prices increased nominally.

There are other studies that come to the opposite conclusion. One study that focused on visual effects in Alabama found that properties located within 0.72 kilometers of the closest tower (2,632 feet) had property values that declined 2.46 percent, on average, compared to homes outside tower visibility range.<sup>18</sup> A Kentucky study found that the property with a visible antenna located 1,000 feet away sold for 1.82% less than a similar property located 4,500 feet away.<sup>19</sup> One study (based on appraisal experience but not a survey) concluded that the less intrusive the facility, the less significant the impact.<sup>20</sup>

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<sup>14</sup> The Commission's standards were last evaluated in 1996. The 5G frequencies are different from the frequencies that were previously approved.

<sup>15</sup> See <https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety#Q5>.

<sup>16</sup> See [https://www.khlaw.com/Files/39783\\_Montgomery\\_County\\_Brief.pdf](https://www.khlaw.com/Files/39783_Montgomery_County_Brief.pdf).

<sup>17</sup> How Does the Proximity to a Cell Tower Impact Home Values? Valbridge News 2018 September 14, 2018. No measurable difference is defined as less than 1% difference; nominal difference is defined as 1-3%.

<https://www.valbridge.com/news-article/647/how-does-the-proximity-to-a-cell-tower-impact-home-values>.

<sup>18</sup> "Wireless Towers and Home Values: An Alternative Valuation Approach Using a Spatial Econometric Analysis," The Journal of Real Estate Finance and Economics, Springer, vol. 56(4), pages 653-676, May 2017.

<sup>19</sup> The Cost of Convenience: Estimating the Impact of Communication Antennas on Residential Property Values", Stephen L. Locke and Glenn C. Blomquist, Land Economics, February 2016.

<http://gattonweb.uky.edu/Faculty/blomquist/LE%202016%20Locke%20Blomquist%20towers.pdf>.

<sup>20</sup> "Impact of Communication Towers and Equipment on Nearby Property Values", Burgoyne Appraisal Company, March 7, 2017. <https://ehtrust.org/wp-content/uploads/Cell-Towers-Home-Values.pdf>.

The two studies often cited in support of the contention that property values would be lower due to a dwelling's proximity to a cell tower are suspect.

The National Institute for Science, Law and Public Policy surveyed 1,000 **self-selected** respondents (including those who completed the survey by June 28, 2014) and published the result in a paper titled, "Neighborhood Cell Towers & Antennas—Do They Impact a Property's Desirability?"<sup>21</sup> The study concluded that 94% of those who responded said that their interest in buying a property and the price the respondents would pay would be impacted by the presence of a nearby cell tower.

The second frequently-cited study was published in *The Appraisal Journal* in the summer of 2005. Focusing on four case study neighborhoods in Christchurch, New Zealand, the article presented the results from both an opinion survey and market sales analysis undertaken in 2003 to determine residents' perceptions towards living near a cell tower and how this may have impacted property prices. Overall, respondents said they would pay (and price data found) from 10%-19% less to more than 20% less for a property if it were in close proximity to a cell tower. The study is limited in scope, out of country, and out of date.<sup>22</sup> One of the authors of this study found similar results in Florida.<sup>23</sup>

Anecdotal evidence exists in both directions. An appraiser in New Jersey found that a 130-foot cell tower reduced property values (2012).<sup>24</sup> An article in the *National Real Estate Investor Quality* concluded that quality cell phone coverage can have a significant impact on the desirability and value of a property.<sup>25</sup> In a 2015 Delaware case, a court found that a cell tower did not impact surrounding property values.<sup>26</sup>

ZTA 19-07 is somewhat focused on short poles in rights-of-way. Staff could not determine if any of the aforementioned studies focus on the short poles in rights-of-way.

### **Montgomery County Telecommunications Tower Legislative History**

Before 2014, in residential zones, any privately-owned telecommunications facility on privately-owned land was required to be approved through the conditional use (special exception) process; private towers on land owned or controlled by the County were allowed as a permitted use.<sup>27</sup>

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<sup>21</sup> The survey was circulated online through email and social networking sites in both the U.S. and abroad. It sought to determine if nearby cell towers and antennas, or wireless antennas placed on top of or on the side of a building, would impact a homebuyer's or renter's interest in a real estate property.

<sup>22</sup> *The Impact of Cell Phone Towers on House Prices in Residential Neighborhoods*, Sandy Bond, PhD, and Ko-Kang Wang. *The Appraisal Journal*, Summer 2005.

This study was followed by a 2011 study. The later study "could not establish a relationship between cell towers and house prices with the exception of armed monopole towers located in residential areas due to such towers' acute visual disamenit." *The impact of proximity to cell phone towers on residential property values*, Olga Filippova, Michael Rehm, *International Journal of Housing Markets and Analysis* (August 9, 2011).

<sup>23</sup> *The Effect of Distance to Cell Phone Towers on House Prices in Florida*, Sandy Bond, PhD, *The Appraisal Journal*, Fall 2007.

<sup>24</sup> <https://patch.com/new-jersey/bridgewater/appraiser-t-mobile-cell-tower-will-affect-property-values>.

<sup>25</sup> *The Growing Impact of Wireless Accessibility on Property Values*, Vince Varga, December 8, 2016.

<sup>26</sup> *AT&T v. Sussex County Board of Adjustments*, Delaware Superior Court, 2015; property value changes were measured after a temporary antenna was constructed.

<sup>27</sup> Section 59.A.612. The preferred treatment for publicly-owned land goes back to ZTA 89011, effective August 21, 1989.



The 2014 Zoning Ordinance Rewrite required all private towers to be approved as a conditional use. The setback standard remained unchanged from the pre-2014 code...the greater of 300 feet or one foot for every foot in height. However, the Hearing Examiner may reduce the setback to no less than one foot for every foot in height if evidence indicates that the reduced setback will allow the support structure to be located on the property in a less visually-intrusive location. Both before and after 2014, the setbacks applied to new structures and not pre-existing structures.

In 2016, the Council considered ZTA 16-05. That amendment would have allowed small cell towers in residential zones as a limited use. A pole in the right-of-way was allowed if 30 feet tall or less, with a setback from dwellings of one foot for every foot in pole height.<sup>28</sup> The Council conducted a public hearing and the PHED Committee held one worksession; however, it was never brought to Council for a vote. The ZTA expired.

The Council then reviewed the restrictions on 5G towers in 2018. By approving ZTA 18-02, the Council allowed deployment of 5G antennas in mixed-use and non-residential zones with reduced setbacks. In the fall of 2018, the previous Council also took up the question of allowing a limited use in residential zones with a 30-foot setback.<sup>29</sup> Ultimately, the Council did not support shorter cell towers as a limited use in residential zones.

### **Other Neighboring Jurisdictions' treatment of antennas in residential zones**

#### *Prince George's County*

On land under any ownership, poles for antennas must be set back from a property line one foot for every one foot in the height of the pole. On public land, with proof of structural engineering, the setback may be reduced to half the height of the pole. The maximum height on public land is 199 feet, 100 feet on private land.<sup>30</sup>

#### *Howard County*

Poles in residential districts and rights-of-way must be set back from residentially-zoned lots a minimum distance equal to the tower height (including antennas). The maximum height is limited by the setback.<sup>31</sup>

#### *Baltimore County*

The required setback for communications towers in residential properties is 200 feet from a neighboring property line. It is allowed as a special exception (conditional use) and the maximum height is determined in that process. Antennas used by cable systems operating under a franchise agreement with

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<sup>28</sup> June 14, 2016 Council introduction staff report:

[https://montgomerycountymd.granicus.com/Viewer.php?view\\_id=136&clip\\_id=11849&meta\\_id=123292](https://montgomerycountymd.granicus.com/Viewer.php?view_id=136&clip_id=11849&meta_id=123292).

<sup>29</sup> A 30-foot setback from dwellings was proposed in ZTA 18-11 as introduced.

<sup>30</sup> Prince George's County Code, Sec. 27-445.04. Antennas, monopoles, and related equipment buildings for wireless telecommunications.

<sup>31</sup> Howard County Zoning Code, Section 128.0: Supplementary Zoning District Regulations, Subsection E. Communication Towers and Antennas.

the county may be located on property owned by the county, state, or federal government. The franchise agreement may include height or setback requirements.<sup>32</sup>

*Rockville*

The setback heights of support poles and antennas in rights-of-way is determined by the Director of Public Works and is not determined in code.<sup>33</sup> Under the Director’s standards, the height of poles is limited to 10% higher than other nearby poles but must have a minimum height of 15 feet. There is no setback requirement, but poles must be three feet from a sidewalk/roadway and must generally be 250 feet from other poles.<sup>34</sup>

There is a proposal in Rockville to allow small cell towers in residential zones. Only poles 50 feet or less would be allowed at least 25 feet from a single unit dwelling (or setback one foot for every one foot in height of the pole, whichever is greater) and 250 feet away from the nearest existing antenna.<sup>35</sup>

*Gaithersburg*

In residentially zoned areas, cell towers are not permitted in rights-of-way but camouflaged antennas on residential buildings are a permitted use. Roof-mounted antennas must be twelve feet or less in height, measured from the lowest point at which the antenna is attached to the building. The City requires a 30-foot setback from other detached or attached single-unit housing.<sup>36</sup>

The PHED Committee worksession on ZTA 19-07 is tentatively scheduled for the morning of January 23, 2020.

This packet contains  
ZTA 19-07

© number  
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<sup>32</sup> Baltimore Code zoning, Section 426 - Wireless Telecommunications Facilities.

<sup>33</sup> Chapter 21 - Streets, Roads, Rights-Of-Way, And Public Improvements

<sup>34</sup> <https://www.rockvillemd.gov/DocumentCenter/View/33853/Small-Cell-Standards>

<sup>35</sup> Rockville City code, Sec. 25.09.08. - Wireless Communication Facility Facilities.

<sup>36</sup> Gaithersburg Code, Sec. 24-167A. - Satellite antennas and towers, poles, antennas and/or other structures intended for use in connection with transmission or receipt of radio or television signals, telecommunications facilities.

Zoning Text Amendment No.: 19-07  
Concerning: Telecommunications  
Towers – Limited Use  
Draft No. & Date: 2 – 10/21/19  
Introduced: October 1, 2019  
Public Hearing:  
Adopted:  
Effective:  
Ordinance No.:

**COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND  
SITTING AS THE DISTRICT COUNCIL FOR THAT PORTION OF  
THE MARYLAND-WASHINGTON REGIONAL DISTRICT WITHIN  
MONTGOMERY COUNTY, MARYLAND**

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Lead Sponsor: Councilmember Riemer  
Co-Sponsors: Councilmembers Albornoz and Rice

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**AN AMENDMENT** to the Montgomery County Zoning Ordinance to:

- allow certain telecommunications towers as a limited or conditional use in certain residential zones;
- revise the standards for telecommunications towers allowed as a limited or conditional use;
- revise the conditional use findings required for the replacement of a pre-existing pole; and
- generally amend use requirements to address certain telecommunications towers.

By amending the following sections of the Montgomery County Zoning Ordinance, Chapter 59 of the Montgomery County Code:

DIVISION 3.1. “Use Table”  
Section 3.1.6. “Use Table”  
DIVISION 3.5. “Commercial Uses”  
Section 3.5.2. “Communication Facility”  
DIVISION 7.3. “Regulatory Approvals”  
Section 7.3.1. “Conditional Use”

**EXPLANATION:** **Boldface** indicates a Heading or a defined term.  
Underlining indicates text that is added to existing law by the original text amendment.  
[Single boldface brackets] indicate text that is deleted from existing law by original text amendment.  
Double underlining indicates text that is added to the text amendment by amendment.  
[[Double boldface brackets]] indicate text that is deleted from the text amendment by amendment.  
\* \* \* indicates existing law unaffected by the text amendment.

#### ORDINANCE

*The County Council for Montgomery County, Maryland, sitting as the District Council for that portion of the Maryland-Washington Regional District in Montgomery County, Maryland, approves the following ordinance:*

1 **Sec. 1. DIVISION 59-3.1 is amended as follows:**

2 **DIVISION 3.1. Use Table**

3 \* \* \*

4 **Section 3.1.6. Use Table**

5 The following Use Table identifies uses allowed in each zone. Uses may be modified in Overlay zones under  
6 Division 4.9.

USE OR USE GROUP	Definitions and Standards	Ag	Rural Residential		Residential														Commercial/ Residential			Employment				Industrial			
					Residential Detached								Residential Townhouse			Residential Multi-Unit													
			AR	R	RC	RNC	RE-2	RE-2C	RE-1	R-200	R-90	R-60	R-40	TLD	TMD	THD	R-30	R-20	R-10	CRN	CRT	CR	GR	NR	LSC	EOF	IL	IM	IH
* * *																													
COMMERCIAL																													
* * *																													
Communication Facility	3.5.2																												
Cable Communications System	3.5.2.A	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	P	C	C	C	C	
Media Broadcast Tower	3.5.2.B	C	C	C		C	C	C	C	C	C				C	C	C				C		L	C	C	C	P		
Telecommunications Tower	3.5.2.C	L/C	L/C	L/C	L/C	L/C	L/C	L/C	L/C	L/C	L/C	L/C	L/C	L/C	L/C	L/C	L/C	L/C	L/C	L	L	L	L/C	L/C	L	L/C	L	L	L

7 **Key:** P = Permitted Use L = Limited Use C = Conditional Use Blank Cell = Use Not Allowed

8           **Sec. 2. DIVISION 59-3.5 is amended as follows:**

9   **DIVISION 3.5. Commercial Uses**

10 \* \* \*

11 **Section 3.5.2. Communication Facility**

12 \* \* \*

13 C.   Telecommunications Tower

14 \* \* \*

15       2.   Use Standards

16 \* \* \*

17           b.    [In the Commercial/Residential, Industrial, and Employment  
18                zones, where] Where a Telecommunications Tower is allowed  
19                as a limited use and the tower would replace a pre-existing  
20                utility pole, streetlight pole, or site plan approved parking lot  
21                light pole, the tower is allowed if it satisfies the following  
22                standards:

23                i.    Any permit application to the Department of Permitting  
24                Services concerning a Telecommunications Tower must  
25                include a recommendation from the Transmission  
26                Facility Coordinating group issued within 90 days of the  
27                submission of the permit application.

28                ii.   In the Commercial/Residential, Industrial, and  
29                Employment zones, the pre-existing pole and the  
30                replacement tower must be at least 10 feet from an  
31                existing building, excluding any setback encroachments  
32                allowed under Section 4.1.7.B.5.

33                iii.   In the Agricultural, Rural Residential, and Residential  
34                zones, the pre-existing pole and the replacement tower

35 must be at least 60 feet from any building intended for  
36 human occupation, excluding any setback encroachments  
37 allowed under Section 4.1.7.B.5.

38 [i] iv. Antennas must comply with the Antenna Classification  
39 Standard A under Section 59.3.5.2.C.1.b, be concealed  
40 within an enclosure the same color as the pole, be  
41 installed at a minimum height of 15 feet, and be installed  
42 parallel with the tower.

43 [ii] v. The tower must be located:

44 (a) within 2 feet of the base of a pre-existing pole and  
45 at the same distance from the curb line, or edge of  
46 travel lane in an open section, as the pre-existing  
47 pole in a public right-of-way;

48 [(b)] at least 10 feet from an existing building;]

49 [(c)] (b) outside of the roadway clear zone as  
50 determined by the Department of Permitting  
51 Services;

52 [(d)] (c) in a manner that allows for adequate sight  
53 distances as determined by the Department of  
54 Permitting Services; and

55 [(e)] (d) in a manner that complies with streetlight  
56 maintenance requirements as determined by the  
57 Department of Transportation.

58 [iii] vi. A pre-existing streetlight or parking lot light pole  
59 must be removed within 10 business days after power is  
60 activated to the replacement tower, and a pre-existing

61 utility pole must be removed within 180 days after a  
62 replacement utility pole is installed.

63 [iv] vii. The height of the tower, including any attached  
64 antennas and equipment, must not exceed:

65 (a) for streetlights, the height of the pole that is being  
66 replaced:

67 (1) plus 6 feet when abutting a right-of-way  
68 with a paved section width of 65 feet or less;  
69 or

70 (2) plus 15 feet when abutting a right-of-way  
71 with a paved section width greater than 65  
72 feet.

73 (b) for utility poles and parking lot lights, the height of  
74 the pre-existing utility or parking lot light pole plus  
75 10 feet.

76 [v] viii. The tower must be the same color as the pre-  
77 existing pole.

78 [vi.] ix. The tower must have no exterior wiring, except  
79 that exterior wiring may be enclosed in shielded conduit  
80 on wooden or utility poles.

81 [vii] x. Any equipment cabinet:

82 (a) must not exceed a maximum volume of 12 cubic  
83 feet;

84 (b) if used to support antennas on a replacement  
85 streetlight pole, must be installed in the  
86 Telecommunications Tower base or at ground



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level, unless this requirement is waived by the Department of Transportation;

(c) must be the same color or pattern as the pre-existing tower[, except as provided in Section 59.3.5.2.C.2.b.vii(d)] 3.5.2.C.b.x(d); and

(d) may be a stealth design approved for safety by the Department of Transportation.

[viii] xi. The tower must include a replacement streetlight, if a streetlight existed on the pre-existing pole.

[ix] xii. The design of a replacement tower located in a public right-of-way, including the footer and the replacement streetlight, must be approved by the Department of Transportation.

[x] xiii. The noise level of any [fans] equipment must comply with Chapter 31B.

[xi] xiv. Signs or illumination [on the antennas or support structure], except a streetlight, on the antennas or support structure are prohibited unless required by the Federal Communications Commission or the County.

[xii] xv. The owner of the tower [or the antenna attached to the tower] must maintain their tower[,]. The owner of the antenna must maintain the [antennas,] antenna and equipment in a safe condition[,]. Both owners must remove graffiti[,] and repair damage from their facility.

[xiii] xvi. If a tower does not have a streetlight, the tower must be removed at the [cost] expense of the owner of the tower when the tower is no longer in use for more

114 than 12 months. Any antenna and equipment must be  
115 removed at the [cost] expense of the owner of the  
116 antenna and equipment when the [antennas] antenna and  
117 equipment are no longer in use for more than 12 months.  
118 The [Telecommunications] Transmission [Facilities]  
119 Facility Coordinating Group must be notified within 30  
120 days of the removal.

121 c. Where a Telecommunications Tower is allowed as a conditional  
122 use, it may be permitted by the Hearing Examiner under  
123 [Section 3.5.2.C.2.a, limited use standards, Section 7.3.1,  
124 Conditional Use,] either Subsection 3.5.2.C.2.d or Subsection  
125 3.5.2.C.2.a, limited use standards. In addition, Section 7.3.1  
126 and the following procedures and standards must be satisfied:

127 i. Before the Hearing Examiner approves any conditional  
128 use for a Telecommunications Tower, the proposed  
129 facility must be reviewed by the [County] Transmission  
130 Facility Coordinating Group. The applicant for a  
131 conditional use must file a recommendation from the  
132 Transmission Facility Coordinating Group with the  
133 Hearing Examiner at least 5 days before the date set for  
134 the public hearing. The recommendation must be no  
135 more than 90 days old when the conditional use  
136 application is accepted.

137 \* \* \*

138 d. In the Agricultural, Rural Residential, and Residential zones,  
139 where a Telecommunications Tower that is proposed to be less  
140 than 50 feet in height does not meet the limited use standards

141 under Subsection 3.5.2.C.2.a, it may be permitted by the  
142 Hearing Examiner as a conditional use without regard to  
143 Section 7.3.1 only if the following procedures and standards are  
144 satisfied:

- 145 i. An application must include:
- 146 (a) the subject property's ownership and, if the  
147 applicant is not the owner, authorization by the  
148 owner to file the application;
  - 149 (b) fees as approved by the District Council;
  - 150 (c) a statement of how the proposed development  
151 satisfies the criteria to grant the application;
  - 152 (d) a certified copy of the official zoning vicinity map  
153 showing the area within at least 1,000 feet  
154 surrounding the subject property;
  - 155 (e) a written description of operational features of the  
156 proposed use;
  - 157 (f) plans showing existing buildings, structures,  
158 rights-of-way, tree coverage, vegetation, historic  
159 resources, and the location and design of  
160 streetlights, utilities, or parking lot poles within  
161 300 feet of the proposed location;
  - 162 (g) a list of all property owners, homeowners  
163 associations, civic associations, condominiums,  
164 and renter associations within 300 feet of the  
165 proposed tower;

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- (h) plans showing height and architectural design of the tower and cabinets, including color materials, and any proposed landscaping and lighting;
- (i) photograph simulations with a direct view of the tower and site from at least 3 directions;
- (j) at least one alternative site that maximizes the setback from any building intended for human occupation or reduces the height of the proposed tower.

ii. Before the Hearing Examiner reviews any conditional use for a Telecommunications Tower, the proposed facility must be reviewed by the Transmission Facility Coordinating Group. The Transmission Facility Coordinating Group must declare whether the application is complete, verify the information in the draft application, and must issue a recommendation within 20 days of accepting a complete Telecommunications Tower application. The applicant for a conditional use must file a complete copy of the recommendation from the Transmission Facility Coordinating Group with the Hearing Examiner at least 30 days before the date set for the public hearing. The Transmission Facility Coordinating Group recommendation must have been made within 90 days of its submission to the Hearing Examiner.

191 iii. The Hearing Examiner must schedule a public hearing to  
192 begin within 30 days after the date a complete application  
193 is accepted by the Hearing Examiner.

194 (a) Within 10 days of when an application is accepted,  
195 the Office of Zoning and Administrative Hearings  
196 must notify all property owners within 300 feet of  
197 the application of:

198 (1) the filed application;

199 (2) the hearing date; and

200 (3) information on changes to the hearing date  
201 or the consolidation found on the Office of  
202 Zoning and Administrative Hearing's  
203 website.

204 A sign that satisfies Section 59.7.5 must also be  
205 posted at the site of the application at the same  
206 time.

207 (b) The Hearing Examiner may postpone the public  
208 hearing and must post notice on the website of the  
209 Office of Zoning and Administrative Hearings of  
210 any changes to the application, the application  
211 schedule, or consolidation of multiple applications.

212 (c) The Hearing Examiner may request information  
213 from Planning Department Staff.

214 iv. A Telecommunications Tower must be set back, as  
215 measured from the base of the support structure.

216 v. (a) The Telecommunications Tower must be at least  
217 60 feet from any building intended for human

218 occupation, excluding encroachments that are  
219 allowed under Section 4.1.7.B.5 and no taller than  
220 30 feet; or

221 (b) if the Hearing Examiner determines that additional  
222 height and reduced setback are needed to provide  
223 service or a reduced setback or increased height  
224 will allow the support structure to be located on  
225 the property in a less visually obtrusive location,  
226 the Hearing Examiner may reduce the setback  
227 requirement to at least 30 feet or increase the  
228 height. In making this determination, the Hearing  
229 Examiner must consider the height of the structure,  
230 topography, existing tree coverage and vegetation,  
231 proximity to nearby residential properties, and  
232 visibility from the street.

233 vi. The Hearing Examiner may not approve a conditional  
234 use if the use abuts or confronts an individual resource or  
235 is in a historic district in the Master Plan for Historic  
236 Preservation.

237 vii. The tower must be located to minimize its visual impact  
238 as compared to any alternative location where the tower  
239 could be located to provide service. Neither screening  
240 under Division 6.5 nor the procedures and standards  
241 under Section 7.3.1 are required. The Hearing Examiner  
242 may require the tower to be less visually obtrusive by use  
243 of screen, coloring, or other visual mitigation options,  
244 after the character of residential properties within 400

245 feet, existing tree coverage and vegetation, and design  
246 and presence of streetlight, utility, or parking lot poles.

247 e. When multiple applications for Telecommunications Towers  
248 raise common questions of law or fact, the Hearing Examiner  
249 may order a joint hearing or consolidation of any or all of the  
250 claims, issues, or actions. Any such order may be prompted by  
251 a motion from any party or at the Examiner's own initiative.  
252 The Hearing Examiner may enter an order regulating the  
253 proceeding to avoid unnecessary costs or delay. The following  
254 procedures for consolidated hearings govern:

- 255 i. All applications must be filed within 30 days of each  
256 other and be accompanied by a motion for consolidation.
- 257 ii. The proposed sites, starting at a chosen site, must be  
258 located such that no site is further than 3,000 feet from  
259 the chosen site in the application.
- 260 iii. The proposed sites must be located in the same zone,  
261 within the same Master Plan area, and in a neighborhood  
262 with similar building heights and setbacks.
- 263 iv. Each tower must be of the same or similar proposed  
264 height, structure, and characteristics.
- 265 v. A motion to consolidate must include a statement  
266 specifying the common issues of law and fact.
- 267 vi. The Hearing Examiner may order a consolidated hearing  
268 if the Examiner finds that a consolidated hearing will  
269 more fairly and efficiently resolve the matters at issue.

270                    vii. If the motion to consolidate is granted, the applicant and  
271                    opposition must include all proposed hearing exhibits  
272                    with their pre-hearing statements.

273                    viii. The Hearing Examiner has the discretion to require the  
274                    designation of specific persons to conduct cross-  
275                    examination on behalf of other individuals and to limit  
276                    the amount of time given for each party's case in chief.  
277                    Each side must be allowed equal time.

278                    f. Any party aggrieved by the Hearing Examiner's decision may  
279                    file a petition for judicial review under the Maryland rules  
280                    within 15 days of the publication of the decision.

281                    \*   \*   \*

282                    **Sec. 3. Effective date.** This ordinance becomes effective 20 days after the  
283                    date of Council adoption.

284  
285                    This is a correct copy of Council action.

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287                    \_\_\_\_\_  
288                    Mary Anne Paradise  
289                    Acting Clerk of the Council